

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	82-2-1PS-4, 61-PS-1	**	9	1
ILLINOIS			CONTRACT NO. -	
# FAI 70/FAP 594			# ST. CLAIR & MADISON	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 McCAMBRIDGE AVENUE PUMP STATION PLAN AND STRUCTURAL DETAILS
- 5 BOWMAN PUMP STATION PLAN
- 6 BOWMAN PUMP STATION STRUCTURAL DETAILS
- 7 BOWMAN PUMP STATION PIPE SUPPORT PLANS
- 8 BOWMAN PUMP STATION PIPE SUPPORT ELEVATION
- 9 BOWMAN PUMP STATION PIPE SUPPORT STRUCTURAL DETAILS

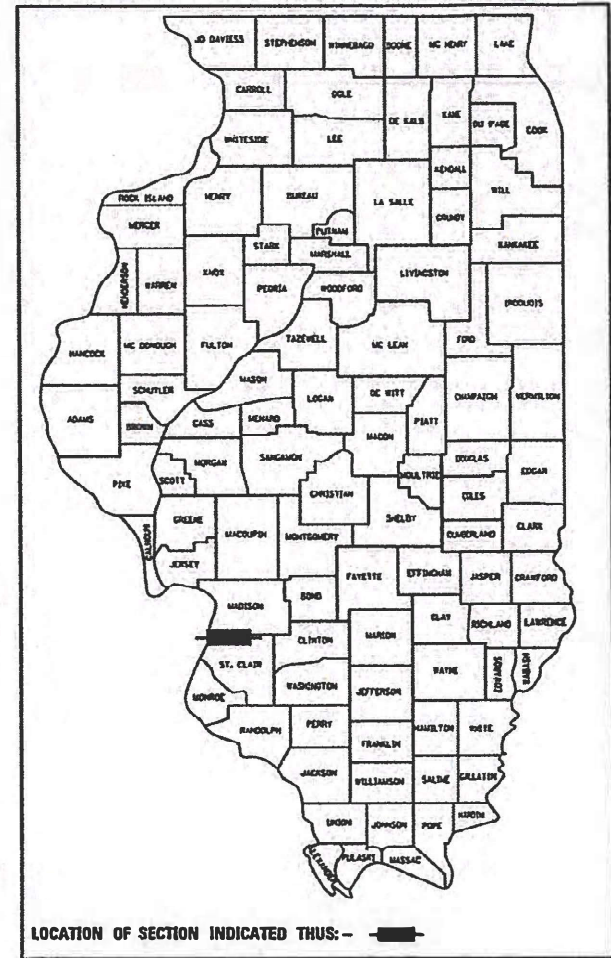
**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 70 /FAP 594 (I-055/064/L 203)
SECTION 82-2-1PS-4, 61-PS-1
BOWMAN & McCAMBRIDGE AVENUE
PUMP STATION BUILDING IMPROVEMENTS
ST. CLAIR & MADISON COUNTIES

HIGHWAY STANDARDS

000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

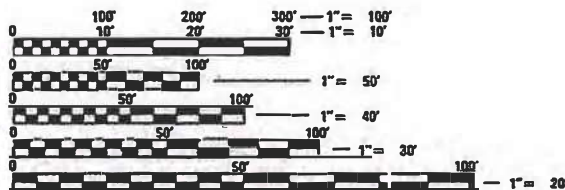
D-98-031-19



C-98-043-19

PLANS PREPARED BY:

**KLINGNER
& ASSOCIATES, P.C.**
Engineers • Architects • Surveyors
616 N. 24th St. Quincy, Illinois 62301 217-223-3670
STATE OF ILLINOIS DESIGN FIRM # 1842738



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: HERVE GELIN 618-346-3179
PROJECT MANAGER: PHILLIP SAWYER 618-346-3275

CONTRACT NO. 76M22

McCAMBRIDGE AVE.
PUMP STATION

MADISON COUNTY

JOHN J. NEYENS
062 063295
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS
DATE 3/2/20

JOHN J. NEYENS
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-063295
LICENSE EXPIRES NOVEMBER 30, 2021

GROSS LENGTH = NA
NET LENGTH = NA

ST. CLAIR COUNTY

AARON M. SCHAFER
081-007926
LICENSED
STRUCTURAL
ENGINEER
STATE OF ILLINOIS
DATE 3/2/2020

AARON M. SCHAFER
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS NO. 081-007926
LICENSE EXPIRES NOVEMBER 30, 2020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 19, 2020
Keith Roberts
REGIONAL ENGINEER

May 8, 2020
Joe A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2020
Jerry J. Gu
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DESIGN CRITERIA

1. BUILDING CODES: IBC 2012

GENERAL NOTES

1. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD, AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
2. THE CONTRACTOR SHALL SECURE ANY LOCAL, STATE, COUNTY PERMITS NEEDED FOR THIS PROJECT.
3. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION FOR THE PROJECT IN A MANNER AND SEQUENCE THAT ARE BASED ON ACCEPTED INDUSTRY STANDARDS THAT RECOGNIZE THE INTERACTION OF THE COMPONENTS THAT COMPRISE THE STRUCTURE, WITHOUT CAUSING DISTRESS, UNANTICIPATED MOVEMENTS OR IRREGULAR LOAD PATHS AS A RESULT OF THE CONSTRUCTION MEANS AND METHODS EMPLOYED.
4. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOAD. THE CONTRACTOR IS RESPONSIBLE FOR ALL DESIGN REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT USED IN CONSTRUCTING THIS PROJECT. SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED WITH THE COST OF FURNISHING AND ERECTING STRUCTURAL STEEL, SPECIAL.
5. UTILITIES - LOCATIONS / INFORMATION ON PLANS
ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

 - * Ameren Illinois (GAS & ELECTRIC)
 - * AT&T Illinois (COMMUNICATIONS)
 - * CenturyLink, Inc. (COMMUNICATIONS)
 - * City of East St. Louis (LIGHTING)
 - * ILLINOIS AMERICAN WATER CO. (WATER)

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
7. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIAL PROVISIONS CAREFULLY. VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS, PRIOR TO AGREEING TO PERFORM THE WORK. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE CONTRACTOR FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
8. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING PUMP STATION BUILDING.
9. DRAWINGS ARE NOT TO SCALE.
10. THE DEPARTMENT RESERVES THE RIGHT TO NOTIFY THE CONTRACTOR TO CHANGE THE CONSTRUCTION SCHEDULE IF NEEDED TO ENSURE PROPER DEWATERING NEEDS FOR THE DEPARTMENT.
11. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES, GRADUATES ARE WELL TRAINED AND READY TO BECOME PRODUCTIVE ENTRY LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

STRUCTURAL STEEL

1. DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC SPECIFICATIONS AND STANDARD CODE OF PRACTICE.
2. STEEL FABRICATION AND ERECTION SHALL FOLLOW OSHA REQUIREMENTS.
3. ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE", AWS D1.1, LATEST EDITION.
4. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
 - a. WT SHAPES - ASTM A992 GRADE 50 (Fy=50ksi)
 - b. PLATES, RODS, AND BARS - ASTM A36 (Fy=36 ksi)
 - c. PIPES - ASTM A53 (Fy=35ksi)
 - d. BOLTS - ASTM 325-n
 - e. WASHERS - ASTM F436
 - f. NUTS - ASTM A563
 - g. THREADED ANCHOR RODS - ASTM F1554 GRADE 36 (Fy=36ksi)
 - h. WELDING ELECTRODES - E70xx
 - i. GROUT FOR BASE PLATES - PREPACKED, NON-METALLIC, NO-GASEOUS, AND NON-SHRINK PER CRD C621 AND ASTM C1107 AT FLUID CONSISTENCY (FLOW CONE) OF 20-30 SECONDS. 28 DAY COMPRESSIVE STRENGTH = 7000 psi
 - j. CLEVIS
 1. MATERIAL: CARBON STEEL
 2. FINISH: HOT DIPPED GALVANIZED
 3. APPROVAL: COMPLIES WITH FEDERAL SPECIFICATION A-A-1192A (TYPE 1), WW-H-171-E (TYPE 1), ANSI/MSS SP-69 AND MSS SP-58 (TYPE 1)
5. ALL STEEL SHALL BE HOT DIPPED GALVANIZED, UNLESS NOTED OTHERWISE. SEE SPECIAL PROVISION.
6. REPAIR GALVANIZED SURFACES PER ASTM A780.
7. ALL STEEL SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
8. EPOXY ANCHORS SHALL FOLLOW SECTION 584 OF THE STANDARD SPECIFICATIONS.

