



REGULAR SESSION

County Commission

Courthouse
206 W. 1st Avenue
Hutchinson, KS 67501

TO: ALL INTERESTED PARTIES
FROM: BOARD OF COUNTY COMMISSIONERS
RE: NOTICE OF MEETINGS

The Reno County Board of County Commissioners will meet at 9:00 AM on Tuesday, March 28, 2023 in Reno County Courthouse Veterans Room, 206 W. 1st Avenue, Hutchinson, KS 67501, to hold their Agenda Session.

Randy Parks
District 1

Ron Hirst
District 2

Daniel P. Friesen
District 3

John Whitesel
District 4

Don Bogner
District 5



REGULAR SESSION

County Commission

Courthouse
206 W. 1st Avenue
Hutchinson, KS 67501

A G E N D A

**Reno County Courthouse Veterans Room,
206 W. 1st Avenue,
Hutchinson, KS 67501
Tuesday, March 28, 2023, 9:00 AM**

1. **Call to Order**
2. **Pledge of Allegiance to the American Flag and Prayer**
3. **Welcome and Announcements by Commission Chair**
 - 3.A National Child Abuse Prevention Month Proclamation
 - 3.B Week of the Young Child Proclamation
4. **Public Comment on Items not on the Agenda**

Please come forward to the podium, state your name and address and limit your remarks to not more than 5 minutes per item.
5. **Determine Additions or Revisions to the Agenda**
6. **Consent Agenda**
 - 6.A Temporary Construction Easement between Reno County and Union Pacific Railroad.
 - 6.B Vouchers (bills or payments owed by the county or related taxing units).
 - 6.C Appointment of Ethan Ketchum as Fire Chief and Jerry Belton as Assistant Fire Chief for Reno County Fire District #6.
 - 6.D Appointment of Gerald Weins as Fire Chief for Reno County Fire District #3.
 - 6.E Signature on the application for updating the Household Hazardous Waste Plan #607 at the Reno County Landfill.
 - 6.F Set County Canvass dates and times following the April 4th, 2023 USD 313 Special Bond Election; and the May 16th Special Bond Elections for USD 309 and USD 311.
 - 6.G Approval of a corrected copy of July 26th, 2022 minutes. The correction was on a purchase for a used CAT loader amount was \$2,241,915.43 and should have been \$241,915.43.
7. **Business Items**
 - 7.A County Appraisal Questions & Answers - County Appraiser Michael Plank
 - 7.B Courthouse Roofing Bids
 - 7.C Approve a Tyler Technologies contract for rural fire for a total cost not to exceed \$72,957.00
 - 7.D Cost Share Program Agreement between the Kansas Department of Transportation, the City of Hutchinson and Reno County. The City of Hutchinson and Reno County

Randy Parks
District 1

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District 5

applied jointly for the 2022 Fall Cost Share, for improvements to the Woodie Seat Freeway. The Project was selected in October of 2022.

Agreement No. 009-23, Project No. U-2457-01

7.E Agreement between Reno County and the City of Hutchinson for Improvements to the Woodie Seat Freeway. This Agreement clearly defines each entity's project limits and responsibilities during the course of the respective projects.

7.F Commission Meeting Days/Times

7.G Request For Qualifications (RFQ) for a Medical Consultant pertaining to K.S.A. 65-201

8. County Administrator Report

8.A Financial Report

8.B Monthly Department Reports

9. County Commission Report/Comments

10. Study Items

10.A Solid Waste discussion on the financial plan regarding rates for 2024 and also a presentation on a plan to resolve Gas Well issues at the Solid Waste Department to remain in compliance with Kansas Department of Health and Environment.

11. Adjournment

PROCLAMATION

WHEREAS, our children are our most valuable resources and will shape the future of Reno County Kansas; and

WHEREAS, childhood trauma, including abuse and neglect, is a serious problem affecting every segment of our community, and finding solutions requires input and action from everyone; and

WHEREAS, childhood trauma can have long-term psychological, emotional, and physical effects that have lasting consequences for victims of abuse; and

WHEREAS, protective factors are conditions that reduce or eliminate risk and promote the social, emotional, and developmental well-being of children; and

WHEREAS, effective child abuse prevention activities succeed because of the partnerships created between child welfare professionals, education, health, community and faith-based organizations, businesses, law enforcement agencies, and families; and

WHEREAS, communities must make every effort to promote programs and activities that build strong children and families; and

WHEREAS, we acknowledge that we must work together as a community in partnership to build awareness about child abuse and contribute to promote the social and emotional well-being of children and families in a safe, stable, and nurturing environment; and

WHEREAS, prevention remains the best defense for our children and families.

NOW THEREFORE, we the Board of County Commissioners of Reno County, Kansas do hereby proclaim the month of April 2023 to be

“NATIONAL CHILD ABUSE PREVENTION MONTH”

and urge all citizens to recognize this month by dedicating ourselves to the task of improving the quality of life for all children and families.

IN WITNESS WHEREOF, we have hereunto set our hands and cause the seal of Reno County, Kansas, to be affixed this 28th day of March 2023.

BOARD OF RENO COUNTY COMMISSIONERS:

Daniel P. Friesen, Chairperson

Randy Parks, Member

Ron Hirst, Member

Don Bogner, Member

John Whitesel, Member

ATTEST:

Donna Patton, Reno County Clerk

PROCLAMATION

WHEREAS, the Early Childhood Council and other local organizations, in conjunction with the National Association for the Education of Young Children, are celebrating the Week of the Young Child, April 17th-21st, 2023; and

WHEREAS, these organizations are working to improve early learning opportunities, which are crucial to the growth and development of young children, and to building better futures for everyone in Reno County; and

WHEREAS, all young children and their families across the country and in Reno County deserve access to high-quality early education and care; and

WHEREAS, in recognizing and supporting the people, programs and policies that are committed to high-quality early childhood education as the right choice for kids.

“WEEK OF THE YOUNG CHILD”

and encourage all citizens to work to make a good investment in early childhood in Reno County, Kansas.

IN WITNESS WHEREOF, we have hereunto set our hands and cause the seal of Reno County, Kansas, to be affixed this 28th day of March 2023.

BOARD OF RENO COUNTY COMMISSIONERS:

Daniel P. Friesen, Chairperson

Randy Parks, Member

Ron Hirst, Member

Don Bogner, Member

John Whitesel, Member

ATTEST:

Donna Patton, Reno County Clerk



AGENDA ITEM

AGENDA ITEM #6.A

AGENDA DATE: March 28, 2023

PRESENTED BY: Don Brittain, Public Works Director

AGENDA TOPIC:

Temporary Construction Easement between Reno County and Union Pacific Railroad.

SUMMARY & BACKGROUND OF TOPIC:

This Temporary Construction Easement is made by and between Reno County (the "Grantor" whether one or more) and Union Pacific Railroad Company (the "Grantee").

The Grantor, for good and valuable consideration to be paid by the Grantee to the Grantor, the sufficiency of which is hereby acknowledged, does hereby GRANT, CONVEY and CONFIRM unto the Grantee, its successors and assigns, a TEMPORARY CONSTRUCTION EASEMENT in, to, over, along, upon and across the property located in/near Medora, Reno County, Kansas, as more particularly depicted and shown on Exhibit A, attached hereto and made a part hereof (the "Construction Area").

This Temporary Construction Easement is to be used by the Grantee and its employees, agents, contractors and permittees for grading associated with construction of a turnout pad.

The Temporary Construction Easement granted herein shall commence on the date of this instrument and continue for one year (the "Construction Period").

By its acceptance of this instrument, the Grantee agrees to indemnify and hold harmless the Grantor from and against loss, damages, costs and expenses which may result from injury to or death of persons or loss of or damage to property when such loss is due to or arises in connection with or as a result of Grantee's use of the Construction Area during the Construction Period, except to the extent that the loss is caused by the negligence of the Grantor.

ALL OPTIONS:

Approve and sign this Temporary Construction Easement which shall commence on the date of this instrument and continue for one year (the "Construction Area").

RECOMMENDATION / REQUEST:

Approve and sign this Temporary Construction Easement which shall commence on the date of this instrument and continue for one years (the "Construction Area").

TEMPORARY CONSTRUCTION EASEMENT

THIS TEMPORARY CONSTRUCTION EASEMENT is made by and between RENO COUNTY (the "Grantor" whether one or more), with an address of 600 Scott Boulevard, South Hutchinson, KS 67505 and UNION PACIFIC RAILROAD COMPANY, a Delaware corporation (the "Grantee"), with an address of 1400 Douglas St., STOP 1690, Omaha, Nebraska 68179.

The Grantor, for good and valuable consideration to be paid by the Grantee to the Grantor, the sufficiency of which is hereby acknowledged, does hereby GRANT, CONVEY and CONFIRM unto the Grantee, its successors and assigns, a TEMPORARY CONSTRUCTION EASEMENT in, to, over, along, upon and across the property located in/near Medora, Reno County, Kansas, as more particularly depicted and shown on **Exhibit A**, attached hereto and made a part hereof (the "Construction Area").

This Temporary Construction Easement is to be used by the Grantee and its employees, agents, contractors and permittees for grading associated with construction of a turnout pad.


The Temporary Construction Easement granted herein shall commence on the date of this instrument and continue for one years (the "Construction Period").

By its acceptance of this instrument, the Grantee agrees to indemnify and hold harmless the Grantor from and against loss, damages, costs and expenses which may result from injury to or death of persons or loss of or damage to property when such loss is due to or arises in connection with or as a result of Grantee's use of the Construction Area during the Construction Period, except to the extent that the loss is caused by the negligence of the Grantor.

TO HAVE AND TO HOLD the Construction Area unto the Grantee, its successors and assigns, for a Temporary Construction Easement, and the Grantor, for itself and its successors and assigns, does hereby covenant with the Grantee, its successors and assigns, that it is lawfully seized of the Construction Area, that the Construction Area is free from encumbrances, it has the good right and lawful authority to grant this Temporary Construction Easement, and that it and its successors and assigns, shall warrant and defend the same unto the Grantee, its successors and assigns during the term of this Temporary Construction Easement, against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the Grantor and Grantee have executed this instrument as of the 28 day of March, 2023.

GRANTOR



Don Brittain
Director of Public Works

Daniel Friesen
Chairman, Board of County Commissioners

GRANTEE

UNION PACIFIC RAILROAD COMPANY

By:
Its:

Exhibit "A"

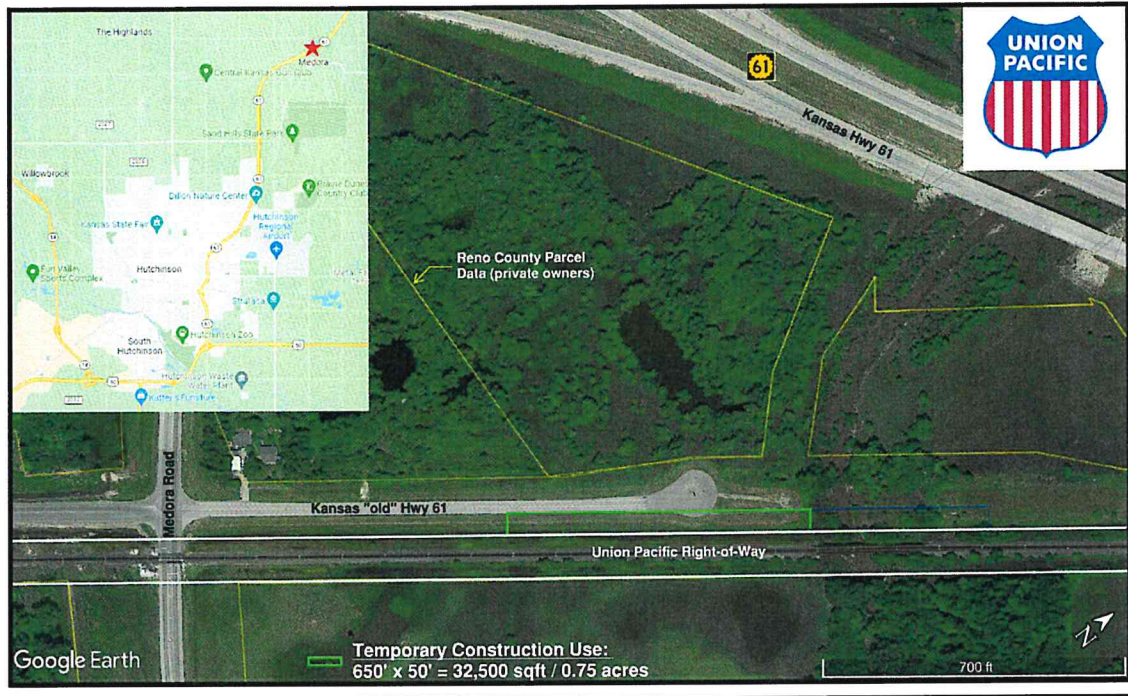


Exhibit "A" to Temporary Construction Easement



AGENDA ITEM

AGENDA ITEM #6.C

AGENDA DATE: March 28, 2023

PRESENTED BY: Travis Vogt, Fire Administrator

AGENDA TOPIC:

Appointment of Ethan Ketchum as Fire Chief and Jerry Belton as Assistant Fire Chief for Reno County Fire District #6.

SUMMARY & BACKGROUND OF TOPIC:

Currently Fire Administrator Travis Vogt is the interim Fire Chief for Fire District #6. Ethan Ketchum was appointed as Assistant Fire Chief in 2022. Ethan has shown he has great leadership abilities and has helped bring on several new members to the department and made needed upgrades to several pieces of equipment for the department. Ethan has shown that he has the ability to lead the department as their Fire Chief and continue to progress the department into the future.

Jerry Belton has been with Fire District #6 for over 30 years and currently holds the rank of Captain. Jerry brings many years of knowledge and experience to the department and has been instrumental in training new members about the equipment and tactics and strategies used by the department. When asked if he would be willing to accept the promotion to Assistant Chief, he stated he would like to and would also like to help identify the future chiefs of the department and help mentor them to prepare them to be his replacement in a few years.

ALL OPTIONS:

Approve the appointments of Ethan Ketchum to Fire Chief and Jerry Belton to Assistant Fire Chief of Fire District #6.

Deny the appointments.

RECOMMENDATION / REQUEST:

Appoint Assistant Fire Chief Ethan Ketchum to Fire Chief and Fire Captain Jerry Belton to Assistant Fire Chief of Reno County Fire District #6.

POLICY / FISCAL IMPACT:

There is no fiscal impact for these appointments.



AGENDA ITEM

AGENDA ITEM #6.D

AGENDA DATE: March 28, 2023

PRESENTED BY: Travis Vogt, Fire Administrator

AGENDA TOPIC:

Appointment of Gerald Weins as Fire Chief for Reno County Fire District #3.

SUMMARY & BACKGROUND OF TOPIC:

Reno County Fire District #3 Fire Chief Bobby White will be retiring from the department on March 31, 2023. Assistant Fire Chief Gerald Weins is being recommended to be appointed to fill the role of Fire Chief starting April 1, 2023. Gerald is a retired Fire Captain from the Hutchinson Fire Department and has served Fire District #3 for over 37 years.

ALL OPTIONS:

Appoint Assistant Fire Chief Gerald Weins as the Fire Chief of Reno County Fire District #3 effective April 1, 2023.

Deny the appointment.

RECOMMENDATION / REQUEST:

Approve the appointment of Assistant Fire Chief Gerald Weins to the position of Fire Chief effective April 1, 2023.

POLICY / FISCAL IMPACT:

This appointment has no fiscal impact.



AGENDA ITEM

AGENDA ITEM #6.E

AGENDA DATE: March 28, 2023

PRESENTED BY: Megan Davidson

AGENDA TOPIC:

Signature on the application for updating the Household Hazardous Waste Plan #607 at the Reno County Landfill.

SUMMARY & BACKGROUND OF TOPIC:

Updated Household Hazardous Waste Plan #607 at the Reno County Landfill. Back in 2022 the landfill had their #723 permit (Municipal Solid Waste) approved for the expansion as well as the relocation of the facilities. Since Household Hazardous Waste has its own Permit #607 it also needs to be updated. A new building in a new location is considered a significant modification to the HHW permit, so the application has been completed and is ready to be sent in to the state to be updated. KDHE will then modify the existing HHW Permit. Within the application a signature is required by the County Commission before it can be sent off to KDHE for updates. This application covers new design drawings of what the HHW facility looks like and the layout of the facility. It also updates the address as well as any new information in the #607 Operating Plan that needs to be covered under the permit.

ALL OPTIONS:

1. Sign the Application form to be sent to KDHE for approval/updates
2. Discuss the plan and application with signatures and place on the next agenda for approval

RECOMMENDATION / REQUEST:

Approve and sign the forms for the updated Household Hazardous Waste Plan #607 Application

POLICY / FISCAL IMPACT:

There is no Fiscal Impact to the Landfill Budget, but this plan needs the application forms signed by the BOCC to update the current plan we have in place.



K A N S A S

DEPARTMENT OF HEALTH AND ENVIRONMENT

PERMIT APPLICATION FOR A HOUSEHOLD HAZARDOUS WASTE FACILITY

1. Applicant's Name Reno County Solid Waste

Address 4015 West Clark Road Hutchinson, KS 67501
(Street or Rural Route) (City & State) (Zip)

Person tocontact Megan Davidson Title Director of Solid Waste

Phone 620-694-2586 Fax _____ E-mail(optional) megan.freeman@renogov.org

2. Applicant Type

State Agency _____ Private Individual or Firm _____ County X City _____ Township _____

If other - explain _____

3. Site Address 4015 West Clark Road Hutchinson
(Street Number, Road, Highway) (City)

4. Site Location

County Reno, 1/4 Section NW, Section 21, Township 23, Range 6

5. Is this facility consistent with an officially adopted county solid waste management plan?

Yes X No ___ If yes, identify that plan South Central Kansas Solid Waste Plan

6. This application restricts the site by the following definitions:

"Household hazardous waste facility" means a facility established for the purpose of collecting, accumulating and managing household hazardous waste and may also include small quantity generator waste or agricultural pesticide waste, or both. Household hazardous wastes are consumer products that when discarded exhibit hazardous characteristics.

7. Attach a copy of the Facility Design Plan, Operating Plan, and Closure Plan per the enclosed *HHW Standard Permit Format*.

Attachment A: Facility Design Plan

Attachment B: Operating Plan

Attachment C: Closure Plan

DIVISION OF ENVIRONMENT

Bureau of Waste Management

CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 320, TOPEKA, KS 66612-1366

Voice 785-296-1600

Fax 785-296-8909

Http://www.kdhe.state.ks.us/waste

8. Is the site an existing processing facility? Is the site a proposed new processing facility? _____
 9. Site owned by applicant Site leased by applicant _____

If site is leased, please fill in the following information:

Owner of Record _____

Address _____ City _____ State _____ Zip _____

Lease negotiated in (year) _____

Number of years remaining on lease _____ Include copy of lease.

10. Hours of Operation
 (An employee must be present at this site during these hours of operation)

DAY	MON	TUE	WED	THU	FRI	SAT	SUN
HOURL	8am-5pm	8am-5pm	8am-5pm	8am-5pm	8am-5pm	8am-5pm	Closed

11. Attach a copy of "**Certificate of Insurance**" for proof of liability of insurance in accordance with KAR 28-29-2201. The coverage shall include coverage of the premises and operations, including operations of independent contractors. Attachment D

12. Service Areas

a. Processing facility to serve:

City _____ Township _____ County Business _____ Others _____

b. Will site be open to the general public? Yes No _____

c. Population data:

1. Population served by processing facility: Now 74,061 Next 10 Years 70,305

2. Total area population: Now 74,061 Next 10 years 70,305

13. Attach a copy of the third-party **closure cost estimate** submitted on the form *Household Hazardous Waste Closure Estimate Renewal Worksheet provided by the Department*. Attachment C,

Appendix A

14. Private entities are required to submit a financial assurance instrument for the amount calculated on the closure cost estimating worksheet. Allowable financial assurance methods are listed in K.A.R. 28-29-2101. **This financial assurance instrument must be received prior to the beginning of the public notice period.**

15. Attach the completed "**DISCLOSURE STATEMENT**" provided by KDHE. Attachment E

16. Three copies each of the completed application and attachments are required; however only one copy should be submitted for the department's initial review.

17. Comments:

Permit Fee Enclosed _____ Performance Bond Posted (if required by local agency) _____

Signature of Applicant

Megan Davidson

Name (Print or Type)


Director of Solid Waste

Title

Reno County, Kansas

Organization

Date



Attachment A
Facility Design Plan

Household Hazardous Waste Facility Design Plan: KDHE Permit No.607



Reno County Solid Waste
4015 West Clark Road
Hutchinson, Kansas 67501
620-694-2586

SCS ENGINEERS

Project: 27223071.31 | March 2023

11120 E 26th Street N, Suite 1100
Wichita, KS 67226
316-302-4531

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Appendices

Appendix A	Maps
Appendix B	Zoning Documents
Appendix C	Design Plans

1.0 TYPE, SIZE, AND LOCATION OF FACILITY

The Reno County Solid Waste landfill is accessible via S. Mohawk Road and W. Clark Road. Site facilities such as the scale house and Customer Convenience Center are located near the entrance in Section 21, Township 23 south, Range 6 west. The active landfill areas of the site are located to the west, in Section 20, Township 23 south, Range 6 west. East of the scale house is the Customer Convenience Center, which houses the household hazardous waste (HHW) storage room and the Swap Shop.

1.1 REGIONAL MAP SHOWING SERVICE AREA

A regional map of the site is included in Appendix A.

1.2 VICINITY MAP

1.2.1 Natural And Man-Made Features Within 0.5 Miles Of Facility

Within a 0.5-mile radius of the HHW storage facility the notable features are residences to the north, along north Mohawk road.

1.2.2 Adjacent Zoning And Land Use

The site is west of the Hutchinson city limits, and is not in a zoned area, nor are the surrounding farm properties. The site of HHW, the Customer Convenience Center has gone through zoning permitting, and the resulting permitting documentation is provided in Appendix A. There are five properties bordering the landfill property, as shown in the topographical zoning map in Appendix A. Additionally, the ownership of these properties is also noted in the figure.

1.3 100 YEAR FLOOD PLAIN

FEMA flood maps of the entire site are included in Appendix A. Notably, the area containing the Customer Convenience Center and HHW storage is categorized as an area of minimal flood hazard.

1.4 TOPOGRAPHIC MAP

A topographic map of the site is included in Appendix A.

2.0 SITE PLAN

2.1 UTILITIES

A detailed view of the site utilities is included in Appendix A.

2.2 STORM AND SANITARY SEWERS

A detailed view of the storm and sanitary sewers is included in Appendix A.

2.3 RIGHT-OF-WAYS

The HHW drop off area comprises a covered drive-thru lane on the west side of the Customer Convenience Center. The drive-thru lane is a separate traffic movement from traffic that is exiting the site (either via the Outbound Scale or via the scale by-pass lane). However, traffic exiting the HHW Drop Off area merges with traffic that is exiting from the Outbound Scale and scale by-pass lane. Traffic from the scale has the right-of-way when progressing to the site exit gate.

2.4 ON-SITE STRUCTURES, PAVED AREAS, DRAINAGE, SIGNS, ENTRANCE GATE, FENCING

Site diagrams detailing the on-site structures are included in Appendix A.

2.5 TRAFFIC FLOW

Site access through the entrance gate is available via west Clark road or north Mohawk road. Traffic is then directed to the Inbound Scale, on the west side of the scale house. Customers progress to the landfill to drop off any non-HHW they may have, such as yard waste, white goods, C&D waste, or municipal solid waste. Then they can proceed to the covered drop off lane located in between the scale house and the convenience center. If they have nothing else to drop off they make a U-turn from the inbound scale to proceed to the covered drop off lane in between the scale house and the customer convenience center. The drop off lane is covered by an overhang and has tables to sort leave items.

3.0 DETAILED PLANS

3.1 BUILDING ELEVATION AND PLAN VIEW

Building plan diagrams are included in Appendix A.

3.2 BUILDING PLANS

Building plan diagrams are included in Appendix A.

3.2.1 Shelving

Storage of HHW in the HHW room consists of 55-gallon barrels, and there is not shelving in the storage room. The swap shop contains shelves to display items.

3.2.2 Floor and Roof Construction

Detailed flooring and roofing plan diagrams are included in Appendix A.

3.2.3 Electrical and Fire Prevention Fixtures

The collection facility is equipped with explosion proof wiring, explosion proof lights and switches, explosion resistant exhaust/ventilation fans, and one permanently-mounted Toxgard® combustible gas sensor with alarm. The ventilation fans operate 24 hours a day, 7 days a week. The gas monitor has sensors mounted on the north concrete wall of the household hazardous waste facility (HHWF) inside the Customer Convenience Center. The HHW room has a 2-hour fire rating and is equipped with two 10-pound fire extinguishers, one located near the entrance door and the other within the HHW containment room.

3.2.4 Ventilation

HVAC and ventilation diagrams are included in Appendix A.

3.2.5 Office Area

Offices for site personnel are in generally located the Scale House, to the south of the Customer Convenience Center. Within the Customer Convenience Center, there is an office adjacent to the swap shop.

3.3 DESIGNATED AREAS FOR HHW ACTIVITIES

Household hazardous waste (HHW) and nonhazardous household waste (NHHW) activities have designated drop-offs and respective storage rooms at the Customer Convenience Center on-site. The drop-off location is a canopied outdoor area where items can be placed on tables with raised edges to prevent spills. Designated HHW and NHHW areas are visible in the figures of Appendix A.

3.4 ENTRANCE AREA GATES, FENCING, AND SIGNS

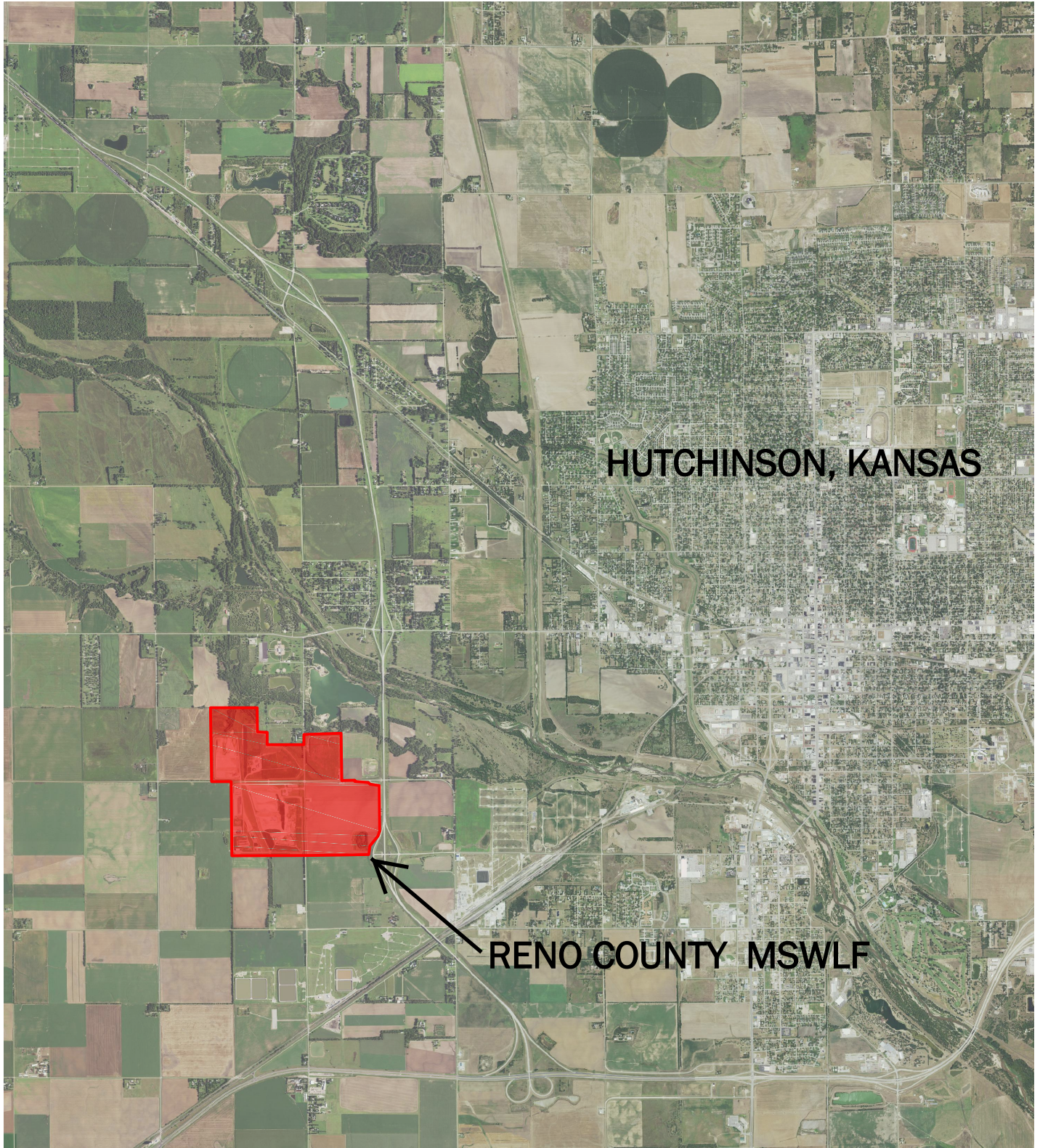
Reno County Solid Waste Facility has perimeter fencing, entrance area gates near the Scale House, and signs denoting the HHW drop off area. The HHW storage room is housed within the Customer Convenience Center, and the building is not accessible outside of the operating hours of the landfill.

3.5 SECONDARY CONTAINMENT

The collection building is constructed such that the floor of the building serves as secondary containment for containers within the structure. The floor is coated with a chemical resistant sealant. The collection facility does not have interior floor drains. The top of the threshold is approximately 6-inches above the finished floor elevation which provides approximately 1,862 gallons of secondary containment volume. Therefore, assuming a maximum of 50 55-gallon drums, 10 percent of the total volume is 275 gallons, and 110 percent of the largest container is 60.5 gallons. Given the expected largest container volume and the maximum number of those containers expected to be stored inside the collection building, the collection building has sufficient secondary containment for HHW to comply with K.A.R. 28-29-1101(d).

Appendix A

Maps

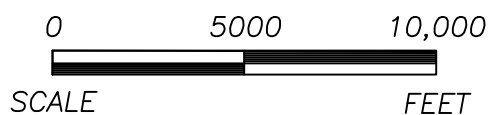


HUTCHINSON, KANSAS

RENO COUNTY MSWLF

NOTE:

1. AERIAL IMAGERY RETRIEVED FROM THE 2015 NATIONAL AGRICULTURAL, IMAGERY PROGRAM ADMINISTERED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE'S FARM SERVICE AGENCY.

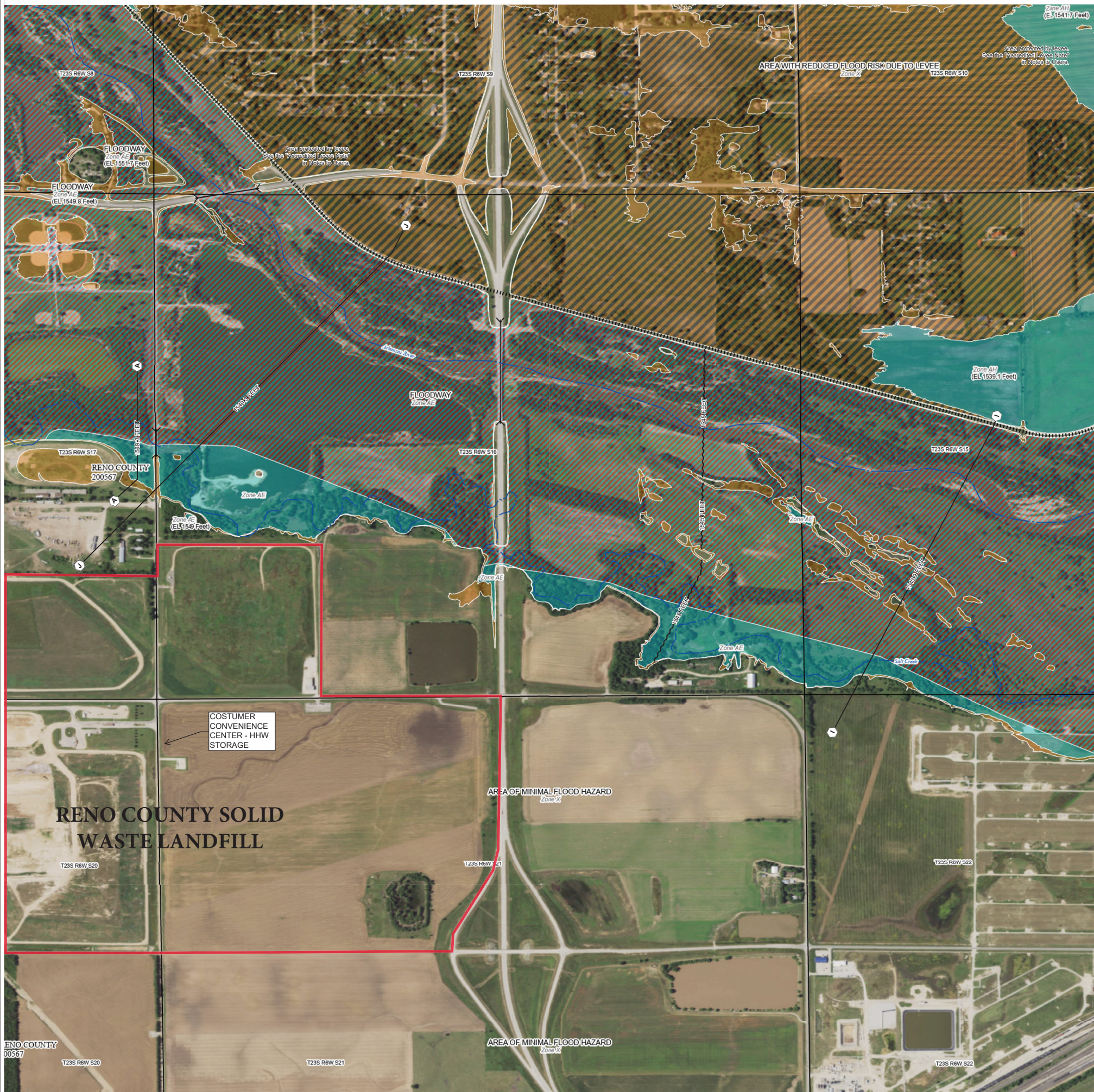


SCS ENGINEERS

11120 E. 26th Street North, Ste. 1100
Wichita, Kansas 67226
PH. (316) 315-4501 FAX. (316) 315-4505

SITE LOCATION MAP
HOUSEHOLD HAZARDOUS WASTE OPERATING PLAN
RENO COUNTY MUNICIPAL SOLID WASTE LANDFILL FACILITY
HUTCHINSON, KANSAS

CHK. BY: KDH	DWN. BY: KDH	DSN. BY: KDH	PROJ. NO. 27221071.31
PROJ. MGR: KDH	DATE: 02/2023	CADD FILE: FIGURE 1-SITE LOCATION MAP.DWG	FIGURE NO. 1



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
GENERAL STRUCTURES		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

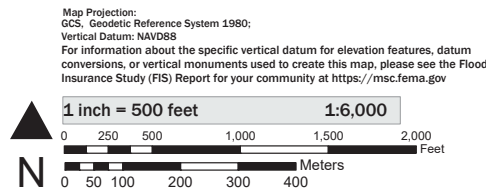
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map Orthography, Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 2/13/2023 2:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not used as described below. The elevation information shown on this map is based on a digital elevation model (DEM) that was derived from a 30-meter resolution DEM. The elevation information shown on this map is not intended to be used for engineering or other purposes. For more information on flood insurance, interested parties should visit <http://www.fema.gov/national-flood-insurance-program>.

SCALE

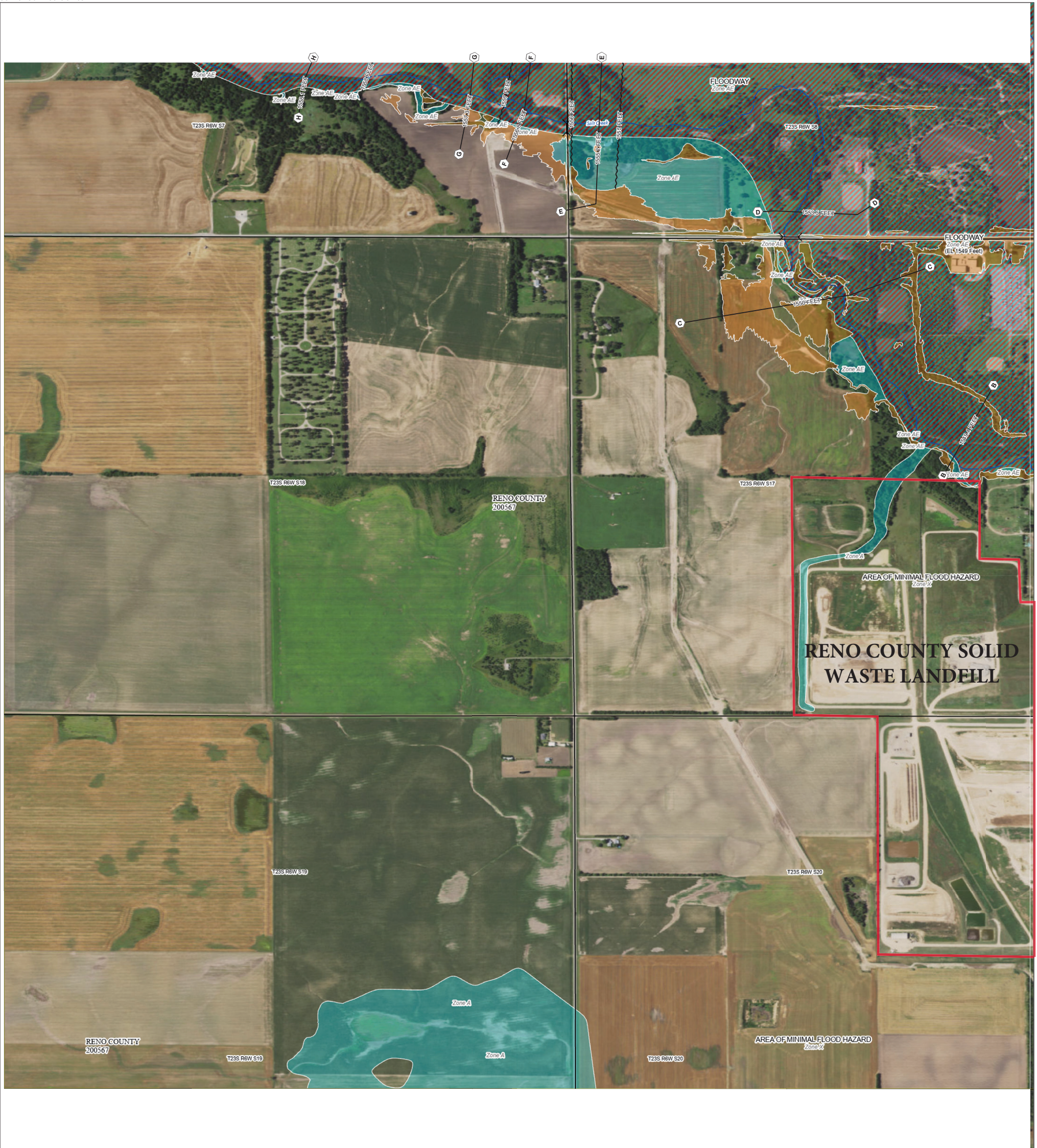


NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

PANEL 286 OF 875

Panel Contains:	COMMUNITY	NUMBER	PANEL
	RENO COUNTY	200567	0286





FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes Zone X
OTHER AREAS		Area with Flood Risk due to Levee Zone D
		Area of Minimal Flood Hazard Zone X
GENERAL STRUCTURES		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
OTHER FEATURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
CROSS SECTIONS		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
BASE LINES		Coastal Transect
		Coastal Transect Baseline
BASE LINES		Profile Baseline
		Hydrographic Feature
OTHER FEATURES		Base Flood Elevation Line (BFE)
		Limit of Study
OTHER FEATURES		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

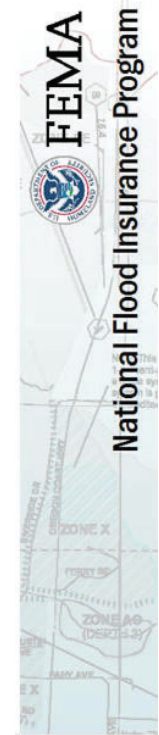
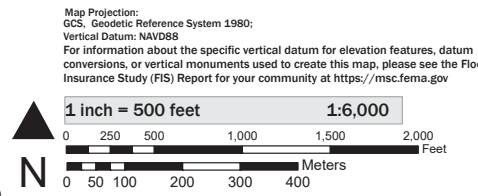
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map Orthoimagery, Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 2/14/2023 10:10 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE




NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP

PANEL 267 OF 875

Panel Contains:

COMMUNITY	NUMBER	PANEL
RENO COUNTY	200567	0267



Appendix B
Zoning Documents



RENO COUNTY ZONING PERMIT

PERMIT NO: 7851

PARCEL: 1252100000002000

Name: Reno County Solid Waste Department

Contractor: Conco Construction

Address: 703 S. Mohawk Rd.

Address: 3051 N. Ohio

City: Hutchinson Zip: 67501

City: Wichita, KS Zip: 67219

Phone: (620) 694-2587

Phone: (316) 943-1111

BUILDING SITE AND STRUCTURE

Location of Property: Southeast Corner of intersection of S. Mohawk Rd. and W. Clark Rd., Hutchinson, KS 4101 W. Clark Rd.

Subdivision: _____ Lot: _____ Block: _____

Legal Description: NW ¼ Sec: 21 Twp: 23 S Range: 6 W

Building New: Move On: _____ Existing: _____ Use: Landfill Customer Convenience Ctr

of Bathrooms: 3 Site Dimensions: Approx. 4.9ac 152.4A Building Dimensions: 75' x 150'

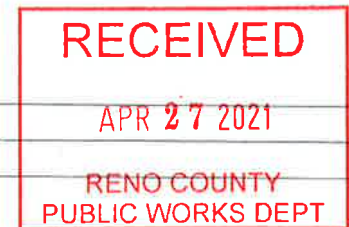
Estimated Value of Structure: \$1,100,000 Fee: \$0.00 Zoning: AG

PERMITS

SEPTIC SYSTEM PERMIT	WATER SYSTEM PERMIT	ENTRANCE PERMIT	FLOODPLAIN PERMIT
Required: <input checked="" type="checkbox"/>	Required: _____	Required: _____	Required: _____
Not Required: _____	Not Required: <input checked="" type="checkbox"/>	Not Required: <input checked="" type="checkbox"/>	Not Required: <input checked="" type="checkbox"/>

SETBACKS
Front: 50'
Side: 30'
Rear: 30'

COMMENTS



NOTES

- Reno County does not enforce building codes, but it is recommended that all construction comply with standards as set forth in the Uniform Building Code (UBC); Uniform Plumbing Code (UPC); National Electrical Code (NEC); Uniform Fire Code (UFC).
- FLOODPLAIN REQUIREMENT: After the lowest floor (including basement) has been completed, the Elevation and/or Flood proofing Certificate verifying "As Built Elevations" will be returned to the PLANNING AND ZONING DIVISION BEFORE ANY FURTHER CONSTRUCTION OCCURS.
- An Entrance Permit is required from the Reno County Public Works Department to construct an entrance across county road right-of-way. Contact your township official to construct an entrance across township road right-of-way.

Signed: Megan Davidson
Owner or Authorized Representative

Date: 4-27-21

Permit approved by: Mar Vanech
Name

Date: 4/28/21

COMMENTS: _____

**FLOODPLAIN MAP CHECK
for Unincorporated
Areas of Reno County, Kansas**

Name: Reno County Solid Waste Department

Address: 703 S. Mohawk Road

Subdivision:

Lot:

Block:

Legal Description: NE 1/4 Sec: 21 Twp: 23 S Rge: 6 W

Reason for Map Check: Building Permit

Map Number 20155C0: 286 F

Person or Firm Requesting Information: Reno County Solid Waste Department

Is this property within a special flood hazard area as shown on the official Reno County Flood Insurance Rate Maps?

Comments

no floodplain

Map Checked By ML

Reno County Planning Department

Date: 4/28/2021

Insurance related questions may be answered by calling FEMA's (Federal Emergency Management Agency) Insurance Servicing Agent toll-free at 1-800-638-6620 or visit their website at www.floodsmart.gov

Questions regarding the Resolution Document may be directed to the Planning and Zoning Dept. at (620) 694-2978.



Interoffice Correspondence Wastewater and/or Water Well System

Reno County Public Works - Planning & Zoning Division
600 Scott Blvd South Hutchinson, KS 67505
Phone 620-694-2978 fax 620-694-2924

Reno County Health Department
209 W 2nd Hutchinson, KS 67501
Phone 620-694-2900 fax 620-694-2901

Please submit this form along with the Zoning Permit Application and applicable fee to the Reno County Planning & Zoning Division at the above address. This form must be signed and approved by a representative of the Reno County Health Department before approval and issuance of a Zoning Permit per an inter-office agreement effective June 1, 2010.

Questions regarding this form may be directed to the Reno County Health Department or Planning & Zoning Division as listed above.

Zoning Permit # 7851

Applicant: Reno County Solid Waste Department

Address: 703 Mohawk Rd., Hutchinson, KS 67501

Phone: (620) 694-2587



Location of proposed building site: Southeast corner of intersection of S. Mohawk Rd. and W. Clark
Customer Convenience Center

This section to be completed by Reno County Health Department.

Approved Denied

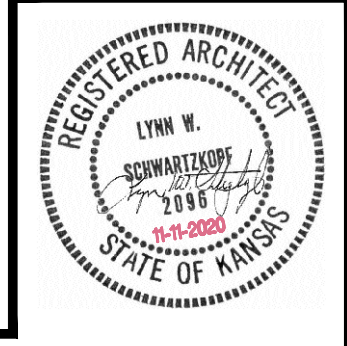
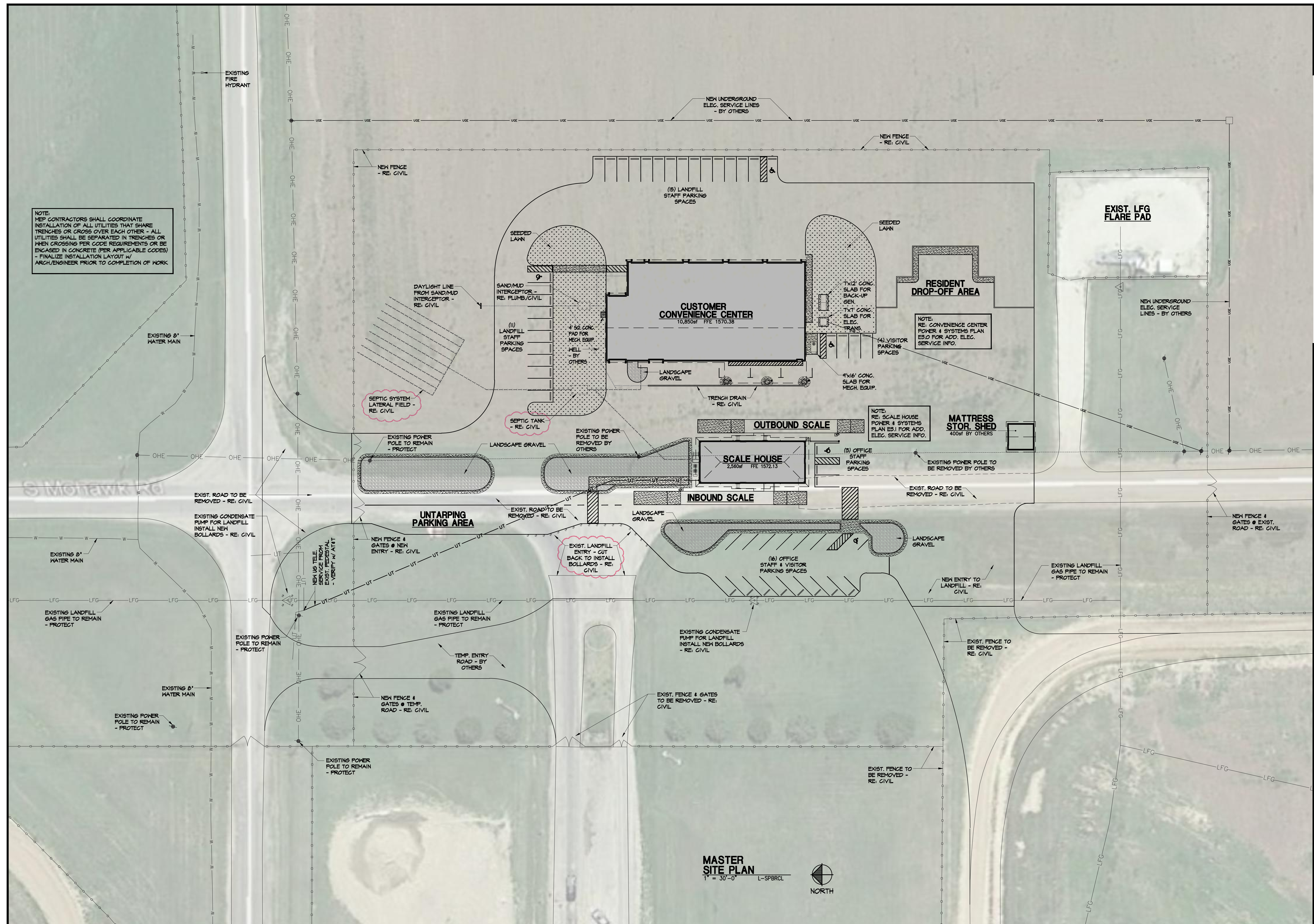
Environmental Health Inspector Comments: _____

Signature [Signature]

Date 5-10-2021

Appendix C
Design Plans

NOTE:
MEP CONTRACTORS SHALL COORDINATE
INSTALLATION OF ALL UTILITIES THAT SHARE
TRENCHES OR CROSS OVER EACH OTHER - ALL
UTILITIES SHALL BE SEPARATED IN TRENCHES OR
WHEN CROSSING PER CODE REQUIREMENTS OR BE
ENGAGED IN CONCRETE (PER APPLICABLE CODES)
- FINALIZE INSTALLATION LAYOUT W/
ARCH/ENGINEER PRIOR TO COMPLETION OF WORK

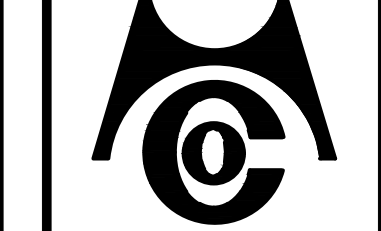


MANN & COMPANY, P.A.
ARCHITECTS & PLANNERS
1703 London Street, Suite B
Hutchinson, KS 67502 620-662-4493

ENTRY REV. - SEPTIC SYSTEM 12-17-20
description
no.

revision
Reno Co. Landfill
Entry Relocation
703 South Mainhawk Road
Hutchinson, KS 67501

**MASTER SITE
& UTILITIES PLAN**
title

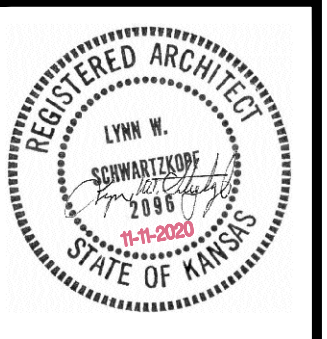


ds. LWS
dr. JEH
ck. LWS
commission no. 231800
prints tracings
E-5 17

sheet
SP0.0
of
date
Nov. 11, 2020

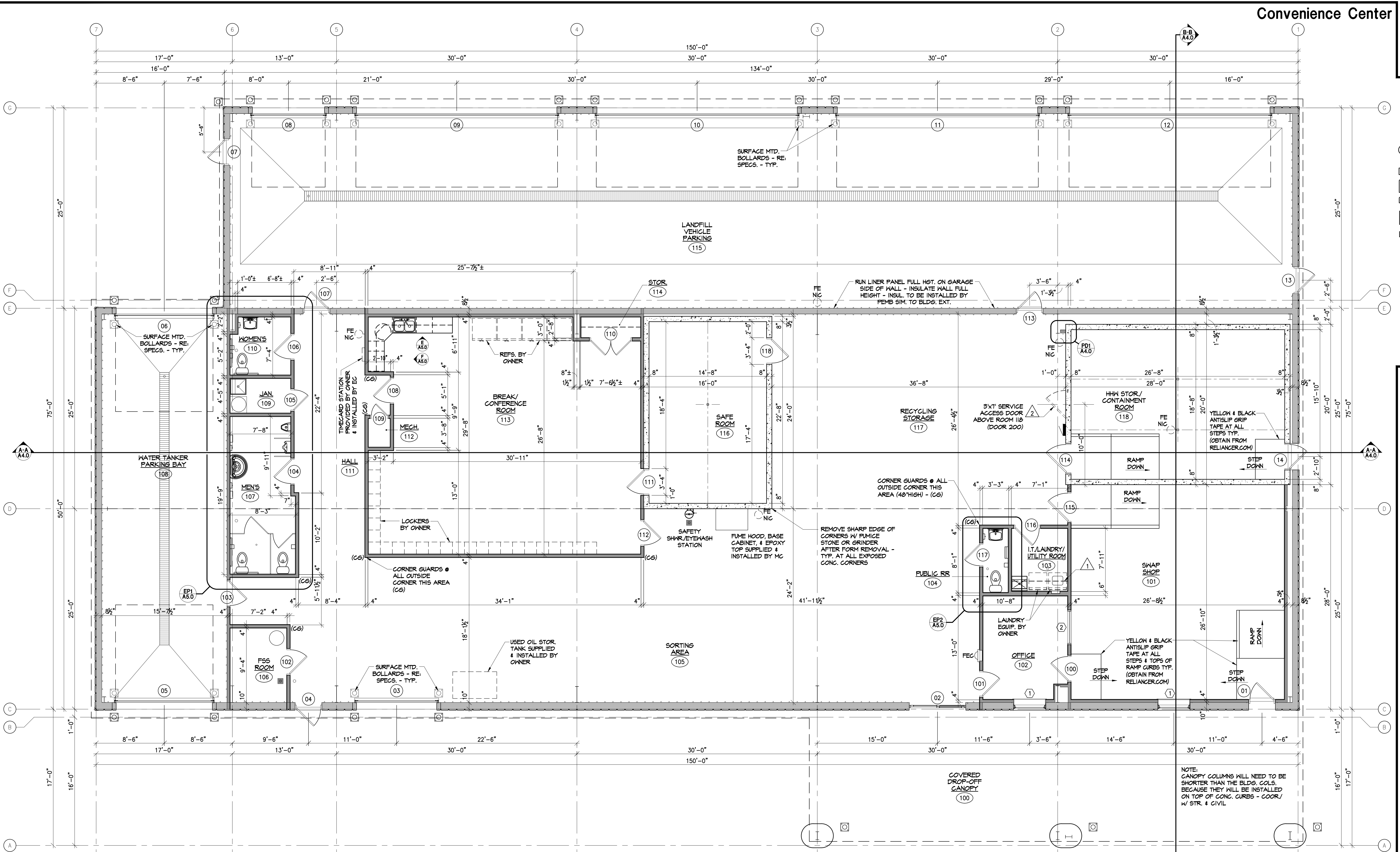
**MASTER
SITE PLAN**
1" = 30'-0" L-SPBRCL
NORTH

THIS DOCUMENT IS THE PROPERTY OF MANN & COMPANY, P.A. TO REUSE THIS DOCUMENT FOR ANY PURPOSE OTHER THAN THE EXECUTION OF THE ABOVE TITLED PROJECT IS PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT



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FLOOR PLAN
 3/16" = 1'-0" A-FPBRCR



- FLOOR PLAN NOTES**
- INSTALL 15" DEEP x WIDTH OF ROOM FIXED PL. LAM SHELF @ 60" AFF W/ CONT. 1x HD. CLEAT @ ALL WALLS - PAINT CLEATS TO MATCH SURROUNDING WALLS.
 - INSTALL HM DOOR & FRAME W/ BOT. OF DOOR EQUAL TO TOP OF RM IS CEILING SLAB - FT. DOOR & FRAME TO MATCH ADJACENT WALL PANELS - TRIM METAL PANEL AROUND DOOR W/ STANDARD PRE-FINISHED J-MOLD ON VISIBLE SIDE - PROVIDE & INSTALL SAFETY CHAIN & HOOKS ON INSIDE OF DOOR JAMB @ 36" A.F.F.

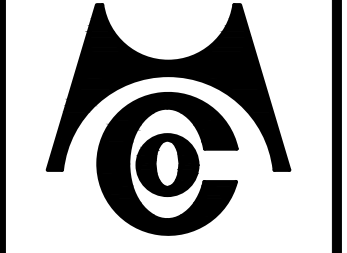
- GENERAL FLOOR PLAN NOTES**
- GC SHALL VERIFY ALL CONDITIONS PRIOR TO WORK BEGINNING - THE GC IS RESPONSIBLE FOR INFORMING THE ARCHITECT OF ANY CONDITIONS THAT DIFFER FROM THE INFO. INDICATED IN THE DRAWINGS
 - VERIFY EXTENT OF WORK W/ INFO. SHOWN IN THE DRAWINGS, ADD. WORK THAT IS NOT SHOWN MAY BE REQD. TO COMPLETE THE INTENDED WORK
 - ALL WORK SHALL COMPLY W/ REQD. LOCAL CODES - GC IS RESPONSIBLE FOR OBTAINING REQD. PERMITS & INSPECTIONS FOR ALL WORK ASSOCIATED W/ HIS CONTRACT
 - INSTALL BLKS. IN ALL WALLS AS REQD. TO PROVIDE SUPPORT FOR CASEWORK, GRAB BARS, ETC. - GC SHALL COORDINATE BLKS. INSTALL. W/ ALL ASSOCIATED WORK

revision

Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Mohawk Road
 Hutchinson, KS 67501

project

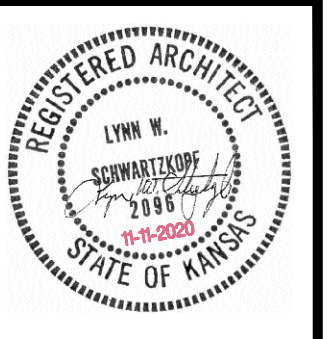
FLOOR PLAN
 title



ds.	LWS
dr.	JEH
ck.	LWS
commission no.	2318.00
prints	tracings
E-5	T7

sheet
A1.0
 of

date
 Nov. 11, 2020



MANN & COMPANY, P.A.
 ARCHITECTS & PLANNERS
 1703 London Street, Suite B
 Hutchinson, KS 67502 620-662-4493

revision
 title
 project
 DR., & FRAME TYPES Reno Co. Landfill Entry Relocation
 & DR. & FIN. SCHEDULES Convenience Center
 703 South Mehawk Road
 Hutchinson, KS 67501

description
 date
 no.

TO REUSE THIS DOCUMENT FOR ANY PURPOSE OTHER THAN THE EXECUTION OF THE ABOVE TITLED PROJECT IS PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT
 RETURN ALL COPIES TO THE ARCHITECT UPON REQUEST
 THIS DOCUMENT IS THE PROPERTY OF MANN & COMPANY, P.A.

RMNO	ROOM NAME	FLOOR	BASE	WALLS		CEILING		REMARKS
				MATERIAL	HEIGHT	MATERIAL	HEIGHT	
100	COVERED DROP-OFF AREA	CF-3	--	--	LP	VARIES		
101	SWAP SHOP	CF-1+CF-2	NONE	CONC-NP/GB-PT-EG#	EXPO STR-NP	VARIES		
102	OFFICE	CF-1+CF-2	CC/VB*	GB-PT-EG#	ACOUS	9'-0"	*CUT VINYL BASE TO MATCH HEIGHT OF CONCRETE CURB	
103	LAUNDRY/UTILITY ROOM	CF-1+CF-2	CC/VB*	GB-PT-EP#	ACOUS	9'-0"	*CUT VINYL BASE TO MATCH HEIGHT OF CONCRETE CURB	
104	PUBLIC RESTROOM	SV	CC/SV*	GB-PT-EP#	ACOUS	8'-0"	*EXTEND SHEET VINYL BASE UP ALL WALLS AND @ CONC. CURB	
105	SORTING AREA	CF-1+CF-2	CC/LP	CONC-NP/GB-PT-EG/LP#	EXPO STR-NP	VARIES		
106	FIRE SPRINKLER SERVICE ROOM	CF-1	CC/LP	GB-PT-EP/LP#	--	--		
107	MEN'S	SV	CC/SV**	SRP	ACOUS	9'-0"	*EXTEND SHEET VINYL BASE UP ALL WALLS AND @ CONC. CURB	
108	WATER TANKER PARKING BAY	CF-1+CF-3	CC/LP	LP	EXPO STR-NP	VARIES		
109	JANITOR	CF-1+CF-2	CC	GB-PT-EP#	ACOUS	8'-0"		
110	WOMEN'S	SV	CC/SV**	SRP	ACOUS	9'-0"	*EXTEND SHEET VINYL BASE UP ALL WALLS AND @ CONC. CURB	
111	HALL	CF-1+CF-2	CC/LP	GB-PT-EG/LP#	EXPO STR-NP	VARIES		
112	MECHANICAL	CF-1+CF-2	CC/VB	GB-PT-EG#	NONE	--		
113	BREAK/CONFERENCE ROOM	CF-1+CF-2	CC/VB*	GB-PT-EG#	ACOUS	9'-0"	*CUT VINYL BASE TO MATCH HEIGHT OF CONCRETE CURB	
114	STORAGE	CF-1+CF-2	VB	GB-PT-EG	ACOUS	8'-0"		
115	LANDFILL VEHICLE PARKING	CF-1+CF-3	LP	LP	EXPO STR-NP	VARIES		
116	SAFE ROOM	CF-1	NONE	CONC-NP	EXPO STR-NP	8'-0"		
117	RECYCLING STORAGE	CF-1+CF-2	CC/LP	CONC-NP/GB-PT-EG/LP#	EXPO STR-NP	VARIES		
118	HOUSEHOLD HAZARDOUS WASTE STORAGE/CONTAINMENT ROOM	CF-1+CF-2	NONE	CONC-NP	EXPO STR-NP	8'-6"		

FINISH SCHEDULE ABBREVIATIONS

ACOUS	SUSPENDED ACOUSTICAL CEILING	GB-PT-EP	GYP. BD. PAINTED w/ EPOXY	#	WHERE GYP. BD. WALL IS INSTALLED ON TOP OF CONC. FLR. OR CURB, INSTALL PLASTIC J BEAD ON RAW EDGE OF GYP. BD. THAT SETS ON THE CONC.
CC	CONCRETE CURB	LP	LINER PANEL	*	APPLY CONCRETE FINISH PRODUCTS AFTER CURB PLACEMENT FOLLOWING MFR PROCEDURES
CF-1	CONCRETE DENSIFIER - RE: SPECS.*	SRP	SEMI-RIGID PLASTIC PANELS	**	DO NOT APPLY (CF-1/CF-2/CF-3) CONCRETE TREATMENT UNDER SHEET VINYL
CF-2	CONCRETE PROTECTANT - RE: SPECS.*	SV	SHEET VINYL**		
CF-3	CONCRETE SALT GUARD - RE: SPECS.*	VB	VINYL BASE - COVED		
EXPO STR	EXPOSED STRUCTURE				
NP	NOT PAINTED				
GB-PT-EG	GYP. BD. PAINTED w/ EGGSHELL				

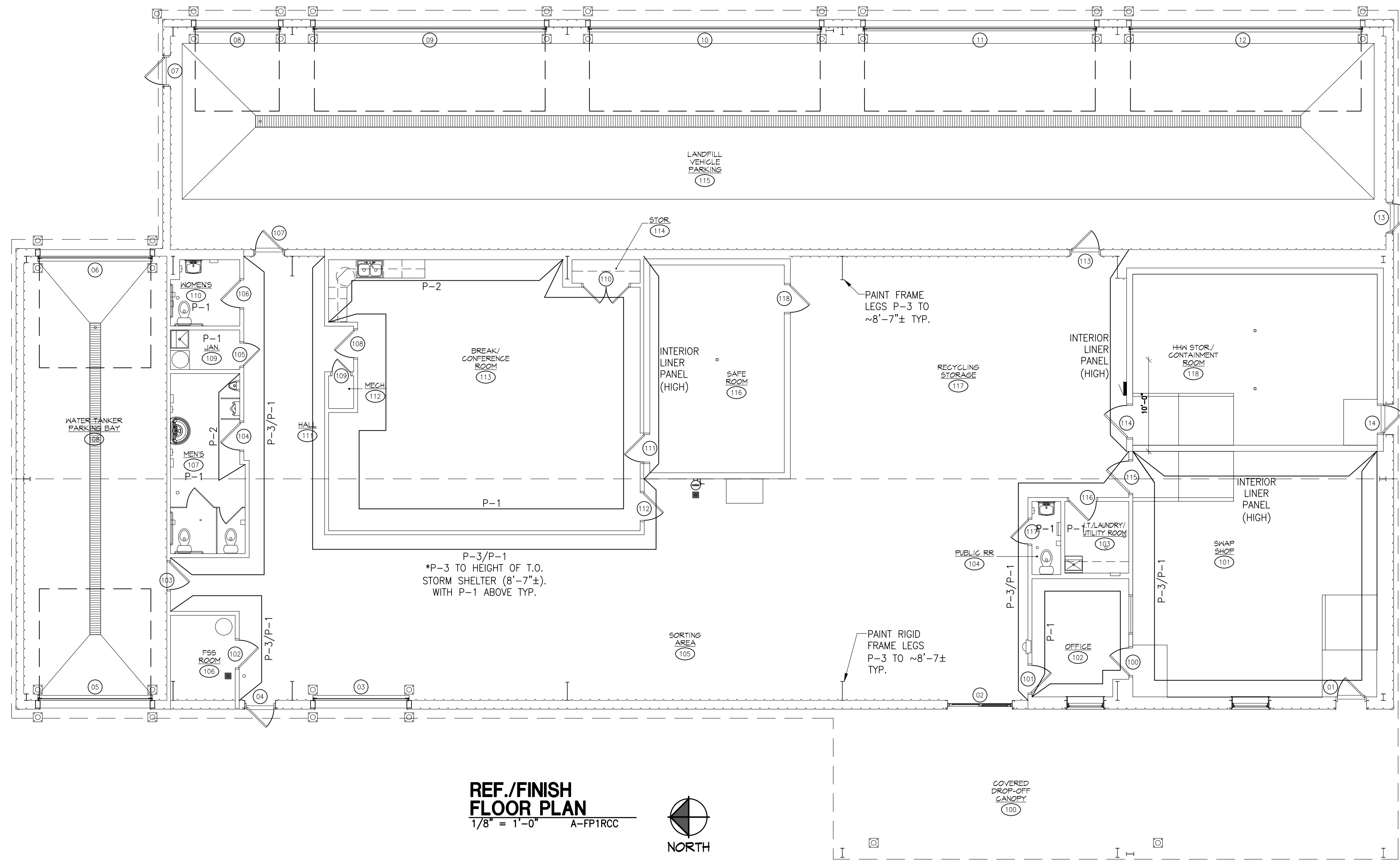
MK	DOOR SIZE	DOOR		FRAME		LABEL	GLAZING	DETAILS	HDWR	REMARKS
		MATERIAL	TYPE	MATERIAL	TYPE					
01	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD1/A1.2 DD2/A1.2 DD3/A1.2	HC,WS,HO,KP	*INSUL DR
02	3'-6" x 7'-0" x 1 1/4"	ALUM	B	ALUM	II	1 1/2"x4"	---	DD4/A1.2 DD5/A1.2 DD6/A1.2		3'-5" FIXED SIDELITE w/ 1" INSUL/TEMP GLAZING
03	10'-0" x 12'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
04	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD9/A1.2 DD10/A1.2 DD11/A1.2	PA,HC,WS	*INSUL DR
05	12'-0" x 12'-0"	---	---	---	---	---	---	DD1/A1.3 DD2/A1.3 DD3/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
06	12'-0" x 12'-0"	---	---	---	---	---	---	DD1/A1.3 DD2/A1.3 DD3/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
07	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD9/A1.2 DD10/A1.2 DD11/A1.2	PA,HC,WS	*INSUL DR
08	9'-0" x 10'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
09	25'-0" x 10'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
10	25'-0" x 10'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
11	25'-0" x 10'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
12	25'-0" x 10'-0"	---	---	---	---	---	---	DD1/A1.3 DD3/A1.3 DD4/A1.3		INSUL OVERHEAD SECT DR PWR OPERATED
13	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD9/A1.2 DD10/A1.2 DD11/A1.2	PA,HC,WS	*INSUL DR
14	3'-0" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x8 1/2"	---	DD5/A1.3 DD6/A1.3 DD7/A1.3	PA,HC,WS	INSUL DR
100	3'-0" x 7'-0" x 1 1/4"	WD	C	HM	I	2"x6 1/2"	---	DD7/A1.2 DD8/A1.2	KP	
101	3'-0" x 7'-0" x 1 1/4"	WD	C	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2	KP	
102	3'-0" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
103	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x5 1/4"	---	DD14/A1.2 DD15/A1.2 DD16/A1.2 DD17/A1.2	HC	INSUL DR *FRAME THICKNESS IS 1"± GREATER
104	3'-0" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2	HC,KP	
105	2'-6" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
106	3'-0" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
107	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD12/A1.3 DD13/A1.3	PA,HC	INSUL DR
108	3'-0" x 7'-0" x 1 1/4"	WD	C	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2	PA,HC,AS,KP	
109	2'-0" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
110	PR. 2'-6" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x6 1/2"	---	DD7/A1.2 DD18/A1.2		
111	3'-0" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x8 1/2"	---	DD8/A1.3 DD9/A1.3		14 GA STORM DR & FRAME W/ MULTIPONT EXIT DEVICE
112	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2	PA,HC,AS,KP	
113	3'-0" x 7'-0" x 1 1/4"	HM	C	HM	I	2"x6 1/2"	---	DD12/A1.3 DD13/A1.3	PA,HC	INSUL DR
114	3'-0" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x8 1/2"	90min	DD10/A1.3 DD11/A1.3	PA,HC,SS,KP	14 GA DR & FRAME
115	3'-6" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2	PA,HC,KP	
116	3'-0" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
117	2'-8" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x6 1/2"	---	DD8/A1.2 DD12/A1.2 DD13/A1.2		
118	3'-0" x 7'-0" x 1 1/4"	WD	A	HM	I	2"x8 1/2"	---	DD8/A1.3 DD9/A1.3		14 GA STORM DR & FRAME W/ MULTIPONT EXIT DEVICE
200	3'-0" x 7'-0" x 1 1/4"	HM	A	HM	I	2"x5"	---	WD2/A1.3 SIM. & WD3/A1.3 SIM.		MECH. ACCESS DOOR ABOVE RM113

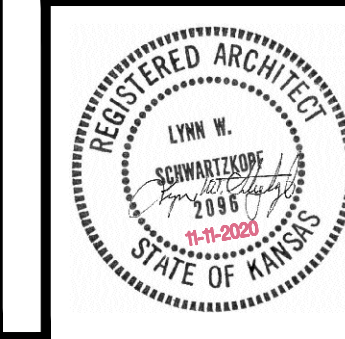
DOOR SCHEDULE NOTES

- HARDWARE SUPPLIER TO PROVIDE COMPLETE HARDWARE SCHEDULE - LOCKSETS SHALL ALLOW UNRESTRICTED PASSAGE IN DIRECTION OF EXIT
- HM FRAME WIDTH GIVEN IS 1" GREATER THAN WALL THICKNESS
- * = EXTERIOR DOORS PROVIDED & INSTALLED BY PEMB CONTRACTOR
- ALL WALK DOORS TO HAVE ADA COMPLIANT LEVER STYLE LATCHES, HANDLES, & ASSOCIATED HARDWARE UNLESS NOTED OTHERWISE
- ALL DOORS TO HAVE RUBBER DOOR STOPPERS/SILENCERS IF NOT EQUIPPED WITH PERIMETER WEATHER, SOUND, OR SMOKE SEAL
- INSTALL RUBBER DOOR STOP WALL PROTECTORS WHERE DOORS SWING INTO WALL - TYP.

DOOR SCHEDULE ABBREVIATIONS

ALUM	- ALUMINUM	KP	- STAINLESS KICK PANELS BOTH SIDES
AS	- ACOUSTIC SEALS	PA	- PANIC
DR	- DOOR	PWR	- POWER
DS	- RUBBER DOOR SILENCERS	SECT	- SECTIONAL
GA	- GAUGE	SS	- SMOKE SEAL
HM	- HOLLOW METAL	TEMP	- TEMPERED
HC	- HYDRAULIC CLOSER	WD	- WOOD
HO	- HOLD OPEN DEVICE	WS	- WEATHER SEAL
INSUL	- INSULATED		



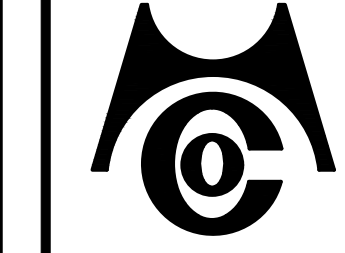


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 1703 London Street, Suite B
 Hutchinson, KS 67502 620-662-4483

date
 description
 no.

revision
 Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Monawk Road
 Hutchinson, KS 67501

project
DOOR DETAILS
 title

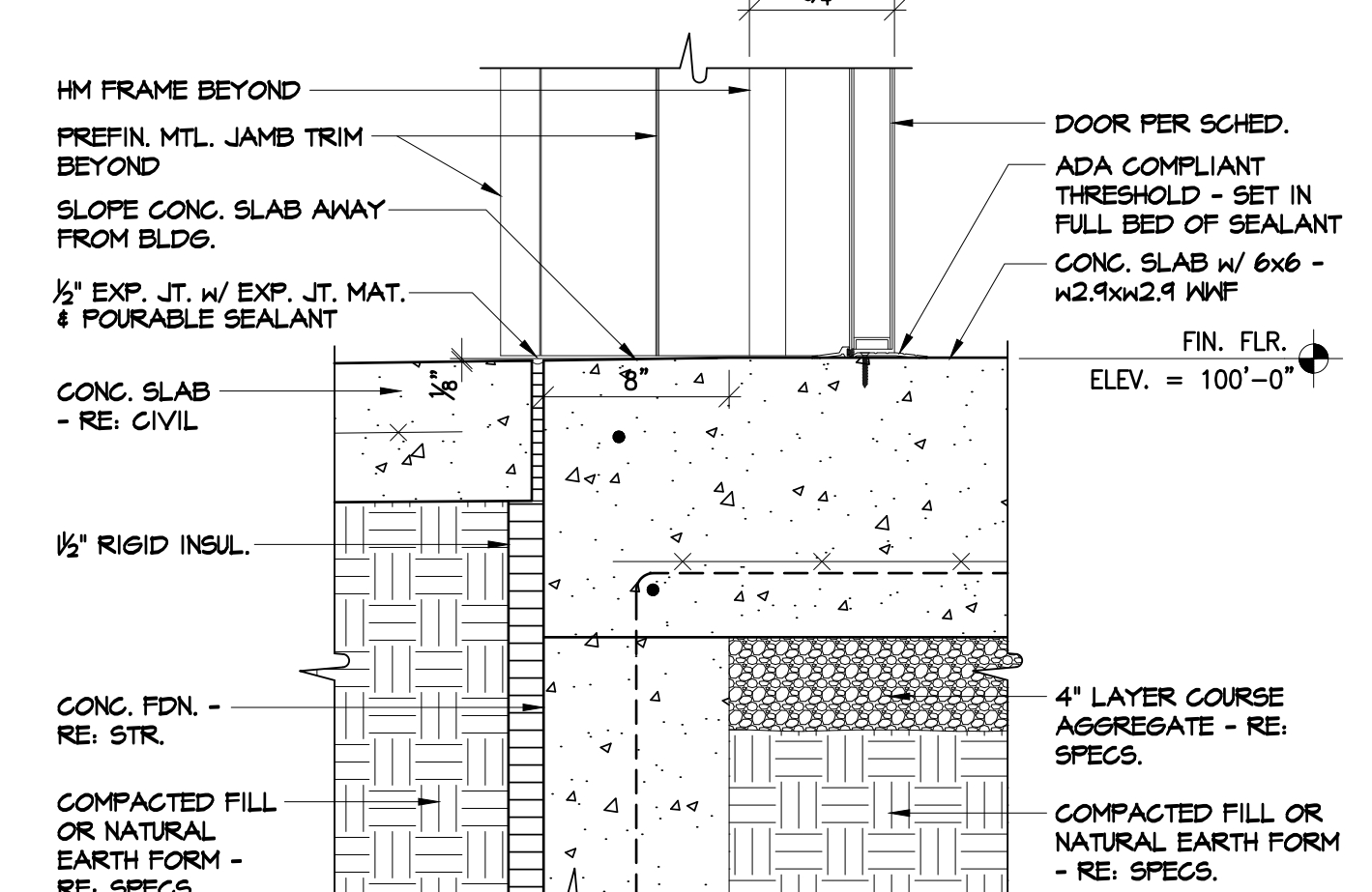
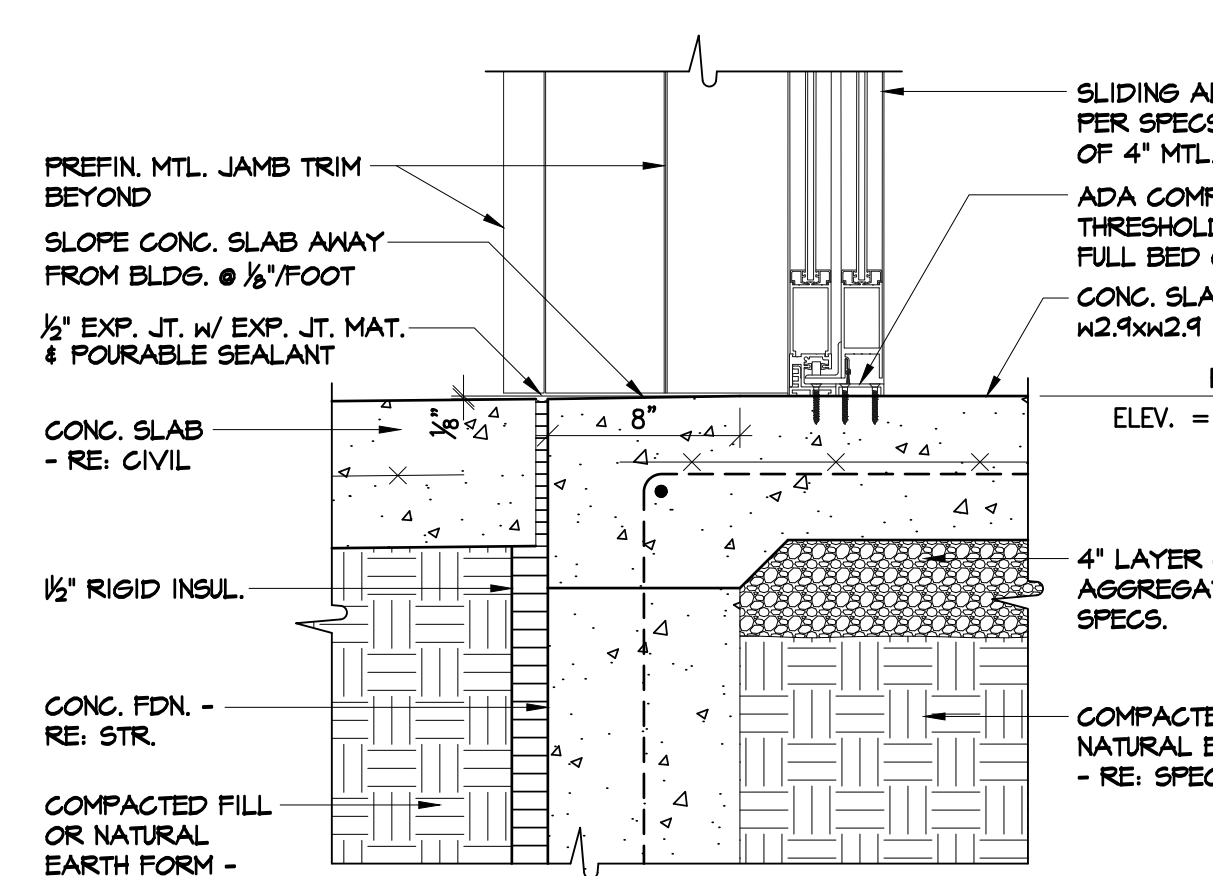
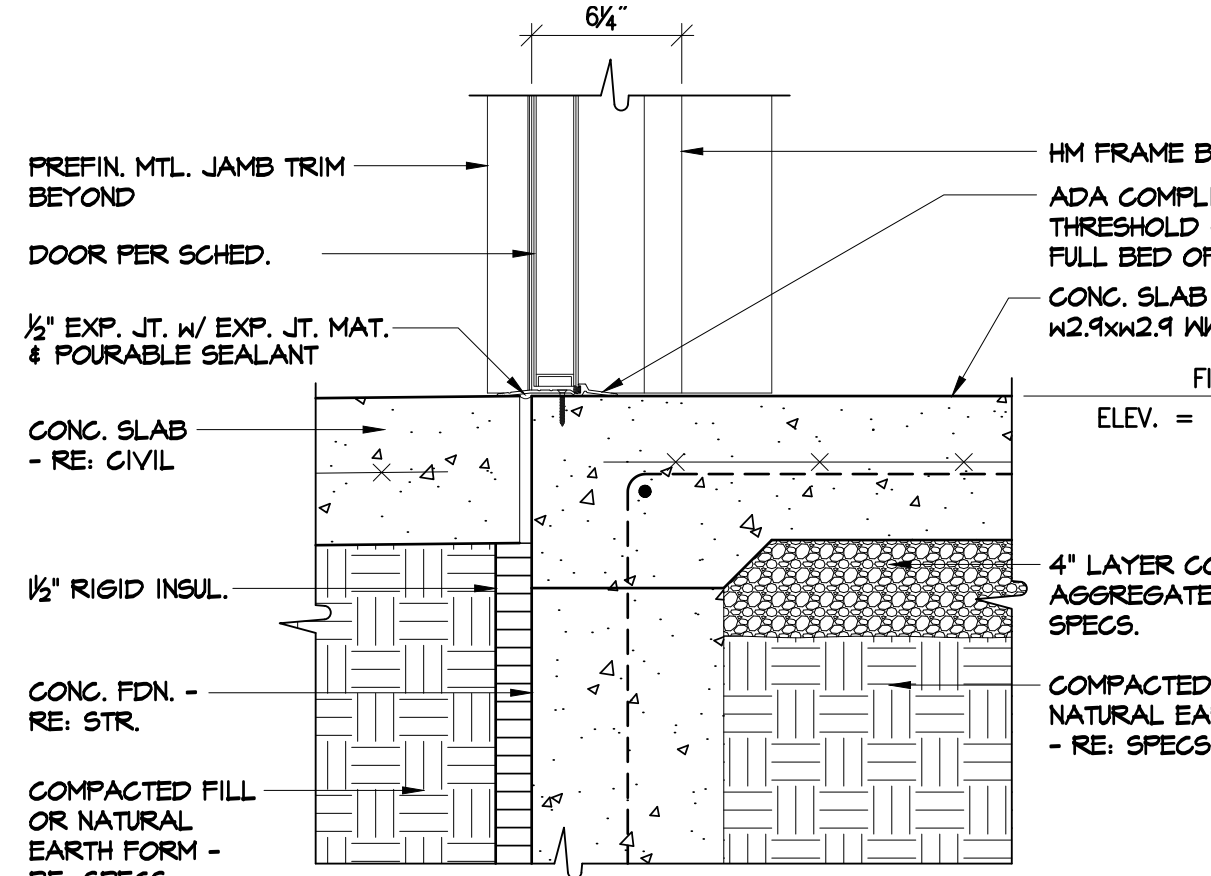
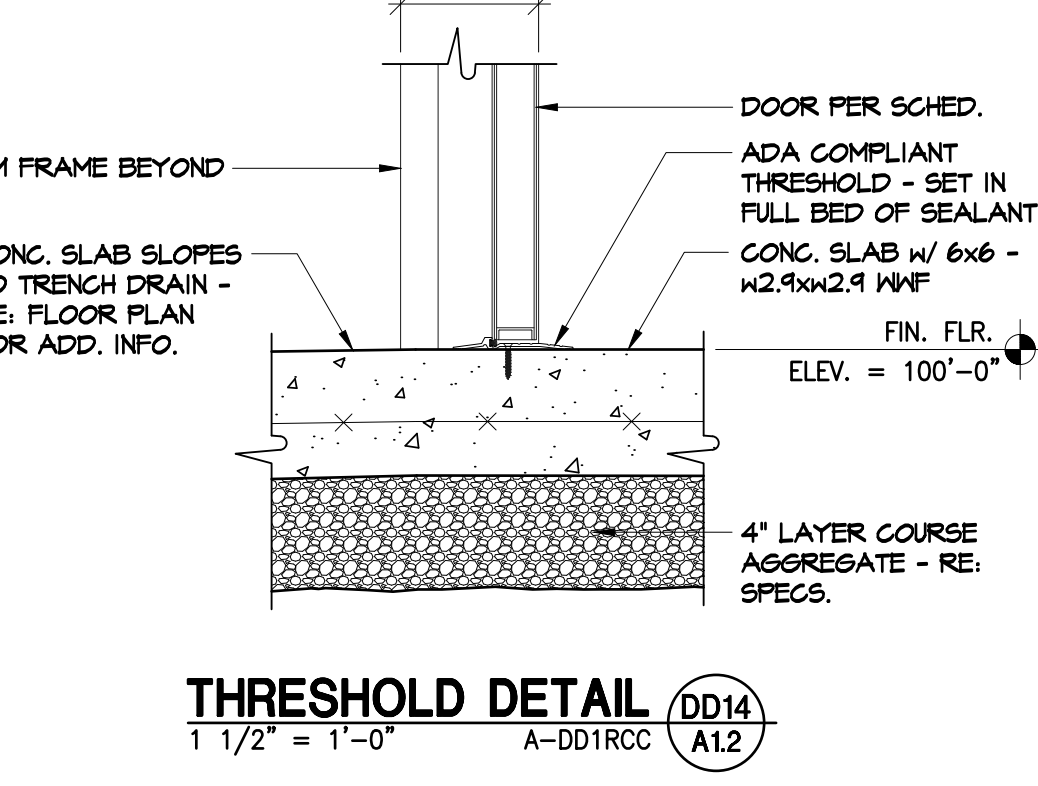
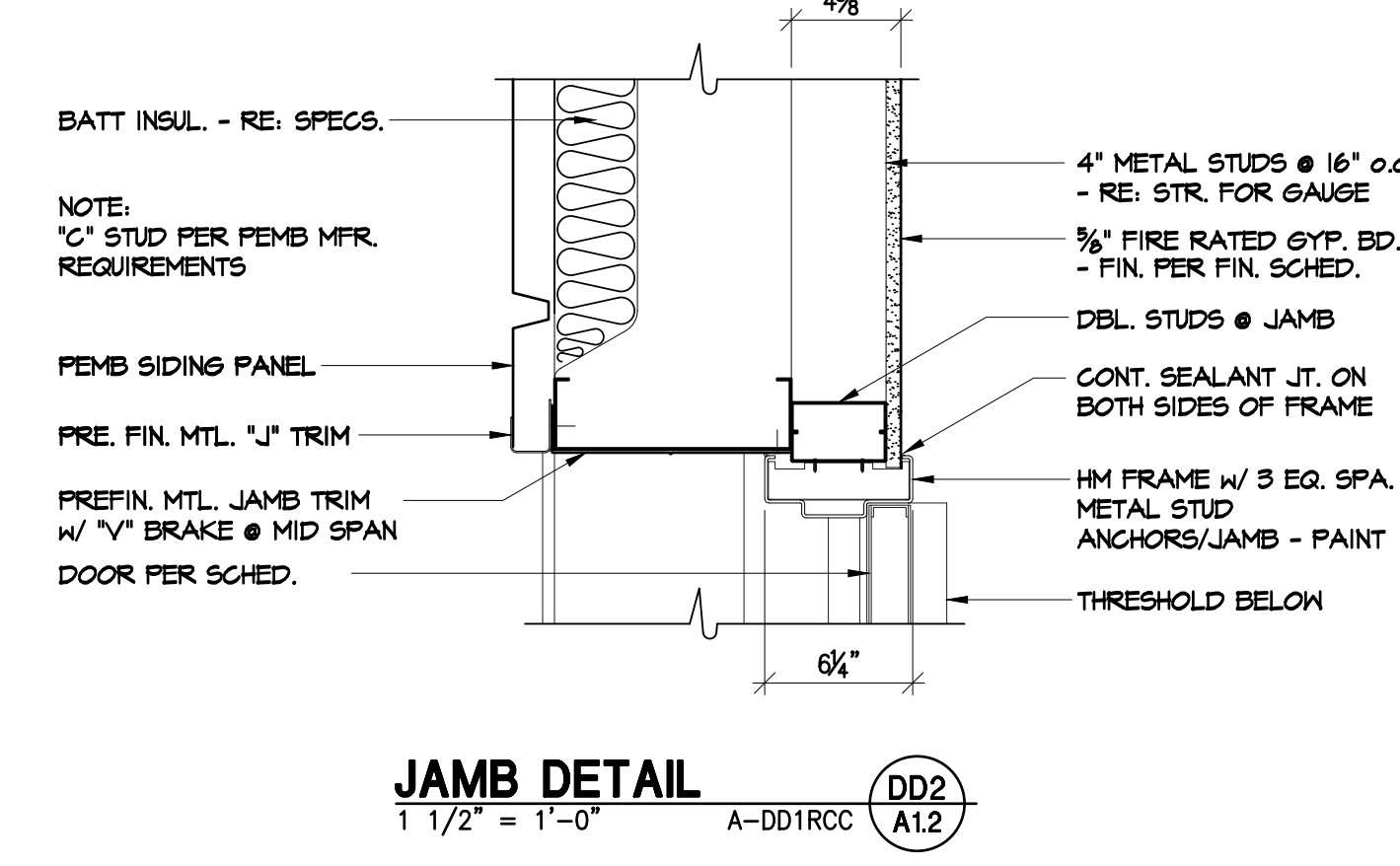
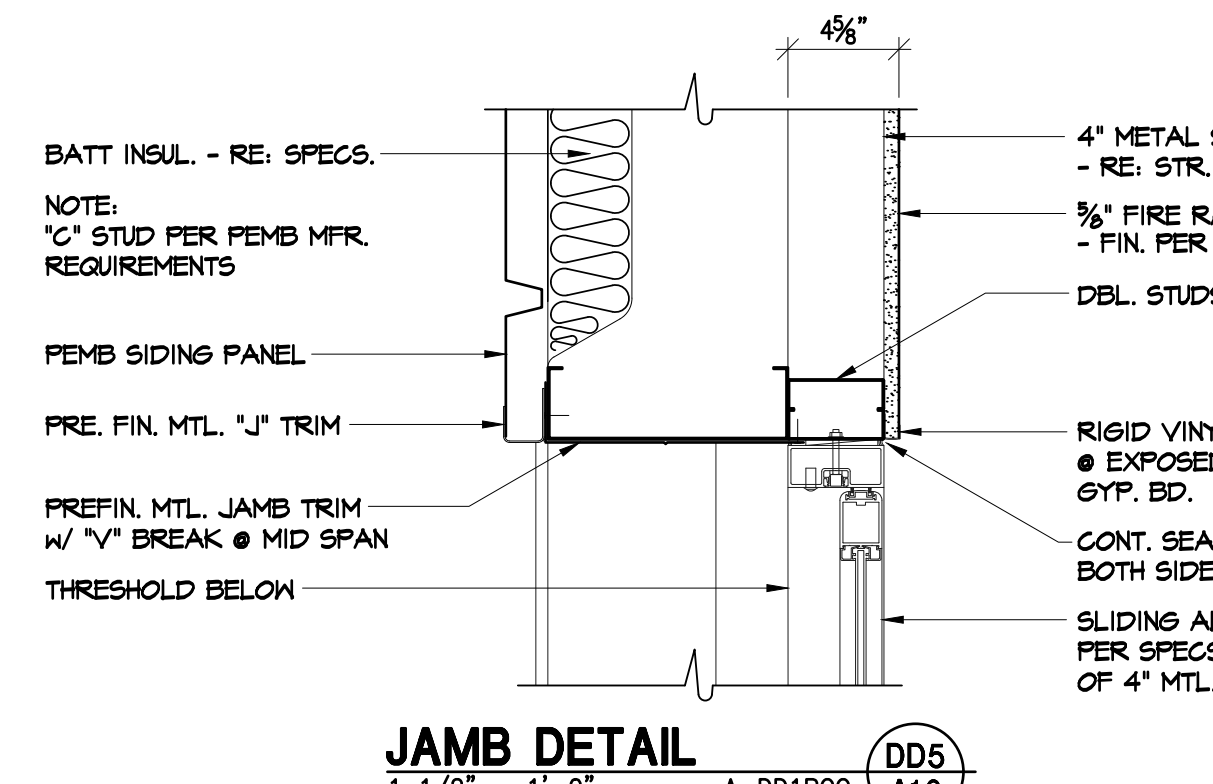
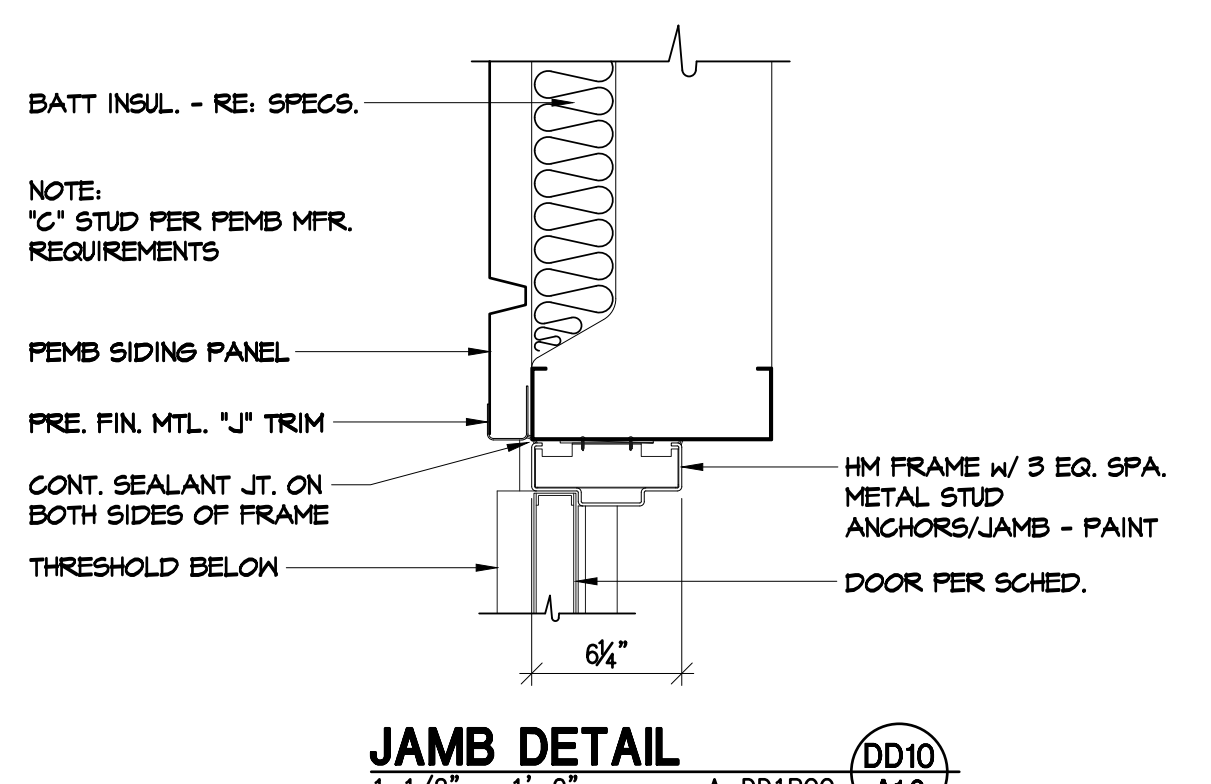
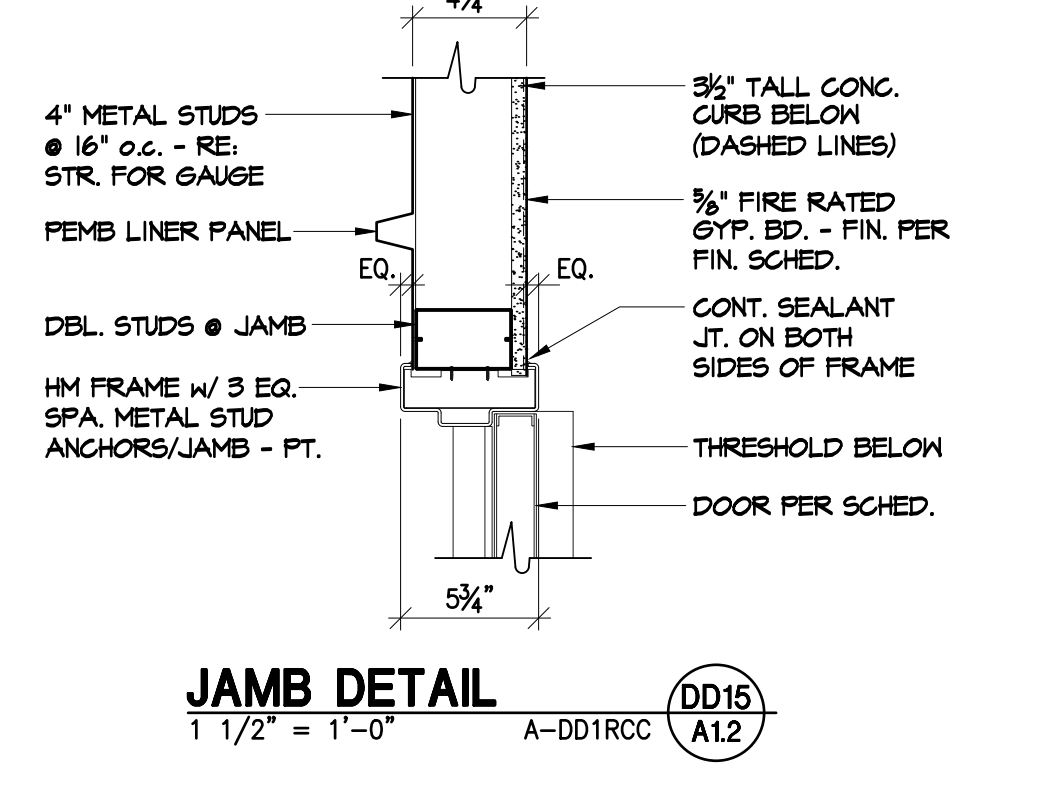
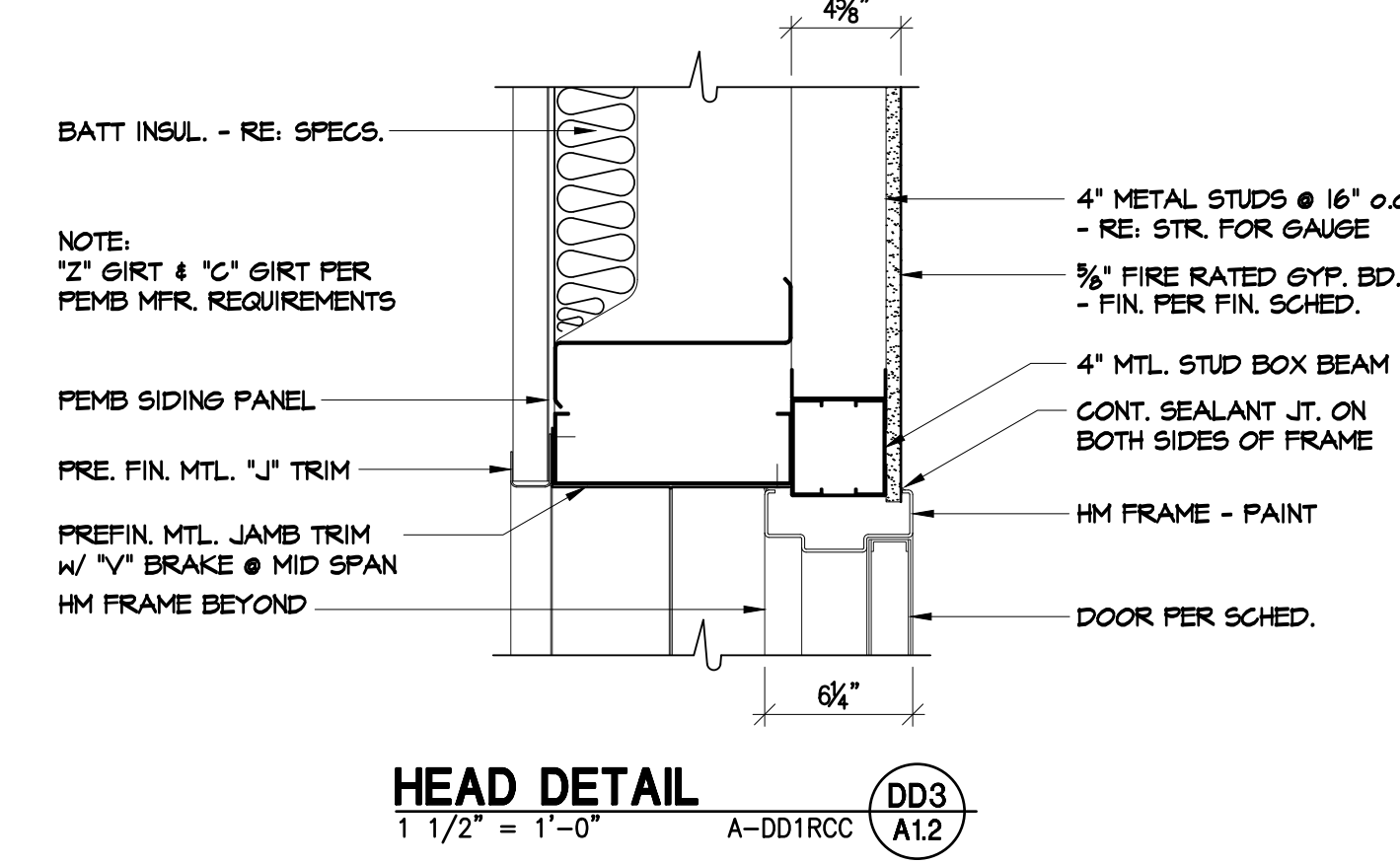
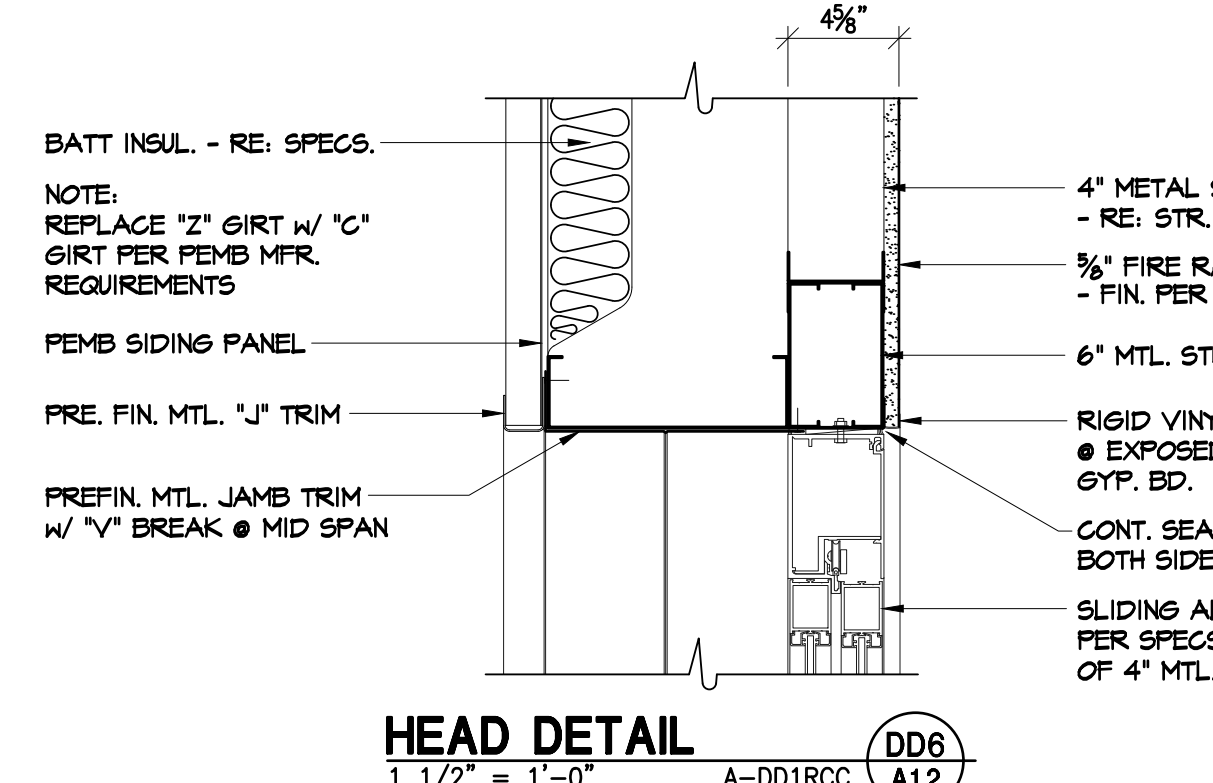
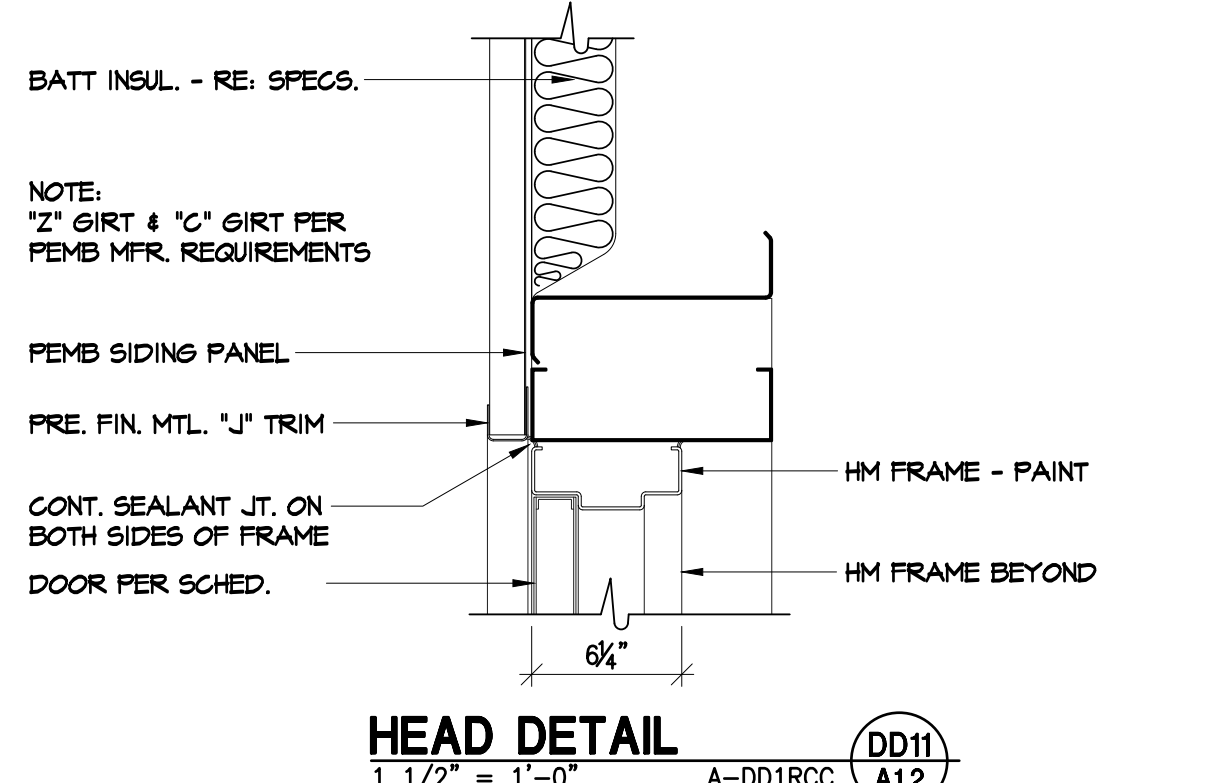
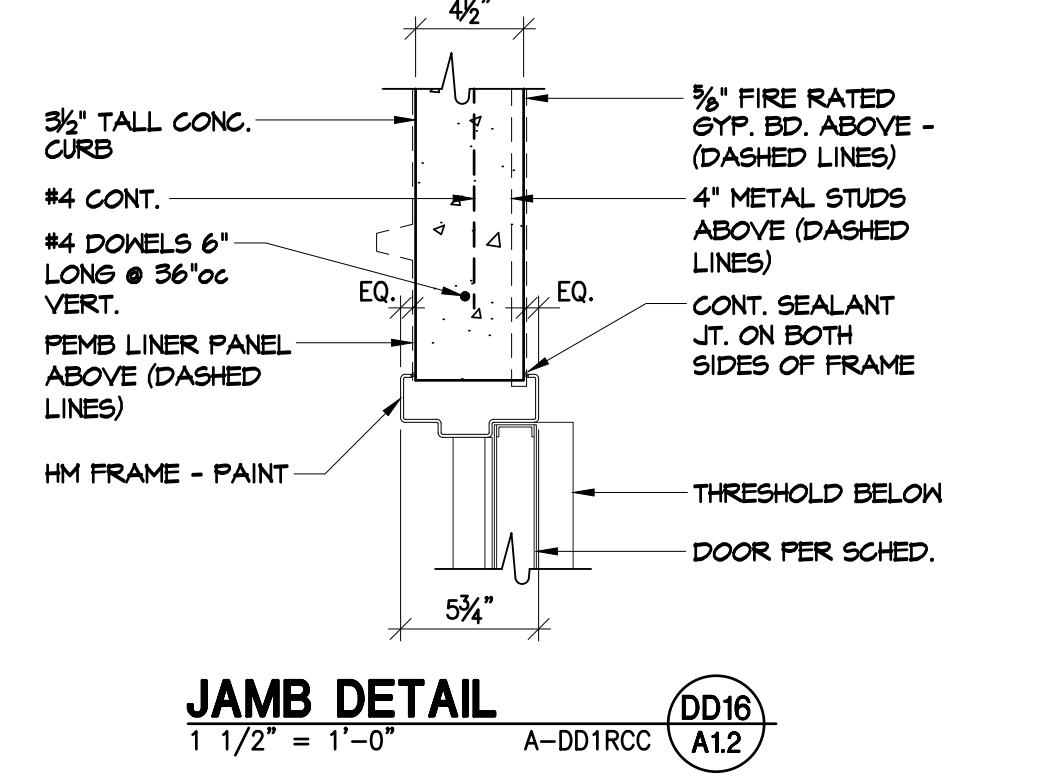
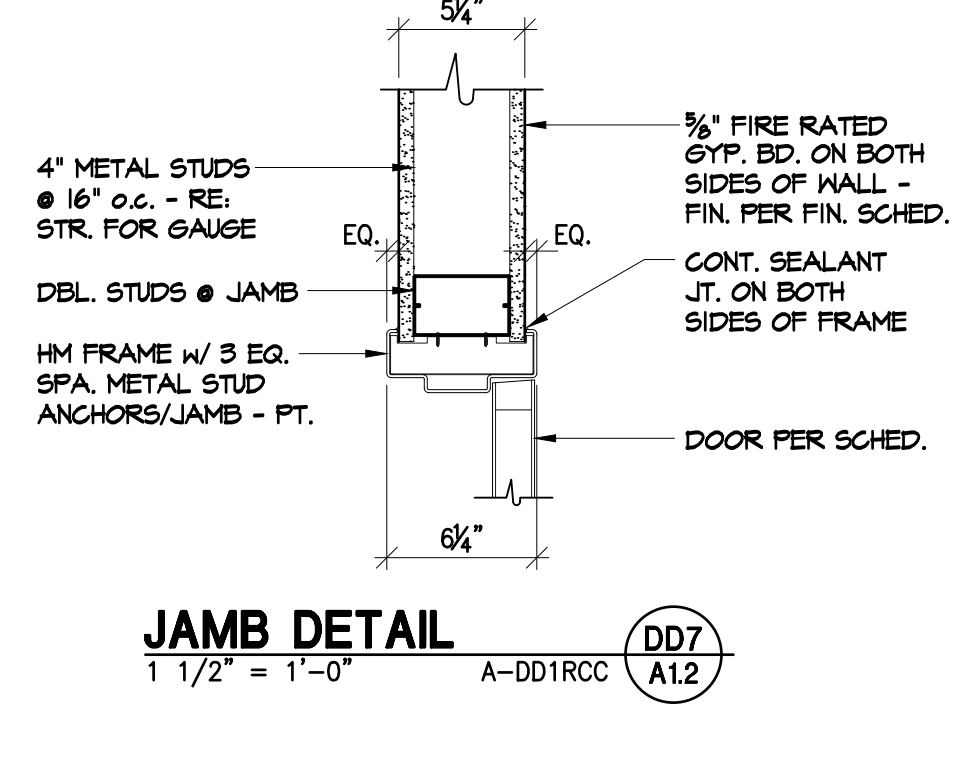
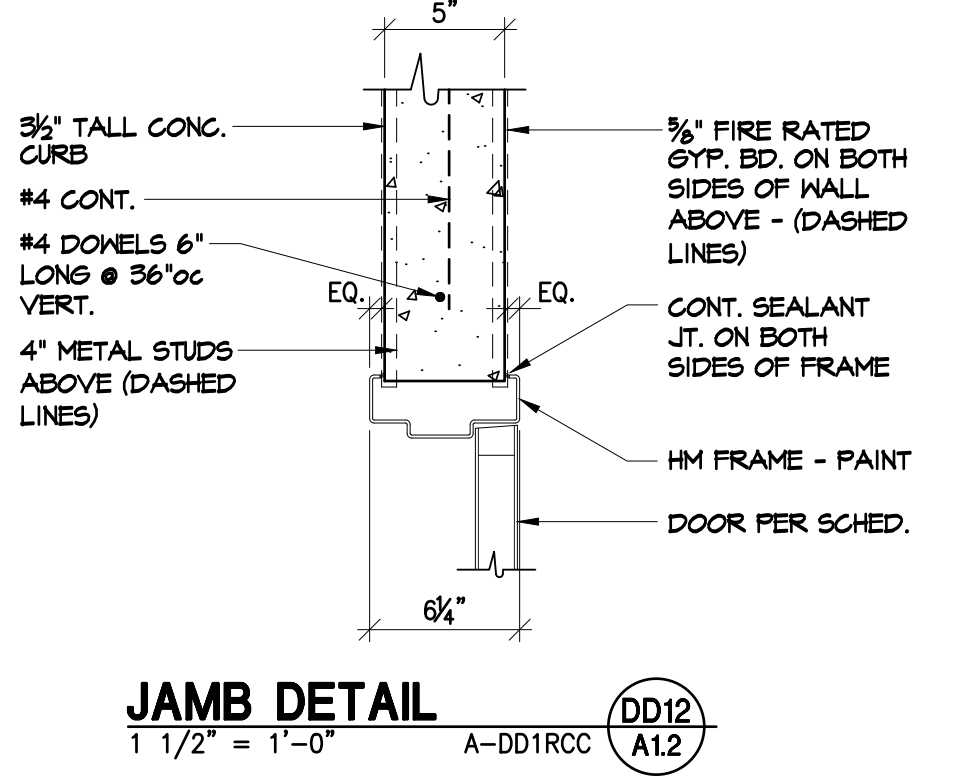
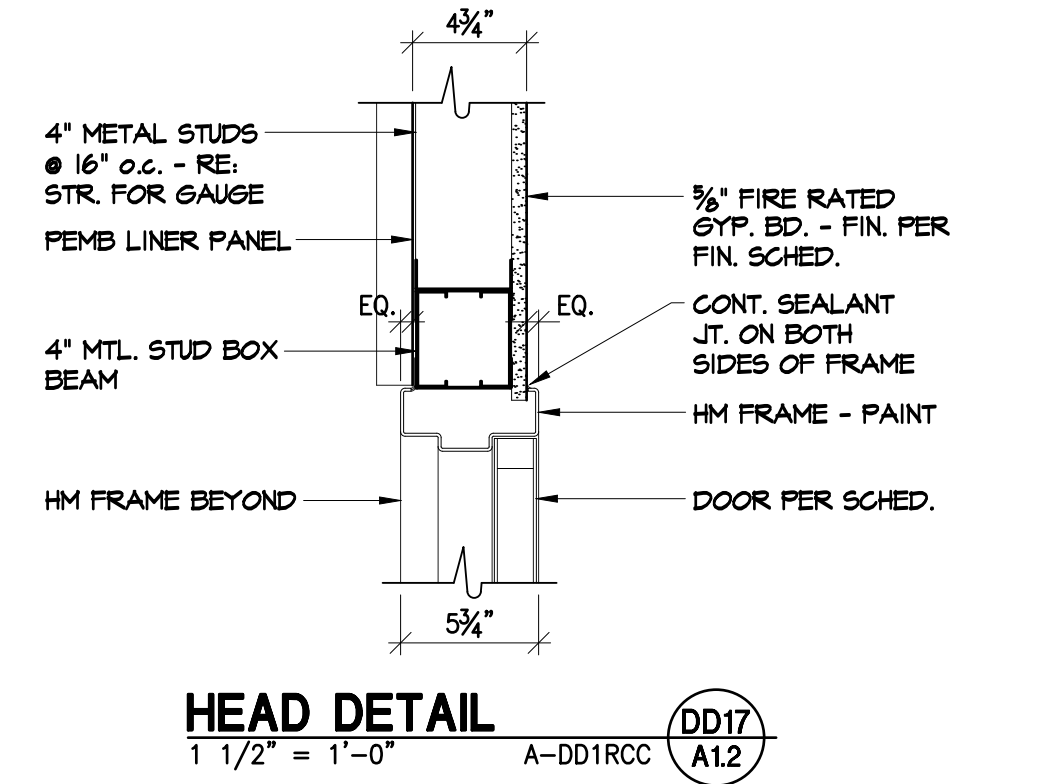
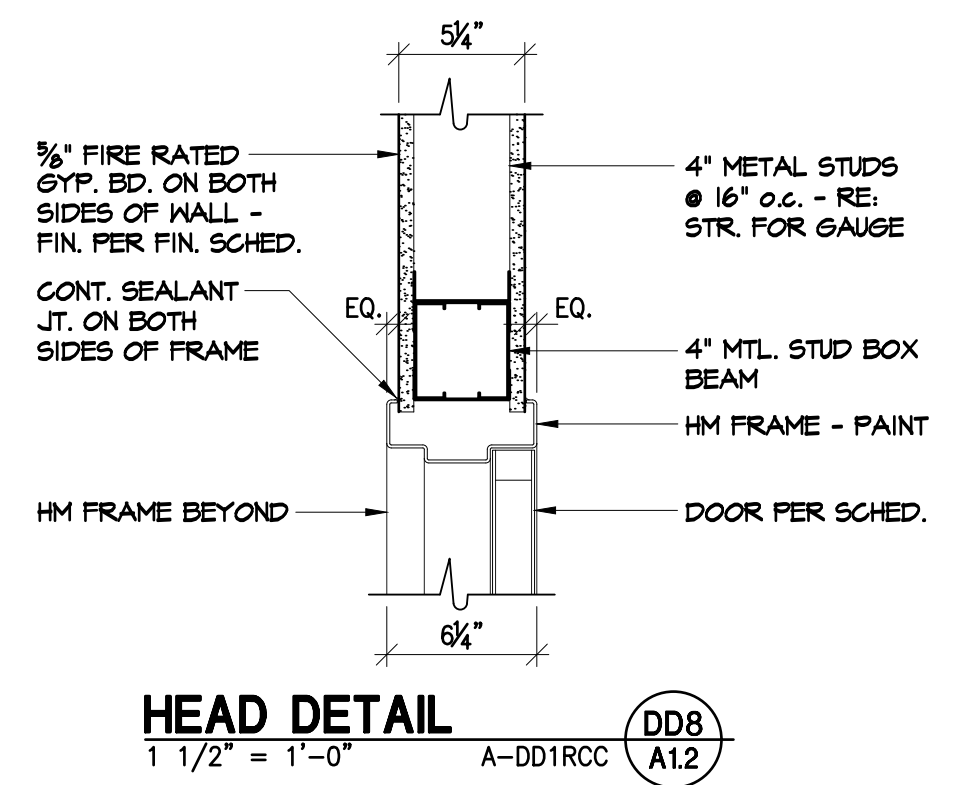
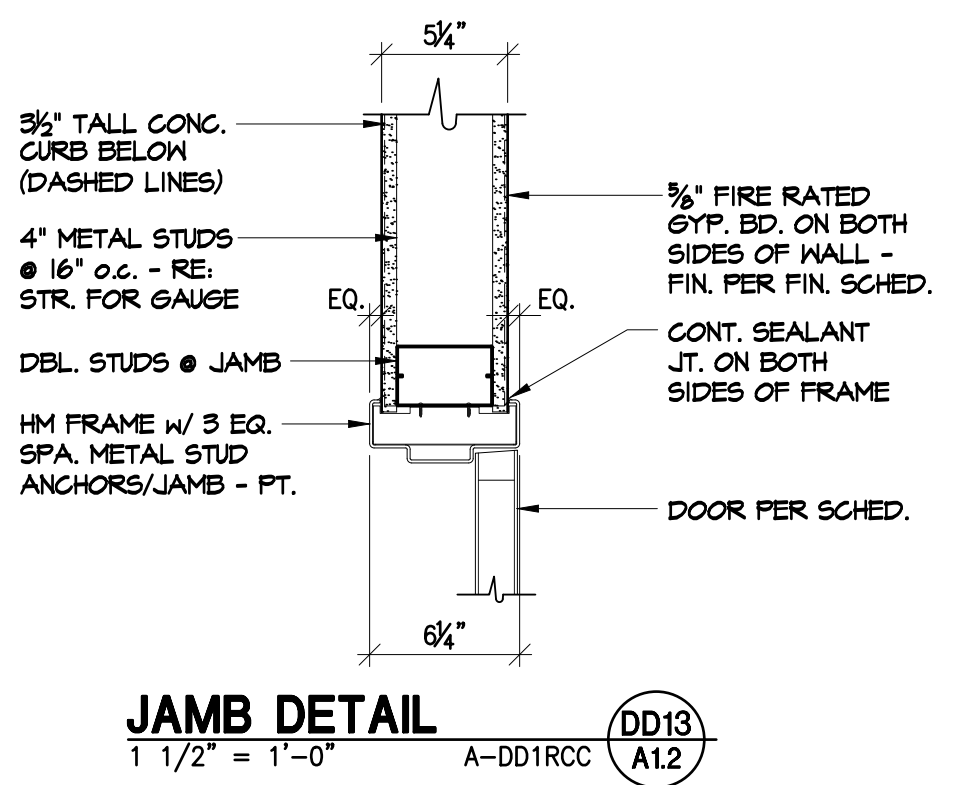
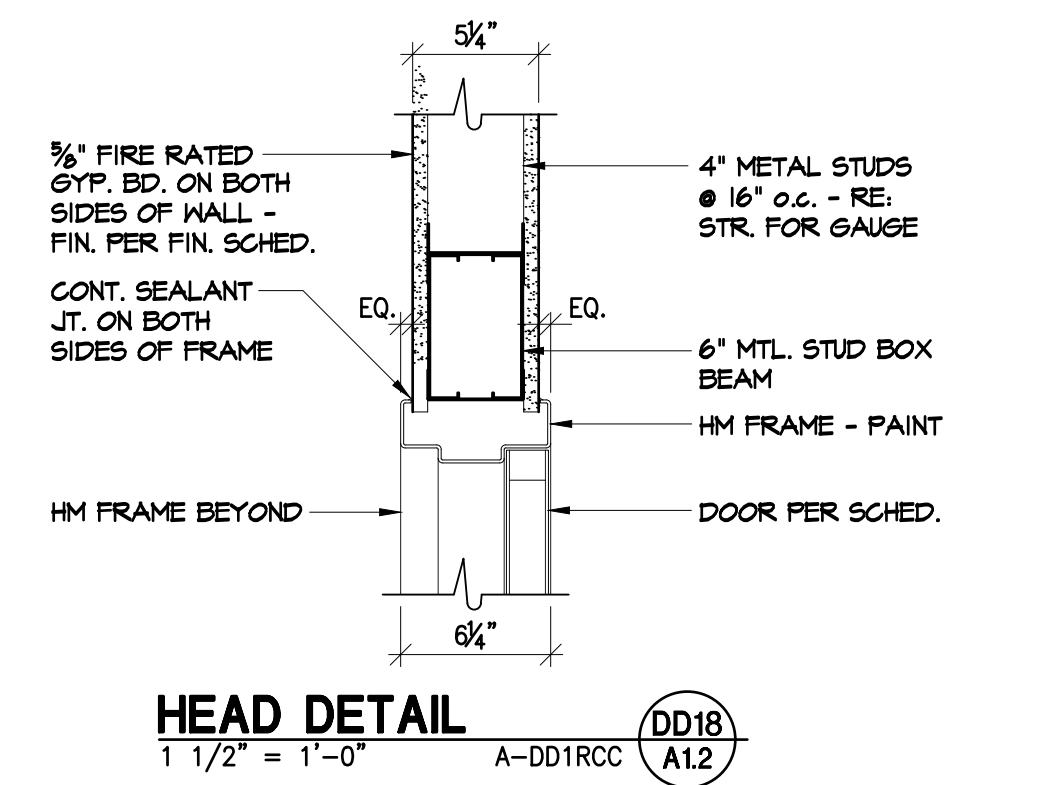


