



Public Notice

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Subject: Public Notice of Permit Application

Action ID: NWO-2018-00714-BIS

Comments Period: August 9, 2018 – August 30, 2018

SUBJECT: The U.S. Army Corps of Engineers, Omaha District, (Corps) is evaluating a permit application to construct Project FM-15-K1, Rosewood Addition Flood Risk Management Project in Fargo, North Dakota, which would result in impacts to approximately 0.49 acre of waters of the United States, including wetlands, adjacent to Rose Coulee/Drain 27/Drain 53. This notice is to inform interested parties of the proposed activity and to solicit comments. This notice may also be viewed at the Corps web site at

<http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota/PublicNotices.aspx>

AUTHORITY: This application is being evaluated under Section 10 of the Rivers and Harbors Act of 1899 for structures or work in or affecting navigable waters of the United States and/or Section 404 of the Clean Water Act for the discharge of dredged or fill material in waters of the United States.

APPLICANT: City of Fargo
Attn: Mr. Jody Bertrand
200 - 3rd Street North
Fargo, North Dakota 58103

LOCATION: The project site is located in green space in the Rosewood Addition in southeast Fargo. The site is located in Section 36, Township 139 North, Range 49 West, Latitude 46.816182° North, Longitude -96.806607° West, Cass County, North Dakota, and can be seen on the Fargo South USGS Topographic Quadrangle.

PROJECT DESCRIPTION: The City is proposing to construct another phase of its overall interior flood control plan. This phase includes construction of earthen levee, floodwall, grading, underground storm sewer, a new storm sewer lift station and gate-well, as well as a pedestrian shared-use path. Impacts to Rose Coulee/Drain 27/Drain 53 and wetlands identified as 1, 2 and 3 were avoided during project design. All work requiring a permit occurs in wetlands identified as 4 and 5. Construction will result in permanent impacts of 0.49-acre and temporary impacts of 0.12-acre. All areas temporarily impacted by construction will be restored to pre-project contours and re-vegetated. Best management practices, such as silt fences and/or straw wattles, would be placed at the extents of proposed disturbance to minimize erosion and sediment transfer to aquatic resources not earmarked for disturbance. The attached plan set provides details of the project. The application indicates that 3,200 cubic yards of earthen material, with 100 cubic yards cut from Wetland 5; 100 cubic yards of rock riprap discharged into Wetland 4; and 12 cubic yards (82 linear feet) of precast concrete discharged into Wetland 5 will be utilized during construction.

U.S. ARMY CORPS OF ENGINEERS – Omaha District

North Dakota Regulatory Office, 3319 University Drive, Bismarck, North Dakota 58504-7565
<http://www.nwo.usace.army.mil/Missions/Regulatory-Program/North-Dakota/>

Based on the available information, the overall project purpose is to provide permanent flood protection to residents of Rosewood Addition. The applicant believes there is a need to complete this project to eliminate the need for future flood fighting efforts to protect the neighborhood.

ADDITIONAL INFORMATION:

Background Information. Although wetland impacts associated with this project are slightly less than what can be authorized by a nationwide permit, several other communities along Rose Coulee, Drain 27, Drain 53 and adjacent wetlands have been protected by similar projects, which are all connected actions. The following flood protection actions have been authorized to date: In 1010 a nationwide permit authorized a project to protect the Timberline Subdivision (0.33-acre of wetlands filled); in 2011 an individual permit authorized a project to protect Meadow Creek (2,917 feet of Drain 53 filled and relocated and 0.16-acre of wetland filled); and in 2014 the individual permit was amended to authorize a project to protect an area referred to as Coulee's Crossing (580 feet of Drain 53 filled and relocated and 920 feet of Drain 27 modified).

Alternatives. The applicant has not provided information concerning project alternatives; however, avoidance measures are discussed above. Additional information concerning project alternatives may be available from the applicant or their agent or other alternatives may develop during the review process for this permit application. All reasonable project alternatives, in particular those which may be less damaging to the aquatic environment, will be considered.

Mitigation. The Corps requires that applicants consider and use all reasonable and practical measures to avoid and minimize impacts to aquatic resources. If the applicant is unable to avoid or minimize all impacts, the Corps may require compensatory mitigation. The applicant proposes to offset wetland impacts by purchasing credits at a 2:1 ratio from the Ducks Unlimited, Inc., North Dakota Aquatic Resource In-Lieu Fee Program. A credit availability letter from DU indicates credits are available in the Red River Basin Regional Service Area.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification or a waiver, as required under Section 401 of the Clean Water Act from the North Dakota Department of Health, Water Quality Division, is required for this project. A copy of this notice has been sent to the Department, along with a request for certification.

HISTORIC PROPERTIES: Based on the available information, the initial determination of the Corps is that the project will have 'little likelihood to cause effect' on historic properties. Rosewood Addition, the residential subdivision proposed to be protected by this project is located to the north. Rose Creek Golf Course, or its predecessor, encompassed the entire project area in 1997, but was modified sometime prior to 2003 and is currently located to the south and west. In 2003 historic aerial photography shows a completely reconstructed Rose Coulee channel. The Corps will consider all comments pertaining to historic properties provided in response to this notice and will initiate consultation with the State Historic

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Preservation Officer under Section 106 of the National Historic Preservation Act, as appropriate.

ENDANGERED SPECIES: Pursuant to the Endangered Species Act, the Corps is aware that the project area is located within the known historic and current ranges of the endangered Whooping crane (*Grus americana*) and Gray wolf (*Canis lupus*), and the threatened Northern long-eared bat (*Myotis septentrionalis*). Although the project is well east of the typical migration corridor of the Whooping crane and is less secluded than typically desired by the Gray wolf, there is a potential for them to move through the area. In addition, seven trees will be removed during construction; which may affect the Northern long-eared bat if done completed outside the pupping season. Since the proposed activity may affect Federally-listed endangered or threatened species or their critical habitat. The Corps will initiate consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act, as appropriate.

The above determinations are based on information provided by the applicant and our preliminary review.

EVALUATION FACTORS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the described activity, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the described activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people. The activity's impact on the public interest will include application of the Section 404(b)(1) guidelines promulgated by the Administrator, Environmental Protection Agency (40 CFR Part 230).

The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SUBMITTING COMMENTS: Written comments, referencing Public Notice NWO-2018-00714-BIS must be submitted to the office listed below on or before August 30, 2018.

U.S. ARMY CORPS OF ENGINEERS – Omaha District

North Dakota Regulatory Office, 3319 University Drive, Bismarck, North Dakota 58504-7565
<http://www.nwo.usace.army.mil/Missions/Regulatory-Program/North-Dakota/>

Toni Erhardt, Project Manager
US Army Corps of Engineers, Omaha District
North Dakota Regulatory Office
3319 University Drive
Bismarck, North Dakota 58504-7565

Email: Toni.R.Erhardt@usace.army.mil

The Corps is particularly interested in receiving comments related to the proposal's probable impacts on the affected aquatic environment and the secondary and cumulative effects. Anyone may request, in writing, that a public hearing be held to consider this application. Requests shall specifically state, with particularity, the reason(s) for holding a public hearing. If the Corps determines that the information received in response to this notice is inadequate for thorough evaluation, a public hearing may be warranted. If a public hearing is warranted, interested parties will be notified of the time, date, and location. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act. If you have questions or need additional information please contact the applicant or the Corps' project manager Toni Erhardt at (701) 255-0015, extension 2003, by mail at the above address or by email at Toni.R.Erhardt@usace.army.mil.

Attachments: 19 page plan set

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<http://www.nwo.usace.army.mil/Missions/Regulatory-Program/North-Dakota/>

PLANS FOR
ROSEWOOD ADDITION
FLOOD RISK MANAGEMENT PROJECT
ENGINEERING DEPARTMENT
FM-15-K1
2018



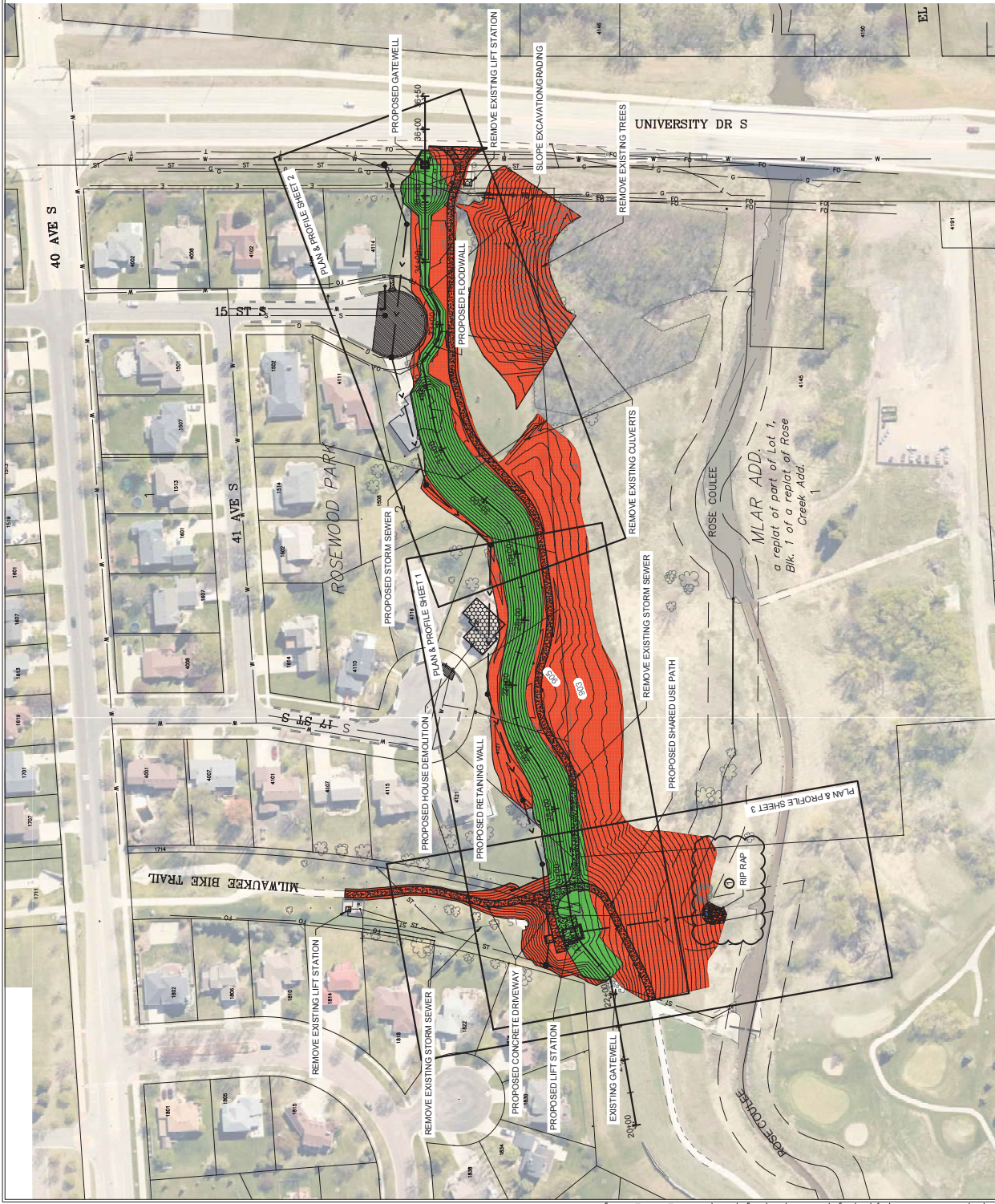
VICINITY MAP



APPROVAL SIGNATURES	
City Engineer Signature: _____ Date: 1/12/18	Project Engineer Certification: _____ Signature: _____ Date: 1/9/18
Division Engineer Signature: _____ Date: 1/12/18	Project Engineer Certification: _____ Signature: _____ Date: 1/9/18
City Engineer Signature: _____ Date: 1/12/18	Project Engineer Certification: _____ Signature: _____ Date: 1/9/18

I hereby certify that the attached plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of North Dakota.

THIS DOCUMENT WAS
 ORIGINALLY ISSUED AND
 SEALED BY
 SCOTT MIDDLETON
 REGISTRATION NUMBER
 PE-7499
 ON 1/9/2018 AND THE
 ORIGINAL DOCUMENT IS
 STORED IN THE
 ENGINEERING DEPT. AT
 CITY HALL.