	USER NAME = *USER*	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	CHECKED - AMS	REVISED -					VAR	82-2-IPS-4, 61-PS-1	ST. CLAIR/MADISON	9	2
	PLOT DATE = *DATE*	DATE - ADL	REVISED -					CONTRACT NO. 76M22				
				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				100% STATE URBAN	
				ST. CLAIR 0044	MADISON 0044
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1,215	930	285
67100100	MOBILIZATION	L SUM	1	0.7	0.3
X0335700	PUMP STATION GENERAL WORK	L SUM	1	1	
Z0001904	STRUCTURAL STEEL REMOVAL	L SUM	1	0.6	0.4

Q:\11\Files\110023\Work_Order_17 - Borman & McEmbridge Pump Stations\CADD_Sheets\0876M22-ht-510.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

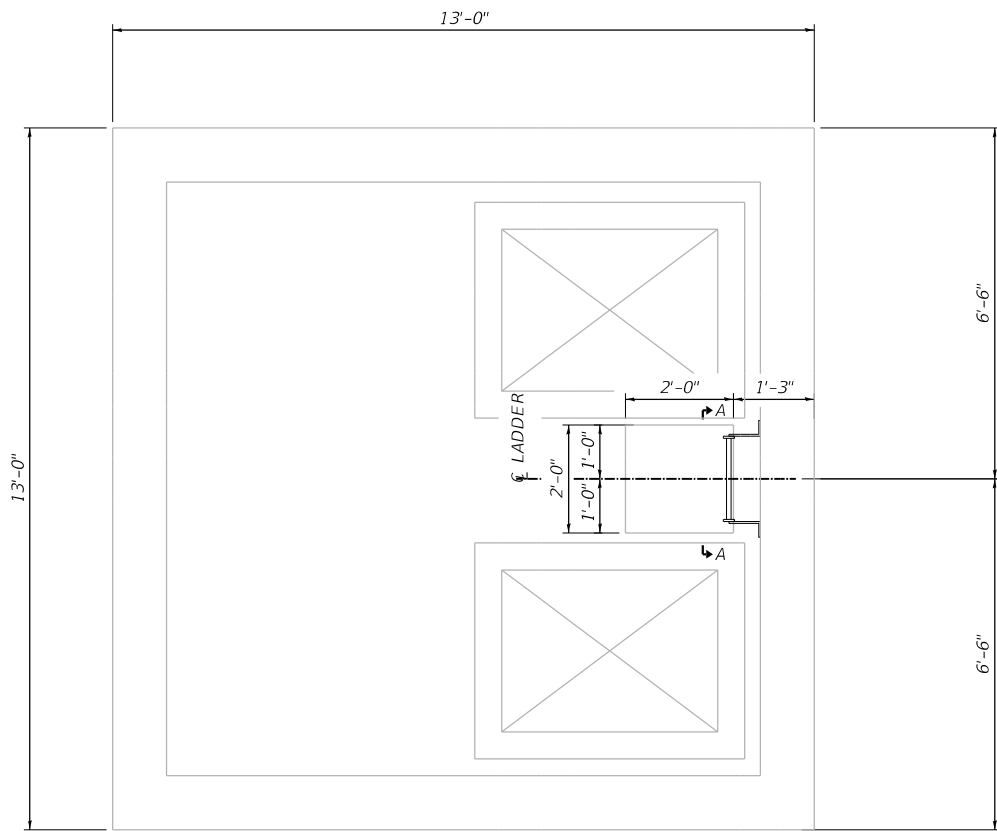
USER NAME = oms	DESIGNED - AMS	REVISED -
PLOT SCALE = 2 1/8" = 1'-0"	DRAWN - ADL	REVISED -
PLOT DATE = 3/2/2020	CHECKED - AMS	REVISED -
	DATE - ADL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

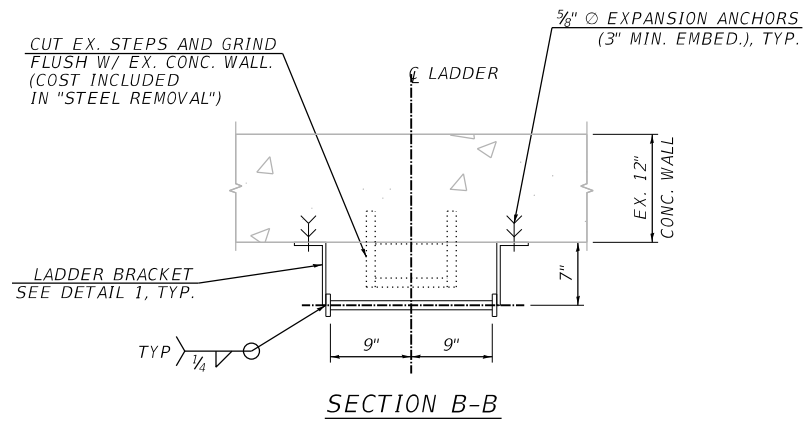
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

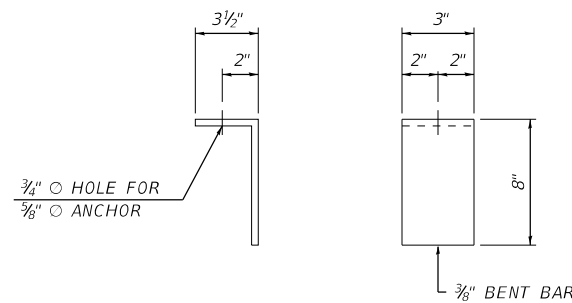
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-IPS-4, 61-PS-1	ST. CLAIR/MADISON	9	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76M22	