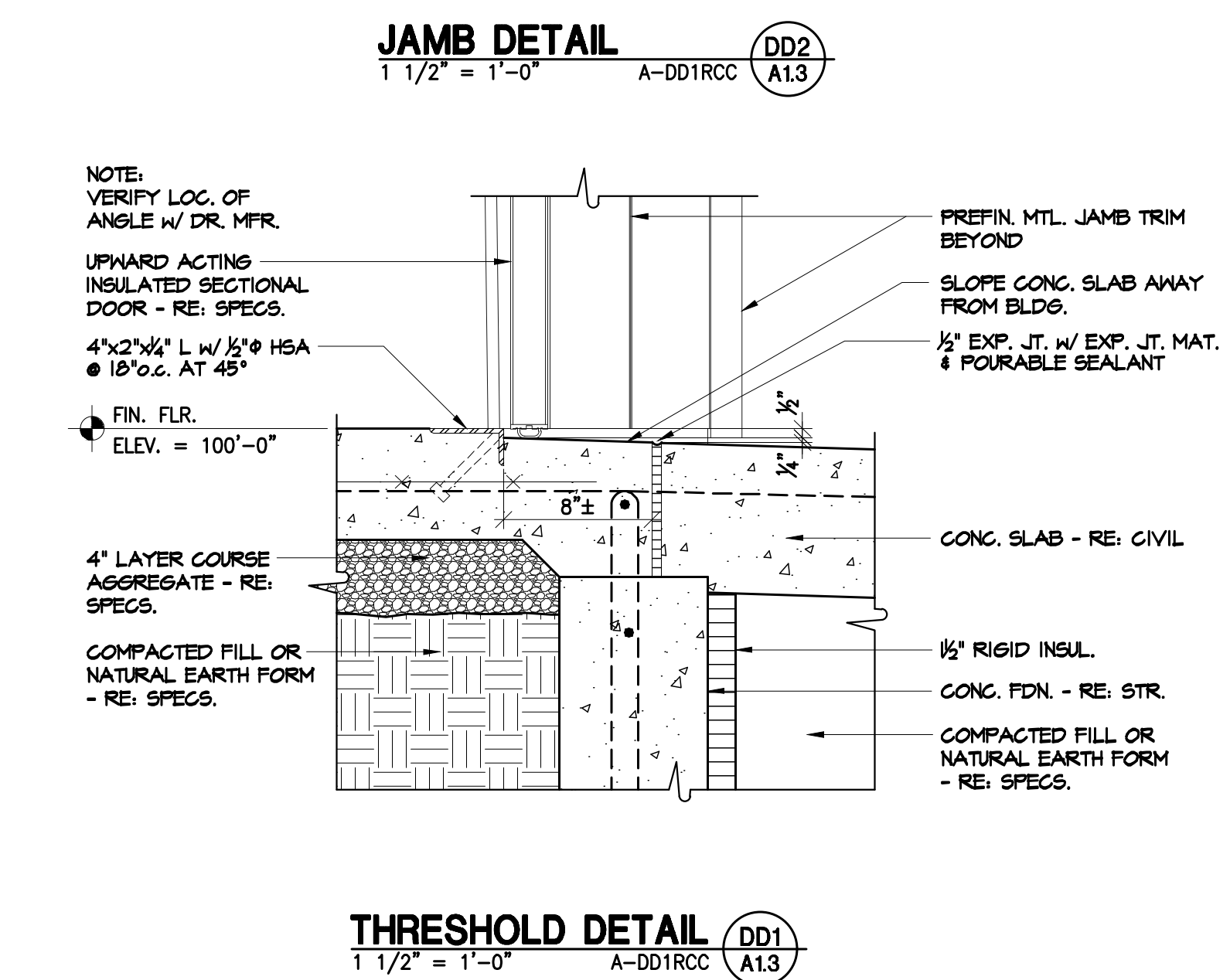
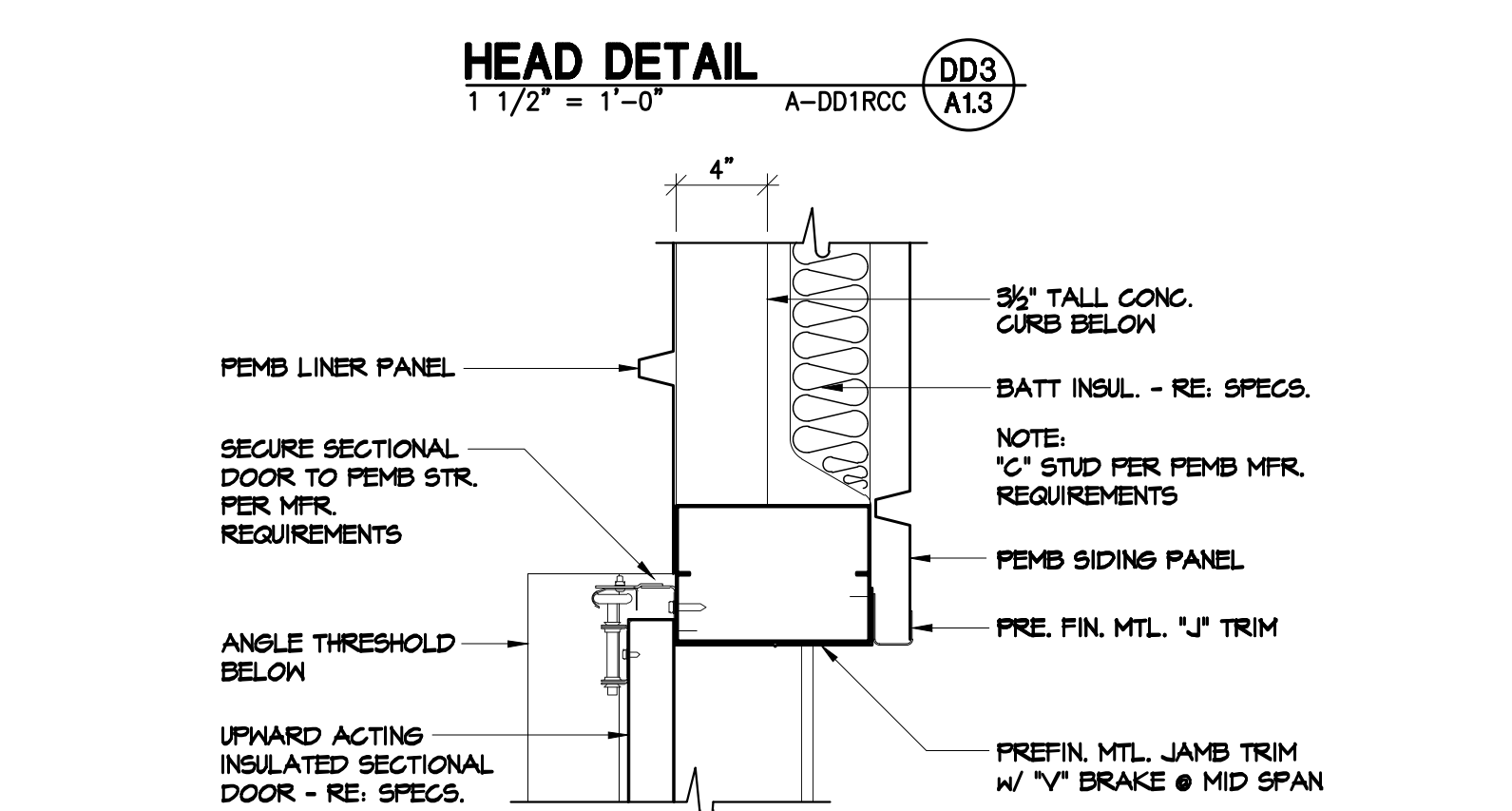
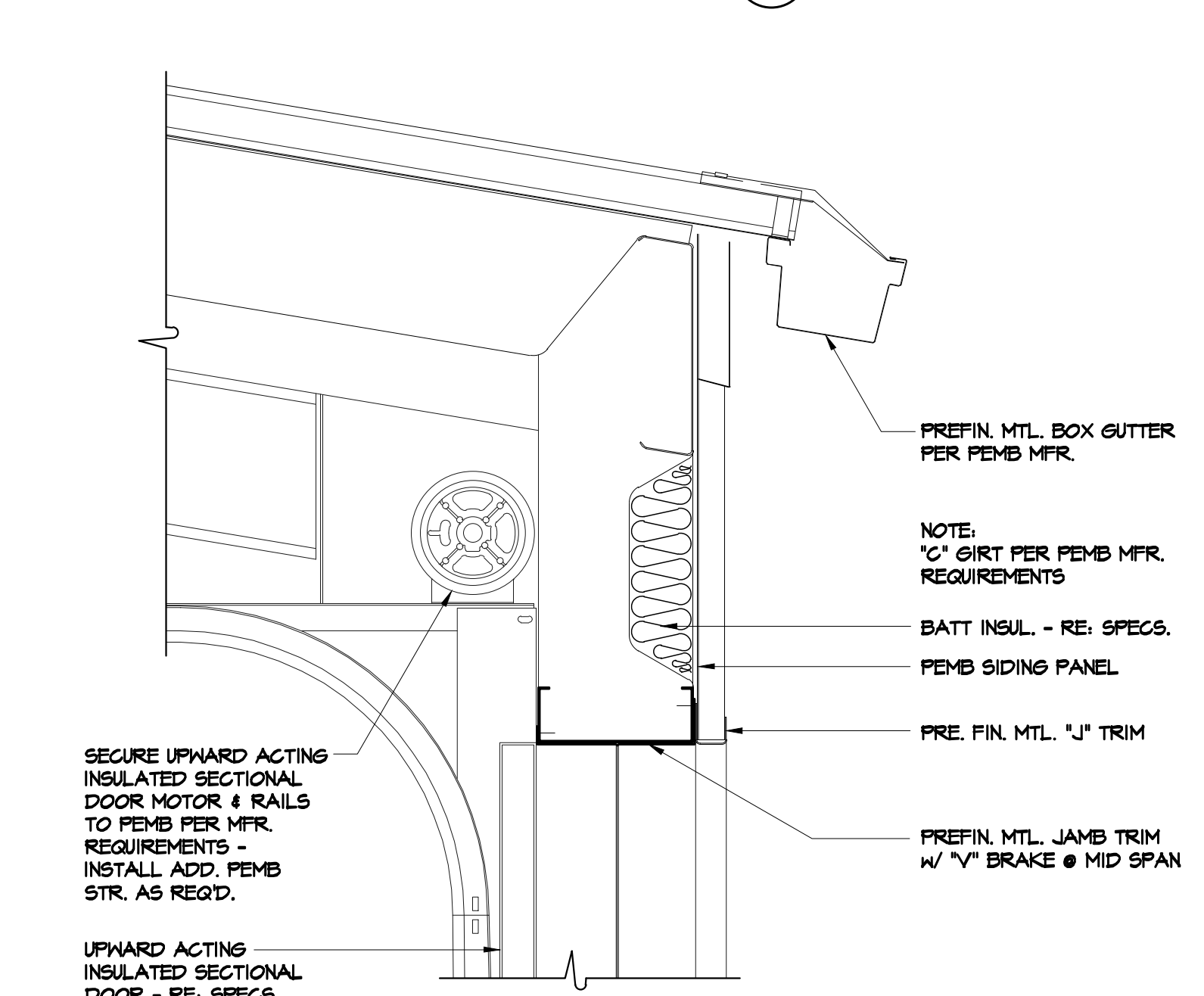
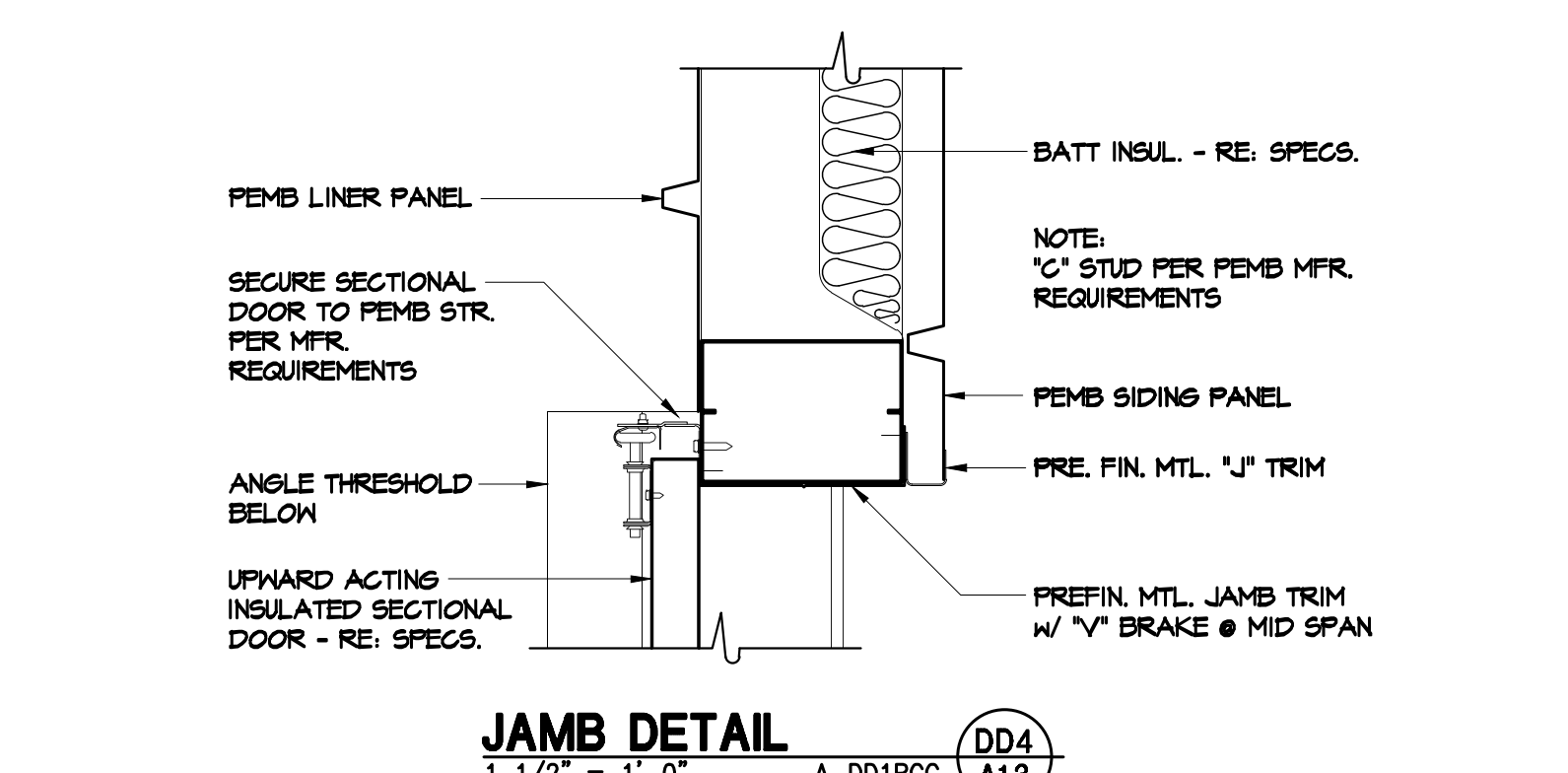
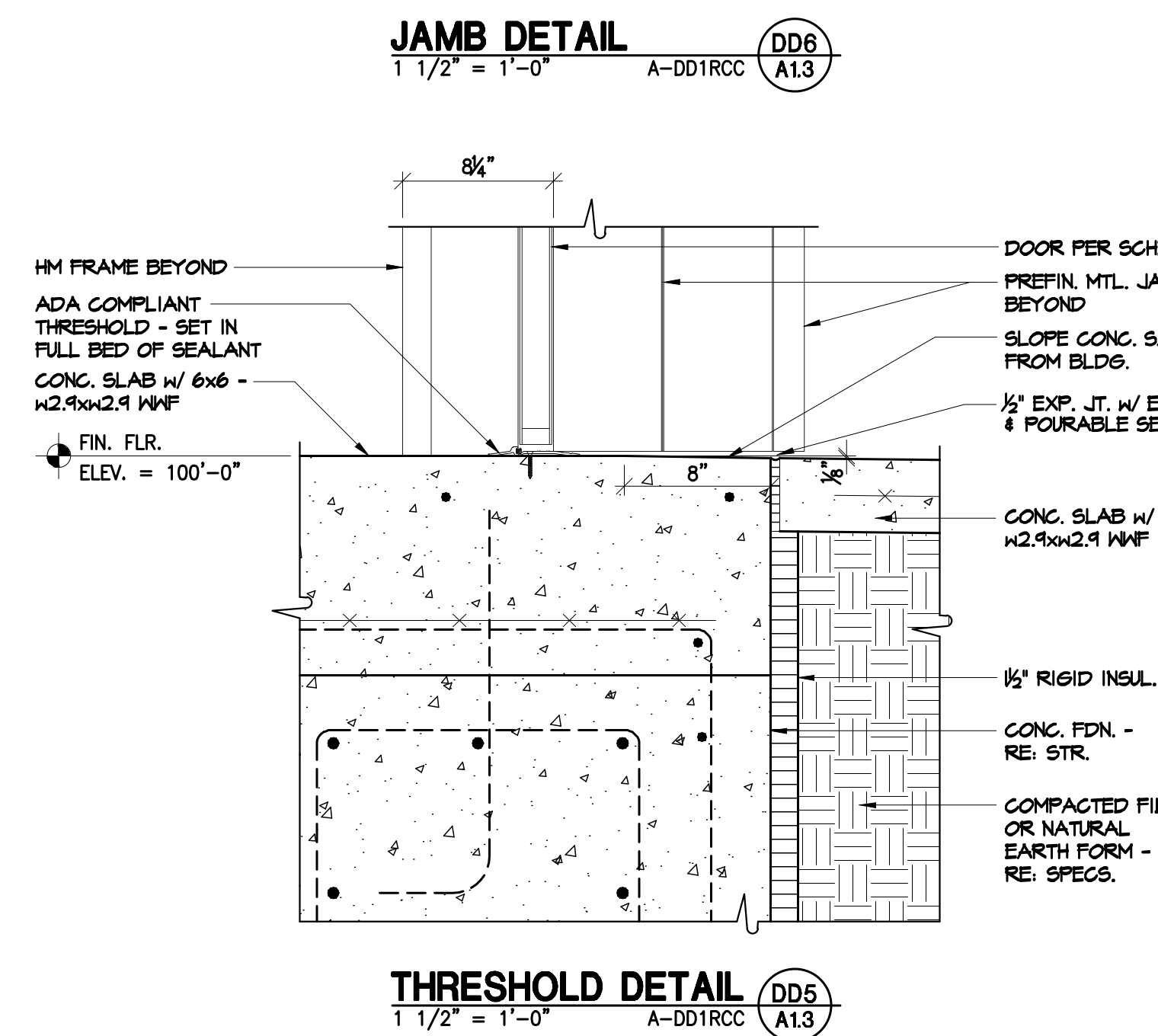
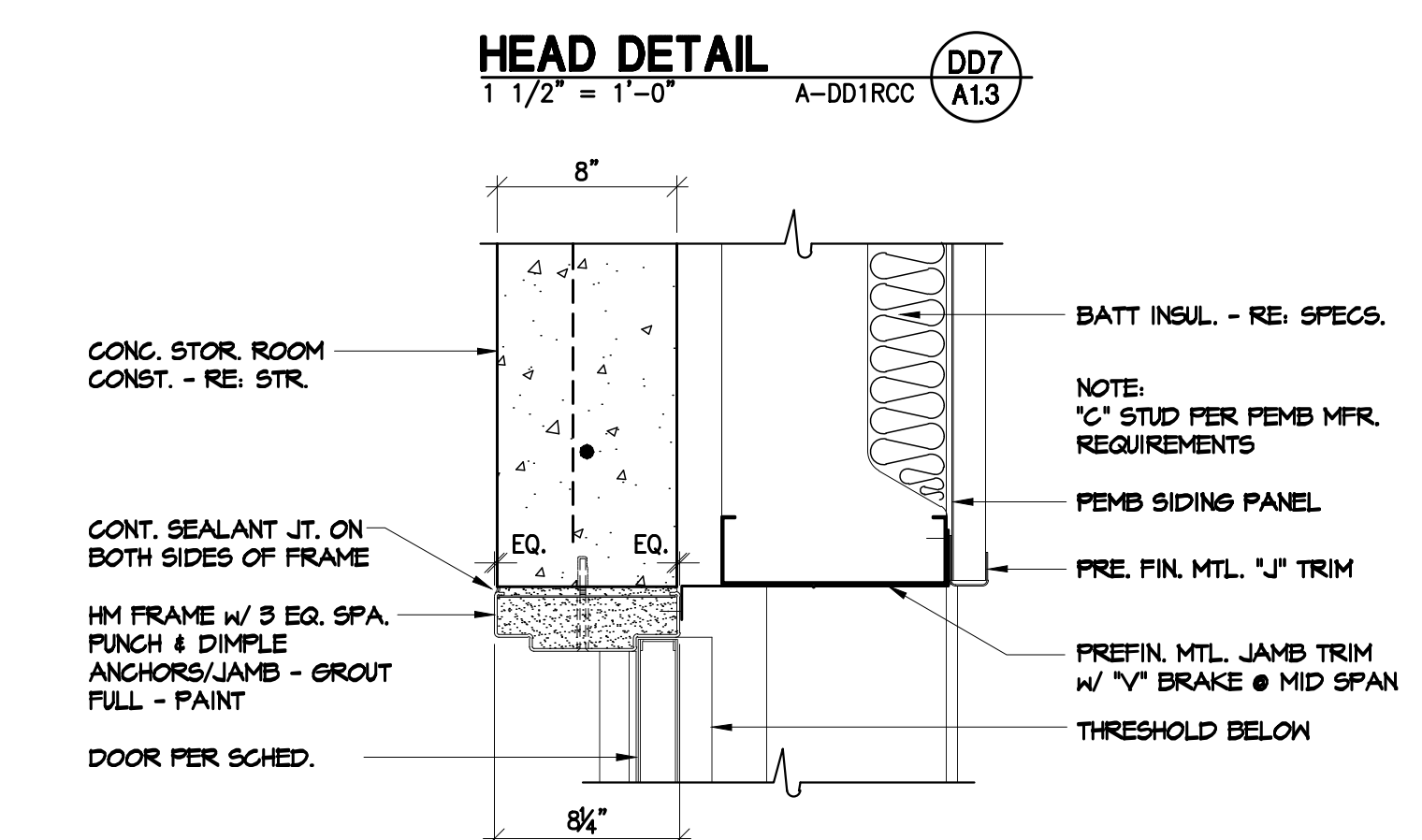
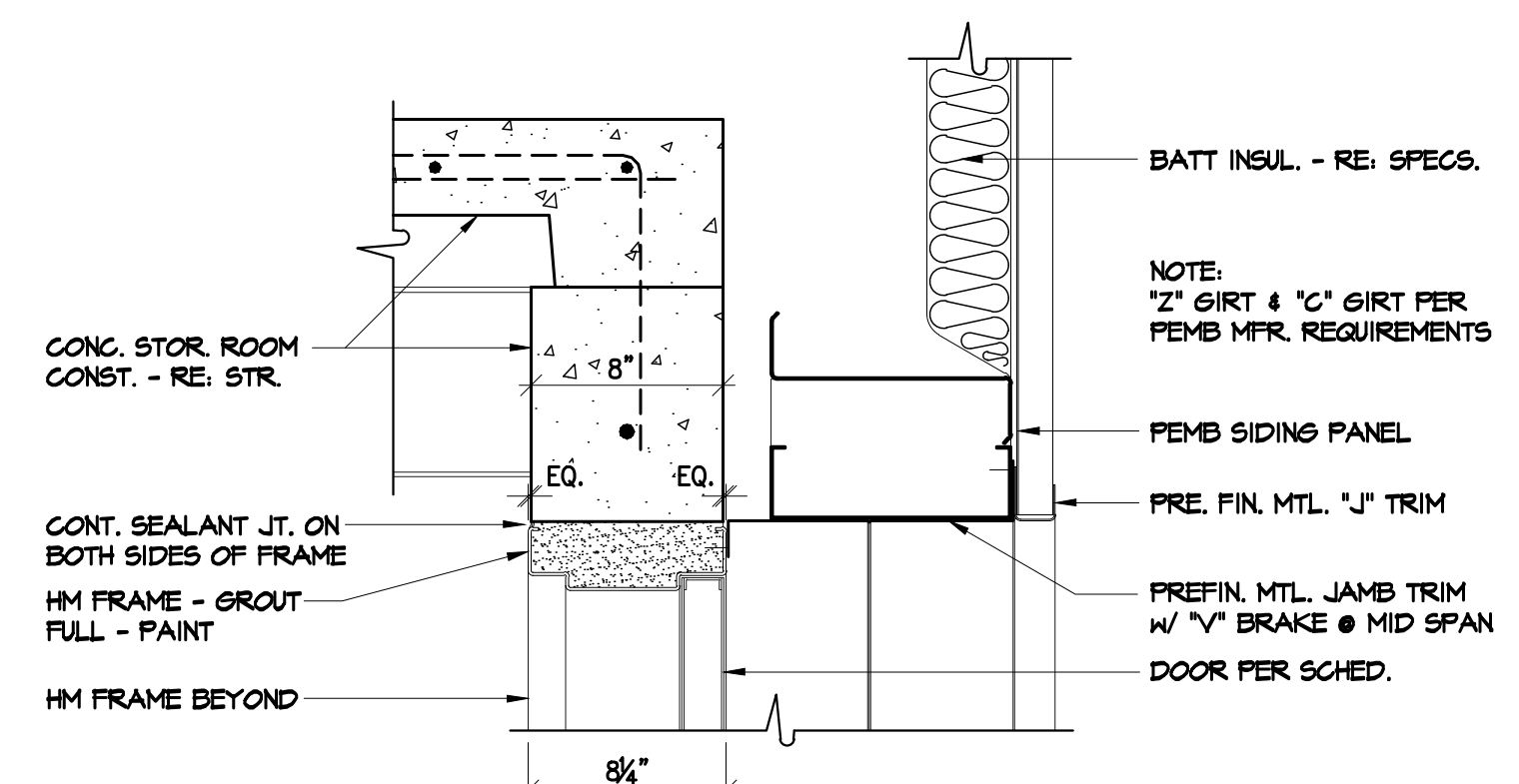
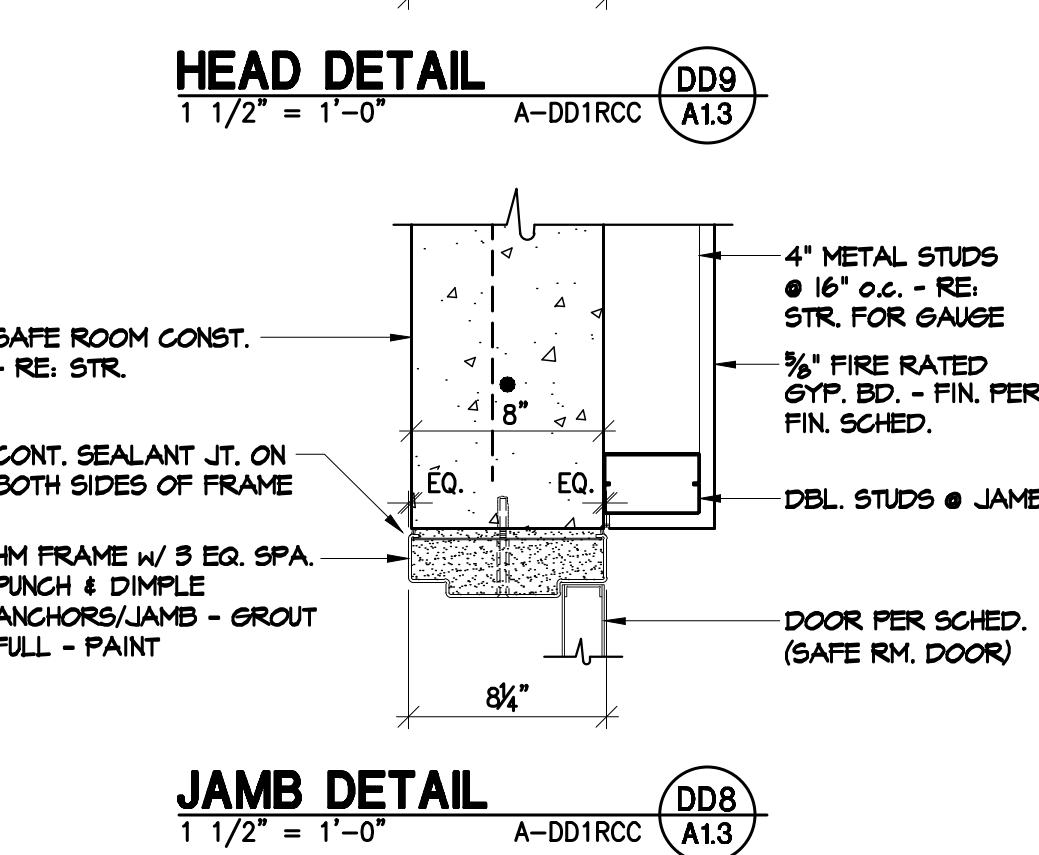
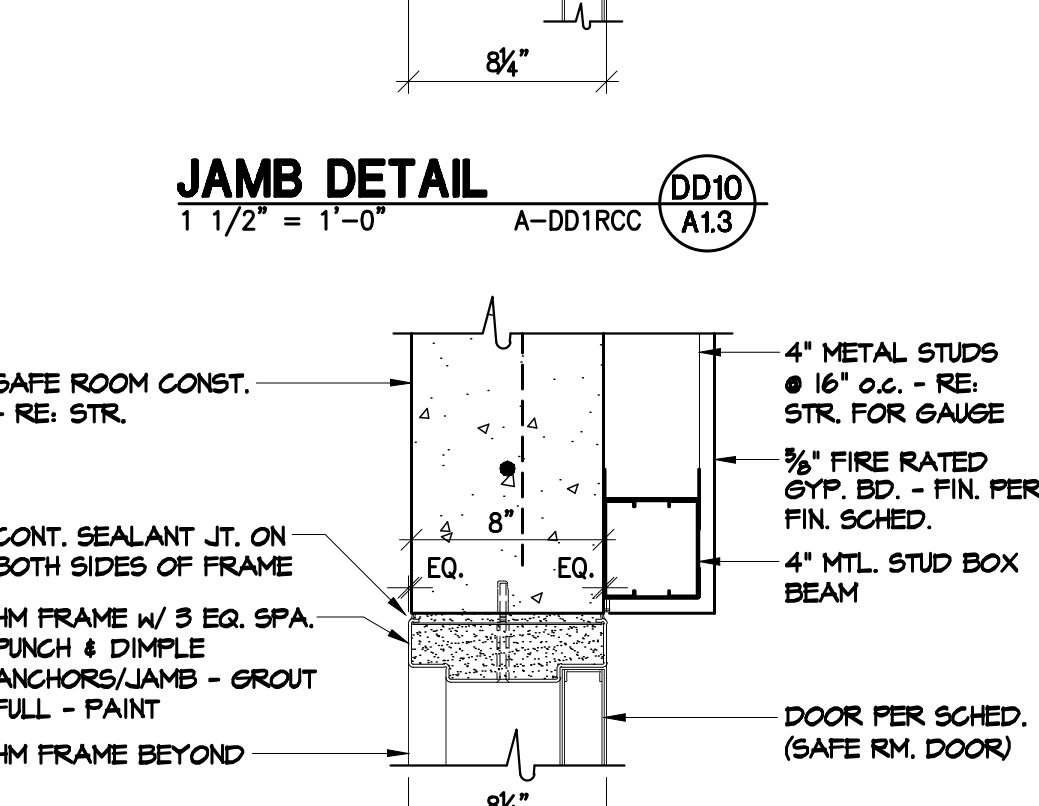
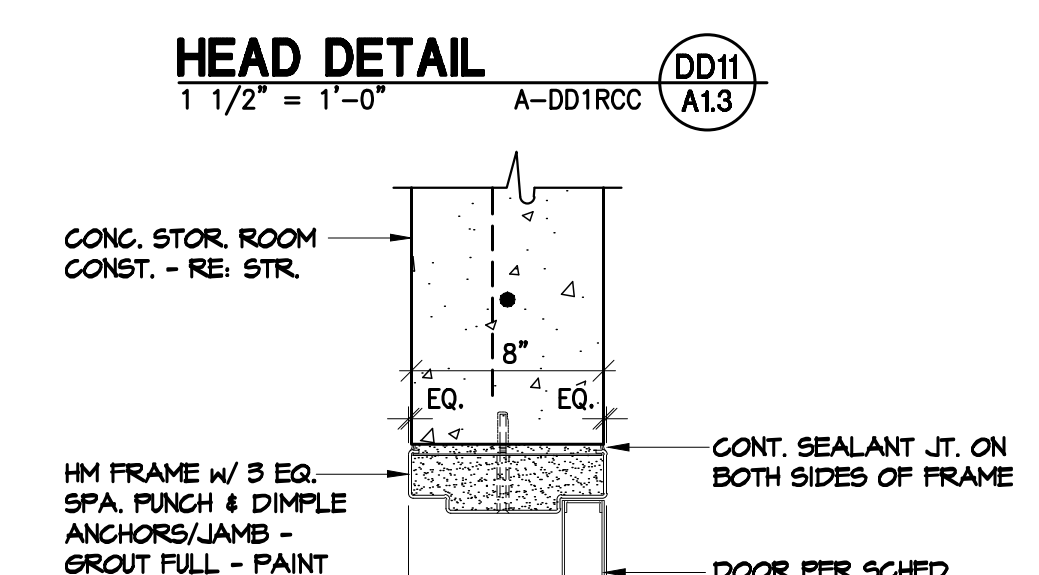
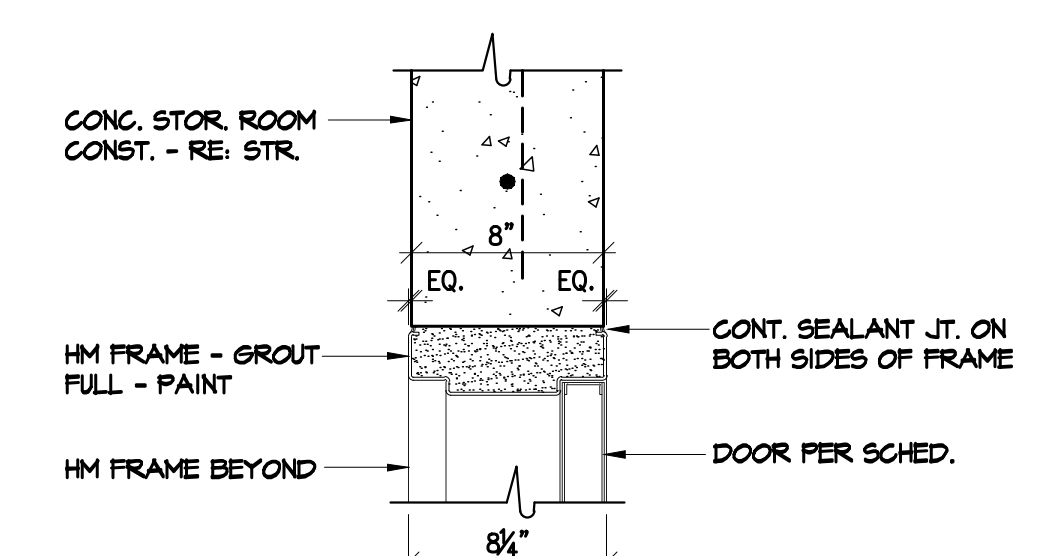
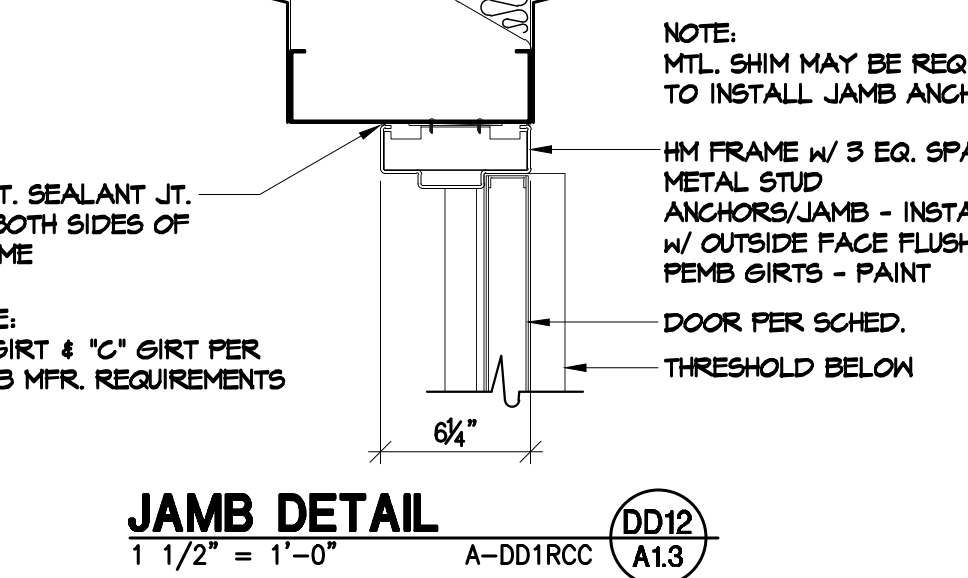
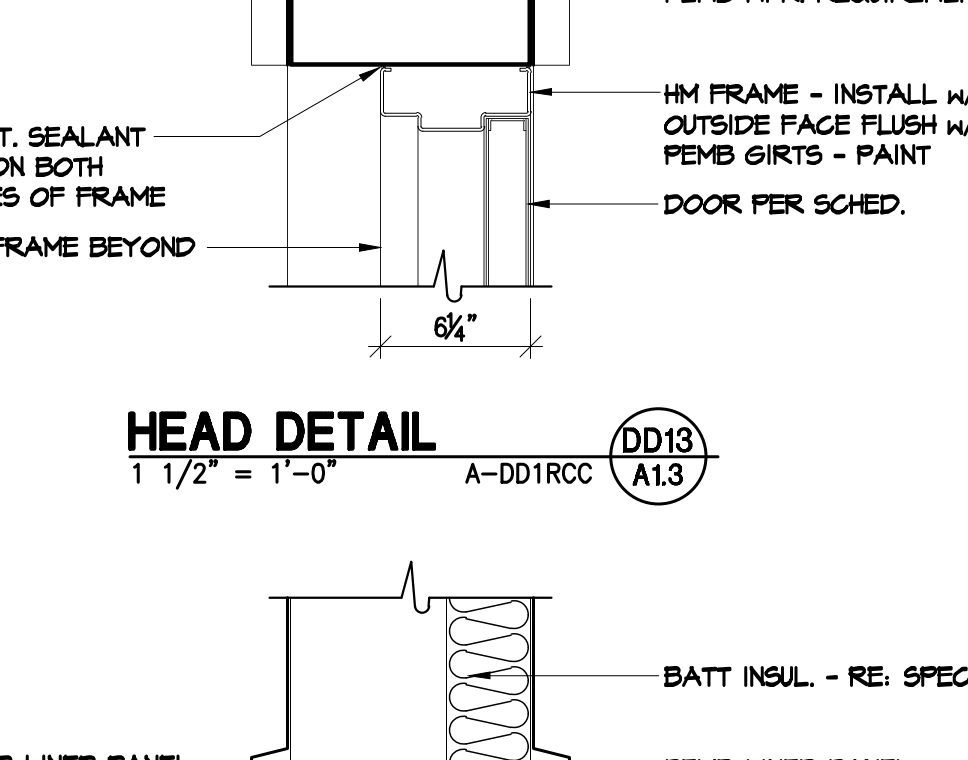
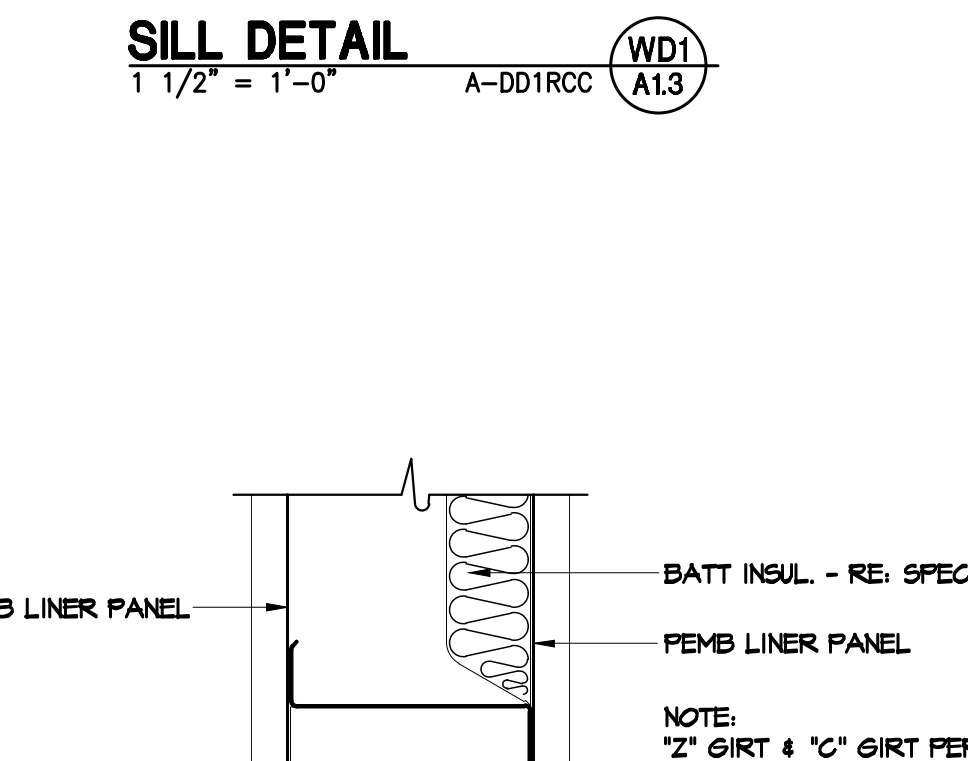
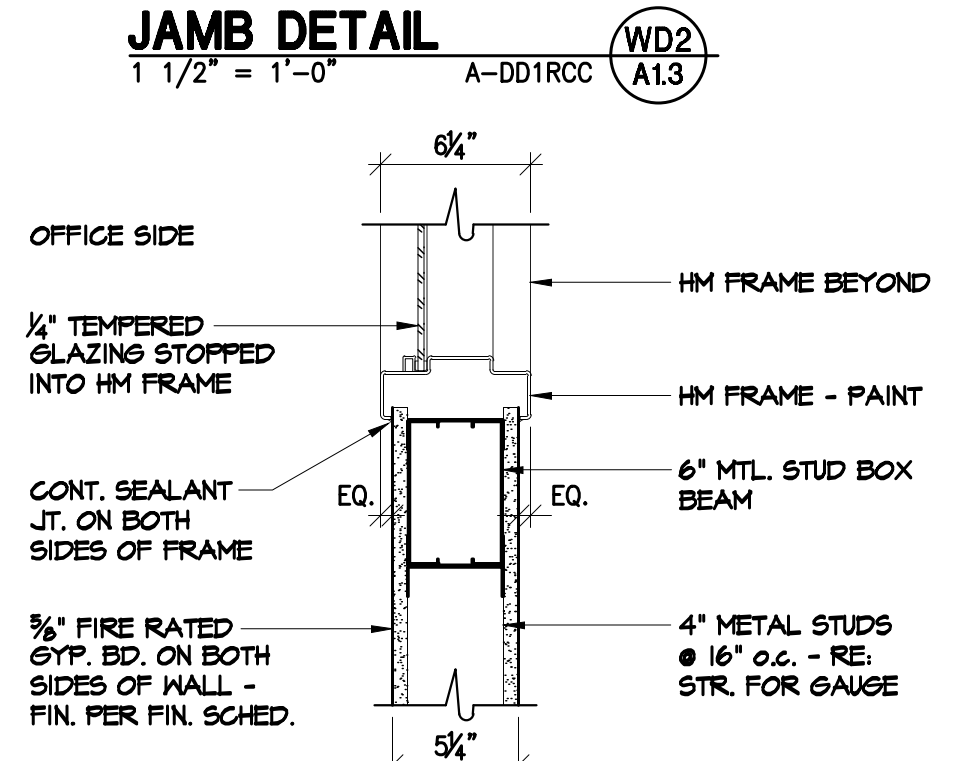
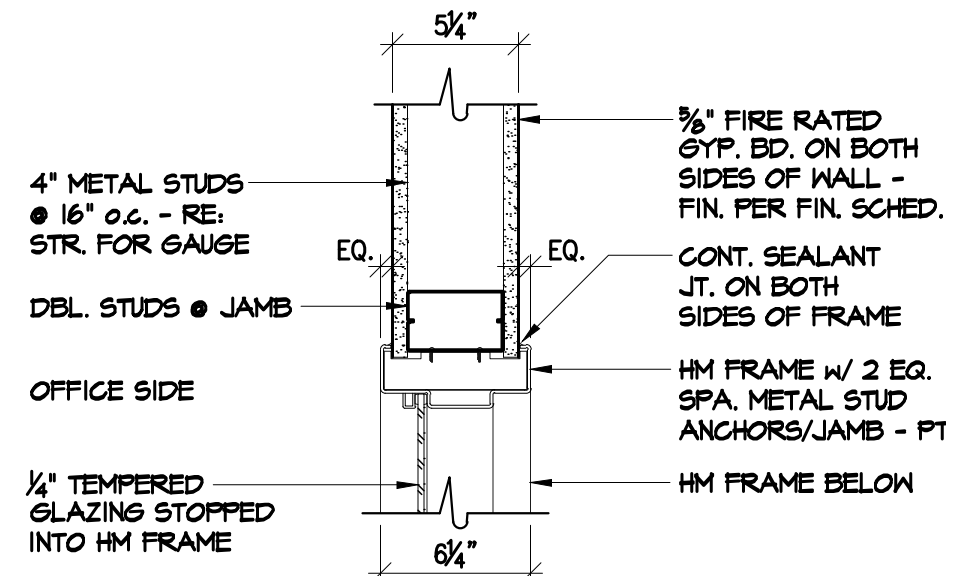
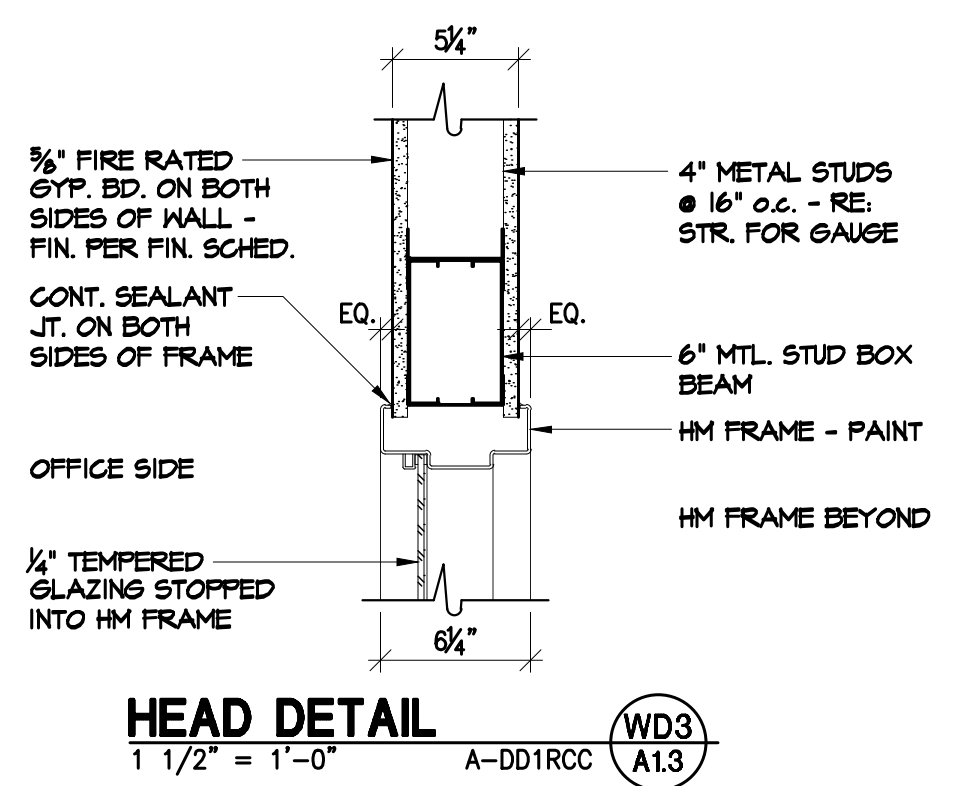
ds. LWS
 dr. JEH
 ck. LWS
 commission no. 2318.00
 prints tracings
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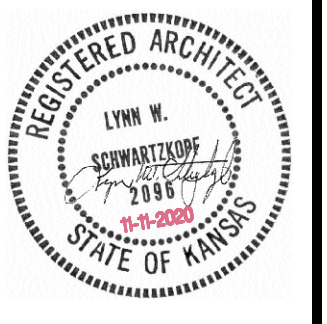
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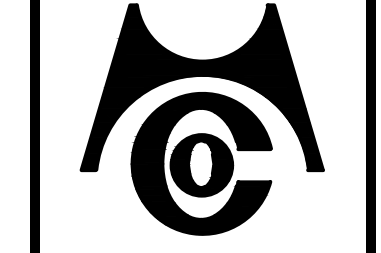


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 Hutchinson, KS 67502 620-662-4493

no. description date

revision

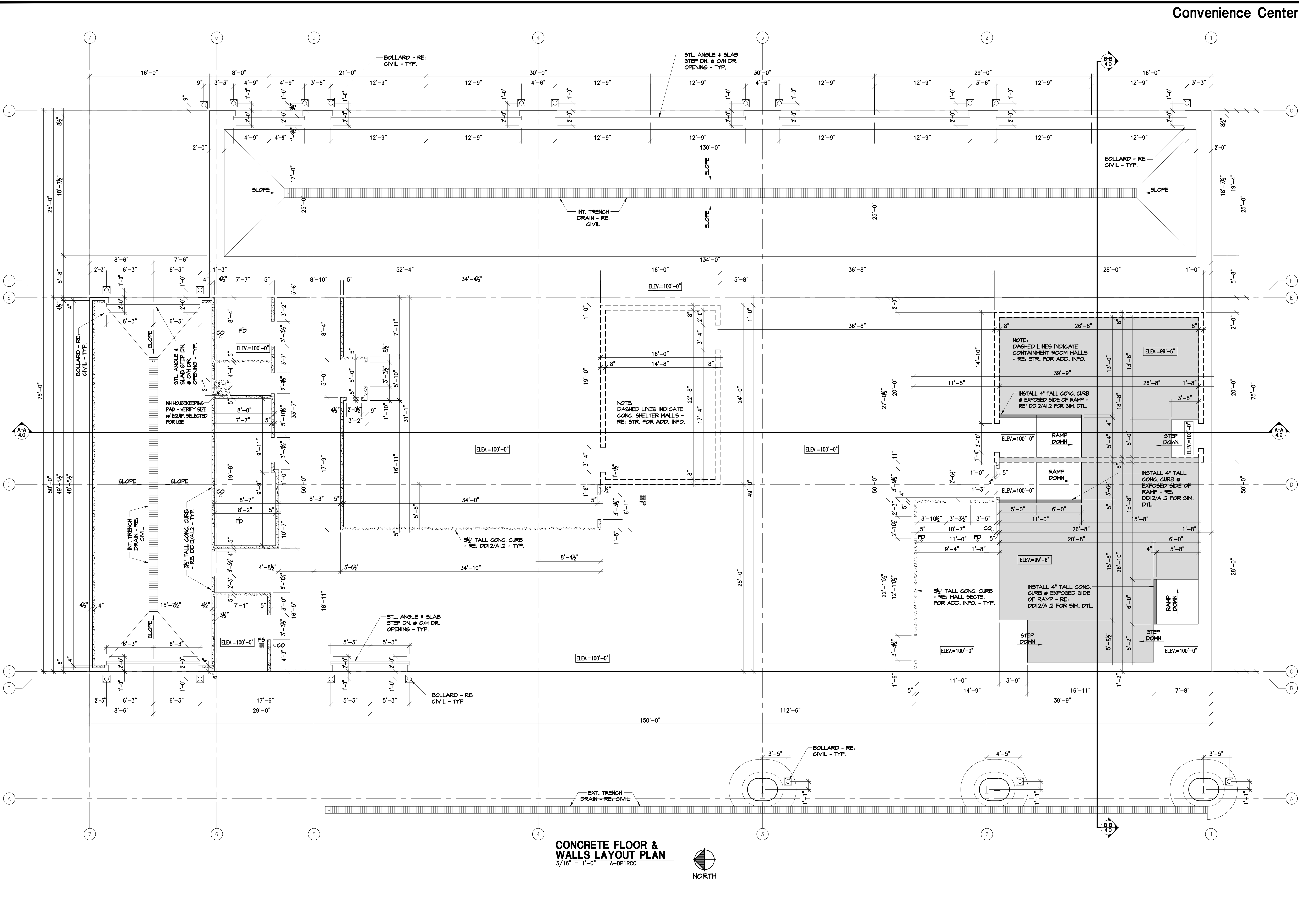
project title
CONCRETE FLOOR & Walls LAYOUT PLAN
 Reno Co. Landfill Entry Relocation Convenience Center
 703 South Mehawk Road
 Hutchinson, KS 67501



ds. LWS
 dr. JEH
 ck. LWS
 commission no. 231800
 prints tracings
 E-5 77

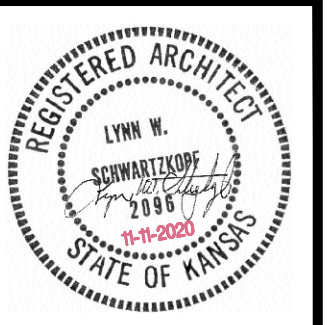
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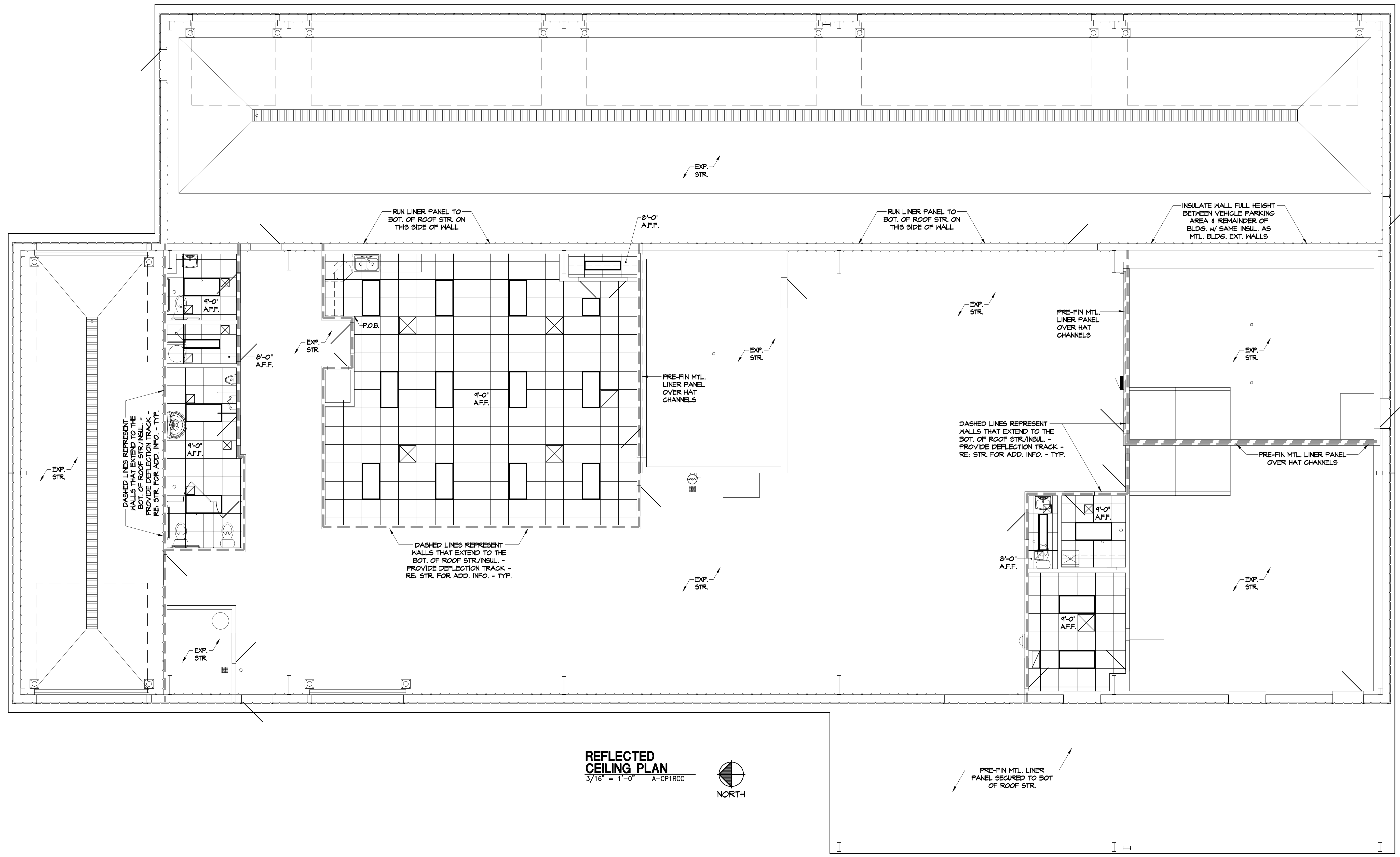
CONCRETE FLOOR & WALLS LAYOUT PLAN
 3/16" = 1'-0" A-DP1RCC





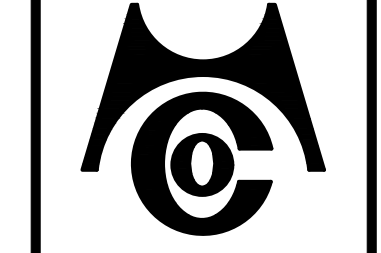
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 Hutchinson, KS 67502-4493

no.	description	date



REFLECTED CEILING PLAN
 3/16" = 1'-0" A-CPTGCC
 NORTH

revision	project	title
	Reno Co. Landfill Entry Relocation Convenience Center 703 South Mehawk Road Hutchinson, KS 67501	REFLECTED CEILING PLAN

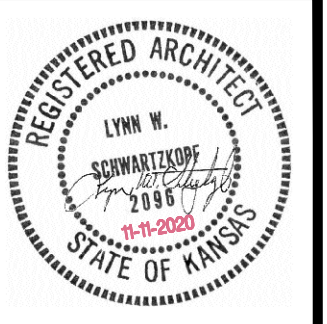


ds.	LWS
dr.	JEH
ck.	LWS
commission no.	2318.00
prints	tracings
E-5	77

- GENERAL CEILING PLAN NOTES**
- CENTER ALL LAY-IN CEILINGS IN ROOM OR BEGIN LAYOUT FROM LOCATION INDICATED ON THE DRAWING AS P.O.B. (POINT OF BEGINNING) - RE: DIMS. SHOWN ON PLAN FOR ADD. INFO.
 - CONTRACTOR SHALL COORDINATE ALL MECH. & ELEC. WORK AS REQD. TO COMPLETE INSTALLATION OF THE CEILING SYSTEM - NOTIFY ARCHITECT IF CONDITIONS REQUIRE CHANGES FROM WORK INDICATED ON THE DRAWINGS & APPROVE CHANGES W/ THE ARCHITECT

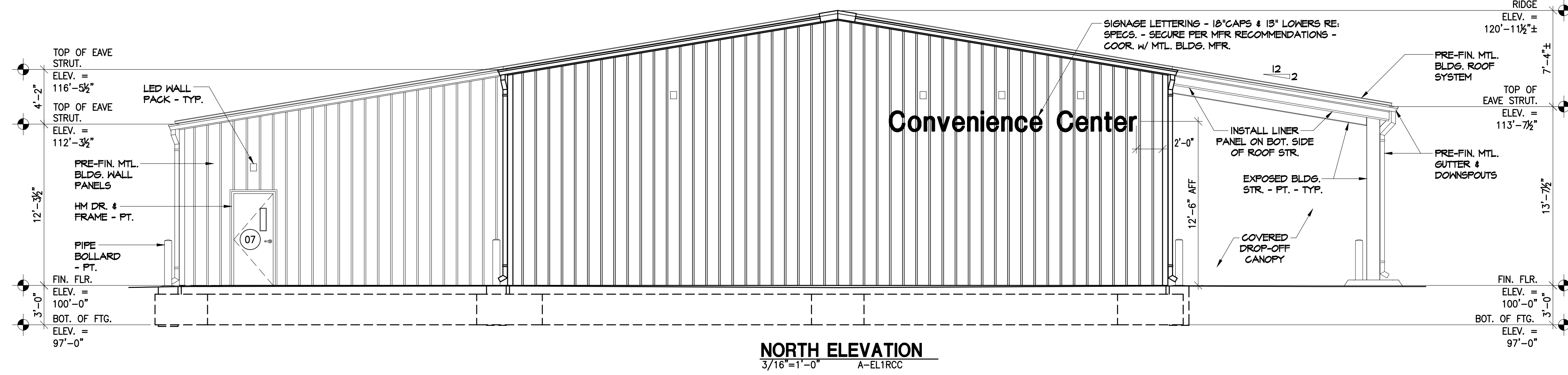
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of	
date	Nov. 11, 2020

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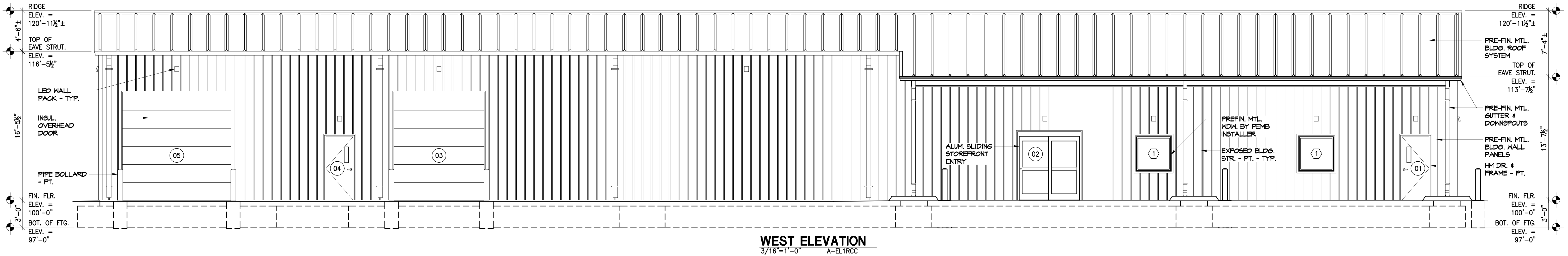


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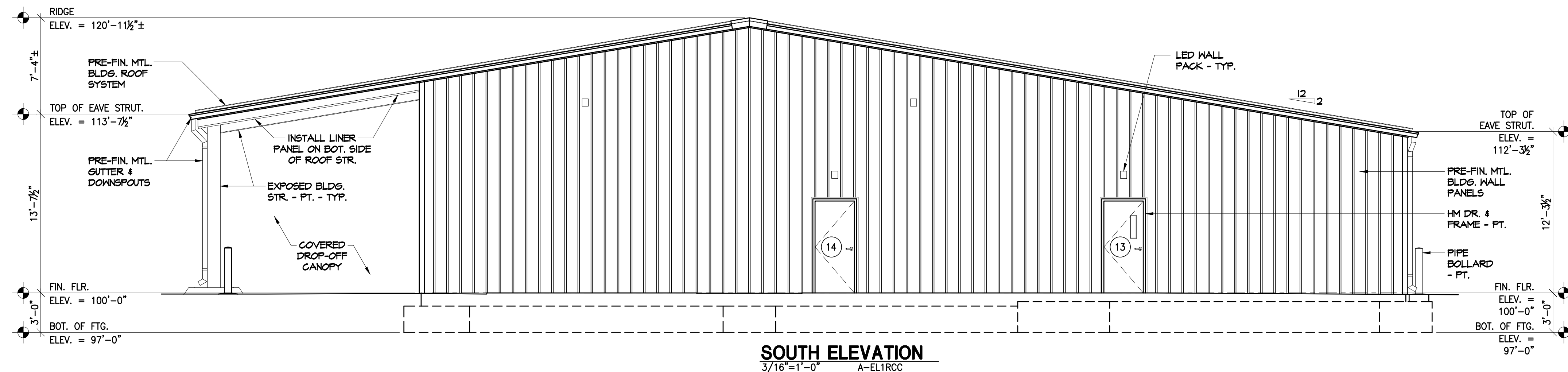
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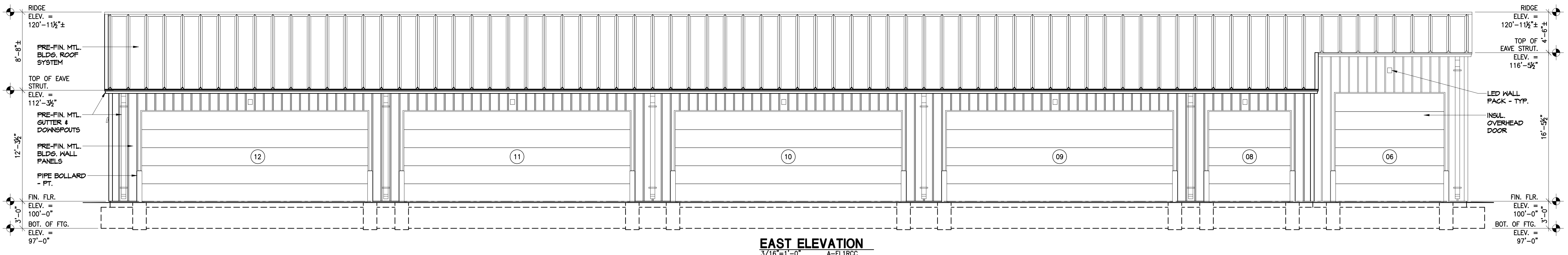
NORTH ELEVATION
 3/16"=1'-0" A-EL1RCC



WEST ELEVATION
 3/16"=1'-0" A-EL1RCC



SOUTH ELEVATION
 3/16"=1'-0" A-EL1RCC

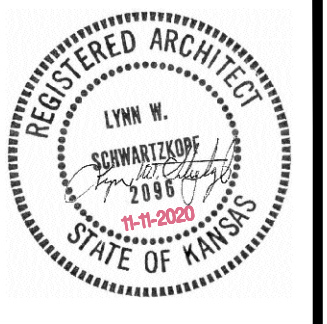


EAST ELEVATION
 3/16"=1'-0" A-EL1RCC

no.	description	date

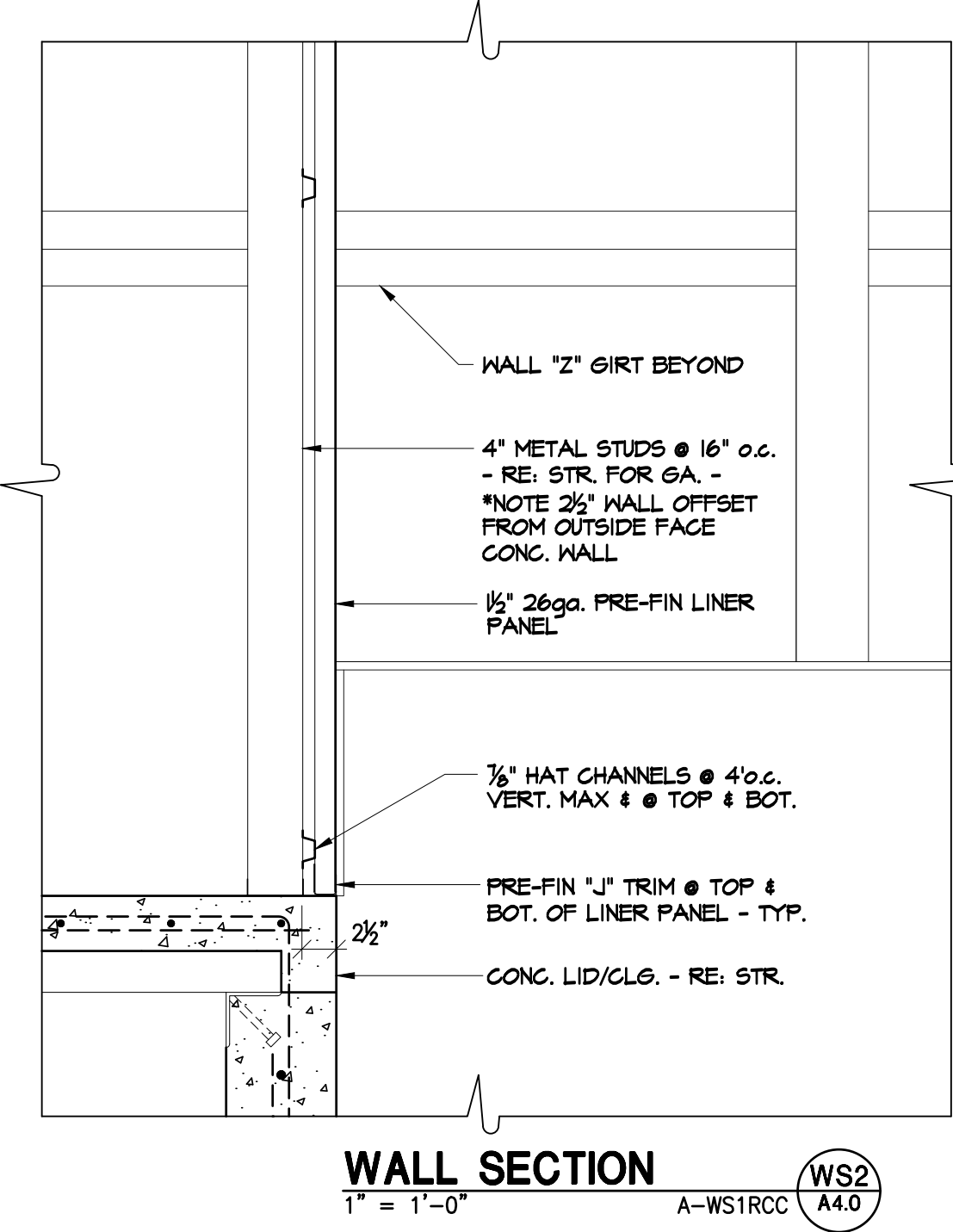
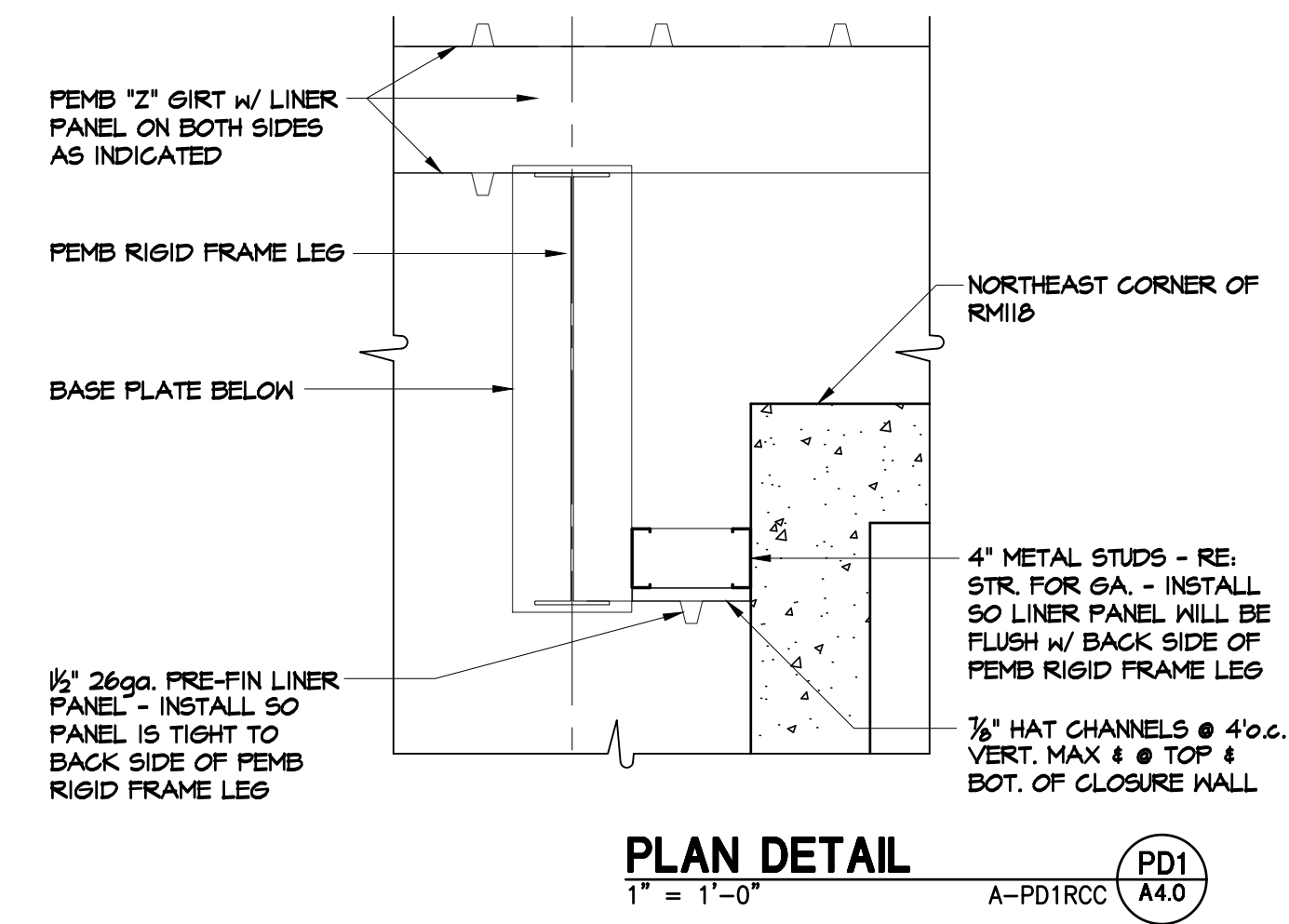
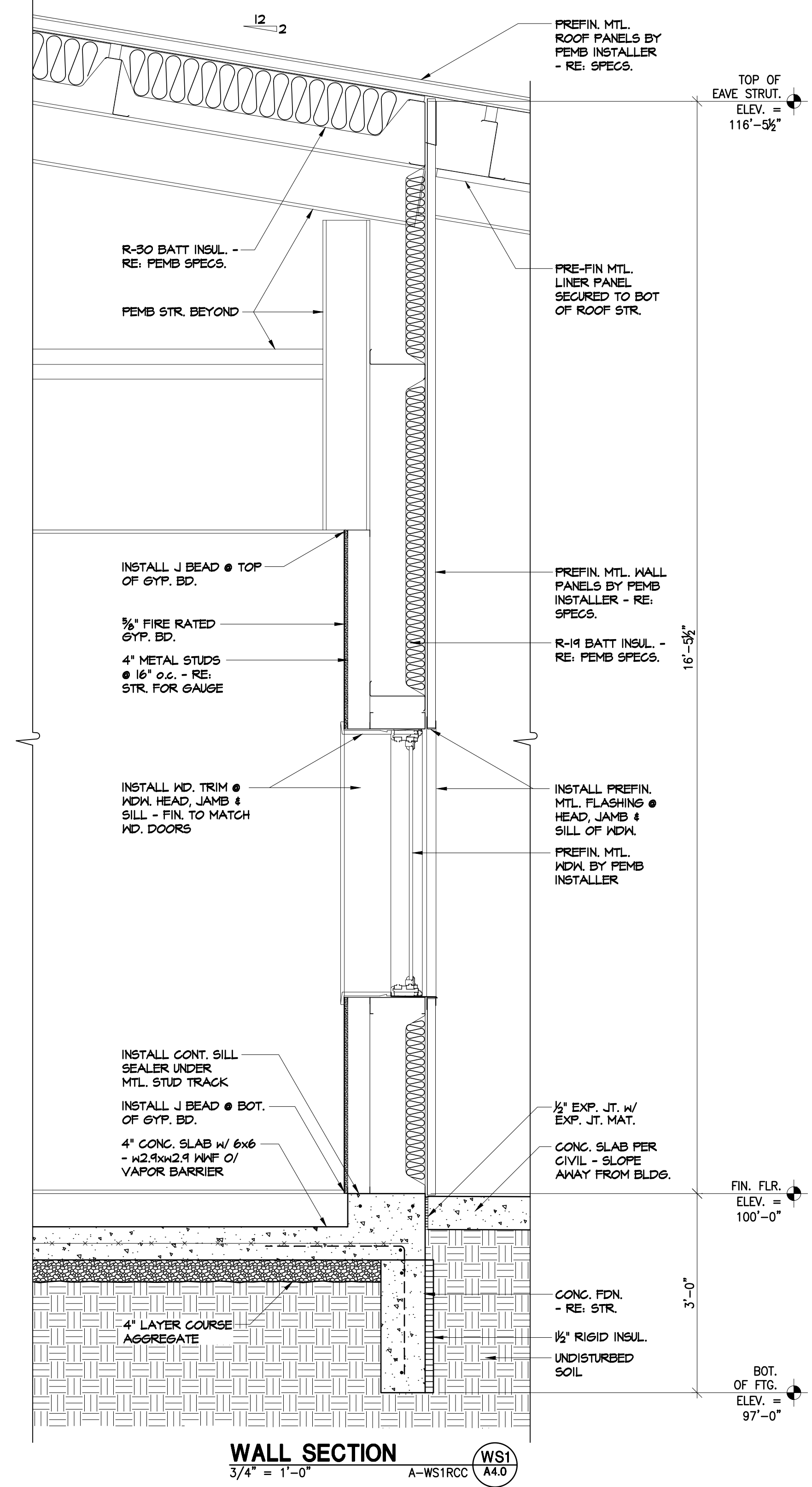
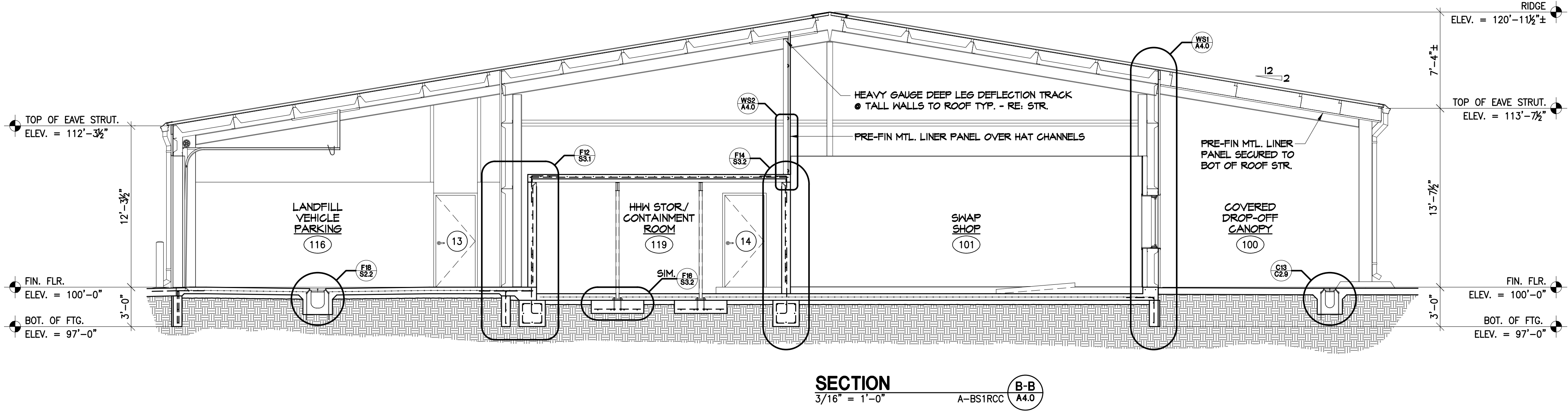
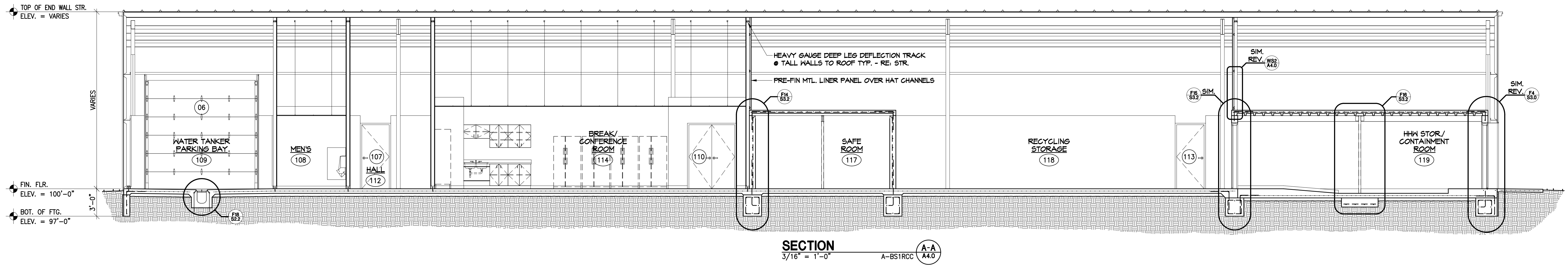
revision	project	title
	Reno Co. Landfill Entry Relocation Convenience Center	708 South Mehawk Road Hutchinson, KS 67501

ds.	LWS
dr.	JEH
ck.	LWS
commission no.	2318.00
prints	77
E-5	Tracings
sheet	A3.0
of	
date	Nov. 11, 2020



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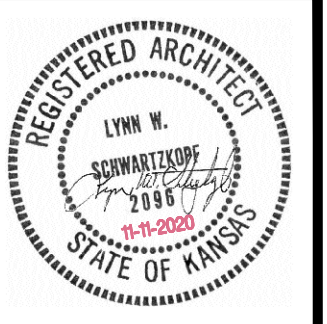
BUILDING & WALL SECTIONS & DTLS
 title

project
 Reno Co. Landfill Entry Relocation Convenience Center
 703 South Mehawk Road
 Hutchinson, KS 67501

ds. LWS
 dr. JEH
 ck. LWS
 commission no. 2318.00
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sheet
A4.0
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date
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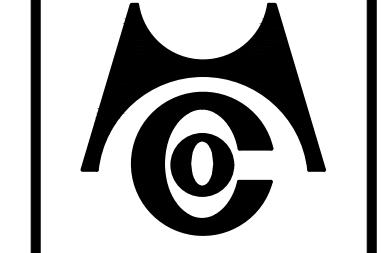
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revision

ENLARGED PLANS & INTERIOR ELEVS. title

project

Reno Co. Landfill Entry Relocation
 Convenience Center
 703 South Mehawk Road
 Hutchinson, KS 67501



ds. LWS
 dr. JEH
 ck. LWS
 commission no. 2318.00
 prints tracings
 E-5 77

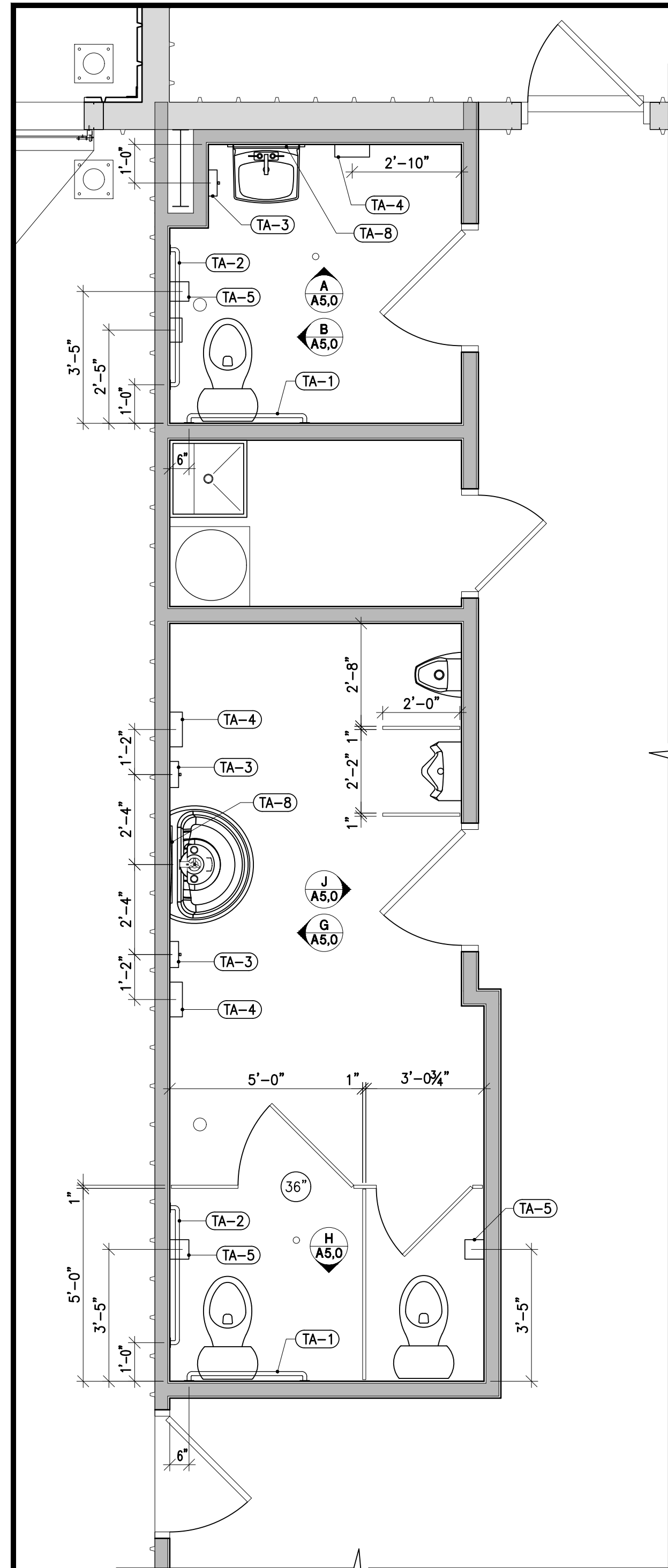
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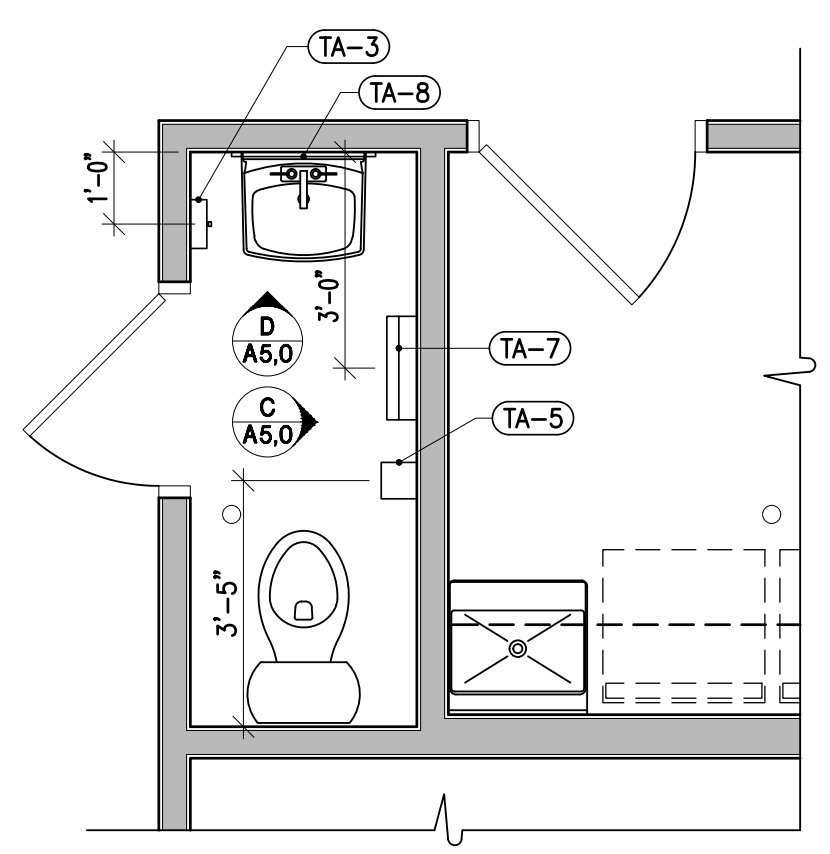
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TOILET ACCESSORIES SCHEDULE				
MK	DESCRIPTION	MODEL	MOUNTING	NOTES
TA-1	36" GRAB BAR	B-6806 x 36"	SURFACE	1 1/2" w/ CONCEALED MTG.
TA-2	42" GRAB BAR	B-6806 x 42"	SURFACE	1 1/2" w/ CONCEALED MTG.
TA-3	SOAP DISPENSER	B-2112	SURFACE	
TA-4	PAPER TOWEL DISPENSER	B-262	SURFACE	
TA-5	TOILET PAPER HOLDER	B-2888	SURFACE	
TA-6	FEMININE NAPKIN DISPOSAL	B-270	SURFACE	
TA-7	RECESSED PAPER TOWEL DISP. & WASTE RECEPTACLE	B-43944	SEMI RECESSED	
TA-8	24"x48" MIRROR	B-290 2448	SURFACE	WELDED FRAME

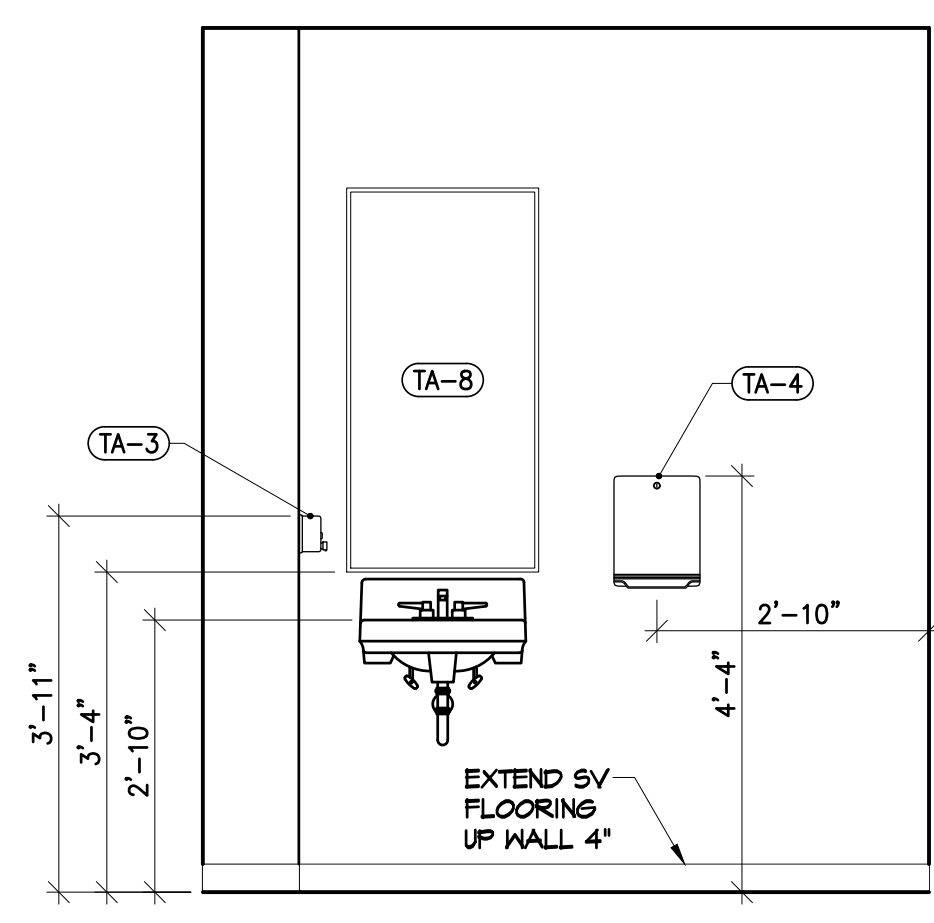
ALL MODEL NUMBERS ARE FROM BOBRICK
 MOUNT ALL ITEMS AT MFG'S RECOMMENDED HEIGHT AS REQUIRED FOR ADA ACCESSIBILITY
 PROVIDE ADEQUATE BLOCKING IN WALLS AS REQUIRED FOR ALL ITEMS



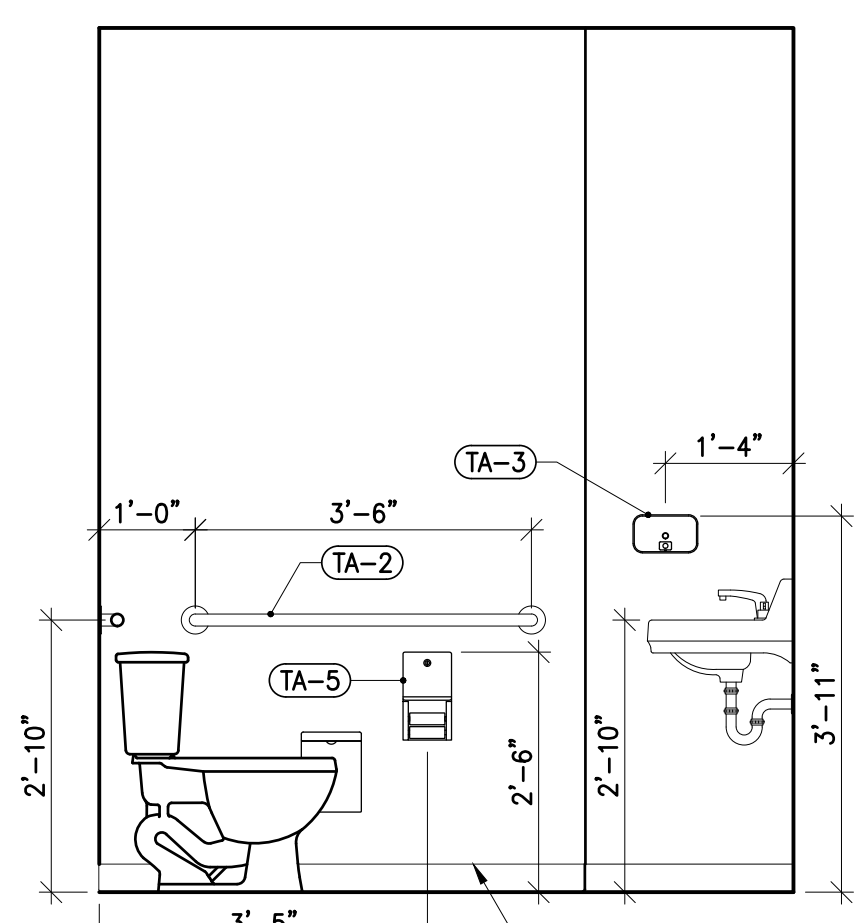
ENLARGED PLAN EP1
 3/8" = 1'-0" I-EL1RCC A5.0



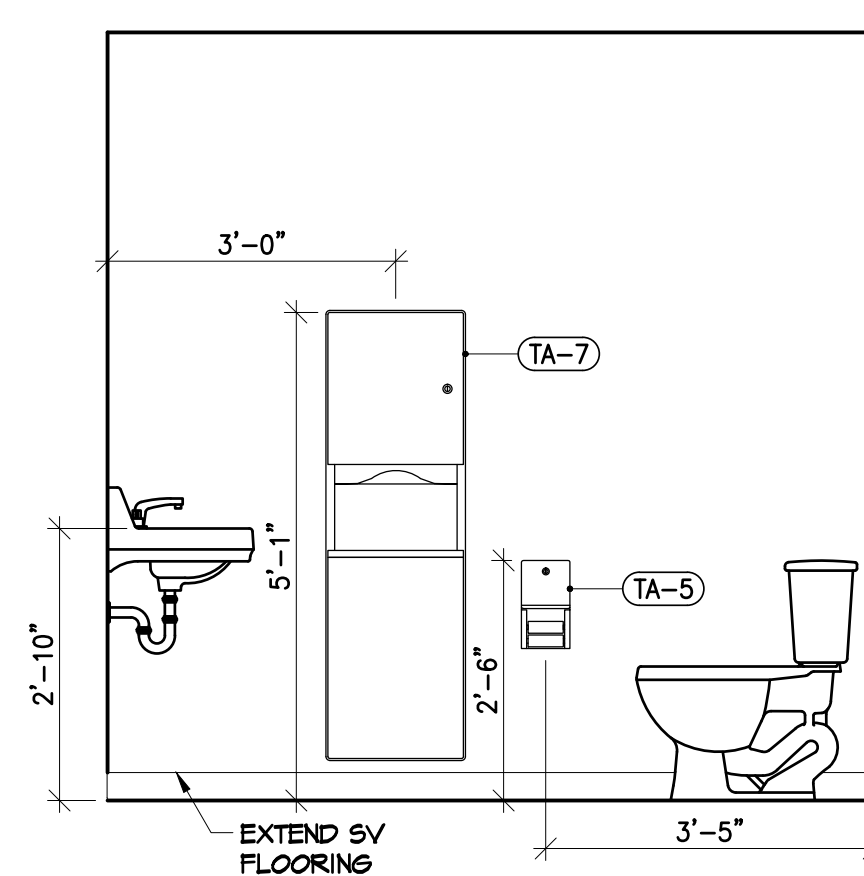
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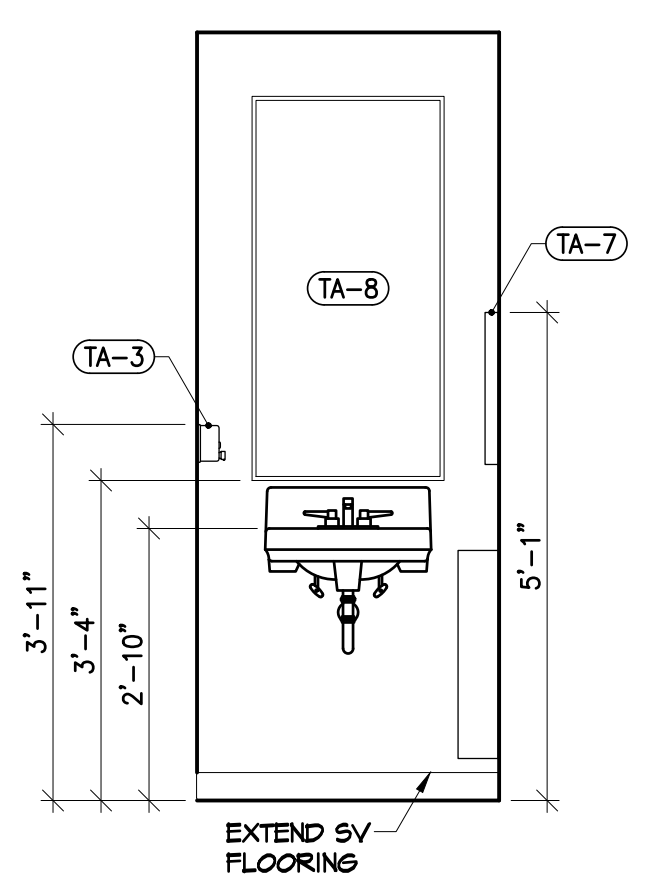
WOMEN'S ELEV. A
 1/2" = 1'-0" I-EL1RCC A5.0



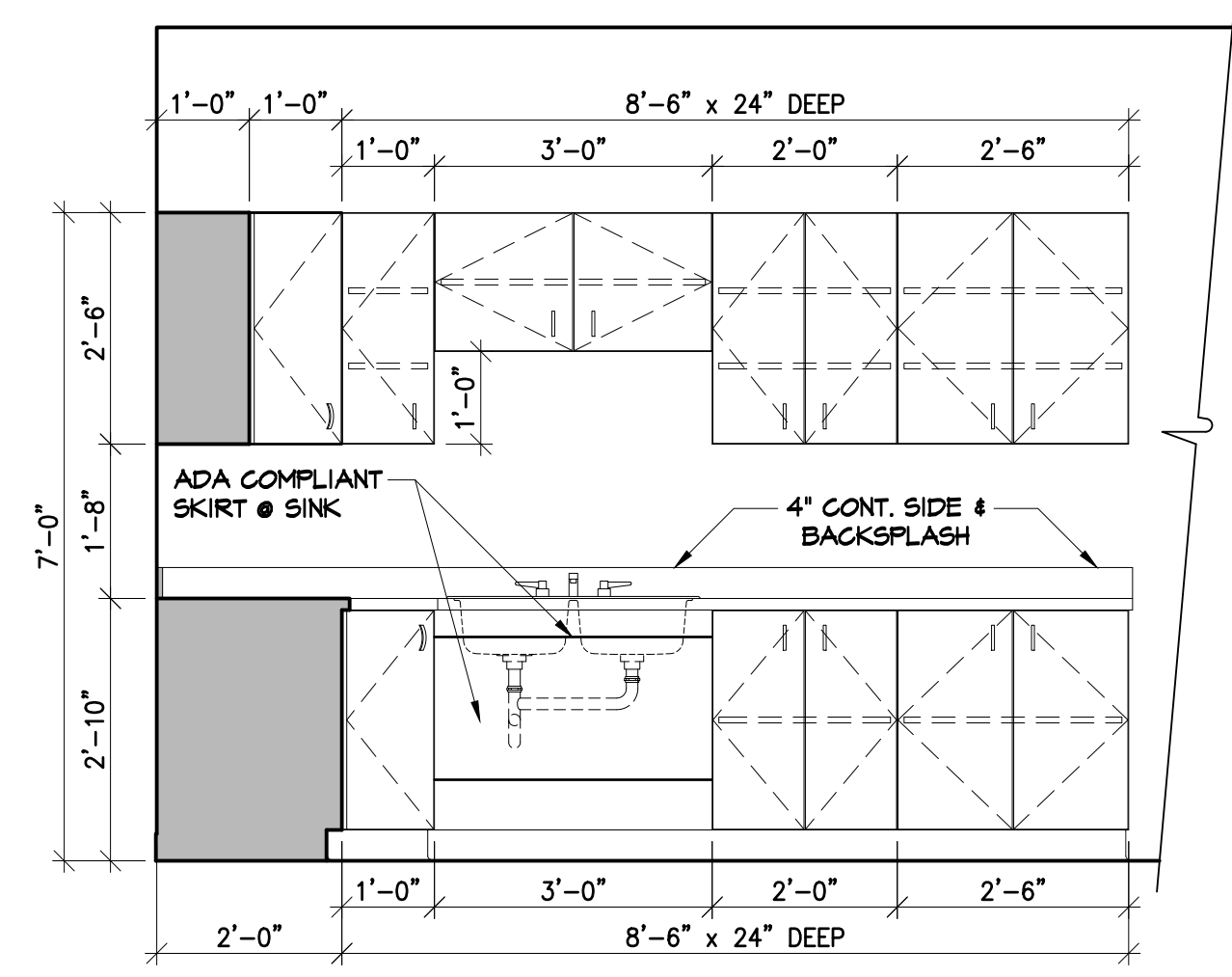
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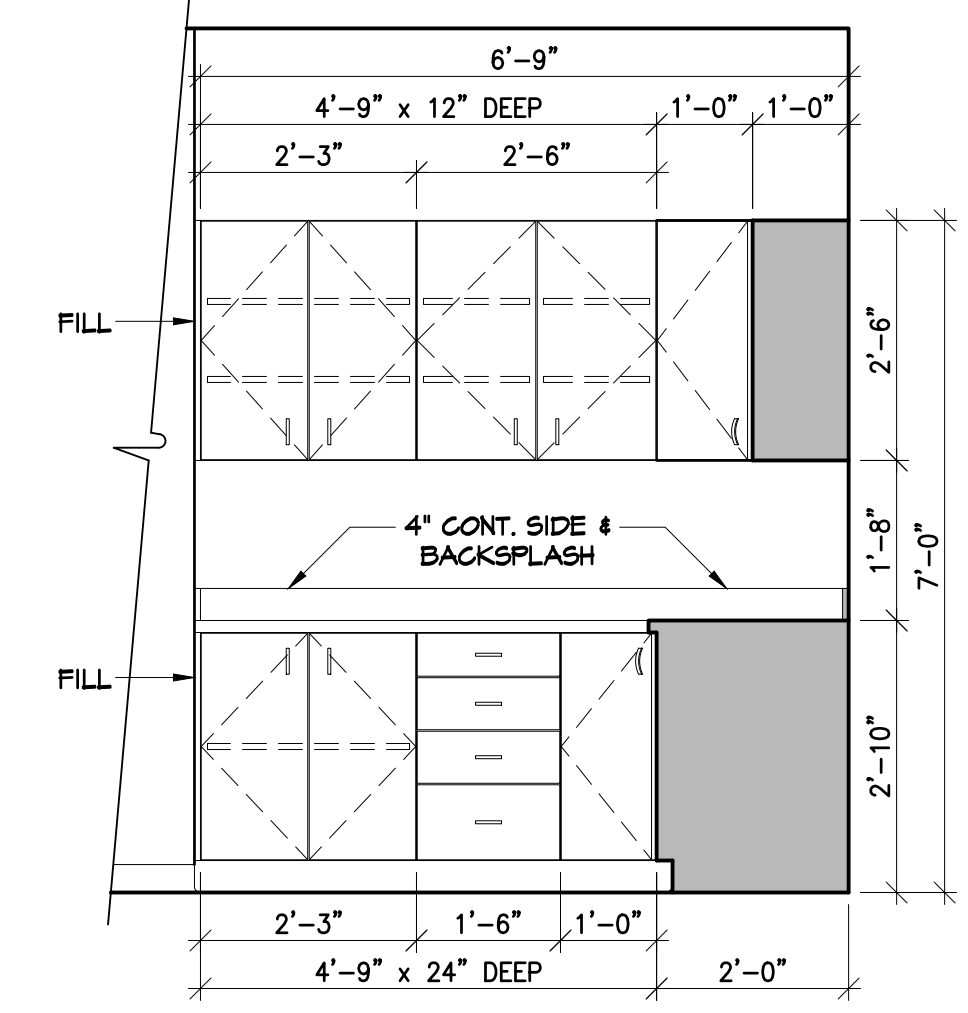
PUBLIC RESTROOM ELEV. C
 1/2" = 1'-0" I-EL1RCC A5.0



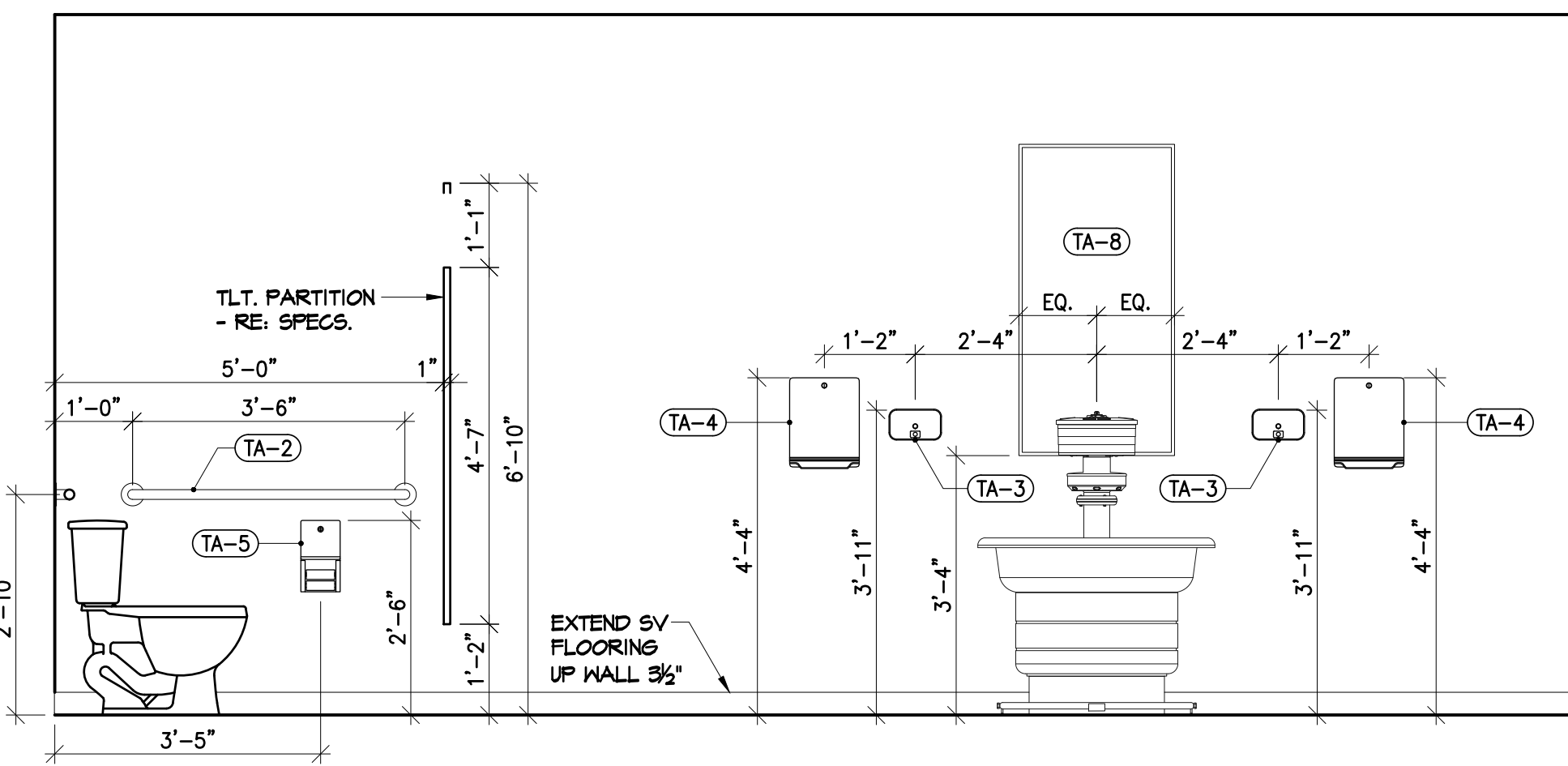
PUBLIC RESTROOM ELEV. D
 1/2" = 1'-0" I-EL1RCC A5.0



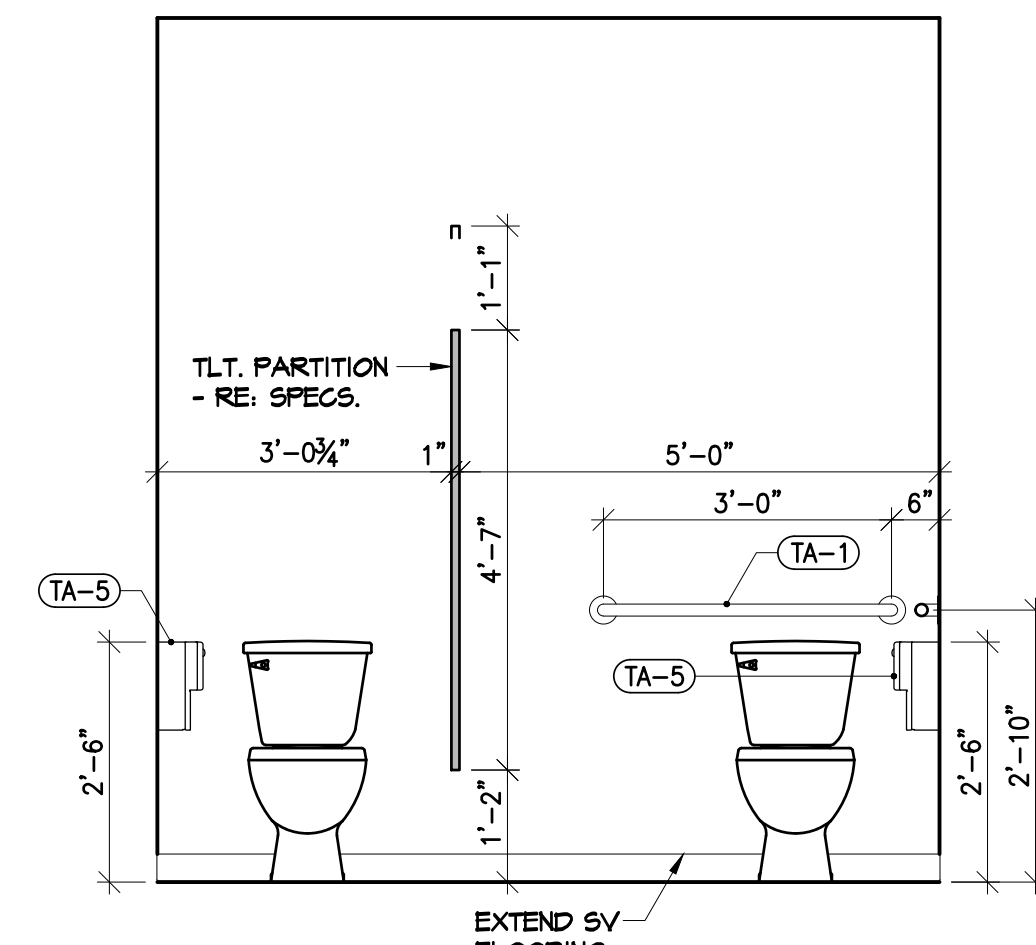
BREAK/CONF. ROOM ELEV. E
 1/2" = 1'-0" I-EL1RCC A5.0



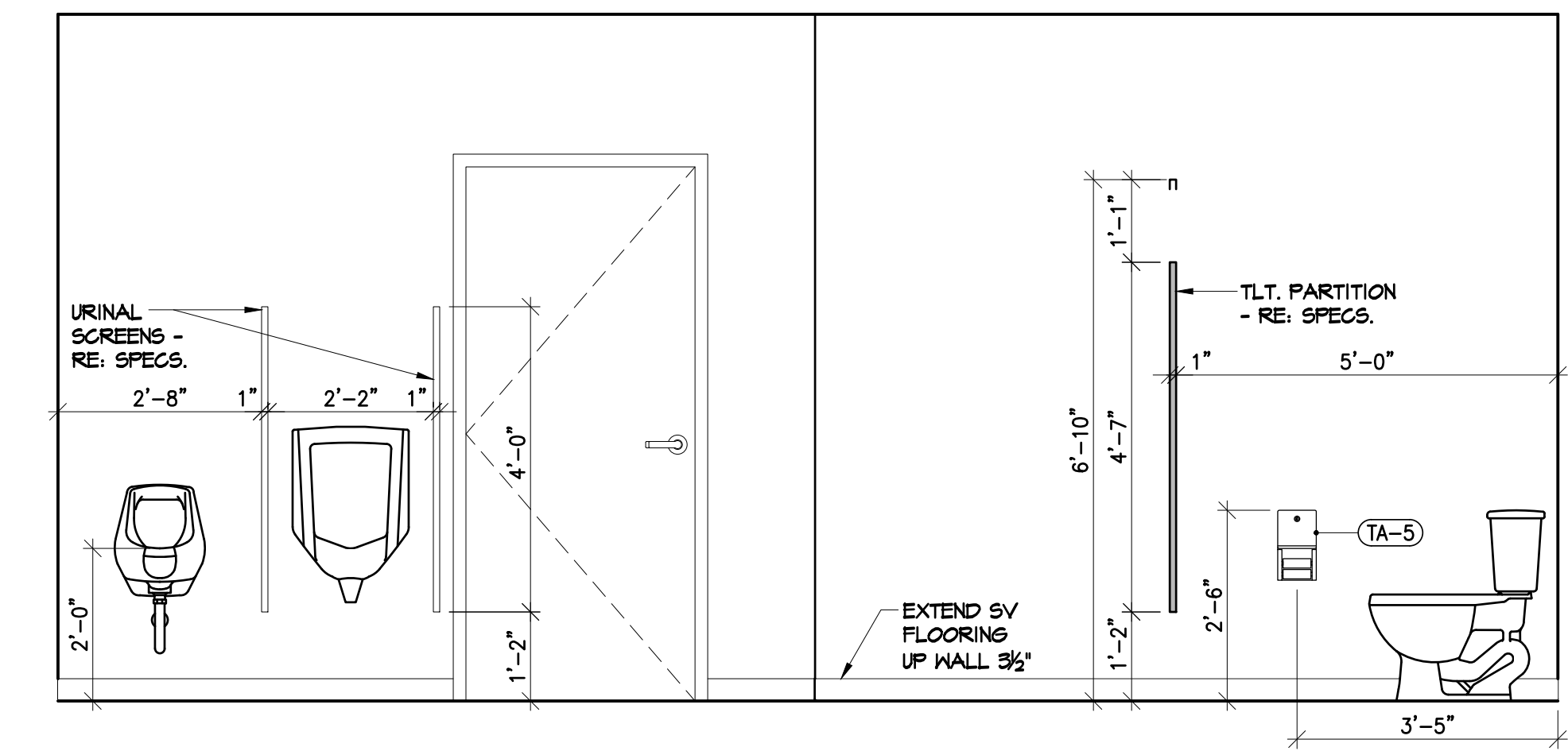
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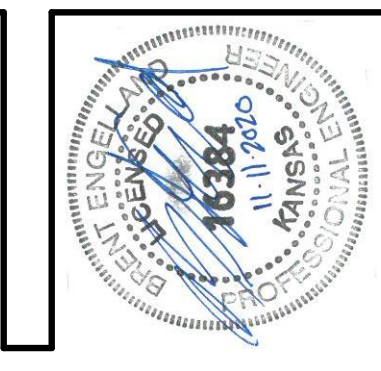
MEN'S ELEV. G
 1/2" = 1'-0" I-EL1RCC A5.0



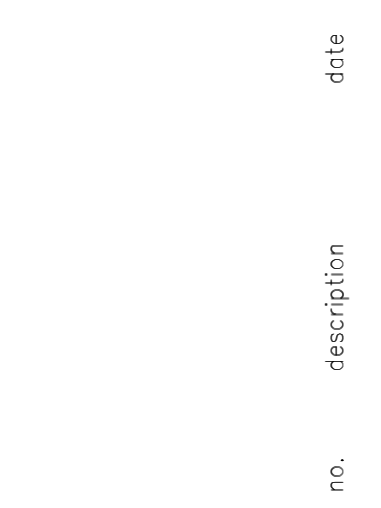
MEN'S ELEV. H
 1/2" = 1'-0" I-EL1RCC A5.0



MEN'S ELEV. J
 1/2" = 1'-0" I-EL1RCC A5.0



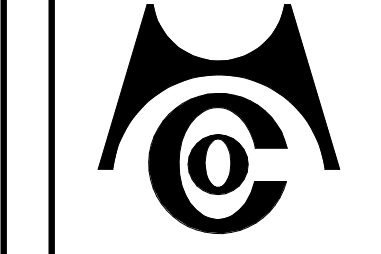
MANN & COMPANY, P.A.
ARCHITECTS & PLANNERS
 1703 London Street, Suite B
 Hutchinson, KS 67502 620-682-4493



revision
 title
 project
 703 SOUTH MOHAWK ROAD
 HUTCHINSON, KS 67501

GENERAL STRUCTURAL NOTES
CUSTOMER CONVENIENCE CENTER

ds. CCB
 dr. TS
 ck. BLE
 commission no. 2318.00
 prints 77
 tracings 77



sheet **S0.0**
 of
 date 11.11.2020

Convenience Center

ABBREVIATIONS

@	AT
#	NUMBER
ANCHOR	ANCHOR BOLT
ADDD'	ADDITIONAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
ALT	ALTERNATE
ARCS	ARCHITECTURAL
ATTM	ATTACHMENT
BLDG	BUILDING
BLKG	BLOCKING
BOT	BOTTOM
BSMT	BASEMENT
BWN	BETWEEN
CFS	COLD FORMED STEEL
CJ	CONTROL OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION WELD
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONTN	CONTINUOUS
COORD	COORDINATE
DBA	DEFORMED BAR ANCHOR
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DF-L	DOUGLAS FIR-LARCH
EA	EACH
EF	EACH FACE
EMB	EMBEDDED
EN	EDGE NAILING
EOR	ENGINEER OF RECORD
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
FDN	FOUNDATION
FIN	FINISH
FLR	FLOOR
FMB	FIBER NAILING
FRP	FIBER-REINFORCED POLYMER
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GRADE	GRADE
HK	HOOK
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SHAPE
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
INFO	INFORMATION
LBS	POUNDS
LG	LONG
LH	LONG LEG HORIZONTAL
LV	LONG LEG VERTICAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
NIC	NOT IN CONTRACT
NS	NON-SHRINK
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PAF	POWDER ACTUATED FASTENER
PEMB	PRE-ENGINEERED METAL BUILDING PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POINT
QTY	QUANTITY
REINF	REINFORCING
REM	REMAINDER
REQ'D	REQUIRED
RTU	ROOF TOP UNIT
SCHD	SCHEDULE
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SOG	SLAB-ON-GRADE
SQ	SPRUCE-PINE-FIR
SQ	SQUARE
STD	STANDARD
T&B	TOP AND BOTTOM
THK	THICK
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TSA	THREADED STUD ANCHOR
TYP	TYPICAL
VERT	VERTICAL
UNO	UNLESS NOTED OTHERWISE
W/	WITH
WF	WIDE FLANGE
WWR	WELDED WIRE REINFORCING

GENERAL STRUCTURAL NOTES

GENERAL

- DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PROVISIONS OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- ELEVATIONS (XXX'-XX") SHOWN ON PLANS ARE TO TOP OF CONCRETE, STEEL, OR WOOD DECK U.N.O.. ELEVATIONS SHOWN ARE BASED ON FIRST FLOOR ELEVATION OF 100'-00" CONFIRM WITH ARCHITECTURAL.
- ALL CONTRACTORS AND ANY SUB-CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS AS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES ARISE THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED.
- ALL CONTRACTORS AND ANY SUB-CONTRACTORS SHALL CONSULT ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATION AND DIMENSIONS OF CURBS, PADS, INSERTS, SLEEVES, DRIPS, REGLETS, REVEALS FINISHES, DEPRESSIONS, DOOR CLOSERS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SIZE AND LOCATION OF ALL ROOF, FLOOR, AND WALL OPENINGS TO BE VERIFIED WITH MECHANICAL AND ELECTRICAL DRAWINGS AND CONTRACTORS. OPENINGS LESS THAN 12 INCHES ARE GENERALLY NOT SHOWN.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACTS, ERRORS, OR OMISSIONS OF THE CONTRACTOR OR ANY SUB-CONTRACTOR, OR ANY OF THE CONTRACTOR OR SUBCONTRACTORS AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND MANNER OF CONSTRUCTION AND FOR THE SAFETY OF PERSONS AND PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATION DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTION AND PROGRAMS.
- THE ARCHITECT, CONTRACTOR, OWNER, AND END-USER OF THE STRUCTURE SHOULD EXPECT TO SEE SOME DEGREE OF RANDOM CRACKING IN THE SLAB-ON-GRADE. RANDOM CRACKING INCLUDES, BUT IS NOT LIMITED TO: SHRINKAGE CRACKS, CRACKS AT RE-ENTRANT CORNERS, AND CRACKS ADJACENT TO POINTS OF SLAB FIXITY. RANDOM CRACKING GENERALLY DOES NOT INCLUDE CRACKS WITH VERTICAL DISPLACEMENT. RANDOM CRACKS WITHIN THE SLAB-ON-GRADE DO NOT TYPICALLY IMPACT THE STRUCTURAL INTEGRITY OF THE SLAB AND ARE NOT NECESSARILY INDICATIVE OF STRUCTURAL ISSUES OR CONCERNS.
- MECHANICAL UNITS AND EQUIPMENT SUPPORTED BY ROOF AND ELEVATED FLOOR STRUCTURE ARE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER, AND MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF UNIT SIZE, WEIGHT, AND LOCATION.
- THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE VARIOUS STRUCTURE. DURING ERECTION OF THE BUILDING, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY GUYING, SHORING, BRACING, FORMING, ETC., TO HOLD THE STRUCTURE IN PROPER ALIGNMENT AND TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED; INCLUDING LATERAL LOADS, TEMPERATURE DIFFERENTIALS, AND STOCKPILES OF MATERIAL AND EQUIPMENT. SUCH MEASURES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY AND UNTIL ALL FRAMING AND CONNECTIONS ARE IN PLACE. THE INVESTIGATION DESIGN, SAFETY ADEQUACY AND INSPECTION OF SUCH TEMPORARY MEASURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONSTRUCTION DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERRECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- CONTRACTOR AND SUB-CONTRACTORS SHALL THOROUGHLY REVIEW ALL DRAWINGS AND SPECIFICATIONS PRIOR TO SUBMITTING BIDS. MISCELLANEOUS FASTENERS, CLIPS, ETC., THAT ARE NOT DETAILED ON THE DRAWINGS BUT ARE PART OF THE REQUIREMENTS FOR FULL INSTALLATION OF ALL STRUCTURAL SYSTEMS ARE TO BE PART OF THE BID. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE BID TO ASCERTAIN CONDITIONS WHICH MY ADVERSELY AFFECT THE BID.
- ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWINGS AND/OR SPECIFICATION AND/OR EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL REVIEW, STAMP, SIGN, AND DATE ALL SHOP DRAWINGS PRIOR TO FORWARDING TO THE ARCHITECT/ENGINEER. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK, AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSION, ETC..
- THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES ALL DEPRESSIONS, DIMENSIONS, ELEVATIONS, SLEEVES, CHASES, HANGERS, OPENING, INSERTS, ANCHORS, EQUIPMENT SUPPORTS, AND DETAILS WITH THE ENTIRE CONTRACT DOCUMENT PACKAGE, INCLUDING SPECIFICATIONS AND ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. FOR CONCRETE CONSTRUCTION, THE INSERTS, EMBEDDED PLATES, ETC., SHALL NOT INTERFERE WITH REINFORCEMENT LOCATIONS.
- THESE DRAWINGS INCLUDE SPECIFIED COMPONENTS AND PRODUCTS, I.E. EPOXY, METAL DECK. IF A SUPPLIER/MANUFACTURER DIFFERENT THAN SPECIFIED ON THESE DRAWINGS IS DESIRED AS A SUBSTITUTE, A SUBMITTAL SHOWING THE SUBSTITUTE IS EQUIVALENT TO THE PRODUCT SPECIFIED MUST BE PROVIDED TO AND APPROVED BY THE ENGINEER OF RECORD. IT IS THE SUBMITTERS RESPONSIBILITY TO SHOW THE SUBSTITUTE IS EQUIVALENT, NOT THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL COORDINATE STRUCTURAL SPECIAL INSPECTIONS PER IBC 2006 CHAPTER 17 AS REQUIRED BY BUILDING OFFICIAL. CONTRACTOR TO CONTACT ENGINEER OF RECORD FOR A STATEMENT OF SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT. CONTRACTOR TO NOTIFY THE OWNER OF THEIR RESPONSIBILITY TO SELECT AND EMPLOY SPECIAL INSPECTORS AS REQUIRED.