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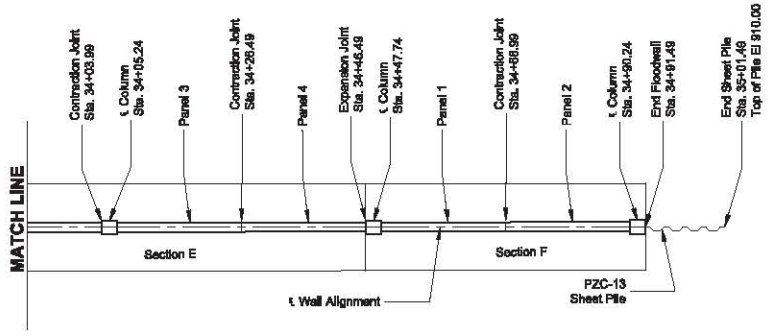
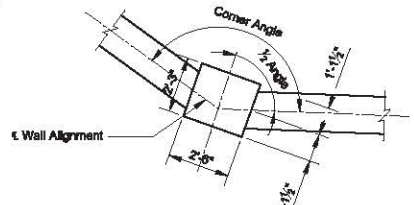
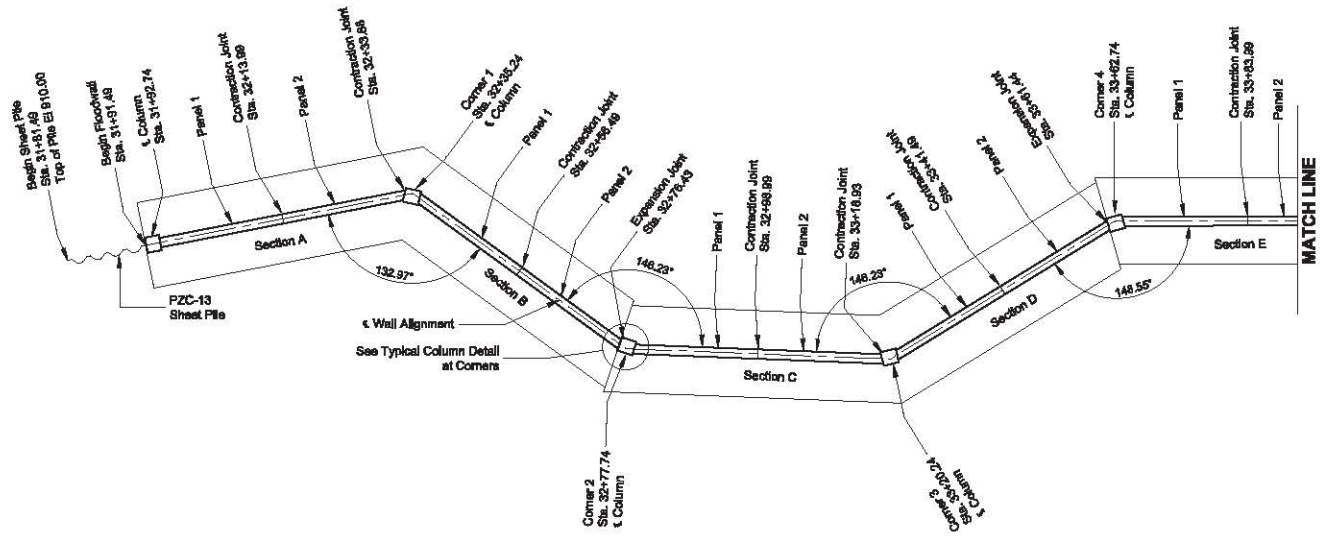


REVISIONS	
No.	Date
①	5/18/18

Overall Layout & Table of Contents
ROSEWOOD ADDITION
FLOOD RISK MANAGEMENT PROJECT
PROJECT NO. FM-15-K1

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SECTION 01370	LANDSCAPE	SHEET NO.	005
SECTION 01380	UTILITIES	SHEET NO.	006
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07/08/16 12:56:22PM F:\City\ND\Fargo\14415102_CAD\Design\14415102_Floodwall_L10.dwg



FLOODWALL LAYOUT DETAIL



ALL ELEVATIONS ARE BASED ON THE U.S.G.S. VERTICAL DATUM OF 1988. (UNLESS NOTED OTHERWISE)



REVISIONS	
01	01
<p>This document was originally issued and sealed by Matthew L. Isley, Registration Number PE-10095, on 1/8/2018 and the original document is stored in the Engineering Dept. at City Hall.</p>	
<p>Structural Details - Floodwall</p>	
<p>ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT</p>	
<p>PROJECT NO. FM-15-K1</p>	
DESIGN: EYI/KAM	CHECKED: EYI/MLJ
DRAWN: EYI/DWG	DRG DATE: 08/08/2016
<p>CITY OF FARGO</p>	
SECTION NO.	SHEET NO.
020	014

NOTES:

CONSTRUCTION:

Construction will be in accordance with the City of Fargo Standard Specifications and project SIB's. No utility conflicts are anticipated. If utilities are encountered, contact the Engineer.

EXCAVATION AND EARTHWORK:

Section 2000 of the City of Fargo Standard Specifications, will be followed for all excavation and embankment work. Structural excavation is incidental to the cost of the floodwall.

CONCRETE:

All concrete will conform to project SIB's.

Architectural concrete texture thickness varies with the texture relief. Self Consolidating Concrete quantities account for the material in the architectural concrete texture. Design strength of concrete for the floodwall will be $f_c=4500$ psi. A mix design will be submitted for approval by the contractor prior to construction. Approved mix design must be used in test panel.

POURING SEQUENCE:

The Contractor's choice of pouring sequence will be submitted to the Engineer, with a 2 week minimum approval time, for approval prior to beginning the first pour.

REINFORCING STEEL:

Grade 60 deformed carbon-steel bars conforming to ASTM A 615, will be fabricated in accordance with CRSI's manual of standard practice.

Reinforcement bars will have a clear distance from face of concrete of 3 inches unless otherwise noted.

All bars will be epoxy coated unless otherwise noted.

Payment will be based on quantities shown. If the Contractor chooses to make changes in reinforcement, these changes will be approved by the Engineer as part of the shop drawing review process.

DOWEL BAR ASSEMBLIES:

Expansion and contraction joints are incidental to the floodwall and no direct payment will be made for these joints. Joints are shown on the floodwall layout detail on sheet 14.

Place expansion and contraction joints as shown. Any changes to joint spacing will be submitted to the Engineer for approval no less than 14 days prior to construction and prior to submitting reinforcing shop drawing. Upon approval from the Engineer, transverse joints in footings are permissible. Keyways, waterstops, and continuous reinforcement is required through transverse footing joints.

WALL BACKFILL:

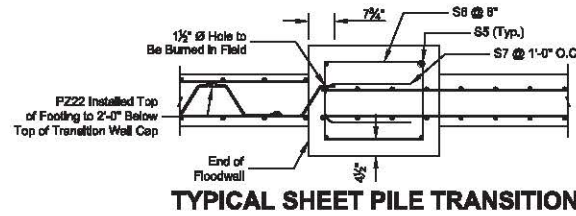
Backfill for the wall is clay borrow and will be compacted to 95% of the maximum dry density as determined by AASHTO T-99.

SHEET PILE:

FZC 13 A 572 Grade 50 or equivalent sheet pile will be used. Sheet pile that is cold-rolled will not be permitted.

PRECAST COLUMN CAPS AND COPING:

Precast wall elements will be designed by the Contractor and will conform to the dimensions shown in these plans. The Contractor will submit shop drawings for the column caps and coping prior to beginning casting operations. The length of coping segments will be determined by the Contractor, subject to the review of the Engineer. Precast column caps and coping are incidental to the floodwall and will not be paid for directly.

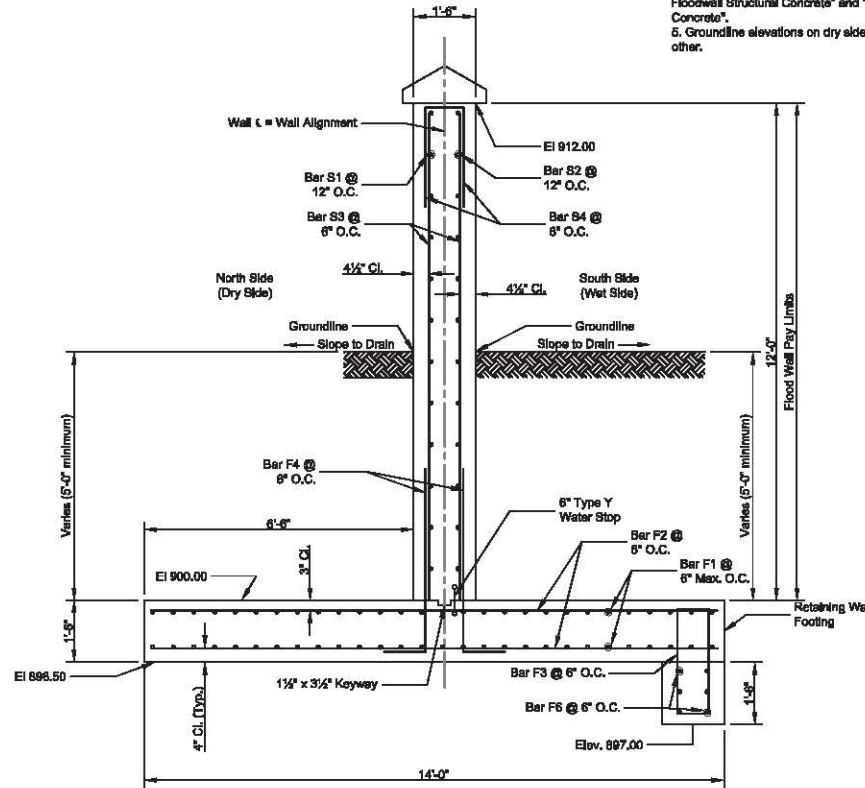


PAY ITEMS:

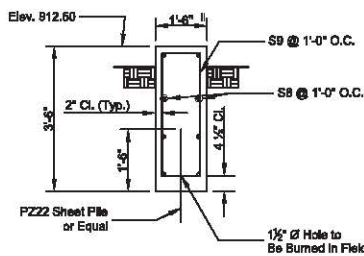
Steel Sheeting	213 SF
F&I Floodwall Reinf Bars - Epoxy Coated Steel	101,045 LBS
F&I Floodwall - Structural Concrete	256.4 CY
F&I Floodwall - Self Consolidating Concrete	208.9 CY

NOTES:

1. All sections require a minimum cover of 5'-0" to the top of footing for frost protection. See cross-section and profile sheets for final ground line.
2. Contraction joints shall be placed in the wall as shown on sheet 14.
3. Expansion joints shall be placed in the wall as shown on sheet 14.
4. Dowelled expansion joints are listed on sheet 14. The materials and placement of the expansion/contraction joint (Dowel bar assemblies, joint filler, joint sealant, and waterstops) are incidental to the bid items "F&I Floodwall Structural Concrete" and "F&I Floodwall Self-Consolidating Concrete".
5. Groundline elevations on dry side and wet side shall be within 3" of each other.