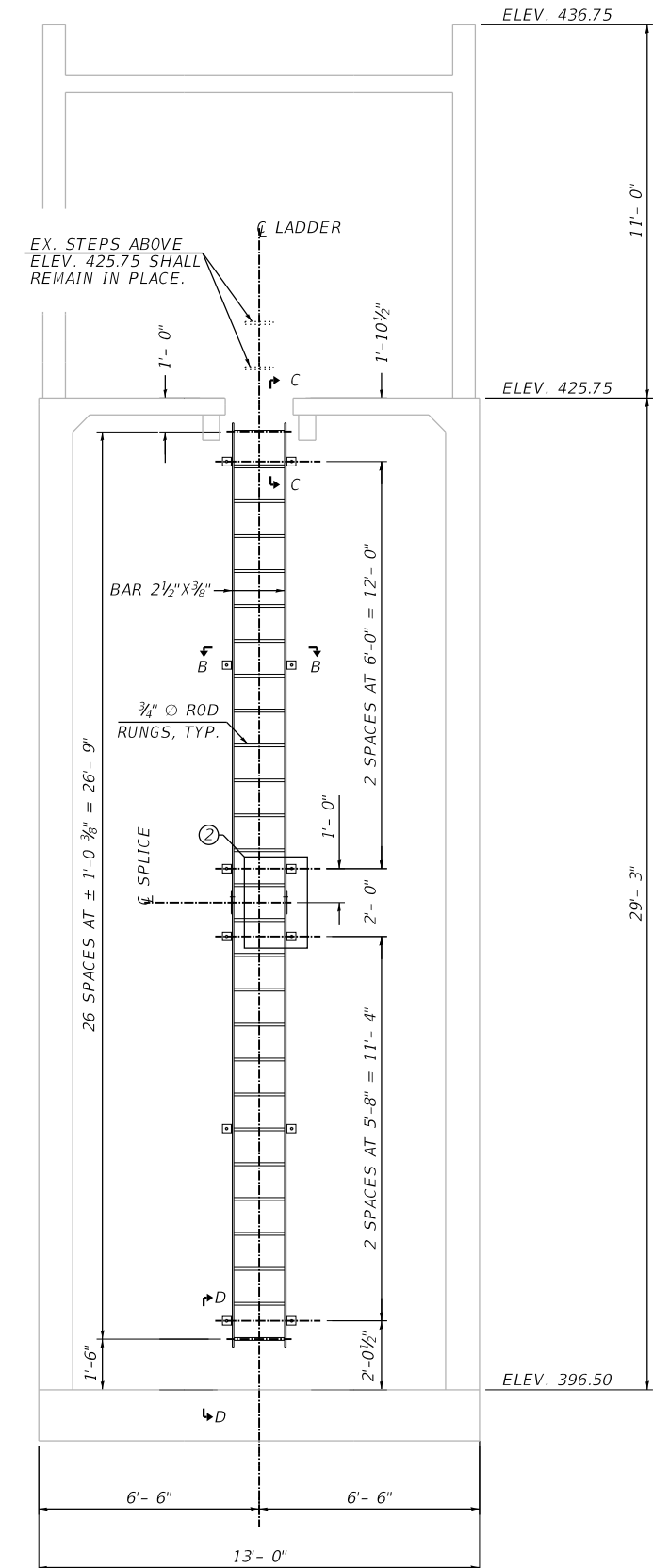
PLAN ELEV. 425.75



SECTION B-B



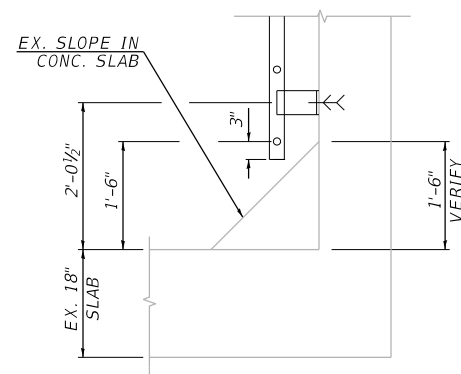
DETAIL 1 - BRACKET



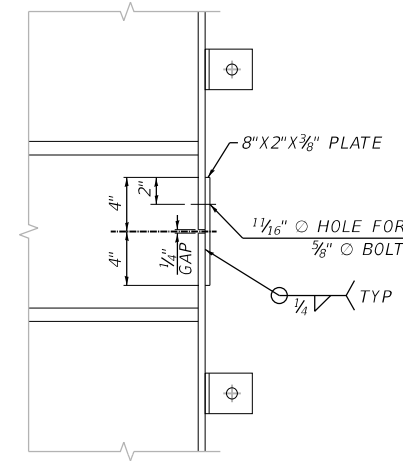
SECTION A-A

NOTES

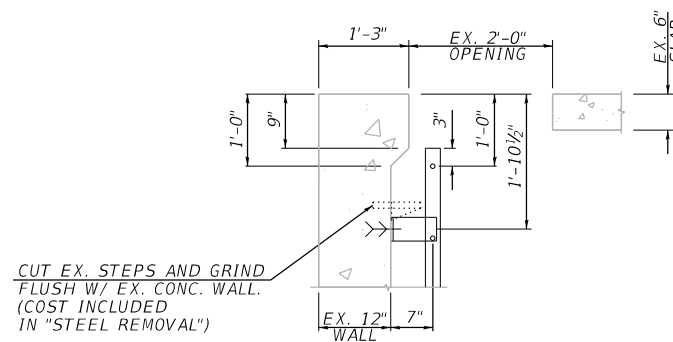
1. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED
2. ALL DIMENSIONS RELATIVE TO THE EX. STRUCTURE HAVE BEEN TAKEN FROM EX. PLANS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, PRIOR TO FABRICATION.
3. THE COST OF THE STEEL LADDER AND ANCHORS SHALL BE INCLUDED IN "FURNISHING AND ERECTING STRUCTURAL STEEL".
4. THE COST OF CUTTING AND GRINDING THE EX. STEPS SHALL BE INCLUDED IN "STRUCTURAL STEEL REMOVAL".



SECTION D-D



DETAIL 2 - LADDER SPLICE



SECTION C-C

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing and Erecting Structural Steel	Pound	285

D:\11 Files\110023\Work - Order 17 - Bomen & McCambridge Pump Stations\CADD_Sheets\0876M22-sh1-Plan1.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = oms
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 PLOT SCALE = 5/4" = 1' / 1/4"
 CHECKED -
 DATE -
 PLOT DATE = 3/2/2020

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

McCAMBRIDGE AVENUE PUMP STATION
 PLAN AND STRUCTURAL DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-IPS-4, 61-PS-1	ST. CLAIR/MADISON	9	4

CONTRACT NO. 76M22
 ILLINOIS FED. AID PROJECT

REMOVE AND REPLACE EX. SUPPORT COLUMN, BASE PLATE, CAP PLATE, AND BOTTOM STIFFENER PLATE

REMOVE AND REPLACE EX. SUPPORT COLUMN, BASE PLATE, CAP PLATE, AND BOTTOM STIFFENER PLATE

REMOVE AND REPLACE EX. SUPPORT COLUMN, BASE PLATE, CAP PLATE, AND BOTTOM STIFFENER PLATE

RELOCATE EX. CHECK VALVE SUPPORT ANGLE AND CENTER ON NEW CHECK VALVE LOCATION. GRIND EX. ANCHORS FLUSH TO CONC. NEW ANCHORS SHALL BE EPOXY ANCHORS, ANCHOR ROD DIAMETER SHALL MATCH EX. DIAMETER

REPLACE EX. CHECK VALVE IDOT TO PROVIDE CHECK VALVE

REMOVE EX. HANGER SUPPORT

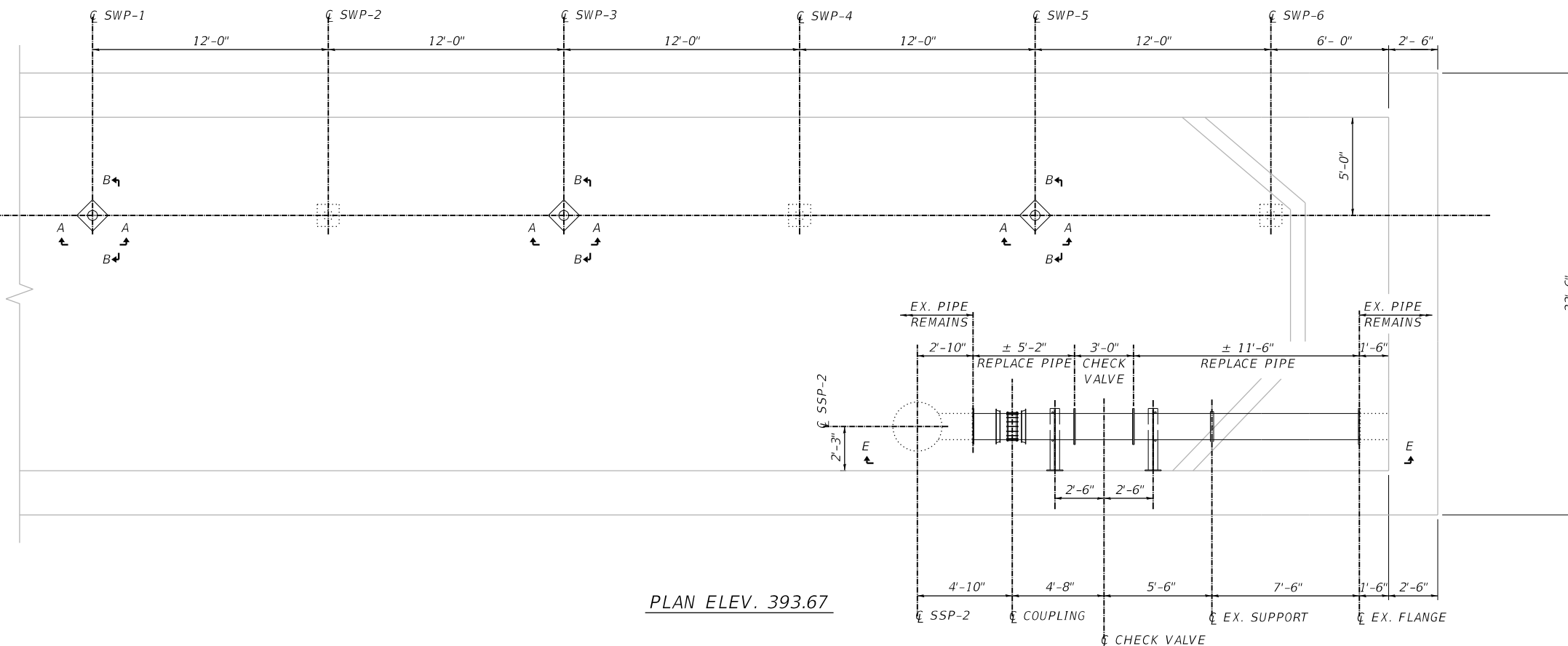
EX. PIPE REMAINS

EX. PIPE REMAINS

REPLACE EX. PIPE

- NOTE
1. NO SALVAGE
 2. THE COST OF PIPE REMOVAL SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 3. THE COST OF ALL PIPING AND PIPING COMPONENTS SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 4. THE COST OF REMOVING THE EXISTING STEEL COLUMNS, BASE PLATES, CAP PLATES AND ANCHORS SHALL BE INCLUDED IN "STRUCTURAL STEEL REMOVAL"
 5. SEE SHEET 6 OF 9 FOR SECTION A-A, B-B, AND E-E.

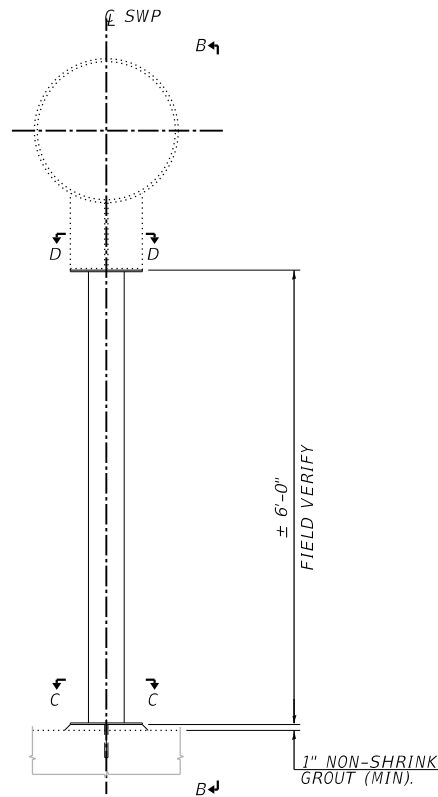
DEMO PLAN - ELEV. 393.67



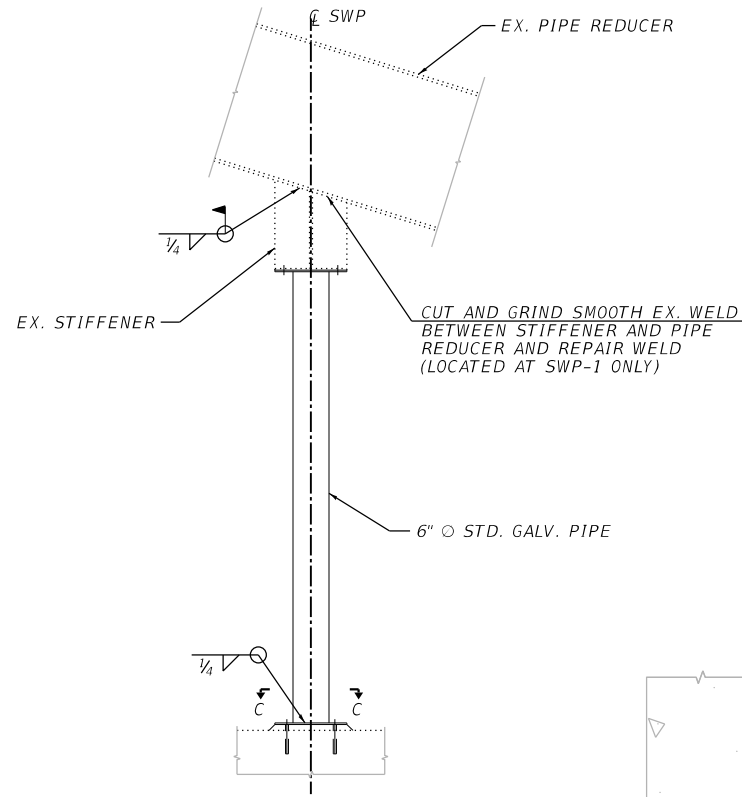
PLAN ELEV. 393.67

D:\11 Files\110023\Work_Order_17 - Bowman & McClunbridge Pump Stations\CADD_Sheets\0876M22-sh1-Plan2.dgn

