

**AGENDA**  
**CITY OF ROELAND PARK, KANSAS**  
**CITY COUNCIL MEETING**  
**ROELAND PARK**  
**Roeland Park City Hall 4600 W 51st Street, Roeland Park, KS 66205**  
**October 21, 2019 6:00 PM**

- |                                                                                                                                                                                                                                             |                                                                                                                                                                                                      |                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Mike Kelly, Mayor</li> <li>• Erin Thompson, Council Member</li> <li>• Jan Faidley, Council Member</li> <li>• Michael Poppa, Council Member</li> <li>• Claudia McCormack, Council Member</li> </ul> | <ul style="list-style-type: none"> <li>• Tim Janssen, Council Member</li> <li>• Jim Kelly, Council Member</li> <li>• Tom Madigan, Council Member</li> <li>• Jennifer Hill, Council Member</li> </ul> | <ul style="list-style-type: none"> <li>• Keith Moody, City Administrator</li> <li>• Jennifer Jones-Lacy, Asst. Admin.</li> <li>• Kelley Nielsen, City Clerk</li> <li>• John Morris, Police Chief</li> <li>• Donnie Scharff, Public Works Director</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Admin    | Finance   | Safety  | Public Works |
|----------|-----------|---------|--------------|
| Madigan  | Faidley   | Janssen | Hill         |
| Thompson | McCormack | Poppa   | Kelly        |

**Pledge of Allegiance**

**Roll Call**

**Modification of Agenda**

**I. Citizens Comments**

*Members of the public are welcome to use this time to make comments about City matters that do not appear on the agenda, or about items that will be considered as part of the consent agenda. Comments about items that appear on the agenda will be taken as each item is considered. Citizens Are Requested To Keep Their Comments Under 5 Minutes. If a large number of people wish to speak, this time may be shortened by the Mayor (Chair) so that the number of persons wishing to speak may be accommodated within the time available. Please turn all cellular telephones and other noise-making devices off or to "silent mode" before the meeting begins.*

**II. Consent Agenda**

*Consent agenda items have been studied by the Governing Body and will be acted on in a single motion. If a Council member requests a separate discussion on an item, it can be removed from the consent agenda and placed on new business for further consideration.*

- A. Appropriations Ordinance #936
- B. Committee Appointment and Reappointments
- C. Design Task Order for Phase 2 of R Park Development

- D. United Community Services 2020 Funding Recommendation Report

### **III. Business From the Floor**

#### **A. Applications / Presentations**

- 1. Aquatic Center Advisory Committee Update
- 2. Arts Advisory Committee Update

### **IV. Mayor's Report**

- A. Michael Hickey Proclamation

### **V. Workshop and Committee Reports**

### **VI. Reports of City Liaisons**

- A. Ad-Hoc Development

### **VII. Ordinances and Resolutions:**

### **VIII. New Business**

- A. Rezoning and Preliminary/Final Development Plan Approval at the northeast corner of Johnson and Roe
- B. Award Bid for Amenities at Nall Park
- C. Award HVAC Replacement at the Community Center

### **IX. Unfinished Business**

### **X. Workshop Items:**

### **XI. Reports of City Officials:**

- A. August 2019 Financial Details

### **Welcome to this meeting of the City Council of Roeland Park. Below are the Procedural Rules of Council**

The City Council encourages citizen participation in local governance processes. To that end, and in compliance with the Kansas Open meetings Act (KSA 45-215), you are invited to participate in this meeting. The following rules have been established to facilitate the transaction of business during the meeting. Please take a moment to review these rules before the meeting begins.

- A. **Audience Decorum.** Members of the audience shall not engage in disorderly or boisterous conduct, including but not limited to; the utterance of loud, obnoxious, threatening, or abusive language; clapping; cheering; whistling; stomping; or any other acts that disrupt, impede, or otherwise render the orderly conduct of the City Council meeting unfeasible. Any member(s) of the audience engaging in such conduct shall, at the discretion of the Mayor (Chair) or a majority of the Council Members, be



declared out of order and shall be subject to reprimand and/or removal from that meeting. Please turn all cellular telephones and other noise-making devices off or to "silent mode" before the meeting begins.

- B. Public Comment Request to Speak Form.** The request form's purpose is to have a record for the City Clerk. Members of the public may address the City Council during Public Comments and/or before consideration of any agenda item; however, no person shall address the Council without first being recognized by the Mayor (Chair). Any person wishing to speak, whether during Public Comments or on an agenda item, shall first complete a Public Comment or Request to Speak form and submit this form to the City Clerk before the Mayor (Chair) calls for Public Comments or calls the particular agenda item
1. **Public Comment on Non-Agenda Items.** The Agenda shall provide for public comment about matters that are within the jurisdiction of the City but are not specifically listed on the Agenda. A member of the public who wishes to speak under Public Comments must fill out a Public Comment Request to Speak form and submit it to the City Clerk before the Mayor (Chair) calls for Public Comments.
  2. **Public Comment on Agenda Items.** Public comment will be accepted on Agenda items. A member of the public, who wishes to speak on an Agenda item, including items on the Consent Agenda, must fill out a Request to Speak form and submit it to the City Clerk before the Mayor (Chair) calls the Agenda item.
- C. Purpose.** The purpose of addressing the City Council is to communicate formally with the Council regarding matters that relate to Council business or citizen concerns within the subject matter jurisdiction of the City Council. Persons addressing the City Council on an agenda item shall confine their remarks to the matter under consideration by the Council.
- D. Speaker Decorum.** Each person addressing the City Council, shall do so in an orderly, respectful, dignified manner and shall not engage in conduct or language that disturbs, or otherwise impedes the orderly conduct of the Council meeting. Any person, who so disrupts the meeting shall, at the discretion of the Mayor (Chair) or a majority of the Council Members present, be subject to removal from that meeting.
- E. Time Limit.** In the interest of fairness to other persons wishing to speak and to other individuals or groups having business before the City Council, each speaker shall limit comments to five minutes. If a large number of people wish to speak, this time may be shortened by the Mayor

(Chair) so that the number of persons wishing to speak may be accommodated within the time available.

- F. **Speak Only Once.** Second opportunities for the public to speak on the same issue will not be permitted unless mandated by state or local law. No speaker will be allowed to yield part or all of his/her time to another, and no speaker will be credited with time requested but not used by another.
- G. **Addressing the Council.** Comment and testimony are to be directed to the Mayor (Chair). Dialogue between and inquiries from citizens at the lectern and individual Council Members, members of staff, or the seated audience is not permitted. Council Members seeking to clarify testimony or gain additional information should direct their questions through the Mayor (Chair). Always speak from the microphone to ensure that all remarks are accurately and properly recorded. Only one speaker should be at the microphone at a time. Speakers are requested to state their full name, address and group affiliation, if any, before delivering any remarks.
- H. Agendas and minutes can be accessed at [www.roelandpark.org](http://www.roelandpark.org) or by contacting the City Clerk

***The City Council welcomes your participation and appreciates your cooperation. If you would like additional information about the City Council or its proceedings, please contact the City Clerk at (913) 722.2600.***

Item Number:      Consent Agenda- II.-A.  
Committee        10/21/2019  
Meeting Date:



**City of Roeland Park**  
Action Item Summary

Date:  
Submitted By:  
Committee/Department:  
Title:                                **Appropriations Ordinance #936**  
Item Type:

Recommendation:

**Details:**

Financial Impact

|                             |                  |
|-----------------------------|------------------|
| Amount of Request:          |                  |
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

Additional Information

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                            | Type       |
|--------------------------------------------------------|------------|
| <input type="checkbox"/> Appropriations Ordinance #936 | Cover Memo |

# The City of Roeland Park, Kansas

4600 West Fifty-First Street  
Roeland Park, Kansas 66205  
City Hall (913) 722-2600 – Fax (913) 722-3713

Friday, October 18, 2019

## Appropriation Ordinance -10/21/2019 - #936

An Ordinance making Appropriation for the payment of certain claims. Be it ordained by the Governing Body of the City of Roeland Park, Kansas:

Section 1: That in order to pay the claims hereinafter stated which have been properly audited and approved, there is hereby appropriated out of the respective funds in the City Treasury the sum required for each claim.

Section 2: This Ordinance shall take effect and be in force from and after its passage. Passed and approved this 21st day of October, 2019.

Attest:

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City Clerk

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Mayor

|                                      |           |                   |
|--------------------------------------|-----------|-------------------|
| <b>Total Appropriation Ordinance</b> | <b>\$</b> | <b>127,547.90</b> |
|--------------------------------------|-----------|-------------------|

There are sufficient funds in the General Fund to cover general fund expenditures.

## Appropriation Ordinance -10/21/2019 - #936

| Vendor                             | Dept | Acct #   | Description                       | Invoice Description | Check /EFT |  | Amount    | Chk # | Check Amount |
|------------------------------------|------|----------|-----------------------------------|---------------------|------------|--|-----------|-------|--------------|
|                                    |      |          |                                   |                     | Date       |  |           |       |              |
| A-1 Sewer & Septic Service         | 300  | 5469.300 | Stormwater Maintenance            | 256134              | 10/16/19   |  | 20,667.82 | 69994 | 20,667.82    |
| ADP, LLC                           | 101  | 5214.101 | Other Contracted Services         | 543305047           | 10/09/19   |  | 230.28    | 69986 | 230.28       |
| American Fidelity Assurance Co.    | 101  | 2052.101 | Supplemental Insurance Payable    | 2050491             | 10/09/19   |  | 416.66    | 69987 | 416.66       |
| Balls Food Stores                  | 101  | 5301.101 | Office Supplies                   | 33206               | 10/16/19   |  | 28.51     | 69995 | 28.51        |
| Blue Sky Cleaners                  | 102  | 5224.102 | Laundry Service                   | 9/19                | 10/16/19   |  | 155.02    | 69996 | 155.02       |
| Blue Valley Tractor & Supply       | 106  | 5211.106 | Maintenace & Repair Equipment     | 184440              | 10/16/19   |  | 1,041.60  | 69997 | 1,041.60     |
| Bollcom, Inc.                      | 220  | 5403.220 | Office Equipment                  | 9045                | 10/16/19   |  | 1,225.00  | 69998 | 1,225.00     |
| Breeden Holdings, LLC              | 102  | 5260.102 | Vehicle Maintenance               | 1050937             | 10/16/19   |  | 35.00     | 69999 | 570.90       |
| Breeden Holdings, LLC              | 102  | 5260.102 | Vehicle Maintenance               | 1051012             | 10/16/19   |  | 100.00    |       |              |
| Breeden Holdings, LLC              | 102  | 5260.102 | Vehicle Maintenance               | 1051084             | 10/16/19   |  | 35.00     |       |              |
| Breeden Holdings, LLC              | 102  | 5260.102 | Vehicle Maintenance               | 1051171             | 10/16/19   |  | 354.95    |       |              |
| Breeden Holdings, LLC              | 106  | 5260.106 | Vehicle Maintenance               | 1050861             | 10/16/19   |  | 45.95     |       |              |
| The Bullet Hole                    | 102  | 5205.102 | Postage & Mailing Permits         | 36448               | 10/16/19   |  | 25.00     | 70000 | 25.00        |
| Yoland Bustamante                  | 103  | 5209.103 | Professional Services             | RPMC 0013           | 10/16/19   |  | 1,200.00  | 70001 | 1,200.00     |
| C & G Rubber Stamp, Inc.           | 101  | 5301.101 | Office Supplies                   | 128790              | 10/16/19   |  | 11.00     | 70002 | 11.00        |
| Occupational Health Centers of the | 102  | 5207.102 | Medical Expense & Drug Testing    | 1011762071          | 10/16/19   |  | 131.00    | 70003 | 131.00       |
| Continuing Education Registrar     | 106  | 5206.106 | Travel Expense & Training         | 45867               | 10/16/19   |  | 450.00    | 70004 | 450.00       |
| Austin Cornell                     | 101  | 4265.101 | Business Occupational Licenses    | 9/27/19 BL Refun    | 10/09/19   |  | 40.00     | 69988 | 40.00        |
| Dog Waste Depot                    | 106  | 5262.106 | Grounds Maintenance               | 303217              | 10/16/19   |  | 279.01    | 70005 | 279.01       |
| Goodyear Auto Service              | 102  | 5260.102 | Vehicle Maintenance               | 188386              | 10/16/19   |  | 371.64    | 70006 | 371.64       |
| Hyland Software, Inc.              | 101  | 5266.101 | Computer Software                 | 14550               | 10/16/19   |  | 2,457.36  | 70007 | 2,457.36     |
| Jake's Lawn & Landscape, LLC.      | 106  | 5214.106 | Other Contracted Services         | 3920                | 10/16/19   |  | 1,332.00  | 70008 | 4,152.00     |
| Jake's Lawn & Landscape, LLC.      | 106  | 5214.106 | Other Contracted Services         | 3942                | 10/16/19   |  | 85.00     |       |              |
| Jake's Lawn & Landscape, LLC.      | 106  | 5214.106 | Other Contracted Services         | 3943                | 10/16/19   |  | 135.00    |       |              |
| Jake's Lawn & Landscape, LLC.      | 106  | 5262.106 | Grounds Maintenance               | 3944                | 10/16/19   |  | 2,600.00  |       |              |
| JA Traffic Products                | 106  | 5259.106 | Traffic Control Signs             | 29315               | 10/16/19   |  | 307.50    | 70009 | 307.50       |
| Johnson County Wastewater          | 101  | 5288.101 | Waste Water                       | 1838/3179 10/19     | 10/16/19   |  | 226.13    | 70010 | 500.00       |
| Johnson County Wastewater          | 106  | 5288.106 | Waste Water                       | 1838/3179 10/19     | 10/16/19   |  | 273.87    |       |              |
| Johnson County Park & Recreation   | 290  | 5255.290 | JoCo Management Fee               | 10/14/19            | 10/16/19   |  | 20,696.00 | 70011 | 20,696.00    |
| J.P. Cooke Company                 | 101  | 5301.101 | Office Supplies                   | 590960              | 10/16/19   |  | 117.45    | 70012 | 117.45       |
| KAW Valley Engineering Inc.        | 270  | 5430.270 | Residential Street Reconstruction | C32029              | 10/16/19   |  | 455.00    | 70013 | 1,793.00     |
| KAW Valley Engineering Inc.        | 300  | 5498.300 | CDBG - 2019                       | C32030              | 10/16/19   |  | 1,338.00  |       |              |
| KCP & L                            | 220  | 5201.220 | Electric                          | 9247 9/25/19        | 10/09/19   |  | 811.90    | 69989 | 811.90       |
| KCP & L                            | 106  | 5290.106 | Street Light Electric             | 1275 10/2/19        | 10/16/19   |  | 1,636.23  | 70014 | 1,636.23     |
| Key Equipment & Supply             | 106  | 5211.106 | Maintenace & Repair Equipment     | 257950              | 10/16/19   |  | 458.51    | 70015 | 2,252.38     |
| Key Equipment & Supply             | 106  | 5211.106 | Maintenace & Repair Equipment     | 258076              | 10/16/19   |  | 1,793.87  |       |              |
| Kansas Gas Service                 | 101  | 5289.101 | Natural Gas                       | 1745 10/10/19       | 10/16/19   |  | 84.16     | 70016 | 144.76       |
| Kansas Gas Service                 | 220  | 5289.220 | Natural Gas                       | 2518 10/8/19        | 10/16/19   |  | 60.60     |       |              |
| Vadim Kharchenko                   | 101  | 5217.101 | Public Art                        | 120                 | 10/16/19   |  | 3,650.00  | 70017 | 3,650.00     |

|                                  |     |          |                                   |                |          |           |       |           |
|----------------------------------|-----|----------|-----------------------------------|----------------|----------|-----------|-------|-----------|
| Kansas One-Call System, Inc.     | 101 | 5220.101 | Street Light Repair & Maintenance | 9090434        | 10/16/19 | 200.40    | 70018 | 200.40    |
| LBA A/C, Heating & Plumbing      | 101 | 5210.101 | Maintenance & Repair Building     | 34358681       | 10/16/19 | 658.00    | 70019 | 658.00    |
| The Legal Record                 | 101 | 5204.101 | Legal Printing                    | L82525         | 10/16/19 | 21.17     | 70020 | 21.17     |
| LE Upfitter                      | 102 | 5308.102 | Clothing & Uniforms               | 6527           | 10/16/19 | 944.35    | 70021 | 2,444.35  |
| LE Upfitter                      | 102 | 5308.102 | Clothing & Uniforms               | 6562           | 10/16/19 | 229.50    |       |           |
| LE Upfitter                      | 102 | 5308.102 | Clothing & Uniforms               | 6582           | 10/16/19 | 60.00     |       |           |
| LE Upfitter                      | 109 | 5317.109 | Special Law Enforcement Expenses  | 6493           | 10/16/19 | 1,210.50  |       |           |
| Lexington Plumbing & Heating Co. | 101 | 5210.101 | Maintenance & Repair Building     | 91068          | 10/16/19 | 226.00    | 70022 | 226.00    |
| Venessa Maxwell-Lopez            | 103 | 5209.103 | Professional Services             | 10/11/19       | 10/16/19 | 150.00    | 70023 | 150.00    |
| McConnell & Associates Corp      | 270 | 5459.270 | CARS 2019                         | 118958         | 10/16/19 | 7,538.66  | 70024 | 7,538.66  |
| Micro Center A/R                 | 360 | 5315.360 | Machinery & Auto Equipment        | 7667155        | 10/16/19 | 399.96    | 70025 | 399.96    |
| Municode                         | 101 | 5214.101 | Other Contracted Services         | 333555         | 10/16/19 | 759.70    | 70026 | 759.70    |
| Pitluck Law, LLC                 | 103 | 5209.103 | Professional Services             | 10/15/19       | 10/16/19 | 150.00    | 70027 | 150.00    |
| Road Builders Machinery & Supply | 106 | 5421.106 | Street Maintenance                | R39863/R39903  | 10/16/19 | 3,100.00  | 70028 | 3,100.00  |
| Santa Fe Tow Service, Inc.       | 106 | 5211.106 | Maintenace & Repair Equipment     | 458885         | 10/16/19 | 285.00    | 70029 | 285.00    |
| SFS Architecture                 | 290 | 5209.290 | Professional Services             | 13220          | 10/16/19 | 12,225.00 | 70030 | 12,225.00 |
| Cameron Shelton                  | 103 | 4410.103 | Fine                              | 9/27/19 Refund | 10/16/19 | 47.00     | 70031 | 47.00     |
| Staples Advantage                | 101 | 5301.101 | Office Supplies                   | 8055862842     | 10/16/19 | 95.94     | 70032 | 275.87    |
| Staples Advantage                | 101 | 5301.101 | Office Supplies                   | 8055947129     | 10/16/19 | 126.00    |       |           |
| Staples Advantage                | 101 | 5304.101 | Janitorial Supplies               | 8055947129     | 10/16/19 | 53.93     |       |           |
| Strasser True Value              | 106 | 5306.106 | Materials                         | 337453         | 10/16/19 | 8.63      | 70033 | 22.11     |
| Strasser True Value              | 106 | 5318.106 | Tools                             | 337598         | 10/16/19 | 13.48     |       |           |
| Sturges Word Communications, In  | 101 | 5209.101 | Professional Services             | 1316           | 10/16/19 | 1,250.00  | 70034 | 1,250.00  |
| Terminix Processing Center       | 101 | 5214.101 | Other Contracted Services         | 390199928      | 10/16/19 | 84.00     | 70035 | 84.00     |
| TransUnion Risk & Alternative    | 102 | 5214.102 | Other Contracted Services         | 4577712019091  | 10/16/19 | 50.00     | 70036 | 50.00     |
| Tyler Technologies, Inc.         | 103 | 5410.103 | Technology Upgrades               | 25272850       | 10/16/19 | 12,835.20 | 70037 | 12,835.20 |
| USIC Locating Services, LLC      | 101 | 5220.101 | Street Light Repair & Maintenance | 350469         | 10/16/19 | 1,784.69  | 70038 | 1,784.69  |
| US Postal Service                | 101 | 5208.101 | Newsletter                        | 17233          | 10/07/19 | 857.22    | 32463 | 857.22    |
| Verizon Wireless                 | 102 | 5202.102 | Telephone                         | 9838721620     | 10/09/19 | 326.99    | 69990 | 407.01    |
| Verizon Wireless                 | 104 | 5202.104 | Telephone                         | 9838721620     | 10/09/19 | 80.02     |       |           |
| Weather or Not                   | 250 | 5303.250 | Sand and Salt                     | 8656           | 10/16/19 | 2,270.00  | 70039 | 2,270.00  |
| Waste Management                 | 300 | 5470.300 | Park Maint/Infrastructure         | 5623348579     | 10/16/19 | 172.31    | 70040 | 172.31    |
| KPERS                            | 101 | 2040.101 | KPERS Accrued Employee            | 10/11/19       | 10/11/19 | 1,915.85  |       |           |
| KPERS                            | 101 | 2050.101 | Insurance Withholding Payable     | 10/11/19       | 10/11/19 | 170.26    |       |           |
| KPERS                            | 107 | 5123.107 | KPERS City Contribution           | 10/11/19       | 10/11/19 | 3,157.95  |       |           |
| KPERS                            | 107 | 5131.107 | KP&F City Contribution            | 10/11/19       | 10/11/19 | 5.03      |       |           |
| KP&F                             | 101 | 2045.101 | KP&F Employee Withholding Payab   | 10/11/19       | 10/11/19 | 2,107.12  |       |           |
| KP&F                             | 101 | 2050.101 | Insurance Withholding Payable     | 10/11/19       | 10/11/19 | 94.27     |       |           |
| KP&F                             | 107 | 5131.107 | KP&F City Contribution            | 10/11/19       | 10/11/19 | 6,521.75  |       |           |

\$ 127,547.90

**Item Number:** Consent Agenda- II.-B.  
**Committee** 10/21/2019  
**Meeting Date:**



**City of Roeland Park**  
Action Item Summary

Date: 9/18/2019  
Submitted By: Staff  
Committee/Department: Admin.  
Title: **Committee Appointment and Reappointments**  
Item Type: Other

**Recommendation:**

**To reappoint and or appoint:**

**Arts Advisory Committee (Expires 12/31 of each year)**  
**At Least 3 Members - 2 Residents, 1 Council**

**Christine Webster**

**Community Events Committee (Expires 12/31 of each year)**  
**Up to 10, 8 Members - 6 Residents, 2 Council**

**Parks/Tree Advisory Committee (Expires 12/31 of each year)**  
**At Least 5 Members - 4 Residents, 1 Council**

**Kathleen Whitworth**  
**Emily Hage**

**Sustainability Committee (Expires 12/31 of each year)**  
**5 Members - 4 Residents, 1 Council**

**Judy Hyde**  
**David Smith**

**Aquatic Center Advisory Committee (Expires 12/31 of each year)**  
**6 Members - 5 Residents, 2 Council**

**Michael Calovich**

**Details:**

**Committee Appointment and Reappointment Process**

1. Staff will send out a list of all appointments to the Governing Body and all appointees whose term is set to expire around the beginning of the fourth quarter.

2. Appointees wishing to be re-appointed shall let their intentions be known to the appropriate appointing authority (ie: Mayor or Governing Body Ward Representatives)
3. Candidates interested in appointment shall complete the interest form found online, as well as submit a current resume to the City Clerk.
4. If an incumbent candidate is not re-appointed they will be notified by the appointing authority before the council meeting at which their replacement will be approved.
5. Once a position has been filled by council action, the new appointee will be contacted by the City Clerk and provided with an orientation packet regarding their service.
6. The contact list will also be sent out whenever an update is made to that document.

**Notes:**

Timing of appointments: Timing of Appointments are set by ordinance, ie: Parks, Arts, Sustainability are set as a 1 year term; Board of Zoning and Planning Commission have 3 year terms. Schedule of appointment is maintained by the City Clerk's office.

All of the individuals shall be nominated by the Mayor and approved by the City Council. The terms of all members shall be for one year beginning January 1st of each year. In the event a vacancy should occur during the term of any member, his or her successor shall be appointed in the same manner for the unexpired portion of the term.

**Financial Impact**

|                                 |                      |
|---------------------------------|----------------------|
| Amount of Request: N/A          |                      |
| Budgeted Item?                  | Budgeted Amount: N/A |
| Line Item Code/Description: N/A |                      |

**Additional Information**

How does item relate to Strategic Plan?

Engages the public in community events and decision making.

How does item benefit Community for all Ages?

Provides perspective in decision making from a wide range of age groups.

**ATTACHMENTS:**

| Description          | Type       |
|----------------------|------------|
| ☐ Kathleen Whitworth | Cover Memo |
| ☐ Judy Hyde          | Cover Memo |
| ☐ Emily Hage         | Cover Memo |
| ☐ Christine Webster  | Cover Memo |





# Committee Volunteer Application

wordpress@roelandpark.net on behalf of City of Roeland Park-Volunteer Form

Fri 11/17/2017 1:49 PM

To: Bohon, Kelley <kbohon@roelandpark.org>;

📎 1 attachments (133 KB)

Kathleen-Whitworth-Resume-2018.pdf;

## Committee Volunteer Application Form

|                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Email:                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Date:                                                                                                 | 11/17/2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Name:                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Daytime Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Evening Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Address:                                                                                              | <u>5204 Catalina St</u><br><u>Roeland Park, Kansas 66205-2331</u><br><u>United States of America</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Place of Employment:                                                                                  | Retired                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| How long have you been a resident of Roeland Park?:                                                   | 60 plus years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| How much time do you have to devote per month?:                                                       | 10-15 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Briefly describe why you are interested in serving on a Board/Committee for the City of Roeland Park: | I have been an active member of the Parks Committee for over three years serving as Secretary-Treasurer and Vice Chairman. I want to make a difference and help to ensure the development and beautification of parks and green space within Roeland Park. I am an advocate for the residents and strongly support their priorities. I believe that this is the purpose of any committee. I feel that my past service speaks well to ensuring that parks and green space remains a high priority within the city. I am requesting appointment to the Parks Committee for 2018. |

# Committee Volunteer Application

wordpress@roelandpark.net on behalf of

City of Roeland Park-Volunteer Form <kbohon@roelandpark.org>

Thu 11/5/2015 11:53 AM

To: Bohon, Kelley <kbohon@roelandpark.org>;

## Committee Volunteer Application Form

|                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Email:                                                                                                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Date:                                                                                                 | 11/05/2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Name:                                                                                                 | Judy Hyde                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Daytime Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Evening Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Address:                                                                                              | 5113 W. 58th St.<br>Roeland Park, KS 66205<br>United States of America                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Place of Employment:                                                                                  | retired                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| How long have you been a resident of Roeland Park?:                                                   | 43 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| How much time do you have to devote per month?:                                                       | varies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Briefly describe why you are interested in serving on a Board/Committee for the City of Roeland Park: | <p>* I'm a current SustComm member and would like to continue to serve RPK.</p> <p>* I'm a member of the small, grassroots group (Citizens Fundraising Initiative for R Park) raising funds to implement phases of the R Park Master Plan. Quality urban greenspace is important to me, and to the health and wellbeing of RPK citizens.</p> <p>* I'm interested in all of the facets of sustainability and in the Community for All Ages pilot program (walkable streets, accessibility, energy conservation, urban gardening, protecting pollinators, recycling, promoting children's love of the natural world, etc.).</p> <p>* I believe that good sustainability practices can attract forward-thinking individuals and families to choose RPK/NE JoCo as a high quality place to live.</p> |
| Select which Board or Committees you are interested in serving on: (only one per application):        | Sustainability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# Committee Volunteer Application

wordpress@roelandpark.net on behalf of City of Roeland Park-Volunteer Form

Mon 8/28/2017 8:39 AM

To: Bohon, Kelley <kbohon@roelandpark.org>;

## Committee Volunteer Application Form

|                                                                                                       |                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Email:                                                                                                |                                                                                                                                                                                                                                                                                                                   |
| Date:                                                                                                 | 08/28/2017                                                                                                                                                                                                                                                                                                        |
| Name:                                                                                                 | Emily Hage                                                                                                                                                                                                                                                                                                        |
| Daytime Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                   |
| Evening Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                   |
| Address:                                                                                              | <u>5401 Nall Ave</u><br><u>Roeland Park, KS 66202</u><br><u>United States</u> of America                                                                                                                                                                                                                          |
| Place of Employment:                                                                                  | First Call Alcohol/Drug Prevention & Recovery                                                                                                                                                                                                                                                                     |
| How long have you been a resident of Roeland Park?:                                                   | 5 years                                                                                                                                                                                                                                                                                                           |
| How much time do you have to devote per month?:                                                       | 10 hours                                                                                                                                                                                                                                                                                                          |
| Briefly describe why you are interested in serving on a Board/Committee for the City of Roeland Park: | My husband and I started our family in Roeland Park and it's a community we love and we want our kids to grow up in. I feel strongly that Roeland Park should be placing value on things that attract young families like mine not only to move to Roeland Park, but to stay. City parks are important amenities! |
| Select which Board or Committees you are interested in serving on: (only one per application):        | Parks                                                                                                                                                                                                                                                                                                             |
| Additional, comments: (If any):                                                                       |                                                                                                                                                                                                                                                                                                                   |
| File Upload:                                                                                          |                                                                                                                                                                                                                                                                                                                   |
| HTML:                                                                                                 |                                                                                                                                                                                                                                                                                                                   |

# Committee Volunteer Application

wordpress@roelandpark.net on behalf of

City of Roeland Park-Volunteer Form <kbohon@roelandpark.org>

Sun 10/18/2015 1:20 PM

To: Bohon, Kelley <kbohon@roelandpark.org>;

## Committee Volunteer Application Form

|                                                                                                       |                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Email:                                                                                                |                                                                                                                                                                                                                                                                                               |
| Date:                                                                                                 | 10/20/2015                                                                                                                                                                                                                                                                                    |
| Name:                                                                                                 | Christine Webster                                                                                                                                                                                                                                                                             |
| Daytime Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                               |
| Evening Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                               |
| Address:                                                                                              | 5328 Cedar St<br>MISSION, Kansas 66205<br>United States of America                                                                                                                                                                                                                            |
| Place of Employment:                                                                                  | Nelson Museum and UMKC                                                                                                                                                                                                                                                                        |
| How long have you been a resident of Roeland Park?:                                                   | over 20 years                                                                                                                                                                                                                                                                                 |
| How much time do you have to devote per month?:                                                       | as much as needed                                                                                                                                                                                                                                                                             |
| Briefly describe why you are interested in serving on a Board/Committee for the City of Roeland Park: | I want to help promote the arts in the community. I want the arts committee to have a meaningful relationship with the people of Roeland Park through the arts. In addition, I want to help promote Roeland Park as a leader in providing opportunities for artists in the metropolitan area. |
| Select which Board or Committees you are interested in serving on: (only one per application):        | Arts                                                                                                                                                                                                                                                                                          |
| Additional, comments: (If any):                                                                       |                                                                                                                                                                                                                                                                                               |
| File Upload:                                                                                          |                                                                                                                                                                                                                                                                                               |
| HTML:                                                                                                 |                                                                                                                                                                                                                                                                                               |

# Committee Volunteer Application

wordpress@roelandpark.net on behalf of City of Roeland Park-Volunteer Form

Thu 7/5/2018 4:09 PM

Deleted Items

To: Bohon, Kelley <kbohon@roelandpark.org>;

## Committee Volunteer Application Form

|                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Email:                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date:                                                                                                 | 07/05/2018                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Name:                                                                                                 | David Smith                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Daytime Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Evening Phone Number:                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Address:                                                                                              | 5730 Roeland Drive<br>Roeland Park, KS 66205                                                                                                                                                                                                                                                                                                                                                                                      |
| Place of Employment:                                                                                  | UnitedLex                                                                                                                                                                                                                                                                                                                                                                                                                         |
| How long have you been a resident of Roeland Park?:                                                   | One year                                                                                                                                                                                                                                                                                                                                                                                                                          |
| How much time do you have to devote per month?:                                                       | 5730 Roeland Drive                                                                                                                                                                                                                                                                                                                                                                                                                |
| Briefly describe why you are interested in serving on a Board/Committee for the City of Roeland Park: | <p>I am a (currently) non-practicing attorney who has always had an interest in environmental issues. Climate change is a huge issue for me as I plan on living on this planet for at least another fifty years. I bike to work sixteen miles round-trip four or five times a week in order to reduce my carbon footprint.</p> <p>At present, my schedule is flexible and I'm willing to help out in whatever capacity I can.</p> |
| Select which Board or Committees you are interested in serving on: (only one per application):        | Sustainability                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Additional, comments: (If any):                                                                       | In 2003 Senior Football Captain Mike Kelly helped motivate me to run a 15:45 5K.                                                                                                                                                                                                                                                                                                                                                  |
| File Upload:                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| HTML:                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Item Number:** Consent Agenda- II.-C.  
**Committee** 10/21/2019  
**Meeting Date:**



## **City of Roeland Park**

Action Item Summary

---

Date: 10/1/2019  
Submitted By: Donnie Scharff, Director of Public Works  
Committee/Department: Public Works  
Title: **Design Task Order for Phase 2 of R Park Development**  
Item Type: Other

### **Recommendation:**

**To approve the Phase 2 Design Task Order for the R Park Development with Lamp Rynearson not to exceed \$83,468.**

### **Details:**

Phase 2 reflects additional parking that could be added if the city finds a need following completion of the 1st Phase. Park's Committees preference was not to add additional parking but, the task order does reflect the design cost of additional parking should it be warranted. Phase 2 reflects modifications to Juniper St, the incorporation of the hammerhead at the east end of 55th Terr as well as soccer field and related storm drainage/sanitary sewer modifications. Landscaping within the park is also reflected.

Phase 2 has an estimated cost of \$466,486 for design & construction. The task order breakdown is as follows:

Design- **\$33,997.11**

JCW Main Relocation Plans - **\$14,571.26**

Construction Administration/Construction Observation - **\$34,899.60**

The major component of Phase 2 from the engineering / observation fee perspective is the Johnson County Wastewater main relocation. JCW is very particular about the presentation and contents of relocation plans and also requires full time observation during construction of sanitary sewer mains. This is approximately \$25k of the fee.

Design & JCW Main Relocation Plans would be paid for in 2019 and the Sewer Main Observation/Construction Observation would be paid for in 2020.

Combining Phase 2 with Phase 1 (planned for 2020) is an option and would limit disturbing the part to one season vs two. Combining phases together could also yield better pricing than doing each phase independently.

### Financial Impact

|                                                             |                  |
|-------------------------------------------------------------|------------------|
| Amount of Request: \$83,468                                 |                  |
| Budgeted Item?                                              | Budgeted Amount: |
| Line Item Code/Description: 300 Special Infrastructure Fund |                  |

### Additional Information

#### PROJECT Scope:

1. Prepare construction documents for R Park Phase 2 site improvements. Phase 2 scope includes removing 55th Terrace (providing hammerhead at end of Briar St and adding a driveway for 5511 Juniper St), grading and drainage improvements to support grass soccer field, and additional parking space design and layout (to be designed, but not to be constructed unless deemed necessary at a later date by City). Plans will include cover sheet, site plan, existing conditions / demolition plan, grading plan, enlarged grading plan, drainage area map and storm calculation summary, storm sewer plan and profiles, erosion control plan, site details, and landscape plan. A KDHE land disturbance permit and accompanying SWPPP will be required as disturbed area exceeds 1 acre.

2. Prepare Johnson County Wastewater main relocation plans to support modifications to existing sanitary sewer. Existing sanitary manhole is located within soccer field, requiring the replacement of approximately 230 linear feet of sanitary sewer to locate new manholes outside of the soccer field. City is responsible for JCW plan review fees.

3. Provide construction administration services, to support Phase 2 improvements. Effort is supplemental to Phase 1 construction administration services. It is assumed Phase 2 improvements will be bid with Phase 1 improvements, therefore a separate Project Manual and bidding process is not included.

4. Provide construction observation services. Full time observation services are required by JCW for sanitary sewer construction, assumed to be 10 days. Part time observation is provided for remaining Phase 2 site improvements. KDHE required SWPPP inspections are included

How does item relate to Strategic Plan?

**Promote recreational opportunities through enhanced green space, facilities and communication.**

and specifically:



- 5      A      Develop existing facilities and green space to maximize usage and service to the public.  
(Phase 2)

How does item benefit Community for all Ages?

Adding amenities to R Park will expand the park' usability to a broader age range of users.

**ATTACHMENTS:**

| Description |                                          | Type       |
|-------------|------------------------------------------|------------|
| 📎           | Design Task Order for Phase 2 for R Park | Cover Memo |
| 📎           | R Park Phase 2 Plan Sheet                | Cover Memo |

## City of Roeland Park – R Park Phase 2

Contract: On-Call City Engineering

Ordinance or Resolution:

Task Agreement No: 19-5

Funding Amount: \$83,468

Purchase Order No:

Project Title: R Park Phase 2

Contractor/Consultant:  
Lamp Ryneerson  
9001 State Line Road, Suite 200  
Kansas City, MO 64114

Division Manager:  
Civil Design Group  
Daniel G. Miller, P.E. – Civil Design Group Leader

Project Management Manual reviewed:

Attachments (Gantt Chart, etc.): None

### PROJECT Scope:

1. Prepare construction documents for R Park Phase 2 site improvements. Phase 2 scope includes removing 55<sup>th</sup> Terrace (providing hammerhead at end of Briar St and adding a driveway for 5511 Juniper St), grading and drainage improvements to support grass soccer field, and additional parking space design and layout (to be designed, but not to be constructed unless deemed necessary at a later date by City). Plans will include cover sheet, site plan, existing conditions / demolition plan, grading plan, enlarged grading plan, drainage area map and storm calculation summary, storm sewer plan and profiles, erosion control plan, site details, and landscape plan. A KDHE land disturbance permit and accompanying SWPPP will be required as disturbed area exceeds 1 acre.
2. Prepare Johnson County Wastewater main relocation plans to support modifications to existing sanitary sewer. Existing sanitary manhole is located within soccer field, requiring the replacement of approximately 230 linear feet of sanitary sewer to locate new manholes outside of the soccer field. City is responsible for JCW plan review fees.
3. Provide construction administration services, to support Phase 2 improvements. Effort is supplemental to Phase 1 construction administration services. It is assumed Phase 2 improvements will be bid with Phase 1 improvements, therefore a separate Project Manual and bidding process is not included.
4. Provide construction observation services. Full time observation services are required by JCW for sanitary sewer construction, assumed to be 10 days. Part time observation is provided for remaining Phase 2 site improvements. KDHE required SWPPP inspections are included.

The attached services will be provided for an hourly rate. Total not to exceed project fee is \$83,468, including direct expenses.

### Staff Signatures

Mayor:

Mike Kelly

City Administrator:

Keith Moody

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

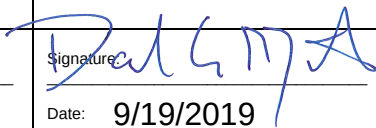
Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### Partner Signatures

Division Manager:

Daniel G. Miller, P.E.

Signature: 

Date: 9/19/2019

Company Principal (if different):

Tony O'Malley, P.E.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Project Type: Design ☒ Construction ☒ Property Acquisition \_\_\_\_\_ Conceptual/Problem Solving \_\_\_\_\_ Surveying \_\_\_\_\_

Project Discipline(s): Transportation ☒ Planning \_\_\_\_\_ Water \_\_\_\_\_ Wastewater \_\_\_\_\_ Stormwater ☒

Report(s) Received:

Work on File:

This Task Agreement is subject to all the provisions included in the On-Call Professional Services Agreement, Public Works Department, Engineering Division by and between the City and Larkin Lamp Ryneerson (Professional), dated 1/1/2017.

Attach scope of work, budget, and other supporting material



9001 State Line Rd., Ste. 200  
 Kansas City, MO 64114  
 [P] 816.361.0440  
 [F] 816.361.0045  
 LampRynearson.com

## CIVIL DESIGN GROUP FEE ESTIMATE

PROJECT TITLE R Park - Phase 2 (CD and CA/CO)  
 LOCATION Roeland Park  
 DATE 9/19/2019

PROJECT # 0319001.0X  
 BY Dan McGhee

| Classification: | Civil Design<br>Group Leader | Sr. Project<br>Manager IV | Project<br>Engineer III | Project<br>Designer IV | Construction<br>Observer | Landscape<br>Architect | Subtotal of<br>Hrs per Item | Subtotal of Fee<br>per Item |
|-----------------|------------------------------|---------------------------|-------------------------|------------------------|--------------------------|------------------------|-----------------------------|-----------------------------|
| Associate:      | Miller                       | McGhee                    | Schleicher              | McMurry                | VanPatten                | Christensen            |                             |                             |
| Hourly Rate:    | \$218.00                     | \$177.00                  | \$113.00                | \$103.00               | \$113.00                 | \$86.00                |                             |                             |

| Construction Documents                          |            |             |            |            |        |                                                |     |                    |
|-------------------------------------------------|------------|-------------|------------|------------|--------|------------------------------------------------|-----|--------------------|
| Phase 2 Site Improvements Cover Sheet           | 0          | 1           | 0          | 2          | 0      | 0                                              | 3   | \$383.00           |
| Site Plan                                       | 1          | 2           | 0          | 8          | 0      | 0                                              | 11  | \$1,396.00         |
| Existing Conditions/Demolition Plan             | 0          | 2           | 0          | 8          | 0      | 0                                              | 10  | \$1,178.00         |
| Grading Plan                                    | 1          | 8           | 0          | 8          | 0      | 0                                              | 17  | \$2,458.00         |
| Enlarged Grading Plan (Parking and Hammerhead)  | 0          | 8           | 0          | 8          | 0      | 0                                              | 16  | \$2,240.00         |
| Drainage Area Map and Storm Calculation Summary | 0          | 2           | 12         | 4          | 0      | 0                                              | 18  | \$2,122.00         |
| Storm Sewer Plan and Profiles                   | 1          | 6           | 4          | 8          | 0      | 0                                              | 19  | \$2,556.00         |
| Erosion Control Plan                            | 0          | 2           | 4          | 6          | 0      | 0                                              | 12  | \$1,424.00         |
| Site Details                                    | 0          | 2           | 0          | 4          | 0      | 0                                              | 6   | \$766.00           |
| Landscape Plan                                  | 0          | 2           | 0          | 4          | 0      | 24                                             | 30  | \$2,830.00         |
| Revisions per City / Parks Committee Comments   | 2          | 10          | 12         | 24         | 0      | 8                                              | 56  | \$6,722.00         |
| City Meetings (up to 3 assumed)                 | 4          | 6           | 0          | 0          | 0      | 0                                              | 10  | \$1,934.00         |
| KDHE NOI / SWPPP                                | 0          | 2           | 16         | 4          | 0      | 0                                              | 22  | \$2,574.00         |
| Utility Coordination                            | 0          | 4           | 0          | 0          | 0      | 0                                              | 4   | \$708.00           |
| Project Management                              | 2          | 6           | 0          | 0          | 0      | 0                                              | 0   | \$1,498.00         |
| Opinion of Probable Phase 2 Construction Costs  | 1          | 2           | 0          | 4          | 0      | 0                                              | 7   | \$984.00           |
| Subtotal of Hours per Associate                 | 12         | 65          | 48         | 92         | 0      | 32                                             | 241 |                    |
| Subtotal of Fee per Associate                   | \$2,616.00 | \$11,505.00 | \$5,424.00 | \$9,476.00 | \$0.00 | \$2,752.00                                     |     |                    |
|                                                 |            |             |            |            |        | Labor Fee                                      |     | \$31,773.00        |
|                                                 |            |             |            |            |        | Reimbursables 2%                               |     | \$635.46           |
|                                                 |            |             |            |            |        | Contingency 5%                                 |     | \$1,588.65         |
|                                                 |            |             |            |            |        | <b>Subtotal of Engineering Services</b>        |     | <b>\$33,997.11</b> |
| JCW Main Relocation Plans                       |            |             |            |            |        |                                                |     |                    |
| Prepare Main Relocation Plans                   | 2          | 12          | 8          | 40         | 0      | 0                                              | 62  | \$7,584.00         |
| JCW Submittal, Documentation, Response Letters  | 1          | 2           | 4          | 4          | 0      | 0                                              | 11  | \$1,436.00         |
| Revisions per JCW Comments                      | 1          | 8           | 8          | 20         | 0      | 0                                              | 37  | \$4,598.00         |
| Subtotal of Hours per Associate                 | 4          | 22          | 20         | 64         | 0      | 0                                              | 110 |                    |
| Subtotal of Fee per Associate                   | \$872.00   | \$3,894.00  | \$2,260.00 | \$6,592.00 | \$0.00 | \$0.00                                         |     |                    |
|                                                 |            |             |            |            |        | Labor Fee                                      |     | \$13,618.00        |
|                                                 |            |             |            |            |        | Reimbursables 2%                               |     | \$272.36           |
|                                                 |            |             |            |            |        | Contingency 5%                                 |     | \$680.90           |
|                                                 |            |             |            |            |        | <b>Subtotal of Construction Administration</b> |     | <b>\$14,571.26</b> |
| Construction Administration                     |            |             |            |            |        |                                                |     |                    |
| Shop Drawing Review/ Submittals                 | 1          | 8           | 0          | 0          | 0      | 0                                              | 9   | \$1,634.00         |
| Construction Issues and Question Resolution     | 3          | 6           | 0          | 6          | 0      | 0                                              | 15  | \$2,334.00         |
| As-Constructed Record Drawings                  | 1          | 6           | 0          | 12         | 0      | 0                                              | 19  | \$2,516.00         |
| Subtotal of Hours per Associate                 | 5          | 20          | 0          | 18         | 0      | 0                                              | 43  |                    |
| Subtotal of Fee per Associate                   | \$1,090.00 | \$3,540.00  | \$0.00     | \$1,854.00 | \$0.00 | \$0.00                                         |     |                    |
|                                                 |            |             |            |            |        | Labor Fee                                      |     | \$6,484.00         |
|                                                 |            |             |            |            |        | Reimbursables 2%                               |     | \$129.68           |
|                                                 |            |             |            |            |        | Contingency 5%                                 |     | \$324.20           |
|                                                 |            |             |            |            |        | 2020 Rate Adjustment 4%                        |     | \$259.36           |
|                                                 |            |             |            |            |        | <b>Subtotal of Construction Administration</b> |     | <b>\$7,197.24</b>  |



9001 State Line Rd., Ste. 200  
 Kansas City, MO 64114  
 [P] 816.361.0440  
 [F] 816.361.0045  
 LampRynearson.com

## CIVIL DESIGN GROUP FEE ESTIMATE

PROJECT TITLE R Park - Phase 2 (CD and CA/CO)  
 LOCATION Roeland Park  
 DATE 9/19/2019

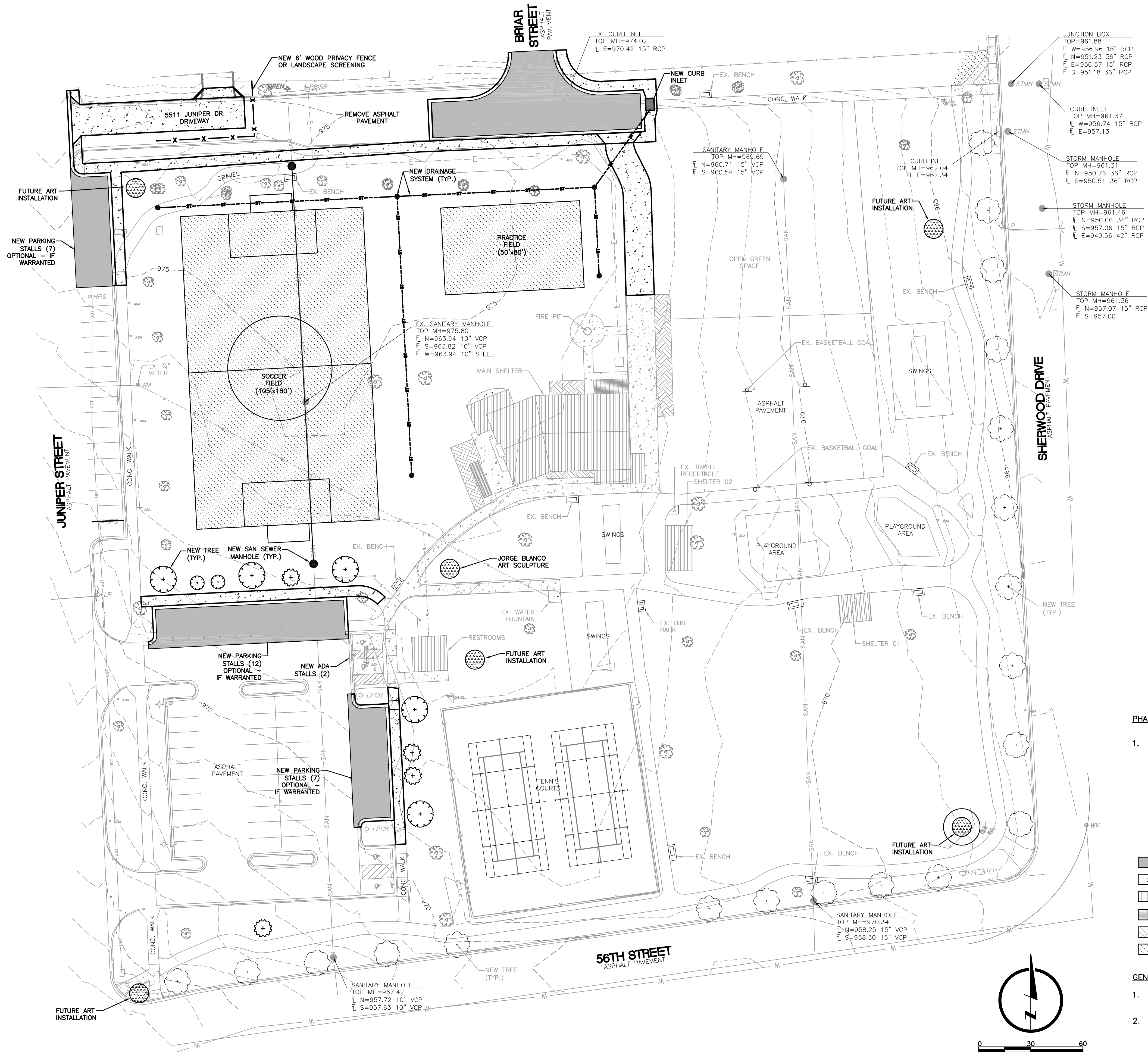
PROJECT # 0319001.0X  
 BY Dan McGhee

| Classification: | Civil Design<br>Group Leader | Sr. Project<br>Manager IV | Project<br>Engineer III | Project<br>Designer IV | Construction<br>Observer | Landscape<br>Architect | Subtotal of<br>Hrs per Item | Subtotal of Fee<br>per Item |
|-----------------|------------------------------|---------------------------|-------------------------|------------------------|--------------------------|------------------------|-----------------------------|-----------------------------|
| Associate:      | Miller                       | McGhee                    | Schleicher              | McMurry                | VanPatten                | Christensen            |                             |                             |
| Hourly Rate:    | \$218.00                     | \$177.00                  | \$113.00                | \$103.00               | \$113.00                 | \$86.00                |                             |                             |

| Construction Observation                            |        |        |        |        |             |                         |     |             |
|-----------------------------------------------------|--------|--------|--------|--------|-------------|-------------------------|-----|-------------|
| Construction Observation                            |        |        |        |        |             |                         |     |             |
| Full Time JCW Main Relocation / 10 Day Construction | 0      | 0      | 0      | 0      | 80          | 0                       | 80  | \$9,040.00  |
| SWPPP Inspections, 4 Hours / Week / 4 month period  | 0      | 0      | 0      | 0      | 64          | 0                       | 64  | \$7,232.00  |
| Part Time, 20 Hours / Week / 20 Day Construction    | 0      | 0      | 0      | 0      | 80          | 0                       | 80  | \$9,040.00  |
| Subtotal of Hours per Associate                     | 0      | 0      | 0      | 0      | 224         | 0                       | 224 |             |
| Subtotal of Fee per Associate                       | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$25,312.00 |                         |     |             |
|                                                     |        |        |        |        |             | Labor Fee               |     | \$25,312.00 |
|                                                     |        |        |        |        |             | Reimbursables 0.58/mi   |     | \$365.40    |
|                                                     |        |        |        |        |             | Contingency 4%          |     | \$1,012.48  |
|                                                     |        |        |        |        |             | 2020 Rate Adjustment 4% |     | \$1,012.48  |
| Construction Observation Fee Total                  |        |        |        |        |             |                         |     | \$27,702.36 |

| Project Fee Summary                                |  |             |
|----------------------------------------------------|--|-------------|
| Construction Documents & JCW Main Relocation Plans |  | \$48,568.37 |
| Construction Administration and Observation Fees   |  | \$34,899.60 |
| PROJECT TOTAL                                      |  | \$83,467.97 |

U:\Engineering\318001.07 Roeland Park KS R Park Site Development\Drawings\BASE MODELS\318001.07 - BASE.dwg, 3/19/2019 1:42:22 PM JAME MCNIRRY, LAMP RYNEARSON



# LAMP RYNEARSON

9001 STATE LINE RD., STE. 200  
KANSAS CITY, MO 64114  
816.361.0440  
LampRynearson.com

PRELIMINARY

NOT RELEASED FOR CONSTRUCTION  
MARK DANIEL MCGHEE JR.

R PARK IMPROVEMENTS  
PHASE 2

R PARK IMPROVEMENTS  
CITY OF ROELAND PARK, KANSAS

| REVISIONS  |                                      |
|------------|--------------------------------------|
| 11-09-2018 | ORIGINAL ISSUE DATE                  |
| 03-08-2019 | PARKS COMMITTEE RECOMMENDATIONS      |
| 03-19-2019 | ADOPTED BY CITY COUNCIL (03-18-2019) |

DESIGNER / DRAFTER

AJM

DATE

03-19-2019

PROJECT NUMBER

0318001.07

BOOK AND PAGE

SHEET



Item Number: Consent Agenda- II.-D.  
Committee 10/21/2019  
Meeting Date:



**City of Roeland Park**  
Action Item Summary

Date: 10/16/2019  
Submitted By: Jennifer Jones-Lacy  
Committee/Department: Admin.  
Title: **United Community Services 2020 Funding Recommendation Report**  
Item Type: Report

**Recommendation:**

**Recommend approval of the attached funding recommendations by Johnson County UCS for 2020.**

**Details:**

Please see attached for a detailed list of support/services that UCS provides with funds they receive.

Roeland Park has supported the UCS program historically. The 2020 request for support is within the 2020 amount budgeted.

**Financial Impact**

|                             |                          |
|-----------------------------|--------------------------|
| Amount of Request: \$4,371  |                          |
| Budgeted Item?              | Budgeted Amount: \$4,500 |
| Line Item Code/Description: |                          |

**Additional Information**

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                                                                                              | Type       |
|------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  United Community Services 2020 Funding Recommendations | Cover Memo |





## United Community Services of Johnson County

### Board Members

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Brian S. Brown  
Jennifer Bruning  
Tara S. Eberline  
Robin Harrold  
Thomas Herzog  
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Sandra Sanchez  
Maury L. Thompson  
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Joseph Sopcich, PhD  
Brad Stratton  
Charlie Sunderland  
Elaine Tatham, PhD  
Stephen Tatum  
David Warm

### Executive Director

Julie K. Brewer

October 11, 2019

To: Keith Moody

From: Julie Brewer, Executive Director

RE: 2020 Human Service Fund Recommendation Report

The United Community Services Board of Directors has prepared its 2020 Human Service Fund allocation recommendations. The enclosed report is submitted for Roeland Park's approval. UCS is sincerely grateful for the funding from the participating jurisdictions which resulted in total funding of approximately \$394,776. During 2020, allocations will benefit Johnson County residents who will be served through 15 programs recommended for grants. Thanks to your support, in 2018, programs receiving Human Service Fund grants served approximately 63,200 Johnson County residents. An electronic version of the report will also be sent to you by Marya Schott, [maryas@ucsjoco.org](mailto:maryas@ucsjoco.org).

The Human Service Fund agreement gives participating jurisdictions the authority and responsibility for approving or modifying UCS' recommendations for Human Service Fund grants. **The governing body is requested to approve the recommendations and notify UCS no later than December 27, 2019.** After that date, the recommendations will stand as presented.

If you would like a representative from UCS to attend a Council meeting, or if you have any questions about the recommendations or process, please contact me at (913) 438-4764. We appreciate your support of this county-wide partnership. Thank you.

Enclosure: 2020 Human Service Fund Recommendations Report







# United Community Services of Johnson County

## 2020 HUMAN SERVICE FUND RECOMMENDATIONS REPORT

### Board Members

Kate Allen, President  
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David Warm

### Executive Director

Julie K. Brewer

Human service programs are vital to addressing the well-being, safety, and stability of Johnson County residents. United Community Services (UCS) commends city and County government leaders for recognizing the important role of local government in supporting human service programs. Thank you for your support of the **Human Service Fund** in 2020.

Together, Johnson County Government and 15 cities have budgeted \$394,776 for the Human Service Fund in 2020. (See appendix A for list of participating jurisdictions.) These contributions directly benefit Johnson County residents who will be served through 15 programs recommended for 2020 Human Service Fund grants.

The Human Service Fund (HSF) offers local governments a cost-efficient, accountable mechanism to support an array of services that help residents of every city and township who are facing difficult circumstances. Funding is awarded to local nonprofit agencies which provide vital programs that meet the needs of Johnson County residents who live with income at or near the federal poverty level. Priority is given to programs that address child care, job training, emergency aid and shelter, child/adult abuse, child welfare, and health care. (See appendix B for all funding priorities.) Agencies recommended for grants demonstrate positive outcomes and are working collaboratively with others in the community. Funding recommendations represent the maximum HSF award for the calendar year, and UCS is not responsible for reductions in grant awards that may occur due to reduction in allocated funds by participating jurisdictions.

Thanks to your support, in 2018 programs receiving Human Service Fund grants served approximately 63,200 Johnson County residents in-need. But these programs benefit more than just the individual and their family; the entire community, including local government, benefits. Without a strong human service infrastructure to address issues such as unemployment, lack of child care, homelessness, child abuse and neglect, domestic violence, and untreated medical conditions, our community will experience higher crime rates and lower tax revenue, a decline in the standard of living, and weakened economic health.

**Jurisdictions are asked to accept the funding recommendations by  
December 27, 2019.**

# 2020 Human Service Fund Applicant History and Recommendations

| Applicant                                       | 2018 Grant       | 2019 Grant       | 2020 Recommendation | Program Description                                                                                                                                                                                                                                                             |
|-------------------------------------------------|------------------|------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CASA of Johnson & Wyandotte Counties            | \$40,000         | \$43,500         | \$48,000            | Court-ordered intervention by trained volunteers for children determined by a judge to be a "Child in Need of Care" due to abuse or neglect, or as high concern for safety and placement.                                                                                       |
| Catholic Charities of NE Kansas                 | \$70,000         | \$70,000         | \$70,000            | Emergency assistance and supportive housing, including case management to meet basic needs of low-income families and help them work towards self-sufficiency.                                                                                                                  |
| Community Center of Shawnee, Inc.               | No request       | \$5,000          | No request          | Food pantry transportation; distribution of free food.                                                                                                                                                                                                                          |
| Cultivate Kansas City                           | No request       | No request       | \$0                 | Nutrition Incentives Program: Matching funds for SNAP participants and for seniors in KS Senior Market Nutrition Program.                                                                                                                                                       |
| El Centro                                       | \$20,000         | \$22,736         | \$22,800            | Safety net services for low-income, under/uninsured individuals and families: economic empowerment (emergency assistance, financial literacy, assistance filing taxes), and access to healthcare (health navigation and health promotion).                                      |
| FosterAdopt Connect                             | No request       | No request       | \$5,000             | Family Advocacy Program: Peer-to-peer support connecting foster and adoptive families with advocates to navigate and resolve issues related to interaction with child welfare system.                                                                                           |
| Goodwill of Western Missouri and Eastern Kansas | No request       | No request       | \$15,696            | Training and Employment Services: Partner with Cultivate, Inc. to provide skills training, certification instruction, financial education & job placement for clients in Adult Residential Center and Therapeutic Community, and adults on probation upon release from the ARC. |
| Growing Futures Early Education Center          | \$9,265          | \$9,265          | \$9,000             | Scholarships for child care fees for enrolled low-income families during financial hardship; allows parents to maintain full-time education/employment. Crisis assistance for enrolled families who need help with housing costs.                                               |
| Harvesters                                      | \$12,000         | \$15,000         | \$15,000            | BackSnack and Kids Café program provides a backpack of food for low-income school children to take home over the weekend, and meals in afterschool locations and summer sites.                                                                                                  |
| Health Partnership Clinic                       | \$42,000         | \$42,000         | \$45,000            | Health and dental care, through a medical home model, for uninsured low-income Johnson County residents.                                                                                                                                                                        |
| Hillcrest Ministries of MidAmerica              | \$6,000          | \$9,500          | \$10,000            | Transitional housing for homeless youth, single adults and families; case management, budget counseling, and supportive services.                                                                                                                                               |
| Jo. Co. Interfaith Hospitality Network          | \$9,000          | \$9,000          | \$9,000             | Case management for single females and families with children who are homeless. Clients receive shelter, meals, and transportation.                                                                                                                                             |
| Jewish Family Services                          | \$5,000          | No request       | No request          | Food, Shelter and Employment                                                                                                                                                                                                                                                    |
| Kansas Children's Service League                | \$19,800         | \$19,800         | \$20,280            | Home-based education and family support for new parents whose children are at-risk for child abuse and neglect.                                                                                                                                                                 |
| KidsTLC                                         | \$17,500         | \$17,500         | \$18,500            | Thriving Families: Crisis counseling, parent education, help for families navigating health care, housing, and community resources.                                                                                                                                             |
| SAFEHOME                                        | \$19,865         | \$21,000         | \$21,000            | Economic Empowerment Program promotes economic self-reliance for victims of domestic violence who are living in shelter/                                                                                                                                                        |
| Salvation Army Family Lodge (Olathe)            | \$18,000         | \$18,000         | \$20,000            | Temporary and transitional housing for families in Johnson County who are homeless, including related services and case management.                                                                                                                                             |
| Sunflower House                                 | \$37,500         | \$37,500         | \$42,500            | Personal safety and prevention programs for children and youth. Prevention and education programs for child care professionals and caregivers, including mandated reporters.                                                                                                    |
| The Family Conservancy                          | \$10,000         | No request       | No request          | Implementation of "Talk, Read, Play"                                                                                                                                                                                                                                            |
| <b>Total</b>                                    | <b>\$335,930</b> | <b>\$339,801</b> | <b>\$371,776</b>    | The 2019 federal poverty level for a family of three is \$21,330.                                                                                                                                                                                                               |

## 2020 Human Service Fund Recommendations

### **CASA of Johnson and Wyandotte Counties**

\$48,000

Recommendation

Funding is recommended for the Child Advocacy Program, a court-ordered program that serves children from birth to age 18. Most children in the program are those whom a Juvenile Court Judge has determined to be a “Child in Need of Care” due to abuse or neglect by parent or caretaker (commonly placed in foster care). Children may also be referred by a Family Court Judge when child safety and placement are of great concern in a high conflict divorce or separation. In these cases, the judge is determining if the child can reside in a safe placement without having to be placed in state custody (foster care). A trained CASA volunteer advocate regularly meets with the child and focuses on the child’s situation (safety, mental health and education needs, etc.). The volunteer also gathers information from the parents, foster parents, social workers, attorneys, and teachers, then with the CASA supervisor, identifies service needs. CASA submits a report to the judge which includes information about the child’s statements, behavior, and interaction with parents. Court reports support the judge’s critical decisions about where the child should live and what services should be court-ordered.

**2020 Results Projected:** Children are safe from additional abuse or neglect. Children have a stable adult presence in their lives, and when eligible will complete high school or earn a GED. CASA anticipates serving 440 Johnson County children during 2020.

**Outcomes achieved during 2018:** During 2018, 384 children were served. The presence of a stable adult is a key factor in building resilience from a history of trauma. Ninety-seven percent of children served by CASA had a stable adult presence in their CASA volunteer during their court involvement. While assigned to a CASA advocate, all of the children served did not have an additional affirmed or substantiated report of abuse to Kansas Department for Children and Families (DCF). Of the CASA-served youth eligible for graduation, 87% graduated.

### **Catholic Charities of Northeast Kansas**

\$70,000

Recommendation

Funding is recommended for the Emergency Assistance and Supportive Housing program which operates within two centers in Johnson County. The program provides assistance and strengths-based case management, without regard to religious affiliation, to families living at or below 150% of federal poverty guidelines. Emergency Assistance services include those that meet residents’ basic needs such as food, clothing and shelter, as well as financial assistance with prescription medication and medical supplies, utilities, child care, and transportation. The case management delivery model emphasizes practices to achieve self-sufficiency, including asset development/financial literacy, workforce development and job-seeking assistance, life skills, and referrals to other available community resources.

**2020 Results Projected:** During 2020, the agency anticipates serving 25,000 Johnson County residents with assistance that includes food and/or financial support to maintain housing and utilities. Every client who receives financial assistance will engage in budget coaching and a financial review with their case manager. Eighty percent of clients will attend financial literacy education classes and receive one-on-one coaching according to assessed need and capability.

**Outcomes achieved during 2018:** During 2018, 27,568 Johnson County residents were served and visits to Catholic Charities for food assistance totaled 46,355. This included

assistance with applications for SNAP (Supplemental Nutrition Assistance Program) and food from the agency's pantry. Direct financial assistance enabled 1,068 individuals to maintain safe housing for at least 30 days. 2,439 individuals benefited from utility service assistance which enabled them to sustain utility services for 30 days. All individuals who received direct financial assistance completed a financial assessment with their case manager. Eighty percent of individuals who received financial assistance also attended financial literacy education which included Money Smart, Your Money-Your Goals, and one-on-one budget coaching.

**El Centro, Inc.** Funding is recommended for the Johnson County Family Services Center located in Olathe where a set of safety-net services are provided to low-income and/or under-/uninsured Johnson County individuals and families. Services promote self-sufficiency, well-being, and personal safety. Services include economic empowerment (emergency assistance, financial literacy classes, assistance filing taxes), access to healthcare (health navigation and promotion) and policy education.

**\$22,800**

**Recommendation**

**2020 Results Projected:** During 2020, El Centro expects to serve 2,500 Johnson County residents at the Olathe office. Results include meeting clients' basic needs (sustain housing and utility services, completion of financial classes), assisting clients with work and income supports (filing taxes, obtaining an Individual Tax Identification Number if needed) and clients leading healthier lives (successful access of community healthcare resources and increased knowledge of chronic disease prevention and healthy consumer behaviors).

**Outcomes achieved during 2018:** During 2018, 1,630 Johnson County residents were served. Clients' basic needs were met: 233 households received utility assistance and were able to maintain utilities for minimum of 30 days, and 52 households received rent assistance which enabled them to sustain housing for minimum of 30 days. Seventy people were assisted with the process that enabled them to receive an Individual Tax Identification Number and thus file income taxes. Nearly 120 individuals were assisted with applying for the Supplemental Nutrition Assistance Program (SNAP) and received benefits.

**FosterAdopt Connect** A new HSF applicant, funding is recommended for FosterAdopt Connect's Family Advocacy Program. Through this program peer-to-peer support connects foster and adoptive families with trained advocates (experienced foster parents) who help families navigate and resolve issues related to interaction with the child welfare system. Examples of challenges include delays in reimbursement, problems accessing school-based services, as well as mental health services. The program forms the foundation of the agency which offers multiple programs/services in the Kansas City area. Founded in 1998, the agency operates five resources centers, including one in Lenexa which recently expanded capacity.

**\$5,000**

**Recommendation**

**2020 Results Projected:** During 2020, the agency expects to serve 328 Johnson County residents through this program. Results anticipated include an increase in retention rate of foster and adoptive families, and kinship placements (parents develop and maintain an action plan), increase access to resources and knowledge for families (needs resolved), and a decrease in traumatic moves for children (placements are preserved).

|                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Goodwill of Western MO and Eastern KS</b><br><br>\$15,696<br>Recommendation<br><br>This program will be impacted if funds noted as pending are not received in total. | <p>A new HSF applicant, funding is recommended for Goodwill's enhanced Training and Employment program. This program will collaborate with Cultivate, Inc. to provide skills training, certification instruction, financial education, and job placement for individuals in Johnson County Department of Corrections Adult Residential Center (ARC) and Therapeutic Community, as well as adults on probation upon release from the ARC. Founded in 2012, Cultivate, Inc. has two programs that currently work with clients from the ARC. Founded in 1894, Goodwill currently provides the following services in Johnson County: Vocational Rehabilitation, Ticket to Work, Benefits Counseling, and Digital Skills (training and certification). Through the Training and Employment program, new training and case management resources will be provided to clients (most of whom return to Johnson County upon completion of sentence/probation period).</p> <p><b>2020 Results Projected:</b> During 2020, Goodwill expects to serve 75 Johnson County residents through this program. Clients will increase their knowledge of essential skills in the workplace and digital skills needed in the workplace. There will be an increase in the number of persons with in-demand workforce credentials, and a reduction in recidivism.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Growing Futures Early Education Center</b><br><br>\$9,000<br>Recommendation                                                                                           | <p>Funding is recommended for Growing Futures' Scholarship Assistance for Full Day Program. Most of the families served by Growing Futures are living at or below federal poverty guidelines. Through the Human Service Fund grant, scholarships (child care assistance) help low-income families experiencing financial hardships who are unable to pay their share of child care fees. Families who meet Head Start income guidelines pay for seven hours of the 10.5 hour-day (7am-5:30pm) at rate of \$130/week. Scholarships allow for continuity of early childhood care and education while parents are working or attending school. Emergency assistance is provided to families in need of short-term help, particularly with housing (those in jeopardy of losing Section 8 eligibility because of inability to pay rent on time), and food.</p> <p><b>2020 Results Projected:</b> Children demonstrate kindergarten readiness and maintain enrollment in the program even though families face financial hardship. Families attain at least one family goal based upon family determined strengths and needs. During 2020, Growing Futures projects serving 25 Johnson County children with scholarships.</p> <p><b>Outcomes achieved during 2018:</b> During 2018, 15 Johnson County residents were served and six families received short term help or fee subsidies which allowed parents to remain working or in school while facing financial challenges. Most of the families received short term help. One family experienced a catastrophic health event (father was diagnosed with brain cancer and was unable to continuing working) and scholarship support enabled their three children to continue in preschool while the mother remained in college to complete her degree. During 2018, one child withdrew due to financial issues.</p> |
| <b>Harvesters</b><br><br>\$15,000<br>Recommendation                                                                                                                      | <p>Funding is recommended to support Harvesters BackSnack program which is provided within Johnson County schools, and Kids Café which is provided in after-school locations and summer sites in Johnson County. Through the BackSnack program a backpack filled with food is provided to low-income children who take it home for the weekend. Harvesters' purchases food for the backpacks and links schools to a community partner and transports the food kits to the partner. Community partners clean backpacks, place food kits in backpacks and distribute backpacks to schools every week. School staff identify</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



children in greatest need of food assistance. Harvesters delivers meals directly to Kids Café sites and provides meals there at no cost to children and youth. Free and reduced lunch school statistics help determine location of Kids Café sites. During the 2020 school year there will be 21 Kids Café sites in Johnson County, and Harvesters will continue to encourage families to transition to the new School Pantry program. The School Pantry program provides BackSnack families the option of receiving food from a School Pantry instead of a weekly BackSnack (in order to feed everyone in the household, not just the student).

**2020 Results Projected:** In 2020, through the BackSnack program, the agency anticipates serving 1,800 Johnson County children and distributing 55,100 backpacks; and, providing 21,000 meals to children through Kids Café sites. Results include positive effects on children's grades, behavior and health. (The transition of children and families to the new School Pantry program will result in fewer backpacks distributed; children cannot be served by both BackSnack and School Pantry programs. During school-year 2019, weather related school closures resulted in fewer meals being served at Kids Café sites; therefore, results projected for 2020 are more conservative.)

**Outcomes achieved during 2018:** Harvesters provided 64,431 backpack carriers of food and 33,884 Kids Café meals to Johnson County children. During spring of 2018, Harvesters implemented an expansion of its BackSnack program to offer a blended BackSnack and School Pantry model where food is delivered to schools for distribution to families that need help feeding everyone in their household (not just the student). During 2018, Harvesters provided the blended model at 11 Johnson County schools, and there were 20 Kids Café sites in Johnson County. Harvester's is not able to provide an unduplicated count of children served between the two programs (BackSnack and KidsCafe') but provided an unduplicated count of recipients specific to each program. Together, a minimum of 4,337 unduplicated children were served between the two programs.

**Health  
Partnership  
Clinic (HPC)**

\$45,000

Recommendation

Funding is recommended for primary and preventative medical care, which are provided at Health Partnership Clinic's office in Olathe, a pediatric clinic in Shawnee Mission, and a school-based clinic in Merriam. HPC's patients are primarily low income with majority being uninsured (47.4%) or publicly-insured (39.1%). Health Partnership Clinic, Johnson County's largest safety-net clinic and only Federally Qualified Health Center, utilizes a medical home model which emphasizes prevention and health maintenance while providing a broad scope of services including care for patients with chronic diseases. HPC also provides dental and behavioral health services, and works in partnership with homeless shelters, delivering onsite health care services and case management. Specialty care is provided through a network of providers.

**2020 Results Projected:** Anticipated program results include access to a medical and dental home for low-income and uninsured residents, patients achieve better health outcomes and are satisfied with services they receive, thereby continuing to utilize HPC as their health home. During 2020, HPC anticipates serving 12,255 Johnson County residents through 36,137 patient office visits or encounters.

**Outcomes achieved during 2018:** During 2018, 10,262 Johnson County residents were served through 35,275 patient office visits and/or clinical encounters. Nearly 93% of

patients surveyed indicated they were either satisfied or very satisfied with overall care they received as a patient (3.5% were neutral). Patients achieved positive health outcomes as indicated by 59% of hypertensive patients who had their blood pressure under control with readings below 140/90, and 66% of diabetic patients who achieved HgA1c (blood glucose) level of 9.0 or below during the last half of the year (compared to 59% before the clinic opened).

**Hillcrest  
Ministries of  
MidAmerica**

\$10,000

Recommendation

Funding is recommended for Hillcrest's Transitional Housing – Homeless Youth and Families program. Transitional housing for homeless youth (up to age 24), families (children and adults), and single adults will be provided in seven apartments located in Overland Park. Four apartments are for youth, and three are for families, singles and couples. Hillcrest uses either the HUD or McKinney-Vento education definition of homeless. The majority of clients are at or below federal poverty guidelines. The youth program provides up to 24 months of housing and services, including individual case management and budget counseling, and connection to community services to address immediate and ongoing needs as applicable, such as medical, dental, vision, mental health, substance abuse treatment, employment training, tutoring, and mentoring. Adults and families receive similar services, however, for a shorter period of time (three months).

**2020 Results projected:** Thirty homeless children/youth and adults will be provided transitional housing and achieve at least one goal from their assessment plan. Homeless youth will work toward achieving an education goal; homeless adults will maintain or improve their employment.

**Outcomes achieved during 2018:** During 2018, 35 Johnson County residents were served. One-hundred percent of youth and families received an individual assessment of needs including health, employment, education and housing. Four homeless youth worked toward achieving education goals (their work toward those goals continues), and 10 adults improved and maintained employment.

**Johnson County  
Interfaith  
Hospitality  
Network  
(JoCoIHN)**

\$9,000

Recommendation

JoCoIHN provides shelter, meals, transportation and case management for homeless families and single unaccompanied females. Area congregations provide shelter and meals on a rotating schedule while JoCoIHN staff helps families regain self-sufficiency and independence. Human Service Funds are used to provide strengths-based case management which includes assistance with transportation, referrals to other community resources, assistance with budgeting, money management, and job and housing searches. Services are provided by 3,500 volunteers through partnerships with 40 faith congregations.

**2020 Results Projected:** During 2020, the agency expects to serve 40 Johnson County residents with 2,500 days of shelter and case management. Clients completing the program will increase their economic resources, and approximately 50 percent will move into homes of their own within four months of entering the network. Volunteers will increase their awareness of human service needs in Johnson County.

**Outcomes achieved during 2018:** During 2018, 60 Johnson County residents were served. Of those completing the program, 70% reported increasing their income by 25% or more while in the program, and 38% moved into homes of their own within three months of entering the network. Residents received 3,264 cumulative days of shelter and strength-based case management.



**Kansas Children's Service League (KCSL)** Funding is recommended for Healthy Families Johnson County, a child abuse prevention program which provides intensive home-based education and family support services to parents who are experiencing extreme stress and are "at-risk" for abuse and neglect. Eligibility is based upon risk factors, not income, however, most of the families are low-income. Participants receive routine at-home visits, case management, referrals to community resources and services, child development and parent education, and linkage to health care services. Parent engagement includes Parent Cafés, parent support groups, and a parent advisory group. Funding is also recommended for the \$480 annual cost of webhosting the Johnson County Early Learning Collaborative, a collaborative of organizations (including KCSL) which serve young children. The website is used to connect caregivers and providers with programs that serve children, and as link to My Resource Connection when other services are needed.

**\$20,280**

**Recommendation**

**2020 Results Projected:** During 2020, 250 Johnson County individuals are expected to be served. Anticipated results are that families do not have any substantiated child abuse and neglect; and, children have health insurance and are current on immunizations, and have a developmental screen in the last six months (or are already receiving services for developmental delays).

**Outcomes achieved during 2018:** During 2018, 164 Johnson County residents were served. All of the families served remained free from substantiated abuse and neglect while in the program. By the end of the year, 87% of children in the program had health insurance and 97% had a developmental screening.

**KidsTLC** Funding is recommended for KidsTLC Thriving Families program which offers resource referral, parent support groups, and health care navigation to families who struggle with behavioral and mental health issues with their children. The program serves families in the community and families who have children in one of KidsTLC's programs. Eligibility is not based upon income, however, most of the families are low-income (58% of KidsTLC's clients are living below 200% of the Federal Poverty Level). The program serves as the navigation arm for the agency, helping families find mental health/health care, housing and community resources/support. It also provides education and support to Spanish-speaking families. The program is a health navigation resource for schools and participates in Olathe and Shawnee Mission School Districts' IMPACT Olathe and Project Home programs which serve youth and families who are at-risk for homelessness. The goal of Thriving Families is to educate families about health issues, trauma, and raising healthy children; and, to provide health navigation resources so parents can raise healthy children.

**\$18,500**

**Recommendation**

**2020 Results Projected:** During 2020, the organization estimates serving 300 Johnson County residents through this program. Program results include that people's life sustaining basic needs are met, clients experience increased access to services, barriers to services are reduced, and clients express increased awareness of resources.

**Outcomes achieved during 2018:** Through crisis intervention, housing support, and health navigation, the Thriving Families program served 206 individuals, including 12 unaccompanied youth and 53 families. KidsTLC helped permanently house 10 youth and 30 families which included providing rent/utility assistance, as well as referral to shelter and transitional living. KidsTLC referred 53 clients to rental/utility assistance, shelter, food/clothing, postnatal, legal services, employment services, and mental health

services. In addition, at least 15 adults were referred to KidsTLC's mental health programming to receive services for their child. Program staff made 63 face-to-face contacts and handled 140 crisis intervention services/crisis calls.

**Safehome**  
\$21,000  
Recommendation

Safehome provides shelter and other assistance to survivors of domestic violence. Funding is recommended to support Safehome's Economic Empowerment Program. Through education, support, and referrals, this program helps clients become employed and self-sufficient. All shelter clients take an assessment and are recommended to one of three tracks: budget, job seeker or job training. Basic and advanced financial literacy classes are offered in English and Spanish. Specialized workshops are tailored to clients' needs. Funds are provided for clients to attend GED and ESL classes off-site.

**2020 Results Projected:** Program participants complete a budget and career assessment inventory, enroll in job training or education programs, and/or have job interviews and secure employment. The agency projects this program will serve 150 Johnson County residents during 2020. (Fewer residents are projected to be served in 2020 than in 2018 because Safehome has prioritized serving solely clients who live in their shelter, whereas in 2018 clients living in the community were also served by this program.)

**Outcomes achieved during 2018:** During 2018, 190 Johnson County residents were served. After five weeks of participation in the Job Search track, all participants completed a career assessment inventory, and after 10 weeks, 86% had a least two job interviews, and 100% secured a new or better job. After five weeks in the Budgeting track, all participants set budgeting goals, and 15% made plans to address credit problems; after 10 weeks, 80% of participants set up a realistic household budget.

**Salvation Army  
Olathe**  
\$20,000  
Recommendation

Funding is recommended to assist low and very-low income homeless families in Johnson County with food and shelter at the Johnson County Family Lodge in Olathe. In most cases, the Lodge provides up to 90 days of shelter (temporary housing – maximum stay of 180 days). Residents meet weekly with a case manager who utilizes the strengths-based case management model. Classes and/or skill building opportunities include parenting, financial literacy, maintaining employment, housing searches, daily living/life skills, developing a support system, and navigating mainstream resources.

**2020 Results Projected:** In addition to providing safe shelter, results include families increasing their skills or income, applying for mainstream services (SNAP, TANF, Medicaid, etc.) and moving into transitional or permanent housing. Another result is children begin or continue to receive daycare services. The Family Lodge anticipates serving 150 Johnson County residents during 2020.

**Outcomes achieved during 2018:** The Family Lodge provided 32,926 units of service which it defines as "one bed night and/or one meal provided" to 135 Johnson County residents. Ninety-three percent of families who moved out of the lodge moved into transitional or permanent housing. All eligible families applied for mainstream services (medical assistance and SNAP) or completed renewal applications. Ninety-seven percent of participants who successfully completed the program increased their skills or income (37 of 38). Of those, 23 families increased parenting skills, 37 families developed a working

budget, four families began secondary educational programming and one parent completed her LPN (Licensed Practical Nurse) training.

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sunflower House</b><br><br>\$42,500<br>Recommendation | Funding is recommended to support the Personal Safety Education Program, a child abuse prevention education program. The program includes: 1) <i>Happy Bear</i> , an interactive drama in Spanish and English for children ages four to seven enrolled in public and private early childhood centers and elementary schools; 2) <i>Think First and Stay Safe</i> , a curriculum for grades PreK-5 that reinforces personal and digital boundaries and emphasizes that bullying and sexual abuse are against the law; 3) <i>E-Safety</i> , provides middle school students with information about how to protect themselves from online predators, and includes safety topics such as sexting, bullying, child exploitation, and social networking; 4) <i>Keeping Kids Safe Online</i> , a workshop for parents and caregivers provided in partnership with the FBI Cyber Crimes Unit; 5) <i>Stewards of Children</i> , a child sexual abuse prevention and education training for adults; 6) <i>Mandated Reporter Training</i> which teaches attendees to recognize signs of sexual abuse, correct procedures/laws for reporting, and how to handle a child's disclosure; and, 7) <i>Child Protection Project</i> , a presentation designed to raise the awareness of child sexual abuse among parents and caregivers, and give them tools needed to be proactive in protecting children. |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**2020 Results Projected:** Age-appropriate person safety/abuse education will be provided to children; adults will be educated on child abuse indicators and reporting abuse; youth and adults will increase their knowledge of online crimes against children, including online safety steps and proper reporting. The agency anticipates reaching 19,000 Johnson County residents during 2020.

**Outcomes achieved during 2018:** During 2018, 17,470 Johnson County residents were served. In post-program surveys, 97% of children indicated they would report unwanted contact, including physical touches and electronic communications. All adults, including those within the special needs community, who were educated on child abuse indicators and reporting abuse, indicated they gained new information.

### **Not Recommended for Funding**

#### **Cultivate Kansas City – Nutrition Incentives Program**

Cultivate Kansas City, a new HSF applicant, requested \$10,000 for its Nutrition Incentives Program which helps low-income households access healthy fruits and vegetables. The program provides dollar-for-dollar match to Supplemental Nutrition Assistance Program (SNAP) participants and a \$30 match to low-income seniors receiving the Kansas Senior Farmers Market Nutrition Program. The program helps participants save money and eat healthier while supporting farmers and farmers markets.

United Community Services Human Service Fund Grant Review Committee did not recommend funding from the 2020 HSF for Cultivate Kansas City. UCS acknowledges the value of this program to residents and farmers. However, with limited funding, the grant review committee focused on recommending allocations for programs that are more actively engaged in residents' lives and have stronger alignment with funding priorities.

## APPENDIX A

### 2020 HUMAN SERVICE FUND PARTICIPATING JURISDICTIONS

| JURISDICTION                                     | CONTRIBUTION     |
|--------------------------------------------------|------------------|
| Johnson County                                   | \$141,775        |
| De Soto                                          | \$2,380*         |
| Edgerton                                         | \$2,000          |
| Gardner                                          | \$6,000          |
| Leawood                                          | \$16,500         |
| Lenexa                                           | \$20,350         |
| Merriam                                          | \$8,300          |
| Mission                                          | \$8,300          |
| Olathe                                           | \$60,000         |
| Overland Park                                    | \$86,200         |
| Prairie Village                                  | \$8,300          |
| Roeland Park                                     | \$4,771          |
| Shawnee                                          | \$26,200         |
| Spring Hill                                      | \$2,000          |
| Westwood                                         | \$1,500          |
| Westwood Hills                                   | \$200            |
| <b>Total from County Government &amp; Cities</b> | <b>\$394,776</b> |
| Interest                                         | \$3,000          |
| Subtotal                                         | \$397,776        |
| UCS Administration                               | \$26,000         |
| <b>Total Available to Allocate</b>               | <b>\$371,776</b> |

\*pending

### 2020 HUMAN SERVICE FUND GRANT REVIEW COMMITTEE

#### UCS Board Members

- Tara S. Eberline *Committee Chair*, Foulston Siefkin, LLP
- Robin Harrold, AdventHealth
- Kevin Tubbesing, The Land Source

#### UCS Council of Advisors

- Hon. Stephen Tatum, 10th Judicial District Court

#### Community Members

- Janet Barrow, WaterOne
- Nicolette Loutsch, Kiewit Engineering, Inc.

Staff support: Marya Schott, UCS Director of Resource Allocation

## **APPENDIX B**

### **2020 HUMAN SERVICE FUND GUIDELINES**

The Human Service Fund is a competitive process that awards grants to nonprofit organizations for operating health and human service programs that promote self-sufficiency, well-being and/or personal safety of Johnson County residents who live with income at or near the federal poverty level. Funded programs provide pathways and opportunities for building a healthy community where every resident is empowered to reach their full potential. Components of the safety net investment that are supported by the HSF are: 1) basic needs, 2) work and income supports, and 3) health, wellness and personal safety.

#### **FUNDING PRIORITIES 2020**

Health and human service programs funded by the HSF must promote self-sufficiency, well-being and/or personal safety of Johnson County residents and fit within safety net investment components of basic needs, work and income supports, or health, wellness and personal safety. Funded programs must offer county-wide services or fill a gap which results in county-wide benefit and offer equal access to all clients and prospective clients who could benefit from the program.

Programs funded by the HSF must deliver measurable outcomes which benefit county residents, and in the long-term, benefit local governments by avoiding, deferring, or preventing costs that otherwise might be incurred by local government.

Priority is given to programs that:

- address child care and early childhood development, job training, emergency aid and shelter, child/adult abuse, child welfare, and health care.
- serve individuals and/or families with income below or near the federal poverty level.
- demonstrate innovation and/or collaboration in program delivery.
- are consistent with an evidence-based program, best practices or promising practices, or replicate a successful model.

#### **ELIGIBILITY**

- Applicants must deliver direct services to Johnson County residents, be recognized by the IRS under section 501(c)(3), provide health and human services programming as their primary mission, and be in good standing in Kansas or Missouri as a nonprofit corporation, i.e. may not be an entity of city or county government.
- Agency must provide most recent IRS form 990 and an independent certified audit of the previous year's financial records; or, if total agency revenues were less than \$250,000, an independent review of financial statements prepared by a Certified Public Accountant. The audit or review must have been completed within nine (9) months of the close of the fiscal year. Upon request, the agency may need to provide additional financial information.
- The applicant complies with Agency Standards.
- Applicant affirms compliance with any applicable nondiscrimination ordinances and/or policies of the municipalities that provide resources to the Human Service Fund.
- Funded program must:
  - promote self-sufficiency, well-being and/or personal safety of Johnson County residents and fit within safety net investment components of basic needs, work and income supports, or health.

- primarily serve Johnson County, Kansas residents who live with income at or near federal poverty level. However, programs that do not meet this criterion may still be eligible if the program addresses child/adult abuse, and/or leads to the prevention of poverty, and primarily serves Johnson County residents.
- clearly define and measure outcomes for participants.
- benefit local governments by avoiding, deferring, or preventing costs that otherwise might be incurred by local government.
- offer county-wide services or fill a gap which results in county-wide benefit.
- offer equal access to all clients and prospective clients who could benefit from the program.
- Only one HSF application may be submitted by an agency. Applications will not be accepted for both the HSF and Alcohol Tax Fund (ATF, managed by Drug and Alcoholism Council, a program of UCS) for the same program during the same funding cycle. However, applications may be submitted for both funds by the same agency or department for discrete programs during the same funding cycle. Criteria of discrete programs include, but are not limited to, programs for which expenses are recorded separately for purposes of functional accounting, programs that, if serving a population targeted by another program, serve a distinct need of that population, and/or employ distinct strategies and projected outcomes.
- Applications for substance abuse programs are not accepted and should be directed to the ATF.



**Item Number:** Applications/Presentations- A.-1.  
**Committee** 10/21/2019  
**Meeting Date:**



**City of Roeland Park**  
Action Item Summary

**Date:** 10/18/2019  
**Submitted By:** Staff  
**Committee/Department:** Admin.  
**Title:** **Aquatic Center Advisory Committee Update**  
**Item Type:** Report

**Recommendation:**

**Darin Hansen will provide an oral report at the meeting. Attached are the minutes from the most recent Aquatics Advisory Committee meeting.**

**Details:**

Financial Impact

| Amount of Request:          |                  |
|-----------------------------|------------------|
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

Additional Information

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                                                                                                    | Type       |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  Aquatic Center Advisory Committee Minutes October 15, 2019 | Cover Memo |





# Aquatics Advisory Committee Agenda

10/15/19 6:00PM  
Roeland Park  
Community Center,  
Room 6

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## Committee Members:

|                                                   |                                                   |
|---------------------------------------------------|---------------------------------------------------|
| Tim Janssen, City Council Representative- Present | Tom Madigan, City Council Representative- Present |
| Darin Hansen, Chair- Present                      | Michael Calovich- Present                         |
| Hope Meador- Arrived at 6:05 pm                   | Trisha Brauer- Present                            |
| Sara Coe- Present                                 | Leonard Tocco, Secretary- Absent                  |

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**Others Present:** Marshall McKinney- JCPRD Aquatics Director, Keith Moody- City Administrator, David Mootz- Facility Maintenance Supervisor

## Called to order at 6:04 pm

## Approved minutes from 9/17/19 meeting

## AGENDA ITEMS

- A. Review Year End Report from JCPRD-** JCPRD has provided a year end report as required per the management agreement. Staff will provide an overview of the report. The report is attached for reference.
- B. Review Year to Date Financials-** Review Financials as of 10/7/19. The financials are attached for reference. JCPRD is working on separating invoices to reflect the change of ownership and items that were completed after the ownership change that JCPRD has agreed to share cost on. These items have been reviewed and approved by the City Administrator. Year end financials will reflect all the cost sharing adjustments.
- C. Status Report on RFP for Recreation Software-** Attached is a copy of the RFP that is out to solicit proposals for Recreation Software. The City does not currently own a recreation software program and Midwest Pool Management does not offer this as part of there management services therefore the City will be acquiring a software in time to complete installation and training prior to season pass sales beginning in April 2020. The software will be installed at City Hall as well as at the Aquatic Facility.
- D. Review Status of Repairs**
  1. The in-ground drainage system at the pool house main entry is clogged. Public Works will complete the repair by the end of November.
  2. Bulkhead Update – Commercial Aquatics has arranged for a driver to complete work in the pool to move the bulkhead out of its channel on 10/15/19. After placing it on boards on the pool floor the pool will be drained past the bulkhead and Commercial Aquatics will complete air release plumbing changes for the ballast chambers. We will also have the bulkhead slide channels surveyed to ensure that is not the problem. The pool will then be refilled, and the bulkhead placed back in its channel to test if this addresses the issue. Divers removed bulkhead on 10/15/19, staff began draining pool immediately after.
  3. Leak Repair on Pool Heater Booster Pump- repairs were completed and tested 10/11/19.
  4. Parking Lot/Storm Drainage and ADA Related Repairs- the scope of this work will be included in one contract with the City Engineer. Design will commence this winter, bidding in the summer of 2020, work will occur during the winter/spring of 2020/21 concurrently with the pool improvements. New asphalt surface will not be put down until the heavy construction equipment for the pool project is no longer needed.
- E. Review Status of Winterization-**
  - Winterization of bath house restrooms is complete. - Sinks, toilets, showers (i.e. fittings removed, anti-freeze in place where needed)
  - The amenity pools are 99% complete, two fittings that I need to remove.
  - Lexington Plumbing- installed blow out fittings both for domestic water and for sprinkler system to purge the lines.
  - Lexington has provided an estimate to winterize both the pump house (domestic water only) and bath house, waiting on estimate from Midwest Pool Management for this same work.
  - NO winterization has taken place in pump house or pool boilers - waiting on bulkhead to be completed.
  - Commercial Aquatics will be contacted to winterize the pool system once the pool has been drained.

**F. Update on Pool Management for 2020-**

1. Programming Dates- Midwest Pool Management is working on finalizing dates for the swim programs reflected in the Operations Plan. Midwest Pool Management attended the regional swim team planning meeting with the other pools. During that meeting Merriam indicated that they may not participate in the super pass program in the future due to the challenge of controlling access to only their new outdoor pool, which will be part of their new community center.
2. Identify Committee Members to assemble comparison of rules among neighboring pools. Trisha will gather rules from other Superpass participating pools, Hope will do the same for some HOA/neighborhood pools, and Darin will gather some examples from regional pools.

**G. Pool Improvements Update-** Water's Edge is working on designs. Attached is an update and schedule.

**H. Parks and Recreation Superintendent Recruiting-** Recruiting for this new position began 10/9/19. The City Administrator is reviewing and scoring applications as they are received. The City Administrator will employ telephone interviews to determine candidates invited to interview in person. Looking at November 7, 8, 21 or 22 for dates to hold interviews. The City Administrator, Lauren Ozburn and Donnie Scharff will serve on the interview panel, we would like two or three others from the Aquatics Committee to participate. Volunteers should be able to committee to attend interviews all day on either the 7<sup>th</sup>, 8<sup>th</sup>, 21<sup>st</sup>, or 22<sup>nd</sup> of November, anticipate 5 to 6 interviews on one of those days. Committee members interested and able to participate will contact the City Administrator.

**I. Adjourned at 6:45 pm**

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**NEXT REGULAR MEETING:**

Date: November 12, 2019      Time: 6:00 PM      Location: Room 6 at the Community Center

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Item Number: Applications/Presentations- A.-2.  
 Committee Meeting 10/21/2019  
 Date:



**City of Roeland Park**  
 Action Item Summary

Date: 10/18/2019  
 Submitted By: Staff  
 Committee/Department: Arts Committee  
 Title: **Arts Advisory Committee Update**  
 Item Type: Report

**Recommendation:**

Mary Schulties will provide an report at the meeting.

**\*Proposed sculpture at R Park.**

AAC's proposed selection for the northeast designated site for artwork in R PARK as indicated in the Master Plan. The work is about 6' tall without plinth or stand; it is made of structural grade steel; it is coated with multi-layers of commercial grade top quality paints, coatings and sealants; it has three kinetic parts; similar works by the artist have withstood hurricane force winds. The Committee intends the work to be mounted on a plinth or stand and surrounded by a landscaped barrier. The cost is around \$5,000 for the work itself and support structures are estimated around \$1,500. Additional items such as shipping, design work, etc. are estimated to bring the total to between \$7,000 to \$7,500.

**\*November Artist Christine Webster**

**\*Lynda Leonard showing at InterUrban ArtHouse**

<https://photos.google.com/share/AF1QipM7K2qVrdBJ4iFN1zR34kjGBq5rG2Wxnq8aZhqc1UZXk5ypV9xDTrj7Oj5VOrQUKQ?key=TIBDWjIFZTY1NGI5cTRWQ2pxeFRoU2dlZ3RkZU5B>

**Details:**

Financial Impact

| Amount of Request:          |                  |
|-----------------------------|------------------|
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

Additional Information

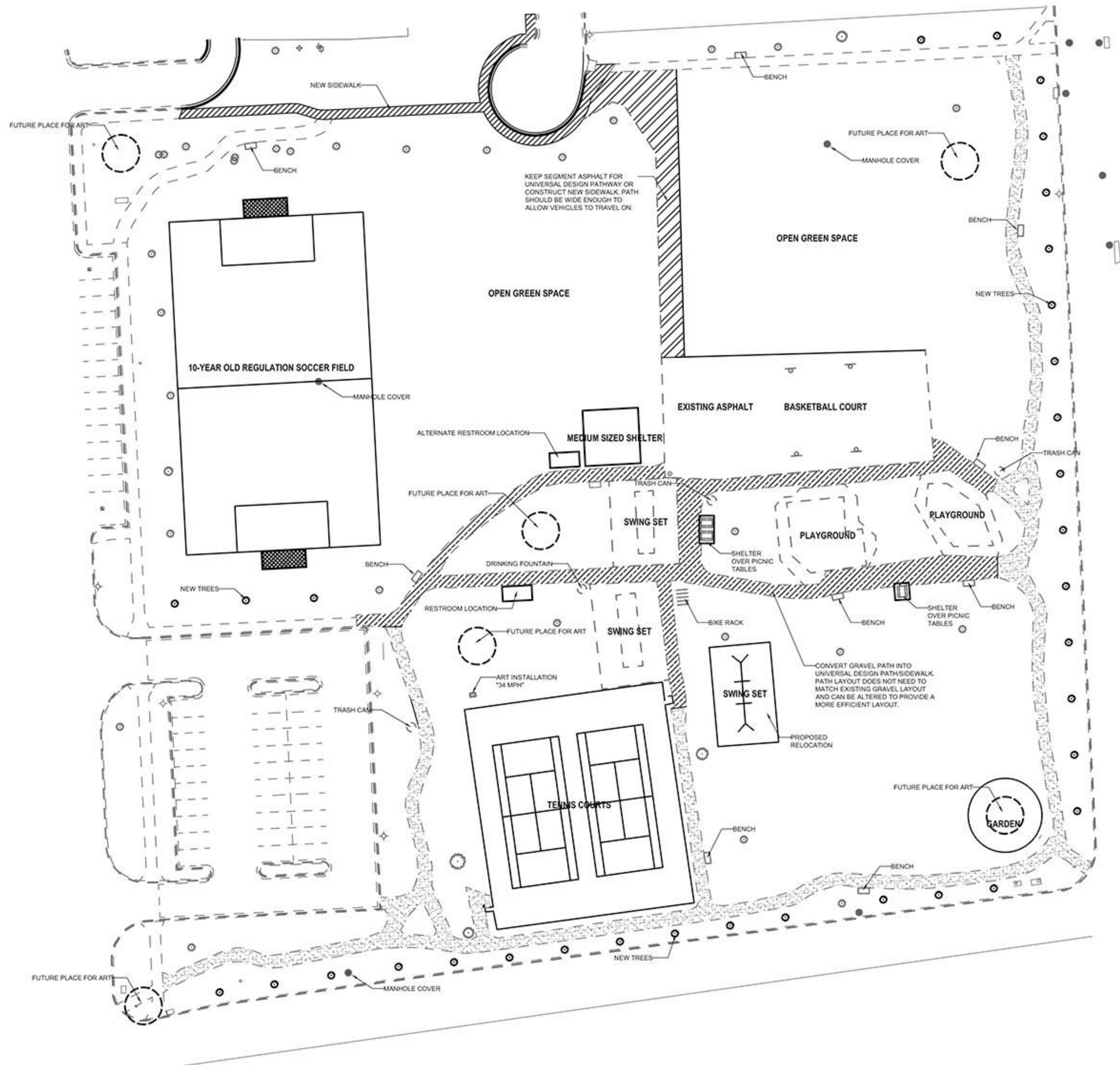
How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                     | Type       |
|-----------------------------------------------------------------|------------|
| <input type="checkbox"/> White yellow blue triple 1920 combined | Cover Memo |
| <input type="checkbox"/> R Park Master Plan                     | Cover Memo |
| <input type="checkbox"/> Christine Webster                      | Cover Memo |
| <input type="checkbox"/> Swedish Ivy                            | Cover Memo |





R Park Master Plan  
 Scale: 1/64" = 1'-0"  
 January 17, 2017







Item Number: Mayor's Report- IV.-A.  
Committee 10/21/2019  
Meeting Date:



**City of Roeland Park**  
Action Item Summary

Date:

Submitted By:

Committee/Department:

Title: **Michael Hickey Proclamation**

Item Type:

**Recommendation:**

**Details:**

Financial Impact

| Amount of Request:          |                  |
|-----------------------------|------------------|
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

Additional Information

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

Description  
Michael Hickey Proclamation

Type  
Cover Memo



Item Number: Reports of City Liaisons- VI.-A.  
Committee 10/21/2019  
Meeting Date:



**City of Roeland Park**  
Action Item Summary

Date:  
Submitted By:  
Committee/Department:  
Title: **Ad-Hoc Development**  
Item Type:

**Recommendation:**

**Minutes attached.**

**Details:**

Financial Impact

| Amount of Request:          |                  |
|-----------------------------|------------------|
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

Additional Information

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                         | Type       |
|---------------------------------------------------------------------|------------|
| <input type="checkbox"/> Ad-Hoc Development Minutes October 3, 2019 | Cover Memo |

# **Roeland Park Ad-Hoc Development Committee**

## **Meeting Minutes**

October 3, 2019

Called to Order at 8:00 AM

**Members Present:** Jim Kelly, Mike Hickey, Tom Madigan, Tyler Curry

**Also Present:** Jan Faidley and Jennifer Jones-Lacy

**Members Absent:** Tim Janssen

Chairman Jim Kelly asked if the committee members had any changes to the meeting minutes from September 5<sup>th</sup>. Nobody had any objections, minutes were approved.