FLOODWALL TYPICAL SECTION



SHEET PILE CAP SECTION

NO SCALE

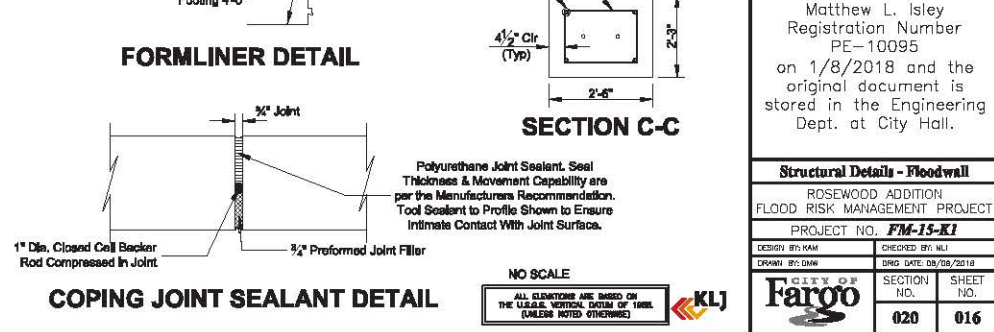
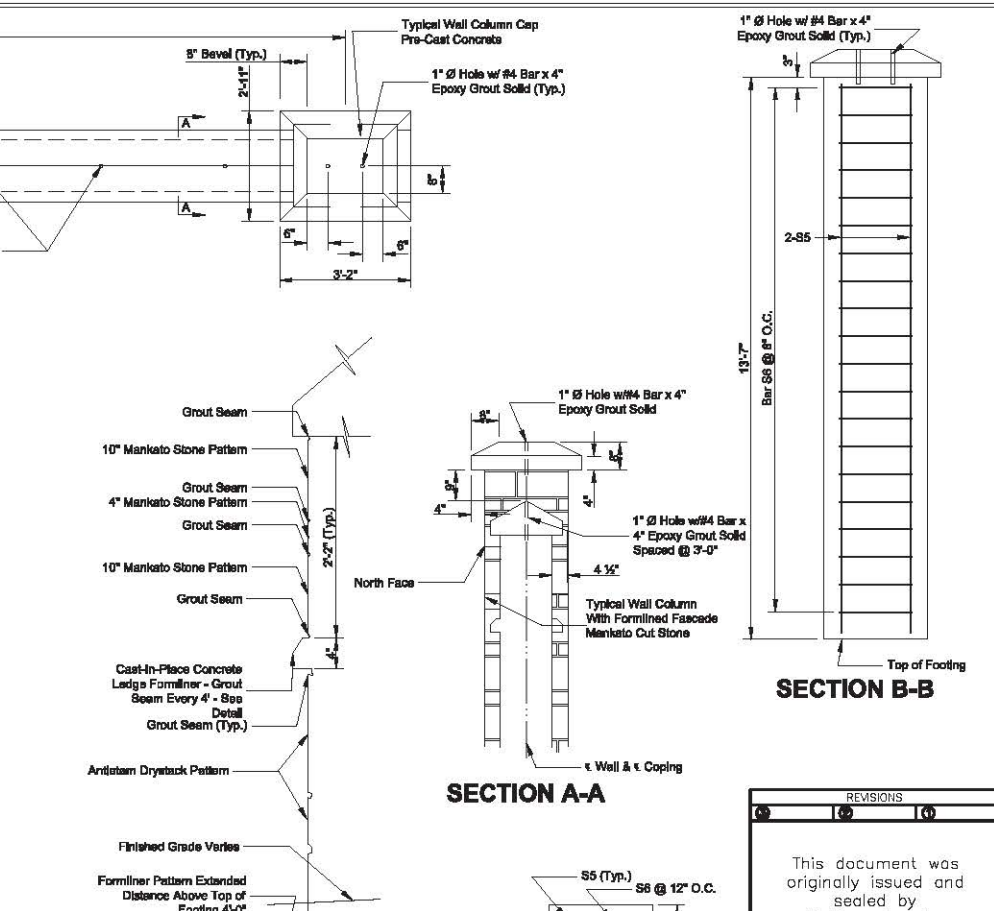
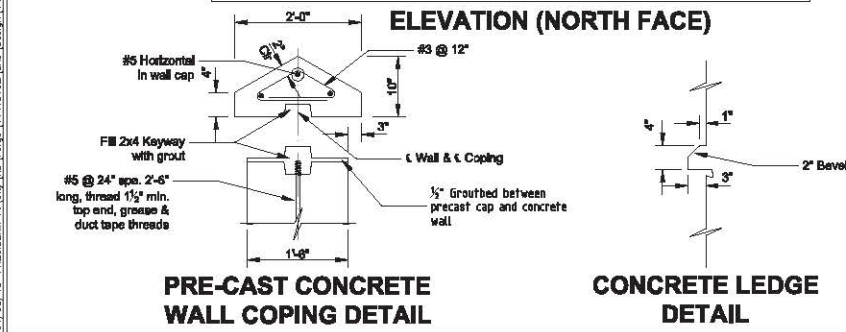
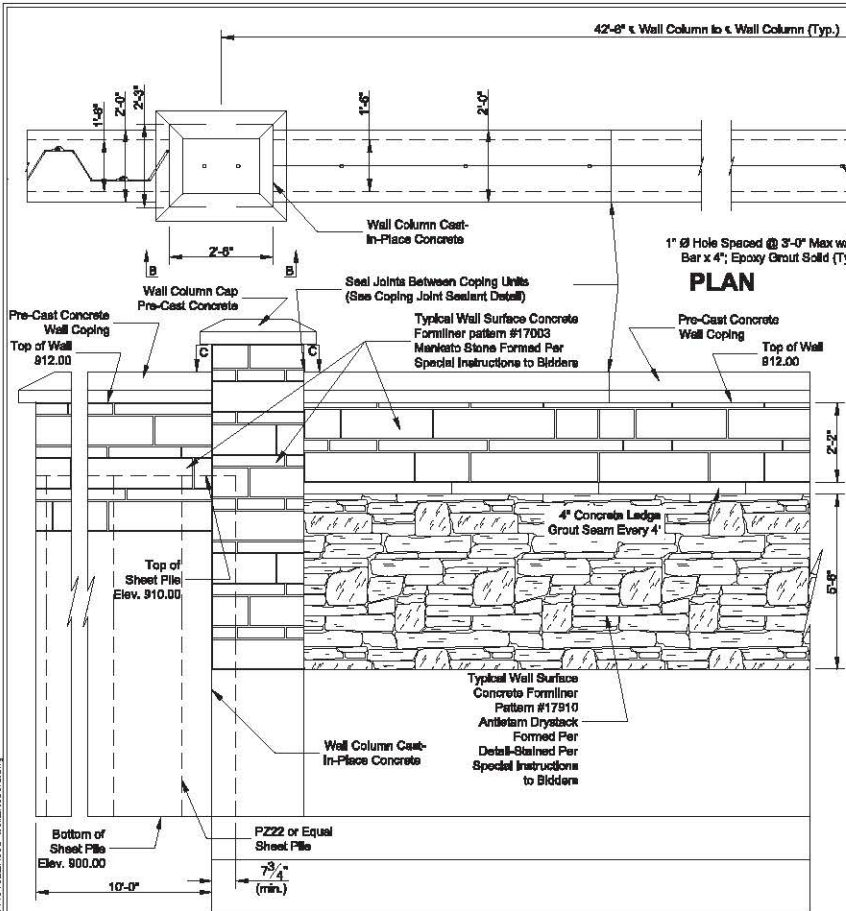
ALL DIMENSIONS ARE BASED ON THE U.S.A.S. VERTICAL DATUM OF 1988. (SEE 2008 SPECIFICATIONS)



REVISIONS	
01	02
This document was originally issued and sealed by Matthew L. Isley Registration Number PE-10095 on 1/8/2018 and the original document is stored in the Engineering Dept. at City Hall.	
Structural Details - Floodwall	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO. FM-15-K1	
DRAWN BY: KAM	CHECKED BY: MJJ
DATE: 04/08/2018	DATE: 04/08/2018
CITY OF FARGO	SECTION NO. 020
	SHEET NO. 015

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REVISIONS	
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02	02
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This document was originally issued and sealed by Matthew L. Isley Registration Number PE-10095 on 1/8/2018 and the original document is stored in the Engineering Dept. at City Hall.

Structural Details - Floodwall
 ROSEWOOD ADDITION
 FLOOD RISK MANAGEMENT PROJECT
 PROJECT NO. **FM-15-K1**

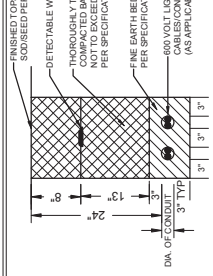
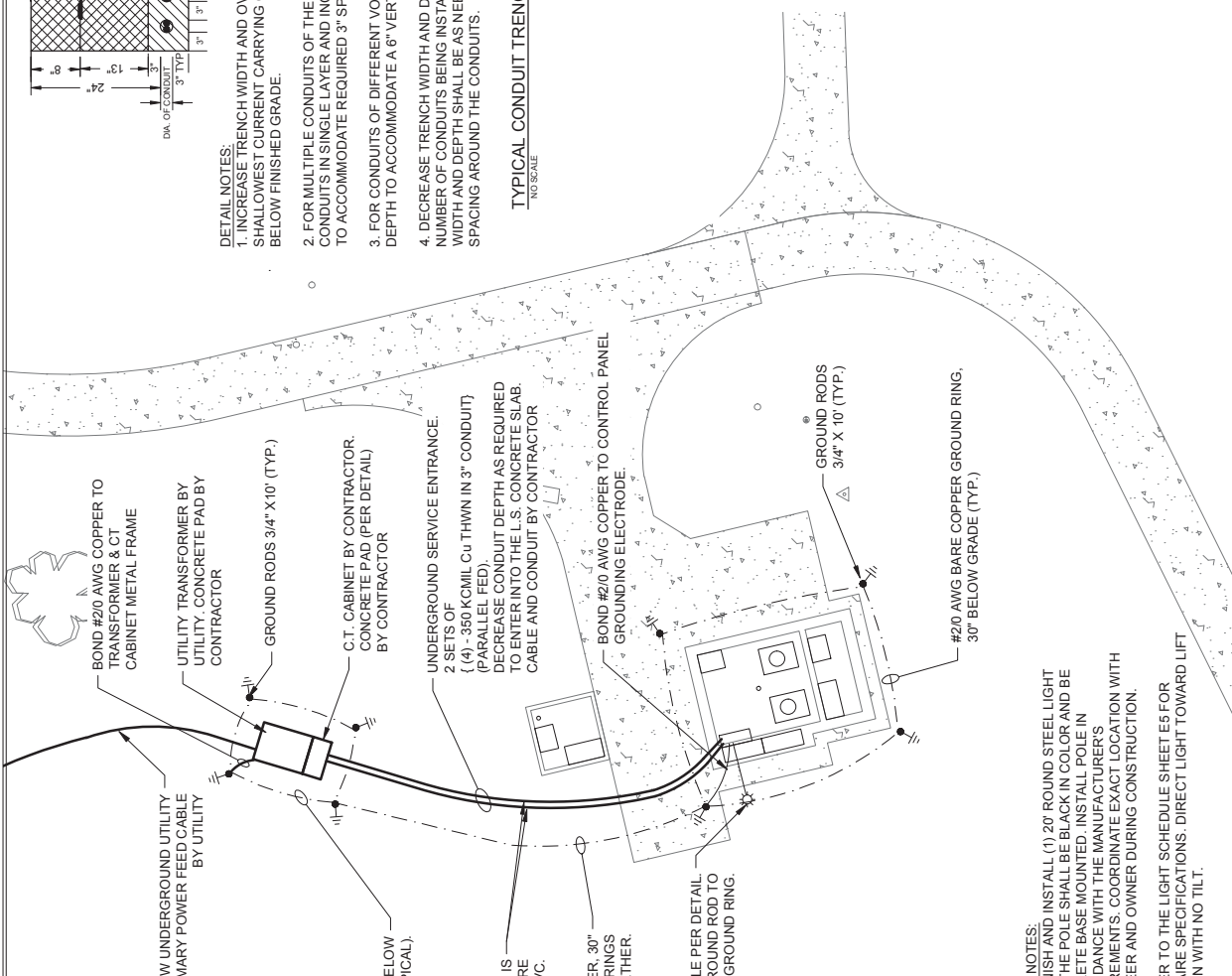
DESIGN BY: KAM	CHECKED BY: MLI
DRAWN BY: DMG	DRG. DATE: 08/08/2018

	SECTION NO.	SHEET NO.
	020	016

NO SCALE
 ALL ELEVATIONS ARE BASED ON THE LEGAL VERTICAL CURVE OF 1988. (UNLESS NOTED OTHERWISE)

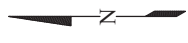
GENERAL NOTES:

- FIELD VERIFY THE EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- CONDUIT IS NOT PERMITTED TO BE EXPOSED ABOVE GRADE. UTILIZE RIGID STEEL CONDUIT FOR EXPOSED AREAS AND CONDUIT SWEEPS.
- COORDINATE WITH UTILITY ON THE EXACT LOCATION OF THE UTILITY TRANSFORMER, TRANSFORMER SIZE, AND NEW CONCRETE PAD.
- COORDINATE CONDUIT RISERS AND TERMINATIONS INTO CABINET AND TRANSFORMER WITH UTILITY. COORDINATE WITH UTILITY ON EXACT CONDUIT ROUTING.
- PROVIDE PULL/LOCATE WIRE (#12 AWG) IN EMPTY CONDUITS.



- DETAIL NOTES:**
- INCREASE TRENCH WIDTH AND OVERALL DEPTH OF TRENCH SO THE SHALLOWEST CURRENT CARRYING CONDUCTORS ARE A MINIMUM 24" BELOW FINISHED GRADE.
 - FOR MULTIPLE CONDUITS OF THE SAME OPERATION VOLTAGE, PLACE CONDUITS IN SINGLE LAYER AND INCREASE THE WIDTH OF THE TRENCH TO ACCOMMODATE REQUIRED 3" SPACING.
 - FOR CONDUITS OF DIFFERENT VOLTAGE RATINGS INCREASE TRENCH DEPTH TO ACCOMMODATE A 6" VERTICAL SEPARATION.
 - DECREASE TRENCH WIDTH AND DEPTH TO ACCOMMODATE THE NUMBER OF CONDUITS BEING INSTALLED. THE REDUCTION IN TRENCH WIDTH AND DEPTH SHALL BE AS NEEDED TO RETAIN THE REQUIRED 3" SPACING AROUND THE CONDUITS.