DESIGN LOADS

1.	ROOF LIVE LOAD	20 PSF
2.	ROOF LIVE LOAD (SHELTER)	100 PSF
3.	GROUND SNOW LOAD	20 PSF
4.	ROOF SNOW LOAD	20 PSF
5.	OCCUPANCY CATEGORY	II
6.	BASIC WIND SPEED (ASCE/SEI 7)	115 M.P.H. EXPOSURE C
7.	SEISMIC DESIGN CATEGORY (ASCE/SEI 7)	B
	SDS	0.135
	SD1	0.075
	SITE CLASS	D
	SEISMIC FORCE RESISTING SYSTEM	MOMENT FRAMES / X-BRACES

PRE-ENGINEERED METAL BUILDING

- BUILDING DESIGN LOADS PER DESIGN LOAD SECTION OF THE GENERAL STRUCTURAL NOTES.
- METAL BUILDING SUPPLIER TO PROVIDE COMPLETE ERECTION DRAWINGS AND CALCULATION WITH BUILDING REACTIONS TO ENGINEER AND ARCHITECT PRIOR TO BUILDING FABRICATION.
- LOCATION OF BUILDING LATERAL SYSTEMS (PORTAL, FRAMES, X-BRACES, WIND COLUMNS) AS NOTED ON DRAWINGS.
- BUILDING AND STRUCTURAL COMPONENT MAXIMUM DEFLECTION CRITERIA
 HORIZONTAL H/240
 VERTICAL (RAFTERS) H/240
 VERTICAL (PURLINS) H/240
- COORDINATE SIZE, LOCATION, QUANTITY, AND WEIGHT OF ALL ROOF TOP UNITS AND OTHER MECHANICAL EQUIPMENT SUPPORTED BY THE PEMB WITH THE MECHANICAL DRAWINGS.

THE FOUNDATION DESIGN NEEDS TO BE VERIFIED BY THE ENGINEER OF RECORD WITH THE FINAL PRE-ENGINEERED METAL BUILDING (PEMB) REACTIONS. CONSTRUCTION OF FOUNDATION ELEMENTS SHOULD NOT BEGIN UNTIL THIS REVIEW IS COMPLETED. THE SIZE, LOCATION, AND CONFIGURATION OF THE FOUNDATION ELEMENTS MAY CHANGE AS A RESULT OF THIS REVIEW.

FOUNDATION

- DESIGN ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF ASSUMED. ALL EXTERIOR FOOTINGS TO BE 3'-0" BELOW FINISH GRADE UNO.
- UNLESS NOTED OTHERWISE, CENTER COLUMN FOOTINGS ON COLUMN CENTERLINES, CENTER WALL FOOTINGS ON FOUNDATION WALLS.
- SLAB ON GRADE SHALL BE UNDERLAIN BY VAPOR BARRIER AND 4 INCHES MINIMUM OF COURSE GRANULAR (COMPACTED) FILL. REINFORCE ALL SLABS ON GRADE WITH #3 AT 18 INCHES EACH WAY IN TOP 1/3 OF SLAB UNLESS NOTED OTHERWISE. AT DROPPED OR DEPRESSIONED SLABS ON GRADE MAINTAIN GRAVEL THICKNESS, SLAB DEPTH, REINFORCEMENT AND REINFORCEMENT POSITION.
- BACK FILL AROUND THE EXTERIOR FOUNDATION WALLS WITH A FREE DRAINING GRANULAR MATERIAL TO THE ELEVATION OF THE ROUGH GRADE. PLACEMENT OF BACKFILL IS NOT ALLOWED UNTIL THE SLAB ON GRADE IS IN PLACE AND THE MAIN FLOOR DIAHRAGM IS COMPLETED. TUNNEL CONCRETE WORK, FREE STANDING AND FOUNDATION WALLS SHALL BE COMPLETE AND AT DESIGN STRENGTH BEFORE BACKFILL IS PLACED.
- CONTRACTOR TO KEEP EXCAVATIONS DRY AND PROTECTED FROM FROST AT ALL TIMES DURING THE FOUNDATION CONSTRUCTION. NOTIFY ENGINEER IF NATURE OF SOIL AT DEPTHS SHOWN IS NOT SUITABLE FOR FOUNDATIONS.

CAST-IN-PLACE CONCRETE

1.	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS	
	FOOTINGS AND INTERIOR SLABS ON GRADE	3500 PSI
	SLABS OVER STEEL DECK	3500 PSI
	EXPOSED CONCRETE SLABS AND GARAGE SLABS	4000 PSI
	FOUNDATION WALLS, WALLS, COLUMNS AND BEAMS	4000 PSI

- CONSTRUCTION TO BE IN ACCORDANCE WITH ACI 318-05 (R-05), "CHAPTER 3 FOR STANDARDS FOR TESTS & MATERIALS, CHAPTERS 4, 5, 6 & 7 FOR CONSTRUCTION REQUIREMENTS". REFER TO ACI 302.1R-04 FOR SLAB ON GRADE MIX DESIGN.

- PIPE OR ELECTRICAL CONDUIT EMBEDDED IN CONCRETE SHALL NOT BE LARGER IN OUTSIDE DIAMETER AT ITS WIDEST (OR FITTING) THAN 1/3 THE THICKNESS OF THE SLAB OR WALL. SLEEVES, CONDUIT, OR PIPES THROUGH SLABS AND WALLS SHALL BE PLACED NO CLOSER THAN THREE DIAMETERS ON CENTER AND THEY DO NOT DISPLACE REINFORCING. DO NOT CUT HOLES IN CONCRETE SLABS, BEAMS, COLUMNS, OR WALLS WITHOUT PRIOR APPROVAL OF THE ENGINEER.

- LOCATION OF ALL CONSTRUCTION AND CONTROL JOINTS SHALL BE LOCATED AND DETAILED ON SHOP DRAWINGS AND ARE SUBJECT TO ENGINEERS APPROVAL. IF SLAB ON GRADE CONTROL JOINTS ARE NOT SPECIFICALLY LOCATED ON DRAWINGS, PROVIDE CONTROL JOINTS AT 10'-0" ON CENTER MAXIMUM WITH A LENGTH TO WIDTH RATIO OF 1.5. PROVIDE (2) #4x4'-0" AT ALL NON-CONTINUOUS CONTROL JOINTS. PROVIDE (2) #4x4'-0" AND (1) #4x24"x24" CORNER BAR AT ALL REENTRANT CORNERS OF SLAB ON GRADE.

- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND DIMENSION OF CONCRETE REVEALS, NOTCHES, REGLETS, DRIPS, PADS, CURBS, CHAMFERS BLOCKOUTS AT DOORWAYS, AND ALL OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS. CHAMFER ALL EXPOSED CORNERS OF BEAMS, COLUMNS, JOISTS AND WALLS. SUBJECT TO ARCHITECTS APPROVAL.

REINFORCING STEEL

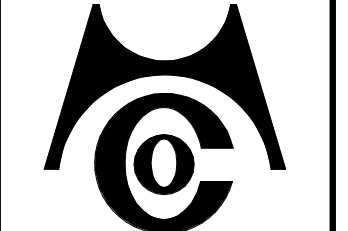
- TRUSS TYPE MASONRY JOINT REINFORCEMENT: W1.7 (9 GAGE), ASTM A1064, FY=70,000 PSI
- WELDED WIRE REINFORCING (WWR): ASTM A82 AND A185
- DEFORMED BARS (REBAR): ASTM A615, GRADE 40 FOR #3; GRADE 60 FOR #4 AND LARGER; ASTM A706 FOR WELDED CONDITIONS.
- LAP SPLICES:
 MASONRY: 48-BAR DIAMETERS AT CELLS WITH SINGLE BAR (HORIZ. AND VERT.)
 64-BAR DIAMETERS AT CELLS WITH TWO BARS (HORIZ. AND VERT.)
 CONCRETE: CLASS "B" LAP SPLICE, TYPICAL UNLESS NOTED OTHERWISE.
 WELDED WIRE FABRIC: WIRE SPACING "2"
- CONCRETE COVER FOR CAST-IN-PLACE AND NON-PRE-STRESSED CONCRETE SHALL BE AS SPECIFIED BELOW U.N.O. ON THESE DRAWINGS.
 CONCRETE CAST AGAINST SOIL 3"
 FORMED CONCRETE EXPOSED TO EARTH OR WEATHER (#6 OR GREATER) 2"
 FORMED CONCRETE EXPOSED TO EARTH OR WEATHER (#5 OR LESS) 1 1/2"
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLAB, WALL, JOIST) 3/4"
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER (BEAM, COLUMN) 1 1/2"
 SLAB ON GRADE 1 1/2"
- SECURELY TIE ALL REINFORCING IN PLACE WITH DOUBLE ANNEALED 16-GAUGE IRON WIRE OR APPROVED CLIPS PRIOR TO CONCRETE OR GROUT PLACEMENT.
- SUBMIT SHOP DRAWINGS OF REINFORCING STEEL FOR REVIEW BY THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION.

STRUCTURAL AND MISCELLANEOUS STEEL

- STEEL CONSTRUCTION MANUAL, 14TH EDITION MATERIAL SPECIFICATIONS U.N.O.
 WIDE FLANGE AND S SHAPES ASTM A992, FY=50KSI
 CHANNELS, ANGLES, PLATES AND BARS ASTM A36, FY=36KSI
 HOLLOW STRUCTURAL SHAPES (HSS) ASTM A500 GR. B, FY=46KSI
 PIPE ASTM A53, GR. B, FY=35KSI
 STRUCTURAL BOLTS (U.N.O.) ASTM A325
 MACHINE BOLTS (WHERE NOTED) ASTM A307
 ANCHOR BOLTS AND RODS AND THREADED RODS ASTM F1554 GRADE 36KSI
 HIGH STRENGTH ANCHOR BOLTS AND RODS (AS NOTED) ASTM F1554 GRADE 105KSI
 HEADED OR THREADED STUD ANCHORS (H.S.A. OR T.S.A.) ASTM A108-69T
 DEFORMED BAR ANCHORS (D.B.A.) ASTM A496 OR ASTM A706
 WELDING ELECTRODES E70XX
 NON-SHRINK GROUT (7,000 PSI) ASTM C1107, GR. A
 POWDER ACTUATED FASTENER (PAF OR PDF) HILTI X-U (0.157" DIA)
 EXPANSION BOLTS (CONCRETE) HILTI KWIK BOLT TZ
 EXPANSION BOLTS (MASONRY) HILTI KWIK BOLT 3
 EPOXY ADHESIVE - CONCRETE HILTI HIT-HY 200
 EPOXY ADHESIVE - MASONRY HILTI HIT-HY 70 W/ SCREEN TUBE
- ALL STRUCTURAL STEEL ERECTION AND FABRICATION SHALL BE ACCORDING TO THE CURRENT EDITION OF AISC "SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- ALL STRUCTURAL BOLTED CONNECTIONS SHALL BE ACCORDING TO THE CURRENT EDITION OF RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" FOR SNUG TIGHTENED, PRETENSIONED, OR SLIP-CRITICAL JOINTS. ALL STRUCTURAL BOLTED CONNECTIONS TO BE SNUG TIGHTENED UNO. FOR SLIP-CRITICAL JOINTS, AS NOTED, THE USE OF TENSION INDICATING WASHERS OR TWIST-OFF BOLT ASSEMBLIES SHALL BE PERMITTED ONLY ACCORDING TO THE ABOVE MENTIONED STANDARD.
- ALL WELDING SHALL BE PREFORMED IN ACCORDANCE WITH AWS D1.1. ALL WELDING SHALL BE PREFORMED BY AWS CERTIFIED WELDERS. ALL WELDING OF STRUCTURAL STEEL SHALL BE PREFORMED IN THE SHOP WHENEVER PRACTICAL. AN EFFORT HAS BEEN MADE TO INDICATE WELDS THAT CAN BE OR SHOULD BE FIELD WELDED. IT IS, HOWEVER, THE FABRICATORS RESPONSIBILITY TO DECIDE WHERE AND HOW THE WELDING IS TO BE ACCOMPLISHED TO ACHIEVE THE INTENDED RESULT.
- COMPLETE JOINT PENETRATION (CJP) WELDING: PROVIDE BACKER BARS, RUN OFF TABS, AND ACCESS HOLES PER AWS D1.1. BACKER BARS SHALL BE REMOVED AFTER WELDING. THE ROOT WELD BACK GOUGED AND REPAIRED IF NECESSARY AND REINFORCED WITH A FILLET. RUN OFF TABS SHALL BE REMOVED AFTER WELDING WITH THE FLANGE EDGE GROUND SMOOTH.
- STEEL FABRICATOR SHALL BE AN AISC CERTIFIED SHOP FOR CATEGORY 1 STEEL STRUCTURES AND SHALL MAINTAIN DETAILED QUALITY CONTROL PROCEDURES.
- BEAMS SHALL BE FABRICATED FOR PLACEMENT OF NATURAL CAMBER UP.
- STRUCTURAL STEEL SUPPLIER SHALL FURNISH COLUMN ANCHOR RODS.
- HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED. PROVIDE CONNECTIONS REQUIRED FOR ATTACHMENT OF WOOD AND STEEL MEMBERS.
- USE CONNECTIONS AS DETAILED ON PLANS. WHEREVER CONNECTIONS ARE NOT DETAILED FABRICATOR SHALL REQUEST ENGINEER TO SUPPLY CONNECTION DETAIL.
- ALL COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC., HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. CONFORMANCE TO OR DEVIATION FROM ALLOWABLE CAPACITIES DURING STEEL ERECTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR (SEE GENERAL SECTION OF G.S.N.)
- PRIOR TO GROUTING, COLUMNS SHALL BE ERECTED AND ALIGNED AS TO PLUMBNESS AND ELEVATION BY MEANS OF STEEL SHIMS OR LEVELING NUTS UNDER THE BASE PLATES. SETTING PLATES SHALL ONLY BE USED AS TEMPLATES TO LOCATE ANCHOR BOLTS DURING CONCRETE PLACEMENT.
- STRUCTURAL STEEL PERMANENTLY EXPOSED TO VIEW SHALL RECEIVE COMMERCIAL BLAST CLEANING. PRIME WITH 5 MILS EPOXY PRIMER, TOP COAT SHALL BE 3 DRY MILS ALIPHATIC URETHANE, THIN FILM. ARCHITECT TO APPROVE COATING AND COLOR. DAMAGE DURING TRANSPORT, ERECTION, AND FIELD WELDING PROCESSES SHALL BE REPAIRED TO MATCH THE SHOP APPLIED COATING.

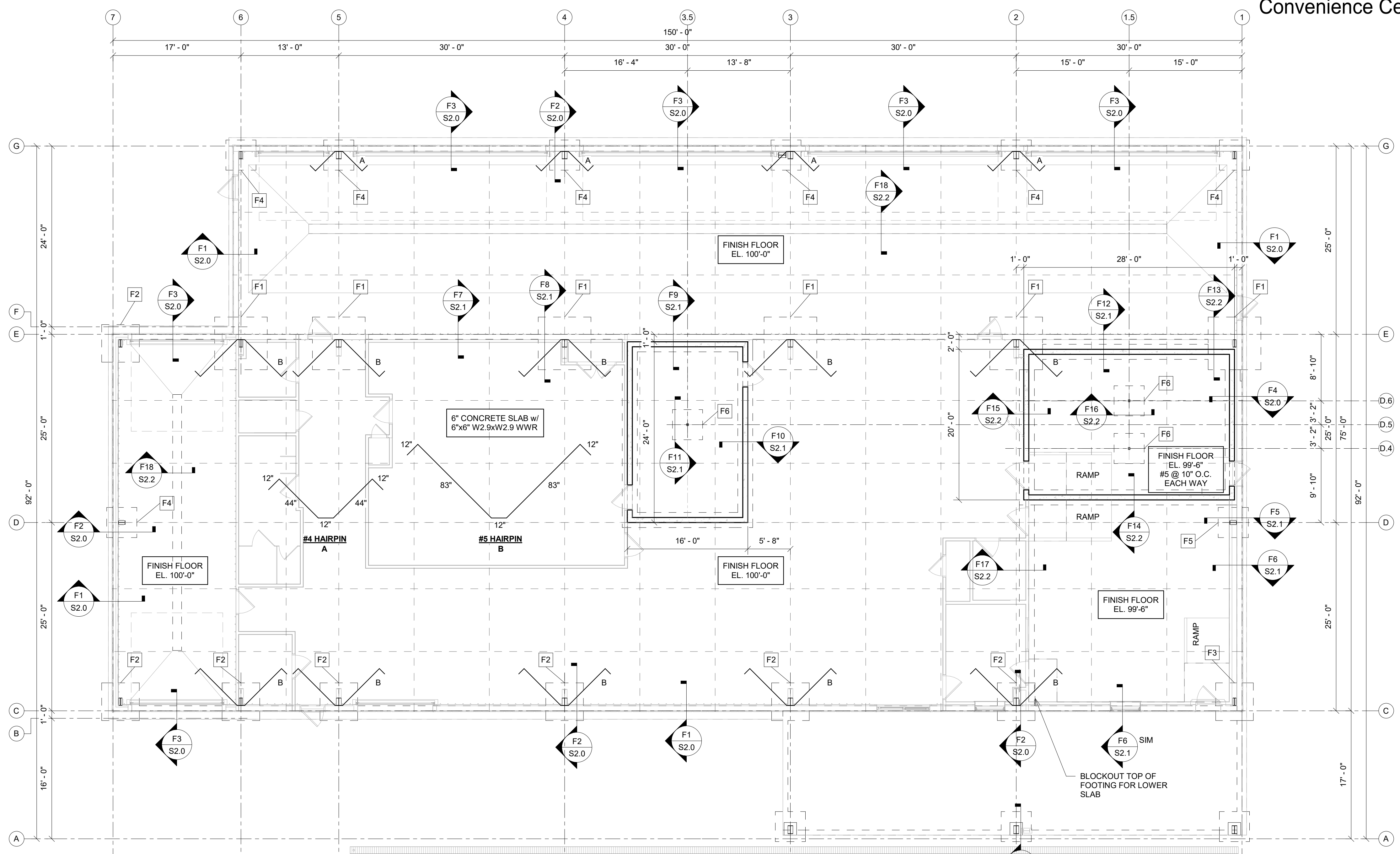
SAFE ROOM STRUCTURAL DESIGN INFORMATION

- SAFE ROOM DESIGNATED AS FEMA 361 SAFE ROOM: NO
- THE SAFE ROOM STRUCTURAL WIND DESIGN CONFORMS TO THE PROVISIONS OF FEMA 361 SECOND EDITION 2008, DESIGN AND CONSTRUCTION GUIDANCE FOR COMMUNITY SAFE ROOMS AND ICC 500-2008 STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS.
- TYPE OF SAFE ROOM: TORNADO
- SAFE ROOM DESIGN PARAMETERS
 ROOF LIVE LOAD 100 PSF MINIMUM
 DESIGN WIND SPEED 250 MPH
 WIND EXPOSURE CATEGORY C
 IMPORTANCE FACTOR 1.0
 INTERNAL PRESSURE COEFFICIENT, Gcpi ±0.55
 TOPOGRAPHICAL FACTOR, Kzt 1.0
 DIRECTIONALITY FACTOR, Kd 1.0
- SAFE ROOM STRUCTURAL COMPONENTS, I.E. ROOF AND WALLS, COMPLY WITH FEMA 361 CHAPTER 3 AND ICC 500-CHAPTERS 3 AND 8 MISSILE IMPACT CRITERIA.
- STRUCTURAL SPECIAL INSPECTIONS NOT REQUIRED DUE TO CONVENTIONAL BUILDING MATERIALS AND SYSTEMS USED.
- IF SAFE ROOM IS DESIGNATED AS FEMA 361 SAFE ROOM, ARCHITECT TO VERIFY THE FOLLOWING:
 7.1. FLOOR PLAN INDICATING LOCATION OF SAFE ROOM IN ENTIRE FACILITY.
 7.2. OCCUPANCY LOAD OF SAFE ROOM.
 7.3. USABLE SAFE ROOM FLOOR AREA.
 7.4. VENTILATION AREA PROVIDED FOR SAFE ROOM.
 7.5. SAFE ROOM SIGNAGE.
 7.6. WHETHER OR NOT SAFE ROOM IS CONSTRUCTION WITHIN AN AREA SUSCEPTIBLE TO FLOODING ACCORDING TO FEMA 361 CHAPTER 3. IF SAFE ROOM IS WITHIN A FLOOD SUSCEPTIBLE AREA, THE FLOOD HAZARD, SAFE ROOM DESIGN ELEVATION, AND ELEVATION OF ALL EQUIPMENT REQUIRED FOR OPERATION OF SAFE ROOM SHALL BE DOCUMENTED.
 7.7. SPECIAL DETAILS AND INSPECTIONS FOR MANUFACTURED COMPONENTS.

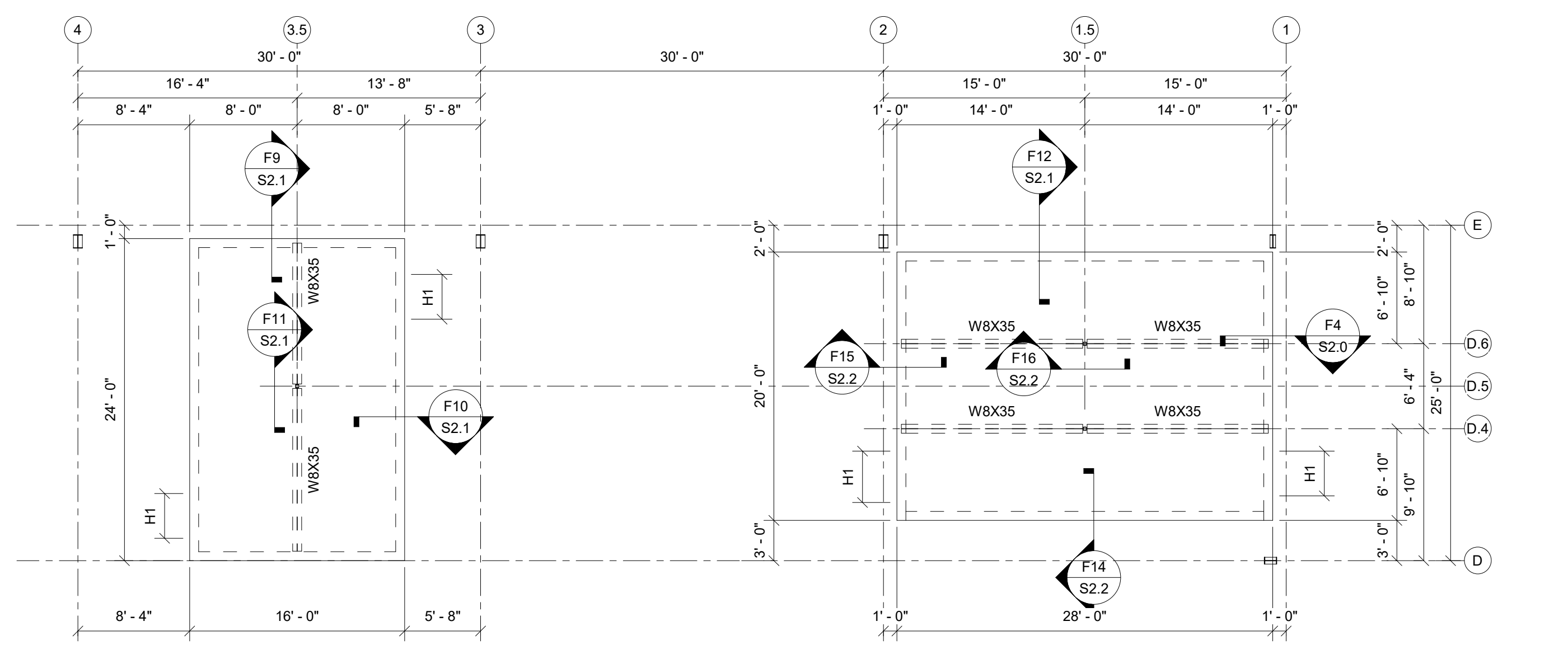


ds.	CCB
dr.	TS
ck.	BLE
commission no.	2318.00
prints	tracings
E-5	77

sheet	S1.0
of	
date	11.11.2020



1 FOUNDATION PLAN
 1/8" = 1'-0"

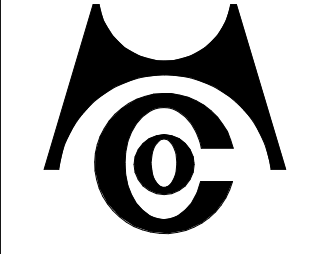


2 ROOF FRAMING PLAN
 1/8" = 1'-0"

- PLAN NOTES**
- FOR GENERAL STRUCTURAL NOTES (GSN) SEE SHEET S0.0
 - DIMENSIONS SHOWN HERE APPLY TO STRUCTURAL ELEMENTS ONLY. SEE ARCHITECTURAL FOR ANY DIMENSIONS NOT NOTED HERE.
 - 6" CONCRETE SLAB ON GRADE W/ 6x6 W2.9xW2.9 WWR 2.1/2" FROM TOP OF SLAB
 - AT ALL SLAB RE-ENTRANT CORNERS, PROVIDE (1) #4x24"x24" CORNER BAR AND (2) #4x48" BARS
 - PROVIDE (2) #4x48" BARS AT ALL NON-CONTINUOUS CONTROL JOINTS
 - SLAB CONTROL JOINTS TO BE SPACED A MAXIMUM OF 15'-0" O.C. WITH A LENGTH TO WIDTH RATIO OF 1.5 MAXIMUM UNLESS SHOWN OTHERWISE ON PLAN.
 - H1 DENOTES CONCRETE HEADERS w/ (2) #5 CONT w/ 36" LAP INTO WALL. MAXIMUM SPAN OF 4'-0"
 - COORDINATE LOCATION OF ALL MECHANICAL EQUIPMENT AND THEIR NOTED SUPPORTS WITH MECHANICAL DRAWINGS. ALL MECHANICAL UNITS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS. VERIFY ALL ROOF AND WALL PENETRATIONS. VERIFY ALL MECHANICAL UNITS WITH MECHANICAL DRAWINGS

THE FOUNDATION DESIGN NEEDS TO BE VERIFIED BY THE ENGINEER OF RECORD WITH THE FINAL PRE-ENGINEERED METAL BUILDING (PEMB) REACTIONS. CONSTRUCTION OF FOUNDATION ELEMENTS SHOULD NOT BEGIN UNTIL THIS REVIEW IS COMPLETED. THE SIZE, LOCATION, AND CONFIGURATION OF THE FOUNDATION ELEMENTS MAY CHANGE AS A RESULT OF THIS REVIEW.

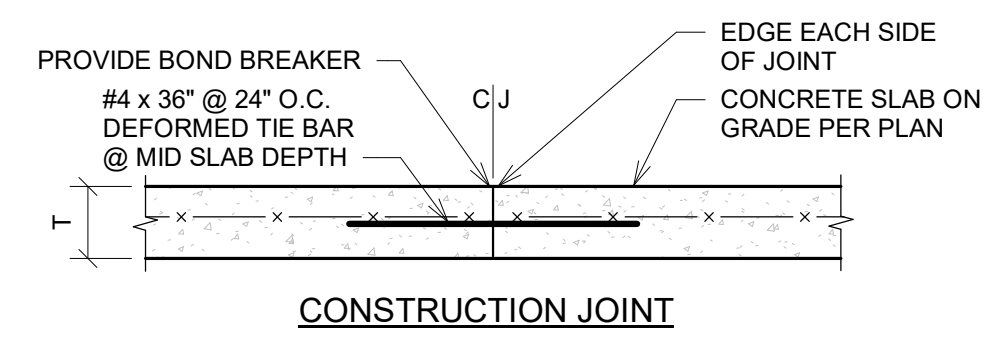
FOOTING SCHEDULE			
Mark	Size	Footing Reinforcing	Remarks
F1	7'-0" x 7'-0" x 2'-4"	#5 @ 12" O.C. EA WAY, TOP & BOT	
F2	5'-0" x 5'-0" x 2'-4"	#5 @ 12" O.C. EA WAY, TOP & BOT	
F3	5'-0" x 5'-0" x 2'-0"	#5 @ 12" O.C. EA WAY, TOP & BOT	
F4	4'-0" x 4'-0" x 2'-4"	#5 @ 12" O.C. EA WAY, TOP & BOT	
F5	4'-0" x 4'-0" x 2'-0"	#5 @ 12" O.C. EA WAY, TOP & BOT	
F6	4'-0" x 4'-0" x 1'-0"	#5 @ 12" O.C. EA WAY	



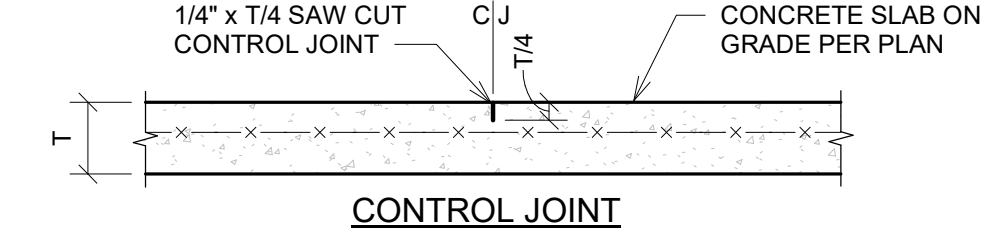
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date	11.11.2020

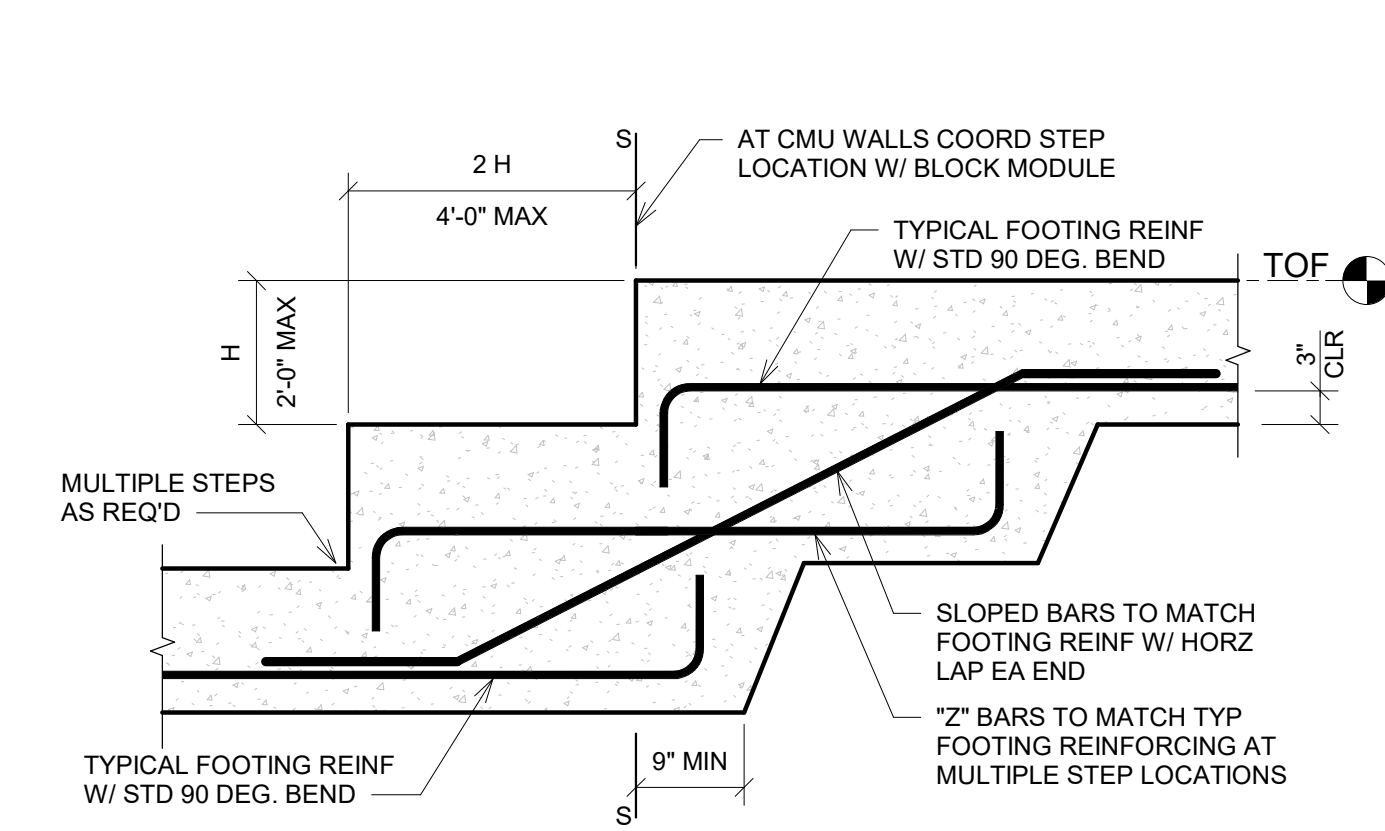
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 TO REUSE THIS DOCUMENT FOR ANY PURPOSE OTHER THAN THE EXECUTION OF THE ABOVE TITLED PROJECT IS PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT



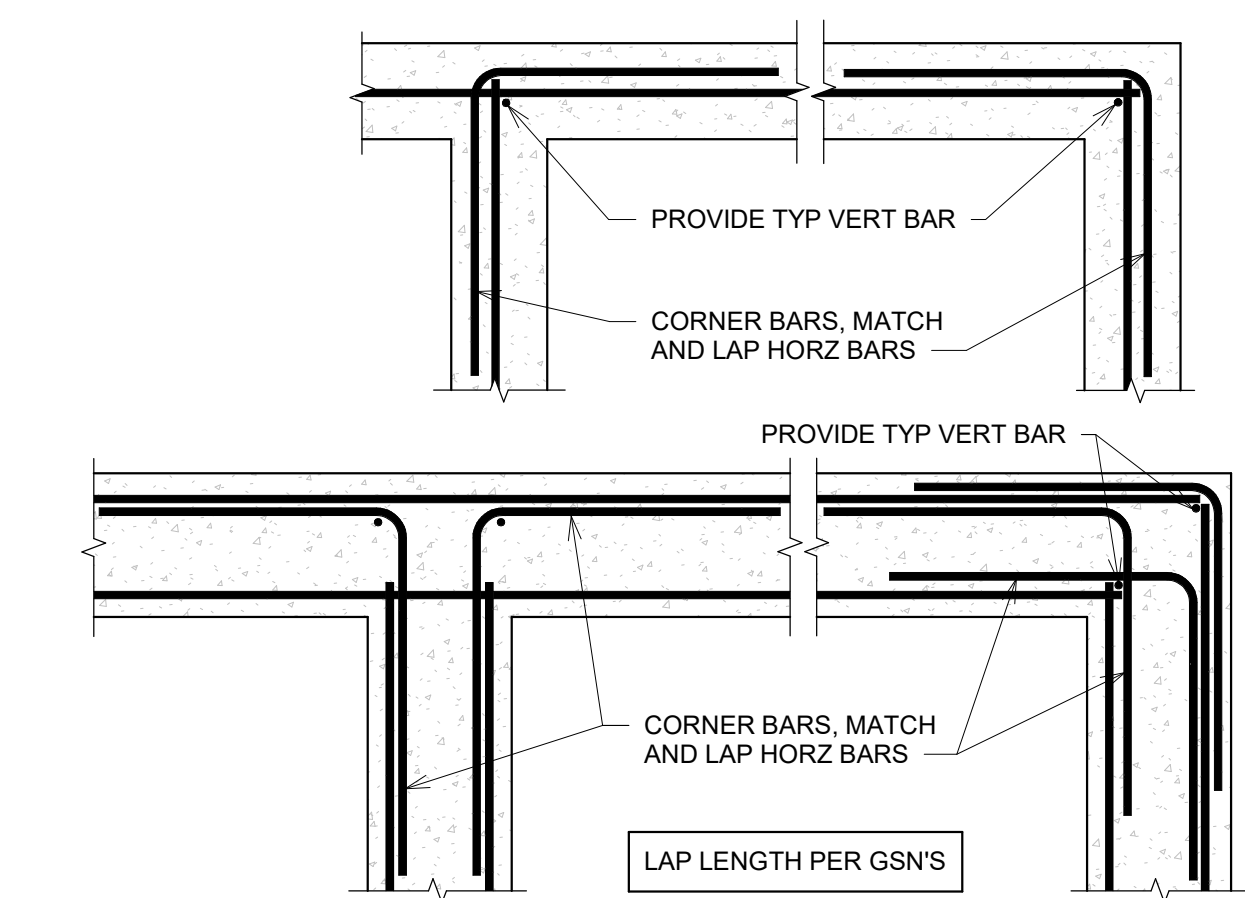
NOTE:
 SAWING OF CONTROL JOINTS SHALL BE DONE EARLY ENOUGH TO PREVENT SHRINKAGE CRACKS FROM OCCURRING & AS SOON AS CONCRETE IS HARD ENOUGH TO BE CUT WITHOUT FRAYING



1 SLAB ON GRADE JOINTS
 3/4" = 1'-0"



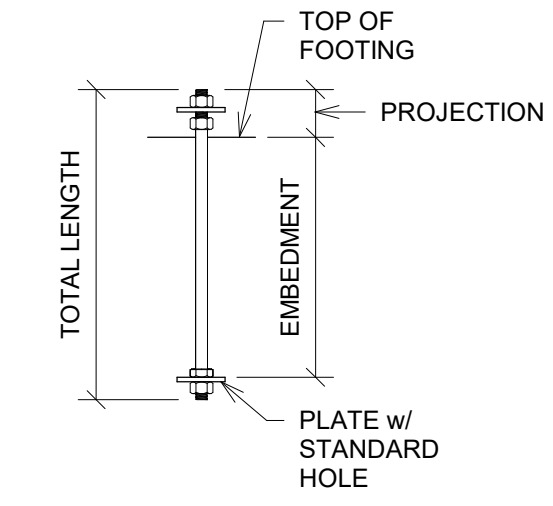
2 TYPICAL STEP FOOTING
 3/4" = 1'-0"



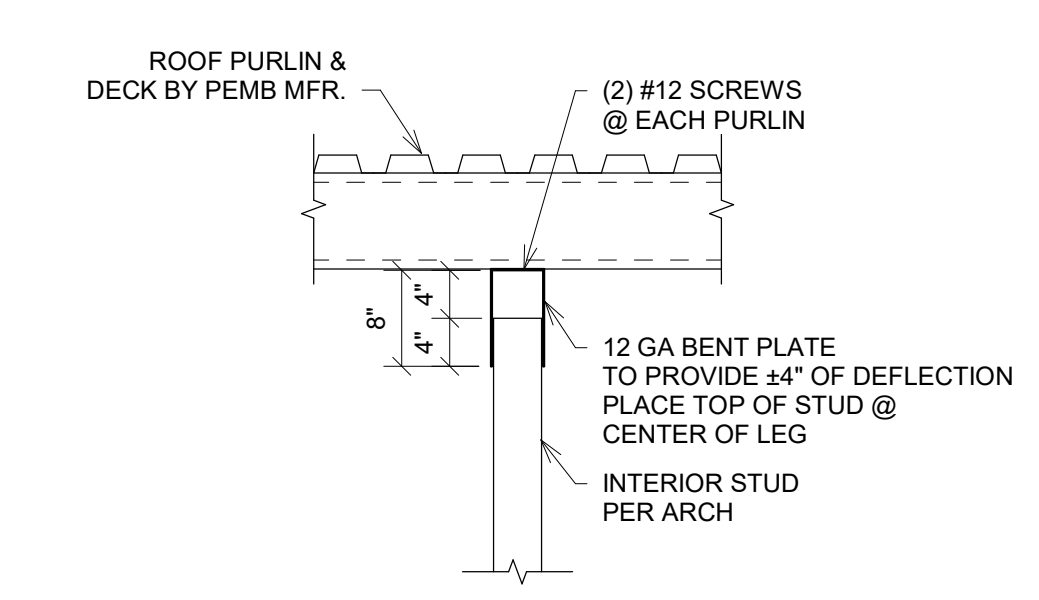
3 TYPICAL WALL REINFORCING
 3/4" = 1'-0"

ANCHOR BOLTS TBD BY PEMB SUPPLIER - FOR PRICING USE BELOW

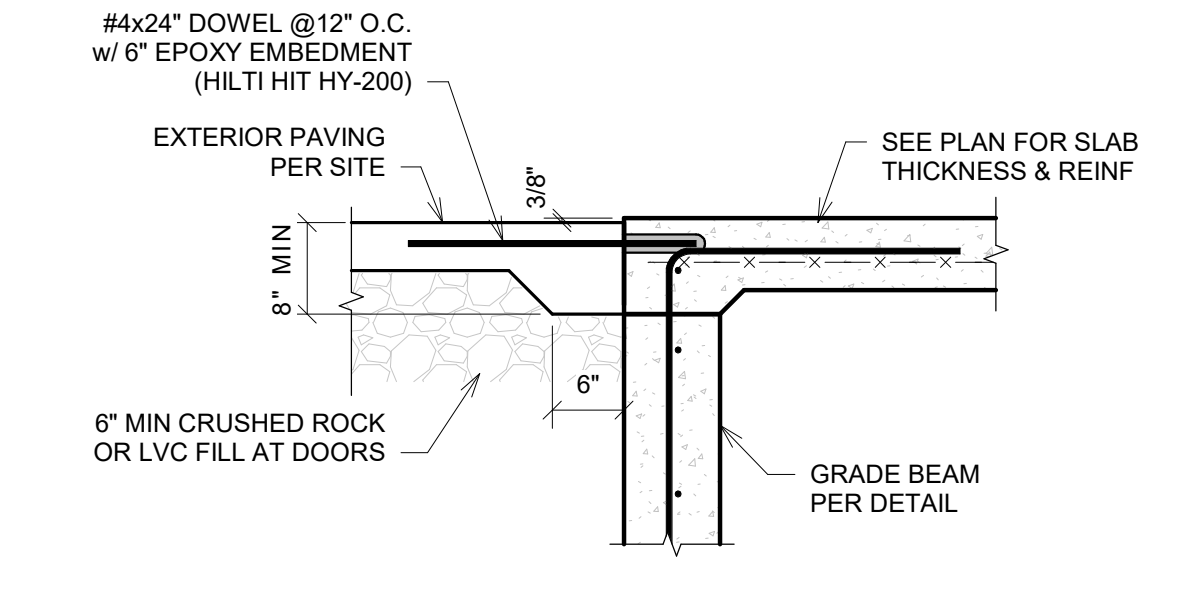
BOLT DIAMETER	EMBEDMENT	PLATE SIZE	BOLT GRADE
5/8"	--	--	F1554-36
3/4"	8"	2"x2"x3/16"	F1554-36
1"	--	--	F1554-36
1-1/4"	--	--	F1554-36
1-1/2"	--	--	F1554-36
3/4" PEMB	20"	2"x2"x3/16"	F1554-36



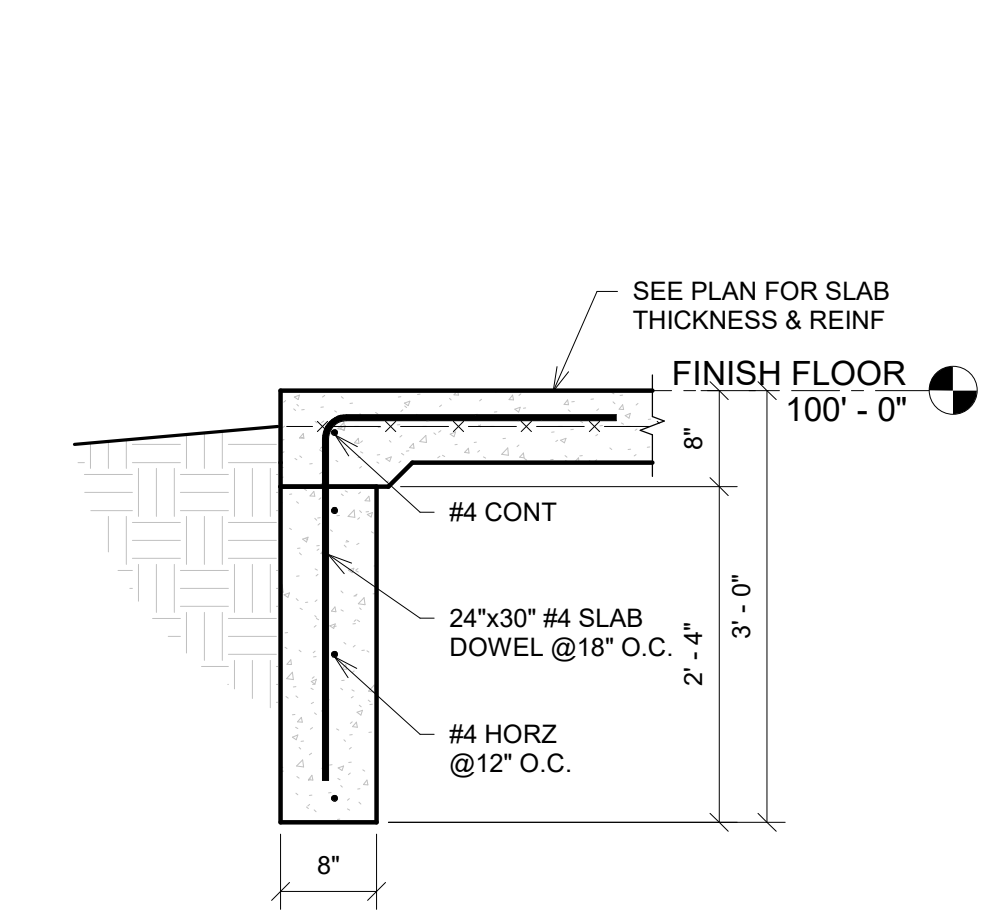
4 ANCHOR BOLTS
 NTS



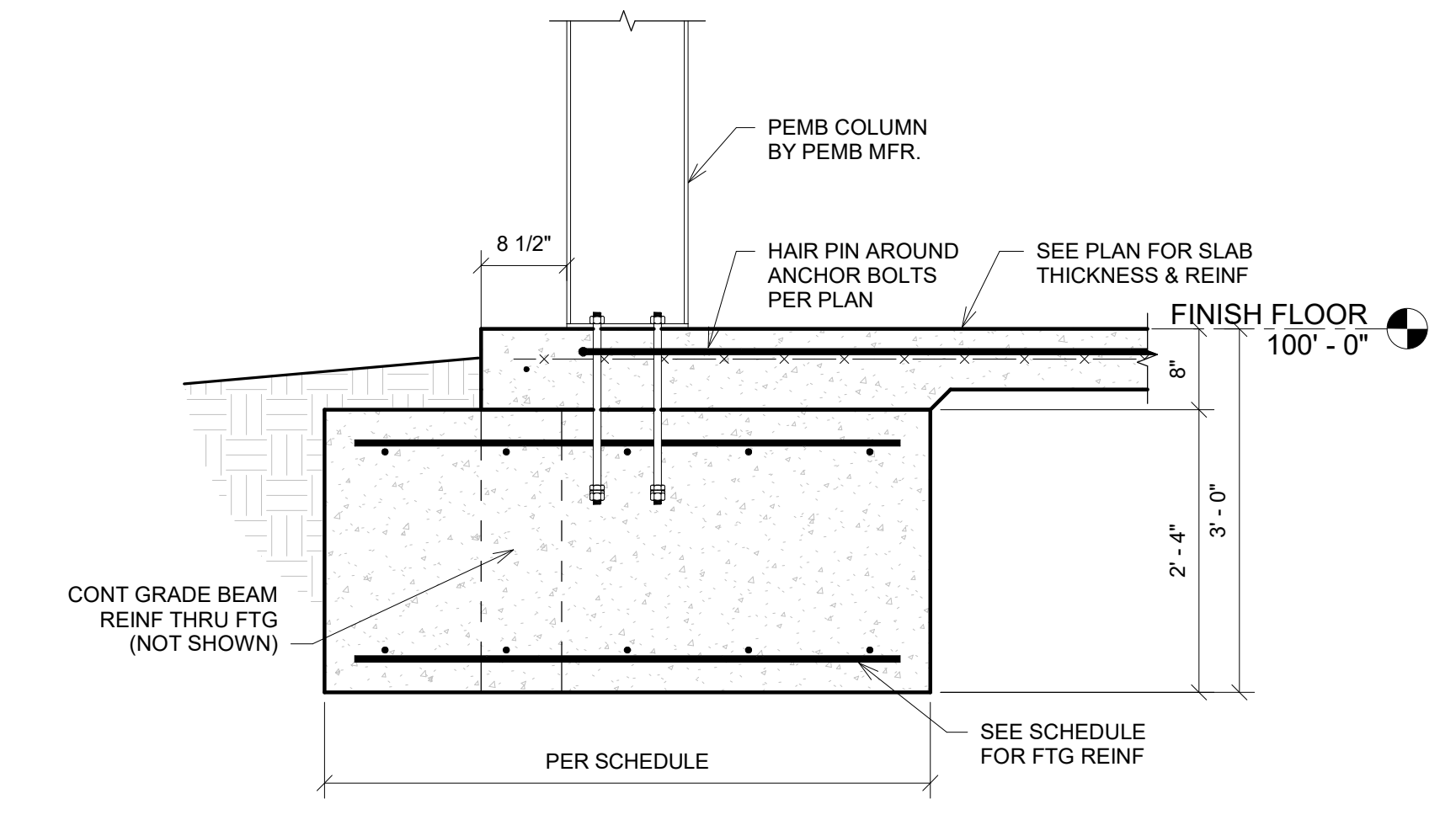
6 INTERIOR WALL DEFLECTION CLIP
 3/4" = 1'-0"



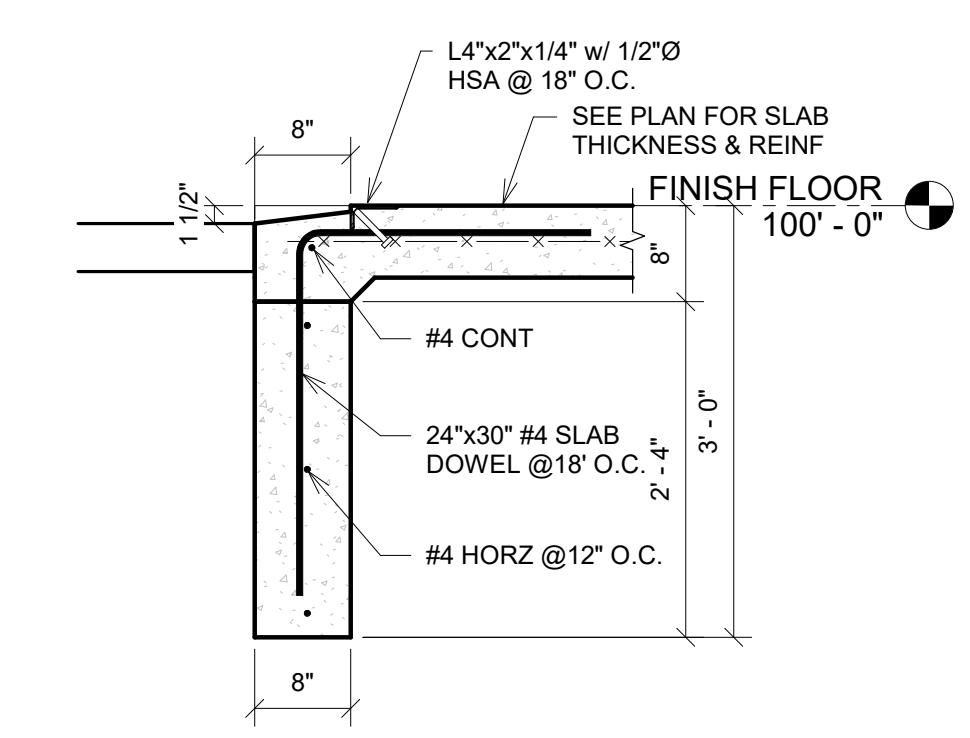
5 TYPICAL REINFORCING AT DOORWAY
 3/4" = 1'-0"



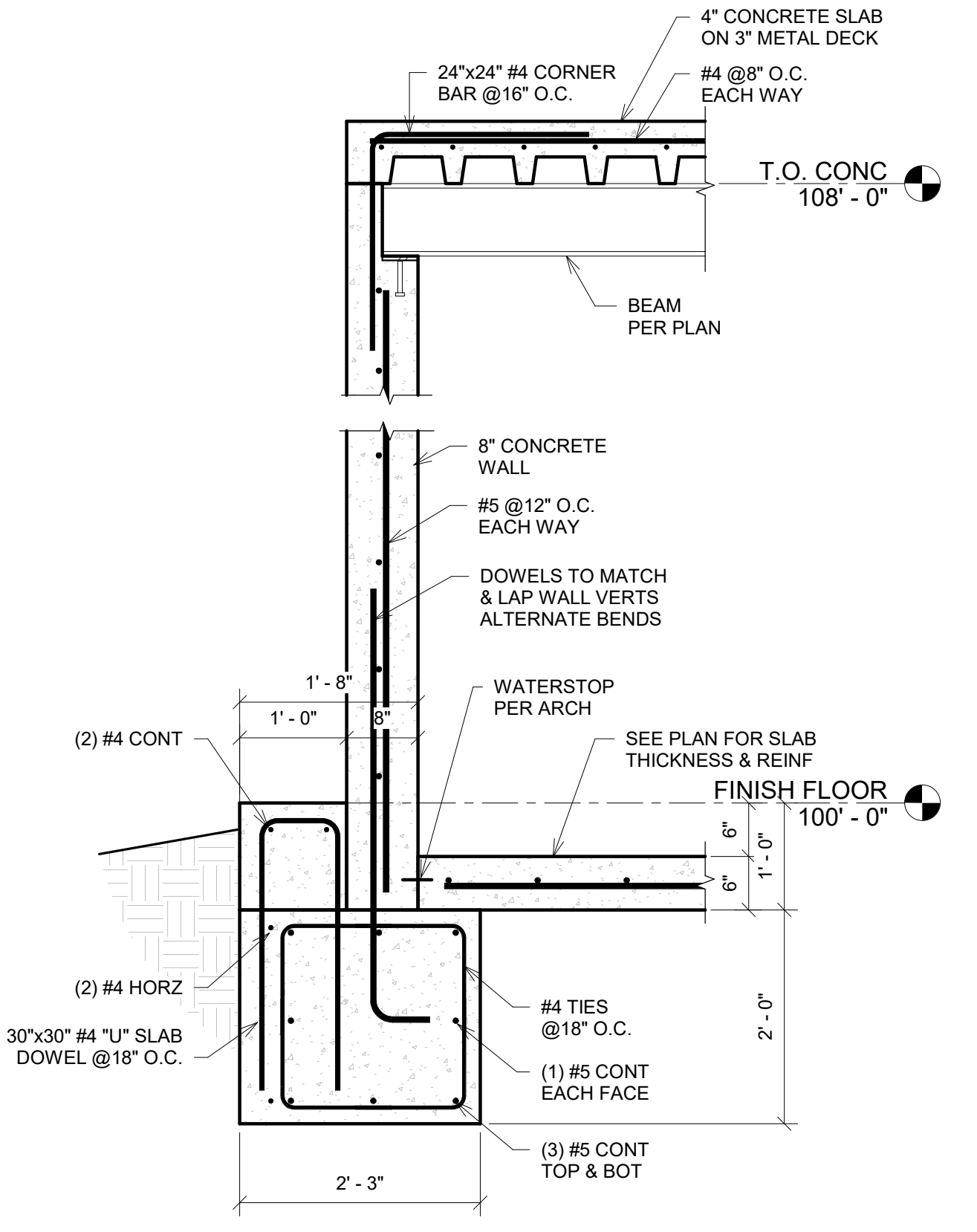
F1 Section F1
 3/4" = 1'-0"



F2 Section F2
 3/4" = 1'-0"



F3 Section F3
 3/4" = 1'-0"

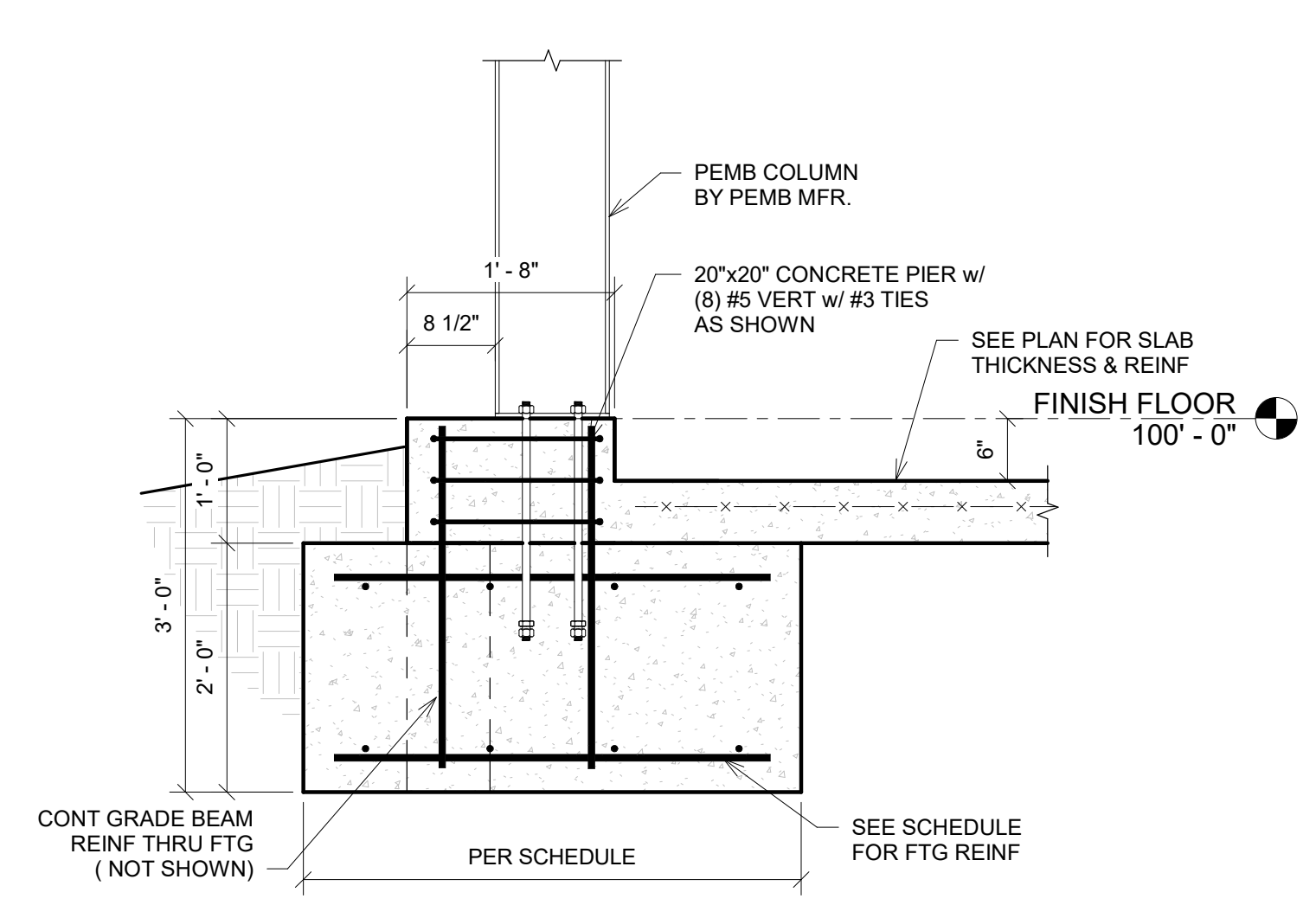


F4 Section F4
 3/4" = 1'-0"

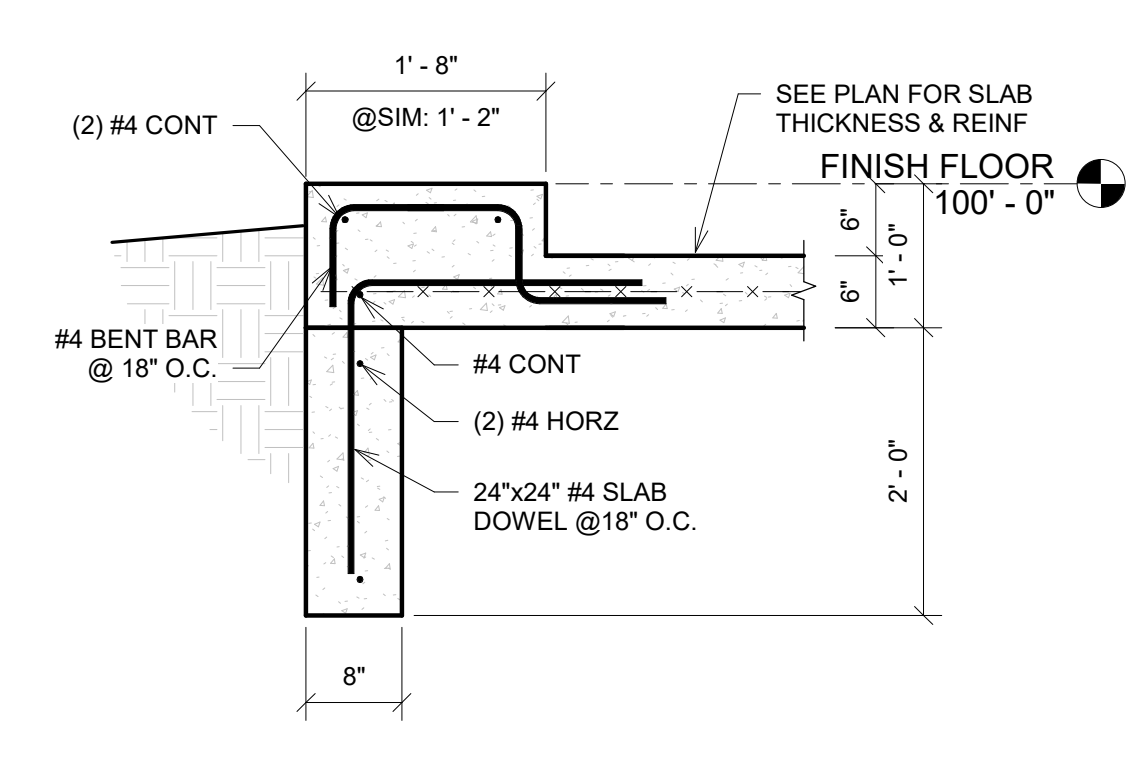


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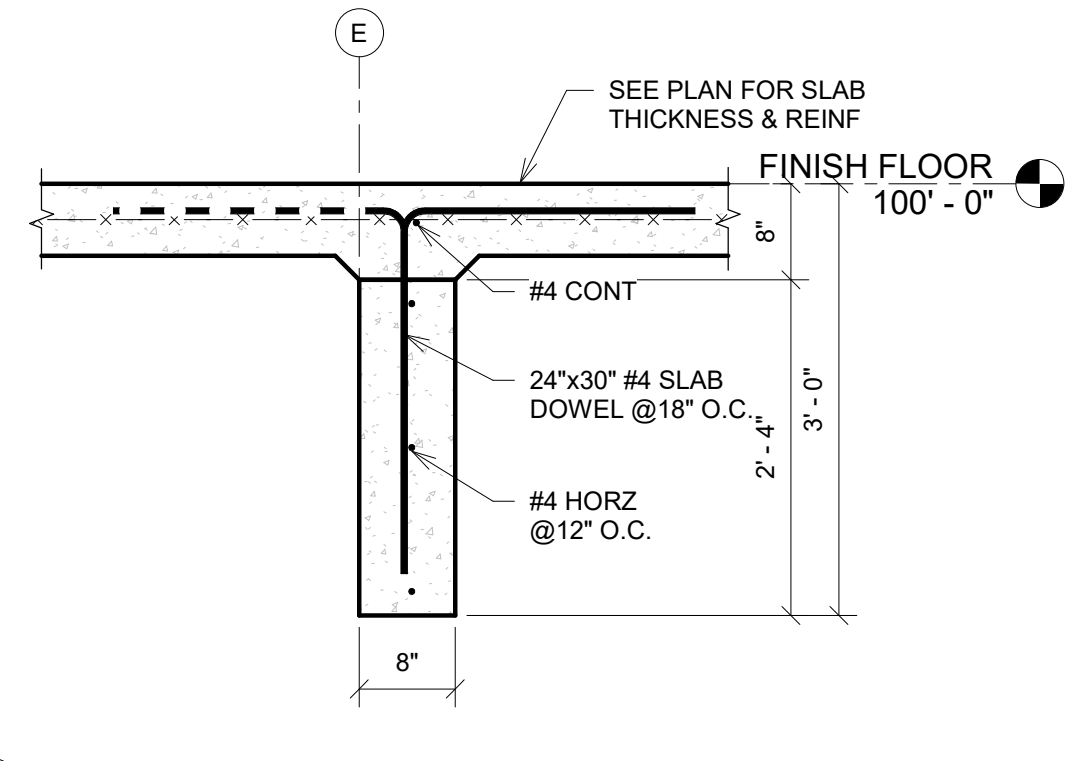
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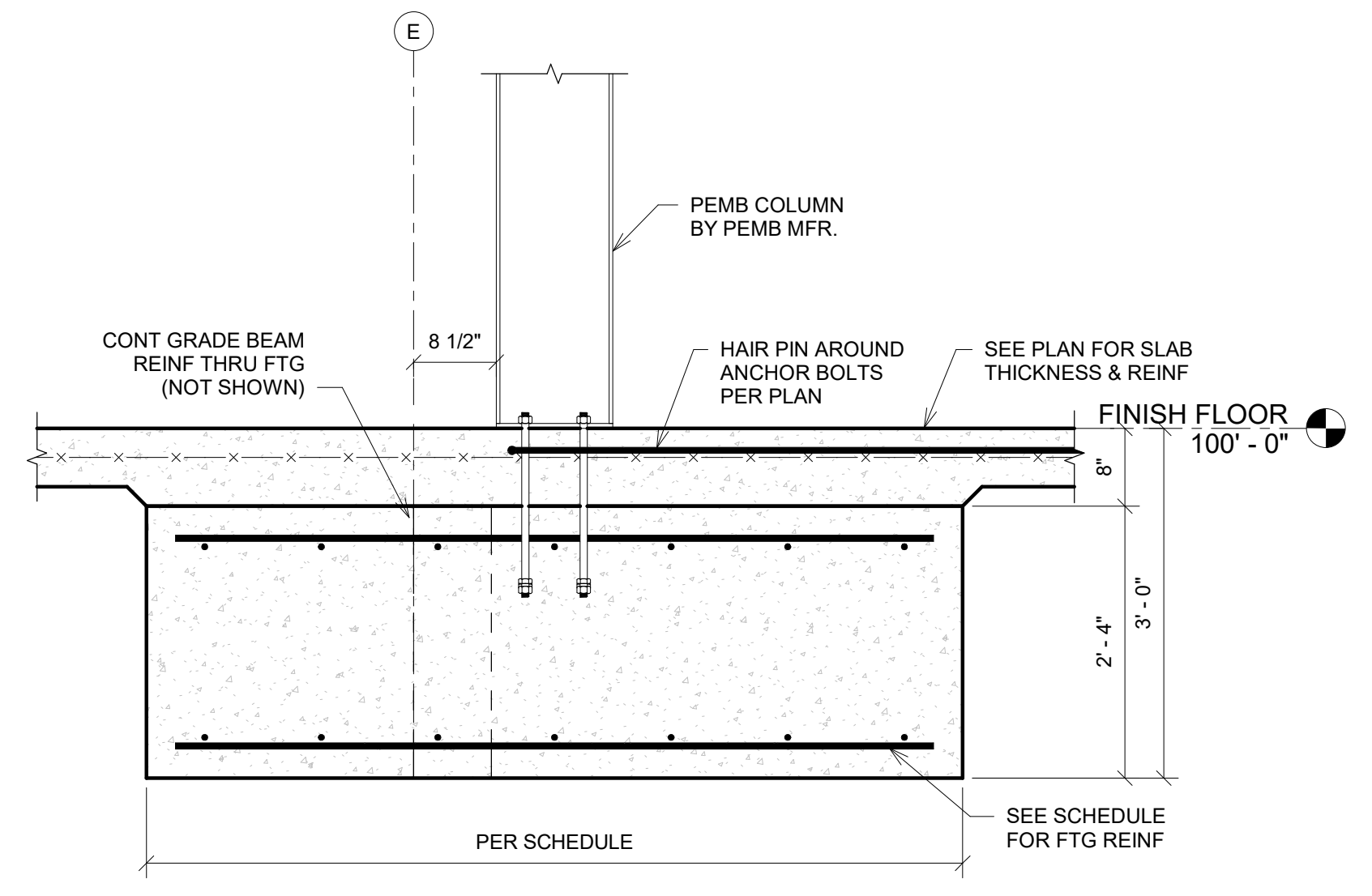
F5 Section F5
3/4" = 1'-0"



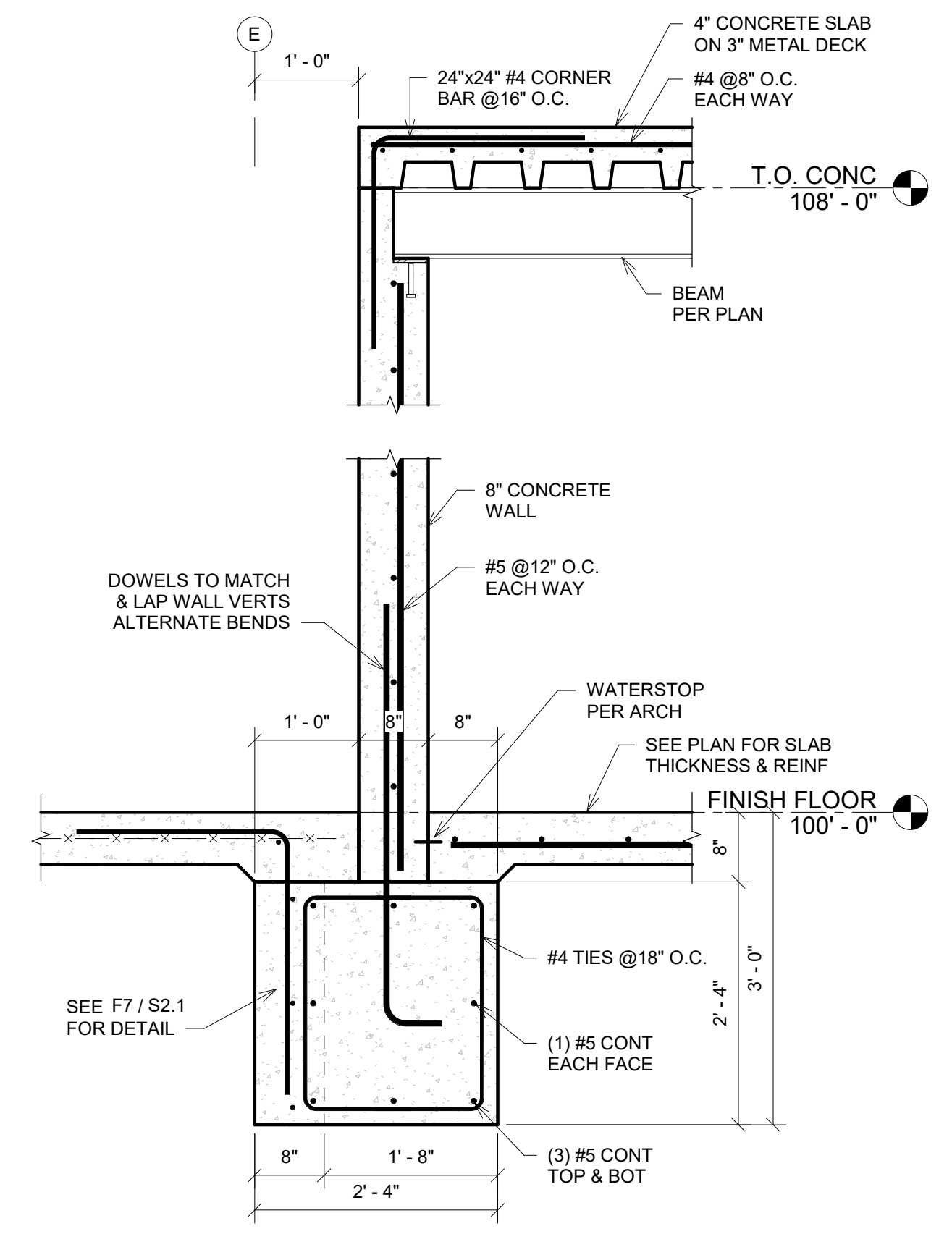
F6 Section F6
3/4" = 1'-0"



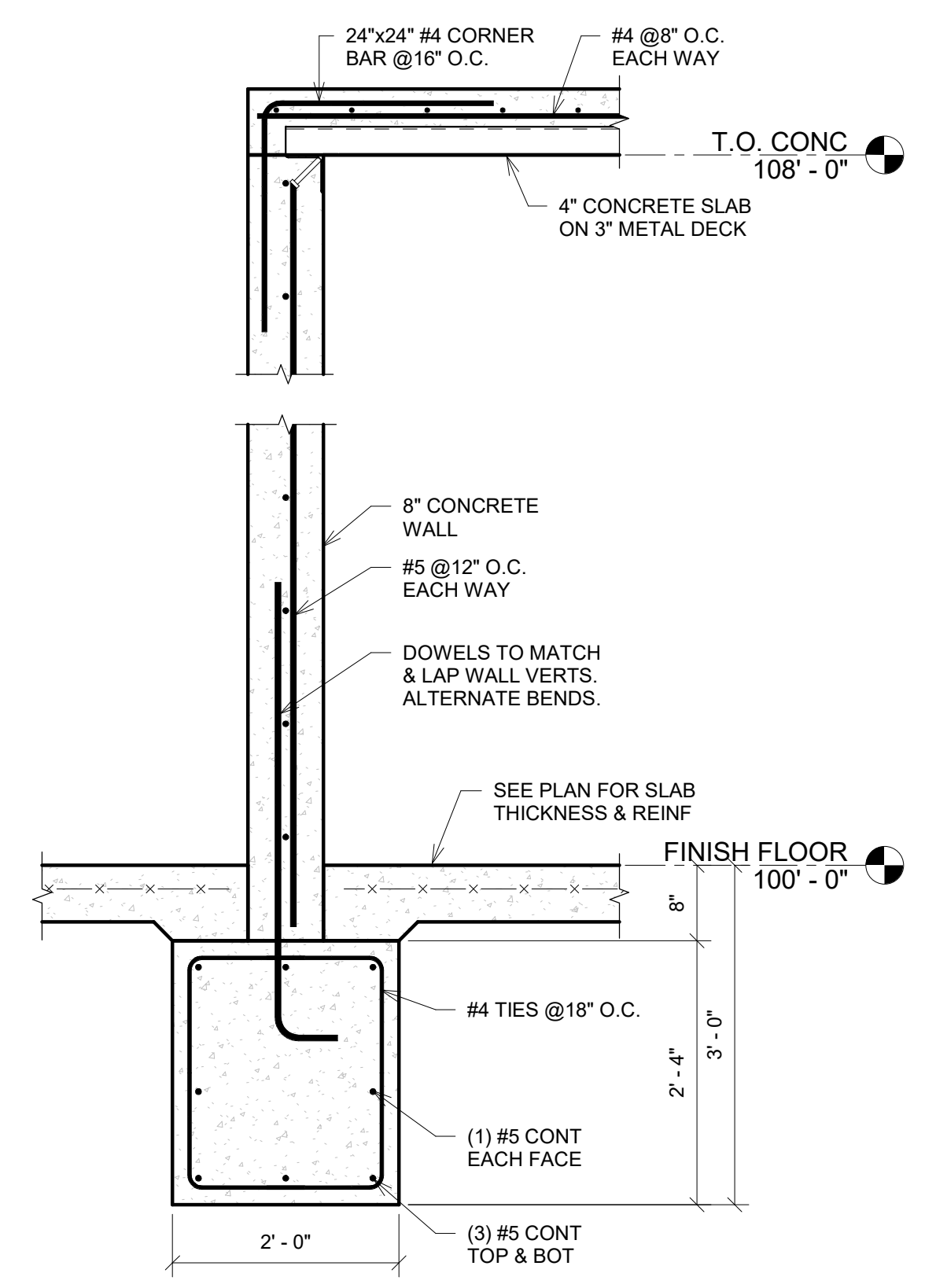
F7 Section F7
3/4" = 1'-0"



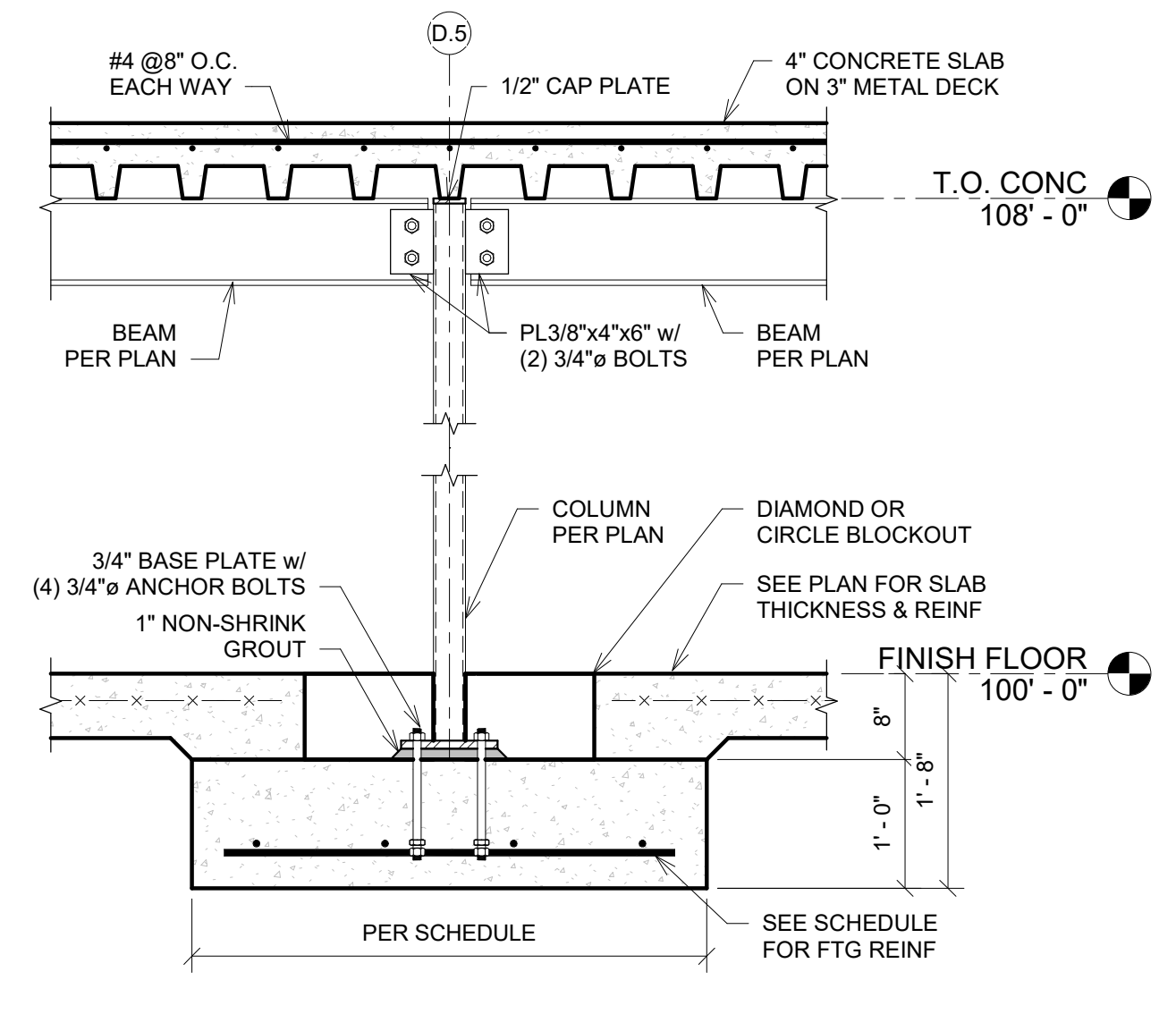
F8 Section F8
3/4" = 1'-0"



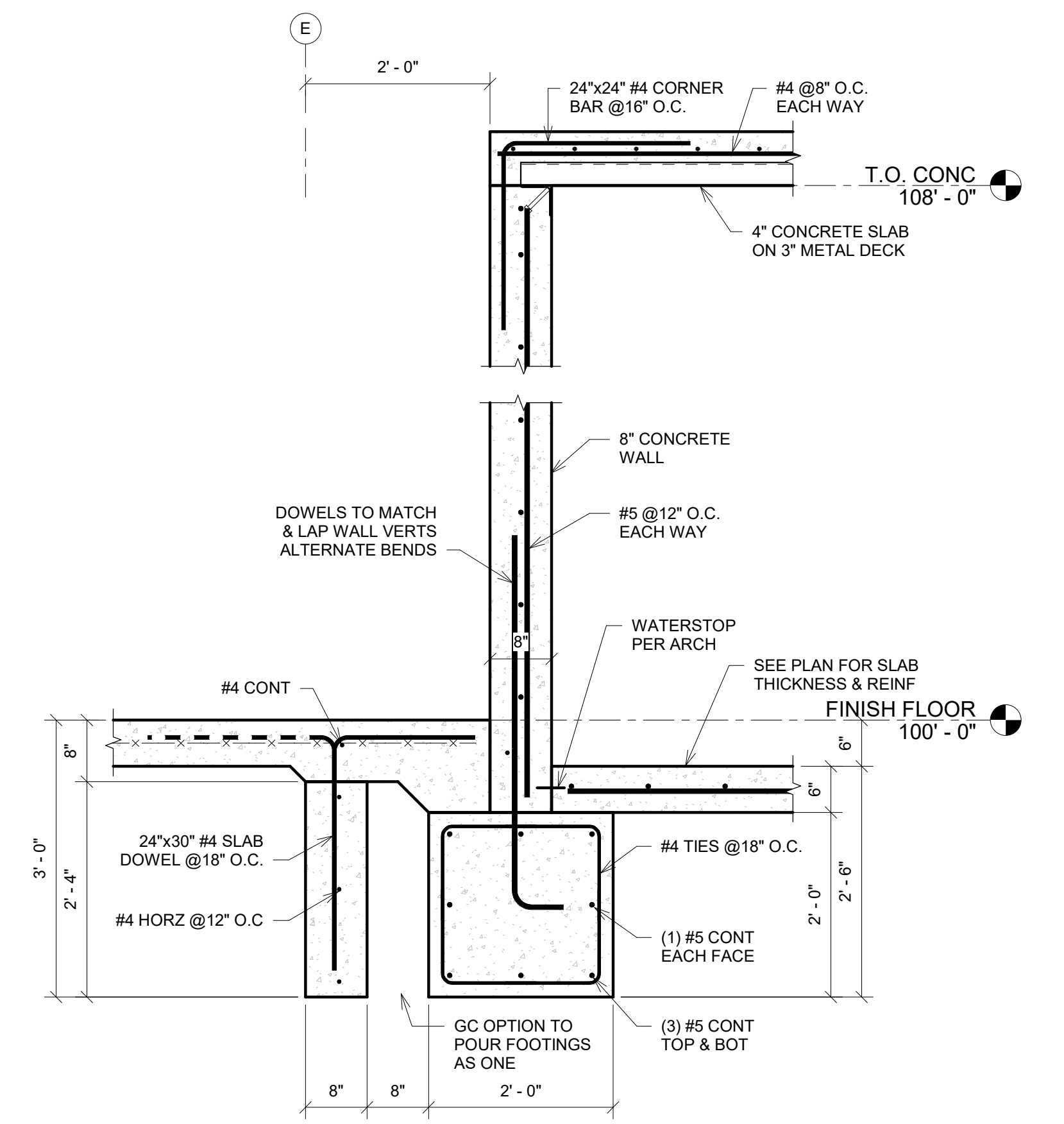
F9 Section F9
3/4" = 1'-0"



F10 Section F10
3/4" = 1'-0"



F11 Section F11
3/4" = 1'-0"

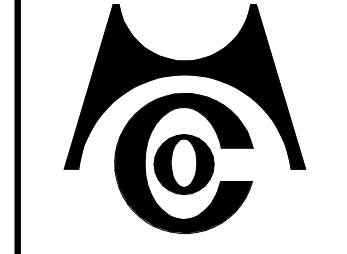


F12 Section F12
3/4" = 1'-0"

revision

STRUCTURAL DETAILS
Reno Co. Landfill Entry Relocation
CUSTOMER CONVENIENCE CENTER
703 SOUTH MOHOWK ROAD
HUTCHINSON KS 67501
project

ds. CCB
dr. TS
ck. BLE
commission no. 2318.00
prints 77
E-5 tracings



sheet
S2.1
of
date
11.11.2020

ENGINEERING
EC ENGINEERING CONSULTANTS, P.A.
1227 NORTH MAIN STREET
P.O. BOX 932
HUTCHINSON, KS 67504-0932
620-665-6394 (ph) - 620-665-0218 (fax)
www.edutch.com - info@edutch.com
CONSULTANTS
EC PROJECT # 19-210

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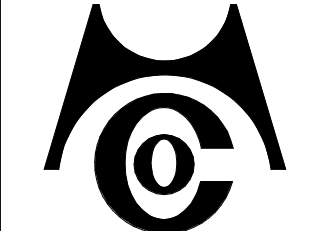
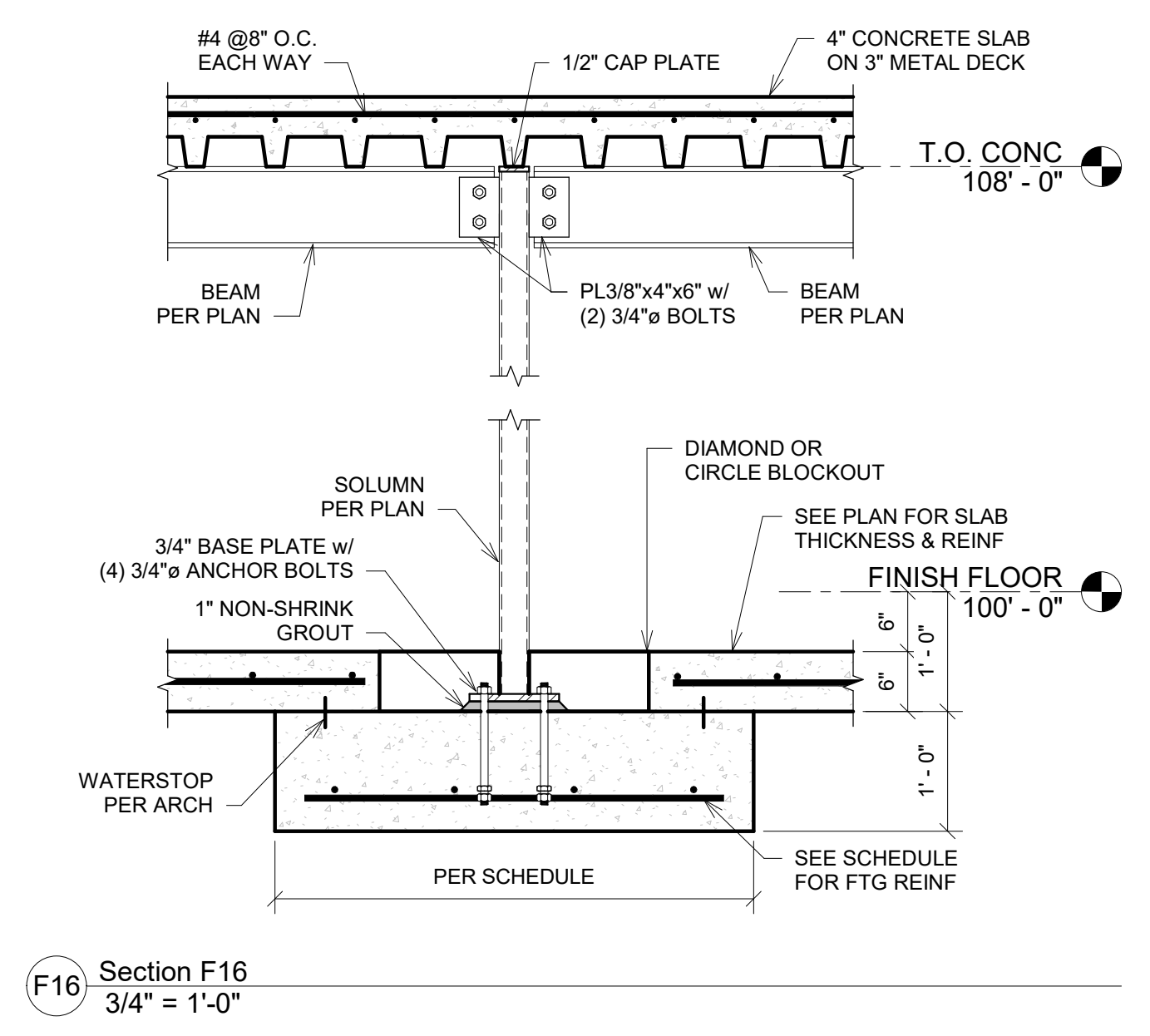
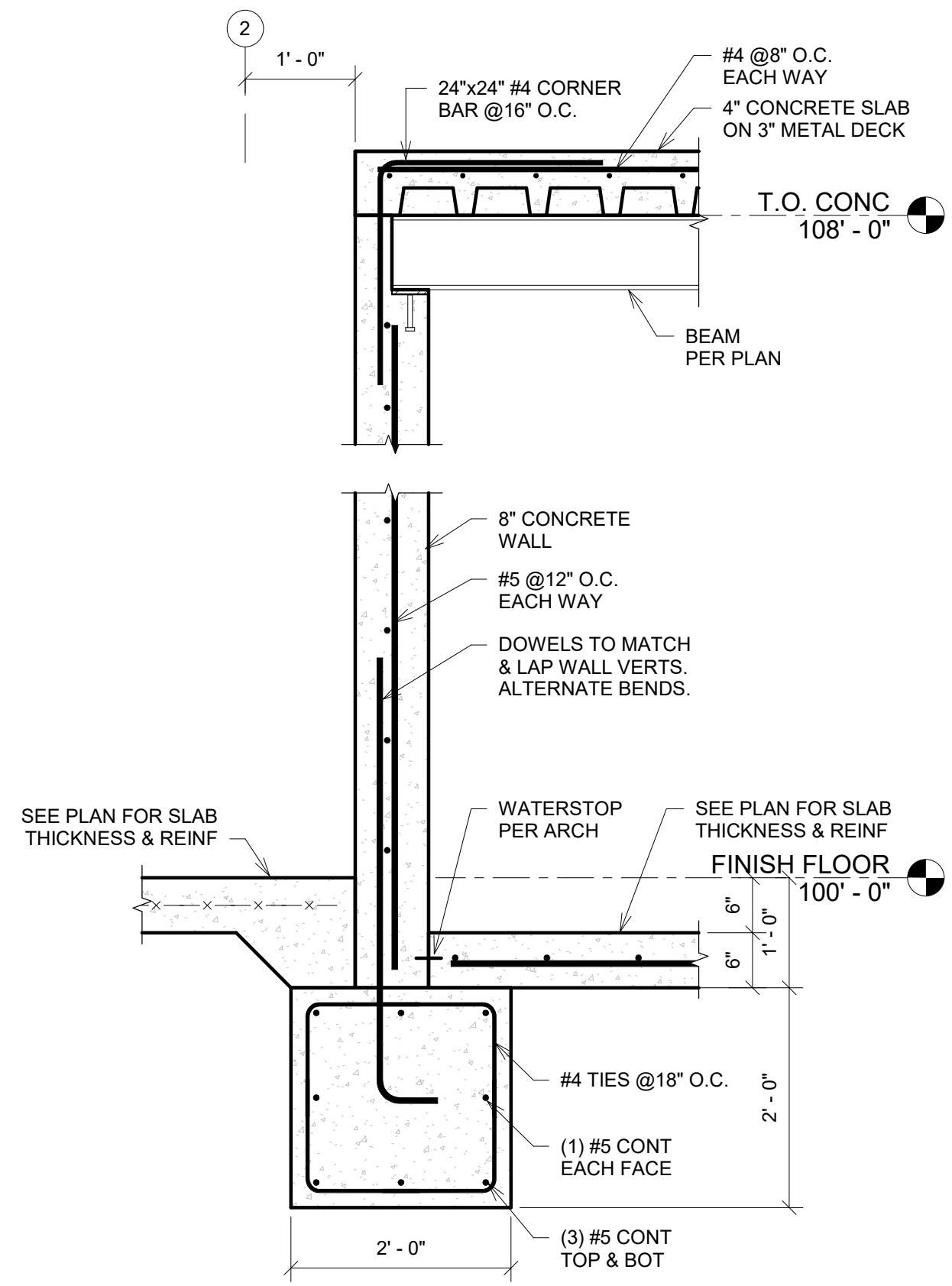


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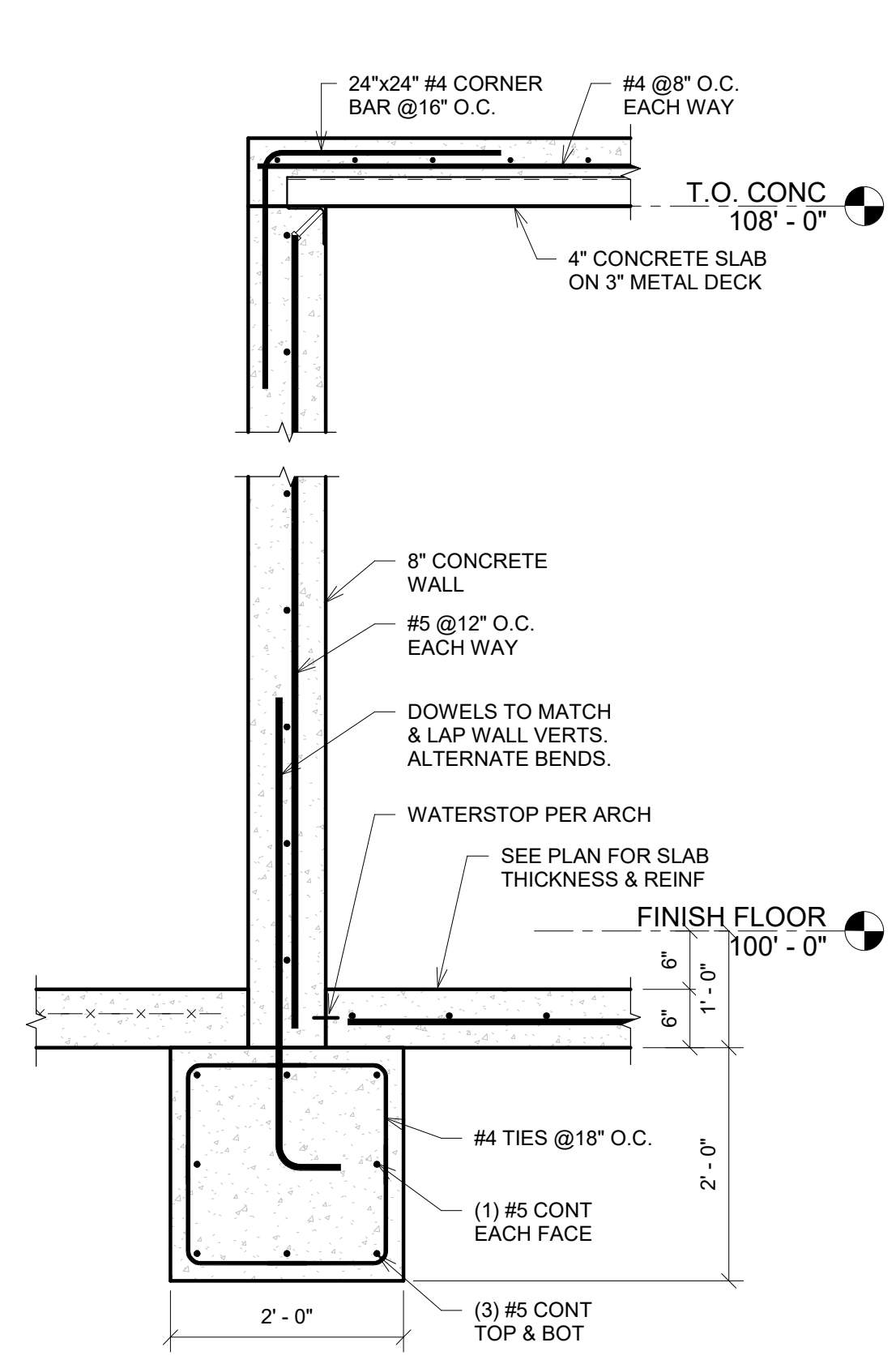
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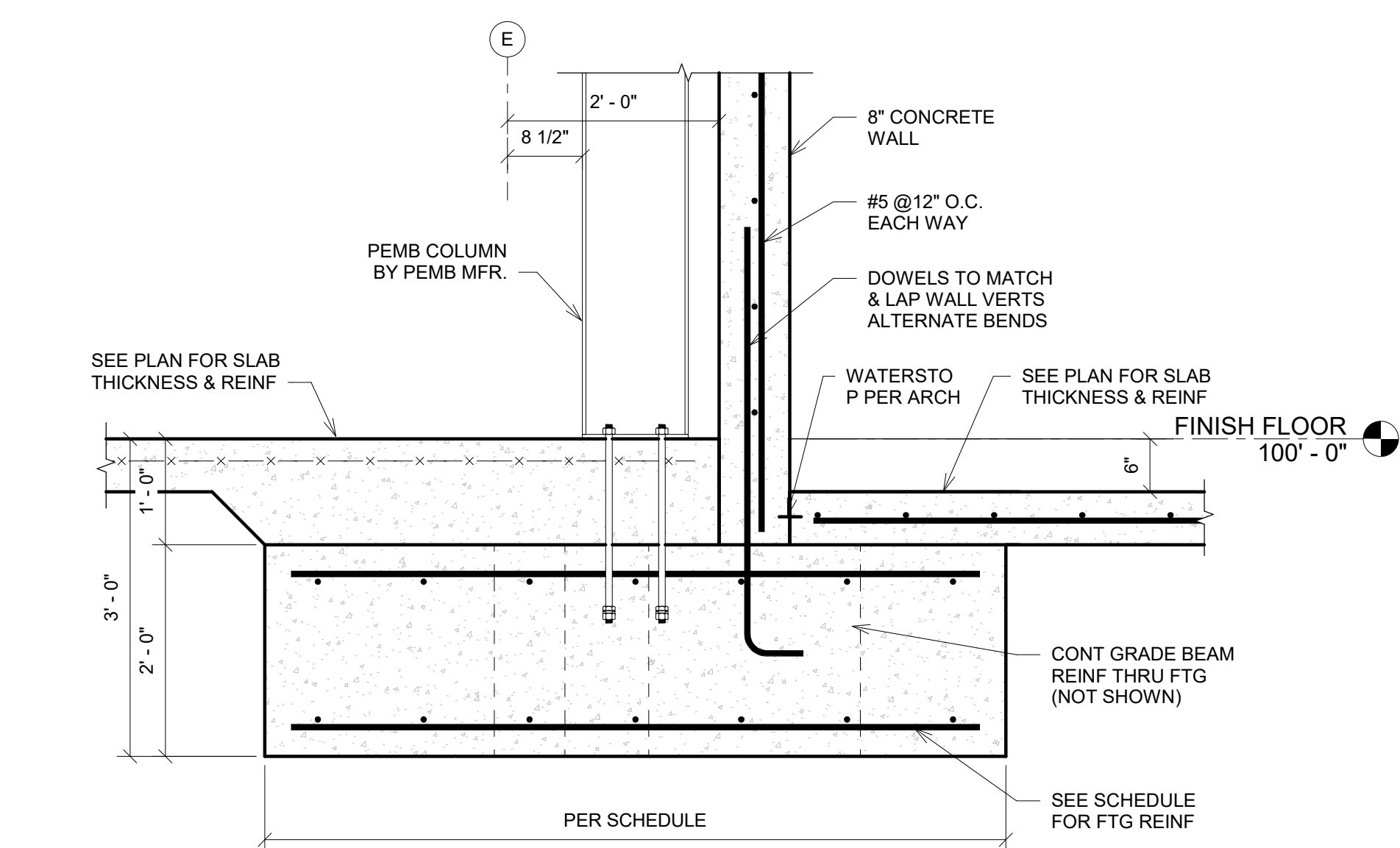
F16 Section F16 3/4" = 1'-0"



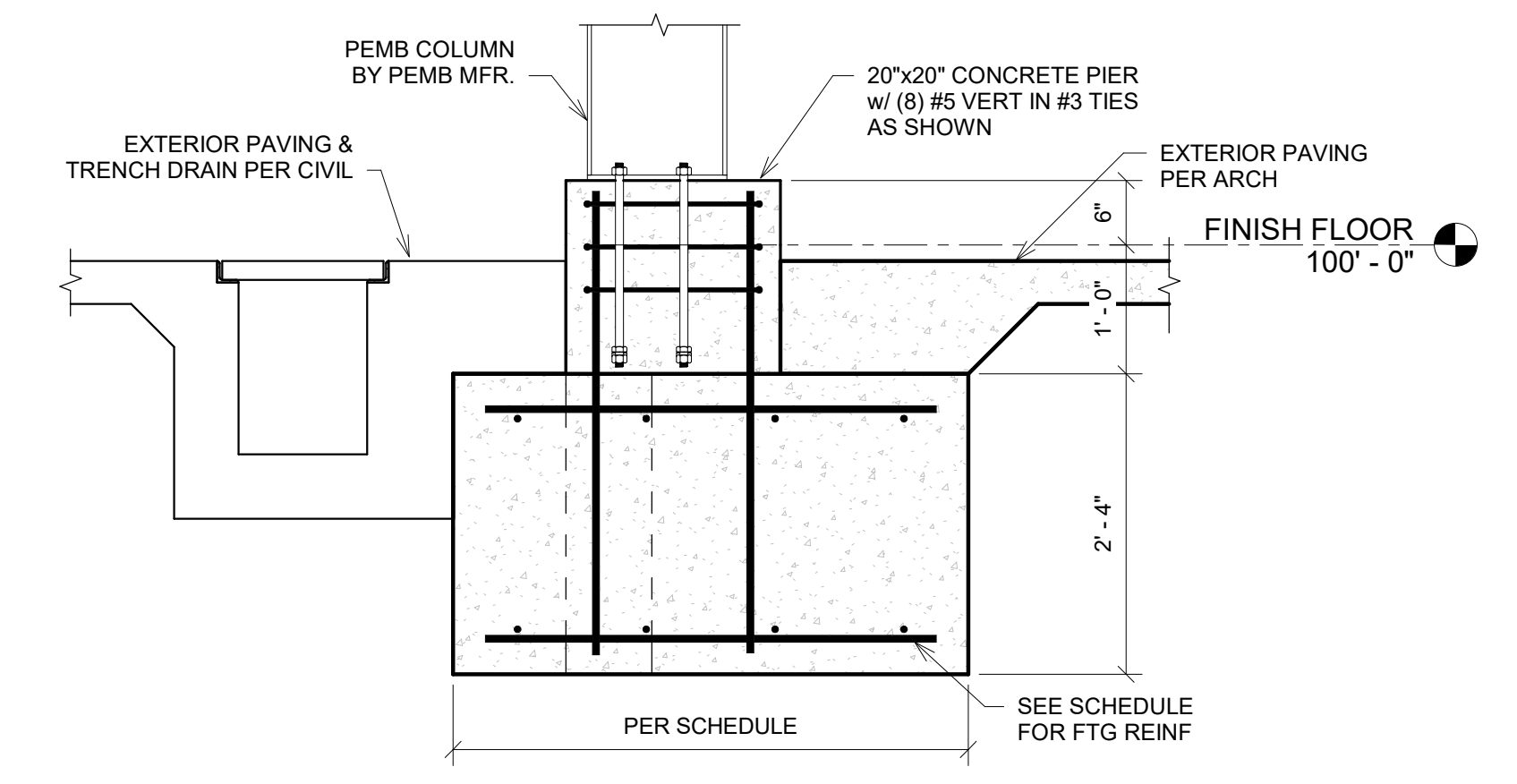
F15 Section F15 3/4" = 1'-0"



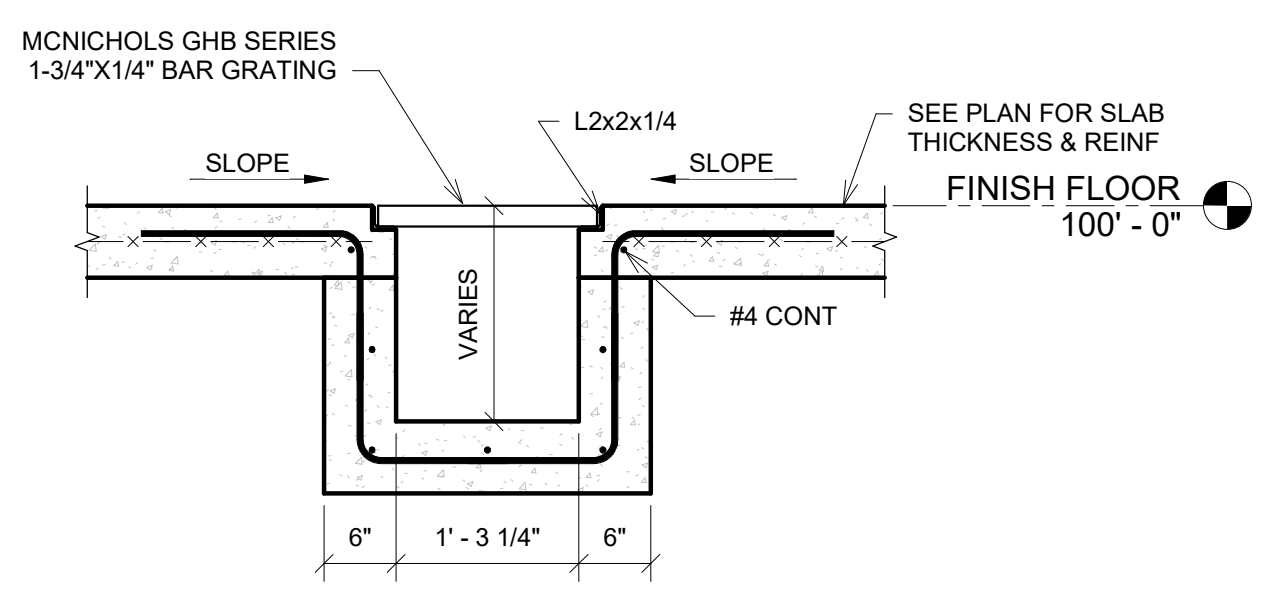
F14 Section F14 3/4" = 1'-0"



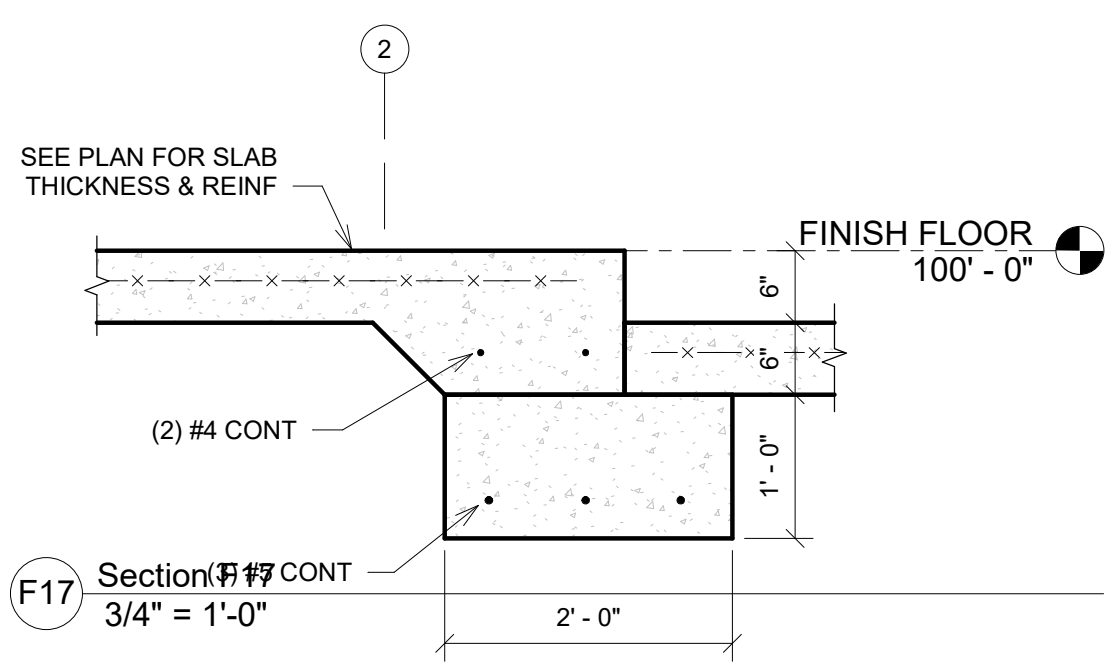
F13 Section F13 3/4" = 1'-0"



F19 Section F19 3/4" = 1'-0"



F18 Section F18 3/4" = 1'-0"



F17 Section F17 3/4" = 1'-0"



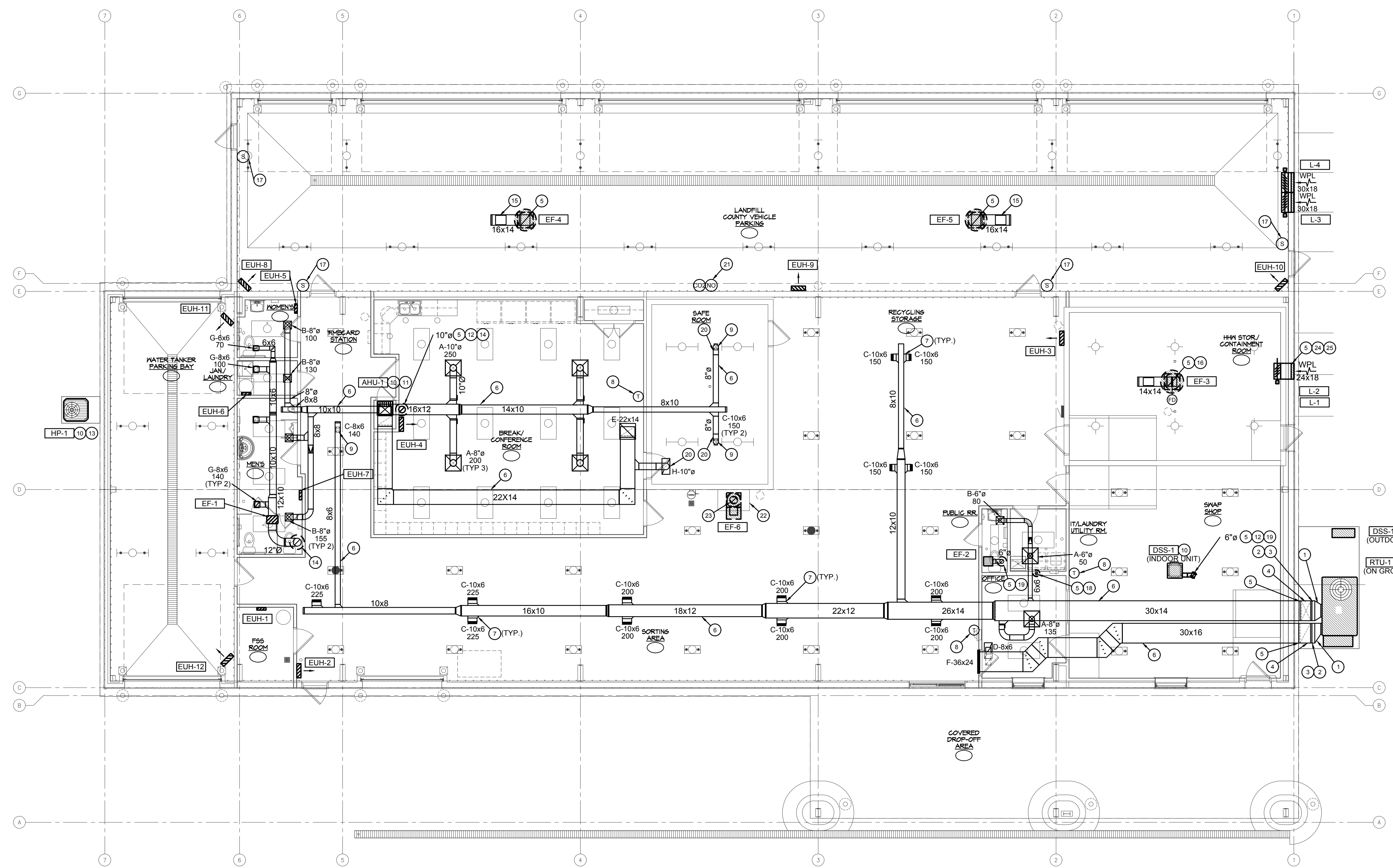
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 1703 Landon Street, Suite B
 Hutchinson, KS 67502 620-662-4493

PLAN NOTES:

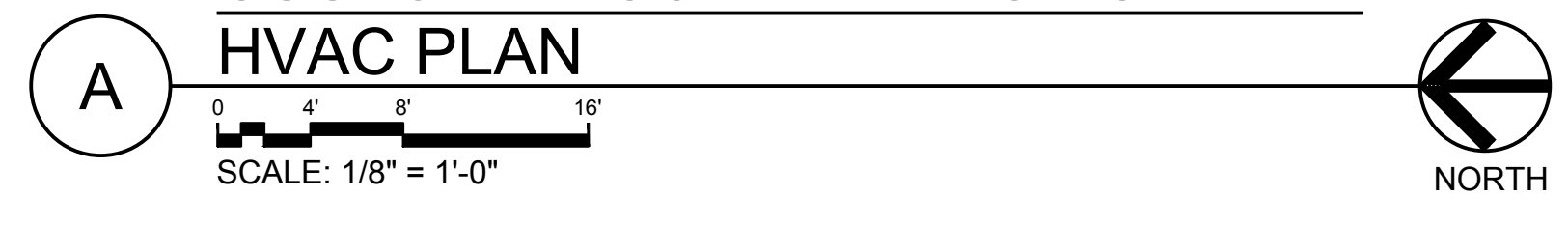
1. TRANSITION DUCT AS REQUIRED TO CONNECT TO ROOF TOP UNIT OPENINGS.
2. EXTERIOR DUCT EXPOSED TO THE WEATHER SHALL BE INSULATED WITH MINIMUM 2" THICK FOIL-FACED, RIGID CLOSED-CELL POLYISOCYANURATE FOAM SHEATHING BOARD. INSULATION ON HORIZONTAL TOP SURFACES SHALL BE THICKER AND TAPERED AT 1/4" PER FOOT TO ALLOW FOR ADEQUATE WATER DRAINAGE. BOARD TO BE INSTALLED WITH 12 GA. CUP HEAD WELD PINS. ALL SEAMS, JOINTS, AND PINS TO BE SEALED OFF WITH FOIL-FACED, WATER-RESISTIVE TAPE TO MATCH FACING. THE RIGID BOARD TO BE JACKETED WITH 020 STUCCO EMBOSSED ALUMINUM JACKET. JACKET TO BE SCREWED OFF AND SEALED WATERTIGHT. AT CONTRACTORS DISCRETION, IN LIEU OF ALUMINUM JACKET, ALUMAGUARD RUBBERIZED BITUMEN MEMBRANE BY POLYGLARD PRODUCTS OR EQUAL WITH A MINIMUM THICKNESS OF 56 MILS MAY BE USED.
3. PROVIDE MID DUCT SUPPORT (WIND AND SEISMIC), DUCT MOUNTING HEIGHT TO BE FIELD DETERMINED WITH ACTUAL EQUIPMENT PROVIDED ON SITE.
4. PROVIDE WALL DUCT SUPPORT EVERY 5'-0" ON EXPOSED VERTICAL DUCT.
5. SEAL DUCT PENETRATION WEATHER TIGHT.
6. MOUNT S.A. GRILLE AS HIGH AS POSSIBLE. (TYPICAL)
7. S.A. GRILLE MOUNTED AT 0" FROM HORIZONTAL.
8. PROVIDE THERMOSTAT WITH LOCKABLE COVER.
9. MOUNT S.A. GRILLE ON BOTTOM OF DUCT AS SHOWN.
10. M.C. TO PROVIDE LINESET PER MANUFACTURER'S RECOMMENDATION. PROVIDE PVC JACKET FOR INSULATED REFRIGERANT PIPING.
11. SET AHU-1 ON 16" TALL FIELD FABRICATED INSULATED RETURN AIR PLENUM. REFER TO DETAIL.
12. PROVIDE AND INSTALL MANUAL VOLUME DAMPER AND 2 POSITION MOTORIZED CONTROL DAMPER IN EACH BRANCH OUTSIDE AIR DUCT. INTERLOCK CONTROL DAMPER TO AHU/DSS SUPPLY FAN CONTROL. BALANCE MANUAL VOLUME DAMPER TO AIRFLOW INDICATED ON AHU/DSS OUTSIDE AIR SCHEDULE BELOW.
13. SET UNIT ON 3-1/2" CONCRETE HOUSEKEEPING PAD, 6" WIDER AND LONGER THAN THE UNIT.
14. DUCT UP THROUGH ROOF. PROVIDE AND INSTALL COOK PR12 ROOF CAP OR EQUIVALENT.
15. CUT 14"x16" HOLE ON THE TOP 16x14 DUCT. COVER HOLE WITH BUG SCREEN. MOUNT DUCT AS HIGH AS POSSIBLE.
16. 14x14 DUCTWORK SHALL BE 304SS. MOUNT AS HIGH AS POSSIBLE IN CONTAINMENT ROOM CUT 12"x16" HOLE ON THE TOP OF 14x14 DUCT. COVER HOLE WITH STAINLESS STEEL BUG SCREEN. PROVIDE AND INSTALL FIRE-SMOKE DAMPER AT CONTAINMENT ROOM LID. SEAL PENETRATION THROUGH LID WITH 2 HR FIRE CAULK.
17. PROVIDE AND INSTALL ON/OFF SWITCH TO TURN ON BOTH EF-4 AND EF-5 NEAR EACH VEHICLE PARKING ENTRY DOOR. INTERLOCK EF-4 WITH L-3 CONTROL DAMPER. INTERLOCK EF-5 WITH L-4 CONTROL DAMPER.
18. 4" DRYER VENT THROUGH ROOF. TERMINATE WITH DRYERJACK ROOF VENT. SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATION.
19. DUCT UP THROUGH ROOF. PROVIDE AND INSTALL COOK PR08 ROOF CAP OR EQUIVALENT.
20. PROVIDE STRUCTURAL SHROUD OVER ELBOW. REFER TO DETAIL.
21. PROVIDE AND INSTALL CO2 AND NO SENSORS WITH AUDIBLE/VISUAL ALARM.
22. M.C. TO PROVIDE AND INSTALL 4'-0" LABCONCO PROTECTOR XL BENCHTOP LAB HOOD, WITH LABCONCO ADA SOLVENT STORAGE CABINET AND LABCONCO 4'-0" FLAT SOLID EPOXY WORK SURFACE. PER MANUFACTURER'S RECOMMENDATION.
23. 12" 304SS EXHAUST DUCT FROM LAB HOOD, THROUGH ROOF. TO EE-6. PROVIDE AND INSTALL MANUAL BALANCING DAMPER IN DUCT, 5'-0" ABOVE HOOD. USE DAMPER TO OPTIMIZE LAB HOOD TO 725 CFM.
24. SEAL PENETRAION THROUGH CONTAINMENT ROOM WALL WITH 2HR RATED FIRE CAULK.
25. INTERLOCK L-1 AND L-2 WITH EF-3.