**Northeast RJ Update:** Jennifer Jones-Lacy provided an update on the status of the development which was approved by the Planning Commission on September 17<sup>th</sup>. There was one minor change made to remove the three parking spaces to the north of the trash enclosure on the property, near the Roe Boulevard Entrance. The approvals will go before the Council on October 7<sup>th</sup> during workshop where the developer will provide a powerpoint presentation to the Council. Council would approve the rezoning, preliminary and final development plans on October 21<sup>st</sup> at Council. Jan Faidley asked about the purchase of the single family home to the north of the development. Jennifer explained that progress had slowed on that and the developer isn't sure if that will move forward or not. Right now, they are working with existing site. Deannexation by Mission and subsequent annexation of the land to the south is going before the Mission and Roeland Park City Councils on October 16<sup>th</sup>.

**The Rocks:** Jennifer explained that staff sent information on The Rocks to Mike Belew with CBC who is representing Sunflower Medical Group who indicated he is looking for additional medical office space. She said she explained to him the goals of the site but that the Governing Body would entertain any recommendations. The committee members indicated that perhaps it was okay that The Rocks sat during 2020 since the City will have its hands full with other projects including Roe 2020. After Roe improvements are made, perhaps that site will be more marketable. Jim mentioned maybe that's best and we can hold out for what the Governing Body would really like to see on that site rather than settling for a development that doesn't meet the goals of the community. Jennifer stated that the TIF expires in 2025 for that site.

**47<sup>th</sup> and Mission Road:** Jennifer stated that staff is meeting with Jeff Stehney and Ryan Barrows with Joe's KC in a couple weeks to discuss development of the vacant lot at Mission and 47<sup>th</sup> Street. The City would like to know what it can do to assist in the development so staff is hoping we can move forward with some ideas to get a restaurant/bar on that corner. Jennifer stated that we may want to look at some creative incentive tools to help encourage the type of development we want to see in Roeland Park. She mentioned the Neighborhood Revitalization Program and how that could be used on a site such as this one and provide significant tax abatement opportunities.

Jennifer also provided an update on meetings with Kessinger Hunter Reps who manage the Wal-Mart property and KCATA to discuss a mobility hub at the vacant lot between Taco Republic and Wal-Mart. These discussions are ongoing.

The Chairman adjourned the meeting adjourned at 8:29 a.m.

**Item Number:** New Business- VIII.-A.  
**Committee** 10/21/2019  
**Meeting Date:**



## **City of Roeland Park**

Action Item Summary

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**Date:** 10/7/2019  
**Submitted By:** John Jacobson, Building Official  
**Committee/Department:** Admin.  
**Title:** **Rezoning and Preliminary/Final Development Plan Approval at the northeast corner of Johnson and Roe**  
**Item Type:**

### **Recommendation:**

**To approve the rezoning of the northeast corner of Johnson and Roe from Single Family Residential to Planned Office (CP-O).**

**To approve the Preliminary and Final Development Plans for the northeast corner of Johnson and Roe for Sunflower Medical Group, with the condition that the sum of \$91,563 be paid upon closing for the developer's share of future Granada street and sidewalk improvements.**

### **Details:**

Developers for the property located at the northeast corner of Johnson Drive and Roe Boulevard have submitted applications for a rezoning to a CP-O (Planned Office) district for a medical office building use in the proposed district. The application also includes a preliminary and final development plan. City staff has reviewed the applications to ensure completeness and provided a notice for the public hearing on the property and in the Legal Record.

The property in question is within the City limits of both Roeland Park and Mission. The developer has initiated parallel development applications in both Cities. Mission City Council is currently considering de-annexation of the portion of the property within their City, whereby Roeland Park would then annex that area. The plan is to review and approve the final plat once the de-annexation process is complete. The plat will consist of one lot.

The Planning Commission approved the applications before you after holding a public hearing on

September 17, 2019. The Planning Commission's review considered the entire site (areas in both cities) with the intent that this process need not be completed again should the proposed de-annexation be completed. Below is a description of the project proposal along with a summary of items submitted for review.

### **Request for Rezoning to a CP-O District for a Medical Office Use**

The property is currently zoned Single Family Residential. The CP-O zoning designation is a considerable *down zoning* from the proposed use of MXD contemplated within the City's Comprehensive Plan which anticipated mixed use in this area. The property abuts several parcels zoned and used single family residential. City zoning code does not require a buffer area on Office sites adjacent to residential sites but given the proximity of parking to existing residential land uses, a landscape buffer has been provided.

Sunflower Medical plans to construct a Medical Office Facility (see Attachment A for more information on elevations).

Medical Clinics and Doctors' Offices are permitted uses within the CP-O District. The small size and limited care capacity is more in line with customary "clinic" or "medical office" use. The facility will be used by Sunflower Medical as a family practice/primary care provider with an Urgent Care facility. The upper floor will be leased for complimentary medical use. Tenants are not yet secured, however the developer has indicated they have several promising prospects and expect to have the building fully leased by the time the building starts construction.

### **Preliminary and Final Development Plan**

The developers submitted the preliminary and final development plans concurrently in an effort to expedite the review process. The plans submitted were reviewed by the City Engineer for compliance with the technical specifications and zoning code. The Development Plan includes:

- Site and Building Renderings/Elevations (Attachment K)
- Site Plan (Attachment C)
- Grading/Storm Sewer Plan (Attachment C)
- Stormwater Management Plan (Attachment C)
- Landscaping Plan (Attachment J)
- Photometric Plan (Attachment D)
- Assurances of Adequate Public Utilities (Attachment E)
- Traffic Study (Attachment F)
- Stormwater Study (Attachment H)

All submitted items met or exceeded City requirements.

### **Additional Staff Recommendations and Considerations**

The Landscaping Plan as presented includes a variety of colorful trees that will reforest the site at maturity, as well as shrubs and grasses. The developer has committed to saving as many mature trees as possible. The borders of the property reflect a concentration of landscape and plantings to soften the hardscape of the site. An employee park/relaxation area has been proposed. This will be of like architectural materials as the building.

Per Resolutions 601 and 664, new developments must allocate 1% of total project cost to public art. The developers propose to address this requirement with an outdoor public art display in the south lawn of the property. Staff recommends the applicant meet and discuss ideas and options

for this requirement with the Arts Committee with the understanding that the SW corner of the site will be reserved for addressing this requirement.

The type of signage and dimensions for signage within a "Planned" district (such as this) are dictated by the approved Final Development Plan. The facility is requesting two wall signs and one monument sign. Staff suggested allowing three signs on the building façade or two wall signs and a monument sign on the north end of the property, so any monument sign does not compete with the 1% for art project or proposed Roeland Park signage on the southwest corner of the development.

Surrounding properties are residential in nature so buffering parking has been a focus during the review process. Other potential noise contributors are the mechanical systems used for the facilities. To ensure noise does not become an issue, the performance standards for CP-O require that noise levels not exceed 60 decibels at the property line to protect the surrounding neighborhood.

Staff would like to note that exterior finish materials and architectural design elements have been altered by the applicant during the course of review in an effort to have this site compliment the bank/hospital which bookends this principal gateway for Roeland Park.

The applicant states that the property will be maintained by a 3<sup>rd</sup> party contractor and that such requirements will be documented within HOA agreements or a similar instrument and provided to the City prior to filing the FDP.

### ***Action by the Planning Commission***

The Planning Commission has recommended approval of the Preliminary and Final Development Plans with the following stipulations:

- The SW corner be maintained as the site for City gateway feature
- Fulfilling the 1% for art requirement, with Arts Committee providing input on the final design for this area;
- Allowing two wall signs and one monument sign at the north end of the property so as not to conflict with the gateway features at the south end;
- Extend 8' sidewalk on the south and east side of the site and provide funding for future 5' sidewalk on the Granada frontage; dedicate easement on Granada to accommodate future sidewalk;
- Commit to future Granada street widening improvements, through an appropriate financial instrument. Coordinating widening of Granada with City efforts beyond the border of this site will result in a better finished product.

### ***Street Impact Fee***

The Developer's Engineers, RIC, submitted a revised cost estimate for half of the improvements to Granada that the developer is required to contribute as part of this approval process. Our engineers reviewed and agreed with their estimate of \$91,563 for their portion of the project. The developers have agreed to pay this entire cost upon closing for the property. The cost estimate is attached.

The Council has the option to approve the Planning Commission's recommendations as-is, make amendments to the recommendations with a 2/3<sup>rd</sup> majority approval, or reject the recommendation and send it back to the Planning Commission for further consideration with direction.

Per Sec. 16-324 – Consideration of Preliminary Development Plans – the preliminary development plan shall be considered and approved as part of the rezoning application. The Planning Commission shall consider the factors stated in Sec. 16-321(e) (provided below), to the extent they are pertinent to the particular application, and any other factors which may be relevant to a particular application.

**(1) The character of the neighborhood.**

The character of the neighborhood is residential to the north and commercial to the south, east and west of the site. The limited commercial use allowed in this zoning district is in general conformance with future land use plans and compliant with code restrictions on the proposed use.

**(2) The zoning and uses of nearby properties, and the extent to which the proposed use would be in harmony with the zoning and uses.**

As stated above, the use of the property is a compliant use and provides a service to the community in harmony with surrounding land use patterns.

**(3) The suitability of the property for the uses to which it has been restricted under the applicable zoning district regulations.**

The property is vacant currently and has existing utilities on the site. The site has access to multiple streets including commercial arterials of Johnson Drive and Roe Boulevard. Ingress/egress as well as traffic volumes are supported by the traffic study

**(4) The length of time the property has remained vacant as zoned.**

The area has been vacant for approximately sixteen (16) years.

**(5) The extent to which approval of the application would detrimentally affect nearby properties.**

The requested zoning change is consistent with other land uses fronting on Johnson Drive and Roe Boulevard. A medical office use is considered to have limited opportunity for detrimental impact as operations do not offend the senses and occur during the day when residents are at work. No detrimental effects to surrounding properties have been shown in any of the respective studies.

**(6) The extent to which the proposed use would substantially harm the value of nearby properties.**

No reduction in property values is anticipated as a result of this development, it is likely the development will enhance the value of neighboring properties.

**(7) The extent to which the proposed use would adversely affect the capacity or safety of that portion of the road network influenced by the use, or present parking problems in the vicinity of the property.**

Traffic studies on the site and adjoining sites do not indicate that an additional adverse condition will occur as a result of this development. Further, funding for improvements to Granada are being secured as a result of this development. No on street parking is permitted or planned to be permitted on any of the streets adjacent to the site and the site reflects more than 4 spaces per 1,000 square feet which in excess of the standard prescribed for this use with in the City code.

**(8) The extent to which utilities and services, including but not limited to, sewers, water**

**service, police and fire protection, and parks and recreation facilities are available and adequate to serve the proposed use.**

All utilities are currently on site and "will serve" letters have been received from each utility. Pedestrian connectivity and sidewalk installation will be improved by the development. The site has been reviewed by FD #2 for accessibility of existing fire apparatus and found to be compliant.

**(9) The extent to which the proposed use would create excessive storm water runoff, air pollution, water pollution, noise pollution or other environmental harm.**

Stormwater runoff has been addressed through stormwater BMPs and underground detention. Extensive landscaping including a rain garden are employed to address surface runoff per the drainage study. Noise levels have been addressed by limiting the noise level at property line to 60DB post development as required by the district.

**(10) The extent to which there is a need for the use in the community.**

Medical uses of this type are necessary in every community.

**(11) The economic impact of the proposed use on the community.**

The proposed use will diversify employment opportunities in the community by creating professional, skilled medical jobs.

**(12) The ability of the applicant to satisfy any requirements applicable to the specific use imposed pursuant to this chapter.**

The ability to satisfy the requirements of this chapter have been completed through site studies and subsequent financial agreement relative to public improvement installation.

**(13) The gain, if any, to the public health, safety and welfare due to denial of the application as compared to the hardship imposed upon the landowner, if any, as a result of denial of the application.**

The development increases levels of services in the community, creates jobs, improves infrastructure and provides a commercial gateway for the community. Denial of the application would negate any of these improvements and the land would remain undeveloped as development occurs around it.

**(14) The conformance of the proposed use to the comprehensive plan and other adopted planning policies.**

The proposed use is far more restrictive than the mixed use or MXD district called out in the comprehensive plan. Substantially less traffic, less impact to utilities and less opportunity for commercial operations to conflict with the single-family homes in the neighborhood while at the same time achieving a commercial use appropriate to this highly visible and well connected intersection.

**(15) The recommendation of professional staff.**

The recommendations of professional staff have been outlined in this report and to the maximum extent possible, to address planning commission consideration items.

**The Planning Commission shall consider the following additional factors:**

**(1) The capacity of the site to accommodate the building(s), parking and drives, with appropriate open space and safe and easy ingress and egress;**



These elements have been addressed via the FDP with layout and design supported by respective studies. Ingress and egress of patrons as well as, emergency vehicles have been weighed via several studies as noted in this report.

**(2) The degree of harmony between the architectural quality of the proposed building(s) and the surrounding neighborhood;**

The current submittal is a reflection of staff and elected official comments and further, reflects a continuity of design with surrounding development and established goals/vision of the community.

**(3) The appropriateness of the minimum dimensions, areas of lots and yards and setbacks contained in the applicable zoning district regulations;**

The plan is compliant with setback requirements, parking area, intensity of use elements, landscaping requirements and all elements required for this type of use.

**(4) The consistency of the plan with good land planning and site engineering design principles; and**

Vehicular connection, pedestrian interconnections and use of stormwater BMPs incorporated into the site are all based upon good planning and engineering principles.

**(5) Compliance with all other applicable provisions of Chapter XVI – Zoning and Subdivision Regulations.**

The submittal is compliant with all elements of the subdivision regulation.

Per Sec. 16-328 – Consideration of Final Development Plans, the Planning Commission shall approve final development plans that contain no modifications or additions from the approved preliminary development plan—which in this case, there is no such modification or addition—if the Planning Commission determines that the landscaping and screening plan complies all applicable Code requirements and the factors set forth in Sec. 16-320(e) – Concept Plans—Submission Requirements, Contents:

- (1) A plot plan evidencing the location of the property, adjacent streets, the zoning designation of the subject property and adjacent properties within 300 feet, and generally where all proposed buildings and parking areas are to be located;
- (2) Preliminary estimate of the total square footage of buildings proposed;
- (3) Site photos;
- (4) Name, address and phone number of the property owner;
- (5) Date and signature of applicant, who, if not the owner, shall provide legally sufficient evidence that the applicant is the authorized agent of the owner;
- (6) A narrative statement of what the applicant proposes to develop on the property; and
- (7) Evidence, satisfactory to the City Engineer, of the applicant's ability to comply with the adequate public facilities and services requirements of Section 16-305.

### Financial Impact

|                             |                  |
|-----------------------------|------------------|
| Amount of Request:          |                  |
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

## Additional Information

### Summary of Attachments:

Attachment A – Applications for Rezoning & Development Plans  
Attachment B – Preliminary Development Plan  
Attachment C - Final Development Plan  
Attachment D – Photometric Plan  
Attachment E – Assurances of Adequate Public Utilities  
Attachment F – Traffic Study  
Attachment G – Traffic Study Response to Staff Comments  
Attachment H – Stormwater Study  
Attachment I – Staff Comments to Initial Submission/Developer Responses  
Attachment J – Landscape Plan  
Attachment K - Elevations

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

### ATTACHMENTS:

| Description                                                    | Type       |
|----------------------------------------------------------------|------------|
| Attachment A - Applications for Rezoning and Development Plans | Cover Memo |
| Attachment B - Preliminary Development Plan                    | Cover Memo |
| Attachment C - Final Development Plan                          | Cover Memo |
| Attachment D - Photometric Plan                                | Cover Memo |
| Attachment E - Assurance of Public Utilities                   | Cover Memo |
| Attachment F - Traffic Study                                   | Cover Memo |
| Attachment G - Comments/Responses to Traffic Study             | Cover Memo |
| Attachment H - Stormwater Study                                | Cover Memo |
| Attachment I - Staff Comments/Responses to initial submission  | Cover Memo |
| Attachment J - Landscape Plan                                  | Cover Memo |
| Attachment K - Elevations                                      | Cover Memo |
| Cost estimate for Granada Street Improvements                  | Cover Memo |

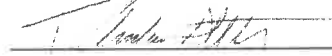


**REZONING CHECKLIST [CODE 16-317]**Date Submitted 08/07/19Name of Project Johnson & Roe Medical Office Building

Case # \_\_\_\_\_

Description/Type of Project: Medical Office Building

I, Andy Gabbert, (Contact Person's Name - Printed), hereby certify the attached and completed application contains the information as specified in accordance with the Roeland Park City Code. I understand the submission of incomplete or inaccurate information may result in a delay in processing and action on this application.



Signature of Contact Person

08/07/19

Date

NOTE: Some plans, because of their scale and complexity may require additional information not indicated on this checklist. You are encouraged to work closely with the Staff in advance of your actual application submittal. Please submit **ONLY THOSE DRAWINGS** necessary to provide information required by this checklist. Submission of construction drawing's or other nonessential drawings may delay the review process. Please check appropriate boxes (I = Included or N/I = Not Included) as the form is completed.

The following items shall be submitted in support of any application for rezoning:

☐ I ☐ N/I

1. Legal description of the property;
2. A statement of the reasons why rezoning is being requested;
3. ~~The written comments of the Redevelopment Committee on the concept plan, if applicable pursuant to section 16-322;~~
4. A preliminary development plan, except for rezonings to a Single-Family Residence District and Duplex Residence District;
5. All studies as may reasonably be required pursuant to section 16-304;
6. Assurances of adequate public facilities as required by section 16-305.

## Legal Description – Johnson & Roe MOB

All of Lots 1 thru 4 and Lots 24 thru 26, ROSELAND COURT, and all that part of the NE 1/4 of Section 9, Township 12, Range 25, all in the City of Roeland Park, Johnson County, Kansas, more particularly described as follows:

Commencing at the Northwest corner of the NE 1/4 of said Section 09; thence S 1° 55' 22" E, along the West line of said NE 1/4, a distance of 1222.46 feet, to a point on the Westerly extension of the North line of said Lot 4; thence N 87° 16' 50" E, along the North line of the Westerly extension of said Lot 4, a distance of 40.00 feet, to the Point of Beginning; thence continuing N 87° 16' 50" E, along the North line of said Lot 4, a distance of 137.74 feet, to the Northeast corner of said Lot 4; thence S 1° 55' 37" E, along the East line of said Lot 4, a distance of 60.00 feet, to the Southeast corner of said Lot 4; thence N 87° 16' 50" E, along the North line of said Lot 24, a distance of 138.39 feet, to the Northeast corner of said Lot 24; thence S 1° 55' 37" E, along said West right of way line of Granada Lane (Platted as Walnut Street), as now established a distance of 130.27 feet, to a point of curvature; thence Southeasterly along a curve to the left having a radius of 80.00 feet, a central angle of 110° 07' 28", an arc distance of 153.76 feet; thence N 67° 56' 55" E, along said South right of way line, a distance of 75.47 feet, to a point on the East line of ROSELAND COURT; thence S 1° 55' 37" E, along the Southerly extension of the East line of said ROSELAND COURT, a distance of 90.54 feet; thence Southwesterly along a curve to the right having an initial tangent bearing of S 59° 37' 01" W, a radius of 475.00 feet, a central angle of 28° 29' 02", an arc distance of 236.14 feet, to a point of tangency; thence S 88° 06' 03" W, a distance of 193.98 feet (193.42 feet Deed), to a point of curvature; thence Northwesterly along a curve to the right having a radius of 34.00 feet, a central angle of 89° 58' 35", an arc distance of 53.39 feet, to a point on the East line Roe Boulevard, as established on said plat of ROSELAND COURT; thence N 1° 55' 22" W, along the West line of said NE 1/4, a distance of 349.43 feet, to the Point of Beginning, as described in Survey by McClure Engineering Co. dated April 12, 2019 as Project No. 190349.

Fee: \_\_\_\_\_  
Rec'd By \_\_\_\_\_  
Date Paid \_\_\_\_\_

**APPLICATION FOR  
DEVELOPMENT PLAN APPROVAL**  
**City of Roeland Park, Kansas**  
PLEASE PRINT

Case No.: \_\_\_\_\_  
Planning Commission  
Date \_\_\_\_\_

**Requested Action:**

- |                                                                                          | <u>Fee</u> |
|------------------------------------------------------------------------------------------|------------|
| <input checked="" type="checkbox"/> Preliminary Development Plan                         | \$150.00   |
| <input type="checkbox"/> Revised Preliminary Development Plan                            | \$100.00   |
| <input type="checkbox"/> Final Development Plan                                          | \$200.00   |
| <input type="checkbox"/> Revised Final Development Plan                                  | \$200.00   |
| <input type="checkbox"/> Landscaping Plan                                                | \$125.00   |
| <input type="checkbox"/> Site Plan (non-residential development in residential district) | \$150.00   |

Name of Development: Johnson & Roe Medical Office Building

Location: NE Corner of Johnson & Roe

Range 25E Township 12S Section: 09 Quadrant NE

Existing Zoning: SFR

Present use of Property: Vacant

Is Property subject to rezoning? ☒ Yes ☐ No

Is Property subject to Special Use Permit? Yes ☐ ☒ No

Applicant: SMG Investements, LLC

Address: 5555 W. 58th St

Phone: 913.333.3880

City: Mission

State: KS

Zip: 66202

Property Owner: Same as Applicant

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Engineer/Surveyor/Architect: Renaissance Infrastructure Consulting - Andy Gabbert

Address: 5105 NW Canal St.

Phone: 913.333.3880

City: Riverside

State: MO

Zip: 64150

\* Applicant signature *[Signature]*



Date 8-6-19

**To be completed by the City:**

Fee Paid \$ \_\_\_\_\_

Date \_\_\_\_\_

Received by: \_\_\_\_\_

Proof of ownership and/or authorization of agent affidavit(s) submitted. Date: \_\_\_\_\_

☐ Rezoning Case No. \_\_\_\_\_

☐ Special Use Permit No. \_\_\_\_\_

☐ Previous Plan Approval: \_\_\_\_\_

☐ City Engineer review and comment submitted

Technical studies required? ☐ Yes ☐ No If yes, what type and when submitted? \_\_\_\_\_

Assurances of adequate public facilities received. ☐ Yes ☐ No If yes, date received \_\_\_\_\_

Supporting materials required: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Date application deemed complete: \_\_\_\_\_

Surrounding property owners notified: \_\_\_\_\_

Date of publication: \_\_\_\_\_

Sign Posted \_\_\_\_\_

Date notices sent: \_\_\_\_\_

Public Hearing date: \_\_\_\_\_

Planning Commission recommendation: \_\_\_\_\_

Date: \_\_\_\_\_

City Council Action: \_\_\_\_\_

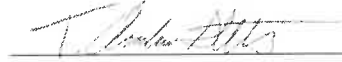
Date: \_\_\_\_\_

**PRELIMINARY DEVELOPMENT PLANS CHECKLIST [CODE 16-323]**Date Submitted 08/07/19Name of Project Johnson & Roe Medical Office Building

Case # \_\_\_\_\_

Description/Type of Project: Medical Office Building

I, Andy Gabbert, (Contact Person's Name - Printed), hereby certify the attached and completed application contains the information as specified in accordance with the Roeland Park City Code. I understand the submission of incomplete or inaccurate information may result in a delay in processing and action on this application.



Signature of Contact Person

08/07/19

Date

NOTE: Some plans, because of their scale and complexity may require additional information not indicated on this checklist. You are encouraged to work closely with the Staff in advance of your actual application submittal. Please submit **ONLY THOSE DRAWINGS** necessary to provide information required by this checklist. Submission of construction drawings or other nonessential drawings may delay the review process. Please check appropriate boxes (I = Included or N/I = Not Included) as the form is completed.

☒ I ☐ N/I

1. Application form
2. Eight copies of the preliminary site development plan that must include the following information:

☒ I ☐ N/I **GENERAL INFORMATION**

- a. North arrow;
- b. Scale;
- c. Date of plan preparation;
- d. Name and address of landowner.

☒ I ☐ N/I **SITE DEVELOPMENT**

- a. Location and dimension of buildings and other structures;
- b. Location and dimensions of parking areas;
- c. Location and dimensions of drives and walks;
- d. Location and dimension of public streets and all easements;
- e. General extent and character of proposed landscaping and screening;
- f. Proposed drainage patterns.
- g. Adjacent development (property within 200 feet) including lot lines, building footprints, access points and parking areas;
- h. Existing topography with contours at 5-foot intervals, and delineating any land areas within the 100-year flood plain;
- i. Location and size of any drainage structures, such as culverts, paved or earthen ditches or storm water sewers and inlets;
- j. Preliminary sketch drawings of elevations and floor plans depicting the general style, size and exterior construction materials of the buildings.

☒ I ☐ N/I **ADDITIONAL INFORMATION**

- a. Schedule indicating total floor area and land area;
- b. Parking Schedule showing the number of space provided and required for all existing buildings, and all spaces required for proposed buildings;
- c. Name and address of architect, landscape architect, planner, engineer, surveyor, or other person involved in the preparation of the plan.

3. All required studies pursuant to section 16-304.

☒ I ☐ N/I **TECHNICAL STUDIES**

- a. Traffic Study;
- ~~b. Parking Study;~~
- c. Lighting Study;
- d. Drainage Study;
- ~~e. Geo-technical Study;~~
- ~~f. Other (specify) \_\_\_\_\_~~

4. Assurances of adequate public facilities as required by section 16-305.
5. Assurances of proof of ownership and/or authorization of agent as required by section 16-302.



# PROOF OF OWNERSHIP AFFIDAVIT

STATE OF KANSAS )  
COUNTY OF JOHNSON ) SS

\_\_\_\_\_, being first duly sworn upon his/her oath deposes and states as follows:

✱ (1)

[FILL IN ONLY IF APPLICATION SUBMITTED ON BEHALF OF THE LEGAL OWNER]

That Wette Crabtree, managing partner, SM6 Investments LLC  
(Name of owner signing Affidavit; if owner is a corporation or business, name of individual signing Affidavit, capacity and exact name and legal status of said corporation or business) is/are the legal owner/authorized official of the legal owner of the property that is the subject of Rezoning No. \_\_\_\_  
\_\_\_\_/Special Use Permit No. \_\_\_\_/(Other) \_\_\_\_\_. (ALL OWNERS OF RECORD MUST FILE AN AFFIDAVIT).

(2)

[FILL IN ONLY IF APPLICATION SUBMITTED ON BEHALF OF A CONTRACT PURCHASER]

That \_\_\_\_\_  
(Name of contract purchaser signing Affidavit; if a corporation or business, exact name and legal status of said corporation or business) is the holder of a contract to purchase the property that is the subject of Rezoning No. \_\_\_\_ / Special Use Permit No. \_\_\_\_ /  
(Other) \_\_\_\_\_ from the owner(s) and is therefore a "landowner" within the meaning of the Zoning Regulations.



Signature

✱ Subscribed and sworn to before me this 6 day of August, 2000.

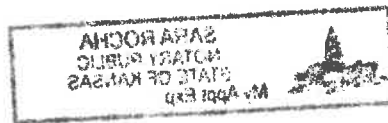
SARA ROCHA  
Notary Public

My commission expires:

1/27/21







Fee: \_\_\_\_\_  
 Rec'd By: \_\_\_\_\_  
 Date Paid: \_\_\_\_\_

**APPLICATION FOR  
 DEVELOPMENT PLAN APPROVAL**  
**City of Roeland Park, Kansas**  
 PLEASE PRINT

Case No.: \_\_\_\_\_  
 Planning Commission  
 Date: \_\_\_\_\_

**Requested Action:**

- |                                                                                          | <b>Fee</b> |
|------------------------------------------------------------------------------------------|------------|
| <input type="checkbox"/> Preliminary Development Plan                                    | \$150.00   |
| <input type="checkbox"/> Revised Preliminary Development Plan                            | \$100.00   |
| <input checked="" type="checkbox"/> Final Development Plan                               | \$200.00   |
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| <input type="checkbox"/> Landscaping Plan                                                | \$125.00   |
| <input type="checkbox"/> Site Plan (non-residential development in residential district) | \$150.00   |

Name of Development: Johnson & Roe Medical Office Building

Location: NE Corner of Johnson & Roe

Range 25E Township 12S Section: 09 Quadrant NE

Existing Zoning: SFR Present use of Property: Vacant

Is Property subject to rezoning? Yes No

Is Property subject to Special Use Permit? Yes No

Applicant: SMG Investements, LLC

Address: 5555 W. 58th St Phone: 913.333.3880

City: Mission State: KS Zip: 66202

Property Owner: Same as Applicant

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Engineer/Surveyor/Architect: Renaissance Infrastructure Consulting - Andy Gabbert

Address: 5105 NW Canal St. Phone: 913.333.3880

City: Riverside State: MO Zip: 64150

\* Applicant signature *Y. Gabbert* \* Date 8-6-09

**To be completed by the City:** Fee Paid \$ \_\_\_\_\_ Date \_\_\_\_\_ Received by: \_\_\_\_\_

Proof of ownership and/or authorization of agent affidavit(s) submitted. Date: \_\_\_\_\_

☐ Rezoning Case No. \_\_\_\_\_ ☐ Special Use Permit No. \_\_\_\_\_ ☐ Previous Plan Approval: \_\_\_\_\_

☐ City Engineer review and comment submitted

Technical studies required? ☐ Yes ☐ No If yes, what type and when submitted? \_\_\_\_\_

Assurances of adequate public facilities received. ☐ Yes ☐ No If yes, date received \_\_\_\_\_

Supporting materials required: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

Date application deemed complete: \_\_\_\_\_

Surrounding property owners notified: \_\_\_\_\_

Date of publication: \_\_\_\_\_ Sign Posted \_\_\_\_\_

Date notices sent: \_\_\_\_\_

Public Hearing date: \_\_\_\_\_

Planning Commission recommendation: \_\_\_\_\_

Date: \_\_\_\_\_

City Council Action: \_\_\_\_\_

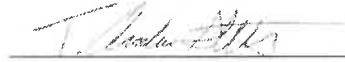
Date: \_\_\_\_\_

**FINAL DEVELOPMENT PLANS CHECKLIST [CODE 16-327]**Date Submitted 08/07/19Name of Project Johnson & Roe Medical Office Building

Case # \_\_\_\_\_

Description/Type of Project: Medical Office Building

I, Andy Gabbert, (Contact Person's Name - Printed), hereby certify the attached and completed application contains the information as specified in accordance with the Roeland Park City Code, I understand the submission of incomplete or inaccurate information may result in a delay in processing and action on this application.



Signature of Contact Person

08/07/19

Date

NOTE: Some plans, because of their scale and complexity may require additional information not indicated on this checklist. You are encouraged to work closely with the Staff in advance of your actual application submittal. Please submit **ONLY THOSE DRAWINGS** necessary to provide information required by this checklist. Submission of construction drawing's or other nonessential drawings may delay the review process. Please check appropriate boxes (I = Included or N/I = Not Included) as the form is completed.

☒ I ☐ N/I

1. Application form.
2. Eight copies of the preliminary site development plan to be drawn to a standard engineer's scale. The actual scale used will depend on the development and shall be subject to the approval of the city engineer. The plans must include the following information:

☒ I ☐ N/I **GENERAL INFORMATION**

- a. North arrow;
- b. Scale;
- c. Date of plan preparation;
- d. Name and address of landowner;
- e. A small key map indicating the location of the property within the City.

☒ I ☐ N/I **SITE DEVELOPMENT**

- a. All existing and proposed adjacent public street right-of-way with centerline location;
- b. All existing and proposed adjacent public street and public drive locations, widths, curb cuts and radii;
- c. Location, width and limits of all existing and proposed sidewalks;
- d. Location, size and radii of all existing and proposed median breaks and turning lanes;
- e. Distance between all buildings. between buildings and property lines and between all parking areas and property lines;
- f. Location of all required building. and parking set backs;
- g. Location, dimensions, number of stories and area in square feet of all proposed buildings;
- h. Area of land on site plan in square feet or acres.

☒ I ☐ N/I **PARKING**

- a. Location and dimensions of all driveways;
- b. Location and dimensions of all parking lots;
- c. Location and dimensions of all parking stalls and aisles;
- d. Location and dimensions of all loading and service areas and docks;
- e. Location, height, candle power and type of outside lighting fixtures for parking lots.

☒ I ☐ N/I **LANDSCAPE AND SCREENING**

- a. Location, size and materials to be used for all screening, including screening of outside trash enclosure areas.

☒ I ☐ N/I **GRADING AND DRAINAGE DESIGN PLAN**

- a. Finished grades or contours for the entire site at 2 foot contour intervals;
- b. Limits, location, size and material to be used in all proposed retaining walls;

☒ I ☐ N/I **ADDITIONAL INFORMATION**

- a. Location, height, candle power and type of outside lighting fixtures for buildings;
- b. Location, size, type of material and message of all proposed monument or detached signs;
- c. Pertinent peripheral information to include adjacent developments, alignment and location of public and private driveways and streets, medians, public and semi-public easements

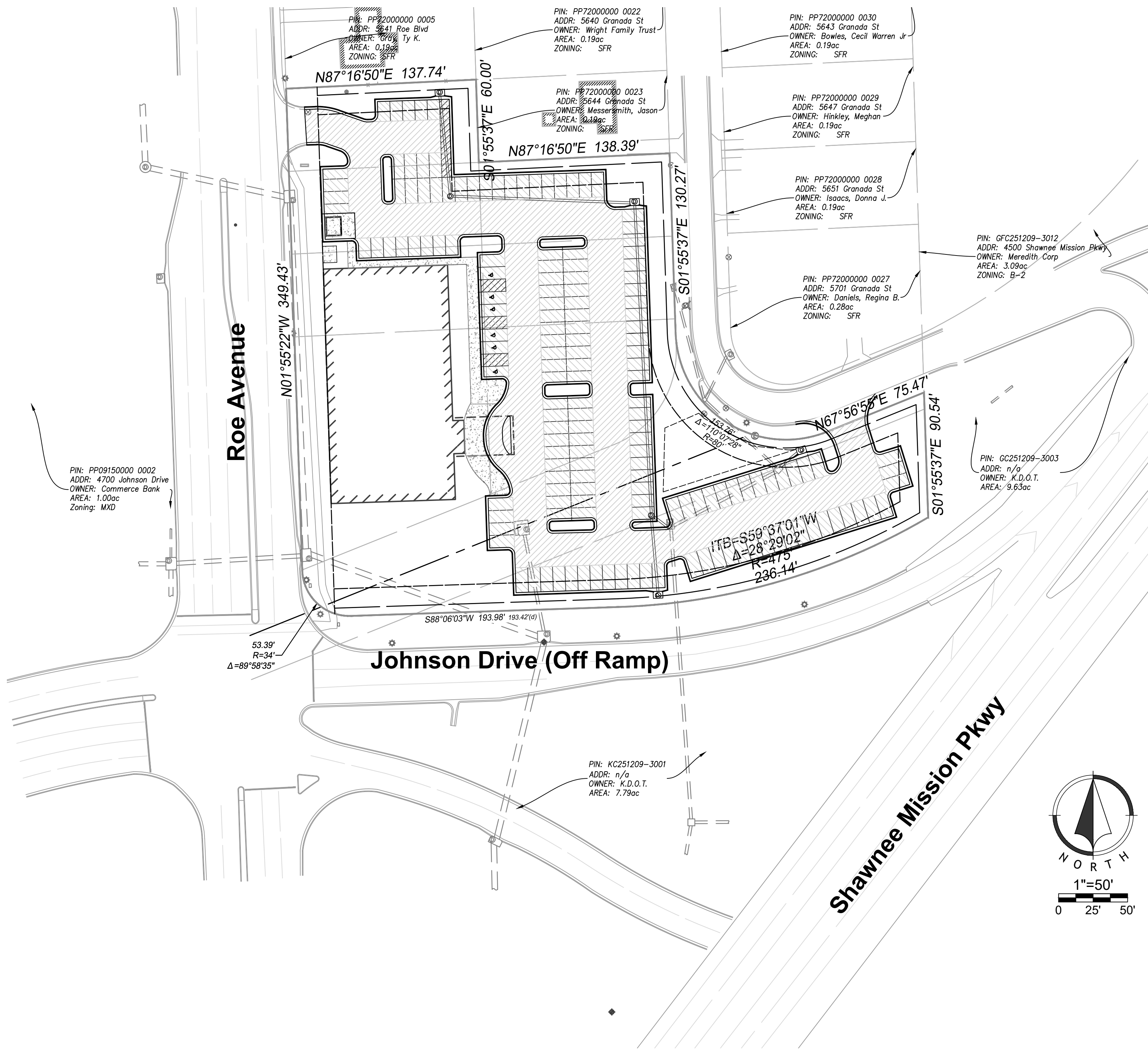
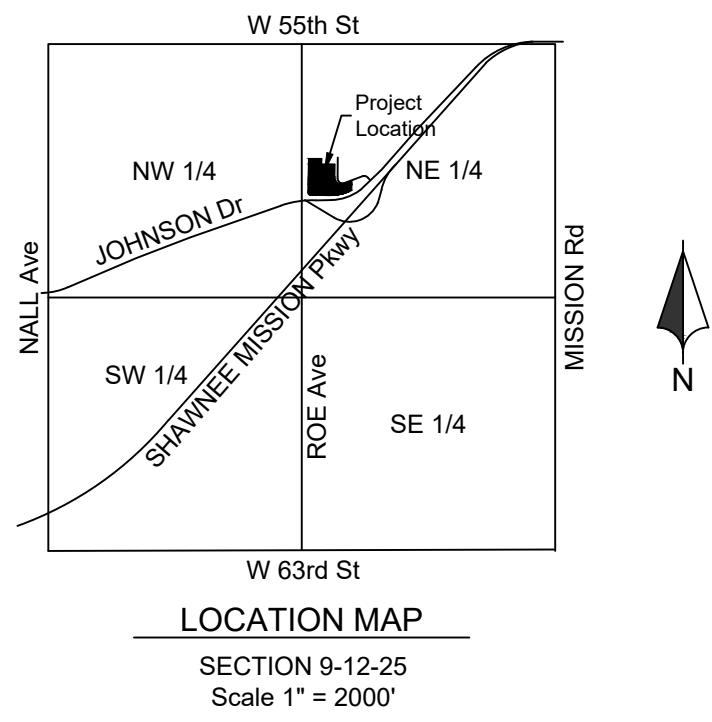
☒ I ☐ N/I

One copy of the proposed site plan and one copy of the proposed building elevations shall be reduced onto 8-1/2

1. inch by 11 inch bond paper.
2. Assurances of adequate public facilities as required by section 16-305.
3. Proof of filing of the statement required by section 16-325 (a).
4. ~~Deeds of dedication for all rights-of-way or easements required as a result of preliminary development plan approval if conveyance thereof is not to be made by plat or by the filing of the final development plan pursuant to Section 16-329.~~
5. ~~A copy of all covenants and restrictions applicable to the development, if required by the terms of the preliminary development plan.~~
6. ~~Evidence of the establishment of the agency for the ownership and maintenance of any common open space and all assurances of the financial and administrative ability of such agency required pursuant to approval of the preliminary development plan, if required by the terms of the approved preliminary development plan.~~
7. ~~Evidence of satisfaction of any stipulations of the preliminary development plan approval which were conditions precedent to consideration of the final development plan.~~



PRELIMINARY DEVELOPMENT PLANS for  
**Johnson & Roe Medical Office Building**  
City of Roeland Park, Johnson County, Kansas



Index of Sheets

|            |                              |
|------------|------------------------------|
| C01.....   | TITLE SHEET                  |
| C02.....   | EXISTING CONDITIONS          |
| C03.....   | GENERAL LAYOUT PLAN          |
| C04.....   | SITE DIMENSION PLAN          |
| C05.....   | UTILITY PLAN                 |
| L01.....   | LANDSCAPE ARCHITECTURE PLANS |
| A2.1.....  | BUILDING FOOTPRINT           |
| A5.1.....  | EXTERIOR ELEVATIONS          |
| LP101..... | PHOTOMETRIC SITE PLANS       |

PRELIMINARY,  
NOT FOR  
CONSTRUCTION,  
RECORDING  
PURPOSES, OR  
IMPLEMENTATION  
8/6/2019 8:04:22 AM



1710 Wyandotte  
Kansas City, MO 64108  
T: 816.763.9600

ACI/Boland, Inc.  
Kansas City | St. Louis  
Licensee's Certificate of Authority Number:

**CIVIL CONSULTANT**

Renaissance Infrastructure Consulting  
132 Abbie Ave.  
Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

**STRUCTURAL CONSULTANT**

Bob D. Campbell  
4338 Bellevue  
Kansas City, Missouri  
Licensee's Certificate of Authority Number:

Phone Number: 816-531-4144

**MEP CONSULTANT**

Smith & Boucher Engineers  
25501 Valley Parkway, Suite 200  
Olathe, Kansas  
Licensee's Certificate of Authority Number:

Phone Number: 913-345-2127

**LANDSCAPE CONSULTANT**

Renaissance Infrastructure Consulting  
132 Abbie Ave.  
Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

Johnson & Roe Medical Office Building  
Roe & Johnson Drive | Roeland Park, KS

**APPLICANT/DEVELOPER**

SMG Investments, LLC  
5555 W 58th St, Mission, KS 66202  
(913) 432-2080

**CONSULTANT**

Renaissance Infrastructure Consulting  
ric-consult.com | 816.800.0950  
Attn: Dustin Burton, PE  
dburton@ric-consult.com  
1815 McGee Street, Suite 200  
Kansas City, MO 64108

**LEGEND**

|                                 |                           |
|---------------------------------|---------------------------|
| Existing Section Line           | Proposed Right-of-Way     |
| Existing Right-of-Way Line      | Proposed Property Line    |
| Existing Lot Line               | Proposed Lot Line         |
| Existing Easement Line          | U/E Proposed Easement     |
| Existing Curb & Gutter          | Proposed Curb & Gutter    |
| Existing Sidewalk               | Proposed Sidewalk         |
| Existing Storm Sewer            | Proposed Storm Sewer      |
| Existing Storm Structure        | Proposed Storm Structure  |
| Existing Waterline              | Proposed Fire Hydrant     |
| Existing Gas Main               | Proposed Waterline        |
| Existing Sanitary Sewer         | Proposed Sanitary Sewer   |
| Existing Sanitary Manhole       | Proposed Sanitary Manhole |
| Existing Contour Major          | Proposed Contour Major    |
| Existing Contour Minor          | Proposed Contour Minor    |
| Existing Underground Power Line | Future Curb and Gutter    |



|            |              |
|------------|--------------|
| Date       | Aug 07, 2019 |
| Job Number | 19-0143      |
| Drawn By   | FB           |
| Checked By | DJB          |

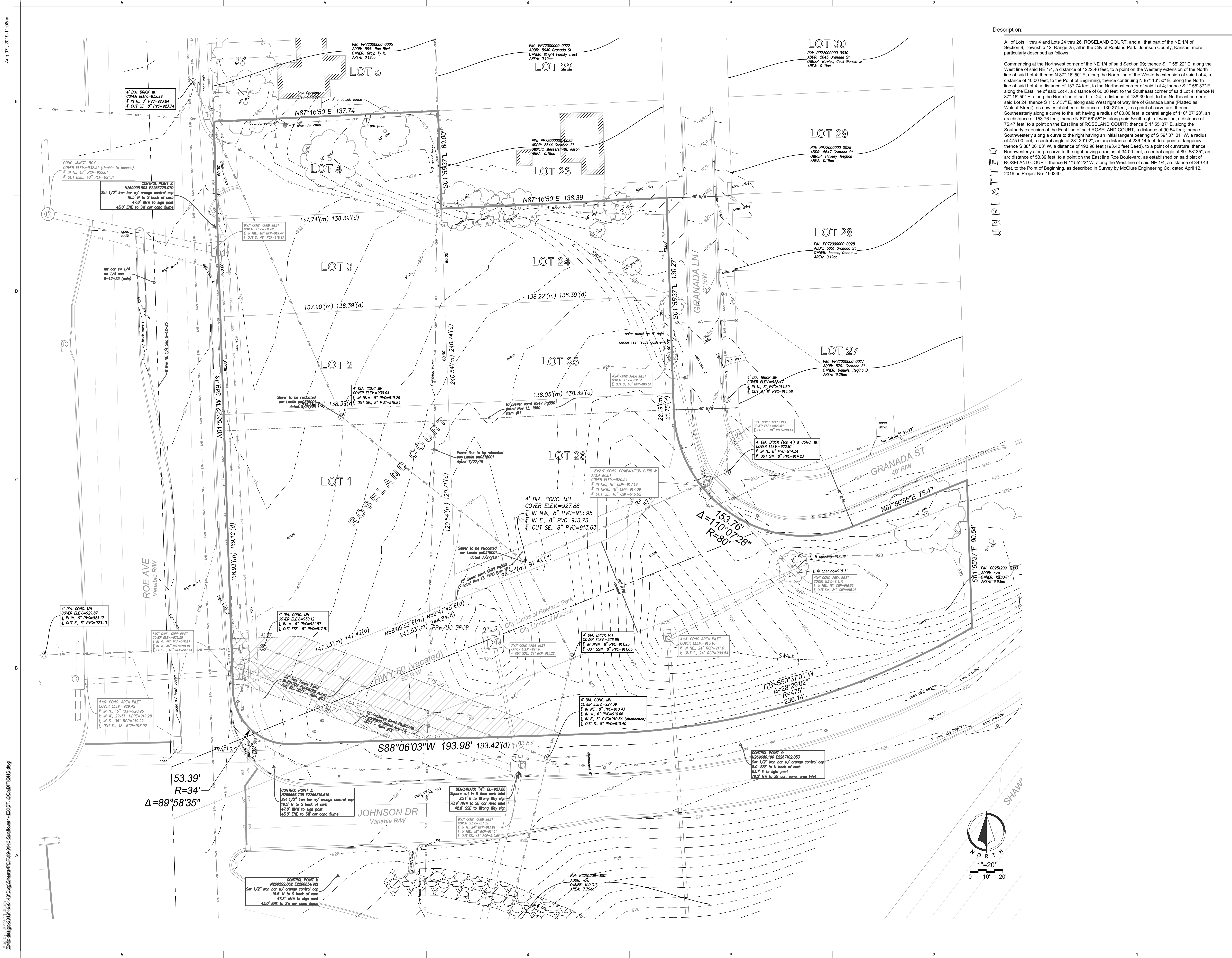
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| Revision |          |                    |
| Number   | Date     | Description        |
|          | 08/06/19 | Original Submittal |

C01



Aug 07, 2019 8:11:08am

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Description:  
All of Lots 1 thru 4 and Lots 24 thru 26, ROSELAND COURT, and all that part of the NE 1/4 of Section 9, Township 12, Range 25, all in the City of Roeland Park, Johnson County, Kansas, more particularly described as follows:  
Commencing at the Northwest corner of the NE 1/4 of said Section 09; thence S 1° 55' 22" E, along the West line of said NE 1/4, a distance of 1222.46 feet, to a point on the Westerly extension of the North line of said Lot 4; thence N 87° 16' 50" E, along the North line of the Westerly extension of said Lot 4, a distance of 40.00 feet, to the Point of Beginning; thence continuing N 87° 16' 50" E, along the North line of said Lot 4, a distance of 137.74 feet, to the Northeast corner of said Lot 4; thence S 1° 55' 37" E, along the East line of said Lot 4, a distance of 60.00 feet, to the Southeast corner of said Lot 4; thence N 87° 16' 50" E, along the North line of said Lot 24, a distance of 138.39 feet, to the Northeast corner of said Lot 24; thence S 1° 55' 37" E, along said West right of way line of Granada Lane (Platted as Walnut Street), as now established a distance of 130.27 feet, to a point of tangency; thence Southeastly along a curve to the left having a radius of 80.00 feet, a central angle of 110° 07' 28", an arc distance of 153.76 feet; thence N 67° 56' 55" E, along said South right of way line, a distance of 75.47 feet, to a point on the East line of ROSELAND COURT; thence S 1° 55' 37" E, along the Southern extension of the East line of said ROSELAND COURT, a distance of 90.54 feet; thence Southwesterly along a curve to the right having an initial tangent bearing of S 59° 37' 01" W, a radius of 475.00 feet, a central angle of 28° 29' 02", an arc distance of 236.14 feet, to a point of tangency; thence S 88° 06' 03" W, a distance of 193.98 feet (193.42 feet Dosed), to a point of curvature; thence Northwesterly along a curve to the right having a radius of 34.00 feet, a central angle of 88° 58' 35", an arc distance of 53.39 feet, to a point on the East line Roe Boulevard, as established on said plat of ROSELAND COURT; thence N 1° 55' 22" W, along the West line of said NE 1/4, a distance of 349.43 feet, to the Point of Beginning, as described in Survey by McClure Engineering Co. dated April 12, 2019 as Project No. 190349.

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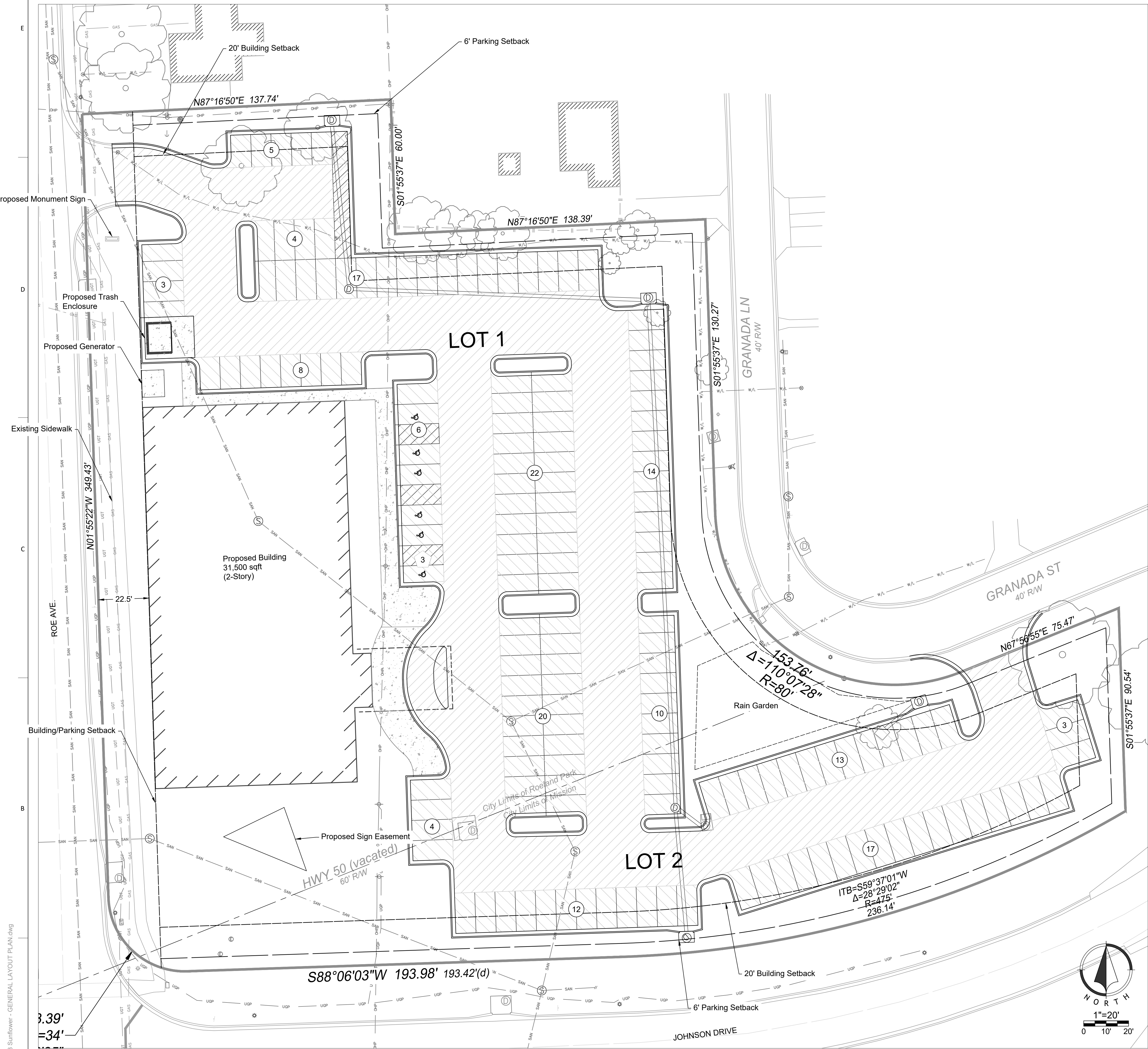
Johnson & Roe Medical Office Building  
Roe & Johnson Drive | Roeland Park, KS

Date Aug 07, 2019  
Job Number 19-0143  
Drawn By FB  
Checked By DJB

Revision  
Number Date Description  
08/06/19 Original Submittal

C02  
EXISTING CONDITIONS





| Parking Count Legend: |                         |
|-----------------------|-------------------------|
| (X)                   | Parking Stall Count     |
| (X)                   | ADA Parking Stall Count |

| Parking Required          |  |
|---------------------------|--|
| 120 Stalls                |  |
| 3.8 Stalls per 1,000sqft  |  |
| Parking Provided          |  |
| 153 Typical Stalls        |  |
| 6 ADA Stalls              |  |
| 159 Total Stalls Provided |  |

| SITE DATA TABLE                               |                              |
|-----------------------------------------------|------------------------------|
| Existing Zone: R-1                            |                              |
| Proposed Zone: CP-O                           |                              |
| FAR :                                         | ( 31,500 / 117,217 ) = 26.9% |
| Lot Area (sf):                                | 117,217 sf                   |
| Total Area (ac):                              | 2.69 ac                      |
| Lot 1 Area (Roeland Park):                    | 1.95ac                       |
| Lot 2 Area (Mission):                         | 0.74ac                       |
| Building Gross Area:                          | 31,500 sf                    |
| Paved Area:                                   | 60085 sf                     |
| Impervious Area:                              | 75,577 sf (64%)              |
| Pervious Area:                                | 41,640 sf (36%)              |
| Front Building Setback: 30'                   |                              |
| Proposed Front Setback: 22.5' (25% reduction) |                              |
| Front Parking Setback: 22.5' (25% Reduction)  |                              |
| Interior Parking Setback: 6'                  |                              |

| CURB LEGEND |             |
|-------------|-------------|
| (Line)      | Dry Curb    |
| (Line)      | Ribbon Curb |
| (Line)      | Wet Curb    |

| Pavement Section Details                                                                                                                                                                 |                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PC Concrete Pavement                                                                                                                                                                     | Light Duty Asphalt Pavement                                                                                                                                                              |
| 7" PC Concrete Pavement<br>(4000 PSI, Air Entrained )<br>KCMMB 4K                                                                                                                        | 2" AC Surface Course (APWA 3-01)<br>2" AC Base Course (APWA 2-01)<br>6" Compacted Agg.<br>KDOT AB-3<br>6" Compacted Subgrade (95% Std. Proctor<br>Treated with Lime or Class "C" Flyash) |
| 4" Compacted Agg.<br>KDOT AB-3<br>8" Compacted Subgrade<br>(95% Std. Proctor Treated<br>with Lime or Class "C" Flyash)                                                                   |                                                                                                                                                                                          |
| Heavy Duty Asphalt Pavement                                                                                                                                                              |                                                                                                                                                                                          |
| 2" AC Surface Course (APWA 3-01)<br>4" AC Base Course (APWA 1-01)<br>6" Compacted Agg.<br>KDOT AB-3<br>6" Compacted Subgrade (95% Std. Proctor<br>Treated with Lime or Class "C" Flyash) |                                                                                                                                                                                          |

Pavement Sections are based on information from  
a Geotechnical Report, Dated 07/23/2019  
Prepared By Cook, Flatt & Strobel Engineers, P.A.



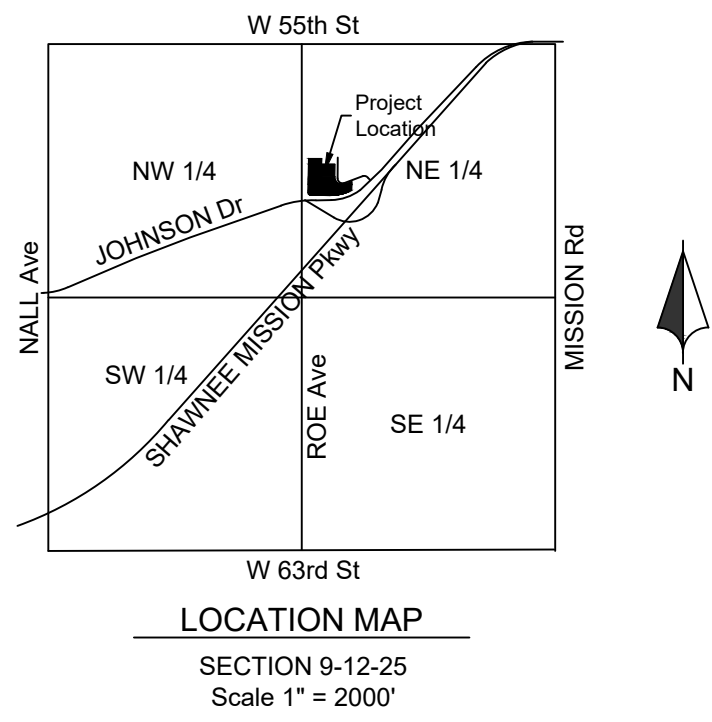








FINAL DEVELOPMENT PLANS for  
**Sunflower Medical**  
City of Roeland Park, Johnson County, Kansas

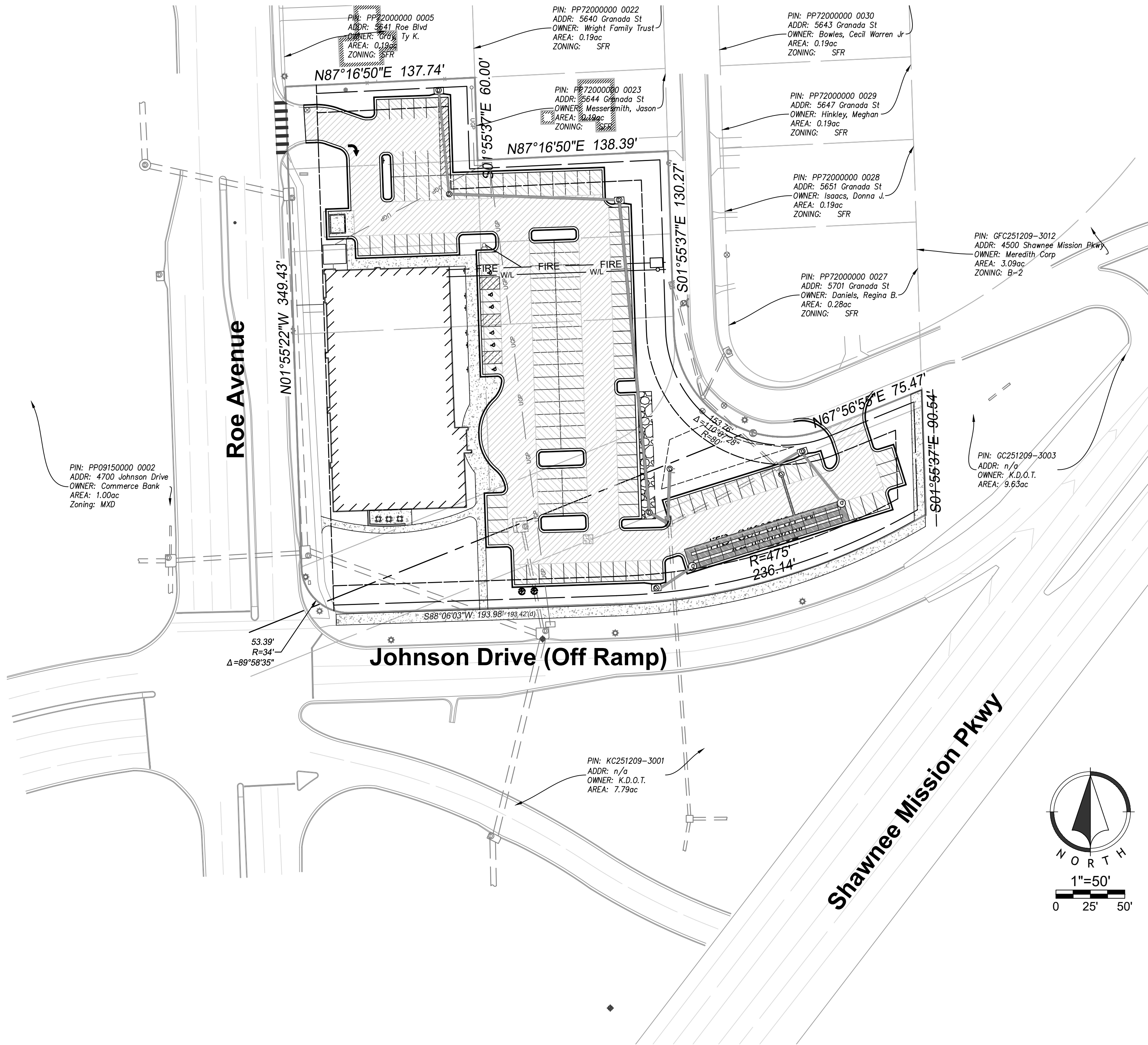


Approved by:  
City of Roeland Park City Engineer

By: \_\_\_\_\_  
Donnie Scharff

Approved by:  
Planning Commission Chair

By: \_\_\_\_\_  
Darren Nielsen



**LEGEND**

|  |                                 |  |                           |
|--|---------------------------------|--|---------------------------|
|  | Existing Section Line           |  | Proposed Right-of-Way     |
|  | Existing Right-of-Way Line      |  | Proposed Property Line    |
|  | Existing Lot Line               |  | Proposed Lot Line         |
|  | Existing Easement Line          |  | Proposed Easement         |
|  | Existing Curb & Gutter          |  | Proposed Curb & Gutter    |
|  | Existing Sidewalk               |  | Proposed Sidewalk         |
|  | Existing Storm Sewer            |  | Proposed Storm Sewer      |
|  | Existing Storm Structure        |  | Proposed Storm Structure  |
|  | Existing Waterline              |  | Proposed Fire Hydrant     |
|  | Existing Gas Main               |  | Proposed Waterline        |
|  | Existing Sanitary Sewer         |  | Proposed Sanitary Sewer   |
|  | Existing Sanitary Manhole       |  | Proposed Sanitary Manhole |
|  | Existing Contour Major          |  | Proposed Contour Major    |
|  | Existing Contour Minor          |  | Proposed Contour Minor    |
|  | Existing Underground Power Line |  | Future Curb and Gutter    |

**Index of Sheets**

|           |                               |
|-----------|-------------------------------|
| C01.....  | TITLE SHEET                   |
| C02.....  | EXISTING CONDITIONS           |
| C03.....  | GENERAL LAYOUT PLAN           |
| C04.....  | SITE DIMENSION PLAN           |
| C05.....  | UTILITY PLAN                  |
| C06.....  | GRADING PLAN                  |
| C07.....  | STORM PLAN                    |
| C08.....  | EROSION CONTROL PHASE 1       |
| C08.....  | EROSION CONTROL PHASE 2       |
| C09.....  | EROSION CONTROL PHASE 3       |
| C10.....  | OVERALL AREA PLAN             |
| C12.....  | FIRE DEPARTMENT ACCESSIBILITY |
| L01.....  | LANDSCAPE ARCHITECTURE PLANS  |
| A5.1..... | EXTERIOR ELEVATIONS           |
| A5.2..... | EXTERIOR PERSPECTIVE          |

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Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

**APPLICANT/DEVELOPER**

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5555 W 58th St, Mission, KS 66202  
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ric-consult.com | 816.800.0950  
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dburton@ric-consult.com  
1815 McGee Street, Suite 200  
Kansas City, MO 64108

|            |              |
|------------|--------------|
| Date       | Oct 01, 2019 |
| Job Number | 19-0143      |
| Drawn By   | CR           |
| Checked By | DJB          |

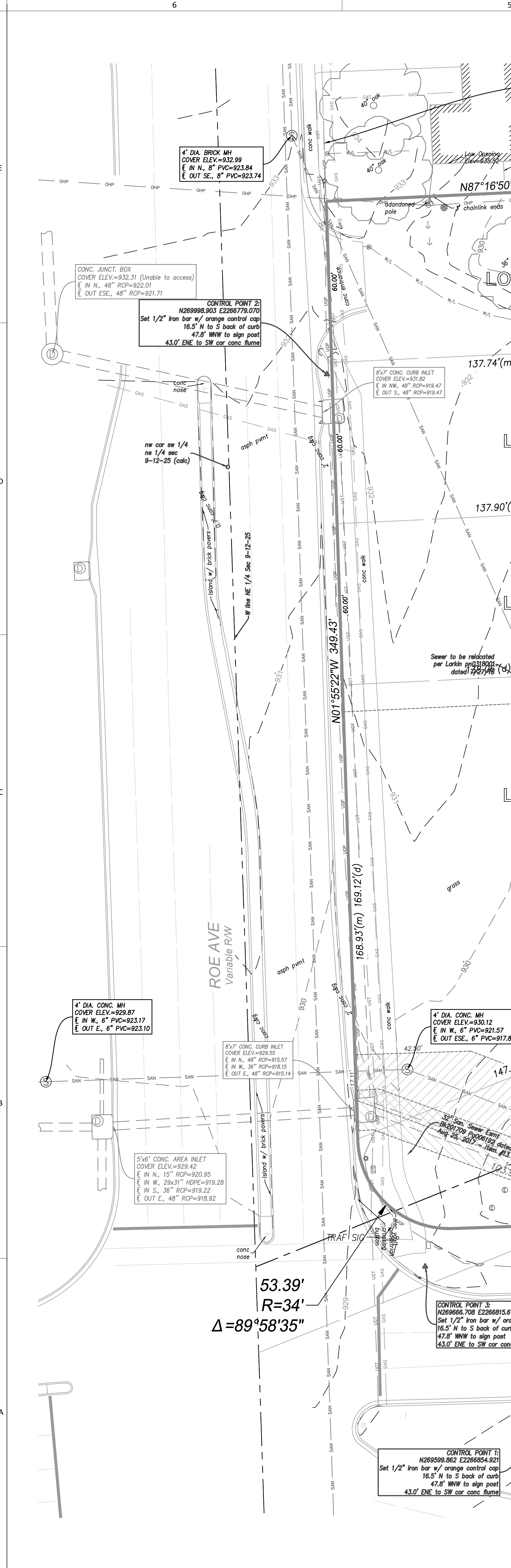
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|--------|----------|----------------------------|
| 01     | 08/06/19 | Original Submittal         |
| 02     | 09/03/19 | Revised Per City Submittal |
| 03     | 09/13/19 | Architectural Update       |
| 04     | 10/01/19 | Revised Per City Comments  |

C01

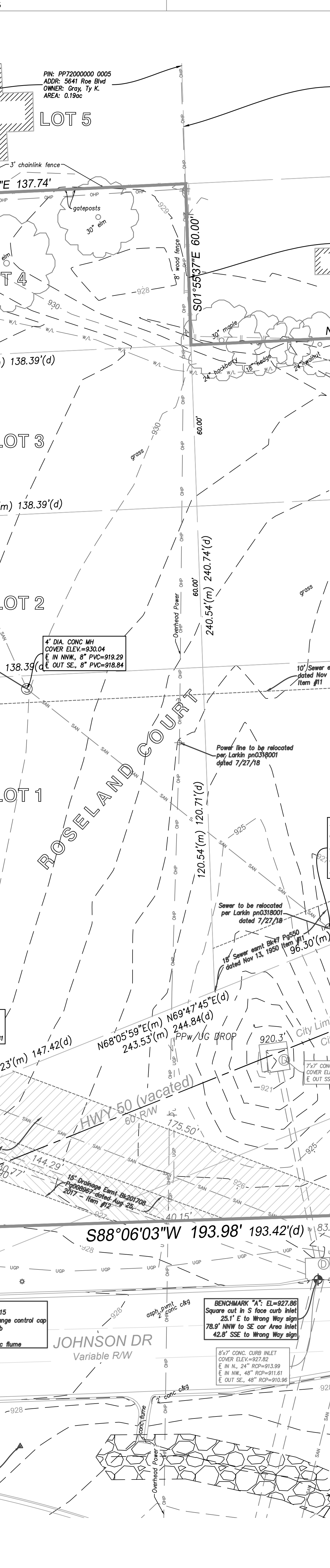


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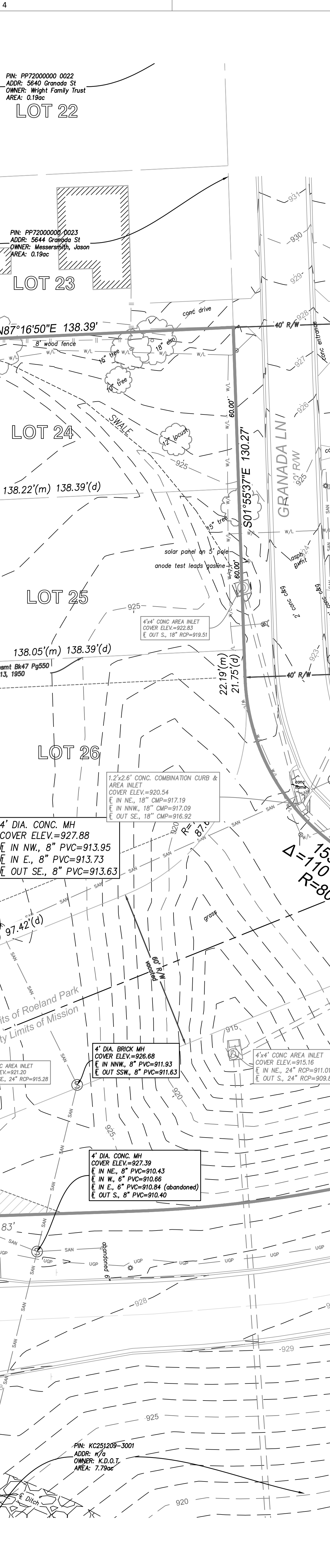
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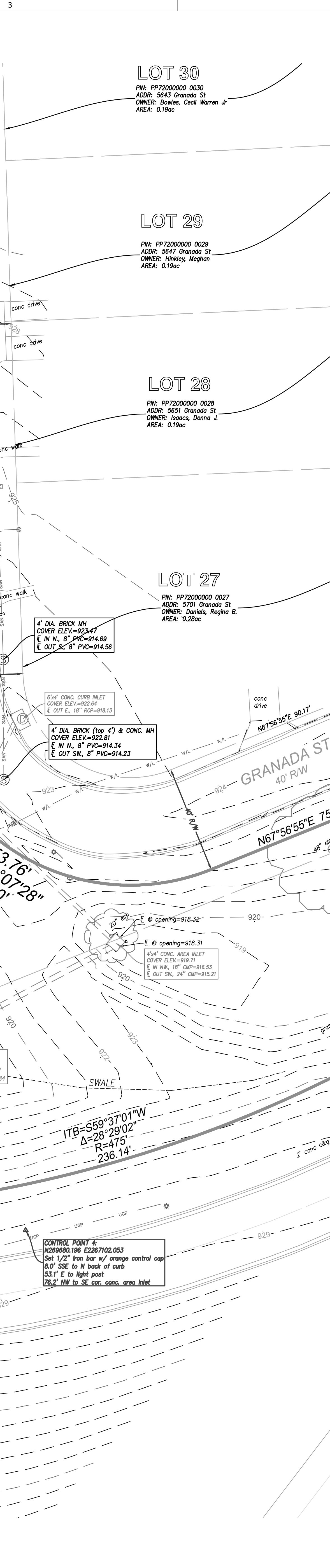
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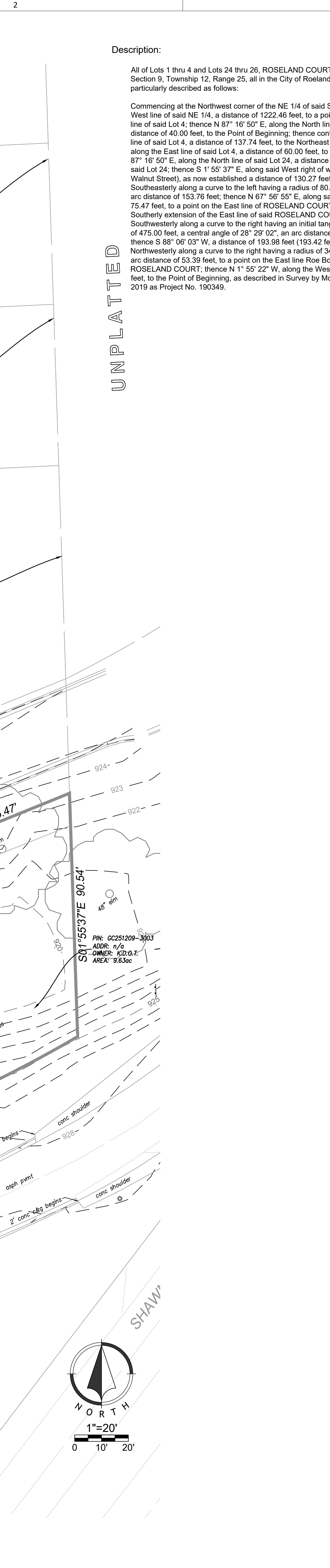
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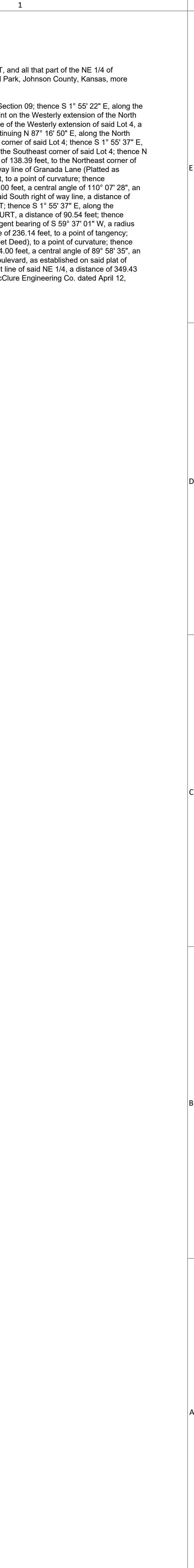
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1



6

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DateOct 01, 2019

Job Number19-0143

Drawn ByCR

Checked ByDJB

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| 01     | 08/06/19 | Original Submittal         |
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C02

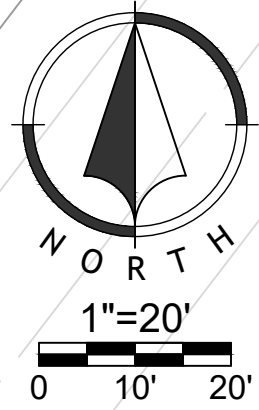
EXISTING CONDITIONS

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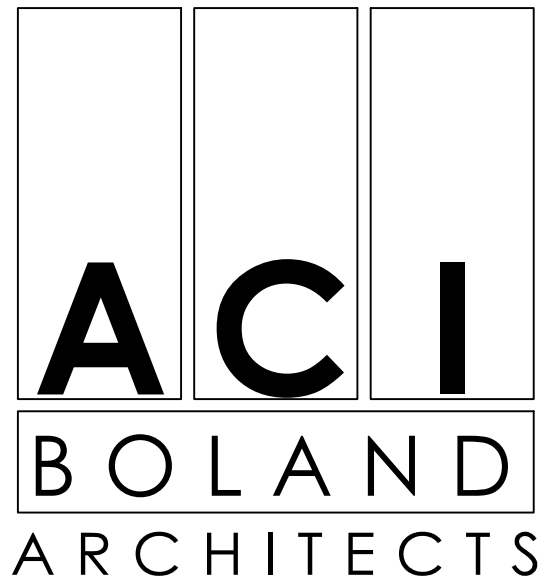
All of Lots 1 thru 4 and Lots 24 thru 26, ROSELAND COURT, and all that part of the NE 1/4 of Section 9, Township 12, Range 25, all in the City of Roeland Park, Johnson County, Kansas, more particularly described as follows:

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UNPLATTED







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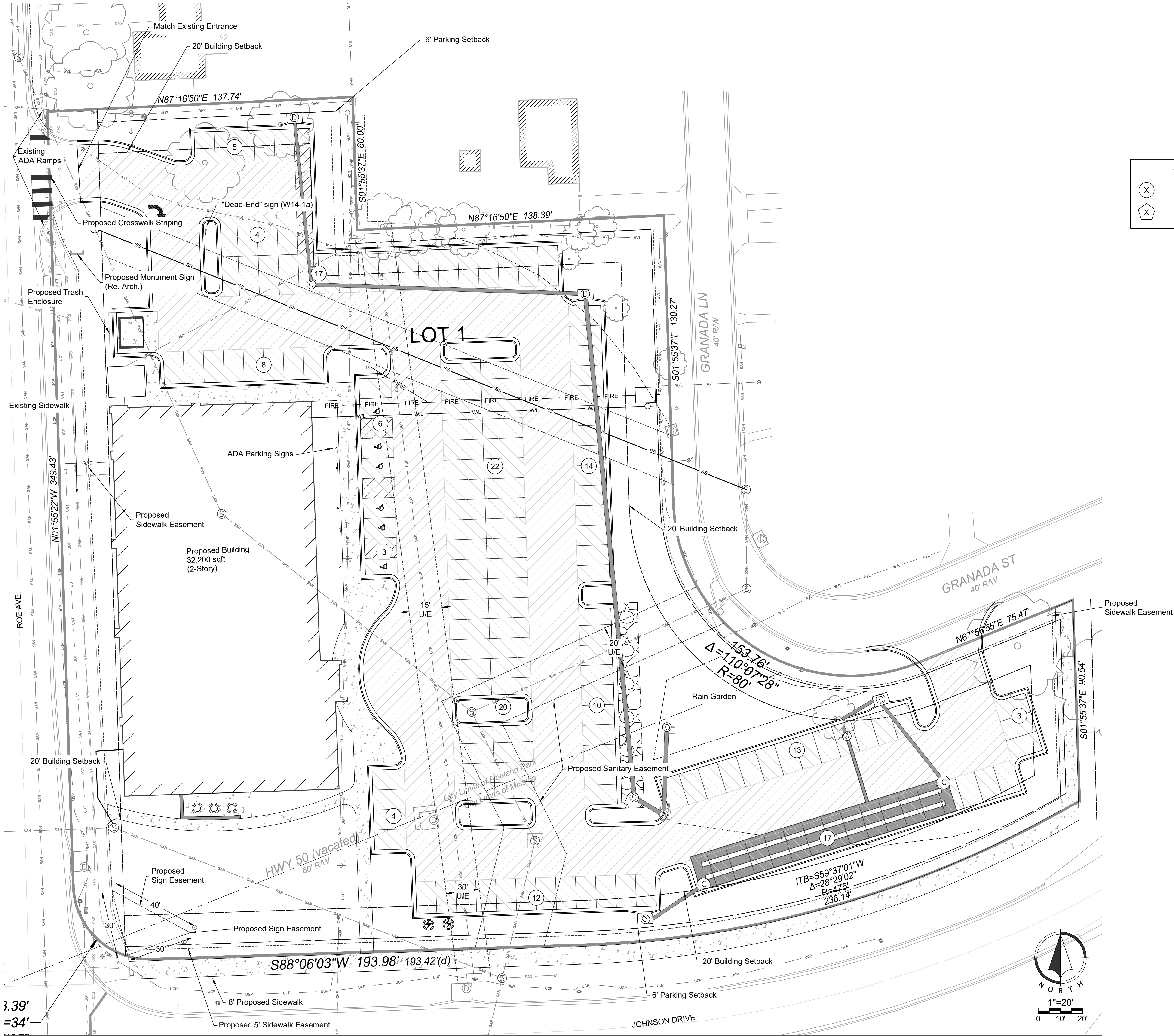
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Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

| Revision |          |                            |
|----------|----------|----------------------------|
| Number   | Date     | Description                |
| 01       | 08/06/19 | Original Submittal         |
| 02       | 09/03/19 | Revised Per City Submittal |
| 03       | 09/13/19 | Architectural Update       |
| 04       | 10/01/19 | Revised Per City Comments  |

C03



| Parking Count Legend: |                         |
|-----------------------|-------------------------|
| (X)                   | Parking Stall Count     |
| (X)                   | ADA Parking Stall Count |

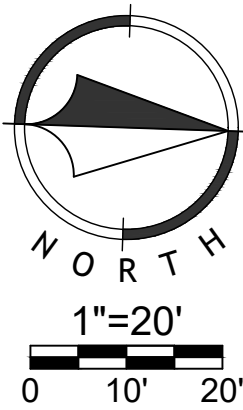
| Parking Required          |  |
|---------------------------|--|
| 120 Stalls                |  |
| 3.8 Stalls per 1,000sqft  |  |
| Parking Provided          |  |
| 150 Typical Stalls        |  |
| 6 ADA Stalls              |  |
| 156 Total Stalls Provided |  |

| SITE DATA TABLE                                   |                              |
|---------------------------------------------------|------------------------------|
| Existing Zone: R-1                                |                              |
| Proposed Zone: CP-O                               |                              |
| FAR :                                             | ( 32,200 / 117,217 ) = 27.5% |
| Lot Area (sf):                                    | 117,217 sf                   |
| Total Area (ac):                                  | 2.69 ac                      |
| Lot 1 Area (Roeland Park):                        | 1.95ac                       |
| Lot 1 Area (Mission):                             | 0.74ac                       |
| Building Gross Area:                              | 32,200 sf                    |
| Paved Area:                                       | 54,487 sf                    |
| Impervious Area:                                  | 70,701 sf (60%)              |
| Pervious Area:                                    | 46,415 sf (40%)              |
| Front Building Setback: 30'                       |                              |
| Proposed Front Setback: 22.5' (25% reduction)     |                              |
| Front Parking Setback: 22.5' (25% Reduction)      |                              |
| Interior Parking Setback: 6' (Variance Requested) |                              |
| Interior Building Setback: 20'                    |                              |

| CURB LEGEND |             |
|-------------|-------------|
| (Line)      | Dry Curb    |
| (Line)      | Ribbon Curb |
| (Line)      | Wet Curb    |

| Pavement Section Details |                             |
|--------------------------|-----------------------------|
| (Pattern)                | PC Concrete Pavement        |
| (Pattern)                | Heavy Duty Asphalt Pavement |
| (Pattern)                | Light Duty Asphalt Pavement |







Oct 01, 2019 8:30am

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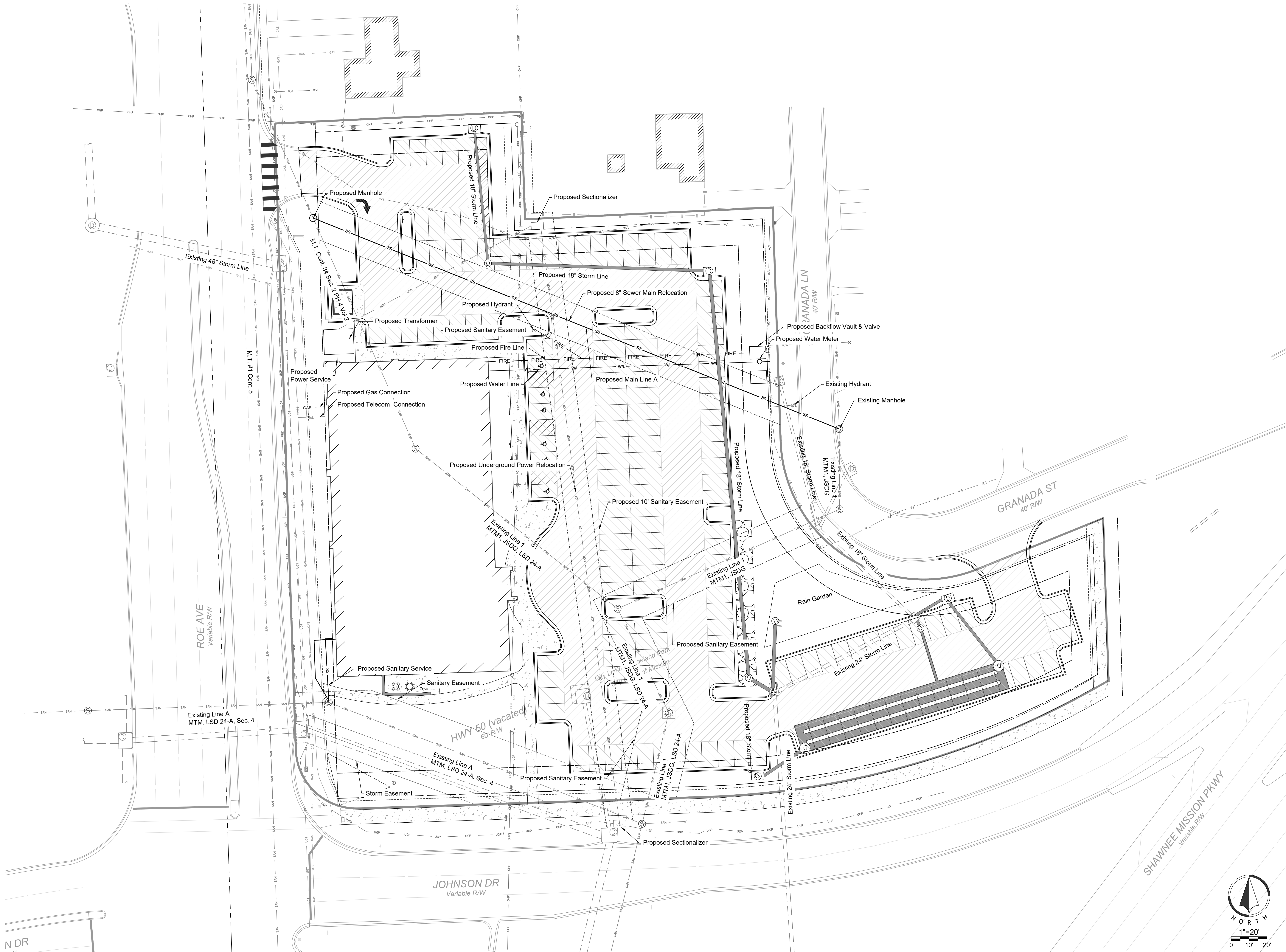
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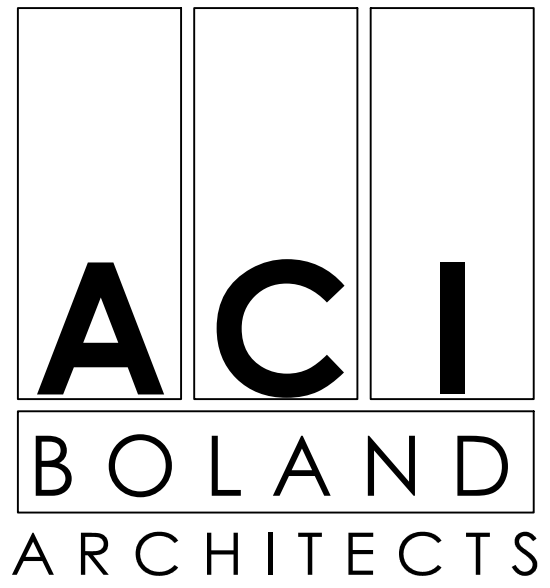
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Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

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C05

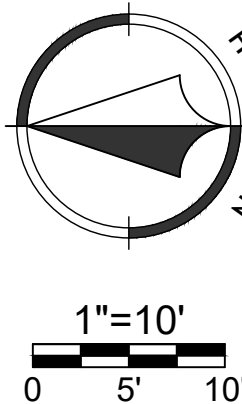
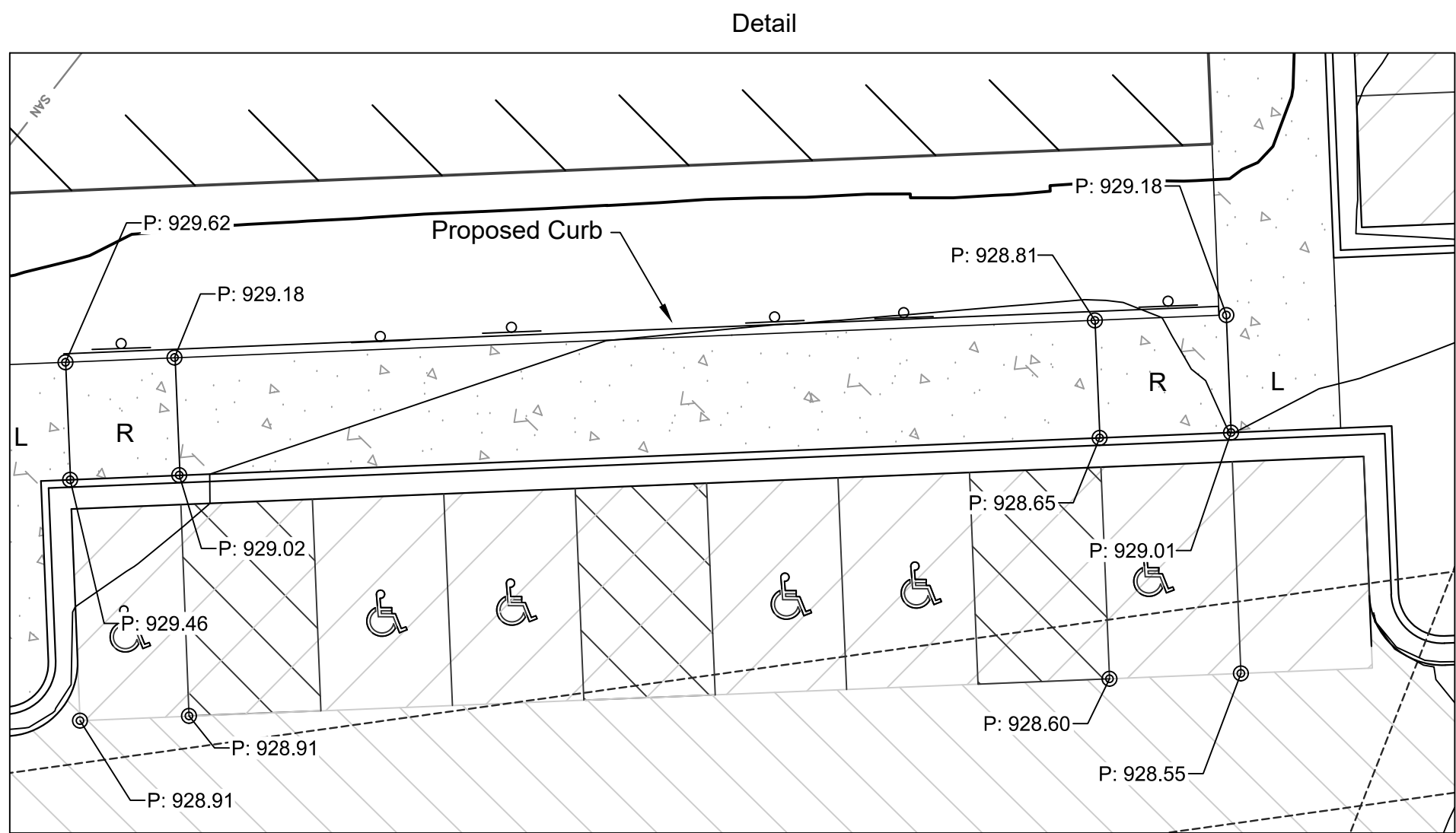
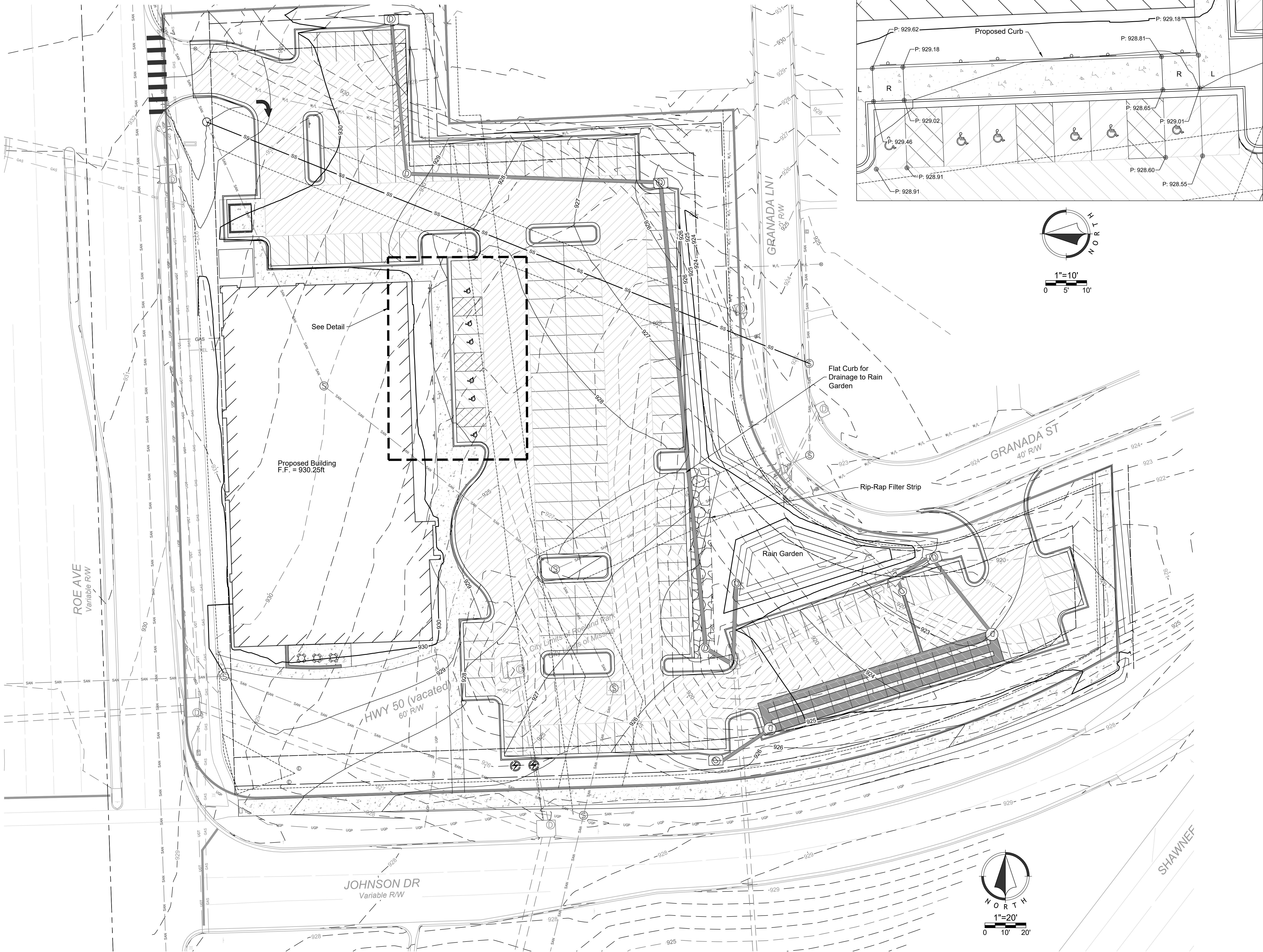
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UTILITY PLAN



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Legend  
--- Existing Grade  
--- Proposed Grade



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Phone Number: 816-531-4144

**MEP CONSULTANT**  
Smith & Boucher Engineers  
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Olathe, Kansas  
Licensee's Certificate of Authority Number:  
Phone Number: 913-345-2127

**LANDSCAPE CONSULTANT**  
Renaissance Infrastructure Consulting  
132 Abbie Ave.  
Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:  
Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

|            |              |
|------------|--------------|
| Date       | Oct 01, 2019 |
| Job Number | 19-0143      |
| Drawn By   | CR           |
| Checked By | DJB          |

| Number | Date     | Description                |
|--------|----------|----------------------------|
| 01     | 08/06/19 | Original Submittal         |
| 02     | 09/03/19 | Revised Per City Submittal |
| 03     | 09/13/19 | Architectural Update       |
| 04     | 10/01/19 | Revised Per City Comments  |



Oct 01, 2019 8:30am

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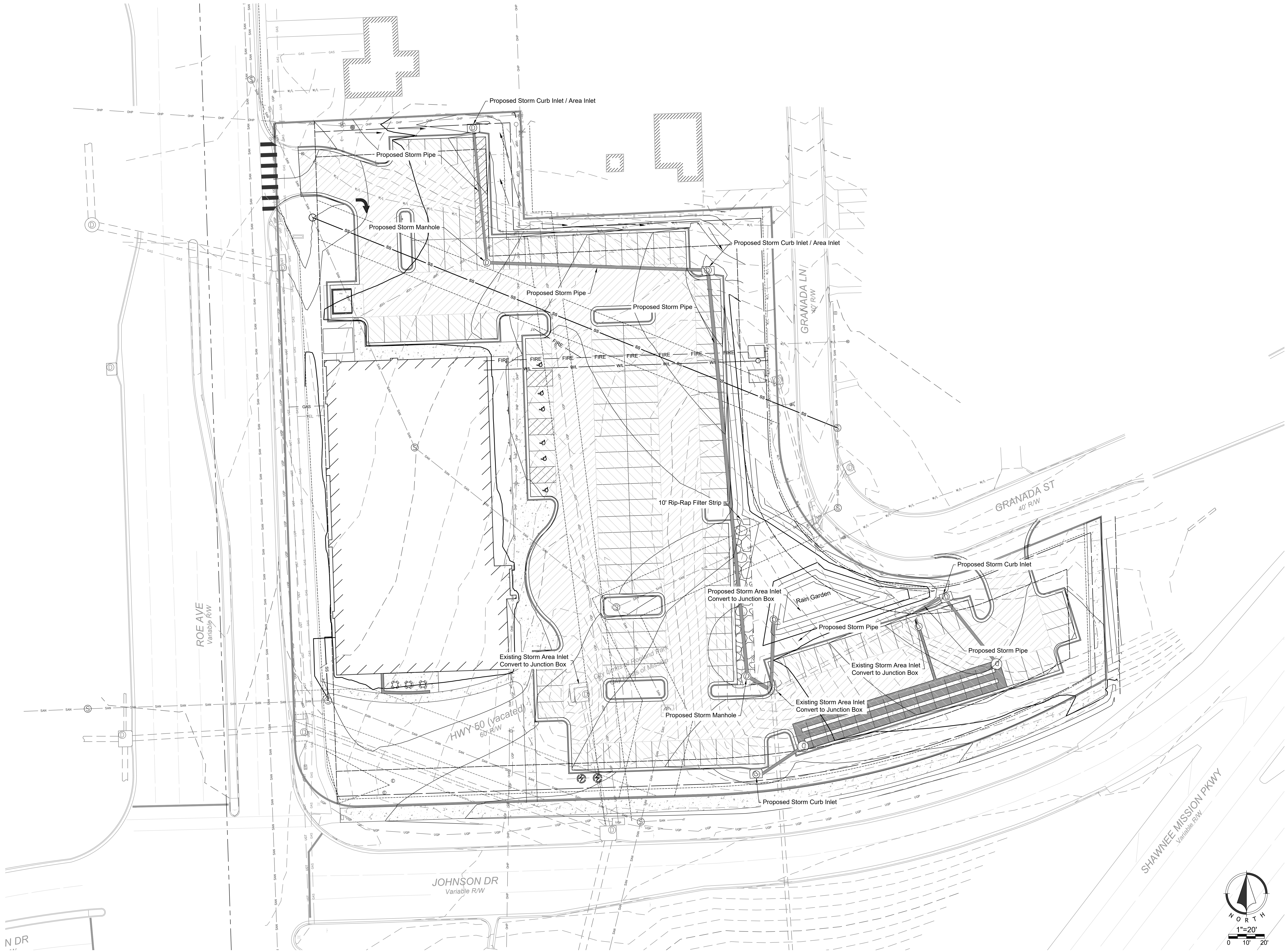
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**BOLAND**  
ARCHITECTS

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Licensee's Certificate of Authority Number:

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Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500  
  
**STRUCTURAL CONSULTANT**  
Bob D. Campbell  
4338 Belleview  
Kansas City, Missouri  
Licensee's Certificate of Authority Number:

Phone Number: 816-531-4144  
  
**MEP CONSULTANT**  
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Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

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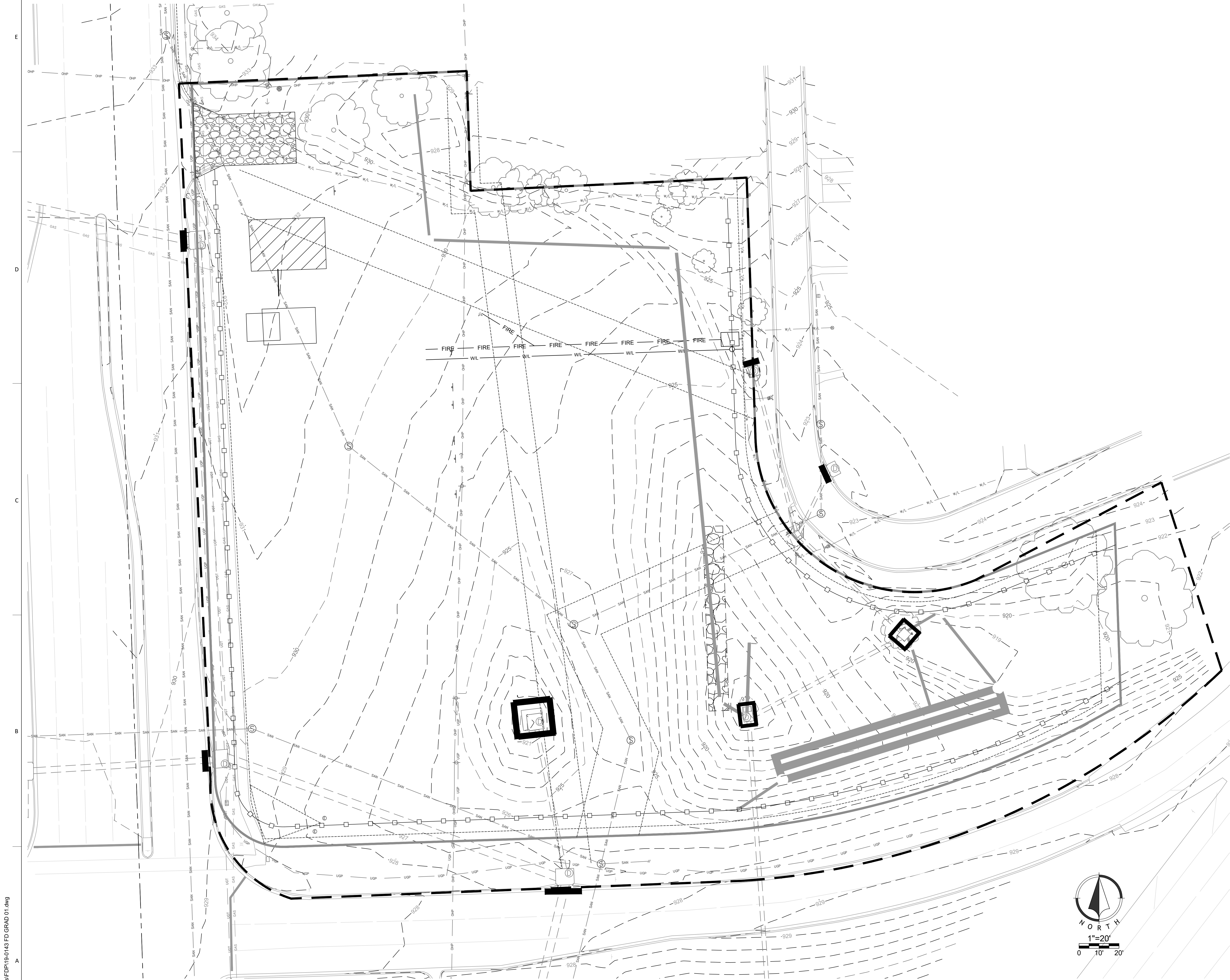
C07

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STORM PLAN



Oct 01, 2019 8:30am

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DISTURBED AREA : 2.69 ACRES

ESTIMATED EARTHWORK

Cut: CY  
Fill: CY

Earthwork calculations are informational only. Contractor shall be responsible for their own earthwork calculations and perform all necessary earthwork shown herein without additional cost to the owner if quantities differ than above. Earthwork numbers are unadjusted.

