

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES	
			J	1	9
2. AMENDMENT/MODIFICATION NO. 0006	3. EFFECTIVE DATE 17-Nov-2003	4. REQUISITION/PURCHASE REQ. NO. W81G67-3036-4923		5. PROJECT NO.(If applicable) DACW37-03-B-0007	
6. ISSUED BY CONTRACTING DIVISION USAGE - ST. PAUL 190 5TH STREET E ST. PAUL MN 55101	CODE W912ES	7. ADMINISTERED BY (If other than item 6) See Item 6		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. DACW37-03-B-0007	
			X	9B. DATED (SEE ITEM 11) 03-Sep-2003	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended.					
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Bid Opening Date remains the same at 2:00PM CST on 02 December 2003. Effective 3 November 2003, the new EM385-1-1, USACE Safety and Health Requirements Manual, applies to all Corps of Engineers operations and all contracts awarded on or after this date. Contract Clause 52-232-5001 is amended. Contract Line Items (CLINs) 0039 through 0094 is amended and new bid schedule is attached. Drawings and Specifications are changed.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)		17-Nov-2003	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. The bid opening date remains the same at 2:00 PM Central Standard Time on 02 December 2003.

2. SECTION 00010 - SOLICITATION CONTRACT FORM

A new bid schedule is included at the end of this amendment. Note that a bid item has been added, Line Item 0039, for Phase 2 Stop Log Panels. All subsequent items are listed in a revised numerical sequence.

3. SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

Effective 3 November 2003, the new EM385-1-1, USACE Safety and Health Requirements Manual, applies to all Corps of Engineers operations and all contracts.

This clause is not changed but is emphasized that a new Safety and Health Requirements Manual is in place.

52.236-4006 SAFETY AND HEALTH REQUIREMENTS MANUAL INTERIM CHANGES, EM 385-1-1 (APR 2001)

This paragraph applies to contracts and purchase orders that require the contractor to comply with EM 385-1-1 (e.g., contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil> (at the HQ homepage, select Safety and Occupational Health). The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation or amendment.

The following contract clause has been modified:

52.232-5001 CONTINUING CONTRACTS (MAR 1995)-EFARS

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of **\$5,000,000.00** has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The contracting officer will promptly notify the contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the contractor shall give written notice to the contracting officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the contractor, by written notice delivered to the contracting officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the contractor, to reduce said reservation by the amount of such excess.

(End of clause)

4. The following Specifications have been amended:

Changes to Specifications:

1. Add Specification Section 02925 Bonded Fiber Matrix. A hydraulically applied mulch and erosion control blanket shall be applied to the dry side of the levee on Reach 1. The Bonded Fiber Matrix shall comply with the following specifications.

**“Section 02925
BONDED FIBER MATRIX**

PART 1 GENERAL**1.1 SUMMARY**

This section specifies a hydraulically applied bonded fiber matrix (BFM) wood fiber mulch that upon drying adheres to the soil to form a biodegradable erosion control blanket. The BFM shall be applied along the dry side of the levee on Reach 1 where class 1 low maintenance turf is specified.

1.2 Submittals

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be in accordance with Section 01330: SUBMITTAL PROCEDURES:

SD-01 Data**Product Data; GA**

Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials, mixing instructions, and application rates for review and approval.

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver materials and products in factory labeled packages. Store and handle in strict compliance with with manufacturer's instructions and recommendations. Protect from damage from weather, excessive temperatures, and construction operations.

PART 2 PRODUCTS**2.1 MATERIALS**

Bonded Fiber Matrix: Soil Guard manufactured by MAT, Inc or approved equal meeting the following characteristics:

1. The bonded fiber matrix shall be comprised of long strand, thermally produced wood fibers passing a freeness test at 760 cc level or below (approx. 88%) that is held together by organic tackifiers (approx. 10%) and mineral bonding agents (approx. 2%) which upon drying, become insoluble and non-dispersible.
2. Moisture Content: 12% plus/minus 3%)
3. Organic Matter: Approximately 99%
4. pH (3% slurry in water) : 4.5 to 6.0
5. Odor: None
6. Color: Colored shall facilitate placement and insure coverage.
7. Water holding capacity (approximately 1.2 gallons/lb dry basis)

8. The matrix which forms shall be designed, tested and proven to perform in a manner equal or superior to biodegradable erosion control blankets (ECB's). Documentation of testing at an independent University Laboratory shall be provided which demonstrates superior performance as measured by reduced water runoff, reduced soil loss, and faster plant germination as compared to erosion control blankets. The formed matrix shall meet the following requirements:
- a. The material, when mixed into a liquid slurry, shall pass a free liquid quality control test (liquids separate from fibrous solids no greater than 1 inch in 1 minutes time as measured on a standard test board)
 - b. The binder shall not dissolve or disperse upon rewetting.
 - c. The matrix shall have no holes > 1mm in size.
 - d. The matrix shall have no gaps between product and the soil.
 - e. The matrix shall have no germination or growth inhibiting factors and shall not form a water insensitive crust.
 - f. The matrix shall be comprised of materials which are 100% biodegradable.

PART 3 EXECUTION

3.1 SUBSTRATE PREPARATION

Examine substrates and conditions where materials will be applied. Do not proceed with installation until unsatisfactory conditions are corrected. Only apply product to geotechnically stable slopes that have been designed and built to divert water away from the face of the slope, therefore eliminating surface flow energy from above from damaging the slope face.

3.2 INSTALLATION

The bonded fiber matrix shall be installed by a Contractor approved by the manufacturer to be trained in the proper procedures for mixing and application of the product. The BFM shall be mixed according to manufacturer's recommendations. BFM shall be spray applied at a rate of 3,000 to 4,000 lbs/acre according to manufacturer's instructions for the slopes encountered. BFM shall be applied utilizing standard hydro-seeding equipment in successive layers to achieve 100% coverage of all exposed soil. The BFM shall not be applied immediately before, during, or after rainfall, such that the matrix will have opportunity to dry at least 24 hours after installation.

End of Specification.”

2. Section 01270, MEASUREMENT AND PAYMENT, Paragraph 1.3.6 Floodwall, Sub-paragraph 1.3.6.1 Payment: Replace second sentence with the following:

Payment for floodwall includes, but is not be limited to, structural excavation, backfill to existing grade, concrete, formwork, reinforcement, simulated stone masonry, stain, anti-graffiti coating, sheetpile and items incidental to the floodwall construction.

3. Section 01270: Measurement and Payment, Add the following paragraph and subparagraphs:

“

1.2.54 Phase 1 Stop Log Panels

1.2.54.1 Payment

Payment for stop log panels includes all materials, equipment and labor and performing all work and operations necessary for providing stop log panels and guides for the existing East Grand Forks Phase Gatewells. Work includes, but is not limited to designing, fabricating, and installing the new stop log panels and guides for existing gatewells L-1, L-2, K-7, K-10, and K-12. Also included is the removal and disposal

of existing stoplog guides that are currently in place. Restoration of items damaged during construction are incidental to and included in the price bid. Only modifications to existing gatewells are covered under this bid item. Payment for stop log panels and guides for the East Grand Forks Phase 3 Gatewells shall be included in the respective outlet structure bid item to which it pertains.

1.2.54.2 Unit of Measurement

Unit of measure: lump sum.”

4. Stop log panels and guides will replace stoplogs at the following East Grand Forks – Phase 3 gatewell locations: L3, L6, L8, L9, L10. In addition, stoplog panels and guides will replace the stop logs in existing East Grand Forks – Phase 1 gatewell structures: L1, L2, K7, K10, and K12. Junction manhole stoplog designs are not affected by this amendment. Add the following Specification Section - 05616 “STOP LOG PANELS” for the design, fabrication, and installation of the stoplog panels and guides.

Section 0516 STOP LOG PANELS

1. GENERAL

1.1. SCOPE. This section covers Stainless Steel Stop Log Panels. Provide and install stop log panels and guides at the L3, L6, L8, L9, and L10 gatewells for the East Grand Forks - Phase 3 project. In addition, provide and install stop log panels and guides for the existing L1, L2, K7, K10, and K12 gatewells constructed during the East Grand Forks - Phase 1 project. See drawings for nominal panel dimensions. Junction manhole stop log design is covered in Section 05615: STOPLOGS.

1.2. GENERAL. The equipment provided under this section shall be designed, fabricated, assembled, erected, and placed in proper operating condition in full conformity with the drawings, specifications, engineering data, instructions and recommendations of the equipment manufacturer unless exceptions are noted by the engineer.

Stop log panels shall be supplied with all the necessary parts and accessories indicated on the drawings, specified or otherwise required for a complete, properly operating installation, and shall be the latest standard product of a manufacturer regularly engaged in the production of stop logs or stop log panels.

1.3. QUALITY ASSURANCE

1.3.1. The manufacturer shall have experience in the production of substantially similar equipment and shall show evidence of satisfactory operation of that equipment in at least 50 installations. The manufacturer's shop welds, welding procedures and welders shall be qualified and certified in accordance with the requirements of the latest edition of ASME, Section IX.

1.3.2. The fully assembled stop log panels shall be shop inspected before shipping.

1.4. SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be in accordance with Section 01330: SUBMITTAL PROCEDURES:

SD-01 Data

Design Calculations; GA

Contractor shall submit stop log panel and stop log panel guide design calculations for review and approval.

Welding; FIO

Schedules of welding procedures for structural steel shall be submitted as specified in Section 05055: METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

Materials; FIO

Materials orders, materials lists and materials shipping bills shall be submitted as specified in Section 05055: METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

SD-04 Drawings

Detail Drawings; GA

Detail drawings shall be submitted as specified in Section 05055: METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Drawings shall include the principal dimensions, general construction, and materials used in the stop log panel and stop log panel guide.

SD-09 Reports

Tests, Inspections, and Verifications; FIO

Certified test reports for material tests shall be submitted with all materials delivered to the site.

1.5 PERFORMANCE

1.5.1. LEAKAGE. Stop log panels shall be substantially watertight under the design head conditions. Leakage shall not exceed 0.1 US gallon per minute per foot of periphery for the rated seating head.

1.5.2. DESIGN HEAD. Unless specified otherwise, the design head shall be equal to the total height from the stop log panel sill to the top of structure (gatewell).

Part 2. PRODUCTS

2.1. STOP LOG PANELS

2.1.1. GENERAL DESIGN. Design stop log panels according to EM-1110-2-2105, "Design of Hydraulic Steel Structures". Design stop log panels and guides for unseating head conditions using maximum head conditions (Gateway top of concrete – invert). If design results in fracture critical members AWS D1.5 must be followed and all required non-destructive testing reports must be submitted for Government approval. Stop log panels shall be constructed entirely of stainless steel. All hardware shall be stainless steel. Field verify dimensions of existing structures.

2.1.2. FRAME. The frame shall be made of stainless steel channels. The frame shall be suitable for mounting on a concrete wall, embedded in a channel, or installation inside an existing channel.

2.1.3. STOP LOG PANEL. The stop log panel shall consist of a flat plate reinforced with formed plates or structural members to limit their deflection to 1/360 of the gate's span under the design head. Each end of the panel shall have a UHMWPE (ultra high molecular weight polyethylene) guide block to ensure proper alignment of the panel, to reduce friction and to prevent metal-to-metal contact.

2.1.4. SEALS. Seals shall be made of ethylene-propylene-diene-monomer (EPDM) rubber. The end seals shall be attached to the stop log panel by means of a UHMWPE guide block. The bottom seal is attached to the stop log panel with a stainless steel retainer.

2.2. MATERIALS

Part	Material
Frame, log, reinforcements bottom seal retainer.	Stainless steel ASTM A-240, Type 304L or 316L
Guide	Ultra high molecular weight polyethylene (UHMWPE), ASTM D-4020-96
Seal	EPDM ASTM D-2000
Fasteners	ASTM F593 and F-594 GR1 for type 304 and GR2 for type 316

3. EXECUTION

3.1. INSTALLATION. Stop log panels and appurtenances shall be handled and installed in accordance with the manufacturer's recommendations.

End Of Specification.

Changes to Drawings:

1. Drawings R-P-GF-64/1562, 64/1563, 64/1564, 64/1565, and 64/1566. Add the following note to each drawing: Contractor shall hydraulically apply a bonded fiber matrix mulch and erosion control blanket on the dry side of and on top of levee.
2. Drawing R-P-GF-64/1652 (Sheet 96) - Detail SLS - Typical Stoplog Sill at Gatewells L3, L6, L9, L10 should be changed to read "Typical Stoplog Sill at Gatewells L3, L9, L10". Coordinate E2 note calls for C 8 X 11.5 galvanized sill. Change note to read "C 8 X 11.5 stainless steel 5' 7" long stoplog sill, install to specified tolerances."
3. Drawing R-P-GF-00/041 Coordinate E4, Add Approved Select Impervious Borrow Site symbol. Detail of new borrow area shown on Reference Drawing R-P-GF-10/159A.

4. Drawing R-P-GF-00/044 reissued to add new Reference Drawings R-P-GF-10/159A, and R-P-GF-64/315, 64/316, 64/319, 64/320, 64/353, 64/354, and 64/356. Changes also include changing “GR” to “GF” in drawing numbers R-P-GR-10/152 through R-P-GR-10/161.
5. Drawing R-P-GF-10/159A added to reference drawing set to identify additional Government approved select impervious and impervious borrow site.
6. The following drawings are re-issued with this amendment:

Drawing:	Summary of changes:
00/044	Updates Reference Drawing Index.
64/1620	Replaces L8 gatewell stop logs with Stop log panel.
64/1622	Adds L8 gatewell design requirements for stop log panels.
64/1645	Replaces L9 gatewell stop logs with Stop log panel.
64/1649	Replaces L10 gatewell stop logs with Stop log panel.
64/1652	Adds stop log panel design information.
64/1680	Changes overall dimension of pump station L6 superstructure.
64/1681	Changes roof type to “Bermuda metal roof”.
64/1682	Corrects Section A, Typical Section B, and Detail 2.
64/1683	Corrects notes on Details 1,2, and 3.
64/1685	Corrects note on sump pump access hatch.
64/1686	Changes monorail hoist spacing.
64/1687	Changes superstructure dimensions.
64/1697	Replaces L6 gatewell stop log details with stop log panel.
64/1698	Replaces stop log details with stop log panel details.
64/1714	Replaces L8 gatewell stop logs with Stop log panel.
64/1717	Corrects detail SLG for stop log panel.
64/1720	Replaces L3 gatewell stop logs with stop log panel requirements.

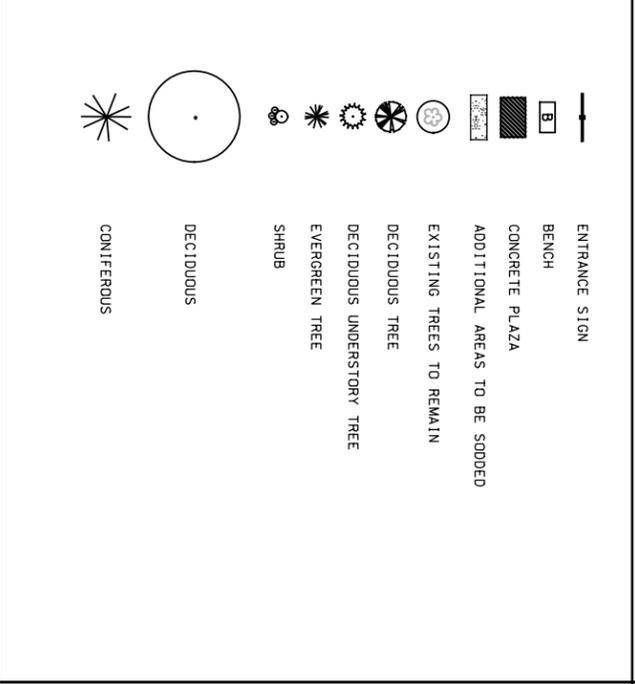
The following reference drawings are added to the reference drawing set. The drawings are added to aid in the design, fabrication, and installation of stop log panels and guides in existing East Grand Forks Phase 1 gatewells.

R-P-GF-64/315
R-P-GF-64/316
R-P-GF-64/319
R-P-GF-64/320
R-P-GF-64/353
R-P-GF-64/354
R-P-GF-64/356

(End of Summary of Changes)

DRAWING NO.	REFERENCE DRAWING INDEX DESCRIPTION	PRODUCT I.D.
R-P-GF-10/152	GEOTECHNICAL DATA	
R-P-GF-10/153	LEGEND, GENERAL NOTES & BORING LOGS: 97-34M, 97-35M & 97-36M	GF10LB152
R-P-GF-10/154	BORING LOGS: 97-37M, 97-38M, 97-40M & 97-43M	GF10LB153
R-P-GF-10/155	BORING LOGS: 98-72M, 98-76M, 98-77M & 98-78M	GF10LB154
R-P-GF-10/156	BORING LOGS: 99-87M, 99-89M & 99-90M	GF10LB155
R-P-GF-10/157	BORING LOGS: 99-91M, 02-158M, 02-159M & 02-160M	GF10LB156
R-P-GF-10/158	BORING LOGS: 97-41M, 97-44M, 98-67M & 98-68M	GF10LB157
R-P-GF-10/159	BORING LOGS: 98-69M, & 03-176M	GF10LB158
R-P-GF-10/159A	REACH 1 SELECT IMPERVIOUS BORROW AREA	GF10LB159
R-P-GF-10/160	"SELECT" IMPERVIOUS FILL OR IMPERVIOUS FILL SITE	HARTSVILLEBORRO
R-P-GF-10/161	REACH 2 SELECT IMPERVIOUS BORROW AREA	GF10LB160
R-P-GF-10/161	BORING LOGS: 01-125M THRU 01-130M	GF10LB161
	HYDROGRAPHS	
EGF_PHASE3_DUR1	FLOW DURATION CURVES JANUARY-JUNE	EGF_PHASE3_DUR1
EGF_PHASE3_DUR2	FLOW DURATION CURVES JULY-DECEMBER	EGF_PHASE3_DUR2
EGF_PHASE3_HYDROS	HYDROGRAPHS, POOL (1991-2000)	EGF_PHASE3_HYDR
EGF_PHASE3_RATINGS	FLOW RATING CURVES	EGF_PHASE3_RATI
	EAST GRAND FORKS - PHASE 1	
R-P-GF-64/245	REACH 3 PLAN - STA F40+00 TO STA F46+00	GFPC164245
R-P-GF-64/251	REACH 3 PROFILE - STA F40+00 TO STA F50+00	GFPC264251
R-P-GF-64/254	REACH 3 TYPICAL SECTIONS - LEVEE 24, 25, 26	GFPC364254
R-P-GF-64/267	REACH 3 PROFILE - STORM SEWER	GFPC264267
R-P-GF-64/315	GATEWELL K7 & K10 PLANS	GFPS164315
R-P-GF-64/316	GATEWELL K7 & K10 SECTIONS	GFPS364316
R-P-GF-64/319	GATEWELLS L1 AND L2 PLANS	GFPS564319
R-P-GF-64/320	GATEWELLS L1 AND L2 SECTIONS	GFPS64320
R-P-GF-64/353	PUMP STATION K12 TOP OF GATEWELL	GFPS564353
R-P-GF-64/354	PUMP STATION K12 SECTION AND ELEVATION	GFPS564354
R-P-GF-64/356	PUMP STATION K12 SECTION AND ELEVATION	GFPS564356
R-P-GF-12/017	REACH 3 CONTROL DATA - TRAIL	GFPL612017
R-P-GF-12/018	REACH 3 CONTROL DATA - TRAIL	GFPL612018
R-P-GF-12/022	REACH 3 TRAIL PLAN - STA 100+00 TO STA 108+00	GFPL112022
	EAST GRAND FORKS - PHASE 2	
R-P-GF-64/1116	REACH 2 PLAN - STA F113+00 TO F121+00	C-GFPC1641116
R-P-GF-64/1117	REACH 2 PROFILE - STA F101+00 TO F121+00	C-GFPC641117
R-P-GF-64/1118	REACH 2 TYPICAL SECTIONS - LEVEE 22, 23	C-GFPC641118
	END OF JAMES AVE FLOODWALL SKETCH	JAMES_AVE_MOD
	SKETCH NO. 2	
	EAST GRAND FORKS - HEARTSVILLE COULEE	
R-P-GF-64/1153	HORIZONTAL AND VERTICAL CONTROL DATA	GFPC6641153
R-P-GF-64/1155	F LEVEE AND G LEVEE PLAN & PROFILE, STA F182+00 TO G18+00	GFPC1641155
R-P-GF-64/1162	G LEVEE PLAN & PROFILE, STA G152+00 TO G167+88	GFPC1641162
R-P-GF-64/1163	TYPICAL SECTIONS 1 - 5	GFPC641163
R-P-GF-64/1164	TYPICAL SECTIONS 6 - 10	GFPC641164
	STANDARD	
Z2-22	BEST MANAGEMENT PRACTICES FOR EROSION & SEDIMENT CONTROL	STG1P000

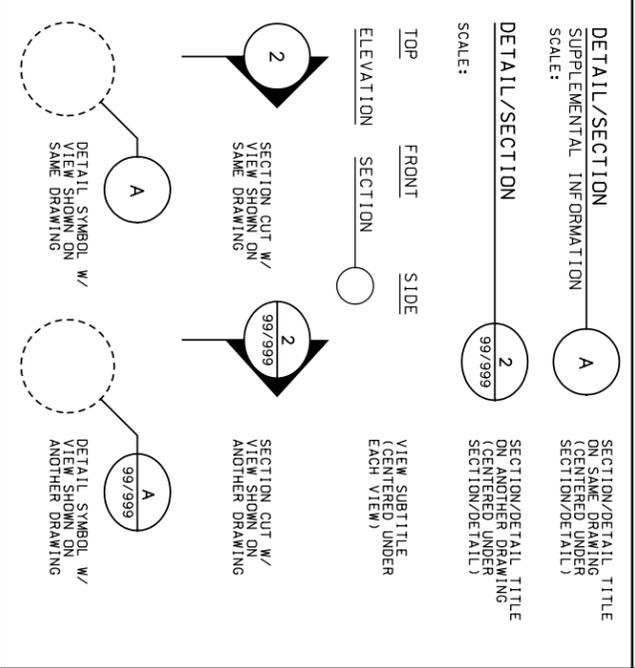
RECREATIONAL & LANDSCAPING LEGEND



GENERAL NOTES:

- THE DIAGRAMS AND DETAILS DESCRIPTIONS OF HORIZONTAL AND VERTICAL CONTROL POINTS ARE AVAILABLE FROM THE ST. PAUL DISTRICT OFFICE (651) 290-5596.
- ORIGINAL DATA COMPILED NAD 83 US FOOT.
- ELEVATION REFER TO M.S.L. (1929 ADJ.).
- EAST GRAND FORKS ORIGINAL DATA FROM 1997 AERIAL PHOTOGRAPHY.
- ORIGINAL SOUNDING DATA FROM 1998 SOUNDINGS.
- THE INFORMATION ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UTILITIES MAY NOT BE ACCURATE OR COMPLETE. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF UTILITIES TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
- COORDINATES BASED ON NORTH DAKOTA STATE PLANE GRID SYSTEM, NORTH ZONE.
- SURVEY DATA UPDATED DATA FROM 2000 AND 2002 GROUND SURVEYS.
- ALL UTILITIES SHALL REMAIN UNINTERRUPTED DURING CONSTRUCTION.

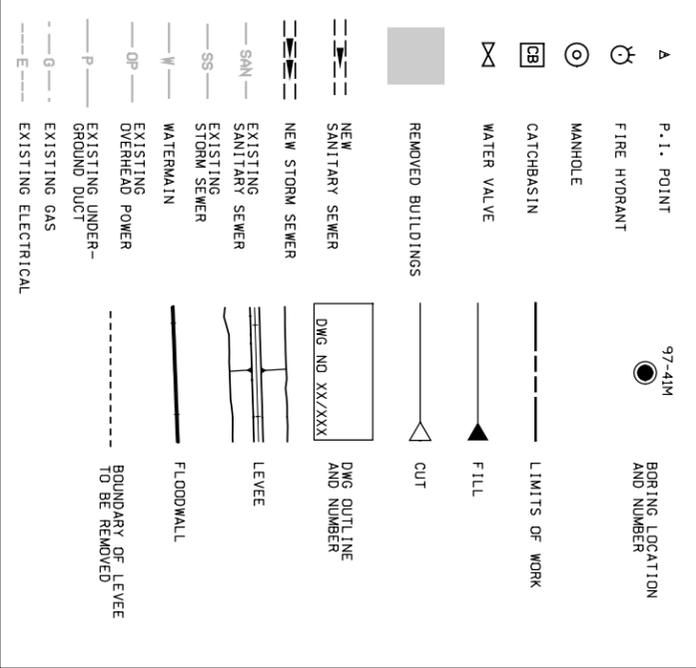
GENERAL CROSS-REFERENCING SYMBOLS



ABBREVIATIONS

APPROX. ALT. W/ ALUM. BIT. C/L C&G CL./CLR C.U. CMP CONCR. CONTR. JT. DIA./Ø DWG. E.F. E.J. E.L. E.W. EXIST. F.F. FES GALV.	APPROXIMATE ALTERNATE WITH ALUMINUM BITUMINUM BOTTOM CONTROL CENTER LINE CURB & GUTTER CLEAR COVER CONSTRUCTION JOINT CORRUGATED METAL PIPE CONCRETE CONTRACTOR JOINT DIAMETER DRAWING EACH FACE EXPANSION JOINT ELEVATION EACH WAY EXISTING FAR FACE FLARED END SECTION GALVANIZED	HT. INSIDE FACE LONG LANDWARD MAXIMUM MINIMUM MIRRORRED MISCELLANEOUS NEAR FACE NUMBER OUTSIDE FACE O.F. / O/C ON CENTER R/W SAN. SPECIFICATIONS S.S. T & B TYP. U.N.O. UNLESS NOTED OTHERWISE UNDERGROUND WIDTH WATER MAIN
P.I. POINT	97-41M	BORING LOCATION AND NUMBER
FIRE HYDRANT		
MANHOLE		
CATCHBASIN		LIMITS OF WORK
WATER VALVE		FILL
REMOVED BUILDINGS		CUT
NEW SANITARY SEWER		DWG NO XX/XXX
NEW STORM SEWER		DWG OUTLINE AND NUMBER
EXISTING SANITARY SEWER		LEVEE
EXISTING STORM SEWER		FLOODWALL
WATERMAIN		
EXISTING OVERHEAD POWER		BOUNDARY OF LEVEE TO BE REMOVED
EXISTING UNDERGROUND DUCT		
EXISTING GAS		
EXISTING ELECTRICAL		

GENERAL LEGEND



US Army Corps of Engineers
St. Paul District

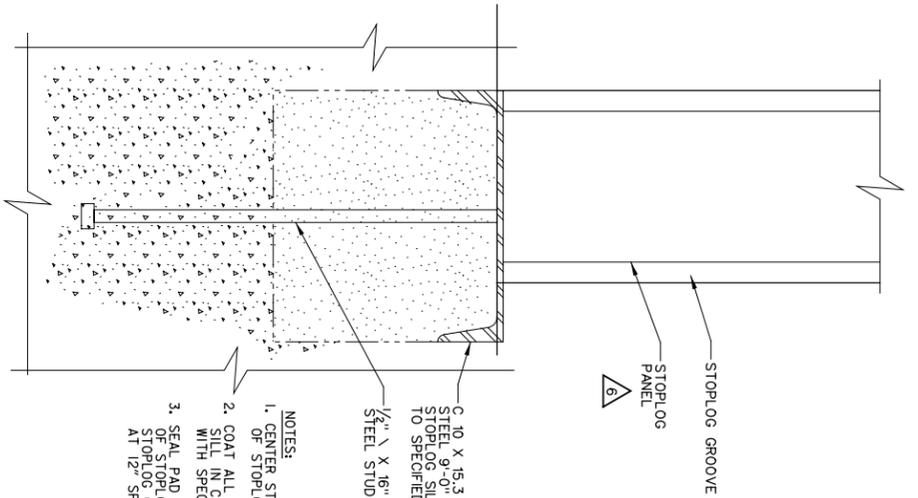
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CADD FILE NAME: 004GFMG000044.DGN	
SOL. NO: DACW37-03-B-0007	
AE APPROVING OFFICIAL:	
DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003

DESIGNED: LK	SCALE:
CHECKED: TMG	
DRAWN: LKT	
DESIGNED: H-ED	
CHECKED:	

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
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ST. PAUL DISTRICT

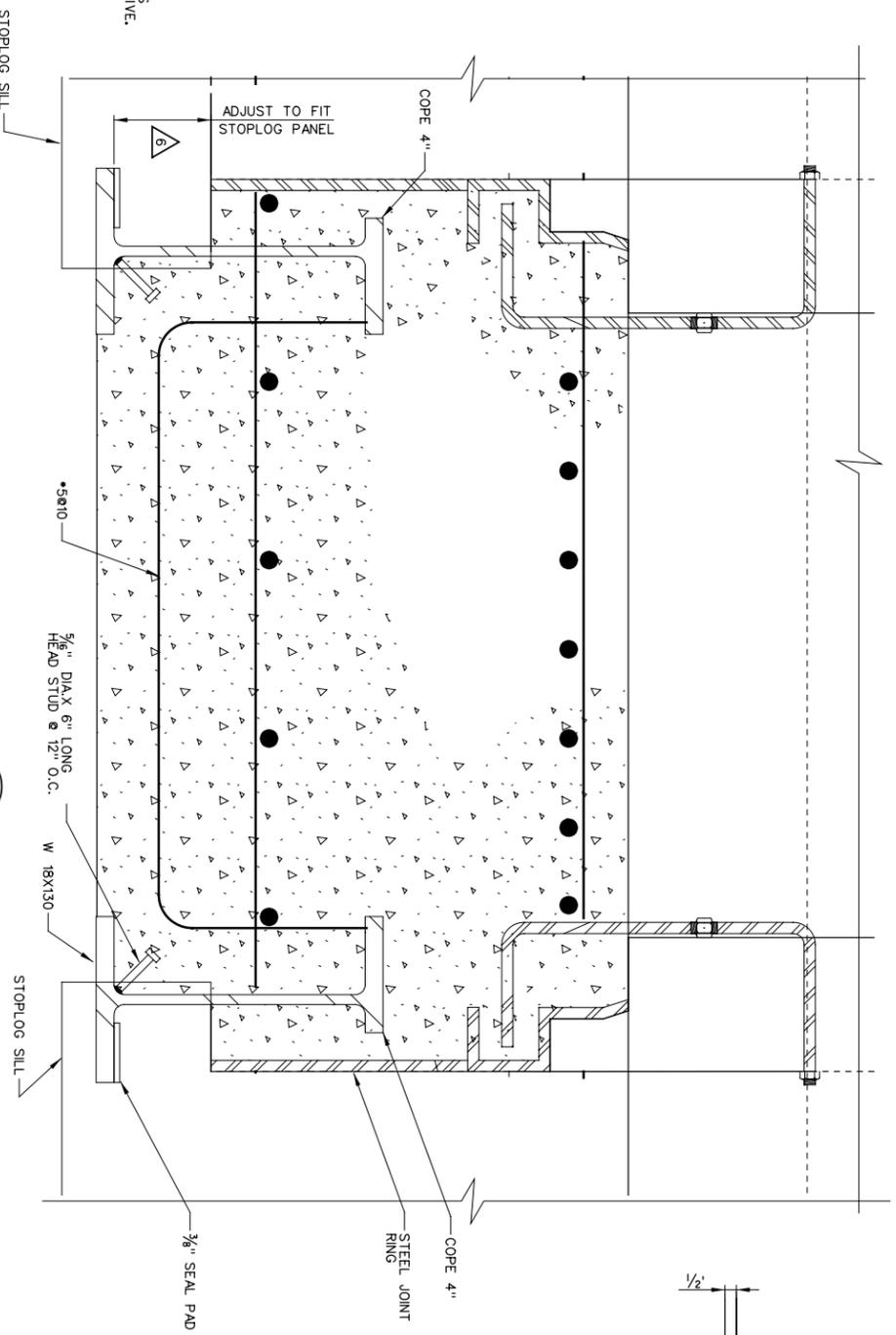
EAST GRAND FORKS - PHASE 3
DRAWING INDEX
REFERENCE DRAWING INDEX,
LEGEND & GENERAL NOTES

DRAWING NUMBER:
R-P-GF-00/044
SHT 4 OF 188



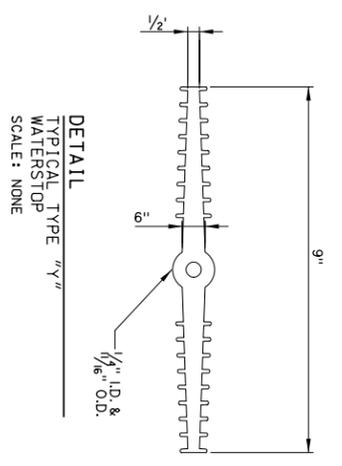
DETAIL
STOPLOG SILL, TYP.
SCALE: 1" = 1'-0"

- NOTES:
1. CENTER STOPLOG SILL ON CENTER OF STOPLOG GROOVE.
 2. COAT ALL SURFACES OF STOPLOG SILL IN CONTACT WITH CONCRETE WITH SPECIFIED BONDING AGENT.
 3. SEAL PAD TO EXTEND FULL HEIGHT OF STOPLOG GROOVE AND ATTACH TO STOPLOG GROOVE W/ NO. 10 SS SCREWS AT 12" SPACINGS AND APPROVED ADHESIVE.