TYPICAL CONDUIT TRENCH DETAIL
NO SCALE



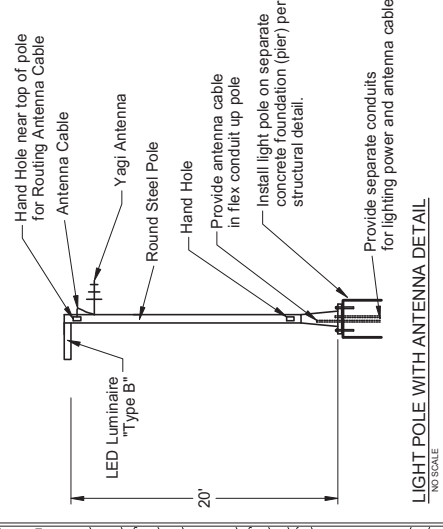
REVISIONS

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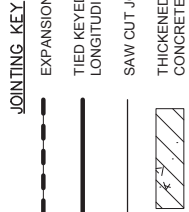
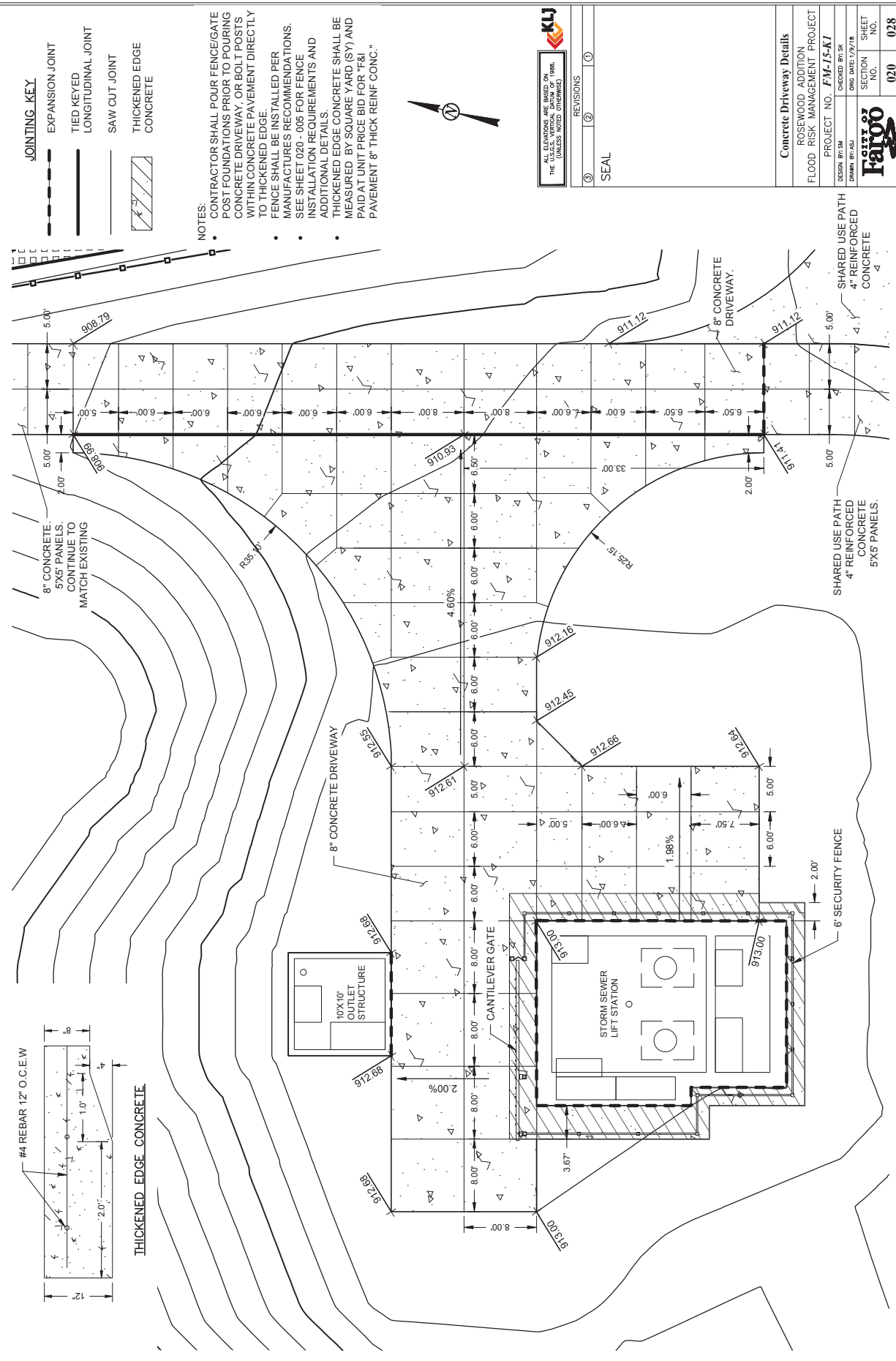
SEAL
This document was originally issued and sealed by
Thomas K. Conlin
Registration Number PE-10389
on 1/09/2018 and the original document is stored in the Engineering Dept. at City Hall.

Electrical Site Plan	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
DESIGN BY: [Redacted]	DRAWN BY: [Redacted]
PROJECT NO. FM-15-K1	ORDERED BY: [Redacted]
DATE: 1/9/18	SECTION NO. 020
SHEET NO. 021	

- DETAIL NOTES:**
- FURNISH AND INSTALL (1) 20' ROUND STEEL LIGHT POLE. THE POLE SHALL BE BLACK IN COLOR AND BE CONCRETE BASE MOUNTED. INSTALL POLE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. COORDINATE EXACT LOCATION WITH ENGINEER AND OWNER DURING CONSTRUCTION.
 - REFER TO THE LIGHT SCHEDULE SHEET E5 FOR LUMINAIRE SPECIFICATIONS. DIRECT LIGHT TOWARD LIFT STATION WITH NO TILT.



LIGHT POLE WITH ANTENNA DETAIL
NO SCALE



NOTES:

- CONTRACTOR SHALL POUR FENCE/GATE POST FOUNDATIONS PRIOR TO POURING CONCRETE DRIVEWAY, OR BOLT POSTS WITHIN CONCRETE PAVEMENT DIRECTLY TO THICKENED EDGE.
- FENCE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SEE SHEET 020 - 005 FOR FENCE INSTALLATION REQUIREMENTS AND ADDITIONAL DETAILS.
- THICKENED EDGE CONCRETE SHALL BE MEASURED BY SQUARE YARD (SY) AND PAID AT UNIT PRICE BID FOR "F&I PAVEMENT 8" THICK REINF. CONC."



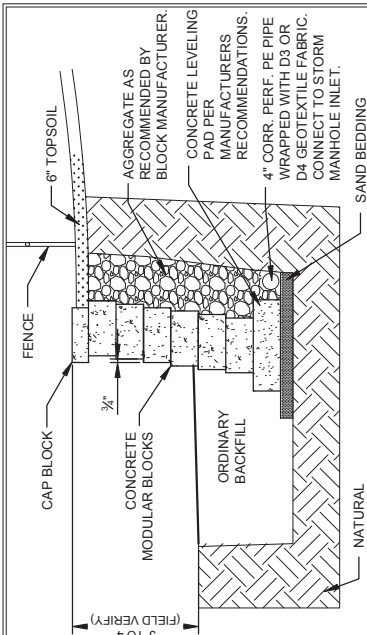
ALL ELEVATIONS ARE BASED ON THE U.S.C.S. VERTICAL DATUM OF 1988. (UNLESS NOTED OTHERWISE)

SEAL

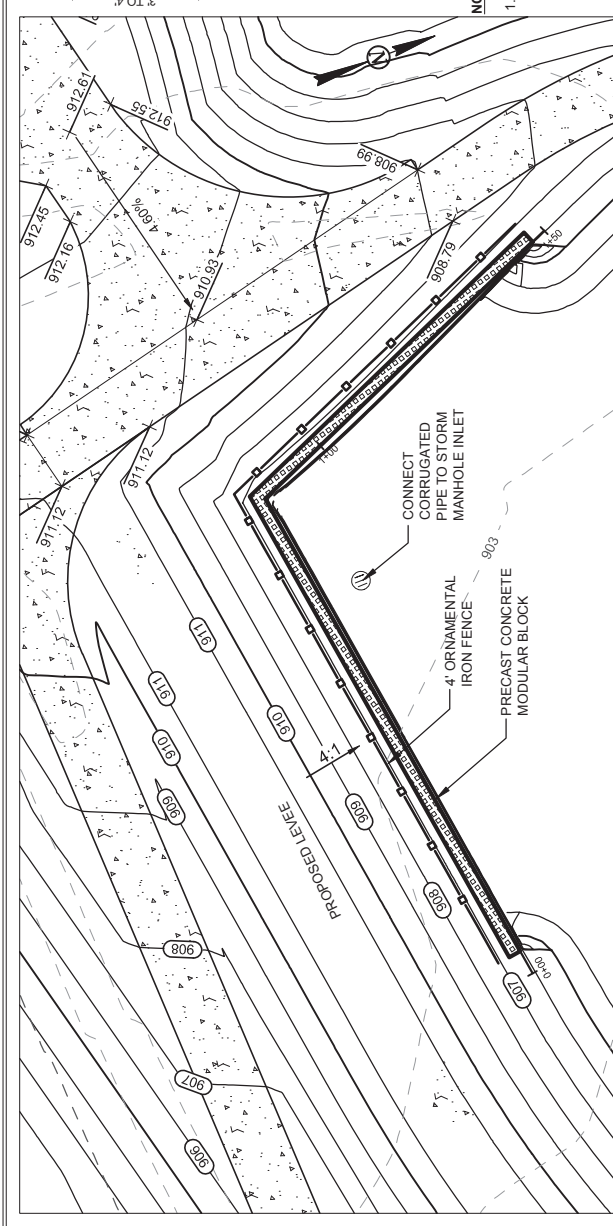
REVISIONS
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Concrete Driveway Details
 ROSEWOOD ADDITION
 FLOOD RISK MANAGEMENT PROJECT
 PROJECT NO. FM-15-K1
 DESIGN BY: [Firm Name]
 DATE: 1/17/18
 SHEET NO. 020 OF 028



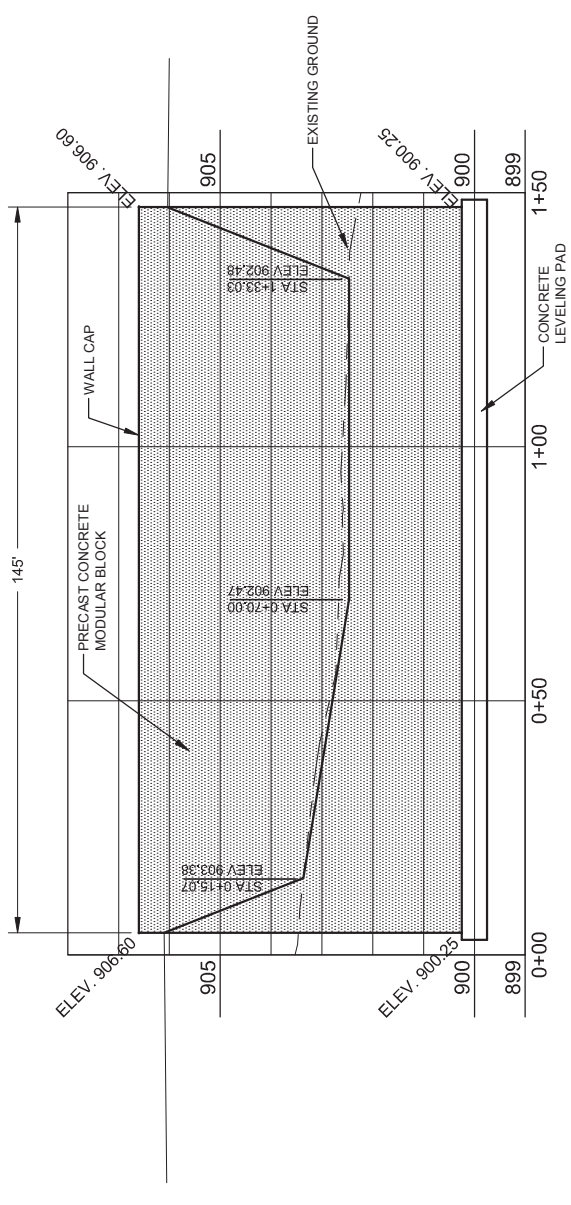


CONCRETE MODULAR BLOCK RETAINING WALL DETAIL
NO SCALE



NOTES:

- A 4" ORNAMENTAL IRON FENCE SHALL BE INSTALLED ABOVE THE RETAINING WALL AS SHOWN ON THE PLANS. THE FENCE SHALL BE BLACK, HAVE THREE HORIZONTAL RAIL MEMBERS, DECORATIVE RINGS BETWEEN THE TOP TWO RAILS, AND A HEIGHT OF 4". THE FENCE SHALL MATCH THE DESIGN OF THE SECURITY FENCE INSTALLED AROUND THE PROPOSED LIFT STATION, AND SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING THE FENCE ABOVE THE RETAINING WALL SHALL BE INCLUDED IN THE LINEAR FOOT BID PRICE FOR "F&I FENCE - ORNAMENTAL". THE FENCE SHALL BE MANUFACTURED BY AMERSTAR - MODEL MONTAGE PLUS MAJESTIC 3-RAIL DESIGN OR APPROVED EQUAL.
- LEVELING PAD LOCATION AND DIMENSIONS SHALL BE AS DETERMINED BY WALL SUPPLIER.
- THE CONCRETE MODULAR BLOCK WALL SHALL MEET ALL REQUIREMENTS AS SPECIFIED IN THE SPECIAL INSTRUCTIONS TO BIDDERS AND SHALL MEET ALL CONSTRUCTION REQUIREMENTS SPECIFIED BY THE MANUFACTURER.
- ALL CONCRETE MODULAR BLOCK UNITS SHALL HAVE MINIMUM DIMENSIONS OF 16" HIGH X 42" WIDE
- A TIEBACK SYSTEM SHALL NOT BE PERMITTED IN THE INSTALLATION OF THE PROPOSED WALL.
- MODULAR BLOCK COLOR SHALL BE APPROVED BY THE OWNER.
- BLOCKS SHALL HAVE AN ANTI-GRAFFITI COATING AS APPROVED BY THE ENGINEER.
- A SMALL SWALE SHALL CONSTRUCTED BEHIND THE WALL TO DIRECT DRAINAGE AWAY AND PARALLEL TO THE WALL/CAP.
- ALL COST ASSOCIATED WITH THE CONCRETE MODULAR BLOCK WALL INCLUDING BUT NOT LIMITED TO MATERIALS, BACKFILL, COATINGS DRAIN TILE, AND CONSTRUCTION SHALL BE INCLUDED IN THE PRICE BID FOR "F&I RETAINING WALL".



