

AGENDA
CITY OF ROELAND PARK, KANSAS
CITY COUNCIL MEETING
ROELAND PARK
Roeland Park City Hall 4600 W 51st Street, Roeland Park, KS 66205
March 16, 2020 6:00 PM

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

Admin

Brauer

Hill

Finance

McCormack

Madigan

Safety

Rebne

Faidley

Public Works

Kelly

Dickens

Pledge of Allegiance

A. Instructions to Access Online Meeting

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 #946

B. February 17, 2020 Council Minutes

C. March 2, 2020 Council Minutes

III. Ordinances and Resolutions:

A. Ordinance No. 992 - Remote Participation in Public Meetings

B. Ordinance 991 - Updates to the Special Events Code

IV. Business From the Floor

A. **Applications / Presentations**

V. Mayor's Report

VI. Workshop and Committee Reports

VII. Reports of City Liaisons

VIII. Unfinished Business

IX. New Business

A. Award Bid for R Park Phase 1 & Phase 2 Project

B. Approve Sanitary Sewer Easement at R Park

C. Approve Purchase of Aquatic Center Chairs and Loungers

X. Workshop Items:

XI. Reports of City Officials:

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 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: Pledge of Allegiance- -A.
Committee 3/16/2020
Meeting Date:



City of Roeland Park

Action Item Summary

Date:

Submitted By:

Committee/Department:

Title: **Instructions to Access Online Meeting**

Item Type:

Recommendation:

Please use the link below to access the GoToMeeting for tonight's City Council Meeting.

Please note the following:

- 1) Please be sure to mute yourself**
- 2) This meeting is intended to be view only so we do not plan to have public comment. However, you can use the chat function if you have a question or to be recognized. Just note recognition is not guaranteed.**
- 3) We recommend logging in a couple minutes early to test the app. The meeting will be recorded.**

Details:

Roeland Park City Council Meeting
Mon, Mar 16, 2020 6:00 PM - 7:30 PM (CDT)

Please join my meeting from your computer, tablet or smartphone.
<https://global.gotomeeting.com/join/634478645>

You can also dial in using your phone.
United States (Toll Free): 1 866 899 4679
United States: +1 (571) 317-3117

Access Code: 634-478-645

New to GoToMeeting? Get the app now and be ready when your first meeting starts:
<https://global.gotomeeting.com/install/634478645>

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?

Item Number: Consent Agenda- II.-A.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date:
Submitted By:
Committee/Department:
Title: **Appropriations Ordinance #946**
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
☐ Appropriations Ordinance #946	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

Thursday, March 12, 2020

Appropriation Ordinance -3/16/2020 - #946

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 16th day of March, 2020.

Attest:

City Clerk

Mayor

Total Appropriation Ordinance

\$

146,625.80

Appropriation Ordinance -3/16/2020 - #946

Vendor	Dept	Acct #	Description	Invoice Description	Check /EFT	Amount	Chk #	Check Amount
					Date			
1 Interpreting & Translating, LLC.	103	5209.103	Professional Services	36203GYRP	03/12/20	465.00	70531	465.00
Airgas USA, LLC	106	5318.106	Tools	9098480310	03/04/20	44.14	70519	44.14
American Fidelity Assurance Co.	101	2052.101	Supplemental Insurance Payable	2063519	03/12/20	416.66	70532	416.66
Anne Marie Kinerk & Associates	104	5214.104	Other Contracted Services	2/18/20	03/12/20	3,600.00	70533	3,600.00
KC Metro APWA Chapter	106	5206.106	Travel Expense & Training	3/20 Reg. Instit	03/12/20	500.00	70534	500.00
AT&T	101	5202.101	Telephone	3241 2/21/20	03/04/20	48.15	70520	48.15
Balls Food Stores	106	5219.106	Meeting Expenses	662276	03/12/20	151.90	70535	181.06
Balls Food Stores	102	5301.102	Office Supplies	33118	03/12/20	29.16		
Blue Sky Cleaners	102	5224.102	Laundry Service	2850 3/3/20	03/12/20	116.50	70536	116.50
Breeden Holdings, LLC	102	5260.102	Vehicle Maintenance	1054328	03/12/20	183.95	70537	183.95
Civic Plus	101	5209.101	Professional Services	196868	03/12/20	160.00	70538	160.00
Crime Scene Cleaners, LLC	102	5214.102	Other Contracted Services	5700	03/12/20	85.00	70539	255.00
Crime Scene Cleaners, LLC	102	5214.102	Other Contracted Services	5768	03/12/20	170.00		
CS Carey Inc.	110	5262.110	Grounds Maintenance	U03399	03/12/20	132.00	70540	396.00
CS Carey Inc.	110	5262.110	Grounds Maintenance	U03411	03/12/20	132.00		
CS Carey Inc.	110	5262.110	Grounds Maintenance	U3509	03/12/20	132.00		
Dolan Consulting Group, LLC	102	5206.102	Travel Expense & Training	2202010211085	03/12/20	195.00	70541	195.00
Evergy	101	5201.101	Electric	2/24/20 Multiple	03/12/20	1,189.22	70542	3,568.93
Evergy	106	5201.106	Electric	2/24/20 Multiple	03/12/20	600.14		
Evergy	106	5201.106	Electric	2644 2/24/20	03/12/20	67.11		
Evergy	220	5201.220	Electric	2/24/20 Multiple	03/12/20	266.15		
Evergy	106	5290.106	Street Light Electric	1275 3/3/20	03/12/20	1,446.31		
Foley Industries	115	5302.115	Motor Fuels & Lubricants	PS400295448	03/04/20	35.66	70521	139.31
Foley Industries	115	5302.115	Motor Fuels & Lubricants	PS400295959	03/04/20	103.65		
Galls, LLC	102	5308.102	Clothing & Uniforms	15058695	03/12/20	60.93	70543	60.93
Gather Media and Communication	101	5209.101	Professional Services	17	03/12/20	1,250.00	70544	1,250.00
Granicus	101	5305.101	Dues, Subscriptions, & Books	123888	03/04/20	4,950.00	70522	4,950.00
HL Restoration	290	5210.290	Maintenace And Repair Building	205119022820	03/04/20	4,307.96	70523	4,307.96
Johnson County Wastewater	101	5288.101	Waste Water	2/27/20 Multiple	03/12/20	39.52	70545	460.07
Johnson County Wastewater	106	5288.106	Waste Water	2/27/20 Multiple	03/12/20	403.35		
Johnson County Wastewater	220	5288.220	Waste Water	2/27/20 Multiple	03/12/20	17.20		
Johnson County Government	101	5218.101	IT & Communication	156111	03/04/20	6,577.25	70524	6,577.25
Johnson County Park & Recreation	290	5255.290	JoCo Management Fee	3/5/20 2Q	03/12/20	12,532.25	70546	12,532.25
Johnson County Police Chiefs & Sh	102	5305.102	Dues, Subscriptions, & Books	2020 Dues	03/12/20	125.00	70547	125.00
KS Assn. for Court Management	103	5405.103		3/20 Renewal	03/04/20	50.00	70525	50.00
Kansas City Board of Public Utilities	101	5222.101	Traffic Signal Expense	2834 2/25/20	03/12/20	32.67	70548	32.67
KDHE - Bureau of Water	300	5470.300	Park Maint/Infrastructure	2/28/20 Man. Ck	02/28/20	60.00	32513	60.00
Kansas One-Call System, Inc.	101	5220.101	Street Light Repair & Maintenance	20434	03/04/20	146.40	70526	146.40
Kansas State Treasurer	103	5228.103	Fees Due State of Kansas	51907	03/12/20	1,785.00	70549	1,785.00

The Legal Record	101	5204.101	Legal Printing	L85003	03/12/20	52.14	70550	103.02
The Legal Record	101	5204.101	Legal Printing	L85004	03/12/20	50.88		
LE Upfitter	102	5308.102	Clothing & Uniforms	7574	03/12/20	64.00	70551	1,044.80
LE Upfitter	102	5308.102	Clothing & Uniforms	7578	03/12/20	980.80		
Marely AEDs & First Aid	102	5211.102	Maintenace & Repair Equipment	166846	03/12/20	528.00	70552	528.00
Mauer Law Firm PC	101	5215.101	City Attorney	205620/21/22	03/04/20	6,574.00	70527	7,201.00
Mauer Law Firm PC	370	5457.370	CARS 2020 - Roe	205620/21/22	03/04/20	627.00		
Venessa Maxwell-Lopez	103	5209.103	Professional Services	3/6/20	03/12/20	150.00	70553	150.00
Claudia McCormack	108	5206.108	Travel Expense & Training	3/2/20 Exp	03/12/20	109.96	70554	109.96
Midwest Public Risk	107	5126.107	Health/Dental/Vision Insurance	3/1/20	03/12/20	42,154.74	70555	42,154.74
Midway Ford Truck Center Inc	106	5211.106	Maintenace & Repair Equipment	R10030486301	03/12/20	383.73	70556	383.73
Moss Printing	102	5203.102	Printing & Advertising	13440	03/12/20	150.00	70557	230.00
Moss Printing	101	5301.101	Office Supplies	13527	03/12/20	80.00		
Municode	101	5214.101	Other Contracted Services	340116	03/12/20	209.86	70558	209.86
NAPA Auto Parts	115	5302.115	Motor Fuels & Lubricants	2138899732	03/12/20	54.45	70559	54.45
Custodian of Petty Cash	102	5206.102	Travel Expense & Training	12/16-18/19 Exp	03/12/20	50.60	70560	93.97
Custodian of Petty Cash	102	5254.102	Miscellaneous Charges	12/16-18/19 Exp	03/12/20	43.37		
Phillips Mulch Sales, Inc.	110	5262.110	Grounds Maintenance	2046	03/12/20	3,750.00	70561	3,750.00
Pitney Bowes Global Flnancial Ser	101	5205.101	Postage & Mailing Permits	3310724072	03/12/20	174.24	70562	174.24
Precision Concrete Cutting Midwe	270	5454.270	Sidewalk Improvements	13782	03/12/20	6,304.00	70563	6,304.00
Riteway Maintenance & Supply, LI	101	5214.101	Other Contracted Services	19968	03/12/20	930.00	70564	1,860.00
Riteway Maintenance & Supply, LI	101	5214.101	Other Contracted Services	20120	03/12/20	930.00		
George Schlegel	101	5230.101	Art Commissioner	Recurring Check	03/01/20	100.00	70515	100.00
Staples	101	5301.101	Office Supplies	8057547115	03/12/20	197.05	70565	328.95
Staples	101	5301.101	Office Supplies	8057623027	03/12/20	22.07		
Staples	101	5304.101	Janitorial Supplies	8057547115	03/12/20	82.37		
Staples	106	5304.106	Janitorial Supplies	8057623027	03/12/20	27.46		
TMM Roeland Park Center, LLC	370	5457.370	CARS 2020 - Roe	46N066101 86	03/12/20	25,350.00	70566	27,550.00
TMM Roeland Park Center, LLC	370	5457.370	CARS 2020 - Roe	46N066101 91	03/12/20	2,200.00		
TMM Roeland Park Center, LLC	370	5457.370	CARS 2020 - Roe	46N066101 86	03/12/20	100.00	70567	100.00
TransUnion Risk & Alternative	102	5214.102	Other Contracted Services	457712020021	03/12/20	50.00	70568	50.00
Tyler Technologies, Inc.	103	5410.103	Technology Upgrades	25286606	03/04/20	3,208.80	70528	3,208.80
Tyler Technologies, Inc.	103	5410.103	Technology Upgrades	25288643	03/12/20	1,000.00	70569	1,000.00
United Community Services	101	5232.101	United Community Services	2020 Hum.Svc.Fnd	03/04/20	4,771.00	70529	4,771.00
USIC Locating Services, LLC	101	5220.101	Street Light Repair & Maintenance	370489	03/12/20	1,310.74	70570	1,310.74
Verizon Wireless	104	5202.104	Telephone	9849028211	03/04/20	406.68	70530	446.69
Verizon Wireless	106	5202.106	Telephone	9849028212	03/04/20	40.01		
Water District No 1 of Johnson Co	101	5287.101	Water	2/24/20 Multiple	03/12/20	56.62	70571	517.56
Water District No 1 of Johnson Co	106	5287.106	Water	2/24/20 Multiple	03/12/20	460.94		
Forté	101	5214.101	Other Contracted Services	2/29/20 All Acct	03/01/20	283.06		283.06

\$ 146,625.80

Item Number: Consent Agenda- II.-B.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date:
Submitted By:
Committee/Department:
Title: **February 17, 2020 Council Minutes**
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
February 17, 2020 Council Minutes	Cover Memo

CITY OF ROELAND PARK, KANSAS
CITY COUNCIL MEETING MINUTES
Roeland Park City Hall
4600 W 51st Street, Roeland Park, KS 66205
Monday, February 17, 2020 6:00 P.M.

- | | | |
|--|---|--|
| <ul style="list-style-type: none">○ Mike Kelly, Mayor○ Trisha Brauer, Council Member○ Benjamin Dickens, Council Member○ Jan Faidley, Council Member○ Jennifer Hill, Council Member | <ul style="list-style-type: none">○ Jim Kelly, Council Member○ Tom Madigan, Council Member○ Claudia McCormack, Council Member○ Michael Rebne, Council Member | <ul style="list-style-type: none">○ Keith Moody, City Administrator○ Jennifer Jones-Lacy, Asst. Admin.○ Kelley Nielsen, City Clerk○ John Morris, Police Chief○ Donnie Scharff, Public Works Director |
|--|---|--|

Admin
Madigan
Brauer

Finance
Faidley
McCormack

Safety
Dickens
Rebne

Public Works
Hill
Kelly

(Roeland Park Council Meeting Called to Order at 6:00 p.m.)

PLEDGE OF ALLEGIANCE

Mayor Kelly called the meeting to order and led everyone in the Pledge of Allegiance.

ROLL CALL

City Clerk Nielsen called the roll. CMBR McCormack was absent. Staff members present were City Administrator Moody, Assistant City Administrator Jones-Lacy, Public Works Director Scharff, Police Chief Morris, City Clerk Nielsen, and City Attorney Mauer.

MODIFICATION TO THE AGENDA

There were no modifications to the agenda.

CITIZEN COMMENTS

Stephanie Iser (5714 Cedar) Ms. Iser said she is part of a neighborhood group called Safe and Welcoming Roeland Park, which wants to make the City safer and more welcoming to the community. She said she was in support of the civic leadership and their work to ameliorate discriminatory language in homeowner's association covenants. She said she has spoken with Latino residents who have experienced racial bias and discrimination from fellow neighbors and it is felt through code violations reports, calling the police and avoiding houses during trick or treat. She would like to see city-sponsored education and training to understand racial bias and how to combat it.

Dulcinea Herrera (5230 Buena Vista) Ms. Herrera said as a Latina she knows many people do not feel welcome in their communities. She said they need to welcome everybody as the world becomes more diverse. She didn't understand why they needed to vote on the restrictive covenants and they should just be cancelled.

Miel Castagna-Herrera (5230 Buena Vista) Ms. Castagna-Herrera said the restricted covenants should have prevented them from buying their house as the deed says no Jews and no people of color. She was

shocked to know it still exists and that it should have been erased a long time ago. She said she hopes the Council agrees it needs to change.

Mr. Young (5412 W. 55th) spoke to the use of salt on the roadways and the damage it causes to infrastructure, the environment, including pets as they lick it off their paws and get sick. He said he has called the City three times and said he understands they want to keep people safe but shouldn't be used in excess. He said he has \$8,000 in salt damage on his car. He also would like to see corrosion inhibitors put into the salt.

I. CONSENT AGENDA

A. Appropriations Ordinance #944

B. February 3, 2020 Council Minutes

MOTION: CMBR HILL MOVED AND CMBR DICKENS SECONDED TO APPROVE THE CONSENT AGENDA AS PRESENTED. (MOTION CARRIED 7-0)

II. BUSINESS FROM THE FLOOR

A. Applications/Presentations

1. Carbon Emissions Inventory and Tracking Software

Mayor Kelly said this presentation is part of Roeland Park's continued commitment to be a sustainable community, and he was excited to hear about this potential software from Dynamhex.

Sunny Sanwar, CEO of Dynamhex, and partner Patrick Hosty made a presentation on ways the City can track their emissions with the company's new software program. Mr. Sanwar spoke to climate change and what could be done locally to draw down emissions citywide. Their software allows people to log on and see their footprint in relation to the City and also get personalized solutions to help them lower their footprint. The City can use it for better planning and local businesses could use it to create value and citizens could use it in their own neighborhoods. Mr. Sanwar showed examples of the software's dashboard of the personalized impact of individual houses, schools, and buildings. The software also allows for integration with the Paris Accord or Metro KC Climate Action targets and will show personalized ways to reduce emissions. It also allows the City to see its current emissions so they can target ways to reduce emissions where they are the highest.

Mayor Kelly said they started this process as part of the Sustainability Committee which works to make the community healthier by conserving fiscal resources, making the government operate more efficiently and making the community healthier. He also said that they have limited resources with staff and to evaluate their emissions and the associated data would be out of their reach and felt this software might help with that.

Mr. Sanwar added his research is what led him to create the software as he recognized the amount of work that goes into collecting the data and standardizing the information. The software is designed to help the City understand what its emissions are, what should be done and how to plan it out. It is ready-made so that the user can talk about solutions instead of diagnosing the problem. It also has real-time availability of what is going on in the City and is not based off of studies from previous years.

CMBR Rebne asked if they had more fixed route transportation, how much they could cut their emissions rate. Mr. Sanwar said they would be able to estimate different bike paths, traffic intensity or a higher walkability index against its effect on current emissions.

CMBR Faidley wanted to know if there is a way to look at incentivizing for individuals or businesses for greater participation. Mr. Sanwar said traditionally the main barrier for engagement has been the steep learning curve. The idea of the software is to make it as user-friendly as possible to people and also localize it so they can understand it's about their neighborhood and town.

Ms. Jones-Lacy said she could see this as a Community Forum topic presentation in the future. The software allows the City to find out where they are with emissions and then to set their goals as an entity and begin to mark their progress. Roeland Park would be an early adopter and getting a great deal if they choose to participate. She said they are also making great progress thanks to Mayor Kelly and the Climate Action Coalition.

Mr. Sanwar said they are working with Exelon in Washington, D.C. and a lot of their insights are going to be in the product as America addresses climate change and this will also be available to apply in Roeland Park. Also included in the software are periodic reports and the real-time dashboard.

CMBR Kelly asked for more information about the company of Dynamhex. Mr. Sanwar said the company started in 2018 and is based off of his PhD research at KU Engineering School. The product has been in testing and development since 2014. He said that he has a technical background and his partner Patrick Hosty has a municipal finance background and they have joined to tackle a problem that needs both of their expertise.

CMBR Brauer knows there are many things they should do and should not. She asked if they have any data that shows proof of concept that individuals participating in the program and making adjustments actually move the needle. Mr. Sanwar said the data is not so much on individuals, but on the corporate side they do have clients that are benchmarking their impact and evaluate what they need to do for reductions.

Mayor Kelly said cities will see that the cost of doing nothing will be exponential and that being proactive and preparing themselves sets Roeland Park to be in a better place. He said he was excited and thanked them for choosing Roeland Park. He asked staff what direction they would like from the Council.

City Administrator Moody said they anticipated just a question and answer for this meeting. He felt the Council would like to take time to consider this proposal. He asked for the Governing Body to submit requests for additional information or questions to him and he will do his best to answer them.

CMBR Madigan said he was not comfortable with jumping into this yet. He said there were still outstanding questions on proof of concept and learning more about the company.

CMBR Rebne said this could be discussed at a Workshop to hear the answers to their questions and also get a full perspective before making a decision. He added he likes the prospect of it.

CMBR Faidley said this could be discussed at a Workshop and then moved to the Consent Agenda.

CMBR Hill said she would be comfortable moving this to New Business at the next Council meeting and their questions can be answered at that time. If they are still uncertain, then there is the opportunity to table it.

MOTION: CMBR MADIGAN MOVED AND CMBR REBNE SECONDED THE GOVERNING BODY FORWARD THEIR QUESTIONS TO CITY ADMINISTRATOR MOODY AND FOR THE ITEM TO BE PLACED ON THE NEXT COUNCIL MEETING AGENDA AS NEW BUSINESS. (MOTION CARRIED 6-1 WITH CMBR MADIGAN VOTING NO.)

MOTION: CMBR HILL MOVED AND CMBR DICKENS SECONDED TO AMEND THE MOTION TO FORWARD THE ITEM TO NEW BUSINESS AT THE NEXT COUNCIL MEETING. (MOTION CARRIED 5-2 WITH CMBRS MADIGAN AND KELLY VOTING NO.)

2. Discussion about Glass Recycling

Mayor Kelly welcomed representatives from Ripple Glass and thanked them for their purple presence in the Lowe's parking lot. Unfortunately due to contracts and policies outside of the City's control, the bin has been removed. The City would like to work with Ripple to find a new location for the bin or another solution for the recycling needs of Roeland Park residents.

Morgan Henderson, Metro Program Manager at Ripple Glass, and Piercyn Charbonneau, Manager of the Commercial Program introduced themselves to the Governing Body. Ms. Henderson said the support she has received from Roeland Park staff and the residents is unbelievable and they are dream city to work with. They are currently actively searching for another location. The Aldi is very supportive of having it in the lot but still need permission from corporate. She has also spoken with Mayor Kelly about The Rocks location. While it is an option it is not ideal and has the potential for illegal dumping. The area is a popular sledding spot for children and there is no business associated with the lot and poorly lit. Ripple likes to be in a business area to get the flow of shopping and dropping recycling off. They continue to work to find a new location, but the Mission Hy-Vee is the closest Ripple Glass container at this time.

Mayor Kelly said if can't find a central location he would be interested in exploring curbside and asked if Ripple would be interested in that. Mr. Charbonneau said they have been looking into that and that a number of cities around the metro are going to curbside glass recycling and Ripple is ready to begin that discussion.

CMBR Kelly asked what the objections are from the corporations to having a bin. Ms. Henderson said that Lowe's had changes to corporate policies and they felt that it was a liability issue. Locally the staff was supportive, but the corporate entity is not. CMBR Kelly asked if they provide liability insurance. Ms. Henderson said they have a signed agreement between the business and themselves where Ripple assumes the liability.

CMBR Rebne said he still supports the position at The Rocks but understands the reasoning behind not being able to have one there. He asked if there was anything as a Council they could do. Ms. Henderson said any support from the residents and the Council would help. CMBR Rebne said it's good to know that residents' voices make a huge difference.

CMBR Faidley said she had heard that Aldi was concerned about the loss of parking spaces. Ms. Henderson said the manager was concerned, but said it would be great if corporate is okay with it.

CMBR Dickens said he would like to explore the curbside pick-up. He asked if residents would have the opportunity to opt-out. Mr. Charbonneau said the opt-out program would be the easiest.

CMBR Hill said some residents have a privacy concern on the type of bin for recycling glass. Mr. Charbonneau said he has previously spoken with Mayor Kelly to discuss bin options. There are open totes and also a 32-gallon style bin option which is a roll cart and similar to the large trash curbside bins.

Mayor Kelly asked if they would like to move forward what is the next step. Mr. Charbonneau said he would love to set up a meeting to go over the numbers.

Mayor Kelly thanked Ms. Henderson and Mr. Charbonneau for coming to speak to them. He also reminded them that Ripple operates in nine states. Ms. Henderson said they are in over 100 communities regionally and there are over 100 big purple bins in the metro alone.

3. 2018 Certificate of Achievement for Excellence in Financial Reporting

Mayor Kelly congratulated Ms. Jones-Lacy on this being the 25th consecutive year for the City of Roeland Park having received this honor.

Ms. Jones-Lacy also said they have fantastic auditors and she can't claim responsibility for all 25 years and noted the work of her predecessors. She said they also received the Distinguished Budget Award for the first time in 2019 and have recently submitted again for 2020. She hopes to continue to show that Roeland Park is doing its due diligence and being fiscally responsible.

(Applause)

III. Mayor's Report

1. Miego Champions Proclamation

Mayor Kelly recognized the continuous success of the Bishop Miego High School teams which makes Roeland Park proud. They won state titles in Debate, Girls Basketball, Girls Soccer, Boys Soccer, and Football.

Coaches and team members were presented at the meeting and received a hearty round of applause.

(Photographs were taken)

MOTION: CMBR MADIGAN MOVED AND CMBR BRAUER SECONDED TO PROCLAIM THE WEEK OF FEBRUARY 17-21 AS BISHOP MIEGE HIGH SCHOOL STATE CHAMPIONS WEEK. (MOTION CARRIED 7-0)

IV. Workshop and Committee Reports

A. MARC - First Tier Suburbs (Jan Faidley and Claudia McCormack)

CMBR Faidley reported that she and Ms. Jones-Lacy attended the meeting held February 7th and there were four other communities who were recognized for the Community for All Ages. She said she was made quite aware of the amount of work that Roeland Park has done as a City for them to attain their gold

status. There was a special presentation made entitled “Unlocking the Unseen Potential of Kansas City” that explored the impact of high infrastructure costs on municipal services.

Ms. Jones-Lacy added that a point that was made is that there is another way to assess property taxes that may be more equitable based upon usage of infrastructure associated with the size of different pieces of land as well as its location. She is trying to get a copy of the presentation and will share that once she receives it.

V. Unfinished Business

A. Mowing Agreement or 2020

Mayor Kelly said the Governing Body had asked staff to provide updated information on the ingredients of fertilizers to be used by Jakes Lawn & Landscape.

Public Works Director Scharff put together information on some of the pre-emergent fertilizers which would be applied in the spring. One concern is that the granular has low solubility with water and does not break down as fast, which is to ensure that it stays where applied and does not end up as runoff. He also reviewed some of the other options. He noted the organic version is also a granular application. He noted going organic has a 60 percent efficiency rate and it takes longer to see results, which has been his experience.

Public Works Director Scharff said the standard application is \$2,500 and organic is \$4,700 with a yearly organic approach to be \$14,100.

CMBR Hill read a letter from former Councilmember Teresa Kelly who asked that they consider the least toxic approach for herbicide and fertilization practices for the City as there is a green purchasing plan in place that allows for paying more for environmentally safer products. She said that less toxic applications do take longer to work, and a new culture would be introduced, but it will also be an opportunity to educate and model new landscape care behaviors for the residents. She said the City’s leadership is part of the metro area leadership in conservation and climate change initiatives and this should be a priority for them. Ms. Kelly asked that they make Roeland Park a leader in decreasing toxic inputs that expose its residents, pets and the community watershed to unnecessary toxins.

CMBR Hill added that she has received similar e-mails to the one from Ms. Kelly. She understands it is cheaper to go with more toxic products, but does not believe that is what the community wants. She said they might have a few more dandelions, which in turn will help the bees which helps everything else. CMBR Hill said she too would like a green weed-free yard but does not want her children and dog playing in the chemicals. She said this should be a choice not based on aesthetics.

CMBR Dickens questioned if they go all organic and it does not treat certain weeds, then what is their option. (Public Works Director Scharff’s response inaudible due to static in recording.)

CMBR Faidley said they need to recognize that they also have an option of not treating at all. They would then be up against the public perception that greenspace needs to look like a golf course. She asked if they are willing to take the step to move towards more drought-resistant grass and ground covers that they know are better for them and the environment, and then do the work to educate the public. She said she is working on this in her yard right now.

CMBR Rebne asked CMBR Faidley if that would mean they change existing plantings. CMBR Faidley she said basically just to decide not to use chemicals. She added she would have a hard time voting for the hard chemicals adding that the best and safest option is not to treat.

CMBR Rebne asked if they choose not to treat, could they just keep the mowing cost and strike out the application of weed control. Public Works Director Scharff said if the direction from the Council was not to treat, then they would have the contractor only mow.

CMBR Madigan said he remembers organic weed control his father taught him was pulling weeds. He agreed that everything organic would be great. If they educate their people that greenspace is a greenspace, then that means you're going to have to weeds and vines. He said he would support CMBR Faidley's idea. He also remembered the people who complained of grass and weeds in the path in R Park. He said they do not have a money tree and as a City they cannot keep spending more and more money and not treating at all is the best for the environment.

CMBR Hill asked for more information about the purchasing plan that former CMBR Kelly mentioned. Ms. Jones-Lacy said there is a green purchasing plan and it is attached to the purchasing policy part of the agenda, Ordinances and Resolutions. In there, it states there is a preference towards purchases that are environmentally friendly.

CMBR Kelly said he appreciated his wife's e-mail being read. They need to fertilize the grass to help choke out the broadleaf weeds. At his house they mow more frequently to try to keep the weeds down and going to seed. He said he is definitely against the Strike Three application, but they do need to go with some sort of fertilizer.

CMBR Hill agreed with CMBR Kelly not to go cold turkey and they could end up with a big mud pit at the park. She would agree with continuing to use fertilizer and add some type of organic.

CMBR Kelly mentioned that in the agreement with the contractor it states, if ineffective, then they have to reapply at their cost. If the Council should select the organic fertilizer and it doesn't produce the results they expect he wanted to know if they should then penalize them for not going with their recommendation. Mayor Kelly said it is staff's recommendation if they do the organic application, then they remove that language from the mowing agreement.

MOTION: CMBR HILL MOVED AND CMBR MADIGAN SECONDED TO APPROVE THE 2020 MOWING SEASON CONTRACT WITH JAKE'S LAWN & LANDSCAPE.

MOTION: CMBR HILL MOVED AND CMBR KELLY SECONDED TO AMEND THE AGREEMENT WITH JAKE'S LAWN & LANDSCAPE TO UTILIZE AN ORGANIC FERTILIZER TREATMENT. (MOTION CARRIED 6-1 WITH CMBR MADIGAN VOTING NO.)

MOTION: CMBR KELLY MOVED AND CMBR HILL SECONDED TO REMOVE THE LIABILITY CLAUSE FOR A SECOND APPLICATION AT THEIR COST IF IT IS INEFFECTIVE FROM THE 2020 MOWING AGREEMENT. (MOTION CARRIED 7-0)

MOTION: CMBR KELLY MOVED AND CMBR MADIGAN SECONDED TO APPROVE JAKE'S LAWN AND LANDSCAPE FOR MOWING SERVICES AND ORGANIC FERTILIZER TREATMENTS FOR THE 2020

B. Traffic Signal Color Selection for the Roe 2020 Project

Mayor Kelly said they seeking direction on colors and coatings for traffic signal poles and mast arms on Roe Boulevard.

Public Works Director Scharff said they have bid out the traffic signal poles separately from the actual KDOT project. He reviewed the prices as outlined in the staff report.

CMBR Dickens asked if they went with a standard galvanized finish would there be a difference with the coatings. Public Works Director Scharff said the painting is just for aesthetics.

CMBR Faidley asked if the poles on Roe will remain galvanized. City Administrator Moody said the streetlights are specified to be the black anthracite. They are seeking direction on the four signals. They do not have as much of a visual impact as the streetlights and he believes that most people will not be able to tell the difference between standard black and anthracite on the traffic poles, therefore, he would recommend the standard black.

Mayor Kelly said that he wants people to get out of the car and utilize the street to walk and when you do you pay attention a little bit more to your surroundings. He said they have spent a lot of effort on the project, as well as time and resources and in making decisions they are thinking about the long-term health of the project and believes it should be cohesive.

CMBR Madigan said he did not have a problem with galvanized traffic signals as people are going to be looking at the streetlights not the poles.

Mayor Kelly asked if they could give staff their decision at the March 2nd meeting. Dan Miller, the City's engineer, said that might not be too late. He said there are two things to get the poles in production. One is a decision on the color and structural shop drawings. The drawings will be there by the end of the week and then they would only be waiting on the color choice by Council.

Mayor Kelly asked about the \$40,000 price difference between the poles. Mr. Miller said that was for the poles in total and not individually.

CMBR Faidley said Kansas City, Kansas has standard black and it looks nice.

Mayor Kelly asked if they could change the light poles to a black coating to match the traffic poles. Mr. Miller said he has already sent the plans to KDOT.

CMBR Hill said this project is to take them a long ways for a long time and believes it will make a difference to have two different coatings.

CMBR Brauer agreed with having a consistent look and feel and added there are a lot of moving parts and there will probably be other pieces that will have a price increase and they need to keep that in mind moving forward.

City Administrator Moody said he did not know what the price would be for the black anthracite on the streetlights yet because that is a part of the general bid. They do know the price for the traffic signals. He recommended if they can get a change to the plans to reflect the streetlights of basic black, then they would support doing signals in basic black. If they cannot get the change to the streetlights incorporated into the project, then proceed with black anthracite for the light poles.

MOTION: CMBR MADIGAN MOVED TO APPROVE THE GALVANIZED TRAFFIC POLES ON THE ROE 2020 PROJECT. (MOTION FAILED FOR LACK OF A SECOND.)

MOTION: CMBR HILL MOVED AND CMBR KELLY SECONDED TO AMEND THE MOTION TO BE ANTHRACITE BLACK TO MATCH THE REST OF THE CORRIDOR. (MOTION WITHDRAWN)

MOTION: CMBR HILL MOVED AND CMBR MADIGAN TO AMEND THE MOTION TO MOVE FORWARD WITH BASIC BLACK COATING ON THE SIGNALS IF THE STREETLIGHTS CAN BE CHANGED TO BASIC BLACK COATING AS WELL. IF NOT, TO APPROVE BLACK ANTHRACITE. (MOTION CARRIED 6-1 WITH CMBR BRAUER VOTING NO.)

MOTION: CMBR MADIGAN MOVED CMBR DICKENS SECONDED TO APPROVE STANDARD BLACK FOR THE TRAFFIC POLES ON THE ROE 2020 PROJECT AS AMENDED. (MOTION CARRIED 7-0)

VI. New Business

A. Parental Leave Policy

Ms. Jones-Lacy provided an update since the last Workshop where the Governing Body focused on having a 12-week or a 6-week parental leave policy. There was a request from neighboring communities for other examples. The only area city that has adopted a parental leave policy is Kansas City, Missouri which is a 6-week policy. Several Johnson County communities are also considering their own policy. Shawnee has drafted a preliminary policy and it is included in the packet. She found helpful information from the National Partnership for Women and Families and added they have a spreadsheet of all the communities they're aware of that have parental leave policies in the U.S. There are no set policies in Kansas. Ms. Jones-Lacy said she would forward their policy to them if it is passed. Of those she reviewed 34 percent provide less than six weeks paid leave, 46 percent provide six weeks, and 20 percent provide greater than six weeks.

CMBR Faidley asked for the policy of the state of Kansas. Ms. Jones-Lacy said a policy was put in place in 2018 with six weeks for birth mothers and three weeks for partners or adoptive parents.

CMBR Rebne recommending giving the same amount of leave to everyone, whether adopting, fostering, or actual birth. He felt they were not accounting for the health impacts to women and would like to see birth mothers being given longer paid leave.

CMBR Madigan also commented that a lot of adoptions are of children that are only days old and have to be cared for just as with a birth mother. He believes this policy is a great starting point and noted the City has a history of being the first to do things and they need to take this step forward.

The Governing Body expressed their agreement with CMBR Madigan.

MOTION: CMBR HILL MOVED AND CMBR MADIGAN SECONDED TO APPROVE THE PARENTAL LEAVE POLICY. (MOTION CARRIED 7-0.)

B. 2020 Super Pass Agreement and Swim Meet Letter of Understanding

Mr. Nichols said the only difference this year would be that Merriam is not a full participant. They would like to encourage anyone that is a pass holder that on days that Roeland Park hosts swim meets to use the Merriam facility free of charge with the hopes they will be able to rejoin the Super Pass agreement next year.

MOTION: CMBR FAIDLEY MOVED CMBR REBNE SECONDED TO APPROVE THE 2020 SUPER PASS AGREEMENT AND SWIM MEET LETTER OF UNDERSTANDING. (MOTION CARRIED 5-0.)

C. Review Agreement with Gather Media

Mayor Kelly said this is for an agreement with Gather Media for PIO services and congratulated Katie Garcia on starting her own company. Ms. Garcia previously represented Roeland Park with Sturges Word. He said they are excited to be able to continue working with her.

Ms. Jones-Lacy said the contract remains the same as the previous contract as well as the contract price.

MOTION: CMBR HILL MOVED AND CMBR FAIDLEY SECONDED TO APPROVE THE AGREEMENT WITH GATHER MEDIA FOR PUBLIC INFORMATION OFFICER SERVICES. (MOTION CARRIED 5-0.)

D. Discuss Ordinance to Eliminate Discriminatory Language Included in Homeowner's Association Covenants

Mayor Kelly opened the conversation for a proposed amendment to the City's non-discrimination ordinance addressing discriminatory language that exists in homeowner covenants. In 2018, the City worked with Roe Manor Heights Homeowner's Association to vote to strike the restrictive deed covenants from the association. The Council expressed a desire to continue that process throughout the City in recognition of Roeland Park being a community for everyone and the restrictions have no place in their community.

CMBR Dickens said they have heard from some of their neighbors tonight about this in Public Comments. He agreed that it is long overdue and should have been remedied quite a while ago and this is the right step to take. They need to acknowledge that racism is not tolerated as part of their community. He has spoken to other communities that have restrictive covenants and believes that Roeland Park can lead the way for this.

CMBR Rebne said he appreciates CMBR Dickens for bringing this item up. CMBR Rebne read a statement into the record to fill in what he called as historical gaps.

"Racially restrictive covenants were instrumental in ensuring that most of Johnson County was built to segregate white people from black people and other people of color. The intent of this was to build wealth for developers to the perception of safety and comfort for white families. This had the corresponding impact of creating disinvestment, ultimately creating ghettos in some black and Latino neighborhoods. This incredibly unequal investment, in fact, continues today. Despite odds, black people

in Kansas City and nationwide have always fought for full democratic inclusion and equal access. Removing this covenant language as we are doing now is necessary but also easy for us. Black people took the real risk and sacrifice over decades. Let's acknowledge the real work has been done long before.

One narrative that illustrates this is told by Brian Gilmore in the online *Root* magazine. "Lorraine Hansberry's father of playwright Lorraine Hansberry, a successful Chicago businessman, purchased a house restricted to whites by racial covenant in Chicago. When the family ignored the 1928 covenant that excluded blacks and bought a house there, the Hansberrys were thrust, the playwright said later, into a "hellishly hostile 'white neighborhood'" where "howling mobs surrounded" their home. Hansberry was nearly killed when a cement slab was hurled through a window.

Conditions were so dangerous that Hansberry's mother, Nannie Perry Hansberry, patrolled the house at night with a "German luger" to protect her four children. Carl Hansberry joined forces with the NAACP to mount a legal challenge against the restrictive racial covenant, spending a small fortune in the process.

In the end, Carl Hansberry's persistence and courage paid off. On Nov. 12, 1940, over a decade of torment later, the U.S. Supreme Court ruled in favor of Hansberry, invalidating the racial covenant."

Shelley v. Kraemer, a case brought by a black family in St. Louis in 1948 was successful in making these covenants unenforceable nationwide.

Hansberry described "the emotional turmoil" of the struggle which left her father an "embittered exile in a foreign land..." He died young of a cerebral hemorrhage which she attributes to the extreme stress of his battle.

CMBR Rebne said he shared this example to make sure they know the black community has done the labor and suffering and won this long before now. He noted that a vast majority of whites did not support their work to invalidate the covenants. He said if they are genuine in their concern, then there is hard work ahead on the local level. He provided examples of steps they could take such as confirming through policy and practice they are welcoming to all; insisting that local businesses pay Roeland Park workers a living wage; pushing for an investment in fixed route mass transit; creating and managing affordable workforce housing; decoupling pathways to opportunity like school funding from property values; being intentional about hiring and electing people of color; explicitly forbidding with oversight racialized real estate steering; making sure the Police Departments receives and implements anti-biased training; and being explicit about the racial impact of all City policies.

Mayor Kelly said that City Attorney Mauer provided a memorandum regarding the approach of adding the prohibitions to the non-discrimination ordinance. He added that it would provide the enforcement mechanism that's within the NDO. Mr. Mauer explained that this is more than a symbolic change. They are not going back into every deed and striking out the language; however, what they are saying is the City of Roeland Park will not make that homeowner stand alone, bear all the legal fees, and that they will stand with the homeowner. A homeowner would be able to file a complaint to the City and know it will be investigated and make certain the racially restrictive covenants could never be enforced in Roeland Park.

CMBR Faidley thanked the Mayor, CMBR Dickens and the City Attorney Mauer for working out their approach to this. She has had residents of color tell her that they should not get rid of the language as it is part of their history and people need to know that this is what has happened and not to forget.

CMBR Madigan said they can pass the laws but it will not do away with racism, but they need to make the steps to let it be known.

CMBR Hill said the restrictive language is in deeds everywhere and it is a matter of finding them. They realized it would be cost prohibitive to get rid of it one by one, so this policy was created to find a way to deal with them as a whole. She said she was proud of CMBR Dickens that in his first two months on Council this is something amazing he's done.

There was consensus to move this forward to the March 2nd Council agenda under New Business.

E. Appoint Lisa Brunner to the Planning Commission

Mayor Kelly said Ms. Brunner comes highly recommended and thanked her for joining the Planning Commission.

Lisa Brunner (5311 W. 49th). Ms. Brunner said she just moved from Olathe. She previously lived in Roeland Park and added that Gretchen and Ardie Davis recommended her appointment. Her family lives in Roeland Park and she said it feels like coming home and is excited to part of this.

MOTION: CMBR MADIGAN MOVED AND CMBR FAIDLEY SECONDED TO APPROVE LISA BRUNNER AS THE WARD 1 REPRESENTATIVE TO THE PLANNING COMMISSION. (MOTION CARRIED 7-0.)

VII. Ordinances and Resolutions

A. Resolution 673 - City Purchasing Policy

Mayor Kelly said there were three changes made

- Eliminating sealed bids unless required by state and federal law.
- Changing the spending limit for department heads to \$5,000
- Eliminating a clause and requiring maintenance for public art per the Arts Committee request.

Ms. Jones-Lacy said an ethics clause is at the end to reinforce the importance of the staff and elected officials following ethical practices when it comes to procuring any service or goods for the City. The Arts Committee is working separately on a maintenance schedule for all public art in the City and will be presented to the Governing Body at a later date.

CMBR Faidley asked about the instances they would ask for a sealed bid. Ms. Jones-Lacy spoke with other cities and noted the standard practice is to do sealed bids for heavy construction. There is no reason they need to do that because they can be as transparent without having the sealed bids.

MOTION: CMBR KELLY MOVED AND CMBR HILL SECONDED TO ADOPT RESOLUTION 673. (MOTION CARRIED 7-0)

VIII. Reports of City Officials

City Administrator Moody said they had a water leak at the Community Center in the JCPRD childcare room. It cracked over the weekend and the area has been closed for an unspecified period of time. They have had a company come in to dry the area and perform clean-up and will replace the baseboards. He added that it was potable water.

Ms. Jones-Lacy said February 18th is the joint Planning Commission/Council meeting. They will be discussing the residential design standards and universal designs with their consultant.

City Administrator Moody asked if there was a consensus of the chairs they prefer. The Governing Body said the chair CMBR Madigan was sitting in was the most comfortable and is covered in pleather. City Administrator Moody said they will check to see if the chair comes in a faux leather.

IX. Adjourn

MOTION: CMBR MADIGAN MOVED AND CMBR REBNE SECONDED TO ADJOURN. (MOTION CARRIED 7-0)

(Roeland Park City Council Meeting Adjourned at 8:05 p.m.)

Kelley Nielsen, City Clerk

Mike Kelly, Mayor

Item Number: Consent Agenda- II.-C.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date:
Submitted By:
Committee/Department:
Title: **March 2, 2020 Council Minutes**
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
□ March 2, 2020 Council Minutes

Type
Cover Memo

CITY OF ROELAND PARK, KANSAS
CITY COUNCIL MEETING MINUTES
Roeland Park City Hall
4600 W 51st Street, Roeland Park, KS 66205
Monday, March 2, 2020 6:00 P.M.

- | | | |
|--|---|--|
| <ul style="list-style-type: none">○ Mike Kelly, Mayor○ Trisha Brauer, Council Member○ Benjamin Dickens, Council Member○ Jan Faidley, Council Member○ Jennifer Hill, Council Member | <ul style="list-style-type: none">○ Jim Kelly, Council Member○ Tom Madigan, Council Member○ Claudia McCormack, Council Member○ Michael Rebne, Council Member | <ul style="list-style-type: none">○ Keith Moody, City Administrator○ Jennifer Jones-Lacy, Asst. Admin.○ Kelley Nielsen, City Clerk○ John Morris, Police Chief○ Donnie Scharff, Public Works Director |
|--|---|--|

Admin
Madigan
Brauer

Finance
Faidley
McCormack

Safety
Dickens
Rebne

Public Works
Hill
Kelly

(Roeland Park Council Meeting Called to Order at 6:01 p.m.)

PLEDGE OF ALLEGIANCE

Mayor Kelly called the meeting to order and led everyone in the Pledge of Allegiance.

ROLL CALL

City Clerk Nielsen called the roll. CMBR Brauer was absent. Staff members present were City Administrator Moody, Assistant City Administrator Jones-Lacy, Public Works Director Scharff, Police Chief Morris, City Clerk Nielsen, and City Attorney Moeller.

MODIFICATION TO THE AGENDA

There were no modifications to the agenda.

I. CITIZENS COMMENTS

Linda Mau spoke incidents of racial discrimination she experienced when first moving to Roeland Park. She stated she would support Ordinance 990 but would rather see the funds that have been spent on attorneys for the ordinance to be spent on infrastructure projects in the City such as mill and overlay. She felt this to be a vanity ordinance and a feel good measure that did not have any teeth or substance. She said the City should have talked to people of color before drafting this. Ms. Mau said that what the ordinance contains is already covered under state and federal law.

Mayor Kelly thanked Ms. Mau for her comments and her continued service to the community.

Karen Grotewohl - Ms. Grotewohl said she has seen Roeland Park change for the better as it has become a more diverse community. She would like them to continue to move forward on issues that make Roeland Park a welcoming place for people of color and different ethnic groups. She commended the City Council for addressing this issue.

Chris Roesel - Mr. Roesel said he likes it when laws on the books are enforced. He also spoke to the solar panels he installed on his house, the fact that he \$12,500 on them and the requirement of having to place a skirt under them. He noted that it took a month to install and then an inspector a month and a half to approve them. He suggested that if the City wants to promote green energy clear the process should be simple and quick. Mr. Roesel also spoke to increasing property tax assessments noting an increase of 50 percent in the past six years. He suggested rates be based on the amount of a property with cost of living increases and not based on the sale of your neighbor's houses. He said then there wouldn't be a pressure for senior citizens to move out of the community. In summary, he asked that they reconsider the green energy and solar panel requirements, look at property assessments, and also re-look at the HOA ordinance language.

Kevin Martin (5241 Reinhart) Mr. Martin said he met with CMBRS Kelly and Rebne to discuss a sidewalk near Einstein Brothers around 53rd and Buena Vista. They also discussed a three-way stop at the intersection as there is a lot of traffic.

II. CONSENT AGENDA

A. Appropriations Ordinance #945 - (Moved to New Business)

CMBR Faidley said it is hard to vote on something they haven't seen.

CMBR Kelly said if everyone has seen it and are okay with it, then that is fine, but he is not going to vote for it because he hasn't seen it.

MOTION: CMBR MADIGAN MOVED AND CMBR HILL SECONDED TO MOVE APPROVAL OF THE APPROPRIATIONS ORDINANCE #945 TO NEW BUSINESS. (MOTION CARRIED 7-0.)

III. BUSINESS FROM THE FLOOR

A. Applications/Presentations

1. Community Report - Community Engagement

CMBR Rebne reported the focus of their last meeting was on the upcoming Easter Egg Hunt to be held April 4th at the Community Center. He noted that they have added some new members to the committee.

CMBR Faidley asked if they need more volunteers for the Egg Hunt, but CMBR Rebne said at the moment he believed they had enough as they will also have a Boy Scout troop working with them and potentially people from Cricket Wireless.

IV. Mayor's Report

Mayor Kelly said that in the past two years his home has been appraised \$50,000 higher. He also said the appraisal process is done at the county level and not by the City. One of the things he suggests is looking at an appeal if they believe their property is taxed too high. There are resources on the county's website and information on back of their property appraisal notice. There is also the Kansas Homestead Refund, SAFESR, the property tax relief program for low income seniors as well as the Roeland Park Municipal Property Tax Assistance Program the City started last year.

V. Workshop and Committee Reports

No reports were given.

VI. Reports of City Liaisons

A. The 47th Committee

Ms. Jones-Lacy and CMBR Faidley both attended the meeting on February 21st. Currently the committee does not have a chair and they are going through some changes. The meeting focused primarily on the paint-only changes for 47th Street which will take place in the spring of 2020. Residents in Roeland Park will be affected because this will be a road diet and there will be fewer lanes on 47th Street heading east from Roeland Park. There will also be some changes at Mission Road heading east on 47th. The left lane will be a left only and the right lane will be a right or straight. The district was awarded a surface transportation program grant and they will do more hard improvements as opposed to the paint only. There is the possibility of additional changes to Mission Road south of 47th Street and they will need to decide whether to keep on-street parking.

They also briefly discussed the Foodie Fest with a potential date for September. They will also make sure it does not coincide with other important community events.

CMBR Faidley said the road diet will significantly change the experience for drivers, a biker, and walkers. The committee will disseminate the information as effectively as possible.

Ms. Jones-Lacy said the PIO will make announcements through their typical communication channels such as social media, the newsletter and the like to let people know what is coming.

VII. Unfinished Business

There was no unfinished business discussed.

VIII. New Business

A. Carbon Emissions Inventory and Tracking Software

Ms. Jones-Lacy reviewed the presentation from their last meeting. The software investment for the City will be \$6,000 for the first year. The Sustainability Committee made the recommendation for the program and has committed to making a contribution towards the City's initial investment. Ms. Jones-Lacy also said this would be a good topic for a community forum. She added that the more they use the software the more information they will have and the better it will be for the community as a whole as it will give them the tools and the information they need to reduce their own carbon footprint.

CMBR Hill asked if businesses have to opt in. Mayor Kelly said they will have an opportunity to look at the footprint throughout the City and is all inclusive of residences, municipal operations and commercial entities. Businesses will have the opportunity opt-in and be able to see their own individual footprint as well.

CMBR Madigan asked what information is being looked at to determine the footprint and from where the information is obtained. He expressed concern for people's privacy and questioned whether they get information from utility bills, types of cars driven and thermal mapping. Mr. Hosty from Dynamhex said they compute the data from multiple different sources mainly being county and AIMS data. He said Dr.

Sanwar, the software creator and CEO of Dynamhex, has developed their proprietary methodologies to use multiple different data sources to show what the carbon footprint is in a city.

Mayor Kelly said when the City of Kansas City, Missouri did their greenhouse emissions inventory it took well over a year to get their results. Johnson County did theirs in 2013 and they only looked at county operations. They had to hire a consultant who went through many files and bills and put it into a spreadsheet and a lot of man hours were spent entering information into spreadsheets. This proposed software eliminates the time-consuming costly process and is able to give near real-time results.

Ms. Jones-Lacy said that she has spoken with MARC and the environmental officer with Kansas City, Missouri who both admitted that their data sets only reflect a point in time. By the time it is gathered and analyzed it is out of date. This software is dynamic in that it is current information.

CMBR Kelly asked how often they need to update the data and what are they looking for in the future. Ms. Jones-Lacy said the Governing Body with the assistance of staff can develop the goals they want to reach based on the data. From there they can devise a plan on how to reduce their carbon footprint. She said the software also has the ability to provide recommendations on how to achieve those goals, which can then be built into the CIP as part of the planning process.

CMBR Dickens asked what the marketing plan is for the residents to ensure they are making use of this. Mr. Hosty said part of the benefit of the software is community engagement. Based on the work by Dr. Sanwar, the software can separate the information by ward.

CMBR Rebne asked about residents making green improvements to their properties and how that would be reflected. Mr. Hosty said that information would be effective when the next property assessments are released.

CMBR Madigan said 98 people commented over the past weekend on NextDoor in regards to property taxes. Mr. Hosty said their software answers the other side of the income statement where the house is made more efficient by doing improvements and saving money. The hope is while property values may increase the homeowner is also saving money by making their home more efficient. CMBR Madigan asked why they were rushing to approve this so quickly. Ms. Jones-Lacy encouraged the Governing Body to take their time in reviewing this and said there is absolutely no rush. She also said that they do have a \$6,000 grant from the Natural Resources Defense Council (NRDC) that is paying for half of the \$12,000 cost. The City's responsibility is \$6,000 and she reiterated that the Sustainability Committee has said they will contribute some of their reserves for the initial investment. She said the annual fee will be \$2,000 going forward and there is also the opportunity for add-ons should they desire. Mr. Hosty said the NRDC grant does expire at the end of April.

CMBR Faidley said she supports this program and as a City they do not have the money to do their own study. She said she would like to wait to see how much the Sustainability Committee is willing to contribute.

CMBR Hill said that Sustainability has \$2,000 max from last year and this year's budget. Ms. Jones-Lacy believes there is more than that because historically they do not spend a lot of money and they have been rolling the funds over.

MOTION: CMBR HILL MOVED AND CMBR MCCORMACK MOVED TO CALL THE QUESTION. (MOTION FAILED 1-6 WITH CMBRS DICKENS, FAIDLEY, HILL, KELLY, MADIGAN, AND MCCORMACK VOTING NO.)

CMBR Madigan said it is not that he's not in favor of this he just has questions and wants to get things straight. He said he does not want to approve the \$6,000 investment and then a couple months down the road having to pay for add-ons. He would like to see all of the possible add-ons and decide what they will have before they approve anything.

Mr. Hosty clarified that the initial investment is \$6,000 for the first year and \$2,000 per subsequent years. If the City asks them to do something outside of that scope, they have agreed, within reason, to offer that at no more than \$4,000.

CMBR Faidley added that the Sustainability Committee made a recommendation for this software purchase.

CMBR Madigan said he does not have a problem a year from now renegotiating. He also wants to know more about where the information is coming from for the real-time updates.

MOTION: CMBR REBNE MOVED AND CMBR HILL SECONDED TO APPROVE THE AGREEMENT FOR SERVICES WITH DYNAMHEX POLICY. (MOTION CARRIED 5-2 WITH CMBRS MADIGAN AND KELLY VOTING NO.)

B. Appoint Ad-Hoc Historical Committee Members

Mayor Kelly said he is excited for the committee as they work to celebrate and recognize their history and to preserve that. CMBR Madigan and CMBR Rebne will be appointed to the committee.

CMBR Madigan said he was under the impression that Mayor Kelly was going to be on the committee. He said according to the ordinance with only two councilmembers only four residents can be on the committee. He would also like to see a young person on the committee.

Mayor Kelly said if they get more than four applicants, he will ask to be appointed to the committee.

MOTION: CMBR FAIDLEY MOVED CMBR KELLY SECONDED TO APPROVE THE APPOINTMENT OF CMBR MADIGAN AND CMBR REBNE TO THE AD-HOC HISTORICAL COMMITTEE. (MOTION CARRIED 7-0.)

C. Appointment to Parks, Engagement, Ad-Hoc Development and Reappoint to Arts Committee

MOTION: CMBR HILL MOVED AND CMBR REBNE SECONDED TO APPROVE THE APPOINTMENT OF KEITH BOKELMAN TO THE PARKS COMMITTEE; TOAN NGUYEN AND MELISSA DOBBIN TO THE COMMUNITY ENGAGEMENT COMMITTEE; TOM MADIGAN TO THE AD-HOC DEVELOPMENT COMMITTEE; AND THE REAPPOINTMENT OF MAREK GLINIECKI TO THE ARTS COMMITTEE. (MOTION CARRIED 7-0.)

D. Approve Local Funding Commitment for Roe 2020 Project

Mayor Kelly recognized the hard work City staff and the City Engineer continue to do to prepare for the largest infrastructure project in Roeland Park history.

CMBR Kelly noted that they would receive \$1.619 million for CARS, but wanted to know where the \$1.281 million in TIF resources came from. City Administrator Moody said the all-in cost sheet reflects construction, engineering, easement acquisition, and all the soft costs to cover the project and it looked at all of the costs.

CMBR Faidley asked when during the process that the CARS funds are made available to the City. City Administrator Moody said it is traditional to show the funds there and noted it is a local match. As dollars are spent on construction they are eligible for reimbursement from CARS. They will be applying for CARS reimbursement as soon as they meet the \$1.619 million threshold and those funds will come directly to the City not KDOT.

CMBR Madigan said after they have received all of the funds back, what is the estimated total City cost. City Administrator Moody said the all-in cost is \$10 million and City resources towards the project are \$226,211 with Special Street Fund sales tax dollars committed to the project, plus they are also committing TIF resources.

MOTION: CMBR MCCORMACK MOVED AND CMBR KELLY SECONDED TO APPROVE THE LOCAL FUNDING COMMITMENT FOR THE ROE 2020 PROJECT. (MOTION CARRIED 7-0)

E. Appropriations Ordinance #945

CMBR Faidley asked if they know what is going on with Novus. City Clerk Nielsen said she has e-mailed Novus and has not heard back from them.

MOTION: CMBR MADIGAN MOVED AND CMBR REBNE SECONDED TO APPROVE APPROPRIATIONS ORDINANCE #945 ON THE CONDITION THAT CMBR KELLY HAS A CHANCE TO READ IT. (MOTION CARRIED 7-0)

IX. Ordinances and Resolutions

A. Ordinance to Eliminate Discriminatory Language Included in Home Owner's Association Covenants

Mayor Kelly said he appreciates the comments they have had thus far from their citizens on this ordinance and appreciates the work that has gone into this.

CMBR Faidley asked in response to Ms. Mau's earlier comment if they know how much they have actually spent in attorney's fees. She said she does take issue with referring to this as a vanity ordinance. She believes it is the right thing for the City to do, but recognizes it is not a fix-all. The covenants still exist, which in some ways it is good that they do as that is part of Roeland Park's history.

Mayor Kelly said the attorney time spent was minimal but he did not know the number of billable hours. City Administrator Moody said it can be tallied and e-mailed to the Governing Body if they would like to know.

Mayor Kelly said he did not believe this is a vanity issue. The NDO that was first passed in Roeland Park and subsequently passed throughout multiple cities in Johnson County has been extensively worked. This

ordinance is not the end of the conversation but is a mark along the journey to make sure that Roeland Park is the city that continues to improve and makes sure that its history isn't lost, but remains a City for All Ages, and a city for all races that they hold themselves out to be.

CMBR Rebne expressed his support in making the language illegal and that it is an important statement to make. He did want to make sure the ordinance they are looking to pass does not set up more barriers for someone if they filed a racial discrimination claim than they would have if going through other avenues.

CMBR Hill said her understanding of the ordinance is it is more teeth to the law in that if someone had a discrimination case because of the covenants that Roeland Park would stand behind them.

City Administrator Moody said if a complaint is filed, the initial data is gathered by the investigating officer, which is the prosecuting attorney. There would be a hearing before the municipal judge and the City would cover those costs.

CMBR Rebne thought he read that the person who brought the complaint and the accused denied any wrongdoing and the case was settled against him, if there was an appeal then the onus would be on the person discriminated against to hire an attorney.

City Administrator Moody said if the decision at the municipal level is appealed by either party, then the appeal would move to the Johnson County Circuit Court. They do not provide a mechanism within this code to cover appeal costs or representative costs of an appeal.

City Attorney Moeller added that the ordinance does provide a provision if the complainant appeals and wins, then the court can order the other party to pay attorney fees.

MOTION: CMBR REBNE MOVED AND CMBR DICKENS SECONDED TO APPROVE ORDINANCE 990 - AN ORDINANCE RELATED TO NONDISCRIMINATION, AMENDING AND REPEALING EXISTING CHAPTER V, ARTICLE 12, SECTIONS 5-1201; 5-1202; 5-1203; AND 5-1204 OF THE CODE OF THE CITY OF ROELAND PARK, KANSAS AND ADDING CHAPTER V, ARTICLE 12, SECTION 5-1205. (MOTION CARRIED 6-0)

X. Workshop Items

There were no items discussed.

XI. Reports of City Officials

CMBR Faidley asked for a report on the community forum. City Administrator Moody said 20 people attended the forum. There was a presentation on recycling as well as code enforcement. He said the presenters did a nice job and there was good communication back and forth. He added that CMBR Faidley did a nice job hosting and the forums are a good approach to reach out to residents to present topics they're interested in.

CMBR Faidley said she missed everyone that did not attend and added the forums are for the entire community and not limited to an individual ward.

XII. Adjourn

MOTION: CMBR KELLY MOVED AND CMBR HILL SECONDED TO ADJOURN. (MOTION CARRIED 7-0)

(Roeland Park City Council Meeting Adjourned at 7:22 p.m.)

Kelley Nielsen, City Clerk

Mike Kelly, Mayor

Item Number: **Ordinances and Resolutions:- III.-**
 A.
Committee **3/16/2020**
Meeting Date:



City of Roeland Park
Action Item Summary

Date: 3/16/2020
Submitted By: Jennifer Jones-Lacy
Committee/Department: Admin
Title: **Ordinance No. 992 - Remote Participation in Public Meetings**
Item Type: Ordinance

Recommendation:

Approve ordinance No. 992 regarding remote participation in council meetings

Details:

The attached ordinance will allow for city council meetings and governing body workshops to take place via alternative arrangements in the event of an emergency as determined by the Mayor, City Administrator and Council President. This would allow a meeting to take place via conference call or remote participation if there is a threat to the public health and safety of residents or participants.

As for any actions taken in Monday night's meeting, all actions will be reaffirmed at the next scheduled council meeting in April.

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
 Ordinance No. 992 - Remote Participation	Ordinance

ORDINANCE NO. 992

AN ORDINANCE RELATING TO REMOTE PARTICIPATION FOR CITY COUNCIL MEETINGS AND WORKSHOPS OF GOVERNING BODY MEMBERS; AMENDING EXISTING ARTICLE 2, SECTION 1-205 OF THE CODE OF THE CITY OF ROELAND PARK, KANSAS.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF ROELAND PARK, KANSAS.

SECTION 1. Existing Section 1-205 of the Code of the City of Roeland Park, Kansas is hereby amended to read as follows:

Sec. 1-205. – Meetings.

The regular meetings of the Governing Body shall be held on the first and third Monday of each month at 6:00 p.m. in the Council Chambers of the Roeland Park City Hall, 4600 West 51st Street, Roeland Park, Kansas, or at such other location as may be designated in a notice of meeting. In case the first or third Monday of any month falls on a holiday, the regular meeting shall be held on the next secular day thereafter that is not a legal holiday. In the event of an emergency which jeopardizes the safety of meeting participants or the general public, and/or ability to conduct the meetings as previously set forth, alternative arrangements may be made. To do so, the Mayor, Council President, and City Administrator must all agree as to a date, time and procedure to conduct the meeting. In that event, the limitations of Section 1-1604 shall not apply.

SECTION 2. This ordinance shall take effect and be in force from and after its publication in the official City newspaper.

PASSED by the City Council the 16 day of March, 2020. **APPROVED** by the Mayor.

Mike Kelly, Mayor

ATTEST:

Kelley Nielsen, City Clerk

APPROVED AS TO FORM:

Steven E. Mauer

Item Number: Ordinances and Resolutions:- III.-
B.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date: 3/16/2020
Submitted By: Jennifer Jones-Lacy
Committee/Department: Admin
Title: **Ordinance 991 - Updates to the Special Events Code**
Item Type: Ordinance

Recommendation:

Adopt Ordinance No. 991 amending the zoning code to allow for a special event permit for seasonal sales be administratively approved in the future.

Details:

The City's Special Events code has five different categories, of which Type 1 does not require a permit, Types 2 - 4 can be permitted administratively by the Building Official if they meet all of the established criteria in the code. One of those requirements states that the event cannot exceed 10 days. This requires all seasonal sales events (often lawn and garden sales by Lowes and Walmart) to fall outside the parameters of a typical Type 4 event and would require Council approval. Since these are annual events put on by our larger retailers, staff would like to request an amendment to the code that would allow such seasonal event permits to be administratively approved by our Building Officials. The proposed changes to the code are attached and include a definition of seasonal sales.

The proposed language in Ordinance No. 991 was approved by the Planning Commission on February 18th. Any changes the Council would like to make would require a 2/3rd majority vote to override the recommendation of the Commission.

Financial Impact

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

Additional Information

N/A

How does item relate to Strategic Plan?

N/A

How does item benefit Community for all Ages?

N/A

ATTACHMENTS:

Description		Type
☐	Redline changes to special event code	Exhibit
☐	Ordinance	Cover Memo

Sec. 16-702. - Special Events; Defined.

The term "special event" shall mean a temporary, short-term use of land or structures, not otherwise included as permitted or accessory use by this chapter, for one or more of the following types of activities:

(a)

Type 1. Fund raising or non-commercial events held outside an enclosed permanent structure for non-profit religious, educational or community service organizations that periodically and routinely operate in the City; including any on-site signs and structures in conjunction with the event;

(b)

Type 2. Christmas tree sales;

(c)

Type 3. Promotional activities or devices intended to attract attention to a specific place, business, organization, event or district such as banners as defined in [16-903\(e\)](#) hereof, and attention-attracting devices as defined in [16-903\(c\)](#) hereof;

(d)

Type 4. Significant commercial activities intended to sell, lease, rent or promote specific merchandise, services or product lines, such as tent sales, trade shows, farmers' markets, seasonal merchandise sales or product demonstrations;

(e)

Type 5. Significant public events intended primarily for entertainment or amusement, such as carnivals, concerts or festivals.

The term "special events" should not include garage sales, transient merchants, or off-site promotional signs and sales.

Seasonal Sales means sale of items that are placed outdoors outside of winter months such as lawn and garden materials, plants, mulch, residential play features, barbecue grills, outdoor furniture, etc.

Sec. 16-704. - Special Events; Administrative Permit Required.

Special events meeting the following standards shall be issued a special event permit administratively by the Building Inspector. In administering the provisions of this section, the Building Inspector shall be guided by applicable City policies as adopted by the Governing Body. Any applicant denied a special event permit shall be notified in writing of the reasons for the denial and have the opportunity to appeal the denial to the Governing Body. No more than two special event permits per calendar year shall be issued administratively at any location.

- (a) Special events meeting the Type 2 definition may be permitted administratively by the Building Inspector, subject to prior review and approval by the public works and police departments for traffic control and fire safety; provided that, all of the following performance standard are met:

- (1) An application is made and a fee paid in accordance with [section 16-706](#);

- (2) A site plan indicating the location of the merchandise being sold, aisles, parking and sales trailers;
 - (3) A lighting plan to be approved by the fire department and Building Inspector;
 - (4) The permit may be valid from Friday after Thanksgiving until December 26th, with hours of operation from 8:00 a.m. to 10:00 p.m.;
 - (5) Any structure used in accordance with the **special event** shall meet all site distance (see [section 16-426](#)) and set-back requirements, shall be subject to a valid building permit, and shall be promptly removed upon cessation of tree sales; the tree sales shall be conducted only on private property in a commercial or industrial zoning district, and shall submit evidence that the property owner has granted appropriate permission for tree sales.
- (b) **Special events** meeting the Type 3 or Type 4 definition, and Type 1 **events** not meeting the standards of [section 16-703](#), may be permitted administratively by the Building Inspector subject to the prior review and approval of the police and fire departments. No administrative permit shall be issued unless all the following performance standards are met:
- (1) An application is made and a fee paid in accordance with [section 16-706](#);
 - (2) The **special event** shall not cause undue traffic congestion or accident potential given anticipated attendance and the design of adjacent streets, intersections and traffic controls;
 - (3) If involving a banner, no more than one banner is displayed, and the size and design of the banner is appropriate given the size of the building to which it is attached, and within the character of the surrounding neighborhood and the banner shall be displayed for a maximum duration of 15 days per permit;
 - (4) The activity shall not cause the overcrowding of parking facilities given anticipated attendance and the possible reduction in the number of available spaces caused by the **event** itself;
 - (5) The **special event** shall not endanger the public health, safety, or general welfare given the nature of the activity, its location on the site, and its relationship to parking and access points;
 - (6) The **special event** shall not impair the usefulness, enjoyment or value of adjacent property due to the generation of excessive noise, smoke, odor, glare, litter, or visual pollution;
 - (7) Any structure used in conjunction with the **special event** shall meet all site distance requirements (see [section 16-426](#)), shall be the subject of a valid building permit, and shall be promptly removed upon the cessation of the **event**;
 - (8) The **special event** shall be conducted on private property in a commercial or industrial zoning district, except that non-profit organizations may

conduct **events** on any property where the property owner has granted the appropriate permission;

- (9) The duration and hours of operation of the **special event** shall be consistent with the intent of the **event** and the surrounding land uses, but in no case shall the duration exceed ten days **except as otherwise outlined in section 16-704 b (11); and**
- (10) The **special event** shall comply with all applicable state and federal health, safety, environmental and other applicable requirements.
- (11) **Seasonal sales may be displayed in approved areas for up to six (6) calendar months of the year. Outside storage and sales are limited to typical spring, summer and fall seasons.**

ORDINANCE NO. 991

AN ORDINANCE AMENDING CHAPTER XVI, ZONING AND SUBDIVISION REGULATIONS, ARTICLE 7, SECTIONS 16-702 AND 16-704 TO DEFINE SEASONAL SALES AND LIMIT SEASONAL SALES TO SIX CALENDAR MONTHS OF THE YEAR

WHEREAS, Sec. 16-702 currently does not define “seasonal sales”; and

WHEREAS, the Sec. 16-704 currently does not limit the duration seasonal sales may be displayed; and

WHEREAS, the City is looking to amend its current zoning regulations to define seasonal sales and to limit the duration seasonal sales are allowed to be displayed; now

THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF ROELAND PARK, KANSAS, AS FOLLOWS:

Section 1. Amending Sections 16-702 and 16-704 of Zoning Regulations. The governing body of the City hereby amends Sections 16-702 and 16-704 of the City of Roeland Park municipal code to read as follows:

Sec. 16-702. - Special Events; Defined.

The term "special event" shall mean a temporary, short-term use of land or structures, not otherwise included as permitted or accessory use by this chapter, for one or more of the following types of activities:

(a) *Type 1.* Fund raising or non-commercial events held outside an enclosed permanent structure for non-profit religious, educational or community service organizations that periodically and routinely operate in the City; including any on-site signs and structures in conjunction with the event;

(b) *Type 2.* Christmas tree sales;

(c) *Type 3.* Promotional activities or devices intended to attract attention to a specific place, business, organization, event or district such as banners as defined in [16-903](#)(e) hereof, and attention-attracting devices as defined in [16-903](#)(c) hereof;

(d) *Type 4.* Significant commercial activities intended to sell, lease, rent or promote specific merchandise, services or product lines, such as tent sales, trade shows, farmers' markets, seasonal merchandise sales or product demonstrations;

(e) *Type 5.* Significant public events intended primarily for entertainment or amusement, such as carnivals, concerts or festivals.

The term "special events" should not include garage sales, transient merchants, or off-site promotional signs and sales.

Seasonal Sales means sale of items that are placed outdoors outside of winter months such as lawn and garden materials, plants, mulch, residential play features, barbecue grills, outdoor furniture, etc.

Sec. 16-704. – Special Events; Administrative Permit Required.

Special events meeting the following standards shall be issued a special event permit administratively by the Building Inspector. In administering the provisions of this section, the Building Inspector shall be guided by applicable City policies as adopted by the Governing Body. Any applicant denied a special event permit shall be notified in writing of the reasons for the denial and have the opportunity to appeal the denial to the Governing Body. No more than two special event permits per calendar year shall be issued administratively at any location.

- (a) Special events meeting the Type 2 definition may be permitted administratively by the Building Inspector, subject to prior review and approval by the public works and police departments for traffic control and fire safety; provided that, all of the following performance standard are met:
 - (1) An application is made and a fee paid in accordance with [section 16-706](#);
 - (2) A site plan indicating the location of the merchandise being sold, aisles, parking and sales trailers;
 - (3) A lighting plan to be approved by the fire department and Building Inspector;
 - (4) The permit may be valid from Friday after Thanksgiving until December 26th, with hours of operation from 8:00 a.m. to 10:00 p.m.;
 - (5) Any structure used in accordance with the special event shall meet all site distance (see [section 16-426](#)) and set-back requirements, shall be subject to a valid building permit, and shall be promptly removed upon cessation of tree sales; the tree sales shall be conducted only on private property in a commercial or industrial zoning district, and shall submit evidence that the property owner has granted appropriate permission for tree sales.
- (b) Special events meeting the Type 3 or Type 4 definition, and Type 1 events not meeting the standards of [section 16-703](#), may be permitted administratively by the Building Inspector subject to the prior review and approval of the police and fire departments. No administrative permit shall be issued unless all the following performance standards are met:

- (1) An application is made and a fee paid in accordance with [section 16-706](#);
- (2) The special event shall not cause undue traffic congestion or accident potential given anticipated attendance and the design of adjacent streets, intersections and traffic controls;
- (3) If involving a banner, no more than one banner is displayed, and the size and design of the banner is appropriate given the size of the building to which it is attached, and within the character of the surrounding neighborhood and the banner shall be displayed for a maximum duration of 15 days per permit;
- (4) The activity shall not cause the overcrowding of parking facilities given anticipated attendance and the possible reduction in the number of available spaces caused by the event itself;
- (5) The special event shall not endanger the public health, safety, or general welfare given the nature of the activity, its location on the site, and its relationship to parking and access points;
- (6) The special event shall not impair the usefulness, enjoyment or value of adjacent property due to the generation of excessive noise, smoke, odor, glare, litter, or visual pollution;
- (7) Any structure used in conjunction with the special event shall meet all site distance requirements (see [section 16-426](#)), shall be the subject of a valid building permit, and shall be promptly removed upon the cessation of the event;
- (8) The special event shall be conducted on private property in a commercial or industrial zoning district, except that non-profit organizations may conduct events on any property where the property owner has granted the appropriate permission;
- (9) The duration and hours of operation of the special event shall be consistent with the intent of the event and the surrounding land uses, but in no case shall the duration exceed ten days except as otherwise outlined in section 16-704 b (11); and
- (10) The special event shall comply with all applicable state and federal health, safety, environmental and other applicable requirements.
- (11) Seasonal sales may be displayed in approved areas for up to six (6) calendar months of the year. Outside storage and sales are limited to typical spring, summer and fall seasons.

PASSED by the Governing Body of the City on March 16, 2020 and **APPROVED AND SIGNED** by the Mayor.

(SEAL)

Mike Kelly, Mayor

ATTEST:

Kelley Nielsen, City Clerk

APPROVED AS TO FORM:

Steven E. Mauer

Item Number: New Business- IX.-A.
Committee 3/16/2020
Meeting Date:



City of Roeland Park

Action Item Summary

Date: 3/5/2020
Submitted By: Donnie Scharff, Director of Public Works
Committee/Department: Public Works
Title: **Award Bid for R Park Phase 1 & Phase 2 Project**
Item Type: Discussion

Recommendation:

Award base bid to Gunter Construction Company for the construction of R Park Phase 1 & Phase 2 adding any of the 5 bid alternates Council would like to see included. The Parks Committee recommends including all 5 alternates.

Details:

Staff received bids for the R Park Phase 1 & Phase 2 on February 26th, 2020. A total of seven bids were received. Gunter Construction Company had the lowest base bid of \$927,029. The engineers estimate for the base bid portion of the project was \$1,013,981. A total of 5 alternates where bid with the project. They are as follows:

Alternate 1 - Fireplace (\$39,750)
Alternate 2 - Stone Wall with Pergola (\$57,850)
Alternate 3 - Grill & Stone island (\$22,880)
Alternate 4 - South-East Wing (\$37,175)
Alternate 5 - Performance Stage (\$46,140)

Total Cost for all 5 alternates - \$203,795

Gunter Construction Total - \$1,130,824 (base bid with all 5 alternates)

If all 5 alternates are included Mega Construction has a lower total of \$1,128,000. \$2,824 lower than Gunter.

Both Mega and Gunter are considered reputable Contractors. The decision to include any or all alternates lies with the Council. The recommendation provided by the City Engineer is based upon the base bid. With Council's decision on which alternates are to be included a total cost can

be calculated and considered when selecting the contractor.

Attached is a summary of all costs associated with the project compared to the amount budgeted. Even with including all alternates the total cost is less than what has been budgeted. **However**, the Phase 2 construction budget reflects parking areas being added in the parking lot (noted as "Future Parking Improvements Lot B and C" on the attached Phase 2 plan) and along the east side of Juniper Street (noted as "Future Parking Improvements Lot A" on the attached Phase 2 plan). These parking areas were noted to be completed if needed in the future on the R Park Phased Development Plan and at this time a need has not been identified so the parking was **NOT** included in this bid package. These parking spaces have an estimated cost of \$70,000. Staff will reflect the parking as a project in the CIP when we update that document with the 2021 budget. It will likely be schedule in the same year as Phase 3 of the R Park improvements, if however it is determined that additional parking is not needed when Phase 3 is planned the project can be removed from the CIP at that time.

The contractor proposes to complete 63% of the work with their own forces and 37% with subcontractors.

Financial Impact

Amount of Request: \$1,130,824 for base bid and all 5 alternates	
Budgeted Item?	Budgeted Amount: \$1,487,010
Line Item Code/Description: 5472.300 R Park Development	

Additional Information

The City has budgeted a total of \$1,487,010 for Phase 1 & Phase 2, broken down as follows:

- Design Phase 1 - \$118,504
- Construction - \$887,496
- Design Phase 2 - \$48,100
- Construction - \$432,910

Phase 1 & 2 Construction Items include:

- Shelter
- Restrooms
- Grading and drainage improvements of the soccer field area
- Installation of hammerhead on 55th Terr
- Remove portion of asphalt pad and restore back to greenspace
- New sidewalk near restrooms and shelter
- 2 new handicap parking spaces
- Relocate sanitary sewer manholes outside soccer area
- Landscaping around shelter and restrooms

Again, the bid package does not include the parking areas (A, B, and C) shown in the Phased Development Plan for R Park.

Construction is anticipated to start in April 2020. Once the contractor is awarded the project a

contract will be executed and a notice to proceed issued for April. We are wanting to get started this spring to ensure the sod and seed has the fall season and following spring to get established before heavy use.

How does item relate to Strategic Plan?

How does item benefit Community for all Ages?

ATTACHMENTS:

Description	Type
 Larkin Presentation on Bids	Cover Memo
 Phase 1 & Phase 2 Budget Summary	Cover Memo
 R Park Bid Tabulations	Cover Memo
 R Park Phase 1 Plans	Cover Memo
 R Park Phase 2 Plans	Cover Memo



R PARK ROELAND PARK, KS

PHASE I & 2

BID RESULTS

MARCH 11, 2020

PARKS COMMITTEE MEETING

**LAMP
RYNEARSON**

hollis architects®
millers





AGENDA

- **OVERVIEW OF PHASE I AND PHASE 2 COMPONENTS**
- **BID RESULTS**
- **PROJECT BUDGET BREAKDOWN**
- **BID ALTERNATES**

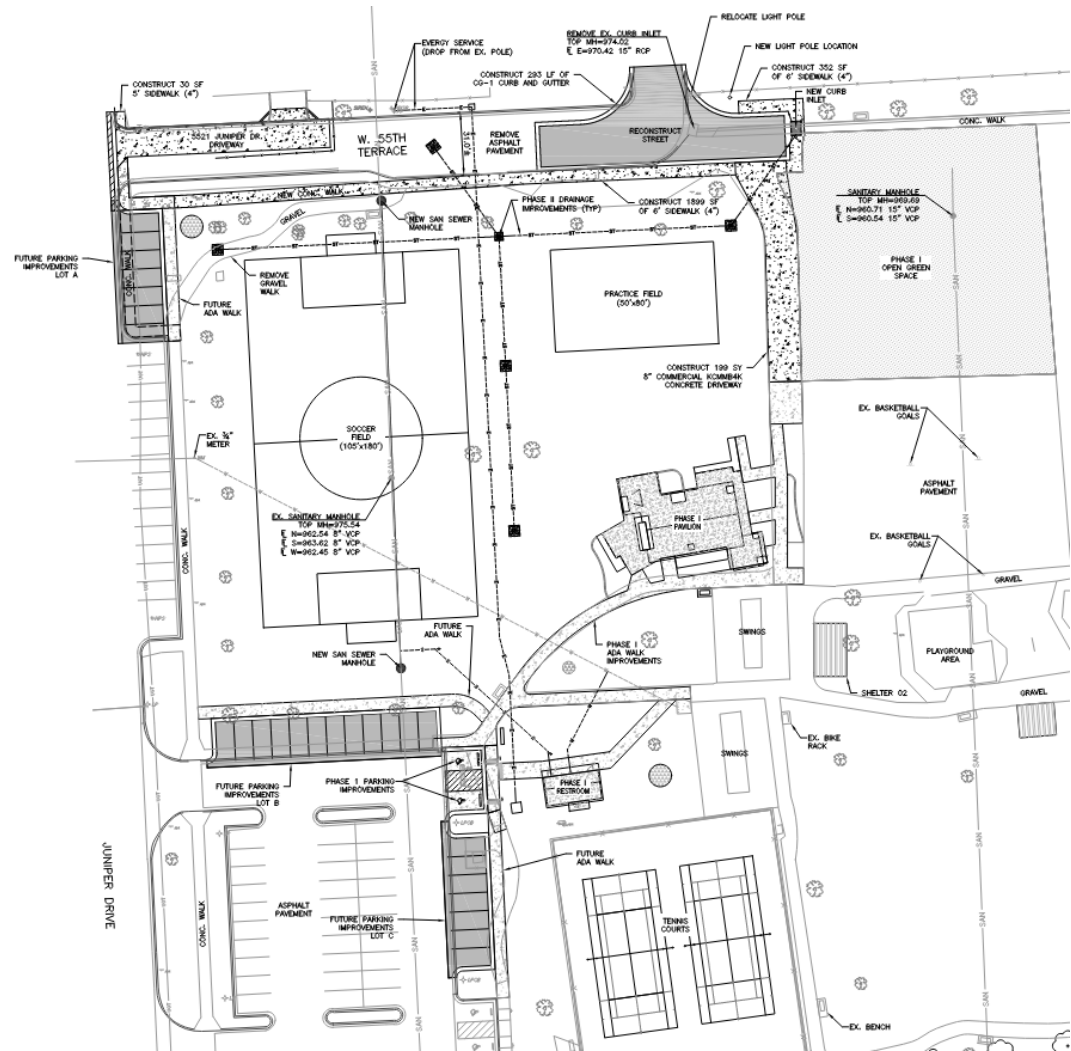
PHASE I

- Pavilion, restrooms, and associated accessible parking
- Removal of asphalt play area to add green space
- Site utilities to support pavilion and restrooms



PHASE 2

- Soccer field, removal of W 55th Terrace, Briar Street hammerhead, and sanitary sewer main removal and relocation
- Some grading for potential future parking spaces



BID RESULTS

Competitive bidding with 3 of 7 as read bids below engineer's estimate

Item	Engineer's Estimate	Average Bid (Excluding High)	Gunter Construction Company
Base Bid	\$1,013,981.00	\$982,980.04	\$927,029.00
Alternate #1 (Fireplace)	\$95,000.00	\$61,647.50	\$39,750.00
Alternate #2 (Stone Wall w/ Pergola)	\$65,000.00	\$68,887.83	\$57,850.00
Alternate #3 (Grill & Stone Island	\$25,000.00	\$22,760.17	\$22,880.00
Alternate #4 (South-East Wing)	\$35,000.00	\$45,704.33	\$37,175.00
Alternate #5 (Performance Stage)	\$70,000.00	\$51,800.17	\$46,140.00

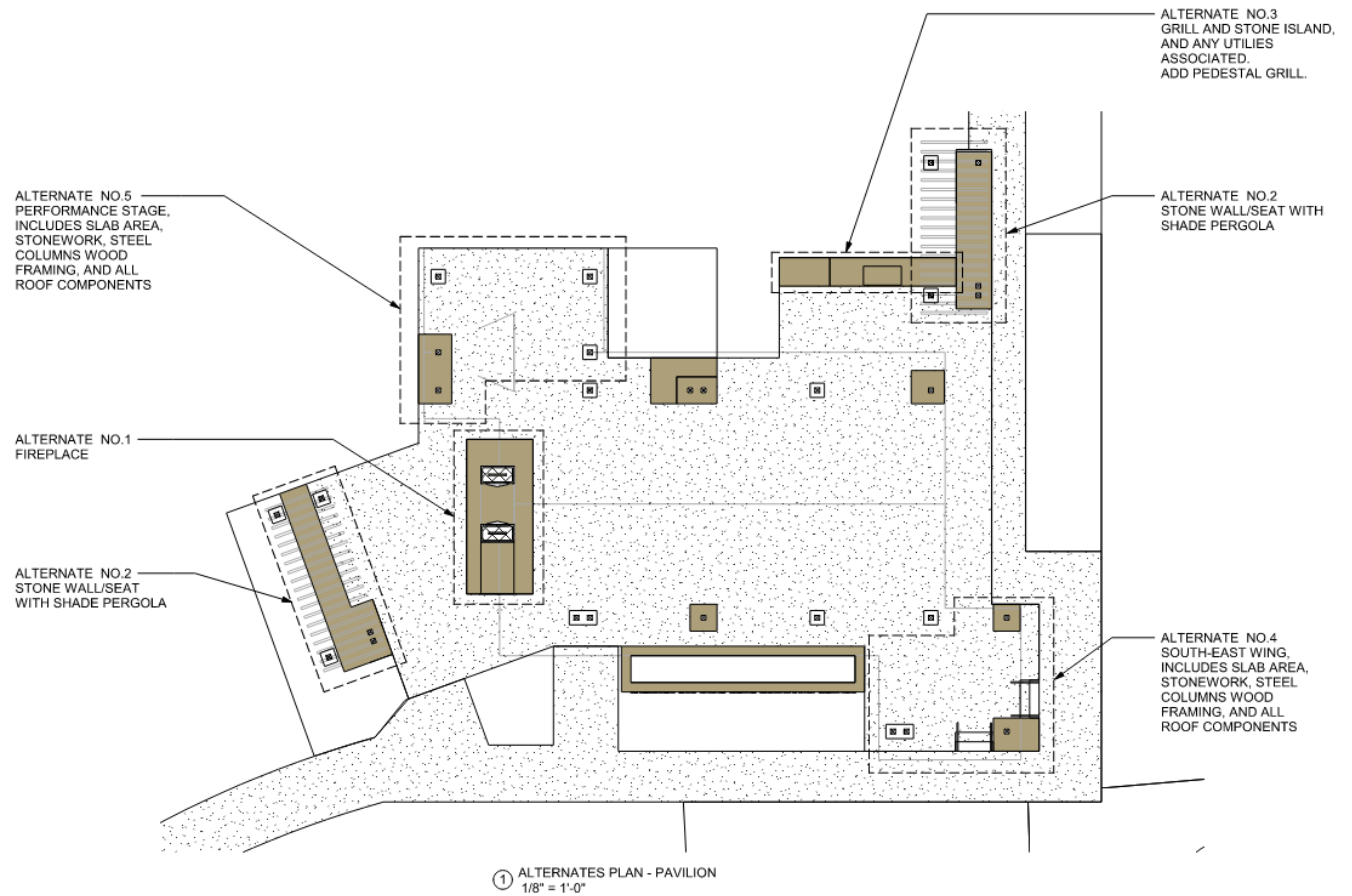
BUDGET SUMMARY

- City Capital Improvement Plan Budget for Phase 1 and Phase 2

\$1,487,011

Item	Amount
Consultants (Design, Construction Administration, Construction Observation, Material Testing)	\$219,161
Utilities (Every and Water Service modifications)	\$36,500
City Directed Change Orders and Publications	\$30,500
Subtotal	\$286,161
Remaining Balance for Construction / Furniture & Fixtures	\$1,200,850
Construction Base Bid	\$927,029
Alternate #1 (Fireplace)	\$39,750
Alternate #2 (Stone Wall w/ Pergola)	\$57,850
Alternate #3 (Grill & Stone Island)	\$22,880
Alternate #4 (South-East Wing)	\$37,175
Alternate #5 (Performance Stage)	\$46,140
Subtotal	\$1,130,824
Remaining Balance for Furniture & Fixtures	\$70,026

Alternates	Amount
Alternate #1 (Fireplace)	\$39,750
Alternate #2 (Stone Wall w/ Pergola)	\$57,850
Alternate #3 (Grill & Stone Island)	\$22,880
Alternate #4 (South-East Wing)	\$37,175
Alternate #5 (Performance Stage)	\$46,140



Need recommendation of alternatives to include for consideration by City Council

R Park Phase 1 and Phase 2
Roeland Park, Kansas
Budget Summary and Project Cost Breakdown
March 5, 2020

City Capital Improvement Plan Budget for Phase 1 and Phase 2 (All in soft and hard costs)	\$1,487,011
Consultants	
Design and Construction Administration	\$158,902
Construction Observation (Part Time)	\$43,072
Material Testing (budget)	\$17,187
Utilities	
Connection Fees and Inspections (budget)	\$21,500
Water Service Line Modifications (budget)	\$15,000
City	
City Directed Change Orders and Publications	\$30,500
Subtotal	\$286,161
Remaining Balance for Construction / Furniture & Fixtures	\$1,200,850
Construction	
Base Bid	\$887,029
Force Account	\$40,000
Bid Alternate #1 (Fireplace)	\$39,750
Bid Alternate #2 (Stone wall with Pergola)	\$57,850
Bid Alternate #3 (Grill & Stone Island)	\$22,880
Bid Alternate #4 (South-East Wing)	\$37,175
Bid Alternate #5 (Performance Stage)	\$46,140
Subtotal	\$1,130,824
Remaining Balance for Furniture & Fixtures	\$70,026
Picnic Tables (7) and Litter Receptacles (3) (budget based on Nall Quote)	\$25,000
Other Site Amenities (budget)	\$10,000
Subtotal	\$35,000
Remaining Balance	\$35,026

March 12, 2020

Ms. Kelley Nielsen
City Clerk
City of Roeland Park, KS
4600 W. 51st Street
Roeland Park, KS 66205

Re: R Park Phase 1 and 2 Improvements

Dear Ms. Nielsen:

Bids were received for the above referenced project on Wednesday, February 26, 2020.

A total of seven bids were received. The low base bid was submitted by Gunter Construction Company in the amount of \$927,029.00. The engineers estimate for the project was \$1,013,981.00. Attached is a completed bid tabulation, list of proposed subcontractors, and subcontractor percentage breakdown. The contractor proposes to complete approximately 63% of the work with their own forces.

The bids were very competitive with three of the seven as read bids being below the engineers estimate. We have checked with references and found Gunter Construction Company to be a qualified contractor. After consultation with City staff we recommend that Gunter Construction Company be awarded the base bid contract, with alternates as selected by the City.

If you have any questions, or need additional information, please contact me at 816-361-0440.

Sincerely,

LAMP RYNEARSON



Dan McGhee, P.E.
Senior Project Manager

CC: Project File
Email C: Donnie Scharff, Director of Public Works

COMPLETED BID TAB							
R PARK PHASE 1 AND 2 IMPROVEMENTS							
CITY OF ROELAND PARK, KANSAS							
February 26, 2020							
				ENGINEERS ESTIMATE		GUNTER CONSTRUCTION COMPANY	
Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total	Unit Price	Total
1	Mobilization	L.S.	1	\$ 35,000.00	\$ 35,000.00	\$ 45,500.85	\$ 45,500.85
2	Clearing, Grubbing, Demolition	L.S.	1	\$ 30,000.00	\$ 30,000.00	\$ 42,658.00	\$ 42,658.00
3	Erosion Control	L.S.	1	\$ 10,000.00	\$ 10,000.00	\$ 5,200.00	\$ 5,200.00
4	Earthwork / Mass Grading	L.S.	1	\$ 25,000.00	\$ 25,000.00	\$ 44,285.00	\$ 44,285.00
5	Curb and Gutter (CG-1)	L.F.	364	\$ 20.00	\$ 7,280.00	\$ 23.50	\$ 8,554.00
6	Concrete Pavement (6") (KCMMB4K)	S.Y.	63	\$ 65.00	\$ 4,095.00	\$ 50.00	\$ 3,150.00
7	Asphaltic Concrete Surface (2") (APWA Type 5 Modified)	TON	42	\$ 90.00	\$ 3,780.00	\$ 195.00	\$ 8,190.00
8	Asphaltic Concrete Base (4") (APWA Type 5 Modified)	TON	84	\$ 90.00	\$ 7,560.00	\$ 185.00	\$ 15,540.00
9	Aggregate Base (6") (AB-3 OP Modified)	S.Y.	1011	\$ 12.00	\$ 12,132.00	\$ 13.00	\$ 13,143.00
10	Concrete Drive (6") (KCMMB4K)	S.Y.	166	\$ 70.00	\$ 11,620.00	\$ 48.00	\$ 7,968.00
11	Concrete Drive (8") (KCMMB4K)	S.Y.	248	\$ 90.00	\$ 22,320.00	\$ 55.00	\$ 13,640.00
12	Sidewalk (4") (KCMMB4K)	S.F.	5737	\$ 7.00	\$ 40,159.00	\$ 4.70	\$ 26,963.90
13	Sidewalk Ramp with Detectable Warning Surface (6") (KCMMB4K)	S.F.	314	\$ 20.00	\$ 6,280.00	\$ 10.00	\$ 3,140.00
14	Detectable Warning Surface	S.F.	40	\$ 43.00	\$ 1,720.00	\$ 20.00	\$ 800.00
15	ADA Parking Stalls	L.S.	1	\$ 2,500.00	\$ 2,500.00	\$ 1,400.00	\$ 1,400.00
16	Pipe (4" PVC SDR-26) (Sanitary Sewer Service)	L.F.	108	\$ 75.00	\$ 8,100.00	\$ 65.00	\$ 7,020.00
17	Pipe (1" Type K Copper) (Water Service)	L.F.	55	\$ 30.00	\$ 1,650.00	\$ 72.00	\$ 3,960.00
18	Power Service and Transformer Pad	L.S.	1	\$ 20,000.00	\$ 20,000.00	\$ 17,750.00	\$ 17,750.00
19	Inlet (6'x4') (Curb)	EA	1	\$ 5,000.00	\$ 5,000.00	\$ 6,250.00	\$ 6,250.00
20	Inlet (4'x4')(Grate)	EA	1	\$ 5,000.00	\$ 5,000.00	\$ 4,220.00	\$ 4,220.00
21	Inlet (15") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	4	\$ 1,800.00	\$ 7,200.00	\$ 1,650.00	\$ 6,600.00
22	Inlet (18") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	1	\$ 2,000.00	\$ 2,000.00	\$ 1,830.00	\$ 1,830.00
23	Pipe (12") (HDPE) (Double Wall Watertight Joints)	L.F.	337	\$ 35.00	\$ 11,795.00	\$ 32.00	\$ 10,784.00
24	Pipe (15") (HDPE) (Double Wall Watertight Joints)	L.F.	171	\$ 45.00	\$ 7,695.00	\$ 36.00	\$ 6,156.00
25	Remove Sanitary Sewer Structure	EA	1	\$ 1,500.00	\$ 1,500.00	\$ 1,075.00	\$ 1,075.00
26	Manhole (4') (Sanitary)	EA	2	\$ 5,000.00	\$ 10,000.00	\$ 5,075.00	\$ 10,150.00
27	Pipe (8" PVC SDR-26) (Sanitary Sewer)	L.F.	230	\$ 120.00	\$ 27,600.00	\$ 46.00	\$ 10,580.00
28	Finish Grading	L.S.	1	\$ 20,000.00	\$ 20,000.00	\$ 17,750.00	\$ 17,750.00
29	Topsoil (6") (Import)	S.Y.	2428	\$ 5.00	\$ 12,140.00	\$ 5.75	\$ 13,961.00
30	Seeding, Fertilizing and Mulching	Acre	1.5	\$ 3,000.00	\$ 4,500.00	\$ 4,950.00	\$ 7,425.00
31	Sodding	S.Y.	3125	\$ 7.00	\$ 21,875.00	\$ 6.25	\$ 19,531.25
32	Landscaping	L.S.	1	\$ 20,000.00	\$ 20,000.00	\$ 15,845.00	\$ 15,845.00
33	Tree Relocation	EA	10	\$ 500.00	\$ 5,000.00	\$ 425.00	\$ 4,250.00
34	Fence (6' Privacy Screening)	LF	83	\$ 60.00	\$ 4,980.00	\$ 58.00	\$ 4,814.00
35	Traffic Control	L.S.	1	\$ 2,500.00	\$ 2,500.00	\$ 4,645.00	\$ 4,645.00
36	Construction Staking	L.S.	1	\$ 6,000.00	\$ 6,000.00	\$ 12,300.00	\$ 12,300.00
37	Pavilion (Complete)	L.S.	1	\$ 275,000.00	\$ 275,000.00	\$ 265,000.00	\$ 265,000.00
38	Restrooms (Complete)	L.S.	1	\$ 275,000.00	\$ 275,000.00	\$ 195,000.00	\$ 195,000.00
39	Force Account	Set	1	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
				TOTAL	\$1,013,981.00		\$927,029.00

	Bid Alternate #1 (Fireplace)	L.S.	1	\$ 95,000.00	\$ 95,000.00	\$39,750.00	\$ 39,750.00
	Bid Alternate #2 (Stone wall with Pergola)	L.S.	1	\$ 65,000.00	\$ 65,000.00	\$57,850.00	\$ 57,850.00
	Bid Alternate #3 (Grill & Stone Island)	L.S.	1	\$ 25,000.00	\$ 25,000.00	\$22,880.00	\$ 22,880.00
	Bid Alternate #4 (South-East Wing)	L.S.	1	\$ 35,000.00	\$ 35,000.00	\$37,175.00	\$ 37,175.00
	Bid Alternate #5 (Performance Stage)	L.S.	1	\$ 70,000.00	\$ 70,000.00	\$46,140.00	\$ 46,140.00
TOTAL ALTERNATES					\$ 290,000.00		\$ 203,795.00

Total w/ all Bid Alternates \$1,303,981.00 \$1,130,824.00

COMPLETED BID TAB							
R PARK PHASE 1 AND 2 IMPROVEMENTS							
CITY OF ROELAND PARK, KANSAS							
February 26, 2020				MEGA INDUSTRIES CORPORATION		BLUE MOON HAULING LLC	
Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total	Unit Price	Total
1	Mobilization	L.S.	1	\$ 53,000.00	\$ 53,000.00	\$ 124,000.00	\$ 124,000.00
2	Clearing, Grubbing, Demolition	L.S.	1	\$ 80,256.46	\$ 80,256.46	\$ 34,000.00	\$ 34,000.00
3	Erosion Control	L.S.	1	\$ 2,500.00	\$ 2,500.00	\$ 6,500.00	\$ 6,500.00
4	Earthwork / Mass Grading	L.S.	1	\$ 81,000.00	\$ 81,000.00	\$ 40,000.00	\$ 40,000.00
5	Curb and Gutter (CG-1)	L.F.	364	\$ 27.00	\$ 9,828.00	\$ 32.89	\$ 11,971.96
6	Concrete Pavement (6") (KCMMB4K)	S.Y.	63	\$ 46.00	\$ 2,898.00	\$ 82.41	\$ 5,191.83
7	Asphaltic Concrete Surface (2") (APWA Type 5 Modified)	TON	42	\$ 180.00	\$ 7,560.00	\$ 186.00	\$ 7,812.00
8	Asphaltic Concrete Base (4") (APWA Type 5 Modified)	TON	84	\$ 128.00	\$ 10,752.00	\$ 173.00	\$ 14,532.00
9	Aggregate Base (6") (AB-3 OP Modified)	S.Y.	1011	\$ 10.00	\$ 10,110.00	\$ 6.50	\$ 6,571.50
10	Concrete Drive (6") (KCMMB4K)	S.Y.	166	\$ 46.00	\$ 7,636.00	\$ 80.50	\$ 13,363.00
11	Concrete Drive (8") (KCMMB4K)	S.Y.	248	\$ 55.00	\$ 13,640.00	\$ 95.00	\$ 23,560.00
12	Sidewalk (4") (KCMMB4K)	S.F.	5737	\$ 5.00	\$ 28,685.00	\$ 8.00	\$ 45,896.00
13	Sidewalk Ramp with Detectable Warning Surface (6") (KCMMB4K)	S.F.	314	\$ 11.00	\$ 3,454.00	\$ 23.00	\$ 7,222.00
14	Detectable Warning Surface	S.F.	40	\$ 42.00	\$ 1,680.00	\$ 34.50	\$ 1,380.00
15	ADA Parking Stalls	L.S.	1	\$ 5,600.00	\$ 5,600.00	\$ 2,760.00	\$ 2,760.00
16	Pipe (4" PVC SDR-26) (Sanitary Sewer Service)	L.F.	108	\$ 35.00	\$ 3,780.00	\$ 86.00	\$ 9,288.00
17	Pipe (1" Type K Copper) (Water Service)	L.F.	55	\$ 25.00	\$ 1,375.00	\$ 94.00	\$ 5,170.00
18	Power Service and Transformer Pad	L.S.	1	\$ 23,507.54	\$ 23,507.54	\$ 23,500.00	\$ 23,500.00
19	Inlet (6'x4') (Curb)	EA	1	\$ 3,850.00	\$ 3,850.00	\$ 4,500.00	\$ 4,500.00
20	Inlet (4'x4')(Grate)	EA	1	\$ 3,300.00	\$ 3,300.00	\$ 3,400.00	\$ 3,400.00
21	Inlet (15") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	4	\$ 1,850.00	\$ 7,400.00	\$ 2,300.00	\$ 9,200.00
22	Inlet (18") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	1	\$ 2,000.00	\$ 2,000.00	\$ 2,900.00	\$ 2,900.00
23	Pipe (12") (HDPE) (Double Wall Watertight Joints)	L.F.	337	\$ 26.00	\$ 8,762.00	\$ 57.00	\$ 19,209.00
24	Pipe (15") (HDPE) (Double Wall Watertight Joints)	L.F.	171	\$ 29.00	\$ 4,959.00	\$ 30.00	\$ 5,130.00
25	Remove Sanitary Sewer Structure	EA	1	\$ 1,200.00	\$ 1,200.00	\$ 1,500.00	\$ 1,500.00
26	Manhole (4') (Sanitary)	EA	2	\$ 6,050.00	\$ 12,100.00	\$ 3,900.00	\$ 7,800.00
27	Pipe (8" PVC SDR-26) (Sanitary Sewer)	L.F.	230	\$ 60.00	\$ 13,800.00	\$ 78.00	\$ 17,940.00
28	Finish Grading	L.S.	1	\$ 12,000.00	\$ 12,000.00	\$ 7,000.00	\$ 7,000.00
29	Topsoil (6") (Import)	S.Y.	2428	\$ 5.00	\$ 12,140.00	\$ 5.50	\$ 13,354.00
30	Seeding, Fertilizing and Mulching	Acre	1.5	\$ 2,700.00	\$ 4,050.00	\$ 3,800.00	\$ 5,700.00
31	Sodding	S.Y.	3125	\$ 5.00	\$ 15,625.00	\$ 5.25	\$ 16,406.25
32	Landscaping	L.S.	1	\$ 13,000.00	\$ 13,000.00	\$ 15,000.00	\$ 15,000.00
33	Tree Relocation	EA	10	\$ 240.00	\$ 2,400.00	\$ 300.00	\$ 3,000.00
34	Fence (6' Privacy Screening)	LF	83	\$ 44.00	\$ 3,652.00	\$ 86.00	\$ 7,138.00
35	Traffic Control	L.S.	1	\$ 4,500.00	\$ 4,500.00	\$ 2,300.00	\$ 2,300.00
36	Construction Staking	L.S.	1	\$ 12,000.00	\$ 12,000.00	\$ 4,800.00	\$ 4,800.00
37	Pavilion (Complete)	L.S.	1	\$ 226,000.00	\$ 226,000.00	\$ 250,000.00	\$ 250,000.00
38	Restrooms (Complete)	L.S.	1	\$ 182,000.00	\$ 182,000.00	\$ 176,000.00	\$ 176,000.00
39	Force Account	Set	1	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
					\$932,000.00		\$994,995.54

	Bid Alternate #1 (Fireplace)	L.S.	1	\$44,000.00	\$ 44,000.00	\$65,000.00	\$ 65,000.00
	Bid Alternate #2 (Stone wall with Pergola)	L.S.	1	\$61,000.00	\$ 61,000.00	\$55,000.00	\$ 55,000.00
	Bid Alternate #3 (Grill & Stone Island)	L.S.	1	\$14,000.00	\$ 14,000.00	\$16,500.00	\$ 16,500.00
	Bid Alternate #4 (South-East Wing)	L.S.	1	\$34,000.00	\$ 34,000.00	\$30,000.00	\$ 30,000.00
	Bid Alternate #5 (Performance Stage)	L.S.	1	\$43,000.00	\$ 43,000.00	\$61,000.00	\$ 61,000.00
TOTAL ALTERNATES					\$ 196,000.00		\$ 227,500.00

Total w/ all Bid Alternates \$1,128,000.00 \$1,222,495.54

COMPLETED BID TAB							
R PARK PHASE 1 AND 2 IMPROVEMENTS							
CITY OF ROELAND PARK, KANSAS							
February 26, 2020							
				B DEAN CONSTRUCTION		FREEMAN CONCRETE CONSTRUCTION LLC	
Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total	Unit Price	Total
1	Mobilization	L.S.	1	\$ 8,431.34	\$ 8,431.34	\$ 79,175.00	\$ 79,175.00
2	Clearing, Grubbing, Demolition	L.S.	1	\$ 37,681.04	\$ 37,681.04	\$ 20,630.00	\$ 20,630.00
3	Erosion Control	L.S.	1	\$ 11,300.33	\$ 11,300.33	\$ 7,500.00	\$ 7,500.00
4	Earthwork / Mass Grading	L.S.	1	\$ 67,649.75	\$ 67,649.75	\$ 29,000.00	\$ 29,000.00
5	Curb and Gutter (CG-1)	L.F.	364	\$ 26.66	\$ 9,704.24	\$ 23.00	\$ 8,372.00
6	Concrete Pavement (6") (KCMMB4K)	S.Y.	63	\$ 54.84	\$ 3,454.92	\$ 49.20	\$ 3,099.60
7	Asphaltic Concrete Surface (2") (APWA Type 5 Modified)	TON	42	\$ 189.10	\$ 7,942.20	\$ 246.00	\$ 10,332.00
8	Asphaltic Concrete Base (4") (APWA Type 5 Modified)	TON	84	\$ 176.83	\$ 14,853.72	\$ 156.00	\$ 13,104.00
9	Aggregate Base (6") (AB-3 OP Modified)	S.Y.	1011	\$ 8.98	\$ 9,078.78	\$ 8.50	\$ 8,593.50
10	Concrete Drive (6") (KCMMB4K)	S.Y.	166	\$ 56.79	\$ 9,427.14	\$ 49.20	\$ 8,167.20
11	Concrete Drive (8") (KCMMB4K)	S.Y.	248	\$ 74.30	\$ 18,426.40	\$ 60.00	\$ 14,880.00
12	Sidewalk (4") (KCMMB4K)	S.F.	5737	\$ 6.22	\$ 35,684.14	\$ 4.21	\$ 24,152.77
13	Sidewalk Ramp with Detectable Warning Surface (6") (KCMMB4K)	S.F.	314	\$ 9.57	\$ 3,004.98	\$ 6.00	\$ 1,884.00
14	Detectable Warning Surface	S.F.	40	\$ 93.25	\$ 3,730.00	\$ 50.00	\$ 2,000.00
15	ADA Parking Stalls	L.S.	1	\$ 7,670.18	\$ 7,670.18	\$ 1,836.00	\$ 1,836.00
16	Pipe (4" PVC SDR-26) (Sanitary Sewer Service)	L.F.	108	\$ 63.33	\$ 6,839.64	\$ 57.25	\$ 6,183.00
17	Pipe (1" Type K Copper) (Water Service)	L.F.	55	\$ 71.01	\$ 3,905.55	\$ 56.04	\$ 3,082.20
18	Power Service and Transformer Pad	L.S.	1	\$ 10,480.62	\$ 10,480.62		\$ -
19	Inlet (6'x4') (Curb)	EA	1	\$ 4,391.91	\$ 4,391.91	\$ 3,500.00	\$ 3,500.00
20	Inlet (4'x4')(Grate)	EA	1	\$ 3,952.19	\$ 3,952.19	\$ 3,500.00	\$ 3,500.00
21	Inlet (15") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	4	\$ 2,096.13	\$ 8,384.52	\$ 2,007.00	\$ 8,028.00
22	Inlet (18") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	1	\$ 2,494.27	\$ 2,494.27	\$ 2,207.00	\$ 2,207.00
23	Pipe (12") (HDPE) (Double Wall Watertight Joints)	L.F.	337	\$ 37.34	\$ 12,583.58	\$ 35.00	\$ 11,795.00
24	Pipe (15") (HDPE) (Double Wall Watertight Joints)	L.F.	171	\$ 47.94	\$ 8,197.74	\$ 38.00	\$ 6,498.00
25	Remove Sanitary Sewer Structure	EA	1	\$ 3,044.65	\$ 3,044.65	\$ 1,000.00	\$ 1,000.00
26	Manhole (4') (Sanitary)	EA	2	\$ 4,918.28	\$ 9,836.56	\$ 3,487.00	\$ 6,974.00
27	Pipe (8" PVC SDR-26) (Sanitary Sewer)	L.F.	230	\$ 79.63	\$ 18,314.90	\$ 73.00	\$ 16,790.00
28	Finish Grading	L.S.	1	\$ 5,445.24	\$ 5,445.24	\$ 28,000.00	\$ 28,000.00
29	Topsoil (6") (Import)	S.Y.	2428	\$ 9.14	\$ 22,191.92	\$ 3.09	\$ 7,502.52
30	Seeding, Fertilizing and Mulching	Acre	1.5	\$ 4,293.74	\$ 6,440.61	\$ 2,850.00	\$ 4,275.00
31	Sodding	S.Y.	3125	\$ 5.22	\$ 16,312.50	\$ 5.55	\$ 17,343.75
32	Landscaping	L.S.	1	\$ 12,079.06	\$ 12,079.06	\$ 18,000.00	\$ 18,000.00
33	Tree Relocation	EA	10	\$ 1,463.78	\$ 14,637.80	\$ 275.00	\$ 2,750.00
34	Fence (6' Privacy Screening)	LF	83	\$ 87.48	\$ 7,260.84	\$ 40.00	\$ 3,320.00
35	Traffic Control	L.S.	1	\$ 4,485.01	\$ 4,485.01	\$ 1,000.00	\$ 1,000.00
36	Construction Staking	L.S.	1	\$ 7,260.32	\$ 7,260.32	\$ 11,232.00	\$ 11,232.00
37	Pavilion (Complete)	L.S.	1	\$ 305,635.86	\$ 305,635.86	\$ 408,097.00	\$ 408,097.00
38	Restrooms (Complete)	L.S.	1	\$ 240,058.82	\$ 240,058.82	\$ 207,734.00	\$ 207,734.00
39	Force Account	Set	1	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
					\$1,022,273.27	Corrected	\$1,051,537.54
						As-Read	\$1,051,065.00
	Bid Alternate #1 (Fireplace)	L.S.	1	\$97,000.00	\$ 97,000.00	\$81,000.00	\$ 81,000.00
	Bid Alternate #2 (Stone wall with Pergola)	L.S.	1	\$119,000.00	\$ 119,000.00	\$98,556.00	\$ 98,556.00
	Bid Alternate #3 (Grill & Stone Island)	L.S.	1	\$40,000.00	\$ 40,000.00	\$21,000.00	\$ 21,000.00
	Bid Alternate #4 (South-East Wing)	L.S.	1	\$65,000.00	\$ 65,000.00	\$72,500.00	\$ 72,500.00
	Bid Alternate #5 (Performance Stage)	L.S.	1	\$85,000.00	\$ 85,000.00	\$47,500.00	\$ 47,500.00
TOTAL ALTERNATES					\$ 406,000.00		\$ 320,556.00
Total w/ all Bid Alternates					\$1,428,273.27		\$1,372,093.54

COMPLETED BID TAB							
R PARK PHASE 1 AND 2 IMPROVEMENTS							
CITY OF ROELAND PARK, KANSAS							
February 26, 2020							
				2 POINT CONSTRUCTION COMPANY, LLC		CENTRIC PROJECTS LLC	
Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total	Unit Price	Total
1	Mobilization	L.S.	1	\$ 17,500.00	\$ 17,500.00	\$ 8,200.00	\$ 8,200.00
2	Clearing, Grubbing, Demolition	L.S.	1	\$ 32,178.00	\$ 32,178.00	\$ 32,178.00	\$ 32,178.00
3	Erosion Control	L.S.	1	\$ 1,740.00	\$ 1,740.00	\$ 7,950.00	\$ 7,950.00
4	Earthwork / Mass Grading	L.S.	1	\$ 57,700.00	\$ 57,700.00	\$ 105,768.00	\$ 105,768.00
5	Curb and Gutter (CG-1)	L.F.	364	\$ 22.75	\$ 8,281.00	\$ 28.00	\$ 10,192.00
6	Concrete Pavement (6") (KCMMB4K)	S.Y.	63	\$ 46.82	\$ 2,949.66	\$ 38.00	\$ 2,394.00
7	Asphaltic Concrete Surface (2") (APWA Type 5 Modified)	TON	42	\$ 157.70	\$ 6,623.40	\$ 288.67	\$ 12,124.14
8	Asphaltic Concrete Base (4") (APWA Type 5 Modified)	TON	84	\$ 157.70	\$ 13,246.80	\$ 144.15	\$ 12,108.60
9	Aggregate Base (6") (AB-3 OP Modified)	S.Y.	1011	\$ 10.00	\$ 10,110.00	\$ 6.00	\$ 6,066.00
10	Concrete Drive (6") (KCMMB4K)	S.Y.	166	\$ 48.49	\$ 8,049.34	\$ 48.15	\$ 7,992.90
11	Concrete Drive (8") (KCMMB4K)	S.Y.	248	\$ 63.44	\$ 15,733.12	\$ 44.00	\$ 10,912.00
12	Sidewalk (4") (KCMMB4K)	S.F.	5737	\$ 5.31	\$ 30,463.47	\$ 6.00	\$ 34,422.00
13	Sidewalk Ramp with Detectable Warning Surface (6") (KCMMB4K)	S.F.	314	\$ 8.17	\$ 2,565.38	\$ 22.00	\$ 6,908.00
14	Detectable Warning Surface	S.F.	40	\$ 74.62	\$ 2,984.80	\$ 120.00	\$ 4,800.00
15	ADA Parking Stalls	L.S.	1	\$ 1,600.00	\$ 1,600.00	\$ 6,771.00	\$ 6,771.00
16	Pipe (4" PVC SDR-26) (Sanitary Sewer Service)	L.F.	108	\$ 60.00	\$ 6,480.00	\$ 379.34	\$ 40,968.72
17	Pipe (1" Type K Copper) (Water Service)	L.F.	55	\$ 29.00	\$ 1,595.00	\$ 39.55	\$ 2,175.25
18	Power Service and Transformer Pad	L.S.	1	\$ 12,085.00	\$ 12,085.00	\$ 17,779.00	\$ 17,779.00
19	Inlet (6'x4') (Curb)	EA	1	\$ 3,750.50	\$ 3,750.50	\$ 6,554.00	\$ 6,554.00
20	Inlet (4'x4')(Grate)	EA	1	\$ 3,374.50	\$ 3,374.50	\$ 4,294.00	\$ 4,294.00
21	Inlet (15") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	4	\$ 1,790.00	\$ 7,160.00	\$ 2,500.00	\$ 10,000.00
22	Inlet (18") (Area) (Nyloplast Heavy Duty w/Ped. Grate Assy)	EA	1	\$ 2,130.00	\$ 2,130.00	\$ 3,560.00	\$ 3,560.00
23	Pipe (12") (HDPE) (Double Wall Watertight Joints)	L.F.	337	\$ 31.08	\$ 10,473.96	\$ 68.54	\$ 23,097.98
24	Pipe (15") (HDPE) (Double Wall Watertight Joints)	L.F.	171	\$ 31.08	\$ 5,314.68	\$ 75.10	\$ 12,842.10
25	Remove Sanitary Sewer Structure	EA	1	\$ 1,200.00	\$ 1,200.00	\$ 50,285.00	\$ 50,285.00
26	Manhole (4') (Sanitary)	EA	2	\$ 9,025.00	\$ 18,050.00	\$ 6,554.00	\$ 13,108.00
27	Pipe (8" PVC SDR-26) (Sanitary Sewer)	L.F.	230	\$ 45.00	\$ 10,350.00	\$ 77.41	\$ 17,804.30
28	Finish Grading	L.S.	1	\$ 11,760.00	\$ 11,760.00	\$ 4,560.00	\$ 4,560.00
29	Topsoil (6") (Import)	S.Y.	2428	\$ 7.80	\$ 18,938.40	\$ 7.80	\$ 18,938.40
30	Seeding, Fertilizing and Mulching	Acre	1.5	\$ 3,666.00	\$ 5,499.00	\$ 3,300.00	\$ 4,950.00
31	Sodding	S.Y.	3125	\$ 4.65	\$ 14,531.25	\$ 5.70	\$ 17,812.50
32	Landscaping	L.S.	1	\$ 10,315.00	\$ 10,315.00	\$ 7,596.00	\$ 7,596.00
33	Tree Relocation	EA	10	\$ 450.00	\$ 4,500.00	\$ 272.00	\$ 2,720.00
34	Fence (6' Privacy Screening)	LF	83	\$ 25.00	\$ 2,075.00	\$ -	\$ -
35	Traffic Control	L.S.	1	\$ 1,600.00	\$ 1,600.00	\$ 3,168.00	\$ 3,168.00
36	Construction Staking	L.S.	1	\$ 10,400.00	\$ 10,400.00	\$ 7,950.00	\$ 7,950.00
37	Pavilion (Complete)	L.S.	1	\$ 345,428.00	\$ 345,428.00	\$ 309,683.00	\$ 309,683.00
38	Restrooms (Complete)	L.S.	1	\$ 193,845.00	\$ 193,845.00	\$ 245,753.00	\$ 245,753.00
39	Force Account	Set	1	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
				Corrected	\$952,580.26	Corrected	\$1,134,385.89
				As-Read	\$1,157,933.24	As-Read	\$1,237,488.00
	Bid Alternate #1 (Fireplace)	L.S.	1	\$43,135.00	\$ 43,135.00	\$60,420.00	\$ 60,420.00
	Bid Alternate #2 (Stone wall with Pergola)	L.S.	1	\$21,921.00	\$ 21,921.00	\$58,855.00	\$ 58,855.00
	Bid Alternate #3 (Grill & Stone Island)	L.S.	1	\$22,181.00	\$ 22,181.00	\$16,759.00	\$ 16,759.00
	Bid Alternate #4 (South-East Wing)	L.S.	1	\$35,551.00	\$ 35,551.00	\$57,297.00	\$ 57,297.00
	Bid Alternate #5 (Performance Stage)	L.S.	1	\$28,161.00	\$ 28,161.00	\$56,860.00	\$ 56,860.00
TOTAL ALTERNATES					\$ 150,949.00		\$ 250,191.00
Total w/ all Bid Alternates					\$1,103,529.26		\$1,384,576.89
Bidder requested to withdraw bid							



DBE ADOT, INDOT, IOWADOT
KDOT, MODOT, ODOT, TXDOT
WBE KCMO, Kansas, Missouri
SBE, SDB, WOSB

March 3, 2020

City of Roeland Park
4600 W. 51st Street
Roeland Park, KS 66205

RE: List of Subcontractors/ Breakdown

To Whom It May Concern,

<u>Subcontractor:</u>	<u>Scope of Work:</u>	<u>Percent %:</u>
AmeriFence Corporation	Fencing	0.62%
Byers Glass	Glazing	0.74%
Capitol Painting Co.	Painting	1.60%
Fell Seeding	Seed/Sod/Landscape	3.03%
JG Stone & Masonry	Masonry	10.46%
KC Pros Electric	Electrical/Services	4.54%
Little Joe's Asphalt	Asphalt	1.75%
Midland Steel Co.	Steel Erection/Fabrication	8.98%
Morgan Contractors	Traffic Control	0.45%
Rodriguez Mechanical	Sanitary Sewer Main Relocation	0.02%
Star Signs, LLC	Signage	0.73%
Taylor Mechanical Inc.	Plumbing Services	2.28%
Triad Commercial	Roofing (Sheet Metal)	1.94%



DBE ADOT, INDOT, IOWADOT
KDOT, MODOT, ODOT, TXDOT
WBE KCMO, Kansas, Missouri
SBE, SDB, WOSB

Continued

Work being self-performed by Gunter Construction Company:

- Earth work and drainage
- Concrete (site and buildings)
- Removals and demolition
- Storm sewer Installation
- Building framing
- Install siding and trusses
- Framing and trim work

Total self-perform work equals 62.86%

Sincerely,

Christina Gunter, President

R PARK PHASE 1
ROELAND PARK, KANSAS
PAVILION AND
RESTROOM IMPROVEMENTS
CONSTRUCTION DOCUMENTS



ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER. THERE IS NO GUARANTEE ALL FACILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION. COORDINATE NECESSARY RELOCATIONS WITH UTILITY COMPANIES.

