



Finance Department
Central Services Division

**ADDENDUM TO BID
WELL NO. 45 RESERVOIR REPLACEMENT AND SITE MODIFICATIONS,
BID NO. 1224-W-125**

ADDENDUM NO.: 1

07/31/2025

To: All Vendors:

Please make the following changes to the above-mentioned bid package.

In answer to the following question(s):

- 1) is there a plan holders list available?

Answer: We do not utilize plan holders list.

- 2) Please provide access to the as-built drawings for the structures to be removed for this contract. We are specifically interested in the Stanley Street Booster Station and the 5-MG Reservoir. Electronic copy is preferred.

Answer: There are no record drawings for Stanley Street Booster Station to be demolished. There are no record drawings of the 5MG reservoir, but we do have a drawings of the reservoir (which are not record drawings) attached as Attachment A. These documents are provided for general information only and not part of the contract documents.

All other portions remained unchanged.

A copy of this addendum or a reference thereto must be included with your bid or the bid will not be read or considered.

If you have any questions please contact the Central Services Division at 779-348-7164.

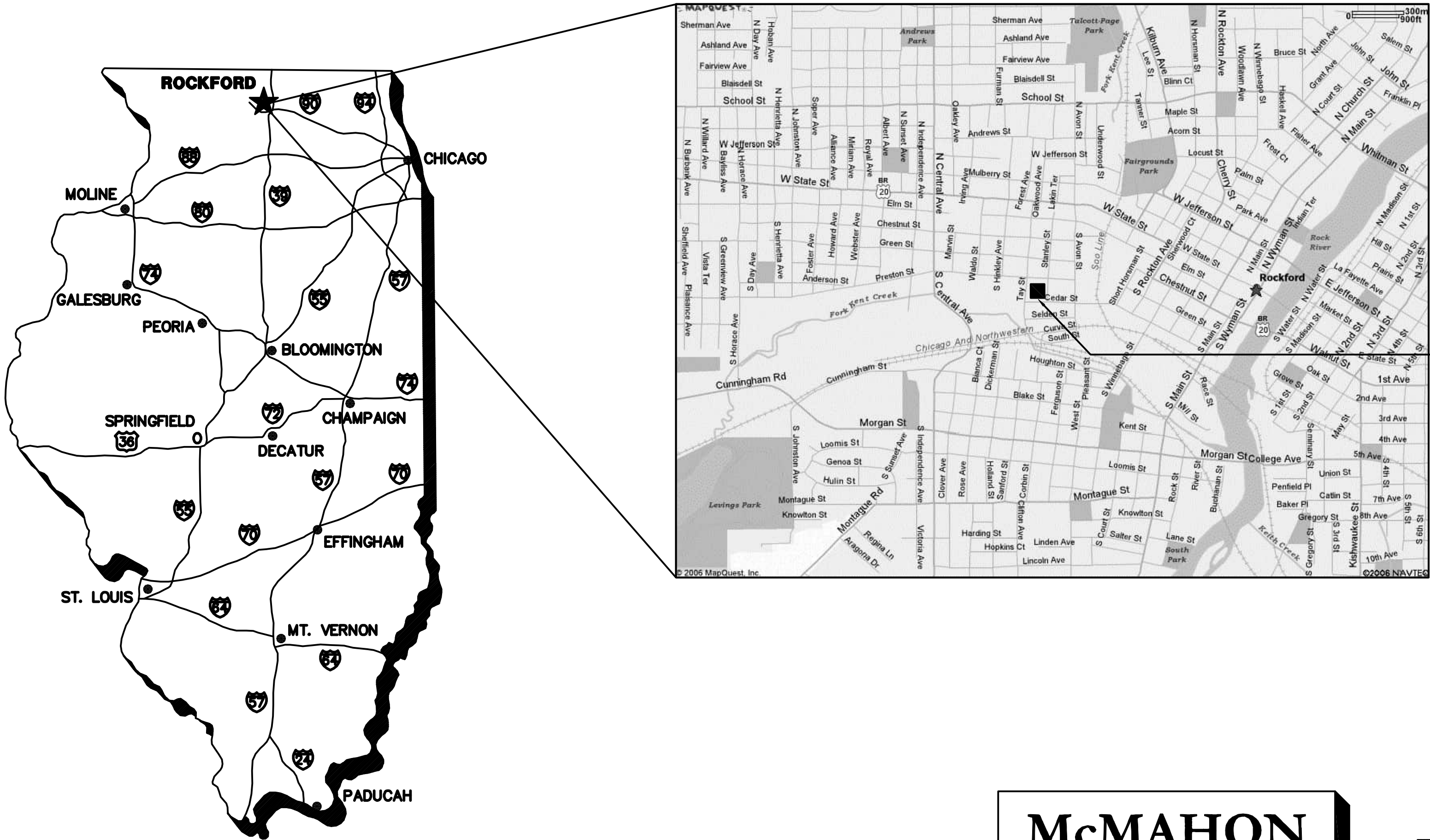
STANLEY STREET PUMPING STATION

CITY OF ROCKFORD

WINNEBAGO COUNTY, ILLINOIS

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PROJECT
LOCATION



McMAHON
ASSOCIATES

ENGINEERS | ARCHITECTS | SURVEYORS | PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O. BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: DJV 5-20-10

DATE
DEC., 2006

PROJECT NO.
R0018-950446

SHEET NO.

T1

FILE NO.

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ABBREVIATIONS

GENERAL

ALUM.....	ALUMINUM
ASS'Y.....	ASSEMBLY
C.L.....	CEMENT LINED
CLR.....	CLEAR
CONC.....	CONCRETE
C.M.P.....	CORRUGATED METAL PIPE
DIA.....	DIAMETER
D.I.....	DUCTILE IRON
GALV.....	GALVANIZED
GA.....	GAUGE
H.M.....	HOLLOW METAL
INF.....	INFLUENT
INV.....	INVERT
MFOR.....	MANUFACTURER
MIN.....	MINIMUM
P.S.I.....	POUNDS PER SQUARE INCH
R.....	RADIUS
REINF.....	REINFORCED
REQ'D.....	REQUIRED
SCH.....	SCHEDULE
S.H.....	STANDARD HOOK
SPECS.....	SPECIFICATIONS
TYP.....	TYPICAL
W.L.....	WATER LEVEL

CIVIL

B-B.....	BACK TO BACK
B.M.....	BENCH MARK
BIT.....	BITUMINOUS
C.B.....	CATCH BASIN
C & G.....	CURB & GUTTER
E.....	ELECTRIC
G.....	GAS
I.P.....	IRON PIPE
M.H.....	MANHOLE
OHE.....	OVERHEAD ELECTRIC
OHT.....	OVERHEAD TELEPHONE
PP.....	POWER POLE
PROP.....	PROPERTY
SAN.....	SANITARY SEWER
SW.....	SIDEWALK
STO.....	STORM SEWER
T.P.....	TELEPHONE POLE
TC.....	TOP OF CURB
T.....	UNDERGROUND TELEPHONE
W.M.....	WATERMAIN

ARCHITECTURAL & STRUCTURAL

A.G.B.....	ACOUSTICAL GLAZED BLOCK
BLK.....	BLOCK
B.W.....	BOTH WAYS
BOT.....	BOTTOM
CLR.....	CLEAR
CONT.....	CONTINUOUS
CORR.....	CORRIDOR
E.F.....	EACH FACE
E.W.....	EACH WAY
EXT.....	EXTENSION
HK.....	HOOK
HORIZ.....	HORIZONTAL
INSUL.....	INSULATED
LG.....	LONG
O.C.....	ON CENTER
RM.....	ROOM
SH.....	SHORT
SUSP.ALUM.TILE.....	SUSPENDED ALUMINUM TILE
SUSP.ACOUST.TILE.....	SUSPENDED ACOUSTICAL TILE
T & B.....	TOP & BOTTOM
VERT.....	VERTICAL
W.S.....	WATERSTOP
W.W.M.....	WELDED WIRE MESH

PROCESS

B.F.....	BLIND FLANGE
C.L.....	CEMENT LINED
C.W.....	CHAIN WHEEL OPERATED (VALVE)
D.I.....	DUCTILE IRON
EFF.....	EFFLUENT
EL.....	ELBOW
FL.....	FLANGE
FLOC.....	FLOCCULATOR
G.C.....	GENERAL CONTRACTOR
INF.....	INFLUENT
LG.RAD.EL.....	LONG RADIUS ELBOW
M.J.....	MECHANICAL JOINT
M.L.S.S.....	MIXED LIQUOR SUSPENDED SOLIDS
N.P.W.....	NON-POTABLE WATER
RECIRC.....	RECIRCULATION
RED.....	REDUCER
R.A.S.....	RETURN ACTIVATED SLUDGE
STN.STL. OR S.ST.....	STAINLESS STEEL
STL.....	STEEL
W.A.S.....	WASTE ACTIVATED SLUDGE

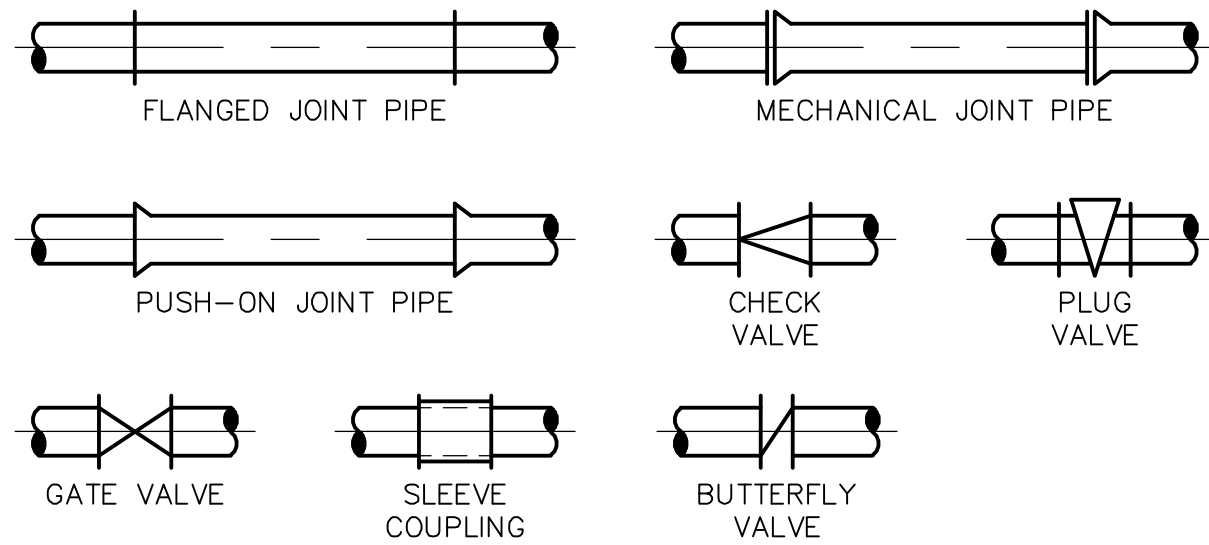
PLUMBING

C.O.....	CLEANOUT
C.W.....	COLD WATER
F.D.....	FLOOR DRAIN
H.B.....	HOSE BIB
H.W.....	HOT WATER
LAV.....	LAVATORY
R.D.....	ROOF DRAIN
R.D.L.....	ROOF DRAIN LINE
S.S.....	SERVICE SINK
UR.....	URINAL
W.C.....	WATER CLOSET
W.S.....	WATER SERVICE
ADDITIONAL PLUMBING ABBREVIATIONS, SEE SHEETS P1 & GM-2	

HVAC

ENCL.....	ENCLOSED
EXPL.....	EXPLOSION PROOF
H.W.R.....	HOT WATER RETURN
H.W.S.....	HOT WATER SUPPLY
T.....	THERMOSTAT
U.H.....	UNIT HEATER
W.H.....	WATER HEATER
ADDITIONAL HVAC ABBREVIATIONS, SEE SHEET H1	

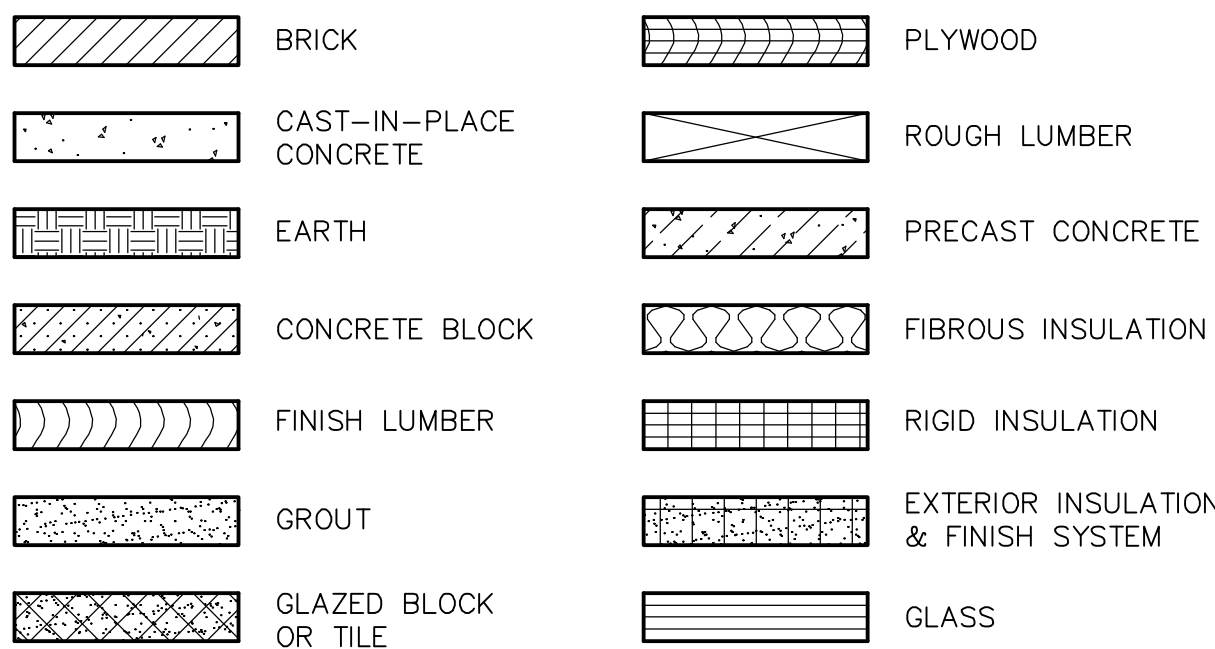
PIPING SYMBOLS



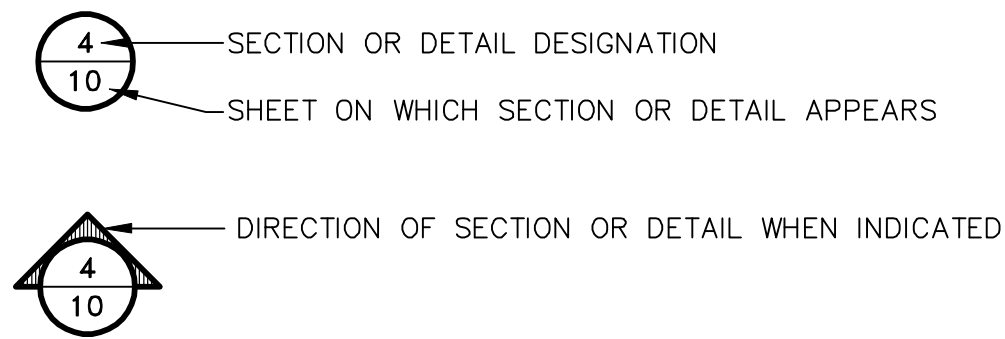
SIGNS AND SYMBOLS



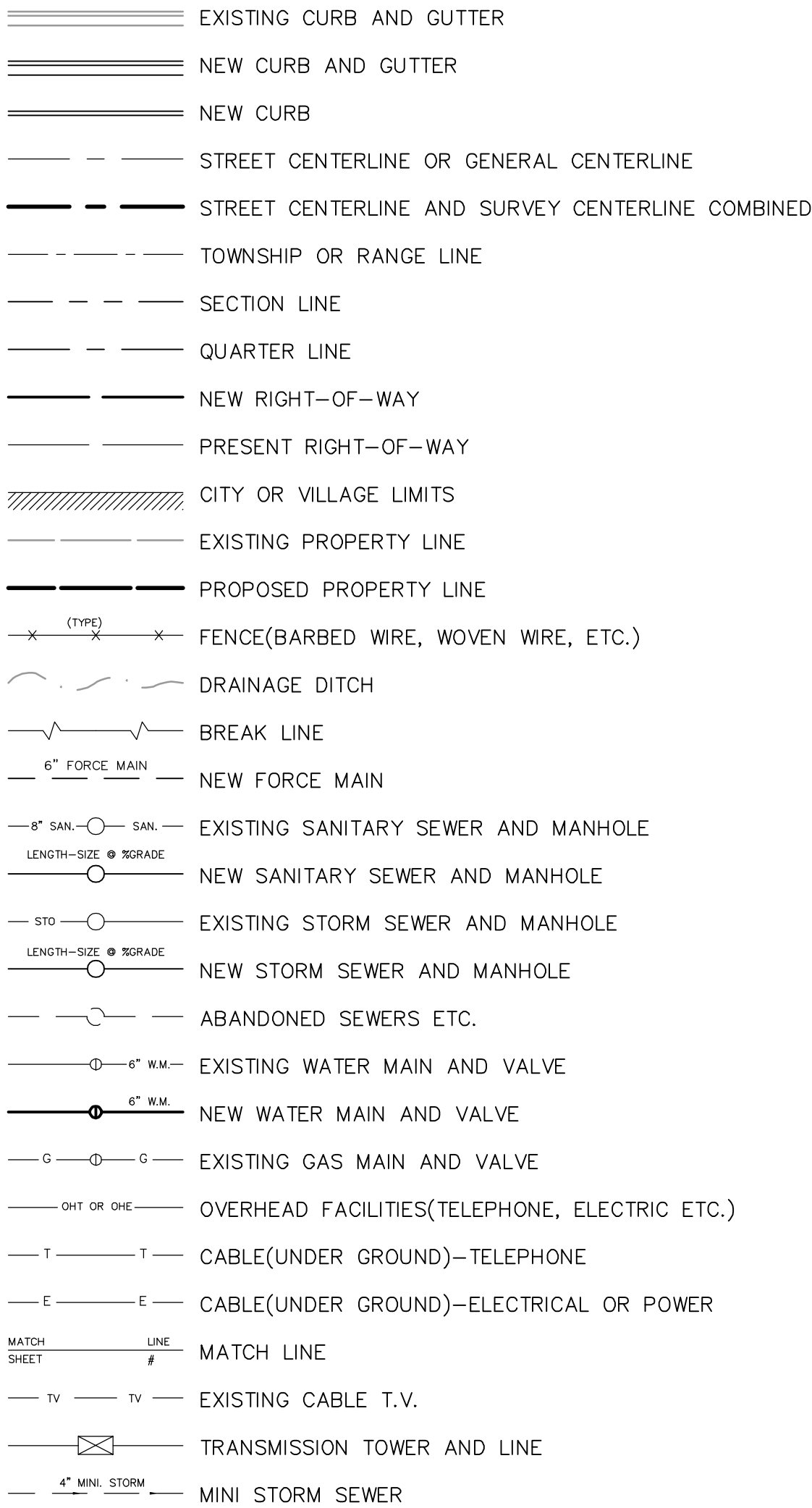
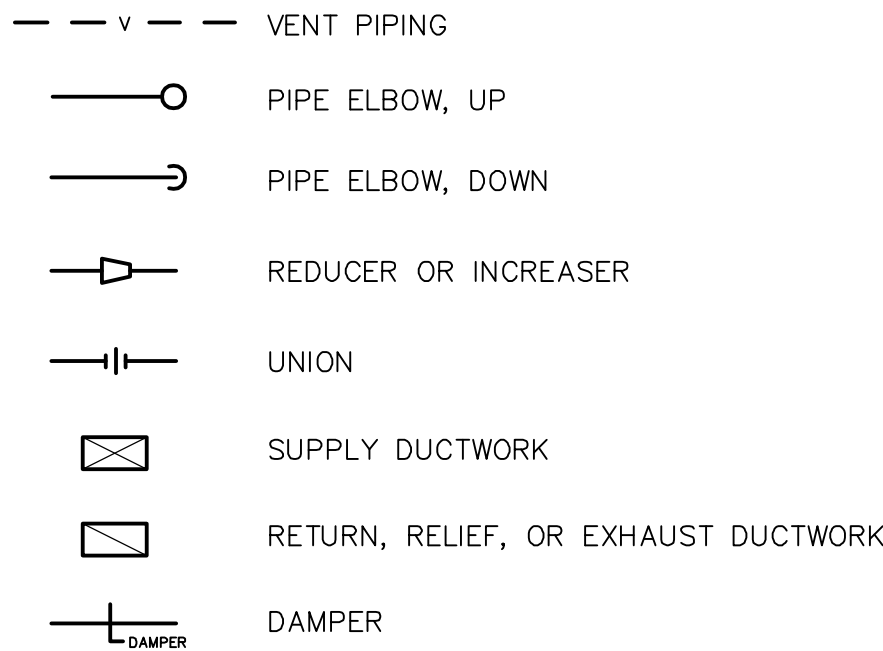
MATERIALS



SECTION OR DETAIL ATTRIBUTES



MECHANICAL SYMBOLS



RECORD DRAWINGS

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CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
SYMBOLS AND ABBREVIATIONS

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
RC0018-950446

SHEET NO.

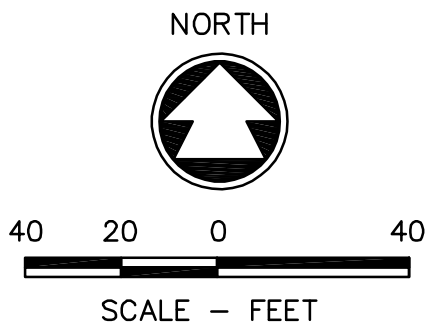
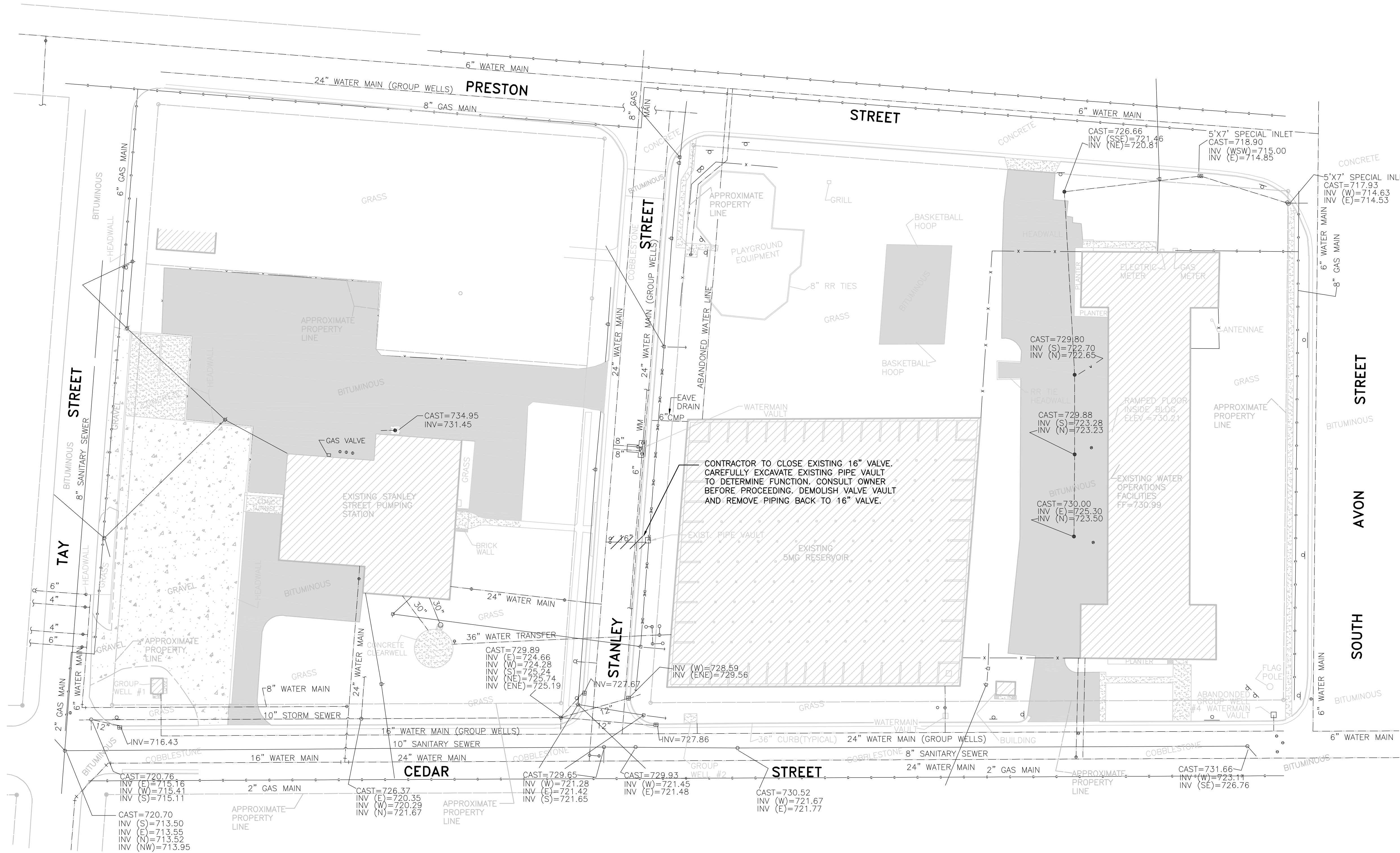
T2

FILE NO.

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Mailing Address: P.O. Box 1725 Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

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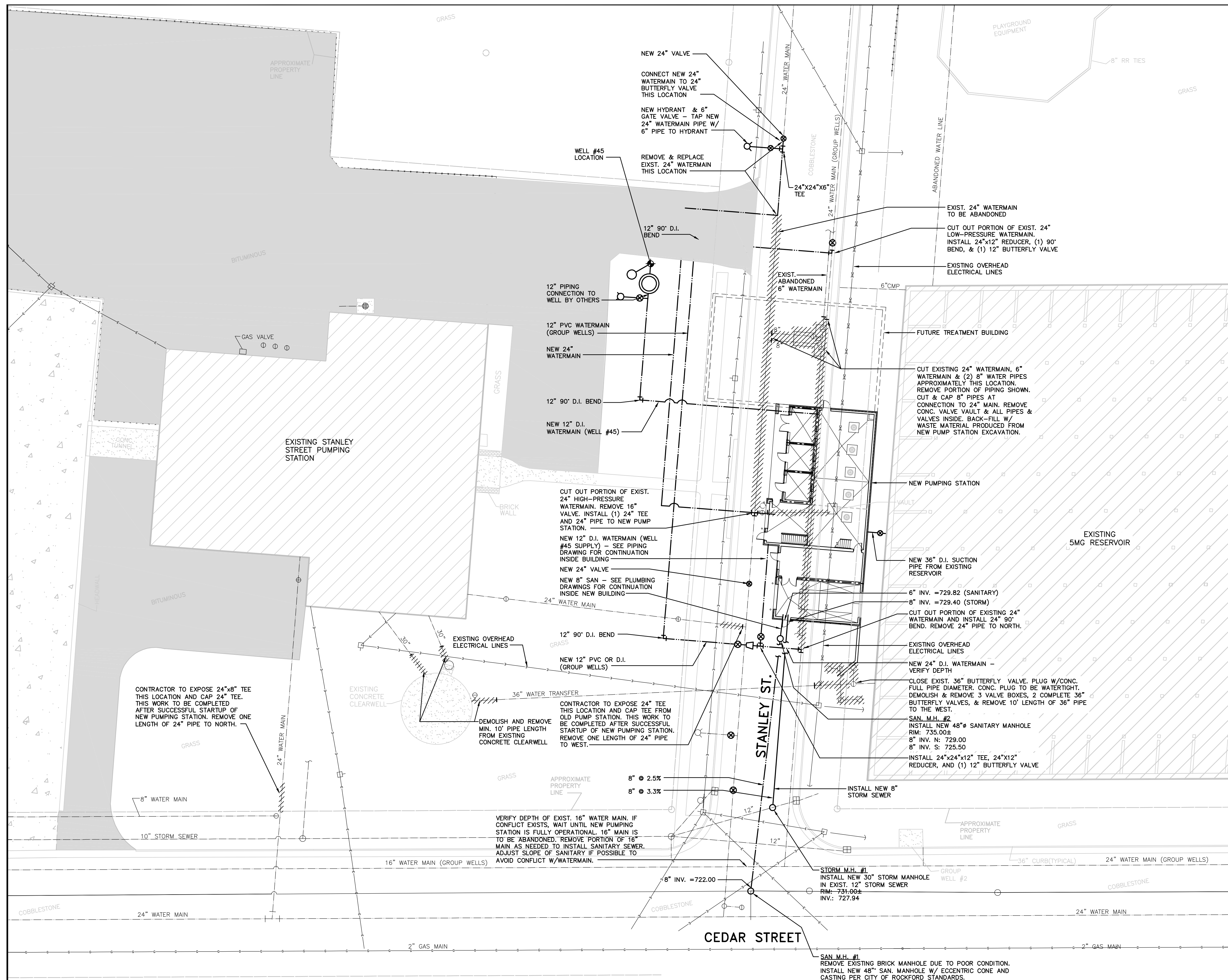


The location of all underground utilities has been supplemented with information taken from record measurements. Before attempting to locate underground services in the field, the contractor should verify these locations and record measurements by contacting the "Joint Utility Locating Information for Excavators" (J.U.L.I.E.) at 1-800-892-0123.

EXISTING UTILITIES SITE PLAN
SCALE: 1"=40'

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C1		SHEET NO.		FILE NO.	
R0018-950446		PROJECT NO.		1445 MAMAHON DRIVE, NEEHAH, WI 54968	
APRIL, 2007		DATE		Mailing: P.O. BOX 1025 NEEHAH, WI 54957-1025	
1" = 40'		SCALE		Tel: (920) 751-4200 Fax: (920) 751-4294	
STANLEY STREET PUMPING STATION					
CITY OF ROCKFORD, ILLINOIS					
EXISTING UTILITIES SITE PLAN					
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D.J.V.		P.O.K.		ENGINEERS/ARCHITECTS/SURVEYORS/PROJECT MANAGERS	
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A north arrow pointing upwards, labeled "NORTH". Below it is a scale bar with markings for 20, 10, 0, and 20 feet. The text "SCALE - FEET" is written below the bar.

The location of all underground utilities has been supplemented with information taken from record measurements. Before attempting to locate underground services in the field, the contractor should verify these locations and record measurements by contacting the "Joint Utility Locating Information for Excavators" (J.U.L.I.E.) at 1-800-892-0123.

LEGEND:

//// UNDERGROUND PIPING TO BE
ABANDONED, DEMOLISHED, AND
REMOVED.

NOTE:
ALL NEW WATERMAIN CONNECTIONS AT CHANGE OF DIRECTION AND VALVES TO BE MADE WITH RESTRAINED D.I. FITTINGS. WHERE CONNECTIONS TO EXISTING PIPING AT FITTING DOES NOT ALLOW USE OF RESTRAINED FITTINGS, POUR CONCRETE THRUST BLOCKS.

**STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
NEW UTILITIES SITE PLAN**

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

FILE NO.

RECORD DRAWINGS

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NO.	DATE	REVISION
3	11/16/07	CONSTRUCTION BULLETIN #12
4	11/19/07	FOR RWRD REVIEW
5	10/23/08	FIELD REVISIONS
6	10/24/08	CONSTRUCTION BULLETIN #25
7	10/30/08	RECORD DRAWINGS

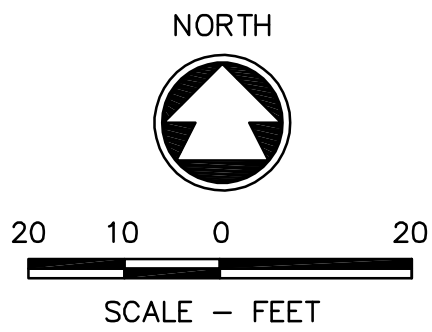
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ENGINEERS | ARCHITECTS | SURVEYORS | PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
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EXIST. CONC. CLEARWELL

EXIST. CONC. CLEARWELL

 STRUCTURES TO BE ABANDONED,
DEMOLISHED, AND REMOVED.

 TREES TO BE REMOVED

1. ALL TREES NOT INDICATED TO BE REMOVED ARE TO BE SAVED.
2. TREES REMOVED SHALL INCLUDE REMOVAL OF ALL WOOD/ROOT MATERIAL.

CHECKED: _____

SCALE: 1"=30'

C3

SHEET NO. SCALE 1" = 40'	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS EXISTING SITE CLEARING PLAN	DATE APRIL, 2007 PROJECT NO. R0018-950446
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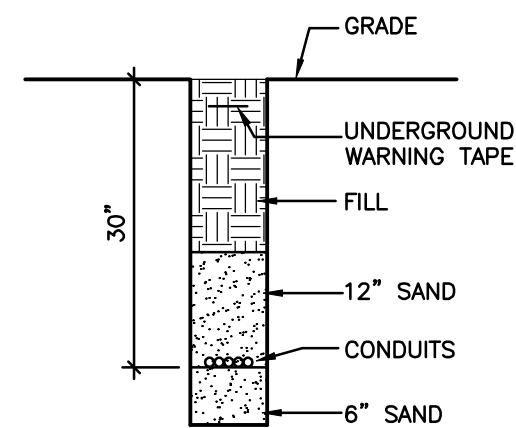
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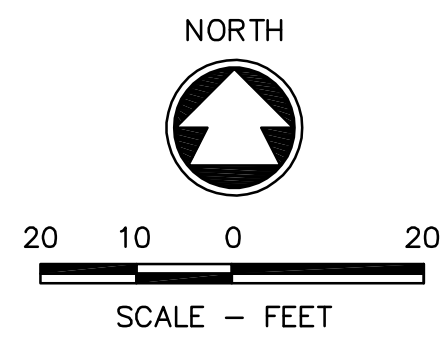
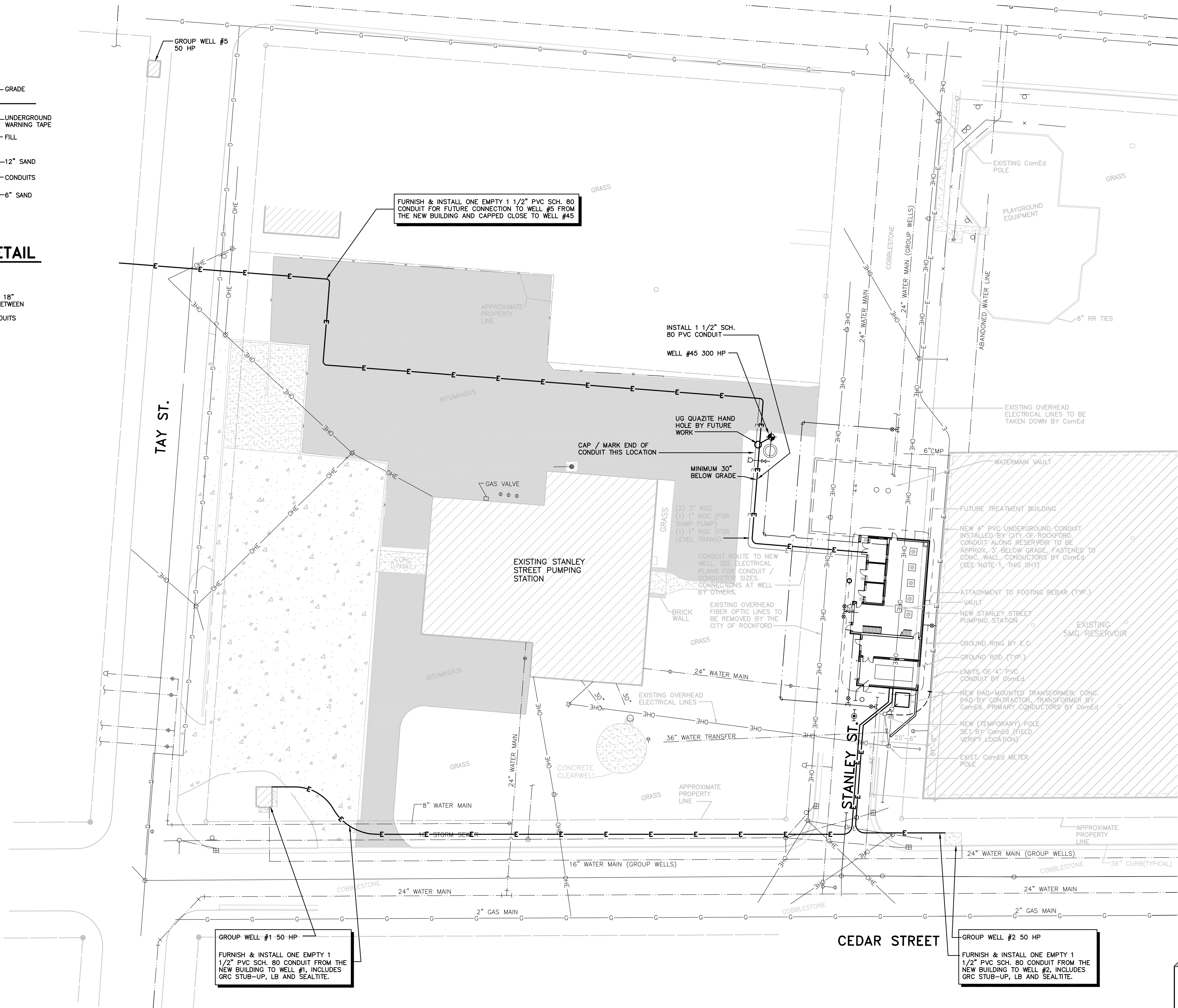
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TRENCH DETAIL
NO SCALE

- NOTES:
1. MAINTAIN MIN. 18"
SEPARATION BETWEEN
A.C. AND LOW
VOLTAGE CONDUITS



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- NOTES:
1. BEND RADIUS OF PRIMARY CONDUIT SHALL BE MINIMUM 3'-0".

ELECTRICAL SITE PLAN

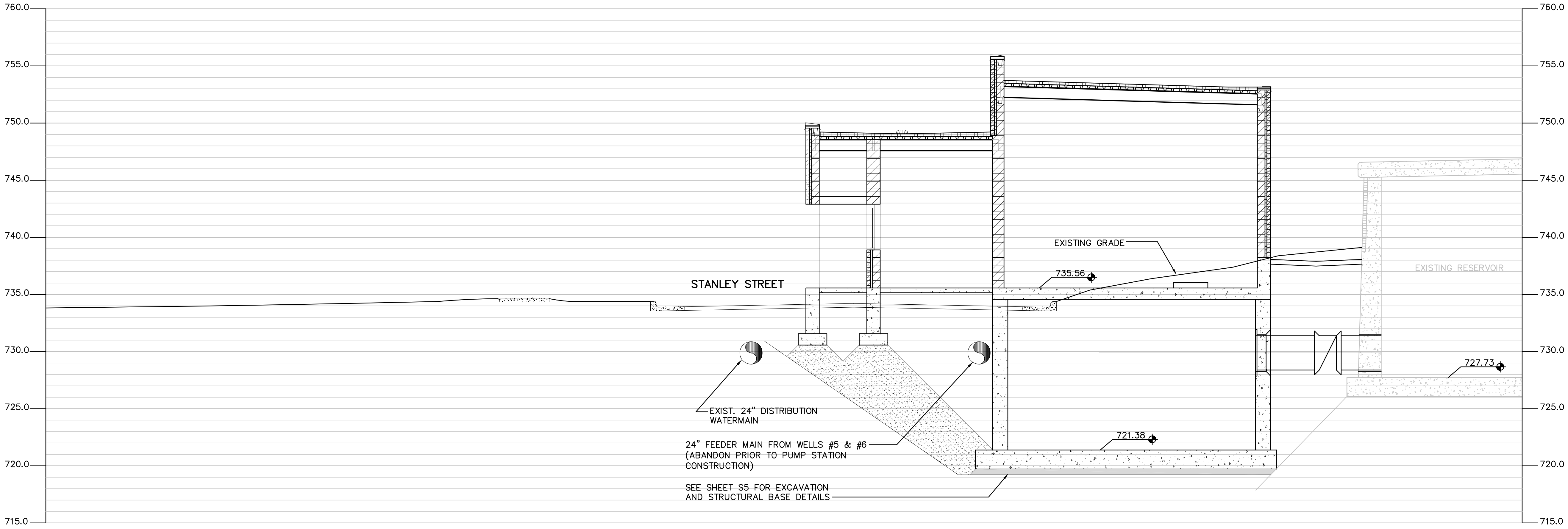
SCALE: 1"=40'

RECORD DRAWINGS

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FILE NO.		SHEET NO.		SCALE 1" = 40'		STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS ELECTRICAL SITE PLAN		DESIGNED		McMahon Associates, Inc. provides this drawing as a professional engineering instrument of service. All rights including copyrights are retained by McMahon Associates, Inc. No part of this drawing may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of McMahon Associates, Inc.	
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SITE CROSS SECTION
SCALE: 1"=5'

RECORD DRAWINGS

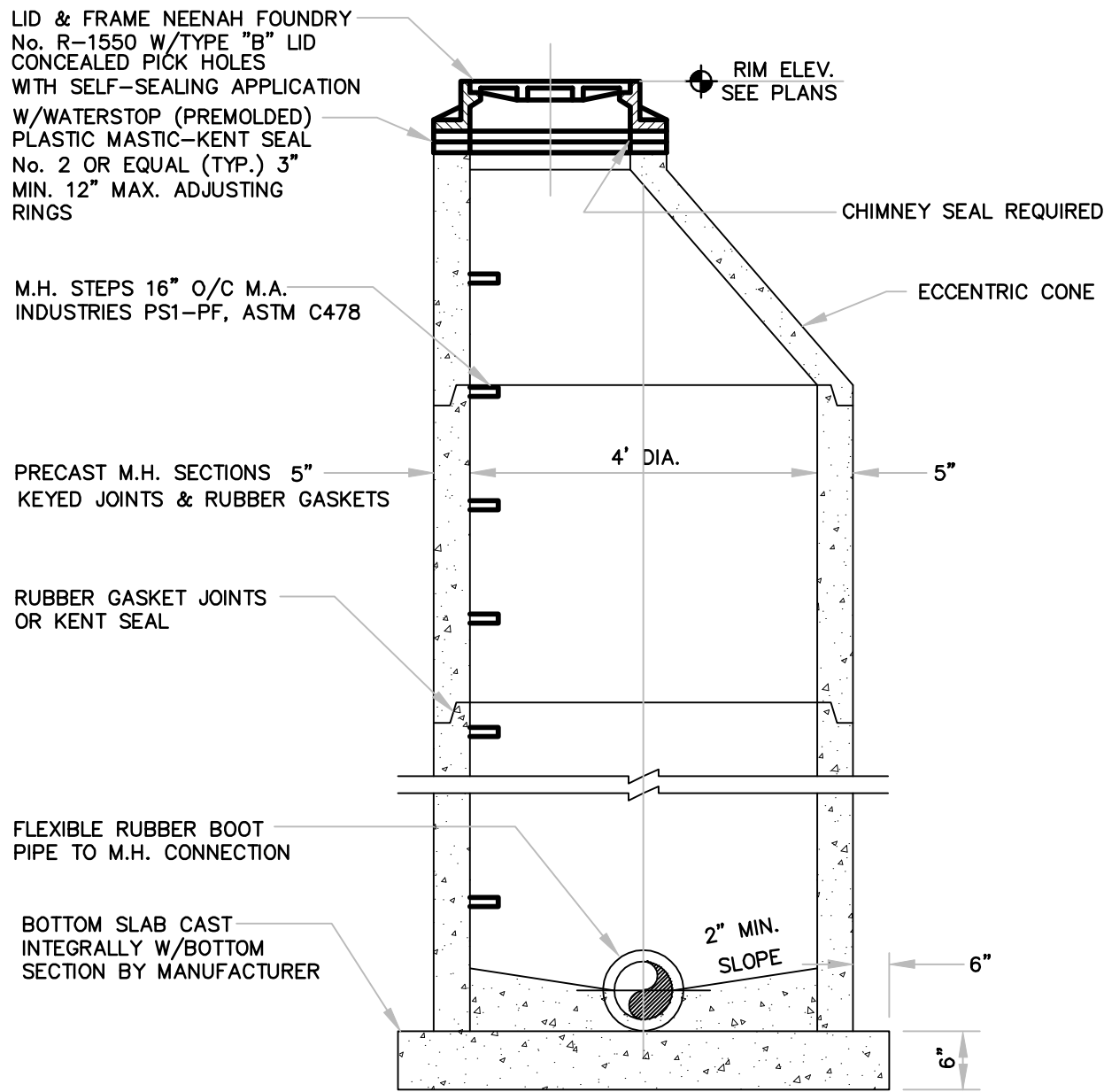
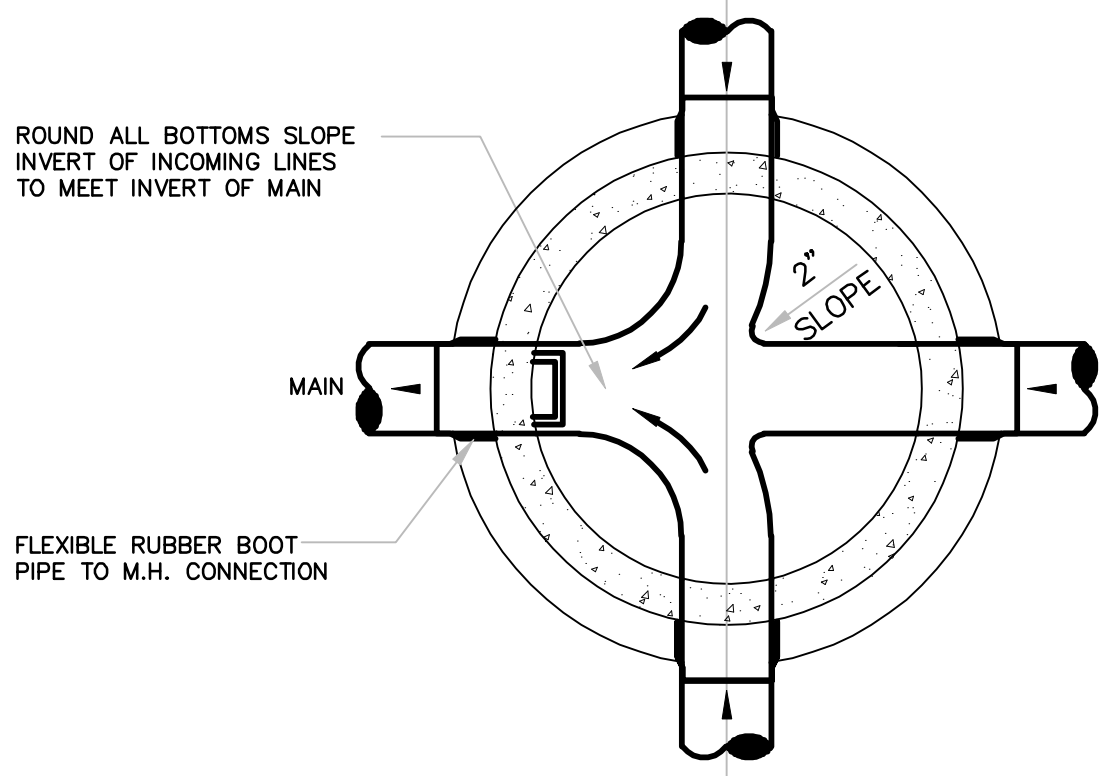
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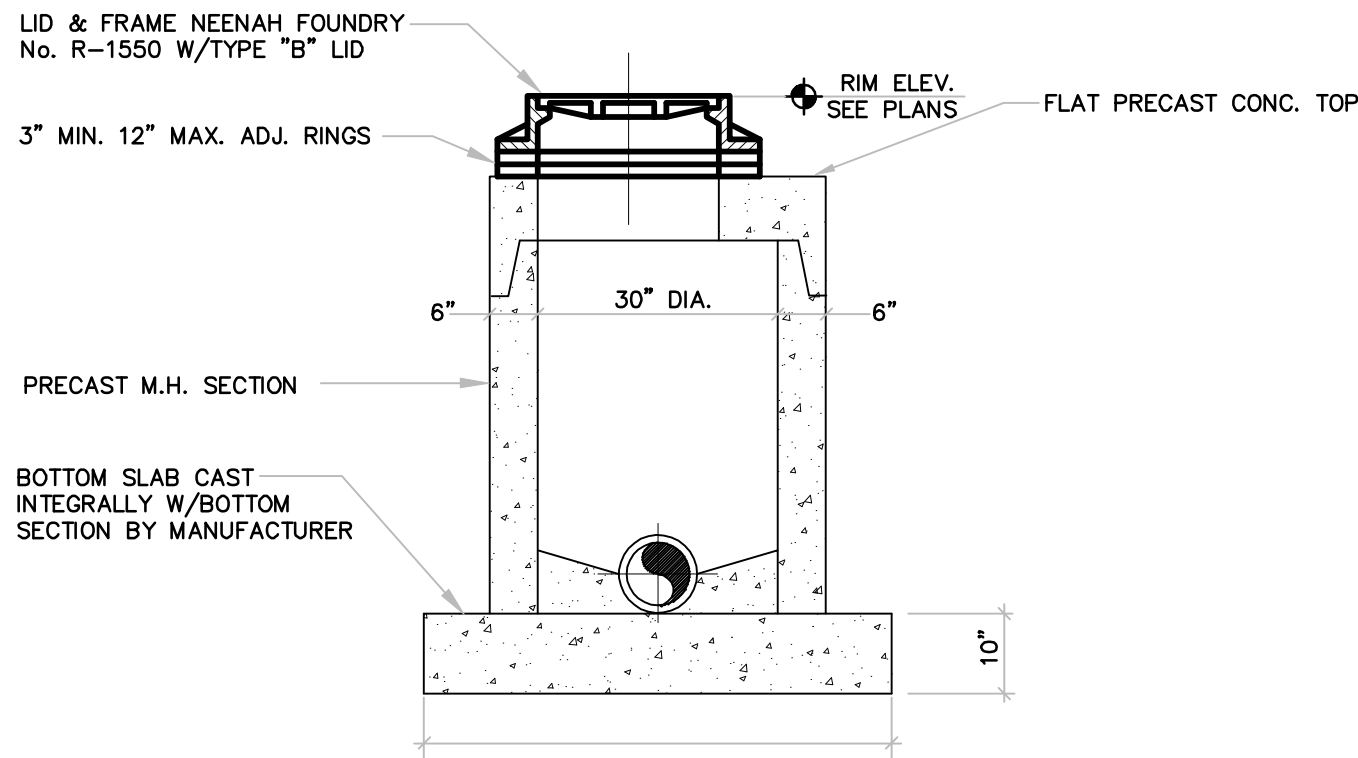
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DESIGNED		DRAWN		CHECKED	
DJV		PGK			
McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING: 3030 N. KENOSHA AVE. NEENAH, WI 54956 TEL: (920) 751-4200 FAX: (920) 751-4204					
NO.		DATE		REVISION	
1		4/6/07		RELEASED FOR BIDDING	
2		10/30/09		RECORD DRAWINGS	

McMahon Associates, Inc. provides this drawing and data, regardless of form, as is, without warranty, express or implied. McMahon Associates, Inc. is not responsible for any errors or omissions in this drawing and data. McMahon Associates, Inc. is not responsible for any use of this drawing and data for any purpose other than that intended by McMahon Associates, Inc.