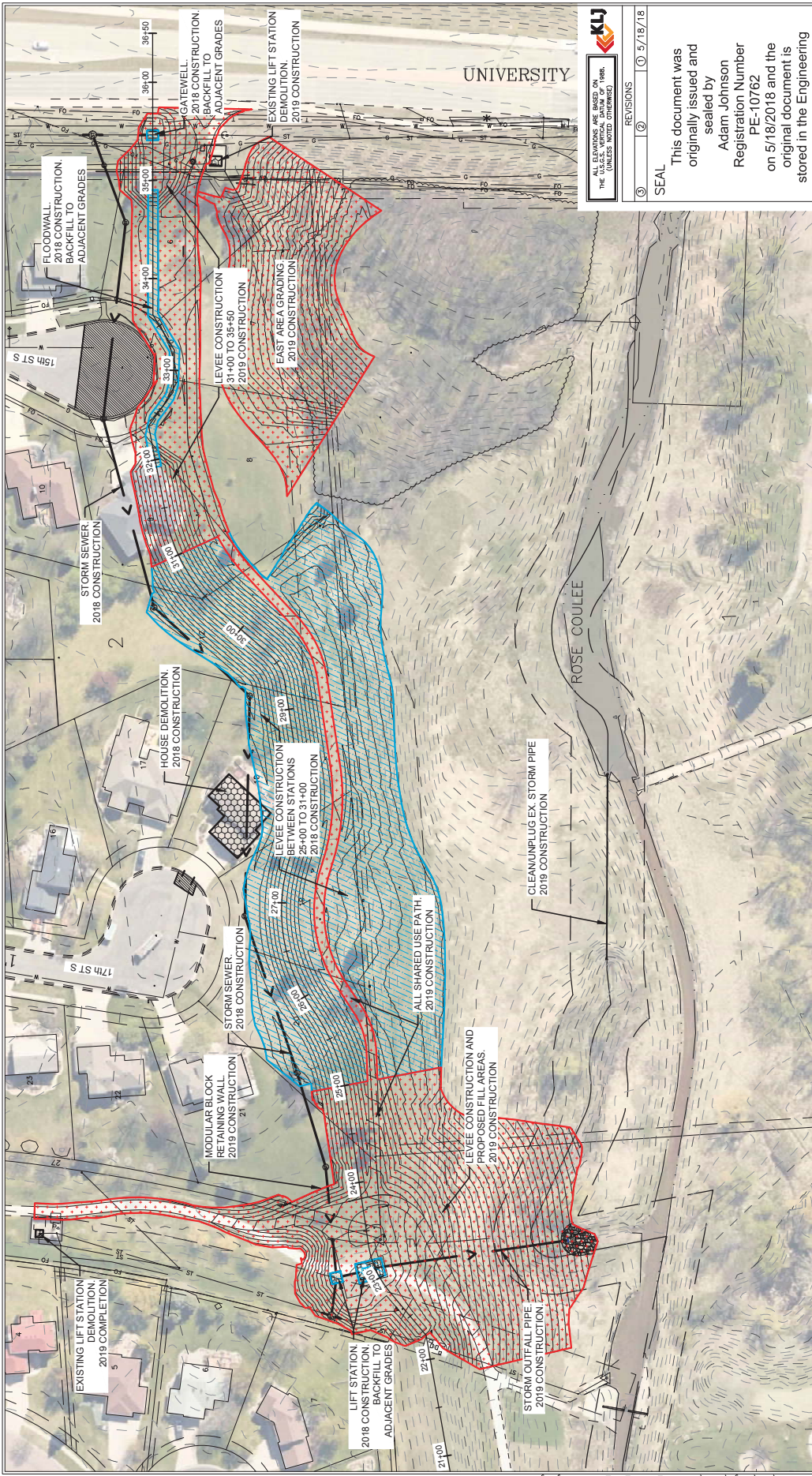
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Block Retaining Wall Detail	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO: FM-15-K1	
DESIGN BY: FAI	CHECKED BY: JK
DRAWN BY: AS	DATE: 02/17/18
SHEET NO. 020	SHEET NO. 029





- NOTES:**
- REFER TO SECTION 076 "WETLAND MITIGATION PLAN" FOR BOUNDARIES AND ADDITIONAL NOTES.
 - SEE SECTION 210 "SPECIAL INSTRUCTION TO BIDDERS" FOR ADDITIONAL INFORMATION AND CONSTRUCTION SCHEDULE.

- LEGEND:**
- ITEMS TO COMPLETE IN 2018
 - ITEMS TO COMPLETE IN 2019

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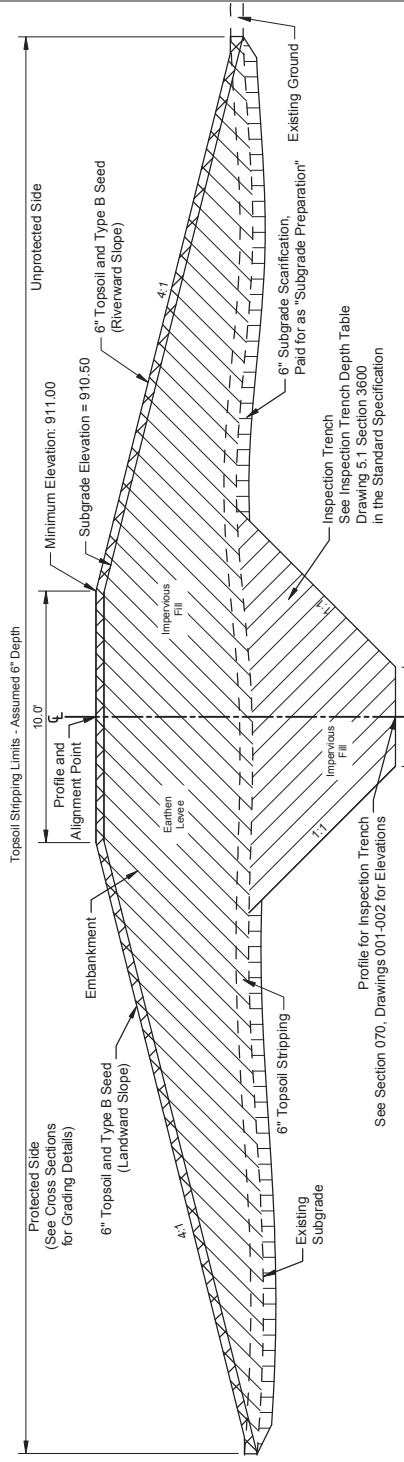


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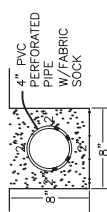
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Project Phasing Plan	
ROSEWOOD ADDITION	FLOOD RISK MANAGEMENT PROJECT
PROJECT NO. FM-15-KT	
DESIGN BY: JAM	DRAWN BY: JAS
DATE: 05/18/18	SHEET NO. 020
	SHEET NO. 032



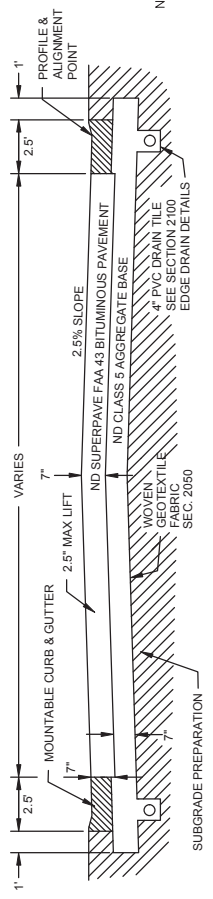


EARTH LEVEL SECTION

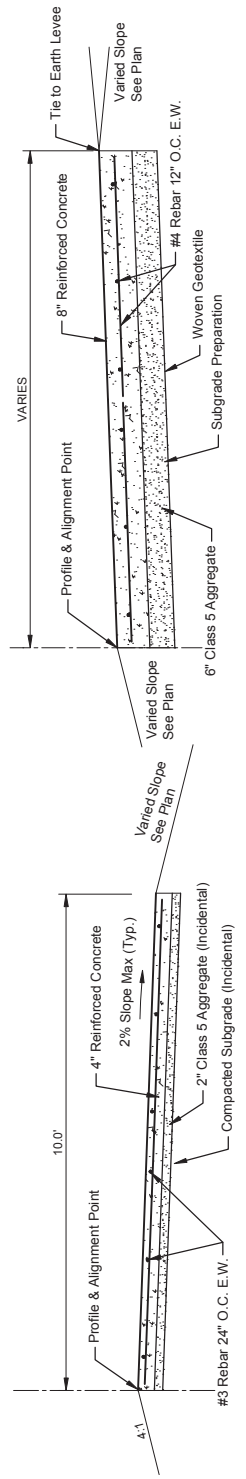


TRENCH DETAIL

- NOTES:
- 1) SUBGRADE, AGGREGATE BASE, AND PAVEMENT CROSS-SLOPE SHALL BE 2.50%.
 - 2) ALL CURB & GUTTER SHALL BE MOUNTABLE TYPE UNLESS OTHERWISE NOTED ON PLANS.



15TH & 17TH STREET PAVEMENT SECTION



TYPICAL DRIVEWAY SECTION

TYPICAL SHARED USE PATH SECTION

Levee Inspection Trench	6,760 CY
Excavation + Imported Impervious Fill **	2,704 CY
Levee	
Subgrade Preparation	8,700 SY
Excavation + Impervious Fill **	3,432 CY 19,183 CY
East Grading Area	
Excavation + Fill	3,996 CY -2,450 CY
* It is Estimated that 20% of Excavated Material will not be Suitable for re-use.	
** 20% Additional Volume Included to Impervious Fill Due to Anticipated Shrinkage and Soil Suitability	
*** Excavated Material shall be Placed in Fill Locations as shown on the Plans.	
CUT QUANTITY	
Levee Inspection Trench	6,760 CY
Levee	3,432 CY
East Grading Area	3,996 CY
Excavation	14,188 CY
FILL QUANTITY	
Levee Inspection Trench	2,704 CY
Levee	19,183 CY
East Grading Area (Net Imported Impervious Fill)	-2,450 CY 19,437 CY

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Typical Sections

ROSEWOOD ADDITION
 FLOOD RISK MANAGEMENT PROJECT
 PROJECT NO. FM-15-K1

SECTION 01334
 DRAWING BR-38

City of Fairport

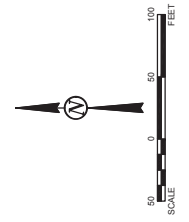
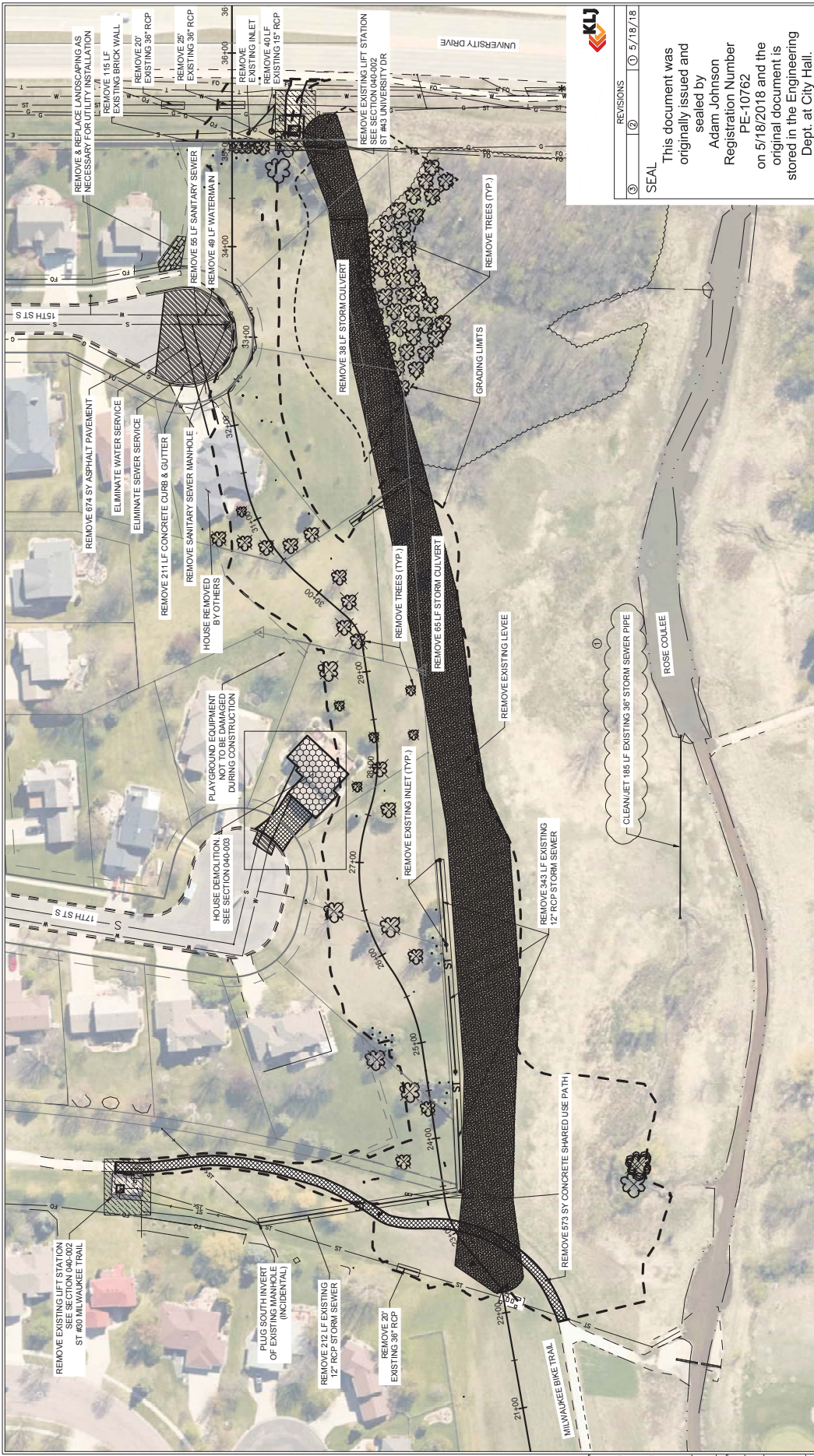
SECTION NO. 030
 SHEET NO. 001