UTILITY CONTACTS

SPECTRUM (TIME WARNER CABLE)
DESIGN & CONSTRUCTION
8221 W. 119TH ST.
OVERLAND PARK, KANSAS 66213
(913) 643-1901
ATTN.: STEVEN BAXTER
STEVEN.BAXTER@CHARTER.COM
(913) 643-1961
ATTN.: RON FRANK
RON.FRANK@CHARTER.COM

KANSAS CITY POWER & LIGHT CO.
8730 NIEMAN ROAD
OVERLAND PARK, KANSAS 66214
(913) 681-7420
ATTN.: GARY PRICE
GARY.PRICE@KCPL.COM

KANSAS GAS SERVICE
11401 WEST 89TH STREET
OVERLAND PARK, KANSAS 66214
(913) 599-8964
ATTN.: HECTOR DUARTE
HECTOR.DUARTE@ONEGAS.COM

WATERONE
10747 RENNER BOULEVARD
LENEXA, KANSAS 66219-9624
(913) 895-5775
ATTN.: JAN HARDIE
JHARDIE@WATERONE.ORG

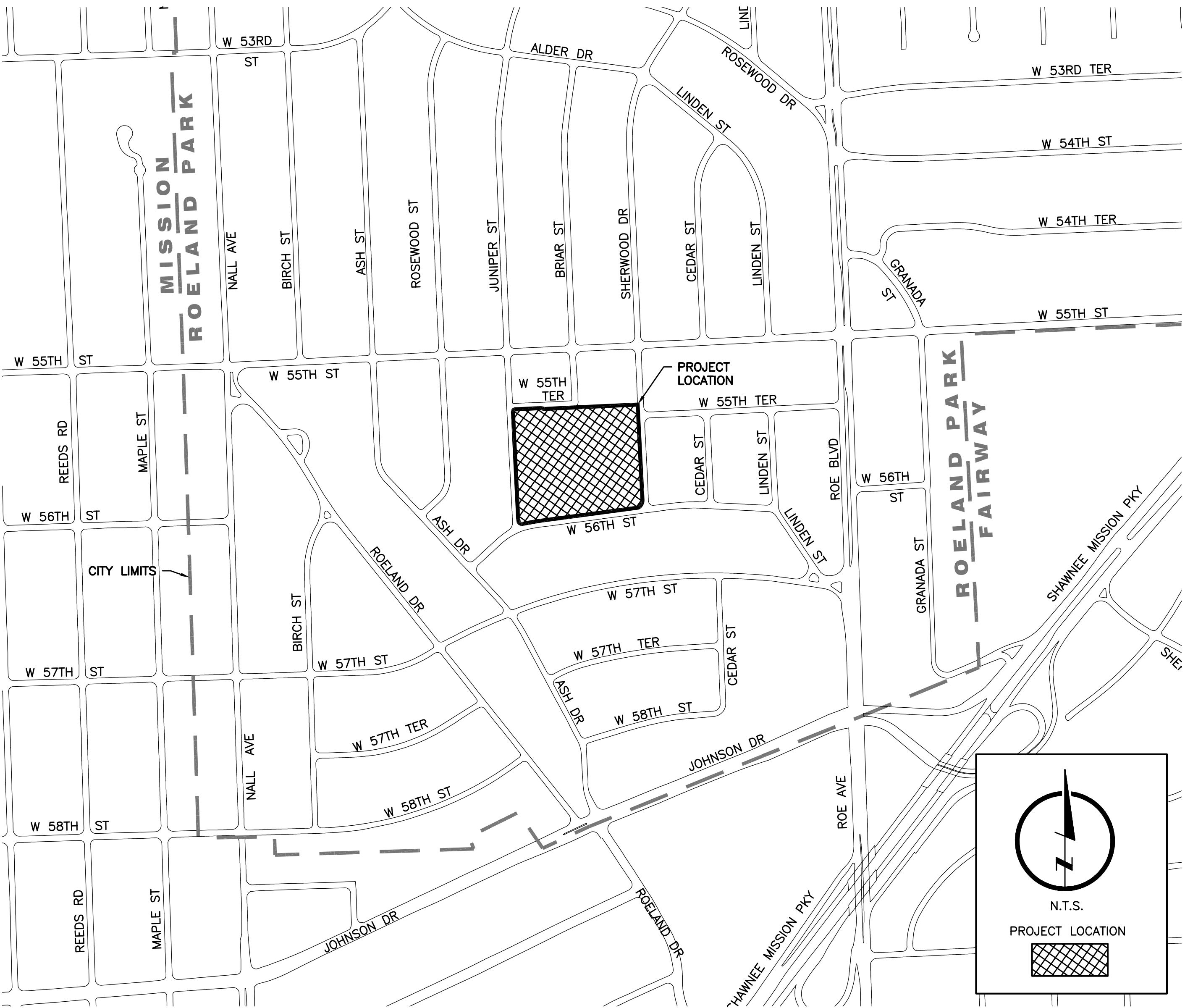
JOHNSON COUNTY UNIFIED
WASTEWATER DISTRICT
7311 W. 130TH SUITE 100
OVERLAND PARK, KANSAS 66213
(913) 207-5234
(913) 715-8537
ATTN.: MIKE PILLER
MIKE.PILLER@JCW.ORG

AT&T
(913) 383-6948
ATTN.: RANDY GASKIN
RG9513@ATT.COM
ATTN.: LENNY VOHS
LVOHS@ATT.COM

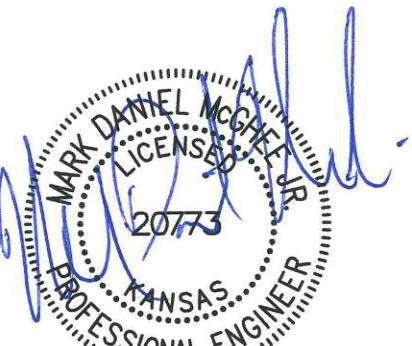
GOOGLE FIBER
(913) 663-1900
ATTN.: LAUREN MARCUCCI
LMARCUCCI@GOGGLE.COM

INDEX OF SHEETS

SHEET	TITLE
C0	COVER SHEET
C1	CIVIL SITE PLAN
C2	EXISTING CONDITIONS / DEMOLITION PLAN
C3	EROSION CONTROL PLAN
C4	LAYOUT PLAN
C5	GRADING PLAN
C6	UTILITY PLAN
C7	SANITARY SEWER SERVICE CONNECTION PLAN
C8	SITE DETAILS
C9	EROSION CONTROL DETAILS
C10	CIVIL SPECIFICATIONS
C11	CIVIL SPECIFICATIONS
C12	CIVIL SPECIFICATIONS
G1	ALTERNATES PLAN
A1	FLOOR PLAN (PAVILION)
A2	REFLECTED CEILING PLAN (PAVILION)
A3	FLOOR PLAN (RESTROOMS)
A4	ROOF PLANS
A5	EXTERIOR ELEVATIONS
A6	BUILDING SECTIONS
A7	SECTIONS, INTERIOR ELEVATIONS AND DETAILS
A10	STRUCTURAL DETAILS
A11	STRUCTURAL DETAILS
A12	STRUCTURAL DETAILS
A13	STRUCTURAL DETAILS
A20	STRUCTURAL NOTES
A30	STRUCTURAL SPECIFICATIONS
A31	STRUCTURAL SPECIFICATIONS
A32	STRUCTURAL SPECIFICATIONS
A40	RENDERINGS (PAVILION)
A41	RENDERINGS (PAVILION)
A42	RENDERINGS (PAVILION)
A43	RENDERINGS (RESTROOMS)
A44	RENDERINGS (PAVILION) (NO ALTERATIONS)
ME1	SYMBOLS AND ABBREVIATIONS - MECH./ELEC.
ME2	SITE PLAN - MECH./ELEC.
ME3	SCHEDULES & DETAILS - MECH./ELEC.
ME4	SPECIFICATIONS - MECHANICAL/ELECTRICAL
ME5	SPECIFICATIONS - MECHANICAL/ELECTRICAL
ME6	SPECIFICATIONS - MECHANICAL/ELECTRICAL
M1	FLOOR PLAN (RESTROOM) - PLUMBING
E1	FLOOR PLAN (PAVILION) - ELECTRICAL
E2	FLOOR PLAN (RESTROOM) - ELECTRICAL
E3	SCHEDULES & DETAILS - ELECTRICAL
L1	PAVILION AND RESTROOM PLANTING PLAN



LOCATION MAP



APPROVED: _____ DATE: 01-28-2020
MARK DANIEL MCGHEE JR.

APPROVED: _____ DATE: 1-28-2020
DONNIE SCHARFF, DIRECTOR OF PUBLIC WORKS
ROELAND PARK, KANSAS

LAMP
RYNEARSON

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

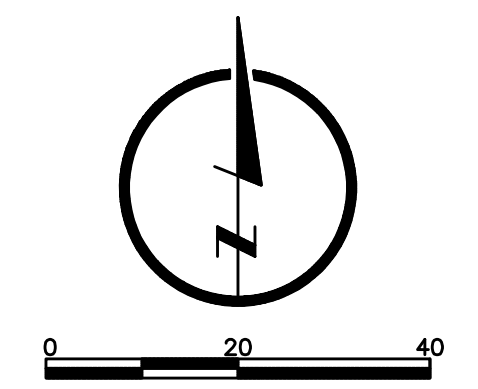
CIVIL / LANDSCAPE
LAMP RYNEARSON
9001 STATE LINE ROAD, SUITE 200
KANSAS CITY, MO 64114
(816) 361-0440
ATTN.: DAN MCGHEE
DAN.MCGHEE@LAMPRYNEARSON.COM

DESIGN TEAM

ARCHITECT
HOLLIS + MILLER ARCHITECTS
1828 WALNUT STREET, SUITE 922
KANSAS CITY, MO 64108
(816) 442-7700
ATTN.: GEORGE KNIPP
GKNIPP@HOLLISANDMILLER.COM

MEP
SMITH & BOUCHER
25501 W VALLEY PARKWAY, SUITE 200
OLATHE, KS 66061
(913) 345-2127
ATTN.: RYAN DIEDIKER
RDIEDIKER@SMITHBOUCHER.COM

U:\Engineering\319001.04 Roeland Park KS R Park Phase 1\Drawings\BASE MODELS\319001.04 - BASE.dwg, 1/28/2020 1:29:28 PM, DAN MCGHEE, LAMP RYNEARSON



01-28-2020
MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

SITE PLAN

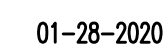
R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE
01-28-2020
PROJECT NUMBER
0319001.04
BOOK AND PAGE

SHEET

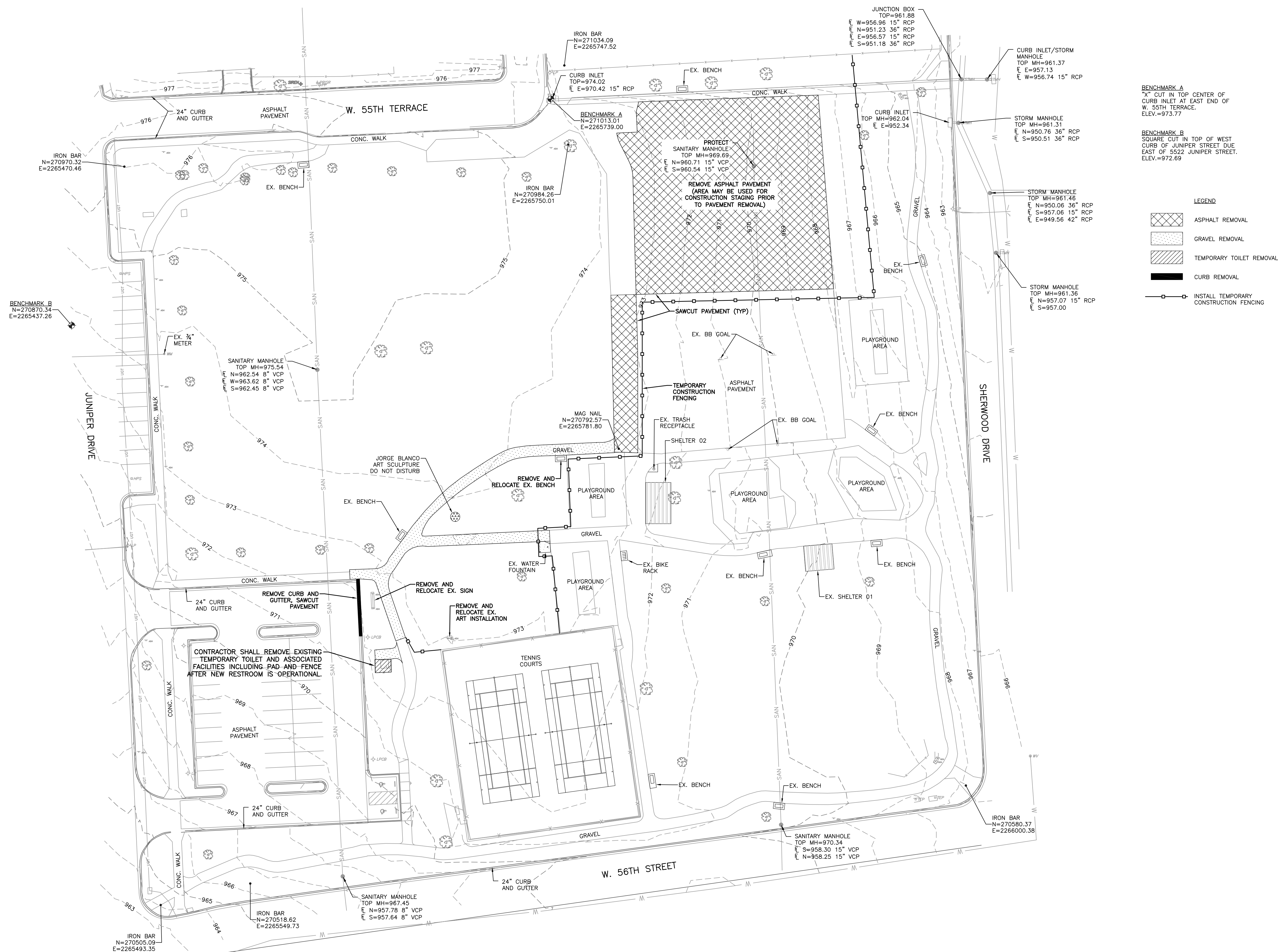


MARK DANIEL MCGHEE JR.
KS PE 20773

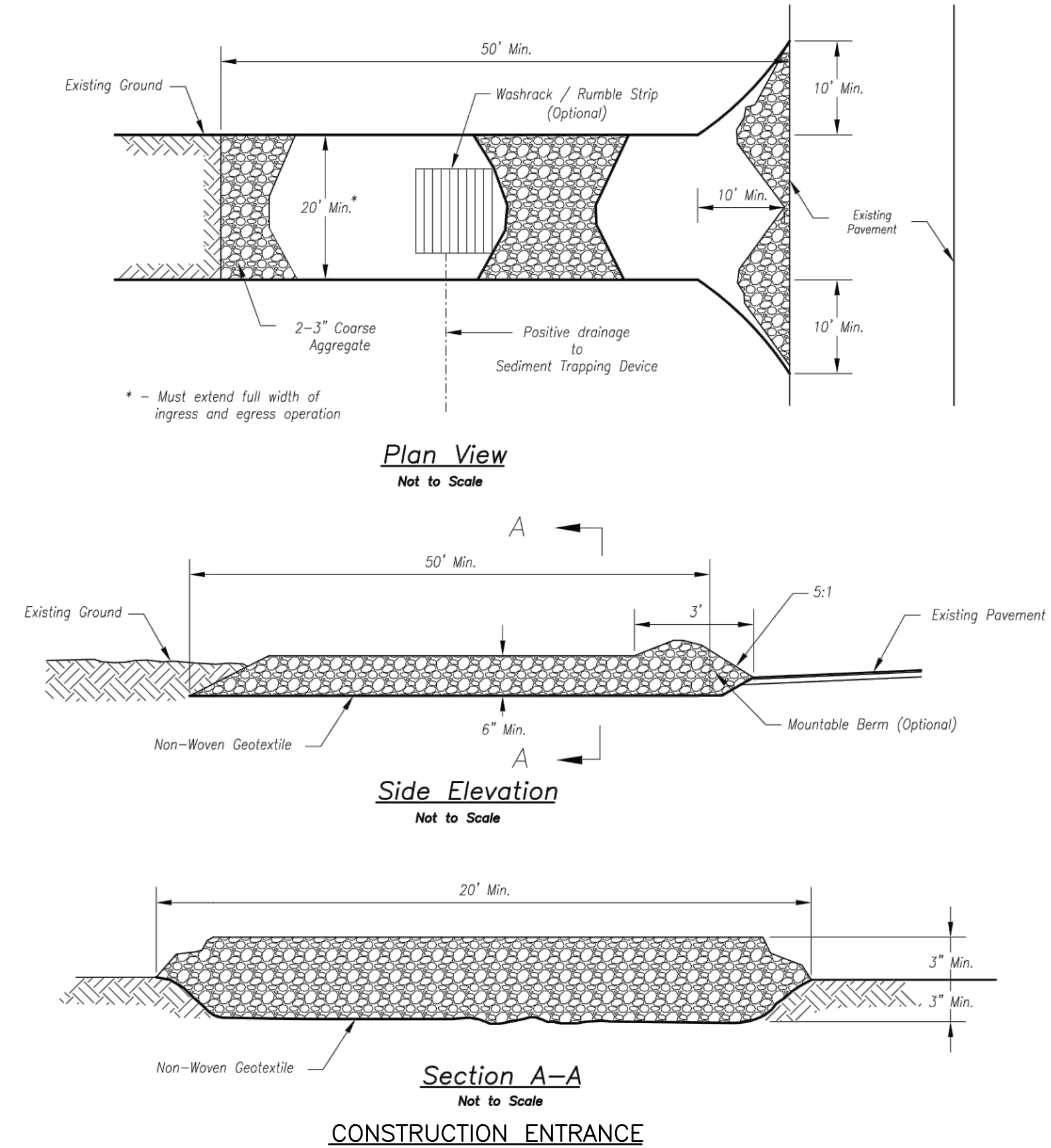
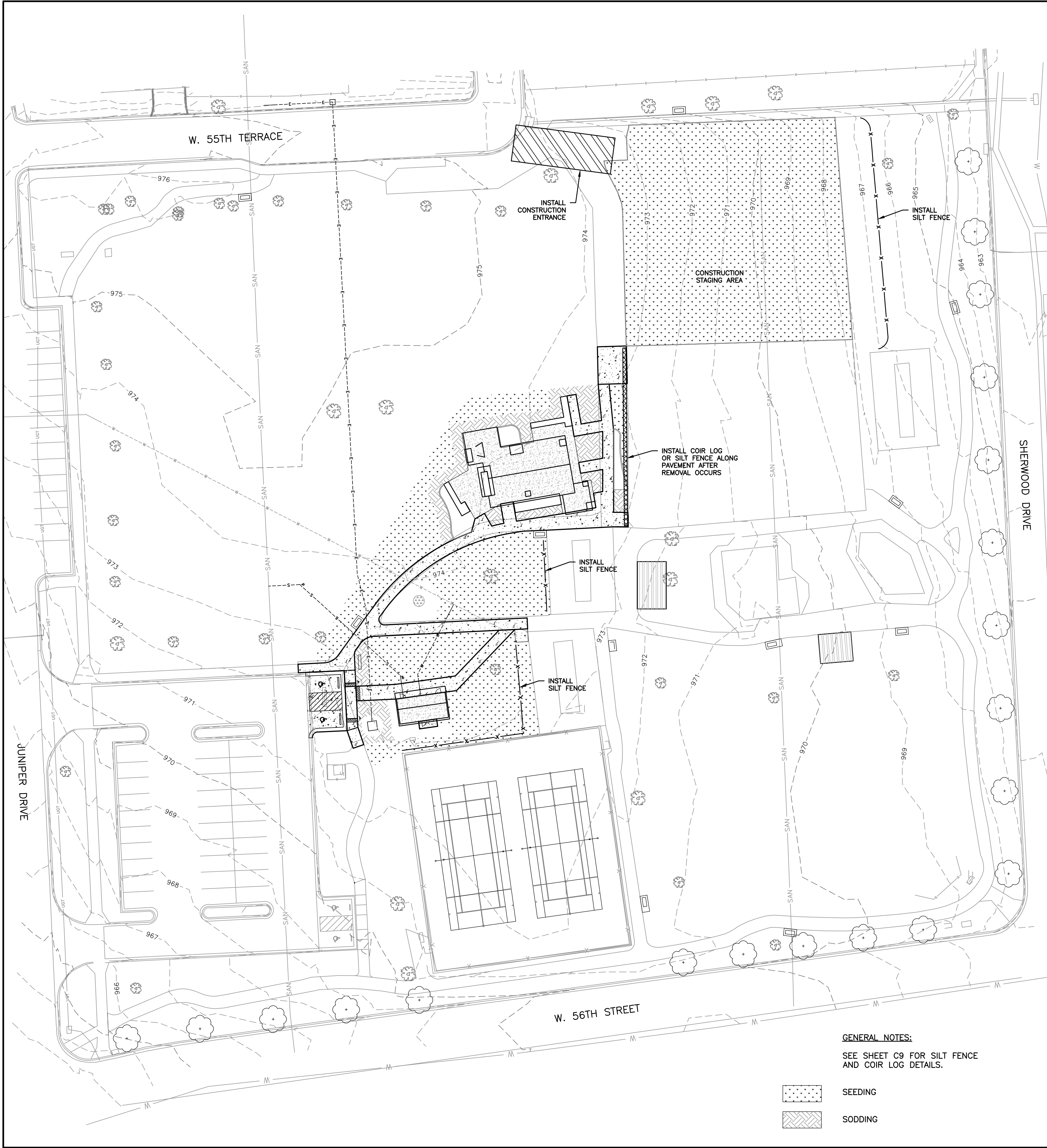
CONSTRUCTION DOCUMENTS EXISTING CONDITIONS AND DEMOLITION SITE PLAN

R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISONS
DESIGNER / DRAFTER
MDM/AJM
DATE
01-28-2020
PROJECT NUMBER
0319001.04
BOOK AND PAGE
SHEET
C2



L:\Engineering\319001.04 - Roeland Park KS R Park Phase 1\DRAWINGS\CONSTRUCTION DRAWINGS\319001.04 - EC PLAN.dwg, 1/28/2020 2:18:59 PM, DAN MCGHEE, LAMP RYNEARSON



Notes for Construction Entrance:

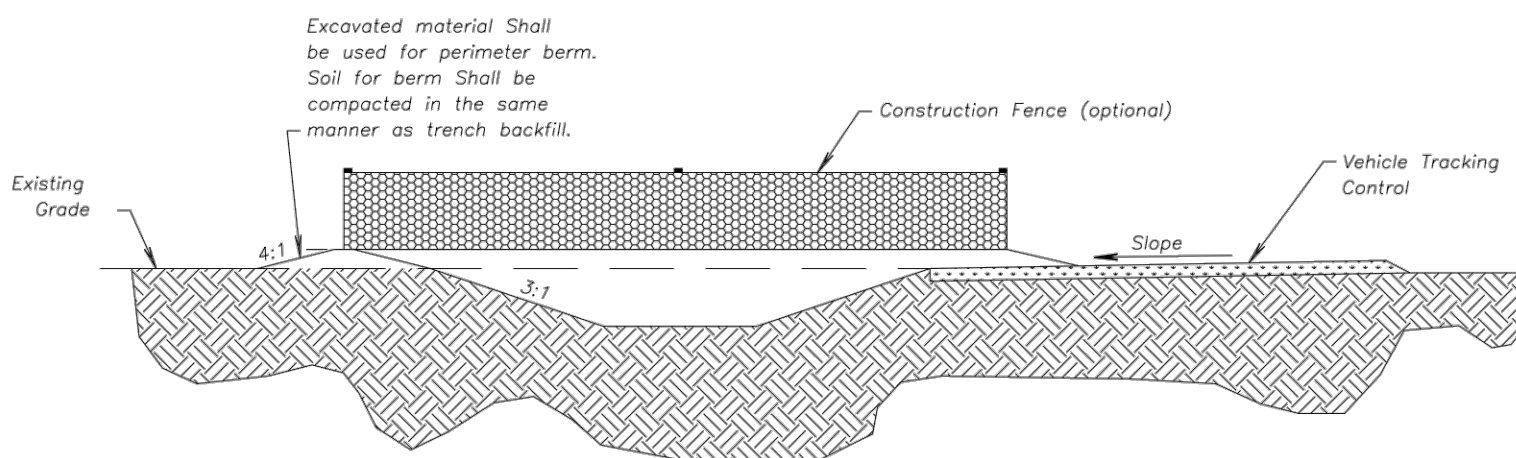
1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.



Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
APWA
AMERICAN PUBLIC WORKS ASSOCIATION

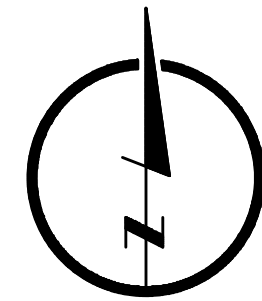
KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016

LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

EROSION CONTROL PLAN

**R PARK - PHASE 1
ROELAND PARK, KANSAS**

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

PROJECT NUMBER

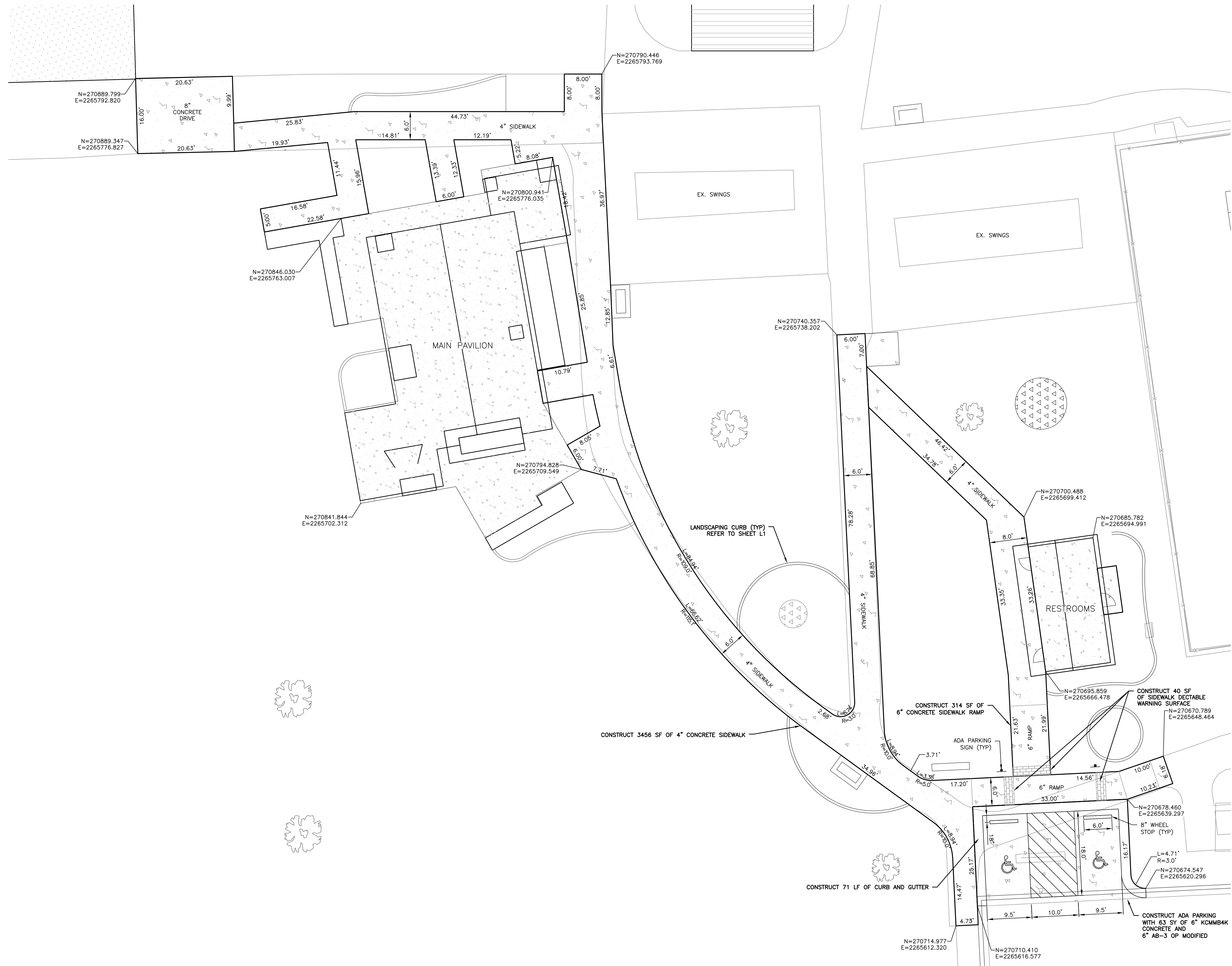
0319001.04

BOOK AND PAGE

SHEET

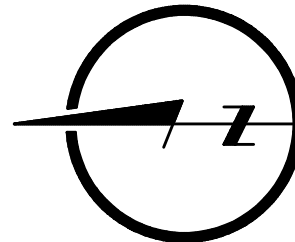
C3

L:\Engineering\319001.04 Roeland Park KS R Park Phase 1\DRAWINGS\CONSTRUCTION DRAWINGS\319001.04 - LAYOUT PLAN.dwg, 1/28/2020 2:26:04 PM, DAN MCGHEE, LAMP RYNEARSON



**LAMP
RYNEARSON**

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



0 10 20



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

LAYOUT PLAN

R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

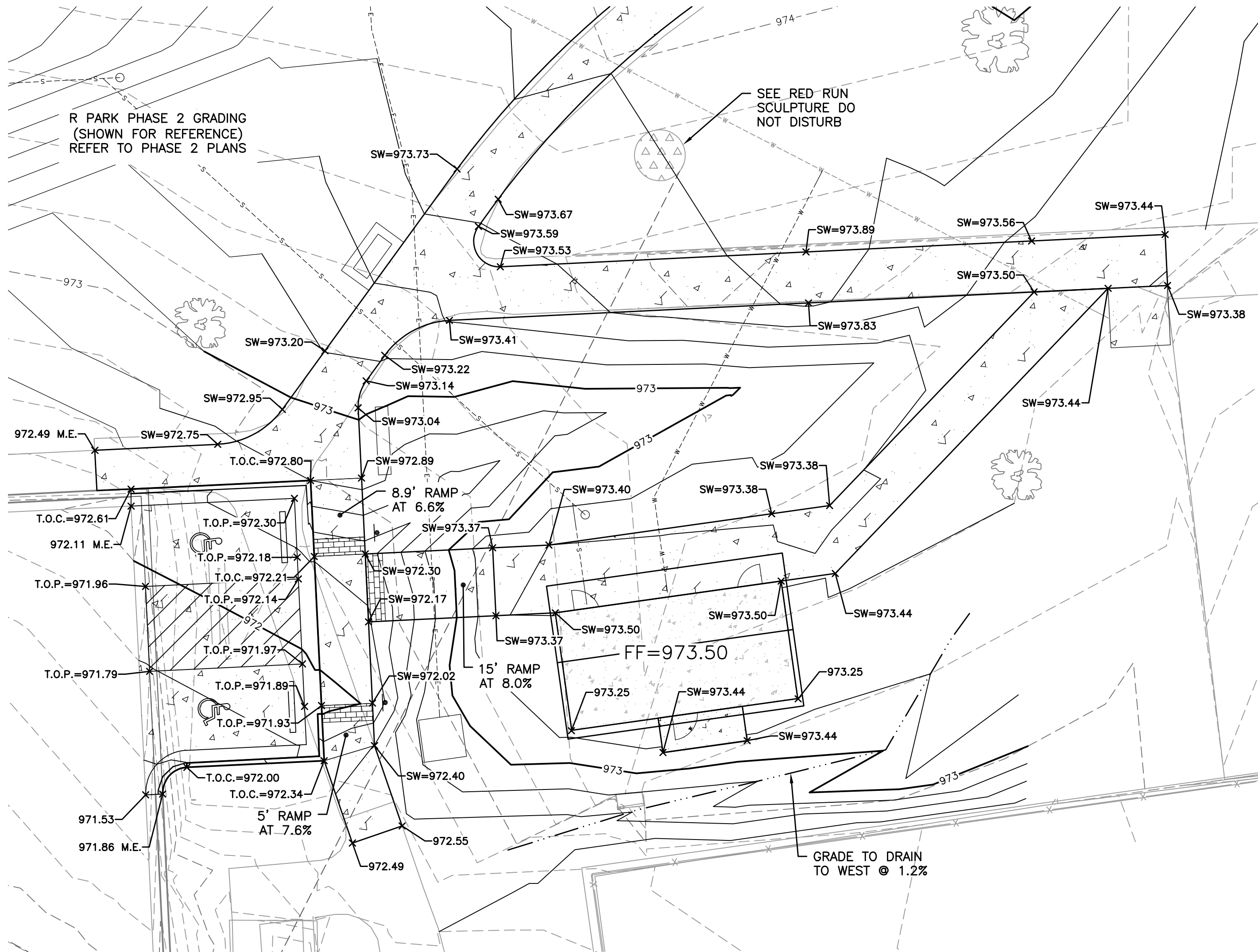
0319001.04

BOOK AND PAGE

SHEET

C4

L:\Engineering\0319001.04 Roeland Park KS R Park Phase 1\Drawings\BASE MODELS\0319001.04 - GRD.dwg, 1/28/2020 2:39:32 PM, DAN MCGHEE, LAMP RYNEARSON



RESTROOM AND PARKING GRADING PLAN



PAVILLION GRADING PLAN

NOTES:

- EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 0.2'-FT INTERVALS.

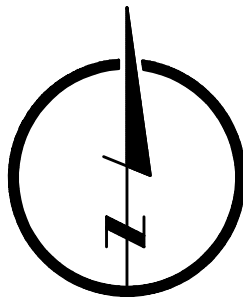
CUT/FILL TABLE (BANK QUANTITIES)	
CUT	84 CY
FILL	140 CY

EARTHWORK CALCULATIONS ARE EXISTING SURFACE CONTOURS TO FINAL SURFACE CONTOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ADJUSTMENTS TO ACCOUNT FOR PAVEMENT THICKNESS, BASE THICKNESS, SUBGRADE THICKNESS, TOPSOIL, REMOVALS, ETC.

ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED. NO DIRECT PAYMENT WILL BE MADE FOR ROCK OR RUBBLE EXCAVATION.

LAMP
RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

GRADING PLAN

R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

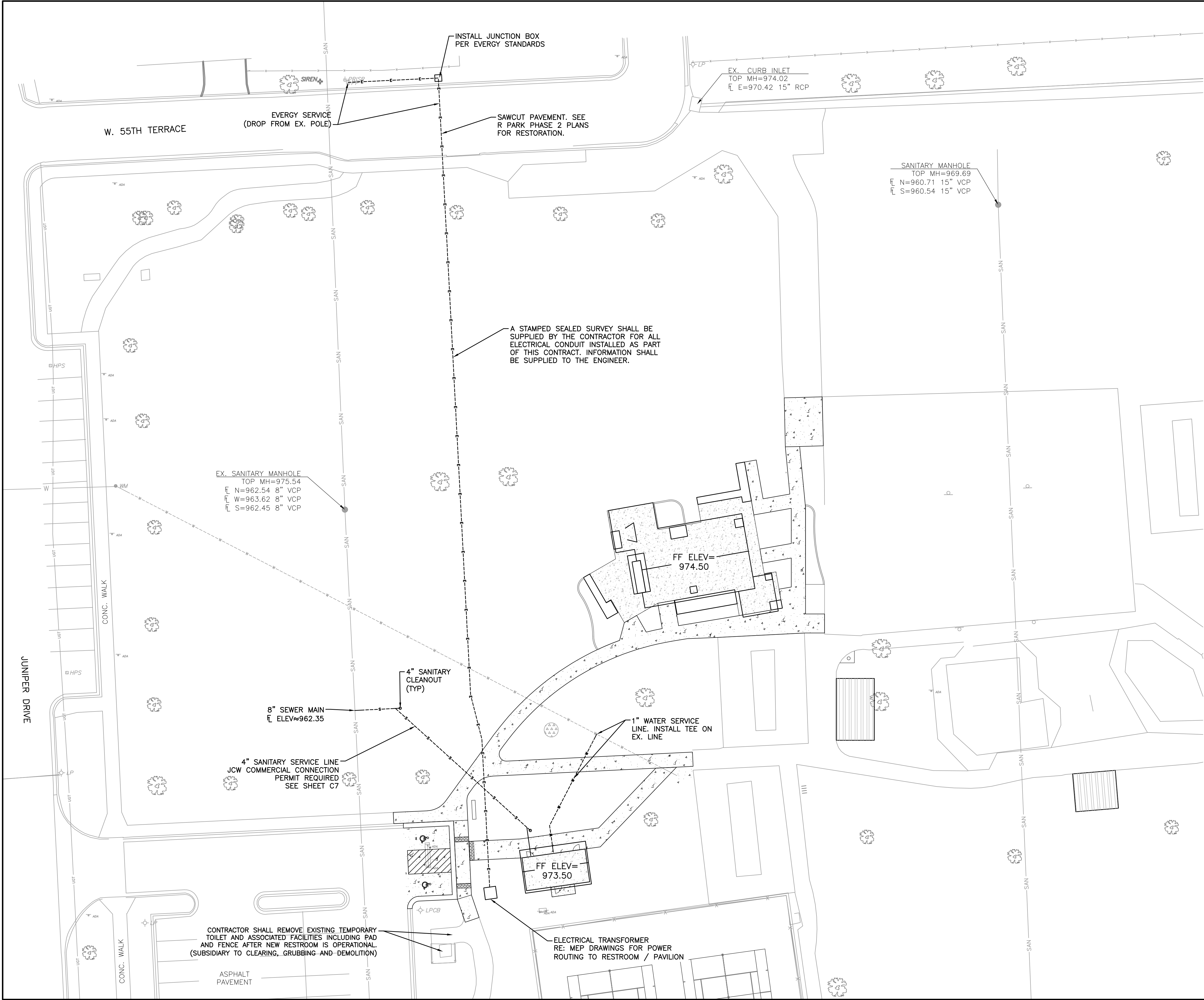
0319001.04

BOOK AND PAGE

SHEET

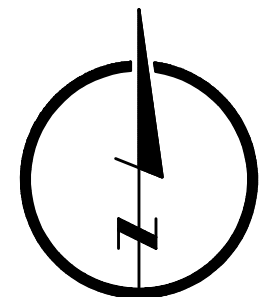
C5

U:\Engineering\319001.04 Roeland Park KS R Park Phase 1\Drawings\BASE MODELS\319001.04 - BASE.dwg, 1/28/2020 2:41:29 PM, DAN MCGHEE, LAMP RYNEARSON



LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

UTILITY PLAN

R PARK - PHASE 1 ROELAND PARK, KANSAS

REVISIONS

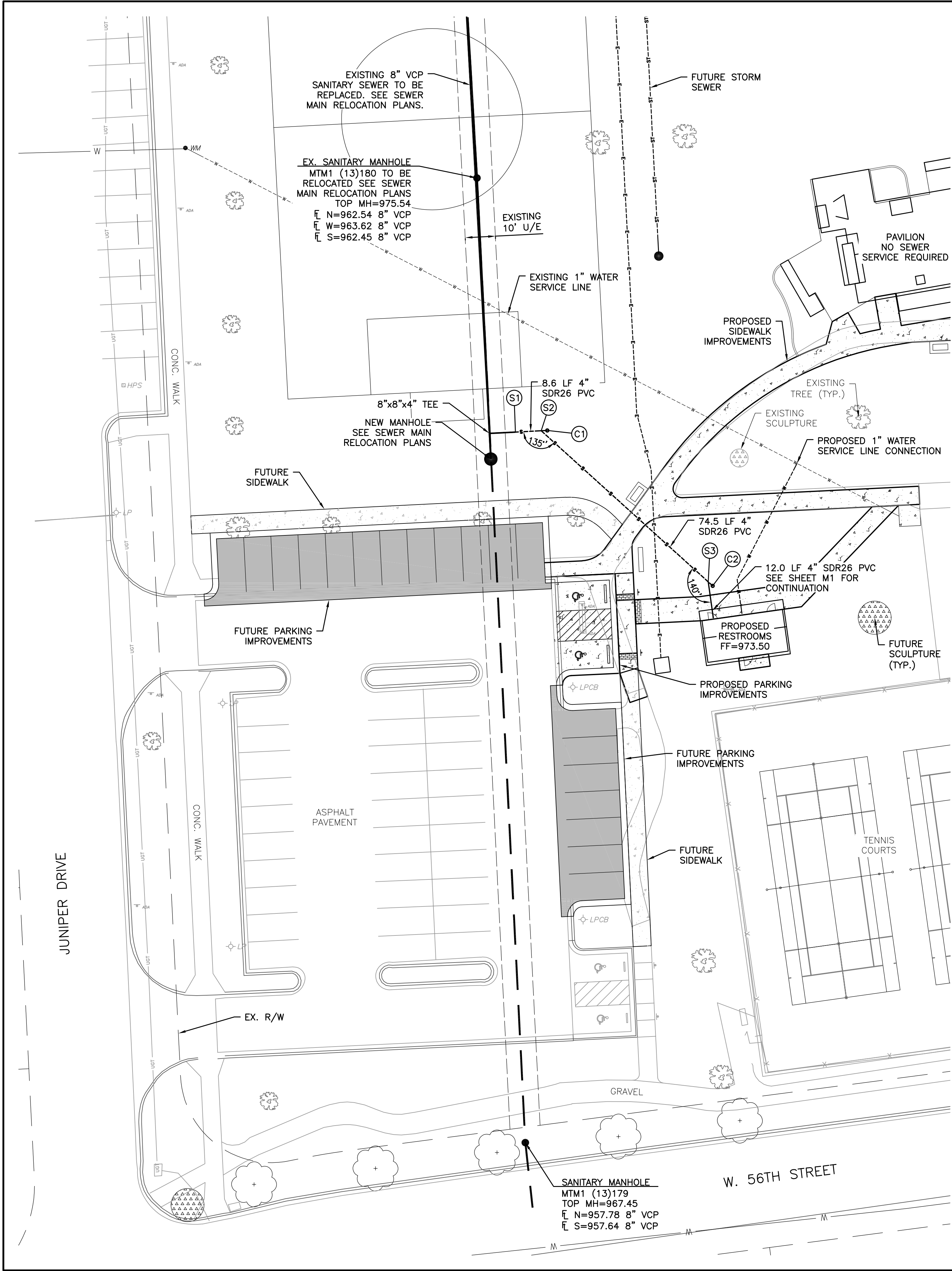
DESIGNER / DRAFTER

MDM/AJM
DATE
01-28-2020
PROJECT NUMBER
0319001.04
BOOK AND PAGE

SHEET

C6

U:\Engineering\0319001.04 Roeland Park KS R Park Phase 1\Drawings\CONSTRUCTION DRAWINGS\JOB PLANS\0319001.04 - SANITARY SEWER - PHASE 1.dwg, 1/28/2020 4:43:52 PM, DAN MCGHEE, LAMP RYNEARSON



SANITARY SEWER NOTES:

- SANITARY SEWER SERVICE LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT JCW SERVICE LINE DESIGN AND CONSTRUCTION STANDARDS.
- ROOF DRAINS AND FOUNDATION DRAINS SHALL NOT BE CONNECTED TO SANITARY SEWER.
- BMP'S ARE NOT REQUIRED BY THE CITY OF ROELAND PARK AND WILL NOT BE PROVIDED FOR THIS PROJECT.
- CONTRACTOR TO RECORD SEWER CLEAN OUT LOCATIONS FROM 2 FIXED POINTS FOR FUTURE LOCATING.

RESTROOM FINISHED FLOOR EL.=973.50
SERVICE LINE OUT OF BUILDING ℓ =969.50

INSTALL SERVICE LINE AT 3% SLOPE

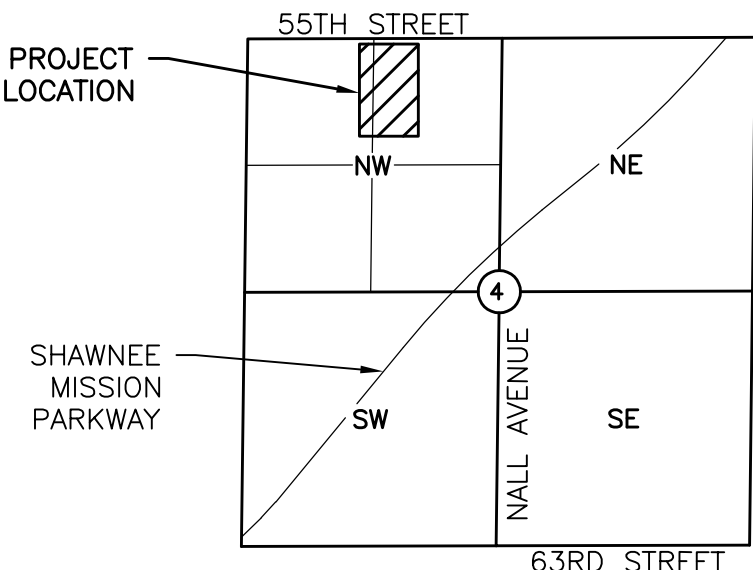
- (S1) CONNECT TO SANITARY SERVICE STUB
EL.= 966.64
- (S2) EL.= 966.90
- (S3) EL.= 969.14

CLEAN OUT TOP ELEVATIONS

- (C1) EL.= 973.60
- (C2) EL.= 973.40

ENGINEER/SURVEYOR
DAN MCGHEE
LAMP RYNEARSON, INC.
9001 STATE LINE ROAD, SUITE 200
KANSAS CITY, MO 64114
Dan.McGhee@lamprynearson.com
(816) 361-0440

OWNER/DEVELOPER
CITY OF ROELAND PARK
DONNIE SCHARFF
DIRECTOR OF PUBLIC WORKS
4600 W. 51ST STREET
ROELAND PARK, KS 66205
(913) 722-5435



SITE MAP
SECTION 9, T12S, R25E
JOHNSON COUNTY, KANSAS
SCALE 1"=2000'

PROJECT CONTROL

BENCHMARK A
"X" CUT IN TOP CENTER OF
CURB INLET AT EAST END OF
W. 55TH TERRACE.
ELEV.=973.77

BENCHMARK B
SQUARE CUT IN TOP OF WEST
CURB OF JUNIPER STREET DUE
EAST OF 5522 JUNIPER STREET.
ELEV.=972.69

KANSAS ONE-CALL



KNOW WHAT'S BELOW
CALL BEFORE YOU DIG.

ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER. THERE IS NO GUARANTEE ALL FACILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION. COORDINATE NECESSARY RELOCATIONS WITH UTILITY COMPANIES.

UTILITY CONTACTS

SPECTRUM (TIME WARNER CABLE)
DESIGN & CONSTRUCTION
8221 W. 119TH ST.
OVERLAND PARK, KANSAS 66213
(913) 643-1901
ATTN.: STEVEN BAXTER
STEVEN.BAXTER@CHARTER.COM
(913)643-1961
ATTN.: RON FRANK
RON.FRANK@CHARTER.COM

KANSAS CITY POWER & LIGHT CO.
8730 NIEMAN ROAD
OVERLAND PARK, KANSAS 66214
(913) 681-7420
ATTN.: GARY PRICE
GARY.PRICE@KCPL.COM

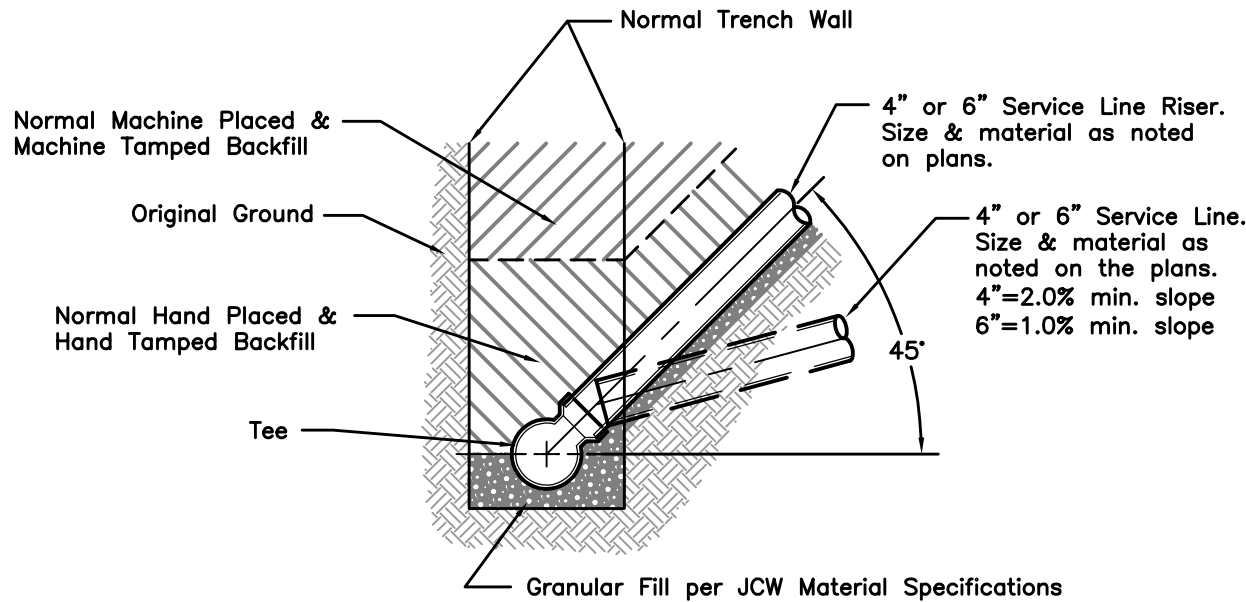
KANSAS GAS SERVICE
11401 WEST 89TH STREET
OVERLAND PARK, KANSAS 66214
(913) 599-8964
ATTN.: HECTOR DUARTE
HECTOR.DUARTE@ONEGAS.COM

WATERONE
10747 RENNER BOULEVARD
LENEXA, KANSAS 66219-9624
(913) 895-5775
ATTN.: JAN HARDIE
JHARDIE@WATERONE.ORG
(913)895-5764
ATTN.: ELIZABETH MALONEY
EMALONEY@WATERONE.ORG

JOHNSON COUNTY UNIFIED
WASTEWATER DISTRICT
7311 W. 130TH SUITE 100
OVERLAND PARK, KANSAS 66213
(913) 207-5234
ATTN.: BRANDON MORRIS
BRANDON.MORRIS@JCW.ORG
(913)715-8537
ATTN.: MIKE PILLER
MIKE.PILLER@JCW.ORG

AT&T
(913) 383-6948
ATTN.: RANDY GASKIN
RG9513@ATT.COM
ATTN.: LENNY VOHS
LVOHS@ATT.COM

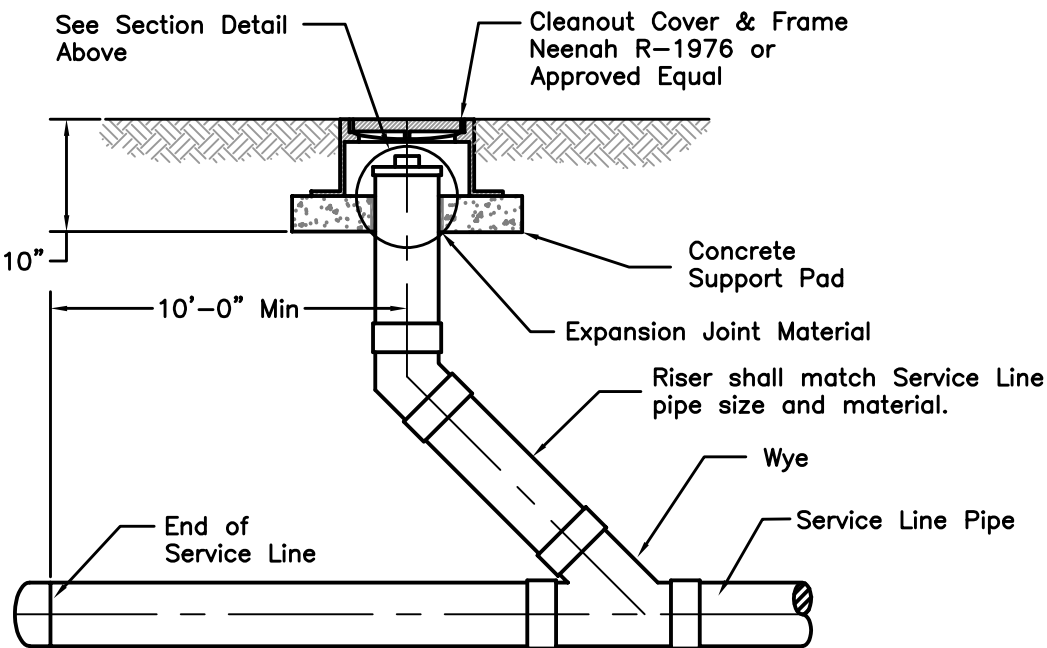
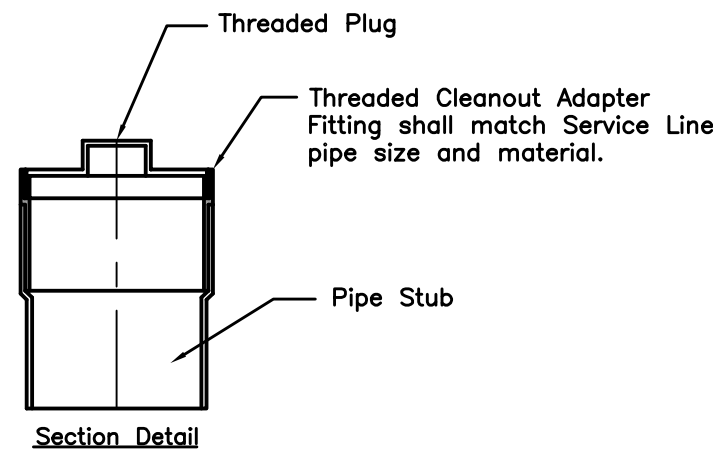
GOOGLE FIBER
(913) 663-1900
ATTN.: LAUREN MARCUCCI
LMARCUCCI@GOGGLE.COM



TEE ORIENTATION AND RISER DETAIL

Note:

- Concrete anchors will be required where the service line is installed at a grade of 30' or greater. See Section 2536 of the Specifications and detail on this sheet.
- No service line shall be installed with a grade greater than 45'.

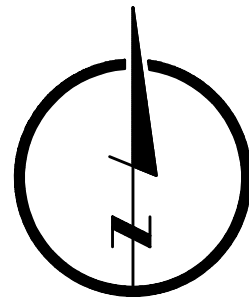


CLEANOUT DETAIL

No Scale

LAMP
RYNEARSON

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



0 20 40



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

SANITARY SEWER SERVICE CONNECTION PLAN

R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

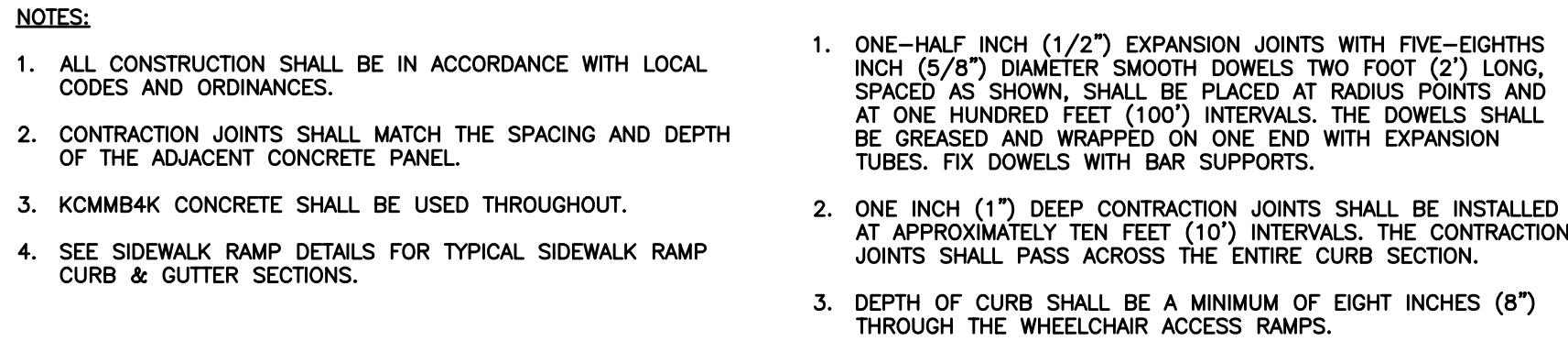
PROJECT NUMBER

0319001.04

BOOK AND PAGE

SHEET

C7



A cross-sectional diagram of a parking lot. The diagram shows a horizontal line representing the ground surface. Below this line, a hatched area represents the subgrade. A vertical arrow points down to the subgrade with the text "6" (MIN.) PARKING LOT SUBGRADE COMPACTED TO 95% OF STANDARD MAXIMUM DENSITY". To the left, a sloped area is labeled "SLOPE AS REQUIRED SEE PLANS". To the right, a horizontal area is labeled "EXISTING PARKING LOT". A horizontal arrow points to the right with the text "2.0%", indicating the slope of the parking lot surface.

PLAN

6'-0"

1 3/16" DIA. HOLES

A

A

ELEVATION

18" MIN

3:1 SAND AND CEMENT NON-SHRINK GROUT 1" DEPTH

12" CL. TYP.

6"

SECTION A-A

2 1/2"

4"

(2) #3 BARS

8" MIN

10" MAX

5'-0" MAX.

3'-0" MIN.

2'-0"

6"

8" MIN.

PROVIDE POST CAP

RESERVED PARKING

12"x18" ACCESSIBLE PARKING SIGN (SEE NOTE 2)

VAN-ACCESSIBLE SIGN (AS REQUIRED)

1 1/2" SQUARE STEEL POST PAINTED TO MATCH SIGN GROUTED INTO BASE

PROVIDE WATERTIGHT SEAL

FINISHED GRADE

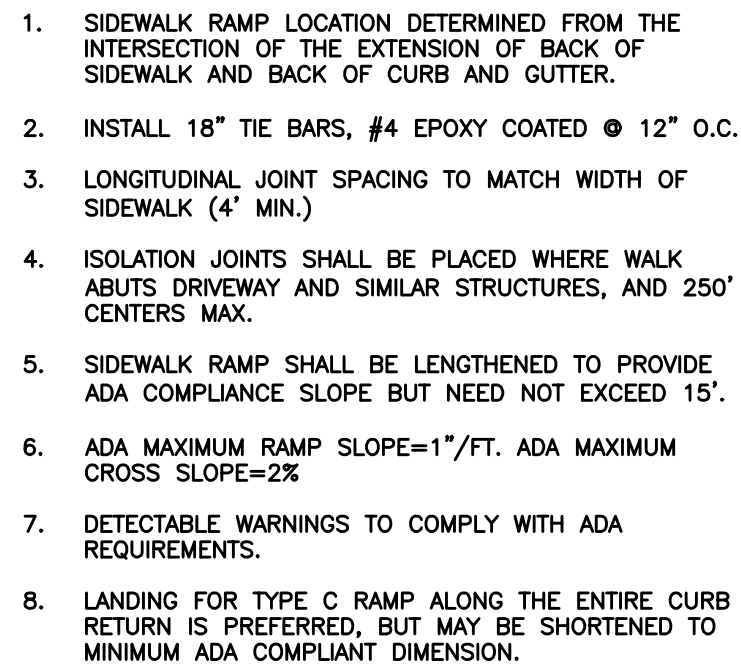
CONCRETE SURFACE

3"Ø GALVANIZED STEEL PIPE SLEEVE CAST IN BASE EXTEND TO FLUSH W/FINISH GRADE

NOT TO SCALE

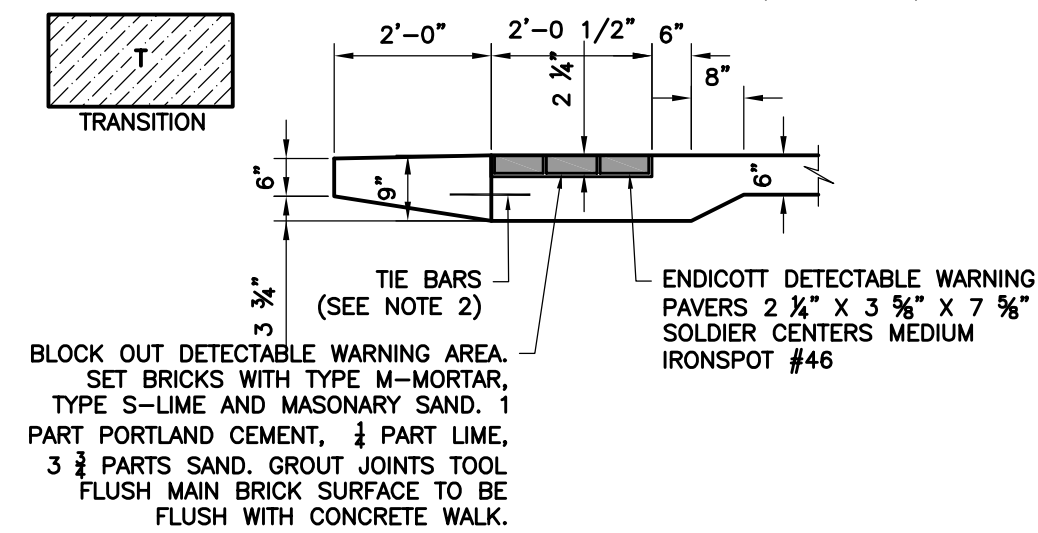
ACCESSIBLE PARKING SPACE SIGNAGE

1. THE CONTRACTOR SHALL PROVIDE AN ACCESSIBLE PARKING SIGN FOR EACH ACCESSIBLE PARKING SPACE IN ACCORDANCE WITH THE COMPREHENSIVE ZONING ORDINANCE OF THE CITY OF ROELAND PARK, KANSAS.
2. THE ACCESSIBLE PARKING SIGNS PROVIDED SHALL CONFORM TO TYPE "R7-8" IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". ARCHITECT SHALL APPROVE PAINT COLOR.
3. THE CONTRACTOR SHALL PLACE SIGNS AS DIRECTED BY THE OWNERS REPRESENTATIVE.
4. CONTRACTOR IS TO INSTALL CONCRETE WHEEL STOPS AT THE END OF THE ADA PARKING STALLS.



RAMP

2' WIDE ENDICOTT
DETECTABLE WARNING



1. TYPE "A" JOINT SPACING 4'-0" CENTER TO CENTER ON WIDTH ALONG SIDEWALK. 5'-0" ON 5' WIDE SIDEWALKS.
2. TYPE "B" JOINTS WHERE WALK ABUTS JUNCTION OF EXISTING WALK, CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND 250' CENTERS MAXIMUM.

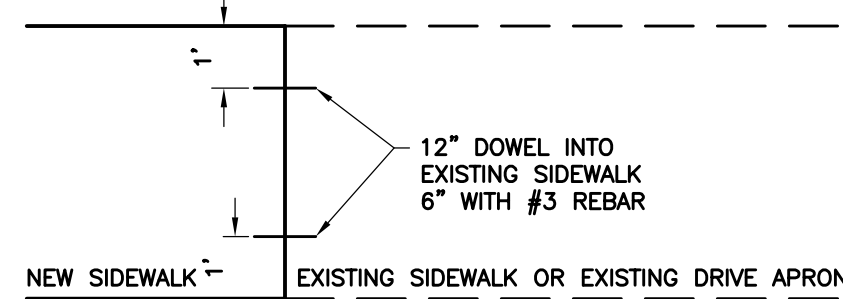


Diagram 1: Type CG-1 Curb

- Top width: 24"
- Top radius: $R = \frac{1}{4}"$
- Left side height: 7 $\frac{1}{2}"$
- Left side radius: $R = \frac{1}{4}"$
- Left side width: 6"
- Top left corner radius: $R = \frac{1}{4}"$
- Top center width: 13 $\frac{1}{4}"$
- Top center radius: $R = 22"$
- Top center width: 8"
- Right side height: 9"
- Right side radius: $R = \frac{1}{4}"$
- Bottom width: 24"
- Bottom radius: $R = \frac{1}{4}"$
- Labels: UP OF CURB, GUTTER LINE, BACK OF CURB
- Vertical dimension: 1 $\frac{1}{2}"$
- Text: USE WITH TYPE CG-1 CURB

Diagram 2: Type CG-2 Curb

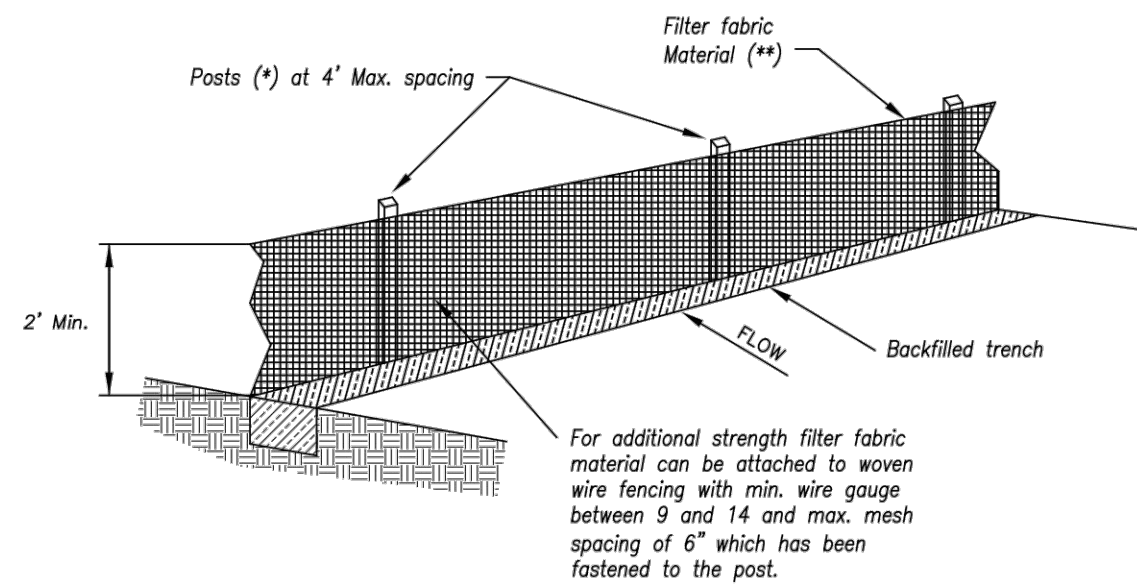
- Top width: 24"
- Top radius: $R = \frac{1}{4}"$
- Left side height: 7 $\frac{1}{2}"$
- Left side radius: $R = \frac{1}{4}"$
- Left side width: 6"
- Top left corner radius: $R = \frac{1}{4}"$
- Top center width: 4 $\frac{1}{2}"$
- Top center radius: $R = 31"$
- Top center width: 1'-3"
- Right side height: 9"
- Right side radius: $R = \frac{1}{4}"$
- Bottom width: 24"
- Bottom radius: $R = \frac{1}{4}"$
- Labels: UP OF CURB, GUTTER LINE, BACK OF CURB
- Vertical dimension: 1 $\frac{1}{2}"$
- Text: USE WITH TYPE CG-2 CURB

Diagram 3: Ramp Curb Detail

- Left side height: VARIES
- Left side radius: $R = \frac{1}{4}"$
- Left side width: 6"
- Top left corner radius: $R = \frac{1}{4}"$
- Top center width: 4"
- Top center radius: $R = \frac{1}{2}"$
- Right side height: 6"
- Right side radius: $R = \frac{1}{4}"$
- Bottom width: 6"
- Labels: VARIES, VARIES
- Text: RAMP CURB DETAIL

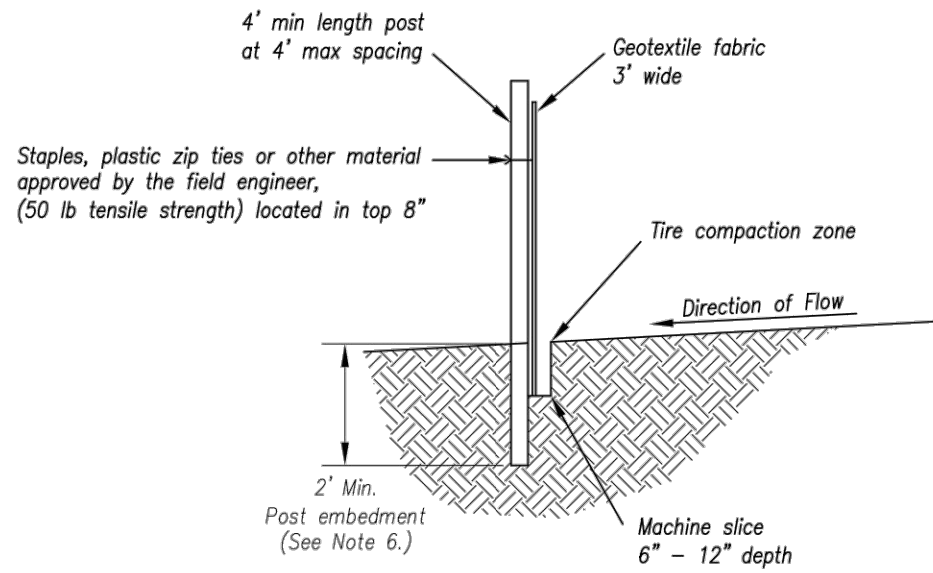
C8

\\Engineering\0319001.04 Roeland Park KS R Park Phase 1\DRAWINGS\CONSTRUCTION DRAWINGS\0319001.04 - EC PLAN.dwg, 1/27/2020 3:32:34 PM, JAMIE MCNEARY, LAMP RYNearson



- (*) POSTS
- MIN. LENGTH 4'
 - HARDWOOD 1 3/8" x 1 3/8"
 - NO.2 SOUTHERN PINE 2 3/8" x 2 3/8"
 - STEEL 1.33 LB/FT

(**) - Geotextile Fabric shall meet the requirements of AASHTO M288



SILT FENCE DETAILS

Not to Scale

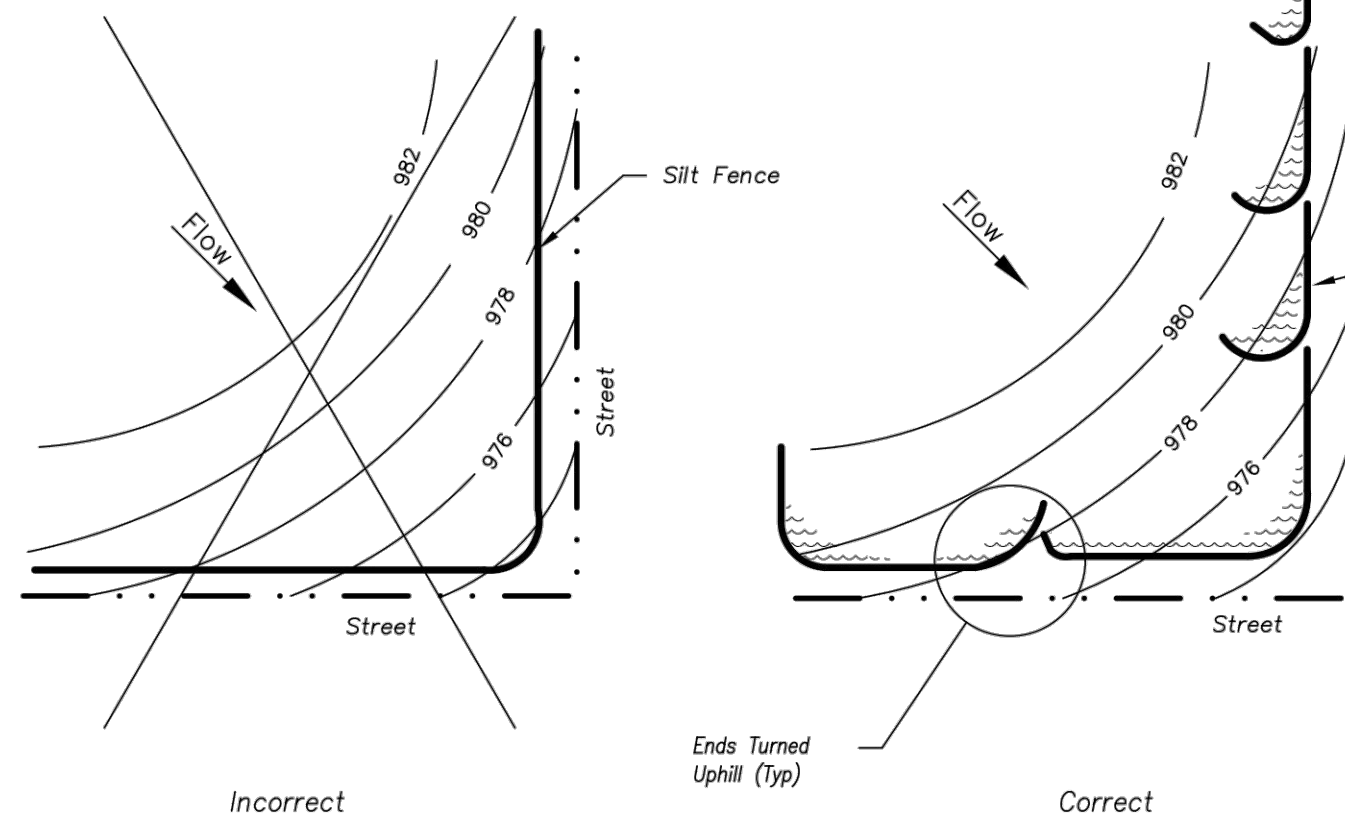
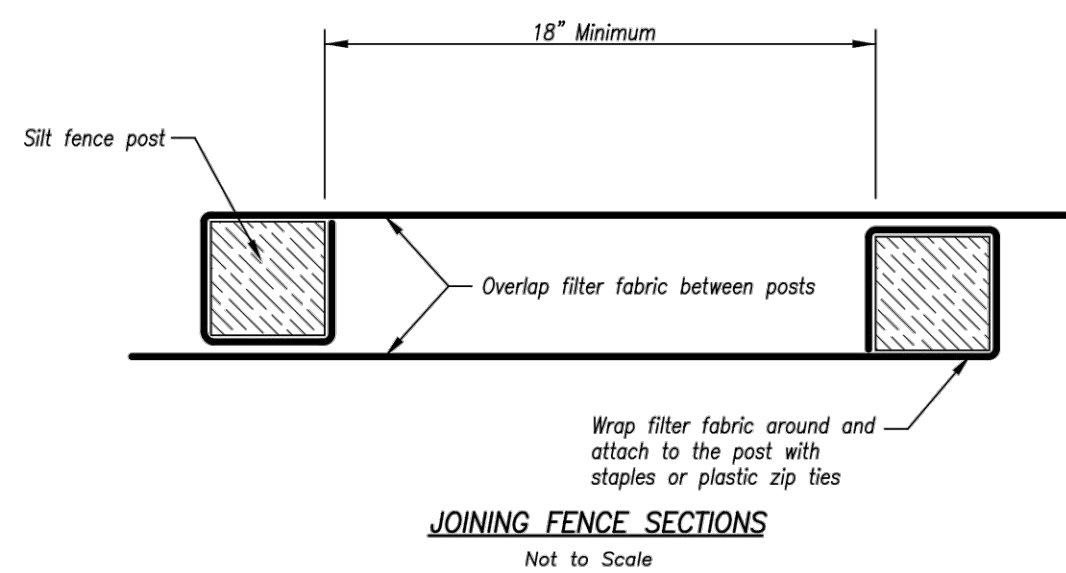


Figure A

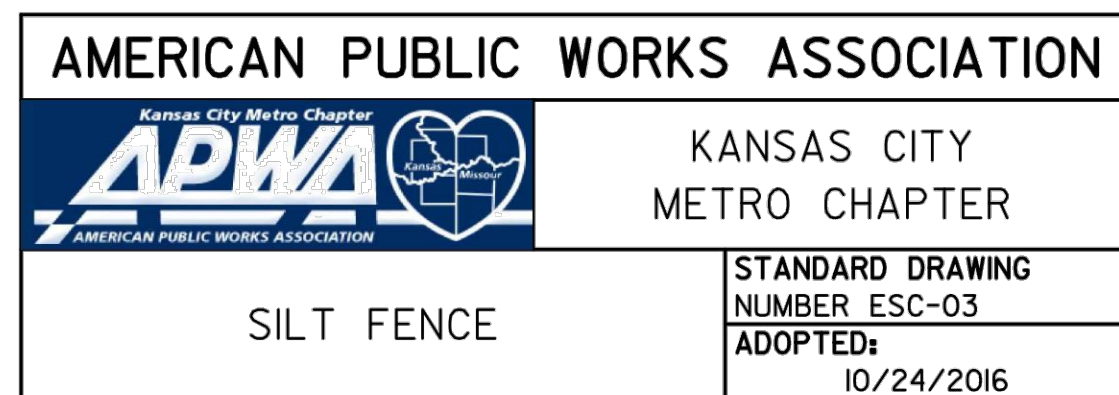


JOINING FENCE SECTIONS

Not to Scale

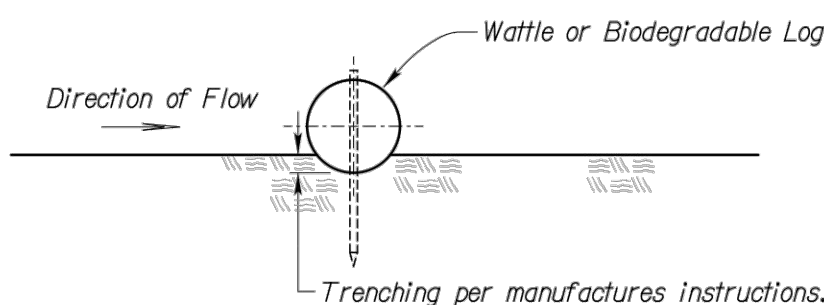
SILT FENCE LAYOUT

Not to Scale



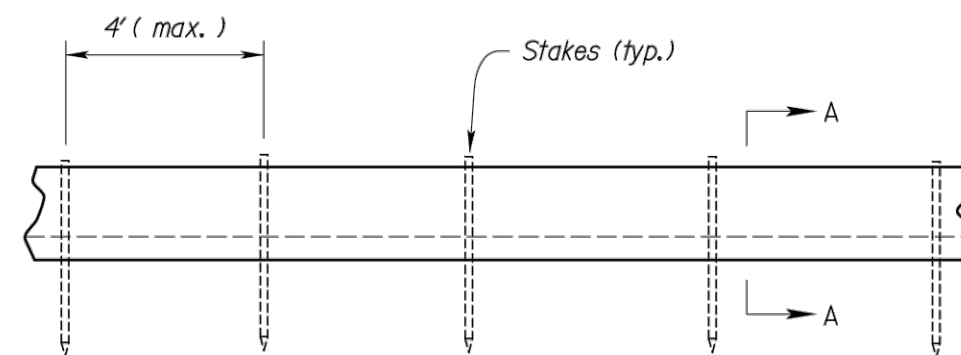
Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
2. Repair as necessary to maintain function and structure.



Section A-A

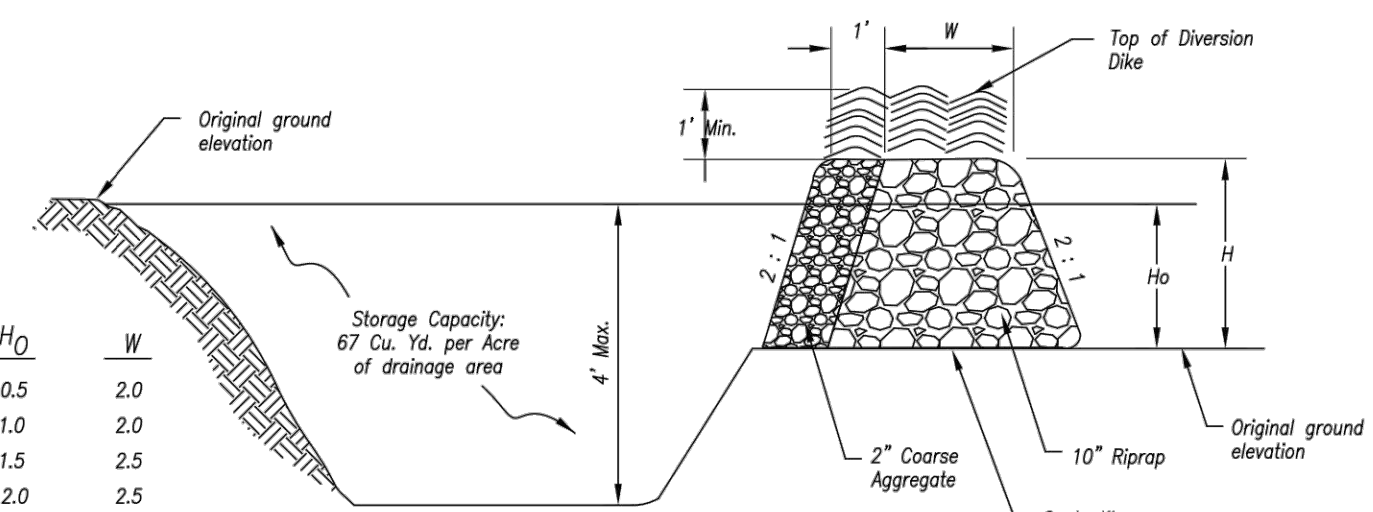
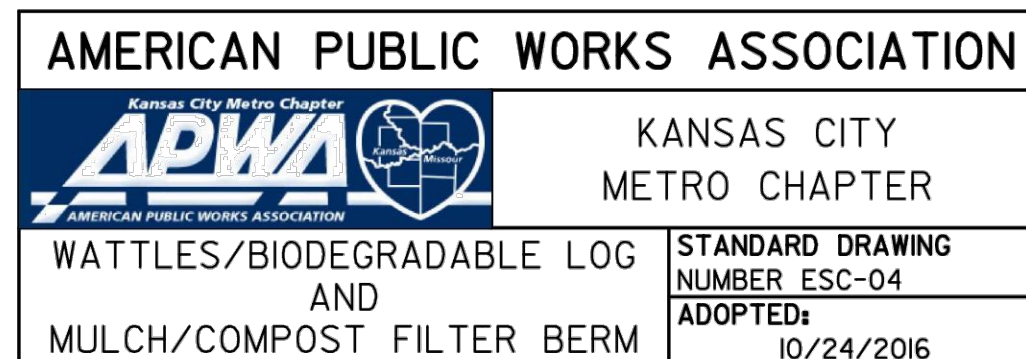
WATTLES AND BIODEGRADABLE LOG



Typical Elevation

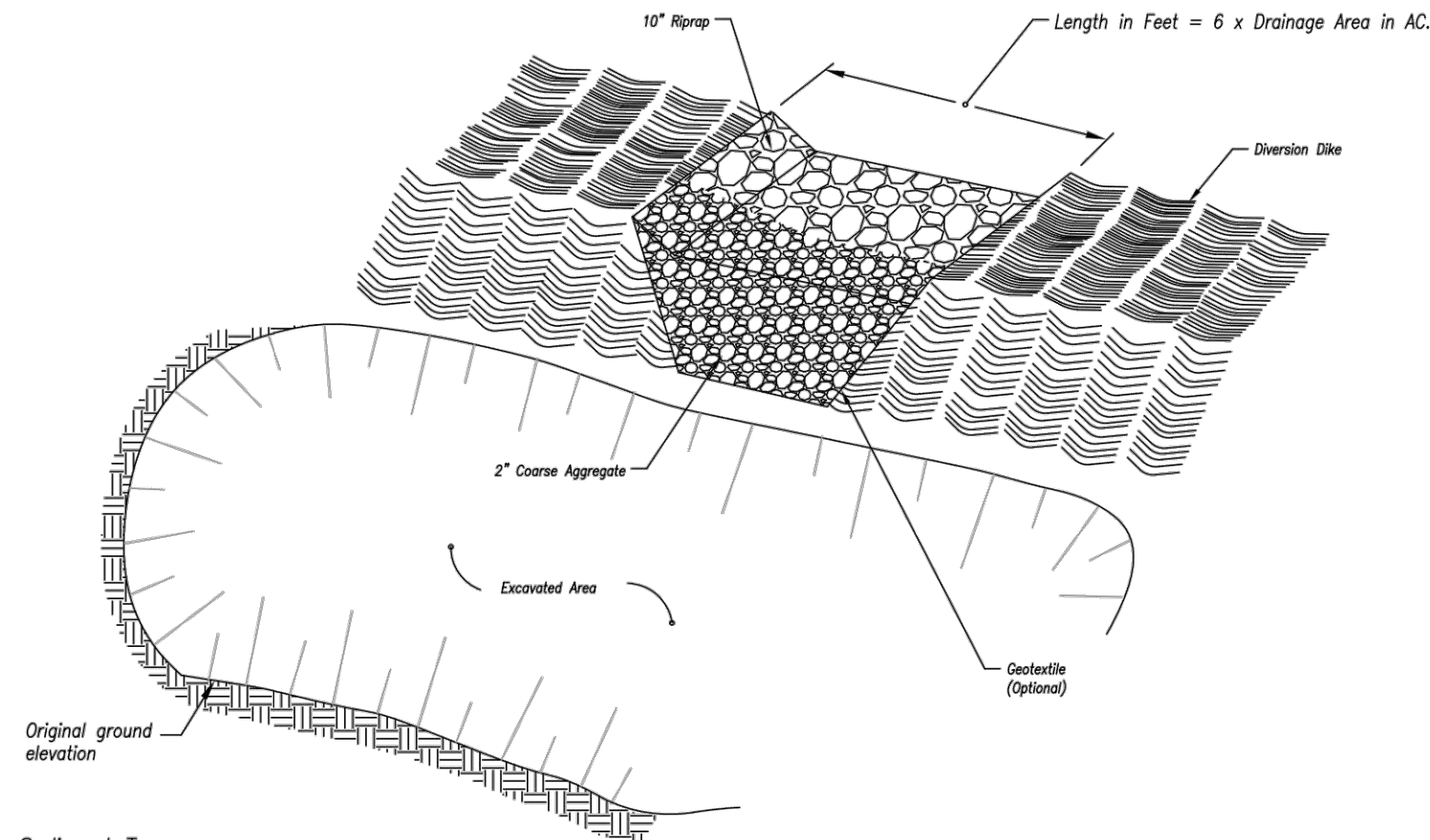
Notes for Wattles and Biodegradable Log Slope Protection:

1. The Slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
2. Install wattles and biodegradable logs per manufacturer's instructions.
3. Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24'.



(*) Cross Section of Outlet

Not to Scale



(*) Perspective View of Outlet

Not to Scale

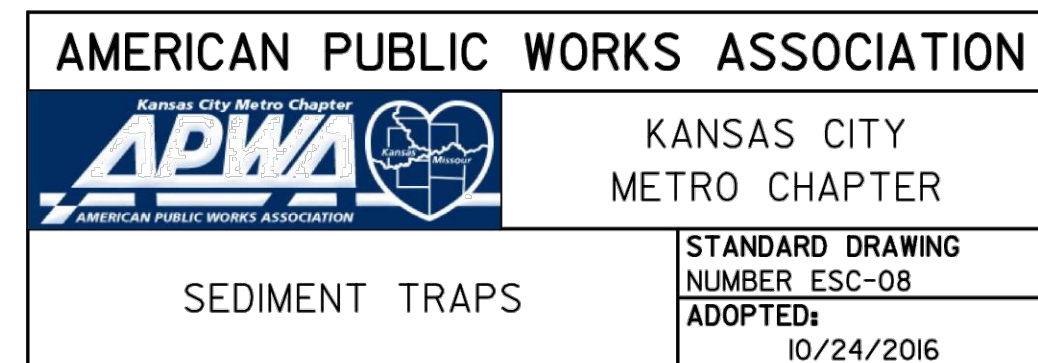
Notes for Sediment Trap:

1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 6-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP



CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS

R PARK - PHASE 1 ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER
MDM/AJM
DATE
01-28-2020
PROJECT NUMBER
0319001.04
BOOK AND PAGE

SHEET

U:\Engineering\0319001.04 - Roadwork\Drawings\CONSTRUCTION\DRAWINGS\0319001.04 - SPECIFICATIONS.dwg, 1/27/2020 4:00:14 PM, JAMIE MCQUEEN, LAMP RYNEARSON

DEMOLITION

1. DEMOLISH ABOVE-GRADE STRUCTURES AND IMPROVEMENTS, GRADE-LEVEL SITE IMPROVEMENTS, AND BELOW-GRADE FOUNDATIONS, IMPROVEMENTS AND OBSTRUCTIONS TO DEPTH TO AVOID CONFLICT WITH NEW CONSTRUCTION OR SITEWORK. REMOVE HOLLOW ITEMS WHICH COULD COLLAPSE.
2. REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS OFF-SITE.
3. PROTECT SITEWORK AND ADJACENT STRUCTURES.
4. COORDINATE DISCONNECTION, CAPPING AND REMOVAL OF UTILITIES.
5. ERECT BARRIERS, FENCES, GUARD RAILS, ENCLOSURES, CHUTES, AND SHORING TO PROTECT PERSONNEL, STRUCTURES, AND UTILITIES REMAINING INTACT.
6. PROTECT DESIGNATED TREES AND PLANTS FROM DAMAGE.
7. ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, SIDEWALKS, AND ADJACENT FACILITIES.
8. DO NOT CLOSE OR OBSTRUCT STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
9. IF REQUIRED BY GOVERNING AUTHORITIES, PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS.
10. PLACE FILL IN LIFTS NOT EXCEEDING 12-INCHES AND COMPACT TO DENSITY NOT LESS THAN ADJACENT SOIL.
11. GRADE SURFACE TO ADJACENT CONTOURS AND SLOPE TO DRAIN.
12. REMOVE DEMOLITION DEBRIS DAILY.
13. DO NOT STORE OR BURN MATERIALS ONSITE.
14. TRANSPORT DEMOLITION DEBRIS TO AN OFFSITE DISPOSAL AREA.

CLEARING AND GRUBBING

1. CLEAR AND GRUB TREES, STUMPS, VEGETATION, DEBRIS, RUBBISH, AND DESIGNATED IMPROVEMENTS FROM SITE.
2. PROTECT TREES, LANDSCAPING, SITE IMPROVEMENTS, AND OTHER ITEMS NOT SCHEDULED FOR CLEARING, OR THAT MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.
3. STRIP TOPSOIL AND STOCKPILE AT APPROVED LOCATION ONSITE.
4. PROVIDE TEMPORARY EROSION AND DUST CONTROL.
5. DO NOT DISTURB BENCHMARKS OR MONUMENTS.
6. INVESTIGATE THE SITE AND LOCATE ALL OBJECTS TO BE REMOVED OR PROTECTED.
7. LOCATE ALL EXISTING UTILITY AND PIPE LINES AND DETERMINE THE STATUS OF EACH.
8. RELOCATE ALL EXISTING PIPING THAT MUST REMAIN IN SERVICE BUT CONFLICTS WITH NEW CONSTRUCTION.
9. THE ENGINEER WILL DESIGNATE ALL TREES, SHRUBS AND PLANTS WITHIN THE CONSTRUCTION LIMITS THAT ARE TO REMAIN. ALL OTHER VEGETATION WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND DISPOSED OF PROPERLY.
10. PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED TO REMAIN, INCLUDING IMPROVEMENTS ON AND OFF SITE. PROTECT EXISTING TREES AND VEGETATION INDICATED TO REMAIN. DO NOT STOCKPILE MATERIALS WITHIN DRIP LINE OF TREES. PROVIDE AND MAINTAIN TEMPORARY GUARDS TO ENCIRCLE TREES OR GROUPS OF TREES; OBTAIN APPROVAL BEFORE BEGINNING WORK.
11. COMPLETE REMOVE ALL IMPROVEMENTS INCLUDING STUMPS AND DEBRIS EXCEPT FOR THOSE INDICATED TO REMAIN. REMOVE BELOW GRADE IMPROVEMENTS AT LEAST 12 INCHES BELOW FINISH GRADE AND TO THE EXTENT NECESSARY TO NOT INTERFERE WITH NEW CONSTRUCTION. REMOVE ABANDONED MECHANICAL AND ELECTRICAL WORK AS REQUIRED.
12. BLASTING WILL NOT BE ALLOWED.
13. GRUBBING SHALL CONSIST OF THE REMOVAL OF ALL STUMPS, ROOTS, BURIED LOGS, FOUNDATIONS, DRAINAGE STRUCTURES, ABANDONED WATER WELLS AND OTHER OBJECTIONABLE MATERIALS BELOW THE GROUND SURFACE. ALL TAP ROOTS, LATERAL ROOTS OR OTHER PROJECTS OVER 2 INCHES IN DIAMETER SHALL BE REMOVED TO A DEPTH OF 2 FEET BELOW THE NATURAL GROUND SURFACE.
14. ALL HOLES CAUSED BY GRUBBING OPERATIONS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE APPLICABLE PROVISION OF SECTION 02200 AND TO THE LEVEL OF THE SURROUNDING GROUND SURFACE.
15. BURNING WILL NOT BE ALLOWED.
16. PAVEMENTS, ABANDONED SEWERS, PIPE LINES, OR OTHER OBSTRUCTIONS TO THE PROJECT CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR STREET RIGHT-OF-WAY NOT DESIGNATED OR PERMITTED TO REMAIN, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AWAY FROM THE SITE OF THE WORK.
17. IN REMOVING PAVEMENT, CURB, CURB AND GUTTER, GUTTERS, SIDEWALK, AND OTHER SIMILAR IMPROVEMENTS, AND WHERE A PORTION OF SUCH IMPROVEMENTS ARE TO BE LEFT IN PLACE, THEY SHALL BE REMOVED TO AN EXISTING JOINT OR TO A JOINT SAWED TO A MINIMUM DEPTH OF 1 INCH WITH A TRUE LINE AND VERTICAL FACE. SUFFICIENT REMOVAL SHALL BE MADE TO PROVIDE FOR PROPER GRADE AND CONNECTIONS IN THE NEW WORK REGARDLESS OF ANY LIMITS WHICH MAY BE INDICATED ON THE PLANS.