DETAIL
TYPICAL STOPLOG GROOVE AT
DISCHARGE/GATEWELL
SCALE: 1" = 1'-0"

- NOTE:
1. 3/4" DIA. HOLES IN WF WEB TO ALLOW HORIZ. REINFORCING.
 2. LOCATE ADDITIONAL OPENING DIAGONAL REINFORCING OUTSIDE WF BEAM WEB. SEE DETAIL 64/1614
 3. 2" CONCRETE SEAL SURFACE TO BE FINISHED SMOOTH AND FLAT SUCH THAT THE MAXIMUM GAP UNDER A 10 FOOT STRAIGHT EDGE IS 1/8" INCH.



DETAIL
TYPICAL TYPE "Y"
WATERSTOP
SCALE: NONE



DRAWING NUMBER:
R-P-GF-
64/1620
SHT 65 OF 188

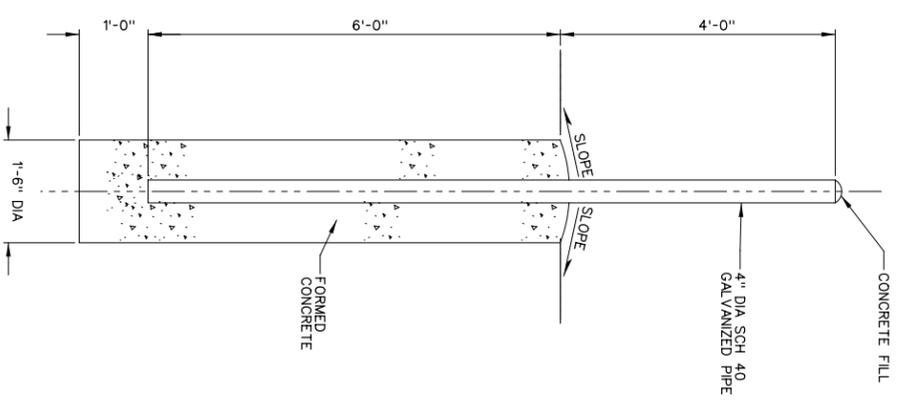
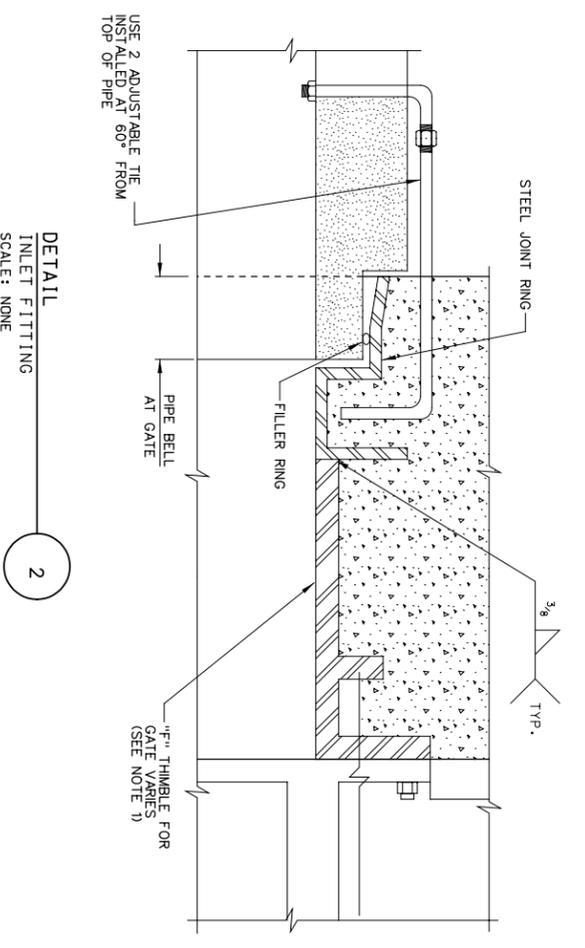
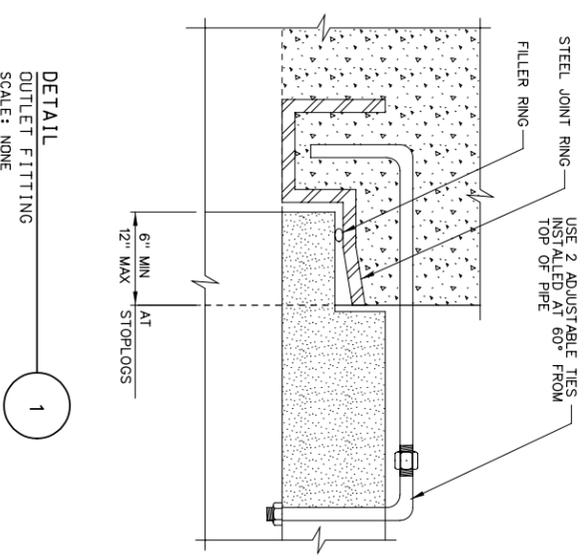
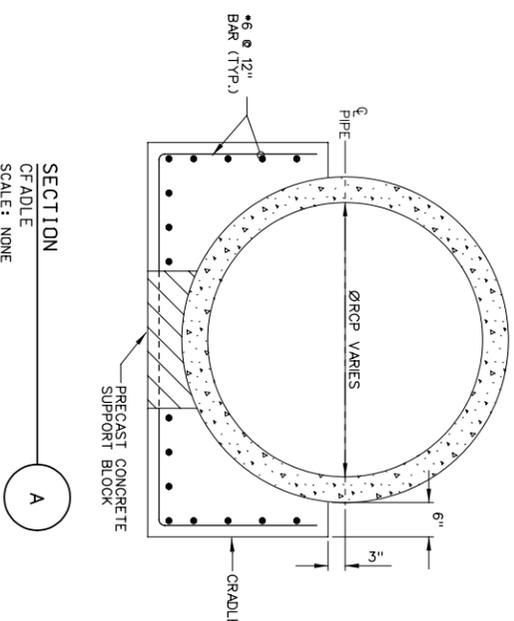
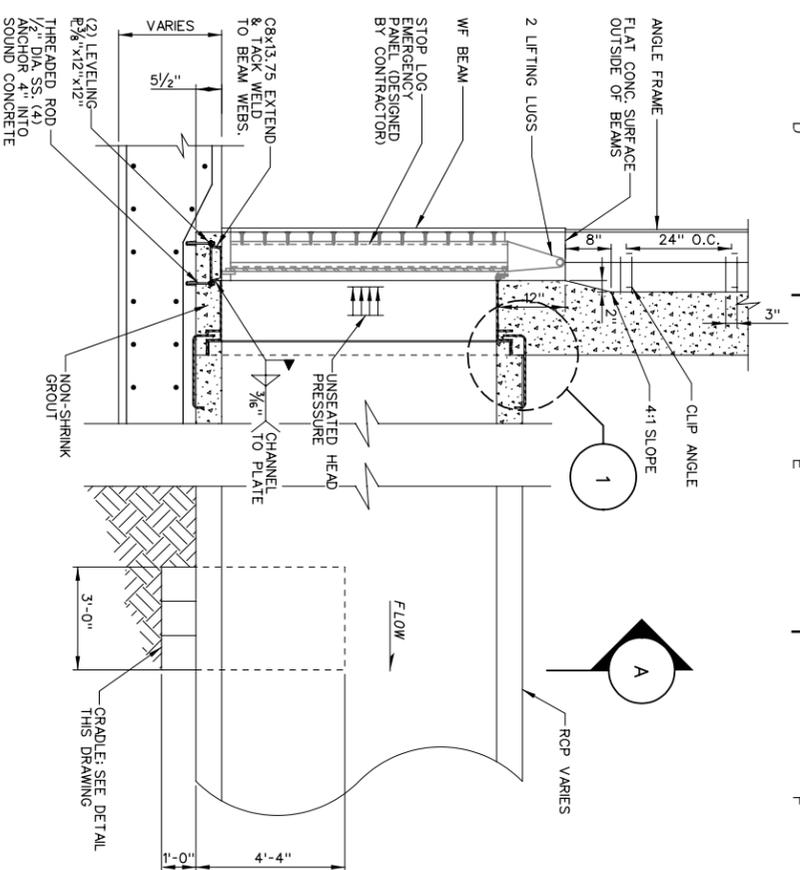
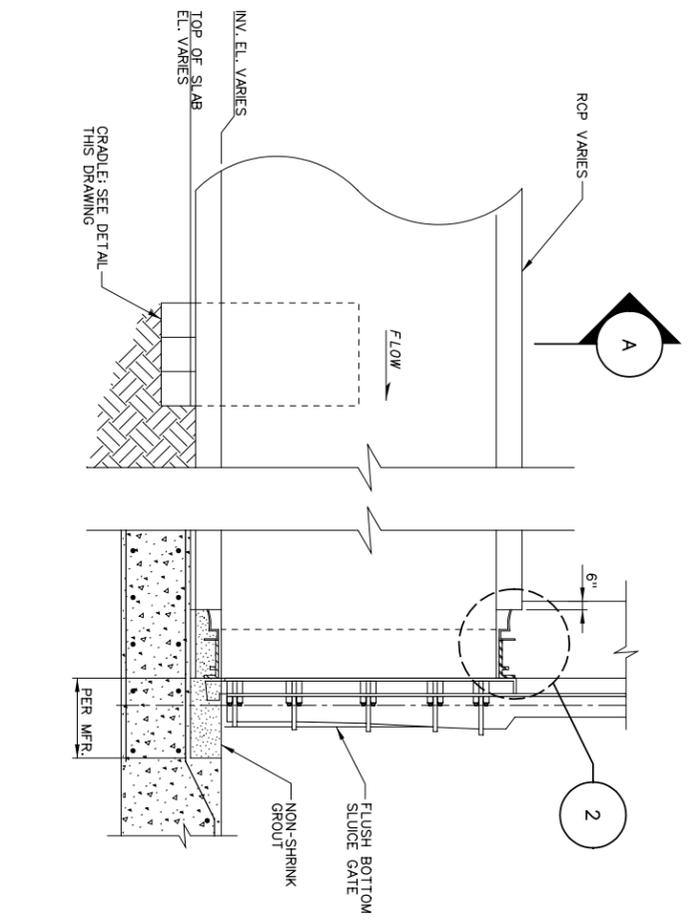
EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
STOPLOGS & WATERSTOPS
DETAILS

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ST. PAUL DISTRICT

DESIGNED: CHECKED:	SCALE: AS SHOWN	DATE: JUL 2003
DRAWN: DESIGNED:	CADD FILE NAME: 065GFMS5641620.DGN	
CHECKED:	SOL. NO: DACW37-03-B-0007	AE APPROVING OFFICIAL:

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- NOTES:
1. THIMBLE TO PIPE CONNECTIONS AS PER MANUFACTURER.
 2. AT GATEWELLS, PROVIDE 2'-4" LENGTHS OF RCP ON BOTH INLET AND OUTLET SIDE. SEE PROF-FILE FOR STORM SEWER FOR NUMBER OF 4' LENGTHS.
 3. STOP PANEL SEALS UNDER UNSEATING HEAD CONDITIONS. NORMAL FLOW REVERSES IN GATEWELLS/DISCHARGE CHAMBERS DURING FLOOD EVENTS.

REFERENCE

1. GENERAL NOTES

DWG. NO.

64/1597

1 6" 0 1 2
SCALE: 3/4" = 1'-0"

DRAWING NUMBER:
R-P-GF-
64/1622
SHT 67 OF 188

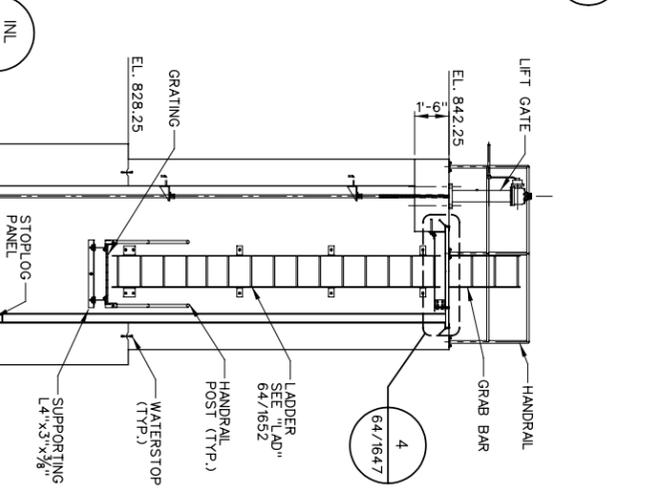
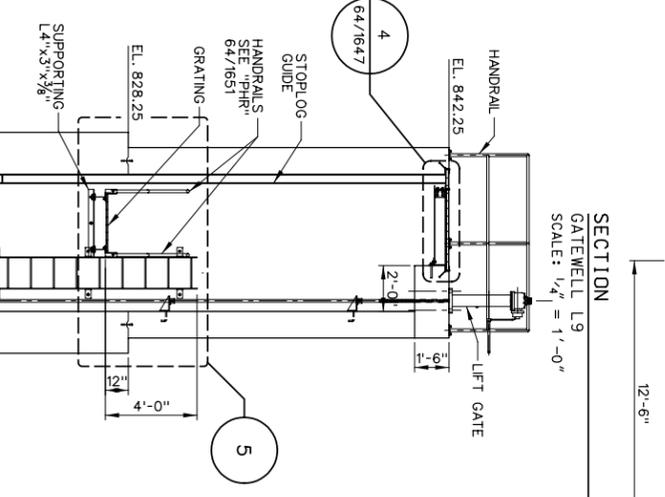
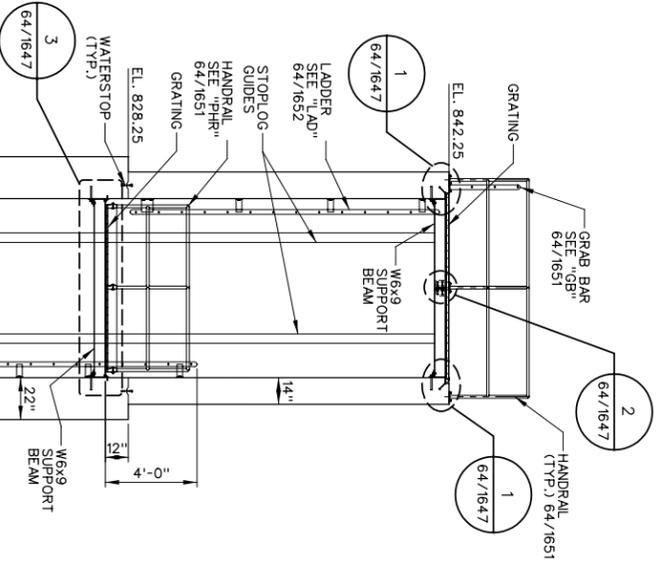
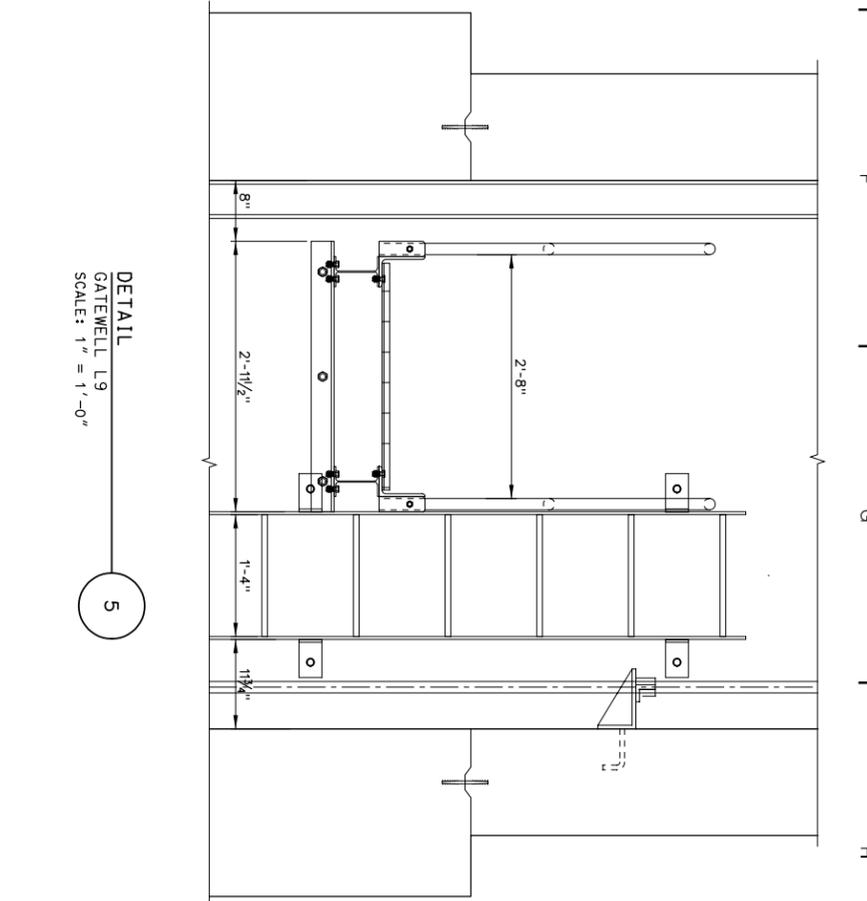
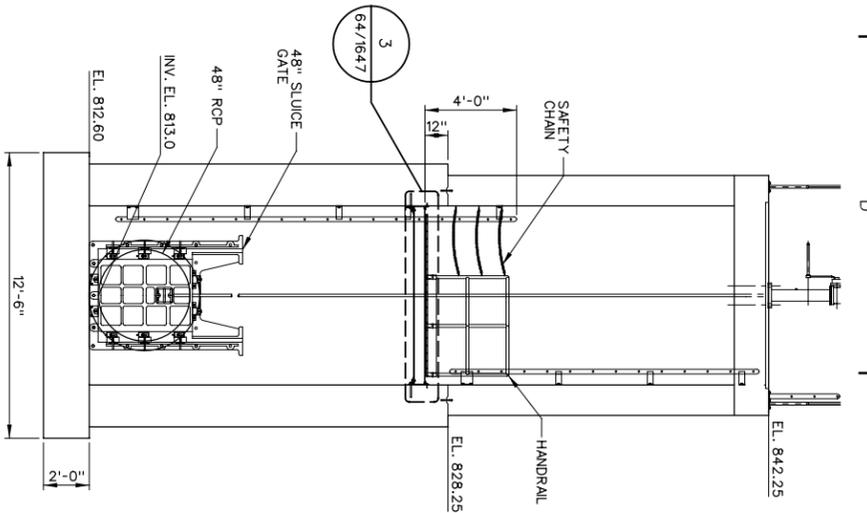
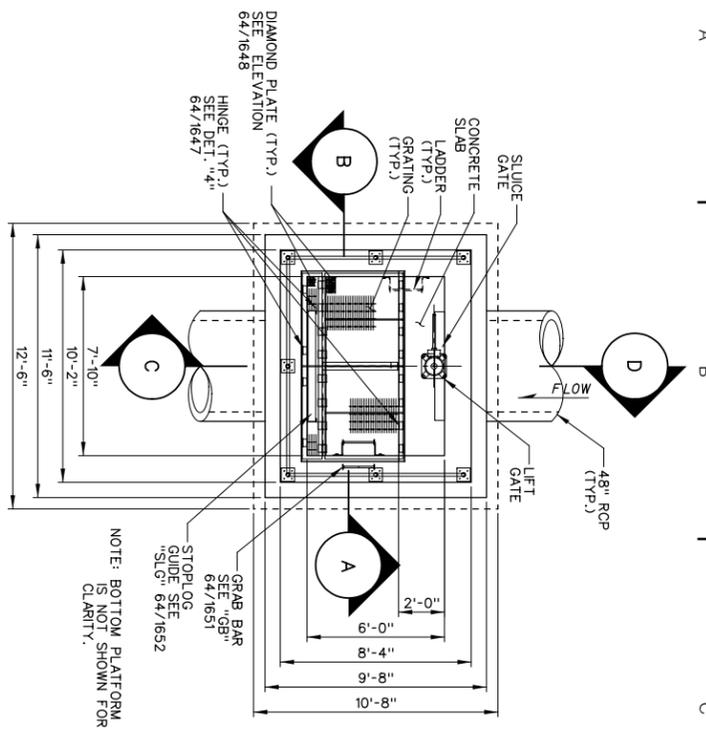
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DESIGNED:	AE APPROVING OFFICIAL:	
CHECKED:		

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
PIPE TO WALL CONNECTION
& BOLLARD
SECTION & DETAILS

Symbol	Description	Date	Appr.
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NOTE:
1. STOPLOG PANEL SEALS IN AN UNSEATING HEAD CONDITION.



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△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

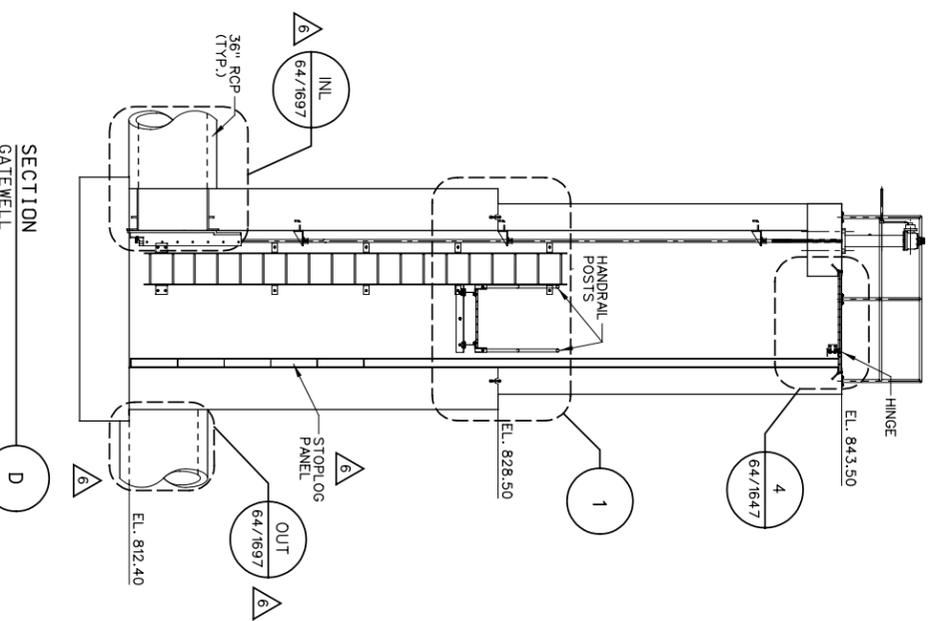
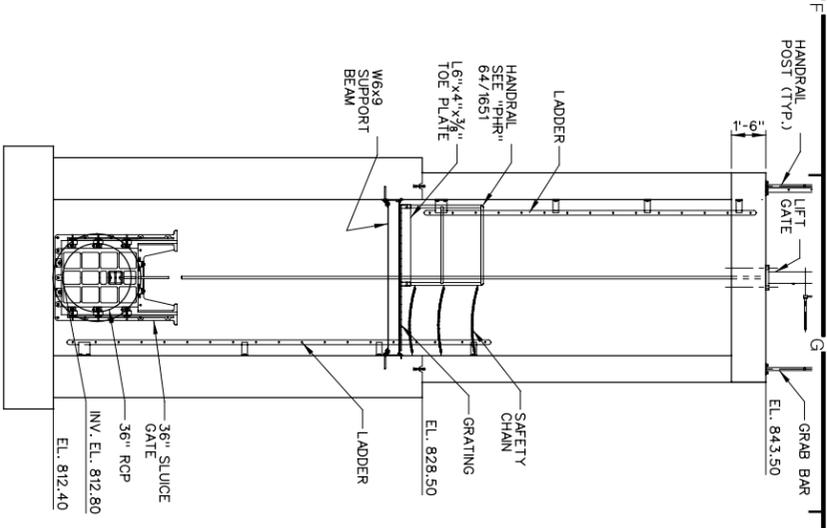
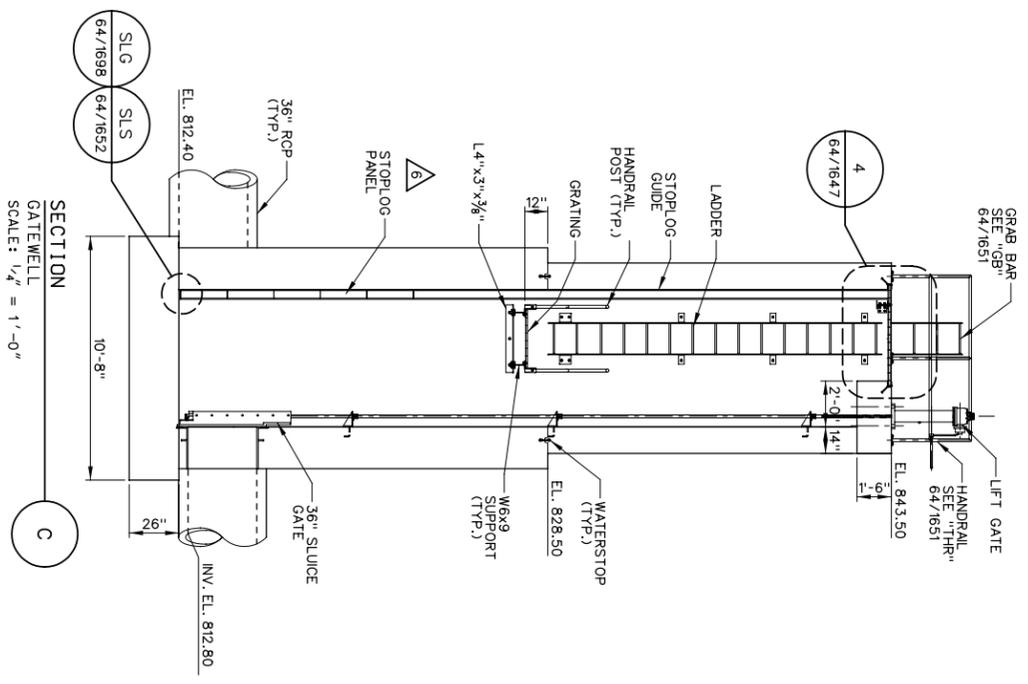
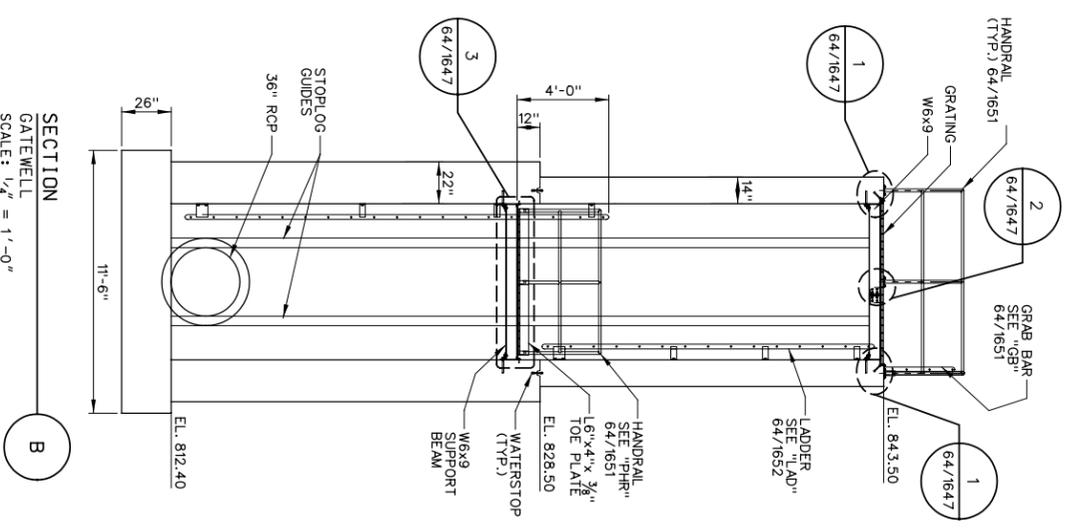
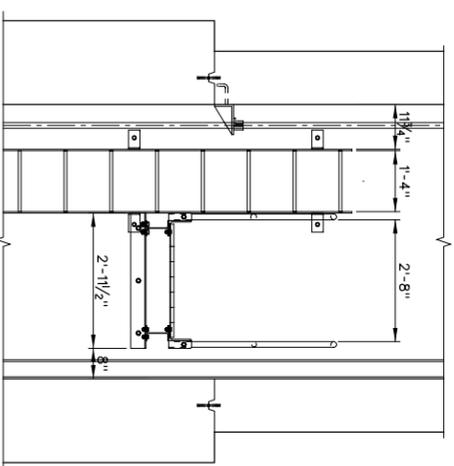
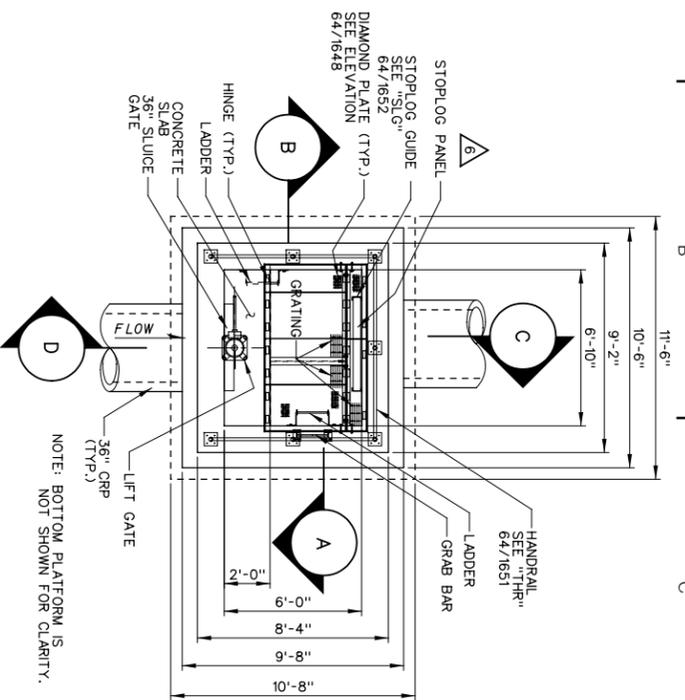
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DESIGNED: H-03	AE APPROVING OFFICIAL:	
CHECKED: H-03		

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
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ST. PAUL DISTRICT

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L9
PLAN AND SECTIONS

DRAWING NUMBER:
R-P-GF-
64/1645
SHT 89 OF 188





NOTE:
1. STOPLOG PANEL SEALS IN AN UNSEATING CONDITION.



EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L10
PLAN AND SECTIONS

DEPARTMENT OF THE ARMY
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ST. PAUL DISTRICT

DESIGNED: JLS	SCALE: AS SHOWN	DATE: JUL 2003
CHECKED: JLS	CADD FILE NAME: 093GFMS1641649.DGN	
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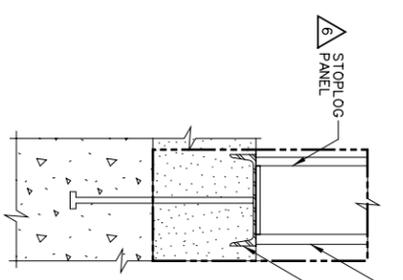
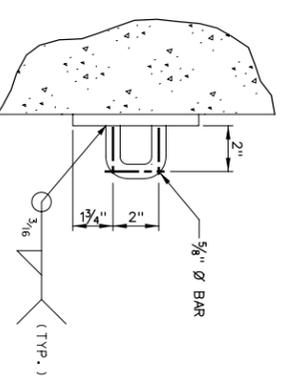
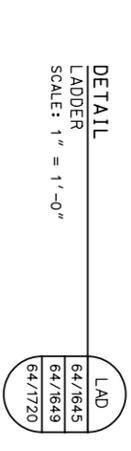
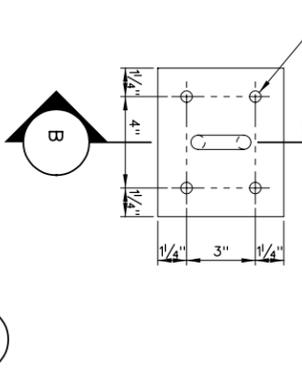
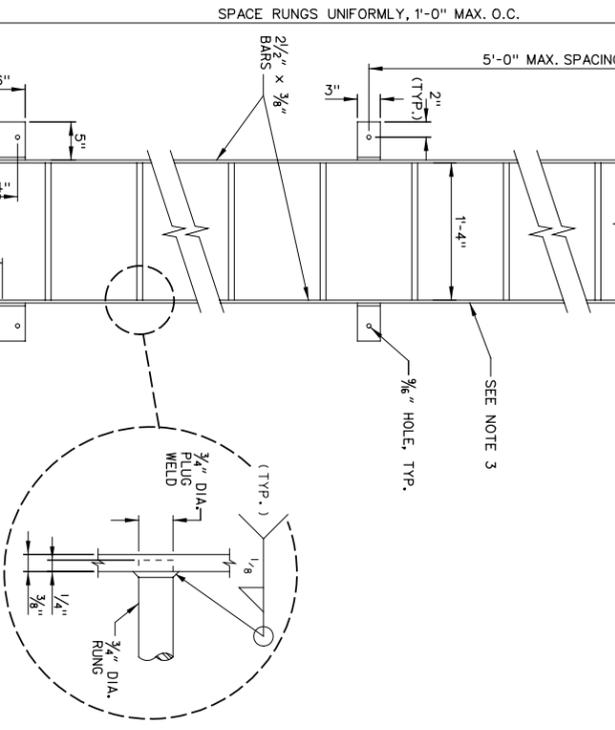
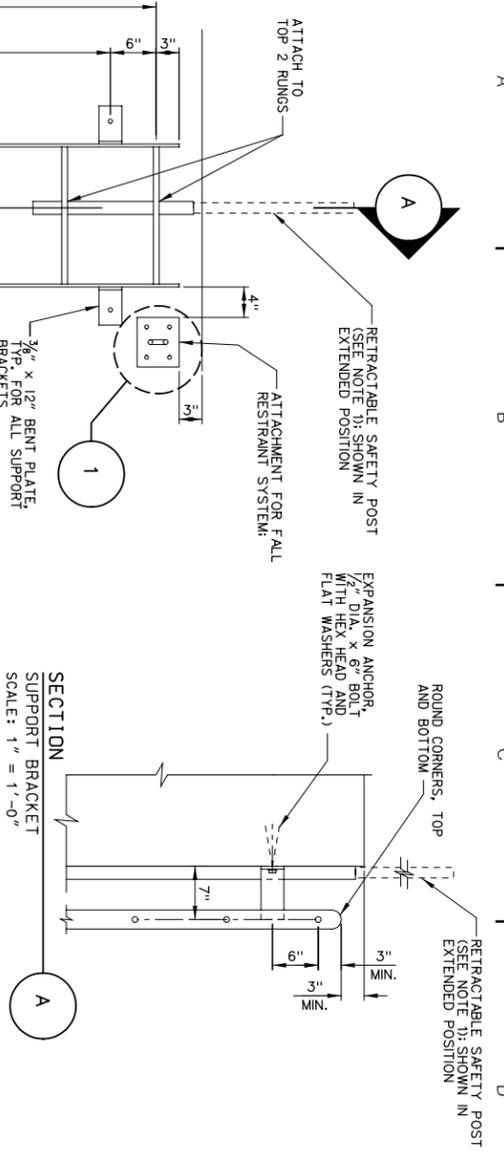
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R-P-GF-64/1649
SHT 93 OF 188

- NOTE:**
1. USE LADDER SAFETY POST FOR ALL LADDERS (AS NEEDED).
 2. INSTALL FALL RESTRAINT SYSTEM WHERE LADDER LENGTH > 20 FT.
 3. HOT DIP GALVANIZE ALL LADDER COMPONENTS AFTER FABRICATION.

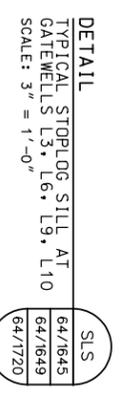
EAST GRAND FORKS STOPLOG PANELS AND STOPLOG GUIDES					
LOCATION	PIPE DIAMETER (INCHES)	NUMBER OF BARRELS	NOMINAL PANEL DIMENSION (INCHES)	INVERT ELEVATION (FT)	GATEWELL TOP OF CONCRETE (FT)
K-7*	54	2	54	804.7	840.3
K-10*	72	2	72	804.2	840.6
K-12*	66	2	66	806.0	839.8
L-1*	42	1	42	810.5	841.0
L-2*	60	1	66	807.6	843.0
L-3	72	1	72	808.85	841.2
L-6*	72	1	72	807.45	842.5
L-8*	96	2	96	799.5	842.1
L-9	36	1	42	813.0	842.25
L-10	48	1	48	812.40	843.5

* PUMP STATION

EAST GRAND FORKS, PHASE III STOPLOG PANEL SCHEDULE			
SIZE (SQUARE INCHES)	QUANTITY		
42	2		
48	1		
54	2		
66	3		
72	4		
96	2		



- NOTES:**
1. CENTER STOPLOG SILL ON CENTER OF STOPLOG GROOVE.
 2. COAT ALL SURFACES OF STOPLOG SILL IN CONTACT WITH CONCRETE WITH SPECIFIED BONDING AGENT.
 3. SEAL PAD TO EXTEND FULL HEIGHT OF STOPLOG GROOVE. ATTACH TO STOPLOG GROOVE W/ NO. 10 SS SCREWS AT 12" SPACINGS AND APPROVED ADHESIVE.



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△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

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DRAWN: GDE/NK	SOL. NO: DACW37-03-B-0007	
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CORPS OF ENGINEERS
ST. PAUL DISTRICT

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L3, L9, L10
DETAILS SHEET 2

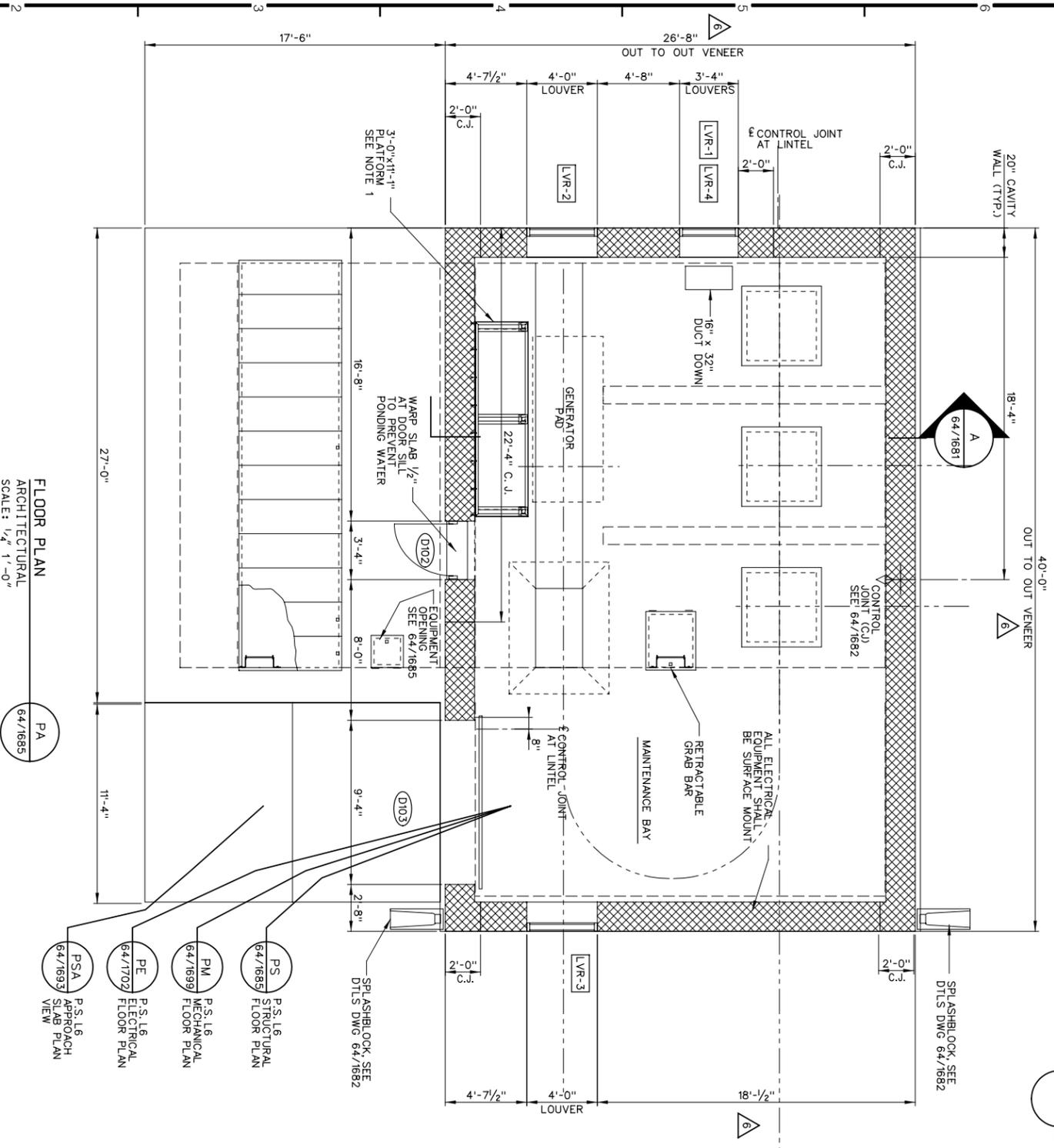
DRAWING NUMBER:
R-P-GF-
64/1652
SHT 96 OF 188

DOOR		FRAME		FIRE RATING		DETAILS			HWEE SPEC		REMARKS	
DOOR NUMBER	TYPE	WIDTH	HEIGHT	MATL	QTY	ELEVATION	MATL	HEAD	JAMB	SILL		
D102	A	3'-0"	7'-0"	STEEL	1	1	STEEL	NONE	1	5	9	1,2,3
D103	B	9'-4"	11'-4"	STEEL	1	-	STEEL	NONE	4	8	11	1,4

DOOR SCHEDULE NOTES:
 1. SEE DRAWING 64/1684 FOR HEAD, JAMB AND SILL DETAILS.
 2. HOLLOW METAL DOOR WITH SPRAY FOAM INSULATION.
 3. DOOR HOT DIPPED GALVANIZED INSIDE AND OUT. USE HEAVIEST GAUGE METAL.
 4. OVERHEAD DOOR CURTAIN SHALL BE SPRAY FOAM INSULATED.

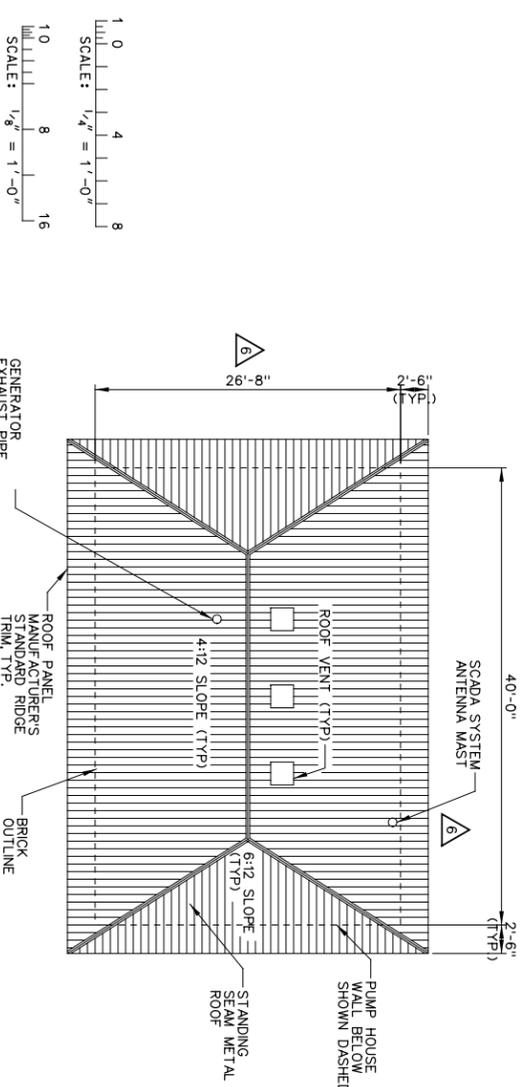
LOUVER		FRAME		FIRE RATING		DETAILS			HWEE SPEC		REMARKS
LOUVER NUMBER	TYPE	WIDTH	HEIGHT	MATL	QTY	ELEVATION	MATL	HEAD	JAMB	SILL	
LVR-1	3'-4"	3'-4"	4"	STEEL FIXED	2	6	1	16 GAUGE - SEE DWG 64/1701			
LVR-2	4'-0"	6'-6"	4"	STEEL FIXED	2	6	10	16 GAUGE - SEE DWG 64/1701			
LVR-3	4'-0"	6'-6"	4"	STEEL FIXED	2	6	10	16 GAUGE - SEE DWG 64/1701			
LVR-4	3'-4"	4'-0"	4"	STEEL FIXED	2	6	10	16 GAUGE - SEE DWG 64/1701			

NOTE:
 1. SEE DRAWING 64/1684 FOR HEAD, JAMB AND SILL DETAILS.
 2. LOUVER SIZE 48"x78" ROUGH OPENING REQUIREMENTS TO BE DETERMINED BY LOUVER MANUFACTURER.



FLOOR PLAN
 ARCHITECTURAL
 SCALE: 1/4" = 1'-0"

PSA APPROACH SLAB PLAN
 64/1693
 PE P.S. L6 ELECTRICAL FLOOR PLAN
 64/1702
 PM P.S. L6 MECHANICAL FLOOR PLAN
 64/1699
 PS P.S. L6 STRUCTURAL FLOOR PLAN
 64/1685

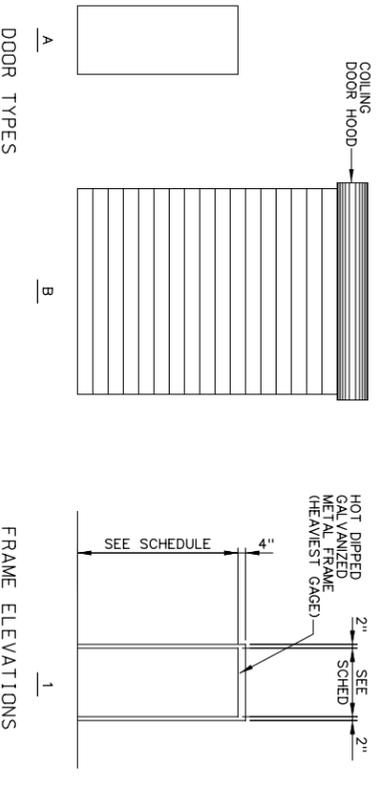


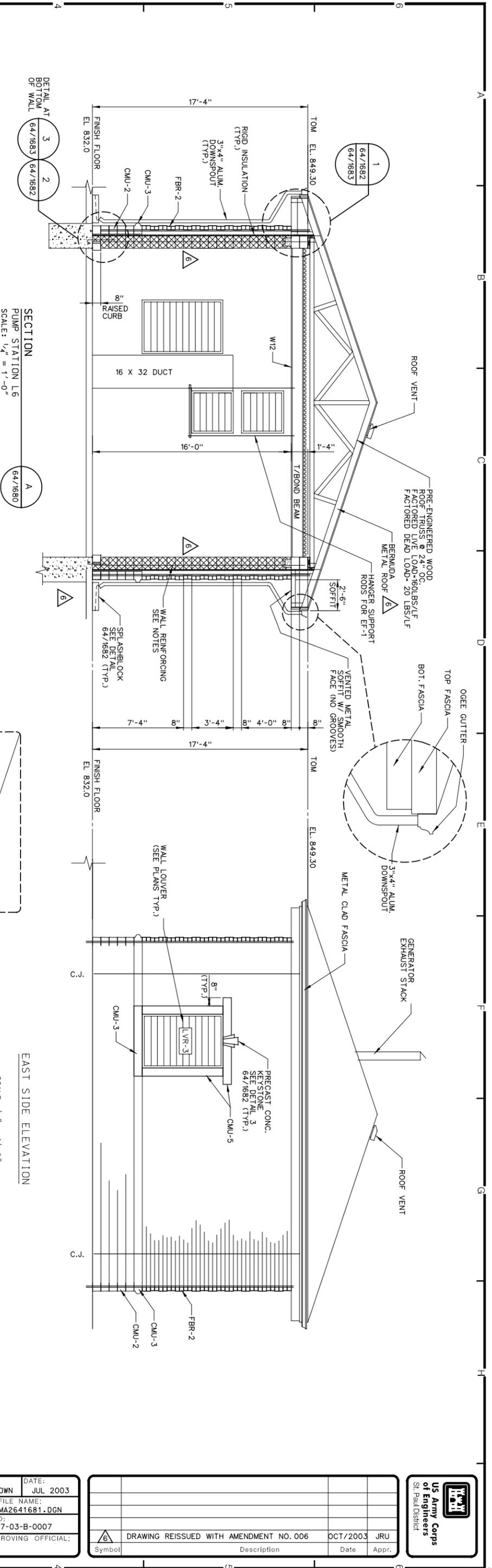
ROOF PLAN
 SCALE: 1/8" = 1'-0"

NOTE: 50 PSF DESIGN SNOW LOAD.

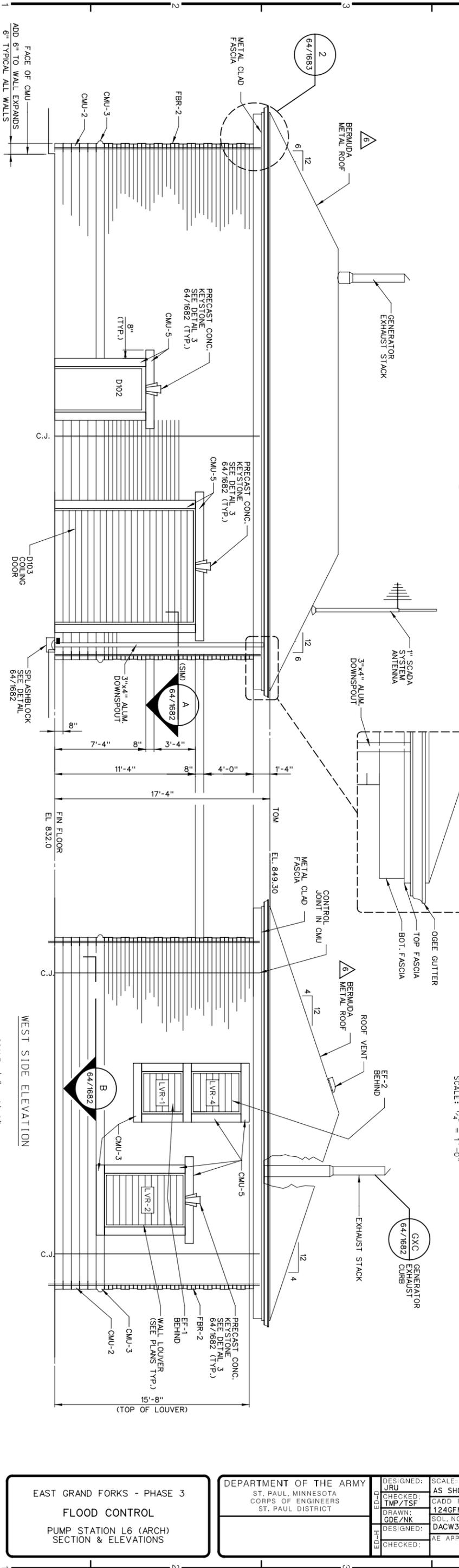
- MASONRY WALL REINFORCING NOTES:**
- MATERIAL: DEFORMED BARS CONFORMING TO SPECIFICATIONS. BAR SIZE: #6 BARS FOR 12" CMU UNLESS NOTED OTHERWISE.
 - VERTICAL REINFORCING SPACING:
 - ONE #6 BAR IN CELL IMMEDIATELY ON EACH SIDE OF CONTROL AND EXPANSION JOINTS.
 - ONE VERTICAL #6 BAR IN FOUR ADJACENT CELLS LOCATED IMMEDIATELY ON EACH SIDE OF OPENINGS. PROVIDE #3 HORIZ. TIE AT 12" OC AROUND ALL FOUR GROUDED CELLS. EXTEND REINFORCING FULL HEIGHT WHERE POSSIBLE. OTHERWISE, EXTEND MIN 2 BARS FULL HEIGHT. SEE DETAIL D, 64/653.
 - ONE #8 BAR AT ALL CORNER CELLS
 - #6 BAR AT ALL OTHER LOCATIONS SHOWN ON DRAWINGS.
 - LAP REINFORCING BARS AS FOLLOWS:
 - #8 BARS: 4'-6"

- BUILDING STABILITY:**
- THE BUILDING STEEL STRUCTURE IS NOT A SELF-SUPPORTING FRAME. THE FOLLOWING COMPONENTS OF THE BUILDING STRUCTURE FORM A PART OF THE BUILDING LATERAL STABILITY SYSTEM. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED FOR LATERAL STABILITY UNTIL THESE COMPONENTS ARE COMPLETELY INSTALLED AND CONCRETE (WHERE APPLICABLE) HAS ACHIEVED DESIGN STRENGTH:
 - CONCRETE SLABS WHICH FUNCTION AS HORIZONTAL DIAPHRAGMS.
 - ROOF DECKS WHICH FUNCTION AS HORIZONTAL DIAPHRAGMS.
 - CONCRETE MASONRY WHICH FUNCTIONS AS SHEAR WALLS.
 - BUILDING CMU WALLS ARE NOT SELF-SUPPORTING WALLS. THE FOLLOWING COMPONENTS OF THE BUILDING STRUCTURE FORM A PART OF THE BUILDING LATERAL STABILITY SYSTEM. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED FOR LATERAL STABILITY UNTIL THESE COMPONENTS ARE COMPLETELY INSTALLED:
 - BUILDING LATERAL STABILITY SYSTEM.
 - PERPENDICULAR CMU WALLS.

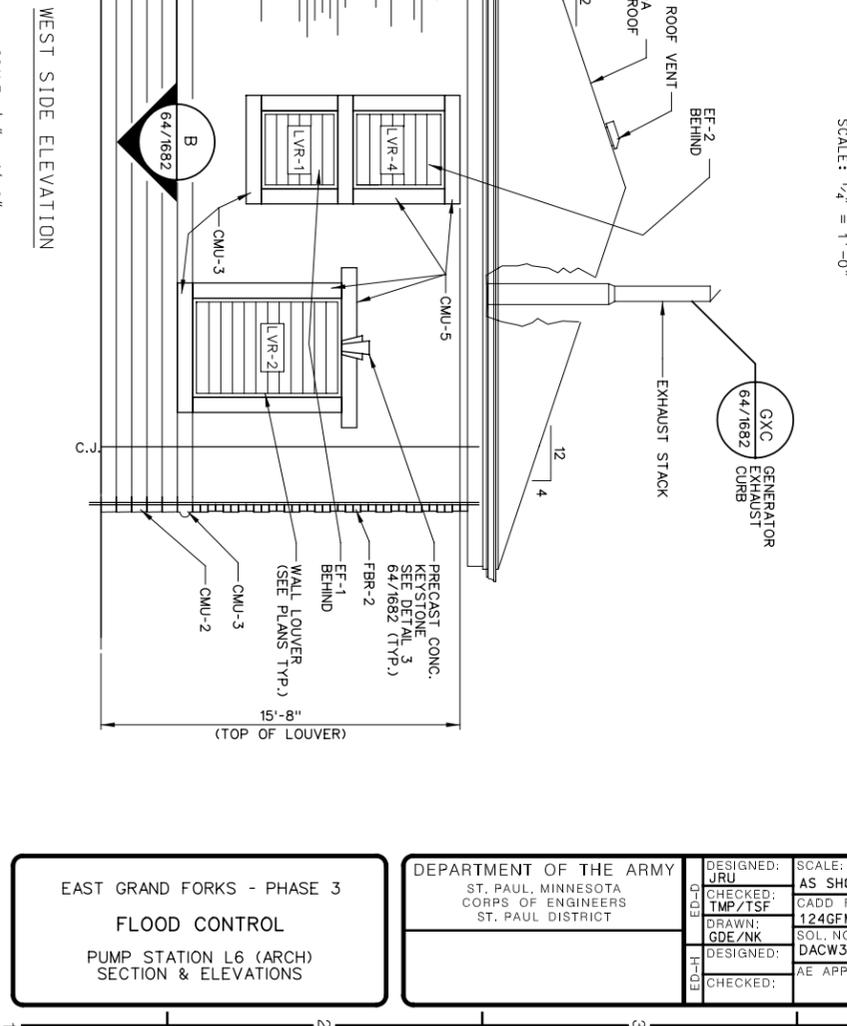




SECTION
PUMP STATION L6
SCALE: 1/4" = 1'-0"

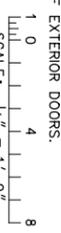


FRONT ELEVATION
SCALE: 1/4" = 1'-0"