WRITTEN SEQUENCING

- Implement Pre-Clearing Plan:  
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities.
- Clear and Stabilize Work Areas:  
Grade contractor areas and place all-weather surface on contractor areas.
- Clearing and Grubbing:  
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

EROSION CONTROL LEGEND

- Stabilized Construction Entrance
- Staging Area
- Stockpile Area
- Concrete Washout
- Area Not to be Disturbed
- Limits of Disturbance
- Silt Fence
- Inlet Protection
- Visible Temporary Barrier Fence

EROSION CONTROL NOTES

- Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
- The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
- The contractor shall temporarily seed and mulch all disturbed areas if there has been no construction activity on them for a period of fourteen (14) calendar days.
- Install "J" Hooks on silt fence every 100 LF

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Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

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C08

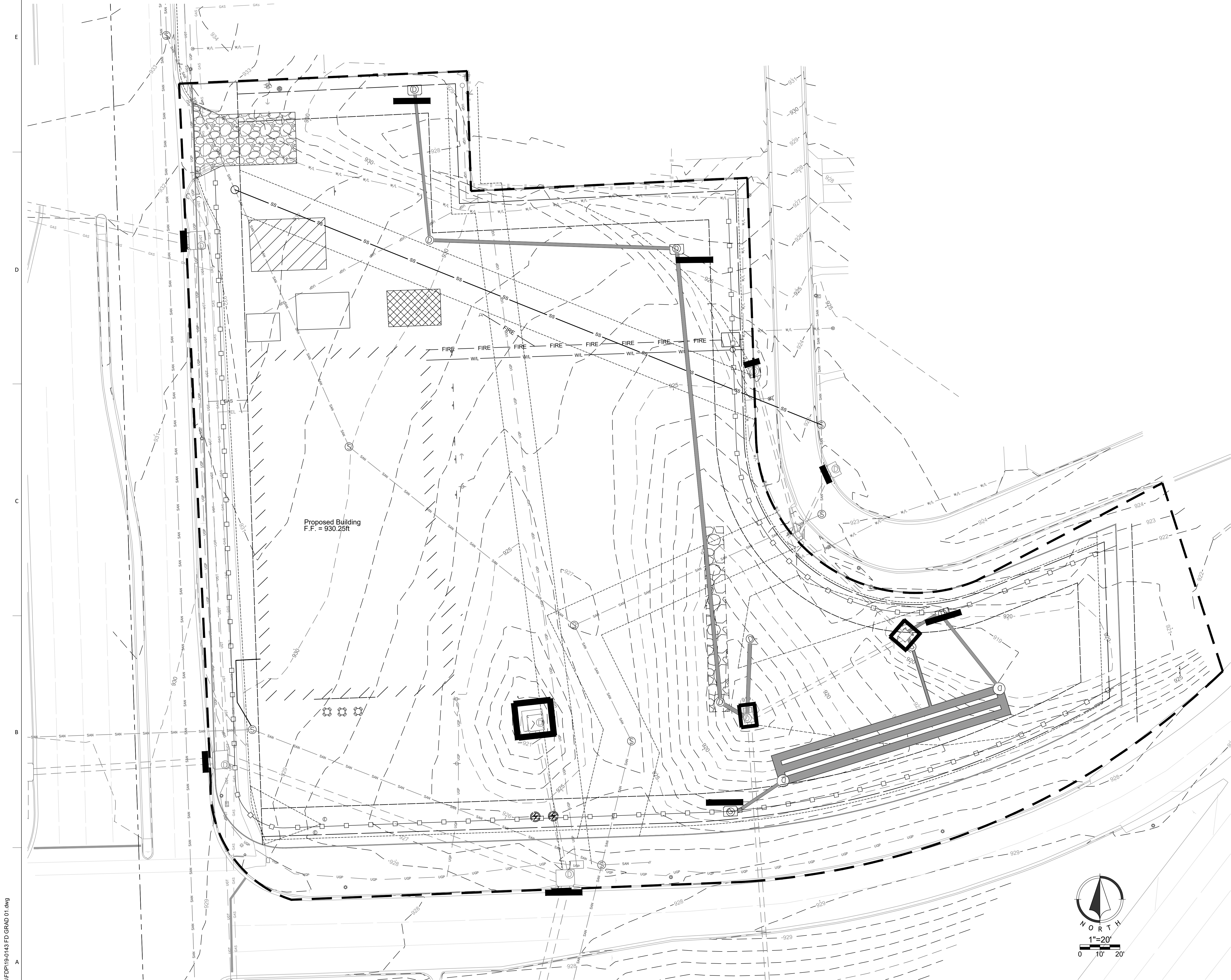
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EROSION CONTROL PHASE 1



Oct 01, 2019 8:30am

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DISTURBED AREA : 2.69 ACRES

ESTIMATED EARTHWORK

Cut: CY  
Fill: CY

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2. Clearing and Grubbing:  
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

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1. Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
2. The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
3. The contractor shall temporarily seed and mulch all disturbed areas if there has been no construction activity on them for a period of fourteen (14) calendar days.
4. Install "J" Hooks on silt fence every 100 LF

PRELIMINARY,  
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IMPLEMENTATION  
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ARCHITECTS

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Kansas City, MO 64108  
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Licensee's Certificate of Authority Number:

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Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

| Revision |          |                            |
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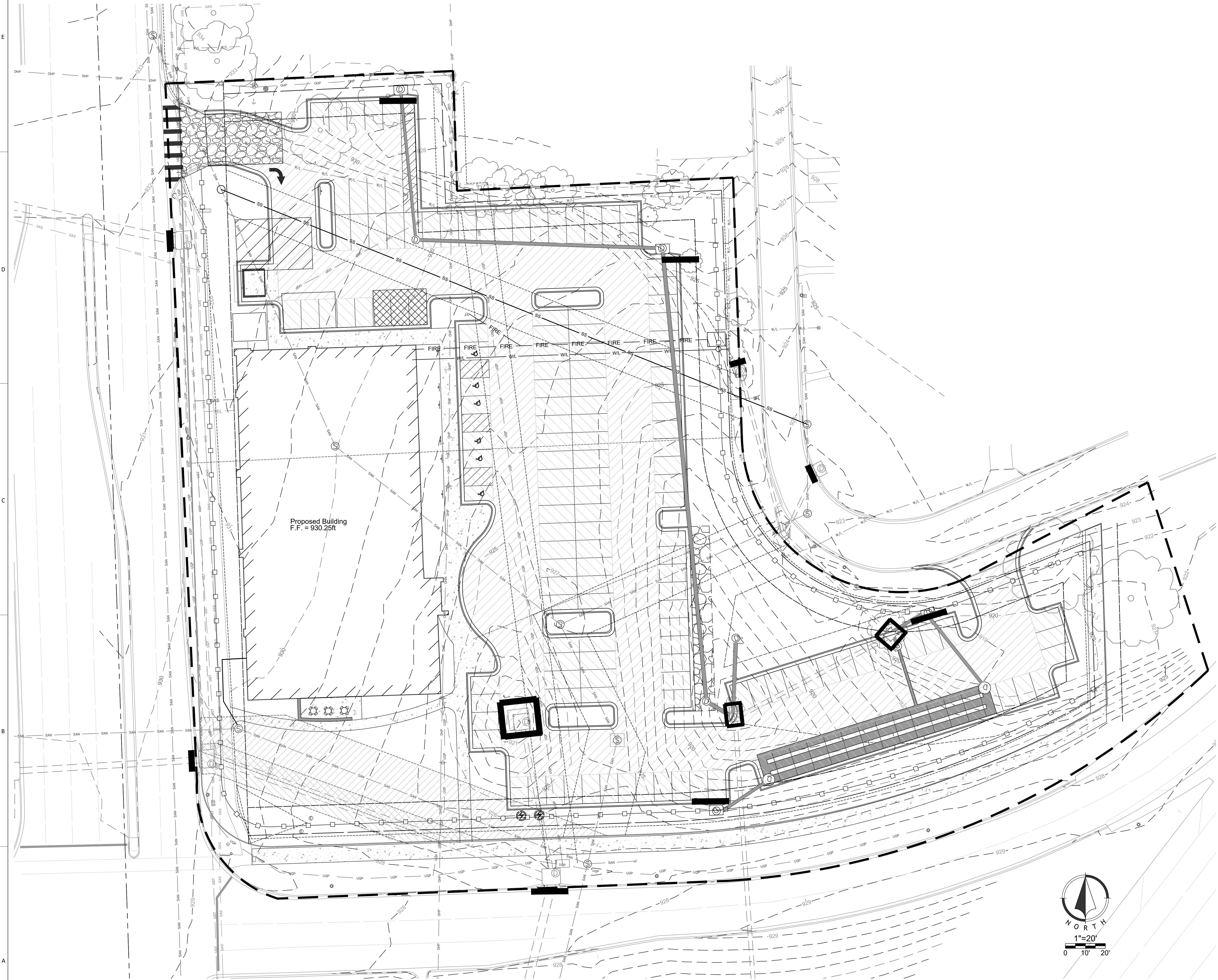
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EROSION CONTROL PHASE 2



Oct 01, 2019 8:31am

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DISTURBED AREA : 2.69 ACRES

ESTIMATED EARTHWORK

Cut: CY  
Fill: CY

Earthwork calculations are informational only. Contractor shall be responsible for their own earthwork calculations and perform all necessary earthwork shown herein without additional cost to the owner if quantities differ than above. Earthwork numbers are unadjusted.

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CONSTRUCTION,  
RECORDING  
PURPOSES, OR  
IMPLEMENTATION  
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Phone Number: 816-531-4144

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LANDSCAPE CONSULTANT

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Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

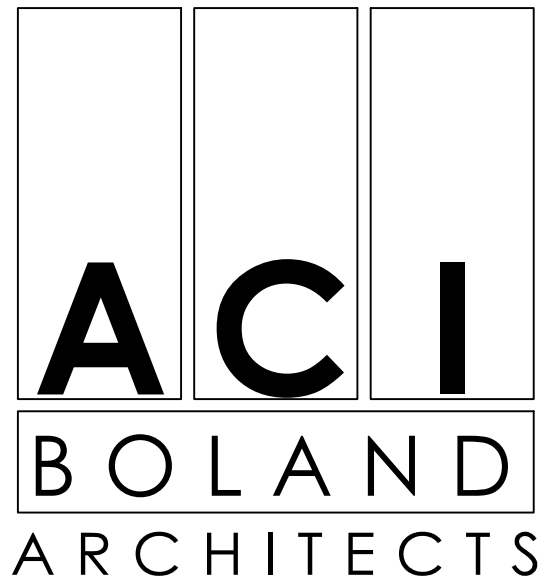
Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

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C10

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EROSION CONTROL PHASE 3





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Phone Number: 913-317-9500

**STRUCTURAL CONSULTANT**  
Bob. D. Campbell  
4338 Bellevue  
Kansas City, Missouri  
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Phone Number: 816-531-4144

**MEP CONSULTANT**  
Smith & Boucher Engineers  
25501 Valley Parkway, Suite 200  
Olathe, Kansas  
Licensee's Certificate of Authority Number:  
  
Phone Number: 913-345-2127

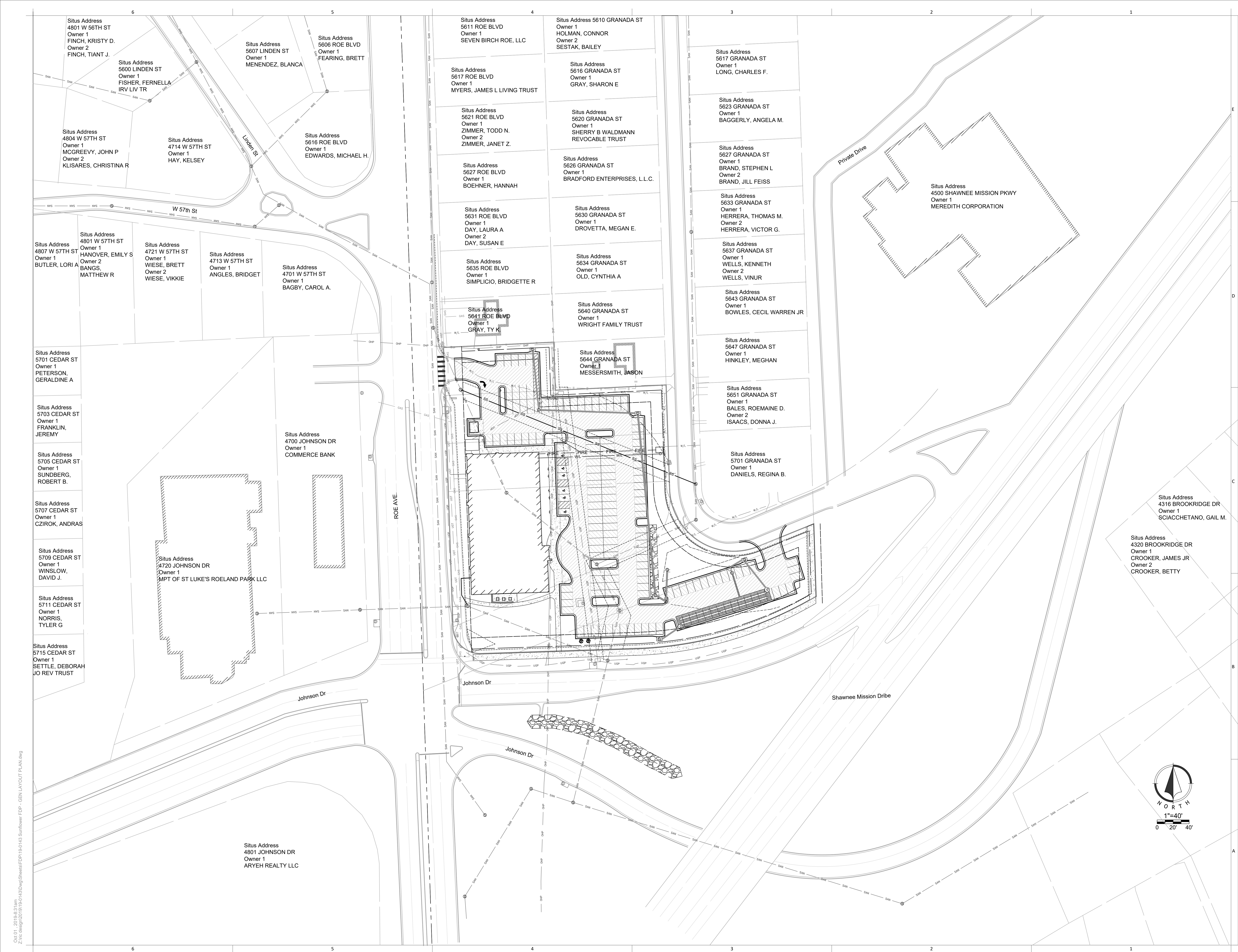
**LANDSCAPE CONSULTANT**  
Renaissance Infrastructure Consulting  
132 Abbie Ave.  
Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:  
  
Phone Number: 913-317-9500

Sunflower Medical  
Roe & Johnson Drive | Roeland Park, KS

Date Oct 01, 2019  
Job Number 19-0143  
Drawn By CR  
Checked By DJB

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| 04     | 10/01/19 | Revised Per City Comments  |

C11





**A C I**  
**B O L A N D**  
**A R C H I T E C T S**

10 Wyandotte  
Kansas City, MO 64108  
816.763.9600

□/Boland, Inc.  
Kansas City | St. Louis

Licensee's Certificate of Authority Number:

**STRUCTURAL CONSULTANT**  
**J. D. Campbell**  
 8 Belleview  
 Kansas City, Missouri  
 Licensee's Certificate of Authority Number:  
 License Number: 816-531-4144

**INDSCAPE CONSULTANT**  
Infrastructure Consulting  
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Licensee's Certificate of Authority Number:  
Phone Number: 913-317-9500

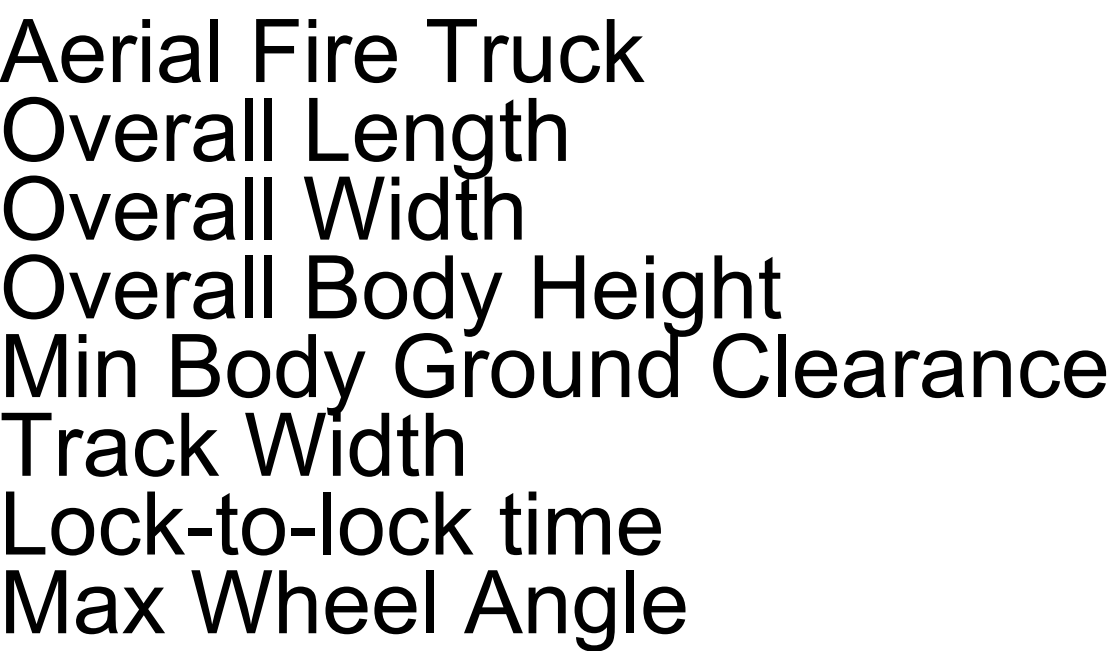
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|------------|--------------|
| Date       | Oct 01, 2019 |
| Job Number | 19-0143      |
| Drawn By   | CR           |
| Checked By | DJB          |

| Revision |          |                       |
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| 04       | 10/01/19 | Revised Per City Comm |

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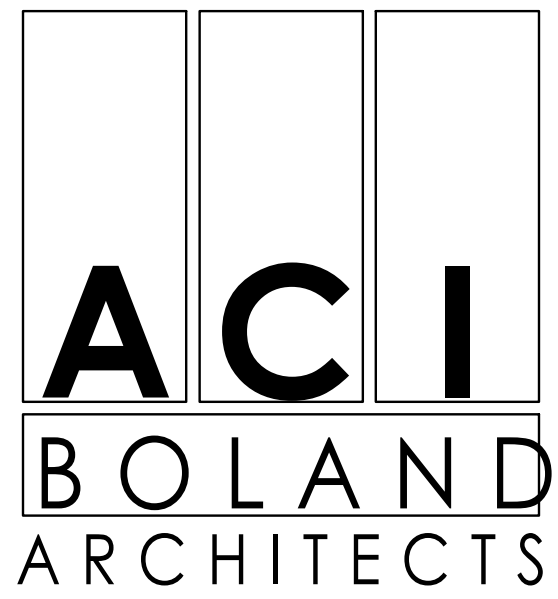
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FIRE DEPARTMENT ACCESSIBILITY



39.000ft  
8.167ft  
7.500ft  
0.750ft  
8.167ft  
5.00s  
45.00°





1710 Wyandotte  
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LANDSCAPE CONSULTANT

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Kansas City, Kansas 66103  
Licensee's Certificate of Authority Number:

Phone Number: 913-317-9500

Johnson & Roe Medical Office Building  
Roe & Johnson Drive | Roeland Park, KS

Date 8/7/19  
Job Number 3-19133  
Drawn By Author  
Checked By Checker

Revision  
Number Date Description

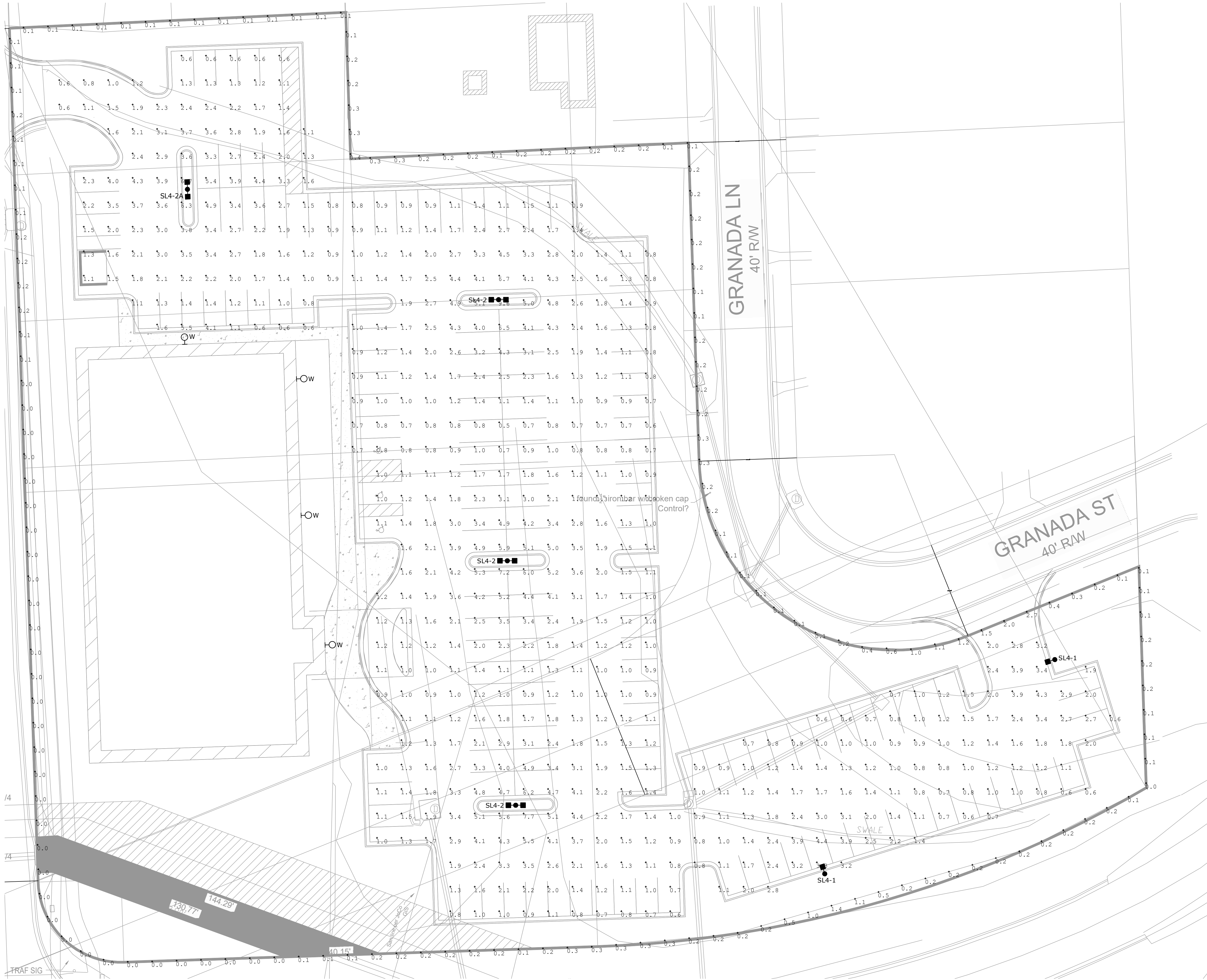
LP101

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PHOTOMETRICS SITE PLAN - LIGHTING

| CALCULATION SUMMARY |      |     |     |         |         |
|---------------------|------|-----|-----|---------|---------|
| AREA NAME           | AVE  | MAX | MIN | AVG/MIN | MAX/MIN |
| PROPERTY LINE       | 0.21 | 2.7 | 0.0 | N/A     | N/A     |
| PARKING LOT         | 1.96 | 9.6 | 0.6 | 3.3     | 16.0    |

NOTES:  
1. ILLUMINANCE VALUES ARE IN FOOT-CANDLES.

| FIXTURE SCHEDULE |       |                                                                                                                                                                                    |                 |                                                        |         |                            |
|------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------|---------|----------------------------|
| TYPE             | IMAGE | DESCRIPTION                                                                                                                                                                        | MOUNTING        | LAMP                                                   | VOLTS   | MANUFACTURER               |
| SL4-1            |       | 1-HEAD PARKING LOT EXTERIOR POLE FIXTURE, TYPE T4FT DISTRIBUTION, 0-10V DIMMING, UL LISTED FOR WET LOCATIONS, ARCHITECT TO SELECT FINISH, 800mA DRIVEN, SPILL CONTROL.             | POLE<br>20'-0"  | LED<br>20,515 LUMENS<br>4000K<br>80+ CRI               | 120/277 | McGRAW-EDISON SERIES GLEON |
| SL4-2            |       | 2-HEADS @ 180 DEGREES APART PARKING LOT EXTERIOR POLE FIXTURE, TYPE T4FT DISTRIBUTION, 0-10V DIMMING, UL LISTED FOR WET LOCATIONS, ARCHITECT TO SELECT FINISH, 800mA DRIVEN.       | POLE<br>20'-0"  | LED<br>20,515 LUMENS<br>(PER HEAD)<br>4000K<br>80+ CRI | 120/277 | McGRAW-EDISON SERIES GLEON |
| SL4-2A           |       | 2-HEADS @ 180 DEGREES APART PARKING LOT EXTERIOR POLE FIXTURE, TYPE T4W DISTRIBUTION, 0-10V DIMMING, UL LISTED FOR WET LOCATIONS, ARCHITECT TO SELECT FINISH, 800mA DRIVEN.        | POLE<br>20'-0"  | LED<br>20,249 LUMENS<br>(PER HEAD)<br>4000K<br>80+ CRI | 120/277 | McGRAW-EDISON SERIES GLEON |
| W                |       | 17"W X 8.5"H X 10.5"D EXTERIOR LED WALL PACK, UL LISTED FOR WET LOCATIONS, INTEGRAL 0-10V / 100-10% DIMMABLE DRIVER, VISUAL COMFORT WIDE DISTRIBUTION, ARCHITECT TO SELECT FINISH. | SURFACE<br>WALL | LED<br>3000 LUMENS<br>4000K<br>80+ CRI                 | 120/277 | LITHONIA SERIES WST        |



PHOTOMETRIC SITE PLAN LIGHTING  
SCALE: 1" = 20'-0"

Software: MSB Corp & Staff, Roeland Park, KS  
X:\19\19223\1922300\_Design\Photometrics\06-1922300\_LPI101.dwg  
Last Modified: Wednesday, August 7, 2019 8:20:30 AM  
Lucinda Kelsey

PROJECT NAME: JOHNSON & ROE MEDICAL OFFICE BUILDING  
LAST CORRECTION BY: DATE: TIME:  
PRINTED BY: DATE: TIME:



# Charter

August 12, 2019

Colin McKee  
Renaissance Infrastructure Consulting  
913-258-2929

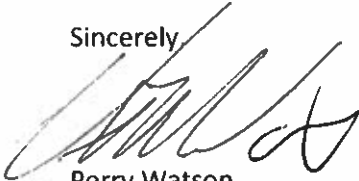
SUBJECT: May Serve Letter

In concern of Charter facilities at the property located near NE corner of Roe Boulevard and Johnson Drive in Mission, Ks, 66205, Charter has existing coax and/or fiber facilities near this location that may provide a possible point-of-connection for available services in the future.

Services for any Commercial or Multi-Family Parcels will be available dependent upon the right-of-entry agreement and entry routing for the respective buildings, as determined by contract. Contact our Commercial Business Class Sales department, at (866)519-1263 to facilitate a request for new commercial service, or your local MDU Sales Department for all residential services. In addition to initiating your request, they can also provide specifics regarding costs and other details associated with obtaining our services in this area at the appropriate point in time.

For future reference, please send all utility coordination, abandonments, encroachments, plat signatures, or serviceability requests, or notices of relocation to west-engineering-relo@charter.com. Please share this information with whoever needs these services.

Sincerely,

A handwritten signature in black ink, appearing to read 'Perry Watson', is written over a light blue horizontal line.

Perry Watson  
AVP, Field Operations

# Charter

August 12, 2019

Colin McKee  
Renaissance Infrastructure Consulting  
913-258-2929

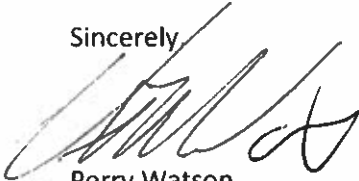
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Sincerely,

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Perry Watson  
AVP, Field Operations



August 9, 2019

Mr. Andy Gabbert  
Renaissance Infrastructure Consulting  
5015 NW Canal Street, Suite 100  
Riverside, MO 64150

RE: Sanitary Sewer Availability for the proposed development at - PID# PP72000000 0001, NE corner of Roe Ave and Johnson Dr, Roeland Park, KS.

Dear Mr. Gabbert:

Sanitary sewer service for the proposed development at - PID# PP72000000 0001, NE corner of Roe Ave and Johnson Dr, Roeland Park, KS is available. Relocation of existing sewer main will be required to serve this parcel. A JCW sewer connection permit will also be required to serve the proposed facility.

The sewer main relocation project will be required to be completed prior to the issuance of sewer connection permit.

Sanitary sewer system extensions or modifications required to serve this site must be completed by the developer or owner of the property in accordance with Johnson County Wastewater (JCW) procedures, standards and specifications. JCW review and approval of sewer main project plans are required before any construction may proceed.

Information on the sewer main extension plan review and approval permitting process, including the main extension review fee schedule, is available in the Privately-Financed Sewer Main Projects page under the Development and Permitting section at [www.jcw.org](http://www.jcw.org). Please see the Procedures for Privately-Financed Gravity Main Projects and Minimum Plan Requirements for Gravity Main Projects documents.

Requirements for JCW commercial permitting are available on the Commercial Permitting page under Permitting in the Development and Permitting section at [www.jcw.org](http://www.jcw.org). Submit the commercial permit application, plans and supporting information no later than when submitting to the City for building permitting. The connection fee portion of the permit is based on the water meter size for each building. The connection fee schedule is also available on the Commercial Permitting page.

If you have any questions, please contact me at 913-715-8524.

Sincerely,

Jeena John, P.E.  
New Development Compliance Engineer



Administrative Offices  
Department of Developer Services  
10747 Renner Boulevard  
Lenexa, KS 66219

913.895.1815  
distserv@waterone.org  
www.waterone.org

May 25, 2017

Dan McGhee  
Shafer, Kline & Warren  
11250 Corporate Ave  
Lenexa, KS 66219

Re: Water Availability Letter for NEC of Roe Ave and Johnson Dr

Dear Mr. McGhee,

This letter is in reference to the water availability for a proposed site located at the NEC of Roe Ave and Johnson Dr in Roeland Park, KS. At the time of this writing, there are existing 8" water mains located on the west side of Granada Ln and along the north side of the property from Granada Ln to Roe Ave available to serve this property.

If you have further questions, please let me know.

Thank you,

Chris Anderson  
Supervisor – Distribution Water Quality & New Services  
913-895-5754



SW  
9444 Nall Ave  
Suite  
Overland Park, KS 66207

T: 9133834940  
F: 9133834961  
www.att.com

August 07, 2019

Colin McKee  
Renaissance Infrastructure Consulting  
N/A NE corner of Roe Ave and Johnson Dr  
Roeland Park, Kansas 66205

Dear Mr. McKee,

This letter is in response to your request for information on the availability of AT&T service at the NE corner of Roe Ave and Johnson Dr.

Attn: Colin McKee

RE: Medical office building @ NE corner of Roe Ave and Johnson Dr, Roeland Park, KS 66205

This letter acknowledges that the above referenced project is located in an area served by AT&T. Any service arrangements for this location will be subject to later discussions and agreements between the developer and AT&T. Please be advised that this letter is not a commitment by AT&T to provide service to the NE corner of Roe Ave and Johnson Dr but an acknowledgement that we have service in this area.

Please contact me at the phone number included in this letter if you have any questions.

Thank you for contacting AT&T.

Sincerely,

Kenneth Anderson  
Manager OSP Engineer

A handwritten signature in black ink that reads "Kenneth Anderson". The signature is written in a cursive, flowing style.



Aaron Brown  
KCPL  
16215 W 108<sup>th</sup> St  
Lenexa, KS 66219  
September 12, 2019

Andy Gabbert  
Landscape Architect  
Renaissance Infrastructure Consulting  
5015 NW Canal St, Suite 100  
Riverside, MO 64150

Dear Andy Gabbert:

This letter is in reference to the availability of power for the proposed site at the NE corner of Johnson Dr and Roe Ave, Located in Roeland Park, KS. At this time, power service is available to this property.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Aaron Brown', with a long horizontal flourish extending to the right.

Aaron Brown  
Engineer II





**Kansas  
Gas Service™**

*A Division of ONE Gas*

7421 West 129th Street  
Overland Park, KS 66213  
kansasgasservice.com

June 7, 2017

Mr. Dan McGhee  
Senior Project Manager  
SKW  
11250 Corporate Ave., Lenexa, KS 66219

Re: "Will Serve" Letter – NE Corner Johnson Dr. & Roe, Roeland Park, KS

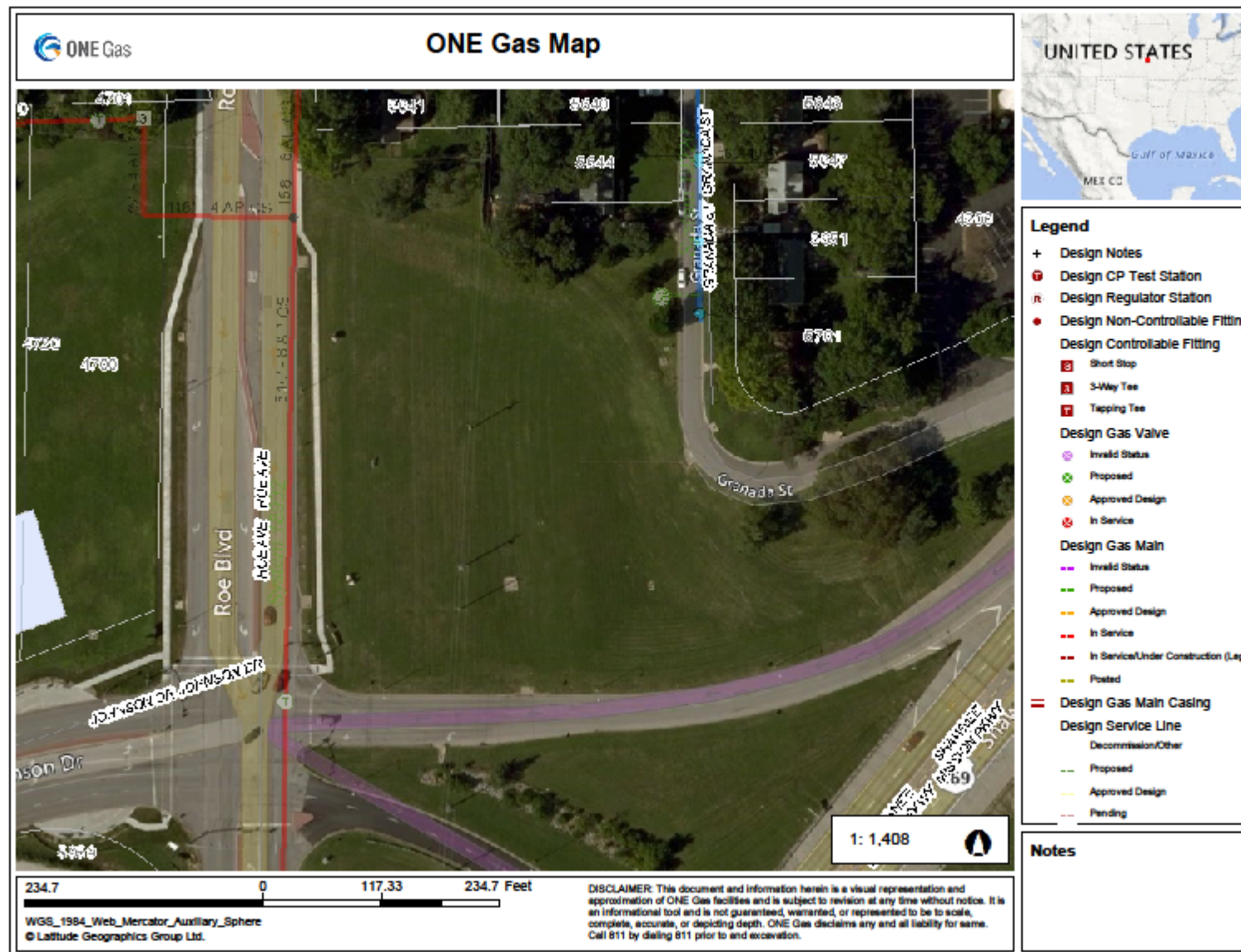
Dear Mr. McGhee:

This letter is to confirm that Kansas Gas Service has gas mains adjacent to the property at NE Corner Johnson Dr. & Roe, Roeland Park, KS. The best route to get service to the site, installation of new gas main, easements, changes to existing pipe location or size, grade changes, location of gas meters, termination of old services, or any cost associated would still need to be determined. Please consult with us prior to finalizing your plans so Kansas Gas Service can determine the best route to provide service to the project, adequate space and safe locations for all gas meters. A map of our facilities is attached for your information.

Feel free to contact me if you have any questions.

Sincerely,

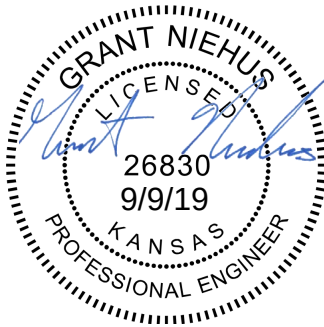
Bill Ahrens  
Project Manager



# Traffic Impact Study

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## **Medical Office Building Johnson Dr & Roe Ave Mission, KS**



### **Prepared For:**

CBC Real Estate Group  
4706 Broadway, Suite 240  
Kansas City, Missouri 64112

### **Prepared By:**

Renaissance Infrastructure Consulting  
September 2019

September 9, 2019

Mr. Mike Belew  
CBC Real Estate Group  
4706 Broadway, Suite 240  
Kansas City, Missouri 64112

**RE: Medical Office Building Traffic Impact Study  
Johnson Dr & Roe Ave  
City of Mission, KS**

Dear Mike Belew,

In response to your request, RIC has completed a traffic impact study for the proposed development to be located northeast of Johnson Dr and Roe Ave. The purpose of this study was to assess the impact of the proposed development on the surrounding transportation system. The following report documents our analysis and recommendations.

Please do not hesitate to contact us should you have any questions.

Sincerely,

**Renaissance Infrastructure Consulting**



Grant Niehus, PE, PTOE  
Traffic Engineer



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## INTRODUCTION

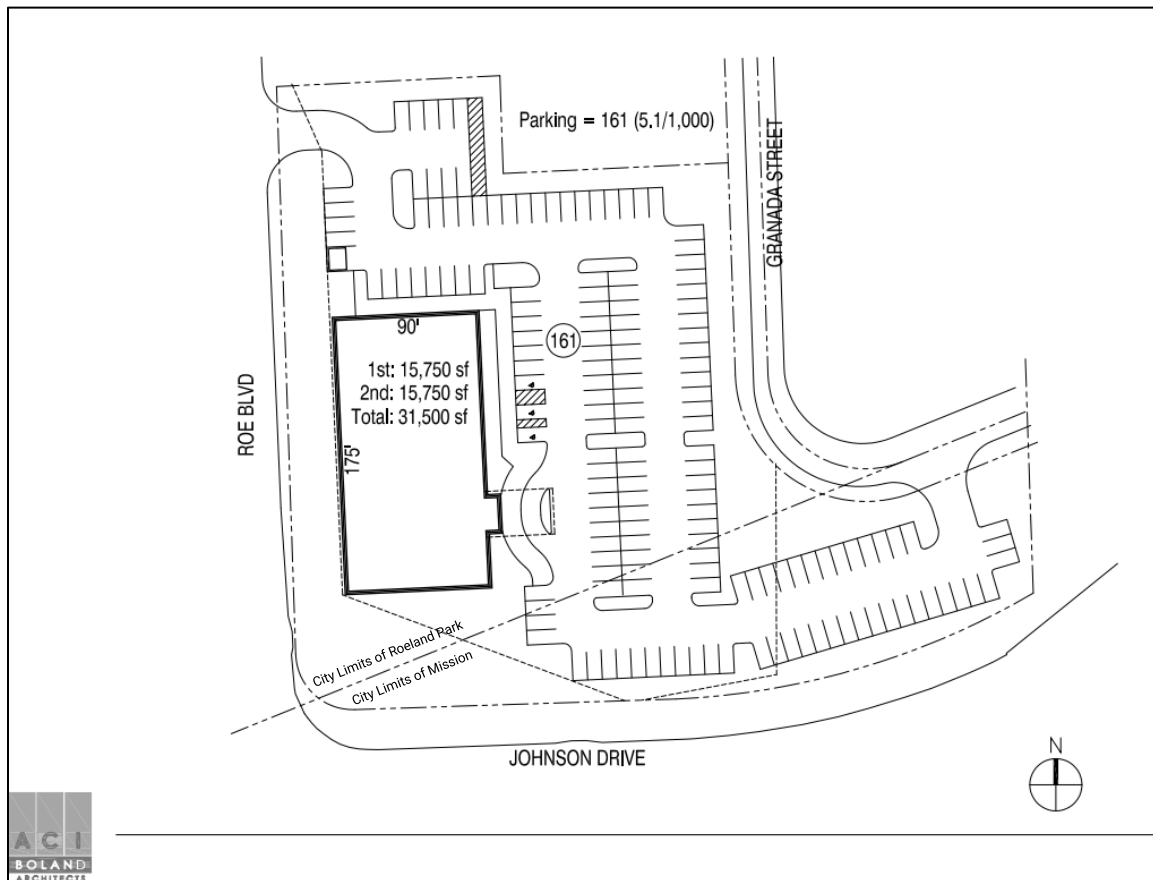
Renaissance Infrastructure Consulting (RIC) has completed trip generation calculations and traffic analysis for a proposed Medical Office Building on the northeast corner of Johnson Drive and Roe Avenue. The purpose of this analysis is to assess the impact of the proposed development on the surrounding transportation system. The proposed development will include two stories with a total leasable area of 31,500 square feet and supporting parking. To evaluate the increase of traffic on adjacent streets, the number of trips were estimated for the morning and afternoon peak time periods.



**Figure 1-Proposed project location**

## PROPOSED DEVELOPMENT

The proposed development is located on the northeast corner of Johnson Dr and Roe Ave in Mission, KS. Access to the development will be provided through two driveways, one from Roe Ave. and one from Granada St. On-site parking is included for the development and currently spans across Roeland Park, KS and Mission, KS jurisdictions as shown in **Figure 2**.



**Figure 2- Proposed Development**

## EXISTING CONDITIONS

Roe Avenue is adjacent to the proposed development to the west and is a 4-lane roadway with a posted speed limit of 35 mph. It is classified as a minor arterial by Mid-America Regional Council's (MARC) Roadway Functional Classification System. Johnson Drive is a 4-lane facility adjacent to the proposed development to the south with a posted speed limit of 30 mph. It is classified as a minor arterial by MARC. Granada Street is adjacent to the development to the northeast and acts as a residential street to the north and connects to Johnson Drive to the east.

Shawnee Mission Parkway is located to the southeast of the development but does not directly run adjacent to the lot. However, the westbound exit off Shawnee Mission Parkway turns into Johnson Drive which runs directly adjacent to the south of the development. Shawnee Mission Parkway is 4-lane divided principal arterial which carries an ADT of approximately 32,600 vehicles. There is an existing traffic signal at the intersection of Roe Ave & Johnson Drive while Granada St & Shawnee Mission Pkwy is controlled by a stop sign on Granada St.

The site location is currently vacant surrounded by residential and offices to the northeast and commercial/retail to the west. There is a television station office located to the northeast of the proposed development, a Commerce Bank to the west, and a community hospital further west. There is also construction currently going on to the southwest of Johnson Drive and Roe that will become the Mission Gateway project. This multi-use project will include over 500,000 square feet of leasable space.

## **BASELINE TRAFFIC CONDITIONS**

To assess the impacts of the proposed development, the intersections listed below were identified for study during the A.M and P.M peak hours of a typical weekday.

- Roe Ave & Johnson Dr
- Commerce Bank Driveway & Roe Ave

Traffic counts for the above-mentioned locations were collected on July 16<sup>th</sup>, 2019 between the hours of 7:00AM to 9:00AM and 4:00PM to 6:00PM. This data revealed that the weekday peak hours of the adjacent roadway to be from 7:30AM to 8:30AM and 5:00PM to 6:00PM. The existing peak hour traffic volumes are summarized in **Appendix A**.

## **FUTURE CONDITIONS**

Trip generation estimates developed for this study are based on the 10th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). The Manual is the most widely used industry resource for this type of data. The trip generation data are organized by land use types, with more than 170 different categories of land uses. For each category the manual provides a data set for use in estimating the number of vehicle and person trips generated by a site based on its characteristics such as physical size or intensity. Trips may be estimated by direction (entering or exiting the site) and for time periods typically pertaining to a full day (weekday or weekend), peak hours of the adjacent roadway, and peak hours of the particular land use. Used properly, the Trip Generation Manual provides an objective basis for estimating trips generated by a proposed development.

The ITE category “Medical-Dental Office Building” was used to project traffic volumes for the proposed development and the total gross leasable area in square feet was used as the parameter for projecting traffic. The total expected trips by land use is shown in **Table 1**.

| Table 1 - Trip Generation      |              |          |         |              |    |     |              |    |     |
|--------------------------------|--------------|----------|---------|--------------|----|-----|--------------|----|-----|
| Land Use                       | Intensity    | ITE Code | Weekday | AM Peak Hour |    |     | PM Peak Hour |    |     |
|                                |              |          |         | Total        | In | Out | Total        | In | Out |
| Medical-Dental Office Building | 31,500 sq ft | 720      | 1123    | 80           | 62 | 18  | 109          | 30 | 79  |

The traffic generated by the proposed development was assigned to the adjacent roadway system based on existing traffic patterns and engineering judgement. It is anticipated that 50 percent of traffic arrives from the north and 50 percent arrives from the south. It is expected that a very small amount of traffic uses the driveway on Granada Street and thus has not been included in this analysis. The distributed traffic volumes are included in **Appendix A-3**.

## AUXILIARY TURN LANES

The AM peak period is expected to generate the highest amount of northbound right turning traffic into the development on Roe Ave and was analyzed to determine if an auxiliary right turn lane was warranted. Following procedures outlined in KDOT’s Access Management Policy, it was determined that the northbound right turning volume of 31 vehicles per hour did not exceed the required amount of 115 veh/hr with a directional design hourly volume of 700 veh/hr. The southbound left movement on Roe Ave already provides a dedicated left turn lane and thus was not analyzed.

## OPERATIONAL ANALYSIS

In order to analyze the traffic impacts, operating conditions were analyzed using SYNCHRO 10, a macroscopic analysis and optimization software. Synchro is based on study procedures outlined in the Highway Capacity Manual, 6<sup>th</sup> edition. The analysis determines the “Level of Service” of the intersections and is based on factors such as the number and types of lanes, signal timing, traffic volumes, pedestrian activity, etc. This manual, which is used universally by traffic engineers to measure roadway capacity, establishes six levels of traffic service: Level A (“Free Flow”) to Level F (“Fully Saturated”).



**Table 2 – Level of Service Criteria**

| Level of Service | Signalized Intersection (sec/veh) | Unsignalized Intersection (sec/veh) |
|------------------|-----------------------------------|-------------------------------------|
| A                | < 10 seconds                      | < 10 seconds                        |
| B                | < 20 seconds                      | < 15 seconds                        |
| C                | < 35 seconds                      | < 25 seconds                        |
| D                | < 55 seconds                      | < 35 seconds                        |
| E                | < 80 seconds                      | < 50 seconds                        |
| F                | ≥ 80 seconds                      | ≥ 50 seconds                        |

Level of Service “D” is considered the minimum acceptable LOS in most areas. However, LOS E is sometimes accepted during peak periods. The above table shows the thresholds for Levels of Service A through F for unsignalized intersections. The analysis focused on the signalized intersection of Johnson Dr & Roe Dr and the unsignalized intersection of Roe Ave and Commerce Bank. Two scenarios were modeled for each time period:

1. Existing conditions
2. Existing conditions plus development

The first scenario modeled existing traffic conditions, while the second scenario modeled traffic conditions with the expected trips generated from the proposed development added to the existing traffic conditions. The results of each scenario are included in **Appendix B**. The signalized Level of Service and control delay of Johnson Dr & Roe Ave is included in **Table 3**. The performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements. The Level of Service and 95<sup>th</sup> percentile queue lengths of each approach for Roe Ave & Commerce Bank Driveway are included in **Table 4**.

**Table 3 – Operating Conditions Summary  
Johnson Dr & Roe Ave**

| Scenario               | AM Peak Hour | PM Peak Hour |
|------------------------|--------------|--------------|
| Existing               | B (18.4)     | C (22.8)     |
| Existing + Development | B (18.7)     | C (23.3)     |

**Table 4 – Operating Conditions Summary  
Roe Ave & Commerce Bank Driveway**

| Scenario               | AM Peak Hour |         |         |         | PM Peak Hour |         |         |         |
|------------------------|--------------|---------|---------|---------|--------------|---------|---------|---------|
|                        | NBL          | SBL     | EB      | WB      | NBL          | SBL     | EB      | WB      |
| Existing               | A (25')      |         | C (25') |         | B (25')      |         | D (25') |         |
| Existing + Development | A (25')      | A (25') | D (25') | D (25') | B (25')      | A (25') | E (25') | E (50') |

<sup>1</sup> Queue lengths rounded up to nearest 25' interval

<sup>2</sup> Unsignalized, free-flow movements not included

The Existing + Development scenario showed a minor increase in delay at Johnson Dr & Roe Ave while remaining at an acceptable level of service. The eastbound and westbound exits from Commerce Bank Driveway increased to a level of service “D” and “E” in the AM and PM peak hours, respectively. However, the 95<sup>th</sup> percentile queue lengths of both exits do not exceed two vehicles. A third scenario which added the PM peak hour volumes for the proposed Gateway development was analyzed but did not significantly impact the results. Data for that scenario was obtained from the City of Mission and is included in **Appendix C**.

## INTERSECTION SIGHT DISTANCE

The intersection sight distance design guidelines used for this is based on *AASHTO - A Policy on Geometric Design of Highways and Streets, 7<sup>th</sup> Edition* (AASHTO Green Book) which was developed to establish a uniform method to determine the necessary sight distance for an entrance constructed by permit.

Using AASHTO’s guidelines and a design speed of 35 mph, the minimum recommended sight distances and field measured sight distances for the proposed driveway on Roe Ave are shown in **Table 5**.

**Table 5 – Intersection Sight Distance**

|               | AASHTO<br>Intersection<br>Sight Distance | Measured<br>Intersection Sight<br>Distance |
|---------------|------------------------------------------|--------------------------------------------|
| Turning Left  | 440 ft                                   | >525 ft                                    |
| Turning Right | 335 ft                                   | >600 ft                                    |

Intersection sight distance was measured from the perspective of a passenger vehicle exiting the driveway 14.5 ft back from the end of the curb. The available intersection sight distance on

a driveway should provide drivers a sufficient view of the intersecting roadway to allow vehicles to exit the driveway without excessively slowing vehicles traveling at or near the operating speed on the intersecting mainline.

The driveway on Granada Street exceeds the required intersection sight distances of 280 ft and 240 ft for left turning and right turning traffic, respectively.

## SUMMARY

RIC completed the preceding study to analyze the traffic impacts associated with the proposed medical office building on the northeast corner of Johnson Drive and Roe Avenue. Based on traffic analysis completed, no improvements outside of those in the site layout are needed. The following summary is provided:

- Access to the site is provided via two unsignalized full-access driveways with one on Roe Avenue and the other on Granada Street.
- The proposed development was estimated to generate a total of 80 new trips in the AM peak hour and 109 new trips in the PM peak hour.
- The signalized intersection of Johnson Drive and Roe Avenue is expected to operate at an acceptable level under the Existing + Development condition.
- Both proposed driveways have acceptable sight triangles for intersection sight distance.
- The proposed westbound driveway approach on Roe Avenue is expected to operate with a Level of Service "E". However, the 95<sup>th</sup> % queue length is not expected to exceed two car lengths.

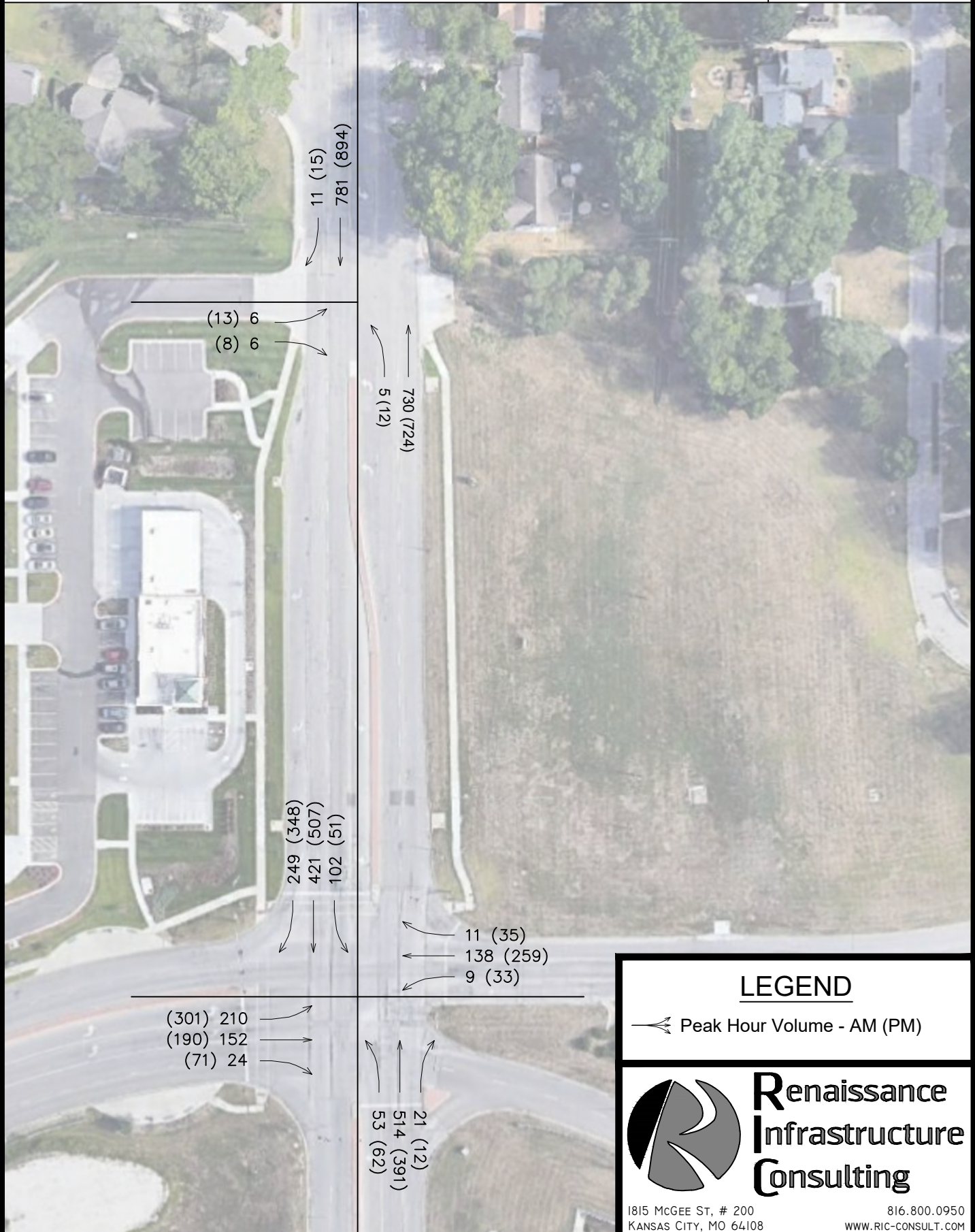
Please do not hesitate to contact us should you have any questions.

Sincerely,  
**Renaissance Infrastructure Consulting**

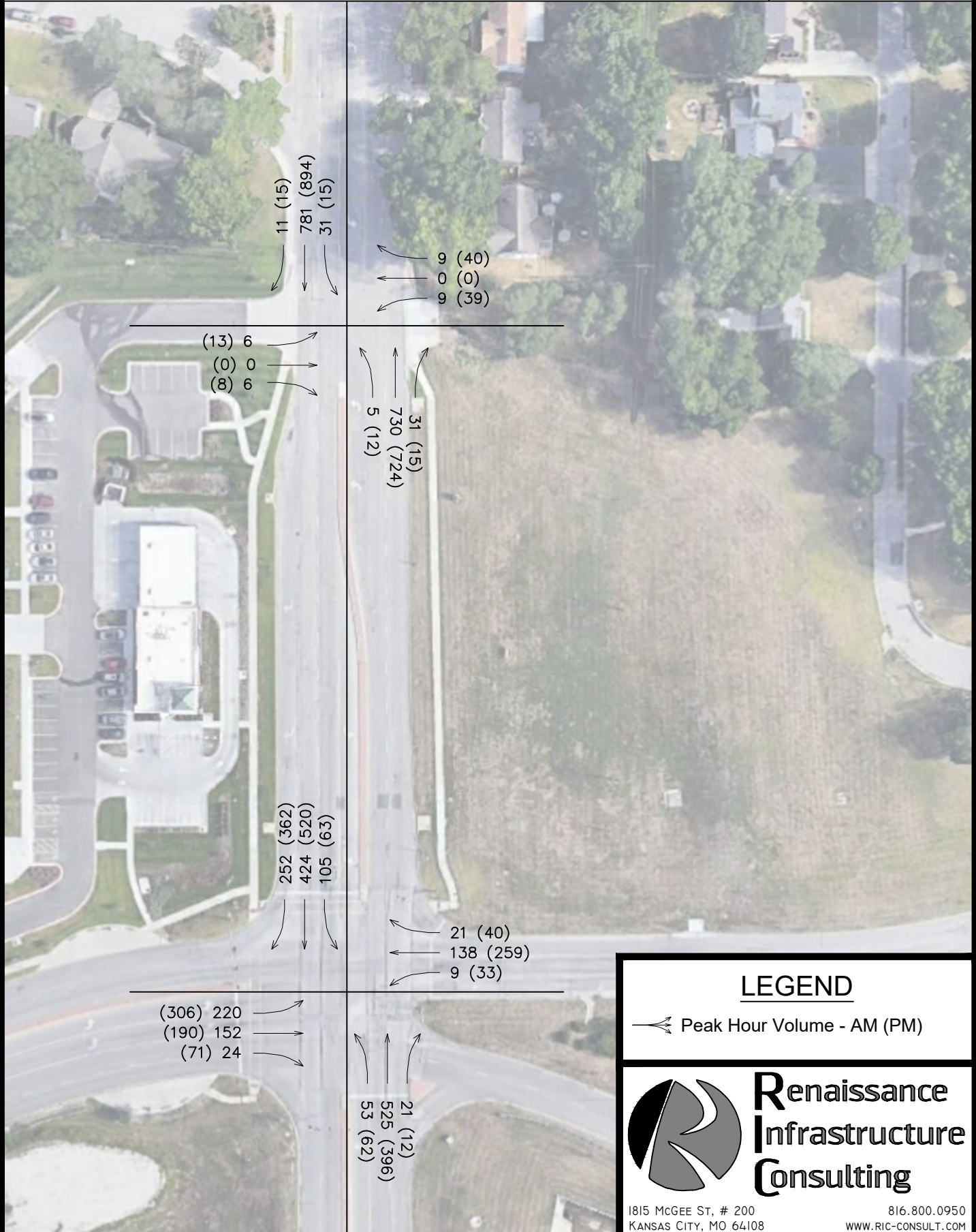


Grant Niehus, PE, PTOE  
Traffic Engineer

## **Appendix A – Turning Movement Counts**





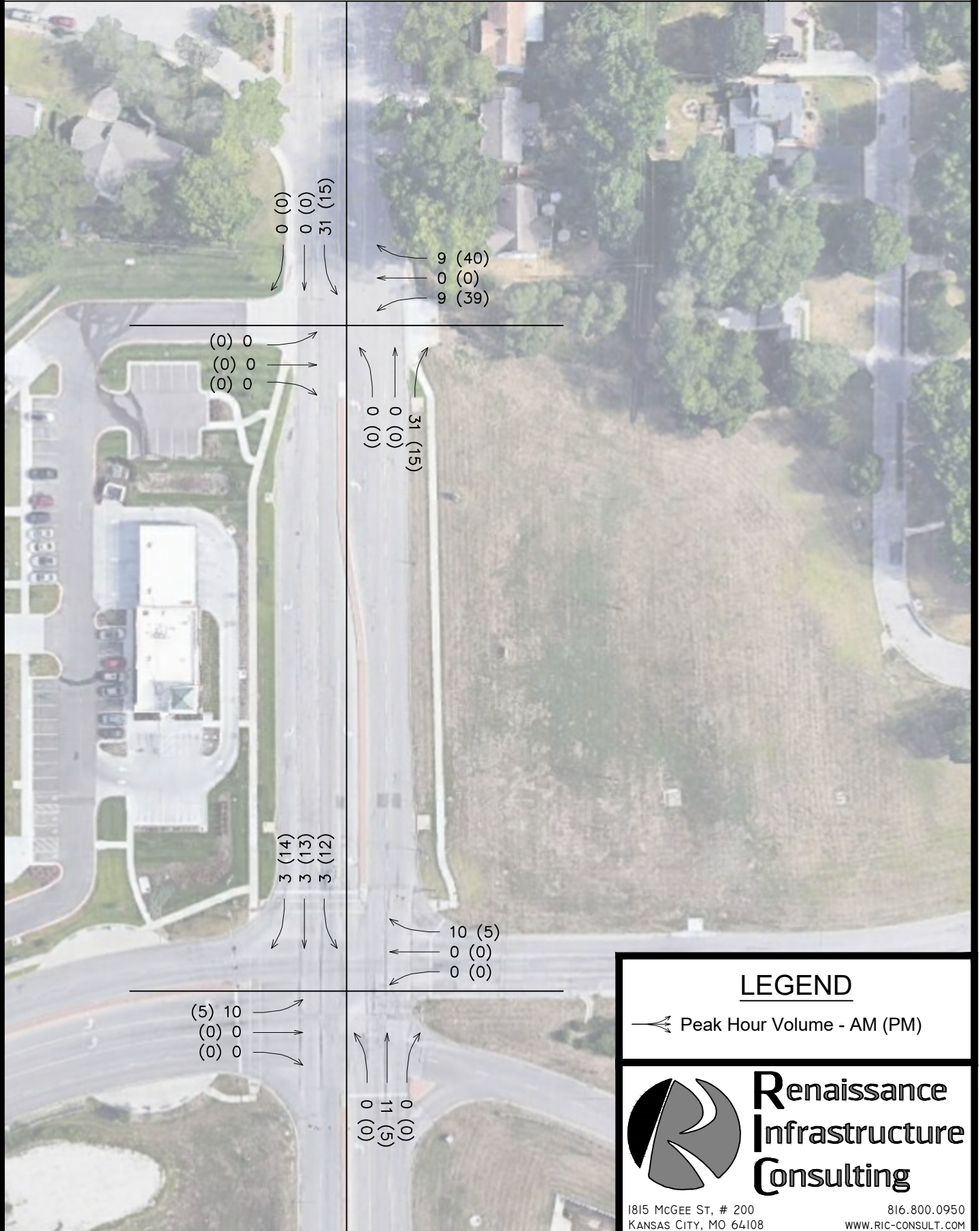


**Renaissance  
Infrastructure  
Consulting**

1815 McGEE ST, # 200  
 KANSAS CITY, MO 64108

816.800.0950  
 WWW.RIC-CONSULT.COM





# Gewalt Hamilton Associates Inc

625 Forest Edge Drive  
Vernon Hills, IL, 60061

4900.976 Johnson & Roe

File Name : Johnson Dr & Roe Ave AM

Site Code : 00000000

Start Date : 7/16/2019

Page No : 1

Groups Printed- Lights - Mediums - Articulated - Peds

|               | From North |      |      |      |            | From East |      |      |      |            | From South |      |      |      |            | From West |      |      |      |            |              |              |            |
|---------------|------------|------|------|------|------------|-----------|------|------|------|------------|------------|------|------|------|------------|-----------|------|------|------|------------|--------------|--------------|------------|
| Start Time    | Right      | Thru | Left | Peds | App. Total | Right     | Thru | Left | Peds | App. Total | Right      | Thru | Left | Peds | App. Total | Right     | Thru | Left | Peds | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM      | 28         | 49   | 20   | 0    | 97         | 2         | 31   | 4    | 0    | 37         | 1          | 64   | 7    | 0    | 72         | 2         | 13   | 25   | 0    | 40         | 0            | 246          | 246        |
| 07:15 AM      | 55         | 74   | 21   | 0    | 150        | 1         | 18   | 6    | 0    | 25         | 4          | 97   | 15   | 0    | 116        | 6         | 24   | 30   | 0    | 60         | 0            | 351          | 351        |
| 07:30 AM      | 63         | 100  | 21   | 0    | 184        | 4         | 26   | 5    | 0    | 35         | 4          | 130  | 12   | 0    | 146        | 4         | 36   | 48   | 0    | 88         | 0            | 453          | 453        |
| 07:45 AM      | 69         | 123  | 41   | 0    | 233        | 2         | 36   | 2    | 0    | 40         | 4          | 136  | 15   | 0    | 155        | 8         | 35   | 55   | 0    | 98         | 0            | 526          | 526        |
| Total         | 215        | 346  | 103  | 0    | 664        | 9         | 111  | 17   | 0    | 137        | 13         | 427  | 49   | 0    | 489        | 20        | 108  | 158  | 0    | 286        | 0            | 1576         | 1576       |
| 08:00 AM      | 59         | 99   | 22   | 0    | 180        | 3         | 34   | 1    | 0    | 38         | 8          | 136  | 8    | 0    | 152        | 8         | 36   | 49   | 0    | 93         | 0            | 463          | 463        |
| 08:15 AM      | 58         | 99   | 18   | 0    | 175        | 2         | 42   | 1    | 0    | 45         | 5          | 112  | 18   | 0    | 135        | 4         | 45   | 58   | 0    | 107        | 0            | 462          | 462        |
| 08:30 AM      | 37         | 90   | 24   | 0    | 151        | 3         | 36   | 2    | 0    | 41         | 6          | 121  | 3    | 0    | 130        | 4         | 27   | 59   | 0    | 90         | 0            | 412          | 412        |
| 08:45 AM      | 41         | 85   | 13   | 0    | 139        | 5         | 30   | 3    | 0    | 38         | 7          | 81   | 10   | 0    | 98         | 5         | 27   | 37   | 0    | 69         | 0            | 344          | 344        |
| Total         | 195        | 373  | 77   | 0    | 645        | 13        | 142  | 7    | 0    | 162        | 26         | 450  | 39   | 0    | 515        | 21        | 135  | 203  | 0    | 359        | 0            | 1681         | 1681       |
| Grand Total   | 410        | 719  | 180  | 0    | 1309       | 22        | 253  | 24   | 0    | 299        | 39         | 877  | 88   | 0    | 1004       | 41        | 243  | 361  | 0    | 645        | 0            | 3257         | 3257       |
| Apprch %      | 31.3       | 54.9 | 13.8 |      |            | 7.4       | 84.6 | 8    |      |            | 3.9        | 87.4 | 8.8  |      |            | 6.4       | 37.7 | 56   |      |            |              |              |            |
| Total %       | 12.6       | 22.1 | 5.5  |      | 40.2       | 0.7       | 7.8  | 0.7  |      | 9.2        | 1.2        | 26.9 | 2.7  |      | 30.8       | 1.3       | 7.5  | 11.1 |      | 19.8       | 0            | 100          |            |
| Lights        | 391        | 698  | 156  |      | 1245       | 21        | 242  | 24   |      | 287        | 38         | 868  | 86   |      | 992        | 41        | 233  | 351  |      | 625        | 0            | 0            | 3149       |
| % Lights      | 95.4       | 97.1 | 86.7 | 0    | 95.1       | 95.5      | 95.7 | 100  | 0    | 96         | 97.4       | 99   | 97.7 | 0    | 98.8       | 100       | 95.9 | 97.2 | 0    | 96.9       | 0            | 0            | 96.7       |
| Mediums       | 19         | 19   | 24   |      | 62         | 1         | 11   | 0    |      | 12         | 1          | 9    | 2    |      | 12         | 0         | 7    | 10   |      | 17         | 0            | 0            | 103        |
| % Mediums     | 4.6        | 2.6  | 13.3 | 0    | 4.7        | 4.5       | 4.3  | 0    | 0    | 4          | 2.6        | 1    | 2.3  | 0    | 1.2        | 0         | 2.9  | 2.8  | 0    | 2.6        | 0            | 0            | 3.2        |
| Articulated   | 0          | 1    | 0    |      | 1          | 0         | 0    | 0    |      | 0          | 0          | 0    | 0    |      | 0          | 0         | 0    | 0    |      | 0          | 0            | 0            | 1          |
| % Articulated | 0          | 0.1  | 0    | 0    | 0.1        | 0         | 0    | 0    | 0    | 0          | 0          | 0    | 0    | 0    | 0          | 0         | 0    | 0    | 0    | 0          | 0            | 0            | 0          |
| Peds          | 0          | 1    | 0    |      | 1          | 0         | 0    | 0    |      | 0          | 0          | 0    | 0    |      | 0          | 0         | 3    | 0    |      | 3          | 0            | 0            | 4          |
| % Peds        | 0          | 0.1  | 0    | 0    | 0.1        | 0         | 0    | 0    | 0    | 0          | 0          | 0    | 0    | 0    | 0          | 0         | 1.2  | 0    | 0    | 0.5        | 0            | 0            | 0.1        |

# Gewalt Hamilton Associates Inc

625 Forest Edge Drive  
Vernon Hills, IL, 60061

4900.976 Roe & Commerce Bank Driveway

File Name : Roe & Commerce Bank Driveway

Site Code : 00000000

Start Date : 7/16/2019

Page No : 1

[illegible]

# Gewalt Hamilton Associates Inc

625 Forest Edge Drive  
Vernon Hills, IL, 60061

4900.976 Johnson Dr & Roe Ave

File Name : Johnson Dr & Roe Ave PM

Site Code : 00000000

Start Date : 7/16/2019

Page No : 1

## Groups Printed- Lights - Mediums - Articulated - Peds

|               | From North |      |      |      |            | From East |      |      |      |            | From South |      |      |      |            | From West |      |      |      |            |              |              |            |
|---------------|------------|------|------|------|------------|-----------|------|------|------|------------|------------|------|------|------|------------|-----------|------|------|------|------------|--------------|--------------|------------|
| Start Time    | Right      | Thru | Left | Peds | App. Total | Right     | Thru | Left | Peds | App. Total | Right      | Thru | Left | Peds | App. Total | Right     | Thru | Left | Peds | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM      | 93         | 96   | 13   | 0    | 202        | 7         | 45   | 4    | 0    | 56         | 1          | 65   | 9    | 0    | 75         | 15        | 45   | 65   | 0    | 125        | 0            | 458          | 458        |
| 04:15 PM      | 71         | 71   | 19   | 0    | 161        | 5         | 51   | 9    | 0    | 65         | 3          | 80   | 14   | 0    | 97         | 18        | 40   | 71   | 0    | 129        | 0            | 452          | 452        |
| 04:30 PM      | 76         | 108  | 8    | 0    | 192        | 5         | 62   | 11   | 0    | 78         | 1          | 65   | 14   | 0    | 80         | 11        | 48   | 58   | 0    | 117        | 0            | 467          | 467        |
| 04:45 PM      | 87         | 107  | 11   | 0    | 205        | 10        | 62   | 3    | 0    | 75         | 4          | 84   | 17   | 0    | 105        | 17        | 57   | 60   | 0    | 134        | 0            | 519          | 519        |
| Total         | 327        | 382  | 51   | 0    | 760        | 27        | 220  | 27   | 0    | 274        | 9          | 294  | 54   | 0    | 357        | 61        | 190  | 254  | 0    | 505        | 0            | 1896         | 1896       |
| 05:00 PM      | 83         | 128  | 14   | 0    | 225        | 11        | 71   | 12   | 0    | 94         | 2          | 111  | 11   | 0    | 124        | 22        | 45   | 95   | 0    | 162        | 0            | 605          | 605        |
| 05:15 PM      | 92         | 127  | 10   | 0    | 229        | 8         | 67   | 5    | 0    | 80         | 4          | 92   | 18   | 0    | 114        | 22        | 44   | 71   | 0    | 137        | 0            | 560          | 560        |
| 05:30 PM      | 81         | 132  | 13   | 0    | 226        | 8         | 54   | 11   | 0    | 73         | 1          | 103  | 14   | 0    | 118        | 13        | 50   | 64   | 0    | 127        | 0            | 544          | 544        |
| 05:45 PM      | 92         | 120  | 14   | 0    | 226        | 8         | 67   | 5    | 0    | 80         | 5          | 85   | 19   | 0    | 109        | 14        | 51   | 71   | 0    | 136        | 0            | 551          | 551        |
| Total         | 348        | 507  | 51   | 0    | 906        | 35        | 259  | 33   | 0    | 327        | 12         | 391  | 62   | 0    | 465        | 71        | 190  | 301  | 0    | 562        | 0            | 2260         | 2260       |
| Grand Total   | 675        | 889  | 102  | 0    | 1666       | 62        | 479  | 60   | 0    | 601        | 21         | 685  | 116  | 0    | 822        | 132       | 380  | 555  | 0    | 1067       | 0            | 4156         | 4156       |
| Apprch %      | 40.5       | 53.4 | 6.1  |      |            | 10.3      | 79.7 | 10   |      |            | 2.6        | 83.3 | 14.1 |      |            | 12.4      | 35.6 | 52   |      |            |              |              |            |
| Total %       | 16.2       | 21.4 | 2.5  |      | 40.1       | 1.5       | 11.5 | 1.4  |      | 14.5       | 0.5        | 16.5 | 2.8  |      | 19.8       | 3.2       | 9.1  | 13.4 |      | 25.7       | 0            | 100          |            |
| Lights        | 661        | 882  | 91   |      | 1634       | 60        | 468  | 59   |      | 587        | 21         | 676  | 116  |      | 813        | 131       | 370  | 542  |      | 1043       | 0            | 0            | 4077       |
| % Lights      | 97.9       | 99.2 | 89.2 | 0    | 98.1       | 96.8      | 97.7 | 98.3 | 0    | 97.7       | 100        | 98.7 | 100  | 0    | 98.9       | 99.2      | 97.4 | 97.7 | 0    | 97.8       | 0            | 0            | 98.1       |
| Mediums       | 14         | 5    | 11   |      | 30         | 1         | 10   | 1    |      | 12         | 0          | 8    | 0    |      | 8          | 1         | 8    | 13   |      | 22         | 0            | 0            | 72         |
| % Mediums     | 2.1        | 0.6  | 10.8 | 0    | 1.8        | 1.6       | 2.1  | 1.7  | 0    | 2          | 0          | 1.2  | 0    | 0    | 1          | 0.8       | 2.1  | 2.3  | 0    | 2.1        | 0            | 0            | 1.7        |
| Articulated   | 0          | 0    | 0    |      | 0          | 1         | 0    | 0    |      | 1          | 0          | 0    | 0    |      | 0          | 0         | 0    | 0    |      | 0          | 0            | 0            | 1          |
| % Articulated | 0          | 0    | 0    | 0    | 0          | 1.6       | 0    | 0    | 0    | 0.2        | 0          | 0    | 0    | 0    | 0          | 0         | 0    | 0    | 0    | 0          | 0            | 0            | 0          |
| Peds          | 0          | 2    | 0    |      | 2          | 0         | 1    | 0    |      | 1          | 0          | 1    | 0    |      | 1          | 0         | 2    | 0    |      | 2          | 0            | 0            | 6          |
| % Peds        | 0          | 0.2  | 0    | 0    | 0.1        | 0         | 0.2  | 0    | 0    | 0.2        | 0          | 0.1  | 0    | 0    | 0.1        | 0         | 0.5  | 0    | 0    | 0.2        | 0            | 0            | 0.1        |



# Gewalt Hamilton Associates Inc

625 Forest Edge Drive  
Vernon Hills, IL, 60061

4900.976 Roe & Commerce Bank Driveway

File Name : Roe & Commerce Bank Driveway PM

Site Code : 00000000

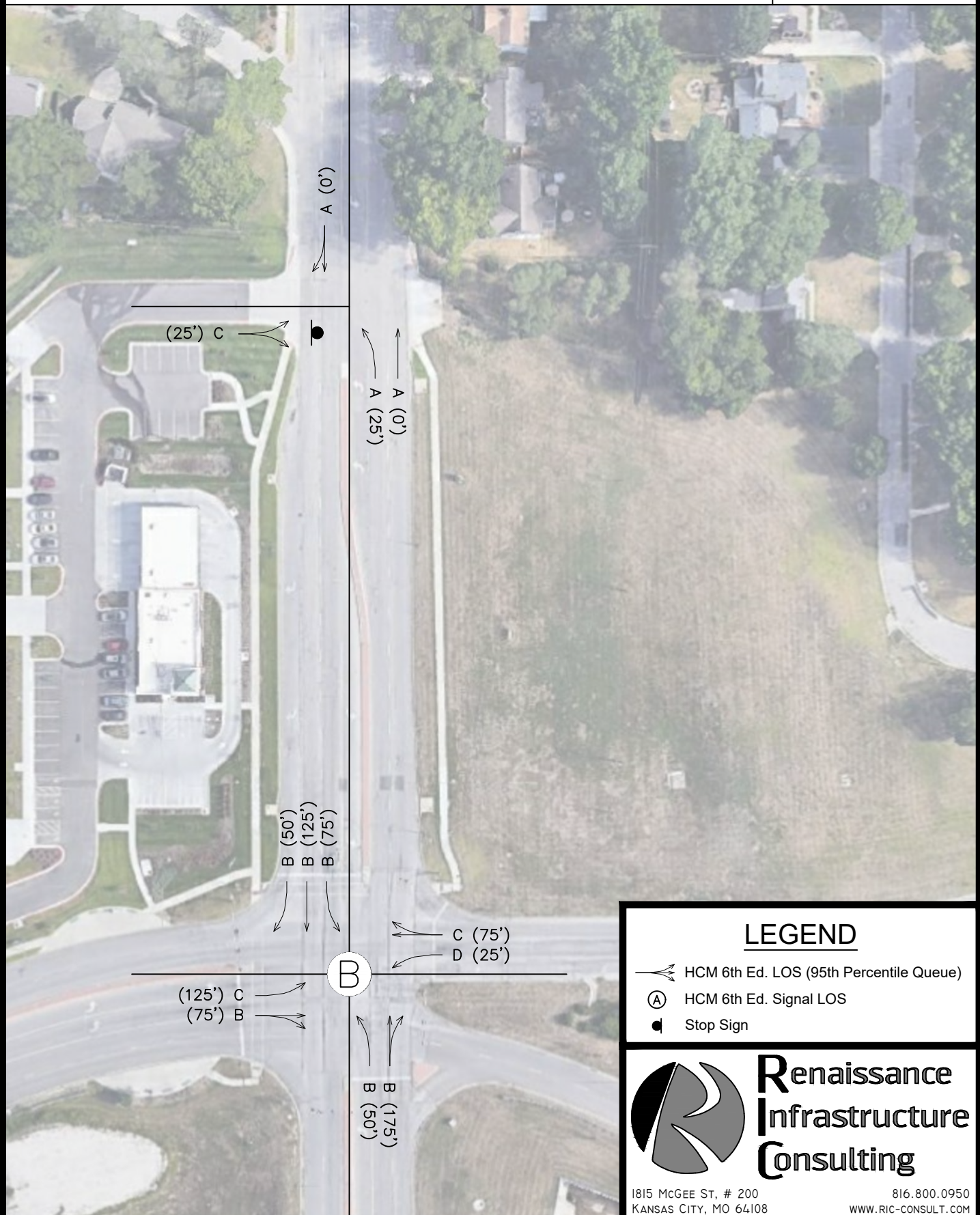
Start Date : 7/16/2019

Page No : 1

Groups Printed- Lights - Mediums - Articulated - Peds

[illegible]

## **Appendix B – Operational Analysis**



**Renaissance  
Infrastructure  
Consulting**

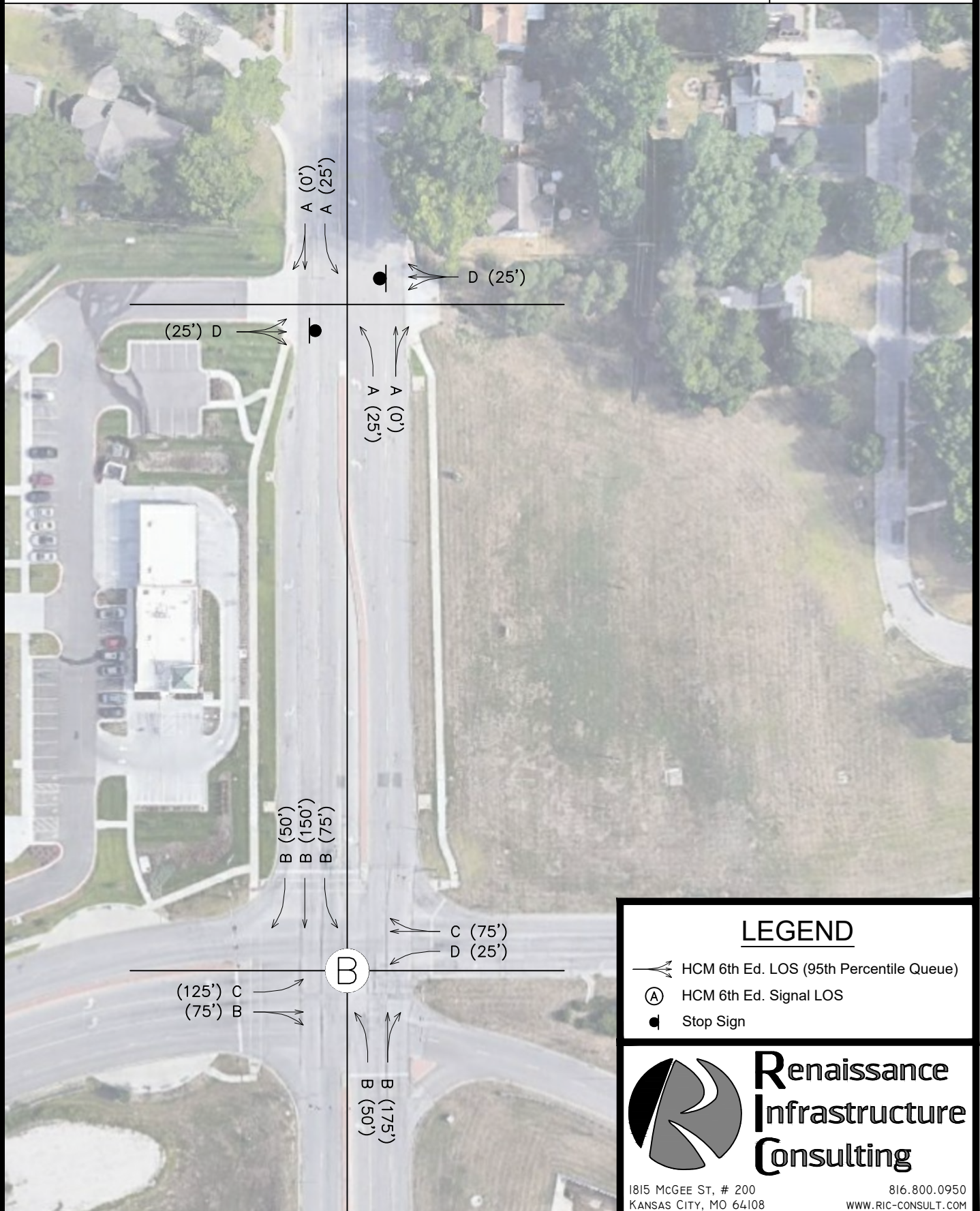
1815 McGEE ST, # 200  
 KANSAS CITY, MO 64108

816.800.0950  
 WWW.RIC-CONSULT.COM



# Existing + Development AM Peak Hour Levels of Service

Figure B-2



**Renaissance  
Infrastructure  
Consulting**

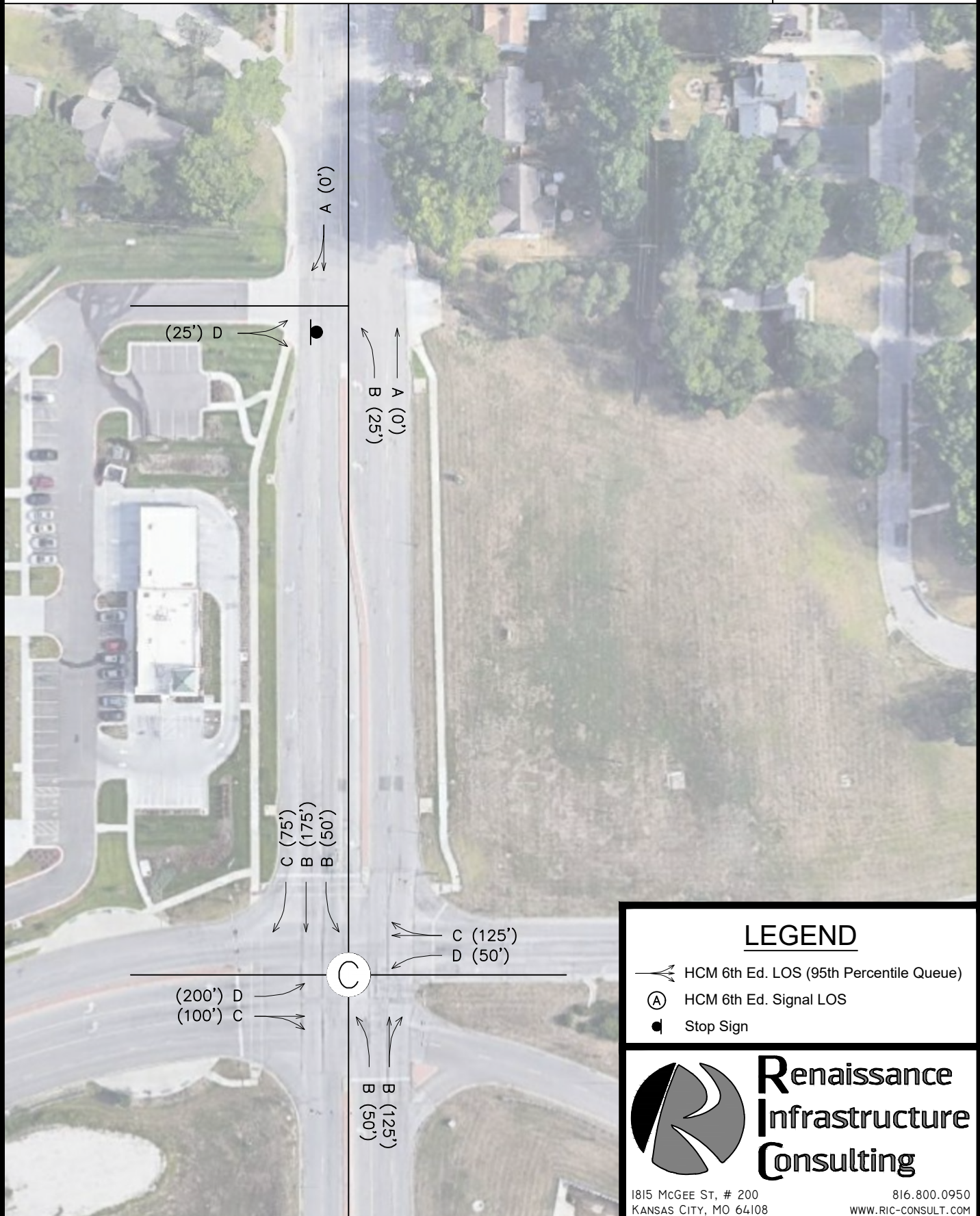
1815 McGEE ST, # 200  
KANSAS CITY, MO 64108

816.800.0950  
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# Existing PM Peak Hour Levels of Service

Figure B-3



**Renaissance  
Infrastructure  
Consulting**

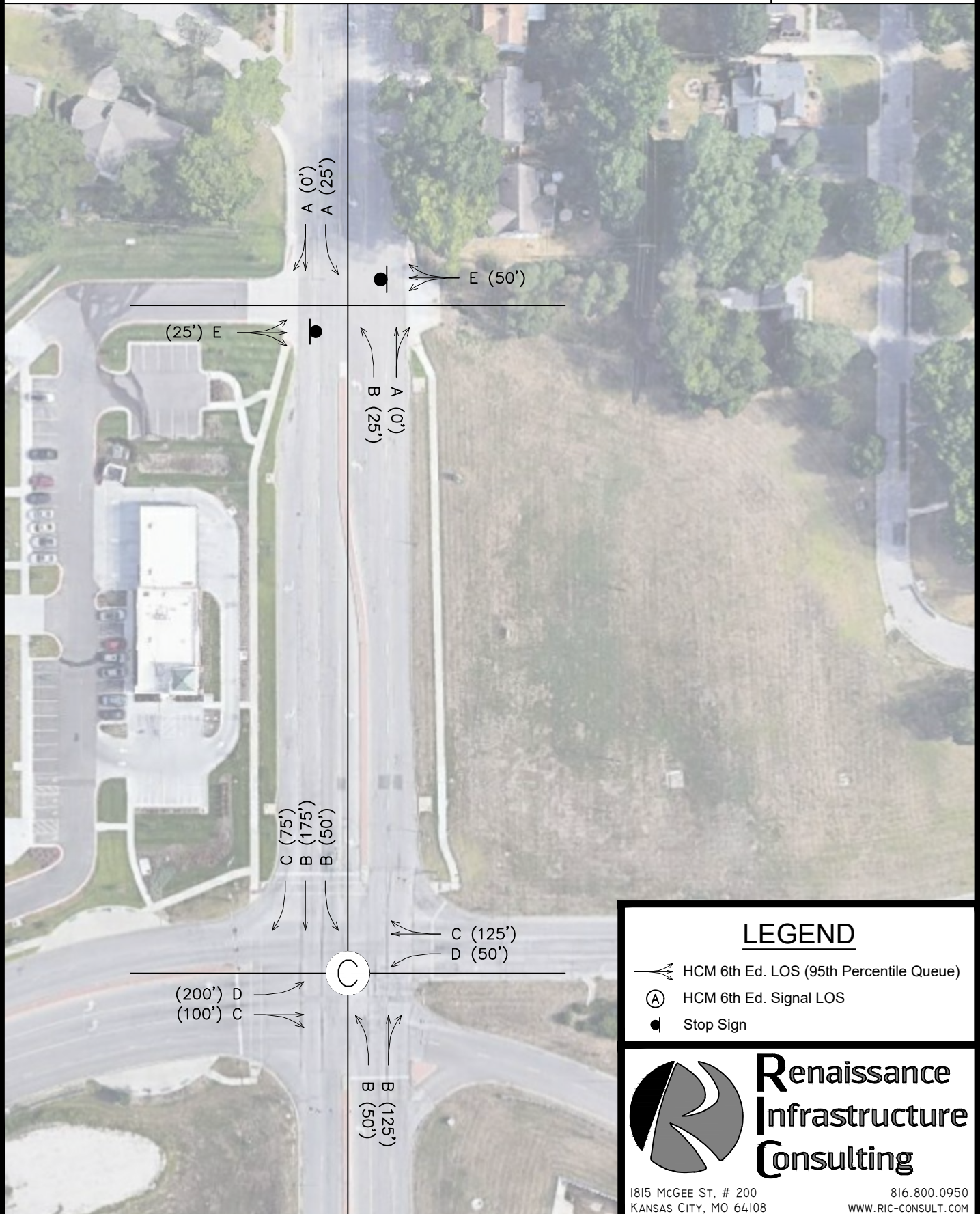
1815 McGEE ST, # 200  
KANSAS CITY, MO 64108

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# Existing + Development PM Peak Hour Levels of Service

Figure B-4



**Renaissance  
Infrastructure  
Consulting**

1815 McGEE ST, # 200  
KANSAS CITY, MO 64108

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### 3: Roe Ave & Johnson Dr

AM Existing

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 210                                                                               | 152                                                                               | 24                                                                                | 9                                                                                 | 138                                                                               | 11                                                                                | 53                                                                                  | 514                                                                                 | 21                                                                                  | 102                                                                                 | 421                                                                                 | 249                                                                                 |
| Future Volume (veh/h)        | 210                                                                               | 152                                                                               | 24                                                                                | 9                                                                                 | 138                                                                               | 11                                                                                | 53                                                                                  | 514                                                                                 | 21                                                                                  | 102                                                                                 | 421                                                                                 | 249                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Adj Flow Rate, veh/h         | 231                                                                               | 167                                                                               | 26                                                                                | 10                                                                                | 152                                                                               | 12                                                                                | 58                                                                                  | 565                                                                                 | 23                                                                                  | 112                                                                                 | 463                                                                                 | 274                                                                                 |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 359                                                                               | 592                                                                               | 91                                                                                | 23                                                                                | 337                                                                               | 26                                                                                | 363                                                                                 | 888                                                                                 | 36                                                                                  | 373                                                                                 | 990                                                                                 | 442                                                                                 |
| Arrive On Green              | 0.10                                                                              | 0.19                                                                              | 0.19                                                                              | 0.01                                                                              | 0.10                                                                              | 0.10                                                                              | 0.05                                                                                | 0.25                                                                                | 0.25                                                                                | 0.08                                                                                | 0.27                                                                                | 0.27                                                                                |
| Sat Flow, veh/h              | 3510                                                                              | 3138                                                                              | 480                                                                               | 1810                                                                              | 3392                                                                              | 265                                                                               | 1810                                                                                | 3535                                                                                | 144                                                                                 | 1810                                                                                | 3610                                                                                | 1610                                                                                |
| Grp Volume(v), veh/h         | 231                                                                               | 95                                                                                | 98                                                                                | 10                                                                                | 80                                                                                | 84                                                                                | 58                                                                                  | 288                                                                                 | 300                                                                                 | 112                                                                                 | 463                                                                                 | 274                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1755                                                                              | 1805                                                                              | 1814                                                                              | 1810                                                                              | 1805                                                                              | 1852                                                                              | 1810                                                                                | 1805                                                                                | 1874                                                                                | 1810                                                                                | 1805                                                                                | 1610                                                                                |
| Q Serve(g_s), s              | 3.2                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                               | 2.1                                                                               | 2.2                                                                               | 1.2                                                                                 | 7.3                                                                                 | 7.3                                                                                 | 2.3                                                                                 | 5.5                                                                                 | 7.6                                                                                 |
| Cycle Q Clear(g_c), s        | 3.2                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                               | 2.1                                                                               | 2.2                                                                               | 1.2                                                                                 | 7.3                                                                                 | 7.3                                                                                 | 2.3                                                                                 | 5.5                                                                                 | 7.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.26                                                                              | 1.00                                                                              |                                                                                   | 0.14                                                                              | 1.00                                                                                |                                                                                     | 0.08                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 359                                                                               | 341                                                                               | 342                                                                               | 23                                                                                | 179                                                                               | 184                                                                               | 363                                                                                 | 454                                                                                 | 471                                                                                 | 373                                                                                 | 990                                                                                 | 442                                                                                 |
| V/C Ratio(X)                 | 0.64                                                                              | 0.28                                                                              | 0.29                                                                              | 0.43                                                                              | 0.45                                                                              | 0.46                                                                              | 0.16                                                                                | 0.64                                                                                | 0.64                                                                                | 0.30                                                                                | 0.47                                                                                | 0.62                                                                                |
| Avail Cap(c_a), veh/h        | 549                                                                               | 1411                                                                              | 1418                                                                              | 177                                                                               | 1306                                                                              | 1340                                                                              | 440                                                                                 | 1235                                                                                | 1282                                                                                | 444                                                                                 | 2540                                                                                | 1133                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 22.1                                                                              | 17.8                                                                              | 17.8                                                                              | 25.1                                                                              | 21.7                                                                              | 21.7                                                                              | 12.9                                                                                | 17.1                                                                                | 17.1                                                                                | 12.9                                                                                | 15.5                                                                                | 16.2                                                                                |
| Incr Delay (d2), s/veh       | 1.9                                                                               | 0.4                                                                               | 0.5                                                                               | 11.8                                                                              | 1.7                                                                               | 1.8                                                                               | 0.2                                                                                 | 1.5                                                                                 | 1.4                                                                                 | 0.4                                                                                 | 0.3                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.3                                                                               | 0.9                                                                               | 0.9                                                                               | 0.2                                                                               | 0.9                                                                               | 1.0                                                                               | 0.4                                                                                 | 2.8                                                                                 | 2.9                                                                                 | 0.8                                                                                 | 2.0                                                                                 | 2.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 24.0                                                                              | 18.2                                                                              | 18.3                                                                              | 36.9                                                                              | 23.5                                                                              | 23.5                                                                              | 13.1                                                                                | 18.5                                                                                | 18.5                                                                                | 13.3                                                                                | 15.8                                                                                | 17.7                                                                                |
| LnGrp LOS                    | C                                                                                 | B                                                                                 | B                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 424                                                                               |                                                                                   |                                                                                   | 174                                                                               |                                                                                   |                                                                                     | 646                                                                                 |                                                                                     |                                                                                     | 849                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 21.4                                                                              |                                                                                   |                                                                                   | 24.2                                                                              |                                                                                   |                                                                                     | 18.0                                                                                |                                                                                     |                                                                                     | 16.1                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 10.0                                                                              | 18.9                                                                              | 6.7                                                                               | 15.7                                                                              | 8.8                                                                               | 20.0                                                                              | 11.2                                                                                | 11.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 6.0                                                                               | 35.0                                                                              | 5.0                                                                               | 40.0                                                                              | 5.0                                                                               | 36.0                                                                              | 8.0                                                                                 | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.3                                                                               | 9.3                                                                               | 2.3                                                                               | 4.4                                                                               | 3.2                                                                               | 9.6                                                                               | 5.2                                                                                 | 4.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 3.6                                                                               | 0.0                                                                               | 1.1                                                                               | 0.0                                                                               | 4.1                                                                               | 0.2                                                                                 | 0.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 18.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.2                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |        |  |  |  |  |
| Traffic Vol, veh/h       | 6                                                                                 | 6      | 5                                                                                 | 730                                                                               | 781                                                                               | 11                                                                                |
| Future Vol, veh/h        | 6                                                                                 | 6      | 5                                                                                 | 730                                                                               | 781                                                                               | 11                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 89                                                                                | 89     | 89                                                                                | 89                                                                                | 89                                                                                | 89                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 7                                                                                 | 7      | 6                                                                                 | 820                                                                               | 878                                                                               | 12                                                                                |
|                          |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1306                                                                              | 445    | 890                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 884                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 422                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.8                                                                               | 6.9    | 4.1                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.8                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.8                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.5                                                                               | 3.3    | 2.2                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 154                                                                               | 566    | 770                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 369                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 635                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 153                                                                               | 566    | 770                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 153                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 366                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 635                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                          |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 20.8                                                                              | 0.1    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                   |
| Capacity (veh/h)         | 770                                                                               | -      | 241                                                                               | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.007                                                                             | -      | 0.056                                                                             | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 9.7                                                                               | -      | 20.8                                                                              | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane LOS             | A                                                                                 | -      | C                                                                                 | -                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.2                                                                               | -                                                                                 | -                                                                                 |                                                                                   |