UTILITY LINE ADJUSTMENTS

1. WHERE THE LOCATIONS OR GRADES OF ITEMS DESCRIBED ARE SHOWN ON THE PLANS, THE INFORMATION IS CONSIDERED APPROXIMATE ONLY, AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS THEREOF. IT IS ANTICIPATED THAT UNKNOWN ITEMS NOT SHOWN ON THE PLANS WILL ALSO BE UNCOVERED DURING EXCAVATION AND SHALL REQUIRE ADJUSTMENT AS SPECIFIED HEREIN.
2. RELOCATIONS OR ADJUSTMENTS TO FACILITIES OWNED BY PRIVATE UTILITIES LOCATED WITHIN CITY RIGHT-OF-WAY WILL BE ACCOMPLISHED BY THE UTILITY COMPANY AT NO COST TO THE CONTRACTOR.
3. THE CONTRACTOR WILL ENDEAVOR TO HAVE ALL NECESSARY ADJUSTMENTS OR RELOCATIONS OF PUBLIC OR PRIVATE UTILITY FACILITIES IN DIRECT CONFLICT WITH THE PROPOSED IMPROVEMENTS, AS SOON AS PRACTICABLE. SUCH ADJUSTMENTS OR RELOCATIONS WILL BE MADE AT NO COST TO THE CONTRACTOR. SOME ADJUSTMENTS OR RELOCATIONS MAY BE COMPLETED BEFORE THE CONTRACTOR PROGRESSES TO THE POINT AFFECTED. UNDER SOME CIRCUMSTANCES, HOWEVER, SUCH ADJUSTMENTS OR RELOCATIONS MAY HAVE TO BE PERFORMED DURING THE CONTRACTOR'S CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THAT OF THE UTILITY OWNERS OR THEIR CONTRACTORS SO AS TO CAUSE THE LEAST POSSIBLE DELAY IN WORK.

EXCAVATION, BACKFILL, AND SITE GRADING

1. EXCAVATIONS AND EMBANKMENTS SHALL BE CONSTRUCTED TO THE LINES AND GRADES INDICATED UNLESS OTHERWISE DIRECTED.
2. FINAL GRADES SHALL BE WITHIN ONE-HALF (½") INCH OF INDICATED ELEVATIONS. HORIZONTAL ALIGNMENTS SHALL BE WITHIN 3 INCHES OF THEORETICAL LOCATION.
3. FINISHED SURFACES SHALL BE BLADED AND ALIGNED TO PRESENT A NEAT AND UNIFORM APPEARANCE.

FILL MATERIALS

4. FILL MATERIALS SHALL BE OBTAINED FROM APPROVED BORROW SOURCES.
5. FILL MATERIAL SHALL BE FREE OF TRASH, DEBRIS, CINDERS, ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS.
6. CONTROLLED STRUCTURAL FILL MATERIAL: SOIL: SOIL FILL MATERIAL SHALL BE CLAY SOILS OF MEDIUM TO LOW PLASTICITY (CL) NON-FROST SUSCEPTIBLE, WITH A LIQUID LIMIT LESS THAN 45 PERCENT, A PLASTICITY INDEX LESS THAN 20 AND CONTAINING LESS THAN 10 PERCENT SHALE, OR ROCK PARTICLES LARGER THAN 3 INCHES IN GREATEST DIMENSION. CRUSHED STONE: CRUSHED STONE SHALL BE WASHED CLEAN, FREE-DRAINING, DURABLE CRUSHED ROCK WITH THE FOLLOWING GRADATION LIMITS:

SIEVE SIZE	PERCENT PASSING
1 INCH	100%
¾ INCH	90%
½ INCH	60-70%
¾ INCH	15-25%
#4	0-5%

7. NON-STRUCTURAL FILL MATERIAL:

SOIL: NON-STRUCTURAL FILL MATERIAL MAY BE CLAY SOILS OF MEDIUM TO LOW PLASTICITY (CL OR ML) NON-FROST SUSCEPTIBLE EXCAVATED FROM SITE OR BORROW AREA.

TOPSOIL

8. TOPSOIL SHALL CONSIST OF FERTILE, FRIABLE LOAMY SOIL OF UNIFORM QUALITY, FREE FROM SUBSOIL, HARD CLODS, STIFF CLAY, HARD PAN, STONES, CRUSHED ROCK AND OTHER SIMILAR IMPURITIES. TOPSOIL SHALL BE FREE FROM GRASS, ROOTS, WEEDS AND OTHER MATERIALS HARMFUL TO PLANT LIFE OR WHICH WILL PREVENT FORMATION OF SUITABLE SEED BED. TOPSOIL DEPTH SHALL BE MINIMUM OF SIX (6) INCHES.

GENERAL

9. EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE REGARDLESS OF MATERIALS ENCOUNTERED. REPAIR EXCAVATIONS BEYOND ELEVATIONS AND DIMENSIONS INDICATED.
10. DO NOT PERFORM WORK WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER IF SUBGRADE MATERIAL IS UNSUITABLE FOR INTENDED USE.
11. MAINTAIN STABILITY OF EXCAVATIONS; COORDINATE SHORING AND BRACING AS REQUIRED BY AUTHORITIES HAVING JURISDICTION. PREVENT SURFACE AND SUBSURFACE WATER FROM ACCUMULATING IN EXCAVATIONS. STOCKPILE SATISFACTORY MATERIALS FOR REUSE, ALLOW FOR PROPER DRAINAGE AND DO NOT STOCKPILE MATERIALS WITHIN DRIP LINE OF REMAINING TREES.
12. COMPACT MATERIALS AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 BY AERATION OR WETTING.
13. PLACE ACCEPTABLE MATERIALS IN LAYERS NOT MORE THAN 8 INCHES LOOSE DEPTH FOR MATERIALS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 4 INCHES LOOSE DEPTH FOR MATERIALS COMPACTED BY HAND EQUIPMENT.
14. GRADE TO WITHIN ONE-HALF INCH (½") INCH ABOVE OR BELOW REQUIRED SUBGRADE AND WITHIN A TOLERANCE OF ONE-HALF INCH (½") INCH IN TEN (10) FEET.
15. PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. RE-COMPACT AND RE-GRADE SETTLED, DISTURBED AND DAMAGED AREAS AS NECESSARY TO RESTORE QUALITY, APPEARANCE, AND CONDITION OF WORK.
16. CONTROL EROSION AND WIND-BLOWN DUST. DISPOSE OF WASTE AND UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER.
17. THE SOILS AT THE SITE WILL BE SUSCEPTIBLE TO DISTURBANCE DUE TO CONSTRUCTION ACTIVITY AND WATER SEEPAGE. CARE SHALL BE TAKEN DURING EXCAVATION AND CONSTRUCTION OF THE STRUCTURES TO MINIMIZE DISTURBANCE TO THE BEARING SOILS. THE BASE OF ALL EXCAVATIONS SHALL BE FREE OF WATER AND LOOSE SOIL PRIOR TO PLACING CONCRETE. CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION.
18. REMOVE ALL RUBBISH, TRASH, DEBRIS, STONES, CONCRETE WASTE, CRUSHED ROCK AND SAND POCKETS FROM SITE.

SITE PREPARATION

19. SITE STRIPPING IN THE BUILDING AND FILL EMBANKMENT AREAS AND PAVED AREAS SHALL INCLUDE THE REMOVAL OF VEGETATION, TOPSOIL, AND ANY OTHER SOFT, LOOSE OR UNSUITABLE MATERIALS. STRIPPING DEPTHS OF SIX-INCHES (6 ") TO 12 INCHES MINIMUM SHOULD BE EXPECTED OVER THE SITE. STRIPPED TOPSOIL SHALL BE STOCKPILED FOR LATER USE AS SURFACE DRESSING IN LANDSCAPED AREAS.
20. MAJOR ROOT SYSTEMS OF TREES SHALL BE THOROUGHLY REMOVED FROM THE BUILDING AREAS AND TO A MINIMUM OF TWO (2) FEET BELOW PAVEMENT SUBGRADES.

EXCAVATION FOR STRUCTURES

21. PERFORM ALL EXCAVATION TO THE DIMENSIONS AND ELEVATIONS INDICATED. ALL EXCAVATION SHALL BE UNCLASSIFIED AND INCLUDES THE REMOVAL AND SUBSEQUENT HANDLING AND DISPOSAL OF ALL MATERIALS EXCAVATED REGARDLESS OF THE COMPOSITION OR CONDITION THEREOF.
22. DO NOT EXCAVATE BELOW ELEVATIONS OR DEPTH INDICATED UNLESS DIRECTED BY THE ENGINEER. WHERE EXCAVATIONS ARE MADE BELOW INDICATED DEPTHS OR ELEVATIONS WITHOUT AUTHORIZATION, THE EXCAVATION SHALL BE RESTORED TO THE PROPER GRADE WITH LEAN CONCRETE AT NO ADDITIONAL COST TO THE OWNER.
23. EXCAVATIONS SHALL EXTEND A SUFFICIENT DISTANCE FROM WALLS AND FOOTINGS TO PROVIDE ROOM FOR FORMS, INSTALLATION OF SERVICES, AND INSPECTION. FOOTINGS OR WALLS SHALL NOT BE POURED DIRECTLY AGAINST EXCAVATED SURFACES UNLESS AUTHORIZED BY THE ENGINEER.
24. ALL EXISTING STRUCTURES, FOUNDATIONS AND RELATED ITEMS OR OTHER SUBSURFACE STRUCTURES ALONG WITH ANY POORLY CONSTRUCTED FILL SHALL BE REMOVED WITHIN THE BUILDING CONSTRUCTION LIMITS TO A DISTANCE OF 5'-0" MINIMUM OUTSIDE THE BUILDING LIMITS.
25. THE OVER-EXCAVATION SHALL EXTEND DOWN TO THE UNDERLYING NATURAL LEAN CLAY SOILS. ANY LOW DENSITY, SOFT OR UNSUITABLE MATERIAL SHALL BE REMOVED.
26. THE SIDE SLOPES OF EXCAVATIONS WILL NEED TO BE BRACED OR SLOPED BACK AS REQUIRED FOR STABILITY AND IN ACCORDANCE WITH APPLICABLE SAFETY REGULATIONS. EXCAVATION EQUIPMENT AND EXCAVATED MATERIALS SHALL BE KEPT AWAY FROM THE EXCAVATION SIDE SLOPES. AREAS AROUND EXCAVATION SHALL BE GRADED TO KEEP SURFACE WATER FROM ENTERING THE EXCAVATION.
27. BACKFILLING SHALL NOT BE PERFORMED UNTIL THE WORK IS INSPECTED AND ALL TESTING IS COMPLETED AND THE ENGINEER'S APPROVAL OBTAINED.

SUBGRADE PREPARATION AND STABILIZATION

28. SUBGRADES FOR CONCRETE STRUCTURES, FLOOR SLABS, AND PAVEMENTS, SHALL BE FIRM, DENSE, AND PROPERLY COMPACTED IN ACCORDANCE WITH APPLICABLE SPECIFICATION REQUIREMENTS. ALL SUBGRADES SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER CONSTRUCTION TRAFFIC.
29. EXCESSIVELY DRY SUBGRADES SHALL BE SCARIFIED AND MOISTENED TO WITHIN SPECIFICATION LIMITS AND RE-COMPACTED PRIOR TO PLACEMENT OF FOOTINGS, SLABS OR PAVEMENTS.
30. SUBGRADE SOILS WHICH HAVE BECOME EXCESSIVELY WET AND MUCKY SHALL BE REMOVED. FREE DRAINING CRUSHED STONE OR GRAVEL SHALL BE USED TO BRING GRADE UP TO THE BOTTOM OF SLABS. THIS MATERIAL SHALL BE COMPACTED AS IT IS PLACED.
31. PRIOR TO PLACEMENT OF FILL MATERIAL, THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND RE-COMPACTED AT LEAST 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698. AREAS WHICH CANNOT BE RE-COMPACTED TO THIS DEGREE SHALL BE UNDERCUT AND REPLACED WITH STABLE MATERIAL. CARE SHALL BE TAKEN TO MAINTAIN THE PREPARED CONDITION OF THE SUBGRADES PRIOR TO CONSTRUCTION. IF THE SUBGRADES BECOME SATURATED, FROZEN, OR DISTURBED, THEY SHALL BE REWORKED PRIOR TO CONSTRUCTION.

BACKFILL FOR STRUCTURES

32. BACKFILL STRUCTURES ONLY AFTER CONCRETE HAS ATTAINED SUFFICIENT STRENGTH BASED ON LABORATORY RESULTS FROM CONCRETE CYLINDER BREAKS.
33. REMOVE ALL FORMS, TRASH, DEBRIS AND OTHER UNSUITABLE MATERIALS BEFORE BACKFILLING.
34. SOIL BACKFILL SHALL BE PLACED IN LOOSE LAYERS NOT EXCEEDING 8 INCHES IN DEPTH AND COMPACTED BY MECHANICAL TAMPERS OR ROLLERS.
35. COMPACTION MOISTURE CONTENT SHALL BE SUITABLE FOR GOOD COMPACTION, BUT NOT LESS THAN 3 PERCENT BELOW OR MORE THAN 3 PERCENT ABOVE OPTIMUM MOISTURE AS DETERMINED BY ASTM D698.
36. PERVIOUS BACKFILL SHALL BE PLACED IN LEVEL LAYERS WITH A LOOSE DEPTH NOT EXCEEDING 8 INCHES. COMPACT WITH VIBRATORY ROLLERS OR VIBRATING PLATE COMPACTING EQUIPMENT ADEQUATE TO REACH SPECIFIED DENSITY WITH A REASONABLE NUMBER OF PASSES. FLOODING OR JETTING TO COMPACT PERVIOUS BACKFILL IS PROHIBITED. PROTECT STRUCTURES FROM DAMAGE DUE TO EXCESSIVE VIBRATION.
37. COMPACT BACKFILL UNDER STRUCTURES, FLOORS, CONCRETE SLABS ON GRADE, AND PAVEMENTS TO A MINIMUM OF 95 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698. ALL OTHER BACKFILL SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY.
38. BACKFILLING AND CONSTRUCTION OF FILLS AND EMBANKMENTS DURING FREEZING WEATHER SHALL NOT BE PERMITTED EXCEPT BY PERMISSION OF THE ENGINEER. NO BACKFILL FILL OR EMBANKMENT MATERIALS SHALL BE INSTALLED ON FROZEN SURFACES NOR SHALL FROZEN MATERIALS, SNOW OR ICE BE PLACED IN ANY BACKFILL, FILL OR EMBANKMENTS.

EMBANKMENTS AND AREA FILL

39. STRIP ALL AREAS TO RECEIVE COMPACTED FILL, OF TOPSOIL, ORGANIC OR EXCESSIVELY WET SOIL OR OTHER UNSUITABLE SOILS PRIOR TO PLACING FILL. STOCKPILE TOPSOIL AND OTHER USABLE MATERIALS FOR REUSE IN FINAL SITE GRADING.
40. PLACE APPROVED FILL MATERIALS IN UNIFORM LAYERS NOT EXCEEDING EIGHT (8 ") INCHES IN LOOSE THICKNESS. COMPACT WITH SUITABLE EQUIPMENT TO A MINIMUM OF 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698. MOISTURE CONTENT SHALL BE SUITABLE FOR GOOD COMPACTION BUT NOT LESS THAN 3 PERCENT BELOW OR MORE THAN 3 PERCENT ABOVE OPTIMUM MOISTURE AS DETERMINED BY ASTM D698.
41. AFTER FINAL FINISH ROLLING AND BLADING, THE SURFACE SHALL BE SMOOTH AND EVEN AND WILL CONFORM TO THE INDICATED LINES AND GRADES WITHIN SPECIFIED TOLERANCES.

FILL UNDER STRUCTURES, FLOORS AND SLABS

42. STRIP ALL AREAS TO RECEIVE COMPACTED FILL, OF TOPSOIL, ORGANIC OR EXCESSIVELY WET SOIL OR OTHER UNSUITABLE SOILS PRIOR TO PLACING FILL.
43. SOIL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING EIGHT (8) INCHES IN DEPTH AND COMPACTED BY MECHANICAL TAMPERS OR ROLLERS.
44. PERVIOUS MATERIAL SHALL BE PLACED IN LEVEL LAYERS WITH A LOOSE DEPTH NOT EXCEEDING 8 INCHES. COMPACT WITH VIBRATORY ROLLERS OR VIBRATING PLATE COMPACTING EQUIPMENT ADEQUATE TO REACH SPECIFIED DENSITY. FLOODING OR JETTING TO COMPACT PERVIOUS FILL IS PROHIBITED. PROTECT STRUCTURES FROM DAMAGE DUE TO EXCESSIVE VIBRATION.
45. COMPACT FILLED AREAS UNDER FOOTINGS, BASE SLAB, FLOOR SLABS AND PAVEMENT TO A MINIMUM DENSITY OF 95 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698. MOISTURE CONTENT AT TIME OF COMPACTION SHALL NOT BE LESS THAN 3 PERCENT BELOW OR 3 PERCENT ABOVE OPTIMUM MOISTURE AS DETERMINED BY ASTM D698.

BORROW MATERIAL

46. IF BORROW MATERIAL IS REQUIRED, THE CONTRACTOR SHALL SUPPLY THIS MATERIAL FROM A BORROW AREA OFF THE SITE. THE BORROW AREA SHALL BE OBTAINED BY THE CONTRACTOR AT HIS SOLE EXPENSE. BORROW MATERIALS SHALL BE APPROVED BY THE ENGINEER BEFORE THEY ARE TRANSPORTED TO THE SITE OF THE PROJECT. ONE BORROW SITE WILL BE INSPECTED FOR APPROVAL AT NO COST TO THE CONTRACTOR. IF HE WISHES OR NEEDS TO USE ADDITIONAL SITES, TESTING OF SUCH SITES SHALL BE AT HIS SOLE COST.
47. MATERIALS SHALL BE SIMILAR TO SOILS FOUND ON THE PROJECT. SOILS SHOWING HIGH SWELL POTENTIALS WILL NOT BE APPROVED.

DRAINAGE

48. CONTROL GRADING IN VICINITY OF EXCAVATIONS TO PREVENT EXCESS SURFACE DRAINAGE FROM RUNNING INTO EXCAVATIONS. REMOVE WATER PROMPTLY TO AVOID SOFTENING OF SUBGRADE SOILS.
49. PROVIDE FOR REMOVAL OF SEEPAGE OR GROUND WATER FROM EXCAVATIONS BY PUMPING FROM SUMPS OR OTHER APPROPRIATE MEANS.
50. EXCAVATIONS SHALL BE KEPT DRY DURING SUBGRADE PREPARATION AND CONTINUALLY THEREAFTER UNTIL CONSTRUCTION IS COMPLETE, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOTATION OR OTHER CAUSES WILL RESULT.

SHORING AND BRACING

51. ADEQUATE SHORING AND BRACING SHALL BE PROVIDED TO PROTECT AND MAINTAIN THE STABILITY OF EXISTING STRUCTURES AND FACILITIES AND PREVENT SLIDING OF THE SIDES OF EXCAVATIONS, UNTIL THEY ARE BACKFILLED.
52. SHEETING, BRACING AND SHORING SHALL BE DESIGNED AND CONSTRUCTED TO WITHSTAND ALL EARTH AND EQUIPMENT LOADS AND SHALL REMAIN RIGID AND MAINTAIN SHAPE AND POSITION UNDER ALL CIRCUMSTANCES.
53. AVOID HAZARDOUS AND DANGEROUS CONDITIONS. MAINTAIN SAFETY OF PERSONNEL AND EXISTING WORK AT ALL TIMES.

WASTE FILL

54. ANY EXTRA FILL MATERIAL PRODUCED BY THE EARTHWORK FOR THIS PROJECT AND NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT SHALL BE DISPOSED OF OFF THE SITE OF THE WORK BY AND AT THE EXPENSE OF THE CONTRACTOR. ARRANGEMENTS FOR WASTE FILL SITES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GRADING

55. ROUGH GRADE: GRADE ENTIRE AREA AS INDICATED BY FINISH CONTOURS. GRADING SHALL BE PERFORMED TO PROVIDE UNIFORM APPEARING SURFACE THAT WILL DRAIN ALL SURFACE WATER. OBTAIN APPROVAL BY ENGINEER.
56. TOPSOIL: SUBSOIL SHALL BE SCARIFIED TO A TWO (2) INCH DEPTH FOR BONDING OF TOPSOIL WITH SUBSOIL. SPREAD TOPSOIL OVER ALL GRADED AREA TO A DEPTH OF SIX (6) INCHES. EXISTING TOPSOIL MAY HAVE TO BE SUPPLEMENTED BY HAUL-ED-IN MATERIAL AS REQUIRED.
57. FINE GRADE: FINE GRADE SITE USING LIGHT ROLLER AND DRAG TO LEAVE SURFACE IN CONDITION FOR SODDING. FINISH GRADE SHALL BE ONE (1) INCH BELOW ALL PAVEMENT UNLESS OTHERWISE SPECIFIED. REPAIR ERODED AREAS AT TIME OF PROJECT ACCEPTANCE BY THE OWNER.

ROCK EXCAVATION

58. GENERAL: SHOULD ROCK BE ENCOUNTERED IN TWO OR MORE LEDGES, EACH LEDGE BEING MORE THAN 6 INCHES THICK AND WITH INTERLYING STRATA OF EARTH CLAY, SHALE, OR GRAVEL, NOT MORE THAN 12 INCHES THICK IN EACH STRATUM, THE ENTIRE VOLUME BETWEEN THE TOP LEDGE AND BOTTOM OF THE BOTTOM LEDGE WILL BE CLASSIFIED AS ROCK.
59. DEFINITION: ROCK IS DEFINED AS BEING SANDSTONE, LIMESTONE, CHERT, GRANITE, SILT STONE, QUARTZITE, SLATE OR SHALE, OCCURRING IN ITS NATURAL UNDISTURBED STATE, HARD AND UN-WEATHERED OR SIMILAR MATERIAL IN MASSES MORE THAN 1½ CUBIC YARDS IN VOLUME, IN LEDGES SIX (6) INCHES MORE IN THICKNESS.

EROSION CONTROL

1. LOCATE EROSION CONTROL MEASURES PER THE EROSION CONTROL PLAN. ADDITIONAL MEASURES AND TYPES MAY BE NECESSARY THROUGHOUT CONSTRUCTION TO CONTROL SEDIMENT.
2. PROVIDE TEMPORARY OR PERMANENT SEEDING IF WORK IN AN AREA HAS CEASED FOR 14 DAYS OR MORE OR GRADING IS COMPLETE. SEEDING SHALL INCLUDE STRAW AND MULCH.
3. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO KDHE LAND DISTURBANCE PERMIT REQUIREMENTS AND SITE SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

SEDIMENT FENCE MATERIALS

4. USE A SYNTHETIC FILTER FABRIC OR A PERVIOUS SHEET OF POLYPROPYLENE, NYLON, POLYESTER, OR POLYETHYLENE YARD, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS SHOWN IN TABLE BELOW.
5. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120F.
6. POSTS FOR SEDIMENT FENCES SHALL BE EITHER 4-INCH DIAMETER PINE, 2-INCH DIAMETER OAK, OR 1.33 LB/LINEAR FT. STEEL WITH A MINIMUM LENGTH OF 4 FT. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
7. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.
8. FABRIC SPECIFICATIONS:

PHYSICAL PROPERTY	MINIMUM REQUIREMENTS
FILTER EFFICIENCY	85% TENSILE STRENGTH AT 200%STANDARD STRENGTH @ (MAX) ELONGATION 30 PSI EXTRA STRENGTH @ 50 PSI SLURRY FLOW RATE 0.3 GAL/SQ FT/MIN.

MAINTENANCE:

9. INSPECT EROSION CONTROLS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
10. SEDIMENT DEPOSITS AT SEDIMENT FENCES SHALL BE REMOVED AFTER EACH RAINFALL OR BEFORE THEY ACCUMULATE TO 1/3 OF THE FENCE HEIGHT.
11. REMOVE EROSION CONTROLS AND BRING AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERTY STABILIZED.

AGGREGATE FOR BASE

1. THE CONTRACTOR SHALL SUBMIT, PRIOR TO DELIVERY OF THE MATERIAL TO THE PROJECT, A CERTIFICATE INDICATING THE GRADATION, PLASTICITY INDEX, AND THE MOISTURE-DENSITY RELATIONSHIPS OF THE MATERIAL, USING ASTM D698, COMPLIES WITH THE ABOVE MATERIAL SPECIFICATION.
2. AGGREGATE FOR BASE SHALL BE SUPPLIED IN ACCORDANCE WITH SECTION 305 OF THE KANSAS STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EXCEPT AS OTHERWISE MODIFIED HEREIN.
3. MATERIAL SHALL MEET SECTION 1100 AB3 AGGREGATE EXCEPT THAT THE COMPOSITION SHALL BE MODIFIED SO THAT THE MATERIAL SHALL CONSIST OF 100% LIMESTONE OR DOLOMITE PRODUCED BY MECHANICAL CRUSHING.
4. THE MATERIAL SHALL BE MIXED WITH WATER IN A STATIONARY PLANT, BEFORE DELIVERY TO THE PROJECT SITE, TO OBTAIN THE MOISTURE CONTENT AS DIRECTED BY THE ENGINEER.

COMPACTED SUBGRADE

1. THE EMBANKMENT FILL AREA SHALL BE CLEARED AND GRUBBED PRIOR TO PLACING THE FILL LAYERS. SUITABLE MATERIALS, AS SPECIFIED IN EXCAVATION, BACKFILL AND GRADING, SHALL BE USED WITHIN THE TOP THREE FEET OF SUBGRADE. WHERE THE FILL IS LESS THAN FOUR FEET BELOW THE SUBGRADE, ALL SOD AND VEGETABLE MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE CLEARED SURFACE SHALL BE COMPLETELY BROKEN UP BY PLOWING, SCARIFYING OR STEPPING TO A MINIMUM DEPTH OF SIX INCHES. THE MATERIAL SHALL BE RECOMPACTED. THE FILL SHALL BE SPREAD IN LAYERS NOT TO EXCEED EIGHT INCHES LOOSE, FREE FROM CLODS, BLADED OR DISKED TO AN EVEN SURFACE, AND COMPACTED. IN NO CASE SHALL ROCKS, LARGER THAN THREE INCHES IN ANY DIMENSION BE DEPOSITED WITHIN ONE FOOT OF SUBGRADE ELEVATION. IN NO INSTANCE SHALL ANY LIFT OR LAYER EXCEED SIX INCHES OF COMPACTED THICKNESS. THE ENTIRE EMBANKMENT FILL SHALL BE SPREAD IN LAYERS AND COMPACTED AS HEREINAFTER SPECIFIED.
2. AFTER EACH FILL LAYER HAS BEEN SPREAD AS OUTLINED ABOVE, THE ENTIRE AREA SHALL BE COMPACTED AS SET FORTH IN THESE SPECIFICATIONS. THE CONTRACTOR SHALL HAVE AVAILABLE ADEQUATE HAND OR MECHANICAL COMPACTION EQUIPMENT TO ACCOMPLISH THE COMPACTION.
3. FILLING AND COMPACTING OPERATIONS SHALL CONTINUE ALTERNATELY UNTIL THE FILL CONFORMS WITH THE LINES, GRADES, AND TYPICAL CROSS-SECTIONS SHOWN ON THE APPROVED DRAWINGS.

COMPACTION IN FILL SECTIONS

4. COMPACTED DENSITY OF SOIL IN FILL AREAS IN THE TOP 18 INCHES SHALL BE EQUAL TO OR GREATER THAN 95% OF STANDARD PROCTOR DENSITY, TYPE AA COMPACTION WITH A MOISTURE RANGE OF MR-3-3 EXCEPT AS RECOMMENDED BY A QUALIFIED LABORATORY AND APPROVED BY THE ENGINEER. THE FILL AREA BELOW THE TOP 18 INCHES SHALL BE TYPE B COMPACTION WITH A MOISTURE RANGE OF MR-90 UNLESS MORE STRINGENT COMPACTION IS REQUIRED BY THE ENGINEER. THE MAXIMUM DENSITY FOR THE MATERIAL USED SHALL BE AS DETERMINED BY ASTM D-698 AND WITHIN THE TOLERANCES OF THE OPTIMUM MOISTURE AT MAXIMUM DENSITY AS DETERMINED BY THE MOISTURE DENSITY CURVE OBTAINED FOR THE GIVEN MATERIAL.
5. SAND AND GRAVEL WHICH CANNOT BE COMPACTED SATISFACTORILY WITH A SHEEPS-FOOT ROLLER SHALL BE ROLLED WITH A PNEUMATIC-TIRE ROLLER. EACH LIFT SHALL BE ROLLED UNTIL NO FURTHER CONSOLIDATION IS EVIDENT.

COMPACTION IN CUT SECTIONS

6. THE SOIL SIX INCHES BELOW THE FINISH SUBGRADE LINE IN CUT SECTIONS SHALL BE SCARIFIED, BROKEN UP, AND THEN COMPACTED AS SPECIFIED IN EXCAVATION, BACKFILL, AND GRADING. THE DEPTH OF COMPACTION IN CUT SECTIONS SHALL BE A MINIMUM OF SIX INCHES.
7. HIGHLY PLASTIC AND NONPLASTIC FINE-GRAINED MATERIAL AND ALL UNSTABLE AND UNSUITABLE MATERIAL AS DEFINED IN SECTION 02200 - EXCAVATION, BACKFILL, AND SITE GRADING SHALL BE REMOVED WITHIN THE TOP THREE FEET OF THE SUBGRADE AND SUITABLE SOIL REPLACED AND COMPACTED AS SPECIFIED.
8. IF ADDITIONAL FILL IS REQUIRED FOR SUBGRADE, AGGREGATE DESIGNATED AS AB3 SHALL BE USED IN ACCORDANCE WITH DIVISION 900 OF THE KANSAS STANDARD SPECIFICATIONS, OR AS APPROVED BY THE ENGINEER.

LAMP
RYNEARSON

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



01-28-2020

MARK DANIEL MCQUEE JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

CIVIL SPECIFICATIONS

R PARK – PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

0319001.04

BOOK AND PAGE

SHEET

C10

L:\Engineering\0319001.04 - Roadwork\Drawings\CONSTRUCTION - DRAWINGS\0319001.04 - SPECIFICATIONS.dwg, 1/27/2020 4:50:29 PM, JANE MCQUEERY, LAMP RYNREARSON

TRENCHING, BACKFILLING, AND COMPACTION

1. EMBEDMENT MATERIAL: MATERIAL SHALL BE CLEAN RIVER GRAVEL OR SOUND CRUSHED LIMESTONE, FREE OF CEMENTITIOUS, SHALY OR FLAT AND FLAKY PARTICLES IN AN AMOUNT WHICH WOULD CAUSE THE MATERIAL TO CAKE OR PACK OR OTHERWISE FORM AN UNYIELDING SUPPORT FOR THE PIPE. GRADATION SHALL BE:
- | | | | |
|-------|-------------------|---|-----------------|
| 3/4" | SQUARE MESH SIEVE | — | 100% PASSING |
| 1/2" | SQUARE MESH SIEVE | — | 90–100% PASSING |
| NO. 4 | SQUARE MESH SIEVE | — | 0–15% PASSING |
| NO. 8 | SQUARE MESH SIEVE | — | 0–5% PASSING |
2. WHERE BEDDING ROCK IS NOT REQUIRED, BEDDING MATERIAL SHALL BE SAME AS FILL MATERIAL.
3. FILL MATERIAL: BACKFILL MATERIAL SHALL BE SELECTED EARTH OR GRANULAR FILL MATERIAL, FREE FROM SOD, STICKS AND ROOTS OVER 1/2 INCH IN DIAMETER, AND FREE FROM HARD LUMPS, CLOUDS OR ROCK IN SUCH QUANTITY OR CONCENTRATION AS TO INTERFERE WITH THE SPECIFIED COMPACTION. MATERIAL SHALL BE OF PROPER MOISTURE CONTENT FOR SPECIFIED COMPACTION.

GENERAL

4. TRENCHING WORK SHALL BE PERFORMED IN A SAFE AND PROPER MANNER, WITH SUITABLE PRECAUTIONS BEING TAKEN AGAINST HAZARDS OF EVERY KIND. TRENCHING SHALL PROVIDE ADEQUATE WORKING SPACE AND CLEARANCES FOR THE WORK TO BE PERFORMED THEREIN.
5. TRENCHING AND BACKFILLING DURING FREEZING WEATHER SHALL NOT BE DONE EXCEPT BY PERMISSION OF THE ENGINEER. NO BACKFILL MATERIALS SHALL BE INSTALLED ON FROZEN SURFACES NOR SHALL FROZEN MATERIALS, SNOW OR ICE BE PLACED IN ANY BACKFILL.
6. WHEN OPERATING ON PAVEMENTS OR WALKS ALL EQUIPMENT SHALL BE RUBBER Tired, EXCEPT FOR EXCAVATION EQUIPMENT. EXCAVATING EQUIPMENT, IN SUCH CASES, SHALL NOT HAVE GROUSERS, CLEATS OR LUGS ON THE TRACKS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE EXISTING PAVEMENTS AND WALKS.
7. NO CLASSIFICATION OF EXCAVATED MATERIALS WILL BE MADE. TRENCHING AND TRENCHING WORK SHALL INCLUDE THE REMOVAL AND SUBSEQUENT HANDLING OF ALL MATERIALS EXCAVATED OR OTHERWISE REMOVED IN PERFORMANCE OF THE CONTRACT WORK, REGARDLESS OF THE TYPE, CHARACTER, COMPOSITION OR CONDITION THEREOF.
8. PIPE LINES AND OTHER EXISTING UNDERGROUND INSTALLATIONS AND STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE HEREUNDER ARE INDICATED ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE OWNER. THE OWNER DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO LOCATE ALL UNDERGROUND PIPE LINES, CONDUITS AND STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES AND BY PROSPECTING IN ADVANCE OF TRENCH EXCAVATION. DAMAGE TO ANY EXISTING UNDERGROUND INSTALLATION CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. ANY DELAYS OR EXTRA COST TO THE CONTRACTOR CAUSED BY PIPE LINES OR OTHER UNDERGROUND STRUCTURES OR OBSTRUCTIONS NOT SHOWN BY THE PLANS, OR FOUND IN LOCATIONS DIFFERENT THAN THOSE INDICATED, SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
10. EROSION CONTROL OF DISTURBED AREAS WILL BE REQUIRED DURING THE CONSTRUCTION PERIOD THROUGH THE USE OF CHECK DAMS, SILTATION POOLS, MULCHING, ETC.
11. USE ALL MEANS NECESSARY TO CONTROL DUST OR MUD THAT MAY INTERFERE WITH OPERATION. MAINTAIN ALL STREETS AND DRIVEWAYS FREE OF DIRT AND MATERIAL FROM CONTRACTOR'S OPERATION.
12. USE ALL MEANS NECESSARY TO PROTECT MATERIAL AND PRESERVE SPECIFICATION REQUIREMENTS.
13. REPLACE ALL DAMAGED MATERIAL OR MATERIAL THAT HAS LOST SPECIFICATION REQUIREMENTS.

TRENCH EXCAVATION

14. THE CONTRACTOR SHALL NOT OPEN MORE TRENCH IN ADVANCE OF PIPE LAYING THAN IS NECESSARY TO EXPEDITE THE WORK. ONE BLOCK OR 400 FEET (WHICHEVER IS THE SHORTER) SHALL BE THE MAXIMUM LENGTH OF OPEN TRENCH PERMITTED ON ANY LINE UNDER CONSTRUCTION.
15. EXCEPT WHERE TUNNELING IS PERMITTED BY THE ENGINEER OR CALLED FOR ON THE PLANS, ALL TRENCH EXCAVATION SHALL BE OPEN CUT FROM THE SURFACE.
16. TRENCH WALLS SHALL BE VERTICAL, AND BRACED WHERE NECESSARY, IN STREETS OR IMPROVED AREA UNLESS OTHERWISE AUTHORIZED BY ENGINEER.
17. ALIGNMENT AND GRADE, SEWER AND STORM SEWER LINES: THE ALIGNMENT AND GRADE OR ELEVATION OF EACH PIPE LINE SHALL BE FIXED AND DETERMINED BY MEANS OF OFFSET STAKES. VERTICAL AND HORIZONTAL ALIGNMENT OF PIPES AND THE MAXIMUM JOINT DEFLECTION USED IN CONNECTION THEREWITH SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF THE SPECIFICATION COVERING THE INSTALLATION OF THE PIPE BEING LAID IN EACH CASE.
18. ALIGNMENT AND GRADE, WATER LINES: TRENCHES BE CAREFULLY EXCAVATED SO THAT THE MINIMUM COVER OVER TOP OF PIPE WILL BE 42 INCHES TO EXISTING STREET OR GROUND SURFACE, OR TO FUTURE SURFACE WHEN INDICATED. GREATER COVER AT SOME LOCATIONS ALONG THE LINE MAY BE REQUIRED DUE TO STREET OR GROUND PROFILE AND CLEARANCE OF CULVERTS, STRUCTURES, UTILITY LINES, ETC.
19. MINIMUM TRENCH WIDTHS AND PIPE CLEARANCES: TRENCHES SHALL BE EXCAVATED TO A WIDTH WHICH WILL PROVIDE ADEQUATE WORKING SPACE AND PIPE CLEARANCES FOR PROPER PIPE INSTALLATION, JOINTING AND EMBEDMENT. BELOW AN ELEVATION OF 12 INCHES FROM GROUND LEVEL TO THE TOP OF THE INSTALLED PIPE, THE TRENCH WIDTH SHALL BE MAINTAINED AS NARROW AS POSSIBLE. WHERE NECESSARY TO REDUCE THE EARTH LOAD ON TRENCH BANKS TO PREVENT SLIDING AND CAVING, THE BANKS MAY BE CUT BACK ON SLOPES WHICH SHALL NOT EXTEND LOWER THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
20. MECHANICAL EXCAVATION: THE USE OF MECHANICAL EQUIPMENT WILL NOT BE PERMITTED IN LOCATIONS WHERE ITS OPERATION WOULD CAUSE DAMAGE TO BUILDINGS, CULVERTS, OR OTHER EXISTING PROPERTY, UTILITIES, OR STRUCTURES ABOVE OR BELOW GROUND; IN ALL SUCH LOCATIONS, HAND EXCAVATING TOOLS AND METHODS SHALL BE USED.
21. MECHANICAL EQUIPMENT USED FOR TRENCH EXCAVATION SHALL BE OF A TYPE, DESIGN AND CONSTRUCTION AND SHALL BE SO OPERATED, THAT THE ROUGH TRENCH EXCAVATION BOTTOM ELEVATION CAN BE CONTROLLED, THAT UNIFORM TRENCH WIDTHS AND VERTICAL SIDE WALLS ARE OBTAINED AT LEAST FROM AN ELEVATION 1 FOOT ABOVE THE TOP OF THE INSTALLED PIPE TO THE BOTTOM OF THE TRENCH, AND THAT THE TRENCH ALIGNMENT IS SUCH THAT THE PIPE WHEN ACCURATELY LAID TO SPECIFIED ALIGNMENT WILL BE CENTERED IN THE TRENCH WITH ADEQUATE CLEARANCE BETWEEN THE PIPE AND SIDE WALLS OF THE TRENCH. UNDERCUTTING OF THE TRENCH SIDEWALL TO OBTAIN CLEARANCE WILL NOT BE PERMITTED.
22. EXCAVATION BELOW PIPE SUBGRADE: EXCEPT WHERE OTHERWISE REQUIRED, PIPE TRENCHES SHALL BE EXCAVATED BELOW PIPE SUBGRADE ELEVATIONS TO PROVIDE FOR THE INSTALLATION OF GRANULAR FILL PIPE FOUNDATION MATERIAL.
23. UNAUTHORIZED TRENCH WIDTHS: WHERE THE WIDTH OF THE LOWER PORTION OF THE TRENCH AS EXCAVATED AT ANY POINT EXCEEDS THE MAXIMUM PERMITTED, EITHER PIPE OF ADEQUATE STRENGTH, CLASSIFICATION OR GAGE, SPECIAL PIPE EMBEDMENT OR CLASS A CONCRETE ARCH ENCAUSEMENT (FOR CONCRETE PIPE ONLY), AS REQUIRED BY THE SPECIFICATION CONDITIONS AND AS DETERMINED BY THE ENGINEER, SHALL BE FURNISHED AND INSTALLED BY AND AT THE EXPENSE OF THE CONTRACTOR.
24. GRUBBING: GRUB OUT LIVE ROOTS FOR A DISTANCE OF AT LEAST 6 INCHES BELOW AND 8 INCHES ON SIDES OF OUTSIDE SURFACE OF PIPE.
25. BELL HOLES: BELL HOLES SHALL PROVIDE ADEQUATE CLEARANCE FOR THE TOOLS AND METHODS USED IN INSTALLING THE PIPE. NO PART OF ANY BELL OR COUPLING SHALL BE IN CONTACT WITH THE TRENCH BOTTOM, TRENCH WALLS, OR THE GRANULAR FILL WHEN THE PIPE IS JOINTED.
26. CUTTING CONCRETE PAVEMENT AND WALKS: CUTS IN CONCRETE AND ASPHALT PAVEMENTS SHALL BE NO LARGER THAN NECESSARY TO PROVIDE ADEQUATE WORKING SPACE FOR PROPER INSTALLATION OF PIPE AND PIPE LINE APPURTENANCES. CUTTING SHALL BE STARTED WITH A CONCRETE SAW (OR BY OTHER CUTTING METHOD APPROVED BY THE ENGINEER) AND IN A MANNER WHICH WILL PROVIDE A CLEAN GROOVE AT LEAST 1–1/2 INCHES DEEP ALONG EACH SIDE OF THE TRENCH AND ALONG THE PERIMETER OF CUTS FOR STRUCTURES.
27. PAVEMENT AND BASE PAVEMENT OVER TRENCHES EXCAVATED FOR PIPE LINES SHALL BE REMOVED SO THAT A SHOULDER NOT LESS THAN 6 INCHES IN WIDTH AT ANY POINT IS LEFT BETWEEN THE CUT EDGE OF THE PAVEMENT AND THE TOP EDGE OF THE TRENCH. THE TRENCH WIDTH AT THE BOTTOM SHALL NOT BE GREATER THAN AT THE TOP AND NO UNDERCUTTING WILL BE PERMITTED. PAVEMENT CUTS SHALL BE MADE TO AND BETWEEN STRAIGHT OR ACCURATELY MARKED CURVED LINES WHICH, UNLESS OTHERWISE REQUIRED, SHALL BE PARALLEL TO THE CENTER LINE OF THE TRENCH.

SHEETING AND SHORING

28. EXCEPT WHERE BANKS MAY BE CUT BACK ON A STABLE SLOPE, EXCAVATION FOR TRENCHES SHALL BE PROPERLY AND SUBSTANTIALLY SHEETED, BRACED, AS NECESSARY, TO PREVENT CAVING OR SLIDING, TO PROVIDE PROTECTION FOR THE WORKMEN AND THE WORK, AND TO PROVIDE PROTECTION FOR EXISTING STRUCTURES AND FACILITIES. SHEETING, BRACING AND SHORING SHALL BE DESIGNED AND BUILT TO WITHSTAND ALL LOADS THAT MIGHT BE CAUSED BY EARTH MOVEMENT OR PRESSURE, AND SHALL BE RIGID, MAINTAINING ITS SHAPE AND POSITION UNDER ALL CIRCUMSTANCES.

STABILIZATION

29. TRENCH BOTTOMS SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUD AND MUCK; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN.
30. TRENCH BOTTOMS WHICH ARE OTHERWISE SOLID, BUT WHICH BECOME MUCKY ON TOP DUE TO CONSTRUCTION OPERATIONS, SHALL BE REINFORCED WITH ONE OR MORE LAYERS OF GRANULAR FILL MATERIAL OR OTHER CRUSHED STONE OR GRAVEL EMBEDDED THEREIN. NOT MORE THAN 1/2 INCH DEPTH OF MUD OR MUCK SHALL BE ALLOWED TO REMAIN ON STABILIZED TRENCH BOTTOMS WHEN THE PIPE BEDDING MATERIAL IS PLACED THEREON. THE FINISHED ELEVATION OF STABILIZED SUBGRADES FOR CONCRETE STRUCTURES SHALL NOT BE ABOVE THE SUBGRADE ELEVATIONS.
31. ALL STABILIZATION WORK HEREUNDER SHALL BE PERFORMED BY AND AT THE EXPENSE OF THE CONTRACTOR.
32. IF THE SUBGRADE FOR PIPE CAN BE STABILIZED WITH A THICKNESS OF GRANULAR FILL OF 12 INCHES OR LESS BELOW BOTTOM OF PIPE, OR SUBGRADE OF STRUCTURE, SUCH STABILIZATION WILL BE AT THE CONTRACTOR'S EXPENSE.

REMOVAL OF WATER

33. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE DEWATERING EQUIPMENT TO REMOVE AND DISPOSE OF ALL SURFACE AND GROUND WATER ENTERING EXCAVATIONS, TRENCHES, OR OTHER PART OF THE WORK. EACH EXCAVATION SHALL BE KEPT DRY DURING SUBGRADE PREPARATION AND CONTINUALLY THEREAFTER UNTIL THE STRUCTURE TO BE BUILT, OR THE PIPE LINE TO BE INSTALLED, THEREIN IS COMPLETED TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOTATION, OR OTHER CAUSES WILL RESULT.

PIPE EMBEDMENT

34. PLACE PIPE EMBEDMENT MATERIAL ON A SUITABLY PREPARED SUBGRADE IN LIFTS NOT EXCEEDING 6 INCHES AND BRING UP EVENLY ON BOTH SIDES OF PIPE. DO NOT DUMP OVER SIDE OF TRENCH IN ANY MANNER THAT WILL BRING EARTH INTO THE EMBEDMENT MATERIAL OR DISPLACE THE PIPE. COMPACT, VIBRATE, OR SLICE WITH A SHOVEL, IN SUCH MANNER THAT MATERIAL FILL WILL TAKE ITS FINAL COMPACTION AND PROVIDE UNIFORM AND SOLID BEARING UNDER THE PIPE AND ITS HAUNCHES.

TRENCH BACKFILL COMPACTION

35. NINETY PERCENT COMPACTED BACKFILL. UNDER STREETS, DRIVES OR STATE OR COUNTY HIGHWAYS SURFACED WITH GRAVEL, CRUSHED STONE, "BLACKTOP" OR OTHER LOW OR INTERMEDIATE TYPE SURFACING. IN STREET, ROAD, HIGHWAY, RAILWAY OR ALLEY RIGHTS-OF-WAY. IN TRAVELED WAYS. IN ESTABLISHED LAWNS. ANY LINE WITHIN 5 FEET OF BACK OF CURB OR 5 FEET OF STREET SURFACING IF NO CURB, EITHER PERPENDICULAR TO OR PARALLEL TO THE STREET SHALL BE CONSIDERED AS UNDER THE STREET SURFACING, AND 90 PERCENT COMPACTION SHALL APPLY.
36. NINETY-FIVE PERCENT COMPACTED BACKFILL. UNDER CONCRETE, ASPHALTIC CONCRETE, BRICK, CONCRETE STRUCTURES OR OTHER HIGH TYPE PAVEMENTS. UNDER CONCRETE WALKS, CURBS, GUTTERS AND CULVERTS. UNDER ALL TYPES OF STREET SURFACING WHERE TRENCH CUT IS APPROXIMATELY AT RIGHT ANGLE TO ROADWAY. BACKFILL MATERIAL SHALL BE AS DESIGNATED ON THE PLANS OR ELSEWHERE IN THESE SPECIFICATIONS.
37. IN AREAS NOT LISTED ABOVE, BACKFILL SHALL BE COMPACTED TO A DENSITY EQUAL TO THE SURROUNDING GROUND.
38. SIX INCHES OF TOPSOIL SHALL BE PLACED IN THE TOP OF TRENCHES THAT ARE TO BE COVERED WITH SOD OR TO BE SEEDED.
39. IF SPECIFIED DENSITY CANNOT BE OBTAINED WITH AVAILABLE EARTH, THE CONTRACTOR SHALL FURNISH AND HAUL GRANULAR FILL MATERIAL OR SUITABLE EARTH AT HIS EXPENSE. UNSUITABLE EARTH SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
40. THE ENGINEER WILL CALL FOR DENSITY TESTS TO BE MADE WHENEVER DEEMED NECESSARY. THE SPECIFIED DENSITY WILL BE THE MINIMUM ALLOWED AND THE OBTAINMENT THEREOF WILL BE ENTIRELY THE CONTRACTOR'S RESPONSIBILITY.
41. THICKNESS OF BACKFILL LAYERS WILL BE DETERMINED BY THE COORDINATION OF TEST RESULTS WITH FIELD PERFORMANCE AND EQUIPMENT USED. THE CONTRACTOR WILL BE EXPECTED TO MAINTAIN ESTABLISHED PROCEDURES EXCEPT WHERE UNUSUAL CONDITIONS ARISE. IF GREATER THAN 1/2 INCH THICK COMPACTED LAYERS ARE USED, THE CONTRACTOR SHALL HAND CAVATE TO THE TEST LEVEL AS DIRECTED BY THE ENGINEER AND THEN REFILL THE TEST EXCAVATION WITH COMPACTED BACKFILL TO THE SPECIFIED DENSITY.
42. ALL COMPLETED LINES SHALL BE RETURNED, IN THE OPINION OF THE ENGINEER, AS NEARLY AS POSSIBLE TO ORIGINAL CONDITION, INCLUDING RESEEDING, RE-SODDING OR REPAVING.
43. EQUIPMENT: THE BUCKET ON AN EXCAVATOR OR BACKHOE IS NOT A PIECE OF COMPACTION EQUIPMENT AND SHALL NOT BE USED AS THE METHOD FOR COMPACTING SOIL OR BASE ROCK UNDER A FUTURE OR CURRENT: STREET, PARKING LOT, SIDEWALK, CURB AND GUTTER, OR DRIVEWAY.
44. PERMITS: THE FOLLOWING ARE AS ALLOWED: SHEEPSFOOT ROLLER, VIBRATORY ROLLER, TAMPER, VIBRATORY PLATE COMPACTOR, PNEUMATIC TYRED ROLLERS, GRID ROLLERS, AND PAD FOOT TAMPING ROLLERS.

DRAINAGE MAINTENANCE

45. TRENCHES ACROSS ROADWAYS, DRIVEWAYS, WALKS, OR OTHER TRAFFIC-WAY'S ADJACENT TO DRAINAGE DITCHES OR WATER COURSES SHALL NOT BE BACKFILLED PRIOR TO COMPLETION OF BACKFILLING THE TRENCH ON THE UPSTREAM SIDE OF THE TRAFFIC-WAY. TO PREVENT IMPOUNDING WATER AFTER THE PIPE HAS BEEN LAID. BRIDGES AND OTHER TEMPORARY STRUCTURES REQUIRED TO MAINTAIN TRAFFIC ACROSS SUCH UNFILLED TRENCHES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR. BACKFILLING SHALL BE DONE SO THAT WATER WILL NOT ACCUMULATE IN UNFILLED OR PARTIALLY FILLED TRENCHES. ALL MATERIAL DEPOSITED IN ROADWAY DITCHES OR OTHER WATER COURSES CROSSED BY THE LINE OF TRENCH SHALL BE REMOVED IMMEDIATELY AFTER BACKFILLING IS COMPLETED AND THE SECTION, GRADES, AND CONTOURS OF DITCHES OR WATER COURSES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. SURFACE DRAINAGE SHALL NOT BE OBSTRUCTED LONGER THAN NECESSARY.

FINAL GRADING AND DISPOSAL OF EXCESS EXCAVATED MATERIALS

46. EXCEPT AS OTHERWISE INDICATED, ALL EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR AWAY FROM THE SITE OF THE WORK.
47. PAVEMENT AND PAVEMENT BASE MATERIAL, EXCAVATED ROCK IN EXCESS OF THE AMOUNT PERMITTED TO BE AND ACTUALLY INSTALLED IN TRENCH BACKFILL, JUNK AND DEBRIS ENCOUNTERED IN EXCAVATION WORK, AND OTHER SIMILAR WASTE MATERIALS SHALL BE DISPOSED OF AWAY FROM THE SITE OF THE WORK.
48. THE DISPOSAL OF WASTE AND EXCESS EXCAVATED MATERIALS, INCLUDING HAULING, HANDLING, LEVELING AND SURFACING, SHALL BE AT THE CONTRACTOR'S EXPENSE.
49. UN-COMPACTED BACKFILL: WHERE UN-COMPACTED BACKFILL IS SPECIFIED, EXCESS EARTH FROM EXCAVATIONS, OVER AND ABOVE THAT DISPLACED BY THE PIPE, SHALL BE MOUNDED DIRECTLY OVER THE PIPE TRENCH, IN SUCH MANNER THAT THE EARTH WILL SETTLE INTO THE TRENCH AS NATURAL CONSOLIDATION OCCURS. OPENINGS FOR NATURAL DRAINAGE SHALL BE PROVIDED. THE MOUNDED EARTH SHALL BE GRADED TO A SMOOTH, UNIFORM SURFACE. THAT PORTION OF THE EARTH DISPLACED BY THE PIPE SHALL BE UNIFORMLY AND SMOOTHLY GRADED ADJACENT TO THE TRENCH.
50. OTHER TYPES OF BACKFILL: FOR ALL TYPES OF BACKFILL OTHER THAN UN-COMPACTED, THE CONTRACTOR SHALL DISPOSE OF EXCESS EXCAVATED MATERIAL ABOVE THE SURFACE OF THE GROUND OR SUBGRADE OF PAVEMENT MATERIALS, ETC., UNLESS OTHERWISE DIRECTED. WHERE DIRECTED, THE CONTRACTOR SHALL LEAVE ALL OR A PORTION OF THE EXCESS EARTH AND GRADE SMOOTHLY ALONG AND ADJACENT TO THE TRENCH IN THE MANNER PRESCRIBED BY THE ENGINEER. IF DIRECTED, HE SHALL GRADE EXCESS EARTH INTO ADJACENT LOW AREAS, FINE GRADING AND SLOPING TO DRAIN.
51. FINAL GRADING: JUST PRIOR TO COMPLETION AND ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL FINAL GRADE OVER ALL PIPE TRENCHES AND AROUND STRUCTURES, FILLING IN ANY PLACES THAT MAY HAVE SETTLED DURING THE PERIOD BETWEEN CONSTRUCTION OF EACH LINE AND THE COMPLETION OF THE ENTIRE CONTRACT. FINISHED SURFACE SHALL BE BLADED AND ALIGNED TO A NEAT AND UNIFORM APPEARANCE.
52. FINAL GRADING, IMPROVED YARDS AND LAWNS: FINE GRADE, SUITABLE FOR SEEDING OR SODDING. HAND RAKE EARTH OFF GRASS IN ESTABLISHED LAWN AREAS, UNLESS DIRECTED TO LEAVE EXCESS EARTH AS OUTLINED ABOVE.
53. DEFICIENCY OF BACKFILL: WHEREVER THERE IS A DEFICIENCY OF MATERIAL REQUIRED TO BACKFILL TO THE SPECIFIED SURFACE OR SUBGRADE, THE CONTRACTOR SHALL FURNISH THE NECESSARY AMOUNT OF SUITABLE EARTH AT HIS EXPENSE.
54. RESTORATION OF DISTURBED EARTH: THE CONTRACTOR SHALL RESTORE ALL EARTH AREAS DISTURBED FROM THE ORIGINAL CONDITION BY HIS OPERATIONS. RESTORATION WILL BE BY SEEDING, FERTILIZING AND MULCHING OR BY APPROPRIATE PAVEMENT AND STREET REPAIR.

CONCRETE SIDEWALK

1. ALL SIDEWALKS SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT OF 1990, 42 U.S.C. 12101 ET SEQ.
2. ALL SIDEWALKS SHALL BE CONSTRUCTED USING KCMMB 4K PORTLAND CEMENT CONCRETE UNLESS OTHERWISE DESIGNATED ON THE DRAWINGS.
3. REINFORCING STEEL, IF DESIGNATED TO BE USED, SHALL BE GRADE 40 SUPPLIED IN ACCORDANCE WITH THESE SPECIFICATIONS.
4. WHEN AN EXISTING SIDEWALK ENTRANCE IS TO BE REMOVED, AND REPLACED, THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY OWNER OR TENANT TWENTY-FOUR (24) HOURS PRIOR TO THIS WORK. SCHEDULING OF THE CONSTRUCTION OF SIDEWALK ENTRANCES SHALL BE SUCH THAT, WHEREVER POSSIBLE, PLACING OF CONCRETE SHALL BE ACCOMPLISHED WITHIN TWENTY-FOUR (24) HOURS AFTER THE EXISTING MATERIALS HAVE BEEN REMOVED.
5. ALL SIDEWALK CONSTRUCTION SHALL BE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR ESTABLISHED BY THE ENGINEER.
6. THE WIDTH OF ANY SIDEWALK REPAIR SHALL BE THE SAME AS THAT BEING REPLACED, BUT NOT LESS THAN FOUR FOOT IN WIDTH, EXCEPT FOR A MINIMUM DISTANCE TO MATCH THE EXISTING SIDEWALK IF LESS THAN FOUR FOOT IN WIDTH. THE WIDTH OF NEW SIDEWALK CONSTRUCTION SHALL BE AS INDICATED ON THE PLANS. THE MINIMUM WIDTH OF PUBLIC SIDEWALKS SHALL BE FOUR FEET WITH A FIVE-FOOT SQUARE PASSING SPACE EVERY 200 FEET. THE MINIMUM ALLOWABLE THICKNESS SHALL BE FOUR INCHES, EXCEPT WITHIN A DRIVEWAY APPROACH AREA, WHERE THE MINIMUM ALLOWABLE THICKNESS SHALL BE SIX INCHES. SIDEWALKS CONSTRUCTED WITH CONCRETE PAVER BRICK SHALL MEET THE FOLLOWING SPECIFICATIONS: FOUR INCHES OF CONCRETE SHALL BE USED AS A BASE PLUS ONE INCH OF BEDDING SAND FOR THE PAVERS. EDGE RESTRAINT MUST BE PROVIDED IN ANY CASE TO CONFINE THE PAVED SECTION TO THE DESIGN DIMENSIONS.
7. THE CROSS SLOPE ALONG THE LENGTH OF THE WALK SHALL BE AS NEAR PARALLEL TO THE STREET GRADIENT AS PRACTICABLE. THE MAXIMUM LONGITUDINAL SLOPE SHALL BE ONE INCH PER FOOT, EXCEPT WHERE A VARIANCE FROM STREET GRADE HAS BEEN APPROVED BY THE ENGINEER. THE CROSS SLOPE IS ONE FOOT PER 100 FEET OR 1%; WITH THE INTENTION OF ENFORCING A 2% MAXIMUM WITH ABSOLUTELY NO TOLERANCE FOR EXCEEDING 2%, DUE TO FEDERAL REQUIREMENTS. THIS MAXIMUM CROSS SLOPE STANDARD ALSO APPLIES WHEN THE WALK CROSSES DRIVES AND SHALL SLOPE TOWARD THE STREET, EXCEPT AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. THE FINISH GRADE OF THE SIDEWALK SHALL BE SUCH THAT THE SLOPE OF THE FINISH GRADE BETWEEN THE CURB AND THE SIDEWALK WILL NOT EXCEED ONE-HALF INCH PER FOOT AND WILL NOT BE LESS THAN ONE-QUARTER INCH PER FOOT AND SHALL SLOPE TOWARD THE STREET, EXCEPT AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
8. THE SUBGRADE SHALL BE UNIFORMLY COMPACTED AS DESIGNATED ON THE DRAWINGS OR IN THESE SPECIFICATIONS. THE SUBGRADE SHALL BE EVENLY GRADED TO THE REQUIRED SUBGRADE ELEVATION. ALL LOOSE OR EXTRANEOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE AND SOFT SPOTS SHALL BE UNIFORMLY RE-COMPACTED PRIOR TO PLACEMENT OF CONCRETE. SIDEWALK CONCRETE MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE. THE CONTRACTOR SHALL HAVE AVAILABLE ADEQUATE HAND OR MECHANICAL COMPACTION EQUIPMENT TO ACCOMPLISH THE COMPACTION AS SET FORTH IN THESE SPECIFICATIONS. THE SUBGRADE SHALL BE PROPERLY MOISTENED PRIOR TO PLACING CONCRETE.
9. ALL FORMS SHALL BE SUFFICIENTLY STRONG AND RIGID AND SECURELY STAKED AND BRACED TO OBTAIN A FINISHED PRODUCT CORRECT TO THE DIMENSIONS, LINES AND GRADES REQUIRED. FORMS MAY BE OF STEEL OR WOOD AT THE OPTION OF THE CONTRACTOR. EACH FORM SHALL NOT VARY MORE THAN ONE-QUARTER INCH IN LONGITUDINAL AND VERTICAL ALIGNMENT FOR EACH TEN FEET IN LENGTH. ALL FORMS MUST BE CLEANED AND OILED BEFORE EACH USE. A SLIP-FORM MACHINE EQUIPPED WITH ELECTRONICS, MAY BE USED IN LIEU OF THE MACHINE SHALL NOT BE EQUIPPED WITH MECHANICAL INTERNAL VIBRATORS AND SHALL BE CAPABLE OF PLACING THE FINISHED SIDEWALK TO THE CORRECT CROSS SECTION, LINE AND GRADE AS REQUIRED IN THIS SECTION. ADJUSTMENTS OF THE STRING LINE AND/OR SLIP-FORM MACHINE SHALL BE MADE TO GIVE A SMOOTH AND ACCURATE LINE AND GRADE.
10. REINFORCING OF SIDEWALKS WILL NOT BE REQUIRED EXCEPT IN UNUSUAL CONDITIONS WHERE THE ENGINEER MAY REQUIRE REINFORCING OR WELDED WIRE FABRIC. WHEN WELDED WIRE FABRIC IS USED IT SHALL BE PLACED TWO INCHES (2") FROM THE FINISHED SURFACE OF THE SIDEWALK. THE REINFORCEMENT SHALL BE SUPPORTED USING SET SPACING SUCH THAT BETWEEN THE SUPPORTS, THE REINFORCEMENT DOES NOT DEFLECT OR SAG EXCESSIVELY. THERE WILL BE NO DIRECT PAYMENT FOR THIS ITEM, AND IT SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR SIDEWALK REPLACEMENT.

PLACING AND FINISHING CONCRETE

11. THE CONTRACTOR SHALL PROVIDE ADEQUATE TOOLS AND EQUIPMENT TO PRODUCE QUALITY WORKMANSHIP IN PLACING AND FINISHING CONCRETE. THE SIDEWALK AND RAMPS SHALL BE FINISHED TO THE TOP OF THE FORMS AND THE SURFACE FINISHED WITH A WOOD OR STEEL FLOAT AND SURFACE TEXTURE SHALL BE A COURSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE SIDEWALK OR RAMP. NO "PLASTERING" OF THE SURFACE SHALL BE PERMITTED.
12. CONTRACTION JOINTS: THE SIDEWALK SURFACE SHALL BE MARKED OFF INTO NOMINAL SQUARES OF DIMENSIONS EQUAL TO THE WIDTH OF THE SIDEWALK WITH A MAXIMUM DISTANCE BETWEEN JOINTS OF SEVEN FEET.
13. CONTRACTION JOINTS: ALL JOINTS IN FORMED CONCRETE SIDEWALKS SHALL BE TOOLED. A STANDARD JOINT TOOL HAVING A WIDTH OF ONE-EIGHTH INCH AND ONE-INCH-DEEP HAVING A LIP RADIUS OF ONE-EIGHTH INCH TO ONE-QUARTER INCH SHALL BE USED IN FORMING THE JOINTS.
14. CONTRACTION JOINTS: ALL JOINTS IN SLIP-FORMED CONCRETE SIDEWALKS SHALL BE SAVED. IF SAWING JOINTS, THE CONTRACTOR SHALL BEGIN AS SOON AS THE CONCRETE HARDENS SUFFICIENTLY TO PREVENT EXCESSIVE RAVELING. ALONG THE SAW CUT AND SHALL FINISH BEFORE CONDITIONS INDUCE UNCONTROLLED CRACKS, REGARDLESS OF THE TIME OR WEATHER.
15. EXPANSION JOINTS: EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS WHERE THE SIDEWALK ABUTS EXISTING CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND EVERY TWO HUNDRED FIFTY FEET AND AS SHOWN ON APPROVED PLANS. EXPANSION JOINTS SHALL BE FORMED WITH ONE-HALF INCH PREFABRICATED NON-EXTRUDING FILLER AND SHALL EXTEND THE FULL DEPTH OF THE SLAB.
16. CURING CONCRETE: SIDEWALK SLABS SHALL BE CURED EITHER BY WET COVERING, WATERPROOF COVERING, OR LIQUID MEMBRANE-FORMING COMPOUND IN ACCORDANCE WITH "CONCRETE CONSTRUCTION". THE CURING PERIOD SHALL BE A MINIMUM OF FIVE DAYS. CURING SHALL BE COMMENCED AS SOON AS POSSIBLE AFTER THE FINISHING OPERATION AND WHEN THE CONCRETE HAS SET SUFFICIENTLY SO THAT IT WILL NOT BE DAMAGED IN THE PROCESS.
17. BACKFILLING CONCRETE: BACKFILLING OPERATIONS SHALL NOT COMMENCE PRIOR TO THE COMPLETION OF THE FIVE-DAY CURING PERIOD, OR UNTIL THE CONCRETE ATTAINS 75% OF DESIGN STRENGTH. ALL BACKFILL MATERIAL SHALL CONSIST OF SOIL SUITABLE FOR VEGETATION. THE AREA SHALL BE PREPARED SUCH THAT SOD CAN BE PLACED ON BARE SOIL.
18. SIDEWALK CURB: SIDEWALK CURB SHALL BE PLACED ON THE BACK OF SIDEWALK AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONCRETE SIDEWALK RAMPS

1. AFTER THE CONSTRUCTION OF THE ADJACENT CURB AND GUTTER SECTION, AND NOT LESS THAN ONE WEEK PRIOR TO THE CONSTRUCTION OF ALL WHEELCHAIR RAMPS, THE CONTRACTOR SHALL VERIFY THAT THE CURB RETURN ELEVATIONS AND THE LOCATION OF THE DEPRESSED SECTION IS CONSTRUCTED IN CONFORMANCE WITH THE DESIGN DRAWINGS. IF THE ABSOLUTE ELEVATION OF ANY OF THE CONTROL POINTS SHOWN IN SIDEWALK RAMP DRAWINGS IS NOT WITHIN .5 INCHES, OR IF THE RELATIVE DIFFERENCE BETWEEN ANY TWO CONTROL POINTS IS NOT WITHIN .125 INCHES, OR IF THE DEPRESSION LOCATION IS NOT WITHIN 1" OF THE DESIGN DRAWINGS, THE CONTRACTOR SHALL EITHER 1) REMOVE AND REPLACE THE NON-COMPLIANT CURB, OR 2) SUBMIT A SHOP DRAWING SHOWING HOW THE RAMP CAN BE CONSTRUCTED TO BE ADA COMPLIANT. IN THE EVENT THAT THE ORIGINAL DESIGN DRAWINGS SHOWED A RAMP WITH ELEMENTS THAT WERE NOT ADA COMPLIANT, THE SHOP DRAWING SHALL SHOW THAT THE PROPOSED ELEMENT IS AS OR MORE ADA COMPLIANT THAN THE ORIGINAL DESIGN DRAWING. IF THIS CANNOT BE ACCOMPLISHED, THE CURB SHALL BE REMOVED AND REPLACED.
2. WHEELCHAIR ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED AT ALL STREET CROSSINGS, MAXIMUM DESIRABLE SLOPE OF RAMPS SHALL BE ONE INCH PER FOOT. MINIMUM WIDTH SHALL BE FOUR FEET, EXCEPT ALONG THOROUGHFARE CORRIDORS WHERE THE WIDTH SHALL BE FIVE FEET. THE MINIMUM ALLOWABLE THICKNESS FOR WHEELCHAIR ACCESSIBLE CURB RAMPS SHALL BE SIX INCHES. CURBS AT RAMP LOCATIONS MUST PROVIDE A GRADUAL TRANSITION FROM GUTTER LINE TO BACK OF CURB, NOT EXCEEDING ONE INCH IN HEIGHT OR SLOPES OF GREATER THAN ONE INCH PER FOOT. SIDE SLOPES OF RAMPS SHALL NOT EXCEED ONE INCH PER FOOT WHERE SUCH SIDE SLOPES ARE IN THE NORMAL PATH OF PEDESTRIANS. ADJACENT PORTIONS OF SIDEWALK, IF THE STREET CURB HAS NOT BEEN CONSTRUCTED TO RECEIVE THE SIDEWALK RAMP, THE SIDEWALK CONSTRUCTOR SHALL REMOVE A SECTION OF THE CURB AND RECONSTRUCT AS REQUIRED.
3. RAMPS SHALL BE CONSTRUCTED WITH OR WITHOUT A DETECTABLE WARNING SURFACE AS SPECIFIED ON THE PLANS.

LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCSHEE JR.

KS PE 20773

CONSTRUCTION DOCUMENTS

CIVIL SPECIFICATIONS

R PARK – PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

0319001.04

BOOK AND PAGE

SHEET

C11

L:\Engineering\0319001.04 - Roadwork\KANSAS\CONSTRUCTION DRAWINGS\0319001.04 - SPECIFICATIONS.dwg, 1/27/2020 4:00:05 PM, JAMIE RYNEARSON

CONCRETE CURB AND GUTTER

1. SECTION 2209 OF THE APWA STANDARD SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF CONCRETE CURB AND GUTTER.
2. REINFORCEMENT FOR CURB AND GUTTER SHALL BE THREE NO. 4 BARS IN ACCORDANCE WITH "CONCRETE REINFORCEMENT."
3. CONCRETE FOR CURB AND GUTTER SHALL BE IN ACCORDANCE WITH "CONCRETE CONSTRUCTION".

CONSTRUCTION REQUIREMENTS CONCRETE PLACEMENT

4. A SLIP FORM CURB MACHINE, WITH ELECTRONIC CONTROL, SHALL BE REQUIRED ON ALL CONTINUOUS CURB CONSTRUCTION OF LENGTHS GREATER THAN 100 FEET.
5. THE CONCRETE SHALL NOT BE PLACED UNTIL THE SUBGRADE HAS BEEN INSPECTED FOR COMPACTION AND MOISTURE. THE CONCRETE SHALL BE CONSOLIDATED WITH AN APPROVED INTERNAL TYPE VIBRATOR. THE SURFACE SHALL BE SHAPED BY USE OF A STEEL TOOL TO PRODUCE THE SECTIONS SHOWN ON THE DRAWINGS. THE EDGES SHALL BE ROUNDED WITH EDGERS TO FORM THE RADII INDICATED ON THE DRAWINGS. THE SURFACES SHALL BE FINISHED WITH A WOODEN OR METALLIC FLOAT AND BRUSHED.
6. ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH THE "CONCRETE CONSTRUCTION" SPECIFICATION.

REINFORCEMENT

7. NO REINFORCEMENT SHALL BE REQUIRED WHEN CURB AND GUTTER IS LAID ON FOUR INCHES OR MORE OF ASPHALTIC CONCRETE BASE.

JOINTS

8. ALL JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE CURBING.
9. EXPANSION JOINTS SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLET TRANSITIONS, AND AT INTERVALS NOT TO EXCEED 250 FEET. THE EXPANSION JOINTS SHALL CONSIST OF ONE-HALF INCH PRE-MOLDED BITUMINOUS, NON-EXTRUDING AND RESILIENT EXPANSION JOINT MATERIAL CUT TO THE CONFIGURATION OF THE CURB SECTION. THE MATERIAL SHALL EXTEND THROUGH THE FULL CURB SECTION. THE EDGES OF THE JOINTS SHALL BE ROUNDED WITH AN EDGING TOOL OF ONE-QUARTER INCH RADIUS.
10. CURBING SHALL HAVE CONTRACTION JOINTS FORMED AT 15 FEET INTERVALS. THEY SHALL EXTEND ACROSS THE ENTIRE CURB SECTION THE CUT SHALL BE APPROXIMATELY 1/4-INCH-WIDE, AND THE DEPTH SHALL BE ONE-THIRD THE THICKNESS OF THE CURB (MINIMUM) OR AS SHOWN IN THE PLANS. THE CONTRACTION JOINTS MAY BE FORMED BY ANY APPROVED METHOD. IF SAWING JOINTS, THE CONTRACTOR SHALL BEGIN AS SOON AS THE CONCRETE HARDENS SUFFICIENTLY TO PREVENT EXCESSIVE RAVELING ALONG THE SAW CUT AND SHALL FINISH BEFORE CONDITIONS INDUCE UNCONTROLLED CRACKS, REGARDLESS OF THE TIME OR WEATHER.

LINE AND GRADE

11. THE NEW CONCRETE CURB AND GUTTER SHALL BE ACCURATELY PLACED IN ACCORDANCE WITH THE LINE AND GRADE AS ESTABLISHED BY THE ENGINEER. CURBS SHALL BE FORMED TO THE CROSS SECTION AS SHOWN ON THE DRAWINGS WITH A MULE; OR TEMPLATES SUPPORTED ON THE SIDE FORMS AND WITH A FLOAT NOT LESS THAN 4 FEET IN LENGTH, FOR HAND PLACED CURB.
12. THE FINISHED SURFACE OF THE CURB AND GUTTER SHALL BE CHECKED FOR NO MORE THAN 1/4-INCH DEVIATION, BY THE USE OF A 10-FOOT STRAIGHTEDGE, AND CORRECTED IF NECESSARY. WHERE GRADES ARE FLAT AND WHILE THE CONCRETE IS STILL PLASTIC, THE DRAINAGE OF THE GUTTER SHOULD BE CHECKED WITH A 4-FOOT CARPENTER'S LEVEL.

FINISH

13. THE SURFACES OF CURB AND GUTTER SHALL BE FINISHED WITH A WOODEN OR STEEL FLOAT AND BROOMED. BROOMING SHALL BE PERPENDICULAR TO THE CURB LINE. THE BROOMING OPERATION SHALL BE SO EXECUTED THAT THE MARKS WILL BE UNIFORM IN APPEARANCE AND NOT MORE THAN ONE-SIXTEENTH INCH IN DEPTH. BROOMING SHALL BE COMPLETED BEFORE THE CONCRETE IS IN SUCH CONDITION THAT IT WILL BE TORN OR UNDULY ROUGHENED AND BEFORE THE CONCRETE HAS ATTAINED ITS INITIAL SET.

CURING AND BACKFILLING

14. CONCRETE CURBS SHALL BE CURED IN ACCORDANCE WITH "CONCRETE CONSTRUCTION."
15. BACKFILLING OPERATIONS SHALL NOT COMMENCE PRIOR TO THE COMPLETION OF THE CURING PERIOD, OR UNTIL THE CONCRETE ATTAINS 75% DESIGN STRENGTH, AS SHOWN BY COMPRESSIVE TESTS OF FIELD CURED CYLINDERS. ALL BACKFILL MATERIAL SHALL CONSIST OF SOIL SUITABLE FOR VEGETATION. THE AREA SHALL BE PREPARED SUCH THAT SOD CAN BE PLACED ON BARE SOIL.

DRIVEWAYS

1. CONCRETE SHALL BE CLASSIFIED AS KCMMB 4K IN ACCORDANCE WITH "CONCRETE CONSTRUCTION."
2. ALL CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED ON A PREPARED SUBGRADE, COMPACTED TO 95% FOR A DEPTH OF 6 INCHES IN CUT SECTIONS, AND TO A DEPTH OF 18 INCHES IN FILL SECTIONS.
3. WHERE CONSTRUCTION REQUIRES THE REMOVAL AND REPLACEMENT OF EXISTING CONCRETE DRIVEWAYS, SUCH REMOVAL SHALL BE ACCOMPLISHED BY FIRST SAWING THE EXISTING DRIVEWAY AS SHOWN ON THE PLANS, AND REMOVING ALL MATERIAL TO BE REPLACED. A ONE-HALF INCH (1/2") PRE-MOLDED EXPANSION JOINT SHALL BE INSTALLED AT THE SAWED JOINT, AND THE DRIVEWAY AND DRIVE APRON REPLACED WITH CONCRETE. CONCRETE DRIVEWAYS SHALL BE REPLACED TO A MINIMUM THICKNESS OF 6 INCHES, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN THE SECTION BEING REPLACED, AND IT SHALL INCLUDE WIRE MESH IF THE EXISTING DRIVEWAY IS SO REINFORCED. IF WIRE MESH IS USED, IT SHALL BE 6 INCH X 6 INCH #6 WWF PROVIDED IN SHEET FORM. ROLLED WIRE MESH SHALL NOT BE ALLOWED. ALL CONCRETE SHALL CONFORM TO KCMMB 4K CONCRETE AS DEFINED IN THESE SPECIFICATIONS. DRIVEWAYS SHALL RECEIVE A NONSLIP FINISH OBTAINED BY A WOOD FLOAT AND HAIR BRUSH OR BROOM APPLIED TRANSVERSE TO THE CENTERLINE OF THE DRIVEWAY.
4. ALL JOINTS IN CONCRETE DRIVEWAYS SHALL BE TOOLED, OR AS APPROVED BY THE ENGINEER. JOINTS SHALL BE TOOLED AFTER BROOMING TO PROVIDE A "PICTURE FRAME" APPEARANCE.

STORM SEWER PIPE

1. ALL STORM SEWER MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH APWA SECTION 2600.

DRAINAGE STRUCTURES

1. THIS SECTION COVERS STRUCTURES APPURTENANT TO THE STORM SEWER SYSTEM. THESE STRUCTURES INCLUDE INLETS, MANHOLES, AND JUNCTION BOXES.

CONCRETE CONSTRUCTION

2. ALL NEW INLETS AND JUNCTION BOXES SHALL BE CONSTRUCTED OF CONCRETE IN ACCORDANCE WITH CONCRETE REINFORCEMENT AND CONCRETE SECTION.
3. INLET TOPS SHALL HAVE LIGHT BROOM FINISH.
4. CURB TRANSITIONS SHALL HAVE BROOM FINISH. CONTRACTION JOINTS SHALL BE CUT WHERE SHOWN. CUT EACH A MINIMUM OF ¼ OF THE CONCRETE DEPTH AND FINISH WITH JOINT TOOL.
5. CONCRETE STRUCTURES MAY BE CAST IN PLACE, OR PRECAST, IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.
6. CONNECTIONS TO EXISTING PIPES SHALL BE MADE WITH A CONCRETE COLLAR WITH KCMMB 4K CONCRETE AND ANY EXISTING PIPE THAT REQUIRES REPLACING SHALL BE DONE SO SUBSIDIARY TO THE PIPE INLET CONNECTION.

PRECAST INLETS AND JUNCTION BOXES

7. PRECAST CONCRETE INLETS AND JUNCTION BOXES SHALL BE CONSTRUCTED IN ALL RESPECTS, IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, EXCEPT AS PROVIDED IN THE FOLLOWING ITEMS OF THIS SUBPARAGRAPH. THE USE OF PRECAST STRUCTURES WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO MAKE ANY ADJUSTMENTS TO THE STRUCTURES FOUND TO BE NECESSARY BECAUSE OF FIELD UTILITY CONFLICTS OR OTHER FIELD CONDITIONS. MODIFICATION OF PRECAST STRUCTURES, IF ALLOWED BY THE ENGINEER OR SUBSTITUTION OF AN APPROVED STRUCTURE TO MEET FIELD CONDITIONS SHALL BE ENTIRELY AT THE CONTRACTOR'S EXPENSE.
8. ALL APPLICABLE REQUIREMENTS OF ASTM C-478 SHALL APPLY TO THE MANUFACTURE OF PRECAST CONCRETE MANHOLES.
9. THE MANUFACTURER OF PRECAST CONCRETE INLETS AND JUNCTION BOXES SHALL SUBMIT DETAILED DRAWINGS AND SPECIFICATIONS, FOR THE CONSTRUCTION OF THE BASIC PRECAST UNITS AND APPURTENANCES TO THE ENGINEER, FOR PRIOR APPROVAL. A SHOP DRAWING FOR EACH STRUCTURE SHOWING DIMENSIONS, ELEVATIONS AND OPENINGS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURING OF THE UNITS. THE CONTRACTOR SHALL VERIFY ALL TOP OF INLET AND MANHOLE ELEVATIONS PRIOR TO CONSTRUCTION OF THE STRUCTURES.
10. MULTIPLE PRECAST UNITS MAY ONLY BE USED AS SPECIFIED ON THE PLANS, OR WITH APPROVAL OF THE ENGINEER. WHERE DIVIDING WALLS ARE USED OR WHERE MULTIPLE PRECAST UNITS ARE USED, THE TOTAL NET LENGTH OF OPENING SHALL EQUAL THE LENGTH OF INLET SPECIFIED ON THE PROJECT PLANS. INTERMEDIATE WALL OPENINGS SHALL BE LARGE ENOUGH SO AS TO NOT CAUSE HYDRAULIC HEAD LOSS. LOCATION AND NUMBER OF MANHOLE OPENINGS, AS WELL AS OPENINGS IN WALLS BETWEEN MULTIPLE UNITS OR IN DIVIDING WALLS, SHALL BE AS REQUIRED TO PROMOTE EASY ACCESS TO ALL PARTS OF THE INLET, SUBJECT TO THE ENGINEER'S APPROVAL.
11. UNLESS OTHERWISE NOTED ON THE PLANS, CONCRETE BASE SLABS FOR PRECAST STRUCTURES SHALL BE CONSTRUCTED MONOLITHIC WITH THE WALLS. THE BASE SLAB SHALL BE REINFORCED IN ACCORDANCE WITH THE PROJECT PLANS, AND THE BOTTOM OF THE BASE SLAB SHALL BE LOCATED TO PROVIDE AT LEAST 4" OF CLEARANCE BETWEEN THE BOTTOM OF THE LOWEST PIPE AND THE TOP OF THE BASE SLAB.
12. MASTIC PIPE JOINT COMPOUND, OR APPROVED PREFORMED MASTIC, SHALL BE USED IN HORIZONTAL JOINTS AND WHERE WALLS OF MULTIPLE SECTIONS JOIN, IN ORDER TO FORM A REASONABLY WATERTIGHT STRUCTURE.
13. ALL CURB INLET, AREA INLET, AND SHALLOW MANHOLE TOP SLABS SHALL BE CAST IN PLACE. WALL STEEL SHALL BE EXTENDED A MINIMUM OF 4.5" INTO THE TOP SLAB FOR 6" THICK CURB INLET TOPS, AND 6.5" FOR 8" THICK MANHOLE TOP SLABS.

MATERIALS FOR MORTAR

14. PORTLAND CEMENT TYPE 1
15. HYDRATED LIME ASTM DESIGNATION C 207, TYPE N.
16. MASONRY CEMENT AASHTO DESIGNATION M 150, TYPE II.
17. SAND. PER KCMMB SPECIFICATIONS.

18. WATER. POTABLE, PER KCMMB SPECIFICATIONS.
19. IRON OXIDE FOR EXPANDING GROUT. EMBECO BY MASTER BUILDERS CO., OR EQUAL.

MORTAR OR PLASTER

20. THE INGREDIENTS SHALL BE PROPORTIONED AS FOLLOWS:

	WEIGHTS	VOLUME
PORTLAND CEMENT	94#	1
HYDRATED LIME	10#	0.15
SAND	200#	3

21. MASONRY CEMENT MAY BE SUBSTITUTED FOR PORTLAND CEMENT AND HYDRATED LIME, PROVIDING SATISFACTORY RESULTS ARE OBTAINED. PROPORTION BY VOLUME SHALL BE ONE (1) PART MASONRY CEMENT TO THREE (3) PARTS SAND.
22. ALL THE MATERIALS EXCEPT WATER SHALL BE MIXED, EITHER IN A TIGHT BOX OR IN AN APPROVED MORTAR MIXER, UNTIL THE MIXTURE ASSUMES A UNIFORM COLOR, AFTER WHICH THE WATER SHALL BE ADDED AND THE MIXING CONTINUED. SUFFICIENT WATER SHALL BE ADDED TO PRODUCE A MORTAR OF SUCH CONSISTENCY THAT IT CAN BE HANDLED EASILY AND SPREAD WITH A TROWEL. MORTAR SHALL BE MIXED ONLY IN THOSE QUANTITIES REQUIRED FOR IMMEDIATE USE. MORTAR THAT IS NOT USED WITHIN 45 MINUTES AFTER WATER HAS BEEN ADDED SHALL BE DISCARDED. RETEMPERING OF MORTAR WILL NOT BE PERMITTED.
23. WORK INVOLVING MORTAR OR PLASTER SHALL NOT BE DONE IN FREEZING WEATHER AND SHALL BE PROTECTED FROM FREEZING FOR THREE DAYS AFTER CONSTRUCTION.
24. EXPANDING MORTAR OR GROUT PROPORTION, MIX AND USE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

WATER TIGHTNESS

25. ALL STRUCTURES SHALL BE CONSTRUCTED SUBSTANTIALLY WATER TIGHT. ALL OBVIOUS LEAKS SHALL BE REPAIRED.
26. CURING SEAL, MOIST CURE OR SHADE SHALL BE USED, WHEN REQUIRED, TO ACCOMPLISH THESE RESULTS AND TO PROVIDE A WATERTIGHT STRUCTURE.
27. MASONRY AND MORTAR AROUND PIPE SHALL BE CAREFULLY CONSTRUCTED TO PROVIDE WATERTIGHT CONNECTIONS.

SETTING TOP CASTINGS

28. TOP CASTINGS FOR ALL STRUCTURES WITH A CONCRETE TOP SLAB SHALL BE CAST IN THE SLAB AT THE TIME OF POURING.
29. TOP CASTINGS FOR MANHOLES SHALL BE SET IN FULL MORTAR BED AND TO REQUIRED ELEVATION AND SLOPE.
30. TOP SHALL BE SHALL BE SET FLUSH, AND ON SAME SLOPE, WITH FINISHED PAVEMENTS OR WALKS. IN NEWLY DEVELOPED AREAS, SET TOP TO DESIGNED STREET SURFACE.
31. IN ESTABLISHED LAWNS, SET TOPS APPROXIMATELY 1 INCH ABOVE NORMAL GRADE AND SLOPE AWAY FROM MANHOLE AT 1 ON 10 SLOPE.

MISCELLANEOUS

32. STEEL ITEMS: ASTM A7 OR A36. PAINTING OR GALVANIZING, AS REQUIRED BY THE PLANS.
33. CAST IRON ITEMS: ASTM A48, CLASS 35, GRAY IRON, EXCEPT FOR THE BURIED PORTION OF MANHOLE STEPS, COAT WITH COAL TAR PITCH, 2 COATS, AT FOUNDRY. CASTINGS SHALL FIT TOGETHER PROPERLY, MATING SURFACES SHALL BE MACHINED, AND BE NON-ROCKING UNDER MOVING LOADS.

SODDING

1. ALL SEEDING AND SODDING INCLUDING MATERIALS, EQUIPMENT, AND MAINTENANCE SHALL BE IN ACCORDANCE WITH APWA SECTION 2400.
2. ACCEPTANCE. INITIAL ACCEPTANCE SHALL BE GIVEN TO THE GENERAL CONTRACTOR BY THE OWNER OR THEIR REPRESENTATIVE UPON SATISFACTORY COMPLETION OF EACH SECTION OR AREA AS INDICATED ON THE DRAWINGS OR AS OTHERWISE SPECIFIED. FINAL ACCEPTANCE WILL BE MADE BY THE OWNER OR THEIR REPRESENTATIVE AT LEAST 30 DAYS AFTER INSTALLATION.
3. SOD PLACED OUT OF SEASON: PAYMENT FOR SOD PLACED OUT OF SEASON WILL BE DEFERRED UNTIL THE SOD HAS BEEN ACCEPTED AFTER AN INSPECTION AT THE APPROPRIATE TIME DURING THE NEXT GROWING SEASON. THE INSPECTION AND ACCEPTANCE WILL CONFORM TO THIS SECTION.

WATERING

4. THE GENERAL CONTRACTOR SHALL SUPPLY ADEQUATE WATER TO THE SITE. FIRST WEEK: THE CONTRACTOR SHALL PROVIDE ALL LABOR AND ARRANGE FOR ALL WATERING NECESSARY FOR ROOTING OF THE TURFGRASS SOD. SOIL ON SOD PADS SHALL BE KEPT MOIST AT ALL TIMES. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST FOUR INCHES. WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
5. SECOND AND SUBSEQUENT WEEKS: THE CONTRACTOR SHALL WATER THE TURFGRASS SOD AS REQUIRED TO MAINTAIN ADEQUATE MOISTURE IN THE UPPER FOUR INCHES OF SOIL, NECESSARY FOR THE PROMOTION OF DEEP ROOT GROWTH.
6. FLOODING WILL NOT BE PERMITTED.

TIME LIMITATION

7. DURATION OF MAINTENANCE RESPONSIBILITIES SHALL BE FOR 20 DAYS UNLESS OTHERWISE SPECIFIED.

GUARANTEE

8. ANY PORTION OF THE SOD THAT IS NOT IN GOOD GROWING CONDITION SHALL BE REPLACED WITH FRESH, LIVE SOD IN ACCORDANCE WITH THESE SPECIFICATIONS AND SHALL BE MAINTAINED IN GOOD, LIVE CONDITION UNTIL FINAL ACCEPTANCE OF THE WORK AND AT LEAST 30 DAYS FROM INSTALLATION.

CONCRETE FORM WORK

1. ALL CONCRETE FORM WORK SHALL BE IN ACCORDANCE WITH APWA SECTION 2200.

CONCRETE REINFORCEMENT

1. REINFORCEMENT PLACEMENT AND DETAILING SHALL COMPLY WITH PRACTICE SPECIFIED IN THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" PUBLICATION ACI 315-80 OF THE AMERICAN CONCRETE INSTITUTE OR ITS LATEST REVISION, UNLESS OTHERWISE SPECIFIED HEREIN.
2. ALL REINFORCEMENT SHALL BE FREE FROM RUST, LOOSE MILL SCALE, DIRT COATING, OIL, PAINT, ANY OTHER CONTAMINANTS, OR ANY FOREIGN SUBSTANCE.
3. ALL BARS SHALL BE BILLET STEEL BARS FOR CONCRETE REINFORCEMENT ASTM A615 GRADE 60. ALL REINFORCEMENTS SHALL BE EPOXY COATED.
4. WELDED STEEL WIRE SHALL MEET ASTM A185.
5. ACCESSORIES SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

PLACING

6. ACCURATELY PLACE ALL BARS AND TIE IN PLACE BEFORE PLACING CONCRETE, INCLUDE DOWELS. TIE AT ALL INTERSECTIONS WITH 18 GAUGE STEEL WIRE.
7. CORNER BARS REQUIRED FOR HORIZONTAL REINFORCING. UNLESS OTHERWISE NOTED ON PLANS CORNER BARS SHALL BE SAME SIZE AS HORIZONTAL BAR.
8. PRESERVE CLEARANCE BETWEEN BARS OF 1 INCH MINIMUM, NOT LESS THAN ONE BAR DIAMETER OR 1-1/3 TIMES LARGE AGGREGATE, WHICHEVER IS LARGER.
9. PROVIDE FOLLOWING CONCRETE COVERAGE OVER REINFORCING STEEL UNLESS OTHERWISE INDICATED ON PLANS: THREE INCHES ABOVE SUBGRADE - IN EXCAVATION TWO INCHES ABOVE SUBGRADE - SLAB ON FILL TWO INCHES FROM FORM - WALL EXPOSED TO WATER OR EARTH ONE AND ONE-HALF INCHES FROM FORM - NORMAL COVER INTERIOR WALLS, BEAMS, COLUMNS, ETC. ONE AND ONE-HALF INCH ON TOP STEEL - INTERIOR SLABS ONE AND ONE-HALF INCHES ON TOP AND BOTTOM - EXTERIOR SLAB OR SLAB OVER OR UNDER WATER
10. LAP ALL REINFORCING BARS AS REQUIRED BY ACI 318-77 CLASS B LAP WITH A MINIMUM OF 36 DIAMETERS EXCEPT WHERE OTHERWISE SHOWN OR REQUIRED BY ACI.
11. STAGGER SPLICES EXCEPT WHERE OTHERWISE SHOWN.
12. LAP WELDED WIRE TWO SPACES.
13. ALL DOWELS SHALL BE PLACED AND SECURELY ANCHORED BEFORE PLACING CONCRETE.
14. SECURE ALL REINFORCEMENT IN PLACE USING STEEL CHAIRS, SUPPORTS, Z BARS AND OTHER PRODUCTS FABRICATED FOR THE PURPOSE. SUPPORTS SHALL BE SPACED ADEQUATELY TO SUPPORT THE STEEL FIRMLY IN PLACE. USE SAND PLATES OR OTHER APPROVED PRODUCTS WHEN REINFORCEMENT IS PLACED ON SAND OR EARTH SUBGRADE. CHAIRS WILL NOT BE ACCEPTED TO HOLD REINFORCING CLEARANCE ON WALLS.
15. OPENINGS AND OBSTRUCTIONS: PLACE ONE EXTRA NO. 5 BAR, 4 FEET LONG, DIAGONALLY IN EACH FACE AT CORNERS OF OPENINGS. PLACE NO. 4 HOOP AROUND ALL ROUND OPENINGS.
16. OPENINGS AND OBSTRUCTIONS: BEND REINFORCING AROUND OBSTRUCTIONS. PLACE EXTRA REINFORCING WHERE CUTTING IS AUTHORIZED. ENGINEER'S APPROVAL REQUIRED BEFORE CUTTING STEEL. CONSULT ENGINEER ON SPECIAL SITUATIONS.
17. CERTIFY MATERIAL AND TYPE OF DEFORMATION.

CONCRETE

1. ALL PRODUCING AND PLACING OF CONCRETE SHALL CONFORM TO SECTION 400 OF THE KANSAS STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION.

MATERIALS

2. CEMENT: CEMENTITIOUS MATERIALS SHALL MEET THE REQUIREMENTS OF THE KCMMB.
3. FINE AGGREGATE: AGGREGATE FOR CONCRETE SHALL MEET THE REQUIREMENTS OF THE KCMMB.
4. COARSE AGGREGATE: AGGREGATE FOR CONCRETE SHALL MEET THE REQUIREMENTS OF THE KCMMB.
5. MIXING WATER: MIXING WATER FOR CONCRETE SHALL BE POTABLE AND SHALL MEET THE REQUIREMENTS OF THE KCMMB.
6. AIR-ENTRAINING AGENT: AIR-ENTRAINING AGENTS USED TO PRODUCE SPECIFIED AMOUNTS OF AIR ENTRAINMENT SHALL MEET THE REQUIREMENTS OF THE KCMMB.
7. ADMIXTURES: ADMIXTURES LISTED IN THE KCMMB MIX DESIGN AS "OPTIONAL" WILL BE USED ONLY WITH PRIOR APPROVAL OF THE ENGINEER.
8. REINFORCING STEEL: GENERAL: ALL REINFORCING STEEL SHALL BE DEFORMED BARS AND SHALL COMPLY WITH ASTM DESIGNATION A615, GRADE 40 OR 60. BAR SUPPORTS: ALL BOLSTERS AND CHAIRS SHALL BE IN ACCORDANCE WITH ACI STANDARD 513, AND THOSE USED IN THE UNDERSIDE OF THE TOP SLABS SHALL BE PRE-GALVANIZED. ON SUB-GRADE, SUPPORT ON CONTINUOUS CHAIRS. FABRICATION: FABRICATION OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI STANDARD 315. REQUIREMENTS FOR LAPS, SPACING, EDGE DISTANCE, LENGTH AND BENDING OF BARS ARE GIVEN ON THE PLANS. REINFORCING STEEL SHALL BE PROTECTED FROM DAMAGE AT ALL TIMES. THE BARS SHALL BE FIRMLY TIED AT THE ALTERNATE CROSSINGS, OR CLOSER. THE STEEL SHALL BE TIED IN CORRECT POSITION, POSITIVELY SECURED AGAINST DISPLACEMENT, AND INSPECTED BEFORE ANY CONCRETE IS PLACED. CARE SHALL BE EXERCISED TO MAINTAIN PROPER CLEARANCE BETWEEN THE FORMS AND THE REINFORCEMENT. BARS AT THE TOP OF LIFTS SHALL BE HELD SECURELY IN CORRECT POSITION BY MEANS OF APPROVED METAL BAR SUPPORTS. BEFORE ANY CONCRETE IS PLACED, ANY DRIED MORTAR, LOOSE RUST OR MUD SHALL BE CLEANED FROM THE REINFORCING STEEL.
9. WELDED WIRE FABRIC: ASTM DESIGNATION A-185
10. EXPANSION JOINT FILLER: AASHTO M213

READY MIXED CONCRETE

11. READY MIXED CONCRETE, IN ACCORDANCE WITH ASTM DESIGNATION C-94, SHALL BE USED UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER. ANY CONCRETE WHICH IS NOT PLASTIC AND WORKABLE WHEN PLACED ON THE SUBGRADE OR IN THE FORMS SHALL BE REJECTED.

CONCRETE MIX

12. KCMMB 4K CONCRETE CONSTRUCTION: ALL CONCRETE USED IN CONSTRUCTION OF CURB AND GUTTERS, RETAINING WALLS, CULVERT APRONS, INLETS, JUNCTION BOXES, YARD INLETS, MANHOLES, DITCH LINERS, SIDEWALKS, AND INTEGRAL SIDEWALK RETAINING WALLS SHALL BE CLASSIFIED AS CLASS KCMMB 4K UNLESS OTHERWISE STATED IN THE PLANS.

CURING CONCRETE

13. MAINTAIN CONTINUOUSLY FOR 5 DAYS AFTER PLACING.
14. CONCRETE TEMPERATURE AT LEAST 50° F AND NOT OVER 100° F
15. CONCRETE MOISTURE:

WALLS AND STRUCTURES: COVER WITH 6 MIL POLYETHYLENE FILM AND LEAVE FORMS ON 5 DAYS, EXCEPT AS REQUIRED FOR RUBBING. SLABS: POLYETHYLENE MEMBRANE 4 MIL THICK; LAP JOINTS 6". HOLD DOWN WITH L X 4 AT LAPS AND AT 6 FOOT CENTERS. MEMBRANE TO BE TRANSLUCENT OR WHITE IN HOT WEATHER; BLACK IN COLD WEATHER. PAVEMENT, WALKS, CHANNELS, AND OTHER APPROVED STRUCTURES: SPRAY APPROVED MEMBRANE - ONE (1) GALLON TO 200 SQUARE FEET.

SPECIAL WEATHER CONDITIONS - COLD WEATHER

16. AVERAGE DAILY TEMPERATURES AS DEFINED IN ACI 306.1-90 WILL BE DETERMINED AND RECORDED BY THE CITY.
17. CONCRETE TEMPERATURES WILL BE DETERMINED THROUGH THE USE OF HIGH-LOW THERMOMETERS PLACED AND OPERATED BY THE CONTRACTOR BELOW INSULATED BLANKETS, OR WHERE THE CONCRETE IS UNCOVERED, BY CHECKING AIR TEMPERATURES. UNCOVERED CONCRETE, WHICH HAS BEEN SUBJECTED TO FREEZING TEMPERATURES OF ANY DURATION DURING THE FIRST 24 HOURS WILL BE CONSIDERED "FROZEN," AND SHALL BE REJECTED.
18. THE MONTHS OF DECEMBER, JANUARY AND FEBRUARY WILL BE CONSIDERED "COLD WEATHER" AND WILL REQUIRE CONCRETE PROTECTION, REGARDLESS OF TEMPERATURE.
19. CONCRETE SHALL REACH 75% OF ITS DESIGN STRENGTH PRIOR TO BACKFILLING. THIS STRENGTH CAN BE DETERMINED THROUGH THE USE OF FIELD-CURED CYLINDERS, MADE AND TESTED AT CONTRACTOR'S EXPENSE. CONCRETE MUST HAVE 5 DAYS WHERE THE AVERAGE DAILY TEMPERATURE IS ABOVE 50 DEGREES F PRIOR TO BACKFILLING UNLESS FIELD CURED CYLINDERS ARE TAKEN. THESE DAYS DO NOT NEED TO BE CONSECUTIVE.
20. ALL COVERINGS AND HEATING EQUIPMENT SHALL BE ON HAND PRIOR TO BEGINNING PLACEMENT OF THE CONCRETE.

SPECIAL WEATHER CONDITIONS - HOT WEATHER

21. PLACE CONCRETE WITHIN THE TIME AND TEMPERATURE CONDITIONS SHOWN IN TABLE BELOW.

AMBIENT AIR TEMPERATURE AND AGITATED CONCRETE PLACEMENT TIME		
AT+ AMBIENT AIR TEMPERATURE AT TIME OF BATCHING (F)	SPECIMEN ANGE TIME LIMITED AGITATED CONCRETE MUST BE PLACED WITHIN, AFTER ADDITION	ADMIXTURES
T < 75	1 1/2	NONE
75 ≤	1	NONE
75 < T < 90	1 1/2	SET RETARDER

22. IN ALL CASES, IF THE CONCRETE TEMPERATURE AT TIME OF PLACEMENT IS 90°F OR ABOVE, OR UNDER CONDITIONS CONTRIBUTING TO QUICK STIFFENING OF THE CONCRETE, PLACE THE CONCRETE WITHIN 45 MINUTES OF ADDING THE CEMENT TO THE WATER. DO NOT USE CONCRETE THAT HAS DEVELOPED ITS INITIAL SET. REGARDLESS OF THE SPEED OF DELIVERY AD PLACEMENT, THE ENGINEER WILL SUSPEND THE CONCRETING OPERATIONS UNTIL CORRECTIVE MEASURES ARE TAKEN IF THERE IS EVIDENCE THAT THE CONCRETE CANNOT BE ADEQUATELY CONSOLIDATED.

FORMS - WALL

23. FORMS SHALL BE CONSTRUCTED FROM SURFACE FINISHED PLYWOOD AND 2 X 4 STUDS OR APPROVED MANUFACTURED FORMING SYSTEM. ALL FORM MATERIAL SHALL BE IN FIRST CLASS CONDITION AND WITH MORTAR TIGHT JOINTS. PROVIDE CLEANOUTS AT BOTTOM AND REMOVE DEBRIS.
24. FORMS SHALL BE ERECTED TRUE AND RIGID WITH ADEQUATE BRACING TO INSURE ALIGNMENT. PROVIDE CHAMFER FOR ALL EXPOSED CORNERS.

CONCRETE FINISH

25. ALL CONCRETE SHALL BE FINISHED MONOLITHICALLY. NO "TOPPING" OR "PLASTERING". WALLS EXPOSED TO VIEW SHALL BE RUBBED TO PRODUCE UNIFORM SANDY TEXTURE WITHOUT AIR VOIDS, FINS, FORM MARKS OR OFFSETS. TOPS OF ALL WALLS SHALL BE HARD TROWEL FINISH WITH CHAMFERED CORNERS.
26. PAVEMENT SLAB, GRADE PAVING, INLET TOPS, SIDEWALK, AND EXPOSED SLABS OF STRUCTURES SHALL RECEIVE A LIGHT BROOM FINISH.

JOINTS

27. JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS. UNLESS SHOWN ON THE PLANS, JOINTS SHALL NOT BE CONSTRUCTED UNLESS APPROVED BY THE ENGINEER.
28. ALL CONTRACTION JOINTS SHALL BE MADE WITH GANTED 2 X 4 AT LEAST 2 INCHES FROM WALL FACE. ALL CONSTRUCTION JOINT CONTACT SURFACES SHALL BE FINISHED WITH WOOD FLOAT FINISH.
29. NORMAL GROUT: FURNISH AND INSTALL NORMAL CEMENT GROUT WHERE CALLED FOR ON THE PLANS. MIX TO BE ONE PART SAND TO 2 PARTS CEMENT BY VOLUME. USE MINIMUM WATER REQUIRED FOR WORKABILITY.
30. EXPANDING GROUT: PROPORTION BY WEIGHT L PART NORMAL PORTLAND CEMENT, L PART SAND AND L PART IRONITE COMPOUND SIMILAR AND EQUAL TO EMBECO (MASTER BUILDERS CO.). THOROUGHLY DRY MIX AND ADD A MINIMUM OF WATER TO A STIFF CONSISTENCY AS LIMITED BY PLACING CONDITIONS. FIRMLY PACK MORTAR INTO THE HOLE OR JOINT AND MOIST CURE FOR THREE DAYS.

CONCRETE EQUIPMENT AND PLACING

31. THE CONTRACTOR'S ATTENTION IS CALLED TO THE SIZE OF CONCRETE POURS REQUIRED. HE SHALL HAVE SUFFICIENT CREWS, VIBRATORS AND OTHER EQUIPMENT TO PROPERLY HANDLE SAME SO THAT NO COLD JOINTS WILL BE CREATED AND THAT CONCRETE SURFACES WILL BE KEPT "ALIVE". THE ENGINEER SHALL BE ADVISED IN ADVANCE OF THE EQUIPMENT TO BE USED.
32. BEFORE DELIVERY OF CONCRETE THE CONTRACTOR SHALL HAVE MADE ALL NECESSARY PREPARATIONS AND SHALL HAVE ALL NECESSARY ITEMS ON HAND NOT ONLY FOR PROPER PLACING BUT FOR COVERING, CURING, HEATING, FINISHING, RUBBING AND/OR AS REQUIRED TO PERFORM IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. FAILURE TO BE PROPERLY PREPARED MAY RESULT IN INABILITY TO PERFORM PROPERLY AND CONSEQUENT REJECTION OF THE WORK.
33. ANY CONCRETE DAMAGED BY THE CONTRACTOR'S EQUIPMENT, OR BY OTHER MEANS DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE

LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.