MARK	OUTSIDE AIR CFM
DSS-1	85 CFM
AHU-1	270 CFM

NOTES:
 1. PROVIDE AHU AND RTU WITH PHENOMENAL AIRE COLD PLASMA GENERATOR SIZED FOR AIRFLOW INDICATED ON SCHEDULE. CONTACT TIM BERENDS WITH TRANE FOR ADDITIONAL EQUIPMENT INFORMATION AND ORDERING. (844) 714-1610.



**CUSTOMER CONVENIENCE CENTER
 HVAC PLAN**

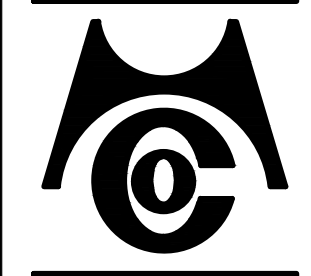


revision

Reno Co. Landfill Entry Relocation
Convenience Center
 705 South Mohawk Road
 Hutchinson, KS 67501

project

HVAC PLAN
 title

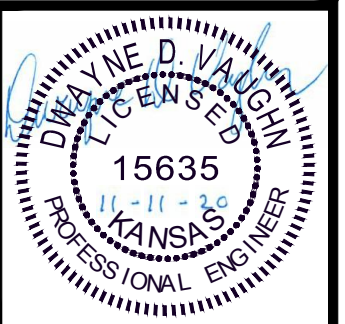


ds.	BTP
dr.	EJS
ck.	EJS
commission no.	2518.00
prints	tracings
E-5	77

sheet	M.I.1
of	
date	Nov 11, 2020

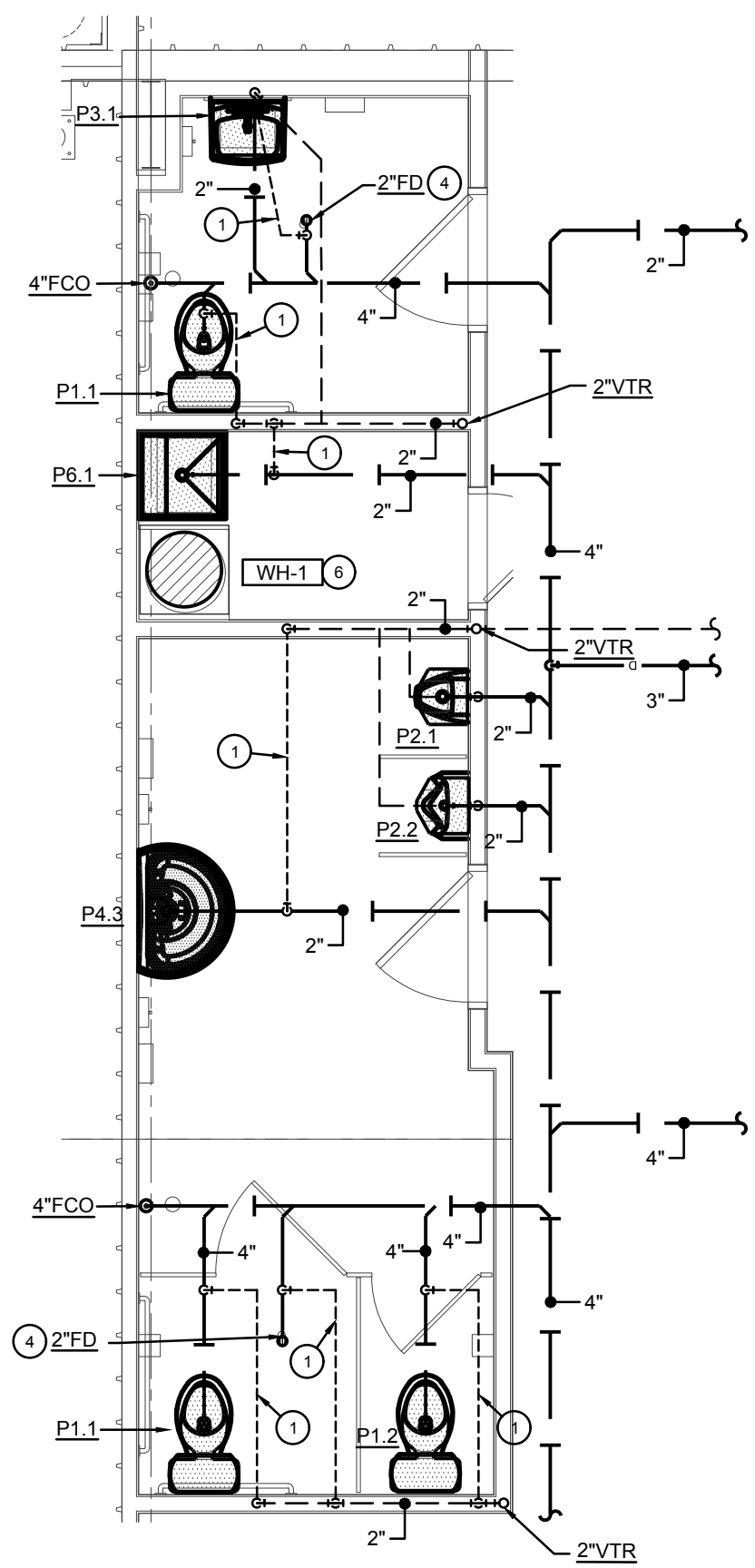
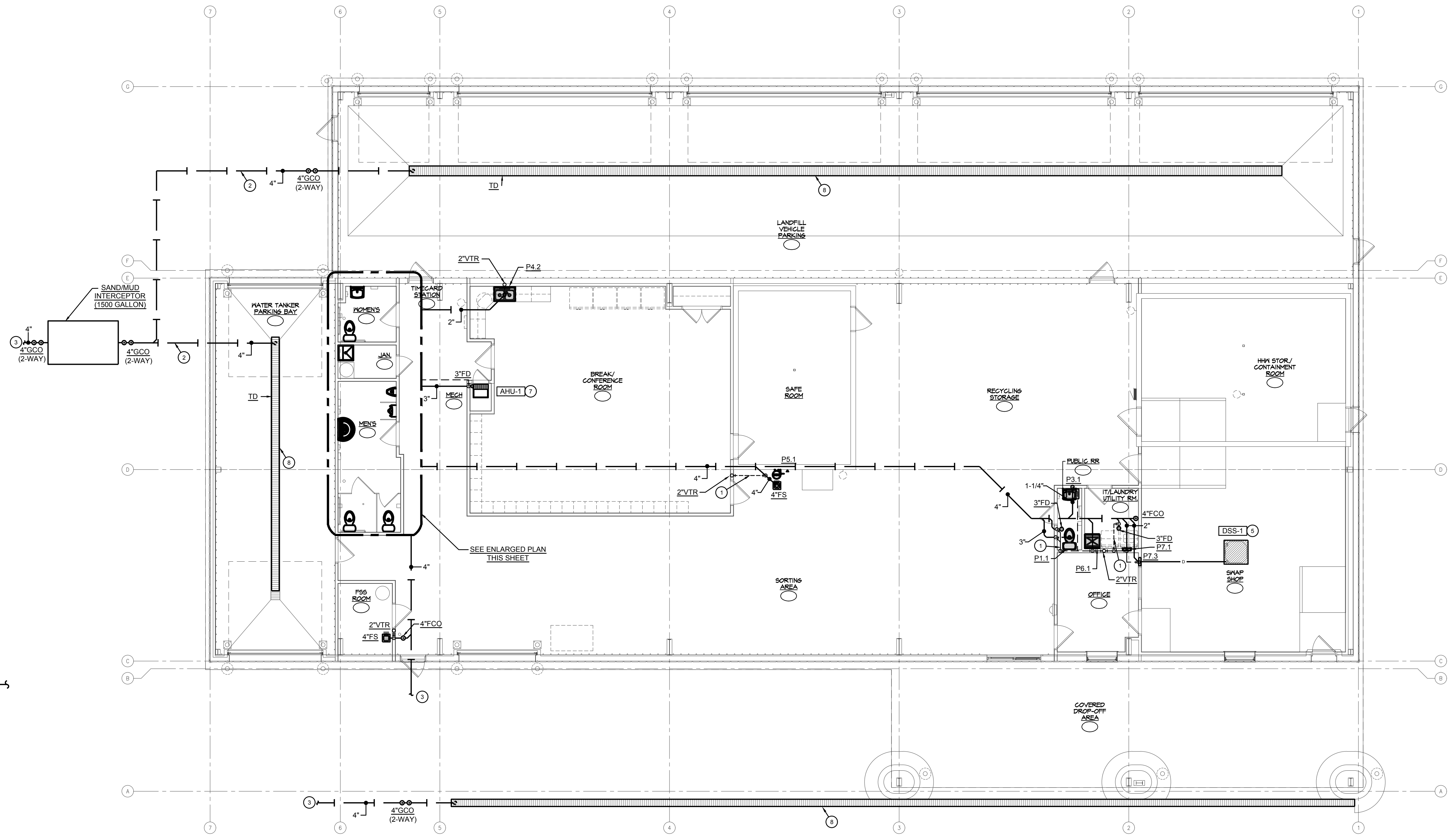
Integrated Consulting Engineers, Inc.
 349 South Hydraulic • Wichita, KS 67211
 316.264.3588 • 316.264.3948 • www.icengr.com

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 1703 Landon Street, Suite B
 Hutchinson, KS 67502 620-662-4493

no.	description	date



B ENLARGED WASTE AND VENT PLAN
 SCALE: 1/4" = 1'-0"
 NORTH

A CUSTOMER CONVENIENCE CENTER WASTE AND VENT PLAN
 SCALE: 1/8" = 1'-0"
 NORTH

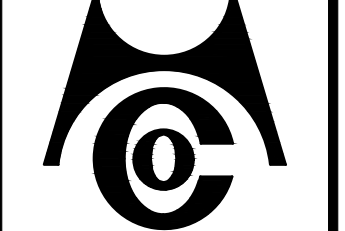
WASTE & VENT PLAN NOTES:

- 2" VENT BELOW FLOOR. (TYPICAL)
- EXTEND TO SAND/MUD INTERCEPTOR (1500 GALLON). REFER TO DETAIL FOR INFORMATION REGARDING SAND/MUD INTERCEPTOR PIPING.
- REFER TO ARCHITECTURAL / CIVIL SITE PLAN FOR CONTINUATION.
- PROVIDE PRO-SET TRAP GUARD DIAPHRAGM FOR ALL FLOOR DRAINS. REFER TO TRAP GUARD DETAIL FOR ADDITIONAL INFORMATION. (TYPICAL)
- EXTEND DUCTLESS SPLIT SYSTEM CONDENSATE DRAIN DOWN TO DRAIN BOX.
- G.C. TO PROVIDE 3-1/2" CONCRETE HOUSEKEEPING PAD BELOW WATER HEATER. EXTEND TAP RELIEF VALVE DOWN TO MOP BASIN AND TERMINATE WITH 2" AIR-GAP (MIN.).
- EXTEND AHU CONDENSATE DRAIN DOWN TO FLOOR DRAIN IN THIS AREA AND TERMINATE WITH 2" AIR-GAP (MIN.) ABOVE FLOOR DRAIN.
- TRENCH AND CATCH BASIN SYSTEM (GRATES INCLUDED) PROVIDED BY OTHERS.

revision	description

WASTE & VENT PLAN project title

Reno Co. Landfill Entry Relocation Convenience Center
 708 South Mohawk Road
 Hutchinson, KS 67501



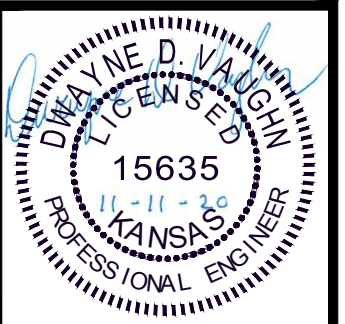
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date
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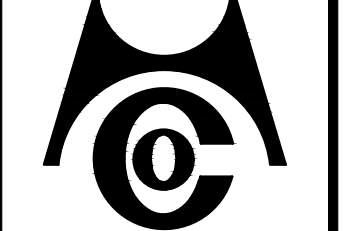
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1703 London Street, Suite B
Hutchinson, KS 67502 620-662-4493

date
description
no.

revision

Reno Co. Landfill Entry Relocation
Convenience Center
708 South Mohawk Road
Hutchinson, KS 67501
project

PLUMBING PLAN
title



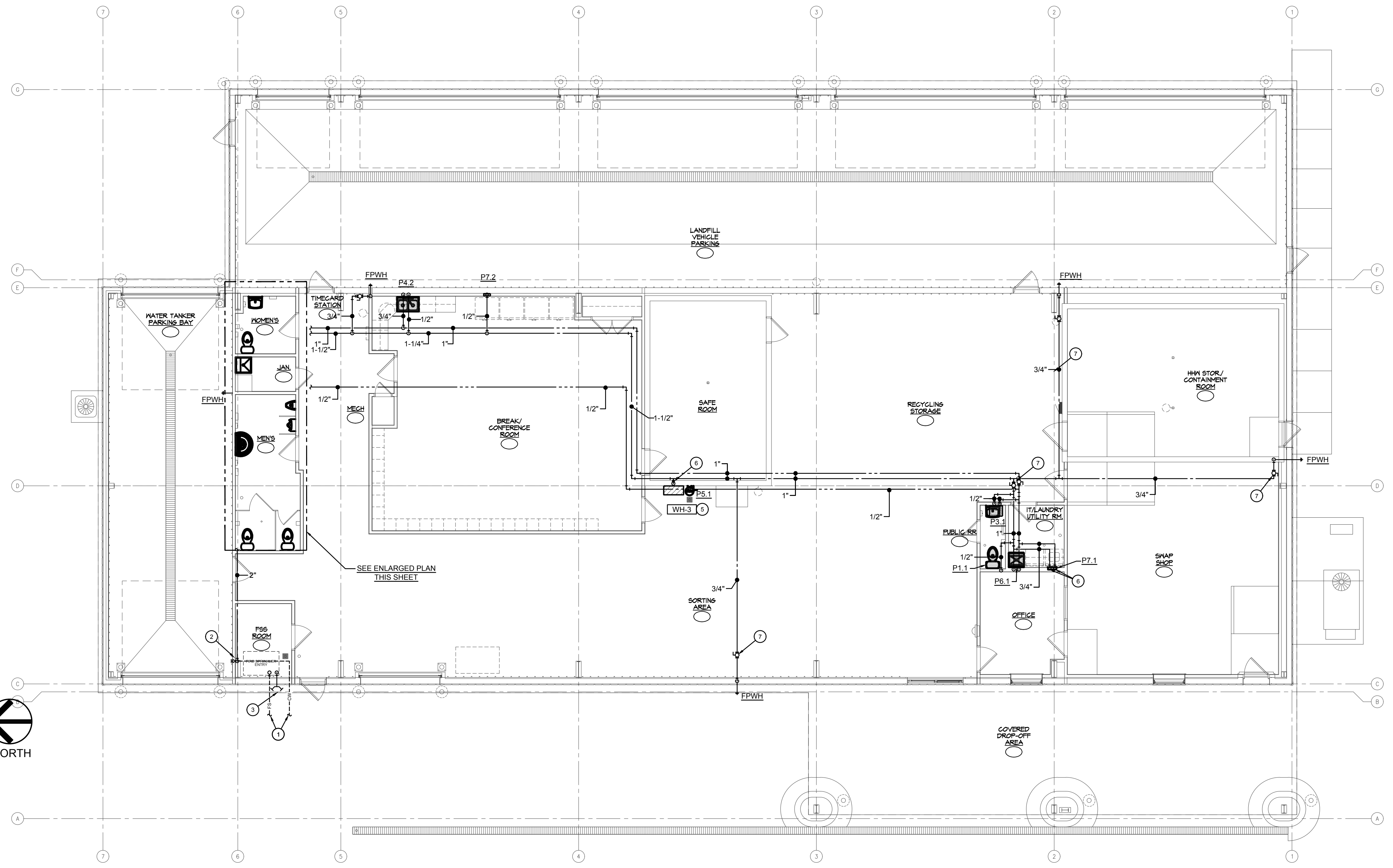
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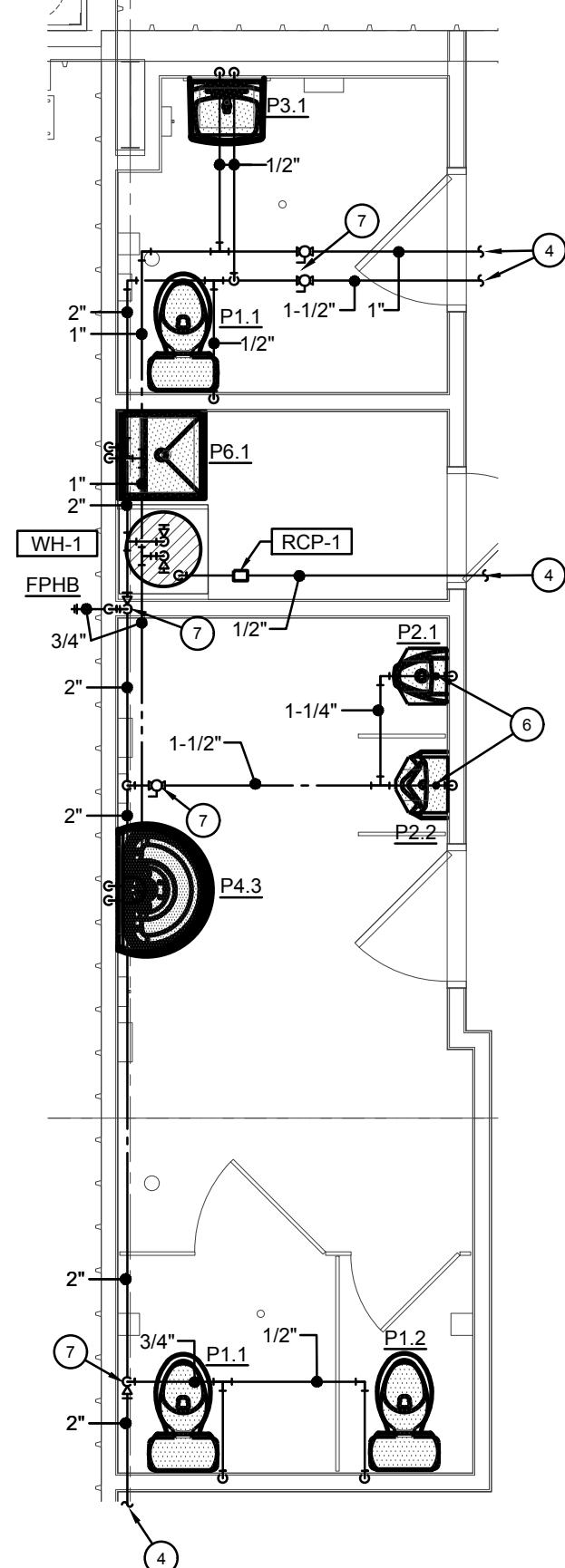
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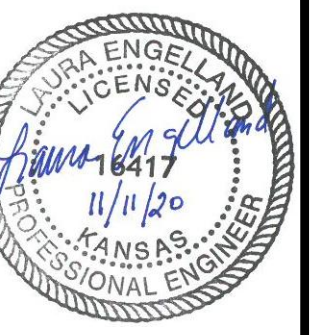


B ENLARGED PLUMBING PLAN
SCALE: 1/4" = 1'-0"
NORTH



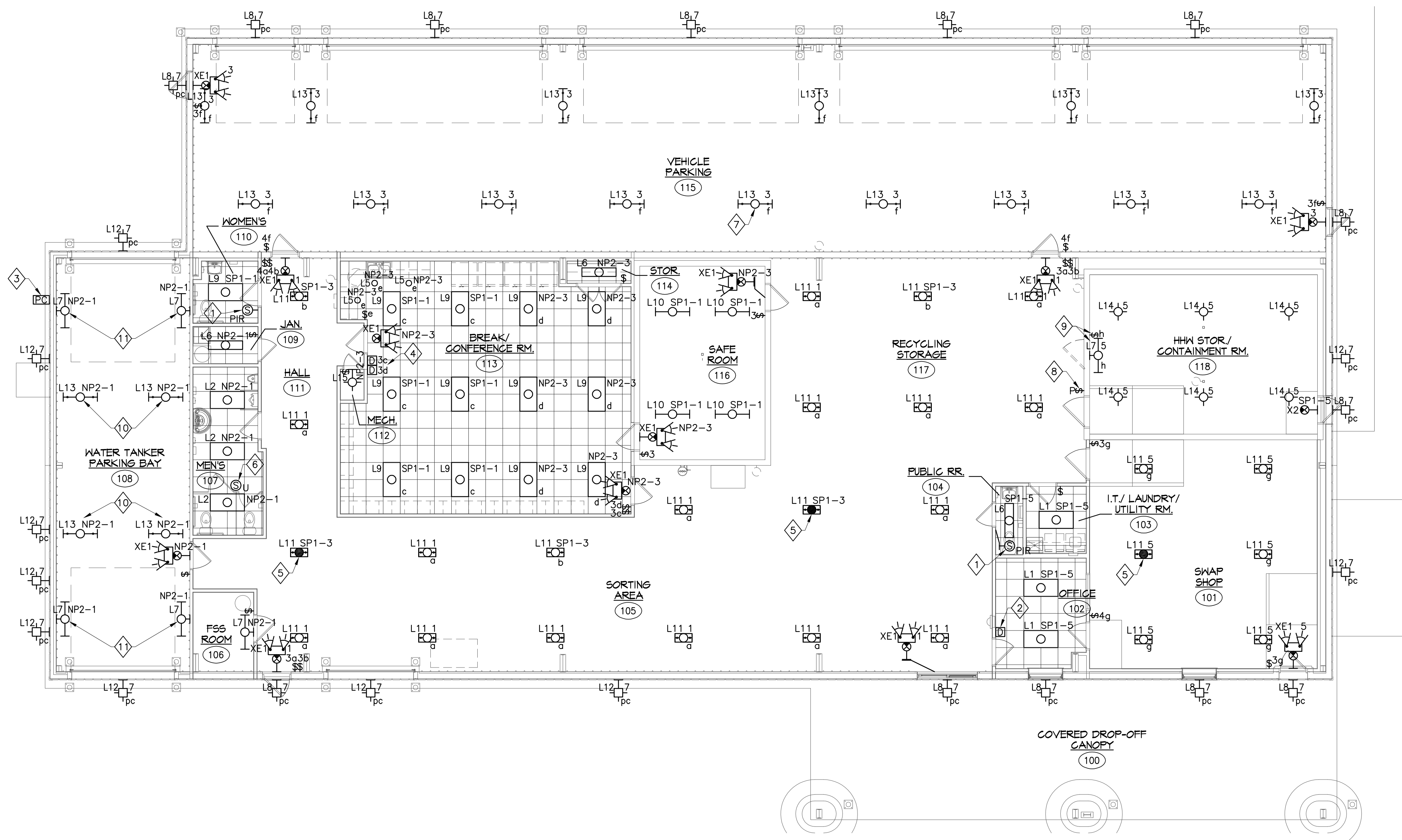
A CUSTOMER CONVENIENCE CENTER PLUMBING PLAN
SCALE: 1/8" = 1'-0"
NORTH

- PLUMBING PLAN NOTES:**
- REFER TO ARCHITECTURAL SITE PLAN FOR CONTINUATION.
 - PROVIDE AND INSTALL DOUBLE CHECK VALVE IN CW SERVICE PIPING.
 - PROVIDE FIRE DEPARTMENT SIAMESE CONNECTION IN THIS AREA. REFER TO FIRE PROTECTION DRAWINGS FOR ADDITIONAL REQUIREMENTS.
 - SEE A/P2.1 FOR CONTINUATION.
 - CONNECT 1-1/2" CW PIPING TO WH.3 PER MANUFACTURER'S RECOMMENDATION. CONNECT 1-1/2" PIPING TO PS.1 PER MANUFACTURER'S RECOMMENDATION.
 - PROVIDE AND INSTALL SIOUX CHIEF MINI ARRESTOR PER MANUFACTURER'S RECOMMENDATION.
 - PROVIDE BALL VALVE (TYP).



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ARCHITECTS & PLANNERS
 1705 London Street, Suite 9
 Hutchinson, KS 67502 620-662-4493

no. description date



LIGHTING PLAN - CONVENIENCE CENTER
 1/8"=1'-0"

GENERAL LIGHTING PLAN NOTES

- A. ALL LIGHTING AT THE CONVENIENCE CENTER SHALL BE FED FROM PANEL NP1, UNLESS NOTED AS BEING FED FROM PANEL NP2 OR STANDBY POWER PANEL SP1. REFER TO POWER PLANS FOR PANEL LOCATIONS.
- B. ALL TANDEM EXIT SIGNS/EMERGENCY BATTERY LIGHTING UNITS (TYPE XE1), EXIT SIGNS AND NIGHT LIGHTS (SHOWN SHADED) SHALL BE UNSWITCHED.
- C. ALL EXTERIOR LIGHT FIXTURES SHOWN ARE TO BE FED FROM PANEL NP1, CIRCUIT 7 AND CONTROLLED BY PHOTOCELL, UNLESS NOTED OTHERWISE. SEE PLAN NOTE 3.

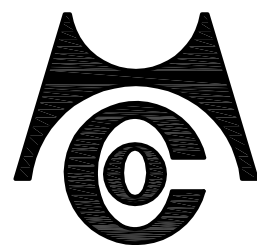
LIGHTING PLAN NOTES

- 1. PROVIDE PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR WITH 180 DEGREE COVERAGE, WATTSTOPPER PW-100-G, OR EQUAL, GRAY FINISH. INSTALL PER MANUFACTURER'S INSTRUCTIONS. AFTER TESTING UNIT, SET TIME DELAY OFF TO 10 MINUTES. "ON MODE" TO AUTO ON AND DISABLE AUDIBLE ALERT. KEEP ALL OTHER FACTORY SETTINGS. WIRE AS SHOWN ON SHEET E1.0. PROVIDE SINGLE GANG DECORATOR STYLE COVER PLATE IN STAINLESS STEEL.
- 2. PROVIDE WATTSTOPPER RADIANT 0-10V LED DIMMER RH4FL3PTC, OR EQUAL, WITH GRAY FACE KIT RHKITGRY IN SINGLE GANG BACK BOX. INSTALL GRAY FACE PLATE ON DIMMER. PROVIDE SINGLE GANG DECORATOR STYLE COVER PLATE IN STAINLESS STEEL.
- 3. PROVIDE TORK PHOTOCELL #2101 OR EQUAL FOR THE CONTROL OF EXTERIOR LIGHTING FIXTURES DESIGNATED TO BE SWITCHED BY "pc". MOUNT PHOTOCELL AT APPROXIMATELY 10'-0" AFF ON NORTH EXTERIOR WALL AND FACE TO THE NORTH.
- 4. PROVIDE (2) WATTSTOPPER RADIANT 0-10V LED DIMMERS RH4FL3PTC, OR EQUAL, WITH GRAY FACE KIT RHKITGRY IN 2-GANG BACK BOX. INSTALL GRAY FACE PLATES ON DIMMERS. PROVIDE 2-GANG DECORATOR STYLE COVER PLATE IN STAINLESS STEEL. INSTALL PER MANUFACTURER'S 3-WAY WIRING DIAGRAM.
- 5. THIS LIGHT FIXTURE IS AN UNSWITCHED NIGHT LIGHT.
- 6. PROVIDE ULTRASONIC CEILING OCCUPANCY SENSOR WITH 360 DEGREE, TWO-SIDED, 500 SQUARE FEET COVERAGE, WATTSTOPPER UT-300-1, OR EQUAL. CEILING MOUNT SENSOR AT LOCATION SHOWN AND INSTALL PER MANUFACTURER'S INSTRUCTIONS. AFTER TESTING UNIT AND ADJUSTING SENSITIVITY, LEAVE ALL OTHER FACTORY SETTINGS. ABOVE CEILING, PROVIDE 120V POWER PACK, WATTSTOPPER BZ-150, OR EQUAL, AND WIRE AS SHOWN ON SHEET E1.0.
- 7. TYPICAL FOR TYPE L13 FIXTURES IN VEHICLE PARKING 115: SUSPEND LIGHT FIXTURE FROM NEAREST STRUCTURAL PURLIN TO APPROXIMATELY 13'-0" AFF. WHERE LIGHT FIXTURE RUNS PERPENDICULAR TO PURLINS, PROVIDE UNISTRUT EXTENDING BETWEEN PURLINS FOR LIGHT FIXTURE SUPPORT.
- 8. RED PILOT-LIGHTED TOGGLE SWITCH FOR CONTROL OF CONTAINMENT ROOM 118 LIGHTING. PILOT LIGHT TO BE ON WHEN SWITCH IS ON. LABEL SWITCH "CONTAINMENT ROOM LIGHTING".
- 9. THIS LIGHT SWITCH AND TYPE L7 LIGHT FIXTURE ARE TO BE MOUNTED ABOVE ROOM 118 INSIDE ACCESS DOOR.
- 10. SUSPEND TYPE L13 LIGHT FIXTURE FROM NEAREST STRUCTURAL PURLIN TO APPROXIMATELY 16'-0" AFF.
- 11. WALL MOUNT TYPE L7 LIGHT FIXTURE AT APPROXIMATELY 6'-0" AFF.

revision

Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Mohawk Road
 Hutchinson, KS 67501

LIGHTING PLAN
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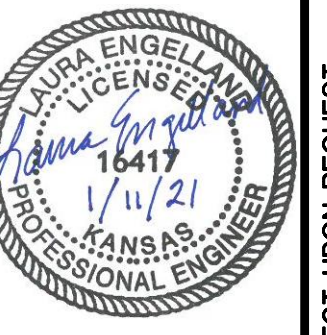


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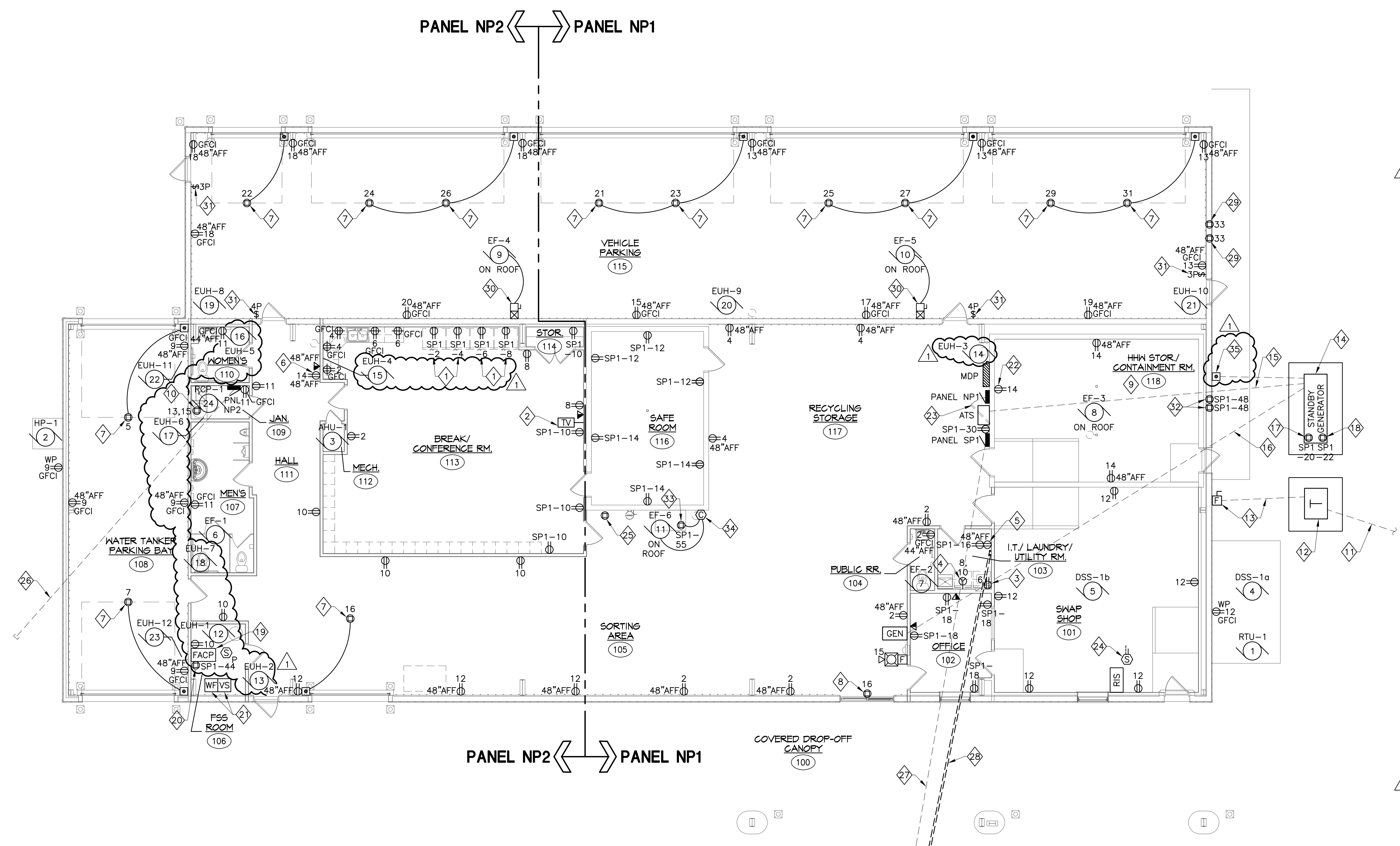


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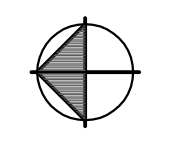
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- GENERAL POWER & SYSTEMS PLAN NOTES**
- A. ALL ELECTRICAL DEVICES IN THE CONVENIENCE CENTER SHALL BE FED FROM PANEL DESIGNATED BY PANEL DIVISION LINES, UNLESS NOTED OTHERWISE AS BEING FED FROM STANDBY POWER PANEL SP1. SEE MOTOR SCHEDULE FOR PANEL SOURCE FOR MOTOR LOADS. ALL ELECTRIC UNIT HEATERS SHALL BE FED FROM STANDBY POWER PANEL SP1 AS NOTED ON MOTOR SCHEDULE.
 - B. UNLESS NOTED OTHERWISE, ALL RECEPTACLES LOCATED ABOVE COUNTERS ARE TO BE MOUNTED 42" AFF TO CENTER OF BACKBOX, AND WALL-MOUNTED TELEPHONE OUTLETS AND THERMOSTATS ARE TO BE MOUNTED 50" AFF TO CENTER OF BACKBOX. ALL STANDARD RECEPTACLES AND TELECOMMUNICATIONS OUTLETS ARE TO BE MOUNTED AT 18" AFF TO CENTER OF BACKBOX.
 - C. E.C. TO PROVIDE A SINGLE GANG BACK BOX AT EACH TELECOMMUNICATIONS OUTLET AND A 3/4" CONDUIT FROM BACK BOX TO I.T. ROOM 103. WIRING, JACKS, FACEPLATES, PHONES, ETC. TO BE PROVIDED BY OTHERS.
 - D. E.C. TO PROVIDE A SINGLE GANG BACK BOX AT EACH CABLE TV OUTLET AND A 3/4" CONDUIT FROM BACK BOX TO I.T. ROOM 103. WIRING, JACKS, FACEPLATES, ETC. TO BE PROVIDED BY OTHERS.

- POWER & SYSTEMS PLAN NOTES**
- 1 DUPLEX RECEPTACLE ON DEDICATED CIRCUIT FOR REFRIGERATOR. MOUNT AT 44" AFF.
 - 2 PROVIDE SINGLE GANG TV OUTLET BACK BOX AND MOUNT ALONG WITH ADJACENT RECEPTACLE AND ADDITIONAL BACK BOX AT 72" AFF FOR TV. PROVIDE 3/4" CONDUIT FROM TV OUTLET BACK BOX TO I.T. ROOM 103. ADJACENT TO RECEPTACLE. PROVIDE SINGLE GANG BACK BOX WITH 1" CONDUIT FROM BACK BOX TO ABOVE SUSPENDED CEILING IN STORAGE ROOM 114. TV WIRING AND AV CABLEING TO BE PROVIDED BY OTHERS. CONFIRM TV LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - 3 DUPLEX RECEPTACLE ON DEDICATED CIRCUIT FOR WASHER. MOUNT 36" AFF.
 - 4 125/250V, 1 PHASE, 3 POLE, 4 WIRE, 30A RECEPTACLE (NEMA 14-30R) FOR DRYER. MOUNT AT 36" AFF. FEED WITH 3 #10 & 1 #10 GND. CONFIRM ELECTRICAL REQUIREMENTS WITH EQUIPMENT SUPPLIER.
 - 5 DOUBLE DUPLEX RECEPTACLE ON DEDICATED CIRCUIT FOR SERVER EQUIPMENT. FIELD CONFIRM SERVER LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - 6 PROVIDE RECEPTACLE AND ADJACENT TELECOMMUNICATIONS OUTLET FOR EMPLOYEE TIMECLOCK. CONFIRM MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - 7 PROVIDE 120V, 20A CONNECTION TO OVERHEAD DOOR OPERATOR. CONNECT TO CIRCUIT INDICATED. INSTALL FURNISHED WALL CONTROL STATION AT 48" AFF AT LOCATION SHOWN AND WIRE TO DOOR.
 - 8 PROVIDE 120V, 20A CONNECTION TO POWERED SLIDING DOOR OPERATOR AT DOOR HEAD. CONNECT TO CIRCUIT INDICATED.
 - 9 ALL ELECTRICAL DEVICES IN THIS ROOM SHALL BE IDENTIFIED FOR USE IN CLASS 1, DIVISION 2 LOCATIONS AND INSTALLED PER NEC ARTICLE 501. ALL CONDUIT FEEDING THESE DEVICES SHALL BE SURFACE-MOUNTED AND ROUTED DOWN FROM CEILING ABOVE.
 - 10 PROVIDE 208V, 30A, 1 PHASE CONNECTION TO 4 KW ELECTRIC TANK WATER HEATER. FEED WITH 2 #10 & 1 #10 GND IN 3/4" CONDUIT AND CONNECT TO CIRCUITS INDICATED.
 - 11 PRIMARY CONDUIT TO PAD-MOUNTED TRANSFORMER TO BE FURNISHED AND INSTALLED BY OTHERS NOT IN THIS CONTRACT. EVERY TO FURNISH AND INSTALL PRIMARY CONDUCTORS IN THIS CONDUIT.
 - 12 PAD-MOUNTED TRANSFORMER FURNISHED AND INSTALLED BY EVERY. 7" SQUARE TRANSFORMER PAD TO BE FURNISHED AND INSTALLED BY OTHERS NOT IN THIS CONTRACT PER EVERY SPECIFICATIONS. FRONT OF TRANSFORMER TO FACE SOUTH.
 - 13 E.C. TO PROVIDE SECONDARY CONDUITS, CONDUCTORS AND 600 AMP NEMA 3R MAIN FUSED DISCONNECT SWITCH, FUSED AT 600 AMP, MOUNTED ON BUILDING. SEE ONE-LINE DIAGRAM.
 - 14 100 KW DIESEL STANDBY GENERATOR. G.C. TO PROVIDE CONCRETE PAD A MINIMUM OF 2 FEET WIDER AND LONGER THAN GENERATOR ENCLOSURE DIMENSIONS. CONFIRM GENERATOR ENCLOSURE DIMENSIONS WITH MANUFACTURER. FOR BIDDING, ASSUME A 12' LONG X 7' WIDE X 8" THICK CONCRETE EQUIPMENT PAD WITH 8" TURNED DOWN PERIMETER EDGE WITH (2) #4 BARS CONTINUOUS AROUND PERIMETER. REINFORCE SLAB WITH 6 X 8 - W2.9 X W2.9 W/WF. INSTALL SO THAT ELEVATION IS 6" HIGHER THAN ANY ADJACENT CONCRETE SLAB.
 - 15 PROVIDE (2) 2" CONDUITS FROM GENERATOR TO ATS IN RECYCLING STORAGE 117. ADDITIONALLY, PROVIDE (1) 1" CONDUIT FROM GENERATOR TO ATS FOR CONTROL WIRING.
 - 16 PROVIDE (1) 1" CONDUIT FROM GENERATOR TO GENERATOR ANNUNCIATOR PANEL LOCATED OUTSIDE OF OFFICE 102.
 - 17 PROVIDE 120V, 20A CONNECTION TO GENERATOR BATTERY CHARGER. CONNECT TO CIRCUIT INDICATED.
 - 18 PROVIDE 120V, 20A CONNECTION TO GENERATOR COOLANT HEATER. CONNECT TO CIRCUIT INDICATED.
 - 19 SEE FIRE ALARM AND DETECTION SYSTEM SPECIFICATION FOR SCOPE OF FIRE ALARM SYSTEM.
 - 20 PROVIDE 120V, 20A CONNECTION TO FIRE ALARM CONTROL PANEL. CONNECT TO CIRCUIT INDICATED.
 - 21 COORDINATE WITH FIRE SPRINKLER SYSTEM INSTALLER AND CONNECT PROVIDED WATER FLOW AND TAMPER SWITCHES TO FIRE ALARM SYSTEM. PROVIDE 120V, 20A CONNECTION TO EXTERIOR SPRINKLER FIRE ALARM HORN/STROBE AND CONNECT TO PANEL SP1, CIRCUIT 46.
 - 22 THIS RECEPTACLE TO BE MOUNTED ABOVE ROOM 118 INSIDE AND ADJACENT TO ACCESS DOOR.
 - 23 E.C. TO OFFSET CONDUITS COMING OUT OF THE TOP OF PANEL NP1 AND ATS AS NECESSARY TO NOT BLOCK ACCESS DOOR ABOVE.
 - 24 DUCT SMOKE DETECTOR TO BE LOCATED IN RETURN AIR DUCT OF GROUND-MOUNTED RTU. CONNECT DETECTOR TO BUILDING FIRE ALARM SYSTEM AND PROVIDE WIRING AS NECESSARY SO THAT ACTIVATION OF DETECTOR SHUTS DOWN UNIT. PROVIDE REMOTE INDICATOR AND TEST STATION AND MOUNT AT 50" AFF ON WEST WALL OF SWAP SHOP 101 AT LOCATION SHOWN.
 - 25 PROVIDE 208V, 150A, 3 PHASE CONNECTION TO 54 KW TANK-LESS ELECTRIC WATER HEATER FOR EYE WASH/SAFETY SHOWER. FEED FROM MDP. SEE ONE-LINE DIAGRAM FOR FEEDER SIZE. WATER HEATER ENCLOSURE COMES WITH NON-FUSED DISCONNECT.
 - 26 PROVIDE 1" EMPTY CONDUIT FROM PANEL NP2 RUN UNDERGROUND TO THE NORTH OF THE CONVENIENCE CENTER AS SHOWN FOR POWER TO FUTURE WELL PUMP. CAP AND MARK WITH REBAR.
 - 27 UNDERGROUND CONDUIT AND FEEDER FROM STANDBY POWER PANEL SP1 TO 200A FUSED DISCONNECT SWITCH (FUSED AT 150A) MOUNTED ON NORTH EXTERIOR WALL OF FEEDER HOUSE. SEE SCALE HOUSE POWER PLAN AND ONE-LINE DIAGRAM.
 - 28 PROVIDE (2) 2" CONDUITS RUN UNDERGROUND BETWEEN CONVENIENCE CENTER I.T. ROOM 103 AND SCALE HOUSE I.T. ROOM 102 FOR I.T. CABLEING FURNISHED AND INSTALLED BY OTHERS.
 - 29 PROVIDE 120V, 20A CONNECTION TO CONTROL DAMPER WITH 120V ACTUATOR AT INTAKE LOUVER. SEE MECHANICAL PLANS. PROVIDE WIRING AS SHOWN ON SHEET E1.2. SEE PLAN NOTES 30 & 31.
 - 30 PROVIDE COMBINATION MOTOR STARTER/DISCONNECT SWITCH FOR RESPECTIVE EXHAUST FAN. PROVIDE WIRING AS SHOWN ON SHEET E1.2.
 - 31 PROVIDE PILOT-LIGHTED TOGGLE SWITCH FOR EXHAUST FAN AND LOUVER DAMPER CONTROL. SEE DETAIL ON SHEET E1.2. LABEL COVER PLATE "EXHAUST FANS & LOUVERS".
 - 32 PROVIDE 120V, 20A CONNECTION TO CONTROL DAMPER WITH 120V ACTUATOR AT INTAKE LOUVER. SEE MECHANICAL PLANS. CONTAINMENT ROOM 118 LOUVER DAMPERS TO BE ON SAME CIRCUIT AS EXHAUST FAN EF-3 WHICH RUNS CONTINUOUSLY.
 - 33 PROVIDE 120V, 15A CONNECTION TO FUME HOOD JUNCTION BOX FOR HOOD LIGHTING AND CONTROLS. CONNECT TO CIRCUIT INDICATED. FIELD CONFIRM ELECTRICAL REQUIREMENTS WITH HOOD SUPPLIER. HOOD TO CONTROL EXHAUST FAN EF-6 VIA SINGLE POLE CONTACTOR - SEE PLAN NOTE 34.
 - 34 PROVIDE SINGLE-POLE CONTACTOR ON WALL IN JUNCTION BOX FOR THE CONTROL OF FUME HOOD EXHAUST FAN EF-6. WIRE SO THAT FUME HOOD CONTROLS CONTACTOR WHICH THEN CONTROLS EXHAUST FAN OPERATION.
 - 35 PROVIDE EMERGENCY STOP PUSHBUTTON, 2-POSITION, MAINTAINED CONTACT, PULL ON, PUSH OFF. EATON #10250T862-S103, OR EQUAL, FOR GENERATOR SHUT-OFF. SURFACE MOUNT WITHIN CLEAR HINGED WEATHERPROOF ENCLOSURE ON WALL AT 48" ABOVE GRADE AND WIRE TO GENERATOR CONTROL PANEL.



POWER & SYSTEMS PLAN - CONVENIENCE CENTER
 1/8"=1'-0"



revision
 Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Mohawk Road
 Hutchinson, KS 67501
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POWER & SYSTEMS PLAN
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Attachment B
Operating Plan

Household Hazardous Waste Operating Plan: KDHE Permit No.607



Reno County Solid Waste
4015 West Clark Road
Hutchinson, Kansas 67501
620-694-2586

SCS ENGINEERS

Project: 27223071.30 | March 2023

11120 E 26th Street N, Suite 1100
Wichita, KS 67226
316-302-4531

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Appendices

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1.0 PURPOSE

The purpose of this Household Hazardous Waste (HHW) Operating Plan is to provide guidance to Reno County Household Hazardous Waste Facility (HHWF) personnel regarding the operation of the Reno County HHWF in accordance with applicable State regulations. This HHW Operating Plan has been prepared in general accordance with Kansas Administrative Regulations (K.A.R.) 28-29-1100 through 28-29-1107 (April 2015), K.A.R. 28-31: Hazardous Waste Management, and applicable Kansas Statutes Annotated (K.S.A.) as referenced herein.

This HHW Operating Plan serves as an update to the Operating Plan previously submitted by Camp, Dresser, & McKee, Inc., dated July 2008, and the subsequent updates dated February 2009 and May 2015.

If modifications to this Operating Plan are performed after approval by the Kansas Department of Health and Environment, Bureau of Waste Management (KHDE-BWM), the modifications will be submitted to the KDHE-BWM prior to implementation (K.A.R. 28-29-1107(b)). Modifications submitted to the KDHE-BWM shall be effective 28 calendar days after the modification notice is received by the KDHE-BWM, unless the KDHE-BWM notifies the Reno County HHWF that the modification will require further review before approval. Changes to this Operating Plan shall not conflict with applicable HHW regulations.

2.0 GENERAL INFORMATION

A household hazardous waste facility is "a facility established for the purpose of collecting, accumulating, and managing household hazardous waste and may also include Conditionally Exempt Small Quantity Generator and Kansas Small Quantity Generator wastes, or both. Household hazardous wastes are consumer products that when discarded exhibit hazardous characteristics." Reno County, Kansas owns and operates a HHWF at the Reno County Solid Waste Facility located in Section 21, Township 23 South, Range 6 West, with a physical address of 4015 West Clark Road, in Hutchinson, Reno County, Kansas (Environmental Protection Agency Identification No. KSR000014407), as shown on Figure 1 in Appendix B. A Site Layout is provided as Figure 2, and an HHW Facility Layout is included as Figure 3 in Appendix B. Additional information on the Reno County HHWF is included in the approved HHW Facility Design Plan.

3.0 HHW FACILITY DESCRIPTION

The Reno County HHWF containment room is an approximate 18'-8" by 26'-8" within the Customer Convenience Center building and contains approximately 498 square feet of floor space. Figure 3 in Appendix B provides an HHW Facility Layout. The HHW storage/ containment room includes spill containment and two metal doors and louvers. All electrical devices in the HHW room are identified for use in Class I, Division II locations. The collection facility is equipped with explosion proof wiring, explosion proof lights and switches, explosion resistant exhaust/ventilation fans, and one permanently-mounted Toxgard® combustible gas sensor with alarm. The ventilation fans operate 24 hours a day, 7 days a week. The gas monitor has interior sensors and is mounted on the North concrete wall of the HHWF inside the convenience center. The HHW room has a 2-hour fire rating and is equipped with two 10-pound fire extinguishers, one located near the entrance door and the other within the HHW containment room.

The Reno County HHWF Product Reuse Program Swap Shop in the Customer Convenience Center is an approximate 26'-8 1/2" by 26'-10" concrete room. The Product Reuse Program Swap Shop includes spill containment and three metal doors and louvers. Multi-shelf units are installed in the Product Reuse Program Swap Shop to allow for the storage and display of the items.

The Reno County HHWF has an office located in the convenience center west of the HHW storage/ containment room and adjacent to the swap shop.

3.1 HHW SECONDARY CONTAINMENT

3.1.1 HHW Storage/ Containment Room

The maximum estimated pounds (lbs) of waste the storage area can contain is 41,000 lbs. A 55-gallon drum of fluid waste weighs approximately 459 lbs. Assuming that the majority of the waste stored for subsequent transport is fluid, the Reno County HHWF is allowed to store approximately (50) 55-gallon drums of waste.

Pursuant to K.A.R. 28-29-1101(d), secondary containment for HHW stored for disposal should be 10 percent of the total volume or 110 percent of the largest container, whichever is greater. The largest container inside the collection building is expected to be a 55-gallon drum. The collection building is constructed such that the floor of the building serves as secondary containment for containers within the structure. The floor is coated with a chemical resistant sealant. The collection facility does not have interior floor drains. The top of the thresholds are approximately 6-inches above the finished floor elevation which provides approximately 1,862 gallons of secondary containment volume. Therefore, assuming a maximum of 50 55-gallon drums, 10 percent of the total volume is 275 gallons, and 110 percent of the largest container is 60.5 gallons. Given the expected largest container volume and the maximum number of those containers expected to be stored inside the collection building, the collection building has sufficient secondary containment for HHW to comply with K.A.R. 28-29-1101(d).

4.0 OPERATIONS

4.1 RECEIPT OF WASTE

Patrons disposing of HHW will be required to stop at the scale house for waste characterization prior to disposal and to sign an HHW participant form. Each individual will be limited to 50 pounds or 10 gallons of liquid waste per household, per visit. These limitations may be waived under certain circumstances by the Reno County HHWF Manager. The Reno County HHWF can accept waste from households, farms, Conditionally Exempt Small Quantity Generators (CESQGs), and Kansas Small Quantity Generators (KSQGs), as defined by K.A.R. 28-31-260a.

Prior to acceptance, the waste will be initially screened by asking what the waste is and if the waste is in the original container of sale. Waste may also be characterized by trained personnel through visual inspection, scent, litmus and/or pH testing. If Reno County HHWF staff is unable to identify the waste, the waste will be marked as “unknown,” segregated, and stored separately in the container it was brought to the Reno County HHWF in. A third-party disposal agency will be used to remove the “unknown” waste for characterization and eventual proper disposal.

If material arriving at the Reno County HHWF presents a hazard to personnel or to public health and safety, the participant will be directed away from the traffic flow of both the Reno County HHWF and Reno County Solid Waste Facility operations for special handling. The Reno County Emergency Preparedness Coordinator will then be contacted to take control of the incident. The phone number for the Reno County Emergency Preparedness Coordinator is included in Appendix A.

Wastes from small quantity generators (SQGs) will not be accepted at the Reno County HHWF and will be referred to the Sedgwick County HHW Department. The Sedgwick County HHW Department’s HHW permit includes Reno County. An SQG is a generator who meets the criteria defined in K.A.R. 28-31-2(e).

4.2 WASTE COMPOSITION

HHW will be accepted at the Reno County HHWF by applicable regulations. Signs are posted at the Reno County Solid Waste Facility entrance that list typical HHW materials. Wastes accepted by the Reno County HHWF include:

- Latex and oil-based paints
- Used oil
- Antifreeze
- Batteries
- Herbicides and pesticides
- Solvents, chemicals, and cleaners
- HHW that would be determined to be hazardous waste according to K.A.R. 28-31-261

- Hazardous waste from a source other than a household in an emergency
- Wastes containing dioxins, but only immediately prior to the transportation of accumulated waste material from the Reno County HHWF to the permitted HHW treatment, storage, or disposal facility via the registered hazardous waste transporter

Pursuant to K.A.R. 28-31-261, whether or not a waste is hazardous may be determined by the guidelines defined in 40 CFR 261, Identification and Listing of Hazardous Waste, and regulations or documents referenced therein. If a waste is determined to be hazardous, the Reno County HHWF may refer to 40 CFR Parts 261, 262, 264, 265, 266, 268, and 273 for possible exclusions or restrictions pertaining to the management of each specific waste. If the waste does not qualify as HHW, the waste shall not be accepted by the Reno County HHWF.

HHW shall be placed in the designated drop-off areas. HHWs received at the Reno County HHWF will remain in each waste's original container until processing can occur. Within one week of receipt of HHW, Reno County HHWF personnel will sort and segregate the HHW, except for HHW that will be distributed for use, according to United States Department of Transportation (DOT) hazard classes and/or divisions (as adopted by reference in K.A.R. 28-31-264. Reno County HHWF personnel will be trained as described in K.A.R. 28-29-1102(e) for proper HHW handling, sorting, and disposal.

The Reno County HHWF may receive used oil from household “do-it-yourselfers” or exempt farmers. Management of the used oil shall be in accordance with K.A.R. 28-31-279 and K.A.R. 28-31-279a. Similarly, management of used oil received from businesses shall be in accordance with K.A.R. 28-31-279 and K.A.R. 28-31-279a from the point of generation.

Used oil shall be subject to the management standards specified in 40 CFR Part 279, Standards for the Management of Used Oil, except for §279.10(b)(3). Mixtures of used oil and hazardous waste shall be subject to regulation as used oil in accordance with K.A.R. 28-31-279.

Reno County will provide an aboveground storage tank located adjacent to the Reno County HHWF for containing used oil. Used oil is recycled through a program operated under the Reno County Solid Waste Facility, Solid Waste Permit No. 723. This used oil tank will be pumped periodically by a third-party HHW transporter. The used oil will then be taken to a permitted hazardous waste treatment, storage, or disposal facility by the registered hazardous waste transporter.

4.3 WASTES NOT ACCEPTED

The Reno County HHWF will not accept the following wastes:

- Explosives
- Ammunition
- Infectious wastes
- Unstable/radioactive isotopes

Additional wastes may be rejected at the Reno County HHWF at the discretion of the Reno County Director of Solid Waste and/or authorized Reno County HHWF personnel.

Unauthorized wastes, and/or unauthorized waste quantities, will be rejected. If the material cannot be accepted at the Reno County HHWF, the participant will be instructed in the proper storage and/or disposal methods, as appropriate. The participant may also be instructed to contact an appropriate local agency, the Sedgwick County HHW Department, or the KDHE for proper disposal of the material. Reno County HHWF personnel will document pertinent information regarding the participant, the waste type and quantity, and will supply the information to the appropriate agency.

The Reno County HHWF may accept larger quantities of waste on a case-by-case basis. For this situation Reno County HHWF personnel will assess the disposal request and act accordingly. If it is determined that the Reno County HHWF cannot accept the waste, Reno County HHWF personnel will follow the procedure previously described for the rejection of the waste.

4.4 ACCESS AND SIGNAGE

The Reno County HHWF is located within the Reno County Solid Waste Facility. The Reno County Solid Waste Facility is enclosed by a 9-foot high chain-link fence that includes controlled access gates at the entrances to the facility. Participants bringing HHW to the Reno County HHWF are required to check-in at the Reno County Solid Waste Facility scale house prior to proceeding to the HHW drop-off area for waste characterization. Signs are posted to direct HHW participants to the drop-off area at the Reno County HHWF. Unloading activities are observed by Reno County personnel. HHW associated activities at the Reno County HHWF are conducted by trained personnel.

The Reno County HHWF will be open to receive HHW Monday through Saturday, 8:00 am to 5:00 pm. A sign is posted at the entrance of the Reno County Solid Waste Facility that identifies the hours of operation. Information posted on this sign may include:

- The name of the facility
- The name of the permit holder
- The permit number(s)
- An emergency telephone number during non-operating hours

"No Smoking", "No Matches", "No Open Flames", "Danger", "Do Not Enter", and "Authorized Personnel Only" signs are posted at the Reno County HHWF in appropriate and visible locations, such as around the drop-off area and on the entrance doors.

Adjustments to the operating schedule will be made at the discretion of authorized Reno County HHWF staff and/or the Reno County Director of Solid Waste on an as needed basis to address emergency situations. The Reno County Solid Waste Facility and the Reno County HHWF are closed on Sundays and designated holidays (e.g., New Year's Day, Martin Luther King, Jr. Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day). The Reno County Solid Waste Facility entrance gates are locked when the landfill is closed. In addition, the Reno County HHWF building remains locked whenever Reno County HHWF personnel are not present to oversee HHW processing activities.

4.5 SAFETY AND SECURITY MEASURES

The following operational safety program shall be provided for employees at the Reno County HHWF. A list of emergency contact telephone numbers shall be posted at each telephone at the facility. An updated copy of the list will be kept with this Operating Plan and is provided as Appendix A. At a minimum, the list will include contact information for:

- The Reno County Director of Solid Waste
- An afterhours emergency number
- The Reno County emergency preparedness coordinator
- Reno County emergency medical services
- The Reno County Sheriff's Department
- The local fire department
- The KDHE emergency 24-hour spill number

The Reno County HHWF is located within the Reno County Solid Waste Facility, which is adequately secured by means of gates, chains, fences, and other security measures to prevent unauthorized entry. In addition, the HHW mobile trailer and processing building are secured via locked doors. Vehicles shall enter and leave through the Reno County access control gate. In the event that Reno County personnel are not available to control public access, such as during emergencies or other events as determined by the Reno County Director of Solid Waste, the access gates will be closed and locked. No one shall be permitted inside the Reno County HHWF unless accompanied by authorized Reno County HHWF staff.

No smoking, eating, or drinking is allowed inside or in the vicinity of the Reno County HHWF. Proper protective equipment must be worn by Reno County HHWF personnel. An area has been designated inside the HHW building for the storage of safety equipment and supplies needed to operate the Reno County HHWF. Equipment and supplies shall be kept in their designated locations. Personnel protective equipment that will be kept within the designated area includes, at a minimum:

- Fitted respirators with cartridges
- Splash resistant coveralls
- Neoprene or nitrile gloves
- Neoprene boot covers

Reno County HHWF personnel will wear steel-toed safety shoes while operating the facility. The following equipment will be stored in the designated safety area/cabinets:

- First aid kit for minor injuries

- Eyewash station
- Safety shower
- Reference materials, labels, files, records, and logs (additional materials may be kept in the scale house)
- Chemical classification kit, litmus test materials, and pH strips
- Emergency spill treatment materials that may include acid neutralizer, base neutralizer, solvent absorbent, inert absorbers, spill pads, and portable containment dikes
- Non-sparking hand tools for opening and resealing containers
- Empty overpack containers and drums
- A drum cart

Explosive resistant wiring, lights, ventilation fans, and switches are an integral part of the HHW building. In addition, a safety shower and an eyewash station are located in the customer convenience center building within approximately 60 feet of the Reno County HHWF. Two-way communication devices are available between the Reno County HHWF and the Reno County Solid Waste Facility; however, two-way radio communication equipment shall not be used inside the HHW storage building or near HHW bulking activities.

4.6 NON-HAZARDOUS HOUSEHOLD WASTE

Within one week of receipt of non-hazardous household waste (NHHW), Reno County HHWF personnel will sort and segregate the NHHW, except for NHHW that will be distributed for use, in the designated NHHW area. The NHHW storage area has signage that details the contents of NHHW storage containers, and Reno County HHWF personnel will confirm that each NHHW storage container or the NHHW storage area identifies NHHW storage container contents. When NHHW is present at the Reno County HHWF, Reno County HHWF personnel will inspect the NHHW storage areas on a weekly basis to assess waste volume and container integrity, and will document these inspections by the person who conducted the inspection.

NHHW will be disposed of in the Reno County Solid Waste Facility (KDHE Solid Waste Permit No. 723) provided the permit conditions are met (K.A.R. 28-29-1102(a)). Latex paint and other liquids shall be disposed of in the Reno County Solid Waste Facility only if one of the following conditions is met:

- The paint or other liquid is solidified
- The paint or other liquid is in the original container, and the volume of the container is no greater than five gallons

The Reno County HHWF will not discharge into a publicly owned treatment works. Reno County will not dispose of any NHHW in the sanitary sewer system.

4.7 HOUSEHOLD HAZARDOUS WASTE

HHW shall be placed in the designated drop-off areas. HHWs received at the Reno County HHWF will remain in each waste's original container until processing can occur. Within one week of receipt of HHW, Reno County HHWF personnel will sort and segregate the HHW, except for HHW that will be distributed for use, according to United States Department of Transportation (DOT) hazard classes and/ or divisions (as adopted by reference in K.A.R. 28-31-264. Reno County HHWF personnel will be trained as described in K.A.R. 28-29-1102(e) for proper HHW handling, sorting, and disposal.

HHWs shall be handled in a manner appropriate to the waste's characteristics and hazard type. The sorted HHW shall be placed in an appropriate storage container and incompatible wastes will not be packaged together. Storage containers in direct contact with HHW will be kept closed except when adding or removing waste, or when additional overpacking/bulking activities are required. Storage containers will not be opened, handled, or stored in a manner which may rupture the container and cause it to leak. Storage containers will be protected from excessive heat or cold and from large temperature fluctuations. Bulking of flammable liquids will occur in a designated area exterior to the Reno County HHWF to prevent the accumulation of explosive or organic vapors. Equipment used in the area where bulking activities are being conducted or where drums are being stored must be suitable for Class I, Division II atmospheres.

Containers containing waste shall be properly labeled. A log sheet, including the start date of accumulation, will be attached to each container containing waste. The Reno County HHWF shall follow good housekeeping practices. Reno County HHWF personnel will inspect the HHW storage areas on a weekly basis to assess container integrity, and will document these inspections by the person who conducted the inspection. Aboveground storage tanks will be inspected on a daily basis. Reno County HHWF personnel will also inspect the storage area on a weekly basis to determine the waste volume. A maximum of ten 55-gallon drums will be allowed inside the Reno County HHWF for processing purposes. Once each drum is filled to capacity, the drum will be sealed, labeled, and moved to the storage area for subsequent transport to the off-site permitted disposal facility. Reno County enters into multi-year contracts with hazardous waste disposal vendors through a formal bid process. The approved vendor facilitates removal, transportation, and disposal of the hazardous wastes.

During waste assessment activities, the number of 55-gallon drums will be counted and compared to the allowed maximum limit of fifty (50) 55-gallon drums. If the total number of drums is within 15 percent of this limit, i.e., if 42 drums are filled to capacity, Reno County HHWF personnel will arrange transport of the waste to the off-site permitted hazardous waste treatment, storage, or disposal facility. At the discretion of Reno County HHWF personnel or the Reno County Director of Solid Waste, waste may also be transported to the off-site permitted hazardous waste treatment, storage, or disposal facility for volumes less than forty-two (42) 55-gallon drums. Currently, Reno County HHWF personnel expect to arrange transport when the drum count reaches twenty-five (25) 55-gallon drums, or generally on a monthly basis. Reno County will not store HHW or NHHW quantities above the facility's permitted storage capacity (K.A.R. 28-29-1102(c)).

HHW that will be transferred for treatment, storage, or disposal shall be lab packed or overpacked as needed to prevent leaks, ruptures, and spills in appropriate containers that meet DOT manufacturing and testing specifications for transportation of hazardous materials, as adopted by reference in K.A.R. 28-31-261. Overpack containers may include fiber or metal open-top, lock-rim containers with layers of vermiculite or other similar materials. Each storage container shall be clearly labeled according to

the applicable DOT hazard class or division. Also, HHW that is transferred for treatment, storage, or disposal shall be prepared for transportation off-site as hazardous waste.

4.8 DISTRIBUTION OF USABLE PRODUCTS, REUSE, AND RECYCLING

The majority of the HHW received at the Reno County HHWF will be transferred to an off-site permitted hazardous waste treatment, storage, or disposal facility. However, pursuant to K.A.R. 28-29-1102(a)(2) and K.A.R. 28-29-1102(b)(2) Reno County may distribute for use certain HHW or NHHW materials accepted by the Reno County HHWF provided that the HHW or NHHW is distributed for use in a manner equivalent to its originally intended purpose, through the Product Reuse Program Swap Shop.

The Reno County HHWF Product Reuse Program Swap Shop in the Customer Convenience Center is an approximate 26'-8 1/2" by 26'-10" concrete room. The Product Reuse Program Swap Shop includes spill containment and three metal doors and louvers. Multi-shelf units are installed in the Product Reuse Program Swap Shop to allow for the storage and display of the items.

HHW and NHHW materials that are in their original containers and in good, usable condition will be made available and distributed to the general public through a Product Reuse Program located at the Reno County HHWF. The items will be available free of charge to the general public, including not-for-profit organizations, and will be provided on a first-come, first-served basis. Patrons using the Product Reuse Program must adhere to the following conditions:

- The products will be used in accordance with the manufacturer's instructions
- The products will be disposed of properly
- The products will not be used for resale
- It will be the sole responsibility of the recipient to substantiate the quality, expiration date, and fitness for intended use

Products made available for reuse may include, but not limited to, household cleaning products (i.e., oven cleaner, floor and carpet cleaners, ammonia-based cleaners, and other disinfectants), home improvement products (i.e., latex and oil-based paint, paint thinner, wood preservatives, stains, and finishes, caulk, adhesives, etc.), miscellaneous products (i.e., aerosol sprays, transmission and brake fluid, car wax, lamp oil, lighter fluid, etc.), and lawn and garden products (i.e., fertilizers, pesticides, herbicides, etc.). Due to the large volume of latex paint received by the Reno County HHWF, latex paint may be bulked into clean, plastic 5-gallon buckets for reuse.

4.9 TRANSPORTATION

The Reno County HHWF operates as an HHW transfer station only, not as a hazardous waste disposal site; therefore, the Reno County HHWF is not subject to the hazardous waste land disposal requirements specified in K.A.R. 28-31-268. HHW will be transferred from the Reno County HHWF to an off-site permitted HHW treatment, storage, or disposal facility. Therefore, transportation requirements are subject to K.A.R. 28-29-1102(b)(2)(F)(v), i.e., HHW that is transferred between HHW facilities is not subject to the requirements described in K.A.R. 28-29-1102(b)(2)(B) through (b)(2)(E).

HHW that is transferred for treatment, storage, or disposal shall be transferred to the permitted hazardous waste treatment, storage, or disposal facility by a registered hazardous waste transporter (K.A.R. 28-31-261 and K.A.R. 28-31-6). Reno County contracts a third-party for the hazardous waste transport. The contracted third-party transporter picks up, transports, and processes HHW from the Reno County HHWF. During storage at the Reno County HHWF and in preparation for transport, Reno County HHWF personnel will placard each drum or container and place a label describing the drum or container contents. Prior to transport, the third-party transporter will add additional placards and labels needed to comply with K.A.R. 28-31-261 and 40 CFR 172, as needed.

HHW will not be discharged into sanitary sewer, storm drainage, septic, surface water, or groundwater systems, or be deposited on or under land. During transportation, the transporter will carry a manifest/bill of lading describing the DOT hazard class or division and the approximate quantities and contents of the containers in the transportation unit. The third-party transporter prepares their own manifests in accordance with the requirements outlined in K.A.R. 28-31-261 and K.A.R. 28-31-6. Applicable hazardous waste codes for each waste shall be listed on the manifest, using available information (K.A.R. 28-31-261). Reno County is not required to submit samples for laboratory testing in order to determine hazardous waste codes.

Reno County provides an aboveground storage tank for the temporary storage of used oil that meets the requirements specified in the Reno County Solid Waste Facility's Spill Prevention, Control, and Countermeasure (SPCC) Plan. Approximately once per month, the used oil storage tank will be emptied by a third-party transporter who will take the used oil to an approved recycling or disposal facility.

4.10 OFF-SITE ACTIVITIES

Reno County does not conduct off-site HHW activities except for the transportation of the accumulated HHW from the transfer station to the permitted HHW treatment, storage, or disposal facility via contract carriers.

However, Rice and Stafford, Kansas counties use the mobile HHW trailer to collect HHW in local communities. The mobile collection trailer is marked "Reno County Household Hazardous Waste" on both sides of the unit in black block letters (K.A.R. 28-29-1103(a)). Following collection of the HHW at the selected community, Rice and Stafford County staff members sort and bulk materials (K.A.R. 28-29-1103(b)). These materials are then labpacked or overpacked in accordance with DOT hazardous material transportation requirements, as adopted by reference in K.A.R. 28-31-261 and K.A.R. 28-29-1103(c). Rice and Stafford County staff members also placard, label, seal, and secure containers for transport (K.A.R. 28-29-1103(d) and (e)), and prepare a bill of lading / manifest for transportation of the collected HHW from the community to the Reno County HHWF (K.A.R. 28-29-1103(f), K.A.R. 28-31-261, and K.A.R. 28-31-6). Rice and Stafford County staff members will provide a copy of the manifest to Reno County HHWF personnel upon delivery of the mobile collection unit to the Reno County HHWF.

Reno County Solid Waste Facility does not conduct off-site HHW activities except for mobile trailer and the transportation of the accumulated HHW from the transfer station to the permitted HHW treatment, storage, or disposal facility via contract carriers.

4.11 PROCEDURES FOR HANDLING IGNITABLE OR REACTIVE WASTE

Reactive or ignitable wastes will be kept in each waste's original container for transport to the off-site permitted hazardous waste treatment, storage, or disposal facility. Section 5.0 describes procedures regarding spills, fires, and other emergencies which may occur while handling the reactive or ignitable wastes.

4.11.1 Flammable Liquids

Bulking of flammable liquids will occur in a designated area exterior to the Reno County HHWF to prevent the accumulation of explosive or organic vapors. Equipment used in the area where bulking activities are being conducted or where drums are being stored must be suitable for Class I, Division II atmospheres. Bulking or packaging of HHW that is done outside of the Reno County HHWF storage building shall be performed over an impervious surface. A minimum of two Reno County HHWF personnel will be present when bulking flammable liquids. Equipment used in the area where bulking activities are being conducted or where drums are being stored must be suitable for Class I, Division II atmospheres. Flammable materials to be bulked shall not present a safety hazard and shall meet the following criteria:

- pH between 5 and 10
- Non-pathogenic (non-disease causing)
- Non-radioactive
- Non-reactive
- Free of sulfides or cyanides
- Free of solids

Bulking of flammable liquids will meet the criteria established in the DOT regulations and as established by the off-site final treatment, storage, or disposal facility. Bulking of chlorinated solvents, such as methylene chloride, should be limited to the amount established by the off-site final treatment, storage, or disposal facility. Carbon disulfide, chloroform, pyridine, ethers, and organic peroxides shall not be bulked.

Flammable liquids will be bulked into appropriate DOT-approved drums. The small bung opening will be loosened to vent the drum of gas while filling. A copper cable, or other appropriate grounding cable, will be attached to the drum and directly grounded to the earth or attached to another appropriate conducting body that is grounded to the earth. An ohm meter will be used to verify continuity. Reno County HHWF involved in the transfer of flammable liquids into the bulk drums may wear the following protective equipment as needed:

- Steel toe safety footwear
- Respirator with organic vapor or acid gas cartridges
- Splash resistant coveralls

- Safety glasses, splash shields or goggles
- Neoprene boot covers
- Neoprene or nitrile gloves

A non-sparking funnel will be used for transfer during bulking activities. After the drum is filled within three inches of the top, the drum should be sealed with the original bungs and seals. Hand tools used for this process will be non-sparking.

4.12 PROCEDURES FOR IDENTIFYING AND MANAGING CONDITIONALLY EXEMPT AND KANSAS SMALL QUANTITY GENERATOR WASTE

The Reno County HHWF may accept waste from Conditionally Exempt Small Quantity Generators (CESQGs), or from Kansas Small Quantity Generators (KSQGs). A CESQG is a generator that meets both of the following criteria (K.A.R. 28-31-260(a)):

- Generates less than 25 kilograms (55 pounds) of hazardous waste in any single calendar month
- Generates and accumulates acutely hazardous waste and other waste listed in 40 CFR 261.5(e) in quantities less than the generation limits listed in 40 CFR 261.5(e)

A KSQG is a generator that meets the following criteria:

- Generates 25 kilograms (55 pounds) or more of hazardous waste in any single calendar month
- Generates no more than 100 kilograms (220 pounds) of hazardous waste in any single calendar month
- Generates and accumulates acutely hazardous waste and other waste listed in 40 CFR 261.5(e) in quantities less than the generation limits listed in 40 CFR 261.5(e)

To manage CESQG and KSQG waste, each HHW participant wishing to dispose of HHW at the Reno County HHWF will be limited to 50 pounds or 10 gallons of liquid waste per participant per visit. These limitations may be waived under certain circumstances by the Reno County Director of Solid Waste. However, the majority of waste disposers exceeding the above quantity limitation will be referred to the appropriate local agency. These agencies include the Sedgwick County HHW Department, whose permit includes Reno County, or the KDHE for proper disposal of the material. If an exception is made to the quantity limitations, the waste will be removed from the Reno County HHWF within 10 days of receipt of the waste. Additional information issued by the KDHE-BWM regarding HHWFs that accept CESQG and KSQG waste is provided as Appendix C.

4.13 DUTIES AND RESPONSIBILITIES OF RENO COUNTY HHWF PERSONNEL

Reno County HHWF personnel will receive proper training prior to performing sorting, packaging, or other HHW handling activities. Reno County HHWF personnel will assist the HHW program participants in characterizing waste brought in for disposal as needed. If a material cannot be accepted at the Reno County HHWF, Reno County HHWF personnel will assist the participants in proper storage methods, if appropriate, and will provide referrals to alternate disposal facilities or the KDHE.

Within one week of receipt of HHW, trained Reno County HHWF personnel will sort and segregate the HHW according to DOT hazard classes and/ or divisions (as adopted by reference in K.A.R. 28-31-261).

The mobile collection trailer is used approximately eight weekends per year to gather HHW from a limited number of local communities during a community's annual cleanup. Communities using the mobile collection unit bulk HHW material prior to transporting it to the Reno County HHWF. The communities are responsible for complying with the placarding, labeling, manifesting, and other transportation requirements described in K.A.R. 28-31-261 and 40 CFR 172.

Immediately following the arrival of the mobile HHW collection trailer at the Reno County HHWF, Reno County HHWF personnel will inventory the material and properly store it for future transport to the off-site final treatment, storage, or disposal facility. Reno County HHWF personnel should receive a copy of the manifest from the community's hauler for materials delivered to the Reno County HHWF.

Reno County HHWF personnel will be responsible for complying with this operating plan and applicable State and Federal regulations.

4.14 TRAINING AND PROGRAM REQUIREMENTS

HHW facility managers, employees, and volunteers that are responsible for sorting, segregating, or processing HHW shall receive a minimum of 24 hours of classroom training related to the proper handling of hazardous materials, and shall receive a minimum of eight hours of annual refresher training. Education or experience may be substituted for the required training, subject to departmental approval. No person shall sort, segregate, or process HHW without onsite supervision before receiving this training.

Trained Reno County HHWF personnel will keep copies of training certificates, and copies of these certificates will be available to the KDHE upon request.

5.0 EMERGENCY RESPONSE PLAN

5.1 SPILLS

Emergency spill treatment materials may include acid neutralizer, base neutralizer, solvent absorbent, inert absorbents, spill pads, and portable dikes. These and other appropriate materials are stored in a designated area within the Customer Convenience Center.

If a spill should occur, the material should be immediately identified as hazardous or non-hazardous. If the spill material is non-hazardous, the appropriate absorbent will be used to clean up the material. Once the material has been absorbed, the absorbent material will be disposed of as non-hazardous solid waste in the Reno County Solid Waste landfill.

If the spilled material does present a hazard, Reno County HHWF personnel will report the spill to the Reno County Emergency Preparedness Coordinator. Upon arrival at the Reno County HHWF, the Emergency Preparedness Coordinator will manage the incident in accordance with Reno County's Local Emergency Plan. Reno County HHWF personnel and/or emergency response personnel will attempt to contain the material while wearing the appropriate level of personal protective equipment. The spill will be cleaned up using an appropriate absorbent and/or by segregating the materials upon which the hazardous chemicals were spilled. Materials impacted by the spill, and the equipment used to clean up the spill, will be containerized, overpacked, and sent to the off-site permitted hazardous waste treatment, storage, or disposal facility.

5.2 LEAKING CONTAINERS

Material leaking from a container will be considered a spill and will be managed as described in Section 5.1.

5.3 FIRES

Some fires may be exacerbated with the addition of water; therefore, it is necessary to know the properties of the material spilled in order to apply the appropriate firefighting technique.

Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide firefighting services when needed. In the event of a fire, Reno County will immediately notify 911 and the Emergency Preparedness Coordinator. Upon arrival at the Reno County HHWF, the Emergency Preparedness Coordinator will manage the incident in accordance with Reno County's Local Emergency Plan.

Appropriate firefighting methods will be initiated and will continue until all smoldering, smoking, and burning ceases. If the fire is generating dangerous gases, only respirator-fitted personnel will attempt to extinguish the fire. If the fire is a major fire, personnel and patrons will be evacuated to a safe area until the fire can be brought under control. The Reno County HHWF's firefighting resources include two 10-pound fire extinguishers located in the Convenience Center near the HHW storage/containment room and the swap shop. The fire extinguishers may be sufficient for extinguishing a minor fire; however, 911, the Emergency Preparedness Coordinator, and the KDHE will still be notified. Available water sources include municipal provided water and non-potable water located in the customer convenience center. Water service intended for sanitary and drinking purposes is also available at the

customer convenience center. Water service is available from a fire hydrant, and at the non-potable water well for dust control.

Major fires will be fought by the local fire department under the direction of hazardous waste response trained personnel and /or under the direction of the Emergency Preparedness Coordinator. Reno County HHWF operations will proceed only after a fire is extinguished, the appropriate remediation actions have been completed, and it has been determined that it is safe by appropriate personnel to continue normal operations.

Reno County will notify the KDHE of a fire within one business day and will submit a written letter to the KDHE within one week of the fire's occurrence.

5.4 GAS AND/OR ORGANIC VAPOR RELEASES

Reno County HHWF personnel will inspect the gas monitor before entry into the HHW storage / containment room and before conducting bulking activities. Organic vapor concentrations will also be checked prior to entry of the HHW building or conducting bulking activities. If excessive levels of explosive gas or organic vapor are present and the audible warning alarms sound, the room doors will be opened and the explosion-resistant ventilation fans will be operated to reduce the gas vapor concentrations to acceptable levels. If there is a concern of explosion or danger to human health, Reno County HHWF personnel will exit the area, call 911, and notify the Emergency Preparedness Coordinator. Upon arrival of emergency assistance at the Reno County HHWF, activities may proceed in accordance with the Reno County Local Emergency Plan. Reno County HHWF operations will proceed after the appropriate remediation actions have been completed and it has been determined that it is safe by appropriate personnel to continue normal operations.

5.5 POWER OUTAGES

Reno County HHWF personnel will not conduct segregating, bulking, or other activities during blackouts when power is needed to provide a safe working environment (ventilation fans, lighting, etc.), or when power-driven equipment is required to perform these activities. If power loss occurs while segregating, bulking, or other activities are being conducted, the emergency generator on site can provide power, and work may continue.

5.6 NATURAL DISASTERS

Reno County assumes that a natural disaster that impacts the Reno County HHWF will result in a spill, fire, gas release, or a combination. The appropriate agencies will be notified and the release or fire will be handled appropriately. Reno County HHWF operations will proceed after the fire is extinguished, the spill is cleaned up, the appropriate remediation actions have been completed, and it has been determined that it is safe to continue normal operations.

5.7 RECEIPT OF PROHIBITED MATERIALS

Prohibited materials will be rejected during waste characterization activities prior to disposal of the waste. If prohibited materials are discovered during sorting and segregation activities, Reno County HHWF personnel will leave the material in the original container, or drum/overpack the material, and

notify the Emergency Preparedness Coordinator and the KDHE so the material can be disposed of properly.

5.8 PERSONNEL EMERGENCIES

In the case of a personnel emergency, the Reno County Landfill Director of Solid Waste will be notified immediately. First aid will be provided by trained personnel as appropriate and ambulance/health, police, and fire services will be contacted as needed.

6.0 REPORTING AND RECORD KEEPING

In accordance with K.A.R. 28-29-1105(a), the Reno County HHWF shall submit an annual report to the KDHE.

In accordance with K.A.R. 28-29-1105(b) and (c), the Reno County HHWF shall maintain the following records at the facility until final closure:

- A copy of the Closure Plan and modifications to the plan
- A copy of the Operating Plan and modifications to the plan
- Notification of changes to approved design, operations, and closure plans

In accordance with K.A.R. 28-29-1105 (d) and K.A.R. 28-31-4(f), the Reno County HHWF shall maintain the following records, as applicable, at the facility for at least three years:

- Annual reports
- Biennial reports (due March 1 each even-numbered year)
- Exception reports
- Test results, waste analyses, and other determinations (as applicable)
- Training records
- Bills of lading/hazardous waste manifests
- Land disposal restriction notifications
- Waste rejection paperwork
- Weekly inspection records

7.0 GENERAL COMMENTS

This Plan was prepared in accordance with the constraints of the client's directives. It is intended for the exclusive use of the client for specific application to the project described. No warranties, express or implied, are intended or made.

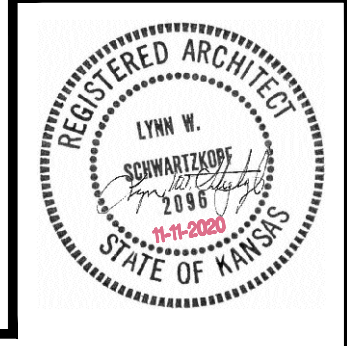
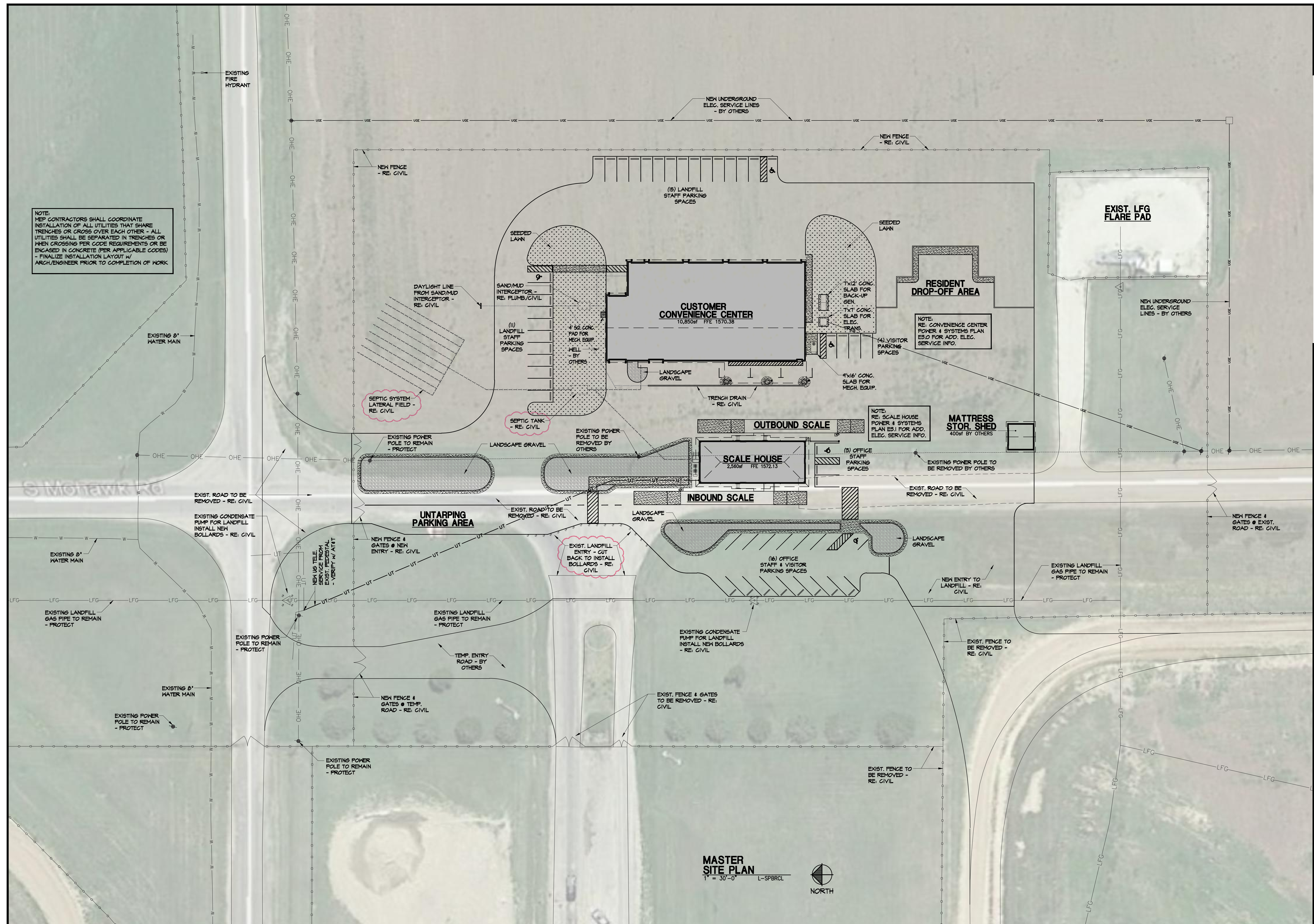
Appendix A
Contact List

Contact List

Reno County Director of Solid Waste and HHWF Operator	620-694-2586
Afterhours Emergency	620-960-4985
Reno County Emergency Preparedness Coordinator	
Emergency	911
Non-emergency	620-694-2911
Reno County Health Department	620-694-2900
Reno County Emergency Medical Services I Ambulance	
Emergency	911
Non-emergency	620-665-2120
Central Call Center	620-694-2801
Reno County Sheriff's Department	
Emergency	911
Non-emergency	620-694-2735
Police Department	
Emergency	911
Non-emergency	620-694-2816
City of Hutchinson, Kansas Fire Department	
Emergency	911
Non-emergency	620-694-2871
KDHE Spill Hotline	785-296-1679
24/7	785-296-0614
KDHE Clandestine Drug Lab Cleanup	785-368-7300
National Response Center 24-hour toll-free hotline	800-424-8802
Kansas Division of Emergency Management	
Emergency	785-291-3333
Non-emergency	785-274-1409
KDHE South Central District Office	316-337-6020

Appendix B
Figures

NOTE:
MEP CONTRACTORS SHALL COORDINATE
INSTALLATION OF ALL UTILITIES THAT SHARE
TRENCHES OR CROSS OVER EACH OTHER - ALL
UTILITIES SHALL BE SEPARATED IN TRENCHES OR
WHEN CROSSING PER CODE REQUIREMENTS OR BE
ENGAGED IN CONCRETE (PER APPLICABLE CODES)
- FINALIZE INSTALLATION LAYOUT W/
ARCH/ENGINEER PRIOR TO COMPLETION OF WORK

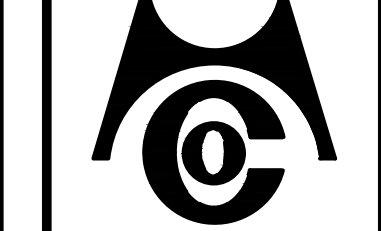


MANN & COMPANY, P.A.
ARCHITECTS & PLANNERS
1703 London Street, Suite B
Hutchinson, KS 67502 620-662-4493

ENTRY REV. - SEPTIC SYSTEM 12-17-20
description
no.

revision
Reno Co. Landfill
Entry Relocation
703 South Mainhawk Road
Hutchinson, KS 67501

**MASTER SITE
& UTILITIES PLAN**
title

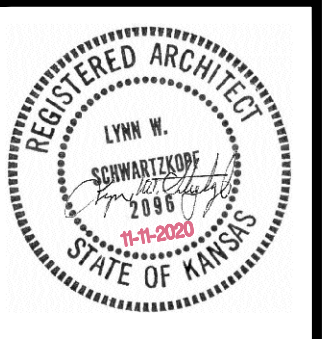


ds.	LWS
dr.	JEH
ck.	LWS
commission no.	231800
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of
date
Nov. 11, 2020

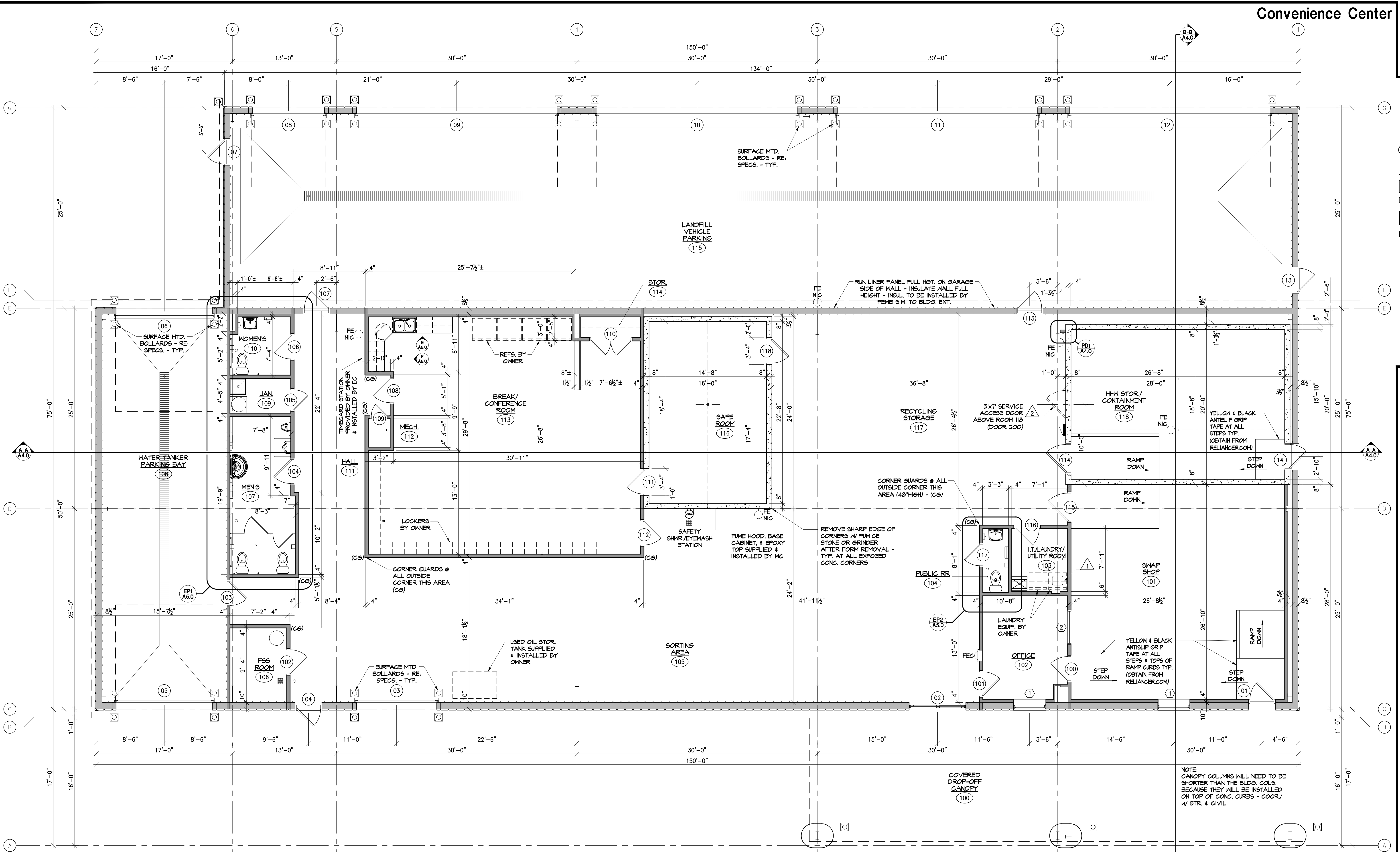
**MASTER
SITE PLAN**
1" = 30'-0" L-SPBRCL
NORTH

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FLOOR PLAN
 3/16" = 1'-0" A-FPBRCR



- FLOOR PLAN NOTES**
- INSTALL 15" DEEP x WIDTH OF ROOM FIXED PL. LAM SHELF @ 60" AFF W/ CONT. IX WD. CLEAT @ ALL WALLS - PAINT CLEATS TO MATCH SURROUNDING WALLS.
 - INSTALL HM DOOR & FRAME W/ BOT. OF DOOR EQUAL TO TOP OF RM IS CEILING SLAB - FT. DOOR & FRAME TO MATCH ADJACENT WALL PANELS - TRIM METAL PANEL AROUND DOOR W/ STANDARD PRE-FINISHED J-MOLD ON VISIBLE SIDE - PROVIDE & INSTALL SAFETY CHAIN & HOOKS ON INSIDE OF DOOR JAMB @ 36" A.F.F.

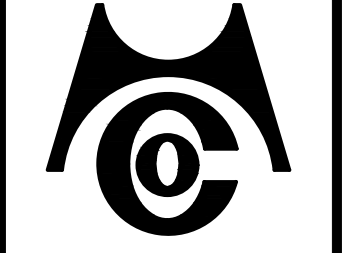
- GENERAL FLOOR PLAN NOTES**
- GC SHALL VERIFY ALL CONDITIONS PRIOR TO WORK BEGINNING - THE GC IS RESPONSIBLE FOR INFORMING THE ARCHITECT OF ANY CONDITIONS THAT DIFFER FROM THE INFO. INDICATED IN THE DRAWINGS
 - VERIFY EXTENT OF WORK W/ INFO. SHOWN IN THE DRAWINGS, ADD. WORK THAT IS NOT SHOWN MAY BE REQD. TO COMPLETE THE INTENDED WORK
 - ALL WORK SHALL COMPLY W/ REQD. LOCAL CODES - GC IS RESPONSIBLE FOR OBTAINING REQD. PERMITS & INSPECTIONS FOR ALL WORK ASSOCIATED W/ HIS CONTRACT
 - INSTALL BLKS. IN ALL WALLS AS REQD. TO PROVIDE SUPPORT FOR CASEWORK, GRAB BARS, ETC. - GC SHALL COORDINATE BLKS. INSTALL. W/ ALL ASSOCIATED WORK

revision

Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Mohawk Road
 Hutchinson, KS 67501

project

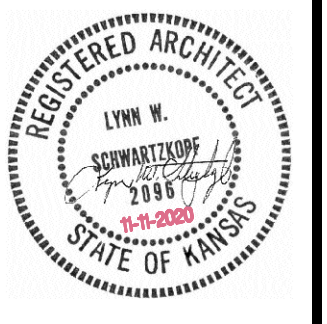
FLOOR PLAN
 title



ds.	LWS
dr.	JEH
ck.	LWS
commission no.	2318.00
prints	tracings
E-5	T7

sheet
A1.0
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date
 Nov. 11, 2020

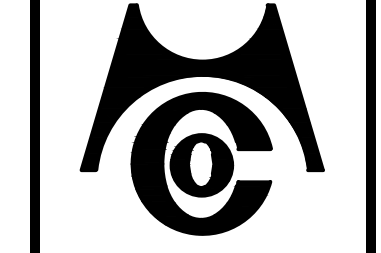


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 1703 London Street, Suite B
 Hutchinson, KS 67502 620-662-4483

no. description date

revision

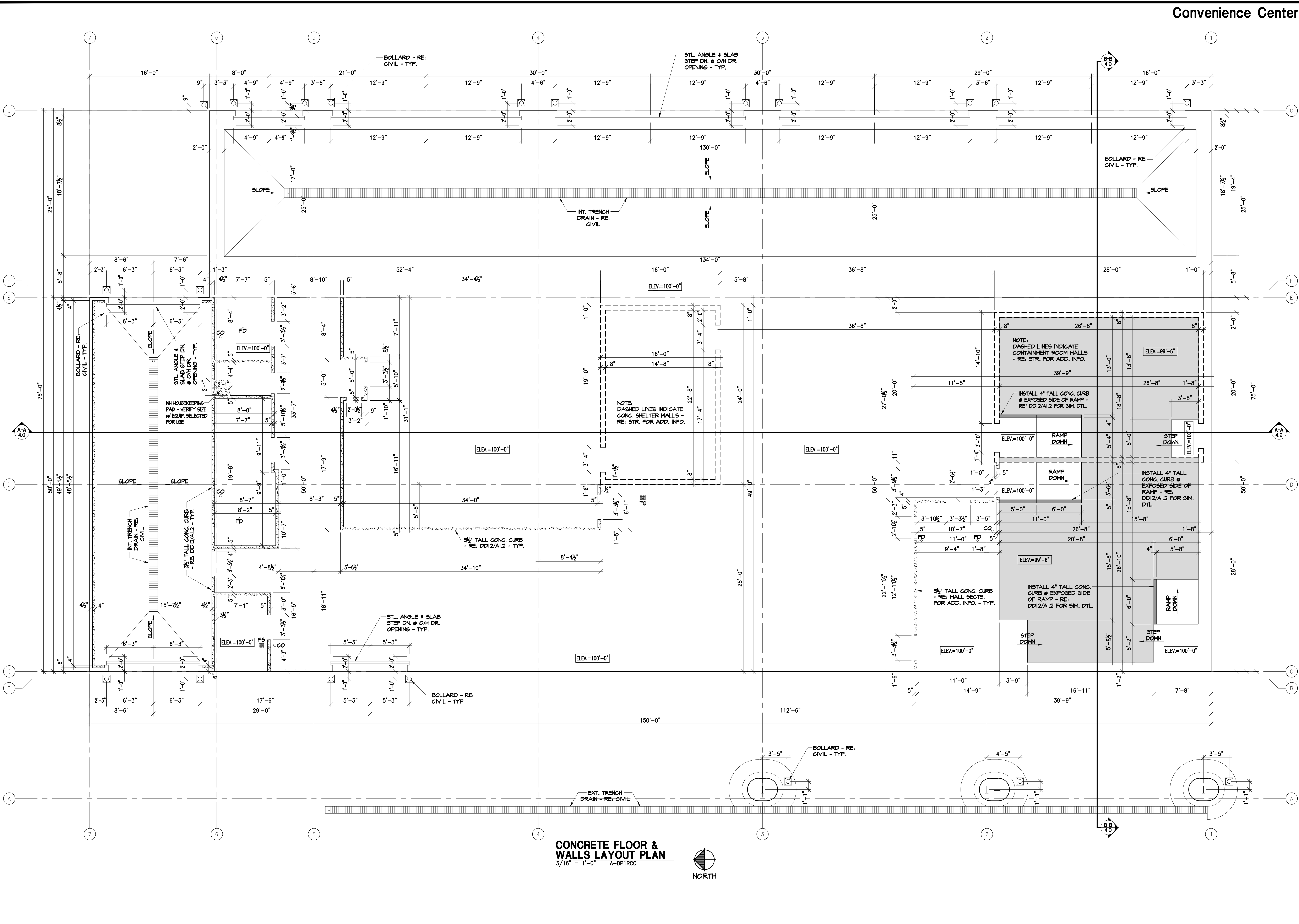
project title
CONCRETE FLOOR & Walls LAYOUT PLAN
 Reno Co. Landfill Entry Relocation Convenience Center
 703 South Mehawk Road
 Hutchinson, KS 67501



ds. LWS
 dr. JEH
 ck. LWS
 commission no. 231800
 prints tracings
 E-5 77

sheet of
A1.4
 date
 Nov. 11, 2020

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CONCRETE FLOOR & WALLS LAYOUT PLAN
 3/16" = 1'-0" A-DP1RCC



Appendix C

KDHE-BWM Policy 2011-P5 for HHWS that Accept CESQG and KSQG Waste

Kansas Department of Health and Environment
Bureau of Waste Management Policy 2011-P5
 related to
HHWs That Accept CESQG and KSQG Waste
 revised March 30, 2012

Purpose

This policy clarifies the discrepancy in terms between the solid waste statutes and the hazardous and solid waste regulations. It also describes the conditions under which Household Hazardous Waste (HHW) facilities may accept waste from generators of less than 220 lb of hazardous waste a month and will lay the groundwork for amendments to the HHW statutes and regulations.

Background

New Generator Classification

The Kansas hazardous waste regulations were revised in 2011. The revisions included changing the names and definitions of the different classes of generators of hazardous waste as shown in the following table.

HW generated per month	New KS Classification	Old KS Classification	Federal (EPA) Classification
< 55 lb	Conditionally exempt small quantity generator (CESQG)	Small quantity generator	Conditionally exempt small quantity generator
≥55 lb and ≤ 220 lb	Kansas small quantity generator (KSQG)	Kansas generator	
> 220 lb and < 2,200 lb	Small quantity generator (SQG)		
≥2,200 lb	Large quantity generator (LQG)	EPA generator	Large quantity generator

K.A.R. 28-29-1a indirectly amends the current solid waste regulations to reflect the new hazardous waste generator classes.

“Small Quantity”

The solid waste statutes use four different terms to describe the smaller amounts of hazardous waste that may initially be collected and handled by cities or counties:

- “small quantity generator waste” (KSA 65-3402)
- “small quantities of hazardous waste” (KSA 65-3405);
- “exempt small quantity hazardous waste generator waste” (KSA 65-3415); and
- “exempt small quantity generator hazardous waste” (65-3415a).

At the time these statutes were written, the Kansas hazardous waste regulations did not use the term “exempt small quantity generator,” so these terms are presumed to apply to hazardous waste that is “conditionally exempt” under federal regulation, i.e. waste from generators of no more than 220 lb per month.

KSA 65-3402(z) defines a household hazardous waste facility as: *“a facility established for the purpose of collecting, accumulating and managing household hazardous waste and may also include **small quantity generator waste** or agricultural pesticide waste, or both.”* One possible interpretation, using the hazardous waste regulations that were in effect when this statute was written, could be that “small quantity generator” applies to generators of less than 55 lbs of hazardous waste per month. However, the term “small quantity” in KSA 65-3402 must be interpreted consistently with the broader use of the same term in the other solid waste statutes, i.e. referring to waste from generators of no more than 220 lb per month.

Action

1. Under previous solid and hazardous waste regulations, only generators of less than 55 lb of hazardous waste per month could take their hazardous waste to an HHW facility. The revised regulations allow generators of up to 220 lb of hazardous waste a month (CESQGs and KSQGs) to take their hazardous waste to an HHW facility. SQGs as defined under the new regulations are **not** allowed to take their hazardous waste to an HHW.
2. The Bureau of Waste Management (BWM) proposes to change the current requirement that an HHW facility permit must specify whether or not the facility is allowed to accept hazardous waste from a CESQG and/or KSQG (generator waste). Instead, the regulations will be changed to establish requirements for managing this waste and for the associated recordkeeping. Until these regulatory changes can be implemented, BWM will allow HHW facilities to accept waste from CESQGs and KSQGs as long as the following requirements are followed:
 - A. Each HHW facility may accept CESQG and KSQG waste and must manage it in the same manner as that for non-hazardous household waste (if it is non-hazardous) and hazardous household waste (if it is hazardous).
 - B. Each HHW facility that accepts hazardous waste from a CESQG or KSQG must obtain a signed certification from each generator confirming their generator classification as a CESQG or KSQG. This signed certification must be on a form provided by the department (attached) and must be maintained on-site for a period of not less than three years from the last receipt of waste from that generator. If the generator’s classification changes, the generator must notify the HHW facility and complete a new certification.
 - C. The HHW facility must maintain a record of hazardous waste received from each CESQG and each KSQG. This record must be maintained on a form provided by the department (attached) and must be maintained at the HHW facility for not less than 3 years from the date the waste was received at the HHW facility. A copy of this form must be provided to the CESQG and/or KSQG upon each receipt of hazardous waste.
3. Any satellite HHW facility that is not located at a permitted solid waste disposal area or a permitted solid waste transfer station may accept CESQG and/or KSQG waste only if the following conditions are met:
 - A. The waste is similar in type and quantity to household waste;
 - B. No container has a volume greater than 5 gallons;
 - C. All of the waste fits in the HHW cabinet;

- D. The satellite HHW facility manages the waste in the same manner as non-hazardous household waste (if it is non-hazardous) and hazardous household waste (if it is hazardous).
- E. The satellite HHW facility obtains a signed certification from each generator confirming their generator classification as a CESQG or KSQG. This signed certification must be on a form provided by the department (attached) and must be maintained on-site for a period of not less than three years from the last receipt of waste from that generator. If the generator's classification changes, the generator must notify the satellite HHW facility.
- F. The satellite HHW facility maintains a record of hazardous waste received from each CESQG and KSQG. This record must be maintained on a form provided by the department (attached) and must be maintained at the satellite HHW facility for not less than 3 years from the date the waste was received at the HHW facility. A copy of this form must be provided to the CESQG or KSQG upon each receipt of hazardous waste.

This policy shall remain in effect until it is revoked or is rendered obsolete by amendments to the solid waste laws or regulations.



William L. Bider
Director, Bureau of Waste Management

Mar 30, 2012
Date

Certification of Hazardous Waste Generator Status

Household hazardous waste (HHW) facility: _____

Permit Number: _____

Hazardous Waste Generator

Facility Name: _____

Facility Address: _____

EPA ID Number (if facility has one): _____

Contact Name: _____

Contact Phone: _____ Contact e-mail: _____

Hazardous Waste Generator Status (Check One)

- Conditionally Exempt Small Quantity Generator (generates less than 55 lbs of hazardous waste per month)
- Kansas Small Quantity Generator (generates 55 lbs or greater, but less than 220 lbs per month of hazardous waste)

By signing below, I certify that I represent the Hazardous Waste Generator Facility listed above and that the hazardous waste generator status marked is currently accurate for that facility.

Signature of Facility Contact

Date

Attachment C
Closure Plan

Household Hazardous Waste Closure Plan: KDHE Permit No.607



Reno County Solid Waste
4015 West Clark Road
Hutchinson, Kansas 67501
620-694-2586

SCS ENGINEERS

Project: 27223071.30 | March 2023

11120 E 26th Street N, Suite 1100
Wichita, KS 67226
316-302-4531

Table of Contents

Section	Page
1.0 General Introduction	1
2.0 Removal and Disposal of Waste	2
3.0 Cleaning of Facility	3
4.0 Closure Schedule	5
5.0 Closure Cost Estimate.....	6
6.0 General Comments	7

Appendices

Appendix A	Closure Cost Estimate
Appendix B	Figures

1.0 GENERAL INTRODUCTION

Reno County, Kansas owns and operates a household hazardous waste (HHW) facility (HHWF) at the Reno County Solid Waste Facility. The facility is located in Section 21, Township 23 south, Range 6 west, with a physical address of 4015 West Clark Road, in Hutchinson, Reno County, Kansas (Environmental Protection Agency Identification No. KSR000014407), as shown on Figure 1 in Appendix B. A Site Layout is provided as Figure 2, and an HHW Facility Layout is included as Figure 3 in Appendix B.

This HHW Closure Plan has been prepared in general accordance with Kansas Administrative Regulations (K.A.R.) 28-29-1107(a)(3) (April 2015), K.A.R. 28-31: Hazardous Waste Management, and applicable Kansas Statutes Annotated (K.S.A.) as referenced herein. This Plan provides general facility information and describes the closure requirements for the Reno County HHWF.

2.0 REMOVAL AND DISPOSAL OF WASTE

The HHW accumulated at closure of the Reno County HHWF will be transferred to an off-site permitted hazardous waste treatment, storage, or disposal facility via a hazardous waste contractor. However, pursuant to K.A.R. 28-29-1102(a)(2) and K.A.R. 28-29-1102(b)(2) Reno County may distribute for use certain HHW or non-hazardous household waste (NHHW) materials accepted by the Reno County HHWF, provided that the HHW or NHHW is distributed for use in a manner equivalent to its originally intended purpose.

Used oil, antifreeze, and acid batteries are recycled through programs operated under the Reno County Solid Waste Facility. The Reno County HHWF does not segregate other materials for redistribution or reuse due to insufficient storage space.

The Reno County HHWF will not discharge into a publicly owned treatment works. Reno County will not dispose of any NHHW in the sanitary sewer system.

3.0 CLEANING OF FACILITY

Cleaning activities will be performed after removal and disposal of waste accumulated at the HHW storage and processing areas of the Customer Convenience Center, as highlighted in Appendix B. These include:

- The HHW collection/ drop-off area, “swap shop”, HHW storage/ containment room, exterior concrete surfaces, and movable equipment will be cleaned using a pressure wash/rinse process.
- The collection and processing tables, storage cabinets, and other structures used for waste-handling or storage activities will be inspected and solid residues that are observed will be removed via a broom and dust pan, shovel, etc. Liquid residues or free liquid that are observed will be removed using absorbents, transfer pumps, etc. These residues will be placed into suitable U.S. DOT-approved containers, and properly characterized to determine if they exhibit hazardous waste characteristic or is regulated as a hazardous waste. After being characterized, residues will be transferred to an off-site permitted hazardous waste treatment, storage, disposal facility, or disposed of in the Reno County Solid Waste landfill per applicable regulations (KDHE Solid Waste Permit No. 723) provided the permit conditions are met.
- A silicone caulk sealant or equivalent will be applied, as necessary, to fill any cracks or gaps observed in surfaces to minimize the potential of a release of cleaning water ("rinsate"). Absorbent spill booms or other similar equipment may also be used to surround areas being cleaned to contain rinsate generated during the cleaning process.
- Surfaces will be prepared for pressure washing by applying an appropriate cleaning agent in accordance with the manufacturer's instructions and recommendations (e.g., the cleaning agent may either be left undisturbed to begin dissolving surface residues or scrubbed into the surface). A high-pressure/low-volume washer will then be used to remove contaminants and cleaning agent residues from surfaces and equipment. The resulting rinsate will be segregated in containers, and rinsate resulting from the cleaning found to contain hazardous waste debris or liquid will be analyzed to determine if it exhibits a hazardous waste characteristic or is regulated as a listed hazardous waste. Rinsate that is determined to be a hazardous waste will be transferred to an off-site permitted hazardous waste treatment, storage, or disposal facility in accordance with applicable regulations.
- Non-hazardous rinsate will be transferred to a vacuum tank truck or container (poly tank, 55-gallon drum, etc.). A representative sample will be collected from the vacuum tank truck and/or containers and analyzed to determine if it exhibits a hazardous waste characteristic or is regulated as a listed hazardous waste. Upon receipt of the analytical results, the rinsate will be transferred to an off-site permitted hazardous waste treatment, storage, or disposal facility.
- Cleaning activities will progress, to the extent feasible, in a manner to prevent rinsate from re-contaminating areas that were previously cleaned.

- Non-disposable clean-up and sampling equipment will also be cleaned as previously described.
- An inspection of the HHW collection/ drop-off area, “swap shop”, HHW storage/ containment room, exterior concrete surfaces, and movable equipment will be performed to determine if the surfaces of these areas/equipment are "clean surfaces." A "clean surface" is a surface that, when viewed without magnification, is free of visible residues, except for residual staining caused by waste consisting of light shadows, slight streaks or minor discolorations. Repeat cleaning will be performed on an area that does not meet the "clean surface" criteria.
- Alternatively, structure components (e.g., concrete) may be removed and disposed of at a permitted facility. Material that is removed and transported off-site for disposal will meet the requirements for disposal of contaminated debris in accordance with applicable provisions of 40 CFR Part 268.
- Personal protective equipment, impacted debris (e.g., absorbent booms) miscellaneous disposable clean-up supplies (e.g. brooms), and disposable sampling equipment will be containerized to determine if it exhibits a hazardous waste characteristic or is regulated as a listed hazardous waste. Upon receipt of the analytical results, this waste will be transferred to an off-site permitted hazardous waste treatment, storage, or disposal facility.

After cleaning and closure activities are complete, the Reno County HHWF and associated equipment will be considered "closed" and no longer regulated as an HHW facility.

4.0 CLOSURE SCHEDULE

Reno County will notify the KDHE at least 60 days before beginning closure activities (K.A.R. 28-29-1106(a)). HHW accumulated at the facility at the time of closure shall be removed from the site within 90 days after last receiving waste (K.A.R. 28-29-1106(b)). Reno County will also submit to the KDHE certification that the facility has closed in accordance with the procedures in the approved Closure Plan (K.A.R. 28-29-1106(c)).

5.0 CLOSURE COST ESTIMATE


The current estimated cost for closure of the Reno County HHWF is included in Appendix A. The total estimated cost for the closure of the Reno County HHWF in May 2022 was \$48,101.45. The closure cost estimate was based upon site-specific characteristics and unit costs from various sources including:

- Recent Reno County contract amounts
- Recent bids from local contractors and quotes from vendors for similar activities and/or equipment from other facilities and projects
- Engineering judgment/experience

The closure cost estimate for the Reno County HHWF is updated annually as part of the Reno County Solid Waste KDHE Solid Waste permit renewal.

6.0 GENERAL COMMENTS

This Plan was prepared within the constraints of the client's directives. It is intended for the exclusive use of the client for specific application. No warranties, express or implied, are intended or made.



Appendix A
Closure Cost Estimate

HOUSEHOLD HAZARDOUS WASTE CLOSURE COST ESTIMATE RENEWAL WORKSHEET

Complete the following worksheet for a Household Hazardous Waste (HHW) annual cost closure estimate and submit it to KDHE along with other required annual permit renewal information.

Owner RENO COUNTY, KANSAS

- I. Determine the cost to empty the facility.** Reference your facility's previous year's HHW program Annual Report for cost estimates required below. For new facilities, use the previous year's HHW Program Annual Report for a county with a population similar to yours. Program Reports can be found in the appendix of the annual HHW Report to the Legislature.)

Estimate hazardous waste disposal cost:

(A) Estimated volume of HHW storage area (cubic feet)	<u> </u>	(cu.ft)
(B) Estimated pounds of hazardous waste the storage area can contain	<u>41,000</u>	(lbs)
(C) Unit Cost for hazardous waste disposal (\$/pound)	<u>\$ 1.14</u>	(\$/lb)
(D) Calculation for disposal cost (B x C)	<u>\$ 46,740</u>	(1)

- II. Determine the cost to clean and decontaminate the HHW site upon closure:**

(A) Estimate total man-hours (hrs)	<u>30</u>	hrs
(B) Hourly rate per man-hour (\$/hr)	<u>\$ 20.45</u>	\$/hr
(C) Calculation for wages (A x B)	<u>\$ 613.50</u>	
(D) Estimated cost of cleaning equipment & supplies	<u>\$ 747.95</u>	
(E) Calculation for total cost (C + D)	<u>\$ 1,361.45</u>	(2)

Total reported annual closure cost estimate:

Add (1) + (2) \$ 48,101.45

Please include signature of person completing this form and date.