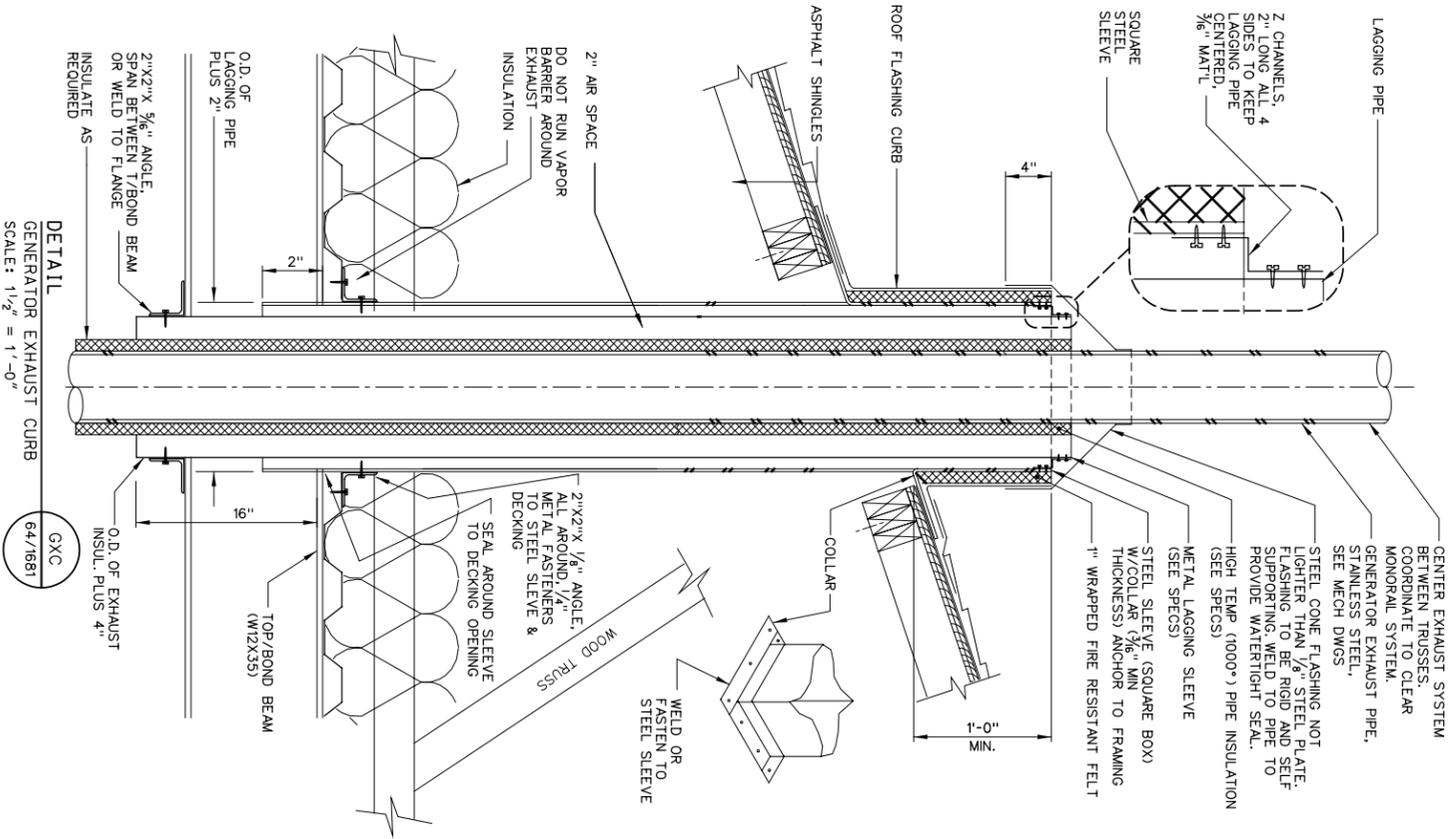
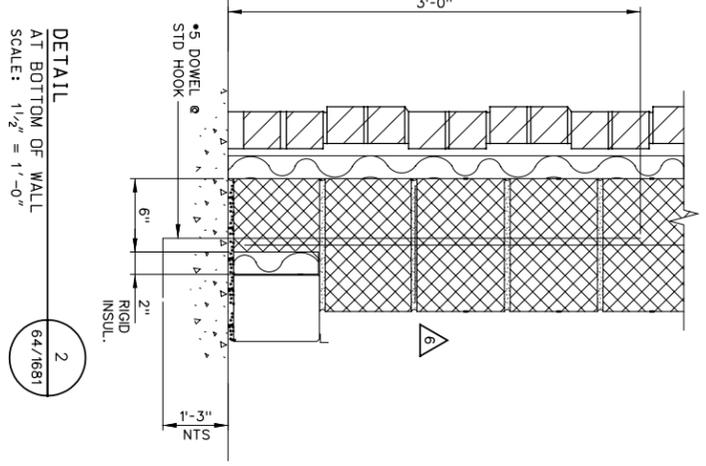
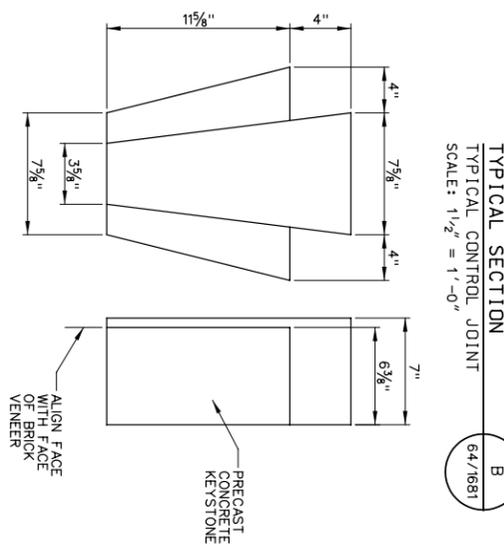
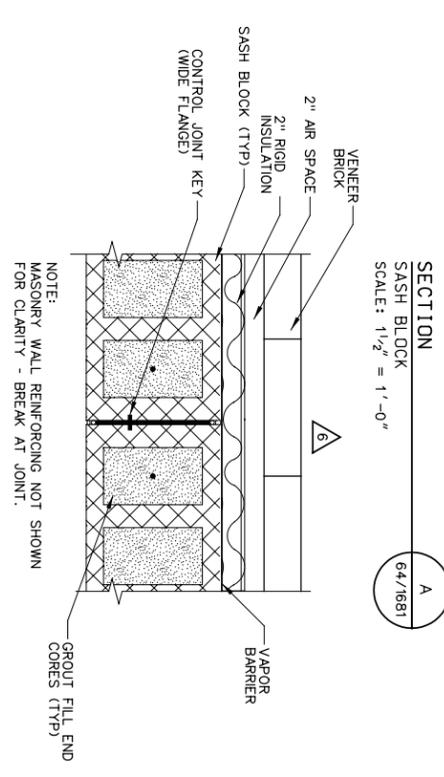
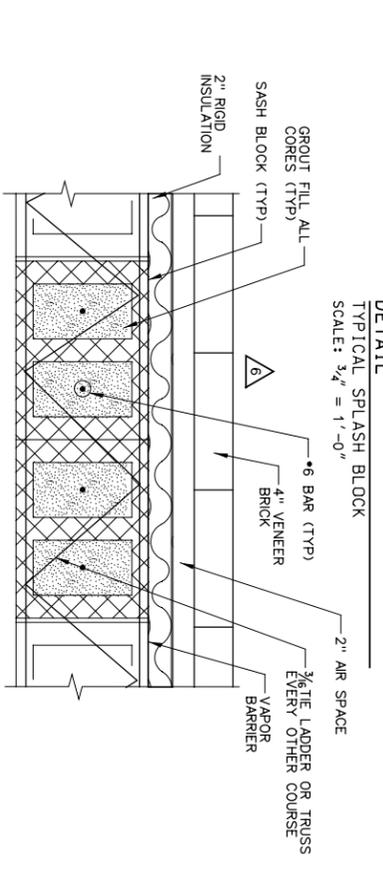
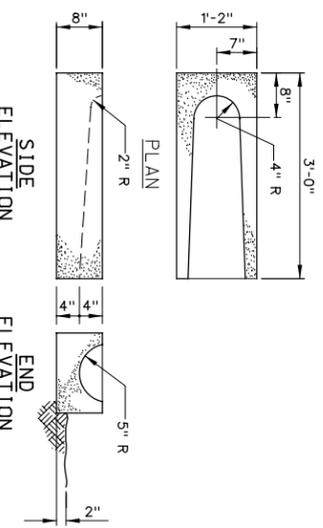
WEST SIDE ELEVATION
SCALE: 1/4" = 1'-0"

NOTES:
1. ALL WALL LOUVERS TO MATCH COLOR OF EXTERIOR DOORS.



EAST GRAND FORKS - PHASE 3 FLOOD CONTROL PUMP STATION L6 (ARCH) SECTION & ELEVATIONS	DEPARTMENT OF THE ARMY ST. PAUL, MINNESOTA CORPS OF ENGINEERS ST. PAUL DISTRICT	DESIGNED: JRU	SCALE: AS SHOWN	DATE: JUL 2003	
		CHECKED: TMP/TSF	CADD FILE NAME: 124GFMA2641681.DGN	SOL. NO. NO.:	
		DRAWN: GDE/NK	DESIGNED: DACW37-03-B-0007		
		CHECKED:	AE APPROVING OFFICIAL:		

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6	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT/2003	JRU



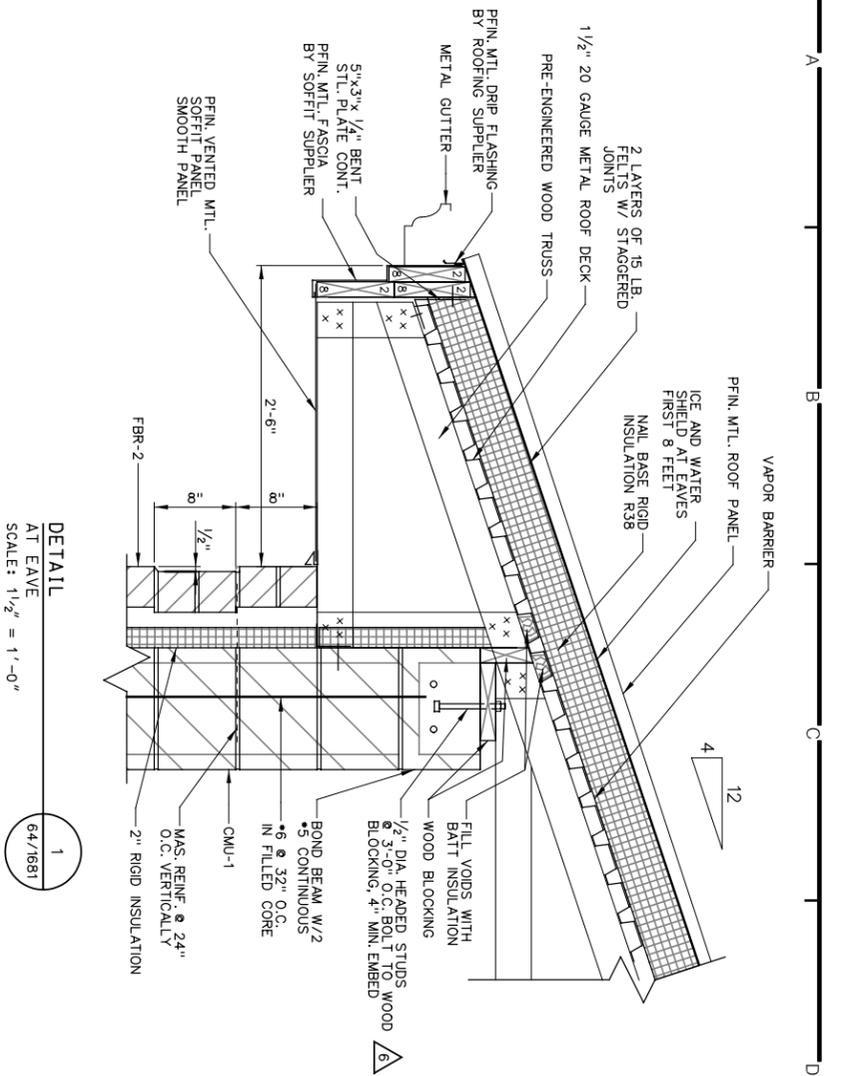
- NOTES:**
1. INSTALL 2X4 (TREATED) FURRING STRIPS ON BLOCK WITH RIGID INSULATION.
 2. VAPOR BARRIER AND GYP. BOARD. VAPOR BARRIER MAY BE ELIMINATED ABOVE STEEL DECK IF SEAMS, OPENINGS AND PERIMETER OF DECK ARE SEALED.
 3. ALL ELECTRICAL CONDUIT, SWITCHES, AND RECEPTACLES ARE SURFACE MOUNTED.



U.S. Army Corps of Engineers St. Paul District	DRAWING NUMBER: R-P-GF-64/1682	SHEET NUMBER: 125 OF 188		
	EAST GRAND FORKS - PHASE 3 FLOOD CONTROL PUMP STATION L6 (ARCH) DETAILS (1)			
DEPARTMENT OF THE ARMY ST. PAUL, MINNESOTA CORPS OF ENGINEERS ST. PAUL DISTRICT	DESIGNED: JRL CHECKED: TSF DRAWN: GDE/NK DESIGNED: H-ED CHECKED:	SCALE: AS SHOWN CADD FILE NAME: 125GFMA5641682.DGN SOL. NO: DACW37-03-B-0007 AE APPROVING OFFICIAL:	DATE: JUL 2003 DRAWING REISSUED WITH AMENDMENT NO. 006 OCT 2003	JRU

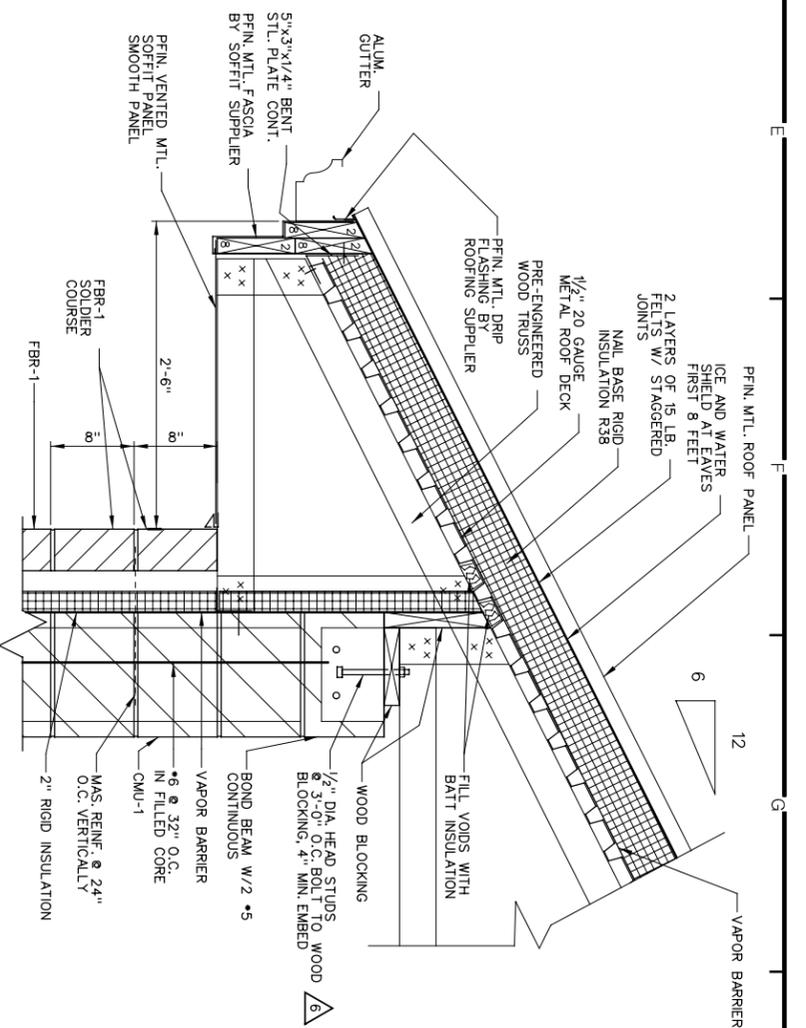
A B C D E F G H

1 2 3 4 5 6



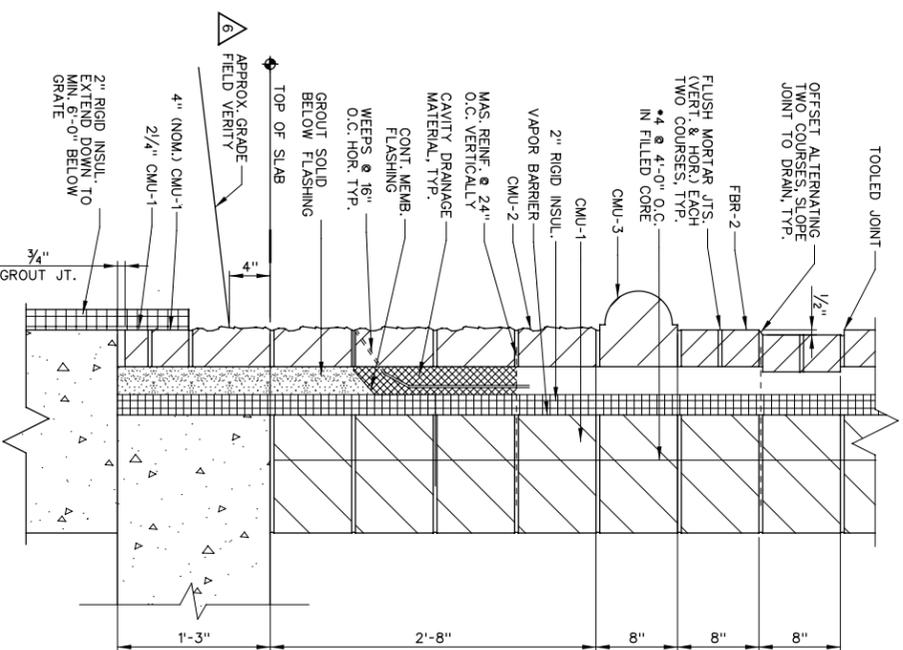
DETAIL
AT EAVE
SCALE: 1 1/2" = 1'-0"

64/1681



DETAIL
ROOF OVERHANG
SCALE: 1 1/2" = 1'-0"

64/1681



DETAIL
WALL BASE
SCALE: 1 1/2" = 1'-0"

64/1681

NOTES:

1. ALL ELECTRICAL CONDUIT, SWITCHES, AND RECEPTACLES ARE SURFACE MOUNTED.



DRAWING NUMBER:
R-P-GF-
64/1683
SHT 126 OF 188

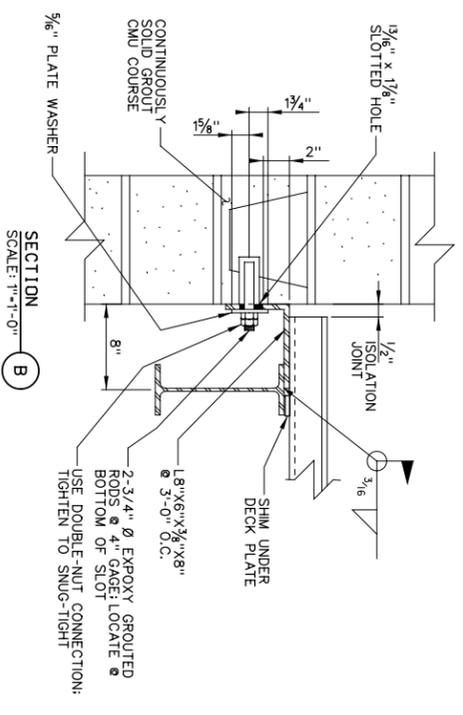
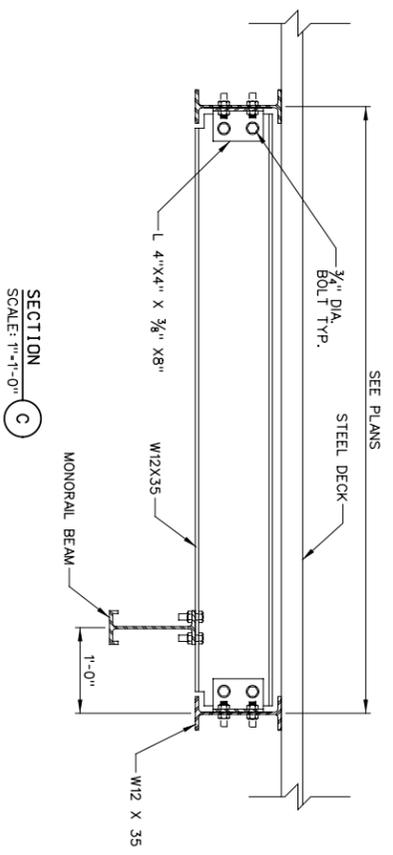
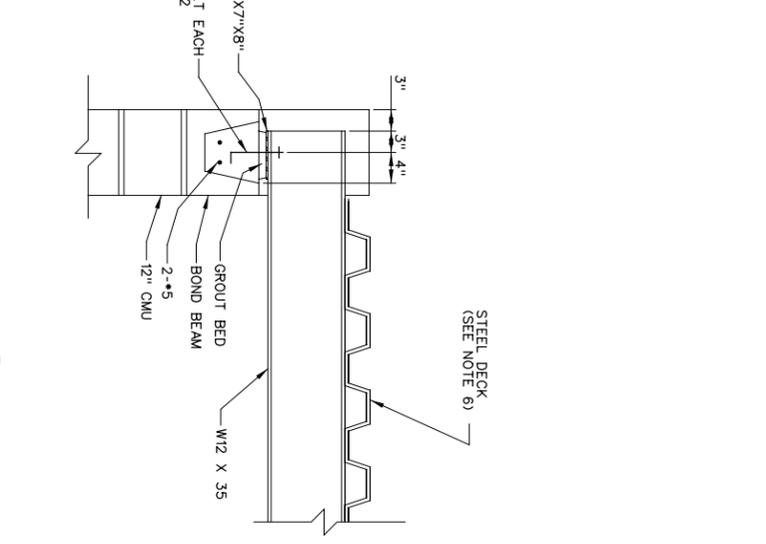
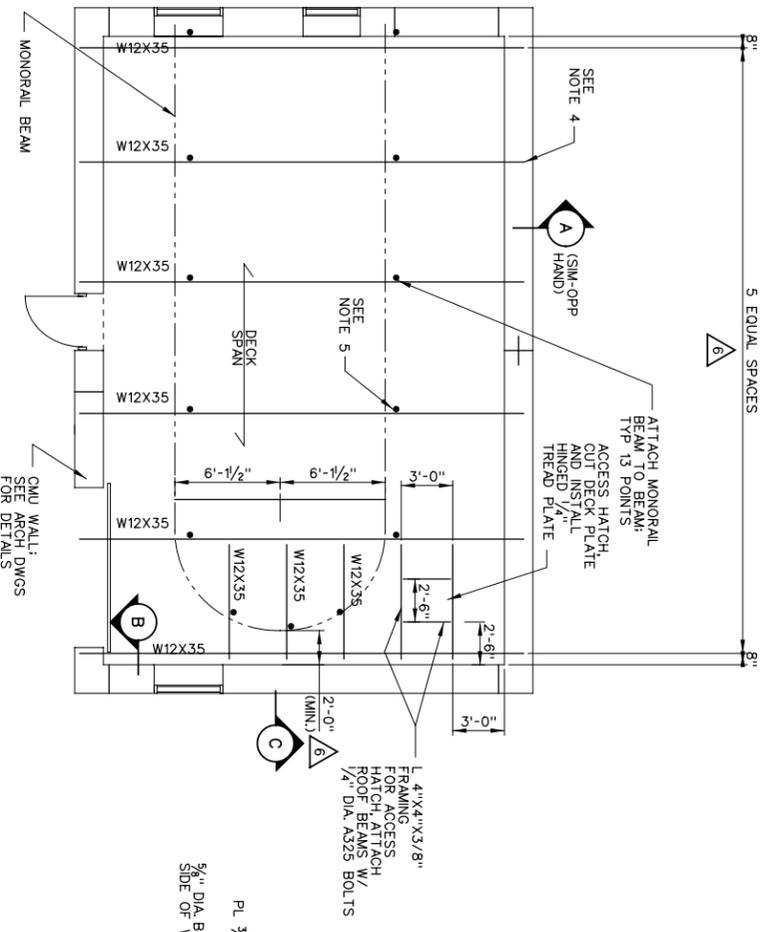
EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
PUMP STATION L6 (ARCH)
DETAILS (2)

DESIGNED: JRU
CHECKED: TSF
DRAWN: GDE/NK
DESIGNED: H-DB
CHECKED:

SCALE: AS SHOWN
DATE: JUL 2003
CADD FILE NAME: 126GFMA5641683.DGN
SOL. NO.: DACW37-03-B-0007
AE APPROVING OFFICIAL:

Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

US Army Corps of Engineers
St. Paul District



NOTES:

1. ROOF CURBS NOT SHOWN FOR CLARITY.
2. FOR TOP OF STEEL (TOS) ELEVATION SEE BUILDING SECTIONS AND DETAILS.
3. SEE DWG 64/1694 FOR MONORAIL/HOIST DETAILS.
4. USE 50 KSI STEEL FOR ROOF BEAMS.
5. MONORAIL HOIST MUST ALIGN WITH PUMP HATCHES FOR SERVICE ACCESS.
6. METAL DECKING IS USED TO PROVIDE BRACING TO TOP FLANGE OF ROOF BEAM. PLUS WELD EVERY 36" PER SD/PUB NO. 29.

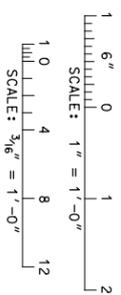
PLAN
ROOF FRAMING
SCALE: 3/16" = 1'-0"



SECTION A
SCALE: 1" = 1'-0"

SECTION C
SCALE: 1" = 1'-0"

SECTION B
SCALE: 1" = 1'-0"



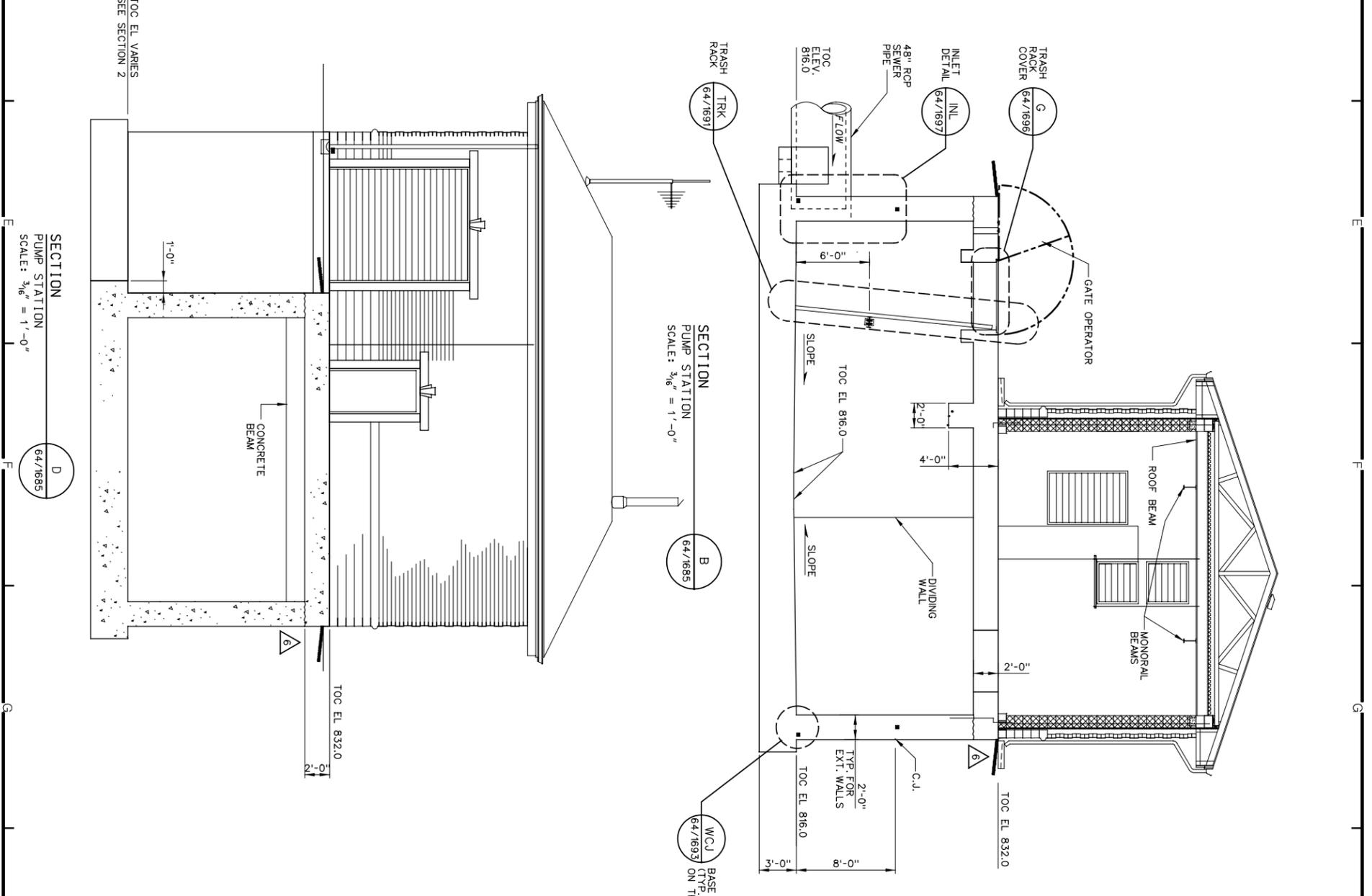
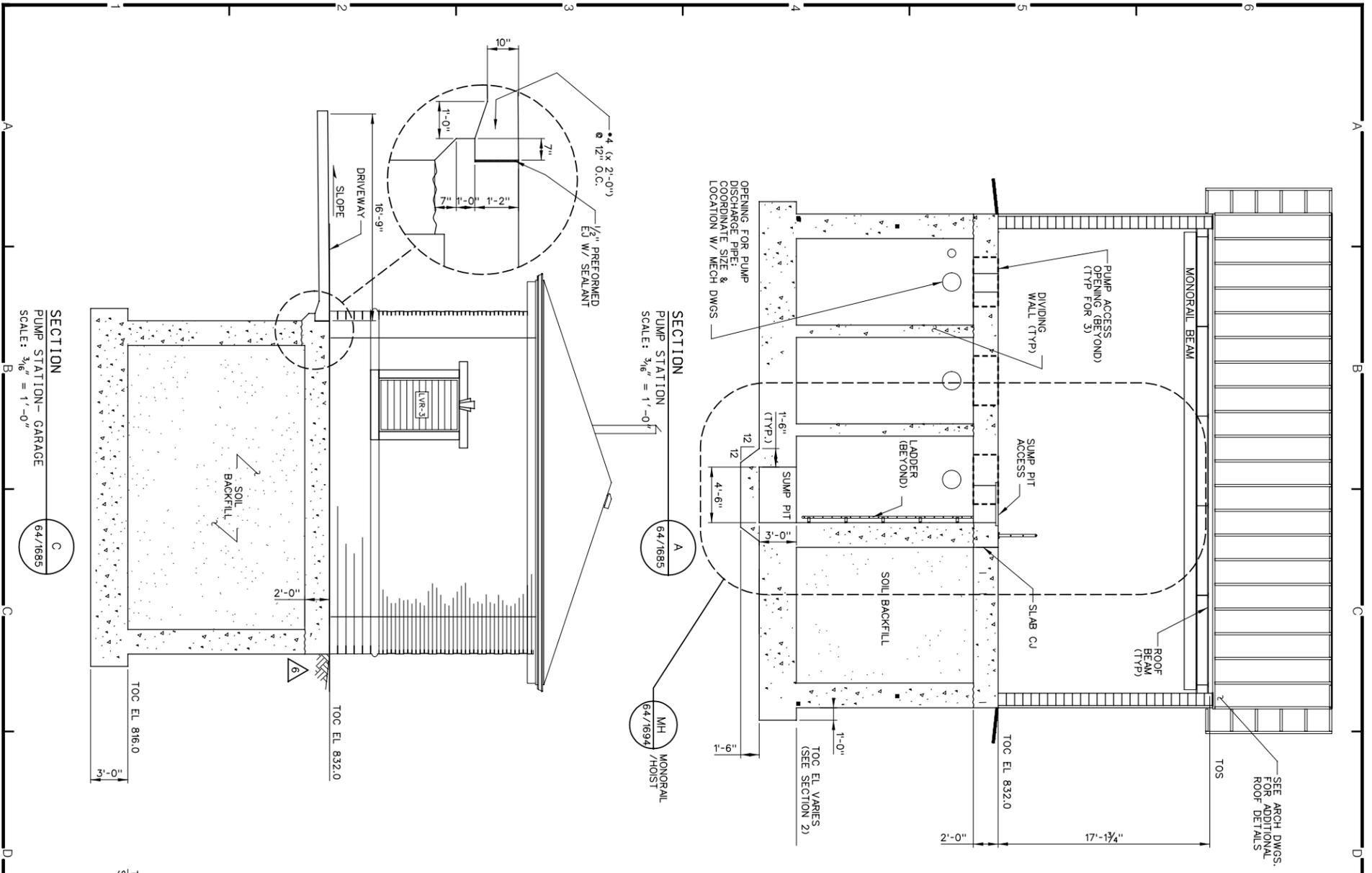
Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT/2003	JRU

DESIGNED: JRU	SCALE: AS SHOWN	DATE: JUL 2003
CHECKED: TMP/TSF	CADD FILE NAME: 129CFMS1641686.DGN	
DRAWN: GDE/NK	SOL. NO: DACW37-03-B-0007	
DESIGNED: H-Q3	AE APPROVING OFFICIAL:	
CHECKED: H-Q3		

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
PUMP STATION L6 (STRUC)
PLAN, ROOF & FRAMING

DRAWING NUMBER:
R-P-GF-
64/1686
SHT 129 OF 188

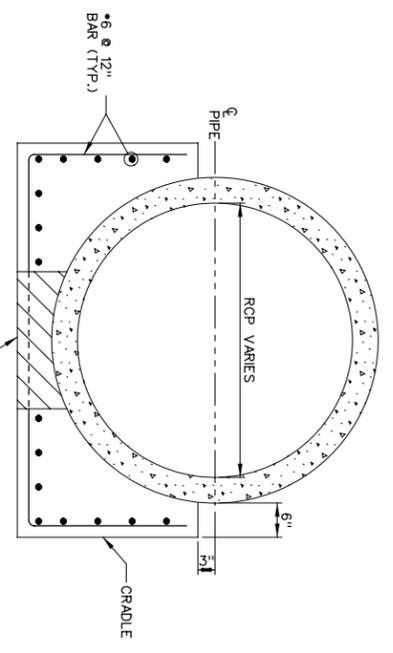
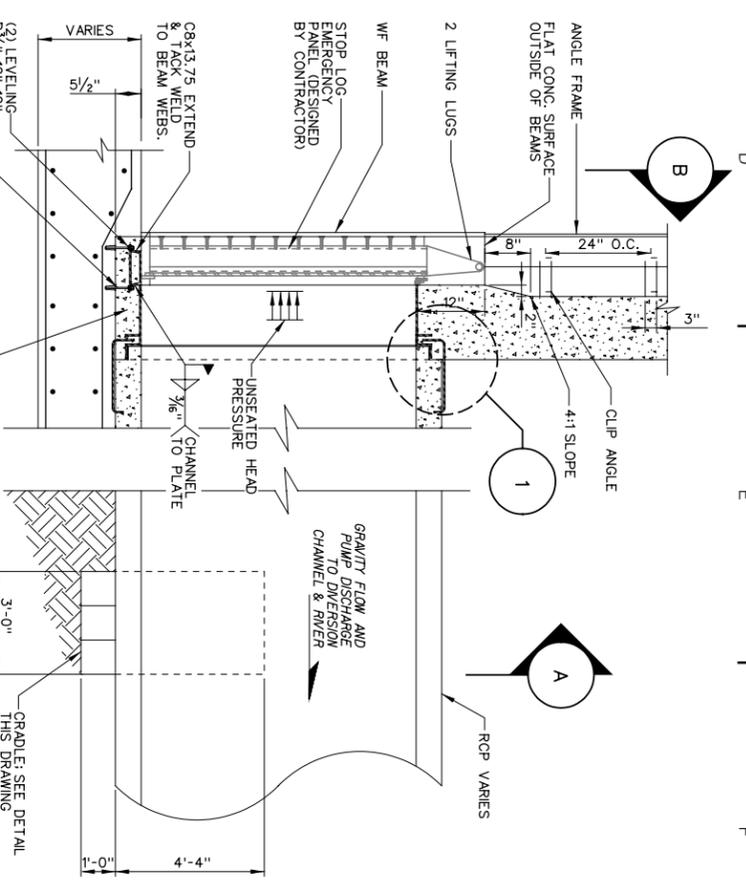
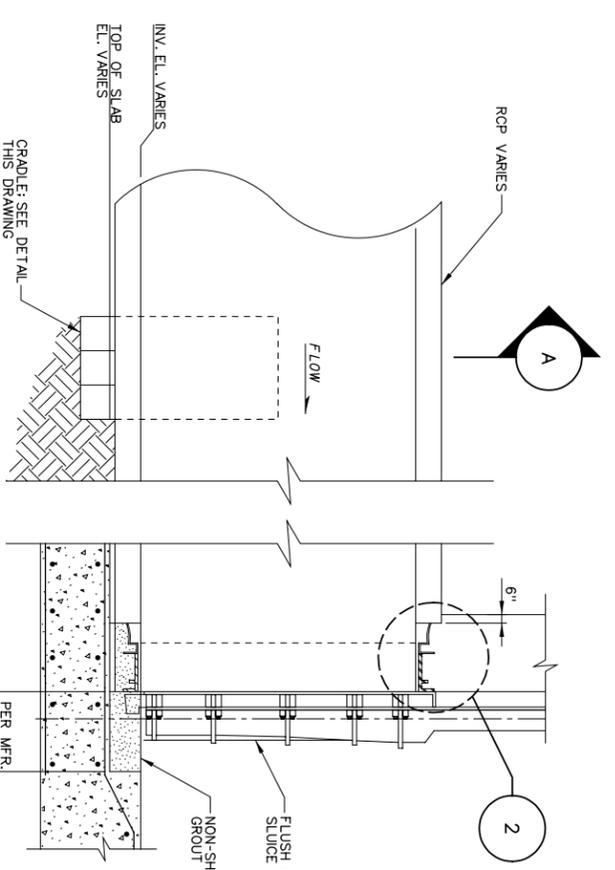


EAST GRAND FORKS - PHASE 3 FLOOD CONTROL PUMP STATION L6 (STRUC.) SECTIONS	DEPARTMENT OF THE ARMY ST. PAUL, MINNESOTA CORPS OF ENGINEERS ST. PAUL DISTRICT	DESIGNED: JRU CHECKED: PWS/TSF DRAWN: GDE/NK	SCALE: AS SHOWN CADD FILE NAME: 130CFMS3641687.DGN	DATE: JUL 2003 SOL. NO.: DACW37-03-B-0007
		DESIGNED: JRU CHECKED:	AE APPROVING OFFICIAL:	W.C.J. (64/1693) BASE C.I. W/ WATERSTOP (TYP. WHERE SHOWN ON THIS DWG.)

Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT/2003	JRU

DRAWING NUMBER: R-P-GF-64/1687
 SHEET 130 OF 188

US Army Corps of Engineers
 St. Paul District



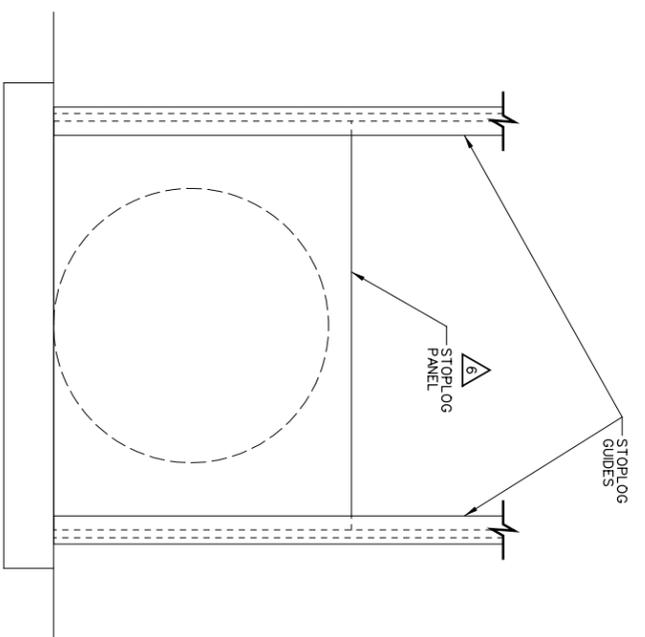
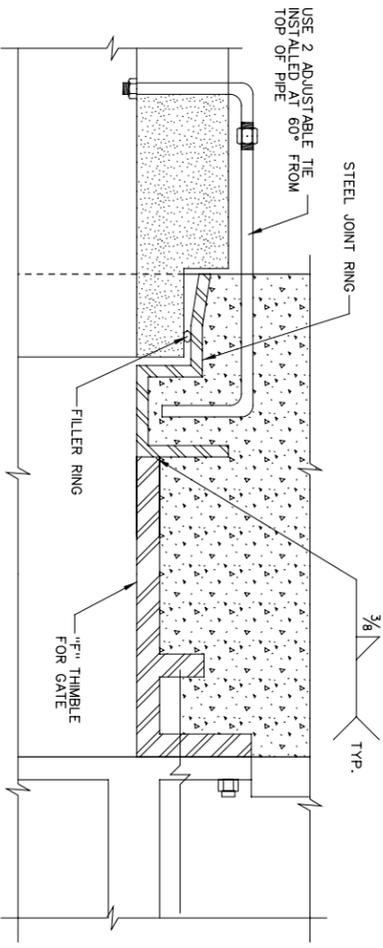
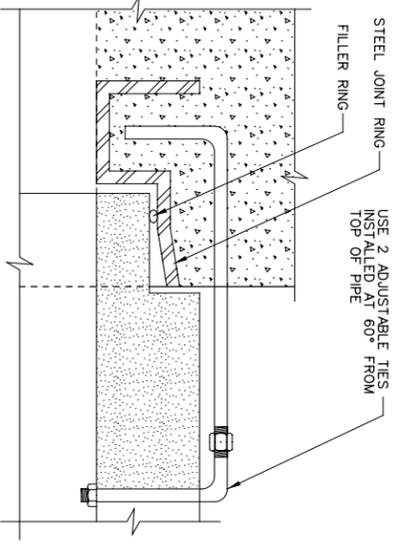
DETAIL 6
INLET
SCALE: NONE

NL
64/1645
64/1649
64/1714
64/1720

DETAIL 6
INLET
SCALE: NONE

OUT
64/1645
64/1649
64/1714
64/1720

NOTE: STOPLOG PANEL SEALS IN AN UNSEATING HEAD CONDITION.



NOTE: STOPLOGS SEAL UNDER UNSEATING HEAD.



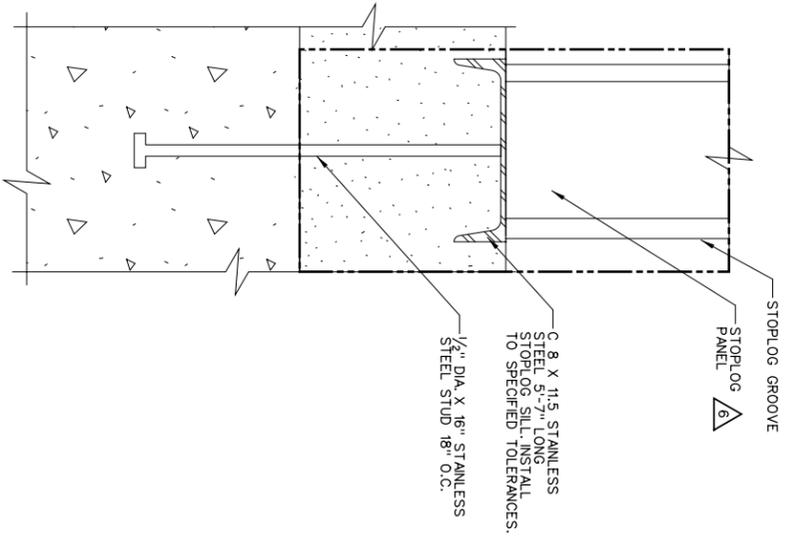
Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

DESIGNED: JRU	SCALE: AS SHOWN	DATE: JUL 2003
CHECKED: TSF	CADD FILE NAME: 140GFMS5641697.DGN	
DRAWN: DBS/NK	SOL. NO: DACW37-03-B-0007	
DESIGNED: H-03	AE APPROVING OFFICIAL:	
CHECKED: H-03		

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

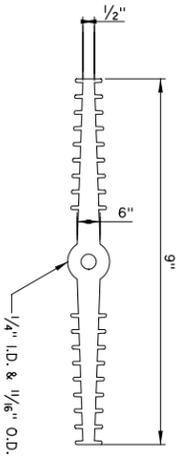
EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
PUMP STATION L6 (STRUC)
SLUICE GATE & STOPLOG DETAILS

DRAWING NUMBER:
R-P-GF-
64/1697
SHT 140 OF 188

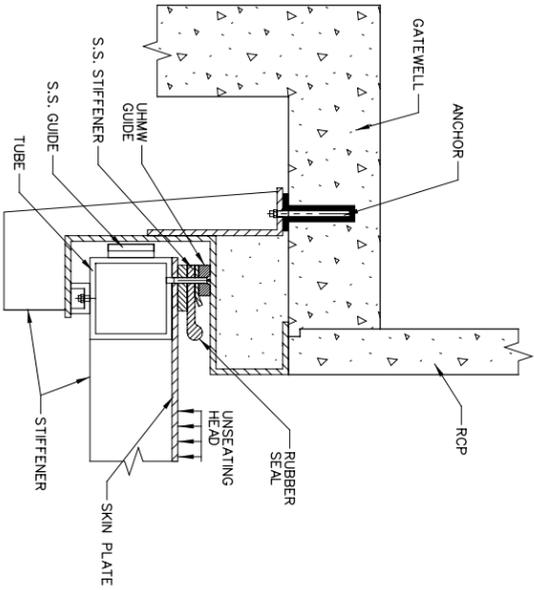


- NOTES:**
1. CENTER STOPLOG SILL ON CENTER OF STOPLOG GROOVE.
 2. COAT ALL SURFACES OF STOPLOG SILL IN CONTACT WITH CONCRETE WITH SPECIFIED BONDING AGENT.
 3. SEAL PAD TO EXTEND FULL HEIGHT OF STOPLOG GROOVE WITH 1/2" S.S. SCREWS AT 12" SPACINGS AND APPROVED ADHESIVE.

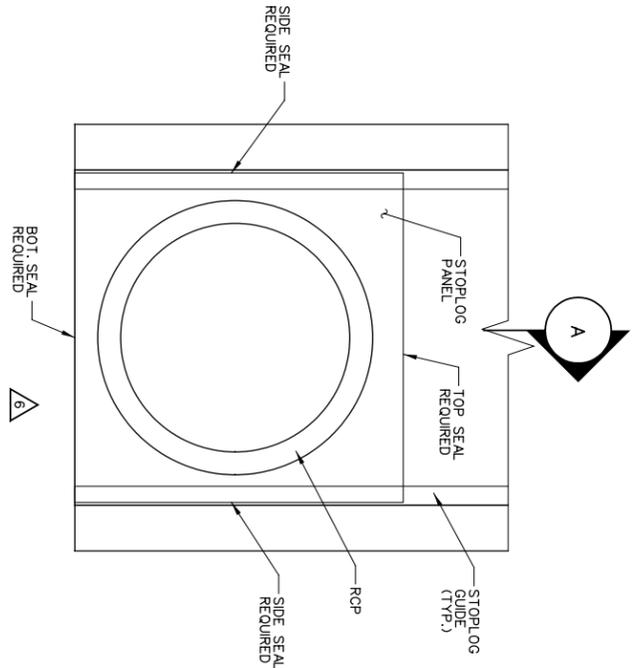
DETAIL
STOPLOG SILL, TYP.
SCALE: 3" = 1'-0"
SLS
64/1714



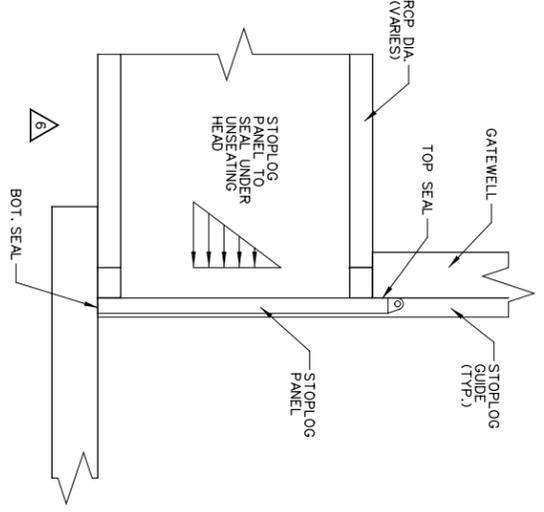
DETAIL
TYP. TYPE "Y" WATERSTOP
SCALE: NONE
TWS



DETAIL
TYPICAL STOPLOG PANEL SEAL & GROOVE
SCALE: NONE
SLG
64/1645
64/1649
64/1714
64/1720



PLAN
STOPLOG PANEL
SCALE: NONE



SECTION
STOPLOG PANEL
SCALE: NONE



DRAWING NUMBER:
R-P-GF-
64/1698
SHT 141 OF 188

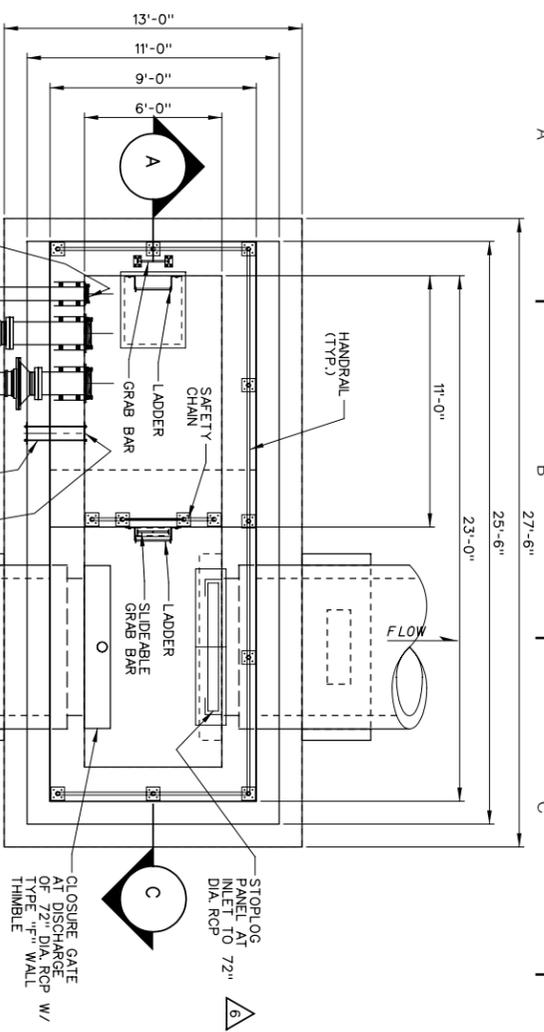
EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
PUMP STATION L6 (STRUC) GATEWELL
STOPLOG & WATERSTOP DETAILS

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

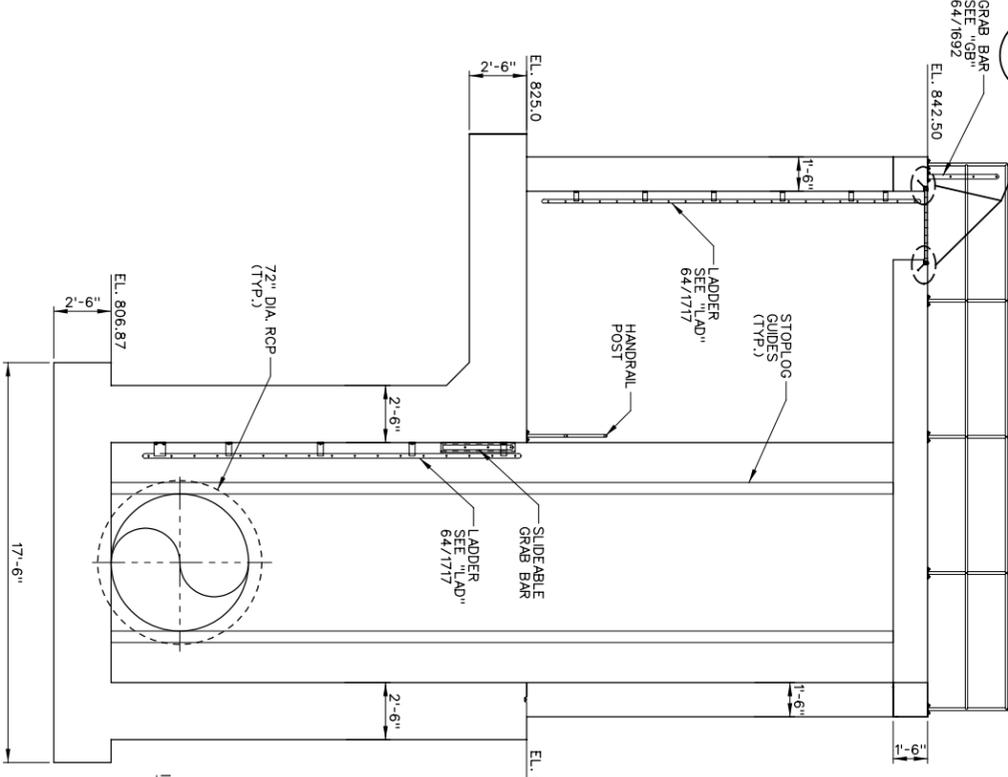
DESIGNED: JRL
CHECKED: TSF
DRAWN: DBS/NK
DESIGNED: JRL
CHECKED: TSF
SCALE: AS SHOWN
DATE: JUL 2003
CADD FILE NAME: 141FMS5641698.DGN
SOL. NO: DACW37-03-B-0007
AE APPROVING OFFICIAL:

Symbol	Description	Date	Appr.
6	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

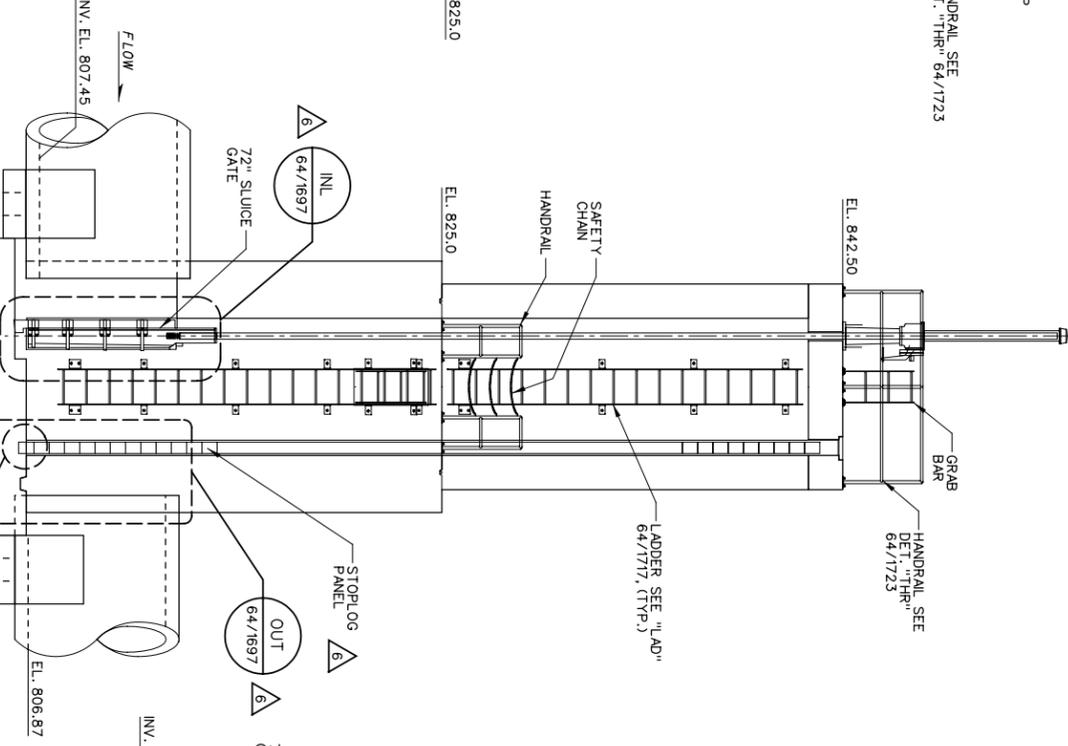
HOCHTIEF
US Army Corps of Engineers
St. Paul District



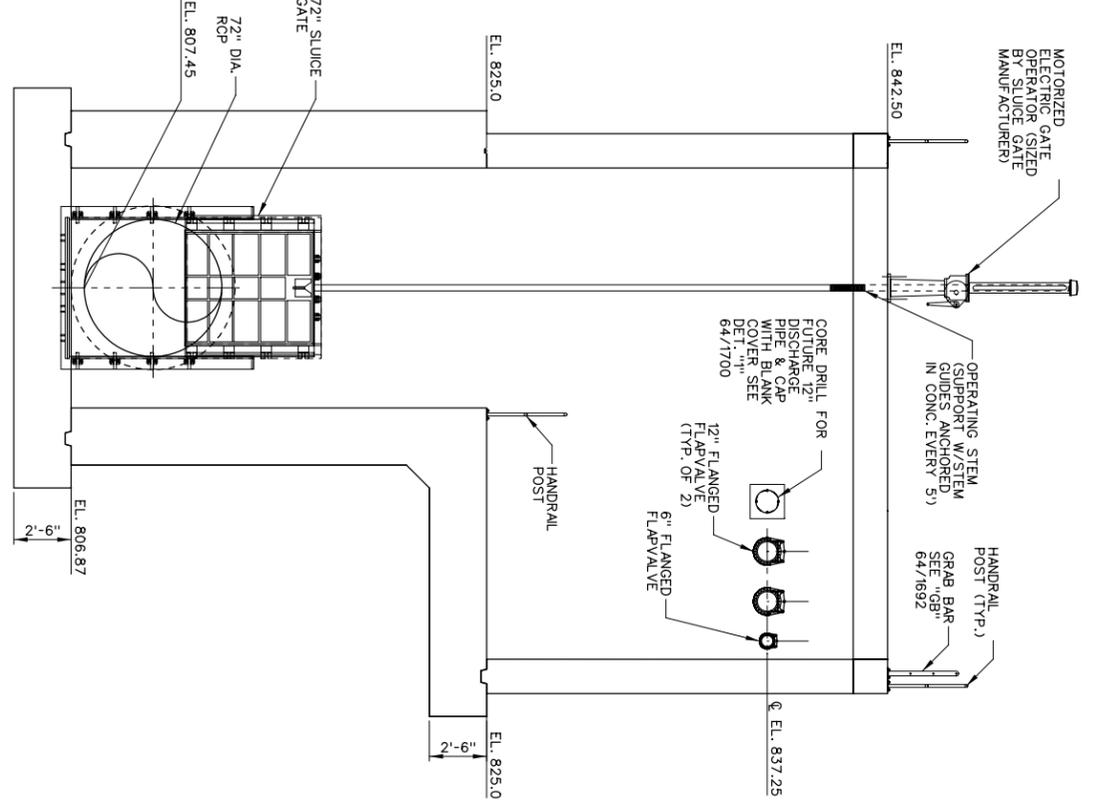
GATEWELL L6
SCALE: 1/4" = 1'-0"



SECTION
GATEWELL L6
SCALE: 1/4" = 1'-0"



SECTION
GATEWELL L6
SCALE: 1/4" = 1'-0"



SECTION
GATEWELL L6
SCALE: 1/4" = 1'-0"

Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU



DESIGNED: JRU	SCALE: AS SHOWN	DATE: JUL 2003
CHECKED: H-03	CADD FILE NAME: 154GFMS1641714.DGN	
DRAWN: NK	SOL. NO.:	
DESIGNED: H-03	DACW37-03-B-0007	
CHECKED:	AE APPROVING OFFICIAL:	

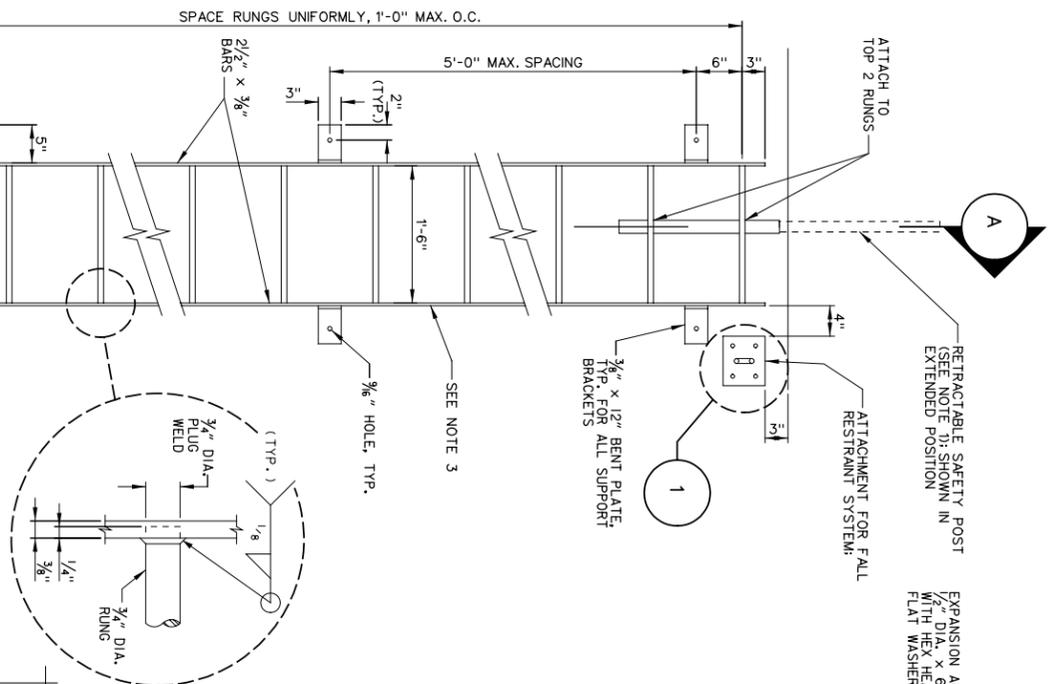
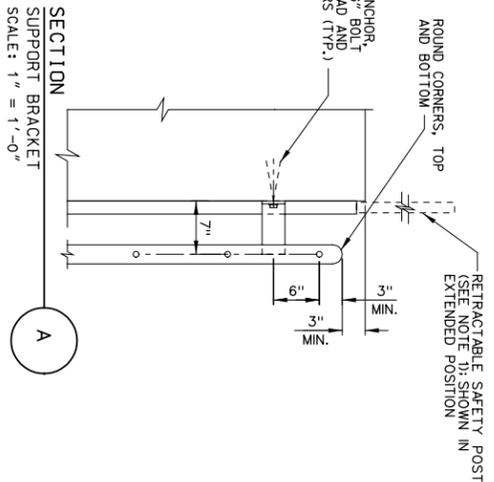
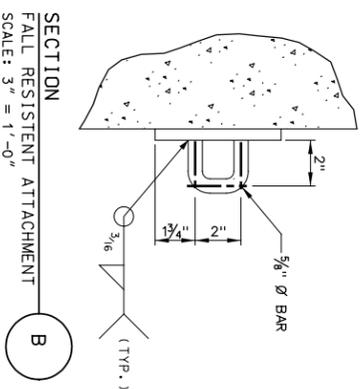
DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L6
PLAN AND SECTIONS

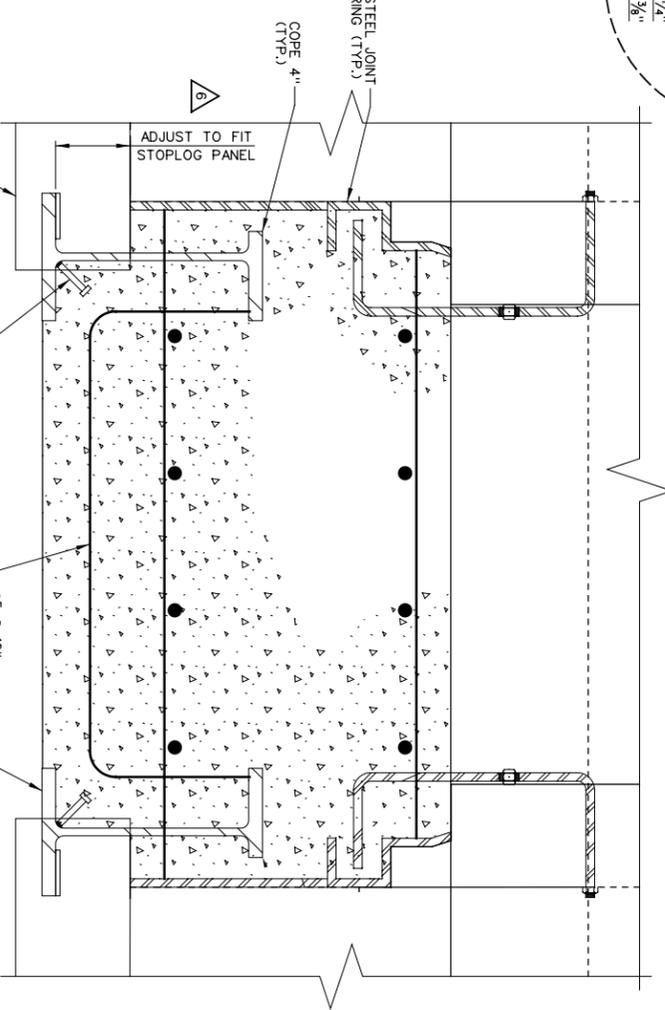
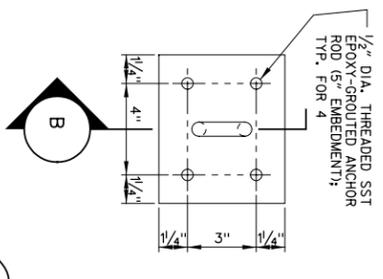
DRAWING NUMBER:
R-P-GF-
64/1714
SHT 154 OF 188



- NOTE:**
1. USE LADDER SAFETY POST FOR ALL LADDERS (AS NEEDED).
 2. INSTALL FALL RESTRAINT SYSTEM WHERE LADDER LENGTH > 20 FT.
 3. HOT DIP GALVANIZE ALL LADDER COMPONENTS AFTER FABRICATION.