KS PE 20773

CONSTRUCTION DOCUMENTS

SPECIFICATIONS

R PARK - PHASE 1
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

0319001.04

BOOK AND PAGE

SHEET

C12



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

ALTERNATES PLAN

REVISIONS

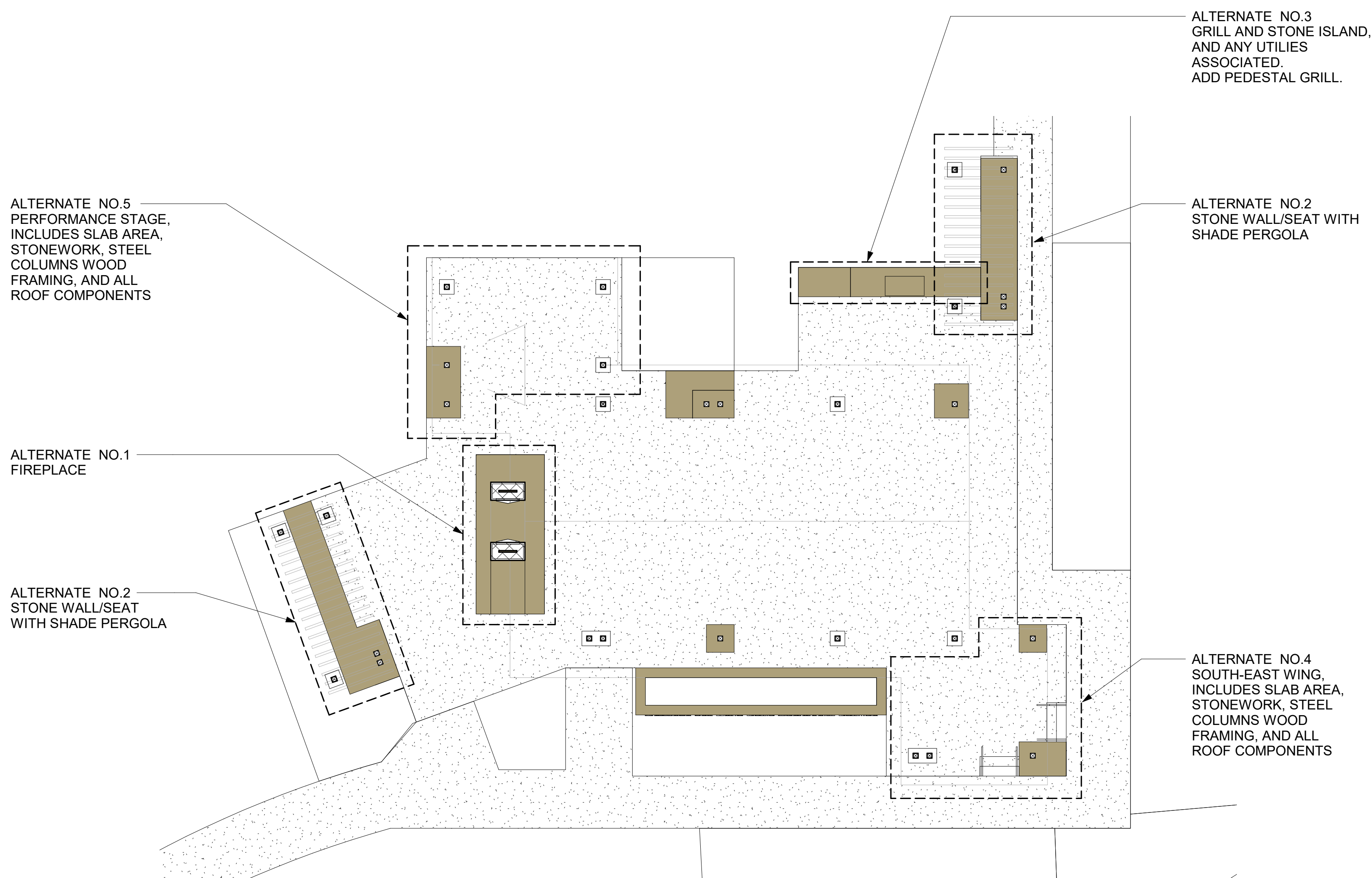
DESIGNER / DRAFTER

DATE 1-15-2020

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

G1



① ALTERNATES PLAN - PAVILION
1/8" = 1'-0"



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

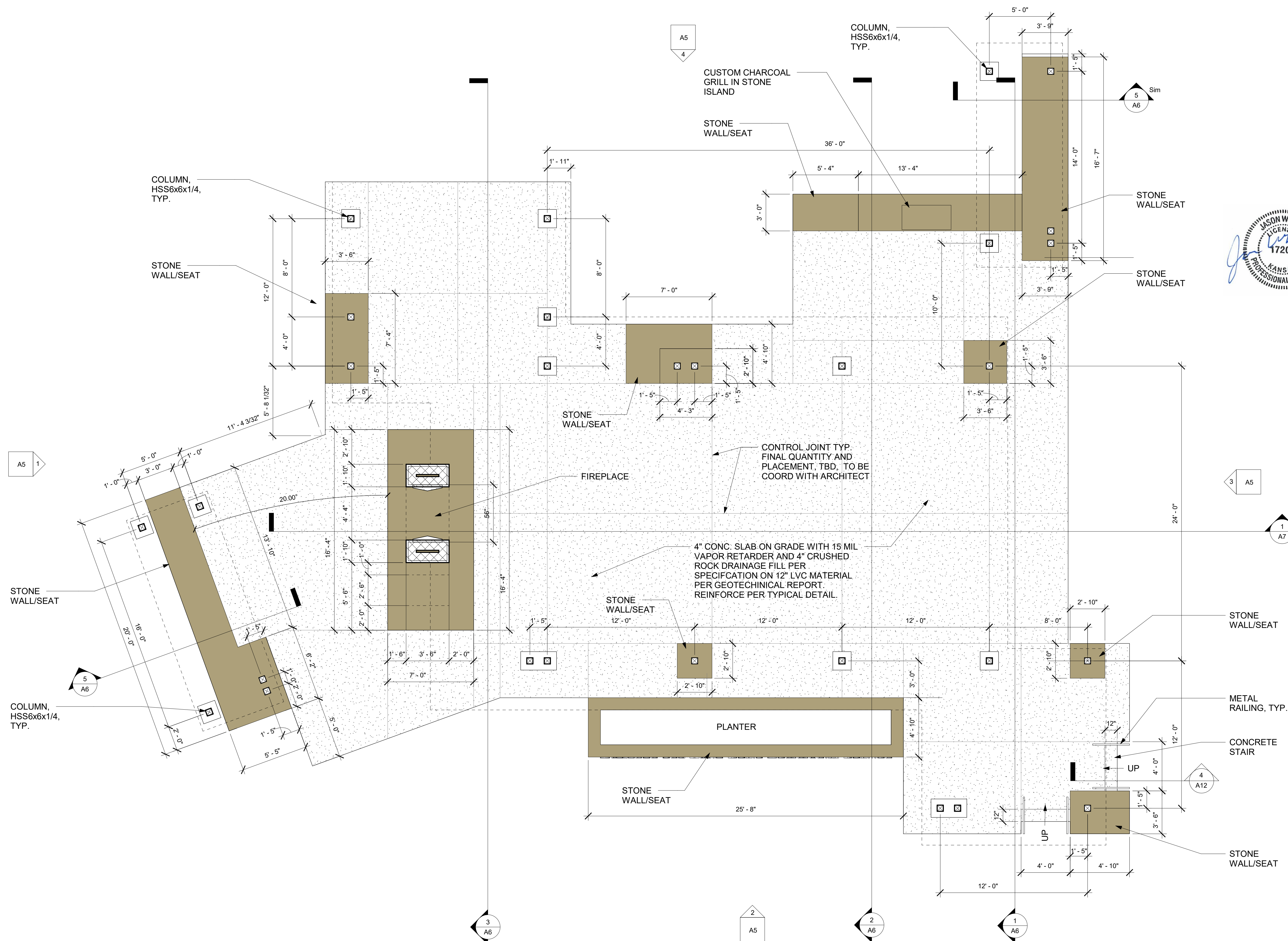
FLOOR PLAN

REVISIONSDESIGNER / DRAFTER

DATE 1-15-2020

BOOK AND PAGEMISSOURI AUTHORIZATION NUMBER

A1



① FLOOR PLAN - PAVILION
1/4" = 1'-0"



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSASREFLECTED
CEILING PLAN

REVISIONS

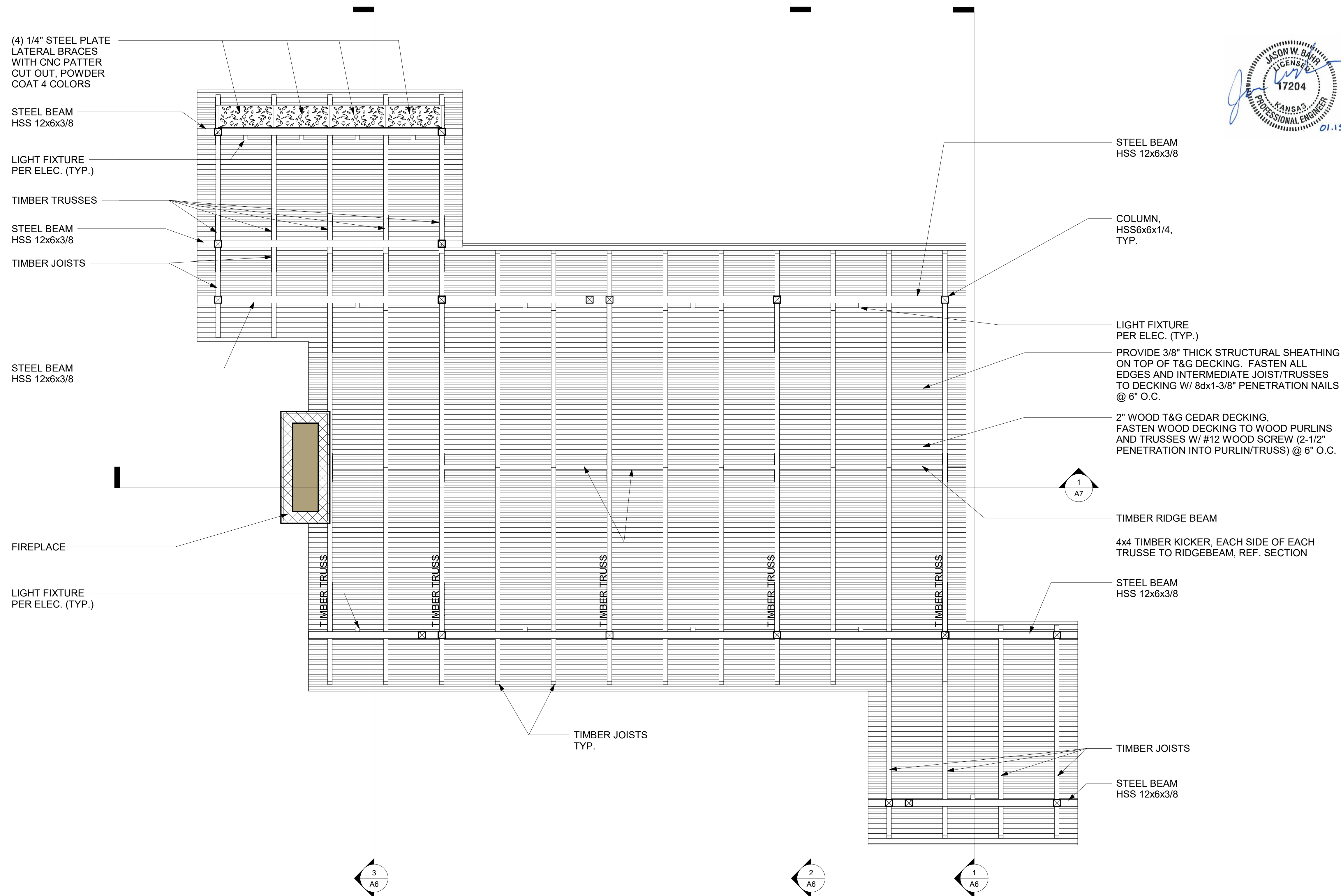
DESIGNER / DRAFTER

DATE 1-15-2020

BOOK AND PAGE

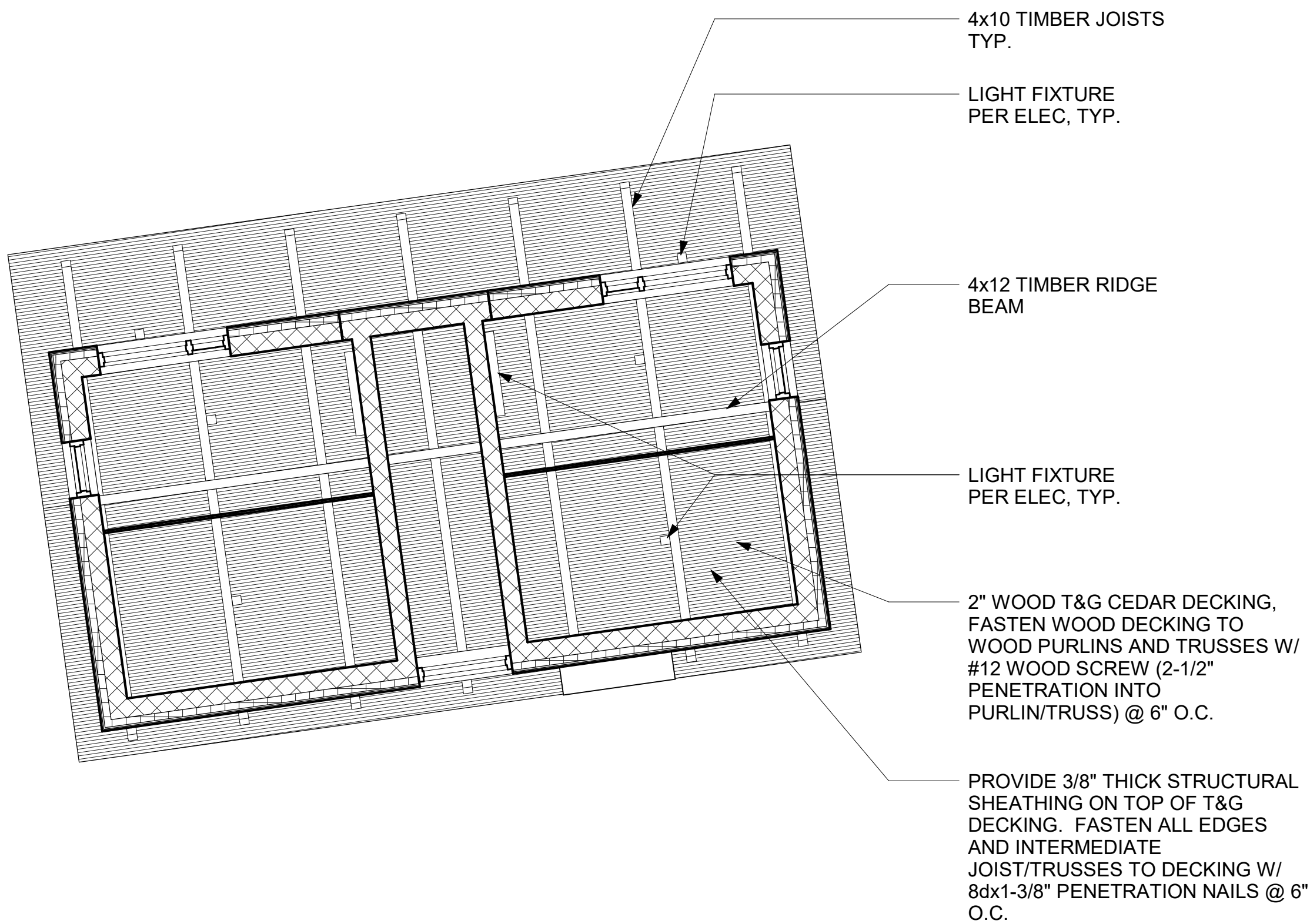
MISSOURI AUTHORIZATION NUMBER

A2

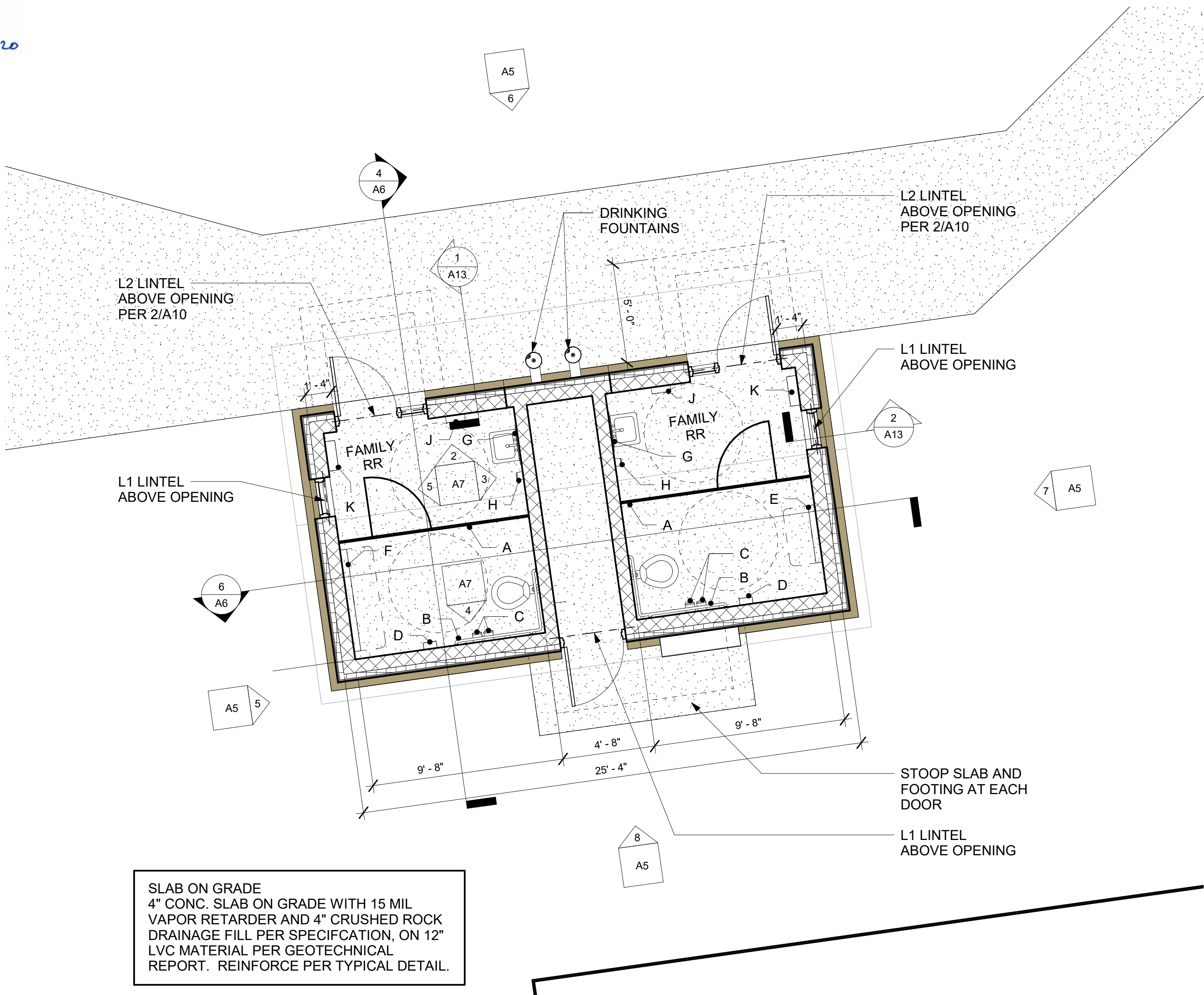


① REFLECTED CEILING PLAN - PAVILION
1/4" = 1'-0"

\\hp-na\cvs-rynearson\projects\1000\1000.dwg - 8 Rev - Phase 1\CD\1000.dwg, 5/13/2019 10:02 PM, JERRY KUPP, LAMP RYNEARSON



2 REFLECTED CEILING PLAN -
RESTROOMS
1/4" = 1'-0"



1 FLOOR PLAN - RESTROOMS
1/4" = 1'-0"

BATHROOM ACCESSORIES

A	TOILET PARTITIONS	BRADLEY, SERIES 400 ,STAINLESS STEEL, SENTIEL OVERHEAD BREACED
B	GRAB BARS	BRADLEY, SERIES 812, 1-1/2" DIA. STAINLESS STEEL, WITH CONCEALED MOUNTING
C	TOILET PAPER DISPENSER	BRADLEY, SERIES 5A10, STAINLESS STEEL, SURFACE MOUNTED
D	NAPKIN DISPOSAL	BRADLEY, SERIES 4791-11, STAINLESS STEEL, SURFACE MOUNTED WITH SHELF
E	BABY CHANGE STATION	FOUNDATIONS, MODEL 100-SSC-SM, STAINLESS STEEL, SURFACE MOUNT
F	ADULT CHANGE STATION	FOUNDATIONS, MODEL 100-SSE-SM, STAINLESS STEEL, SURFACE MOUNT
G	MIRROR	BRADLEY, SERIES 740 FIXED TILT
H	SOAP DISPENSER	BRADLEY, SERIES 6A01, STAINLESS STEEL, FOAM SOAP DISPENSER
J	HAND DRYER	BRADLEY, SERIES 2923 STAINLESS STEEL, HIGH SPEED DUFACE MOUNT
K	TRASH CAN	BRADLEY, SERIES 3565 STAINLESS STEEL, 12 GALLON WASTE RECEPTACLE

**LAMP
RYNEARSON**

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

**hollis
miller** architects

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

FLOOR PLAN

REVISIONS

DESIGNER / DRAFTER

DATE
1-15-2020

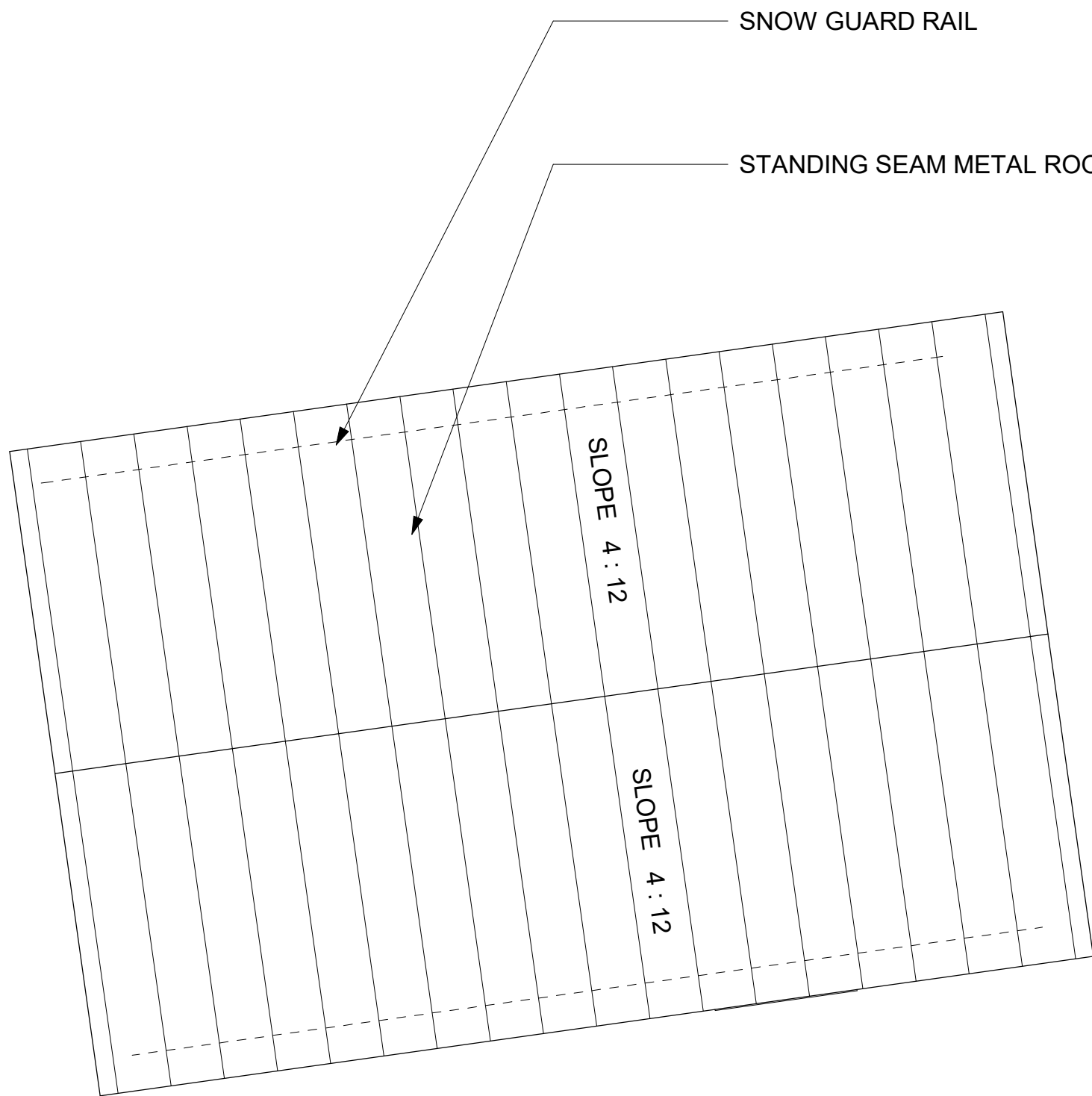
PROJECT NUMBER

BOOK AND PAGE

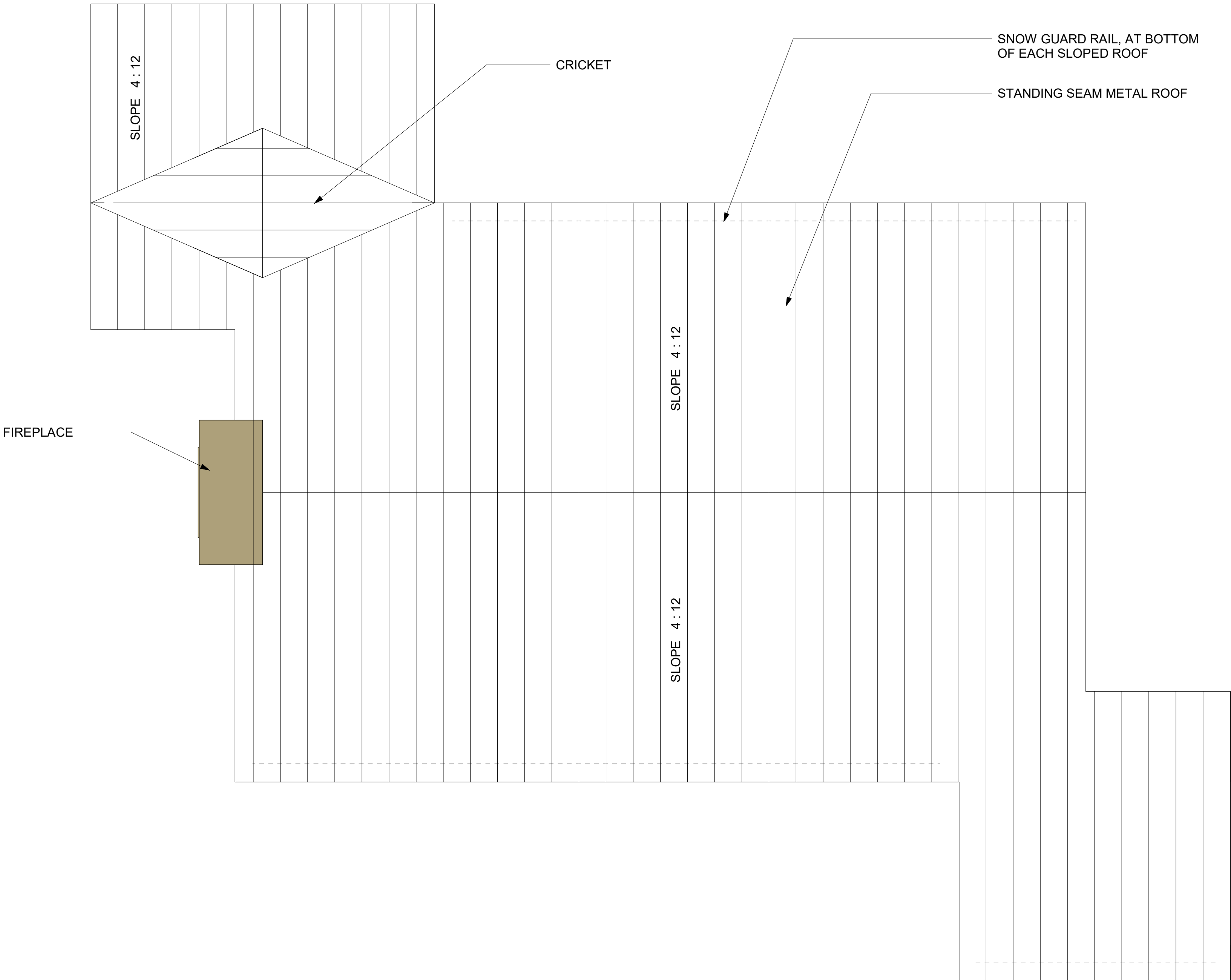
MISSOURI AUTHORIZATION NUMBER

A3

V:\proj-2020\2020-001\2020-001.dwg - 8 Rev - Phase 1\2020-001.dwg - 2020-001.dwg - 5/13/2020 PM, 2020-001.dwg - LAMP RYNEARSON



2 ROOF PLAN - RESTROOMS
1/4" = 1'-0"



1 ROOF PLAN - PAVILION
1/4" = 1'-0"

LAMP
RYNEARSON

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

hollis architects
miller

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

ROOF PLANS

REVISIONS

DESIGNER / DRAFTER

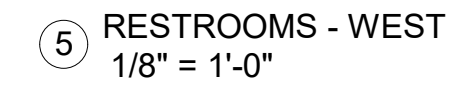
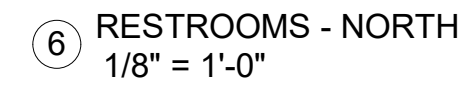
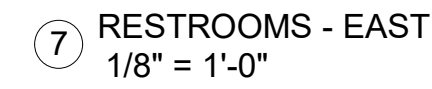
DATE
1-15-2020

PROJECT NUMBER

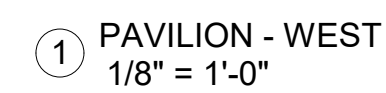
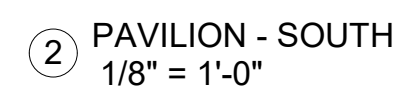
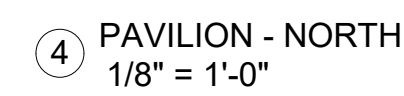
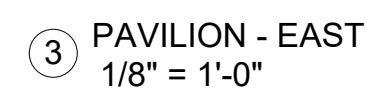
BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A4



- STONE: WINTERSET LIMESTONE
- CAST STONE: ROCKCAST, FLAX, WET CAST AS REQUIRED.
- SIDING: FIBERON HORIZON, IPE AND CASTLE GREY
- PATTERN GLASS: BENDHEIM, HOUDINI



A5



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

BUILDING SECTIONS

REVISIONS

DESIGNER / DRAFTER

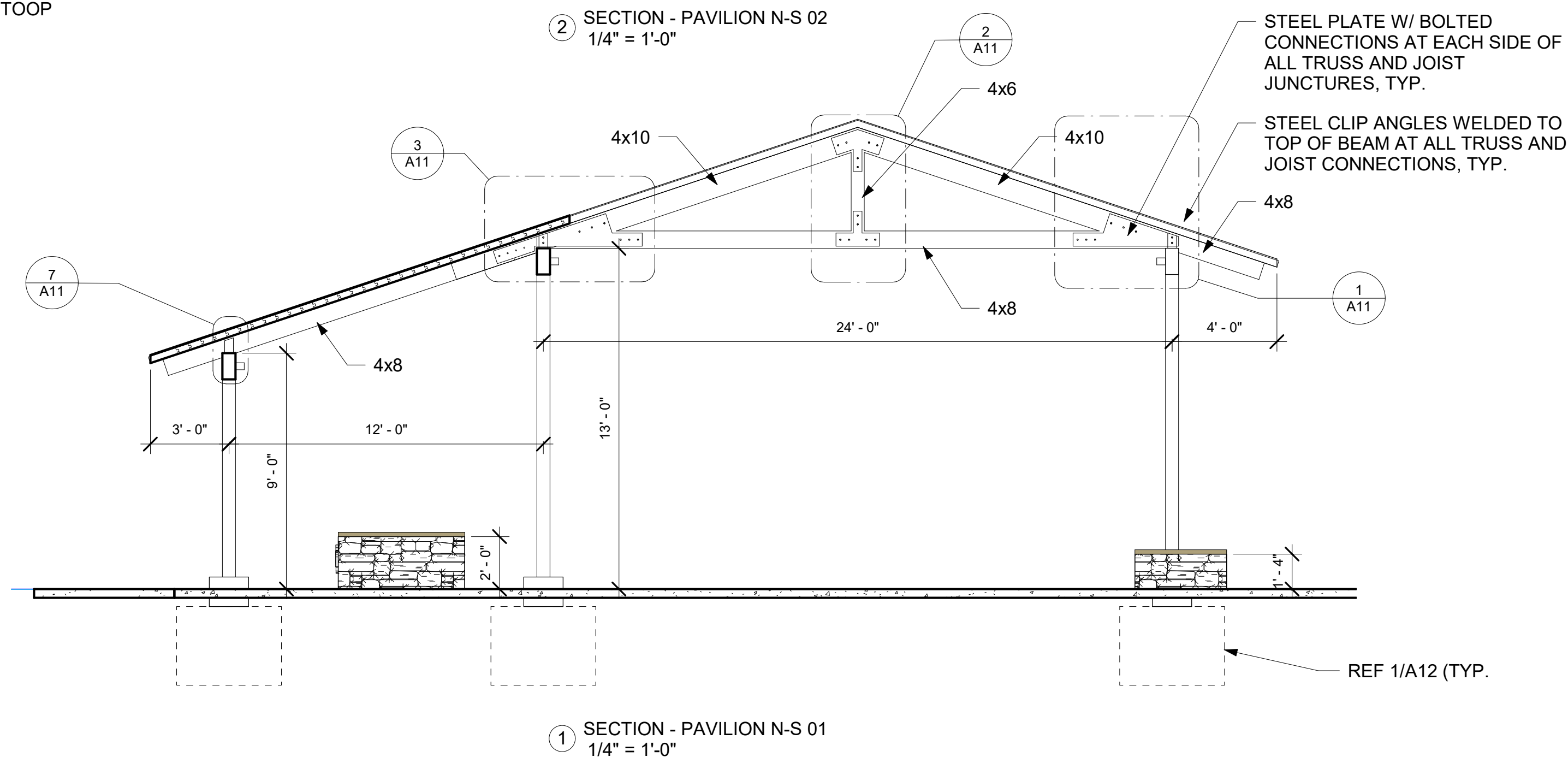
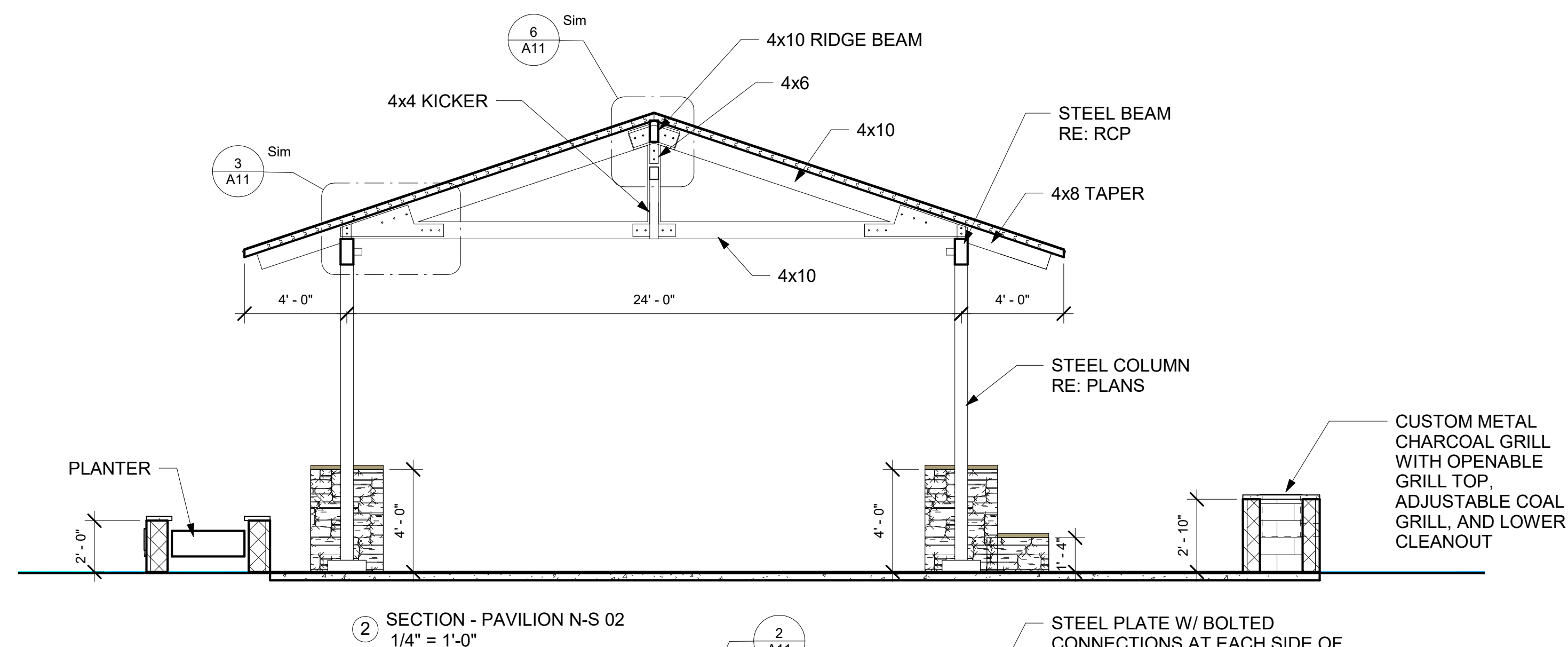
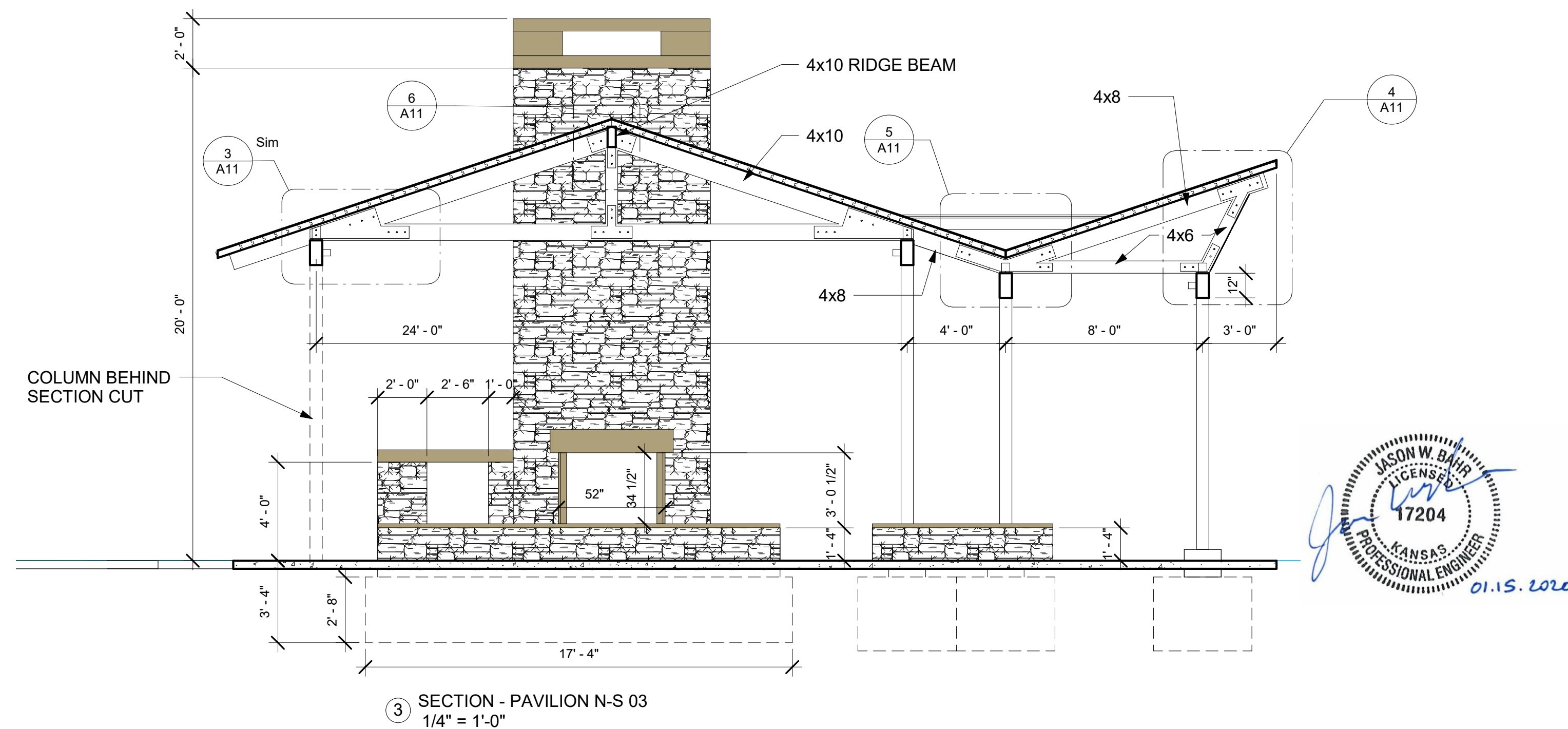
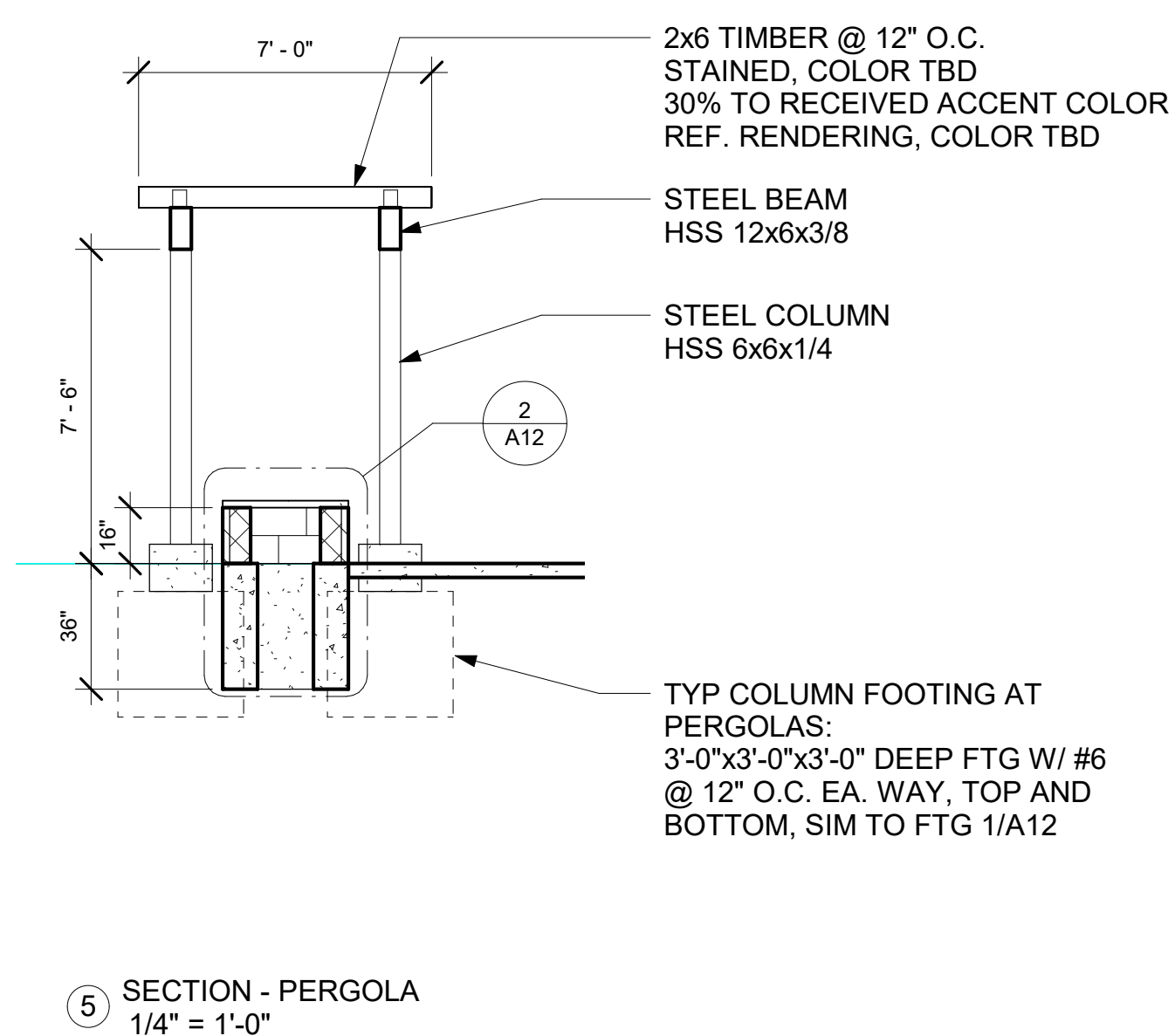
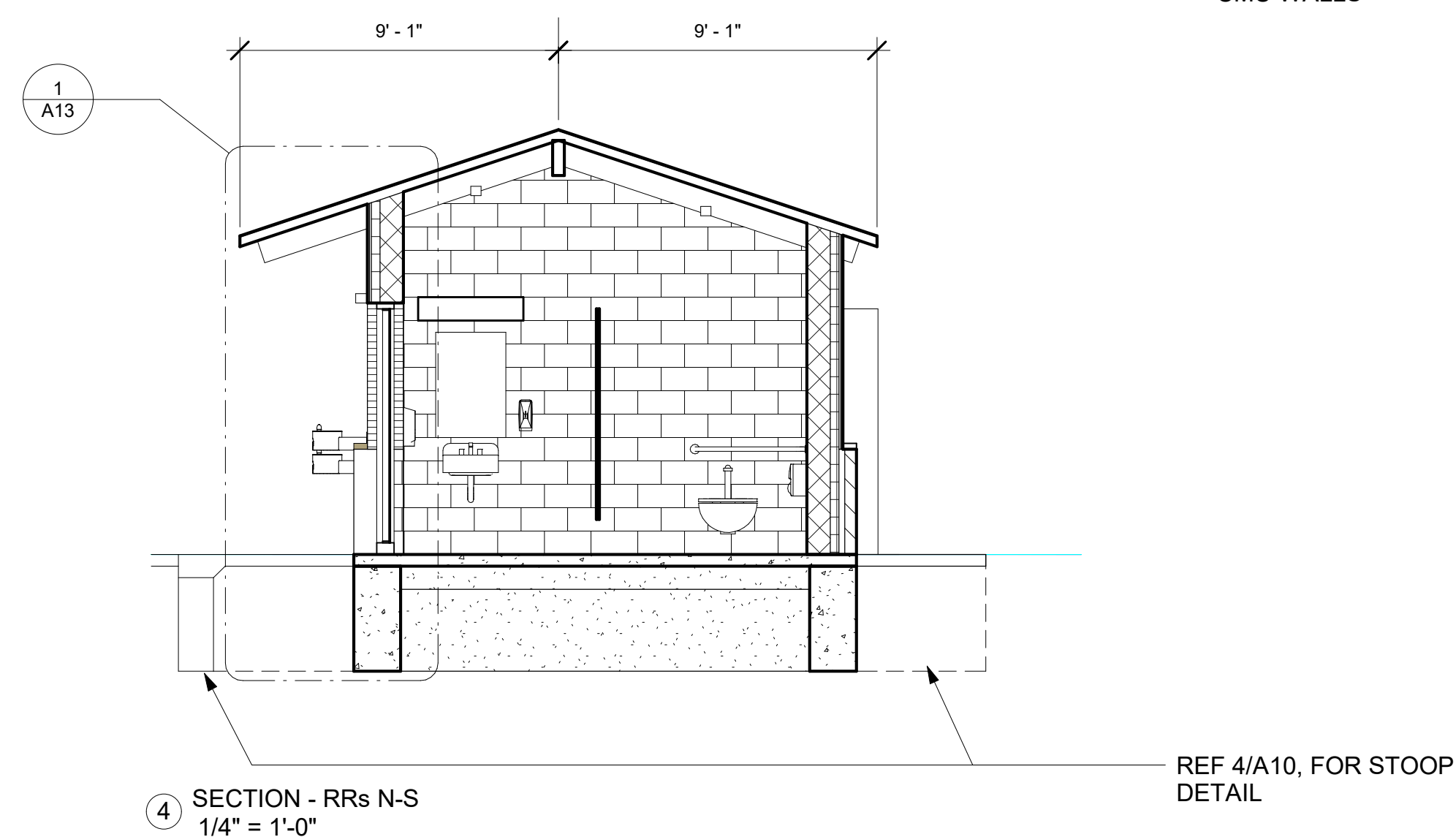
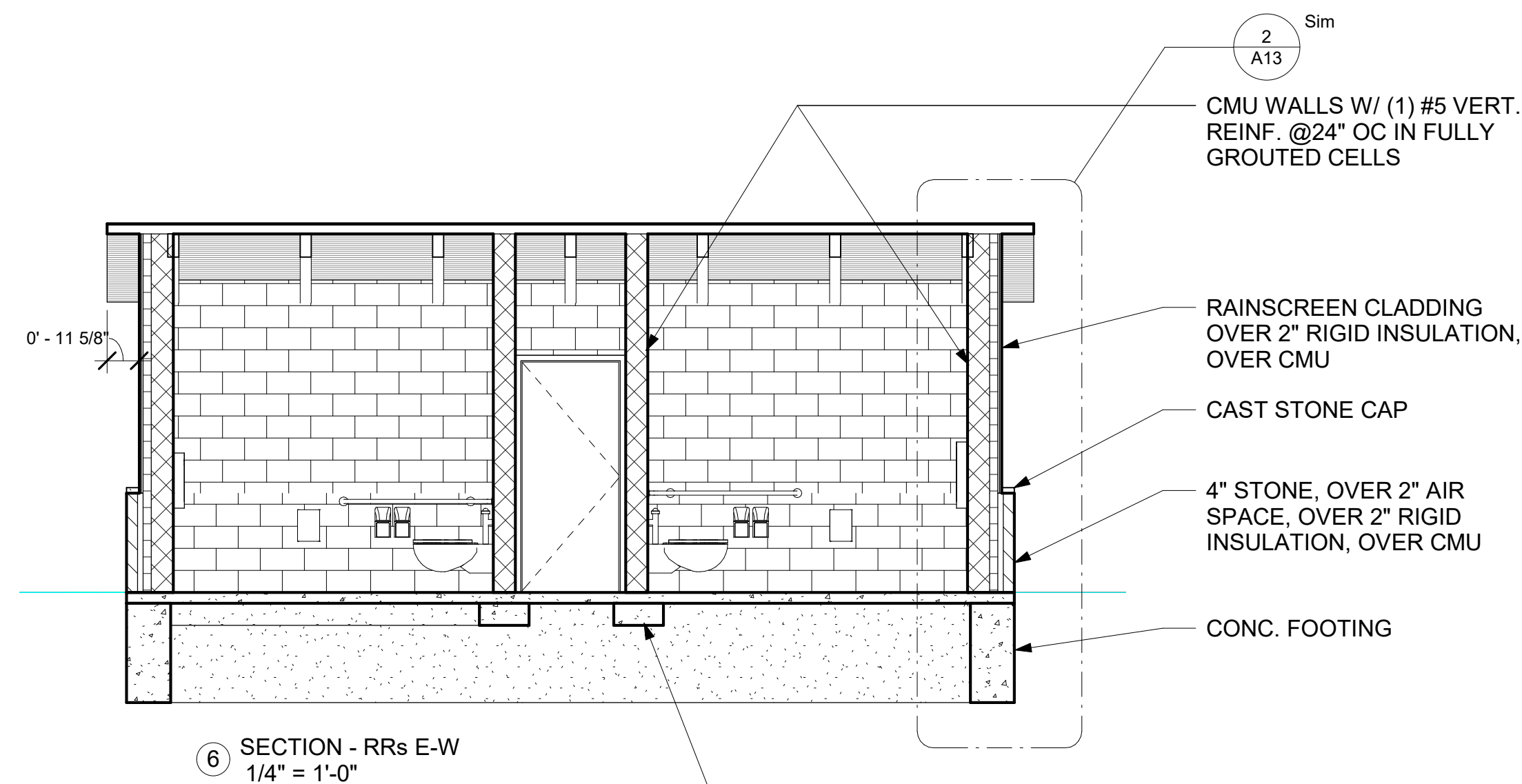
DATE 1-15-2020

PROJECT NUMBER

BOOK AND PAGE

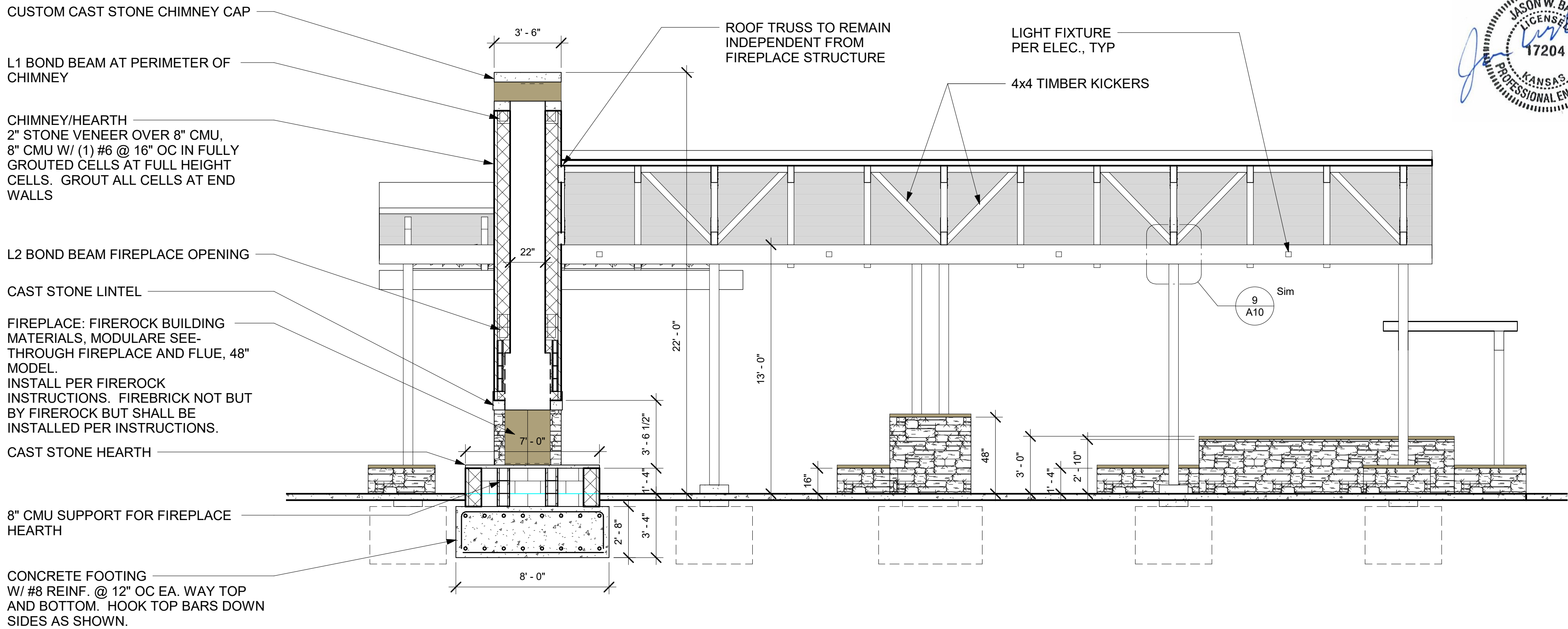
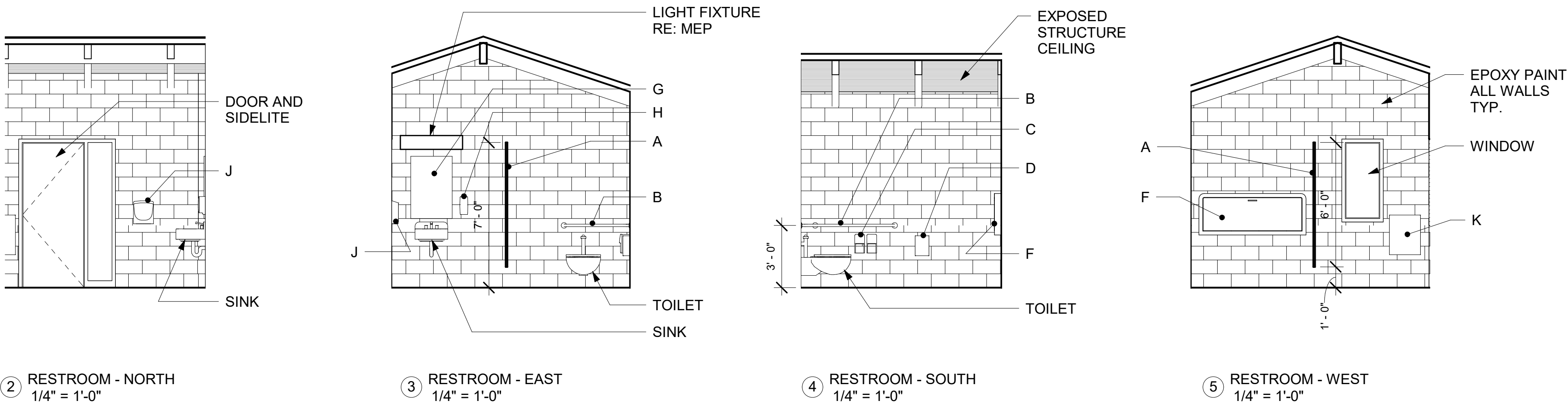
MISSOURI AUTHORIZATION NUMBER _____

A6



BATHROOM ACCESSORIES

A	TOILET PARTITIONS	BRADLEY, SERIES 400, STAINLESS STEEL, SENTIEL OVERHEAD BREACED
B	GRAB BARS	BRADLEY, SERIES 812, 1-1/2" DIA. STAINLESS STEEL, WITH CONCEALED MOUNTING
C	TOILET PAPER DISPENSER	BRADLEY, SERIES 5A10, STAINLESS STEEL, SURFACE MOUNTED
D	NAPKIN DISPOSAL	BRADLEY, SERIES 4791-11, STAINLESS STEEL, SURFACE MOUNTED WITH SHELF
E	BABY CHANGE STATION	FOUNDATIONS, MODEL 100-SSC-SM, STAINLESS STEEL, SURFACE MOUNT
F	ADULT CHANGE STATION	FOUNDATIONS, MODEL 100-SSE-SM, STAINLESS STEEL, SURFACE MOUNT
G	MIRROR	BRADLEY, SERIES 740 FIXED TILT
H	SOAP DISPENSER	BRADLEY, SERIES 6A01, STAINLESS STEEL, FOAM SOAP DISPENSER
J	HAND DRYER	BRADLEY, SERIES 2923 STAINLESS STEEL, HIGH SPEED DUFACE MOUNT
K	TRASH CAN	BRADLEY, SERIES 3565 STAINLESS STEEL, 12 GALLON WASTE RECEPTACLE



LAMP
RYNEARSON

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

hollis architects
miller

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

SECTIONS
INTER ELEVS
DETAILS

REVISIONS

DESIGNER / DRAFTER

DATE
1-15-2020

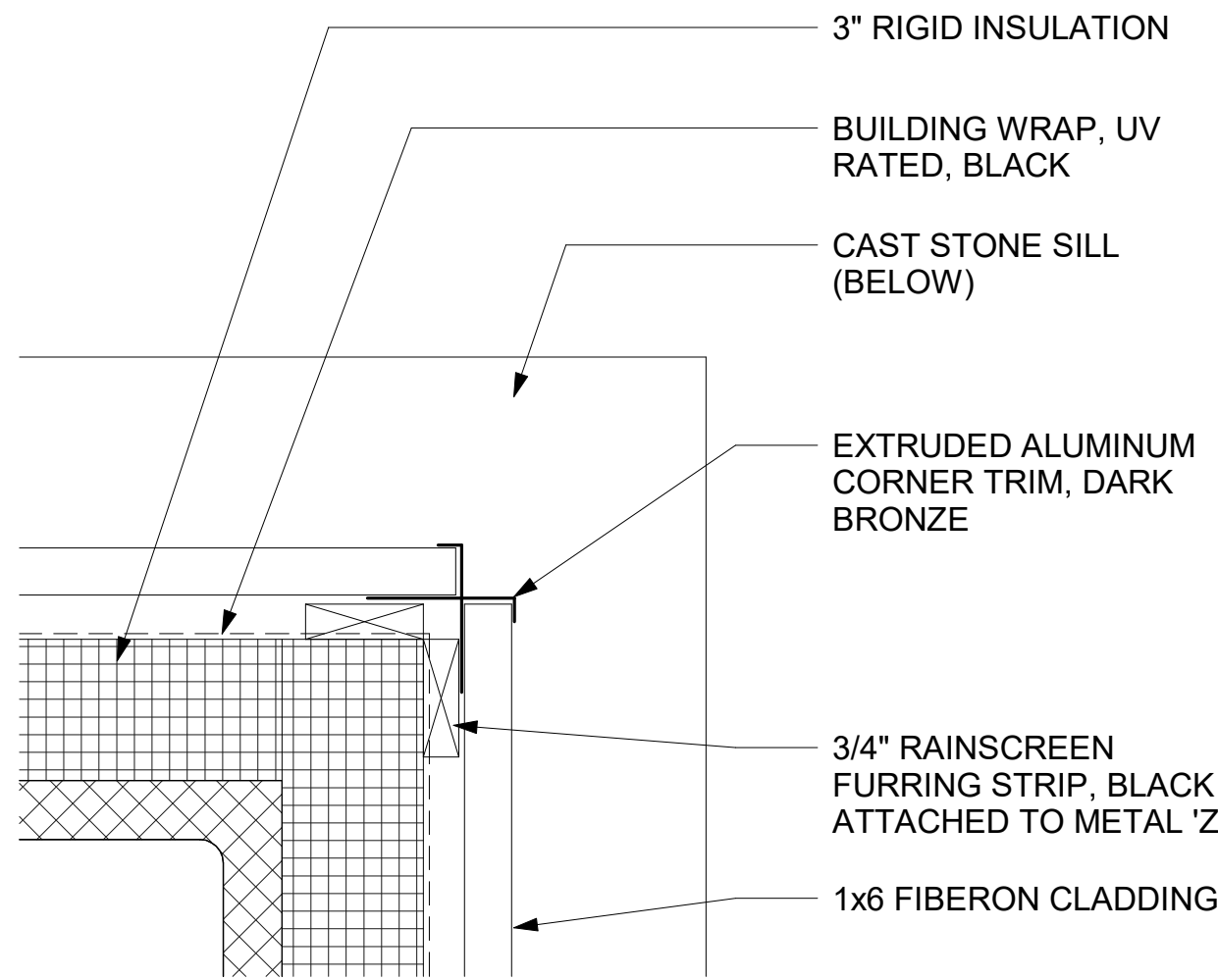
PROJECT NUMBER

BOOK AND PAGE

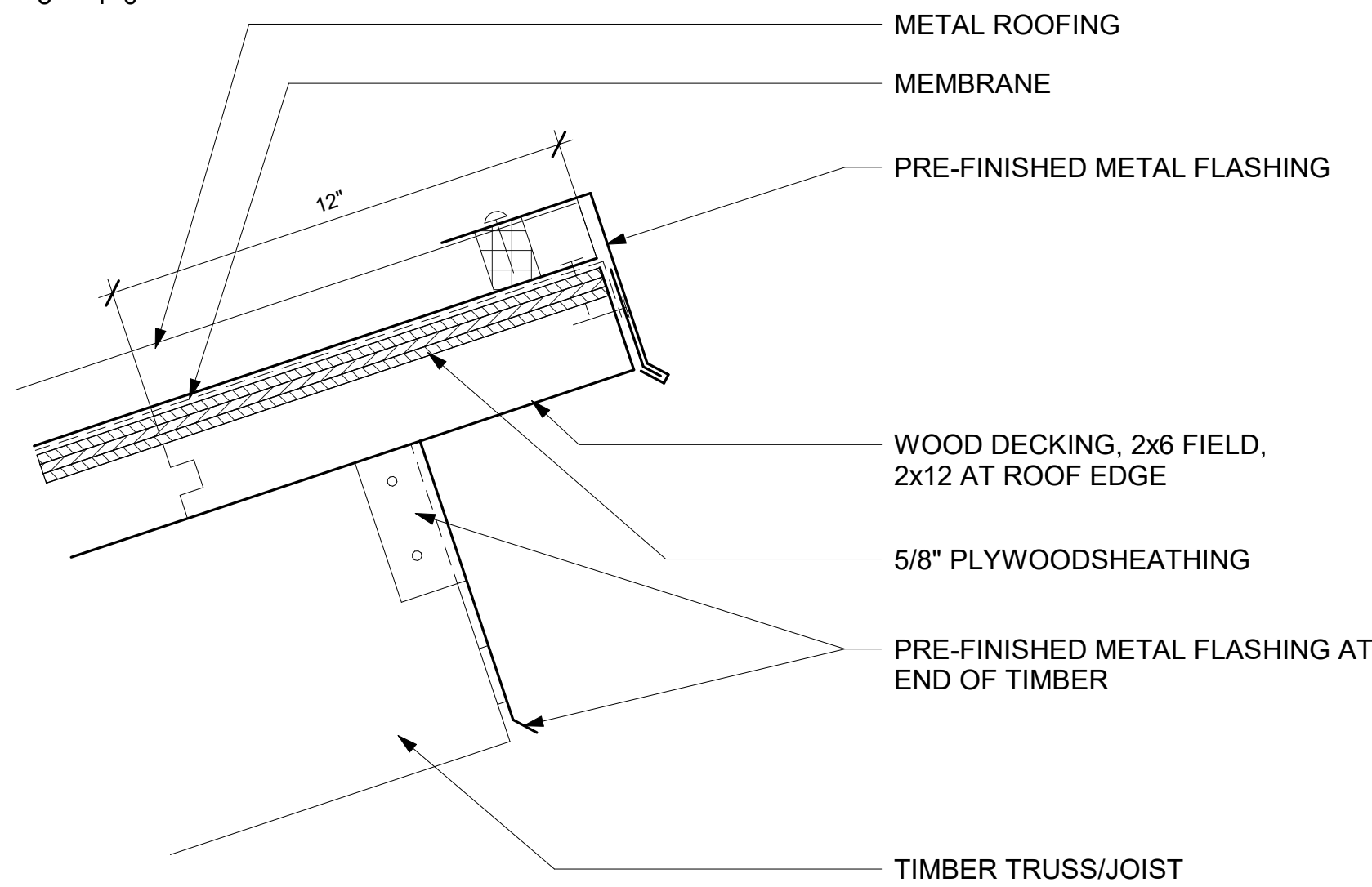
MISSOURI AUTHORIZATION NUMBER

A7

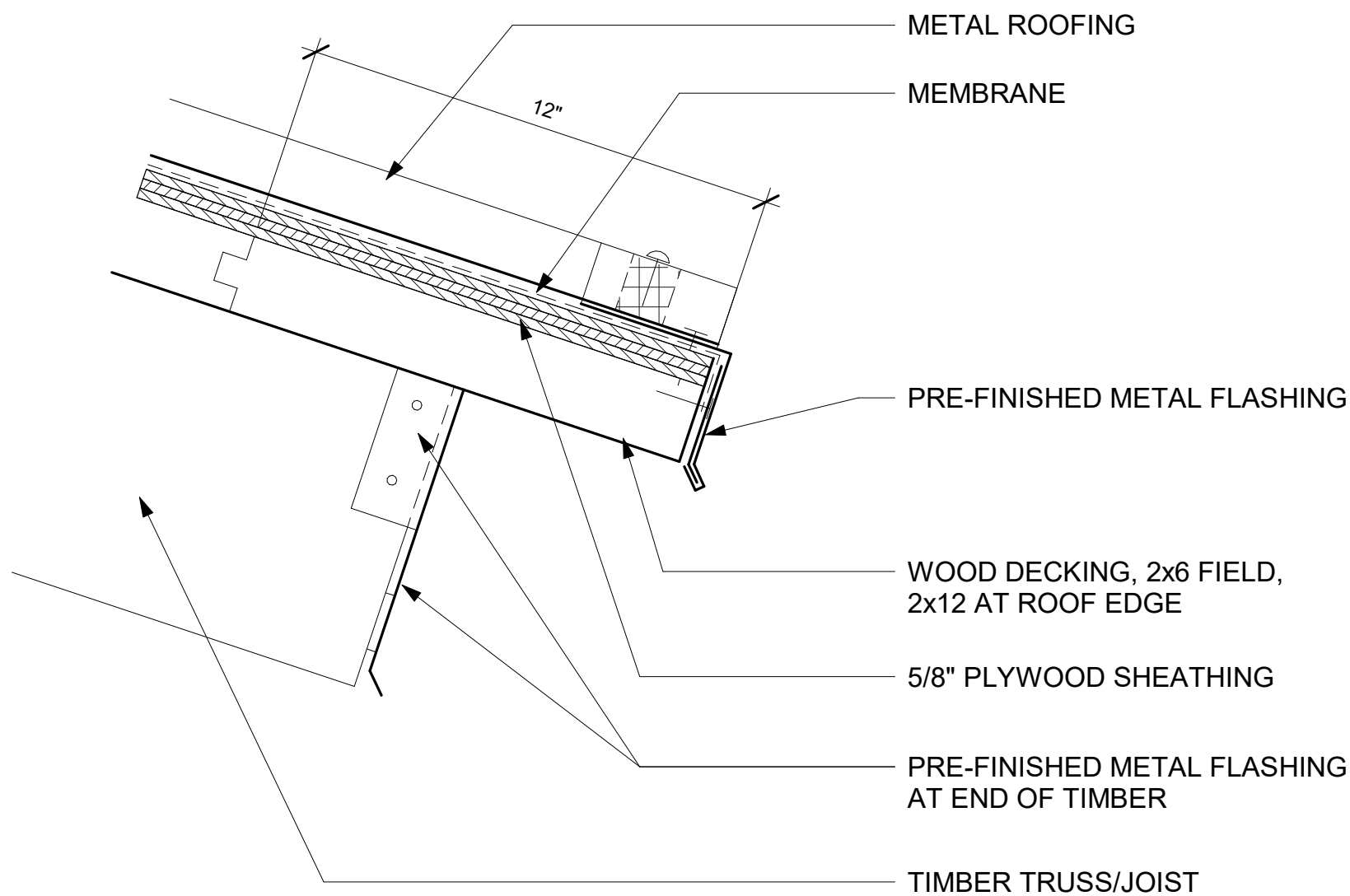
V:\proj\240426-rynearson\240426-rynearson.dwg - 8 Rev - Phase 1\CD\240426-rynearson.dwg, 5/13/2019 2:05:02 PM, 2019, 240426-rynearson.dwg, LAMP RYNEARSON



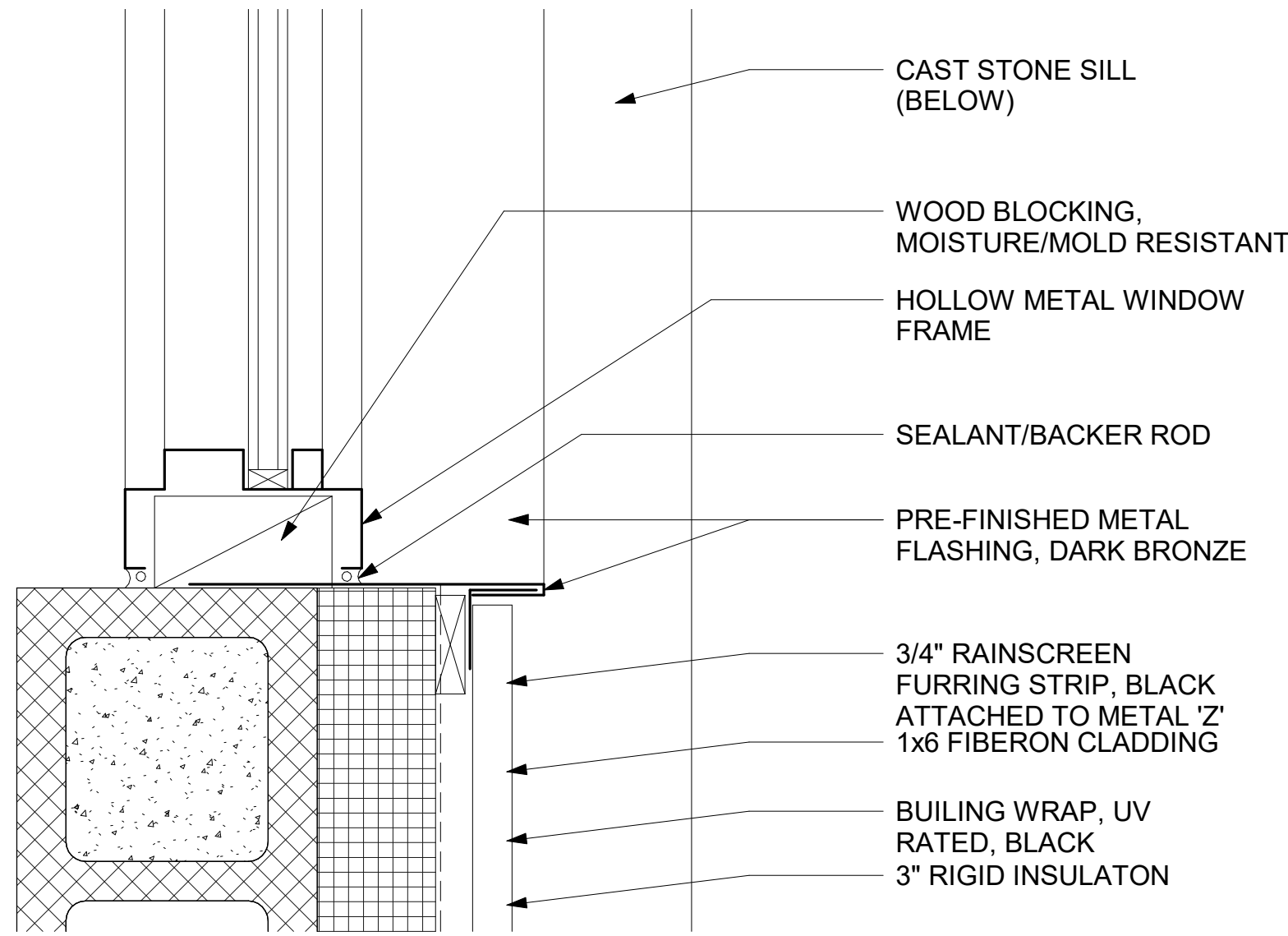
7 DETAIL - CLADDING CORNER
3" = 1'-0"



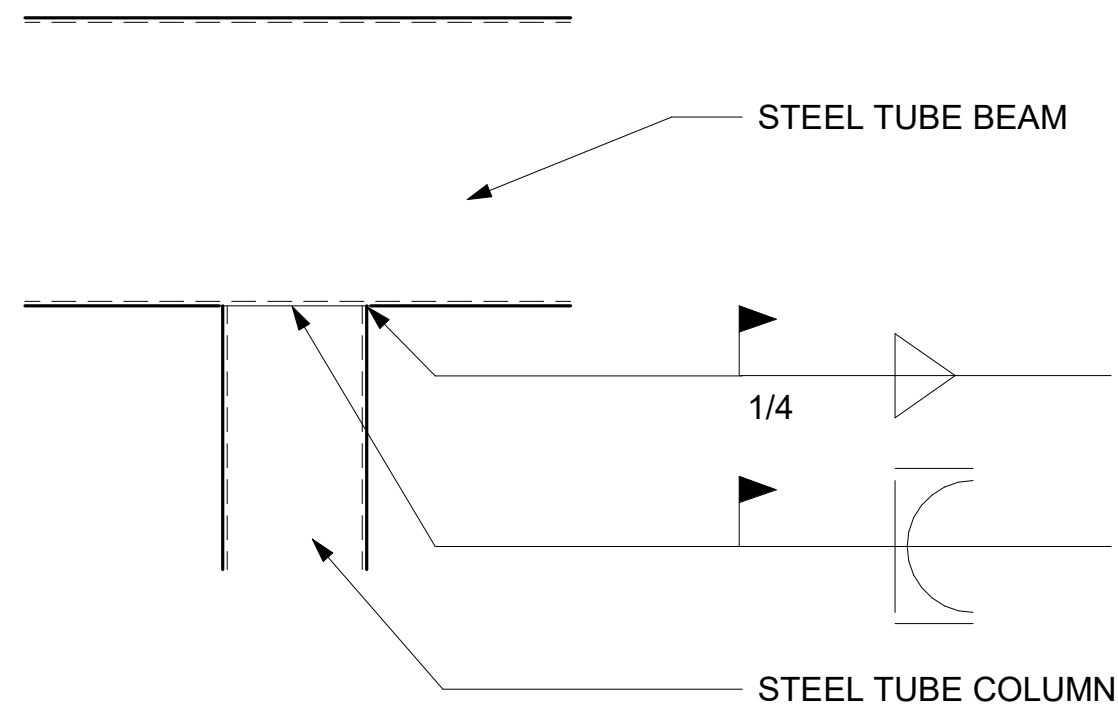
6 DETAIL - TYPICAL EAVE TOP
3" = 1'-0"



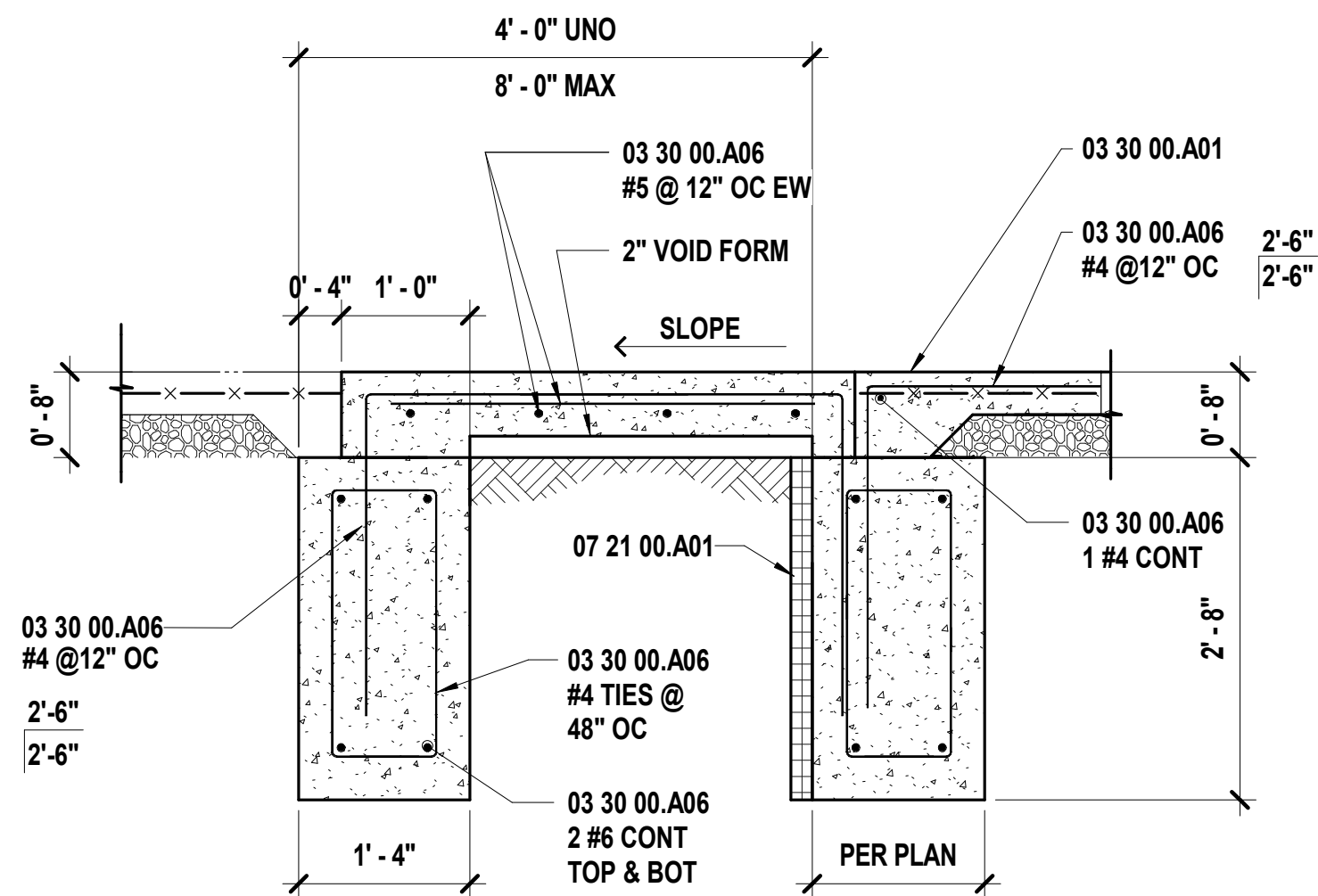
5 DETAIL - TYPICAL EAVE BOTTOM
3" = 1'-0"



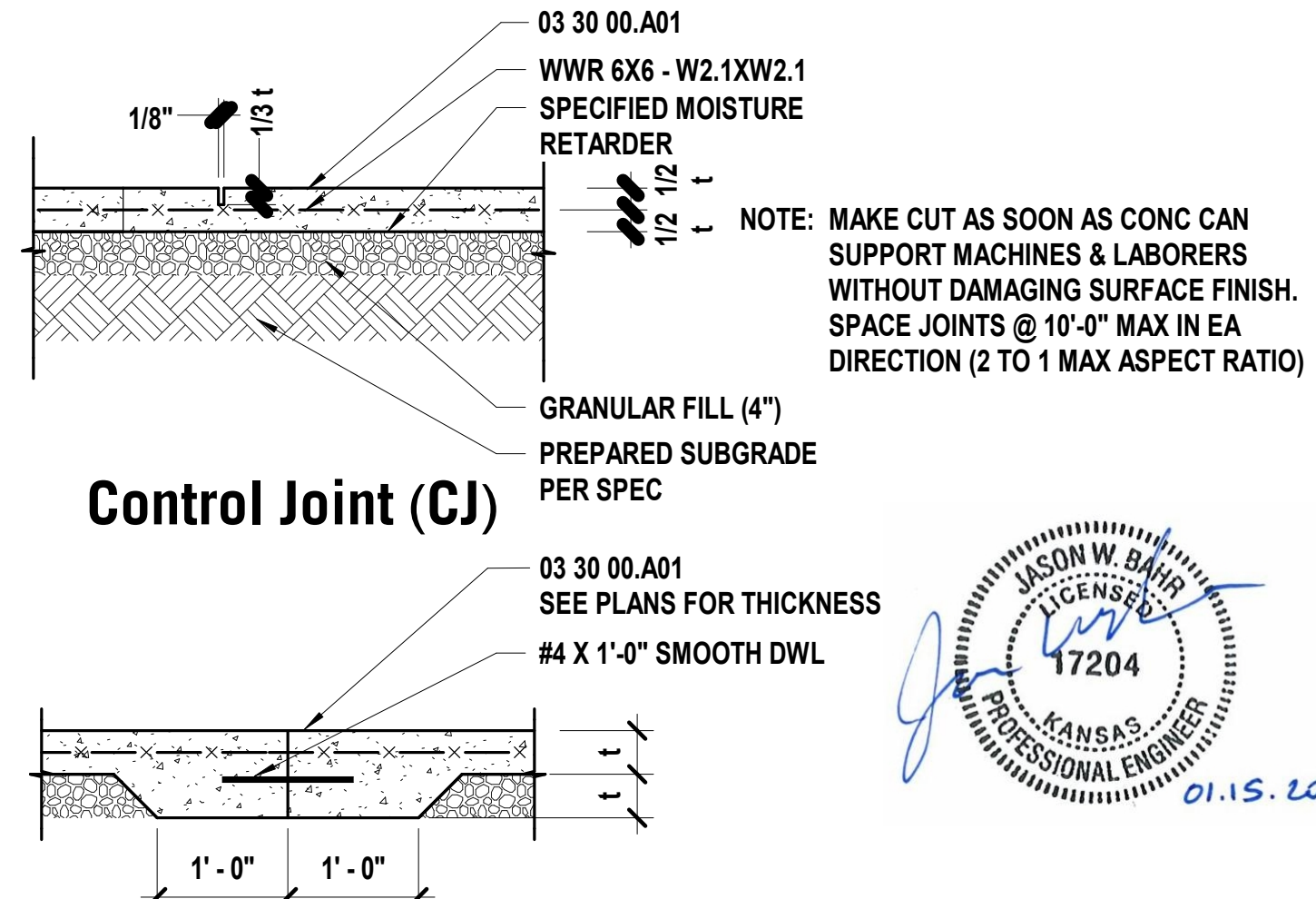
8 DETAIL - WINDOW JAMB
3" = 1'-0"



9 TYPICAL BEAM TO COLUMN
CONNECTION
1 1/2" = 1'-0"



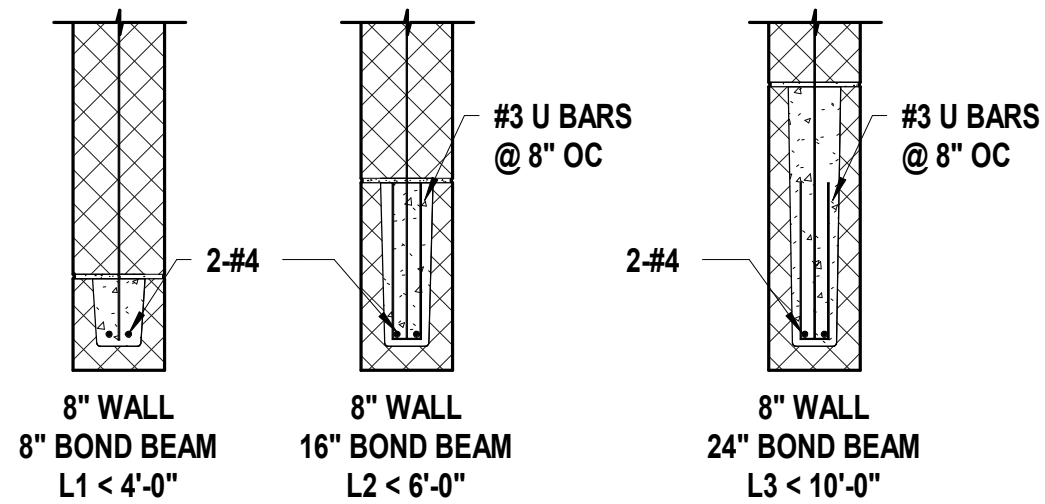
4 Typical Stoop Detail
3/4" = 1'-0"



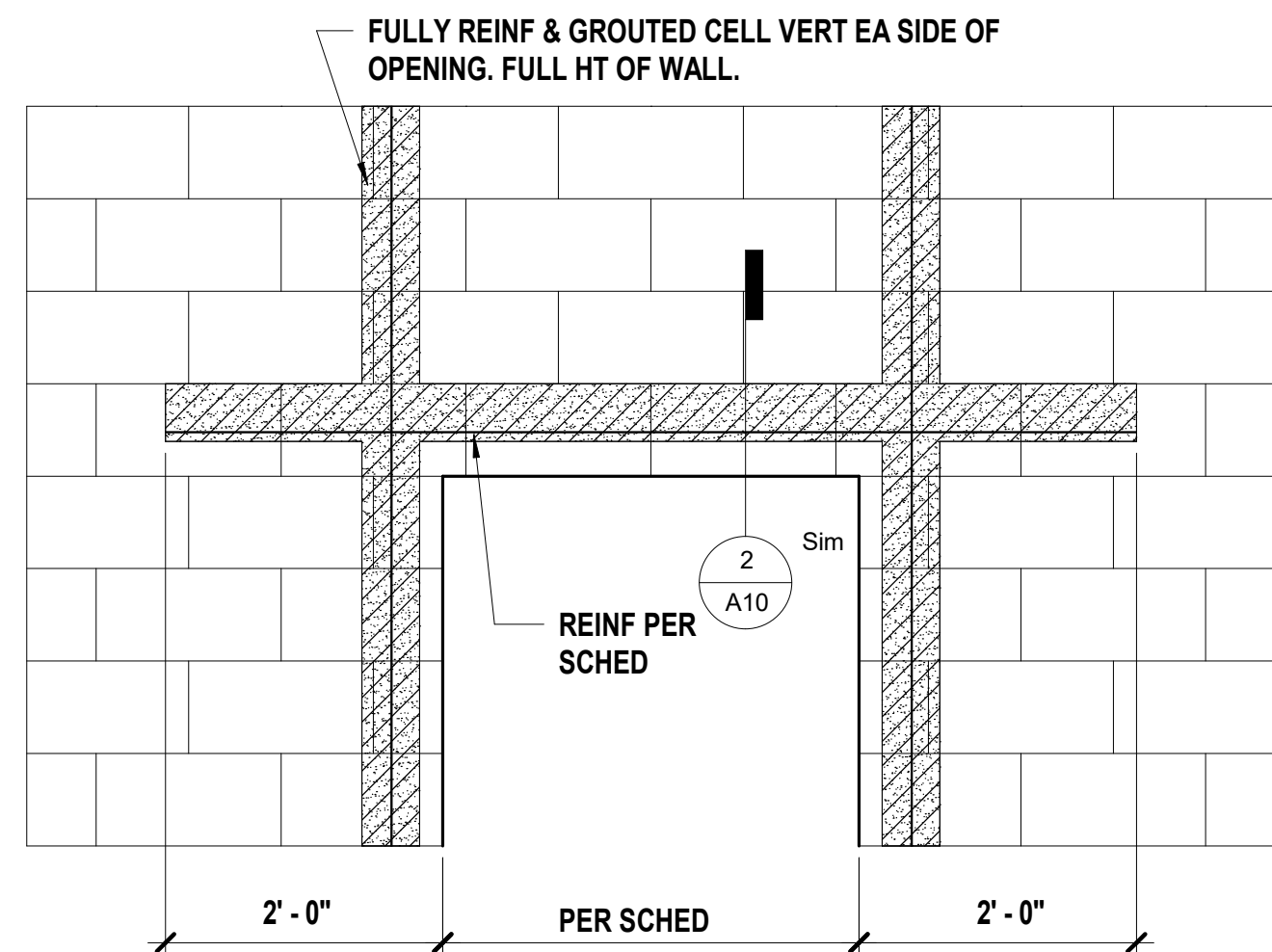
Control Joint (CJ)

Construction Joint

3 Typical Slab on Grade Details
3/4" = 1'-0"



2 Typical Lintel Section
3/4" = 1'-0"



1 Typical Lintel Partial Elevation
3/4" = 1'-0"

LAMP
RYNEARSON

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

hollis architects
miller

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

DETAILS

REVISIONS

DESIGNER / DRAFTER

DATE

1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A10



CONSTRUCTION DOCUMENTS

ROELAND PARK, KANSAS

DETAILS

REVISIONS

DESIGNER / DRAFTER

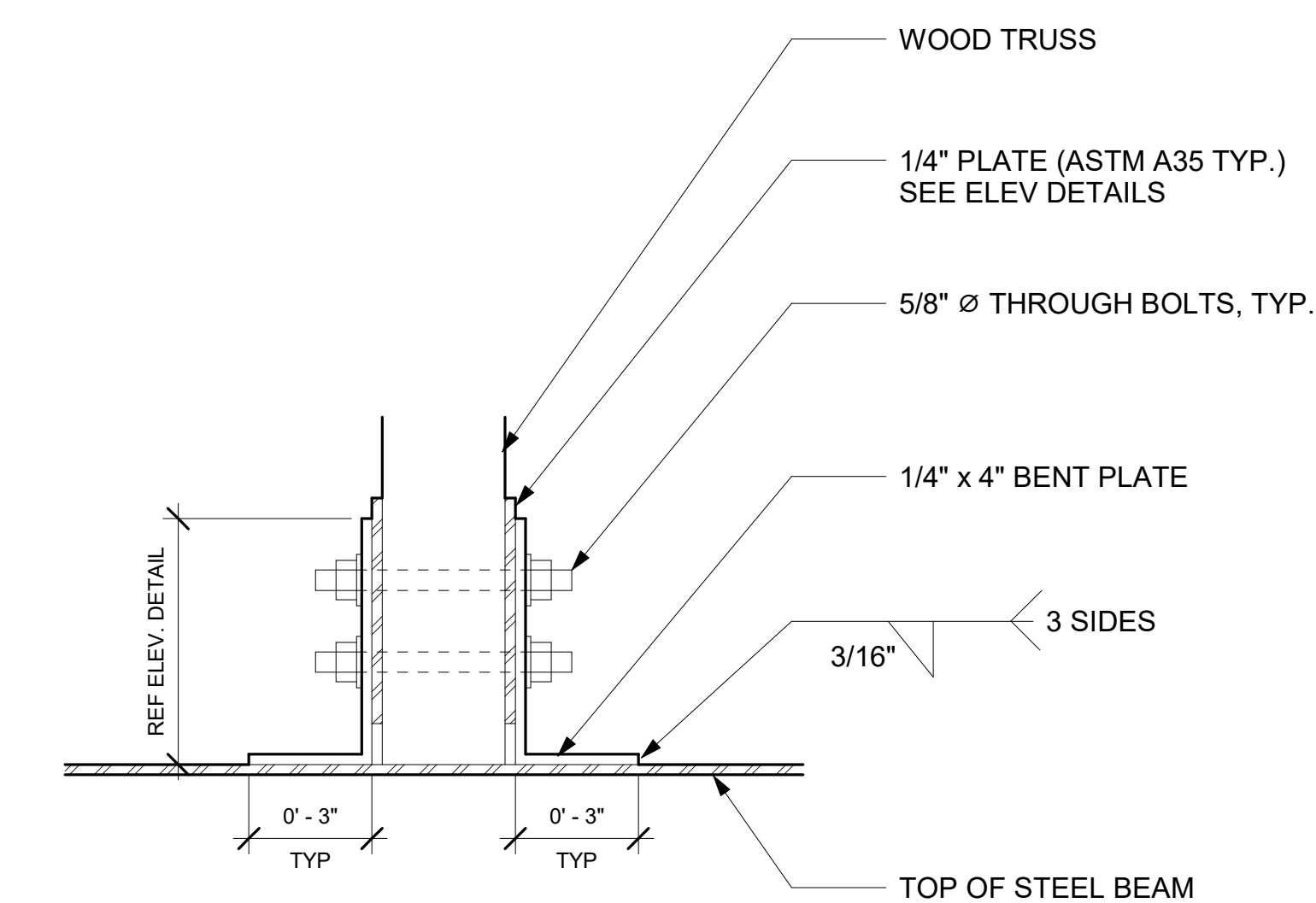
DATE 1-15-2020

PROJECT NUMBER

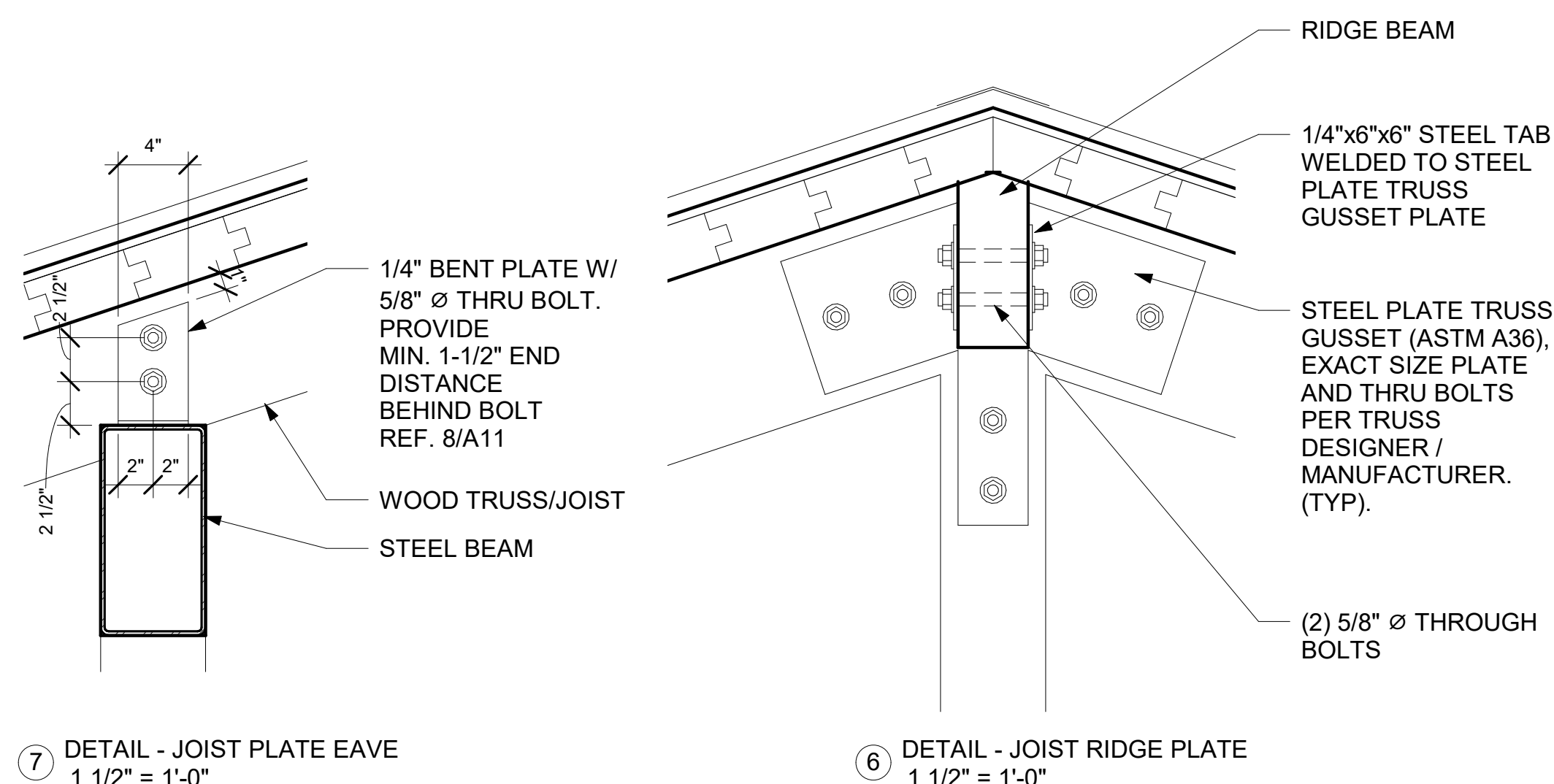
BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

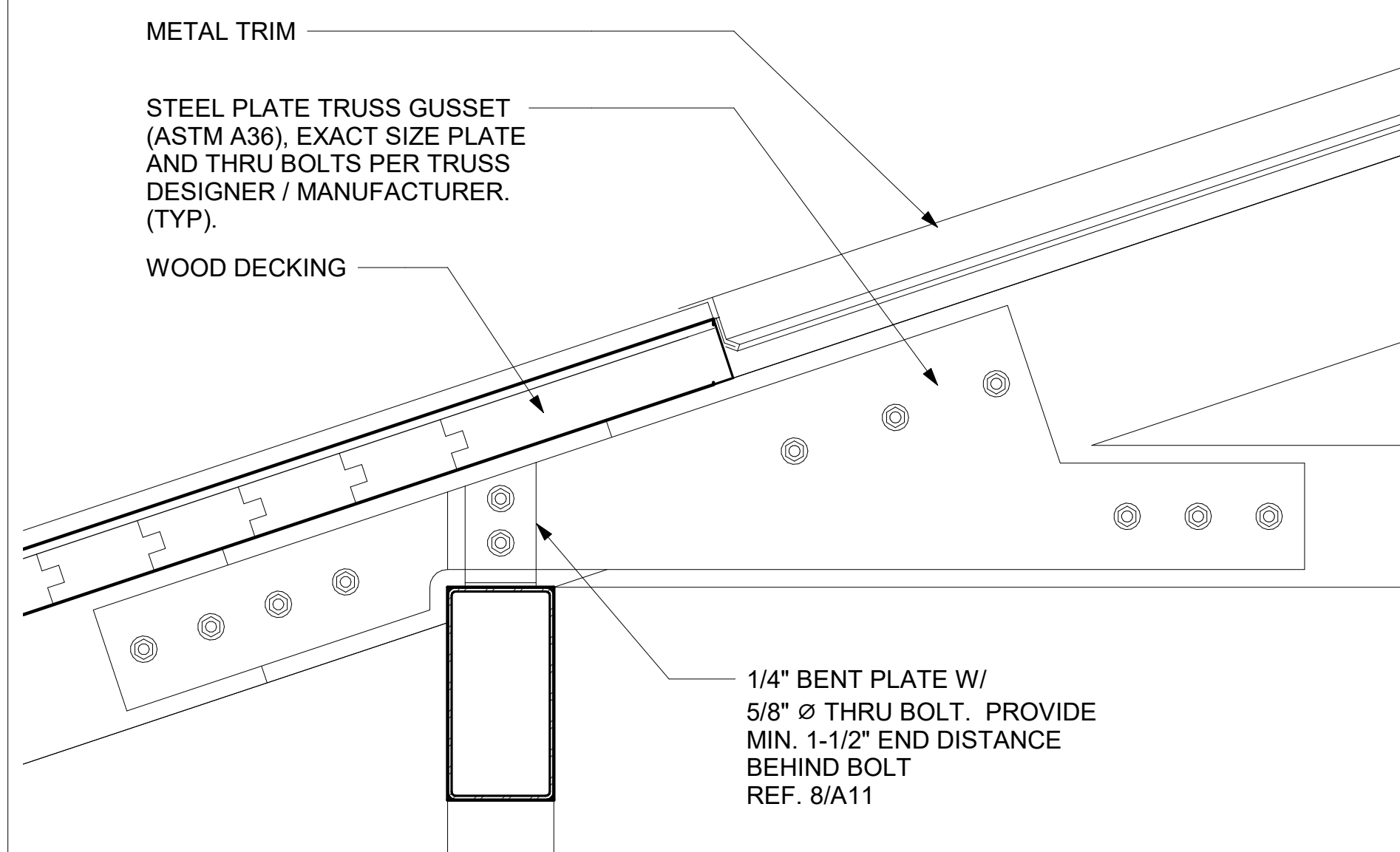
A11



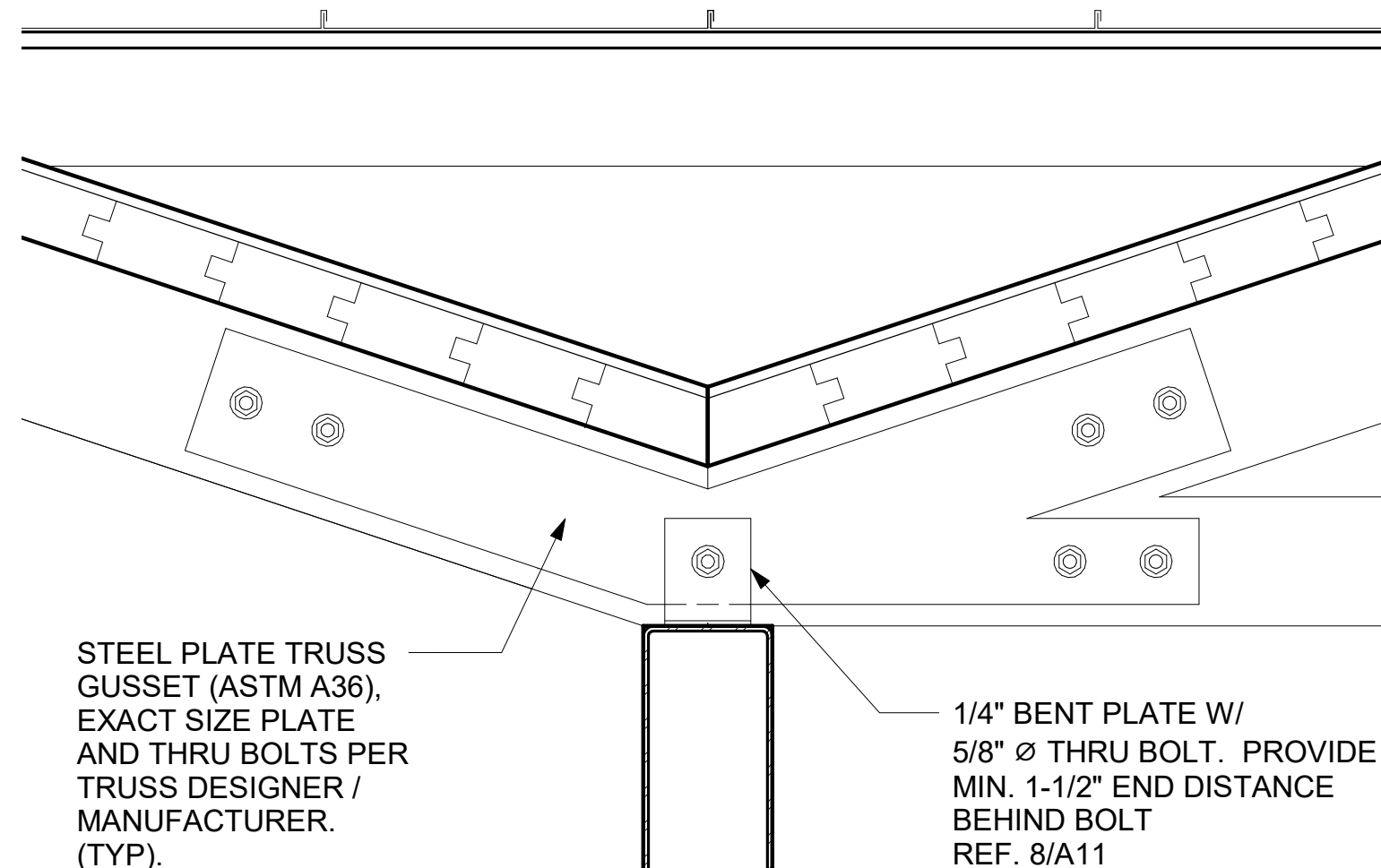
8 DETAIL - TRUSS-BEAM CONNECTION
(TYP)
3" = 1'-0"



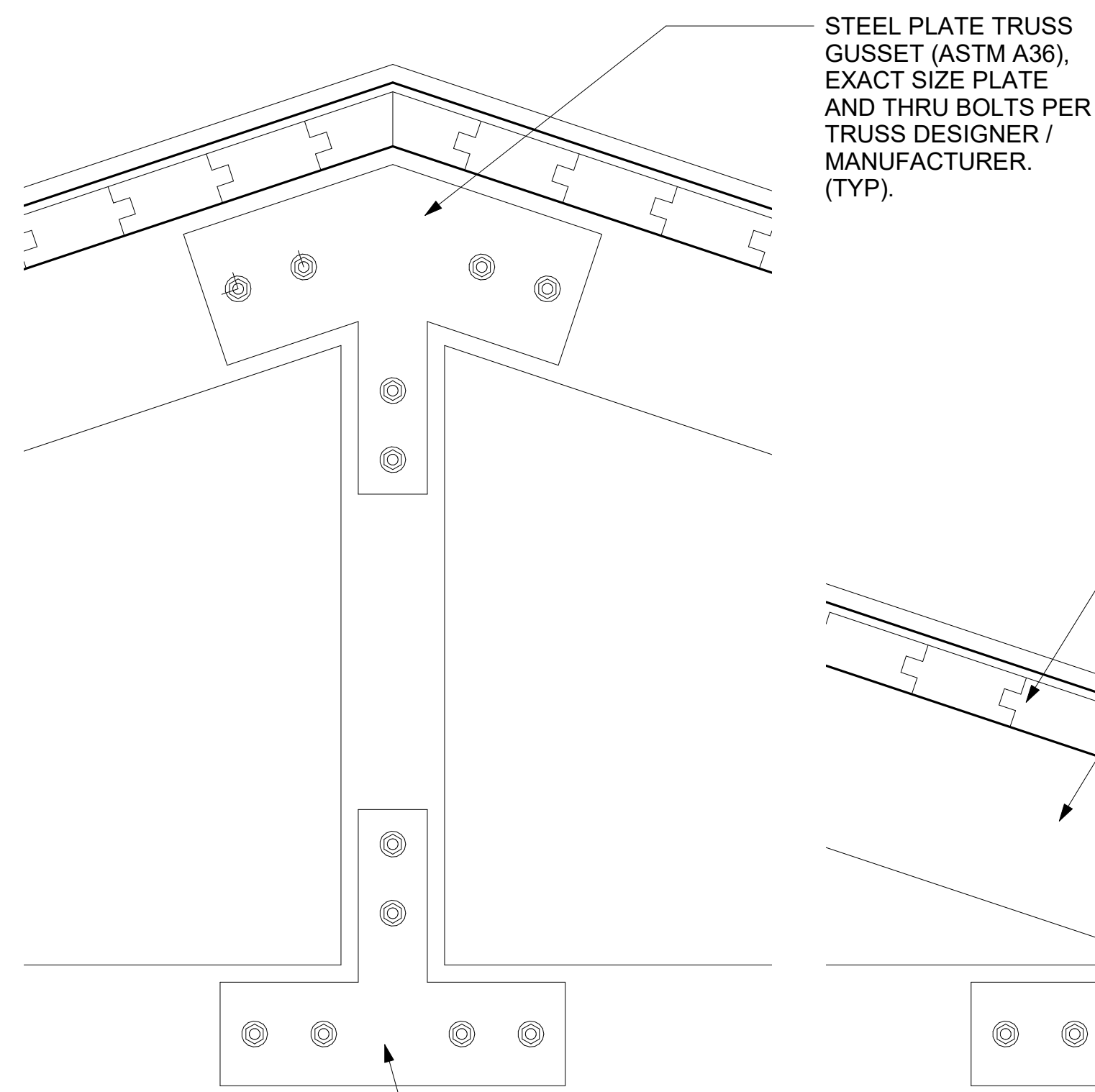
⑦ DETAIL - JOIST PLATE EAVE
1 1/2" = 1'-0"



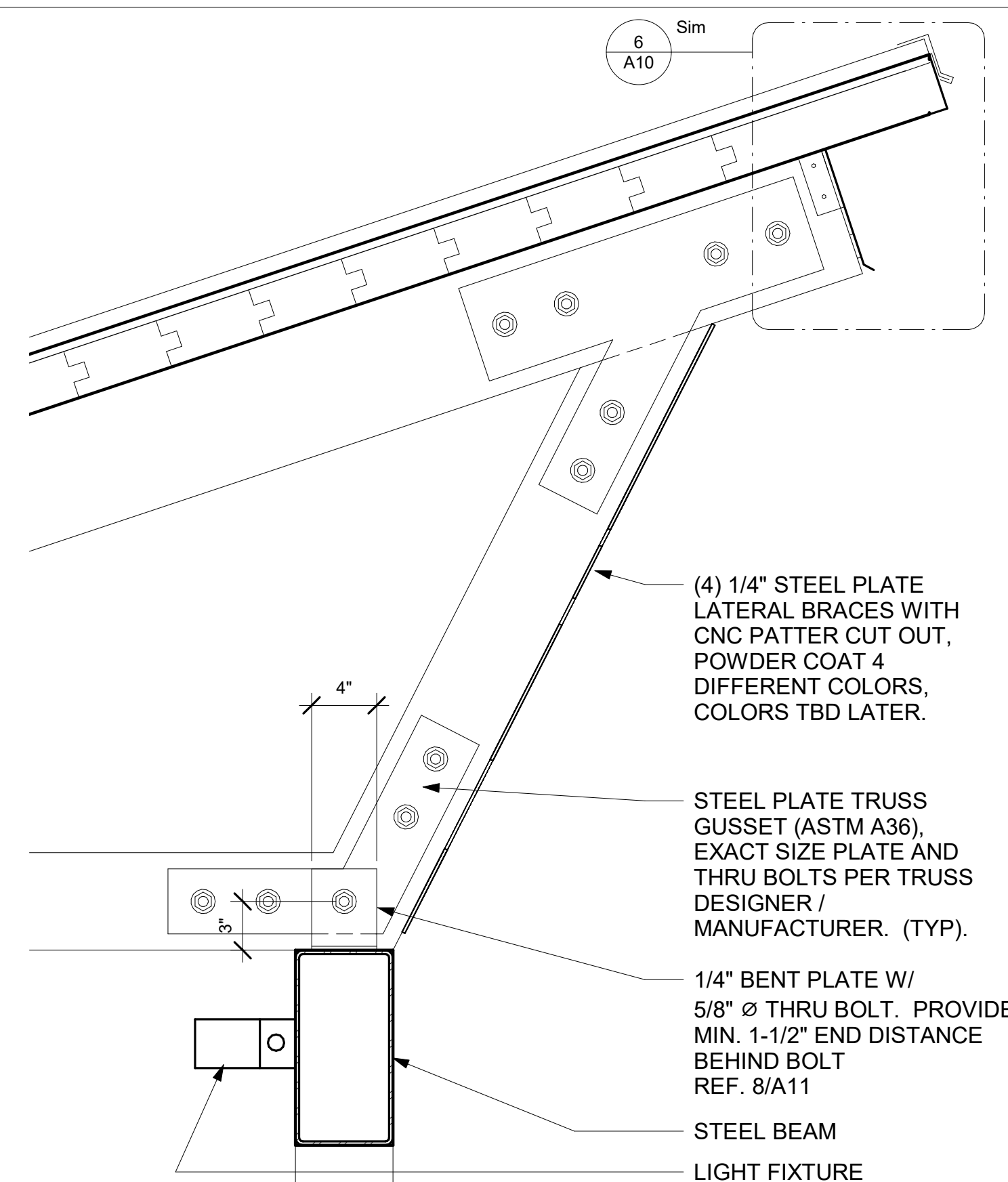
③ DETAIL - TRUSS-JOIST PLATE EAVE
1 1/2" = 1'-0"



⑤ DETAIL - TRUSS-JOIST PLATE VALLEY
1 1/2" = 1'-0"

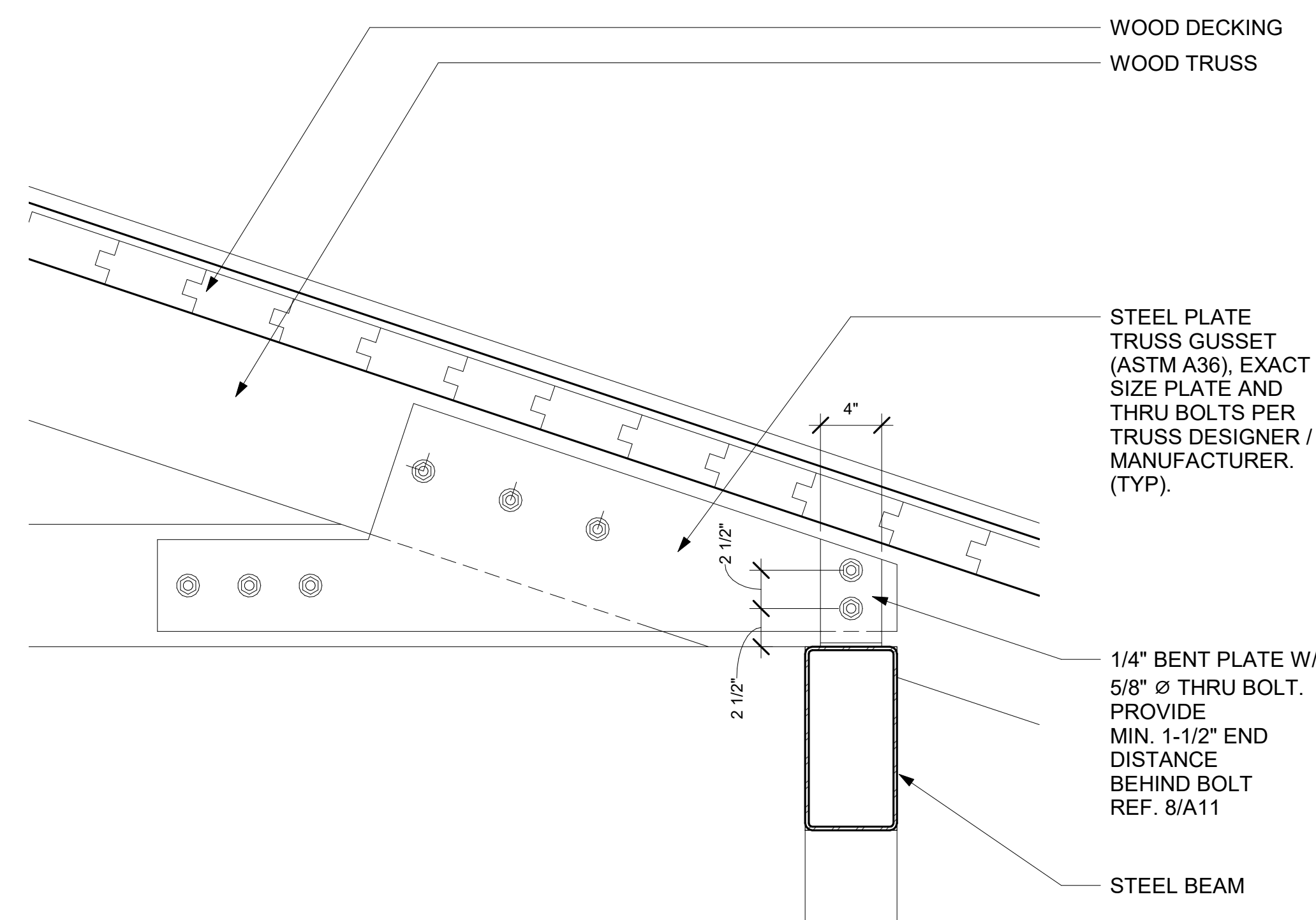


② DETAIL - TRUSS PLATE CENTER
1 1/2" = 1'-0"



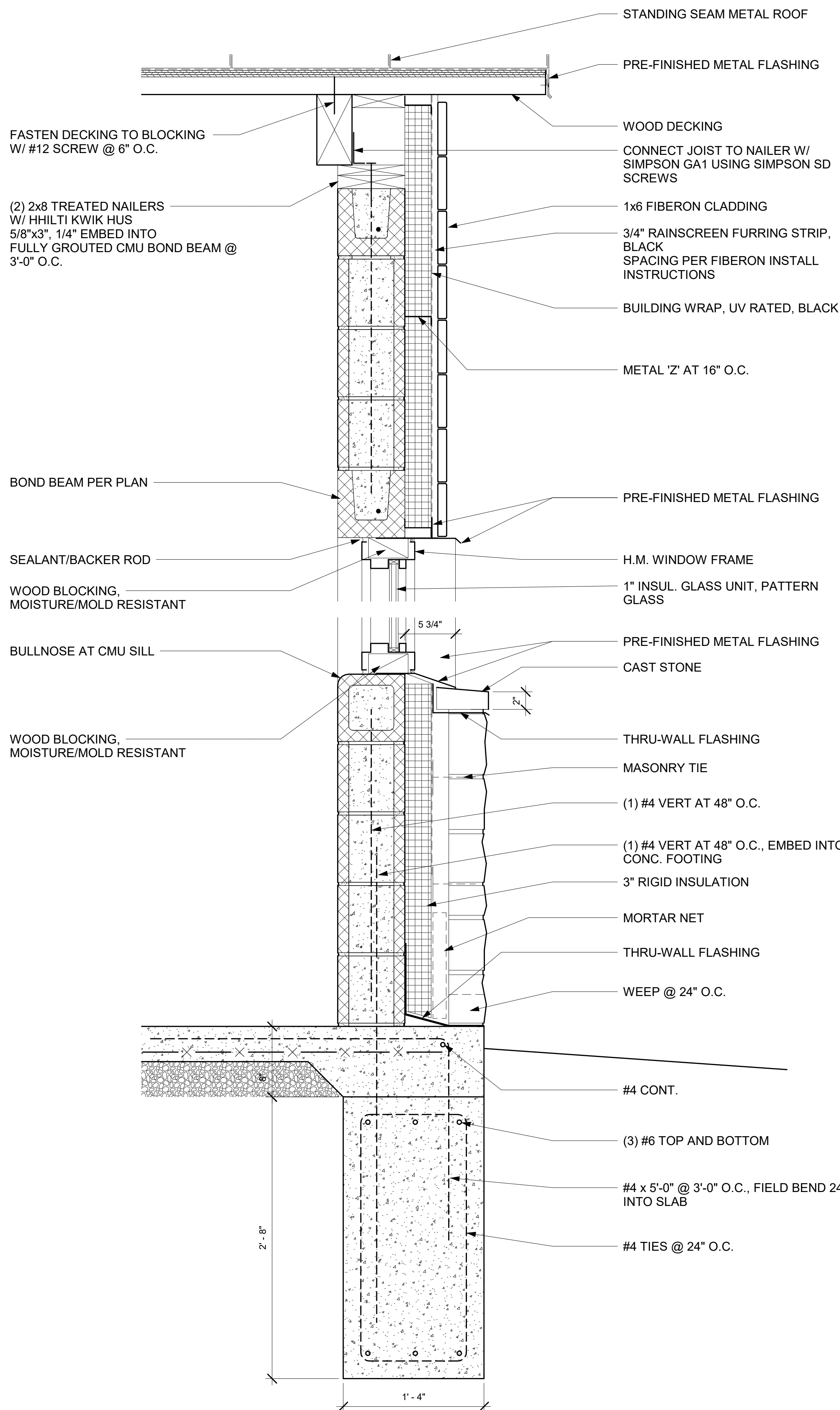
DETAIL - TRUSS PLATE PERFORMANCE
EAVE
④ $1\frac{1}{2}" = 1'-0"$

NOTE:
ALL CONNECTIONS BETWEEN TRUSS MEMBERS ARE
TO BE DESIGNED BY TRUSS
DESIGNER/MANUFACTURER.
CONNECTIONS SHOWN ARE FOR REFERENCE ONLY.