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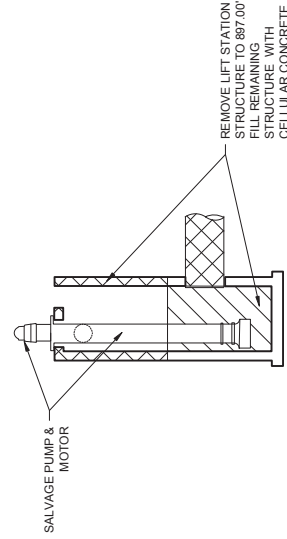
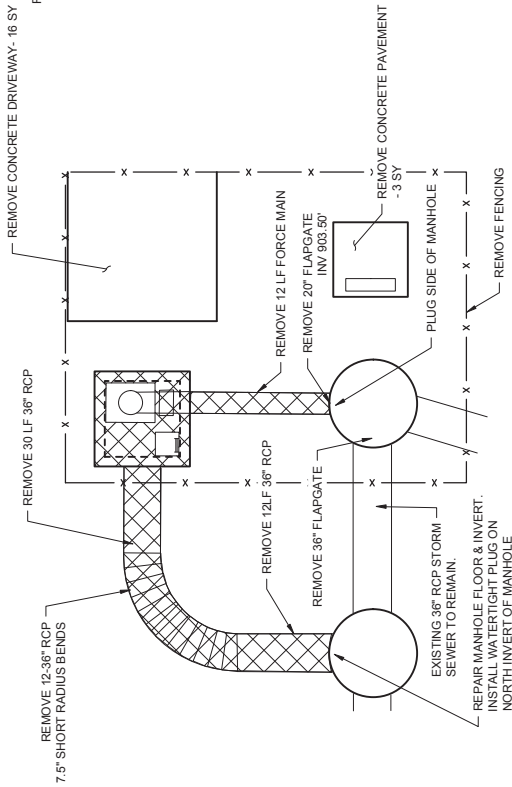
Plan Removals	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	PROJECT NO. FM-15-K1
DESIGN BY: JAMES BRIDGES	DESIGNED BY: JAMES BRIDGES
DATE: 05/18/18	CHECKED BY: JAMES BRIDGES
SHEET NO. 040	SHEET NO. 001



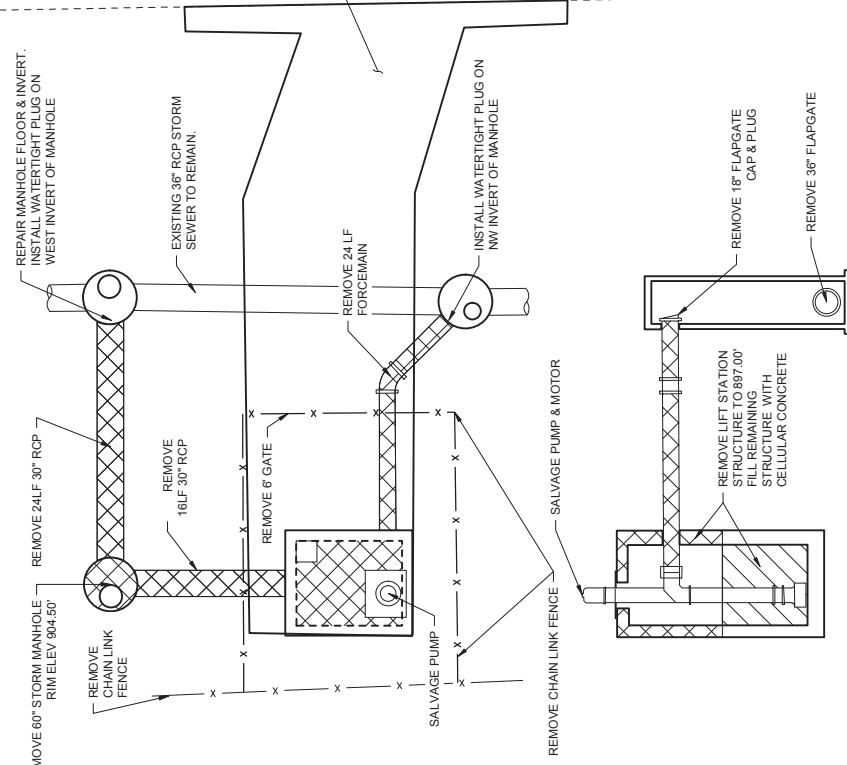
KEY	DESCRIPTION
	REMOVE STORM SEWER
	REMOVE CURB & GUTTER
	REMOVE ASPHALT PAVEMENT
	REMOVE CONCRETE PAVEMENT
	REMOVE EXISTING LEVEE
	EARTHWORK GRADING LIMITS
	HOUSE DEMOLITION
	LIFT STATION REMOVAL AREA
	REMOVE TREE

NOTES:

1. CONTRACTOR SHALL SALVAGE ALL PUMPS, CONTROLS, HATCHES, GRATING, LADDERS, AND OTHER MECHANICAL/ELECTRICAL EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH THE CITY OF FARGO PUBLIC WORKS FOR SALVAGING LIFT STATION PARTS AND DELIVER TO THE CITY SHOP ON SHIPPING PALLETS. IF THE CITY OF FARGO PUBLIC WORKS DEPARTMENT DOES NOT WANT ALL OR PORTIONS OF SALVAGED ITEMS, THEY SHALL BECOME THE PROPERTY OF THE CONTRACTOR TO REMOVE AND DISPOSE OF AT NO ADDITIONAL COST.
2. REMOVE BOTH LIFT STATION STRUCTURES TO 897.00' (APPROXIMATELY 8' DEPTH). DRILL HOLES OR CRACK BOTTOM SLAB TO ALLOW FOR DRAINAGE.
3. FILL REMAINING STRUCTURE WITH LIGHTWEIGHT CONCRETE FILL (CELLULAR CONCRETE).
4. THE BID ITEM "REMOVE/ABANDON LIFT STATION" SHALL INCLUDE THE FOLLOWING: REMOVING ALL SALVAGEABLE ITEMS, REMOVING AND DISPOSE OF ALL NON-SALVAGEABLE ITEMS, REMOVING LIFT STATIONS TO ELEVATION 897, REMOVING ALL STORM SEWER PIPE SHOWN ON THIS PAGE, REMOVING DESIGNATED MANHOLES, PLUGGING EXISTING MANHOLE INVERTS, FILLING REMAINING STRUCTURES WITH CELLULAR CONCRETE, REMOVING FENCING AROUND LIFT STATION, AND ALL RELATED WORK.



EXISTING STORM LIFT STATION ST#30 (MILWAUKEE TRAIL)
NOT TO SCALE



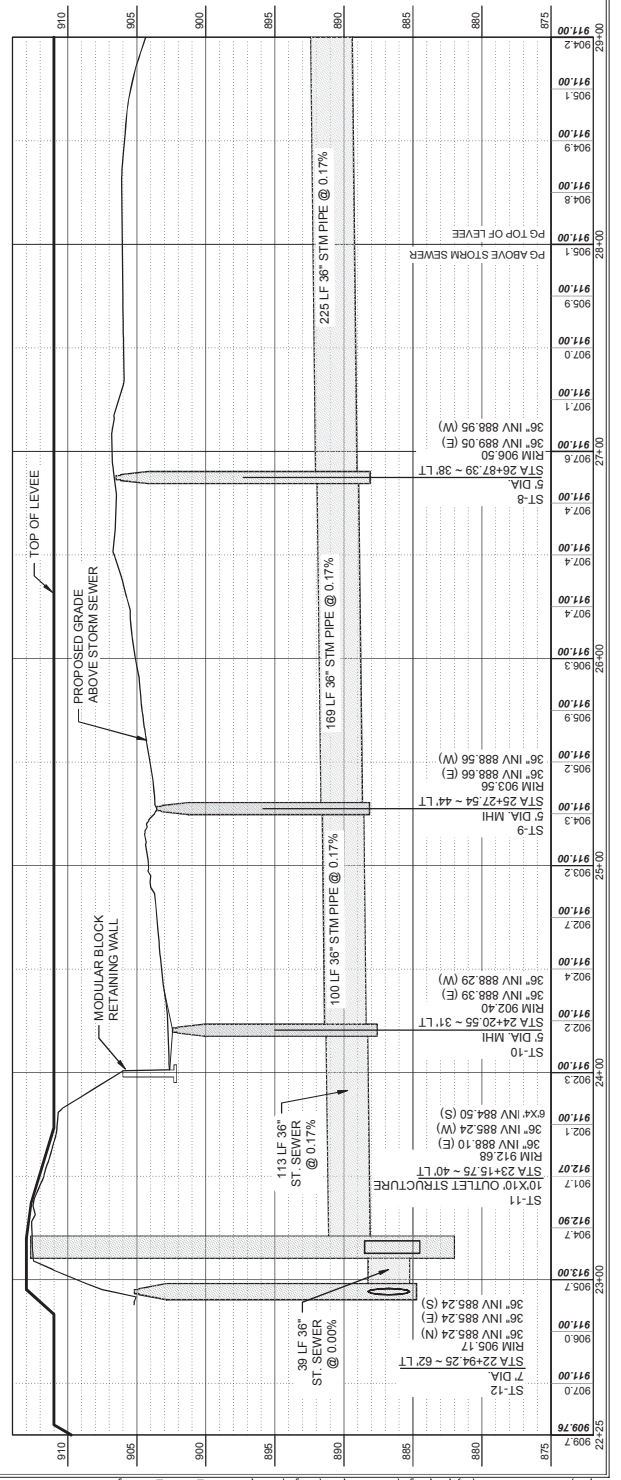
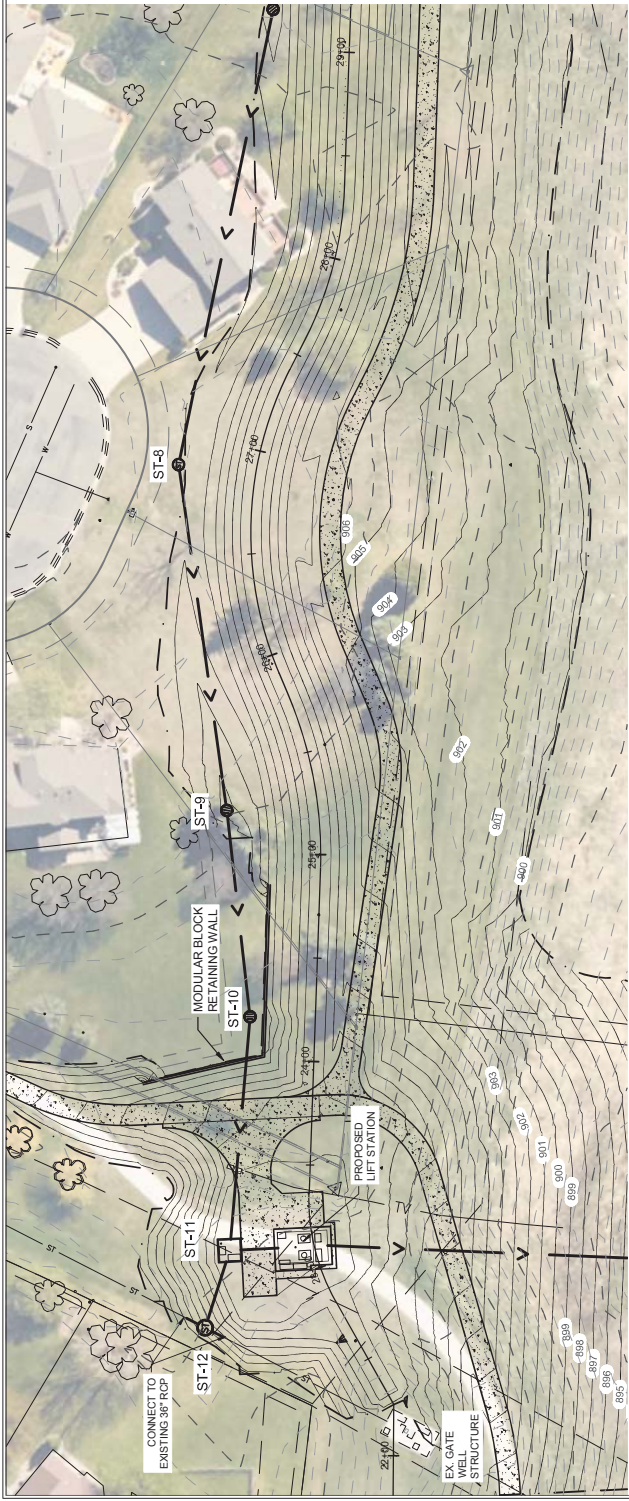
EXISTING STORM LIFT STATION ST#43 (UNIVERSITY & 40TH AVE)
NOT TO SCALE

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Ex. Lift Station Removals	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO. FM-15-K7	
DESIGN BY: KLJ	DRAWN BY: KLJ
CHECKED BY: KLJ	DATE: 10/18
SECTION NO.	SHEET NO.
040	002