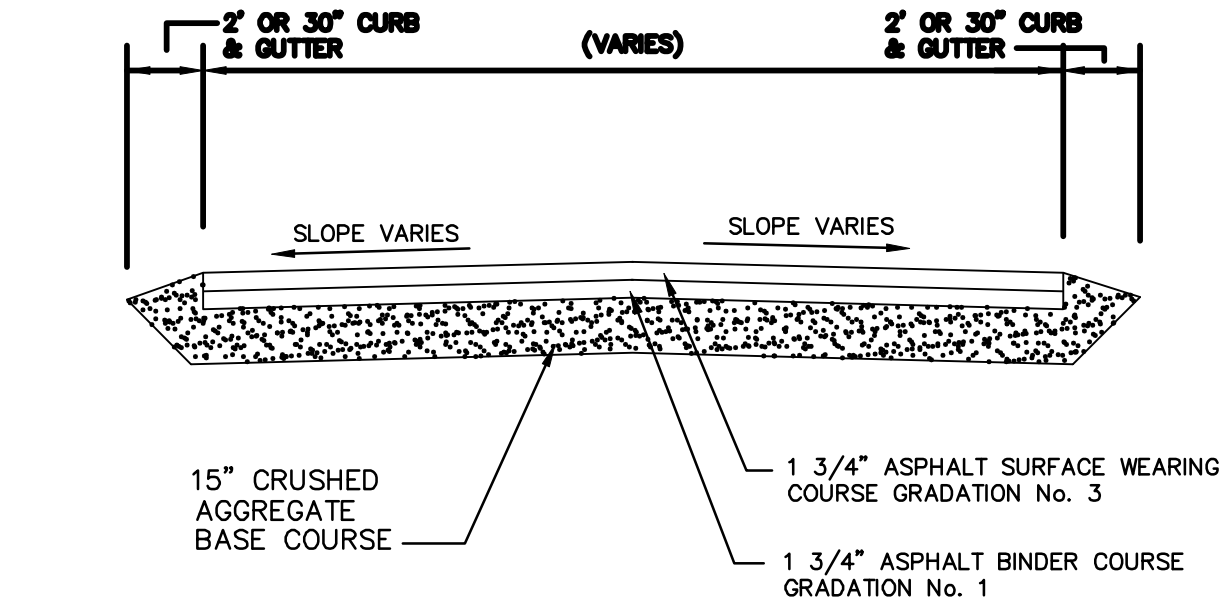
STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
SITE CROSS SECTION



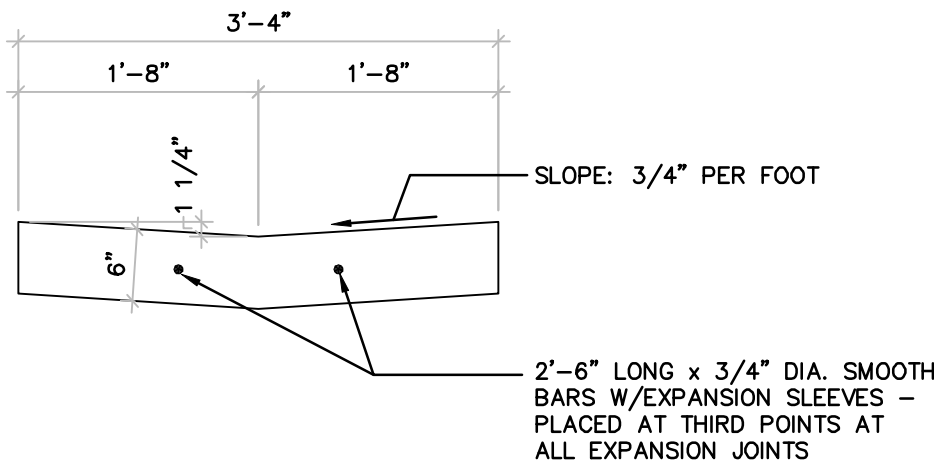
STANDARD SANITARY MH DETAIL
SCALE: NONE



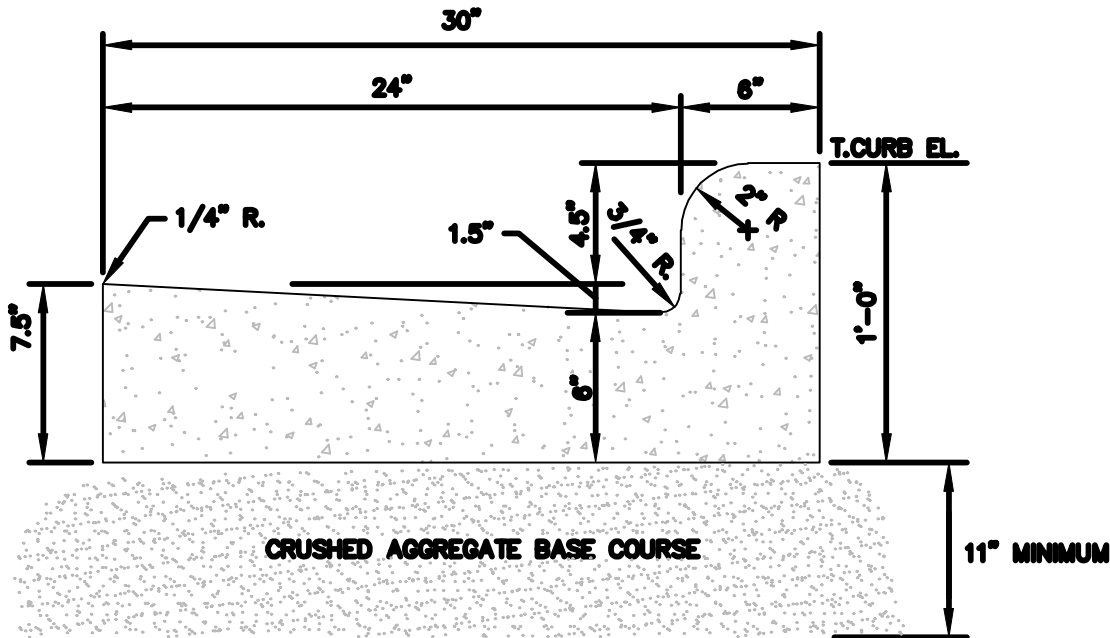
30" DIA. SHALLOW STORM MH DETAIL
SCALE: NONE



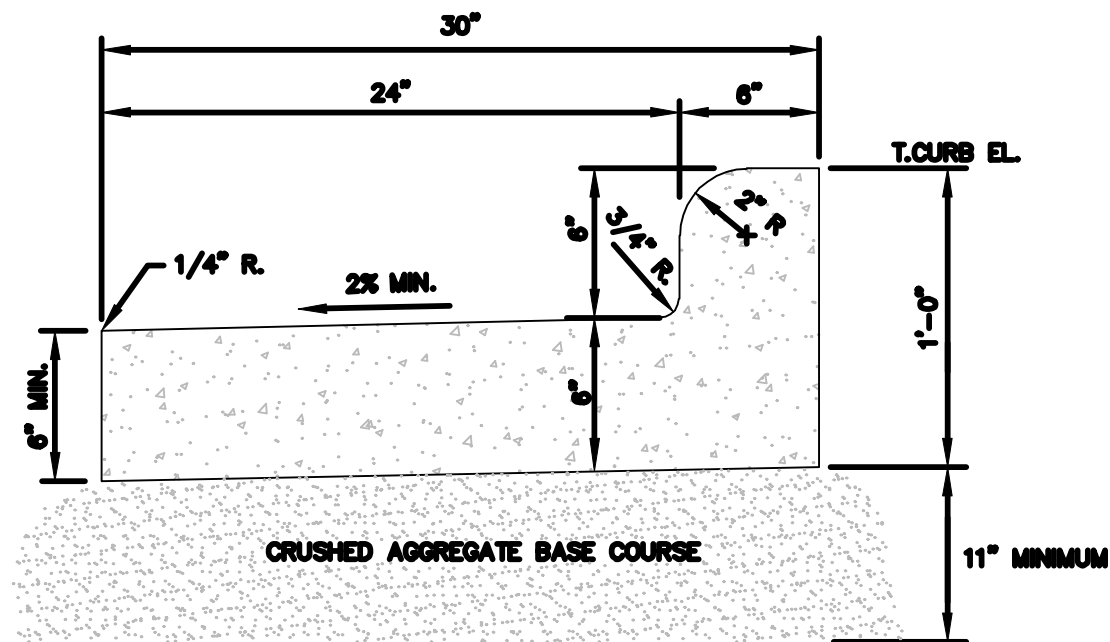
ASPHALT PAVING DETAIL (TYP.)
(THIS DETAIL TYPICAL OF ALL ASPHALT PAVEMENTS - PARKING AND DRIVES)



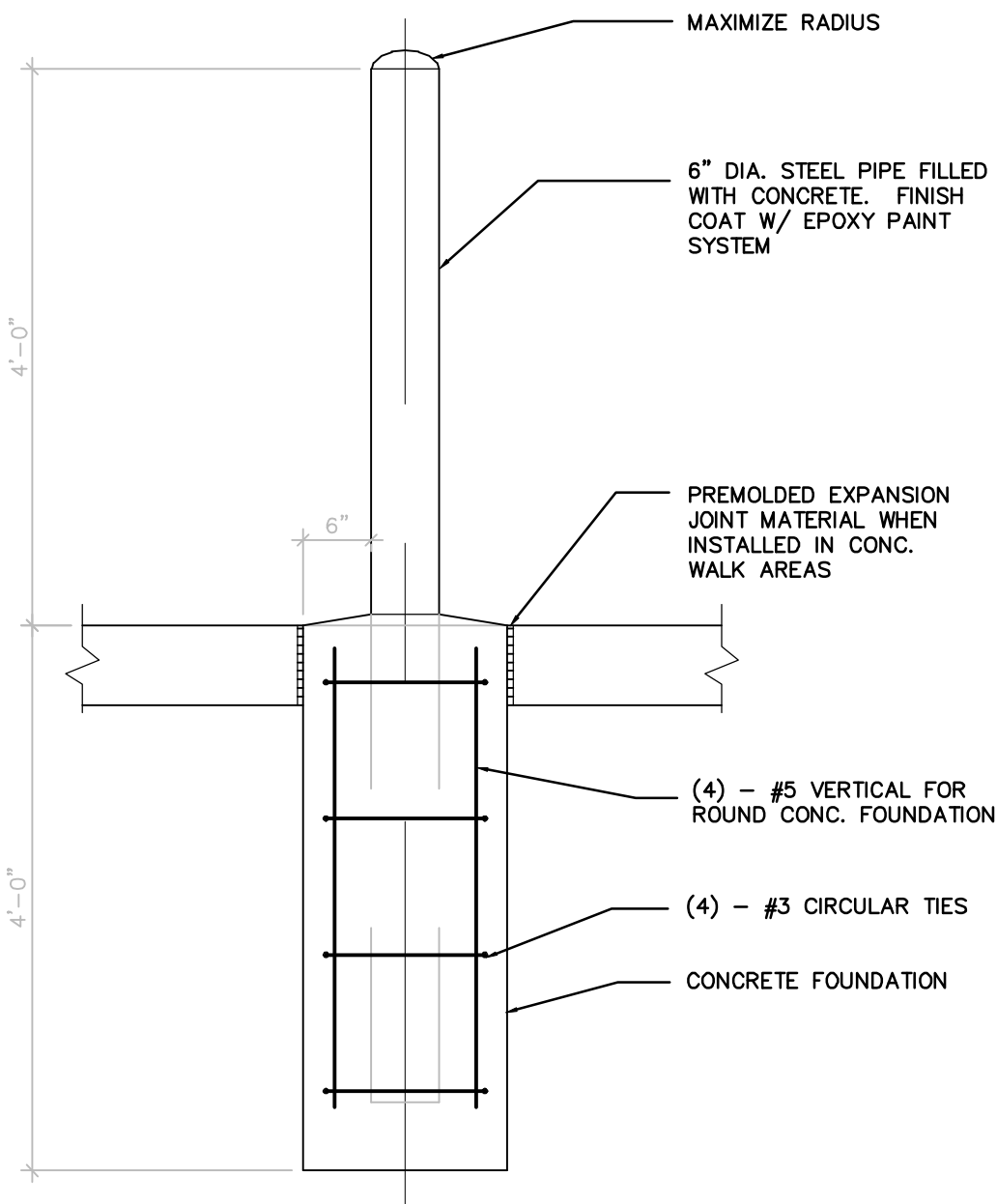
TYP. VALLEY GUTTER DTL.
NO SCALE



CURB AND GUTTER DETAIL



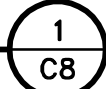
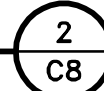
REVERSE SLOPE CURB & GUTTER



STEEL PIPE GUARDPOST 1
C7
SCALE: 3/4" = 1'-0"

RECORD DRAWINGS	
DRAFTED BY:	PGK 10/30/09
CHECKED:	

C7		SHEET NO.		FILE NO.	
SCALE	AS NOTED	DATE	APRIL, 2007	PROJECT NO.	R0018-950446
STANLEY STREET PUMPING STATION		CITY OF ROCKFORD, ILLINOIS		SITE DETAILS	
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DESIGNED	DIV	DRAWN	PGK	CHECKED	
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SHOWING NEW SHELF ANGLE ELEVATION AND NEW DRAINAGE SLAB
BETWEEN RESERVOIR AND NEW PUMPING STATION
SCALE: 1/8" = 1'-0"

- CHECKED: _____

FILE NO.	C8	SHEET NO.	SCALE AS NOTED	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS WEST ELEVATION OF EXISTING RESERVOIR	DESIGNED	McMahon Associates, Inc. provides this design as a preliminary design. It is not to be used for construction without the written consent of McMahon Associates, Inc.	McMAHON ASSOCIATES ENGINEERS / ARCHITECTS / SURVEYORS / PROJECT MANAGERS 1000 N. MICHIGAN AVE., SUITE 100 Mailing: P.O. BOX 1025 NEENAH, WI 54957-1025 Tel: (920) 751-4200 Fax: (920) 751-4284	NO.	DATE	REVISION
			DRAWN		1			10/10/07	CONSTRUCTION BULLETIN #10	
			PKK		2			10/20/09	RECORD DRAWINGS	
			CHECKED							
			P.W.H							



The location of all underground utilities has been supplemented with information taken from record measurements. Before attempting to locate underground services in the field, the contractor should verify these locations and record measurements by contacting the "Joint Utility Locating Information for Excavators" (J.U.L.I.E.) at 1-800-892-0123.

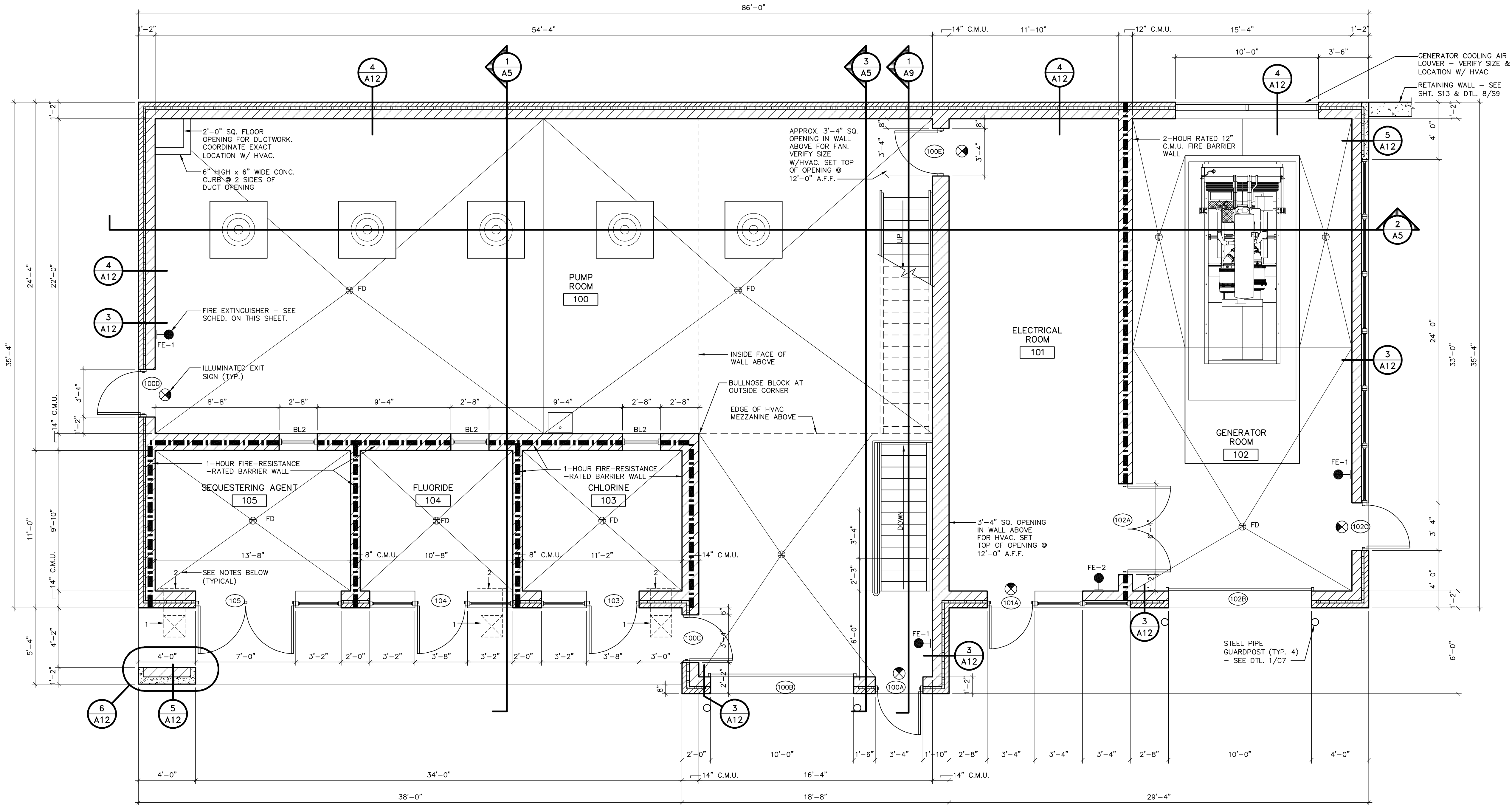
NOTE:
ALL NEW WATERMAIN CONNECTIONS AT CHANGE OF DIRECTION AND VALVES TO BE MADE WITH RESTRAINED D.I. FITTINGS. WHERE CONNECTIONS TO EXISTING PIPING AT FITTING DOES NOT ALLOW USE OF RESTRAINED FITTINGS, POUR CONCRETE THRUST BLOCKS.

RECORD DRAWINGS
DRAFTED BY: PGK 10/30/09
CHECKED: _____

FILE NO.	SHEET NO.	SCALE	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS WELL #45 CONNECTION PLAN			DESIGNED	McMahon Associates, Inc. provides this drawing and data, regardless of form, as instruments of service. All rights including copyright are reserved by McMahon Associates, Inc. The client and/or architect shall retain the right to reproduce or transmit this drawing or data, in whole or in part, without the written consent of McMahon Associates, Inc. for purposes permitted by law to indemnify and hold McMahon Associates, Inc. harmless for damages or claims against it. McMahon Associates, Inc. 1445 McMahon Drive, Neenah, WI 54956 Mailing: P.O. Box 1025 Neenah, WI 54957-1025 Tel: (920) 751-4200 Fax: (920) 751-4284		
		AS NOTED				DRAWN			
		DATE				DJT			
		JUNE, 2007				CHECKED			
		PROJECT NO.							
RC018—950446		NO.	DATE	REVISION					
		1	10/30/09	RECORD DRAWINGS					

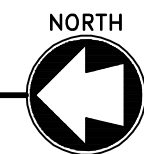
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p:\clarik W: DWG\90018\950446\Stanley St Pumping Station\Arch\ROC-A01.dwg 12/04/06 1:34 PM (X-MCM22X34.INFO, x=plan)



GRADE LEVEL FLOOR PLAN

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



NOTES:

- OPENING IN PORCH CEILING ABOVE FOR HVAC AIR INTAKE GRILLE. COORDINATE EXACT SIZE & LOCATION WITH HVAC.
- OPENING IN MASONRY WALL ABOVE FOR HVAC AIR INTAKE GRILLE. COORDINATE EXACT SIZE & LOCATION WITH HVAC.

SMOKE AND HEAT DETECTOR SCHEDULE		
ROOM NO.	ROOM NAME	DETECTOR TYPE
100	PUMP ROOM	SMOKE
101	ELECTRICAL ROOM	SMOKE
102	GENERATOR ROOM	SMOKE
103	CHLORINE ROOM	HEAT
104	FLUORIDE ROOM	HEAT
105	SEQUESTERING AGENT ROOM	SMOKE
200	EQUIPMENT MEZZANINE	SMOKE
B01	LOWER LEVEL PUMP ROOM	HEAT

FIRE EXTINGUISHER SCHEDULE				
MARK	TYPE	CAPACITY	UL RATING	CABINET
FE-1	MULTI-PURPOSE DRY CHEMICAL	10 LB.	4A-60B:C	WALL-MOUNT BRACKET
FE-2	CARBON DIOXIDE	10 LB.	10B:C	WALL-MOUNT BRACKET

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS GRADE LEVEL FLOOR PLAN

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

SHEET NO.

A1

FILE NO.

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McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 MCMAHON DRIVE, NEENAH, WI 54956
MAILING ADDRESS: 1445 MCMAHON DRIVE, NEENAH, WI 54956
TEL: (920) 751-4200 FAX: (920) 751-4204

REVISION

NO.

DATE

1

4/6/07

2

7/10/07

3

9/17/07

4

12/4/07

5

10/30/09

RELEASED FOR BIDDING

REVISED PER ADD. #1, #2

CONSTRUCTION BULLETIN #6

CONSTRUCTION BULLETIN #14

RECORD DRAWINGS

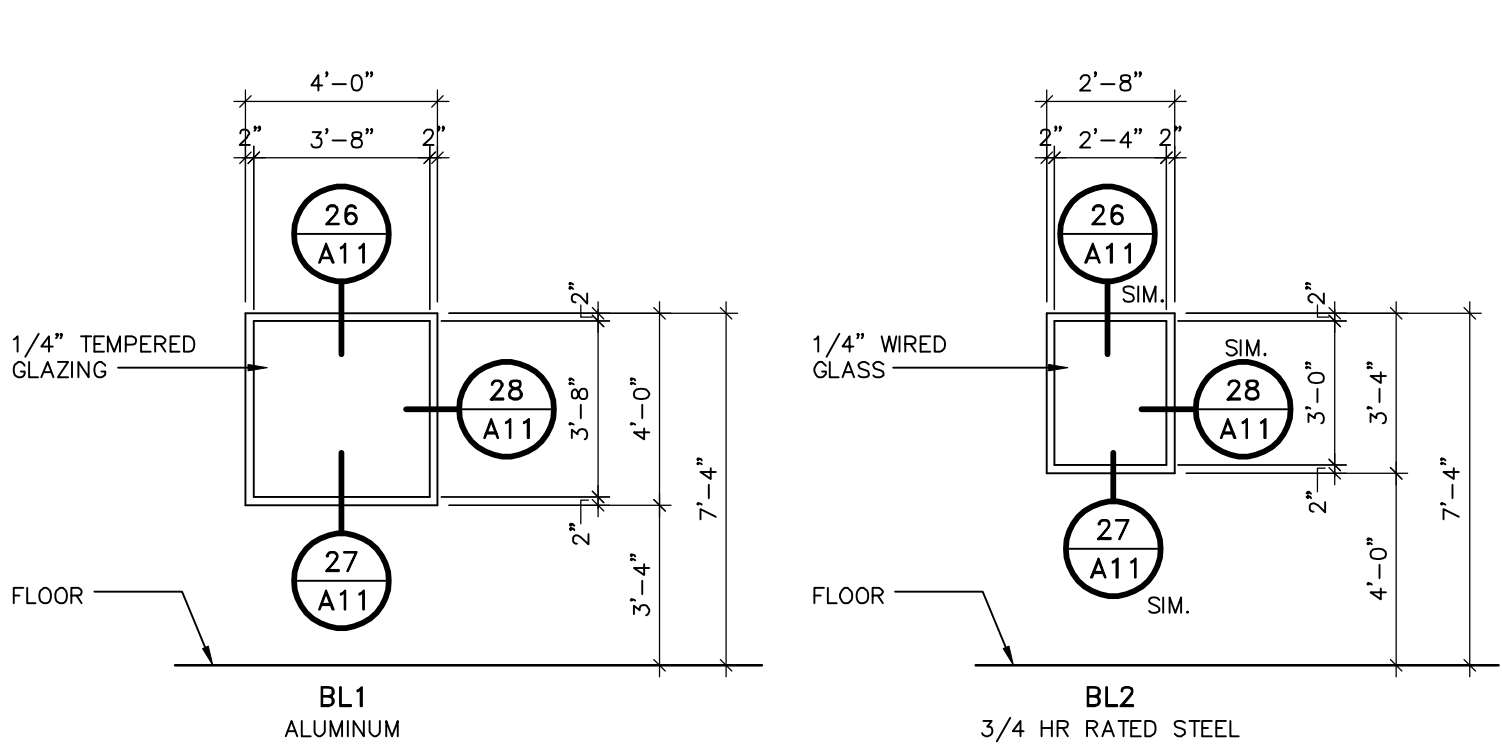


RECORD DRAWINGS	
DRAFTED BY:	<u>PGK 10/30/09</u>
CHECKED:	_____

NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	7/10/07	REVISED PER ADD. #1, #2
3	10/30/09	RECORD DRAWINGS

MARK	SIZE	DOOR TYPE	FRAME NO.	FIRE RATING	HDWRE GROUP	DETAIL	REMARKS
100A	3'-0"x7'-2"x1 3/4"	A	F1		1	1/A10, 2/A10	
100B	10'-0"x12'-0" O.H. DOOR	E	—		—	11/A10, 12/A10	
100C	3'-0"x7'-2"x1 3/4"	A	F1		1	2.1/A10, 3/A10	
100D	3'-0"x7'-2"x1 3/4"	A	F1		1	1.1/A10, 2/A10	
100E	3'-0"x7'-0"x1 3/4"	C	F7		2	9/A10, 10/A10	
101A	3'-0"x7'-2"x1 3/4"	A	F2		1	2/A10, 4/A10, 5/A10	
102A	(2) 3'-0"x8'-6"x1 3/4"	D	F8	1 1/2-HR	5	9/A10, 10/A10	
102B	10'-0"x12'-0" O.H. DOOR	E	—		—	12/A10, 13/A10, 14/A10	
102C	3'-0"x7'-2"x1 3/4"	A	F3		1	2/A10, 6/A10, 7/A10	
103	3'-4"x7'-2"x1 3/4"	B	F6		3	2.1/A10, 4/A10, 8/A10	
104	3'-4"x7'-2"x1 3/4"	B	F5		3	2.1/A10, 4/A10, 8/A10	
105	(2) 3'-0"x7'-2"x1 3/4"	B	F4		4	2.1/A10, 4/A10, 8/A10	

ROOM FINISH SCHEDULE																			
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS								CEILINGS		REMARKS					
				NORTH		EAST		SOUTH		WEST		TYPE	HGT.						
100	PUMP ROOM	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	PC P	16'-8" 21'-4" 13'-4"	-
101	ELECTRICAL ROOM	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	-	16'-8"	-
102	GENERATOR ROOM	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	-	16'-8"	-
103	CHLORINE	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	-	11'-4"	-
104	FLUORIDE	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	-	11'-4"	-
105	SEQUESTERING AGENT	SC	-	CB P	-	-	CB P	-	-	CB P	-	-	CB P	-	-	SD P	-	11'-4"	-
B01	LOWER PUMP ROOM	SC	-	C NF	-	-	C NF	-	-	C NF	-	-	C NF	-	-	C NF	-	13'-2"	-
200	EQUIPMENT MEZZANINE	PC	-	CB P	-	-	-	-	-	CB P	-	-	CB P	-	-	SD P	-	8'-4"	-
FINISH ABBREVIATIONS																			
FLOORS:				WALLS:								CEILINGS:							
SC - SEALED CONCRETE				CB - CONCRETE BLOCK								SD - STEEL DECK & STEEL BEAMS							
PC - PRECAST CONC. - UNTOPPED				P - PAINT								P - PAINT							
				C - CAST IN PLACE CONCRETE								C - CAST IN PLACE CONCRETE							
				NF - NO FINISH REQUIRED								NF - NO FINISH REQUIRED							
NOTE: SEE SPECIFICATION SECTION 03705 FOR CONC. SEALER TYPE.												PC - PRECAST CONCRETE							



BORROWED LITE FRAMES:

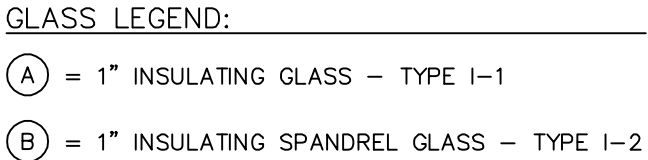
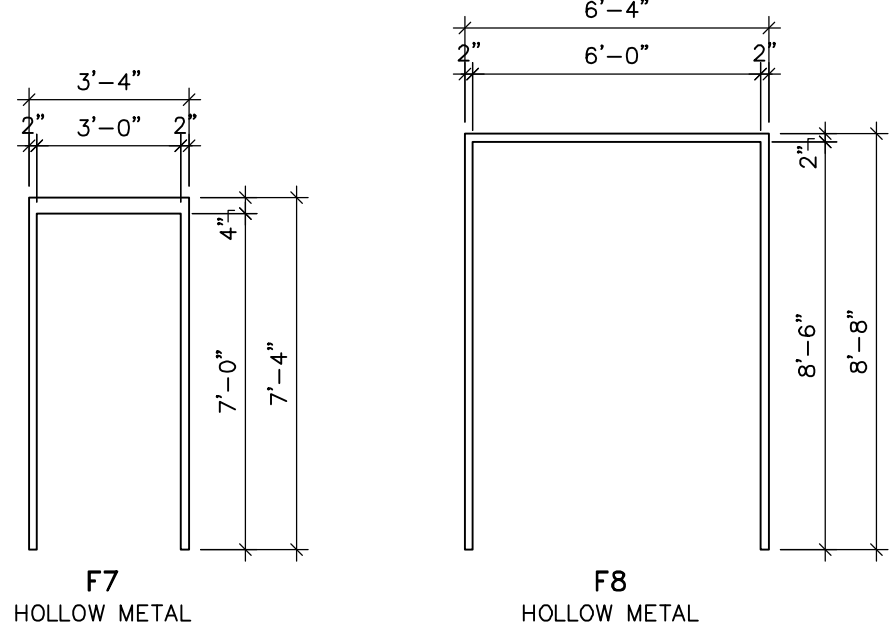
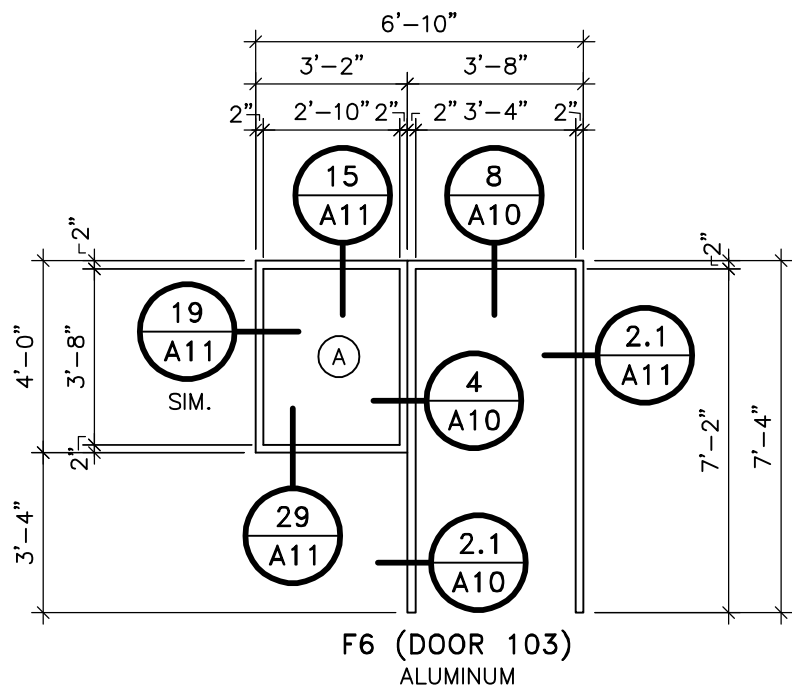


Diagram of F4 (Door 105) showing dimensions and hardware locations. The diagram includes a note: "REMOVABLE MULLION BY HARDWARE SUPPLIER". Dimensions are provided in feet and inches (e.g., 7'-0", 3'-2", 2'-10"). Hardware locations are marked with circles containing numbers and codes (e.g., 8 A10, 15 A11, 2.1 A10, 4 A10, 2.1 A10, 19 A11, 29 A11). The door is labeled "F4 (DOOR 105) ALUMINUM".

Technical drawing of a door frame assembly. The drawing shows a central door unit (A10) with a handle (A) and a lock (A). The door is surrounded by a frame (A11) with multiple panes. Dimensions are provided in feet and inches (Ft.-In.). The overall width is 10'-0" and the overall height is 7'-4". The door unit is 3'-2" wide and 7'-2" high. The frame panes are 2'-10" wide and 3'-8" high. The door unit is labeled F5 (DOOR 104) ALUMINUM.



CHECKED: _____

FILE NO.

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DESIGN	PWH	DRAW	PGK	CHECK	PWH
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NO TAILS

STATISTICS & DATA ANALYSIS

SET ILL NG

UMI ORD HED

ET DOCK H S

STR
F F
FIN

LEY TY ROOM

STA () DOOR,

—

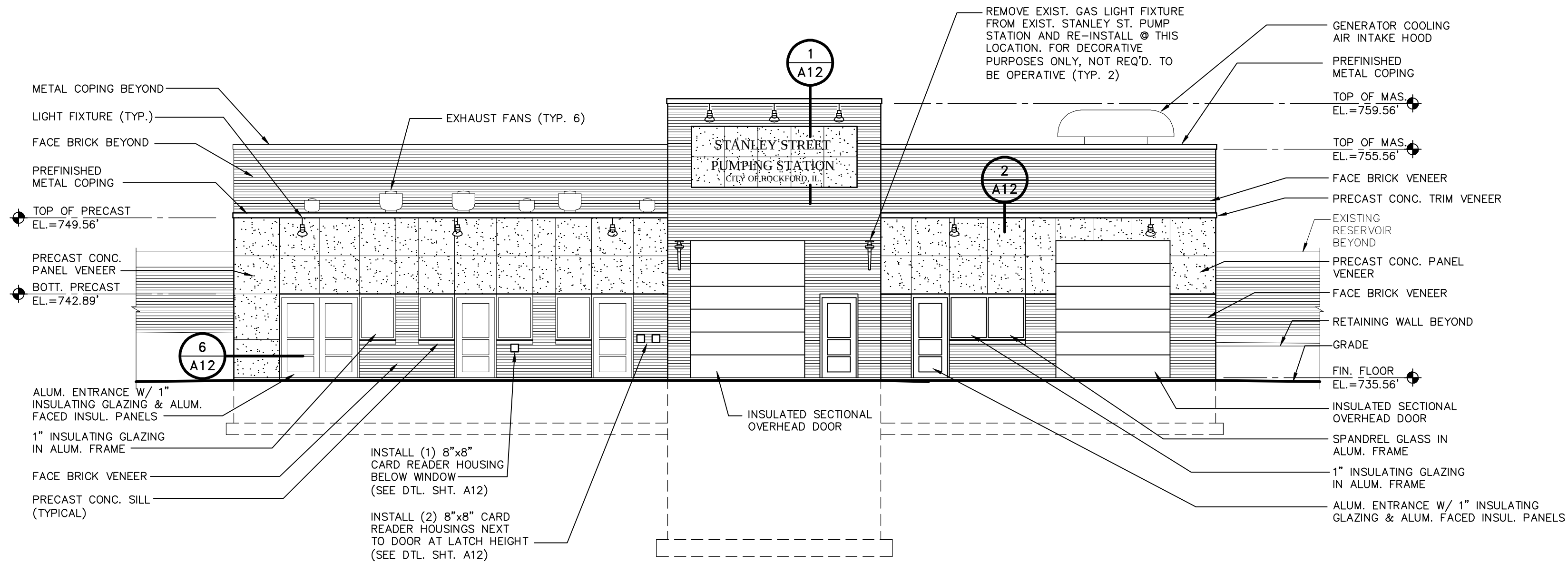
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DATE: APRIL, 1968

SHEET NO.

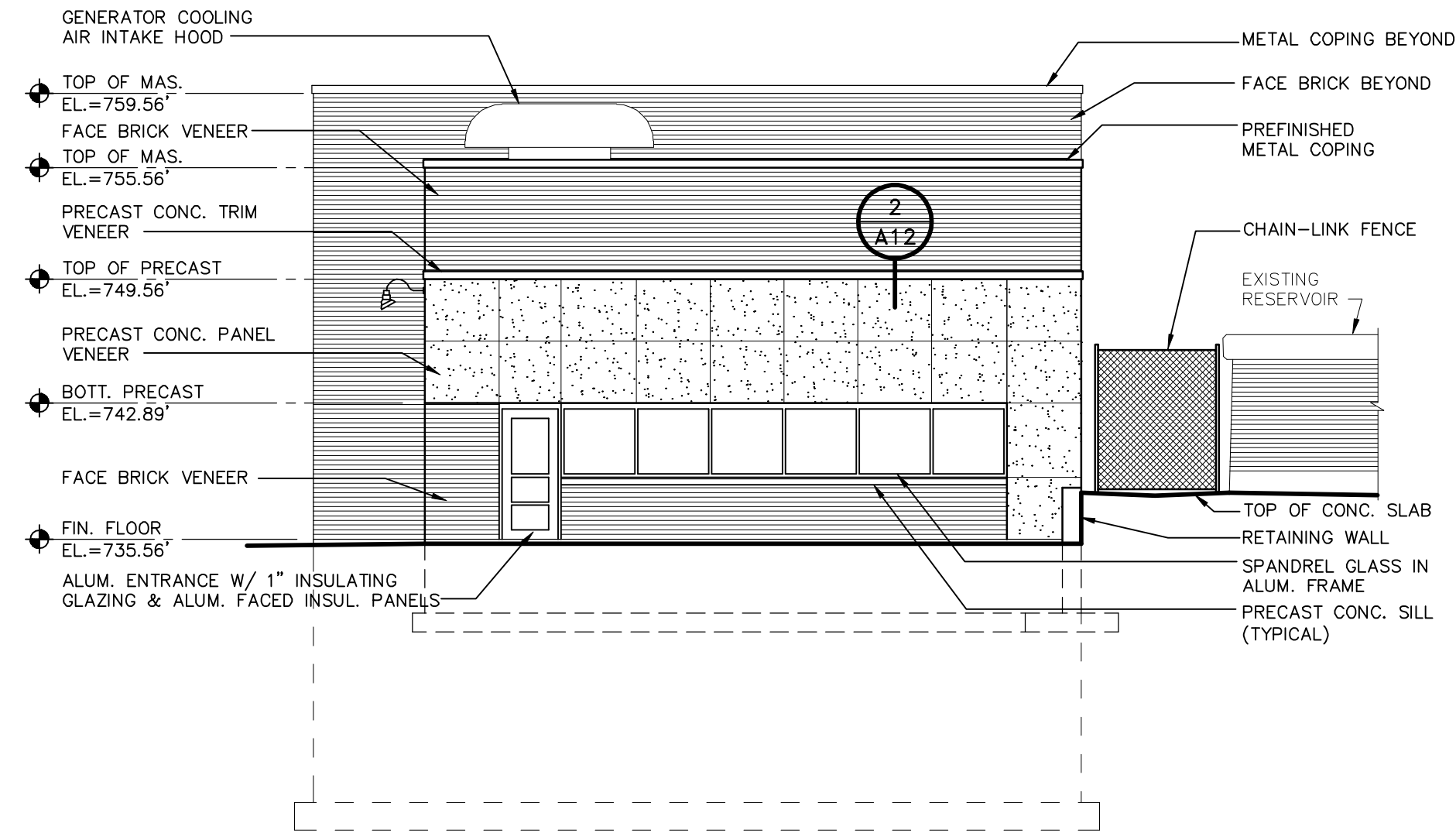
A3

FILE NO.



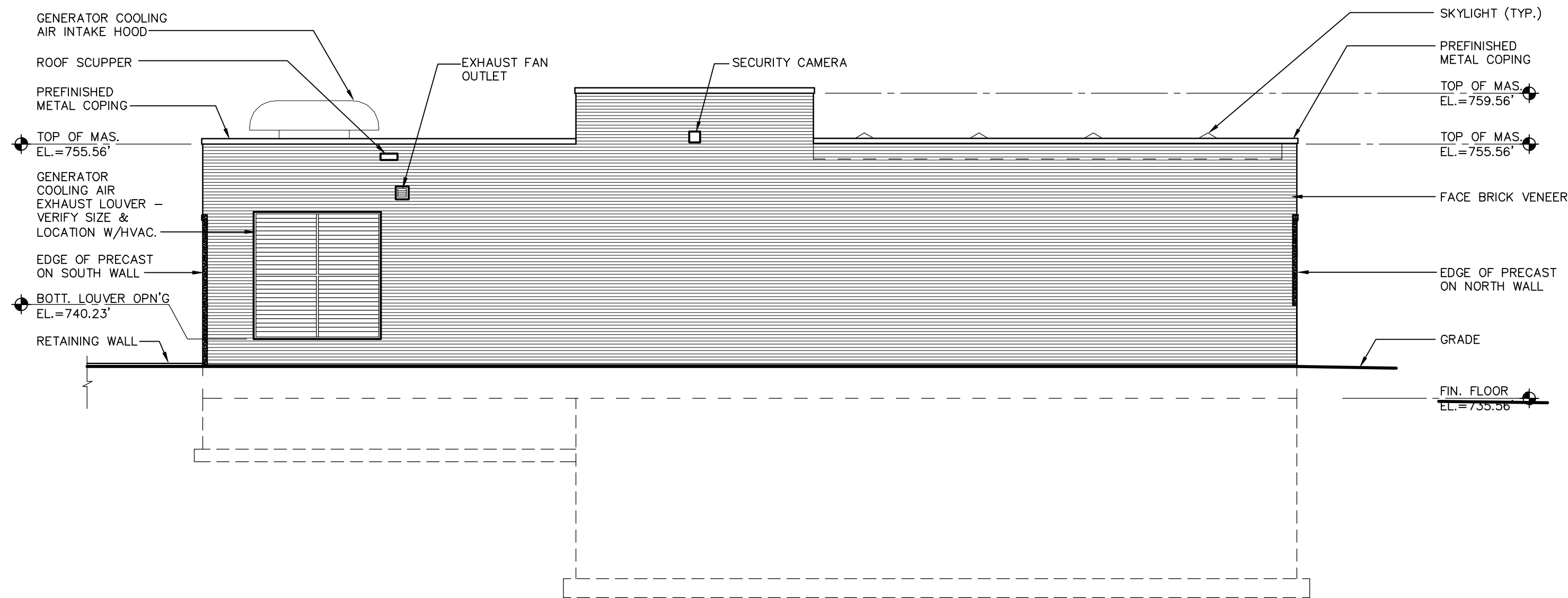
WEST ELEVATION

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



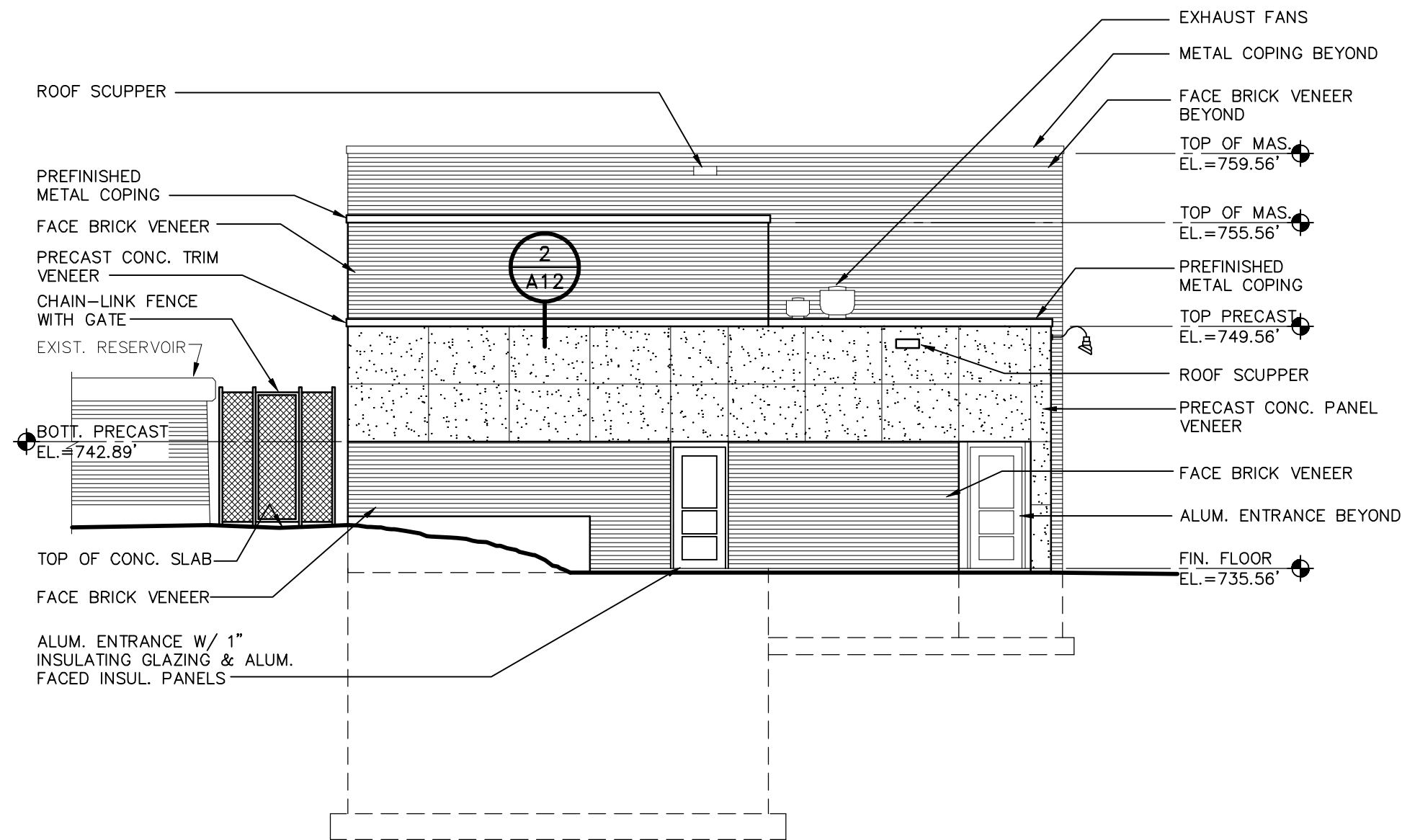
SOUTH ELEVATION

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



EAST ELEVATION

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



NORTH ELEVATION

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

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
EXTERIOR ELEVATIONS

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

A4

FILE NO.

McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: NEENAH, WI 54956
TEL (920) 751-4200 FAX (920) 751-4204

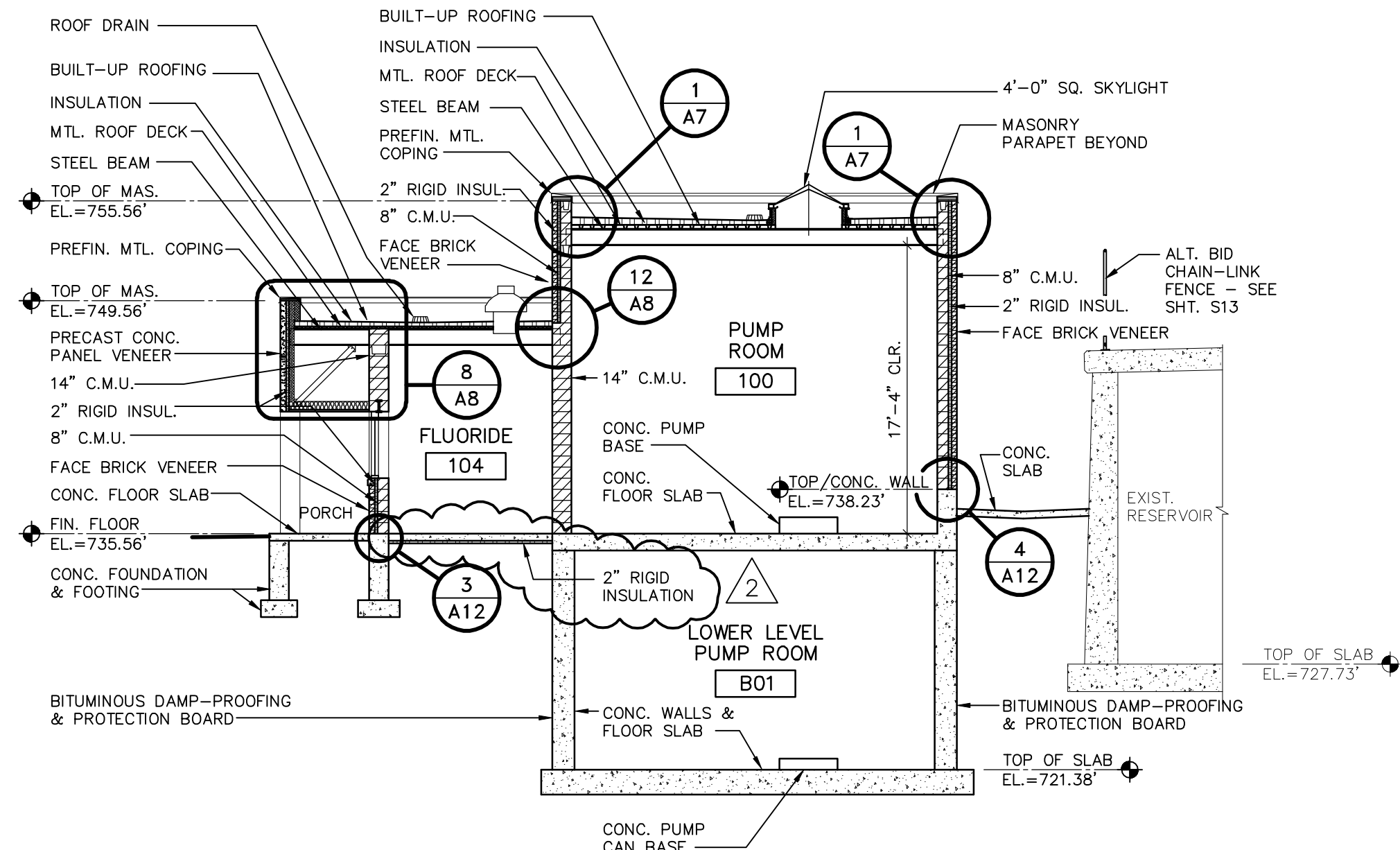
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DESIGNED
PWV
DRAWN
PWV
CHECKED
PWV

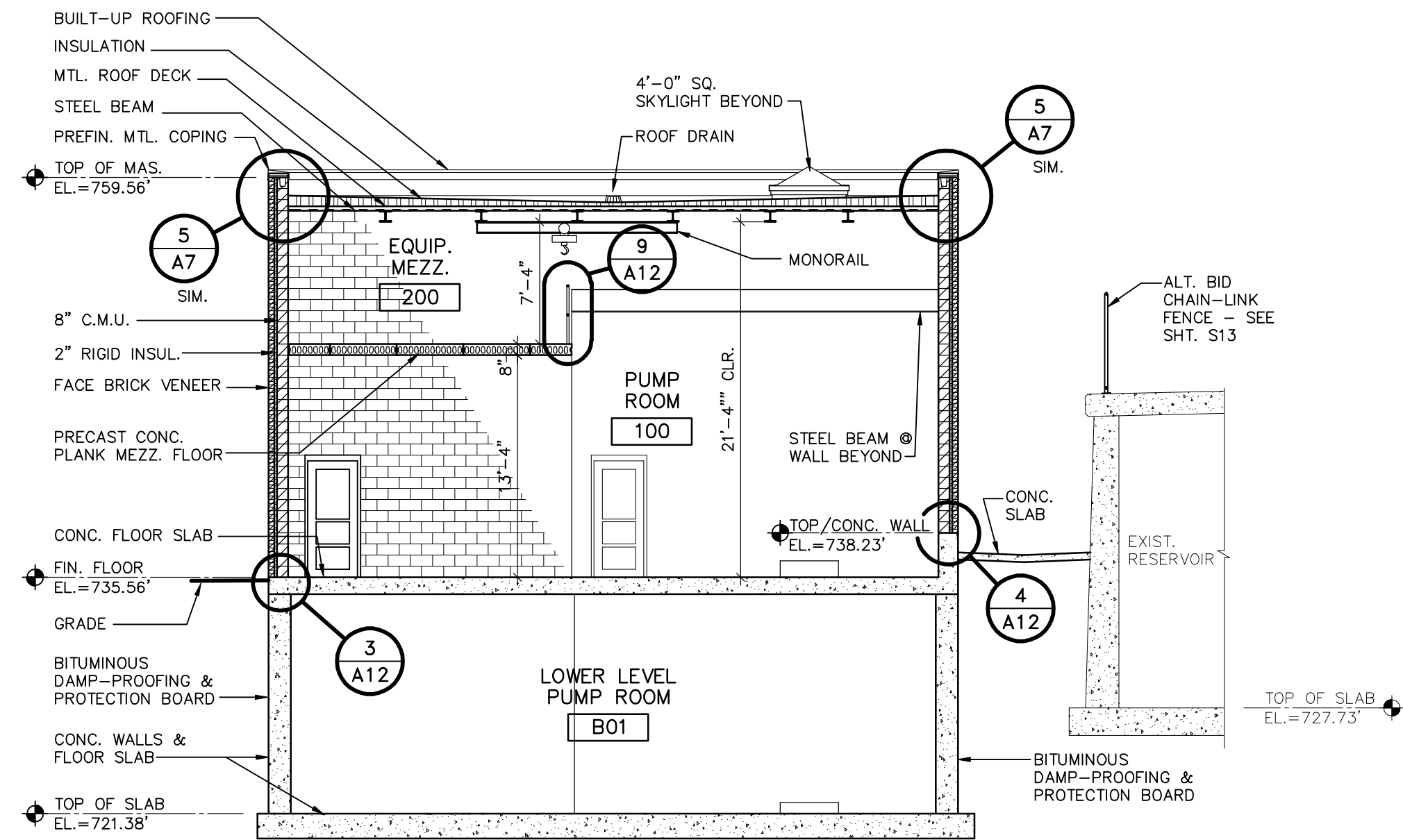
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2	7/10/07	REVISED PER ADD. #1, #2
3	3/20/08	CONSTRUCTION BULLETIN 18
4	10/30/09	RECORD DRAWINGS

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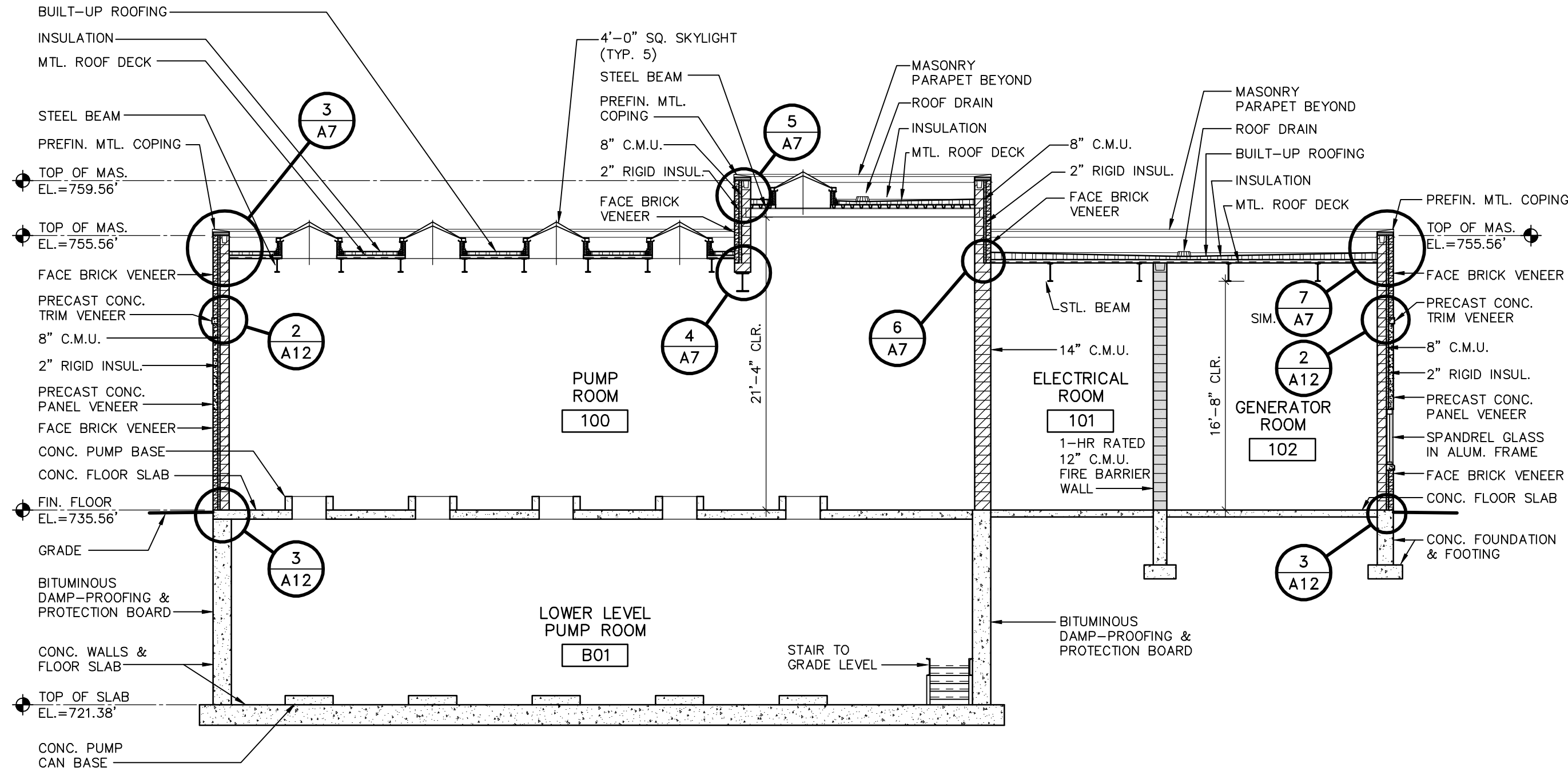
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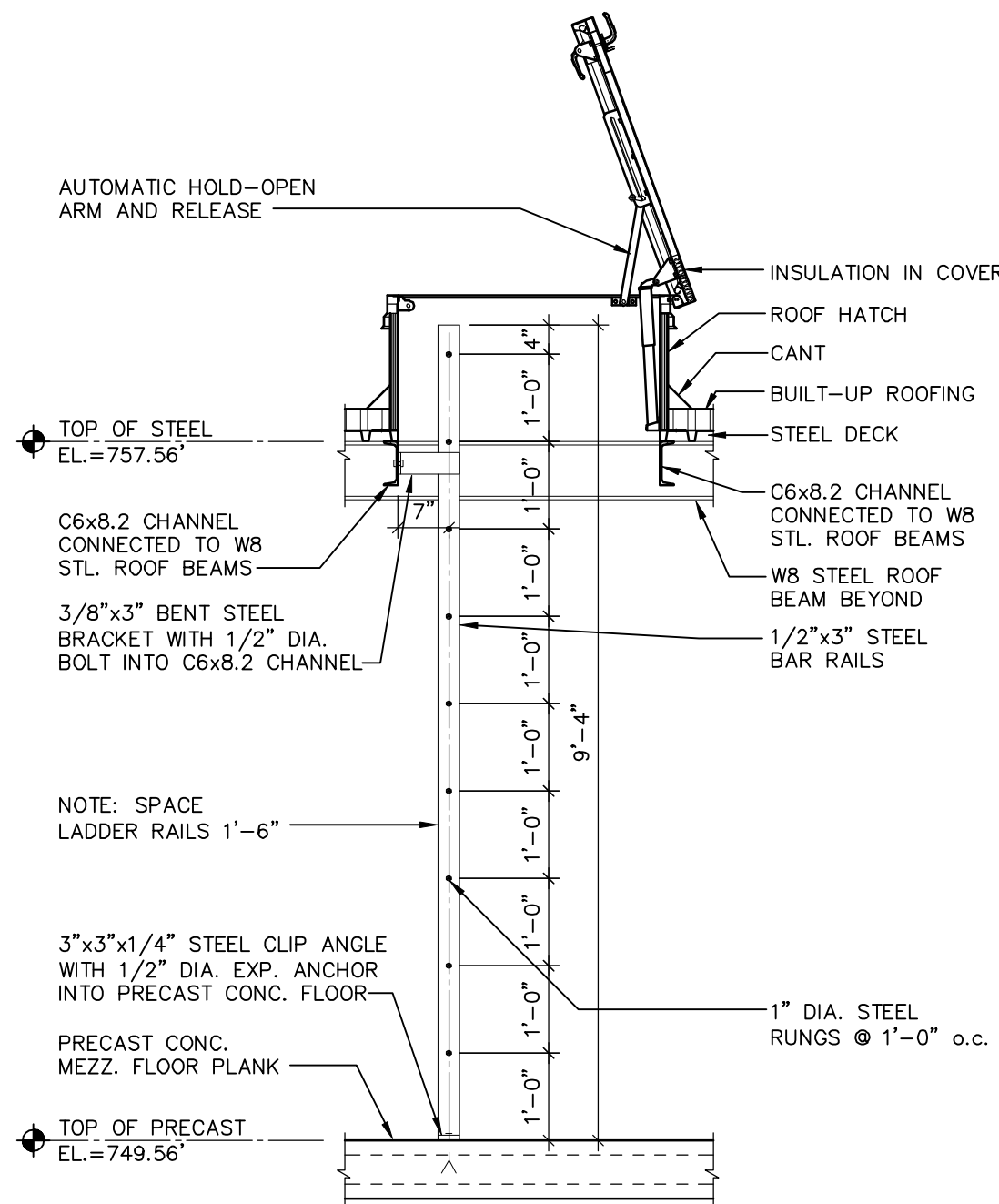
CROSS SECTION 1
SCALE: 1/8" = 1'-0" **A5**



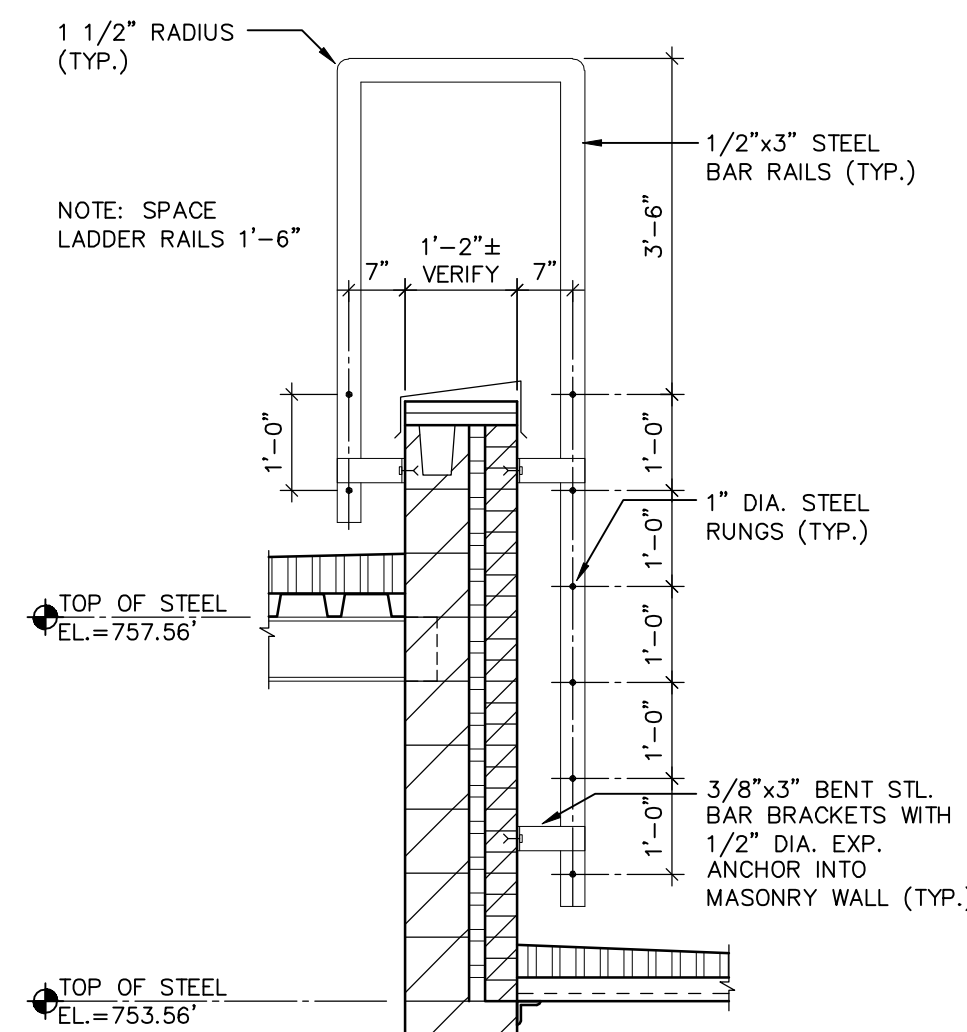
CROSS SECTION 3
SCALE: 1/8" = 1'-0" **A5**



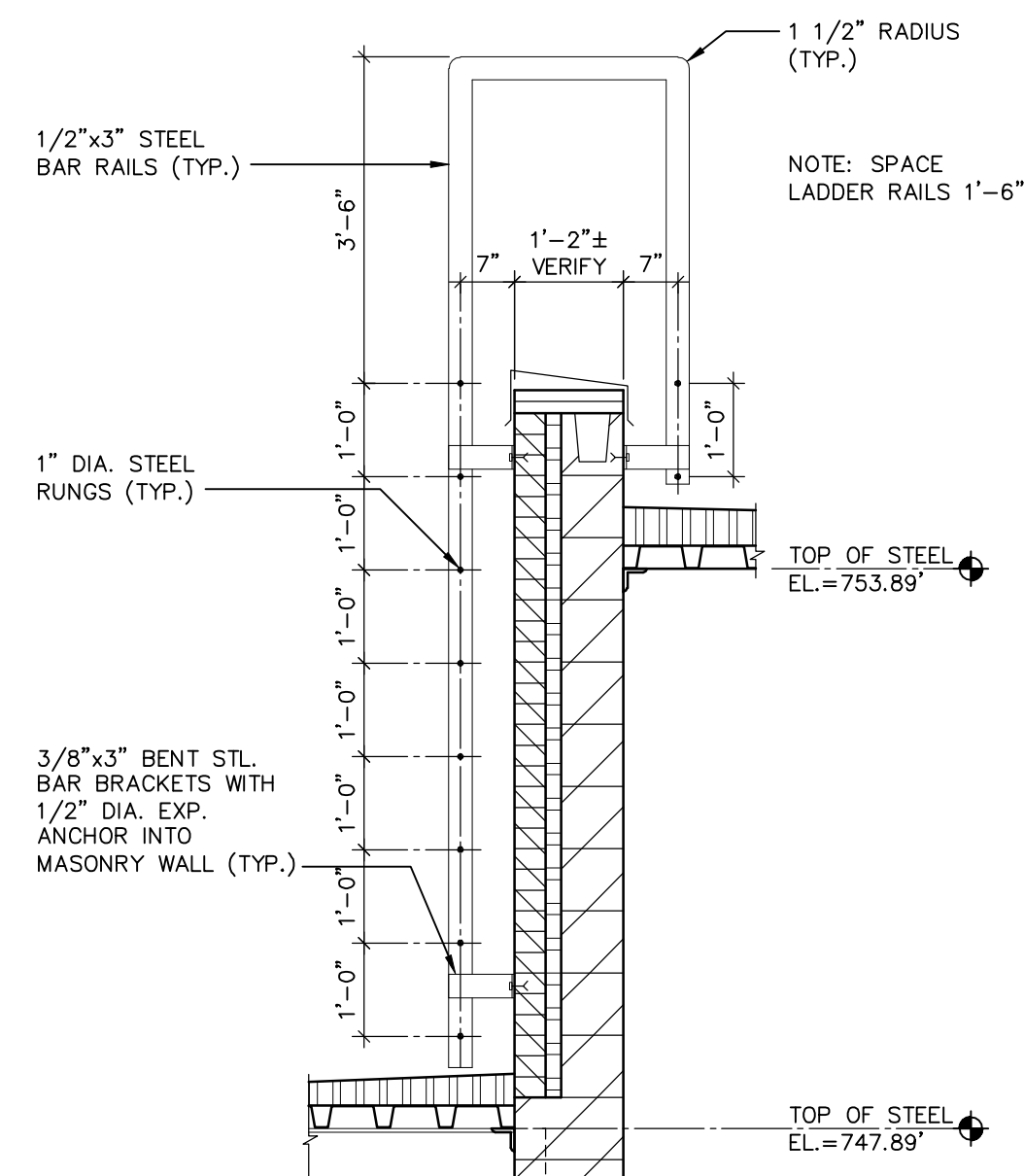
CROSS SECTION 2
SCALE: 1/8" = 1'-0" **A5**



ROOF HATCH & LADDER DETAIL
SCALE: 1/2" = 1'-0" **A5**



ROOF ACCESS LADDER
SCALE: 1/2" = 1'-0" **A5**



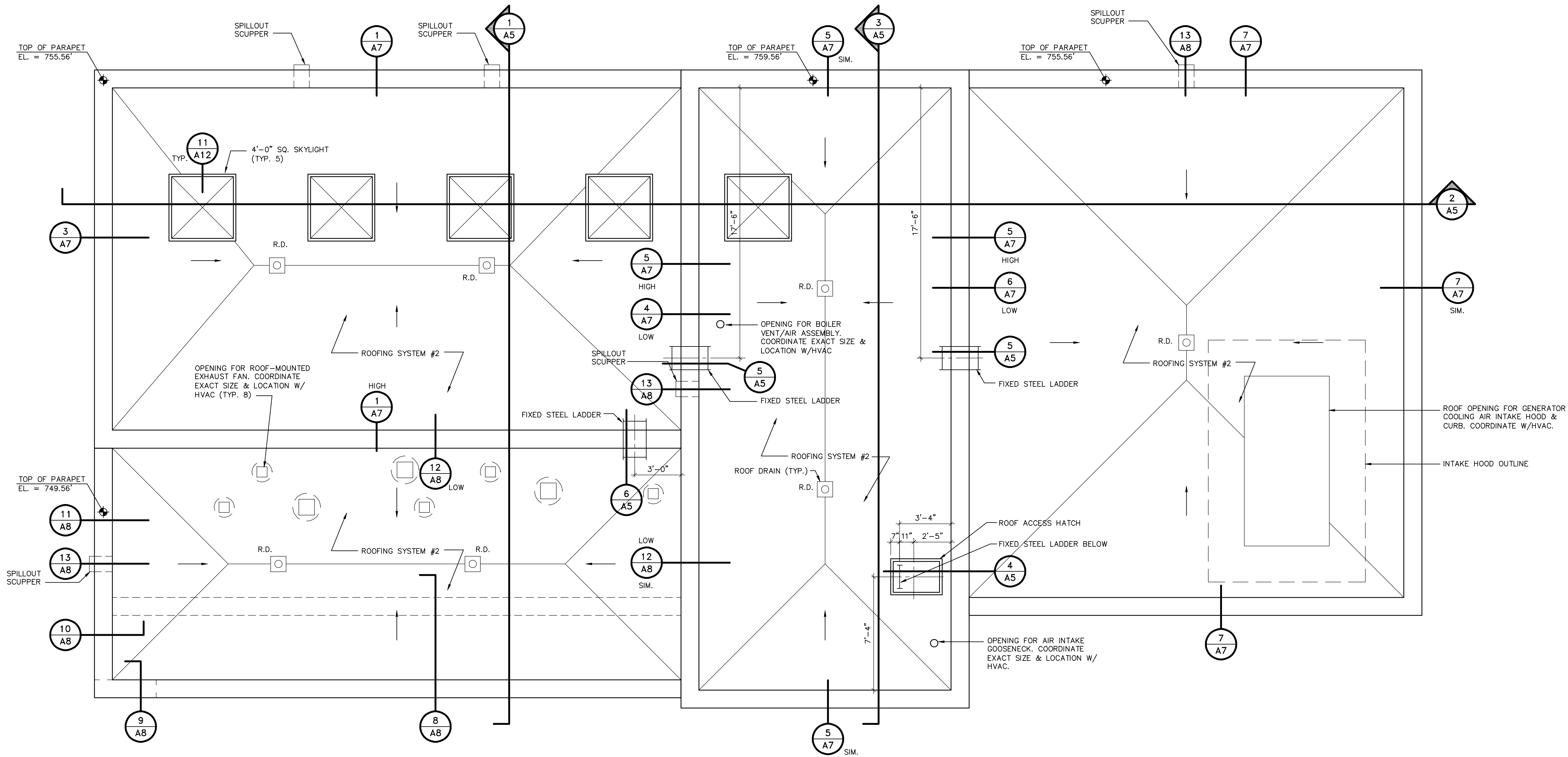
ROOF ACCESS LADDER
SCALE: 1/2" = 1'-0" **A5**

RECORD DRAWINGS	
DRAFTED BY:	PGK 10/30/09
CHECKED:	

FILE NO.		SHEET NO.		SCALE		DESIGNED		REVISION	
A5		R0018-950446		AS NOTED		PWH		NO. DATE	
				DATE		DRAWN		1 4/6/07	
				PROJECT NO.		PGK		2 7/10/07	
				CHECKED		3 10/30/09			
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p:\corkrik_w\DWG\90018\950446\Stanley St Pumping Station\Arch\ROC-A07.dwg, 12/05/06 8:40 AM (X-MCM22X34_INFO)



ROOFING SYSTEM LEGEND:
(OMITTED SYSTEM #1)
SYSTEM #2: BUILT-UP ROOFING OVER 1/2" PERLITE OVERLAY BOARD OVER TAPERED RIGID INSULATION WITH A MINIMUM THICKNESS OF 1" AT ROOF DRAINS OVER VAPOR RETARDER OVER 1/2" PERLITE SUBSTRATE ON STEEL DECK.

ROOF PLAN
SCALE: 1/4" = 1'-0"

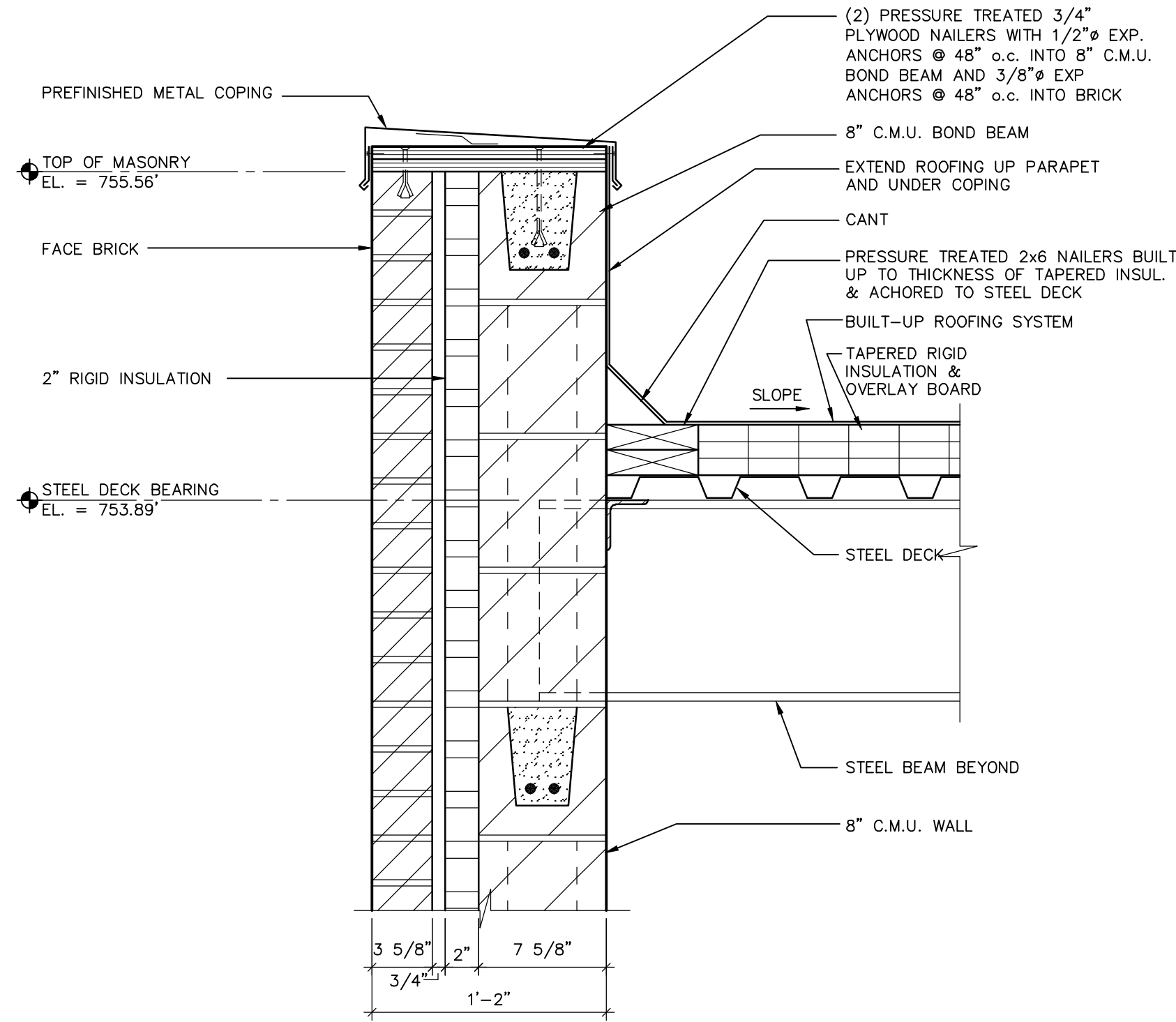


RECORD DRAWINGS
DRAFTED BY: PGK 10/30/09
CHECKED: _____

McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956 TEL: (920) 751-4200 FAX: (920) 751-4204		NO.	DATE	REVISION
DESIGNED	DRAWN	1	4/6/07	RELEASED FOR BIDDING
CHECKED	PGK	2	7/10/07	REVISED PER ADD. #1, #2
PJH		3	10/30/09	RECORD DRAWINGS
SHEET NO.		FILE NO.		
A6				

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DETAIL

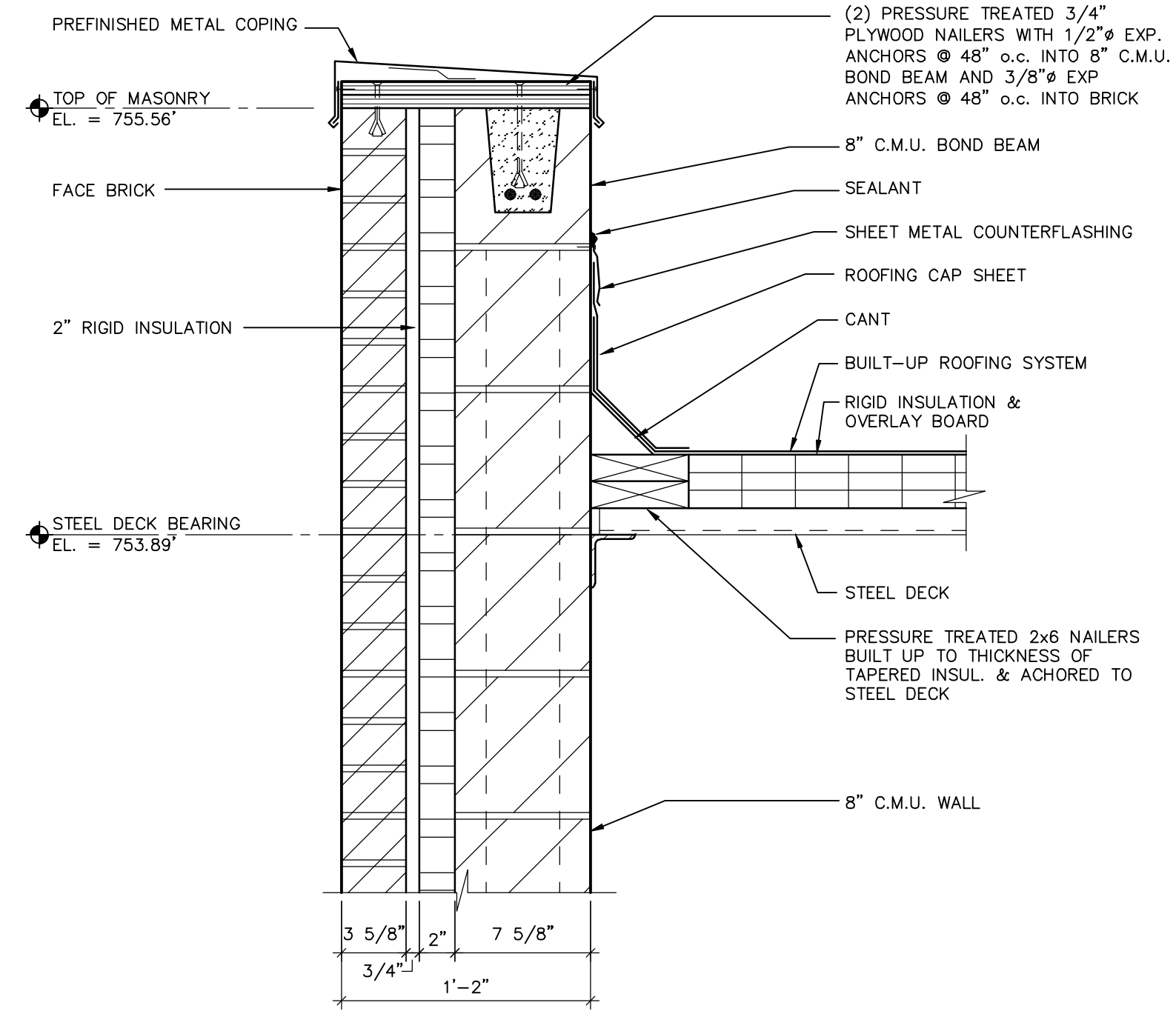
SCALE: 1 1/2" = 1'-0"

1
A7

NOT USED

SCALE:

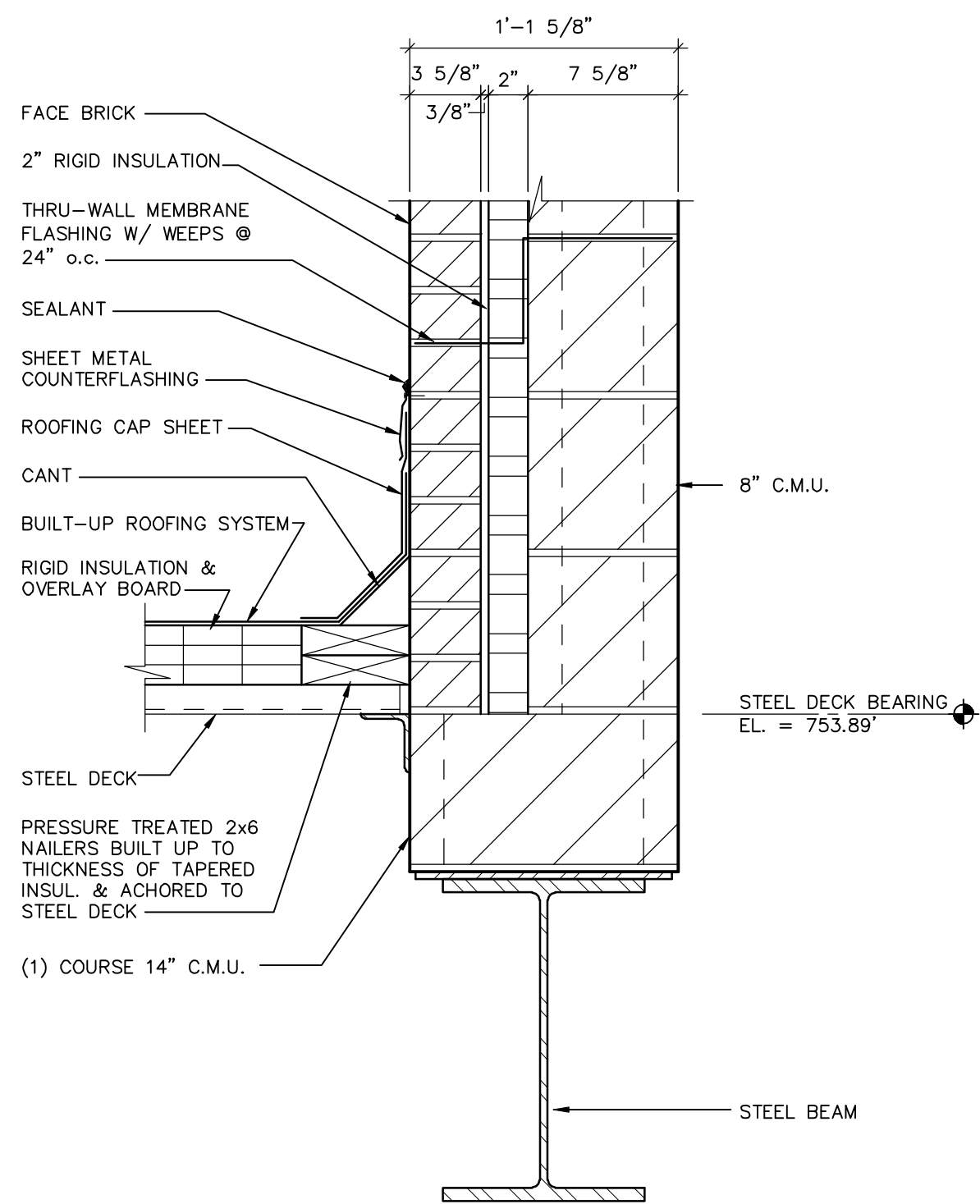
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A7



DETAIL

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

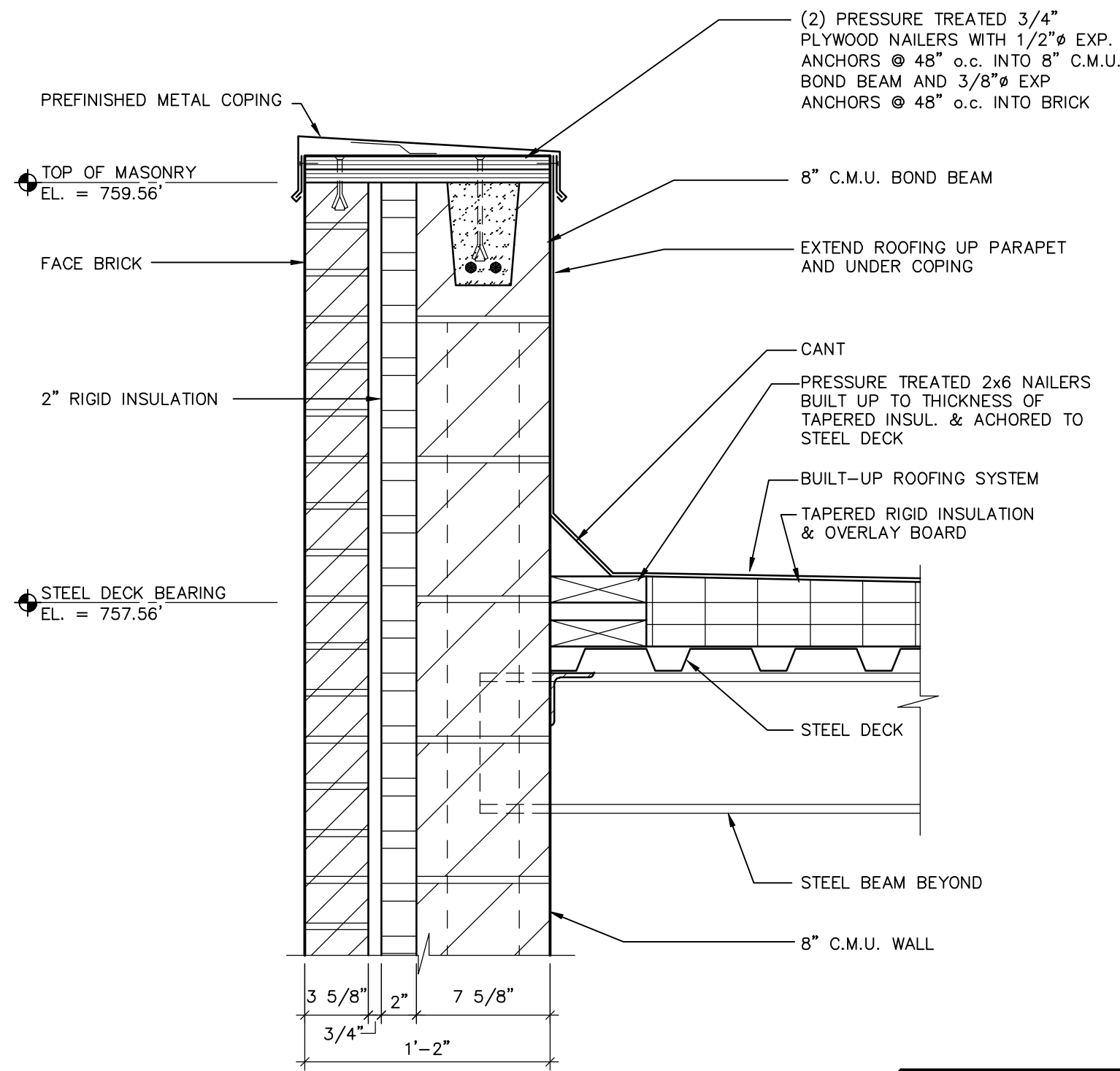
3
A7



DETAIL

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

4
A7



DETAIL

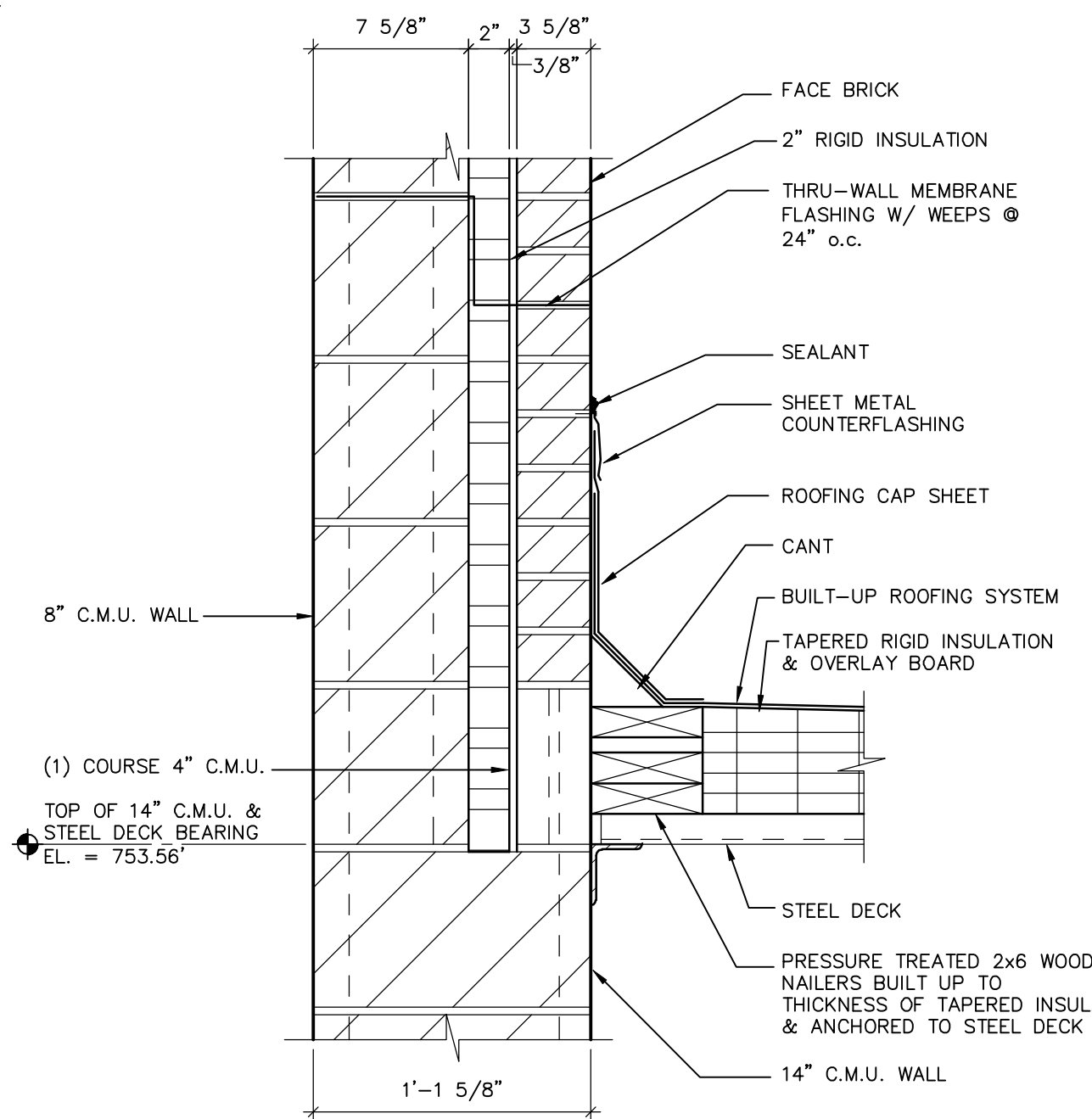
SCALE: 1 1/2" = 1'-0"

5
A7

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

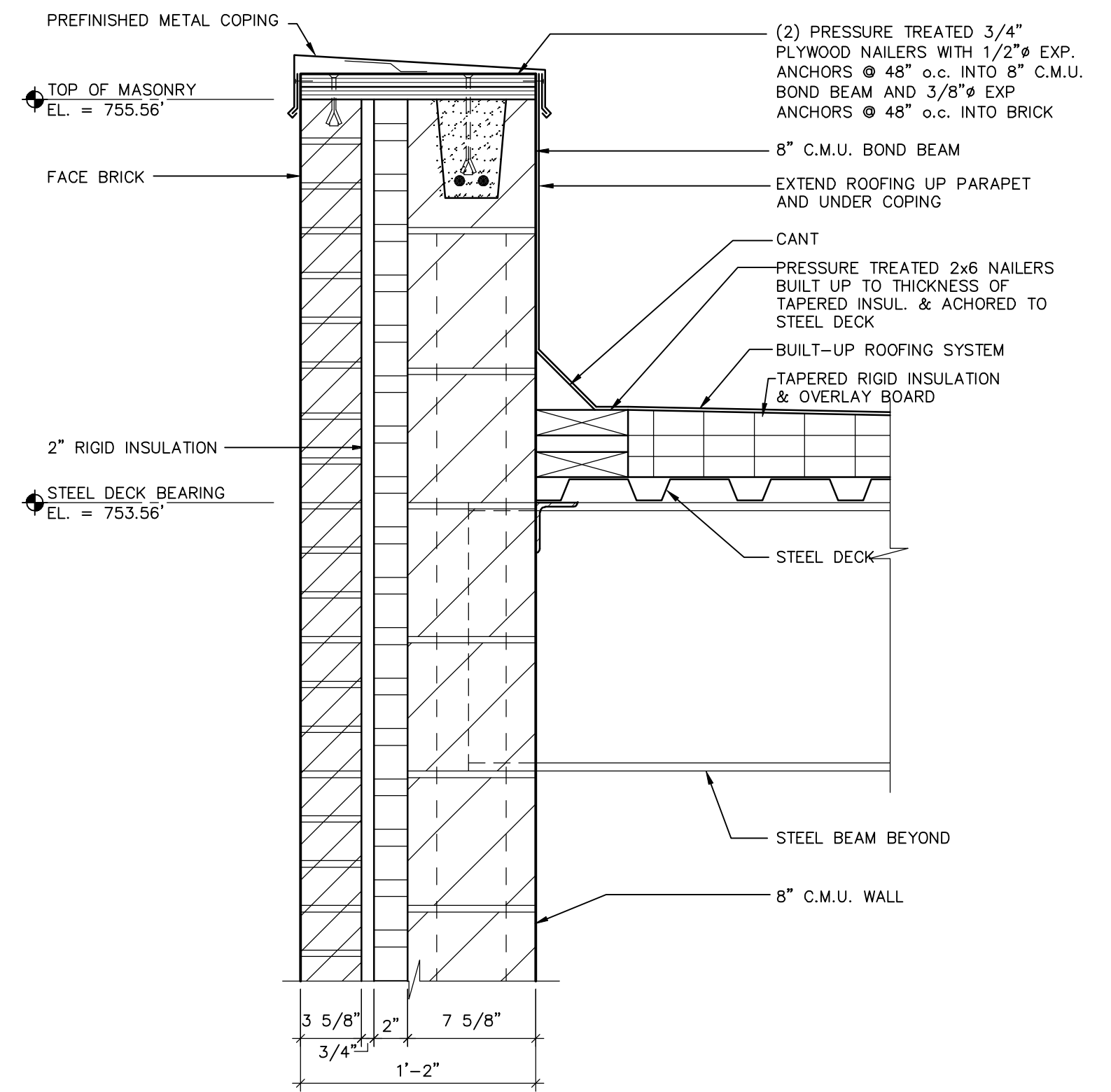
CHECKED: _____



DETAIL

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

6
A7



DETAIL

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

7
A7

STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS ROOF & PARAPET DETAILS

SCALE: AS NOTED
DATE: APRIL, 2007
PROJECT NO.: R0018-950446

SHEET NO.

A7

FILE NO.

McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956
TEL: (920) 751-4200 FAX: (920) 751-4204

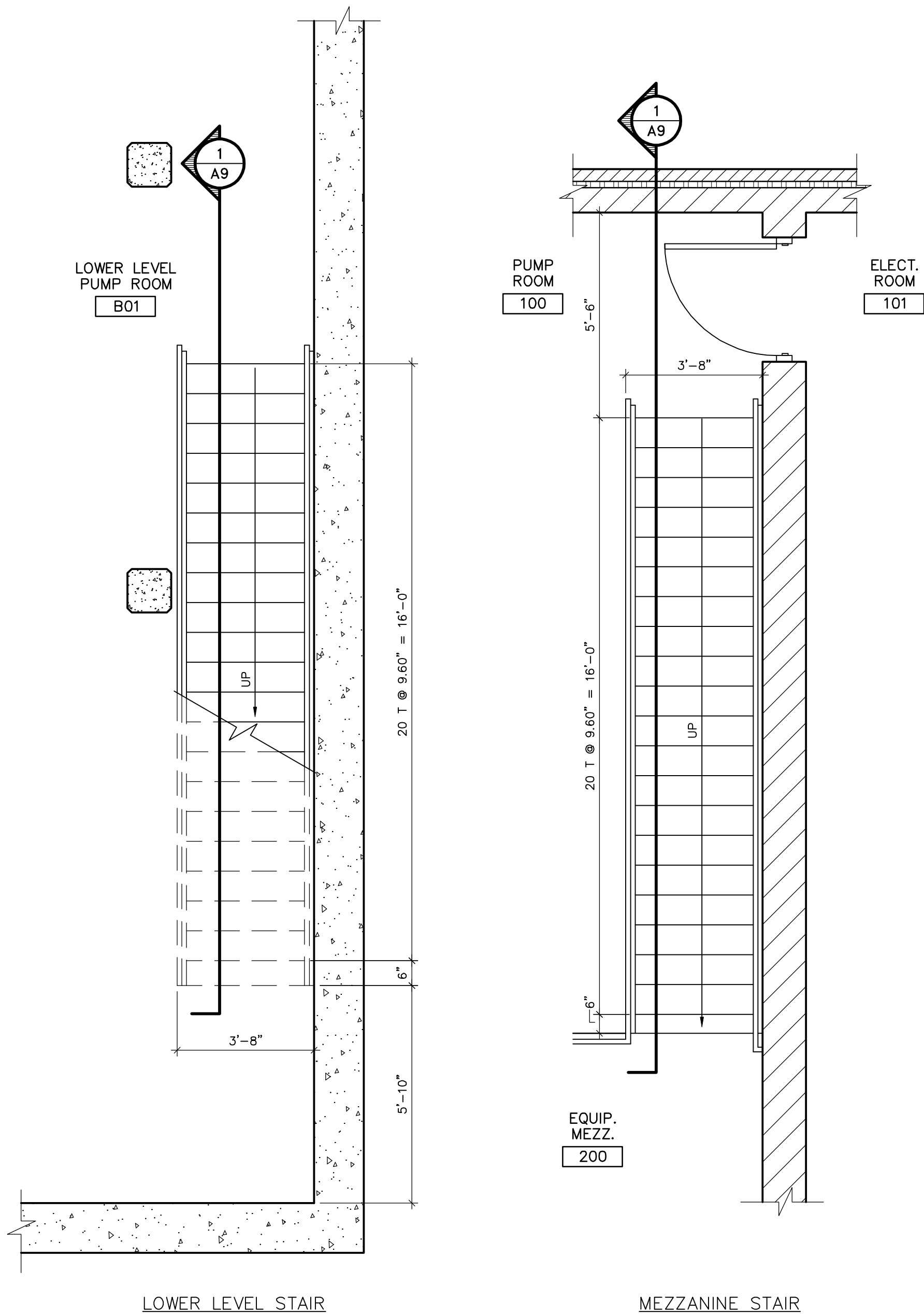
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DESIGNED: PWH
DRAWN: POK
CHECKED: PWH

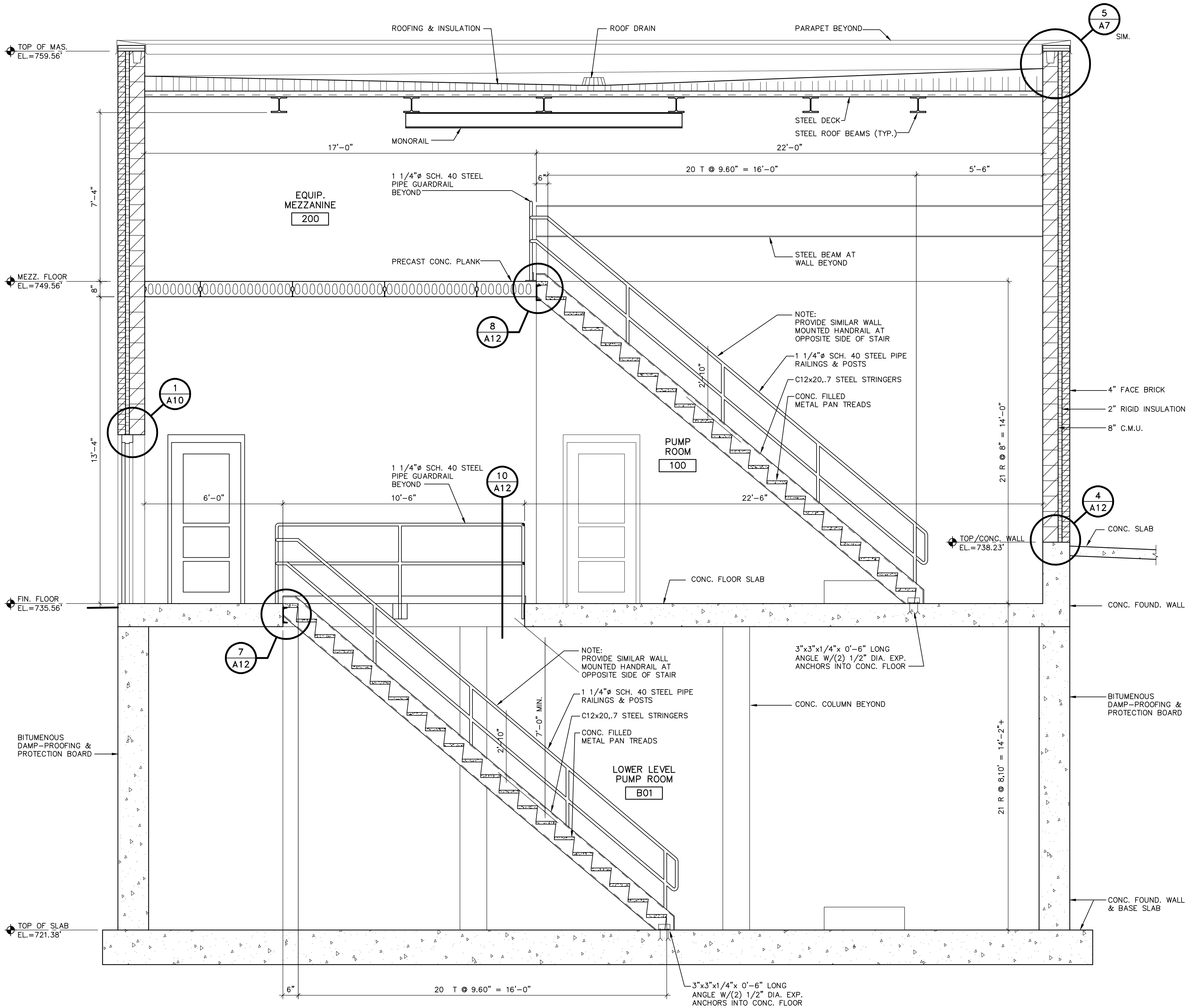
NO.	DATE	REVISION
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2	7/10/07	REVISED PER ADD. #1, #2
3	10/30/09	RECORD DRAWINGS

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LARGE SCALE STAIR PLANS
SCALE: 3/8" = 1'-0"



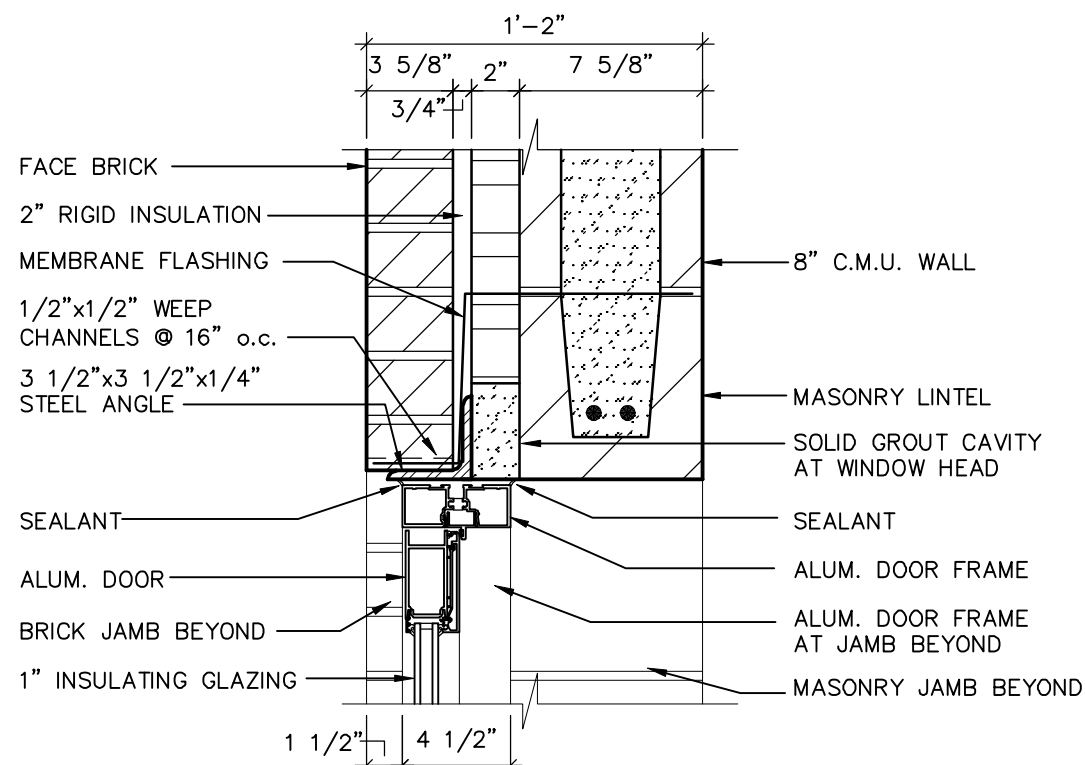
STAIR SECTION
SCALE: 3/8" = 1'-0"

RECORD DRAWINGS	
DRAFTED BY:	PGK 10/30/09
CHECKED:	

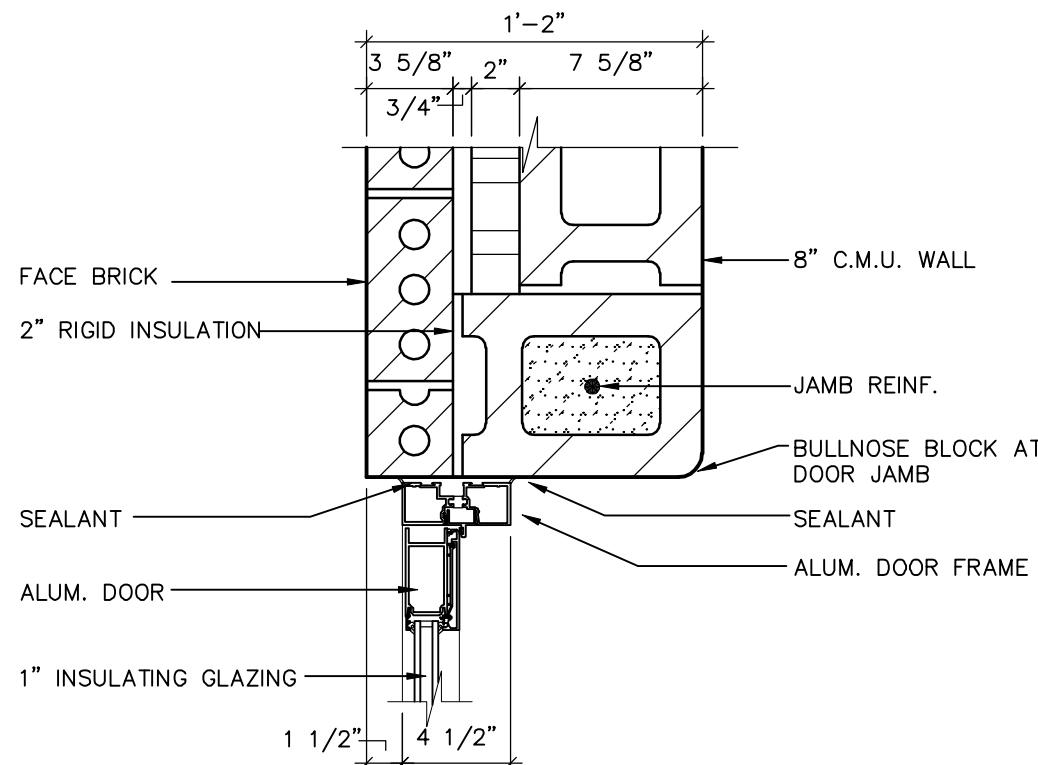
McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING: 30325 McMAHON DRIVE NEENAH, WI 54956-1025 TEL: (920) 751-4200 FAX: (920) 751-4204		REVISION NO. DATE 1 4/6/07 RELEASED FOR BIDDING 2 7/12/07 RELEASED FOR CONSTR. 3 10/30/09 RECORD DRAWINGS	
DESIGNED PWH	DRAWN PWH	CHECKED PWH	PROJECT NO. R0018-950446
STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS STAIR SECTION		SHEET NO. A9	
SCALE AS NOTED		FILE NO.	

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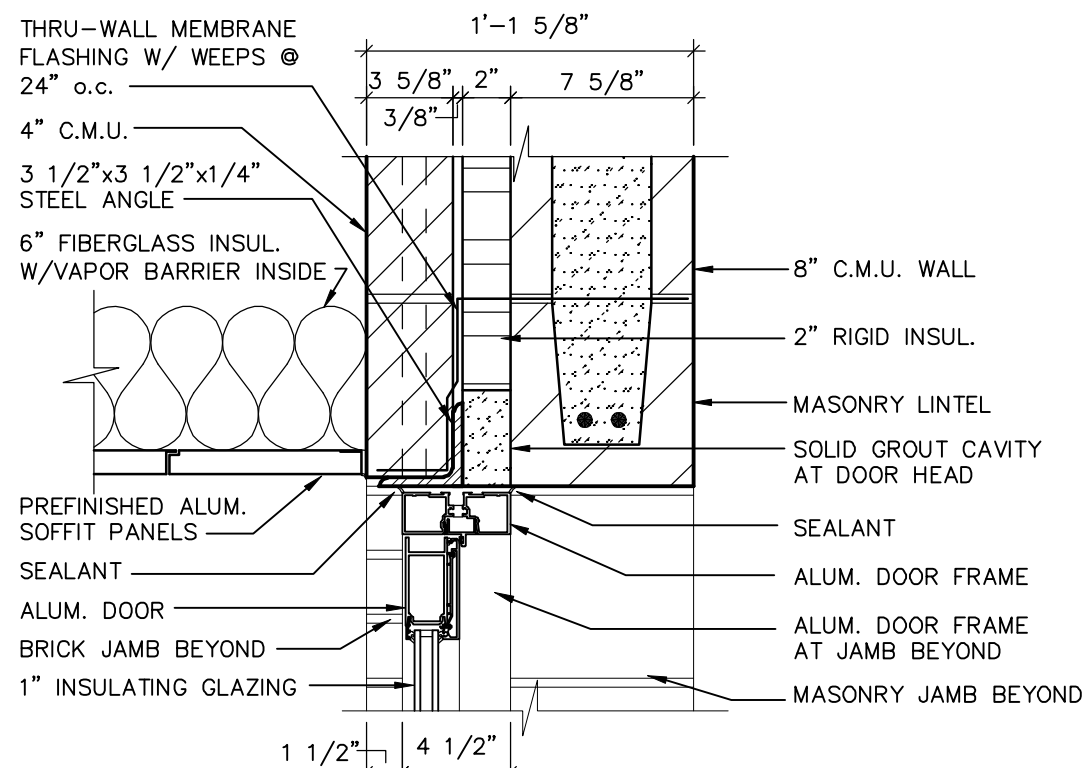
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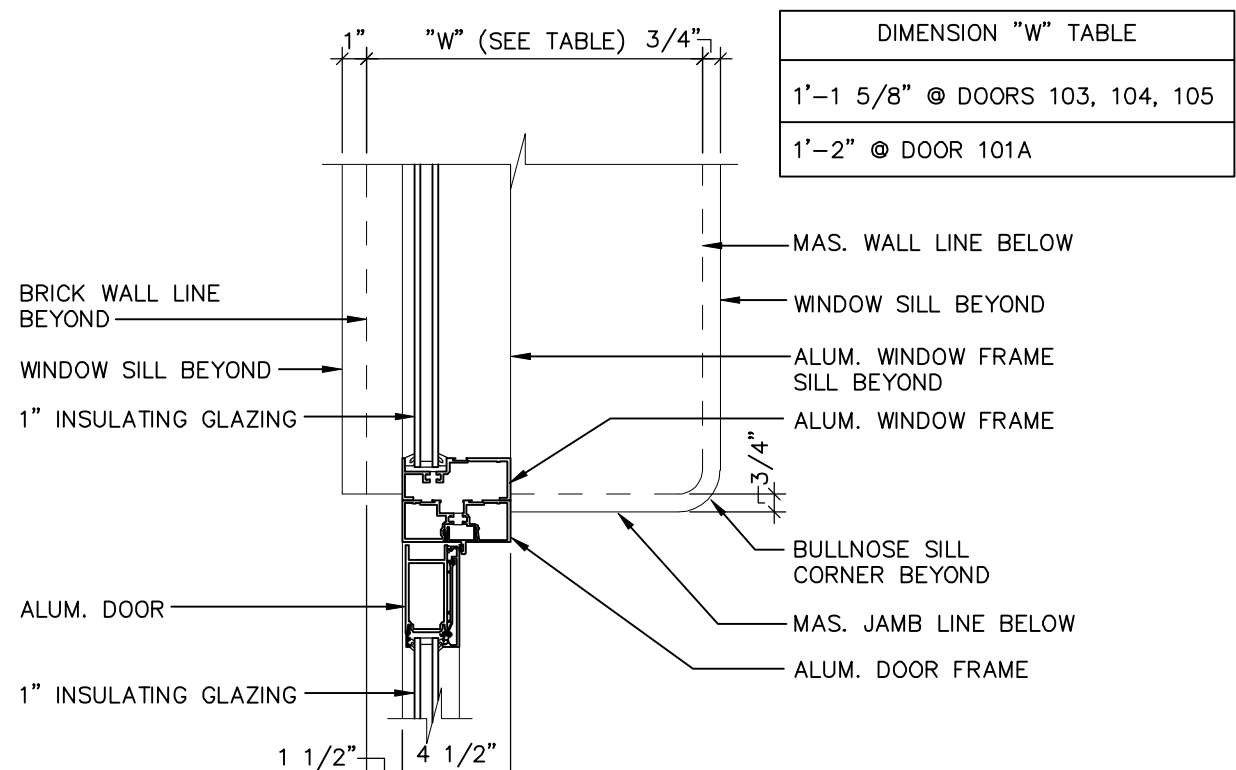
HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
1
A10



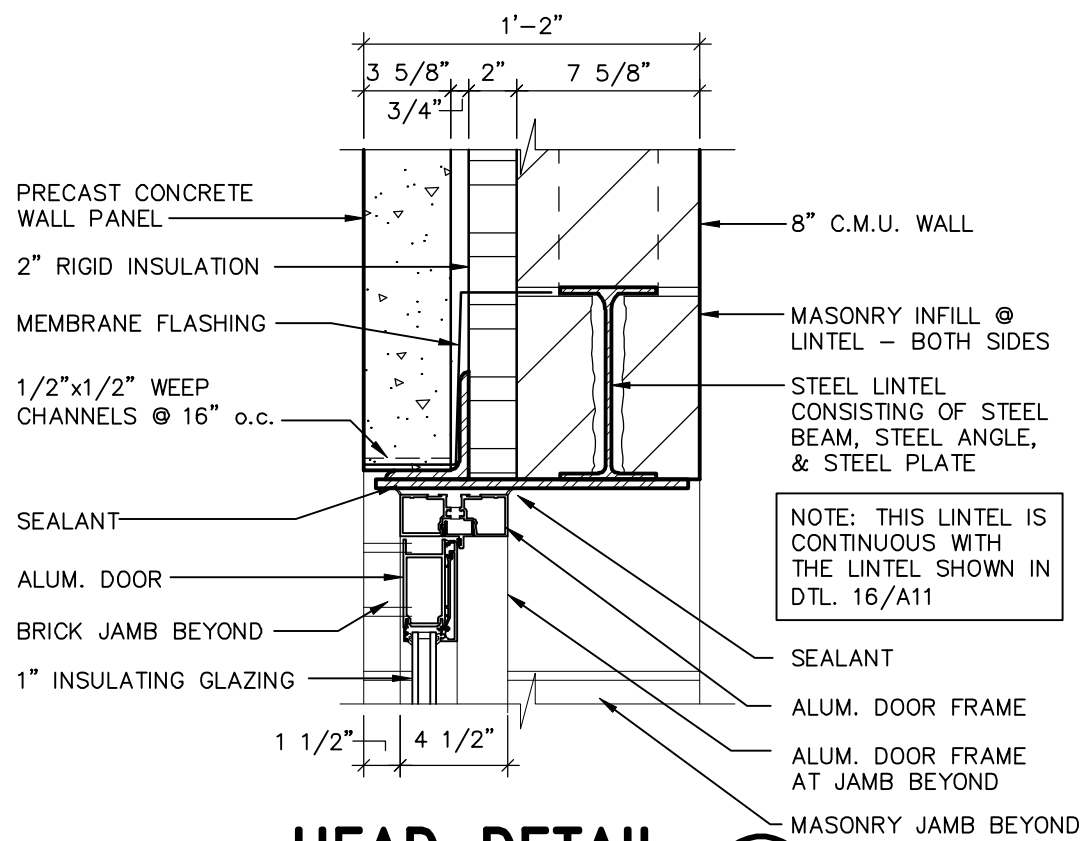
JAMB DETAIL
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2
A10



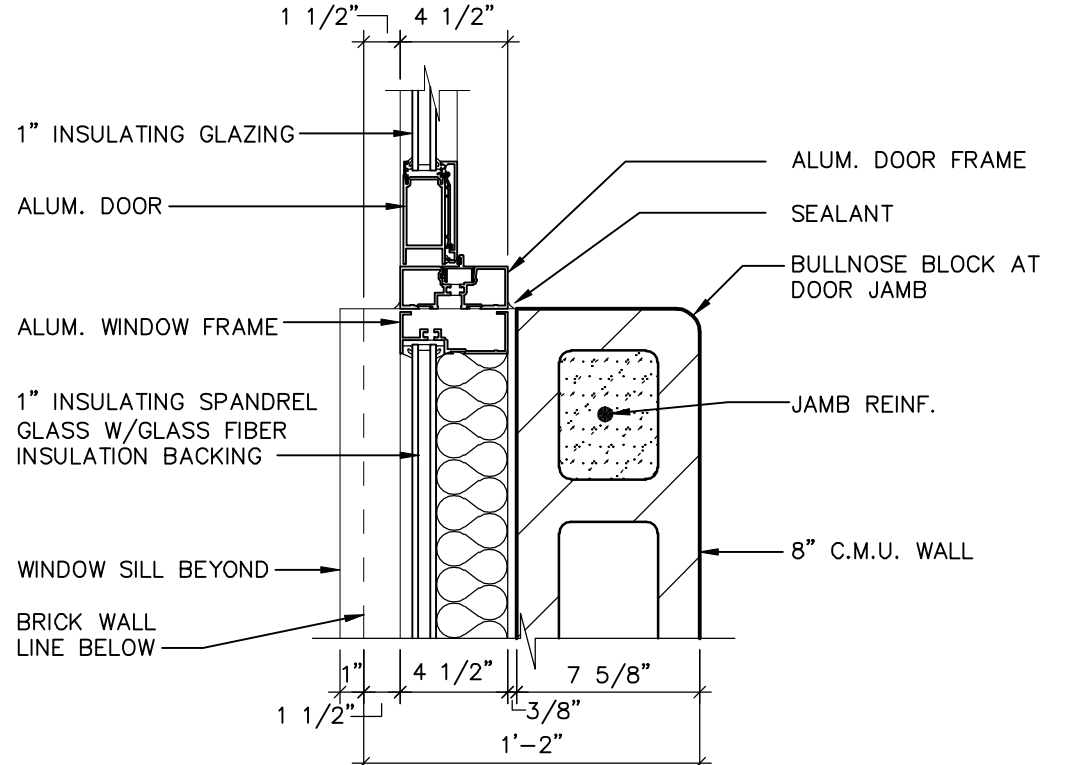
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A10



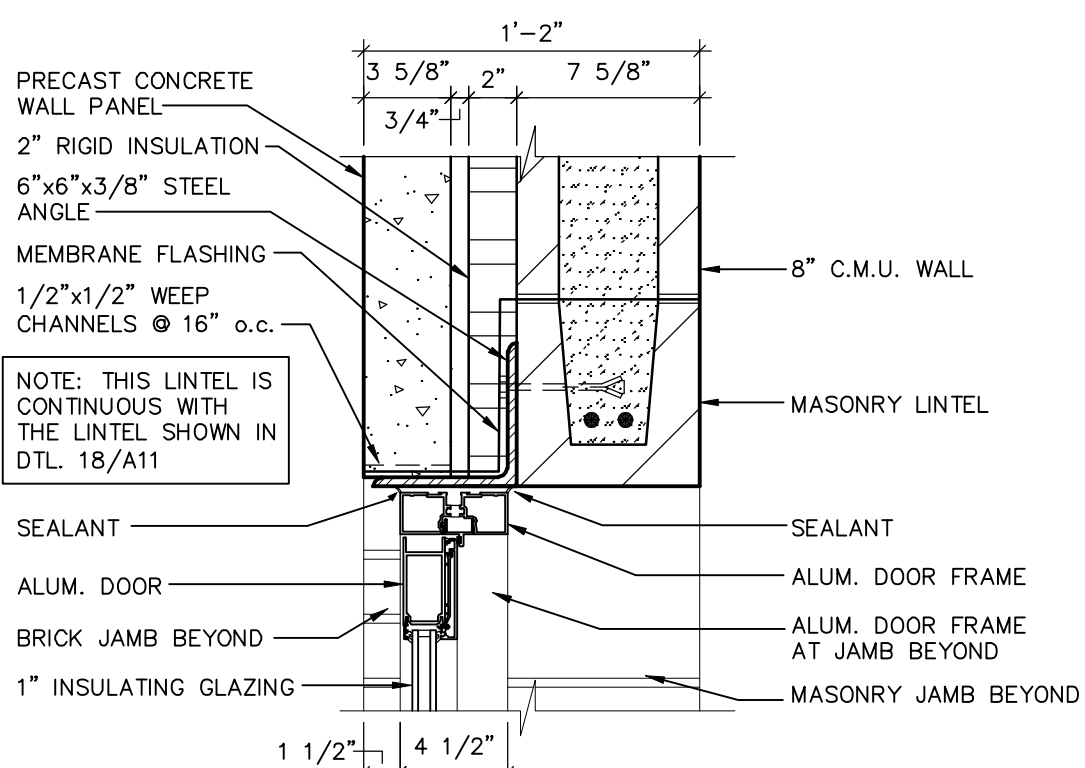
JAMB DETAIL
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A10



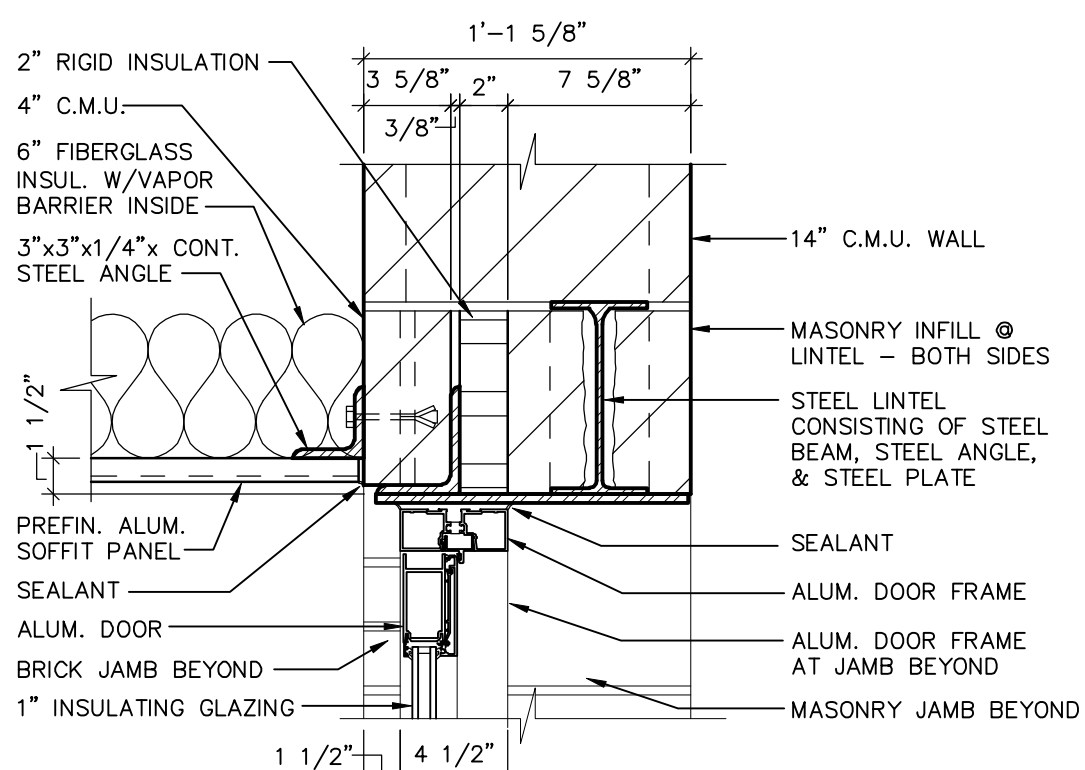
HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
5
A10



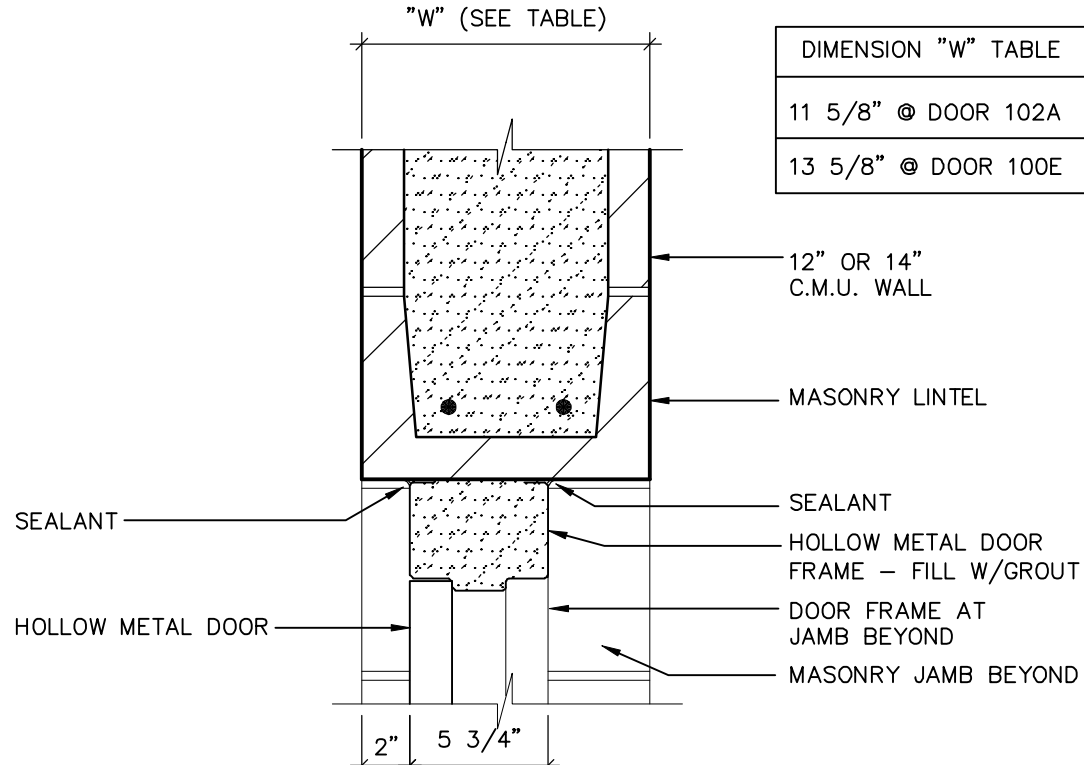
JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
6
A10



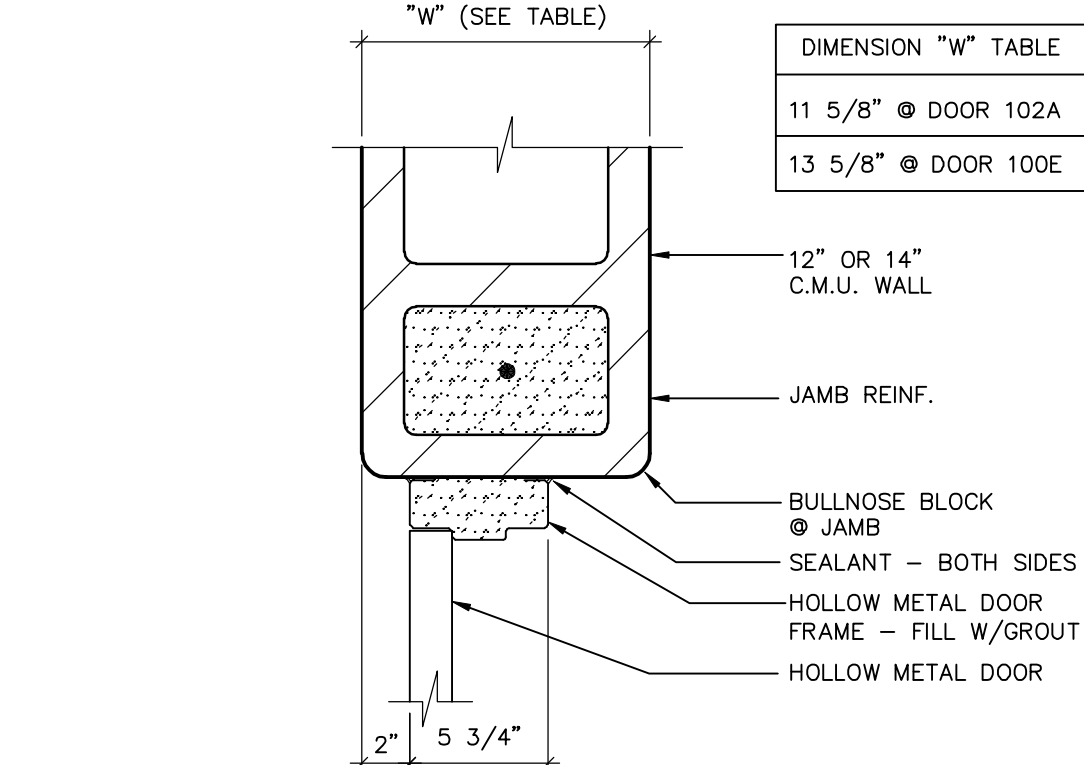
HEAD DETAIL
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7
A10



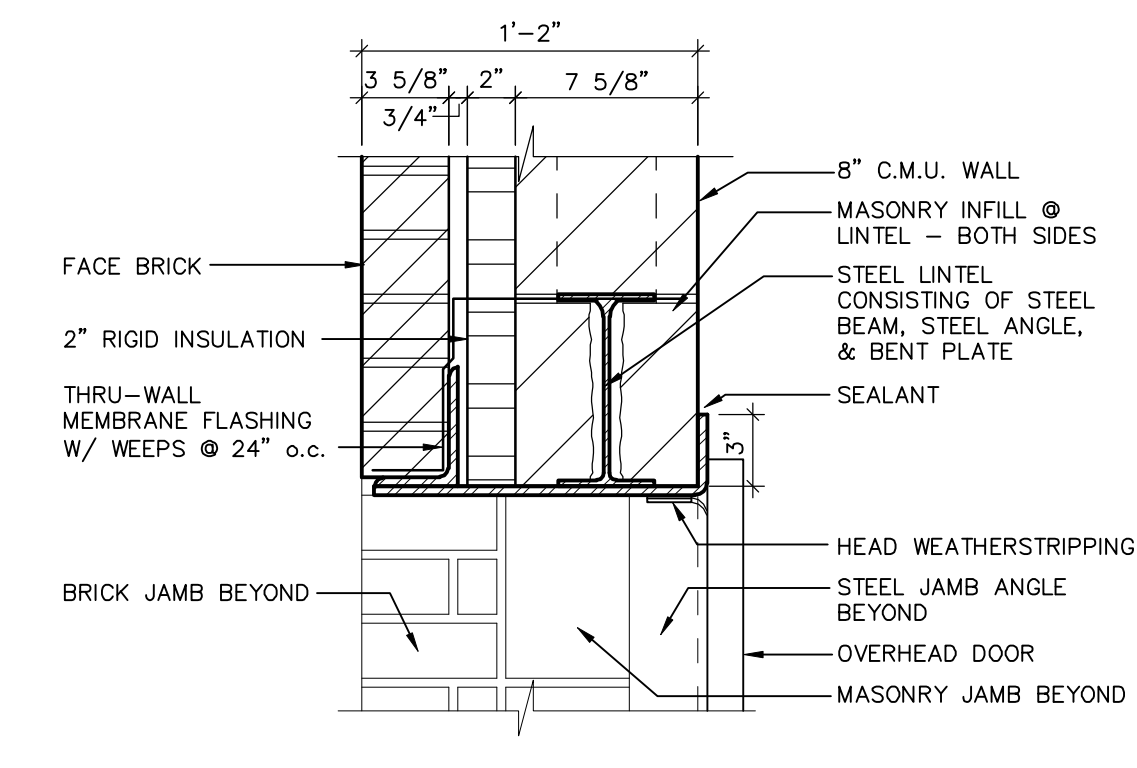
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A10



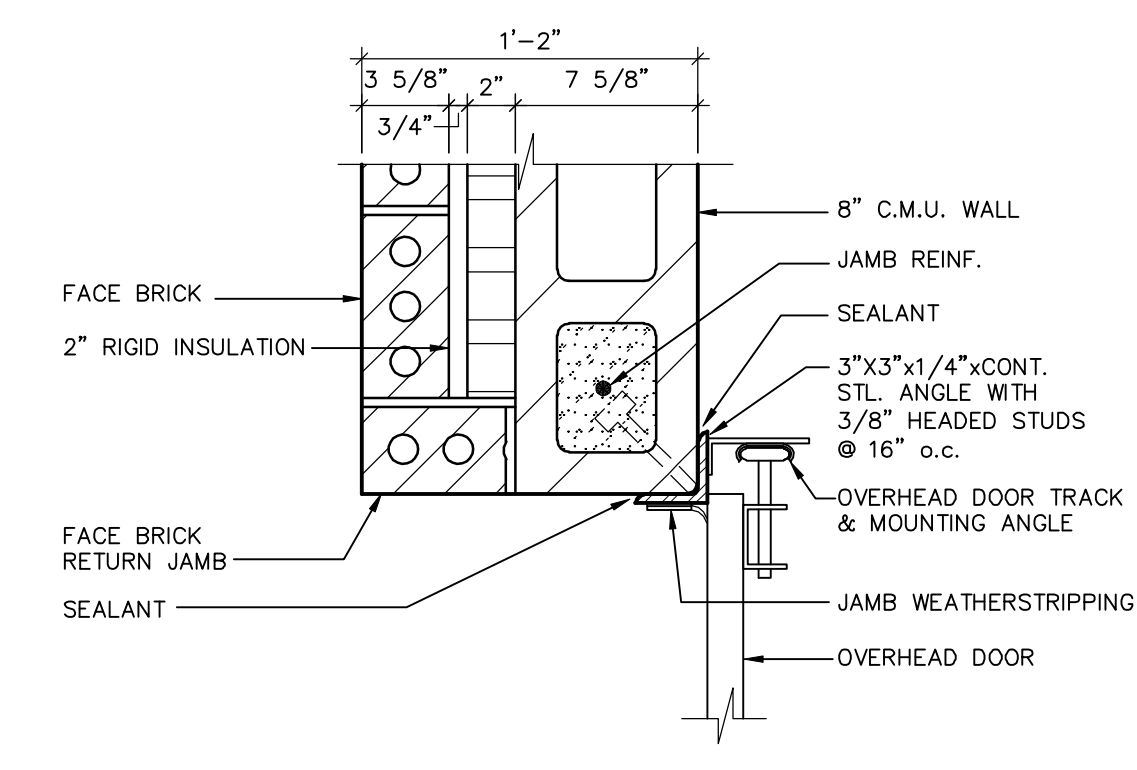
HEAD DETAIL
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A10



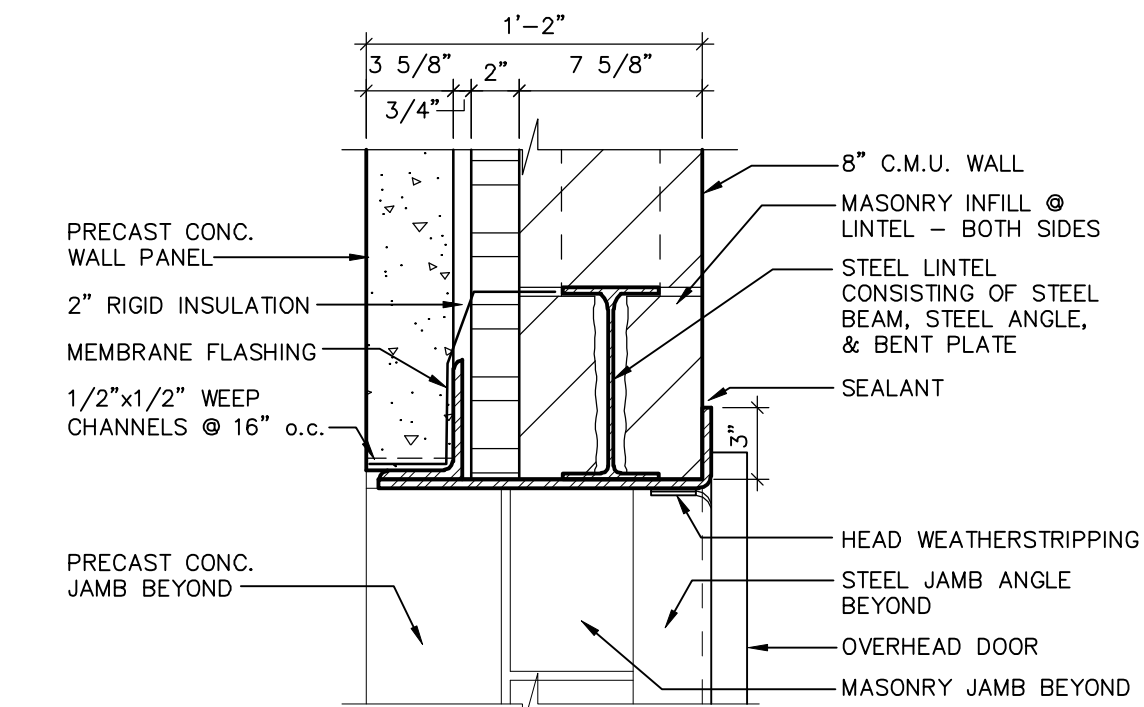
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A10



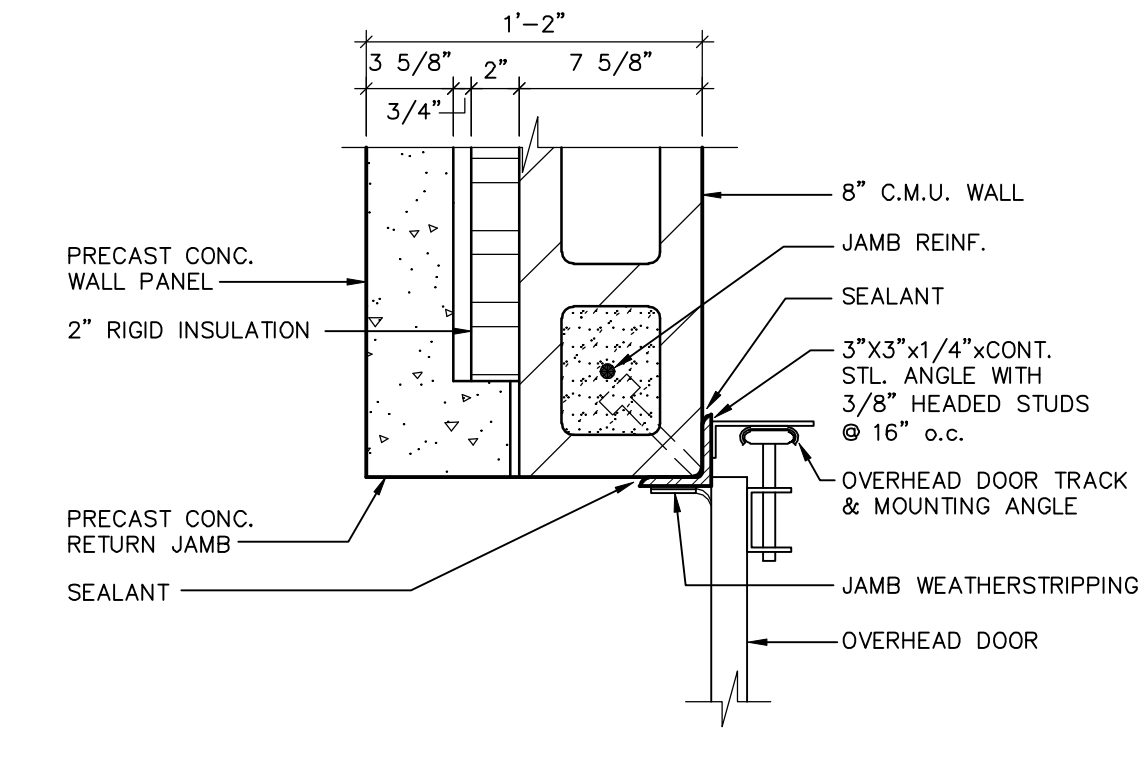
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A10



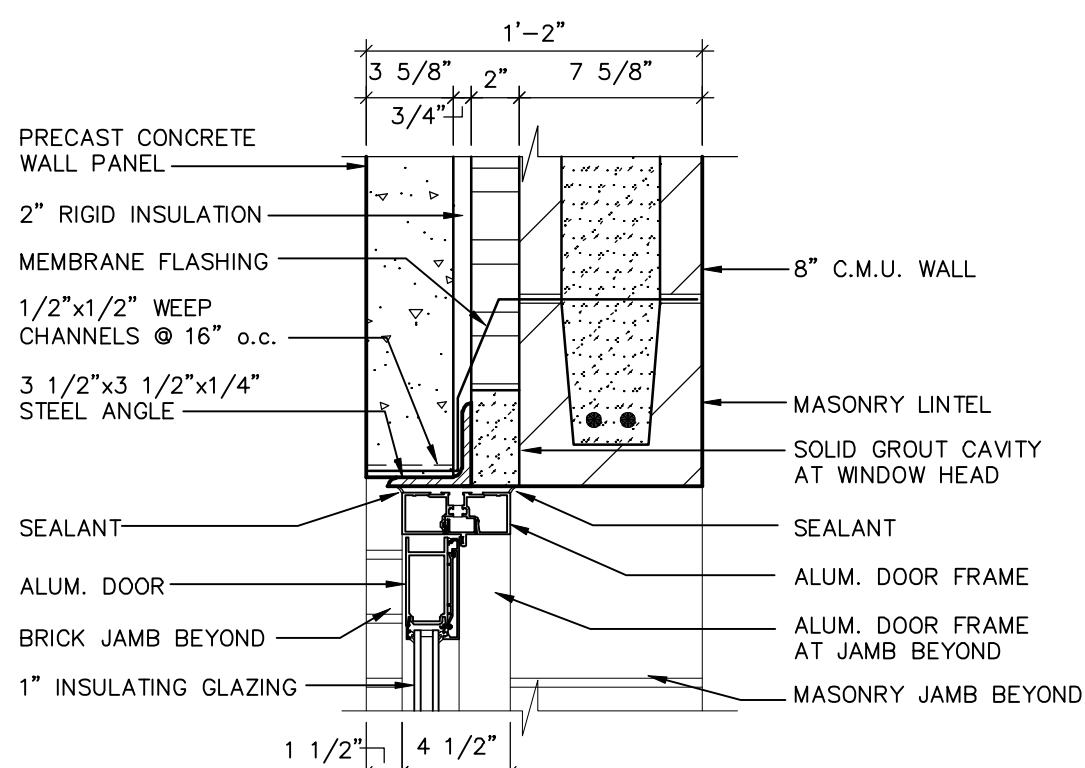
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A10



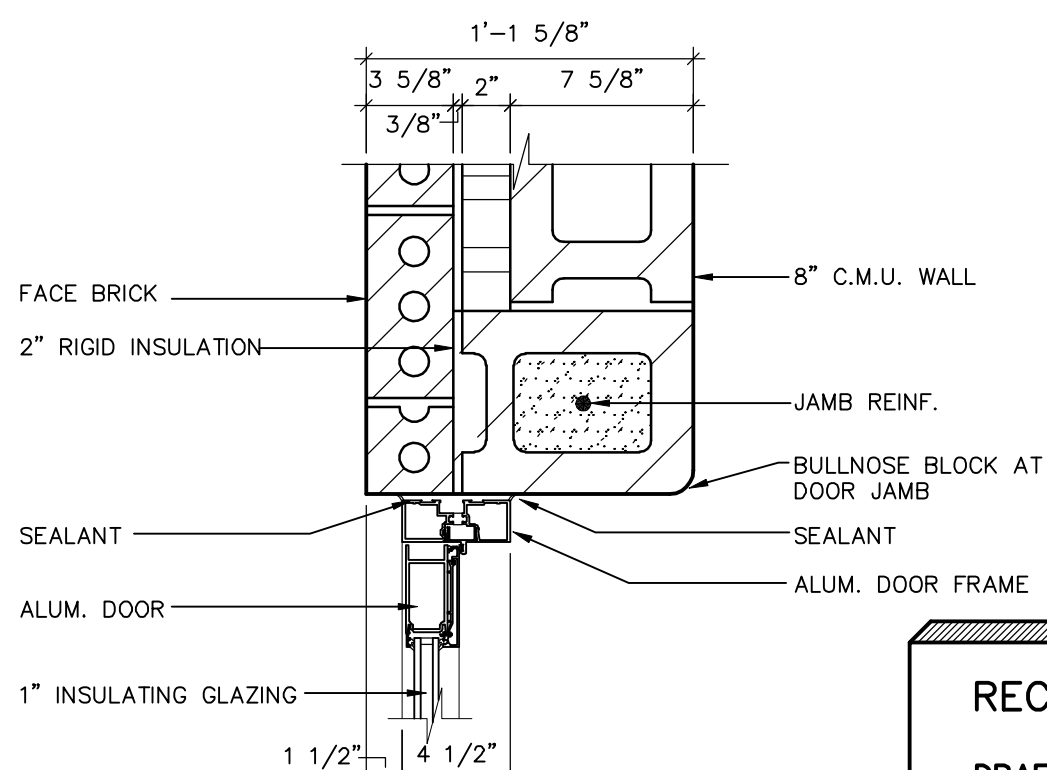
HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
13
A10



JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
14
A10



HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
1.1
A10



JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
2.1
A10

RECORD DRAWINGS
DRAFTED BY: PGK 10/30/09
CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
DOOR HEAD & JAMB DETAILS

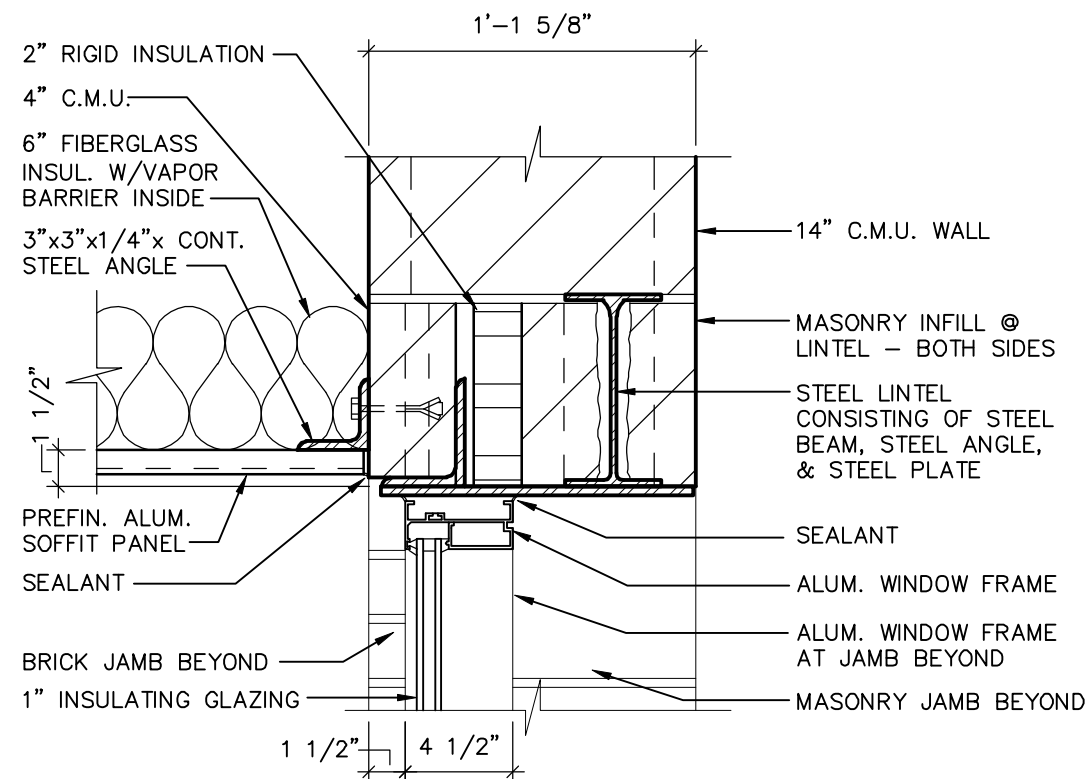
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DATE APRIL, 2007
PROJECT NO. R0018-950446
SHEET NO. A10
FILE NO.