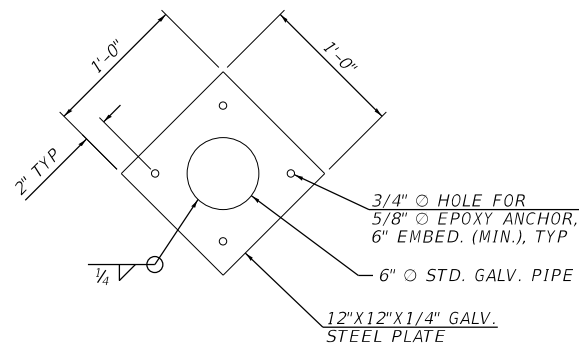
- NOTE
 1. NO SALVAGE
 2. THE COST OF PIPE REMOVAL SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 3. THE COST OF ALL PIPING AND PIPING COMPONENTS SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 4. THE COST OF REMOVING THE EXISTING STEEL COLUMNS, BASE PLATES, CAP PLATES AND ANCHORS SHALL BE INCLUDED IN "STRUCTURAL STEEL REMOVAL".



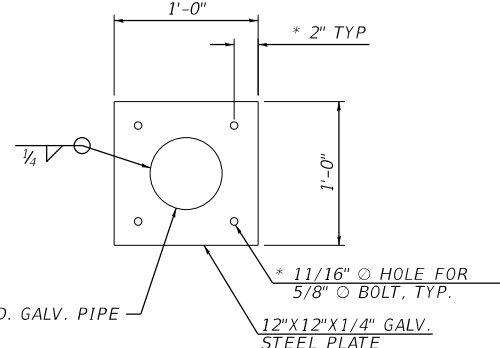
SECTION A-A



SECTION B-B

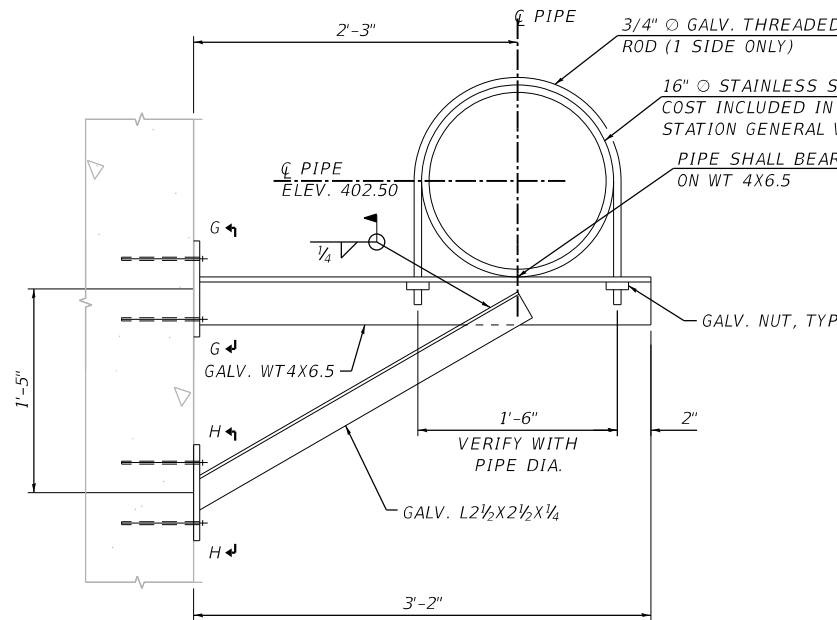


SECTION C-C
BASE PLATE

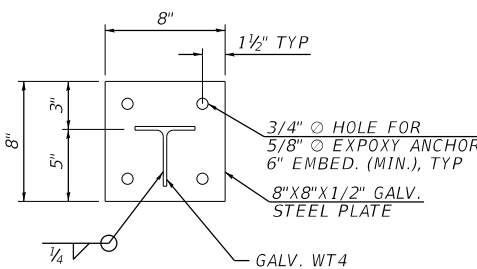


SECTION D-D
CAP PLATE

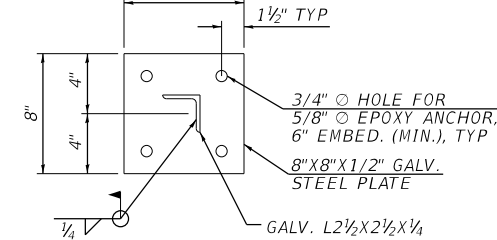
SPACING AND BOLT SIZE SHALL MATCH EX. CONDITIONS (FIELD VERIFY)



SECTION F-F

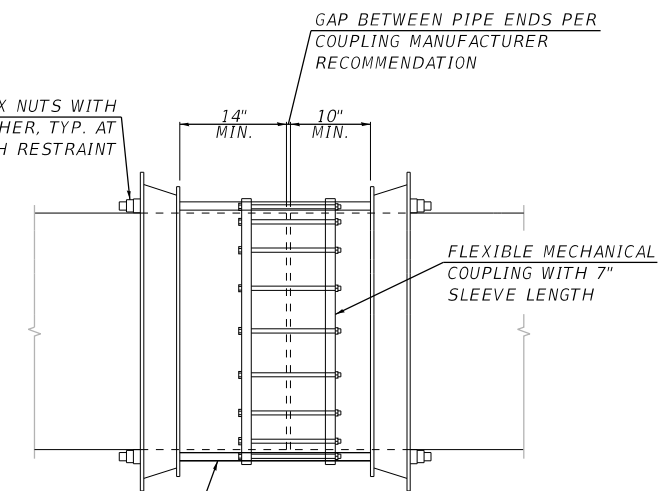


SECTION G-G



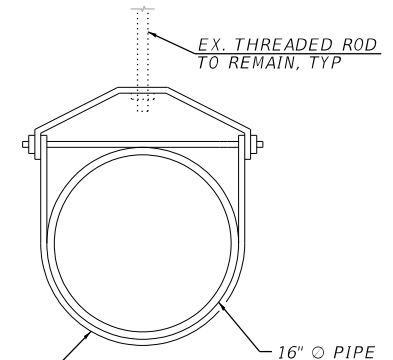
SECTION H-H

REMOVE AND REPLACE EX. ADJUSTABLE CLEVIS W/ 260 ADJUSTABLE CLEVIS HANGER, GALVANIZED. COST INCLUDED IN "PUMP STATION GENERAL WORK"

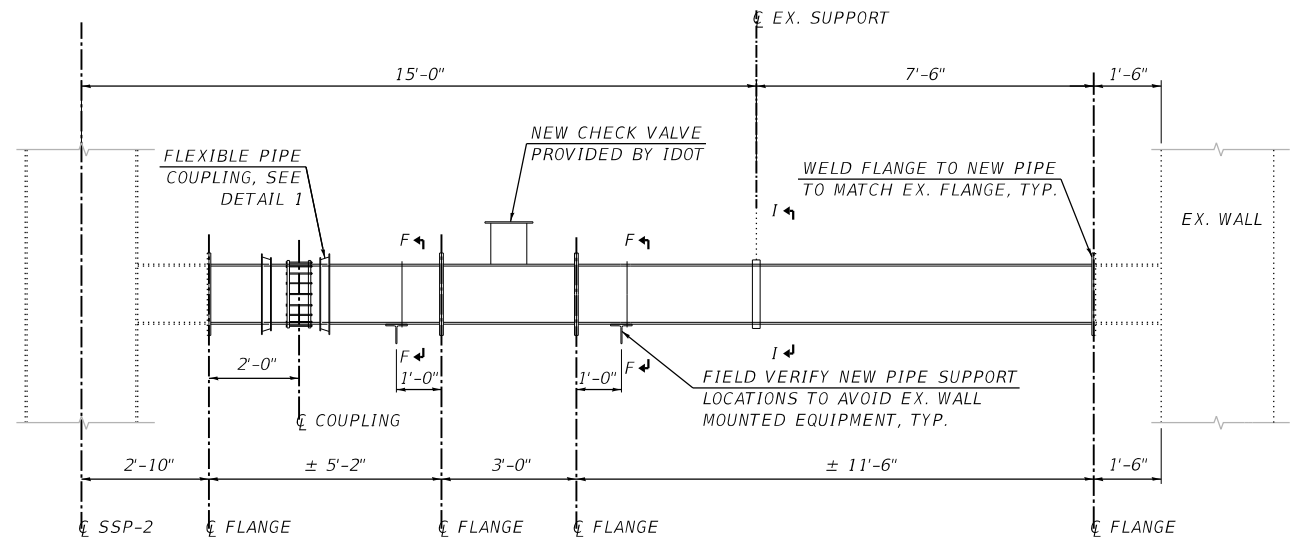


DETAIL 1

* COST INCLUDED IN "PUMP STATION GENERAL WORK"