### 3: Roe Ave & Johnson Dr

AM Existing



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 231  | 193  | 10   | 164  | 58   | 588  | 112  | 463  | 274  |
| v/c Ratio               | 0.50 | 0.16 | 0.07 | 0.32 | 0.15 | 0.57 | 0.33 | 0.38 | 0.38 |
| Control Delay           | 34.3 | 17.8 | 34.9 | 27.6 | 11.2 | 21.9 | 13.1 | 17.8 | 4.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.3 | 17.8 | 34.9 | 27.6 | 11.2 | 21.9 | 13.1 | 17.8 | 4.1  |
| Queue Length 50th (ft)  | 42   | 23   | 4    | 28   | 12   | 102  | 23   | 76   | 0    |
| Queue Length 95th (ft)  | #115 | 73   | 21   | 68   | 32   | 164  | 55   | 125  | 45   |
| Internal Link Dist (ft) |      | 931  |      | 442  |      | 500  |      | 359  |      |
| Turn Bay Length (ft)    | 250  |      | 160  |      | 190  |      | 175  |      | 290  |
| Base Capacity (vph)     | 460  | 2334 | 148  | 2175 | 391  | 2067 | 340  | 2137 | 1067 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.50 | 0.08 | 0.07 | 0.08 | 0.15 | 0.28 | 0.33 | 0.22 | 0.26 |

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues

### 3: Roe Ave & Johnson Dr

AM Existing + Development

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 220                                                                               | 152                                                                               | 24                                                                                | 9                                                                                 | 138                                                                               | 21                                                                                | 53                                                                                  | 525                                                                                 | 21                                                                                  | 105                                                                                 | 424                                                                                 | 252                                                                                 |
| Future Volume (veh/h)        | 220                                                                               | 152                                                                               | 24                                                                                | 9                                                                                 | 138                                                                               | 21                                                                                | 53                                                                                  | 525                                                                                 | 21                                                                                  | 105                                                                                 | 424                                                                                 | 252                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Adj Flow Rate, veh/h         | 242                                                                               | 167                                                                               | 26                                                                                | 10                                                                                | 152                                                                               | 23                                                                                | 58                                                                                  | 577                                                                                 | 23                                                                                  | 115                                                                                 | 466                                                                                 | 277                                                                                 |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 370                                                                               | 615                                                                               | 94                                                                                | 23                                                                                | 326                                                                               | 49                                                                                | 360                                                                                 | 894                                                                                 | 36                                                                                  | 368                                                                                 | 996                                                                                 | 444                                                                                 |
| Arrive On Green              | 0.11                                                                              | 0.20                                                                              | 0.20                                                                              | 0.01                                                                              | 0.10                                                                              | 0.10                                                                              | 0.05                                                                                | 0.25                                                                                | 0.25                                                                                | 0.08                                                                                | 0.28                                                                                | 0.28                                                                                |
| Sat Flow, veh/h              | 3510                                                                              | 3138                                                                              | 480                                                                               | 1810                                                                              | 3152                                                                              | 469                                                                               | 1810                                                                                | 3539                                                                                | 141                                                                                 | 1810                                                                                | 3610                                                                                | 1610                                                                                |
| Grp Volume(v), veh/h         | 242                                                                               | 95                                                                                | 98                                                                                | 10                                                                                | 86                                                                                | 89                                                                                | 58                                                                                  | 294                                                                                 | 306                                                                                 | 115                                                                                 | 466                                                                                 | 277                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1755                                                                              | 1805                                                                              | 1814                                                                              | 1810                                                                              | 1805                                                                              | 1816                                                                              | 1810                                                                                | 1805                                                                                | 1875                                                                                | 1810                                                                                | 1805                                                                                | 1610                                                                                |
| Q Serve(g_s), s              | 3.5                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                               | 2.3                                                                               | 2.4                                                                               | 1.2                                                                                 | 7.6                                                                                 | 7.6                                                                                 | 2.4                                                                                 | 5.6                                                                                 | 7.8                                                                                 |
| Cycle Q Clear(g_c), s        | 3.5                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                               | 2.3                                                                               | 2.4                                                                               | 1.2                                                                                 | 7.6                                                                                 | 7.6                                                                                 | 2.4                                                                                 | 5.6                                                                                 | 7.8                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.26                                                                              | 1.00                                                                              |                                                                                   | 0.26                                                                              | 1.00                                                                                |                                                                                     | 0.08                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 370                                                                               | 354                                                                               | 355                                                                               | 23                                                                                | 187                                                                               | 188                                                                               | 360                                                                                 | 456                                                                                 | 474                                                                                 | 368                                                                                 | 996                                                                                 | 444                                                                                 |
| V/C Ratio(X)                 | 0.65                                                                              | 0.27                                                                              | 0.28                                                                              | 0.43                                                                              | 0.46                                                                              | 0.47                                                                              | 0.16                                                                                | 0.64                                                                                | 0.65                                                                                | 0.31                                                                                | 0.47                                                                                | 0.62                                                                                |
| Avail Cap(c_a), veh/h        | 539                                                                               | 1386                                                                              | 1393                                                                              | 174                                                                               | 1282                                                                              | 1290                                                                              | 435                                                                                 | 1143                                                                                | 1188                                                                                | 505                                                                                 | 2495                                                                                | 1113                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 22.4                                                                              | 17.8                                                                              | 17.8                                                                              | 25.5                                                                              | 22.0                                                                              | 22.0                                                                              | 13.1                                                                                | 17.4                                                                                | 17.4                                                                                | 13.1                                                                                | 15.7                                                                                | 16.5                                                                                |
| Incr Delay (d2), s/veh       | 2.0                                                                               | 0.4                                                                               | 0.4                                                                               | 11.9                                                                              | 1.8                                                                               | 1.9                                                                               | 0.2                                                                                 | 1.5                                                                                 | 1.5                                                                                 | 0.5                                                                                 | 0.3                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.4                                                                               | 0.9                                                                               | 0.9                                                                               | 0.2                                                                               | 1.0                                                                               | 1.0                                                                               | 0.4                                                                                 | 2.9                                                                                 | 3.0                                                                                 | 0.9                                                                                 | 2.0                                                                                 | 2.7                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 24.4                                                                              | 18.2                                                                              | 18.2                                                                              | 37.4                                                                              | 23.7                                                                              | 23.9                                                                              | 13.3                                                                                | 18.9                                                                                | 18.9                                                                                | 13.6                                                                                | 16.0                                                                                | 17.9                                                                                |
| LnGrp LOS                    | C                                                                                 | B                                                                                 | B                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 435                                                                               |                                                                                   |                                                                                   | 185                                                                               |                                                                                   |                                                                                     | 658                                                                                 |                                                                                     |                                                                                     | 858                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 21.6                                                                              |                                                                                   |                                                                                   | 24.5                                                                              |                                                                                   |                                                                                     | 18.4                                                                                |                                                                                     |                                                                                     | 16.3                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 10.1                                                                              | 19.2                                                                              | 6.7                                                                               | 16.2                                                                              | 8.8                                                                               | 20.4                                                                              | 11.5                                                                                | 11.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 8.0                                                                               | 33.0                                                                              | 5.0                                                                               | 40.0                                                                              | 5.0                                                                               | 36.0                                                                              | 8.0                                                                                 | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.4                                                                               | 9.6                                                                               | 2.3                                                                               | 4.4                                                                               | 3.2                                                                               | 9.8                                                                               | 5.5                                                                                 | 4.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.6                                                                               | 0.0                                                                               | 1.1                                                                               | 0.0                                                                               | 4.1                                                                               | 0.2                                                                                 | 1.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 18.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |        |      |        |            |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|------------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8    |      |        |            |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL        | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |            | ↕      |       | ↕      | ↕    |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 6      | 0    | 6      | 9          | 0      | 9     | 5      | 730  | 31   | 31   | 781  | 11   |
| Future Vol, veh/h        | 6      | 0    | 6      | 9          | 0      | 9     | 5      | 730  | 31   | 31   | 781  | 11   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -          | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | -      | -          | -      | -     | 0      | -    | -    | 0    | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 89     | 89   | 89     | 89         | 89     | 89    | 89     | 89   | 89   | 89   | 89   | 89   |
| Heavy Vehicles, %        | 0      | 2    | 0      | 2          | 2      | 2     | 0      | 0    | 2    | 2    | 0    | 0    |
| Mvmt Flow                | 7      | 0    | 7      | 10         | 0      | 10    | 6      | 820  | 35   | 35   | 878  | 12   |
| Major/Minor              | Minor2 |      | Minor1 |            | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 1376   | 1821 | 445    | 1359       | 1810   | 428   | 890    | 0    | 0    | 855  | 0    | 0    |
| Stage 1                  | 954    | 954  | -      | 850        | 850    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 422    | 867  | -      | 509        | 960    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.5    | 6.54 | 6.9    | 7.54       | 6.54   | 6.94  | 4.1    | -    | -    | 4.14 | -    | -    |
| Critical Hdwy Stg 1      | 6.5    | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.5    | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 4.02 | 3.3    | 3.52       | 4.02   | 3.32  | 2.2    | -    | -    | 2.22 | -    | -    |
| Pot Cap-1 Maneuver       | 106    | 77   | 566    | 107        | 78     | 575   | 770    | -    | -    | 781  | -    | -    |
| Stage 1                  | 282    | 335  | -      | 322        | 375    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 585    | 368  | -      | 515        | 333    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |            |        |       |        | -    | -    | -    | -    | -    |
| Mov Cap-1 Maneuver       | 100    | 73   | 566    | 102        | 74     | 575   | 770    | -    | -    | 781  | -    | -    |
| Mov Cap-2 Maneuver       | 100    | 73   | -      | 102        | 74     | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 280    | 320  | -      | 319        | 372    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 570    | 365  | -      | 486        | 318    | -     | -      | -    | -    | -    | -    | -    |
| Approach                 | EB     |      | WB     |            | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 28     |      | 28.5   |            | 0.1    |       | 0.4    |      |      |      |      |      |
| HCM LOS                  | D      |      | D      |            |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 770    | -    | -      | 170        | 173    | 781   | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | 0.007  | -    | -      | 0.079      | 0.117  | 0.045 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 9.7    | -    | -      | 28         | 28.5   | 9.8   | -      | -    |      |      |      |      |
| HCM Lane LOS             | A      | -    | -      | D          | D      | A     | -      | -    |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | 0.3        | 0.4    | 0.1   | -      | -    |      |      |      |      |

### 3: Roe Ave & Johnson Dr

AM Existing + Development



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 242  | 193  | 10   | 175  | 58   | 600  | 115  | 466  | 277  |
| v/c Ratio               | 0.54 | 0.16 | 0.07 | 0.34 | 0.15 | 0.59 | 0.32 | 0.37 | 0.37 |
| Control Delay           | 36.1 | 18.4 | 35.7 | 27.3 | 11.2 | 23.1 | 12.6 | 17.4 | 4.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.1 | 18.4 | 35.7 | 27.3 | 11.2 | 23.1 | 12.6 | 17.4 | 4.0  |
| Queue Length 50th (ft)  | 47   | 24   | 4    | 30   | 12   | 110  | 24   | 77   | 0    |
| Queue Length 95th (ft)  | #123 | 73   | 21   | 70   | 32   | 175  | 56   | 126  | 45   |
| Internal Link Dist (ft) |      | 931  |      | 442  |      | 500  |      | 359  |      |
| Turn Bay Length (ft)    | 250  |      | 160  |      | 190  |      | 175  |      | 290  |
| Base Capacity (vph)     | 449  | 2276 | 144  | 2106 | 384  | 1901 | 379  | 2084 | 1049 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.54 | 0.08 | 0.07 | 0.08 | 0.15 | 0.32 | 0.30 | 0.22 | 0.26 |

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



### 3: Roe Ave & Johnson Dr

PM Existing

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 301                                                                               | 190                                                                               | 71                                                                                | 33                                                                                | 259                                                                               | 35                                                                                | 62                                                                                  | 391                                                                                 | 12                                                                                  | 51                                                                                  | 507                                                                                 | 348                                                                                 |
| Future Volume (veh/h)        | 301                                                                               | 190                                                                               | 71                                                                                | 33                                                                                | 259                                                                               | 35                                                                                | 62                                                                                  | 391                                                                                 | 12                                                                                  | 51                                                                                  | 507                                                                                 | 348                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Adj Flow Rate, veh/h         | 324                                                                               | 204                                                                               | 76                                                                                | 35                                                                                | 278                                                                               | 38                                                                                | 67                                                                                  | 420                                                                                 | 13                                                                                  | 55                                                                                  | 545                                                                                 | 374                                                                                 |
| Peak Hour Factor             | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 422                                                                               | 590                                                                               | 213                                                                               | 65                                                                                | 456                                                                               | 62                                                                                | 327                                                                                 | 1142                                                                                | 35                                                                                  | 420                                                                                 | 1133                                                                                | 505                                                                                 |
| Arrive On Green              | 0.12                                                                              | 0.23                                                                              | 0.23                                                                              | 0.04                                                                              | 0.14                                                                              | 0.14                                                                              | 0.05                                                                                | 0.32                                                                                | 0.32                                                                                | 0.05                                                                                | 0.31                                                                                | 0.31                                                                                |
| Sat Flow, veh/h              | 3510                                                                              | 2598                                                                              | 938                                                                               | 1810                                                                              | 3195                                                                              | 432                                                                               | 1810                                                                                | 3575                                                                                | 110                                                                                 | 1810                                                                                | 3610                                                                                | 1610                                                                                |
| Grp Volume(v), veh/h         | 324                                                                               | 140                                                                               | 140                                                                               | 35                                                                                | 156                                                                               | 160                                                                               | 67                                                                                  | 212                                                                                 | 221                                                                                 | 55                                                                                  | 545                                                                                 | 374                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1755                                                                              | 1805                                                                              | 1731                                                                              | 1810                                                                              | 1805                                                                              | 1822                                                                              | 1810                                                                                | 1805                                                                                | 1880                                                                                | 1810                                                                                | 1805                                                                                | 1610                                                                                |
| Q Serve(g_s), s              | 5.8                                                                               | 4.2                                                                               | 4.4                                                                               | 1.2                                                                               | 5.3                                                                               | 5.4                                                                               | 1.6                                                                                 | 5.9                                                                                 | 5.9                                                                                 | 1.3                                                                                 | 7.9                                                                                 | 13.5                                                                                |
| Cycle Q Clear(g_c), s        | 5.8                                                                               | 4.2                                                                               | 4.4                                                                               | 1.2                                                                               | 5.3                                                                               | 5.4                                                                               | 1.6                                                                                 | 5.9                                                                                 | 5.9                                                                                 | 1.3                                                                                 | 7.9                                                                                 | 13.5                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.54                                                                              | 1.00                                                                              |                                                                                   | 0.24                                                                              | 1.00                                                                                |                                                                                     | 0.06                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 422                                                                               | 410                                                                               | 393                                                                               | 65                                                                                | 258                                                                               | 260                                                                               | 327                                                                                 | 576                                                                                 | 600                                                                                 | 420                                                                                 | 1133                                                                                | 505                                                                                 |
| V/C Ratio(X)                 | 0.77                                                                              | 0.34                                                                              | 0.36                                                                              | 0.54                                                                              | 0.60                                                                              | 0.62                                                                              | 0.20                                                                                | 0.37                                                                                | 0.37                                                                                | 0.13                                                                                | 0.48                                                                                | 0.74                                                                                |
| Avail Cap(c_a), veh/h        | 432                                                                               | 1083                                                                              | 1038                                                                              | 167                                                                               | 1027                                                                              | 1037                                                                              | 368                                                                                 | 999                                                                                 | 1041                                                                                | 472                                                                                 | 1999                                                                                | 892                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.7                                                                              | 21.1                                                                              | 21.1                                                                              | 30.8                                                                              | 26.1                                                                              | 26.2                                                                              | 14.0                                                                                | 17.1                                                                                | 17.1                                                                                | 13.9                                                                                | 18.0                                                                                | 19.9                                                                                |
| Incr Delay (d2), s/veh       | 8.0                                                                               | 0.5                                                                               | 0.5                                                                               | 6.7                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                                 | 0.4                                                                                 | 0.4                                                                                 | 0.1                                                                                 | 0.3                                                                                 | 2.2                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 2.8                                                                               | 1.7                                                                               | 1.8                                                                               | 0.6                                                                               | 2.3                                                                               | 2.4                                                                               | 0.6                                                                                 | 2.3                                                                                 | 2.4                                                                                 | 0.5                                                                                 | 3.0                                                                                 | 4.9                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.7                                                                              | 21.5                                                                              | 21.7                                                                              | 37.5                                                                              | 28.4                                                                              | 28.6                                                                              | 14.3                                                                                | 17.5                                                                                | 17.4                                                                                | 14.0                                                                                | 18.3                                                                                | 22.1                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 604                                                                               |                                                                                   |                                                                                   | 351                                                                               |                                                                                   |                                                                                     | 500                                                                                 |                                                                                     |                                                                                     | 974                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 29.2                                                                              |                                                                                   |                                                                                   | 29.4                                                                              |                                                                                   |                                                                                     | 17.0                                                                                |                                                                                     |                                                                                     | 19.5                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.1                                                                               | 26.8                                                                              | 8.3                                                                               | 20.8                                                                              | 9.5                                                                               | 26.4                                                                              | 13.8                                                                                | 15.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 36.0                                                                              | 6.0                                                                               | 39.0                                                                              | 5.0                                                                               | 36.0                                                                              | 8.0                                                                                 | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 3.3                                                                               | 7.9                                                                               | 3.2                                                                               | 6.4                                                                               | 3.6                                                                               | 15.5                                                                              | 7.8                                                                                 | 7.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.5                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 4.9                                                                               | 0.0                                                                                 | 1.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 22.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |        |  |  |  |  |
| Traffic Vol, veh/h       | 13                                                                                | 8      | 12                                                                                | 724                                                                               | 894                                                                               | 15                                                                                |
| Future Vol, veh/h        | 13                                                                                | 8      | 12                                                                                | 724                                                                               | 894                                                                               | 15                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 94                                                                                | 94     | 94                                                                                | 94                                                                                | 94                                                                                | 94                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 14                                                                                | 9      | 13                                                                                | 770                                                                               | 951                                                                               | 16                                                                                |
| Major/Minor              | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1370                                                                              | 484    | 967                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                  | 959                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 411                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 6.8                                                                               | 6.9    | 4.1                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1      | 5.8                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.8                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.5                                                                               | 3.3    | 2.2                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver       | 140                                                                               | 534    | 720                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 337                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 643                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 137                                                                               | 534    | 720                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver       | 137                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 331                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 643                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 26.3                                                                              | 0.2    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                  | D                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                   |
| Capacity (veh/h)         | 720                                                                               | -      | 191                                                                               | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.018                                                                             | -      | 0.117                                                                             | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 10.1                                                                              | -      | 26.3                                                                              | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane LOS             | B                                                                                 | -      | D                                                                                 | -                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -      | 0.4                                                                               | -                                                                                 | -                                                                                 |                                                                                   |

### 3: Roe Ave & Johnson Dr

PM Existing



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 324  | 280  | 35   | 316  | 67   | 433  | 55   | 545  | 374  |
| v/c Ratio               | 0.73 | 0.24 | 0.21 | 0.51 | 0.20 | 0.37 | 0.14 | 0.52 | 0.51 |
| Control Delay           | 43.3 | 18.1 | 36.9 | 28.8 | 12.5 | 18.6 | 11.8 | 21.7 | 4.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 43.3 | 18.1 | 36.9 | 28.8 | 12.5 | 18.6 | 11.8 | 21.7 | 4.9  |
| Queue Length 50th (ft)  | 66   | 30   | 13   | 58   | 15   | 75   | 12   | 98   | 0    |
| Queue Length 95th (ft)  | #185 | 94   | 49   | 122  | 37   | 119  | 32   | 152  | 52   |
| Internal Link Dist (ft) |      | 931  |      | 442  |      | 500  |      | 359  |      |
| Turn Bay Length (ft)    | 250  |      | 160  |      | 190  |      | 175  |      | 290  |
| Base Capacity (vph)     | 444  | 2161 | 171  | 2085 | 331  | 2051 | 394  | 2060 | 1082 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.73 | 0.13 | 0.20 | 0.15 | 0.20 | 0.21 | 0.14 | 0.26 | 0.35 |

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

### 3: Roe Ave & Johnson Dr

PM Existing + Development

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 306                                                                               | 190                                                                               | 71                                                                                | 33                                                                                | 259                                                                               | 40                                                                                | 62                                                                                  | 396                                                                                 | 12                                                                                  | 63                                                                                  | 520                                                                                 | 362                                                                                 |
| Future Volume (veh/h)        | 306                                                                               | 190                                                                               | 71                                                                                | 33                                                                                | 259                                                                               | 40                                                                                | 62                                                                                  | 396                                                                                 | 12                                                                                  | 63                                                                                  | 520                                                                                 | 362                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Adj Flow Rate, veh/h         | 329                                                                               | 204                                                                               | 76                                                                                | 35                                                                                | 278                                                                               | 43                                                                                | 67                                                                                  | 426                                                                                 | 13                                                                                  | 68                                                                                  | 559                                                                                 | 389                                                                                 |
| Peak Hour Factor             | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 422                                                                               | 593                                                                               | 214                                                                               | 65                                                                                | 451                                                                               | 69                                                                                | 323                                                                                 | 1149                                                                                | 35                                                                                  | 427                                                                                 | 1161                                                                                | 518                                                                                 |
| Arrive On Green              | 0.12                                                                              | 0.23                                                                              | 0.23                                                                              | 0.04                                                                              | 0.14                                                                              | 0.14                                                                              | 0.05                                                                                | 0.32                                                                                | 0.32                                                                                | 0.05                                                                                | 0.32                                                                                | 0.32                                                                                |
| Sat Flow, veh/h              | 3510                                                                              | 2598                                                                              | 938                                                                               | 1810                                                                              | 3139                                                                              | 480                                                                               | 1810                                                                                | 3576                                                                                | 109                                                                                 | 1810                                                                                | 3610                                                                                | 1610                                                                                |
| Grp Volume(v), veh/h         | 329                                                                               | 140                                                                               | 140                                                                               | 35                                                                                | 158                                                                               | 163                                                                               | 67                                                                                  | 215                                                                                 | 224                                                                                 | 68                                                                                  | 559                                                                                 | 389                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1755                                                                              | 1805                                                                              | 1731                                                                              | 1810                                                                              | 1805                                                                              | 1814                                                                              | 1810                                                                                | 1805                                                                                | 1880                                                                                | 1810                                                                                | 1805                                                                                | 1610                                                                                |
| Q Serve(g_s), s              | 6.0                                                                               | 4.3                                                                               | 4.5                                                                               | 1.3                                                                               | 5.5                                                                               | 5.6                                                                               | 1.6                                                                                 | 6.1                                                                                 | 6.1                                                                                 | 1.6                                                                                 | 8.3                                                                                 | 14.4                                                                                |
| Cycle Q Clear(g_c), s        | 6.0                                                                               | 4.3                                                                               | 4.5                                                                               | 1.3                                                                               | 5.5                                                                               | 5.6                                                                               | 1.6                                                                                 | 6.1                                                                                 | 6.1                                                                                 | 1.6                                                                                 | 8.3                                                                                 | 14.4                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.54                                                                              | 1.00                                                                              |                                                                                   | 0.26                                                                              | 1.00                                                                                |                                                                                     | 0.06                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 422                                                                               | 412                                                                               | 395                                                                               | 65                                                                                | 259                                                                               | 261                                                                               | 323                                                                                 | 580                                                                                 | 604                                                                                 | 427                                                                                 | 1161                                                                                | 518                                                                                 |
| V/C Ratio(X)                 | 0.78                                                                              | 0.34                                                                              | 0.36                                                                              | 0.54                                                                              | 0.61                                                                              | 0.62                                                                              | 0.21                                                                                | 0.37                                                                                | 0.37                                                                                | 0.16                                                                                | 0.48                                                                                | 0.75                                                                                |
| Avail Cap(c_a), veh/h        | 422                                                                               | 1059                                                                              | 1016                                                                              | 163                                                                               | 1005                                                                              | 1009                                                                              | 363                                                                                 | 978                                                                                 | 1018                                                                                | 466                                                                                 | 1955                                                                                | 872                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.4                                                                              | 21.5                                                                              | 21.5                                                                              | 31.5                                                                              | 26.7                                                                              | 26.8                                                                              | 14.1                                                                                | 17.4                                                                                | 17.4                                                                                | 13.8                                                                                | 18.1                                                                                | 20.2                                                                                |
| Incr Delay (d2), s/veh       | 9.0                                                                               | 0.5                                                                               | 0.5                                                                               | 6.8                                                                               | 2.3                                                                               | 2.4                                                                               | 0.3                                                                                 | 0.4                                                                                 | 0.4                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 2.2                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 2.9                                                                               | 1.8                                                                               | 1.8                                                                               | 0.7                                                                               | 2.4                                                                               | 2.5                                                                               | 0.6                                                                                 | 2.4                                                                                 | 2.5                                                                                 | 0.6                                                                                 | 3.2                                                                                 | 5.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 37.4                                                                              | 21.9                                                                              | 22.1                                                                              | 38.3                                                                              | 29.0                                                                              | 29.2                                                                              | 14.4                                                                                | 17.8                                                                                | 17.8                                                                                | 14.0                                                                                | 18.4                                                                                | 22.4                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 609                                                                               |                                                                                   |                                                                                   | 356                                                                               |                                                                                   |                                                                                   | 506                                                                                 |                                                                                     |                                                                                     | 1016                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 30.3                                                                              |                                                                                   |                                                                                   | 30.0                                                                              |                                                                                   |                                                                                   | 17.3                                                                                |                                                                                     |                                                                                     | 19.6                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.6                                                                               | 27.3                                                                              | 8.4                                                                               | 21.2                                                                              | 9.5                                                                               | 27.4                                                                              | 14.0                                                                                | 15.6                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 36.0                                                                              | 6.0                                                                               | 39.0                                                                              | 5.0                                                                               | 36.0                                                                              | 8.0                                                                                 | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 3.6                                                                               | 8.1                                                                               | 3.3                                                                               | 6.5                                                                               | 3.6                                                                               | 16.4                                                                              | 8.0                                                                                 | 7.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 5.0                                                                               | 0.0                                                                                 | 1.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 23.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Intersection             |        |      |        |            |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|------------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3    |      |        |            |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL        | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |            | ↕      |       | ↕      | ↕    |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 13     | 0    | 8      | 39         | 0      | 40    | 12     | 724  | 15   | 15   | 894  | 15   |
| Future Vol, veh/h        | 13     | 0    | 8      | 39         | 0      | 40    | 12     | 724  | 15   | 15   | 894  | 15   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -          | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | -      | -          | -      | -     | 0      | -    | -    | 0    | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 94     | 94   | 94     | 94         | 94     | 94    | 94     | 94   | 94   | 92   | 94   | 94   |
| Heavy Vehicles, %        | 0      | 0    | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Mvmt Flow                | 14     | 0    | 9      | 41         | 0      | 43    | 13     | 770  | 16   | 16   | 951  | 16   |
| Major/Minor              | Minor2 |      | Minor1 |            | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 1402   | 1803 | 484    | 1312       | 1803   | 393   | 967    | 0    | 0    | 786  | 0    | 0    |
| Stage 1                  | 991    | 991  | -      | 804        | 804    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 411    | 812  | -      | 508        | 999    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.5    | 6.5  | 6.9    | 7.5        | 6.5    | 6.9   | 4.1    | -    | -    | 4.1  | -    | -    |
| Critical Hdwy Stg 1      | 6.5    | 5.5  | -      | 6.5        | 5.5    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.5    | 5.5  | -      | 6.5        | 5.5    | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 4    | 3.3    | 3.5        | 4      | 3.3   | 2.2    | -    | -    | 2.2  | -    | -    |
| Pot Cap-1 Maneuver       | 102    | 80   | 534    | 118        | 80     | 612   | 720    | -    | -    | 842  | -    | -    |
| Stage 1                  | 268    | 327  | -      | 347        | 398    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 594    | 395  | -      | 521        | 324    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |            |        |       |        | -    | -    |      | -    | -    |
| Mov Cap-1 Maneuver       | 92     | 77   | 534    | 113        | 77     | 612   | 720    | -    | -    | 842  | -    | -    |
| Mov Cap-2 Maneuver       | 92     | 77   | -      | 113        | 77     | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 263    | 321  | -      | 341        | 391    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 543    | 388  | -      | 503        | 318    | -     | -      | -    | -    | -    | -    | -    |
| Approach                 | EB     |      | WB     |            | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 37.2   |      | 37.6   |            | 0.3    |       | 0.2    |      |      |      |      |      |
| HCM LOS                  | E      |      | E      |            |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 720    | -    | -      | 134        | 192    | 842   | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | 0.018  | -    | -      | 0.167      | 0.438  | 0.019 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 10.1   | 0.1  | -      | 37.2       | 37.6   | 9.4   | -      | -    |      |      |      |      |
| HCM Lane LOS             | B      | A    | -      | E          | E      | A     | -      | -    |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | -    | -      | 0.6        | 2      | 0.1   | -      | -    |      |      |      |      |

### 3: Roe Ave & Johnson Dr

PM Existing + Development



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 329  | 280  | 35   | 321  | 67   | 439  | 68   | 559  | 389  |
| v/c Ratio               | 0.75 | 0.24 | 0.21 | 0.51 | 0.21 | 0.42 | 0.18 | 0.53 | 0.52 |
| Control Delay           | 44.3 | 18.1 | 37.1 | 28.8 | 12.7 | 20.2 | 12.2 | 21.8 | 4.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 44.3 | 18.1 | 37.1 | 28.8 | 12.7 | 20.2 | 12.2 | 21.8 | 4.9  |
| Queue Length 50th (ft)  | 68   | 31   | 13   | 59   | 15   | 76   | 15   | 102  | 0    |
| Queue Length 95th (ft)  | #188 | 94   | 49   | 123  | 37   | 121  | 38   | 156  | 53   |
| Internal Link Dist (ft) |      | 931  |      | 442  |      | 500  |      | 359  |      |
| Turn Bay Length (ft)    | 250  |      | 160  |      | 190  |      | 175  |      | 290  |
| Base Capacity (vph)     | 441  | 2150 | 170  | 2071 | 320  | 2043 | 375  | 2049 | 1085 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.75 | 0.13 | 0.21 | 0.15 | 0.21 | 0.21 | 0.18 | 0.27 | 0.36 |

#### Intersection Summary

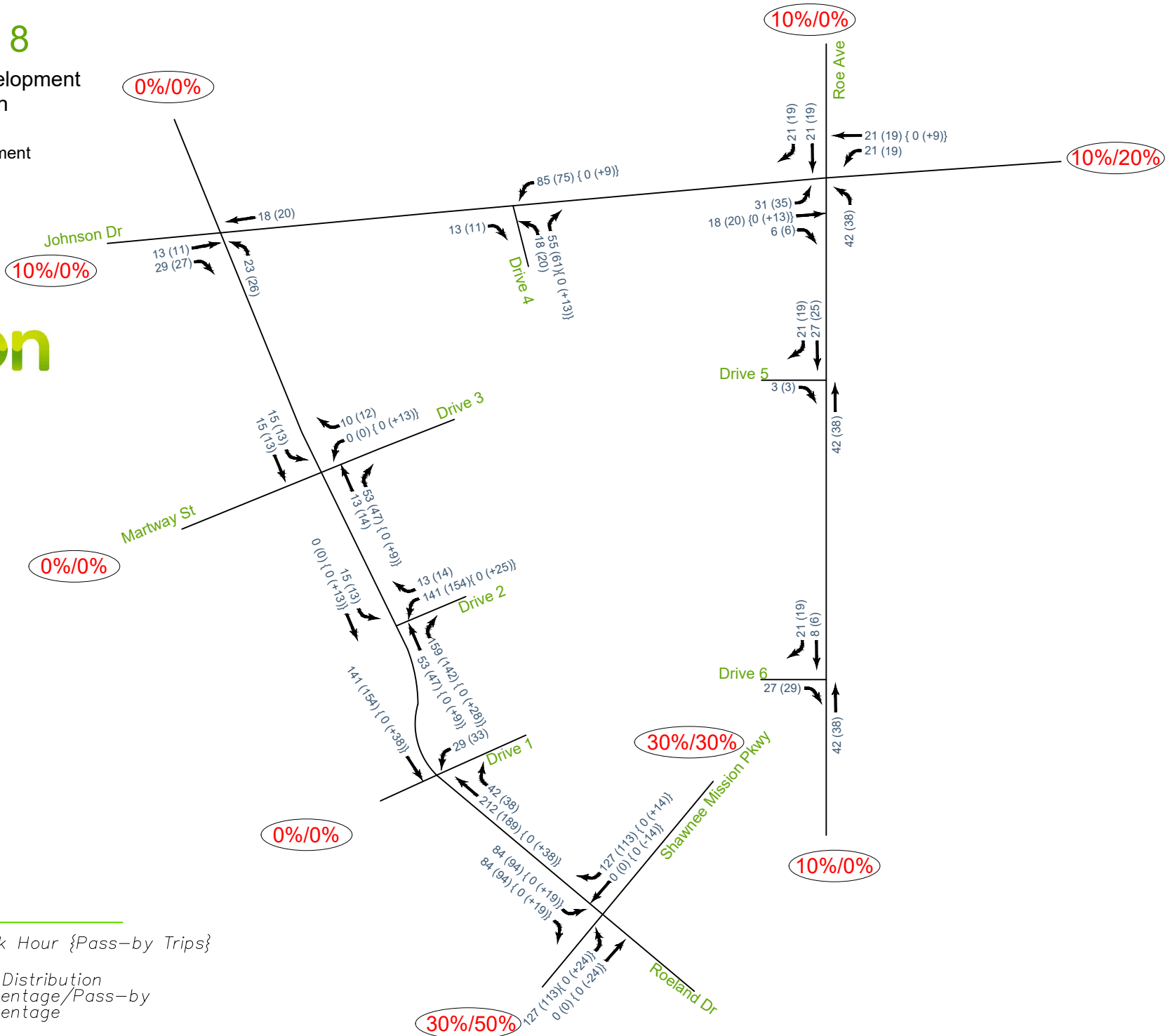
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

## **Appendix C – Gateway Development PM Volumes**

# FIGURE 8

## Proposed Development Trip Distribution

Gateway Development  
Mission, KS





### 3: Roe Ave & Johnson Dr

### PM Existing + Development + Gateway

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 341                                                                               | 210                                                                               | 77                                                                                | 52                                                                                | 278                                                                               | 40                                                                                | 100                                                                                 | 396                                                                                 | 12                                                                                  | 63                                                                                  | 539                                                                                 | 381                                                                                 |
| Future Volume (veh/h)        | 341                                                                               | 210                                                                               | 77                                                                                | 52                                                                                | 278                                                                               | 40                                                                                | 100                                                                                 | 396                                                                                 | 12                                                                                  | 63                                                                                  | 539                                                                                 | 381                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Adj Flow Rate, veh/h         | 367                                                                               | 226                                                                               | 83                                                                                | 56                                                                                | 299                                                                               | 43                                                                                | 108                                                                                 | 426                                                                                 | 13                                                                                  | 68                                                                                  | 580                                                                                 | 410                                                                                 |
| Peak Hour Factor             | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 402                                                                               | 561                                                                               | 200                                                                               | 86                                                                                | 470                                                                               | 67                                                                                | 334                                                                                 | 1219                                                                                | 37                                                                                  | 441                                                                                 | 1193                                                                                | 532                                                                                 |
| Arrive On Green              | 0.11                                                                              | 0.22                                                                              | 0.22                                                                              | 0.05                                                                              | 0.15                                                                              | 0.15                                                                              | 0.06                                                                                | 0.34                                                                                | 0.34                                                                                | 0.05                                                                                | 0.33                                                                                | 0.33                                                                                |
| Sat Flow, veh/h              | 3510                                                                              | 2607                                                                              | 930                                                                               | 1810                                                                              | 3172                                                                              | 452                                                                               | 1810                                                                                | 3576                                                                                | 109                                                                                 | 1810                                                                                | 3610                                                                                | 1610                                                                                |
| Grp Volume(v), veh/h         | 367                                                                               | 154                                                                               | 155                                                                               | 56                                                                                | 169                                                                               | 173                                                                               | 108                                                                                 | 215                                                                                 | 224                                                                                 | 68                                                                                  | 580                                                                                 | 410                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1755                                                                              | 1805                                                                              | 1733                                                                              | 1810                                                                              | 1805                                                                              | 1819                                                                              | 1810                                                                                | 1805                                                                                | 1880                                                                                | 1810                                                                                | 1805                                                                                | 1610                                                                                |
| Q Serve(g_s), s              | 7.2                                                                               | 5.1                                                                               | 5.4                                                                               | 2.1                                                                               | 6.1                                                                               | 6.3                                                                               | 2.7                                                                                 | 6.2                                                                                 | 6.2                                                                                 | 1.7                                                                                 | 8.9                                                                                 | 16.0                                                                                |
| Cycle Q Clear(g_c), s        | 7.2                                                                               | 5.1                                                                               | 5.4                                                                               | 2.1                                                                               | 6.1                                                                               | 6.3                                                                               | 2.7                                                                                 | 6.2                                                                                 | 6.2                                                                                 | 1.7                                                                                 | 8.9                                                                                 | 16.0                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.54                                                                              | 1.00                                                                              |                                                                                   | 0.25                                                                              | 1.00                                                                                |                                                                                     | 0.06                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 402                                                                               | 389                                                                               | 373                                                                               | 86                                                                                | 267                                                                               | 269                                                                               | 334                                                                                 | 615                                                                                 | 641                                                                                 | 441                                                                                 | 1193                                                                                | 532                                                                                 |
| V/C Ratio(X)                 | 0.91                                                                              | 0.40                                                                              | 0.41                                                                              | 0.65                                                                              | 0.63                                                                              | 0.64                                                                              | 0.32                                                                                | 0.35                                                                                | 0.35                                                                                | 0.15                                                                                | 0.49                                                                                | 0.77                                                                                |
| Avail Cap(c_a), veh/h        | 402                                                                               | 957                                                                               | 919                                                                               | 207                                                                               | 957                                                                               | 964                                                                               | 350                                                                                 | 931                                                                                 | 970                                                                                 | 476                                                                                 | 1862                                                                                | 831                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 30.5                                                                              | 23.5                                                                              | 23.6                                                                              | 32.7                                                                              | 27.9                                                                              | 28.0                                                                              | 14.4                                                                                | 17.2                                                                                | 17.2                                                                                | 14.0                                                                                | 18.6                                                                                | 21.0                                                                                |
| Incr Delay (d2), s/veh       | 24.6                                                                              | 0.7                                                                               | 0.7                                                                               | 8.1                                                                               | 2.5                                                                               | 2.6                                                                               | 0.6                                                                                 | 0.3                                                                                 | 0.3                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 2.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 4.3                                                                               | 2.2                                                                               | 2.2                                                                               | 1.1                                                                               | 2.7                                                                               | 2.8                                                                               | 1.0                                                                                 | 2.4                                                                                 | 2.5                                                                                 | 0.6                                                                                 | 3.5                                                                                 | 5.9                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 55.2                                                                              | 24.2                                                                              | 24.3                                                                              | 40.7                                                                              | 30.4                                                                              | 30.5                                                                              | 14.9                                                                                | 17.5                                                                                | 17.5                                                                                | 14.2                                                                                | 18.9                                                                                | 23.4                                                                                |
| LnGrp LOS                    | E                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 676                                                                               |                                                                                   |                                                                                   | 398                                                                               |                                                                                   |                                                                                     | 547                                                                                 |                                                                                     |                                                                                     | 1058                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 41.0                                                                              |                                                                                   |                                                                                   | 31.9                                                                              |                                                                                   |                                                                                     | 17.0                                                                                |                                                                                     |                                                                                     | 20.4                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.7                                                                               | 29.8                                                                              | 9.3                                                                               | 21.0                                                                              | 10.4                                                                              | 29.1                                                                              | 14.0                                                                                | 16.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                               | 6.0                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 36.0                                                                              | 8.0                                                                               | 37.0                                                                              | 5.0                                                                               | 36.0                                                                              | 8.0                                                                                 | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.7                                                                               | 8.2                                                                               | 4.1                                                                               | 7.4                                                                               | 4.7                                                                               | 18.0                                                                              | 9.2                                                                                 | 8.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 5.1                                                                               | 0.0                                                                                 | 2.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 26.6                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

### 3: Roe Ave & Johnson Dr

PM Existing + Development + Gateway



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 367  | 309  | 56   | 342  | 108  | 439  | 68   | 580  | 410  |
| v/c Ratio               | 0.86 | 0.30 | 0.29 | 0.52 | 0.34 | 0.40 | 0.18 | 0.53 | 0.53 |
| Control Delay           | 55.5 | 21.7 | 37.4 | 29.3 | 14.8 | 20.3 | 12.5 | 22.1 | 4.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 55.5 | 21.7 | 37.4 | 29.3 | 14.8 | 20.3 | 12.5 | 22.1 | 4.9  |
| Queue Length 50th (ft)  | 79   | 51   | 22   | 66   | 26   | 77   | 16   | 108  | 0    |
| Queue Length 95th (ft)  | #221 | 108  | 69   | 131  | 57   | 125  | 40   | 168  | 55   |
| Internal Link Dist (ft) |      | 931  |      | 442  |      | 500  |      | 359  |      |
| Turn Bay Length (ft)    | 250  |      | 160  |      | 190  |      | 175  |      | 290  |
| Base Capacity (vph)     | 425  | 1972 | 219  | 1998 | 318  | 1969 | 383  | 1976 | 1069 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.86 | 0.16 | 0.26 | 0.17 | 0.34 | 0.22 | 0.18 | 0.29 | 0.38 |

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

| Intersection             |        |      |        |       |       |        |      |      |        |      |      |      |
|--------------------------|--------|------|--------|-------|-------|--------|------|------|--------|------|------|------|
| Int Delay, s/veh         | 2.5    |      |        |       |       |        |      |      |        |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL   | WBT   | WBR    | NBL  | NBT  | NBR    | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |       | ↕     |        | ↕    | ↕    |        | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 13     | 0    | 8      | 39    | 0     | 40     | 12   | 759  | 15     | 15   | 932  | 0    |
| Future Vol, veh/h        | 13     | 0    | 8      | 39    | 0     | 40     | 12   | 759  | 15     | 15   | 932  | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop  | Stop  | Stop   | Free | Free | Free   | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -     | -     | None   | -    | -    | None   | -    | -    | None |
| Storage Length           | -      | -    | -      | -     | -     | -      | 0    | -    | -      | 0    | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -     | 0     | -      | -    | 0    | -      | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -     | 0     | -      | -    | 0    | -      | -    | 0    | -    |
| Peak Hour Factor         | 94     | 94   | 94     | 94    | 94    | 94     | 94   | 94   | 94     | 92   | 94   | 94   |
| Heavy Vehicles, %        | 0      | 0    | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 0    | 0    | 0    |
| Mvmt Flow                | 14     | 0    | 9      | 41    | 0     | 43     | 13   | 807  | 16     | 16   | 991  | 0    |
|                          |        |      |        |       |       |        |      |      |        |      |      |      |
| Major/Minor              | Minor2 |      | Minor1 |       |       | Major1 |      |      | Major2 |      |      |      |
| Conflicting Flow All     | 1453   | 1872 | 496    | 1369  | 1864  | 412    | 991  | 0    | 0      | 823  | 0    | 0    |
| Stage 1                  | 1023   | 1023 | -      | 841   | 841   | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 430    | 849  | -      | 528   | 1023  | -      | -    | -    | -      | -    | -    | -    |
| Critical Hdwy            | 7.5    | 6.5  | 6.9    | 7.5   | 6.5   | 6.9    | 4.1  | -    | -      | 4.1  | -    | -    |
| Critical Hdwy Stg 1      | 6.5    | 5.5  | -      | 6.5   | 5.5   | -      | -    | -    | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.5    | 5.5  | -      | 6.5   | 5.5   | -      | -    | -    | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 4    | 3.3    | 3.5   | 4     | 3.3    | 2.2  | -    | -      | 2.2  | -    | -    |
| Pot Cap-1 Maneuver       | 93     | 73   | 525    | 107   | 74    | 595    | 706  | -    | -      | 816  | -    | -    |
| Stage 1                  | 256    | 316  | -      | 330   | 383   | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 579    | 380  | -      | 507   | 316   | -      | -    | -    | -      | -    | -    | -    |
| Platoon blocked, %       |        |      |        |       |       |        |      | -    | -      |      | -    | -    |
| Mov Cap-1 Maneuver       | 84     | 70   | 525    | 102   | 71    | 595    | 706  | -    | -      | 816  | -    | -    |
| Mov Cap-2 Maneuver       | 84     | 70   | -      | 102   | 71    | -      | -    | -    | -      | -    | -    | -    |
| Stage 1                  | 251    | 310  | -      | 324   | 376   | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 528    | 373  | -      | 489   | 310   | -      | -    | -    | -      | -    | -    | -    |
|                          |        |      |        |       |       |        |      |      |        |      |      |      |
| Approach                 | EB     |      | WB     |       |       | NB     |      |      | SB     |      |      |      |
| HCM Control Delay, s     | 40.3   |      | 42.9   |       |       | 0.3    |      |      | 0.2    |      |      |      |
| HCM LOS                  | E      |      | E      |       |       |        |      |      |        |      |      |      |
|                          |        |      |        |       |       |        |      |      |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1 | WBLn1 | SBL    | SBT  | SBR  |        |      |      |      |
| Capacity (veh/h)         | 706    | -    | -      | 124   | 176   | 816    | -    | -    |        |      |      |      |
| HCM Lane V/C Ratio       | 0.018  | -    | -      | 0.18  | 0.478 | 0.02   | -    | -    |        |      |      |      |
| HCM Control Delay (s)    | 10.2   | 0.1  | -      | 40.3  | 42.9  | 9.5    | -    | -    |        |      |      |      |
| HCM Lane LOS             | B      | A    | -      | E     | E     | A      | -    | -    |        |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | -    | -      | 0.6   | 2.3   | 0.1    | -    | -    |        |      |      |      |

Sep 9, 2019

Re: CBC Medical Office Building – City of Mission TIS Comments

In response to the comments that we have received from the City of Mission dated September 5, 2019, we have provided the following responses.

1. Please label the City Limit line across the development site on Figure 2 (Proposed Development), as stated in the paragraph at the top of Page 5.

Added city limit label to Figure 2

2. Please clarify the morning and peak hour times described in the “Baseline Traffic Conditions” section. We assume that 7:30 to 8:30 a.m. and 5:00 to 6:00 p.m. were intended, but the begin/end times listed are confusing? Please also include the “raw” traffic count reports within the study Appendix so that independent confirmation of these peak times is possible.

Clarified times when traffic counts were collected and the respective peak hour. Also added raw traffic count data in Appendix A

3. Please clarify the statement on Page 8 that the HCM methodology for Two-Way Stop Controlled (TWSC) intersections does not provide an overall intersection Level of Service result.

Clarified the HCM TWSC Level of Service description with the following, “The performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements.”

4. The site-generated traffic volumes from the updated TIS report for “The Gateway Development” are being provided along with these comments. Please utilize this updated data from June 2019 (which should be slightly reduced overall for this development’s benefit) and re-evaluate the analyses and conclusions for the third development scenario which included this adjacent development’s traffic volumes through the study intersections.

Updated third scenario and included updated site-generated volumes for “The Gateway Development”

5. In Table 5, the AASHTO Intersection Sight Distance for a left-turning vehicle from the minor approach onto a 35-mph roadway is 390 feet, not 415 feet as listed.

Updated left turning intersection sight distance for a 5-lane facility using a passenger car per the following table.

| Design Vehicle                                                                                                                                                                                                                                                         | Time Gap (seconds) needed for Major Road CrossSection<br>Consisting of: |         |         |         |         |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                                                                                                                                                                                                                                        | 2-Lanes                                                                 | 3-Lanes | 4-Lanes | 5-Lanes | 6-Lanes | 7-Lanes |
| Passenger Car                                                                                                                                                                                                                                                          | 7.5                                                                     | 8.0     | 8.0     | 8.5     | 8.5     | 9.0     |
| Single-Unit Truck                                                                                                                                                                                                                                                      | 9.5                                                                     | 10.2    | 10.2    | 10.9    | 10.9    | 11.6    |
| Combination Truck                                                                                                                                                                                                                                                      | 11.5                                                                    | 12.2    | 12.2    | 12.9    | 12.9    | 13.6    |
| Note: Time gaps are for a stopped vehicle to turn left onto a major road with no median storage and minor road approach grades of 3 percent or less. For minor road approach grades in excess of 3 percent, add 0.2 seconds to the time gap for each percent of grade. |                                                                         |         |         |         |         |         |

**Exhibit 16 Time Gap for Case B1 – Left-Turn from Stop**  
(2011 AASHTO, Expanded Table 9-5, 9-37)

- Please relabel Figure A-2 as “Existing + Development Traffic” estimates or projections, rather than counts, which should be reserved for the actual existing conditions. Also, please recalculate the traffic assignments for all southbound movements and the eastbound left-turn maneuver at the Roe Avenue / Johnson Drive study intersection. The total calculated volumes for these movements are incorrect during the projected PM peak hour, based on the addition of the Figure A-1 traffic counts and the Figure A-3 estimated development trip generation volumes.

#### Relabeled Figure A-2 and updated projections

- On Figure B-2 for the “Existing + Development Levels of Service” during the AM Peak Hour, the eastbound and westbound movements at the private drives onto Roe Avenue should both be LOS “D” to match the accompanying analysis and the intersection summary provided in Table 4.

#### Updated Figure B-2’s LOS for E/W at the private drives

- Please relocate the Synchro analysis worksheets for the “PM Existing + Development + Gateway” scenario into Appendix C, as described on Page 9.

#### Added PM Existing + Development + Gateway” Synchro reports into Appendix C

- Replace the “Development Peak Hour Volumes (Figure 6)” in Appendix C for The Gateway Development with the updated June 2019 traffic volume figures being provided.

#### Updated Appendix C to include updated June 2019 traffic projections for the Gateway Development



# Storm Water Drainage Study

## Sunflower Medical Offices

Roe Boulevard & Johnson Drive, Roeland Park Kansas

Prepared:

July 2019

Revised:

September 2019

Prepared by:



5015 NW Canal St. Suite 100 | Riverside, MO 64150  
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## General Information

### **A. Project Description**

Sunflower Medical Offices are located at Northwest corner of Roe Boulevard and Johnson Drive in Roeland Park, Johnson county, Kansas. The property is approximately 2.7acre, located in the northeast corner of section 09, Township 12 south, Range 25 east. The proposed development includes the construction of a Medical Office Building with a combined total floor area of approximately 31 thousand square feet along with supporting parking and drive areas. According to the Flood Insurance Rate Map (FIRM) panel number 2009C0024G, revised August 3, 2009, the property lies within OTHER FLOOD AREAS, ZONE X, defined as areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. No base flood elevations have been determined. See Exhibit A for a site location map. See Exhibit B for FEMA FIRM Map.

### **B. Soil Classification**

Soil classifications published by the United States Department of Agriculture/Natural Resources Conservation Service (USDA/NRCS) website for Johnson County, KS on September 12, 2018 indicate the existing site is made up of the following soil type:

**Table 1: Storm Analysis Table**

| Map Unit Symbol | Map Unit Name                                        | HSG |
|-----------------|------------------------------------------------------|-----|
| 7545            | Sharpsburg-Urban land complex, 4 to 8 percent slopes | c   |

See Exhibit C for a detailed soil report.

## Methodology

This study was prepared in accordance with the provisions of “Section 5600 – Storm Drainage Systems and Facilities” (February 16, 2011) of the Kansas City Metropolitan Chapter of the American Public Works Association (APWA) and the “Manual of Best Management Practices for Stormwater Quality” (October 2012) of the Mid-America Regional Council (MARC). Pre and post development runoff were determined using the curve number method described in SCS (now NRCS) Technical Release No. 55 “Urban Hydrology for Small Watersheds” (2<sup>nd</sup> Edition, June 1986) as provided for in Sub-section 5602.2. The analyses were performed using the Type II 24-hour storm distribution for 1% (100 year), 10% (10 year) and 100% (1 year) annual probability storm events. The rainfall depths used in the analyses corresponding to those events are shown in the following table 2.

Portions of this study also utilizes information and methodology from the “Preliminary Stormwater Study for Commerce Bank & Embree Hospital” prepared by Olsson Associates and approved in July of 2016. This study analyzes the site directly west of this proposed development and contains relevant analysis due to the adjacency of the two developments.

**Table 2: Storm Analysis Table**

| <b>Storm</b> | <b>Percent</b> | <b>Rainfall<br/>Depth<br/>(in)</b> |
|--------------|----------------|------------------------------------|
| 1 Year       | 100%           | 3.0                                |
| 10 Year      | 10%            | 5.4                                |
| 100 Year     | 1%             | 7.9                                |

## Existing Conditions Analysis

The existing 2.7acre site consist of urban undeveloped zone that was previously a portion of the Johnson Drive and Roe Avenue interchange. The north boundary consists of single-family houses. To the East, West and South, the property is surrounded by paved roads as follow: Granada Lane, Roe Avenue and Johnson Drive. At the time of analysis, the site contained public interchange ramps. Due to the earthwork and construction that had taken place on-site, the Hydrologic soil group was assumed to be D for existing conditions.

The site is composed by one sub-basin which drain to one discharge points located at the perimeter of the property. Exhibit D shows the location of the sub basin and discharge point on the property. The site generally drains to the southwest to an area inlet with a 36" discharge. This pipe flows to the southwest off site and is marked as Discharge Point A.

Curve numbers (CN) used in the TR55 existing conditions analysis were taken from Subsection 2602.2 of the APWA. A CN 84 of was utilized for the undeveloped areas as the site was previously a compacted urban interchange. A CN of 98 was used for the impervious area. Time of concentration calculations were performed using TR55 methodology. Table 3 gives a summary of the results of the existing conditions analysis for all sub-basins. Detailed calculations can be found within Exhibit E.

**Table 3: Existing Conditions – Sub-basins**

| Sub-Basin | Area (Ac.) | CN | Time of Concentration (min) | Downstream Discharge | Q 1-year (cfs) | Q 10-year (cfs) | Q 100-year (cfs) |
|-----------|------------|----|-----------------------------|----------------------|----------------|-----------------|------------------|
| A1        | 2.7        | 88 | 13.96                       | Point A              | 5.33           | 11.53           | 20.62            |

Table 4 gives a summary of the Discharge Points for the 100%, 10%, and 1% annual probability storm events.

**Table 4: Existing Conditions – Discharge Points**

| Name    | Q 1-year (cfs) | Q 10-year (cfs) | Q 100-year (cfs) |
|---------|----------------|-----------------|------------------|
| Point A | 5.33           | 11.53           | 20.62            |

## Proposed Conditions Analysis

The proposed development will consist of a 2-story medical office building and associated parking features. The site will be regraded and leveled to support this new proposed function. A new storm drainage system will be constructed to



collect stormwater on site and route it out to new stormwater quality BMPs or off site into the existing stormwater system to the south of the site.

The table below shows the summary of the proposed hydrological properties as well as the peak flows generated for each design storm.

| Name    | Weighted CN Value | Total Area (ac) | Q 1-year (cfs) | Q 10-year (cfs) | Q 100-year (cfs) |
|---------|-------------------|-----------------|----------------|-----------------|------------------|
| Point A | 91                | 2.7             | 7.3            | 14.8            | 22.4             |

## Detention

The proposed development is situated within subarea RC-040 of the Rock Creek watershed in northeast Johnson County. The Olsson Associates report indicates that the existing watershed at this point contains 1766.4 acres of which 737.08 acres is impervious area. This equates to 41.73% impervious area. The Olsson Associates report also states that the 100year peak flow at a point approximately 1,075ft downstream of the proposed site is 5,763 cfs according to the 2012 FEMA LOMAR for Rock Creek.

The proposed medical office at the northeast corner of Roe Ave and Johnson Drive will contribute 0.86ac of additional impervious surface to the Rock Creek watershed. This additional area brings the total impervious area of the upstream watershed of 41.78%. Further, the proposed 100-year peak flow leaving the site is increased by 2.00cfs. This equates to an increase of 0.035% increase from the existing peak flow of the watershed. Finally, as the Olsson Associates reports states, the site is generally in the lower reaches of the Rock Creek tributary. Detention within the lower portions of a watershed have an adverse effect on total peak-flow. Peak-flow from the overall watershed aligns with the attenuated peak-flow from the site therefore increasing the overall peak-flow within the stream.

Due to the minor increase of impervious area, peak flow, and the location the proposed development has on the overall watershed, no detention is required for this development

## BMP Analysis

Improvements to the property will increase impervious surface area compared to existing conditions, thus proposed improvements qualify the project to meet

water quality requirements with stormwater treatment facilities (STFs). STFs on the site are proposed to mitigate post-construction runoff pollutant levels. The MARC BMP Manual was utilized to measure the Level of Service (LS) and Value Rating (VR) required for an undeveloped site. The required LS for this site is 5.0. Water quality treatment calculations are available in the Exhibit H.

The STF systems detailed below satisfy water quality treatment requirements for the project as determined by MARC BMP Manual calculations. Site construction documents will fully detail the construction and landscape specifications for all BMPs. The property owner shall be responsible for long term maintenance and upkeep of storm water treatment facilities. As required by Section 15-515 of Ordinance No. 809 of Roeland Park, the owner must complete an annual certification inspection of the stormwater management systems and is subject to City inspection at least once every three years.

A combination of STFs is proposed for the development and will include the following STFs with corresponding VRs:

- Native Vegetation (9.25)
- Rain Garden (9.0)
- Inlet Inserts (4.0).

Calculations, STF drainage maps and other information are available in the Exhibit H.

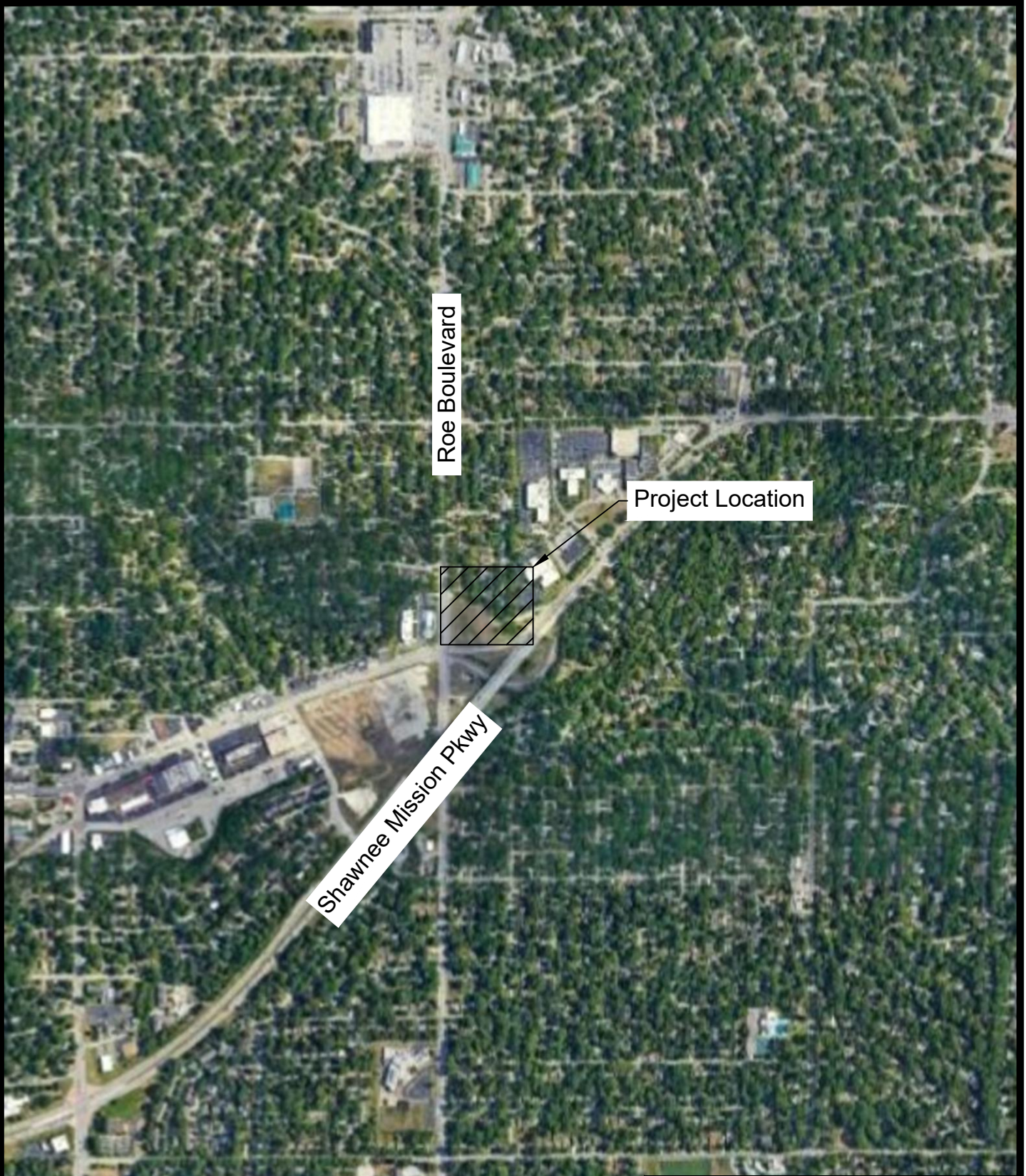
## Summary

The proposed development has a negligible increase of total peak flow and impervious area when compared to the upstream watershed of Rock Creek. Due to this minor increase, as well as the site being located in the lower reaches of the watershed, no detention is required. The proposed development will be installing native vegetation, pervious pavement, and raingardens to capture the “first flush” of stormwater for treatment and retention. This BMP package complies with the 2012 MARC Level of Service calculations for the site.

Regards,

Dustin Burton, P.E.  
**Renaissance Infrastructure Consulting**

**EXHIBIT A**  
SITE LOCATION MAP



## Site Location Map

Scale: 1"=1000'



**Renaissance  
Infrastructure  
Consulting**

132 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103

913.317.9500  
WWW.RIC-CONSULT.COM

## **EXHIBIT B**

### **FEMA FIRM REPORT**



This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was Kansas State Plane North Zone (FIPS zone 1501). The **horizontal datum** was NAD 83, GRS 80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

Spatial Reference System Division  
National Geodetic Survey, NOAA  
Silver Spring Metro Center  
1315 East-West Highway  
Silver Spring, Maryland 20910  
(301) 713-3191

To obtain current elevation, description, and/or location information about the **bench marks** shown on this map, please contact the Automated Information Mapping System (AIMS) at (913) 715 -1600, or visit their website at <http://aims.iocogov.org/>.

**Base map** information shown on this FIRM was provided for Johnson County by Analytical Surveys, Inc. The vector data was derived from Aerial Photography, dated 1998-2000 and captured at a resolution of .5 feet.

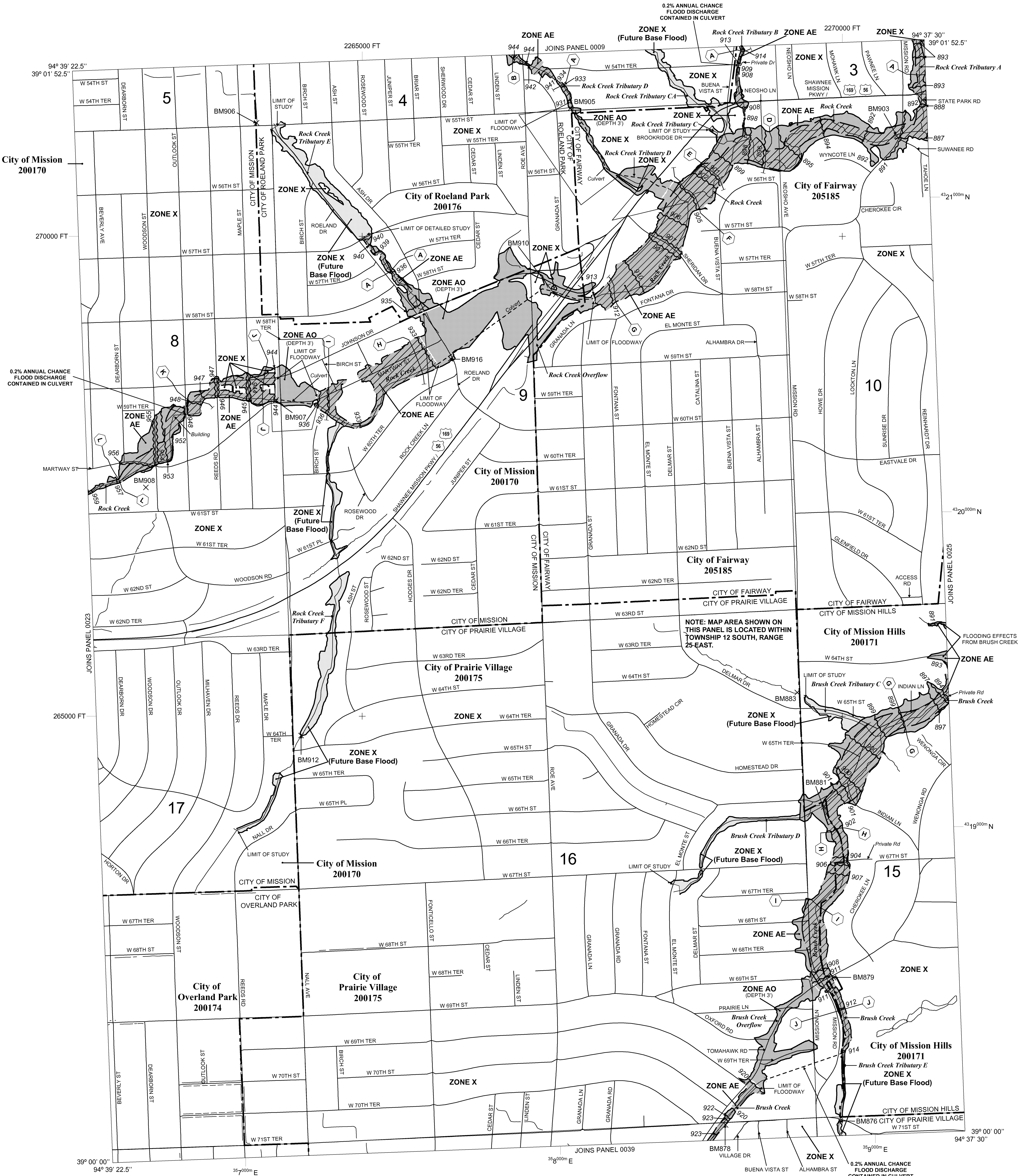
This map reflects more detailed up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and their website at <http://www.msc.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1-877-336-2627) or visit the FEMA website at [http:// www.fema.gov](http://www.fema.gov).

 SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

|                 |                                                                                                                                                                                                                                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ZONE A</b>   | No Base Flood Elevations determined.                                                                                                                                                                                                                                               |
| <b>ZONE AE</b>  | Base Flood Elevations determined.                                                                                                                                                                                                                                                  |
| <b>ZONE AH</b>  | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.                                                                                                                                                                                          |
| <b>ZONE AO</b>  | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of full or partial flooding, velocities also determined.                                                                                                                 |
| <b>ZONE AR</b>  | Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently derelict. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| <b>ZONE A99</b> | Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.                                                                                                                                     |
| <b>ZONE V</b>   | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.                                                                                                                                                                                        |
| <b>ZONE VE</b>  | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.                                                                                                                                                                                           |

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

 OTHER FLOOD AREAS

**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**ZONE X** Areas of 1% annual chance flood based on future conditions hydrology. No  
(Future Base Flood) Base Flood Elevations determined.