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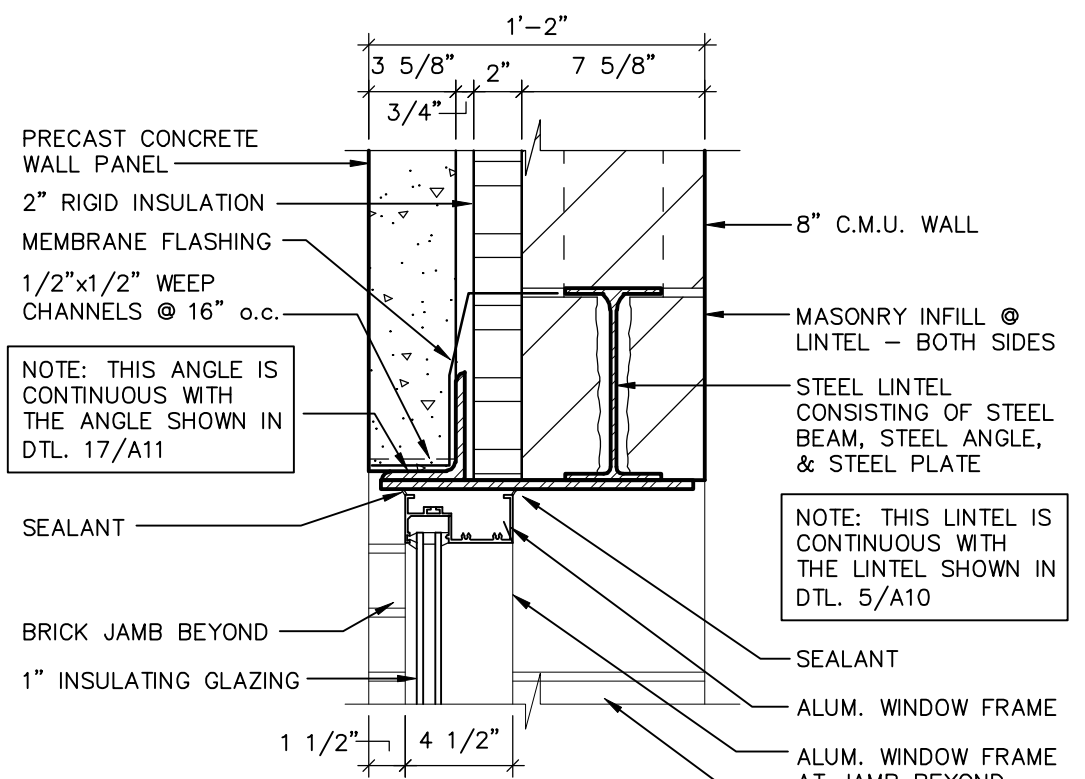
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2	7/12/07	RELEASED FOR CONSTR.
3	10/30/09	RECORD DRAWINGS

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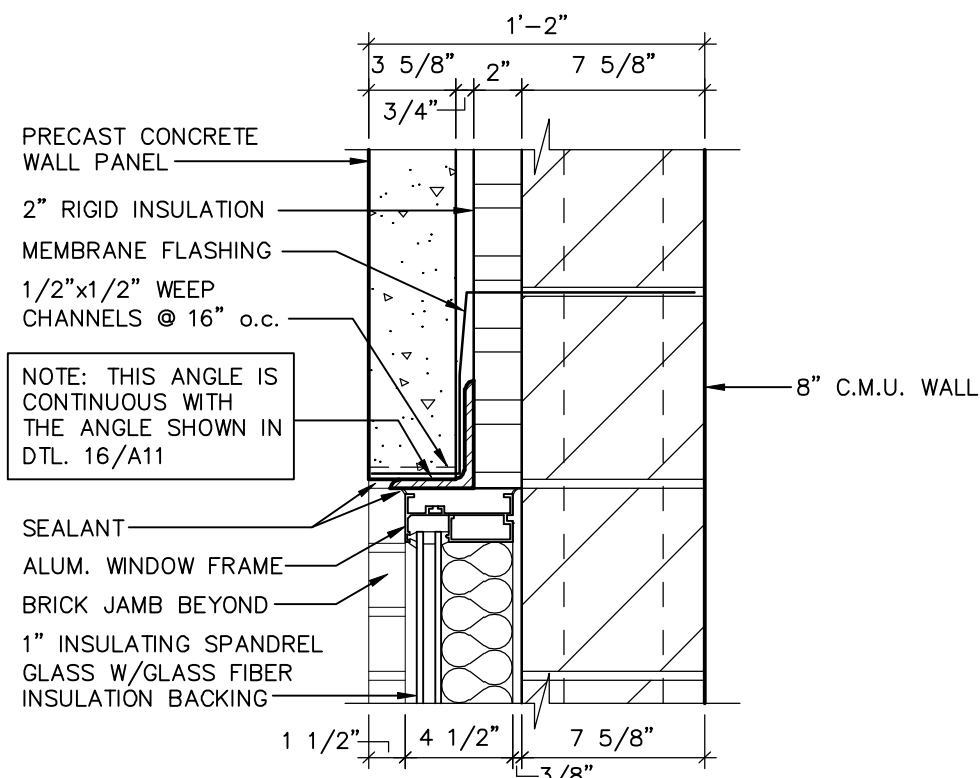
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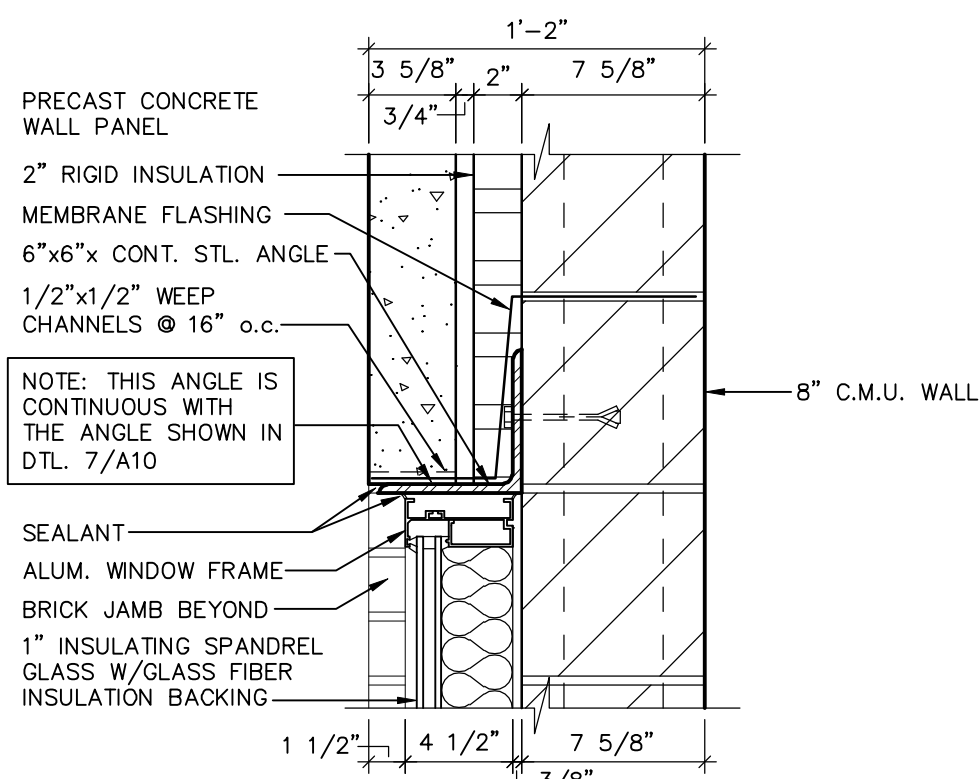
HEAD DETAIL 15
SCALE: 1 1/2" = 1'-0" A11



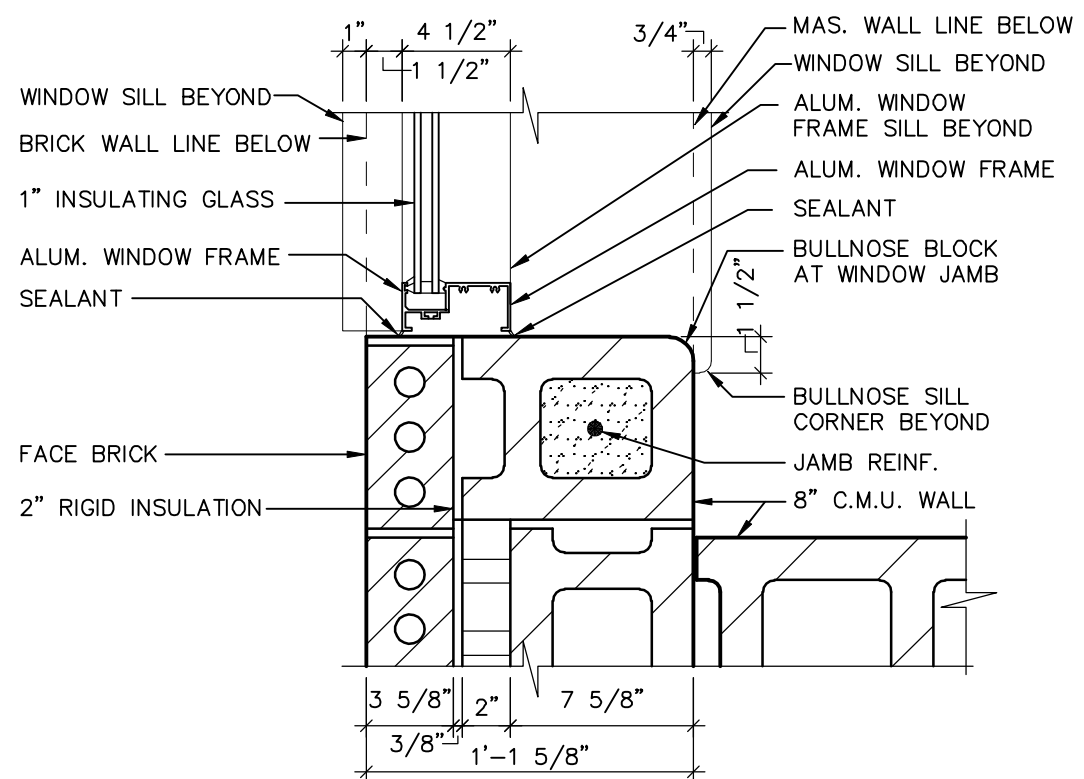
HEAD DETAIL 16
SCALE: 1 1/2" = 1'-0" A11



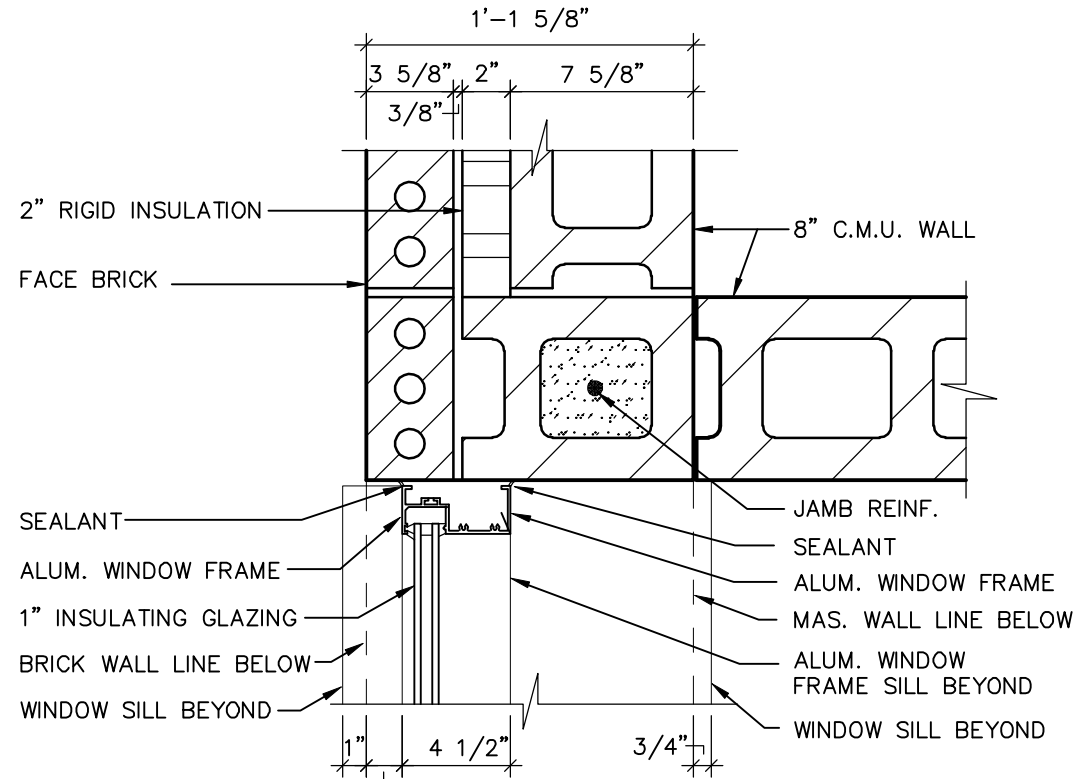
HEAD DETAIL 17
SCALE: 1 1/2" = 1'-0" A11



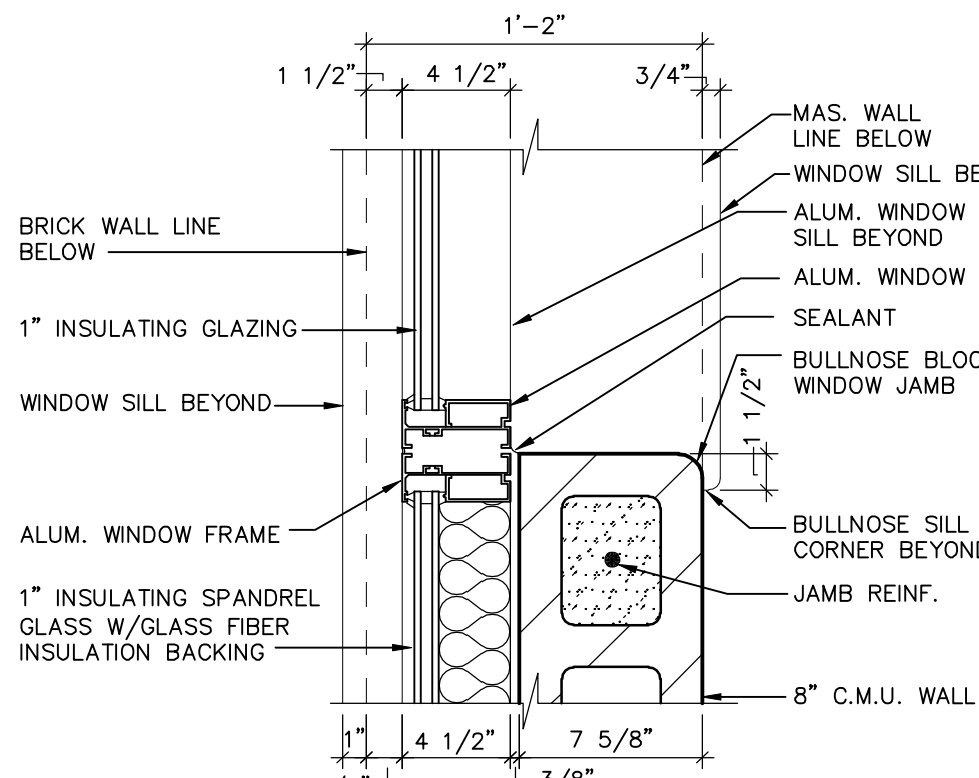
HEAD DETAIL 18
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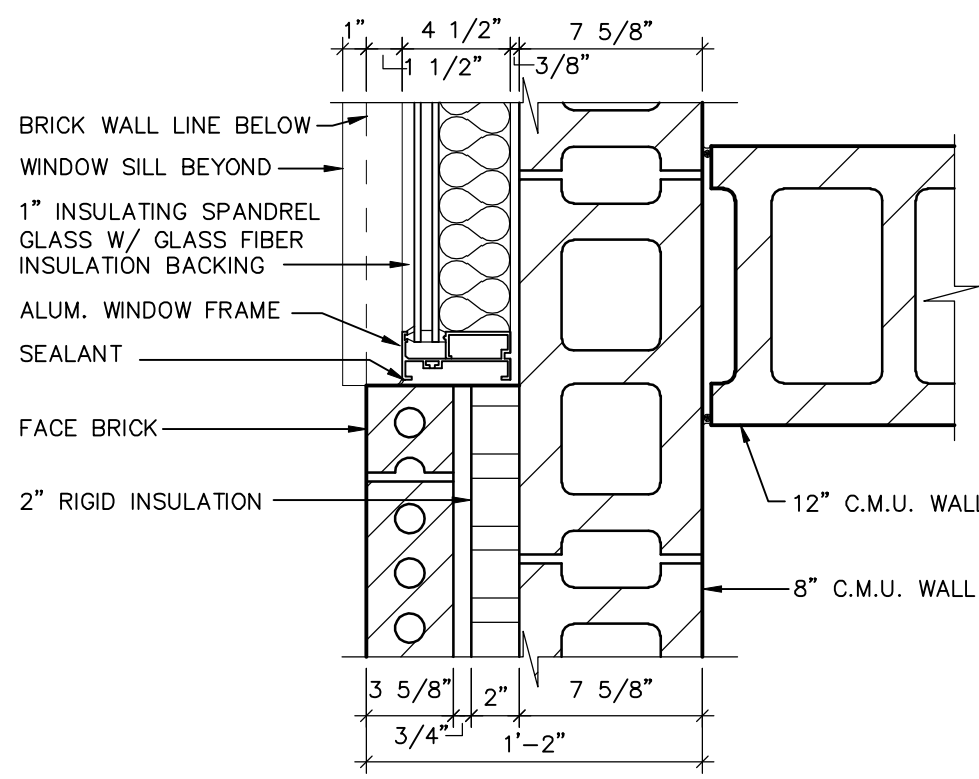
JAMB DETAIL 19
SCALE: 1 1/2" = 1'-0" A11



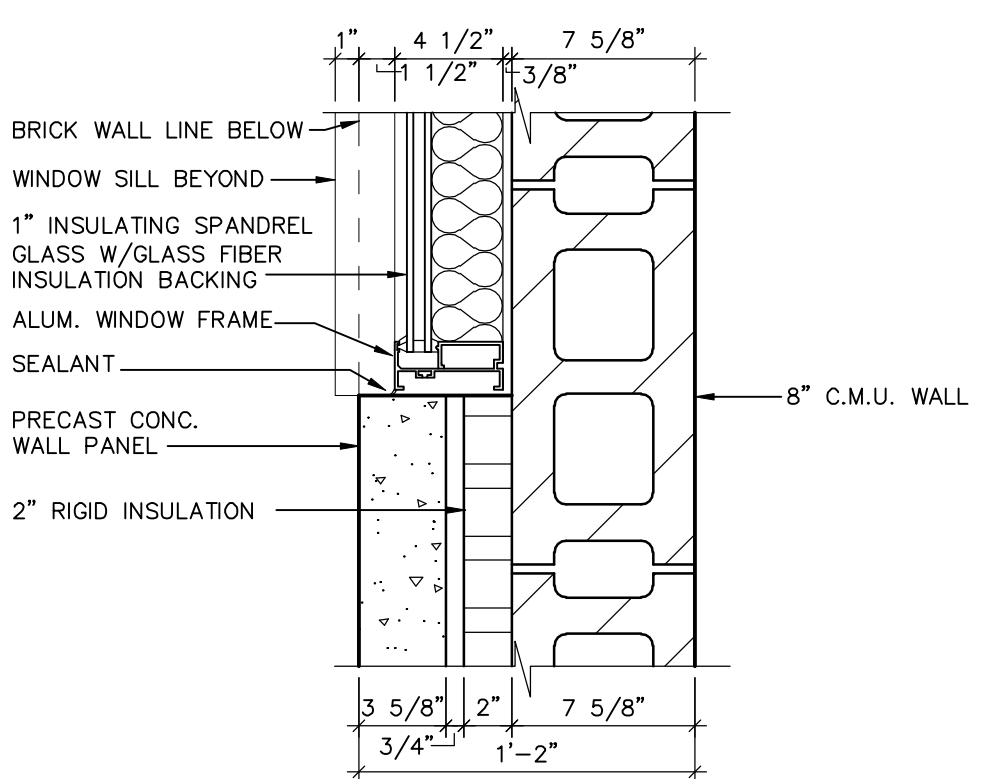
JAMB DETAIL 20
SCALE: 1 1/2" = 1'-0" A11



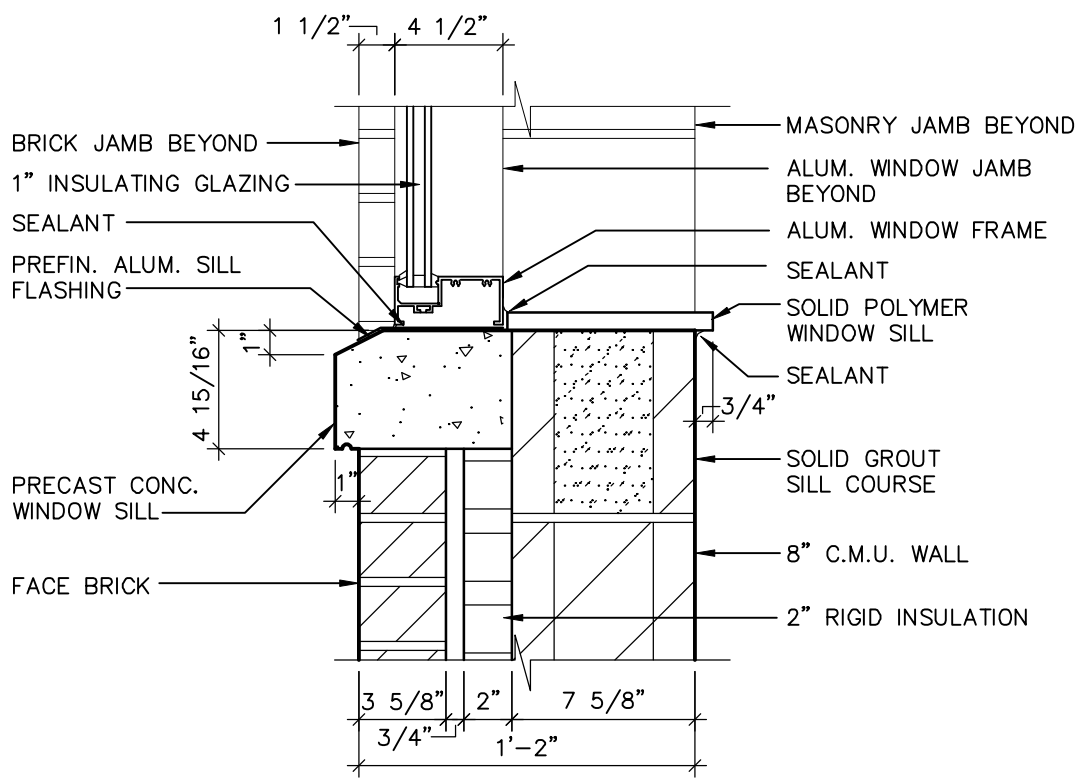
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SCALE: 1 1/2" = 1'-0" A11



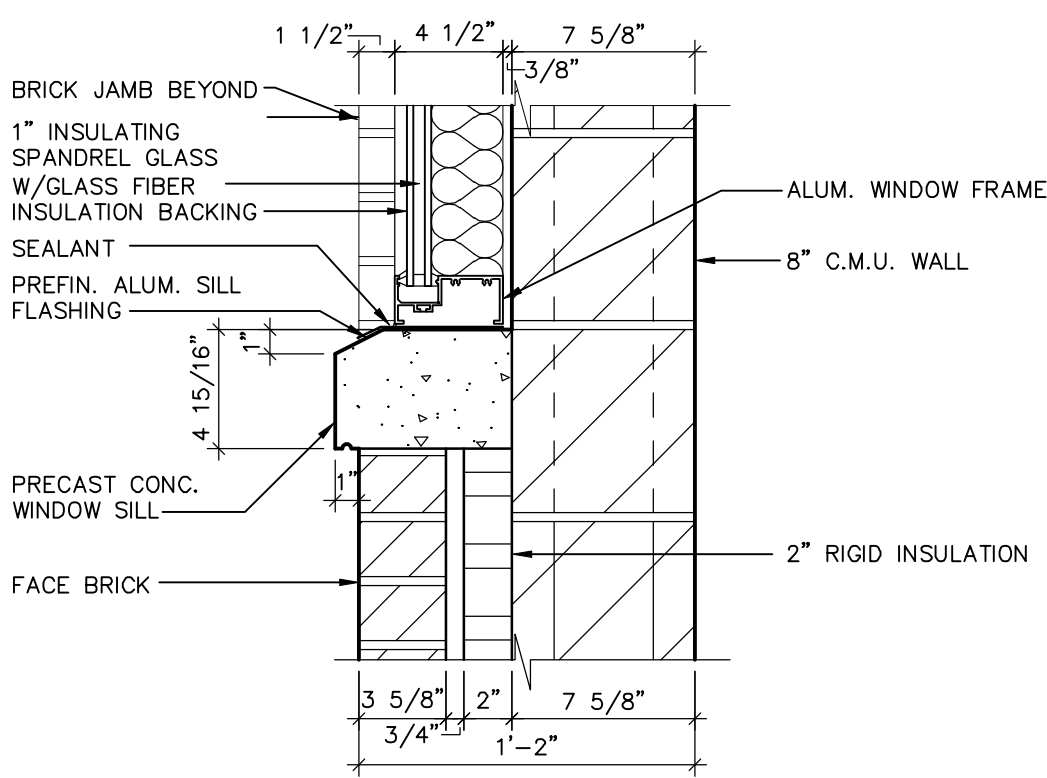
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SCALE: 1 1/2" = 1'-0" A11



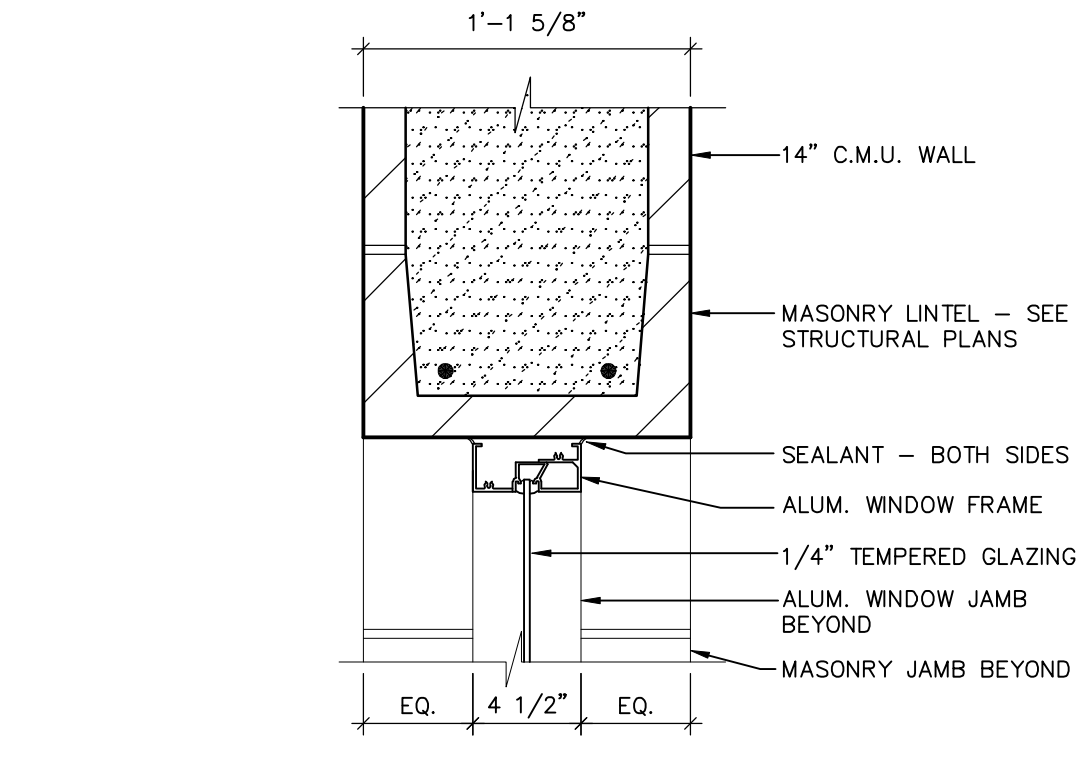
JAMB DETAIL 23
SCALE: 1 1/2" = 1'-0" A11



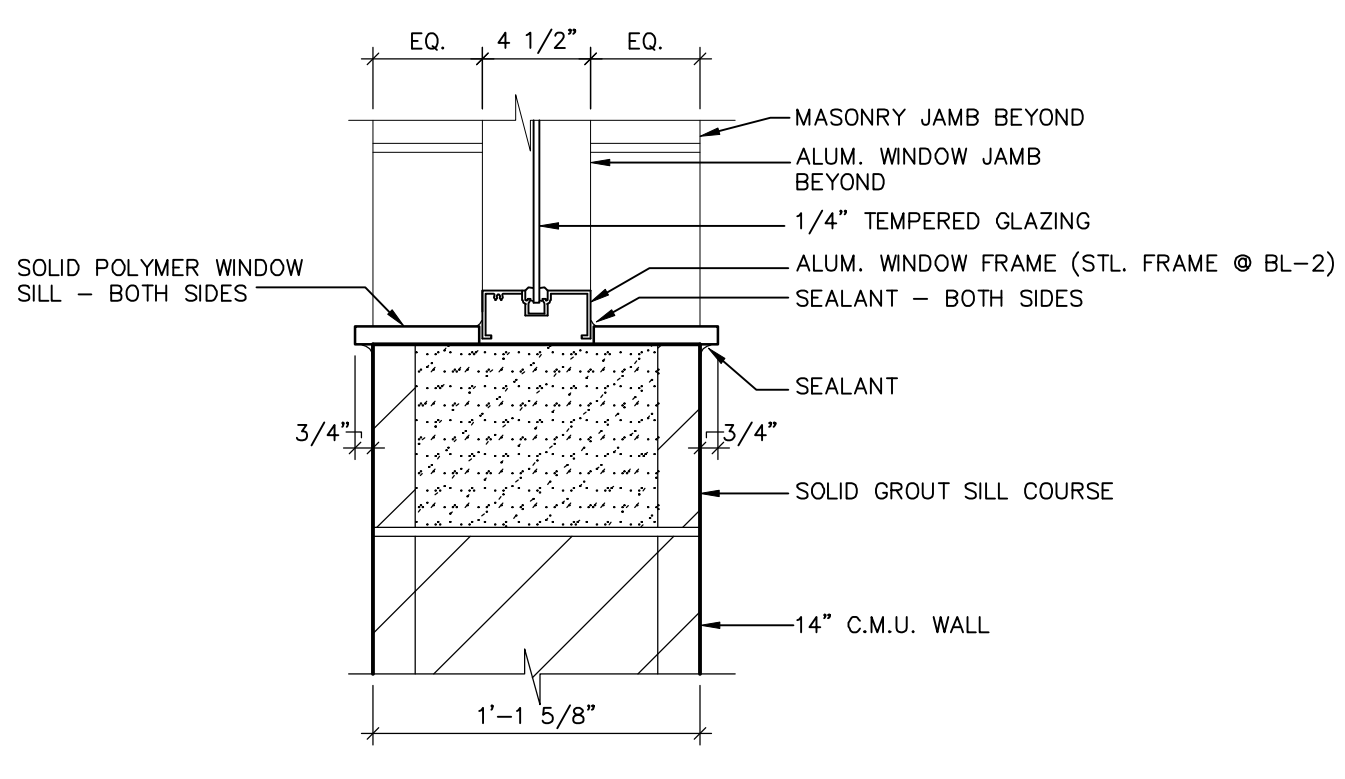
SILL DETAIL 24
SCALE: 1 1/2" = 1'-0" A11



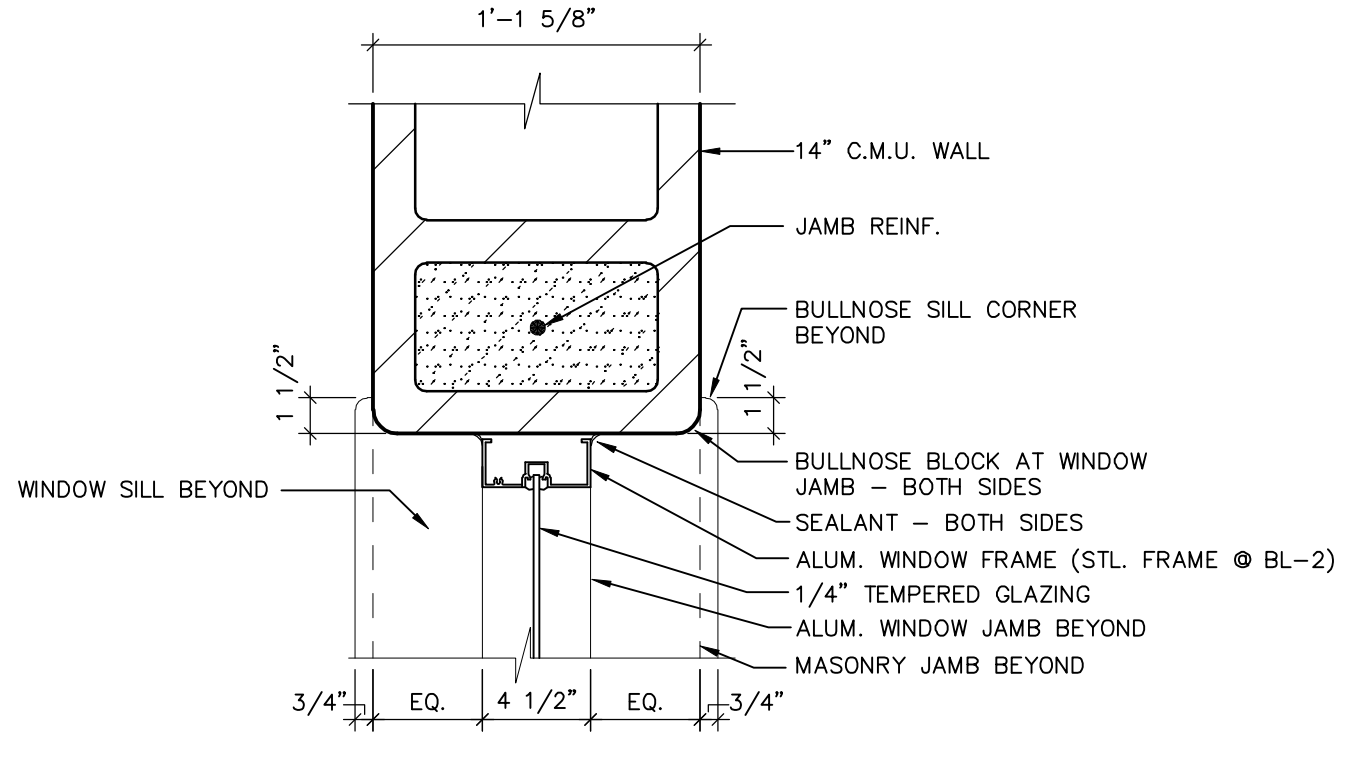
SILL DETAIL 25
SCALE: 1 1/2" = 1'-0" A11



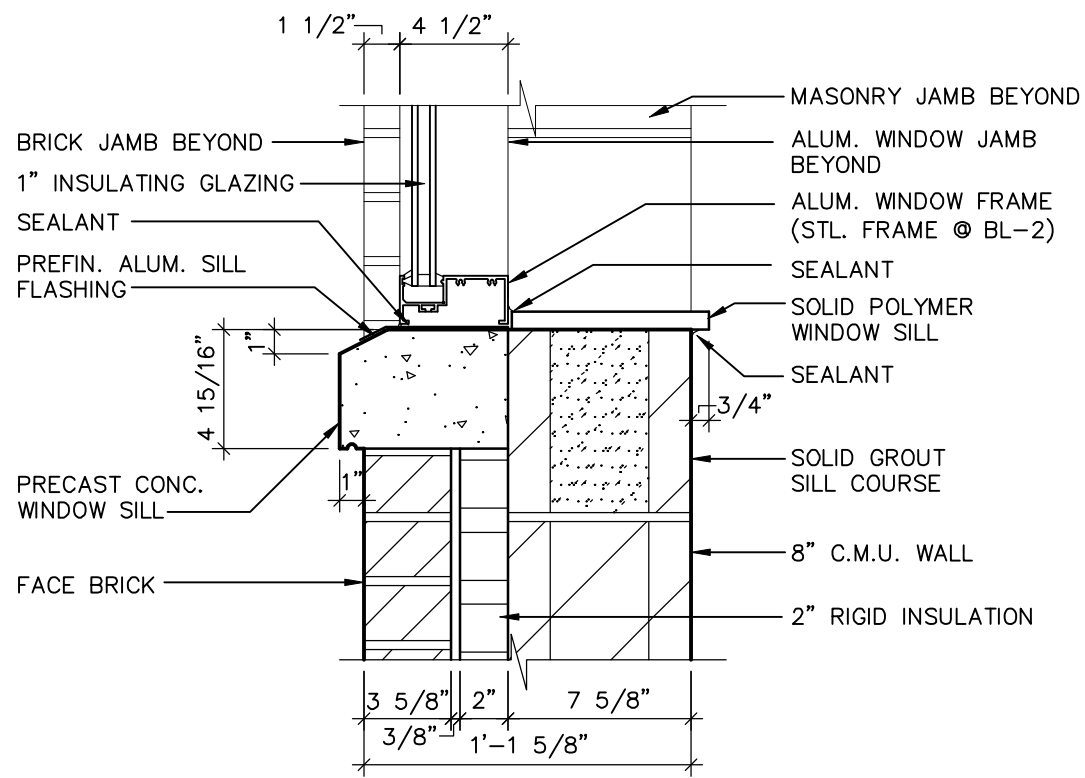
HEAD DETAIL 26
SCALE: 1 1/2" = 1'-0" A11