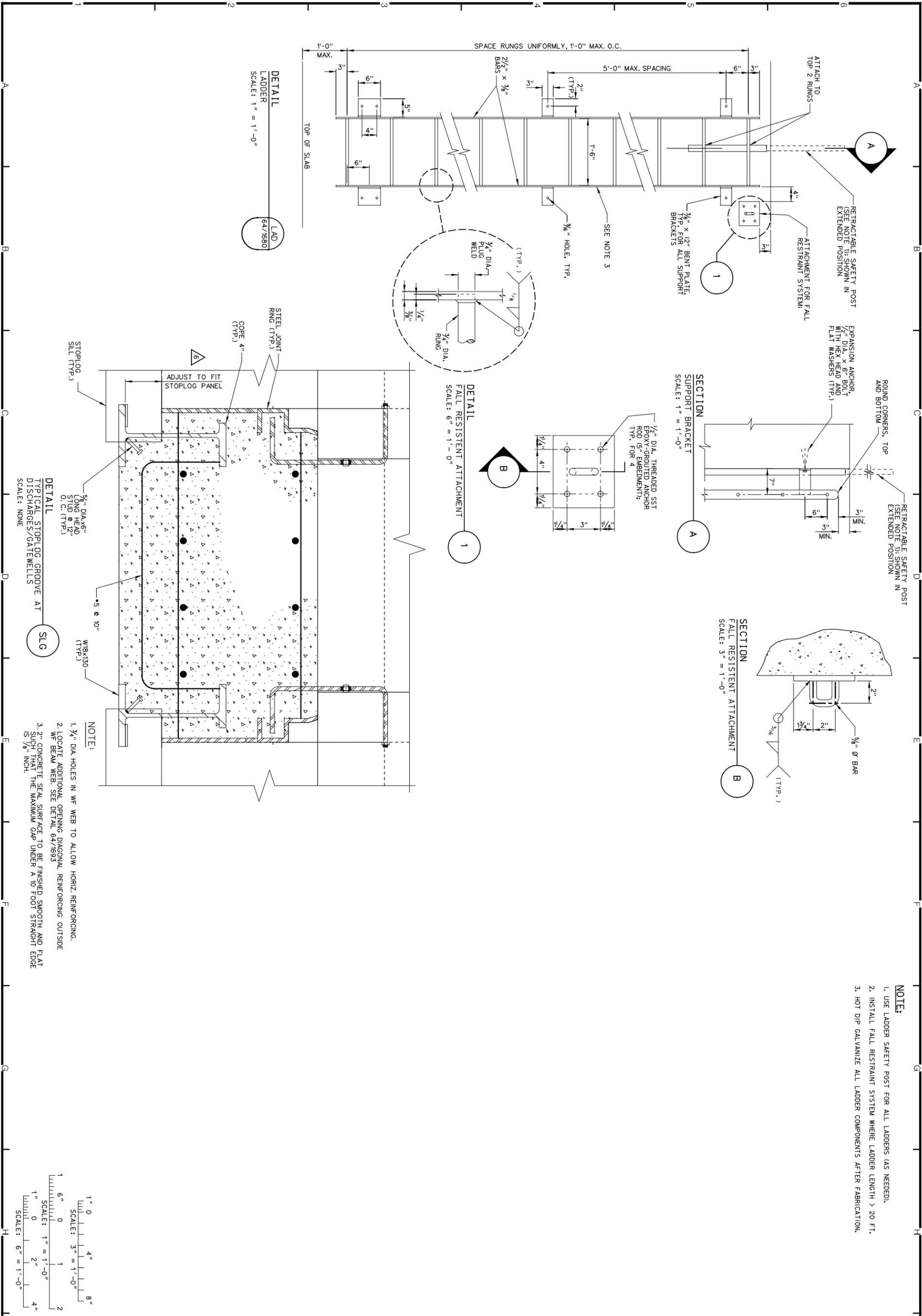
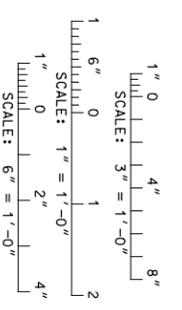


DETAIL
FALL RESISTANT ATTACHMENT
SCALE: 6" = 1'-0"



DETAIL
TYPICAL STOPLOG GROOVE AT
DISCHARGES/GATEWELLS
SCALE: NONE

- NOTE:**
1. 3/4" DIA. HOLES IN WF WEB TO ALLOW HORIZ. REINFORCING.
 2. LOCATE ADDITIONAL OPENING DIAGONAL REINFORCING OUTSIDE WF BEAM WEB. SEE DETAIL 64/16933
 3. 2" CONCRETE SEAL SURFACE TO BE FINISHED SMOOTH AND FLAT IS 7/8" INCH.



EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L6
DETAILS SHEET 2

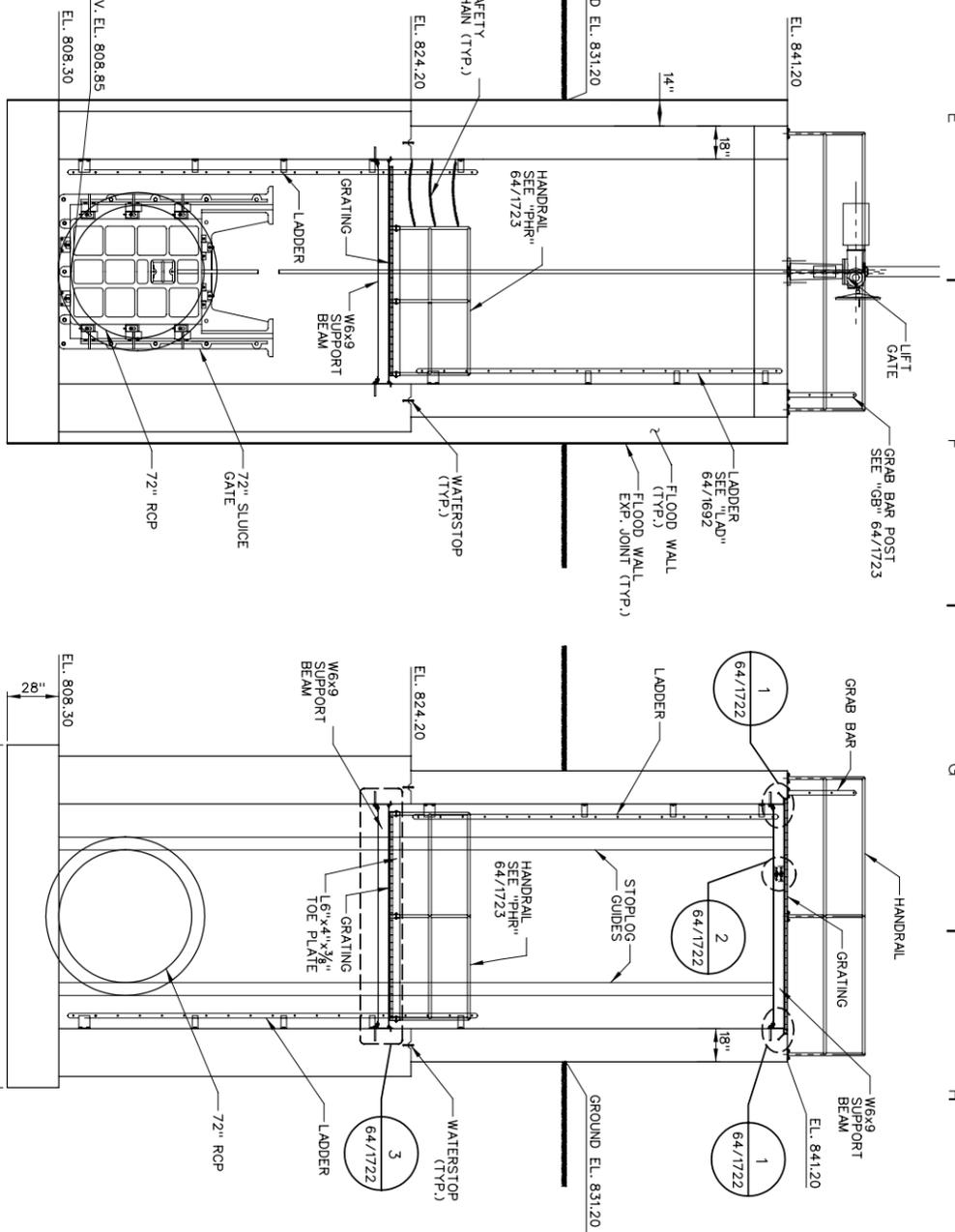
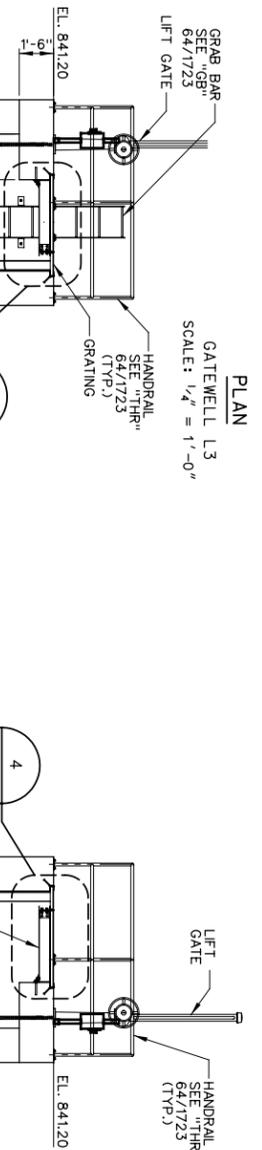
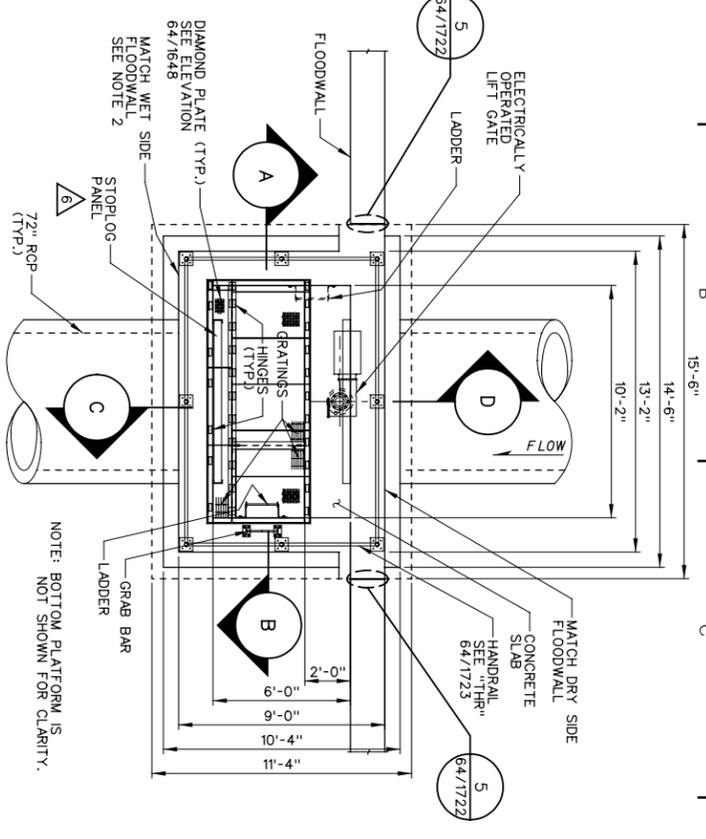
DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

DESIGNED: JRU	SCALE: AS SHOWN	DATE: JUL 2003
CHECKED: PWS/TSF	CADD FILE NAME: 157GFMS5641717.DGN	
DRAWN: GDE/NK	SOL. NO.:	DACW37-03-B-0007
DESIGNED:	AE APPROVING OFFICIAL:	
CHECKED:		

Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

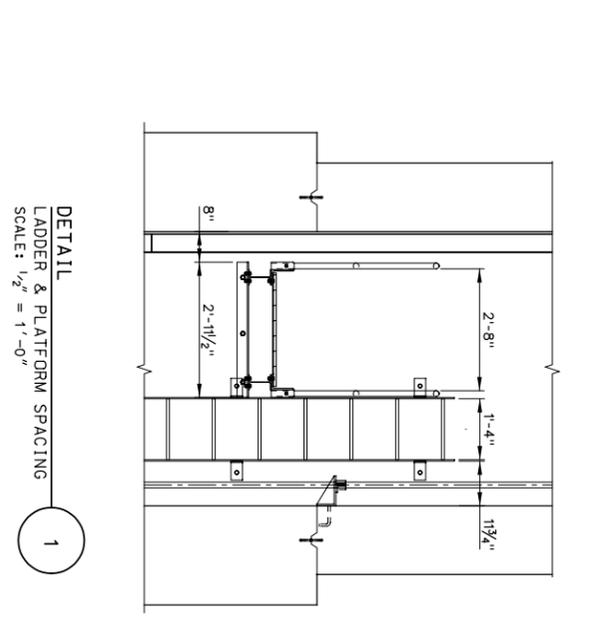
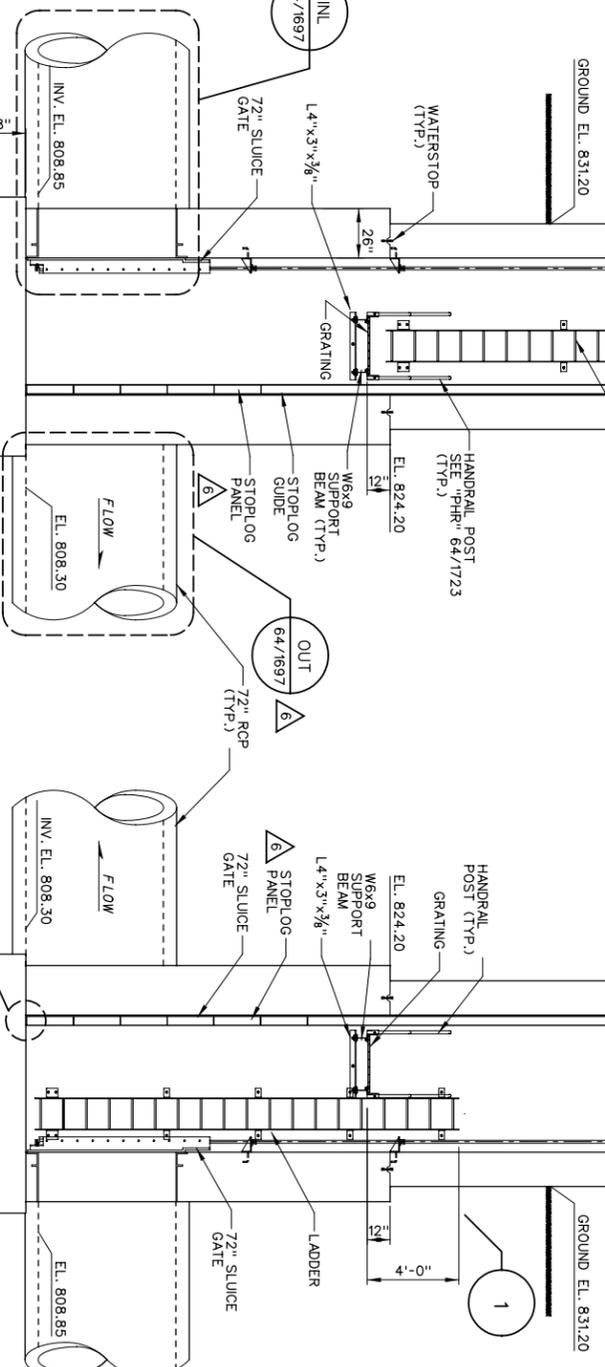
US Army Corps of Engineers
St. Paul District

DRAWING NUMBER:
R-P-GF-
64/1717
SHT 157 OF 188



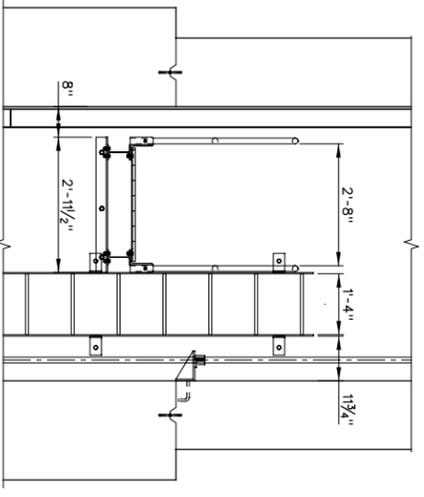
SECTION GATEWELL L3
SCALE: 1/4" = 1'-0"

SECTION GATEWELL L3
SCALE: 1/4" = 1'-0"



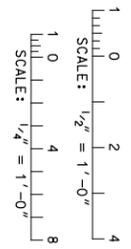
SECTION GATEWELL L3
SCALE: 1/4" = 1'-0"

SECTION GATEWELL L3
SCALE: 1/4" = 1'-0"



DETAIL LADDER & PLATFORM SPACING
SCALE: 1/2" = 1'-0"

- NOTE:**
1. STOPLOG PANEL SEALS IN AN UNSEATING CONDITION.
 2. GATEWELL L3 FINISH TO MATCH FLOODWALL.



DRAWING NUMBER:
R-P-GF-64/1720

EAST GRAND FORKS - PHASE 3
FLOOD CONTROL
GATEWELL L3
PLAN & SECTIONS

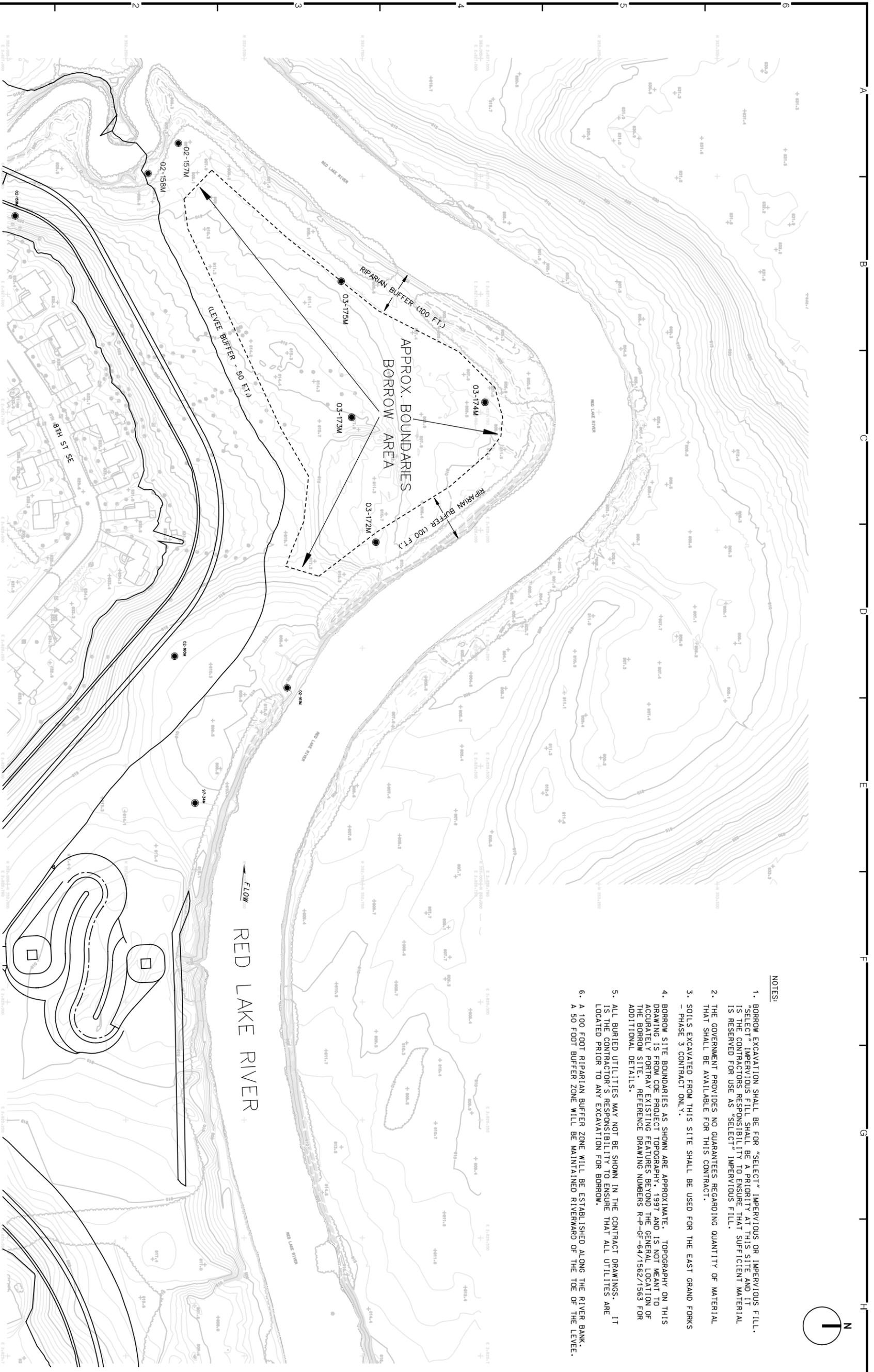
DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

DESIGNED: JLS
CHECKED: JLS
DRAWN: NK
DESIGNED: JLS
CHECKED: JLS

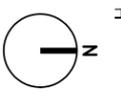
SCALE: AS SHOWN
DATE: JUL 2003
CADD FILE NAME: 159GFM1641720.DGN
SOL. NO.: DACW37-03-B-0007
AE APPROVING OFFICIAL:

Symbol	Description	Date	Appr.
△	DRAWING REISSUED WITH AMENDMENT NO. 006	OCT 2003	JRU

US Army Corps of Engineers
St. Paul District



- NOTES:**
- BORROW EXCAVATION SHALL BE FOR "SELECT" IMPERVIOUS OR IMPERVIOUS FILL. "SELECT" IMPERVIOUS FILL SHALL BE A PRIORITY AT THIS SITE AND IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT SUFFICIENT MATERIAL IS RESERVED FOR USE AS "SELECT" IMPERVIOUS FILL.
 - THE GOVERNMENT PROVIDES NO GUARANTEES REGARDING QUANTITY OF MATERIAL THAT SHALL BE AVAILABLE FOR THIS CONTRACT.
 - SOILS EXCAVATED FROM THIS SITE SHALL BE USED FOR THE EAST GRAND FORKS - PHASE 3 CONTRACT ONLY.
 - BORROW SITE BOUNDARIES AS SHOWN ARE APPROXIMATE. TOPOGRAPHY ON THIS DRAWING IS FROM COE PROJECT TOPOGRAPHY, 1997 AND IS NOT MEANT TO ACCURATELY PORTRAY EXISTING FEATURES BEYOND THE GENERAL LOCATION OF THE BORROW SITE. REFERENCE DRAWING NUMBERS R-P-GF-64/1562/1563 FOR ADDITIONAL DETAILS.
 - ALL BURIED UTILITIES MAY NOT BE SHOWN IN THE CONTRACT DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL UTILITIES ARE LOCATED PRIOR TO ANY EXCAVATION FOR BORROW.
 - A 100 FOOT RIPARIAN BUFFER ZONE WILL BE ESTABLISHED ALONG THE RIVER BANK. A 50 FOOT BUFFER ZONE WILL BE MAINTAINED RIVERWARD OF THE TOE OF THE LEVEE.



100 0 100 200
SCALE IN FEET

A B C D E F G H

1 2 3 4 5 6

DRIVING NUMBER:
R-P-GF
10/159A
SHEET OF

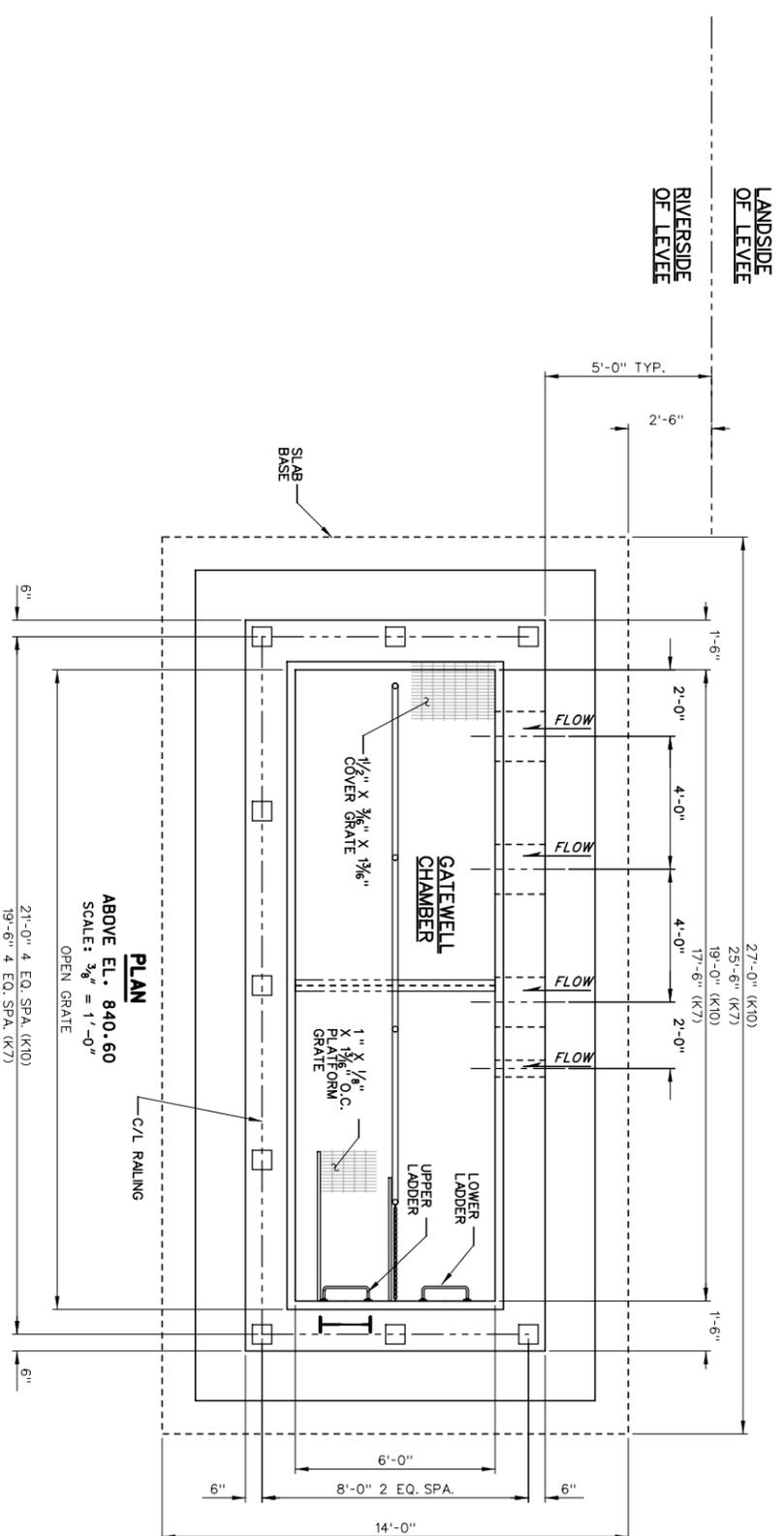
REFERENCE DRAWING
E. GRAND FORKS, MN. - PHASE 3
GEOLOGIC DATA
"SELECT" IMPERVIOUS FILL OR
IMPERVIOUS FILL SITE

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

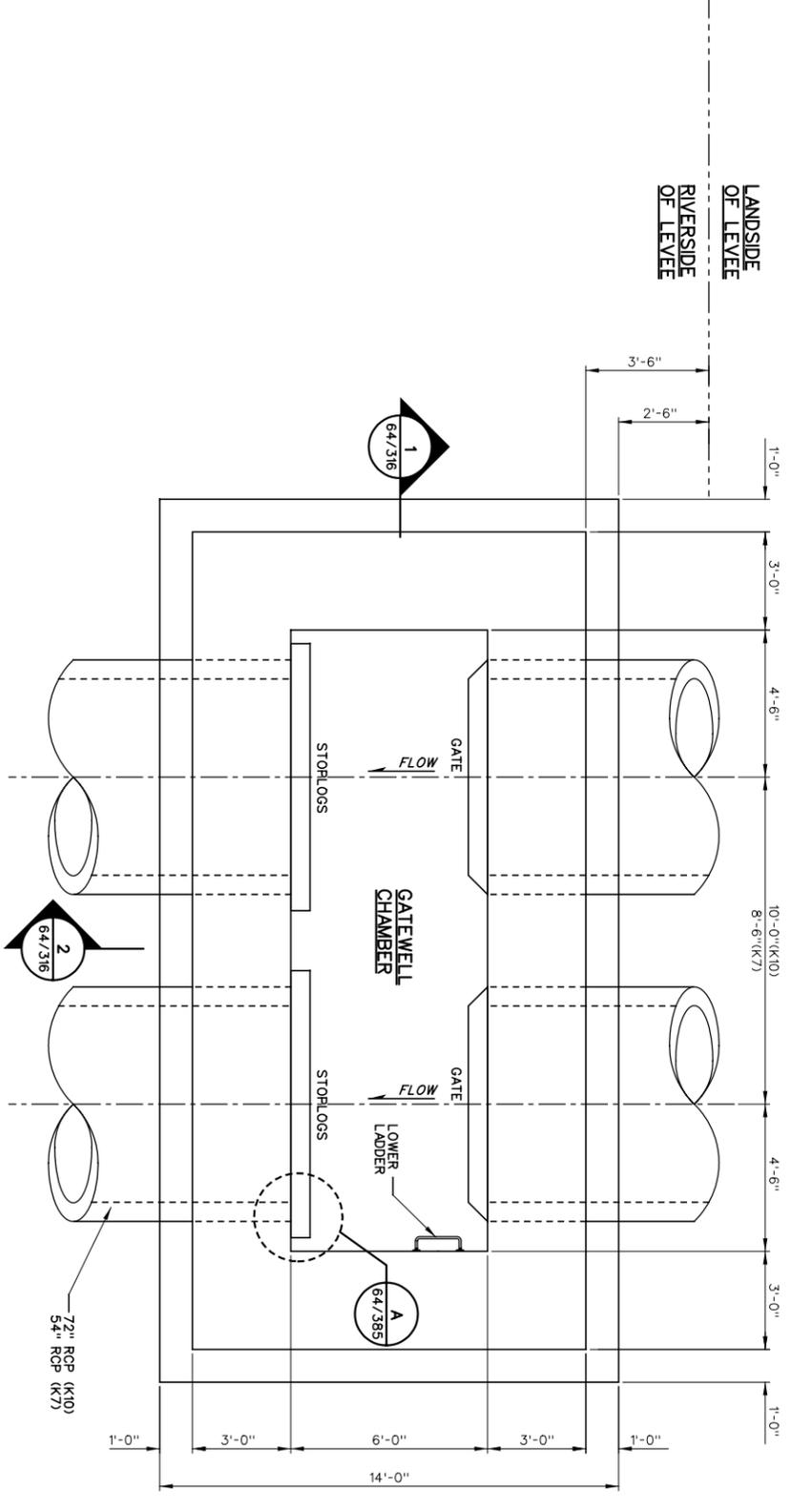
DESIGNED: GAR	SCALE: AS SHOWN	DATE: NOV. 2003
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DRAWN: XXX/XXX	SOL. NO.:	
DESIGNED: XXX/XXX	AE APPROVING OFFICIAL:	
CHECKED: XXX/XXX		

Symbol	Description	Date	Appr.
△	NEW DRAWING ISSUED WITH AMENDMENT NO. 006	NOV 2003	CWB

US Army Corps of Engineers
St. Paul District



PLAN
 ABOVE EL. 840.60
 SCALE: 3/8" = 1'-0"
 OPEN GRATE



PLAN
 BELOW EL. 826.00
 SCALE: 3/8" = 1'-0"

REFERENCE

1. GENERAL NOTES
2. STOPLOGS
3. GRATING
4. LADDERS
5. PIPE TO WALL CONNECTION
6. PLATFORM K7 & K10

DWG. NO.