SCALE 0 30 60 FEET

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Utilities Plan & Profile

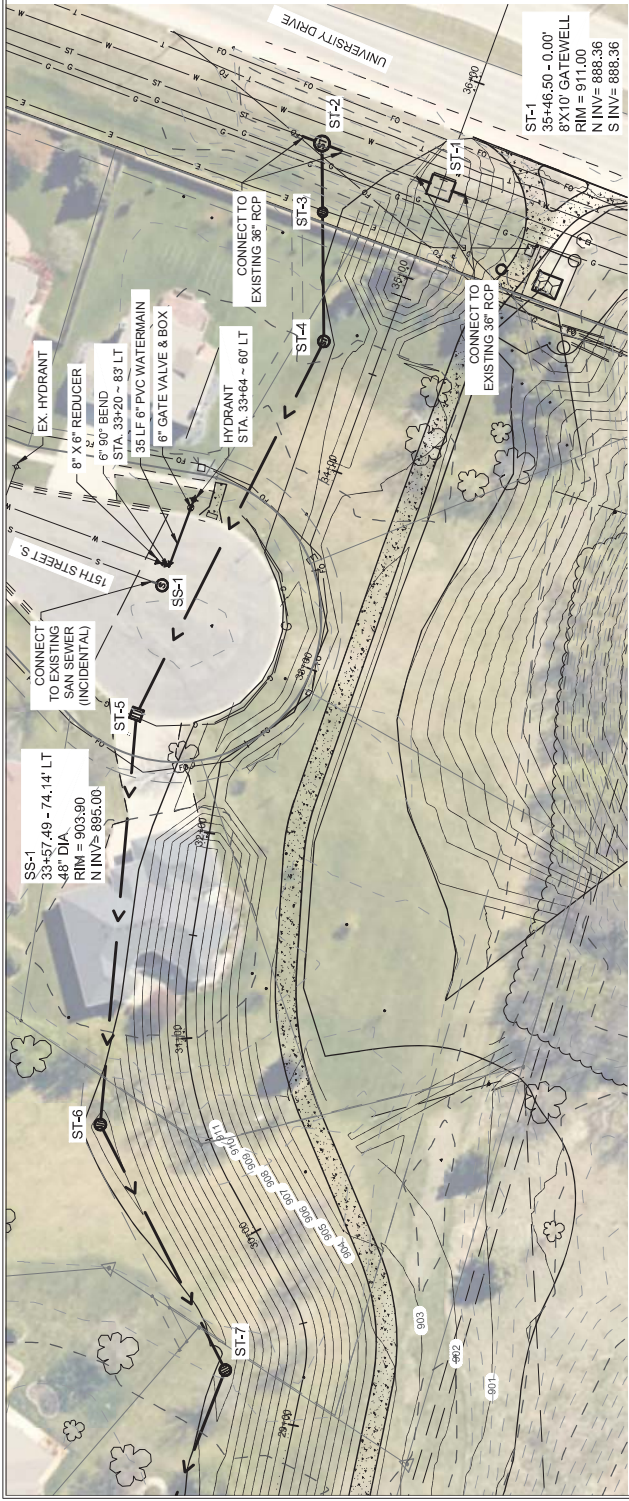
ROSEWOOD ADDITION
FLOOD RISK MANAGEMENT PROJECT

PROJECT NO. **FM-15-K1**

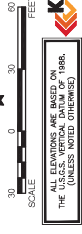
DESIGN BY: JAS
DRAWN BY: JAS
CHECKED BY: JAS
DATE: 5/17/18

City of Fairport

SHEET NO.	SECTION	SHEET NO.
055		001



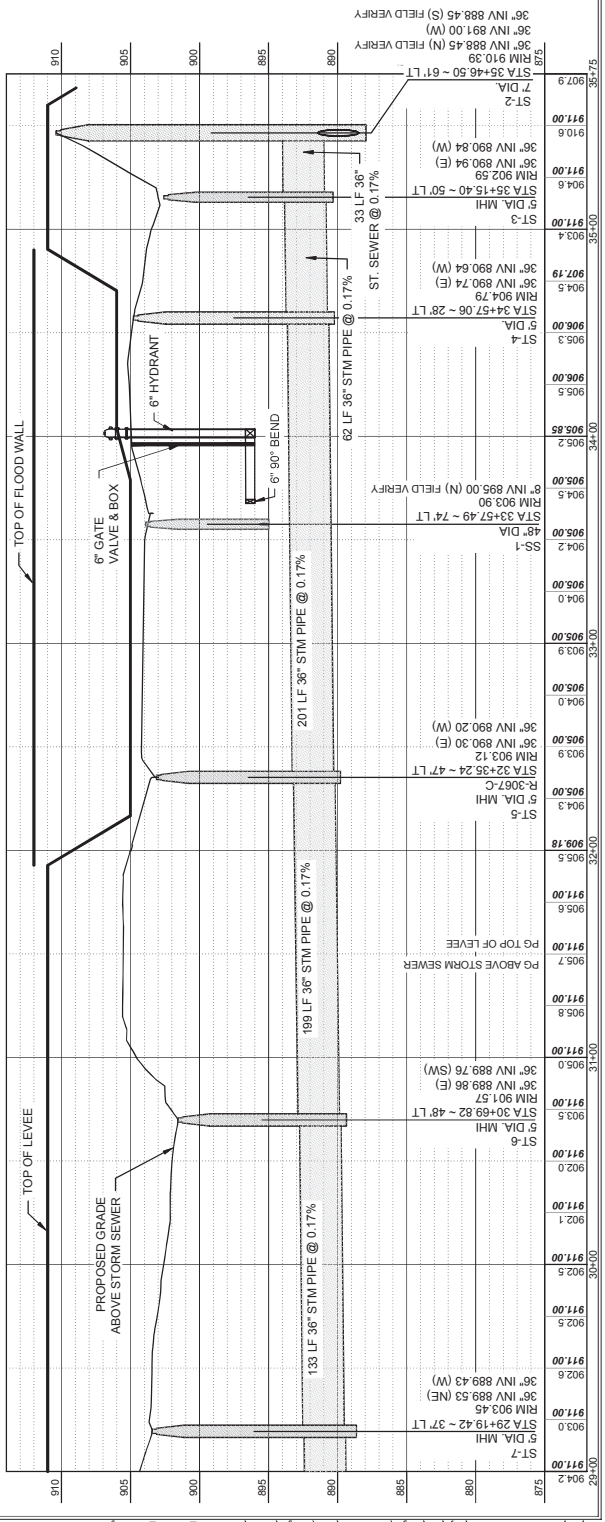
- NOTES:
1. ALL WATER MAIN TO HAVE A MINIMUM 7.5' OF COVER.
 2. CONTRACTOR SHALL TURN HYDRANT HEADS TO FACE AND WATER MAIN TO HAVE A MINIMUM SEPARATION OF 18" AT ALL UTILITY CROSSINGS.
 3. ALL WATER MAIN LOWERING TO MEET THE WATER MAIN RELOCATION DETAIL DRAWING SECTION 1300 #5.10 IN THE CITY OF FARGO STANDARD SPECIFICATIONS. CONTRACTOR SHALL NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO HYDRANT INSTALLATION.

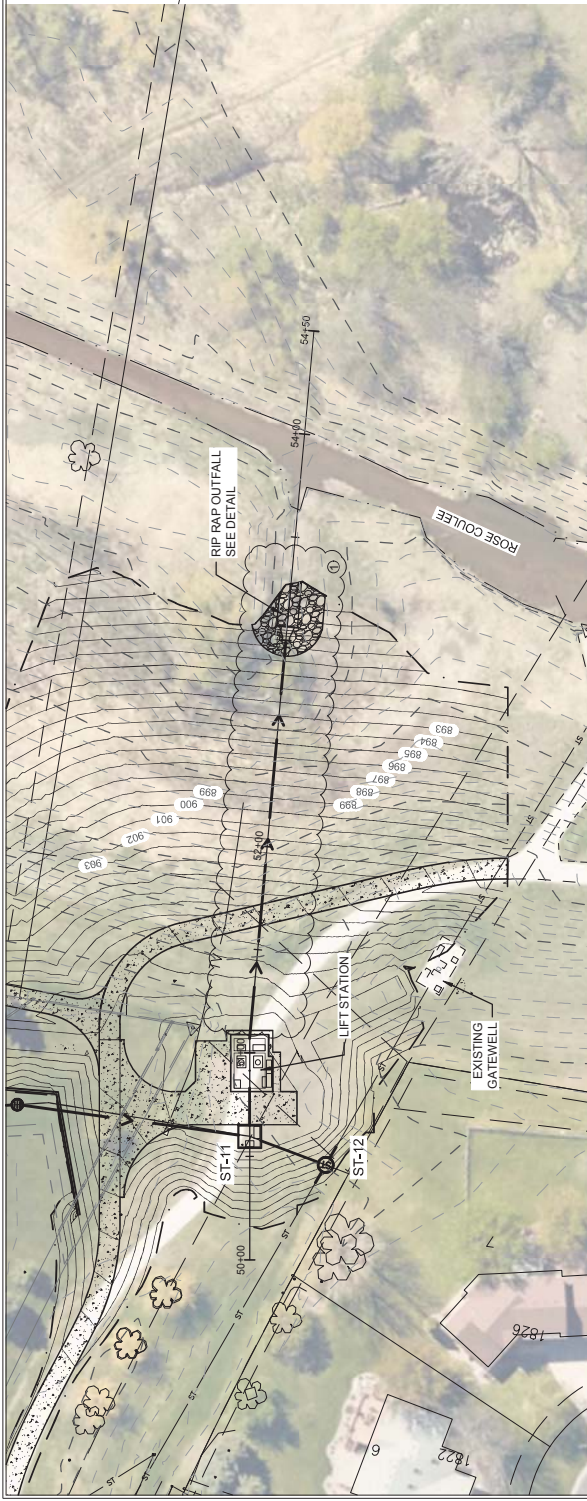


ALL ELEVATIONS ARE BASED ON THE UTICUS VERTICAL DATUM OF 1988. (UNLESS NOTED OTHERWISE)

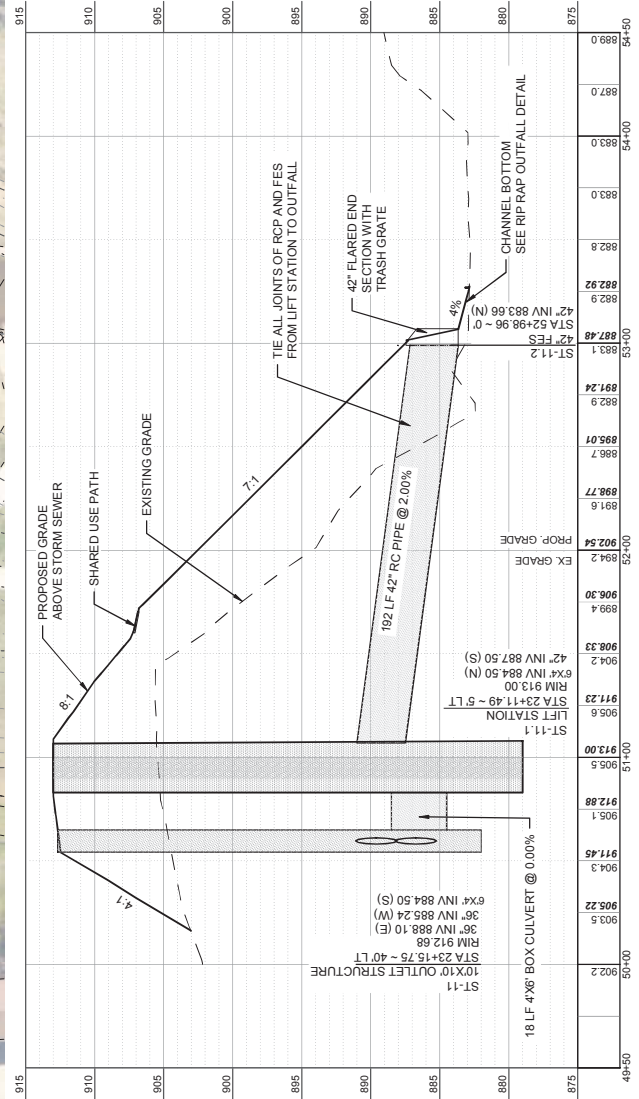
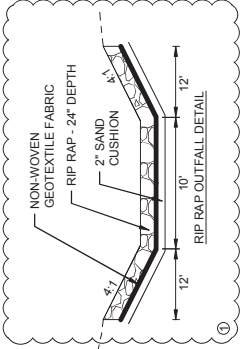
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Utilities Plan & Profile	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
DESIGN BY: JES	PROJECT NO: FM-15-K1
DRAWN BY: JES	ISSUED BY: JES
DATE: 02/27/18	SECTION NO: 055
SHEET NO: 002	