SILL DETAIL 27
SCALE: 1 1/2" = 1'-0" A11



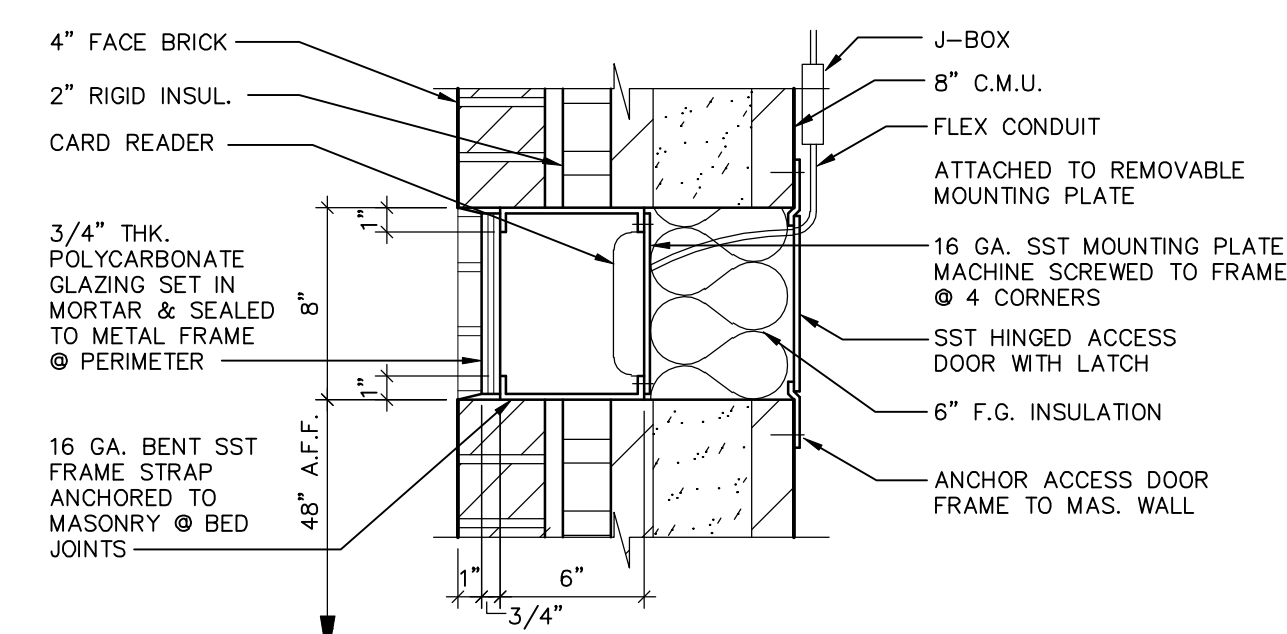
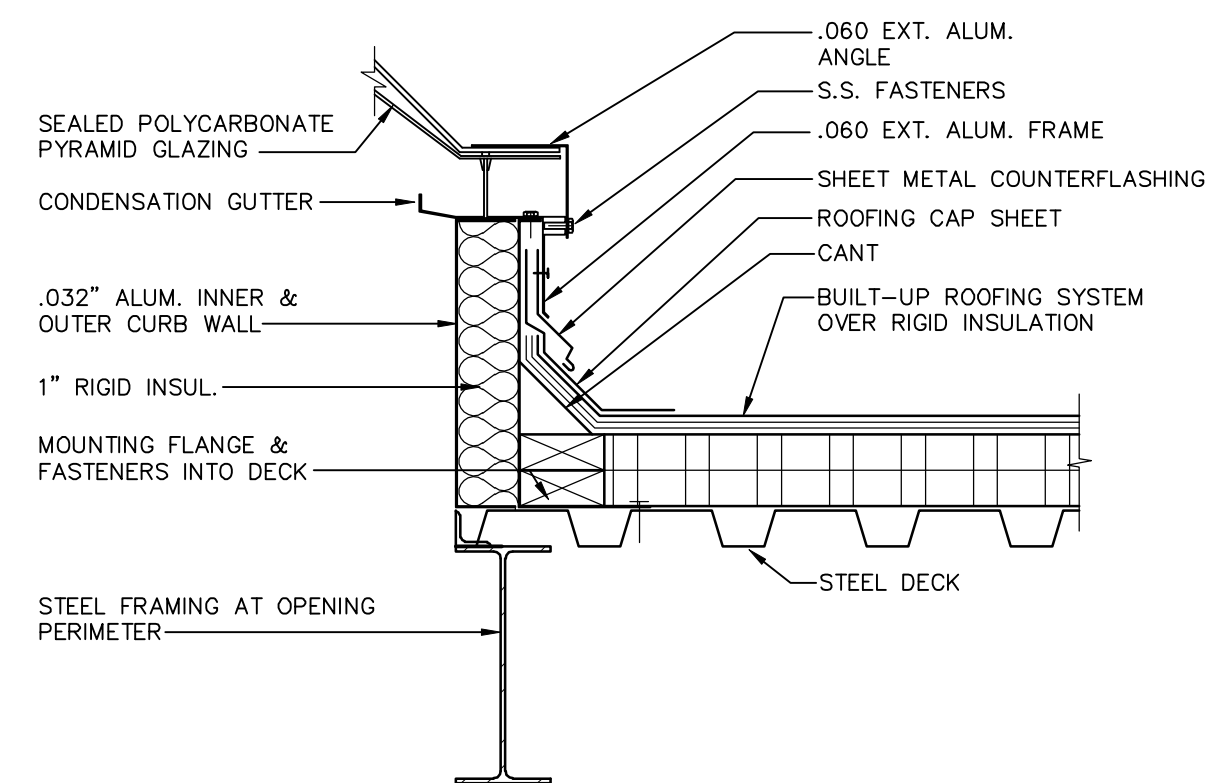
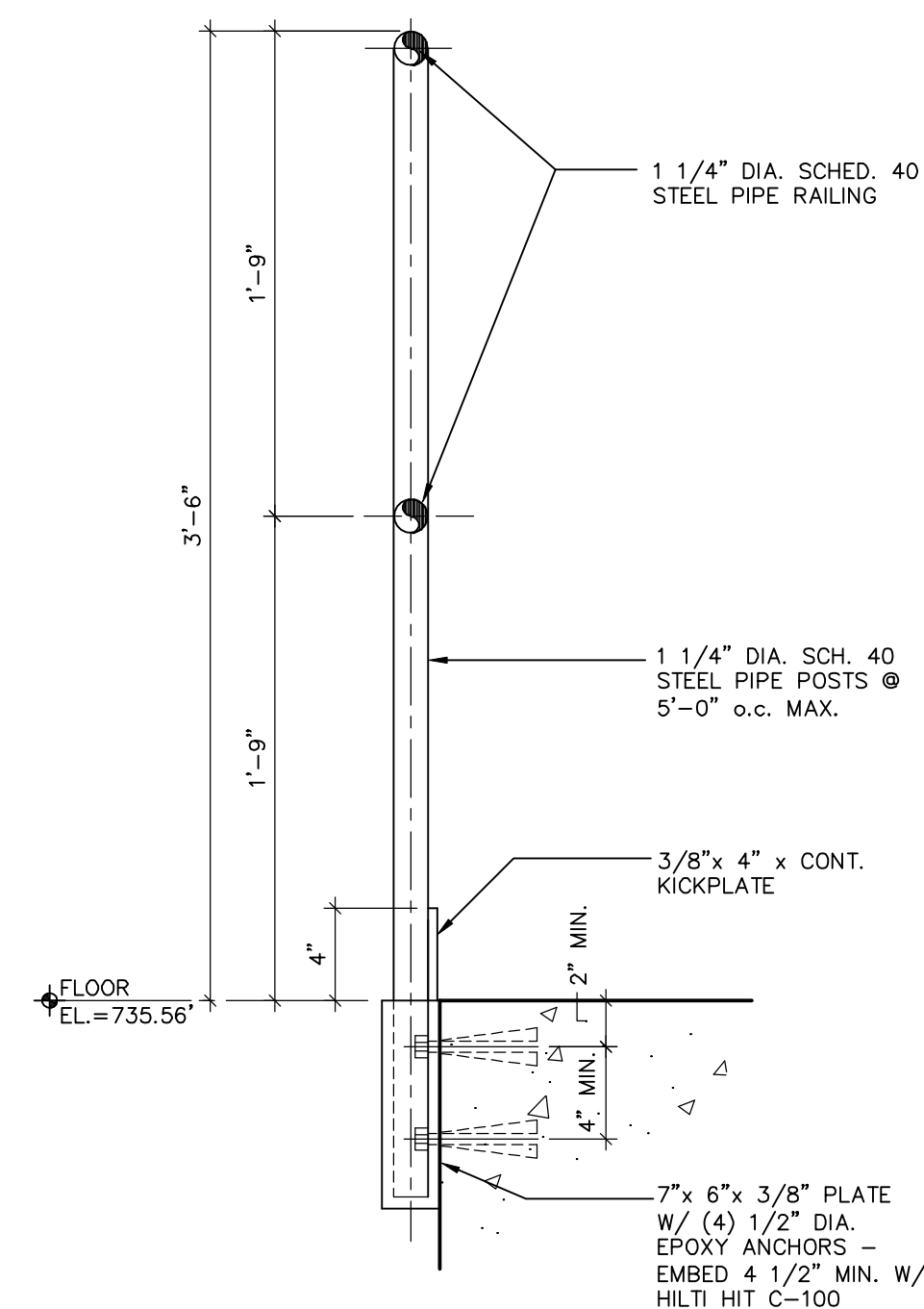
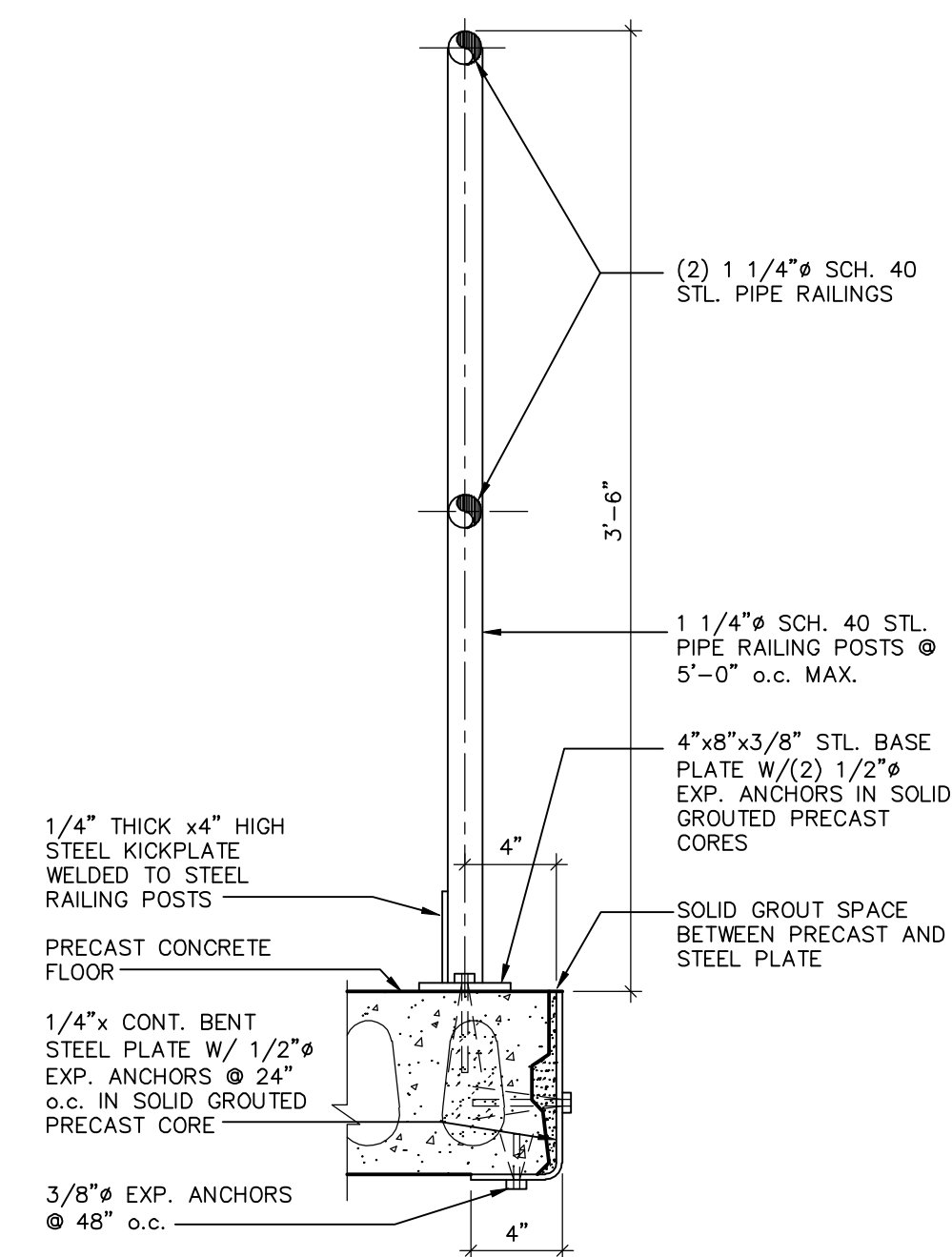
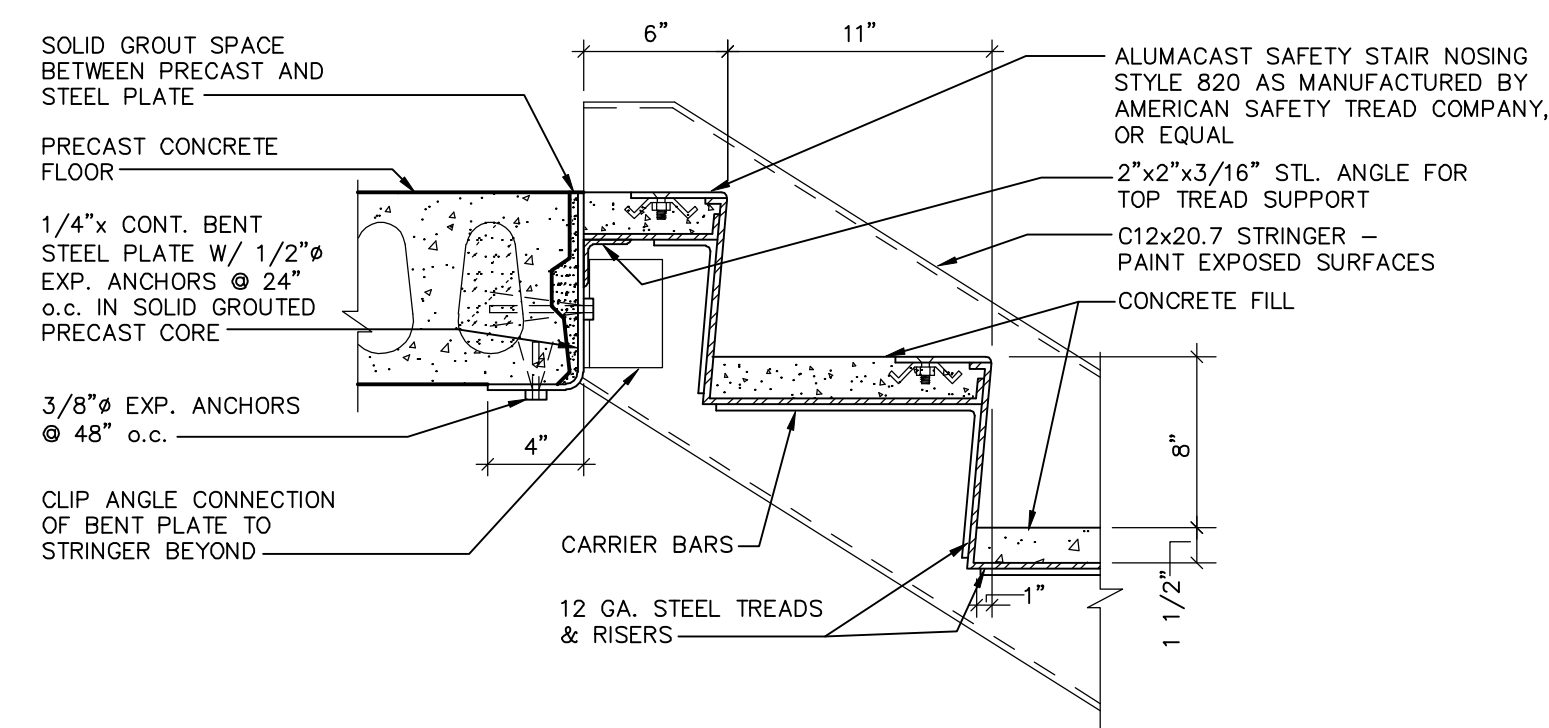
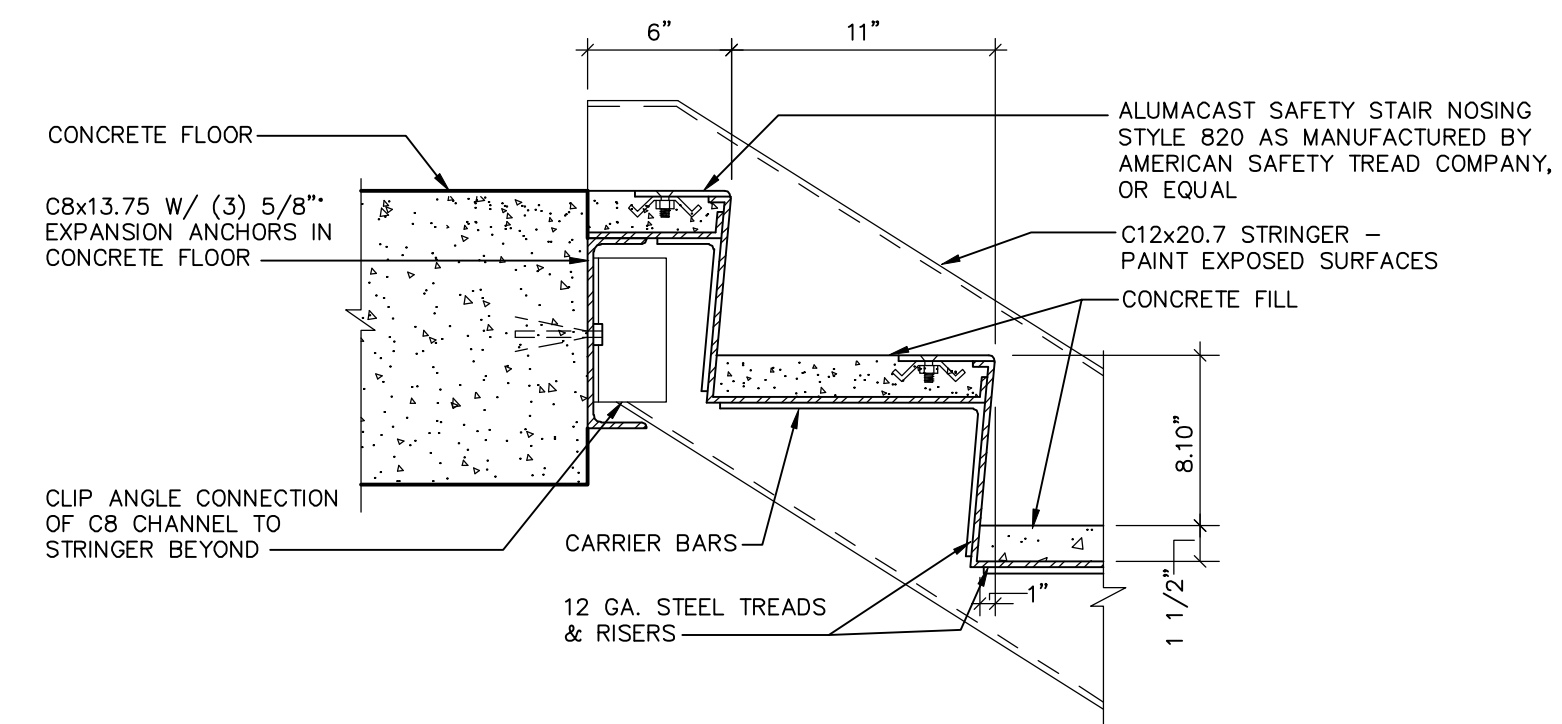
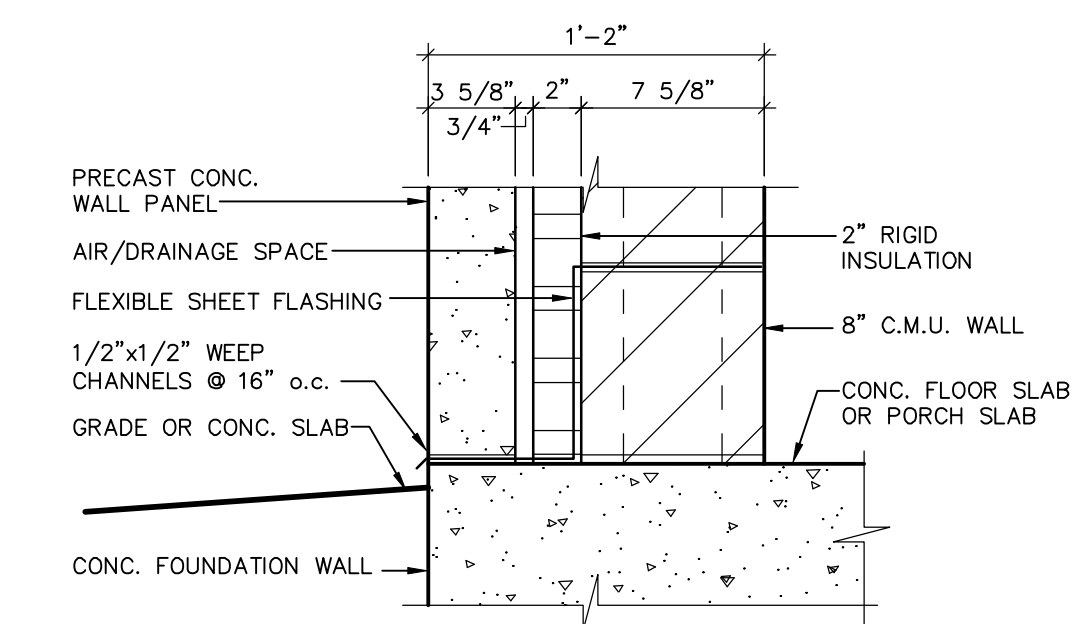
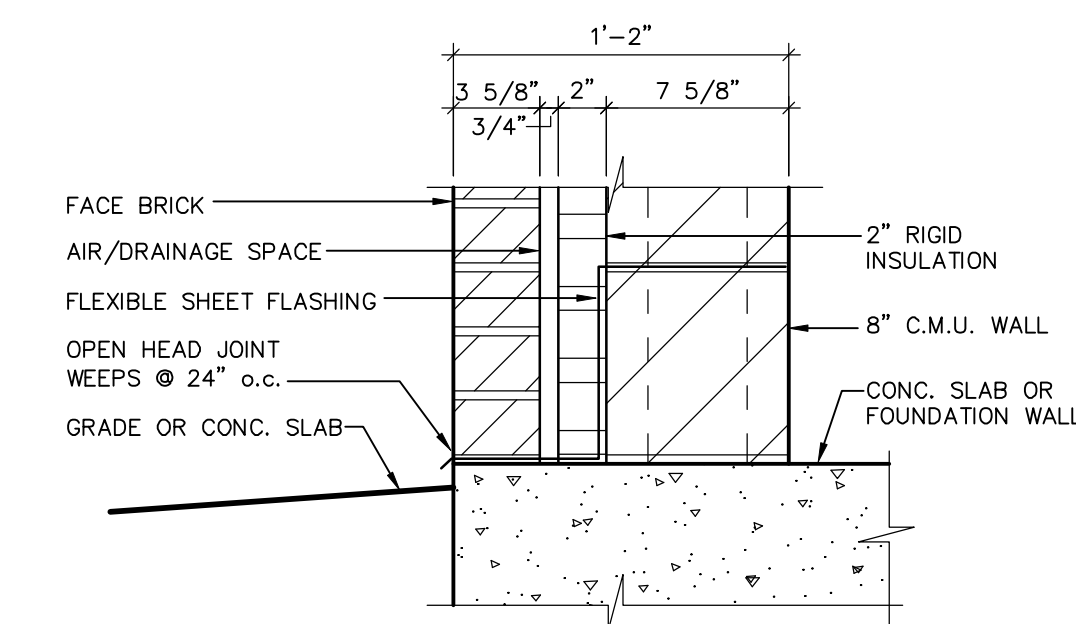
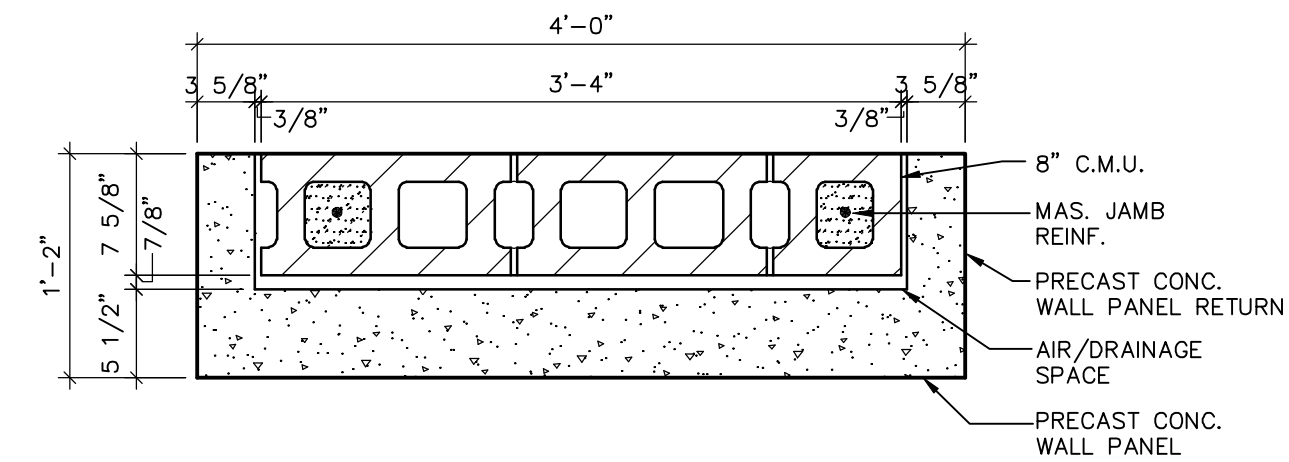
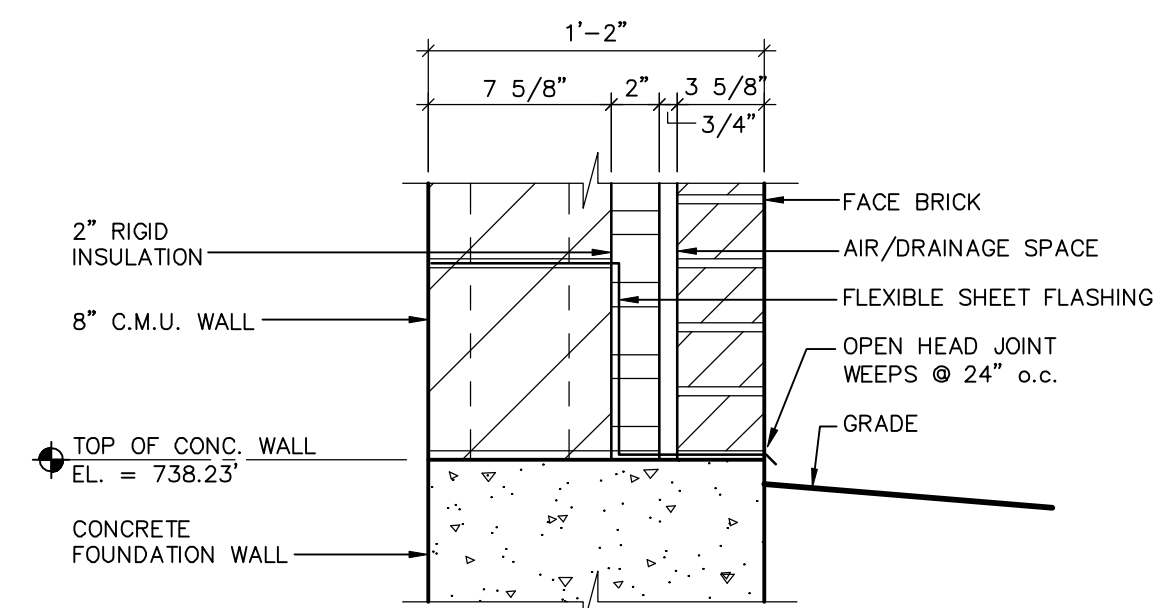
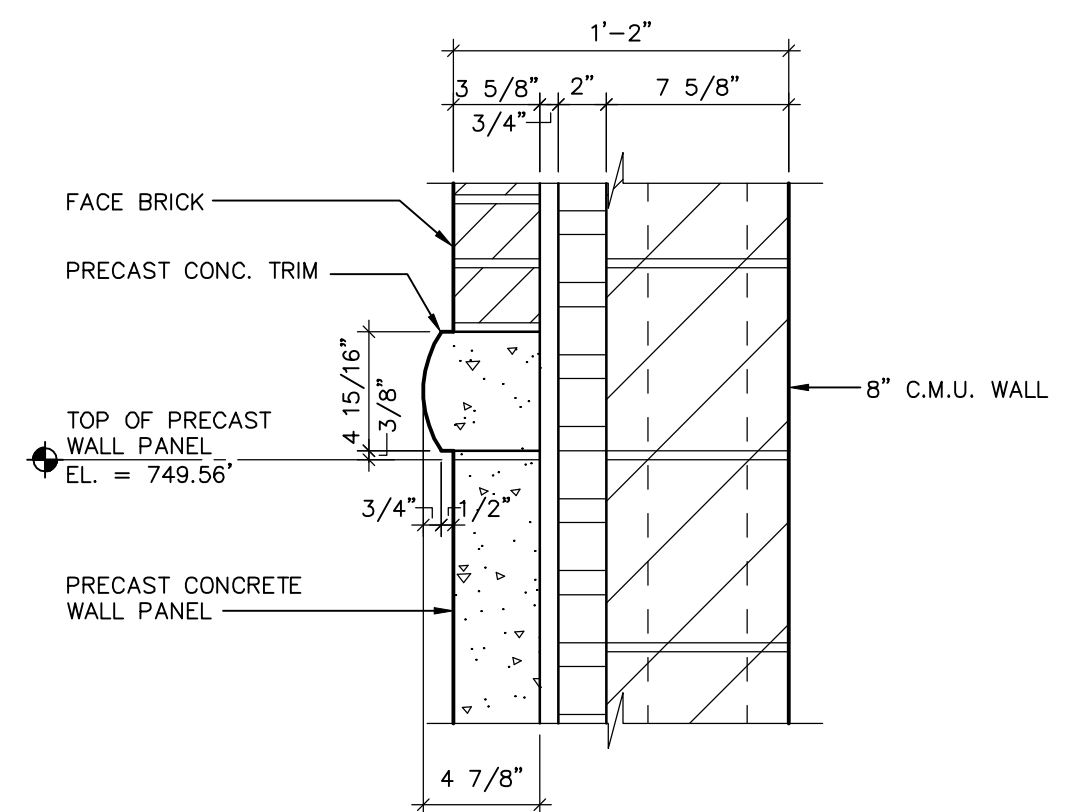
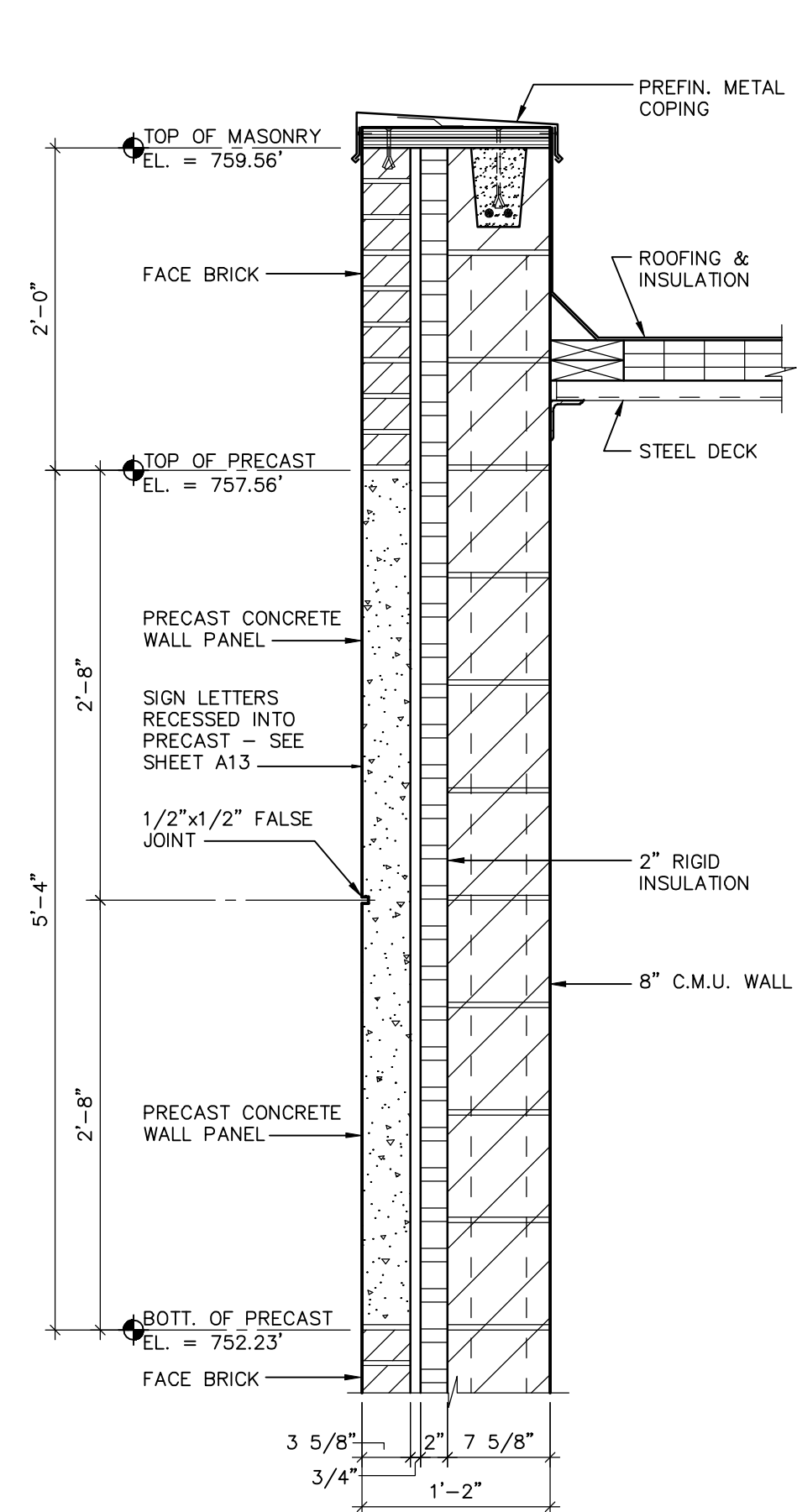
JAMB DETAIL 28
SCALE: 1 1/2" = 1'-0" A11



SILL DETAIL 29
SCALE: 1 1/2" = 1'-0" A11

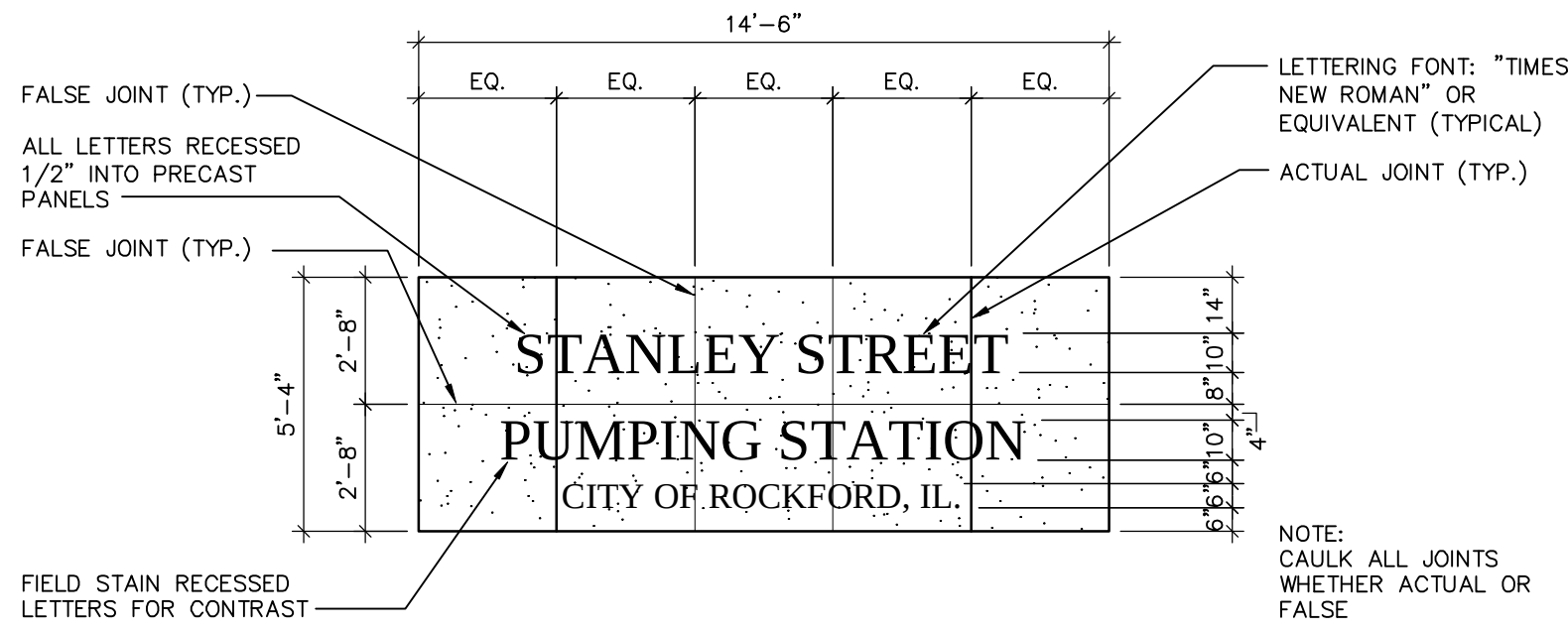
RECORD DRAWINGS
DRAFTED BY: PGK 10/30/09
CHECKED: _____

McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956 TEL: (920) 751-4200 FAX: (920) 751-4204		REVISION		
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1	4/6/07			
2	7/12/07	REVISED PER ADD. #1, #2		
3	10/30/09	RECORD DRAWINGS		
DESIGNED PWH			DRAWN PWH	CHECKED PWH
STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS WINDOW HEAD & JAMB DETAILS				
SCALE AS NOTED	DATE APRIL, 2007	PROJECT NO. R0018-950446	SHEET NO. A11	
FILE NO.				

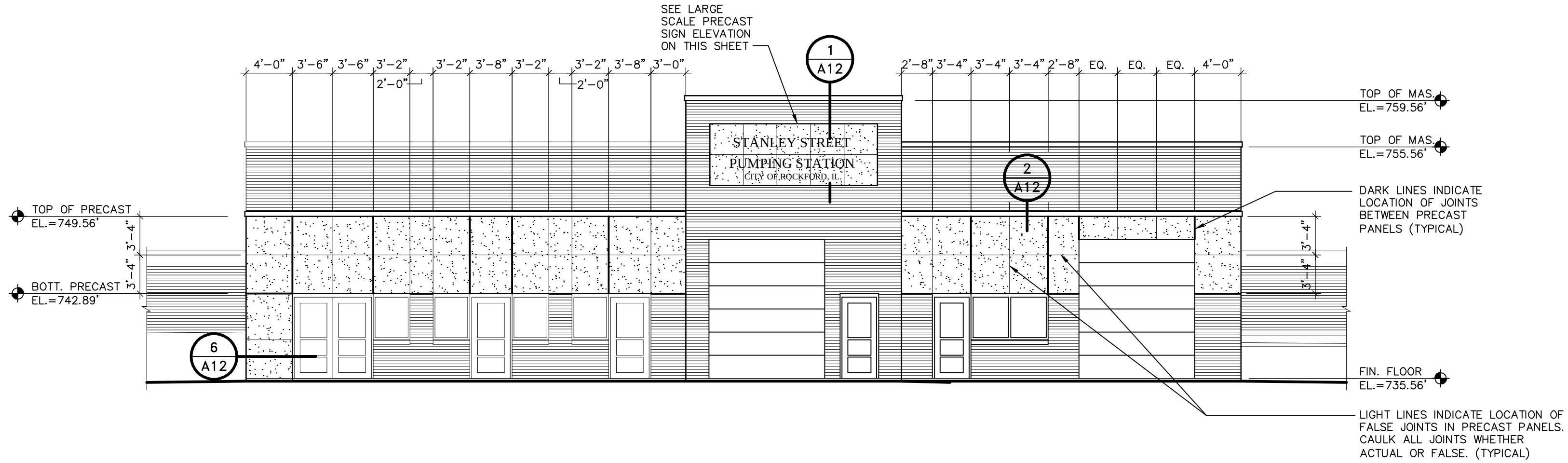


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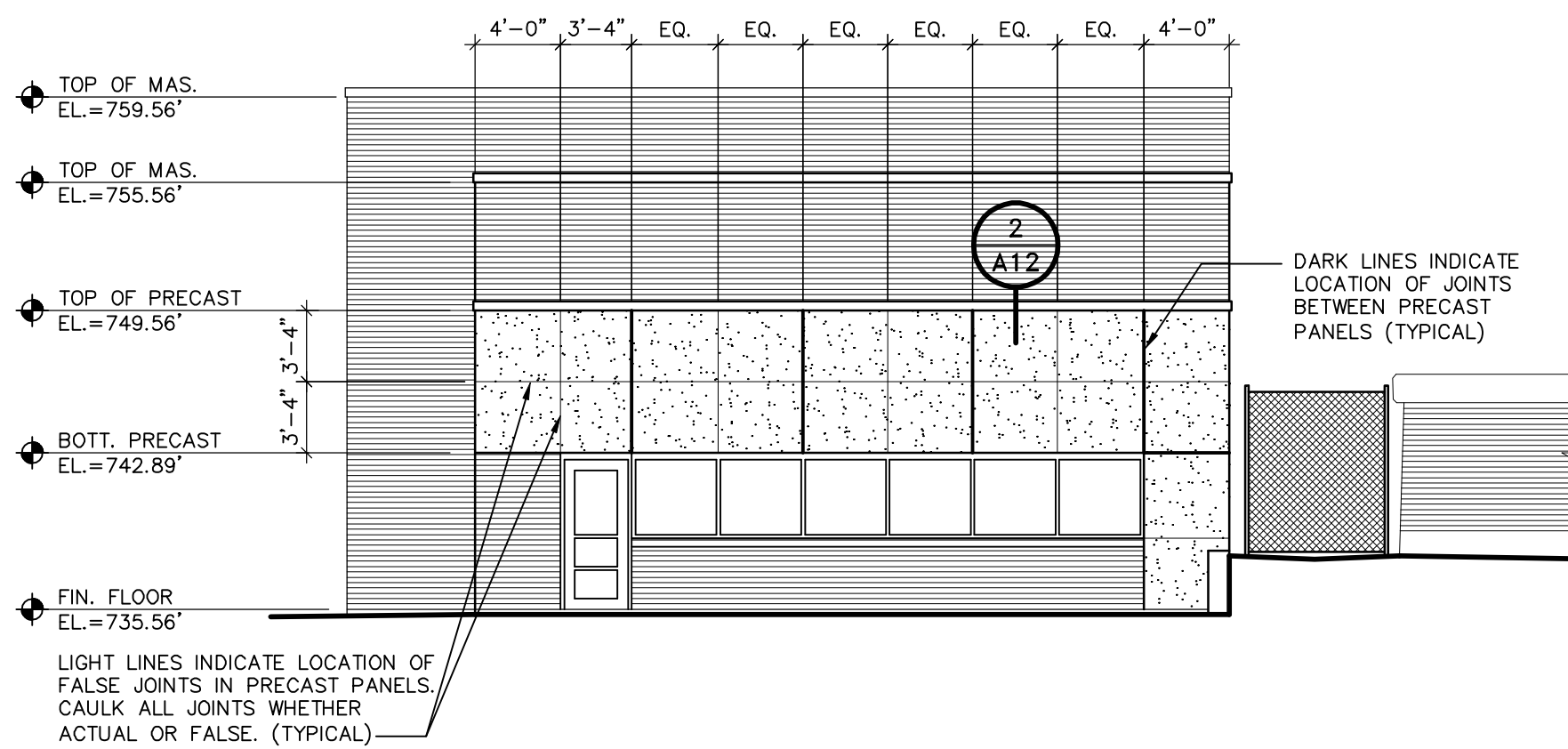
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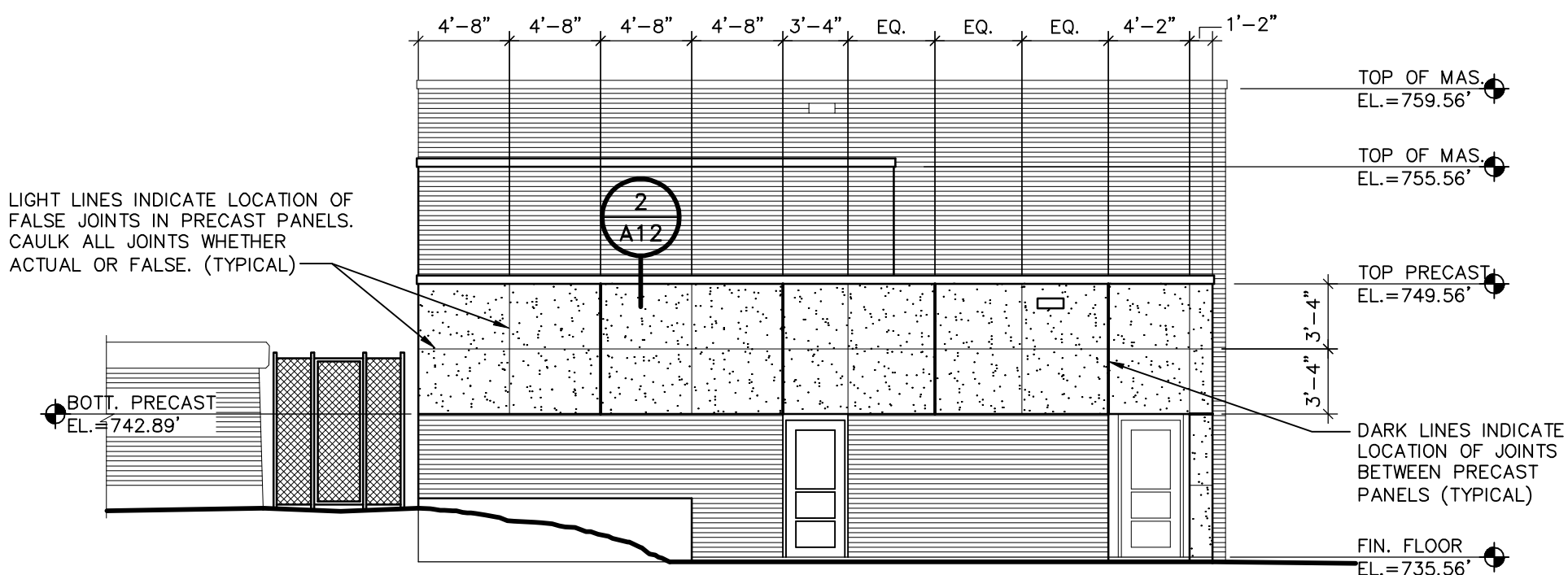
LARGE SCALE PRECAST SIGN ELEVATION
SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



NORTH ELEVATION
SCALE: 1/8" = 1'-0"

RECORD DRAWINGS
DRAFTED BY: <u>PGK 10/30/09</u>
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NO.	DATE	REVISION	
		RELEASED FOR BIDDING	RELEASED FOR CONSTR.
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2	7/12/07		
3	10/30/09		
RECORD DRAWINGS			

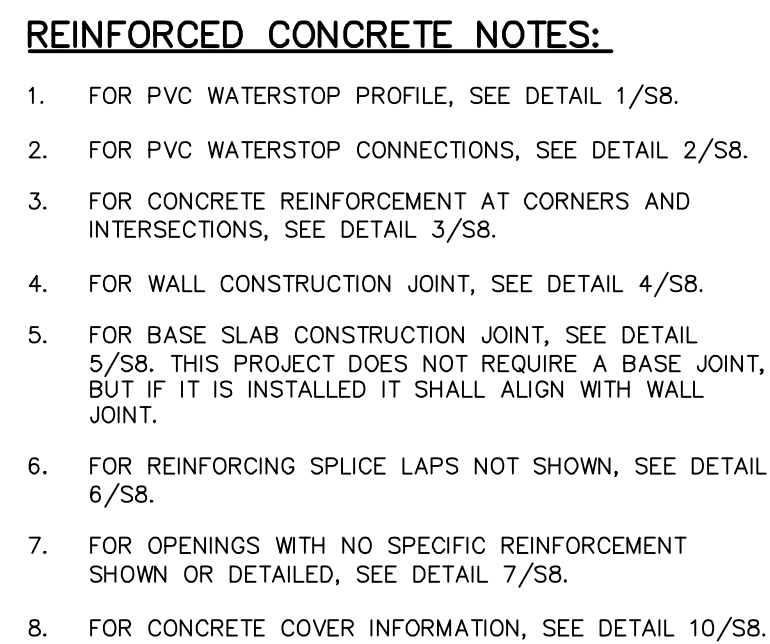
McMAHON ASSOCIATES	
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS	
1445 McMAHON DRIVE NEENAH, WI 54956	
MAILING BOX 1005 NEENAH, WI 54956	
TEL (920) 751-4200 FAX (920) 751-4204	

DESIGNED	DESIGNED
PWH	PWH
DRAWN	DRAWN
PCK	PCK
CHECKED	CHECKED
PWH	PWH

SCALE	AS NOTED
DATE	APRIL, 2007
PROJECT NO.	RC0018-950446

STANLEY STREET PUMPING STATION	
CITY OF ROCKFORD, ILLINOIS	
EXTERIOR ELEVATIONS - PRECAST PANEL SIZING	

SHEET NO.	
A13	
FILE NO.	



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FILE NO.
CAD

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3	10/30/09	RECORD DRAWINGS

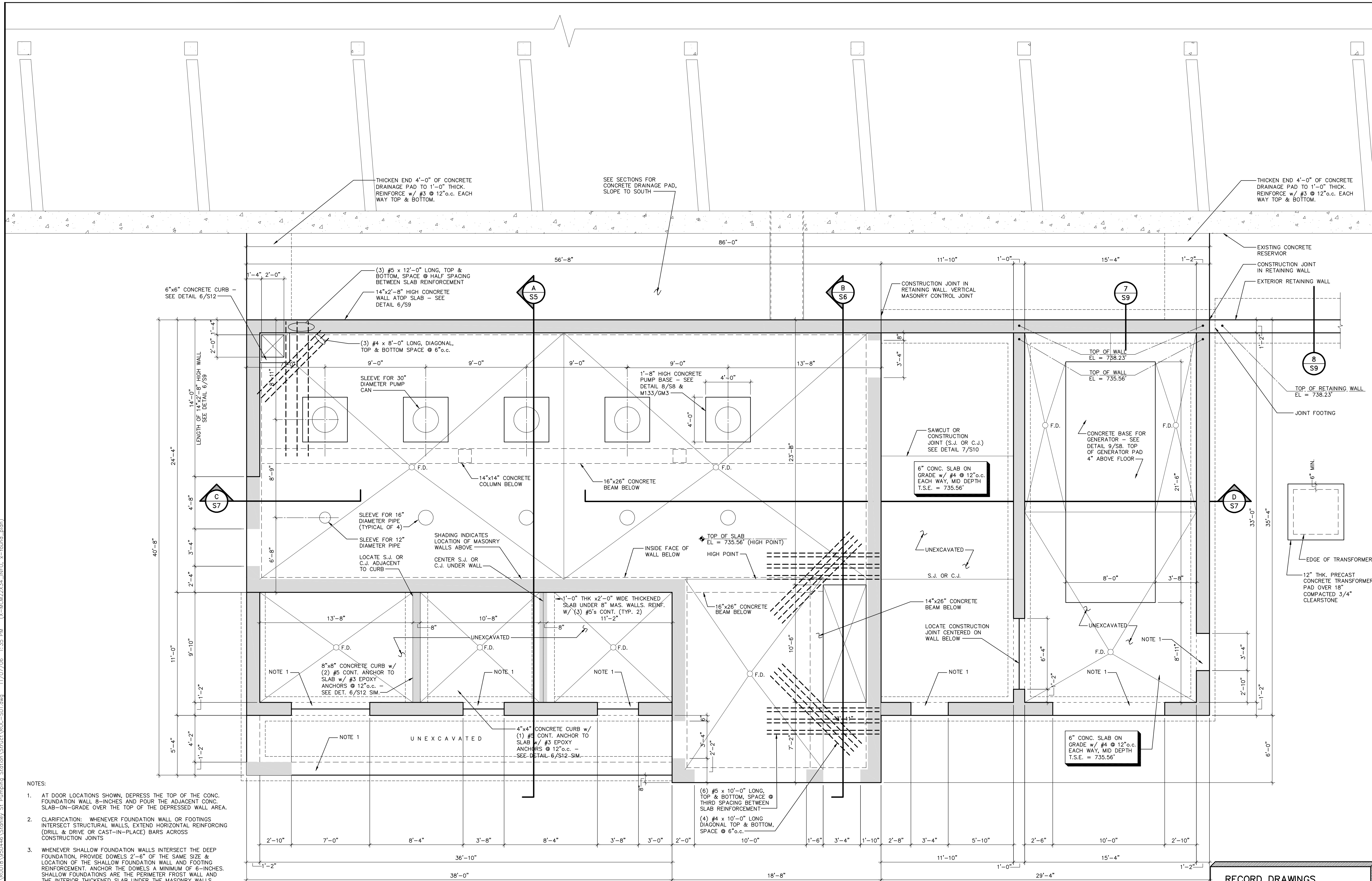


McMAHON ASSOCIATES
 ARCHITECTS
 1441 COLUMBIA DRIVE NEENAH, WI 54956
 Mailing: P.O. BOX 1025 NEENAH, WI 54957-1025
 Tel: (920) 751-4200 Fax: (920) 751-4284

10/30/09

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NOTES:

1. AT DOOR LOCATIONS SHOWN, DEPRESS THE TOP OF THE CONC. FOUNDATION WALL 8-INCHES AND POUR THE ADJACENT CONC. SLAB—ON—GRADE OVER THE TOP OF THE DEPRESSED WALL AREA.
2. CLARIFICATION: WHENEVER FOUNDATION WALL OR FOOTINGS INTERSECT STRUCTURAL WALLS, EXTEND HORIZONTAL REINFORCING (DRILL & DRIVE OR CAST-IN-PLACE) BARS ACROSS CONSTRUCTION JOINTS
3. WHENEVER SHALLOW FOUNDATION WALLS INTERSECT THE DEEP FOUNDATION, PROVIDE DOWELS 2"—6" OF THE SAME SIZE & LOCATION OF THE SHALLOW FOUNDATION WALL AND FOOTING REINFORCEMENT. ANCHOR THE DOWELS A MINIMUM OF 6-INCHES. SHALLOW FOUNDATIONS ARE THE PERIMETER FROST WALL AND THE INTERIOR THICKENED SLAB UNDER THE MASONRY WALLS.

PLUMBING NOTES:

1. SEE PLUMBING DRAWINGS FOR FLOOR DRAINS, HUB DRAINS, AND ALL PLUMBING PIPING THAT PASSES THROUGH CONCRETE.

UPPER LEVEL FOUNDATION PLAN

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



RECORD DRAWINGS

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MASONRY REINFORCING NOTES:

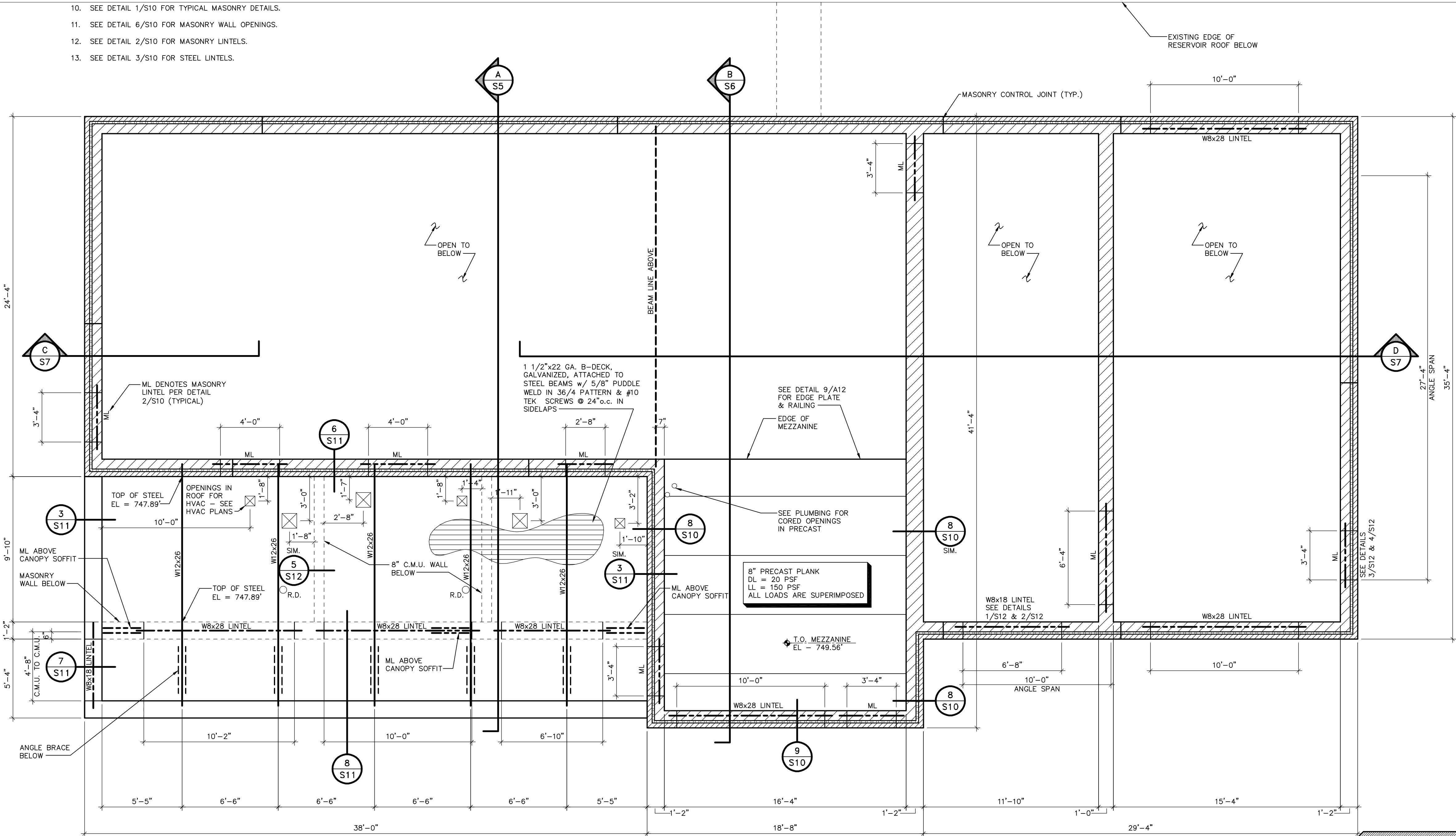
1. REINFORCE ALL EXTERIOR 8" CMU MASONRY w/ #6 @ 32"o.c. VERTICAL.
2. REINFORCE ALL INTERIOR 8" CMU MASONRY w/ #6 @ 48"o.c. VERTICAL.
3. REINFORCE ALL INTERIOR 12" CMU MASONRY w/ #6 @ 48"o.c. VERTICAL.
4. REINFORCE ALL INTERIOR 14" CMU MASONRY w/ #6 @ 48"o.c. VERTICAL.
5. PROVIDE JOINT REINFORCEMENT PER THE SPECIFICATIONS @ 16"o.c. HORIZONTAL IN ALL WALLS.
6. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. AT THE TOP OF ALL WALLS.
7. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. IMMEDIATELY BELOW ALL BEAM BEARING LOCATIONS.
8. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. IMMEDIATELY BELOW ALL PRECAST BEARING LOCATIONS.
9. EXTEND ALL VERTICAL REINFORCEMENT THROUGH BOND BEAMS TO TERMINATE 2" FROM TOP OF WALL.
10. SEE DETAIL 1/S10 FOR TYPICAL MASONRY DETAILS.
11. SEE DETAIL 6/S10 FOR MASONRY WALL OPENINGS.
12. SEE DETAIL 2/S10 FOR MASONRY LINTELS.
13. SEE DETAIL 3/S10 FOR STEEL LINTELS.

ROOF FRAMING NOTES:

1. SEE DETAIL 4/S10 FOR REINFORCING SMALL OPENINGS IN ROOF DECK.
2. SEE DETAIL 5/S10 FOR REINFORCING LARGE OPENINGS IN ROOF DECK.

PLUMBING & HVAC ROOF & WALL OPENING NOTES:

1. SEE HVAC PLANS FOR SIZE & LOCATIONS.
2. SEE ROOF PLAN FOR ROOF DRAINS.
3. VERIFY FINAL LOCATIONS PRIOR TO CUTTING OPENINGS IN DECK.
4. SEE DETAIL 4/S10 FOR DECK REINFORCEMENT OF 12"x12" AND SMALLER OPENINGS.
5. FOR OPENINGS IN MASONRY WALLS, PROVIDE LINTEL PER DETAIL 2/S10.



LOW ROOF FRAMING PLAN/MEZZANINE FRAMING PLAN

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



RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS

LOW ROOF FRAMING PLAN/MEZZANINE FRAMING PLAN

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

SHEET NO.