|             |  |
|-------------|--|
| OTHER AREAS |  |
|-------------|--|

**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D** Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

 OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

\_\_\_\_\_ Floodplain Boundary  
 \_\_\_\_\_ Floodway boundary  
 \_\_\_\_\_ Zone D boundary  
 ..... CBRS and OPA boundary  
 [Shaded Box] Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.  
 ~~~~~ 513 ~~~~~ Base Flood Elevation line and value; elevation in feet\*  
 (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet\*

\*Referenced to the North American Vertical Datum of 1988



Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere

5000-foot grid ticks: Kansas State Plane coordinate system, north zone (FIPS Zone 1501), Transverse Mercator

1000-meter Universal Transverse Mercator grid values, zone 15

Bench mark (see explanation in Notes to Users section of this FIRM panel)

DX5510 

\*M1.5

River Mile

MAP REPOSITORY  
REFER TO LISTING OF MAP REPOSITORIES ON MAP INDEX

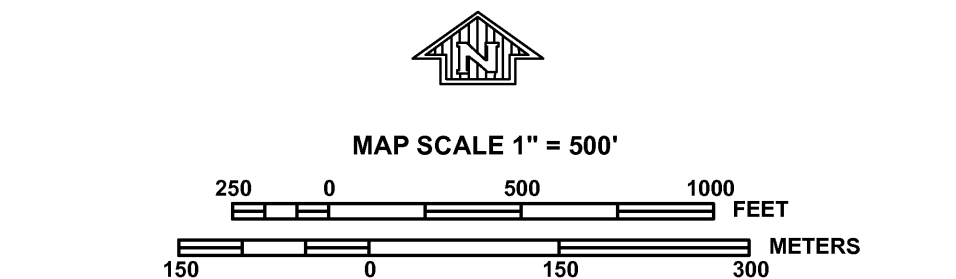
EFFECTIVE DATE OF COUNTYWIDE  
FLOOD INSURANCE RATE MAP

SEPTEMBER 27, 1991

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL  
OCTOBER 18, 1995  
JULY 17, 1997  
JUNE 17, 2002

August 3, 2009 - to change the Base Flood Elevations, Special Flood Hazard Areas, floodway and zone designations; to add Base Flood Elevations, Special Flood Hazard Areas, floodway, roads and road names; to reflect updated topographic information; to incorporate previously issued Letters of Map Revision and to update corporate limits.

To determine if flood insurance is available in this community contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



|                                                                                                                                       |                    |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>NFP</b><br><br><b>FIRM</b><br><br><b>JOHNSON COUNTY, KANSAS</b><br><br><b>AND INCORPORATED AREAS</b><br><br><b>PANEL 24 OF 161</b> | <b>PANEL 0024G</b> |
|                                                                                                                                       |                    |
|                                                                                                                                       |                    |
|                                                                                                                                       |                    |

| <u>CONTAINS:</u>         |               |              |               |
|--------------------------|---------------|--------------|---------------|
| <u>COMMUNITY</u>         | <u>NUMBER</u> | <u>PANEL</u> | <u>SUFFIX</u> |
| FAIRWAY, CITY OF         | 205185        | 0024         | G             |
| MISSION HILLS, CITY OF   | 200171        | 0024         | G             |
| MISSION, CITY OF         | 200170        | 0024         | G             |
| OVERLAND PARK, CITY OF   | 200174        | 0024         | G             |
| PRAIRIE VILLAGE, CITY OF | 200175        | 0024         | G             |
| ROELAND PARK, CITY OF    | 200176        | 0024         | G             |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



 **MAP NUMBER**  
**20091C0024G**

**MAP REVISED**  
**AUGUST 3, 2009**

**Federal Emergency Management Agency**

## **EXHIBIT C**

### **NRCS WEB SOIL SURVEY**





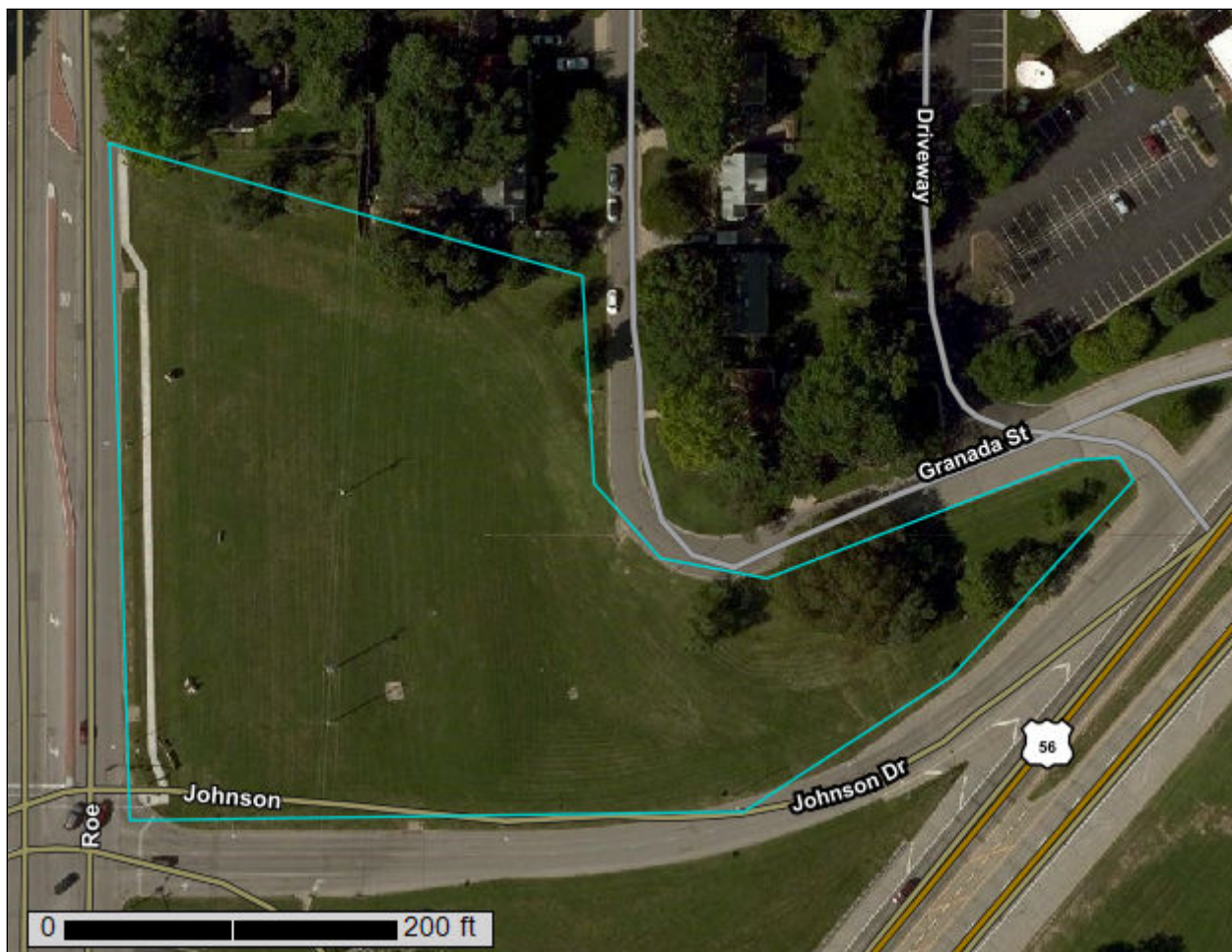
United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Johnson County, Kansas**



July 26, 2019

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

---

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map



## Custom Soil Resource Report

### MAP LEGEND

#### Area of Interest (AOI)

 Area of Interest (AOI)

#### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

#### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

#### Water Features

 Streams and Canals

#### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

#### Background

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Kansas  
Survey Area Data: Version 17, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2014—Sep 7, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

| Map Unit Symbol                    | Map Unit Name                                        | Acres in AOI | Percent of AOI |
|------------------------------------|------------------------------------------------------|--------------|----------------|
| 7545                               | Sharpsburg-Urban land complex, 4 to 8 percent slopes | 3.2          | 100.0%         |
| <b>Totals for Area of Interest</b> |                                                      | <b>3.2</b>   | <b>100.0%</b>  |

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Johnson County, Kansas

### 7545—Sharpsburg-Urban land complex, 4 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* tq4z

*Elevation:* 1,000 to 1,300 feet

*Mean annual precipitation:* 31 to 47 inches

*Mean annual air temperature:* 45 to 64 degrees F

*Frost-free period:* 185 to 255 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Sharpsburg and similar soils:* 55 percent

*Urban land:* 45 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Sharpsburg

##### Setting

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Silty and clayey loess

##### Typical profile

*A - 0 to 9 inches:* silt loam

*AB - 9 to 13 inches:* silty clay loam

*Bt - 13 to 35 inches:* silty clay loam

*BC - 35 to 60 inches:* silty clay loam

##### Properties and qualities

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Moderately well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* About 36 to 40 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* High (about 11.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* C

*Ecological site:* Loamy Upland (PE 30-37) (R106XY015KS)

*Hydric soil rating:* No

#### Description of Urban Land

##### Setting

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex





# Soil Information for All Uses

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## Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

## Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

## Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

## Custom Soil Resource Report

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit* and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

### References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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Absence of an entry indicates that the data were not estimated. The asterisk '\*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

| Engineering Properties—Johnson County, Kansas             |                  |                  |           |                             |                |            |               |              |                                  |                 |                 |               |              |                  |
|-----------------------------------------------------------|------------------|------------------|-----------|-----------------------------|----------------|------------|---------------|--------------|----------------------------------|-----------------|-----------------|---------------|--------------|------------------|
| Map unit symbol and soil name                             | Pct. of map unit | Hydrologic group | Depth     | USDA texture                | Classification |            | Pct Fragments |              | Percentage passing sieve number— |                 |                 |               | Liquid limit | Plasticity index |
|                                                           |                  |                  |           |                             | Unified        | AASHTO     | >10 inches    | 3-10 inches  | 4                                | 10              | 40              | 200           |              |                  |
|                                                           |                  |                  | <i>In</i> |                             |                |            | <i>L-R-H</i>  | <i>L-R-H</i> | <i>L-R-H</i>                     | <i>L-R-H</i>    | <i>L-R-H</i>    | <i>L-R-H</i>  | <i>L-R-H</i> | <i>L-R-H</i>     |
| 7545—Sharpsburg-Urban land complex, 4 to 8 percent slopes |                  |                  |           |                             |                |            |               |              |                                  |                 |                 |               |              |                  |
| Sharpsburg                                                | 55               | C                | 0-9       | Silt loam                   | CL             | A-7, A-6   | 0- 0- 0       | 0- 0- 0      | 100-100<br>-100                  | 100-100<br>-100 | 100-100<br>-100 | 95-98-1<br>00 | 33-43<br>-46 | 12-18-1<br>9     |
|                                                           |                  |                  | 9-13      | Silty clay loam, silt loam  | CH, CL         | A-7-6, A-6 | 0- 0- 0       | 0- 0- 0      | 100-100<br>-100                  | 100-100<br>-100 | 100-100<br>-100 | 95-98-1<br>00 | 39-45<br>-52 | 17-21-2<br>5     |
|                                                           |                  |                  | 13-35     | Silty clay loam, silty clay | CH, CL         | A-7-6      | 0- 0- 0       | 0- 0- 0      | 100-100<br>-100                  | 100-100<br>-100 | 100-100<br>-100 | 95-98-1<br>00 | 49-53<br>-57 | 26-28-3<br>0     |
|                                                           |                  |                  | 35-60     | Silty clay loam, silt loam  | CL             | A-6, A-7-6 | 0- 0- 0       | 0- 0- 0      | 100-100<br>-100                  | 100-100<br>-100 | 100-100<br>-100 | 95-98-1<br>00 | 36-41<br>-45 | 17-20-2<br>3     |



# References

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- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
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- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
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- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053580](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580)
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- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2\\_053374](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374)
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelpdb1043084>

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053624](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624)

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052290.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf)

## **EXHIBIT D**

### **EXISTING DRAINAGE MAP**





## **EXHIBIT E**

### **EXISTING CONDITIONS ANALYSIS**



Project Description

File Name ..... Storm Analysis Existing.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019 00:00:00  
End Analysis On ..... Jul 26, 2019 00:00:00  
Start Reporting On ..... Jul 25, 2019 00:00:00  
Antecedent Dry Days ..... 0 days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss  
Routing Time Step ..... 30 seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Existing    | 2.69 | 88.37                 | 7.90           | 6.51         | 17.52               | 20.96       | 0 00:13:57            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-01     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Existing

Input Data

Area (ac) ..... 2.69  
Weighted Curve Number ..... 88.37  
Rain Gage ID ..... 100yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Pasture, grassland, or range, Fair | 1.85            | D             | 84.00           |
| Paved parking & roofs              | 0.84            | D             | 98.00           |
| Composite Area & Weighted CN       | 2.69            |               | 88.37           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$   
R = Aq / Wp  
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness

|                                        |         |         |         |
|----------------------------------------|---------|---------|---------|
| Sheet Flow Computations                | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 100     | 0.00    | 0.00    |
| Slope (%) :                            | 2       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.18    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 9.24    | 0.00    | 0.00    |
| Shallow Concentrated Flow Computations | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Flow Length (ft) :                     | 334     | 267     | 0.00    |
| Slope (%) :                            | 4.5     | .5      | 0.00    |
| Surface Type :                         | Unpaved | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 3.42    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 1.63    | 3.09    | 0.00    |
| Total TOC (min) .....                  | 13.96   |         |         |

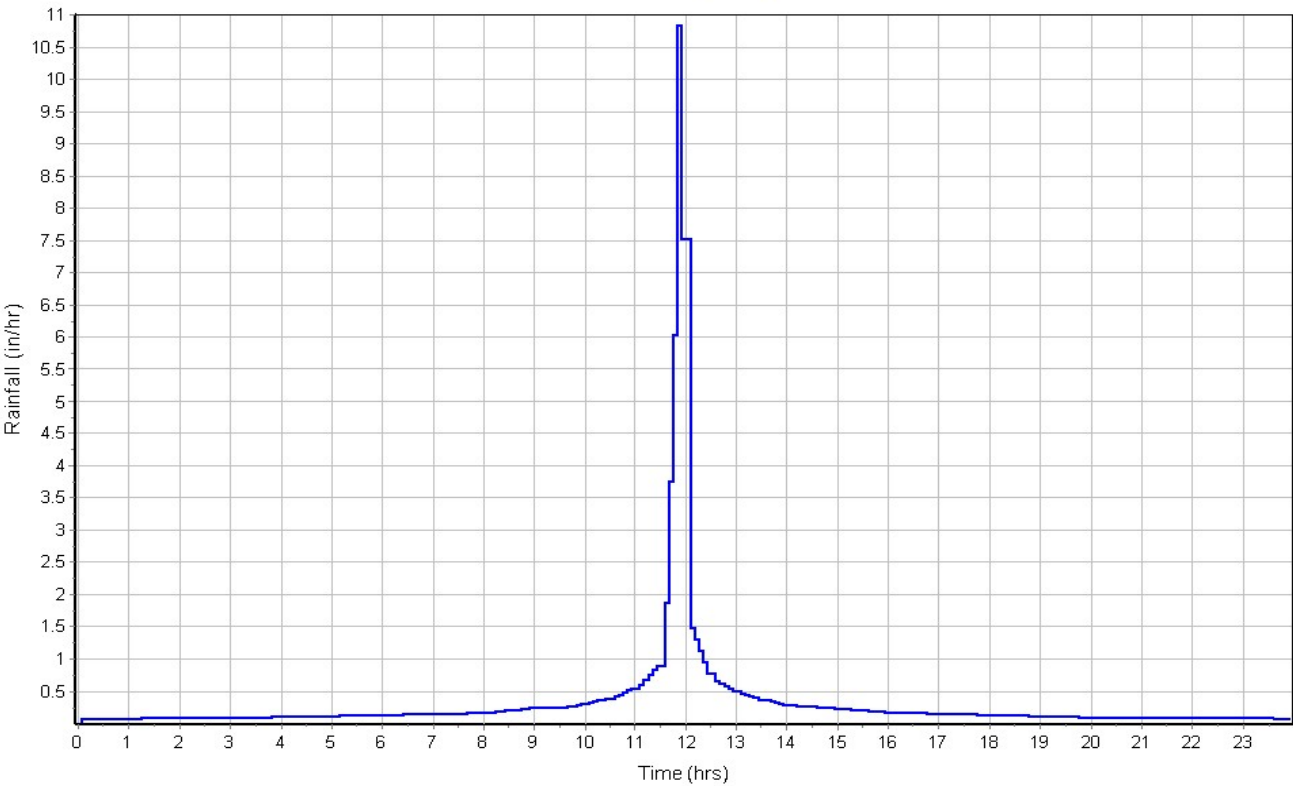
### Subbasin Runoff Results

|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 7.90       |
| Total Runoff (in) .....                     | 6.51       |
| Peak Runoff (cfs) .....                     | 20.96      |
| Weighted Curve Number .....                 | 88.37      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:13:58 |

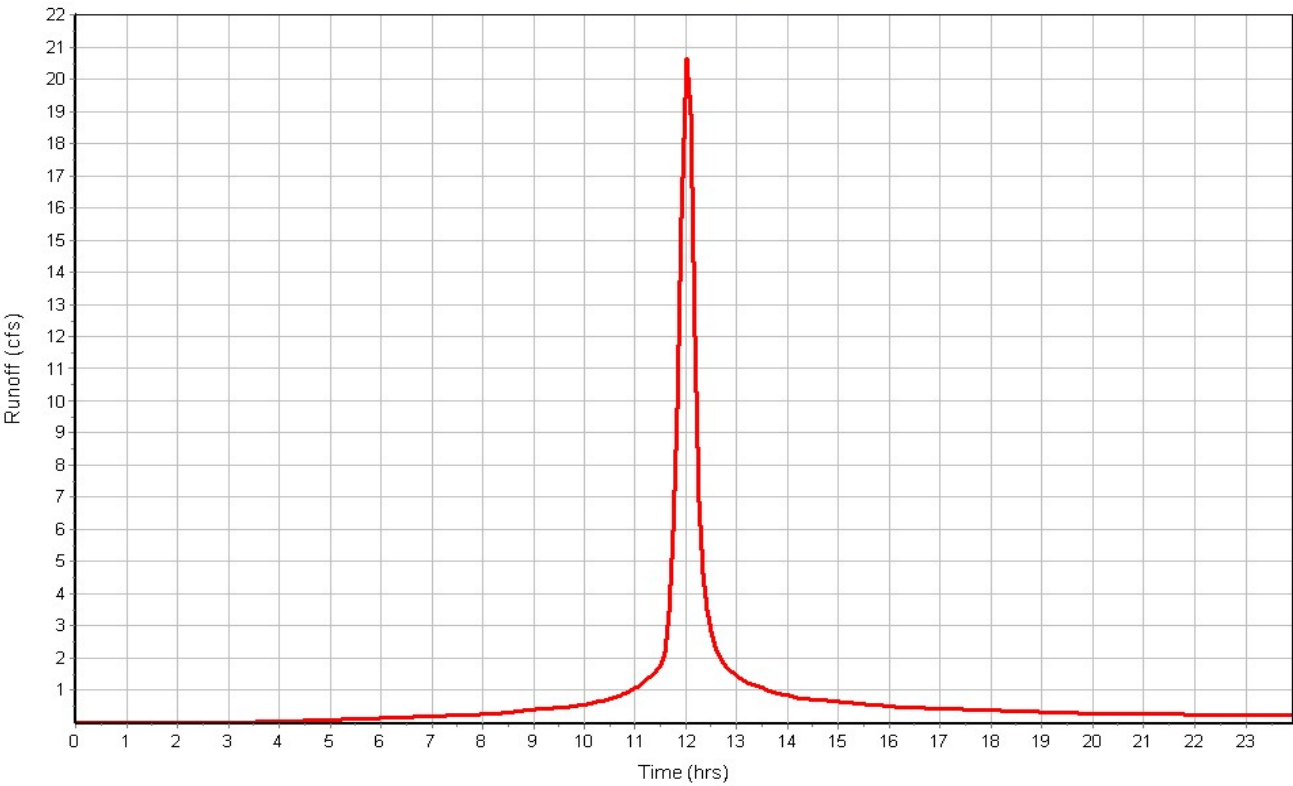


Subbasin : Existing

Rainfall Intensity Graph



Runoff Hydrograph



Project Description

File Name ..... Storm Analysis Existing.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019 00:00:00  
End Analysis On ..... Jul 26, 2019 00:00:00  
Start Reporting On ..... Jul 25, 2019 00:00:00  
Antecedent Dry Days ..... 0 days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss  
Routing Time Step ..... 30 seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Existing    | 2.69 | 88.37                 | 5.40           | 4.09         | 11.00               | 13.48       | 0 00:13:57            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-01     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Existing

Input Data

Area (ac) ..... 2.69  
Weighted Curve Number ..... 88.37  
Rain Gage ID ..... 10yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Pasture, grassland, or range, Fair | 1.85            | D             | 84.00           |
| Paved parking & roofs              | 0.84            | D             | 98.00           |
| Composite Area & Weighted CN       | 2.69            |               | 88.37           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$   
R = Aq / Wp  
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness



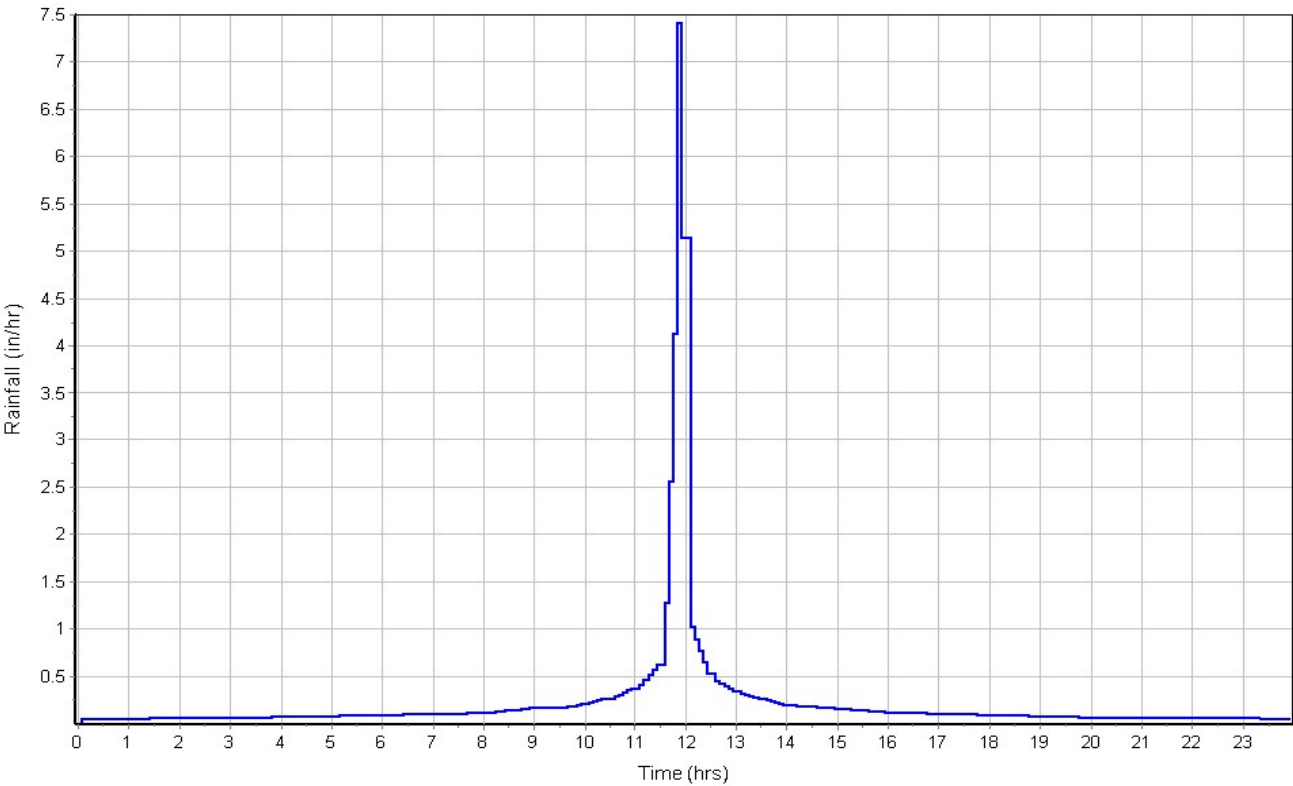
|                                        | Subarea | Subarea | Subarea |
|----------------------------------------|---------|---------|---------|
|                                        | A       | B       | C       |
| Sheet Flow Computations                |         |         |         |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 100     | 0.00    | 0.00    |
| Slope (%) :                            | 2       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.18    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 9.24    | 0.00    | 0.00    |
|                                        |         |         |         |
|                                        | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Shallow Concentrated Flow Computations |         |         |         |
| Flow Length (ft) :                     | 334     | 267     | 0.00    |
| Slope (%) :                            | 4.5     | .5      | 0.00    |
| Surface Type :                         | Unpaved | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 3.42    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 1.63    | 3.09    | 0.00    |
| Total TOC (min) .....                  | 13.96   |         |         |

### Subbasin Runoff Results

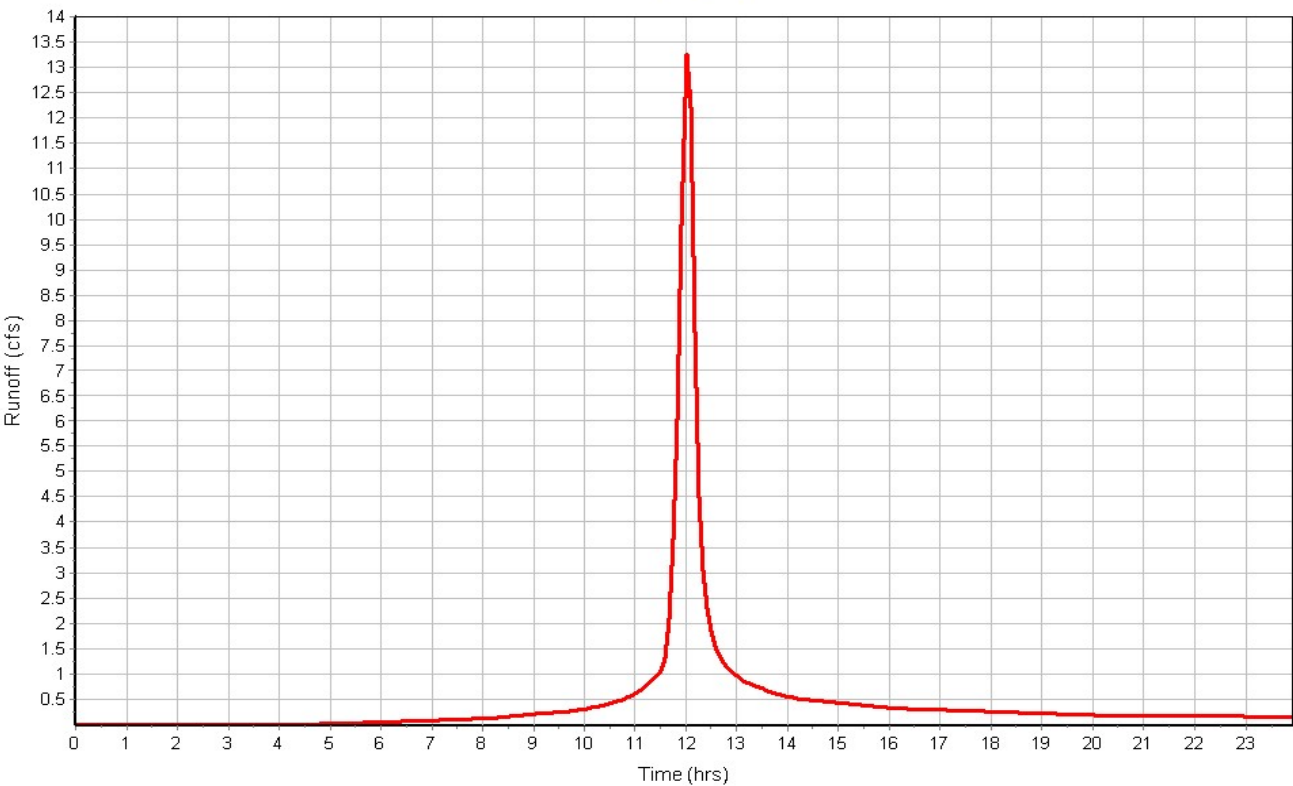
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 5.40       |
| Total Runoff (in) .....                     | 4.09       |
| Peak Runoff (cfs) .....                     | 13.48      |
| Weighted Curve Number .....                 | 88.37      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:13:58 |

Subbasin : Existing

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Existing    | 2.69 | 88.37                 | 5.40           | 4.09         | 11.00               | 13.48       | 0 00:13:57            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-01     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Existing

Input Data

Area (ac) ..... 2.69  
Weighted Curve Number ..... 88.37  
Rain Gage ID ..... 10yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Pasture, grassland, or range, Fair | 1.85            | D             | 84.00           |
| Paved parking & roofs              | 0.84            | D             | 98.00           |
| Composite Area & Weighted CN       | 2.69            |               | 88.37           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$   
R = Aq / Wp  
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness



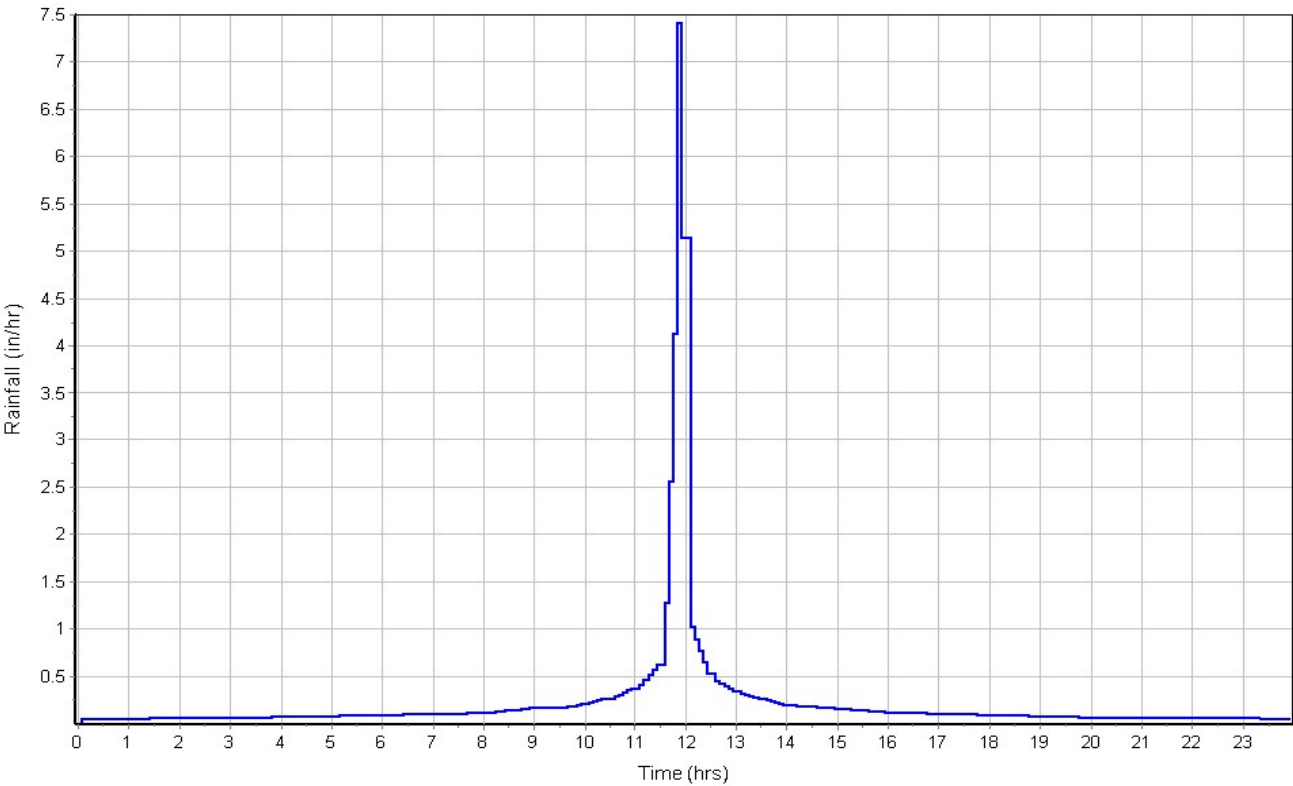
|                                        | Subarea | Subarea | Subarea |
|----------------------------------------|---------|---------|---------|
|                                        | A       | B       | C       |
| Sheet Flow Computations                |         |         |         |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 100     | 0.00    | 0.00    |
| Slope (%) :                            | 2       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.18    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 9.24    | 0.00    | 0.00    |
|                                        |         |         |         |
|                                        | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Shallow Concentrated Flow Computations |         |         |         |
| Flow Length (ft) :                     | 334     | 267     | 0.00    |
| Slope (%) :                            | 4.5     | .5      | 0.00    |
| Surface Type :                         | Unpaved | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 3.42    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 1.63    | 3.09    | 0.00    |
| Total TOC (min) .....                  | 13.96   |         |         |

### Subbasin Runoff Results

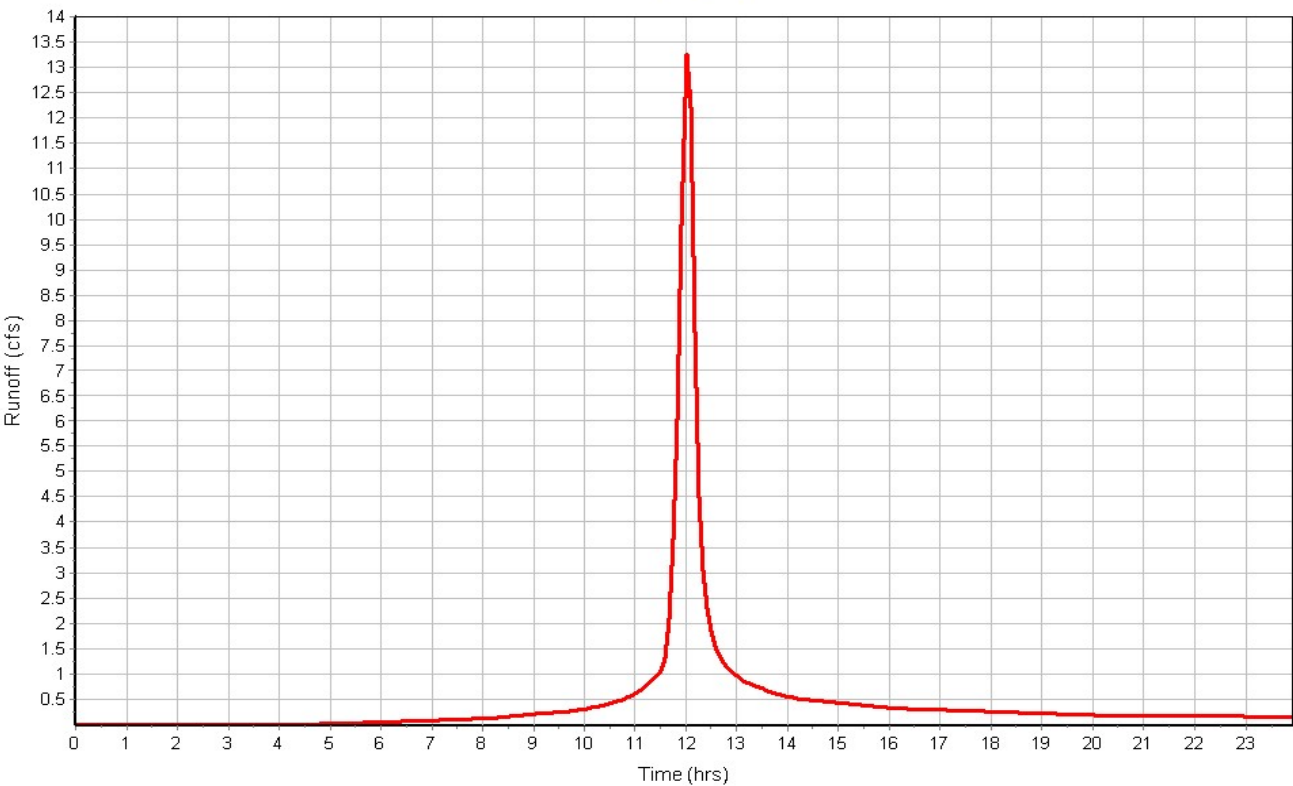
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 5.40       |
| Total Runoff (in) .....                     | 4.09       |
| Peak Runoff (cfs) .....                     | 13.48      |
| Weighted Curve Number .....                 | 88.37      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:13:58 |

Subbasin : Existing

Rainfall Intensity Graph



Runoff Hydrograph



Project Description

File Name ..... Storm Analysis Existing.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019 00:00:00  
End Analysis On ..... Jul 26, 2019 00:00:00  
Start Reporting On ..... Jul 25, 2019 00:00:00  
Antecedent Dry Days ..... 0 days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss  
Routing Time Step ..... 30 seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Existing    | 2.69 | 88.37                 | 7.90           | 6.51         | 17.52               | 20.96       | 0 00:13:57            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-01     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |



Subbasin Hydrology

Subbasin : Existing

Input Data

Area (ac) ..... 2.69  
Weighted Curve Number ..... 88.37  
Rain Gage ID ..... 1yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Pasture, grassland, or range, Fair | 1.85            | D             | 84.00           |
| Paved parking & roofs              | 0.84            | D             | 98.00           |
| Composite Area & Weighted CN       | 2.69            |               | 88.37           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$   
R = Aq / Wp  
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness

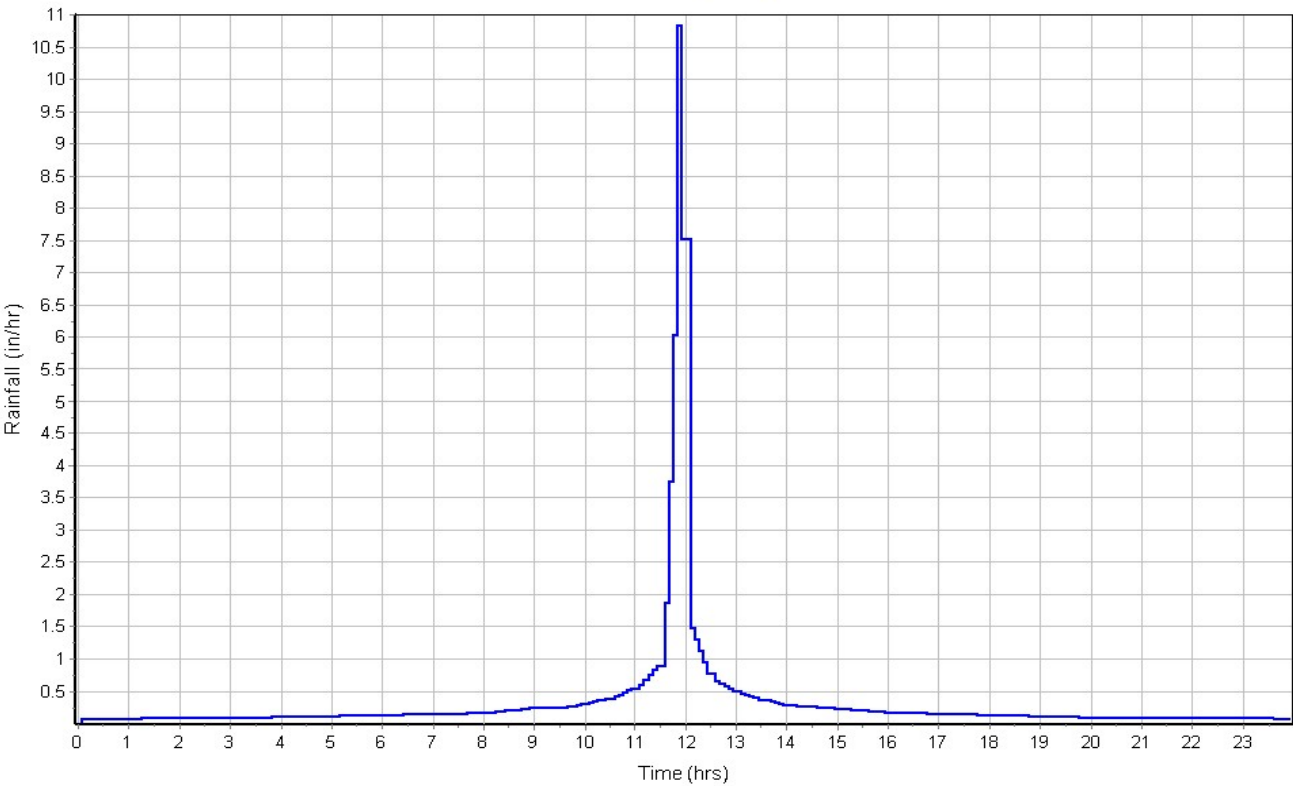
|                                        |         |         |         |
|----------------------------------------|---------|---------|---------|
| Sheet Flow Computations                | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 100     | 0.00    | 0.00    |
| Slope (%) :                            | 2       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.18    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 9.24    | 0.00    | 0.00    |
| Shallow Concentrated Flow Computations | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Flow Length (ft) :                     | 334     | 267     | 0.00    |
| Slope (%) :                            | 4.5     | .5      | 0.00    |
| Surface Type :                         | Unpaved | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 3.42    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 1.63    | 3.09    | 0.00    |
| Total TOC (min) .....                  | 13.96   |         |         |

### Subbasin Runoff Results

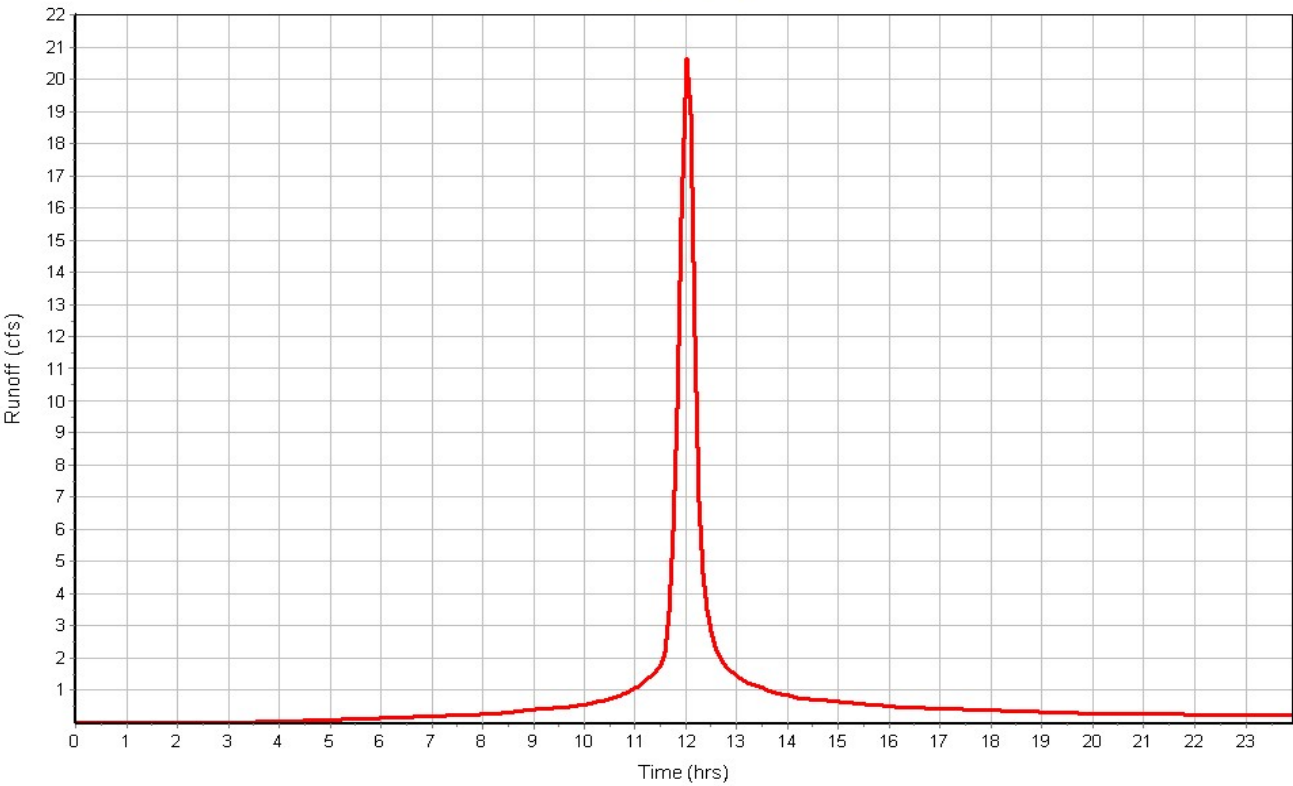
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 7.90       |
| Total Runoff (in) .....                     | 6.51       |
| Peak Runoff (cfs) .....                     | 20.96      |
| Weighted Curve Number .....                 | 88.37      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:13:58 |

Subbasin : Existing

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Existing    | 2.69 | 88.37                 | 7.90           | 6.51         | 17.52               | 20.96       | 0 00:13:57            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-01     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Existing

Input Data

Area (ac) ..... 2.69  
Weighted Curve Number ..... 88.37  
Rain Gage ID ..... 1yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Pasture, grassland, or range, Fair | 1.85            | D             | 84.00           |
| Paved parking & roofs              | 0.84            | D             | 98.00           |
| Composite Area & Weighted CN       | 2.69            |               | 88.37           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$   
R = Aq / Wp  
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness



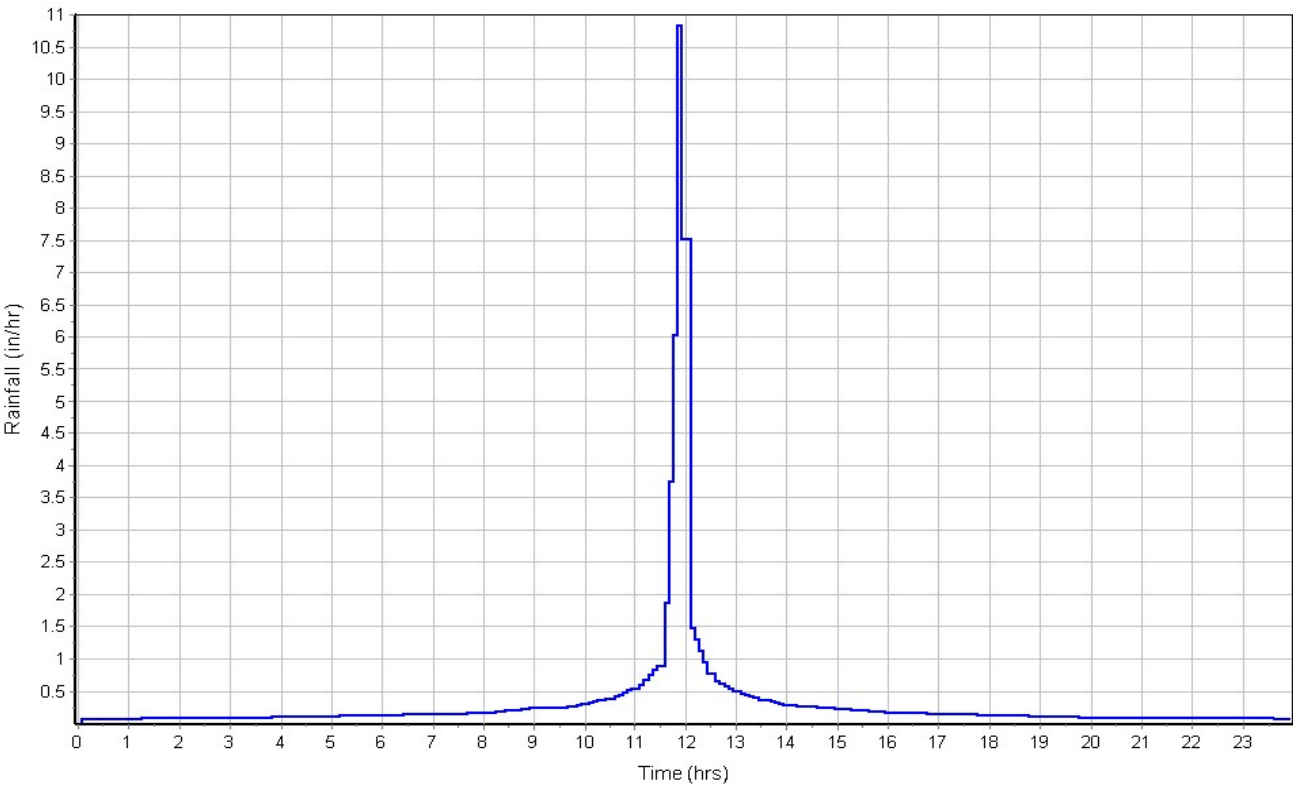
|                                        |         |         |         |
|----------------------------------------|---------|---------|---------|
| Sheet Flow Computations                | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 100     | 0.00    | 0.00    |
| Slope (%) :                            | 2       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.18    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 9.24    | 0.00    | 0.00    |
| Shallow Concentrated Flow Computations | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Flow Length (ft) :                     | 334     | 267     | 0.00    |
| Slope (%) :                            | 4.5     | .5      | 0.00    |
| Surface Type :                         | Unpaved | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 3.42    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 1.63    | 3.09    | 0.00    |
| Total TOC (min) .....                  | 13.96   |         |         |

### Subbasin Runoff Results

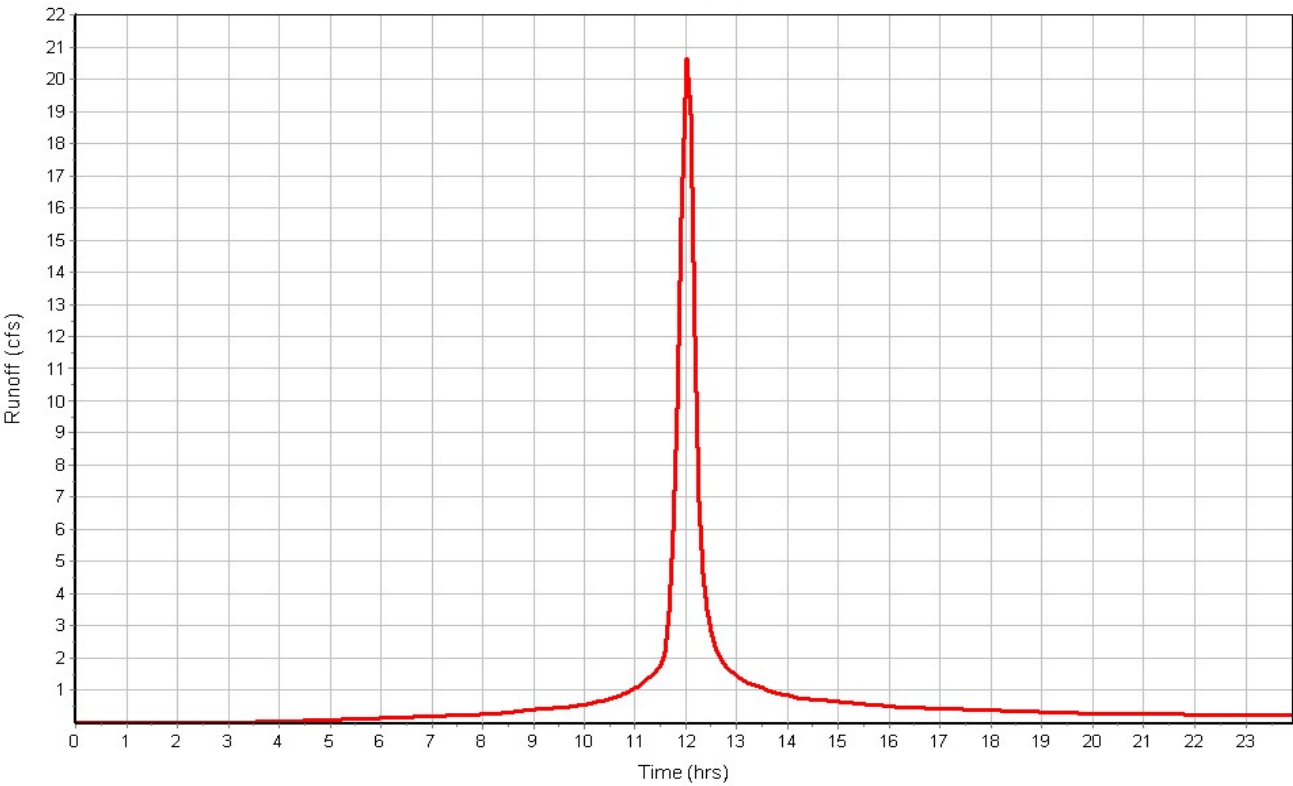
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 7.90       |
| Total Runoff (in) .....                     | 6.51       |
| Peak Runoff (cfs) .....                     | 20.96      |
| Weighted Curve Number .....                 | 88.37      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:13:58 |

Subbasin : Existing

Rainfall Intensity Graph

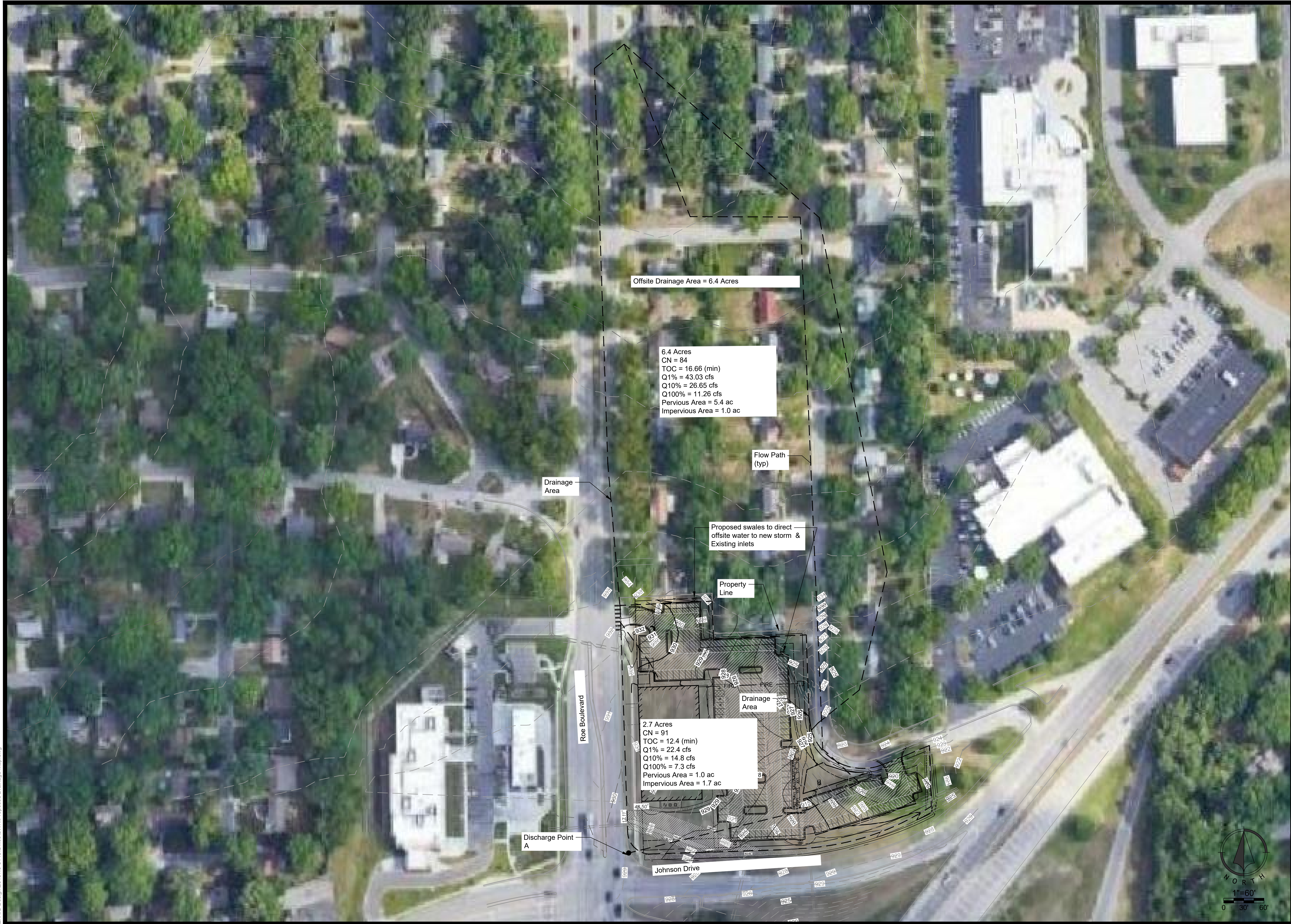


Runoff Hydrograph



**EXHIBIT F**  
**PROPOSED DRAINAGE MAP**



[illegible]





## **EXHIBIT G**

### **PROPOSED CONDITIONS ANALYSIS**



Project Description

File Name ..... Storm Analysis Future.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019 00:00:00  
End Analysis On ..... Jul 26, 2019 00:00:00  
Start Reporting On ..... Jul 25, 2019 00:00:00  
Antecedent Dry Days ..... 0 days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss  
Routing Time Step ..... 30 seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Future      | 2.70 | 91.48                 | 3.00           | 2.11         | 5.71                | 7.34        | 0 00:12:25            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-02     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Future

Input Data

Area (ac) ..... 2.70  
Weighted Curve Number ..... 91.48  
Rain Gage ID ..... 1yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Paved parking & roofs              | 1.70            | C             | 98.00           |
| Pasture, grassland, or range, Fair | 0.40            | D             | 84.00           |
| Meadow, non-grazed                 | 0.60            | D             | 78.00           |
| Composite Area & Weighted CN       | 2.70            |               | 91.48           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$   
 $R = A_q / W_p$   
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness

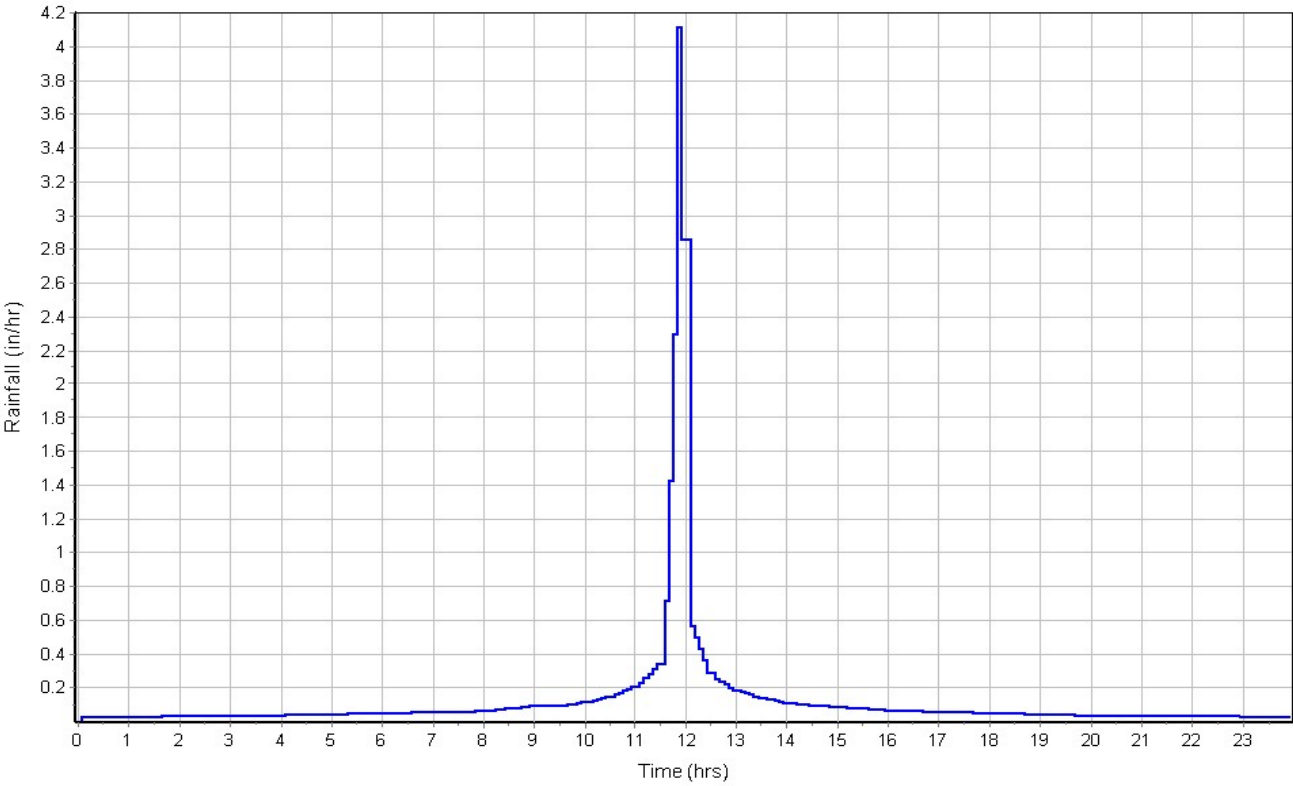
|                                        | Subarea | Subarea | Subarea |
|----------------------------------------|---------|---------|---------|
|                                        | A       | B       | C       |
| Sheet Flow Computations                |         |         |         |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 50      | 0.00    | 0.00    |
| Slope (%) :                            | 1       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.12    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 7.00    | 0.00    | 0.00    |
|                                        |         |         |         |
|                                        | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Shallow Concentrated Flow Computations |         |         |         |
| Flow Length (ft) :                     | 383     | 276     | 0.00    |
| Slope (%) :                            | 2       | .5      | 0.00    |
| Surface Type :                         | Paved   | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 2.87    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 2.22    | 3.19    | 0.00    |
| Total TOC (min) .....                  | 12.42   |         |         |

## Subbasin Runoff Results

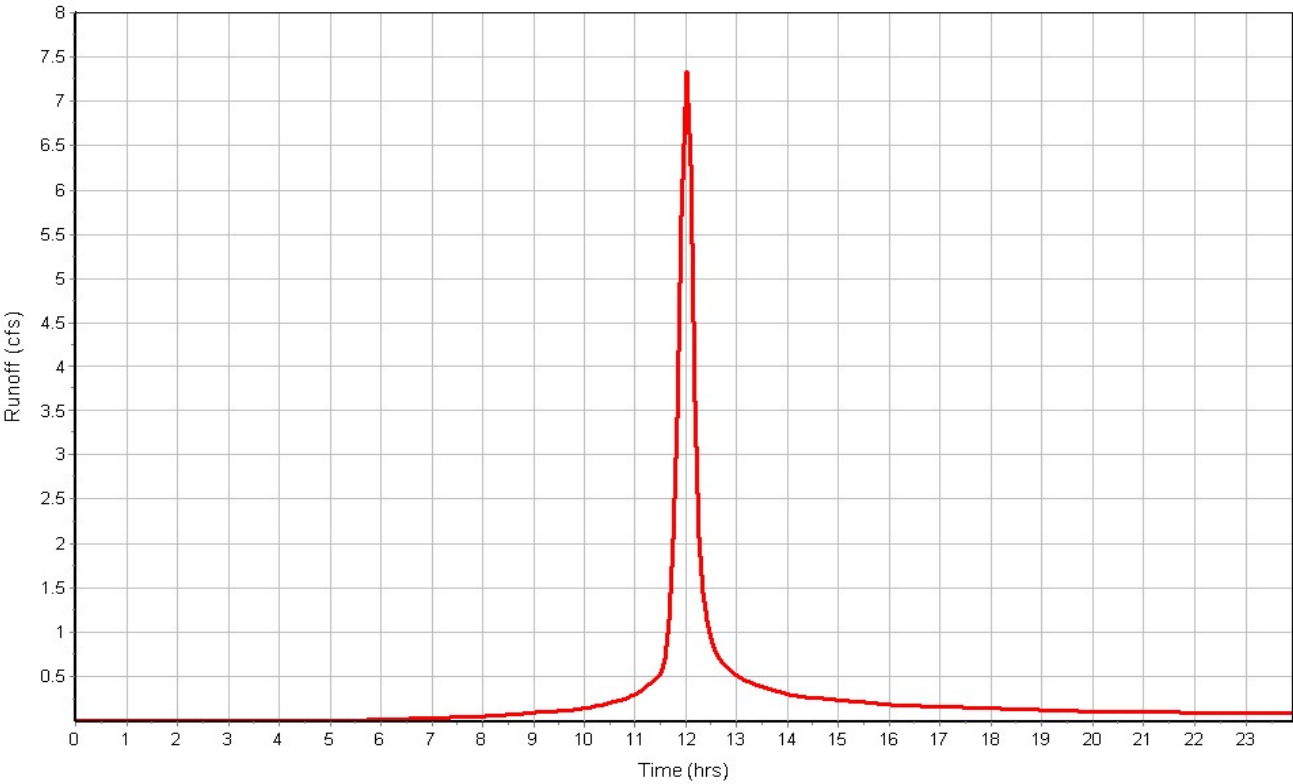
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 3.00       |
| Total Runoff (in) .....                     | 2.11       |
| Peak Runoff (cfs) .....                     | 7.34       |
| Weighted Curve Number .....                 | 91.48      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:12:25 |

Subbasin : Future

Rainfall Intensity Graph



Runoff Hydrograph





Project Description

File Name ..... Storm Analysis Future.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019      00:00:00  
End Analysis On ..... Jul 26, 2019      00:00:00  
Start Reporting On ..... Jul 25, 2019      00:00:00  
Antecedent Dry Days ..... 0      days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00      days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00      days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00      days hh:mm:ss  
Routing Time Step ..... 30      seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Future      | 2.70 | 91.48                 | 5.40           | 4.42         | 11.94               | 14.81       | 0 00:12:25            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-02     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Future

Input Data

Area (ac) ..... 2.70  
Weighted Curve Number ..... 91.48  
Rain Gage ID ..... 10yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Paved parking & roofs              | 1.70            | C             | 98.00           |
| Pasture, grassland, or range, Fair | 0.40            | D             | 84.00           |
| Meadow, non-grazed                 | 0.60            | D             | 78.00           |
| Composite Area & Weighted CN       | 2.70            |               | 91.48           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$   
 $R = A_q / W_p$   
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness

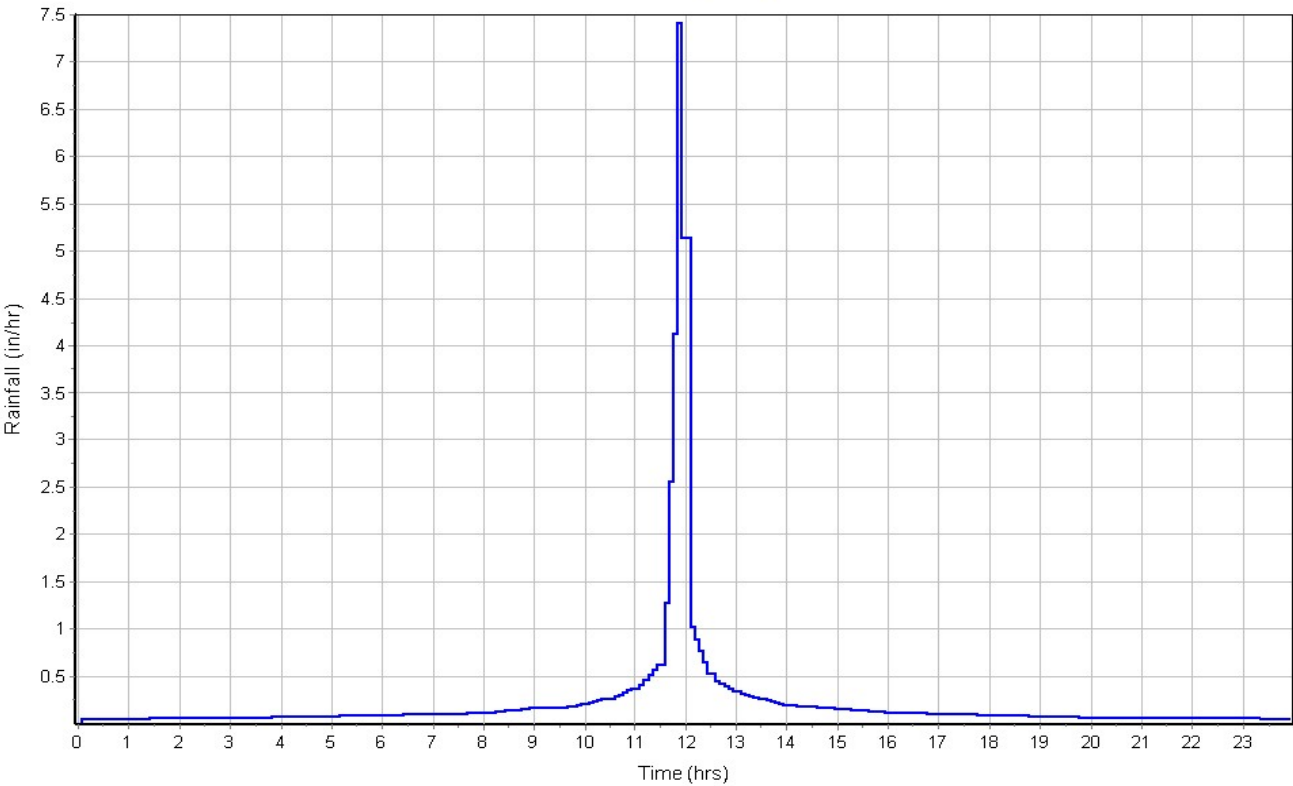
|                                        | Subarea | Subarea | Subarea |
|----------------------------------------|---------|---------|---------|
|                                        | A       | B       | C       |
| Sheet Flow Computations                |         |         |         |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 50      | 0.00    | 0.00    |
| Slope (%) :                            | 1       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.12    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 7.00    | 0.00    | 0.00    |
|                                        |         |         |         |
|                                        | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Shallow Concentrated Flow Computations |         |         |         |
| Flow Length (ft) :                     | 383     | 276     | 0.00    |
| Slope (%) :                            | 2       | .5      | 0.00    |
| Surface Type :                         | Paved   | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 2.87    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 2.22    | 3.19    | 0.00    |
| Total TOC (min) .....                  | 12.42   |         |         |

### Subbasin Runoff Results

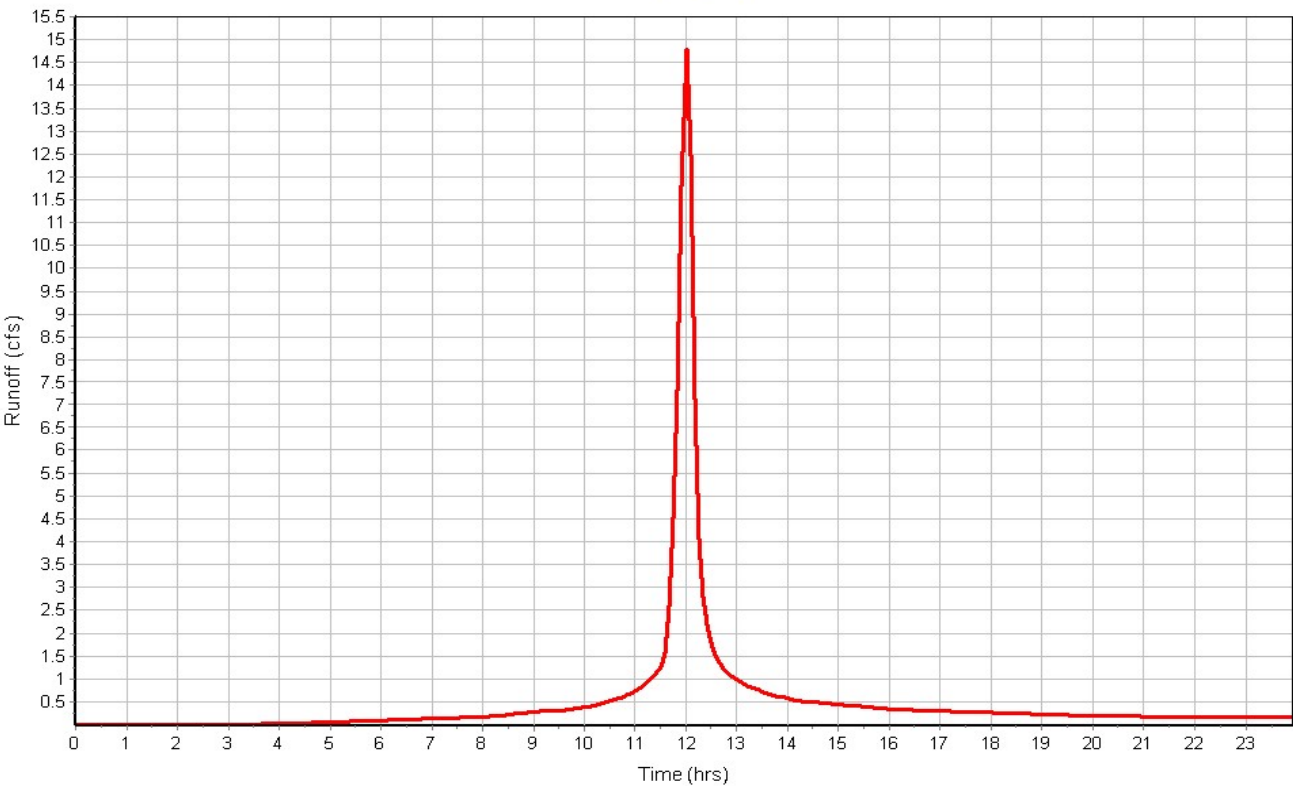
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 5.40       |
| Total Runoff (in) .....                     | 4.42       |
| Peak Runoff (cfs) .....                     | 14.81      |
| Weighted Curve Number .....                 | 91.48      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:12:25 |

Subbasin : Future

Rainfall Intensity Graph



Runoff Hydrograph





Project Description

File Name ..... Storm Analysis Future.SPF

Project Options

Flow Units ..... CFS  
Elevation Type ..... Elevation  
Hydrology Method ..... SCS TR-55  
Time of Concentration (TOC) Method ..... SCS TR-55  
Link Routing Method ..... Kinematic Wave  
Enable Overflow Ponding at Nodes ..... YES  
Skip Steady State Analysis Time Periods .. NO

Analysis Options

Start Analysis On ..... Jul 25, 2019 00:00:00  
End Analysis On ..... Jul 26, 2019 00:00:00  
Start Reporting On ..... Jul 25, 2019 00:00:00  
Antecedent Dry Days ..... 0 days  
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss  
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss  
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss  
Routing Time Step ..... 30 seconds

Number of Elements

Qty  
Rain Gages ..... 3  
Subbasins..... 1  
Nodes..... 1  
    *Junctions* ..... 0  
    *Outfalls* ..... 1  
    *Flow Diversions* ..... 0  
    *Inlets* ..... 0  
    *Storage Nodes* ..... 0  
Links..... 0  
    *Channels* ..... 0  
    *Pipes* ..... 0  
    *Pumps* ..... 0  
    *Orifices* ..... 0  
    *Weirs* ..... 0  
    *Outlets* ..... 0  
Pollutants ..... 0  
Land Uses ..... 0

Rainfall Details

| SN | Rain Gage ID | Data Source | Data Source ID | Rainfall Type | Rain Units | State  | County  | Return Period (years) | Rainfall Depth (inches) | Rainfall Distribution |
|----|--------------|-------------|----------------|---------------|------------|--------|---------|-----------------------|-------------------------|-----------------------|
| 1  | 100yr        | Time Series | 100 yr         | Intensity     | inches     | Kansas | Johnson | 100                   | 7.90                    | SCS Type II 24-hr     |
| 2  | 10yr         | Time Series | 10 yr          | Intensity     | inches     | Kansas | Johnson | 10                    | 5.40                    | SCS Type II 24-hr     |
| 3  | 1yr          | Time Series | 1 yr           | Intensity     | inches     | Kansas | Johnson | 1                     | 3.00                    | SCS Type II 24-hr     |

Subbasin Summary

| SN | Subbasin ID | Area | Weighted Curve Number | Total Rainfall | Total Runoff | Total Runoff Volume | Peak Runoff | Time of Concentration |
|----|-------------|------|-----------------------|----------------|--------------|---------------------|-------------|-----------------------|
|    |             | (ac) |                       | (in)           | (in)         | (ac-in)             | (cfs)       | (days hh:mm:ss)       |
| 1  | Future      | 2.70 | 91.48                 | 7.90           | 6.88         | 18.58               | 22.46       | 0 00:12:25            |

Node Summary

| SN | Element ID | Element Type | Invert Elevation | Ground/Rim (Max) Elevation | Initial Water Elevation | Surcharge Elevation | Ponded Area | Peak Inflow | Max HGL Elevation Attained | Max Surcharge Depth Attained | Min Freeboard Attained | Time of Peak Flooding Occurrence | Total Flooded Volume | Total Time Flooded |
|----|------------|--------------|------------------|----------------------------|-------------------------|---------------------|-------------|-------------|----------------------------|------------------------------|------------------------|----------------------------------|----------------------|--------------------|
|    |            |              | (ft)             | (ft)                       | (ft)                    | (ft)                | (ft²)       | (cfs)       | (ft)                       | (ft)                         | (ft)                   | (days hh:mm)                     | (ac-in)              | (min)              |
| 1  | Out-02     | Outfall      | 0.00             |                            |                         |                     |             | 0.00        | 0.00                       |                              |                        |                                  |                      |                    |

Subbasin Hydrology

Subbasin : Future

Input Data

Area (ac) ..... 2.70  
Weighted Curve Number ..... 91.48  
Rain Gage ID ..... 100yr

Composite Curve Number

| Soil/Surface Description           | Area<br>(acres) | Soil<br>Group | Curve<br>Number |
|------------------------------------|-----------------|---------------|-----------------|
| Paved parking & roofs              | 1.70            | C             | 98.00           |
| Pasture, grassland, or range, Fair | 0.40            | D             | 84.00           |
| Meadow, non-grazed                 | 0.60            | D             | 78.00           |
| Composite Area & Weighted CN       | 2.70            |               | 91.48           |

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)  
n = Manning's roughness  
Lf = Flow Length (ft)  
P = 2 yr, 24 hr Rainfall (inches)  
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 \* (Sf^0.5) (unpaved surface)  
V = 20.3282 \* (Sf^0.5) (paved surface)  
V = 15.0 \* (Sf^0.5) (grassed waterway surface)  
V = 10.0 \* (Sf^0.5) (nearly bare & untilled surface)  
V = 9.0 \* (Sf^0.5) (cultivated straight rows surface)  
V = 7.0 \* (Sf^0.5) (short grass pasture surface)  
V = 5.0 \* (Sf^0.5) (woodland surface)  
V = 2.5 \* (Sf^0.5) (forest w/heavy litter surface)  
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$   
 $R = A_q / W_p$   
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)  
Lf = Flow Length (ft)  
R = Hydraulic Radius (ft)  
Aq = Flow Area (ft²)  
Wp = Wetted Perimeter (ft)  
V = Velocity (ft/sec)  
Sf = Slope (ft/ft)  
n = Manning's roughness

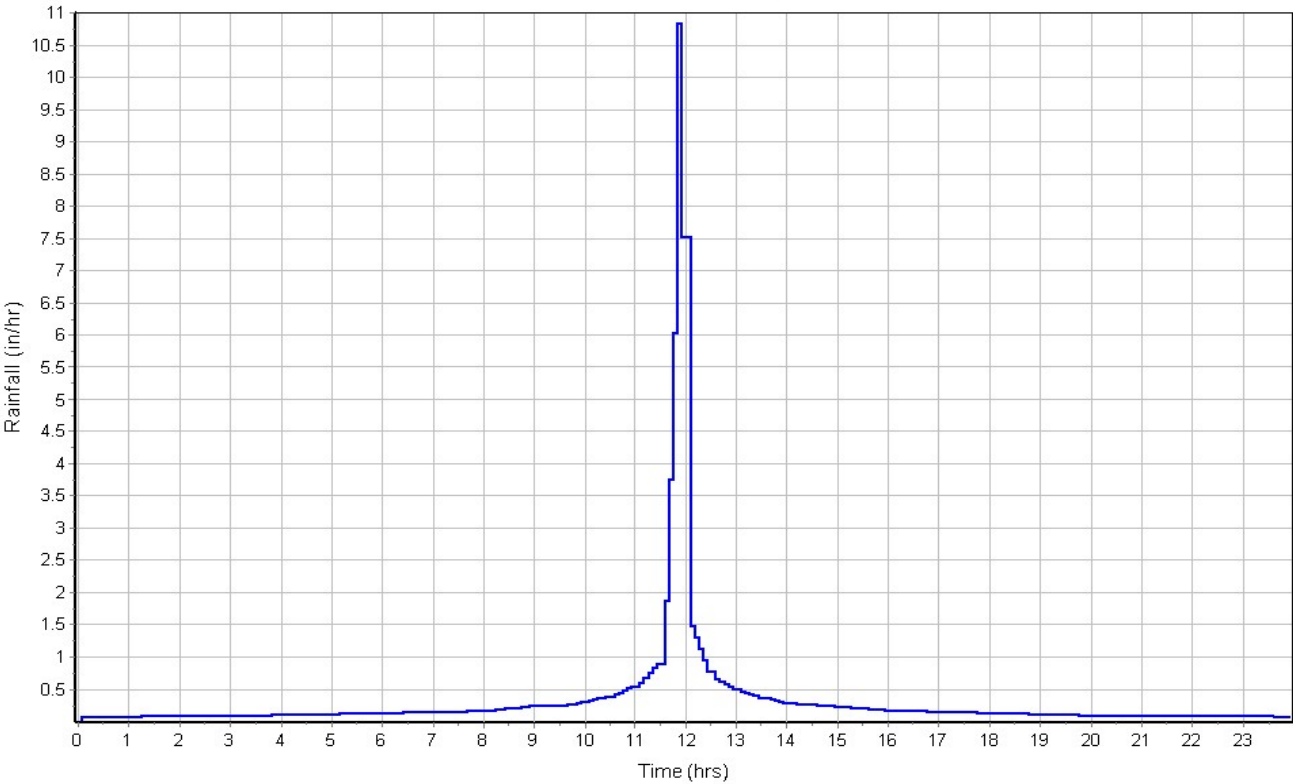
|                                        | Subarea | Subarea | Subarea |
|----------------------------------------|---------|---------|---------|
|                                        | A       | B       | C       |
| Sheet Flow Computations                |         |         |         |
| Manning's Roughness :                  | .15     | 0.00    | 0.00    |
| Flow Length (ft) :                     | 50      | 0.00    | 0.00    |
| Slope (%) :                            | 1       | 0.00    | 0.00    |
| 2 yr, 24 hr Rainfall (in) :            | 3.60    | 0.00    | 0.00    |
| Velocity (ft/sec) :                    | 0.12    | 0.00    | 0.00    |
| Computed Flow Time (min) :             | 7.00    | 0.00    | 0.00    |
|                                        |         |         |         |
|                                        | Subarea | Subarea | Subarea |
|                                        | A       | B       | C       |
| Shallow Concentrated Flow Computations |         |         |         |
| Flow Length (ft) :                     | 383     | 276     | 0.00    |
| Slope (%) :                            | 2       | .5      | 0.00    |
| Surface Type :                         | Paved   | Paved   | Unpaved |
| Velocity (ft/sec) :                    | 2.87    | 1.44    | 0.00    |
| Computed Flow Time (min) :             | 2.22    | 3.19    | 0.00    |
| Total TOC (min) .....                  | 12.42   |         |         |

### Subbasin Runoff Results

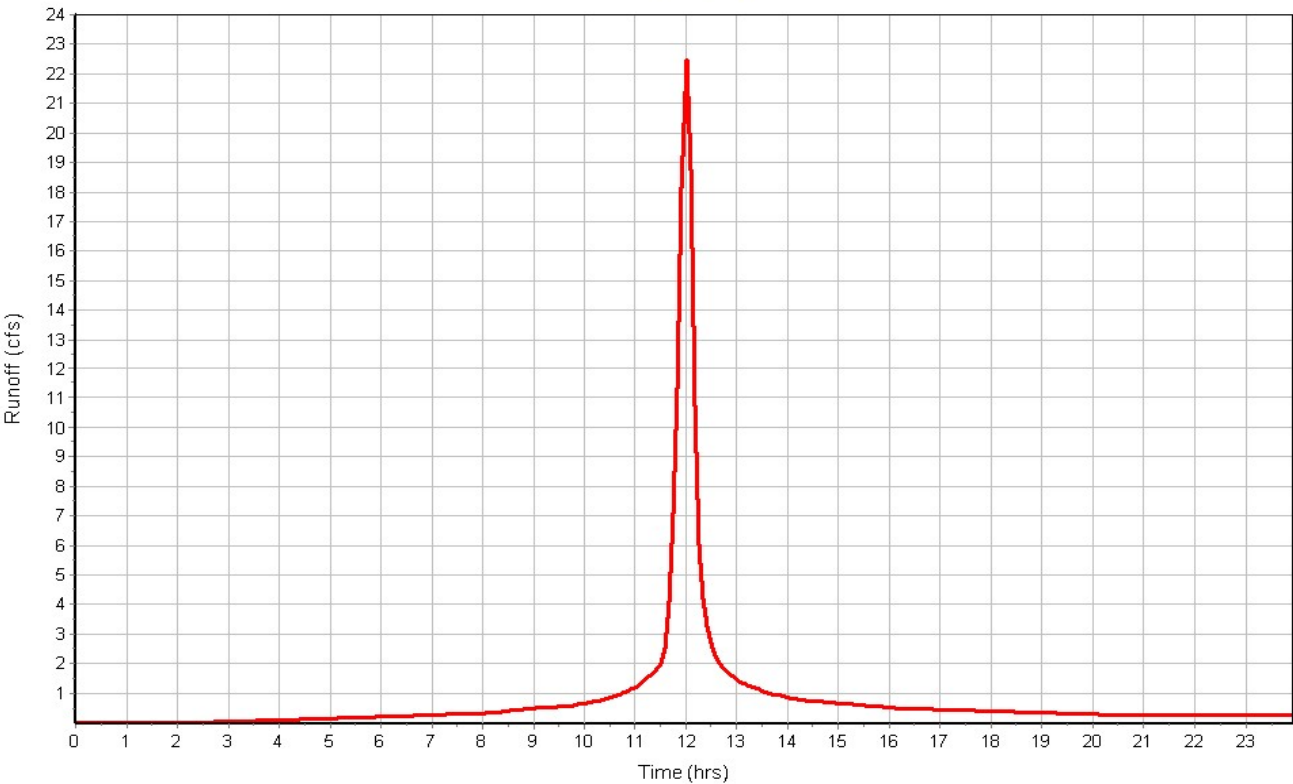
|                                             |            |
|---------------------------------------------|------------|
| Total Rainfall (in) .....                   | 7.90       |
| Total Runoff (in) .....                     | 6.88       |
| Peak Runoff (cfs) .....                     | 22.46      |
| Weighted Curve Number .....                 | 91.48      |
| Time of Concentration (days hh:mm:ss) ..... | 0 00:12:25 |

Subbasin : Future

Rainfall Intensity Graph



Runoff Hydrograph





**EXHIBIT H**  
**BMP ANALYSIS**



# **WORKSHEET 1: REQUIRED LEVEL OF SERVICE - UNDEVELOPED SITE**

Project: 19-0143 Medical Office Building  
Location: Roeland Park, Kansas

By: CMK Date: 8/6/2019  
Checked: Date:

## **1. Runoff Curve Number**

### **A. Predevelopment CN**

| Cover Description                                 | Soil HSG | CN   | Area (ac.) | Product of CN x Area |
|---------------------------------------------------|----------|------|------------|----------------------|
| Pasture, Fair                                     | D        | 84.0 | 1.9        | 155.4                |
| Parking lots, roofs, streets w/ sewer, water, etc | C        | 98.0 | 0.8        | 82.3                 |
|                                                   |          |      |            |                      |
|                                                   |          |      |            |                      |
|                                                   |          |      |            |                      |
|                                                   |          |      |            |                      |
| Totals:                                           |          |      | 2.7        | 237.7                |

Area-Weighted CN = total product/total area = 88.0

### **B. Postdevelopment CN**

| Cover Description                                 | Soil HSG <sup>1</sup> | CN   | Area (ac.) | Product of CN x Area |
|---------------------------------------------------|-----------------------|------|------------|----------------------|
| Pasture, Fair                                     | D                     | 84.0 | 0.4        | 33.6                 |
| Parking lots, roofs, streets w/ sewer, water, etc | C                     | 98.0 | 1.7        | 166.6                |
| Native grass                                      | D                     | 78.0 | 0.6        | 46.8                 |
|                                                   |                       |      |            |                      |
|                                                   |                       |      |            |                      |
|                                                   |                       |      |            |                      |
| Totals:                                           |                       |      | 2.7        | 247.0                |

<sup>1</sup> Postdevelopment CN is one HSG higher for all cover types except preserved vegetation, absent documentation showing how postdevelopment soil structure will be preserved.

Area-Weighted CN = total product/total area = 91.0

### **C. Level of Service (LS) Calculation**

Predevelopment CN: 88

Postdevelopment CN: 91

Difference: 3

LS Required (see scale at right): 5



## WORKSHEET 2: DEVELOP MITIGATION PACKAGE(S) THAT MEET THE REQUIRED LS

Project 19-0143 Medical Office Building

By:

Date:

7/31/2019

Location Roeland Park, Kansas

Checked:

Date:

Sheet 1 of 1

1. Required LS (New Development, Wksht 1) or Total VR (Redevelopment, Wksht 1A):

5.00

Note: Various BMPs may alter CN of proposed development, and LS; recalculate both if applicable.

2. Proposed BMP Option Package No. 1

| Cover/BMP Description     | Treatment Area | VR            | Product of VR x Area |
|---------------------------|----------------|---------------|----------------------|
| Native Vegetation         | 0.6            | 9.3           | 5.7                  |
| Rain Garden               | 0.4            | 9.0           | 3.6                  |
| Pavement                  | 0.6            | -             | -                    |
| Proprietary System        | 1.1            | 4.0           | 4.4                  |
| .                         |                |               |                      |
|                           |                |               |                      |
|                           |                |               |                      |
| <b>Total<sup>2</sup>:</b> | <b>2.7</b>     | <b>Total:</b> | <b>13.7</b>          |

**\*Weighted VR:** 5.1 = total product/total area

<sup>1</sup> VR calculated for final BMP only in Treatment Train

<sup>2</sup> Total treatment area cannot exceed 100 percent of the actual site area

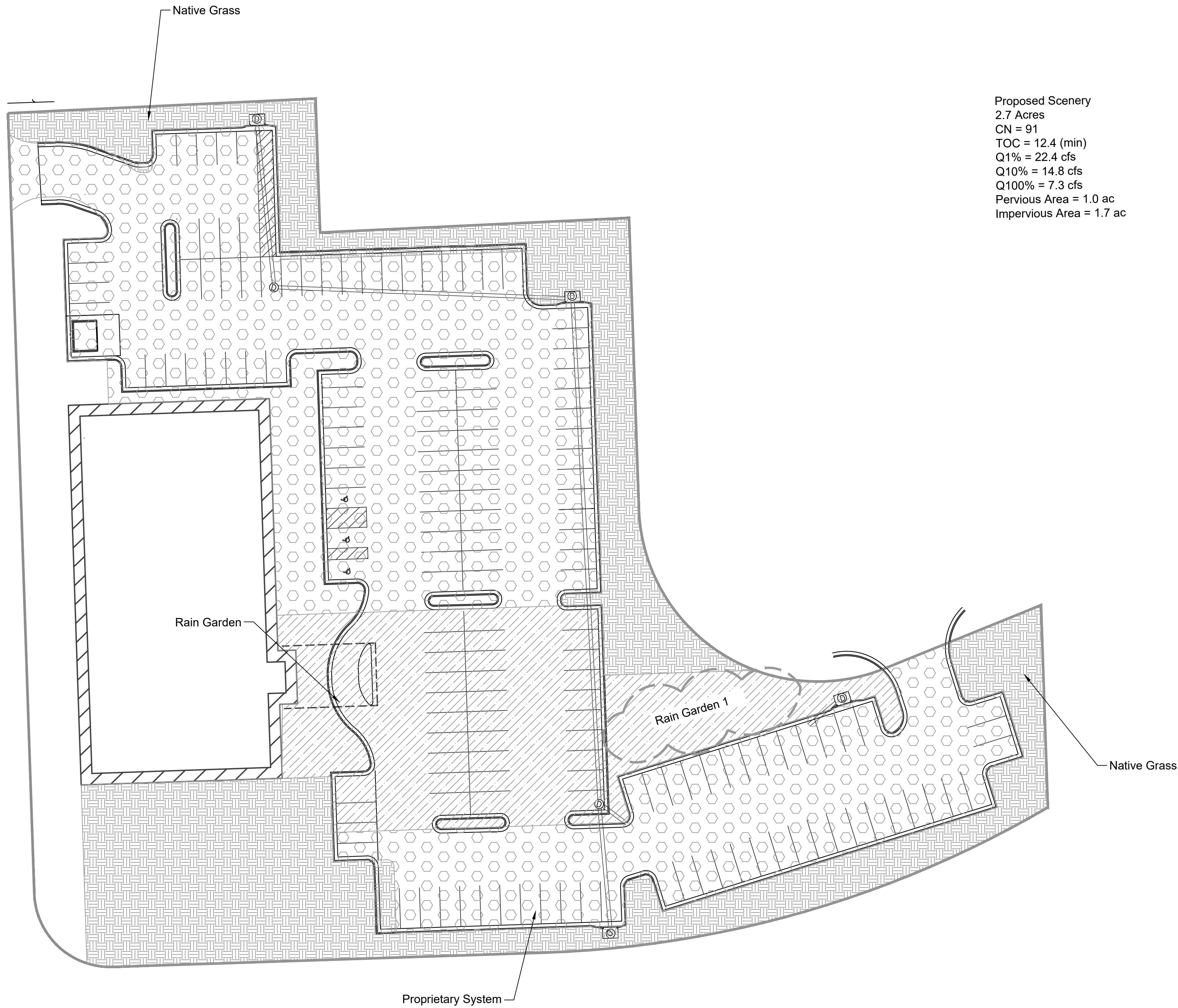
\* Blank in Redevelopment

Meets required LS (Yes/No)?

Yes

(If No, or if additional options are being tested, proceed below)

Aug 06, 2019 2:30pm  
Z:\RCG Design\2019\19-0143\Office\SWR\Proposed Drainage Map (BMP).dwg

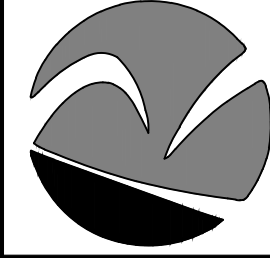


Proposed Scenery  
2.7 Acres  
CN = 91  
TOC = 12.4 (min)  
Q1% = 22.4 cfs  
Q10% = 14.8 cfs  
Q100% = 7.3 cfs  
Pervious Area = 1.0 ac  
Impervious Area = 1.7 ac

LEGEND

- Native Vegetation  
Area = 0.6 ac
- Rain Garden  
Area = 0.4 ac
- Proprietary System  
Area = 1.1 ac





**Renaissance**  
Infrastructure  
Consulting

1815 MCCREE STREET, SUITE 200  
KANSAS CITY, MISSOURI 64108  
816.800.0950  
WWW.RIC-CONSULT.COM

| NO. | BY | GD | DATE | ORIGINAL SUBMITTAL | REVISION |
|-----|----|----|------|--------------------|----------|
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |
|     |    |    |      |                    |          |

BMP Analysis

Sunflower Medical Office Building

19-0143

Sunflower Medical Office Building

Sheet  
1 of 1



# **EXHIBIT J**

COMMERCE BANK & EMBREE  
HOSPITAL STORMWATER REPORT

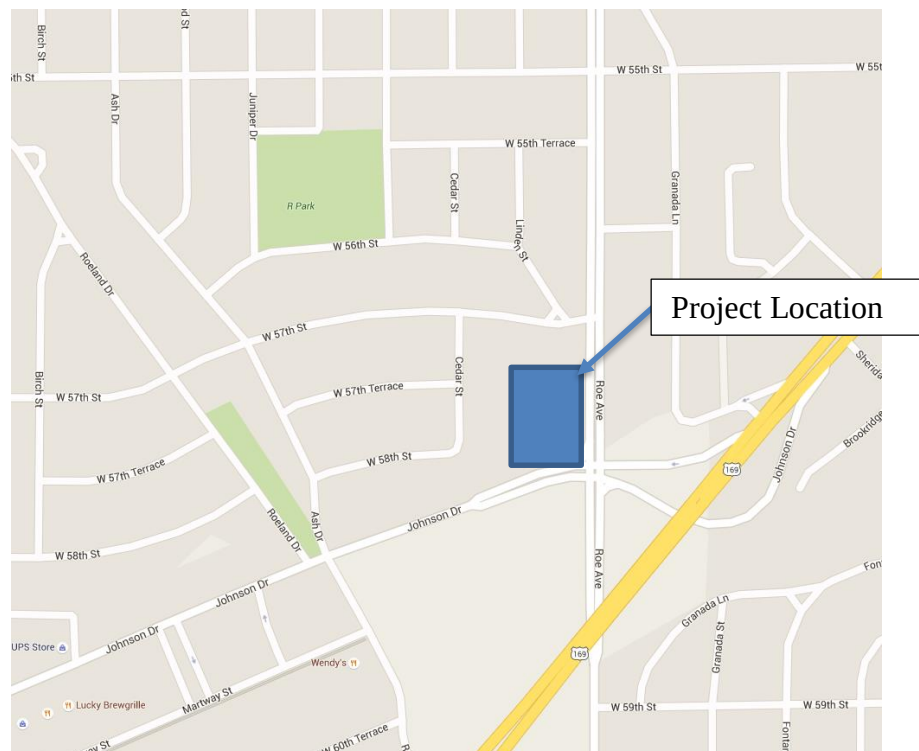
# PRELIMINARY STORMWATER STUDY

## COMMERCE BANK & EMBREE HOSPITAL ROELAND PARK, KS

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**PREPARED FOR:**  
COMMERCE BANK AND EMBREE

**PREPARED BY:**  
OLSSON ASSOCIATES  
1300 BURLINGTON ST. STE. 100  
KANSAS CITY, MO 64116



**JULY 2016**  
**OA PROJECT NUMBER: 016-1960**



Commerce Bank & Embree  
Stormwater Report

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# **Commerce Bank & Embree Stormwater Report**

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## **GENERAL INFORMATION**

This micro stormwater management study is being submitted on behalf of Commerce Bank and Embree for the proposed Commerce Bank and Hospital in Roeland Park, Kansas.

### **Project Location and Description**

The proposed site lies within the northwest ¼ of Section 9, Township 12 South, Range 25 East, in Johnson County, Roeland Park, Kansas and includes approximately 2.65 acres. The site is located at the northwest corner of Johnson Drive and Roe Boulevard (See Appendix A for Site Maps).

### **Study Purpose and Criteria**

The purpose of this study is to explain that the proposed development of the Commerce Bank and Embree Hospital sites are in conformance with the City of Roeland Park Ordinances and Procedures. This document utilizes the Standard Specifications and Design Criteria, "Division V – Design Criteria, Section 5600 - Storm Drainage Systems and Facilities" of the American Public Works Association, Kansas City Metropolitan Chapter (APWA) adopted February 15, 2006 and the Mid-America Regional Council, Manual of Best Management Practices For Stormwater Quality October 2012, referred to hereafter as "2012 MARC BMP Manual". This study will analyze the post-development peak stormwater discharges from the site to ensure there are no adverse impacts on downstream receiving stormwater systems or properties and discuss best management practices to mitigate impacts to storm water quality.

### **FEMA Flood Classification**

The site is classified as a "Zone X" Area according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Johnson County, Kansas and Incorporated Areas Map Number 20091C0024G dated August 3, 2009 with Revision to Reflect LOMR Effective February 8, 2012. According to the FEMA FIRM, Zone X corresponds to areas determined to be outside the 0.2% annual chance floodplain. See the FEMA LOMR in Appendix B. No FEMA permitting or submittals will be required for this site.

### **Soils Descriptions**

Soil classifications were obtained from the Natural Resource Conservation Service's website by utilizing the Web Soil Survey feature. The site soil composition and classification can be viewed in the chart below. These soil properties are shown in Table 1.

# Commerce Bank & Embree

## Stormwater Report

**Table 1: Soil Classifications**

| Soil Description              | Hydrologic Soil Group |
|-------------------------------|-----------------------|
| Sharpsburg Urban land complex | C                     |

A more detailed printout from the online Web Soil Survey is included in Appendix B.

### **HYDROLOGIC/HYDRAULIC ANALYSES**

#### **Existing Conditions Analysis**

Per the Preliminary Stormwater Study, the existing conditions of the site will be analyzed per the conditions in the Northeast Johnson County Watershed Study of November 20, 2006. At the time of analysis, the site contained public interchange ramps that connected Johnson Drive and Roe Avenue. Due to the earthwork and construction that had taken place on-site, the Hydrologic soil group was assumed to be D for existing conditions. The site generally drains to the southeast to an area inlet that connects to a 36" RCP (Outfall A) that flows east under Roe Boulevard, eventually combining with Rock Creek. The site is part of the Rock Creek watershed. See the exhibit in Appendix A which shows existing drainage boundaries and impervious area. The values used for the calculation were attained from the 2012 MARC BMP Manual. The existing conditions will generate a runoff of 26.37 cfs for the 100-year storm event (See Appendix C for Calculations). Pre-development flows are summarized in Table 2.

**Table 2: Existing Peak Flows**

|           | WEIGHTED CN VALUE | TOTAL AREA | 1-YR STORM (CFS) | 10-YR STORM (CFS) | 100-YR STORM (CFS) |
|-----------|-------------------|------------|------------------|-------------------|--------------------|
| Outfall A | 87                | 2.65       | 7.70             | 16.87             | 26.37              |

#### **Proposed Conditions Analysis**

The proposed development will consist of a hospital building, a bank and associated parking facilities. Drainage patterns for the proposed conditions will remain similar to the existing conditions. The site will drain overland to proposed storm sewer designed to fully convey the 100-year storm event. Detailed storm sewer design information will be included in the storm sewer plans. The weighted CN value for proposed onsite conditions was found to be 90. (See Appendix A Figure 3 for proposed conditions). The values used for the calculation were attained from the 2012 MARC BMP Manual. The proposed conditions will

## Commerce Bank & Embree Stormwater Report

generate a runoff of 27.21 cfs for the 100-year storm event (See Appendix C for Calculations).

**Table 3: Proposed Peak Flows**

|           | WEIGHTED<br>CN VALUE | TOTAL<br>AREA | 1-YR<br>STORM<br>(CFS) | 10-YR<br>STORM<br>(CFS) | 100-YR<br>STORM<br>(CFS) |
|-----------|----------------------|---------------|------------------------|-------------------------|--------------------------|
| Outfall A | 90                   | 2.65          | 8.66                   | 17.81                   | 27.21                    |

### **STORMWATER TREATMENT REQUIREMENTS**

#### **Detention**

Using the Northeast Johnson County Watershed Study, the subarea for this site and all upstream subareas in the Rock Creek watershed were analyzed (see appendix for Subarea Map). The total area from subarea RC-040 and all upstream subareas is 1766.4 acres with 737.08 acres impervious. This results in 41.73% impervious area. After the proposed site is improved, an additional 0.62 acres of impervious area will be added to make the total impervious area 41.78%.

The existing flow for the 100 year storm approximately 1,075 feet upstream of Sheridan Drive is 5,763 cfs (see appendix for FEMA LOMR). With the proposed improvements to the Commerce Bank and Embree site an increase of 0.84 cfs will be added to the 100 year storm. This adds 0.01% to the existing flow for the 100 year storm event.

The project site is approximately 600 feet from Rock Creek. At the point the project site contributes to the creek, it is very low in the tributary area. Detaining sub-watersheds that are low in the overall tributary area has the effect of increasing the time of concentration for that sub-watershed. This results in more flow being added to the overall tributary area's peak flows, actually increasing peak runoff rates and volumes that will occur farther downstream. The best solution is to get the peak flows from the project site into the creek and downstream ahead of the total tributary area's peak flows.

Therefore, although we are aware of downstream flooding, the addition of 0.01% of flow for the 100 year storm event and an increase in 0.05% of impervious area will be insignificant, and detaining this water could increase the peak flow downstream. Because of these factors, the increase in 0.99 acres of impervious area is negligible and detention for this site will not be required.

# Commerce Bank & Embree

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## Stormwater Report

### **BMP Analysis**

Improvements to the property will increase impervious surface area compared to existing conditions, thus proposed improvements qualify the project to meet water quality requirements with stormwater treatment facilities (STFs). STFs on the site are proposed to mitigate post-construction runoff pollutant levels. The MARC BMP Manual was utilized to measure the Level of Service (LOS) and Value Rating (VR) required for an undeveloped site. The required LOS for this site is 5.0. Water quality treatment calculations are available in the Appendix.

The STF systems detailed below satisfy water quality treatment requirements for the project as determined by MARC BMP Manual calculations. Site construction documents will fully detail the construction and landscape specifications for all BMPs. The property owner shall be responsible for long term maintenance and upkeep of storm water treatment facilities. As required by Section 15-515 of Ordinance No. 809 of Roeland Park, the owner must complete an annual certification inspection of the stormwater management systems and is subject to City inspection at least once every three years.

A combination of STFs is proposed for the development and will include the following STFs with corresponding VRs:

- Native Vegetation (9.25)
- Bioretention (8.50)
- Proprietary Systems (4.0).

A Value Rating of 4.0 was used for Proprietary Systems in accordance with TRI/Environmental, Inc.'s study entitled, "Large-Scale Sediment Retention Device Testing: Representing Exposure to 'Post Construction' Sediment Load" of *Flexstorm PC Inlet Filters*. The study determined the *Flexstorm PC Inlet Filter* showed a downstream TSS concentration of 30 mg/L at maximum sediment levels. Using the Value Rating Calculations in Table 4.5 of the MARC BMP Manual the Water Quality Value Rating "A" would fall under the Value Rating of 2. The Oils/Floatables Reduction Rating "D" would remain at 2 equaling a total Value Rating of 4 for the Proprietary System.

Utilizing the above STFs, the site's Level of Service calculates to 5.0, meeting the required LOS of 5. Calculations, STF drainage maps and other information are available in the Appendix.

### **CONCLUSIONS AND RECOMMENDATIONS**

There are no floodplain issues, stream setbacks needed or Section 404 permitting required. The 10 year storm will be routed through private storm sewer and will connect to existing public storm sewer following the existing drainage pattern for the site. The slight increase in impervious area is a negligible amount and detention will not be required for the site. A comprehensive package of BMP's has been provided to ensure that stormwater quality will be maintained.

## **Commerce Bank & Embree Stormwater Report**

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Based on the information provided herein, we request approval of this preliminary stormwater management study for improvements proposed with the Commerce Bank and Embree development.

If you have any questions or comments or need additional information, please do not hesitate to contact me at (816) 587-4320

***OLSSON ASSOCIATES***



## ***Appendix A***

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*Maps*

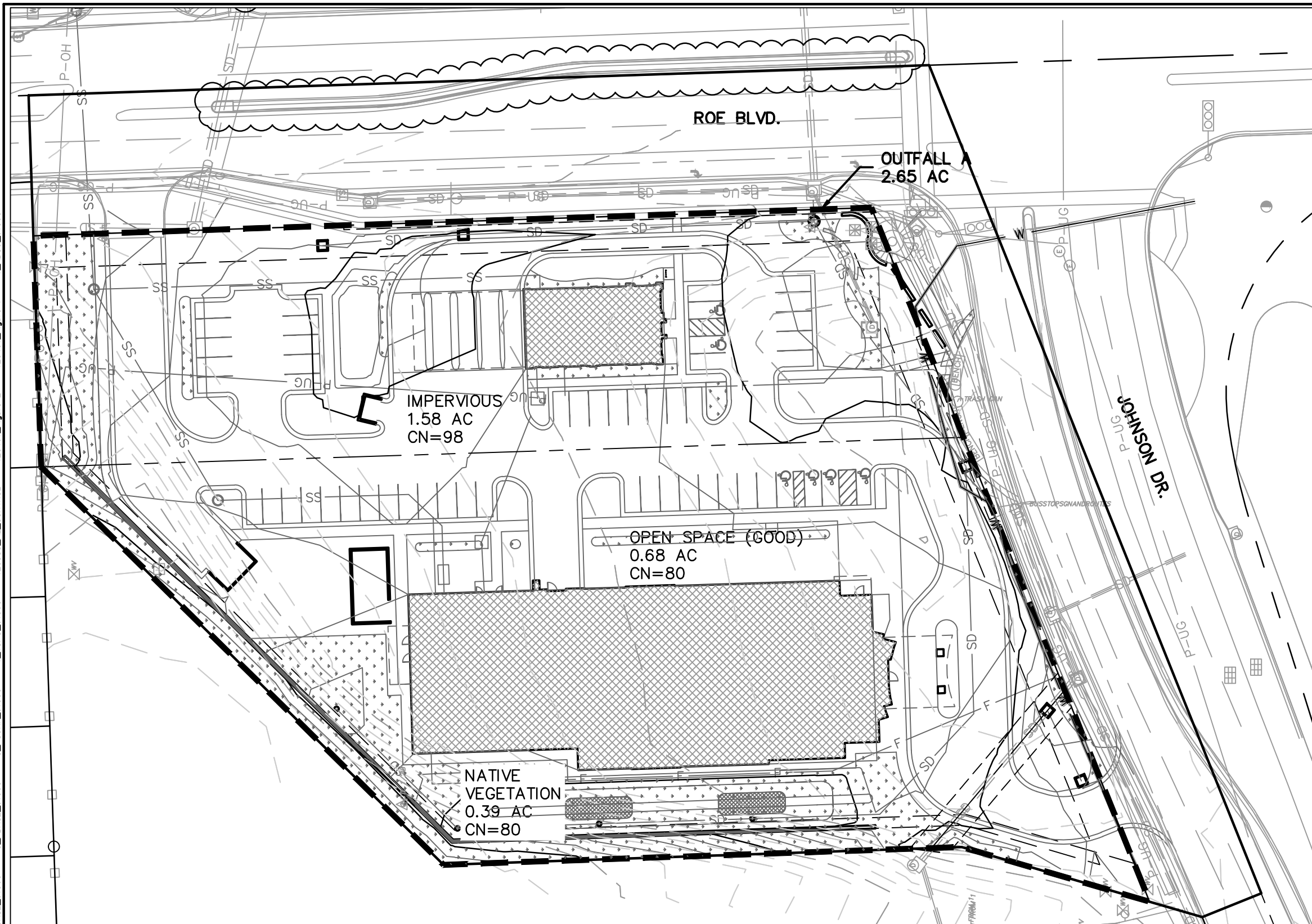
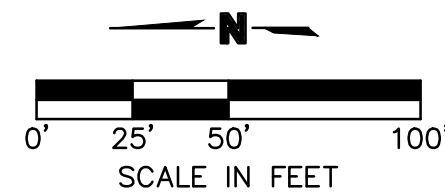
## ***Appendix B***

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*FEMA Flood Classification Firmette/Soils Report*

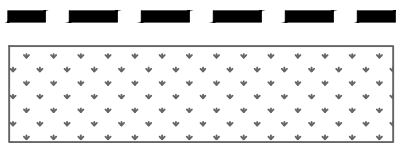
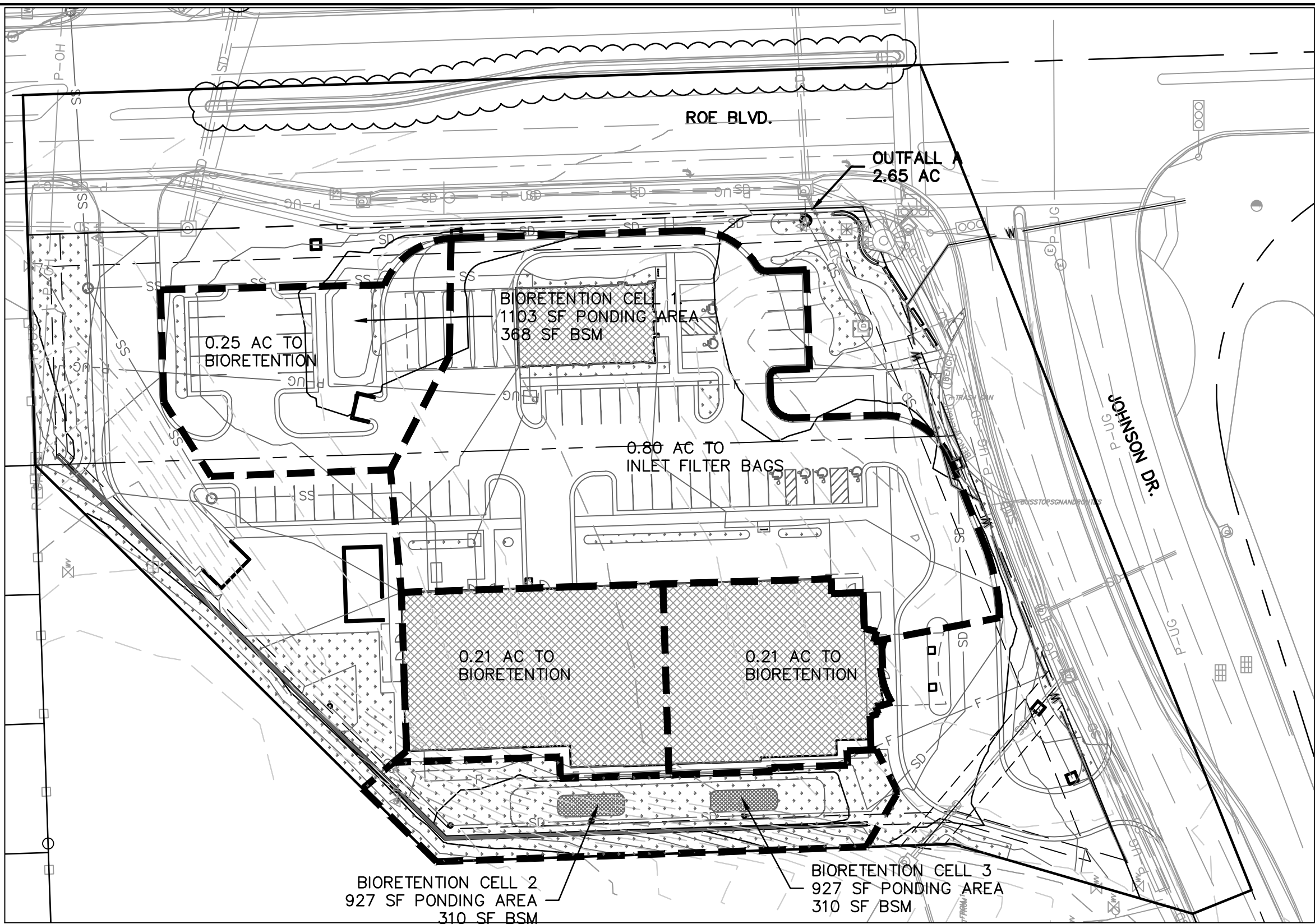


DWG: F:\2016\1501-2000\016-1960\40-Design\Reports\LDWP\Storm Report\Appendices\Appendix A Maps\C\_FIG2\_61960.dwg  
XREFS: C:\XBASE\_61960 C:\PBASE\_61960 C:\PSURE\_61960 V\_TOPO\_61960 V\_20461\_Figure 1 V\_20461\_Figure 2 V\_XBOUL\_61960  
DATE: Aug 05, 2016 12:25pm  
USER: bfreeman  
120358\_AL\_CONTROL

 DRAINAGE BOUNDARY

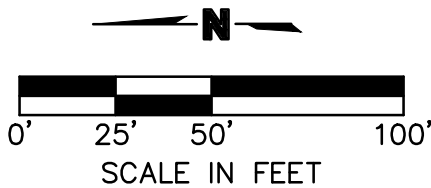
|                                                                                                                                                   |                                                                    |  |          |      |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--|----------|------|-----------------------|
| <p>drawn by: _____ BF</p> <p>checked by: _____ DE</p> <p>approved by: _____ DE</p> <p>project no.: 016-1960</p> <p>drawing no.: _____ FIGURES</p> | <p>FIGURE 2</p> <p>PROPOSED CONDITIONS</p>                         |  | REV. NO. | DATE | REVISIONS DESCRIPTION |
|                                                                                                                                                   | <p>COMMERCE BANK AND EMBREE</p> <p>JOHNSON DR. &amp; ROE BLVD.</p> |  |          |      |                       |
|                                                                                                                                                   |                                                                    |  |          |      |                       |
|                                                                                                                                                   |                                                                    |  |          |      |                       |
|                                                                                                                                                   |                                                                    |  |          |      |                       |
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|                                                                                                                                                   |                                                                    |  |          |      |                       |
|                                                                                                                                                   | <p>ROELAND PARK, KS</p> <p>2016</p>                                |  |          |      | REVISIONS             |

DWG: F:\2016\1501-2000\016-1960\40-Design\Reports\LDVP\Storm Report\Appendices\Appendix A Maps\C\_FIG2\_61960.dwg  
DATE: Aug 05, 2016 2:23pm XREFS: C\_PBASE\_61960 C\_PSIUF\_61960 V\_TOPO\_61960 V\_XBOU\_61960  
USER: bfreeman 120388\_AL\_CONTROL 120461\_Figure 2 120461\_Figure 1



DRAINAGE BOUNDARY

NATIVE VEGETATION - 0.47 AC



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ASSOCIATES

OLSSON ASSOCIATES, CIVIL ENGINEERING  
MISSOURI CERTIFICATE OF AUTHORITY #  
1251 NW Branch Parkway, Suite 50 TEL 816.361.1177  
Kansas City, MO 64116 FAX 816.361.1888 www.olsonassociates.com

FIGURE 3  
BMP PLAN

COMMERCE BANK AND EMBREE  
JOHNSON DR. & ROE BLVD.

ROELAND PARK, KS

REV. NO.

DATE

REVISIONS DESCRIPTION

2016

REVISIONS

drawn by: JJK

checked by: DFR

approved by: DFR

project no.: 016-1960

drawing no.: FIGURES

SHEET  
FIG 3



United States  
Department of  
Agriculture

NRCS

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Johnson County, Kansas**



July 11, 2016



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

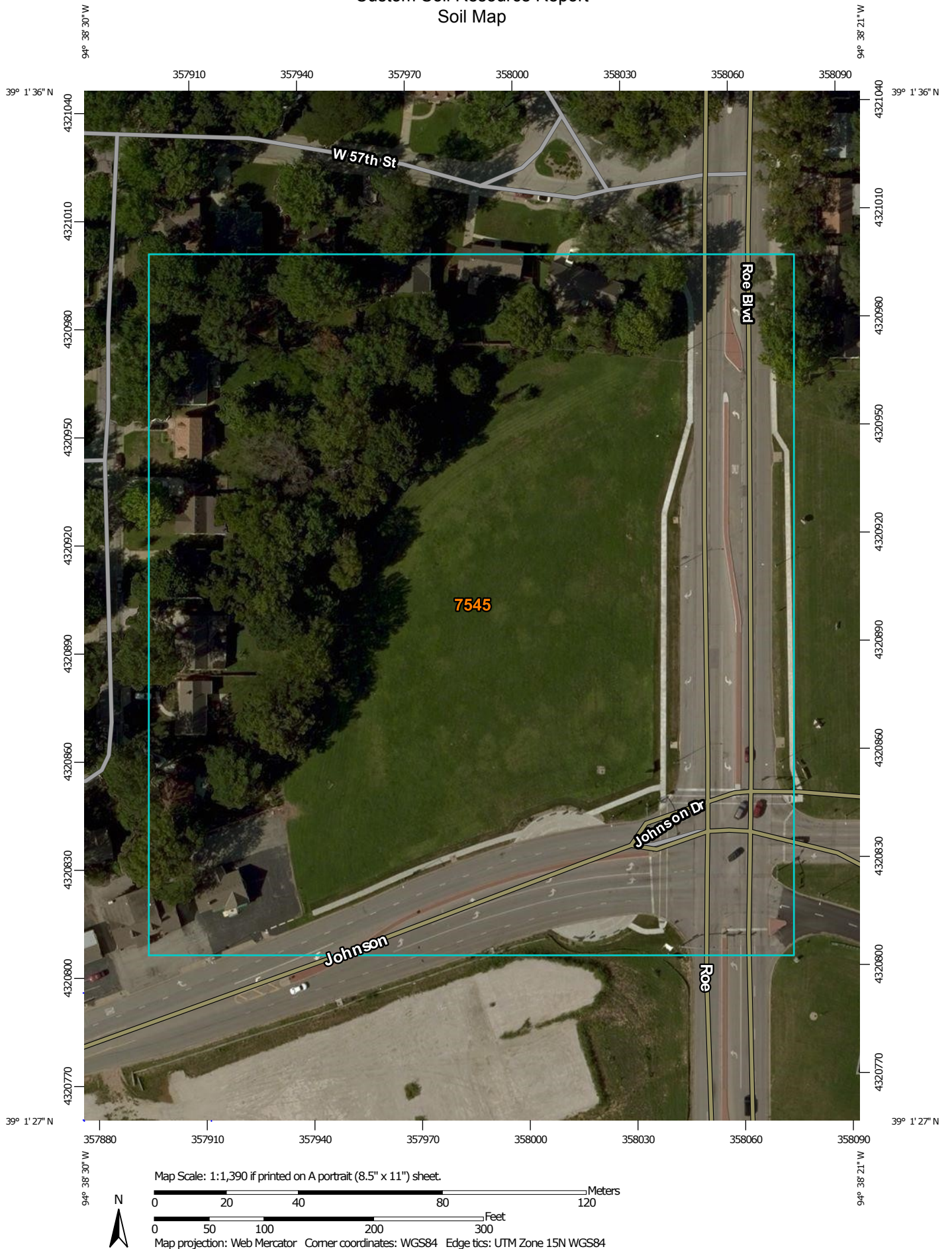
# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Kansas  
Survey Area Data: Version 14, Sep 9, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2014—Sep 7, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

| Johnson County, Kansas (KS091)     |                                                      |              |                |
|------------------------------------|------------------------------------------------------|--------------|----------------|
| Map Unit Symbol                    | Map Unit Name                                        | Acres in AOI | Percent of AOI |
| 7545                               | Sharpsburg-Urban land complex, 4 to 8 percent slopes | 8.7          | 100.0%         |
| <b>Totals for Area of Interest</b> |                                                      | <b>8.7</b>   | <b>100.0%</b>  |

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Johnson County, Kansas

### 7545—Sharpsburg-Urban land complex, 4 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* tq4z

*Elevation:* 1,000 to 1,300 feet

*Mean annual precipitation:* 31 to 47 inches

*Mean annual air temperature:* 45 to 64 degrees F

*Frost-free period:* 185 to 255 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Sharpsburg and similar soils:* 55 percent

*Urban land:* 45 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Sharpsburg

##### Setting

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Silty and clayey loess

##### Typical profile

*A - 0 to 9 inches:* silt loam

*AB - 9 to 13 inches:* silty clay loam

*Bt - 13 to 35 inches:* silty clay loam

*BC - 35 to 60 inches:* silty clay loam

##### Properties and qualities

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Moderately well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* About 36 to 40 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* High (about 11.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* C

*Ecological site:* Loamy Upland (PE 30-37) (R106XY015KS)

#### Description of Urban Land

##### Setting

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex





# **Soil Information for All Uses**

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## **Soil Properties and Qualities**

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## **Soil Qualities and Features**

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

## **Hydrologic Soil Group**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

## Custom Soil Resource Report

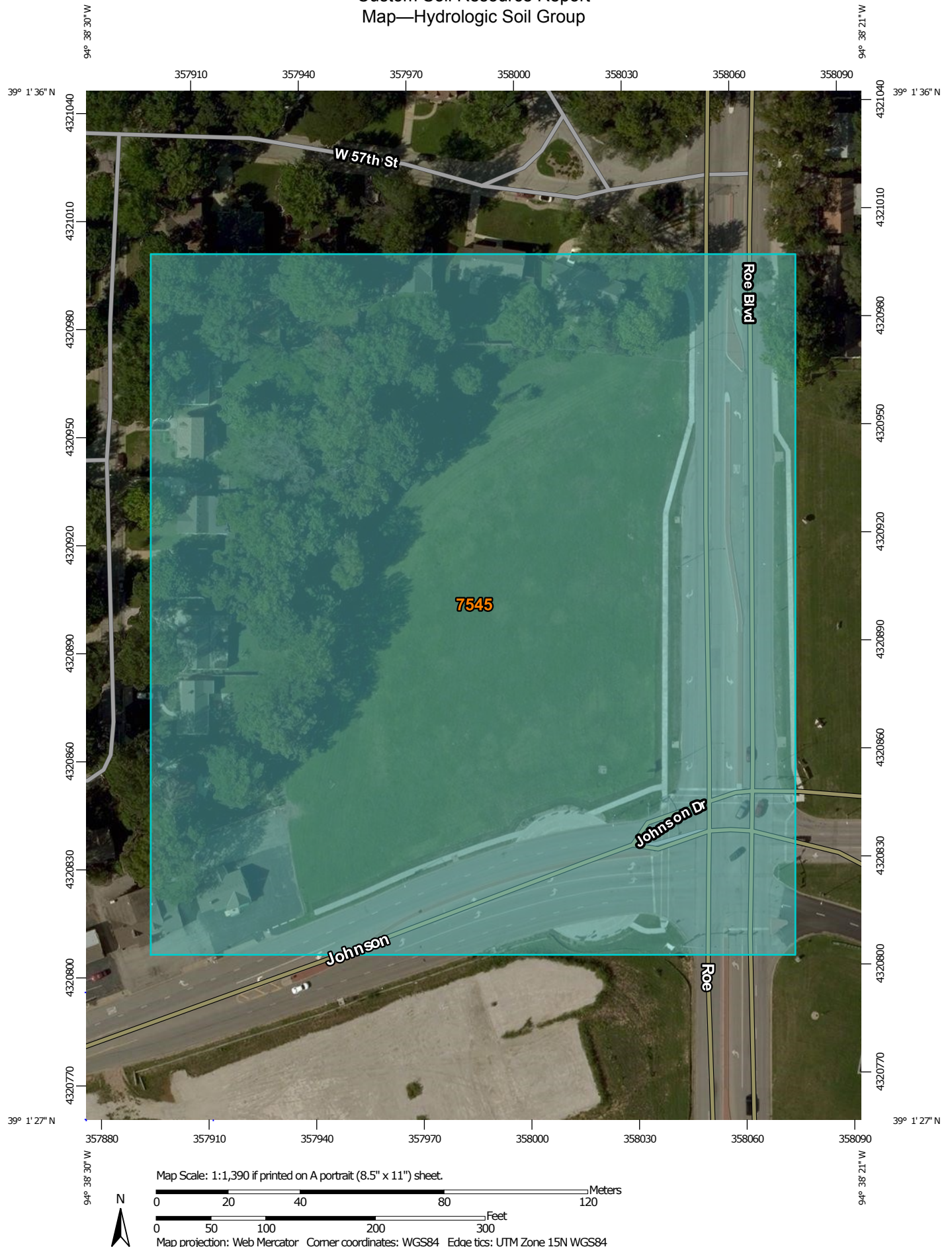
Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# Custom Soil Resource Report

## Map—Hydrologic Soil Group



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Lines

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Points

 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Kansas  
 Survey Area Data: Version 14, Sep 9, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2014—Sep 7, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

**Table—Hydrologic Soil Group**

| Hydrologic Soil Group— Summary by Map Unit — Johnson County, Kansas (KS091) |                                                      |        |              |                |
|-----------------------------------------------------------------------------|------------------------------------------------------|--------|--------------|----------------|
| Map unit symbol                                                             | Map unit name                                        | Rating | Acres in AOI | Percent of AOI |
| 7545                                                                        | Sharpsburg-Urban land complex, 4 to 8 percent slopes | C      | 8.7          | 100.0%         |
| <b>Totals for Area of Interest</b>                                          |                                                      |        | <b>8.7</b>   | <b>100.0%</b>  |

**Rating Options—Hydrologic Soil Group**

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

# References

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United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>



## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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# Federal Emergency Management Agency

Washington, D.C. 20472

**JUN 15 2012**

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Adrienne Foster  
Mayor, City of Roeland Park  
4600 West 51<sup>st</sup> Street  
Roeland Park, KS 66205

IN REPLY REFER TO:

Case No.: 11-07-3422P  
Community Name: City of Roeland Park, KS  
Community No.: 200176  
Effective Date of  
This Revision: November 7, 2012

91 7108 2133 3938 6364 7080

Dear Mayor Foster:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel(s) revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Kansas City, Missouri, at (816) 283-7002, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

Siamak Esfandiary, Ph.D., P.E., CFM,  
Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

For: Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document  
Annotated Flood Insurance Rate Map  
Annotated Flood Insurance Study Report

cc: Mr. Curtis Talcott, P.E.  
Larkin Group, Inc.  
9200 Ward Parkway, Suite 400  
Kansas City, MO 64114

Mr. Mike Flickinger,  
Building Inspector  
4600 West 51<sup>st</sup> Street  
Roeland Park, KS 66205

Mr. Tom Morey, CFM  
Kansas Dept. of Agriculture  
109 SW 9<sup>th</sup> St. 2<sup>nd</sup> Floor  
Topeka, KS 66612



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

| COMMUNITY AND REVISION INFORMATION                                                                     |                                                  | PROJECT DESCRIPTION                                                                                                                      | BASIS OF REQUEST                                                              |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| COMMUNITY                                                                                              | City of Roeland Park<br>Johnson County<br>Kansas | CHANNELIZATION<br>CULVERT<br>OTHER                                                                                                       | FLOODWAY<br>HYDRAULIC ANALYSIS<br>HYDROLOGIC ANALYSIS<br>NEW TOPOGRAPHIC DATA |
|                                                                                                        | COMMUNITY NO.: 200176                            |                                                                                                                                          |                                                                               |
| IDENTIFIER                                                                                             | RC12-14 Storm Drainage Improvements              | APPROXIMATE LATITUDE & LONGITUDE: 39.032, -94.641<br>SOURCE: Other DATUM: NAD 83                                                         |                                                                               |
| ANNOTATED MAPPING ENCLOSURES                                                                           |                                                  | ANNOTATED STUDY ENCLOSURES                                                                                                               |                                                                               |
| TYPE: FIRM* NO.: 20091C0009G DATE: August 3, 2009<br>TYPE: FIRM* NO.: 20091C0024G DATE: August 3, 2009 |                                                  | DATE OF EFFECTIVE FLOOD INSURANCE STUDY: August 03, 2009<br>PROFILE(S): 348P<br>FLOODWAY DATA TABLE: 6<br>SUMMARY OF DISCHARGES TABLE: 3 |                                                                               |

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

### FLOODING SOURCE(S) & REVISED REACH(ES)

See Page 2 for Additional Flooding Sources

Rock Creek Tributary D - from just upstream of West 55th Street to approximately 90 feet downstream of Juniper Street

### SUMMARY OF REVISIONS

| Flooding Source        | Effective Flooding | Revised Flooding | Increases | Decreases |
|------------------------|--------------------|------------------|-----------|-----------|
| Rock Creek Tributary D | Zone AE            | Zone AE          | NONE      | YES       |
|                        | BFEs               | BFEs             | NONE      | YES       |
|                        | Zone AE            | Zone AO          | YES       | NONE      |
|                        | Floodway           | Floodway         | YES       | YES       |

\* BFEs - Base Flood Elevations

### DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Siamak Esfandiary, Ph.D., P.E., CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

11-07-3422P

102-D-A



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**OTHER FLOODING SOURCES AFFECTED BY THIS REVISION**

**FLOODING SOURCE(S) & REVISED REACH(ES)**

Rock Creek Tributary D - from just upstream of West 55th Street to approximately 90 feet downstream of Juniper Street

**SUMMARY OF REVISIONS**

| Flooding Source                | Effective Flooding | Revised Flooding  | Increases | Decreases |
|--------------------------------|--------------------|-------------------|-----------|-----------|
| Rock Creek Tributary D         | Zone X (unshaded)  | Zone X (unshaded) | YES       | YES       |
| * BFEs - Base Flood Elevations |                    |                   |           |           |

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Siamak Esfandiary, Ph.D., P.E., CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION

#### APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

#### COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Siamak Esfandiary, Ph.D., P.E., CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

11-07-3422P

102-D-A





# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Robert G. Bissell  
Director, Mitigation Division  
Federal Emergency Management Agency, Region VII  
9221 Ward Parkway, Suite 300  
Kansas City, MO 64114-3372  
(816) 283-7002

### STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Siamak Esfandiary, Ph.D., P.E., CFM, Program Specialist  
Engineering Management Branch  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### PUBLIC NOTIFICATION OF REVISION

#### PUBLIC NOTIFICATION

| FLOODING SOURCE        | LOCATION OF REFERENCED ELEVATION                  | BFE (FEET NAVD 88) |         | MAP PANEL NUMBER(S) |
|------------------------|---------------------------------------------------|--------------------|---------|---------------------|
|                        |                                                   | EFFECTIVE          | REVISED |                     |
| Rock Creek Tributary D | approximately 100 feet upstream of Sherwood Drive | 961                | 958     | 20091C0009G         |

A notice of changes will be published in the *Federal Register*. This information will be published in your local newspaper on or about the dates listed below and through FEMA's Flood Hazard Mapping website at [https://www.floodmaps.fema.gov/fhm/Scripts/bfe\\_main.asp](https://www.floodmaps.fema.gov/fhm/Scripts/bfe_main.asp).

LOCAL NEWSPAPER      Name: *The Legal Record*  
                                      Dates: July 3, 2012 and July 10, 2012

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard information presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the Engineering Library, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Siamak Esfandiary, Ph.D., P.E., CFM, Program Specialist  
 Engineering Management Branch  
 Federal Insurance and Mitigation Administration

Table 3 - Summary of Discharges (Continued)

| Flooding Source and Location                                                        | Drainage Area<br>(square miles) | 10-Percent-<br>Annual-<br>Chance | Peak Discharges (cubic feet per second) |                             |                               |        |
|-------------------------------------------------------------------------------------|---------------------------------|----------------------------------|-----------------------------------------|-----------------------------|-------------------------------|--------|
|                                                                                     |                                 |                                  | 2-Percent-<br>Annual-<br>Chance         | 1-Percent-Annual-<br>Chance | 0.2-Percent-<br>Annual-Chance |        |
|                                                                                     |                                 |                                  |                                         | Existing                    | Future                        |        |
| <b>REVISED TO REFLECT LOMR EFFECTIVE: November 7, 2012</b>                          |                                 |                                  |                                         |                             |                               |        |
| NORTH BRANCH INDIAN CREEK TRIBUTARY B                                               |                                 |                                  |                                         |                             |                               |        |
| Approximately 1,150 feet upstream of the confluence with North Branch Indian Creek  | 1.64                            | 1,969                            | 3,013                                   | 3,552                       | 3,682                         | 4,753  |
| At Westgate Road                                                                    | 1.20                            | 1,775                            | 2,706                                   | 3,125                       | 3,238                         | 4,071  |
| Approximately 550 feet upstream of Hauser Street                                    | 1.07                            | 1,675                            | 2,494                                   | 2,887                       | 2,998                         | 3,767  |
| PICKERING CREEK                                                                     |                                 |                                  |                                         |                             |                               |        |
| At West 159th Street                                                                | 3.89                            | 1,485                            | 3,879                                   | 4,622                       | 5,840                         | 6,471  |
| At West 167th Street                                                                | 1.49                            | 798                              | 2,316                                   | 2,752                       | 3,593                         | 3,821  |
| PICKERING CREEK TRIBUTARY A                                                         |                                 |                                  |                                         |                             |                               |        |
| At the confluence of Pickering Creek Tributary AA                                   | 1.34                            | 1,179                            | 2,545                                   | 2,938                       | 3,534                         | 3,871  |
| Approximately 3,200 feet upstream of the confluence of Pickering Creek Tributary AA | 0.80                            | 699                              | 1,591                                   | 1,845                       | 2,279                         | 2,449  |
| ROCK CREEK                                                                          |                                 |                                  |                                         |                             |                               |        |
| Approximately 1,100 feet upstream of the confluence with Brush Creek                | 4.47                            | 4,684                            | 7,552                                   | 8,103                       | *                             | 10,418 |
| Just upstream of the confluence of Rock Creek Tributary B                           | 3.56                            | 4,515                            | 6,906                                   | 7,386                       | *                             | 9,319  |
| Approximately 1,075 feet upstream of Sheridan Drive                                 | 2.76                            | 3,673                            | 5,552                                   | 5,894                       | *                             | 7,329  |
| At the confluence of Rock Creek Tributary G                                         | 0.44                            | 850                              | 1,275                                   | 1,357                       | *                             | 1,718  |
| At Lamar Avenue                                                                     | 0.26                            | 420                              | 639                                     | 681                         | *                             | 867    |
| ROCK CREEK TRIBUTARY A                                                              |                                 |                                  |                                         |                             |                               |        |
| At Shawnee Mission Parkway                                                          | 0.53                            | 916                              | 1,409                                   | 1,506                       | *                             | 1,967  |
| At West 53rd Street                                                                 | 0.26                            | 466                              | 735                                     | 787                         | *                             | 1,020  |
| Approximately 1,300 feet upstream of West 52nd Place                                | 0.16                            | 292                              | 456                                     | 488                         | *                             | 629    |
| ROCK CREEK TRIBUTARY B                                                              |                                 |                                  |                                         |                             |                               |        |
| At Shawnee Mission Parkway                                                          | 0.13                            | 199                              | 314                                     | 336                         | *                             | 435    |
| ROCK CREEK TRIBUTARY D                                                              |                                 |                                  |                                         |                             |                               |        |
| At West 55th Street                                                                 | 0.28                            | 467                              | 685                                     | 781                         | *                             | 1,008  |
| Approximately 200 feet downstream of West 54th Terrace                              | 0.25                            | 413                              | 605                                     | 690                         | *                             | 891    |
| Approximately 250 feet downstream of Sherwood drive                                 | 0.21                            | 349                              | 511                                     | 582                         | *                             | 751    |
| Approximately 300 feet downstream of Juniper Street                                 | 0.17                            | 288                              | 421                                     | 480                         | *                             | 619    |

\* Data not available

| FLOODING SOURCE           |                     | FLOODWAY        |                                     |                                          | 1-PERCENT-ANNUAL-CHANCE FLOOD<br>WATER SURFACE ELEVATION |                                     |                                                              |                                                           |                    |
|---------------------------|---------------------|-----------------|-------------------------------------|------------------------------------------|----------------------------------------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|--------------------|
| CROSS SECTION             | DISTANCE            | WIDTH<br>(FEET) | SECTION<br>AREA<br>(SQUARE<br>FEET) | MEAN<br>VELOCITY<br>(FEET PER<br>SECOND) | EXISTING<br>CONDITIONS<br>(FEET NAVD)                    | FUTURE<br>CONDITIONS<br>(FEET NAVD) | EXISTING<br>CONDITIONS<br>WITHOUT<br>FLOODWAY<br>(FEET NAVD) | EXISTING<br>CONDITIONS<br>WITH<br>FLOODWAY<br>(FEET NAVD) | INCREASE<br>(FEET) |
| ROCK CREEK<br>(CONTINUED) |                     |                 |                                     |                                          |                                                          |                                     |                                                              |                                                           |                    |
| H                         | 10,838 <sup>1</sup> | 365             | 1,719                               | 2.6                                      | 932.5                                                    | *                                   | 932.5                                                        | 932.5                                                     | 0.0                |
| I                         | 12,154 <sup>1</sup> | 298             | 793                                 | 3.9                                      | 936.2                                                    | *                                   | 936.2                                                        | 936.2                                                     | 0.0                |
| J                         | 12,873 <sup>1</sup> | 245             | 751                                 | 3.7                                      | 944.2                                                    | *                                   | 944.2                                                        | 944.3                                                     | 0.1                |
| K                         | 13,571 <sup>1</sup> | 137             | 425                                 | 6.1                                      | 948.0                                                    | *                                   | 948.0                                                        | 948.0                                                     | 0.0                |
| L                         | 15,008 <sup>1</sup> | 39              | 167                                 | 12.5                                     | 956.9                                                    | *                                   | 956.9                                                        | 957.0                                                     | 0.1                |
| ROCK CREEK<br>TRIBUTARY A |                     |                 |                                     |                                          | AREA REVISED BY LOMR<br>DATED MAY 28, 2010               |                                     |                                                              |                                                           |                    |
| A                         | 830 <sup>2</sup>    | 80              | 287                                 | 5.1                                      | 891.1                                                    | *                                   | 891.1                                                        | 891.1                                                     | 0.0                |
| B                         | 1,672 <sup>2</sup>  | 54              | 102                                 | 7.7                                      | 902.4                                                    | *                                   | 902.4                                                        | 902.5                                                     | 0.1                |
| C                         | 2,716 <sup>2</sup>  | 83              | 138                                 | 3.6                                      | 924.5                                                    | *                                   | 924.5                                                        | 924.7                                                     | 0.2                |
| ROCK CREEK<br>TRIBUTARY B |                     |                 |                                     |                                          |                                                          |                                     |                                                              |                                                           |                    |
| A                         | 1,008 <sup>2</sup>  | 25              | 30                                  | 5.6                                      | 913.9                                                    | *                                   | 913.9                                                        | 914.0                                                     | 0.1                |
| B                         | 1,667 <sup>2</sup>  | 17              | 25                                  | 6.7                                      | 932.2                                                    | *                                   | 932.2                                                        | 932.6                                                     | 0.4                |
| ROCK CREEK<br>TRIBUTARY D |                     |                 |                                     |                                          |                                                          |                                     |                                                              |                                                           |                    |
| A                         | 308 <sup>3</sup>    | 18              | 72                                  | 9.5                                      | 932.8                                                    | *                                   | 932.8                                                        | 933.4                                                     | 0.6                |
| B                         | 902 <sup>3</sup>    | 50              | 196                                 | 3.5                                      | 944.3                                                    | *                                   | 944.3                                                        | 944.3                                                     | 0.0                |
| C                         | 1,446 <sup>3</sup>  | 27              | 75                                  | 7.8                                      | 948.1                                                    | *                                   | 948.1                                                        | 948.1                                                     | 0.0                |
| D                         | 2,196 <sup>3</sup>  | 34              | 66                                  | 7.3                                      | 958.6                                                    | *                                   | 958.6                                                        | 958.6                                                     | 0.0                |

<sup>1</sup>Feet above confluence with Brush Creek

<sup>2</sup>Feet above confluence with Rock Creek

<sup>3</sup>Feet above West 55<sup>th</sup> Street

\*Data not available

**REVISED TO  
REFLECT LOMR  
EFFECTIVE: November 7, 2012**

**REVISED AREA**

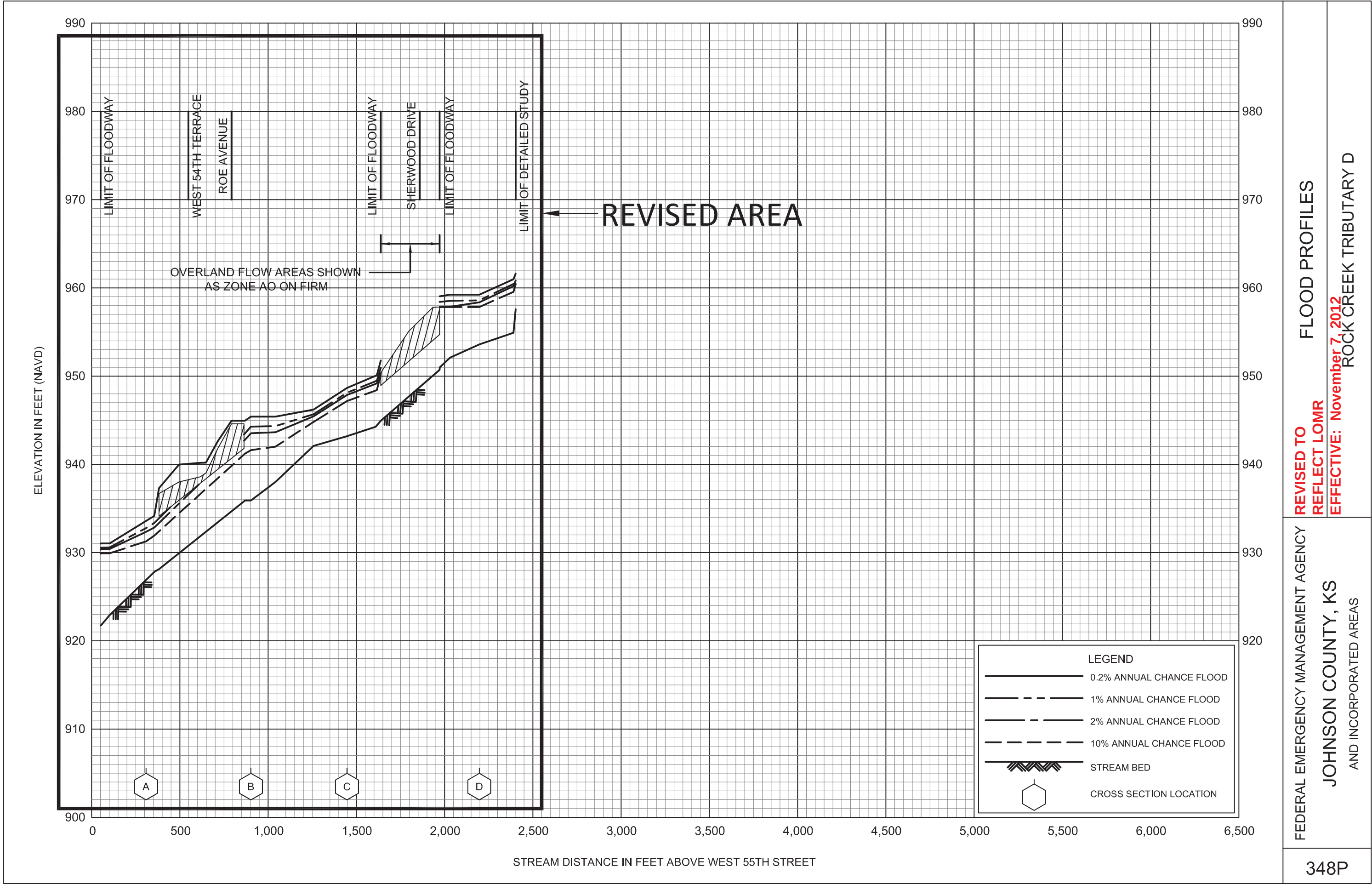
**TABLE 6**

FEDERAL EMERGENCY MANAGEMENT AGENCY

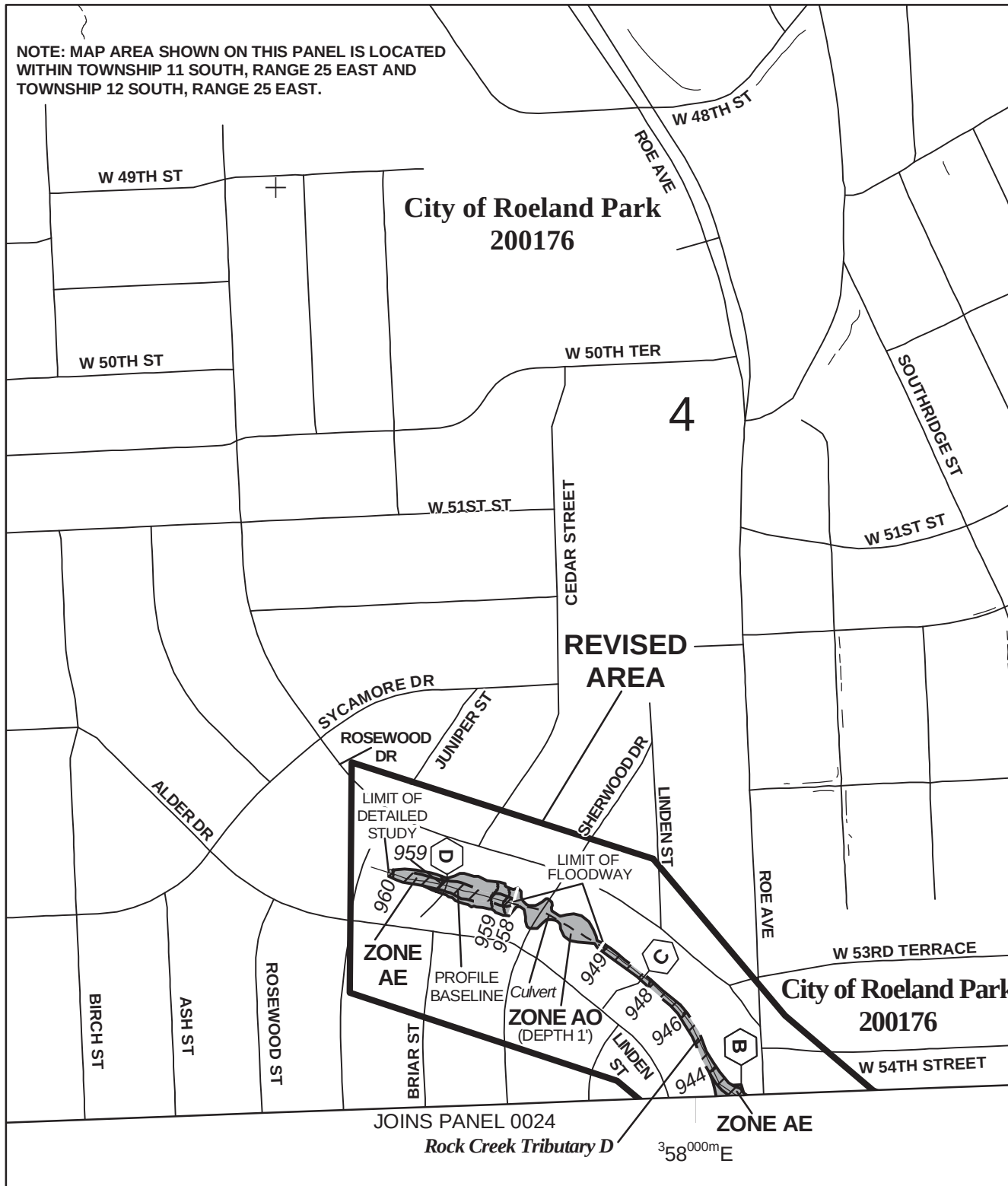
**JOHNSON COUNTY, KS  
AND INCORPORATED AREAS**

**FLOODWAY DATA**

**ROCK CREEK – ROCK CREEK TRIBUTARY A – ROCK  
CREEK TRIBUTARY B – ROCK CREEK TRIBUTARY D**



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED  
WITHIN TOWNSHIP 11 SOUTH, RANGE 25 EAST AND  
TOWNSHIP 12 SOUTH, RANGE 25 EAST.



#### Legend

-  1% annual chance (100-Year) Floodplain
-  1% annual chance (100-Year) Floodway
-  0.2% annual chance (500-Year) Floodplain



MAP SCALE 1" = 500'



**NFIP**

PANEL 0009G

**NATIONAL FLOOD INSURANCE PROGRAM**

## FIRM

FLOOD INSURANCE RATE MAP  
JOHNSON COUNTY,  
KANSAS  
AND INCORPORATED AREAS

PANEL 9 OF 161

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

#### CONTAINS:

| COMMUNITY             | NUMBER | PANEL | SUFFIX |
|-----------------------|--------|-------|--------|
| FAIRWAY, CITY OF      | 205185 | 0009  | G      |
| MISSION, CITY OF      | 200170 | 0009  | G      |
| ROELAND PARK, CITY OF | 200176 | 0009  | G      |

**REVISED TO  
REFLECT LOMR  
EFFECTIVE:  
November 7, 2012**

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



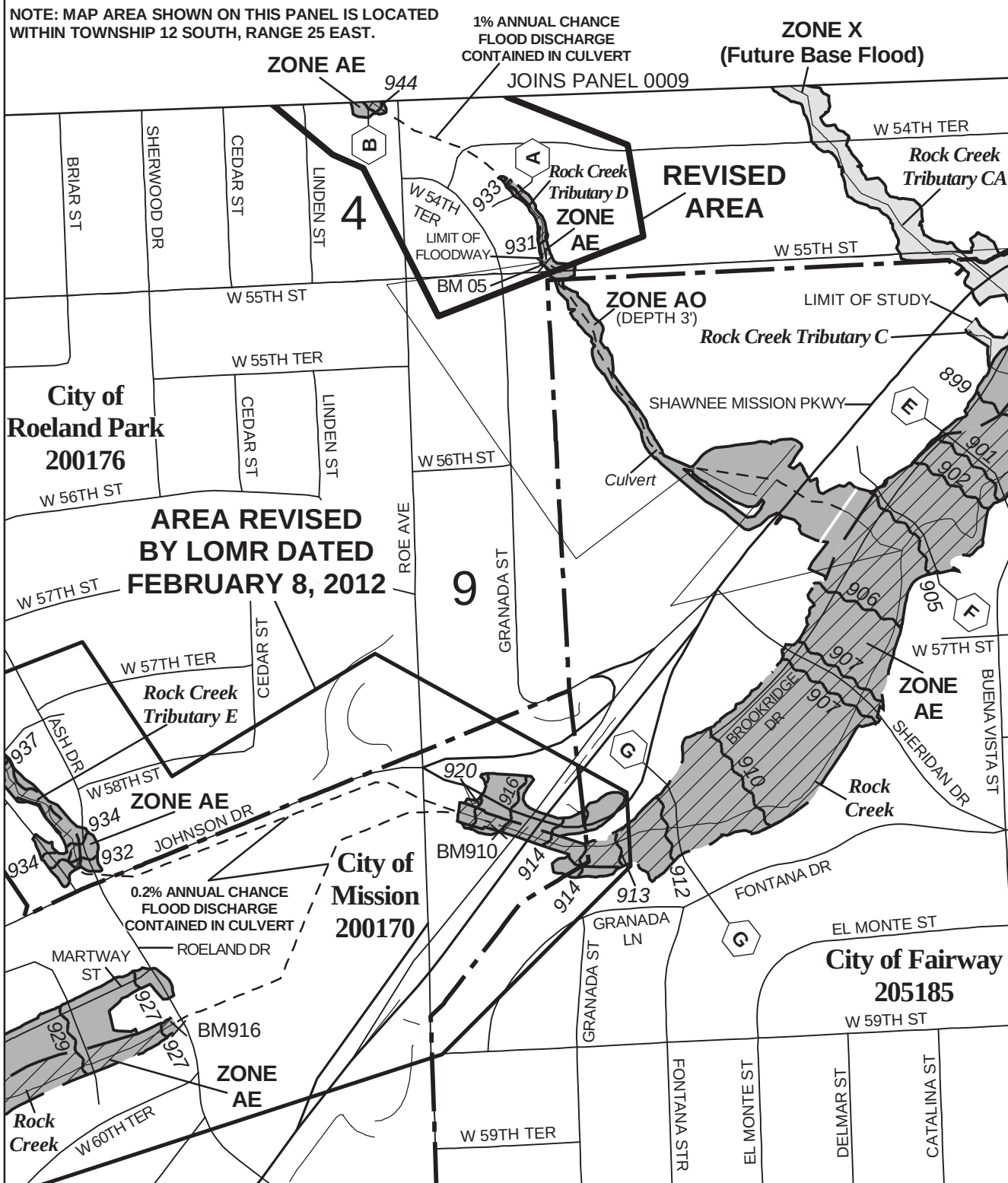
MAP NUMBER  
20091C0009G

MAP REVISED  
AUGUST 3, 2009

Federal Emergency Management Agency



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 12 SOUTH, RANGE 25 EAST.

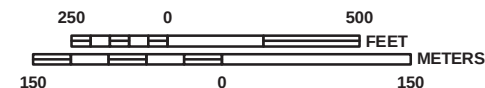


Legend

- 1% annual chance (100-Year) Floodplain
- 1% annual chance (100-Year) Floodway
- 0.2% annual chance (500-Year) Floodplain



MAP SCALE 1" = 500'



**NIP**

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0024G

**FIRM**

FLOOD INSURANCE RATE MAP  
JOHNSON COUNTY,  
KANSAS  
AND INCORPORATED AREAS

PANEL 24 OF 161

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY                | NUMBER | PANEL | SUFFIX |
|--------------------------|--------|-------|--------|
| FAIRWAY, CITY OF         | 205185 | 0024  | G      |
| MISSION HILLS, CITY OF   | 200171 | 0024  | G      |
| MISSION, CITY OF         | 200170 | 0024  | G      |
| OVERLAND PARK, CITY OF   | 200174 | 0024  | G      |
| PRAIRIE VILLAGE, CITY OF | 200175 | 0024  | G      |
| ROELAND PARK, CITY OF    | 200176 | 0024  | G      |

**REVISED TO  
REFLECT LOMR  
EFFECTIVE:  
November 7, 2012**

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER  
20091C0024G

MAP REVISED  
AUGUST 3, 2009

Federal Emergency Management Agency

## ***Appendix C***

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*Supporting Information & Calculations*

**WORKSHEET 1: REQUIRED LEVEL OF SERVICE - UNDEVELOPED SITE**
**Project :** Commerce Bank and Embree

**Location:** Roeland Park, KS

**By:**
**Date:**

8/5/2016

**Checked:**
**Date:**
**1. Runoff Curve Number**
**A. Predevelopment CN**

| Cover Description                 | Soil HSG | CN | Area (ac.) | Product of CN x Area |
|-----------------------------------|----------|----|------------|----------------------|
| Pasture (Fair)                    | D        | 84 | 2.06       | 173.04               |
| Impervious - Pavement & Buildings | D        | 98 | 0.59       | 57.82                |
|                                   |          | 0  |            | 0                    |
|                                   |          | 0  |            | 0                    |
|                                   |          | 0  |            | 0                    |
|                                   |          | 0  |            | 0                    |
| Totals:                           |          |    | 2.65       | 230.86               |

Area-Weighted CN = total product/total area =

87.116981

87

**B. Postdevelopment CN**

| Cover Description       | Soil HSG | CN | Area (ac.) | Product of CN x Area |
|-------------------------|----------|----|------------|----------------------|
| Parking Lot             | D        | 98 | 1.19       | 116.62               |
| Building Coverage       | D        | 98 | 0.39       | 38.22                |
| Open space (turf), good | D        | 80 | 0.60       | 48                   |
| Native Grass            | D        | 78 | 0.47       | 36.66                |
|                         |          | 0  |            | 0                    |
|                         |          | 0  |            | 0                    |
| Totals:                 |          |    | 2.65       | 240                  |

Area-Weighted CN = total product/total area =

90.377358

90

**C. Level of Service (LS) Calculation**

Predevelopment CN: 87

Postdevelopment CN: 90

Difference: 3

LS Required: 5

Change in CN      LS

17+      8

7 to 16      7

4 to 6      6

1 to 3      5

0      4

-7 to -1      3

-8 to -17      2

-18 to -21      1

-22 -      0

**WORKSHEET 2: DEVELOP MITIGATION PACKAGE(S) THAT MEET THE REQUIRED LS**
**Project :** Commerce Bank and Embree

**Location:** Roeland Park, KS

**By:** 0

**Date:** 8/5/2016

**Checked:** 0

**1. Required LS (from Table 1 or 1A or Worksheet 1 or 1A, as appropriate):** 5 **VR =** 13.25

**2. Proposed BMP Option Package No. 1**

| <u>Plan ID</u> | <u>BMP #</u> | <u>Cover/BMP Description</u> | <u>Treatment Area</u> | <u>VR from Table 5 or 6</u> | <u>Product of VR x Area</u> |
|----------------|--------------|------------------------------|-----------------------|-----------------------------|-----------------------------|
|                | 1            | Native Vegetation            | 0.47                  | 9.25                        | 4.35                        |
|                | 2            | Bioretention                 | 0.67                  | 8.50                        | 5.70                        |
|                | 3            | Catch Basin Inserts          | 0.80                  | 4.00                        | 3.20                        |
|                | 4            |                              |                       |                             | 0.00                        |
|                | 5            |                              |                       |                             | 0.00                        |
|                | 6            |                              |                       |                             | 0.00                        |
|                | 7            |                              |                       |                             | 0.00                        |
|                |              | Untreated Area               | 0.71                  |                             | 0.00                        |
| <b>Total:</b>  |              |                              | <b>2.65</b>           | <b>VR</b>                   | <b>13.24</b>                |
|                |              |                              |                       | <b>Total:</b>               | <b>5.0</b>                  |

**Meets required LS (Yes/No)?**
☒ **YES** (if No, or if additional options are being tested, proceed below)

**3. Proposed BMP Option Package No. 2**

| <u>Plan ID</u> | <u>BMP #</u> | <u>Cover/BMP Description</u> | <u>Treatment Area</u> | <u>VR from Table 5 or 6</u> | <u>Product of VR x Area</u> |
|----------------|--------------|------------------------------|-----------------------|-----------------------------|-----------------------------|
|                | 1            |                              |                       | 0.00                        | 0.00                        |
|                | 2            |                              |                       | 0.00                        | 0.00                        |
|                | 3            |                              |                       | 0.00                        | 0.00                        |
|                | 4            |                              |                       | 0.00                        | 0.00                        |
|                | 5            |                              |                       |                             |                             |
|                | 6            |                              |                       | 0.00                        | 0.00                        |
|                |              |                              |                       | 0.00                        | 0.00                        |
|                |              |                              | 0.00                  | <b>Total:</b>               | <b>0.00</b>                 |

**Meets required LS (Yes/No)?**
☐ **NO** (if No, or if additional options are being tested, proceed below)

**Design Procedure Form: Bioretention WQ1**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

---

**I. Basin Water Quality Volume**

Step 1: Tributary area to bioretention area,  $A_T$  (ac)  $A_T$  (ac) = 0.25

Step 2: Calculate  $WQ_V$  using methodology in Section 6  $WQ_V$  (ac) = 0.03

---

**IIa. Pretreatment**

Step 1: Specify type of inflow to Bioretention facility Inflow Type = 2.00  
Type 1 = sheet flow  
Type 2 = concentrated or channelized

Step 2: Pretreatment no

Step 3: Proceed to Part IIb, IIc, or IId for design guidance on different pretreatment options