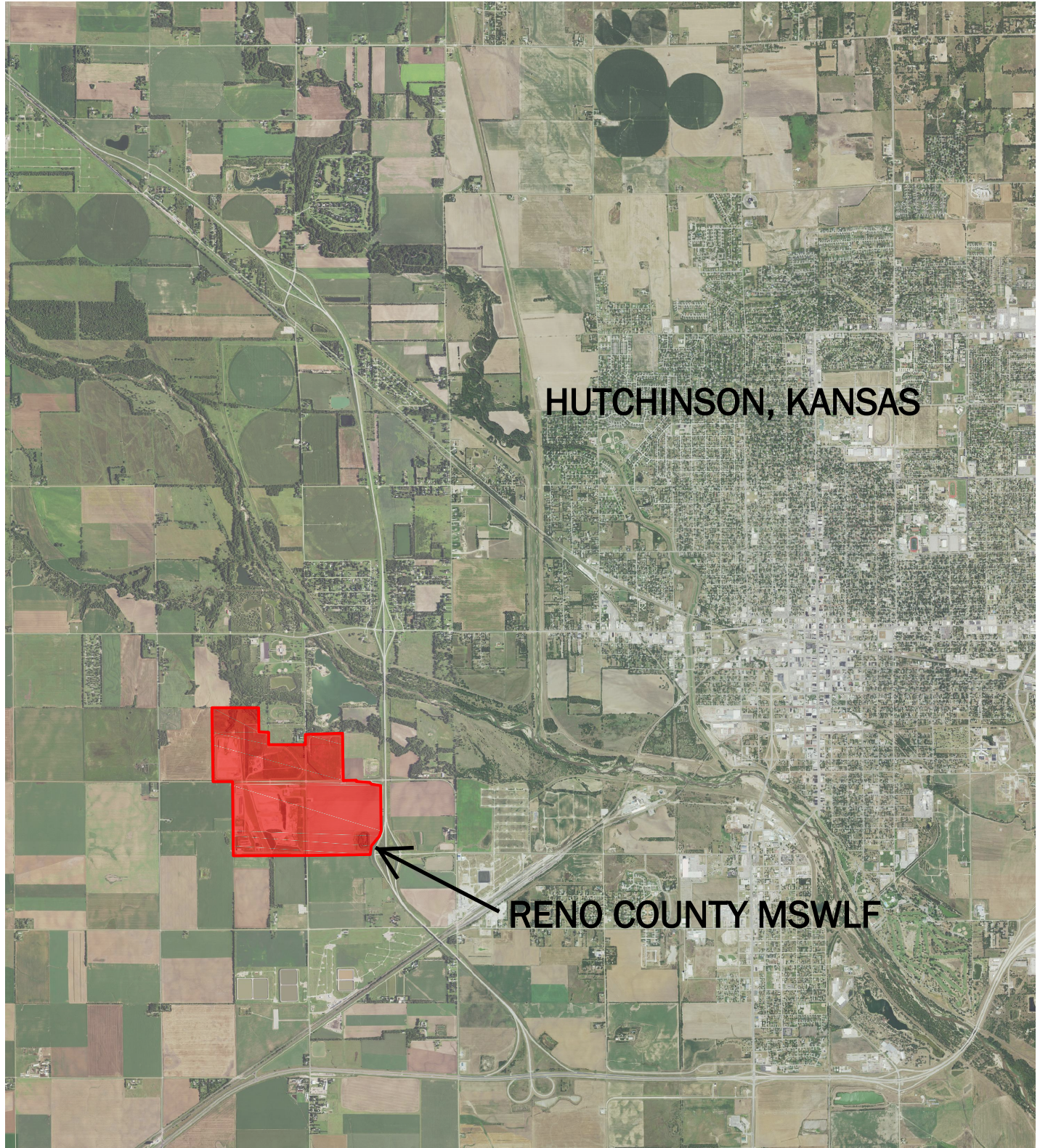
Signature: 

Date: 5/19/2022

Permit No. 607

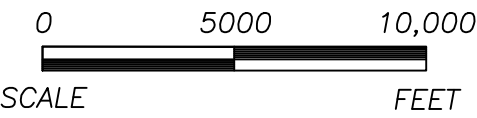
Appendix B

Figures



NOTE:

1. AERIAL IMAGERY RETRIEVED FROM THE 2015 NATIONAL AGRICULTURAL, IMAGERY PROGRAM ADMINISTERED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE'S FARM SERVICE AGENCY.



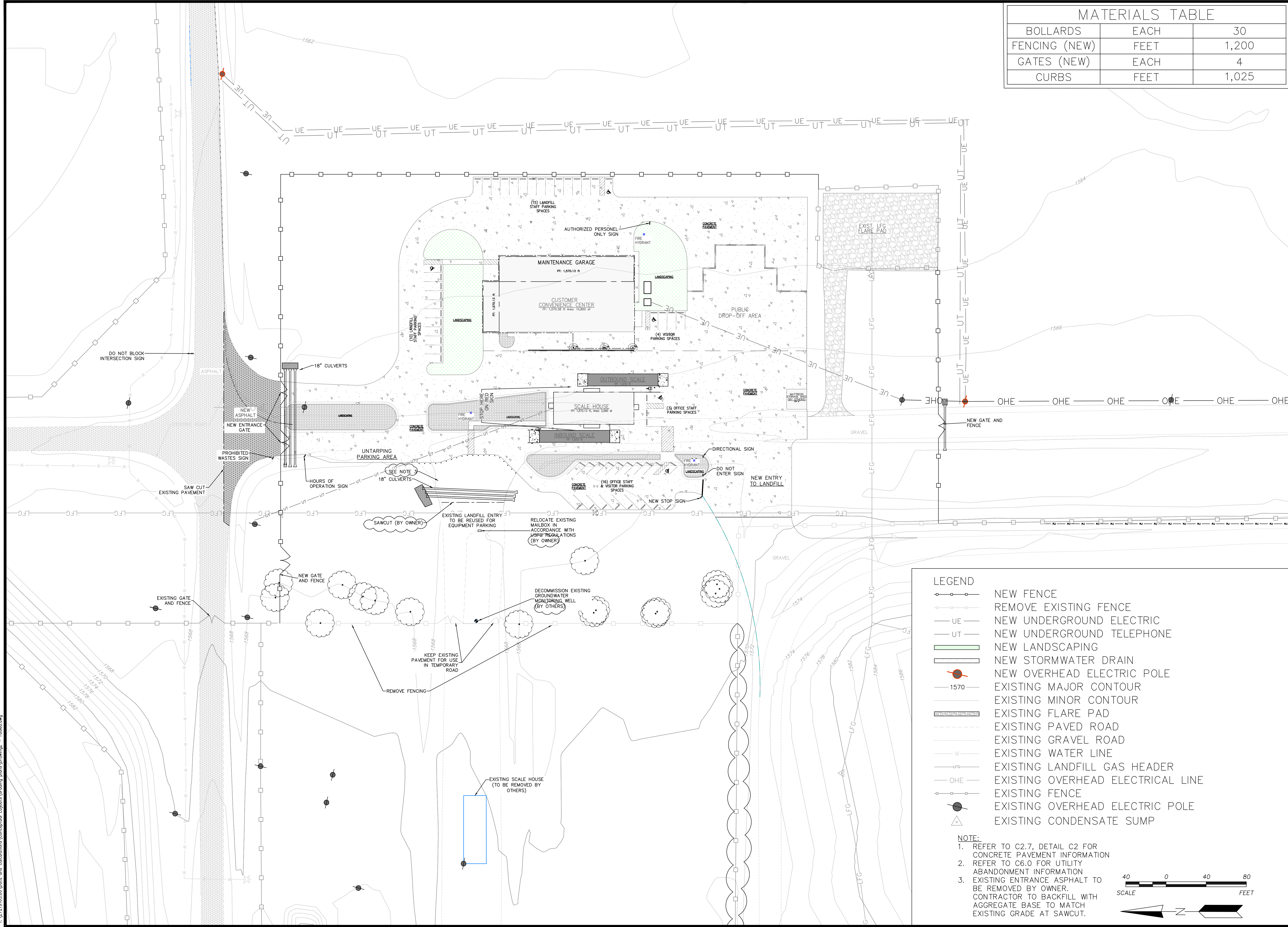
SCS ENGINEERS

11120 E. 26th Street North, Ste. 1100
 Wichita, Kansas 67226
 PH. (316) 315-4501 FAX. (316) 315-4505

SITE LOCATION MAP
HOUSEHOLD HAZARDOUS WASTE OPERATING PLAN
RENO COUNTY MUNICIPAL SOLID WASTE LANDFILL FACILITY
HUTCHINSON, KANSAS

CHK. BY: KDH	DWN. BY: KDH	DSN. BY: KDH	PROJ. NO. 27221071.31
PROJ. MGR: KDH	DATE: 02/2023	CADD FILE: FIGURE 1-SITE LOCATION MAP.DWG	FIGURE NO. 1

MATERIALS TABLE		
BOLLARDS	EACH	30
FENCING (NEW)	FEET	1,200
GATES (NEW)	EACH	4
CURBS	FEET	1,025



REV.	DATE	DESCRIPTION	BY	SL
1	12/17/20	FENCE AND SAWCUT LIMITS		SL
0	11/9/20	ISSUED FOR BID		SL

SHEET TITLE: LAYOUT PLAN
SCALE HOUSE & SUPPORT FACILITIES
PROJECT TITLE: RENO COUNTY LANDFILL FACILITIES DESIGN

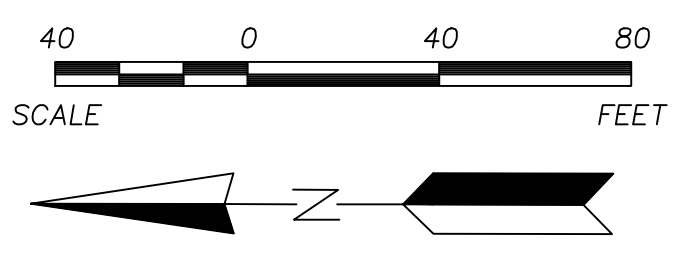
CLIENT: RENO COUNTY MSWLF
RENO COUNTY KANSAS
703 S. MOHAWK ROAD
HUTCHINSON, KANSAS

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
11120 E 24th STREET NORTH
WICHITA, KANSAS 67226
PH: (316) 315-4501
PROJ. NO.: 277219165.60
DWG. BY: PEN
CHK. BY: SL
O/A. REV. BY: SL
PROJ. MGR. BY: SL

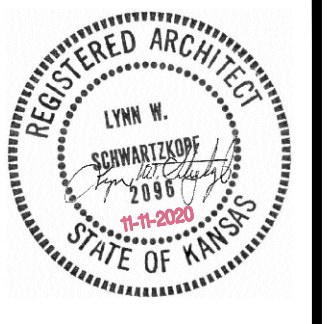
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DATE: 12/11/20
SCALE: SEE FIGURE
DRAWING NO. C2.0

- LEGEND**
- NEW FENCE
 - REMOVE EXISTING FENCE
 - NEW UNDERGROUND ELECTRIC
 - NEW UNDERGROUND TELEPHONE
 - NEW LANDSCAPING
 - NEW STORMWATER DRAIN
 - NEW OVERHEAD ELECTRIC POLE
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - EXISTING FLARE PAD
 - EXISTING PAVED ROAD
 - EXISTING GRAVEL ROAD
 - EXISTING WATER LINE
 - EXISTING LANDFILL GAS HEADER
 - EXISTING OVERHEAD ELECTRICAL LINE
 - EXISTING FENCE
 - EXISTING OVERHEAD ELECTRIC POLE
 - EXISTING CONDENSATE SUMP

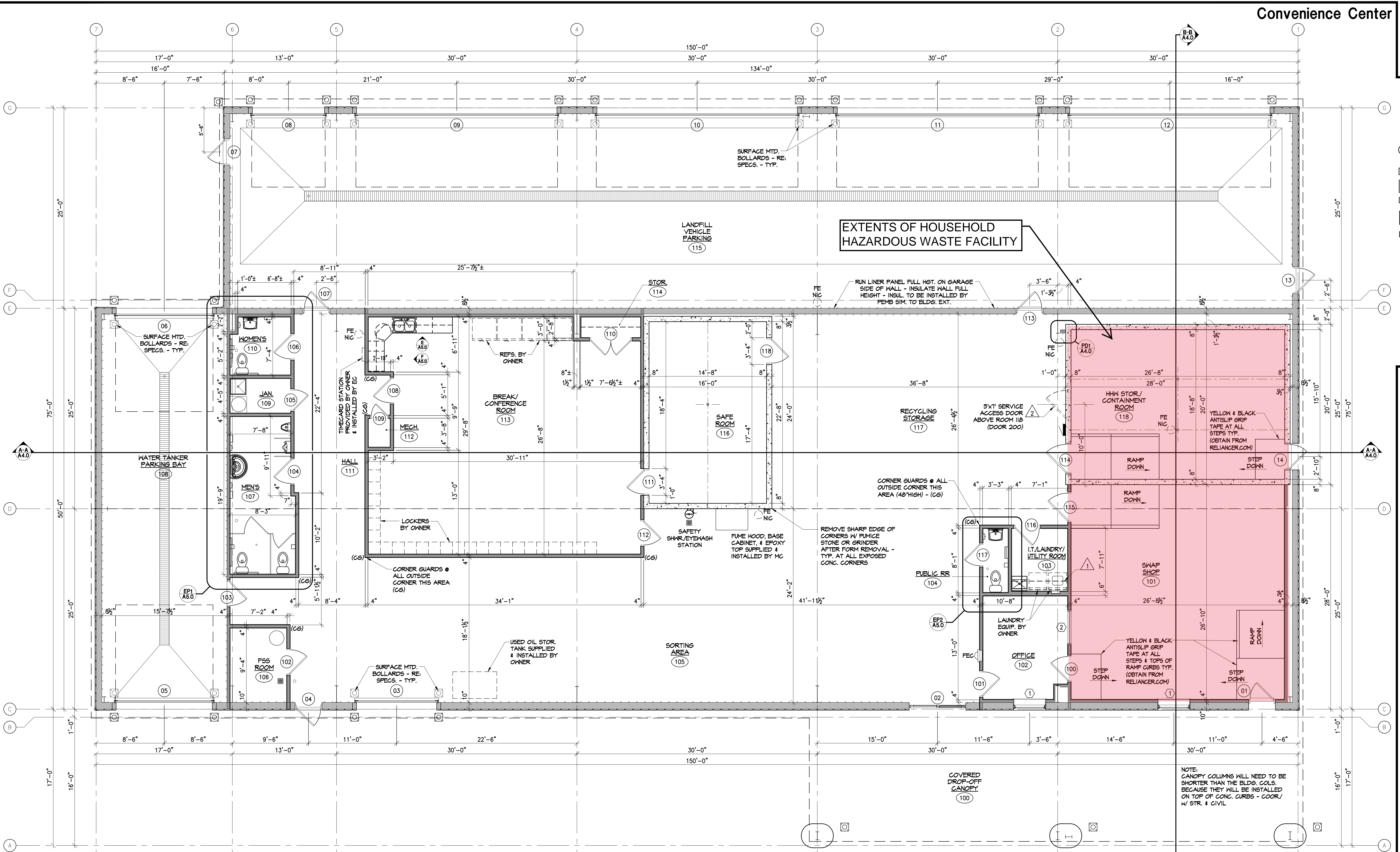
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1. REFER TO C2.7, DETAIL C2 FOR CONCRETE PAVEMENT INFORMATION
2. REFER TO C6.0 FOR UTILITY ABANDONMENT INFORMATION
3. EXISTING ENTRANCE ASPHALT TO BE REMOVED BY OWNER. CONTRACTOR TO BACKFILL WITH AGGREGATE BASE TO MATCH EXISTING GRADE AT SAWCUT.



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MANN & COMPANY, P.A.
 ARCHITECTS & PLANNERS
 1703 London Street, Suite B
 Hutchinson, KS 67502 620-662-4493



FLOOR PLAN
 3/16" = 1'-0" A-FPBRCR



- FLOOR PLAN NOTES**
- INSTALL 15" DEEP x WIDTH OF ROOM FIXED PL. LAM SHELF @ 60" AFF W/ CONT. IX WD. CLEAT @ ALL WALLS - PAINT CLEATS TO MATCH SURROUNDING WALLS.
 - INSTALL HM DOOR & FRAME W/ BOT. OF DOOR EQUAL TO TOP OF RM ILS CEILING SLAB - FT. DOOR & FRAME TO MATCH ADJACENT WALL PANELS - TRIM METAL PANEL AROUND DOOR W/ STANDARD PRE-FINISHED J-MOLD ON VISIBLE SIDE - PROVIDE & INSTALL SAFETY CHAIN & HOOKS ON INSIDE OF DOOR JAMB @ 36" A.F.F.

- GENERAL FLOOR PLAN NOTES**
- GC SHALL VERIFY ALL CONDITIONS PRIOR TO WORK BEGINNING - THE GC IS RESPONSIBLE FOR INFORMING THE ARCHITECT OF ANY CONDITIONS THAT DIFFER FROM THE INFO. INDICATED IN THE DRAWINGS
 - VERIFY EXTENT OF WORK W/ INFO. SHOWN IN THE DRAWINGS, ADD. WORK THAT IS NOT SHOWN MAY BE REQD. TO COMPLETE THE INTENDED WORK
 - ALL WORK SHALL COMPLY W/ REQD. LOCAL CODES - GC IS RESPONSIBLE FOR OBTAINING REQD. PERMITS & INSPECTIONS FOR ALL WORK ASSOCIATED W/ HIS CONTRACT
 - INSTALL BLKS. IN ALL WALLS AS REQD. TO PROVIDE SUPPORT FOR CASEWORK, GRAB BARS, ETC. - GC SHALL COORDINATE BLKS. INSTALL. W/ ALL ASSOCIATED WORK

revision

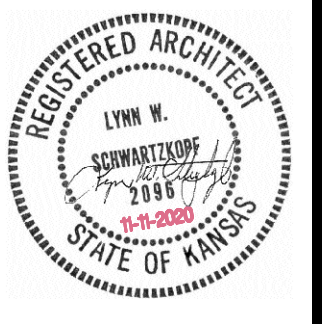
Reno Co. Landfill Entry Relocation
Convenience Center
 703 South Mohawk Road
 Hutchinson, KS 67501

project

FLOOR PLAN
 title

ds.	LWS
dr.	JEH
ck.	LWS
commission no.	2318.00
prints	tracings
E-5	T7
sheet	A1.0
of	
date	Nov. 11, 2020

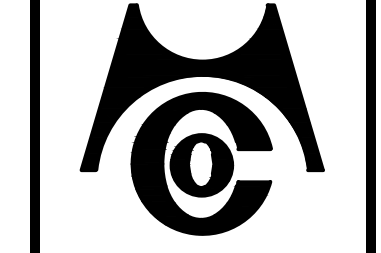
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MANN & COMPANY, P.A.
ARCHITECTS & PLANNERS
 1703 London Street, Suite B
 Hutchinson, KS 67502 620-662-4493

no.	description	date

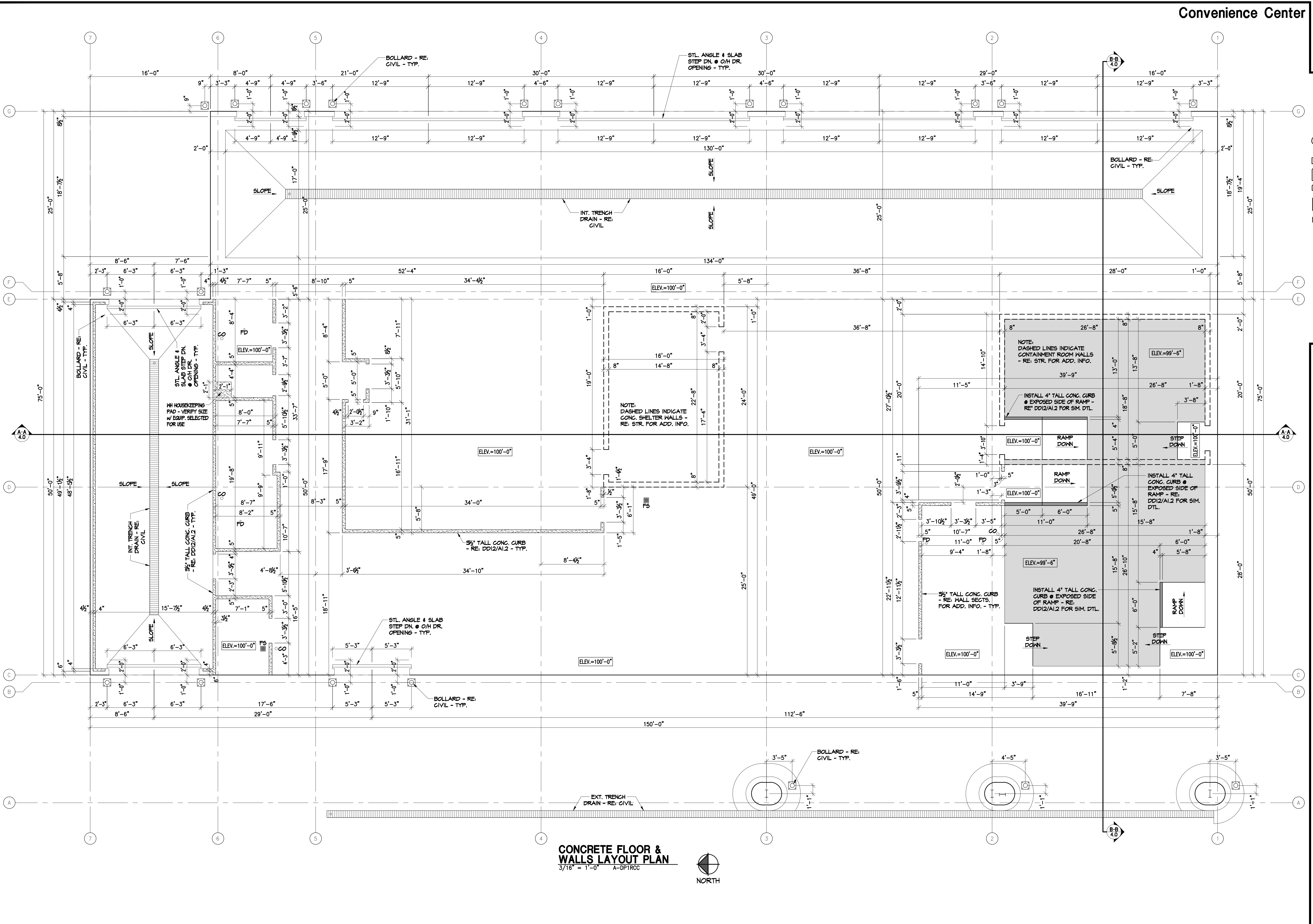
revision
 project
CONCRETE FLOOR & Reno Co. Landfill Entry Relocation
WALLS LAYOUT PLAN Convenience Center
 title
 703 South Mehekaw Road
 Hutchinson, KS 67501



ds.	LWS
dr.	JEH
ck.	LWS
commission no.	231800
prints	tracings
E-5	77

sheet
A1.4
 of
 date
 Nov. 11, 2020

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CONCRETE FLOOR & WALLS LAYOUT PLAN
 3/16" = 1'-0" A-DP1RCC



Attachment D
Certificate of Insurance



RENOCOOU-09

AJANSEN

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/29/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Fee Insurance Group, Inc. 2920 N. Plum St Hutchinson, KS 67502	CONTACT NAME: Laura O'Neal PHONE (A/C, No, Ext): (620) 259-8889 E-MAIL ADDRESS: certs@feeinsurance.com	FAX (A/C, No): (620) 662-5415
	INSURER(S) AFFORDING COVERAGE	
INSURED Reno County 206 W. 1st Avenue Hutchinson, KS 67501	INSURER A : The Travelers Indemnity Company	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

NAIC #
25658

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			ZLP-14T82241-22-PB	1/1/2023	1/1/2024	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 500,000
							MED EXP (Any one person)	\$
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
								\$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			H-810-3036P189-IND-22	1/1/2023	1/1/2024	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE	\$
							AGGREGATE	\$
								\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N <input type="checkbox"/> N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
							E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Ref Solid Waste Permit numbers 723, 287, 607


CERTIFICATE HOLDER

Kansas Dept of Health & Environment Bureau of Waste Management
 1000 SW Jackson ST, STe 320
 Topeka, KS 66612-1366

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



Attachment E
Disclosure Statement

LOCAL GOVERNMENT CERTIFICATIONS

Applicant's Name Reno County, Kansas
Facility Name Reno County Landfill
Facility Location 4105 W Clark Rd, Hutchinson, KS 67501
Application Type (new permit, modification, or transfer) Modification

As specified in K.S.A. 65-3407 "Permits to construct, alter or operate solid waste processing facilities and solid waste disposal areas", the secretary shall require the following information as part of this application:

Solid Waste Management Plan Consistency

(m)(1) Certification by the board of county commissioners or the mayor of a designated city responsible for the development and adoption of the solid waste management plan for the location where the processing facility or disposal area is or will be located that the processing facility or disposal area is consistent with the plan. This certification shall not apply to a solid waste disposal area for disposal of only solid waste produced on site from manufacturing and industrial processes or from on-site construction or demolition activities.

I certify that, to the best of my knowledge, the facility described in this application is consistent with the Solid Waste Management Plan.

Daniel Friesen
Name (Print or Type) Signature

Reno County Chairman
Title Date

Reno County 206 W First KS 67501
County or City Street Address State, Zip Code

Zoning or Land Use Consistency

(m)(2) If the location is zoned, certification by the local planning and zoning authority that the processing facility or disposal area is consistent with local land use restrictions or, if the location is not zoned, certification from the board of county commissioners that the processing facility or disposal area is compatible with surrounding land use.

I certify that, to the best of my knowledge, the facility described in this application is consistent with (check one):

local land use restrictions/zoning or surrounding land use.

Daniel Friesen
Name (Print or Type) Signature

Reno County Chairman
Title Date

Reno County 206 W First KS 67501
County or City Street Address State, Zip Code

If a special/conditional use permit is required, please attach a copy to this application.



AGENDA ITEM

AGENDA ITEM #6.F

AGENDA DATE: March 28, 2023

PRESENTED BY: Jenna Fager, Deputy County Clerk

AGENDA TOPIC:

Set County Canvass dates and times following the April 4th, 2023 USD 313 Special Bond Election; and the May 16th Special Bond Elections for USD 309 and USD 311.

SUMMARY & BACKGROUND OF TOPIC:

- Board of County Commissioners to set dates and times to Canvass the April 4th, 2023 USD 313 Special Bond Election. The recommended canvassing date would be April 11th, 2023 at 8:00am located at the Reno County Courthouse Annex Conference Room. K.S.A. 25-3104 states the canvassing date must be conducted not later than 13 days following any election.
- Board of County Commissioners to set a date and time to Canvass the May 16th, 2023 USD 309 Special Bond Election and the USD 311 Special Bond Election. The recommended canvassing date for both special elections would be May 23rd, 2023 at 8:00 am located at the Reno County Courthouse Annex Conference Room. K.S.A. 25-3104 states the canvassing date must be conducted not later than 13 days following any election.

ALL OPTIONS:

- An alternative date and time to Canvass the April 4th Special Bond Election would be Monday, April 10th, 2023 at 9:00 am.
- An alternative date and time to Canvass the May 16th Special Bond Elections for USD 309 and USD 311 would be Monday, May 22nd, 2023 at 9:00 am.

RECOMMENDATION / REQUEST:

- Set Tuesday, April 11th, 2023 at 8:00 am at the Reno County Courthouse Annex Conference Room as the County Canvass date and time for the April 4th USD 313 Special Bond Election; and
- Set Tuesday, May 23rd, 2023 at 8:00 am at the Reno County Courthouse Conference Room as County Canvass date and time for the May 16th Special Bond Elections for USD 309 and USD 311.

POLICY / FISCAL IMPACT:

No county fiscal impact.



AGENDA ITEM

AGENDA ITEM #6.G

AGENDA DATE: March 28, 2023

PRESENTED BY: Cindy Martin

AGENDA TOPIC:

Approval of a corrected copy of July 26th, 2022 minutes. The correction was on a purchase for a used CAT loader amount was \$2,241,915.43 and should have been \$241,915.43.

SUMMARY & BACKGROUND OF TOPIC:

There was a typed error with the amount of a purchased CAT loader equipment on July 26th, 2022. It will be corrected in the minutes today and resigned by the Chair.

ALL OPTIONS:

Approval

RECOMMENDATION / REQUEST:

Approval

POLICY / FISCAL IMPACT:

none

July 26th, 2022
Reno County Annex
Hutchinson, Kansas

The Board of Reno County Commissioners held an agenda session with Chairman Daniel Friesen, Commissioner Ron Sellers, and Commissioner Ron Hirst, County Administrator Randy Partington, County Counselor Patrick Hoffman, and Minutes Clerk Cindy Martin, present.

The meeting began with the Pledge of Allegiance followed by a short sectarian prayer led by Pastor Rishawn Austin, First Baptist Church.

There were no public comments or additions to the agenda.

Mr. Sellers moved, seconded by Mr. Hirst, to approve the Consent Agenda consisting of items 6A through 6G voting on 6H separately, including the Accounts Payable Ledger for claims payable on July 22nd, 2022, totaling \$877,951.04, claims payable on July 29th, 2022, totaling \$1,583,092.94; approve Community Corrections year-end budget adjustments for the adult supervision Kansas Department of Corrections grant; approve FY2022 Year-End KDOC Juvenile Comprehensive Plan Grant Budget Revisions Community Corrections Kansas Department of Corrections adult and juvenile carryover client reimbursement budgets submission; approve addendum to the Purchasing Policy; approve agreement between the Kansas Department of Transportation (KDOT) and Reno County for the High-Risk Rural Roads (HRRR) project to improve safety on county roads. 100 percent of Participating Costs are covered by KDOT. Estimated Project Cost is \$561,000.00; Agreement No. #189-22; and Project No. #078C-5198.01; to approve the purchase of a used 2022 CAT 950M loader from Foley Equipment in Wichita, KS in the amount of \$241,915.43 as presented by staff. The motion was approved by a roll call vote of 3-0. Mr. Sellers started a brief discussion on purchasing new equipment versus purchasing used for the same price and warranty. Mr. Hirst suggested it could be the wait time for new being six months to a year for delivery and the used was available now. Mr. Partington would consult with Solid Waste Director Megan Davidson for the answers.

Mr. Friesen moved, seconded by Mr. Hirst, to approve the proposal from Hutton Corporation, agenda item 6H, that was a proposal to provide design builder services for the shooting range project. Mr. Sellers stated he had nothing against the Hutton Corporation however he would not vote for the proposal believing

it had the possibility of expenses growing out of control with the county's money.

Mr. Hirst shared those concerns on expenses but believed there was an opportunity to provide a facility and a need for the shooting range warranted a planning design. The Sheriff's Office would benefit along with other agencies as it could become the regional training center. They had four companies present practical presentations and Hutton was the only one that would help us seek grants.

Sheriff Darrin Campbell said Hutton Corporation stood out from all the others. He stated that it was practical and scalable to fit our needs and budgets also provide a training facility for the region.

The motion was approved by a roll call vote of 2-1 with Mr. Sellers opposed.

Hutchinson Community Foundation Director of Strategic Initiatives Kari Mailloux gave a presentation on behalf of the Reno County Entrepreneur Ecosystem Partnership (RCEEP) Action Plan. She showed the progress and updates for the 2022-2025 Reno County Entrepreneur Action Plan. Other members of that group were in the audience: Jackson Swearer and Dave Dukart, Start Up Hutch; Michele Inskip, Peoples Bank and Trust.

Mr. Swearer explained the function of RCEEP stating they would still meet quarterly to continue to function with Hutchinson Foundation as a neutral partner in those meetings. He felt it was important to not duplicate services with what other agencies were doing.

County Counselor Patrick Hoffman gave explanation for the Joint Venture Agreement with Interfaith Housing for a development project at 500 W. 20th, the old St. Elizabeth Hospital building in Hutchinson, KS. He said the main focus was giving back the deed to Interfaith if the grant was not awarded. Reno County would carry additional insurance with the same coverage as other buildings when filing a claim with a deductible, and Interfaith would reimburse Reno County the insurance cost as written. Mr. Hoffman was satisfied with the agreement. Mr. Friesen stated good work with the creativity on moving forward with the St. Elizabeth project and suggested working with the City of Hutchinson for support and cooperation. **Mr. Friesen moved, seconded by Mr. Sellers,** to approve the Joint Venture Agreement with the indemnity

clause as presented. The motion was approved by a roll call vote of 3-0.

Appraiser Mike Plank presented his annual report to the Board. He reviewed several statistics and stated they were compliant since 2016 which was outstanding.

Mr. Partington stated the Board last week approved the maximum budget that would possibly exceed the RNR (Revenue Neutral Rate) with discussions before the August 30th, 2022, public hearing. He stated to keep the mill levy neutral the cut would have to be \$1.3 million. The Board had a large discussion on the revenue and expenses within each department's budgets. Mr. Partington was instructed to make a spreadsheet showing areas to cut before the August 30th public hearing.

Mr. Partington asked if the Board had any questions on the monthly reports, there were no questions. He said a townhall meeting was set in Yoder and asked if the Board would be attending, Mr. Friesen and Mr. Hirst would attend with possibly Mr. Sellers.

Commissioner Comments:

Mr. Hirst mentioned Reno County was lucky to have National Baseball Congress World Series here this week starting at noon July 28th - 31st. Thank you for quick work by Chamber to potentially host the AG expo here. He also thanked the 4-H Fair Committee, the livestock sale committee, and volunteers for creating a great youth program, and all open class exhibitors, 4-H is an outstanding organization.

Mr. Sellers thought Mr. Hirst's suggestion to Start Up Hutch to be more personable visible in the county was appropriate, most of the world use social media for visibility. He thought Mr. Friesen's suggestion to Interfaith Housing to work with the City of Hutchinson for support on the St. Elizabeth project was a good one.

Mr. Friesen commented to Mr. Hoffman on his work on the tax sale. We are on track for this year, thank you.

At 11:00 a.m. the meeting recessed for five minutes.

The meeting reconvened with all Commissioners, County Administrator Randy Partington, County Counselor Patrick Hoffman, and Minutes Clerk Cindy Martin, present.

At 11:05 a.m. **Mr. Friesen moved, seconded by Mr. Hirst,** to go into executive session until 11:10 a.m., with the County Administrator Randy Partington to remain, to discuss an attorney/client privileged legal matter. The motion was approved by a roll call vote of 3-0.

At 11:10 a.m. Mr. Friesen moved, seconded by Mr. Hirst, to extend the executive session until 11:15 a.m. The motion was approved by a roll call vote of 3-0.

The meeting returned to regular open session with no binding action to be taken as a result of the executive session.

Mr. Sellers moved, seconded by Mr. Hirst, to delegate Commissioner Friesen to meet with the Chamber of Commerce regarding an Economic Development opportunity, and to make a non-binding commitment on the county's behalf as he saw fit, with final approval of any Economic Development Program to be approved by the Commission at a regular meeting. The motion was approved by a roll call vote of 3-0.

At 11:20 a.m. the meeting adjourned until 9:00 a.m. Tuesday, August 9th, 2022.

Approved:

Chair, Board of Reno County Commissioners

(ATTEST)

Reno County Clerk
cm

Date

NOTE: The original date signed by the Chair was 8/30/2022 but was changed due to an incorrect amount on the consent agenda for the purchase of a used 2022 CAT 950M loader from Foley Equipment for \$241,915.43.



AGENDA ITEM

AGENDA ITEM #7.A

AGENDA DATE: March 28, 2023

PRESENTED BY: Michael Plank, County Appraiser

AGENDA TOPIC:
County Appraisal Questions & Answers - County Appraiser Michael Plank

SUMMARY & BACKGROUND OF TOPIC:
Background information regarding the County Appraiser and property valuations is attached.

RECOMMENDATION / REQUEST:
Discussion only

Mission Statement

- ▶ The mission of the Office of the Appraiser is to provide professional, economical, accurate, and ethical administration of the real and personal property tax roll of Reno County, setting values that meet compliance standards established by the State of Kansas in accordance with state statutes.

The Appraiser's Role

The appraiser is a part of the property tax system we have in the United States.

The appraiser provides a public service, working for the citizens and taxpayers of the county.

Per state statute, the appraiser is responsible for: Discovering, Listing, and Valuing all real and tangible personal property (KSA 79-1411b, 79-1412a).

Property shall be valued "uniformly and equally as to class" (KSA 79-1439), commonly referred to as the "fair and equal" clause.

What the County Appraiser Does

- ▶ Values property according to state statute, “uniformly and equally.”
- ▶ This means applying the same methodology in valuing every parcel, not making every parcel adjust the same amount or percentage.
- ▶ Using “generally accepted appraisal procedures and standards” to determine “fair market value” (KSA 79-503a).
 - ▶ Comparison Sales
 - ▶ Income
 - ▶ Cost

What the County Appraiser Does (cont)

- ▶ Appraisers in general react to and report on the market.
- ▶ County appraisers determine a market value based on the information available. In Kansas we use the ORION CAMA system to value everyone in the county via mass appraisal, in accordance with the “uniformly and equally” clause in state statute.
- ▶ County appraisers in our taxation system distribute the budgets for local taxing jurisdictions.

Taxes?

- ▶ The appraiser does not set taxes.
- ▶ The appraiser does not collect taxes.
- ▶ The appraiser does not increase or decrease taxes.
- ▶ The appraiser values property based on market conditions and lets taxing authorities deal with the tax implications.
 - ▶ School boards
 - ▶ City councils
 - ▶ County commissioners
 - ▶ State representatives

What the County Appraiser Does NOT Do

Average Sales Price

Percent Increase

National Trends

CPI (Consumer Price Index)

HPI (Housing Price Index)

Ability to pay taxes

Internet sites (Zillow, Realtor)

Average Percent Increase

Unsupported opinions of value

Price per square foot

Average price per square foot

Personal Circumstances/Income

Hypothesize

Speculate

Appeals

- ▶ You cannot appeal your taxes, just your valuation!
- ▶ Appeal if there is something incorrect on your record.
 - ▶ Missing information
 - ▶ Incomplete or incorrect information
 - ▶ Objective (measurable) or Subjective (abstract)

The Appraisal Cycle (Res and Comm)

- ▶ Data Collection
 - ▶ Year long, but particularly June through November
 - ▶ Field Work: Sales, Building Permits, 17% Review, Ag Review
- ▶ Valuation
 - ▶ December through February
- ▶ Informal Appeals
 - ▶ March through May
 - ▶ Must be completed by May 15 (KSA 79-1448)

Property Tax Cycle

- ▶ Appraiser's office sends annual notice of valuation on or before March 1
- ▶ Informal appeals through mid-May
- ▶ Appraiser certifies the tax roll in June
- ▶ Taxing authorities create budgets (set mill levies) over the summer
- ▶ Real Estate Tax Statements mailed in November
- ▶ Full or first half payment due in December
- ▶ Second half payment due in May

Relevant Statutes

- ▶ (Not an exhaustive list)
- ▶ 79-1411b, 79-1412a, 79-1455: Discover, List, and Value all real and tangible property
 - ▶ Exceptions for Oil & Gas (79-332a), public utilities (79-5a04), personal property (79-303)
- ▶ 79-411, 79-501, 79-503a, 79-1476: Value real property at fair market value
 - ▶ Agricultural use land value is determined by the state (79-1476)
- ▶ 79-1456, Comply with PVD

Reno County Home Sales Statistics

Source: Reno County Appraiser Database Query

Valid Sales excludes: Investor purchases, foreclosures, immediate family sales, auctions, or other non-open market transactions (see KSA 79-503a)

ALL RENO COUNTY SALES

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 106,495	1367	711	\$ 137,466
2019	\$ 113,053	1461	699	\$ 146,670
2020	\$ 117,351	1543	737	\$ 154,097
2021	\$ 150,227	1592	772	\$ 169,047
2022	\$ 158,926	1521	684	\$ 173,370

SOUTH HUTCHINSON

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 102,432	58	30	\$ 129,680
2019	\$ 97,956	37	18	\$ 106,816
2020	\$ 100,310	38	22	\$ 135,604
2021	\$ 112,610	58	28	\$ 150,851
2022	\$ 135,271	53	26	\$ 155,311

HUTCHINSON (north of 17th Street)

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 148,019	425	316	\$ 162,884
2019	\$ 157,777	428	307	\$ 174,213
2020	\$ 160,784	418	317	\$ 174,700
2021	\$ 182,914	461	310	\$ 200,323
2022	\$ 194,055	364	248	\$ 210,708

HUTCHINSON (south of 17th Street)

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 48,308	460	160	\$ 73,344
2019	\$ 61,234	534	161	\$ 77,679
2020	\$ 58,777	560	166	\$ 81,149
2021	\$ 72,305	522	168	\$ 93,295
2022	\$ 79,169	568	193	\$ 103,331

BUHLER

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 101,832	26	16	\$ 108,058
2019	\$ 83,702	30	15	\$ 126,460
2020	\$ 84,540	33	15	\$ 135,533
2021	\$ 111,045	37	20	\$ 118,185
2022	\$ 152,652	22	11	\$ 173,586

NICKERSON

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 55,529	14	6	\$ 85,791
2019	\$ 78,311	20	5	\$ 72,880
2020	\$ 53,117	28	8	\$ 76,625
2021	\$ 57,584	19	11	\$ 66,690
2022	\$ 62,097	24	10	\$ 79,325

HAVEN

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 60,951	43	13	\$ 91,892
2019	\$ 87,735	38	18	\$ 123,391
2020	\$ 91,274	52	20	\$ 103,591
2021	\$ 120,037	48	31	\$ 126,714
2022	\$ 171,104	43	19	\$ 139,858

PRETTY PRAIRIE

Year	AV SP	All Sales	Valid Sales	AV Valid SP
2018	\$ 56,021	7	5	\$ 73,780
2019	\$ 36,732	14	2	\$ 75,700
2020	\$ 72,403	21	7	\$ 111,144
2021	\$ 67,006	15	10	\$ 69,059
2022	\$ 100,306	16	9	\$ 99,927

Reno County Home Sales Statistics

Source: Reno County Appraiser Database Query

Year	Average Valid Sales Price	Percent Change
2012-14	\$ 122,916	
2013-15	\$ 125,137	1.81%
2014-16	\$ 127,491	1.88%
2015-17	\$ 131,235	2.94%
2016-18	\$ 134,600	2.56%
2017-19	\$ 139,929	3.96%
2018-20	\$ 146,171	4.46%
2019-21	\$ 156,973	7.39%
2020-22	\$ 165,371	5.35%

Kansas Total Home Sales Statistics for Entire MLS System

Source: Kansas Association of REALTORS® and participating Kansas REALTOR® MLS Sy
<https://realestate.wichita.edu/data-research/data-by-market/kansas-market/>

Website: www.kansasrealtor.com

Year	Average Sales Price
2008	\$ 157,707
2009	\$ 154,629
2010	\$ 154,662
2011	\$ 150,342
2012	\$ 156,939
2013	\$ 167,879
2014	\$ 174,461
2015	\$ 183,723
2016	\$ 190,702
2017	\$ 197,288
2018	\$ 206,671
2019	\$ 214,484
2020	\$ 234,424
2021	\$ 260,796
2022	\$ 286,520

<u>County</u>	<u>County Levy</u>	<u>Rank</u>	<u>Total Rural Rate</u>	<u>Rural Rank</u>	<u>Total Urban Rate</u>	<u>Urban Rank</u>	<u>Total Average Rate</u>	<u>Average Rank</u>
Johnson	18.564	1	111.993	16	112.142	2	112.137	7
Pottawatomie	28.647	2	90.340	2	129.190	6	98.242	2
Sedgwick	29.370	3	115.364	20	120.527	3	119.902	12
Marion	30.738	4	139.596	57	192.338	69	153.752	60
Brown	32.208	5	96.921	4	123.012	5	102.743	4
Butler	32.776	6	127.672	34	160.456	25	143.603	42
Rice	36.154	7	122.069	27	164.757	32	131.019	19
Leavenworth	36.691	8	113.556	18	130.081	7	123.455	14
Ellis	37.395	9	99.047	6	121.735	4	113.516	9
Nemaha	37.783	10	100.329	8	110.657	1	100.769	3
Doniphan	38.505	11	106.200	10	134.356	11	112.590	8
Cherokee	39.014	12	91.243	3	144.534	14	111.122	6
Wyandotte	39.338	13	123.306	30	166.837	35	166.786	87
Reno	39.498	14	141.735	61	162.593	26	154.168	62
Saline	39.782	15	99.213	7	132.584	10	124.757	15
Riley	42.227	16	119.139	22	154.376	20	148.529	52
Harvey	42.629	17	122.001	26	169.298	39	151.999	57
Barton	44.280	18	149.126	77	176.855	44	162.632	79
Thomas	44.409	19	152.794	82	164.131	28	157.377	67
Ford	45.974	20	158.657	93	177.731	45	169.394	91
Miami	46.366	21	101.277	9	137.728	12	114.462	10
McPherson	47.071	22	108.506	11	139.305	13	121.054	13
Douglas	47.419	23	122.356	29	131.981	9	130.132	18
Seward	47.604	24	136.866	53	182.306	55	158.866	72
Linn	47.848	25	98.792	5	154.278	19	105.442	5
Cowley	48.626	26	142.387	62	178.943	47	159.777	73
Finney	49.944	27	128.236	35	162.682	27	145.875	46
Crawford	50.011	28	110.167	12	150.713	17	136.832	26
Neosho	50.329	29	159.221	94	193.381	70	177.475	100
Shawnee	50.999	30	136.289	51	155.354	22	149.138	54
Montgomery	52.117	31	146.928	72	191.184	65	162.660	80
Sumner	52.180	32	142.768	64	174.885	42	157.815	68
Pratt	52.406	33	145.713	70	194.452	71	158.454	71
Coffey	52.761	34	90.166	1	130.300	8	92.407	1
Ellsworth	52.783	35	118.460	21	182.098	54	133.108	22

Sources: KU Institute for Policy and Social Research:
 Kansas Department of Revenue:

<https://ipsr.ku.edu/ksdata/ksah/govt/>
<https://www.ksrevenue.gov/pvdstatistics.html>

Tax Year 2022

Lyon	53.281	36	110.779	14	156.178	23	137.490	29
Ness	54.015	37	143.191	65	204.035	83	153.789	61
Rawlins	54.314	38	122.201	28	181.099	52	131.148	20
Labette	54.406	39	146.545	71	199.178	76	173.819	96
Atchison	54.770	40	110.447	13	156.623	24	131.728	21
Clay	55.812	41	132.383	42	167.405	36	142.113	35
Meade	55.886	42	140.345	58	200.201	77	147.899	48
Wabaunsee	56.875	43	134.801	48	147.054	15	136.844	27
Dickinson	56.971	44	128.583	37	168.590	37	143.358	40
Stafford	57.660	45	138.994	55	179.977	49	145.761	45
Washington	58.019	46	121.451	23	154.584	21	126.874	16
Franklin	58.043	47	121.712	25	164.656	31	142.662	37
Osage	58.911	48	132.691	43	168.664	38	143.884	43
Harper	59.378	49	136.761	52	204.703	85	153.296	59
Chase	59.607	50	129.258	39	184.151	58	136.266	25
Logan	60.027	51	121.508	24	185.798	59	137.951	30
Allen	61.419	52	144.249	67	205.427	86	163.074	83
Sheridan	61.983	53	124.376	31	181.094	51	133.290	23
Gray	62.035	54	125.828	33	165.137	33	137.288	28
Bourbon	62.775	55	153.262	84	186.550	60	168.181	88
Rooks	63.048	56	128.560	36	202.718	82	144.581	44
Grant	66.302	57	111.100	15	150.861	18	119.263	11
Barber	66.382	58	154.723	89	194.791	72	162.115	78
Scott	67.410	59	133.112	45	198.468	74	154.211	63
Cloud	67.475	60	148.115	76	187.299	62	160.470	74
Decatur	67.616	61	141.023	59	200.298	78	149.895	55
Kingman	68.255	62	145.219	69	187.097	61	154.350	64
Trego	68.569	63	125.234	32	170.726	40	134.110	24
Wilson	68.735	64	130.701	40	181.580	53	142.147	36
Haskell	69.027	65	136.210	50	191.622	66	143.223	39
Norton	70.414	66	133.886	46	190.113	64	148.360	51
Geary	70.416	67	112.635	17	150.284	16	140.801	32
Sherman	71.953	68	133.900	47	174.868	41	148.834	53
Jefferson	72.733	69	130.920	41	164.417	30	138.220	31
Kiowa	73.067	70	135.973	49	198.842	75	143.576	41

Sources: KU Institute for Policy and Social Research:
 Kansas Department of Revenue:

<https://ipsr.ku.edu/ksdata/ksah/govt/>
<https://www.ksrevenue.gov/pvdstatistics.html>

Tax Year 2022

Jackson	73.666	71	129.139	38	180.286	50	141.354	33
Clark	74.572	72	181.226	102	226.719	100	188.156	102
Greenwood	74.905	73	157.407	91	210.792	92	168.353	89
Marshall	75.017	74	114.038	19	166.518	34	127.214	17
Edwards	77.960	75	152.998	83	213.156	94	163.008	81
Gove	79.794	76	139.245	56	197.080	73	147.947	49
Morris	80.569	77	147.500	74	204.441	84	160.783	75
Republic	80.732	78	147.569	75	206.301	87	157.161	66
Pawnee	81.354	79	163.329	98	201.011	79	173.468	95
Ottawa	82.592	80	150.131	80	178.361	46	155.681	65
Russell	83.451	81	151.749	81	179.505	48	162.055	77
Anderson	84.288	82	133.101	44	164.307	29	141.455	34
Lane	84.847	83	154.424	87	239.364	103	164.437	86
Osborne	84.877	84	149.553	79	213.052	93	163.382	84
Stevens	86.982	85	141.594	60	189.478	63	149.956	56
Graham	87.451	86	159.281	95	226.154	99	168.443	90
Chautauqua	87.717	87	149.167	78	201.013	80	158.279	69
Cheyenne	88.240	88	144.356	68	183.635	57	152.402	58
Lincoln	89.734	89	143.466	66	182.949	56	148.185	50
Jewell	90.413	90	142.620	63	192.221	68	147.793	47
Wallace	90.838	91	153.497	85	208.229	90	161.733	76
Wichita	90.838	92	154.011	86	216.193	96	163.662	85
Mitchell	95.240	93	157.626	92	191.949	67	170.943	92
Smith	95.923	94	156.342	90	228.764	101	170.981	93
Woodson	98.040	95	154.550	88	201.182	81	163.022	82
Kearny	99.429	96	137.713	54	176.340	43	143.110	38
Phillips	100.576	97	161.586	97	217.157	97	175.597	97
Elk	102.768	98	160.143	96	234.773	102	171.329	94
Rush	103.894	99	168.640	99	206.336	88	177.332	99
Morton	109.025	100	147.418	73	214.643	95	158.368	70
Hodgeman	115.754	101	177.730	101	210.644	91	182.471	101
Hamilton	127.491	102	185.851	103	219.144	98	194.208	103
Comanche	131.662	103	192.582	104	269.659	104	206.430	104
Greeley	150.914	104	215.598	105	272.827	105	224.925	105
Stanton	179.553	105	170.908	100	207.210	89	177.125	98

2022 Real and Personal Property Value and Tax Summary

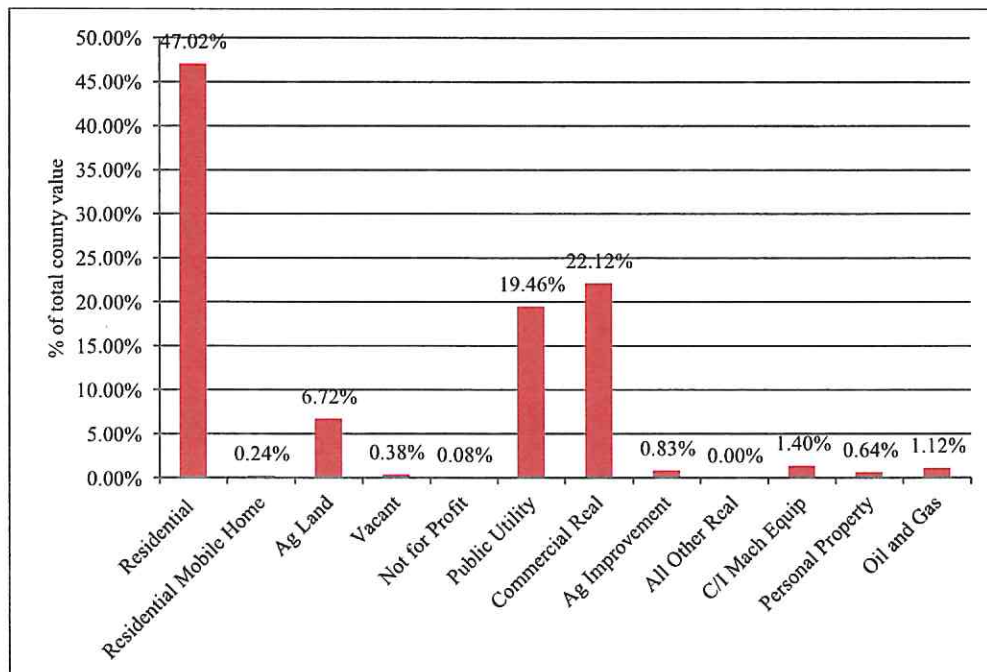
078 Reno County Value and Tax

Total Taxable Value	Value Per Capita	Total Ad Valorem Tax	Tax Per Capita	Mill Levy	2020 Population
\$677,588,313	\$10,947	\$104,465,723	\$1,688	0.1542	61,898

Property Value by Type/Class

Property Type/Class	2022 Value	% of County
Residential	318,608,439	47.02%
Residential Mobile Home	1,617,899	0.24%
Ag Land	45,517,674	6.72%
Vacant	2,549,781	0.38%
Not for Profit	515,873	0.08%
Public Utility	131,838,716	19.46%
Commercial Real	149,870,281	22.12%
Ag Improvement	5,599,516	0.83%
All Other Real	5,781	0.00%
C/I Mach Equip	9,510,011	1.40%
Personal Property	4,346,807	0.64%
Oil and Gas	7,607,535	1.12%

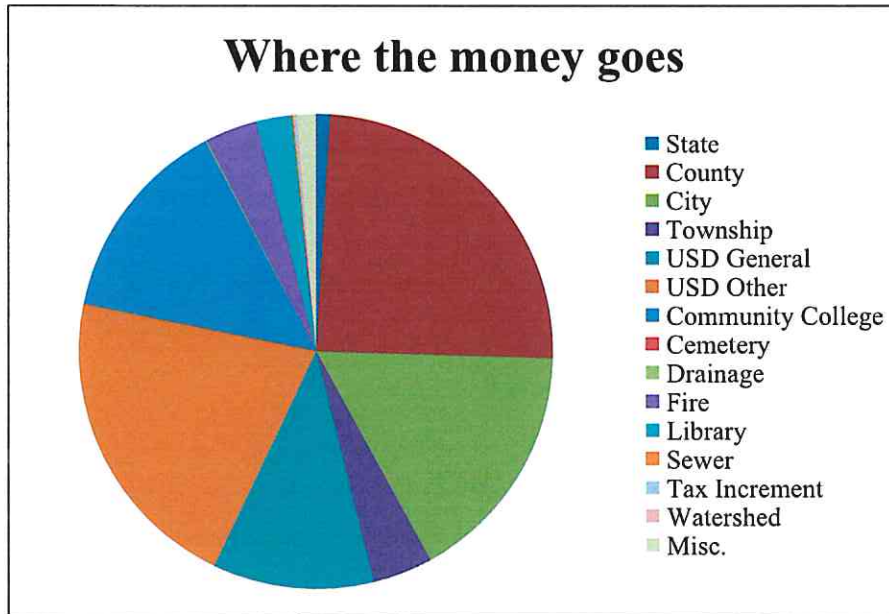
Chart Displaying Percent of Property Value by Type/Class



Reno County Distribution

Taxing Districts	Total	% of Total
State	1,016,384.74	0.97%
County	25,574,187.41	24.48%
City	17,318,783.63	16.58%
Township	4,284,720.79	4.10%
USD General	11,436,315.85	10.95%
USD Other	22,045,367.92	21.10%
Community College	14,764,953.52	14.13%
Cemetery	20,674.41	0.02%
Drainage	69,402.11	0.07%
Fire	3,697,230.33	3.54%
Library	2,564,303.51	2.45%
Sewer	121,086.87	0.12%
Tax Increment	168,912.55	0.16%
Watershed	100,739.92	0.10%
Misc.	1,303,974.72	1.25%

Chart Displaying How the Property Tax Dollars Are Distributed



<u>3-BUHLER</u>	172.214 mils
County	22.0%
State	0.9%
City	28.4%
Fire District	3.9%
Hutch CC	12.7%
USD 313	32.2%

<u>13-NICKERSON</u>	185.446 mils
County	20.4%
State	0.8%
City	40.8%
Fire District	3.0%
Hutch CC	11.8%
USD 309	23.2%

<u>4-HAVEN</u>	183.470 mils
County	20.6%
State	0.8%
City	35.3%
Fire District	3.6%
Hutch CC	11.9%
USD 312	27.7%

<u>16-PRETTY PRAIRIE</u>	221.211 mils
County	17.1%
State	0.7%
City	46.3%
Fire District	2.7%
Hutch CC	9.9%
USD 311	23.4%

<u>5-HUTCHINSON</u>	166.219 mils
County	22.7%
State	0.9%
City	31.0%
Hutch CC	13.1%
USD 308	32.2%

<u>11-SOUTH HUTCHINSON</u>	149.335 mils
County	25.3%
State	1.0%
City	30.3%
Hutch CC	14.6%
USD 309	28.8%

THE BEST (AND WORST) OF INTERNATIONAL PROPERTY TAX ADMINISTRATION

COST-IPTI SCORECARD ON THE PROPERTY TAX ADMINISTRATIVE SYSTEMS OF THE US STATES AND SELECTED INTERNATIONAL JURISDICTIONS

JUNE 2019*

Nikki Dobay, COST
Fred Nicely, COST

Annabel Sanderson, IPTI
Paul Sanderson, IPTI¹

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The **Council On State Taxation (COST)** is the premier state tax organization representing multi-jurisdictional taxpayers in the United States. COST is a nonprofit trade organization consisting of approximately 550 multi-state corporations. COST's mission is to preserve and promote equitable and non-discriminatory state and local taxation of multi-jurisdictional businesses.

The **International Property Tax Institute (IPTI)** is widely recognized as the world's leading international organization specializing in property tax policy and practice. IPTI is a non-profit organization with members around the world. IPTI's mission is to provide impartial, objective expert advice in the area of property tax systems and promote the concept that these systems should be fair and equitable and meet the needs of all stakeholders; i.e., governments, taxpayers, practitioners and academics.

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* The Scorecard was revised March 2020 to address some discrepancies.

¹ COST and IPTI would also like to thank COST fellows Tim Chen, Aaron Moshiahswili, Kavya Rajasekar, and Sonia Shaikh, along with many practitioners and assessors, who assisted us with the completion of this Scorecard.

INTRODUCTION

COST is a non-profit trade organization headquartered in Washington, D.C. that represents approximately 550 multi-state corporations engaged in interstate and international businesses. This Scorecard is intended to promote COST's mission statement of preserving and promoting equitable and non-discriminatory state and local taxation of multi-jurisdictional business entities. COST (with IPTI) last issued a Scorecard on Property Tax Administration in September 2014 and has also issued scorecards related to fair state tax administration (latest version issued December 2016), sales tax administration (latest version issued April 2018, updated August 2018) and unclaimed property administrative practices (latest version issued November 2013).¹¹

IPTI is a not-for-profit organization headquartered in Toronto, Canada that is widely recognized as the world's leading international organization specializing in property tax policy and practice. IPTI's mission is to provide impartial, objective expert advice in the area of property tax systems and promote the concept that these systems should be fair and equitable and meet the needs of all stakeholders, *i.e.*, governments, taxpayers, practitioners and academics. In addition, IPTI seeks to ensure that property tax systems contribute to the provision of high-quality services for the benefit of communities. IPTI is also focused on developing the most comprehensive knowledge base concerning property tax including policy, legislation, administration, communication, education, valuation, taxation, collection and enforcement and has developed a database, "IPTIpedia", to assist with disseminating that information. IPTI also publishes on its website "IPTI Xtracts" which contain current news items relating to property tax systems around the world.¹²

COST and IPTI both advocate for fair and efficient property tax policy and practices. COST advocacy is U.S. centric, while IPTI advocates globally. Both organizations share a strong commitment to facilitating the provision and exchange of key information and the sharing of best practices. The purpose of this Scorecard is to promote those practices by encouraging countries (and their subnational jurisdictions as appropriate) to improve their property tax administrative systems and practices and to establish an

equal and stable property tax structure as between residential and business properties located in a taxing jurisdiction.

COST maintains a Property Tax Committee which focuses on the improvement of the administration of state and local property tax systems. One of the early achievements of the Committee was to develop a COST policy statement on fair and efficient property tax administration. In October 2008, the COST Board adopted the Committee's recommendations as to what constitutes fair and efficient property tax administration.¹³ Those attributes are reflected in this Scorecard. COST also convenes an annual Property Tax Workshop to educate members of industry on property tax issues.

IPTI maintains a Corporate Advisory Committee (with a European Chapter) focused on meeting the needs of both global business organizations and local governments for ensuring that property tax systems are fairly and properly administered. COST has a seat on IPTI's Corporate Advisory Committee and plays an active role in its events.

The COST/IPTI Study: This Scorecard addresses both real and personal property together, along with properties that are centrally assessed (*e.g.*, many public utilities in the U.S. and the U.K.). In general, all jurisdictions evaluated impose a property tax on real property. Most often, real property is assessed at the local level. The U.S. states with a personal property tax vary as to the jurisdiction that administers the tax. None of the non-U.S. jurisdictions reviewed impose a personal property tax similar in breadth to that used in the U.S. Miscellaneous property/licensing/registration taxes imposed on certain types of personal property, such as airplanes, boats and motor vehicles, are not evaluated and are outside of the scope of this Scorecard.

"The Scorecard focuses on objective factors in evaluating a jurisdiction's property tax administrative practices... based on a jurisdiction's laws and regulations."

PROPERTY TAX SCORECARD

This Scorecard evaluates multiple criteria in three primary subject areas: (1) Transparency; (2) Consistency; and (3) Procedural Fairness. Each of the primary subject areas comprises three categories which, in turn, contain three sub-categories, and within each sub-category are three questions, making a total of twenty-seven items for grading. A detailed explanation of each sub-category follows the jurisdictional scoring table below. Each question was scored with a 0, 1, or a 2, with 0 representing “good”, 1 representing “average” and 2 representing “poor”. The individual question scores have then been totaled and a letter grade derived from this score for each of the categories (*i.e.*, transparency, consistency and procedural fairness). The overall score for the jurisdiction has been converted to an alphabetical grade—

arrived at by consideration of the various category scores—adopting the same method used with the previous scorecard.

Below is a table showing the grades for each jurisdiction overall and in the three primary subject areas. Following that is a detailed explanation of the specific areas being examined, with descriptions of the criteria used in scoring. After that, a detailed chart is provided with the specific basis for each jurisdiction’s grade. The detailed chart starts with the U.S. states and proceeds alphabetically through Australia (states), Canada (provinces), Hong Kong, Ireland, New Zealand, Singapore, South Africa, Spain, The Netherlands and the United Kingdom (countries).

This Scorecard is available on the website of both COST (www.cost.org) and IPTI (www.ipti.org).

Jurisdictional Scoring Table

United States	Transparency	Consistency	Procedural Fairness	Overall Grade
Alabama	C	B	C	C+
Alaska	C	D	D	D+
Arizona	B	C	C	C+
Arkansas	C	D	C	C-
California	C	C	D	C-
Colorado	B	B	D	C+
Connecticut	D	C	C	C-
Delaware	F	D	C	D
District of Columbia	C	C	C	C
Florida	A	C	B	B
Georgia	A	B	B	B+
Hawaii	D	F	D	D-
Idaho	B	B	D	C+
Illinois	D	C	D	D+
Indiana	C	B	C	C+
Iowa	C	C	D	C-
Kansas	A	B	B	B+
Kentucky	D	B	C	C
Louisiana	C	C	F	D+
Maine	C	B	C	C+
Maryland	A	B	D	B-
Massachusetts	D	B	C	C
Michigan	C	B	D	C
Minnesota	C	C	C	C
Mississippi	D	F	F	F
Missouri	D	B	B	C+
Montana	A	D	C	C+
Nebraska	C	B	D	C
Nevada	C	C	D	C-
New Hampshire	C	C	C	C
New Jersey	C	C	D	C-
New Mexico	B	D	B	C+
New York	C	F	F	D-

North Carolina	D	B	D	C-
North Dakota	C	D	D	D+
Ohio	D	C	D	D+
Oklahoma	B	C	D	C
Oregon	C	C	C	C
Pennsylvania	F	D	F	F
Puerto Rico	F	D	D	D-
Rhode Island	F	D	C	D
South Carolina	C	B	B	B-
South Dakota	B	B	D	C+
Tennessee	D	C	C	C-
Texas	A	C	B	B
Utah	C	C	C	C
Vermont	B	C	D	C
Virginia	D	B	C	C
Washington	B	C	C	C+
West Virginia	D	D	D	D
Wisconsin	B	D	D	C-
Wyoming	B	C	D	C

Australia	Transparency	Consistency	Procedural Fairness	Overall Grade
Australian Capital Territory	A	C	D	C+
New South Wales	A	A	C	B+
Northern Territory	B	B	C	B-
Queensland	A	C	B	B
South Australia	A	D	B	B-
Tasmania	B	C	C	C+
Victoria	B	C	C	C+
Western Australia	B	C	B	B-

Canada	Transparency	Consistency	Procedural Fairness	Overall Grade
Alberta	A	C	D	C+
British Columbia	A	A	C	B+
New Brunswick	A	B	C	B
Newfoundland and Labrador	A	B	D	B-
Nova Scotia	A	C	D	C+
Ontario	A	C	B	B
Quebec	B	D	D	C-
Saskatchewan	A	C	D	C+

Hong Kong	A	A	C	B+
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Ireland	B	B	D	C+
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New Zealand	B	C	F	C-
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Singapore	A	B	C	B
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South Africa	C	C	D	C-
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Spain	B	B	C	B-
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The Netherlands	B	C	B	B-
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United Kingdom	Transparency	Consistency	Procedural Fairness	Overall Grade
England	C	B	C	C+
Northern Ireland	B	A	D	B-
Scotland	B	C	B	B-
Wales	B	B	C	B-

Top U.S. Ranked Jurisdictions

Georgia	B+
Kansas	B+
Florida	B
Texas	B

Top Non-U.S. Ranked Jurisdictions

British Columbia	B+
Hong Kong	B+
New South Wales	B+
New Brunswick	B
Ontario	B
Queensland	B
Singapore	B

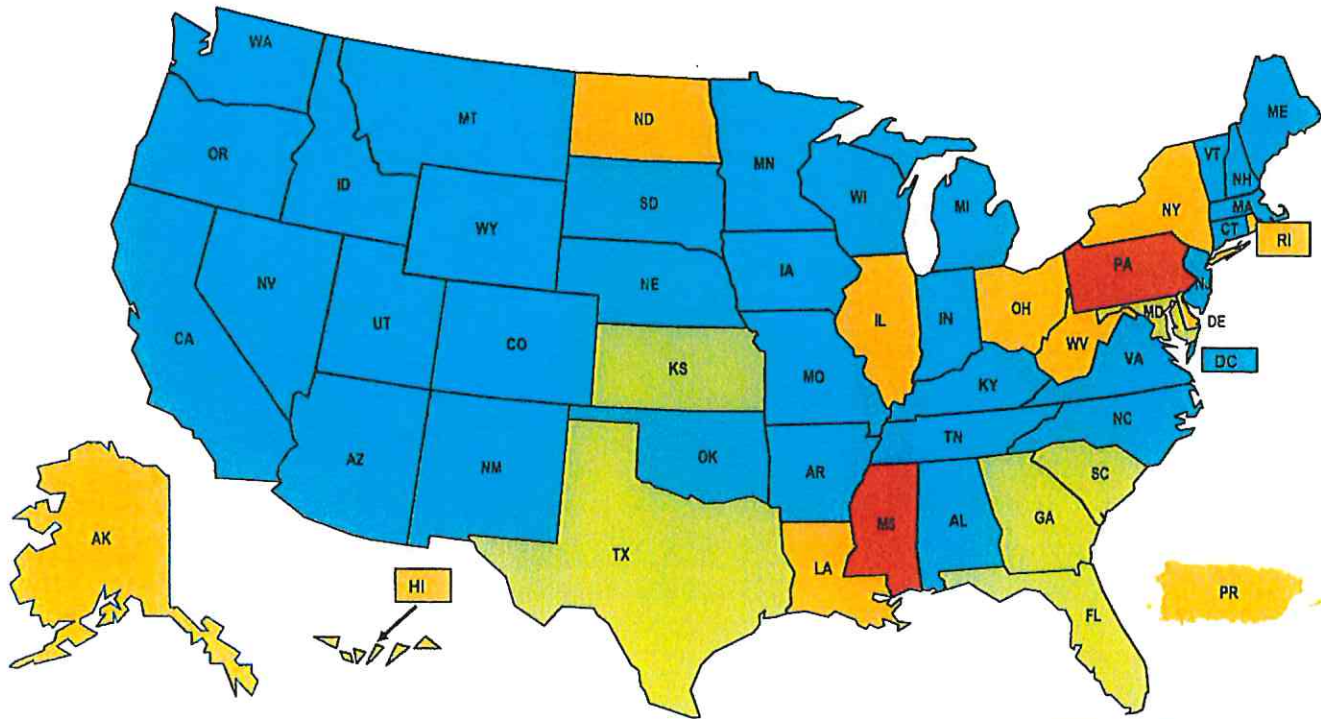
Bottom U.S. Ranked Jurisdictions

Hawaii	D-
New York	D-
Puerto Rico	D-
Mississippi	F
Pennsylvania	F

Bottom Non-U.S. Ranked Jurisdictions

Quebec	C-
New Zealand	C-
South Africa	C-

U.S. States & Puerto Rico Overall Property Tax Scorecard Grade



Grading Key					
A	B	C	D	F	N/A

Kansas—Overall Grade B+

Transparency - A	Consistency - B	Procedural Fairness - B
CENTRALIZED INFORMATION	CENTRAL AGENCY OVERSIGHT	INITIAL REVIEW
Does the state have a website with clear explanations about property taxation?	Does the state regulate local assessors by performing e.g., ratio studies, equalization?	Does the taxpayer have a legal right to a review before a revaluation is finalized?
0 - Yes, Kansas has a website which includes a wide variety of information on its different forms of property tax.	0 - The state requires local assessors use their computer appraisal system, conduct compliance reviews, and independent ratio studies.	2 - Yes. Taxpayers may informally meet with the appraiser after the valuation has been notified.
https://www.ksrevenue.org/pvindex.html		Kan. Stat. Ann. § 79-1448
Does the state have a separate website for property tax laws/regulations?	Does the state require the use of standardized forms?	Does the taxpayer have at least 60 days to file the initial appeal of an assessment?
0 - Yes, the Department of Revenue has an excellent site which collects policy information from many sources.	0 - Yes.	1 - No, the appeal must be filed within 30 days of the valuation notice being sent.
http://rvpolicy.kdor.ks.gov/		Kan. Stat. Ann. § 79-1448.
Does the state have a website where its property tax forms are available?	Can a taxpayer challenge a valuation as out of line with comparable properties?	Is the assessor required to produce evidence upon which valuations are based?
1 - The Department of Revenue has a site with some forms; the Board of Tax Appeals has others.	0 - Yes, under the Kansas Constitution or a general statutory provision allowing appeals for aggrieved taxpayers.	0 - Yes; at the informal meeting, the appraiser must provide evidence substantiating the valuation.
https://www.ksrevenue.org/pvdforms.html http://www.kansas.gov/cota/Forms/	Kan. Const. Article 11 Sec. 1; Kan. Stat. Ann. § 79-1409.	Kan. Stat. Ann. § 79-1448.
VALUATION NOTICE	EQUAL ASSESSMENT PRACTICES	FAIR INDEPENDENT TRIBUNAL
Do taxpayers receive notice at revaluation, even if there is no valuation change?	Does the state have consistent due dates for property tax filings and payments?	Which party bears the burden of proof in connection with an assessment appeal?
0 - Yes. Notices are delivered by Mar. 1 for real property and May 1 for personal property.	0 - Reports are due Mar. 20 for state appraised public utilities, and Apr. 1 for oil and gas. Payments are due in two instalments, Dec 20 and May 10.	1 - Burden of proof is on the appraiser, except for leased commercial & industrial property, where it is on the taxpayer by preponderance of the evidence.
Kan. Stat. Ann. § 79-1460.	Kan. Stat. Ann. §§ 79-306, 79-5a02, 79-2004, 79-2004a.	Kan. Stat. Ann. § 79-1448.
Is the valuation notice clear and understandable?	Do the tax rates/assessment ratios/caps apply equally to all taxable properties?	Do taxpayers have a right to independent review introducing new facts and issues?
0 - Yes. The state provides a standard form, which the localities can customize.	2 - No, the tax rate for property varies widely depending on property use.	0 - The District Court is required to hear an appeal case
		Kan. Stat. Ann. § 79-2426(c)(4)(B).
Does the valuation notice include information on how to appeal?	Are interest rates payable on unpaid property tax, and refunds, equal?	Does the taxpayer have at least 60 days to appeal to an independent tribunal?
1 - Yes. The notice must include full information about the appeals process but not the form.	2 - No, interest on delinquent real property is 10% and personal property 5%. Refunds are 3% except for clerical errors which are 7%.	1 - No. Appeals to the Board of Tax Appeals must be filed within 30 days.
Kan. Stat. Ann. § 79-1460.	Kan. Stat. Ann. § 79-2968, 79-2004, 79-2004a.	Kan. Stat. Ann. § 79-1609.
VALUATION PRACTICE	ASSESSOR TRAINING/OUTREACH	OTHER PROCEDURAL FAIRNESS
How often is real property valued?	Are assessors/appraisers required to hold recognized professional qualifications?	Is the taxpayer required to pay a fee to make an initial appeal?
1 - Annually, with physical inspection every six years.	0 - By statute, appraisers must hold one of four appraisal designations/certifications.	0 - No fee is required for an appeal.
Kan. Stat. Ann. § 79-1476.	Kan. Stat. Ann. § 19-430.	
Can taxpayers obtain valuation and/or tax rate information for other assessments?	Are assessors required to meet continued professional development requirements?	Must the taxpayer pay the disputed tax regardless of an ongoing appeal?
0 - Yes, this information is available at the county level for valuations and at the state level for rates.	0 - Yes, at least 120 hours of continuing education shall be completed during each four-year period.	1 - A portion of the tax must be paid for a property under appeal. County treasurer has discretion to accept partial payment.
	Kan. Admin. Reg. § 93-6-3.	
Are assessors using recognized valuation methods or are there some restrictions?	Do assessors publicize property tax revaluations?	Do third parties—e.g., municipalities/other taxpayers—have separate appeal rights?
0 - Valuation is at fair market value using generally accepted appraisal standards.	1 - Yes, the county appraiser must publish the results of annual market study analyses.	0 - No, only the taxpayer can appeal.
Kan. Stat. Ann. § 79-505.		

2023 RENO COUNTY HOUSING OUTLOOK

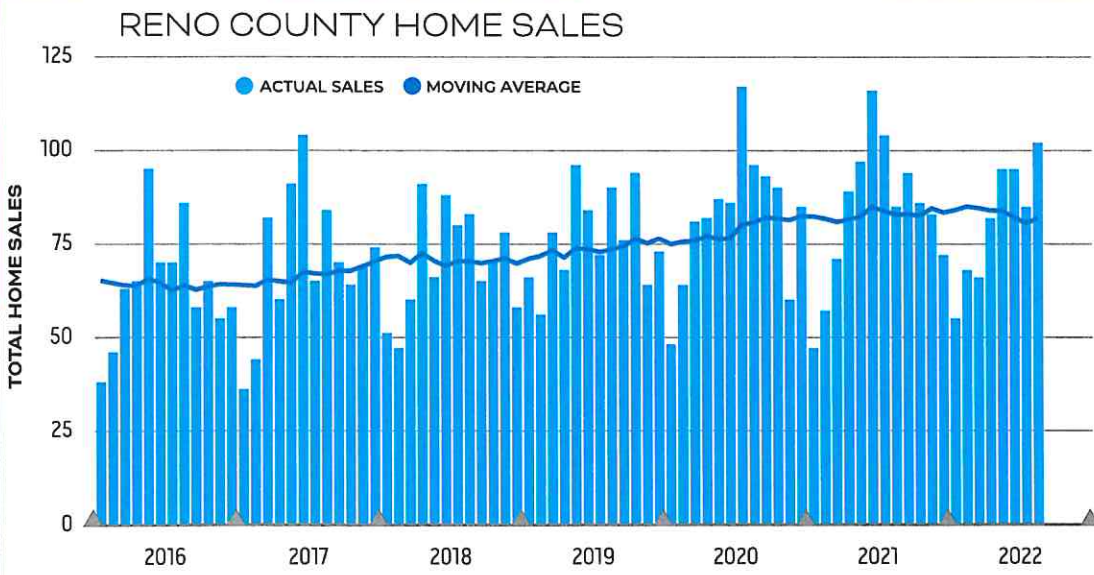
- ... Bidding wars
- ... Recession fears
- ... Runaway inflation
- ... Interest rate spikes

This year it seems like there's a new surprise around every corner. As in the past, the Reno County Housing Outlook is here to help you understand the local housing market as you find your way through the maze.

Dr. Stanley D. Longhofer
Director, WSU Center for Real Estate
wichita.edu/realestate



WICHITA STATE
UNIVERSITY
W. FRANK BARTON
SCHOOL OF BUSINESS



THE RENO COUNTY
HOUSING OUTLOOK
IS MADE POSSIBLE BY:



Security 1st Title

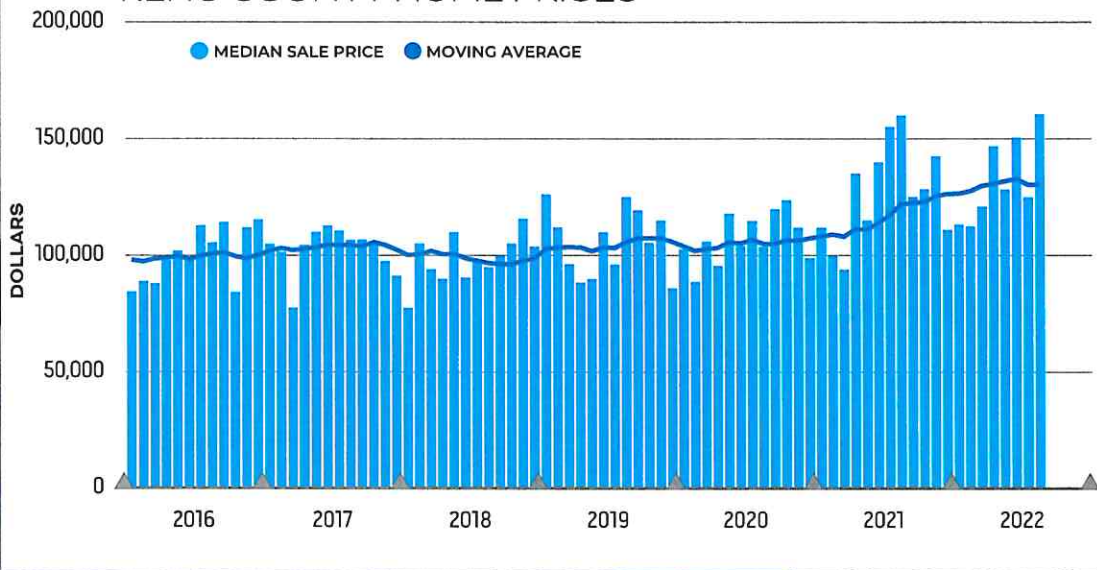


CREDIT UNION
of America

SOURCES:
Prairie Land REALTORS® and participating Kansas REALTOR®
MLS systems

RENO COUNTY HOUSING STATISTICS

RENO COUNTY HOME PRICES



INVENTORY OF HOMES AVAILABLE FOR SALE ^A



SOURCES:

Prairie Land REALTORS® and participating Kansas REALTOR® MLS systems

Notes:

Ⓐ Active listings divided by the 12-month trailing moving average of sales



United Way
of Reno County



NEWSLETTER

DONATE



The Salvation Army

Phone: 620-663-3353

Fax: 620-663-9892

Mailing Address:

P.O. Box 310

Hutchinson , KS 67504-0310

Physical Address: [\[map it\]](#)

700 North Walnut

Hutchinson , KS 67501

Policy and Research
109 SW 9th Street
PO Box 3506
Topeka KS 66601-3506
Mark A. Burghart, Secretary



Phone: 785-368-8222
Fax: 785-296-1279
www.ksrevenue.gov
Laura Kelly, Governor

NOTICE 22-09

NEW HOMESTEAD PROPERTY TAX REFUND PROGRAM AVAILABLE

(OCTOBER 4, 2022)

During the 2022 Legislative Session House Bill 2239 was passed and signed into law. New Section 17 of the Bill creates a new homestead property tax refund program. Sections 46 – 48 of the Bill amend existing provisions of the homestead property refund tax act to recognize the claim created by New Section 17.

New Section 17 provides, for tax year 2022 and all tax years thereafter, for refund claims to be paid to claimants for the amount by which the claimant's residential property tax exceeds the amount of the claimant's property tax in the claimant's base year. New Section 17(b) defines "base year" to be the year in which an individual becomes an eligible claimant and is also eligible for a claim for a refund under the provisions of New Section 17, or 2021, whichever is later.

To be eligible, a claimant must be at least 65 years old or a disabled veteran, reside in a homestead with an appraised value of \$350,000 or less for the entire year, and have a household income of \$50,000 or less for the year of the claim. A surviving spouse of an eligible claimant continues to be eligible unless they remarry. The \$350,000 homestead appraised value limitation only applies to the claimant's base year.

To claim the refund, beginning January 1, 2023, an eligible claimant may complete and submit a Kansas Form K-40SVR, Property Tax Relief Claim for Seniors and Disabled Veterans.

Claimants of refunds under New Section 17 are prohibited from requesting refunds under the existing homestead property tax refund or selective assistance for effective senior relief (SAFESR) credit programs.

The provisions of New Section 17 are specifically made part of the homestead property tax refund act by New Section 17(f).

Section 46 of the Bill amends K.S.A. 79-4502, which is part of the homestead property tax refund act, to recognize the new refund found in New Section 17. Similarly, Section 47 of the Bill, amends K.S.A. 79-4508 for the same purpose. And Section 49 amends K.S.A. 79-4509 to provide the \$700 limitation for the current homestead refund program, which continues in effect, and does not apply to claims made under New Section 17.

TAXPAYER ASSISTANCE

Additional copies of this notice, forms or publications are available from our web site, www.ksrevenue.gov. If you have questions about this Notice, please contact:

Taxpayer Assistance Center
Kansas Department of Revenue
Scott Office Building, 1st Floor
120 SE 10th Ave
P. O. Box 3506
Topeka, KS 66601-3506
Phone: 785-368-8222
Hearing Impaired TTY: 785-296-6461
Fax: 785-291-3614

Homestead Refund

Homestead WebFile is a FREE way to file Homestead claims. Like KS WebFile, refunds can be deposited directly into your bank account. Homestead WebFile is safe and secure. While all claim requirements must be met and information verified, filing electronically can speed up the refund process. [File your Homestead claim now by clicking here.](#)

The Homestead Refund is a rebate program for the property taxes paid by homeowners. The refund is based on a portion of the property tax paid on a Kansas resident's home. The maximum refund is \$700.

To qualify you must be a Kansas resident, living in Kansas the entire year. Your total household income must be **\$37,750** or less.

You must also meet one of the following requirements:

- You were born before Jan (January). 1, 1967; OR
- You must have been blind or totally and permanently disabled **all of 2022**, regardless of your age; OR
- You must have a dependent child who lived with you the **entire year** who was born before **January 1, 2022**, and was under the age of 18 the **entire year**.

[Get homestead forms here.](#)

[See Homestead frequently asked questions here.](#)

SAFESR - Kansas Property Tax Relief for Low Income Seniors

SAFESR is a property tax refund program administered under the provisions of the Kansas Homestead Act (property tax refund). SAFESR is also referred to as, "Kansas Property Tax Relief for Low Income Seniors".

The refund is 75% of the 2022 general property tax paid or to be paid - as shown on the 2022 real estate tax statement for the residence in which the claimant lived in 2022. The 2022 property tax consists of the 1st half which is due December 20, 2022 and the 2nd half which is due May 10, 2023. The 2022 property tax is the total of both the 1st and 2nd half taxes.

A claimant may receive either a Homestead or a SAFESR refund **but not both**.

You must meet all the following requirements for the SAFESR refund -

- Kansas resident all of 2022,
- Owned a home in Kansas during 2022,
- Aged 65 years or older for all of 2022 (born before Jan (January). 1, 1957) and
- "Household income" of \$22,000 or less in 2022, and
- House cannot be valued at more than \$350,000.

[Get SAFESR forms here.](#)

[See SAFESR frequently asked questions here.](#)

Homestead and SAFESR Refund Advancement Program

This program provides eligible homeowners with the opportunity to apply a portion of their anticipated Homestead refund to help pay the first half of their property tax.

There is a question on both Forms K-40H and K-40PT asking the homeowner whether you want your next year's Homestead or SAFESR refund to be sent directly to your County Treasurer. If this box was checked on your 2021 form K-40H or K-40PT, your anticipated 2022 Homestead or SAFESR refund claim was sent to the County Treasurer in December 2022 to pay toward the 1st half of your 2022 property taxes due on December 20, 2022. The 2022 Homestead claim (form K-40H) or SAFESR claim (form K-40PT) must still be completed and filed no later than April 15, 2023, in order to pay back the "early" or "advanced" refund sent on the homeowner's behalf to the county in December 2022.

If you do not check this box on the 2022 form K-40H or K-40PT, you cannot participate in the Homestead advancement program, and none of your 2022 Homestead or SAFESR refund will be used to pay your 2023 property taxes.

Kansas Property Tax Relief for Low Income Seniors

SAFESR Spreadsheet - Automatically determine which claim results in the greater refund, Homestead or SAFESR. Spreadsheet is in Excel, and may not work with versions 2003 and older.

- [2021 SAFESR Worksheet](#)
- [Click here for the Homestead - SAFESR Comparison Chart](#)

These questions and answers apply to the 2021 claim.

What is "SAFESR"?	^
Who qualifies for a SAFESR refund?	^
How much is the refund?	^
Must the 1st half of the property taxes be "timely and actually" paid in order to receive a SAFESR refund?	^
Is the SAFESR refund capped at \$700 like the Homestead refund?	^
May I receive a SAFESR refund if the appraised value of my home exceeds \$350,000?	^
What is "household income" for SAFESR purposes?	^
May I receive both a Homestead refund and a SAFESR refund?	^
If I qualify for a SAFESR refund, should I also complete a Homestead refund claim in order to determine which refund claim will give me the largest refund?	^
Is there a worksheet or some other aid that will determine for me which refund claim (SAFESR or Homestead) would result in the largest refund?	^
Who can use the Kansas Department of Revenue's free software?	^
What if I owned my home for only part of the year, and then rented an apartment for the balance of the year - may I receive a SAFESR refund?	^
If a SAFESR claimant died before filing a claim (died on or after January 1, 2021), are the heirs eligible to obtain a refund?	^
What form do I complete to obtain a SAFESR refund?	^
When must the SAFESR claim (Form K-40PT) be filed?	^
What is the mailing address?	^
May I participate in the "Refund Advancement Program" on the SAFESR claim Form K-40PT?	^
What is the "Refund Advancement Program"?	^
If I received a Homestead Advancement that was applied against the 1st half of my 2021 property tax, will I be able to file a SAFESR refund claim between January 1, 2022, and April 15, 2022? And if so, will my SAFESR refund be reduced by the amount of the Homestead Advancement?	^



AGENDA ITEM

AGENDA ITEM #7.B

AGENDA DATE: March 28, 2023

PRESENTED BY: Harlen Depew, Maintenance & Purchasing Director

AGENDA TOPIC:
Courthouse Roofing Bids

SUMMARY & BACKGROUND OF TOPIC:

This project went out to bid several months ago. Two bidders participated. Both bids were more than double the original estimate at \$350,419 and \$420,000. Reno County rejected those bids. Since that time, the specifications were examined and modified slightly, alternate packages were added, and it was put back out to bid a second time. This time we had three bidders, and at better pricing than the first round.

This roofing project replaces the oldest main sections of roofing on the courthouse, including all of the fifth-floor level and the area over the front entrance at the 2nd floor level. The base bid is for an SBS modified bitumen roof system over the 5th floor areas, with tapered insulation which will provide additional comfort and energy efficiency on the fifth floor. Additionally, the tapered insulation will provide better slope toward the roof drains, minimizing ponding, and is now required in order to get manufacturer's warranty coverage.

The base bid and all three alternates include a TPO roof over the front entrance area. This area is relatively protected and small with very little foot traffic, which makes TPO a suitable material for this space.

ALL OPTIONS:

- Award the base bid package to Wray & Sons Roofing, Hutchinson in the amount of \$276,296
- Alternate #1 is the same SBS roofing system without the insulation layer and a one-year contractor's warranty. Low bidder is Stanfield Roofing, ElDorado, Ks, at \$242,528.57
- Alternate #2 is a TPO single membrane roof system with the tapered insulation and a 20-year mfg. warranty. Low bidder is Wray & Sons Roofing, Hutchinson at \$276,296
- Alternate #3 is a TPO single membrane roof system without the insulation and a one-year contractor's warranty. Low bidder is Stanfield Roofing, ElDorado, Ks at \$239,702.47

RECOMMENDATION / REQUEST:

Award the base bid package to Wray & Sons Roofing, Hutchinson in the amount of \$276,296

POLICY / FISCAL IMPACT:

CIP Funds would be used to pay for this project.

BID TABULATION

PROJECT: 19139R22003 RENO COUNTY COURTHOUSE REROOF

DATE: MARCH 9, 2023

		BASE BID			Alternate bid totals include Contingency and 2nd Floor TPO									
COMPANY	CONTACT	5th floor SBS w/ Insul	CONTINGENCY	2nd floor TPO	BASE BID TOTAL	ALTERNATE 1 SBS w/o Insul	ALTERNATE 1 TOTAL	ALTERNATE 2 TPO w/ Insul	ALTERNATE 2 TOTAL	ALTERNATE 3 TPO w/o Insul	ALTERNATE 3 TOTAL	BID FORM	BID BOND	QUALIFICATIONS INCLUDED
Diamond Roofing	John Minet	\$313,275.00	\$10,000.00	\$38,560.00	\$361,835.00	-\$55,000.00	\$306,835.00	-\$19,000.00	\$342,835.00	-\$101,000.00	\$260,835.00	Yes	Yes	No
Stanfield Roofing	Vern Boyenger	\$307,415.08	\$10,000.00	\$23,475.24	\$340,890.32	-\$99,361.75	\$241,528.57	-\$31,675.34	\$309,214.98	-\$101,187.85	\$239,702.47	Yes	Yes	Yes
Wray Roofing	Greg Wray	\$253,264.00	\$10,000.00	\$13,032.00	\$276,296.00	\$0.00	\$276,296.00	\$0.00	\$276,296.00	\$0.00	\$276,296.00	Yes	Yes	No

DOCUMENT 004113 - BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 BID INFORMATION

- A. Bidder: Wray's Sons Roofing Co. Inc
- B. Project Name: Reno County Courthouse Reroof.
- C. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- D. Owner: Reno County Courthouse.
- E. Architect: Bradley Doeden, AIA, LEED AP.
- F. Architect Project Number: 19139R22003

1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by GLMV Architecture and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. Fifth Floor Roof: Styrene-butadiene-styrene (SBS) modified bituminous roofing with tapered insulation to achieve 1/4-inch per foot slope and 20-year manufacturer's roof warranty. Two hundred fifty three thousand two hundred sixty four Dollars (\$ 253,264.00).
2. Contingency Allowance: Removal and replacement of wood roof substrate. Ten Thousand Dollars (\$ 10,000).
3. Second Floor Roof: Thermoplastic-polyolefin (TPO) roofing. Thirteen thousand thirty-two Dollars (\$ 13,032.00).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 60 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:

1. Thirteen thousand three fifteen Dollars (\$ 13,315.00).

Reno County Courthouse Reroof
Hutchinson, Kansas

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 Unit cost per square foot to remove and replace unsatisfactory wood roof substrate board:

ADD: Three Dollars (\$ 3.00).

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum, dated _____.
2. Addendum, dated _____.
3. Addendum, dated _____.
4. Addendum, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto: Bid Form Supplements - Alternates.

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Reno County and City of Hutchinson and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this 9th day of March, 2023.
- B. Submitted By: Wray's Sons Roofing Co. Inc. (Name of bidding firm or corporation).
- C. Authorized Signature: Gregory S. Wray (Handwritten signature).
- D. Signed By: Gregory S. Wray (Type or print name).
- E. Title: President (Owner/Partner/President/Vice President).
- F. Witnessed By: Dulwa Janyu (Handwritten signature).
- G. Attest: _____ (Handwritten signature).

Reno County Courthouse Reroof
Hutchinson, Kansas

- H. By: Debra Janzen (Type or print name).
I. Title: Asst. Secretary (Corporate Secretary or Assistant Secretary).
J. Street Address: 229 E. 3rd.
K. City, State, Zip: Hutchinson, KS 67501.
L. Phone: 620-663-7107.
M. License No.: 13-114724.
N. Federal ID No.: 48-0824728 (Affix Corporate Seal Here).

END OF DOCUMENT 004113

DOCUMENT 004323 - ALTERNATES FORM

1.1 BID INFORMATION

- A. Bidder: Wray & Sons Roofing Co Inc.
- B. Project Name: Reno County Courthouse Reroof.
- C. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- D. Owner: Reno County Courthouse.
- E. Architect: Bradley Doeden, AIA, LEED AP.
- F. Architect Project Number: 19139R22003

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.

1.3 DESCRIPTION

- A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
- B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
- C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
- D. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Time and the Contract Sum.
- E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 60 days of the Notice of Award unless otherwise indicated in the Contract Documents.
- F. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

1.4 SCHEDULE OF ALTERNATES

- A. Alternate 1: Styrene-butadiene-styrene (SBS) modified bituminous roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:
1. ADD ___ DEDUCT ___ NO CHANGE NOT APPLICABLE ___
2. _____ Dollars (\$ _____).
- B. Alternate 2: Thermoplastic-polyolefin (TPO) roofing with roofing insulation to achieve 1/4-inch per foot roof slope and a 20-year manufacturer's warranty on the fifth floor roof:
1. ADD ___ DEDUCT ___ NO CHANGE NOT APPLICABLE ___
2. _____ Dollars (\$ _____).
- C. Alternate 3: TPO roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:
1. ADD ___ DEDUCT ___ NO CHANGE NOT APPLICABLE ___
2. _____ Dollars (\$ _____).

1.5 SUBMISSION OF BID SUPPLEMENT

- A. Respectfully submitted this 9th day of March, 2023.
- B. Submitted By: Wray's Sons Roofing Co. Inc. (Insert name of bidding firm or corporation).
- C. Authorized Signature: Gregory G. Wray (Handwritten signature).
- D. Signed By: Gregory G. Wray (Type or print name).
- E. Title: President (Owner/Partner/President/Vice President).

END OF DOCUMENT 004323



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/28/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Fee Insurance Group, Inc. 2920 N. Plum St Hutchinson, KS 67502	CONTACT NAME: Jody Unruh PHONE (A/C, No, Ext): (620) 259-8815 FAX (A/C, No): (620) 662-5415 E-MAIL ADDRESS: jody@feeinsurance.com
INSURER(S) AFFORDING COVERAGE	
INSURER A : ACUITY INSURANCE COMPANY	
NAIC # 14184	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			ZD5765	8/1/2022	8/1/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 250,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ 3,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			ZD5765	8/1/2022	8/1/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			ZD5765	8/1/2022	8/1/2023	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N/A If yes, describe under DESCRIPTION OF OPERATIONS below			ZD5765	8/1/2022	8/1/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Reno County 206 W 1st Hutchinson, KS 67501	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	--



STATE OF KANSAS

OFFICE OF THE ATTORNEY GENERAL




TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:
KNOW YE, THAT I, DEREK SCHMIDT, ATTORNEY GENERAL OF THE STATE OF KANSAS,
do hereby certify that

WRAY & SONS ROOFING, INC.
13-114724

IS A REGISTERED ROOFING CONTRACTOR, AS PRESCRIBED IN
KANSAS ROOFING REGISTRATION ACT
THIS CERTIFICATE IS VALID FROM JULY 1, 2022, THROUGH JUNE 30, 2023

IN TESTIMONY WHEREOF, I have hereunto subscribed
my name this 16th day of May, AD 2022



Derek Schmidt

ATTORNEY GENERAL DEREK SCHMIDT



Year 2023

Class S Contractor License

License #: C-000205

WRAY & SONS ROOFING

has completed 3 hours of continuing education in building codes and is certified to perform work as a Class S - Commercial & Residential Roofing Contractor within the City of Hutchinson, KS during the 2023 calendar year.

Designated Representative(s): Grady Wray Greg Wray Cliff Wray

Approved by the Building
Official

Contractor #: C-000205

Date Issued: 11/19/2021

City of Hutchinson, P.O. Box 1567, Hutchinson, KS 67504-1567*(620)694-2630*www.hutchgov.com

The purchase of an Indemnity Bond will be required before this instrument can be replaced or refunded if lost, misplaced or stolen. RCB Bank is not obligated to take any action in such event until the 90th day after the date of issuance.

The instrument is subject to Unclaimed Property Laws of the State of Oklahoma.

**RCB
BANK**

That's my bank!

MEMBER FDIC
(855)226-5722
RCBbank.com

86-1259/1031
9989989

Check Number **1006976**

Date 3/09/23

Branch 0051

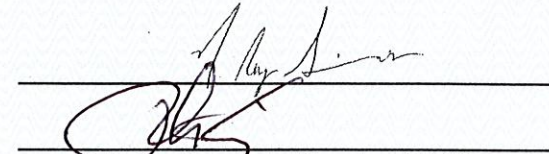
Remitter
WRAY AND SONS ROOFING

Cashier's Check

Do not convert to ACH

PAY EXACTLY **13,315 AND 00/100 DOLLARS
TO THE
ORDER OF RENO COUNTY COURTHOUSE

\$*****13,315.00



Two signatures required if issued over \$10,000.

⑈0001006976⑈ ⑆103112594⑆ 009989989⑈

Security features included. Details on back.

DOCUMENT 004113 - BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 BID INFORMATION

- A. Bidder: Stanfield Roofing, Inc.
- B. Project Name: Reno County Courthouse Reroof.
- C. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- D. Owner: Reno County Courthouse.
- E. Architect: Bradley Doeden, AIA, LEED AP.
- F. Architect Project Number: 19139R22003

1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by GLMV Architecture and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
 - 1. Fifth Floor Roof: Styrene-butadiene-styrene (SBS) modified bituminous roofing with tapered insulation to achieve 1/4-inch per foot slope and 20-year manufacturer's roof warranty.
Three Hundred seven thousand four hundred twelve dollars and eight cents Dollars (\$ 307,415.08).
 - 2. Contingency Allowance: Removal and replacement of wood roof substrate.
Ten Thousand Dollars (\$ 10,000).
 - 3. Second Floor Roof: Thermoplastic-polyolefin (TPO) roofing.
twenty-three thousand four hundred seventy-five dollars and twenty-four cents Dollars (\$ 23,475.24).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 60 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:

1,330,124.18 Dollars (\$ 330,124.18).

* Add \$5,927.65 if Performance Bond is required

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 Unit cost per square foot to remove and replace unsatisfactory wood roof substrate board:

ADD: Twelve Dollars and no cents Dollars (\$ 12.00).

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

- 1. Addendum, dated NA.
- 2. Addendum, dated _____.
- 3. Addendum, dated _____.
- 4. Addendum, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto: Bid Form Supplements - Alternates.

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Reno County and City of Hutchinson and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this 9th day of March, 2023.
- B. Submitted By: Stanfield Roofing, Inc. (Name of bidding firm or corporation).
- C. Authorized Signature: Dustin Stanfield (Handwritten signature).
- D. Signed By: Dustin Stanfield (Type or print name).
- E. Title: Officer (Owner/Partner/President/Vice President).
- F. Witnessed By: [Handwritten Signature] (Handwritten signature).
- G. Attest: [Handwritten Signature] (Handwritten signature).

Reno County Courthouse Reroof
Hutchinson, Kansas

- H. By: Kimberly D. Boyenger (Type or print name).
- I. Title: Office Manager (Corporate Secretary or Assistant Secretary).
- J. Street Address: 580 N. Haverhill Rd.
- K. City, State, Zip: El Dorado, KS 67042
- L. Phone: 316-322-7752
- M. License No.: 13-115408
- N. Federal ID No.: 26-1654670 (Affix Corporate Seal Here).

END OF DOCUMENT 004113

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of Allowances Include the Following: Contingency allowances.
- C. Related Requirements: Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.

1.2 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.3 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.4 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.


1.5 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

1.4 SCHEDULE OF ALTERNATES

- A. Alternate 1: Styrene-butadiene-styrene (SBS) modified bituminous roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:
1. ADD ___ DEDUCT NO CHANGE ___ NOT APPLICABLE ___.
 2. ninety-nine thousand three hundred sixty-one dollars and seventy-five cents Dollars (\$99,361.75).
- B. Alternate 2: Thermoplastic-polyolefin (TPO) roofing with roofing insulation to achieve 1/4-inch per foot roof slope and a 20-year manufacturer's warranty on the fifth floor roof:
1. ADD ___ DEDUCT NO CHANGE ___ NOT APPLICABLE ___.
 2. thirty-one thousand six hundred seventy-five dollars and thirty-four cents Dollars (\$31,675.34).
- C. Alternate 3: TPO roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:
1. ADD ___ DEDUCT NO CHANGE ___ NOT APPLICABLE ___.
 2. one hundred one thousand one hundred eighty-seven dollars and eighty-five cents Dollars (\$101,187.85).

1.5 SUBMISSION OF BID SUPPLEMENT

- A. Respectfully submitted this 9th day of March, 2023.
- B. Submitted By: Stanfield Roofing, Inc. (Insert name of bidding firm or corporation).
- C. Authorized Signature:  (Handwritten signature).
- D. Signed By: Dustin Stanfield (Type or print name).
- E. Title: Officer (Owner/Partner/President/Vice President).

END OF DOCUMENT 004323



AIA[®] Document A310[™] - 2010

Bid Bond

Bond No: NW10069-6

CONTRACTOR:

(Name, legal status and address)

Stanfield Roofing, Inc.
580 N. Haverhill Rd.
El Dorado, KS 67042

SURETY:

(Name, legal status and principal place of business)

Nationwide Mutual Insurance Company
ONE WEST NATIONWIDE BLVD., 1-14-301
Columbus, OH 43215

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:

(Name, legal status and address)

Reno County Courthouse
206 W. 1st Ave.
Hutchinson, KS 67501

BOND AMOUNT:

5% of total amount of bid not to exceed: Nineteen Thousand One and 00/100 Dollars (\$19,001.00)

PROJECT:

(Name, location or address, and Project number, if any)

Reno County Courthouse Reroof-Hutchinson, Kansas

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and Severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor Within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such Bid, and gives such bond or bonds as may be specified in the bidding or contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 9th day of March, 2023

Stanfield Roofing, Inc.

(Principal) (Seal)

Kevin S. Stanfield
(Title) Kevin S. Stanfield, President

Nationwide Mutual Insurance Company

(Surety) (Seal)

Jeremy John Crawford
(Title) Jeremy John Crawford, Attorney-In-Fact

Kevin S. Stanfield
(Witness)

Hannah Lamuski
(Witness)

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as "the Company" and collectively as "the Companies" does hereby make, constitute and appoint: MICHAEL D WILLIAMS, JEREMY JOHN CRAWFORD, BRAD QUIRI; AMANDA QUIGLEY, ETHAN BAKER;

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

TEN MILLION AND NO/100 DOLLARS (\$10,000,000.00)

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 20th day of August, 2021.

[Handwritten Signature]

Antonio C. Albanese, Vice President of Nationwide Mutual Insurance Company

ACKNOWLEDGMENT

STATE OF NEW YORK COUNTY OF NEW YORK: ss

On this 20th day of August, 2021, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.



Stephanie Rubino McArthur
Notary Public, State of New York
No. 02MC6270117
Qualified in New York County
Commission Expires October 19, 2024

[Handwritten Signature]

Notary Public
My Commission Expires
October 19, 2024

CERTIFICATE

I, Laura B. Guy, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the duly elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 9th day of March, 2023.

[Handwritten Signature]

Assistant Secretary

**GREENE RANCH**

Tom Greene
4345 SW 23rd St.
Oklahoma City, OK 73108
Single Ply System, Modified Roof
Restoration

CITY OF ELDORADO

Brad (316-322-4481)
220 E. 2nd
El Dorado, KS 67042
Metal, Single Ply-System

USD 463 UDALL

Ron Hoskins (620-218-5087)
303 S. Seymour
Udall, KS 67146
Single Ply System

USD 462 BURDEN

Leland Hill (620-229-0365)
700 N. Main St.
Burden, KS 67019
Single Ply System

COWLEY CO. COM. COLLEGE

Tony Crouch (620-441-5243)
Arkansas City, KS 67005
Single Ply System, Metal Roof
Restoration

ELLSWORTH USD 327

Bob (785-510-8021)
145 Old Hwy 40
Ellsworth, KS 67439
Modified Roof Restoration

OCI

635 Metcalf Rd. PO Box 1312
El Dorado, KS 67042
Lonnie Owens (316-321-2275)
Single Ply System

BAYOU STEEL

Matt McComber (918-266-3145)
790 Ft. Gibson Rd.
Catoosa, OK 74015
Metal Roof

COMMUNITY NATIONAL BANK

Pam Zimmerman (620-583-5500)
El Dorado, KS 67042
Eureka, KS 67045
Single Ply System

USD 447 Cherryvale

618 East 4th St.
Cherryvale, KS 67335
Single Ply System, Modified Roof
Restoration

**NORTH MACARTHUR CHURCH OF
CHRIST**

Allen Little (405-621-5962)
9300 N. MacArthur Blvd.
Oklahoma City, OK 74003
Single Ply System, Metal Roof
Restoration, Modified Roof Restoration

BUTLER COUNTY

Travis Cornell (316-322-4337)
121 S. Gordy, Ste 102
El Dorado, KS 67042
Single Ply System, Metal Roof,
Modified Roof Restoration

EUREKA USD 389

Russell Hewitt (620-583-8205)
815 N. Jefferson
Eureka, KS 67045
Single Ply System

**CATHEDRAL OF OUR LADY OF
GUADELUPE**

Jodi Lix (620) 225-4802
3231 N. 14th
Dodge City, KS 67801
Single Ply System

MARION USD 408

Quinn Trapp (620-382-7045)
Marion, KS 66861
Single Ply Overlay, Sprayed
Polyurethane Foam

CHANUTE PLAZA

Rajan (785-375-5771)
Property Mgr.-Jeff Ports
(620-431-2030)
1425-1511 S. Santa Fe
Chanute, KS 66720
Single Ply System

ST. PAUL PAR NEWMAN CENTER

Father John (316-262-7241)
1810 Roosevelt St.
Wichita, KS 67208
Single Ply System, Modified Roof
Restoration

Tri-State Building & Supply Co., Inc.