S3

FILE NO.
CAD

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1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956
TEL (800) 751-4205 FAX (800) 751-4204

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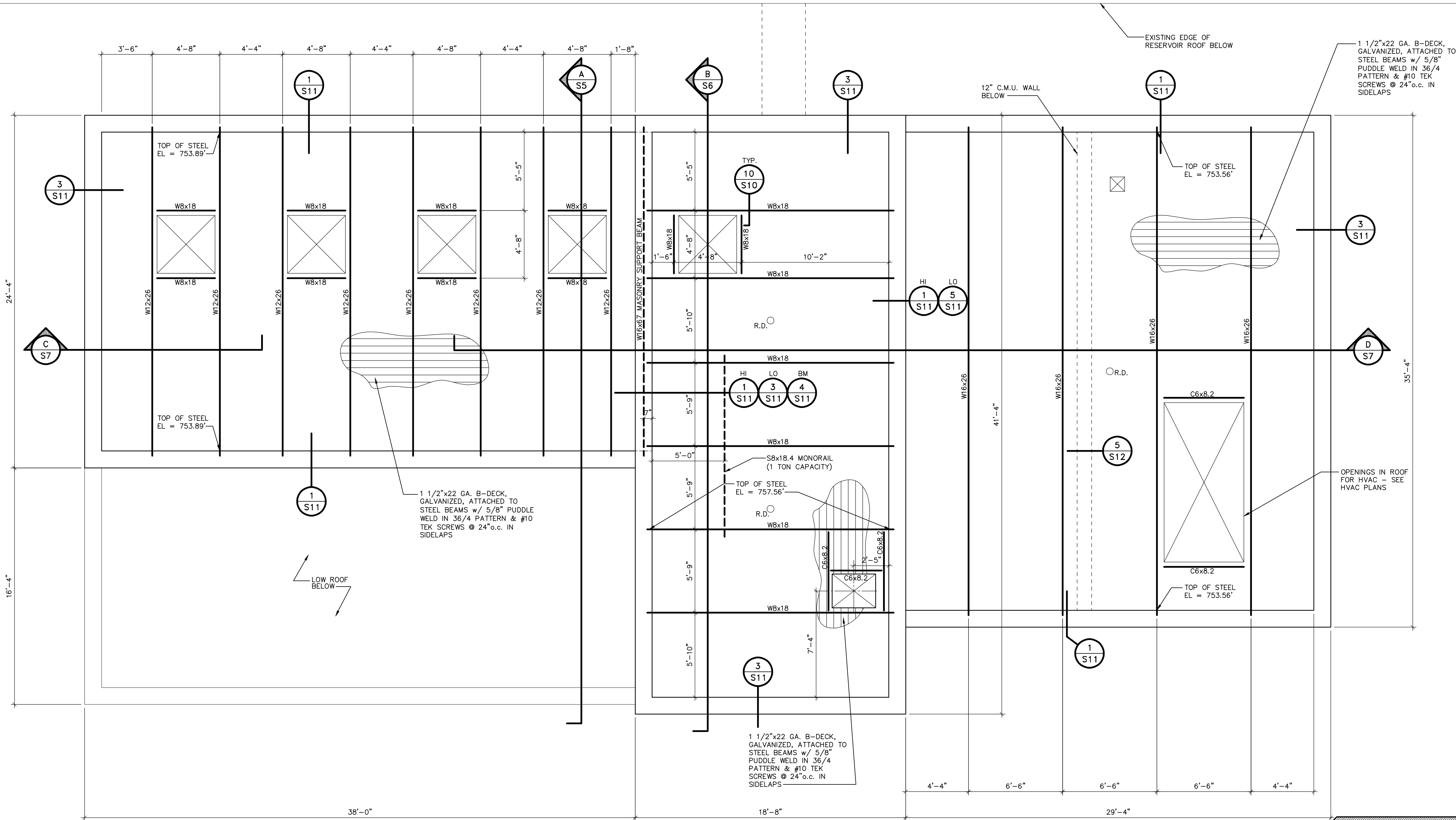
10/30/09

7/10/07

4/6/07

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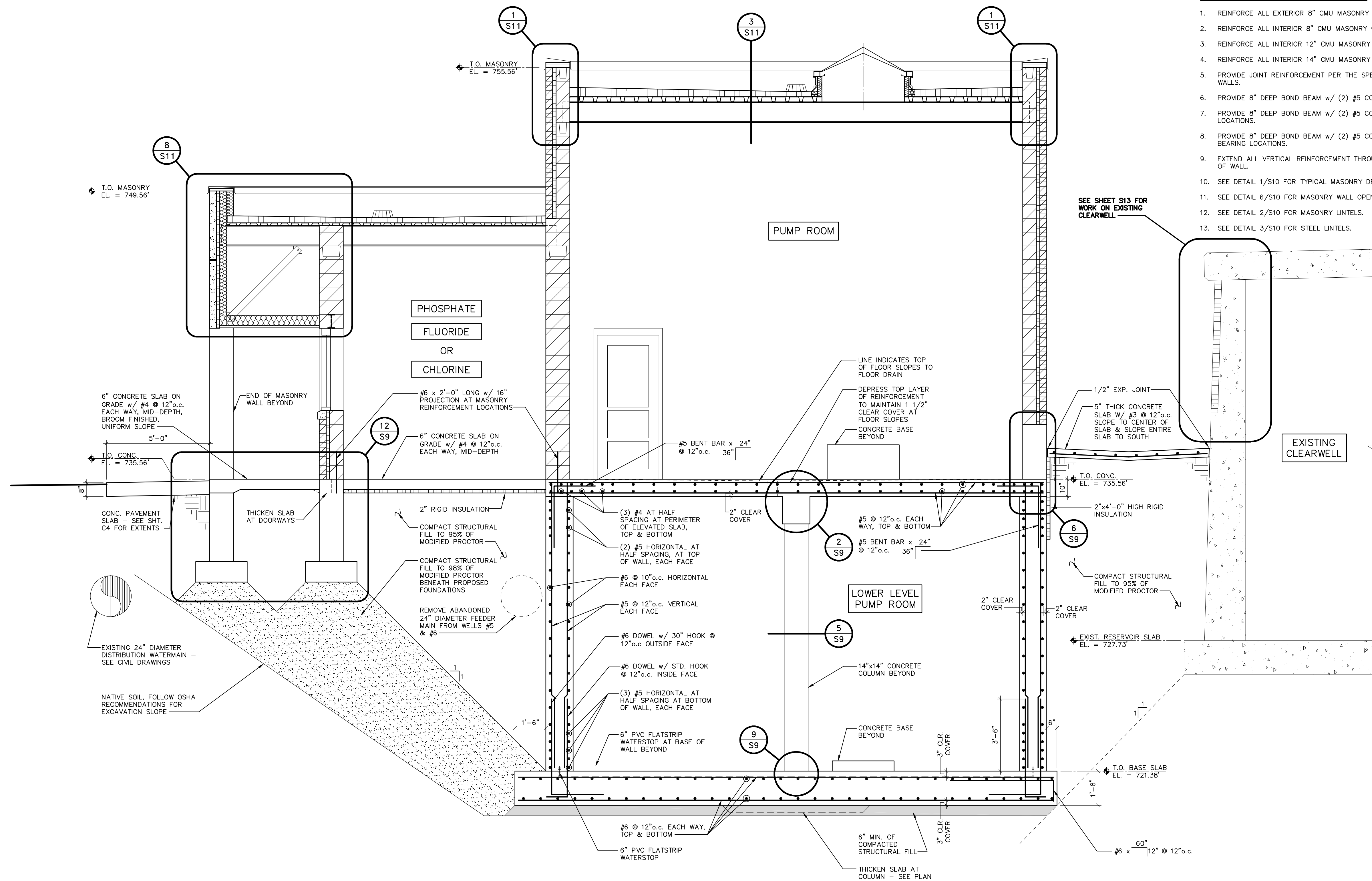


UPPER ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

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	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS UPPER ROOF FRAMING PLAN					
	SCALE AS NOTED	DATE APRIL, 2007	PROJECT NO. R0018-950446	SHEET NO. S4		
	FILE NO. CAD					

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CROSS SECTION

SCALE: $3/8" = 1'-0"$

RECORD DRAWINGS

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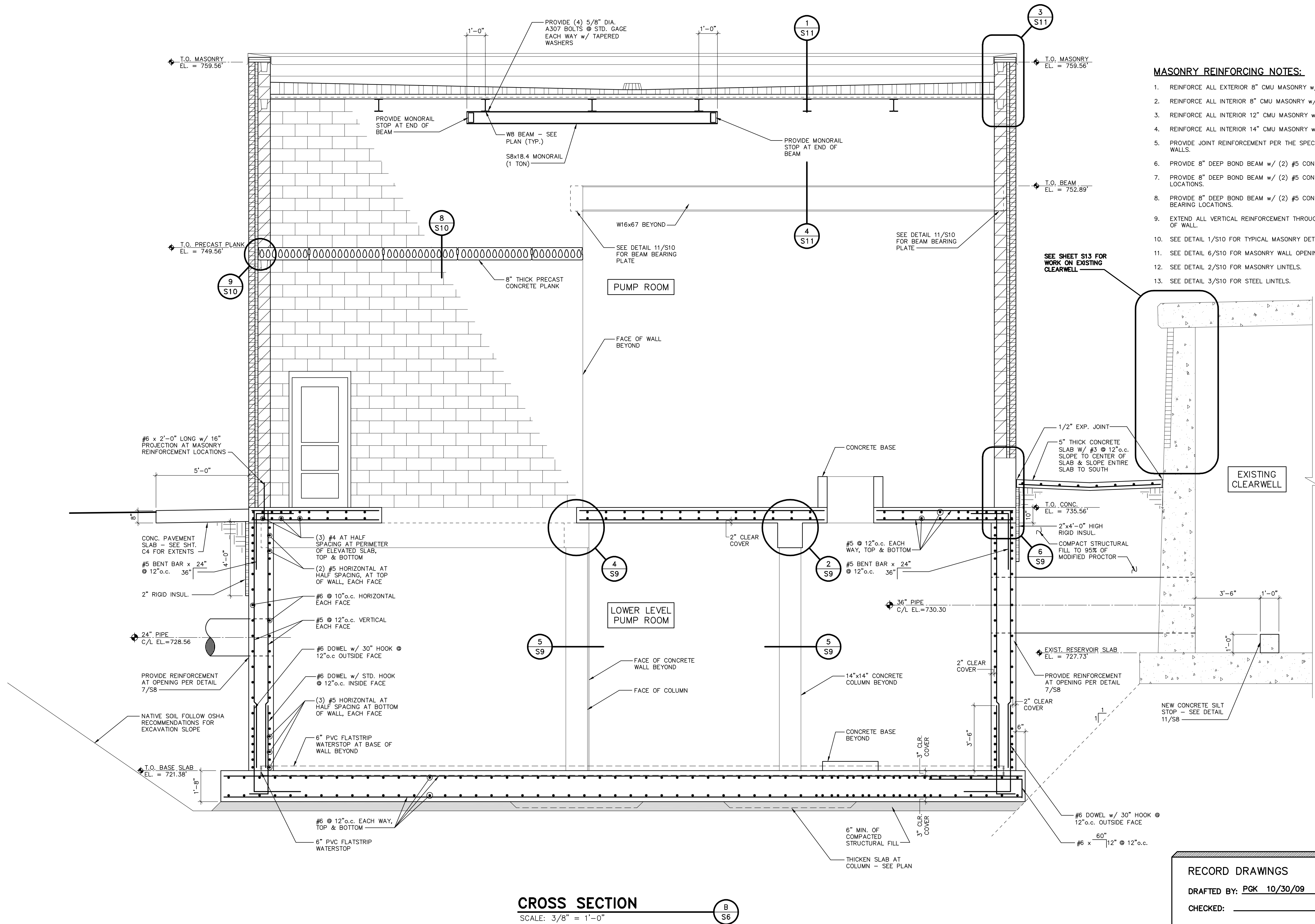
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MASONRY REINFORCING NOTES:

1. REINFORCE ALL EXTERIOR 8" CMU MASONRY w/ #6 @ 32"o.c. VE
2. REINFORCE ALL INTERIOR 8" CMU MASONRY w/ #6 @ 48"o.c. VE
3. REINFORCE ALL INTERIOR 12" CMU MASONRY w/ #6 @ 48"o.c. VI
4. REINFORCE ALL INTERIOR 14" CMU MASONRY w/ #6 @ 48"o.c. VI
5. PROVIDE JOINT REINFORCEMENT PER THE SPECIFICATIONS @ 16"o WALLS.
6. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. AT THE TOP OF LOCATIONS.
7. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. IMMEDIATELY BE LOCATIONS.
8. PROVIDE 8" DEEP BOND BEAM w/ (2) #5 CONT. IMMEDIATELY BE BEARING LOCATIONS.
9. EXTEND ALL VERTICAL REINFORCEMENT THROUGH BOND BEAMS T OF WALL.
10. SEE DETAIL 11/S10 FOR TYPICAL MASONRY DETAILS.
11. SEE DETAIL 6/S10 FOR MASONRY WALL OPENINGS.
12. SEE DETAIL 2/S10 FOR MASONRY LINTELS.
13. SEE DETAIL 3/S10 FOR STEEL LINTELS.

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
CROSS SECTIONS

SCALE	AS NOTED
DATE	APRIL, 2007
PROJECT NO.	RC0018-950446
SHEET NO.	S6
FILE NO.	CAD

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1445 McMAHON DRIVE NEENAH, WI 54956
MAILING: 1500 N. KENOSHA AVE. NEENAH, WI 54956-1025
TEL: (920) 751-4200 FAX: (920) 751-4204

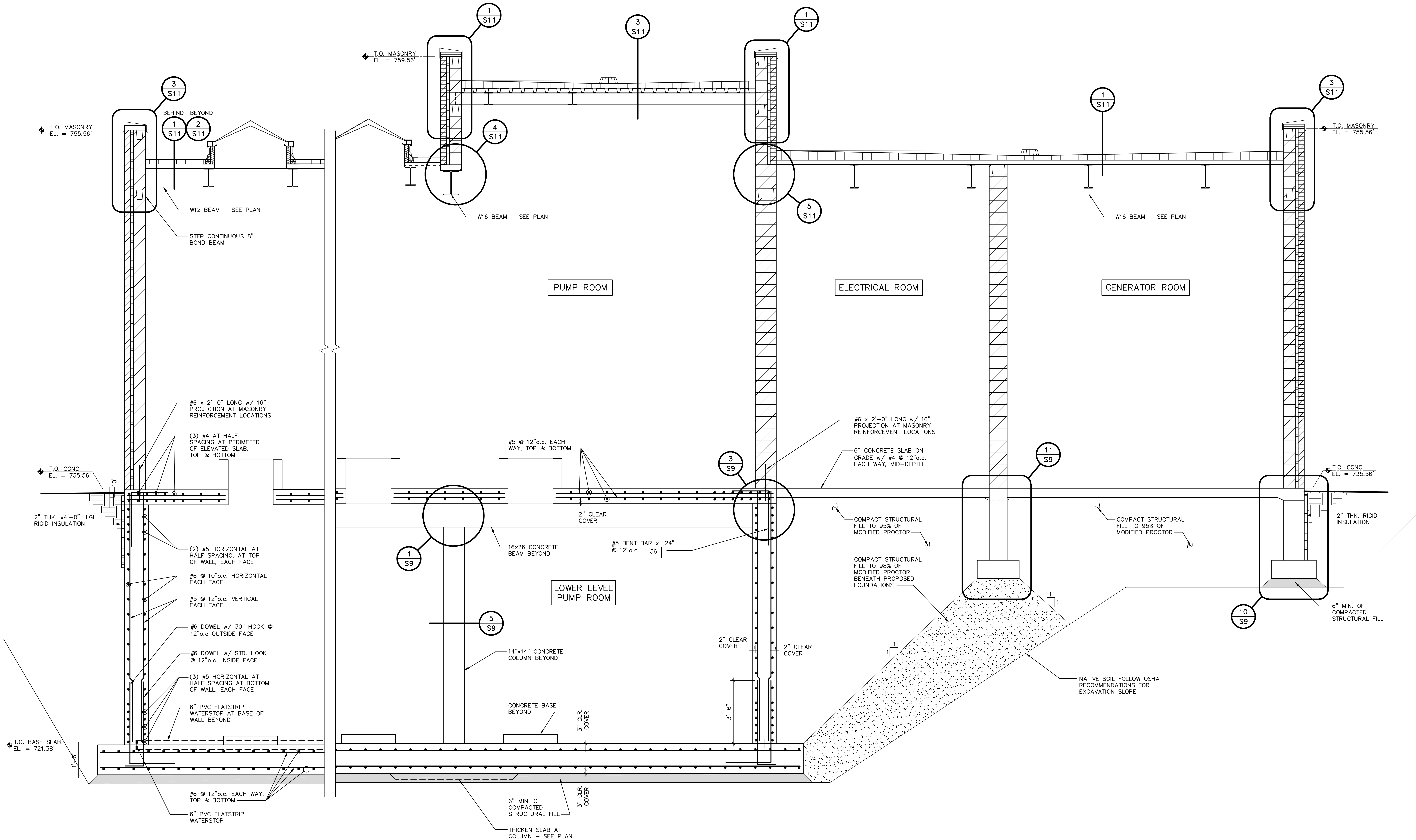
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3	10/30/09	RECORD DRAWINGS

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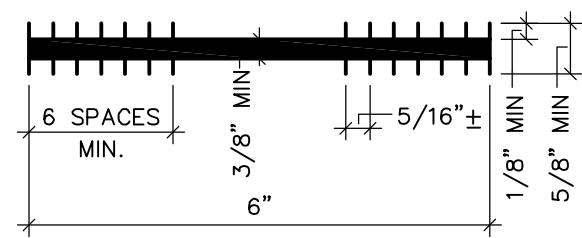
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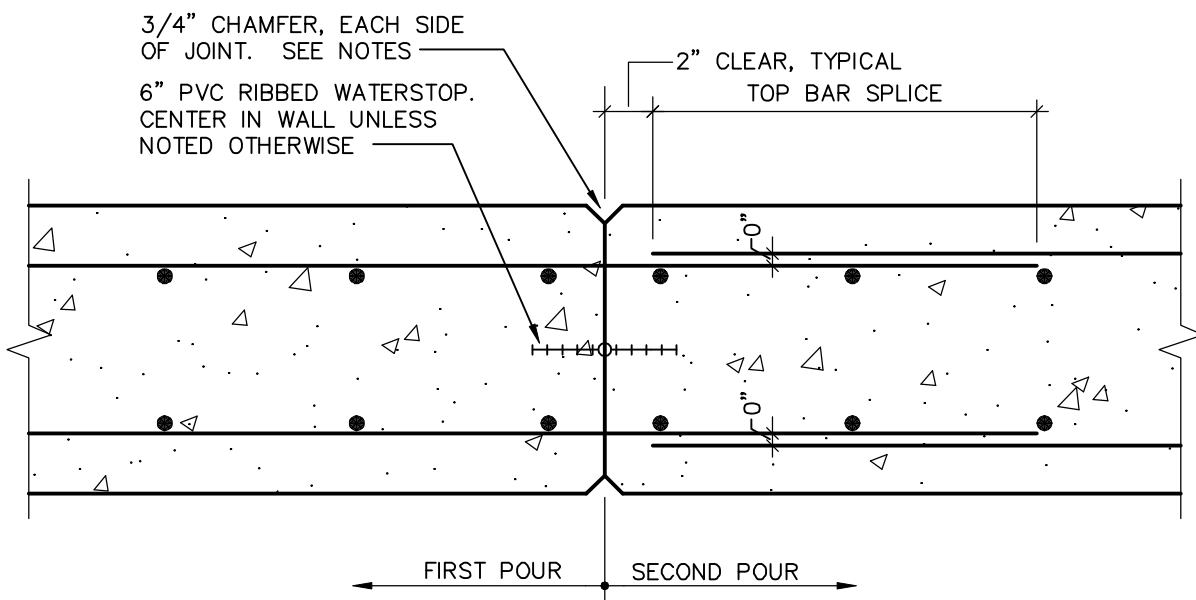
RECORD DRAWINGS	
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STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS CROSS SECTIONS	
SCALE	AS NOTED
DATE	APRIL, 2007
PROJECT NO.	RC0018-950446
SHEET NO.	
S7	
FILE NO.	CAD

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**6" FLATSTRIP WATERSTOP****TYP. WATERSTOP DETAILS**

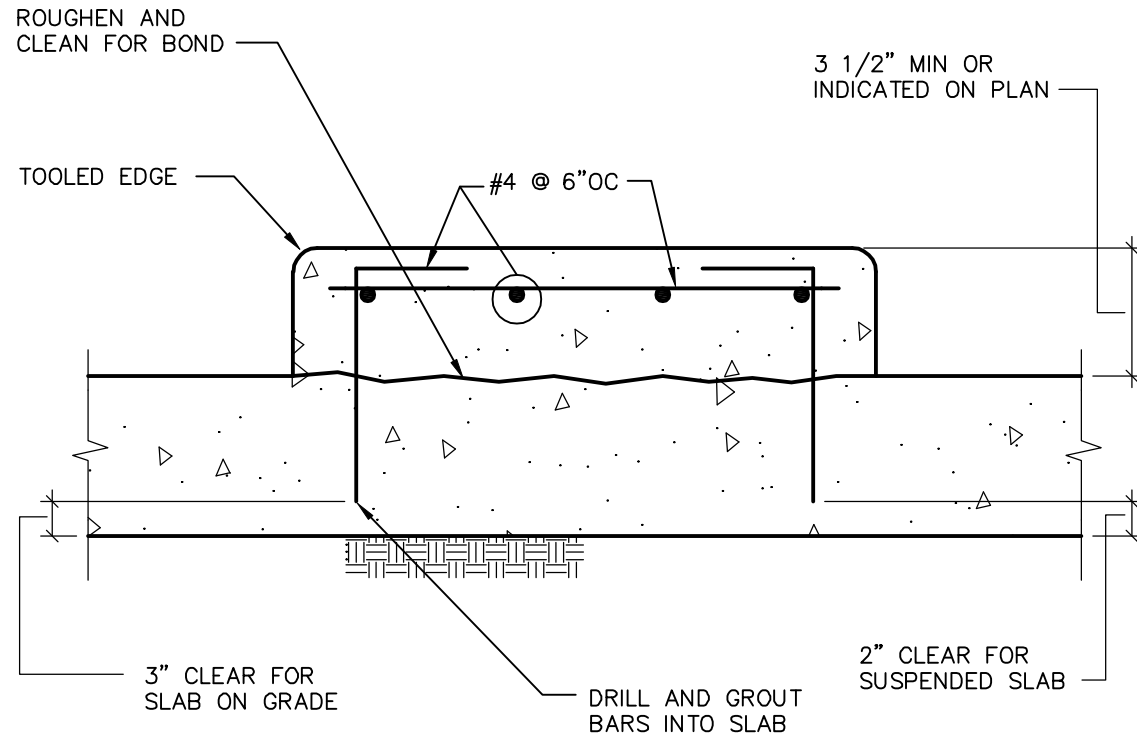
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S8**NOTES:**

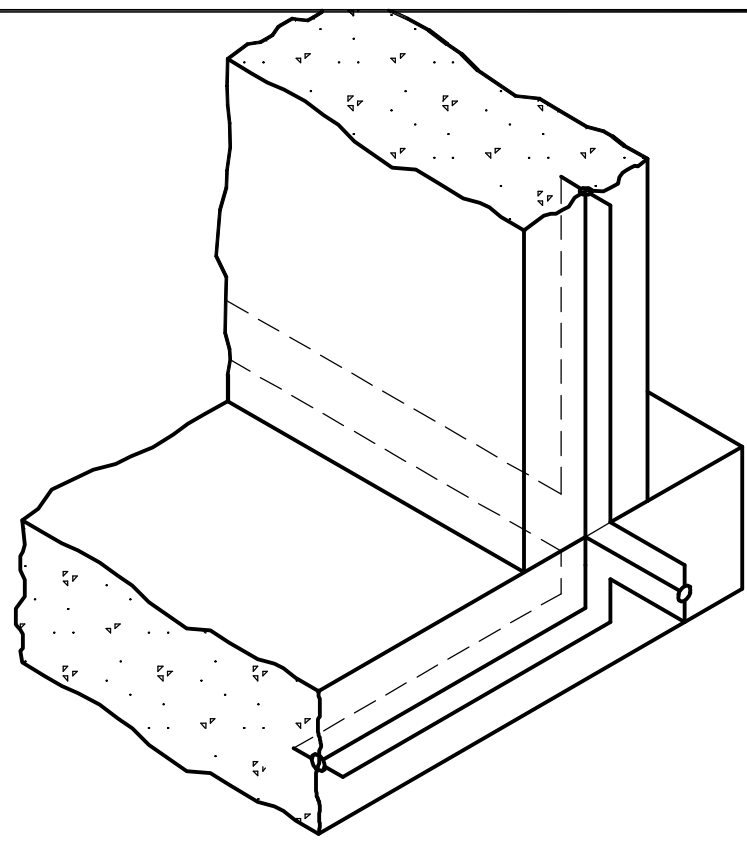
1. UNLESS NOTED OTHERWISE, THE 3/4" CHAMFERS SHALL BE OMITTED IN SURFACES TO RECEIVE ARCHITECTURAL TREATMENT.
2. UNLESS NOTED OTHERWISE, THE 3/4" CHAMFERS SHALL BE OMITTED IN SURFACES NOT EXPOSED TO VIEW.
3. WHERE WATERSTOP IS REQUIRED IN A SINGLE CURTAIN REINFORCED WALL, PLACE WATERSTOP ON WATER SIDE OF REINFORCING UNLESS NOTED OTHERWISE.

TYP. WALL CONSTRUCTION JOINT

NO SCALE

4
S8**TYP. HOUSEKEEPING PAD**

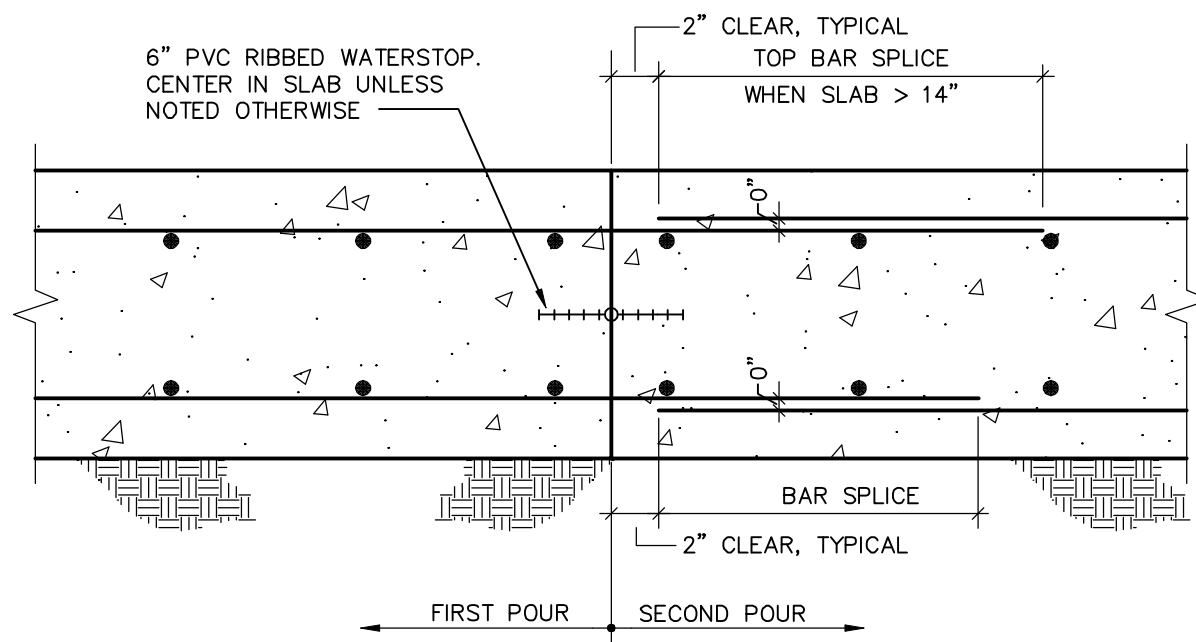
NO SCALE

8
S8**NOTES:**

1. ALL JOINTS CONTAINING WATERSTOPS SHALL HAVE WATERSTOPS WELDED TOGETHER TO FORM A COMPLETE WATERTIGHT SYSTEM AT ALL INTERSECTIONS THROUGHOUT THE PROJECT. USE PREFABRICATED "ELLS" AND "TEES"
2. ALL VINYL WATERSTOP INTERSECTIONS AND SPLICES SHALL BE MADE WITH TOOLS AND PROCEDURES RECOMMENDED BY THE WATERSTOP MANUFACTURER.
3. REFER TO THE SPECIFICATIONS FOR ADDITIONAL WATERSTOP INSTALLATION REQUIREMENTS.

WATERSTOP INTERSECTION DETAIL

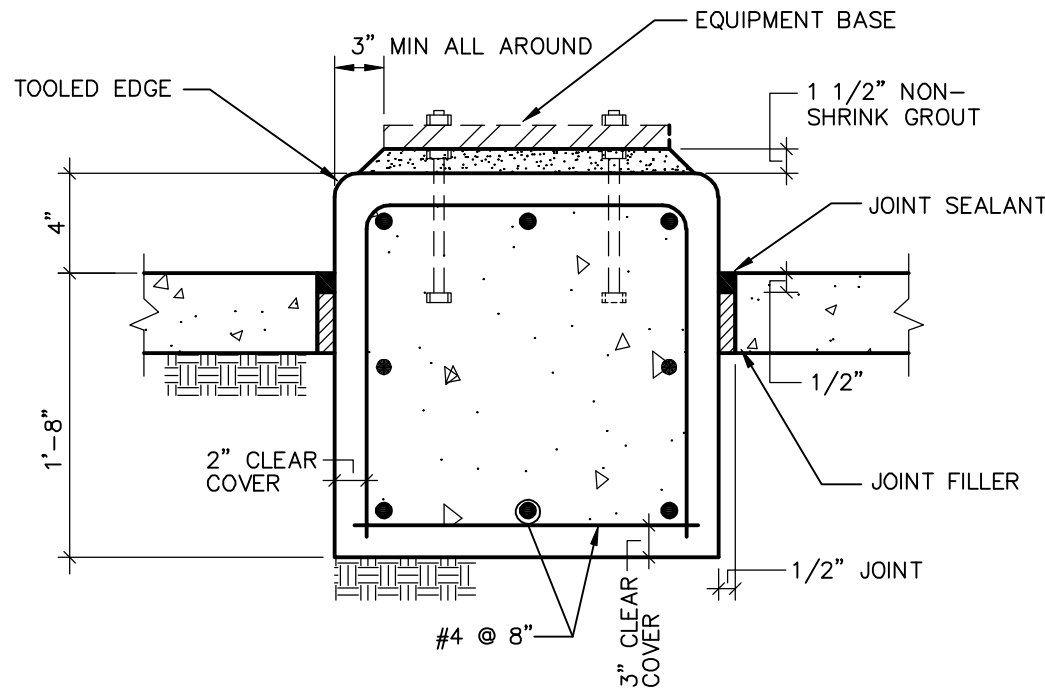
NO SCALE

2
S8**BASE SLAB CONSTRUCTION JOINT**

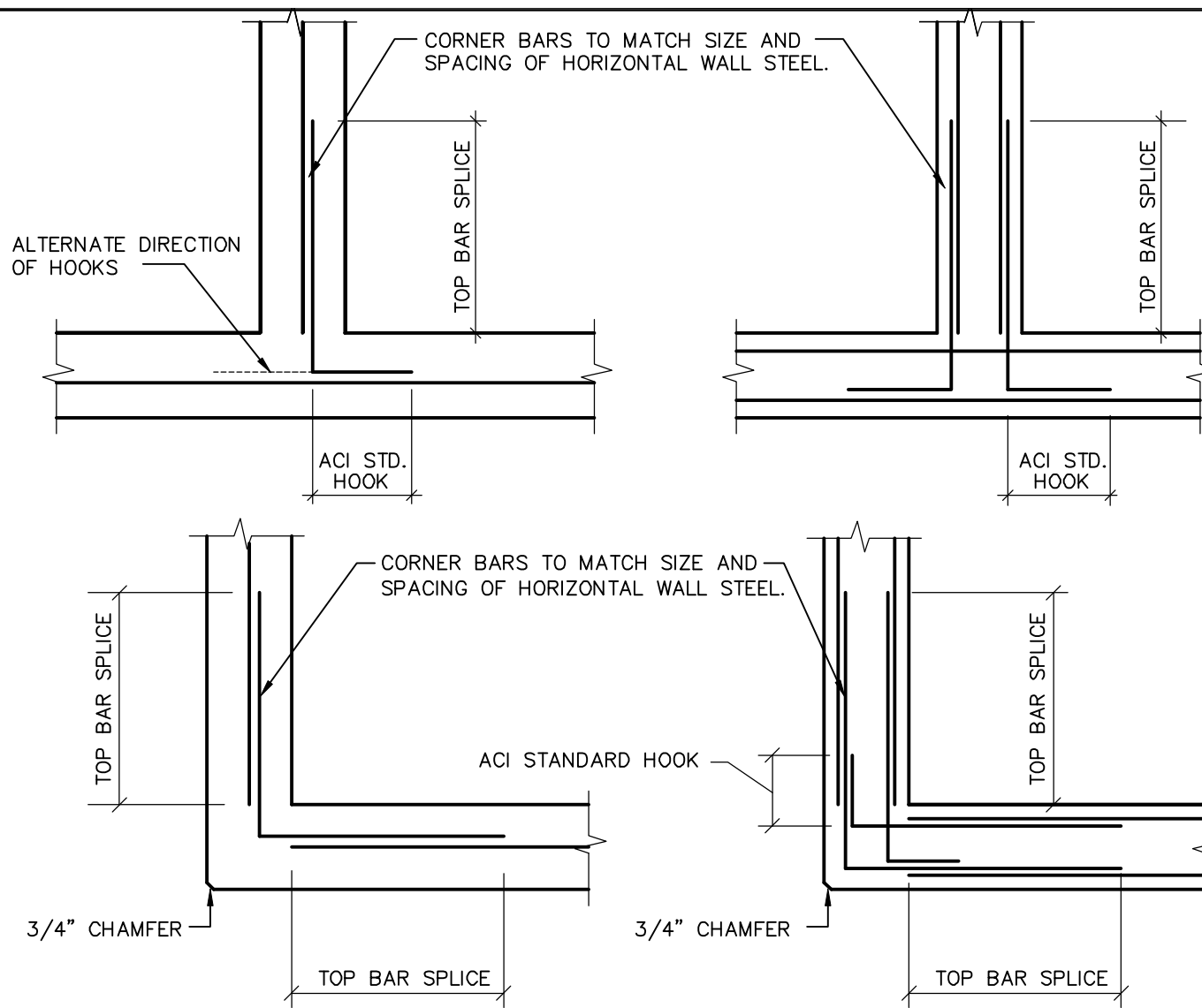
NO SCALE

5
S8**NOTES:**

1. WHERE NO DIMENSION IS INDICATED ON THE DRAWINGS, BASE DEPTH SHALL BE SET SO THAT THE BASE WEIGHS AT LEAST TWICE THE WEIGHT OF THE EQUIPMENT SUPPORTED
2. CLARIFICATION: REFER TO MANUF. DRAWINGS FOR SIZE AND NUMBER OF REQUIRED ANCHORS. THE EQUIP. BASE SHOWN IS REPRESENTATIVE OF THE EQUIP. BOTTOM AND IS NOT A SEPARATE PLATE IN ADDITION TO THE EQUIP.

**EQUIPMENT BASE ON GRADE**

NO SCALE

9
S8

NOTE: TYPICAL WALL REINFORCING FOR INTERSECTIONS NOT SHOWN ON THE STRUCTURAL DRAWING.

TYP. CORNER AND INTERSECTION DETAIL

NO SCALE

3
S8

BAR SIZE	MINIMUM CLEAR COVER (BAR DIAMETER)	MINIMUM CLEAR BAR SPACING (BAR DIAMETER)	LAP SPLICE LENGTH (BAR DIAMETERS)	
			TOP BARS	OTHER BARS
#6 OR LESS	1 OR MORE	2 OR MORE	65 SEE NOTE 2	50 SEE NOTE 2
	2 OR MORE	4 OR MORE	39	30
#7 OR GREATER	1 OR MORE	2 OR MORE	81 SEE NOTE 2	62 SEE NOTE 2
	2 OR MORE	4 OR MORE	49	37

NOTES:

1. THE SPLICE LENGTH SHALL BE SELECTED ONLY WHEN BOTH REQUIREMENTS OF THE CLEAR COVER AND BAR SPACING ARE SATISFIED.
2. IF THE BAR CLEAR SPACING IS LESS THAN TWO BAR DIAMETERS, OR THE CLEAR COVER IS LESS THAN ONE BAR DIAMETER, THE LAP SPLICE LENGTH SHALL BE INCREASED BY 50 PERCENT.
3. ALL HORIZONTAL WALL STEEL SHALL USE TOP BAR SPLICE LENGTH
4. ALL HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW SHALL USE TOP BAR SPLICE LENGTH
5. WHEN BARS OF DIFFERENT SIZES ARE SPLICED, USE SPLICE LENGTH OF SMALLER BAR.

REINFORCING BAR LAP SPLICE

NO SCALE

6
S8

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINFORCING BARS SHALL BE AS FOLLOWS:

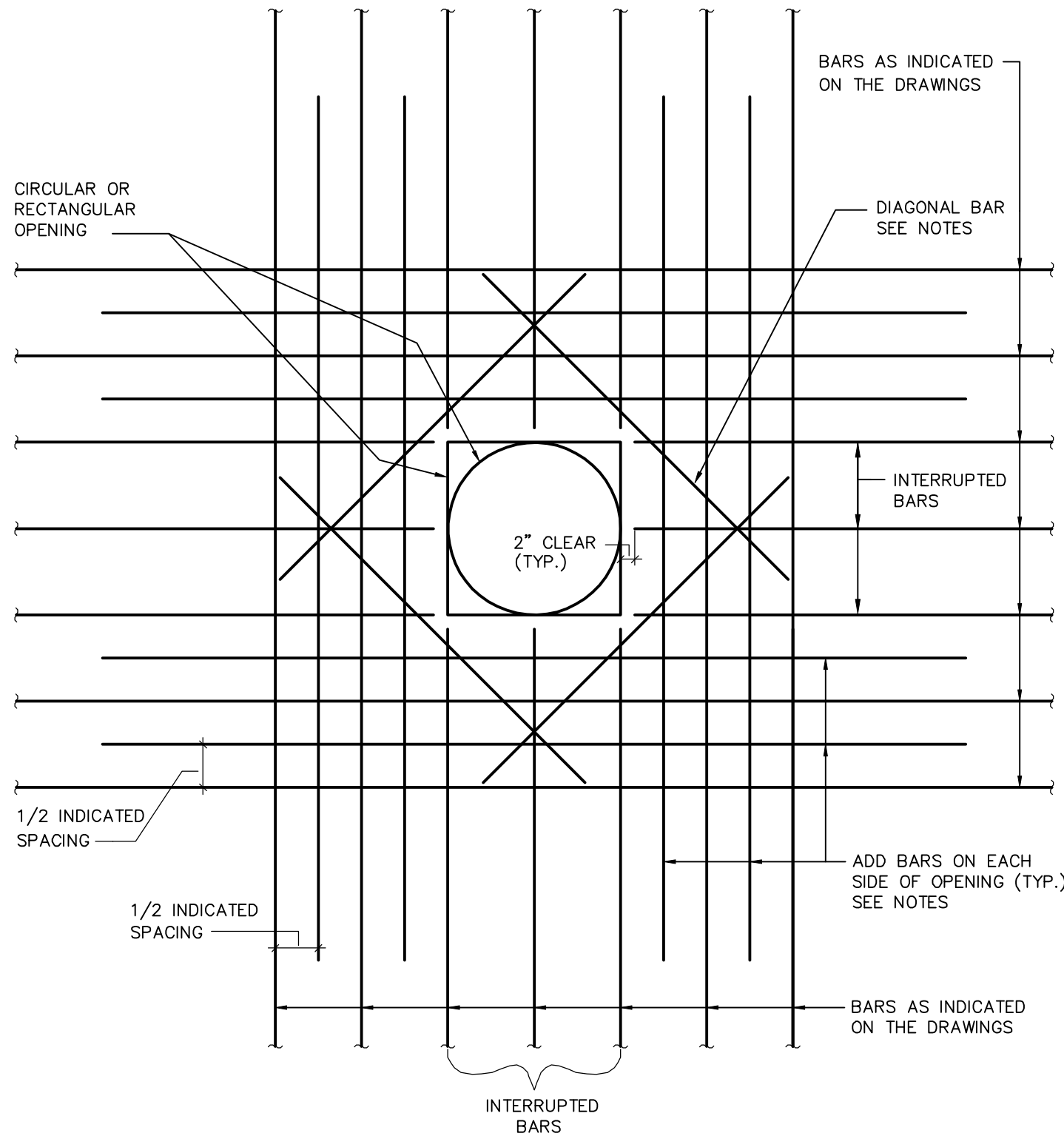
- A. SLABS AND JOISTS:
FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS:
#7 BARS AND SMALLER.....1"
#8 BARS AND LARGER.....1 1/2"
FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR WATER, OR LOCATED OVER WATER:.....2"
B. BEAMS AND COLUMNS:
FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
STIRRUPS, SPIRALS, AND TIES.....1 1/2"
PRINCIPAL REINFORCEMENT.....2"
FORMED CONCRETE SURFACES EXPOSED TO WEATHER, OR WEATHER, OR BEAMS LOCATED OVER WATER:
STIRRUPS AND TIES.....2"
PRINCIPAL REINFORCEMENT.....2 1/2"
C. WALLS:
FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
#7 BARS AND SMALLER.....1"
#8 BARS AND LARGER.....1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, OR WEATHER:.....2"
D. FOOTINGS AND BASE SLABS:
FORMED VERTICAL CONCRETE SURFACES.....2"
AT UNFORMED CONCRETE SURFACES CAST AGAINST THE EARTH OR CONCRETE WORK MATS.....3"
TOP SURFACE OF FOOTINGS AND BASE SLABS.....SAME AS SLABS

REINFORCED CONCRETE NOTES

NO SCALE

RECORD DRAWINGSDRAFTED BY: PGK 10/30/09

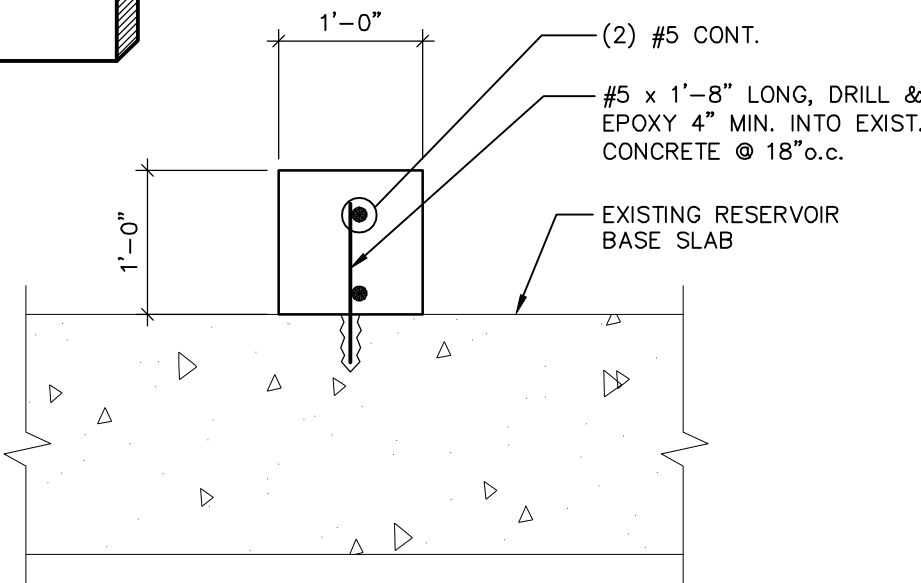
CHECKED: _____

**NOTES:**

1. THE NUMBER OF ADD BARS ON EACH SIDE OF THE OPENING SHALL BE AT LEAST ONE HALF OF THE NUMBER OF INTERRUPTED BARS. ADD BAR SIZE SHALL EQUAL INDICATED BAR SIZE.
2. PROVIDE STANDARD ACI HOOKS ON BARS IF STRAIGHT EXTENSION PAST THE OPENING CANNOT BE ACHIEVED, IE, AT BASE OR CORNER OF WALL OR SLAB.
3. THE LENGTH OF THE ADD BARS SHALL EQUAL THE OPENING DIMENSION PLUS TWO TIMES THE OPENING DIMENSION PERPENDICULAR TO THE ADD BARS PLUS TWO TIMES THE BAR LAP SPLICE LENGTH.
4. PLACE ADD BARS IN SAME PLANE AS INDICATED REINFORCING.
5. DIAGONAL BARS SHALL BE #5 x 5'-0" LONG AT EACH CORNER, PLACED ON THE INSIDE OF EACH CURTAIN OF REINFORCING.
6. THIS SHALL BE THE TYPICAL REINFORCING AT ALL SLAB AND WALL OPENINGS UNLESS SHOWN OTHERWISE ON THE DRAWING.

TYP. WALL/SLAB OPENING DETAIL

NO SCALE

7
S8

NOTE: DRILL & EPOXY (1) #5 x 1'-8" LONG HORIZONTALLY INTO EXISTING CONCRETE WALL AT EACH END.