SECTION I-I



SECTION E-E

* FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing and Erecting Structural Steel	Pound	530

Q:\11 Files\110023\Work - Order 17 - Bowman & McClunbridge Pump Stations\CADD_Sheets\0876M22-sh1-Details.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = oms
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 PLOT SCALE = 5/4" = 1' / in.
 PLOT DATE = 3/2/2020

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

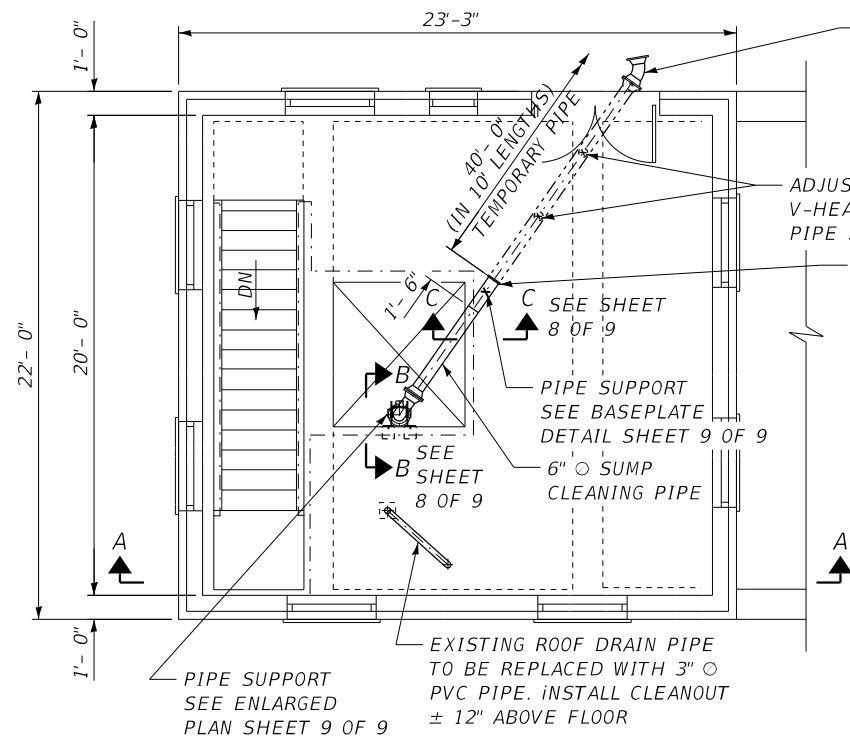
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

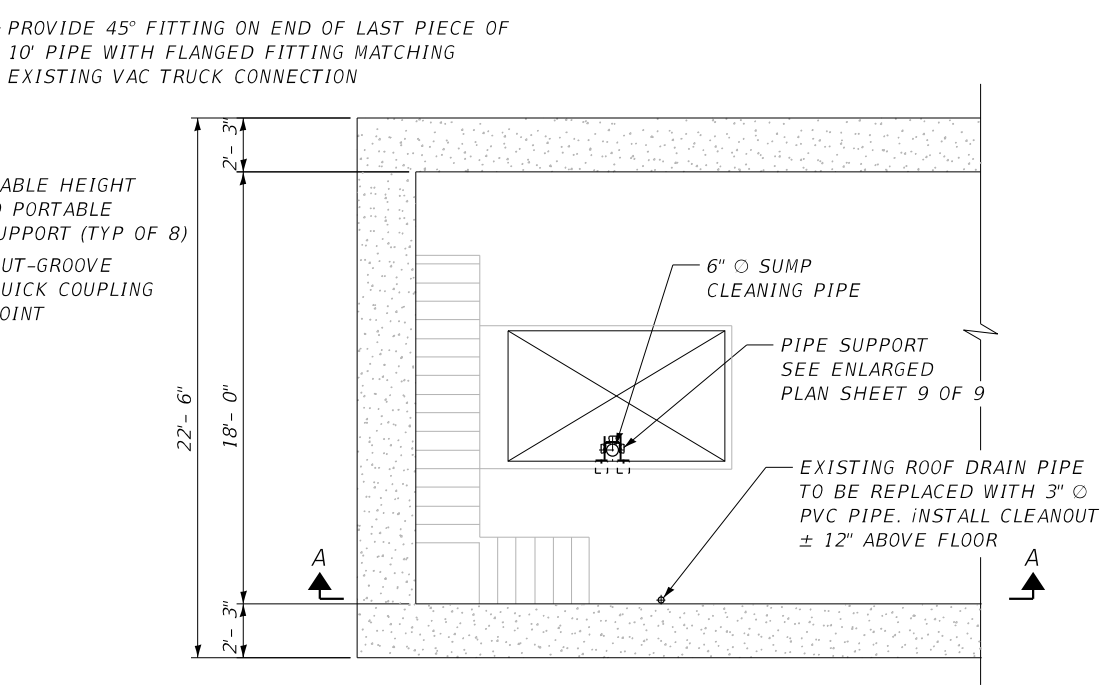
BOWMAN PUMP STATION
 STRUCTURAL DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-1PS-4, 61-PS-1	ST. CLAIR/MADISON	9	6
CONTRACT NO. 76M22			ILLINOIS FED. AID PROJECT	