- | | |
|--------|----------------------------|
| 64/309 | 1. GENERAL NOTES |
| 64/385 | 2. STOPLOGS |
| 64/386 | 3. GRATING |
| 64/386 | 4. LADDERS |
| 64/387 | 5. PIPE TO WALL CONNECTION |
| 64/384 | 6. PLATFORM K7 & K10 |



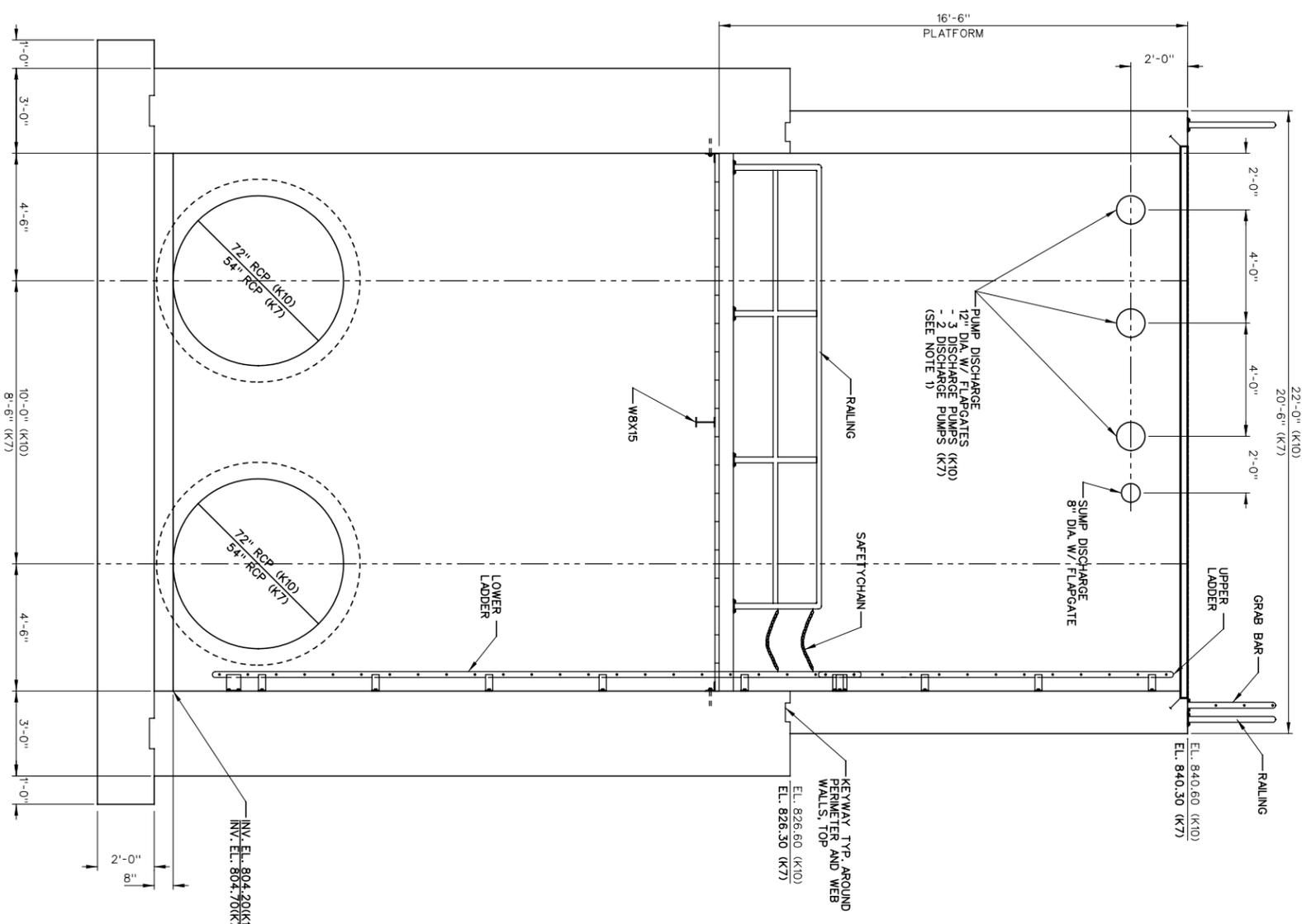
Symbol	Description	Date	Appr.

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CHECKED: PWS	CADD FILE NAME: GFPS164.315.DGN	
DRAWN: NK	SOL. NO: DACW37-01-B-0010	
DESIGNED: H-DE	AE APPROVING OFFICIAL:	
CHECKED: H-DE		

DEPARTMENT OF THE ARMY
 ST. PAUL, MINNESOTA
 CORPS OF ENGINEERS
 ST. PAUL DISTRICT

CONSTRUCTION DRAWING
 EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
 GATEWELL K7 & K10
 PLANS

DRAWING NUMBER:
R-P-GF-64/315
 SHEET 120 OF 283



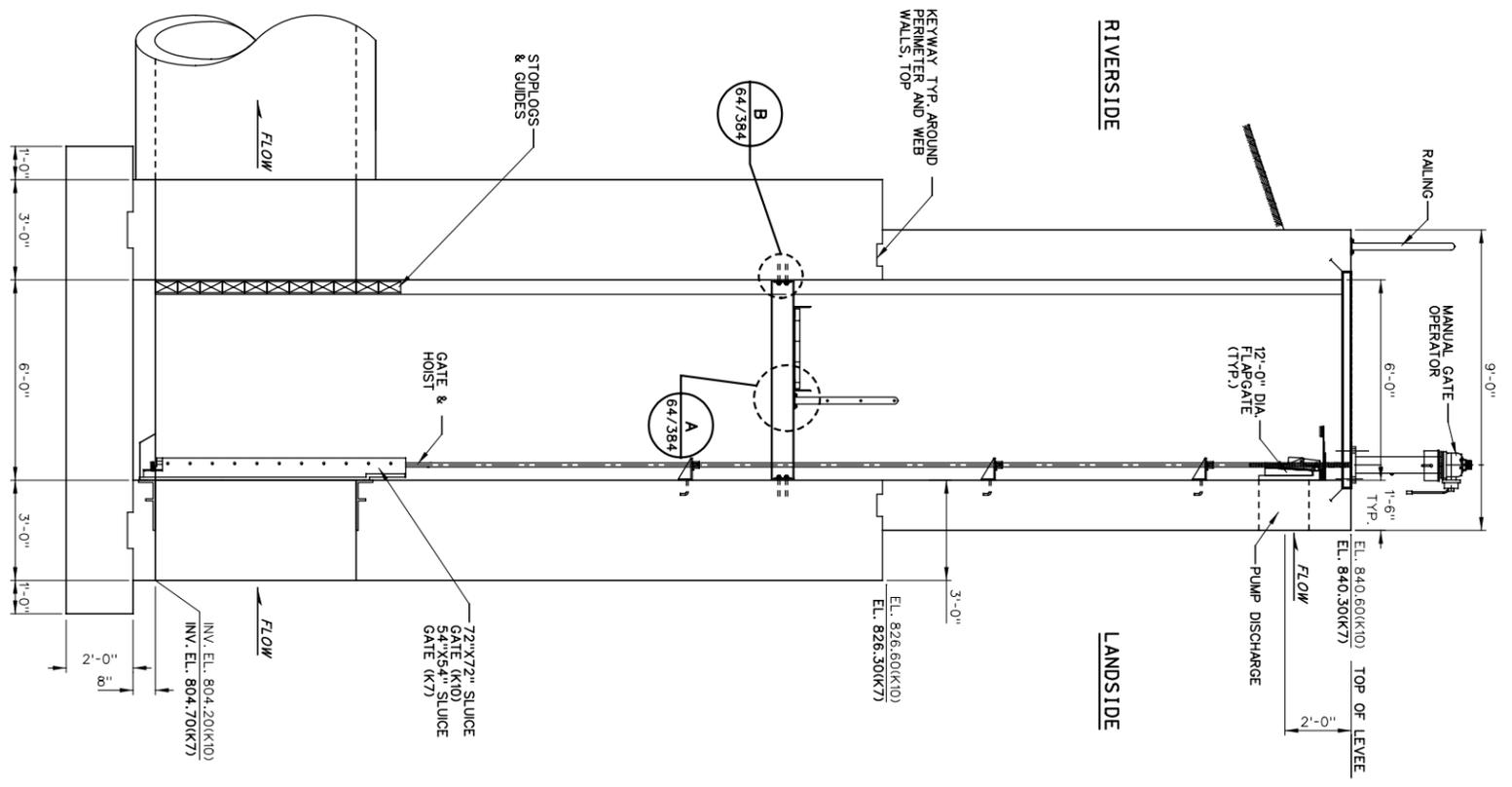
SECTION 1
DISCHARGE/GATEWELL
SCALE: 3/8" = 1'-0"

- REFERENCE**
1. GENERAL NOTES
 2. STOPLOGS
 3. GRATING
 4. LADDERS
 5. PIPE TO WALL CONNECTION
 6. PLATFORM K7 & K10

- DWG. NO.**
- 64/309
 - 64/385
 - 64/386
 - 64/387
 - 64/384

- NOTE:**
1. CAST OPENING IN WALL TO ACCOMMODATE DISCHARGE PIPES BASED ON THE FOLLOWING DISCHARGE PIPE SIZE:
 12" PIPE USE 12" DIA. HOLE
 18" PIPE USE 18" DIA. HOLE
 24" PIPE USE 24" DIA. HOLE
 VERIFY HOLE SIZE WITH SEAL MANUFACTURER.

SECTION 2
DISCHARGE/GATEWELL
SCALE: 3/8" = 1'-0"



CONTRACT NO. DACW37-01-C-0033

CONSTRUCTION DRAWING
EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
GATEWELL K7 & K10 SECTIONS

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

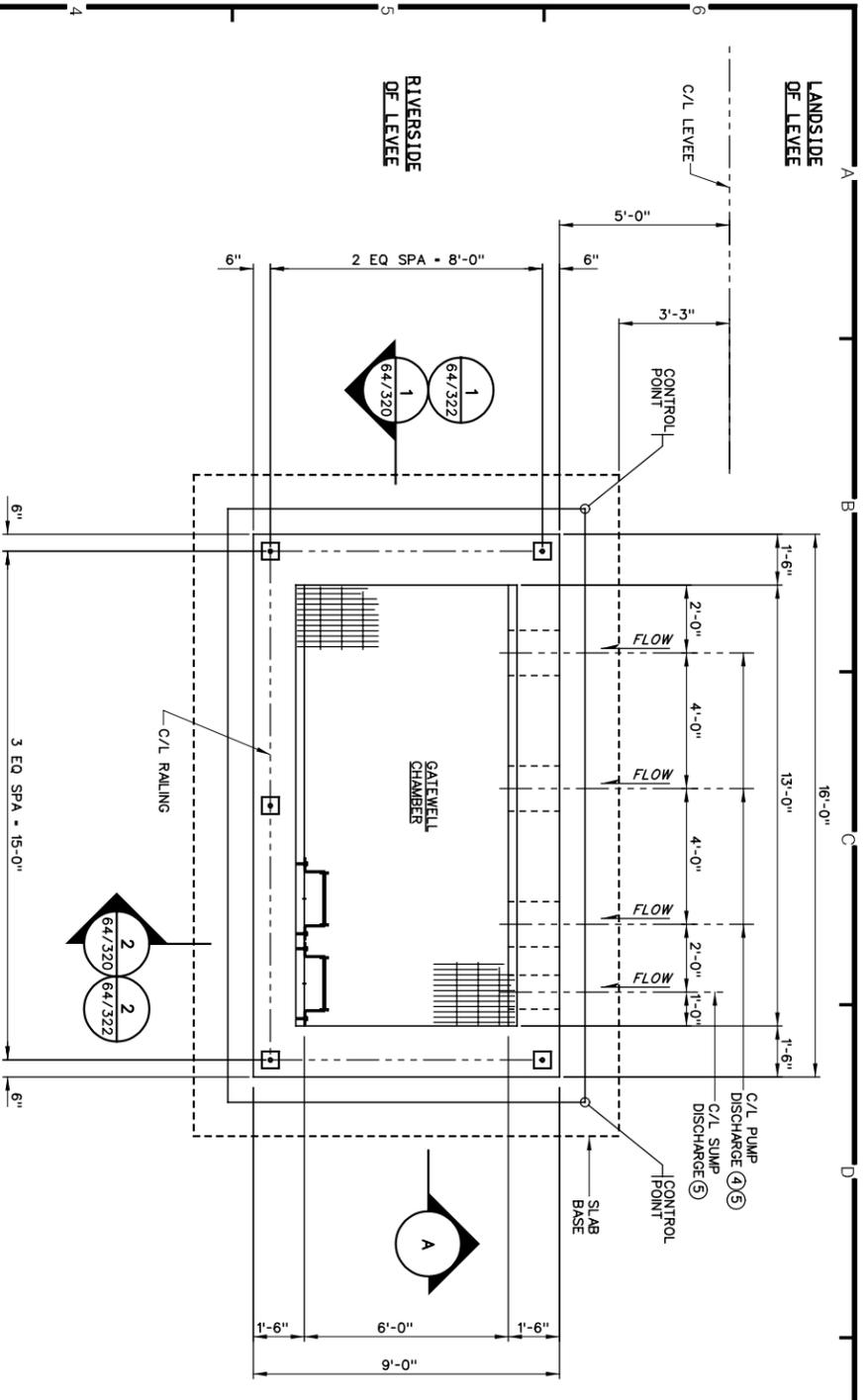
DESIGNED: PWS
CHECKED: PWS
DRAWN: NK
DESIGNED: H-03
CHECKED: H-03

SCALE: AS SHOWN
DATE: MAY 2001
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SOL. NO.: DACW37-01-B-0010
AE APPROVING OFFICIAL:

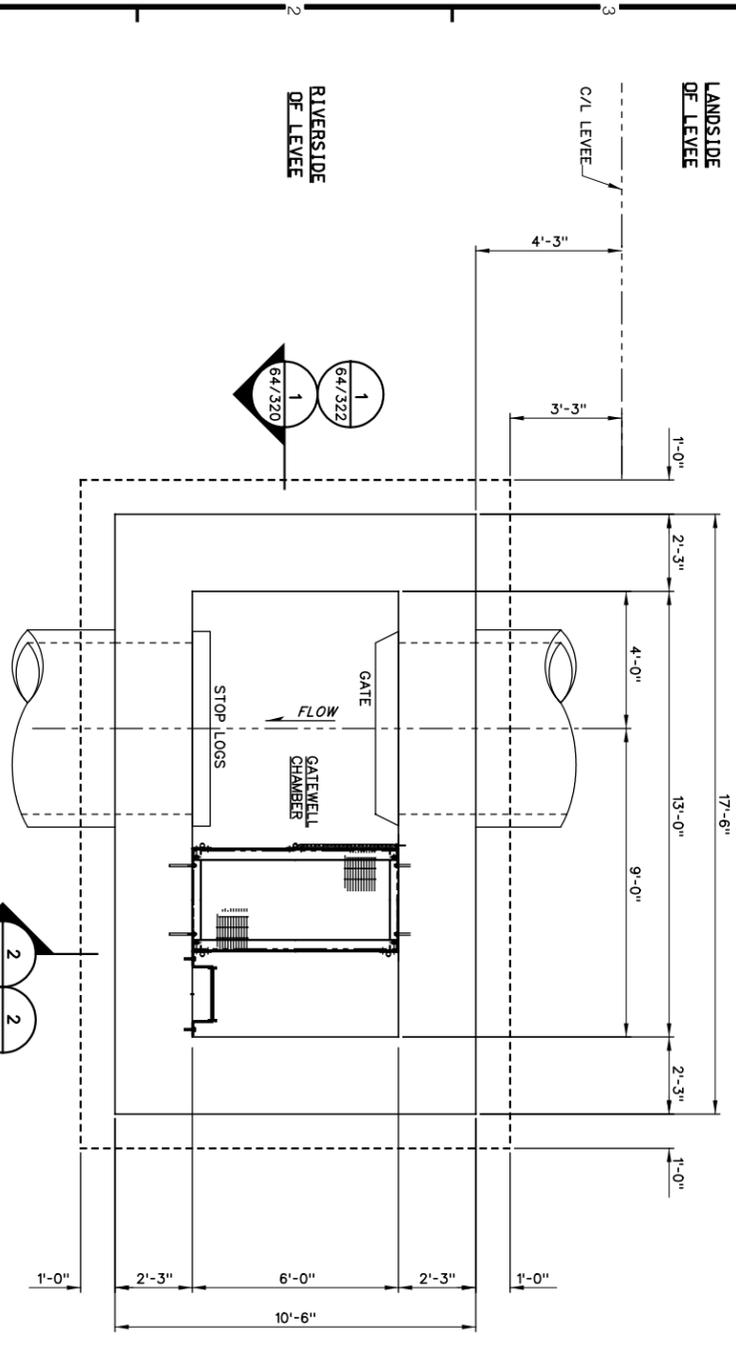
Symbol	Description	Date	Appr.



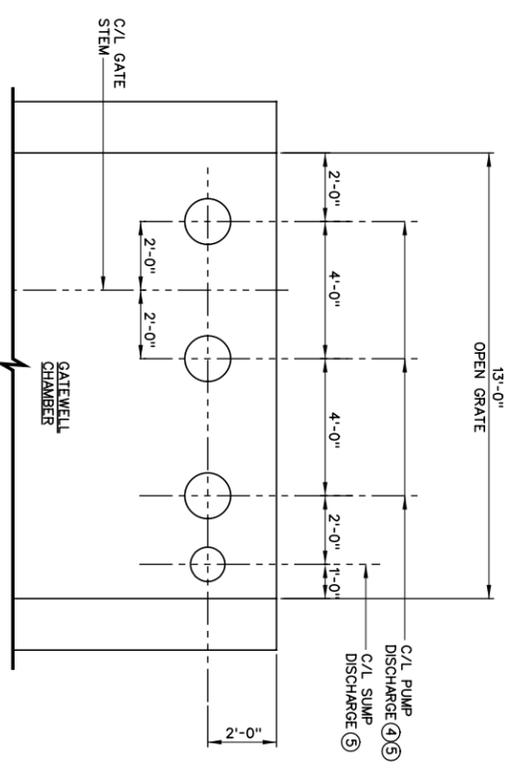
DRAWING NUMBER
R-P-9F-64/316
SHEET 121 OF 283



PLAN
 ABOVE EL. 825.00
 SCALE: 3/8" = 1'-0"



PLAN
 BELOW EL. 825.00
 SCALE: 3/8" = 1'-0"



DETAIL/SECTION
 TYP L1 AND L2
 SCALE: 3/8" = 1'-0"

NOTES:

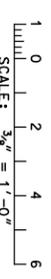
1. CONCRETE REINFORCING NOT SHOWN.
2. USE GRAB BAR FOR GATEWELL LADDERS.
3. SEE CIVIL SITE DRAWINGS FOR GATEWELL ORIENTATION.
4. PLUG UNUSED PIPE OPENING WITH CONCRETE & BENTONITE PERIMETER SEAL.
5. SEE MECHANICAL DRAWINGS FOR PIPE SIZES.

REFERENCE

1. GENERAL NOTES..... 64/309
2. MISC METALS..... 64/380-391
3. PUMP STATIONS - GRADING..... 64/301-302

DWG. NO.

1. GENERAL NOTES..... 64/309
2. MISC METALS..... 64/380-391
3. PUMP STATIONS - GRADING..... 64/301-302



CONTRACT NO. DACW37-01-C-0033

CONTRACT DRAWING
 EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
 GATEWELLS L1 AND L2
 PLANS

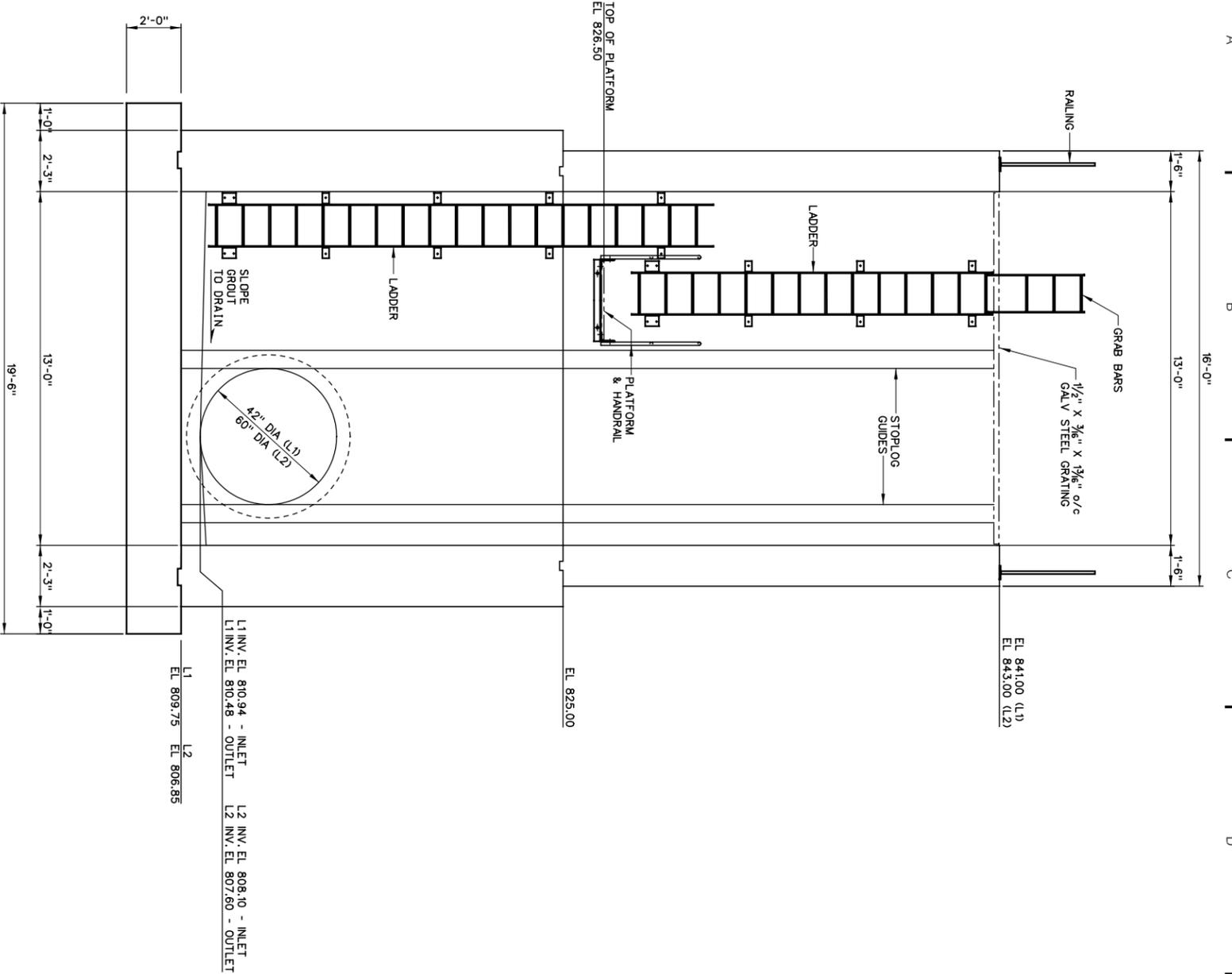
DEPARTMENT OF THE ARMY
 ST. PAUL, MINNESOTA
 CORPS OF ENGINEERS
 ST. PAUL DISTRICT

DESIGNED: JG	SCALE: AS SHOWN	DATE: MAY 2001
CHECKED: ALG	CADD FILE NAME: GFPS564319.DGN	
DRAWN: DLF	SOL. NO.:	
DESIGNED: H-03	DACW37-01-B-0010	
CHECKED: H-03	AE APPROVING OFFICIAL:	

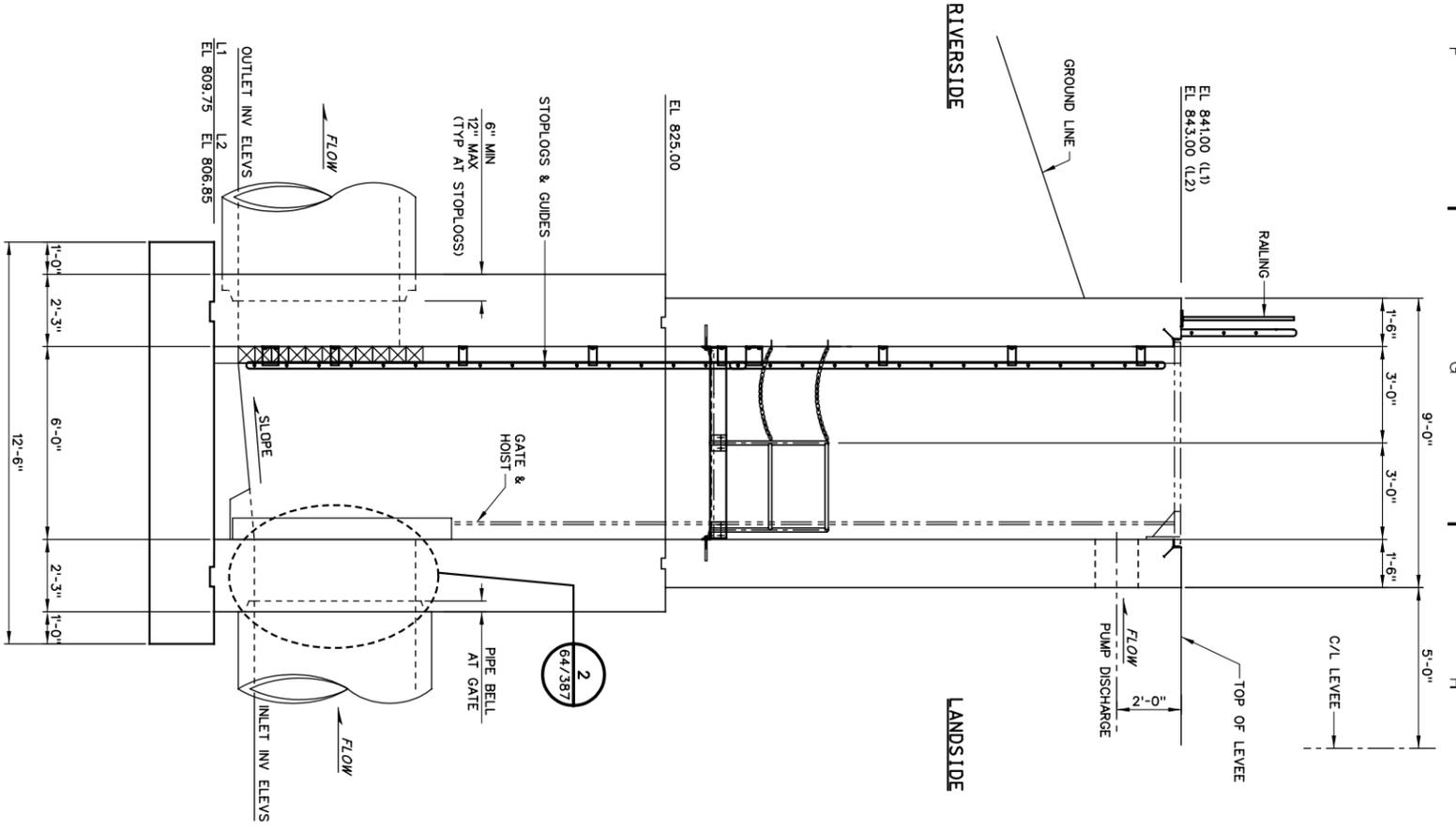
Symbol	Description	Date	Appr.

US Army Corps of Engineers
 St. Paul District

DRAWING NUMBER:
R-P-0F-64/319
 SHEET 124 OF 283



SECTION 1
GATEWELL
 SCALE: 3/8"=1'-0"

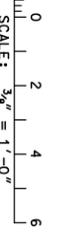


SECTION 2
GATEWELL
 SCALE: 3/8"=1'-0"



- NOTES:**
1. CONCRETE REINFORCING NOT SHOWN.
 2. USE GRAB BAR FOR GATEWELL LADDERS.
 3. SEE CIVIL SITE DRAWINGS FOR GATEWELL ORIENTATION.