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Type of land cover contributing area: Land cover type =             
Type 1 = Impervious (e.g., parking lot)  
Type 2 = Pervious (e.g., residential lawn)

Step 2: Maximum inflow approach length,  $L_{Approach}$  (ft)  $L_{Approach}$  (ft) =           

Step 3: Average slope of pretreatment strip,  $S_{VS}$  (%)  $S_{VS}$  (%) =             
Maximum slope of 6%

Step 4: Vegetated pretreatment strip minimum length,  $L_{FS}$  (ft)  $L_{FS}$  (%) =             
From table 8.2

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Percent imperviousness of contributing area, % imp % imp =           

Step 3: Average slope of vegetated channel,  $S_{VC}$  (%)  $S_{VC}$  (%) =             
Maximum slope of 6%

Step 4: Vegetated pretreatment channel minimum length,  $L_{FC}$  (ft)  $L_{FC}$  (%) =             
From table 8.3

**Design Procedure Form: Bioretention WQ1**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

---

**IId. Other Pretreatment Devices**

Other methods of pretreatment may be utilized upstream of a bioretention facility to settle out suspended solids and reduce runoff velocity. Several proprietary devices are available that will achieve these results. Most such devices install below ground and accept inflow from a piped stormwater management system or from sufrac sheet flow via drop inlets. These devices should be selected and sized based on site specific conditions for each project.

---

**III. Planting Soil Bed and Ponding Area**

- Step 1: Planting bed soil depth,  $d_f$  (ft)  $d_f$  (ft) = 2.50  
( $d_f$  should be between 2.5 feet and 4 feet)
- Step 2: Coefficient of permeability for planting soil bed,  $k$  (ft/day)  $k$  (ft/day) = 1.00  
( $k$  should be at least 1 ft/day)
- Step 3: Maximum ponding depth,  $h_{max}$  (ft)  $h_{max}$  (ft) = 1.00  
( $h_{max}$  should be between 0.25 ft and 1.0 ft)
- Step 4: Average height of water above bioretention bed,  $h_{avg}$  (ft)  $h_{avg}$  (ft) = 0.50  
 $h_{avg} = h_{max}/2$
- Step 5: Time required for  $WQ_V$  to filter through the planting soil bed,  $t_f$  (days)  $t_f$  (days) = 2.50  
( $t_f$  of 1 to 3 days is recommended)
- Step 6: Required filter bed surface area,  $A_f$  (ft<sup>2</sup>)  $A_f$  (ft<sup>2</sup>) = 367.59  
 $A_f = (WQ_V * d_f) / (k * t_f * (h_{avg} + d_f))$
- Step 7: Approximate filter bed length,  $L_f$  (ft)  $L_f$  (ft) = 40.00  
assuming a length to width ratio of 2:1  
( $L_f$  should be at least 40 ft)
- Step 8: Approximate filter bed width,  $W_f$  (ft)  $W_f$  (ft) = 9.19  
assuming a length to width ratio of 2:1  
( $W_f$  should be at least 15 ft, and optimally half of  $L_f$ )
- Step 9: Required Ponding Area,  $A_p$  (ft<sup>2</sup>)  $A_p$  (ft<sup>2</sup>) = 1102.78  
 $A_p = WQ_V / h_{max}$



**Design Procedure Form: Bioretention WQ1**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

---

**IV. Underdrain**

|          |                                                                                                                                                       |                                        |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Step 1:  | Underdrain pipe diameter, $D_U$ (in)<br>( $D_U$ should be at least 4 inches)                                                                          | $D_U$ (in) = <u>4.00</u>               |
| Step 2:  | Depth of gravel blanket, $Z_{\text{gravel}}$ (in)<br>( $Z_{\text{gravel}}$ should be at least 8 inches, and<br>at least 2 inches greater than $D_U$ ) | $Z_{\text{gravel}}$ (in) = <u>8.00</u> |
| Step 3:  | Set underdrain perforation diameters to 0.375 inches                                                                                                  | $D_{\text{perf}}$ (in) = <u>0.38</u>   |
| Step 4:  | Longitudinal center-to-center underdrain perforation spacing, $S_{\text{perf}}$ (in)                                                                  | $S_{\text{perf}}$ (in) = <u>6.00</u>   |
| Step 5:  | Number of perforations per row (around circumference of underdrain)<br>( $n_{\text{perf}}$ should be at least 4)                                      | $n_{\text{perf}}$ (in) = <u>4.00</u>   |
| Step 6:  | Are transverse collector pipes required perpendicular to main pipe?<br>(Yes, if width of bioretention area is greater than 10 feet)                   | Yes/No = <u>No</u>                     |
| Step 7:  | Underdrain transverse collector pipe spacing center-to-center, $S_U$ (ft)<br>( $S_U$ should be a maximum of 10 feet)                                  | $S_U$ (ft) = <u>10.00</u>              |
| Step 8:  | Required number of underdrain transverse collector pipes, $n_{\text{pipe}}$                                                                           | $n_{\text{pipe}}$ = <u>0.00</u>        |
| Step 9:  | Pipe grade, $G_{\text{pipe}}$ (%), for main pipe and transverse collector pipes<br>( $G_{\text{pipe}}$ should be at least 0.5%)                       | $G_{\text{pipe}}$ (%) = <u>0.50</u>    |
| Step 10: | Providing at least one cleanout per pipe run?                                                                                                         | Yes/No = <u>Yes</u>                    |

---

**V. Overflow**

The bioretention overflow shall be designed to safely pass runoff flows from events up to and including the 1 percent event unless the facility is designed with a bypass around the facility for larger storm events. If the 1 percent event is to pass through the facilities, the maximum velocity shall be kept below 3 feet per second to avoid erosion of the soil matrix. If facilities are designed with a bypass, it shall be designed to safely pass runoff flows from events up to and including the 1 percent event. The overflow shall be designed as vegetated or stabilized channel of a yard inlet catch basin. Vegetated or stabilized channels shall be designed using one of the methods presented in APWA Section 5603 and shall conform to the design criteria presented in APWA Section 5607. Methods presented in APWA Section 5604 shall be used for inlet design.

## Design Procedure Form: Bioretention WQ1

### Main Worksheet

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

---

#### VI. Vegetation

Describe mix and density of vegetation to be placed in the bioretention facility. Follow specifications given under Plant Materials in Appendix A. It is beneficial to plant variable types and species of plants in a bioretention facility. Such variability prevents single-species susceptibility to disease and insect infestation and provides a more aesthetic appearance. Native species should be used because they are more likely to thrive in the local climate. A minimum of three native species of shrubs and three native species of trees recommended. Plants should also be selected for their ability to withstand extended dry conditions (which are likely to occur in parking lot island bioretention facilities) and periodic inundation.

**Design Procedure Form: Bioretention WQ2**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

---

**I. Basin Water Quality Volume**

Step 1: Tributary area to bioretention area,  $A_T$  (ac)  $A_T$  (ac) = 0.21  
Step 2: Calculate  $WQ_V$  using methodology in Section 6  $WQ_V$  (ac) = 0.02

---

**IIa. Pretreatment**

Step 1: Specify type of inflow to Bioretention facility Inflow Type = 2.00  
Type 1 = sheet flow  
Type 2 = concentrated or channelized  
Step 2: Pretreatment no  
Step 3: Proceed to Part IIb, IIc, or IId for design guidance on different pretreatment options

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Type of land cover contributing area: Land cover type =             
Type 1 = Impervious (e.g., parking lot)  
Type 2 = Pervious (e.g., residential lawn)  
Step 2: Maximum inflow approach length,  $L_{Approach}$  (ft)  $L_{Approach}$  (ft) =             
Step 3: Average slope of pretreatment strip,  $S_{VS}$  (%)  $S_{VS}$  (%) =             
Maximum slope of 6%  
Step 4: Vegetated pretreatment strip minimum length,  $L_{FS}$  (ft)  $L_{FS}$  (%) =             
From table 8.2

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Percent imperviousness of contributing area, % imp % imp =             
Step 3: Average slope of vegetated channel,  $S_{VC}$  (%)  $S_{VC}$  (%) =             
Maximum slope of 6%  
Step 4: Vegetated pretreatment channel minimum length,  $L_{FC}$  (ft)  $L_{FC}$  (%) =             
From table 8.3

**Design Procedure Form: Bioretention WQ2**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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**IId. Other Pretreatment Devices**

Other methods of pretreatment may be utilized upstream of a bioretention facility to settle out suspended solids and reduce runoff velocity. Several proprietary devices are available that will achieve these results. Most such devices install below ground and accept inflow from a piped stormwater management system or from sufrac sheet flow via drop inlets. These devices should be selected and sized based on site specific conditions for each project.

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**III. Planting Soil Bed and Ponding Area**

- Step 1: Planting bed soil depth,  $d_f$  (ft)  $d_f$  (ft) = 2.50  
( $d_f$  should be between 2.5 feet and 4 feet)
- Step 2: Coefficient of permeability for planting soil bed,  $k$  (ft/day)  $k$  (ft/day) = 1.00  
( $k$  should be at least 1 ft/day)
- Step 3: Maximum ponding depth,  $h_{max}$  (ft)  $h_{max}$  (ft) = 1.00  
( $h_{max}$  should be between 0.25 ft and 1.0 ft)
- Step 4: Average height of water above bioretention bed,  $h_{avg}$  (ft)  $h_{avg}$  (ft) = 0.50  
 $h_{avg} = h_{max}/2$
- Step 5: Time required for  $WQ_V$  to filter through the planting soil bed,  $t_f$  (days)  $t_f$  (days) = 2.50  
( $t_f$  of 1 to 3 days is recommended)
- Step 6: Required filter bed surface area,  $A_f$  (ft<sup>2</sup>)  $A_f$  (ft<sup>2</sup>) = 308.78  
 $A_f = (WQ_V * d_f) / (k * t_f * (h_{avg} + d_f))$
- Step 7: Approximate filter bed length,  $L_f$  (ft)  $L_f$  (ft) = 30.00  
assuming a length to width ratio of 2:1  
( $L_f$  should be at least 40 ft)
- Step 8: Approximate filter bed width,  $W_f$  (ft)  $W_f$  (ft) = 10.29  
assuming a length to width ratio of 2:1  
( $W_f$  should be at least 15 ft, and optimally half of  $L_f$ )
- Step 9: Required Ponding Area,  $A_p$  (ft<sup>2</sup>)  $A_p$  (ft<sup>2</sup>) = 926.34  
 $A_p = WQ_V / h_{max}$

**Design Procedure Form: Bioretention WQ2**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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**IV. Underdrain**

|          |                                                                                                                                                       |                                        |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Step 1:  | Underdrain pipe diameter, $D_U$ (in)<br>( $D_U$ should be at least 4 inches)                                                                          | $D_U$ (in) = <u>4.00</u>               |
| Step 2:  | Depth of gravel blanket, $Z_{\text{gravel}}$ (in)<br>( $Z_{\text{gravel}}$ should be at least 8 inches, and<br>at least 2 inches greater than $D_U$ ) | $Z_{\text{gravel}}$ (in) = <u>8.00</u> |
| Step 3:  | Set underdrain perforation diameters to 0.375 inches                                                                                                  | $D_{\text{perf}}$ (in) = <u>0.38</u>   |
| Step 4:  | Longitudinal center-to-center underdrain perforation spacing, $S_{\text{perf}}$ (in)                                                                  | $S_{\text{perf}}$ (in) = <u>6.00</u>   |
| Step 5:  | Number of perforations per row (around circumference of underdrain)<br>( $n_{\text{perf}}$ should be at least 4)                                      | $n_{\text{perf}}$ (in) = <u>4.00</u>   |
| Step 6:  | Are transverse collector pipes required perpendicular to main pipe?<br>(Yes, if width of bioretention area is greater than 10 feet)                   | Yes/No = <u>No</u>                     |
| Step 7:  | Underdrain transverse collector pipe spacing center-to-center, $S_U$ (ft)<br>( $S_U$ should be a maximum of 10 feet)                                  | $S_U$ (ft) = <u>10.00</u>              |
| Step 8:  | Required number of underdrain transverse collector pipes, $n_{\text{pipe}}$                                                                           | $n_{\text{pipe}}$ = <u>0.00</u>        |
| Step 9:  | Pipe grade, $G_{\text{pipe}}$ (%), for main pipe and transverse collector pipes<br>( $G_{\text{pipe}}$ should be at least 0.5%)                       | $G_{\text{pipe}}$ (%) = <u>0.50</u>    |
| Step 10: | Providing at least one cleanout per pipe run?                                                                                                         | Yes/No = <u>Yes</u>                    |

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**V. Overflow**

The bioretention overflow shall be designed to safely pass runoff flows from events up to and including the 1 percent event unless the facility is designed with a bypass around the facility for larger storm events. If the 1 percent event is to pass through the facilities, the maximum velocity shall be kept below 3 feet per second to avoid erosion of the soil matrix. If facilities are designed with a bypass, it shall be designed to safely pass runoff flows from events up to and including the 1 percent event. The overflow shall be designed as vegetated or stabilized channel of a yard inlet catch basin. Vegetated or stabilized channels shall be designed using one of the methods presented in APWA Section 5603 and shall conform to the design criteria presented in APWA Section 5607. Methods presented in APWA Section 5604 shall be used for inlet design.

## Design Procedure Form: Bioretention WQ2

### Main Worksheet

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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#### VI. Vegetation

Describe mix and density of vegetation to be placed in the bioretention facility. Follow specifications given under Plant Materials in Appendix A. It is beneficial to plant variable types and species of plants in a bioretention facility. Such variability prevents single-species susceptibility to disease and insect infestation and provides a more aesthetic appearance. Native species should be used because they are more likely to thrive in the local climate. A minimum of three native species of shrubs and three native species of trees recommended. Plants should also be selected for their ability to withstand extended dry conditions (which are likely to occur in parking lot island bioretention facilities) and periodic inundation.



**Design Procedure Form: Bioretention WQ3**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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**I. Basin Water Quality Volume**

Step 1: Tributary area to bioretention area,  $A_T$  (ac)  $A_T$  (ac) = 0.21

Step 2: Calculate  $WQ_V$  using methodology in Section 6  $WQ_V$  (ac) = 0.02

---

**IIa. Pretreatment**

Step 1: Specify type of inflow to Bioretention facility Inflow Type = 2.00  
Type 1 = sheet flow  
Type 2 = concentrated or channelized

Step 2: Pretreatment no

Step 3: Proceed to Part IIb, IIc, or IId for design guidance on different pretreatment options

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Type of land cover contributing area: Land cover type =             
Type 1 = Impervious (e.g., parking lot)  
Type 2 = Pervious (e.g., residential lawn)

Step 2: Maximum inflow approach length,  $L_{Approach}$  (ft)  $L_{Approach}$  (ft) =           

Step 3: Average slope of pretreatment strip,  $S_{VS}$  (%)  $S_{VS}$  (%) =             
Maximum slope of 6%

Step 4: Vegetated pretreatment strip minimum length,  $L_{FS}$  (ft)  $L_{FS}$  (%) =             
From table 8.2

---

**IIb. Vegetated Pretreatment Strip**

Step 1: Percent imperviousness of contributing area, % imp % imp =           

Step 3: Average slope of vegetated channel,  $S_{VC}$  (%)  $S_{VC}$  (%) =             
Maximum slope of 6%

Step 4: Vegetated pretreatment channel minimum length,  $L_{FC}$  (ft)  $L_{FC}$  (%) =             
From table 8.3

**Design Procedure Form: Bioretention WQ3****Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

**IId. Other Pretreatment Devices**

Other methods of pretreatment may be utilized upstream of a bioretention facility to settle out suspended solids and reduce runoff velocity. Several proprietary devices are available that will achieve these results. Most such devices install below ground and accept inflow from a piped stormwater management system or from sufrac sheet flow via drop inlets. These devices should be selected and sized based on site specific conditions for each project.

**III. Planting Soil Bed and Ponding Area**

- Step 1: Planting bed soil depth,  $d_f$  (ft)  $d_f$  (ft) = 2.50  
( $d_f$  should be between 2.5 feet and 4 feet)
- Step 2: Coefficient of permeability for planting soil bed,  $k$  (ft/day)  $k$  (ft/day) = 1.00  
( $k$  should be at least 1 ft/day)
- Step 3: Maximum ponding depth,  $h_{max}$  (ft)  $h_{max}$  (ft) = 1.00  
( $h_{max}$  should be between 0.25 ft and 1.0 ft)
- Step 4: Average height of water above bioretention bed,  $h_{avg}$  (ft)  $h_{avg}$  (ft) = 0.50  
 $h_{avg} = h_{max}/2$
- Step 5: Time required for  $WQ_V$  to filter through the planting soil bed,  $t_f$  (days)  $t_f$  (days) = 2.50  
( $t_f$  of 1 to 3 days is recommended)
- Step 6: Required filter bed surface area,  $A_f$  (ft<sup>2</sup>)  $A_f$  (ft<sup>2</sup>) = 308.78  
 $A_f = (WQ_V * d_f) / (k * t_f * (h_{avg} + d_f))$
- Step 7: Approximate filter bed length,  $L_f$  (ft)  $L_f$  (ft) = 30.00  
assuming a length to width ratio of 2:1  
( $L_f$  should be at least 40 ft)
- Step 8: Approximate filter bed width,  $W_f$  (ft)  $W_f$  (ft) = 10.29  
assuming a length to width ratio of 2:1  
( $W_f$  should be at least 15 ft, and optimally half of  $L_f$ )
- Step 9: Required Ponding Area,  $A_p$  (ft<sup>2</sup>)  $A_p$  (ft<sup>2</sup>) = 926.34  
 $A_p = WQ_V / h_{max}$

**Design Procedure Form: Bioretention WQ3**  
**Main Worksheet**

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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**IV. Underdrain**

|                                                                                                                                                               |                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Step 1: Underdrain pipe diameter, $D_U$ (in)<br>( $D_U$ should be at least 4 inches)                                                                          | $D_U$ (in) = <u>4.00</u>               |
| Step 2: Depth of gravel blanket, $Z_{\text{gravel}}$ (in)<br>( $Z_{\text{gravel}}$ should be at least 8 inches, and<br>at least 2 inches greater than $D_U$ ) | $Z_{\text{gravel}}$ (in) = <u>8.00</u> |
| Step 3: Set underdrain perforation diameters to 0.375 inches                                                                                                  | $D_{\text{perf}}$ (in) = <u>0.38</u>   |
| Step 4: Longitudinal center-to-center underdrain perforation spacing, $S_{\text{perf}}$ (in)                                                                  | $S_{\text{perf}}$ (in) = <u>6.00</u>   |
| Step 5: Number of perforations per row (around circumference of underdrain)<br>( $n_{\text{perf}}$ should be at least 4)                                      | $n_{\text{perf}}$ (in) = <u>4.00</u>   |
| Step 6: Are transverse collector pipes required perpendicular to main pipe?<br>(Yes, if width of bioretention area is greater than 10 feet)                   | Yes/No = <u>No</u>                     |
| Step 7: Underdrain transverse collector pipe spacing center-to-center, $S_U$ (ft)<br>( $S_U$ should be a maximum of 10 feet)                                  | $S_U$ (ft) = <u>10.00</u>              |
| Step 8: Required number of underdrain transverse collector pipes, $n_{\text{pipe}}$                                                                           | $n_{\text{pipe}}$ = <u>0.00</u>        |
| Step 9: Pipe grade, $G_{\text{pipe}}$ (%), for main pipe and transverse collector pipes<br>( $G_{\text{pipe}}$ should be at least 0.5%)                       | $G_{\text{pipe}}$ (%) = <u>0.50</u>    |
| Step 10: Providing at least one cleanout per pipe run?                                                                                                        | Yes/No = <u>Yes</u>                    |

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**V. Overflow**

The bioretention overflow shall be designed to safely pass runoff flows from events up to and including the 1 percent event unless the facility is designed with a bypass around the facility for larger storm events. If the 1 percent event is to pass through the facilities, the maximum velocity shall be kept below 3 feet per second to avoid erosion of the soil matrix. If facilities are designed with a bypass, it shall be designed to safely pass runoff flows from events up to and including the 1 percent event. The overflow shall be designed as vegetated or stabilized channel of a yard inlet catch basin. Vegetated or stabilized channels shall be designed using one of the methods presented in APWA Section 5603 and shall conform to the design criteria presented in APWA Section 5607. Methods presented in APWA Section 5604 shall be used for inlet design.

## Design Procedure Form: Bioretention WQ3

### Main Worksheet

Project: Commerce Bank & Embree  
Location: Roeland Park, KS  
Designer: JJK

Date: 8/5/2016  
Company: Olsson Associates  
Checked: DLE

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#### VI. Vegetation

Describe mix and density of vegetation to be placed in the bioretention facility. Follow specifications given under Plant Materials in Appendix A. It is beneficial to plant variable types and species of plants in a bioretention facility. Such variability prevents single-species susceptibility to disease and insect infestation and provides a more aesthetic appearance. Native species should be used because they are more likely to thrive in the local climate. A minimum of three native species of shrubs and three native species of trees recommended. Plants should also be selected for their ability to withstand extended dry conditions (which are likely to occur in parking lot island bioretention facilities) and periodic inundation.



# Hydrograph Return Period Recap

Hydrow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

| Hyd. No.            | Hydrograph type (origin) | Inflow hyd(s) | Peak Outflow (cfs) |       |       |       |       |       |       |                        | Hydrograph Description |
|---------------------|--------------------------|---------------|--------------------|-------|-------|-------|-------|-------|-------|------------------------|------------------------|
|                     |                          |               | 1-yr               | 2-yr  | 3-yr  | 5-yr  | 10-yr | 25-yr | 50-yr | 100-yr                 |                        |
| 1                   | SCS Runoff               | -----         | 7.709              | ----- | ----- | ----- | 16.87 | ----- | 22.96 | 26.37                  | EX. SITE               |
| 2                   | SCS Runoff               | -----         | 8.656              | ----- | ----- | ----- | 17.81 | ----- | 23.84 | 27.21                  | PROPOSED SITE          |
| Proj. file: New.gpw |                          |               |                    |       |       |       |       |       |       | Monday, 07 / 11 / 2016 |                        |

# Hydrograph Report

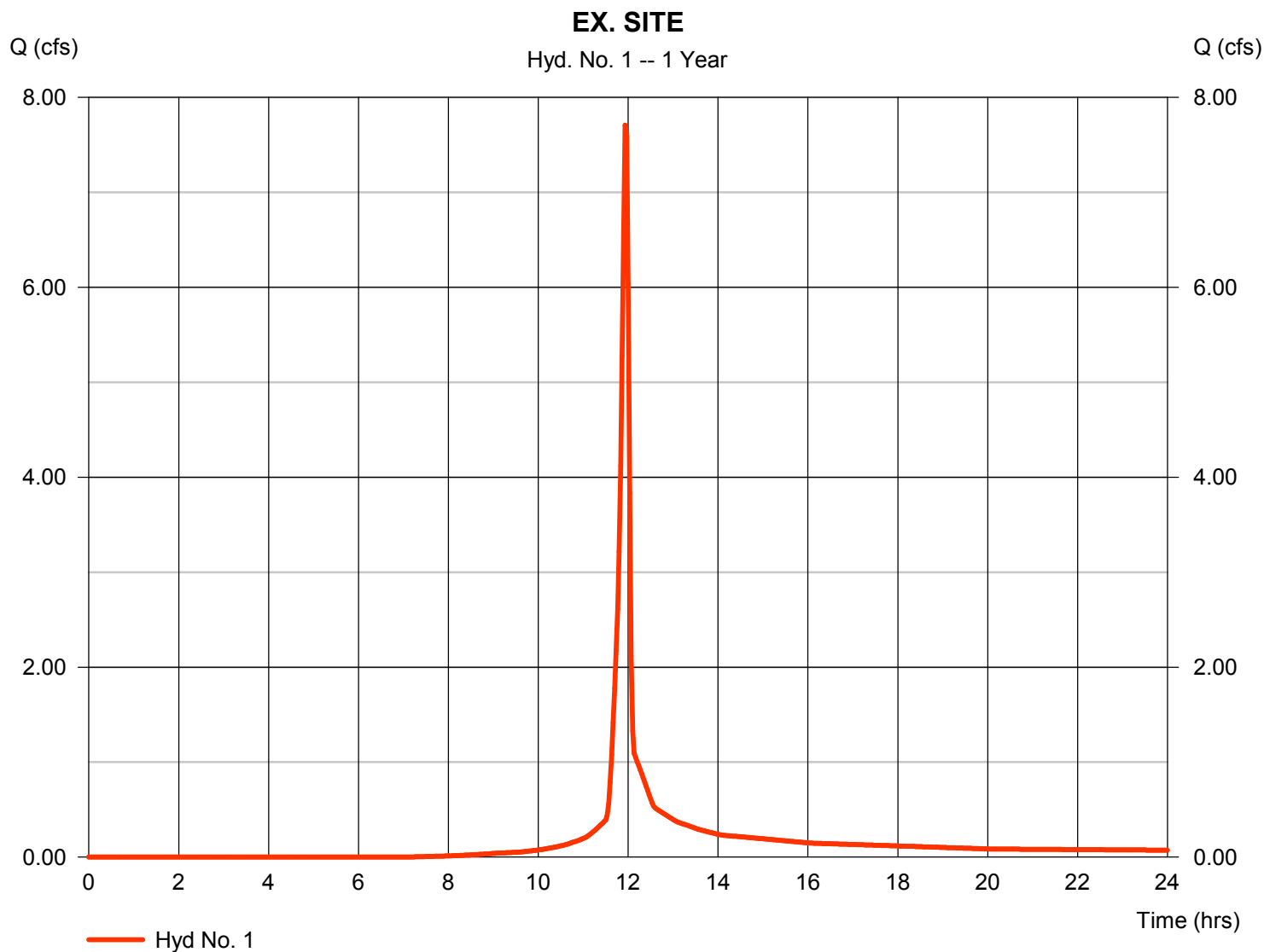
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Monday, 07 / 11 / 2016

## Hyd. No. 1

### EX. SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 7.709 cfs   |
| Storm frequency | = 1 yrs      | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 15,684 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 87          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 3.00 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |





# Hydrograph Report

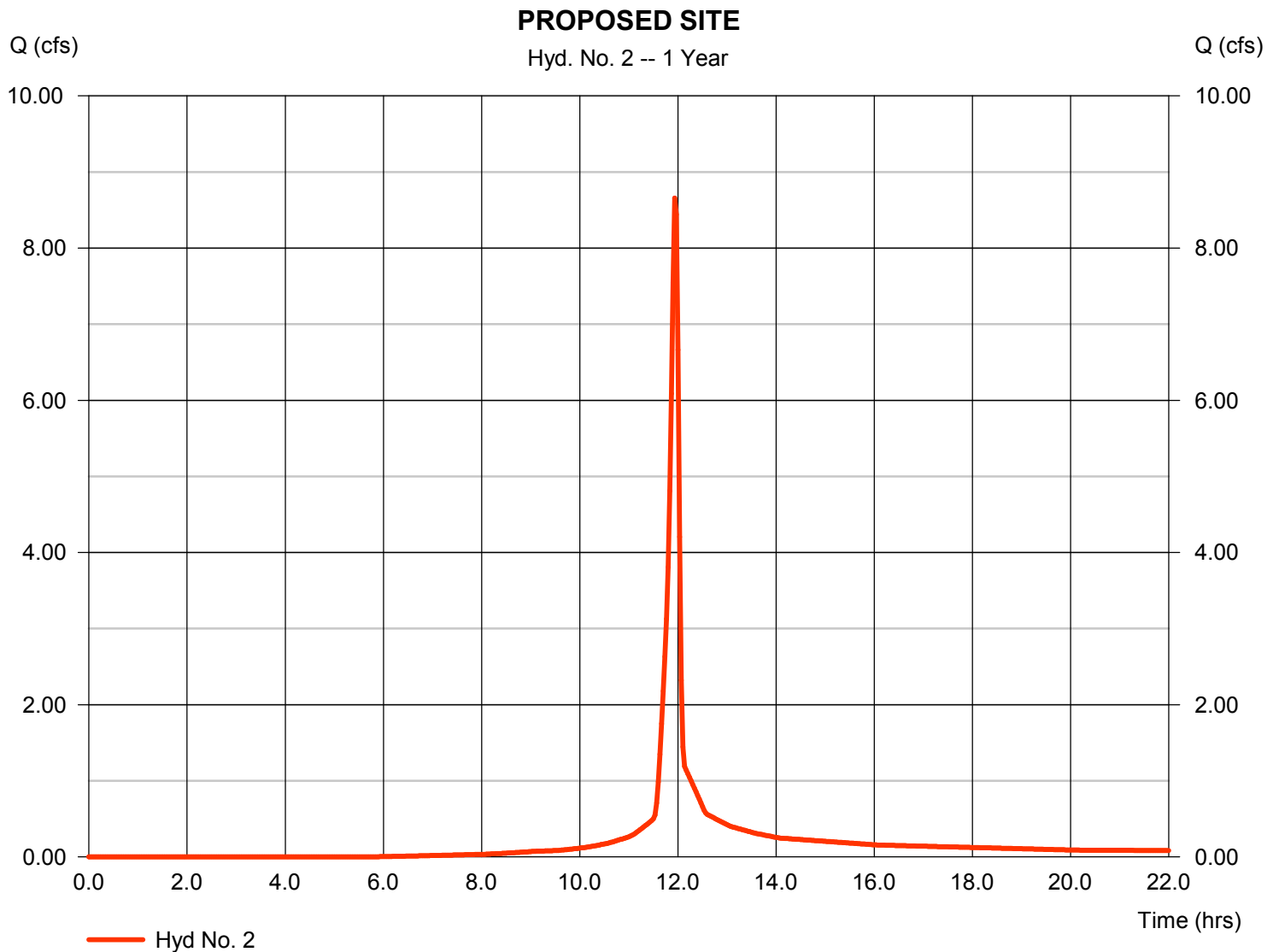
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Monday, 07 / 11 / 2016

## Hyd. No. 2

### PROPOSED SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 8.656 cfs   |
| Storm frequency | = 1 yrs      | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 17,893 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 90          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 3.00 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |

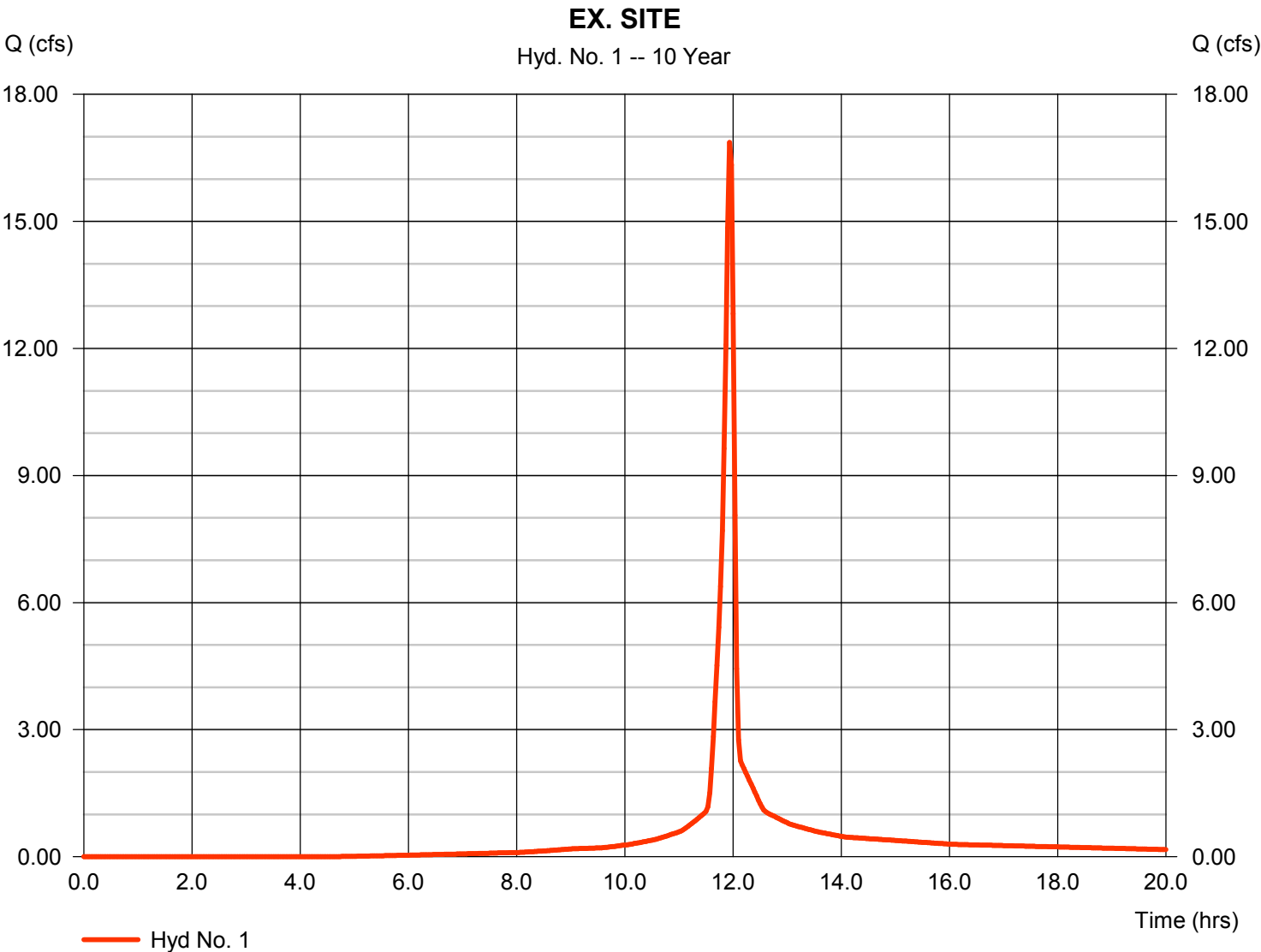


# Hydrograph Report

## Hyd. No. 1

### EX. SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 16.87 cfs   |
| Storm frequency | = 10 yrs     | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 35,581 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 87          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 5.40 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |



# Hydrograph Report

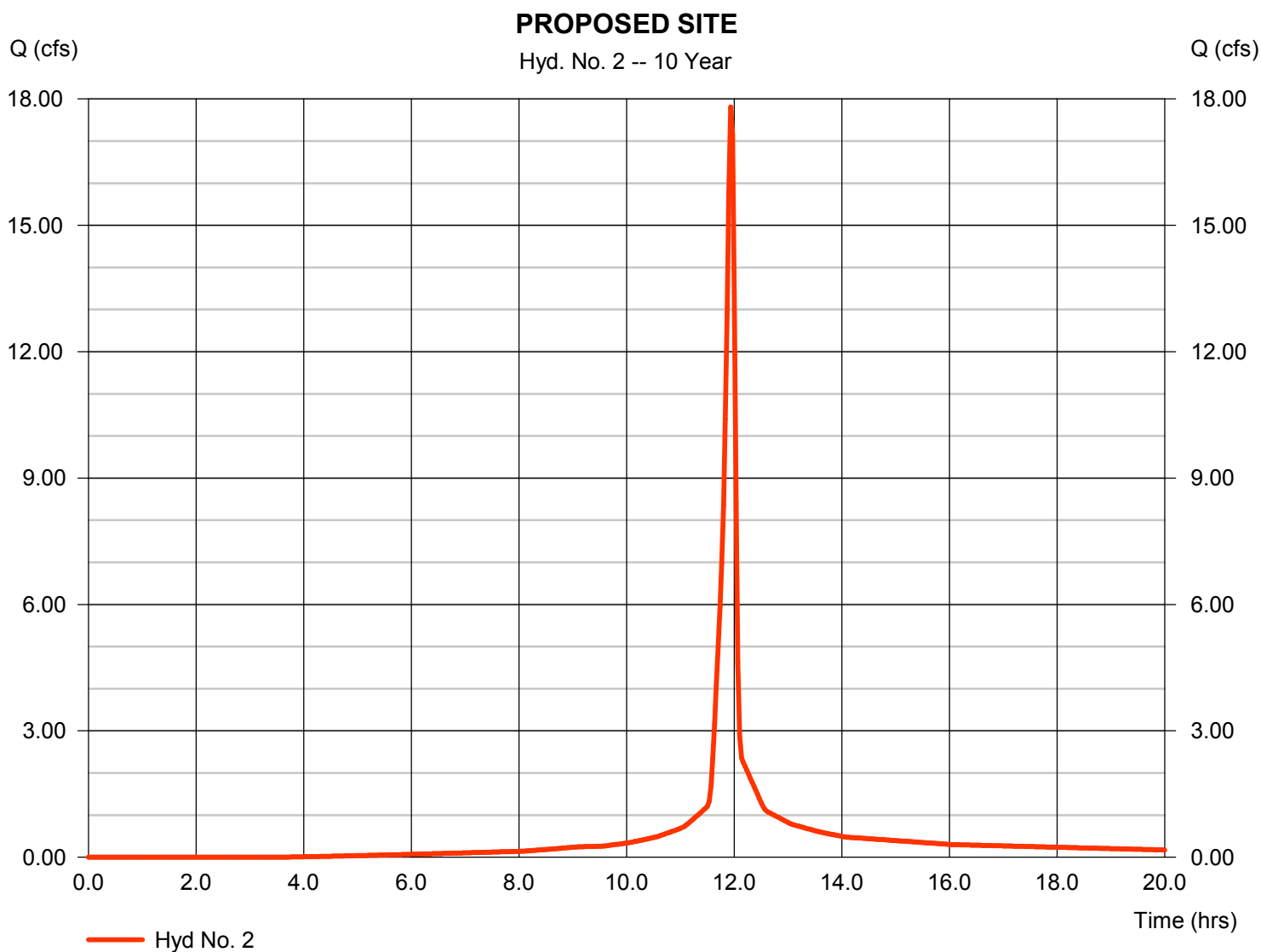
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Monday, 07 / 11 / 2016

## Hyd. No. 2

### PROPOSED SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 17.81 cfs   |
| Storm frequency | = 10 yrs     | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 38,445 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 90          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 5.40 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |



# Hydrograph Report

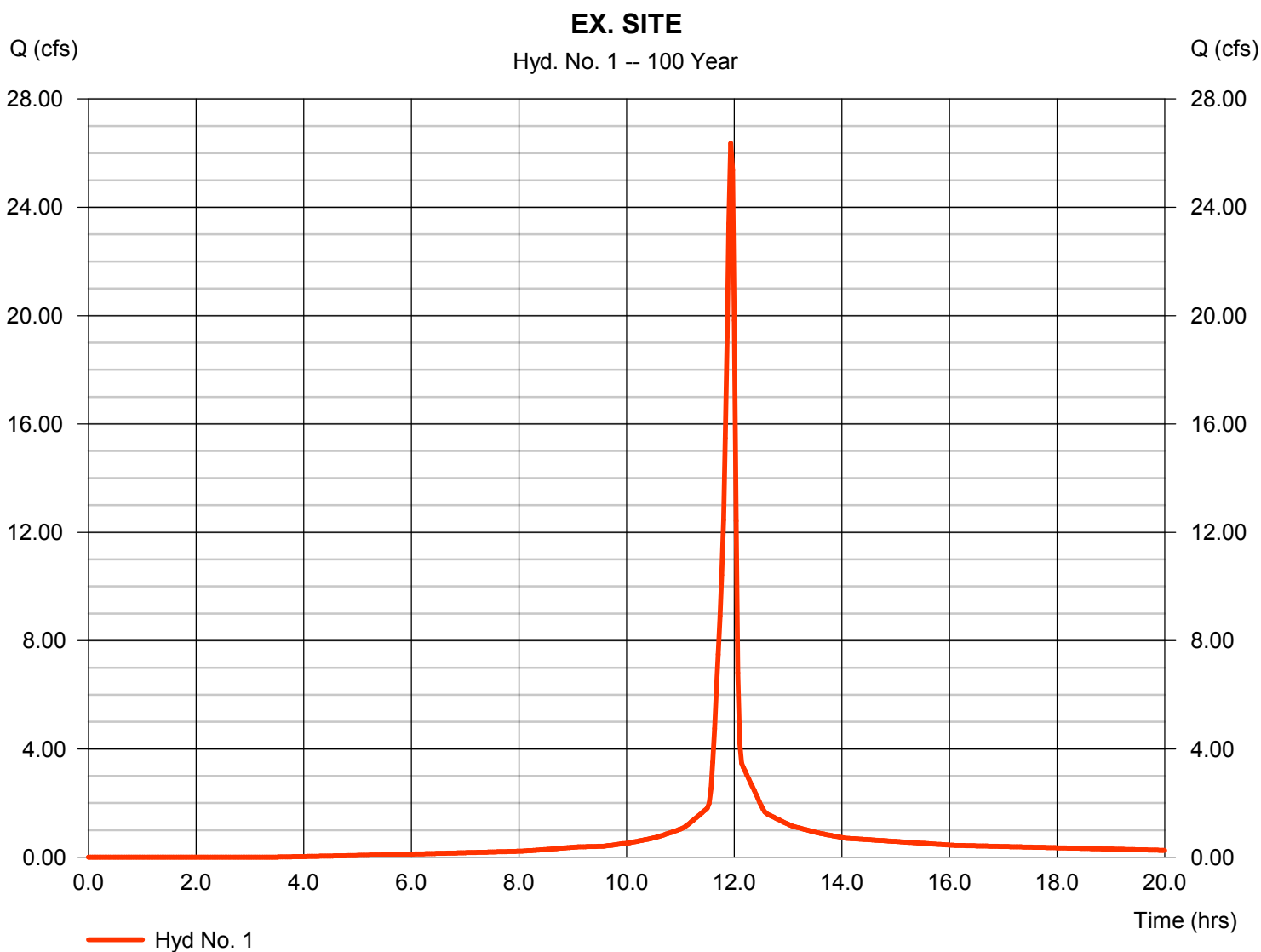
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Monday, 07 / 11 / 2016

## Hyd. No. 1

### EX. SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 26.37 cfs   |
| Storm frequency | = 100 yrs    | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 57,288 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 87          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 7.90 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |



# Hydrograph Report

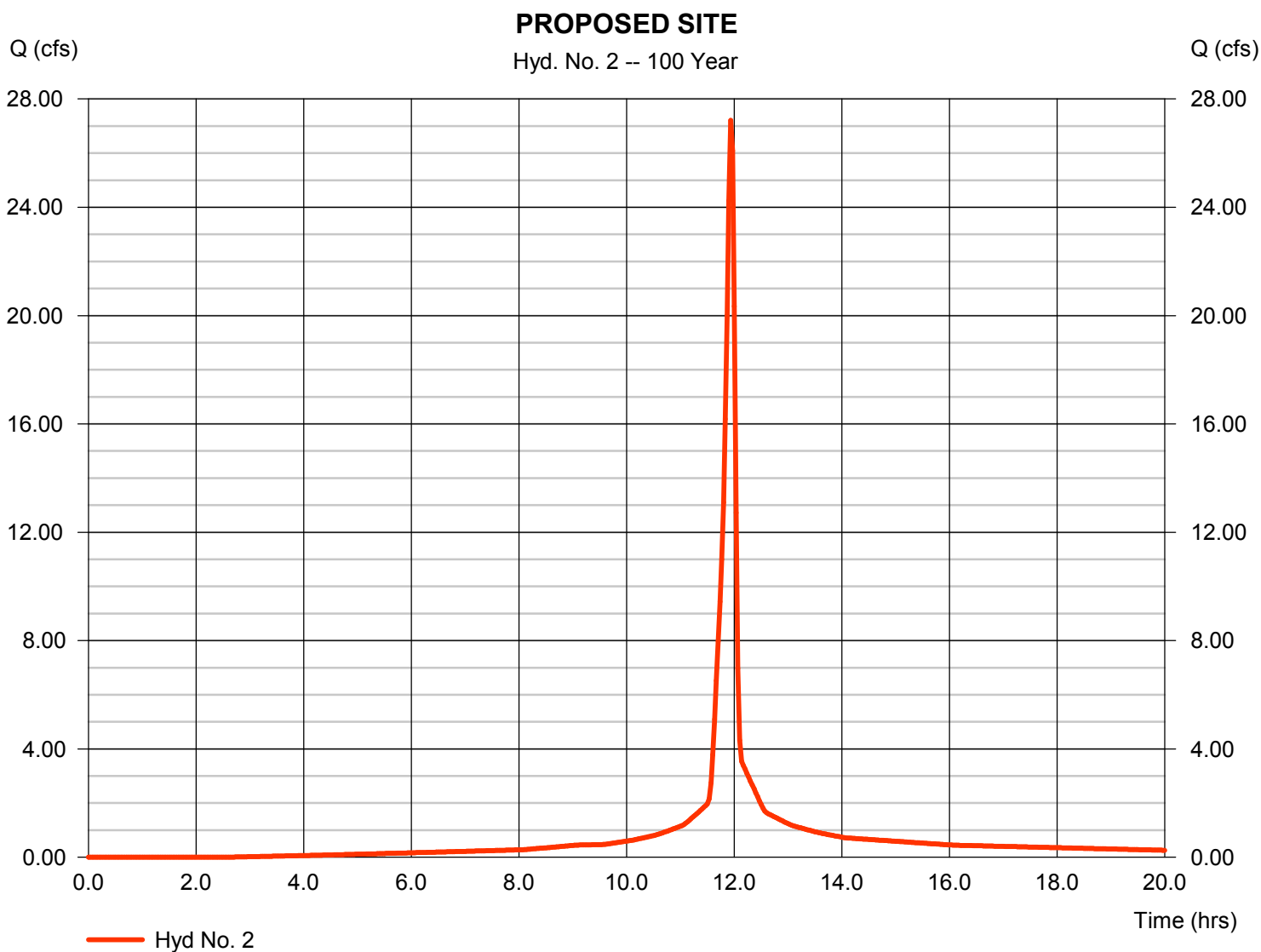
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2015 by Autodesk, Inc. v10.4

Monday, 07 / 11 / 2016

## Hyd. No. 2

### PROPOSED SITE

|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Hydrograph type | = SCS Runoff | Peak discharge     | = 27.21 cfs   |
| Storm frequency | = 100 yrs    | Time to peak       | = 11.93 hrs   |
| Time interval   | = 2 min      | Hyd. volume        | = 60,487 cuft |
| Drainage area   | = 2.650 ac   | Curve number       | = 90          |
| Basin Slope     | = 0.0 %      | Hydraulic length   | = 0 ft        |
| Tc method       | = User       | Time of conc. (Tc) | = 5.00 min    |
| Total precip.   | = 7.90 in    | Distribution       | = Type II     |
| Storm duration  | = 24 hrs     | Shape factor       | = 484         |



August 29, 2019

John Jacobson  
Building Official  
City of Roeland Park Kansas

Re: **Preliminary Development and Final Development Plan Review**

Mr. Jacob,

The preliminary development and final development plan sheet sets have been revised and resubmitted for your approval.

## Architectural

Since the land sale agreement gives the City architectural approval authority, we have shared the renderings with the City Council, below are some of the comments they have shared:

- “Design does not offend but does not inspire. As for materials, metal panel will help balance out the cost of the brick/stone.”  
[Re-worked design to better utilize the context of the surrounding buildings. Discussions with Planning would indicate we are moving in the right direction.](#)
- “This seems to be a barely decorated box. The protruding "eyebrow" on each corner in dark gray is apparently becoming outdated already - it does NOT fit with the idea of "timeless." The "eyebrow" looks stuck on to the side of the building.”  
[Revised design has tried to account for these concerns.](#)
- “Other than the eyebrow, there is no relief to the box. No setbacks or undulations to break up the long flat surfaces. The only minor interest comes from the use of various materials.”  
[Attempted greater variations in relief of façade & materials with the latest design.](#)
- “Provision for an architectural “spire” on the south end of the project to provide a gateway to the city that would coincide with the architectural elements to the west.”  
[Provided increased height and entrance at SW corner. Gateway element will be formed through a combination of building & landscape.](#)
- “The building looks a little generic. Not really exciting for our gateway. Pull some of the elements from hospital/bank with the stone, etc.”  
[Re-worked design to better utilize the context of the surrounding buildings.](#)
- “The west and east elevations are long runs, add a sun screen to the storefront systems it would give a nice architectural element while providing solar control.”  
[Additional sun control at windows has been provided as requested.](#)

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**Comments provided by the City Administrator:**

- Replace EFIS areas with stone slate, similar to style used on Commerce Bank.  
[EIFS has been reduced and similar materials to adjacent architecture has been provided.](#)
- Add window treatments to provide shade as well as architectural detail to the building.  
[Window treatments provided as requested.](#)
- Add setbacks and/or bump outs to break up the east and west elevations.  
[More articulation in the façade has been provided as requested.](#)
- Add a focal point at the SW or south elevation to add prominence/uniqueness to the building.  
This is the City's southern Gateway, we want the building to add to the feel of a gateway.  
[Additional interest has been provided at the SW corner. Gateway to be provided in combination with building & landscape elements at that corner.](#)
- The area south of the building should be designed to serve as display for public art and employ landscaping and seating to provide a park like setting for the public/patrons/staff of the facility.  
[It is our intention to provide this as requested. We are continuing to work on a shaded employee seating area on the south side that will incorporate similar construction elements as seen on the building.](#)
- Add trees that flower (crabapple or pink dogwoods) or have dramatic colors (crimson maple, autumn blaze maple) to add character to the site.  
[Plan Revised to include Spring Snow Crabapple and Blackgum](#)
- The easement for the City Monument sign should be located at the SW corner of the site (refer to sketch).  
[Plan has been revised](#)
- Alignment of the underground power should be moved to the east boarder of the site.  
[There are no future improvements desired that would cause the need to relocate the power further to the east and as such, the additional cost to push it further to the east would like to be avoided.](#)
- Sanitary sewer re-alignment should be moved to the east boarder of the site.  
[As previously discussed at project meeting, the Sanitary sewer location is driven by comments provided by JCW.](#)
- Screening to the north should employ vegetation vs. a fence.  
[Plan has been revised to show evergreen screening along the northern property line](#)
- Mature trees should be saved if possible.  
[The landscape plan points out all trees to be saved. It is our intention to save all trees where possible.](#)

**Site and Utility**

- 1) Incorporate 8' sidewalks on the south and east ends of the project located 1' inside of the ROW. Reflect a 5' Sidewalk along project limits on Granada. The City Engineer is working on alignment of the sidewalk along Granada as well.  
[Plan has been revised along Johnson Dr. Room for the Granada improvements are provided when that improvement happens.](#)
- 2) The extension of public sidewalks is requested under 16-1416 and can be mandated by PC at development approval.



- 
- Sidewalks have been extended to both Roe and the new sidewalk along Johnson
- 3) FDP requires finished grades/contours.  
Contours labeled in the grading plan.
  - 4) Will this be the actual name of the plat? PDP and FDP should match platted name.  
The name was updated: Sunflower Medical.
  - 5) Property lines and ownership should be shown within 400' (south and west).  
A sheet showing utilities and property lines within 400' was added to both PDP and FDP.
  - 6) Dimensions of road surface and location in the ROW and any pertinent structure size should be shown within 400'.  
A sheet showing utilities and property lines within 400' was added to both PDP and FDP.
  - 7) Signature block for PC chair and City Engineer.  
Signature blocks were added to title sheets.
  - 8) Structure of maintenance agency.  
The maintenance of this property will be by a third party and currently in discussions with the owner and developer. All agreements will be shared with the City and/or recorded as required.
  - 9) Final letters of utility availability.  
Utility Letters have been provided
  - 10) Easements for utilities through the site as well proposed vacations on the FDP.  
Easements added to the drawings.
  - 11) Exterior building material sample boards.  
A material sample board will be provided prior to Planning Commission. All materials are called out in the building elevations as well.
  - 12) Curb cut widths and radii.  
Ruch widths and dimensions were added.
  - 13) Building setback lines.  
Building setback lines shown in the General Layout Plan
  - 14) Size of signage and location.  
A signage plan sheet will be provided
  - 15) Proof of filing post action.  
Certified mailings we mailed on August 27<sup>th</sup> and cards will be provided as we get them.
  - 16) Pedestrian interconnectivity should exist between the public walks and the building access points as well as access to the public art display location.  
As previously stated, sidewalks have been incorporated internally to provide interconnectivity throughout the site, the public art display and public realm sidewalks.
  - 17) Differential paving for pedestrian and vehicle intersections.  
The NW intersection (Roe Entry) has been striped. This is an existing entry and pavers can not be added. The SE intersection (Granada) is not being provided at this time as there are no sidewalks existing. At the time Granada is improved, a paver crosswalk will be provided.
  - 18) Provide Fire Department equipment accessibility report per email sent from this office on 8/23/19 and developed under FD specific criteria sent in that email.  
A sheet with FD accessibility was added to both PFP and FDP.

## Public Improvements- Daniel G. Miller, P.E. City Engineer

### Final Development Plan Comments:

1. Provide an 8-ft wide sidewalk, extending from Roe Boulevard to Granada Street along the Johnson Drive (off ramp) frontage. Provide accessible route from public sidewalk to perimeter building sidewalk.  
[Plan Revised](#)
2. Granada Lane is currently 20.5-ft wide (back of curb to back of curb). Development will be responsible for costs associated with widening the street to 26-ft back of curb to back of curb section adjacent to the development this cost will be approved by the City Engineer and deposited with the City to be used in completing the improvements in the future. The cost of installing a 5-ft wide sidewalk along Granada adjacent to the site will also be deposited with the City. A 5-ft easement adjacent to Granada Lane shall be provided for future sidewalk improvement.  
[As noted in our meeting, we are working with the City on the best route to satisfy this requirement.](#)
3. Verify existing sanitary sewer main sizes at southwest and south side of proposed development. The Commerce Bank development extended an 8-inch sanitary sewer, however, a 6-inch sewer is identified on the survey. Each manhole has a stub to support a sanitary sewer main relocation. See attached as-built.  
[The Sanitary Sewers were verified based on existing sewers.](#)
4. Add dimensions of proposed sign easement to General Layout sheet callout and to Site Dimension Plan. Adjust sign easement location so it does not encroach into existing permanent sanitary sewer easement.  
[The sign easement was moved.](#)
5. Add callout and delineate proposed sidewalk easement for sidewalk along Roe Boulevard that encroaches into subject property.  
[Callout was added to proposed sidewalk easement.](#)
6. Show utility easements for proposed utility relocations and existing utilities to remain.  
[Utility easements were added.](#)
7. Clarify proposed storm sewer infrastructure in vicinity of the rain garden. Per drainage study, it's understood a portion of the parking lot will be routed to the rain garden for water quality treatment.  
[Storm structure was added in the rain garden.](#)

## Drainage Study

Delineate and identify the offsite drainage area to the north that will be collected and routed through the proposed site stormwater infrastructure and/or routed north of the parking lot improvements. Drainage improvements need to be coordinated with landscape plan improvements along property line.

The offsite drainage area was added on both proposed and existing situations.

## Construction Document Related Comments (for future Building Permit Submittal):

Development design engineer is responsible for preparing sanitary sewer main relocation plans and accompanying documents for review and approval by Johnson County Wastewater.

JCW sheet set was submitted.

Design engineer is responsible for coordinating with Kansas City Power and Light for relocation of overhead facilities to underground facilities as depicted on Final Development Plans.

RIC has been working with KCPL on service and relocation.

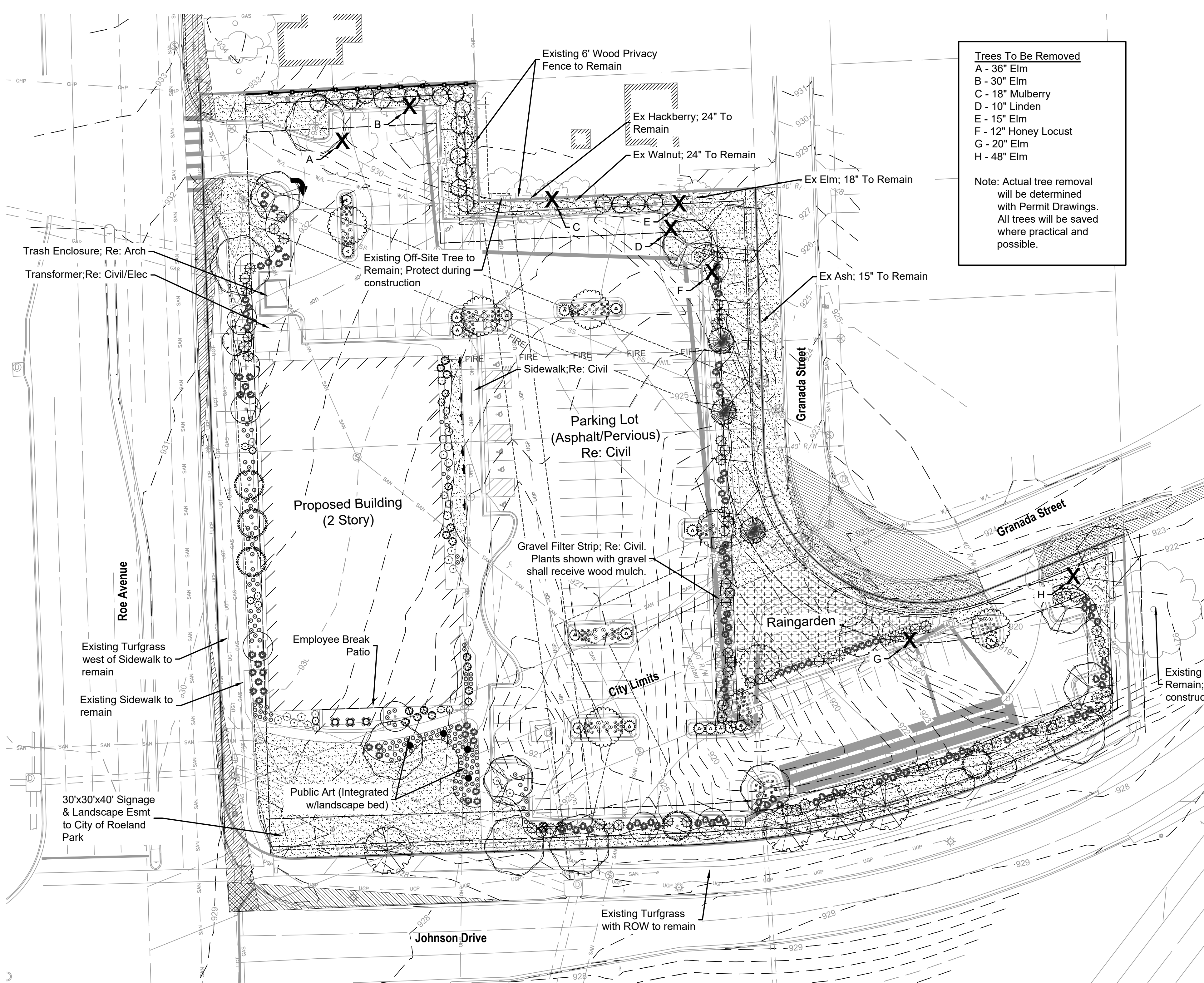
## Signage /Accessibility

1. Identify accessible parking space sign locations. Identify accessible ramp locations and provide enlarged grading plan to verify proposed accessible parking and loading areas are less than 2%.  
Spot elevations were added to the grading sheet.
3. Directional signage / pavement marking may be necessary near the first bay of parking off Roe Boulevard, to facilitate internal traffic circulation.  
Right turn pavement marking was added.

## RENAISSANCE INFRASTRUCTURE CONSULTING

Andy Gabbert, PLA, ASLA  
Project Manager





LANDSCAPE NOTES

1. LOCATE UTILITIES PRIOR TO COMMENCING LANDSCAPE OPERATIONS. ALL TREES SHALL BE FIELD POSITIONED AS TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UTILITIES. NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS OR OBSTRUCTIONS.
2. CONTRACTOR SHALL STAKE ALL PLANTING AREAS IN THE FIELD PRIOR TO PLANTING FOR APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE.
3. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES PRIOR TO PLANTING. ANY DISCREPANCIES WITH THE PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE PLAN QUANTITIES SHALL SUPERCEDE SCHEDULED QUANTITIES.
4. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY AND SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 THE 'AMERICAN STANDARD FOR NURSERY STOCK'.
5. ALL PLANTING BEDS & NATIVE GRASS STANDS SHALL BE EDGED AS SHOWN IN PLAN.
6. PREPARE PLANTING BEDS AND INCORPORATE AMENDMENTS ACCORDING TO PLANS.
7. SHREDDED HARDWOOD MULCH, PER SPECIFICATIONS SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL PLANTING BEDS AND AROUND ALL TREES. SINGLE TREES AND SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER OR LANDSCAPE ISLAND.
8. ALL TREES SHALL BE STAKED PER DETAIL.
9. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A ONE FOOT (1') CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT.
10. THE LANDSCAPE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE SITE IS FREE OF DEBRIS CAUSED BY ON-GOING CONSTRUCTION OPERATIONS. REMOVAL OF DEBRIS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. LANDSCAPE WORK SHALL NOT BEGIN UNTIL THE LANDSCAPE ARCHITECT AND OWNER HAVE GIVEN WRITTEN APPROVAL FOR SUCH. THERE SHALL BE NO DELAYS DUE TO LACK OF COORDINATION FOR THIS ACTIVITY.
11. THE LANDSCAPE ARCHITECT AND OWNER SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING/SEEDING OPERATIONS.
12. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR OTHER PLANTINGS OR HARDSCAPE SHALL BE SODDED WITH BUFFALO GRASS. ALL AREAS OUTSIDE OF THE BUFFALO PLANTING ZONE SHALL BE SODDED WITH TURF TYPE TALL FESCUE.
13. ALL SHRUB BED AREAS SHALL BE IRRIGATED BY DRIP IRRIGATION. BUFFALO SOD AREAS SHALL BE IRRIGATED BY QUICK COUPLE ACCESS AT 100 FT O.C OR WITHIN 50' OF A BUILDING HOSE BIB. IRRIGATION SYSTEM SHALL INCLUDE AUTOMATIC RAIN-SENSOR DEVICE. IRRIGATION SHOP DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR FOR APPROVAL PRIOR TO CONSTRUCTION.
14. RAINGARDEN PLANTINGS SHALL BE GROUPED IN NO LESS THAN 10 PLANTS PER GROUP. FINAL DESIGN OF RAINGARDEN SHALL BE PROVIDED WITH PERMIT DRAWINGS.

LANDSCAPE REQUIREMENTS

Proposed Zoning: CP-O

Minimum Tree Requirements (Sec 16-1005)

- Street Frontage: 1 Tree / 40 lf
- Open Space: 1 Tree / 3,000 sf Open Space

Vehicular Use Areas Requirements (Sec 16-1007)

- Min. 6% Interior Of Parking Lot (Spaces x 280)

Screening Requirements (Sec 16-1010)

- Trash Enclosures shall be screened and appropriately landscaped
- Exterior ground/building mounted equipment shall be screened from public view
- Adjacent to Residential (SFR) shall provide a solid screen or wall not less than 6' in height along the rear and side property lines which are common to subject property to the building line. The screening shall not be required where similar screening exists on the abutting residential property.

Provided Street Trees

- Street Frontage: Roe Blvd: 377 LF / 40 = 9.42 Trees Provided: 10 Trees
- Street Frontage: Johnson Dr.: 430 LF / 40 = 10.75 Trees Provided: 13 Trees
- Street Frontage: Grenada: 359 LF / 40 = 8.98 Trees Provided: 9 Trees

Provided Open Space

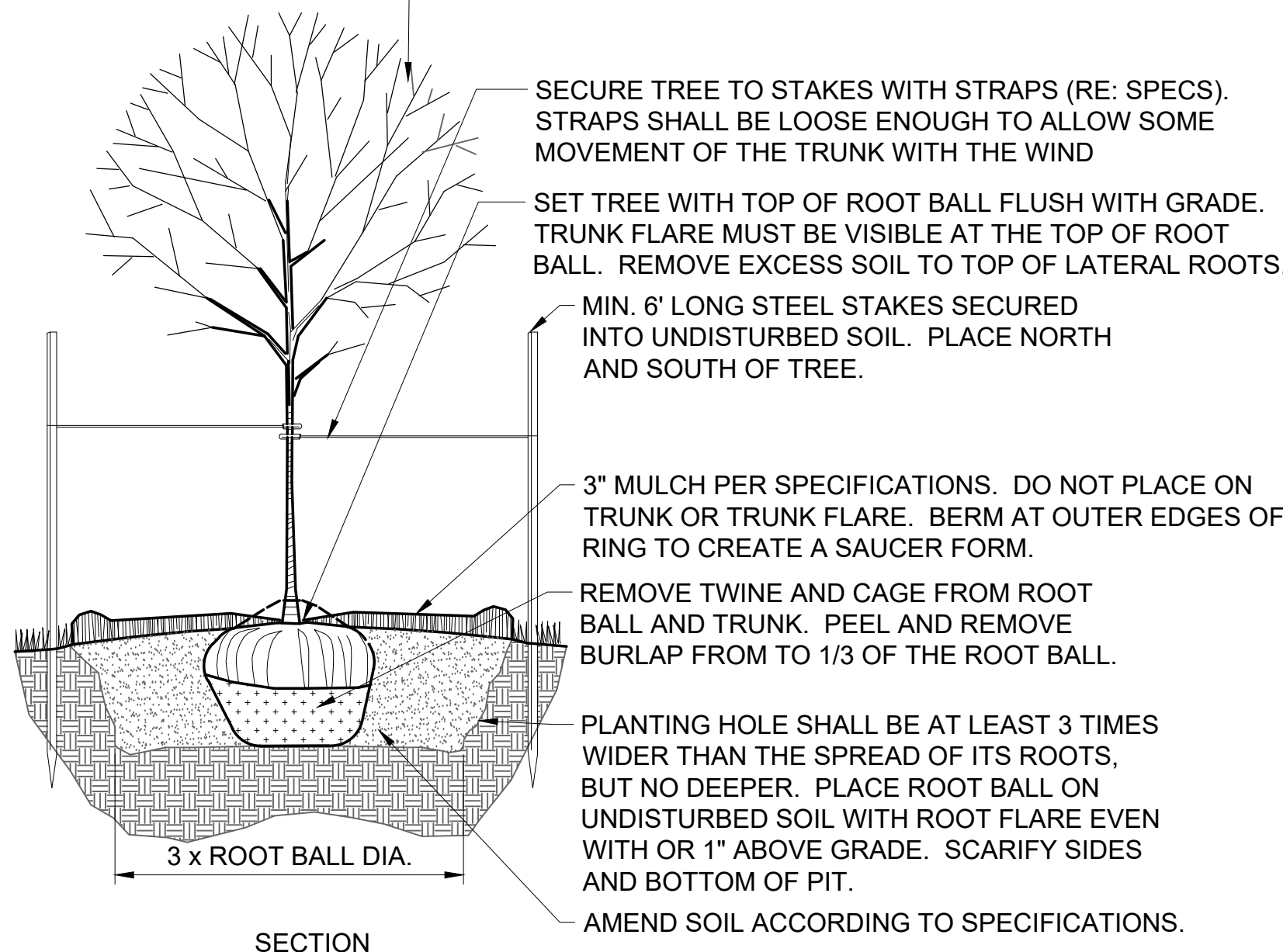
- Total Open Space: 36,363.47 sf / 3,000 sf = 12 Trees
- Open Space Trees (including parking lot trees): 17 Trees

Provided Vehicular Use Areas

- Total Parking Spaces = 158 x 280 = 44,240 x 6% = 2,654.4 sf
- Total Area Provided = 3,724 sf

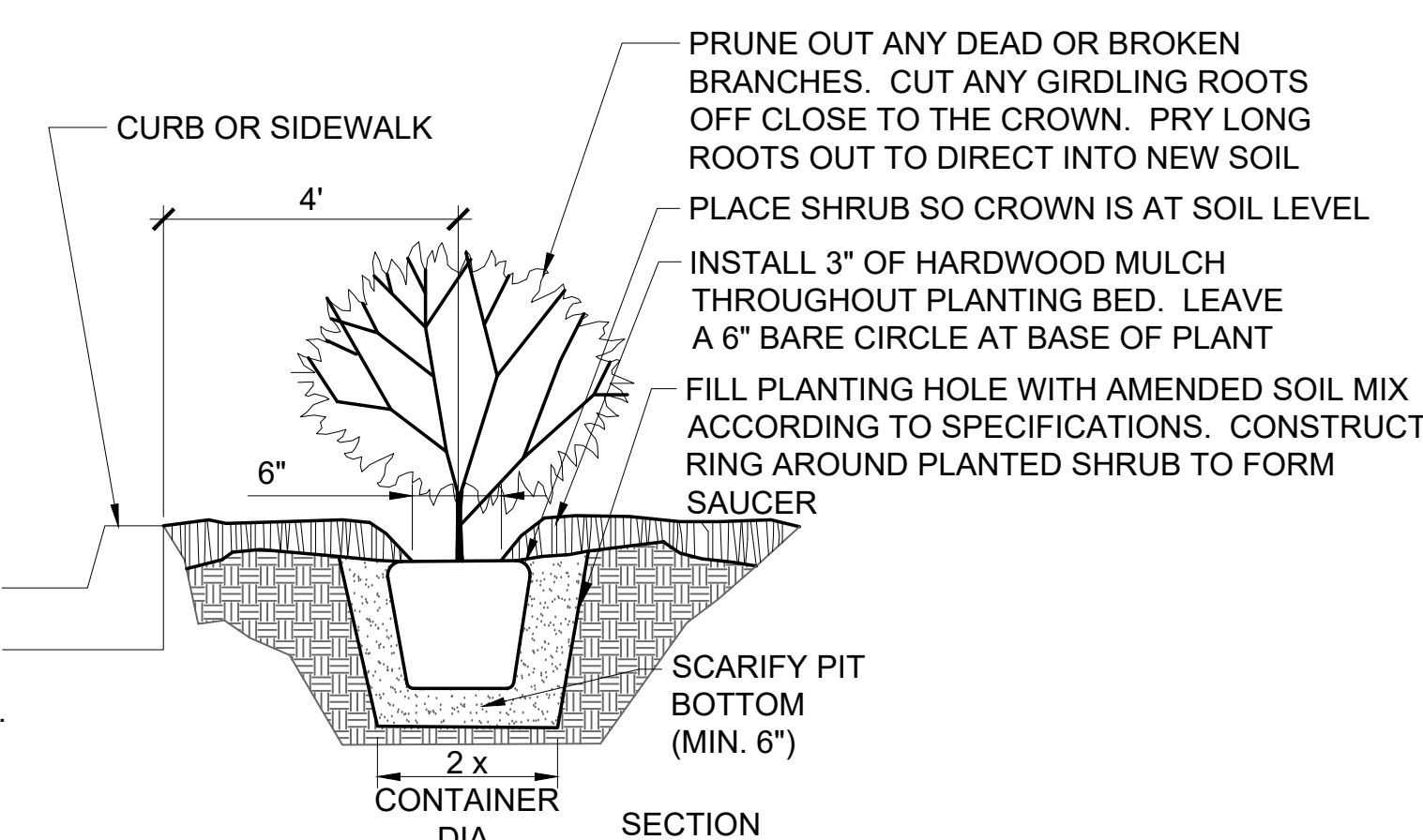
- NOTES:
1. TREES THAT DO NOT MEET THE SIZE REQUIREMENT WILL BE REJECTED
  2. TREES SHALL BE INSPECTED BY OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.

PRUNE OUT ANY DEAD OR BROKEN BRANCHES AND REMOVE DEBRIS FROM SITE.



PLANT SCHEDULE

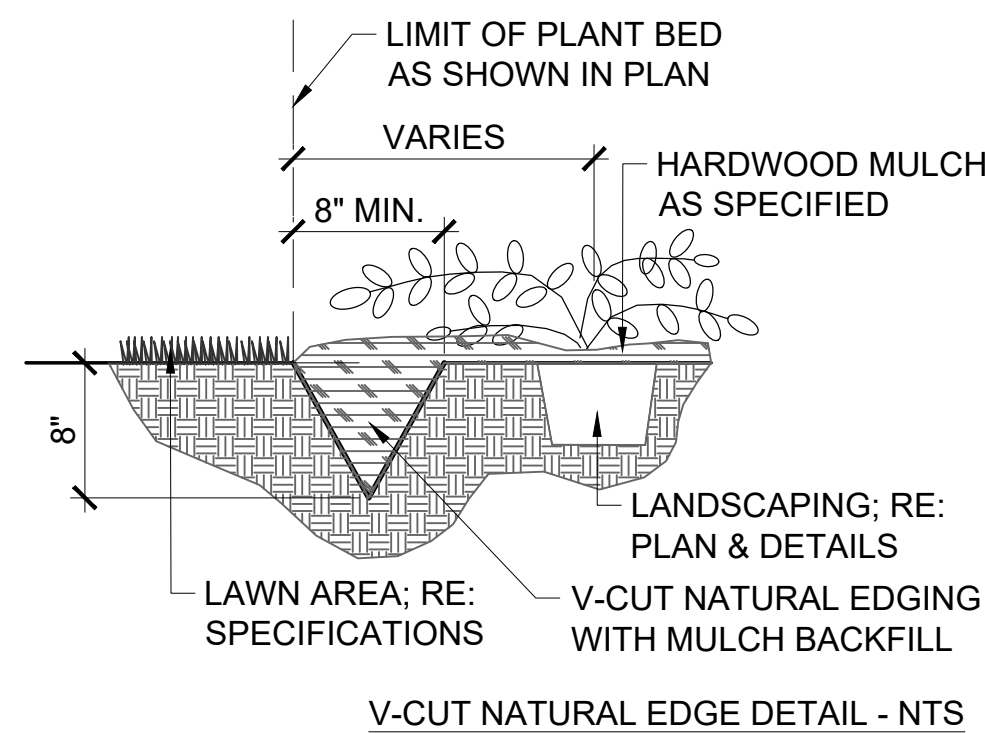
| TREES                                            | BOTANICAL / COMMON NAME                                                          | CONT   | CAL       | SIZE        | QTY       |
|--------------------------------------------------|----------------------------------------------------------------------------------|--------|-----------|-------------|-----------|
|                                                  | Amelanchier x grandiflora 'Autumn Brilliance' / 'Autumn Brilliance' Serviceberry | B&B    | 1.5" Cal. |             | 7         |
|                                                  | Betula nigra 'Heritage' / Heritage River Birch                                   | B&B    | 2.5" Cal. |             | 3         |
|                                                  | Cercis canadensis 'Forest Pansy' TM / Forest Pansy Redbud                        | B&B    | 1.5" Cal. |             | 3         |
|                                                  | Ginkgo biloba 'Autumn Gold' TM / Maidenhair Tree                                 | B&B    | 2.5" Cal. |             | 7         |
|                                                  | Juniperus virginiana 'Hillspire' / Hillspire Juniper                             | B&B    |           | 6' Ht. Min. | 21        |
|                                                  | Malus x 'Spring Snow' / Spring Snow Crab Apple                                   | B&B    | 1.5" Cal. |             | 5         |
|                                                  | Nyssa sylvatica 'Wildfire' / Black Gum                                           | B&B    | 2.5" Cal. |             | 4         |
|                                                  | Picea pungens 'Hoopsii' / Hoopsii Blue Spruce                                    | B&B    |           | 6' Ht. Min. | 3         |
|                                                  | Quercus bicolor / Swamp White Oak                                                | B&B    | 2.5" Cal. |             | 6         |
|                                                  | Ulmus americana 'Valley Forge' / American Elm                                    | B&B    | 2.5" Cal. |             | 5         |
|                                                  | Zeikova serrata 'Green Vase' / Sawleaf Zeikova                                   | B&B    | 2.5" Cal. |             | 6         |
| SHRUBS                                           | BOTANICAL / COMMON NAME                                                          | CONT   |           |             | QTY       |
|                                                  | Aronia melanocarpa 'Morton' TM / Iroquois Beauty Black Chokeberry                | 3 Gal. |           |             | 5         |
|                                                  | Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass                  | 3 Gal. |           |             | 161       |
|                                                  | Cornus stolonifera 'Arctic Fire' / Arctic Fire Dogwood                           | 3 Gal. |           |             | 2         |
|                                                  | Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily                           | 1 Gal. |           |             | 148       |
|                                                  | Hydrangea paniculata 'Little Lime' / Little Lime Hydrangea                       | 3 Gal. |           |             | 14        |
|                                                  | Hypericum frondosum 'Sunburst' / Sunburst Hypericum                              | 3 Gal. |           |             | 12        |
|                                                  | Juniperus chinensis 'Sea Green' / Sea Green Juniper                              | 5 Gal. |           |             | 70        |
|                                                  | Juniperus sabina 'Buffalo' / Buffalo Juniper                                     | 3 Gal. |           |             | 20        |
|                                                  | Juniperus virginiana 'Skyrocket' / Skyrocket Juniper                             | 5 Gal. |           |             | 18        |
|                                                  | Miscanthus sinensis 'Gracillimus' / Maiden Grass                                 | 5 Gal. |           |             | 128       |
|                                                  | Sedum x 'Autumn Joy' / Autumn Joy Sedum                                          | 1 Gal. |           |             | 36        |
| GROUND COVERS                                    | BOTANICAL / COMMON NAME                                                          | CONT   |           | SPACING     | QTY       |
|                                                  | Bouteloua Dactyloides Cody / Cody Buffalo Sod                                    | SOD    |           |             | 24,127 sf |
|                                                  | Rain Garden See Species List / Rain Garden RE: Notes                             | D.C.P. |           | 15" o.c.    | 1,866     |
| Upper Fringe Zone: Lower Flood Zone:             |                                                                                  |        |           |             |           |
| - Prairie Drop Seed - 20% - Blue Flag Iris - 25% |                                                                                  |        |           |             |           |
| - Black Eyed Susan - 10% - Soft Rush - 25%       |                                                                                  |        |           |             |           |
| - Blazing Star - 20% - Switchgrass - 50%         |                                                                                  |        |           |             |           |
| - Switchgrass - 50%                              |                                                                                  |        |           |             |           |



- NOTES:
1. REFER TO SPECIFICATIONS FOR TOPSOIL BACKFILL MIX.
  2. CONTRACTOR TO WATER THOROUGHLY AFTER PLANTING
  3. INSTALLATION TO BE IN ACCORDANCE WITH PLANTING SPECIFICATIONS

SHRUB PLANTING DETAIL - NTS

- NOTES:
1. CONTRACTOR SHALL LOCATE AND MARK ALL PLANTBED LOCATIONS PRIOR TO EXCAVATING FOR FINAL APPROVAL BY OWNER OR LANDSCAPE ARCHITECT.
  2. TRANSITION TO MULCH CONTAINMENT DETAIL AT ALL LOCATIONS ADJACENT TO CURBS & SIDEWALKS. RE: DETAIL, THIS SHEET.
  3. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO TRENCHING OR LANDSCAPE INSTALLATION.



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Johnson & Roe Medical Office Building  
Roe & Johnson Drive | Roeland Park, KS

Date 8/7/19  
Job Number 3-19133  
Drawn By AG  
Checked By AG

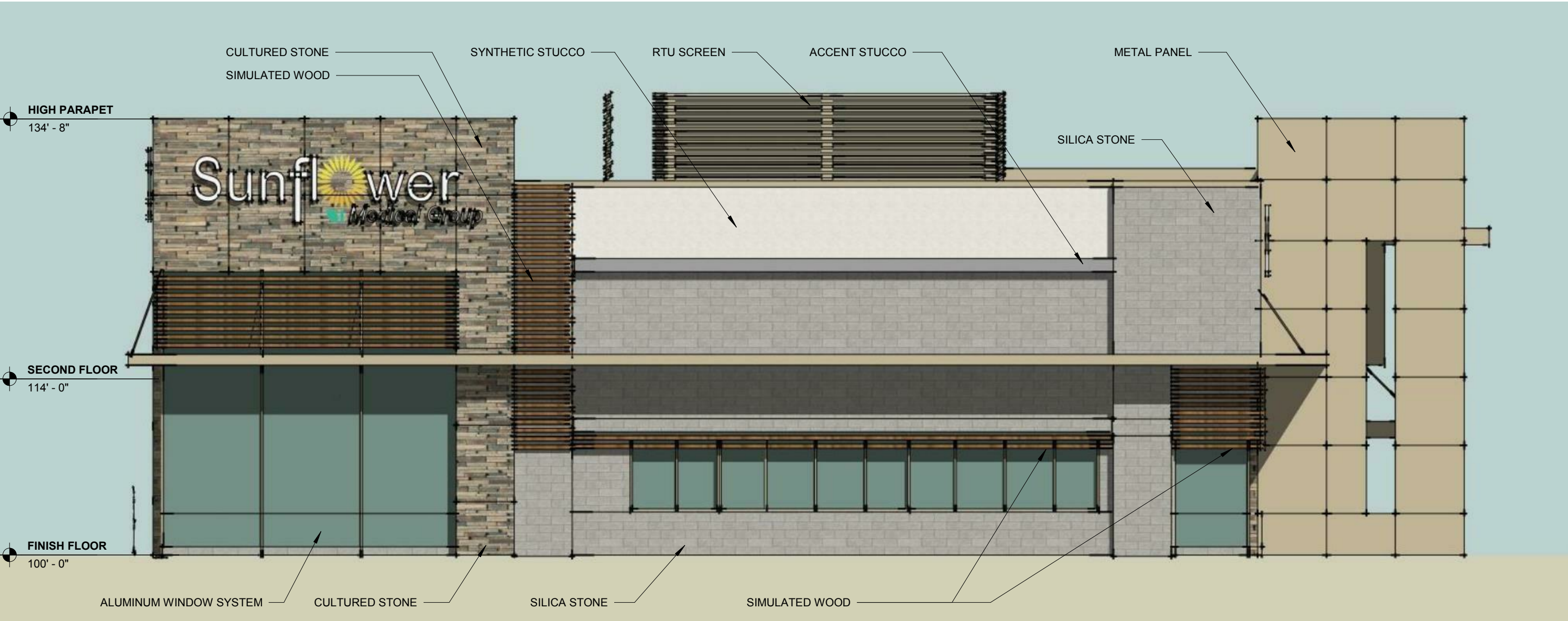
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|----------|----------|----------------------|
| Number   | Date     | Description          |
| 1        | 08-07-19 | FDP/PDP              |
| 2        | 09-03-19 | FDP/PDP              |
| 3        | 09-11-19 | FDP/PDP              |
| 4        | 09-13-19 | Architectural Update |
| 5        | 10-01-19 | FDP/PDP              |

L01





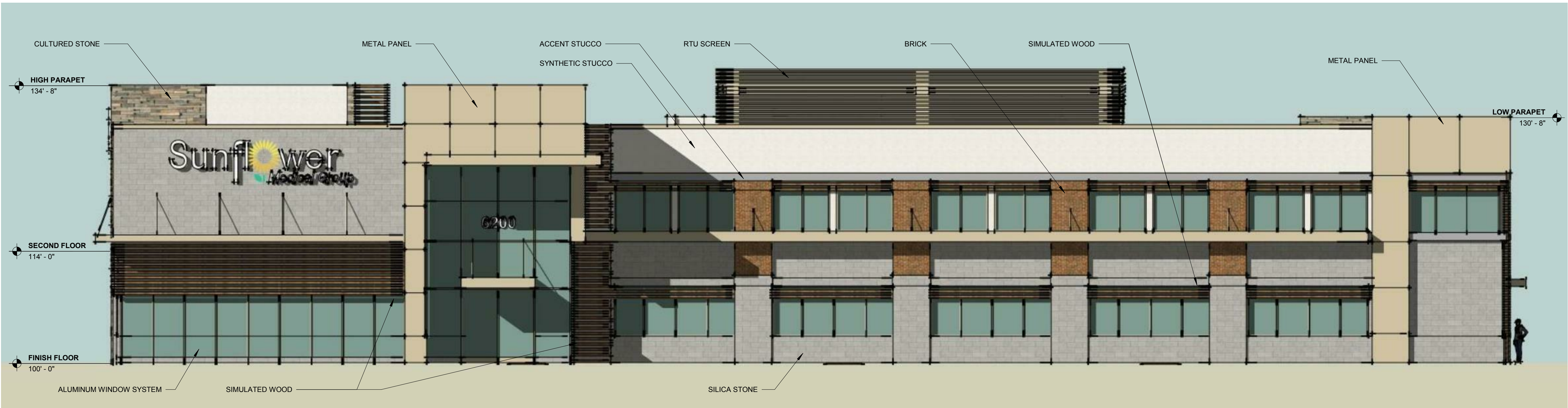
D6 WEST ELEVATION  
1/8" = 1'-0"



B6 SOUTH ELEVATION  
1/8" = 1'-0"



B3 NORTH ELEVATION  
1/8" = 1'-0"



A6 EAST ELEVATION  
1/8" = 1'-0"

| MATERIAL LEGEND |                  |  |                |
|-----------------|------------------|--|----------------|
|                 | METAL PANEL      |  | BRICK          |
|                 | SIMULATED WOOD   |  | CULTURED STONE |
|                 | SYNTHETIC STUCCO |  | SILICA STONE   |

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Checked By JS

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EXTERIOR ELEVATIONS





C6 ROE BLVD PERSPECTIVE  
1/4" = 1'-0"



A6 EAST SIDE PERSPECTIVE  
1/8" = 1'-0"

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Johnson & Roe Medical Office Building  
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|            |         |
|------------|---------|
| Date       | 8/7/19  |
| Job Number | 3-19133 |
| Drawn By   | BM      |
| Checked By | JS      |

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EXTERIOR PERSPECTIVES





Project: **Sunflower Medical**  
Date: **10/7/2019**  
Project No: **19-0143**

**Opinion of Probable Construction Cost**  
**1/2 Street Improvements Along Granada Lane**

\*\*Based on Exhibit dated 8/26/19

**Granada Ln**

| Item | Description               | Unit       | Unit Cost   | Total           |
|------|---------------------------|------------|-------------|-----------------|
| 1    | Mobilization              | 1 L.S.     | \$10,000.00 | \$10,000        |
| 2    | Demolition and Removal    | 1 L.S.     | \$5,000.00  | \$5,000         |
| 3    | Fine Grading              | 902 SY     | \$2.50      | \$2,256         |
| 4    | Asphaltic Surface (2")    | 429 SY     | \$8.00      | \$3,429         |
| 5    | Asphaltic Base (6")       | 429 SY     | \$35.00     | \$15,003        |
| 6    | Aggregate Base (6")       | 429 SY     | \$8.00      | \$3,429         |
| 7    | 2' Curb & Gutter          | 350 L.F.   | \$18.00     | \$6,294         |
| 8    | 4" Sidewalk (5' Concrete) | 1,817 S.F. | \$6.00      | \$10,900        |
| 9    | Erosion Control           | 1 L.S.     | \$2,500.00  | \$2,500         |
| 10   | Excavation (6")           | 150 CY     | \$5.00      | \$752           |
| 11   | Embankment                | 150 CY     | \$5.00      | \$750           |
| 12   | 5' x 5' Storm Structures  | 3 EA       | \$4,000.00  | \$12,000        |
| 14   | 24" RCP-Class 3           | 250 L.F.   | \$65.00     | \$16,250        |
| 15   | Traffic Control           | 1 L.S.     | \$1,500.00  | \$1,500         |
| 17   | Seeding and Sodding       | 1 L.S.     | \$1,500.00  | \$1,500         |
|      | <b>Total</b>              |            |             | <b>\$91,563</b> |



Item Number: New Business- VIII.-B.  
Committee 10/21/2019  
Meeting Date:



## City of Roeland Park

Action Item Summary

Date: 10/15/2019  
Submitted By: Donnie Scharff, Director of Public Works  
Committee/Department: Public Works  
Title: **Award Bid for Amenities at Nall Park**  
Item Type: Other

### Recommendation:

**To award bids for the Nall Park amenities with Victor Stanley & Landscape Forms not to exceed \$31,298.**

### Details:

Nall Park has increasingly become a destination park over the last 3 years. In 2017 a Multiuse trail was added. The Park's Committee recommended the next phase of improvement to Nall Park be an upgrade to the existing amenities (7-picnic tables, 5-benches, and 3-receptacles) to further demonstrate the City's commitment toward beautifying our parks. This objective will assist in nearly completing the Park's Committee's goal of providing new amenities to our existing parks.

The city hired SFS architects to assist the parks committee with the scope and selection of the amenities for Nall Park to enhance the overall look and feel of the park. Material options were explored for IPE wood, as well as plastic material. The total budgeted amount for the amenities was \$34,000

Staff submitted an RFP for the new amenities and got 3 bids back. They are as follows:

#### **Victor Stanley**

(2) 6 foot IPE Wood Ground Mount Benches - \$1,046  
(3) 6 foot IPE Surface Mount Backed Benches - \$1,574  
Shipping Cost - \$425 **Total Cost - \$7,239 with freight**

#### **Landscape Forms**

(3) Landscape Forms Waste Receptacle(Plastic) - \$1,046  
(5) Landscape Forms (IPE) Picnic Tables - \$2,593  
(2) Landscape Forms ADA Picnic Tables (IPE) - \$2,883

**Freight - \$2,190 Total Cost - \$24,059 with shipping**  
**Total Cost for the above items - \$31,298**

### Financial Impact

|                                                                       |                           |
|-----------------------------------------------------------------------|---------------------------|
| Amount of Request:                                                    |                           |
| Budgeted Item?                                                        | Budgeted Amount: \$34,000 |
| Line Item Code/Description: 5470.300 Parks Maintenance/Infrastructure |                           |

### Additional Information

Lead time for the shipping of these items is 7-9 weeks. PW staff can install these items over the winter months or in the spring of 2020 as these amenities are replacing the current amenities and being placed in the same locations as current.

2 ADA picnic tables and 2 standard tables will be placed in the shelter area. The remaining 3 tables will be placed in different areas of the park

It is likely that PW will need to pour 3 small concrete pads where the trash receptacles will be placed as the current temporary trash can bins are sitting on the ground.

2 non-backed benches will be placed in the current location of these existing benches and these will be mounted in the ground.

The remaining 3 benches will replace the current benches that are mounted on existing concrete pads along the path in the northern part of the park.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

### ATTACHMENTS:

| Description                                             | Type       |
|---------------------------------------------------------|------------|
| <input type="checkbox"/> Nall Park Amenity Bids Options | Cover Memo |

# City of Roeland Park

City of Roeland Park

October 8th, 2019

- Nall Park Furnishing Improvements



| Bench Option #2         | Qty | Total Cost |
|-------------------------|-----|------------|
| Backless - \$1,046(IPE) | 2   | \$2,092    |
| Backed - \$1,574 (IPE)  | 3   | \$4,722    |

**Total**  
\$7,239 with freight

City of Roeland Park

## Nall Park – Bench Options



Victor Stanley: Backless  
Model 4 (6') – \$1,046 (IPE)



### Backed Bench

Victor Stanley:  
Model 32 (6') – \$1,574 (IPE)



# Nall Park – Waste Receptacle Options

**Waste Option #2**  
Gretchen - \$1,046 (Plastic)

**Qty**  
3

**Total Cost**  
\$3,138



## Waste Receptacle

Landscape Forms:  
Gretchen – \$1,046 (Plastic)





# Nall Park – Picnic Table Options



## ADA Picnic Table

Landscape Forms:  
Gretchen (5'10") – \$2,883 (IPE)



| Table Option #1 | Qty | Total Cost |
|-----------------|-----|------------|
| Table - \$2,593 | 5   | \$12,965   |

| Table Option #2       | Qty | Total Cost |
|-----------------------|-----|------------|
| Table - \$2,883 (IPE) | 2   | \$5,766    |

Gretchen Picnic Table  
Landscape Forms  
Gretchen 5' - \$2,593





# Nall Park – Budget Summary

| Bench Option                | Qty | Total Cost      |
|-----------------------------|-----|-----------------|
| Backless – \$1,046 (IPE) VS | 2   | \$2,092         |
| Back – \$1,574 (IPE) VS     | 3   | \$4,722         |
| <b>Waste Option</b> LF -    | 3   | \$3,138         |
| \$1,046 Plastic             | 2   | \$5,766         |
| <b>Table Option ADA</b>     |     |                 |
| LF- Table - \$2,883 (IPE)   | 5   | \$12,965        |
| Table Option - Std          |     |                 |
| LF Table - \$2,593          |     |                 |
| <b>Total</b>                |     | <b>\$31,298</b> |
| Budget                      |     | \$34,000        |
| Delta Remaining             |     | \$2,702         |

**Item Number:** New Business- VIII.-C.  
**Committee** 10/21/2019  
**Meeting Date:**



## **City of Roeland Park**

Action Item Summary

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**Date:** 10/15/2019  
**Submitted By:** Donnie Scharff, Director of Public Works  
**Committee/Department:** Public Works  
**Title:** **Award HVAC Replacement at the Community Center**  
**Item Type:** Discussion

### **Recommendation:**

**Award bid for the Roeland Park Community Center HVAC Upgrades to Building Control Solutions not to exceed \$34,097.**

### **Details:**

Staff has reflected replacing the forced air units at the center in a systematic manner within our CIP. Instead of replacing the two A/C only forced air units with A/C only, staff looked into an approach that would replace them with combined units and decommission the boiler system. Gas line would need to be extended to both units (reflected in GBA's "Initial Cost" estimates), but the existing duct work can be reused. The bids also reflect relocating the condensing units from the ground to the roof. This makes them less prone to theft and enhances the appearance of the landscaping areas adjacent to the building.

Staff put out an RFP for the replacement of the 2 air handler units and 2 condensing units and received 3 bids listed below.

Option #1 - Replace the existing AH2 and AH10 with new gas heat and cooling split systems

Option #2 - Replace the existing AH2 and AH10 with a new heat pump system with emergency electric heat.

### **AAIM Services**

Option #1 - \$54,500    Option #2 - \$48,700

### **SIG**

Option #1 - \$50,875    Option #3 - \$55,855

### **Building Control Solutions**

Option #1 - \$34,097    Option #2 - No bid

Additionally, the total cost does not reflect any roof penetration for installation of the flues, any wiring, ect.. Per the warranty of the community center roof, the original contractor will need to preform any roofing repairs during installation and after the work is completed to ensure the warranty is not voided.

### **Financial Impact**

|                                      |                  |
|--------------------------------------|------------------|
| Amount of Request: \$75,400          |                  |
| Budgeted Item?                       | Budgeted Amount: |
| Line Item Code/Description: 5425.290 |                  |

### **Additional Information**

For 2019, the budgeted amount for the community center is \$75,400. The budgeted amount for the HVAC upgrades is \$25,000. There will still be enough budget dollars to cover the upgrades.

The conversion is simple to accomplish, fall is a good season (a time when A/C and heat are used minimally), timing is good as the boiler and A/C units being decommissioned/replaced are older and the project improves energy efficiency at the facility.

Work performed for either option requires at a minimum the following scope: • Demo and remove boiler and associated piping in the boiler room.

- Demo and remove AH2 and AH10
- Hot water radiators to be abandon in place.
- Furnish and install new condensing units to be installed on the roof.
- Provide outside air per minimum required by code.
- Reconnection of existing supply and return ductwork
- Reconnection of condensate drains
- Furnish and install refrigerant piping per manufacturers recommendations
- Install new programmable thermostats

Option 1 requires the following additional work:

- Route flu and fresh air intake per manufacturers recommendations. Terminate flu min 10' from outside air intake.
- Route new natural gas piping to air handling unit. Sizing to be per code.

Option 2 requires the following additional work:

- Provide new electrical circuit for emergency electric heat

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                                                    | Type       |
|------------------------------------------------------------------------------------------------|------------|
|  Bid Proposal | Cover Memo |



*MBE & DBE CERTIFIED*

1420 NW Vivion Rd #103 • KCMO 64118 • Phone: 816-439.6046 • Fax: 816-326-0915

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Project: **Roeland Park Comm Center**  
**4850 Rosewood Dr. Roeland Park, KS 66205**

Proposal Date: 10-15-19 **Revised for Contract**

Building Control Solutions is pleased to quote the following scope of work for this project:

1. Provide/Install New Mechanical Equipment:
  - a) (2) Air Handlers with gas (EL16XCI-042-230 / ELI16XCI-36-230) Lennox Units
  - b) (2) Matching Condensers
  - c) Provide and install a new programmable touch screen Thermostat for each unit
  - d) Condensate Lines As Needed
  - e) Low Voltage Wire
  - f) Removing the Ductwork from the existing units.
  - g) New Outside Air Inlet Duct and Damper for fresh air
  - h) Providing and installing new ductwork and transitions for the new units
2. Includes Crane to get condensers on the roof
3. Provide and install the new Natural Gas lines to the new units
  - a. Gas Pressure needs to be a minimum of 2 psi
  - b. Roof blocks and cush clamps to keep gas line off of roofing membrane and securely in place
4. Remove and dispose of old equipment off-site.
5. Removal and disposal of the existing Boiler and associated piping.
6. Includes Unit Start Up and testing in both cooling and heating modes.
7. Conduct Professional Test & Balance and Provide Report.

8. City License and Permit if required

9. Owner Training

10.2 sets of spare filters

\* Engineering survey needs to be conducted before we can price Option #2.  
Cost of survey is additional \$2,000.00

**NOTE:** The following is **NOT** included:

1. Duct Smoke Detectors
2. Structural Engineering Required by City for Permit.
3. Structural Modifications Not Shown on Mechanical Drawings.
4. Roof Patching and Pitch Pans.
5. Sealing of Roof Penetrations.
6. Painting and patching of all wall surfaces.
7. Painting of Ductwork.
8. Coring & Cutting of Wall Surfaces.
9. Smoke Duct Detectors.
10. Installation of Smoke Duct Detectors.
11. Fire Alarm Panel or Wiring to Smoke Detectors.
12. Fire Test Station.
13. DDC Controls.
14. Installation of DDC Controls.
15. Excludes Gas Line from Meter to RTU's (by others).
16. Prevailing Wages.
17. Excludes repair or replacement of any existing equipment not specified on the drawings (change order required).
18. Excludes any quick-ship options on equipment.
19. Excludes Roofing Work (By Owner)
20. Excludes Electrical Service Upgrade (Not Required for Gas Units)

The above work will be according to the owners schedule for a price of  
**\$34,097.00** including material and labor. Taxes are NOT included.

Our Quote is based on documents provided

Proposal Valid for 60 Days.

Thank you for allowing Building Control Solutions the opportunity to bid this project.  
Please call if you have any questions.

Cheryl Morton  
President  
**Building Control Solutions**



**Item Number:** Reports of City Officials:- XI.-A.  
**Committee** 10/21/2019  
**Meeting Date:**



**City of Roeland Park**  
Action Item Summary

**Date:** 10/21/2019  
**Submitted By:** Jennifer Jones-Lacy  
**Committee/Department:** Finance  
**Title:** August 2019 Financial Details  
**Item Type:**

**Recommendation:**

**For informational purposes only**

**Details:**

Attached are the line item details from the August 2019 financial report. The Finance Director will provide a full detailed report for the third quarter after receiving the September Financial Report.

**Financial Impact**

| Amount of Request:          |                  |
|-----------------------------|------------------|
| Budgeted Item?              | Budgeted Amount: |
| Line Item Code/Description: |                  |

**Additional Information**

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

**ATTACHMENTS:**

| Description                                                                                                | Type    |
|------------------------------------------------------------------------------------------------------------|---------|
|  August 2019 Financials | Exhibit |

**MONTHLY FINANCIAL STATEMENTS**

**CITY OF  
ROELAND PARK**

**AUGUST 2019**

PREPARED BY:



KANSAS CITY | SPRINGFIELD

[GOODFAITHACCOUNTING.COM](http://GOODFAITHACCOUNTING.COM)

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## Management Responsibility

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The organization's management is responsible for the information contained in these reports and for the development, implementation, and adherence of all financial policies and procedures. We recommend management carefully review all transactions contained in these reports to insure accuracy and clarity.

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## Table of Contents

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➤ **Statement of Financial Position**

*The statement of financial position gives a financial picture of the organization as of the end of the reporting period. It reflects the assets, liabilities, and net assets of the organization.*

### **Definition of Fund Accounting Terms**

**Net Assets** – Total Assets minus Total Liabilities. Net assets fall into one of three categories (from most restricted to least restricted):

1. **Net Investment in Fixed Assets** - total fixed assets minus accumulated depreciation minus any debt related to the fixed assets.
2. **Restricted** – those funds which are legally restricted by outside parties or by law through constitutional provisions or enabling legislation;
3. **Unrestricted** – funds available for general operations.

➤ **Statement of Activities**

*The statement of activities reflects the revenues and expenses of the organization for the current period of time—typically the current month and year-to-date. It can also be used to compare actual revenues and expenses to those budgeted.*



**City of Roeland Park**  
**Statement of Fund Balance**  
**8/31/2019**

**Assets**

**Cash**

**Cash in General Checking - Pooled**

|      |                                                |            |              |
|------|------------------------------------------------|------------|--------------|
| 1010 | General Fund                                   | 111.52     |              |
| 1010 | Bond & Interest Fund                           | 7,426.39   |              |
| 1010 | Aquatic Center Fund                            | 398,594.19 |              |
| 1010 | Special Highway Fund                           | 93,944.44  |              |
| 1010 | Special Street Fund 27 - A                     | 7,205.04   |              |
| 1010 | Community Center Fund Fund 27 - C              | 54,024.89  |              |
| 1010 | Special Infrastructure 27 - D                  | 77,160.91  |              |
| 1010 | Equipment & Bldg Reserve Fund                  | 5,647.86   |              |
| 1010 | TIF 1A/B - Bella Roe / Walmart                 | 160,140.24 |              |
| 1010 | TDD #1 - Price Chopper                         | 87,278.28  |              |
| 1010 | TDD #2 - Lowes                                 | 64,477.90  |              |
| 1010 | CID #1 - RP Shopping Center                    | 128,310.49 |              |
| 1010 | TIF 2A/D - McDonalds / City Hall               | 36,620.60  |              |
| 1010 | TIF 2C - Valley State Bank                     | 1,368.89   |              |
| 1010 | TIF 3C - Old Pool Area                         | 137,980.48 |              |
| 1011 | TIF 1A/B - Bella Roe / Walmart                 | 127,000.00 |              |
| 1012 | Special Law Enforcement Fund                   | 20,321.19  |              |
|      | <b>Total Cash in General Checking - Pooled</b> |            | 1,407,613.31 |

**Cash in Other Accounts**

|      |                                     |            |            |
|------|-------------------------------------|------------|------------|
| 1020 | Cash - Municipal Court              | 3,835.00   |            |
| 1040 | Cash - Pool Bond Reserve            | 157,500.08 |            |
| 1050 | Cash - Property Owners Association  | 20,322.51  |            |
| 1090 | Petty Cash - Court                  | 200.00     |            |
|      | <b>Total Cash in Other Accounts</b> |            | 181,857.59 |

**Restricted Cash**

|      |                                          |           |           |
|------|------------------------------------------|-----------|-----------|
| 1060 | Cash - Debt Service - Revenue Restricted | 31,893.81 |           |
| 1070 | Cash - Restricted Asset - Bond Reserve   | 12,333.10 |           |
| 1080 | Cash - With Trustee                      | 71.64     |           |
|      | <b>Total Restricted Cash</b>             |           | 44,298.55 |

**Total Cash**

1,633,769.45

**Other Current Assets**

|      |                                   |               |               |
|------|-----------------------------------|---------------|---------------|
| 1115 | Accounts Receivable - Other       | 1,713,484.40  |               |
| 1135 | Taxes Receivable                  | 4,631,170.12  |               |
| 1140 | Interfund Receivable              | -             |               |
| 1310 | Invested Funds                    | 10,244,400.88 |               |
| 1210 | Prepaid Expenses                  | 43,373.82     |               |
|      | <b>Total Other Current Assets</b> |               | 16,632,429.22 |

**Total Assets**

**\$ 18,266,198.67**

**City of Roeland Park**  
**Statement of Fund Balance**  
**8/31/2019**

**Liabilities & Fund Balance**

|                                             |                                             |                         |
|---------------------------------------------|---------------------------------------------|-------------------------|
| <b>Current Liabilities</b>                  |                                             |                         |
| 2005                                        | Accounts Payable                            | (1,025.18)              |
| 2010                                        | Federal Withholding Payable                 | (37.53)                 |
| 2020                                        | State Withholding Payable                   | 3,119.45                |
| 2030                                        | City Withholding Payable                    | 43.43                   |
| 2040                                        | KPERS Accrued Employee                      | (867.23)                |
| 2045                                        | KP&F Employee Withholding Payable           | 79.79                   |
| 2050                                        | Insurance Withholding Payable               | 712.15                  |
| 2035,2052                                   | Other Withholdings Payable                  | (1,654.54)              |
| 2055                                        | Employee Garnishments                       | -                       |
| 2060                                        | Section 457 Employee Payable                | -                       |
| 2006                                        | Accrued Payroll                             | -                       |
| <b>Total Current Liabilities</b>            |                                             | 370.34                  |
| <b>Other Liabilities</b>                    |                                             |                         |
| 2065                                        | Interfund Payable                           | -                       |
| 2080                                        | Liability for Court Bonds                   | 2,835.00                |
| 2110                                        | Deferred Revenue                            | 5,520,265.08            |
| 2210                                        | Art Deposit Escrow                          | 76,161.60               |
| 2805                                        | Bond Payment Liability                      | 3,350,127.47            |
| <b>Total Other Liabilities</b>              |                                             | 8,949,389.15            |
| <b>Total Liabilities</b>                    |                                             | 8,949,759.49            |
| <b>Fund Balance</b>                         |                                             |                         |
| 2910.2970                                   | Fund Balance - General                      | 3,859,730.99            |
| 2910.2970                                   | Fund Balance - Special Law Enforcement Fund | 20,321.19               |
| 2910.2970                                   | Fund Balance - Debt Service                 | 345,563.25              |
| 2910.2970                                   | Fund Balance - Special Revenue Projects     | 4,883,000.83            |
| 2910.2970                                   | Fund Balance - Capital Projects             | 187,500.41              |
| 2910.2970                                   | Fund Balance - Property Owners Association  | 20,322.51               |
| <b>Total Fund Balance</b>                   |                                             | 9,316,439.18            |
| <b>Total Liabilities &amp; Fund Balance</b> |                                             | <b>\$ 18,266,198.67</b> |

**City of Roeland Park**  
**Statement of Fund Balance - BY FUND GROUP**  
8/31/2019

B-by Grp

**Assets**

**Cash**

**Cash in General Checking - Pooled**

|                                                | General          | Debt Service    | Special Revenue     | Capital Projects | TOTAL               |
|------------------------------------------------|------------------|-----------------|---------------------|------------------|---------------------|
| General Fund                                   | 111.52           |                 |                     | \$               | 111.52              |
| Bond & Interest Fund                           |                  | 7,426.39        |                     |                  | 7,426.39            |
| Aquatic Center Fund                            |                  |                 | 398,594.19          |                  | 398,594.19          |
| Special Highway Fund                           |                  |                 | 93,944.44           |                  | 93,944.44           |
| Special Street Fund 27 - A                     |                  |                 | 7,205.04            |                  | 7,205.04            |
| Special Street Fund 27 - C                     |                  |                 | 54,024.89           |                  | 54,024.89           |
| Special Infrastructure 27 - D                  |                  |                 | 77,160.91           |                  | 77,160.91           |
| Equipment & Bldg Reserve Fund                  |                  |                 |                     | 5,647.86         | 5,647.86            |
| TIF 1A/B - Bella Roe / Walmart                 |                  |                 | 160,140.24          |                  | 160,140.24          |
| TDD#1 - Price Chopper                          |                  |                 | 87,278.28           |                  | 87,278.28           |
| TDD#2 - Lowes                                  |                  |                 | 64,477.90           |                  | 64,477.90           |
| CID #1 - RP Shopping Center                    |                  |                 | 128,310.49          |                  | 128,310.49          |
| TIF 2A/D - McDonalds / City Hall               |                  |                 | 36,620.60           |                  | 36,620.60           |
| TIF 2C - Valley State Bank                     |                  |                 | 1,368.89            |                  | 1,368.89            |
| TIF 3C - Old Pool Area                         |                  |                 | 137,980.48          |                  | 137,980.48          |
| TIF 1A/B - Bella Roe / Walmart                 |                  |                 | 127,000.00          |                  | 127,000.00          |
| Special Law Enforcement Fund                   | 20,321.19        | -               | -                   | -                | 20,321.19           |
| <b>Total Cash in General Checking - Pooled</b> | <u>20,432.71</u> | <u>7,426.39</u> | <u>1,374,106.35</u> | <u>5,647.86</u>  | <u>1,407,613.31</u> |



**City of Roeland Park**  
**Statement of Fund Balance - BY FUND GROUP**  
8/31/2019

B-by Grp

**Assets (continued)**

**Cash in Other Accounts**

|                                     |                   |          |                  |          |                   |
|-------------------------------------|-------------------|----------|------------------|----------|-------------------|
| Cash - Municipal Court              | 3,835.00          |          |                  |          | 3,835.00          |
| Cash - Pool Bond Reserve            | 157,500.08        |          |                  |          | 157,500.08        |
| Cash - Property Owners Association  |                   |          | 20,322.51        |          | 20,322.51         |
| Petty Cash Funds                    | 200.00            | -        | -                | -        | 200.00            |
| <b>Total Cash in Other Accounts</b> | <u>161,535.08</u> | <u>-</u> | <u>20,322.51</u> | <u>-</u> | <u>181,857.59</u> |

**Restricted Cash**

|                                          |          |          |                  |          |                  |
|------------------------------------------|----------|----------|------------------|----------|------------------|
| Cash - Debt Service - Revenue Restricted | -        | -        | 31,893.81        | -        | 31,893.81        |
| Cash - Restricted Asset - Bond Reserve   | -        | -        | 12,333.10        | -        | 12,333.10        |
| Cash - With Trustee                      | -        | -        | 71.64            | -        | 71.64            |
| <b>Total Restricted Cash</b>             | <u>-</u> | <u>-</u> | <u>44,298.55</u> | <u>-</u> | <u>44,298.55</u> |

|                   |                   |                 |                     |                 |                     |
|-------------------|-------------------|-----------------|---------------------|-----------------|---------------------|
| <b>Total Cash</b> | <u>181,967.79</u> | <u>7,426.39</u> | <u>1,438,727.41</u> | <u>5,647.86</u> | <u>1,633,769.45</u> |
|-------------------|-------------------|-----------------|---------------------|-----------------|---------------------|

**Other Current Assets**

|                                   |                     |                     |                     |                   |                      |
|-----------------------------------|---------------------|---------------------|---------------------|-------------------|----------------------|
| Accounts Receivable               | -                   | 1,713,484.40        | (0.00)              | -                 | 1,713,484.40         |
| Interest & Taxes Receivable       | 2,796,201.49        | (18,221.70)         | 1,853,190.33        | -                 | 4,631,170.12         |
| Invested Assets                   | 3,392,076.05        | 338,136.86          | 6,332,335.42        | 181,852.55        | 10,244,400.88        |
| Prepaid Expenses                  | 43,373.82           | -                   | -                   | -                 | 43,373.82            |
| <b>Total Other Current Assets</b> | <u>6,231,651.36</u> | <u>2,033,399.56</u> | <u>8,185,525.75</u> | <u>181,852.55</u> | <u>16,632,429.22</u> |

|                     |                        |                        |                        |                      |                      |
|---------------------|------------------------|------------------------|------------------------|----------------------|----------------------|
| <b>Total Assets</b> | <u>\$ 6,413,619.15</u> | <u>\$ 2,040,825.95</u> | <u>\$ 9,624,253.16</u> | <u>\$ 187,500.41</u> | <u>18,266,198.67</u> |
|---------------------|------------------------|------------------------|------------------------|----------------------|----------------------|

**City of Roeland Park**  
**Statement of Fund Balance - BY FUND GROUP**  
8/31/2019

B-by Grp

**Liabilities & Fund Balance**

**Current Liabilities**

|                                   |               |          |          |          |               |
|-----------------------------------|---------------|----------|----------|----------|---------------|
| Accounts Payable                  | (1,025.18)    | -        | -        | -        | (1,025.18)    |
| Federal Withholding Payable       | (37.53)       | -        | -        | -        | (37.53)       |
| State Withholding Payable         | 3,119.45      | -        | -        | -        | 3,119.45      |
| Other Withholding Payable         | 201.43        | -        | -        | -        | 201.43        |
| KPERS Accrued Employee            | (867.23)      | -        | -        | -        | (867.23)      |
| KP&F Employee Withholding Payable | 79.79         | -        | -        | -        | 79.79         |
| Insurance Withholding Payable     | 712.15        | -        | -        | -        | 712.15        |
| Supplemental Insurance Payable    | (1,812.54)    | -        | -        | -        | (1,812.54)    |
| Employee Garnishments             | -             | -        | -        | -        | -             |
| Section 457 Employee Payable      | -             | -        | -        | -        | -             |
| Interfund Payable                 | -             | -        | -        | -        | -             |
| <b>Total Current Liabilities</b>  | <b>370.34</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>370.34</b> |

**Other Liabilities**

|                                |                     |                     |                     |          |                     |
|--------------------------------|---------------------|---------------------|---------------------|----------|---------------------|
| Liability for Court Bonds      | 2,835.00            | -                   | -                   | -        | 2,835.00            |
| Deferred Revenue               | 2,454,200.03        | 1,695,262.70        | 1,370,802.35        | -        | 5,520,265.08        |
| Art Deposit Escrow             | 76,161.60           | -                   | -                   | -        | 76,161.60           |
| Bond Payment Liability         | -                   | -                   | 3,350,127.47        | -        | 3,350,127.47        |
| <b>Total Other Liabilities</b> | <b>2,533,196.63</b> | <b>1,695,262.70</b> | <b>4,720,929.82</b> | <b>-</b> | <b>8,949,389.15</b> |
| <b>Total Liabilities</b>       | <b>2,533,566.97</b> | <b>1,695,262.70</b> | <b>4,720,929.82</b> | <b>-</b> | <b>8,949,759.49</b> |

**Fund Balance**

|                                          |                     |                   |                     |                   |                     |
|------------------------------------------|---------------------|-------------------|---------------------|-------------------|---------------------|
| Fund Balance                             | 2,515,852.71        | 131,777.55        | 1,129,958.71        | 260,720.43        | 4,038,309.40        |
| Fund Balance - Debt Service              | 239,373.00          | -                 | 1,803,380.70        | -                 | 2,042,753.70        |
| Fund Balance - Reserved Future Projects  | -                   | -                 | -                   | -                 | -                   |
| Fund Balance - Reserved for Encumbrances | -                   | -                 | -                   | -                 | -                   |
| Fund Balance - Restricted Special Law    | -                   | -                 | -                   | -                 | -                   |
| Fund Balance - Building Reserve          | -                   | -                 | -                   | 30,000.00         | 30,000.00           |
| Fund Balance - Contingency               | -                   | -                 | 30,000.00           | -                 | 30,000.00           |
| Total Beginning Fund Balance             | 2,755,225.71        | 131,777.55        | 2,963,339.41        | 290,720.43        | 6,141,063.10        |
| Current Change in Fund Balance           | 1,124,826.47        | 213,785.70        | 1,939,983.93        | (103,220.02)      | 3,175,376.08        |
| <b>Total Fund Balance</b>                | <b>3,880,052.18</b> | <b>345,563.25</b> | <b>4,903,323.34</b> | <b>187,500.41</b> | <b>9,316,439.18</b> |

|                                             |                        |                        |                        |                      |                         |
|---------------------------------------------|------------------------|------------------------|------------------------|----------------------|-------------------------|
| <b>Total Liabilities &amp; Fund Balance</b> | <b>\$ 6,413,619.15</b> | <b>\$ 2,040,825.95</b> | <b>\$ 9,624,253.16</b> | <b>\$ 187,500.41</b> | <b>\$ 18,266,198.67</b> |
|---------------------------------------------|------------------------|------------------------|------------------------|----------------------|-------------------------|

**City of Roeland Park**  
**Schedule of Cash Balances**  
For the Period Ended 8/31/2019

SSCASH

|                                       |                                          | 2019 Activity          |                        |                                       | 8/31/2019<br>Balance   |
|---------------------------------------|------------------------------------------|------------------------|------------------------|---------------------------------------|------------------------|
|                                       |                                          | 12/31/2018<br>Balance  | Receipts               | Disbursements                         |                        |
| Cash & Cash Equivalents               |                                          |                        |                        | Transfers to/from<br>Trustee Accounts |                        |
| <b>Cash in US Bank - Pooled</b>       |                                          |                        |                        |                                       |                        |
| 1010                                  | General Fund                             | 34,271.65              | 4,477,531.61           | 4,511,691.74                          | 111.52                 |
| 1010                                  | Bond & Interest Fund                     | 23,856.93              | 548,039.46             | 564,470.00                            | 7,426.39               |
| 1010                                  | Aquatic Center Fund                      | -                      | 411,391.00             | 12,796.81                             | 398,594.19             |
| 1010                                  | Special Highway Fund                     | 11,542.63              | 137,050.53             | 54,648.72                             | 93,944.44              |
| 1010                                  | Special Street Fund 27 - A               | 5,047.55               | 796,531.55             | 794,374.06                            | 7,205.04               |
| 1010                                  | Community Center Fund Fund 27 - C        | 45,306.81              | 141,215.56             | 132,497.48                            | 54,024.89              |
| 1010                                  | Special Infrastructure 27 - D            | 4,065.42               | 886,131.00             | 813,035.51                            | 77,160.91              |
| 1010                                  | Equipment & Bldg Reserve Fund            | 31,707.25              | 93,372.75              | 119,432.14                            | 5,647.86               |
| 1010                                  | TIF 1A/B - Bella Roe / Walmart           | 766,272.89             | 744,384.10             | 1,350,516.75                          | 160,140.24             |
| 1010                                  | TDD #1 - Price Chopper                   | 40,716.28              | 185,862.00             | 400.00                                | 87,278.28              |
| 1010                                  | TDD #2 - Lowes                           | 34,343.87              | 82,834.03              | 400.00                                | 64,477.90              |
| 1010                                  | CID #1 - RP Shopping Center              | 27,297.11              | 231,013.38             | 130,000.00                            | 128,310.49             |
| 1010                                  | TIF 2A/D - McDonalds / City Hall         | 38,727.23              | 270,015.39             | 272,122.02                            | 36,620.60              |
| 1010                                  | TIF 2C - Valley State Bank               | 2,037.31               | 49,351.23              | 19.65                                 | 1,368.89               |
| 1010                                  | TIF 3C - Old Pool Area                   | 15,554.70              | 268,091.69             | 145,665.91                            | 137,980.48             |
| 1011                                  | TIF 1A/B - Bella Roe / Walmart           | 127,000.00             | -                      | -                                     | 127,000.00             |
| 1012                                  | Special Law Enforcement Fund             | 16,615.59              | 3,950.00               | 244.40                                | 20,321.19              |
| <b>Total Cash in US Bank - Pooled</b> |                                          | <b>1,224,363.22</b>    | <b>9,326,765.28</b>    | <b>8,902,315.19</b>                   | <b>1,407,613.31</b>    |
| <b>Cash in Other Accounts</b>         |                                          |                        |                        |                                       |                        |
| 1020                                  | Cash - Municipal Court                   | 1,555.00               | 15,642.00              | 13,362.00                             | 3,835.00               |
| 1040                                  | Cash - Pool Bond Reserve                 | 157,500.08             | -                      | -                                     | 157,500.08             |
| 1050                                  | Cash - Property Owners Association       | 18,415.51              | 33,847.00              | 31,940.00                             | 20,322.51              |
| 1090                                  | Petty Cash                               | 200.00                 | -                      | -                                     | 200.00                 |
| <b>Total Cash in Other Accounts</b>   |                                          | <b>177,670.59</b>      | <b>49,489.00</b>       | <b>45,302.00</b>                      | <b>181,857.59</b>      |
| <b>Restricted Cash</b>                |                                          |                        |                        |                                       |                        |
| 1060                                  | Cash - Debt Service - Revenue Restricted | 460.50                 | 506.23                 | 161,192.78                            | 31,893.81              |
| 1070                                  | Cash - Restricted Asset - Bond Reserve   | 13,099.35              | 153.61                 | -                                     | 12,333.10              |
| 1080                                  | Cash - With Trustee                      | 28.50                  | 101.36                 | 50,058.22                             | 71.64                  |
| <b>Total Restricted Cash</b>          |                                          | <b>13,588.35</b>       | <b>761.20</b>          | <b>211,251.00</b>                     | <b>44,298.55</b>       |
| <b>Total Cash</b>                     |                                          | <b>\$ 1,415,622.16</b> | <b>\$ 9,377,015.48</b> | <b>\$ 9,158,868.19</b>                | <b>\$ 1,633,769.45</b> |

**City of Roeland Park**  
**Statement of Activities**  
**Year-to-Date Fund Summary**  
**For the Period Ended 8/31/2019**

Fund Summary

|                               | <u>General</u>                | <u>Debt Service</u>         | <u>Special Revenue</u>        | <u>Capital Projects</u>       | <u>Total<br/>Funds</u>        |
|-------------------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|
| <b>Total Revenue</b>          | <b><u>\$ 4,515,017.30</u></b> | <b><u>\$ 553,255.70</u></b> | <b><u>\$ 3,236,663.23</u></b> | <b><u>\$ 95,749.22</u></b>    | <b><u>\$ 8,400,685.45</u></b> |
| <b>Total Expenditures</b>     | <b><u>\$ 3,390,190.83</u></b> | <b><u>\$ 339,470.00</u></b> | <b><u>\$ 1,695,273.49</u></b> | <b><u>\$ 198,969.24</u></b>   | <b><u>\$ 5,623,903.56</u></b> |
| <b>Change in Fund Balance</b> | <b><u>\$ 1,124,826.47</u></b> | <b><u>\$ 213,785.70</u></b> | <b><u>\$ 1,541,389.74</u></b> | <b><u>\$ (103,220.02)</u></b> | <b><u>\$ 2,776,781.89</u></b> |

**City of Roeland Park**  
**Statement of Activities**  
**For the Period Ended 8/31/2019**

I-All

|                 |                                    | Unencumbered  |              |                 |                   |                 |          |
|-----------------|------------------------------------|---------------|--------------|-----------------|-------------------|-----------------|----------|
|                 |                                    | Current Month | Year to Date | Budget to Date  | Variance          | Annual Budget   | % Used   |