NOTES
 1. RIP RAP SHALL INCLUDE GEOTEXTILE FABRIC AND 2\"/>



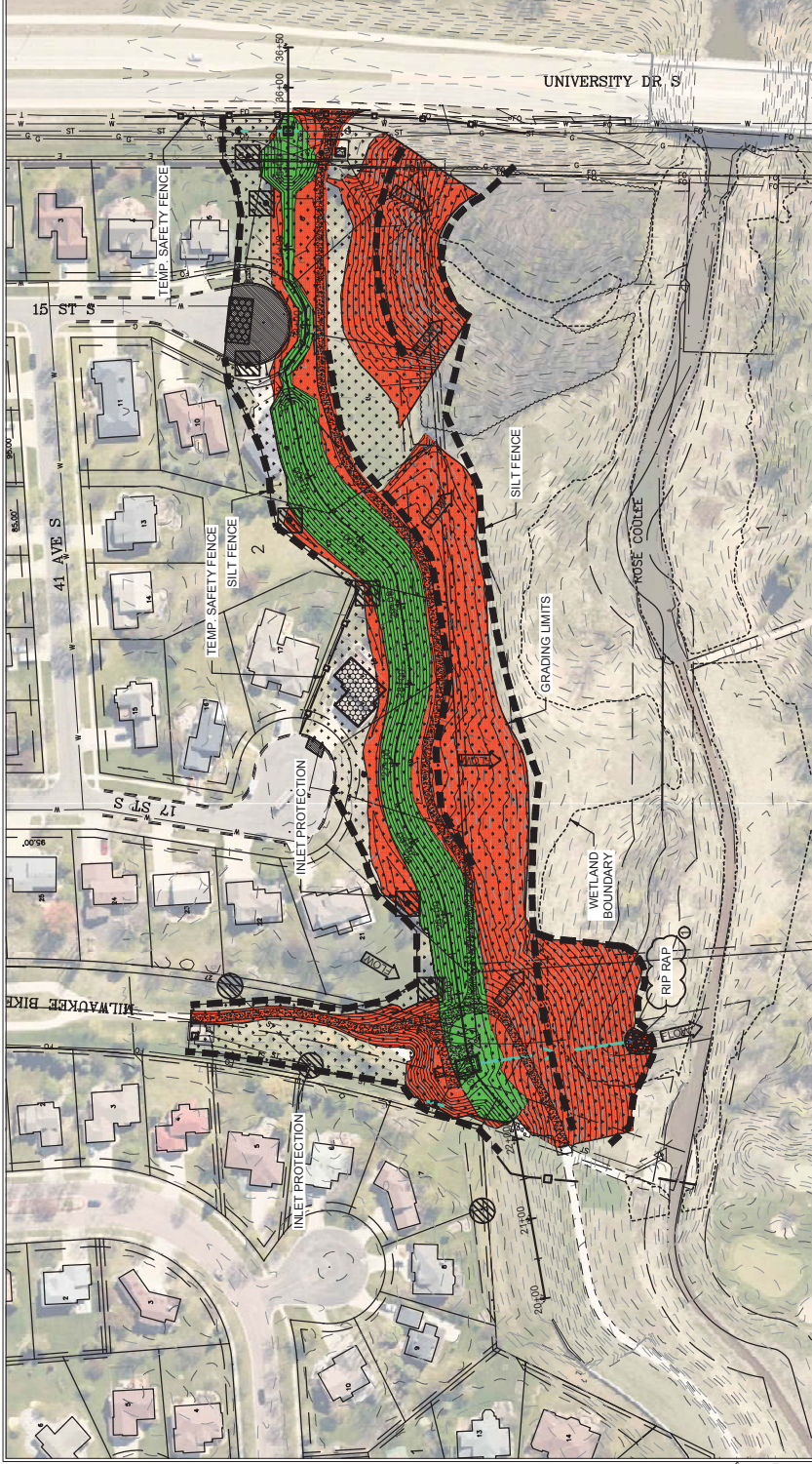
ALL DIMENSIONS ARE BASED ON THE U.S.C.S. VERTICAL DATUM OF 1988. (UNLESS NOTED OTHERWISE)

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Utilities Plan & Profile	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO. FM-15-K1	
DESIGN BY: [Redacted]	CHECKED BY: [Redacted]
DRAWN BY: [Redacted]	DATE: 05/27/18
SHEET NO. 055	SHEET NO. 003



LEGEND:

- SILT FENCE - STANDARD: 4,000 LF TOTAL
- TEMP FENCE - SAFETY: 750 LF TOTAL
- WETLAND BOUNDARY
- INLET PROTECTION - NEW INLET: 7 EA
- INLET PROTECTION - EX INLET: 3 EA
- TEMPORARY CONSTRUCTION ENTRANCE
- EX STORM SEWER
- FLOW DIRECTION
- CONCRETE WASHOUT AREA
- SEEDING AREA

NOTES:

- ACTUAL LOCATION OF SILT FENCE & CONSTRUCTION FENCE TO BE DETERMINED IN THE FIELD.
- THE LAYOUT SHOWN IS THE FINAL CONSTRUCTION LAYOUT AND PAYMENT FOR STORM WATER MANAGEMENT AND RELATED ITEMS SHALL ONLY BE MADE ONCE.
- SEEDING AREAS SHALL BE:
 - SEED TYPE: 1
 - FERTILIZER - 12-24-12
 - MULCH - TYPE 1 (HYDRO MULCH)

SCALE: 1" = 40' FEET

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REVISIONS: ① 5/18/18

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ESC PLAN	
ROSEWOOD ADDITION	
FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO: FM-15-K7	
DESIGN BY: JAS	ISSUED BY: JAS
DATE: 5/18/18	DATE: 5/18/18
SECTION NO: 075	SHEET NO: 001

RECEIVING WATERS:
STORM WATER FROM THIS SITE WILL BE COLLECTED IN AN EXISTING AND NEWLY CONSTRUCTED STORM SEWER SYSTEM. THE ULTIMATE RECEIVING WATERS FOR THIS PROJECT WILL BE THE RED RIVER OF THE NORTH, THE WEST SIDE OF THE LEVEE DRAINS TO DRAIN 53 (ROSE COULEE) ON THE SOUTH SIDE OF THE PROJECT WHICH ULTIMATELY DRAIN TO THE RED RIVER OF THE NORTH.

GENERAL NOTES:

- REFER TO SPECIAL INSTRUCTIONS SHEETS FOR SECURING OF EROSION CONTROL MEASURES.
- REFER TO THE SPECIAL INSTRUCTIONS FOR SWPPP RESPONSIBILITIES AND PERMITTING REQUIREMENTS.
- CONTRACTOR SHALL INSPECT SITE EROSION CONTROL WEEKLY AND AFTER EACH RAIN EVENT MEASURING 14". CONTRACTOR SHALL MAINTAIN A LOG OF ALL COMPLETED INSPECTIONS.
- A COPY OF THE INSPECTION LOG, EROSION CONTROL PLAN, AND SWPPP SHALL REMAIN ON SITE AT ALL TIMES.
- THE OFFICIAL RAIN GAGE FOR THIS SITE IS LOCATED AT: HECTOR INTERNATIONAL AIRPORT PARKING, ND.
- CONTRACTOR SHALL NOTIFY CITY EROSION INSPECTOR ONCE REPAIRS/MODIFICATIONS HAVE BEEN MADE AND SHALL KEEP A LOG OF ALL MODIFICATIONS/REPAIRS ON SITE.
- A COMPLETED NOT. SHALL BE SUBMITTED BY THE CONTRACTOR TO THE NORTH DAKOTA DEPARTMENT OF HEALTH PRIOR TO FINAL ACCEPTANCE.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES ON THIS SITE UNTIL FINAL ACCEPTANCE.
- CONTRACTOR SHALL UPDATE THIS EROSION CONTROL PLAN AS NEEDED TO REFLECT MEASURES IMPLEMENTED IN THE FIELD DURING CONSTRUCTION.

PROJECT DESCRIPTION:
THIS PROJECT CONSISTS OF CONSTRUCTION OF PERMANENT FLOOD PROTECTION ALONG THE NORTH SIDE OF ROSE COULEE BETWEEN THE MILWAUKEE BIKE TRAIL AND UNIVERSITY DR. S. THE PROJECT INCLUDES THE FOLLOWING IMPROVEMENTS: STORM SEWER, STORM SEWER LIFT STATION, STORM SEWER GATEWELL, LEVEE CONSTRUCTION, AND INCIDENTALS.

TOTAL SITE AREA:
THE TOTAL SITE AREA IMPACTED BY CONSTRUCTION IS APPROX. 6.5 ACRES.

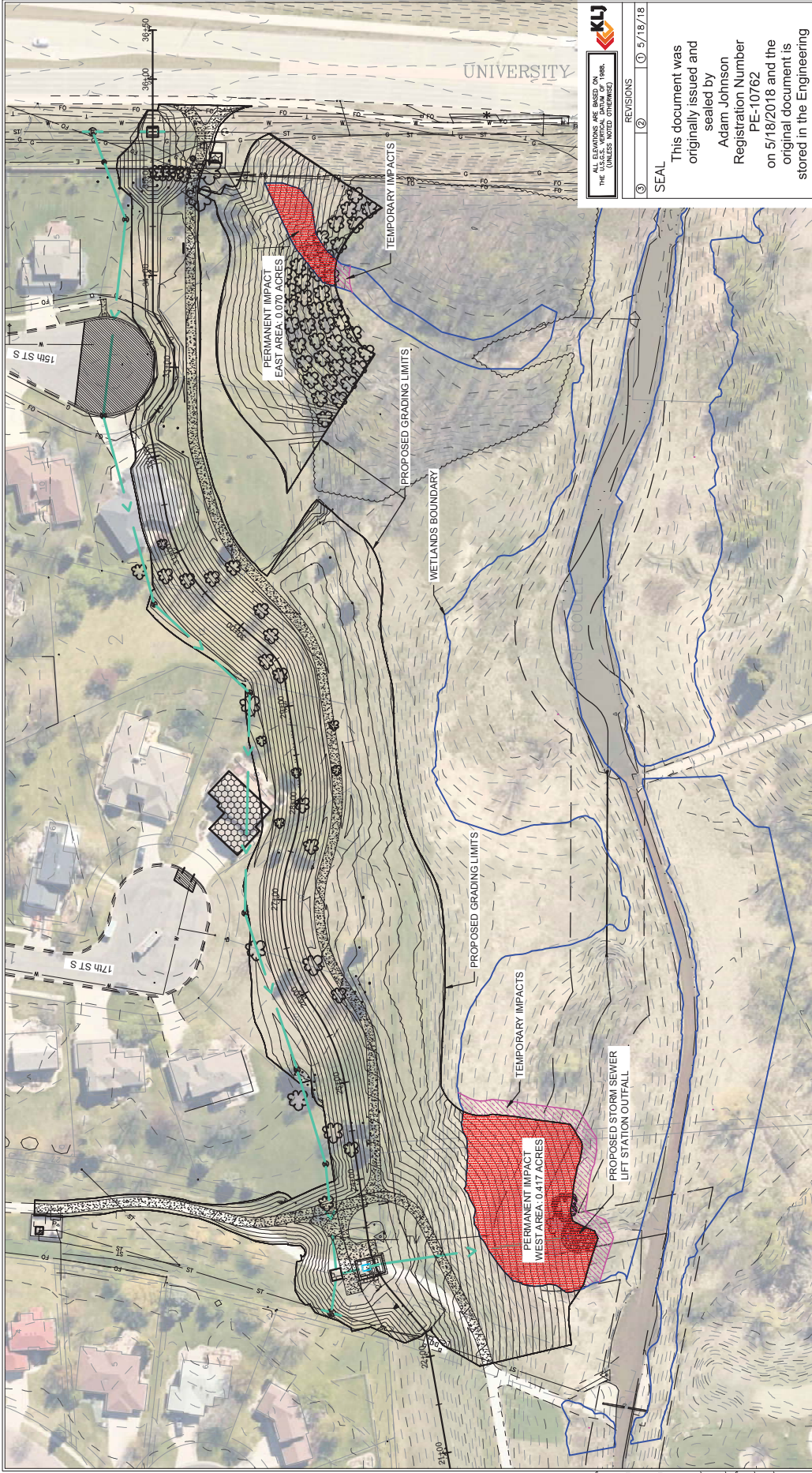
EXISTING SITE CONDITIONS:

- EXISTING LEVEES ARE PRESENT THROUGHOUT THE ENTIRE SITE. THE EXISTING LEVEES ARE UNCERTIFIED OR EMERGENCY LEVEES.

OFFSITE AREAS:
OFFSITE BORROW AREAS WILL BE USED FOR CONSTRUCTION OF THE PROJECT.

CRITICAL AREAS:
CRITICAL EROSION AREAS INCLUDE AREAS WHERE SLOPES EXCEED 5:1. CUT AND FILL SLOPES FOR THIS PROJECT IS DESIGNED AT A 3:1 MAXIMUM. OTHER CRITICAL AREAS INCLUDE LOCATIONS DESIGNED TO RECEIVE CONCENTRATED RUNOFF (SWALES & PIPE OUTFALLS). ADDITIONAL POINTS OF CONCERN ARE LOCATED AT THE INGRESS AND EGRESS LOCATIONS FOR CONSTRUCTION TRAFFIC. THESE AREAS WILL BE PROTECTED FROM EROSION BY MEASURES INDICATED ON THE PLANS.

FLOOD CERTIFICATE:
PORTIONS OF THIS PROJECT LIE WITHIN FLOOD ZONES PER MAP PANELS 38017C 0783 G AND 38017C 0791 G EFFECTIVE JANUARY 16, 2015.



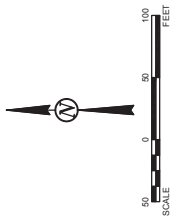
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Wetland Delineation Plan	
ROSEWOOD ADDITION FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO. FM-15-K1	
DESIGN BY: JAM	DRAWN BY: JAM
CHECKED BY: JAM	DATE: 5/17/18
SHEET NO. 076	SHEET NO. 001



LEGEND:

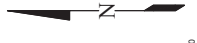
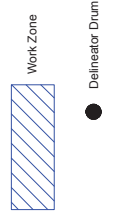
	PERMANENT WETLAND IMPACTS
	TEMPORARY WETLAND IMPACTS
	WETLANDS BOUNDARY

QUANTITIES WITHIN DELINEATED WETLANDS:

WEST AREA:	FILL MATERIAL: 3,049 CY
	RIP RAP: 63 CY
	42" RC PIPE: 82 LF (12 CY CONCRETE)
	42" FLARED END SECTION: 1 EA
	TREE REMOVAL: 3 EA
EAST AREA:	CUT MATERIAL: 88 CY
	FILL MATERIAL: 133 CY
	TREE REMOVAL: 4 EA

WETLANDS IMPACTED BY CONSTRUCTION:

PERMANENT IMPACTS:	WEST AREA: 0.417 ACRES
	EAST AREA: 0.070 ACRES
	TOTAL: 0.487 ACRES
TEMPORARY IMPACTS:	WEST AREA: 0.106 ACRES
	EAST AREA: 0.009 ACRES
	TOTAL: 0.115 ACRES



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Work Zone Traffic Control	
ROSEWOOD ADDITION	
FLOOD RISK MANAGEMENT PROJECT	
PROJECT NO. FM-15-K1	
DESIGN FIRM	DRAWN BY
DATE	SECTION
SCALE	SHEET NO.
PROJECT NO.	SHEET NO.
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