816 E. Jefferson St.
Pittsburg, KS 66762
Single Ply System, EPDM

USD 490 EI DORADO

Virgil Reed (316-322-4800)
124 W. Central
El Dorado, KS 67042
Single Ply System

Marion County

Tina Spencer
200 S. Third St., Suite 104
Marion, KS 66861-1656
Single Ply System, Modified Roof
Restoration

CITY OF MCPHERSON

Wayne Burns (620-245-2535)
410 E. Kansas
McPherson, KS 67460
Single Ply System

SECURITY 1ST TITLES

Craig Burns (316-322-8164)
El Dorado • Lyons • Ottawa
• Ellsworth
Single Ply Systems, Modified Roof
Restoration

SPIRITUAL LIFE CENTER

Jim (316-744-0167)
7100 E. 45th St. North
Wichita, KS 67226
Sprayed Polyurethane Foam

HUMBOLDT USD 258

Kay Lewis (620-473-3121)
801 New York
Humboldt, KS 66748
Single Ply System

USD 413 CHANUTE

Mike Golay (620-432-2500)
321 E Main Street
Chanute, KS 66720-1836
Single Ply System

CITY OF WELLINGTON

Shane J. Shields, City Manager
(620-326-3631)
317 S. Washington
Wellington, KS 67152
Modified Roof Restoration, Metal Roof,
Single Ply System

KANSAS BRANCH:

580 N. Haverhill Road • El Dorado, KS 67042
Office: 316-322-7752 • Fax: 316-322-7759
• KS REG# 13-115408

OKLAHOMA BRANCH:

8211 E. Regal Place • Tulsa, OK 74133
Office: 918-932-2902 Ext:2902 • Fax: 316-322-7759
• OK REG# 80002833

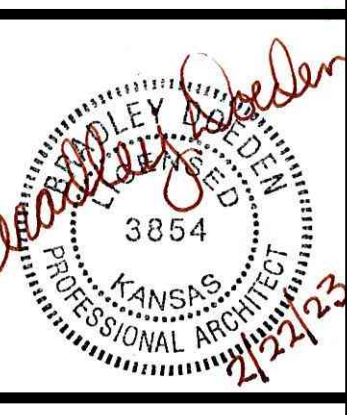
NEBRASKA BRANCH:

3222 W. S. St. • Hastings, NE 68901
Office: 316-322-7752 • Fax: 316-322-7759
• NE REG# 16116-19

RENO COUNTY COURTHOUSE REROOF

206 W 1ST AVE, HUTCHINSON, KS 67501

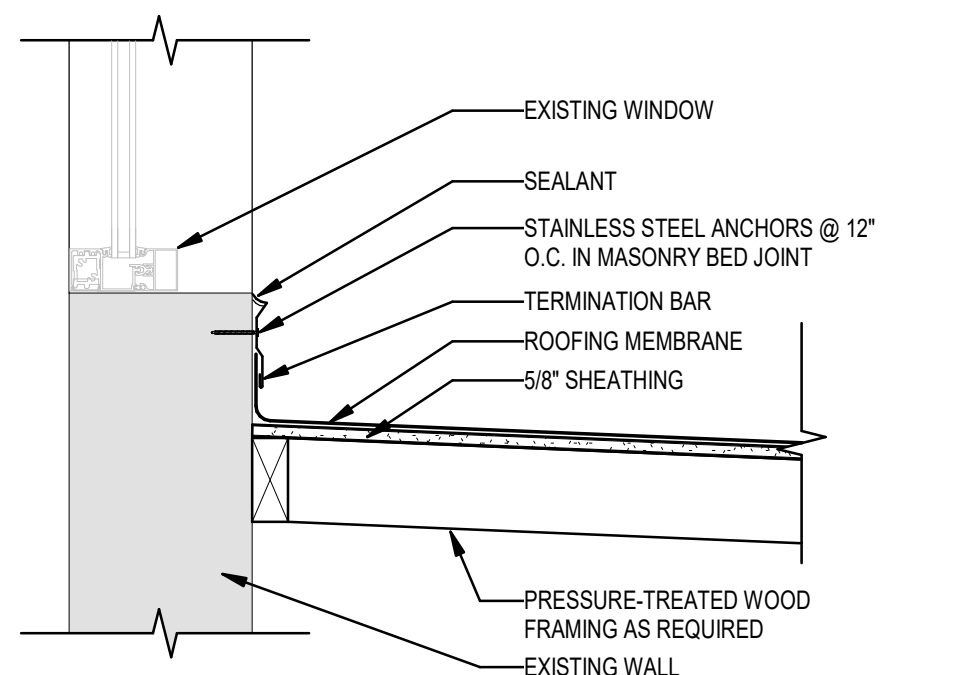
CONSTRUCTION DOCUMENTS



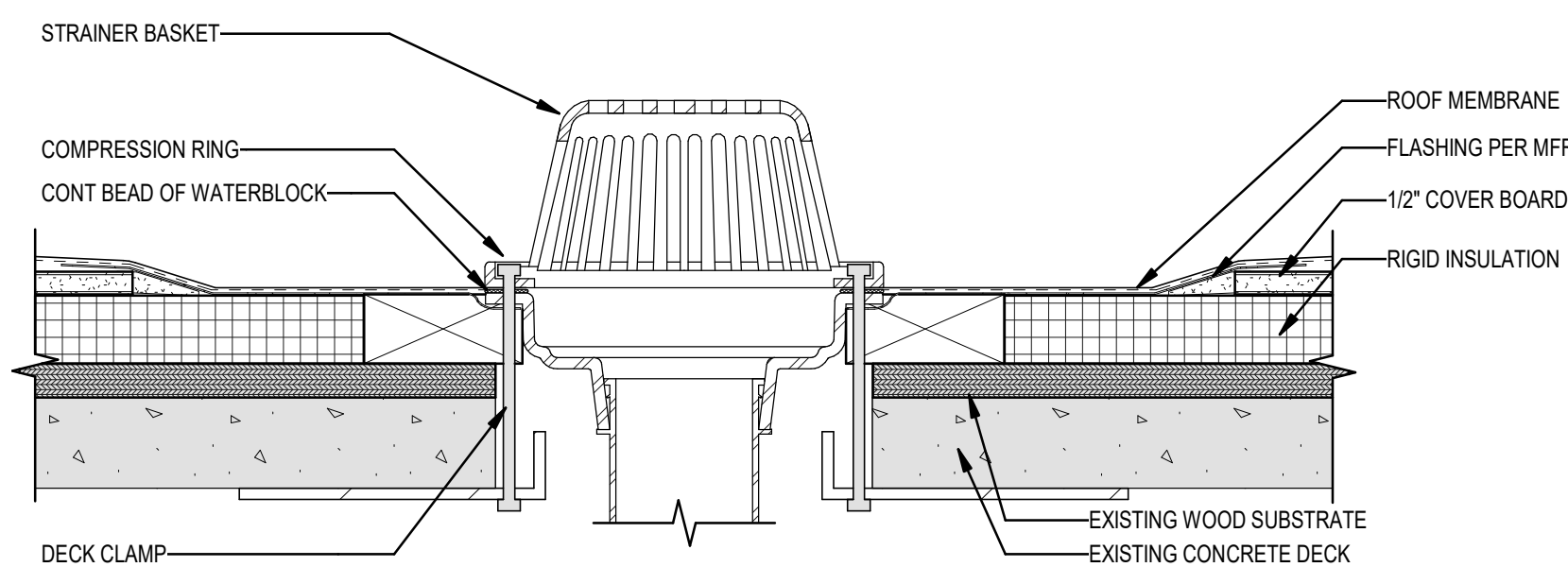
RENO COUNTY COURTHOUSE REROOF
206 W 1ST AVE, HUTCHINSON, KS 67501

TERMS AND ABBREVIATIONS GRAPHIC SYMBOLS LEGEND LOCATION MAP GENERAL NOTES

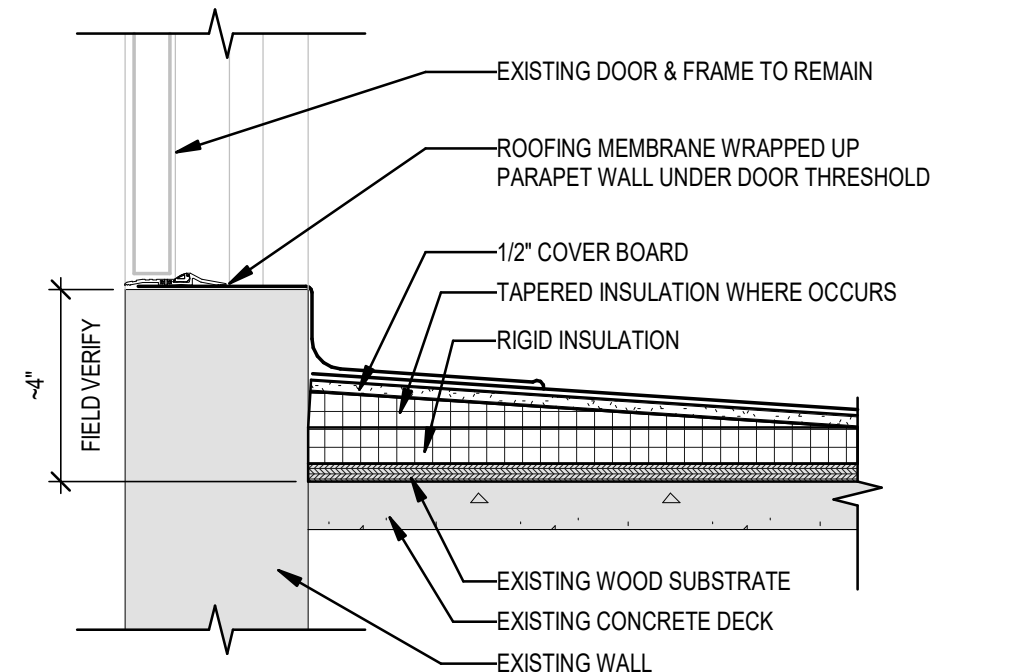
Abbreviation	Term	Abbreviation	Term	Abbreviation	Term	Abbreviation	Term
1WAY	one-way	C cont	carpet	F cont	feet	N cont	National Fire Code
2WAY	two-way	CFT	circumference	FT	footing	NFC	National Fire Protection Association
3PLY	three-ply	CRCMF	courtyard	FTG	furniture	NFPA	not in contract
3WAY	three-way	CRT YD	cast stone	FURN	fire wall	NO	number
4WAY	four-way	CS	casing	FWC	fabric wallcovering	NOM	nominal
A	Construction Specifications Institute	CSI	institute	FWRK	formwork	NP	no paint
A LABEL	Class A door	CSK	counter sunk	G	glazing	NRC	noise reduction coefficient
A/C	air conditioning	CSMT	casement	GALV	galvanized	NTS	not to scale
A/C UNIT	air conditioning unit	CSTL	cast steel	GALV STL	galvanized steel	O	overall
A/E	architect/engineer	CSWK	casework	GB	grab bar	OA	on center
AAP	alarm annunciator panel	CT	ceramic tile	GC	general contractor	OC	occupy
AB	anchor bolt	CT STN	ceramic tile base	GFRG	glass-fiber-reinforced concrete	OCC	occupied
ABBRV	abbreviation	CTB	ceramic tile base	GFRP	glass-fiber-reinforced gypsum	OF/CI	owner furnished/contractor installed
ACC	accessible	CTG	ceramic tile floor	GFRP	glass-fiber-reinforced plastic	OFD	outside face of studs
ACOUS INSUL	acoustical insulation	CTR	center	GL	glass	OFI/OI	owner furnished/owner installed
ACOUS PNL	acoustical panel	CTRL	control	GL BLK	glass block	OH DR	overhead (cooling) door
ACS DR	access door	CU FT	cubic feet	GLZ	glazed	OPNG	opening
ACS FLR	access floor	CU IN	cubic inch	GLZ CMU	glazed concrete masonry unit	ORD	overflow roof drain
ACS PNL	access panel	CU YD	cubic yard	GPC	gypsum plaster ceiling	OVFL	overflow
ACT	acoustical ceiling tile	CURT	curtain	GR BM	grade beam	P	parapet
ADA	Americans with Disabilities Act	D	Class D door	GR FL	ground floor	PAR	parapet
AFF	above finished floor	D LABEL	Class D door	GR LN	grade line	PAT	pattern
AGGR	aggregate	DBL	double	GR LN	grade line	PB	particleboard
AHJ	authority having jurisdiction	DBL ACT DR	double acting door	GSB	gypsum sheathing board	PBD	particleboard
AHU	air handling unit	DBL GLZ	double glaze	GUT	gutter	PCC	precast concrete
AIA	American Institute of Architects	DEM	demolition	GWT	glazed wall tile	PCP	portland cement plaster
ALM	alarm	DEPT	department	GYM	gymnasium	PERF	perforated
ALNMT	alignment	DET	detail	GYP	gypsum	PERM	perimeter
ALT	alternate	DF	drinking fountain	GYP BD	gypsum board	PGBD	pegboard
ALT NO	alternate number	DF WL MTD	drinking fountain, wall mounted	GYP PLAS	gypsum plaster	PIL	property line
ALUM	aluminum	DIA	diameter	H	hose bibb	PL GL	plate glass
ANN	annunciator	DIM	dimension	HCP	handicapped	PLAM	plastic laminate
ANOD	anodize	DIST	distance	HDWD	hollow core wood door	PLAS	plaster
APC	acoustical panel ceiling	DIV	division	HDWL	headwall	PLBG	plumbing
APFD	approved	DOC	document	HMD	hollow metal	PLG	piling
APPROX	approximate	DPTN	dismountable partition	HMDF	hollow metal door and frame	PLYWD	plywood
ARCH	Architect	DR	door	HNDRL	hollow metal frame	PNL	panel
ASKLR	automatic sprinkler	DR CL	door closer	HORIZ	horizontal	PRCST	precast
ASPH	asphalt	DR FR	door frame	HS	hand sink	PREFIN	prefinish
AV	audio visual	DR FR	door opening	HT	height	PRKG	parking
B	Class B door	DR FR	door opening	HVY	heavy	PS CONC	prestressed concrete
B LABEL	Class B door	DR OPNG	door opening	HYD	hydrant	PT	post-tensioned concrete
B PL	base plate	DRH	door holder	I	International Building Code	PTAC	package terminal air conditioner
BAS	building automation system	DRLV	door louver	IBC	International Building Code	PTD	paper towel dispenser
BB	baseboard	DRST	door stop	ID NO	identification number	PTDR	paper towel dispenser and receptacle
BC	bookcase	DRSW	door switch	INFO	information	PTN	partition
BD	board	DW	dishwasher	INSUL	insulation	PVC	polyvinyl chloride (plastic)
BDRY	boundary	DWG	drawing	INSUL PNL	insulated metal panel	PVF	polyvinyl fluoride (plastic)
BFF	below finish floor	E	Class E door	INT	interior	PVG	paving
BHMA	Builder's Hardware Manufacturer's Association	E LABEL	Class E door	J	janitor	PWR	power
BITUM	bituminous	EA	each	JAN	janitor closet	Q	quarry tile
BLKHD	bulkhead	EFS	exterior finish system	JAN CLO	janitor closet	QT	quarry tile base
BLT IN	built-in	EGB	exterior gypsum board	J-BOX	junction box	QTB	quarry tile base
BLW CLG	below ceiling	EGSB	exterior gypsum sheathing board	JS	janitor's sink	QTF	quarry tile floor
BN	bulnose	EIFS	exterior insulation and finish system	K	kitchen	QTY	quantity
BRCG	bracing	EJ	expansion joint	KIT	kitchen	R	resilient base
BRDG	bridging	EL	elevation	KPL	kickplate	RB	rope hook
BRDG JST	bridging joist	ELEC	electric	KWY	keyway	RB HK	reinforced brick masonry
BRG	bearing	ELEV	elevator	L	laminated glass	RBM	reinforced brick masonry
BRG PL	bearing plate	ENTR	entrance	LAM	laminated glass	RC	reception
BRZ	bronze	EOS	edge of slab	LAM GL	laminated glass	LAV	lavatory
BTWN	between	EPS	expanded polystyrene board	LAT	latitude	LD	light
BUR	built-up roofing	EQ	equal	LAV	lavatory	LED	light emitting diode
C	cast concrete	EQUIP	equipment	LBS	load bearing	LF	linear feet (foot)
C CONC	Class C door	ESCAL	escalator	LBS	load bearing	LF INS	loose fill insulation
C LABEL	Class C door	EXST	existing	LBS	load bearing	LKR RM	locker room
CAB	cabinet	EXT	exterior	LBS	load bearing	LL	low level
CAC	ceiling attenuation class	EXT GR	exterior grade	LBS	load bearing	LL GB	lead lined gypsum board
CATV	catwalk	EXT LT	exterior light	F	fire brick	LMST	limestone
CB	ceiling (backer) board	EQ	equal	F BRK	fire brick	LNG	landscape
CEM	cement	EQUIP	equipment	FAAP	fire alarm annunciator panel	LNG	landscape
CEM FIN	cement finish	ESCAL	escalator	FABL	fire alarm bell	LF	linear feet (foot)
CEM PLAS	cement plaster	EXST	existing	FABX	fire alarm box	LF INS	loose fill insulation
CEM PLAS CLG	cement plaster ceiling	EXT	exterior	FACP	fire alarm control panel	LKR RM	locker room
CER	contractor furnished	EXT GR	exterior grade	FAR	floor area ratio	LL	low level
CF/CI	contractor furnished/contractor installed	EXT LT	exterior light	FAS	face brick	LL GB	lead lined gypsum board
CF/OI	contractor furnished/owner installed	EQ	equal	FAS BD	face brick	LMST	limestone
CFC	counterflashing	EQUIP	equipment	FD	fire department connection	LNG	landscape
CFLG	counterflashing	ESCAL	escalator	FDC	fire department connection	LNG	landscape
CFMF	cold-formed metal framing	EXST	existing	FDC	fire department connection	LT	light
CG	corner guard	EXT	exterior	FDC	fire department connection	LT FLUOR	fluorescent lighting
CHFR	chamber	EXT LT	exterior light	FD	fire department connection	LT GA	light gage
CI	cast iron	EQ	equal	FD	fire department connection	LTG	lighting
CIP	cast-in-place	EQUIP	equipment	FD	fire department connection	LVR	louver
CIR	circle	ESCAL	escalator	FDV	fire department valve	LW PLAS	lightweight plaster
CJ	control joint	EXST	existing	FE	fire extinguisher	LWC	lightweight concrete
CL	cladding	EXT	exterior	FE	fire extinguisher	M	machine room
CLDG	ceiling	EXT GR	exterior grade	FE	fire extinguisher	MACH RM	machine room
CLG DIFF	ceiling diffuser	EXT LT	exterior light	FE	fire extinguisher	MATL	material
CLG GRL	ceiling grille	EQ	equal	FE	fire extinguisher	MAX	maximum
CLG HT	ceiling height	EQUIP	equipment	FE	fire extinguisher	MC	moisture content
CLG REG	ceiling register	ESCAL	escalator	FE	fire extinguisher	MD	metal deck
CLKJ	calked joint	EXST	existing	FE	fire extinguisher	MECH	mechanical
CLR	color	EXT	exterior	FE	fire extinguisher	MECH RM	mechanical room
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MEMB	membrane
CLR	color	EQ	equal	FE	fire extinguisher	MEMB	membrane
CLR	color	EQUIP	equipment	FE	fire extinguisher	MEZZ	mezzanine
CLR	color	ESCAL	escalator	FE	fire extinguisher	MFR	manufacturer
CLR	color	EXST	existing	FE	fire extinguisher	MIN	minimum
CLR	color	EXT	exterior	FE	fire extinguisher	MIR	mirror
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MISC	miscellaneous
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MISC	miscellaneous
CLR	color	EQ	equal	FE	fire extinguisher	MLDG	molding (moulding)
CLR	color	EQUIP	equipment	FE	fire extinguisher	MLWK	milwork
CLR	color	ESCAL	escalator	FE	fire extinguisher	MOD	modify
CLR	color	EXST	existing	FE	fire extinguisher	MOD BIT	modified bitumen
CLR	color	EXT	exterior	FE	fire extinguisher	MOPR	mop rack
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MR	moisture resistant
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MS	moor sink
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT	exterior	FE	fire extinguisher	MTL	metal
CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
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CLR	color	EXT GR	exterior grade	FE	fire extinguisher	MTL	metal
CLR	color	EXT LT	exterior light	FE	fire extinguisher	MTL	metal
CLR	color	EQ	equal	FE	fire extinguisher	MTL	metal
CLR	color	EQUIP	equipment	FE	fire extinguisher	MTL	metal
CLR	color	ESCAL	escalator	FE	fire extinguisher	MTL	metal
CLR	color	EXST	existing	FE	fire extinguisher	MTL	metal
CLR	color	EXT					



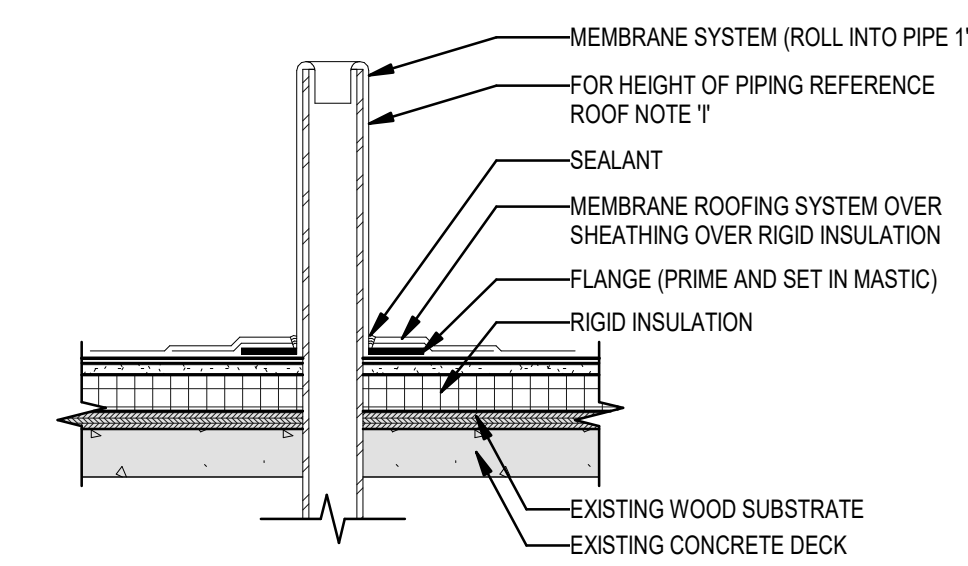
1 WINDOW SILL DETAIL
1 1/2" = 1'-0"



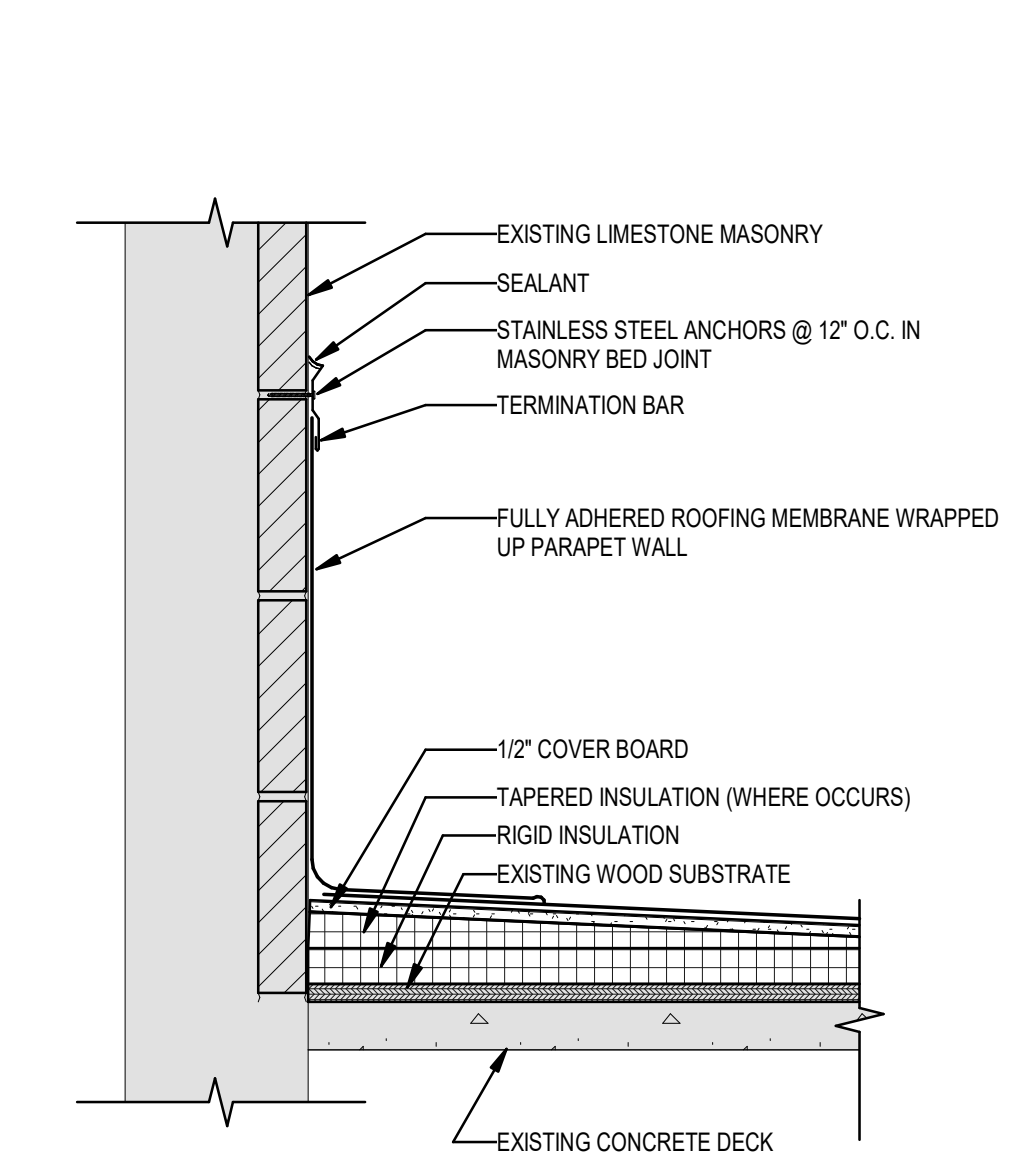
2 ROOF DRAIN DETAIL
3" = 1'-0"



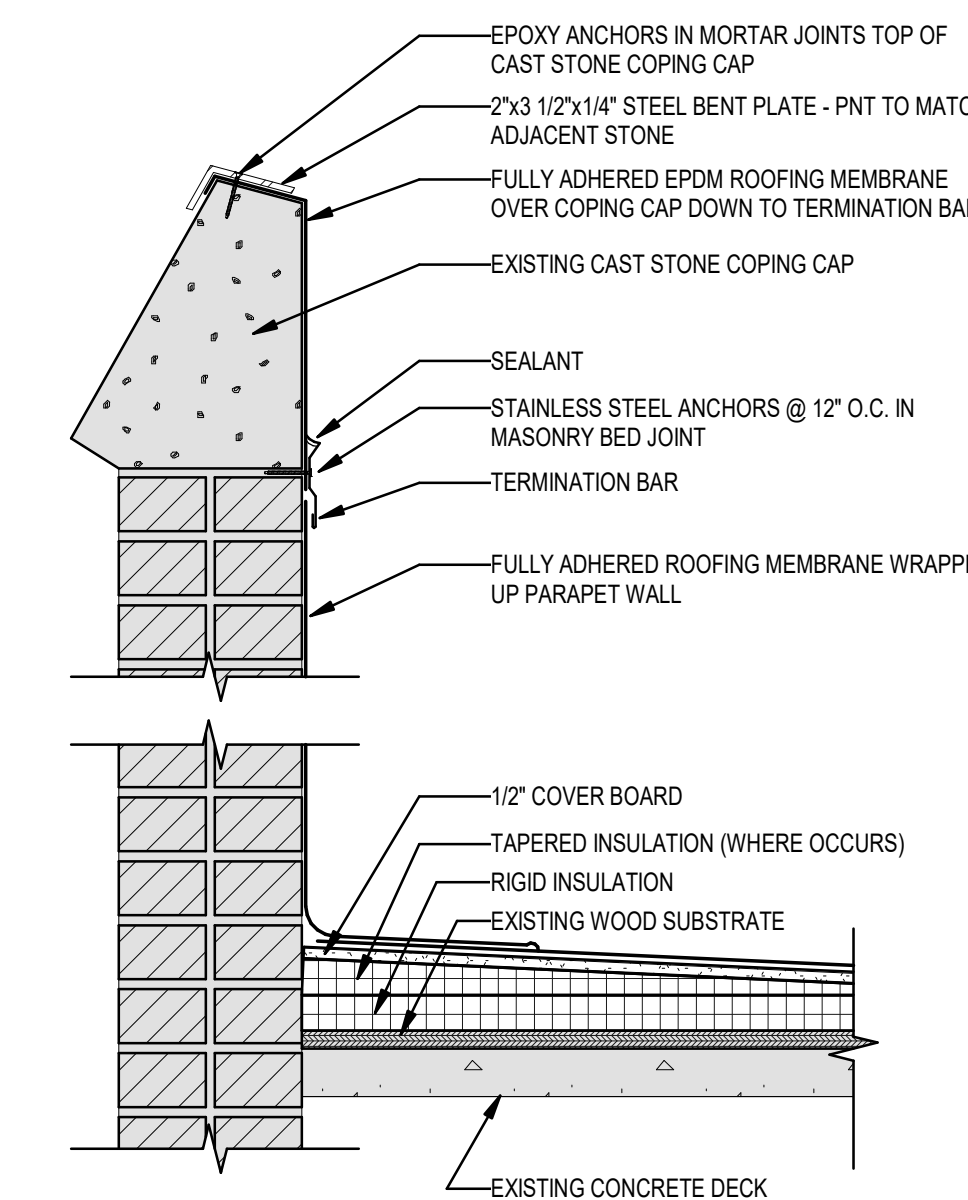
3 DOOR SILL DETAIL
1 1/2" = 1'-0"



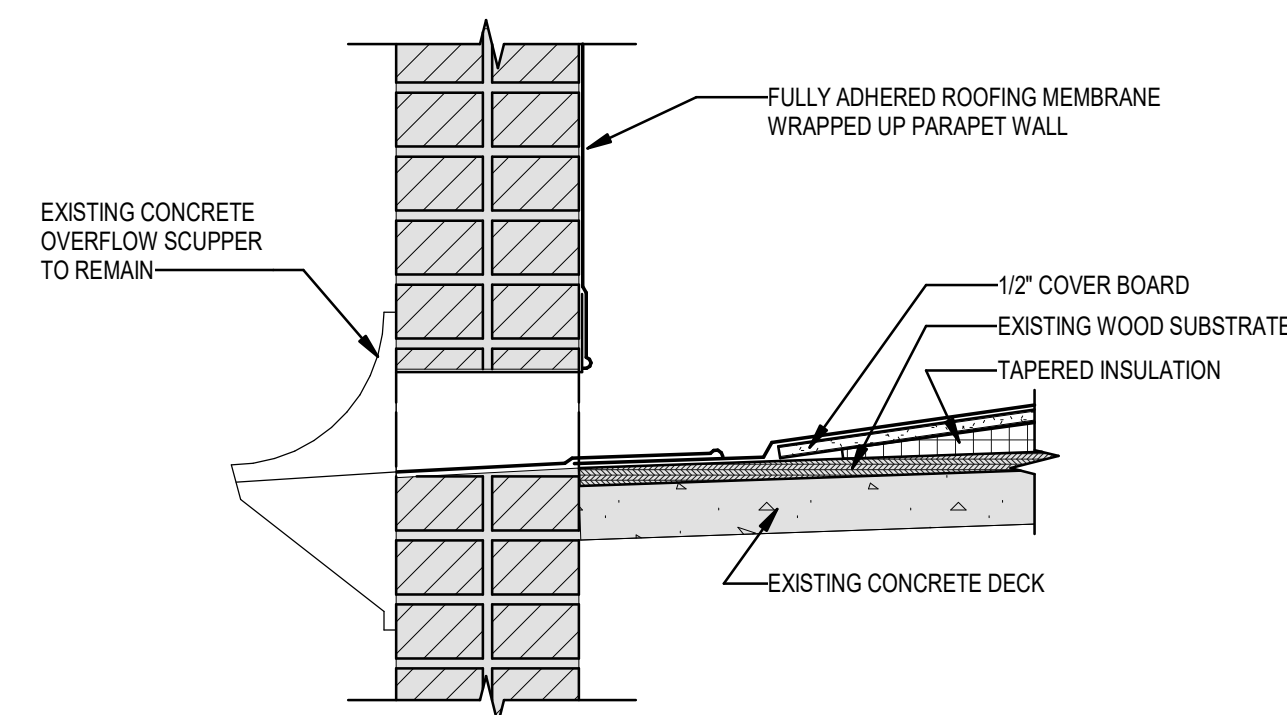
4 WASTE/VENT STACK DETAIL
1 1/2" = 1'-0"



5 ROOF TERMINATION @ WALL
1 1/2" = 1'-0"



6 PARAPET TYP DETAIL
1 1/2" = 1'-0"



7 SCUPPER DETAIL
1 1/2" = 1'-0"

DEMOLITION NOTES

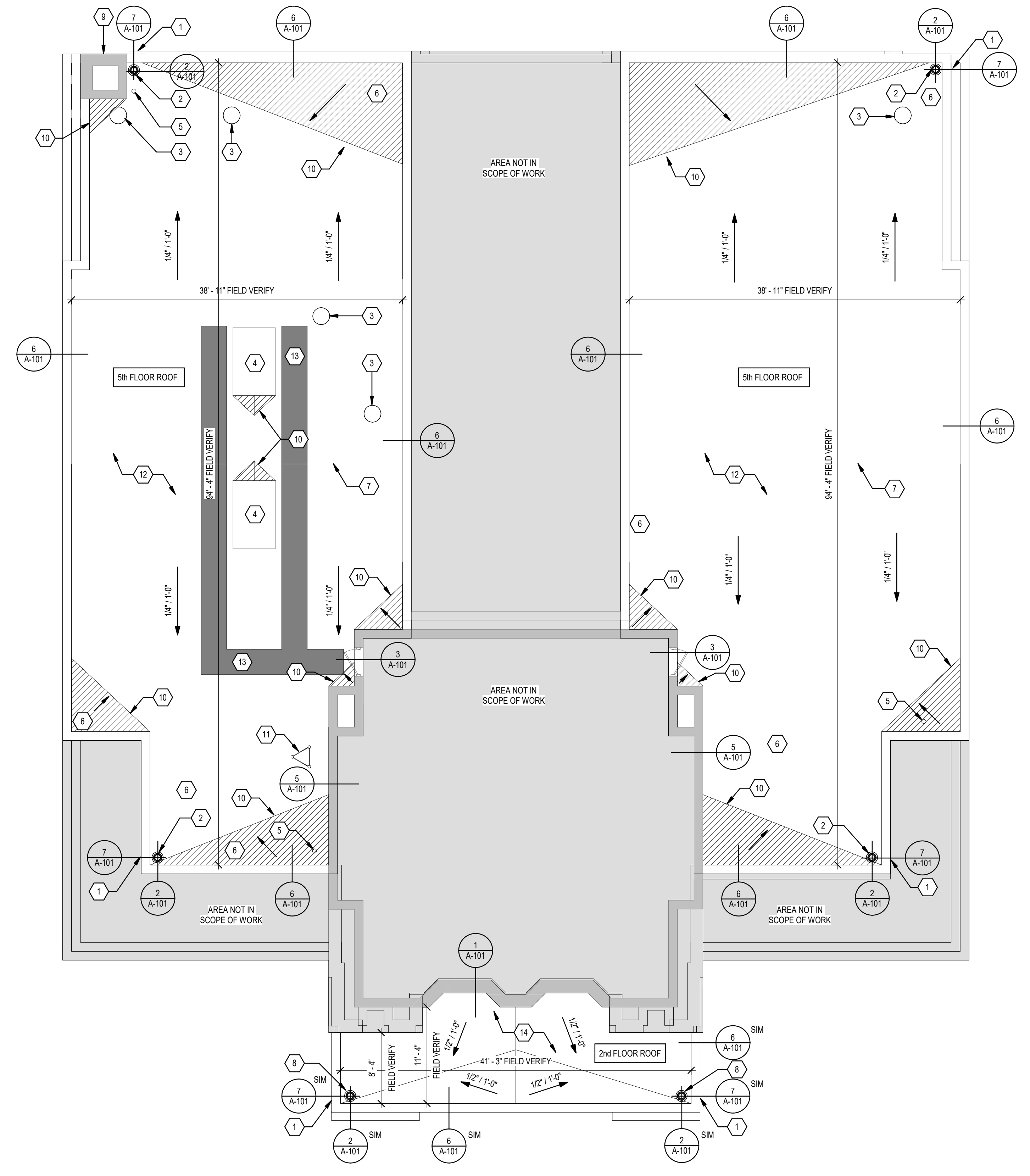
- VERIFY ALL CONDITIONS PRIOR TO DEMOLITION. DISCREPANCIES BETWEEN DESIGN CONDITIONS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- DEMOLITION SHALL BE DONE IN A MANNER TO REDUCE THE AMOUNT OF DAMAGE TO ADJACENT MATERIALS AND CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIR OF ADJACENT MATERIALS DUE TO DEMOLITION TO THE SATISFACTION OF THE ARCHITECT.
- DEMOLITION SCOPE TO INCLUDE THE REMOVAL OF ALL EXISTING ELEMENTS AS REQUIRED TO COMPLETE SCOPE OF WORK/CONSTRUCTION INCLUDED IN THESE DOCUMENTS, WHETHER OR NOT SPECIFICALLY INDICATED HEREIN.
- ALL WALLS, STRUCTURAL FRAMES, PARTITIONS, EQUIPMENT, ETC. INDICATED BY DASHED LINES SHALL BE REMOVED. ALL WALLS, STRUCTURAL FRAMES, PARTITIONS, EQUIPMENT, ETC. INDICATED BY SOLID LINES TO REMAIN.
- PROVIDE TEMPORARY DUST-PROOF PARTITIONS REQUIRED TO SEAL DUST GENERATED DURING CONSTRUCTION ACTIVITIES FROM ENTERING OCCUPIED PORTIONS OF THE BUILDING. MAKE TEMPORARY PROVISIONS AS NECESSARY TO ACCOMMODATE MAKEUP AND RETURN AIR AFFECTED BY TEMPORARY DUST PROOFING.
- STRUCTURAL COLUMNS, BEAMS, JOISTS, BEARING WALLS AND OTHER STRUCTURAL LOAD BEARING MEMBERS TO REMAIN INTACT. U.N.O.
- COORDINATE ALL ROOF MOUNTED EQUIPMENT TO BE RELOCATED IN ORDER TO COMPLETE SCOPE OF WORK WITH OWNER.
- ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT AND ITEMS TO REMAIN INTACT.
- ROOF DEMOLITION SCOPE OF WORK TO INCLUDE THE REMOVAL OF ROOFING MEMBRANE TO EXPOSE THE WOOD SUBSTRATE.
- REMOVE CAPPED OR ABANDONED MECHANICAL OR ELECTRICAL ROOF PENETRATION EQUIPMENT, PATCH AND REPAIR.

ROOF NOTES

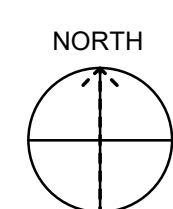
- THE GENERAL CONTRACTOR SHALL COORDINATE ACCESS TO STORAGE ON SITE WITH THE OWNER. THE GENERAL CONTRACTOR SHALL ALSO REPAIR DAMAGE TO ALL ADJACENT AREAS OCCURRING DURING CONSTRUCTION. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS TRASH AND OTHER MISCELLANEOUS MATERIALS FROM THE SITE DAILY.
- ERECT AND MAINTAIN APPROPRIATE SAFETY BARRIERS AND PATHWAYS TO PROTECT AND SEPARATE PUBLIC/TENANTS FROM HAZARDOUS CONDITIONS. BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO PROHIBIT UNAUTHORIZED PERSONNEL FROM ENTERING THE CONSTRUCTION AREA/SITE.
- CONTRACTOR SHALL NOT REPRODUCE ANY PORTION OF A CONTRACT DRAWING FOR USE IN ANY PORTION OF A SUBMITTAL.
- ALL DIMENSIONS ARE FROM THE FACE OF MASONRY, FACE OF CONCRETE, OR CENTER LINE OF STRUCTURAL STEEL, U.N.O.
- ALL NEW CONSTRUCTION TO BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, ACCEPTED CONSTRUCTION STANDARDS, AND CONFORM TO ALL BUILDING CODES AND REGULATIONS AT THE TIME OF APPLYING FOR BUILDING PERMIT.
- NEW RIGID INSULATION SHALL BE THE MINIMAL THICKNESS REQUIRED TO ACHIEVE 1/4" PER FOOT MINIMUM ROOF SLOPE.
- ALL TAPERED INSULATION TO SLOPE 1/4" PER FOOT MINIMUM. ALL CRICKETS TO SLOPE 90 DEGREES TO ROOF PLANE AND SLOPE 1/2" PER FOOT.
- CONTRACTOR TO PROVIDE ALL NECESSARY FLASHINGS AND SEALANTS TO PROVIDE A WATER-TIGHT BUILDING. ALL FLASHING CONCEALED FROM VIEW TO BE GALVANIZED METAL. ALL VISIBLE FLASHING TO BE PRE-FINISH MATERIAL U.N.O. ALL VISIBLE SEALANT TO MATCH COLOR OF ADJACENT SURFACE.
- ALL ROOF DRAINS IN AREA OF WORK TO BE REPLACED WITH NEW.
- MODIFY CONDENSING PIPING AND ROOF PIPE PENETRATIONS AS NECESSARY FOR NEW ROOF SYSTEM THICKNESS.

SHEET KEYNOTES

1	THRU-WALL SCUPPER
2	ROOF DRAIN R02 - REF. SPEC.
3	EXISTING MECHANICAL PENETRATION
4	EXISTING RTU
5	EXISTING ROOF PENETRATION
6	EXISTING ROOF MOUNTED OWNER EQUIPMENT THIS LOCATION
7	RIDGELINE
8	ROOF DRAIN R01 - REF. SPEC.
9	EXISTING CHIMNEY FLUE WITH PREFINISHED METAL CAP TO REMAIN
10	HATCH INDICATES TAPERED INSULATION
11	EXISTING ROOF MOUNTED ANTENNA
12	SBS MEMBRANE ROOFING SYSTEM
13	ROOF WALKWAY
14	TPO ROOFING SYSTEM



A ROOF PLAN
1/8" = 1'-0"



FILE PATH: S:\19139R22003 - Reno County Courthouse - Reno\19139R22003 - Reno County Courthouse - Reno\Arch - R01.rvt



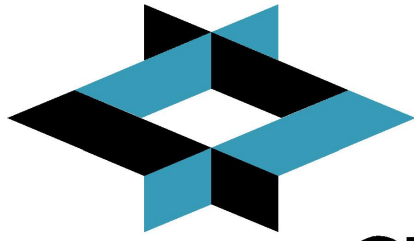
RENO COUNTY COURTHOUSE REROOF
 206 W 1ST AVE, HUTCHINSON, KS 67501

DESCRIPTION	DATE
PROJECT NO:	19139R22003
DATE:	2/22/2023
DRAWN BY:	DKW
CHKD BY:	BD

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ROOF PLAN

A-101



GLMVArchitecture

PROJECT MANUAL

**RENO COUNTY COURTHOUSE
REROOF
HUTCHINSON, KANSAS**

100 PERCENT SUBMITTAL

Architect's Project Number: 19139R22003

Date: February 22, 2023

PROJECT MANUAL

**RENO COUNTY COURTHOUSE
REROOF
HUTCHINSON, KANSAS**

100 PERCENT SUBMITTAL

Architect's Project Number: 19139R22003

Date: February 22, 2023

Reno County Courthouse Reroof
Hutchinson, Kansas

DOCUMENT 000107 - SEALS PAGE



1.1 DESIGN PROFESSIONALS OF RECORD

A. Architect:

1. Bradley Doeden, AIA, LEED AP
2. 3854.
3. Responsible for Divisions 01-49 Sections except where indicated as prepared by other design professionals of record.

END OF DOCUMENT 000107

DOCUMENT 000110 - TABLE OF CONTENTS

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

000107	Seals Page
000110	Table of Contents
001113	Advertisement for Bids
002113	Instructions to Bidders
	AIA Form A701-2018 - Instructions to Bidders
002600	Procurement Substitution Procedures
004113	Bid Form - Stipulated Sum (Single-Prime Contract)
004313	Bid Security Forms
004323	Alternates Form

DIVISION 01 - GENERAL REQUIREMENTS

012100	Allowances
012200	Unit Prices
012500	Substitution Procedures
012600	Contract Modification Procedures
012900	Payment Procedures
013100	Project Management and Coordination
013300	Submittal Procedures
016000	Product Requirements
017700	Closeout Procedures

DIVISIONS 02-05 (NOT USED)

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

061000	Rough Carpentry
061600	Sheathing

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

070150.19	Preparation for Reroofing
075216	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing
075423	Thermoplastic-Polyolefin (TPO) Roofing
076200	Sheet Metal Flashing and Trim
077200	Roof Accessories
079200	Joint Sealants

DIVISIONS 08-21 (NOT USED)

DIVISION 22 - PLUMBING

221423	Storm Drainage Piping Specialties
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DIVISIONS 23-49 (NOT USED)

APPENDICES

Appendix A	Preservation Brief: Repointing Mortar Joints in Historic Masonry Buildings
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END OF TABLE OF CONTENTS 000110

DOCUMENT 001113 - ADVERTISEMENT FOR BIDS

1.1 PROJECT INFORMATION

- A. Notice to Bidders: Qualified bidders may submit bids for project as described in this Document. Submit bids according to the Instructions to Bidders.
 - 1. Regulatory Requirements: Local Reno County and State of Kansas laws and regulations shall govern submittal, opening, and award of bids.
- B. Project Identification: Reno County Courthouse Reroof.
 - 1. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- C. Owner: Reno County.
 - 1. Owner's Representative: Harlen Depew, Director of Maintenance and Purchasing, 206 W. 1st Avenue, Hutchinson, KS 67501; e-mail: harlen.depew@renogov.org.
- D. Architect: Brad Doeden, AIA, LEED AP, GLMV Architecture, 1525 E. Douglas Avenue, Wichita, KS 67211; e-mail: brad.doeden@glmv.com.
- E. Project Description: Project consists of reroofing portions of Reno County Courthouse as indicated on Drawings.
 - 1. Remove existing roof membrane and wood substrate to expose the roof deck.
 - 2. Install roof system as indicated on Drawings.
 - 3. Remove and replace new roof drain covers.
- F. Construction Contract: Bids will be received for the following Work:
 - 1. General Contract (all trades).

1.2 BID SUBMITTAL AND OPENING

- A. Owner will receive sealed lump sum bids until the bid time and date at the location given below. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:
 - 1. Bid Date: March 9, 2023.
 - 2. Bid Time: 2:00 p.m., local time.
 - 3. Deliver To: Reno County Administration Office, 206 W. 1st Avenue, Hutchinson, KS 67501.
- B. Bids will be thereafter publicly opened and read aloud.

1.3 BID SECURITY

- A. Bid security shall be submitted with each bid in the amount of 5 percent of the bid amount. No bids may be withdrawn for a period of 30 days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

1.4 PREBID MEETING

- A. Prebid Meeting: See Document 002513 "Prebid Meetings."
- B. Prebid Meeting: Coordinate with Owner to schedule an on-site prebid meeting.

1.5 DOCUMENTS

- A. Printed Procurement and Contracting Documents: Obtain after January 9, 2023, by contacting Architect. Documents will be provided to prime bidders only; only complete sets of documents will be issued.

1.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- A. Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time. Work is subject to liquidated damages.

1.7 BIDDER'S QUALIFICATIONS

- A. Bidders must show previous experience with similar historic preservation projects.
- B. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work.

1.8 NOTIFICATION

- A. This Advertisement for Bids document is issued by the following:
 - 1. Bid Clerk
Website: <https://bidclerk.com>
Phone: (877) 422-8665
E-mail: customerservice@constructconnect.com
 - 2. KCNR, LLC
230 S. Laura, Suite 101
Wichita, KS 67211
Attn: Laura Robben
Phone: (316) 263-0265

Reno County Courthouse Reroof
Hutchinson, Kansas

3. GLMV Architecture
1525 E. Douglas Avenue
Wichita, KS 67211
Phone: (316) 265-9367

END OF DOCUMENT 001113

DOCUMENT 002113 - INSTRUCTIONS TO BIDDERS

1.1 INSTRUCTIONS TO BIDDERS

- A. AIA Document A701, "Instructions to Bidders," is hereby incorporated into the Procurement and Contracting Requirements by reference.
 - 1. A copy of AIA Document A701, "Instructions to Bidders," is bound in this Project Manual.

END OF DOCUMENT 002113



AIA[®] Document A701[™] – 2018

Instructions to Bidders

for the following Project:
(Name, location, and detailed description)

Reno County Courthouse Reroof
206 W. 1st Avenue
Hutchinson, KS 67501
Architect’s Project 19139R22003

THE OWNER:
(Name, legal status, address, and other information)

Reno County
206 W. 1st Avenue
Hutchinson, KS 67501

THE ARCHITECT:
(Name, legal status, address, and other information)

Bradley Doeden, AIA, LEED AP
GLMV Architecture, Inc.
1525 E. Douglas
Wichita, KS 67211

TABLE OF ARTICLES

- 1 **DEFINITIONS**
- 2 **BIDDER’S REPRESENTATIONS**
- 3 **BIDDING DOCUMENTS**
- 4 **BIDDING PROCEDURES**
- 5 **CONSIDERATION OF BIDS**
- 6 **POST-BID INFORMATION**
- 7 **PERFORMANCE BOND AND PAYMENT BOND**
- 8 **ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS**

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

FEDERAL, STATE, AND LOCAL LAWS MAY IMPOSE REQUIREMENTS ON PUBLIC PROCUREMENT CONTRACTS. CONSULT LOCAL AUTHORITIES OR AN ATTORNEY TO VERIFY REQUIREMENTS APPLICABLE TO THIS PROCUREMENT BEFORE COMPLETING THIS FORM.

It is intended that AIA Document G612[™]-2017, Owner’s Instructions to the Architect, Parts A and B will be completed prior to using this document.

ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 By submitting a Bid, the Bidder represents that:

- .1 the Bidder has read and understands the Bidding Documents;
- .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
- .3 the Bid complies with the Bidding Documents;
- .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, and has correlated the Bidder's observations with the requirements of the Proposed Contract Documents;
- .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception; and
- .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor.

ARTICLE 3 BIDDING DOCUMENTS

§ 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete Bidding Documents, as indicated below, from the issuing office designated in the advertisement or invitation to bid, for the deposit sum, if any, stated therein.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall obtain Bidding Documents.)

§ 3.1.2 Any required deposit shall be refunded to Bidders who submit a bona fide Bid and return the paper Bidding Documents in good condition within ten days after receipt of Bids. The cost to replace missing or damaged paper documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

§ 3.1.3 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the advertisement or invitation to bid, or in supplementary instructions to bidders.

§ 3.1.4 Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

§ 3.1.5 The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.

§ 3.2 Modification or Interpretation of Bidding Documents

§ 3.2.1 The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2.

§ 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least seven days prior to the date for receipt of Bids.
(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall submit requests for clarification and interpretation.)

§ 3.2.3 Modifications and interpretations of the Bidding Documents shall be made by Addendum. Modifications and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3 Substitutions

§ 3.3.1 The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.

§ 3.3.2 Substitution Process

§ 3.3.2.1 Written requests for substitutions shall be received by the Architect at least ten days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.

§ 3.3.2.2 Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.

§ 3.3.2.3 If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.

§ 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Addenda will be transmitted.)

§ 3.4.2 Addenda will be available where Bidding Documents are on file.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

ARTICLE 4 BIDDING PROCEDURES

§ 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and numbers, unless noted otherwise on the bid form. In case of discrepancy, the amount entered in words shall govern.

§ 4.1.4 Edits to entries made on paper bid forms must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change" or as required by the bid form.

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall neither make additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name and legal status of the Bidder. As part of the documentation submitted with the Bid, the Bidder shall provide evidence of its legal authority to perform the Work in the jurisdiction where the Project is located. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further name the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder.

§ 4.1.8 A Bidder shall incur all costs associated with the preparation of its Bid.

§ 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by the following bid security:

(Insert the form and amount of bid security.)

§ 4.2.2 The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. In the event the Owner fails to comply with Section 6.2, the amount of the bid security shall not be forfeited to the Owner.

§ 4.2.3 If a surety bond is required as bid security, it shall be written on AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until (a) the Contract has been executed and bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected. However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may, beginning days after the opening of Bids, withdraw its Bid and request the return of its bid security.

§ 4.3 Submission of Bids

§ 4.3.1 A Bidder shall submit its Bid as indicated below:

(Indicate how, such as by website, host site/platform, paper copy, or other method Bidders shall submit their Bid.)

§ 4.3.2 Paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.3 Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

§ 4.3.4 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.5 A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted.

§ 4.4 Modification or Withdrawal of Bid

§ 4.4.1 Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.

§ 4.4.2 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

§ 4.4.3 After the date and time designated for receipt of Bids, a Bidder who discovers that it made a clerical error in its Bid shall notify the Architect of such error within two days, or pursuant to a timeframe specified by the law of the jurisdiction where the Project is located, requesting withdrawal of its Bid. Upon providing evidence of such error to the reasonable satisfaction of the Architect, the Bid shall be withdrawn and not resubmitted. If a Bid is withdrawn pursuant to this Section 4.4.3, the bid security will be attended to as follows:

(State the terms and conditions, such as Bid rank, for returning or retaining the bid security.)

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 Opening of Bids

If stipulated in an advertisement or invitation to bid, or when otherwise required by law, Bids properly identified and received within the specified time limits will be publicly opened and read aloud. A summary of the Bids may be made available to Bidders.

§ 5.2 Rejection of Bids

Unless otherwise prohibited by law, the Owner shall have the right to reject any or all Bids.

§ 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. Unless otherwise prohibited by law, the Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

§ 5.3.2 Unless otherwise prohibited by law, the Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 Contractor's Qualification Statement

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request and within the timeframe specified by the Architect, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted for this Bid.

§ 6.2 Owner's Financial Capability

A Bidder to whom award of a Contract is under consideration may request in writing, fourteen days prior to the expiration of the time for withdrawal of Bids, that the Owner furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. The Owner shall then furnish such reasonable evidence to the Bidder no later than seven days prior to the expiration of the time for withdrawal of Bids. Unless such reasonable evidence is furnished within the allotted time, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

§ 6.3 Submittals

§ 6.3.1 After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, withdraw the Bid or submit an acceptable substitute person or entity. The Bidder may also submit any required adjustment in the Base Bid or Alternate Bid to account for the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

§ 7.1 Bond Requirements

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 7.1.4 Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of the Contract Sum.

(If Payment or Performance Bonds are to be in an amount other than 100% of the Contract Sum, indicate the dollar amount or percentage of the Contract Sum.)

§ 7.2 Time of Delivery and Form of Bonds

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to commence sooner in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

ARTICLE 8 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

§ 8.1 Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013.)

- .5 Drawings

Number	Title	Date
.6	Specifications	

Section	Title	Date	Pages
.7	Addenda:		

Number	Date	Pages
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.8 Other Exhibits:
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017.)

The Sustainability Plan:

Title	Date	Pages
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Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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.9 Other documents listed below:
(List here any additional documents that are intended to form part of the Proposed Contract Documents.)

DOCUMENT 002600 - PROCUREMENT SUBSTITUTION PROCEDURES

1.1 DEFINITIONS

- A. Procurement Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted prior to receipt of bids.
- B. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Section 012500 "Substitution Procedures" for conditions under which Substitution requests will be considered following Contract award.

1.2 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.3 PROCUREMENT SUBSTITUTIONS

- A. Procurement Substitutions, General: By submitting a bid, the Bidder represents that its bid is based on materials and equipment described in the Procurement and Contracting Documents, including Addenda. Bidders are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.
- B. Procurement Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
 - 1. Extensive revisions to the Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the Contract Documents, including the level of quality of the Work represented by the requirements therein.
 - 3. The request is fully documented and properly submitted.

1.4 SUBMITTALS

- A. Procurement Substitution Request: Submit to Architect. Procurement Substitution Request must be made in writing by prime contract Bidder only in compliance with the following requirements:
 - 1. Requests for substitution of materials and equipment will be considered if received no later than 10 days prior to date of bid opening.
 - 2. Submittal Format: Submit 3 copies of each written Procurement Substitution Request, using CSI Substitution Request Form 1.5C.

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- B. Architect's Action: Architect may request additional information or documentation necessary for evaluation of the Procurement Substitution Request. Architect will notify all bidders of acceptance of the proposed substitute by means of an Addendum to the Procurement and Contracting Documents.
- C. Architect's approval of a substitute during bidding does not relieve Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents.

END OF DOCUMENT 002600

DOCUMENT 004113 - BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: Reno County Courthouse Reroof.
- C. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- D. Owner: Reno County Courthouse.
- E. Architect: Bradley Doeden, AIA, LEED AP.
- F. Architect Project Number: 19139R22003

1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by GLMV Architecture and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
 - 1. Fifth Floor Roof: Styrene-butadiene-styrene (SBS) modified bituminous roofing with tapered insulation to achieve 1/4-inch per foot slope and 20-year manufacturer's roof warranty.
_____ Dollars (\$_____).
 - 2. Contingency Allowance: Removal and replacement of wood roof substrate.
_____ Ten Thousand Dollars (\$ 10,000).
 - 3. Second Floor Roof: Thermoplastic-polyolefin (TPO) roofing.
_____ Dollars (\$_____).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 60 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:
 - 1. _____ Dollars (\$_____).

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 Unit cost per square foot to remove and replace unsatisfactory wood roof substrate board:

ADD: _____ Dollars (\$ _____).

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

- 1. Addendum, dated _____.
- 2. Addendum, dated _____.
- 3. Addendum, dated _____.
- 4. Addendum, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto: Bid Form Supplements - Alternates.

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Reno County and City of Hutchinson and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this ____ day of _____, _____.
- B. Submitted By: _____ (Name of bidding firm or corporation).
- C. Authorized Signature: _____ (Handwritten signature).
- D. Signed By: _____ (Type or print name).
- E. Title: _____ (Owner/Partner/President/Vice President).
- F. Witnessed By: _____ (Handwritten signature).
- G. Attest: _____ (Handwritten signature).

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- H. By: _____ (Type or print name).
- I. Title: _____ (Corporate Secretary or Assistant Secretary).
- J. Street Address: _____.
- K. City, State, Zip: _____.
- L. Phone: _____.
- M. License No.: _____.
- N. Federal ID No.: _____ (Affix Corporate Seal Here).

END OF DOCUMENT 004113

DOCUMENT 004313 - BID SECURITY FORMS

1.1 BID FORM SUPPLEMENT

- A. A completed bid bond form is required to be attached to the Bid Form.

1.2 BID BOND FORM

- A. AIA Document A310-2010 "Bid Bond" is the recommended form for a bid bond. A bid bond acceptable to Owner, or other bid security as described in the Instructions to Bidders, is required to be attached to the Bid Form as a supplement.
- B. Copies of AIA standard forms may be obtained from The American Institute of Architects; <https://www.aiacontracts.org/>; email: docspurchases@aia.org; (800) 942-7732.

END OF DOCUMENT 004313

DOCUMENT 004323 - ALTERNATES FORM

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: Reno County Courthouse Reroof.
- C. Project Location: 206 W. 1st Avenue, Hutchinson, KS 67501.
- D. Owner: Reno County Courthouse.
- E. Architect: Bradley Doeden, AIA, LEED AP.
- F. Architect Project Number: 19139R22003

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.

1.3 DESCRIPTION

- A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
- B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
- C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
- D. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Time and the Contract Sum.
- E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 60 days of the Notice of Award unless otherwise indicated in the Contract Documents.
- F. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

1.4 SCHEDULE OF ALTERNATES

A. Alternate 1: Styrene-butadiene-styrene (SBS) modified bituminous roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:

1. ADD ___ DEDUCT ___ NO CHANGE ___ NOT APPLICABLE ___.
2. _____ Dollars (\$_____).

B. Alternate 2: Thermoplastic-polyolefin (TPO) roofing with roofing insulation to achieve 1/4-inch per foot roof slope and a 20-year manufacturer's warranty on the fifth floor roof:

1. ADD ___ DEDUCT ___ NO CHANGE ___ NOT APPLICABLE ___.
2. _____ Dollars (\$_____).

C. Alternate 3: TPO roofing over existing wood substrate with no insulation and a 2-year contractor's warranty on the fifth floor roof:

1. ADD ___ DEDUCT ___ NO CHANGE ___ NOT APPLICABLE ___.
2. _____ Dollars (\$_____).

1.5 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this ___ day of _____, 2023.

B. Submitted By: _____ (Insert name of bidding firm or corporation).

C. Authorized Signature: _____ (Handwritten signature).

D. Signed By: _____ (Type or print name).

E. Title: _____ (Owner/Partner/President/Vice President).

END OF DOCUMENT 004323

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of Allowances Include the Following: Contingency allowances.
- C. Related Requirements: Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.

1.2 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.3 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.4 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

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3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance 1: Contingency Allowance: Include the sum of \$10,000 for removal and replacement of wood roof substrate that is damaged or saturated.
 - 1. This allowance includes material cost, receiving, handling, and installation, and Contractor overhead and profit.
 - 2. Coordinate quantity allowance adjustment with corresponding unit-price requirements in Section 012200 "Unit Prices."

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements: Section 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.

1.2 DEFINITIONS

- A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Removal of Unsatisfactory wood roof substrate and replacement with satisfactory wood substrate.

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1. Description: Removal of unsatisfactory wood roof substrate and disposal and replacement with satisfactory wood substrate according to Section 061600 "Sheathing."
2. Unit of Measurement: Square foot of wood roof substrate removed and replaced.
3. Contingency Allowance: Coordinate unit price with allowance adjustment requirements in Section 012100 "Allowances."

END OF SECTION 012200

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements: Document 002600 "Procurement Substitution Procedures" for requirements for substitution requests prior to award of Contract.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use form acceptable to Architect.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section.

Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 3 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 7 days of receipt of request, or 3 days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.7 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 7 days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than 1 contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 30 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.

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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.
 - 2. Section 013100 "Project Management and Coordination" for requirements for forms for contract modifications provided as part of web-based Project management software.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 7 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.

- d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use forms acceptable to Architect.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
- 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use form acceptable to Architect.

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

- B. RELATED REQUIREMENTS

- 1. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

- 1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date, but no later than 7 days before the date scheduled for submittal of initial Applications for Payment.

- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least 1 line item for each Specification Section.

- 1. Identification: Include the following Project identification on the schedule of values:

- a. Project name and location.
 - b. Owner's name.
 - c. Name of Architect.
 - d. Architect's Project number.

- e. Contractor's name and address.
 - f. Date of submittal.
2. Arrange schedule of values consistent with format of AIA Document G703.
3. Arrange the schedule of values in tabular form, with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Round dollar amounts to whole dollars, with total equal to Contract Sum.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of 5 percent of the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site.
6. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
7. Purchase Contracts: Provide a separate line item in the schedule of values for each Purchase contract. Show line-item value of Purchase contract. Indicate Owner payments or deposits, if any, and balance to be paid by Contractor.
8. Overhead Costs, Proportional Distribution: Include total cost and proportionate share of general overhead and profit for each line item.
9. Overhead Costs, Separate Line Items: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
10. Temporary Facilities: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
11. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling 5 percent of the Contract Sum and subcontract amount.
12. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least 1 separate line item for each Change Order and Construction Change Directive.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments, as certified by Architect and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Owner/Contractor Agreement. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Submit Application for Payment to Architect by the 25th of the month. The period covered by each Application for Payment is 1 month, ending on the last day of the month.
- D. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 4. Indicate separate amounts for work being carried out under Owner-requested Project acceleration.
- F. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
 - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
 - 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.

- G. Transmittal: Submit 1 signed and notarized original copy of each Application for Payment to Architect by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. Schedule of values.
 2. Contractor's construction schedule (preliminary if not final).
 3. Products list (preliminary if not final).
 4. Submittal schedule (preliminary if not final).
 5. Copies of building permits.
 6. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 7. Certificates of insurance and insurance policies.
 8. Performance and payment bonds.
- I. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - a. Complete administrative actions, submittals, and Work preceding this application, as described in Section 017700 "Closeout Procedures."
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706.
 5. AIA Document G707.
 6. Evidence that claims have been settled.
 7. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs.
 - 4. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

1.3 DEFINITIONS

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results, where installation of 1 part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.

- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.5 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on shop drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than 1 entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Coordinate the addition of trade-specific information to coordination drawings in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
 - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.

1.6 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
 2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Owner name.
 3. Owner's Project number.
 4. Name of Architect.
 5. Architect's Project number.
 6. Date.
 7. Name of Contractor.
 8. RFI number, numbered sequentially.
 9. RFI subject.
 10. Specification Section number and title and related paragraphs, as appropriate.
 11. Drawing number and detail references, as appropriate.
 12. Field dimensions and conditions, as appropriate.
 13. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 14. Contractor's signature.
 15. Attachments: Include sketches, descriptions, measurements, photos, product data, shop drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716.
1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow 3 days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Software log with not less than the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number, including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within 3 days if Contractor disagrees with response.

1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of 5 days prior to meeting.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within 3 days of the meeting.
- B. Preconstruction Conference: General Contractor will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned

parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Phasing.
 - d. Critical work sequencing and long lead items.
 - e. Designation of key personnel and their duties.
 - f. Lines of communications.
 - g. Use of web-based Project software.
 - h. Procedures for processing field decisions and Change Orders.
 - i. Procedures for RFIs.
 - j. Procedures for testing and inspecting.
 - k. Procedures for processing Applications for Payment.
 - l. Distribution of the Contract Documents.
 - m. Submittal procedures.
 - n. Preparation of Record Documents.
 - o. Use of the premises and existing building.
 - p. Work restrictions.
 - q. Working hours.
 - r. Owner's occupancy requirements.
 - s. Responsibility for temporary facilities and controls.
 - t. Procedures for moisture and mold control.
 - u. Procedures for disruptions and shutdowns.
 - v. Construction waste management and recycling.
 - w. Parking availability.
 - x. Office, work, and storage areas.
 - y. Equipment deliveries and priorities.
 - z. First aid.
 - aa. Security.
 - bb. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Progress Meetings: Conduct progress meetings at regular intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule,

in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1) Review schedule for next period.
- b. Review present and future needs of each entity present, including the following:
 - 1) Sequence of operations.
 - 2) Status of submittals.
 - 3) Deliveries.
 - 4) Access.
 - 5) Site use.
 - 6) Temporary facilities and controls.
 - 7) Progress cleaning.
 - 8) Quality and work standards.
 - 9) Status of correction of deficient items.
 - 10) Field observations.
 - 11) Status of RFIs.
 - 12) Status of Proposal Requests.
 - 13) Pending changes.
 - 14) Status of Change Orders.
 - 15) Pending claims and disputes.
 - 16) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

B. Related Requirements:

1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal Category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.

- f. Scheduled date for Architect's final release or approval.
- g. Scheduled dates for purchasing.
- h. Scheduled date of fabrication.
- i. Scheduled dates for installation.
- j. Activity or event number.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

- 1. Project name.
- 2. Date.
- 3. Name of Architect.
- 4. Name of Construction Manager.
- 5. Name of Contractor.
- 6. Name of firm or entity that prepared submittal.
- 7. Names of subcontractor, manufacturer, and supplier.
- 8. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier and alphanumeric suffix for resubmittals.
- 9. Category and type of submittal.
- 10. Submittal purpose and description.
- 11. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
- 12. Drawing number and detail references, as appropriate.
- 13. Indication of full or partial submittal.
- 14. Location(s) where product is to be installed, as appropriate.
- 15. Other necessary identification.
- 16. Remarks.
- 17. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

E. Submittals Utilizing Web-Based Project Software: Prepare submittals as PDF files or other format indicated by Project management software.

1.5 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
 - a. Architect will return annotated file. Annotate and retain 1 copy of file as a digital Project Record Document file.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 3 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 3 days for review of each resubmittal.
 - a. 061600 Plywood Sheathing.
 - b. 075423 Thermoplastic-Polyolefin (TPO) Roofing.
 - c. 075216 Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing.
 - d. 076200 Sheet Metal Flashing and Trim.
 - e. 077200 Roofing Accessories.
 - f. 079200 Joint Sealants
 - g. 221423 Storm Drainage Piping Specialties.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block, and clearly indicate extent of revision.

3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.6 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as shop drawings, not as product data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
- B. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- D. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

E. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.

F. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.

- f. Test procedures and results.
- g. Limitations of use.

1.7 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with indication in web-based Project management software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 - 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.8 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return.
 - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
 - 3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.
 - 1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification. Manufacturer's published attributes and characteristics of basis-of-design

product also establish salient characteristics of products for purposes of evaluating comparable products.

- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the Specifications, select another named product or product from another named manufacturer that does meet the requirements of the Specifications; submit a comparable product request or substitution request, if applicable.
- D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
 - 1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
 - 2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.
- E. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 013300 "Submittal Procedures."
- F. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between 2 or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 COORDINATION

- A. Modify or adjust affected work as necessary to integrate work of approved comparable products and approved substitutions.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
 - 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 - 6. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

- a. Submit additional documentation required by Architect in order to establish equivalency of proposed products. Unless otherwise indicated, evaluation of "or equal" product status is by the Architect, whose determination is final.

B. Product Selection Procedures:

1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole product may be indicated by the phrase "Subject to compliance with requirements, provide the following."
2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole manufacturer/source may be indicated by the phrase "Subject to compliance with requirements, provide products by the following."
3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide 1 of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered unless otherwise indicated.
 - a. Limited list of products may be indicated by the phrase "Subject to compliance with requirements, provide 1 of the following."
4. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide 1 of the products listed or an unnamed product that complies with requirements.
 - a. Non-limited list of products is indicated by the phrase "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of an unnamed product is not considered a substitution, if the product complies with requirements.
5. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by 1 of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered unless otherwise indicated.
 - a. Limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, provide products by one of the following."
6. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by 1 of the manufacturers listed or a product by an unnamed manufacturer that complies with requirements.

- a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."
 - b. Provision of products of an unnamed manufacturer is not considered a substitution, if the product complies with requirements.
7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by 1 of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by 1 of the other named manufacturers.
- a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with the following requirements:
1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

- B. Architect's Action on Comparable Products Submittal: If necessary, Architect will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."
 - 1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
 - 2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- C. Submittal Requirements, Two-Step Process: Approval by the Architect of Contractor's request for use of comparable product is not intended to satisfy other submittal requirements. Comply with specified submittal requirements.
- D. Submittal Requirements, Single-Step Process: When acceptable to Architect, incorporate specified submittal requirements of individual Specification Section in combined submittal for comparable products. Approval by the Architect of Contractor's request for use of comparable product and of individual submittal requirements will also satisfy other submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final Completion procedures.
 - 3. List of incomplete items.
 - 4. Submittal of Project warranties.
 - 5. Final cleaning.

1.2 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 7 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.

3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number.
 5. Submit testing, adjusting, and balancing records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 7 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 6. Advise Owner of changeover in utility services.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements.
 10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 7 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1.5 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list will state that each item has been completed or otherwise resolved for acceptance.

3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1.6 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 2. Submit list of incomplete items in the following format:
 - a. PDF Electronic File: Architect will return annotated file.

1.7 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
1. Submit by email to Architect.

- D. Warranties in Paper Form: Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 by 11-inch paper.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
 - b. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - c. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - d. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - e. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- C. Construction Waste Disposal: Comply with waste-disposal requirements in Section 017419 "Construction Waste Management and Disposal."

END OF SECTION 017700

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Wood-preservative-treated lumber.

1.2 DEFINITIONS

- A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.
- B. Dimension Lumber: Lumber of 2 inches nominal size or greater but less than 5 inches nominal size in least dimension.
- C. Exposed Framing: Framing not concealed by other construction.
- D. Lumber grading agencies, and abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. SPIB: The Southern Pine Inspection Bureau.
 - 4. WCLIB: West Coast Lumber Inspection Bureau.
 - 5. WWPA: Western Wood Products Association.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
 - 3. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency in accordance with ASTM D5664.
 - 4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

1.5 DELIVERY, STORAGE, AND HANDLING

- ##### A.
- Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWWPA U1, Use categories as follows:

1. UC3B (Commodity Specification A): Uncoated sawn products in exterior construction not in contact with ground, exposed to all weather cycles including intermittent wetting but with sufficient air circulation for wood to dry. Excludes sawn products not in contact with ground but with ground contact-type hazards. Include the following items:
 - a. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat all rough carpentry unless otherwise indicated.

2.2 FASTENERS

- ##### A. General:
- Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329.
- B. Nails, Brads, and Staples: ASTM F1667.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 1. Table 2304.10.1, "Fastening Schedule," in ICC's International Building Code (IBC).
- D. Securely attach roofing nailers to substrates by anchoring and fastening to withstand bending, shear, or other stresses imparted by Project wind loads and fastener-resistance loads as designed in accordance with ASCE/SEI 7.

3.2 INSTALLATION OF WOOD BLOCKING AND NAILERS

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach wood blocking to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

3.3 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

SECTION 061600 - SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Roof sheathing.
- B. Related Requirements: Section 061000 "Rough Carpentry" for plywood backing panels.

1.2 ACTION SUBMITTALS

- A. Product Data: Roof sheathing.
- B. Product Data Submittals: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials.
 - 3. For fire-retardant treatments, include physical properties of treated plywood both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency in accordance with ASTM D5516.
 - 4. For products receiving waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 - 5. For air-barrier and water-resistant glass-mat gypsum sheathing, include manufacturer's technical data and tested physical and performance properties of products.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: As tested in accordance with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

2.2 WOOD PANEL PRODUCTS

- A. Emissions: Products are to meet the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- B. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- C. Factory mark panels to indicate compliance with applicable standard.

2.3 PRESERVATIVE-TREATED PLYWOOD

- A. Preservative Treatment by Pressure Process: AWWA U1; use Category UC2 and use Category UC3b for exterior construction not in contact with ground.
 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.
- C. Application: Treat all plywood unless otherwise indicated.

2.4 ROOF SHEATHING

- A. Plywood Sheathing, Roofs: Exposure 1 sheathing.
 1. Span Rating: Not less than 48/24.
 2. Nominal Thickness: Not less than 3/4-inch.

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 1. For roof sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M.
- B. Nails, Brads, and Staples: ASTM F1667.
- C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

- D. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than 3 support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - 1. Table 2304.10.1, "Fastening Schedule," in the ICC's International Building Code.
 - 2. ICC-ES evaluation report for fastener.
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

END OF SECTION 061600

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. The Work of This Section Includes:

1. Full roof tear-off.
2. Base flashing removal.
3. Fastener pull-out testing.
4. Disposal.

1.2 DEFINITIONS

- A. EPS: Molded (expanded) polystyrene.
- B. Full Roof Tear-off: Removal of existing roofing system down to existing roof deck.
- C. OSB: Oriented strand board.
- D. Partial Roof Tear-off: Removal of selected components and accessories from existing roofing system.
- E. Roofing Terminology: Definitions in ASTM D1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.
- F. Roof Re-Cover Preparation: Existing roofing system is to remain and be prepared for new roof installed over it.

1.3 INFORMATIONAL SUBMITTALS

- A. Field Test Reports: Fastener pull-out test report.
- B. Photographs or Video: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.
1. Submit before Work begins.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with governing EPA notification regulations before beginning roofing removal.
2. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.5 FIELD CONDITIONS

- A. Existing Roofing System: EPDM and APP-modified bituminous protected membrane roofing.
- B. Owner will occupy portions of building immediately below reroofing area.
 - 1. Conduct reroofing so Owner's operations are not disrupted.
 - 2. Provide Owner with not less than 72 hours' written notice of activities that may affect Owner's operations.
 - 3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
 - 4. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area.
 - a. Verify that occupants below work area have been evacuated before proceeding with Work over impaired deck area.
- C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
 - 1. The results of an analysis of test cores from existing roofing system are available for Contractor's reference.
 - 2. Construction Drawings for existing roofing system are provided for Contractor's convenience and information, but they are not a warranty of existing conditions. They are intended to supplement rather than serve in lieu of Contractor's own investigations. Contractor is responsible for conclusions derived from existing documents.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
 - 1. Remove only as much roofing in 1 day as can be made watertight in the same day.
- G. Hazardous Materials:
 - 1. It is not expected that hazardous materials, such as asbestos-containing materials, will be encountered in the Work.
 - a. Hazardous materials will be removed by Owner before start of the Work.
 - b. Existing roof will be left no less watertight than before removal.

2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.
 - a. Hazardous materials will be removed by Owner under a separate contract.

PART 2 - PRODUCTS

2.1 TEMPORARY PROTECTION MATERIALS

- A. EPS Insulation: ASTM C578.
- B. Plywood: DOC PS 1, Grade CD, Exposure 1.
- C. OSB: DOC PS 2, Exposure 1.

2.2 TEMPORARY ROOFING MATERIALS

- A. Design and selection of materials for temporary roofing are Contractor's responsibilities.
- B. Sheathing Paper: Red-rosin type, minimum 3 lb/100 sq. ft.
- C. Base Sheet: ASTM D4601/D4601M, Type II, nonperforated, asphalt-impregnated and -coated, glass-fiber sheet.
- D. Glass-Fiber Felts: ASTM D2178/D2178M, Type IV, asphalt-impregnated, glass-fiber felt.
- E. Asphalt Primer: ASTM D41/D41M.
- F. Roofing Asphalt: ASTM D312/D312M, Type III or IV.
- G. Base Sheet Fasteners: Capped head, factory-coated steel fasteners, listed in FM Approvals' RoofNav.

2.3 INFILL AND REPLACEMENT MATERIALS

- A. Use infill materials matching existing roofing system materials unless otherwise indicated.
- B. Wood blocking, curbs, and nailers are specified in Section 061000 "Rough Carpentry."
- C. Plywood roof sheathing is specified in Section 061600 "Sheathing."
- D. Fasteners: Factory-coated steel fasteners with metal or plastic plates listed in FM Approvals' RoofNav, and acceptable to new roofing system manufacturer.

2.4 AUXILIARY REROOFING MATERIALS

- A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protection of In-Place Conditions: Protect existing roofing system that is not to be reroofed.
- B. Shut off rooftop utilities and service piping before beginning the Work.
- C. Test existing roof drains to verify that they are not blocked or restricted.
 - 1. Immediately notify Architect of any blockages or restrictions.
- D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.
 - 1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- F. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.
 - 1. Prevent debris from entering or blocking roof drains and conductors.
 - a. Use roof-drain plugs specifically designed for this purpose.
 - b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
 - 2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.
 - a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

- A. Notify Owner each day of extent of roof tear-off proposed for that day.
- B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

- C. Partial Roof Tear-off: Where indicated on Drawings, remove existing roofing and other roofing system components down to the existing wood substrate board.
 - 1. Remove base flashings and counterflashings.
 - 2. Remove perimeter edge flashing and gravel stops.
 - 3. Remove copings.
 - 4. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
 - 5. Remove roof drains indicated on Drawings to be removed.
 - 6. Remove wood blocking, curbs, and nailers.
 - 7. Bitumen and felts that are firmly bonded to concrete decks are permitted to remain if felts are dry.
 - a. Remove unadhered bitumen, unadhered felts, and wet felts.
 - 8. Remove fasteners from deck or cut fasteners off slightly above deck surface.
 - 9. Remove wet or damp materials below existing roofing and above deck as directed by Architect.
 - a. Removal is paid for by adjusting the Contract Sum according to unit prices included in the Construction Documents.

3.3 DECK PREPARATION

- A. Inspect deck after tear-off of roofing system.
- B. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.
 - 1. Do not proceed with installation until directed by Architect.
- C. Replace plywood roof sheathing as indicated on Drawings.

3.4 INFILL MATERIALS INSTALLATION

- A. Immediately after roof tear-off, and inspection and repair, if needed, of deck, fill in tear-off areas to match existing roofing system construction.
 - 1. Installation of wood blocking, curbs, and nailers is specified in Section 061000 "Rough Carpentry."
- B. Install new roofing patch over roof infill area.
 - 1. If new roofing is installed the same day tear-off is made, roofing patch is not required.

3.5 TEMPORARY ROOFING

- A. Install approved temporary roofing over area to be reroofed.

- B. Remove temporary roofing before installing new roofing.

3.6 BASE FLASHING REMOVAL

- A. Remove existing base flashings.
 - 1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain.
 - 1. Replace metal counterflashings damaged during removal with counterflashings specified in Section 076200 "Sheet Metal Flashing and Trim."
- C. Inspect parapet sheathing, wood blocking, curbs, and nailers for deterioration and damage.
- D. Replace parapet framing, wood blocking, curbs, and nailers to comply with Section 061000 "Rough Carpentry."

3.7 DISPOSAL

- A. Collect demolished materials and place in containers.
 - 1. Promptly dispose of demolished materials.
 - 2. Do not allow demolished materials to accumulate on-site.
 - 3. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS
MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Styrene-butadiene-styrene (SBS)-modified bituminous membrane roof system.
2. Base sheet materials.
3. Interply sheets.
4. Styrene-butadiene-styrene (SBS)-modified bituminous cap sheet.
5. Base flashing sheet materials.
6. Asphalt materials.
7. Accessory roofing materials.
8. Roof insulation.
9. Insulation accessories and cover board.
10. Electronic leak detection (ELD) materials.
11. Walkways.

B. Section includes the installation of sound-absorbing insulation strips in ribs of roof deck. Sound-absorbing insulation strips are furnished under Section 053100 "Steel Decking."

C. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking, and for wood-based, structural-use roof deck panels.
2. Section 061600 "Sheathing" for wood-based, structural-use roof deck panels.
3. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
4. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
5. Section 221423 "Storm Drainage Piping Specialties" for roof drains.

1.2 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Styrene-butadiene-styrene (SBS)-modified bituminous membrane roof system.
2. Base sheet materials.
3. Interply sheets.

4. Styrene-butadiene-styrene (SBS)-modified bituminous cap sheet.
5. Base flashing sheet materials.
6. Asphalt materials.
7. Accessory roofing materials.
8. Roof insulation.
9. Insulation accessories and cover board.
10. Electronic leak detection (ELD) materials.
11. Walkways.

B. Product Data Submittals: For insulation and roof system component fasteners, include copy of FM Approvals' RoofNav listing.

C. Shop Drawings: Include plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation, including slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
6. Crickets, saddles, and tapered edge strips, including slopes.
7. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
8. Tie-in with adjoining air barrier.

D. Wind Uplift Resistance Submittal: For roofing system indicating compliance with wind uplift performance requirements.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For installer and manufacturer.

B. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - a. Submit evidence of complying with performance requirements.
2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

C. Product Test Reports: For roof membrane and insulation, tests performed by a qualified testing agency, indicating compliance with specified requirements.

D. Field Test Reports:

1. Concrete internal relative humidity test reports.

2. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.

E. Field quality-control reports.

F. Sample Warranties: For manufacturer's special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed and listed in FM Approvals' RoofNav for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.

1. Protect stored liquid material from direct sunlight.
2. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources.

1. Store in a dry location.
2. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.8 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed in accordance with manufacturer's written instructions and warranty requirements.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty includes roof membrane, base flashings, roof insulation, fasteners, cover boards, vapor retarder, substrate board, and other components of roofing system.
 - 2. Warranty Period: 20 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing installer's warranty, on warranty form at end of this Section, signed by installer, covering the Work of this Section, including all components of roofing system such as roof membrane, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, and walkway products, for the following warranty period:
 - 1. Warranty Period: 2 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing system and flashings to withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roof system and flashings to remain watertight.
 - 1. Accelerated Weathering: Roof membrane to withstand 2,000 hours of exposure when tested in accordance with ASTM G152, ASTM G154, or ASTM G155.
 - 2. Impact Resistance: Roof membrane to resist impact damage when tested in accordance with ASTM D3746/D3746M, ASTM D4272/D4272M, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- B. Material Compatibility: Roofing materials to be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.
- C. FM Approvals' RoofNav Listing: Roof membrane, base flashings, and component materials comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system, and are listed in FM Approvals' RoofNav for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals Certification markings.

1. Fire/Windstorm Classification: Class 1A-90.
2. Hail-Resistance Rating: FM 1-34 SH.

2.2 STYRENE-BUTADIENE-STYRENE (SBS)-MODIFIED BITUMINOUS MEMBRANE ROOFING

A. Styrene-Butadiene-Styrene (SBS)-Modified Bituminous Membrane Roof System: See the following articles for individual roof materials required.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Bitec, Inc.
 - b. CertainTeed Corporation.
 - c. Consolidated Fiber Glass Products Co.
 - d. Danoza Caribbean Inc.
 - e. Ecology Commercial and Industrial Roofing System.
 - f. Firestone Building Products.
 - g. GAF Materials Corporation.
 - h. Garland Company, Inc. (The).
 - i. Henry Company; a Carlisle company.
 - j. IKO.
 - k. Johns Manville; a Berkshire Hathaway company.
 - l. Koppers Inc.
 - m. Malarkey Roofing Company.
 - n. MBTechnology.
 - o. Polyglass U.S.A., Inc.
 - p. Siplast, Inc.
 - q. Soprema, Inc.
 - r. Tamko Building Products, Inc.
 - s. Tremco Incorporated.

2.3 SOURCE LIMITATIONS

A. Obtain components for roof system from roof membrane manufacturer or manufacturer approved by roof membrane manufacturer.

2.4 BASE SHEET MATERIALS

A. SBS-Modified Bitumen Type II, Glass-Fiber-Mat Base Sheet: ASTM D4601, SBS-modified asphalt sheet, reinforced with glass fibers, smooth surfaced, suitable for cold adhesive or hot asphalt application method.

1. Basis-of-Design: GAFGLAS #75 Base Sheet, or approved equal.

B. Two Plies of Roofing Felt Type VI, Glass-Fiber-Mat Base Sheet: ASTM D1278, roofing felt sheet, reinforced with glass fibers, suitable for cold adhesive or hot asphalt application method.

1. Basis-of-Design: GAFGLAS 6 PLY sheet, or approved equal.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Bitec, Inc.
 - b. CertainTeed Corporation.
 - c. Consolidated Fiber Glass Products Co.
 - d. Danoza Caribbean Inc.
 - e. Ecology Commercial and Industrial Roofing System.
 - f. Firestone Building Products.
 - g. GAF Materials Corporation.
 - h. Henry Company; a Carlisle company.
 - i. IKO.
 - j. Johns Manville; a Berkshire Hathaway company.
 - k. Koppers Inc.
 - l. Malarkey Roofing Company.
 - m. MBTechnology.
 - n. Polyglass U.S.A., Inc.
 - o. Siplast, Inc.
 - p. Soprema, Inc.
 - q. Tamko Building Products, Inc.
 - r. Tremco Incorporated.

2.5 STYRENE-BUTADIENE-STYRENE (SBS)-MODIFIED BITUMINOUS CAP SHEET

- A. SBS-Modified Bitumen, Polyester Mat, Granule-Surfaced Cap Sheet: ASTM D6164, Type II, Grade G, SBS-modified asphalt sheet, reinforced with polyester fabric, suitable for cold adhesive or hot asphalt application method.

1. Basis-of-Design: RUBEROID Mop Plus Granule FR, or approved equal.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Bitec, Inc.
 - b. CertainTeed Corporation.
 - c. Consolidated Fiber Glass Products Co.
 - d. Danoza Caribbean Inc.
 - e. Ecology Commercial and Industrial Roofing System.
 - f. Firestone Building Products.
 - g. GAF Materials Corporation.
 - h. Henry Company; a Carlisle company.
 - i. IKO.
 - j. Johns Manville; a Berkshire Hathaway company.
 - k. Koppers Inc.
 - l. Malarkey Roofing Company.
 - m. MBTechnology.
 - n. Polyglass U.S.A., Inc.

- o. Siplast, Inc.
- p. Soprema, Inc.
- q. Tamko Building Products, Inc.
- r. Tremco Incorporated.

- 3. Granule Color: White.

2.6 BASE FLASHING SHEET MATERIALS

- A. Asphalt-Coated, Glass-Fiber-Mat Backer Sheet: ASTM D4601/D4601M, Type I, asphalt-impregnated and -coated, glass-fiber sheet, dusted with fine mineral surfacing on both sides.
- B. Asphalt-Coated, Organic-Felt Backer Sheet: ASTM D2626/D2626M, asphalt-saturated and -coated organic felt, dusted with fine mineral surfacing on both sides.
- C. SBS-Modified Bitumen Backer Sheet: ASTM D4601, SBS-modified asphalt sheet, reinforced with glass fibers, smooth surfaced, suitable for application method specified.
- D. SBS-Modified Bitumen, Granule-Surfaced Flashing Sheet: ASTM D6164/D6164M, Type I or II, Grade G, reinforced with polyester fabric, granule surfaced, suitable for application method specified, and as follows:
 - 1. Granule Color: White.
- E. Glass-Fiber Fabric: Woven glass-fiber cloth, treated with asphalt, complying with ASTM D1668/D1668M, Type I.
- F. Liquid Flashing System: Roof membrane manufacturer's standard 1- or 2-part moisture curing resin with low solvent content, consisting of a primer, flashing cement, and scrim.

2.7 ASPHALT MATERIALS

- A. Asphalt Primer: As required by roof membrane manufacturer for roofing system and warranty to be provided.
- B. Roofing Asphalt: As required by roof membrane manufacturer for roofing system and warranty to be provided.

2.8 ACCESSORY ROOFING MATERIALS

- A. General: Accessory materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
 - 1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.
- B. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

- C. Sheathing Paper: Red-rosin type, minimum 3 lb/100 sq. ft.
- D. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8-inch thick; with anchors.
- E. Asphalt Roofing Cement: ASTM D4586/D4586M, asbestos free, of consistency required by roofing system manufacturer for application.
- F. Mastic Sealant: Polyisobutylene, plain or modified bitumen; nonhardening, nonmigrating, nonskinning, and nondrying.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.
- H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with 100 percent passing No. 8 sieve and 98 percent of mass retained on No. 40 sieve; color to match roof membrane.
- I. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

2.9 ROOF INSULATION

- A. Tapered Insulation: Provide factory-tapered insulation boards.
 - 1. Material: Molded (expanded) polystyrene board insulation.
 - 2. Minimum Thickness: 1/4-inch.
 - 3. Slope:
 - a. Saddles and Crickets: 1/2-inch per foot (1:24) unless otherwise indicated on Drawings.

2.10 INSULATION ACCESSORIES AND COVER BOARD

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with other roofing system components.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Modified asphaltic, asbestos-free, cold-applied adhesive.
 - 2. Bead-applied, low-rise, 1-component or multicomponent urethane adhesive.
 - 3. Full-spread spray-applied, low-rise, 2-component urethane adhesive.

- D. Insulation Cant Strips: ASTM C208, Type II, Grade 1, cellulosic-fiber insulation board. 45-degree face slope and minimum 5-inch face dimension; provide at all angle changes between vertical and horizontal planes that exceed 45 degrees.
 - 1. Type: Wood fiber, complying with ASTM C208.
 - 2. Install using low-rise foam adhesive, hot asphalt (Type III or IV), roofing mastic, or mechanically fasten using fasteners and plates approved by roofing manufacturer.
- E. Wood Nailer Strips: Comply with requirements in Section 061000 "Rough Carpentry."
- F. Tapered Edge Strips: ASTM C208, Type II, Grade 1, cellulosic-fiber insulation board. 45-degree face slope and minimum 5-inch face dimension; provide at all angle changes between vertical and horizontal planes that exceed 45 degrees.
 - 1. Type: Wood fiber, complying with ASTM C208.
 - 2. Install using low-rise foam adhesive, hot asphalt (Type III or IV), roofing mastic, or mechanically fasten using fasteners and plates approved by roofing manufacturer.
- G. Polyisocyanurate Insulation Cover Board: ASTM C1289, Type II, Class 4, Grade 1, 1/2-inch thick, having a minimum compressive strength of 80 psi.

2.11 WALKWAYS

- A. Walkway Cap-Sheet Strips: ASTM D6164, Type II, Grade G, SBS-modified asphalt sheet, reinforced with polyester fabric, suitable for application method specified, and as follows:
 - 1. Size: 36 by 60 inches.
 - 2. Granule Color: Contrasting with cap sheet.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.
 - 1. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.
 - 1. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Perform fastener-pullout tests in accordance with roof system manufacturer's recommendations.
 - 1. Submit test result within 24 hours of performing tests.
 - a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 INSTALLATION OF ROOFING, GENERAL

- A. Install roofing system in accordance with roofing system manufacturer's written instructions, FM Approvals' RoofNav listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings, and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast.
 - 1. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Asphalt Heating:
 - 1. Heat asphalt to its equiviscous temperature, measured at the mop cart or mechanical spreader immediately before application.
 - a. For cap sheets, heat asphalt in accordance with cap sheet manufacturer's recommendations.
 - 2. Circulate asphalt during heating.
 - 3. Do not raise asphalt temperature above equiviscous temperature range more than 1 hour before time of application.
 - a. For cap sheets, comply with cap sheet manufacturer's recommendations.
 - 4. Do not exceed asphalt manufacturer's recommended temperature limits during asphalt heating.
 - 5. Do not heat asphalt within 25 degrees F of flash point.

6. Discard asphalt maintained at a temperature exceeding finished blowing temperature for more than 4 hours.
7. Apply hot roofing asphalt within plus or minus 25 degrees F of equiviscous temperature.
 - a. For cap sheets, comply with cap sheet manufacturer's recommendations.

- D. SEBS-Modified Asphalt Heating: Heat and apply roofing asphalt in accordance with roofing system manufacturer's written instructions.
- E. Substrate-Joint Penetrations: Prevent roofing asphalt and adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 INSTALLATION OF INSULATION

- A. Coordinate installing roofing system components, so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Nailers Strips: Mechanically fasten 4-inch nominal-width, wood nailer strips of same thickness as insulation perpendicular to sloped roof deck at the following spacing:
 1. 16 feet apart for roof slopes greater than 1 inch per 12 inches (1:12) but less than 3 inches per 12 inches (3:12).
- D. Insulation Cant Strips: Install and secure preformed 45-degree insulation cant strips at junctures of roofing system with vertical surfaces or angle changes greater than 45 degrees.
- E. Installation Over Concrete Decks:
 1. Install base layer of insulation with joints staggered not less than 24 inches in adjacent rows.
 - a. Make joints between adjacent insulation boards not more than 1/4-inch in width.
 - b. At internal roof drains, slope insulation to create a square drain sump, with each side equal to the diameter of the drain bowl plus 24 inches.
 - 1) Trim insulation, so that water flow is unrestricted.
 - c. Fill gaps exceeding 1/4-inch with insulation.
 - d. Cut and fit insulation within 1/4-inch of nailers, projections, and penetrations.

- e. Adhere base layer of insulation to concrete roof deck in accordance with FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - 1) Prime surface of concrete deck with asphalt primer at rate of 3/4-gal./100 sq. ft., and allow primer to dry.
 - 2) Set insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 degrees F of equiviscous temperature.
 - 3) Set insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - 4) Set insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
2. Install upper layers of insulation and tapered insulation, with joints of each layer offset not less than 12 inches from previous layer of insulation.
 - a. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
 - b. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c. Make joints between adjacent insulation boards not more than 1/4-inch in width.
 - d. At internal roof drains, slope insulation to create a square drain sump, with each side equal to the diameter of the drain bowl plus 24 inches.
 - 1) Trim insulation, so that water flow is unrestricted.
 - e. Fill gaps exceeding 1/4-inch with insulation.
 - f. Cut and fit insulation within 1/4-inch of nailers, projections, and penetrations.
 - g. Adhere each layer of insulation to substrate using adhesive in accordance with FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - 1) Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 degrees F of equiviscous temperature.
 - 2) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - 3) Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.5 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines, with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.
 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.

2. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board, so that water flow is unrestricted.
 3. Cut and fit cover board tight to nailers, projections, and penetrations.
 4. Adhere cover board to substrate using adhesive in accordance with FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - a. Set cover board in a solid mopping of hot roofing asphalt, applied within plus or minus 25 degrees F of equiviscous temperature.
 - b. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - c. Set cover board in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install sheathing paper over cover board and immediately beneath roof membrane.

3.6 INSTALLATION OF ROOFING MEMBRANE, GENERAL

- A. Install roofing system in accordance with roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing."
- B. Coordinate installation of roofing system so insulation and other components of the roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.
 1. Provide tie-offs at end of each day's work to cover exposed roofing sheets and insulation with a course of coated felt set in roofing cement or hot roofing asphalt, with joints and edges sealed.
 2. Complete terminations and base flashings, and provide temporary seals to prevent water from entering completed sections of roofing system.
 3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.7 INSTALLATION OF BASE SHEET

- A. Before installing, unroll base sheet, cut into workable lengths, and allow to lie flat for a time period recommended by manufacturer for the ambient temperature.
- B. Loosely lay 1 course of sheathing paper, lapping edges and ends a minimum of 2 inches and 6 inches, respectively.
- C. Installation of Base Sheet:
 1. Install SBS-modified bitumen polyester-mat base sheet in accordance with roofing manufacturer's written instructions, starting at low point of roofing system.
 2. Extend roofing sheets over and terminate above cants.

3. Install base sheet in a shingle fashion.
4. Adhere to substrate in a uniform coating of cold-applied adhesive.
5. Torch-apply to substrate.
 - a. Perform torch application in accordance with NFPA 241, including 2-hour fire watch after torches have been extinguished.
6. Install base sheet without wrinkles, rears, and free from air pockets.
7. Laps: Accurately align roofing sheets, without stretching, and maintain uniform side and end laps.
 - a. Lap side laps as recommended by roof membrane manufacturer but not less than 3 inches.
 - b. Lap end laps as recommended by roof membrane manufacturer but not less than 12 inches.
 - c. Stagger end laps not less than 18 inches.
 - d. Heat-weld end laps, leaving no voids.
 - e. Roll laps with a 20-pound roller.
8. Repair tears and voids in laps and lapped seams not completely sealed.
9. Apply pressure to the body of the base sheet in accordance with manufacturer's instructions, to remove air pockets and to result in complete adhesion of base sheet to substrate.

3.8 INSTALLATION OF SBS-MODIFIED BITUMINOUS CAP SHEET

- A. Before installing, unroll cap sheet, cut into workable lengths, and allow to lie flat for a time period recommended by manufacturer for the ambient temperature at which cap sheet will be installed.
- B. Install modified bituminous roofing cap sheet in accordance with roofing manufacturer's written instructions, starting at low point of roofing system.
 1. Extend cap sheet over and terminate above cants.
 2. Install cap sheet in a shingle fashion.
 3. Install cap sheet as follows:
 - a. Adhere to substrate in a solid mopping of hot roofing asphalt applied at asphalt temperature recommended by cap sheet manufacturer.
 - b. Adhere to substrate in cold-applied adhesive.
 - c. Torch-apply to substrate.
 - 1) Perform torch application in accordance with NFPA 241, including 2-hour fire watch after torches have been extinguished.
 4. Install cap sheet without wrinkles or tears, and free from air pockets.
 5. Install cap sheet so side and end laps shed water.

- C. Laps: Accurately align roofing sheets, without stretching, and maintain uniform side and end laps.
 - 1. Lap side laps as recommended by roof membrane manufacturer but not less than 3 inches.
 - 2. Lap end laps as recommended by roof membrane manufacturer but not less than 12 inches.
 - 3. Stagger end laps not less than 18 inches.
 - 4. Heat-weld laps, leaving no voids.
 - 5. Roll laps with a 20-pound roller.
 - 6. Repair tears and voids in laps and lapped seams not completely sealed.
- D. Apply pressure to the body of the cap sheet in accordance with manufacturer's instructions, to remove air pockets and to result in complete adhesion of base sheet to substrate.
- E. Apply roofing granules of same color as roof membrane to cover exuded bead at laps while bead is hot, to provide a continuous color appearance.

3.9 INSTALLATION OF FLASHING AND STRIPPING

- A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates in accordance with roofing system manufacturer's written instructions and as follows:
 - 1. Prime substrates with asphalt primer if required by roofing system manufacturer.
 - 2. Backer Sheet Application: Adhere backer sheet to substrate in cold-applied adhesive.
 - a. Seal all laps.
 - 3. Flashing Sheet Application, Hot: Adhere flashing sheet to substrate in a solid mopping of hot roofing asphalt applied at asphalt temperature recommended by flashing sheet manufacturer. Apply hot roofing asphalt to back of flashing sheet if recommended by roofing system manufacturer.
 - 4. Flashing Sheet Application, Cold: Adhere flashing sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.
- B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.
- C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.
 - 1. Seal top termination of base flashing.
- D. Install liquid flashing system in accordance with manufacturer's recommendations.
 - 1. Extend liquid flashing not less than 3 inches in all directions from edges of item being flashed.
 - 2. Embed granules, matching color of roof membrane, into wet compound.

- E. Install roofing cap-sheet stripping where metal flanges and edgings are set on roofing in accordance with roofing system manufacturer's written instructions.
- F. Roof Drains: Set 30- by 30-inch, 4-pound lead flashing in bed of asphaltic adhesive on completed roofing membrane.
 - 1. Cover lead flashing with roofing cap-sheet stripping, and extend a minimum of 4 inches beyond edge of metal flashing onto field of roofing membrane.
 - 2. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
 - 3. Install stripping in accordance with roofing system manufacturer's written instructions.

3.10 INSTALLATION OF WALKWAYS

- A. Walkway Cap-Sheet Strips: Install walkway cap-sheet strips over roofing membrane, using same application method as used for roofing cap sheet.
 - 1. Install walkways strips at the following locations:
 - a. Perimeter of each rooftop unit.
 - b. Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
 - c. Between each roof access and each rooftop unit location or path connecting rooftop unit locations.
 - d. As required by roof membrane manufacturer's warranty requirements.
 - 2. Provide 3-inch clearance between adjoining strips.

3.11 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion, in presence of Architect, and to prepare inspection report.
 - 1. Notify Architect and Owner 48 hours in advance of date and time of inspection.
- B. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- C. Roofing system will be considered defective if it does not pass tests and inspections.
 - 1. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.12 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period.

1. When remaining construction does not affect or endanger roofing, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and in accordance with warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.13 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 1. Owner: <Insert name of Owner>.
 2. Owner Address: <Insert address>.
 3. Building Name/Type: <Insert information>.
 4. Building Address: <Insert address>.
 5. Area of Work: <Insert information>.
 6. Acceptance Date: _____.
 7. Warranty Period: <Insert time>.
 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer will, at Roofing Installer's own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding <Insert mph>;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and

- g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
- 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
- 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
- 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
- 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
- 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
- 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

- 1. Authorized Signature: _____.
- 2. Name: _____.
- 3. Title: _____.

END OF SECTION 075216

SECTION 075423 - THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered, loosely laid, and ballasted thermoplastic-polyolefin (TPO) roofing system.
2. Accessory roofing materials.
3. Substrate board.
4. Roof insulation.
5. Insulation accessories and cover board.
6. Asphalt materials.
7. Electronic leak detection (ELD) materials.
8. Ballast.
9. Walkways.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM Approvals' RoofNav listing.

B. Samples: For the following products:

1. Roof membrane and flashings, of color required.
2. Aggregate ballast in gradation and color required.
3. Roof paver, full sized, in each color and texture required.
4. Walkway pads or rolls, of color required.

C. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.3 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - a. Submit evidence of compliance with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.
- B. Product Test Reports: For roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.
 - C. Research reports.
 - D. Field Test Reports:
 1. Concrete internal relative humidity test reports.
 2. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.
 - E. Field quality-control reports.
 - F. Sample warranties.
- 1.4 CLOSEOUT SUBMITTALS
- A. Maintenance data.
- 1.5 QUALITY ASSURANCE
- A. Qualifications:
 1. Manufacturers: A qualified manufacturer that is listed in FM Approvals' RoofNav for roofing system identical to that used for this Project.
 2. Installers: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.
- 1.6 WARRANTY
- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Accelerated Weathering: Roof membrane to withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.

- B. Impact Resistance: Roof membrane to resist impact damage when tested according to ASTM D3746, ASTM D4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- C. FM Approvals' RoofNav Listing: Roof membrane, base flashings, and component materials comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system, and are listed in FM Approvals' RoofNav for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals Certification markings.
 - 1. Fire/Windstorm Classification: Class 1A-90.
 - 2. Hail-Resistance Rating: FM Global Property Loss Prevention Data Sheet 1-34 SH.

2.2 THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

- A. TPO Sheet: ASTM D6878/D6878M, internally fabric- or scrim-reinforced, TPO sheet.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by 1 of the following:
 - a. Carlisle Syntec Systems.
 - b. Cooley Group.
 - c. Custom Seal Inc.
 - d. Firestone Building Products.
 - e. Flex Membrane International Corp.
 - f. GAF.
 - g. GenFlex Roofing Systems.
 - h. Johns Manville; a Berkshire Hathaway company.
 - i. Mule-Hide Products Co., Inc.
 - j. Versico Roofing Systems; Carlisle Construction Materials.
 - 2. Thickness: 60 mils, nominal.
 - 3. Exposed Face Color: White.

2.3 ACCESSORY ROOFING MATERIALS

- A. General: Accessory materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
 - 1. Adhesive and Sealants: Comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, 55 mils thick, minimum, of same color as TPO sheet.
- C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- D. Bonding Adhesive: Manufacturer's standard.
- E. Slip Sheet: Manufacturer's standard, of thickness required for application.

- F. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8-inch thick; with anchors.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate, and acceptable to roofing system manufacturer.
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.4 SUBSTRATE BOARD

- A. Gypsum Board, Type X: ASTM C1396/C1396M.
 - 1. Thickness: 5/8-inch.
- B. Glass-Mat Gypsum Roof Substrate Board: ASTM C1177/C1177M, water-resistant gypsum board.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by 1 of the following:
 - a. Certainteed; SAINT-GOBAIN.
 - b. Georgia-Pacific Gypsum LLC.
 - c. National Gypsum Company.
 - d. USG Corporation.
 - 2. Thickness: 1/2-inch.
 - 3. Surface Finish: Factory primed.
- C. Fiber-Reinforced Gypsum Roof Board: ASTM C1278/C1278M, cellulosic-fiber reinforced, water-resistant gypsum board.
 - 1. Thickness: 1/2-inch.
- D. Perlite Board: ASTM C728, seal coated.
 - 1. Thickness: 3/4-inch.
- E. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening substrate board to roof deck.

2.5 ROOF INSULATION

- A. Tapered Insulation: Provide factory-tapered insulation boards.
 - 1. Material: Molded (expanded) polystyrene board insulation.
 - 2. Minimum Thickness: 1/4-inch.
 - 3. Slope:
 - a. Saddles and Crickets: 1/2-inch per foot (1:24) unless otherwise indicated on Drawings.

2.6 INSULATION ACCESSORIES AND COVER BOARD

- A. Fasteners: Factory-coated steel fasteners with metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- B. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Modified asphaltic, asbestos-free, cold-applied adhesive.
 - 2. Bead-applied, low-rise, 1-component or multicomponent urethane adhesive.
 - 3. Full-spread, spray-applied, low-rise, 2-component urethane adhesive.
- C. Glass-Mat Gypsum Cover Board: ASTM C1177/C1177M, water-resistant gypsum board.
 - 1. Thickness: 1/2-inch.
 - 2. Surface Finish: Fiberglass facer.

2.7 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16-inch thick and acceptable to roofing system manufacturer.
 - 1. Size: Approximately 36 by 60 inches.
 - 2. Color: Contrasting with roof membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements and other conditions affecting performance of the Work.

1. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
2. Verify that concrete substrate is visibly dry and free of moisture, and that minimum concrete internal relative humidity is not more than 75 percent, or as recommended by roofing system manufacturer, when tested according to ASTM F2170.
 - a. Test Frequency: 1 test probe per each 1,000 square feet, or portion thereof, of roof deck, with not less than 3 test probes.
 - b. Submit test reports within 24 hours after performing tests.
3. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.
4. Verify that joints in precast concrete roof decks have been grouted flush with top of concrete.

3.2 PREPARATION

- A. Perform fastener-pullout tests according to roof system manufacturer's written instructions.
 1. Submit test result within 24 hours after performing tests.
 - a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 INSTALLATION OF ROOFING, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, FM Approvals' RoofNav listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning Work on adjoining roofing.
- C. Install roof membrane and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition.

3.4 INSTALLATION OF INSULATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and roof insulation manufacturer's written instructions for installing roof insulation.

C. Installation Over Concrete Decks:

1. Install tapered insulation with joints of each layer offset not less than 12 inches from previous layer of insulation.
 - a. Staggered end joints within each layer not less than 24 inches in adjacent rows.
 - b. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
 - c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - d. Make joints between adjacent insulation boards not more than 1/4-inch in width.
 - e. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
 - 1) Trim insulation so that water flow is unrestricted.
 - f. Fill gaps exceeding 1/4-inch with insulation.
 - g. Cut and fit insulation within 1/4-inch of nailers, projections, and penetrations.
 - h. Adhere each layer of insulation to substrate using adhesive according to FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - 1) Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 degrees F of equiviscous temperature.
 - 2) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - 3) Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

D. Place thermal spacers and plates on insulation in required fastening patterns to achieve FM rating and secure in accordance with manufacturer's instructions.

1. Install plates and fasteners tight and flat to substrate with no dimpling, and with fastener extending 1 inch minimum into roof deck; do not overdrive fasteners.

3.5 INSTALLATION OF COVER BOARDS

A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.

1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
2. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board so that water flow is unrestricted.
3. Cut and fit cover board tight to nailers, projections, and penetrations.

4. Loosely lay cover board over substrate.
5. Adhere cover board to substrate using adhesive according to FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
 - a. Set cover board in a solid mopping of hot roofing asphalt, applied within plus or minus 25 degrees F of equiviscous temperature.
 - b. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - c. Set cover board in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install slip sheet over cover board and beneath roof membrane.
- C. Place plates on insulation in required fastening patterns to achieve FM rating and secure in accordance with manufacturer's instructions.
 1. Install plates and fasteners tight and flat to substrate with no dimpling, and with fastener extending 1 inch minimum into roof deck; do not overdrive fasteners.

3.6 INSTALLATION OF ADHERED ROOF MEMBRANE

- A. Adhere roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.
- B. Unroll roof membrane and allow to relax before installing.
- C. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- D. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- E. Bonding Adhesive: Apply to substrate and underside of roof membrane at rate required by manufacturer, and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.
- F. Hot Roofing Asphalt: Apply a solid mopping of hot roofing asphalt to substrate at temperature and rate required by manufacturer, and install fabric-backed roof membrane. Do not apply to splice area of roof membrane.
- G. Fabric-Backed Roof Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed roof membrane.
- H. In addition to adhering, mechanically fasten roof membrane securely at terminations, penetrations, and perimeter of roofing.
- I. Apply roof membrane with side laps shingled with slope of roof deck where possible.

- J. Seams: Clean seam areas, overlap roof membrane, and hot-air weld side and end laps of roof membrane and sheet flashings, to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and sheet flashings.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
 - 3. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- K. Spread sealant bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

3.7 INSTALLATION OF BASE FLASHING

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.8 INSTALLATION OF WALKWAYS

- A. Flexible Walkways:
 - 1. Install flexible walkways at the following locations:
 - a. Perimeter of each rooftop unit.
 - b. Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
 - c. Between each roof hatch and each rooftop unit location or path connecting rooftop unit locations.
 - d. Top and bottom of each roof access ladder.
 - e. Between each roof access ladder and each rooftop unit location or path connecting rooftop unit locations.
 - f. Locations indicated on Drawings.
 - g. As required by roof membrane manufacturer's warranty requirements.
 - 2. Provide 6-inch clearance between adjoining pads.

3. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.9 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion, in presence of Architect, and to prepare inspection report.
- B. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.

3.10 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075423

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof-drainage sheet metal fabrications.
2. Low-slope roof sheet metal fabrications.
3. Wall sheet metal fabrications.
4. Miscellaneous sheet metal fabrications.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 077200 "Roof Accessories" for set-on-type curbs, equipment supports, roof hatches, vents, and other manufactured roof accessory units.

1.2 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Roof-drainage sheet metal fabrications.
2. Low-slope roof sheet metal fabrications.
3. Wall sheet metal fabrications.
4. Miscellaneous sheet metal fabrications.

B. Product Data Submittals:

1. Underlayment materials.
2. Elastomeric sealant.
3. Butyl sealant.
4. Epoxy seam sealer.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.
- B. Special warranty.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.
 - 1. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
 - 2. Protect stored sheet metal flashing and trim from contact with water.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.7 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, are to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim are not to rattle, leak, or loosen, and are to remain watertight.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 degrees F, ambient; 180 degrees F, material surfaces.

2.2 SHEET METALS

- A. Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet in accordance with ASTM A653/A653M, G90 coating designation; prepainted by coil-coating process to comply with ASTM A755/A755M.
 - 1. Surface: Smooth, flat.
 - 2. Exposed Coil-Coated Finish:
 - a. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 3. Color: Match adjacent construction.

2.3 MISCELLANEOUS MATERIALS

- A. Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

- a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
2. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2-inch wide and 1/8-inch thick.
- D. Elastomeric Sealant: ASTM C920, elastomeric silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Bituminous Coating: Cold-applied asphalt emulsion in accordance with ASTM D1187/D1187M.
- F. Asphalt Roofing Cement: ASTM D4586/D4586M, asbestos free, of consistency required for application.
- G. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated.
 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Cheney Flashing Company.
 - b. Fry Reglet Corporation.
 - c. Heckmann Building Products, Inc.
 - d. Hohmann & Barnard, Inc.
 - e. Keystone Flashing Company, Inc.
 - f. Metal-Era, Inc.
 - g. OMG Roofing Products; a Division of OMG, Inc., a subsidiary of Steel Partners Holdings L.P.
 2. Source Limitations: Obtain reglets from single source from single manufacturer.
 3. Material: Galvanized steel, 0.022-inch thick.
 4. Concrete Type: Provide temporary closure tape to keep reglet free of concrete materials, special fasteners for attaching reglet to concrete forms, and guides to ensure alignment of reglet section ends.
 5. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
 6. Accessories:
 - a. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where Drawings show reglet without metal counterflashing.
 - b. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.

7. Finish: With manufacturer's standard color coating.

2.4 FABRICATION, GENERAL

- A. Custom fabricate sheet metal flashing and trim to comply with details indicated and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required.
 1. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 2. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 3. Verify shapes and dimensions of surfaces to be covered and obtain field measurements for accurate fit before shop fabrication.
 4. Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 5. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances:
 1. Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
 2. Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified.
- C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal in accordance with cited sheet metal standard to provide for proper installation of elastomeric sealant.
- E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.
- G. Seams:
 1. Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.

2. Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

H. Do not use graphite pencils to mark metal surfaces.

2.5 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Parapet Scuppers: Fabricate scuppers to dimensions required, with closure flange trim to exterior, 4-inch-wide wall flanges to interior, and base extending 4 inches beyond cant or tapered strip into field of roof. Fabricate from the following materials:

1. Galvanized Steel: 0.028-inch thick.

2.6 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. Base Flashing: Fabricate from the following materials:

1. Galvanized Steel: 0.028-inch thick.

B. Counterflashing: Shop fabricate interior and exterior corners. Fabricate from the following materials:

1. Galvanized Steel: 0.022-inch thick.

C. Flashing Receivers: Fabricate from the following materials:

1. Galvanized Steel: 0.022-inch thick.

D. Roof-Penetration Flashing: Fabricate from the following materials:

1. Galvanized Steel: 0.028-inch thick.

E. Roof-Drain Flashing: Fabricate from the following materials:

1. Stainless Steel: 0.0156-inch thick.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.

1. Verify compliance with requirements for installation tolerances of substrates.

2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.

1. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of sealant.
3. Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement.
4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
5. Install continuous cleats with fasteners spaced not more than 12 inches o.c.
6. Space individual cleats not more than 12 inches apart. Attach each cleat with at least 2 fasteners. Bend tabs over fasteners.
7. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
8. Do not field cut sheet metal flashing and trim by torch.
9. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.

1. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
2. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.

D. Fasteners: Use fastener sizes that penetrate existing substrate not less than 3/4-inch.

- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
 - 1. Use sealant-filled joints unless otherwise indicated.
 - a. Embed hooked flanges of joint members not less than 1 inch into sealant.
 - b. Form joints to completely conceal sealant.
 - c. When ambient temperature at time of installation is between 40 and 70 degrees F, set joint members for 50 percent movement each way.
 - d. Adjust setting proportionately for installation at higher ambient temperatures.
 - 1) Do not install sealant-type joints at temperatures below 40 degrees F.
 - 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

3.3 INSTALLATION OF ROOF-DRAINAGE SYSTEM

- A. Install sheet metal roof-drainage items to produce complete roof-drainage system in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.
- B. Parapet Scuppers:
 - 1. Continuously support scupper, set to correct elevation, and seal flanges to interior wall face, over cants or tapered edge strips, and under roofing membrane.
 - 2. Anchor scupper closure trim flange to exterior wall and seal with elastomeric sealant to scupper.

3.4 INSTALLATION OF ROOF FLASHINGS

- A. Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard.
 - 1. Provide concealed fasteners where possible, and set units true to line, levels, and slopes.
 - 2. Install work with laps, joints, and seams that are permanently watertight and weather resistant.
- B. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.
- C. Counterflashing: Coordinate installation of counterflashing with installation of base flashing.
 - 1. Insert counterflashing in reglets or receivers and fit tightly to base flashing.

2. Extend counterflashing 4 inches over base flashing.
3. Lap counterflashing joints minimum of 4 inches.
4. Secure in waterproof manner by means of snap-in installation and sealant unless otherwise indicated.

D. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with butyl sealant and clamp flashing to pipes that penetrate roof.

3.5 INSTALLATION OF WALL FLASHINGS

A. Install reglets to receive waterproofing and to receive flashings.

3.6 INSTALLATION OF MISCELLANEOUS FLASHING

A. Equipment Support Flashing:

1. Coordinate installation of equipment support flashing with installation of roofing and equipment.
2. Weld or seal flashing with elastomeric sealant to equipment support member.

3.7 INSTALLATION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4-inch in 20 feet on slope and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.8 CLEANING

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.

3.9 PROTECTION

- A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended in writing by sheet metal flashing and trim manufacturer.
- C. Maintain sheet metal flashing and trim in clean condition during construction.

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- D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Architect.

END OF SECTION 076200

SECTION 077200 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Pipe and duct supports.
- B. Related Requirements: Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-formed metal flashing, roof-drainage systems, roof expansion-joint covers, and miscellaneous sheet metal trim and accessories.

1.2 COORDINATION

- A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of roof accessory.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples: For each exposed product and for each color and texture specified, prepared on samples of size to adequately show color.
- C. Delegated Design Submittals: For equipment supports and walkways indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - 1. Detail mounting, securing, and flashing of roof-mounted items to roof structure. Indicate coordinating requirements with roof membrane system.
 - 2. Wind-Restraint Details: Detail fabrication and attachment of wind restraints. Show anchorage details and indicate quantity, diameter, and depth of penetration of anchors.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For roof accessories to include in operation and maintenance manuals.

1.5 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof accessories to withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

2.2 PIPE AND DUCT SUPPORTS

- A. Adjustable-Height Roller-Bearing Pipe Supports: Polycarbonate pipe stand base, pipe support, and roller housing, with stainless-steel threaded rod designed for adjusting support height, accommodating up to 18-inch-diameter pipe or conduit; with provision for pipe retainer and with manufacturer's support pad or deck plate as recommended for penetration-free installation over roof membrane type; as required for quantity of pipe runs and sizes.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. MIRO Industries.
 - b. Pate Company (The).
 - c. PHP Systems/Design.
 - d. Portals Plus; a division of Hart & Cooley, Inc.
 - e. Roof Products and Systems (RPS); a division of Hart & Cooley, Inc.
 - f. Thaler Metal Industries Ltd.

2.3 MISCELLANEOUS MATERIALS

- A. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1-1/2 inches thick.

- B. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D1187/D1187M.
- C. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide nonremovable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:
 - 1. Fasteners for Zinc-Coated or Aluminum-Zinc Alloy-Coated Steel: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A153/A153M or ASTM F2329.
 - 2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.
 - 3. Fasteners for Stainless Steel Sheet: Series 300 stainless steel.
- D. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.
- E. Asphalt Roofing Cement: ASTM D4586/D4586M, asbestos free, of consistency required for application.

2.4 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.
- B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install roof accessories according to manufacturer's written instructions.
 - 1. Install roof accessories level; plumb; true to line and elevation; and without warping, jogs in alignment, buckling, or tool marks.
 - 2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.

3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
 4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.
- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
1. Coat concealed side of stainless-steel roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of underlayment and cover with manufacturer's recommended slip sheet.
 3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof accessories for waterproof performance.
- C. Pipe Support Installation: Comply with MSS SP-58 and MSS SP-89. Install supports and attachments as required to properly support piping. Arrange for grouping of parallel runs of horizontal piping, and support together.
1. Pipes of Various Sizes: Space supports for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
- D. Seal joints with elastomeric or butyl sealant as required by roof accessory manufacturer.

3.3 REPAIR AND CLEANING

- A. Clean exposed surfaces according to manufacturer's written instructions.
- B. Clean off excess sealants.
- C. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077200

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Nonstaining silicone joint sealants.
3. Urethane joint sealants.
4. Silane-modified polymer joint sealants.
5. Polysulfide joint sealants.
6. Butyl joint sealants.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Silicone joint sealants.
2. Nonstaining silicone joint sealants.
3. Urethane joint sealants.
4. Silane-modified polymer joint sealants.
5. Polysulfide joint sealants.
6. Butyl joint sealants.

1.3 CLOSEOUT SUBMITTALS

- A. Manufacturers' special warranties.
- B. Installer's special warranties.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Authorized representative who is trained and approved by manufacturer.

1.5 FIELD CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
 2. When joint substrates are wet.

3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.6 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period: 2 years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period: 5 years from date of Substantial Completion.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 2. Disintegration of joint substrates from causes exceeding design specifications.
 3. Mechanical damage caused by individuals, tools, or other outside agents.
 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: Match adjacent construction materials.

2.2 SILICONE JOINT SEALANTS

- A. Silicone, S, NS, 25, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 25, Use NT.

- B. Silicone, S, NS, 25, T, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 25, Uses T and NT.

2.3 NONSTAINING SILICONE JOINT SEALANTS

- A. Nonstaining Joint Sealants: No staining of substrates when tested in accordance with ASTM C1248.
- B. Silicone, Nonstaining, S, NS, 50, NT: Nonstaining, single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 50, Use NT.

2.4 URETHANE JOINT SEALANTS

- A. Urethane, S, NS, 25, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, urethane joint sealant; ASTM C920, Type S, Grade NS, Class 25, Use NT.
- B. Urethane, S, NS, 100/50, T, NT: Single-component, nonsag, plus 100 percent and minus 50 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type S, Grade NS, Class 100/50, Uses T and NT.
- C. Urethane, S, NS, 25, T, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type S, Grade NS, Class 25, Uses T and NT.
- D. Urethane, S, P, 35, T, NT: Single-component, pourable, plus 35 percent and minus 35 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type S, Grade P, Class 35, Uses T and NT.
- E. Urethane, S, P, 25, T, NT: Single-component, pourable, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type S, Grade P, Class 25, Uses T and NT.
- F. Urethane, M, NS, 50, NT: Multicomponent, nonsag, plus 50 percent and minus 50 percent movement capability nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade NS, Class 50, Use NT.
- G. Urethane, M, NS, 25, NT: Multicomponent, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade NS, Class 25, Use NT.
- H. Urethane, M, NS, 50, T, NT: Multicomponent, nonsag, plus 50 percent and minus 50 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade NS, Class 50, Uses T and NT.

- I. Urethane, M, NS, 25, T, NT: Multicomponent, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade NS, Class 25, Uses T and NT.
- J. Urethane, M, P, 50, T, NT: Multicomponent, pourable, plus 50 percent and minus 50 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade P, Class 50, Uses T and NT.
- K. Urethane, M, P, 25, T, NT: Multicomponent, pourable, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade P, Class 25, Uses T and NT.

2.5 SILANE-MODIFIED POLYMER JOINT SEALANTS

- A. Silane-Modified Polymer, S, NS, 50, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 50, Use NT.
- B. Silane-Modified Polymer, S, NS, 35, NT: Single-component, nonsag, plus 35 percent and minus 35 percent movement capability, nontraffic-use, silyl-terminated polyurethane sealant; ASTM C920, Type S, Grade NS, Class 35, Use NT.
- C. Silane-Modified Polymer, S, NS, 25, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 25, Use NT.
- D. Silane-Modified Polymer, S, NS, 100/50, T, NT: Single-component, nonsag, plus 100 percent and minus 50 percent movement capability, traffic- and nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 100, Uses T and NT.
- E. Silane-Modified Polymer, S, NS, 50, T, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, traffic- and nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 50, Uses T and NT.
- F. Silane-Modified Polymer, S, NS, 35, T, NT: Single-component, nonsag, plus 35 percent and minus 35 percent movement capability, traffic- and nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 35, Uses T and NT.
- G. Silane-Modified Polymer, S, NS, 25, T, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 25, Uses T and NT.
- H. Silane-Modified Polymer, S, P, 25, T, NT: Single-component, pourable, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, silyl-terminated polyurethane joint sealant; ASTM C920, Type S, Grade P, Class 25, Uses T and NT.

2.6 POLYSULFIDE JOINT SEALANTS

- A. Polysulfide, S, NS, 25, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, polysulfide joint sealant; ASTM C920, Type S, Grade NS, Class 25, Use NT.
- B. Polysulfide, M, NS, 25, T, NT: Multicomponent, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, polysulfide joint sealant; ASTM C920, Type M, Grade NS, Class 25, Use NT.
- C. Polysulfide, M, P, 25, T, NT: Multicomponent, pourable, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, polysulfide joint sealant; ASTM C920, Type M, Grade P, Class 25, Uses T and NT.

2.7 BUTYL JOINT SEALANTS

- A. Butyl-Rubber-Based Joint Sealants: ASTM C1311.

2.8 JOINT-SEALANT BACKING

- A. Sealant Backing Material, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C1330, Type C (closed-cell material with a surface skin) and Type O (open-cell material), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.9 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
 - a. Concrete.
 - b. Masonry.
 - c. Exterior insulation and finish systems.
 - 3. Remove laitance and form-release agents from concrete.
 - 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application, and replace them with dry materials.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants in accordance with requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile in accordance with Figure 8A in ASTM C1193 unless otherwise indicated.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage

Reno County Courthouse
Hutchinson, Kansas

or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 221423 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: General-purpose, cast-iron roof drains.
- B. Related Requirements: Section 076200 "Sheet Metal Flashing and Trim" for penetrations of roofs.

1.2 ACTION SUBMITTALS

- A. Product Data: General-purpose roof drains.

1.3 QUALITY ASSURANCE

- A. Provide drainage piping specialties which bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 GENERAL-PURPOSE ROOF DRAINS

- A. Cast-Iron Roof Drains:
 - 1. Cast-Iron, Medium-Sump, General-Purpose Roof Drains: Designation RD2 on Drawings.
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1) Jay R. Smith Mfg Co; a division of Morris Group International.
 - 2) Josam Company.
 - 3) Marathon Roofing Products.
 - 4) MIFAB, Inc.
 - 5) Portals Plus; a division of Hart & Cooley, Inc.
 - 6) Sioux Chief Manufacturing Company, Inc.
 - 7) Wade; a subsidiary of McWane Inc.
 - 8) Zurn Industries, LLC.
 - b. Standard: ASME A112.6.4.
 - c. Body Material: Cast iron.
 - d. Dimension of Body: 12-inch diameter.

Reno County Courthouse Reroof
Hutchinson, Kansas

- e. Dome Material: Cast iron.
 - f. Combination flashing ring and gravel stop.
 - g. Outlet: Bottom.
 - h. Outlet Type: Hub outlet.
 - i. Options:
 - 1) Flow-control weirs.
 - 2) Extension collars.
 - 3) Underdeck clamp.
 - 4) Expansion joint.
 - 5) Sump receiver plate.
 - 6) Perforated Gravel Guard: Cast iron.
 - 7) Vandal-proof dome.
2. Cast-Iron, Small-Sump, General-Purpose Roof Drains: Designation RD1 on Drawings.
- a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1) Jay R. Smith Mfg Co; a division of Morris Group International.
 - 2) Josam Company.
 - 3) Marathon Roofing Products.
 - 4) MIFAB, Inc.
 - 5) WATTS; A Watts Water Technologies Company.
 - 6) Zurn Industries, LLC.
 - b. Standard: ASME A112.6.4.
 - c. Body Material: Cast iron.
 - d. Dimension of Body: Nominal 8-inch diameter.
 - e. Dome Material: Cast iron
 - f. Combination flashing ring and gravel stop.
 - g. Outlet: Bottom.
 - h. Outlet Type: Hub outlet.
 - i. Options:
 - 1) Extension collars.
 - 2) Underdeck clamp.
 - 3) Expansion joint.
 - 4) Sump receiver plate.
 - 5) Vandal-proof dome.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install roof drains in accordance with roof membrane manufacturer's written installation instructions at low points of roof areas.

1. Install flashing collar or flange of roof drain to maintain integrity of waterproof membranes where penetrated.
2. Install expansion joints, if indicated, in roof drain outlets.
3. Position roof drains for easy access and maintenance.

3.2 INSTALLATION OF FLASHING

- A. Fabricate flashing from single piece of metal unless large pans, sumps, or other drainage shapes are required.
- B. Install sheet flashing on pipes, sleeves, and specialties passing through or embedded in floors and roofs with waterproof membrane.
- C. Set flashing on floors and roofs in solid coating of bituminous cement.
- D. Secure flashing into sleeve and specialty clamping ring or device.

3.3 CLEANING

- A. Clean piping specialties during installation and remove dirt and debris as work progresses.

3.4 PROTECTION

- A. Protect piping specialties during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic and construction work.

END OF SECTION 221423

2 PRESERVATION BRIEFS

Repointing Mortar Joints in Historic Masonry Buildings

Robert C. Mack, FAIA
John P. Speweik



U.S. Department of the Interior
National Park Service
Cultural Resources
Heritage Preservation Services



Figure 1. After removing deteriorated mortar, an experienced mason repoints a portion of this early-20th century limestone building. Photo: Robert C. Mack, FAIA.

Masonry — brick, stone, terra-cotta, and concrete block — is found on nearly every historic building. Structures with all-masonry exteriors come to mind immediately, but most other buildings at least have masonry foundations or chimneys. Although generally considered “permanent,” masonry is subject to deterioration, especially at the mortar joints. Repointing, also known simply as “pointing” or—somewhat inaccurately—“tuck pointing”*, is the process of removing deteriorated mortar from the joints of a masonry wall and replacing it with new mortar (Fig. 1). Properly done, repointing restores the visual and physical integrity of the masonry. Improperly done, repointing not only detracts from the appearance of the building, but may also cause physical damage to the masonry units themselves.

The purpose of this Brief is to provide general guidance on appropriate materials and methods for repointing historic masonry buildings and it is intended to benefit building owners, architects, and contractors. The Brief should serve as a guide to prepare specifications for repointing historic masonry buildings. It should also help develop sensitivity to the particular needs of historic masonry, and to assist historic building owners in working cooperatively with architects, architectural conservators and historic preservation consultants, and contractors. Although specifically intended for historic buildings, the guidance is appropriate for other masonry buildings as well. This publication updates *Preservation Briefs 2: Repointing Mortar Joints in Historic Brick Buildings* to include all types of historic unit masonry. The scope of the earlier Brief has also been expanded to acknowledge that the many buildings constructed in the first half of the 20th century are now historic and eligible for listing in the National Register of Historic Places, and that they may have been originally constructed with portland cement mortar.

*Tuckpointing technically describes a primarily decorative application of a raised mortar joint or lime putty joint on top of flush mortar joints.

Historical Background

Mortar consisting primarily of lime and sand has been used as an integral part of masonry structures for thousands of years. Up until about the mid-19th century, lime or quicklime (sometimes called lump lime) was delivered to construction sites, where it had to be slaked, or combined with water. Mixing with water caused it to boil and resulted in a wet lime putty that was left to mature in a pit or wooden box for several weeks, up to a year. Traditional mortar was made from lime putty, or slaked lime, combined with local sand, generally in a ratio of 1 part lime putty to 3 parts sand by volume. Often other ingredients, such as crushed marine shells (another source of lime), brick dust, clay, natural cements, pigments, and even animal hair were also added to mortar, but the basic formulation for lime putty and sand mortar remained unchanged for centuries until the advent of portland cement or its forerunner, Roman cement, a natural, hydraulic cement.

Portland cement was patented in Great Britain in 1824. It was named after the stone from Portland in Dorset which it resembled when hard. This is a fast-curing, hydraulic cement which hardens under water. Portland cement was first manufactured in the United States in 1872, although it was imported before this date. But it was not in common use throughout the country until the early 20th century. Up until the turn of the century portland cement was considered primarily an additive, or "minor ingredient" to help accelerate mortar set time. By the 1930s, however, most masons used a mix of equal parts portland cement and lime putty. Thus, the mortar found in masonry structures built between 1873 and 1930 can range from pure lime and sand mixes to a wide variety of lime, portland cement, and sand combinations.

In the 1930s more new mortar products intended to hasten and simplify masons' work were introduced in the U.S. These included **masonry cement**, a premixed, bagged mortar which is a combination of portland cement and ground limestone, and **hydrated lime**, machine-slaked lime that eliminated the necessity of slaking quicklime into putty at the site.

Identifying the Problem Before Repointing

The decision to repoint is most often related to some obvious sign of deterioration, such as disintegrating mortar, cracks in mortar joints, loose bricks or stones, damp walls, or damaged plasterwork. It is, however, erroneous to assume that repointing alone will solve deficiencies that result from other problems (Fig. 2). The root cause of the deterioration—leaking roofs or gutters, differential settlement of the building, capillary action causing rising damp, or extreme weather exposure—should always be dealt with prior to beginning work. Without appropriate repairs to eliminate the source of the problem, mortar deterioration will continue and any repointing will have been a waste of time and money.

Use of Consultants. Because there are so many possible causes for deterioration in historic buildings, it may be desirable to retain a consultant, such as a historic architect or architectural conservator, to analyze the building. In addition to determining the most appropriate solutions to the problems, a consultant can



Figure 2. Much of the mortar on this building has been leached away by water from a leaking downspout. The downspout must be replaced and any other drainage problems repaired before repointing. Photo: Robert C. Mack, FAIA.

prepare specifications which reflect the particular requirements of each job and can provide oversight of the work in progress. Referrals to preservation consultants frequently can be obtained from State Historic Preservation Offices, the American Institute for Conservation of Historic and Artistic Works (AIC), the Association for Preservation Technology (APT), and local chapters of the American Institute of Architects (AIA).

Finding an Appropriate Mortar Match

Preliminary research is necessary to ensure that the proposed repointing work is both physically and visually appropriate to the building. Analysis of unweathered portions of the historic mortar to which the new mortar will be matched can suggest appropriate mixes for the repointing mortar so that it will not damage the building because it is excessively strong or vapor impermeable. Examination and analysis of the masonry units—brick, stone or terra cotta—and the techniques used in the original construction will assist in maintaining the building's historic appearance (Figs. 3-4). A simple, non-technical, evaluation of the masonry units and mortar can provide information concerning the relative strength and permeability of each—critical factors in selecting the repointing mortar—while a visual analysis of the historic mortar can provide the information necessary for developing the new mortar mix and application techniques.

Although not crucial to a successful repointing project, for projects involving properties of special historic significance, a mortar analysis by a qualified laboratory can be useful by providing information on the original ingredients. However, there are limitations with such an analysis, and replacement mortar specifications should not be based solely on laboratory analysis. Analysis requires interpretation, and there are important factors which affect the condition and performance of the mortar that cannot be established through laboratory analysis. These may include: the original water content, rate of curing, weather conditions during original construction, the method of mixing and placing the mortar, and the cleanliness and condition of the sand. *The most useful information that can come out of laboratory analysis is the identification of sand by*

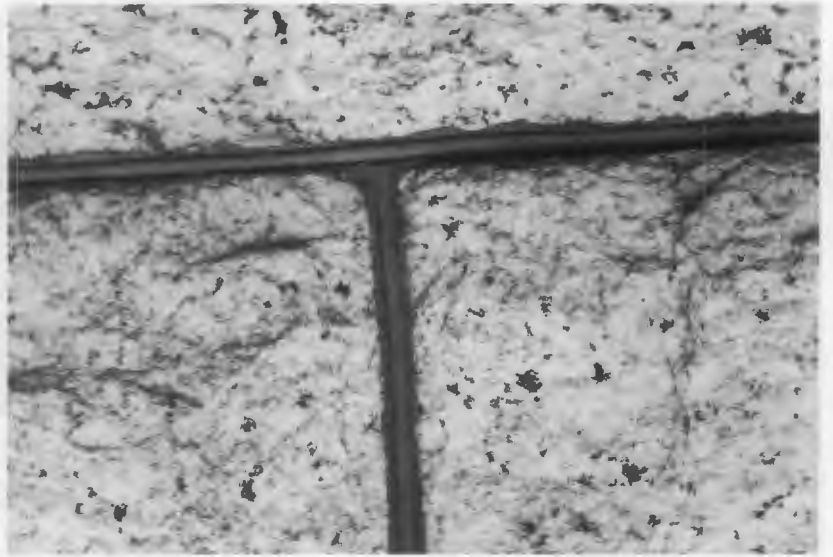


Figure 3. Good-quality repointing closely replicates the original in composition, texture, joint type and profile on this 19th century brick building (left), and on this late-19th century granite on H.H. Richardson's Glessner House in Chicago (right). Photos: Charles E. Fisher; Sharon C. Park, FAIA.

gradation and color. This allows the color and the texture of the mortar to be matched with some accuracy because sand is the largest ingredient by volume.