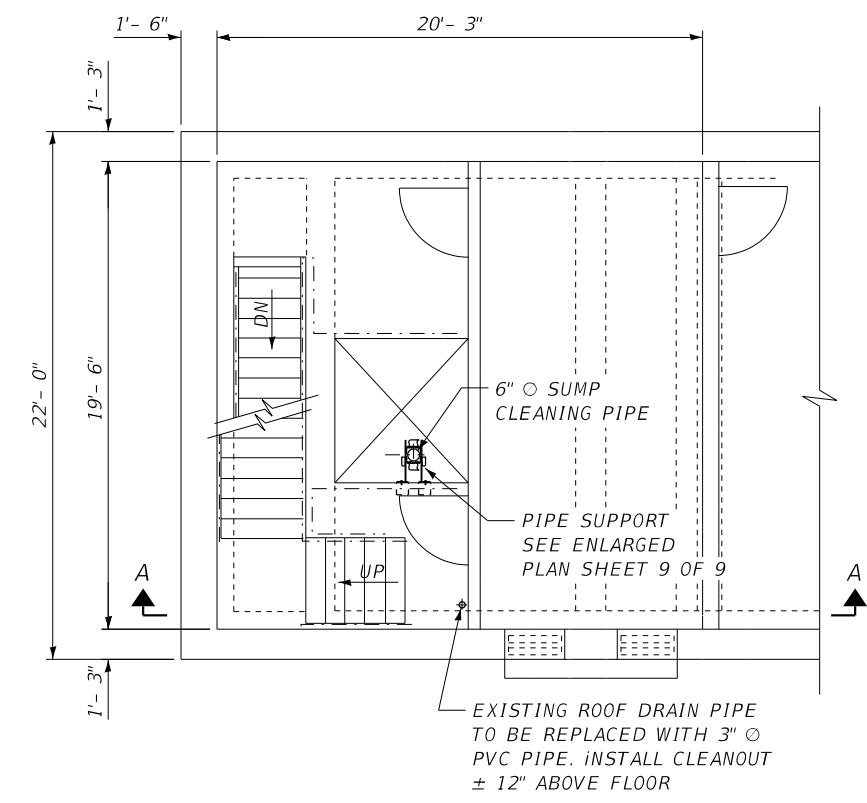


PLAN @ EL 422.0

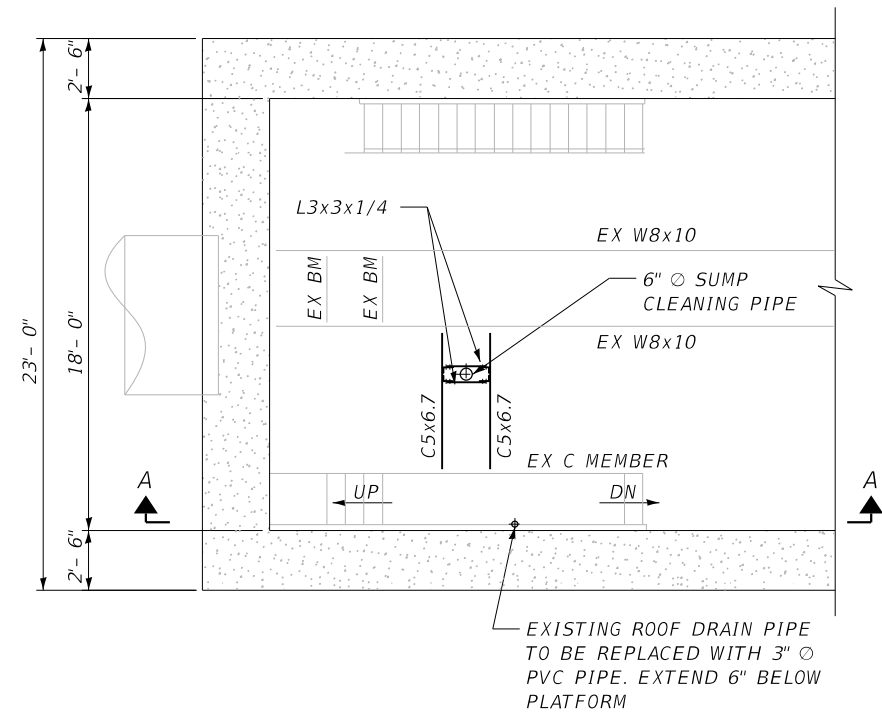


PLAN @ EL 393.67

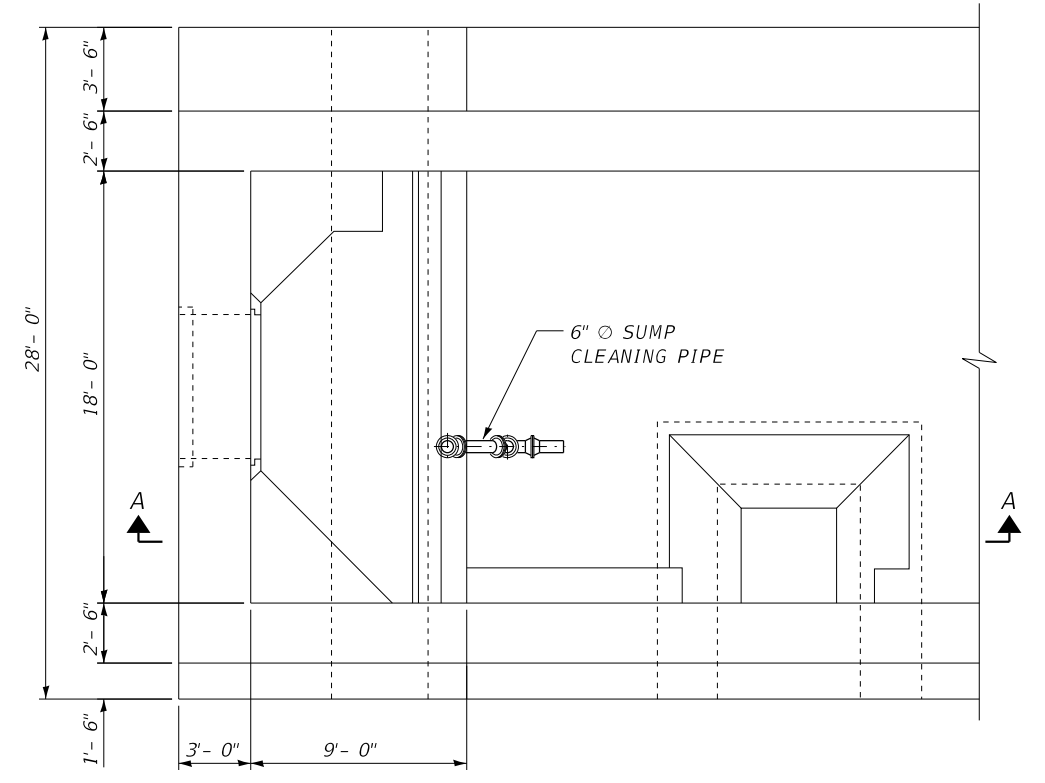
- NOTE
1. NO SALVAGE
 2. THE COST OF PIPE REMOVAL SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 3. THE COST OF ALL PIPING AND PIPING COMPONENTS SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 4. THE COST OF STEEL PIPE SUPPORTS SHALL BE INCLUDED IN "FURNISHING AND ERECTING STRUCTURAL STEEL"
 5. SEE SHEET 8 OF 9 FOR SECTION A-A.
 6. SEE SHEET 9 OF 9 FOR ENLARGED PLANS AND STRUCTURAL DETAILS.



PLAN @ EL 408.0



PLAN @ EL 380.0



PLAN @ EL 366.0

D:\11\Files\110023\Work\Order 17 - Bowman & McEnbridge Pump Stations\CADD_Sheets\0876M22-sh1-Plan3.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

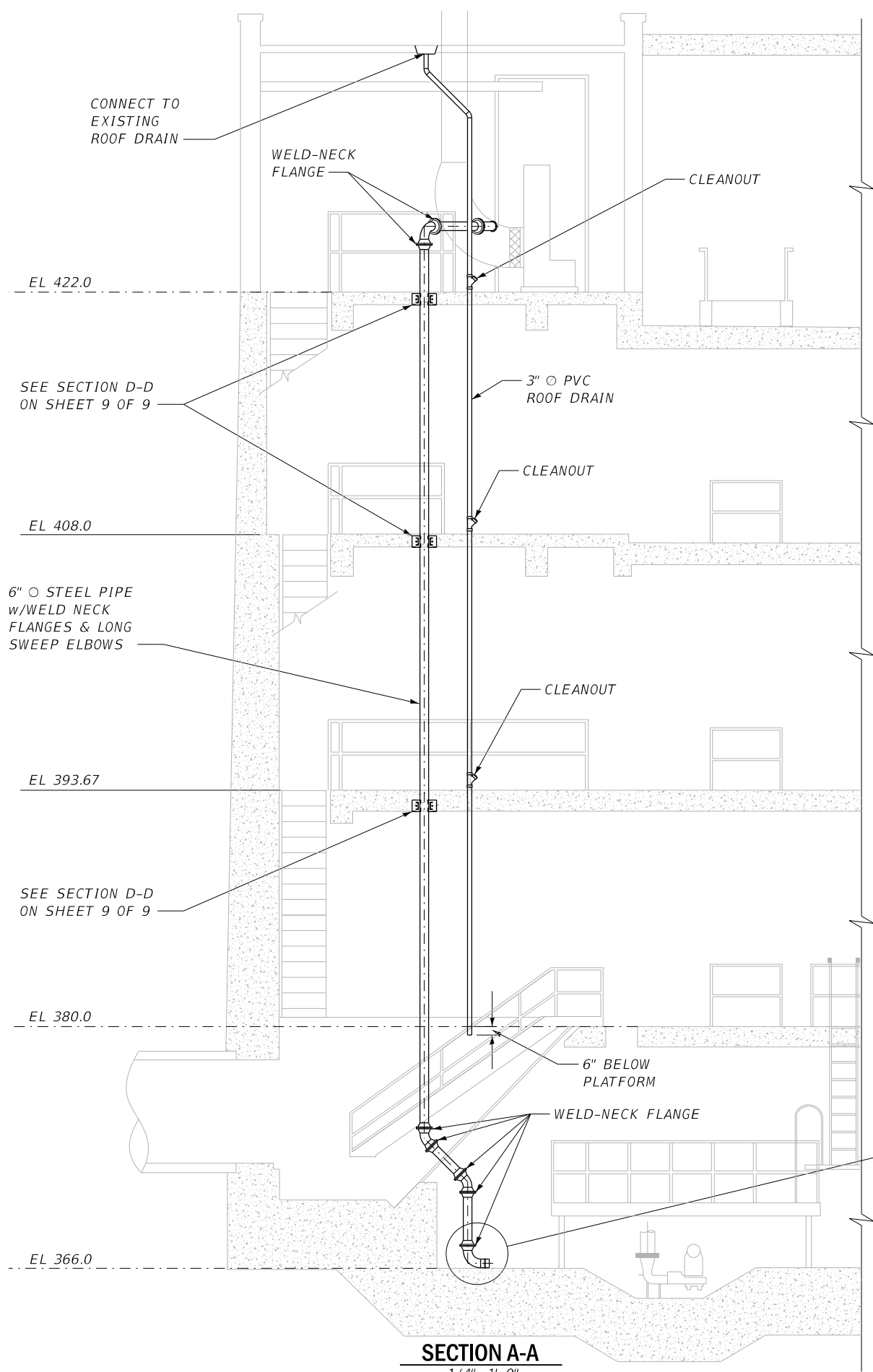
USER NAME = oms	DESIGNED -	REVISED -
PLOT SCALE = 2.0000' / 1" =	DRAWN -	REVISED -
PLOT DATE = 3/2/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

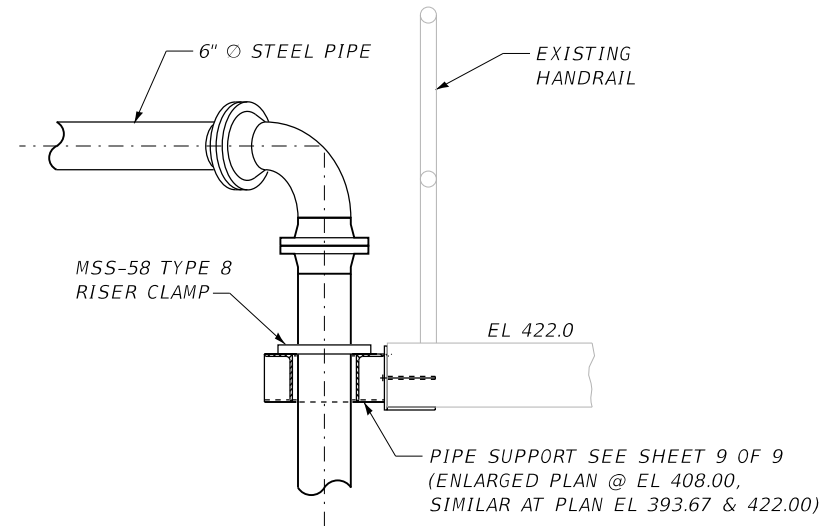
**BOWMAN PUMP STATION
 PIPE SUPPORT PLANS**

SCALE: 1/4"=1'-0" SHEET OF SHEETS STA. TO STA.