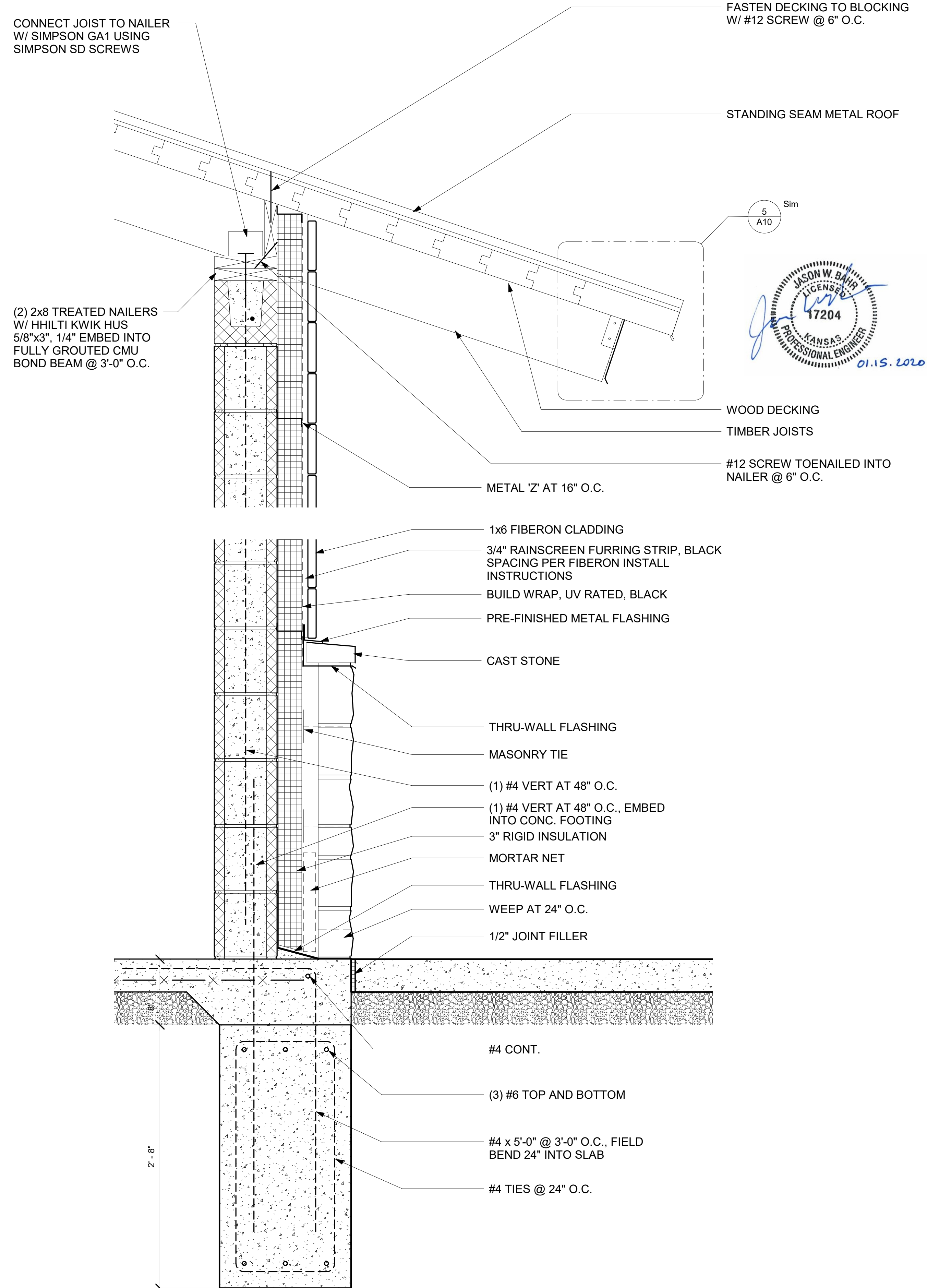


① DETAIL - TRUSS PLATE EAVE
1 1/2" = 1'-0"

V:\proj\2020\1-15-20\1-15-20-RR-EAVE.dwg - 8 Rev - Phase 1\CONSTRUCTION\2020-RR-EAVE.dwg, 5/13/2019 2:05:02 PM, JERRY KIPP, LAMP RYNEARSON



② WALL SECTION - RAKE
1 1/2" = 1'-0"



① WALL SECTION - RR EAVE
1 1/2" = 1'-0"

5
A10
Sim



**LAMP
RYNEARSON**

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

**hollis
miller** architects

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

DETAILS

REVISIONS

DESIGNER / DRAFTER

DATE
1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A13

Requirements of the American Concrete Institute Code, ACI 318 "Building Code Requirements, current edition for "reinforced concrete" and Concrete Reinforcing Steel Institute "Manual of Standard Practice" shall govern the performance of work required under this division.

2. MATERIALS:

- Cement used for general construction shall conform to ASTM C-150, Type I.
- Fine and coarse aggregate shall be normal weight aggregates complying with ASTM C33, free of spalling - causing deleterious material. Fine and coarse aggregate shall be regarded as separate ingredients. Each size of coarse aggregate, as well as the combination of sizes when two or more are used, shall conform to the appropriate grading requirements of the applicable ASTM specifications. Maximum size of the aggregate shall be as follows:

1) Footings and grade beams	max. 3/4"
2) Slabs	max. 1"
3) Bond beam fill	max. 3/8"
- Use only water which is clean and free of oil, acids, alkalis, salts, and organic matter.
- Reinforcing Bars: Refer to Drawings.
- Welded Wire Reinforcement: All wire reinforcement shall be electrostatically welded wire conforming to ASTM A-185 and A-82. Welded wire reinforcement in slabs on grade shall be laid with a side and end lap of 6".
- All spacers, chairs, ties, and other devices necessary for properly placing, spacing, supporting and fastening reinforcement in place shall be used according to the latest edition of the Concrete Reinforcing Steel Institute.
- Granular Drainage Fill: Provide 4" thick, clean gravel, particle size 1/2" to 3/4" per ASTM D 448, grading size 57.

3. CONCRETE:

- All concrete shall have a water/cement ratio of 0.45 maximum and shall be of a mix which will produce a minimum compressive strength of 4,000 p.s.i., measured at 28 days when tested in accordance with ASTM standard test C-39, current edition.
- All concrete shall be batched as per ASTM-C94 and as per ACI-301 and ACI-318.
- No additives containing chloride will be permitted in any concrete mix.
- No additional admixtures of any kind are permitted without written approval of Architect.
- Air-entrainment shall be 6 - 8% and conform to ASTM C 260.

4. HANDLING AND PLACEMENT OF REINFORCEMENT:

- Before use, all bars shall be cleaned of rust, scale, and coatings tending to reduce bond. All bonds and splices shall be in strict accordance with the requirements of the Concrete Reinforcing Steel Institute Code of Standard Practice for "placing reinforcing bars" and structural drawings.
- All bars must be fabricated as shown or called for in the drawings and must be accurately placed, thoroughly wired at the intersections, and fastened in the forms in such a manner as to hold them firmly in place, while the concrete is being placed. Reinforcing bars and welded wire fabric shall be placed within 1" to 1-1/2" of top of slab. Extreme care shall be used to set reinforcement accurately and to hold firmly in place. Approved chairs and spacers shall be provided, as required.
- Where conduits, piping inlets, sleeves, etc., interfere with the placing of reinforcing steel, as shown or called for, the Contractor must consult the Architect and secure from him, in writing, the method of installation before placing any concrete. The bending of bars around openings for sleeves will not be permitted unless authorized by the Architect.
- Unless noted otherwise, lap splices shall be 48 bar diameters.
- Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process. Apply to concrete surfaces exposed to public view on vertical surfaces of sides and of stairs and stair risers.
- Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

5. PLACING CONCRETE:

- Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete" and as specified. All concrete shall be deposited in the form as nearly as practicable in its final position to avoid segregation. Spouting directly into forms will not be permitted from more than eight feet in height. Each layer placed shall be thoroughly incorporated with layers previously laid. Concrete shall not be transported by vibrating.
- During and after depositing, thoroughly compact concrete by mechanical vibration to achieve a solid homogeneous mass. Where it is impractical to vibrate, the concrete shall be thoroughly spaded so as to secure a solid homogeneous mass. Deposit and consolidate slabs in continuous operation within limits of construction layers previously laid. Deposit and consolidate slabs in continuous operation within limits of construction joints.

6. CONTROL TESTS:

- A slump test shall be made from each concrete delivery truck before concrete is deposited. The maximum slump permitted shall be 4" for both regular concrete and air-entrained concrete.
- Laboratory test cylinders shall be taken for each 50 cubic yards of concrete and/or for each separate pour exceeding 20 cubic yards. Not less than three cylinders shall be taken for each required test and shall be in accordance with ASTM specifications C-31 and C-172. Compression tests shall be made in accordance with ASTM specification C-39. Samples and tests shall be made by testing laboratory personnel only.
- One (1) copy each of all concrete test reports shall be submitted to the Architect, Engineer, and Contractor for their review and record.

7. SLABS:

- Concrete slabs on grade shall be poured over prepared and level granular base course.
- Slabs shall have doveled construction joints where shown in the drawings. There shall be isolation joints around all columns. In addition to the construction joints, all slabs will be marked off in areas not to exceed 15' square, or as noted in plans, with 1/8" sawed contraction joints, 1/3 the depth of slab. All saw cuts shall be made as soon as possible without dislodging aggregate. Construction joints will have flush edges.
- Reinforcing mesh shall be continuous through joints. All reinforcing shall be supported well up into the upper 1/3 to 1/4 of slab, just below contraction joints of the concrete slab.
- Monolithic Steel Troweled Finish: For floor slabs, the finish shall be produced by tamping the concrete to force aggregate away from surface and then screeding at proper level. Surfaces shall then be floated and lightly troweled. When concrete has set sufficiently, it shall again be troweled to produce a smooth, dense surface, which shall not exceed a 1/8" variation in any 10' radius.

8. ISOLATION JOINT MATERIAL: For all isolation joints between floor slabs and vertical walls or structures, install 30# non-perforated asphalt-saturated building felt complying with ASTM D 226, Type II terminate 1/2" below top of slab.

9. CURING AND SEALING: Cure all floor slabs using a clear, waterborne, membrane-forming curing and sealing compound. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Cure for at least 7 days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.

10. SLAB PROTECTION: All slabs and walks shall be protected from damage due to paints, stains, or chipping during the construction process. No concrete which has been so damaged will be accepted.

- # A30

GENERAL: Lumber shall comply with DOC PS 20 "American Softwood Lumber Standard". All dimension and board framing lumber shall as noted on Drawings. All lumber shall be kiln dried to 19% maximum moisture content and each piece shall be factory marked with grade stamp. Wood shall be free from loose or unsound knots, shakes or other damaging imperfections.

- a. Exposed exterior wood shall comply with "Appearance" grade requirements of ALSC National Grading Rule and shall be same species and grade as indicated for Timber Framing.
- b. Beams and stringers (2" to 4" thick, 5" and wider): S4S, No. 2 or better.
- c. All other lumber except as noted (2" to 4" thick, 2" and wider): S4S, No. 2 or better.
- d. Miscellaneous boards: standard or better.
- e. Wood decking shall be 2 x 6 nominal, T&G Western Red Cedar decking.

2. **TIMBER FRAMING (061000.A02):** Provide heavy timber construction, including connectors, capable of withstanding structural loads shown on Drawings. Comply with AITC 108 "Standard for Heavy Timber Construction". Timber species and grade shall be Western Red Cedar; No. 1, NLGA, WCLIB OR WWPFA. Moisture content shall be 19 percent maximum at time of dressing and timbers shall be dressed S4S. For additional requirements refer to Drawings.

- a. Erect heavy timber construction true and plumb. Provide temporary bracing. Install horizontal and sloping members with crown edge up and provide not less than 4" of bearing on supports. Handle timbers to prevent surface damage and other effects that may impair indicated finish. Predrill for fasteners and assembly of units.

3. **WOOD PANEL PRODUCTS:** All wood panel products shall be appropriately graded to comply with DOC PS 1 "US Product Standard for construction and industrial plywood; products not manufactured under DOC PS-1 provisions shall comply with APA PRP-108. Factory mark each panel with the APA "The Engineered Wood Association" trademark indicating compliance with panel grade requirements specified.

4. **SHEATHING:**

- a. Fire-Retardant Treated Plywood Sheathing: Plywood wall sheathing shall be 5/8" thick, fire-retardant treated plywood and roof sheathing shall be 5/8" thick, per Drawings. All plywood shall be engineered grade APA rated, with exterior glue as designated. Fire retardant treated plywood shall comply with AWPA C27 requirements and shall receive appropriate classification marking from Underwriter's Laboratory (UL). Provide ACX fire treated plywood as backing panels for telephone and electrical panels.
- b. Miscellaneous plywood shall be 19/32" thick, minimum CDX APA rated.
- c. Cement Board Sheathing for "Adhered Stone Veneer": Comply with ANSI A118.9 and ASTM C 1325. Cement board shall be mold and mildew resistant with a score of 10 per ASTM D 3273. Provide 1/2" thick "PermaBase" as manufactured by National Gypsum Company.

5. **WOOD TRUSSES:** Comply with requirements set forth in the Structural General Notes and in this Division. Erect and brace trusses to comply with applicable requirements of referenced TPI standards. Erect trusses with plane of truss webs vertical (plumb) and parallel to each other, located accurately at design spacings indicated. Anchor trusses securely at all bearing points to comply with methods and details indicated. Install permanent bracing and related components to enable trusses to maintain design spacing and to withstand live and dead loads including lateral loads and other requirements.

6. Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction". All work shall be accurately laid out, cut and fitted, level and true. Work shall be adequately braced and shall be secured with sufficient framing anchors, nails, screws, bolts and adhesives to assure its structural integrity. For further reference, see table II "recommended nailing schedule" of the 2012 International Building Code for recommended nailing schedule. For further reference, refer to Structural Drawings for stud sizes, stud spacing and recommended nailing schedule.

- a. Termite Shields: Install termite shields between top of foundation and wood sill plate.
- b. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.
- c. Install joists with crown edge up and support ends of each member with not less than 1-1/2 inches of bearing on wood or metal, or 3 inches on masonry. Where supported on wood members, by toe nailing or by using metal framing anchors.

7. Provide and install all necessary items of wood furring, nailers, blocking, etc., as indicated or required sound construction. Provide blocking for support of toilet accessories, cabinets, etc. Provide and install all necessary bolts, hangers, nails, screws, and other items classed as rough hardware as required for the complete anchoring or wood members.

8. **Blocking and Nailers:** All wood nailers, cants, blocking, framing members, etc., in connections with roofing, flashing, vapor barriers and waterproofing, wood sills, sleepers blocking, furring, stripping on similar concealed members in contact with masonry or concrete, shall be treated under pressure to resist termites decay and dry rot. Provide ACQ treated lumber and plywood with at least 0.25 retention and kiln dry after treatment to KDAT 19. Treated lumber and plywood shall be separated from adjacent metal with a #30 asphalt felt isolation strip and shall be fastened with stainless steel or double-dipped, hot-dip galvanized fasteners.

10. **EXTERIOR AND INTERIOR WOOD TRIM:** Provide western red cedar trim, C and better grade, S4S.

- a. Fasteners: Provide stainless steel nails, screws and other anchoring devices of type, size, material and finish required for application indicated to provide secure attachment, concealed where possible.
- b. Back out or kerf backs of standing and running trim, except those with ends exposed in finished work.
- c. Install finished carpentry level, plumb, true and aligned with adjacent materials. Use concealed shims where necessary for alignment. Scribe and cut to fit adjoining work. Any exposed fasteners shall be countersunk, filled and sanded flush. Standing and running trim shall be installed using full length pieces from maximum lengths to minimize number of joints. Predrill pilot holes to avoid splitting.

SELF-ADHERING WEATHER RESISTIVE BARRIER: Behind rainscreen cladding provide "VaproShield Wrap-Shield" as manufactured by VaproShield LLC or approved comparable product from other manufacturer. Provide weather resistive barrier as a complete system, including but not limited to: self-adhering weather resistive barrier, self-adhering flashing tape and sealants. Weather resistive barrier shall be water vapor permeable, with a perm rating of 40 to 50 per ASTM E 96, Method B. Thickness shall not be less than 0.026". Install in strict accordance with manufacturer's written instructions.

a. Weather resistive barrier shall meet ICC-ES AC308 "Acceptance Criteria for Water-Resistive Barriers".

2. AIR BARRIER COATING: Provide one-component, fluid-applied, vapor permeable, synthetic polymer air/water resistive barrier coating membrane over exterior faces of concrete masonry units, gypsum and plywood sheathing and at other locations indicated. Air barrier coating shall meet ICC-ES AC 212, ICC-ES AC 148, ASTM D 1970 for nail sealability and ASTM E 2357 for an air barrier assembly. Provide primer, flashing, transition membrane and other related accessories for a complete system.

a. Air Barrier Coating Performance Criteria. Air barrier coating system shall meet or exceed the following:

- 1) Air leakage per ASTM E 2357: Not more than 0.0001 cfm/sq ft at 1.57 psf.
- 2) Air permeance per ASTM E 2178: Not more than 0.00098 cfm/sq ft at 1.57 psf.
- 3) Water vapor transmission per ASTM E 96, Method B: 18 perms @ 10 mils wet thickness.

b. Basis of Design Product: ProSoCo, Inc.; R-Guard (2-component) System II or Sto Corp.; Gold Coat (2-part) or DuPont Tyvek Fluid-Applied WB.

c. Install air barrier coating and accessories in strict accordance with coating manufacturer's written instructions to achieve performance criteria specified. Apply to a wet mil thickness as recommended by manufacturer; not less than 10 mils over plywood sheathing and not less than 20 mils over plywood and CMU.

3. SIDING: Provide wood plastic composite board cladding with polyethylene capping material for a rear-ventilated open-joint rainscreen façade system. Provide all necessary flashing, fasteners, composite board cladding, trim and accessories for a complete system. Board cladding system shall be "Fibron" as manufactured by Fiber Composites, LLC. Installation shall be as indicated and in strict accordance with cladding manufacturer's written instructions and recommendations.

- a. Cladding board thickness shall be 0.935" total thickness with 0.015" thick capping material.
- b. Cladding board width shall be 5.4".
- c. Cladding board lengths shall be continuous.
- d. Color as indicated.
- e. Fasteners shall be Type 304 stainless steel of gage and length recommended by cladding manufacturer.
- f. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.
- g. Battens and vent screens for rain screen shall be VaproShield; VaproBatten and VaproVent Strip.

4. METAL ROOFING SYSTEMS: Provide all necessary metal closures, flashing, fasteners, sealants, 30# felt underlayment or waterproofing underlayment, metal roofing and accessories for a complete roofing system. All metal for the roofing system shall be 24 gauge Kynar coated galvanized steel. Roofing System shall be of the "Snap-Seam" design with at least 1-1/2" high seams spaced at not more than 16". Roofing system shall be UL listed for a wind uplift rating of 90 per UL 580 test procedure and shall pass ASTM E 331 for water resistance and ASTM E 1592 for structural performance. Roofing systems shall be similar to New Tech Machinery Corp.; "RR3 with S5675 panel profile. Pans of panels shall have two "large V" striations, equally spaced in the pan. Metal color shall match Firestone "Medium Bronze." Installation shall be over 2x wood decking and underlayment to meet specified performance criteria and metal roofing system manufacturer's recommendations.

5. SHEET METAL FLASHING AND TRIM: Provide all materials, accessories, detailing, and installation for each item which conforms to the recommendations shown in the "Architectural Sheet Metal Manual" published by the Sheet Metal and Air Conditioning Contractors National Association, Inc., (SMACNA), latest edition and as follows:

- a. Pre-finished Metal Materials: Fabricate sheet metal flashing and trim from coil coated galvanized steel sheet complying with the following: Zinc coated, commercial quality steel sheet conforming to ASTM A 755, G 90 (ASTM A 755M, Z 275) coating designation, coil coated with 70 percent high-performance fluoropolymer coating. Metal shall not be less than 0.0239" thick (24 ga), unless otherwise indicated. Fabricate to configurations indicated.
- b. Metal Finish: Provide a full strength (70%), factory-applied baked fluoropolymer (Kynar). Color will be selected by the Architect from the manufacturer's full line of standard colors.
- c. Cleats: Provide 20 gauge galvanized steel. Fabricate as recommended by SMACNA manual.
- d. Termite Shields: Provide 24 gauge galvanized steel fabricated to configurations indicated and recommended by SMACNA manual, 6th edition, as shown in Figure 4-24. Fabricate with 3/4" flat-locked joints.
- e. Accessories: Provide all prefabricated sheet metal trim, fasteners, sealants, etc., for a complete watertight installation.

6. SEALANTS: Prior to installation of sealants, field-test their adhesion to joint substrates for each type of sealant as recommended by sealant manufacturer.

- a. General: All sealants applied against glazing/window framing systems shall be the responsibility of the Glazing Contractor.
- b. Exterior sealant shall be Tremco "Spectrem 4-TS", GE Silicone Silpruf or Dow Corning Silicone. Sealant in contact with exterior masonry shall be non-staining type.
- c. Interior sealant shall be multi-part non-sag urethane sealant; Type M, Grade NS, Class 25; uses NT (nontraffic), M, G, A, and as applicable to nonporous joint substrates indicated O. Provide Dynatrol II" by Pecora Corporation, Dymeric 240/240FC" by Tremco, Inc. or equivalent.
- d. Interior sealant at toilet accessories shall be a one-part, mildew-resistant silicone sealant; complying with National Sanitation Foundation for rating of C2 for Type S; Grade NS; Class 25; Uses NT (nontraffic), G, A, and, as applicable to nonporous joint substrates indicated, O; formulated with fungicide; intended for sealing interior joints with nonporous substrates and subject to in-service exposure to conditions of high humidity and temperature extremes.
- e. Exterior Sealant in Concrete Paving/Sidewalks/Patio shall be multi-part pourable urethane sealant for Use T (traffic): Type M, Grade NS, Class 25. Uses T (traffic), M, A, and, O. Provide NR-200 Urexpant" by Pecora Corp. or equivalent.
- f. Backer rod shall be closed cell polyethylene foam.

Install sealants and backers as recommended by sealant manufacturer to meet conditions involved.

HOLLOW METAL DOORS: All hollow metal doors shall be of type and size as shown in the drawings. Interior doors shall be ANSI/SDI-A250.8, grade II, heavy duty, Model 1 with 18 gauge faces and flush top and bottom closures. Exterior doors shall be ANSI/SDI-A250.8 grade III extra heavy duty, Model 2 (seamless) with 16 gauge faces and flush top and bottom closures. All doors and frames shall be galvanized prior to shop priming.

- a. Door shall be internally factory reinforced with 12-gauge steel at all door closer locations.
- b. Doors shall be mortised and reinforced in the factory for all hardware and shall be in accordance with templates furnished by the hardware supplier.

2. HOLLOW METAL FRAMES:

- a. Hollow Metal Frames: Hollow metal frames shall be of type and size as shown in the drawings. All frames shall have mitered joints, welded and ground smooth. Frames shall be furnished with 3-rubber mutes on each lock jamb and shall have 3-anchors per jamb up to 7'-0" high and 4 anchors per jamb up to 8'-0" high in masonry walls. All frames are to be galvanized and shall have on coat of baked on prime paint.
- b. The following is a list of gauges to be used in frame construction:

A. exterior frames	14 gauge, galvanized
B. interior frames (maximum 48" wide)	16 gauge
C. masonry anchors	16 gauge
D. stud anchors	18 gauge
E. hinge reinforcement	7 gauge x 10" long
F. all other hardware reinforcement	12 gauge
G. floor knees	14 gauge
- c. Place frames in compliance with SDI-105 "Recommended Erection Instructions for Steel Frames". Fit doors accurately in frames within tolerances specified in ANSI/SDI-A250.8. Touch-up paint marred surfaces.

3. HARDWARE: Contractor shall provide all necessary hardware for a complete operation. Hardware to include but not limited to:

- a. Butts.
- b. Lock/latch sets-lever handles and exit devices as required by code.
- c. Stops - wall and/or floor.
- d. Closers at all labeled doors and exterior doors.
- e. Weatherstripping as required, including drip heads on exterior doors.
- f. Silencers and gaskets. Provide listed smoke gasketing at all labeled doors.
- g. Note: All hardware to be medium grade-commercial in brushed stainless steel finish.

4. HARDWARE INSTALLATION

- a. All keying shall be accomplished at hardware manufacturer's plant where adequate records are maintained in order to avoid duplication of changes. Keying system shall match Owner's existing system. Key locks as directed by Owner. Provide 2 change keys per lock.
- b. Carefully inspect doors, frames, and conditions under which hardware will be installed. Do not proceed until unsatisfactory conditions are corrected.
- c. Mount Hardware units at heights indicated in respective DHI Standards, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect. Install each hardware item in compliance with the manufacturer's instructions and written recommendations.
- d. Cut and fit thresholds to door frame profiles. Prepare thresholds for the attachment of strikes and clearance for spindles as required. Set thresholds in a continuously laid bed of polyisobutylene mastic sealant to completely fill voids and exclude moisture from every source.

5. GLASS:

- a. Glass and Glazing Requirements - General:
 1. Primary glass of each (ASTM C 1036), Type 1, Class 1, Quality q³.
 2. Heat-treated glass of each (ASTM C 1048) condition indicated.
 3. Safety Glass: Products complying with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for Category II materials.
 - 1) Subject to compliance with requirements, provide safety glass permanently marked with certification label of Safety Glazing Certification Council (SGCC) or other certification agency acceptable to authorities having jurisdiction.
- b. Insulating Glass Certification Program: Provide insulating glass units permanently marked either on spacers or at least one component line of units with appropriate certification label of inspecting and testing agency.
- c. Monolithic Fully Tempered Float Glass: Provide 1/4" thick clear glass.
- d. Patterned Glass: As indicated.
- e. Clear low-E Insulated Fully Tempered Glass (088000.A20): Provide 1 inch thick unit constructed of 1/4" clear fully tempered exterior lite conforming to ASTM C 1048, Condition A, Kind FT, Type 1, Class 1, Quality q³, 1/2" air space and 1/4" clear fully tempered interior lite conforming to ASTM C 1048, Condition A, Kind FT, Type 1, Class 1 and Quality q³. Winter U-value shall not exceed 0.31 and SHGC shall not exceed 0.40.
- f. Provide safety glass where required by code, as specified and where indicated.
- g. Door and window glass to be fully tempered safety glass. Glass panels on each side of doors to be fully tempered safety glass.



DIVISION 9: FINISHES

1.

GYPSUM BOARD - General: Gypsum board partitions, soffits and ceilings shall comply with USG "Gypsum Construction Handbook", latest edition and the, Gypsum Association most stringent requirements shall govern. Fire rated gypsum drywall systems shall comply with U.L. design indicated.

a.

Mold and Moisture Resistant Gypsum Board (092900.A06): Provide 5/8" thick mold and moisture resistant gypsum board. Board shall have a mold and mildew resistance average panel score of 8 per ASTM D 3273. Install board in wet areas and in restrooms unless indicated otherwise.

b.

All accessories as required for a complete installation per U.S.G., recommended guidelines.

c.

Gypsum Board Trim (092900.A11): Provide zinc-coated steel corner beads, edge trim and control joints which comply with ASTM C 1047.

d.

Provide tape, self tapping screws, adhesive, sealant, joint compounds, etc.

e.

There shall be no installation of gypsum board until the building is closed in, weather tight and the interior relative humidity within the last 24 hours period ranges from 40 to 60 percent. All gypsum board shall be dry and shall be cleaned of dirt and debris before it is installed. All boards shall be installed vertically.

f.

Finish drywall to a Level 4 finish. Finish levels shall be in accordance with Gypsum Associates GA-214-10e.

1.

Contractor whose work will be applied to drywall shall inspect the drywall finish to confirm the finish is acceptable to receive his/her work.

g.

Patching and repair shall be flush with adjacent surfaces and feathered to create a non-visible transition.
2.

RESILIENT WALL BASE: Provide Roppe, thermoset vulcanized 100 percent resilient rubber base complying with ASTM F 1861, Type TS. Provide rubber base shall be in rolls, not strips with matching end stops and preformed or molded corner units. Provide base in heights indicated, 1/8" gauge, topset cove profile and matte finish.

a.

Resilient Edge Strips: 1/8" thick, homogeneous vinyl or rubber composition, tapered or bullnose edge, color to match flooring, or as selected by Architect from standard colors available; not less than 1" wide.

b.

Color: As indicated on Drawings.
3.

PAINTING: Paint shall be delivered, stored and handled in sealed containers from one of the approved paint manufacturers. Care should be taken to prevent danger of fire or noxious odors.

a.

Paint shall be applied when weather, temperature and humidity are acceptable to the manufacturer.

b.

Paint shall be applied in the minimum number of coats required, and in the minimum square footage recommended by manufacturer in order to achieve complete and even coverage, and proper mil thickness.

c.

All surfaces shall be properly prepared, dirt removed, holes filled, surfaces sanded, in order to achieve a first class look.

d.

Acceptable manufacturers: PPG, Benjamin-Moore, Sherwin-Williams, Tnemec or Glidden Professional.

e.

Colors: Refer to Drawings. Colors not specifically indicated will be selected by Architect.

f.

Paint schedule:

1.

Stained Wood: Sanding sealer first coat, second coat semi-transparent stain, third & fourth coat varnish.

2.

Epoxy Paint: In restrooms and other locations indicated to be painted, provide one coat primer and two topcoats of waterbased precatalyzed epoxy. Eggshell sheen.

3.

Galvanized Metal: Galvanized steel touchup primer first coat alkyd enamel second and third coats.

4.

Exposed steel: Tnemec 90-97 intermediate coat with 2 coats of Tnemec, "Endura-shield" series 74 (glass) 3 to 5 mils per coat.

DIVISION 10: SPECIALTIES

1.

SIGNAGE:

a.

Pin-Mounted Letters: Provide letters of heights and font type indicated. Letters shall be cast bronze, stand-off type.
2.

TOILET COMPARTMENTS

a.

Toilet-Enclosure Style: Floor-mounted overhead braced. Configurations as indicated. Height above floor shall be 12 inches. Door and panel height shall be 58 inches.

b.

Door, Panel, Screen, and Pilaster Construction: Solid, color through phenolic panel material on both faces, seamless, with eased edges and with homogenous color and pattern throughout thickness of material.

1.

Doors and pilasters shall be ¾-inch thick.

2.

Panels shall be ½-inch thick.

3.

Color and Pattern: One color, pattern and texture in each room, as selected by Architect.

c.

Pilaster Shoes and Sleeves (Caps): Manufacturer's standard design. Type 304 stainless steel, No. 4 satin finish.

d.

Brackets (Fittings): Full-Height (Continuous) Type: Manufacturer's continuous design. Type 304 stainless steel, No. 4 satin finish.

e.

Hardware and Accessories: Manufacturer's standard design, heavy-duty operating hardware and accessories fabricated from stainless steel.

1.

Hinges: Provide manufacturer's continuous stainless-steel hinge.

2.

Latch and Keeper: Manufacturer's standard stainless steel surface-mounted latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible.

3.

Coat Hook: Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories.

4.

Door Bumper: Manufacturer's standard rubber-tipped bumper at out-swinging doors.

5.

Door Pull: Manufacturer's standard unit at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible.

f.

Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish.

g.

Anchorage and Fasteners: Manufacturer's standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless steel, hot-dip galvanized steel, or other rust-resistant, protective-coated steel.

h.

Fabrication, General: Fabricate toilet compartment components to sizes indicated. Coordinate requirements and provide cutouts for through-partition toilet accessories where required for attachment of toilet accessories.

i.

Installation – General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices. For toilet compartments designated as accessible, comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1.

1.

Each pilaster over 3 inches wide shall be anchored to floor with a minimum of two (2) anchors to prevent twisting.

2.

Clearances: Panels, pilasters and walls shall be 1-inch.

3.

Align brackets at pilasters with brackets at walls.

4.

Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.

3.

RESTROOM ACCESSORIES: Refer to Drawings. Furnish and install restroom accessories as shown on the Drawings. All accessories to be mounted to meet ADA requirements. Accessories shall be fabricated from stainless steel meeting AISI Type 302/304, with polished No. 4 finish, 22 ga (.034") minimum thickness. Accessories are to be installed according to manufacturer's written instructions.

4.

FIRE EXTINGUISHERS AND CABINETS: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers." Cabinets shall be listed and labeled to comply with requirements of ASTM E 814 for fire-resistance rating of walls where they are installed.

a.

Cabinets: Provide Larsen's Manufacturing Co.; Architectural Series cabinets, Model 2409-6R non-rated cabinet. Cabinets shall be semi-recessed, vertical duo style, 2-1/2" rolled edge, clear acrylic glazing and vertical red lettering. Provide each cabinet with "LarsenLoc". Cabinet door and trim, box and tub finish shall be finished with white baked enamel.

b.

Fire Extinguishers: Provide multi-purpose dry chemical type; UL-Rated 4A:60B:C, 10 lb nominal capacity, in enameled steel container, for Class A, Class B and Class C fires for installation in cabinets. Extinguishers shall be filled and posted with service labels.

CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

SPECIFICATIONS

REVISIONS

DESIGNER / DRAFTER

DATE

1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A32

LAMP
RYNEARSON

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

hollis architects
miller

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

RENDERINGS SHELTER

REVISIONS

DESIGNER / DRAFTER

DATE 1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER _____

A40



PAVILION from the SOUTH



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

RENDERINGS SHELTER

REVISIONS

DESIGNER / DRAFTER

DATE 1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER



PAVILION from the NORTH-EAST

PAVILION from the NORTH-WEST

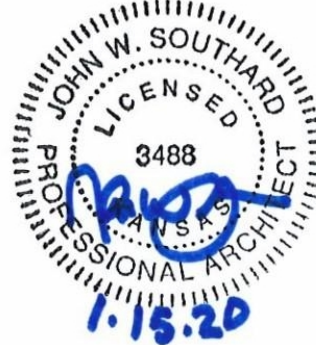


LAMP
RYNEARSON

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

hollis architects
miller

1828 WALNUT ST., STE. 922
KANSAS CITY, MO 64108
816.442.7700



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

RENDERINGS
SHELTER

REVISIONS

DESIGNER / DRAFTER

DATE
1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A42

PAVILION from the NORTH-EAST
(NO ALTERNATES)

(NO ALTERNATES)
PAVILION from the SOUTH-WEST



CONSTRUCTION DOCUMENTS

ROELAND PARK, KANSAS

RENDERINGS
SHELTER
(NO ALTS.)

REVISIONS

DESIGNER / DRAFTER

DATE 1-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

A44

PROJECT NAME: K:\19\19192\1919200 Drawings\01-1919200_ME1.dwg
AUTOCAD FILE LOCATION: Thursday, August 13, 2015 9:56:02 AM
PLOTTER: Charles Booty
PLOT DATE: Monday, January 13, 2020 2:56:02 PM
PLOT BY: Charles Booty
PLOT DATE: Monday, January 13, 2020 2:56:02 PM
PLOT BY: Charles Booty

CONDUIT AND WIRE

- ARROWS INDICATE CONDUIT AND WIRE HOME RUN(S) TO PANEL WITH 2-#12 AWG CONDUCTORS UNLESS NOTED OR OTHERWISE REQUIRED.
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING.
- CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB.
- TELEPHONE CONDUIT
- LOW VOLTAGE CONDUIT AND WIRING

LIGHTING

- BATTERY OPERATED EMERGENCY LIGHT (WALL MOUNTED)
- BATTERY OPERATED EMERGENCY LIGHT (CEILING MOUNTED)
- SURFACE/RECESSED LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- FLUORESCENT STRIP FIXTURE
- SHADING DENOTES EMERGENCY FIXTURE
- POLE MOUNTED LIGHT FIXTURE
- EXIT LIGHT - DOUBLE FACE - ARROWS AS SHOWN
- EXIT LIGHT - SINGLE FACE - ARROWS AS SHOWN
- LIGHTING SWITCHES-SINGLE POLE, 3-WAY, 4-WAY, KEY, LOW VOLTAGE, PILOT LIGHT
- DIMMER WITH SINGLE POLE SWITCH
- DIMMER WITH THREE WAY SWITCH (WATTAGE NOTED)
- WALL MOUNTED MOTION SENSOR
- CEILING MOUNTED MOTION SENSOR (LETTER DENOTES TYPE)
- SWITCH AND DUPLEX RECEPTACLE
- DENOTES A WALL MOUNTED FIXTURE

WIRING DEVICES

- DUPLEX RECEPTACLE.
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- DUPLEX RECEPTACLE WITH ISOLATED GROUND (SINGLE AND FOURPLEX SIMILAR)
- DUPLEX RECEPTACLE - TOP HALF SWITCHED - BOTTOM HALF TO HAVE POWER AT ALL TIMES
- DUPLEX RECEPTACLE ON EMERGENCY POWER (SINGLE AND FOURPLEX SIMILAR)
- FOURPLEX RECEPTACLE
- SINGLE RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- MULTI-SERVICE FLOOR BOX
- DIVIDED POWER POLE
- FLOOR BOX W/DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE W/NEMA CONFIGURATION AS NOTED
- CLOCK RECEPTACLE
- MULTI-OUTLET ASSEMBLY

COMMUNICATIONS

- TELEPHONE OUTLET
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- DATA OUTLET
- TELEPHONE/DATA OUTLET
- FLOOR BOX WITH COMMUNICATIONS OUTLET
- TELEVISION ANTENNA OUTLET
- TELEPHONE CABINET OR PLYWOOD BOARD

SECURITY

- CLOSED CIRCUIT TV CAMERA
- CARD READER
- DOOR LOCK
- SECURITY MONITOR
- WATCH TOUR
- ELECTRIC DOOR LOCK
- MOTION SENSOR - SECURITY
- MOTION SENSOR (WALL MOUNTED) - SECURITY

PUBLIC ADDRESS

- MICROPHONE OUTLET
- SPEAKER. ('H' DENOTES HORN TYPE)
- SPEAKER VOLUME CONTROL
- SPEAKER CONDUIT AND WIRING
- PUBLIC ADDRESS AMPLIFIER AND CABINET
- BUZZER
- BELL
- INTERCOM OUTLET
- INTERCOM OUTLET - MASTER
- CLOCK SYSTEM RECEPTACLE WITH SINGLE FACE ('D' DENOTES DOUBLE FACE)

POWER DEVICE AND CONTROLS

- THERMOSTAT
- DISCONNECT SWITCH. 30A-3P, NON-FUSED EXCEPT AS NOTED
- MANUAL MOTOR STARTER
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER AND DISCONNECT SWITCH
- MOTOR
- PANELBOARD (SEE ONE-LINE)
- DISTRIBUTION PANELBOARD
- CONTACTOR
- AUTOMATIC TRANSFER SWITCH
- PHOTOCELL
- JUNCTION BOX
- PUSHBUTTON
- TRANSFORMER

FIRE ALARM

- MANUAL PULL STATION
- PHOTOELECTRIC DETECTOR ('D' DENOTES IN DUCT) ('B' DENOTES BEAM-TYPE) ('R' DENOTES IN RETURN AIR PLENUM)
- IONIZATION DETECTOR ('D' DENOTES IN DUCT) ('P' DENOTES PLENUM-TYPE)
- INFRARED DETECTOR ('D' DENOTES IN DUCT)
- THERMODETECTOR ('D' DENOTES IN DUCT) FIXED TEMPERATURE AS NOTED
- DOOR HOLDER
- CHIME
- BELL
- FIRE ALARM STROBE LIGHT
- FIRE ALARM SPEAKER - ARROWS DENOTE PROJECTORS IF ANY. ('L' DENOTES COMBINATION SPEAKER AND VISUAL FIRE LIGHT)
- FIRE HORN. ('L' DENOTES COMBINATION HORN AND VISUAL FIRE LIGHT)
- REMOTE ALARM LAMP
- POST INDICATOR SWITCH
- FLOW SWITCH
- GATE SWITCH
- FIREMAN'S PHONE JACK

FIRE PROTECTION

- FIRE PROTECTION PIPING
- FIRE HOSE CABINET
- FIRE DEPARTMENT VALVE
- UPRIGHT SPRINKLER HEAD
- PENDENT SPRINKLER
- RECESSED SPRINKLER
- RECESSED SPRINKLER WITH CLOSURE PLATE
- SIDEWALL SPRINKLER.
- DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
- FIRE PROTECTION SIAMESE CONNECTION
- FIRE PROTECTION SIDEWALK SIAMESE CONNECTION
- POST INDICATOR VALVE

MEDICAL GAS

- VAC MEDICAL VACUUM
- OX OXYGEN
- NO NITROUS OXIDE
- MA MEDICAL COMPRESSED AIR
- N NITROGEN
- O₂ OXYGEN OUTLET
- V₂ VACUUM OUTLET
- A₂ MEDICAL AIR OUTLET
- N₂ NITROUS OXIDE OUTLET
- N₂ NITROGEN OUTLET

HVAC

- CWS CHILLED WATER SUPPLY
- CWR CHILLED WATER RETURN
- CHWS CHILLED/HOT WATER SUPPLY
- CHWR CHILLED/HOT WATER RETURN
- HWS HEATING HOT WATER SUPPLY
- HWR HEATING HOT WATER RETURN
- CTS COOLING TOWER SUPPLY
- CTR COOLING TOWER RETURN
- STM LOW PRESSURE STEAM
- RTN LOW PRESSURE CONDENSATE RETURN
- STM-50 HIGH PRESSURE STEAM - NO'S GIVE GAUGE PRESSURE IN P.S.I.
- RTN-50 HIGH PRESSURE RETURN - NO'S GIVE GAUGE PRESSURE IN P.S.I.
- RD REFRIGERANT DISCHARGE
- RL REFRIGERANT LIQUID
- RS REFRIGERANT SUCTION
- FOS FUEL OIL SUPPLY
- FOR FUEL OIL RETURN
- A COMPRESSED AIR
- D DRAIN (CONDENSATE)
- H₂S THERMOSTAT - ('S' DENOTES SENSOR)
- H₂S HUMIDISTAT - ('S' DENOTES SENSOR)
- H₂ THERMOSTAT/HUMIDITY SENSOR
- CO₂ CARBON DIOXIDE SENSOR
- THC THERMOSTAT/HUMIDITY SENSOR/CO₂ SENSOR
- HUMIDIFIER
- SUPPLY AIR FLOW INDICATOR
- RETURN AND EXHAUST AIR FLOW INDICATOR
- SUPPLY DIFFUSER
- SUPPLY STRIP DIFFUSER
- RETURN GRILLE OR EXHAUST REGISTER

HOSPITAL

- N NURSE CALL CONDUIT AND WIRING
- M MONITOR CONDUIT AND WIRING
- NMS NURSE CALL MASTER STATION
- N₁ NURSE CALL BEDSIDE STATION - SINGLE PATIENT
- N₂ NURSE CALL BEDSIDE STATION - DOUBLE PATIENT
- E_p EMERGENCY PUSHBUTTON STATION ('P' DENOTES PULL CORD)
- S₁ DUTY STATION
- S₂ STAFF STATION
- B₁ DOME LIGHT - CEILING MOUNTED ('B' DENOTES WITH BUZZER)
- B₂ DOME LIGHT - WALL MOUNTED ('B' DENOTES WITH BUZZER)
- Z₁ ZONE DOME LIGHT
- B₂ CODE BLUE PUSHBUTTON

PLUMBING

- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- RECIRCULATING DOMESTIC HOT WATER
- DOMESTIC TEMPERED WATER
- SOFT DOMESTIC COLD WATER
- SOFT DOMESTIC HOT WATER
- SOFT RECIRCULATING HOT WATER
- SOIL OR WASTE ABOVE GRADE OR FLOOR
- SOIL OR WASTE BELOW GRADE OR FLOOR
- STORM ABOVE GRADE OR FLOOR
- STORM BELOW GRADE OR FLOOR
- STORM OVERFLOW ABOVE GRADE OR FLOOR
- STORM OVERFLOW BELOW GRADE OR FLOOR
- PLUMBING VENT
- GAS (NATURAL)
- LIQUIFIED PETROLEUM
- PUMP DISCHARGE
- HOSE BIBB
- WALL HYDRANT
- WALL CLEAN OUT
- CLEAN OUT
- FLOOR CLEAN OUT
- FLOOR DRAIN, AREA DRAIN, FLOOR SINK
- SHOWER HEAD.
- REDUCED PRESSURE BACKFLOW PREVENTER
- PLUMBING VENT RISER CALL-OUT NUMBER

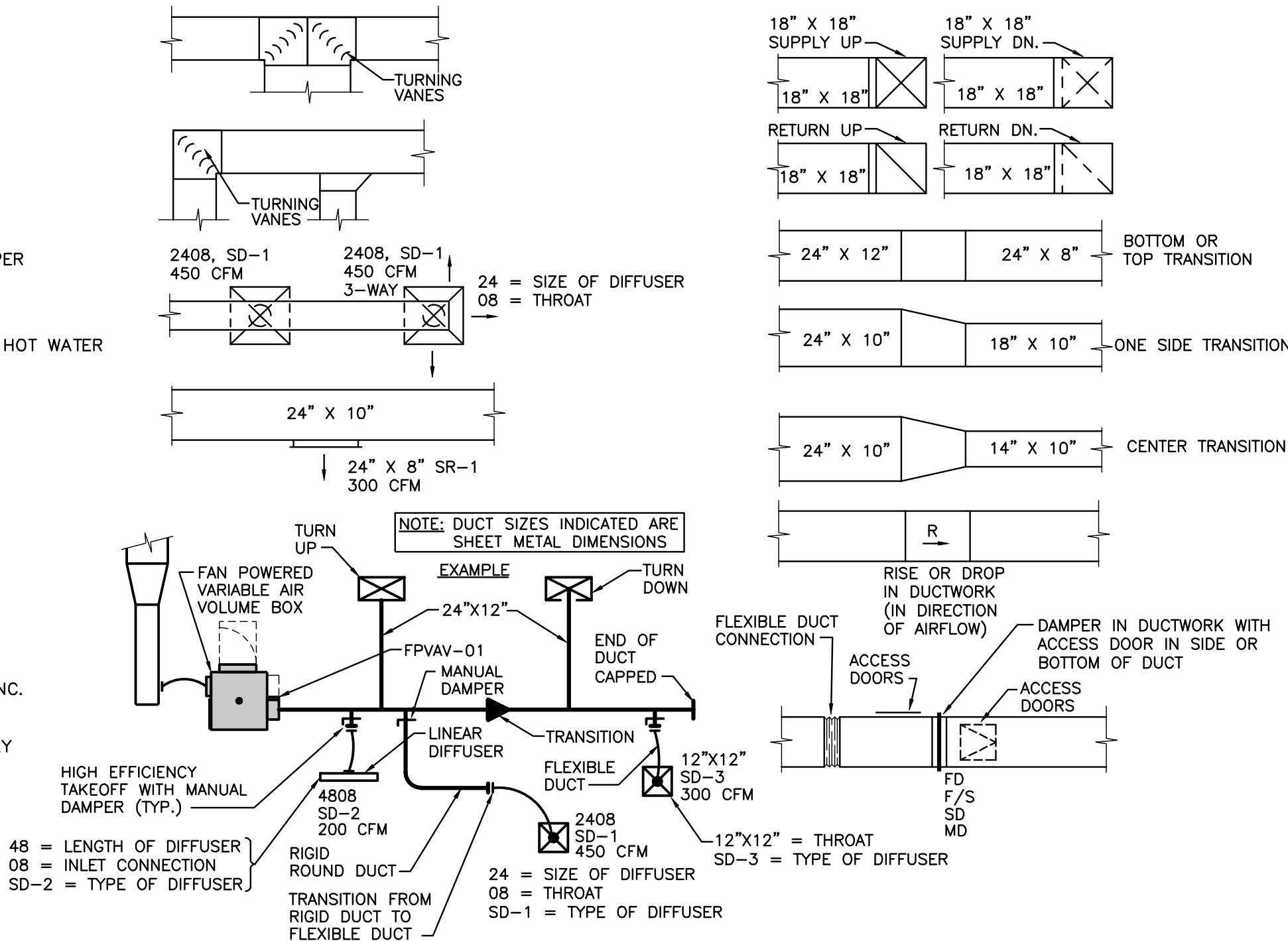
GENERAL

- MECHANICAL NOTE REFERENCE
- ELECTRICAL NOTE REFERENCE
- DEMOLITION NOTE REFERENCE
- REVISION NOTE REFERENCE
- CONNECT TO EXISTING WORK
- DETAIL REFERENCE - NO./SHEET NO.
- SECTION CUT - SECTION/SHEET NO.

PIPING

- ELBOW DOWN
- ELBOW UP
- TEE UP
- TEE DOWN
- CAP
- UNION
- REDUCER (OR INCREASER)
- PIPE FLEX
- STRAINER
- RISE IN PIPING
- DROP IN PIPING
- GUIDE
- ANCHOR
- PRESSURE GAUGE WITH GAUGE COCK
- TEMPERATURE GAUGE
- FLOW INDICATOR
- THERMOMETER.
- SITE GLASS
- EXPANSION JOINT
- FILTER-DRIVER
- DRIP ASSEMBLY
- BASKET STRAINER
- SHUTOFF VALVE
- SHUTOFF VALVE IN RISER
- BALANCING VALVE
- CALIBRATED BALANCING VALVE
- RELIEF VALVE
- TEST PLUG
- TRIPLE DUTY VALVE
- CHECK VALVE.
- AUTOMATIC CONTROL VALVE (2-WAY)
- AUTOMATIC CONTROL VALVE (3-WAY)
- AUTO FLOW CONTROL VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE

DUCTWORK



MECHANICAL AND ELECTRICAL SYMBOLS AND ABBREVIATIONS

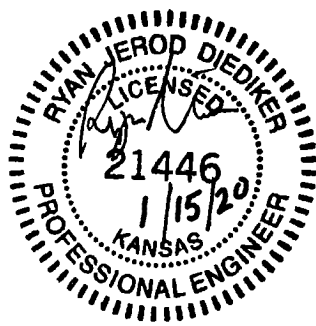
"SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED. REFER TO FLOOR PLANS FOR ALL SYMBOLS AND ABBREVIATIONS."

LAMP RYNEARSON

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

smith&boucher ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLEAND PARK, KANSAS

SYMBOLS AND ABBREVIATIONS - MECH./ELEC.

REVISIONS

DESIGNER / DRAFTER

DATE

01-15-2020

PROJECT NUMBER

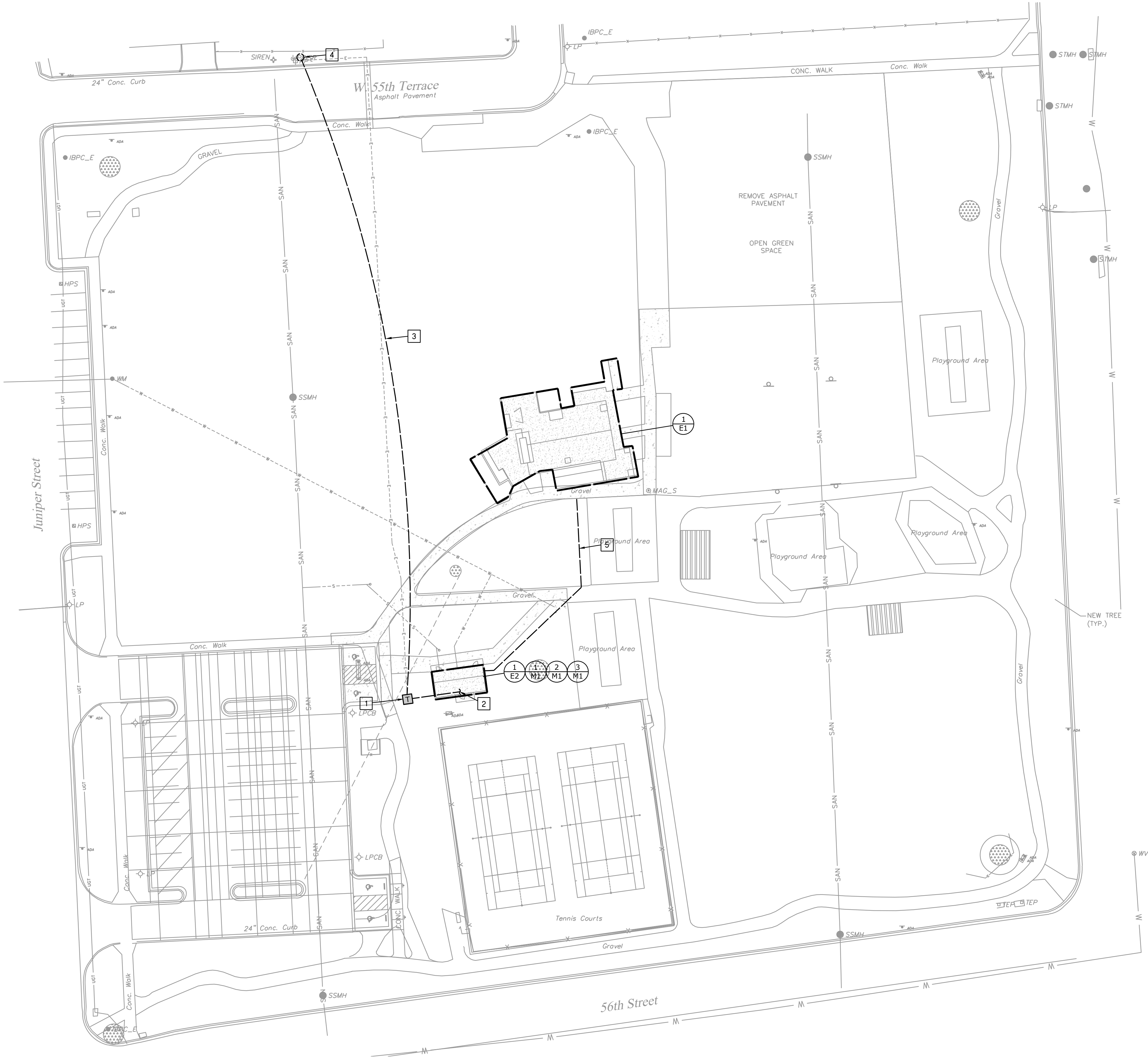
BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

ME1

PROJECT NAME: X:\19\19192\1919200 Drawings\01-1919200_ME2.dwg
AUTOCAD FILE LOCATION: K:\19\19192\1919200 Drawings\01-1919200_ME2.dwg
PLOTTER: HPGL
PLOT DATE: Monday, January 13, 2020 2:56:21 PM
PLOT TIME: 1:51:08 AM
PLOT BY: Charles Booty

15 0 15 30 45 75
feet
Scale: 1" = 30'-0"



SITE PLAN - MECHANICAL AND ELECTRICAL
SCALE: 1"=30'-0"

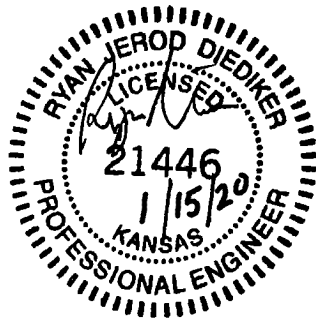
- PLAN NOTES:
- 1 APPROXIMATE LOCATION OF PAD MOUNTED UTILITY TRANSFORMER. INSTALL CONCRETE PAD PER UTILITY (KCPL) SPECIFICATIONS. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 - 2 SECONDARY ELECTRICAL UTILITY FEEDER. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 - 3 PRIMARY ELECTRICAL UTILITY FEEDER. PROVIDE (1) 4" CONDUIT WITH PULL STRING FROM UTILITY POLE, COORDINATE ROUTING WITH CIVIL CONTRACTOR AND UTILITY.
 - 4 APPROXIMATE LOCATION OF EXISTING ELECTRICAL UTILITY POLE. PROVIDE (1) 4" SWEEP AND STUD UP ONTO POLE AND CAP. COORDINATE WITH UTILITY.
 - 5 BRANCH CIRCUIT FEEDERS FROM PAVILION TO RESTROOM TO BE RUN UNDER GROUND. COORDINATE ROUTING AND INSTALLATION REQUIREMENTS WITH CONTRACTOR. BORE BELOW GRADE AS NEEDED FOR ROUTING TO BE COMPLETED BY ELECTRICAL CONTRACTOR.

**LAMP
RYNEARSON**

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

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

**SITE PLAN -
MECH./ELEC.**

REVISIONS

DESIGNER / DRAFTER

DATE
01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

ME2

PROJECT NAME: X:\19\19192\1919200 Drawings\01-1919200_ME3.dwg
AUTOCAD FILE LOCATION: X:\19\19192\1919200 Drawings\01-1919200_ME3.dwg
PLOTTER: Jcampbell
PLOT DATE: Monday, January 13, 2020 2:56:34 PM
PLOT TIME: 2:56:34 PM
PLOT BY: Charles Booby

UNIT HEATER SCHEDULE - ELECTRIC			
DESIGNATION	ECH-1	ECH-2	ECH-3
HEATER TYPE	FAN-FORCED	FAN-FORCED	FAN-FORCED
LOCATION	FAMILY	STORAGE	FAMILY
MOUNTING	WALL	WALL	WALL
MANUFACTURER	RAYWALL	RAYWALL	RAYWALL
MODEL	AFA115D	AFA115D	AFA115D
WEIGHT (LBS)			
UNIT DATA	AIRFLOW (CFM)	175	175
	FAN DRIVE	DIRECT	DIRECT
	HEATER KW	1.5	1.5
	VOLTAGE/PHASE	120/1	120/1
ELEC./CTRL. DATA	AMPS	12.5	12.5
	PANEL & CIRCUIT	RP-12	RP-14
	WIRE & CONDUIT	(2) #12, #12 G., 1/2" C.	(2) #12, #12 G., 1/2" C.
	OVERCURRENT DEVICE	20A/1P CB	20A/1P CB
	DISCONNECT	INTEGRAL	INTEGRAL
	CONTROL	NOTE 1	NOTE 1
REFERENCE DRAWING/DETAIL	M1	M1	M1
REMARKS	-	-	-

NOTES:
1. PROVIDE WITH UNIT-MOUNTED DISCONNECT, TRANSFORMER / RELAY AND REMOTE WALL THERMOSTAT.

PLUMBING FIXTURE SCHEDULE					
MARK	MANUFACTURER / MODEL	DESCRIPTION	MANUFACTURER/ MODEL	FITTINGS DESCRIPTION	NOTES
WC-1	AMERICAN STANDARD AF WALL 3353.101	WATER CLOSET: WHITE VITREOUS CHINA, ELONGATED BOWL, WALL MOUNTED FLUSH VALVE BOWL WITH BACK SPUD AND FLAT BOLT COVERS, 1.28 GALLON SIPHON JET FLUSHING ACTION.	SLOAN OPTIMA 152-1.28 ES-S	SENSOR ACTIVATED, CONCEALD WATER CLOSET SINGLE FLUSH VALVE, 1.28 GPF, CHROME PLATED, FLUSH OVERRIDE BUTTON, HARD-WIRED, TRANSFORMER AS REQUIRED, VACUUM BREAKER FLUSH CONNECTION AND SPUD COUPLING FOR 1-1/2" BACK SPUD	1,3,4
	WADE 330-HD	PROVIDE CARRIER AS REQUIRED TO SUIT APPLICATION FOR MOUNTING IN CHASE		PROVIDE WALL AND SPUD FLANGES.	
	CHURCH 9500C	SEAT: SOLID PLASTIC, OPEN FRONT, WHITE, ELONGATED BOWL, INTEGRATED BUMPERS, EXTERNAL CHECK HINGES WITH STAINLESS STEEL POSTS.			
L-1	AMERICAN STANDARD COMRADE	WALL-HUNG LAVATORY: WHITE VITREOUS CHINA, REAR OVERFLOW, 20"x18-1/4".	SLOAN SOLIS EAF-275	HANDSFREE SENSOR OPERATED FAUCET, .5 GPM VANDAL RESISTANT SPRAY, POLISHED CHROME, SINGLE SUPPLY, SOLAR-POWERED, BATTERY BACKUP	1,2,3,4,5
EW-C-1	ELKAY LK4405	MECHANICALLY ACTVATED, OUTDOOR, WALL MOUNTED, NON-FILTERED, NON-REFRIGERATED, FOUNTAIN. VANDAL RESISTANT, FRONT MOUNTED BUBBLER. COORDINATE FINISHWITH ARCHITECT.			
HB-1	JAY R. SMITH 5572	SILLCOCK, INTEGREL VACUUM BREAKER, STAINLESS STEEL VANDAL RESISTANT BOX, 3/4" HOSE THREAD SPOUT, "T" HANDLE KEY,			

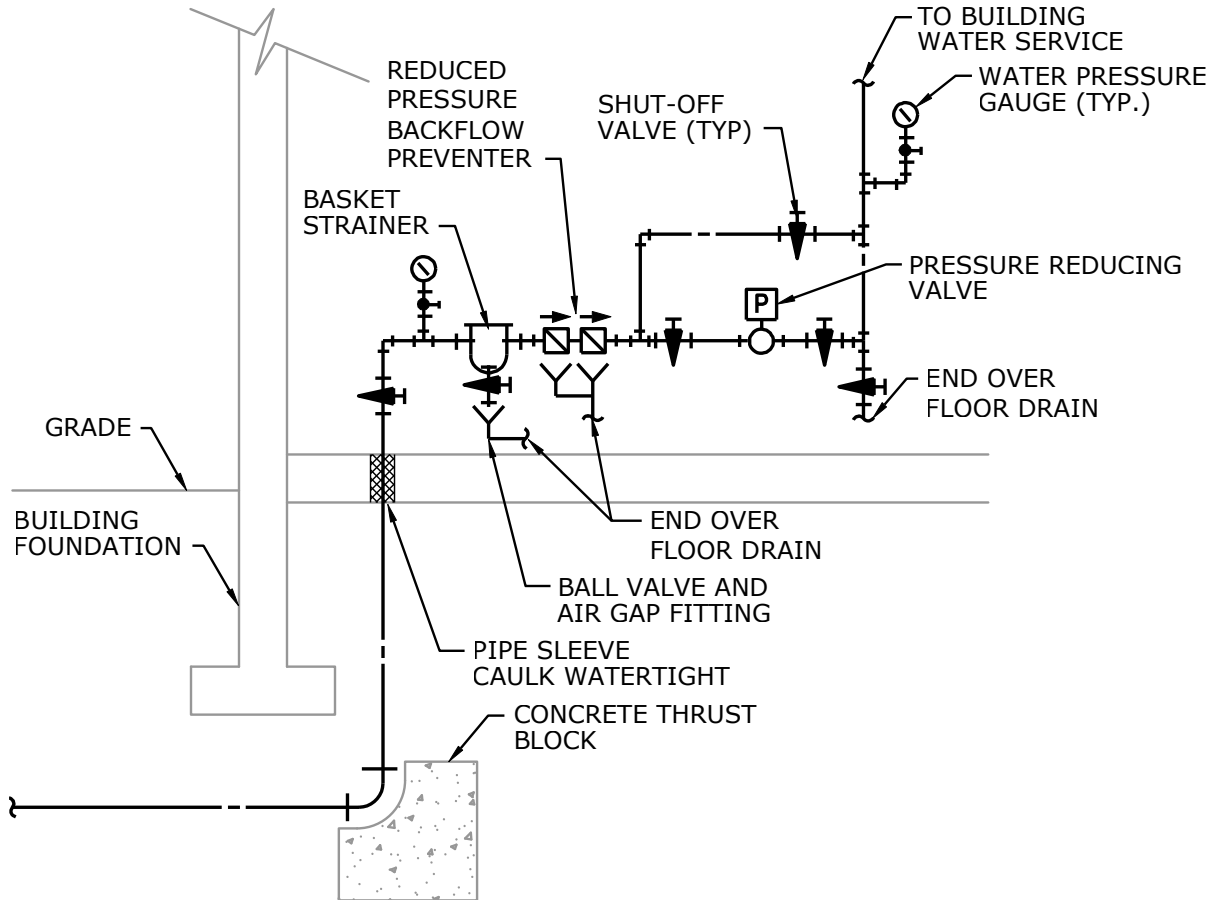
NOTES:
1. PROVIDE WITH ALL MOUNTING HARDWARE AS REQUIRED.
2. PROVIDE WITH CHROME PLATED DRAIN, GRID STAINER, TAILPIECE, AND TRAP.
3. PROVIDE STAINLESS STEEL BRAIDED HOSE WITH KEYED STOP
4. PROVIDE CAULK AROUND FIXTURE CONNECTION TO FLOOR/WALL. COLOR BY ARCHITECT.
5. PROVIDE TRUEBRO LAV GUARD 2 INSULATION KIT. COLOR BY ARCHITECT.

DOMESTIC WATER HEATER - INSTANTANEOUS		
DESIGNATION	IWH-1	IWH-2
UNIT DATA	MANUFACTURER	EEMAX
	MODEL	EX3012
	INPUT (KW)	3.0
	LOCATION	FAMILY
	WATER FLOW (GPM)	0.5
	TEMPERATURE RISE (°F)	41
	OUTLET TEMP. (°F)	90
ELEC./CTRL. DATA	VOLTS/PHASE	120/1
	PANEL & CIRCUIT	RP-13
	WIRE & CONDUIT	(2) #8, #10 G, 3/4" C.
	OVERCURRENT DEVICE	40A/1P CB
ELEC./CTRL. DATA	DISCONNECT	NOTE 1
	CONTROL	NOTE 1
REFERENCE DRAWING/DETAIL	M1	M1
REMARKS	—	—

NOTE 1: PROVIDE A 40A RATED TOGGLE SWITCH FOR DISCONNECT AS REQUIRED

EXHAUST FAN SCHEDULE		
DESIGNATION	EF-1	EF-2
SERVICE	EXHAUST	EXHAUST
LOCATION	FAMILY	FAMILY
UNIT DATA	MANUFACTURER	COOK
	MODEL NO.	CBF
	FAN TYPE	CENTRIFIGAL
	CFM	75
	STATIC PRESSURE	0.15
	FAN RPM	1763
	BRAKE HORSEPOWER	40.5W
	MOTOR HORSEPOWER	N/A
	VOLTAGE/PHASE	120/1
	DRIVE	DIRECT
	WEIGHT (LBS)	21
	SONES	3.3
ELEC./CONTROL DATA	PANEL & CIRCUIT	LIGHTING CIRCUIT
	WIRE & CONDUIT	(2) #12, #12 G., 1/2" C.
	OVERCURRENT DEVICE	NOTE 1
	DISCONNECT	TOGGLE SWITCH
	CONTROL	NOTE 1
ELEC./CONTROL DATA	DAMPER TYPE	NOTE 2
	REFERENCE DRAWING/DETAIL	M1
REMARKS	—	—

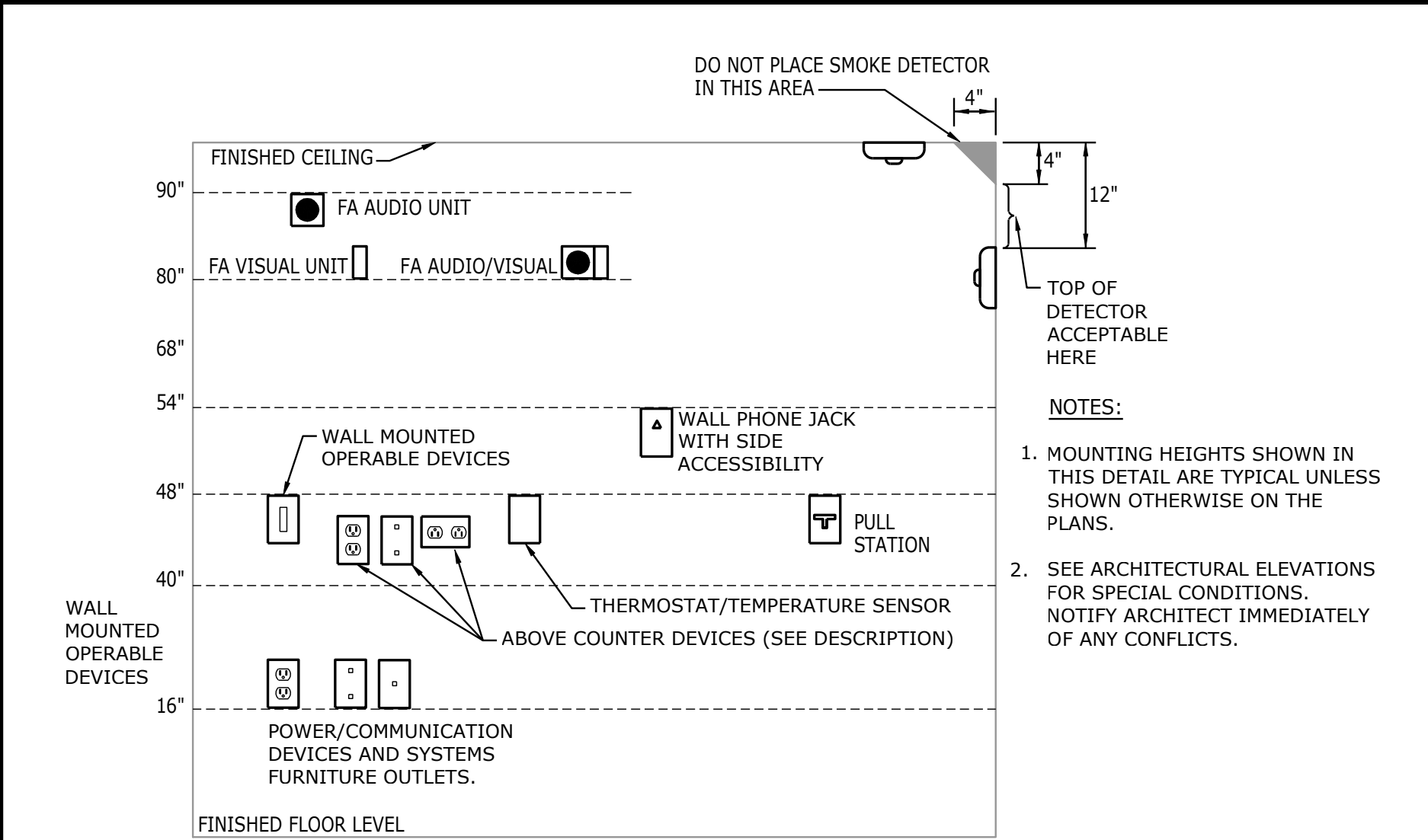
NOTES:
1. INSTALL A LIGHTING POWER PACK FOR FAN THAT OPERATES WITH THE RESTROOM LIGHTS.
2. FURNISH AND INSTALL WITH INTEGRAL BACKDRAFT DAMPER.



DOMESTIC WATER SERVICE DETAIL
NOT TO SCALE

DRAIN SCHEDULE			
MARK	MANUFACTURER/ MODEL	DESCRIPTION	REMARKS
FD-1	WADE 1100A	CAST IRON DRAIN WITH ADJUSTABLE TOP AND 6" NICKEL BRONZE STRAINER WITH VANDAL RESISTANT SCREWS. PROVIDE WITH TRAP SEAL DEVICE.	1,2
FD-2	WADE 2370	CAST IRON DRAIN WITH 12" SQUARE, NICKEL BRONZE FIXED TOP, SLOTTED GRATE. PROVIDE WITH TRAP SEAL DEVICE.	1,2

NOTES:
1. COORDINATE ALL DRAIN LOCATIONS WITH (BUT NOT EXCLUDING) EQUIPMENT, HOUSE-KEEPING PADS, MILLWORK, AND STRUCTURAL.
2. REFER TO PLANS FOR FLOOR DRAIN OUTLET SIZE.



FA VISUAL UNIT (FIRE ALARM NOTIFICATION DEVICES) DEVICE 80" ABOVE HIGHEST FLOOR LEVEL OR 6" BELOW CEILING WHICH EVER IS LOWER (ADA 1993). BOTTOM OF DEVICE 80" AFF (NFPA).

FA AUDIO UNIT (FIRE ALARM NOTIFICATION DEVICE) TOP OF UNIT AT LEAST 90" AFF OR 6" BELOW CEILING WHICH EVER IS LOWER (NFPA).

FA AUDIO/VISUAL UNIT (FIRE ALARM NOTIFICATION DEVICE) LOCATION DETERMINED BY VISUAL UNIT REQUIREMENTS (NFPA).

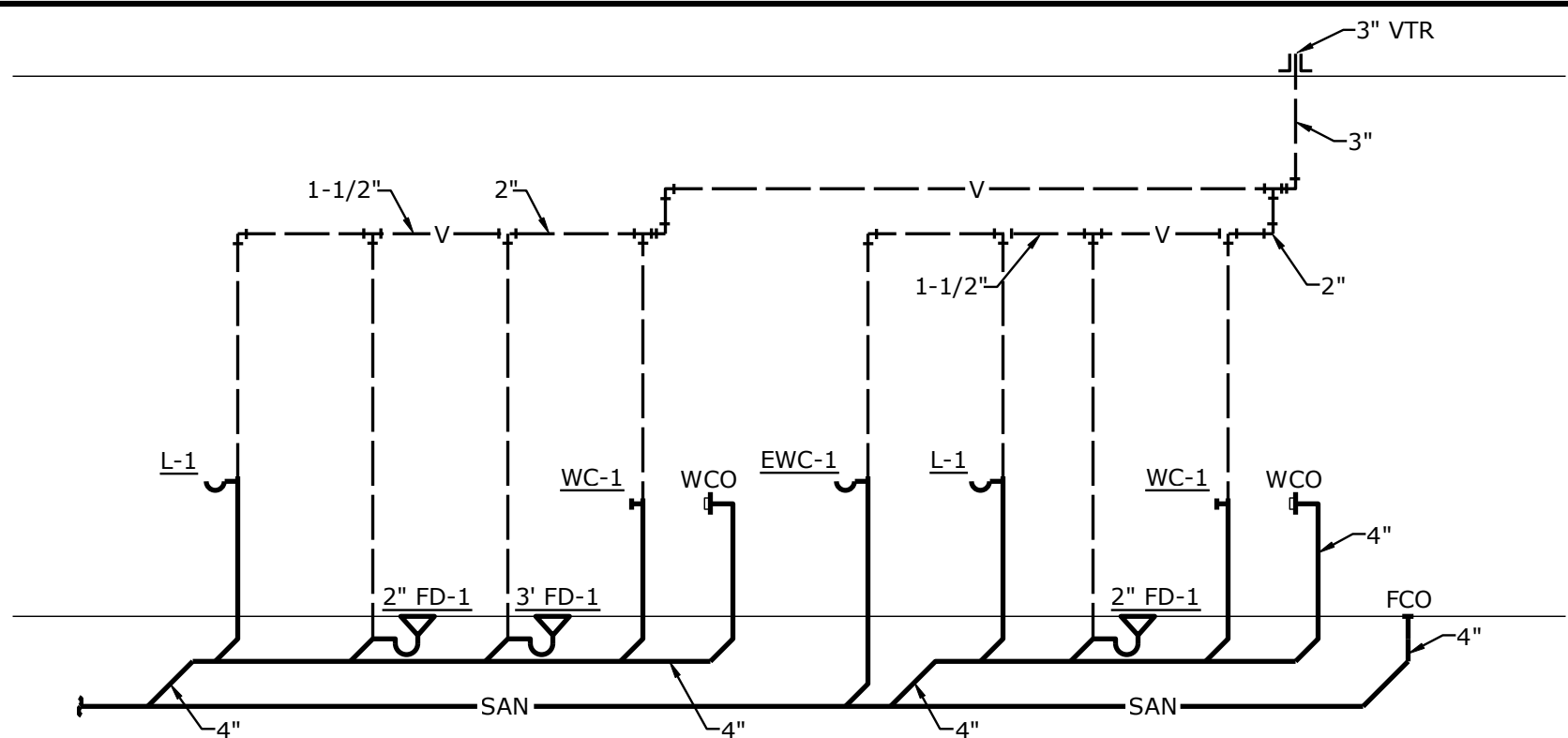
FA PULL STATION (FIRE ALARM ACTIVATION DEVICE) HIGHEST OPERABLE PART SHALL NOT BE MORE THAN 48" ABOVE THE FLOOR (FRONT APPROACH) ADA 1993. OPERABLE PART (T-HANDLE) SHALL BE NOT LESS THAN 42" AFF (NFPA).

WALL MOUNTED OPERABLE DEVICES

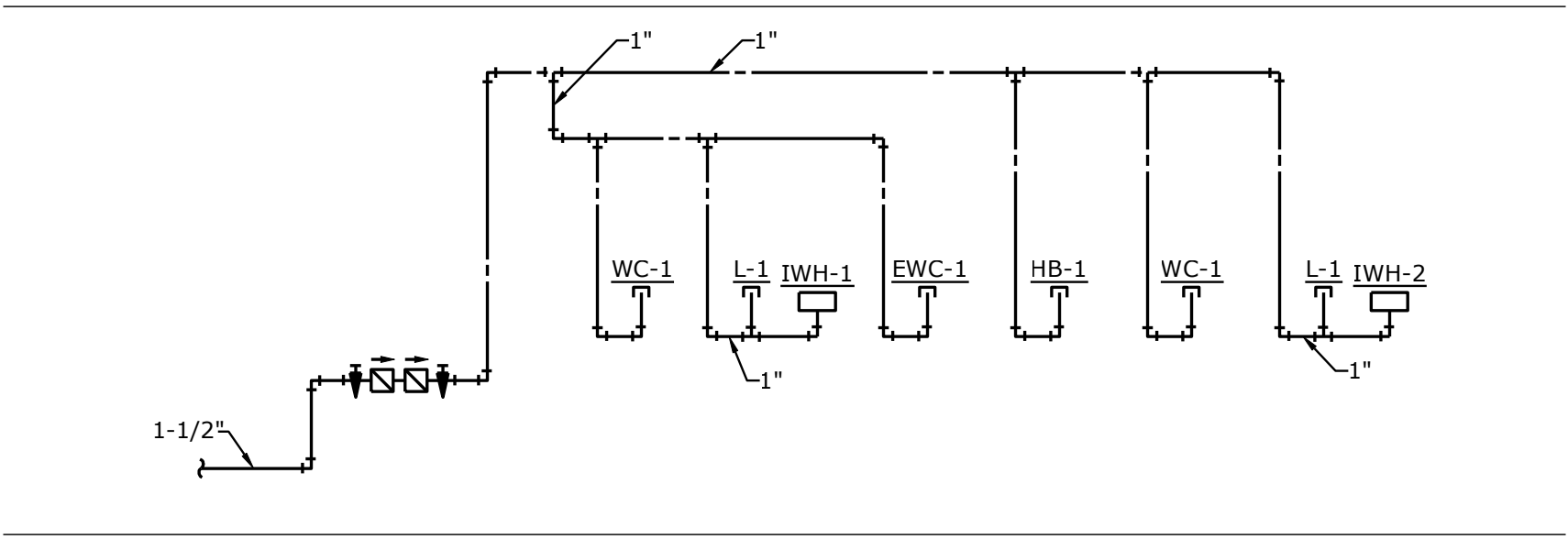
OPERABLE DEVICES SHALL BE LOCATED 48" AFF. TO THE TOP OF OPERABLE PORTION OF DEVICE. WALL MOUNTED TELEPHONES WITH SIDE ACCESSIBILITY MAY BE MOUNTED UP TO 54" AFF. WALL MOUNTED OPERABLE DEVICES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
ADJUSTABLE THERMOSTATS, TEMPERATURE SENSORS, HUMIDITY SENSORS, CO2 SENSORS
LIGHTING SWITCHES/DIMMERS/CONTROLS
PUSH BUTTONS
OTHER CONTROL OR "CALL" DEVICES

POWER/COMMUNICATION DEVICES:

OUTLETS SHALL BE LOCATED 16" AFF TO THE BOTTOM OF THE BOX.
*ABOVE COUNTER DEVICES (PLAN DESIGNATION FD-1) SHALL BE LOCATED AT 48" TO THE TOP OF THE BOX, MOUNTED VERTICALLY UNLESS ABOVE CASEWORK. WHEN ABOVE CASEWORK LOCATE THESE DEVICES AT 2" ABOVE BACKSPLASH OF COUNTER TOP MEASURED TO THE BOTTOM OF DEVICE. VERIFY W/ARCHITECTURAL DETAILS.



SANITARY RISER
NOT TO SCALE



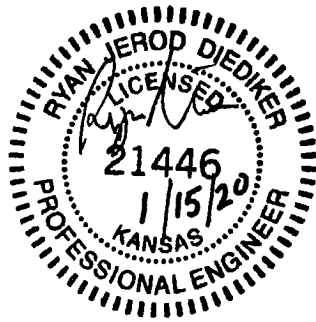
DOMESTIC WATER RISER
NOT TO SCALE

LAMP
RYNEARSON

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

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

SCHEDULES &
DETAILS -
MECH./ELEC.

REVISIONS

DESIGNER / DRAFTER

DATE

01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

ME3

PROJECT NAME: K:\19\19192\1919200 Drawings\01-1919200_ME4.dwg
AUTOCAD FILE LOCATION: Thursday, August 29, 2019 1:42:34 AM
Ribbon
Charles Booby
Monday, January 13, 2020 2:57:14 PM
VIEWED FROM: 3DVIEW
NAME: TIME:
DATE: 01-15-2020
PROJECT NUMBER:
BOOK AND PAGE:
MISSOURI AUTHORIZATION NUMBER:
ME4

PART 1 - GENERAL REQUIREMENTS - HVAC, PLUMBING, AND FIRE PROTECTION

1.1 SUMMARY OF WORK

- A. THE CONTRACT DOCUMENTS REQUIRE THE FURNISHING AND INSTALLING OF COMPLETE FUNCTIONING MECHANICAL SYSTEMS, AND EACH ELEMENT THEREOF, AS SPECIFIED OR INDICATED IN THE CONTRACT DOCUMENTS OR REASONABLY INFERRED, TO COMPLETELY CONSTRUCT AND LEAVE READY FOR OPERATION THE SYSTEMS AS SHOWN ON THE DRAWINGS AND HEREIN DESCRIBED, INCLUDING EVERY ARTICLE, DEVICE OR ACCESSORY, WHETHER OR NOT SPECIFICALLY CALLED FOR BY ITEM. ELEMENTS OF THE WORK INCLUDE MATERIALS, LABOR, SUPERVISION, SUPPLIES, EQUIPMENT, TRANSPORTATION, AND UTILITIES.
- B. SPECIFICATIONS AND DRAWINGS ARE COMPLEMENTARY AND WHAT IS CALLED FOR IN ONE SHALL BE AS BINDING AS IF CALLED FOR BY BOTH.
- C. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER BY EXPERIENCED MECHANICS OF THE PROPER TRADE.

1.2 COORDINATION, MEASUREMENTS AND LAYOUTS

- A. THE CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B. THE CONTRACTOR SHALL EMPLOY A COMPETENT FOREMAN ON THE JOB TO SEE THAT WORK IS DONE IN ACCORDANCE WITH THE BEST PRACTICES AND IN A SATISFACTORY AND WORKMANLIKE MANNER. THE FOREMAN SHALL KEEP INFORMED AS TO THE WORK OF OTHER TRADES ENGAGED IN THE CONSTRUCTION OF THE PROJECT, AND SHALL EXECUTE HIS WORK IN SUCH A MANNER AS NOT TO INTERFERE WITH OR DELAY THE WORK OF OTHER TRADES.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. WHERE LOCAL CONDITIONS NECESSITATE A REARRANGEMENT, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL, DRAWINGS OF THE PROPOSED REARRANGEMENT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES THAT MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL OF HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY. FURNISHING SUCH OFFSETS, FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSION.

1.3 PERMITS AND FEES

- A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION, OTHER THAN THOSE DEPOSITS OR FEES WHICH ARE FULLY REFUNDABLE TO THE OWNER.

1.4 SUBMITTALS, MATERIALS AND EQUIPMENT

- A. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE SPECIFIED HEREIN, FREE FROM DEFECTS AND OF THE BEST QUALITY NORMALLY USED FOR THE PURPOSE IN GOOD COMMERCIAL PRACTICE.
- B. AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT FOR REVIEW SIX COPIES OF SHOP DRAWINGS FOR ALL EQUIPMENT TO BE FURNISHED FOR THIS PROJECT. SUBMITTALS SHALL INCLUDE MANUFACTURER'S NAME, MODEL NUMBER, DESCRIPTIVE ENGINEERING DATA AND ALL NECESSARY INFORMATION AS TO FINISH, MATERIAL GAUGES AND ACCESSORIES. AFTER SUCH SHOP DRAWINGS ARE PROCESSED, THREE COPIES WILL BE RETURNED TO THE CONTRACTOR. THE CONTRACTOR SHALL, UPON RECEIPT OF REVIEWED SHOP DRAWINGS PROCEED WITH THE PROCUREMENT AND INSTALLATION OF SUCH EQUIPMENT.

1.5 CODES, LAWS, AND STANDARDS

- A. ALL WORK SHALL BE INSTALLED IN COMPLIANCE WITH ALL GOVERNING CODES, APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES OR STATUTES OF REGULATORY BODIES HAVING JURISDICTION. THE WORK SHALL BE EXECUTED IN ACCORDANCE WITH SAID LAWS, REGULATIONS, ORDINANCES, STATUTES OR CODES, WITHOUT INCREASED COST TO THE OWNER. ANY POINT IN QUESTION SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL. WORK INDICATED ON THE DOCUMENTS THAT IS IN EXCESS OF CODE REQUIREMENTS SHALL NOT BE REDUCED IN QUALITY AND/OR QUANTITY.
- B. COMPLY WITH RULES AND REGULATIONS OF PUBLIC UTILITIES AND MUNICIPAL DEPARTMENTS AFFECTED BY CONNECTIONS OF SERVICES.

1.6 RECORD DOCUMENTS

- A. THIS CONTRACTOR SHALL PREPARE A COMPLETE "AS-BUILT" SET OF DRAWINGS INCORPORATING ALL CHANGES MADE DURING CONSTRUCTION. LOCATION OF UNDERGROUND PIPING SHALL BE LOCATED BY DIMENSION FROM COLUMN LINES.
- B. THIS CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FIVE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS INCLUDING FINAL COPIES OF EQUIPMENT SHOP DRAWINGS, MANUFACTURER'S LITERATURE FOR ALL EQUIPMENT INSTALLED ON THE PROJECT SHOWING ALL DETAILS OF EQUIPMENT, REPLACEMENT PART DATA AND MAINTENANCE AND OPERATING INSTRUCTIONS. MANUALS SHALL INCLUDE COPIES OF ALL EQUIPMENT WARRANTIES.

1.7 GUARANTEES AND WARRANTIES

- A. THE CONTRACTOR SHALL GUARANTEE COMPLETE SYSTEM OPERATION AND THAT THE MATERIAL AND EQUIPMENT FURNISHED AND INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND WILL GIVE SATISFACTORY SERVICE UNDER THE SPECIFIED OPERATING CONDITIONS. THE CONTRACTOR AGREES TO REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY PART OF THE APPARATUS WHICH PROVES OR BECOMES DEFECTIVE WITHIN ONE YEAR AFTER THE SYSTEM IS ACCEPTED. NO EQUIPMENT WARRANTY OR GUARANTEE SHALL START UNTIL THE TIME OF BUILDING ACCEPTANCE.
- B. ALL WARRANTIES ISSUED BY EQUIPMENT MANUFACTURERS SHALL BE FILLED OUT IN THE OWNER'S NAME AND GIVEN TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF WORK PERFORMED UNDER THIS SECTION.

1.8 FINAL INSPECTION

- A. AFTER COMPLETION OF THE ENTIRE PROJECT THE CONTRACTOR SHALL REQUEST FINAL INSPECTION OF THIS PROJECT IN WRITTEN FORM ADDRESSED TO THE ARCHITECT ALONG WITH A STATEMENT TO THE EFFECT THAT ALL INSTALLATIONS HAVE BEEN COMPLETED, CHECKED, ADJUSTED AND BALANCED IN ACCORDANCE WITH REQUIREMENTS OF THIS PROJECT. UPON RECEIPT OF WRITTEN NOTIFICATION OF COMPLETION AND REQUEST FOR FINAL INSPECTION THE ENGINEER WILL PERFORM A FINAL INSPECTION OF THIS WORK AND, IF ALL INSTALLATIONS ARE AS REPRESENTED BY THE CONTRACTOR, THE ENGINEER WILL SUBMIT WRITTEN RECOMMENDATION OF ACCEPTANCE.

1.9 CLEANING

- A. DIRT AND REFUSE RESULTING FROM THE PERFORMANCE OF THE WORK SHALL BE REMOVED TO KEEP THE PREMISES REASONABLE CLEAN AT ALL TIMES.
- B. AFTER COMPLETION OF THE WORK DESCRIBED IN THIS SPECIFICATION AND SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED SURFACES AND EQUIPMENT, REMOVE ALL DIRT, DEBRIS, CRATING, CARTONS, ETC., AND LEAVE ALL INSTALLATIONS FINISHED AND READY FOR OPERATION.

1.10 OPENINGS AND SLEEVES

- A. ALL PIPING THROUGH EXTERIOR OR FOUNDATION WALLS SHALL PASS THROUGH SCHEDULE 40 GALVANIZED STEEL SLEEVES WHICH SHALL BE LARGE ENOUGH TO ALLOW FOR PIPE SEAL MATERIAL. SLEEVES IN NEW CONSTRUCTION SHALL HAVE A MINIMUM 2 INCH WATERSTOP IN THE CENTER OF THE SLEEVE. NO SLEEVES ARE PERMITTED THROUGH CONCRETE STRUCTURAL MEMBERS.
1. SPACE BETWEEN PIPE AND SLEEVE IN EXTERIOR UNDERGROUND WALLS SHALL BE SEALED WITH LINK-SEAL, FLEXICRAFT OR METRAFLEX LINK STYLE PIPE SEALS.
2. IN ABOVE GRADE EXTERIOR WALLS PACK THE SPACE BETWEEN PIPE AND SLEEVE WITH MINERAL WOOL AND THEN COMPLETE SEAL WITH APPROVED CAULKING COMPOUND FLUSH WITH FINISHED SURFACE. PROVIDE PIPE COLLAR ON INTERIOR SIDE OF WALL.
- B. ALL PIPING THROUGH FLOORS SHALL BE PROVIDED WITH SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES, EXTENDING 1 INCH ABOVE THE FLOOR.
- C. FOR OPENINGS IN FLOORS, THE CAULKING SHALL BE APPLIED FROM THE UPPER SIDE TO A MINIMUM OF 3 INCH TOTAL DEPTH RECESSED 1/2 INCH BELOW THE FINISHED FLOOR. THIS 1/2 INCH RECESS SHALL THEN BE FILLED WITH SEALANT TO FLUSH WITH FINISHED FLOOR.

1.11 CUTTING AND PATCHING

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CUTTING OF WALLS, FLOORS, CEILINGS AND ROOFS REQUIRED FOR PERFORMANCE OF HIS WORK.
- B. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT PERMISSION FROM THE ARCHITECT.
- C. PATCH ALL OPENINGS TO MATCH ADJACENT CONSTRUCTION IN BOTH MATERIAL AND FINISH.

1.12 EXCAVATION AND BACKFILL

- A. ALL EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF THE WORK SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.
- B. NO EXCAVATION AND BACKFILL SHALL BE DONE WITHIN DRIP LINE OF TREES TO REMAIN. NO TREE SHALL BE REMOVED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
- C. CONTRACTOR SHALL PROVIDE PROTECTION FOR TREES WITHIN 15 FEET OF UTILITY EXCAVATION.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL TRENCH AREAS AND MAINTAINING A DRY EXCAVATION. ANY DEWATERING OF TRENCHES/EXCAVATION SHALL BE PROVIDED PRIOR TO INSTALLING ANY MATERIAL.
- E. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL NECESSARY BARRICADES, FENCING, BRACING, SHEET PILING, SHORING, WARNING SIGNS, PUMPS, ETC., FOR THE PROTECTION OF WORKERS, GENERAL PUBLIC, AND PROPERTIES. EXCAVATION WORK SHALL COMPLY WITH ASA STANDARD A10.2 "SAFETY CODE FOR BUILDING CONSTRUCTION" AND AGC STANDARD "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" AND THE DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH (OSHA) STANDARDS.
- F. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT UTILITY OWNER IMMEDIATELY FOR DIRECTIONS.
- G. ALL TRENCHES SHALL BE UNIFORMLY GRADED AND BE FREE OF SOFT SPOTS AND STONE. PROVIDE A 4 INCH SAND BED.
- H. BACKFILL SHALL NOT BEGIN UNTIL INSTALLATION HAS BEEN TESTED AND INSPECTED. CONTRACTOR SHALL CONSULT WITH THE AUTHORITY HAVING JURISDICTION AND THE ARCHITECT/ENGINEER PRIOR TO BACKFILLING.
1. INITIAL BACKFILL SHALL BE SAND TO A POINT 6 INCHES ABOVE TOP OF INSTALLED WORK.
2. FINAL BACKFILL SHALL BE INSTALLED IN LAYERS NOT EXCEEDING 12 INCHES. FILL SHALL BE WELL TAMPED BEFORE ADDITIONAL BACKFILL MATERIAL IS PLACED. BACKFILL SHALL CONSIST OF EARTH OR SAND FREE OF STONE, BRICKS, OR FOREIGN MATTER.

- I. ALL EXCESS EARTH AND OTHER MATERIAL RESULTING FROM THE EXCAVATION SHALL BE REMOVED FROM SITE BY THE CONTRACTOR OR MAY BE PILED AT A LOCATION DESIGNATED AND APPROVED BY THE OWNER. ALL DEBRIS, ROCK AND TRASH SHALL NOT BE ALLOWED TO ACCUMULATE AND SHALL BE REMOVED FROM THE SITE. STREETS, ROADWAYS AND PRIVATE PROPERTY SHALL BE KEPT IN A CLEAN CONDITION.
- J. WHEN THE EXCAVATION IS WITHIN THE AREA WHERE FINISHED SITE WORK IS TO BE DONE UNDER THE GENERAL CONTRACT WORK, BACKFILL TO THE HEIGHT OF ROUGH GRADE. FINAL SURFACING WILL BE UNDER GENERAL CONTRACT WORK.
- K. WHEN THE EXCAVATION IS BEYOND THE AREA OF GENERAL CONSTRUCTION WORK, FINAL SURFACE AND ADJACENT DISTURBED AREAS SHALL BE RESTORED TO MATCH THE ORIGINAL CONDITION BY SODDING, SEEDING, ASPHALT PAVING, CONCRETE, ETC., AS REQUIRED. WORK SHALL CONFORM TO APPLICABLE SECTIONS OF THESE SPECIFICATIONS.
- L. WHEN THE EXCAVATION IS ON PUBLIC PROPERTY, RESTORATION OF SURFACE CONDITIONS SHALL MEET THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- M. WHEN SERVICES ARE TO BE RUN SIDE-BY-SIDE, A COMMON TRENCH MAY BE USED PROVIDING THE REQUIRED VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE VARIOUS SERVICES ARE MAINTAINED AND PROVIDING THE METHODS OF BEDDING AND BACKFILL MEET THE APPROVAL OF THE ENGINEER. CONTRACTORS INVOLVED SHALL MAKE THEIR OWN AGREEMENT AS TO THE SHARING OF THE COST OF THE COMMON TRENCHING AND BACKFILL WORK.

PART 2 - HEATING, VENTILATING AND AIR CONDITIONING

2.1 GENERAL REQUIREMENTS

- A. SEE PART 1 FOR GENERAL REQUIREMENTS.

2.2 BELT DRIVES AND GUARDS

- A. ALL BELT DRIVES SHALL BE OF THE MULTIPLE "V" TYPE, DAYTON, GATES OR EQUAL. STANDARD SLIDE RAILS OR OTHER MEANS OF BELT ADJUSTMENT SHALL BE PROVIDED FOR EACH MOTOR USED WITH A BELT DRIVE.
- B. REMOVABLE STEEL GUARDS WITH EXPANDED METAL SCREENS OF ACCEPTABLE DESIGN SHALL BE PROVIDED OVER ALL EXPOSED BELT DRIVES AND COUPLINGS.