In creating a repointing mortar that is compatible with the masonry units, the objective is to achieve one that matches the historic mortar as closely as possible, so that the new material can coexist with the old in a sympathetic, supportive and, if necessary, sacrificial capacity. The exact physical and chemical properties of the historic mortar are not of major significance as long as the new mortar conforms to the following criteria:

- The new mortar must match the historic mortar in color, texture and tooling. (If a laboratory analysis is undertaken, it may be possible to match the binder components and their proportions with the historic mortar, if those materials are available.)
- The sand must match the sand in the historic mortar. (The color and texture of the new mortar will usually fall into place if the sand is matched successfully.)

- The new mortar must have **greater vapor permeability** and be **softer** (measured in compressive strength) than the masonry units.
- The new mortar must be **as vapor permeable and as soft or softer** (measured in compressive strength) than the historic mortar. (Softness or hardness is not necessarily an indication of permeability; old, hard lime mortars can still retain high permeability.)

Properties of Mortar

Mortars for repointing should be softer or more permeable than the masonry units and no harder or more impermeable than the historic mortar to prevent damage to the masonry units. It is a common error to assume that hardness or high strength is a measure of appropriateness, particularly for lime-based historic mortars. Stresses within a wall caused by expansion, contraction, moisture migration, or settlement must be accommodated in some manner; in a masonry wall these



Figure 4. (left) The poor quality of this repointing—it appears to have been “tooled” with the mason’s finger—does not match the delicacy of the original beaded joint on this 19th-century brick wall. (right) It is obvious that the repointing on this “test patch” is not an appropriate replacement mortar joint for this early-19th century stone foundation. Photos: Lee H. Nelson, FAIA.

stresses should be relieved by the mortar rather than by the masonry units. A mortar that is stronger in compressive strength than the masonry units, will not "give," thus causing the stresses to be relieved through the masonry units—resulting in permanent damage to the masonry, such as cracking and spalling, that cannot be repaired easily (Fig. 5). While stresses can also break the bond between the mortar and the masonry units, permitting water to penetrate the resulting hairline cracks, this is easier to correct in the joint through repointing than if the break occurs in the masonry units.

Permeability, or rate of vapor transmission, is also critical. High lime mortars are more permeable than denser cement mortars. Historically, mortar acted as a bedding material—not unlike an expansion joint—rather than a "glue" for the masonry units, and moisture was able to migrate through the mortar joints rather than the masonry units. When moisture evaporates from the masonry it deposits any soluble salts either on the surface as *efflorescence* or below the surface as *subflorescence*. While salts deposited on the surface of masonry units are usually relatively harmless, salt crystallization within a masonry unit creates pressure that can cause parts of the outer surface to spall off or delaminate. If the mortar does not permit moisture or moisture vapor to migrate out of the wall and evaporate, the result will be damage to the masonry units.

Components of Mortar

Sand. Sand is the largest component of mortar and the material that gives mortar its distinctive color, texture and cohesiveness. Sand must be free of impurities, such as salts or clay. The three key characteristics of sand are: particle shape, gradation and void ratios.



Figure 5. The use of hard, portland-cement mortar that is less permeable than the soft bricks has resulted in severe damage to this brick wall. Moisture trapped in the wall was unable to evaporate through the mortar which is intended to be sacrificial, and thus protect the bricks. As a result the moisture remained in the walls until water pressure eventually popped the surface off the bricks. Photo: National Park Service Files.

When viewed under a magnifying glass or low-power microscope, particles of sand generally have either rounded edges, such as found in beach and river sand, or sharp, angular edges, found in crushed or manufactured sand. For repointing mortar, rounded or natural sand is preferred for two reasons. It is usually similar to the sand in the historic mortar and provides a better visual match. It also has better working qualities or plasticity and can thus be forced into the joint more easily, forming a good contact with the remaining historic mortar and the surface of the adjacent masonry units. Although manufactured sand is frequently more readily available, it is usually possible to locate a supply of rounded sand.

The gradation of the sand (particle size distribution) plays a very important role in the durability and cohesive properties of a mortar. Mortar must have a certain percentage of large to small particle sizes in order to deliver the optimum performance. Acceptable guidelines on particle size distribution may be found in ASTM C 144 (American Society for Testing and Materials). However, in actuality, since neither historic nor modern sands are always in compliance with ASTM C 144, matching the same particle appearance and gradation usually requires sieving the sand.

A scoop of sand contains many small voids between the individual grains. A mortar that performs well fills all these small voids with binder (cement/lime combination or mix) in a balanced manner. Well-graded sand generally has a 30 per cent void ratio by volume. Thus, 30 per cent binder by volume generally should be used, unless the historic mortar had a different binder: aggregate ratio. This represents the 1:3 binder to sand ratios often seen in mortar specifications.

For repointing, sand generally should conform to ASTM C 144 to assure proper gradation and freedom from impurities; some variation may be necessary to match the original size and gradation. Sand color and texture also should match the original as closely as possible to provide the proper color match without other additives.

Lime. Mortar formulations prior to the late-19th century used lime as the primary binding material. Lime is derived from heating limestone at high temperatures which burns off the carbon dioxide, and turns the limestone into quicklime. There are three types of limestone—calcium, magnesium, and dolomitic—differentiated by the different levels of magnesium carbonate they contain which impart specific qualities to mortar. Historically, calcium lime was used for mortar rather than the dolomitic lime (calcium magnesium carbonate) most often used today. But it is also important to keep in mind the fact that the historic limes, and other components of mortar, varied a great deal because they were natural, as opposed to modern lime which is manufactured and, therefore, standardized. Because some of the kinds of lime, as well as other components of mortar, that were used historically are no longer readily available, even when a conscious effort is made to replicate a "historic" mix, this may not be achievable due to the differences between modern and historic materials.

Lime, itself, when mixed with water into a paste is very plastic and creamy. It will remain workable and soft indefinitely, if stored in a sealed container. Lime (calcium hydroxide) hardens by carbonation absorbing carbon dioxide primarily from the air, converting itself to calcium carbonate. Once a lime and sand mortar is mixed and placed in a wall, it begins the process of carbonation. If lime mortar is left to dry too rapidly, carbonation of the mortar will be reduced, resulting in poor adhesion and poor durability. In addition, lime mortar is slightly water soluble and thus is able to re-seal any hairline cracks that may develop during the life of the mortar. Lime mortar is soft, porous, and changes little in volume during temperature fluctuations, thus making it a good choice for historic buildings. *Because of these qualities, high calcium lime mortar may be considered for many repointing projects, not just those involving historic buildings.*

For repointing, lime should conform to ASTM C 207, Type S, or Type SA, Hydrated Lime for Masonry Purposes. This machine-slaked lime is designed to assure high plasticity and water retention. The use of quicklime which must be slaked and soaked by hand may have advantages over hydrated lime in some restoration projects if time and money allow.

Lime putty. Lime putty is slaked lime that has a putty or paste-like consistency. It should conform to ASTM C 5. Mortar can be mixed using lime putty according to ASTM C 270 property or proportion specification.

Portland cement. More recent, 20th-century mortar has used portland cement as a primary binding material. A straight portland cement and sand mortar is extremely hard, resists the movement of water, shrinks upon setting, and undergoes relatively large thermal movements. When mixed with water, portland cement forms a harsh, stiff paste that is quite unworkable, becoming hard very quickly. (Unlike lime, portland cement will harden regardless of weather conditions and does not require wetting and drying cycles.) Some portland cement assists the workability and plasticity of the mortar without adversely affecting the finished project; it also provides early strength to the mortar and speeds setting. Thus, it may be appropriate to add some portland cement to an essentially lime-based mortar even when repointing relatively soft 18th or 19th century brick under some circumstances when a slightly harder mortar is required. The more portland cement that is added to a mortar formulation the harder it becomes—and the faster the initial set.

For repointing, portland cement should conform to ASTM C 150. White, non-staining portland cement may provide a better color match for some historic mortars than the more commonly available grey portland cement. But, it should not be assumed, however, that white portland cement is always appropriate for all historic buildings, since the original mortar may have been mixed with grey cement. The cement should not have more than 0.60 per cent alkali to help avoid efflorescence.

Masonry cement. Masonry cement is a preblended mortar mix commonly found at hardware and home repair stores. It is designed to produce mortars with a compressive strength of 750 psi or higher when mixed

MORTAR ANALYSIS

Methods for analyzing mortars can be divided into two broad categories: **wet chemical** and **instrumental**. Many laboratories that analyze historic mortars use a simple **wet-chemical** method called *acid digestion*, whereby a sample of the mortar is crushed and then mixed with a dilute acid. The acid dissolves all the carbonate-containing minerals not only in the binder, but also in the aggregate (such as oyster shells, coral sands, or other carbonate-based materials), as well as any other acid-soluble materials. The sand and fine-grained acid-insoluble material is left behind. There are several variations on the simple acid digestion test. One involves collecting the carbon dioxide gas given off as the carbonate is digested by the acid; based on the gas volume the carbonate content of the mortar can be accurately determined (Jedrzejewska, 1960). Simple acid digestion methods are rapid, inexpensive, and easy to perform, but the information they provide about the original composition of a mortar is limited to the color and texture of the sand. The gas collection method provides more information about the binder than a simple acid digestion test.

Instrumental analysis methods that have been used to evaluate mortars include polarized light or thin-section microscopy, scanning electron microscopy, atomic absorption spectroscopy, X-ray diffraction, and differential thermal analysis. All instrumental methods require not only expensive, specialized equipment, but also highly-trained experienced analysts. However, instrumental methods can provide much more information about a mortar. Thin-section microscopy is probably the most commonly used instrumental method. Examination of thin slices of a mortar in transmitted light is often used to supplement acid digestion methods, particularly to look for carbonate-based aggregate. For example, the new ASTM test method, ASTM C 1324-96 "Test Method for Examination and Analysis of Hardened Mortars" which was designed specifically for the analysis of modern lime-cement and masonry cement mortars, combines a complex series of wet chemical analyses with thin-section microscopy.

The drawback of most mortar analysis methods is that mortar samples of known composition have not been analyzed in order to evaluate the method. Historic mortars were not prepared to narrowly defined specifications from materials of uniform quality; they contain a wide array of locally derived materials combined at the discretion of the mason. While a particular method might be able to accurately determine the original proportions of a lime-cement-sand mortar prepared from modern materials, the usefulness of that method for evaluating historic mortars is questionable unless it has been tested against mortars prepared from materials more commonly used in the past.

Lorraine Schnabel.

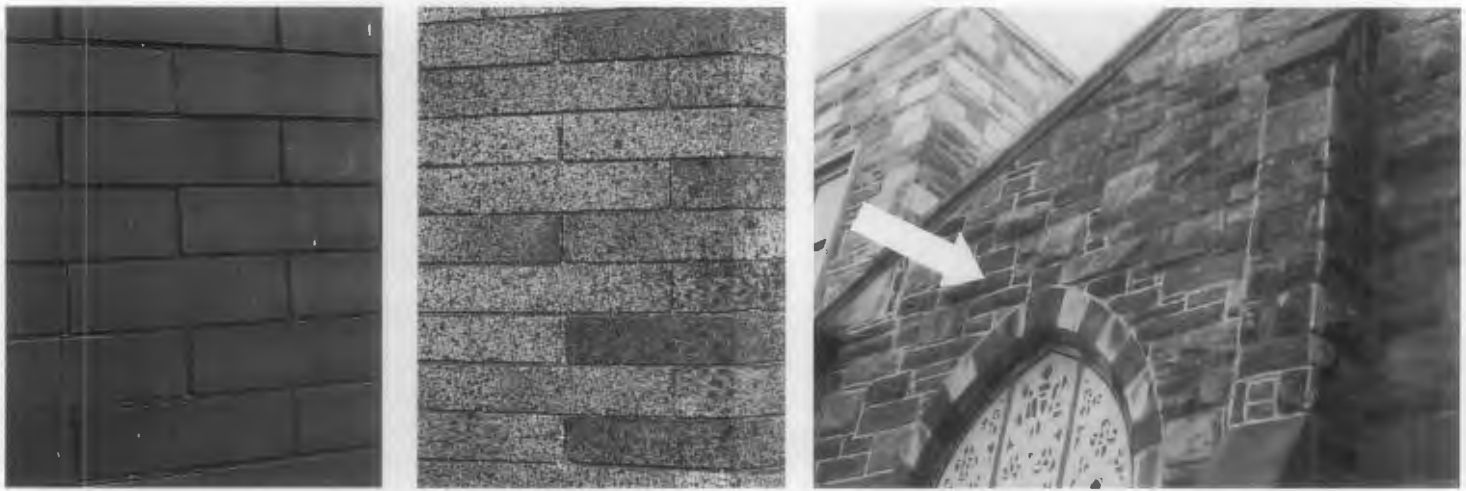


Figure 6. Tinted mortar. (left) Black mortar with a beaded joint was used here on this late-19th century hard pressed red brick and, (center) a dark brown tinted mortar with an almost flush joint was used on this early-20th century Roman brick. (right) When constructed at the turn-of-the-century, this building was pointed with a dark gray mortar to blend with the color of the stone, but the light-colored mortar used in spot repointing has destroyed this harmony and adversely impacts the building's historic character. Photos: Anne Grimmer.

with sand and water at the job site. It may contain hydrated lime, but it always contains a large amount of portland cement, as well as ground limestone and other workability agents, including air-entraining agents. Because masonry cements are not required to contain hydrated lime, and generally do not contain lime, they produce high strength mortars that can damage historic masonry. *For this reason, they generally are not recommended for use on historic masonry buildings.*

Lime mortar (pre-blended). Hydrated lime mortars, and pre-blended lime putty mortars with or without a matched sand are commercially available. Custom mortars are also available with color. In most instances, pre-blended lime mortars containing sand may not provide an exact match; however, if the project calls for total repointing, a pre-blended lime mortar may be worth considering as long as the mortar is compatible in strength with the masonry. If the project involves only selected, "spot" repointing, then it may be better to carry out a mortar analysis which can provide a custom pre-blended lime mortar with a matching sand. In either case, if a preblended lime mortar is to be used, it should contain Type S or SA hydrated lime conforming to ASTM C 207.

Water. Water should be potable—clean and free from acids, alkalis, or other dissolved organic materials.

Other Components

Historic components. In addition to the color of the sand, the texture of the mortar is of critical importance in duplicating historic mortar. Most mortars dating from the mid-19th century on—with some exceptions—have a fairly homogeneous texture and color. Some earlier mortars are not as uniformly textured and may contain lumps of partially burned lime or "dirty lime", shell (which often provided a source of lime, particularly in coastal areas), natural cements, pieces of clay, lampblack or other pigments, or even animal hair. The visual characteristics of these mortars can be duplicated through the use of similar materials in the repointing mortar.

Replicating such unique or individual mortars will require writing new specifications for each project. If possible, suggested sources for special materials should

be included. For example, crushed oyster shells can be obtained in a variety of sizes from poultry supply dealers.

Pigments. Some historic mortars, particularly in the late 19th century, were tinted to match or contrast with the brick or stone (Fig. 6). Red pigments, sometimes in the form of brick dust, as well as brown, and black pigments were commonly used. Modern pigments are available which can be added to the mortar at the job site, but they should not exceed 10 per cent by weight of the portland cement in the mix, and carbon black should be limited to 2 per cent. Only synthetic mineral oxides, which are alkali-proof and sun-fast, should be used to prevent bleaching and fading.

Modern components. Admixtures are used to create specific characteristics in mortar, and whether they should be used will depend upon the individual project. *Air-entraining agents*, for example, help the mortar to resist freeze-thaw damage in northern climates. *Accelerators* are used to reduce mortar freezing prior to setting while *retarders* help to extend the mortar life in hot climates. Selection of admixtures should be made by the architect or architectural conservator as part of the specifications, not something routinely added by the masons.

Generally, modern chemical additives are unnecessary and may, in fact, have detrimental effects in historic masonry projects. The use of antifreeze compounds is not recommended. They are not very effective with high lime mortars and may introduce salts, which may cause efflorescence later. A better practice is to warm the sand and water, and to protect the completed work from freezing. No definitive study has determined whether air-entraining additives should be used to resist frost action and enhance plasticity, but in areas of extreme exposure requiring high-strength mortars with lower permeability, air-entrainment of 10-16 percent may be desirable (see formula for "severe weather exposure" in **Mortar Type and Mix**). Bonding agents are not a substitute for proper joint preparation, and they should generally be avoided. If the joint is properly prepared, there will be a good bond between the new mortar and the adjacent surfaces. In addition, a bonding agent is difficult to remove if smeared on a masonry surface (Fig. 7).

Mortar Type and Mix

Mortars for repointing projects, especially those involving historic buildings, typically are custom mixed in order to ensure the proper physical and visual qualities. These materials can be combined in varying proportions to create a mortar with the desired performance and durability. The actual specification of a particular mortar type should take into consideration all of the factors affecting the life of the building including: current site conditions, present condition of the masonry, function of the new mortar, degree of weather exposure, and skill of the mason. Thus, no two repointing projects are exactly the same. Modern materials specified for use in repointing mortar should conform to specifications of the American Society for Testing and Materials (ASTM) or comparable federal specifications, and the resulting mortar should conform to ASTM C 270, Mortar for Unit Masonry.

Specifying the proportions for the repointing mortar for a specific job is not as difficult as it might seem. Five mortar types, each with a corresponding recommended mix, have been established by ASTM to distinguish high strength mortar from soft flexible mortars. The ASTM designated them in decreasing order of approximate general strength as Type M (2,500 psi), Type S (1,800 psi), Type N (750 psi), Type O (350 psi) and Type K (75 psi). (The letters identifying the types are from the words MASON WORK using every other letter.) Type K has the highest lime content of the mixes that contain portland cement, although it is seldom used today, except for some historic preservation projects. The designation "L" in the accompanying chart identifies a straight lime and sand mix. Specifying the appropriate ASTM mortar by proportion of ingredients, will ensure the desired physical properties. Unless specified otherwise, measurements or proportions for mortar mixes are always given in the following order: cement-lime-sand. Thus, a Type K mix, for example, would be referred to as 1-3-10, or 1 part cement to 3 parts lime to 10 parts sand. Other requirements to create the desired visual qualities should be included in the specifications.

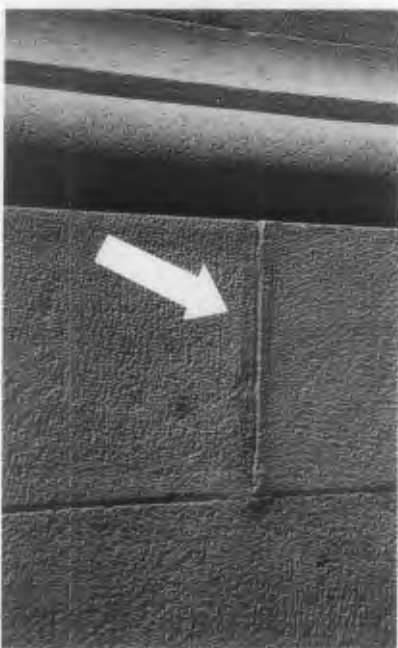


Figure 7. The dark stain on either side of the vertical joint on this sandstone watertable probably resulted from the use of a bonding agent that was not properly cleaned off the masonry after repointing. Photo: Anne Grimmer.



Figure 8. Due to inadequate joint preparation, the repointing mortar has not adhered properly and is falling out of the joint. Photo: Robert C. Mack, FAIA.

The strength of a mortar can vary. If mixed with higher amounts of portland cement, a harder mortar is obtained. The more lime that is added, the softer and more plastic the mortar becomes, increasing its workability. A mortar strong in compressive strength might be desirable for a hard stone (such as granite) pier holding up a bridge deck, whereas a softer, more permeable lime mortar would be preferable for a historic wall of soft brick. Masonry deterioration caused by salt deposition results when the mortar is less permeable than the masonry unit. A strong mortar is still more permeable than hard dense stone. However, in a wall constructed of soft bricks where the masonry unit itself has a relatively high permeability or vapor transmission rate, a soft, high lime mortar is necessary to retain sufficient permeability.

Budgeting and Scheduling

Repointing is both expensive and time consuming due to the extent of handwork and special materials required. It is preferable to repoint only those areas that require work rather than an entire wall, as is often specified. But, if 25 to 50 per cent or more of a wall needs to be repointed, repointing the entire wall may be more cost effective than spot repointing. Total repointing may also be more sensible when access is difficult, requiring the erection of expensive scaffolding (unless the majority of the mortar is sound and unlikely to require replacement in the foreseeable future). Each project requires judgement based on a variety of factors. Recognizing this at the outset will help to prevent many jobs from becoming prohibitively expensive.

In scheduling, seasonal aspects need to be considered first. Generally speaking, wall temperatures between 40 and 95 degrees F (8 and 38 degrees C) will prevent freezing or excessive evaporation of the water in the mortar. Ideally, repointing should be done in shade, away from strong sunlight in order to slow the drying process, especially during hot weather. If necessary, shade can be provided for large-scale projects with appropriate modifications to scaffolding.

The relationship of repointing to other work proposed on the building must also be recognized. For example, if paint removal or cleaning is anticipated, and if the mortar joints are basically sound and need only selective repointing, it is generally better to postpone repointing

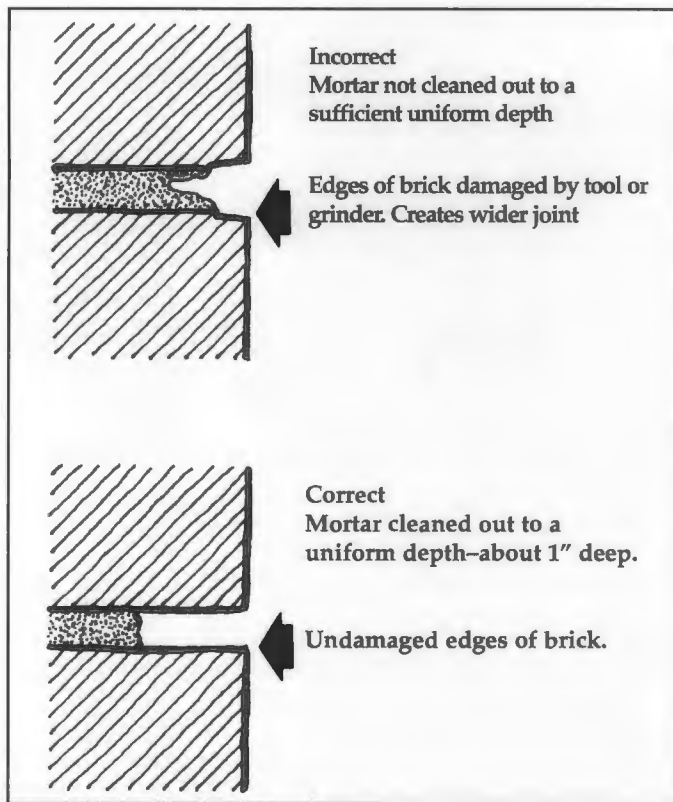


Figure 9. Comparison of incorrect and correct preparation of mortar joints for repointing. Drawing: Robert C. Mack, FAIA, and David W. Look, AIA.

until after completion of these activities. However, if the mortar has eroded badly, allowing moisture to penetrate deeply into the wall, repointing should be accomplished before cleaning. Related work, such as structural or roof repairs, should be scheduled so that they do not interfere with repointing and so that all work can take maximum advantage of erected scaffolding.

Building managers also must recognize the difficulties that a repointing project can create. The process is time consuming, and scaffolding may need to remain in place for an extended period of time. The joint preparation process can be quite noisy and can generate large quantities of dust which must be controlled, especially at air intakes to protect human health, and also where it might damage operating machinery. Entrances may be blocked from time to time making access difficult for both building tenants and visitors. Clearly, building managers will need to coordinate the repointing work with other events at the site.

Contractor Selection

The ideal way to select a contractor is to ask knowledgeable owners of recently repointed historic buildings for recommendations. Qualified contractors then can provide lists of other repointing projects for inspection. More commonly, however, the contractor for a repointing project is selected through a competitive bidding process over which the client or consultant has only limited control. In this situation it is important to ensure that the specifications stipulate that masons must have a minimum of five years' experience with repointing historic masonry buildings to be eligible to bid on the project. Contracts are awarded to the lowest *responsible*

bidder, and bidders who have performed poorly on other projects usually can be eliminated from consideration on this basis, even if they have the lowest prices.

The contract documents should call for unit prices as well as a base bid. Unit pricing forces the contractor to determine in advance what the cost addition or reduction will be for work which varies from the scope of the base bid. If, for example, the contractor has fifty linear feet less of stone repointing than indicated on the contract documents but thirty linear feet more of brick repointing, it will be easy to determine the final price for the work. Note that each type of work—brick repointing, stone repointing, or similar items—will have its own unit price. The unit price also should reflect quantities; one linear foot of pointing in five different spots will be more expensive than five contiguous linear feet.

Execution of the Work

Test Panels. These panels are prepared by the contractor using the same techniques that will be used on the remainder of the project. Several panel locations—preferably not on the front or other highly visible location of the building—may be necessary to include all types of masonry, joint styles, mortar colors, and other problems likely to be encountered on the job. If cleaning tests, for



Figure 10. Using a hammer and masonry chisel is the least damaging and, thus, generally the preferred method of removing old mortar in preparation for repointing historic masonry. Photo: John P. Speweik.



Figure 11. The damage to the edges and corners of these historic bricks was caused by using a mechanical grinder to rake out the joints. Note the overcutting of the head joint and the damage to the arises (corners) of the bricks. Photo: Lee H. Nelson, FAIA.

example, are also to be undertaken, they should be carried out in the same location. Usually a 3 foot by 3 foot area is sufficient for brickwork, while a somewhat larger area may be required for stonework. These panels establish an acceptable standard of work and serve as a benchmark for evaluating and accepting subsequent work on the building.

Joint Preparation. Old mortar should be removed to a minimum depth of 2 to 2- 1/2 times the width of the joint to ensure an adequate bond and to prevent mortar "popouts" (Fig. 8). For most brick joints, this will require removal of the mortar to a depth of approximately 1/2 to 1 inch; for stone masonry with wide joints, mortar may need to be removed to a depth of several inches. Any loose or disintegrated mortar beyond this minimum depth also should be removed (Fig. 9).

Although some damage may be inevitable, careful joint preparation can help limit damage to masonry units. The traditional manner of removing old mortar is through the use of hand chisels and mash hammers (Fig. 10). Though labor-intensive, in most instances this method poses the least threat for damage to historic masonry units and produces the best final product.

The most common method of removing mortar, however, is through the use of power saws or grinders. The use of power tools by unskilled masons can be disastrous for historic masonry, particularly soft brick. Using power saws on walls with thin joints, such as most brick walls, almost always will result in damage to the masonry units by breaking the edges and by overcutting on the head, or vertical joints (Fig. 11).

However, small pneumatically-powered chisels generally can be used safely and effectively to remove mortar on historic buildings as long as the masons maintain appropriate control over the equipment.



Figure 12.. A power grinder, operated correctly by a skilled mason may be used in preparation for repointing to cut wide, horizontal mortar joints, typical of many early-20th century brick structures without causing damage to the brick. Note the use of protective safety equipment. Photo: Robert C. Mack, FAIA.

Under certain circumstances, thin diamond-bladed grinders may be used to cut out *horizontal* joints only on hard portland cement mortar common to most early-20th century masonry buildings (Fig. 12). Usually, automatic tools most successfully remove old mortar without damaging the masonry units when they are used in combination with hand tools in preparation for repointing. Where horizontal joints are uniform and fairly wide, it may be possible to use a power masonry saw to assist the removal of mortar, such as by cutting along the middle of the joint; final mortar removal from the sides of the joints still should be done with a hand chisel and hammer. Caulking cutters with diamond blades can sometimes be used successfully to cut out joints without damaging the masonry. Caulking cutters are slow; they do not rotate, but vibrate at very high speeds, thus minimizing the possibility of damage to masonry units (Fig. 13). Although mechanical tools may be used safely in limited circumstances to cut out horizontal joints in preparation for repointing, they should never be used on vertical joints because of the danger of slipping and cutting into the brick above or below the vertical joint. Using power tools to remove mortar without damaging the surrounding masonry units also necessitates highly skilled masons experienced in working on historic masonry buildings. Contractors



Figure 13. (left) In preparation for repointing, the mortar joints on these granite steps are first cut out mechanically (note the vacuum attached to the cutting tool in foreground to cut down on dust). (right) Final removal of the old mortar is done by hand to avoid damage to the edges of the joints. Mechanical preparation of horizontal joints by an experienced mason may sometimes be acceptable, especially where the joints are quite wide and the masonry is a very hard stone. Photos: Anne Grimmer.

should demonstrate proficiency with power tools before their use is approved.

Using any of these power tools may also be more acceptable on hard stone, such as quartzite or granite, than on terra cotta with its glass-like glaze, or on soft brick or stone. The test panel should determine the acceptability of power tools. If power tools are to be permitted, the contractor should establish a quality control program to account for worker fatigue and similar variables.

Mortar should be removed cleanly from the masonry units, leaving square corners at the back of the cut. Before filling, the joints should be rinsed with a jet of water to remove all loose particles and dust. At the time of filling, the joints should be damp, but with no standing water present. For masonry walls—limestone, sandstone and common brick—that are extremely absorbent, it is recommended that a continual mist of water be applied for a few hours before repointing begins.

Mortar Preparation. Mortar components should be measured and mixed carefully to assure the uniformity of visual and physical characteristics. Dry ingredients are measured by volume and thoroughly mixed before the addition of any water. Sand must be added in a damp, loose condition to avoid over sanding. Repointing mortar is typically pre-hydrated by adding water so it will just hold together, thus allowing it to stand for a period of time before the final water is added. Half the water should be added, followed by mixing for approximately 5 minutes. The remaining water should then be added in small portions until a mortar of the desired consistency is reached. The total volume of water necessary may vary from batch to batch, depending on weather conditions. It is important

to keep the water to a minimum for two reasons: first, a drier mortar is cleaner to work with, and it can be compacted tightly into the joints; second, with no excess water to evaporate, the mortar cures without shrinkage cracks. Mortar should be used within approximately 30 minutes of final mixing, and “retempering,” or adding more water, should not be permitted.

Using Lime Putty to Make Mortar. Mortar made with lime putty and sand, sometimes referred to as roughage or course stuff, should be measured by volume, and may require slightly different proportions from those used with hydrated lime (Fig. 14). No additional water is usually needed to achieve a workable consistency because enough water is already contained in the putty. Sand is proportioned first, followed by the lime putty, then mixed for five minutes or until all the sand is thoroughly coated with the lime putty. But mixing, in the familiar sense of turning over with a hoe, sometimes may not be sufficient if the best possible performance is to be obtained from a lime putty mortar. Although the old practice of chopping, beating and ramming the mortar has largely been forgotten, recent field work has confirmed that lime putty and sand rammed and beaten with a wooden mallet or ax handle, interspersed by chopping with a hoe, can significantly improve workability and performance. The intensity of this action increases the overall lime/sand contact and removes any surplus water by compacting the other ingredients. It may also be advantageous for larger projects to use a mortar pan mill for mixing. Mortar pan mills which have a long tradition in Europe produce a superior lime putty mortar not attainable with today’s modern paddle and drum type mixers.

For larger repointing projects the lime putty and sand can be mixed together ahead of time and stored indefinitely, on or off site, which eliminates the need for piles of sand on the job site. This mixture, which resembles damp brown sugar, must be protected from the air in sealed containers with a wet piece of burlap over the top or sealed in a large plastic bag to prevent evaporation and premature carbonation. The lime putty and sand mixture can be recombined into a workable plastic state months later with no additional water.

If portland cement is specified in a lime putty and sand mortar—Type O (1:2:9) or Type K (1:3:11)—the portland cement should first be mixed into a slurry paste before adding it to the lime putty and sand. Not only will this ensure that the portland cement is evenly distributed throughout the mixture, but if dry portland cement is added to wet ingredients it tends to “ball up,” jeopardizing dispersion. (Usually water must be added to the lime putty and sand anyway once the portland cement is introduced.) Any color pigments should be added at this stage and mixed for a full five minutes. The mortar should be used within 30 minutes to 1 ½ hours and it should not be retempered. Once portland cement has been added the mortar can no longer be stored.

Filling the Joint. Where existing mortar has been removed to a depth of greater than 1 inch, these deeper areas should be filled first, compacting the new mortar in several layers. The back of the entire joint should be filled successively by applying approximately ¼ inch of mortar, packing it well into the back corners. This



Figure 14. Mixing mortar using lime putty: (a) proportioning sand; (b) proportioning lime putty; (c) placing lime putty on top of sand; (d) mixing sand over lime putty; (e) hand mixing mortar; and, (f) sample of mortar after mixing. Photos: John P. Speweik.

application may extend along the wall for several feet. As soon as the mortar has reached thumb-print hardness, another $\frac{1}{4}$ inch layer of mortar—approximately the same thickness—may be applied. Several layers will be needed to fill the joint flush with the outer surface of the masonry. It is important to allow each layer time to harden before the next layer is applied; most of the mortar shrinkage occurs during the hardening process and layering thus minimizes overall shrinkage.

When the final layer of mortar is thumb-print hard, the joint should be tooled to match the historic joint (Fig. 15). Proper timing of the tooling is important for uniform color and appearance. If tooled when too soft, the color will be lighter than expected, and hairline cracks may occur; if tooled when too hard, there may be dark streaks called “tool burning,” and good closure of the mortar against the masonry units will not be achieved.

If the old bricks or stones have worn, rounded edges, it is best to recess the final mortar slightly from the face of the masonry. This treatment will help avoid a joint which is visually wider than the actual joint; it also will avoid creation of a large, thin featheredge which is easily damaged, thus admitting water (Fig. 16). After tooling, excess mortar can be removed from the edge of the joint by brushing with a natural bristle or nylon brush. Metal bristle brushes should never be used on historic masonry.

Curing Conditions. The preliminary hardening of high-lime content mortars—those mortars that contain more lime by volume than portland cement, i.e., Type O (1:2:9), Type K (1:3:11), and straight lime/sand, Type “L” (0:1:3)—takes place fairly rapidly as water in the mix is lost to the porous surface of the masonry and through evaporation. A high lime mortar (especially Type “L”) left to dry out too rapidly can result in chalking, poor adhesion, and poor durability. Periodic wetting of the repointed area after the mortar joints are thumb-print hard and have been finish tooled may significantly accelerate the carbonation process. When feasible, misting using a hand sprayer with a fine nozzle can be simple to do for a day or two after repointing. Local conditions will dictate the frequency of wetting, but initially it may be as often as every hour and gradually reduced to every three or four hours. Walls should be covered with burlap for the first three days after repointing. (Plastic may be used, but it should be tented out and not placed directly against the wall.) This helps keep the walls damp and protects them from direct sunlight. Once carbonation of the lime has begun, it will continue for many years and the lime will gain strength as it reverts back to calcium carbonate within the wall.

Aging the Mortar. Even with the best efforts at matching the existing mortar color, texture, and materials, there will usually be a visible difference between the old and



Figure 15. The profile of the repointed joints on the left replicate the historic joints around the corner to the right on the front of this stone building in Leesburg, VA. The contractor's pride in the repointing work is evident by the signature in the vertical joint. Photo: Anne Grimmer.

new work, partly because the new mortar has been matched to the unweathered portions of the historic mortar. Another reason for a slight mismatch may be that the sand is more exposed in old mortar due to the slight erosion of the lime or cement. Although spot repointing is generally preferable and some color difference should be acceptable, if the difference between old and new mortar is too extreme, it may be advisable in some instances to repoint an entire area of a wall, or an entire feature such as a bay, to minimize the difference between the old and the new mortar. If the mortars have been properly matched, usually the best way to deal with surface color differences is to let the mortars age naturally. Other treatments to overcome these differences, including cleaning the non-repointed areas or staining the new mortar, should be carefully tested prior to implementation.

Staining the new mortar to achieve a better color match is generally not recommended, but it may be appropriate in some instances. Although staining may provide an initial match, the old and new mortars may weather at different rates, leading to visual differences after a few seasons. In addition, the mixtures used to stain the mortar may be harmful to the masonry; for example, they may introduce salts into the masonry which can lead to efflorescence.

Cleaning the Repointed Masonry. If repointing work is carefully executed, there will be little need for cleaning other than to remove the small amount of mortar from the edge of the joint following tooling. This can be done with a stiff natural bristle or nylon brush after the mortar has dried, but before it is initially set (1-2 hours). Mortar that has hardened can usually be removed with a wooden paddle or, if necessary, a chisel.

Further cleaning is best accomplished with plain water and natural bristle or nylon brushes. If chemicals must

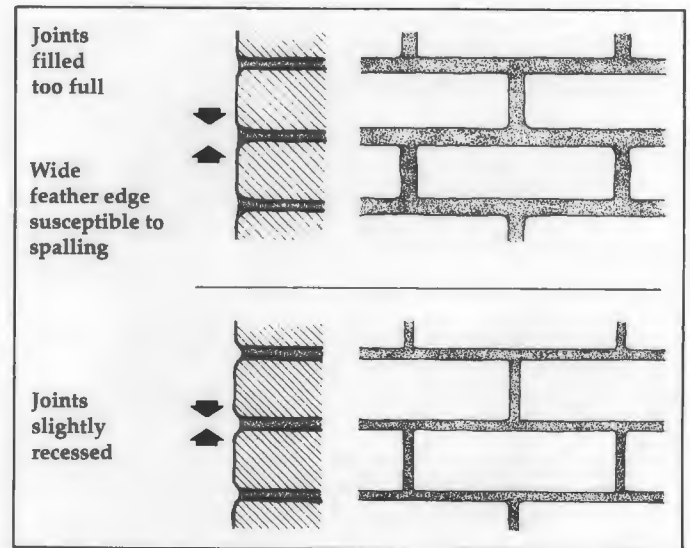


Figure 16. Comparison of visual effect of full mortar joints vs. slightly recessed joints. Filling joints too full hides the actual joint thickness and changes the character of the original brickwork. Drawing: Robert C. Mack, FAIA.

be used, they should be selected with extreme caution. Improper cleaning can lead to deterioration of the masonry units, deterioration of the mortar, mortar smear, and efflorescence. New mortar joints are especially susceptible to damage because they do not become fully cured for several months. Chemical cleaners, particularly acids, should never be used on dry masonry. The masonry should always be completely soaked once with water before chemicals are applied. After cleaning, the walls should be flushed again with plain water to remove all traces of the chemicals.

Several precautions should be taken if a freshly repointed masonry wall is to be cleaned. First, the mortar should be fully hardened before cleaning. Thirty days is usually sufficient, depending on weather and exposure; as mentioned previously, the mortar will continue to cure even after it has hardened. Test panels should be prepared to evaluate the effects of different cleaning



Figure 17. This photograph shows the significant visual change to the character of this historic brick building that has resulted from improper repointing procedures and a noticeably increased thickness of the mortar joints. Photo: Lee H. Nelson, FAIA.

Mortar Types				Suggested Mortar Types for Different Exposures			
(Measured by volume)				Exposure			
Designation	Cement	Hydrated Lime or Lime Putty	Sand	Masonry Material	Sheltered	Moderate	Severe
M	1	1/4	3 - 3 3/4	Very Durable: granite, hard-cored brick, etc.	O	N	S
S	1	1/2	4 - 4 1/2				
N	1	1	5 - 6				
O	1	2	8 - 9	Moderately Durable: limestone, durable stone, molded brick	K	O	N
K	1	3	10 - 12				
"L"	0	1	2 1/4 - 3	Minimally Durable: soft hand-made brick	"L"	K	O

methods. Generally, on newly repointed masonry walls, only very low pressure (100 psi) water washing supplemented by stiff natural bristle or nylon brushes should be used, except on glazed or polished surfaces, where only soft cloths should be used.**

New construction "bloom" or efflorescence occasionally appears within the first few months of repointing and usually disappears through the normal process of weathering. If the efflorescence is not removed by natural processes, the safest way to remove it is by dry brushing with stiff natural or nylon bristle brushes followed by wet brushing. Hydrochloric (muriatic) acid, is generally ineffective, and it should not be used to remove efflorescence. It may liberate additional salts, which, in turn, can lead to more efflorescence.

Surface Grouting is sometimes suggested as an alternative to repointing brick buildings, in particular. This process involves the application of a thin coat of cement-based grout to the mortar joints and the mortar/brick interface. To be effective the grout must extend slightly onto the face of the masonry units, thus widening the joint visually. The change in the joint appearance can alter the historic character of the structure to an unacceptable degree. In addition, although masking of the bricks is intended to keep the grout off the remainder of the face of the bricks, some level of residue, called "veiling," will inevitably remain. Surface grouting cannot substitute for the more extensive work of repointing, and it is not a recommended treatment for historic masonry.

**Additional information on masonry cleaning is presented in *Preservation Briefs 1: The Cleaning and Waterproof Coating of Masonry Buildings*, Robert C. Mack, AIA, Washington, D.C.: Technical Preservation Services, National Park Service, U.S. Department of the Interior, 1975; and *Keeping it Clean: Removing Exterior Dirt, Paint, Stains & Graffiti from Historic Masonry Buildings*, Anne E. Grimmer, Washington, D.C.: Technical Preservation Services, National Park Service, U.S. Department of the Interior, 1988.

Summary

For the Owner/Administrator. The owner or administrator of a historic building should remember that repointing is likely to be a lengthy and expensive process. First, there must be adequate time for evaluation of the building and investigation into the cause of problems. Then, there will be time needed for preparation of the contract documents. The work itself is precise, time-consuming and noisy, and scaffolding may cover the face of the building for some time. Therefore, the owner must carefully plan the work to avoid problems. Schedules for both repointing and other activities will thus require careful coordination to avoid unanticipated conflicts. The owner must avoid the tendency to rush the work or cut corners if the historic building is to retain its visual integrity and the job is to be durable.

For the Architect/Consultant. Because the primary role of the consultant is to ensure the life of the building, a knowledge of historic construction techniques and the special problems found in older buildings is essential. The consultant must assist the owner in planning for logistical problems relating to research and construction. It is the consultant's responsibility to determine the cause of the mortar deterioration and ensure that it is corrected before the masonry is repointed. The consultant must also be prepared to spend more time in project inspections than is customary in modern construction.

For the Masons. Successful repointing depends on the masons themselves. Experienced masons understand the special requirements for work on historic buildings and the added time and expense they require. The entire masonry crew must be willing and able to perform the work in conformance with the specifications, even when the specifications may not be in conformance with standard practice. At the same time, the masons should not hesitate to question the specifications if it appears that the work specified would damage the building.

Visually Examining the Mortar and the Masonry Units

A simple in-situ comparison will help determine the hardness and condition of the mortar and the masonry units. Begin by scraping the mortar with a screwdriver, and gradually tapping harder with a cold chisel and mason's hammer. Masonry units can be tested in the same way beginning, even more gently, by scraping with a fingernail. This relative analysis which is derived from the 10-point hardness scale used to describe minerals, provides a good starting point for selection of an appropriate mortar. It is described more fully in "The Russack System for Brick & Mortar Description" referenced in **Selected Reading** at the end of this Brief.

Mortar samples should be chosen carefully, and picked from a variety of locations on the building to find unweathered mortar, if possible. Portions of the building may have been repointed in the past while other areas may be subject to conditions causing unusual deterioration. There may be several colors of mortar dating from different construction periods or sand used from different sources during the initial construction. Any of these situations can give false readings to the visual or physical characteristics required for the new mortar. Variations should be noted which may require developing more than one mix.

- 1) Remove with a chisel and hammer three or four unweathered samples of the mortar to be matched from several locations on the building. (Set the largest sample aside—this will be used later for comparison with the repointing mortar). Removing a full representation of samples will allow selection of a "mean" or average mortar sample.
- 2) Mash the remaining samples with a wooden mallet, or hammer if necessary, until they are separated into their constituent parts. There should be a good handful of the material.
- 3) Examine the powdered portion—the lime and/or cement matrix of the mortar. Most particularly, note the color. There is a tendency to think of historic mortars as having white binders, but grey portland cement was available by the last quarter of the 19th century, and traditional limes were also sometimes grey. Thus, in some instances, the natural color of the historic binder may be grey, rather than white. The mortar may also have been tinted to create a colored mortar, and this color should be identified at this point.
- 4) Carefully blow away the powdery material (the lime and/or cement matrix which bound the mortar together).
- 5) With a low power (10 power) magnifying glass, examine the remaining sand and other materials such as lumps of lime or shell.
- 6) Note and record the wide range of color as well as the varying sizes of the individual grains of sand, impurities, or other materials.

Other Factors to Consider

Color. Regardless of the color of the binder or colored additives, the sand is the primary material that gives mortar



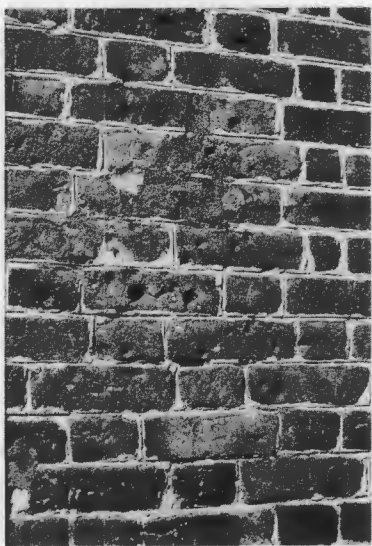
Figure 19. Mortar joints of 18th century brick buildings were often as much as 1/2 inch wide, cut flush and struck with a grapevine joint, but for window and door surrounds where a finer quality rubbed brick was used, mortar joints were very thin. Photo: National Park Service Files.

its color. A surprising variety of colors of sand may be found in a single sample of historic mortar, and the different sizes of the grains of sand or other materials, such as incompletely ground lime or cement, play an important role in the texture of the repointing mortar. Therefore, when specifying sand for repointing mortar, it may be necessary to obtain sand from several sources and to combine or screen them in order to approximate the range of sand colors and grain sizes in the historic mortar sample.

Pointing Style. Close examination of the historic masonry wall and the techniques used in the original construction will assist in maintaining the visual qualities of the building (Fig. 18). Pointing styles and the methods of producing them should be examined. It is important to look at both the horizontal and the vertical joints to determine the order in which they were tooled and whether they were the same style. Some late-19th and early-20th century buildings, for example, have horizontal joints that were raked back while the vertical joints were finished flush and stained to match the bricks, thus creating the illusion of horizontal bands. Pointing styles may also differ from one facade to another; front walls often received greater attention to mortar detailing than side and rear walls (Fig. 19). **Tuckpointing** is not true repointing but the



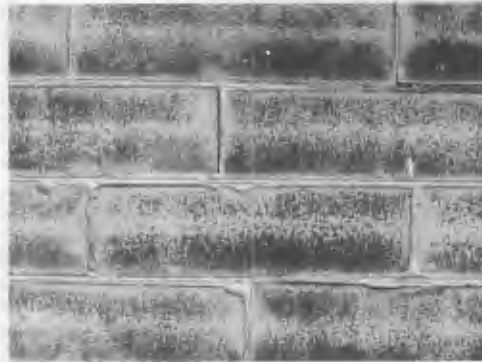
Figure 20. This stone garden wall was tuckpointed to match the tuckpointing on the c. 1920s house on the property. Photo: Anne Grimmer.



a



b



c

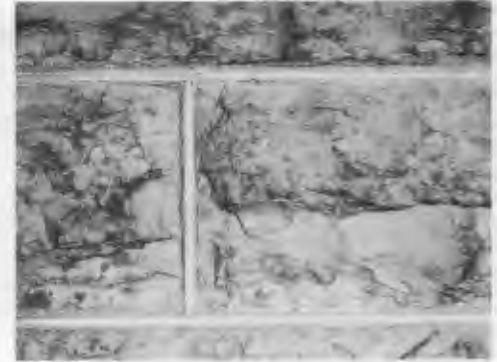
Figure 18. A cross-section of mortar joint types. (a) Grapevine joints on a mid-18th century brick building; (b) flush joints on a mid-to-late 19th century brick building; (c) beaded joints on a late-19th century brick building; (d) early-20th century beaded joints on rough-cut limestone where the vertical joints were struck prior to the horizontal joints; (e) raked joints on 1920s wire brick; (f) horizontal joints on a 1934 building designed by Frank Lloyd Wright were raked back from the face of the bricks, and the vertical joints were filled with a red-tinted mortar to emphasize the horizontality of the narrow bricks, and struck flush with the face of the bricks; (g) the joints on this 20th century glazed terracotta tile building are raked slightly, emphasizing the glazed block face. Photos: National Park Service Files (a,b,e); Robert C. Mack, FAIA (c,d,f,g).



e



f



d



g

application of a raised joint or lime putty joint on top of flush mortar joints (Fig. 20). **Pencil**ing is a purely decorative, painted surface treatment over a mortar joint, often in a contrasting color.

Masonry Units. The masonry units should also be examined so that any replacement units will match the historic masonry. Within a wall there may be a wide range of colors, textures, and sizes, particularly with hand-made brick or rough-cut, locally-quarried stone. Replacement units should blend in with the full range of masonry units rather than a single brick or stone.

Matching Color and Texture of the Repointing Mortar

New mortar should match the unweathered interior portions of the historic mortar. The simplest way to check the match is to make a small sample of the proposed mix and allow it to cure at a temperature of approximately 70 degrees F for about a week, or it can be baked in an oven to speed up the curing; this sample is then broken open and the surface is compared

with the surface of the largest "saved" sample of historic mortar.

If a proper color match cannot be achieved through the use of natural sand or colored aggregates like crushed marble or brick dust, it may be necessary to use a modern mortar pigment.

During the early stages of the project, it should be determined how closely the new mortar should match the historic mortar. Will "quite close" be sufficient, or is "exactly" expected? The specifications should state this clearly so that the contractor has a reasonable idea how much time and expense will be required to develop an acceptable match.

The same judgment will be necessary in matching replacement terra cotta, stone or brick. If there is a known source for replacements, this should be included in the specifications. If a source cannot be determined prior to the bidding process, the specifications should include an estimated price for the replacement materials with the final price based on the actual cost to the contractor.

Conclusion

A good repointing job is meant to last, at least 30 years, and preferably 50-100 years. Shortcuts and poor craftsmanship result not only in diminishing the historic character of a building, but also in a job that looks bad, and will require future repointing sooner than if the work had been done correctly (Fig. 17). The mortar joint in a historic masonry building has often been called a wall's "first line of defense." Good repointing practices guarantee the long life of the mortar joint, the wall, and the historic structure. Although careful maintenance will help preserve the freshly repointed mortar joints, it is important to remember that mortar joints are intended to be sacrificial and will probably require repointing some time in the future. Nevertheless, if the historic mortar joints proved durable for many years, then careful repointing should have an equally long life, ultimately contributing to the preservation of the entire building.

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Useful Addresses

Brick Institute of America
11490 Commerce Park Drive
Reston, VA 22091

National Lime Association
200 N. Glebe Road, Suite 800
Arlington, VA 22203

Portland Cement Association
5420 Old Orchard Road
Skokie, IL 60077

Acknowledgments

Robert C. Mack, FAIA, is a principal in the firm of MacDonald & Mack, Architects, Ltd., an architectural firm that specializes in historic buildings in Minneapolis, Minnesota. **John P. Speweik, CSI**, Toledo, Ohio, is a 5th-generation stonemason, and principal in U.S. Heritage Group, Inc., Chicago, Illinois, which does custom historic mortar matching. **Anne Grimmer**, Senior Architectural Historian, Heritage Preservation Services Program, National Park Service, was responsible for developing and coordinating the revision of this Preservation Brief, incorporating professional comments, and the technical editing.

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The original version of this brief, *Repointing Mortar Joints in Historic Brick Buildings*, was written by Robert C. Mack in 1976, and was revised and updated in 1980 by Robert C. Mack, de Teel Patterson Tiller, and James S. Askins.

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. Comments about this publication should be directed to de Teel Patterson Tiller, Chief, Heritage Preservation Services Program, National Park Service, 1849 C Street, N.W. Suite NC200, Washington, D.C. 20240. This publication is not copyrighted and can be reproduced without penalty. Normal procedures for credit to the authors and the National Park Service are appreciated.

Front Cover: Repointing a historic brick building using a lime-based mortar. Traditional lime mortars have a consistency that enables the mortar to cling to a repointing tool while in a vertical position. Photo: John P. Speweik.



AGENDA ITEM

AGENDA ITEM #7.C

AGENDA DATE: March 28, 2023

PRESENTED BY: Adam Weishaar, Emergency Management Director

AGENDA TOPIC:

Approve a Tyler Technologies contract for rural fire for a total cost not to exceed \$72,957.00

SUMMARY & BACKGROUND OF TOPIC:

Currently the rural fire departments do not have Tyler Technologies Fire Computer Aided Dispatch (CAD) software. This software part of the same package that is maintained by Reno County Information Technology (IT) and used by the Sheriff's Office, Reno County EMS, dispatch, Hutchinson Fire Department, and Hutchinson Police Department. The software will allow the fire districts to view their calls for service and get real-time, updated call notes from dispatch. It will also allow them to complete their fire reports and submit them.

The initial set-up cost of Fire CAD has been a sticking point with the districts in the past. For some of the districts, CAD was too costly for their budgets to absorb without delaying other large purchases. When ARPA Funding became available, this project was submitted and ultimately approved by the BOCC.

When initially quoted for the CAD, prior to requesting ARPA funding, the whole software package was not quoted. When we were ready to start the build, the final quote was in excess of \$90,000. IT was able to work with Tyler Technologies and negotiate this lower quote (\$72,957.00).

CAD is a step forward in standardizing the fire departments across the county, it will help with the safety of firefighters, and also ensure state required reporting is done in a timely manner.

ALL OPTIONS:

Approve the contract.

Do not approve the contract.

RECOMMENDATION / REQUEST:

Approve the contract and authorize County Administrator Randy Partington to sign the contract.

POLICY / FISCAL IMPACT:

When ARPA money was made available, the BOCC approved \$113,000 for the rural fire districts to purchase a countywide policy program (Lexipol), CAD software/hardware, and wildland gear.

Lexipol and the computers were ordered, leaving \$66,987 in ARPA funding left to spend.

The remaining APRA funding earmarked for rural fire will be spent on this project. The approximately \$5,970 remaining on this project will be split evenly between each fire district.

Wildland gear will not be purchased with ARPA funding, each district currently adequate wildland gear, there will be no short-term or long-term negative impacts to fire budgets.



INVESTMENT SUMMARY

Tyler Software	\$ 56,700
Services	\$ 4,350
Third-Party Products	\$ 0
Travel	\$ 0
Total One-Time Cost	\$ 61,050
Annual Recurring Fees/SaaS	\$ 0
Tyler Software Maintenance	\$ 11,907



Quoted By: Amy Shultz
 Quote Expiration: 6/30/23
 Quote Name: 18 Additional Fire Mobiles and 18 Fire RMS Workstations

Sales Quotation For:

Reno County Sheriff
 210 W 1st Ave
 Hutchinson KS 67501-5204
 Phone: +1 (316) 694-2735

Tyler Software

Description	License	Discount	License Total	Year One Maintenance
Enterprise Public Safety				
Fire Records Management System				
FRMS Add-On	\$ 45,000	\$ 0	\$ 45,000	\$ 9,450
Total	\$ 45,000	\$ 0	\$ 45,000	\$ 9,450
Mobile				
Fire Dispatch/Messaging [18]	\$ 7,200	\$ 0	\$ 7,200	\$ 1,512
In-Car Mapping / AVL [18]	\$ 2,700	\$ 0	\$ 2,700	\$ 567
In-Car Routing [18]	\$ 1,800	\$ 0	\$ 1,800	\$ 378
Total	\$ 11,700	\$ 0	\$ 11,700	\$ 2,457
TOTAL	\$ 56,700		\$ 56,700	\$ 11,907

Services

Description	Quantity	Unit Price	Discount	Total	Maintenance
Enterprise Public Safety					

FRMS Configuration	1	\$ 4,350	\$ 0	\$ 4,350	\$ 0
TOTAL		\$ 4,350		\$ 4,350	\$ 0

Summary	One Time Fees	Recurring Fees
Total Tyler Software	\$ 56,700	\$ 11,907
Total Annual	\$ 0	\$ 0
Total Tyler Services	\$ 4,350	\$ 0
Total Third-Party Hardware, Software, Services	\$ 0	\$ 0
Summary Total	\$ 61,050	\$ 11,907

Unless otherwise indicated in the contract or amendment thereto, pricing for optional items will be held For six (6) months from the Quote date or the Effective Date of the Contract, whichever is later.

Customer Approval: _____ Date: _____

Print Name: _____ P.O.#: _____

The Software, Maintenance, Services and Third-Party Products, as applicable, that are itemized above, are hereby added to your existing agreement with Tyler. Fees for Software, if applicable, will be invoiced to you in full upon receipt of your signed quote. Unless otherwise stated in the Assumptions, associated maintenance and support fees shall be invoiced on a prorated basis through the end of your current term, and thereafter in a lump sum amount together with your then-current maintenance and support fees for previously licensed software. Fees for Services, Third-Party Products and/or travel, as applicable, will be invoiced as rendered or delivered. The terms and conditions of your agreement will otherwise control.

Assumptions

Personal Computers must meet the minimum hardware requirements for Enterprise Public Safety products. Microsoft Windows 7 64-bit with Extended Security Updates and Windows 10 64-bit is required for all client machines. Windows Server 2012/2012 R2/2016/2019 and SQL Server 2012 SP4/2014 SP2/2016 SP2/2017/2019 are required for the Application and Database Server(s).

Enterprise Public Safety product requires Microsoft Windows Server 2012/2012 R2/2016/2019 and SQL Server 2012 SP4/2014 SP2/2016 SP2/2017/2019, including required User or Device Client Access Licenses (CALs) for applicable Microsoft products. Servers must meet minimum hardware requirements provided by Tyler. The supported Microsoft operating system and SQL versions are specific to Tyler's release versions. Enterprise Public Safety product requires Microsoft Excel or Windows Search 4.0 for document searching functionality; Microsoft Word is required on the application server for report formatting.

Tyler recommends a 100 Mbps/1 Gbps Ethernet network for the local area network. Wide area network requirements vary based on system configuration, Tyler will provide further consultation for this environment.

Does not include servers, workstations, or any required third-party hardware or software unless specified in this Investment Summary. Client is responsible for any third-party support.

Licensed Software, and third-party software embedded therein, if any, will be delivered in a machine readable form to Client via an agreed upon network connection. Any taxes or fees imposed are the responsibility of the purchaser and will be remitted when imposed.

Tyler's GIS implementation services are to assist the Client in preparing the required GIS data for use with the Licensed Enterprise Public Safety Software. Depending upon the Licensed Software the Client at a minimum will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard Esri file format (Personal Geodatabase, File Geodatabase, Shape Files). Client is responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary, Tyler will assist Client in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. Tyler is not responsible for the accuracy of or any ongoing maintenance of the GIS data used within the Licensed Enterprise Public Safety Software.

Client is responsible for any ongoing annual maintenance on third-party products and is advised to contact the third-party vendor to ensure understanding of and compliance with all maintenance requirements.

All Tyler Clients are required to use Esri's ArcGIS Suite to maintain GIS data. All maintenance, training and ongoing support of this product will be contracted with and conducted by Esri. Maintenance for Esri's ArcGIS suite of products that are used for maintaining Client's GIS data will be contracted by Client separately with Esri.

When Custom interface is included, Custom interface will be operational with existing third-party software. Any subsequent changes to third-party applications may require additional services.

When State/NCIC is included, Client is responsible for obtaining the necessary State approval and any non-Tyler hardware and software. Includes state-specific standard forms developed by Tyler. Additional forms can be provided for an additional fee.

The amount of converted data entering the new system can drastically impact storage utilization. Additional drive space may be required on the production and test SQL and file storage servers to accommodate the converted data based on the quantity of source data. During the conversion process, additional drive space on the production and test SQL servers will also be required temporarily. Does not apply to Data Archive

Travel expenses will be billed as incurred according to Tyler's standard business travel policy.

AVL requires third-party GPS hardware.
As discussed with County IT, County IT will handle implementation and training.



AGENDA ITEM

AGENDA ITEM #7.D

AGENDA DATE: March 28, 2023

PRESENTED BY: Don Brittain, Director of Public Works

AGENDA TOPIC:

Cost Share Program Agreement between the Kansas Department of Transportation, the City of Hutchinson and Reno County. The City of Hutchinson and Reno County applied jointly for the 2022 Fall Cost Share, for improvements to the Woodie Seat Freeway. The Project was selected in October of 2022.

Agreement No. 009-23, Project No. U-2457-01

SUMMARY & BACKGROUND OF TOPIC:

The City of Hutchinson and Reno County applied jointly for the 2022 Fall Cost Share, for improvements to the Woodie Seat Freeway. The Project is for bridge deck patching and adding an overlay to the Woodie Seat Bridge over the Arkansas River, and to improve the Woodie Seat roadway from the Arkansas River Bridge North to the end of the Avenue C Bridge.

The Project was selected in October of 2022.

Reno County will be paying 58 percent of Woodie Seat Bridge over the Arkansas River Project costs and the City will be paying 58 percent of the Woodie Seat Roadway Project with the maximum Cost Share Award being \$1,500,000.00.

ALL OPTIONS:

Approve and sign

Return to staff for revision

Do not sign and lose this funding from the Kansas Department of Transportation

RECOMMENDATION / REQUEST:

Approve and sign as recommended by the Public Works Director.

POLICY / FISCAL IMPACT:

The Project will be Funded from the Special Bridge Fund 006.

PROJECT NO. U-2457-01
COST SHARE PROGRAM
OVERLAY AND DECK PATCHING
CITY OF HUTCHINSON, KANSAS
RENO COUNTY, KANSAS

AGREEMENT

This Agreement is between the **Secretary of Transportation**, Kansas Department of Transportation (KDOT) (the “Secretary”), the **City of Hutchinson, Kansas** (“City”), and **Reno County, Kansas** (County), collectively, the “Parties.”

RECITALS:

- A. The Kansas Legislature, through K.S.A. §§ 68-2314b and 68-2314c, authorized the Secretary to provide funding for programs to assist local units of government in the administration of transportation projects including construction, preservation, expansion, and modernization throughout the state. The KDOT Cost Share Program has been authorized by the Governor of the State of Kansas and the Kansas Secretary of Transportation under this legislation.
- B. The City applied for, and the Secretary has selected, a bridge overlay and deck patching project to participate in the Cost Share Program, as further described in this Agreement.
- C. The Parties are empowered by the laws of Kansas to enter into agreements for the construction of transportation projects in the state of Kansas.
- D. Cities and counties are, under certain circumstances, entitled to receive assistance in the financing of the construction and reconstruction of streets and state highways, provided however, to be eligible for such state aid, such work is required to be done in accordance with the laws of Kansas.

NOW THEREFORE, in consideration of these premises and the mutual covenants set forth herein, the Parties agree to the following terms and provisions.

ARTICLE I

DEFINITIONS: The following terms as used in this Agreement have the designated meanings:

- 1. “**Agreement**” means this written document, including all attachments and exhibits, evidencing the legally binding terms and conditions of the agreement between the Parties.
- 2. “**City**” means the City of Hutchinson, Kansas, with its place of business at 1500 S Plum Street, Hutchinson, KS 67501.

3. **“Construction”** means the work done on the Project after Letting, consisting of building, altering, repairing, improving, or demolishing any structure, building or highway; any drainage, dredging, excavation, grading or similar work upon real property.
4. **“Construction Contingency Items”** mean unforeseeable elements of cost within the defined project scope identified after the Construction phase commences.
5. **“Construction Engineering”** means inspection services, material testing, engineering consultation, and other reengineering activities required during Construction of the Project.
6. **“Consultant”** means any engineering firm or other entity retained to perform services for the Project.
7. **“Contractor”** means the entity awarded the Construction contract for the Project and any subcontractors working for the Contractor with respect to the Project.
8. **“County”** means Reno County, Kansas, with its place of business at 206 W. 1st Avenue, Hutchinson, KS 67501.
9. **“Design Plans”** means design plans, specifications, estimates, surveys, and any necessary studies or investigations, including, but not limited to, environmental, hydraulic, and geological investigations or studies necessary for the Project under this Agreement.
10. **“Effective Date”** means the date the Secretary or the Secretary’s designee signs this Agreement.
11. **“Encroachment”** means any building, structure, farming, vehicle parking, storage or other object or thing including, but not limited to, signs, posters, billboards, roadside stands, fences, or other private installations, not authorized to be located within the Right of Way which may or may not require removal during Construction pursuant to the Design Plans.
12. **“Hazardous Waste”** includes, but is not limited to, any substance which meets the test of hazardous waste characteristics by exhibiting flammability, corrosivity, or reactivity, or which is defined by state and federal laws and regulations, and any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare, including but not limited to leaking underground storage tanks. Any hazardous waste as defined by state and federal laws and regulations and amendments occurring after November 11, 1991, is incorporated by reference and includes but is not limited to: (1) 40 C.F.R. § 261, *et seq.*, Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Toxicity Characteristics Revisions; Final Rule; (2) 40 C.F.R. § 280, *et seq.*, Underground Storage Tanks; Technical Requirements and State Program Approval; Final Rules; (3) 40 C.F.R. § 300, National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule; and (4) K.S.A. § 65-3430, *et seq.*, Hazardous Waste.

13. **“KDOT”** means the Kansas Department of Transportation, an agency of the State of Kansas, with its principal place of business located at 700 SW Harrison Street, Topeka, KS, 66603-3745.

14. **“Letting” or “Let”** means the process of receiving bids prior to any award of a Construction contract for any portion of the Project.

15. **“MUTCD”** means the latest version of the Manual on Uniform Traffic Control Devices as adopted by the Secretary.

16. **“Non-Participating Costs”** means the costs of any items or services which the Secretary, acting on the Secretary’s own behalf, reasonably determines are not an integral part of the Construction of the Project.

17. **“Participating Costs”** means expenditures for items or services which are an integral part of highway, bridge, and road construction projects, as reasonably determined by the Secretary.

18. **“Parties”** means the Secretary of Transportation and KDOT, individually and collectively, and the City.

19. **“Preliminary Engineering”** means pre-construction activities including, but not limited to, design work generally performed by a consulting engineering firm that takes place before Letting.

20. **“Project”** means all phases and aspects of the Construction endeavor that is the subject of this Agreement to be undertaken by the City, as and when authorized by the Secretary prior to Letting, being: **Patching the deck and adding an overlay to Woodie Seat Freeway over the Arkansas River, and improve the Woodie Seat road way from Arkansas River bridge north to the end of Avenue C Bridge.**

21. **“Project Limits”** means that area of Construction for the Project, including all areas between and within the Right of Way boundaries as shown on the Design Plans.

22. **“Responsible Bidder”** means one who makes an offer to construct the Project in response to a request for bid with the technical capability, financial capacity, human resources, equipment, and performance record required to perform the contractual services.

23. **“Right of Way”** means the real property and interests therein necessary for Construction of the Project, including fee simple title, dedications, permanent and temporary easements, and access rights, as shown on the Design Plans.

24. **“Secretary”** means the Secretary of Transportation of the State of Kansas, and the Secretary’s successors and assigns.

25. **“Utilities” or “Utility”** means all privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, and other similar commodities, including non-transportation fire and police communication systems which directly or indirectly serve the public.

ARTICLE II: FUNDING

1. **Funding.** The table below reflects the funding commitments of each Party. The Total Actual Costs of Construction include Construction Contingency Items. The Parties agree estimated costs and contributions are to be used for encumbrance purposes and may be subject to change.

Party	Responsibility
Secretary	42% of Total Actual Costs of Construction; Total Contribution to Actual Costs of Construction not to exceed \$1,500,000.00.
City	35% of Total Actual Costs of Construction until Secretary’s funding limit is reached; 100% of Total Actual Costs of Construction after Secretary’s funding limit is reached; 100% of Cost of Preliminary Engineering, Construction Engineering, Right of Way, and Utility Adjustments; 100% Non-Participating Costs.
County	23% of Total Actual Costs of Construction until Secretary’s funding limit is reached; 100% of Total Actual Costs of Construction after Secretary’s funding limit is reached; 100% of Cost of Preliminary Engineering, Construction Engineering, Right of Way, and Utility Adjustments; 100% Non-Participating Costs.

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ARTICLE III: SECRETARY RESPONSIBILITIES

1. **Technical Information on Right of Way Acquisition.** Upon a request from the City, the Secretary will provide technical information to help the City acquire Right of Way in accordance with the laws of the State of Kansas.

2. **Reimbursement Payments.** The Secretary agrees to make partial payments to the City for amounts not less than \$1,000.00 and no more frequently than monthly. Such payments will be made after receipt of proper billing and approval by a licensed professional engineer, a licensed professional architect, and/or licensed landscape architect, as applicable, employed by the

City that the Project is being constructed within substantial compliance of the Design Plans.

ARTICLE IV: CITY RESPONSIBILITIES

1. **Access Control.** The City shall maintain the control of access rights and prohibit the construction or use of any entrances or access points along the Project within the City other than those shown on the final Design Plans unless prior approval is obtained from the Secretary.

2. **Accounting.** Upon request by the Secretary and in order to enable the Secretary to report all costs of the Project to the legislature, the City shall provide the Secretary an accounting of all actual Non-Participating Costs which are paid directly by the City to any party outside of the Secretary and all costs incurred by the City not to be reimbursed by the Secretary for Preliminary Engineering, Right of Way, Utility adjustments, Construction, and Construction Engineering work phases, or any other major expense associated with the Project.

3. **Audit.** The City shall participate and cooperate with the Secretary in an annual audit of the Project. The City shall make its records and books available to representatives of the Secretary for audit for a period of five (5) years after date of final payment under this Agreement. If any such audits reveal payments have been made with state funds by the City for items considered Non-Participating Costs, the City shall promptly reimburse the Secretary for such items upon notification by the Secretary.

4. **Authorization of Signatory.** The City shall authorize a duly appointed representative to sign for the City any or all routine reports as may be required or requested by the Secretary in the completion of the Project.

5. **Cancellation by City.** If the City cancels the Project, it shall reimburse the Secretary for any costs incurred by the Secretary prior to the cancellation of the Project. The City agrees to reimburse the Secretary within thirty (30) days after receipt by the City of the Secretary's statement of the cost incurred by the Secretary prior to the cancellation of the Project.

6. **Conformity with State, Local, and Federal Requirements.** The City shall be responsible to design the Project or contract to have the Project designed in conformity with the state, local, and federal design criteria appropriate for the Project as well as in conformity with state, local, and federal law appropriate for the Project.

7. **Consultant Contract Language.** The City shall include language requiring conformity with Article IV, paragraph 6 above, in all contracts between the City and any Consultant with whom the City has contracted to perform services for the Project. In addition, any contract between the City and any Consultant retained by them to perform any of the services described or referenced in this paragraph for the Project covered by this Agreement shall contain language requiring conformity with Article IV, paragraph 6 above. In addition, any contract between the City and any Consultant with whom the City has contracted to prepare and certify Design Plans for the Project covered by this Agreement shall also contain the following provisions:

(a) Completion of Design. Language requiring completion of all plan development stages no later than the current Project schedule's due dates as issued by KDOT, exclusive of delays beyond the Consultant's control.

(b) Progress Reports. Language requiring the Consultant to submit to the City (and to the Secretary upon request) progress reports at monthly or at mutually agreed intervals in conformity with the official Project schedule.

(c) Third-Party Beneficiary. Language making the Secretary a third-party beneficiary in the agreement between the City and the Consultant. Such language shall read:

“Because of the Secretary of Transportation of the State of Kansas’ (Secretary’s) obligation to administer state funds, federal funds, or both, the Secretary shall be a third-party beneficiary to this agreement between the City and the Consultant. This third-party beneficiary status is for the limited purpose of seeking payment or reimbursement for damages and costs the Secretary, the City, or both, incurred or will incur because the Consultant failed to comply with its contract obligations under this Agreement or because of the Consultant’s negligent acts, errors, or omissions. Nothing in this provision precludes the City from seeking recovery or settling any dispute with the Consultant as long as such settlement does not restrict the Secretary’s right to payment or reimbursement.”

8. **Corrective Work.** Representatives of the Secretary may make periodic inspection of the Project and the records of the City as may be deemed necessary or desirable. The City shall direct or cause its contractor to accomplish any corrective action or work required by the Secretary’s representative as needed for a determination of state participation. The Secretary does not undertake (for the benefit of the City, the Contractor, the Consultant, or any third party) the duty to perform day-to-day detailed inspection of the Project or to catch the Contractor’s errors, omissions, or deviations from the final Design Plans.

9. **Design and Specifications.** The City shall be responsible to make or contract to have made Design Plans for the Project.

10. **Future Encroachments.** Except as provided by state, local, and federal laws, the City agrees it shall not in the future permit Encroachments upon the Right of Way of the Project, and specifically shall require any gas and fuel dispensing pumps erected, moved, or installed along the Project be placed a distance from the Right of Way line no less than the distance permitted by the National Fire Code.

11. **Hazardous Waste.** The City agrees to the following regarding Hazardous Waste:

(a) **Removal of Hazardous Waste.** The City shall locate and be responsible for

remediation and cleanup of any Hazardous Waste discovered within the Project Limits. The City shall take appropriate action to cleanup and remediate any identified Hazardous Waste prior to Letting. The City shall also investigate all Hazardous Waste discovered during Construction and shall take appropriate action to clean up and remediate Hazardous Waste. The standards to establish cleanup and remediation of Hazardous Waste include, but are not limited to, federal programs administered by the Environmental Protection Agency (EPA), State of Kansas environmental laws and regulations, and City and County standards where the Hazardous Waste is located.

(b) Responsibility for Hazardous Waste Remediation Costs. The City shall be responsible for all damages, fines or penalties, expenses, fees, claims, and costs incurred from remediation and cleanup of any Hazardous Waste within the Project Limits which is discovered prior to Letting or during Construction.

(c) Hazardous Waste Indemnification. The City shall hold harmless, defend, and indemnify the Secretary, the Secretary's agents, and employees from all claims, including contract claims and associated expenses, and from all fines, penalties, fees, or costs imposed under state or federal laws arising out of or related to any act of omission by the City in undertaking cleanup or remediation for any Hazardous Waste.

(d) No Waiver. By signing this Agreement, the City has not repudiated, abandoned, surrendered, waived, or forfeited its right to bring any action, seek indemnification or seek any other form of recovery or remedy against any third party responsible for any Hazardous Waste on any Right of Way within the Project Limits. The City reserves the right to bring any action against any third party for any Hazardous Waste on any Right of Way within the Project Limits.

12. **Indemnification.**

(a) General Indemnification. To the extent permitted by law and subject to the maximum liability provisions of the Kansas Tort Claims Act (K.S.A. § 75-6101, *et seq.*) as applicable, the City shall defend, indemnify, hold harmless, and save the Secretary and the Secretary's authorized representatives from any and all costs, liabilities, expenses, suits, judgments, damages to persons or property, or claims of any nature whatsoever arising out of or in connection with the provisions or performance of this Agreement by the City, the City's employees, agents, subcontractors or its consultants. The City shall not be required to defend, indemnify, or hold the Secretary harmless for negligent acts or omissions of the Secretary or the Secretary's authorized representatives or employees.

(b) Indemnification by Contractors. The City agrees to require the Contractor to indemnify, hold harmless, and save the Secretary and the City from personal injury and property damage claims arising out of the act or omission of the Contractor, the Contractor's agent, subcontractors (at any tier), or suppliers (at any tier). If the Secretary or the City defends a third party's claim, the Contractor shall indemnify the Secretary and the City for damages paid to the third party and all related expenses either the Secretary or

the City or both incur in defending the claim.

13. **Inspections.** The City is responsible for providing Construction Engineering for the Project in accordance with any applicable state and local rules and guidelines.

(a) **By City personnel.** City personnel who are fully qualified to perform the inspection services in a competent and professional manner may be utilized by the City to inspect the Project, in which case the City shall provide the Secretary with a list of such personnel who will act as the assigned inspectors and their certifications.

(b) **By a Consultant.** If the City does not have sufficient qualified engineering employees to accomplish the Construction Engineering on this Project, it may engage the professional services of a qualified consulting engineering firm to do the necessary services. The Consultant retained shall represent it is in good standing and full compliance with the statutes of the State of Kansas for registration of professional engineers (K.S.A. § 74-7021), the FHWA and all federal agencies, provide personnel who are fully qualified to perform the services in a competent and professional manner, and provide the Secretary with a list of assigned inspectors and their certifications.

(c) **Protective Clothing.** The City shall require at a minimum all City personnel and all Consultant personnel performing Construction Engineering to comply with the high visibility requirements of the MUTCD, Chapter 6E.02, High-Visibility Safety Apparel. If the City executes an agreement for Construction Engineering, the agreement shall contain this requirement as a minimum. The City may set additional clothing requirements for adequate visibility of personnel.

14. **Legal Authority.** The City agrees to adopt all necessary ordinances and/or resolutions and to take such administrative or legal steps as may be required to give full effect to the terms of this Agreement.

15. **Letting and Administration by City.** The City shall Let the contract for the Project and shall award the contract to the lowest Responsible Bidder upon concurrence in the award by the Secretary. The City further agrees to administer the Construction of the Project in accordance with the Design Plans, and the current version of the City's currently approved procedures, and administer the payments due the Contractor, including the portion of the cost borne by the Secretary.

16. **Maintenance.** When the Project is completed and final acceptance is issued, the City shall, at its own cost and expense, maintain the portion of the Project beginning at the north edge of the bridge over the Arkansas River and continuing northeasterly then due north to the northerly limit of the Project, as depicted in Division of Maintenance Responsibilities Map, which is attached to and incorporated into this Agreement by this reference, and shall make ample provision each year for such maintenance. If notified by the State Transportation Engineer of any unsatisfactory maintenance condition, the City shall begin the necessary repairs within thirty (30) days and shall prosecute the work continuously until it is satisfactorily completed.

17. **Performance Bond.** The City agrees to require the Contractor to provide a performance bond in a sum not less than the amount of the contract as awarded.

18. **Period of Performance.** The City shall commence implementation of the Project upon receipt of a Notice to Proceed and complete the Project within two (2) years of the Letting date the Notice to Proceed was issued to the City.

19. **Plan Retention.** The City shall maintain a complete set of final Design Plans reproducible, as-built prints, approved shop drawings, and structural materials certification for five (5) years after the Project's completion. The City further agrees to make such reproducible, prints, drawings, and certifications available for inspection by the Secretary upon request. The City shall provide access to or copies of all the above-mentioned documents to the Secretary.

20. **Responsibility for Adequacy of Design.** The City shall be responsible for and require any Consultant retained by it to be responsible for the adequacy and accuracy of the Design Plans for the Project. Any review of these items performed by the Secretary or the Secretary's representatives is not intended to and shall not be construed to be an undertaking of the City's and its Consultant's duty to provide adequate and accurate Design Plans for the Project. Reviews by the Secretary are not done for the benefit of the Consultant, the construction Contractor, the City, any other political subdivision, or the traveling public. The Secretary makes no representation, express or implied warranty to any person or entity concerning the adequacy or accuracy of the Design Plans for the Project, or any other work performed by the Consultant or the City.

21. **Removal of Encroachments.** The City shall initiate and proceed with diligence to remove or require the removal of all Encroachments either on or above the limits of the Right of Way within its jurisdiction as shown on the final Design Plans for this Project. It is further agreed all such Encroachments shall be removed before the Project is advertised for Letting; except the Secretary may permit the Project to be advertised for Letting before such Encroachment is fully removed if the Secretary determines the City and the owner of the Encroachment have fully provided for the physical removal of the Encroachment and such removal shall be accomplished within a time sufficiently short to present no hindrance or delay to the Construction of the Project.

22. **Right of Way.** The City agrees to the following regarding Right of Way:

(a) **Right of Way Acquisition.** Any and all acquisitions of any Right of Way shown on the final Design Plans for the project shall be done in accordance with law. The City, including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987, and as provided in 49 C.F.R. Part 24, entitled Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs, and K.S.A. §§ 58-3501 to 58-3507, and in accordance with the schedule established by the City. The City shall certify to the Secretary, on forms provided by the KDOT's Bureau of Local Projects, such Right of Way has been acquired. Further, the City shall have recorded in the Office of the Register of Deeds all Right of Way, deeds, dedications, permanent easements, and

temporary easements.

(b) **Right of Way Documentation.** The City shall provide all legal descriptions required for Right of Way acquisition work. Right of Way descriptions shall be signed and sealed by a licensed land surveyor responsible for the preparation of the Right of Way descriptions. The City agrees copies of all documents, including recommendations and coordination for appeals, bills, contracts, journal entries, case files, or documentation requested by the Office of Chief Counsel shall be delivered within the time limits set by the Secretary.

(c) **Highway Use Permit.** If the Project necessitates the City to work on Right of Way that is owned by the Secretary, the City shall submit a Highway Use Permit (KDOT Form 304) to the local KDOT District Office for review and approval. A copy of the Highway Use Permit may be found at https://www.ksdot.org/Assets/wwwksdotorg/dot_304_hwy_permit.pdf.

(d) **Relocation Assistance.** The City shall contact the Secretary if there will be any displaced person on the Project prior to making the offer for the property. The Parties mutually agree the City shall undertake the relocation of eligible persons as defined in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987, and as provided in 49 C.F.R. Part 24, entitled Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs, and in general accordance with K.S.A. §§ 58-3501 to 58-3507, inclusive, and Kansas Administrative Regulations 36-16-1, *et seq.* The Secretary will provide information, guidance, and oversight to the City for any relocations required by the Project.

23. **Secretary Authorization.** The Secretary is authorized by the City to take such steps as deemed necessary or advisable by the Secretary to secure the benefits of state aid for this Project.

24. **Submission of Design Plans to Secretary.** Upon their completion, the City shall have the Design Plans submitted to the Secretary by a licensed professional engineer, a licensed professional architect, and/or licensed landscape architect, as applicable, attesting to the conformity of the Design Plans with Article IV, paragraph 5. The Design Plans shall be signed and sealed by the licensed professional engineer, licensed professional architect, and/or licensed landscape architect, as applicable, responsible for preparation of the Design Plans. In addition, geological investigations or studies shall be signed and sealed by either a licensed geologist or licensed professional engineer who is responsible for the preparation of the geological investigations or studies. All technical professionals involved in the Project are required to meet the applicable licensing and/or certification requirements as stated in K.S.A. § 74-7001, *et seq.*

25. **Traffic Control.** The City agrees to the following regarding traffic control for the Project:

(a) **Temporary Traffic Control.** The City shall provide a temporary traffic

control plan within the Design Plans, which includes the City's plan for handling multi-modal traffic during Construction, including detour routes and road closings, if necessary, and installation of alternate or temporary pedestrian accessible paths to pedestrian facilities in the public Right of Way within the Project Limits. The City's temporary traffic control plan shall conform to the latest version of the MUTCD, as adopted by the Secretary, and comply with the American Disabilities Act of 1990 (ADA) as amended by the ADA Amendments Act of 2008, implementing regulations at 28 C.F.R. Part 35, and FHWA rules, regulations, and guidance pertaining to the same.

(b) Permanent Traffic Control. The location, form, and character of informational, regulatory, and warning signs, of traffic signals and of curb and pavement or other markings installed or placed by any public authority, or other agency as authorized by K.S.A. § 8-2005, shall conform to the latest version of the MUTCD as adopted by the Secretary.

(c) Parking Control. The City shall control parking of vehicles on the city streets throughout the length of the Project covered by this Agreement. On-street parking will be permitted until such time as parking interferes with the orderly flow of traffic along the street.

(d) Traffic Movements. The arterial characteristics inherent in the Project require uniformity in information and regulations to the end that traffic may be safely and expeditiously served. The LPA shall adopt and enforce rules and regulations governing traffic movements as may be deemed necessary or desirable by the Secretary and the FHWA.

26. Utilities. The LPA agrees to the following regarding Utilities:

(a) Utility Relocation. The LPA shall move or adjust, or cause to be moved or adjusted, and shall be responsible for such removal or adjustment of all existing Utilities necessary to construct the Project in accordance with the final Design Plans. New or existing Utilities to be installed, moved, or adjusted shall be located or relocated in accordance with the current version of the City's standard procedures.

(b) Status of Utilities. The City shall furnish the Secretary a list identifying existing and known Utilities affected, together with locations and proposed adjustments of the same and designate a representative to be responsible for coordinating the necessary removal or adjustment of Utilities.

(c) Time of Relocation. The City shall expeditiously take such steps as are necessary to facilitate the early adjustment of any Utilities, initiate the removal or adjustment of the Utilities, and proceed with reasonable diligence to prosecute this work to completion. The City shall certify to the Secretary on forms supplied by the Secretary that all Utilities required to be moved prior to Construction have either been moved or a date provided by the City as to when, prior to the scheduled Letting and Construction,

Utilities will be moved. The City shall move, adjust, or cause to be moved or adjusted all necessary Utilities within the time specified in the City's certified form except those necessary to be moved or adjusted during Construction and those which would disturb the existing street surface. The City shall initiate and proceed to complete adjusting the remaining Utilities not required to be moved during Construction so as not to delay the Contractor in Construction of the Project.

(d) Permitting of Private Utilities. The City shall certify to the Secretary all privately owned Utilities occupying public Right of Way required for the Construction of the Project are permitted at the location by franchise, ordinance, agreement or permit and the instrument shall include a statement as to which party shall bear the cost of future adjustments or relocations required as a result of street or highway improvements.

(e) Indemnification. To the extent permitted by law, the City shall indemnify, hold harmless, and save the Secretary and the Contractor for damages incurred by the Secretary and Contractor because identified Utilities have not been moved or adjusted timely or accurately.

(f) Cost of Relocation. Except as provided by state and federal laws, the expense of the removal or adjustment of the Utilities located on public Right of Way shall be borne by the owners. The expense of the removal or adjustment of privately-owned Utilities located on private Right of Way or easements shall be borne by the City except as provided by state and federal laws.

ARTICLE V: COUNTY RESPONSIBILITIES

1. Maintenance. When the Project is completed and final acceptance is issued, the County shall, at its own cost and expense, maintain the portion of the Project beginning at the southernly limit extending northeasterly to a point at the north edge of the bridge over the Arkansas River, as depicted in Division of Maintenance Responsibilities Map, which is attached to and incorporated into this Agreement by this reference, and shall make ample provision each year for such maintenance. If notified by the State Transportation Engineer of any unsatisfactory maintenance condition, the County shall begin the necessary repairs within thirty (30) days and shall prosecute the work continuously until it is satisfactorily completed.

ARTICLE VI: SPECIAL PROGRAM REQUIREMENTS

1. Letting Deadline. The City shall Let the Project no later than six (6) months after January 2023. The City may make a written request to the Secretary to extend the Project's Letting deadline. In the Secretary's sole discretion, the Secretary may either grant or deny the City's request to extend the Letting deadline. If the City does not Let the Project within six (6) months after January 2023, the Secretary may cancel this Agreement.

2. Recapture of State Investment. The Parties agree to the following terms regarding the recapture of the Secretary's share:

(a) **Recapture Period.** The Parties agree the recapture period of the Project is ten (10) years, commencing on the date the Secretary or the City gives notice of final acceptance of the Project.

(b) **Insurance.** If the Project includes improvements to a building, the City shall purchase and maintain insurance for property damage to the building continuously during the Useful Life Period of the Project in an amount equal to or in excess of the funds expended on the Project.

(c) **Change in Public Use.** After the Project is completed and during the entire recapture period, any change in the public use of the real property for the Project shall require written approval from the Secretary.

(d) **Recapture Formula.** If the Project is not used for the purpose set forth in this Agreement or other use approved by the Secretary, the City shall pay back to the Secretary a percentage of the Secretary's share as follows:

- | | |
|--|-------------------------------|
| 1) Violates in 1 st year of 10-year period: | 100% of the Secretary's Share |
| 2) Violates in 2 nd year of 10-year period: | 90% of the Secretary's Share |
| 3) Violates in 3 rd year of 10-year period: | 80% of the Secretary's Share |
| 4) Violates in 4 th year of 10-year period: | 70% of the Secretary's Share |
| 5) Violates in 5 th year of 10-year period: | 60% of the Secretary's Share |
| 6) Violates in 6 th year of 10-year period: | 50% of the Secretary's Share |
| 7) Violates in 7 th year of 10-year period: | 40% of the Secretary's Share |
| 8) Violates in 8 th year of 10-year period: | 30% of the Secretary's Share |
| 9) Violates in 9 th year of 10-year period: | 20% of the Secretary's Share |
| 10) Violates in 10 th year of 10-year period: | 10% of the Secretary's Share |

Any payments due to the Secretary pursuant to this subparagraph (d) shall be made within ninety (90) days after receipt of billing from the Secretary's Chief of Fiscal Services.

ARTICLE VII: GENERAL PROVISIONS

1. **Acceptance.** No contract provision or use of items by the Secretary shall constitute acceptance or relieve the City of liability in respect to any expressed or implied warranties.

2. **Amendment.** Any amendment to this Agreement shall be in writing and signed by the Parties.

3. **Binding Agreement.** This Agreement and all contracts entered into under the provisions of this Agreement shall be binding upon the Secretary and the City and their successors in office.

4. **Civil Rights Act.** The “Special Attachment No. 1, Rev. 09.20.17” pertaining to the implementation of the Civil Rights Act of 1964, is attached and made a part of this Agreement.

5. **Compliance with Federal and State Laws.** The City shall comply with all applicable state and federal laws and regulations. The City represents and warrants that any Contractor and/or Consultant performing any services on the Project shall also comply with all applicable state and federal laws and regulations.

6. **Contractual Provisions.** The provisions found in the current version of the “Contractual Provisions Attachment (Form DA-146a),” which is attached, are hereby incorporated into, and made a part of this Agreement.

7. **Counterparts.** This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute the same agreement.

8. **Debarment of State Contractors.** Any Contractor who defaults on delivery or does not perform in a satisfactory manner as defined in this Agreement may be barred for up to a period of three (3) years, pursuant to K.S.A. § 75-37,103, or have its work evaluated for pre-qualification purposes. Contractors retained by the City for the Project shall disclose any conviction or judgment for a criminal or civil offense of any employee, individual or entity which controls a company or organization or will perform work under this Agreement that indicates a lack of business integrity or business honesty. This includes (1) conviction of a criminal offense for obtaining or attempting to obtain a public or private contract or subcontract or in the performance of such contract or subcontract; (2) conviction under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, or receiving stolen property; (3) conviction under state or federal antitrust statutes; and (4) any other offense to be so serious and compelling as to affect responsibility as a state contractor. An individual or entity shall be presumed to have control of a company or organization if the individual or entity directly or indirectly, or acting in concert with one or more individuals or entities, owns or controls 25 % or more of its equity, or otherwise controls its management or policies. Failure to disclose an offense may result in a breach of this Agreement for cause.

9. **Entire Agreement.** This Agreement, with all attached exhibits, expresses the entire agreement between the Parties with respect to the Project. No representations, promises, or warranties have been made by the Parties that are not fully expressed or incorporated by reference in this Agreement.

10. **Headings.** All headings in this Agreement have been included for convenience of reference only and are not to be deemed to control or affect the meaning or construction or the provisions herein.

11. **Incorporation of Design Plans.** The final Design Plans for the Project are by this reference made a part of this Agreement.

12. **Independent Contractor Relationship.** The relationship of the Secretary and the

City shall be that of an independent contractor, and nothing in this Agreement shall be construed to create a partnership, joint venture, or employee-employer relationship. The City is not the agent of the Secretary and is not authorized to make any representation, contract, or commitment on behalf of the Secretary. It is expressly understood that any individual performing services under this Agreement on behalf of the City shall not be deemed to be an employee or independent contractor of the Secretary, and such individual shall not be entitled to tax withholding, workers' compensation, unemployment compensation or any employee benefits, statutory or otherwise, from the Secretary. The City agrees that it is solely responsible for the reporting and payment of income, social security, and other employment taxes due to the proper taxing authorities with respect to such personnel. The City agrees to indemnify, defend and hold harmless the Secretary and its directors, officers, employees, and agents from and against any and all costs, losses, damages, liabilities, expenses, demands, and judgments, including court costs and attorney's fees, relating to the reporting and payment of income, social security, and other employment taxes and the provision of employee benefits (including but not limited to workers' compensation, unemployment insurance, and health insurance coverage or assessable payments required under state or federal) with respect to such individual performing services under this Agreement on behalf of the City. This provision shall survive the expiration or termination of this Agreement.

13. **Industry Standards.** Where not otherwise provided in this Agreement, materials or work called for in this Agreement shall be furnished and performed in accordance with best established practice and standards recognized by the contracted industry and comply with all applicable federal, state, and local laws and rules and regulations promulgated thereunder.

14. **No Third-Party Beneficiaries.** No third-party beneficiaries are intended to be created by this Agreement and nothing in this Agreement authorizes third parties to maintain a suit for damages pursuant to the terms or provisions of this Agreement.

15. **Nondiscrimination and Workplace Safety.** The City shall comply with all federal, state, and local laws, and rules and regulations prohibiting discrimination in employment and controlling workplace safety. Any violations of applicable laws, rules, or regulations may result in termination of this Agreement.

16. **Notices.** Any notice required or submitted under this Agreement shall be deemed given if personally delivered or mailed by registered or certified mail, return receipt requested and postage prepaid, to the following addresses of the Parties or such other addresses as either party shall from time to time designate by written notice.

The Secretary:
Kansas Department of Transportation
Attn: Michelle Needham
Division of Fiscal & Asset Management
700 SW Harrison Street, 2nd Floor West
Topeka, KS 66603-3754

The City:

City of Hutchinson, Kansas
Attn: Jeff Schenk
125 E Avenue B
Hutchinson, KS 67501

The County:
Reno County, Kansas
Attn: Don Brittain
600 Scott Blvd.
South Hutchinson, KS 67505

17. **Restriction on State Lobbying.** Funds provided by the Secretary under this Agreement shall not be given or received in exchange for the making of a campaign contribution. No part of the funds provided through this Agreement shall be used to influence or attempt to influence an officer or employee of any State of Kansas agency or a member of the Legislature regarding any pending legislation or the awarding, extension, continuation, renewal, amendment or modification of any government contract, grant, loan, or cooperative agreement.

18. **Severability.** If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable to any extent, the remainder of this Agreement shall not be affected, and each provision of this Agreement shall be enforced to the fullest extent permitted by law.

19. **Technical Advice and Assistance; Limitations.** Technical advice, assistance, or both, provided by the Secretary under this Agreement shall not be construed as an undertaking by the Secretary of the duties of the City or any other individual or entity, or the duties of any Consultant, Contractor, licensed professional engineer, or inspector hired by the City.

20. **Termination.** If, in the judgment of the Secretary, sufficient funds are not appropriated to continue the function performed in this Agreement and for the payment of the charges hereunder, the Secretary may terminate this Agreement at the end of its current fiscal year. The Secretary will participate in all costs approved by the Secretary incurred prior to the termination of the Agreement.

21. **Waiver.** A Party's failure to exercise or delay in exercising any right, power, or privilege under this Agreement shall not operate as a waiver. Further, no single or partial exercise of any right, power, or privilege shall preclude any other or further exercise thereof.

IN WITNESS WHEREOF the Parties have caused this Agreement to be signed by their duly authorized officers as of the Effective Date.

ATTEST:

THE CITY OF HUTCHINSON, KANSAS

CITY CLERK (Date)

MAYOR

(SEAL)

ATTEST:

RENO COUNTY, KANSAS

COUNTY CLERK (Date)

CHAIRPERSON

(SEAL)

Kansas Department of Transportation
Secretary of Transportation

By: _____
Greg M. Schieber (Date)
Interim Deputy Secretary and
State Transportation Engineer

Form Approved
By _____
Legal Dept. KDOT

**KANSAS DEPARTMENT OF TRANSPORTATION
CIVIL RIGHTS ATTACHMENT**

PREAMBLE

The Secretary of Transportation for the State of Kansas, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. § 2000d to 2000d-4) and other nondiscrimination requirements and the Regulations, hereby notifies all contracting parties that it will affirmatively ensure that this contract will be implemented without discrimination on the grounds of race, color, national origin, sex, age, disability, income-level or Limited English Proficiency (“LEP”).

CLARIFICATION

Where the term “contractor” appears in the following “Nondiscrimination Clauses”, the term “contractor” is understood to include all parties to contracts or agreements with the Secretary of Transportation, Kansas Department of Transportation. This Attachment shall govern should this Attachment conflict with provisions of the Document to which it is attached.

ASSURANCE APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the “contractor”), agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in its Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration (FHWA), the Federal Transit Administration (“FTA”) or the Federal Aviation Administration (“FAA”) as they may be amended from time to time which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontractors, Including Procurements of Material and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA, Federal Transit Administration (“FTA”), or Federal Aviation Administration (“FAA”) to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or, the FHWA, FTA, or FAA as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of the contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA, FTA, or FAA may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of the paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any

subcontract or procurement as the Recipient or the FHWA, FTA, or FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

ASSURANCE APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- The Federal Aid Highway Act of 1973 (23 U.S.C. § 324 et. seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et. seq.) as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et. seq.), prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL No. 100-259), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with LEP, and resulting agency guidance, national origin discrimination includes discrimination because of LEP. To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681)

CONTRACTUAL PROVISIONS ATTACHMENT

Important: This form contains mandatory contract provisions and must be attached to or incorporated in all copies of any contractual agreement. If it is attached to the vendor/contractor's standard contract form, then that form must be altered to contain the following provision:

The Provisions found in Contractual Provisions Attachment (Form DA-146a, Rev. 07-19), which is attached hereto, are hereby incorporated in this contract and made a part thereof.

The parties agree that the following provisions are hereby incorporated into the contract to which it is attached and made a part thereof, said contract being the _____ day of _____, 20_____.

1. **Terms Herein Controlling Provisions:** It is expressly agreed that the terms of each and every provision in this attachment shall prevail and control over the terms of any other conflicting provision in any other document relating to and a part of the contract in which this attachment is incorporated. Any terms that conflict or could be interpreted to conflict with this attachment are nullified.
2. **Kansas Law and Venue:** This contract shall be subject to, governed by, and construed according to the laws of the State of Kansas, and jurisdiction and venue of any suit in connection with this contract shall reside only in courts located in the State of Kansas.
3. **Termination Due To Lack Of Funding Appropriation:** If, in the judgment of the Director of Accounts and Reports, Department of Administration, sufficient funds are not appropriated to continue the function performed in this agreement and for the payment of the charges hereunder, State may terminate this agreement at the end of its current fiscal year. State agrees to give written notice of termination to contractor at least thirty (30) days prior to the end of its current fiscal year and shall give such notice for a greater period prior to the end of such fiscal year as may be provided in this contract, except that such notice shall not be required prior to ninety (90) days before the end of such fiscal year. Contractor shall have the right, at the end of such fiscal year, to take possession of any equipment provided State under the contract. State will pay to the contractor all regular contractual payments incurred through the end of such fiscal year, plus contractual charges incidental to the return of any such equipment. Upon termination of the agreement by State, title to any such equipment shall revert to contractor at the end of the State's current fiscal year. The termination of the contract pursuant to this paragraph shall not cause any penalty to be charged to the agency or the contractor.
4. **Disclaimer Of Liability:** No provision of this contract will be given effect that attempts to require the State of Kansas or its agencies to defend, hold harmless, or indemnify any contractor or third party for any acts or omissions. The liability of the State of Kansas is defined under the Kansas Tort Claims Act (K.S.A. 75-6101, *et seq.*).
5. **Anti-Discrimination Clause:** The contractor agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001, *et seq.*) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111, *et seq.*) and the applicable provisions of the Americans With Disabilities Act (42 U.S.C. 12101, *et seq.*) (ADA), and Kansas Executive Order No. 19-02, and to not discriminate against any person because of race, color, gender, sexual orientation, gender identity or expression, religion, national origin, ancestry, age, military or veteran status, disability status, marital or family status, genetic information, or political affiliation that is unrelated to the person's ability to reasonably perform the duties of a particular job or position; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to

comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are binding upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements of (c) above or if the contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the contracting state agency or the Kansas Department of Administration; (f) Contractor agrees to comply with all applicable state and federal anti-discrimination laws and regulations; (g) Contractor agrees all hiring must be on the basis of individual merit and qualifications, and discrimination or harassment of persons for the reasons stated above is prohibited; and (h) if it is determined that the contractor has violated the provisions of any portion of this paragraph, such violation shall constitute a breach of contract and the contract may be canceled, terminated, or suspended, in whole or in part, by the contracting state agency or the Kansas Department of Administration.

6. **Acceptance of Contract:** This contract shall not be considered accepted, approved or otherwise effective until the statutorily required approvals and certifications have been given.
7. **Arbitration, Damages, Warranties:** Notwithstanding any language to the contrary, no interpretation of this contract shall find that the State or its agencies have agreed to binding arbitration, or the payment of damages or penalties. Further, the State of Kansas and its agencies do not agree to pay attorney fees, costs, or late payment charges beyond those available under the Kansas Prompt Payment Act (K.S.A. 75-6403), and no provision will be given effect that attempts to exclude, modify, disclaim or otherwise attempt to limit any damages available to the State of Kansas or its agencies at law, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose.
8. **Representative's Authority to Contract:** By signing this contract, the representative of the contractor thereby represents that such person is duly authorized by the contractor to execute this contract on behalf of the contractor and that the contractor agrees to be bound by the provisions thereof.
9. **Responsibility for Taxes:** The State of Kansas and its agencies shall not be responsible for, nor indemnify a contractor for, any federal, state or local taxes which may be imposed or levied upon the subject matter of this contract.
10. **Insurance:** The State of Kansas and its agencies shall not be required to purchase any insurance against loss or damage to property or any other subject matter relating to this contract, nor shall this contract require them to establish a "self-insurance" fund to protect against any such loss or damage. Subject to the provisions of the Kansas Tort Claims Act (K.S.A. 75-6101, *et seq.*), the contractor shall bear the risk of any loss or damage to any property in which the contractor holds title.
11. **Information:** No provision of this contract shall be construed as limiting the Legislative Division of Post Audit from having access to information pursuant to K.S.A. 46-1101, *et seq.*
12. **The Eleventh Amendment:** "The Eleventh Amendment is an inherent and incumbent protection with the State of Kansas and need not be reserved, but prudence requires the State to reiterate that nothing related to this contract shall be deemed a waiver of the Eleventh Amendment."
13. **Campaign Contributions / Lobbying:** Funds provided through a grant award or contract shall not be given or received in exchange for the making of a campaign contribution. No part of the funds provided through this contract shall be used to influence or attempt to influence an officer or employee of any State of Kansas agency or a member of the Legislature regarding any pending legislation or the awarding, extension, continuation, renewal, amendment or modification of any government contract, grant, loan, or cooperative agreement.



AGENDA ITEM

AGENDA ITEM #7.E

AGENDA DATE: March 28, 2023

PRESENTED BY: Don Brittain, Director of Public Works

AGENDA TOPIC:

Agreement between Reno County and the City of Hutchinson for Improvements to the Woodie Seat Freeway. This Agreement clearly defines each entity's project limits and responsibilities during the course of the respective projects.

SUMMARY & BACKGROUND OF TOPIC:

Reno County and the City of Hutchinson jointly applied for the Kansas Department of Transportation Fall 2022 Cost Share Program. The application was selected to become a Project in October of 2022. This Agreement is related to but not part of the Cost Share Agreement No. 009-23, Project No. U-2457-01.

ALL OPTIONS:

Approve and authorize the chair to sign
Return to staff for revision(s)

RECOMMENDATION / REQUEST:

Approve and authorize the chair to sign as recommended by the Public Works Director.

POLICY / FISCAL IMPACT:

The Project will be funded from the Special Bridge Fund 006.

AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 2023, by and between Reno County, Kansas, hereinafter referred to as "County" and the City of Hutchinson, Kansas, hereinafter referred to individually as the "City."

WITNESSETH:

WHEREAS, County and the City are authorized to enter into an agreement pursuant to K.S.A. 12-2908, as amended; and this is not an interlocal agreement as identified within K.S.A. 12-2901, *et seq.*; and

WHEREAS, the City has obtained funding from the Kansas Department of Transportation ("KDOT"), for the Woodie Seat improvement project including; bridge deck patching, multi-layer polymer concrete overlay, street mill and overlay, and bridge improvements to improve access to Hutchinson and South Hutchinson. The grant agreement between KDOT and the City is hereby referenced to as Agreement No. 009-23, Project No. U 2457-01 ("KDOT Agreement"); and

WHEREAS, a portion of the project is located within unincorporated Reno County; and

WHEREAS, such improvements and continued maintenance by both the County and the City would provide mutual benefit for all the parties; and

WHEREAS, County and the City desire to share in the cost of improvements to the Woodie Seat Freeway from the south edge of the wearing surface of the Woodie Seat Bridge 21.90 to Avenue C in Hutchinson, as described above; and

WHEREAS, the City of Hutchinson, Kansas acts as the "lead city" and is authorized by Reno County, Kansas to act as its agent and representative within the scope and in furtherance of the Project.

NOW, THEREFORE, for and in consideration of the parties' mutual promises and covenants, it is agreed as follows:

1. The purpose of this Agreement is to provide for the construction and financing of improvements to the Woodie Seat Freeway from the south edge of the wearing surface of the Woodie Seat Bridge 21.90 to the north edge of the bridge over Avenue C in Hutchinson, and hereinafter referred to as "Project".
2. The KDOT Agreement will reimburse the City for a portion of the project construction costs. The KDOT Agreement estimates the total construction cost to be \$3,600,000.00 with a maximum reimbursement of \$1,500,000.00. The non-participating costs are estimated to be \$2,100,000.00. Non-participating costs are the costs of any items which the Secretary of Transportation of the State of Kansas ("Secretary") determines are not an integral part of highway, bridge and road construction projects. For purposes of this

Agreement, the purchase of right-of-ways, engineering, and design were considered non-participating costs. The City and County agree to share the remaining local cost, estimated to be \$2,100,000.00.

3. Reimbursement from KDOT estimated to be a total of \$1,500,000.00. Reimbursement will be split between the County and the City with the County receiving 33.33% and the City receiving 66.67%
4. The City will invoice County for its share of the cost of completed work no more frequently than monthly. County shall pay the City within 30 days of receipt of said invoice.
5. The City will contract for construction of the Project and shall be responsible for the bid process and awarding of the project.
 - a. The County will review all pre-qualification submittals for bridge work and make recommendations for which contractors will be allowed to perform bridge work on the project.
6. The City shall be responsible for all legal and engineering matters for all work in their own respective project limits and the County will be responsible for all legal and engineering matters for all work in their own respective project limits.
7. Each party will provide construction engineering services as required to monitor construction of the bridge, roadway and storm sewer improvements within their own respective project limits. The City will be in charge of preparing construction administration services regarding change orders and pay applications.
8. The City shall pay for one hundred percent (100%) of the cost of any change order related to items of work outside the Scope of Work in plan set 1 of 2. The County shall pay for one hundred percent (100%) of the cost of any change order related to items of work outside the Scope of Work in plan set 2 of 2. Both will be based on the as-bid results in a net increase in Project costs. For "Controlling Items of Work," as defined below and within the Project's Contract Documents that govern this Project.
9. The Parties agree that it is in their mutual interest to avoid construction delays. The administrative process involved in change orders where multiple project partners are involved can create project delays. For purposes of management of this project, the Parties establish the following decision thresholds for approval of change orders. For purposes of this Agreement, "Controlling Items of Work" include those work item(s) that are directly interrelated such that each has a definite influence on progress of the overall work. Thresholds for controlling items of work and non-controlling items of work shall be accounted for separately.
 - A. Controlling Items of Work \$20,000.00 or Less

For change orders regarding Controlling Items of Work that would in aggregate

result in \$20,000.00 or less in costs in excess of the original contract amount, The County will review all change orders related to the Woodie Seat Bridge 21.90 within 5 working days of being submitted and make a recommendation to the City on whether they will be approved or denied. The City will approve or deny all other change order requests within 5 working days.

B. Controlling Items of Work for More than \$20,000.00

For change orders regarding Controlling Items of Work that would in aggregate result in more than \$20,000.00 in costs in excess of the original contract amount, the County will review all change orders related to the Woodie Seat Bridge 21.90 within 5 working days of being submitted and make a recommendation to the City on whether they will be approved or denied. The City will approve or deny all other change order requests within 5 working days.

C. Non-Controlling Items of Work Less Than \$20,000.00

For change orders regarding Non-Controlling Items of Work that would in aggregate result in \$20,000.00 or less in costs in excess of the original contract amount, the County will review all change orders related to the Woodie Seat Bridge 21.90 within 5 working days of being submitted and make a recommendation to the City on whether they will be approved or denied. The City will approve or deny all other change order requests within 5 working days.

D. Non-Controlling Items of Work More Than \$20,000.00


For change orders regarding Non-Controlling Items of Work that would in aggregate result in more than \$20,000.00 in excess of the original contract amount, the County will review all change orders related to the Woodie Seat Bridge 21.90 within 5 working days of being submitted and make a recommendation to the City on whether they will be approved or denied. The City will approve or deny all other change order requests within 5 working days.

10. The Parties agree to coordinate the construction schedule for the Project and any traffic control required to accomplish the work. Pursuant to any standard procedures, City and County will be responsible for notifying the various emergency services and the public of temporary closure of portions of roads as a result of the joint Project.
11. Each party will be responsible for accepting work in their own respective project limits.
12. After Project acceptance, the City shall thereafter assume all liability for maintenance and repair of the improvements within their city limits. The County shall thereafter assume all liability for maintenance and repair of the improvements from the southern edge of wearing surface to the northern edge of wearing surface of the Woodie Seat Bridge 21.90. The agreement for maintenance and repair of the improvements will survive the termination of this Agreement.

13. The term of this Agreement shall begin on the date first written above and continue until the date that both: (1) notice of completion of the improvements has been provided by the City, and (2) the City has made final payment to the contractor. Notwithstanding foregoing, the Agreement shall terminate automatically if the KDOT Agreement is terminated.
14. The right of the parties to enter into this Agreement is subject to the provisions of the Cash Basis Law (K.S.A. 10-1112 and 10-1113), the Budget Law (K.S.A. 79-2935), and all other laws of the State of Kansas. This Agreement shall be construed and interpreted so as to ensure that each of the parties shall at all times stay in conformity with such laws, and as a condition of this Agreement the parties reserve the right to unilaterally sever, modify, or terminate this Agreement at any time if, in the opinion of their respective legal counsel, the Agreement may be deemed to violate the terms of such laws.
15. With respect to matters regarding engineering design and construction, including change orders, the City shall indemnify the County, and its elected and appointed officials, officers, managers, members, employees and agents, against any and all loss or damage to the extent such loss and/or damage arises out of City's negligence and/or willful, wanton or reckless conduct in the provision of goods and equipment or performance of services under this Agreement, to the extent permitted by law and subject to the maximum liability provisions of the Kansas Tort Claims Act (K.S.A. § 75-6101 *et. seq.*).
16. With respect to matters regarding engineering design and construction, including change orders, the County shall indemnify the City, and its elected and appointed officials, officers, managers, members, employees and agents, against any and all loss or damage to the extent such loss and/or damage arises out of County's negligence and/or willful, wanton or reckless conduct in the provision of goods and equipment or performance of services under this Agreement, to the extent permitted by law and subject to the maximum liability provisions of the Kansas Tort Claims Act (K.S.A. § 75-6101 *et. seq.*).
17. If the City cancels the Project or fails to provide verification of development, County shall not be liable for any reimbursements made to the Secretary for costs incurred by the Secretary prior to the cancellation of the Project.
18. Neither this Agreement nor any rights or obligations created by it shall be amended by any of the Parties without the prior written consent of the others. Any attempted amendment without such consent shall be null and void.
19. This Agreement (and any amendments, modifications, or waivers in respect hereof) may be executed in any number of counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same document. Facsimile signatures or signatures emailed in portable document format (PDF) shall be acceptable and deemed binding on the parties hereto as if they were originals.

21. IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

Recommended for approval:



DON BRITTAIN,
DIRECTOR, PUBLIC WORKS

Recommended for approval:

KENDAL FRANCIS,
CITY MANAGER

BOARD OF COUNTY COMMISSIONERS
OF RENO COUNTY, KANSAS

THE CITY OF HUTCHINSON,
KANSAS

DANIEL FRIESEN,
CHAIRPERSON

JON RICHARDSON,
MAYOR

ATTEST:

ATTEST:

DONNA PATTON,
COUNTY CLERK

KAREN WELTMER,
CITY CLERK



AGENDA ITEM

AGENDA ITEM #7.F

AGENDA DATE: March 28, 2023

PRESENTED BY:

AGENDA TOPIC:

Commission Meeting Days/Times

SUMMARY & BACKGROUND OF TOPIC:

On Tuesday, there will be a discussion of future commission meeting dates. Below is a summary of the issue, so you can be prepared to discuss at the next meeting.

Patrick is a Reno County employee for the county counselor position and contracts with the Barton County Commission to serve a similar role for them. When Patrick was hired, he was chosen knowing that he was going to split his time between Reno County and Barton County.

At the current time, Patrick is in the Reno County office on Monday, Tuesday and Thursday, while being available remotely on Friday. Wednesday is the day Patrick is attending Barton County Commission meetings that last from approximately 9 am – 3 pm. Prior to Reno County hiring Patrick, Barton County had their meetings on Tuesday, but changed to Wednesday at Patrick's request.

Reno County is not required to change meeting dates, but this is a friendly request from the chair of the Barton County Commission. Patrick is neutral on this issue and is fine if Reno County wants to keep the meetings as are or change to a different date.

At the last commission meeting, a change was discussed and the options for a possible change were Monday afternoon or Wednesday. Attached is a calendar showing the current meeting scheduled through June and then beginning in July, the meetings will be on Wednesday. By moving the meeting to Wednesday, the schedule for creating an agenda will remain the same, allowing an extra day to review the packet. If the commission chooses to move the meetings to Monday afternoon, we will consider the agenda schedule to allow for adequate review time for agenda packets.

ALL OPTIONS:

1. Keep county commission meetings on Tuesday morning at 9 am
2. Change the county commission meeting day to Monday afternoon at 1 or 2 pm
3. Change the county commission meeting day to Wednesday morning at 9 am

2023 CALENDAR

JANUARY							FEBRUARY							MARCH							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6	7	5	6	7	8	9	10	11	5	6	7	8	9	10	11	2	3	4	5	6	7	8	
8	9	10	11	12	13	14	12	13	14	15	16	17	18	12	13	14	15	16	17	18	9	10	11	12	13	14	15	
15	16	17	18	19	20	21	19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22	
22	23	24	25	26	27	28	26	27	28	26	27	28	29	30	31	23	24	25	26	27	28	29	30					
29	30	31																										
MAY							JUNE							JULY							AUGUST							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
	1	2	3	4	5	6					1	2	3							1							1	
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	
28	29	30	31	25	26	27	28	29	30	23	24	25	26	27	28	29	27	28	29	30	31							
														30	31													
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2	
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	
24	25	26	27	28	29	30	29	30	31	26	27	28	29	30	24	25	26	27	28	29	30	24	25	26	27	28	29	30
																					31							

US FEDERAL HOLIDAYS

- | | | |
|-------------------------------------|-------------------------------|---------------------------|
| Jan 02 - New Year's Day (in lieu) | Jun 19 - Juneteenth (in lieu) | Nov 10 - Veterans Day |
| Jan 16 - Martin Luther King Jr. Day | Jul 04 - Independence Day | Nov 23 - Thanksgiving Day |
| May 29 - Memorial Day | Sep 04 - Labor Day | Dec 25 - Christmas Day |

Study Sessions and/or Discussions at normal meetings

March 28th - Discussion of Solid Waste fees and gas wells

April 11th - Health Department Strategic Discussion

Yellow Highlights show normally scheduled meetings with July being the month where meetings may move to Wednesday.

Turquoise Highlights are for the scheduled Fifth Wednesday that might include a study session and/or normal work session.

May 30th - Discussion of Wastewater Regulations

August 30th - Fire District Strategic Discussion

November 29th - Unscheduled Topic



AGENDA ITEM

AGENDA ITEM #7.G

AGENDA DATE: March 28, 2023

PRESENTED BY: Commission Chair Daniel Friesen

AGENDA TOPIC:

Request For Qualifications (RFQ) for a Medical Consultant pertaining to K.S.A. 65-201

SUMMARY & BACKGROUND OF TOPIC:

K.S.A. 65-201 explains the appointment of a health officer and the medical consultant for the health officer, if they are not a medical doctor. The statute is attached for reference. As the commission has changed this year with new commissioners making up the majority of the commission, it was recommended by the Chair to review doctors that might be interested in being the medical consultant for the health officer.

ALL OPTIONS:

1. Approve the Request for Qualifications (RFQ) and set a date for all submittals to be sent to Reno County.
2. Deny the RFQ
3. Table the RFQ discussion to a future commission meeting.



County Commission

Courthouse
206 W. 1st Avenue
Hutchinson, Ks 67501

Reno County is requesting qualifications and proposal for a Consultant to direct the Local Health Officer regarding program and related medical and professional matters for the Reno County Health Department as described in K.S.A. 65-201. Applicants shall be a person licensed to practice medicine and surgery as required by that statute.

The consultant's responsibilities are as follows:

1. Direct the Local Health Officer on program and related medical and professional matters when requested by the Public Health Officer or County Board of Health.
2. Provide qualified, licensed, and professional medical advice to the Local Health Officer as required by K.S.A. 65-201.
3. As needed, be available for phone consultation with public health staff on medical related matters.
4. Except for emergency events which may require additional hours of service consultant is expected to provided minimal amounts of service each month. Applicants should provide in their response monthly contract at an hourly rate for services.
5. The Consultant shall communicate with the County's liability insurer and follow procedures of that insurer, if any, as necessary to comply with any requirements of the County's liability insurance.

Individuals shall respond with qualifications and information for consideration by the Reno County Commissioners on or before _____, 2023

65-201. County, city-county and multicounty units; local health officers; appointment, tenure, removal; laws applicable; review, amendment or revocation of local health officer orders; limitation on certain orders; approval by board of county commissioners required; civil action for relief from orders. (a) The board of county commissioners of each county shall act as the county board of health for the county. Each county board shall appoint a person licensed to practice medicine and surgery, preference being given to persons who have training in public health, who shall serve as the local health officer and who shall act in an advisory capacity to the county board of health. The appointing authority of city-county, county or multicounty health units with less than 100,000 population may appoint a qualified local health program administrator as the local health officer if a person licensed to practice medicine and surgery or person licensed to practice dentistry is designated as a consultant to direct the administrator on program and related medical and professional matters. The local health officer or local health program administrator shall hold office at the pleasure of the board.

(b) (1) Except as provided in paragraph (2), any order issued by the local health officer, including orders issued as a result of an executive order of the governor, may be reviewed, amended or revoked by the board of county commissioners of the county affected by such order at a meeting of the board. Any order reviewed or amended by the board shall include an expiration date set by the board and may be amended or revoked at an earlier date by a majority vote of the board.

(2) If a local health officer determines it is necessary to issue an order mandating the wearing of face masks, limiting the size of gatherings of individuals, curtailing the operation of business, controlling the movement of the population of the county or limiting religious gatherings, the local health officer shall propose such an order to the board of county commissioners. At the next regularly scheduled meeting of the board or at a special meeting of the board, the board shall review such proposed order and may take any action related to the proposed order the board determines is necessary. The order shall become effective if approved by the board or, if the board is unable to meet, if approved by the chairperson of the board or the vice chairperson of the board in the chairperson's absence or disability.

(c) The board of county commissioners in any county having a population of less than 15,000 may contract with the governing body of any hospital located in such county for the purpose of authorizing such governing body of the hospital to supply services to a county board of health.

(d) (1) Any party aggrieved by an order issued pursuant to subsection (b)(2) may file a civil action in the district court of the county in which the order was issued within 30 days after such order is issued. Notwithstanding any order issued pursuant to K.S.A. 2022 Supp. [20-172](#)(a), and amendments thereto, the court shall conduct a hearing within 72 hours after receipt of a petition in any such action. The court shall grant the request for relief unless the court finds such order is narrowly tailored to the purpose stated in the order and uses the least restrictive means to achieve such purpose. The court shall issue an order on such petition within seven days after the hearing is conducted. If the court does not issue an order on such petition within seven days, the relief requested in the petition shall be granted.

(2) Relief under this section shall not include a stay or injunction concerning the contested action that applies beyond the county in which the action was taken.

(3) The supreme court may adopt emergency rules of procedure to facilitate the efficient adjudication of any hearing requested under this subsection, including, but not limited to, rules for consolidation of similar hearings.

History: L. 1885, ch. 129, § 7; R.S. 1923, 65-201; L. 1973, ch. 246, § 1; L. 1976, ch. 264, § 1; L. 2020, ch. 1, § 37 (Special Session); L. 2021, ch. 7, § 12; March 25.



AGENDA ITEM

AGENDA ITEM #8.A

AGENDA DATE: March 28, 2023

PRESENTED BY: Randy Partington, County Administrator

AGENDA TOPIC:
Financial Report

SUMMARY & BACKGROUND OF TOPIC:

Attached are unaudited reports for FY22 and FY23 to keep the commission informed of the county's financial status for both years.