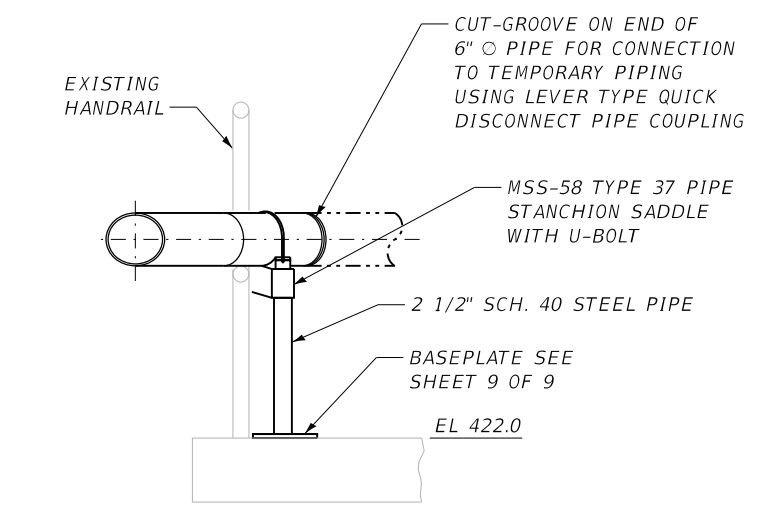
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-IPS-4, 61-PS-1	ST. CLAIR/MADISON	9	7
CONTRACT NO. 76M22				
ILLINOIS FED. AID PROJECT				



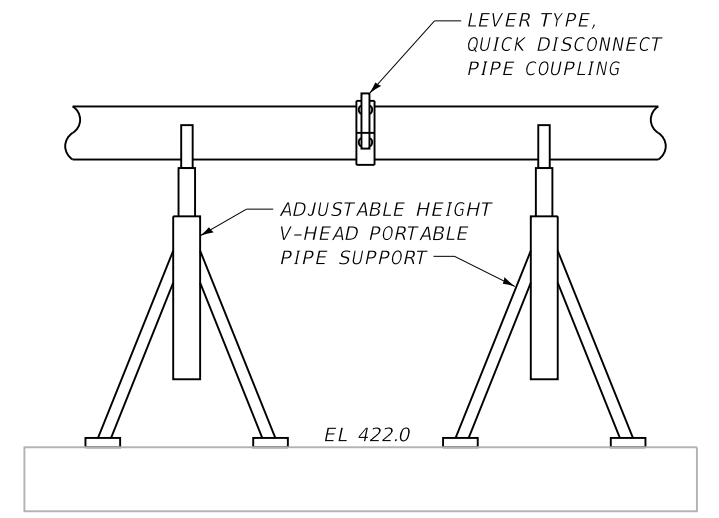
SECTION A-A
1/4" = 1'-0"



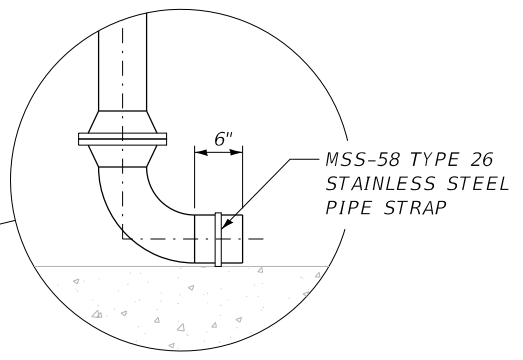
SECTION B-B
1" = 1'-0"



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



TEMPORARY PIPE SUPPORTS DETAIL
N.T.S.



D:\11\Files\110023\Work_Order_17 - Bowman & McEnbridge Pump Stations\CADD_Sheets\0876M22-sh1-Elevation_1.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223.3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

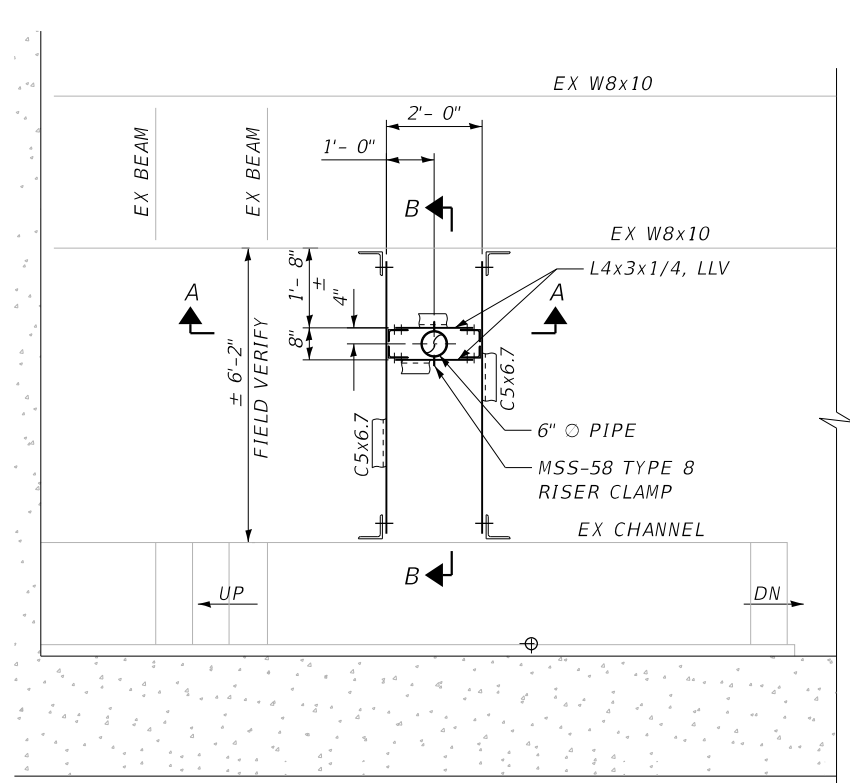
USER NAME : oms	DESIGNED -	REVISED -
PLOT SCALE : 2.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE : 3/2/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

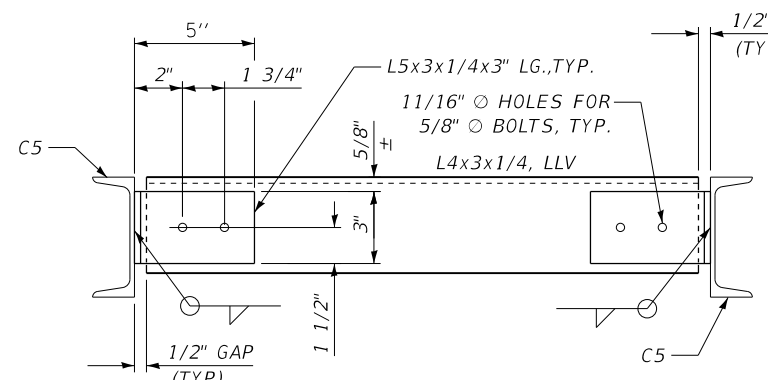
BOWMAN PUMP STATION
PIPE SUPPORT ELEVATION

SCALE: AS NOTED SHEET OF SHEETS STA. TO STA.

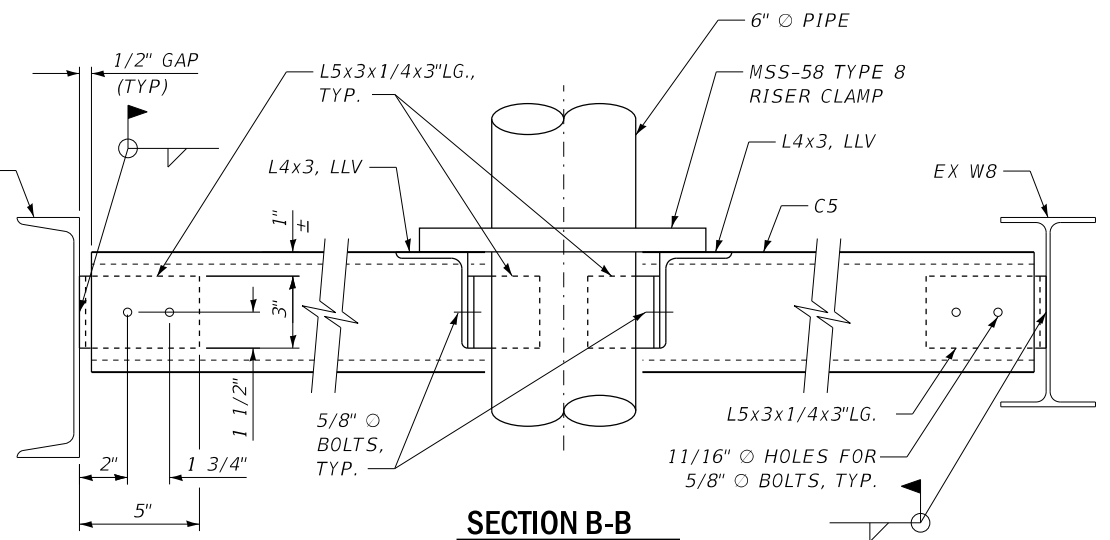
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-1PS-4, 61-PS-1	ST. CLAIR/MADISON	9	8
CONTRACT NO. 76M22				
ILLINOIS FED. AID PROJECT				