2.3 FILTERS

- A. FILTERS SHALL BE AS MANUFACTURED BY AMERICAN AIR FILTER, CAMFIL FARR OR CAMBRIDGE.

2.4 FLEXIBLE CONNECTORS

- A. THE CONTRACTOR SHALL INSTALL FLEXIBLE DUCT CONNECTIONS BETWEEN EACH PIECE OF EQUIPMENT HAVING A FAN, AND ITS SHEET METAL SUPPLY AND RETURN DUCTWORK CONNECTIONS, WHICH, WHEN COMPLETED SHALL BE AIRTIGHT.
- B. CONNECTORS SHALL PROVIDE A MINIMUM OF 2 INCHES BETWEEN METAL TO INSURE AGAINST TRANSMISSION OF VIBRATION FROM THE FAN UNIT TO THE DUCTWORK.

2.5 MOTORS AND STARTERS

- A. ALL ELECTRIC MOTORS SHALL BE FURNISHED FOR OPERATION ON ELECTRICAL SERVICES AS DESIGNATED AND SHALL HAVE STARTING TORQUE CHARACTERISTICS SUITABLE FOR THE EQUIPMENT SERVED. ANY CHANGES TO THE ELECTRICAL WIRING DUE TO EQUIPMENT BEING FURNISHED, OTHER THAN THAT SPECIFIED, IS THE RESPONSIBILITY OF THE CONTRACTOR.
- B. ACROSS-THE-LINE MANUAL STARTERS AND MAGNETIC STARTERS SHALL BE CUTLER-HAMMER PRODUCTS OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED, OF SIZES REQUIRED FOR THE MOTOR HORSEPOWER AND PHASE SERVED. STARTERS LOCATED IN EQUIPMENT AREAS AND UNFINISHED SPACES MAY BE SURFACE MOUNTED TYPES WITH FUNCTIONS IDENTIFIED BY ENGRAVED PLASTIC PLATES.
- C. THE MECHANICAL CONTRACTOR SHALL FURNISH TO THE ELECTRICAL CONTRACTOR ALL STARTERS AND STARTER OVERLOADS, ALL NECESSARY WIRING DIAGRAMS AND INSTRUCTIONS TO FACILITATE THE INSTALLATION OF POWER AND CONTROL WIRING TO ALL EQUIPMENT.

2.6 SHEET METAL DUCTWORK

- A. SHEET METAL DUCTS AND CONNECTIONS SHALL BE CONSTRUCTED OF G90 GALVANIZED SHEETS OF MILD STEEL. THE DUCTS SHALL BE CONSTRUCTED TO THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) 2" W.G. PRESSURE CLASS STANDARDS. NO DUCT SHALL BE CONSTRUCTED WITH LESS THAN 24 GAUGE METAL. LOCAL CODES REQUIRING HEAVIER GAUGES SHALL GOVERN. ALL DUCTS SHALL BE SEALED TO SMACNA "B" CLASSIFICATION.
- B. DUCT SECTIONS SHALL BE JOINED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION AND REQUIREMENTS OF THE BUILDING CODE HAVING JURISDICTION.
- C. DUCT DIMENSIONS SHOWN ARE SHEET METAL DIMENSIONS AND DO NOT NEED TO BE ADJUSTED FOR INSULATION/LINING.
- D. CURVED ELBOWS SHALL BE CONSTRUCTED WITH INSIDE RADIUS NOT LESS THAN THE DUCT WIDTH IN THE SAME PLANE. SQUARE ELBOWS SHALL HAVE TURNING VANES. TURNING VANES SHALL BE DESIGNED IN ACCORDANCE WITH ASHRAE RECOMMENDATIONS. MANUFACTURED VANES SHALL BE BY TITUS OR APPROVED EQUAL.
- E. CROSSBREAK ALL DUCTWORK SURFACES OVER 18 INCHES IN WIDTH.
- F. FULL AREAS SHALL BE MAINTAINED IN TRANSITIONS WHERE A CHANGE IN THE CONFIGURATION OF THE DUCT OCCURS. ALL TAPERING JOINTS SHALL BE REDUCED GRADUALLY.
- G. JOINTS IN DUCTS SHALL BE MADE PRACTICALLY AIRTIGHT AND ANY OPEN CORNER SHALL BE NEATLY PATCHED AND SOLDERED TIGHT. DUCT TAPE WILL NOT BE ACCEPTED AS A JOINT PATCH. LOW PRESSURE SYSTEM DUCT LEAKAGE SHALL NOT EXCEED 2%.
- H. CONCEALED ROUND DUCTS SHALL BE CONSTRUCTED TO SMACNA 2" W.G. STANDARDS WITH GROOVED LONGITUDINAL SEAMS AND SLEEVED TYPE TRANSVERSE JOINTS.
- I. EXPOSED ROUND DUCTS SHALL BE CONSTRUCTED TO SMACNA 10" W.G. STANDARDS, SPIRAL LOCK SEAM DUCT AND FITTINGS.

2.7 FLEXIBLE DUCT

- A. FLEXIBLE DUCTS SHALL BE UL181 CLASS THERMAFLEX M-KE, OR APPROVED EQUAL, SHALL NOT BE LONGER THAN 8 FEET AND SHALL NOT HAVE ANY AIR FLOW OBSTRUCTION.

2.8 DUCTWORK SUPPORTS

- A. ALL HORIZONTAL DUCTS SHALL BE SUPPORTED WITH HANGERS SPACED NOT MORE THAN 8'-0" APART. HANGERS FOR DUCTS SMALLER THAN 31 INCHES SHALL CONSIST OF 22 GAUGE GALVANIZED STEEL STRAPS SECURELY FASTENED TO THE DUCT AND THE BUILDING CONSTRUCTION. DUCTS OVER 31 INCHES IN WIDTH SHALL BE HUNG WITH 1/4 INCH STEEL ANGLE ON THE BOTTOM OF THE DUCT SUPPORTED WITH STEEL RODS OF APPROPRIATE SIZE SECURELY FASTENED TO THE BUILDING STRUCTURE. ALL SUPPORTS TO MEET SMACNA STANDARDS.

2.9 GRILLES, REGISTERS, DIFFUSERS AND LOUVERS

- A. FURNISH AND INSTALL ALL GRILLES, REGISTERS, DIFFUSERS AND LOUVERS AS SHOWN AND DESCRIBED ON THE DRAWINGS OR COMPARABLE PRODUCTS OF TITUS OR PRICE.
- B. THE CONTRACTOR SHALL INFORM THE GENERAL CONTRACTOR OF THE REQUIREMENTS FOR OPENING SIZES AND FRAMING FOR ALL EQUIPMENT AND SHALL COORDINATE THE INSTALLATION OF ALL SUCH EQUIPMENT WITH THE STRUCTURAL REQUIREMENTS OF THIS PROJECT.

2.10 OPERATING AND MAINTENANCE MANUALS

- A. THE EQUIPMENT MANUFACTURER SHALL FURNISH THE OWNER TWO BOUND SETS OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL SYSTEMS.

2.11 START-UP/TESTING, ADJUSTING, BALANCING

- A. THE CONTRACTOR SHALL COMPLETE ALL EQUIPMENT INSTALLATIONS, CHECK ALL CONTROL WIRING, START UP AND ADJUST ALL EQUIPMENT AND PLACE ALL SYSTEMS IN OPERATION.
- B. AFTER COMPLETION AND START-UP OF ALL SYSTEMS THE CONTRACTOR SHALL ARRANGE FOR TESTING, ADJUSTING AND BALANCING OF ALL AIR SYSTEMS.
- C. TESTING, ADJUSTING AND BALANCING OF ALL AIR SYSTEMS SHALL BE PERFORMED IN COMPLETE ACCORDANCE WITH NEBB OR SMACNA STANDARDS.
- D. UPON COMPLETION OF TESTING, ADJUSTING AND BALANCING, A COMPLETE REPORT OF ALL FINDINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THIS PROJECT. THREE COPIES OF THE REPORT SHALL BE PROVIDED.

2.12 CURBS

- A. CURBS FOR EXHAUSTERS AND DUCTWORK THROUGH ROOF SHALL BE PATE TYPE PC AS REQUIRED BY ROOF CONSTRUCTION, OR COMPARABLE THYCURB PRODUCTS OF THE THYBAR CORP. ALL CURBS AND SUPPORTS SHALL BE CONSTRUCTED AS REQUIRED TO COMPENSATE FOR SLOPES OF THE ROOF STRUCTURE TO PROVIDE LEVEL SUPPORT OF EQUIPMENT. CURB HEIGHTS AT THE HIGH POINTS OF THE BUILDING STRUCTURE SHALL NOT BE LESS THAN 14 INCHES.
- B. CURBS FOR ROOF MOUNTED HEATING, VENTILATING AND AIR CONDITIONING UNITS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER AND SHALL BE DESIGNED TO COMPENSATE FOR SLOPES OF STRUCTURAL STEEL TO PROVIDE LEVEL SUPPORT OF EQUIPMENT. CURBS SHALL BE INSULATED TYPE WITH 1-1/2 INCH THICK INSULATION AND A MINIMUM DENSITY OF 3 POUNDS.

2.13 EXHAUST FANS

- A. EXHAUST FANS SHALL BE AS SHOWN ON THE DRAWINGS OR COMPARABLE PRODUCTS OF GREENHECK, COOK, OR CARNES.
- B. EACH EXHAUSTER SHALL BE PROVIDED WITH A DISCONNECT SWITCH, BACKDRAFT DAMPER AND BIRDSCREEN.
- C. ROOF MOUNTED EXHAUST FANS SHALL BE PROVIDED WITH CURBS AS DESCRIBED ABOVE.
- D. REFER TO PARAGRAPH TITLED "CURBS" IN THIS SECTION OF THE SPECIFICATION.

2.14 PAINTING: (SEE ARCHITECTURAL SECTION "PAINTING")

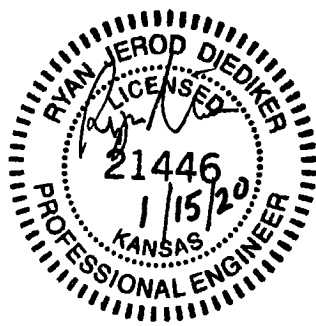
- A. PAINTING, EXCEPT AS SPECIFIED HEREIN, SHALL BE DONE BY OTHERS.
- B. EQUIPMENT WHICH HAS DAMAGED FINISH SHALL BE REPAINTED TO MATCH THE ORIGINAL FACTORY FINISH.
- C. ALL EXPOSED FERROUS METAL FURNISHED UNDER THIS CONTRACT, SUCH AS HANGERS, STRUTS, STRUCTURAL STEEL, ETC., SHALL BE GIVEN ONE COAT OF TNAMEC GRAY PRIMER.

LAMP
RYNEARSON

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

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

SPECIFICATIONS
- MECH./ELEC.

REVIEWS

DESIGNER / DRAFTER

DATE

01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

ME4

PROJECT NAME: K:\19\19192\1919200 Drawings\01-1919200_ME5.dwg
AUTOCAD FILE LOCATION: Thursday, August 23, 2018 1:32:42 AM
Hudson
Charles Booty
PLOTED BY: DATE: TIME: ME: ME: ME:

PART 3 - PLUMBING

3.1 GENERAL REQUIREMENTS

- A. SEE PART 1 FOR GENERAL REQUIREMENTS.

3.2 TRAPS

- A. ALL FLOOR DRAINS AND FIXTURES WITH WASTE CONNECTIONS SHALL BE SEPARATELY TRAPPED WITH A WATER SEALED TRAP PLACED AS CLOSE TO THE FIXTURE OR DRAIN AS POSSIBLE. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRAPS REQUIRED INCLUDING TRAPS NOT FURNISHED IN COMBINATION WITH FIXTURES AND EQUIPMENT. ALL EXPOSED TRAPS IN FINISHED SPACES SHALL BE CHROMIUM PLATED BRASS, PROVIDE DEEP SEAL TRAPS AND RUNNING TRAPS WHERE REQUIRED.
- B. IN LIEU OF DEEP SEAT TRAPS, FLOOR DRAINS CAN BE PROVIDED WITH PROSET SYSTEMS TRAP GUARD OR EQUAL.

3.3 PIPING INSTALLATION

- A. ENDS OF PIPE SHALL BE REAMED AND ALL BURRS REMOVED BEFORE INSTALLATION. PIPING SHALL BE CUT ACCURATELY TO MEASUREMENTS TAKEN ON THE JOB AND SHALL BE INSTALLED WITH AMPLE CLEARANCE FOR INSTALLATION OF COVERINGS.
- B. PIPING PASSING THROUGH WALLS OR FLOOR SHALL BE RUN FREE, USING PIPE SLEEVES AND SHALL NOT BE GROUVED IN PLACE. SLEEVES FOR PIPING TO BE INSULATED SHALL BE SIZED TO ALLOW FOR INSULATION THICKNESS. PIPING SHALL BE INSTALLED CONCEALED IN FINISHED ROOMS AND WHEREVER POSSIBLE. EXPOSED PIPES, WHERE PASSING THROUGH FLOORS, FINISHED WALL, OR FINISHED CEILINGS SHALL BE FITTED WITH CHROMIUM PLATED ESCUTCHEON PLATES. PLATES SHALL BE LARGE ENOUGH TO COMPLETELY CLOSE THE HOLES AROUND THE PIPES AND SHALL BE ROUND, NOT LESS THAN 1-1/2" LARGER THAN THE DIAMETER OF THE PIPE. PLATES SHALL BE SECURELY FASTENED IN PLACE.
- C. AT LEAST ONE PIPE UNION SHALL BE INSTALLED ADJACENT TO ALL VALVES THAT ARE SCREWED. HOT AND COLD SUPPLIES TO EACH FIXTURE AND WATER HEATER SHALL BE VALVED SEPARATELY AT THE FIXTURE. ALL SUPPLY PIPES TERMINATING AT VALVES OR FIXTURES SHALL BE PROVIDED WITH A WATER HAMMER ARRESTOR OF SUFFICIENT CAPACITY TO PREVENT WATER HAMMER.
- D. ALL HOT AND COLD WATER BRANCH LINES SHALL BE VALVED IN AN ACCESSIBLE LOCATION.
- E. ALL HOT AND COLD WATER PIPING SHALL BE ARRANGED TO DRAIN THE LOWEST POINT AND DRAIN VALVES WITH HOSE THREADS SHALL BE PROVIDED SO THAT THE ENTIRE SYSTEM CAN BE EMPTIED.

3.4 PIPING JOINTS

- A. THREADED JOINTS SHALL BE CUT FULL AND CLEAN, WITH NOT MORE THAN THREE THREADS EXPOSED BEYOND FITTINGS. JOINTS SHALL BE MADE UP TIGHT WITH GRAPHITE BASE PIPE JOINT COMPOUND APPLIED TO MALE THREADS ONLY. EXPOSED THREADS OF FERROUS PIPE SHALL BE PAINTED WITH ACID-RESISTING PAINT AFTER PIPING HAS BEEN TESTED AND PROVEN TIGHT. NO CAULKING, LAMP WICK OR OTHER MATERIAL WILL BE ALLOWED FOR CORRECTION OF DEFECTIVE JOINTS.
- B. SWEAT OR SOLDERED JOINTS IN COPPER WATER PIPING SHALL BE MADE BY THE APPROPRIATE USE OF APPROVED BRASS WATER FITTINGS PROPERLY SWEATED OR SOLDERED TOGETHER. FLARED JOINTS WHERE SPECIFIED FOR SOFT COPPER TUBING SHALL BE MADE WITH FITTINGS MEETING APPROVED STANDARDS. SURFACES TO BE SOLDERED OR SWEAT SHALL BE CLEANED BRIGHT, PROPERLY FLUXED WITH APPROVED NONCORROSIVE PASTE TYPE FLUX AND MADE WITH 95-5 OR 94-6 SOLDER. THE USE OF SELF-CLEANING FLUXES, 50-50 SOLDER OR PASTE TYPE SOLDER IS PROHIBITED. FLARED JOINTS SHALL BE MADE BY EXPANDING THE TUBE WITH A PROPER FLARING TOOL. ALL TUBES SHALL BE PROPERLY REAMED.
- C. JOINTS IN BELL AND SPIGOT CAST IRON SOIL PIPE SHALL BE OF SOFT PIG LEAD AND OAKUM WITH LEAD NOT LESS THAN 1" DEEP, AND INSTALLED IN ONE POUR OR TYLER T-Y SEAL GASKETS UNDERGROUND ONLY.
- D. JOINTS FOR NO-HUB PIPE SHALL BE NEOPRENE WITH STAINLESS STEEL BANDS.
- E. JOINTS FOR PLASTIC PIPE, WHEN PERMITTED, SHALL BE SOLVENT WELDED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.

3.5 DOMESTIC HOT AND COLD WATER PIPING

- A. ALL DOMESTIC HOT AND COLD WATER PIPING WITHIN THE BUILDING SHALL BE COPPER. UNDERGROUND WATER SERVICE OUTSIDE OF THE BUILDING MAY BE TYPE "K" SOFT TEMPER COPPER OR DUCTILE IRON OR CAST IRON PIPE WITH SUPER BELL-TITE, MECHANICAL OR FLANGED JOINTS.
- B. COPPER PIPING INSTALLED UNDERGROUND SHALL BE SOFT TEMPER TYPE "K" AND INSTALLED WITHOUT JOINTS.
- C. ALL OTHER COPPER PIPING SHALL BE HARD TEMPER TYPE "L". ALL COPPER PIPING SHALL CONFORM TO ASTM-B-88 REQUIREMENTS. SERVICE PIPING OF CAST IRON OF DUCTILE IRON PIPE SHALL CONFORM TO USASI, AWWA AND FEDERAL SPECIFICATIONS.
- D. FITTINGS FOR USE WITH TYPE "K" AND "L" COPPER PIPING SHALL BE WROUGHT COPPER SOLDER-JOINT. UNIONS SHALL BE GROUND JOINT TYPE AND SHALL BE INSTALLED WHERE NECESSARY TO PROVIDE EASE OF DISCONNECTION OF THE PIPING SYSTEM. PRESS FITTINGS FOR COPPER WATER PIPING ARE ACCEPTABLE WHERE PERMITTED BY GOVERNING CODES.
- E. WHEN A CONNECTION BETWEEN COPPER PIPE AND FERROUS PIPE IS NECESSARY, SAID CONNECTION SHALL BE MADE BY USING BRASS CONVERTER FITTING.
- F. DRAINS INDICATED ON THE DRAWINGS AND AT LOW POINTS IN CONNECTION WITH THE HOT AND COLD WATER DISTRIBUTION SYSTEM SHALL CONSIST OF 1/2" FAUCET WITH HOSE THREADS. DRAINS SHALL BE INSTALLED AT LOW POINTS IN THE HOT AND COLD WATER PIPING AND ALL PIPING SHALL GRADE TO DRAIN.

3.6 VALVES FOR DOMESTIC WATER

- A. FOR PIPING 1/2" - 2": MILWAUKEE BA-150 BALL VALE, BRONZE, TEFLON SEATS AND PACKING, 400 LBS W.O.G., SOLDER END.
- B. FOR PIPING 2-1/2" AND LARGER: MILWAUKEE ML224E BUTTERFLY VALVE, FULL LUG BODY, EPDM SEATS, STAINLESS STEEL DISC, LEVER OPERATOR.

3.7 CROSS CONNECTIONS AND INTERCONNECTIONS

- A. NO INSTALLATION SHALL BE MADE OF PLUMBING FIXTURE, DEVICE OR PIPING THAT WILL PROVIDE A CROSS CONNECTION OR INTERCONNECTION BETWEEN A DISTRIBUTING WATER SUPPLY FOR DRINKING OR DOMESTIC PURPOSES AND A POLLUTED SUPPLY SUCH AS A DRAINAGE SYSTEM OR A SOIL OR WASTE PIPE THAT WILL PERMIT OR MAKE POSSIBLE A BACKFLOW OF SEWAGE, POLLUTED WATER OR WASTE INTO THE WATER SUPPLY SYSTEM.

3.8 SOIL, WASTE, DRAIN AND VENT PIPING

- A. UNDERGROUND SOIL, WASTE, DRAIN AND VENT PIPE AND FITTINGS, THROUGHOUT THE BUILDING BELOW THE BASE SLAB TO THE LOCATIONS NOTED OUTSIDE OF THE BUILDING, SHALL BE COATED HUB-AND- SPIGOT SERVICE WEIGHT CAST IRON. SCHEDULE 40 PVC SOLID PLASTIC PIPE MAY BE USED WHERE PERMITTED BY GOVERNING CODES. NO-HUB PIPE WILL NOT BE PERMITTED UNDERGROUND.
- B. SOIL, WASTE, DRAIN, VENT PIPE, AND FITTINGS ABOVE GROUND INSIDE OF THE BUILDING SHALL BE SERVICE WEIGHT HUB-AND- SPIGOT OR NO-HUB CAST IRON PIPE. SCHEDULE 40 PVC SOLID PLASTIC PIPE MAY BE USED WHERE PERMITTED BY GOVERNING CODES. PVC PIPING RUN IN RETURN AIR PLENUM SPACE SHALL BE INSTALLED WITH A 1 HOUR RATED COVERING OVER ALL PIPE, FITTINGS AND VALVES.
- C. CHANGES IN PIPE SIZE ON SOIL, WASTE, AND DRAIN LINES SHALL BE MADE WITH REDUCING FITTINGS. CHANGES IN DIRECTION IN DRAINAGE PIPING SHALL BE MADE BY THE APPROPRIATE USE OF 45 DEGREE Y'S, LONG OR SHORT SWEEP QUARTER BENDS, SIXTH, EIGHTH, OR SIXTEENTH BENDS, OR BY A COMBINATION OF THESE OR EQUIVALENT FITTINGS. SINGLE AND DOUBLE SANITARY TEES AND SHORT QUARTER BENDS MAY BE USED IN DRAINAGE LINES ONLY WHERE THE DIRECTION OF FLOW IS FROM THE HORIZONTAL TO THE VERTICAL. QUARTER BENDS MAY BE USED IN SOIL AND WASTE LINES ON THE DISCHARGE FROM WATER CLOSETS IN SLAB ON GRADE AREAS.
- D. SEWER LINES SHALL BE LOCATED IN GENERAL AS SHOWN ON THE DRAWINGS. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN SUCH A MANNER AS TO MAINTAIN PROPER CLEARANCES AND SUFFICIENT SLOPE TO INSURE DRAINAGE.
- E. HORIZONTAL SOIL, WASTE, AND DRAIN PIPES SHALL BE GIVEN A GRADE OF NOT LESS THAN 1/4" PER FOOT FOR SIZES UP TO 3" UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER. HORIZONTAL SOIL, WASTE, AND DRAIN PIPES SHALL BE GIVEN A GRADE OF NOT LESS THAN 1/8" PER FOOT FOR SIZES 4" AND LARGER WHEN FIRST APPROVED BY THE ADMINISTRATIVE AUTHORITY.
- F. VENT STACKS SHALL BE EXTENDED FULL SIZE THROUGH THE ROOF AND FINISHED WITH 4 POUND LEAD SHEETS TURNED DOWN INTO THE STACK AT LEAST 2" AND EXTENDED 12" IN ALL DIRECTIONS FROM THE PIPE AT THE ROOF LINE. VENTS THROUGH ROOF SHALL NOT BE LESS THAN 3". PVC PIPING SHALL NOT BE USED FOR VENT PIPING THROUGH THE ROOF.
- G. WHERE APPLICABLE FOR THE ROOFING SYSTEM USED, PROVIDE FLASHING VIA PLEATED EPDM CONE IN LIEU OF LEAD.
- H. VENTS SHALL BE AIR AND WATER TIGHT.
- I. VENT CONNECTIONS SHALL BE INSTALLED ON ALL FIXTURES AND EQUIPMENT CONNECTED TO SOIL AND WASTE SYSTEMS AND ALL FLOOR DRAINS SHALL BE VENTED OR CONNECTED TO A VENTED LINE AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY CODE.
- J. ALL VENT STACKS IN OR AT OUTSIDE WALLS SHALL BE OFFSET 1"-6" MINIMUM FROM OUTSIDE WALLS BEFORE GOING THROUGH THE ROOF, TO FACILITATE FLASHING.
- K. RISERS SHALL BE INSTALLED ABSOLUTELY PLUMB AND STRAIGHT. BRANCHES SHALL BE RUN IN STRAIGHT LINES AND PITCH UNIFORMLY TO MAINS.
- L. RISERS, BRANCHES AND MAINS SHALL BE CONCEALED IN THE CONSTRUCTION EXCEPT WHERE SHOWN OTHERWISE. BRANCHES FOR CLOSETS SHALL BE FINISHED AT THE WALL LINE WITH PROPER FLANGE TO RECEIVE THE FIXTURE WHEN SET, AND THEY SHALL BE TRUE AND LEVEL SO THAT CLOSET BASE WILL HAVE FULL BEARING ON THE WALL.
- M. ALL SOIL AND VENT STACKS SHALL OFFSET WHERE REQUIRED TO MISS OBSTRUCTIONS AND AS REQUIRED TO CLEAR FLOOR BEAMS AND SPANDREL BEAMS AT FLOOR LINES AND HUG WALL CONSTRUCTION ABOVE FLOOR.
- N. PROHIBITED FITTINGS. THE DRILLING AND TAPPING OF BUILDING DRAINS, SOIL, WASTE OR VENT PIPE AND THE USE OF SADDLE HUBS OR BANDS IS PROHIBITED. ANY FITTING OR CONNECTION WHICH HAS AN ENLARGEMENT CHAMBER OR RECESS WITH A LEDGE, SHOULDER OR REDUCTION OF THE PIPE AREA THAT OFFERS AN OBSTRUCTION TO THE FLOW IS PROHIBITED.
- O. PROHIBITED CONNECTIONS. NO FIXTURES, DEVICES OR CONSTRUCTION SHALL BE INSTALLED WHICH WOULD ALLOW A BACKFLOW CONNECTION BETWEEN A DISTRIBUTION SYSTEM OF WATER FOR DRINKING AND DOMESTIC PURPOSES TO THE DRAINAGE SYSTEM, SOIL OR WASTE PIPING SO AS TO PERMIT OR MAKE POSSIBLE THE BACKFLOW OF SEWAGE OR WASTE INTO THE WATER SYSTEM.

3.9 INSULATION

- A. ALL COLD WATER PIPING SHALL BE INSULATED WITH CERTAIN-TEED 1/2" THICK GLASS FIBER PIPE INSULATION IN MOLDED SECTIONS WITH FACTORY APPLIED ALL SERVICE VAPOR BARRIER JACKET OR APPROVED EQUAL. THE END JOINT STRIPS AND OVERLAP SEAMS SHALL BE SEALED WITH A VAPOR BARRIER MASTIC AND STAPLED WITH OUTWARD CLINCHING STAPLES SPACED NOT TO EXCEED 4" CENTERS. STAPLES AND SEAMS SHALL BE SEALED WITH A COAT OF VAPOR BARRIER MASTIC. JOINTS SHALL BE COVERED BY JOINT TAPE.
- B. ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED WITH 1" THICK CERTAIN-TEED GLASS FIBER PIPE INSULATION IN MOLDED SECTIONS WITH FACTORY APPLIED ALL SERVICE JACKET OR APPROVED EQUAL. THIS INSULATION SHALL BE CLOSELY BUTTED TOGETHER AND SECURED BY JOINT TAPE MATCHING THE INSULATION COVER.
- C. ALL PIPING SURFACES TO BE INSULATED SHALL BE CLEAN AND DRY AND PIPING SHALL HAVE BEEN TESTED AND APPROVED BEFORE THE INSULATION IS APPLIED.
- D. ALL VALVES, FITTINGS AND FLANGES SHALL BE INSULATED WITH CERTAIN-TEED GLASS FIBER PIPE INSULATION, OR APPROVED EQUAL. INSULATION SHALL BE SECURELY HELD IN PLACE AND COVERED WITH ZESTON PRE-MOLDED PVC FITTING COVERS. FITTING COVERS MAY BE PROVIDED WITH FIBERGLASS INSULATION INSERTS.
- E. HORIZONTAL ROOF DRAIN PIPING AND ROOF DRAIN BODIES SHALL BE INSULATED WITH 1" THICK CERTAIN-TEED GLASS FIBER PIPE INSULATION IN MOLDED SECTIONS WITH FACTORY APPLIED ALL SERVICE JACKET OR APPROVED EQUAL. THIS INSULATION SHALL BE CLOSELY BUTTED TOGETHER AND SECURED BY PASTING THE CANVAS LAP.
- F. ALL PIPE INSULATION SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER BY AN INSULATION CONTRACTOR REGULARLY ENGAGED IN INSULATION WORK.
- G. PROVIDE HEAVY DENSITY RIGID FOAM INSERTS AT ALL HANGER LOCATIONS ON LINES 2" AND LARGER TO BE INSULATED, UNLESS OTHERWISE NOTED OR SPECIFIED.

3.10 WATER HAMMER ARRESTORS

- A. WATER HAMMER ARRESTORS SHALL BE PROVIDED FOR ALL QUICK CLOSING VALVES INCLUDING BUT NOT LIMITED TO DRINKING FOUNTAINS, DISHWASHERS, FAUCETS, FLUSHOMETER VALVES, ICE MAKERS, SELF-CLOSING VALVES, SPRING LOADED VALVES, AND WASHING MACHINES AND AS REQUIRED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.

- B. WATER HAMMER ARRESTORS SHALL BE INSTALLED PER MANUFACTURES SPECIFICATIONS AND SHALL CONFORM TO ASSE 1010 AND PER STANDARD PDI-WH-201.
- C. WATER HAMMER ARRESTOR SHALL BE SIOUX CHIEF MODEL OR APPROVED EQUAL. AIR CHAMBERS ARE NOT PERMITTED.

3.11 PIPE HANGERS AND SUPPORTS

- A. ALL NON-INSULATED COPPER PIPING SHALL BE SUPPORTED BY ANVIL FIGURE CT65 COPPER PLATED CARBON STEEL HANGERS.
- B. NON-INSULATED STEEL PIPING 2" AND SMALLER SHALL BE SUPPORTED BY ANVIL FIGURE 108 SPLIT PIPE RING HANGER WITH FIGURE 114 TURNBUCKLE ADJUSTER. NON-INSULATED STEEL PIPING 2-1/2" AND LARGER SHALL BE SUPPORTED BY ANVIL 260 HANGERS WITH TURNBUCKLE ADJUSTERS.
- C. ALL CAST IRON PIPE SHALL BE SUPPORTED WITH ANVIL FIGURE 260 CLEVIS HANGERS WITH TURNBUCKLE ADJUSTERS.
- D. ALL SCHEDULE 40 SOLID PLASTIC PVC PIPING SHALL BE SUPPORTED WITH ANVIL FIGURE 260 ADJUSTABLE CLEVIS HANGERS WITH #168 SHIELD.
- E. ALL INSULATED PIPING SHALL BE PROVIDED WITH ANVIL FIGURE 260 ADJUSTABLE CLEVIS HANGER WITH #168 SHIELD. HANGER SHALL BE INSTALLED EXTERIOR TO INSULATION UNLESS OTHERWISE NOTED OR SPECIFIED.
- F. ALL HANGERS SHALL UTILIZE THREADED RODS. NO PERFORATED STRAP IRON HANGERS OR WIRE HANGERS WILL BE ALLOWED.
- G. HANGERS AND SUPPORTS SHALL BE SPACES AS FOLLOWS:
 - 1. COPPER PIPE: 1-1/4" AND SMALLER - 6 FEET, 1-1/2" AND LARGER - 10 FEET.
 - 2. STEEL PIPE: 1" AND SMALLER - 8 FEET, 1-1/4" AND LARGER - 10 FEET.
 - 3. CAST IRON PIPE: ALL SIZES - 5 FEET, (10 FEET WITH 10' LENGHTS OF PIPE. MINIMUM ONE HANGER AT EACH JOINT.)
 - 4. PVC PIPE: 4 FEET.
- H. PROVIDE ANVIL FIGURE CT-121 RISER CLAMP FOR COPPER PIPING UP THROUGH 4". PROVIDE VERTICAL SUPPORT EVERY 10 FEET.
- I. STEEL AND CAST IRON PIPE PROVIDE ANVIL FIGURE 261 RISER CLAMP FOR PIPING 1-1/2" AND SMALLER AND FIGURE 40 RISER CLAMP FOR PIPING ABOVE 2". PROVIDE VERTICAL SUPPORT EVERY 15 FEET.

3.12 TESTING

- A. ALL PLUMBING SYSTEMS INSTALLED UNDER THIS SECTION OF THESE SPECIFICATIONS SHALL BE TESTED AND APPROVED AS HEREIN DESCRIBED AND AS REQUIRED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.
- B. THE NEW DRAINAGE AND VENT SYSTEM SHALL BE TESTED BY PLUGGING ALL OPENINGS WITH TEST PLUGS, EXCEPT THOSE AT THE TOPS OF STACKS, AND FILLING THE SYSTEM WITH WATER. TEST RESULTS WILL BE SATISFACTORY IF THE WATER LEVEL REMAINS STATIONARY FOR NOT LESS THAN ONE HOUR WHEN ALL PARTS OF THE SYSTEM ARE SUBJECTED TO A PRESSURE OF AT LEAST 10 FEET OF WATER. IF LEAKS DEVELOP, THEY SHALL BE REMEDIED AND THE TEST REPEATED AFTER THE SYSTEM IS MADE TIGHT.
- C. THE WATER SYSTEM TEST PROCEDURE SHALL CONSIST OF CHARGING THE ENTIRE SYSTEM TO OPERATING PRESSURE AND THEN ISOLATING THE SYSTEM FROM ITS SOURCE. THE SYSTEM SHALL REMAIN CLOSED FOR A PERIOD OF 24 HOURS WITH NO FIXTURE BEING USED. THE PRESSURE DIFFERENTIAL FOR THIS 24-HOUR PERIOD SHALL NOT EXCEED 5 PSI.G.
- D. THE INSPECTION AUTHORITY HAVING JURISDICTION AND THE ARCHITECT SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO PERFORMANCE OF ALL TESTS SO THAT THE TESTS MAY BE WITNESSED IF DEEMED NECESSARY.
- E. ALL PLUMBING FIXTURES AND ACCESSORIES SHALL BE TESTED, ADJUSTED AND MADE FREE OF LEAKS.
- F. NATURAL GAS SYSTEMS SHALL BE TESTED WITH COMPRESSED AIR PER THE LOCAL PLUMBING CODE REQUIREMENTS.

3.13 WATER SYSTEM FLUSHING AND STERILIZATION

- A. IMMEDIATELY UPON COMPLETION OF THE NEW WATER DISTRIBUTION SYSTEM AND PRIOR TO PLACING THIS SYSTEM IN SERVICE, THE ENTIRE NEW SYSTEM SHALL BE FLUSHED AND STERILIZED.
- B. THIS SYSTEM SHALL BE FILLED WITH WATER SLOWLY AND CAREFULLY SO THAT AIR MAY READILY ESCAPE THROUGH OPEN DRAINS AND FIXTURE VALVES. ALL DRAINS AND FIXTURE VALVES SHALL BE OPENED, STARTING WITH VALVES NEAREST THE WATER SERVICE ENTRY, AND WATER RUN UNTIL IT HAS RUN CLEAR FROM ALL OUTLETS FOR NOT LESS THAN 10 MINUTES.
- C. AFTER THIS ENTIRE WATER SYSTEM HAS BEEN THOROUGHLY FLUSHED, THE CONTRACTOR SHALL STERILIZE THE ENTIRE SYSTEM AS REQUIRED BY LOCAL CODES AND THE STATE BOARD OF HEALTH. IN THE EVENT THAT LOCAL CODES OR THE STATE BOARD OF HEALTH DO NOT HAVE SPECIFIC REQUIREMENTS FOR WATER SYSTEM STERILIZATION, THE FOLLOWING PROCEDURE SHALL BE EMPLOYED:
 - 1. A CHLORINE WATER MIXTURE OF A CHLORINE BEARING COMPOUND SUCH AS HIGH TEST CALCIUM HYPOCHLORITE OR SODIUM HYPOCHLORITE SHALL BE INTRODUCED INTO THE SYSTEM AT THE BEGINNING OF THE BUILDING WATER SERVICE.
 - 2. IF A CHLORINE GAS WATER MIXTURE IS USED, IT SHALL BE FED INTO THE SYSTEM BY MEANS OF A SOLUTION FEED CHLORINA TING DEVICE WHICH MUST BE EQUIPPED WITH MEANS FOR PREVENTING THE BACKFLOW OF WATER INTO THE CHLORINE CYLINDER.
 - 3. IF CHLORINE BEARING COMPOUND SUCH AS A HIGH TEST CALCIUM HYPOCHLORITE OR SODIUM HYPOCHLORITE IS USED, THE POWDER SHALL FIRST BE MADE INTO A PASTE AND THEN THINNED TO APPROXIMATELY 1% CHLORINE SOLUTION (10,000 PPM).
 - 4. THE RATE OF CHLORINE MIXTURES FLOW INTO THE SYSTEM SHALL BE PROPORTIONED TO THE RATE OF WATER ENTERING THE PIPE SO THAT A CHLORINE DOSE OF NOT LESS THAN 10 PPM WILL BE PRODUCED THROUGHOUT THE SYSTEM. THIS SOLUTION SHALL BE RETAINED IN THE SYSTEM FOR NOT LESS THAN 24 HOURS AND SHALL PRODUCE NOT LESS THAN 10 PPM OF CHLORINE AT THE END OF THE RETENTION PERIOD.
 - 5. THE SYSTEM BEING STERILIZED SHALL BE ISOLATED FROM THE WATER SUPPLY SOURCE SO AS TO POSITIVELY ASSURE THAT TREATED WATER WILL NOT BACKFLOW INTO THE SUPPLY LINE. SYSTEM STERILIZATION SHALL BE PERFORMED IN COOPERATION WITH THE SERVING UTILITY AND SHALL COMPLY IN ALL RESPECTS WITH THEIR REQUIREMENTS.
 - 6. AFTER STERILIZATION IS COMPLETED THE ENTIRE SYSTEM SHALL BE FLUSHED AND TESTED. TEST RESULTS SHALL BE SUBMITTED TO THE AUTHORITIES HAVING JURISDICTION FOR REVIEW PRIOR TO ACCEPTANCE OF THIS PROJECT.

3.14 ACCESS DOORS

- A. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL PLANS/ SPECIFICATIONS AND ADVISING THE GENERAL CONTRACTOR PRIOR TO BIDDING OF THE NEED FOR ACCESS DOORS IN SHEETROCK OR PLASTERED CEILINGS AND WALLS AND ALL OTHER LOCATIONS WHERE ACCESS IS REQUIRED FOR PLUMBING COMPONENTS.
- B. ACCESS DOORS SHALL BE FLUSH-MOUNTED OF A STYLE SPECIFICALLY SUITED FOR THE TYPE OF CONSTRUCTION IN WHICH THEY ARE TO BE USED, AND SIZES AND COLORS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. IN AREAS WHERE THERE ARE REMOVABLE CEILINGS, ACCESS DOORS MAY BE OMITTED, PROVIDED CEILING PANELS USED FOR ACCESS ARE CLEARLY MARKED THE TYPE OF ACCESS DOOR USED SHALL BE MILCOR, OR AN APPROVED EQUAL.
- C. ACCESS DOORS SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR FOR INSTALLATION BY THE GENERAL CONTRACTOR.
- D. IN THE EVENT THAT THE PLUMBING CONTRACTOR FAILS TO ADVISE THE GENERAL CONTRACTOR OF REQUIRED ACCESS DOORS PRIOR TO BIDDING, THE COST TO FURNISH AND INSTALL ACCESS DOORS SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.

3.15 PLUMBING FIXTURES

- A. ALL FIXTURES SHOWN OR SCHEDULED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED, SET FIRM AND TRUE, CONNECTED TO ALL REQUIRED PIPING SERVICES, THOROUGHLY CLEANED, AND LEFT READY FOR USE.
- B. ALL EXPOSED FITTINGS AND PIPING AT THE FIXTURES SHALL BE CHROME PLATED. SUPPLY PIPING SHALL BE VALVED AT EACH FIXTURE.
- C. ALL CHINA FIXTURES SHALL BE NEW, OF THE BEST GRADE VITREOUS WARE, WITHOUT PIT HOLES OR BLEMISHES, AND THE OUTLINES SHALL BE GENERALLY TRUE. ALL FIXTURES OF THE SAME TYPE SHALL BE OF ONE MANUFACTURER. THROUGHOUT THE ENTIRE INSTALLATION, THE ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT WHICH, IN HIS OPINION, IS FAULTY. ALL FIXTURES AND FLANGES ON SOIL PIPE SHALL BE MADE ABSOLUTELY GASTIGHT AND WATERTIGHT. RUBBER GASKETS OR PUTTY WILL NOT BE PERMITTED FOR THIS CONNECTION. CLOSET BOLTS SHALL BE STAINLESS STEEL AND NOT LESS THAN 1/4" IN DIAMETER AND SHALL BE EQUIPPED WITH CHROMIUM PLATED NUTS AND WASHERS. FIXTURES WITH OUTLET FLANGES SHALL BE SET AT THE PROPER DISTANCE FROM FLOOR OR WALL TO MAKE A FIRST CLASS JOINT WITH THE CLOSET SETTING COMPOUND OR GASKET AND THE FIXTURES USED.
- D. PLUMBING FIXTURES SHALL BE AS SPECIFIED, OR EQUIVALENT PRODUCTS MANUFACTURED BY ELJER, CRANE, OR AMERICAN STANDARD. ALL WATER CLOSETS, LAVATORIES, URINALS AND SINKS SHALL BE PRODUCTS OF ONE MANUFACTURER. FIXTURES SHALL BE INSTALLED COMPLETE WITH ALL NECESSARY ACCESSORIES AND TRIM. INSTALLATION OF COUNTERTOP SINKS SHALL BE COORDINATED WITH THE COUNTERTOP SUPPLIER.
- E. DRAINS AND ACCESSORIES SHALL BE AS SPECIFIED OR EQUIVALENT PRODUCTS OF WADE, JAY R. SMITH, OR JOSAM.
- F. INSULATE EXPOSED LAVATORY "P" TRAP ON ADA LISTED FIXTURES WITH PLUMBEREX TRAP GEAR OR EQUAL.

3.16 PAINTING (SEE ARCHITECTURAL SECTION "PAINTING")

- A. PAINTING, EXCEPT AS SPECIFIED HEREIN, SHALL BE DONE BY OTHERS.
- B. EQUIPMENT WHICH HAS DAMAGED FINISH SHALL BE REPAINTED TO MATCH THE ORIGINAL FACTORY FINISH.
- C. ALL EXPOSED FERROUS METAL FURNISHED UNDER THIS CONTRACT, SUCH AS HANGERS, STRUTS, STRUCTURAL STEEL, ETC. SHALL BE GIVEN ONE COAT OF TNE MEC GRAY PRIMER.

3.17 FIELD QUALITY CONTROL

- A. PERFORM THE FOLLOWING FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS:
 - 1. LEAK TEST: AFTER INSTALLATION, CHARGE SYSTEM AND TEST FOR LEAKS. REPAIR LEAKS AND RETEST UNTIL NO LEAKS EXIST.
- B. REPORT TEST RESULTS PROMPTLY AND IN WRITING TO ARCHITECT AND AUTHORITIES HAVING JURISDICTION.

LAMP
RYNEARSON

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

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

SPECIFICATIONS
- MECH./ELEC.

REVISONS

DESIGNER / DRAFTER

DATE
01-15-2020
PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

ME5

PROJECT NAME: K:\19\19192\1919200\Drawings\01-1919200-ME6.dwg
AUTOCAD FILE LOCATION: Thursday, August 23, 2018 11:53:56 AM
Hudson Monday, January 13, 2020 2:56:02 PM
Charles Booty

PART 1 - GENERAL REQUIREMENTS - ELECTRICAL

1.1 SUMMARY OF WORK

- A. THE CONTRACT DOCUMENTS REQUIRE THE FURNISHING AND INSTALLING OF COMPLETE FUNCTIONING ELECTRICAL SYSTEMS, AND EACH ELEMENT THEREOF, AS SPECIFIED OR INDICATED IN THE CONTRACT DOCUMENTS OR REASONABLY INFERRED, TO COMPLETELY CONSTRUCT AND LEAVE READY FOR OPERATION THE SYSTEMS AS SHOWN ON THE DRAWINGS AND HEREIN DESCRIBED, INCLUDING EVERY ARTICLE, DEVICE OR ACCESSORY, WHETHER OR NOT SPECIFICALLY CALLED FOR BY ITEM. ELEMENTS OF THE WORK INCLUDE MATERIALS, LABOR, SUPERVISION, SUPPLIES, EQUIPMENT, TRANSPORTATION, AND UTILITIES.
- B. SPECIFICATIONS AND DRAWINGS ARE COMPLEMENTARY AND WHAT IS CALLED FOR IN ONE SHALL BE AS BINDING AS IF CALLED FOR BY BOTH.
- C. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER BY EXPERIENCED MECHANICS OF THE PROPER TRADE.

1.2 COORDINATION, MEASUREMENTS AND LAYOUTS

- A. THE CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B. THE CONTRACTOR SHALL EMPLOY A COMPETENT FOREMAN ON THE JOB TO SEE THAT WORK IS DONE IN ACCORDANCE WITH THE BEST PRACTICES AND IN A SATISFACTORY AND WORKMANLIKE MANNER. THE FOREMAN SHALL KEEP INFORMED AS TO THE WORK OF OTHER TRADES ENGAGED IN THE CONSTRUCTION OF THE PROJECT, AND SHALL EXECUTE HIS WORK IN SUCH A MANNER AS NOT TO INTERFERE WITH OR DELAY THE WORK OF OTHER TRADES.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. WHERE LOCAL CONDITIONS NECESSITATE A REARRANGEMENT, THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR APPROVAL, DRAWINGS OF THE PROPOSED REARRANGEMENT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES THAT MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL OF HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY, FURNISHING SUCH OFFSETS, FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSION.

1.3 PERMITS AND FEES

- A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION, OTHER THAN THOSE DEPOSITS OR FEES WHICH ARE FULLY REFUNDABLE TO THE OWNER.

1.4 SUBMITTALS, MATERIALS AND EQUIPMENT

- A. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE SPECIFIED HEREIN, FREE FROM DEFECTS AND OF THE BEST QUALITY NORMALLY USED FOR THE PURPOSE IN GOOD COMMERCIAL PRACTICE.
- B. AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT FOR REVIEW ELECTRONIC COPIES OF SHOP DRAWINGS FOR ALL EQUIPMENT TO BE FURNISHED FOR THIS PROJECT. SUBMITTALS SHALL INCLUDE MANUFACTURER'S NAME, MODEL NUMBER, DESCRIPTIVE ENGINEERING DATA AND ALL NECESSARY INFORMATION AS TO FINISH, MATERIAL GAUGES AND ACCESSORIES. AFTER SUCH SHOP DRAWINGS ARE PROCESSED, ELECTRONIC COPIES WILL BE RETURNED TO THE CONTRACTOR. THE CONTRACTOR SHALL, UPON RECEIPT OF REVIEWED SHOP DRAWINGS PROCEED WITH THE PROCUREMENT AND INSTALLATION OF SUCH EQUIPMENT.

1.5 CODES, LAWS, AND STANDARDS

- A. ALL WORK SHALL BE INSTALLED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE, THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE NATIONAL ELECTRICAL SAFETY CODE, AND ALL GOVERNING CODES, APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES OR STATUTES OF REGULATORY BODIES HAVING JURISDICTION. THE WORK SHALL BE EXECUTED IN ACCORDANCE WITH SAID LAWS, REGULATIONS, ORDINANCES, STATUTES OR CODES, WITHOUT INCREASED COST TO THE OWNER. ANY POINT IN QUESTION SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL. WORK INDICATED ON THE DOCUMENTS THAT IS IN EXCESS OF CODE REQUIREMENTS SHALL NOT BE REDUCED IN QUALITY AND/OR QUANTITY.
- B. COMPLY WITH RULES AND REGULATIONS OF PUBLIC UTILITIES AND MUNICIPAL DEPARTMENTS AFFECTED BY CONNECTIONS OF SERVICES.

1.6 RECORD DOCUMENTS

- A. THIS CONTRACTOR SHALL PREPARE A COMPLETE "AS-BUILT" SET OF DRAWINGS INCORPORATING ALL CHANGES MADE DURING CONSTRUCTION. LOCATION OF UNDERGROUND CONDUIT SHALL BE LOCATED BY DIMENSION FROM COLUMN LINES.
- B. THIS CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FIVE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS INCLUDING FINAL COPIES OF EQUIPMENT SHOP DRAWINGS, MANUFACTURER'S LITERATURE FOR ALL EQUIPMENT INSTALLED ON THE PROJECT SHOWING ALL DETAILS OF EQUIPMENT, REPLACEMENT PART DATA AND MAINTENANCE AND OPERATING INSTRUCTIONS. MANUALS SHALL INCLUDE COPIES OF ALL EQUIPMENT WARRANTIES.

1.7 GUARANTEES AND WARRANTIES

- A. THE CONTRACTOR SHALL GUARANTEE COMPLETE SYSTEM OPERATION AND THAT THE MATERIAL AND EQUIPMENT FURNISHED AND INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND WILL GIVE SATISFACTORY SERVICE UNDER THE SPECIFIED OPERATING CONDITIONS. THE CONTRACTOR AGREES TO REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY PART OF THE APPARATUS WHICH PROVES OR BECOMES DEFECTIVE WITHIN ONE YEAR AFTER THE SYSTEM IS ACCEPTED. NO EQUIPMENT WARRANTY OR GUARANTEE SHALL START UNTIL THE TIME OF BUILDING ACCEPTANCE.
- B. ALL WARRANTIES ISSUED BY EQUIPMENT MANUFACTURERS SHALL BE FILLED OUT IN THE OWNER'S NAME AND GIVEN TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF WORK PERFORMED UNDER THIS SECTION.

1.8 FINAL INSPECTION

- A. AFTER COMPLETION OF THE ENTIRE PROJECT THE CONTRACTOR SHALL REQUEST FINAL INSPECTION OF THIS PROJECT IN WRITTEN FORM ADDRESSED TO THE ARCHITECT ALONG WITH A STATEMENT TO THE EFFECT THAT ALL INSTALLATIONS HAVE BEEN COMPLETED, CHECKED, ADJUSTED AND BALANCED IN ACCORDANCE WITH REQUIREMENTS OF THIS PROJECT. UPON RECEIPT OF WRITTEN NOTIFICATION OF COMPLETION AND REQUEST FOR FINAL INSPECTION THE ENGINEER WILL PERFORM A FINAL INSPECTION OF THIS WORK AND, IF ALL INSTALLATIONS ARE AS REPRESENTED BY THE CONTRACTOR, THE ENGINEER WILL SUBMIT WRITTEN RECOMMENDATION OF ACCEPTANCE.

1.9 CLEANING

- A. DIRT AND REFUSE RESULTING FROM THE PERFORMANCE OF THE WORK SHALL BE REMOVED TO KEEP THE PREMISES REASONABLE CLEAN AT ALL TIMES.
- B. AFTER COMPLETION OF THE WORK DESCRIBED IN THIS SPECIFICATION AND SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED SURFACES AND EQUIPMENT, REMOVE ALL DIRT, DEBRIS, GRATING, CARTONS, ETC., AND LEAVE ALL INSTALLATIONS FINISHED AND READY FOR OPERATION.

1.10 OPENINGS AND SLEEVES

- A. ALL PIPING THROUGH EXTERIOR OR FOUNDATION WALLS SHALL PASS THROUGH SCHEDULE 40 GALVANIZED STEEL SLEEVES WHICH SHALL BE LARGE ENOUGH TO ALLOW FOR PIPE SEAL MATERIAL. SLEEVES IN NEW CONSTRUCTION SHALL HAVE A MINIMUM 2 INCH WATERSTOP IN THE CENTER OF THE SLEEVE. NO SLEEVES ARE PERMITTED THROUGH CONCRETE STRUCTURAL MEMBERS.
 - 1. SPACE BETWEEN PIPE AND SLEEVE IN EXTERIOR UNDERGROUND WALLS SHALL BE SEALED WITH LINK-SEAL, FLEXICRAFT OR METRAFLEX LINK STYLE PIPE SEALS.
 - 2. IN ABOVE GRADE EXTERIOR WALLS PACK THE SPACE BETWEEN PIPE AND SLEEVE WITH MINERAL WOOL AND THEN COMPLETE SEAL WITH APPROVED CAULKING COMPOUND FLUSH WITH FINISHED SURFACE. PROVIDE PIPE COLLAR ON INTERIOR SIDE OF WALL.

- B. ALL PIPING THROUGH FLOORS SHALL BE PROVIDED WITH SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES, EXTENDING 1 INCH ABOVE THE FLOOR.
- C. IN FIRE RATED WALLS: CAULKING SHALL BE A PURE CERAMIC FIBER MADE OF ALUMINA-SILICA, "CERAFIBER-FS" BY JOHNS-MANVILLE. SEALANT SHALL BE GUN GRADE. AN ACRYLIC 2-PART GUN APPLIED, FIRE RETARDANT ELASTIC SEALANT, "DYMERIC" BY TREMCO OR EQUAL BY PERMITTEE NO. 1113FR.
 - 1. LIMIT THE SIZE OF THE SPACE BETWEEN THE WALL OR FLOOR AND THE OUTSIDE OF THE PIPE OR DUCT TO 1 INCH MAXIMUM. THIS SPACE IS SUFFICIENT TO ALLOW SOME MOVEMENT OF THE PIPES OR DUCT WITHOUT CRACKING THE CAULKING OR SEALANT.
 - 2. FOR OPENINGS IN WALLS, THE CAULKING SHALL BE APPLIED TO A MINIMUM OF 3 INCH TOTAL DEPTH. SEALANT SHALL THEN BE APPLIED ON BOTH SIDES OF THE WALL OPENING A MINIMUM OF 1/2 INCH IN DEPTH, FINISHED FLUSH WITH THE WALL. D.
 - D. FOR OPENINGS IN FLOORS, THE CAULKING SHALL BE APPLIED FROM THE UPPER SIDE TO A MINIMUM OF 3 INCH TOTAL DEPTH RECESSED 1/2 INCH BELOW THE FINISHED FLOOR. THIS 1/2 INCH RECESS SHALL THEN BE FILLED WITH SEALANT TO FLUSH WITH FINISHED FLOOR.

1.11 CUTTING AND PATCHING

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CUTTING OF WALLS, FLOORS, CEILINGS AND ROOFS REQUIRED FOR PERFORMANCE OF HIS WORK.
- B. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT PERMISSION FROM THE ARCHITECT.
- C. PATCH ALL OPENINGS TO MATCH ADJACENT CONSTRUCTION IN BOTH MATERIAL AND FINISH.
- D. ALL CUTTING OF EXISTING CONCRETE FLOORS/SLABS ON GRADE IN THE INTERIOR OF THE BUILDING SHALL BE PERFORMED BY "SAW CUTTING" AND SHALL BE PERFORMED BY THIS CONTRACTOR.

1.12 EXCAVATION AND BACKFILL

- A. ALL EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF THE WORK SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.
- B. NO EXCAVATION AND BACKFILL SHALL BE DONE WITHIN DRIP LINE OF TREES TO REMAIN. NO TREE SHALL BE REMOVED WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE.
- C. CONTRACTOR SHALL PROVIDE PROTECTION FOR TREES WITHIN 15 FEET OF UTILITY EXCAVATION.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL TRENCH AREAS AND MAINTAINING A DRY EXCAVATION. ANY DEWATERING OF TRENCHES/EXCAVATION SHALL BE PROVIDED PRIOR TO INSTALLING ANY MATERIAL.
- E. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL NECESSARY BARRICADES, FENCING, BRACING, SHEET PILING, SHORING, WARNING SIGNS, PUMPS, ETC., FOR THE PROTECTION OF WORKERS, GENERAL PUBLIC, AND PROPERTIES. EXCAVATION WORK SHALL COMPLY WITH ASA STANDARD A10.2 "SAFETY CODE FOR BUILDING CONSTRUCTION" AND AGC STANDARD "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" AND THE DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH (OSHA) STANDARDS.
- F. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT UTILITY OWNER IMMEDIATELY FOR DIRECTIONS.
- G. ALL TRENCHES SHALL BE UNIFORMLY GRADED AND BE FREE OF SOFT SPOTS AND STONE. PROVIDE A 4 INCH SAND BED.
- H. BACKFILL SHALL NOT BEGIN UNTIL INSTALLATION HAS BEEN TESTED AND INSPECTED. CONTRACTOR SHALL CONSULT WITH THE AUTHORITY HAVING JURISDICTION AND THE ARCHITECT/ENGINEER PRIOR TO BACKFILLING.
 - 1. INITIAL BACKFILL SHALL BE SAND TO A POINT 6 INCHES ABOVE TOP OF INSTALLED WORK.
 - 2. FINAL BACKFILL SHALL BE INSTALLED IN LAYERS NOT EXCEEDING 12 INCHES. FILL SHALL BE WELL TAMPED BEFORE ADDITIONAL BACKFILL MATERIAL IS PLACED. BACKFILL SHALL CONSIST OF EARTH OR SAND FREE OF STONE, BRICKS, OR FOREIGN MATTER.
- I. ALL EXCESS EARTH AND OTHER MATERIAL RESULTING FROM THE EXCAVATION SHALL BE REMOVED FROM SITE BY THE CONTRACTOR OR MAY BE PILED AT A LOCATION DESIGNATED AND APPROVED BY THE OWNER. ALL DEBRIS, ROCK AND TRASH SHALL NOT BE ALLOWED TO ACCUMULATE AND SHALL BE REMOVED FROM THE SITE. STREETS, ROADWAYS AND PRIVATE PROPERTY SHALL BE KEPT IN A CLEAN CONDITION.
- J. WHEN THE EXCAVATION IS WITHIN THE AREA WHERE FINISHED SITE WORK IS TO BE DONE UNDER THE GENERAL CONTRACT WORK, BACKFILL TO THE HEIGHT OF ROUGH GRADE. FINAL SURFACING WILL BE UNDER GENERAL CONTRACT WORK.
- K. WHEN THE EXCAVATION IS BEYOND THE AREA OF GENERAL CONSTRUCTION WORK, FINAL SURFACE AND ADJACENT DISTURBED AREAS SHALL BE RESTORED TO MATCH THE ORIGINAL CONDITION BY SODDING, SEEDING, ASPHALT PAVING, CONCRETE, ETC., AS REQUIRED. WORK SHALL CONFORM TO APPLICABLE SECTIONS OF THESE SPECIFICATIONS.
- L. WHEN THE EXCAVATION IS ON PUBLIC PROPERTY, RESTORATION OF SURFACE CONDITIONS SHALL MEET THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- M. WHEN SERVICES ARE TO BE RUN SIDE-BY-SIDE, A COMMON TRENCH MAY BE USED PROVIDING THE REQUIRED VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE VARIOUS SERVICES ARE MAINTAINED AND PROVIDING THE METHODS OF BEDDING AND BACKFILL MEET THE APPROVAL OF THE ENGINEER. CONTRACTORS INVOLVED SHALL MAKE THEIR OWN AGREEMENT AS TO THE SHARING OF THE COST OF THE COMMON TRENCHING AND BACKFILL WORK.

1.13 TEMPORARY HEAT

- A. THE CONTRACTOR SHALL COOPERATE WITH THE GENERAL CONTRACTOR TO PROVIDE TEMPORARY HEAT AS SOON AS POSSIBLE FOR USE DURING CONSTRUCTION IF TEMPORARY HEAT IS REQUIRED. AIR HANDLING EQUIPMENT SHALL NOT BE OPERATED AT ANY TIME WITHOUT FILTERS IN PLACE AND ALL EQUIPMENT SHALL BE PROTECTED FROM DAMAGE. OPERATING THE EQUIPMENT FOR TEMPORARY HEAT SHALL NOT START THE WARRANTY PERIOD OF THE EQUIPMENT USED.

1.14 DEMOLITION AND NEW WORK

- A. THE CONTRACTOR SHALL DO ALL DEMOLITION, ALTERATIONS AND REWORK INDICATED AND/OR REQUIRED TO MAINTAIN THE OPERATION OF ALL EXISTING ELECTRICAL SYSTEMS AND TO INTEGRATE THE NEW SYSTEMS IN THE RENOVATED BUILDING AS REQUIRED. THE CONTRACTOR SHALL INCLUDE ALL WORK WHICH MAY BE REQUIRED TO ALTERATIONS AND DEMOLITION WORK. THIS SHALL INCLUDE ALL REMOVAL, RELOCATION AND REWORKING OF WIRE AND CONDUIT, OUTLET BOXES, JUNCTION BOXES, ETC. EXISTING SYSTEMS AND NEW SYSTEMS SHALL BE COMPLETELY INTEGRATED AS INTENDED AND AS INDICATED ON THE PLANS AND IN THE SPECIFICATIONS.
- B. THE CONTRACTOR SHALL REMOVE FROM THE PREMISES AND DISPOSE OF PROPERLY ALL EXISTING MATERIAL AND EQUIPMENT WHICH NO LONGER SERVES A PURPOSE IN ALTERED AREAS. THE CONTRACTOR SHALL REMOVE CONNECTIONS TO EQUIPMENT BACK TO PANEL OR JUNCTION BOX. MAINTAIN CIRCUIT CONNECTIVITY. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN SERVICES TO ALL EXISTING AREAS REQUIRING SUCH SERVICES. THE CONTRACTOR SHALL REROUTE AS REQUIRED SUCH SERVICES WHERE ARE DISRUPTED DUE TO ARCHITECTURAL CHANGES IN THE EXISTING STRUCTURE. ANY EQUIPMENT WHICH IS DESIGNATED TO BE REUSED AND WHICH IS DAMAGED IN THE PROCESS SHALL BE REPLACED BY THE CONTRACTOR WITH NEW EQUIPMENT OF LIKE KIND AT NO COST TO THE OWNER.

1.15 INTERRUPTION OF SERVICES

- A. THE CONTRACTOR SHALL SCHEDULE ANY SERVICE INTERRUPTIONS TO THE EXISTING BUILDING WITH THE OWNER'S REPRESENTATIVE. SUCH INTERRUPTIONS SHALL BE PLANNED SO AS TO BE AT TIMES TO CAUSE THE LEAST INCONVENIENCE AND INTERRUPTION TO THE FACILITY'S SCHEDULE.

1.16 EXISTING CONDITIONS

ALL EXISTING CONDITIONS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS FOR THIS PROJECT HAVE BEEN DETERMINED FROM AVAILABLE DRAWINGS AND FIELD INVESTIGATIONS. CONTRACTORS MAKING PROPOSALS FOR THIS WORK SHALL INVESTIGATE ALL EXISTING CONDITIONS AND BASE THEIR PROPOSALS ON THEIR OBSERVATIONS TO PROVIDE COMPLETE AND FUNCTIONING INSTALLATIONS IN ACCORDANCE WITH THE INTENT OF THE DRAWING AND SPECIFICATIONS FOR THIS PROJECT AND ALL APPLICABLE GOVERNING CODES, RULES, REGULATIONS AND ORDINANCES. FAILURE TO DETERMINE EXISTING CONDITIONS WHICH CAUSE ADDITIONAL WORK WILL NOT CONSTITUTE GROUNDS FOR ADDITIONAL COMPENSATION.

PART 2 - ELECTRICAL

2.1 GENERAL REQUIREMENTS

- A. SEE PART 1 FOR GENERAL REQUIREMENTS.

2.2 IDENTIFICATION OF SWITCHES AND APPARATUS

- A. ALL CABINETS, SAFETY SWITCHES, AND OTHER APPARATUS USED FOR OPERATION AND CONTROL OF CIRCUITS, APPLIANCES, AND EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY IDENTIFIED BY MEANS OF ENGRAVED PLASTIC PLATES EITHER BLACK WITH WHITE LETTERS OR WHITE WITH BLACK LETTERS.

2.3 GROUNDING

- A. ALL CONDUCTORS, MOTOR FRAMES, RACEWAYS, CABINETS, ETC., THAT REQUIRE GROUNDING SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, THOSE OF THE SERVING UTILITY AND LOCAL AUTHORITIES HAVING JURISDICTION.

2.4 SAFETY SWITCHES

- A. SAFETY SWITCHES, AS MANUFACTURED BY GENERAL ELECTRIC, CROUSE-HINDS, CUTLER-HAMMER, SQUARE D, SIEMENS, OR APPROVED EQUAL, SHALL BE FURNISHED AND INSTALLED (WHERE NOT FURNISHED BY OTHERS) WHEREVER SHOWN ON THE DRAWINGS SPECIFIED, OR REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- B. SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE, UNDERWRITERS' LABORATORIES SHORT CIRCUIT LABELED FOR AT LEAST 100,000 AMPERES WITH CLASS R REJECTION FUSEHOLDERS SO AS TO COMPLY WITH NEC 100-9. SWITCHES INSIDE OF BUILDING SHALL BE FURNISHED IN NEMA 1 GENERAL PURPOSE ENCLOSURES. SWITCHES OUTSIDE OF BUILDING SHALL BE FURNISHED IN NEMA 3R ENCLOSURES UNLESS OTHERWISE SPECIFIED.
- C. EACH MOTOR SHALL BE PROVIDED WITH A DISCONNECTING MEANS IN ACCORDANCE WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.

2.5 CONDUIT

- A. ALL ELECTRICAL WIRING, INCLUDING LOW VOLTAGE WIRING, SHALL BE INSTALLED IN CONDUIT AS HEREIN SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH NOMINAL SIZE SHALL BE USED BELOW GRADE; NO LESS THAN 1/2 INCH NOMINAL SIZE SHALL BE USED ABOVE GRADE.
 - B. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 EPC-40-PVC. ALL CONDUITS SHALL BE INSTALLED WITH MINIMUM 24 INCH COVER.
 - C. CONDUIT INSTALLED IN CONCRETE SLABS OR ABOVE GROUND SHALL BE GALVANIZED RIGID STEEL OR EPC-40-PVC.
 - D. WHEN PVC CONDUITS PENETRATE CONCRETE FLOOR CONSTRUCTION, CONTRACTOR SHALL USE RIGID STEEL OR IMC ELBOWS AND EXTENSION. PVC CONDUIT/FITTINGS SHALL NOT BE PERMITTED TO BE EXPOSED ABOVE THE FLOOR.
 - E. THINWALL TUBING SHALL BE E.M.T.
 - F. ALL FITTINGS SHALL BE OF THE COMPRESSION TYPE AND WATERTIGHT FOR UNDERGROUND AND IN SLAB LOCATIONS. COMPRESSION OR SCREWED FITTINGS FOR INDOOR.
 - G. CONDUIT FOR INTERIOR WIRING, IN GENERAL, SHALL BE THINWALL TUBING UNLESS OTHERWISE NOTED.
 - H. RACEWAYS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FITTING TO FITTING. A RUN OF CONDUIT BETWEEN OUTLETS OR FITTINGS SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE OUTLET OR FITTING. THE RADIUS OF BENDS SHALL NEVER BE SHORTER THAN THAT OF THE CORRESPONDING TRADE ELBOW. THE SYSTEM SHALL BE COMPLETE. WITH OUTLETS, DISTRIBUTION BOXES, ETC. SMOOTH INSIDE AND MECHANICALLY SECURE IN PLACE. APPROVED STRAPS, HANGERS, OR SUPPORTS SHALL BE USED TO SECURE CONDUITS IN PLACE. CONDUITS SHALL, IN GENERAL, BE SUPPORTED AT INTERVALS NOT EXCEEDING 10'-0" AND WITHIN 3'-0" OF EACH OUTLET BOX, JUNCTION BOX, CABINET OR FITTING.
 - I. CONDUITS SHALL BE PROTECTED DURING CONSTRUCTION; PLUG AND KEEP CLEAN AND DRY. CONDUIT ENDS SHALL BE BUTTED IN CENTERS OF COUPLINGS. NO CRACKS OR FLATTENED SECTIONS WILL BE PERMITTED AT BENDS OR ELSEWHERE. ALL ENDS OF CONDUIT SHALL BE REAMED TO REMOVE ROUGH EDGES. RUNNING THREADS WILL NOT BE PERMITTED.
 - J. CONDUITS SHALL BE CONCEALED WITHIN THE WALLS, CEILINGS, AND FLOORS WHERE POSSIBLE AND UNLESS OTHERWISE NOTED, EXPOSED CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE BUILDING LINES.
- A. WIRE AND CABLE SHALL BE COPPER.
 - B. ALL CONDUCTORS SHALL BE COPPER.
 - C. NO. 10 AWG AND SMALLER CONDUCTORS SHALL BE SOLID WITH TYPE THHN INSULATION AND NO. 8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED WITH TYPE THHN INSULATION EXCEPT THAT CONDUCTORS WITHIN 3 INCHES OF LIGHT FIXTURE BALLASTS SHALL HAVE RHH, THHN, OR EQUAL INSULATION RATED FOR 90 DEGREES C. APPLICATION.

2.7 LOCATIONS OF OUTLETS AND EQUIPMENT

- A. ELECTRICAL OUTLETS AND EQUIPMENT ARE SO LOCATED ON THE DRAWINGS TO SHOW INTENT OF DESIGN. MINOR VARIATIONS IN THESE LOCATIONS MAY BE MADE BY THIS CONTRACTOR TO COMPLY WITH STRUCTURAL AND OTHER REQUIREMENTS AS DETERMINED IN THE COURSE OF CONSTRUCTION. IT SHALL BE THE DUTY OF THIS CONTRACTOR TO TAKE HIS OWN MEASUREMENTS AND BE RESPONSIBLE FOR SAME. THIS CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DRAWINGS AND THOSE DRAWINGS USED BY OTHER CONTRACTORS IN ORDER TO DETERMINE EXACT LOCATIONS FOR ELECTRICAL OUTLETS AND EQUIPMENT. DO NOT SCALE DRAWINGS FOR OUTLET LOCATIONS.

ITEM	EQUIPMENT MOUNTING HEIGHT	
	FLOOR TO	MOUNTING
INTERIOR RECEPTACLES	BOTTOM	16"
EXTERIOR RECEPTACLES	CENTERLINE	24"
TELEPHONE OUTLETS	BOTTOM	16"
SWITCHES	TOP	48"
RECEPTACLES ABOVE COUNTERS: CENTERLINE 10 INCHES ABOVE COUNTER AND HORIZONTAL		

2.8 WALL PLATES

- A. GROUPS OF SWITCHES, OUTLETS OR SWITCH AND OUTLET COMBINATIONS SHALL BE MOUNTED UNDER ONE GANG-PLATE.
- B. WALL PLATES SHALL FIT AND COVER PROPERLY THE DEVICE AND WALL OPENING. NO OPEN OR UNFINISHED SURFACES SHALL SHOW AFTER INSTALLATION OF THE WALL PLATES.
- C. WALL PLATES SHALL BE SET VERTICAL AND SHALL FINISH FLUSH WITH ALL SURROUNDING SURFACES.
- D. WALL PLATES FOR ALL DEVICES AND TELEPHONE OUTLETS SHALL MATCH THE EXISTING DEVICES.

2.9 WIRING DEVICES

- A. SINGLE-POLE WALL TUMBLER SWITCHES FOR GENERAL USE SHALL BE SPECIFICATION GRADE HUBBELL NO. 1121, OR APPROVED EQUAL, MECHANICALLY SILENT TYPE WITH PLASTIC HANDLES, RATED 20 AMPERES AC, 120/277 VOLTS. GENERAL USE SWITCHES INDICATED ON PLANS AS DOUBLE POLE, 3-WAY, 4-WAY OR LOCK TYPE WITH KEY GUIDE SHALL BE THE SAME SERIES AS THE SINGLE-POLE SWITCHES. DEVICE COLOR SHALL MATCH EXISTING.
- B. CONVENIENCE OUTLETS IN FINISHED SPACES SHALL BE SPECIFICATION GRADE HUBBELL NO. 5362, OR APPROVED EQUAL, DUPLEX GROUNDING TYPE RECEPTACLES RATED 20 AMPERES AC, 120 VOLT. DEVICE COLOR SHALL MATCH EXISTING.
- C. RECEPTACLES DESIGNATED WITH GROUND FAULT PROTECTION SHALL BE HUBBELL NO. GF-5362, OR APPROVED EQUAL, 120 VOLT, 20 AMP GROUND FAULT INTERRUPTER TYPE. DEVICE COLOR SHALL MATCH EXISTING.

2.10 PANELBOARDS

- A. PANELBOARDS SHALL BE GENERAL ELECTRIC, SQUARE D, OR SIEMENS ITE CIRCUIT BREAKER TYPES, WITH CIRCUIT BREAKERS AS NOTED IN THE SCHEDULE ON THE DRAWINGS.
- B. PANELBOARDS SHALL BE EQUIVALENT TO SQUARE D TYPE NQOD, 120/208 VOLT, WITH BOLTED BREAKERS, NEMA RATED FOR THE AVAILABLE FAULT CURRENT.
- C. FURNISH AND INSTALL A TYPEWRITTEN DIRECTORY FOR EACH PANELBOARD, SHOWING THE FUNCTION OF EACH BREAKER.

2.11 LIGHTING FIXTURES

- A. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL LIGHTING FIXTURES AND LAMPS AS INDICATED ON THE DRAWINGS AND HEREIN DESCRIBED. MATERIAL, EQUIPMENT, OR SERVICES NECESSARY TO COMPLETE THE INSTALLATION OF THESE FIXTURES, BUT NOT SPECIFICALLY MENTIONED, SHALL BE FURNISHED AS THOUGH SPECIFIED. ALL FIXTURES AND LAMPS SHALL BE PROPERLY CLEANED AND ADJUSTED AFTER INSTALLATION.
- B. ALL ADJUSTABLE LIGHTING FIXTURES SHALL BE CAREFULLY POSITIONED BY THIS CONTRACTOR IN THE PRESENCE OF THE ARCHITECT OR HIS REPRESENTATIVE.
- C. LAMPS SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC, SYLVANIA OR PHILLIPS.
- D. BALLASTS SHALL BE AS NOTED IN FIXTURE SCHEDULE. BALLASTS IN FIXTURES DESIGNATED FOR EMERGENCY LIGHTING MUST BE COMPATIBLE WITH THE EMERGENCY UNIT USED WITH MINIMUM LEAKAGE.
- E. THIS CONTRACTOR SHALL FURNISH AND INSTALL FIXTURES HEREIN SPECIFIED OR AS SHOWN ON THE DRAWINGS.
- F. LIGHT FIXTURES SHALL BE SUPPORTED FROM ROOF STRUCTURE PER UBC 47-18.
- G. GENERAL CONTRACTOR SHALL PROVIDE ALL FIRE-RATED ENCLOSURES FOR LIGHT FIXTURES INSTALLED IN FIRE-RATED CEILINGS.

2.12 IDENTIFICATION OF EQUIPMENT

- A. ALL SERVICE ENTRANCE EQUIPMENT, DISCONNECT SWITCHES, PANELBOARDS, RELAYS, MOTOR STARTERS, CONTRACTORS, TELEPHONE TERMINAL CABINETS, TV EQUIPMENT AND RISER JUNCTION BOXES, AND OTHER ELECTRICAL EQUIPMENT UNDER THIS CONTRACT, SHALL BE PROVIDED WITH PROPER IDENTIFICATION. IDENTIFICATION SHALL BE BY THE USE OF ENGRAVED COLOR CODED PLASTIC NAMEPLATES WITH WHITE LETTERING SCREWED TO THE COVER OF THE EQUIPMENT. USE OF EMBOSSED PLASTIC "TAPE" LABELS AS PREPARED BY "TYPEWRITER" TYPE EQUIPMENT SHALL NOT BE USED. COLOR CODING SHALL BE AS FOLLOWS:
 - 1. EQUIPMENT CONNECTED TO A NORMAL POWER SOURCE SHALL BE BLACK WITH WHITE LETTERS.

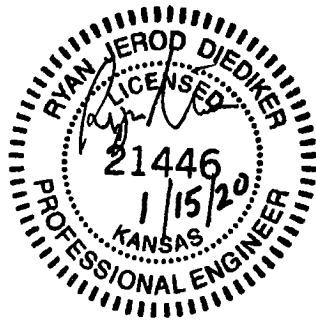
LAMP
RYNEARSON

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

smith&boucher

ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

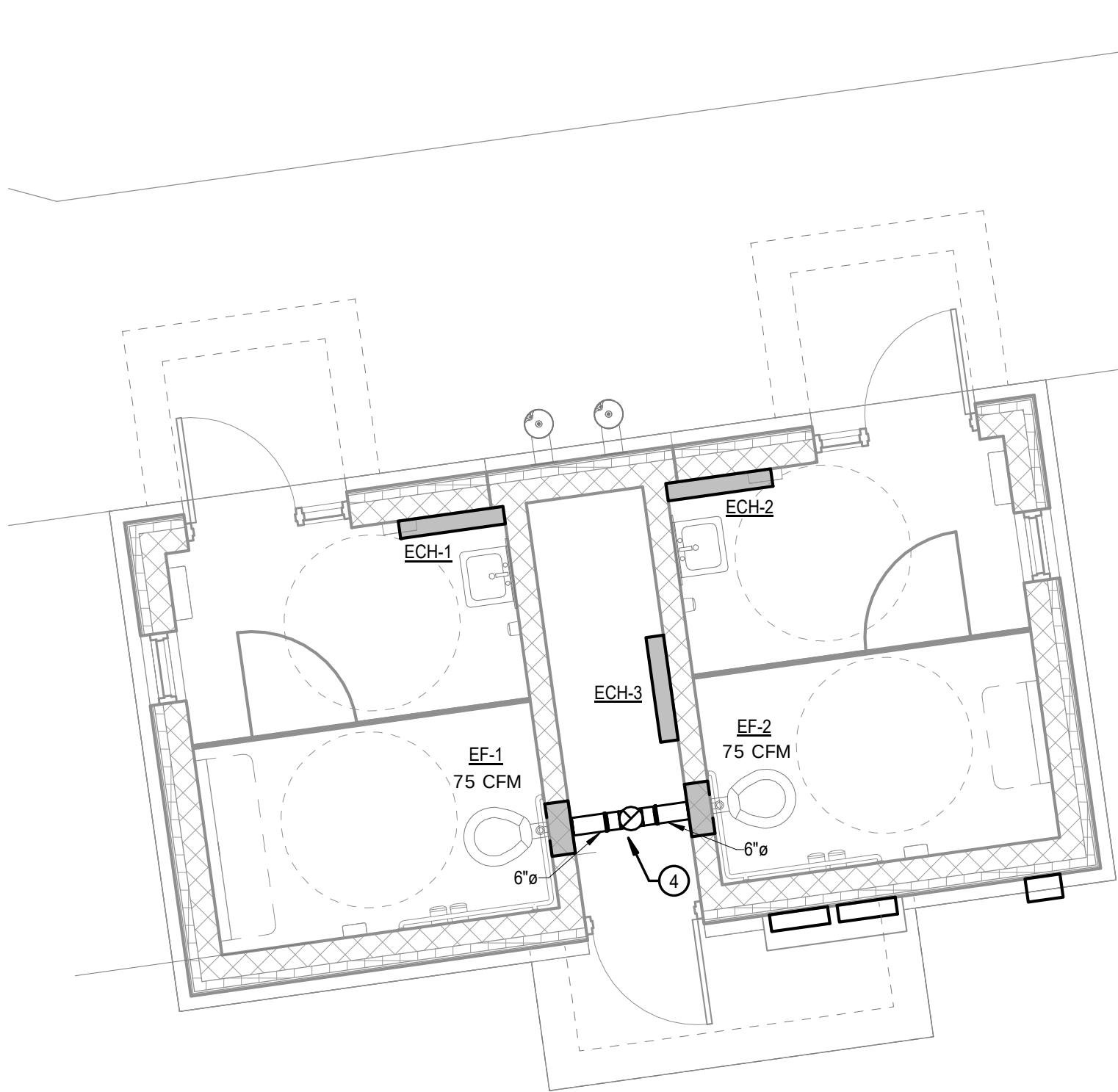
R PARK - PHASE 1
ROLAND PARK, KANSAS

SPECIFICATIONS
- MECH./ELEC.

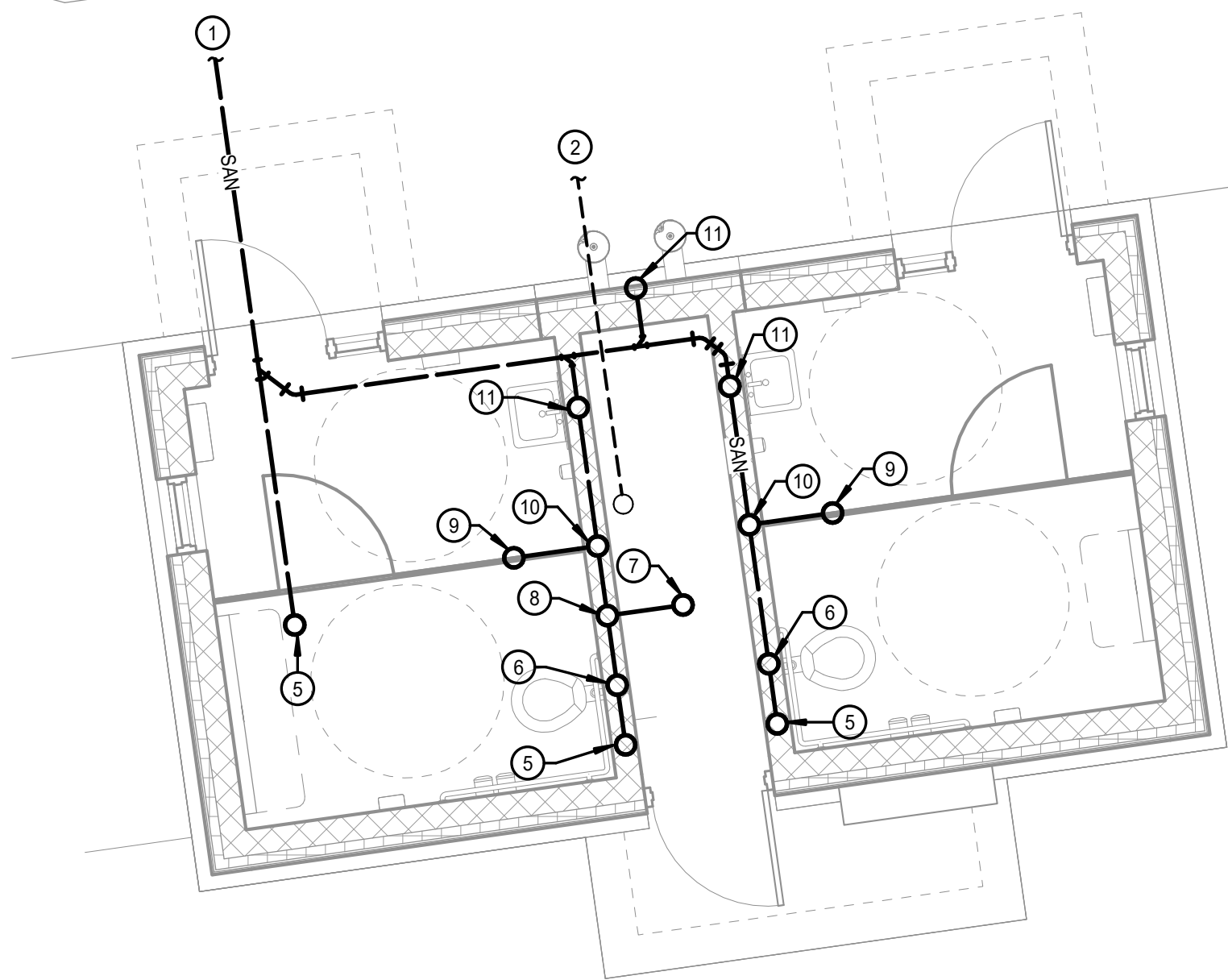
REVISES
DESIGNER / DRAFTER
DATE 01-15-2020
PROJECT NUMBER
BOOK AND PAGE
MISSOURI AUTHORIZATION NUMBER

ME6

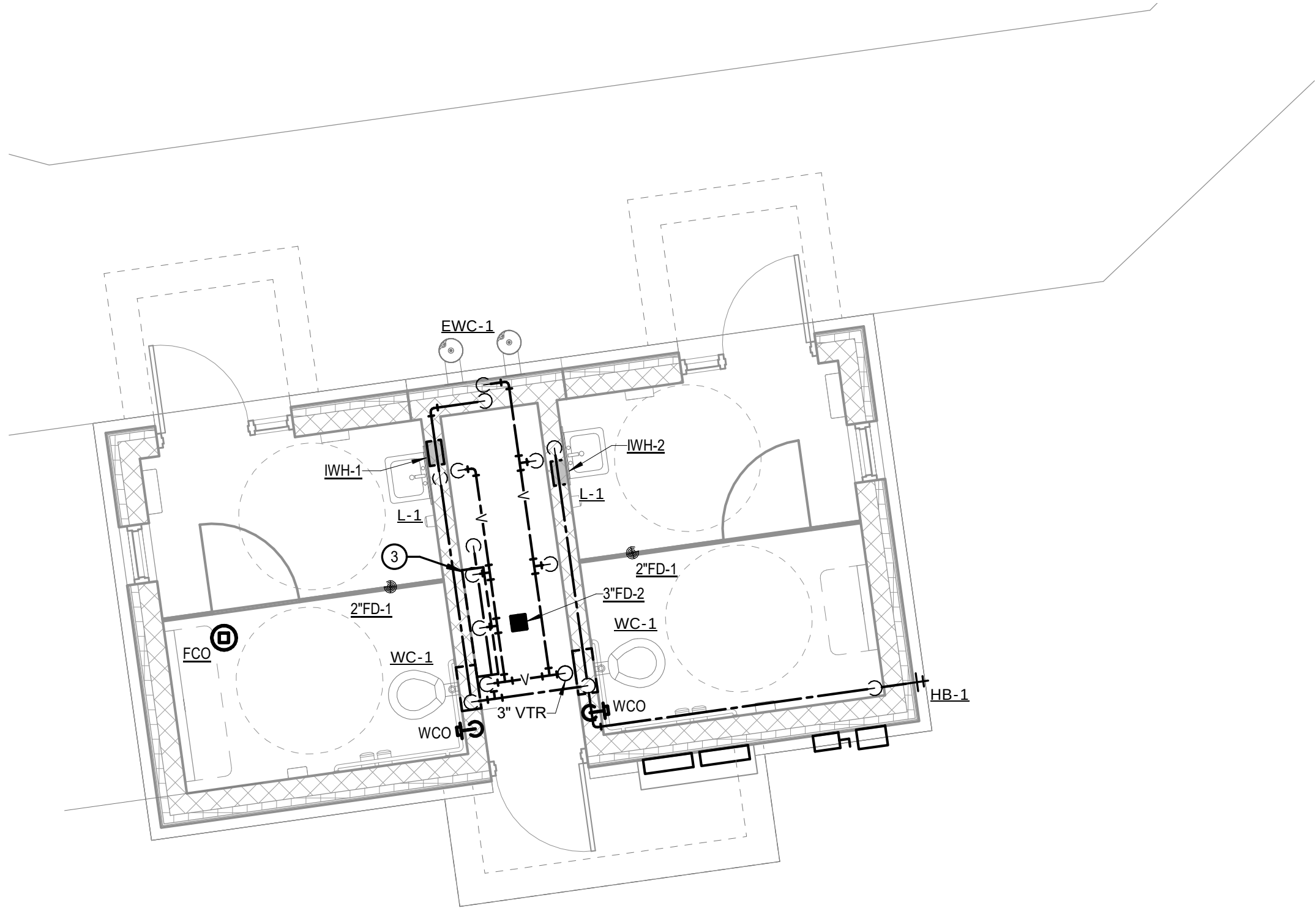
1/13/2020 2:49:37 PM C:\Users\cbooty\Documents\RParkPhase1 - SBHMEP-2019_CENTRAL_charlesbooty9028.rvt C:\Users\cbooty\Documents\RParkPhase1 - SBHMEP-2019_CENTRAL_charlesbooty9028.rvt



2 FLOOR PLAN - RESTROOM - HVAC
1/4" = 1'-0"



1 FLOOR PLAN - RESTROOM - PLUMBING - UNDERSLAB
1/4" = 1'-0"



3 FLOOR PLAN - RESTROOM - PLUMBING
1/4" = 1'-0"

GENERAL NOTES:

1. INFORMATION SHOWN ON THE DRAWINGS IS INTENDED TO CONVEY SCOPE AND IS ARRANGED FOR DRAWING CLARITY. IT IS NOT TO BE TAKEN AS AN AS-BUILT CONDITION. THE SYSTEM INSTALLATION SHALL BE COORDINATED WITH STRUCTURE, CEILINGS, WALLS, AND ALL OTHER TRADES TO PROVIDE FOR A COMPLETE AND WORKING SYSTEM.
2. ALL DUCTWORK AND PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT INCLUDE ALL OFFSETS, DROPS, AND RISES. CAREFULLY COORDINATE DUCT AND PIPE ROUTING WITH STRUCTURE AS WELL AS ALL OTHER TRADES TO MAINTAIN EQUIPMENT CLEARANCES, EQUIPMENT ACCESSIBILITY, DESIRED CEILING HEIGHTS, AND AESTHETICS. THE CONTRACTOR SHALL INCLUDE ANY NEEDED OFFSETS AND CHANGES OF DIRECTION IN THE BID PRICING.
3. COORDINATE ALL PIPING AND DUCTWORK PENETRATIONS WITH STRUCTURAL PRIOR TO CORE DRILLING OR CUTTING BEARING WALLS.
4. PROVIDE SHUT OFF VALVES ABOVE ACCESSIBLE CEILING OR OTHER ACCESSIBLE LOCATION FOR ALL BRANCH PIPING AND INDIVIDUAL CONNECTIONS TO PLUMBING FIXTURES. WHERE STOPS ARE PROVIDED FOR INDIVIDUAL FIXTURES SHUT OFF VALVES ARE ALSO REQUIRED AT THE BRANCH CONNECTION. PLUMBING STOPS ARE NOT CONSIDERED A SUBSTITUTE FOR SHUT OFF VALVES.
5. PROVIDE DRAIN DOWN VALVES AT ALL LOW POINTS IN THE DOMESTIC COLD WATER PIPING SYSTEM FOR WINTERIZATION OF THE BUILDING.

PLAN NOTES:

- 1 4" SANITARY SEWER SERVICE ENTRANCE LOCATION. 15 DFU LOAD. APPROXIMATE FLOWLINE 36" BELOW FINISHED FLOOR. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION. ALL SANITARY SEWER PIPING OUTSIDE THE BUILDING FOUNDATION IS SHOWN ON SHEET C7 SANITARY SEWER SERVICE CONNECTION PLAN (THE JCW PERMIT PLAN). THIS PIPING SHALL MEET JOHNSON COUNTY WASTE WATER STANDARD AND SHALL BE INSPECTED BY JOHNSON COUNTY WASTE WATER.
- 2 1-1/2" DOMESTIC SERVICE ENTRANCE. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
- 3 DOMESTIC COLD WATER SERVICE ENTRANCE, REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 4 8"Ø EXHAUST DUCT UP THROUGH THE ROOF. FURNISH AND INSTALL ROOF CAP AND INSPECT SCREEN.
- 5 4" SAN UP TO CLEANOUT.
- 6 4" SAN UP TO WATER CLOSET.
- 7 3" SAN UP TO FLOOR DRAIN.
- 8 3" SAN UP TO 2" VENT.
- 9 2" SAN UP TO FLOOR DRAIN.
- 10 2" SAN UP TO 1-1/2" VENT.
- 11 2" SAN UP TO SINK/LAV.

CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

FLOOR PLAN
RESTROOM -
PLUMBING

REVISIONS

DESIGNER / DRAFTER

DATE
01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

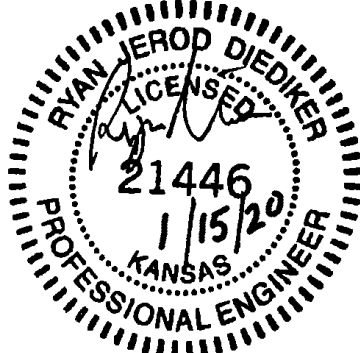
M1

LAMP
RYNEARSON

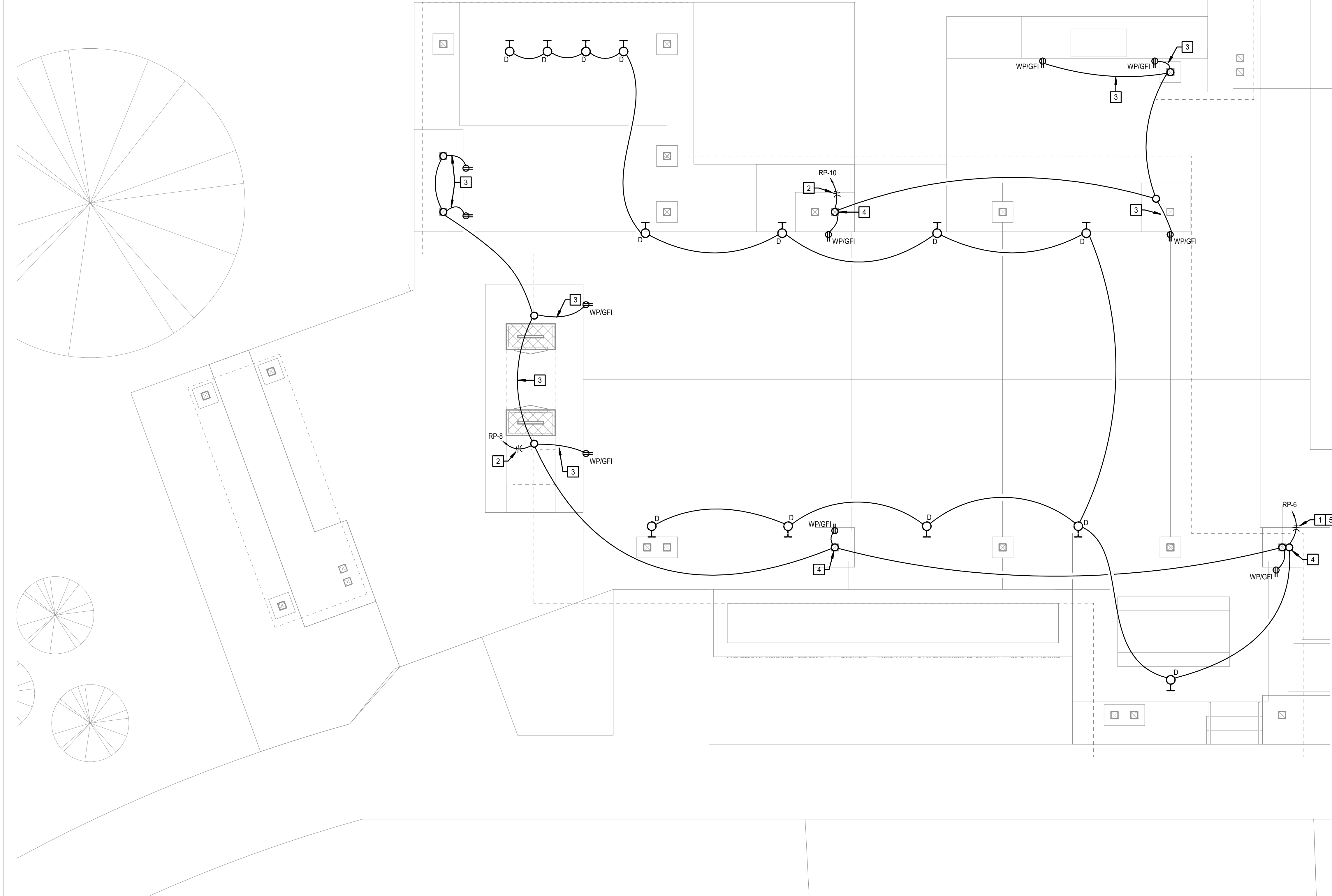
9001 STATE LINE RD., STE. 200
KANSAS CITY, MO 64114
816.361.0440
LampRyNearson.com

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 64661
phone 913.345.2127 fax 913.345.0617
project number 1919200



1/13/2020 2:49:18 PM C:\Users\cbooty\Documents\RParkPhase1 - SBHMEP-2019_CENTRAL_charlesbooty9028.rvt



1 FLOOR PLAN - PAVILION - ELECTRICAL
1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO ARCHITECTURAL FLOOR FOR EXACT MOUNTING LOCATIONS OF ALL WALL MOUNTED ELECTRICAL DEVICES.
2. REFER TO M/E SCHEDULES AND DETAILS FOR MECHANICAL EQUIPMENT CIRCUITING INFORMATION.
3. PROVIDE LOW VOLTAGE WIRING BETWEEN OCCUPANCY SENSORS AND TO CORRESPONDING POWER PACKS WITHIN EACH ROOM UNLESS NOTED OTHERWISE. REFER TO WIRING DIAGRAMS ON SHEET ME201 FOR MORE INFORMATION.
4. CONDUCTORS ARE #12, AND CONDUIT IS 1/2" UNLESS NOTED OTHERWISE.
5. ALL EXPOSED CONDUIT TO BE PAINTED. COORDINATE FINISH WITH ARCHITECT.
6. 120 V BRANCH CIRCUITING SHALL BE AS FOLLOWS: (UNLESS SPECIALLY NOTED OTHERWISE.)

0-100' = #12 AWG
101'-150' = #10 AWG
151'-250' = #8 AWG

ELECTRICAL PLAN NOTES:

- 1 (2) #8, #8 G., IN 1" C.
- 2 (2) #4, #4 G., IN 1" C.
- 3 ROUTE CONDUITS CONCEALED THROUGH MASONRY BEFORE ROUTING BELOW GRADE BACK TO PANEL.
- 4 ROUTE CONDUITS DOWN THROUGH COLUMNS TO GRADE FOR ROUTING BELOW GRADE BACK TO PANEL.
- 5 LIGHTING CIRCUIT HOME RUN SHALL BE ROUTED THROUGH ASTRONOMICAL TIME SWITCH FOR LIGHTING CIRCUIT ON/OFF CONTROL.

CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

FLOOR PLAN
SHELTER -
ELECTRICAL

REVISIONS

DESIGNER / DRAFTER

DATE
01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

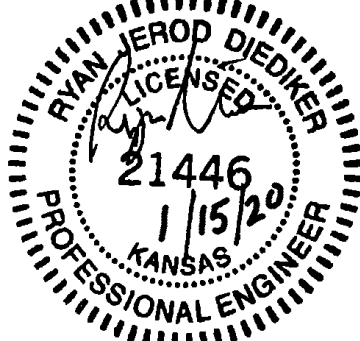
E1

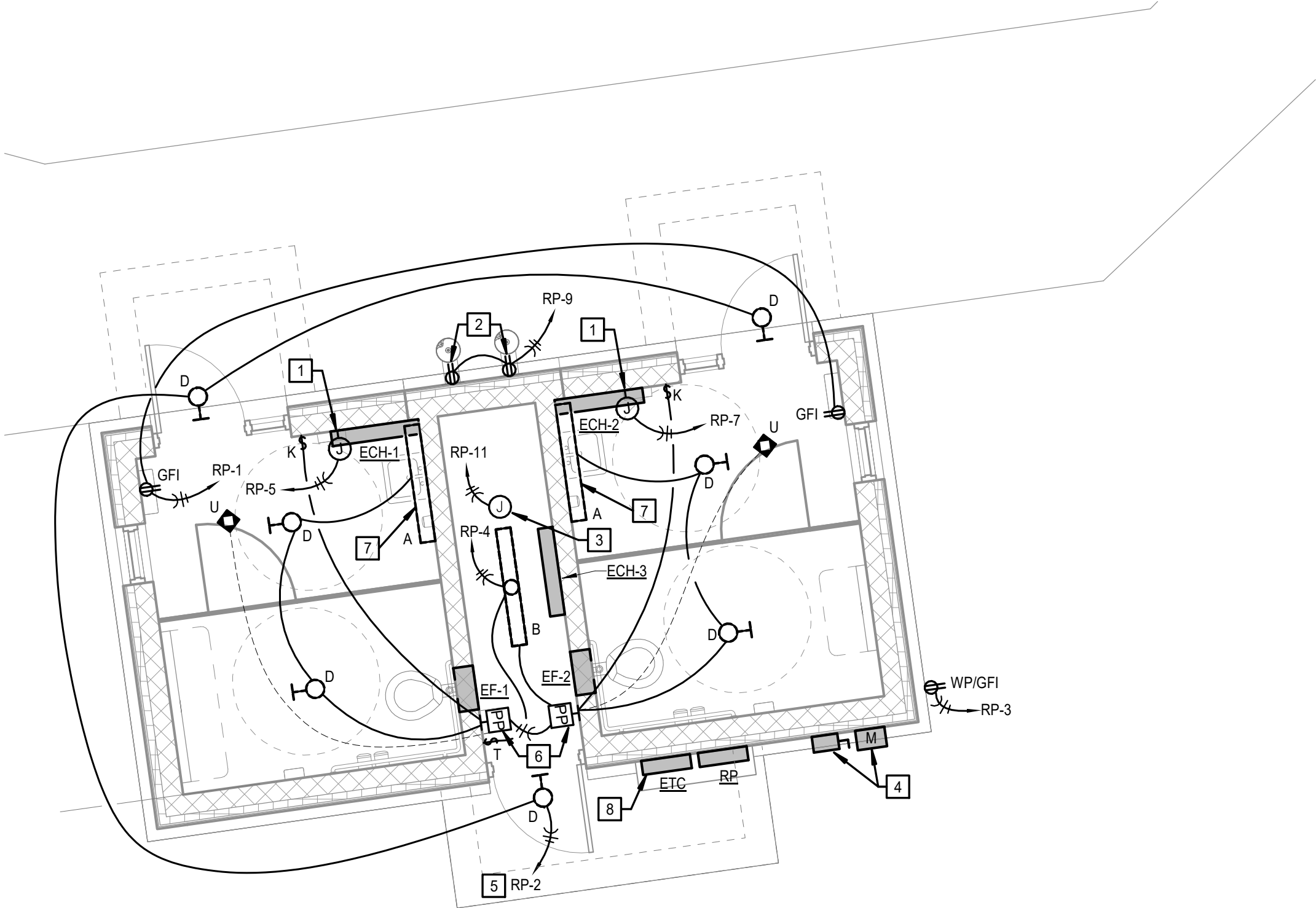
LAMP
RYNEARSON

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

smith&boucher
ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200





1 FLOOR PLAN - RESTROOM - ELECTRICAL
1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET E1 FOR GENERAL NOTES.

ELECTRICAL PLAN NOTES:

- 1 ELECTRIC CONNECTION TO HAND DRYER. PROVIDE AND INSTALL WORLD DRYER SLIMDRI HAND DRYER. VERIFY FINISH WITH ARCHITECT.
- 2 ELECTRICAL CONNECTION TO WATER COOLER.
- 3 HARD WIRED ELECTRIC CONNECTION TO HANDS FREE DEVICES. EXTEND LOW VOLTAGE CABLING TO EACH DEVICE IN RESTROOMS. COORDINATE REQUIRED LOCATION WITH PLUMBING FIXTURE SCHEDULE. PROVIDE STEP-DOWN CONTROL TRANSFORMERS AS REQUIRED. LOCATE ALL JUNCTION BOXES AND TRANSFORMERS WITHIN THE STORAGE/MECHANICAL ROOM.
- 4 200A SELF CONTAINED ELECTRIC SERVICE METER AND 200A/F200 NEMA 3R FUSED SERVICE DISCONNECT. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- 5 LIGHTING CIRCUIT HOME RUN SHALL BE ROUTED THROUGH ASTRONOMICAL TIME SWITCH FOR LIGHTING CIRCUIT ON/OFF CONTROL.
- 6 LOCATE POWER PACK FOR THE RESTROOM LIGHTING IN THE MECHANICAL/STORAGE ROOM. EXTEND LOW VOLTAGE CABLING TO THE SENSORS IN THE RESTROOMS.
- 7 VANSTY FIXTURE TO BE MOUNTED ON WALL CENTERED ABOVE MIRROR.
- 8 FURNISH AND INSTALL ASTRONOMICAL TIME SWITCH AND ALL REQUIRED CONDUIT AND WIRING FOR EXTERIOR LIGHTING CIRCUIT CONTROL. ASTRONOMICAL TIME SWITCH SHALL BE PROGRAMMED TO TURN EXTERIOR LIGHT FIXTURES ON AT DUSK AND OFF AT DAWN. ASTRONOMICAL TIME SWITCH BASIS OF DESIGN IS AN INTERMATIC ET8415CR WITH (4) 30 AMP CONTROL CIRCUITS IN A TYPE 3R STEEL ENCLOSURE OR APPROVED EQUAL.

CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROELAND PARK, KANSAS

FLOOR PLAN
RESTROOM -
ELECTRICAL

REVISIONS

DESIGNER / DRAFTER

DATE
01-15-2020

PROJECT NUMBER

BOOK AND PAGE

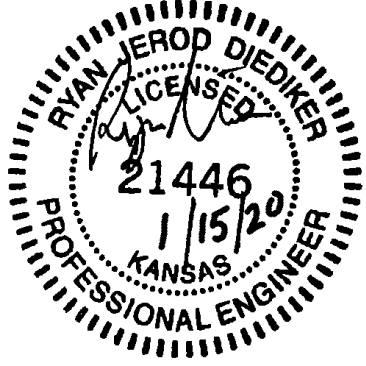
MISSOURI AUTHORIZATION NUMBER

LAMP
RYNEARSON

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

smith&boucher
ENGINEERS

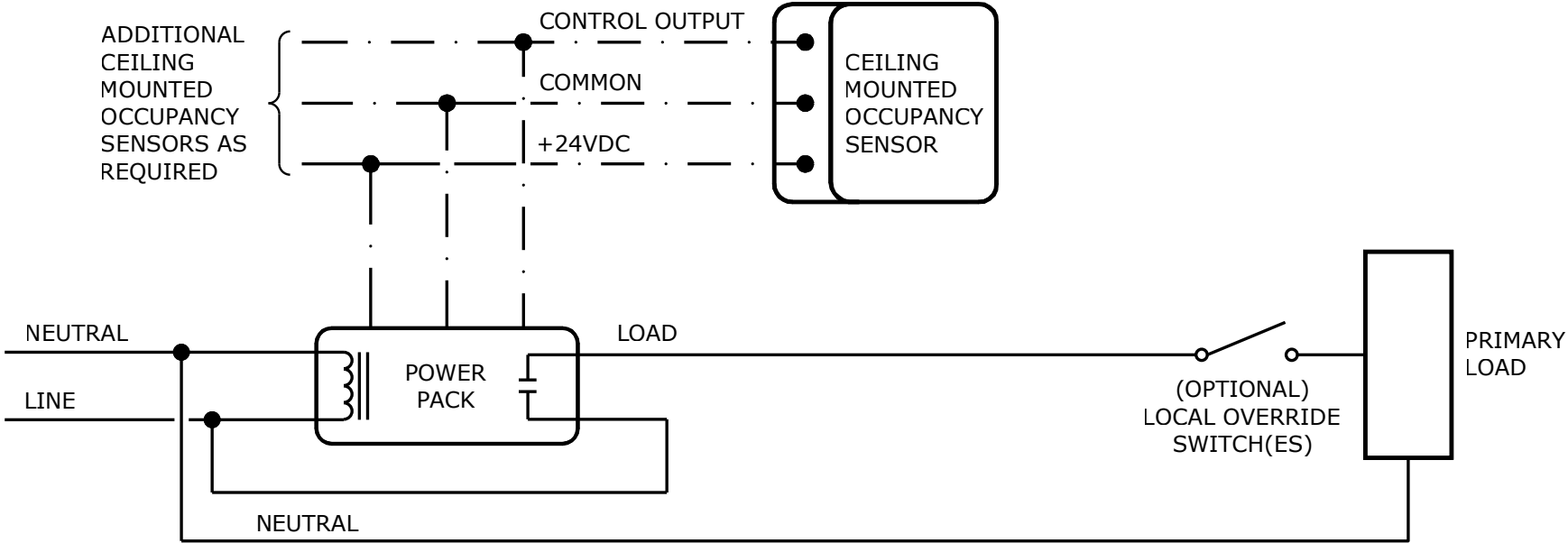
25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



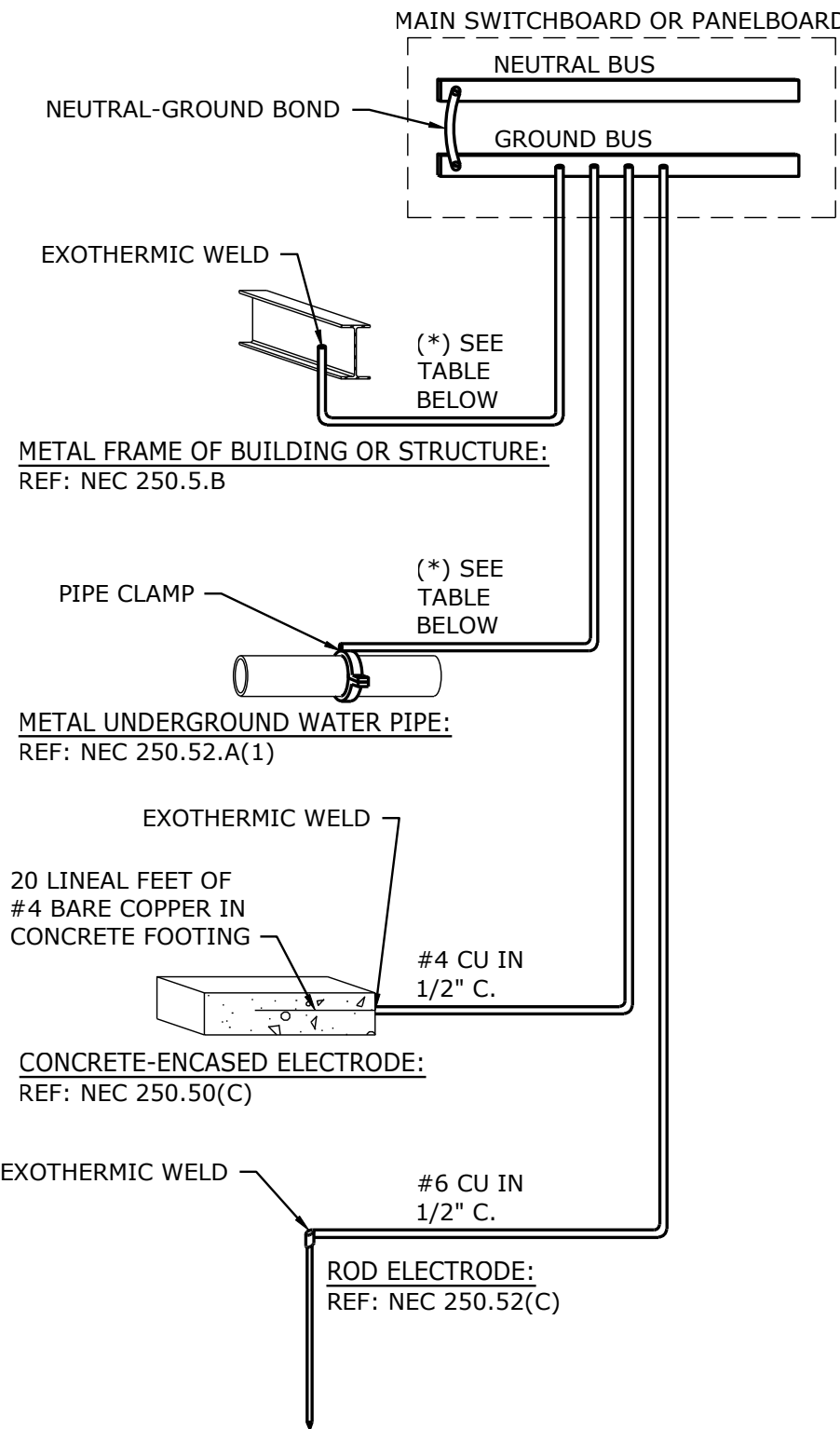
PROJECT NAME: X:\19\19192\1919200\Drawings\06-1919200_E3.dwg
AUTOCAD FILE LOCATION: X:\19\19192\1919200\Drawings\06-1919200_E3.dwg
PLOTTER: HP DesignJet T1100
PLOT DATE: 1/13/2020 2:58:36 PM
PLOT BY: Charles Booby

OCCUPANCY CONTROL DEVICE SCHEDULE						
SYMBOL	DESCRIPTION	DETECTION TYPE	MANUAL OVERRIDE	SETTINGS (TYPICAL)	MANUFACTURER/MODEL	NOTES
\$ _T	WALL MOUNTED DIGITAL TIMER SWITCH LINE VOLTAGE - SINGLE RELAY	NONE	INTEGRAL	ON: MANUAL OFF: 2 HOUR DELAY SCROLL: UP WARNING FLASH: ON WARNING SOUND: ON	WATTSTOPPER TS-400	1,2
\$ _K	WALL MOUNTED - KEYED SWITCH LINE VOLTAGE	NONE	(NOTE 4)	ON: MANUAL OFF: MANUAL	LEGRAND PS20 AC/WL	1,2
◊ _U	CEILING MOUNTED OCCUPANCY SENSOR LOW VOLTAGE - 1100 SF COVERAGE	ULTRASONIC	(NOTE 4)	ON: AUTOMATIC OFF: 30 MINUTE DELAY	WATTSTOPPER WT-1100	1,5,6,7
PP	OCCUPANCY SENSOR POWER PACK UNIVERSAL VOLTAGE - SINGLE RELAY	-	-	-	WATTSTOPPER BZ-50	1,3

NOTE 1: THE MANUFACTURERS AND MODELS LISTED ARE THE BASIS OF DESIGN, ALL PRODUCT SUBSTITUTIONS SUBMITTED MUST BE APPROVED AS EQUAL. REFER TO DRAWINGS FOR QUANTITIES.
NOTE 2: ALL WALL MOUNTED LIGHTING CONTROLS MUST HAVE MATCHING FINISHES TO THOSE LISTED IN SPECIFICATION SECTION 262726 - WIRING DEVICES.
NOTE 3: LOCATE DEVICE ABOVE ACCESSIBLE CEILING, LOCATIONS SHOWN ON DRAWINGS ARE SCHEMATIC.
NOTE 4: PROVIDE 8'-0" OF EXCESS CONTROL WIRING, COILED AND TIED, BETWEEN CEILING MOUNTED OCCUPANCY SENSORS AND CORRESPONDING POWER PACKS.
NOTE 5: OCCUPANCY SENSOR LOCATIONS SHOWN ON FLOOR PLANS ARE GENERIC, CONTRACTOR TO MODIFY LOCATIONS AS REQUIRED BASED COVERAGE CAPABILITIES OF SUBMITTED PRODUCTS.
NOTE 6: MODIFY LOCATIONS OF CEILING MOUNTED OCCUPANCY SENSORS AS REQUIRED SO THAT NO OCCUPANCY SENSOR IS WITHIN 4'-0" OF AN HVAC SUPPLY DIFFUSER.

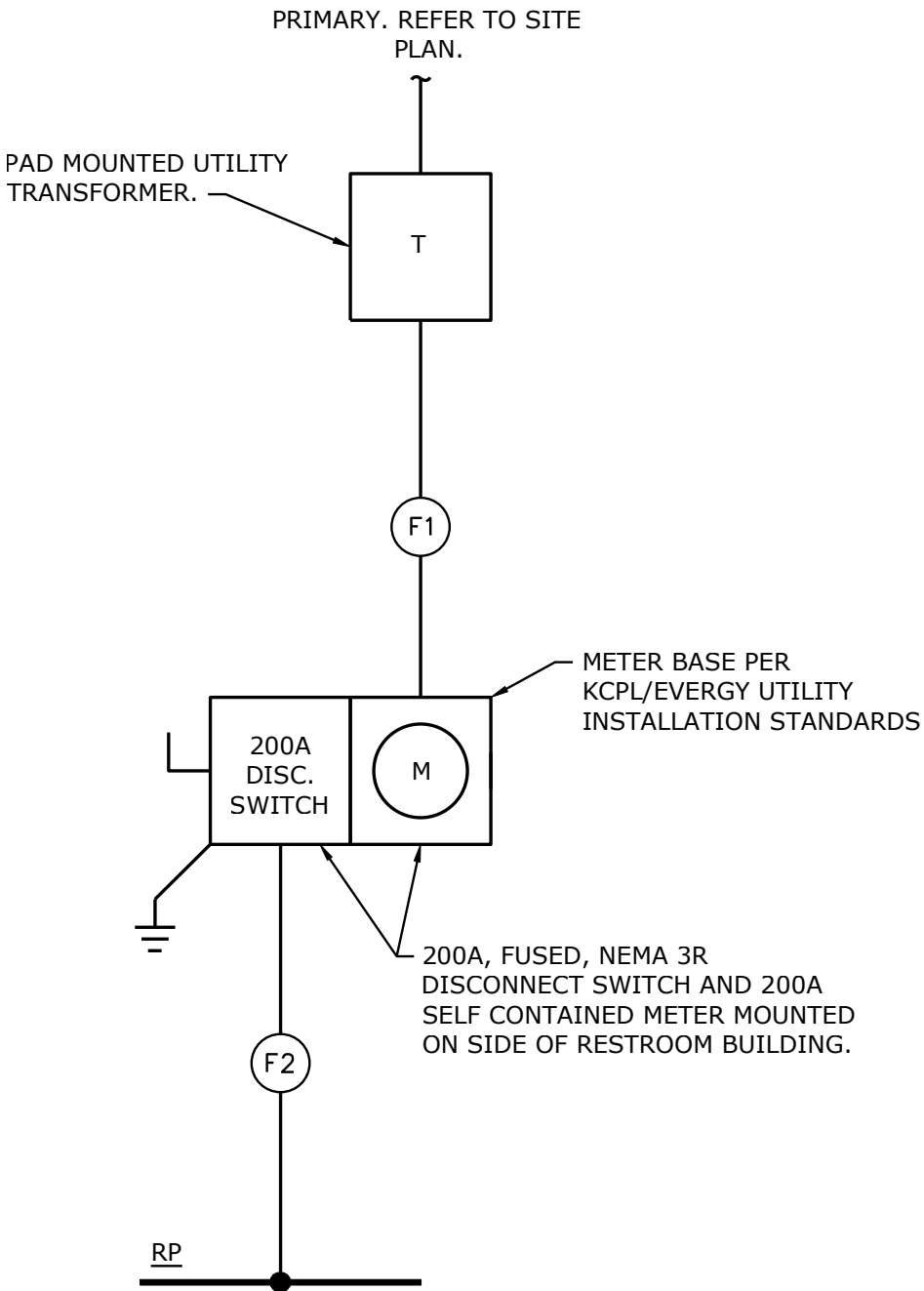


LOW VOLTAGE OCCUPANCY SENSOR WIRING DIAGRAM
WITH AUTOMATIC ON OPERATION (SYMBOL PP, ◊_U)
NOT TO SCALE



SERVICE SIZE	(*)
400 AMPS OR LESS	#1/0 CU IN 3/4" C.
600 OR 800 AMPS	#2/0 CU IN 3/4" C.
1,000 AMPS OR MORE	#3/0 CU IN 1" C.

SERVICE GROUNDING DIAGRAM
NOT TO SCALE



FEEDER SCHEDULE	
NO.	CONDUCTORS AND CONDUIT
F1	(4)#3/0, 4" C.
F2	(4)#3/0, #6G., 2" C.

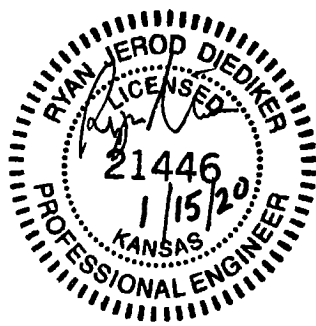
ONE LINE DIAGRAM
NOT TO SCALE

LAMP RYNEARSON

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

smith&boucher ENGINEERS

25501 west valley parkway, suite 200 olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 1919200



CONSTRUCTION DOCUMENTS

R PARK - PHASE 1
ROLAND PARK, KANSAS

SCHEDULES & DETAILS - ELECTRICAL

REVISIONS

DESIGNER / DRAFTER

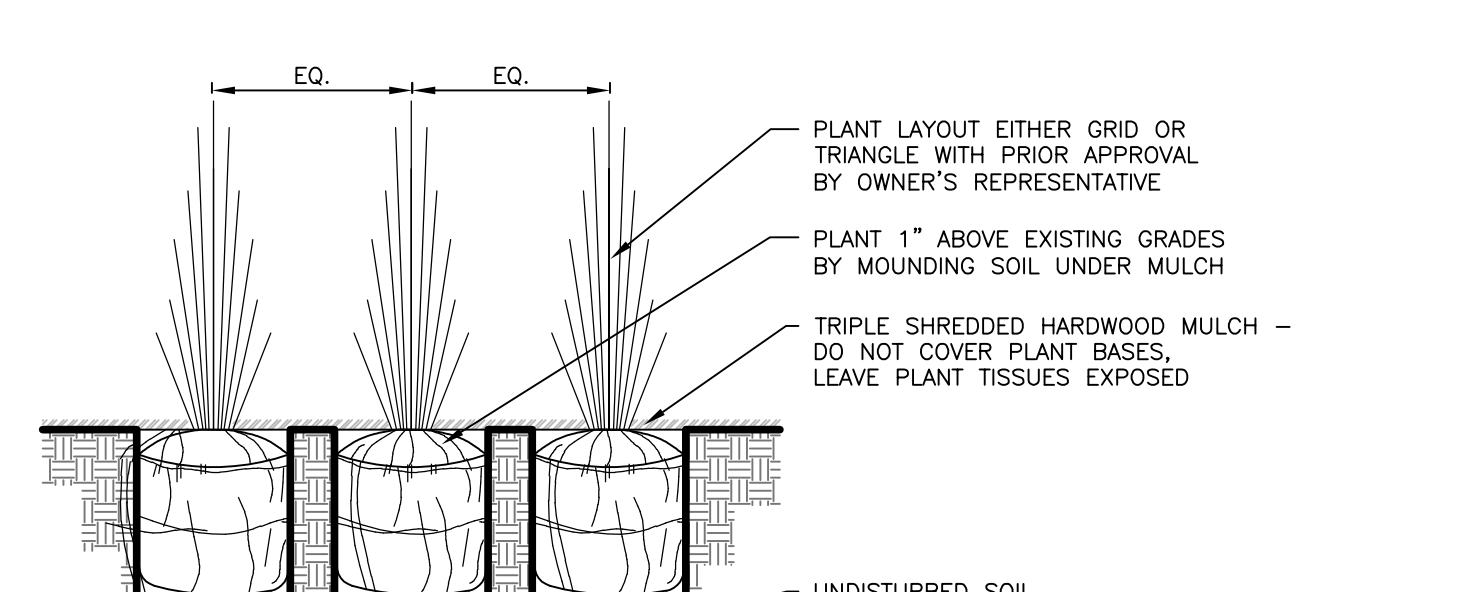
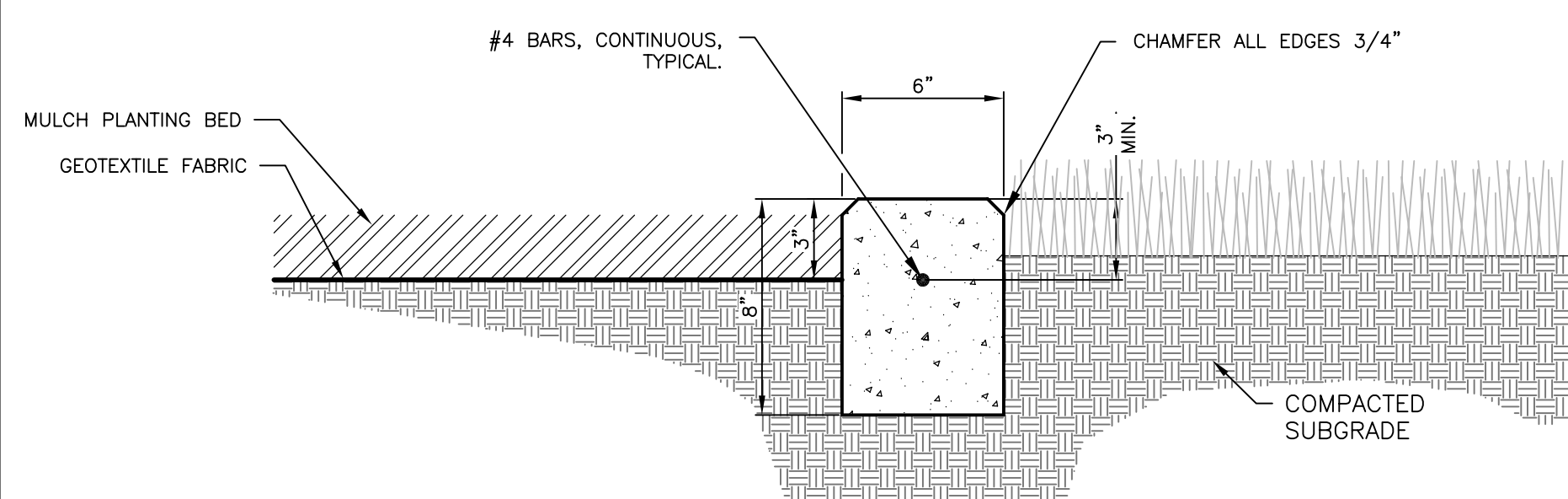
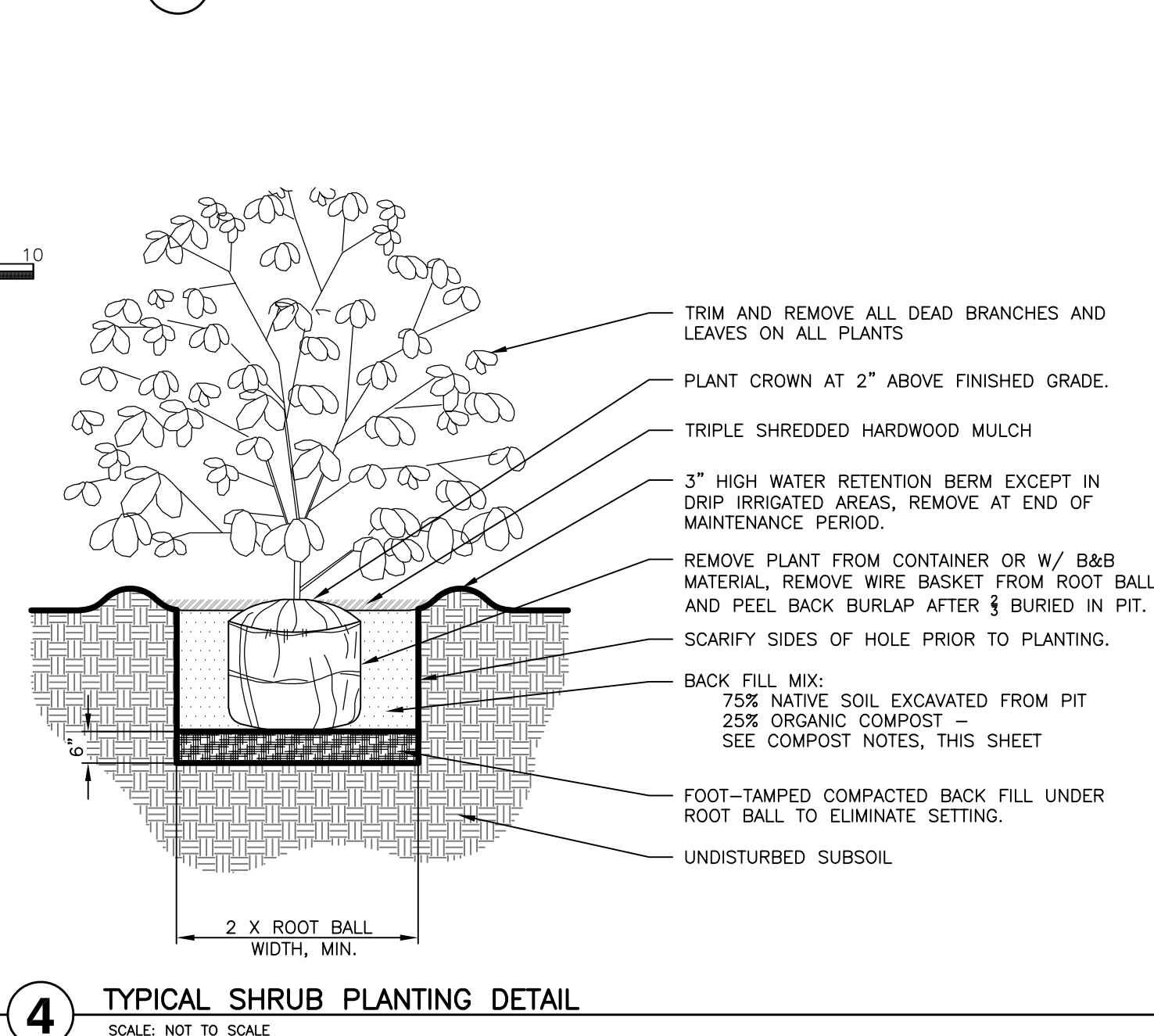
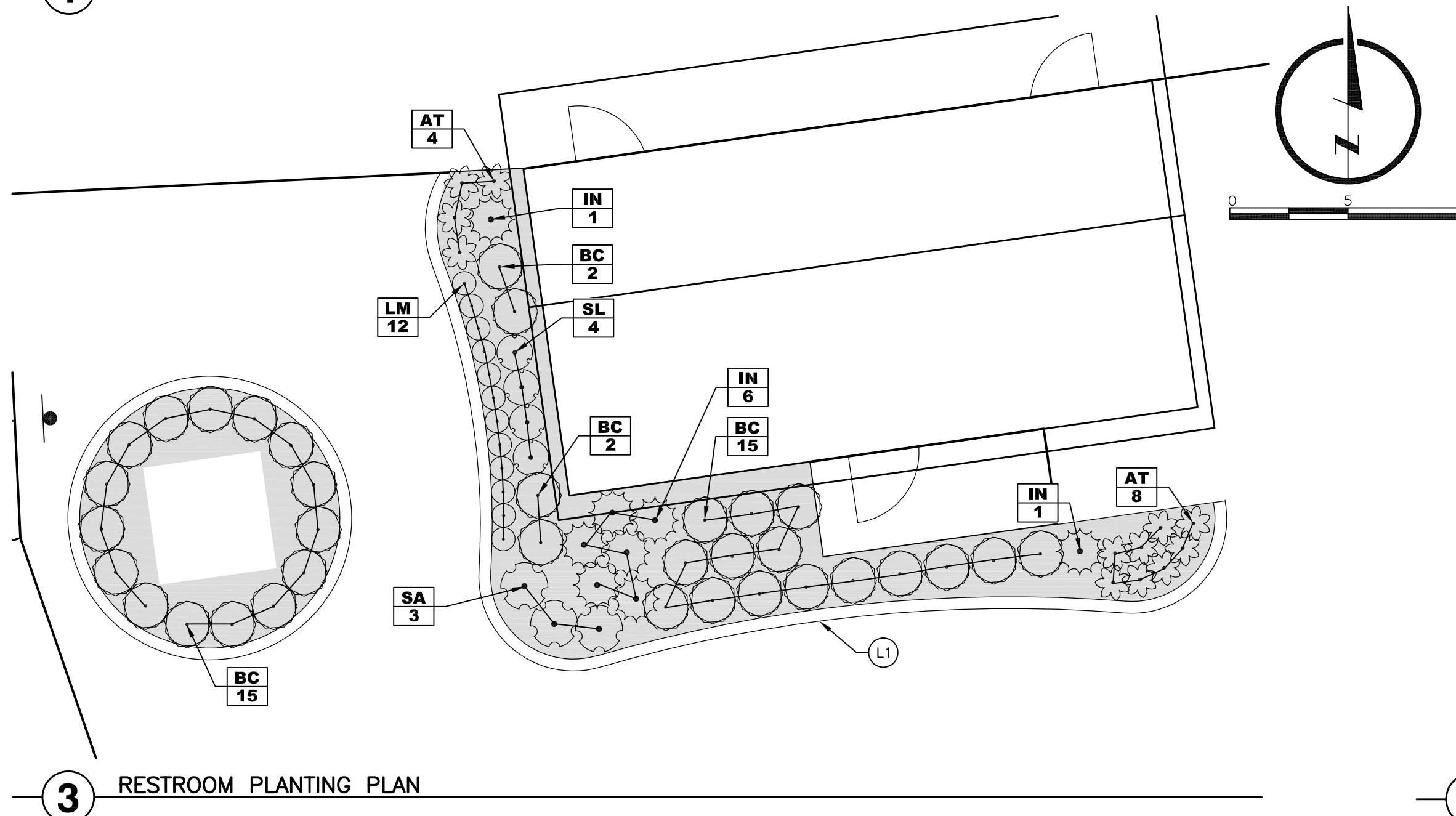
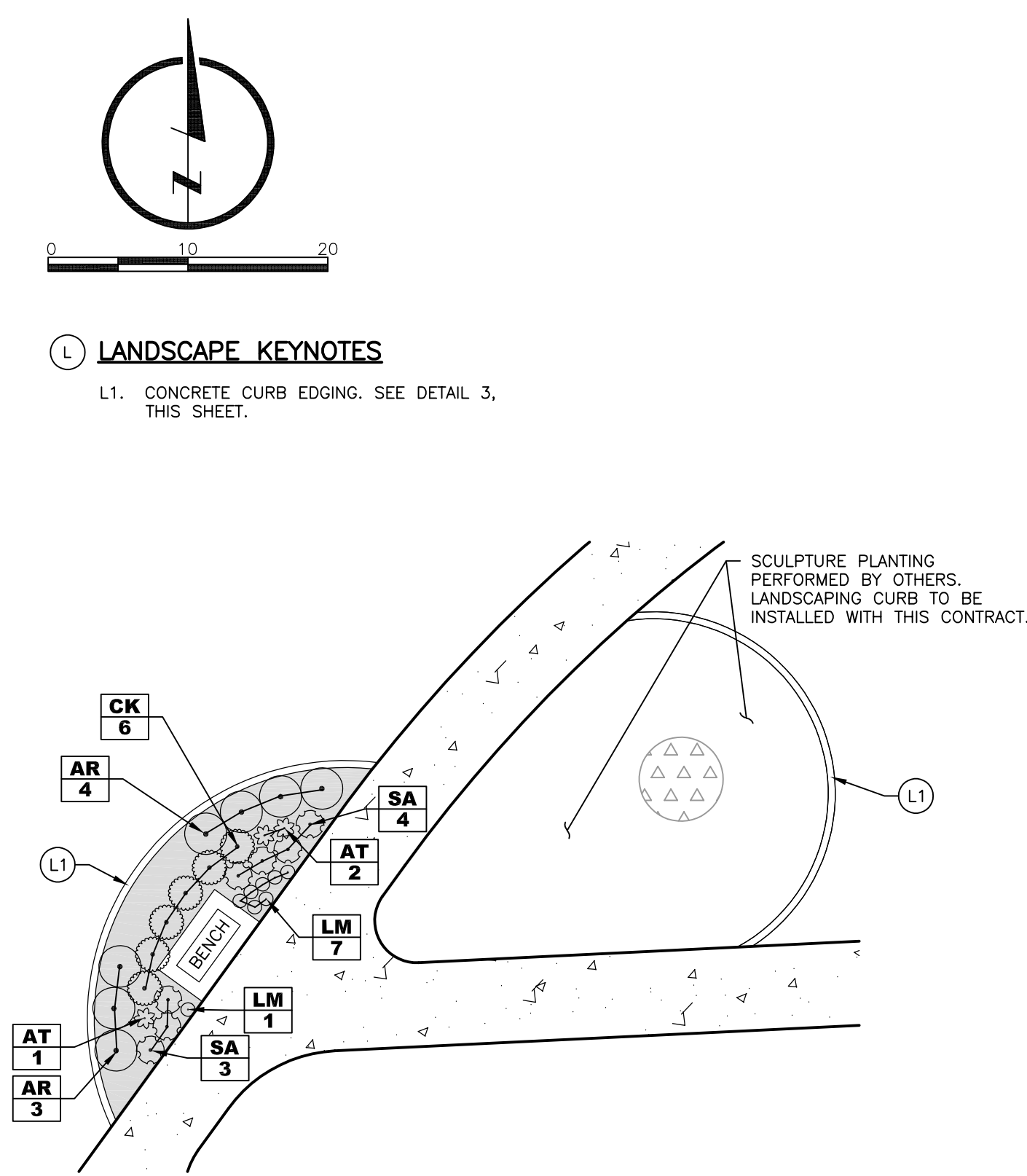
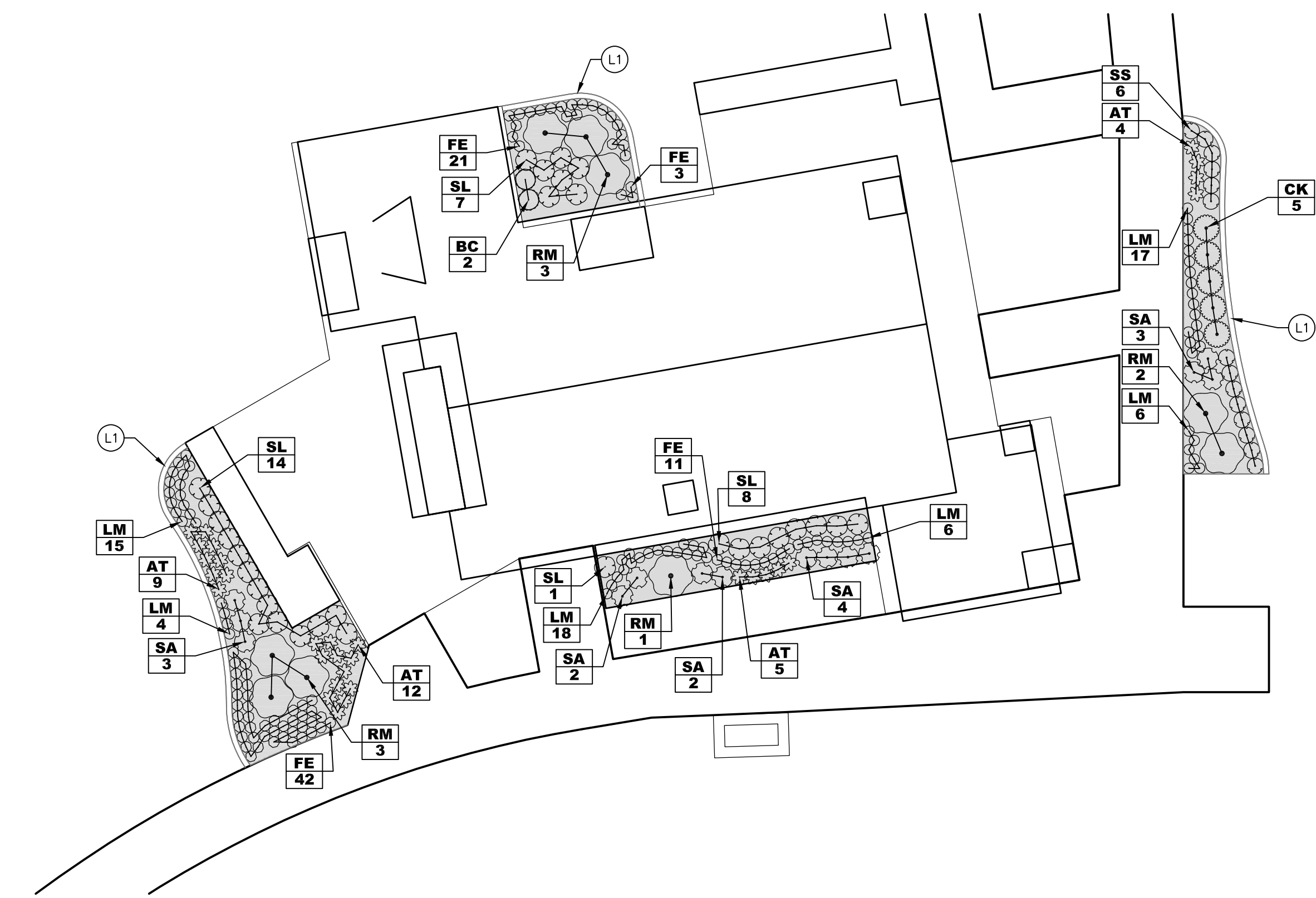
DATE
01-15-2020

PROJECT NUMBER

BOOK AND PAGE

MISSOURI AUTHORIZATION NUMBER

E3



R PARK PHASE II
ROELAND PARK, KANSAS
PARK IMPROVEMENTS
CONSTRUCTION DOCUMENTS



ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER. THERE IS NO GUARANTEE ALL FACILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION. COORDINATE NECESSARY RELOCATIONS WITH UTILITY COMPANIES.

INDEX OF SHEETS

SHEET	TITLE
01	COVER SHEET
02	CIVIL SITE PLAN SHEET
03	EXISTING CONDITIONS / DEMOLITION PLAN SHEET
04	EROSION CONTROL PLAN SHEET
05-06	GRADING PLAN SHEETS
07	FUTURE PARKING LAYOUT PAN SHEET
08	DRAINAGE MAP AND CALCULATIONS PLAN SHEET
09-10	STORM DRAINAGE PLAN/PROFILE SHEETS
11-14	DETAIL AND SPECIFICATION SHEETS

UTILITY CONTACTS

SPECTRUM (TIME WARNER CABLE)
DESIGN & CONSTRUCTION
8221 W. 119TH ST.
OVERLAND PARK, KANSAS 66213
(913) 643-1901
ATTN.: STEVEN BAXTER
STEVEN.BAXTER@CHARTER.COM
(913) 643-1961
ATTN.: RON FRANK
RON.FRANK@CHARTER.COM

KANSAS CITY POWER & LIGHT CO.
8730 NIEMAN ROAD
OVERLAND PARK, KANSAS 66214
(913) 681-7420
ATTN.: GARY PRICE
GARY.PRICE@KCPL.COM

KANSAS GAS SERVICE
11401 WEST 89TH STREET
OVERLAND PARK, KANSAS 66214
(913) 599-8964
ATTN.: HECTOR DUARTE
HECTOR.DUARTE@ONEGAS.COM

WATERONE
10747 RENNER BOULEVARD
LENEXA, KANSAS 66219-9624
(913) 895-5775
ATTN.: JAN HARDIE
JHARDIE@WATERONE.ORG

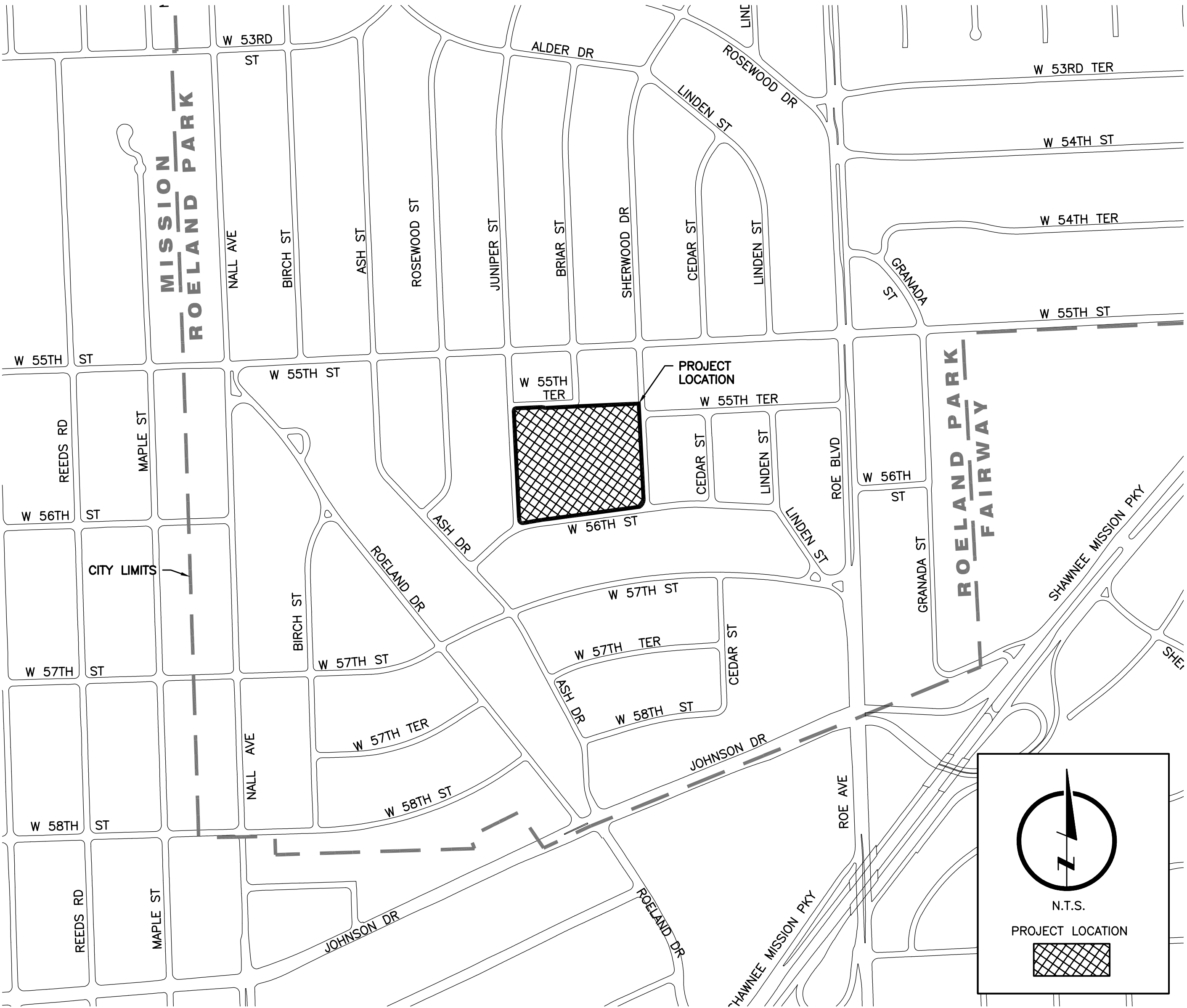
JOHNSON COUNTY UNIFIED
WASTEWATER DISTRICT
7311 W. 130TH SUITE 100
OVERLAND PARK, KANSAS 66213
(913) 207-5234
(913) 715-8537
ATTN.: MIKE PILLER
MIKE.PILLER@JCW.ORG

AT&T
(913) 383-6948
ATTN.: RANDY GASKIN
RG9513@ATT.COM
ATTN.: LENNY VOHS
LVOHS@ATT.COM

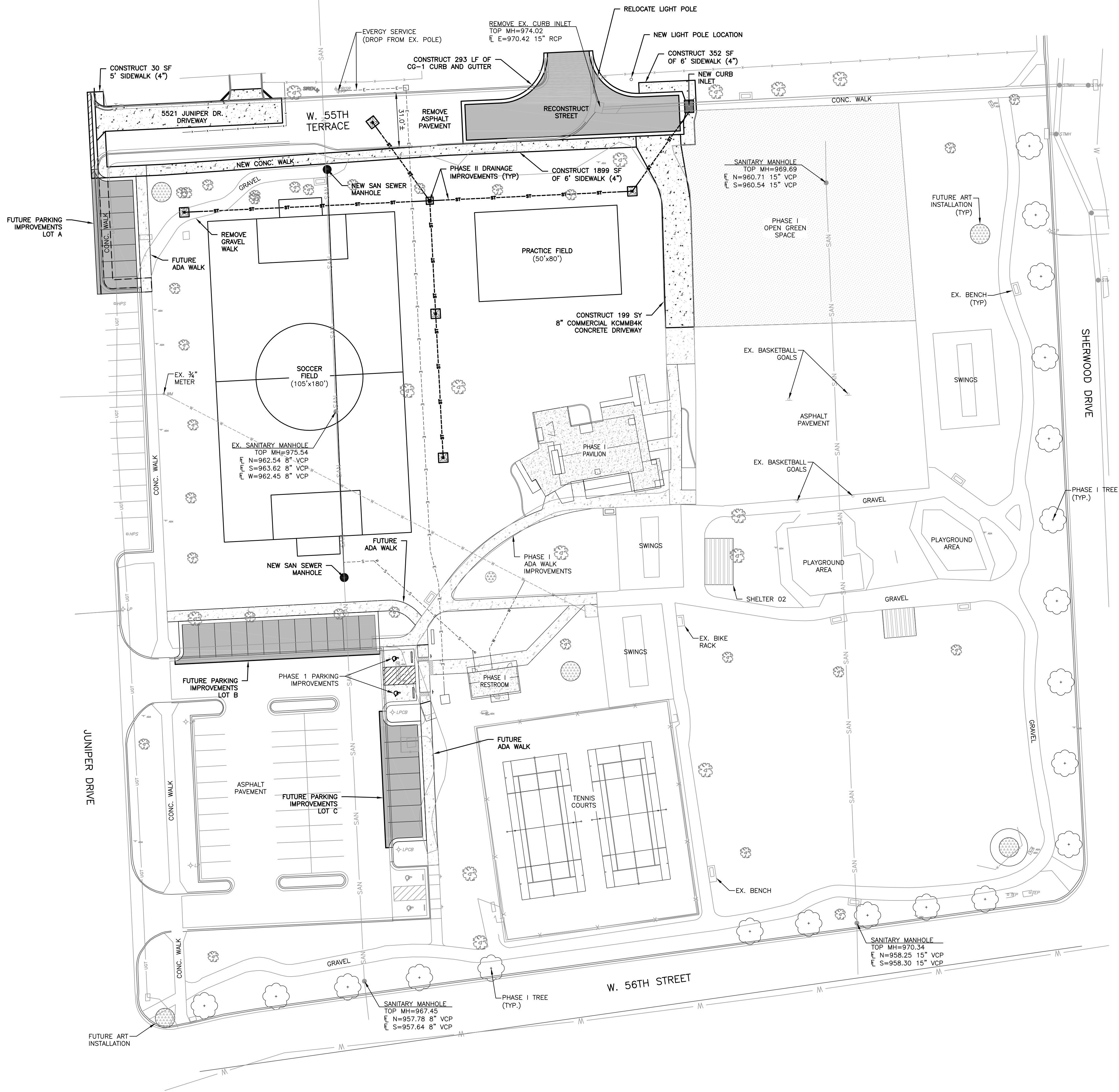
GOOGLE FIBER
(913) 663-1900
ATTN.: LAUREN MARCUCCI
LMARCUCCI@GOGGLE.COM

LAMP
RYNEARSON

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

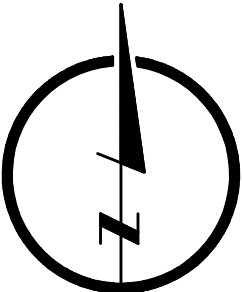


\\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-PARK SITE.Pkg, 1/28/2020 8:06:07 AM, JAMIE MCMAURY, LAMP RYNEARSON



LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCHIE JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

SITE PLAN

R PARK - PHASE II ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

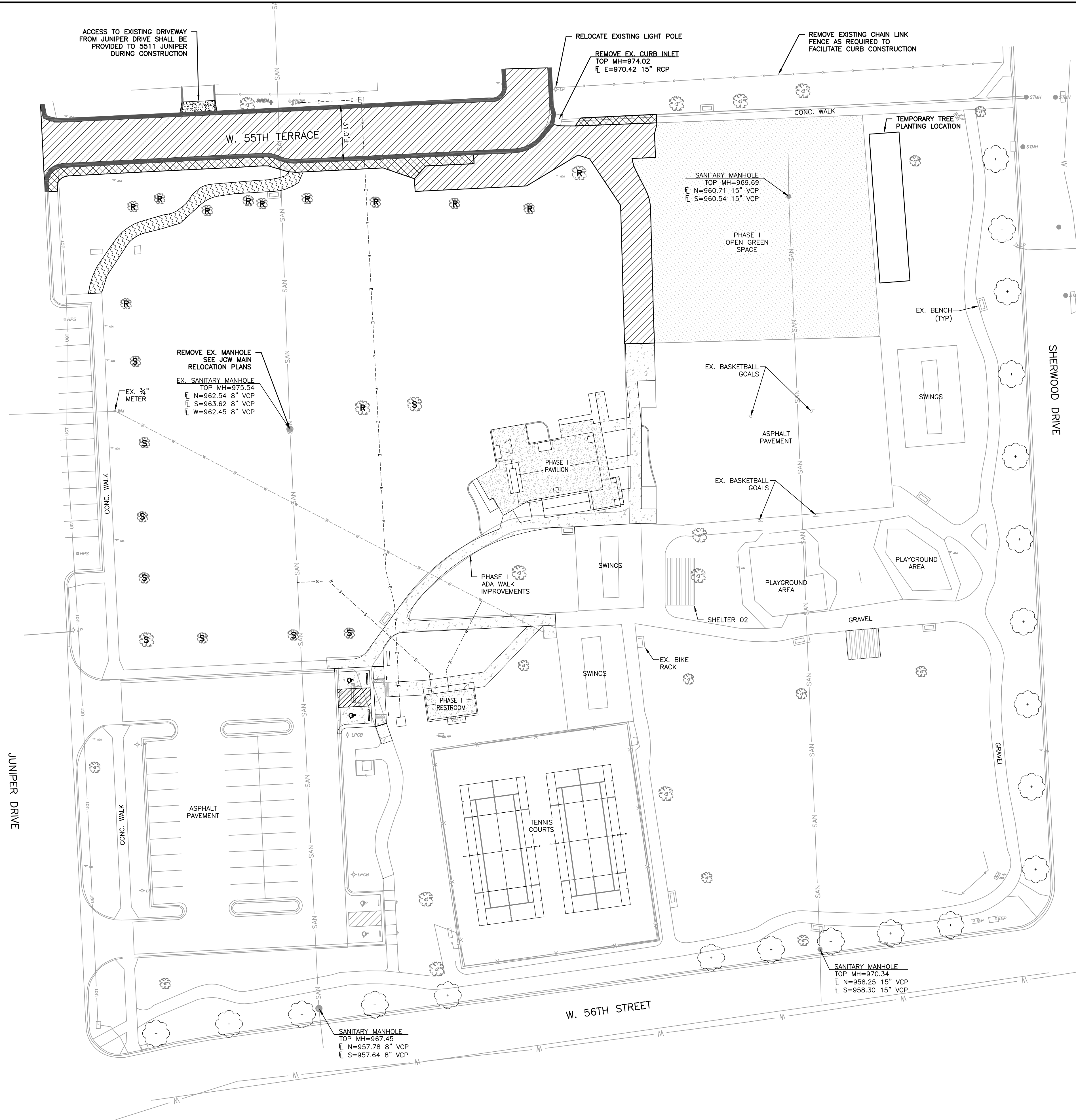
PROJECT NUMBER

0319001.06

BOOK AND PAGE

SHEET

U:\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-Park EX-COND-DEMO.dwg, 1/25/2020 8:07:00 AM, JAMIE MCNULTY, LAMP RYNEARSON

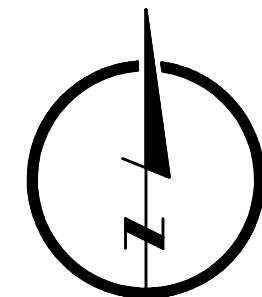


- LEGEND**
- REMOVE EXISTING ASPHALT PAVEMENT
 - REMOVE EXISTING CURB AND GUTTER
 - REMOVE EXISTING CONCRETE SIDEWALK
 - REMOVE EXISTING GRAVEL WALK
 - REMOVE EXISTING DRIVEWAY
 - SPADE TREE AND PLANT IN TEMPORARY LOCATION
 - PROTECT EXISTING TREE

- NOTES:**
- CONTRACTOR SHALL SPADE EXISTING TREES AND PLANT AT TEMPORARY LOCATION AS DESIGNATED ON PLAN. CITY WILL WATER TRANSPLANTED TREES DURING CONSTRUCTION. CONTRACTOR SHALL THEN SPADE AND TRANSPLANT TREES TO LOCATIONS AS DESIGNATED BY ENGINEER DURING FINAL RESTORATION.
 - REMOVE TREE PLACECARDS FOR TREES TO BE RELOCATED AND PROVIDE PLACECARDS TO CITY.

**LAMP
RYNEARSON**

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



01-28-2020

MARK DANIEL MCGHEE JR.
KS PE 20773

CONSTRUCTION DOCUMENTS
EXISTING CONDITIONS AND DEMOLITION PLAN SHEET
R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

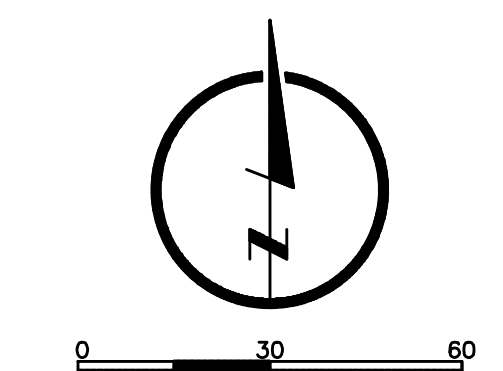
01-28-2020

PROJECT NUMBER

0319001.06

BOOK AND PAGE

SHEET



01-28-2020

MARK DANIEL MCGHEE JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

EROSION CONTROL PLAN SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

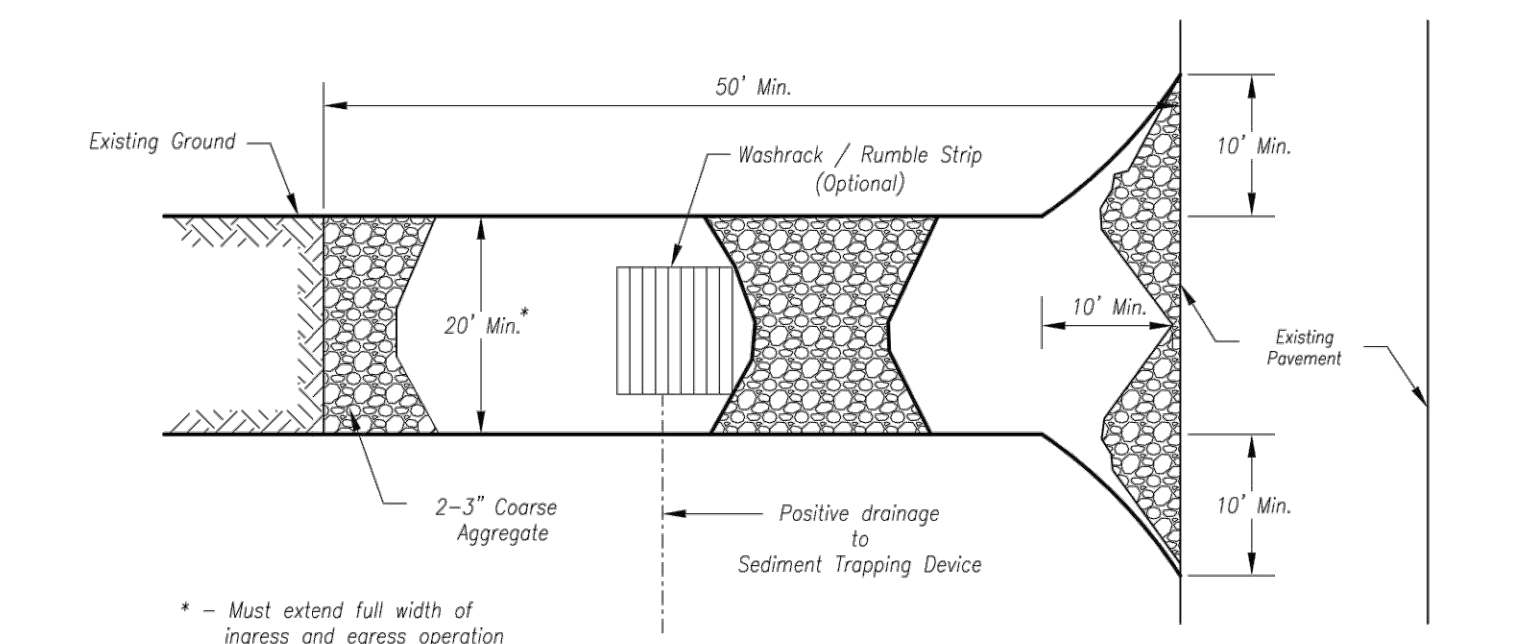
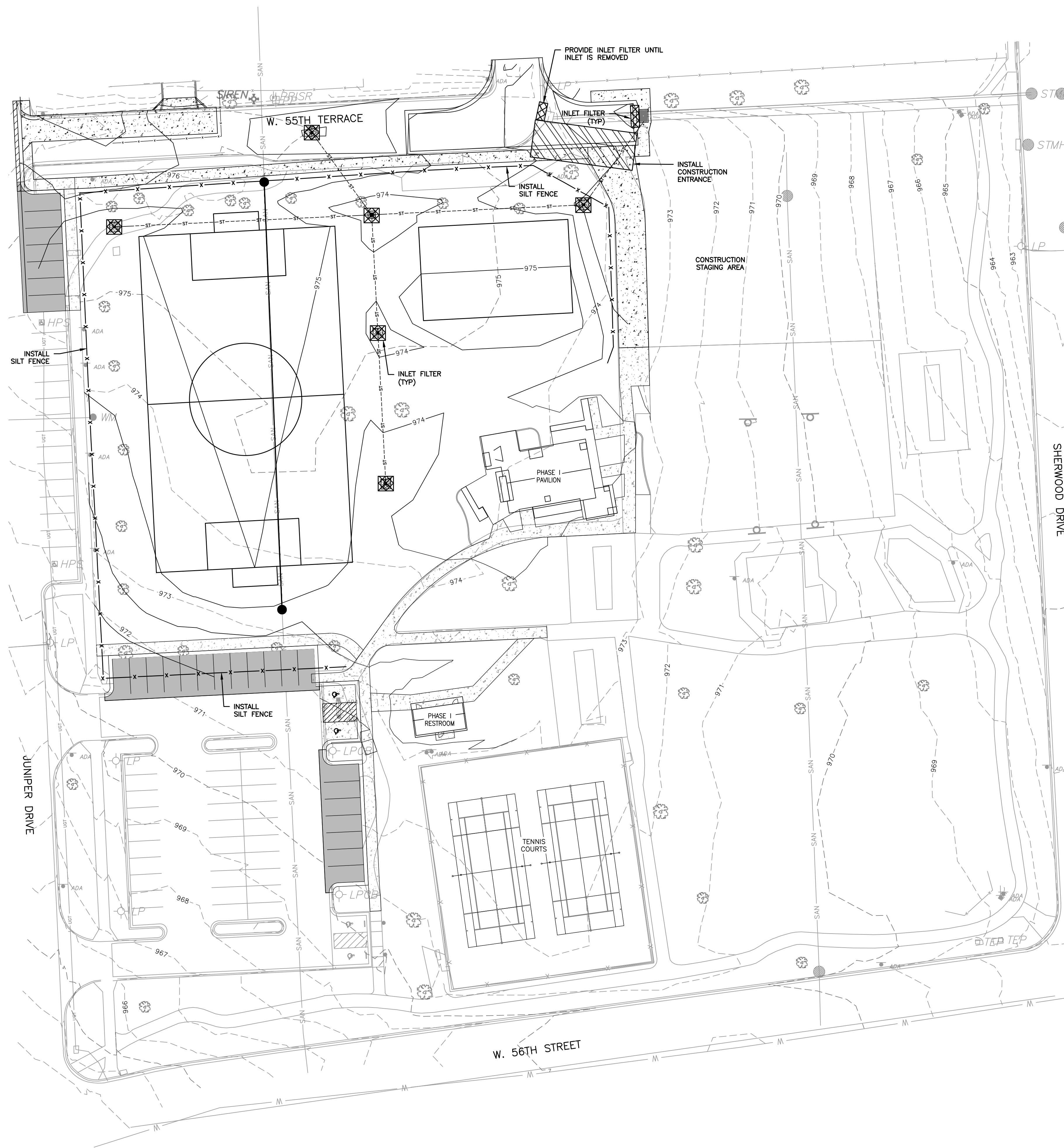
REVISIONS

DESIGNER / DRAFTER
MDM/ALM

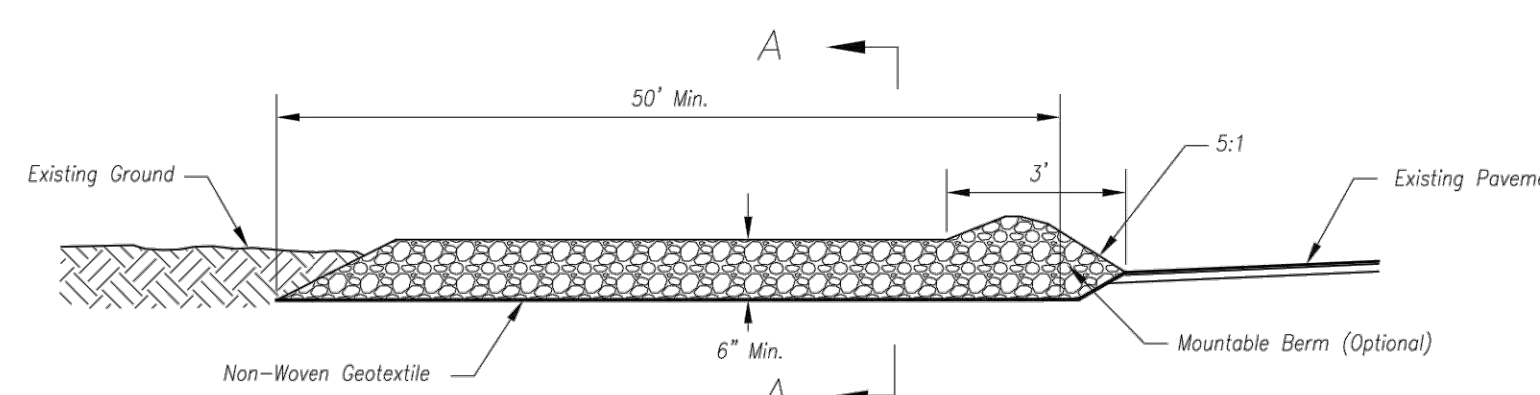
01-28-2020
PROJECT NUMBER
0319001.06
BOOK AND PAGE

SHEET

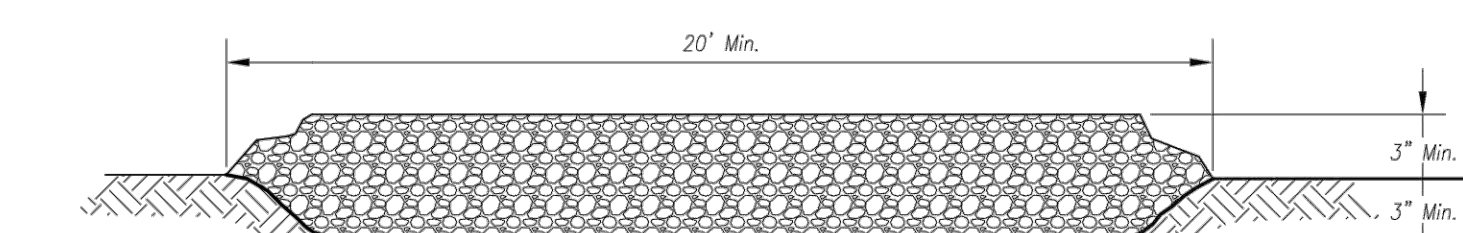
04



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

CONSTRUCTION ENTRANCE

Notes for Construction Entrance:

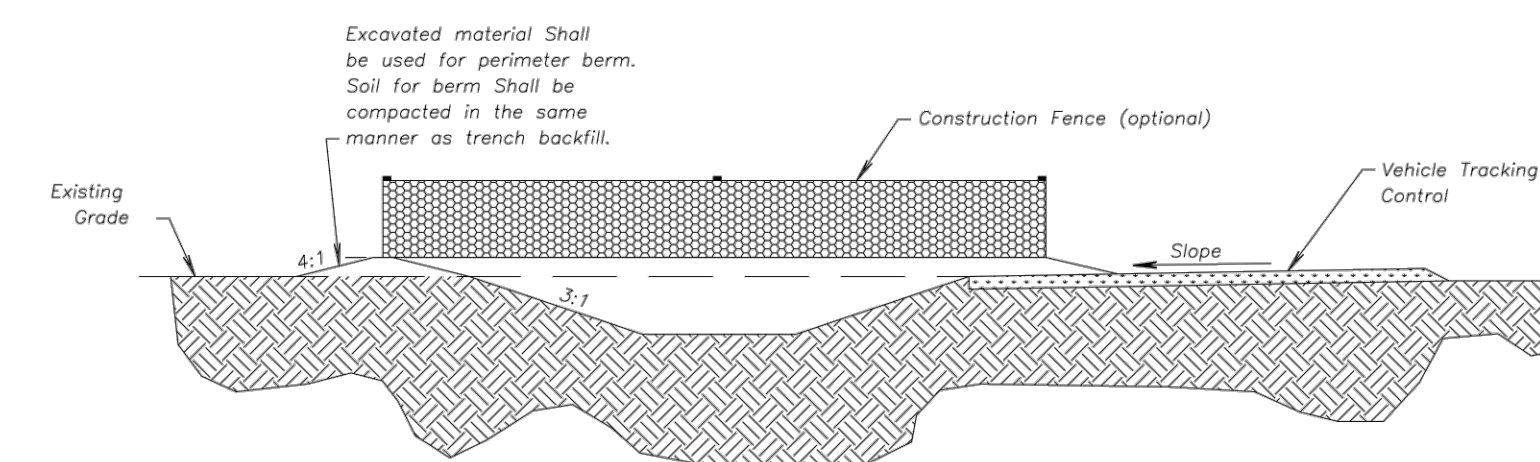
1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.



Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topped, any disturbed areas shall be restored to the original condition, maintenance, and/or removal of the concrete washout areas shall be stabilized.

CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION

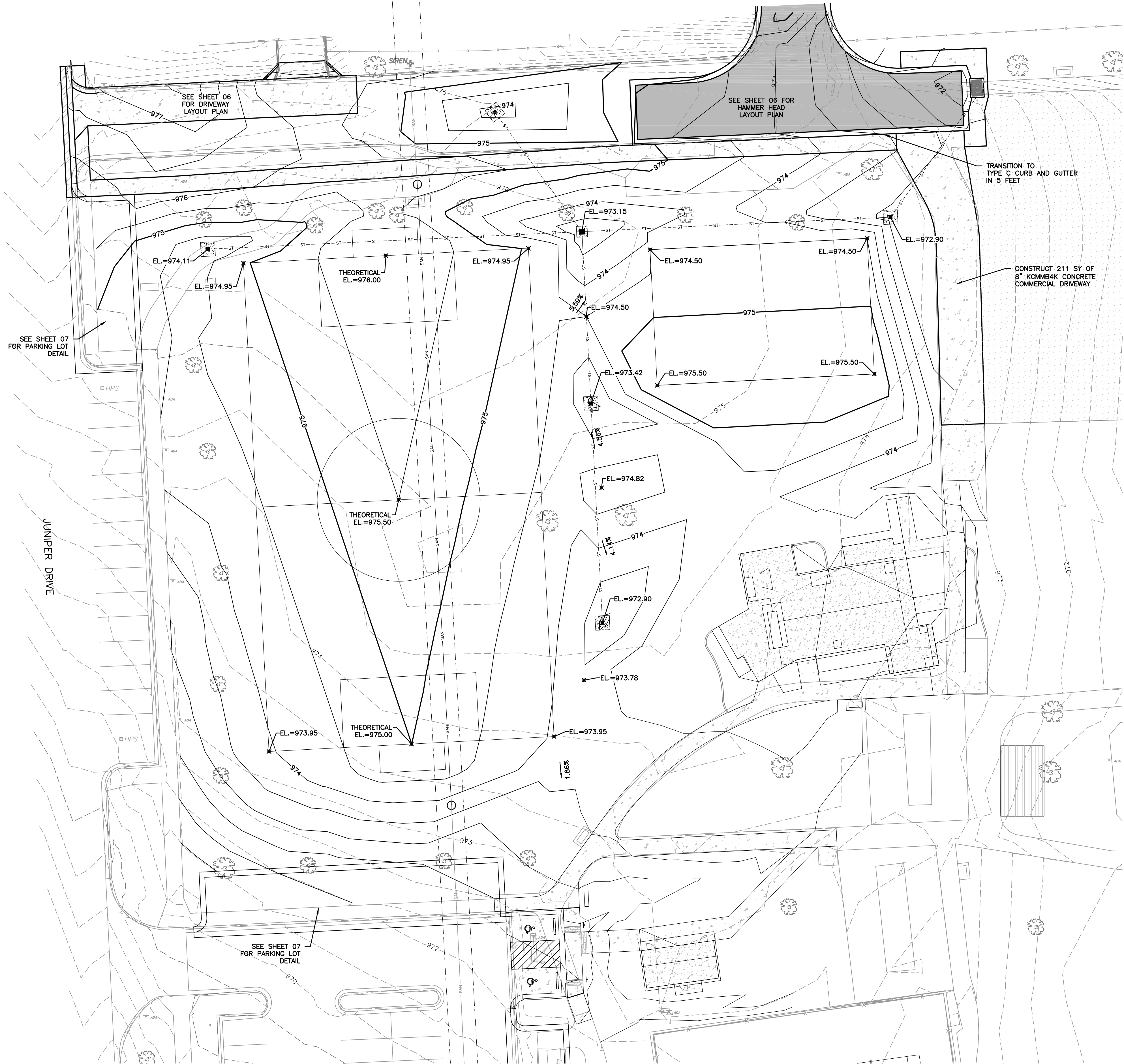


KANSAS CITY
METRO CHAPTER

CONSTRUCTION ENTRANCE
AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016

U:\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-Park GRD.dwg, 1/28/2020 9:35:51 AM, JAME MCMAURY, LAMP RYNEARSON



NOTES:

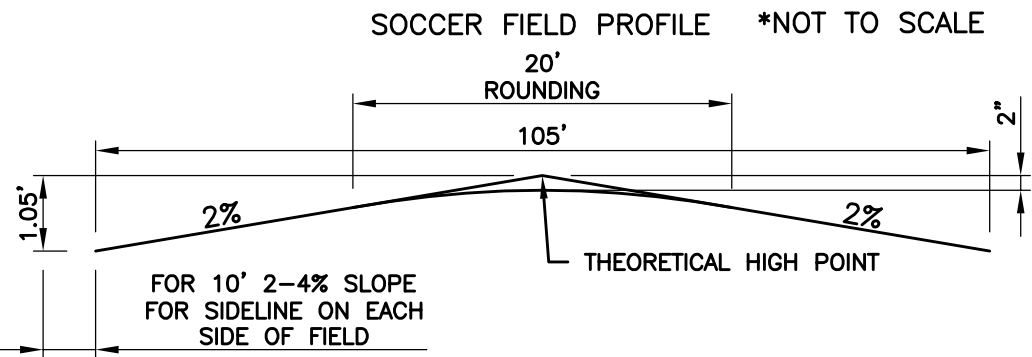
1. EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 0.5-FT INTERVALS.

CUT/FILL TABLE (BANK QUANTITIES)	
CUT	830 CY
FILL	469 CY

EARTHWORK SUMMARY DOES NOT INCLUDE 6" OF IMPORTED TOP SOIL FOR SOCCER FIELD.

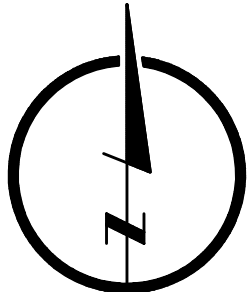
EARTHWORK CALCULATIONS ARE EXISTING SURFACE CONTOURS TO FINAL SURFACE CONTOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ADJUSTMENTS TO ACCOUNT FOR PAVEMENT THICKNESS, BASE THICKNESS, SUBGRADE THICKNESS, TOPSOIL, REMOVALS, ETC.

ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED. NO DIRECT PAYMENT WILL BE MADE FOR ROCK OR RUBBLE EXCAVATION.



LAMP
RYNEARSON

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



01-28-2020

MARK DANIEL MCHIE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

GRADING PLAN SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

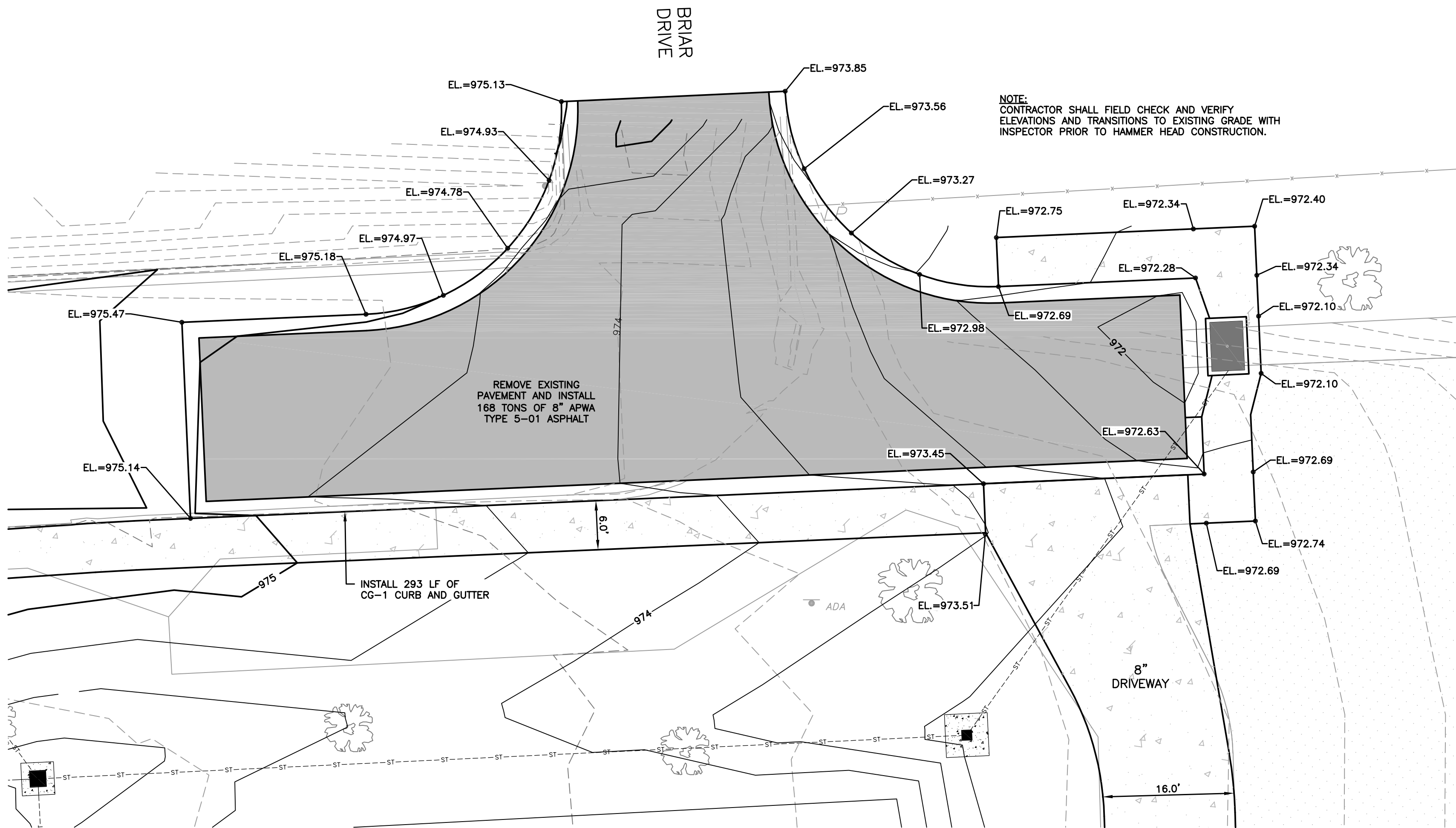
PROJECT NUMBER

0319001.06

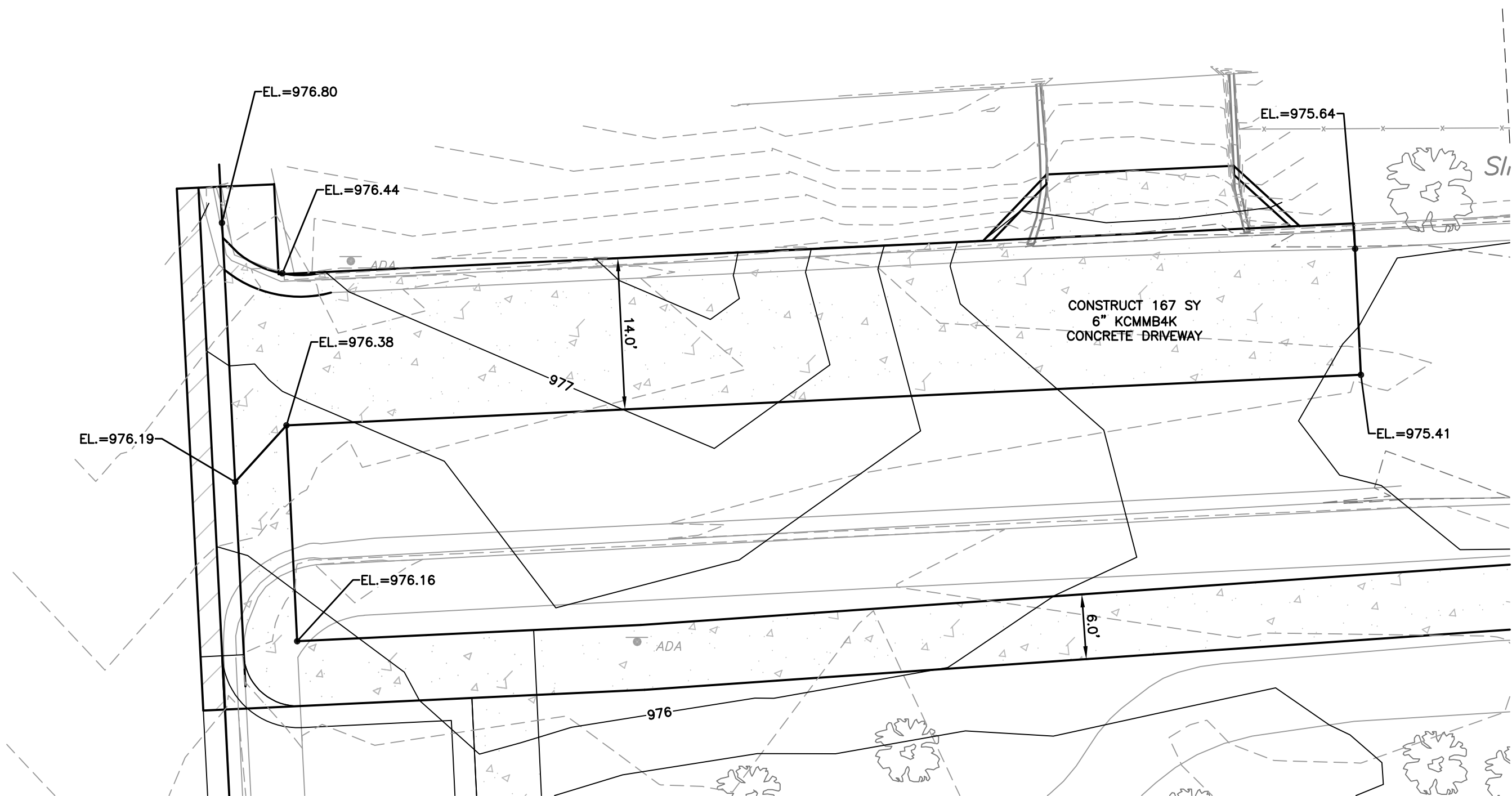
BOOK AND PAGE

SHEET

U:\Engineering\0319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\0319001.06 - R-PARK GRD.Mxd, 1/28/2020 3:11:32 PM, DAN MCGHEE, LAMP RYNEARSON



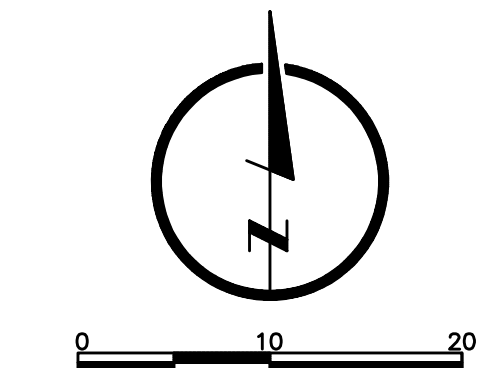
BRIAR STREET HAMMERHEAD LAYOUT PLAN



5511 JUNIPER DRIVE DRIVEWAY LAYOUT PLAN

LAMP
RYNEARSON

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



01-28-2020
MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

GRADING PLAN SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

PROJECT NUMBER

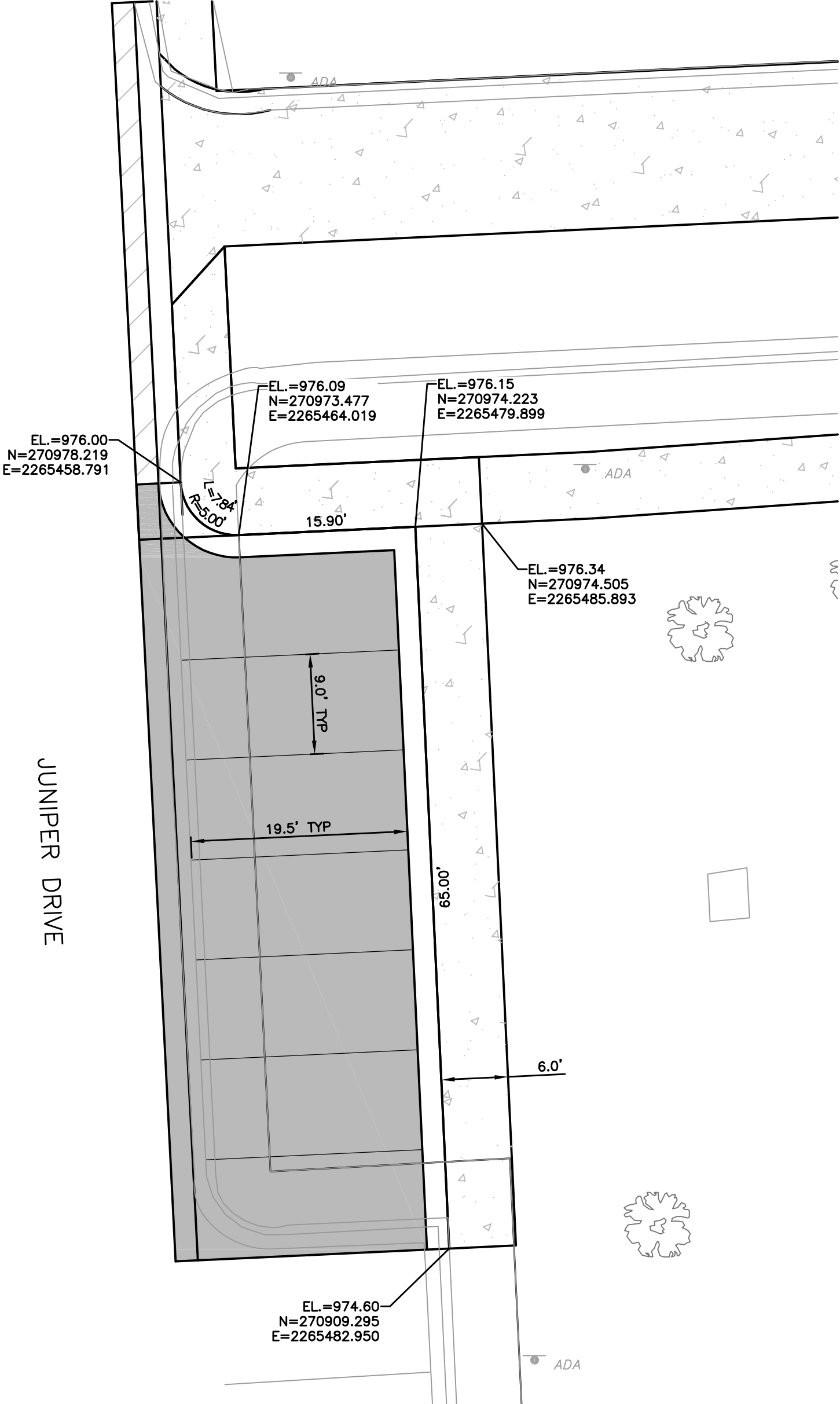
0319001.06

BOOK AND PAGE

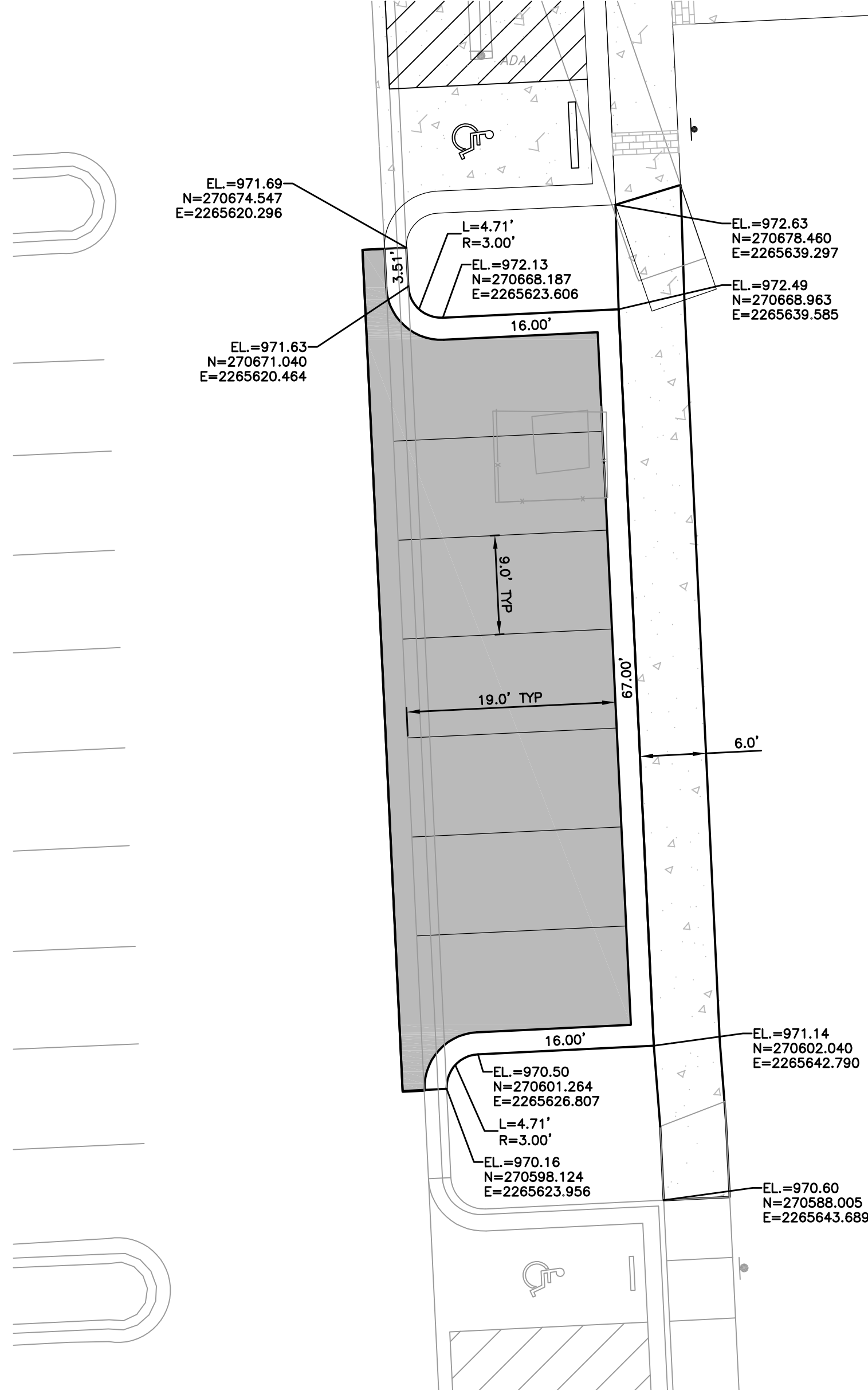
SHEET

06

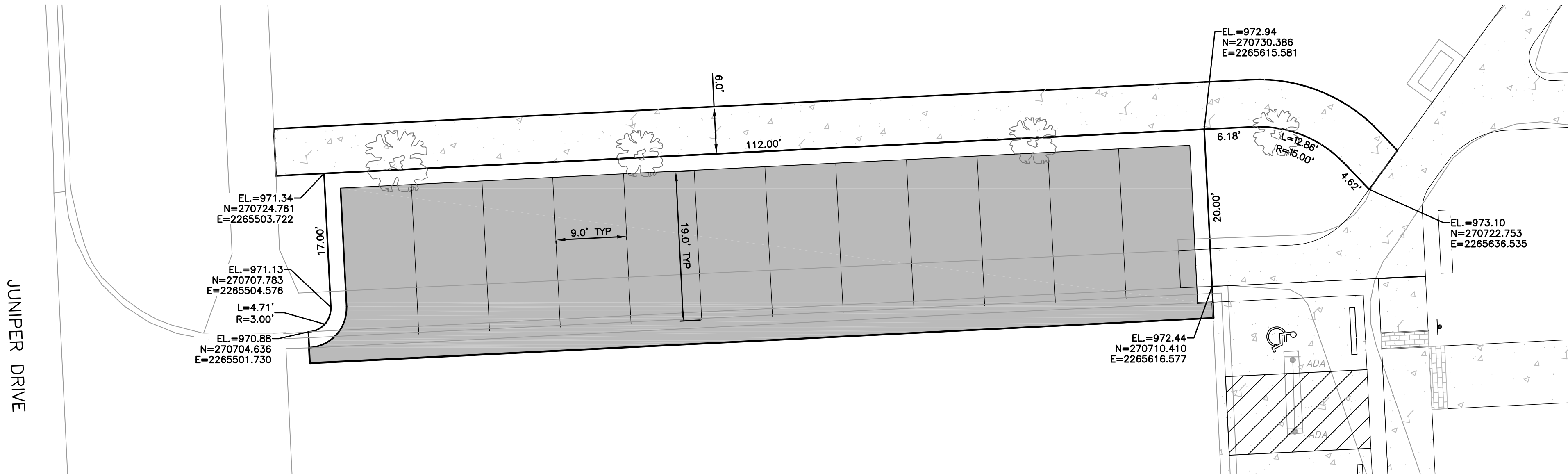
U:\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-PARK PSD-FUT-PARKING.dwg 1/28/2020 8:13:44 AM JAMIE MCNEURY, LAMP RYNEARSON



FUTURE PARKING LOT A
LAYOUT PLAN



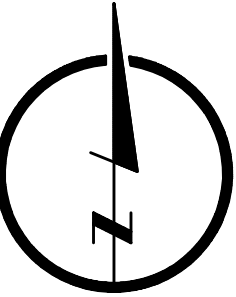
FUTURE PARKING LOT C
LAYOUT PLAN



FUTURE PARKING LOT C
LAYOUT PLAN

LAMP
RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS
FUTURE PARKING LAYOUT PLAN SHEET
R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

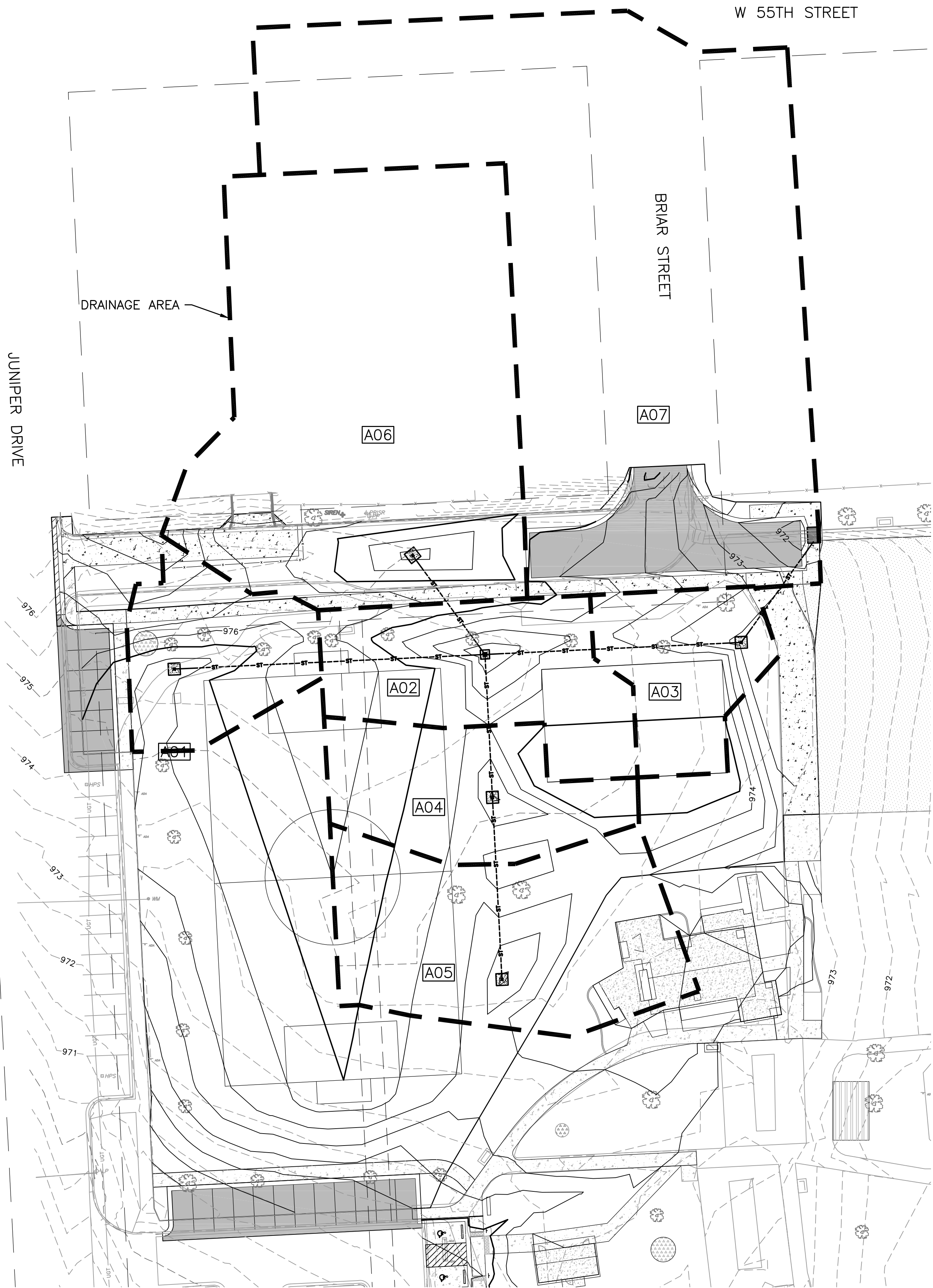
PROJECT NUMBER

0319001.06

BOOK AND PAGE

SHEET

\\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-Park (R)-CALC.dwg, 1/28/2020 8:15:04 AM, JAMIE MCQUEERY, LAMP RYNEARSON



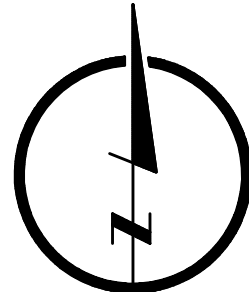
Rational Method																			
Time of Concentration Calculations "Tc"																			
Drainage Area Parameters			Inlet Time Ti				Inlet Time Ti (Beyond 100')							Travel Time Tt					Time of Concentration
Individual Drainage Area Name	Area (Acres) "A"	Runoff Coefficient "C" **	Length (ft.) "L"	Drop (ft.) "ΔH"	Slope "S"	Inlet Time (min.) $T_i=1.8(1.1-C)/L^{0.5}/S^{0.33}$	Length (ft.) "L"	Drop (ft.) ΔH	Slope "S"	Surface Type (Paved (P) or Unpaved (U))	Velocity (Paved Surface greater than 50%) $V=20.3282 \cdot S^{0.12}$	Velocity (unpaved Surface greater than 50%) $V=16.1345 \cdot S^{0.12}$	Shallow concentrated ed flow travel time $= L/3600 \cdot V$	Length (ft.) "L"	Drop (ft.) "ΔH"	Slope (ft./ft.) "S"	Velocity (ft/s) $V=AS^{0.6}/7$	Travel Time (min.) $T_t=L/(60 \cdot V)$	$T_c = T_i + T_t$ (min.)
A01	0.13	0.36	61.68	3.55	0.0576	5.84	0.00	0.00	0.00	U	0.00	0.00	0.00	137.77	1.00	0.0073	2.21	1.04	6.88
A05	0.26	0.51	100.00	2.46	0.0246	7.87	2.23	0.20	0.09	U	0.00	4.83	0.01	80.83	0.50	0.0062	1.99	0.68	8.55
A04	0.15	0.36	92.36	2.17	0.0235	9.63	0.00	0.00	0.00	U	0.00	0.00	0.00	63.38	0.40	0.0063	2.01	0.52	10.15
A06	0.59	0.51	100.00	1.50	0.0150	9.28	128.10	3.50	0.03	U	0.00	2.67	0.80	54.41	1.10	0.0202	4.39	0.21	10.28
A02	0.18	0.36	100.00	2.13	0.0213	10.35	3.25	0.20	0.06	U	0.00	4.00	0.01	113.66	0.80	0.0070	2.17	0.87	11.24
A03	0.11	0.36	100.00	2.30	0.0230	10.09	5.80	0.19	0.03	U	0.00	2.92	0.03	57.22	0.60	0.0105	2.83	0.34	10.46
A07	0.90	0.51	100.00	2.00	0.0200	8.43	387.85	6.00	0.02	U	0.00	2.01	3.22	225.00	11.30	0.0502	8.08	0.46	12.11

Rational Method																
Flow Calculations "Q"																
Individual Drainage Area Name	Area "A" x Runoff Coefficient "C" CA	Time of Concentration "Tc"	Design "Tc" 5 ≤ Tc ≤ 60 min.	Rainfall Intensity "I ₂ " in in/hr 5 ≤ Tc ≤ 15 min. I ₂ =119/(Tc+17)	2-Year Flow Q ₂ = CxI ₂ xA	Rainfall Intensity "I ₅ " in in/hr 5 ≤ Tc ≤ 15 min. I ₅ =154/(Tc+18.8)	5-Year Flow Q ₅ = CxI ₅ xA	Rainfall Intensity "I ₁₀ " in in/hr 5 ≤ Tc ≤ 15 min. I ₁₀ =175/(Tc+18.8)	10-Year Flow Q ₁₀ = CxI ₁₀ xA	Rainfall Intensity "I ₂₅ " in in/hr 5 ≤ Tc ≤ 15 min. I ₂₅ =203/(Tc+18.8)	25-Year Flow Q ₂₅ = 1.1xCxI ₂₅ xA	Rainfall Intensity "I ₅₀ " in in/hr 5 ≤ Tc ≤ 15 min. I ₅₀ =233/(Tc+19.8)	50-Year Flow Q ₅₀ = 1.2xCxI ₅₀ xA	Rainfall Intensity "I ₁₀₀ " in in/hr Tc < 15 min. I ₁₀₀ =256/(Tc+19.8)	100-Year Flow Q ₁₀₀ = 1.25xCxI ₁₀₀ A	
A01	0.05	6.88	6.88	4.98	0.23	6.00	0.27	6.82	0.31	7.91	0.40	8.73	0.48	9.60	0.55	
A05	0.13	8.55	8.55	4.66	0.62	5.63	0.75	6.40	0.86	7.42	1.09	8.22	1.32	9.03	1.51	
A04	0.19	10.15	10.15	4.38	0.82	5.32	1.00	6.04	1.14	7.01	1.45	7.78	1.76	8.55	2.01	
A06	0.30	10.28	10.28	4.36	1.31	5.29	1.59	6.02	1.80	6.98	2.30	7.74	2.79	8.51	3.19	
A02	0.60	11.24	11.24	4.21	2.52	5.13	3.07	5.83	3.49	6.76	4.45	7.51	5.39	8.25	6.17	
A03	0.64	11.58	11.58	4.16	2.66	5.07	3.24	5.76	3.68	6.68	4.69	7.43	5.69	8.16	6.51	
A07	1.10	12.11	12.11	4.09	4.49	4.98	5.47	5.66	6.21	6.57	7.93	7.30	9.62	8.02	11.01	

INDIVIDUAL DRAINAGE AREA	INLET NUMBER	RIM EL	INVERT EL	DOWNSTREAM PIPE	10 YEAR HGL	100 YR HGL
A01	STM-04	974.11	970.85	12" HDPE	971.08	971.16
A05	STM-06	972.9	971.1	12" HDPE	971.49	971.62
A04	STM-05	973.42	970.5	12" HDPE	970.95	971.1
A06	STM-07	973.8	971.2	12" HDPE	971.77	971.96
A02	STM-03	973.15	969.75	15" HDPE	970.25	970.5
A03	STM-02	972.9	968.85	15" HDPE	969.37	969.63
A07	STM-01	973.31	967.87	15" RCP	968.88	969.07

LAMP RYNEARSON

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



0 30 60



01-28-2020

MARK DANIEL MCSHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

DRAINAGE AREA MAP AND CALCULATION SHEET

R PARK – PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

JDM/AJM
DATE

01-28-2020

PROJECT NUMBER

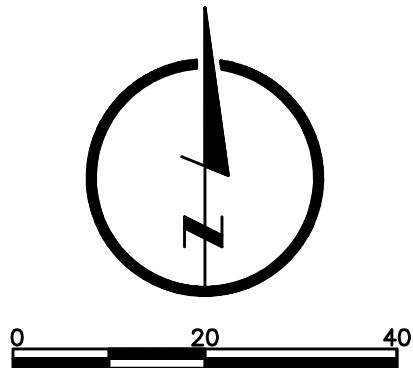
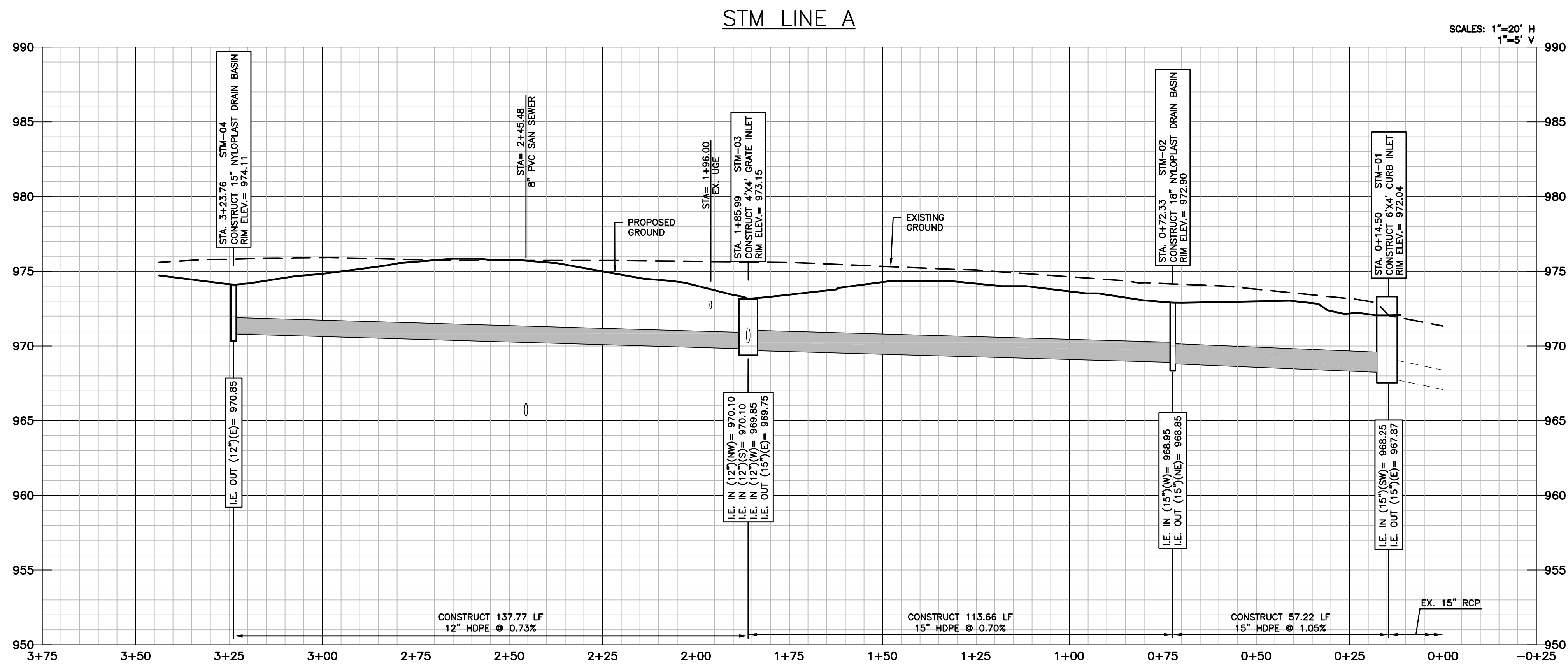
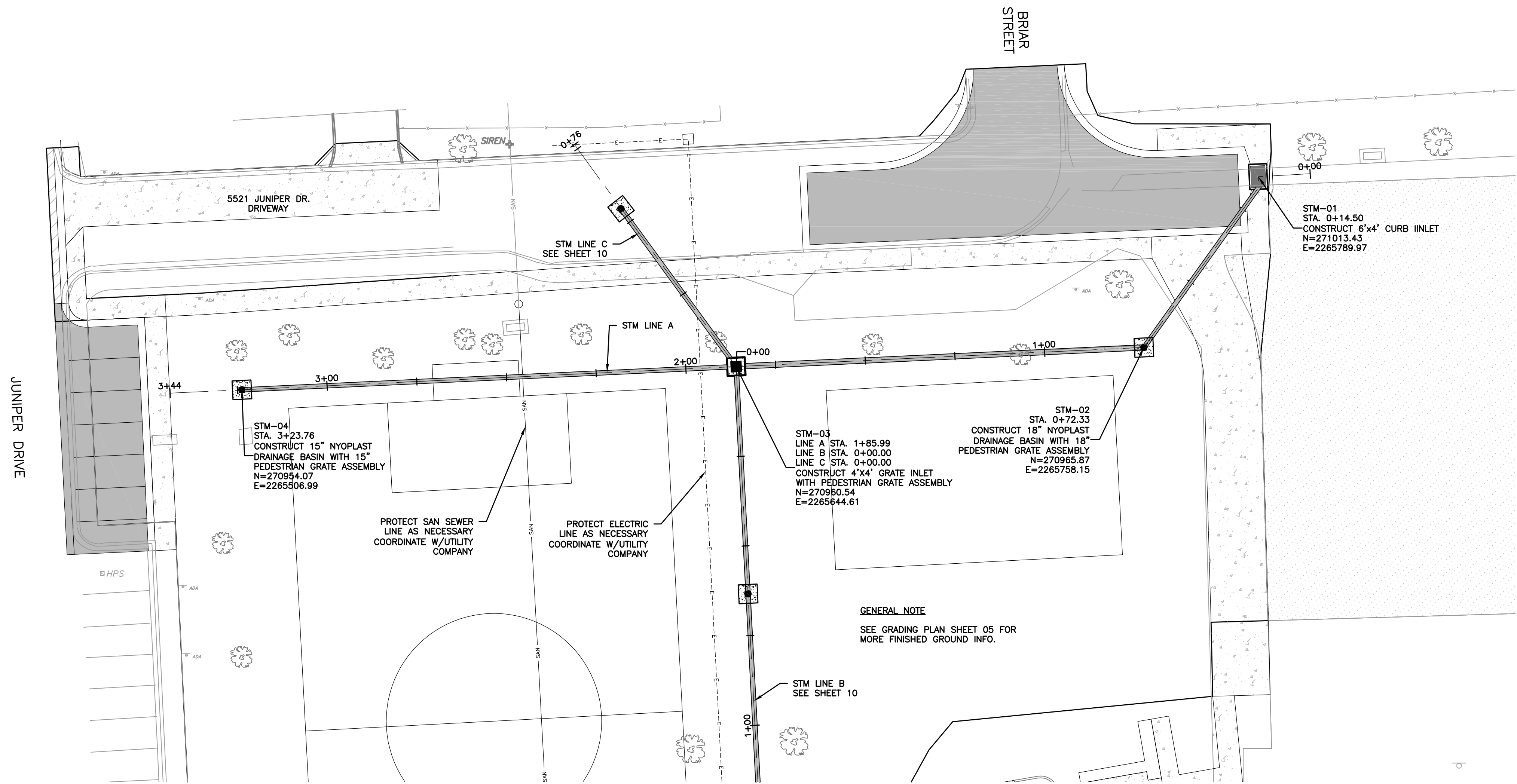
0319001.06

BOOK AND PAGE

SHEET

08

L:\Engineering\319001.06 Roeland Park KS R Park Phase 2\DRAWINGS\CONSTRUCTION DRAWINGS\319001.06 - R-PARK STM-PWP.dwg, 1/28/2020 8:16:03 AM, JAMIE MCNEARY, LAMP RYNEARSON



01-28-2020

MARK DANIEL MCCHIE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS
STORM SEWER LINE A PLAN/PROFILE SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

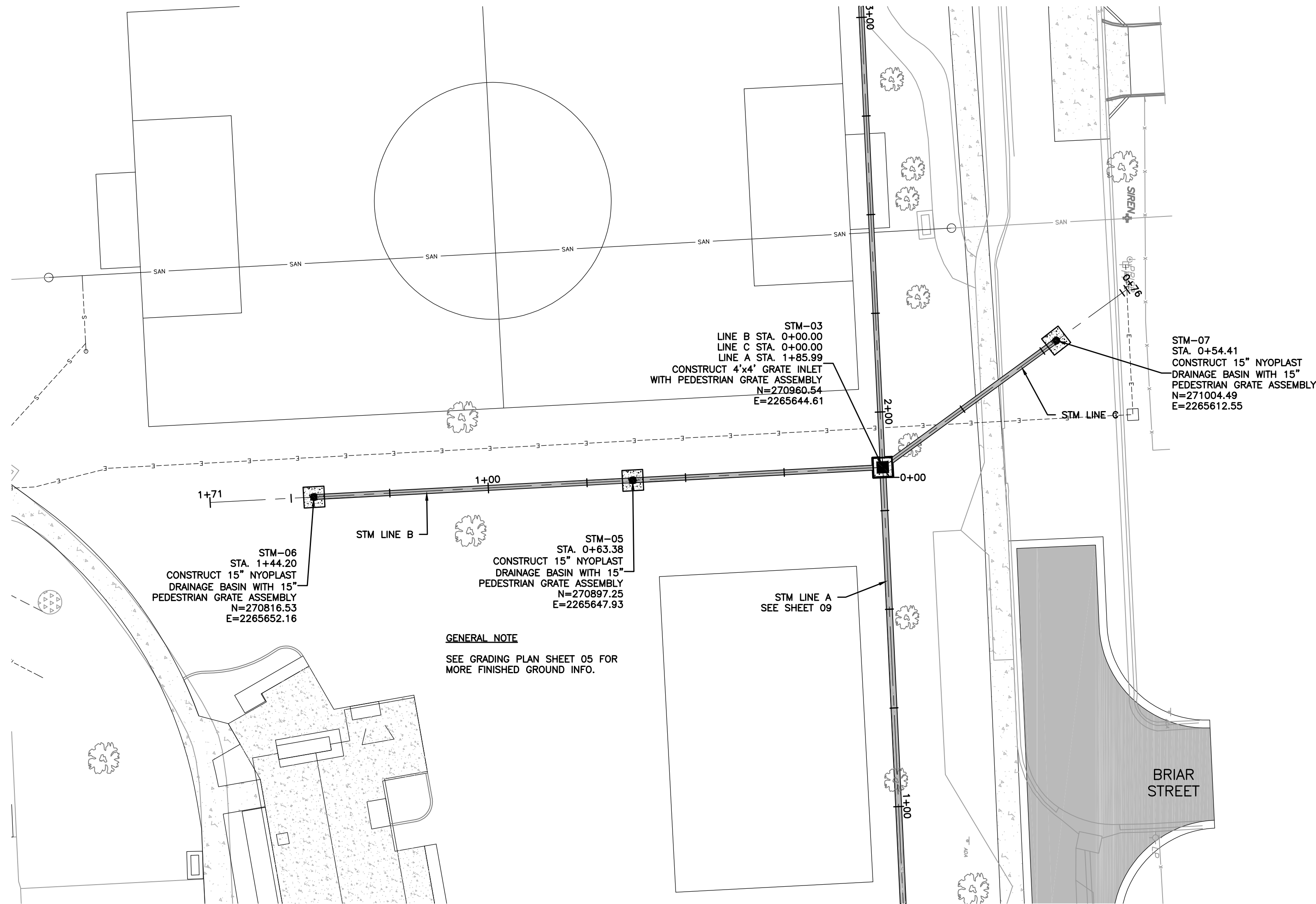
PROJECT NUMBER

0319001.06

BOOK AND PAGE

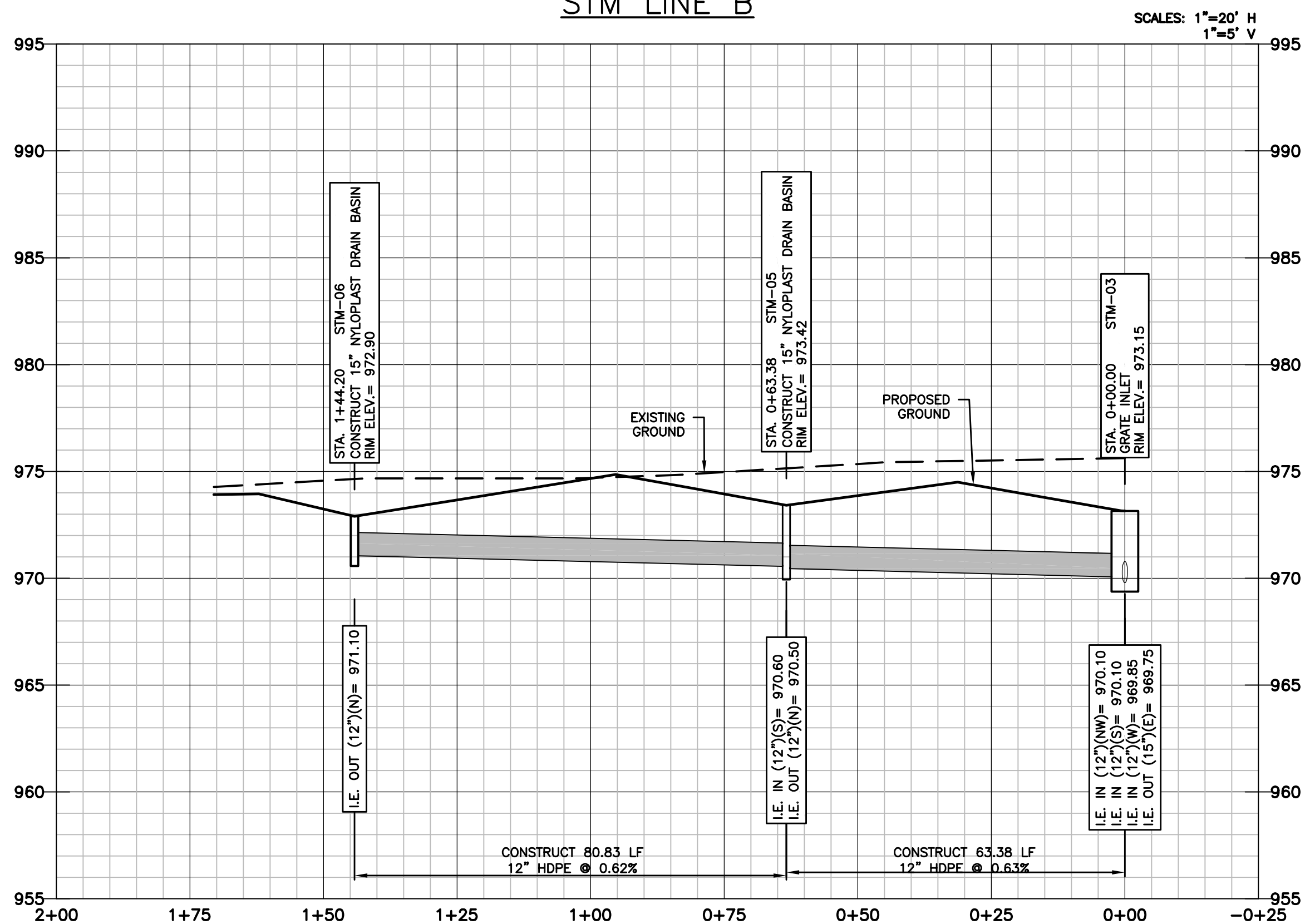
SHEET

U:\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - R-PARK STM-PWP.dwg, 1/28/2020 8:15:23 AM, JAMIE MCNEARY, LAMP RYNEARSON

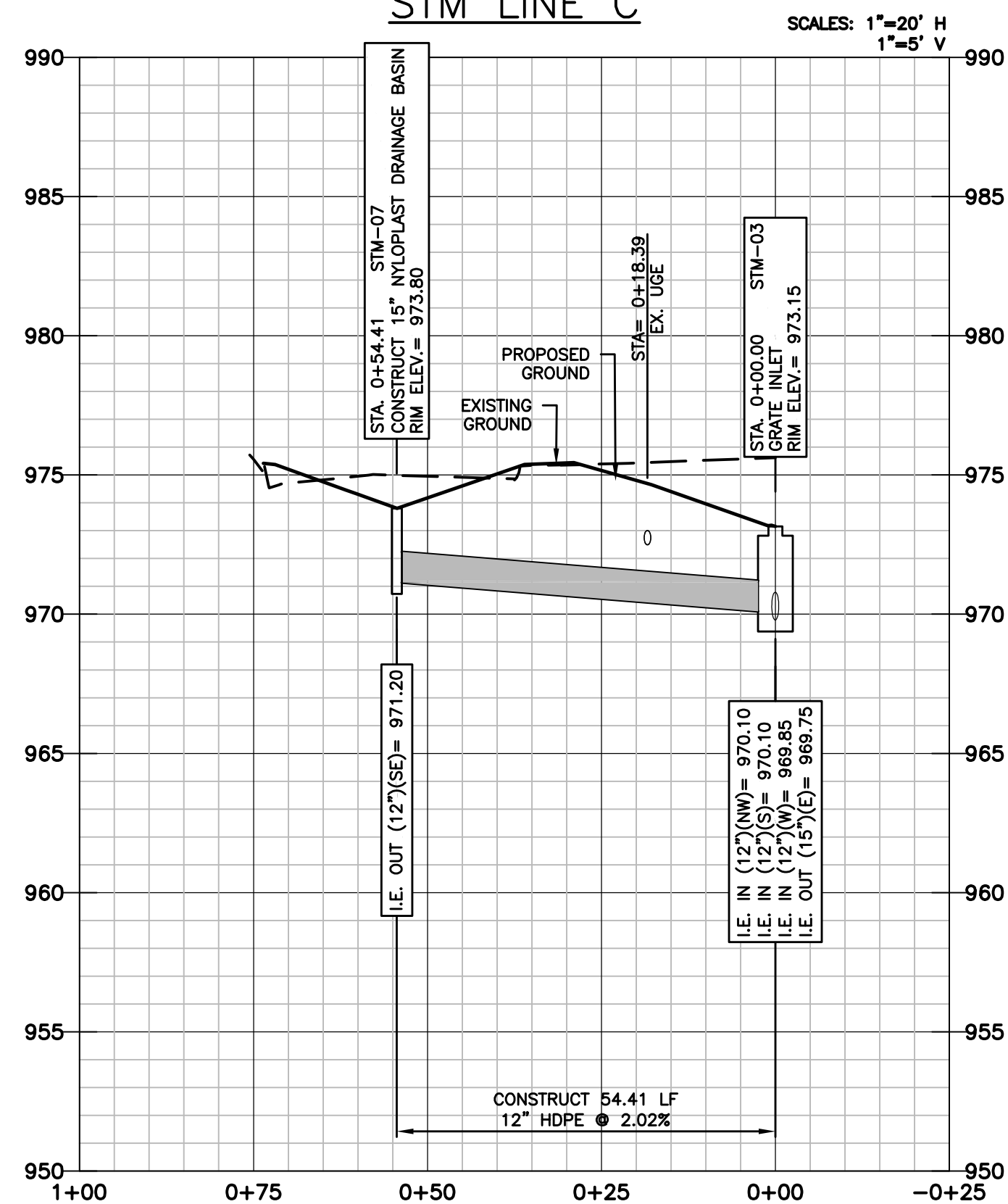


GENERAL NOTE
SEE GRADING PLAN SHEET 05 FOR
MORE FINISHED GROUND INFO.