| <b>Revenues</b> |                                    |               |              |                 |                   |                 |          |
| 4010            | Cash Carryforward                  | -             | -            | \$ 9,002,840.00 | \$ (9,002,840.00) | \$ 9,002,840.00 | 0.00%    |
| 4020            | Recreational Vehicle Tax           | -             | 695.01       | 440.00          | 255.01            | 660.00          | 105.30%  |
| 4021            | Commercial Vehicle Tax             | -             | -            | -               | -                 | -               | N/A      |
| 4030            | City/County Alcohol Tax Distrib    | -             | -            | -               | -                 | -               | N/A      |
| 4040            | Heavy Trucks Tax                   | -             | 702.94       | 848.00          | (145.06)          | 1,270.00        | 55.35%   |
| 4050            | Ad Valorem Tax                     | -             | 1,985,111.15 | 1,590,256.00    | 394,855.15        | 2,385,381.00    | 83.22%   |
| 4060            | Motor Vehicle Tax                  | -             | 121,001.85   | 164,448.00      | (43,446.15)       | 246,676.00      | 49.05%   |
| 4070            | Personal Property Tax - Delinquent | -             | -            | 168.00          | (168.00)          | 250.00          | 0.00%    |
| 4080            | Real Property Tax - Delinquent     | -             | (79,651.01)  | 8,000.00        | (87,651.01)       | 12,000.00       | -663.76% |
| 4110            | City/county Sales & Use Tax        | 245,774.08    | 1,799,450.00 | 1,841,904.00    | (42,454.00)       | 2,762,858.00    | 65.13%   |
| 4115            | Sales Tax 27B (280 Fund)           | 49,875.85     | 381,649.59   | 397,056.00      | (15,406.41)       | 595,586.00      | 64.08%   |
| 4120            | County Jail Tax                    | 13,349.00     | 103,218.13   | 108,272.00      | (5,053.87)        | 162,408.00      | 63.55%   |
| 4130            | Safety Sales Tax                   | 13,349.00     | 103,218.14   | 108,272.00      | (5,053.86)        | 162,408.00      | 63.55%   |
| 4135            | County Courthouse Sales Tax        | 13,348.94     | 104,836.58   | 108,408.00      | (3,571.42)        | 162,610.00      | 64.47%   |
| 4140            | Spec City/county Highway Fund      | -             | 136,788.07   | 122,656.00      | 14,132.07         | 183,980.00      | 74.35%   |
| 4141            | Alcohol Tax                        | -             | 17.50        | -               | 17.50             | -               | N/A      |
| 4145            | Transient Guest Tax                | -             | 6,101.90     | -               | 6,101.90          | -               | N/A      |
| 4150            | CARS Funding                       | -             | (0.04)       | 69,080.00       | (69,080.04)       | 103,620.00      | 0.00%    |
| 4155            | CDBG Grant                         | -             | -            | 111,064.00      | (111,064.00)      | 166,600.00      | 0.00%    |
| 4156            | FEMA Grant                         | -             | -            | -               | -                 | -               | N/A      |
| 4161            | Grants/Donations - Private         | -             | -            | -               | -                 | -               | N/A      |
| 4210            | Street Cutting Permit              | 2,690.00      | 7,525.00     | 5,000.00        | 2,525.00          | 7,500.00        | 100.33%  |
| 4215            | Building Permit                    | 4,476.00      | 41,055.35    | 40,000.00       | 1,055.35          | 60,000.00       | 68.43%   |
| 4220            | Electrical Permit                  | 404.00        | 2,852.00     | 2,000.00        | 852.00            | 3,000.00        | 95.07%   |
| 4225            | Mechanical Permit                  | 525.00        | 4,484.00     | 4,664.00        | (180.00)          | 7,000.00        | 64.06%   |
| 4230            | Plumbing Permit                    | 40.00         | 1,304.00     | 1,000.00        | 304.00            | 1,500.00        | 86.93%   |
| 4235            | Garage Sale Permit                 | 40.00         | 240.00       | 336.00          | (96.00)           | 500.00          | 48.00%   |
| 4240            | Sign Permit                        | -             | 1,093.00     | 664.00          | 429.00            | 1,000.00        | 109.30%  |
| 4245            | Cereal Malt Beverage License       | -             | (25.00)      | 216.00          | (241.00)          | 325.00          | -7.69%   |
| 4250            | Animal Licenses                    | 430.00        | 3,406.50     | 4,800.00        | (1,393.50)        | 7,200.00        | 47.31%   |
| 4255            | Home Occupational Licenses         | -             | 360.00       | 664.00          | (304.00)          | 1,000.00        | 36.00%   |
| 4260            | Rental Licenses                    | 1,971.51      | 20,421.98    | 23,336.00       | (2,914.02)        | 35,000.00       | 58.35%   |
| 4265            | Business Occupational Licenses     | 720.00        | 13,243.00    | 34,000.00       | (20,757.00)       | 51,000.00       | 25.97%   |
| 4275            | Program Fees                       | -             | -            | -               | -                 | -               | N/A      |
| 4276            | Internal Program Revenue           | -             | -            | -               | -                 | -               | N/A      |
| 4277            | Participation Fees                 | -             | -            | -               | -                 | -               | N/A      |
| 4278            | Advertising Sponsorship            | -             | -            | -               | -                 | -               | N/A      |
| 4279            | Facility Rental                    | -             | -            | -               | -                 | -               | N/A      |
| 4290            | Concession Revenue                 | -             | -            | -               | -                 | -               | N/A      |
| 4310            | Franchise Fee - Electric           | 62,821.28     | 157,116.61   | 197,304.00      | (40,187.39)       | 295,959.00      | 53.09%   |
| 4320            | Franchise Fee - Gas                | 4,033.20      | 100,821.19   | 79,456.00       | 21,365.19         | 119,180.00      | 84.60%   |
| 4330            | Franchise Fee - Telephone          | -             | 2,908.38     | 4,528.00        | (1,619.62)        | 6,790.00        | 42.83%   |
| 4340            | Franchise Fee - Telecable          | 15,684.97     | 59,521.81    | 62,728.00       | (3,206.19)        | 94,090.00       | 63.26%   |
| 4350            | Franchise Fee - Cellular           | -             | -            | 16.00           | (16.00)           | 25.00           | 0.00%    |

**City of Roeland Park**  
**Statement of Activities**  
**For the Period Ended 8/31/2019**

|                       |                                   | Unencumbered      |                     |                      |                       |                      |               |
|-----------------------|-----------------------------------|-------------------|---------------------|----------------------|-----------------------|----------------------|---------------|
|                       |                                   | Current Month     | Year to Date        | Budget to Date       | Variance              | Annual Budget        | % Used        |
| 4393                  | Bullet Proof Vest Grant           | 891.00            | 891.00              | 1,664.00             | (773.00)              | 2,500.00             | 35.64%        |
| 4410                  | Fine                              | 31,643.17         | 183,505.12          | 211,992.00           | (28,486.88)           | 317,988.00           | 57.71%        |
| 4415                  | Court Costs                       | -                 | 19,824.66           | 20,000.00            | (175.34)              | 30,000.00            | 66.08%        |
| 4420                  | State Fees                        | -                 | 16,597.50           | 17,336.00            | (738.50)              | 26,000.00            | 63.84%        |
| 4430                  | Bond Forfeits                     | 750.00            | 2,760.00            | 1,336.00             | 1,424.00              | 2,000.00             | 138.00%       |
| 4432                  | Spec. Law Enforcement Revenues    | -                 | 3,850.00            | 664.00               | 3,186.00              | 1,000.00             | 385.00%       |
| 4433                  | K9 Contributions                  | -                 | 100.00              | -                    | 100.00                | -                    | N/A           |
| 4510.4511             | Interest on Investment            | 20,823.28         | 100,391.61          | 59,344.00            | 41,047.61             | 89,025.00            | 112.77%       |
| 4530                  | Reimbursed Expense                | 64,380.35         | 66,418.89           | 9,336.00             | 57,082.89             | 14,000.00            | 474.42%       |
| 4531                  | SRO Reimbursement                 | 6,893.18          | 59,775.03           | -                    | 59,775.03             | -                    | N/A           |
| 4610                  | Special Assessments               | -                 | -                   | 2,336.00             | (2,336.00)            | 3,500.00             | 0.00%         |
| 4620                  | Special Assessments - Delinquent  | -                 | -                   | 240.00               | (240.00)              | 364.00               | 0.00%         |
| 4630                  | Storm Drainage RC12-013           | -                 | 58,925.89           | 42,168.00            | 16,757.89             | 63,250.00            | 93.16%        |
| 4640                  | Storm Drainage RC12-012           | -                 | 89,158.74           | 61,192.00            | 27,966.74             | 91,782.00            | 97.14%        |
| 4650                  | Storm Drainage RC12-014           | -                 | 103,493.81          | 71,032.00            | 32,461.81             | 106,551.00           | 97.13%        |
| 4710                  | Apt Tower Lease Payment           | 3,953.09          | 15,812.33           | 15,816.00            | (3.67)                | 23,718.00            | 66.67%        |
| 4713                  | Voicestream Wireless Payment      | 3,953.07          | 15,812.31           | 15,816.00            | (3.69)                | 23,718.00            | 66.67%        |
| 4716                  | Clearwire Tower Lease Paymt       | 3,953.06          | 15,812.24           | 15,816.00            | (3.76)                | 23,718.00            | 66.67%        |
| 4720                  | Plans & Spec's                    | -                 | 175.00              | 1,336.00             | (1,161.00)            | 2,000.00             | 8.75%         |
| 4725                  | Police Reports                    | 340.00            | 3,474.00            | 3,664.00             | (190.00)              | 5,500.00             | 63.16%        |
| 4730                  | Tax Increment Income              | 27,767.60         | 721,750.73          | 524,464.00           | 197,286.73            | 786,692.00           | 91.75%        |
| 4731                  | Tax Increment Income 3A           | -                 | 243,947.32          | -                    | 243,947.32            | -                    | N/A           |
| 4735                  | Tax Increment Income IB           | -                 | 363,041.64          | 399,464.00           | (36,422.36)           | 599,199.00           | 60.59%        |
| 4755                  | 3rd Floor Lease Revenues          | 3,536.75          | 14,071.73           | 28,016.00            | (13,944.27)           | 42,027.00            | 33.48%        |
| 4767                  | 1% for Art Contribution           | -                 | 36,378.23           | -                    | 36,378.23             | -                    | N/A           |
| 4768                  | Service Line Agreement            | -                 | 2,965.47            | 1,600.00             | 1,365.47              | 2,400.00             | 123.56%       |
| 4770                  | Solid Waste Agreement             | 165.00            | 548,672.86          | 378,000.00           | 170,672.86            | 567,000.00           | 96.77%        |
| 4775                  | RPPOA Contract                    | -                 | 31,875.00           | 21,248.00            | 10,627.00             | 31,875.00            | 100.00%       |
| 4780                  | Sale of Assets                    | -                 | 68.00               | 10,000.00            | (9,932.00)            | 15,000.00            | 0.45%         |
| 4787                  | RP Community Foundation Donations | 160.00            | 2,773.00            | 664.00               | 2,109.00              | 1,000.00             | 277.30%       |
| 4789                  | Transfer from General Fund        | (71,168.00)       | -                   | 81,336.00            | (81,336.00)           | 122,000.00           | 0.00%         |
| 4795                  | Miscellaneous                     | 25.00             | 192,143.39          | 37,183.00            | 154,960.39            | 38,847.00            | 494.62%       |
| 4824                  | Transfer from Public Works        | -                 | -                   | -                    | -                     | -                    | N/A           |
| 4830                  | Transfer from 27A Fund            | 7,500.00          | 157,500.00          | 200,000.00           | (42,500.00)           | 300,000.00           | 52.50%        |
| 4840                  | Transfer From General Fund        | 241,947.67        | 443,134.67          | 229,928.00           | 213,206.67            | 344,888.00           | 128.49%       |
| 4841                  | Transfer from PD/GF               | 5,860.00          | 46,880.00           | 46,880.00            | -                     | 70,320.00            | 66.67%        |
| 4842                  | Transfer from PW/GF               | (12,566.66)       | 16,133.34           | 32,800.00            | (16,666.66)           | 49,200.00            | 32.79%        |
| 4843                  | Transfer from Equip Reserve Fund  | 131,391.00        | 131,391.00          | -                    | 131,391.00            | -                    | N/A           |
| 4860                  | Transfer from Special Highway     | -                 | -                   | -                    | -                     | -                    | N/A           |
| 4865                  | Transfer from TIF Funds           | 15,541.67         | 15,541.67           | -                    | 15,541.67             | -                    | N/A           |
| 4870                  | Transfer from 27C                 | 7,562.64          | 7,562.64            | -                    | 7,562.64              | -                    | N/A           |
| <b>Total Revenues</b> |                                   | <b>924,835.70</b> | <b>8,812,076.45</b> | <b>16,637,095.00</b> | <b>(7,825,018.55)</b> | <b>20,437,278.00</b> | <b>43.12%</b> |
| <b>Expenditures</b>   |                                   |                   |                     |                      |                       |                      |               |
| 5101                  | Salaries - Regular                | 118,386.58        | 970,891.63          | 1,097,792.00         | (126,900.37)          | 1,646,700.00         | 58.96%        |
| 5102                  | Salaries-Overtime                 | 1,496.08          | 32,581.04           | 32,792.00            | (210.96)              | 49,200.00            | 66.22%        |
| 5103                  | Salaries - Elected Officials      | 3,910.00          | 30,005.00           | 31,280.00            | (1,275.00)            | 46,920.00            | 63.95%        |
| 5104                  | Salaries - Part-time              | 8,527.44          | 68,590.28           | 38,000.00            | 30,590.28             | 57,000.00            | 120.33%       |
| 5107                  | Salaries - Intern                 | -                 | -                   | 9,600.00             | (9,600.00)            | 14,400.00            | 0.00%         |
| 5108                  | Salaries - Judge                  | 1,250.00          | 10,000.00           | 10,000.00            | -                     | 15,000.00            | 66.67%        |
| 5109                  | Salaries - Prosecutor             | 1,041.67          | 8,333.36            | 8,336.00             | (2.64)                | 12,500.00            | 66.67%        |
| 5122                  | FICA City Contribution            | 10,022.24         | 84,126.44           | 93,336.00            | (9,209.56)            | 140,000.00           | 60.09%        |
| 5123                  | KPERS City Contribution           | 6,387.49          | 51,338.50           | 57,864.00            | (6,525.50)            | 86,800.00            | 59.15%        |
| 5124                  | Ks Unemployment Insurance         | 119.09            | 822.26              | 1,200.00             | (377.74)              | 1,800.00             | 45.68%        |
| 5125                  | Worker's Compensation             | -                 | 48,194.00           | 30,576.00            | 17,618.00             | 45,869.00            | 105.07%       |
| 5126                  | Health/Dental/Vision Insurance    | (3,779.89)        | 228,689.72          | 244,800.00           | (16,110.28)           | 367,200.00           | 62.28%        |



**City of Roeland Park**  
**Statement of Activities**  
**For the Period Ended 8/31/2019**

I-All

|      |                                   | Unencumbered  |              |                |             |               |                |
|------|-----------------------------------|---------------|--------------|----------------|-------------|---------------|----------------|
|      |                                   | Current Month | Year to Date | Budget to Date | Variance    | Annual Budget | % Used         |
| 5127 | Health Savings Account            | 3,701.62      | 29,514.72    | 33,904.00      | (4,389.28)  | 50,860.00     | 58.03%         |
| 5128 | 401A City Contribution            | 530.76        | 4,511.46     | 3,816.00       | 695.46      | 5,720.00      | 78.87%         |
| 5130 | City Paid Life/ST Disability      | -             | 4,602.24     | 6,600.00       | (1,997.76)  | 9,900.00      | 46.49%         |
| 5131 | KP&F City Contribution            | 12,866.54     | 114,276.77   | 128,664.00     | (14,387.23) | 193,000.00    | 59.21%         |
| 5133 | Wellness Incentive                | -             | -            | 1,336.00       | (1,336.00)  | 2,000.00      | 0.00%          |
| 5201 | Electric                          | 6,104.13      | 18,326.90    | 15,776.00      | 2,550.90    | 23,664.00     | 53.37.10       |
| 5202 | Telephone                         | 1,089.41      | 7,733.54     | 8,944.00       | (1,210.46)  | 13,420.00     | 57.63%         |
| 5203 | Printing & Advertising            | (865.16)      | 1,366.89     | 2,496.00       | (1,129.11)  | 3,750.00      | 36.45%         |
| 5204 | Legal Printing                    | 116.82        | (1,092.55)   | 2,000.00       | (3,092.55)  | 3,000.00      | -36.42%        |
| 5205 | Postage & Mailing Permits         | 1,382.57      | 1,557.02     | 4,064.00       | (2,506.98)  | 6,100.00      | 25.52%         |
| 5206 | Travel Expense & Training         | 2,768.77      | 12,702.00    | 21,528.00      | (8,826.00)  | 32,310.00     | 39.31%         |
| 5207 | Medical Expense & Drug Testing    | 60.50         | 724.00       | 1,200.00       | (476.00)    | 1,800.00      | 40.22%         |
| 5208 | Newsletter                        | 1,688.87      | 6,662.16     | 6,264.00       | 398.16      | 9,400.00      | 70.87%         |
| 5209 | Professional Services             | 21,695.66     | 132,901.18   | 192,496.00     | (59,594.82) | 288,750.00    | 46.03%         |
| 5210 | Maintenance & Repair Building     | 961.76        | 15,404.31    | 19,136.00      | (3,731.69)  | 28,700.00     | 53.67%         |
| 5211 | Maintenance & Repair Equipment    | 5,046.95      | 19,350.00    | 29,800.00      | (10,450.00) | 44,700.00     | 43.29%         |
| 5212 | Utility Asst                      | -             | -            | 10,000.00      | (10,000.00) | 15,000.00     | 0.00%          |
| 5213 | Audit Fees                        | 175.00        | 29,250.00    | 28,336.00      | 914.00      | 42,500.00     | 68.82%         |
| 5214 | Other Contracted Services         | 12,004.75     | 74,022.90    | 105,576.00     | (31,553.10) | 158,370.00    | 46.74%         |
| 5215 | City Attorney                     | 21,347.54     | 70,345.67    | 63,240.00      | 7,105.67    | 94,860.00     | 74.16%         |
| 5217 | Public Art                        | -             | 6,307.00     | -              | 6,307.00    | -             | (6,307.00) N/A |
| 5218 | IT & Communication                | -             | 13,587.21    | 17,904.00      | (4,316.79)  | 26,850.00     | 50.60%         |
| 5219 | Meeting Expense                   | 14.77         | 515.48       | 1,864.00       | (1,348.52)  | 2,800.00      | 2.284.52       |
| 5220 | Street Light Repair & Maintenance | 7,308.02      | 26,905.59    | 26,664.00      | 241.59      | 40,000.00     | 13,094.41      |
| 5222 | Traffic Signal Expense            | 31,185.61     | 123,152.96   | 127,496.00     | (4,343.04)  | 191,246.00    | 68,093.04      |
| 5223 | Pool Management Fee               | -             | -            | -              | -           | -             | - N/A          |
| 5224 | Laundry Service                   | 130.30        | 772.30       | 2,064.00       | (1,291.70)  | 3,100.00      | 2,327.70       |
| 5225 | Mental Health Co-responder        | 3,752.58      | 3,752.58     | -              | 3,752.58    | -             | (3,752.58) N/A |
| 5226 | Car Allowance                     | 450.00        | 3,600.00     | 3,600.00       | -           | 5,400.00      | 1,800.00       |
| 5227 | Prisoner Care                     | 1,295.00      | 1,960.00     | 3,336.00       | (1,376.00)  | 5,000.00      | 3,040.00       |
| 5228 | Fees Due State of Kansas          | 2,472.00      | 16,595.00    | 18,000.00      | (1,405.00)  | 27,000.00     | 10,405.00      |
| 5230 | Art Commissioner                  | 100.00        | 800.00       | 800.00         | -           | 1,200.00      | 400.00         |
| 5232 | United Community Services         | -             | 4,371.00     | 2,912.00       | 1,459.00    | 4,371.00      | - 100.00%      |
| 5233 | JoCo Home Repair - Minor          | -             | 9,000.00     | 6,000.00       | 3,000.00    | 9,000.00      | - 100.00%      |
| 5234 | JoCo Home Repair - Major          | -             | 8,000.00     | 5,336.00       | 2,664.00    | 8,000.00      | - 100.00%      |
| 5235 | Disposal Fees                     | 220.00        | 6,681.52     | 6,664.00       | 17.52       | 10,000.00     | 3,318.48       |
| 5236 | Community Policing                | 104.30        | 124.30       | 336.00         | (211.70)    | 500.00        | 375.70         |
| 5237 | Community Events                  | 1,693.50      | 1,876.90     | 2,664.00       | (787.10)    | 4,000.00      | 2,123.10       |
| 5238 | Animal Control                    | -             | 33,100.00    | 31,416.00      | 1,684.00    | 47,125.00     | 14,025.00      |
| 5240 | Equipment Rental                  | -             | -            | 336.00         | (336.00)    | 500.00        | 500.00         |
| 5243 | Contractual Reimbursement         | -             | -            | -              | -           | -             | - N/A          |
| 5248 | Strategic Planning                | -             | -            | 2,000.00       | (2,000.00)  | 3,000.00      | 3,000.00       |
| 5249 | Branding Implementation           | -             | 1,483.48     | -              | 1,483.48    | -             | (1,483.48) N/A |
| 5250 | Insurance & Surety Bonds          | -             | 47,396.32    | 35,152.00      | 12,244.32   | 52,725.00     | 5,328.68       |
| 5251 | Mayor Expenses                    | 500.00        | 444.19       | 670.00         | (225.81)    | 1,000.00      | 555.81         |
| 5252 | City Elections                    | -             | 6,462.65     | 10,000.00      | (3,537.35)  | 15,000.00     | 8,537.35       |
| 5253 | Public Relations                  | 470.00        | 2,594.88     | 2,600.00       | (5.12)      | 3,900.00      | 1,305.12       |
| 5254 | Miscellaneous Charges             | 5.00          | 119.25       | 1,472.00       | (1,352.75)  | 2,200.00      | 2,080.75       |
| 5255 | JoCo Management Fee               | -             | 41,858.00    | 55,760.00      | (13,902.00) | 83,640.00     | 41,782.00      |
| 5256 | Committee Funds                   | 275.99        | 1,978.55     | 3,336.00       | (1,357.45)  | 5,000.00      | 3,021.45       |
| 5257 | Property Tax Payments             | -             | -            | 8,104.00       | (8,104.00)  | 12,155.00     | 12,155.00      |
| 5258 | RPPOA Common Area Expenses        | -             | 65,722.00    | 54,443.00      | 11,279.00   | 65,722.00     | - 100.00%      |
| 5259 | Traffic Control Signs             | 106.42        | 916.11       | 3,000.00       | (2,083.89)  | 4,500.00      | 3,583.89       |
| 5260 | Vehicle Maintenance               | 1,580.23      | 15,785.55    | 10,736.00      | 5,049.55    | 16,100.00     | 314.45         |
| 5262 | Grounds Maintenance               | 490.08        | 10,850.65    | 17,664.00      | (6,813.35)  | 26,500.00     | 15,649.35      |

**City of Roeland Park**  
**Statement of Activities**  
**For the Period Ended 8/31/2019**

I-All

|      |                                       |               |              |                |              |               | Unencumbered |          |
|------|---------------------------------------|---------------|--------------|----------------|--------------|---------------|--------------|----------|
|      |                                       | Current Month | Year to Date | Budget to Date | Variance     | Annual Budget | Balance      | % Used   |
| 5263 | Tree Maintenance                      | 115.00        | 44,132.09    | 16,664.00      | 27,468.09    | 25,000.00     | (19,132.09)  | 176.53%  |
| 5264 | Grounds Improvements                  | -             | -            | 1,000.00       | (1,000.00)   | 1,500.00      | 1,500.00     | 0.00%    |
| 5265 | Computer System R&M                   | -             | -            | 3,336.00       | (3,336.00)   | 5,000.00      | 5,000.00     | 0.00%    |
| 5266 | Computer Software                     | 7,775.00      | 29,580.08    | 17,008.00      | 12,572.08    | 25,513.00     | (4,067.08)   | 115.94%  |
| 5267 | Employee Related Expenses             | 110.95        | 1,688.29     | 4,664.00       | (2,975.71)   | 7,000.00      | 5,311.71     | 24.12%   |
| 5271 | Composte Bin Rebate Program           | -             | 414.95       | 2,000.00       | (1,585.05)   | 3,000.00      | 2,585.05     | 13.83%   |
| 5272 | Solid Waste Contract                  | 86,347.64     | 345,385.56   | 346,000.00     | (614.44)     | 519,000.00    | 173,614.44   | 66.55%   |
| 5273 | Neighbors Helping Neighbors           | -             | -            | 6,664.00       | (6,664.00)   | 10,000.00     | 10,000.00    | 0.00%    |
| 5282 | Property Rebate Program               | -             | 2,865.65     | 10,000.00      | (7,134.35)   | 15,000.00     | 12,134.35    | 19.10%   |
| 5283 | RP Community Foundation Grant Expense | 2,203.78      | 32,165.59    | 664.00         | 31,501.59    | 1,000.00      | (31,165.59)  | 3216.56% |
| 5285 | Pool Operations                       | -             | 635.00       | 100,000.00     | (99,365.00)  | 150,000.00    | 149,365.00   | 0.42%    |
| 5287 | Water                                 | 907.45        | 4,472.09     | 5,336.00       | (863.91)     | 8,000.00      | 3,527.91     | 55.90%   |
| 5288 | Waste Water                           | 225.36        | 1,612.25     | 3,272.00       | (1,659.75)   | 4,900.00      | 3,287.75     | 32.90%   |
| 5289 | Natural Gas                           | 51.73         | 4,824.62     | 5,864.00       | (1,039.38)   | 8,800.00      | 3,975.38     | 54.83%   |
| 5290 | Street Light Electric                 | 1,722.06      | 11,439.13    | 16,256.00      | (4,816.87)   | 24,378.00     | 12,938.87    | 46.92%   |
| 5292 | Fireworks                             | 156.00        | 2,127.67     | 1,664.00       | 463.67       | 2,500.00      | 372.33       | 85.11%   |
| 5301 | Office Supplies                       | 343.12        | 4,183.79     | 5,136.00       | (952.21)     | 7,700.00      | 3,516.21     | 54.33%   |
| 5302 | Motor Fuels & Lubricants              | 3,990.50      | 27,489.30    | 24,480.00      | 3,009.30     | 36,711.00     | 9,221.70     | 74.88%   |
| 5303 | Sand and Salt                         | -             | 25,718.47    | 16,664.00      | 9,054.47     | 25,000.00     | (718.47)     | 102.87%  |
| 5304 | Janitorial Supplies                   | 271.61        | 1,587.53     | 1,840.00       | (252.47)     | 2,750.00      | 1,162.47     | 57.73%   |
| 5305 | Dues, Subscriptions, & Books          | 1,286.00      | 14,690.64    | 15,912.00      | (1,221.36)   | 23,860.00     | 9,169.36     | 61.57%   |
| 5306 | Materials                             | 215.70        | 2,330.51     | 3,336.00       | (1,005.49)   | 5,000.00      | 2,669.49     | 46.61%   |
| 5307 | Other Commodities                     | 838.03        | 4,255.74     | 9,000.00       | (4,744.26)   | 13,500.00     | 9,244.26     | 31.52%   |
| 5308 | Clothing & Uniforms                   | 518.30        | 7,490.76     | 9,696.00       | (2,205.24)   | 14,550.00     | 7,059.24     | 51.48%   |
| 5309 | Amunition                             | -             | -            | 1,664.00       | (1,664.00)   | 2,500.00      | 2,500.00     | 0.00%    |
| 5310 | Training Supplies                     | -             | -            | 336.00         | (336.00)     | 500.00        | 500.00       | 0.00%    |
| 5311 | Pool Equipment                        | -             | -            | -              | -            | -             | -            | N/A      |
| 5315 | Machinery & Auto Equipment            | 5,032.24      | 67,578.24    | 79,680.00      | (12,101.76)  | 119,520.00    | 51,941.76    | 56.54%   |
| 5316 | K9 Expenses                           | 224.40        | 244.40       | -              | 244.40       | -             | (244.40)     | N/A      |
| 5317 | Special Law Enforcement Expenses      | -             | -            | -              | -            | -             | -            | N/A      |
| 5318 | Tools                                 | 22.36         | 561.80       | 1,664.00       | (1,102.20)   | 2,500.00      | 1,938.20     | 22.47%   |
| 5319 | Rain Barrel Reimbursement             | -             | -            | -              | -            | -             | -            | N/A      |
| 5403 | Office Equipment                      | -             | 226.56       | 3,000.00       | (2,773.44)   | 4,500.00      | 4,273.44     | 5.03%    |
| 5410 | Technology Upgrades                   | -             | 5,348.00     | -              | 5,348.00     | -             | (5,348.00)   | N/A      |
| 5421 | Street Maintenance                    | 39,720.44     | 246,355.87   | 216,664.00     | 29,691.87    | 325,000.00    | 78,644.13    | 75.80%   |
| 5425 | Other Capital Outlay                  | 80.00         | 17,195.44    | 20,936.00      | (3,740.56)   | 31,400.00     | 14,204.56    | 54.76%   |
| 5430 | Residential Street Reconstruction     | 553.10        | 8,160.41     | 356,000.00     | (347,839.59) | 534,000.00    | 525,839.59   | 1.53%    |
| 5442 | Building Improvement                  | -             | 10,825.00    | 59,664.00      | (48,839.00)  | 89,500.00     | 78,675.00    | 12.09%   |
| 5454 | Sidewalk Improvements                 | -             | 24,153.00    | 16,664.00      | 7,489.00     | 25,000.00     | 847.00       | 96.61%   |
| 5457 | CARS 2020 - Roe                       | 28,715.53     | 354,837.02   | 163,336.00     | 191,501.02   | 245,000.00    | (109,837.02) | 144.83%  |
| 5458 | CARS 2018                             | 244,271.19    | 190,362.42   | -              | 190,362.42   | -             | (190,362.42) | N/A      |
| 5459 | CARS 2019                             | 77,741.16     | 147,172.10   | 127,336.00     | 19,836.10    | 191,000.00    | 43,827.90    | 77.05%   |
| 5460 | CARS 2022 - 53rd Street               | -             | -            | -              | -            | -             | -            | N/A      |
| 5461 | CARS 2022 - Nall Avenue               | -             | -            | -              | -            | -             | -            | N/A      |
| 5462 | CARS 2023                             | -             | -            | -              | -            | -             | -            | N/A      |
| 5469 | Stormwater Maintenance                | -             | 20,009.23    | 113,336.00     | (93,326.77)  | 170,000.00    | 149,990.77   | 11.77%   |
| 5470 | Park Maint/Infrastructure             | 3,970.08      | 54,010.65    | 42,664.00      | 11,346.65    | 64,000.00     | 9,989.35     | 84.39%   |
| 5472 | R Park Development Plan               | -             | 13,691.10    | -              | 13,691.10    | -             | (13,691.10)  | N/A      |
| 5498 | CDBG - 2019                           | 597.70        | 11,922.54    | 130,664.00     | (118,741.46) | 196,000.00    | 184,077.46   | 6.08%    |
| 5601 | Bond Principal                        | -             | 199,902.39   | 112,952.00     | 86,950.39    | 169,419.00    | (30,483.39)  | 117.99%  |
| 5602 | Bond Interest                         | -             | 4,301.26     | 182,936.00     | (178,634.74) | 274,408.00    | 270,106.74   | 1.57%    |
| 5608 | Principal Bonds - 2010-1              | -             | -            | 186,664.00     | (186,664.00) | 280,000.00    | 280,000.00   | 0.00%    |
| 5609 | Interest Bonds - 2010-1               | -             | 16,707.50    | 22,280.00      | (5,572.50)   | 33,415.00     | 16,707.50    | 50.00%   |
| 5614 | Bond Principal 2014-1                 | -             | -            | 74,664.00      | (74,664.00)  | 112,000.00    | 112,000.00   | 0.00%    |
| 5615 | Bond Interest 2014-1                  | -             | 2,542.50     | 3,392.00       | (849.50)     | 5,088.00      | 2,545.50     | 49.97%   |
| 5628 | Principal Bonds - 2011-2              | -             | -            | 56,664.00      | (56,664.00)  | 85,000.00     | 85,000.00    | 0.00%    |
| 5629 | Interest Bonds - 2011-2               | -             | 11,903.75    | 15,872.00      | (3,968.25)   | 23,808.00     | 11,904.25    | 50.00%   |

**City of Roeland Park**  
**Statement of Activities**  
**For the Period Ended 8/31/2019**

I-All

|                               |                                  | Unencumbered           |                        |                        |                          |                        |                        |
|-------------------------------|----------------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------|------------------------|
|                               |                                  | Current Month          | Year to Date           | Budget to Date         | Variance                 | Annual Budget          | % Used                 |
| 5644                          | Principal Bonds - 2012-1         | -                      | -                      | 246,672.00             | (246,672.00)             | 370,000.00             | 0.00%                  |
| 5645                          | Interest Bonds - 2012-1          | -                      | 12,303.75              | 16,408.00              | (4,104.25)               | 24,608.00              | 50.00%                 |
| 5707                          | Fututre CIP - Building Reserve   | -                      | -                      | 20,256.00              | (20,256.00)              | 30,388.00              | 0.00%                  |
| 5721                          | CID #1 Expenses                  | -                      | -                      | 2,005,336.00           | (2,005,336.00)           | 3,008,000.00           | 0.00%                  |
| 5725                          | Property Tax Reduction Appeals   | -                      | -                      | 102,840.00             | (102,840.00)             | 154,250.00             | 0.00%                  |
| 5751                          | TIF Fund Expenditure             | -                      | -                      | 230,136.00             | (230,136.00)             | 345,200.00             | 0.00%                  |
| 5801                          | Transfer of Funds                | 131,391.00             | 131,391.00             | -                      | 131,391.00               | -                      | N/A                    |
| 5802                          | Transfer to General Fund         | 23,104.31              | 23,104.31              | -                      | 23,104.31                | -                      | N/A                    |
| 5818                          | Transfer to Bond & Interest Fund | (7,082.00)             | 157,500.00             | 216,000.00             | (58,500.00)              | 325,000.00             | 48.46%                 |
| 5821                          | Transfer to TIF 2                | (71,168.00)            | -                      | 81,336.00              | (81,336.00)              | 122,000.00             | 0.00%                  |
| 5823                          | Transfer to 27D                  | 16,666.67              | 133,334.67             | 133,336.00             | (1.33)                   | 200,000.00             | 66.67%                 |
| 5825                          | Transfer to Equip Reserve Fund   | (46,843.66)            | 92,813.34              | 159,608.00             | (66,794.66)              | 239,408.00             | 38.77%                 |
| 5826                          | Transfer to Aquatic Fund         | 280,000.00             | 280,000.00             | -                      | 280,000.00               | -                      | N/A                    |
| 5834                          | Bond Principal - 2010-1          | 280,000.00             | 280,000.00             | -                      | 280,000.00               | -                      | N/A                    |
| 5835                          | Bond Interest - 2010-1           | 16,707.50              | 16,707.50              | -                      | 16,707.50                | -                      | N/A                    |
| <b>Total Expenditures</b>     |                                  | <b>1,420,973.24</b>    | <b>5,636,700.37</b>    | <b>8,630,497.00</b>    | <b>(2,993,796.63)</b>    | <b>12,930,801.00</b>   | <b>43.59%</b>          |
| <b>Change in Fund Balance</b> |                                  | <b>\$ (496,137.54)</b> | <b>\$ 3,175,376.08</b> | <b>\$ 8,006,598.00</b> | <b>\$ (4,831,221.92)</b> | <b>\$ 7,506,477.00</b> | <b>\$ 4,331,100.92</b> |

**City of Roeland Park**  
**Statement of Activities - BY FUND**  
**For the Period Ended 8/31/2019**

I-By Fund

|            |                                  | 2019 Approved          |                        |                        |                        |                        |               |
|------------|----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
|            |                                  | Current Month          | Year to Date           | Budget to Date         | Budget                 | 2019 Projected         | % Used        |
| 4000..4999 | <b>Revenues</b>                  |                        |                        |                        |                        |                        |               |
| 000..115   | General Fund                     | \$ 312,077.83          | \$ 4,515,017.30        | \$ 3,937,304.00        | \$ 5,905,946.00        | \$ 5,934,364.00        | 76.08%        |
| 200        | Bond & Interest Fund             | (5,650.39)             | 553,255.70             | 642,962.00             | 902,202.00             | 712,380.00             | 77.66%        |
| 220        | Aquatic Center Fund              | 411,391.00             | 411,391.00             | -                      | -                      | 704,807.00             | 58.37%        |
| 250        | Special Highway Fund             | 262.46                 | 138,118.05             | 352,606.00             | 413,930.00             | 183,980.00             | 75.07%        |
| 270        | Special Street Fund 27 - A       | 145,084.71             | 682,253.27             | 938,813.00             | 1,293,422.00           | 1,154,664.00           | 59.09%        |
| 290        | Special Street Fund 27 - C       | 17,202.20              | 130,209.73             | 678,050.00             | 744,394.00             | 192,154.00             | 67.76%        |
| 300        | Special Infrastructure 27 - D    | 51,393.73              | 393,706.96             | 1,031,104.00           | 1,285,984.00           | 823,304.00             | 47.82%        |
| 360        | Equipment & Bldg Reserve Fund    | (46,284.25)            | 95,749.22              | 388,516.00             | 468,316.00             | 1,342,274.00           | 7.13%         |
| 370        | TIF 1A/B - Bella Roe / Walmart   | 1,699.90               | 748,070.51             | 1,618,197.00           | 1,961,349.00           | 401,076.00             | 186.52%       |
| 400        | TDD#1 - Price Chopper            | 20,888.19              | 186,466.25             | 2,908,267.00           | 3,001,903.00           | 255,027.00             | 73.12%        |
| 410        | TDD#2 - Lowes                    | 14,889.30              | 82,990.78              | 782,138.00             | 829,304.00             | 120,999.00             | 68.59%        |
| 420        | CID #1 - RP Shopping Center      | 43,898.25              | 247,711.08             | 2,908,564.00           | 3,014,307.00           | 327,461.00             | 75.65%        |
| 450        | TIF 2A/D - McDonalds / City Hall | (42,497.07)            | 274,296.32             | 335,052.00             | 477,226.00             | 249,344.00             | 110.01%       |
| 480        | TIF 2C - Valley State Bank       | -                      | 49,351.43              | 23,616.00              | 35,425.00              | 49,237.00              | 100.23%       |
| 510        | TIF 3C - Old Pool Area           | 479.84                 | 269,641.85             | 39,583.00              | 51,247.00              | 280,400.00             | 96.16%        |
| 520        | Property Owners Association      | -                      | 33,847.00              | 52,323.00              | 52,323.00              | 33,847.00              | 100.00%       |
|            | <b>Total Revenues</b>            | <b>924,835.70</b>      | <b>8,812,076.45</b>    | <b>16,637,095.00</b>   | <b>20,437,278.00</b>   | <b>12,765,318.00</b>   | <b>69.03%</b> |
| 5000..9999 | <b>Expenditures</b>              |                        |                        |                        |                        |                        |               |
| 000..115   | General Fund                     | 542,694.85             | 3,390,190.83           | 3,879,278.00           | 5,819,904.00           | 5,884,853.00           | 57.61%        |
| 200        | Bond & Interest Fund             | 296,707.50             | 339,470.00             | 524,584.00             | 786,879.00             | 764,129.00             | 44.43%        |
| 220        | Aquatic Center Fund              | 11,851.84              | 12,796.81              | -                      | -                      | 603,025.00             | 2.12%         |
| 250        | Special Highway Fund             | (24,153.00)            | 25,718.47              | 76,312.00              | 114,480.00             | 89,480.00              | 28.74%        |
| 270        | Special Street Fund 27 - A       | 478,934.39             | 692,021.28             | 750,000.00             | 1,125,000.00           | 1,335,247.00           | 51.83%        |
| 290        | Special Street Fund 27 - C       | 12,575.00              | 80,344.39              | 119,024.00             | 178,548.00             | 226,252.00             | 35.51%        |
| 300        | Special Infrastructure 27 - D    | 44,288.22              | 384,298.53             | 389,992.00             | 585,000.00             | 748,693.00             | 51.33%        |
| 360        | Equipment & Bldg Reserve Fund    | 125,598.24             | 198,969.24             | 159,600.00             | 239,408.00             | 286,611.00             | 69.42%        |
| 370        | TIF 1A/B - Bella Roe / Walmart   | (90,934.47)            | 95,516.75              | 96,000.00              | 143,990.00             | 541,017.00             | 17.66%        |
| 400        | TDD#1 - Price Chopper            | 333.33                 | 120,319.64             | 187,272.00             | 280,908.00             | 20,000.00              | 601.60%       |
| 410        | TDD#2 - Lowes                    | 166.67                 | 41,722.36              | 94,336.00              | 141,494.00             | 9,000.00               | 463.58%       |
| 420        | CID #1 - RP Shopping Center      | -                      | -                      | 2,005,336.00           | 3,008,000.00           | -                      | N/A           |
| 450        | TIF 2A/D - McDonalds / City Hall | 22,801.67              | 172,224.02             | 293,272.00             | 439,890.00             | 443,577.00             | 38.83%        |
| 480        | TIF 2C - Valley State Bank       | -                      | 50,028.65              | 23,616.00              | 35,425.00              | 50,853.00              | 98.38%        |
| 510        | TIF 3C - Old Pool Area           | 104.00                 | 1,139.40               | -                      | -                      | 120,000.00             | 0.95%         |
| 520        | Property Owners Association      | 5.00                   | 31,940.00              | 31,875.00              | 31,875.00              | 31,875.00              | 100.20%       |
|            | <b>Total Expenditures</b>        | <b>1,420,973.24</b>    | <b>5,636,700.37</b>    | <b>8,630,497.00</b>    | <b>12,930,801.00</b>   | <b>11,154,612.00</b>   | <b>50.53%</b> |
|            | <b>Change in Fund Balance</b>    | <b>\$ (496,137.54)</b> | <b>\$ 3,175,376.08</b> | <b>\$ 8,006,598.00</b> | <b>\$ 7,506,477.00</b> | <b>\$ 1,610,706.00</b> |               |

**City of Roeland Park**  
**Statement of Activities - General Operating Fund**  
**For the Period Ended 8/31/2019**

|                                  |      |                                        | Current Month     | Year-to-Date        | Budget to Date      | 2019 Approved<br>Budget | 2019 Projected      | Projected vs. YTD<br>Actual | %<br>Remaining |
|----------------------------------|------|----------------------------------------|-------------------|---------------------|---------------------|-------------------------|---------------------|-----------------------------|----------------|
| <b>Revenues</b>                  |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 100..108                         | 4010 | Cash Carryforward                      | \$ -              | \$ -                | \$ -                | \$ -                    |                     | \$ -                        | N/A            |
| <b>Taxes</b>                     |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..108                         | 4050 | Ad Valorem Tax                         | -                 | 1,851,870.77        | 1,483,536.00        | 2,225,307.00            | 1,891,320.36        | 39,449.59                   | 97.91%         |
| 101..108                         | 4070 | Personal Property Tax - Delinquent     | -                 | -                   | 136.00              | 200.00                  | 200.00              | 200.00                      | 0.00%          |
| 101..108                         | 4080 | Real Property Tax - Delinquent         | -                 | (69,733.88)         | 6,664.00            | 10,000.00               | 10,000.00           | 79,733.88                   | -697.34%       |
|                                  |      | <b>Total Taxes</b>                     | <u>-</u>          | <u>1,782,136.89</u> | <u>1,490,336.00</u> | <u>2,235,507.00</u>     | <u>1,901,520.36</u> | <u>119,383.47</u>           | <u>93.72%</u>  |
| <b>Franchise Taxes</b>           |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..108                         | 4310 | Franchise Fee - Electric               | 62,821.28         | 157,116.61          | 197,304.00          | 295,959.00              | 262,733.90          | 105,617.29                  | 59.80%         |
| 101..108                         | 4320 | Franchise Fee - Gas                    | 4,033.20          | 100,821.19          | 79,456.00           | 119,180.00              | 119,180.00          | 18,358.81                   | 84.60%         |
| 101..108                         | 4330 | Franchise Fee - Telephone              | -                 | 2,908.38            | 4,528.00            | 6,790.00                | 5,445.39            | 2,537.01                    | 53.41%         |
| 101..108                         | 4340 | Franchise Fee - Telecable              | 15,684.97         | 59,521.81           | 62,728.00           | 94,090.00               | 78,115.20           | 18,593.39                   | 76.20%         |
| 101..108                         | 4350 | Franchise Fee - Cellular               | -                 | -                   | 16.00               | 25.00                   | 25.00               | 25.00                       | 0.00%          |
|                                  |      | <b>Total Franchise Taxes</b>           | <u>82,539.45</u>  | <u>320,367.99</u>   | <u>344,032.00</u>   | <u>516,044.00</u>       | <u>465,499.49</u>   | <u>145,131.50</u>           | <u>68.82%</u>  |
| <b>Special Assessments</b>       |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..115                         | 4610 | Special Assessments                    | -                 | -                   | 2,336.00            | 3,500.00                | -                   | -                           | N/A            |
| 101..108                         | 4770 | Solid Waste Agreement                  | 165.00            | 548,672.86          | 378,000.00          | 567,000.00              | 561,000.00          | 12,327.14                   | 97.80%         |
|                                  |      | <b>Total Special Assessments</b>       | <u>165.00</u>     | <u>548,672.86</u>   | <u>380,336.00</u>   | <u>570,500.00</u>       | <u>561,000.00</u>   | <u>12,327.14</u>            | <u>97.80%</u>  |
| <b>Intergovernmental Revenue</b> |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..108                         | 4020 | Recreational Vehicle Tax               | -                 | 620.76              | 400.00              | 600.00                  | 600.00              | (20.76)                     | 103.46%        |
| 101..108                         | 4021 | Commercial Vehicle Tax                 | -                 | -                   | -                   | -                       | -                   | -                           | N/A            |
| 101..108                         | 4030 | City/County Alcohol Tax Distrib        | -                 | -                   | -                   | -                       | -                   | -                           | N/A            |
| 101..108                         | 4040 | Heavy Trucks Tax                       | -                 | 603.98              | 752.00              | 1,130.00                | 600.00              | (3.98)                      | 100.66%        |
| 101..108                         | 4060 | Motor Vehicle Tax                      | -                 | 106,968.90          | 148,448.00          | 222,676.00              | 218,222.48          | 111,253.58                  | 49.02%         |
| 101..108                         | 4110 | City/county Sales & Use Tax            | 53,395.91         | 412,871.28          | 425,680.00          | 638,518.00              | 624,660.58          | 211,789.30                  | 66.10%         |
| 101..108                         | 4115 | Sales Tax 27B (280 Fund)               | 49,875.85         | 381,649.59          | 397,056.00          | 595,586.00              | 564,142.68          | 182,493.09                  | 67.65%         |
| 101..108                         | 4120 | County Jail Tax                        | 13,349.00         | 103,218.13          | 108,272.00          | 162,408.00              | 156,165.84          | 52,947.71                   | 66.10%         |
| 101..108                         | 4130 | Safety Sales Tax                       | 13,349.00         | 103,218.14          | 108,272.00          | 162,408.00              | 156,165.84          | 52,947.70                   | 66.10%         |
| 101..108                         | 4141 | Alcohol Tax                            | -                 | 17.50               | -                   | -                       | 50.00               | 32.50                       | 35.00%         |
| 101..108                         | 4145 | Transient Guest Tax                    | -                 | 6,101.90            | -                   | -                       | -                   | (6,101.90)                  | N/A            |
| 101..108                         | 4156 | FEMA Grant                             | -                 | -                   | -                   | -                       | -                   | -                           | N/A            |
|                                  |      | <b>Total Intergovernmental Revenue</b> | <u>129,969.76</u> | <u>1,115,270.18</u> | <u>1,188,880.00</u> | <u>1,783,326.00</u>     | <u>1,720,607.42</u> | <u>605,337.24</u>           | <u>64.82%</u>  |
| <b>Licenses and Permits</b>      |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..108                         | 4210 | Street Cutting Permit                  | 2,690.00          | 7,525.00            | 5,000.00            | 7,500.00                | 7,500.00            | (25.00)                     | 100.33%        |
| 101..108                         | 4215 | Building Permit                        | 4,476.00          | 41,055.35           | 40,000.00           | 60,000.00               | 60,000.00           | 18,944.65                   | 68.43%         |
| 101..108                         | 4220 | Electrical Permit                      | 404.00            | 2,852.00            | 2,000.00            | 3,000.00                | 2,500.00            | (352.00)                    | 114.08%        |
| 101..108                         | 4225 | Mechanical Permit                      | 525.00            | 4,484.00            | 4,664.00            | 7,000.00                | 5,500.00            | 1,016.00                    | 81.53%         |
| 101..108                         | 4230 | Plumbing Permit                        | 40.00             | 1,304.00            | 1,000.00            | 1,500.00                | 2,000.00            | 696.00                      | 65.20%         |
| 101..108                         | 4235 | Garage Sale Permit                     | 40.00             | 240.00              | 336.00              | 500.00                  | 400.00              | 160.00                      | 60.00%         |
| 101..108                         | 4240 | Sign Permit                            | -                 | 1,093.00            | 664.00              | 1,000.00                | 1,500.00            | 407.00                      | 72.87%         |
| 101..108                         | 4245 | Cereal Malt Beverage License           | -                 | (25.00)             | 216.00              | 325.00                  | 325.00              | 350.00                      | -7.69%         |
| 101..108                         | 4250 | Animal Licenses                        | 430.00            | 3,406.50            | 4,800.00            | 7,200.00                | 6,500.00            | 3,093.50                    | 52.41%         |
| 101..108                         | 4255 | Home Occupational Licenses             | -                 | 360.00              | 664.00              | 1,000.00                | 1,000.00            | 640.00                      | 36.00%         |
| 101..108                         | 4260 | Rental Licenses                        | 1,971.51          | 20,421.98           | 23,336.00           | 35,000.00               | 34,000.00           | 13,578.02                   | 60.06%         |
| 101..108                         | 4265 | Business Occupational Licenses         | 720.00            | 13,243.00           | 34,000.00           | 51,000.00               | 51,000.00           | 37,757.00                   | 25.97%         |
|                                  |      | <b>Total Licenses and Permits</b>      | <u>11,296.51</u>  | <u>95,959.83</u>    | <u>116,680.00</u>   | <u>175,025.00</u>       | <u>172,225.00</u>   | <u>76,265.17</u>            | <u>55.72%</u>  |
| <b>Fines and Forfeitures</b>     |      |                                        |                   |                     |                     |                         |                     |                             |                |
| 101..108                         | 4410 | Fine                                   | 31,643.17         | 183,505.12          | 211,992.00          | 317,988.00              | 290,000.00          | 106,494.88                  | 63.28%         |
| 101..108                         | 4415 | Court Costs                            | -                 | 19,824.66           | 20,000.00           | 30,000.00               | 30,000.00           | 10,175.34                   | 66.08%         |
| 101..108                         | 4420 | State Fees                             | -                 | 16,597.50           | 17,336.00           | 26,000.00               | 24,000.00           | 7,402.50                    | 69.16%         |
| 101..108                         | 4430 | Bond Forfeits                          | 750.00            | 2,760.00            | 1,336.00            | 2,000.00                | 2,000.00            | (760.00)                    | 138.00%        |
|                                  |      | <b>Total Fines and Forfeitures</b>     | <u>32,393.17</u>  | <u>222,687.28</u>   | <u>250,664.00</u>   | <u>375,988.00</u>       | <u>346,000.00</u>   | <u>123,312.72</u>           | <u>64.36%</u>  |

**City of Roeland Park**  
**Statement of Activities - General Operating Fund**  
**For the Period Ended 8/31/2019**

|                     |                |                                   | Current Month | Year-to-Date | Budget to Date | 2019 Approved<br>Budget | 2019 Projected | Projected vs. YTD<br>Actual | %<br>Remaining |
|---------------------|----------------|-----------------------------------|---------------|--------------|----------------|-------------------------|----------------|-----------------------------|----------------|
| Other Sources       |                |                                   |               |              |                |                         |                |                             |                |
| 101..108            | 4393           | Bullet Proof Vest Grant           | 891.00        | 891.00       | 1,664.00       | 2,500.00                | 2,500.00       | 1,609.00                    | 35.64%         |
| 01..108,11          | 4530           | Reimbursed Expense                | -             | 2,038.54     | 9,336.00       | 14,000.00               | 14,500.00      | 12,461.46                   | 14.06%         |
| 101..108            | 4531           | SRO Reimbursement                 | 6,893.18      | 59,775.03    | -              | -                       | 76,099.00      | 16,323.97                   | 78.55%         |
| 101..108            | 4710           | Apt Tower Lease Payment           | 3,953.09      | 15,812.33    | 15,816.00      | 23,718.00               | 23,718.00      | 7,905.67                    | 66.67%         |
| 101..108            | 4713           | Voicestream Wireless Payment      | 3,953.07      | 15,812.31    | 15,816.00      | 23,718.00               | 23,718.00      | 7,905.69                    | 66.67%         |
| 101..108            | 4716           | Clearwire Tower Lease Paymt       | 3,953.06      | 15,812.24    | 15,816.00      | 23,718.00               | 23,718.00      | 7,905.76                    | 66.67%         |
| 101..108            | 4720           | Plans & Spec's                    | -             | 175.00       | 1,336.00       | 2,000.00                | 2,000.00       | 1,825.00                    | 8.75%          |
| 101..108            | 4725           | Police Reports                    | 340.00        | 3,474.00     | 3,664.00       | 5,500.00                | 5,500.00       | 2,026.00                    | 63.16%         |
| 101..108            | 4755           | 3rd Floor Lease Revenues          | 3,536.75      | 14,071.73    | 28,016.00      | 42,027.00               | 21,195.00      | 7,123.27                    | 66.39%         |
| 101..108            | 4767           | 1% for Art Contribution           | -             | 36,378.23    | -              | -                       | 36,378.00      | (0.23)                      | 100.00%        |
| 101..108            | 4768           | Service Line Agreement            | -             | 2,965.47     | 1,600.00       | 2,400.00                | 2,965.00       | (0.47)                      | 100.02%        |
| 101..108            | 4775           | RPPOA Contract                    | -             | 31,875.00    | 21,248.00      | 31,875.00               | 31,875.00      | -                           | 100.00%        |
| 101..108            | 4780           | Sale of Assets                    | -             | 68.00        | 10,000.00      | 15,000.00               | 15,000.00      | 14,932.00                   | 0.45%          |
| 101..108            | 4787           | RP Community Foundation Donations | 160.00        | 2,773.00     | 664.00         | 1,000.00                | 33,500.00      | 30,727.00                   | 8.28%          |
| 101..108            | 4795           | Miscellaneous                     | 25.00         | 158,296.39   | 3,336.00       | 5,000.00                | 162,000.00     | 3,703.61                    | 97.71%         |
| Total Other Sources |                |                                   | 23,705.15     | 360,218.27   | 128,312.00     | 192,456.00              | 474,666.00     | 114,447.73                  | 75.89%         |
| Other               |                |                                   |               |              |                |                         |                |                             |                |
| 101..108            | 4510..4511     | Interest on Investment            | 8,904.48      | 42,649.69    | 37,400.00      | 56,100.00               | 85,000.00      | 42,350.31                   | 50.18%         |
| Total Other         |                |                                   | 8,904.48      | 42,649.69    | 37,400.00      | 56,100.00               | 85,000.00      | 42,350.31                   | 50.18%         |
| Transfer-In         |                |                                   |               |              |                |                         |                |                             |                |
| 101..108            | 4865           | Transfer from TIF Funds           | 15,541.67     | 15,541.67    | -              | -                       | 186,500.00     | 170,958.33                  | 8.33%          |
| 101..109            | 4870           | Transfer from 27C                 | 7,562.64      | 7,562.64     | -              | -                       | 11,344.00      | 3,781.36                    | 66.67%         |
| Total Transfer-In   |                |                                   | 23,104.31     | 23,104.31    | -              | -                       | 197,844.00     | 174,739.69                  | 11.68%         |
| 101..108            | Total Revenues |                                   | 312,077.83    | 4,511,067.30 | 3,936,640.00   | 5,904,946.00            | 5,924,362.27   | 1,413,294.97                | 76.14%         |
| Expenditures        |                |                                   |               |              |                |                         |                |                             |                |
| General Overhead    |                |                                   |               |              |                |                         |                |                             |                |
| 101                 | 5201           | Electric                          | 5,094.34      | 14,598.93    | 11,560.00      | 17,340.00               | 17,340.00      | 2,741.07                    | 84.19%         |
| 101                 | 5202           | Telephone                         | 47.39         | 358.06       | 664.00         | 1,000.00                | 1,000.00       | 641.94                      | 35.81%         |
| 101                 | 5203           | Printing & Advertising            | (969.16)      | 1,102.00     | 1,200.00       | 1,800.00                | 2,800.00       | 1,698.00                    | 39.36%         |
| 101                 | 5204           | Legal Printing                    | 116.82        | (1,092.55)   | 2,000.00       | 3,000.00                | 3,000.00       | 4,092.55                    | -36.42%        |
| 101                 | 5205           | Postage & Mailing Permits         | 1,382.57      | 1,511.82     | 4,000.00       | 6,000.00                | 6,000.00       | 4,488.18                    | 25.20%         |
| 101                 | 5207           | Medical Expense & Drug Testing    | (200.00)      | -            | -              | -                       | -              | -                           | N/A            |
| 101                 | 5208           | Newsletter                        | 1,688.87      | 6,662.16     | 6,264.00       | 9,400.00                | 12,600.00      | 5,937.84                    | 52.87%         |
| 101                 | 5209           | Professional Services             | 9,219.72      | 27,017.10    | 68,400.00      | 102,600.00              | 190,000.00     | 162,982.90                  | 14.22%         |
| 101                 | 5210           | Maintenance & Repair Building     | 961.76        | 4,123.85     | 6,664.00       | 10,000.00               | 12,000.00      | 7,876.15                    | 34.37%         |
| 101                 | 5211           | Maintenace & Repair Equipment     | -             | 72.03        | -              | -                       | 200.00         | 127.97                      | 36.02%         |
| 101                 | 5212           | Utility Asst                      | -             | -            | 10,000.00      | 15,000.00               | 15,000.00      | 15,000.00                   | 0.00%          |
| 101                 | 5213           | Audit Fees                        | 175.00        | 29,250.00    | 28,336.00      | 42,500.00               | 33,900.00      | 4,650.00                    | 86.28%         |
| 101                 | 5214           | Other Contracted Services         | 5,459.75      | 33,729.34    | 51,064.00      | 76,600.00               | 60,770.00      | 27,040.66                   | 55.50%         |
| 101                 | 5215           | City Attorney                     | 21,347.54     | 70,345.67    | 63,240.00      | 94,860.00               | 94,860.00      | 24,514.33                   | 74.16%         |
| 101                 | 5217           | Public Art                        | -             | 6,307.00     | -              | -                       | 25,000.00      | 18,693.00                   | 25.23%         |
| 101                 | 5218           | IT & Communication                | -             | 13,587.21    | 17,904.00      | 26,850.00               | 26,850.00      | 13,262.79                   | 50.60%         |
| 101                 | 5219           | Meeting Expense                   | 14.77         | 346.67       | 1,336.00       | 2,000.00                | 1,500.00       | 1,153.33                    | 23.11%         |
| 101                 | 5220           | Street Light Repair & Maintenance | 7,308.02      | 26,905.59    | 26,664.00      | 40,000.00               | 40,000.00      | 13,094.41                   | 67.26%         |
| 101                 | 5222           | Traffic Signal Expense            | 31,185.61     | 123,152.96   | 127,496.00     | 191,246.00              | 188,458.00     | 65,305.04                   | 65.35%         |
| 101                 | 5230           | Art Commissioner                  | 100.00        | 800.00       | 800.00         | 1,200.00                | 1,200.00       | 400.00                      | 66.67%         |
| 101                 | 5232           | United Community Services         | -             | 4,371.00     | 2,912.00       | 4,371.00                | 4,371.00       | -                           | 100.00%        |
| 101                 | 5233           | JoCo Home Repair - Minor          | -             | 9,000.00     | 6,000.00       | 9,000.00                | 9,000.00       | -                           | 100.00%        |
| 101                 | 5234           | JoCo Home Repair - Major          | -             | 8,000.00     | 5,336.00       | 8,000.00                | 8,000.00       | -                           | 100.00%        |
| 101                 | 5237           | Community Events                  | 1,693.50      | 1,876.90     | 2,664.00       | 4,000.00                | 8,700.00       | 6,823.10                    | 21.57%         |
| 101                 | 5248           | Strategic Planning                | -             | -            | 2,000.00       | 3,000.00                | -              | -                           | N/A            |
| 101                 | 5249           | Branding Implementation           | -             | 1,483.48     | -              | -                       | 4,000.00       | 2,516.52                    | 37.09%         |
| 101                 | 5250           | Insurance & Surety Bonds          | -             | 42,846.96    | 31,912.00      | 47,867.00               | 42,922.00      | 75.04                       | 99.83%         |
| 101                 | 5252           | City Elections                    | -             | 6,462.65     | 10,000.00      | 15,000.00               | 15,463.00      | 9,000.35                    | 41.79%         |
| 101                 | 5253           | Public Relations                  | 470.00        | 2,594.88     | 2,336.00       | 3,500.00                | 3,500.00       | 905.12                      | 74.14%         |
| 101                 | 5254           | Miscellaneous Charges             | -             | 54.25        | 664.00         | 1,000.00                | 1,000.00       | 945.75                      | 5.43%          |
| 101                 | 5256           | Committee Funds                   | 275.99        | 1,978.55     | 3,336.00       | 5,000.00                | 5,000.00       | 3,021.45                    | 39.57%         |



**City of Roeland Park**  
**Statement of Activities - General Operating Fund**  
**For the Period Ended 8/31/2019**

I-GF

|                        |      |                                       | 2019 Approved |              |                |              | Projected vs. YTD | %          |           |
|------------------------|------|---------------------------------------|---------------|--------------|----------------|--------------|-------------------|------------|-----------|
|                        |      |                                       | Current Month | Year-to-Date | Budget to Date | Budget       | 2019 Projected    | Actual     | Remaining |
| 101                    | 5257 | Property Tax Payments                 | -             | -            | 8,104.00       | 12,155.00    | 6,364.00          | 6,364.00   | 0.00%     |
| 101                    | 5258 | RPPOA Common Area Expenses            | -             | 33,847.00    | 22,568.00      | 33,847.00    | 33,847.00         | -          | 100.00%   |
| 101                    | 5265 | Computer System R&M                   | -             | -            | 3,336.00       | 5,000.00     | 500.00            | 500.00     | 0.00%     |
| 101                    | 5266 | Computer Software                     | 7,375.00      | 27,286.38    | 15,000.00      | 22,500.00    | 35,008.00         | 7,721.62   | 77.94%    |
| 101                    | 5267 | Employee Related Expenses             | 110.95        | 1,688.29     | 4,664.00       | 7,000.00     | 7,000.00          | 5,311.71   | 24.12%    |
| 101                    | 5273 | Neighbors Helping Neighbors           | -             | -            | 6,664.00       | 10,000.00    | 10,000.00         | 10,000.00  | 0.00%     |
| 101                    | 5282 | Property Rebate Program               | -             | 2,865.65     | 10,000.00      | 15,000.00    | 5,000.00          | 2,134.35   | 57.31%    |
| 101                    | 5283 | RP Community Foundation Grant Expense | 2,203.78      | 32,165.59    | 664.00         | 1,000.00     | 33,500.00         | 1,334.41   | 96.02%    |
| 101                    | 5285 | Pool Operations                       | -             | 635.00       | 100,000.00     | 150,000.00   | -                 | (635.00)   | N/A       |
| 101                    | 5287 | Water                                 | 160.45        | 979.41       | 1,000.00       | 1,500.00     | 1,500.00          | 520.59     | 65.29%    |
| 101                    | 5288 | Waste Water                           | 225.36        | 472.39       | 1,136.00       | 1,700.00     | 2,000.00          | 1,527.61   | 23.62%    |
| 101                    | 5289 | Natural Gas                           | 51.73         | 1,478.09     | 2,000.00       | 3,000.00     | 3,150.00          | 1,671.91   | 46.92%    |
| 101                    | 5292 | Fireworks                             | 156.00        | 2,127.67     | 1,664.00       | 2,500.00     | 2,500.00          | 372.33     | 85.11%    |
| 101                    | 5301 | Office Supplies                       | 343.12        | 4,133.38     | 5,000.00       | 7,500.00     | 7,000             | 2,866.62   | 59.05%    |
| 101                    | 5304 | Janitorial Supplies                   | 271.61        | 1,472.11     | 1,336.00       | 2,000.00     | 1,400             | (72.11)    | 105.15%   |
| 101                    | 5305 | Dues, Subscriptions, & Books          | 581.00        | 10,640.50    | 12,064.00      | 18,100.00    | 12,600            | 1,959.50   | 84.45%    |
| 101                    | 5307 | Other Commodities                     | -             | 2,314.05     | 3,336.00       | 5,000.00     | 3,000.00          | 685.95     | 77.14%    |
| 101                    | 5751 | TIF Fund Expenditure                  | -             | -            | 214,936.00     | 322,400.00   | -                 | -          | N/A       |
| 101                    | 5818 | Transfer to Bond & Interest Fund      | (14,582.00)   | -            | 16,000.00      | 25,000.00    | -                 | -          | N/A       |
| 101                    | 5821 | Transfer to TIF 2                     | (71,168.00)   | -            | 81,336.00      | 122,000.00   | -                 | -          | N/A       |
| 101                    | 5823 | Transfer to 27D                       | 16,666.67     | 133,334.67   | 133,336.00     | 200,000.00   | 300,000.00        | 166,665.33 | 44.44%    |
| 101                    | 5824 | Transfer to Special Infrastructure    | -             | -            | -              | -            | -                 | -          | N/A       |
| 101                    | 5825 | Transfer to Equip Reserve Fund        | (40,137.00)   | 29,800.00    | 79,928.00      | 119,888.00   | 44,700.00         | 14,900.00  | 66.67%    |
| 101                    | 5826 | Transfer to Aquatic Fund              | 280,000.00    | 280,000.00   | -              | -            | 420,000.00        | 140,000.00 | 66.67%    |
| Total General Overhead |      |                                       | 267,631.16    | 1,002,686.69 | 1,218,824.00   | 1,829,224.00 | 1,763,503.00      | 760,816.31 | 56.86%    |
| Police                 |      |                                       |               |              |                |              |                   |            |           |
| 102                    | 5101 | Salaries - Regular                    | 60,429.48     | 521,409.94   | 588,664.00     | 883,000.00   | 900,000.00        | 378,590.06 | 57.93%    |
| 102                    | 5102 | Salaries-Overtime                     | 1,433.78      | 23,419.39    | 24,664.00      | 37,000.00    | 38,000.00         | 14,580.61  | 61.63%    |
| 102                    | 5104 | Salaries - Part-time                  | 4,758.12      | 42,189.38    | 14,000.00      | 21,000.00    | 38,000.00         | (4,189.38) | 111.02%   |
| 102                    | 5202 | Telephone                             | 596.99        | 4,000.29     | 4,664.00       | 7,000.00     | 7,000.00          | 2,999.71   | 57.15%    |
| 102                    | 5203 | Printing & Advertising                | -             | -            | 168.00         | 250.00       | 250.00            | 250.00     | 0.00%     |
| 102                    | 5205 | Postage & Mailing Permits             | -             | 45.20        | 64.00          | 100.00       | 100.00            | 54.80      | 45.20%    |
| 102                    | 5206 | Travel Expense & Training             | 913.10        | 5,212.53     | 4,664.00       | 7,000.00     | 7,000.00          | 1,787.47   | 74.46%    |
| 102                    | 5207 | Medical Expense & Drug Testing        | -             | 131.00       | 664.00         | 1,000.00     | 1,000.00          | 869.00     | 13.10%    |
| 102                    | 5210 | Maintenance & Repair Building         | -             | 20.80        | 136.00         | 200.00       | 200.00            | 179.20     | 10.40%    |
| 102                    | 5211 | Maintenance & Repair Equipment        | -             | 172.97       | 3,000.00       | 4,500.00     | 4,500.00          | 4,327.03   | 3.84%     |
| 102                    | 5214 | Other Contracted Services             | 1,595.00      | 9,967.09     | 14,088.00      | 21,130.00    | 14,171.00         | 4,203.91   | 70.33%    |
| 102                    | 5217 | Mental Health Corresponder            | -             | -            | -              | -            | 19,428.00         | 19,428.00  | 0.00%     |
| 102                    | 5219 | Meeting Expense                       | -             | 17.98        | 64.00          | 100.00       | 100.00            | 82.02      | 17.98%    |
| 102                    | 5224 | Laundry Service                       | 130.30        | 772.30       | 2,064.00       | 3,100.00     | 3,100.00          | 2,327.70   | 24.91%    |
| 102                    | 5225 | Mental Health Co-responder            | 3,752.58      | 3,752.58     | -              | -            | -                 | (3,752.58) | N/A       |
| 102                    | 5236 | Community Policing                    | 104.30        | 124.30       | 336.00         | 500.00       | 500.00            | 375.70     | 24.86%    |
| 102                    | 5238 | Animal Control                        | -             | 33,100.00    | 31,416.00      | 47,125.00    | 33,100.00         | -          | 100.00%   |
| 102                    | 5250 | Insurance & Surety Bonds              | -             | -            | 104.00         | 150.00       | 150.00            | 150.00     | 0.00%     |
| 102                    | 5254 | Miscellaneous Charges                 | -             | -            | 336.00         | 500.00       | 500.00            | 500.00     | 0.00%     |
| 102                    | 5260 | Vehicle Maintenance                   | 1,555.23      | 14,105.55    | 5,664.00       | 8,500.00     | 15,000.00         | 894.45     | 94.04%    |
| 102                    | 5301 | Office Supplies                       | -             | 50.41        | 136.00         | 200.00       | 200.00            | 149.59     | 25.21%    |
| 102                    | 5302 | Motor Fuels & Lubricants              | 2,376.75      | 14,963.16    | 14,704.00      | 22,050.00    | 22,050.00         | 7,086.84   | 67.86%    |
| 102                    | 5305 | Dues, Subscriptions, & Books          | -             | 580.00       | 704.00         | 1,050.00     | 1,005.00          | 425.00     | 57.71%    |
| 102                    | 5306 | Materials                             | -             | 33.75        | 336.00         | 500.00       | 500.00            | 466.25     | 6.75%     |
| 102                    | 5307 | Other Commodities                     | 238.04        | 671.60       | 2,000.00       | 3,000.00     | 3,000.00          | 2,328.40   | 22.39%    |
| 102                    | 5308 | Clothing & Uniforms                   | 306.50        | 4,903.36     | 6,664.00       | 10,000.00    | 10,000.00         | 5,096.64   | 49.03%    |
| 102                    | 5309 | Amunition                             | -             | -            | 1,664.00       | 2,500.00     | 2,500.00          | 2,500.00   | 0.00%     |
| 102                    | 5310 | Training Supplies                     | -             | -            | 336.00         | 500.00       | 500.00            | 500.00     | 0.00%     |
| 102                    | 5825 | Transfer to Equip Reserve Fund        | 5,860.00      | 46,880.00    | 46,880.00      | 70,320.00    | 70,320.00         | 23,440.00  | 66.67%    |
| Total Police           |      |                                       | 84,050.17     | 726,523.58   | 768,184.00     | 1,152,275.00 | 1,192,174.00      | 465,650.42 | 60.94%    |
| Court                  |      |                                       |               |              |                |              |                   |            |           |
| 103                    | 5101 | Salaries - Regular                    | 3,480.17      | 28,808.58    | 30,464.00      | 45,700.00    | 45,700.00         | 16,891.42  | 63.04%    |
| 103                    | 5102 | Salaries-Overtime                     | 49.39         | 799.44       | 664.00         | 1,000.00     | 1,000.00          | 200.56     | 79.94%    |
| 103                    | 5108 | Salaries - Judge                      | 1,250.00      | 10,000.00    | 10,000.00      | 15,000.00    | 15,000.00         | 5,000.00   | 66.67%    |

**City of Roeland Park**  
**Statement of Activities - General Operating Fund**  
**For the Period Ended 8/31/2019**

I-GF

|                             |      |                                | 2019 Approved |              |                |            | Projected vs. YTD |            | %         |
|-----------------------------|------|--------------------------------|---------------|--------------|----------------|------------|-------------------|------------|-----------|
|                             |      |                                | Current Month | Year-to-Date | Budget to Date | Budget     | 2019 Projected    | Actual     | Remaining |
| 103                         | 5109 | Salaries - Prosecutor          | 1,041.67      | 8,333.36     | 8,336.00       | 12,500.00  | 12,500.00         | 4,166.64   | 66.67%    |
| 103                         | 5202 | Telephone                      | -             | -            | 120.00         | 180.00     | 180.00            | 180.00     | 0.00%     |
| 103                         | 5203 | Printing & Advertising         | -             | -            | 264.00         | 400.00     | 400.00            | 400.00     | 0.00%     |
| 103                         | 5206 | Travel Expense & Training      | -             | -            | 136.00         | 200.00     | 200.00            | 200.00     | 0.00%     |
| 103                         | 5209 | Professional Services          | 150.00        | 2,273.75     | 4,664.00       | 7,000.00   | 7,000.00          | 4,726.25   | 32.48%    |
| 103                         | 5211 | Maintenance & Repair Equipment | -             | -            | 136.00         | 200.00     | 200.00            | 200.00     | 0.00%     |
| 103                         | 5219 | Meeting Expense                | -             | -            | 64.00          | 100.00     | 100.00            | 100.00     | 0.00%     |
| 103                         | 5227 | Prisoner Care                  | 1,295.00      | 1,960.00     | 3,336.00       | 5,000.00   | 4,000.00          | 2,040.00   | 49.00%    |
| 103                         | 5228 | Fees Due State of Kansas       | 2,472.00      | 16,595.00    | 18,000.00      | 27,000.00  | 27,000.00         | 10,405.00  | 61.46%    |
| 103                         | 5250 | Insurance & Surety Bonds       | -             | -            | 16.00          | 25.00      | 25.00             | 25.00      | 0.00%     |
| 103                         | 5254 | Miscellaneous Charges          | -             | -            | 136.00         | 200.00     | 200.00            | 200.00     | 0.00%     |
| 103                         | 5266 | Computer Software              | -             | 1,893.70     | 1,744.00       | 2,613.00   | 2,613.00          | 719.30     | 72.47%    |
| 103                         | 5305 | Dues, Subscriptions, & Books   | -             | 200.00       | 168.00         | 250.00     | 250.00            | 50.00      | 80.00%    |
| 103                         | 5308 | Clothing & Uniforms            | -             | -            | 168.00         | 250.00     | -                 | -          | N/A       |
| 103                         | 5410 | Technology Upgrades            | -             | 5,348.00     | -              | -          | 61,271.00         | 55,923.00  | 8.73%     |
| Total Court                 |      |                                | 9,738.23      | 76,211.83    | 78,416.00      | 117,618.00 | 177,639.00        | 101,427.17 | 42.90%    |
| Neighborhood Services       |      |                                |               |              |                |            |                   |            |           |
| 104                         | 5101 | Salaries - Regular             | 8,375.99      | 68,821.88    | 72,664.00      | 109,000.00 | 109,000.00        | 40,178.12  | 63.14%    |
| 104                         | 5102 | Salaries-Overtime              | -             | 15.93        | 664.00         | 1,000.00   | 1,000.00          | 984.07     | 1.59%     |
| 104                         | 5202 | Telephone                      | 140.02        | 960.12       | 880.00         | 1,320.00   | 1,680.00          | 719.88     | 57.15%    |
| 104                         | 5203 | Printing & Advertising         | -             | -            | 664.00         | 1,000.00   | 1,000.00          | 1,000.00   | 0.00%     |
| 104                         | 5206 | Travel Expense & Training      | -             | -            | 2,040.00       | 3,060.00   | 1,100.00          | 1,100.00   | 0.00%     |
| 104                         | 5214 | Other Contracted Services      | -             | -            | 3,664.00       | 5,500.00   | 5,500.00          | 5,500.00   | 0.00%     |
| 104                         | 5219 | Meeting Expense                | -             | 111.13       | 136.00         | 200.00     | 200.00            | 88.87      | 55.57%    |
| 104                         | 5260 | Vehicle Maintenance            | -             | 100.85       | 736.00         | 1,100.00   | 1,100.00          | 999.15     | 9.17%     |
| 104                         | 5302 | Motor Fuels & Lubricants       | -             | 207.48       | 424.00         | 636.00     | 636.00            | 428.52     | 32.62%    |
| 104                         | 5305 | Dues, Subscriptions, & Books   | 705.00        | 765.00       | 336.00         | 500.00     | 500.00            | (265.00)   | 153.00%   |
| 104                         | 5308 | Clothing & Uniforms            | -             | -            | 200.00         | 300.00     | 300.00            | 300.00     | 0.00%     |
| 104                         | 5403 | Office Equipment               | -             | 131.06       | 1,336.00       | 2,000.00   | 2,000.00          | 1,868.94   | 6.55%     |
| Total Neighborhood Services |      |                                | 9,221.01      | 71,113.45    | 83,744.00      | 125,616.00 | 124,016.00        | 52,902.55  | 57.34%    |
| Administration              |      |                                |               |              |                |            |                   |            |           |
| 105                         | 5101 | Salaries - Regular             | 20,493.28     | 162,232.27   | 169,336.00     | 254,000.00 | 259,000.00        | 96,767.73  | 62.64%    |
| 105                         | 5104 | Salaries - Part-time           | 2,323.52      | 24,293.84    | 24,000.00      | 36,000.00  | 36,000.00         | 11,706.16  | 67.48%    |
| 105                         | 5107 | Salaries - Intern              | -             | -            | 5,400.00       | 8,100.00   | 8,100.00          | 8,100.00   | 0.00%     |
| 105                         | 5202 | Telephone                      | 160.00        | 1,280.00     | 1,280.00       | 1,920.00   | 1,920.00          | 640.00     | 66.67%    |
| 105                         | 5206 | Travel Expense & Training      | 1,345.67      | 3,861.56     | 4,568.00       | 6,850.00   | 7,800.00          | 3,938.44   | 49.51%    |
| 105                         | 5214 | Other Contracted Services      | 345.00        | 928.47       | 1,664.00       | 2,500.00   | 2,500.00          | 1,571.53   | 37.14%    |
| 105                         | 5219 | Meeting Expense                | -             | -            | -              | -          | -                 | -          | N/A       |
| 105                         | 5226 | Car Allowance                  | 450.00        | 3,600.00     | 3,600.00       | 5,400.00   | 5,400.00          | 1,800.00   | 66.67%    |
| 105                         | 5250 | Insurance & Surety Bonds       | -             | -            | 48.00          | 75.00      | -                 | -          | N/A       |
| 105                         | 5254 | Miscellaneous Charges          | -             | -            | 336.00         | 500.00     | 500.00            | 500.00     | 0.00%     |
| 105                         | 5305 | Dues, Subscriptions, & Books   | -             | 1,325.95     | 1,536.00       | 2,300.00   | 2,500.00          | 1,174.05   | 53.04%    |
| 105                         | 5403 | Office Equipment               | -             | -            | 664.00         | 1,000.00   | 1,000.00          | 1,000.00   | 0.00%     |
| Total Administration        |      |                                | 25,117.47     | 197,522.09   | 212,432.00     | 318,645.00 | 324,720.00        | 127,197.91 | 60.83%    |
| Public Works                |      |                                |               |              |                |            |                   |            |           |
| 106                         | 5101 | Salaries - Regular             | 21,887.66     | 184,038.96   | 165,256.00     | 247,880.00 | 268,120.00        | 84,081.04  | 68.64%    |
| 106                         | 5102 | Salaries-Overtime              | -             | 8,330.58     | 6,800.00       | 10,200.00  | 10,200.00         | 1,869.42   | 81.67%    |
| 106                         | 5107 | Salaries - Intern              | -             | -            | 4,200.00       | 6,300.00   | -                 | -          | N/A       |
| 106                         | 5201 | Electric                       | 1,009.79      | 3,727.97     | 4,216.00       | 6,324.00   | 8,400.00          | 4,672.03   | 44.38%    |
| 106                         | 5202 | Telephone                      | 145.01        | 1,135.07     | 1,336.00       | 2,000.00   | 1,830.00          | 694.93     | 62.03%    |
| 106                         | 5203 | Printing & Advertising         | -             | 160.89       | 200.00         | 300.00     | 800.00            | 639.11     | 20.11%    |
| 106                         | 5206 | Travel Expense & Training      | -             | 1,983.38     | 5,000.00       | 7,500.00   | 7,500.00          | 5,516.62   | 26.45%    |
| 106                         | 5207 | Medical Expense & Drug Testing | -             | 332.50       | 536.00         | 800.00     | 800.00            | 467.50     | 41.56%    |
| 106                         | 5210 | Maintenance & Repair Building  | -             | 1,551.94     | 2,336.00       | 3,500.00   | 3,500.00          | 1,948.06   | 44.34%    |
| 106                         | 5211 | Maintenance & Repair Equipment | 5,046.95      | 18,925.00    | 16,664.00      | 25,000.00  | 25,000.00         | 6,075.00   | 75.70%    |
| 106                         | 5214 | Other Contracted Services      | 4,105.00      | 21,531.00    | 22,000.00      | 33,000.00  | 35,384.00         | 13,853.00  | 60.85%    |
| 106                         | 5219 | Meeting Expense                | -             | 39.70        | 264.00         | 400.00     | 400.00            | 360.30     | 9.93%     |
| 106                         | 5221 | Streets Maintenance - Contract | -             | -            | -              | -          | -                 | -          | N/A       |
| 106                         | 5259 | Traffic Control Signs          | 106.42        | 916.11       | 3,000.00       | 4,500.00   | 4,500.00          | 3,583.89   | 20.36%    |

**City of Roeland Park**  
**Statement of Activities - General Operating Fund**  
**For the Period Ended 8/31/2019**

|                                |                               |                                |                     |                        | 2019 Approved       |                     | Projected vs. YTD   |                       | %             |
|--------------------------------|-------------------------------|--------------------------------|---------------------|------------------------|---------------------|---------------------|---------------------|-----------------------|---------------|
|                                |                               |                                | Current Month       | Year-to-Date           | Budget to Date      | Budget              | 2019 Projected      | Actual                | Remaining     |