ENLARGED PLAN @ EL 380.0
SCALE: 1/2"=1'-0"

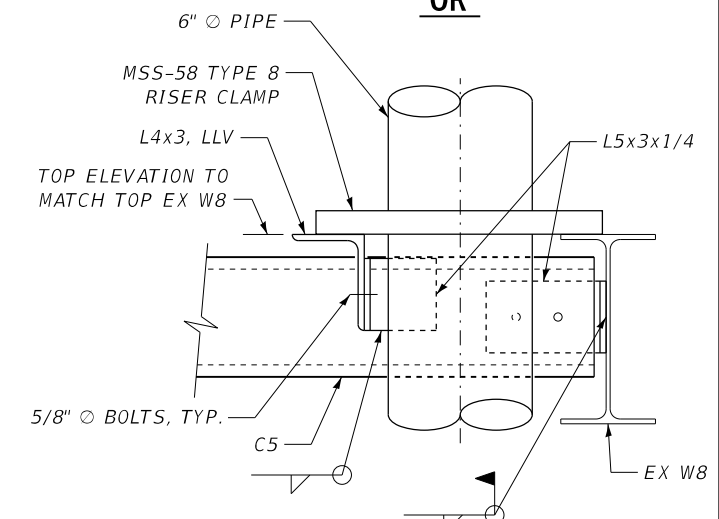


SECTION A-A
SCALE: 1 1/2"=1'-0"



SECTION B-B
SCALE: 1 1/2"=1'-0"

OR

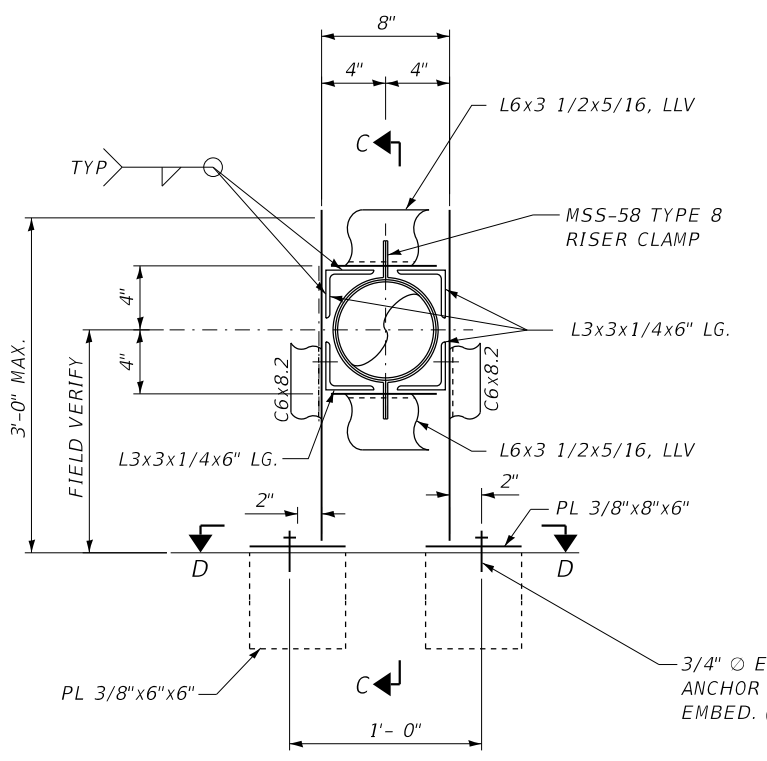


SECTION B-B (OPTION)
SCALE: 1 1/2"=1'-0"

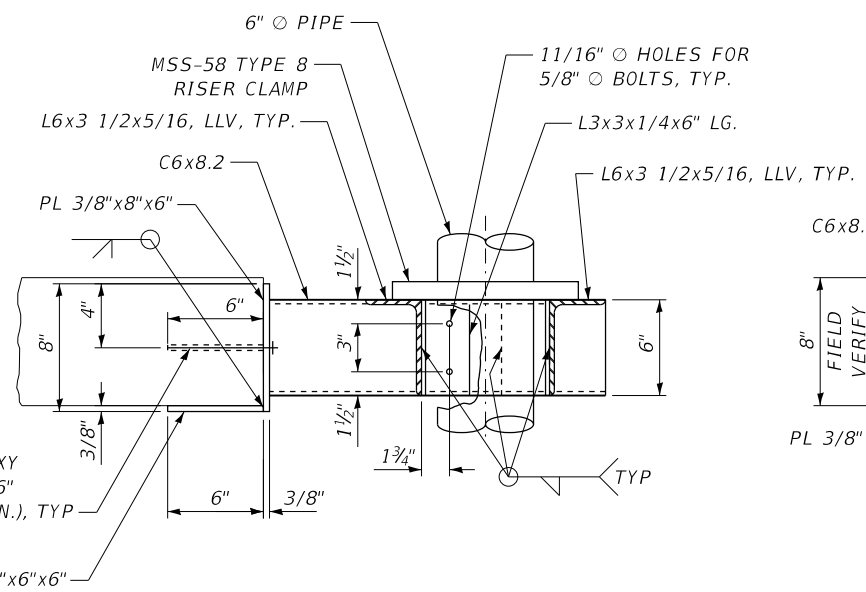
- NOTE**
1. NO SALVAGE
 2. THE COST OF PIPE REMOVAL SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 3. THE COST OF ALL PIPING AND PIPING COMPONENTS SHALL BE INCLUDED IN "PUMP STATION GENERAL WORK"
 4. THE COST OF STEEL PIPE SUPPORTS SHALL BE INCLUDED IN "FURNISHING AND ERECTING STRUCTURAL STEEL"
 5. SEE SHEET 8 OF 9 FOR SECTION A-A.

BILL OF MATERIAL

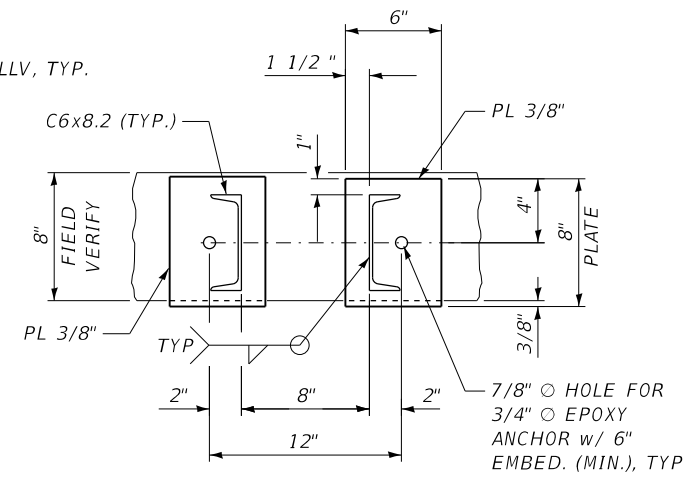
Item	Unit	Quantity
Furnishing and Erecting Structural Steel	Pound	400



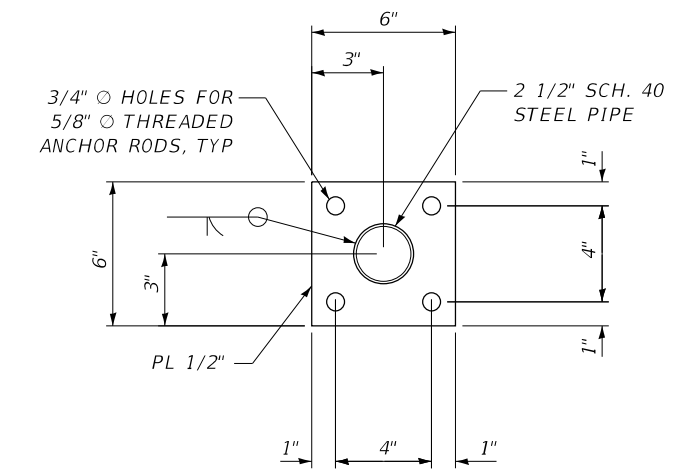
ENLARGED PLAN @ EL 408.0
SIMILAR AT PLAN EL 393.67 AND 422.00
SCALE: 1"=1'-0"



SECTION C-C
SCALE: 1 1/2"=1'-0"



SECTION D-D
SCALE: 1 1/2"=1'-0"



PIPE SUPPORT
BASEPLATE DETAIL AT PLAN EL 422.0
SCALE: 1 1/2"=1'-0"

Q:\11\Files\110023\Work - Order 17 - Bowman & McClunbridge Pump Stations\CADD_Sheets\0876M22-sh1-Details.dwg

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
616 N. 24TH ST. QUINCY, ILLINOIS 62301 217.223-3670
STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

USER NAME = oms	DESIGNED -	REVISED -
PLOT SCALE = 2:8.0000' 1' / in.	DRAWN -	REVISED -
PLOT DATE = 3/2/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOWMAN PUMP STATION
PIPE SUPPORT STRUCTURAL DETAILS
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	82-2-1PS-4, 61-PS-1	ST. CLAIR/MADISON	9	9
CONTRACT NO. 76M22			ILLINOIS FED. AID PROJECT	