STM LINE B

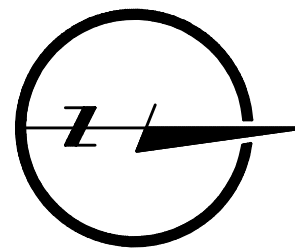


STM LINE C



LAMP
RYNEARSON

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



0 20 40



01-28-2020

MARK DANIEL MCHIEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS
STORM SEWER LINE B PLAN/PROFILE SHEET
R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM
DATE

01-28-2020

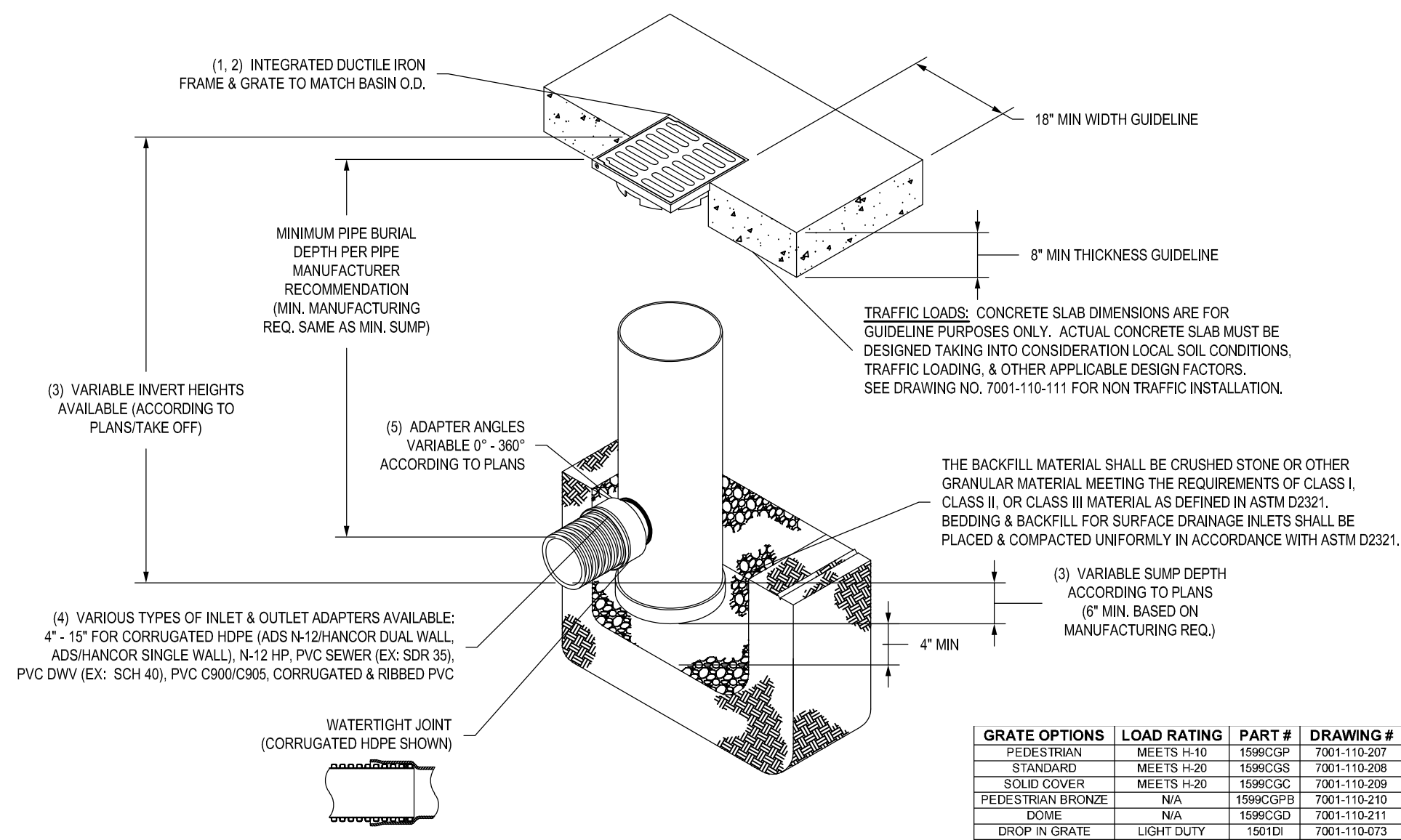
PROJECT NUMBER

0319001.06

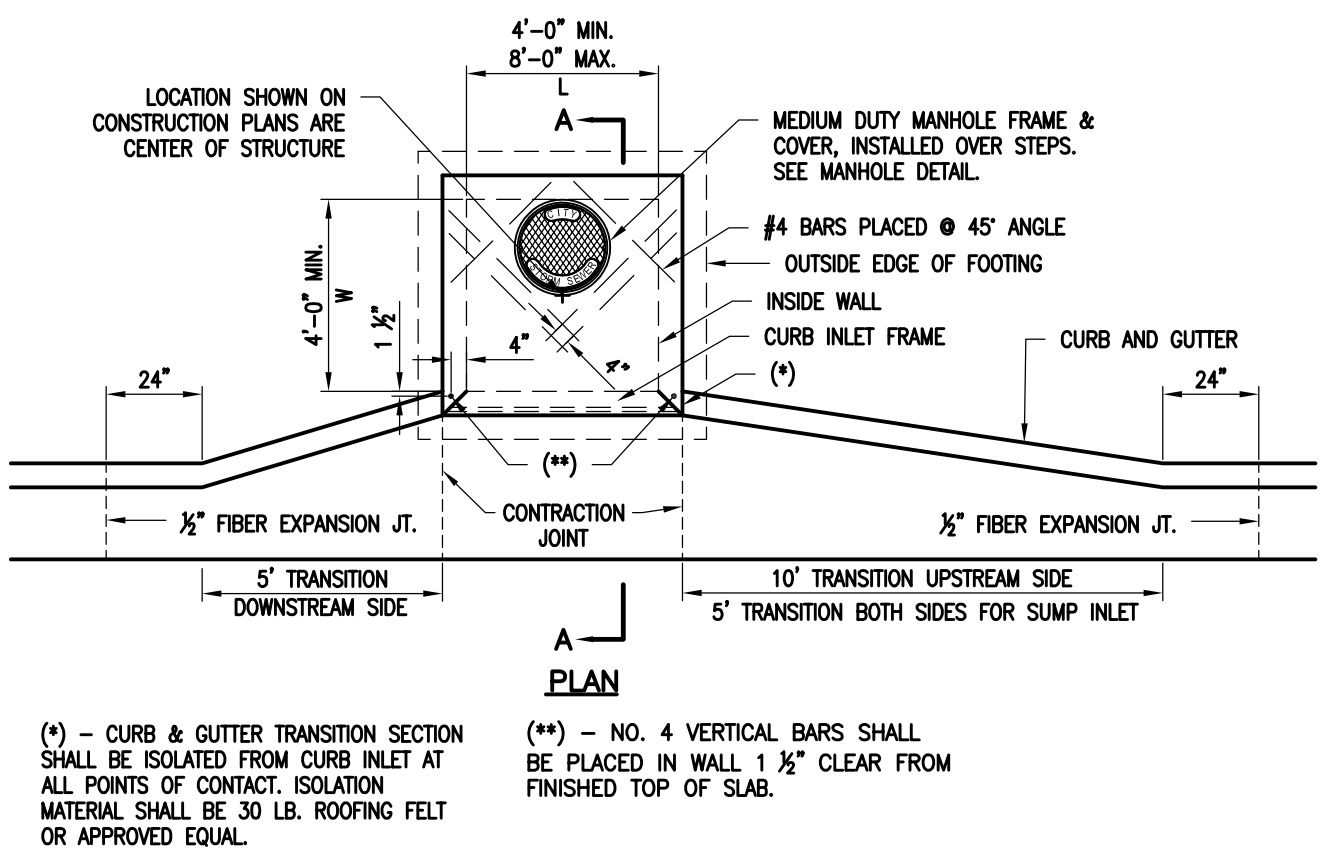
BOOK AND PAGE

SHEET

U:\Engineering\0319001.06 Roeland Park KS R Park Phase 2\DRAWINGS\CONSTRUCTION DRAWINGS\0319001.06 - DETAILS.dwg, 1/28/2020 3:17:21 PM, DAN MCGHEE, LAMP RYNEARSON

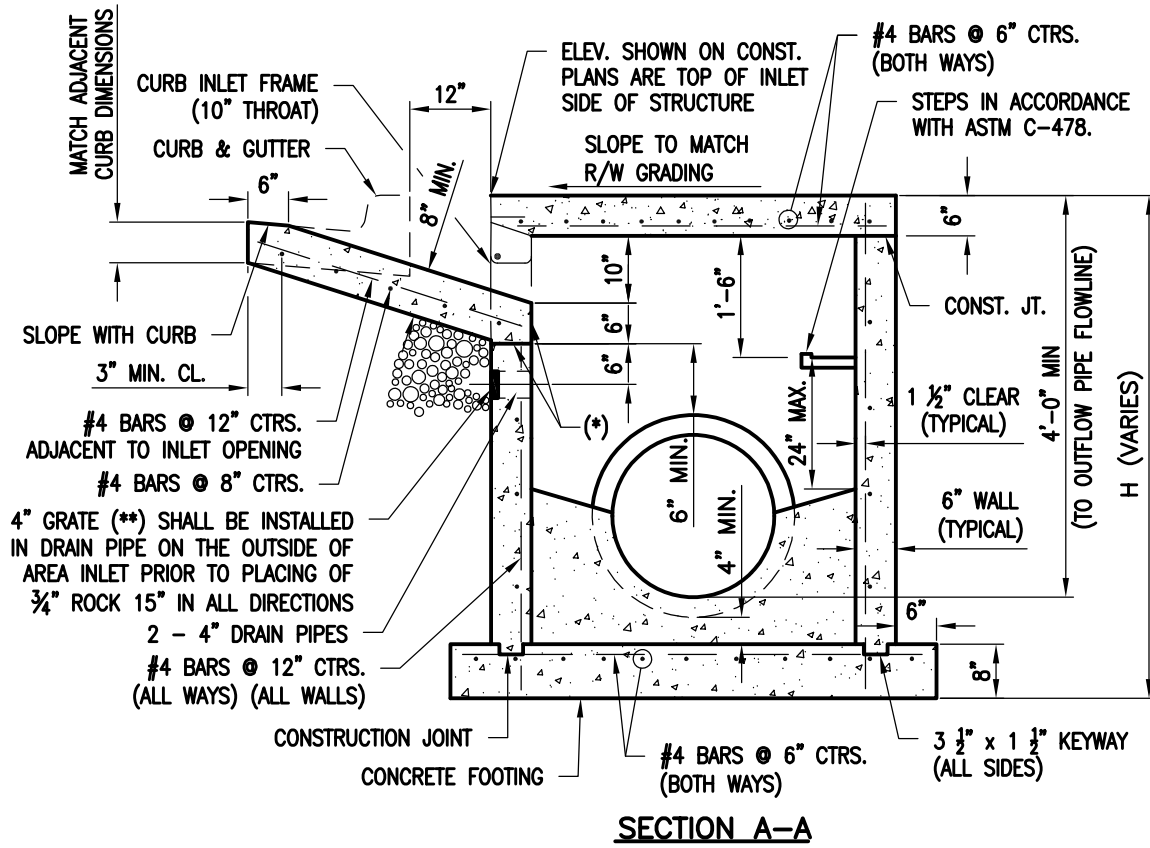


15" NYOPLAST DRAINAGE BASIN



(*) - CURB & GUTTER TRANSITION SECTION SHALL BE ISOLATED FROM CURB INLET AT ALL POINTS OF CONTACT. ISOLATION MATERIAL SHALL BE 30 LB. ROOFING FELT OR APPROVED EQUAL.

(**) - NO. 4 VERTICAL BARS SHALL BE PLACED IN WALL 1 1/2" CLEAR FROM FINISHED TOP OF SLAB.



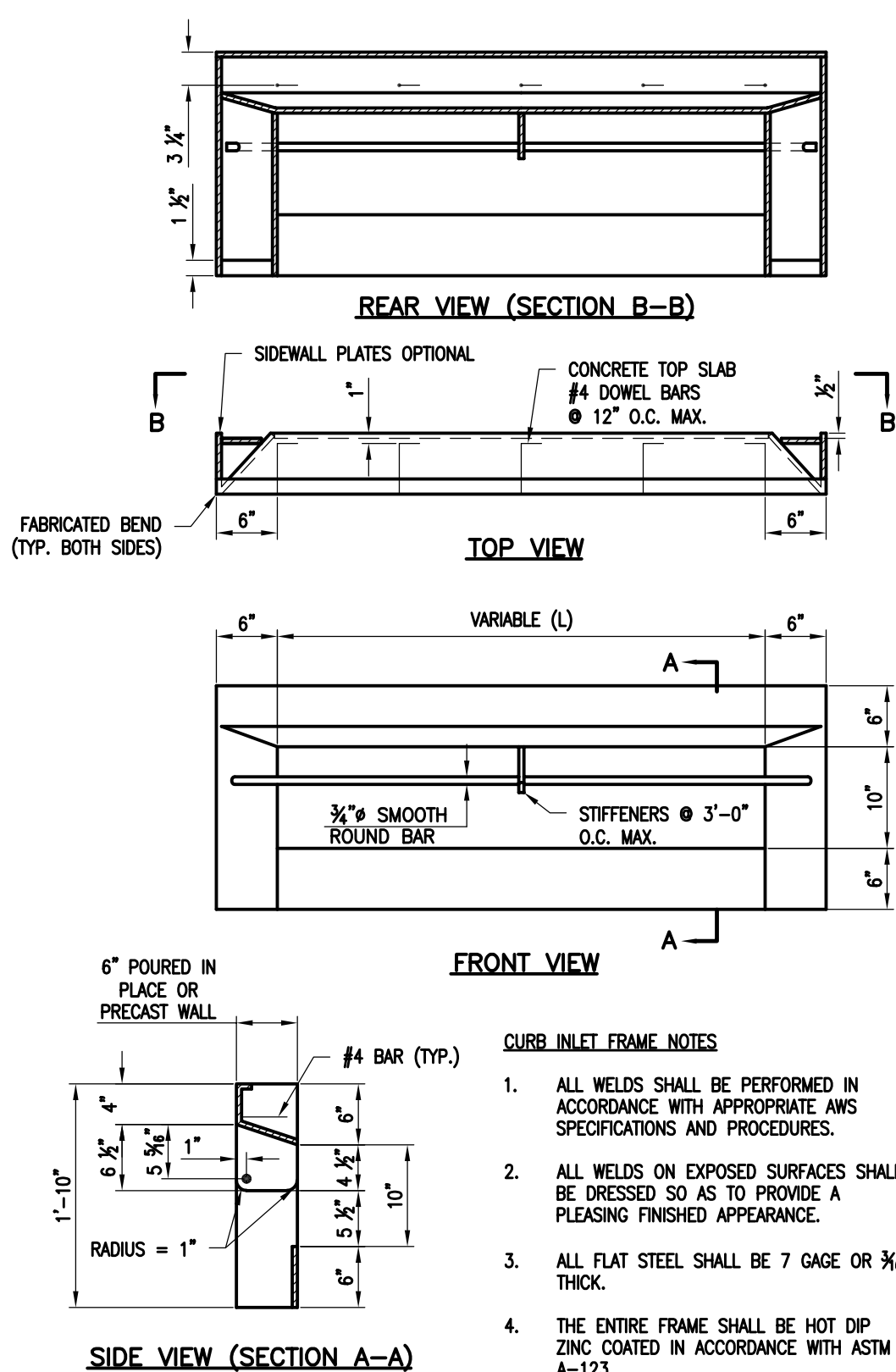
(*) - CURB & GUTTER TRANSITION SECTION SHALL BE ISOLATED FROM CURB INLET AT ALL POINTS OF CONTACT. ISOLATION MATERIAL SHALL BE 30 LB. ROOFING FELT OR APPROVED EQUAL.

(**) - THE MATERIAL OF THE GRATE SHALL MATCH THE MATERIAL OF THE PIPE AND SHALL BE AS FOLLOWS:

A) PVC: PIPE - 4" SCHEDULE 40 PVC MEETING ASTM D-1785" GRATE - 4" PVC SHAP- IN DRAIN - MEETS ASTM D-2065, WITH STAINLESS STEEL (TYPE 304) COVER, MOUNTED WITH TWO 18-8 STAINLESS STEEL SCREWS; MAXIMUM OPENING SIZE 1/4".

B) HDPE: PIPE - 4"HDPE MEETING AASHTO M252, TYPE S; GRATE - 4"HDPE - MEETS ASTM D-3350 MAXIMUM OPENING SIZE 1/4".

CURB INLET
(10" THROAT)

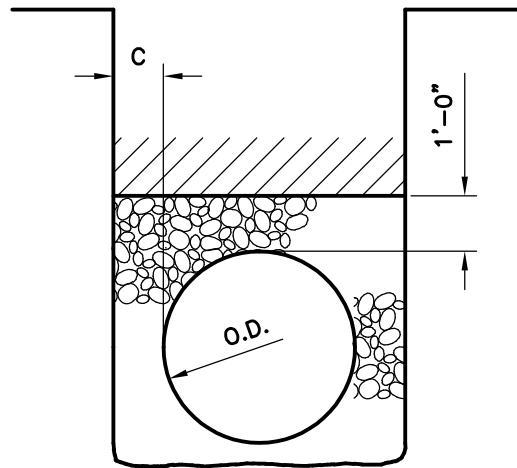


CURB INLET FRAME
(10" THROAT)

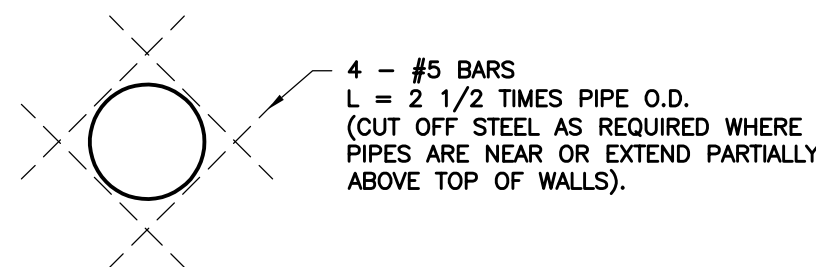
CURB INLET FRAME NOTES

- ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
- ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
- ALL FLAT STEEL SHALL BE 7 GAGE OR 3/8" THICK.
- THE ENTIRE FRAME SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A-123.

FLEXIBLE PIPE BEDDING



PIPE EMBEDMENT DETAILS



ADD'NL. REINF. AT NEW CONC. STRUCTURE

PIPE CONNECTION TO CONCRETE STRUCTURE
(NO DIRECT PAYMENT)

CURB INLET NOTES

GENERAL

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES
- ALL STORM SEWER STRUCTURES SHALL BE PRE-CAST OR POURED IN PLACE. IF PRE-CAST STRUCTURES ARE USED, THE TOPS SHALL BE POURED IN PLACE AND THE WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2" BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE ENGINEER.
- PRE-CAST SHOP DRAWINGS ARE TO BE SUBMITTED AND APPROVED BY THE ENGINEER IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS.
- DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
- ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
- THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"x"H") AND ("W"x"H") LESS THAN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.

CONCRETE

- CONCRETE USED IN THIS WORK SHALL BE KOMMB4K, AS APPROVED BY THE LOCAL JURISDICTION.
- INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
- BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.

REINFORCING STEEL

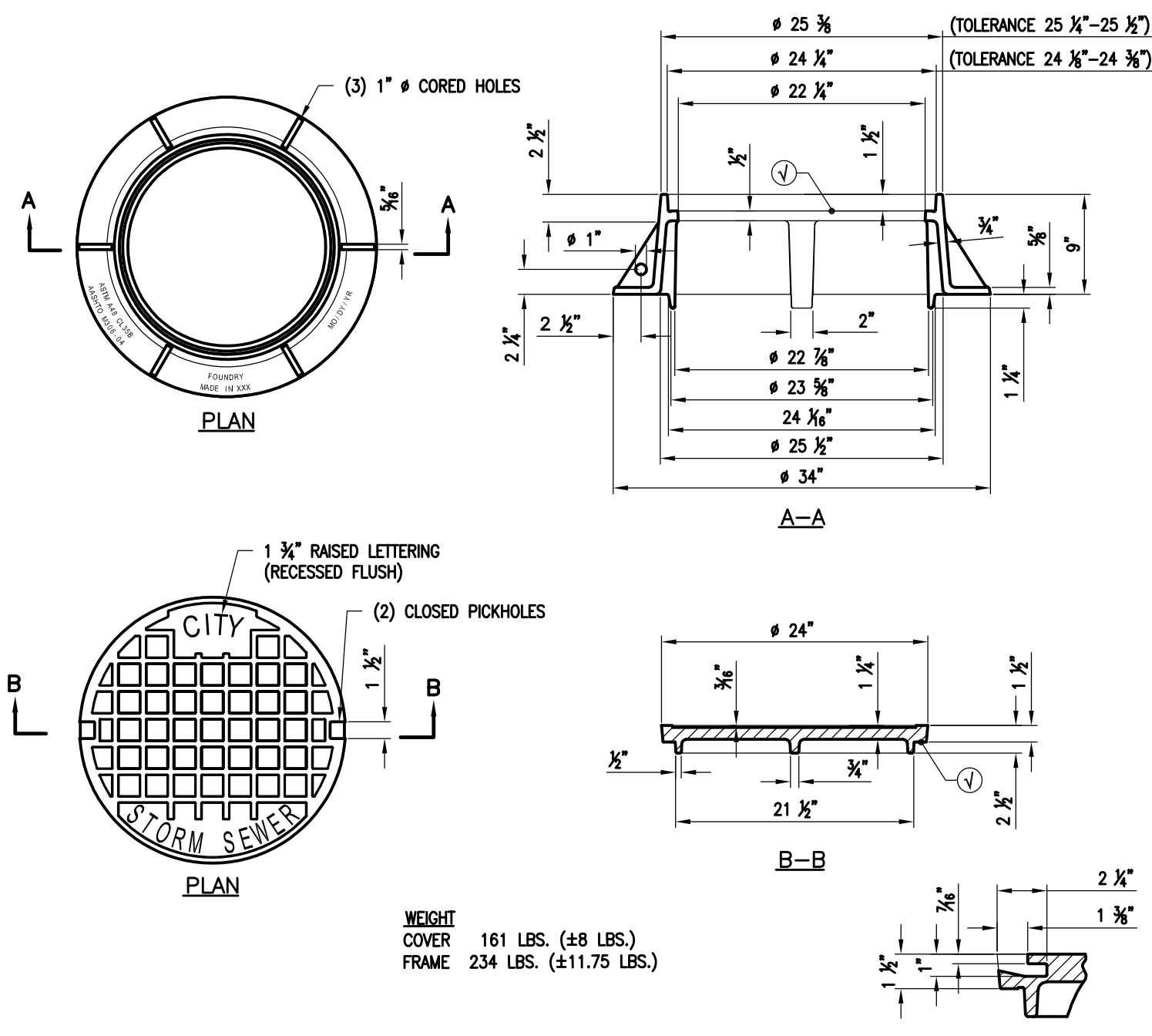
- REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615M, AND SHALL BE BENT COLD.
- ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- 1/8" SHALL BE PERMITTED.
- ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
- ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.

CONSTRUCTION

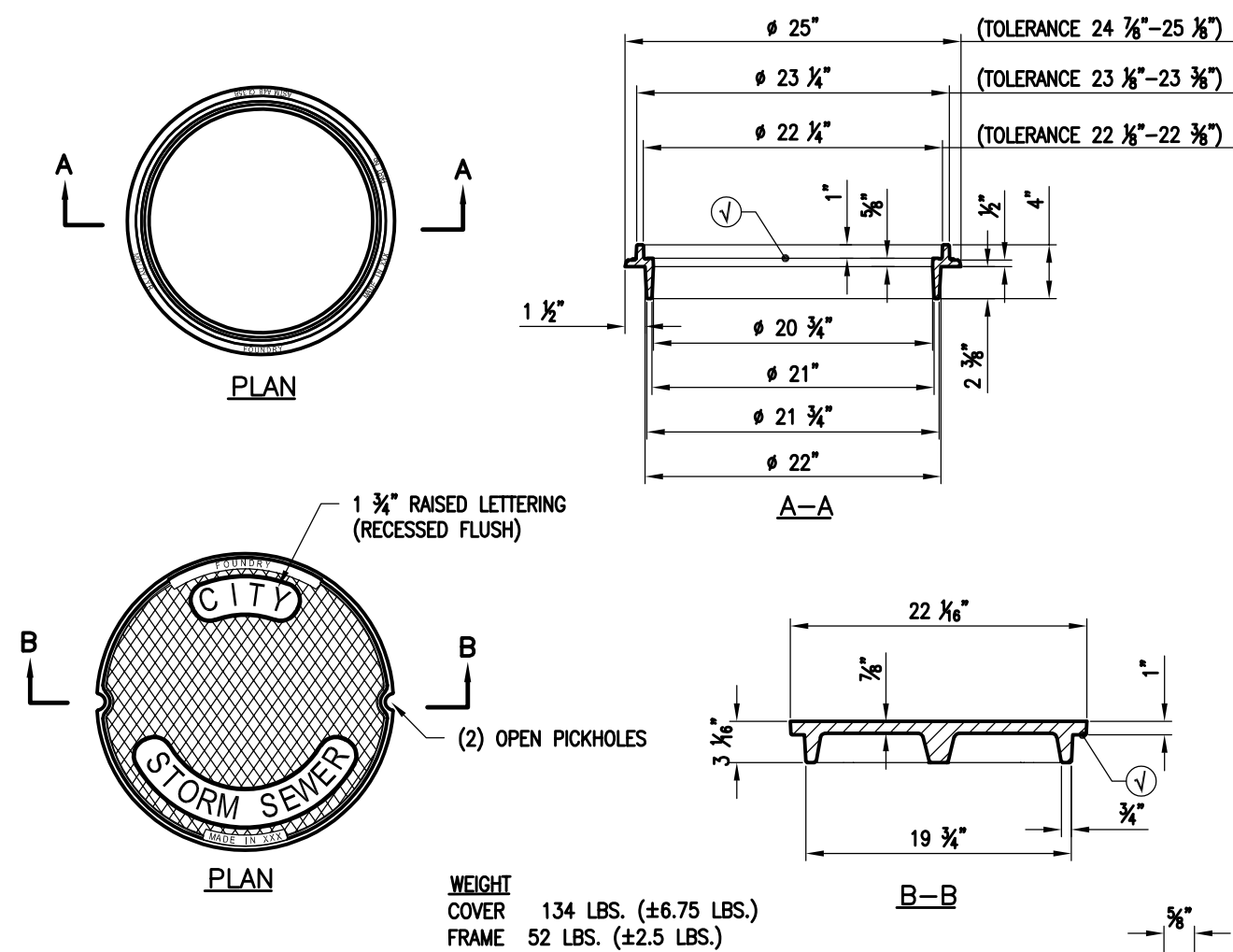
- THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
- ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION, OR AS DIRECTED BY THE ENGINEER.
- PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
- TAMPED BACKFILL SHALL BE USED AROUND STRUCTURES, EXCEPT UNDER PAVED AREAS. TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO STANDARD, METHOD T-99. REMOVABLE FLOWABLE FILL IS REQUIRED UNDER ANY PORTION OF PAVED RIGHT OF WAY, INCLUDING THE AREA WITHIN EXISTING OR FUTURE PUBLIC STREET PAVEMENT AND UNDER EXISTING OR FUTURE CURB AND GUTTER, MEDIAN, ASPHALT PATH, CONCRETE SIDEWALK.

NOTES:

- A & C = ABSOLUTE MIN. CLEARANCE FROM PIPE WALL TO ANY PROJECTION OF TRENCH BOTTOM OR WALL.
A = (EARTH EXCAVATION) 2", CLASS B.
A = (ROCK EXCAVATION) 6", CLASS B.
C = 8" MINIMUM
- W = TRENCH WITH AT A LEVEL 6" ABOVE TOP OF PIPE.
W = MINIMUM OF 16" PLUS (O.D., O.S. OR S).
W = MAXIMUM OF 24" PLUS (O.D., O.S. OR S).
- WHERE SCREEDING SHOWN, FORM BED WITH SREED CUT TO EXACT SHAPE OF PIPE BOTTOM.
- GRANULAR FILL SEE SPECIFICATIONS
- BACKFILL TO TOP OF PIPE SEE SPECIFICATIONS
- ALL BEDDING CLASS B.
- SEE SPECIFICATIONS FOR TRENCH BOTTOM STABILIZATION, IF REQUIRED.
- SEE ROADWAY TRENCH DETAILS IF IN ROADWAY.



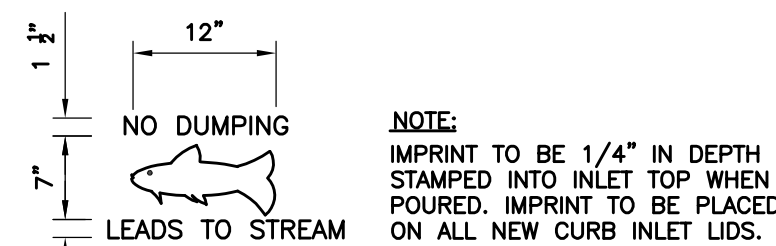
HEAVY DUTY FRAME AND COVER
SEE APPROVED MATERIALS LIST
FOR PRE-APPROVED FRAMES AND COVERS



MEDIUM DUTY FRAME AND COVER
SEE APPROVED MATERIALS LIST
FOR PRE-APPROVED FRAMES AND COVERS

MANHOLE CASTING NOTES:

- CASTING SHALL COMPLY WITH ASTM A-48 AND AASHTO M306-04.
- AS-CAST DIMENSIONS MAY VARY ± 1/16 INCH PER FOOT.
- EACH CASTING SHALL BE MARKED ① IN ACCORDANCE WITH AASHTO M 306-04, SEC.8.
- RAISED SURFACES SHALL BE CAST AS NON-SKID FINISH.
- THE SURFACES LABELED ON THESE DETAILS AS SHALL BE MACHINED.
- FOR PRIVATE SYSTEMS OMIT LETTERING.
- PAIN IS OPTIONAL UNLESS SPECIFIED.
- YEAR AND/OR DATE SHOULD BE DATE OF MANUFACTURE.



ENVIRONMENTAL STAMP

LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

DETAIL SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

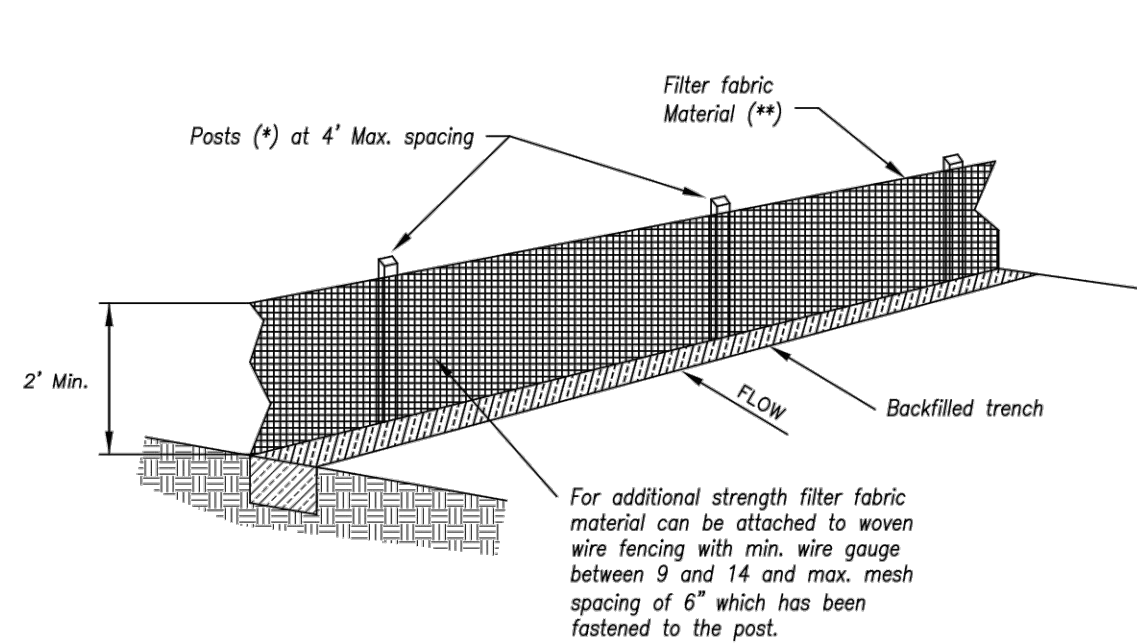
PROJECT NUMBER

0319001.06

BOOK AND PAGE

SHEET

U:\Engineering\031901.06 Road Park KS R Park Phase 2\DRAWINGS\CONSTRUCTION DRAWINGS\031901.06 - R-PARK EC PLANS.dwg, 1/28/2020 8:10:52 AM, JAME MCMAURY, LAMP RYNEARSON



- (*) POSTS
- MIN. LENGTH 4'
 - HARDWOOD 1 3/8" x 1 3/8"
 - NO.2 SOUTHERN PINE 2 3/8" x 2 3/8"
 - STEEL 1.33 LB/FT

(**) - Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

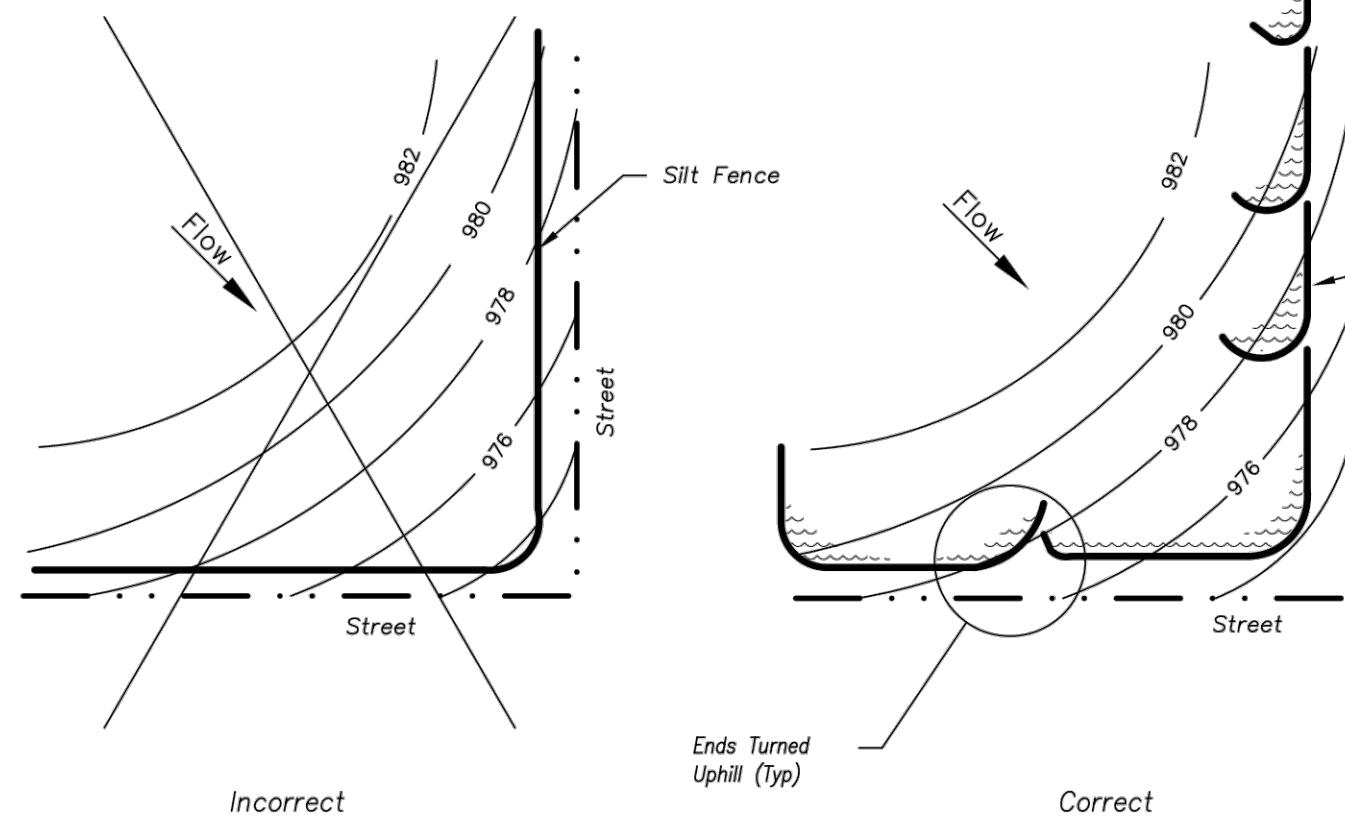
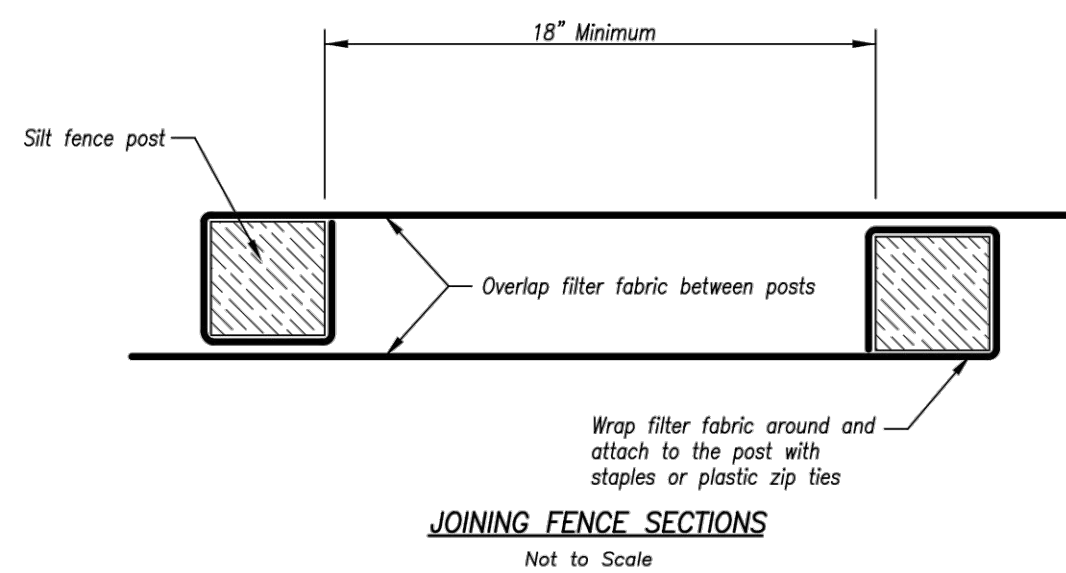
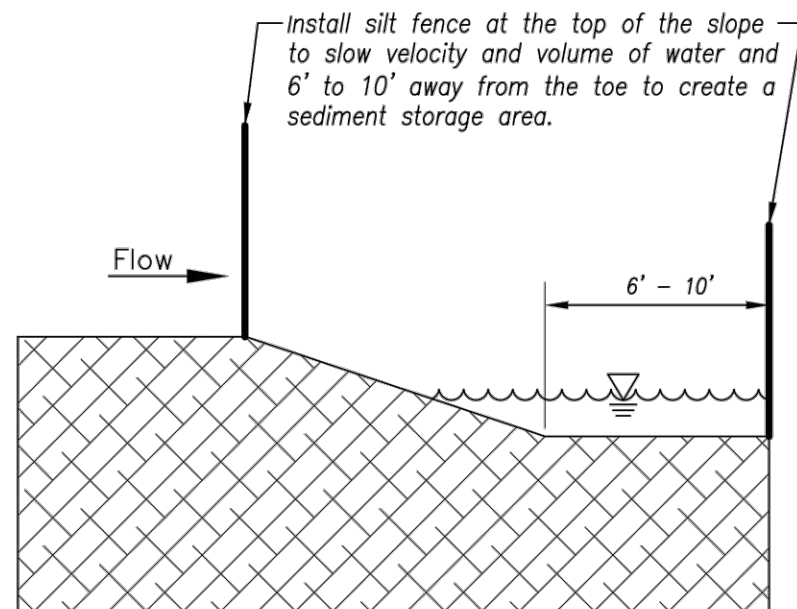
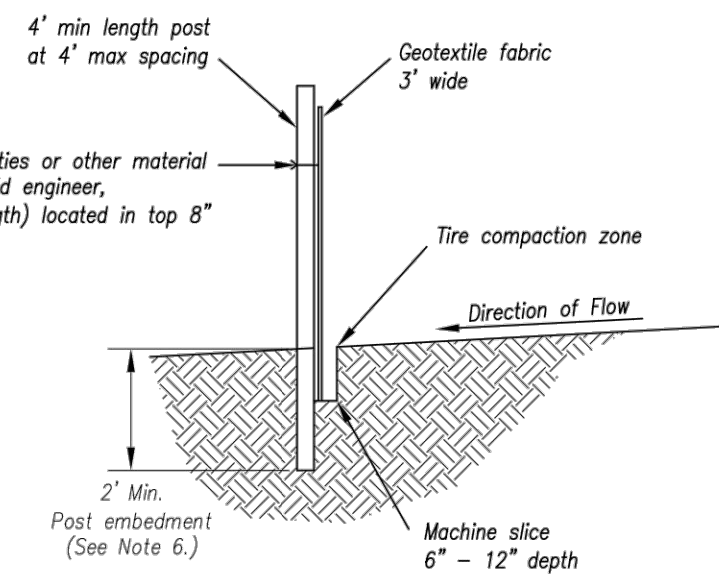


Figure A



JOINING FENCE SECTIONS

Not to Scale



Silt Fence
100' Maximum Runs (Typ.)

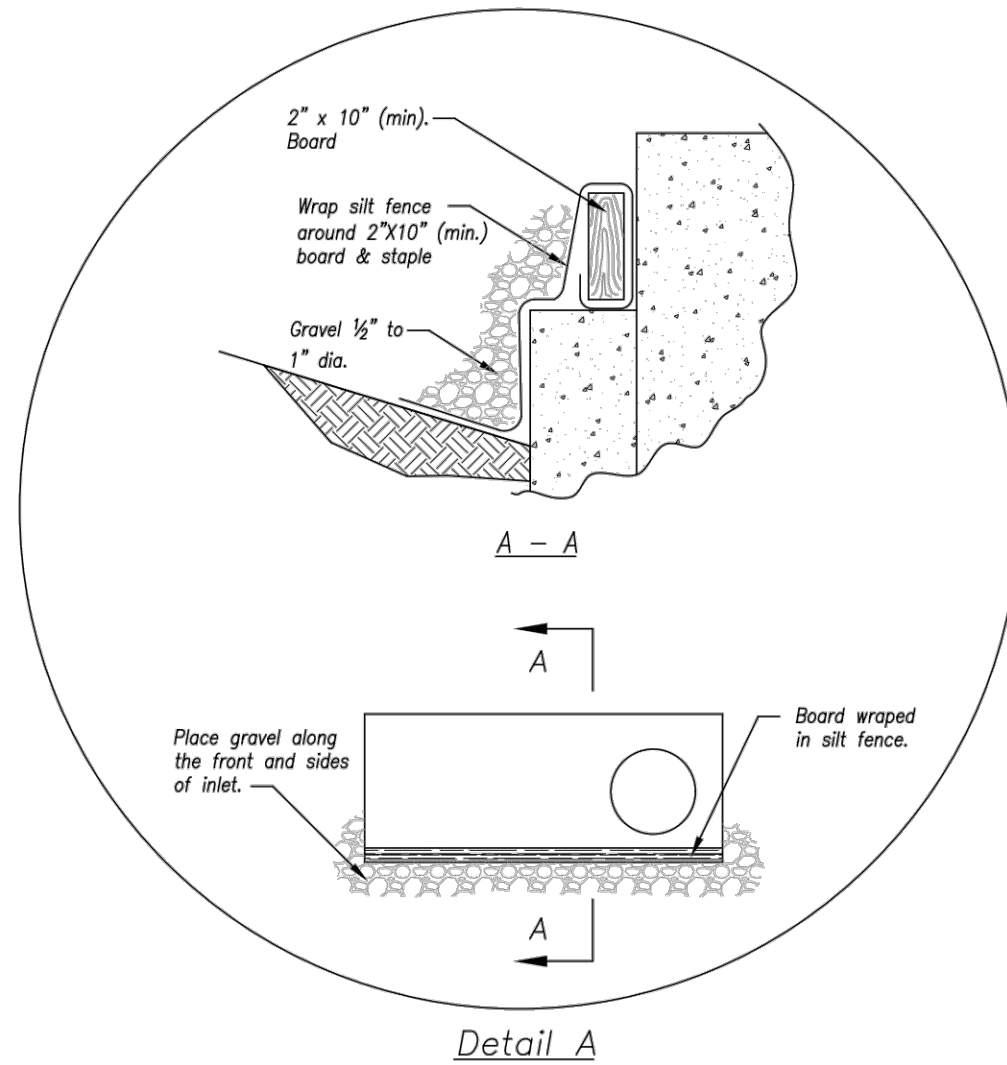
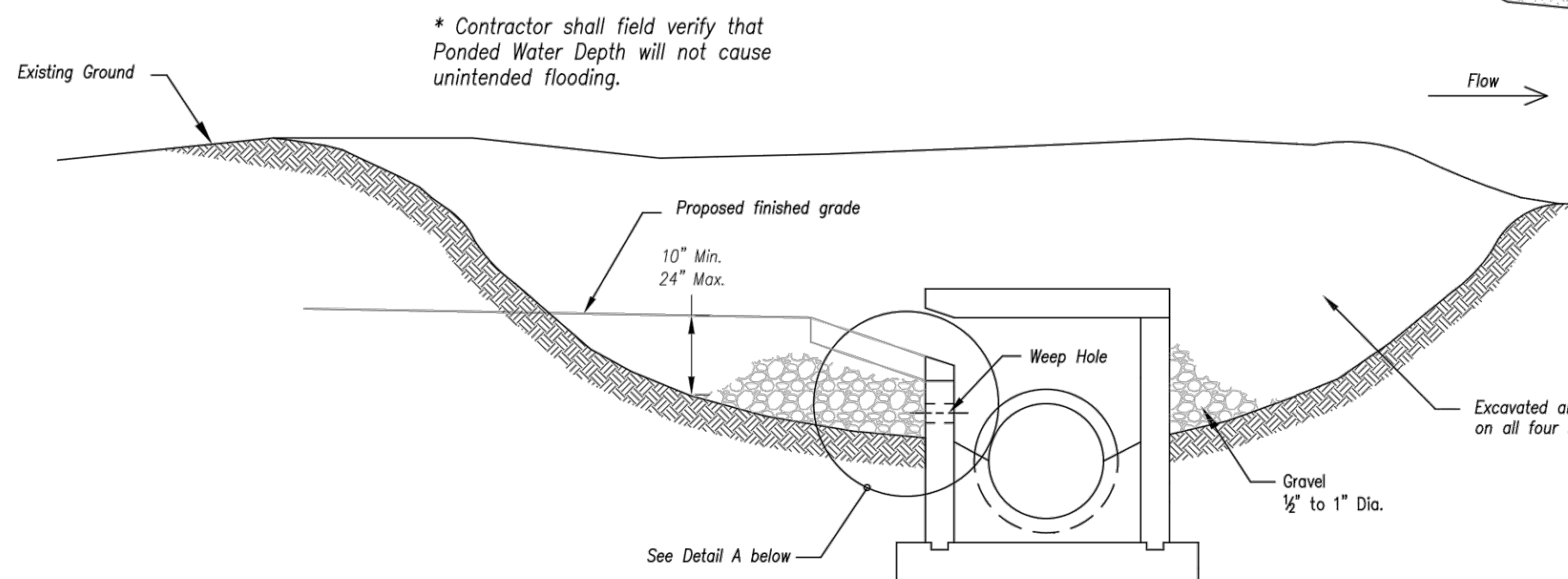
Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.

AMERICAN PUBLIC WORKS ASSOCIATION Kansas City Metro Chapter	
KANSAS CITY METRO CHAPTER	
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016



EARLY STAGE CURB INLET

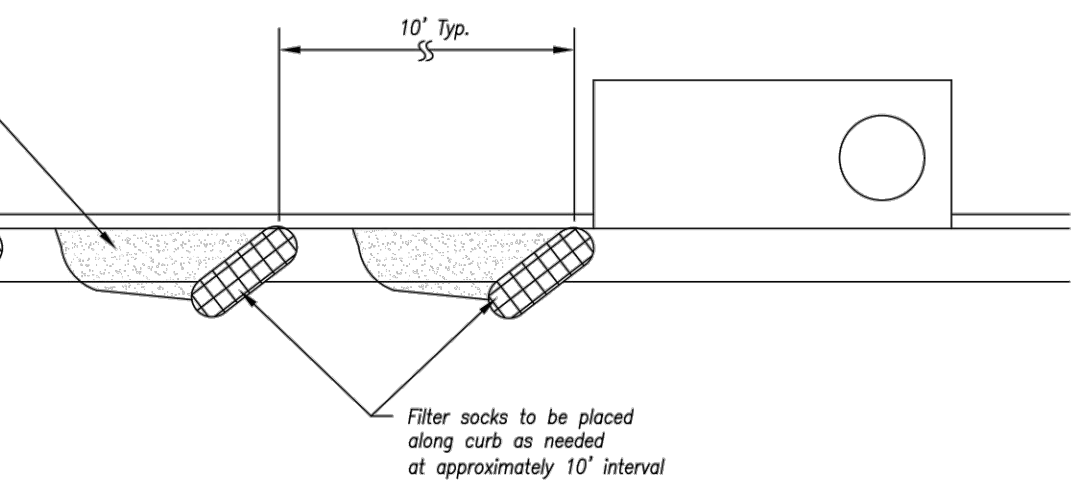
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

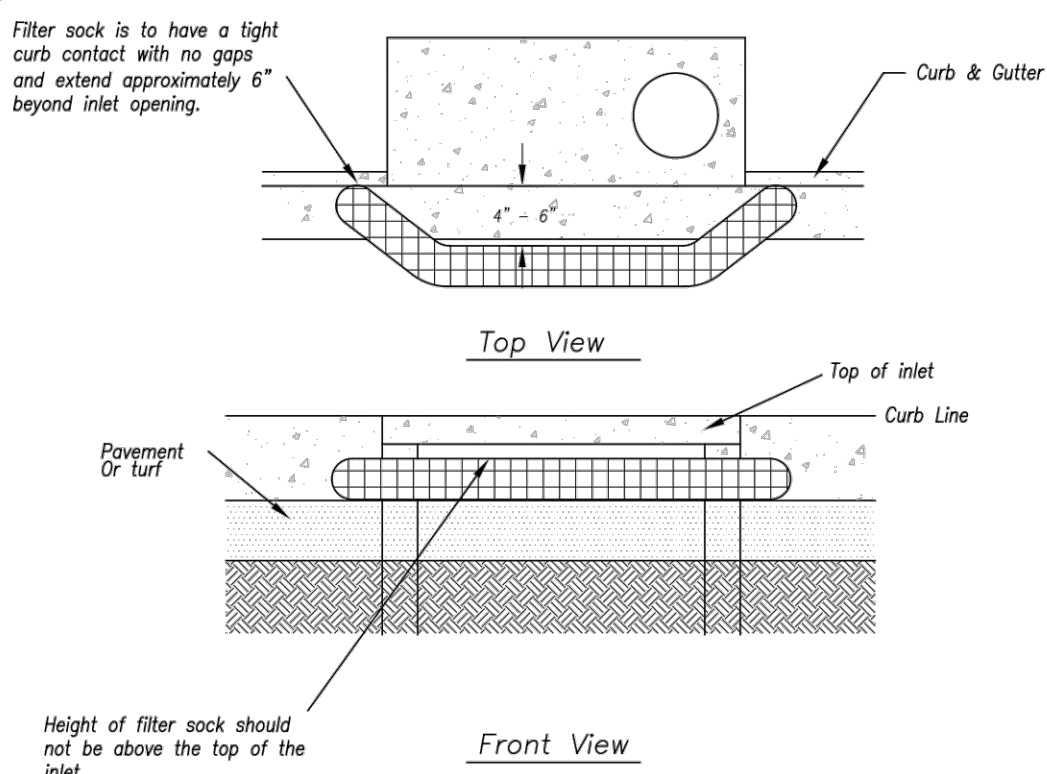
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" x 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



On Grade Curb Inlet Protection

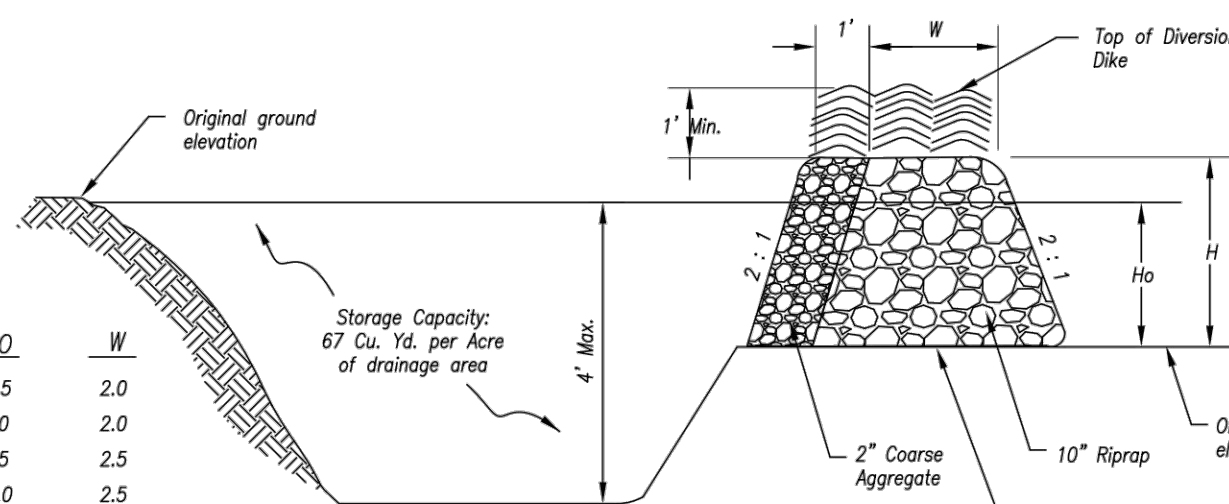


Sump Inlet Sediment Filter

LATE STAGE CURB INLET

(After Pouring Curb and Inlet Throat)

AMERICAN PUBLIC WORKS ASSOCIATION Kansas City Metro Chapter	
KANSAS CITY METRO CHAPTER	
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016



(*) Cross Section of Outlet

Not to Scale

AMERICAN PUBLIC WORKS ASSOCIATION Kansas City Metro Chapter	
KANSAS CITY METRO CHAPTER	
SEDIMENT TRAPS	STANDARD DRAWING NUMBER ESC-08 ADOPTED: 10/24/2016

Notes for Sediment Trap:

1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 6-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

(*) Perspective View of Outlet

Not to Scale

(*) - The perspective view and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP

LAMP RYNEARSON

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



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

CONSTRUCTION DOCUMENTS

DETAIL SHEET

R PARK - PHASE II ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER
MDM/AJM
DATE
01-28-2020
PROJECT NUMBER
0319001.06
BOOK AND PAGE

SHEET

\\Engineering\319001.06 Roeland Park KS R Park Phase 2\Drawings\CONSTRUCTION DRAWINGS\319001.06 - DETAILS.dwg, 1/28/2008 8:00:08 AM, JAMIE MCNULTY, LAMP RYNEARSON



01-28-2020

MARK DANIEL MCGHEE, JR.
KS PE 20773

DETAIL SHEET

R PARK - PHASE II
ROELAND PARK, KANSAS

REVISIONS

DESIGNER / DRAFTER

MDM/AJM

DATE

01-28-2020

PROJECT NUMBER

0319001.06

BOOK AND PAGE

SHEET

REFER TO PHASE 1 PLANS FOR NOTES ON THE FOLLOWING ITEMS:

DEMOLITION, CLEARING AND GRUBBING, UTILITY LINE ADJUSTMENTS, EXCAVATION, BACKFILL, AND SITE GRADING, TRENCHING, BACKFILLING, AND COMPACTION, EROSION CONTROL, CONCRETE, CONCRETE SIDEWALK RAMPS, CONCRETE CURB AND GUTTER, DRIVEWAYS, STORM SEWER PIPE, DRAINAGE STRUCTURES, SODDING, CONCRETE FORMWORK, CONCRETE REINFORCEMENT, AND CONCRETE.

ASPHALTIC CONCRETE PAVING

1. ALL WORK OF PRODUCING AND PLACING ASPHALTIC CONCRETE SURFACE AND BASE FOR STREET OR PARKING PAVEMENT SHALL CONFORM TO SECTIONS 2204 AND 2205 OF THE APWA STANDARD SPECIFICATIONS.

ASPHALTIC CONCRETE PAVEMENT

2. ASPHALTIC CONCRETE MIXES SHALL BE IN CONFORMANCE SECTION 2205.3 OF THE 2017 APWA STANDARD SPECIFICATIONS AS MODIFIED HEREIN. BASE COURSE AND SURFACE COURSE SHALL BE TYPE 5-01 EXCEPT AS NOTED BELOW. PERFORMANCE GRADED ASPHALT BINDER GRADE PG 64-22 SHALL BE USED IN ALL MIXES.
3. THE CONTRACTOR MAY USE FRACTIONATED RECLAIMED ASPHALT PAVEMENT (FRAP) AS AN AGGREGATE SOURCE. FRAP IS DEFINED AS HAVING TWO OR MORE STOCKPILES, WHERE RECLAIMED ASPHALT PAVEMENT (RAP) IS PROCESSED INTO COARSE AND FINE FRACTIONS. THE FINE FRAP STOCKPILE WILL CONTAIN ONLY MATERIAL PASSING THE 1/4 INCH SCREEN. THE COARSE FRAP STOCKPILE WILL CONTAIN MILLED MATERIAL RETAINED ON THE 1/4 INCH SCREEN AND PASSING THE 3/4 INCH SCREEN. THE MAXIMUM COMBINED FRAP IS 30% OF THE TOTAL MIX BY WEIGHT. FRAP MAY BE COMPRISED OF COARSE OR FINE FRAP OR A COMBINATION THEREOF. UTILIZE A SEPARATE COLD FEED BIN FOR EACH STOCKPILE OF FRAP USED. DO NOT BLEND COARSE AND FINE FRAP EITHER IN THE STOCKPILE OR IN A COLD FEED BIN. ADD FRAP TO THE MIX THROUGH THE RAP COLLAR. RECYCLED ASPHALT SHINGLES (RAS) ARE NOT ALLOWED.
4. ANTI-STRIPPING AGENT - ALL BITUMINOUS MIXTURES SHALL CONTAIN AN ANTI-STRIPPING AGENT. AD-HERE[®] LOF 65-00 LS AS -MANUFACTURED BY ARR-MAZ PRODUCTS, L.P. SHALL BE ADDED TO THE ASPHALT CEMENT AT THE RATE OF 0.75% BY WEIGHT OF THE TOTAL ADDED ASPHALT CEMENT. OTHER ASPHALT ANTI-STRIPPING ADDITIVES AND THEIR APPLICATION RATE MAY BE USED WHEN PROVEN EQUAL AFTER TESTING AS SPECIFIED IN PARAGRAPH "RESISTANCE OF COMPACTED BITUMINOUS MIXTURE TO MOISTURE INDUCED DAMAGE" AND APPROVED BY THE ENGINEER. COPIES OF THE BILL OF LADING SHALL BE SUBMITTED TO THE ENGINEER.
5. RESISTANCE OF COMPACTED BITUMINOUS MIXTURE TO MOISTURE INDUCED DAMAGE - THE INDEX OF RETAINED STRENGTH MUST BE GREATER THAN 80 PERCENT AS DETERMINED BY AASHTO T 283-03 (USING A 4-INCH NOMINAL SIZE MOLD). SPECIMENS SHALL BE CONDITIONED BY FREEZING AND THAWING. WHEN THE INDEX OF RETAINED STRENGTH IS LESS THAN 80 THE AMOUNT OF ANTI-STRIP MAY HAVE TO BE ADJUSTED. NO ADDITIONAL PAYMENT WILL BE MADE TO THE CONTRACTOR FOR ADDITION OF ANTI-STRIPPING AGENT REQUIRED. THE MIX SHALL CONTAIN THE ANTI-STRIPPING AGENT SPECIFIED IN PARAGRAPH "ANTI-STRIPPING AGENT" AND TESTED BY AASHTO T 283.
6. METHOD OF DETERMINING THE RETAINED STRENGTH OF PLANT-PRODUCED MIXTURES. SAMPLE THE PLANT PRODUCED MIXTURE AT THE PLANT SITE IN ACCORDANCE WITH ASTM D 979 OR BEHIND THE PAVER USING THE PROCEDURE SPECIFIED HEREIN. TRANSPORT THE MIXTURE TO THE LABORATORY AND DETERMINE THE THEORETICAL SPECIFIC GRAVITY AS SPECIFIED IN PARAGRAPH "ASPHALTIC CONCRETE MIX DESIGN METHOD". PREPARE THE SPECIMENS FOR THE AASHTO T 283 TEST USING THE SAME FOUR-HOUR CURED MATERIAL AND COMPACT TO 7 0.5 PERCENT AIR VOIDS. ALLOW THE SAMPLES TO COOL AND CURE OVERNIGHT AT ROOM TEMPERATURE AND PROCEED WITH TESTING BY DETERMINING THE THICKNESS AND BULK SPECIFIC GRAVITY, THEN SEPARATING THE SPECIMENS INTO SUBSETS AND PRECONDITIONING AS SPECIFIED HEREIN. THEN PROCEED WITH THE TESTING AS SPECIFIED IN AASHTO T 283.

TACK COAT

7. TACK COAT (CSS-1H) SHALL BE IN ACCORDANCE WITH THE PLANS AND SECTION 2204 OF THE APWA STANDARD SPECIFICATIONS.
8. TACK COAT SHALL BE APPLIED BETWEEN EACH LAYER OF NEW ASPHALTIC CONCRETE, AS WELL AS THOSE SURFACES SPECIFIED IN THE PLANS, INCLUDING CURB FACES.
9. TACK COAT APPLICATION TEMPERATURE SHALL BE BETWEEN 150 AND 225 F
10. THE RATE OF APPLICATION SHALL BE 0.05 GAL/SY TO 0.12 GAL/SY OR AS OTHERWISE DIRECTED BY THE ENGINEER.

ASPHALTIC CONCRETE PLACEMENT

11. ASPHALT MIXING PLANTS SHALL CONFORM TO SECTION 2205.5 OF THE APWA STANDARD SPECIFICATIONS.
12. TRANSPORTATION OF THE ASPHALTIC CONCRETE MIX SHALL CONFORM TO SECTION 2205.6 OF THE APWA STANDARD SPECIFICATIONS.
13. ASPHALT PAVING EQUIPMENT SHALL CONFORM TO SECTION 2205.8 OF THE APWA STANDARD SPECIFICATIONS.
14. THE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS NECESSARY TO ASSURE NEAT JOINTS WHERE MULTIPLE ASPHALT LAY DOWNS JOIN. THIS EFFORT MAY REQUIRE CUTTING PREVIOUS LAY DOWN PASSES EDGES TO PROVIDE A NEAT BUTT JOINT.
15. THE CONTRACTOR SHALL DELIVER TICKETS TO THE OWNER'S CONSTRUCTION REPRESENTATIVE AS EACH TRUCKLOAD IS DELIVERED TO THE JOB. THE DELIVERY TICKETS SHALL BE NUMBERED CONSECUTIVELY, STATE THE PROJECT NUMBER, ORIGIN OF THE LOAD, TIME LOADED, TEMPERATURE AND WEIGHT OF THE LOAD, TRUCK NUMBER, TYPE OF MIX AND APPROVED JOB MIX FORMULA REPORT NUMBER.

CONSTRUCTION REQUIREMENTS

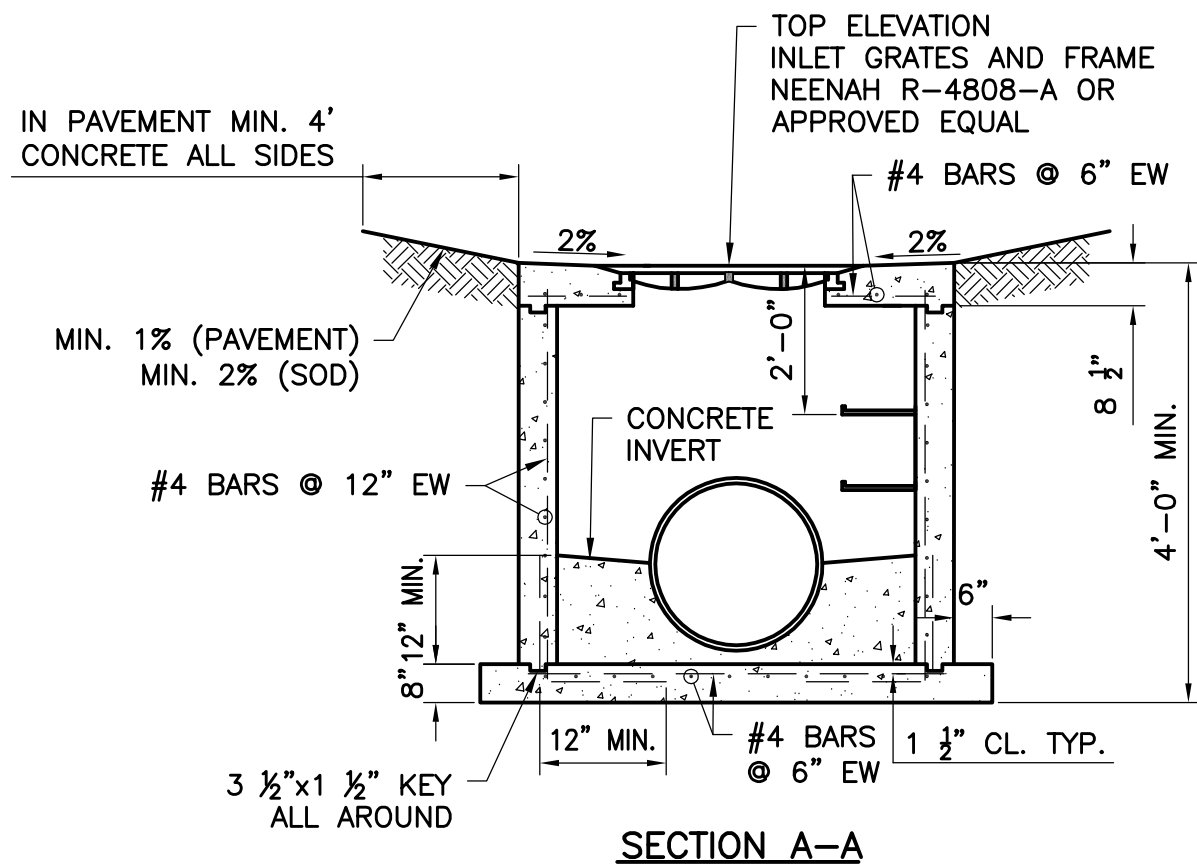
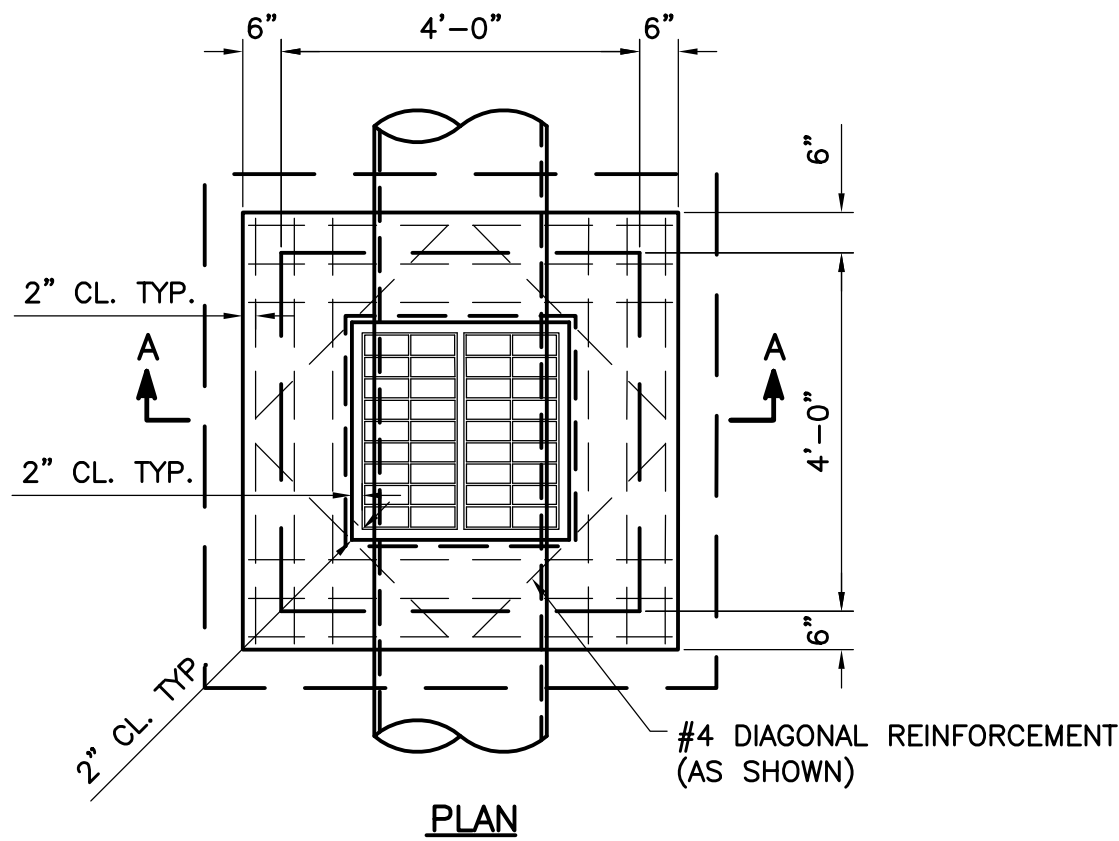
16. SECTION 2205.8 OF THE APWA STANDARD SPECIFICATIONS SHALL BE AMENDED TO REQUIRE THAT THE LIFT OF BASE COURSE IMMEDIATELY PRECEDING THE SURFACE COURSE BE LAID IN A CONTINUOUS OPERATION AND THAT THIS LIFT PROVIDE A FINISHED SURFACE THAT DEVIATES NO MORE THAN 3/8 INCH FROM THE GRADES SHOWN ON THE PLANS. SUCH DEVIATIONS WILL BE ALLOWED ONLY IF THEY ARE ROUGHLY COMPENSATING IN EXTENT AND DIRECTION.
17. WEATHER LIMITATIONS: WHEN THE MOISTURE OF THE AGGREGATE IN THE STOCKPILE OR FROM THE DRYER INTERFERES WITH THE QUALITY OF MIX PRODUCTION, OR WITH NORMAL PLAN OPERATIONS, THE MIXING AND PLACING OF HOT-MIX ASPHALT WILL NOT BE PERMITTED WITHOUT PERMISSION OF THE ENGINEER. NO MIXTURE SHALL BE PLACED ON WET OR FROZEN SURFACE.

HOT MIX ASPHALT PAVING SHALL NOT BE MIXED OR PLACED WHEN THE AMBIENT AIR OR BASE TEMPERATURE IS BELOW TEMPERATURES SHOWN IN THE FOLLOWING TABLE, OR WHEN THERE IS FROST IN THE SUBGRADE OR ANY OTHER TIME WITH WHEN WEATHER CONDITIONS RE UNSUITABLE FOR THE TYPE OF MATERIAL BEING PLACED WITHOUT EXPRESSED APPROVAL OF THE ENGINEER.

ASPHALT PLACEMENT TEMPERATURE LIMITATIONS			
PAVING COURSE	COMPACTED THICKNESS (INCHES)	AIR TEMPERATURE (DGREES F)	ROAD SURFACE TEMPERATURE (DEGREES F)
SURFACE	ALL	50	55
BASE	LESS THAN 3	40	45
BASE	3 OR MORE	30	35

SURFACE REQUIREMENTS (TOLERANCES)

18. FINISHED GRADE OF CENTERLINE OF STREET PAVEMENTS SHALL BE WITHIN THE TOLERANCE RANGE OF MINUS ZERO (0) TO PLUS ONE-HALF (1/2) INCH WITH RESPECT TO CONCRETE GUTTER LIP.
19. FINISHED GRADE OF ASPHALTIC CONCRETE SURFACE SHALL MATCH CONCRETE GUTTER LIP WITHIN THE TOLERANCES OF 1/4" TO 3/8" ABOVE GUTTER LIP.
20. TOTAL COMPACTED THICKNESS OF BASE AND ASPHALTIC CONCRETE SURFACE AT ANY POINT SHALL BE NOT LESS THAN THE THICKNESS SHOWN ON THE PLANS BY MORE THAN THREE-EIGHT (3/8) INCH AND THE AVERAGE OF POINTS CHECKED FOR TOTAL THICKNESS SHALL NOT BE LESS THAN SHOWN ON THE PLANS.
21. THICKNESS OF ASPHALTIC CONCRETE SURFACE SHALL BE WITHIN THE TOLERANCE RANGE OF MINUS ONE-QUARTER (1/4) INCH TO PLUS ONE-HALF (1/2) INCH WITH RESPECT TO THE THICKNESS SHOWN ON THE PLANS.
22. STRAIGHT-EDGE REQUIREMENTS: MAXIMUM VARIATION FROM A TEN (10) FOOT STRAIGHT-EDGE SHALL BE NOT MORE THAN 1/4 INCH, WITH THE PROVISION THAT ALLOWANCE SHALL BE MADE FOR SHORT VERTICAL CURVES IN THE APPLICATION OF THESE REQUIREMENTS.
23. IF THE ENGINEER FINDS THE PAVEMENT IS NOT IN THE TOLERANCES, HE WILL THEN MAKE A DETERMINATION IF THE PAVEMENT WILL BE ACCEPTED AND REMAIN IN PLACE. THE ENGINEER WILL DOCUMENT THE BASIS OF ACCEPTANCE WHICH MAY PROVIDE FOR AN APPROPRIATE ADJUSTMENT IN THE CONTRACT UNIT PRICE FOR THE ASPHALTIC CONCRETE ITEMS AS HE DEEMS NECESSARY, BASED ON HIS ENGINEERING JUDGEMENT.
24. IF THE ENGINEER FINDS THE WORK TO BE UNACCEPTABLE, THE ASPHALTIC CONCRETE SHALL BE REPLACED OR OTHERWISE CORRECTED BY AND AT THE EXPENSE OF THE CONTRACTOR.



GENERAL NOTES:

1. PRECAST SHOP DRAWINGS ARE TO BE APPROVED BY THE CITY ENGINEER FOR PUBLICLY FINANCED OR ADMINISTERED PROJECTS. PRECAST SHOP DRAWINGS FOR PRIVATELY FINANCED PROJECTS ARE TO BE SUBMITTED TO THE ENGINEER.
2. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
3. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THEN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.
4. RING & COVER TO BE CLAY & BAILEY #2152, OR APPROVED EQUAL.
5. SEE SPECIFICATIONS FOR ALL MATERIAL AND TECHNICAL SPECIFICATIONS.
6. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
7. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
8. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- 1/8" SHALL BE PERMITTED.
9. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.

Item Number: New Business- IX.-B.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date: 3/12/2020
Submitted By: Keith Moody
Committee/Department: Admin.
Title: **Approve Sanitary Sewer Easement at R Park**
Item Type: Other

Recommendation:

Staff recommends approval of the sanitary sewer easement attached.

Details:

There is an existing public sanitary sewer which crosses R Park from north to south along the western portion of the Park (see attached diagram and refer to R Park plan sheets in that agenda item to aid in identifying the location). The R Park improvement plans provide for relocating an existing sanitary manhole out of the proposed soccer playing field. This requires approval of those plans by the Johnson County Waste Water Department. They are requiring a 25' wide easement be established over the sanitary line, this clarifies that they have a right to access the easement area to complete maintenance of their system.

The City Attorney indicates Council approval of the easement is required prior to it being signed.

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
 Permanent Sanitary Sewer Easement	Cover Memo
 Exhibit A	Cover Memo

PERMANENT SANITARY SEWER EASEMENT

KNOW ALL MEN BY THESE PRESENTS, That **City of Roeland Park, Kansas, a Kansas municipal corporation** of the Post Office of **4600 W. 51st Street, Suite 200, Roeland Park**, in the State of Kansas, in consideration of One and No/100ths Dollars (\$1.00) and other valuable consideration, the receipt of which is hereby acknowledged, hereby grants and conveys unto Consolidated Main Sewer District of Johnson County, its successors and assigns, a Right-of-Way to lay construct, maintain, alter, repair, replace and operate one or more sewer lines and all appurtenances convenient for the collection of sanitary sewage, over and through the easement premises in the County of Johnson in the State of Kansas, more particularly described in the attached Exhibit "A", together with the right of ingress and egress over and through adjoining land as may be reasonably necessary to access said easement.

See attached Exhibit "A" for easement description.

This grant is a permanent easement for the purpose aforestated and full consideration therefore is acknowledged.

Grantor shall retain the right to use the surface of said easement, so long as said use does not interfere with the installation and maintenance of the sewer main and so long as no building(s) or structure(s) are erected within the easement. No alteration of land contours will be permitted without the express written approval of Grantee. Any placing of improvements or planting of trees on said permanent right-of-way will be done at the risk of subsequent damage thereto without compensation therefore.

All grass, sidewalks, streets, drives and parking lots damaged by the installation of said line or by making future repairs or in removing said property shall be replaced by Grantee.

This agreement is binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto, and it is understood that this agreement cannot be changed in any way except in writing, signed by the Grantor and duly authorized agent of the Grantee.

IN WITNESS WHEREOF, the grantor has hereunto set their hand and seal on this, the _____ day of _____, 2020.

By: Keith Moody as City Administrator
of City of Roeland Park, Kansas, a Kansas municipal corporation

STATE OF KANSAS)
)SS.
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2020 by Keith Moody as City Administrator of the City of Roeland Park, Kansas, a Kansas municipal corporation.

Notary Public

My commission expires

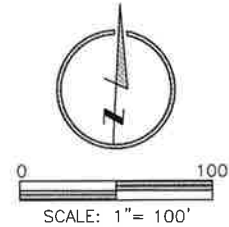
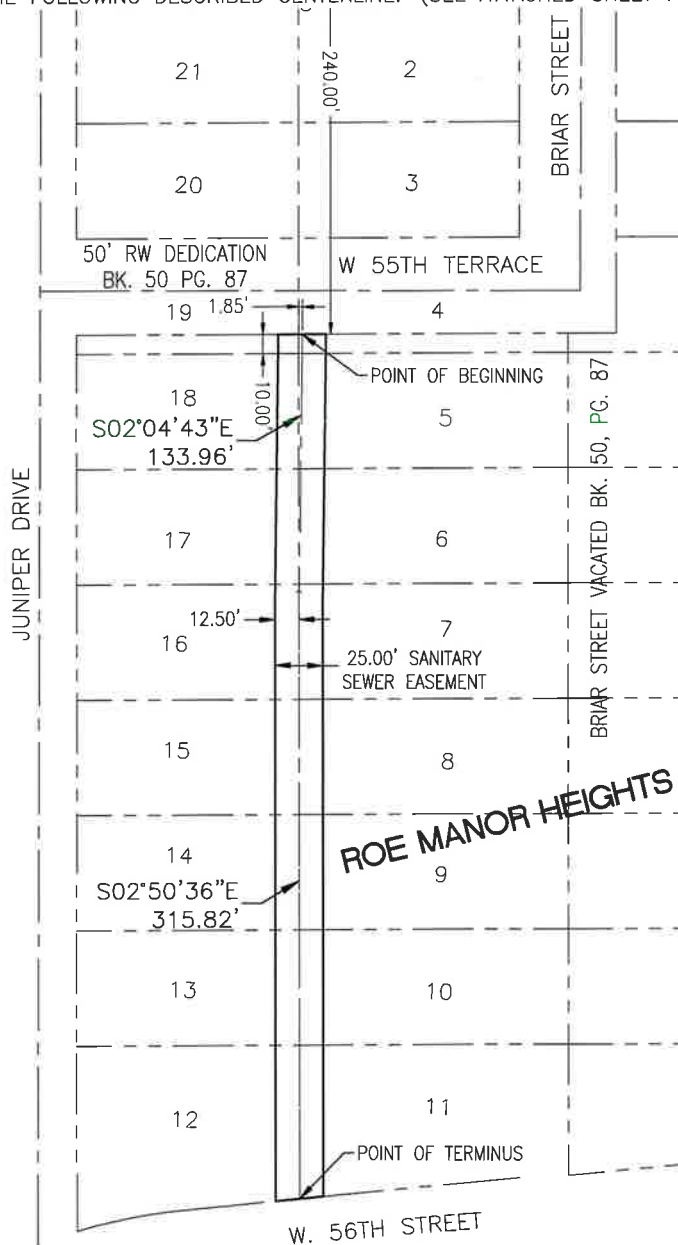
EXHIBIT A

PERMANENT SANITARY SEWER EASEMENT

PART OF BLOCK 29, ROE MANOR HEIGHTS, A SUBDIVISION OF RECORD
SITUATE IN THE CITY OF ROELAND PARK, JOHNSON COUNTY, KANSAS

LEGAL DESCRIPTION

A STRIP OF LAND 25.00 FEET IN WIDTH, OVER PART OF BLOCK 29, ROE MANOR HEIGHTS, A SUBDIVISION OF RECORD SITUATE IN THE CITY OF ROELAND PARK, JOHNSON COUNTY, KANSAS, LYING 12.50 FEET ON EITHER SIDE OF THE FOLLOWING DESCRIBED CENTERLINE: (SEE ATTACHED SHEET FOR COMPLETE LEGAL DESCRIPTION)



LEGEND

- EASEMENT LINE
- - - LOT LINE

I HEREBY CERTIFY THAT THIS
LEGAL DESCRIPTION HAS BEEN
PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION.



SHEET 1 OF 2
KS CERT. OF AUTHORITY LS-350

**LAMP
RYNEARSON**

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

DESIGNER / DRAFTER
KMG - EAM
ENGINEER

PROJECT NUMBER
0319001.06/100-020

DATE
2-18-2020

PERMANENT SANITARY SEWER EASEMENT

PART OF BLOCK 29, ROE MANOR HEIGHTS, A SUBDIVISION OF RECORD
SITUATE IN THE CITY OF ROELAND PARK, JOHNSON COUNTY, KANSAS

LEGAL DESCRIPTION

A STRIP OF LAND 25.00 FEET IN WIDTH, OVER PART OF BLOCK 29, ROE MANOR HEIGHTS, A SUBDIVISION OF RECORD SITUATE IN THE CITY OF ROELAND PARK, JOHNSON COUNTY, KANSAS, LYING 12.50 FEET ON EITHER SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A POINT THAT IS 10.00 FEET NORTH OF THE SOUTH LINE AND 1.85 FEET EAST OF THE WEST LINE OF LOT 4, SAID BLOCK 29, SAID POINT ALSO BEING ON THE SOUTH RIGHT-OF-WAY LINE OF W. 55TH TERRACE, AS NOW ESTABLISHED, AND HARMONIOUS WITH THE SOUTH LINE OF THE NORTH 240.00 FEET OF SAID BLOCK 29 THEREOF, AS DESCRIBED IN A CERTIFICATE OF THE COUNTY CLERK FILED WITH THE JOHNSON COUNTY, KANSAS REGISTER OF DEEDS ON MAY 25, 1951 IN BOOK 50 AT PAGE 57; THENCE SOUTH 2°04'43" EAST, ACROSS LOTS 4 THROUGH 7 OF SAID BLOCK 29, A DISTANCE OF 133.96 FEET; THENCE SOUTH 2°50'36" EAST, ACROSS LOTS 7 THROUGH 11 OF SAID BLOCK 29, A DISTANCE OF 315.82 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF W. 56TH STREET, AS NOW ESTABLISHED, SAID POINT BEING THE POINT OF TERMINUS. THE SIDELINES OF THE AFORESAID DESCRIPTION SHALL BE SHORTENED OR ELONGATED TO MATCH THEMSELVES TO SAID SOUTH RIGHT-OF-WAY LINE OF W. 55TH TERRACE AND SAID NORTH RIGHT-OF-WAY LINE OF W. 56TH STREET.

CONTAINING 11,245 SQUARE FEET OR 0.26 ACRES, MORE OR LESS.

THE BEARINGS IN THIS DESCRIPTION ARE BASED UPON THE KANSAS STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83.



I HEREBY CERTIFY THAT THIS
LEGAL DESCRIPTION HAS BEEN
PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION.

SHEET 2 OF 2
KS CERT. OF AUTHORITY LS-350

**LAMP
RYNEARSON**

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

DESIGNER / DRAFTER

KMG - EAM

ENGINEER

PROJECT NUMBER

0319001.06/100-020

DATE

2-18-2020

Item Number: New Business- IX.-C.
Committee 3/16/2020
Meeting Date:



City of Roeland Park
Action Item Summary

Date: 3/12/2020
Submitted By: Tony Nichols
Committee/Department: Admin.
Title: **Approve Purchase of Aquatic Center Chairs and Loungers**
Item Type: Other

Recommendation:

Staff and the Aquatics Advisory Committee recommend purchase of new chairs and lounges for the pool.

Staff is looking for direction on the number of chairs as well as the chair fabric selection.

Details:

We currently have second hand chairs and lunges at the pool. Council and the Aquatics Committee expressed interest in seeing if we can replace the lounges and chairs prior to the start of the 2020 season. The Aquatics Committee has reviewed chair design options and provided a recommendation to Council for chairs and lounges from Alumatech. SFS (architects completing the design elements for the pool improvements) provided two chair material options paired with sun share material options in the attached Palette A and Palette B documents. Although both options are attractive, the Aquatics Committee prefers Palette A.

Staff has secured pricing for 90 lounges (\$183+shipping each) and 25 chairs (\$100+shipping each) from the manufacturer of the chairs preferred by the Aquatics Committee. Total cost including shipping is \$20,859. Currently there are 86 lunges and 30 chairs. There is a 5 week lead from order to deliver, this will allow for the chairs to be in place for opening day.

For either Palette option staff suggests the chairs employ the darker color (A-Sumba Mocha or B-Titanium) and the lighter colors (A-Periwinkel or B-Veranda Nutmeg) on the lounges.

A budget for furniture was not specifically identified. A total of \$1,740,000 has been budgeted for all of the costs associated with the pool renovation project.

Financial Impact

Amount of Request: \$20,859	
Budgeted Item?	Budgeted Amount: \$1,740,000 Includes privacy improvements to mens locker room
Line Item Code/Description:	

Additional Information

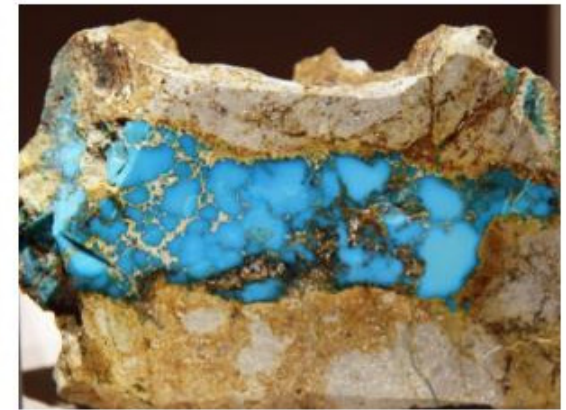
It is staff's intent to sell the old chairs through a bid process.

How does item relate to Strategic Plan?

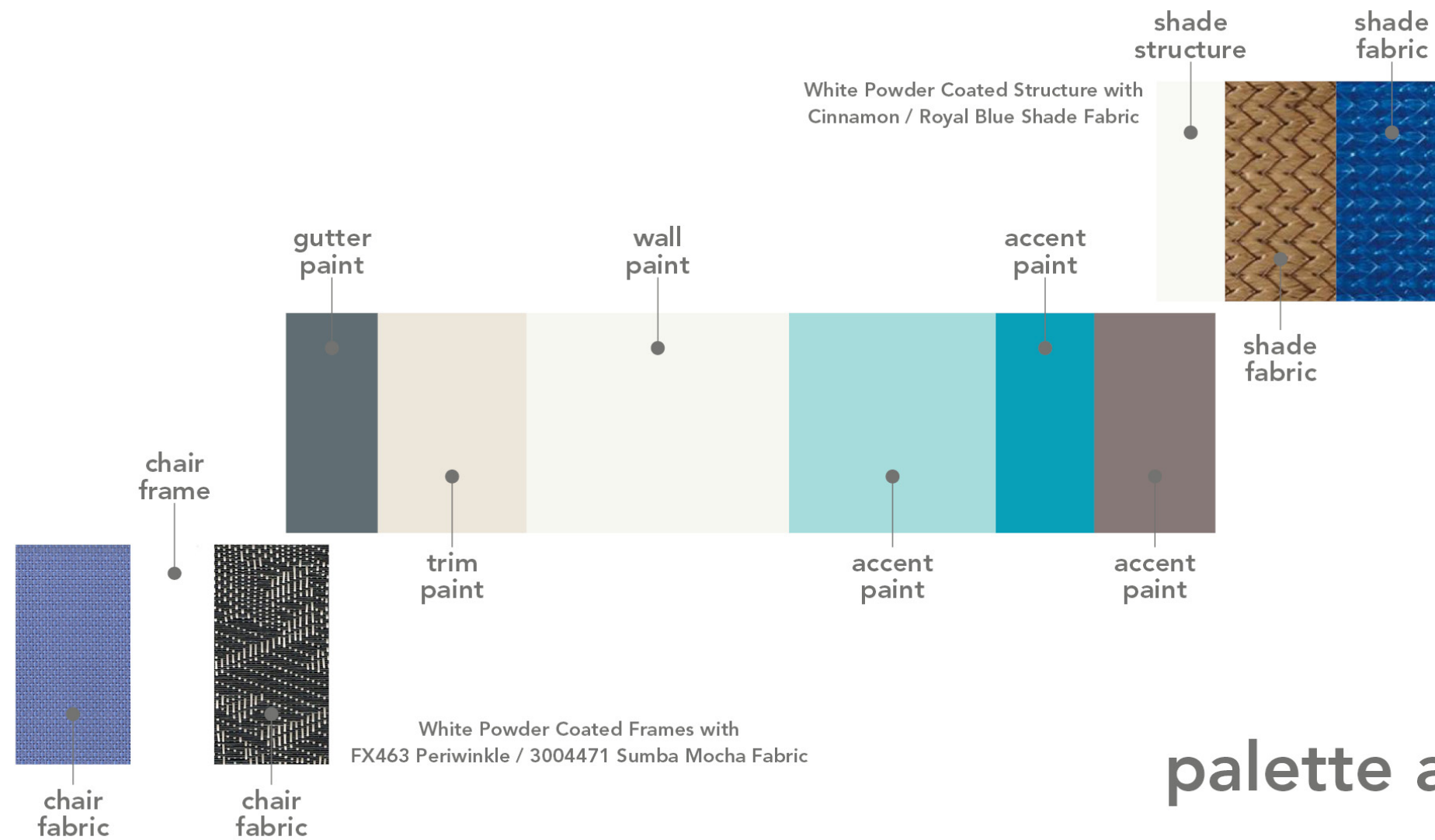
How does item benefit Community for all Ages?

ATTACHMENTS:

Description	Type
☐ Palette Options Reflecting Chair and Shade Structure Materials	Cover Memo
☐ Chair Quote	Cover Memo

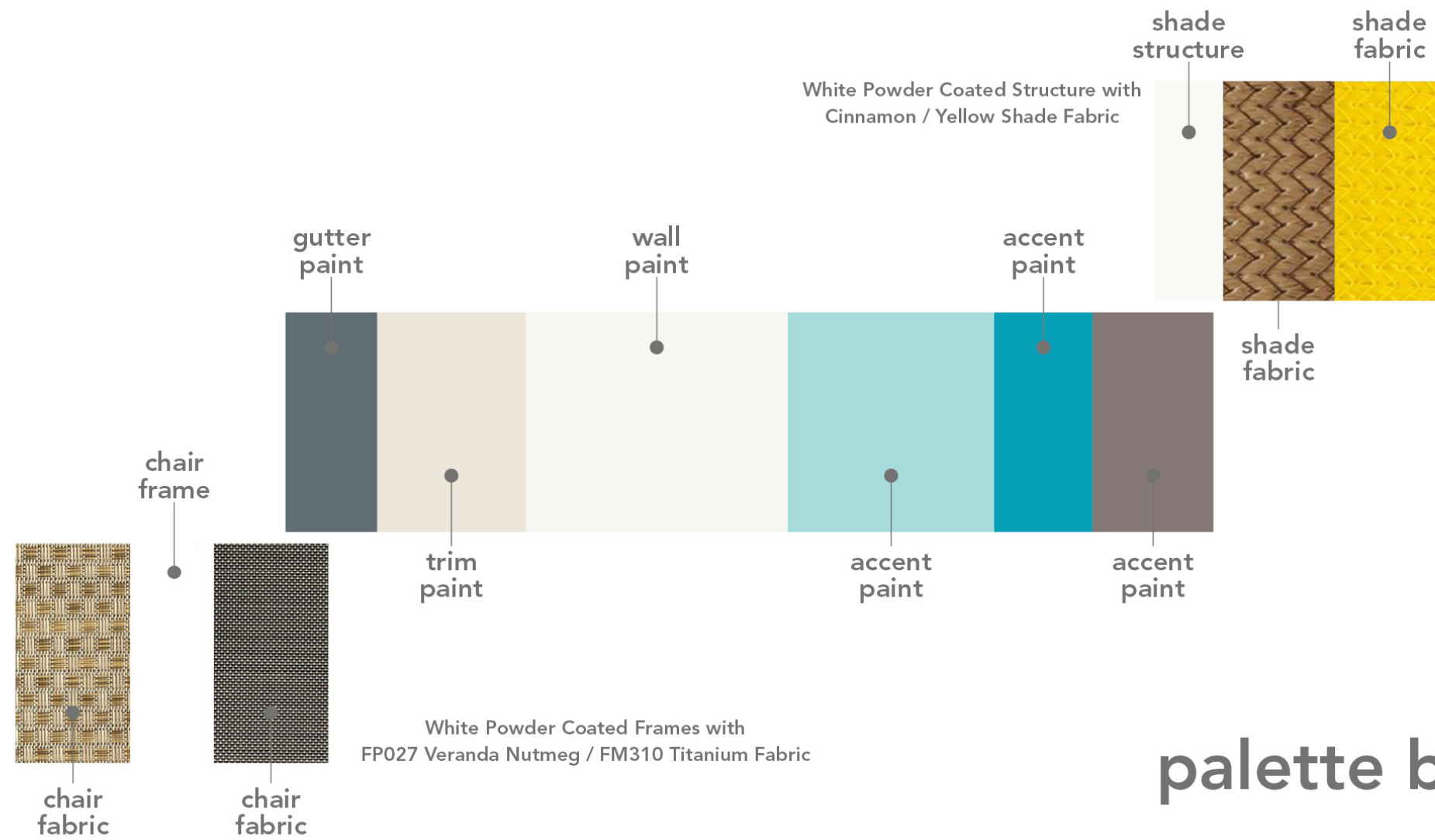


story



palette a





ALUMATECH MANUFACTURING, INC.
PO BOX 115
ONECO, FL 34264

SALES ESTIMATE

Date	S.O. No.
3/12/2020	E10811

Due to rising fuel costs Sales Estimates are good for 10 (Ten) days only. Please request updated estimate before submitting payment beyond ten days. Checks received for expired Sales Estimates will be billed for additional freight, if necessary.

Fax #	(941) 752-1784	info@alumatech1.com	Phone #	(941) 748-8880
Name / Address		Ship To		
ROELAND PARK AQUATIC CENTER C/O TONY NICHOLS 4843 ROSEWOOD DR. ROELAND PARK, KS. 66205		ROELAND PARK AQUATIC CENTER C/O TONY NICHOLS 4843 ROSEWOOD DR. ROELAND PARK, KS 66205		
Customer Fax		NEW		913-742-7006

P.O. No.	Pay Method	Rep	HELP REP	Est. Ship Date	Ship Via	Weight
	PREPAY	JP3		4/16/2020	CTS/LIVE	3075 21' OF TRUCK
Item	Description	Quantity	Price	Frame	STRAP/TOP/FABRICS	Amount
SSS-L-714-7	SSS-L-714-4 14" SLING LOUNGE (SALE ITEM)	90	183.00	201 *WHITE	???	16,470.00
SSS-D-754	SSS-D-754 SLING DINING CHAIR (SALE ITEM)	25	100.00	201 *WHITE	???	2,500.00
BUS UB FRE...	BUSINESS FREIGHT OUTBOUND	1	1,889.00			1,889.00

(1) SALES ESTIMATE, (2) TERMS AND CONDITIONS AND (3) PAYMENT, MUST BE SIGNED AND RECEIVED IN ORDER TO PROCEED.

Alumatech furniture is custom made and by signing this contract you have agreed to the colors which may differ from the colors on your screen. By initialing here you have declined our offer to send you color samples _____. Please review all items and colors before signing and faxing the estimate back. All orders are prepaid and ship dates expressed or noted are estimated. Orders can not be processed until payment and signature have been received. Umbrellas ordered through Alumatech are custom made and warranted by the manufacturer for one year against defects only. Umbrellas dropship via UPS and will not arrive with furniture. Furniture may arrive earlier or later than stated date. All freight shipped is tail gate delivery. Please inspect all furniture for freight damage before carrier leaves. Damage must be noted. Furniture comes wrapped in protective paper. Do not unwrap furniture on a rough surface as scratching of the paint will occur, which Alumatech will not be liable for. THERE ARE NO RETURNS. ALL SALES AND COLOR CHOICES ARE FINAL. UMBRELLAS ARE SHIPPED SEPARATE FROM FURNITURE. Signature _____ Date _____	Subtotal	\$20,859.00
	Sales Tax (0.0%)	\$0.00
	Total	\$20,859.00
	Web Site	
	www.alumatech1.com	
	Customer E-mail	
anichols@roelandpark.org		

**ONCE PAYMENT AND SIGNATURE ARE SUBMITTED, YOU WILL RECEIVE A PAID INVOICE AS CONFIRMATION.
YOUR REVISED ESTIMATED SHIP DATE WILL BE NOTED ON YOUR INVOICE.**