| 106                            | 5260                          | Vehicle Maintenance            | 25.00               | 1,579.15               | 4,336.00            | 6,500.00            | 6,500.00            | 4,920.85              | 24.29%        |
| 106                            | 5262                          | Grounds Maintenance            | 490.08              | 10,682.65              | 16,000.00           | 24,000.00           | 24,000.00           | 13,317.35             | 44.51%        |
| 106                            | 5263                          | Tree Maintenance               | 115.00              | 44,132.09              | 16,664.00           | 25,000.00           | 40,000.00           | (4,132.09)            | 110.33%       |
| 106                            | 5266                          | Computer Software              | 400.00              | 400.00                 | 264.00              | 400.00              | 400.00              | -                     | 100.00%       |
| 106                            | 5287                          | Water                          | 747.00              | 3,492.68               | 4,336.00            | 6,500.00            | 6,500.00            | 3,007.32              | 53.73%        |
| 106                            | 5288                          | Waste Water                    | -                   | 1,139.86               | 2,136.00            | 3,200.00            | 3,200.00            | 2,060.14              | 35.62%        |
| 106                            | 5289                          | Natural Gas                    | -                   | 3,346.53               | 3,864.00            | 5,800.00            | 5,800.00            | 2,453.47              | 57.70%        |
| 106                            | 5290                          | Street Light Electric          | 1,722.06            | 11,439.13              | 16,256.00           | 24,378.00           | 24,378.00           | 12,938.87             | 46.92%        |
| 106                            | 5302                          | Motor Fuels & Lubricants       | 1,613.75            | 12,318.66              | 7,352.00            | 11,025.00           | 11,025.00           | (1,293.66)            | 111.73%       |
| 106                            | 5304                          | Janitorial Supplies            | -                   | 115.42                 | 504.00              | 750.00              | 760.00              | 644.58                | 15.19%        |
| 106                            | 5306                          | Materials                      | 215.70              | 1,910.63               | 3,000.00            | 4,500.00            | 4,500.00            | 2,589.37              | 42.46%        |
| 106                            | 5308                          | Clothing & Uniforms            | 211.80              | 2,587.40               | 2,664.00            | 4,000.00            | 4,000.00            | 1,412.60              | 64.69%        |
| 106                            | 5318                          | Tools                          | 22.36               | 561.80                 | 1,664.00            | 2,500.00            | 2,500.00            | 1,938.20              | 22.47%        |
| 106                            | 5319                          | Rain Barrel Reimbursement      | -                   | -                      | -                   | -                   | -                   | -                     | N/A           |
| 106                            | 5305                          | Dues, Subscriptions, & Books   | -                   | 720.00                 | 504.00              | 760.00              | 760.00              | 40.00                 | 94.74%        |
| 106                            | 5403                          | Office Equipment               | -                   | 95.50                  | 1,000.00            | 1,500.00            | 1,500.00            | 1,404.50              | 6.37%         |
| 106                            | 5421                          | Street Maintenance             | -                   | 2,925.36               | 140,000.00          | 210,000.00          | 210,000.00          | 207,074.64            | 1.39%         |
| 106                            | 5425                          | Other Capital Outlay           | 80.00               | 8,524.44               | 2,000.00            | 3,000.00            | 28,000.00           | 19,475.56             | 30.44%        |
| 106                            | 5825                          | Transfer to Equip Reserve Fund | (12,566.66)         | 16,133.34              | 32,800.00           | 49,200.00           | 24,200.00           | 8,066.66              | 66.67%        |
| <b>Total Public Works</b>      |                               |                                | <u>25,376.92</u>    | <u>364,777.74</u>      | <u>487,152.00</u>   | <u>730,717.00</u>   | <u>764,457.00</u>   | <u>399,679.26</u>     | <u>47.72%</u> |
| <b>Employee Benefits</b>       |                               |                                |                     |                        |                     |                     |                     |                       |               |
| 107                            | 5122                          | FICA City Contribution         | 10,022.24           | 84,126.44              | 93,336.00           | 140,000.00          | 140,000.00          | 55,873.56             | 60.09%        |
| 107                            | 5123                          | KPERS City Contribution        | 6,387.49            | 51,338.50              | 57,864.00           | 86,800.00           | 86,800.00           | 35,461.50             | 59.15%        |
| 107                            | 5124                          | Ks Unemployment Insurance      | 119.09              | 822.26                 | 1,200.00            | 1,800.00            | 1,800.00            | 977.74                | 45.68%        |
| 107                            | 5125                          | Worker's Compensation          | -                   | 48,194.00              | 30,576.00           | 45,869.00           | 48,194.00           | -                     | 100.00%       |
| 107                            | 5126                          | Health/Dental/Vision Insurance | (3,779.89)          | 228,689.72             | 244,800.00          | 367,200.00          | 374,041.00          | 145,351.28            | 61.14%        |
| 107                            | 5127                          | Health Savings Account         | 3,701.62            | 29,514.72              | 33,904.00           | 50,860.00           | 50,860.00           | 21,345.28             | 58.03%        |
| 107                            | 5128                          | 401A City Contribution         | 530.76              | 4,511.46               | 3,816.00            | 5,720.00            | 5,720.00            | 1,208.54              | 78.87%        |
| 107                            | 5130                          | City Paid Life/ST Disability   | -                   | 4,602.24               | 6,600.00            | 9,900.00            | 10,600.00           | 5,997.76              | 43.42%        |
| 107                            | 5131                          | KP&F City Contribution         | 12,866.54           | 114,276.77             | 128,664.00          | 193,000.00          | 193,000.00          | 78,723.23             | 59.21%        |
| 107                            | 5133                          | Wellness Incentive             | -                   | -                      | 1,336.00            | 2,000.00            | 2,000.00            | 2,000.00              | 0.00%         |
| <b>Total Employee Benefits</b> |                               |                                | <u>29,847.85</u>    | <u>566,076.11</u>      | <u>602,096.00</u>   | <u>903,149.00</u>   | <u>913,015.00</u>   | <u>346,938.89</u>     | <u>62.00%</u> |
| <b>City Council</b>            |                               |                                |                     |                        |                     |                     |                     |                       |               |
| 108                            | 5103                          | Salaries - Elected Officials   | 3,910.00            | 30,005.00              | 31,280.00           | 46,920.00           | 46,920.00           | 16,915.00             | 63.95%        |
| 108                            | 5206                          | Travel Expense & Training      | 510.00              | 1,644.53               | 5,120.00            | 7,700.00            | 7,700.00            | 6,055.47              | 21.36%        |
| 108                            | 5251                          | Mayor Expenses                 | 500.00              | 444.19                 | 670.00              | 1,000.00            | 1,000.00            | 555.81                | 44.42%        |
| 108                            | 5305                          | Dues, Subscriptions, & Books   | -                   | 459.19                 | 600.00              | 900.00              | 810.00              | 350.81                | 56.69%        |
| <b>Total City Council</b>      |                               |                                | <u>4,920.00</u>     | <u>32,552.91</u>       | <u>37,670.00</u>    | <u>56,520.00</u>    | <u>56,430.00</u>    | <u>23,877.09</u>      | <u>57.69%</u> |
| <b>Solid Waste</b>             |                               |                                |                     |                        |                     |                     |                     |                       |               |
| 115                            | 5101                          | Salaries - Regular             | -                   | -                      | 28,424.00           | 42,640.00           | 17,400.00           | 17,400.00             | 0.00%         |
| 115                            | 5211                          | Maintenance & Repair Equipment | -                   | -                      | 5,336.00            | 8,000.00            | 8,000.00            | 8,000.00              | 0.00%         |
| 115                            | 5235                          | Disposal Fees                  | 220.00              | 6,681.52               | 6,664.00            | 10,000.00           | 10,000.00           | 3,318.48              | 66.82%        |
| 115                            | 5240                          | Equipment Rental               | -                   | -                      | 336.00              | 500.00              | 500.00              | 500.00                | 0.00%         |
| 115                            | 5271                          | Composte Bin Rebate Program    | -                   | 414.95                 | 2,000.00            | 3,000.00            | 3,000.00            | 2,585.05              | 13.83%        |
| 115                            | 5272                          | Solid Waste Contract           | 86,347.64           | 345,385.56             | 346,000.00          | 519,000.00          | 519,000.00          | 173,614.44            | 66.55%        |
| 115                            | 5302                          | Motor Fuels & Lubricants       | -                   | -                      | 2,000.00            | 3,000.00            | 3,000.00            | 3,000.00              | 0.00%         |
| <b>Total Solid Waste</b>       |                               |                                | <u>86,567.64</u>    | <u>352,482.03</u>      | <u>390,760.00</u>   | <u>586,140.00</u>   | <u>560,900.00</u>   | <u>208,417.97</u>     | <u>62.84%</u> |
| 101..108                       | <b>Total Expenditures</b>     |                                | <u>542,470.45</u>   | <u>3,389,946.43</u>    | <u>3,879,278.00</u> | <u>5,819,904.00</u> | <u>5,876,854.00</u> | <u>2,486,907.57</u>   | <u>57.68%</u> |
| 101..108                       | <b>Change in Fund Balance</b> |                                | <u>(230,392.62)</u> | 1,121,120.87           | <u>57,362.00</u>    | <u>85,042.00</u>    | <u>47,508.27</u>    | <u>(1,073,612.60)</u> |               |
| 101..108                       | 2910..2970                    | <b>Fund Balance, Beginning</b> |                     | 2,738,610.12           |                     |                     |                     |                       |               |
|                                |                               | <b>Fund Balance, Ending</b>    |                     | <u>\$ 3,859,730.99</u> |                     |                     |                     |                       |               |

**City of Roeland Park**  
**Statement of Activities - General Fund**  
**Restricted for Special Law Enforcement Fund**  
**For the Period Ended 8/31/2019**

|                               |                                  | Projected vs. YTD  |                            |                  |                    |                     |                    |
|-------------------------------|----------------------------------|--------------------|----------------------------|------------------|--------------------|---------------------|--------------------|
|                               |                                  | Current Month      | Year-to-Date               | Budget to Date   | Approved Budget    | 2019 Projected      | % Remaining        |
| <b>Revenues</b>               |                                  |                    |                            |                  |                    |                     |                    |
| 4010                          | Cash Carryforward                | \$ -               | \$ -                       | \$ -             | \$ -               | \$ 8,913.00         | 0.00%              |
| 4432                          | Spec. Law Enforcement Revenues   | -                  | 3,850.00                   | 664.00           | 1,000.00           | 10,000.00           | 38.50%             |
| 4433                          | K9 Contributions                 | -                  | 100.00                     | -                | -                  | -                   | N/A                |
|                               | <b>Total Revenues</b>            | <b>-</b>           | <b>3,950.00</b>            | <b>664.00</b>    | <b>1,000.00</b>    | <b>18,913.00</b>    | <b>20.89%</b>      |
| <b>Expenditures</b>           |                                  |                    |                            |                  |                    |                     |                    |
| 5316                          | K9 Expenses                      | 224.40             | 244.40                     | -                | -                  | -                   | N/A                |
| 5317                          | Special Law Enforcement Expenses | -                  | -                          | -                | -                  | 8,000.00            | 0.00%              |
|                               | <b>Total Expenditures</b>        | <b>224.40</b>      | <b>244.40</b>              | <b>-</b>         | <b>-</b>           | <b>8,000.00</b>     | <b>3.06%</b>       |
| <b>Change in Fund Balance</b> |                                  | <b>\$ (224.40)</b> | <b>\$ 3,705.60</b>         | <b>\$ 664.00</b> | <b>\$ 1,000.00</b> | <b>\$ 10,913.00</b> | <b>\$ 7,207.40</b> |
| 2910                          | <b>Fund Balance, Beginning</b>   |                    | <u>16,615.59</u>           |                  |                    |                     |                    |
|                               | <b>Fund Balance, Ending</b>      |                    | <u><b>\$ 20,321.19</b></u> |                  |                    |                     |                    |

**City of Roeland Park**  
**Statement of Activities - Bond & Interest Fund**  
**For the Period Ended 8/31/2019**

|                               |                                    |                        |                             |                      |                      |                     |                        | Projected vs. YTD | %        |
|-------------------------------|------------------------------------|------------------------|-----------------------------|----------------------|----------------------|---------------------|------------------------|-------------------|----------|
|                               |                                    | Current Month          | Year to Date                | Budget to Date       | Approved Budget      | 2019 Projected      | Actual                 | Remaining         |          |
| 4010                          | Cash Carryforward                  | \$ -                   | \$ -                        | \$ 124,466.00        | \$ 124,466.00        | \$ 131,777.00       | \$ 131,777.00          |                   | 0.00%    |
| 4020                          | Recreational Vehicle Tax           | -                      | 74.25                       | 40.00                | 60.00                | 60.00               | (14.25)                |                   | 123.75%  |
| 4021                          | Commercial Vehicle Tax             | -                      | -                           | -                    | -                    | -                   | -                      |                   | N/A      |
| 4040                          | Heavy Trucks Tax                   | -                      | 98.96                       | 96.00                | 140.00               | 140.00              | 41.04                  |                   | 70.69%   |
| 4050                          | Ad Valorem Tax                     | -                      | 133,240.38                  | 106,720.00           | 160,074.00           | 136,021.00          | 2,780.62               |                   | 97.96%   |
| 4060                          | Motor Vehicle Tax                  | -                      | 14,032.95                   | 16,000.00            | 24,000.00            | 24,000.00           | 9,967.05               |                   | 58.47%   |
| 4070                          | Personal Property Tax - Delinquent | -                      | -                           | 32.00                | 50.00                | 50.00               | 50.00                  |                   | 0.00%    |
| 4080                          | Real Property Tax - Delinquent     | -                      | (9,917.13)                  | 1,336.00             | 2,000.00             | 2,000.00            | 11,917.13              |                   | -495.86% |
| 4510                          | Interest on Investment             | 1,431.61               | 1,431.61                    | -                    | -                    | -                   | (1,431.61)             |                   | N/A      |
| 4511                          | Interest on Invested Assets        | -                      | 5,216.24                    | 2,976.00             | 4,465.00             | 8,500.00            | 3,283.76               |                   | 61.37%   |
| 4620                          | Special Assessments - Delinquent   | -                      | -                           | 240.00               | 364.00               | 364.00              | 364.00                 |                   | 0.00%    |
| 4630                          | Storm Drainage RC12-013            | -                      | 58,925.89                   | 42,168.00            | 63,250.00            | 59,895.00           | 969.11                 |                   | 98.38%   |
| 4640                          | Storm Drainage RC12-012            | -                      | 89,158.74                   | 61,192.00            | 91,782.00            | 90,864.18           | 1,705.44               |                   | 98.12%   |
| 4650                          | Storm Drainage RC12-014            | -                      | 103,493.81                  | 71,032.00            | 106,551.00           | 105,485.00          | 1,991.19               |                   | 98.11%   |
| 4830                          | Transfer from 27A Fund             | 7,500.00               | 157,500.00                  | 200,000.00           | 300,000.00           | 285,000.00          | 127,500.00             |                   | 55.26%   |
| 4840                          | Transfer From General Fund         | (14,582.00)            | -                           | 16,664.00            | 25,000.00            | -                   | -                      |                   | N/A      |
| <b>Total Revenues</b>         |                                    | <b>(5,650.39)</b>      | <b>553,255.70</b>           | <b>642,962.00</b>    | <b>902,202.00</b>    | <b>844,156.18</b>   | <b>290,900.48</b>      |                   | 65.54%   |
| 5209                          | Professional Services              | -                      | 750.00                      | 2,032.00             | 3,050.00             | 3,100.00            | 2,350.00               |                   | 24.19%   |
| 5608                          | Principal Bonds - 2010-1           | -                      | -                           | 186,664.00           | 280,000.00           | 280,000.00          | 280,000.00             |                   | 0.00%    |
| 5609                          | Interest Bonds - 2010-1            | -                      | 16,707.50                   | 22,280.00            | 33,415.00            | 33,415.00           | 16,707.50              |                   | 50.00%   |
| 5614                          | Bond Principal 2014-1              | -                      | -                           | 74,664.00            | 112,000.00           | 112,000.00          | 112,000.00             |                   | 0.00%    |
| 5615                          | Bond Interest 2014-1               | -                      | 2,542.50                    | 3,392.00             | 5,088.00             | 5,088.00            | 2,545.50               |                   | 49.97%   |
| 5628                          | Principal Bonds - 2011-2           | -                      | -                           | 56,664.00            | 85,000.00            | 85,000.00           | 85,000.00              |                   | 0.00%    |
| 5629                          | Interest Bonds - 2011-2            | -                      | 11,903.75                   | 15,872.00            | 23,808.00            | 23,808.00           | 11,904.25              |                   | 50.00%   |
| 5644                          | Principal Bonds - 2012-1           | -                      | -                           | 133,336.00           | 200,000.00           | 200,000.00          | 200,000.00             |                   | 0.00%    |
| 5645                          | Interest Bonds - 2012-1            | -                      | 10,858.75                   | 14,480.00            | 21,718.00            | 21,718.00           | 10,859.25              |                   | 50.00%   |
| 5751                          | TIF Fund Expenditure               | -                      | -                           | 15,200.00            | 22,800.00            | -                   | -                      |                   | N/A      |
| 5834                          | Bond Principal - 2010-1            | 280,000.00             | 280,000.00                  | -                    | -                    | -                   | (280,000.00)           |                   | N/A      |
| 5835                          | Bond Interest - 2010-1             | 16,707.50              | 16,707.50                   | -                    | -                    | -                   | (16,707.50)            |                   | N/A      |
| <b>Total Expenditures</b>     |                                    | <b>296,707.50</b>      | <b>339,470.00</b>           | <b>524,584.00</b>    | <b>786,879.00</b>    | <b>764,129.00</b>   | <b>424,659.00</b>      |                   | 44.43%   |
| <b>Change in Fund Balance</b> |                                    | <b>\$ (302,357.89)</b> | <b>\$ 213,785.70</b>        | <b>\$ 118,378.00</b> | <b>\$ 115,323.00</b> | <b>\$ 80,027.18</b> | <b>\$ (133,758.52)</b> |                   |          |
| 2910..2970                    | <b>Fund Balance, Beginning</b>     |                        | <u>131,777.55</u>           |                      |                      |                     |                        |                   |          |
|                               | <b>Fund Balance, Ending</b>        |                        | <u><b>\$ 345,563.25</b></u> |                      |                      |                     |                        |                   |          |

**City of Roeland Park**  
**Statement of Activities - Aquatic Center Fund**  
**For the Period Ended 8/31/2019**

|                               |                                    | Projected vs. YTD    |                      |                |                 |                |                        |             |
|-------------------------------|------------------------------------|----------------------|----------------------|----------------|-----------------|----------------|------------------------|-------------|
|                               |                                    | Current Month        | Year to Date         | Budget to Date | Approved Budget | 2019 Projected | Actual                 | % Remaining |
| 4010                          | Cash Carryforward                  | \$ -                 | \$ -                 | \$ -           | \$ -            | \$ -           | \$ -                   | N/A         |
| 4275                          | Program Fees                       | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4276                          | Internal Program Revenue           | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4277                          | Participation Fees                 | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4278                          | Advertising Sponsorship            | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4279                          | Facility Rental                    | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4290                          | Concession Revenue                 | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4291                          | Retail Sales - Taxable             | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4292                          | Taxable Sales Discounts (contract) | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 4840                          | Transfer From General Fund         | 280,000.00           | 280,000.00           | -              | -               | -              | (280,000.00)           | N/A         |
| 4843                          | Transfer from Equip Reserve Fund   | 131,391.00           | 131,391.00           | -              | -               | -              | (131,391.00)           | N/A         |
| <b>Total Revenues</b>         |                                    | <b>411,391.00</b>    | <b>411,391.00</b>    | <b>-</b>       | <b>-</b>        | <b>-</b>       | <b>(411,391.00)</b>    | N/A         |
| <b>Expenditures</b>           |                                    |                      |                      |                |                 |                |                        |             |
| 5101                          | Salaries - Regular                 | 1,023.00             | 1,581.00             | -              | -               | -              | (1,581.00)             | N/A         |
| 5102                          | Salaries-Overtime                  | 3.84                 | 4.68                 | -              | -               | -              | (4.68)                 | N/A         |
| 5104                          | Salaries - Part-time               | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5201                          | Electric                           | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5202                          | Telephone                          | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5203                          | Printing & Advertising             | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5205                          | Postage & Mailing Permits          | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5206                          | Travel Expense & Training          | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5207                          | Medical Expense & Drug Testing     | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5210                          | Maintenance & Repair Building      | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5211                          | Maintenance & Repair Equipment     | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5214                          | Other Contracted Services          | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5223                          | Pool Management Fee                | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5250                          | Insurance & Surety Bonds           | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5253                          | Public Relations                   | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5266                          | Computer Software                  | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5287                          | Water                              | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5288                          | Waste Water                        | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5289                          | Natural Gas                        | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5301                          | Office Supplies                    | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5302                          | Motor Fuels & Lubricants           | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5304                          | Janitorial Supplies                | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5305                          | Dues, Subscriptions, & Books       | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5306                          | Materials                          | -                    | 386.13               | -              | -               | -              | (386.13)               | N/A         |
| 5307                          | Other Commodities                  | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5308                          | Clothing & Uniforms                | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5311                          | Pool Equipment                     | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5318                          | Tools                              | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5403                          | Office Equipment                   | -                    | -                    | -              | -               | -              | -                      | N/A         |
| 5442                          | Building Improvement               | 10,825.00            | 10,825.00            | -              | -               | -              | (10,825.00)            | N/A         |
| <b>Total Expenditures</b>     |                                    | <b>11,851.84</b>     | <b>12,796.81</b>     | <b>-</b>       | <b>-</b>        | <b>-</b>       | <b>(12,796.81)</b>     | N/A         |
| <b>Change in Fund Balance</b> |                                    | <b>\$ 399,539.16</b> | <b>\$ 398,594.19</b> | <b>\$ -</b>    | <b>\$ -</b>     | <b>\$ -</b>    | <b>\$ (398,594.19)</b> |             |
| 2910..2970                    | <b>Fund Balance, Beginning</b>     |                      | -                    |                |                 |                |                        |             |
|                               | <b>Fund Balance, Ending</b>        |                      | <b>\$ 398,594.19</b> |                |                 |                |                        |             |



**City of Roeland Park**  
**Statement of Activities - Special Highway Fund**  
**For the Period Ended 8/31/2019**

|                        |                                | Projected vs. YTD |               |                |                 |                |               |             |
|------------------------|--------------------------------|-------------------|---------------|----------------|-----------------|----------------|---------------|-------------|
|                        |                                | Current Month     | Year to Date  | Budget to Date | Approved Budget | 2019 Projected | Actual        | % Remaining |
| Revenues               |                                |                   |               |                |                 |                |               |             |
| 4010                   | Cash Carryforward              | \$ -              | \$ -          | \$ 229,950.00  | \$ 229,950.00   | \$ 227,231.00  | \$ 227,231.00 | 0.00%       |
| 4140                   | Spec City/county Highway Fund  | -                 | 136,788.07    | 122,656.00     | 183,980.00      | 183,980.00     | 47,191.93     | 74.35%      |
| 4510                   | Interest on Investment         | 262.46            | 262.46        | -              | -               | -              | (262.46)      | N/A         |
| 4511                   | Interest on Invested Assets    | -                 | 1,067.52      | -              | -               | -              | (1,067.52)    | N/A         |
| Total Revenues         |                                | 262.46            | 138,118.05    | 352,606.00     | 413,930.00      | 411,211.00     | 273,092.95    | 33.59%      |
| Expenditures           |                                |                   |               |                |                 |                |               |             |
| 5101                   | Salaries - Regular             | -                 | -             | 42,984.00      | 64,480.00       | 64,480.00      | 64,480.00     | 0.00%       |
| 5211                   | Maintenance & Repair Equipment | -                 | -             | -              | -               | -              | -             | N/A         |
| 5303                   | Sand and Salt                  | -                 | 25,718.47     | 16,664.00      | 25,000.00       | 25,000.00      | (718.47)      | 102.87%     |
| 5454                   | Sidewalk Improvements          | (24,153.00)       | -             | 16,664.00      | 25,000.00       | -              | -             | N/A         |
| 5825                   | Transfer to Equip Reserve Fund | -                 | -             | -              | -               | -              | -             | N/A         |
| Total Expenditures     |                                | (24,153.00)       | 25,718.47     | 76,312.00      | 114,480.00      | 89,480.00      | 63,761.53     | 28.74%      |
| Change in Fund Balance |                                | \$ 24,415.46      | \$ 112,399.58 | \$ 276,294.00  | \$ 299,450.00   | \$ 321,731.00  | \$ 209,331.42 |             |
| 2910..2970             | Fund Balance, Beginning        |                   | 227,230.61    |                |                 |                |               |             |
|                        | Fund Balance, Ending           |                   | \$ 339,630.19 |                |                 |                |               |             |

**City of Roeland Park**  
**Statement of Activities - Special Street Fund 27A**  
**For the Period Ended 8/31/2019**

|                               |                                   | Projected vs. YTD      |                      |                      |                      |                      |                      |
|-------------------------------|-----------------------------------|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                               |                                   | Current Month          | Year to Date         | Budget to Date       | Approved Budget      | 2019 Projected       | % Remaining          |
| <b>Revenues</b>               |                                   |                        |                      |                      |                      |                      |                      |
| 4010                          | Cash Carryforward                 | \$ -                   | \$ -                 | \$ 229,597.00        | \$ 229,597.00        | \$ 451,393.00        | 0.00%                |
| 4110                          | City/county Sales & Use Tax       | 66,501.14              | 508,866.13           | 530,728.00           | 796,095.00           | 750,611.00           | 67.79%               |
| 4135                          | County Courthouse Sales Tax       | 13,348.94              | 104,836.58           | 108,408.00           | 162,610.00           | 159,358.00           | 65.79%               |
| 4150                          | CARS Funding                      | -                      | (0.04)               | 69,080.00            | 103,620.00           | 173,315.00           | 0.00%                |
| 4510                          | Interest on Investment            | 854.28                 | 854.28               | -                    | -                    | -                    | N/A                  |
| 4511                          | Interest on Invested Assets       | -                      | 3,315.97             | 1,000.00             | 1,500.00             | 7,000.00             | 47.37%               |
| 4530                          | Reimbursed Expense                | 64,380.35              | 64,380.35            | -                    | -                    | 64,380.00            | 100.00%              |
| <b>Total Revenues</b>         |                                   | <b>145,084.71</b>      | <b>682,253.27</b>    | <b>938,813.00</b>    | <b>1,293,422.00</b>  | <b>1,606,057.00</b>  | <b>42.48%</b>        |
| <b>Expenditures</b>           |                                   |                        |                      |                      |                      |                      |                      |
| 5209                          | Professional Services             | 12,325.94              | 60,590.43            | 66,664.00            | 100,000.00           | 100,000.00           | 60.59%               |
| 5430                          | Residential Street Reconstruction | 553.10                 | 8,160.41             | 356,000.00           | 534,000.00           | 534,927.00           | 1.53%                |
| 5454                          | Sidewalk Improvements             | 24,153.00              | 24,153.00            | -                    | -                    | 25,000.00            | 96.61%               |
| 5457                          | CARS 2020 - Roe                   | 112,390.00             | 112,390.00           | -                    | -                    | -                    | N/A                  |
| 5458                          | CARS 2018                         | 244,271.19             | 182,055.34           | -                    | -                    | 231,824.00           | 78.53%               |
| 5459                          | CARS 2019                         | 77,741.16              | 147,172.10           | 127,336.00           | 191,000.00           | 158,496.00           | 92.86%               |
| 5460                          | CARS 2022 - 53rd Street           | -                      | -                    | -                    | -                    | -                    | N/A                  |
| 5461                          | CARS 2022 - Nall Avenue           | -                      | -                    | -                    | -                    | -                    | N/A                  |
| 5462                          | CARS 2023                         | -                      | -                    | -                    | -                    | -                    | N/A                  |
| 5818                          | Transfer to Bond & Interest Fund  | 7,500.00               | 157,500.00           | 200,000.00           | 300,000.00           | 285,000.00           | 55.26%               |
| <b>Total Expenditures</b>     |                                   | <b>478,934.39</b>      | <b>692,021.28</b>    | <b>750,000.00</b>    | <b>1,125,000.00</b>  | <b>1,335,247.00</b>  | <b>51.83%</b>        |
| <b>Change in Fund Balance</b> |                                   | <b>\$ (333,849.68)</b> | <b>\$ (9,768.01)</b> | <b>\$ 188,813.00</b> | <b>\$ 168,422.00</b> | <b>\$ 270,810.00</b> | <b>\$ 280,578.01</b> |
| 2910..2970                    | <b>Fund Balance, Beginning</b>    |                        | 451,392.45           |                      |                      |                      |                      |
|                               | <b>Fund Balance, Ending</b>       |                        | <b>\$ 441,624.44</b> |                      |                      |                      |                      |

**City of Roeland Park**  
**Statement of Activities - Community Center Fund 27C**  
**For the Period Ended 8/31/2019**

|                     |                                | <u>Current Month</u> | <u>Year to Date</u>  | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u> | <u>Projected vs. YTD Actual</u> | <u>% Remaining</u> |
|---------------------|--------------------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|---------------------------------|--------------------|
| <b>Revenues</b>     |                                |                      |                      |                       |                        |                       |                                 |                    |
| 4010                | Cash Carryforward              | \$ -                 | \$ -                 | \$ 545,370.00         | \$ 545,370.00          | \$ 566,969.00         | \$ 566,969.00                   | 0.00%              |
| 4110                | City/county Sales & Use Tax    | 16,625.28            | 127,216.54           | 132,680.00            | 199,024.00             | 187,654.00            | 60,437.46                       | 67.79%             |
| 4510                | Interest on Investment         | 576.92               | 576.92               | -                     | -                      | -                     | (576.92)                        | N/A                |
| 4511                | Interest on Invested Assets    | -                    | 2,416.27             | -                     | -                      | 4,500.00              | 2,083.73                        | 53.69%             |
|                     | <b>Total Revenues</b>          | <u>17,202.20</u>     | <u>130,209.73</u>    | <u>678,050.00</u>     | <u>744,394.00</u>      | <u>759,123.00</u>     | <u>628,913.27</u>               | 17.15%             |
| <b>Expenditures</b> |                                |                      |                      |                       |                        |                       |                                 |                    |
| 5101                | Salaries - Regular             | 2,697.00             | 3,999.00             | -                     | -                      | 15,500.00             | 11,501.00                       | 25.80%             |
| 5102                | Salaries-Overtime              | 9.07                 | 11.02                | -                     | -                      | -                     | (11.02)                         | N/A                |
| 5104                | Salaries - Part-time           | 1,445.80             | 2,107.06             | -                     | -                      | 12,000.00             | 9,892.94                        | 17.56%             |
| 5207                | Medical Expense & Drug Testing | 260.50               | 260.50               | -                     | -                      | -                     | (260.50)                        | N/A                |
| 5209                | Professional Services          | -                    | -                    | 20,000.00             | 30,000.00              | 28,500.00             | 28,500.00                       | 0.00%              |
| 5210                | Maintenance & Repair Building  | -                    | 9,707.72             | 10,000.00             | 15,000.00              | 15,000.00             | 5,292.28                        | 64.72%             |
| 5211                | Maintenace & Repair Equipment  | -                    | 180.00               | 4,664.00              | 7,000.00               | 7,000.00              | 6,820.00                        | 2.57%              |
| 5250                | Insurance & Surety Bonds       | -                    | 4,549.36             | 3,072.00              | 4,608.00               | 4,608.00              | 58.64                           | 98.73%             |
| 5253                | Public Relations               | -                    | -                    | 264.00                | 400.00                 | 400.00                | 400.00                          | 0.00%              |
| 5255                | JoCo Management Fee            | -                    | 41,858.00            | 55,760.00             | 83,640.00              | 47,500.00             | 5,642.00                        | 88.12%             |
| 5262                | Grounds Maintenance            | -                    | 168.00               | 1,664.00              | 2,500.00               | 2,500.00              | 2,332.00                        | 6.72%              |
| 5264                | Grounds Improvements           | -                    | -                    | 1,000.00              | 1,500.00               | 1,500.00              | 1,500.00                        | 0.00%              |
| 5307                | Other Commodities              | 599.99               | 1,270.09             | 3,664.00              | 5,500.00               | 5,000.00              | 3,729.91                        | 25.40%             |
| 5425                | Other Capital Outlay           | -                    | 8,671.00             | 18,936.00             | 28,400.00              | 75,400.00             | 66,729.00                       | 11.50%             |
| 5802                | Transfer to General Fund       | 7,562.64             | 7,562.64             | -                     | -                      | 11,344.00             | 3,781.36                        | 66.67%             |
|                     | <b>Total Expenditures</b>      | <u>12,575.00</u>     | <u>80,344.39</u>     | <u>119,024.00</u>     | <u>178,548.00</u>      | <u>226,252.00</u>     | <u>145,907.61</u>               | 35.51%             |
|                     | <b>Change in Fund Balance</b>  | <u>\$ 4,627.20</u>   | \$ 49,865.34         | <u>\$ 559,026.00</u>  | <u>\$ 565,846.00</u>   | <u>\$ 532,871.00</u>  | <u>\$ 483,005.66</u>            |                    |
| 2910..2970          | <b>Fund Balance, Beginning</b> |                      | <u>566,968.23</u>    |                       |                        |                       |                                 |                    |
|                     | <b>Fund Balance, Ending</b>    |                      | <u>\$ 616,833.57</u> |                       |                        |                       |                                 |                    |

**City of Roeland Park**  
**Statement of Activities - Special Infrastructure 27D**  
**For the Period Ended 8/31/2019**

|                               |                                  | Projected vs. YTD  |                               |                      |                      |                        |                        |             |
|-------------------------------|----------------------------------|--------------------|-------------------------------|----------------------|----------------------|------------------------|------------------------|-------------|
|                               |                                  | Current Month      | Year to Date                  | Budget to Date       | Approved Budget      | 2019 Projected         | Actual                 | % Remaining |
| <b>Revenues</b>               |                                  |                    |                               |                      |                      |                        |                        |             |
| 4010                          | Cash Carryforward                | \$ -               | \$ -                          | \$ 521,336.00        | \$ 521,336.00        | \$ 1,075,705.00        | \$ 1,075,705.00        | 0.00%       |
| 4110                          | City/county Sales & Use Tax      | 33,250.57          | 254,433.07                    | 265,368.00           | 398,048.00           | 375,304.00             | 120,870.93             | 67.79%      |
| 4155                          | CDBG Grant                       | -                  | -                             | 111,064.00           | 166,600.00           | 144,000.00             | 144,000.00             | 0.00%       |
| 4510                          | Interest on Investment           | 1,476.49           | 1,476.49                      | -                    | -                    | -                      | (1,476.49)             | N/A         |
| 4511                          | Interest on Invested Assets      | -                  | 4,462.73                      | -                    | -                    | 4,000.00               | (462.73)               | 111.57%     |
| 4840                          | Transfer From General Fund       | 16,666.67          | 133,334.67                    | 133,336.00           | 200,000.00           | 300,000.00             | 166,665.33             | 44.44%      |
| <b>Total Revenues</b>         |                                  | <b>51,393.73</b>   | <b>393,706.96</b>             | <b>1,031,104.00</b>  | <b>1,285,984.00</b>  | <b>1,899,009.00</b>    | <b>1,505,302.04</b>    | 20.73%      |
| <b>Expenditures</b>           |                                  |                    |                               |                      |                      |                        |                        |             |
| 5209                          | Professional Services            | -                  | 41,234.50                     | 26,664.00            | 40,000.00            | 40,000.00              | (1,234.50)             | 103.09%     |
| 5221                          | Streets Maintenance - Contract   | -                  | -                             | -                    | -                    | 160,000.00             | 160,000.00             | 0.00%       |
| 5246                          | In-House Street Maintenance      | -                  | -                             | -                    | -                    | -                      | -                      | N/A         |
| 5421                          | Street Maintenance               | 39,720.44          | 243,430.51                    | 76,664.00            | 115,000.00           | -                      | (243,430.51)           | N/A         |
| 5468                          | 2020 Stormwater-57th and Roeland | -                  | -                             | -                    | -                    | 30,000.00              | 30,000.00              | 0.00%       |
| 5469                          | Stormwater Maintenance           | -                  | 20,009.23                     | 113,336.00           | 170,000.00           | 20,000.00              | (9.23)                 | 100.05%     |
| 5470                          | Park Maint/Infrastructure        | 3,970.08           | 54,010.65                     | 42,664.00            | 64,000.00            | 106,189.00             | 52,178.35              | 50.86%      |
| 5472                          | R Park Development Plan          | -                  | 13,691.10                     | -                    | -                    | 118,504.00             | 104,812.90             | 11.55%      |
| 5473                          | RPAC Improvements                | -                  | -                             | -                    | -                    | 100,000.00             | 100,000.00             | 0.00%       |
| 5498                          | CDBG - 2019                      | 597.70             | 11,922.54                     | 130,664.00           | 196,000.00           | 174,000.00             | 162,077.46             | 6.85%       |
| <b>Total Expenditures</b>     |                                  | <b>44,288.22</b>   | <b>384,298.53</b>             | <b>389,992.00</b>    | <b>585,000.00</b>    | <b>748,693.00</b>      | <b>364,394.47</b>      | 51.33%      |
| <b>Change in Fund Balance</b> |                                  | <b>\$ 7,105.51</b> | <b>\$ 9,408.43</b>            | <b>\$ 641,112.00</b> | <b>\$ 700,984.00</b> | <b>\$ 1,150,316.00</b> | <b>\$ 1,140,907.57</b> |             |
| 2910..2970                    | <b>Fund Balance, Beginning</b>   |                    | <u>1,075,704.50</u>           |                      |                      |                        |                        |             |
|                               | <b>Fund Balance, Ending</b>      |                    | <u><b>\$ 1,085,112.93</b></u> |                      |                      |                        |                        |             |

**City of Roeland Park**  
**Statement of Activities - Equipment & Bldg Reserve Fund**  
**For the Period Ended 8/31/2019**

|                               |                                |                        |                        |                      |                      | Projected vs. YTD      |                        | %         |
|-------------------------------|--------------------------------|------------------------|------------------------|----------------------|----------------------|------------------------|------------------------|-----------|
|                               |                                | Current Month          | Year to Date           | Budget to Date       | Approved Budget      | 2019 Projected         | Actual                 | Remaining |
| <b>Revenues</b>               |                                |                        |                        |                      |                      |                        |                        |           |
| 4010                          | Cash Carryforward              | \$ -                   | \$ -                   | \$ 228,908.00        | \$ 228,908.00        | \$ 290,720.00          | \$ 290,720.00          | 0.00%     |
| 4510                          | Interest on Investment         | \$ 559.41              | \$ 559.41              | \$ -                 | \$ -                 | \$ -                   | \$ (559.41)            | N/A       |
| 4511                          | Interest on Invested Assets    | -                      | 2,376.47               | -                    | -                    | 2,000.00               | (376.47)               | 118.82%   |
| 4780                          | Sale of Assets                 | -                      | -                      | -                    | -                    | 1,201,054.00           | 1,201,054.00           | 0.00%     |
| 4824                          | Transfer from Public Works     | -                      | -                      | -                    | -                    | -                      | -                      | N/A       |
| 4840                          | Transfer From General Fund     | (40,137.00)            | 29,800.00              | 79,928.00            | 119,888.00           | 44,700.00              | 14,900.00              | 66.67%    |
| 4841                          | Transfer from PD/GF            | 5,860.00               | 46,880.00              | 46,880.00            | 70,320.00            | 70,320.00              | 23,440.00              | 66.67%    |
| 4842                          | Transfer from PW/GF            | (12,566.66)            | 16,133.34              | 32,800.00            | 49,200.00            | 24,200.00              | 8,066.66               | 66.67%    |
| 4860                          | Transfer from Special Highway  | -                      | -                      | -                    | -                    | -                      | -                      | N/A       |
| <b>Total Revenues</b>         |                                | <b>(46,284.25)</b>     | <b>95,749.22</b>       | <b>388,516.00</b>    | <b>468,316.00</b>    | <b>1,632,994.00</b>    | <b>1,537,244.78</b>    | 5.86%     |
| <b>Expenditures</b>           |                                |                        |                        |                      |                      |                        |                        |           |
| 5315                          | Machinery & Auto Equipment     | 5,032.24               | 67,578.24              | 79,680.00            | 119,520.00           | 139,220.00             | 71,641.76              | 48.54%    |
| 5442                          | Building Improvement           | (10,825.00)            | -                      | 59,664.00            | 89,500.00            | 16,000.00              | 16,000.00              | 0.00%     |
| 5619                          | Lease/Purchase - Principal     | -                      | -                      | -                    | -                    | -                      | -                      | N/A       |
| 5620                          | Lease/Purchase - Interest      | -                      | -                      | -                    | -                    | -                      | -                      | N/A       |
| 5705                          | Future CIP - PW                | -                      | -                      | -                    | -                    | -                      | -                      | N/A       |
| 5707                          | Fututre CIP - Building Reserve | -                      | -                      | 20,256.00            | 30,388.00            | -                      | -                      | N/A       |
| 5801                          | Transfer of Funds              | 131,391.00             | 131,391.00             | -                    | -                    | 131,391.00             | -                      | 100.00%   |
| <b>Total Expenditures</b>     |                                | <b>125,598.24</b>      | <b>198,969.24</b>      | <b>159,600.00</b>    | <b>239,408.00</b>    | <b>286,611.00</b>      | <b>87,641.76</b>       | 69.42%    |
| <b>Change in Fund Balance</b> |                                | <b>\$ (171,882.49)</b> | <b>\$ (103,220.02)</b> | <b>\$ 228,916.00</b> | <b>\$ 228,908.00</b> | <b>\$ 1,346,383.00</b> | <b>\$ 1,449,603.02</b> |           |
| 2910..2970                    | <b>Fund Balance, Beginning</b> |                        | 290,720.43             |                      |                      |                        |                        |           |
|                               | <b>Fund Balance, Ending</b>    |                        | <b>\$ 187,500.41</b>   |                      |                      |                        |                        |           |

**City of Roeland Park**  
**Statement of Activities - TIF 1A/B - Bella Roe/Walmart**  
**For the Period Ended 8/31/2019**

|                               |                                | Projected vs. YTD   |                        |                        |                        |                      |                          |
|-------------------------------|--------------------------------|---------------------|------------------------|------------------------|------------------------|----------------------|--------------------------|
|                               |                                | Current Month       | Year to Date           | Budget to Date         | Approved Budget        | 2019 Projected       | % Remaining              |
| <b>Revenues</b>               |                                |                     |                        |                        |                        |                      |                          |
| 4010                          | Cash Carryforward              | \$ -                | \$ -                   | \$ 931,917.00          | \$ 931,917.00          | \$ 893,273.00        | 893,273.00 0.00%         |
| 4510                          | Interest on Investment         | 1,699.90            | 1,699.90               | -                      | -                      | 8,000.00             | 6,300.10 21.25%          |
| 4511                          | Interest on Invested Assets    | -                   | 3,686.41               | 11,664.00              | 17,500.00              | 8,000.00             | 4,313.59 46.08%          |
| 4730                          | Tax Increment Income           | -                   | 379,642.56             | 275,152.00             | 412,733.00             | 379,642.00           | (0.56) 100.00%           |
| 4735                          | Tax Increment Income IB        | -                   | 363,041.64             | 399,464.00             | 599,199.00             | 13,434.00            | (349,607.64) 2702.41%    |
|                               | <b>Total Revenues</b>          | <b>1,699.90</b>     | <b>748,070.51</b>      | <b>1,618,197.00</b>    | <b>1,961,349.00</b>    | <b>1,302,349.00</b>  | <b>554,278.49</b> 57.44% |
| <b>Expenditures</b>           |                                |                     |                        |                        |                        |                      |                          |
| 5209                          | Professional Services          | -                   | -                      | 736.00                 | 1,100.00               | 1,100.00             | 1,100.00 0.00%           |
| 5214                          | Other Contracted Services      | -                   | -                      | 1,760.00               | 2,640.00               | 2,640.00             | 2,640.00 0.00%           |
| 5457                          | CARS 2020 - Roe                | (90,934.47)         | 95,516.75              | -                      | -                      | 519,234.00           | 423,717.25 18.40%        |
| 5459                          | CARS 2019                      | -                   | -                      | -                      | -                      | 18,043.00            | 18,043.00 0.00%          |
| 5725                          | Property Tax Reduction Appeals | -                   | -                      | 93,504.00              | 140,250.00             | -                    | - N/A                    |
|                               | <b>Total Expenditures</b>      | <b>(90,934.47)</b>  | <b>95,516.75</b>       | <b>96,000.00</b>       | <b>143,990.00</b>      | <b>541,017.00</b>    | <b>445,500.25</b> 17.66% |
| <b>Change in Fund Balance</b> |                                | <b>\$ 92,634.37</b> | <b>\$ 652,553.76</b>   | <b>\$ 1,522,197.00</b> | <b>\$ 1,817,359.00</b> | <b>\$ 761,332.00</b> | <b>\$ 108,778.24</b>     |
| 2910..2970                    | <b>Fund Balance, Beginning</b> |                     | 893,272.89             |                        |                        |                      |                          |
|                               | <b>Fund Balance, Ending</b>    |                     | <b>\$ 1,545,826.65</b> |                        |                        |                      |                          |



**City of Roeland Park**  
**Statement of Activities - TDD#1 - Price Chopper**  
**For the Period Ended 8/31/2019**

|                               |                                | <u>Current Month</u>       | <u>Year to Date</u>                    | <u>Budget to Date</u>         | <u>Approved Budget</u>        | <u>2019 Projected</u>           | Projected vs. YTD<br><u>Actual</u> | %<br><u>Remaining</u> |
|-------------------------------|--------------------------------|----------------------------|----------------------------------------|-------------------------------|-------------------------------|---------------------------------|------------------------------------|-----------------------|
| <b>Revenues</b>               |                                |                            |                                        |                               |                               |                                 |                                    |                       |
| 4010                          | Cash Carryforward              | \$ -                       | \$ -                                   | \$ 2,720,995.00               | \$ 2,720,995.00               | \$ (2,507,302.00)               | \$ (2,507,302.00)                  | N/A                   |
| 4110                          | City/county Sales & Use Tax    | 20,863.38                  | 185,862.00                             | 187,272.00                    | 280,908.00                    | 254,127.00                      | 68,265.00                          | 73.14%                |
| 4510                          | Interest on Investment         | <u>24.81</u>               | <u>604.25</u>                          | <u>-</u>                      | <u>-</u>                      | <u>900.00</u>                   | <u>295.75</u>                      | 67.14%                |
| <b>Total Revenues</b>         |                                | <u><b>20,888.19</b></u>    | <u><b>186,466.25</b></u>               | <u><b>2,908,267.00</b></u>    | <u><b>3,001,903.00</b></u>    | <u><b>(2,252,275.00)</b></u>    | <u><b>(2,438,741.25)</b></u>       | N/A                   |
| <b>Expenditures</b>           |                                |                            |                                        |                               |                               |                                 |                                    |                       |
| 5209                          | Professional Services          | -                          | -                                      | -                             | -                             | -                               | -                                  | N/A                   |
| 5214                          | Other Contracted Services      | 333.33                     | 4,319.64                               | 4,336.00                      | 6,500.00                      | 5,000.00                        | 680.36                             | 86.39%                |
| 5601                          | Bond Principal                 | -                          | 112,786.11                             | -                             | -                             | -                               | (112,786.11)                       | N/A                   |
| 5602                          | Bond Interest                  | <u>-</u>                   | <u>3,213.89</u>                        | <u>182,936.00</u>             | <u>274,408.00</u>             | <u>15,000.00</u>                | <u>11,786.11</u>                   | 21.43%                |
| <b>Total Expenditures</b>     |                                | <u><b>333.33</b></u>       | <u><b>120,319.64</b></u>               | <u><b>187,272.00</b></u>      | <u><b>280,908.00</b></u>      | <u><b>20,000.00</b></u>         | <u><b>(100,319.64)</b></u>         | 601.60%               |
| <b>Change in Fund Balance</b> |                                | <u><b>\$ 20,554.86</b></u> | \$ 66,146.61                           | <u><b>\$ 2,720,995.00</b></u> | <u><b>\$ 2,720,995.00</b></u> | <u><b>\$ (2,272,275.00)</b></u> | <u><b>\$ (2,338,421.61)</b></u>    |                       |
| 2910..2970                    | <b>Fund Balance, Beginning</b> |                            | <u>(2,507,302.69)</u>                  |                               |                               |                                 |                                    |                       |
|                               | <b>Fund Balance, Ending</b>    |                            | <u><u><b>\$ (2,441,156.08)</b></u></u> |                               |                               |                                 |                                    |                       |

**City of Roeland Park**  
**Statement of Activities - TDD#2 - Lowes**  
**For the Period Ended 8/31/2019**

|                     |                                | <u>Current Month</u>       | <u>Year to Date</u>           | <u>Budget to Date</u>       | <u>Approved Budget</u>      | <u>2019 Projected</u>         | <u>Projected vs. YTD<br/>Actual</u> | <u>%<br/>Remaining</u> |
|---------------------|--------------------------------|----------------------------|-------------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------------|------------------------|
| <b>Revenues</b>     |                                |                            |                               |                             |                             |                               |                                     |                        |
| 4010                | Cash Carryforward              | \$ -                       | \$ -                          | \$ 687,810.00               | \$ 687,810.00               | \$ (689,301.00)               | \$ (689,301.00)                     | N/A                    |
| 4110                | City/county Sales & Use Tax    | 14,885.98                  | 82,834.03                     | 94,328.00                   | 141,494.00                  | 120,499.00                    | 37,664.97                           | 68.74%                 |
| 4510                | Interest on Investment         | <u>3.32</u>                | <u>156.75</u>                 | <u>-</u>                    | <u>-</u>                    | <u>500.00</u>                 | <u>343.25</u>                       | <u>31.35%</u>          |
|                     | <b>Total Revenues</b>          | <b><u>14,889.30</u></b>    | <b><u>82,990.78</u></b>       | <b><u>782,138.00</u></b>    | <b><u>829,304.00</u></b>    | <b><u>(568,302.00)</u></b>    | <b><u>(651,292.78)</u></b>          | N/A                    |
| <b>Expenditures</b> |                                |                            |                               |                             |                             |                               |                                     |                        |
| 5209                | Professional Services          | -                          | -                             | -                           | -                           | -                             | -                                   | N/A                    |
| 5214                | Other Contracted Services      | 166.67                     | 2,722.36                      | 3,336.00                    | 5,000.00                    | 5,000.00                      | 2,277.64                            | 54.45%                 |
| 5601                | Bond Principal                 | -                          | 37,912.63                     | 91,000.00                   | 136,494.00                  | -                             | (37,912.63)                         | N/A                    |
| 5602                | Bond Interest                  | <u>-</u>                   | <u>1,087.37</u>               | <u>-</u>                    | <u>-</u>                    | <u>4,000.00</u>               | <u>2,912.63</u>                     | <u>27.18%</u>          |
|                     | <b>Total Expenditures</b>      | <b><u>166.67</u></b>       | <b><u>41,722.36</u></b>       | <b><u>94,336.00</u></b>     | <b><u>141,494.00</u></b>    | <b><u>9,000.00</u></b>        | <b><u>(32,722.36)</u></b>           | 463.58%                |
|                     | <b>Change in Fund Balance</b>  | <b><u>\$ 14,722.63</u></b> | <b>\$ 41,268.42</b>           | <b><u>\$ 687,802.00</u></b> | <b><u>\$ 687,810.00</u></b> | <b><u>\$ (577,302.00)</u></b> | <b><u>\$ (618,570.42)</u></b>       |                        |
| 2910..2970          | <b>Fund Balance, Beginning</b> |                            | <u>(689,300.50)</u>           |                             |                             |                               |                                     |                        |
|                     | <b>Fund Balance, Ending</b>    |                            | <b><u>\$ (648,032.08)</u></b> |                             |                             |                               |                                     |                        |

**City of Roeland Park**  
**Statement of Activities - CID #1 - RP Shopping Center**  
**For the Period Ended 8/31/2019**

|                     |                                | <u>Current Month</u> | <u>Year to Date</u>    | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u>  | <u>Projected vs.<br/>YTD Actual</u> | <u>%<br/>Remaining</u> |
|---------------------|--------------------------------|----------------------|------------------------|-----------------------|------------------------|------------------------|-------------------------------------|------------------------|
| <b>Revenues</b>     |                                |                      |                        |                       |                        |                        |                                     |                        |
| 4010                | Cash Carryforward              | \$ -                 | \$ -                   | \$ 2,697,076.00       | \$ 2,697,076.00        | \$ 2,716,943.00        | \$ 2,716,943.00                     | 0.00%                  |
| 4110                | City/county Sales & Use Tax    | 40,251.82            | 227,366.95             | 205,848.00            | 308,771.00             | 295,000.00             | 67,633.05                           | 77.07%                 |
| 4510                | Interest on Investment         | 3,646.43             | 3,646.43               | -                     | -                      | -                      | (3,646.43)                          | N/A                    |
| 4511                | Interest on Invested Assets    | -                    | 16,697.70              | 5,640.00              | 8,460.00               | 32,461.00              | 15,763.30                           | 51.44%                 |
|                     | <b>Total Revenues</b>          | <u>43,898.25</u>     | <u>247,711.08</u>      | <u>2,908,564.00</u>   | <u>3,014,307.00</u>    | <u>3,044,404.00</u>    | <u>2,796,692.92</u>                 | <b>8.14%</b>           |
| <b>Expenditures</b> |                                |                      |                        |                       |                        |                        |                                     |                        |
| 5209                | Professional Services          | -                    | -                      | -                     | -                      | -                      | -                                   | N/A                    |
| 5215                | City Attorney                  | -                    | -                      | -                     | -                      | -                      | -                                   | N/A                    |
| 5721                | CID #1 Expenses                | -                    | -                      | 2,005,336.00          | 3,008,000.00           | -                      | -                                   | N/A                    |
|                     | <b>Total Expenditures</b>      | <u>-</u>             | <u>-</u>               | <u>2,005,336.00</u>   | <u>3,008,000.00</u>    | <u>-</u>               | <u>-</u>                            | <b>N/A</b>             |
|                     | <b>Change in Fund Balance</b>  | <u>\$ 43,898.25</u>  | <u>\$ 247,711.08</u>   | <u>\$ 903,228.00</u>  | <u>\$ 6,307.00</u>     | <u>\$ 3,044,404.00</u> | <u>\$ 2,796,692.92</u>              |                        |
| 2910..2970          | <b>Fund Balance, Beginning</b> |                      | <u>2,716,944.21</u>    |                       |                        |                        |                                     |                        |
|                     | <b>Fund Balance, Ending</b>    |                      | <u>\$ 2,964,655.29</u> |                       |                        |                        |                                     |                        |

**City of Roeland Park**  
**Statement of Activities - TIF 2A/D - McDonalds / City Hall**  
**For the Period Ended 8/31/2019**

|                               |                                |                       |                      |                       |                        |                       | Projected vs. YTD     | %                |
|-------------------------------|--------------------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------|
|                               |                                | <u>Current Month</u>  | <u>Year to Date</u>  | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u> | <u>Actual</u>         | <u>Remaining</u> |
| <b>Revenues</b>               |                                |                       |                      |                       |                        |                       |                       |                  |
| 4010                          | Cash Carryforward              | \$ -                  | \$ -                 | \$ 50,692.00          | \$ 50,692.00           | \$ 199,223.00         | \$ 199,223.00         | 0.00%            |
| 4510                          | Interest on Investment         | \$ 903.33             | \$ 903.33            | \$ -                  | \$ -                   | \$ -                  | \$ (903.33)           | N/A              |
| 4511                          | Interest on Invested Assets    | -                     | 4,280.93             | 664.00                | 1,000.00               | 8,000.00              | 3,719.07              | 53.51%           |
| 4730                          | Tax Increment Income           | 27,767.60             | 269,112.06           | 202,360.00            | 303,534.00             | 241,344.00            | (27,768.06)           | 111.51%          |
| 4789                          | Transfer from General Fund     | (71,168.00)           | -                    | 81,336.00             | 122,000.00             | -                     | -                     | N/A              |
| <b>Total Revenues</b>         |                                | <b>(42,497.07)</b>    | <b>274,296.32</b>    | <b>335,052.00</b>     | <b>477,226.00</b>      | <b>448,567.00</b>     | <b>174,270.68</b>     | 61.15%           |
| <b>Expenditures</b>           |                                |                       |                      |                       |                        |                       |                       |                  |
| 5209                          | Professional Services          | -                     | -                    | 3,336.00              | 5,000.00               | 5,000.00              | 5,000.00              | 0.00%            |
| 5214                          | Other Contracted Services      | -                     | -                    | 2,000.00              | 3,000.00               | 3,000.00              | 3,000.00              | 0.00%            |
| 5457                          | CARS 2020 - Roe                | 7,260.00              | 146,930.27           | 163,336.00            | 245,000.00             | 76,187.00             | (70,743.27)           | 192.85%          |
| 5458                          | CARS 2018                      | -                     | 8,307.08             | -                     | -                      | -                     | (8,307.08)            | N/A              |
| 5644                          | Principal Bonds - 2012-1       | -                     | -                    | 113,336.00            | 170,000.00             | 170,000.00            | 170,000.00            | 0.00%            |
| 5645                          | Interest Bonds - 2012-1        | -                     | 1,445.00             | 1,928.00              | 2,890.00               | 2,890.00              | 1,445.00              | 50.00%           |
| 5725                          | Property Tax Reduction Appeals | -                     | -                    | 9,336.00              | 14,000.00              | -                     | -                     | N/A              |
| 5802                          | Transfer to General Fund       | 15,541.67             | 15,541.67            | -                     | -                      | 186,500.00            | 170,958.33            | 8.33%            |
| <b>Total Expenditures</b>     |                                | <b>22,801.67</b>      | <b>172,224.02</b>    | <b>293,272.00</b>     | <b>439,890.00</b>      | <b>443,577.00</b>     | <b>271,352.98</b>     | 38.83%           |
| <b>Change in Fund Balance</b> |                                | <b>\$ (65,298.74)</b> | <b>\$ 102,072.30</b> | <b>\$ 41,780.00</b>   | <b>\$ 37,336.00</b>    | <b>\$ 4,990.00</b>    | <b>\$ (97,082.30)</b> |                  |
| 2910..2970                    | <b>Fund Balance, Beginning</b> |                       | 199,222.98           |                       |                        |                       |                       |                  |
|                               | <b>Fund Balance, Ending</b>    |                       | <b>\$ 301,295.28</b> |                       |                        |                       |                       |                  |

**City of Roeland Park**  
**Statement of Activities - TIF 2C - Valley State Bank**  
**For the Period Ended 8/31/2019**

|                               |                                | <u>Current Month</u> | <u>Year to Date</u> | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u> | <u>Projected vs. YTD<br/>Actual</u> | <u>%<br/>Remaining</u> |
|-------------------------------|--------------------------------|----------------------|---------------------|-----------------------|------------------------|-----------------------|-------------------------------------|------------------------|
| <b>Revenues</b>               |                                |                      |                     |                       |                        |                       |                                     |                        |
| 4010                          | Cash Carryforward              | \$ -                 | \$ -                | \$ -                  | \$ -                   | \$ 2,066.00           | \$ 2,066.00                         | 0.00%                  |
| 4511                          | Interest on Invested Assets    | -                    | 19.85               | -                     | -                      | 100.00                | 80.15                               | 19.85%                 |
| 4840                          | Transfer From General Fund     | -                    | -                   | -                     | -                      | 10,787.00             | 10,787.00                           | 0.00%                  |
| 4730                          | Tax Increment Income           | -                    | 49,331.58           | 23,616.00             | 35,425.00              | 38,350.00             | (10,981.58)                         | 128.64%                |
|                               | <b>Total Revenues</b>          | <u>-</u>             | <u>49,351.43</u>    | <u>23,616.00</u>      | <u>35,425.00</u>       | <u>51,303.00</u>      | <u>1,951.57</u>                     | 96.20%                 |
| <b>Expenditures</b>           |                                |                      |                     |                       |                        |                       |                                     |                        |
| 5209                          | Professional Services          | -                    | -                   | -                     | -                      | -                     | -                                   | N/A                    |
| 5214                          | Other Contracted Services      | -                    | 825.00              | 1,664.00              | 2,500.00               | 1,650.00              | 825.00                              | 50.00%                 |
| 5601                          | Bond Principal                 | -                    | 49,203.65           | 21,952.00             | 32,925.00              | 40,114.00             | (9,089.65)                          | 122.66%                |
| 5602                          | Bond Interest                  | -                    | -                   | -                     | -                      | 9,089.00              | 9,089.00                            | 0.00%                  |
| 5612                          | Debt Service - Bond Issue      | -                    | -                   | -                     | -                      | -                     | -                                   | N/A                    |
| 5802                          | Transfer to General Fund       | -                    | -                   | -                     | -                      | -                     | -                                   | N/A                    |
|                               | <b>Total Expenditures</b>      | <u>-</u>             | <u>50,028.65</u>    | <u>23,616.00</u>      | <u>35,425.00</u>       | <u>50,853.00</u>      | <u>824.35</u>                       | 98.38%                 |
| <b>Change in Fund Balance</b> |                                | <u>\$ -</u>          | <u>\$ (677.22)</u>  | <u>\$ -</u>           | <u>\$ -</u>            | <u>\$ 450.00</u>      | <u>\$ 1,127.22</u>                  |                        |
| 2910..2970                    | <b>Fund Balance, Beginning</b> |                      | <u>2,065.81</u>     |                       |                        |                       |                                     |                        |
|                               | <b>Fund Balance, Ending</b>    |                      | <u>\$ 1,388.59</u>  |                       |                        |                       |                                     |                        |

**City of Roeland Park**  
**Statement of Activities - TIF 3C - Old Pool Area**  
**For the Period Ended 8/31/2019**

|                     |                                | <u>Current Month</u> | <u>Year to Date</u>  | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u> | <u>Projected vs. YTD Actual</u> | <u>% Remaining</u> |
|---------------------|--------------------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|---------------------------------|--------------------|
| <b>Revenues</b>     |                                |                      |                      |                       |                        |                       |                                 |                    |
| 4010                | Cash Carryforward              | \$ -                 | \$ -                 | \$ 16,247.00          | \$ 16,247.00           | \$ 8,725.00           | \$ 8,725.00                     | 0.00%              |
| 4510                | Interest on Investment         | \$ 479.84            | \$ 479.84            | \$ -                  | \$ -                   | \$ -                  | \$ (479.84)                     | N/A                |
| 4511                | Interest on Invested Assets    | -                    | 1,550.16             | -                     | -                      | 500.00                | (1,050.16)                      | 310.03%            |
| 4730                | Tax Increment Income           | -                    | 23,664.53            | 23,336.00             | 35,000.00              | 36,000.00             | 12,335.47                       | 65.73%             |
| 4731                | Tax Increment Income 3A        | -                    | 243,947.32           | -                     | -                      | 243,900.00            | (47.32)                         | 100.02%            |
| 4789                | Transfer from General Fund     | -                    | -                    | -                     | -                      | -                     | -                               | N/A                |
|                     | <b>Total Revenues</b>          | <b>479.84</b>        | <b>269,641.85</b>    | <b>39,583.00</b>      | <b>51,247.00</b>       | <b>289,125.00</b>     | <b>19,483.15</b>                | <b>93.26%</b>      |
| <b>Expenditures</b> |                                |                      |                      |                       |                        |                       |                                 |                    |
| 5203                | Printing & Advertising         | 104.00               | 104.00               | -                     | -                      | -                     | (104.00)                        | N/A                |
| 5204                | Legal Printing                 | -                    | -                    | -                     | -                      | -                     | -                               | N/A                |
| 5209                | Professional Services          | -                    | 1,035.40             | -                     | -                      | -                     | (1,035.40)                      | N/A                |
| 5243                | Contractual Reimbursement      | -                    | -                    | -                     | -                      | -                     | -                               | N/A                |
| 5244                | General Contractor             | -                    | -                    | -                     | -                      | 120,000.00            | 120,000.00                      | 0.00%              |
| 5802                | Transfer to General Fund       | -                    | -                    | -                     | -                      | -                     | -                               | N/A                |
|                     | <b>Total Expenditures</b>      | <b>104.00</b>        | <b>1,139.40</b>      | <b>-</b>              | <b>-</b>               | <b>120,000.00</b>     | <b>118,860.60</b>               | <b>0.95%</b>       |
|                     | <b>Change in Fund Balance</b>  | <b>\$ 375.84</b>     | <b>\$ 268,502.45</b> | <b>\$ 39,583.00</b>   | <b>\$ 51,247.00</b>    | <b>\$ 169,125.00</b>  | <b>\$ (99,377.45)</b>           |                    |
| 2910..2970          | <b>Fund Balance, Beginning</b> |                      | 8,725.41             |                       |                        |                       |                                 |                    |
|                     | <b>Fund Balance, Ending</b>    |                      | <b>\$ 277,227.86</b> |                       |                        |                       |                                 |                    |



**City of Roeland Park**  
**Statement of Activities - Property Owners Association**  
**For the Period Ended 8/31/2019**

|                     |                                | <u>Current Month</u> | <u>Year to Date</u> | <u>Budget to Date</u> | <u>Approved Budget</u> | <u>2019 Projected</u> | <u>Projected vs. YTD Actual</u> | <u>% Remaining</u> |
|---------------------|--------------------------------|----------------------|---------------------|-----------------------|------------------------|-----------------------|---------------------------------|--------------------|
| <b>Revenues</b>     |                                |                      |                     |                       |                        |                       |                                 |                    |
| 4010                | Cash Carryforward              | \$ -                 | \$ -                | \$ 18,476.00          | \$ 18,476.00           | \$ 18,416.00          | \$ 18,416.00                    | 0.00%              |
| 4510                | Interest on Investment         | -                    | -                   | -                     | -                      | -                     | -                               | N/A                |
| 4795                | Miscellaneous                  | -                    | 33,847.00           | 33,847.00             | 33,847.00              | 33,847.00             | -                               | 100.00%            |
|                     | <b>Total Revenues</b>          | <u>-</u>             | <u>33,847.00</u>    | <u>52,323.00</u>      | <u>52,323.00</u>       | <u>52,263.00</u>      | <u>18,416.00</u>                | 64.76%             |
| <b>Expenditures</b> |                                |                      |                     |                       |                        |                       |                                 |                    |
| 5254                | Miscellaneous Charges          | 5.00                 | 65.00               | -                     | -                      | -                     | (65.00)                         | N/A                |
| 5258                | RPPOA Common Area Expenses     | -                    | 31,875.00           | 31,875.00             | 31,875.00              | 31,875.00             | -                               | 100.00%            |
|                     | <b>Total Expenditures</b>      | <u>5.00</u>          | <u>31,940.00</u>    | <u>31,875.00</u>      | <u>31,875.00</u>       | <u>31,875.00</u>      | <u>(65.00)</u>                  | 100.20%            |
|                     | <b>Change in Fund Balance</b>  | <u>\$ (5.00)</u>     | \$ 1,907.00         | <u>\$ 20,448.00</u>   | <u>\$ 20,448.00</u>    | <u>\$ 20,388.00</u>   | <u>\$ 18,481.00</u>             |                    |
| 2910..2970          | <b>Fund Balance, Beginning</b> |                      | 18,415.51           |                       |                        |                       |                                 |                    |
|                     | <b>Fund Balance, Ending</b>    |                      | <u>\$ 20,322.51</u> |                       |                        |                       |                                 |                    |