2022 YTD BUDGET REPORT

As of 12/31/2022

	Amended Budget	Amt Received / Expended	% Recd / Used
001 General Fund			
00 Unclassified			
Revenue			
Interest	333,000.00	1,422,586.33	427%
Taxes	14,978,099.00	16,334,780.26	109%
Licenses, Permits, and Fees	240,250.00	340,113.18	142%
Reimbursements	818,500.00	905,762.26	111%
Transfers In from Other Funds	25,000.00	74,010.00	296%
Cash Balance Forward (Budgeted Resource)	10,649,892.00	0.00	0%
Prior Year Cancelled Encumbrances (KMAAG)	0.00	4,035.00	
Other Revenue	0.00	2,644.72	
Revenue Total	27,044,741.00	19,083,931.75	71%
Expenses			
Other Expense & Reimbursements	0.00	0.00	
Expenses Total	0.00	0.00	
01 County Commission			
Expenses			
Personnel Services	54,000.00	53,999.40	100%
Contractual Services	5,100.00	1,922.58	38%
Commodities	1,000.00	3,013.87	301%
Expenses Total	60,100.00	58,935.85	98%
02 County Clerk			
Revenue			
Reimbursements	20,000.00	19,952.09	100%
Revenue Total	20,000.00	19,952.09	100%
Expenses			
Personnel Services	274,646.00	274,851.18	100%
Contractual Services	27,710.00	25,807.02	93%
Commodities	4,600.00	2,347.53	51%
Expenses Total	306,956.00	303,005.73	99%
03 County Treasurer			
Revenue			
Reimbursements	0.00	307.18	
Revenue Total	0.00	307.18	
Expenses			
Personnel Services	201,897.00	180,078.55	89%
Contractual Services	43,650.00	34,961.63	80%
Commodities	32,150.00	26,255.05	82%
Expenses Total	277,697.00	241,295.23	87%

2022 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
04 District Attorney			
Revenue			
Licenses, Permits, and Fees	80,000.00	155,416.10	194%
Revenue Total	80,000.00	155,416.10	194%
Expenses			
Personnel Services	1,118,003.00	1,090,614.03	98%
Contractual Services	123,900.00	78,508.43	63%
Commodities	40,000.00	38,263.86	96%
Capital Improvement & Outlay	26,000.00	23,207.97	89%
Expenses Total	1,307,903.00	1,230,594.29	94%
05 Register of Deeds			
Revenue			
Licenses, Permits, and Fees	375,000.00	476,704.00	127%
Revenue Total	375,000.00	476,704.00	127%
Expenses			
Personnel Services	155,246.00	151,536.49	98%
Contractual Services	9,750.00	7,944.59	81%
Commodities	6,300.00	3,909.73	62%
Capital Improvement & Outlay	0.00	1,655.28	
Expenses Total	171,296.00	165,046.09	96%
06 Sheriff			
Revenue			
Licenses, Permits, and Fees	47,612.00	31,805.00	67%
Reimbursements	16,100.00	21,781.69	135%
Grant Revenues	12,000.00	11,494.68	96%
Revenue Total	75,712.00	65,081.37	86%
Expenses			
Personnel Services	3,144,374.00	2,974,333.30	95%
Contractual Services	356,615.00	347,514.47	97%
Commodities	282,175.00	318,544.96	113%
Capital Improvement & Outlay	259,080.00	229,773.06	89%
Other Expense & Reimbursements	2,000.00	1,500.57	75%
Expenses Total	4,044,244.00	3,871,666.36	96%
07 County Administration			
Expenses			
Personnel Services	400,026.00	395,620.03	99%
Contractual Services	130,100.00	137,663.31	106%
Commodities	4,000.00	3,733.05	93%
Expenses Total	534,126.00	537,016.39	101%

2022 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
08 District Court			
Revenue			
Reimbursements	10,000.00	18,406.18	184%
Revenue Total	10,000.00	18,406.18	184%
Expenses			
Contractual Services	557,640.00	495,195.32	89%
Commodities	55,100.00	46,756.54	85%
Expenses Total	612,740.00	541,951.86	88%
09 Courthouse General			
Revenue			
Reimbursements	11,000.00	16,808.83	
Revenue Total	11,000.00	16,808.83	153%
Expenses			
Personnel Services	84,781.00	86,632.83	102%
Contractual Services	358,000.00	374,694.06	105%
Commodities	0.00	960.81	
Capital Improvement & Outlay	1,049,054.00	45,826.68	4%
Other Expense & Reimbursements	15,000.00	2,496.69	17%
Outside Agencies Appropriation	0.00	0.00	
Ambulance Services	0.00	0.00	
Emergency Communications	0.00	0.00	
Economic Development Projects	0.00	0.00	
Transfers Out to Other Funds	0.00	0.00	
Commission Discretionary	0.00	0.00	
Reserve for Cash Carryover & Contingencies	0.00	0.00	
Expenses Total	1,506,835.00	510,611.07	34%
10 County General			
Revenue			
Reimbursements	0.00	1,018.36	
Revenue Total	0.00	1,018.36	
Expenses			
Contractual Services	1,048,500.00	978,134.42	93%
Commodities	1,000.00	7,157.60	716%
Other Expense & Reimbursements	0.00	1,105.67	
Outside Agencies Appropriation	559,500.00	559,500.00	100%
Ambulance Services	1,702,676.00	1,646,571.81	97%
Emergency Communications	801,058.00	628,846.75	79%
Economic Development Projects	400,000.00	23,500.00	6%
Transfers Out to Other Funds	1,091,315.00	1,236,485.62	113%
Commission Discretionary	20,000.00	18,224.12	91%
Reserve for Cash Carryover & Contingencies	5,656,702.00	0.00	0%
Expenses Total	11,280,751.00	5,099,525.99	45%

2022 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
11 Maintenance			
Revenue			
Reimbursements	30,000.00	46,019.57	153%
Revenue Total	30,000.00	46,019.57	153%
Expenses			
Personnel Services	857,620.00	701,206.60	82%
Contractual Services	84,611.00	88,738.50	105%
Commodities	74,661.00	53,239.61	71%
Capital Improvement & Outlay	30,000.00	21,239.00	71%
Expenses Total	1,046,892.00	864,423.71	83%
12 Planning & Zoning			
Expenses			
Personnel Services	85,955.00	84,131.81	98%
Contractual Services	15,700.00	12,064.18	77%
Commodities	700.00	252.60	36%
Expenses Total	102,355.00	96,448.59	94%
13 Emergency Management			
Revenue			
Reimbursements	0.00	70,250.81	
Revenue Total	0.00	70,250.81	
Expenses			
Personnel Services	295,063.00	275,650.47	93%
Contractual Services	39,375.00	30,488.78	77%
Commodities	20,850.00	25,814.02	124%
Other Expense & Reimbursements	0.00	3,554.18	
Expenses Total	355,288.00	335,507.45	94%
14 Sheriff - Jail			
Revenue			
Reimbursements	90,000.00	63,272.91	70%
Other Revenue	5,000.00	500.00	10%
Revenue Total	95,000.00	63,772.91	67%
Expenses			
Personnel Services	2,351,311.00	2,439,913.26	104%
Contractual Services	883,846.00	1,000,253.85	113%
Commodities	204,000.00	208,653.90	102%
Capital Improvement & Outlay	38,600.00	32,390.75	84%
Expenses Total	3,477,757.00	3,681,211.76	106%

2022 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
15 Human Resources			
Expenses			
Personnel Services	184,349.00	182,526.89	99%
Contractual Services	56,050.00	41,174.90	73%
Commodities	18,500.00	5,661.84	31%
Expenses Total	258,899.00	229,363.63	89%
16 Appraiser			
Revenue			
Reimbursements	3,000.00	7,755.00	259%
Revenue Total	3,000.00	7,755.00	259%
Expenses			
Personnel Services	653,473.00	596,279.56	91%
Contractual Services	71,300.00	71,215.96	100%
Commodities	24,000.00	17,054.41	71%
Capital Improvement & Outlay	25,000.00	23,503.00	94%
Expenses Total	773,773.00	708,052.93	92%
17 County Clerk - Election			
Revenue			
Reimbursements	500.00	943.26	189%
Revenue Total	500.00	943.26	189%
Expenses			
Personnel Services	126,043.00	134,889.51	107%
Contractual Services	232,700.00	237,288.62	102%
Commodities	18,800.00	14,069.08	75%
Transfers Out to Other Funds	11,371.00	0.00	0%
Expenses Total	388,914.00	386,247.21	99%
18 Information Technology			
Revenue			
Reimbursements	28,000.00	38,987.49	139%
Revenue Total	28,000.00	38,987.49	139%
Expenses			
Personnel Services	502,866.00	508,937.99	101%
Contractual Services	297,425.00	286,968.27	96%
Commodities	11,000.00	9,310.72	85%
Capital Improvement & Outlay	0.00	0.00	
Expenses Total	811,291.00	805,216.98	99%

2022 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
24 Auto Center			
Revenue			
Reimbursements	20,000.00	24,915.74	125%
Revenue Total	20,000.00	24,915.74	125%
Expenses			
Personnel Services	164,466.00	163,877.25	100%
Contractual Services	14,755.00	14,520.10	98%
Commodities	15,505.00	10,846.18	70%
Expenses Total	194,726.00	189,243.53	97%
REVENUE TOTALS	27,792,953.00	20,090,270.64	72%
EXPENSE TOTALS	27,512,543.00	19,855,364.65	72%
Fund 001 General Fund	280,410.00	234,905.99	
		Beginning Fund Balance:	14,428,910.17
		Ending Fund Balance:	14,663,816.16

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
002 Aging & Transit Fund				
Revenue				
Taxes	292,143.00	291,971.28	100%	
Licenses, Permits, and Fees	150.00	0.00	0%	
Reimbursements	6,050.00	16,931.86	280%	
Grant Revenues	1,171,236.00	1,031,188.01	88%	
Transfers In from Other Funds	352,000.00	352,000.00	100%	
Cash Balance Forward (Budgeted Resource)	488,712.00	0.00	0%	
Other Revenue	223,000.00	192,716.50	86%	
Revenue Total	2,533,291.00	1,884,807.65	74%	
Expenses				
Personnel Services	1,321,263.00	1,115,821.21	84%	
Contractual Services	566,025.00	482,120.32	85%	
Commodities	287,150.00	171,583.98	60%	
Capital Improvement & Outlay	263,400.00	94,364.19	36%	
Other Expense & Reimbursements	425.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	87,216.00	0.00	0%	
Expenses Total	2,525,479.00	1,863,889.70	74%	
	REVENUE TOTALS	2,533,291.00	1,884,807.65	74%
	EXPENSE TOTALS	2,525,479.00	1,863,889.70	74%
Fund 002-Aging & Transit Totals		7,812.00	20,917.95	
	Beginning Fund Balance:	1,021,247.94		
	Ending Fund Balance:	1,042,165.89		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
003 Public Health Fund				
Revenue				
Taxes	986,204.00	993,649.27	101%	
Licenses, Permits, and Fees	8,000.00	735.27	9%	
Reimbursements	651,000.00	777,302.61	119%	
Grant Revenues	1,062,000.00	2,608,880.81	246%	
Cash Balance Forward (Budgeted Resource)	692,863.00	0.00	0%	
Other Revenue	0.00	485.00		
Revenue Total	3,400,067.00	4,381,052.96	129%	
Expenses				
Personnel Services	2,421,343.00	2,231,784.98	92%	
Contractual Services	568,100.00	771,281.61	136%	
Commodities	254,400.00	286,412.50	113%	
Capital Improvement & Outlay	0.00	0.00		
Other Expense & Reimbursements	0.00	0.00		
Reserve for Cash Carryover & Contingencies	130,799.00	0.00	0%	
Expenses Total	3,374,642.00	3,289,479.09	97%	
	REVENUE TOTALS	3,400,067.00	4,381,052.96	129%
	EXPENSE TOTALS	3,374,642.00	3,289,479.09	97%
Fund 003-Public Health Totals		25,425.00	1,091,573.87	
	Beginning Fund Balance:	1,264,033.90		
	Ending Fund Balance:	2,355,607.77		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
004 Noxious Weed Fund				
Revenue				
Taxes	117,103.00	115,780.76	99%	
Cash Balance Forward (Budgeted Resource)	26,285.00	0.00	0%	
Other Revenue	12,000.00	26,853.55	224%	
Revenue Total	155,388.00	142,634.31	92%	
Expenses				
Personnel Services	82,952.00	81,361.15	98%	
Contractual Services	5,400.00	2,318.45	43%	
Commodities	51,400.00	48,577.49	95%	
Other Expense & Reimbursements	0.00	0.00		
Transfers Out to Other Funds	10,000.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	2,398.00	0.00	0%	
Expenses Total	152,150.00	132,257.09	87%	
	REVENUE TOTALS	155,388.00	142,634.31	92%
	EXPENSE TOTALS	152,150.00	132,257.09	87%
	Fund 004-Noxious Weed Totals	3,238.00	10,377.22	
	Beginning Fund Balance:	28,030.79		
	Ending Fund Balance:	38,408.01		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
006 Special Bridge Fund				
Revenue				
Taxes	1,231,904.00	1,234,206.70	100%	
Grant Revenues	0.00	754,022.35		
Cash Balance Forward (Budgeted Resource)	2,226,527.00	0.00	0%	
Prior Year Cancelled Encumbrances (KMAAG)	0.00	4,526.13		
Reimbursements	0.00	347,253.85		
Revenue Total	3,458,431.00	2,340,009.03	68%	
Expenses				
Contractual Services	2,400,000.00	2,133,148.36	89%	
Commodities	350,000.00	0.00	0%	
Other Expense & Reimbursements	0.00	285,358.81		
Reserve for Cash Carryover & Contingencies	675,000.00	0.00	0%	
Expenses Total	3,425,000.00	2,418,507.17	71%	
	REVENUE TOTALS	3,458,431.00	2,340,009.03	68%
	EXPENSE TOTALS	3,425,000.00	2,418,507.17	71%
	Fund 006-Special Bridge Totals	33,431.00	(78,498.14)	
	Beginning Fund Balance:	3,952,204.32		
	Ending Fund Balance:	3,873,706.18		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
007 Road & Bridge Fund				
Revenue				
Taxes	4,428,033.00	4,449,417.72	100%	
Reimbursements	0.00	47,829.59		
Cash Balance Forward (Budgeted Resource)	1,013,461.00	0.00	0%	
Other Revenue	1,427,625.00	1,557,554.30	109%	
Revenue Total	6,869,119.00	6,054,801.61	88%	
Expenses				
Personnel Services	2,251,809.00	2,060,773.38	92%	
Contractual Services	311,550.00	210,227.67	67%	
Commodities	3,339,000.00	3,143,796.29	94%	
Capital Improvement & Outlay	550,000.00	338,906.76	62%	
Other Expense & Reimbursements	0.00	0.00		
Transfers Out to Other Funds	300,000.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	1,713.00	0.00	0%	
Expenses Total	6,754,072.00	5,753,704.10	85%	
	REVENUE TOTALS	6,869,119.00	6,054,801.61	88%
	EXPENSE TOTALS	6,754,072.00	5,753,704.10	85%
	Fund 007-Road & Bridge Totals	115,047.00	301,097.51	
	Beginning Fund Balance:	1,607,443.99		
	Ending Fund Balance:	1,908,541.50		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
008 Solid Waste Fund				
Revenue				
Licenses, Permits, and Fees	5,090,000.00	5,606,543.84	110%	
Reimbursements	20,000.00	116,265.47	581%	
Cash Balance Forward (Budgeted Resource)	5,957,832.00	0.00	0%	
Other Revenue	5,000.00	17,015.23	340%	
Revenue Total	11,072,832.00	5,739,824.54	52%	
Expenses				
Personnel Services	1,623,020.00	1,337,516.44	82%	
Contractual Services	1,199,450.00	1,049,912.92	88%	
Commodities	574,500.00	509,782.59	89%	
Capital Improvement & Outlay	2,810,000.00	2,998,932.91	107%	
Other Expense & Reimbursements	0.00	0.00		
Transfers Out to Other Funds	651,950.00	251,950.00	39%	
Reserve for Cash Carryover & Contingencies	4,213,912.00	0.00	0%	
Expenses Total	11,072,832.00	6,148,094.86	56%	
	REVENUE TOTALS	11,072,832.00	5,739,824.54	52%
	EXPENSE TOTALS	11,072,832.00	6,148,094.86	56%
	Fund 008-Solid Waste Totals	0.00	(408,270.32)	
	Beginning Fund Balance:	7,217,794.01		
	Ending Fund Balance:	6,809,523.69		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
009 Youth Services Fund				
Revenue				
Reimbursements	1,302,220.00	1,405,024.22	108%	
Grant Revenues	0.00	43,484.94		
Transfers In from Other Funds	649,315.00	475,000.00	73%	
Cash Balance Forward (Budgeted Resource)	243,490.00	0.00	0%	
Revenue Total	2,195,025.00	1,923,509.16	88%	
Expenses				
Personnel Services	1,698,666.00	1,641,016.94	97%	
Contractual Services	107,175.00	89,302.36	83%	
Commodities	56,300.00	34,088.27	61%	
Capital Improvement & Outlay	20,000.00	19,380.31	97%	
Other Expense & Reimbursements	126,082.00	130,576.96	104%	
Reserve for Cash Carryover & Contingencies	186,802.00	0.00	0%	
Expenses Total	2,195,025.00	1,914,364.84	87%	
	REVENUE TOTALS	2,195,025.00	1,923,509.16	88%
	EXPENSE TOTALS	2,195,025.00	1,914,364.84	87%
Fund 009-Youth Services Totals	0.00	9,144.32		
	Beginning Fund Balance:	875,998.14		
	Ending Fund Balance:	885,142.46		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
013 Solid Waste Post-Closure Fund				
Revenue				
Transfers In from Other Funds	400,000.00	0.00	0%	
Cash Balance Forward (Budgeted Resource)	5,662,037.00	0.00	0%	
Revenue Total	6,062,037.00	0.00	0%	
Expenses				
Contractual Services	355,000.00	206,383.56	58%	
Capital Improvement & Outlay	5,707,037.00	0.00	0%	
Expenses Total	6,062,037.00	206,383.56	3%	
	REVENUE TOTALS	6,062,037.00	0.00	0%
	EXPENSE TOTALS	6,062,037.00	206,383.56	3%
Fund 013-Solid Waste Post-Closure Totals	0.00	(206,383.56)		
	Beginning Fund Balance:	6,498,694.76		
	Ending Fund Balance:	6,292,311.20		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
015 Employee Benefits Fund				
Revenue				
Taxes	6,893,260.00	6,922,082.15	100%	
Reimbursements	1,350,000.00	1,349,354.67	100%	
Cash Balance Forward (Budgeted Resource)	2,986,116.00	0.00	0%	
Revenue Total	11,229,376.00	8,271,436.82	74%	
Expenses				
Personnel Services	4,086,532.00	3,927,592.68	96%	
Contractual Services	5,000.00	5,725.00	115%	
Capital Improvement & Outlay	100,000.00	0.00	0%	
Other Expense & Reimbursements	4,000.00	16,061.03	402%	
Transfers Out to Other Funds	5,050,904.00	4,393,477.50	87%	
Reserve for Cash Carryover & Contingencies	1,800,000.00	0.00	0%	
Expenses Total	11,046,436.00	8,342,856.21	76%	
	REVENUE TOTALS	11,229,376.00	8,271,436.82	74%
	EXPENSE TOTALS	11,046,436.00	8,342,856.21	76%
	Fund 015-Employee Benefits Totals	182,940.00	(71,419.39)	
	Beginning Fund Balance:	5,042,345.42		
	Ending Fund Balance:	4,970,926.03		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
017 TECH Center Fund				
Revenue				
Taxes	504,651.00	506,689.51	100%	
Cash Balance Forward (Budgeted Resource)	18,648.00	0.00	0%	
Revenue Total	523,299.00	506,689.51	97%	
Expenses				
Contractual Services	510,000.00	510,000.00	100%	
Expenses Total	510,000.00	510,000.00	100%	
	REVENUE TOTALS	523,299.00	506,689.51	97%
	EXPENSE TOTALS	510,000.00	510,000.00	100%
	Fund 017-TECH Center Totals	13,299.00	(3,310.49)	
	Beginning Fund Balance:	28,285.66		
	Ending Fund Balance:	24,975.17		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
018 Mental Health Fund				
Revenue				
Taxes	448,697.00	450,282.15	100%	
Cash Balance Forward (Budgeted Resource)	15,148.00	0.00	0%	
Revenue Total	463,845.00	450,282.15	97%	
Expenses				
Contractual Services	452,025.00	452,025.00	100%	
Expenses Total	452,025.00	452,025.00	100%	
	REVENUE TOTALS	463,845.00	450,282.15	97%
	EXPENSE TOTALS	452,025.00	452,025.00	100%
	Fund 018-Mental Health Totals	11,820.00	(1,742.85)	
	Beginning Fund Balance:	22,327.06		
	Ending Fund Balance:	20,584.21		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
029 Special Parks & Recreation Fund				
Revenue				
Taxes	13,165.00	18,445.46	140%	
Cash Balance Forward (Budgeted Resource)	409.00	0.00	0%	
Revenue Total	13,574.00	18,445.46	136%	
Expenses				
Contractual Services	13,165.00	13,165.00	100%	
Reserve for Cash Carryover & Contingencies	409.00	0.00	0%	
Expenses Total	13,574.00	13,165.00	97%	
	REVENUE TOTALS	13,574.00	18,445.46	136%
	EXPENSE TOTALS	13,574.00	13,165.00	97%
	Fund 029 Special Parks & Recreation Totals	0.00	5,280.46	
	Beginning Fund Balance:	8,291.42		
	Ending Fund Balance:	13,571.88		

Fund	Amended Budget	Amt Received / Expended	% Rec'd Used	
030 Special Alcohol & Drug Fund				
Revenue				
Taxes	13,165.00	21,418.05	163%	
Cash Balance Forward (Budgeted Resource)	17,416.00	0.00	0%	
Revenue Total	30,581.00	21,418.05	70%	
Expenses				
Contractual Services	10,000.00	10,000.00	100%	
Reserve for Cash Carryover & Contingencies	20,581.00	0.00	0%	
Expenses Total	30,581.00	10,000.00	33%	
	REVENUE TOTALS	30,581.00	21,418.05	70%
	EXPENSE TOTALS	30,581.00	10,000.00	33%
	Fund 030 Special Alcohol & Drug Totals	0.00	11,418.05	
	Beginning Fund Balance:	27,106.46		
	Ending Fund Balance:	38,524.51		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
083 Bond & Interest Fund				
Revenue				
Taxes	1,064,489.00	1,052,817.56	99%	
Transfers In from Other Funds	611,825.00	987,841.72	161%	
Cash Balance Forward (Budgeted Resource)	143,618.00	0.00	0%	
Other Revenue	54,845.00	54,844.67	100%	
Revenue Total	1,874,777.00	2,095,503.95	112%	
Expenses				
Contractual Services	1,694,463.00	1,695,362.50	100%	
Reserve for Cash Carryover & Contingencies	150,000.00	0.00	0%	
Expenses Total	1,844,463.00	1,695,362.50	92%	
	REVENUE TOTALS	1,874,777.00	2,095,503.95	112%
	EXPENSE TOTALS	1,844,463.00	1,695,362.50	92%
Fund 083 Bond & Interest Totals	30,314.00	400,141.45		
	Beginning Fund Balance:	150,560.06		
	Ending Fund Balance:	550,701.51		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
085 Noxious Weed Capital Outlay Fund				
Revenue				
Transfers In from Other Funds	10,000.00	0.00	0%	
Cash Balance Forward (Budgeted Resource)	98,568.00	0.00	0%	
Revenue Total	108,568.00	0.00	0%	
Expenses				
Capital Improvement & Outlay	108,568.00	0.00	0%	
Expenses Total	108,568.00	0.00	0%	
	REVENUE TOTALS	108,568.00	0.00	0%
	EXPENSE TOTALS	108,568.00	0.00	0%
Fund 085 Noxious Weed Capital Outlay Totals	0.00	0.00		
	Beginning Fund Balance:	89,776.58		
	Ending Fund Balance:	89,776.58		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
086 Public Health Capital Outlay Fd				
Revenue				
Grant Revenues	220,000.00	46,667.00	21%	
Cash Balance Forward (Budgeted Resource)	350,980.00	0.00	0%	
Revenue Total	570,980.00	46,667.00	8%	
Expenses				
Capital Improvement & Outlay	255,000.00	66,946.34	26%	
Reserve for Cash Carryover & Contingencies	315,980.00	0.00	0%	
Expenses Total	570,980.00	66,946.34	12%	
	REVENUE TOTALS	570,980.00	46,667.00	8%
	EXPENSE TOTALS	570,980.00	66,946.34	12%
Fund 086 Public Health Capital Outlay Totals	0.00	(20,279.34)		
	Beginning Fund Balance:	433,479.84		
	Ending Fund Balance:	413,200.50		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
087 Historical Museum Fund				
Revenue				
Taxes	184,312.00	184,757.86	100%	
Cash Balance Forward (Budgeted Resource)	5,551.00	0.00	0%	
Revenue Total	189,863.00	184,757.86	97%	
Expenses				
Contractual Services	185,000.00	185,000.00	100%	
Expenses Total	185,000.00	185,000.00	100%	
	REVENUE TOTALS	189,863.00	184,757.86	97%
	EXPENSE TOTALS	185,000.00	185,000.00	100%
Fund 087 Historical Museum Totals	4,863.00	(242.14)		
	Beginning Fund Balance:	8,871.93		
	Ending Fund Balance:	8,629.79		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
093 Special Equipment Fund				
Revenue				
Taxes	367,414.00	365,010.40	99%	
Reimbursements	130,288.00	136,803.03	105%	
Cash Balance Forward (Budgeted Resource)	45,017.00	0.00		
Other Revenue	0.00	1,118.27		
Revenue Total	542,719.00	502,931.70	93%	
Expenses				
Contractual Services	0.00	201,535.70		
Capital Improvement & Outlay	432,580.00	240,298.36	56%	
Transfers Out to Other Funds	0.00	0.00		
Reserve for Cash Carryover & Contingencies	100,000.00	0.00	0%	
Expenses Total	532,580.00	441,834.06	83%	
	REVENUE TOTALS	542,719.00	502,931.70	93%
	EXPENSE TOTALS	532,580.00	441,834.06	83%
Fund 093 Special Equipment Fund Totals	10,139.00	61,097.64		
	Beginning Fund Balance:	188,808.27		
	Ending Fund Balance:	249,905.91		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
094 Special Road Fund			
Revenue			
Taxes	158,594.00	171,155.46	108%
Grant Revenues	0.00	0.00	
Cash Balance Forward (Budgeted Resource)	612,530.00	0.00	0%
Revenue Total	771,124.00	171,155.46	22%
Expenses			
Contractual Services	0.00	286,762.32	
Commodities	0.00	48,542.24	
Capital Improvement & Outlay	755,000.00	0.00	0%
Reserve for Cash Carryover & Contingencies	13,500.00	0.00	0%
Expenses Total	768,500.00	335,304.56	44%
	REVENUE TOTALS	171,155.46	22%
	EXPENSE TOTALS	335,304.56	44%
Fund 094 Special Road Fund Totals	2,624.00	(164,149.10)	
	Beginning Fund Balance:	1,378,894.67	
	Ending Fund Balance:	1,214,745.57	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
098 CIP Fund			
Revenue			
Taxes	601,331.00	606,388.95	101%
Reimbursements	0.00	9,691.36	
Cash Balance Forward (Budgeted Resource)	310,478.00	0.00	0%
Revenue Total	911,809.00	616,080.31	68%
Expenses			
Capital Improvement & Outlay	436,125.00	118,123.29	27%
Transfers Out to Other Funds	359,875.00	359,875.00	100%
Reserve for Cash Carryover & Contingencies	100,000.00	0.00	0%
Expenses Total	896,000.00	477,998.29	53%
	REVENUE TOTALS	616,080.31	68%
	EXPENSE TOTALS	477,998.29	53%
Fund 098 CIP Totals	15,809.00	138,082.02	
	Beginning Fund Balance:	502,097.87	
	Ending Fund Balance:	640,179.89	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
180 Internal Services Fund				
Revenue				
Reimbursements	678,000.00	640,257.55	94%	
Cash Balance Forward (Budgeted Resource)	79,822.00	0.00	0%	
Revenue Total	757,822.00	640,257.55	84%	
Expenses				
Commodities	678,000.00	646,744.52	95%	
Reserve for Cash Carryover & Contingencies	79,822.00	0.00	0%	
Expenses Total	757,822.00	646,744.52	85%	
	REVENUE TOTALS	757,822.00	640,257.55	84%
	EXPENSE TOTALS	757,822.00	646,744.52	85%
	Fund 180 Internal Services Totals	0.00	(6,486.97)	
	Beginning Fund Balance:	114,909.27		
	Ending Fund Balance:	108,422.30		

2023 YTD BUDGET REPORT

As of 2/28/2023

	Amended Budget	Amt Received / Expended	% Recd / Used
001 General Fund			
00 Unclassified			
Revenue			
Interest	306,000.00	552,436.19	181%
Taxes	17,351,225.00	8,223,305.88	47%
Licenses, Permits, and Fees	229,450.00	56,093.72	24%
Reimbursements	707,500.00	14,079.48	2%
Transfers In from Other Funds	25,000.00	0.00	0%
Cash Balance Forward (Budgeted Resource)	8,974,125.00	0.00	0%
Other Revenue	0.00	47.60	
Revenue Total	27,593,300.00	8,845,962.87	32%
Expenses			
Other Expense & Reimbursements	0.00	(1,010.00)	
Expenses Total	0.00	(1,010.00)	
01 County Commission			
Expenses			
Personnel Services	54,000.00	7,989.08	15%
Contractual Services	4,350.00	2,336.39	54%
Commodities	2,500.00	324.72	13%
Expenses Total	60,850.00	10,650.19	18%
02 County Clerk			
Revenue			
Reimbursements	20,000.00	564.80	3%
Revenue Total	20,000.00	564.80	3%
Expenses			
Personnel Services	284,207.00	43,341.84	15%
Contractual Services	27,170.00	954.14	4%
Commodities	4,600.00	497.74	11%
Expenses Total	315,977.00	44,793.72	14%
03 County Treasurer			
Revenue			
Reimbursements	0.00	40.00	
Revenue Total	0.00	40.00	
Expenses			
Personnel Services	208,938.00	32,619.13	16%
Contractual Services	40,275.00	2,953.17	7%
Commodities	31,450.00	79.63	0%
Expenses Total	280,663.00	35,651.93	13%

2023 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
04 District Attorney			
Revenue			
Licenses, Permits, and Fees	80,000.00	25,242.00	32%
Revenue Total	80,000.00	25,242.00	32%
Expenses			
Personnel Services	1,190,954.00	170,029.68	14%
Contractual Services	123,900.00	17,604.23	14%
Commodities	49,000.00	11,859.98	24%
Expenses Total	1,363,854.00	199,493.89	15%
05 Register of Deeds			
Revenue			
Licenses, Permits, and Fees	375,000.00	51,425.00	14%
Revenue Total	375,000.00	51,425.00	14%
Expenses			
Personnel Services	160,663.00	24,701.23	15%
Contractual Services	9,455.00	886.87	9%
Commodities	5,750.00	407.52	7%
Expenses Total	175,868.00	25,995.62	15%
06 Sheriff			
Revenue			
Licenses, Permits, and Fees	32,300.00	5,695.00	18%
Reimbursements	10,500.00	3,175.63	30%
Grant Revenues	12,000.00	6,454.17	54%
Revenue Total	54,800.00	15,324.80	28%
Expenses			
Personnel Services	3,298,628.00	469,726.67	14%
Contractual Services	382,938.00	43,869.87	11%
Commodities	455,123.00	20,504.10	5%
Capital Improvement & Outlay	85,682.00	5,362.17	6%
Other Expense & Reimbursements	2,000.00	171.09	9%
Expenses Total	4,224,371.00	539,633.90	13%
07 County Administration			
Expenses			
Personnel Services	501,934.00	77,232.81	15%
Contractual Services	55,550.00	2,123.91	4%
Commodities	3,000.00	382.43	13%
Expenses Total	560,484.00	79,739.15	14%

2023 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
08 District Court			
Revenue			
Reimbursements	10,000.00	559.82	6%
Revenue Total	10,000.00	559.82	6%
Expenses			
Contractual Services	561,040.00	87,045.18	16%
Commodities	55,100.00	3,195.88	6%
Expenses Total	616,140.00	90,241.06	15%
09 Courthouse General			
Revenue			
Reimbursements	11,000.00	0.00	0%
Revenue Total	11,000.00	0.00	0%
Expenses			
Personnel Services	87,749.00	12,847.15	15%
Contractual Services	351,000.00	34,609.46	10%
Commodities	2,000.00	0.00	0%
Capital Improvement & Outlay	900,000.00	9,738.82	1%
Other Expense & Reimbursements	0.00	0.00	
Expenses Total	1,340,749.00	57,195.43	4%
10 County General			
Expenses			
Contractual Services	1,126,000.00	590,338.53	52%
Commodities	1,000.00	0.00	0%
Other Expense & Reimbursements	15,000.00	37.07	0%
Outside Agencies Appropriation	604,000.00	271,000.00	45%
Ambulance Services	1,816,889.00	1,033.93	0%
Emergency Communications	850,000.00	0.00	0%
Economic Development Projects	400,000.00	0.00	0%
Transfers Out to Other Funds	912,340.00	0.00	0%
Commission Discretionary	20,000.00	0.00	0%
Reserve for Cash Carryover & Contingencies	5,550,000.00	0.00	0%
Expenses Total	11,295,229.00	862,409.53	8%

2023 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
11 Maintenance			
Revenue			
Reimbursements	30,000.00	0.00	0%
Revenue Total	30,000.00	0.00	0%
Expenses			
Personnel Services	887,421.00	107,288.21	12%
Contractual Services	86,110.00	11,143.69	13%
Commodities	77,951.00	3,338.93	4%
Expenses Total	1,051,482.00	121,770.83	12%
12 Planning & Zoning			
Revenue			
Reimbursements	0.00	1,880.00	
Revenue Total	0.00	1,880.00	
Expenses			
Personnel Services	88,964.00	13,356.07	15%
Contractual Services	17,700.00	5.67	0%
Commodities	700.00	0.00	0%
Expenses Total	107,364.00	13,361.74	12%
13 Emergency Management			
Revenue			
Reimbursements	100,000.00	126.81	0%
Revenue Total	100,000.00	126.81	0%
Expenses			
Personnel Services	305,391.00	46,434.43	15%
Contractual Services	47,575.00	1,034.58	2%
Commodities	35,200.00	3,548.29	10%
Other Expense & Reimbursements	0.00	296.71	
Expenses Total	388,166.00	51,314.01	13%
14 Sheriff - Jail			
Revenue			
Reimbursements	40,000.00	9,086.05	23%
Other Revenue	5,000.00	0.00	0%
Revenue Total	45,000.00	9,086.05	20%
Expenses			
Personnel Services	2,502,889.00	374,130.12	15%
Contractual Services	920,320.00	69,743.98	8%
Commodities	215,000.00	18,401.99	9%
Expenses Total	3,638,209.00	462,276.09	13%

2023 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
15 Human Resources			
Expenses			
Personnel Services	190,733.00	28,482.26	15%
Contractual Services	52,950.00	3,484.55	7%
Commodities	16,000.00	344.35	2%
Expenses Total	259,683.00	32,311.16	12%
16 Appraiser			
Revenue			
Reimbursements	3,000.00	2,976.00	99%
Revenue Total	3,000.00	2,976.00	99%
Expenses			
Personnel Services	676,347.00	103,008.49	15%
Contractual Services	71,300.00	8,190.52	11%
Commodities	24,500.00	1,493.49	6%
Expenses Total	772,147.00	112,692.50	15%
17 County Clerk - Election			
Revenue			
Reimbursements	500.00	446.32	89%
Revenue Total	500.00	446.32	89%
Expenses			
Personnel Services	130,107.00	18,220.64	14%
Contractual Services	181,810.00	62,892.53	35%
Commodities	18,800.00	1,916.02	10%
Transfers Out to Other Funds	58,161.00	0.00	0%
Expenses Total	388,878.00	83,029.19	21%
18 Information Technology			
Revenue			
Reimbursements	28,000.00	0.00	0%
Revenue Total	28,000.00	0.00	0%
Expenses			
Personnel Services	548,285.00	85,456.65	16%
Contractual Services	418,075.00	220,514.75	53%
Commodities	9,500.00	473.58	5%
Expenses Total	975,860.00	306,444.98	31%

2023 YTD BUDGET REPORT

	Amended Budget	Amt Received / Expended	% Recd / Used
24 Auto Center			
Revenue			
Reimbursements	20,000.00	4,817.65	24%
Revenue Total	20,000.00	4,817.65	24%
Expenses			
Personnel Services	170,223.00	25,767.96	15%
Contractual Services	14,880.00	2,866.16	19%
Commodities	15,380.00	1,800.66	12%
Expenses Total	200,483.00	30,434.78	15%
REVENUE TOTALS	28,370,600.00	8,958,452.12	32%
EXPENSE TOTALS	28,016,457.00	3,158,429.70	11%
Fund 001 General Fund	354,143.00	5,800,022.42	
	Beginning Fund Balance:	14,669,628.95	
	Ending Fund Balance:	20,469,651.37	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
002 Aging & Transit Fund				
Revenue				
Taxes	205,999.00	107,462.20	52%	
Licenses, Permits, and Fees	100.00	0.00	0%	
Reimbursements	6,125.00	1,096.40	18%	
Grant Revenues	1,171,923.00	66,225.36	6%	
Transfers In from Other Funds	437,340.00	0.00	0%	
Cash Balance Forward (Budgeted Resource)	489,751.00	0.00	0%	
Other Revenue	257,076.00	8,424.00	3%	
Revenue Total	2,568,314.00	183,207.96	7%	
Expenses				
Personnel Services	1,355,740.00	176,057.82	13%	
Contractual Services	594,451.00	56,375.26	9%	
Commodities	286,150.00	16,822.56	6%	
Capital Improvement & Outlay	266,292.00	0.00	0%	
Other Expense & Reimbursements	425.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	60,000.00	0.00	0%	
Expenses Total	2,563,058.00	249,255.64	10%	
	REVENUE TOTALS	2,568,314.00	183,207.96	7%
	EXPENSE TOTALS	2,563,058.00	249,255.64	10%
	Fund 002-Aging & Transit Totals	5,256.00	(66,047.68)	
	Beginning Fund Balance:	1,058,802.29		
	Ending Fund Balance:	992,754.61		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
003 Public Health Fund				
Revenue				
Taxes	673,691.00	353,171.30	52%	
Licenses, Permits, and Fees	10,500.00	5,409.00	52%	
Reimbursements	566,000.00	79,157.40	14%	
Grant Revenues	1,240,500.00	441,500.38	36%	
Cash Balance Forward (Budgeted Resource)	1,401,406.00	0.00	0%	
Other Revenue	500.00	377.03	75%	
Revenue Total	3,892,597.00	879,615.11	23%	
Expenses				
Personnel Services	2,625,375.00	339,756.68	13%	
Contractual Services	648,870.00	85,098.17	13%	
Commodities	249,150.00	14,397.61	6%	
Reserve for Cash Carryover & Contingencies	352,000.00	0.00	0%	
Expenses Total	3,875,395.00	439,252.46	11%	
	REVENUE TOTALS	3,892,597.00	879,615.11	23%
	EXPENSE TOTALS	3,875,395.00	439,252.46	11%
	Fund 003-Public Health Totals	17,202.00	440,362.65	
	Beginning Fund Balance:	2,429,407.11		
	Ending Fund Balance:	2,869,769.76		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
004 Noxious Weed Fund				
Revenue				
Taxes	128,076.00	69,336.21	54%	
Cash Balance Forward (Budgeted Resource)	14,375.00	0.00	0%	
Other Revenue	12,000.00	237.00	2%	
Revenue Total	154,451.00	69,573.21	45%	
Expenses				
Personnel Services	85,221.00	12,414.49	15%	
Contractual Services	4,650.00	275.01	6%	
Commodities	51,150.00	764.19	1%	
Transfers Out to Other Funds	10,000.00	0.00	0%	
Expenses Total	151,021.00	13,453.69	9%	
	REVENUE TOTALS	154,451.00	69,573.21	45%
	EXPENSE TOTALS	151,021.00	13,453.69	9%
Fund 004-Noxious Weed Totals	3,430.00	56,119.52		
	Beginning Fund Balance:	38,504.42		
	Ending Fund Balance:	94,623.94		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
006 Special Bridge Fund				
Revenue				
Taxes	276,294.00	103,796.45	38%	
Cash Balance Forward (Budgeted Resource)	2,178,454.00	0.00	0%	
Reimbursements	300,000.00	0.00	0%	
Revenue Total	2,754,748.00	103,796.45	4%	
Expenses				
Contractual Services	2,400,000.00	60.00	0%	
Commodities	350,000.00	0.00	0%	
Expenses Total	2,750,000.00	60.00	0%	
	REVENUE TOTALS	2,754,748.00	103,796.45	4%
	EXPENSE TOTALS	2,750,000.00	60.00	0%
Fund 006-Special Bridge Totals	4,748.00	103,736.45		
	Beginning Fund Balance:	4,148,444.61		
	Ending Fund Balance:	4,252,181.06		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
007 Road & Bridge Fund				
Revenue				
Taxes	5,262,162.00	2,897,046.15	55%	
Reimbursements	0.00	657.51		
Cash Balance Forward (Budgeted Resource)	519,367.00	0.00	0%	
Other Revenue	1,536,438.00	617.89	0%	
Revenue Total	7,317,967.00	2,898,321.55	40%	
Expenses				
Personnel Services	2,327,125.00	288,323.77	12%	
Contractual Services	299,600.00	14,035.16	5%	
Commodities	3,682,000.00	53,121.30	1%	
Capital Improvement & Outlay	466,500.00	0.00	0%	
Transfers Out to Other Funds	400,000.00	0.00	0%	
Expenses Total	7,175,225.00	355,480.23	5%	
	REVENUE TOTALS	7,317,967.00	2,898,321.55	40%
	EXPENSE TOTALS	7,175,225.00	355,480.23	5%
	Fund 007-Road & Bridge Totals	142,742.00	2,542,841.32	
	Beginning Fund Balance:	1,781,118.26		
	Ending Fund Balance:	4,323,959.58		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
008 Solid Waste Fund				
Revenue				
Licenses, Permits, and Fees	5,090,000.00	2,823,739.48	55%	
Reimbursements	55,000.00	8,080.70	15%	
Cash Balance Forward (Budgeted Resource)	5,095,008.00	0.00	0%	
Other Revenue	5,000.00	9,940.20	199%	
Revenue Total	10,245,008.00	2,841,760.38	28%	
Expenses				
Personnel Services	1,683,838.00	207,181.40	12%	
Contractual Services	1,216,950.00	48,311.14	4%	
Commodities	609,500.00	22,494.64	4%	
Capital Improvement & Outlay	2,050,000.00	998,000.00	49%	
Transfers Out to Other Funds	650,950.00	47,975.00	7%	
Reserve for Cash Carryover & Contingencies	4,033,770.00	0.00	0%	
Expenses Total	10,245,008.00	1,323,962.18	13%	
	REVENUE TOTALS	10,245,008.00	2,841,760.38	28%
	EXPENSE TOTALS	10,245,008.00	1,323,962.18	13%
	Fund 008-Solid Waste Totals	0.00	1,517,798.20	
	Beginning Fund Balance:	7,530,167.53		
	Ending Fund Balance:	9,047,965.73		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
009 Youth Services Fund			
Revenue			
Reimbursements	1,329,595.00	241,867.07	18%
Grant Revenues	0.00	15,742.47	
Transfers In from Other Funds	400,000.00	0.00	0%
Cash Balance Forward (Budgeted Resource)	752,619.00	0.00	0%
Revenue Total	2,482,214.00	257,609.54	10%
Expenses			
Personnel Services	1,753,909.00	262,077.12	15%
Contractual Services	113,745.00	9,221.02	8%
Commodities	56,300.00	2,711.89	5%
Other Expense & Reimbursements	126,082.00	0.00	0%
Reserve for Cash Carryover & Contingencies	432,178.00	0.00	0%
Expenses Total	2,482,214.00	274,010.03	11%
	REVENUE TOTALS	257,609.54	10%
	EXPENSE TOTALS	274,010.03	11%
Fund 009-Youth Services Totals	0.00	(16,400.49)	
	Beginning Fund Balance:	896,861.45	
	Ending Fund Balance:	880,460.96	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
013 Solid Waste Post-Closure Fund			
Revenue			
Transfers In from Other Funds	400,000.00	0.00	0%
Cash Balance Forward (Budgeted Resource)	6,062,913.00	0.00	0%
Revenue Total	6,462,913.00	0.00	0%
Expenses			
Contractual Services	330,000.00	5,949.98	2%
Capital Improvement & Outlay	6,132,913.00	0.00	0%
Expenses Total	6,462,913.00	5,949.98	0%
	REVENUE TOTALS	0.00	0%
	EXPENSE TOTALS	5,949.98	0%
Fund 013-Solid Waste Post-Closure Totals	0.00	(5,949.98)	
	Beginning Fund Balance:	5,834,861.86	
	Ending Fund Balance:	5,828,911.88	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
015 Employee Benefits Fund				
Revenue				
Taxes	5,454,357.00	2,890,031.80	53%	
Reimbursements	1,314,000.00	194,147.28	15%	
Cash Balance Forward (Budgeted Resource)	4,082,534.00	0.00	0%	
Revenue Total	10,850,891.00	3,084,179.08	28%	
Expenses				
Personnel Services	4,400,321.00	896,236.84	20%	
Contractual Services	5,000.00	2,593.50	52%	
Other Expense & Reimbursements	4,000.00	0.00	0%	
Transfers Out to Other Funds	4,800,000.00	654,495.00	14%	
Reserve for Cash Carryover & Contingencies	1,500,000.00	0.00	0%	
Expenses Total	10,709,321.00	1,553,325.34	15%	
	REVENUE TOTALS	10,850,891.00	3,084,179.08	28%
	EXPENSE TOTALS	10,709,321.00	1,553,325.34	15%
Fund 015-Employee Benefits Totals	141,570.00	1,530,853.74		
	Beginning Fund Balance:	4,967,541.03		
	Ending Fund Balance:	6,498,394.77		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
017 TECH Center Fund				
Revenue				
Taxes	500,400.00	271,386.92	54%	
Cash Balance Forward (Budgeted Resource)	22,937.00	0.00	0%	
Revenue Total	523,337.00	271,386.92	52%	
Expenses				
Contractual Services	510,000.00	295,000.00	58%	
Expenses Total	510,000.00	295,000.00	58%	
	REVENUE TOTALS	523,337.00	271,386.92	52%
	EXPENSE TOTALS	510,000.00	295,000.00	58%
Fund 017-TECH Center Totals	13,337.00	(23,613.08)		
	Beginning Fund Balance:	24,975.17		
	Ending Fund Balance:	1,362.09		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
018 Mental Health Fund				
Revenue				
Taxes	444,884.00	240,960.44	54%	
Cash Balance Forward (Budgeted Resource)	18,999.00	0.00	0%	
Revenue Total	463,883.00	240,960.44	52%	
Expenses				
Contractual Services	452,025.00	258,025.00	57%	
Expenses Total	452,025.00	258,025.00	57%	
	REVENUE TOTALS	463,883.00	240,960.44	52%
	EXPENSE TOTALS	452,025.00	258,025.00	57%
	Fund 018-Mental Health Totals	11,858.00	(17,064.56)	
	Beginning Fund Balance:	20,584.21		
	Ending Fund Balance:	3,519.65		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
029 Special Parks & Recreation Fund				
Revenue				
Taxes	18,965.00	0.00	0%	
Cash Balance Forward (Budgeted Resource)	8,291.00	0.00	0%	
Revenue Total	27,256.00	0.00	0%	
Expenses				
Contractual Services	10,000.00	10,000.00	100%	
Reserve for Cash Carryover & Contingencies	17,256.00	0.00	0%	
Expenses Total	27,256.00	10,000.00	37%	
	REVENUE TOTALS	27,256.00	0.00	0%
	EXPENSE TOTALS	27,256.00	10,000.00	37%
	Fund 029 Special Parks & Recreation Totals	0.00	(10,000.00)	
	Beginning Fund Balance:	13,571.88		
	Ending Fund Balance:	3,571.88		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
030 Special Alcohol & Drug Fund			
Revenue			
Taxes	18,965.00	0.00	0%
Cash Balance Forward (Budgeted Resource)	30,271.00	0.00	0%
Revenue Total	49,236.00	0.00	0%
Expenses			
Contractual Services	10,000.00	10,000.00	100%
Reserve for Cash Carryover & Contingencies	39,236.00	0.00	0%
Expenses Total	49,236.00	10,000.00	20%
	REVENUE TOTALS	49,236.00	0.00
	EXPENSE TOTALS	49,236.00	10,000.00
Fund 030 Special Alcohol & Drug Totals	0.00	(10,000.00)	
	Beginning Fund Balance:	38,524.51	
	Ending Fund Balance:	28,524.51	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
083 Bond & Interest Fund			
Revenue			
Taxes	948,964.00	502,056.77	53%
Transfers In from Other Funds	250,950.00	47,975.00	19%
Cash Balance Forward (Budgeted Resource)	672,256.00	0.00	0%
Other Revenue	52,314.00	33,160.99	63%
Revenue Total	1,924,484.00	583,192.76	30%
Expenses			
Contractual Services	1,749,701.00	216,800.00	12%
Reserve for Cash Carryover & Contingencies	150,000.00	0.00	0%
Expenses Total	1,899,701.00	216,800.00	11%
	REVENUE TOTALS	1,924,484.00	583,192.76
	EXPENSE TOTALS	1,899,701.00	216,800.00
Fund 083 Bond & Interest Totals	24,783.00	366,392.76	
	Beginning Fund Balance:	550,701.51	
	Ending Fund Balance:	917,094.27	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
085 Noxious Weed Capital Outlay Fund			
Revenue			
Transfers In from Other Funds	10,000.00	0.00	0%
Cash Balance Forward (Budgeted Resource)	89,776.00	0.00	0%
Revenue Total	99,776.00	0.00	0%
Expenses			
Reserve for Cash Carryover & Contingencies	99,776.00	0.00	0%
Expenses Total	99,776.00	0.00	0%
	REVENUE TOTALS	99,776.00	0.00
	EXPENSE TOTALS	99,776.00	0.00
Fund 085 Noxious Weed Capital Outlay Totals	0.00	0.00	
	Beginning Fund Balance:	89,776.58	
	Ending Fund Balance:	89,776.58	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
086 Public Health Capital Outlay Fd			
Revenue			
Cash Balance Forward (Budgeted Resource)	433,480.00	0.00	0%
Revenue Total	433,480.00	0.00	0%
Expenses			
Capital Improvement & Outlay	25,000.00	0.00	0%
Reserve for Cash Carryover & Contingencies	408,480.00	0.00	0%
Expenses Total	433,480.00	0.00	0%
	REVENUE TOTALS	433,480.00	0.00
	EXPENSE TOTALS	433,480.00	0.00
Fund 086 Public Health Capital Outlay Totals	0.00	0.00	
	Beginning Fund Balance:	413,200.50	
	Ending Fund Balance:	413,200.50	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used
087 Historical Museum Fund			
Revenue			
Taxes	181,654.00	98,468.13	54%
Cash Balance Forward (Budgeted Resource)	8,184.00	0.00	0%
Revenue Total	189,838.00	98,468.13	52%
Expenses			
Contractual Services	185,000.00	100,000.00	54%
Expenses Total	185,000.00	100,000.00	54%
	REVENUE TOTALS	189,838.00	98,468.13
	EXPENSE TOTALS	185,000.00	100,000.00
Fund 087 Historical Museum Totals	4,838.00	(1,531.87)	
	Beginning Fund Balance:	8,629.79	
	Ending Fund Balance:	7,097.92	

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
093 Special Equipment Fund				
Revenue				
Taxes	523,537.00	289,408.07	55%	
Reimbursements	130,288.00	0.00	0%	
Cash Balance Forward (Budgeted Resource)	228,517.00	0.00	0%	
Revenue Total	882,342.00	289,408.07	33%	
Expenses				
Contractual Services	319,800.00	26,400.00	8%	
Capital Improvement & Outlay	398,209.00	204,195.34	51%	
Reserve for Cash Carryover & Contingencies	150,000.00	0.00	0%	
Expenses Total	868,009.00	230,595.34	27%	
	REVENUE TOTALS	882,342.00	289,408.07	33%
	EXPENSE TOTALS	868,009.00	230,595.34	27%
Fund 093 Special Equipment Fund Totals	14,333.00	58,812.73		
	Beginning Fund Balance:	246,759.29		
	Ending Fund Balance:	305,572.02		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
094 Special Road Fund				
Revenue				
Taxes	8,976.00	3,243.72	36%	
Cash Balance Forward (Budgeted Resource)	782,489.00	0.00	0%	
Revenue Total	791,465.00	3,243.72	0%	
Expenses				
Capital Improvement & Outlay	755,000.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	36,465.00	0.00	0%	
Expenses Total	791,465.00	0.00	0%	
	REVENUE TOTALS	791,465.00	3,243.72	0%
	EXPENSE TOTALS	791,465.00	0.00	0%
Fund 094 Special Road Fund Totals	0.00	3,243.72		
	Beginning Fund Balance:	1,214,745.57		
	Ending Fund Balance:	1,217,989.29		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
098 CIP Fund				
Revenue				
Taxes	255,476.00	123,243.08	48%	
Cash Balance Forward (Budgeted Resource)	307,429.00	0.00	0%	
Revenue Total	562,905.00	123,243.08	22%	
Expenses				
Capital Improvement & Outlay	457,000.00	0.00	0%	
Reserve for Cash Carryover & Contingencies	100,000.00	0.00	0%	
Expenses Total	557,000.00	0.00	0%	
	REVENUE TOTALS	562,905.00	123,243.08	22%
	EXPENSE TOTALS	557,000.00	0.00	0%
	Fund 098 CIP Totals	5,905.00	123,243.08	
	Beginning Fund Balance:	644,679.89		
	Ending Fund Balance:	767,922.97		

Fund	Amended Budget	Amt Received / Expended	% Rec'd / Used	
180 Internal Services Fund				
Revenue				
Reimbursements	515,000.00	59,939.95	12%	
Cash Balance Forward (Budgeted Resource)	75,846.00	0.00	0%	
Revenue Total	590,846.00	59,939.95	10%	
Expenses				
Commodities	590,846.00	51,865.23	9%	
Expenses Total	590,846.00	51,865.23	9%	
	REVENUE TOTALS	590,846.00	59,939.95	10%
	EXPENSE TOTALS	590,846.00	51,865.23	9%
	Fund 180 Internal Services Totals	0.00	8,074.72	
	Beginning Fund Balance:	117,012.87		
	Ending Fund Balance:	125,087.59		



AGENDA ITEM

AGENDA ITEM #8.B

AGENDA DATE: March 28, 2023

PRESENTED BY: Randy Partington, County Administrator

AGENDA TOPIC:
Monthly Department Reports

SUMMARY & BACKGROUND OF TOPIC:

Every month, departments have been asked to provide an update on the previous month's major activities. The reports are intended to keep the county commission informed about the appointed and elected departments. Attached are reports for Health Dept., Human Resources, Information Technology, Maintenance, Public Works, Solid Waste, and Youth Services.

RE: Monthly report ending February 2023

Dear Randy Partington, County Administrator:

Staffing Vacancies:

Current vacancy is for an Older Adult Services Nurse Aide.

Program Updates:

Admin/Finance/Health Information Management (HIM). Many areas are working on our Aid-to-Local (ATL) grant funding applications. We are also working on processes and preparing documents for our Public Health Accreditation Board (PHAB) re-accreditation annual report.

Child Care Licensing (CCL). Staff conducted a monthly orientation class (7 attended), 3 initial surveys, 10 home annual surveys, 2 center annual surveys, 5 school age program annual surveys, 3 compliance home surveys, and 2 center complaint surveys.

Clinical – Basic Health Services (BHS), Maternal Child Health (MCH), Family Practice (FP), Older Adult Services (OAS), and Epidemiology. As an epidemiology update, Respiratory illnesses have gone up slightly to about 16% of emergency department (ED) visits. Both RSV and flu cases stayed low over the past month to 1% or less of ED visits. The epidemiologist has also followed up on 2 animal bite investigations that month.

COVID-19 Update. As of 2/22/23, the weekly total number of cases in Reno County has continued to stay around 50 cases per week. The most recent week ending on February 18th had a total of 48 cases and equal to about 77.4 cases per 100,000 people. The number of COVID-19 cases per day have been variable over the past few days, with the most being 10 cases and the least being 3 cases. On February 18th, there were a total of 4 new cases. Over the past few weeks, the percentage of COVID-19 ED visits has increased. The percentage of COVID-19 visits increased from about 1% of all visits to about 4% of all visits each week. As of 2/22/23, there were 3 patients hospitalized with COVID-19. As on 2/18/23, 6,924 Covid-19 bivalent booster shots had been administered in Reno County.

Environmental Health (EH). Staff are finishing up school inspections, completed several on-site trainings with GovBuilt, and collaborated with Planning and Zoning staff to discuss improved customer service processes.

Health Education – Chronic Disease and Risk Reduction (CDRR), Opioid Overdose to Action (OD2A), Rural Response to the Opioid Epidemic (RROE), Pathways to a Healthy Kansas, and Community Education. CDRR-Staff presented vaping education to the Buhler School district and Hutchinson High School, presented secondhand smoke information at Childcare Licensure Orientation to 9 participants and staff, and worked on starting a tobacco workgroup at Horizons.



OD2A-On Friday, March 31st, at the Historic Fox Theatre, from 6-9pm, the Reno Recovery Collaborative, will be hosting an anti-stigma event. RROE-Staff conducted naloxone training sessions. Pathways-On March 3rd, at the Historic Fox Theater, from 6-8pm, our collaborative will be hosting a food insecurity documentary. For the last year, the producer has been interviewing several people who are food insecure, and this will be the cumulation of that project with the video and a panel discussion.

Preparedness (PHEP). Staff are working on preparedness education with the schools and reviewing our emergency radio needs.

WIC – Women, Infant & Children. We have 1078 active clients (have used at least 1 item on food benefits) out of 1266 participating (received benefits). This is an increase of 100 active participants in the last 6 months. Breastfeeding Peer Counselors held 2 events with 10 participants.

Becoming a High(er) Performing Organization. This month, we held a work session for our Public Health Accreditation Board (PHAB) annual report.

Upcoming Events:

On Thursday, March 2nd, the Kansas Department of Health and Environment (KDHE) State Health Officer, Joan Duwve, has asked to come to the RCHD to see how we coordinate/lead substance misuse activity within Reno County. She is interested in projects that utilize harm reduction, coalition development, use of OD map, and how we are looking to implement the overdose fatality review board. During her visit, we will be connecting with community partners, so she has a full understanding of the breadth of community partnerships it takes to make work on this topic successful.

On Friday, March 3rd, at the Historic Fox Theater, from 6-8pm, our collaborative will be hosting a food insecurity documentary.

On Friday, March 31st, at the Historic Fox Theatre, from 6-9pm, the Reno Recovery Collaborative, will be hosting an anti-stigma event.

Sincerely,
Karla Nichols, Director of Public Health





RENO COUNTY
206 West First Ave.
Hutchinson, Kansas 67501-5245
PHONE: (620) 694-2982
FAX: (620) 694-2508

Board of Commissioners - Department Update
Human Resources – February 2023
Helen Foster – Human Resources Director

Employment Activity

We currently have 15 position openings with several of the openings needing more than one new hire to fill. For the month of February, we have had two (2) separations and gained five (5) new employees. Submitted applications received for open positions stand at 47 applications completed through February 22nd. The average daily views for the month of February were 312 with the heaviest day being 487 views.

Evaluations

The evaluation process is moving forward smoothly. The HR review for all evaluations is almost complete. Many departments have already started the employee meetings to complete the process. There have been some learning curves with the new software, but from an HR standpoint, this has been the smoothest evaluation cycle. HR has the ability to track the evaluations and completion status of each evaluation. The system also offers notifications to managers so that they know what needs completion and the deadlines associated with the task.

Pay for Performance

As soon as the HR review is completed and any evaluations that were sent back come back through HR, we will be applying to scores for the pay for performance. This will be the last step before I can begin personnel budgets for 2024.

Projects

HR has begun searching for a replacement Applicant Tracking Software (ATS). Our current vendor will be sunseting our ATS. They have connected us with a vendor that will take over their accounts, but we have decided to compare our options. In the next coming weeks, we will be working with IT to help us find a new software vendor that will meet the needs of the County as well as integrating well with our other software products.

IT has been working with HR on more automated processes for frequent HR forms used. This should save on time and also alleviate the problem of receiving outdated forms from departments. With this process, the form will only be in one place so that it is not able to be saved on multiple drives.

On April 20th, we will be holding a hiring event at the Courthouse. HR is working out the details and advertisement process for this event. We have all departments that have volunteered to help with the event and also some personnel present for interviews. This will be the first time we have ever done an event like this and if it is successful, we will plan to offer this option more often.

ACA Compliance

All 1095's was distributed to employees on January 23rd. The deadline for 1095's was permanently extended to March 2nd of each year for distribution to employees. The transmittal deadline is March 31st to the IRS. I will have this completed within the next couple of weeks.

February 23, 2023
Monthly Report Information Services
Michael Mathews

Staffing changes or issues

We have no staffing changes currently.

Budget YTD summary

We are currently beginning to pay a lot of our annual software support contracts, so our expenditures will seem very high for the next two or three months. These are most of our expenses over the year. We have currently spent 31% of our 2023 budget.

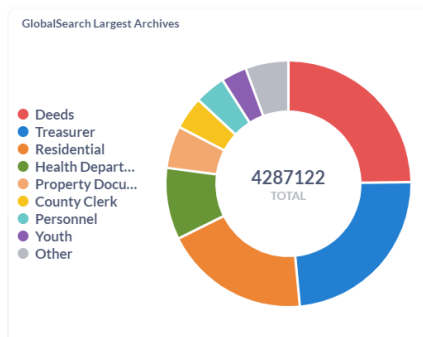
Projects/Issues/Challenges/Concerns

We have sent the agreement back to Tyler Technology back to the vendor for The ROD Eagle recording software. The next step will be to have a kickoff meeting with the vendor. I hope this is scheduled soon.

We have started the implantation of the GovBuilt application, we have had them onsite to do permit discovery for two days so far and it seems to be going well.

We should be starting the install and configuration of the new software for the DA’s office in early April.

The document management project is still moving along very well. We have completed the data migration for all departments and are now just doing a few small clean up procedures. We have about 10 departments storing documents in the system this is 4.2 million documents that can now be accessed electronically. The image below will give you a good idea of the departments that are using it.



We are also starting to work on a project to have new digital ortho and obellic aerial photograph flown in 2024, this will be a budget request and is a joint project with the City of Hutchinson.

Issues that we dealt with the past month include. We had a few challenges this month.



Maintenance & Purchasing Monthly Report 3/1/2023

Harlen Depew, Director

Staffing: Maintenance has filled two FT positions and one PT position this past month. We're still looking for a two more quality custodians to fill our roster.

Budget YTD summary

Commodities and Contractual expenses have risen a great deal over the past couple of years, so we're anticipating a challenging year, budget-wise. Staff will continue to be frugal and make the best of what we have to work with.

Projects/Issues/Challenges/Concerns

Veteran's Room Update

The furniture for the Veteran's Room is nearing completion and is projected to ship the first week of March, so we're still on schedule to move Commission Meetings by early April.

Courthouse Earthquake Repairs:

Punch visits are being worked out over the next two weeks. The remaining details to wrap up the window and weatherization project are also moving along according to the schedule submitted by the contractor in December, 2022. We are still expecting final completion before the end of March.

Courthouse Roofing

The revised bid specifications for the courthouse roofing project went back out to bid the week of February 20 and are due back on March 9. We intend to have a contract prepared and ready for signatures at the Commission Meeting on March 28.

Courthouse Remodel

Commissioners Hirst and Bogner met with the County Administrator, Maintenance Director, and the contractor to review the project in more detail, with the intent of discussing our options and bringing recommendations back to the Board, regarding the scope of work to proceed with. A few items were discussed as possibilities for reducing the cost of the project, with follow up research assigned to staff. This item will be back before the BOCC for additional consideration ASAP.



Public Works
600 Scott Boulevard
South Hutchinson, Kansas 67505
620-694-2976
Don Brittain, Director

February 2023 Monthly Report

Asphalt Crew the crew has completed shouldering the miles that was asphalt overlaid and now crack sealing roads throughout the county.

Mowing/Sign is trimming trees and installing signs throughout the county as needed.

Dirt Crew is cleaning ditches throughout the County.

Bridge Crew have three bridges that need repaired and then will start building a new bridge on Maple Grove Road, 4.5 miles east of K11.

Planning & Zoning Staff has started working on a templet for the Planning & Zoning Commission to start creating solar regulations .

Contracted Project

Bids should go out this month for the Woody Seat Bridge deck rehab.

Challenges

Solving the Yoder & Habit sewer district issue
Solving the Yoder water district issue
Short seven full time positions within Public Works.



Reno County Solid Waste
703 S. Mohawk
Hutchinson, KS 67501
(620) 694-2586
Fax (620) 694-669-8126

Solid Waste Monthly Update February 2023
Megan Davidson, Director

Staffing: We currently have 1 open position of a General Laborer.

Projects/Issues/Challenges/Concerns: We have been in the new facilities for a complete year and we could not be happier with the facilities.

Staff has kept busy picking up trash around the facility on and off site.

Cell 8 has been completed and is waiting on approval from KDHE to be able to place waste. Landfill staff will continue to work on the gun range when time and manpower allow.

The new CAT Scraper was delivered and training on it will begin in the next week!

The landfill has surpassed another year of no lost time without an accident, so a congratulatory luncheon and awards will be given to each employee!! We at the landfill strive to create a safe and positive place to work!

Budget: We are wrapping up on 2022 invoices and starting to get bids in on equipment for 2023.



RENO COUNTY YOUTH SERVICES

219 West Second Ave.
Hutchinson, Kansas 67501
(620) 694-2500
Fax: (620) 694-2504

JUVENILE DETENTION CENTER
JUVENILE INTAKE & ASSESSMENT
BOB JOHNSON YOUTH SHELTER

TDD: Kansas Relay Center 1-800-766-3777

Youth Services Monthly Report

February 2023

Staffing changes or issues (if any)

We're currently seeking to fill the stand-by Youth Care Specialist/Juvenile Detention Officers, a 40-hour male Youth Care Specialist, a 40-hour male Juvenile Detention Officer, a 40 hour cook and an on-call Juvenile Intake and Assessment Officer. All positions, except standby and on-call positions, offers insurance benefits and KPERS. Those interested in the open positions can apply online at Renogov.org.

The employee of the month for February was not yet selected prior to the time this report was needed.

Budget YTD Summary

As of 2/23/2023, we have spent 9% of our Shelter budget (Dept.90). The total shelter budget is \$933,553. We have spent 13% of our detention budget (Dept.91). The total detention budget is \$1,109,483.

Projects/Issues/Challenges/Concerns

We had our surprise annual licensing review from Department of Children and Families and there were no noncompliance findings. This review covered both Shelter and Detention. Having a noncompliance review is a great reflection of our staff consistently paying close attention to details regarding youth and employee files, as well as, keeping our facility clean and functioning well. The surveyors acknowledged our successful record of continued noncompliance reviews.

We also had our surprise quarterly program review from DCF which focuses on the programs we provide our residents. In addition to the programs, the quarterly review focuses on the condition of the facility, current investigations (if any), consultation on any noncompliance they may site, and questions and concerns we may have. This review also had no noncompliance.

We are receiving our employee evaluations from HR and supervisors are starting to review them with their staff.

We used some funds from our DCF Retention grant to pay for radio time to advertise our open positions in our facility and have seen an increase in completed applications.



AGENDA ITEM

AGENDA ITEM #10.A

AGENDA DATE: March 28, 2023

PRESENTED BY: Megan Davidson, Christina Holt, Steve Lineham, and Kellyn Modlin
SCS Engineers

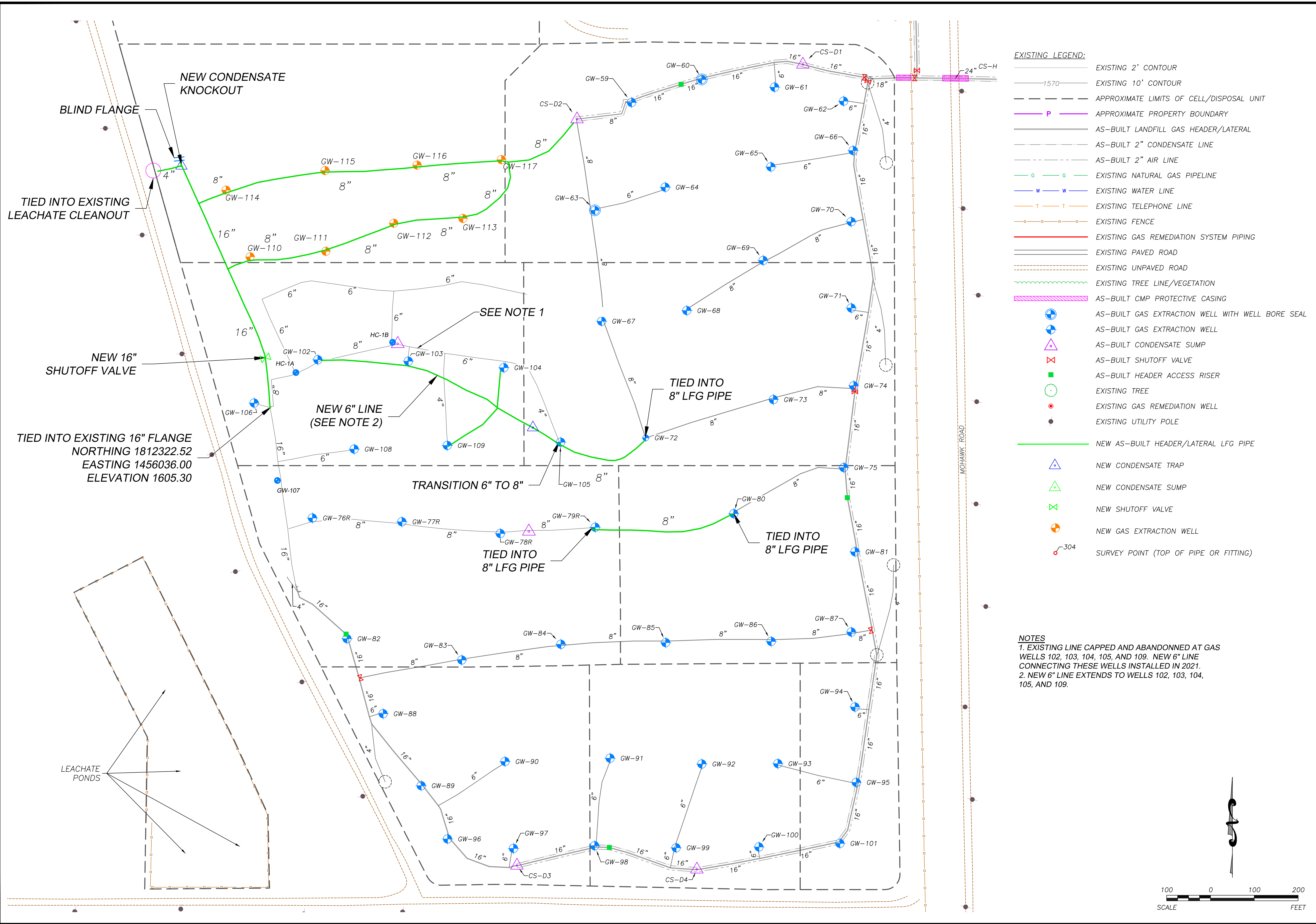
AGENDA TOPIC:

Solid Waste discussion on the financial plan regarding rates for 2024 and also a presentation on a plan to resolve Gas Well issues at the Solid Waste Department to remain in compliance with Kansas Department of Health and Environment.

RECOMMENDATION / REQUEST:

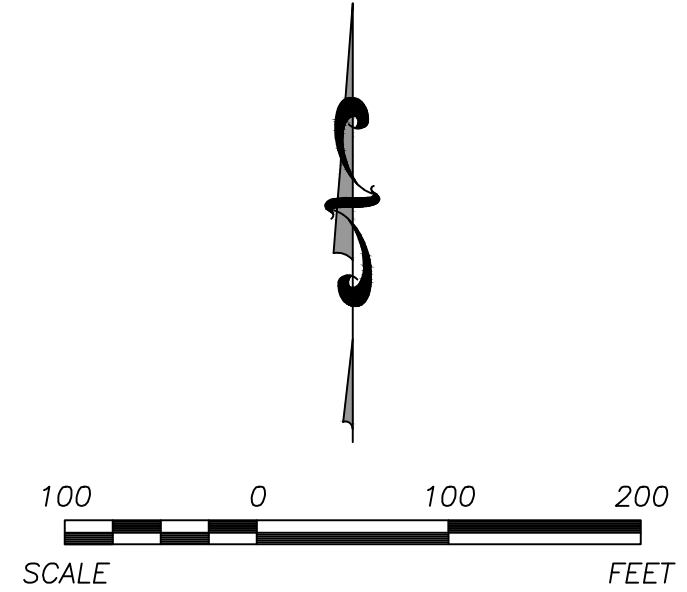
No decision to be made just discussion only

\\WIC-FS02\project\27223072.20\Data and Calculations\20230316 - Study Session with Commissioners\CAD\Reno Co LF - GCCS As-Built.dwg Mar 16, 2023 - 4:53pm Layout Name: Site D By: 5030cmh



- EXISTING LEGEND:**
- EXISTING 2' CONTOUR
 - EXISTING 10' CONTOUR
 - APPROXIMATE LIMITS OF CELL/DISPOSAL UNIT
 - APPROXIMATE PROPERTY BOUNDARY
 - AS-BUILT LANDFILL GAS HEADER/LATERAL
 - AS-BUILT 2" CONDENSATE LINE
 - AS-BUILT 2" AIR LINE
 - EXISTING NATURAL GAS PIPELINE
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 - EXISTING TELEPHONE LINE
 - EXISTING FENCE
 - EXISTING GAS REMEDIATION SYSTEM PIPING
 - EXISTING PAVED ROAD
 - EXISTING UNPAVED ROAD
 - EXISTING TREE LINE/VEGETATION
 - AS-BUILT CMP PROTECTIVE CASING
 - AS-BUILT GAS EXTRACTION WELL WITH WELL BORE SEAL
 - AS-BUILT GAS EXTRACTION WELL
 - AS-BUILT CONDENSATE SUMP
 - AS-BUILT SHUTOFF VALVE
 - AS-BUILT HEADER ACCESS RISER
 - EXISTING TREE
 - EXISTING GAS REMEDIATION WELL
 - EXISTING UTILITY POLE
 - NEW AS-BUILT HEADER/LATERAL LFG PIPE
 - NEW CONDENSATE TRAP
 - NEW CONDENSATE SUMP
 - NEW SHUTOFF VALVE
 - NEW GAS EXTRACTION WELL
 - SURVEY POINT (TOP OF PIPE OR FITTING)

NOTES
 1. EXISTING LINE CAPPED AND ABANDONNED AT GAS WELLS 102, 103, 104, 105, AND 109. NEW 6" LINE CONNECTING THESE WELLS INSTALLED IN 2021.
 2. NEW 6" LINE EXTENDS TO WELLS 102, 103, 104, 105, AND 109.



CK:		DESCRIPTION	
BY:		DATE	
REV.		DATE	
SHEET TITLE		PROJECT TITLE	
SITE D GCCS EXPANSION		2021 GAS COLLECTION AND CONTROL SYSTEM	
AS-BUILT			
CLIENT			
RENO COUNTY MSWLF RENO COUNTY, KANSAS 703 S. MOHAWK ROAD HUTCHINSON, KANSAS			
CADD FILE:			
RENO CO LF - GCCS AS-BUILT.DWG			
DATE:			
3/16/23			
DRAWING NO.			
4 of 4			

Reno County Site D Liquid Levels
February - March 2023

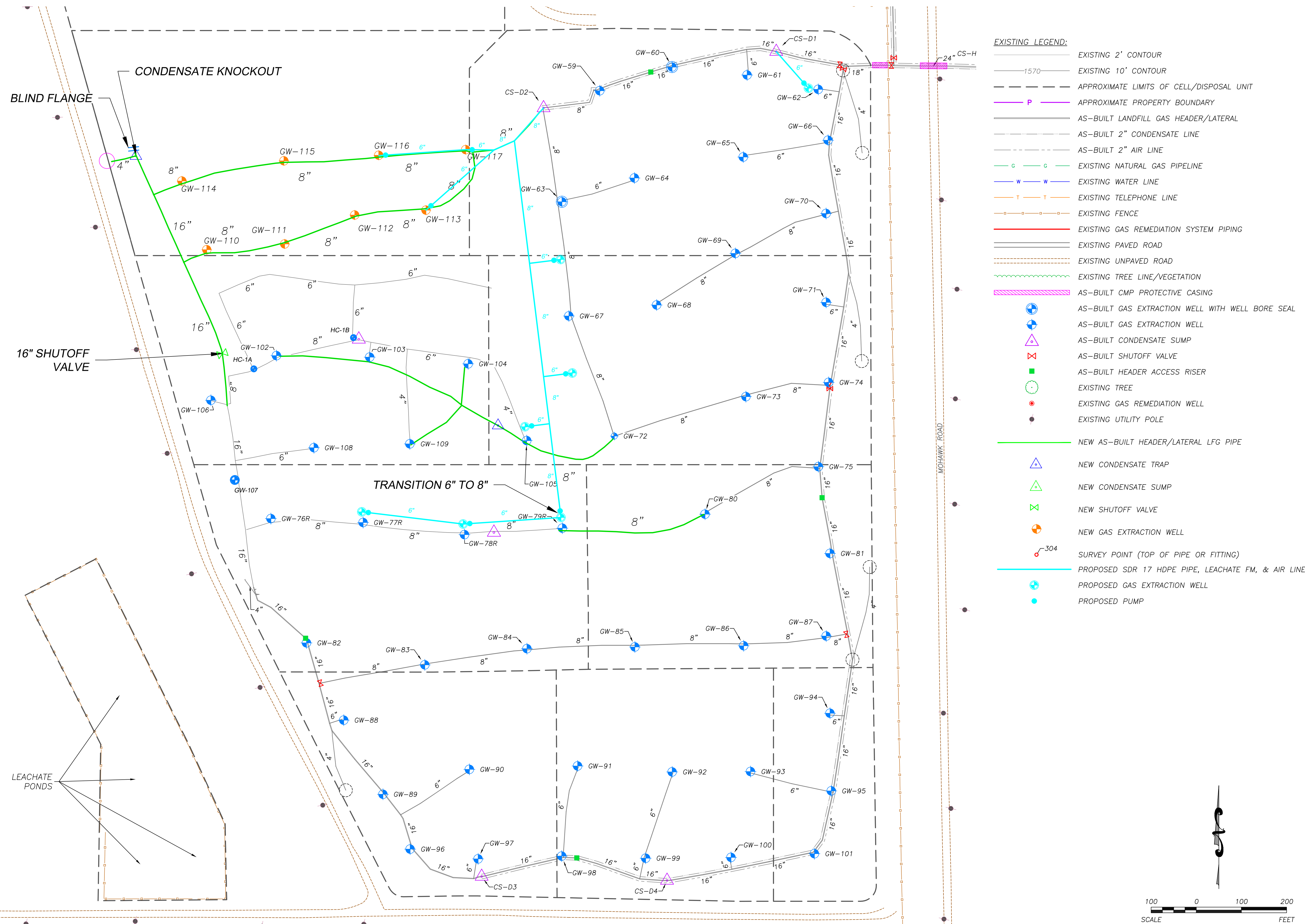
Well #	Casing Height	DTW	T/D	Liquid Levels	Notes
HC-1A	3.2		21.65*	-	
HC-1B	3		30*	-	
59	1.7	DRY	38.23	-	
60	3.1	20.28	27.75	7.47	
61	2.2	24.58	31.57	6.99	
62	2.9	21.88	34.7	12.82	
63				-	N/M WELL IS IN ACTIVE FACE AND NOT ACCESSIBLE
64	1.75	58.58	60.4	1.82	
65	3.1	47.85	55.12	7.27	
66	3.2	27.65	34.25	6.6	
67				-	N/M WELL IS IN ACTIVE FACE AND NOT ACCESSIBLE
68	1.6	52.2	56.3	4.1	
69	2.4	46.6	50.5	3.9	
70	4.1	28.05	35.5	7.45	
71	3.5	27.15	35.87	8.72	
72	1.1	50.1	57.3	7.2	
73	2.6	53	55	2	
74	3.9	27.9	34.8	6.9	
75	3.41	32.95	36.25	3.3	
76R	5.5	40.1	41.8	1.7	
77	3.6	37.85	61.59	23.74	
78	3.5	41.25	64.95	23.7	ELBOW IN PIPE
79	1.78	33	46.5	13.5	
80	1.13	DRY	55.75	-	
81	2.65	34.87	36.2	1.33	
82	3.6	32.85	33.15	0.3	
83	2.4	DRY	63.8	-	
84	2.4	61.1	62.5	1.4	
85	2.2	52.2	57.25	5.05	
86	2.2	DRY	54.7	-	
87	3	28.35	37.4	9.05	
88	3.7	26.21	33.5	7.29	
89	2.4	36.82	37.3	0.48	
90	2.8	70.7	70.78	0.08	WELLHEAD BROKE UPON REMOVAL-REPLACED
91	3.1	63.8	64.25	0.45	
92	2.7	58.8	61.58	2.78	
93	1.2	DRY	57.4	-	
94	2.9	37.81	38.24	0.43	
95	2	40.05	40.35	0.3	
96	2.7	DRY	38.95	-	

Reno County Site D Liquid Levels
February - March 2023

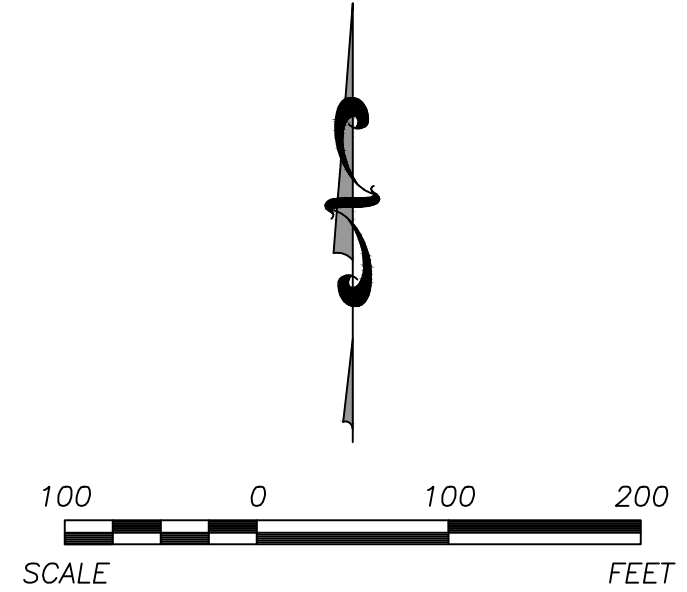
97	2.7	32.19	36.86	4.67	
98	1.8	38.48	38.75	0.27	
99	2.1	32.82	38.48	5.66	
100	2.55	DRY	37.7	-	
101	3.1	DRY	40.13	-	
102	4		17*	-	
103	4.75		13.4*	-	
104	5.5	45.15	49.7	4.55	
105	2.2		22*	-	
106	2.65		8.5*	-	
107	5	DRY	25.9	-	
108	6(SLANTED)	68	72	4	ELBOW AT 11.8'
109	3.1	64	69.2	5.2	
110	3.9	45.7	46.08	0.38	
111	3	43.66	43.99	0.33	
112	2.5	DRY	43.7	-	
113	3.1	32.45	39.5	7.05	
114				-	MISSED
115	2.3	43.3	46	2.7	
116	2.8	34.6	44.1	9.5	
117	2.6	31.3	39.1	7.8	

* - Blockage in well that couldn't get measuring device below. Presumably an elbow.
All measurements taken from top of casing with well head removed

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- EXISTING LEGEND:**
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 - NEW CONDENSATE TRAP
 - NEW CONDENSATE SUMP
 - NEW SHUTOFF VALVE
 - NEW GAS EXTRACTION WELL
 - SURVEY POINT (TOP OF PIPE OR FITTING)
 - PROPOSED SDR 17 HDPE PIPE, LEACHATE FM, & AIR LINE
 - PROPOSED GAS EXTRACTION WELL
 - PROPOSED PUMP



CK: BY:	DESCRIPTION	
	DATE	
REV		
SHEET TITLE		PROJECT TITLE
SITE D GCCS EXPANSION HIGH LEVEL DESIGN		
CLIENT		RENO COUNTY MSWLF RENO COUNTY, KANSAS 4015 W CLARK ROAD HUTCHINSON, KANSAS
SCS ENGINEERS 11120 E. 26th Street North, Ste. 1100 Wichita, Kansas 67226 PH: (918) 315-4801 FAX: (918) 315-4805		
CADD FILE: RENO CO LF - GCCS AS-BUILTS.DWG		DATE: 3/20/23
DRAWING NO.		4 of 4

March 20, 2023

TECHNICAL MEMORANDUM

TO: Megan Davidson, Solid Waste Manager – Reno County Municipal Solid Waste Landfill

FROM: Kellyn Modlin, Project Manager – SCS Engineers, Management Services
Vita Quinn, Project Director – SCS Engineers, Management Services

SUBJECT: Revenue Sufficiency Analysis Update

This memorandum highlights the results of a solid waste financial model update (Study) that was conducted for the Reno County Municipal Solid Waste Landfill (Landfill) by SCS Engineers' Management Services team (SCS).

BACKGROUND

The Reno County Municipal Solid Waste Landfill is owned by Reno County Kansas and is a Subtitle D landfill serving Harvey, Kingman, McPherson, Rice, Reno, and Stafford Counties. The landfill is funded through tipping fees for out-of-county waste, tipping fees for special waste types, construction & demolition, and Reno County residents and businesses paying a fee on their property taxes.



SOURCE DATA & ASSUMPTIONS

Source Data

The ongoing relationship with SCS allowed for ease in data sharing. SCS has engaged in financial modeling and projection with the Landfill for many years allowing for a model update and a depth of historical knowledge. Landfill staff provided SCS with fund balances as of January 1, 2022, budgeted miscellaneous revenues and operating expenditures for 2022, and current and planned capital spending and vehicle/equipment replacements through 2036.

Assumptions

All assumptions reflected in the study were discussed with Landfill staff.

- **Escalation of Costs/Revenues** - Revenue projections and cost escalation factors used for various types of operating revenues and expenses were based upon historical trends, industry experience, and discussions with Landfill Staff.
- **Interest Earnings** - Interest earning on invested funds were assumed at a rate of 0.25% in each year of the projection period, based upon staff input and recent earnings.

- **System Growth** - Customer and volume/tonnage projections were based upon a review of historical data and discussions with Landfill staff. Reno County billed units are assumed to increase by 1.79% annually, while Reno County solid waste tonnage is assumed to decrease by 4.40% annually.
- **Minimum Reserve Policies** - Reserve balances for utility systems are set aside for specific cash flow requirements, future use, financial needs, etc. These funds are intended to minimize risk associated with meeting future obligations. The financial management plan reflected herein assumes that the minimum operating fund will equal 25% of annual operations and maintenance expenses for the Landfill.
- **Future Borrowing and Capital Funding** - To the extent new debt would be acquired in any year of the projection period, it is assumed to have the following terms.
 - Long-Term Borrowing
 - 20 Years
 - 2.25% Interest Rate
 - Short-Term Borrowing
 - 7 Years
 - 1.62% Interest Rate

ANALYSIS

The final analysis updated the revenue sufficiency outlook for the Landfill by updating the 2022 Budget with the 2022 Actuals, estimating the 2023 Budget, and refining the capital spending program and vehicle/equipment purchase and replacement program. With County staff, we discussed the updated analysis and capital projections, and reviewed alternative scenarios for the County.

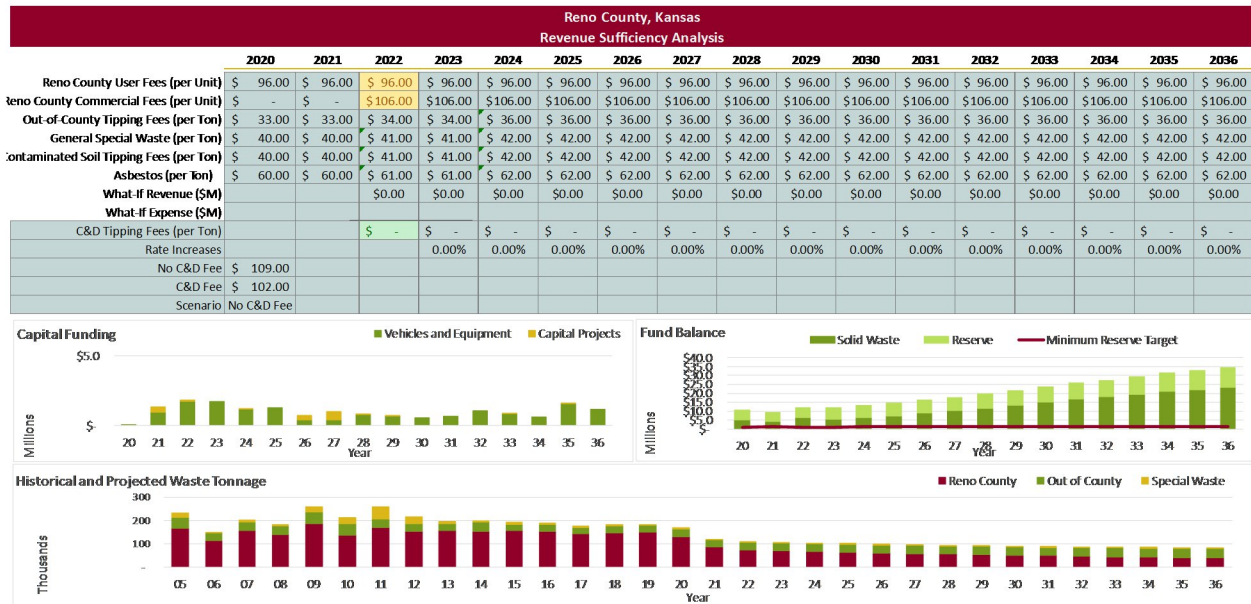
Through this process, we identified two financial management plan scenarios the County desired to compare: i) status quo and ii) the loss of Out-of-County tonnage.

Reno County Municipal Solid Waste Landfill

March 20, 2023

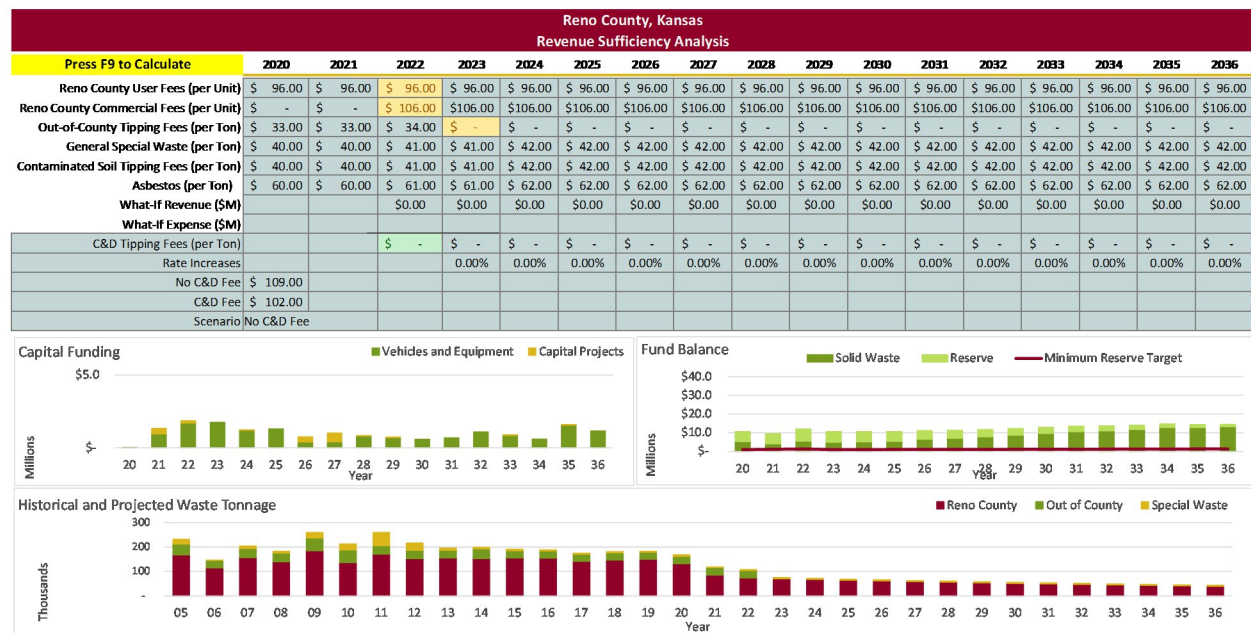
Page 3

Scenario 1 – Status Quo



In this scenario, the County continues to accept debris from Reno County residents and charges a Commercial Tipping Fee. With these assumptions, the Reno County User Fee revenues would be sufficient to fund operations throughout the projection period ending in 2036.

Scenario 2 – Loss of Out-of-County Tonnage



Should the County choose to institute fees, policy, or any other catalyst which would result in the loss of Out-of-County tonnage, although significantly decreasing the landfills revenues, the Reno County User Fees would be sufficient to fund operations while maintaining a fiscally sound post-closure reserve fund throughout a projection period ending in 2036.

Recommendations

Based upon the results of the study described herein, we recommend the following:

- The County's current revenues are sufficient to fund its ongoing operations, capital, and reserve requirements.
- The County should not discourage Out-of-County waste from being transported to the Reno County Landfill. Under this plan, the Landfill would not need further User Fee adjustments for the 5-year planning period of 2024-2028, as shown in the table below.

Reno County 5-Year Rate Plan

	2023	2024	2025	2026	2027	2028
Reno County User Fee (\$)	\$ 106.00	\$ 106.00	\$ 106.00	\$ 106.00	\$ 106.00	\$ 106.00
Commercial User Fee (\$)	\$ 96.00	\$ 96.00	\$ 96.00	\$ 96.00	\$ 96.00	\$ 96.00

- The County should update this analysis of revenue sufficiency annually to confirm that the recommended financial management plan continues to be sufficient to fund the County's Landfill operations while meeting all of its financial policies and goals.

We appreciate the opportunity to participate in the analysis, and look forward to working with you again in the future. If you have any questions or would like to discuss this further, please call me anytime at (386) 546-7719.

Regards,



Vita Quinn, MBA
Director of Management Services
SCS Engineers



Kellyn J. Modlin, MBA
Project Manager
SCS Engineers

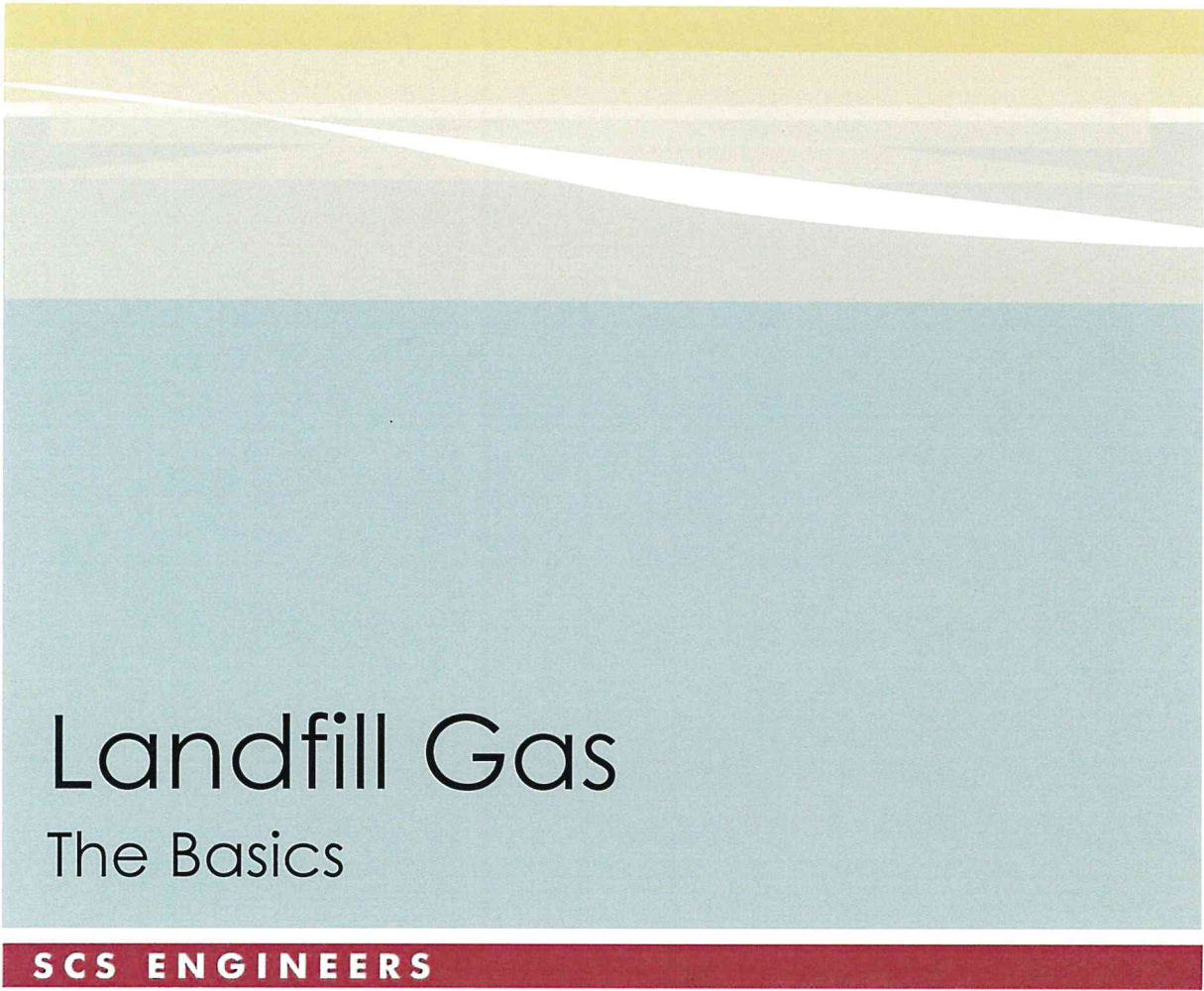
Reno County Solid Waste

Gas System Study Session

March 28, 2023



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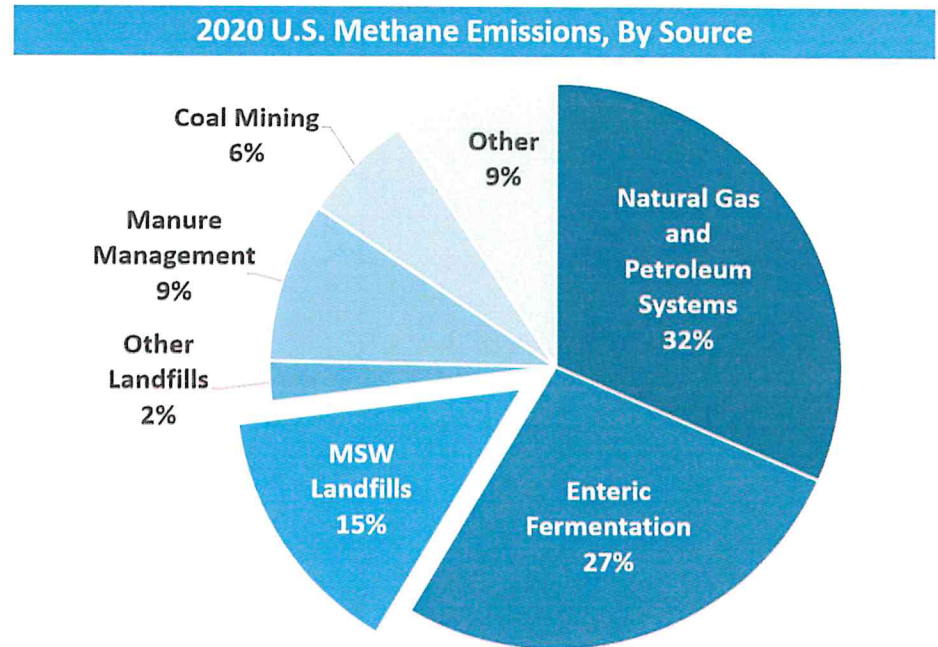
Landfill Gas

The Basics

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Methane Emissions from Landfills

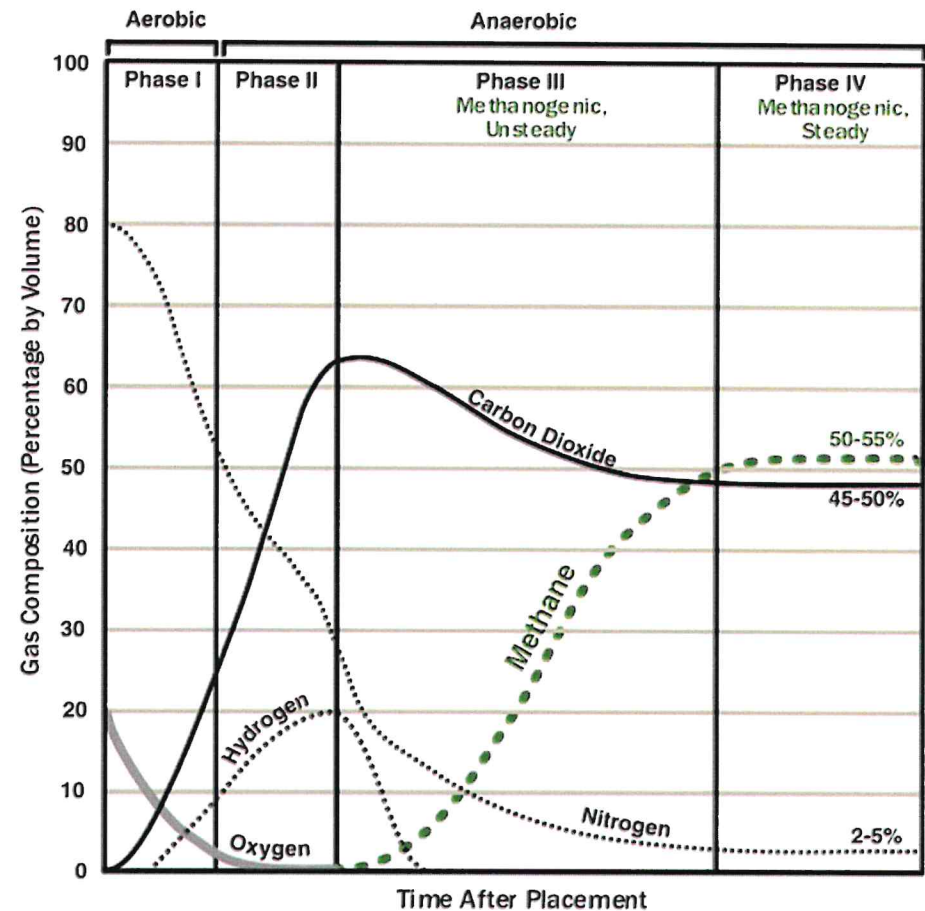
- Municipal solid waste (MSW) landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 14.5 percent of these emissions in 2020.



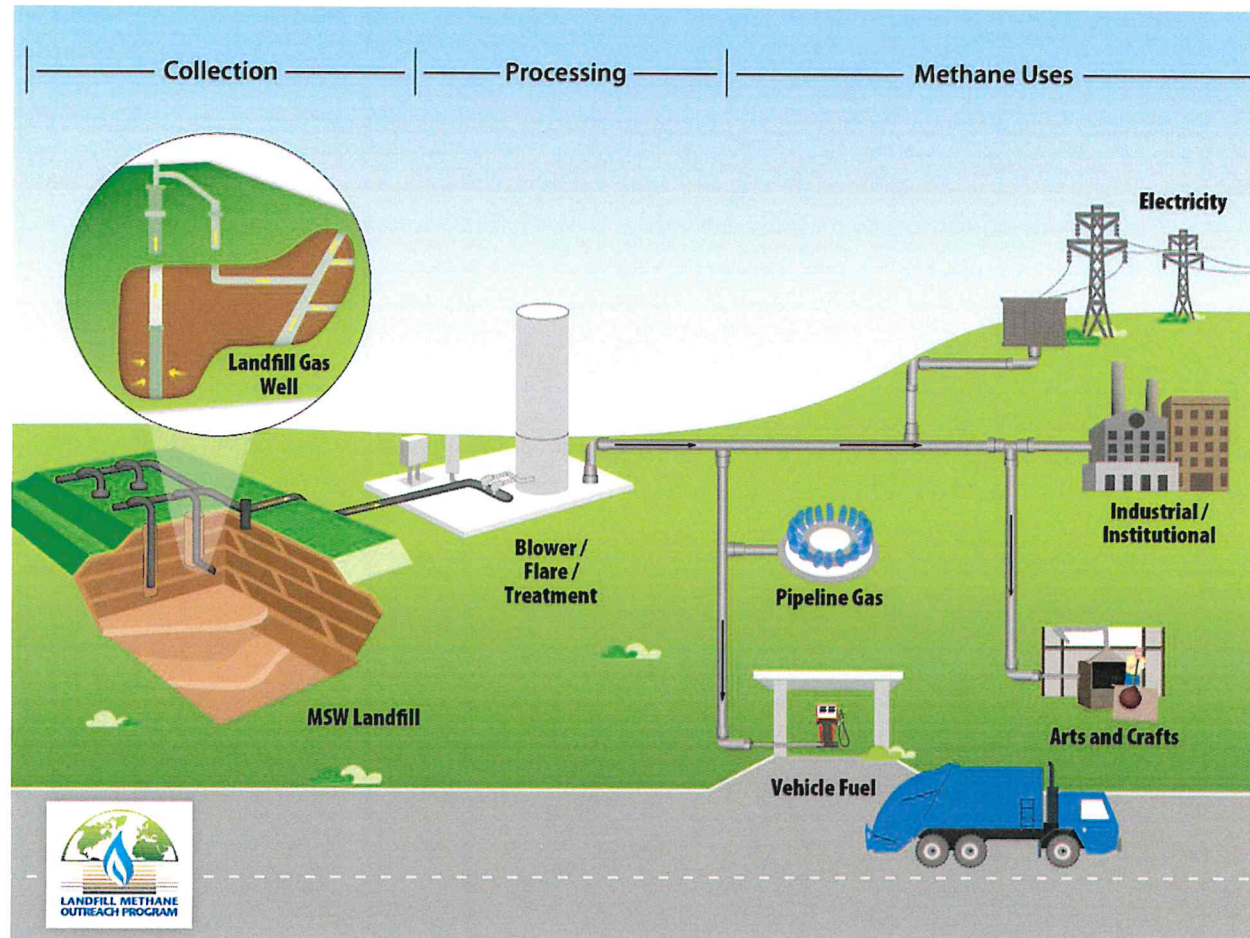
Note: All emission estimates from the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020*. U.S. EPA. 2022.

Landfill Gas Composition

- This diagram illustrates the changes in typical LFG composition after waste placement. Bacteria decompose landfill waste in four phases. The time after placement scale (total time and phase duration) varies with landfill conditions.

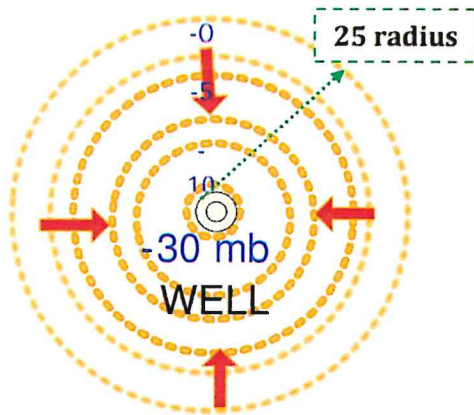


Collecting and Treating Landfill Gas



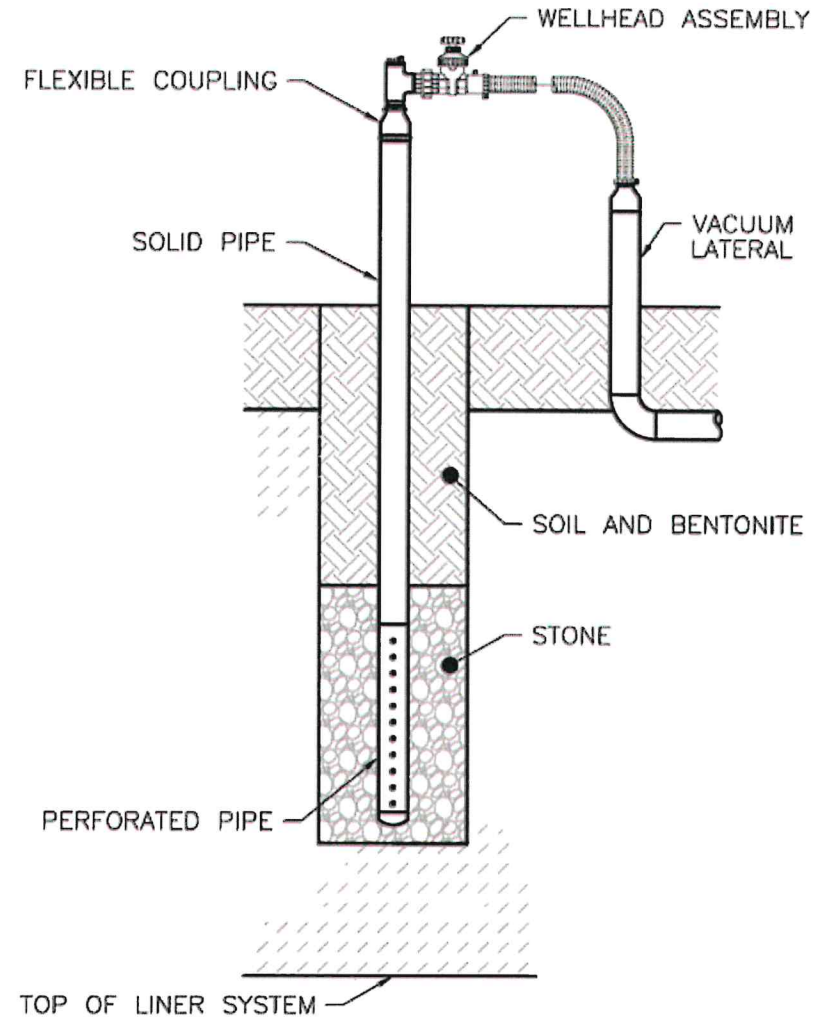
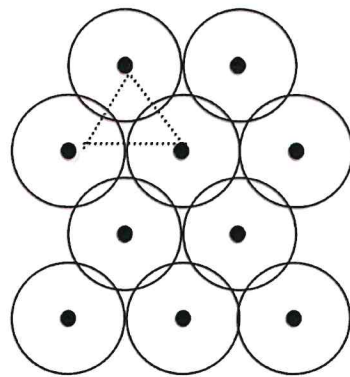
Landfill Gas Wells

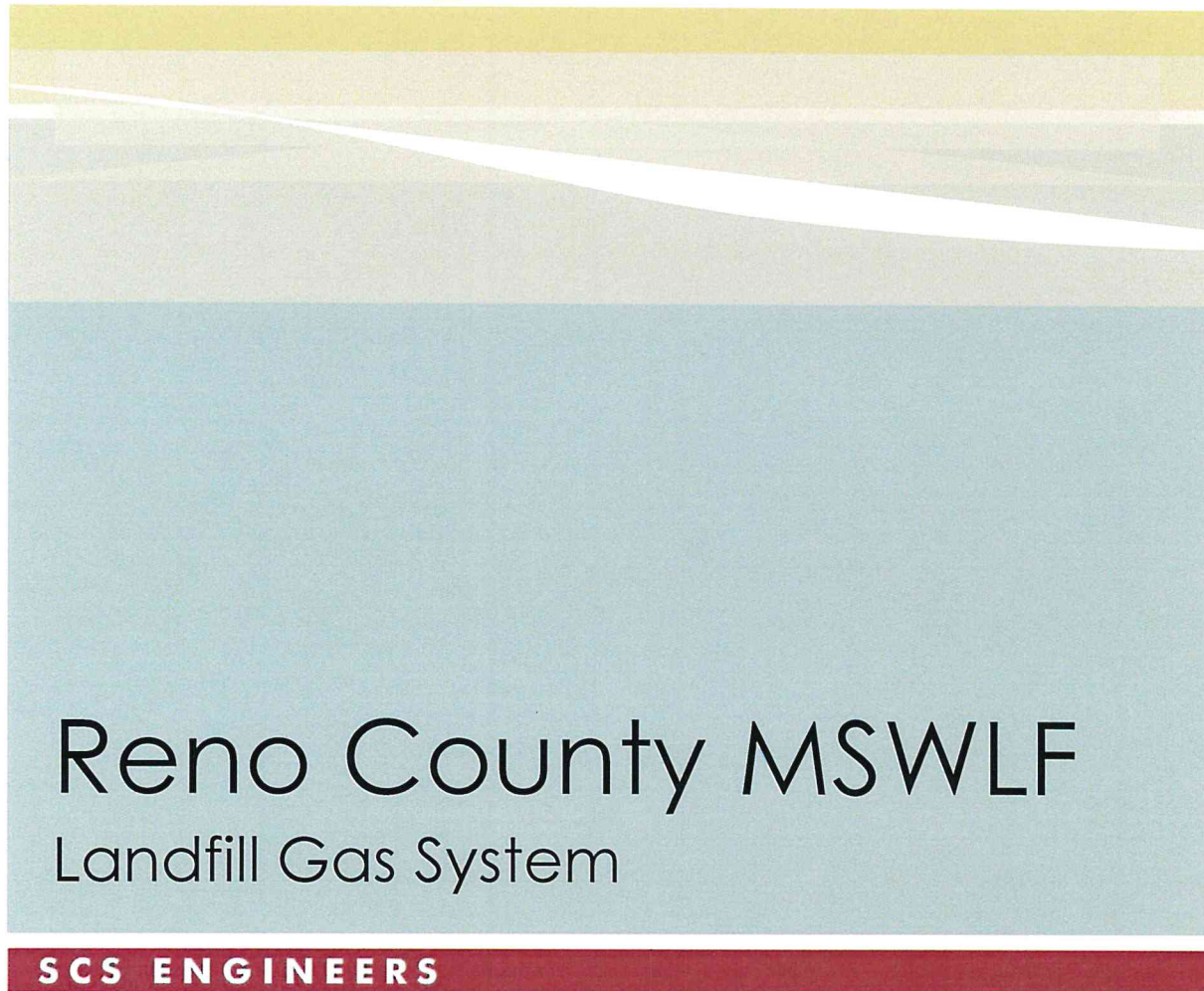
Radius of Influence



- ⊙ Gas Well
- Flow & direction
- Pressure gradient

Well Placement





Reno County MSWLF

Landfill Gas System

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Overview

- 3 MSW Sites
 - A/C (Inactive)
 - B (Inactive)
 - D (Active)
- Gas Wells
 - 121 Gas Wells





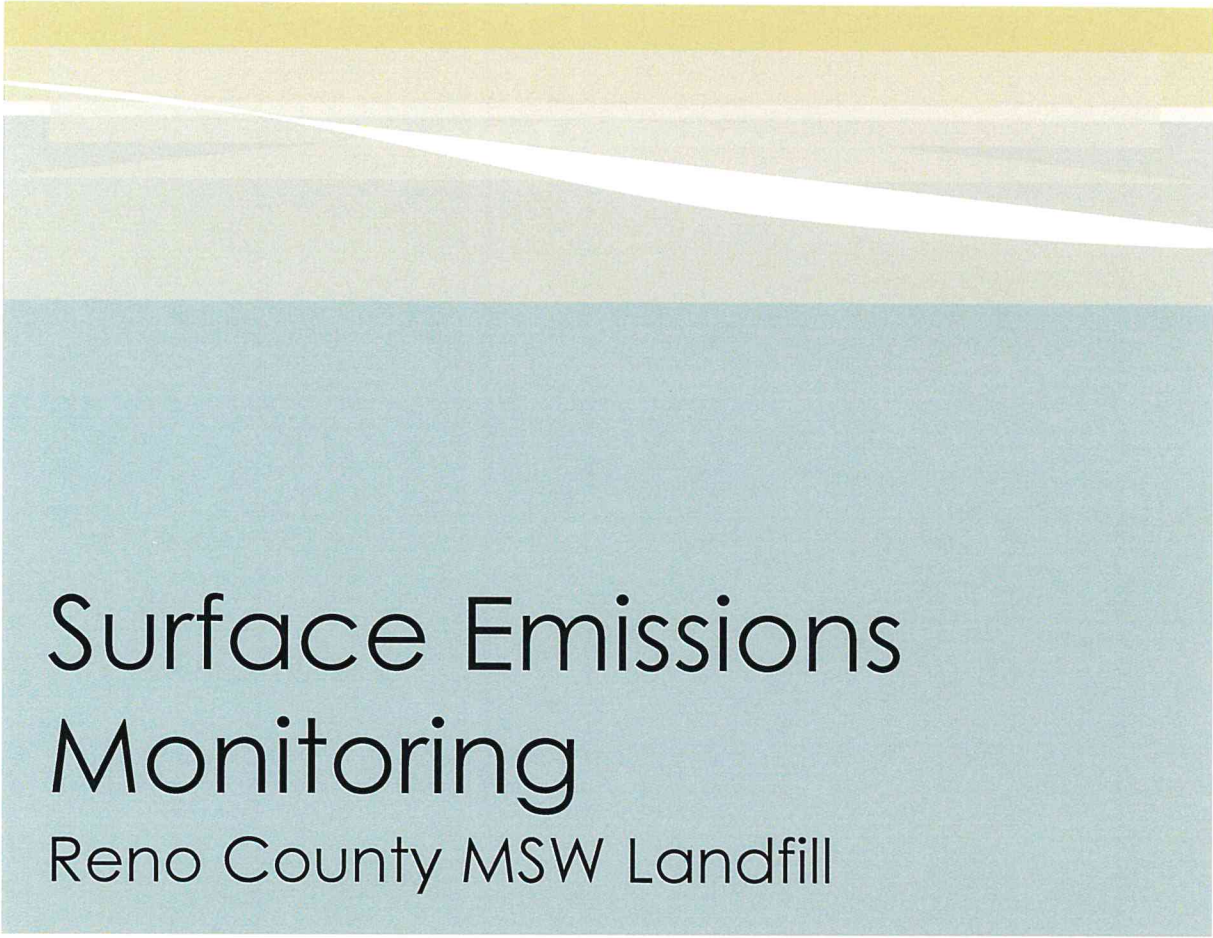
Surface Emissions Monitoring

The EPA Regulations

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Surface Emissions Monitoring

- 40 CFR 60.755(c)
- After installation of the collection system, the owner or operator shall monitor surface concentrations on a quarterly basis
- Any reading of 500ppm or greater shall be recorded as an exceedance
- If methane concentration is recorded 3 times within a quarterly period a new well shall be installed within 120 calendar days. (alternative remedies may be submitted for approval)



Surface Emissions Monitoring

Reno County MSW Landfill

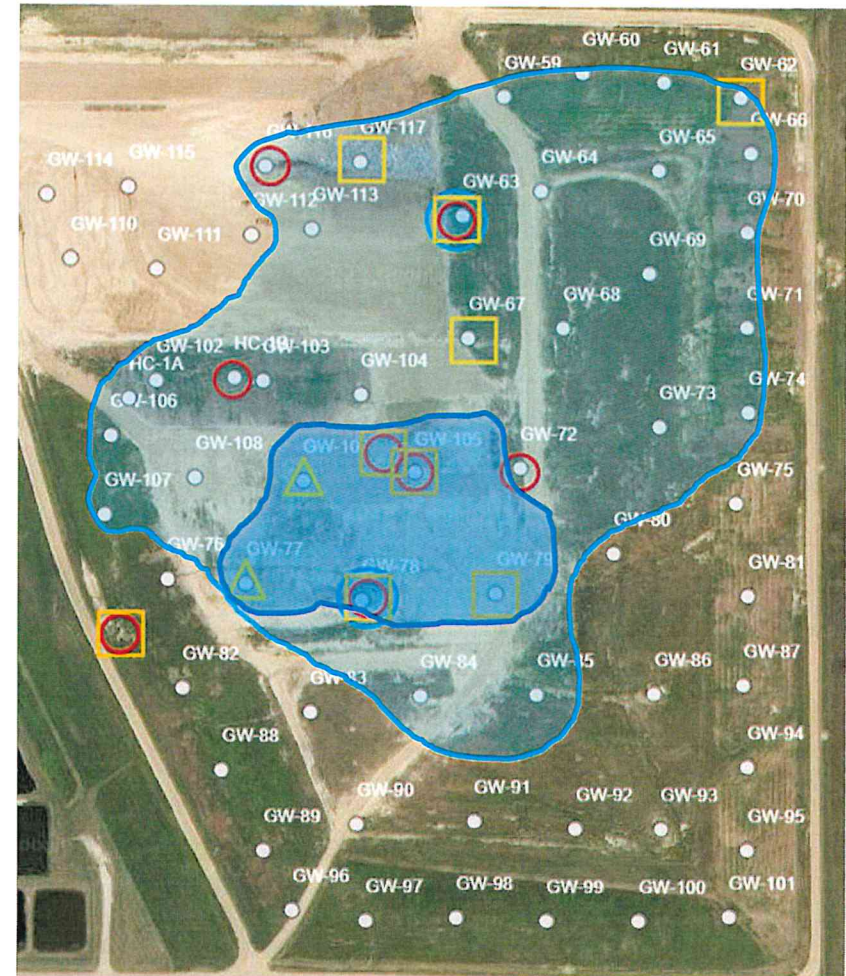
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Exceedances on Site D

- 2022 3rd Quarter
 - 8 locations with initial exceedance
 - Well 63 – exceedances detected during re-monitoring
 - Notification was submitted to KDHE for an alternative remedy
- 2022 4th Quarter
 - 9 locations with an initial exceedance
 - Well 78 – exceedances detected during re-monitoring
 - Tried fixing with bentonite seal prior to final re-monitoring
 - Notification was submitted to KDHE to re-drill wells in 2nd Qtr 2023
- 2023 1st Quarter
 - 2 locations with initial exceedance
 - Well 77 and Well 109

What's the Problem?

- Aging wellfield
- Surging in header lines is causing a loss of vacuum
- Liquid levels were taken in February 2023. Combined with gas data they indicate that there is a liquid plume on Site D
 - Liquid cannot be pumped out because there is not currently infrastructure in place.



Solutions

Maintenance

- We are increasing the system pressure over time to draw out liquid from headers to reduce surging and increase flow.

Pumps

- Pumps are added to wells to remove liquid, keep them working properly, and extend their life.

Re-Drilling

- Some wells have been damaged by the liquid plume and will not be able to be salvaged.