- REFERENCE**
- DWG. NO.**
1. GENERAL NOTES..... 64/309
 2. MISC METALS..... 64/380-391
 3. PIPE TO WALL..... 64/387



CONTRACT NO. DACW37-01-C-0033

CONTRACT DRAWING
 EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
 GATEWELLS L1 AND L2
 SECTIONS

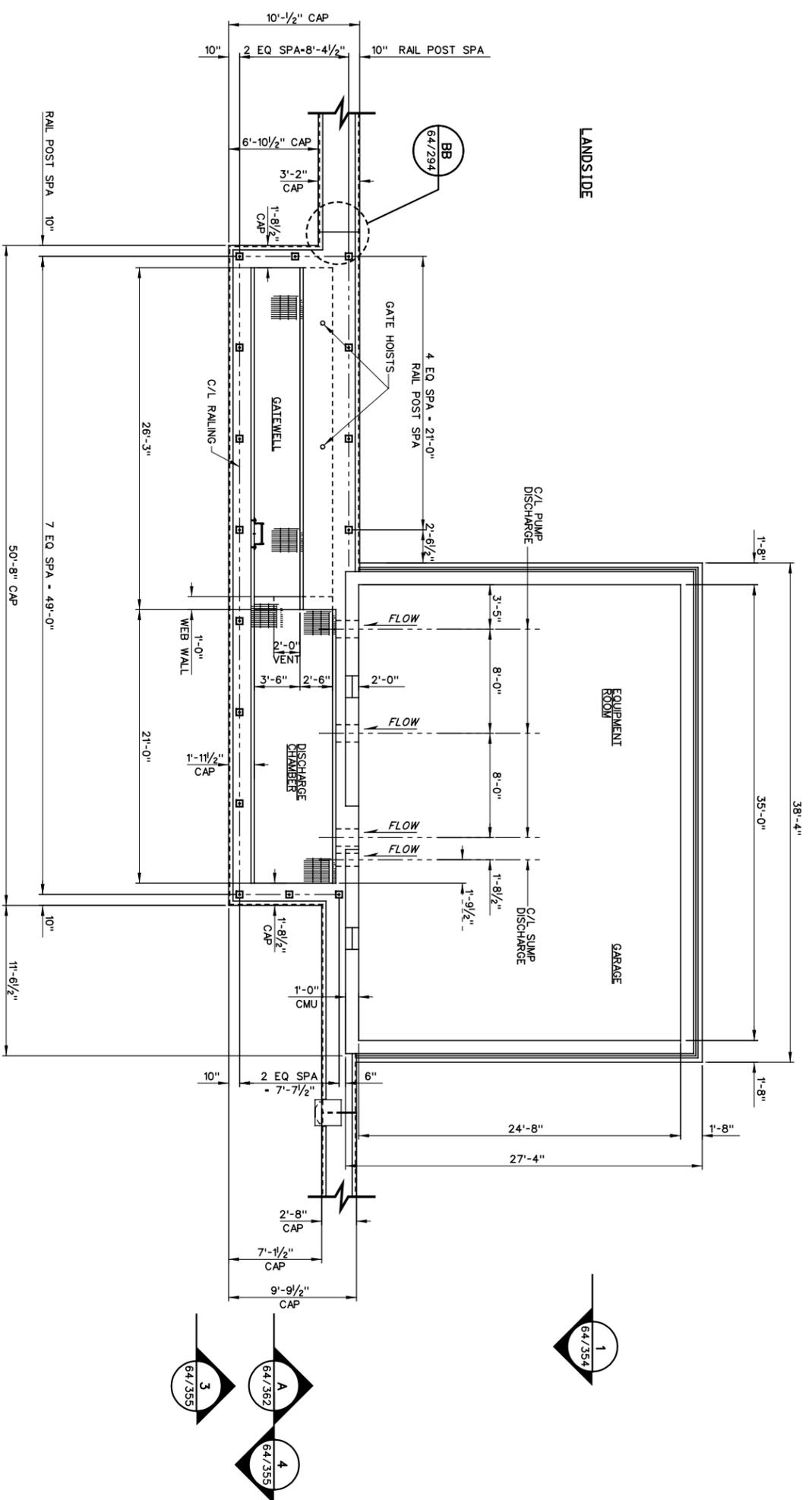
DEPARTMENT OF THE ARMY
 ST. PAUL, MINNESOTA
 CORPS OF ENGINEERS
 ST. PAUL DISTRICT

DESIGNED: J	SCALE: AS SHOWN	DATE: MAY 2001
CHECKED: ALG	CADD FILE NAME: GFPS564320.DGN	
DRAWN: DLF	SOL. NO.:	
DESIGNED: H-03	DACW37-01-B-0010	
CHECKED: H-03	AE APPROVING OFFICIAL:	

Symbol	Description	Date	Appr.

US Army Corps of Engineers
 St. Paul District

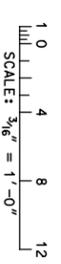
DRAWING NUMBER:
R-P-9F-64/320
 SHEET 125 OF 283



RED RIVER OF THE NORTH
FLOW

PLAN
TOP OF GATEWELL EL. 839.80
SCALE: 3/16" = 1'-0"

- NOTES:**
1. CONCRETE REINFORCING NOT SHOWN.
 2. USE LADDER SAFETY POST FOR PUMP STATION LADDERS.
- REFERENCE**
- | | |
|---------------------------------|------------|
| 1. GENERAL NOTES..... | 64/309 |
| 2. EXP JT TYPE A & B..... | 64/294 |
| 3. MISC METALS..... | 64/380-391 |
| 4. MASONRY BUILDING & ROOF..... | 64/345-349 |
| 5. MECHANICAL..... | 64/368-374 |
| 6. ELECTRICAL..... | 64/375-379 |



CONTRACT NO. DACW37-01-C-0033

CONTRACT DRAWING
EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
PUMP STATION K12
TOP OF GATEWELL

DEPARTMENT OF THE ARMY
ST. PAUL, MINNESOTA
CORPS OF ENGINEERS
ST. PAUL DISTRICT

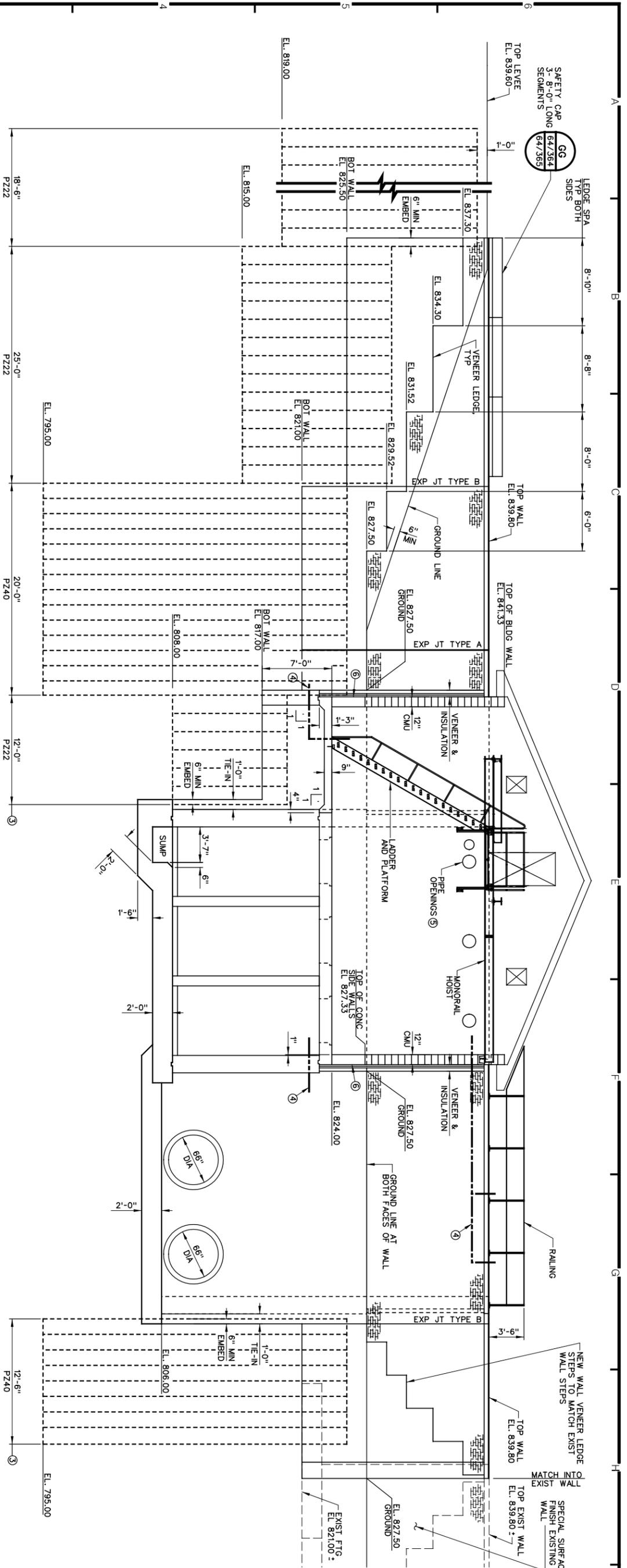


DESIGNED: JAL	SCALE: AS SHOWN	DATE: MAY 2001
CHECKED: ALG	CADD FILE NAME: GFPS564353.DGN	
DRAWN: DLF	SOL. NO.:	
DESIGNED:	DACW37-01-B-0010	
CHECKED:	AE APPROVING OFFICIAL:	

Symbol	Description	Date	Appr.

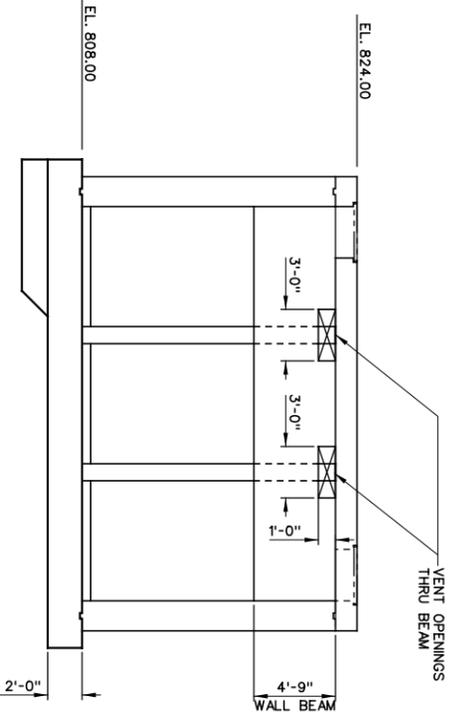

US Army Corps
of Engineers
St. Paul District

DRAWING NUMBER:
R-P-GF-64/353
SHEET 157 OF 283



SECTION/ELEVATION
PUMP STATION LANDSIDE
 SCALE: 3/16" = 1'-0"

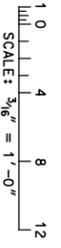
64/351
 64/352
 64/353



SECTION
WALL BEAM VENTS
UNDER EAST BUILDING WALL
 SCALE: 3/16" = 1'-0"

64/351
 64/352

- NOTE:**
1. CONCRETE REINFORCING NOT SHOWN.
 2. USE SAFETY POST FOR PUMP STATION ACCESS LADDERS.
 3. DIMENSIONS SHOWN ARE NOMINAL AND MAY VARY BASED ON PILE MANUFACTURER.
 4. SEE ELECTRICAL DRAWINGS FOR LOCATION & SIZE OF EMBEDDED CONDUIT.
 5. CAST OPENING IN WALL TO ACCOMMODATE DISCHARGE PIPES BASED ON THE FOLLOWING DISCHARGE PIPE SIZE:
 8" PIPE USE 12" DIA HOLE
 12" PIPE USE 18" DIA HOLE
 14" PIPE USE 20" DIA HOLE
 16" PIPE USE 22" DIA HOLE
 VARY HOLE SIZE WITH SEAL MANUFACTURER.
 6. DOVETAIL ANCHOR SLOTS AT 24" OC. SEE ARCHITECTURAL DRAWINGS.
- REFERENCE**
- | DWG. NO. | DWG. NO. |
|---------------------------------|------------|
| 1. GENERAL NOTES..... | 64/309 |
| 2. EXP JT TYPE A & B..... | 64/294 |
| 3. MISC METALS..... | 64/380-391 |
| 4. MASONRY BUILDING & ROOF..... | 64/345-349 |
| 5. MECHANICAL..... | 64/368-374 |
| 6. ELECTRICAL..... | 64/375-379 |



CONTRACT NO. DACW37-01-C-0033

CONTRACT DRAWING
 EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
 PUMP STATION K12
 SECTION AND ELEVATION

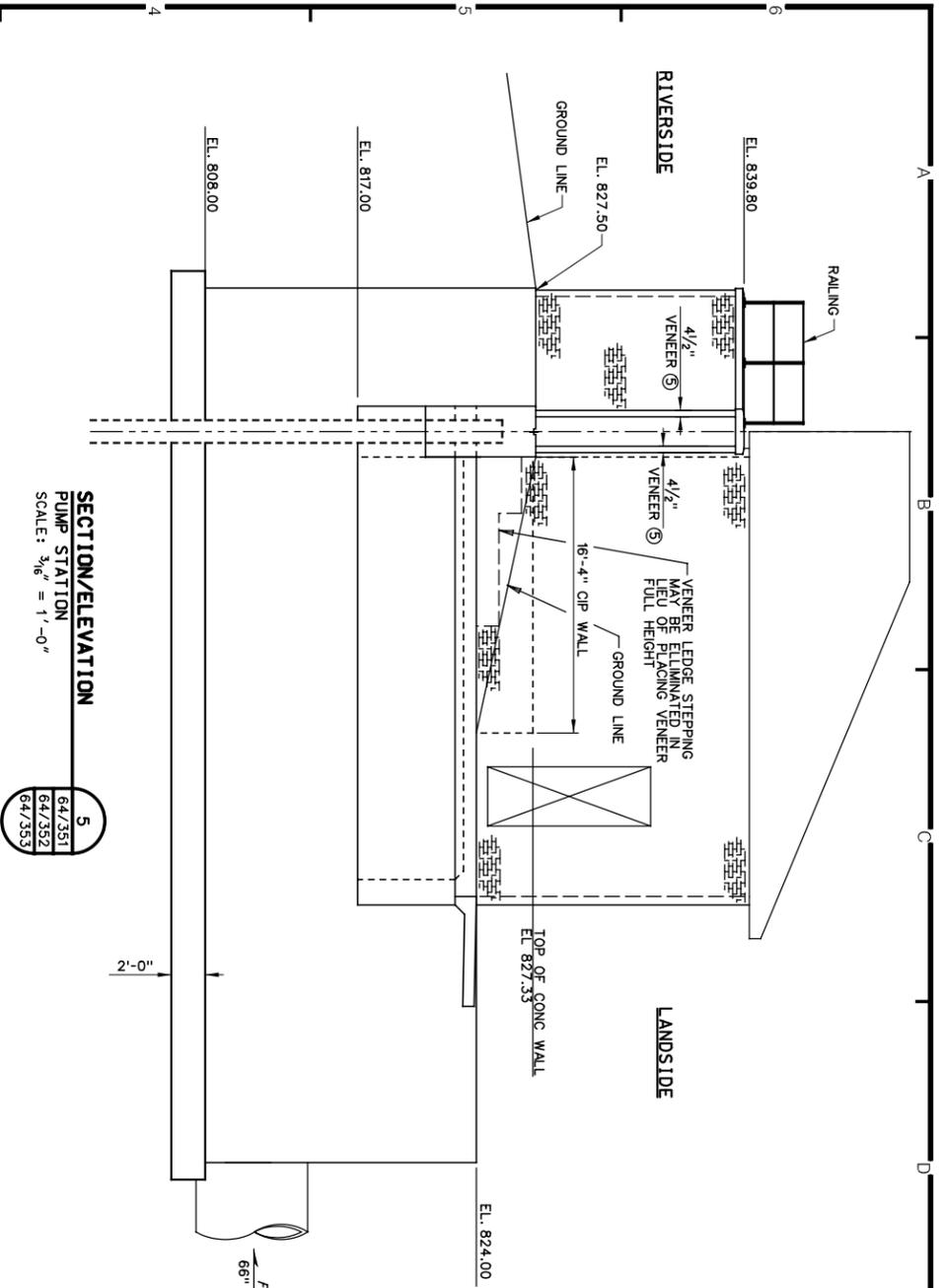
DEPARTMENT OF THE ARMY
 ST. PAUL, MINNESOTA
 CORPS OF ENGINEERS
 ST. PAUL DISTRICT

DESIGNED: JW	SCALE: AS SHOWN	DATE: MAY 2001
CHECKED: ALG	CADD FILE NAME: GFPS564354.DGN	
DRAWN: DLF	SOL. NO.:	
DESIGNED: H-D3	DACW37-01-B-0010	
CHECKED:	AE APPROVING OFFICIAL:	

Symbol	Description	Date	Appr.

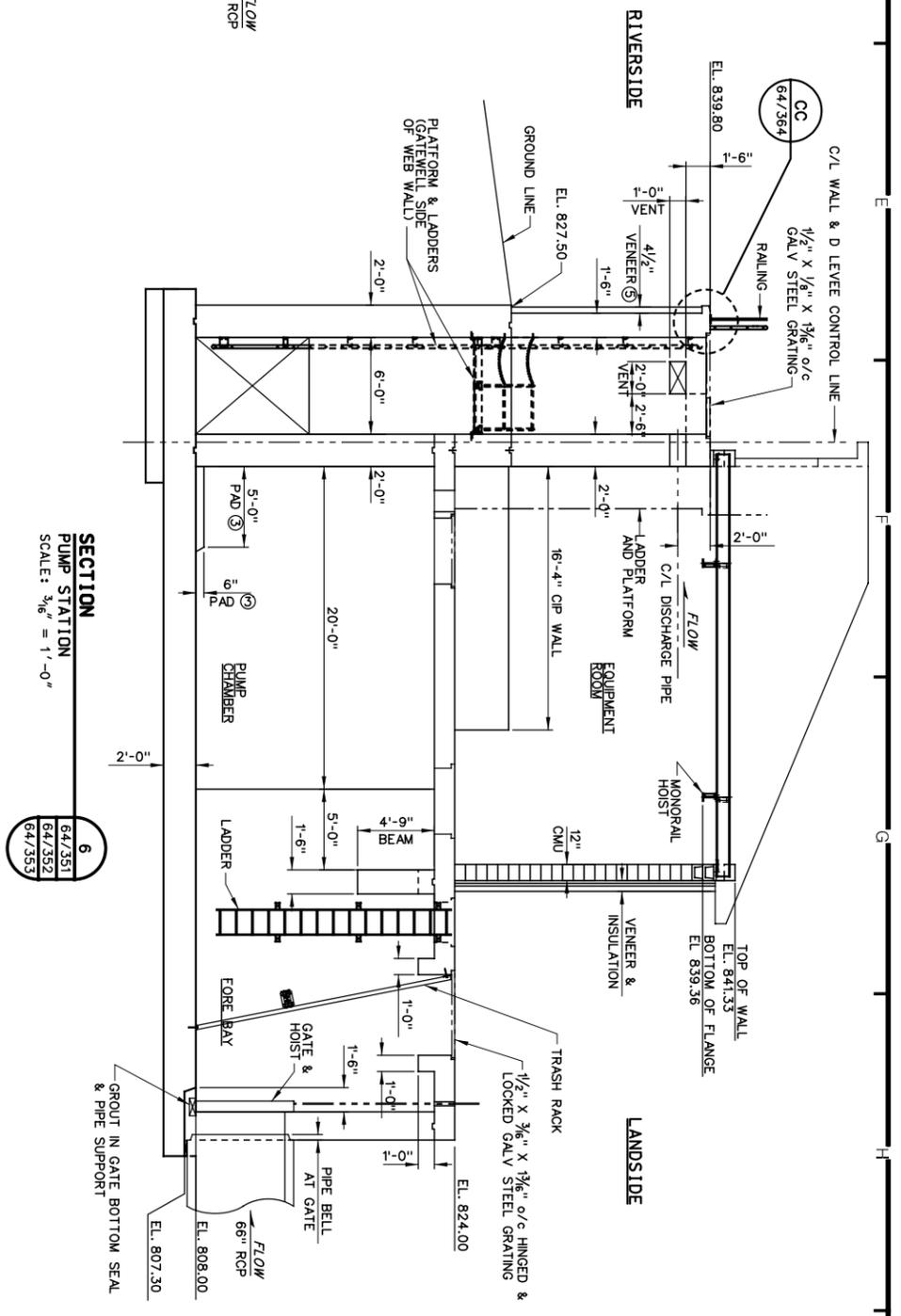
US Army Corps of Engineers
 St. Paul District

DRAWING NUMBER
R-P-0F-64/354
 SHIT 158 OF 283



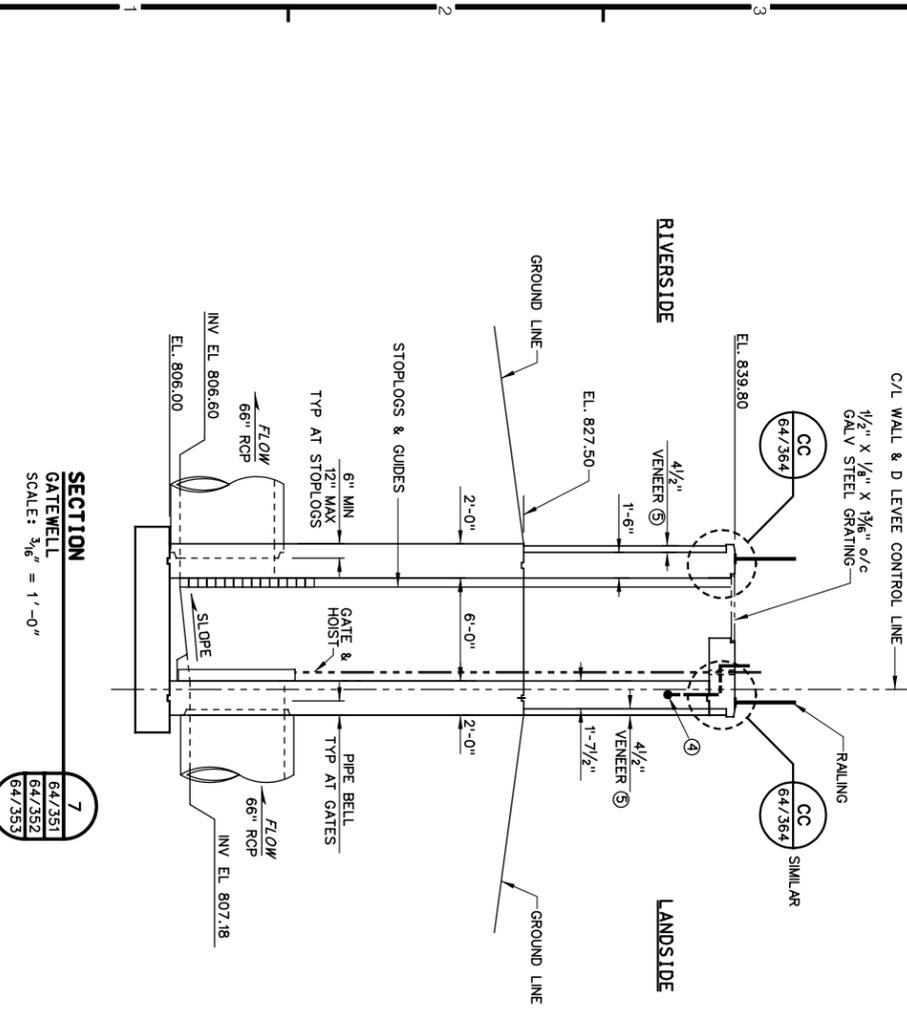
SECTION/ELEVATION
PUMP STATION
 SCALE: 3/8" = 1'-0"

64/351
64/352
64/353



SECTION
PUMP STATION
 SCALE: 3/8" = 1'-0"

64/351
64/352
64/353



SECTION
GATEWELL
 SCALE: 3/8" = 1'-0"

64/351
64/352
64/353

NOTE:

1. CONCRETE REINFORCING NOT SHOWN.
2. USE SAFETY POST FOR PUMP STATION ACCESS LADDERS.
3. VERIFY WITH PUMP MANUFACTURER.
4. SEE ELECTRICAL DRAWINGS FOR EMBEDDED CONDUIT.
5. DOVETAIL ANCHOR SLOTS AT 24" OC. SEE ARCHITECTURAL DRAWINGS.

REFERENCE

REFERENCE	DWG. NO.
1. GENERAL NOTES.....	64/309
2. EXP JT TYPE A & B.....	64/294
3. MISC METALS.....	64/380-391
4. PIPE AT WALL.....	64/387
5. MASONRY BUILDING & ROOF.....	64/344-349
6. MECHANICAL.....	64/368-374
7. ELECTRICAL.....	64/375-379



CONTRACT NO. DACW37-01-C-0033

CONTRACT DRAWING
 EAST GRAND FORKS, PHASE 1
FLOOD CONTROL
 PUMP STATION K12
 SECTION AND ELEVATION

DEPARTMENT OF THE ARMY
 ST. PAUL, MINNESOTA
 CORPS OF ENGINEERS
 ST. PAUL DISTRICT

DESIGNED: J. J. ALG	SCALE: AS SHOWN	DATE: MAY 2001
CHECKED: ALG	CADD FILE NAME: GFP5564356.DGN	
DRAWN: DLF	SOL. NO.:	
DESIGNED: DLF	DACW37-01-B-0010	
CHECKED:	AE APPROVING OFFICIAL:	

Symbol	Description	Date	Appr.

US Army Corps of Engineers
 St. Paul District

DRAWING NUMBER:
R-P-GF-64/356
 SHEET 180 OF 283

SECTION 00010 - Solicitation Contract Form

Basic Items:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Bonds (Performance and Payment)	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Preconstruction Damage Survey	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Hydraulic Portable Operator	1	Lump Sum		

Reach 1 From Sta F 120+12.88 To F 182+46.86

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	Demolition	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	Clearing and Grubbing	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	Stripping	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	Levee Toe Ditch Excavation				
0007AA	First 450 CY	450	Cubic Yard		
0007AB	Over 450 CY	110	Cubic Yard		
0008	Select Impervious Fill				
0008AA	First 13,500 Cubic Yards	13,500	Cubic Yard		
0008AB	Over 13,500 Cubic Yards	5,830	Cubic Yard		
0009	Impervious Fill				
0009AA	First 355,000 Cubic Yards	355,000	Cubic Yard		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009AB	Over 355,000 Cubic Yards	135,000	Cubic Yard		
0010	Segmental Block Retaining Wall	7,713	Square Foot		
0011	Inspection Trench	5,930	Linear Foot		
0012	Floodwall	179	Linear Foot		
0013	L9 Gated Outlet	1	Lump Sum		
0014	L9 Sluice Gate	1	Lump Sum		
0015	L9 Detention Pond	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0016	L9 Storm Sewer Collector System	1	Lump Sum		
0017	L10 Gated Outlet	1	Lump Sum		
0018	L10 Sluice Gate	1	Lump Sum		
0019	L10 Access Road	1	Lump Sum		
0020	L10 Preformed Scour Hole and Channel	1	Lump Sum		
0021	13th Ave Storm Sewer System	1	Lump Sum		
0022	Bituminous Trail	4,210	Square Yard		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0023	Park Benches	2	Each		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0024	Topsoil and Seeding, Class 1	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	Topsoil and Seeding, Class 2	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0026	Topsoil and Seeding, Class 3	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0027	Topsoil and Seeding, Class 4	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0028	Trees and Shrubs	1	Lump Sum		

Reach 1: Pump Station L8

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0029	L8 Pump Station Structure and Gatewell	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0030	L8 Pump Station and Gatewell Sluice Gates	1	Lump Sum		
0031	L8 Mechanical	1	Lump Sum		
0032	L8 Electrical	1	Lump Sum		
0033	L8 Electrical Service by City	1	Lump Sum	80,204.79	80,204.79
0034	L8 Electrical Service by Contractor	1	Lump Sum		
0035	L8 Install Engine Generator Set	1	Lump Sum		
0036	L8 Furnish and Install Load Bank	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0037	L8 Preformed Scour Hole	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0038	L8 Storm Sewer Collector System	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0039	Phase 1 Stop Log Panels	1	Lump Sum		

Total Price for Basic Items 0001 through 0039: _____

Option 1:

Reach 2 – Sta 167+90 to G 205+00 and Sta G214+74 to G 233+50

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0040		1	Lump Sum		
OPTION	Bonds for Option 1 (Performance and Payment)				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0041		1	Lump Sum		
OPTION	Demolition				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0042		1	Lump Sum		
OPTION	Clearing and Grubbing				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0043		1	Lump Sum		
OPTION	Stripping				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0044					
OPTION	Levee Toe Ditch Excavation				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0044AA		1,860	Cubic Yard		
OPTION	First 1860 CY				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0044AB		800	Cubic Yard		
OPTION	Over 1860 CY				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0045		1,670	Cubic Yard		

OPTION Levee Removal

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0046

OPTION Select Impervious Fill

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0046AA

OPTION First 8475 C Y

OPTION First 8475 C Y

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0046AB

OPTION Over 8475 CY

OPTION Over 8475 CY

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0047

OPTION Impervious Fill

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0047AA

OPTION First 39,050 CY

OPTION First 39,050 CY

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0047AB

OPTION Over 39,050 CY

OPTION Over 39,050 CY

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0048		3,714	Linear Foot		
OPTION	Inspection Trench				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0049		1,883	Linear Foot		
OPTION	Floodwall				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0050		1	Lump Sum		
OPTION	L3 Gated Outlet				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0051		1	Lump Sum		
OPTION	L3 Gated Outlet Sluice Gate				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0052		1	Lump Sum		
OPTION	L3 Preformed Scour Hole and Channel				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0053		1	Lump Sum		
OPTION	L3 Storm Sewer Collector System				
				_____.	_____.
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0054		1	Lump Sum		
OPTION	L3 Concrete Drive				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0055		1	Lump Sum		
OPTION	L3 Electrical Service by City				
				26,982.84	26,982.84

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0056		1	Lump Sum		
OPTION	L3 Electrical Service by Contractor				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0057		1	Lump Sum		
OPTION	L3 Electrical				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0058		1	Lump Sum		
OPTION	Maintenance Road Raise				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0059		3,811	Square Yard		
OPTION	Bituminous Trail				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0060		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 1				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0061		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 2				
				-----	-----

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0062		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 3				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0063		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 4				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0064		1	Lump Sum		
OPTION	Trees and Shrubs				

Reach 2: Pump Station L6

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0065		1	Lump Sum		
OPTION	L6 Pu mp Station Structure				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0066		1	Lump Sum		
OPTION	L6 Pump Station Sluice Gate				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0067		1	Lump Sum		
OPTION	L6 Gatewell				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0068		1	Lump Sum		
OPTION	L6 Gatewell Sluice Gate				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0069 OPTION	L6 Access Road	1	Lump Sum		
0070 OPTION	L6 Mechanical	1	Lump Sum		
0071 OPTION	L6 Electrical	1	Lump Sum		
0072 OPTION	L6 Electrical Service by City	1	Lump Sum		
				403,756.63	403,756.63
0073 OPTION	L6 Electrical Service by Contractor	1	Lump Sum		
0074 OPTION	L6 Install Engine Generator Set	1	Lump Sum		
0075 OPTION	L6 Furnish and Install Load Bank	1	Lump Sum		
0076 OPTION	L6 Prefomed Scour Hole and Channel	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0077		1	Lump Sum		
OPTION	L6 Detention Pond				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0078		1	Lump Sum		
OPTION	L6 Storm Sewer Collector System				

Total Price for Option 1 Items 0040 through 0078: _____

Option 2:**Reach 2 – Sta. G205+00 to G214+74**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0079		1	Lump Sum		
OPTION	Bonds for Option II (Performance and Payment)				
				-----	-----
0080		1	Lump Sum		
OPTION	Preconstruction Damage Survey				
				-----	-----
0081		1	Lump Sum		
OPTION	Demolition				
				-----	-----
0082		1	Lump Sum		
OPTION	Clearing and Grubbing				
				-----	-----
0083		1	Lump Sum		
OPTION	Stripping				
				-----	-----
0084			UNIT	UNIT PRICE	AMOUNT
OPTION	Select Impervious Fill				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0084AA		2,385	Cubic Yard		
OPTION	First 2385 CY				
				_____.	_____.
0084AB		1,025	Cubic Yard		
OPTION	Over 2385 CY				
				_____.	_____.
0085			UNIT	UNIT PRICE	AMOUNT
OPTION	Impervious Fill				
0085AA		7,250	Cubic Yard		
OPTION	First 7250 CY				
				_____.	_____.
0085AB		3,110	Cubic Yard		
OPTION	Over 7250 CY				
				_____.	_____.
0086		974	Linear Foot		
OPTION	Inspection Trench				
				_____.	_____.
0087		475	Square Foot		
OPTION	Segmental Block Retaining Wall				
				_____.	_____.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0088		2,480	Square Yard		
OPTION	Bituminous Trail				
				_____.	_____.
0089		290	Linear Foot		
OPTION	Bituminous Trail Handrail				
				_____.	_____.
0090		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 1				
				_____.	_____.
0091		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 2				
				_____.	_____.
0092		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 3				
				_____.	_____.
0093		1	Lump Sum		
OPTION	Topsoil and Seeding, Class 4				
				_____.	_____.
0094		1	Lump Sum		
OPTION	Trees and Shrubs				
				_____.	_____.

Total Price for Option 2 Items 0079 through 0094: _____

Total Price for All Items 0001 through 0094: _____