SILT STOP DETAIL

NO SCALE

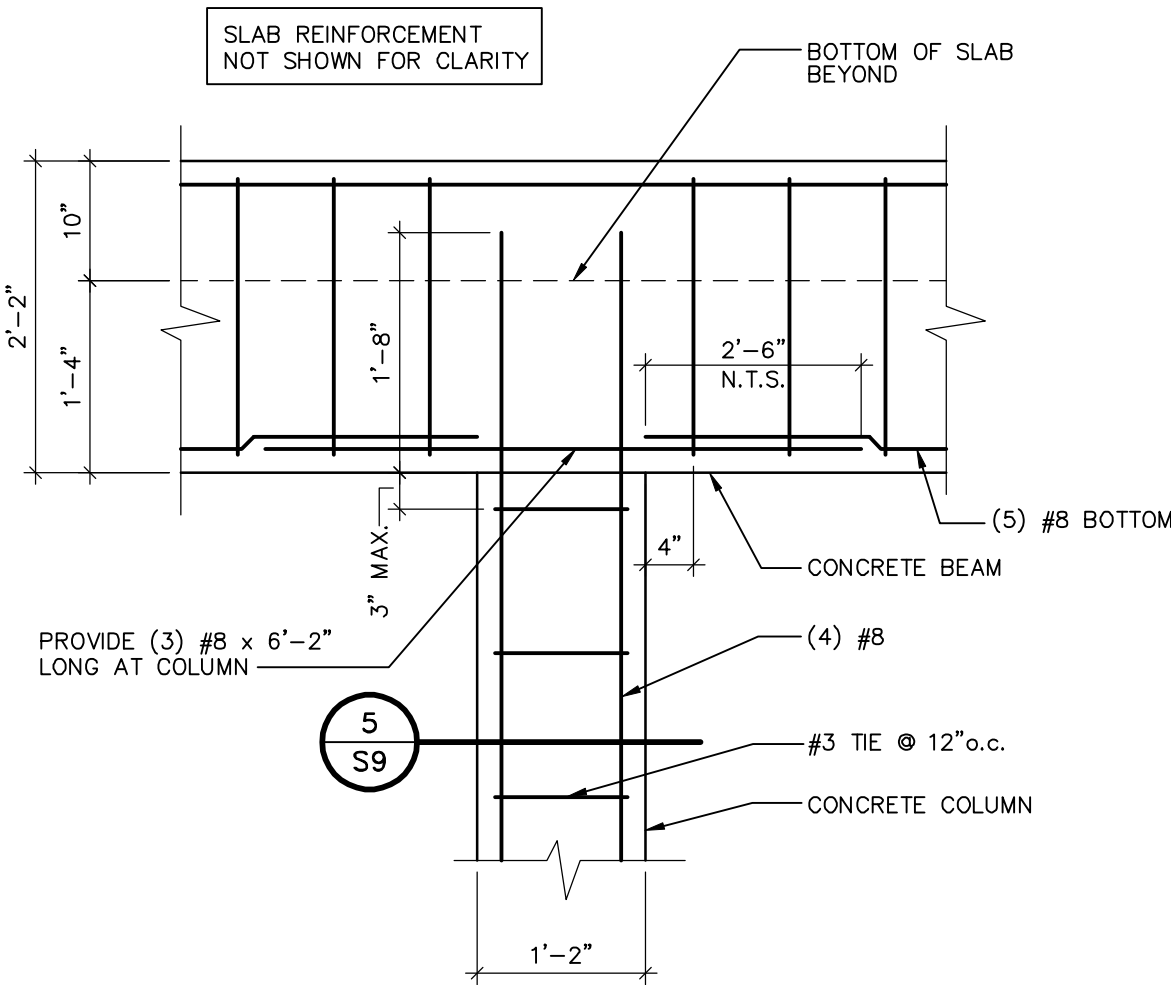
11
S8**STANLEY STREET PUMPING STATION**
CITY OF ROCKFORD, ILLINOIS
CONCRETE DETAILSSCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

S8FILE NO.
CADDESIGNED
MOB
DRAWN
SEG
CHECKED
MOB**McMAHON ASSOCIATES**
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 MCMAHON DRIVE NEENAH, WI 54956
MAILING: 3333 N. WAVERLY AVENUE, SUITE 100
FISH KILL, NY 10925
TEL: (800) 751-4200 FAX: (800) 751-4204NO.
1
2
3
DATE
4/6/07
7/10/07
10/30/09
RELEASED FOR BIDDING
REVISED PER ADD. #1
RECORD DRAWINGS
REVISION

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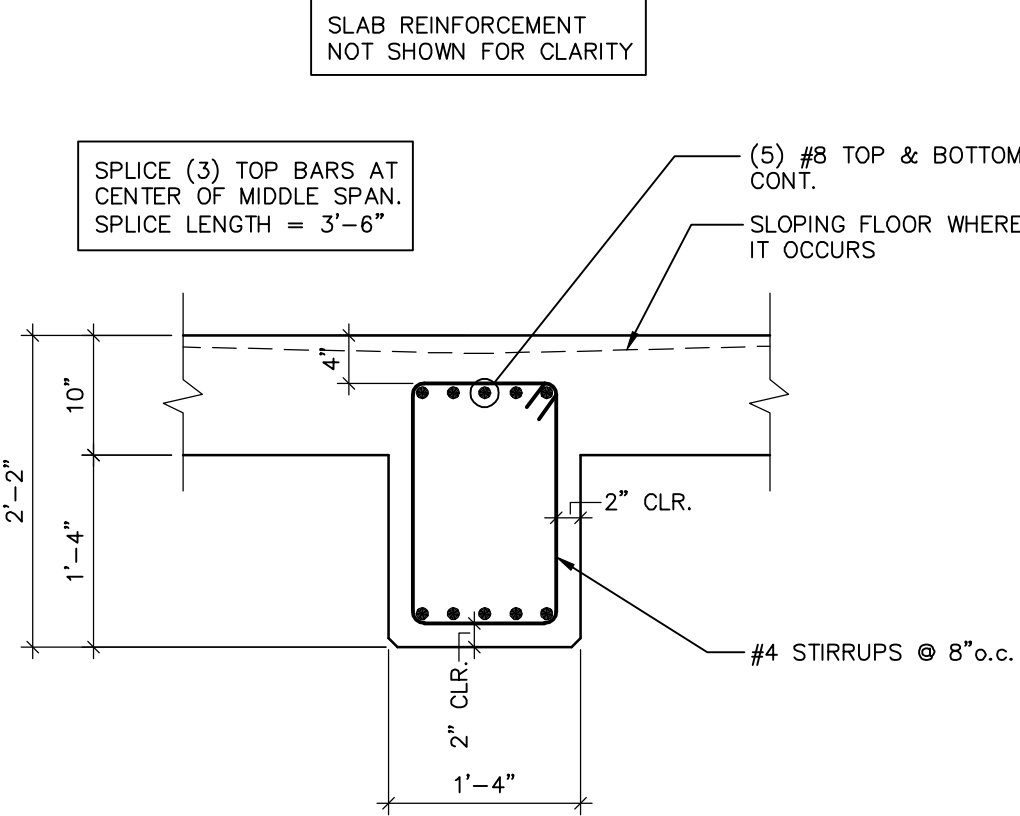
pldrink, W: DWG:R0018\950446\Stanley St Pumping Station\Arch\ROCC-A05.dwg, 11/07/06 10:52 AM, (X-MCM22X34-INFO, x-plan)



BEAM TO COLUMN CONNECTION

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

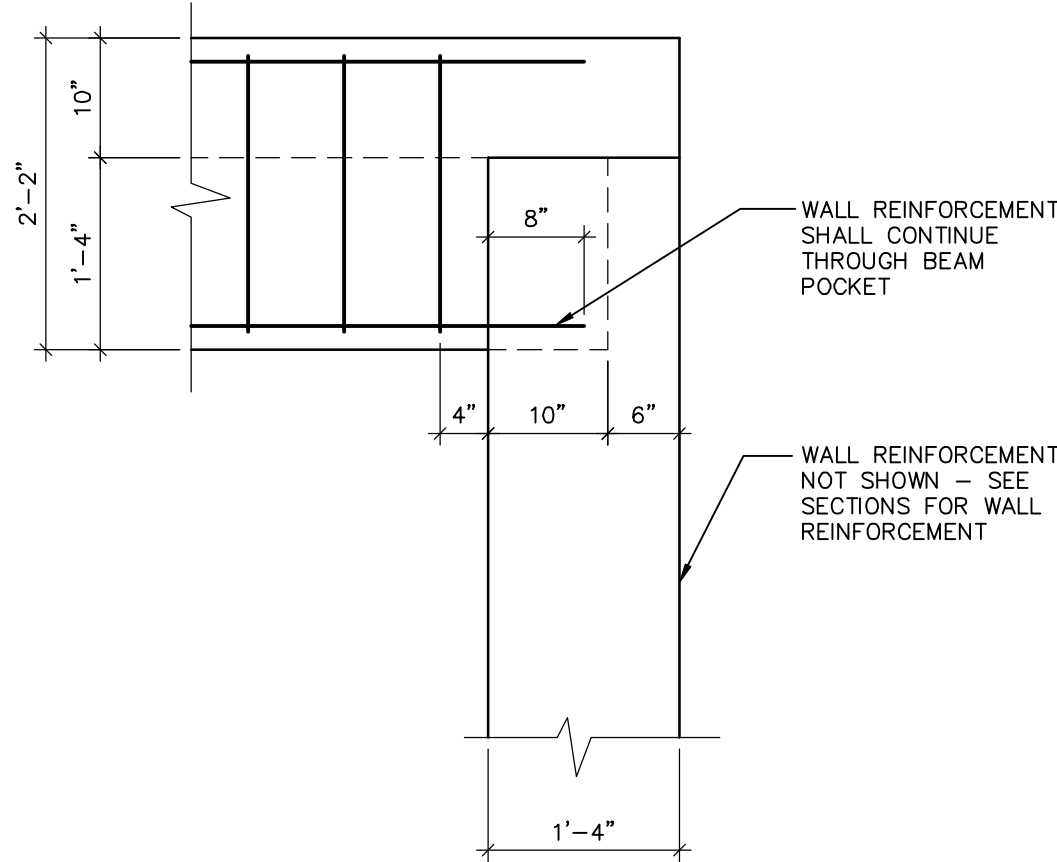
1 S9



CONCRETE BEAM DETAIL

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

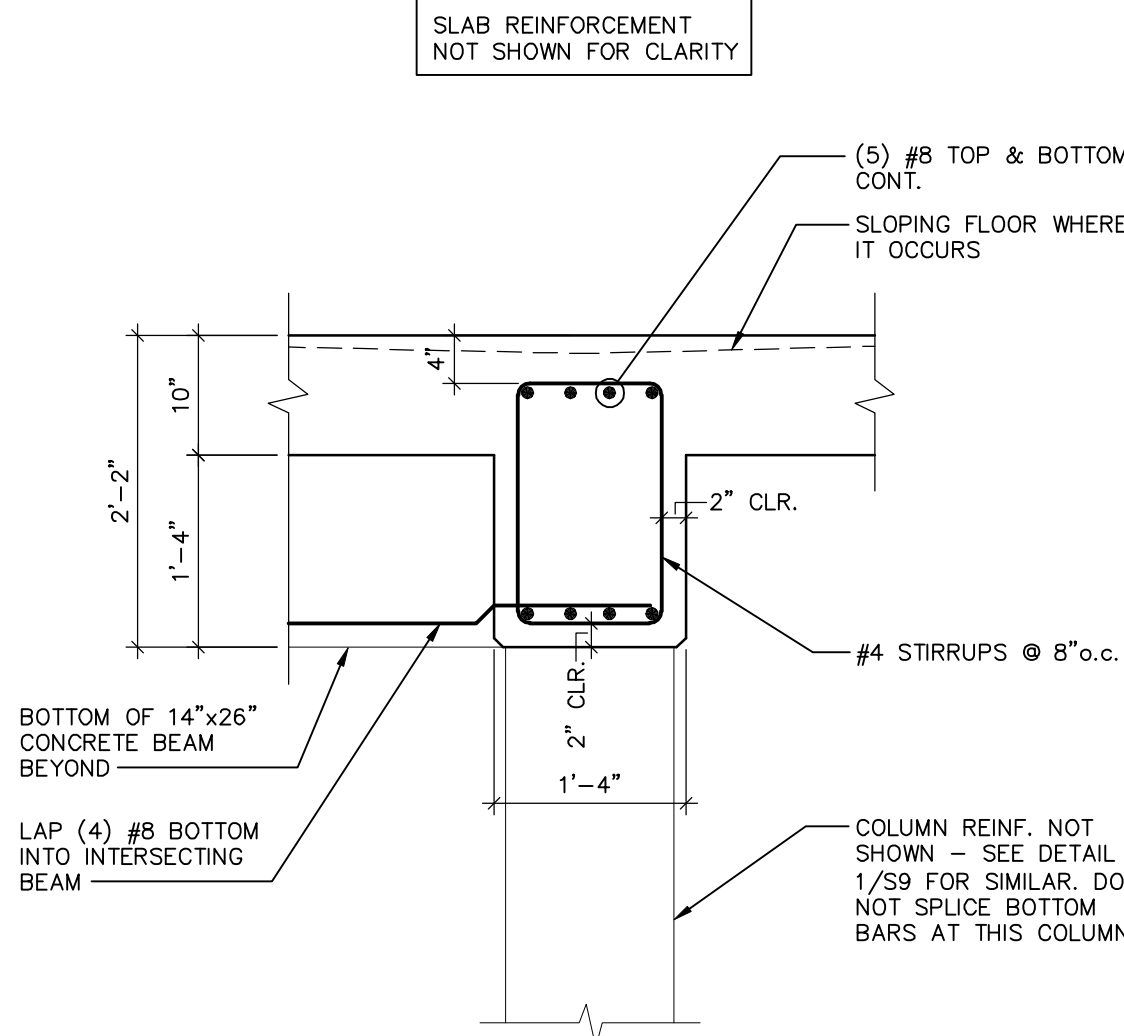
2 S9



BEAM BEARING DETAIL

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

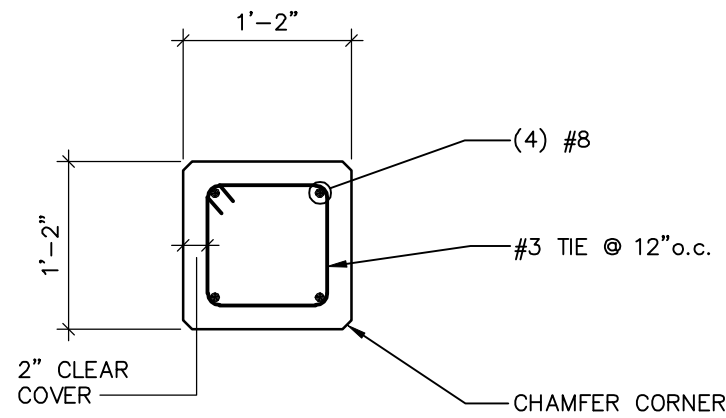
3 S9



CONCRETE BEAM TO BEAM DETAIL

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

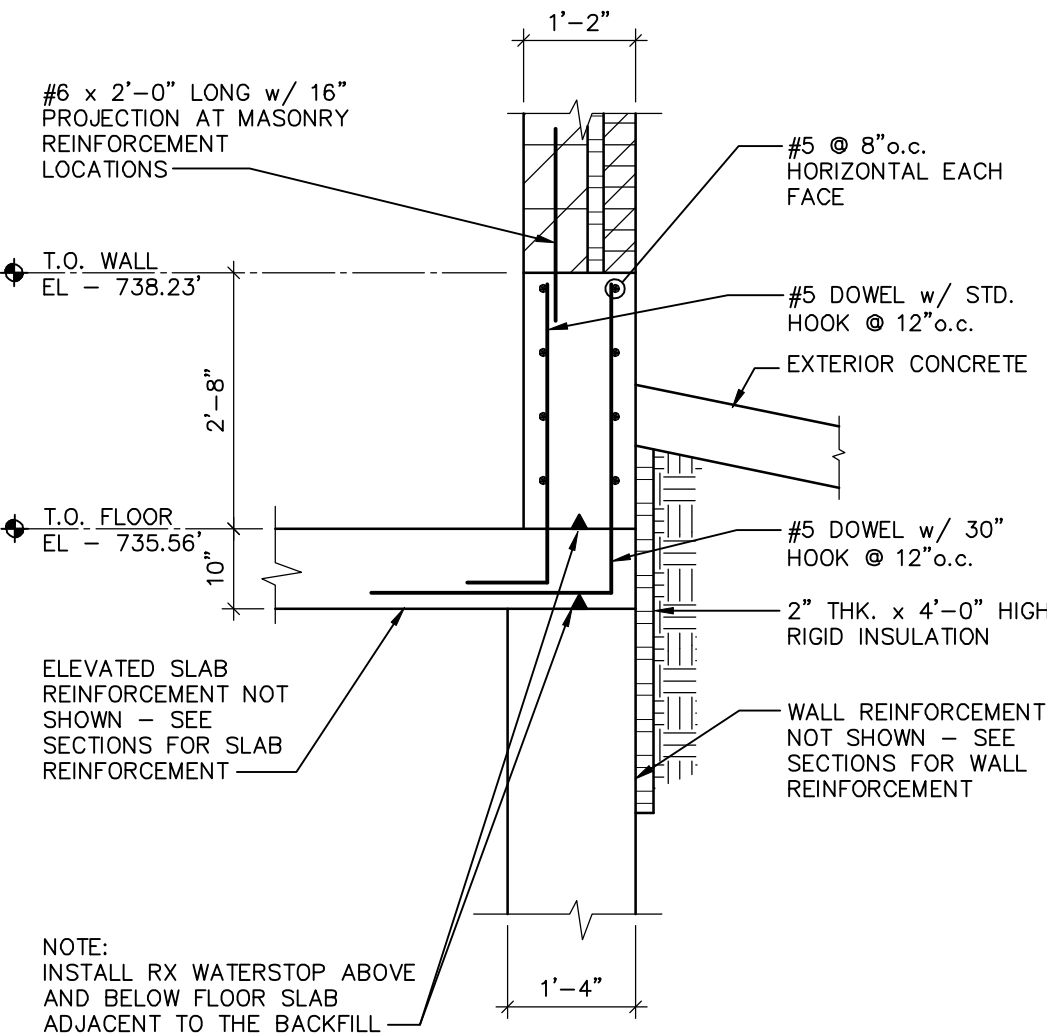
4 S9



CONCRETE COLUMN PLAN DETAIL

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

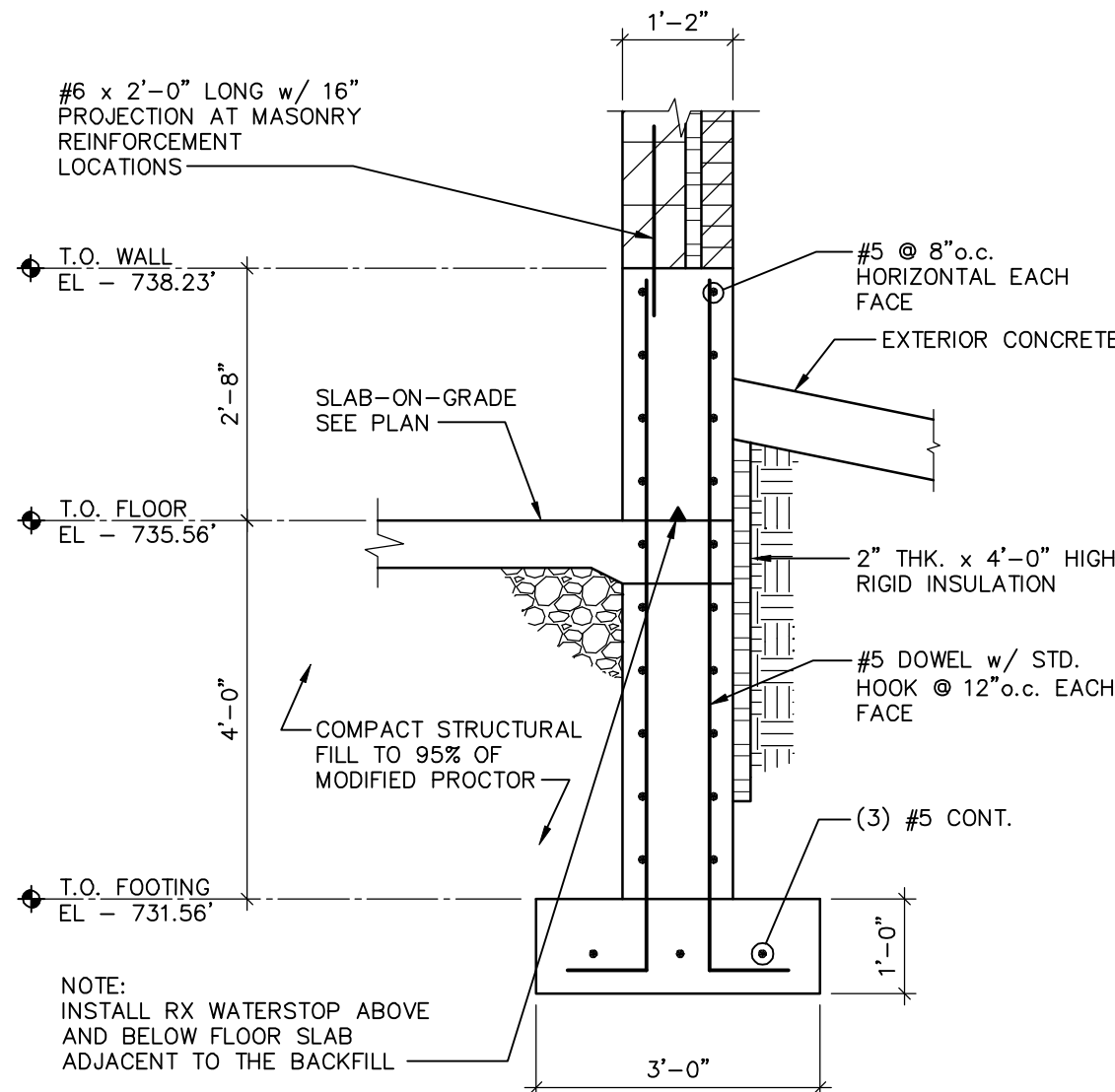
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RETAINING WALL DETAIL

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

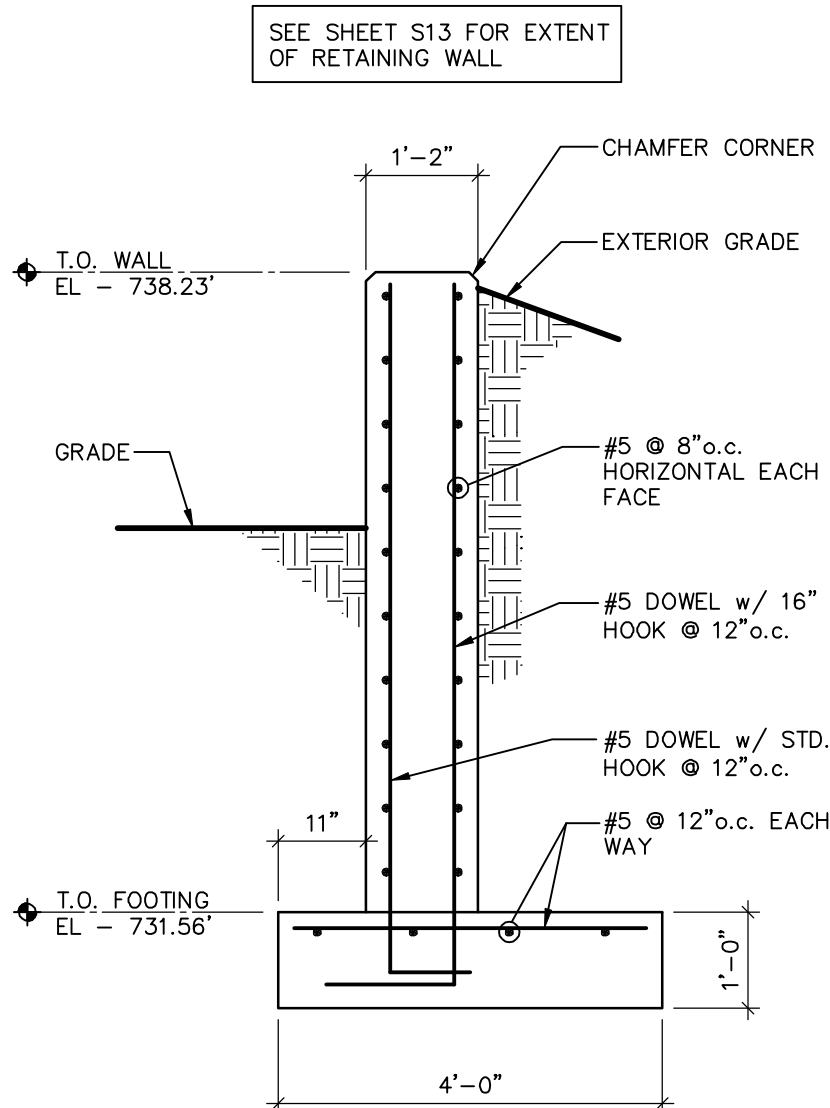
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RETAINING WALL DETAIL

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

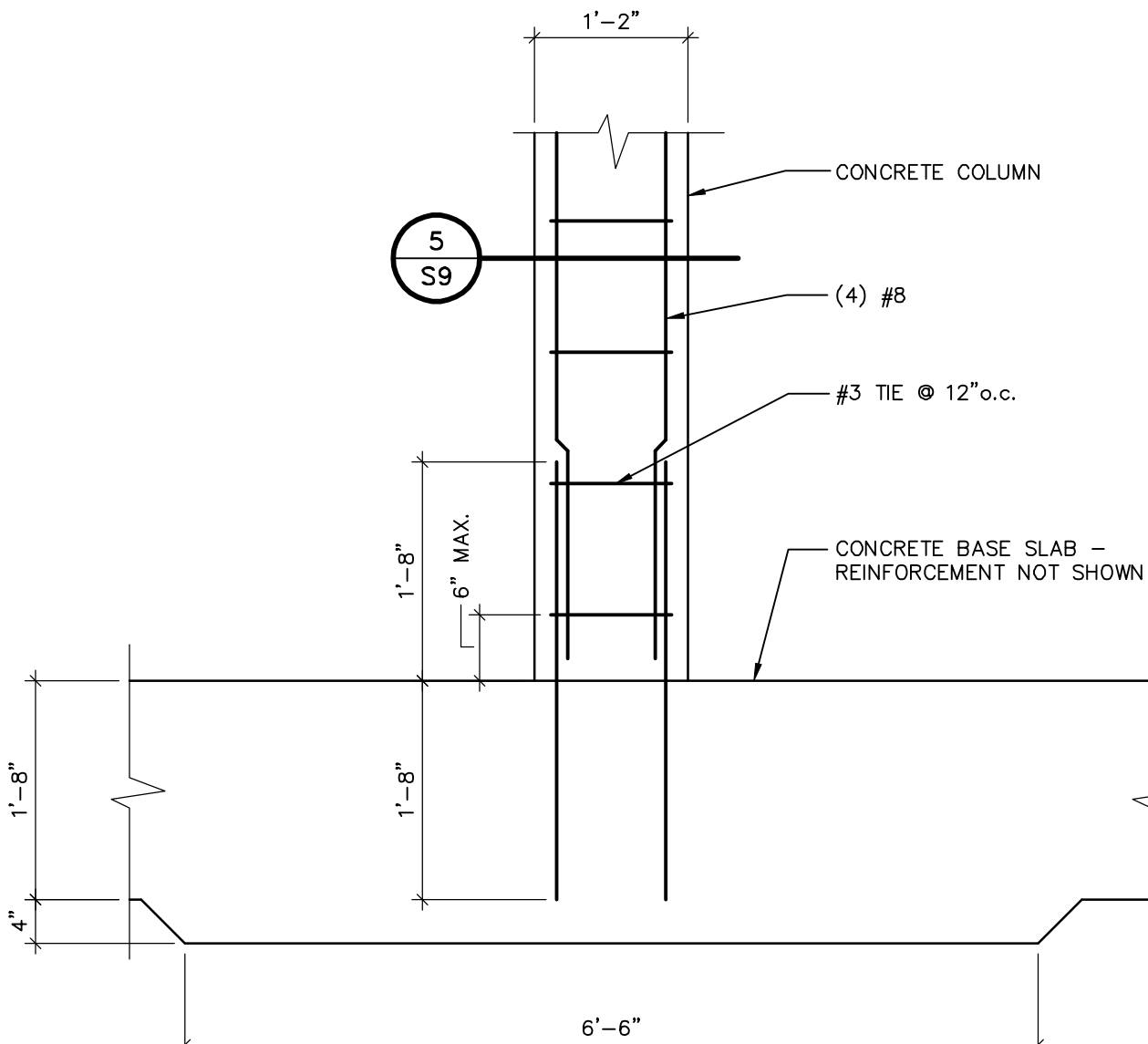
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RETAINING WALL DETAIL

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

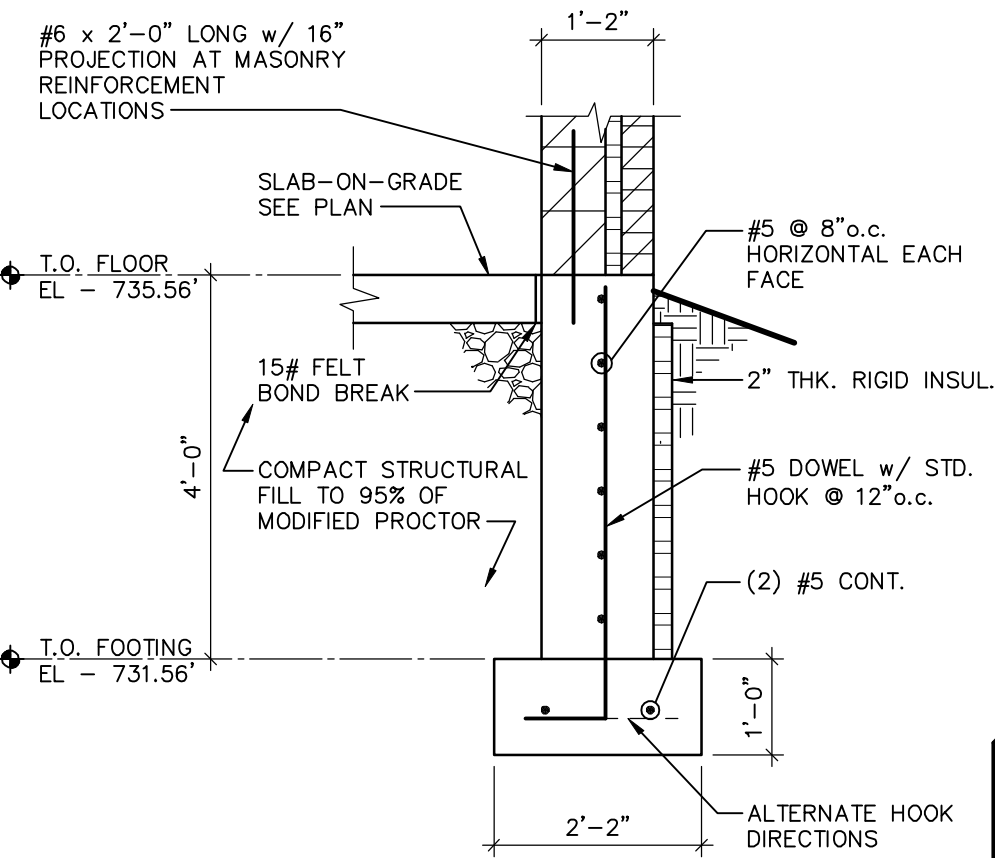
8 S9



COLUMN TO BASE SLAB CONNECTION

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

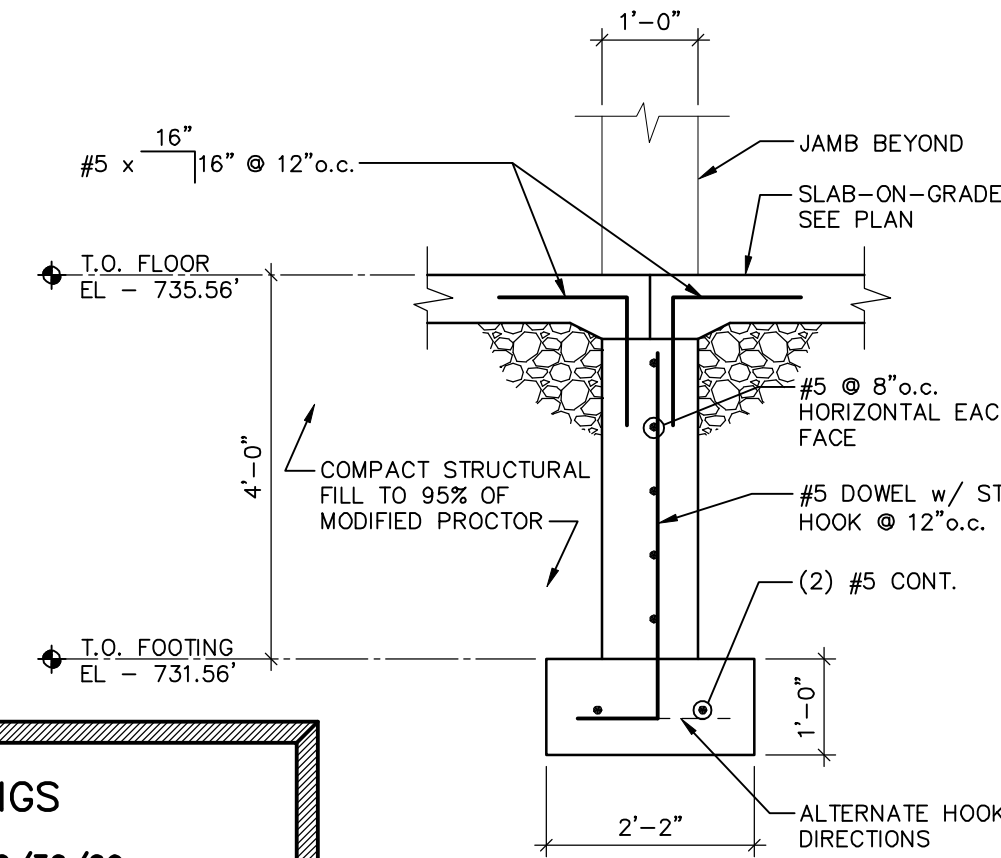
9 S9



FOUNDATION WALL DETAIL

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

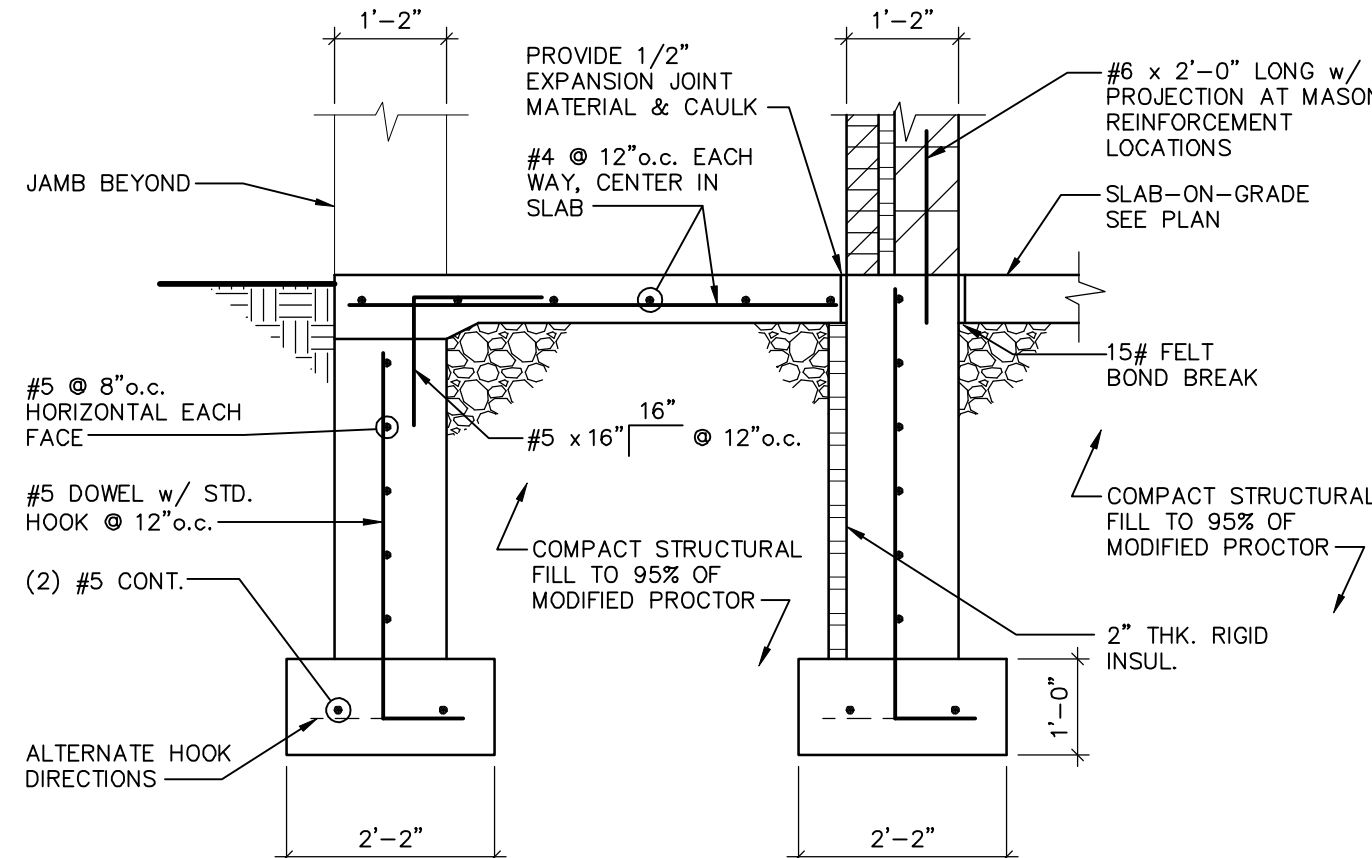
10 S9



FOUNDATION WALL DETAIL

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

11 S9



STOOP DETAIL

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

12 S9

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
CONCRETE AND FOUNDATION DETAILS

SCALE AS NOTED
DATE APRIL, 2007
PROJECT NO. RC0018-950446
SHEET NO.

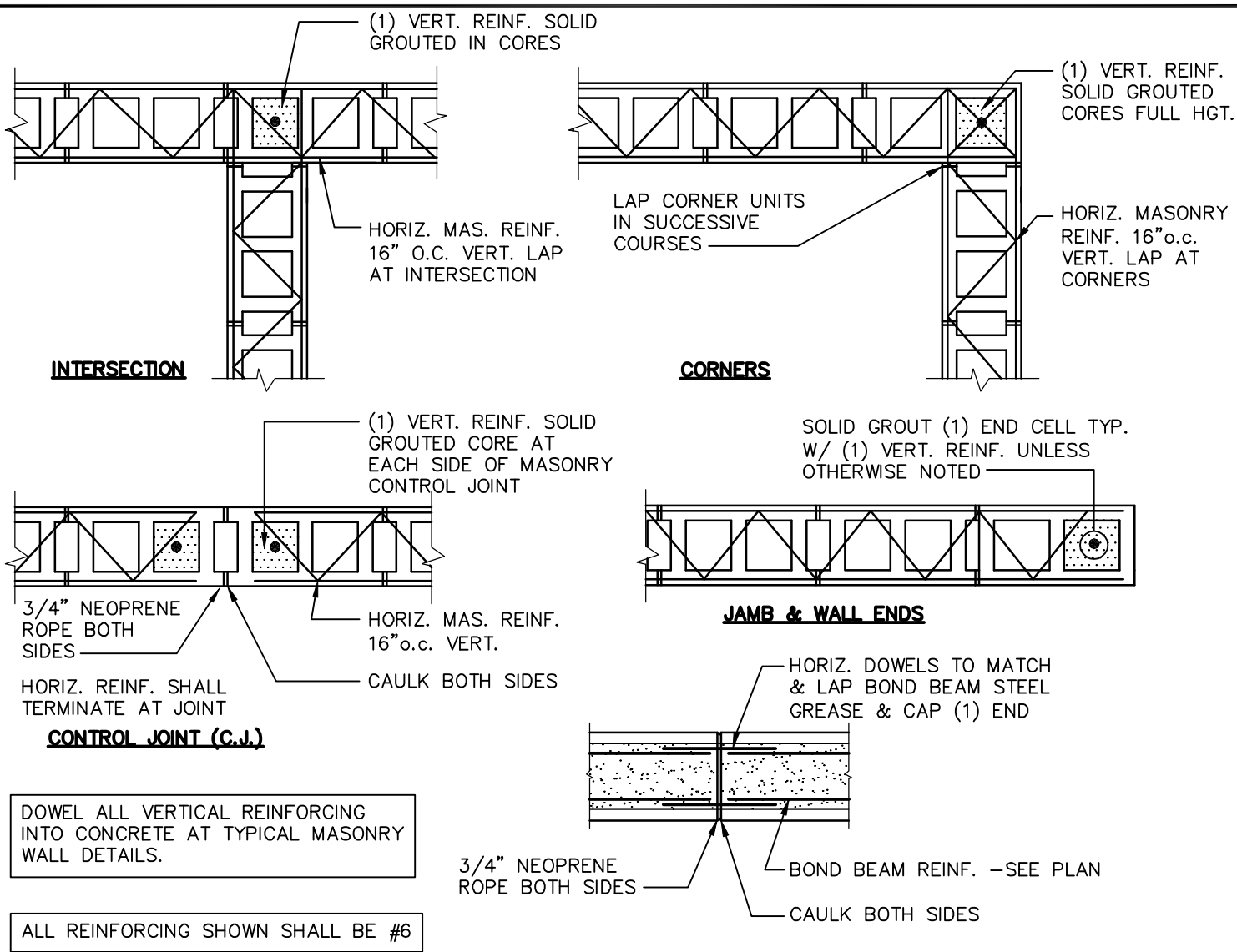
S9

FILE NO. CAD

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McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: NEENAH, WI 54956
TEL (920) 751-4200 FAX (920) 751-4204

NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	7/10/07	REVISED PER ADD. #1, #2
3	10/30/09	RECORD DRAWINGS



TYP. MASONRY DETAILS

NO SCALE

1
S10

MASONRY LINTEL

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

2
S10

STEEL LINTEL DETAIL

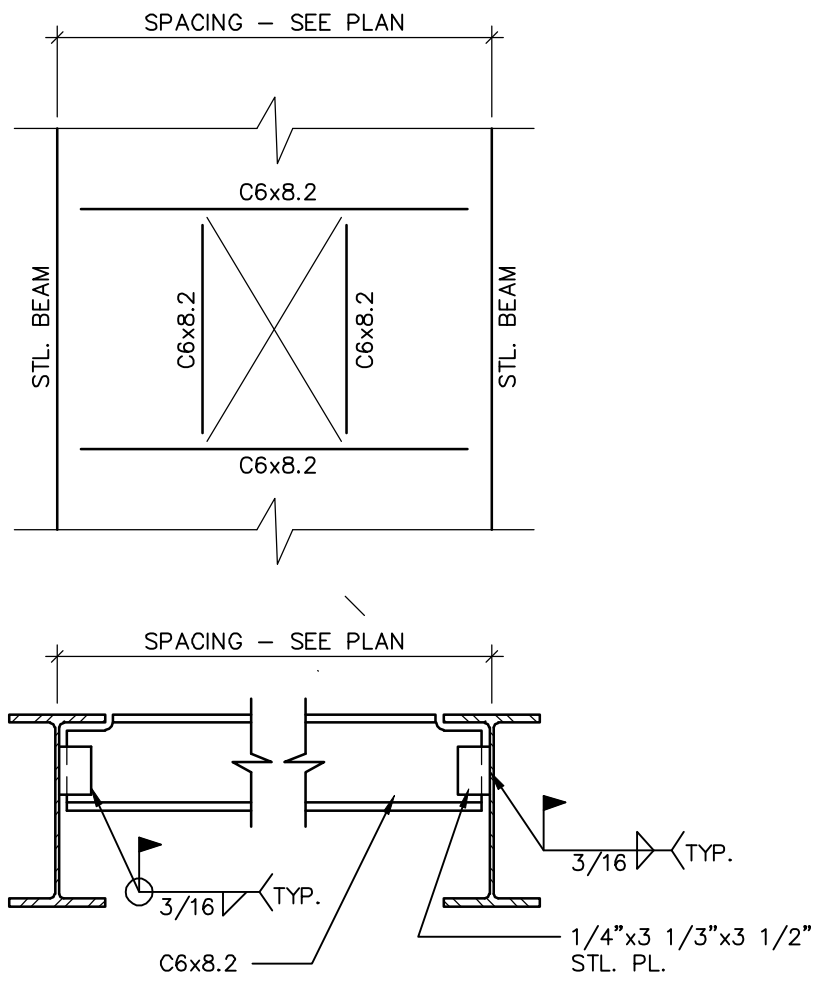
SCALE: 3/4" = 1'-0"

3
S10

SMALL DECK OPENING

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

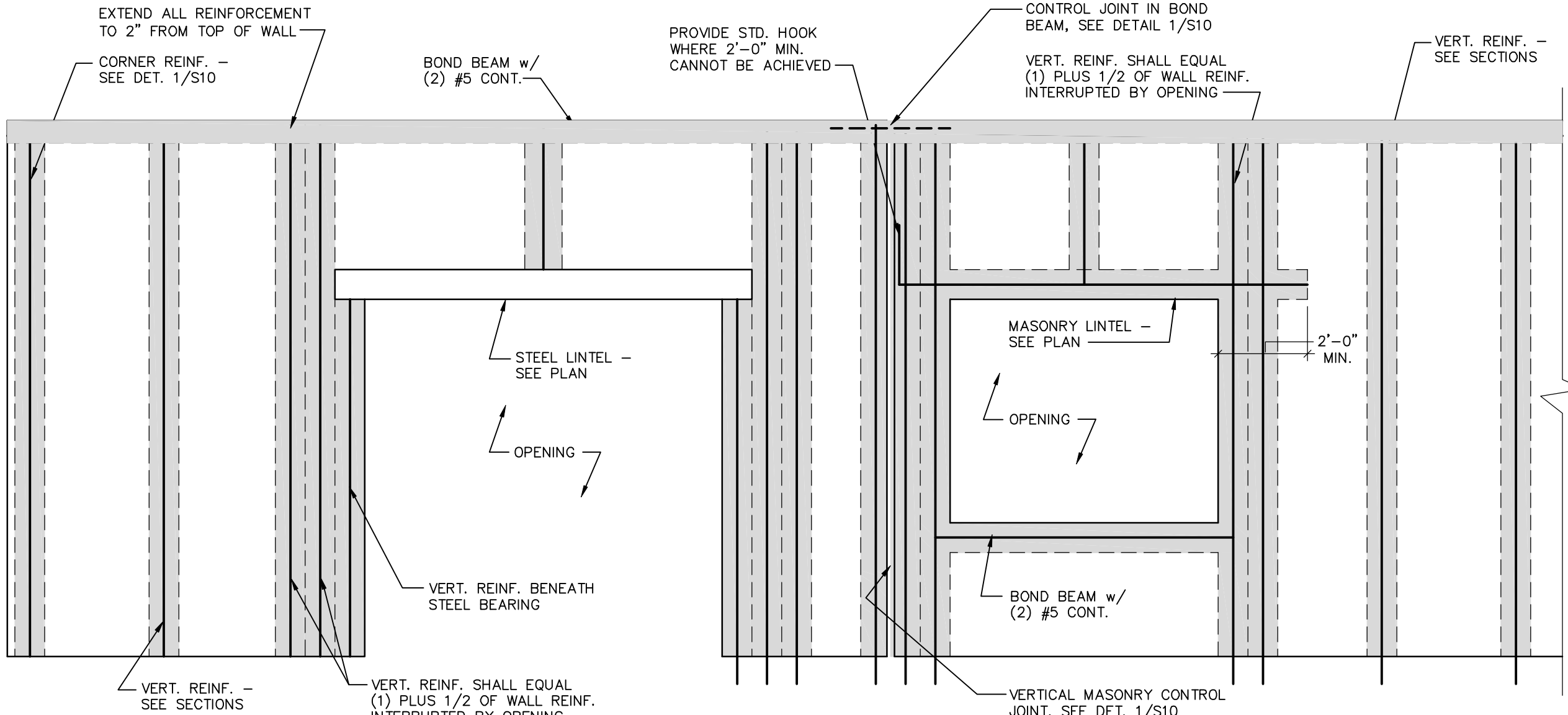
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S10



LARGE ROOF OPENING

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

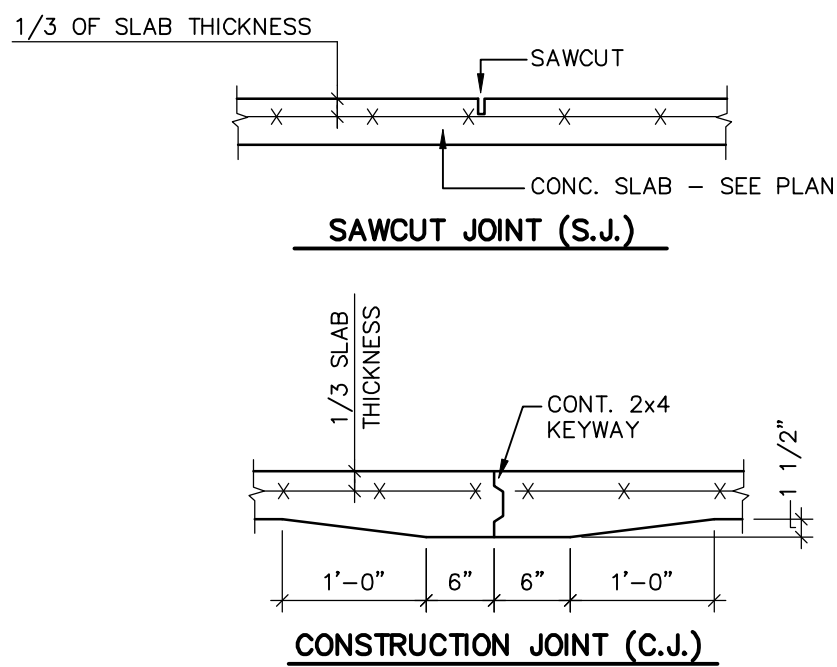
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S10



TYP. C.M.U. WALL CONSTRUCTION

NO SCALE

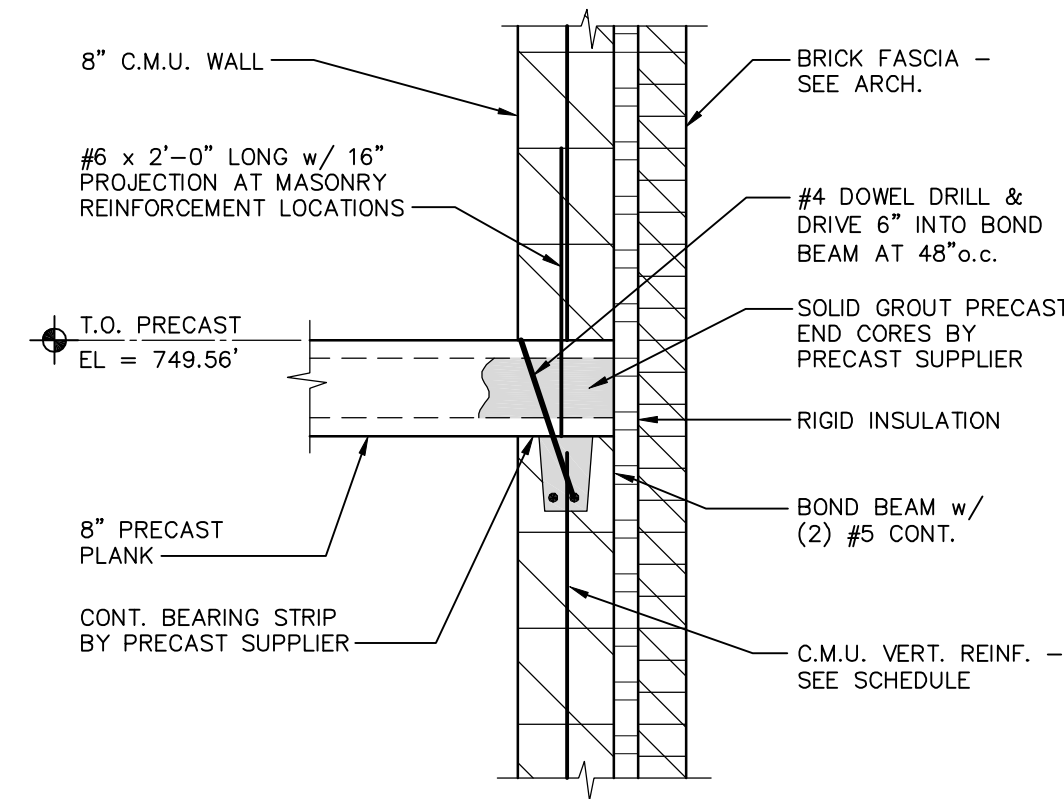
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S10



TYP. JOINTS IN SLAB ON GRADE

SCALE: NONE

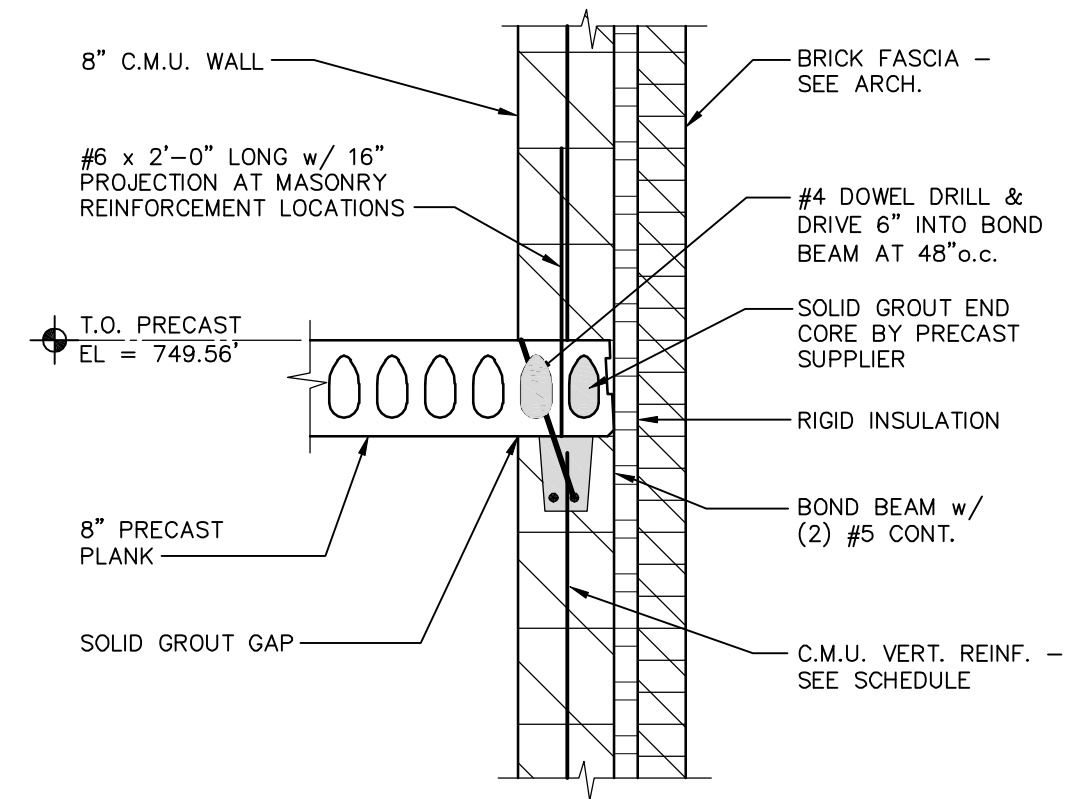
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S10



PRECAST BEARING AT C.M.U.

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

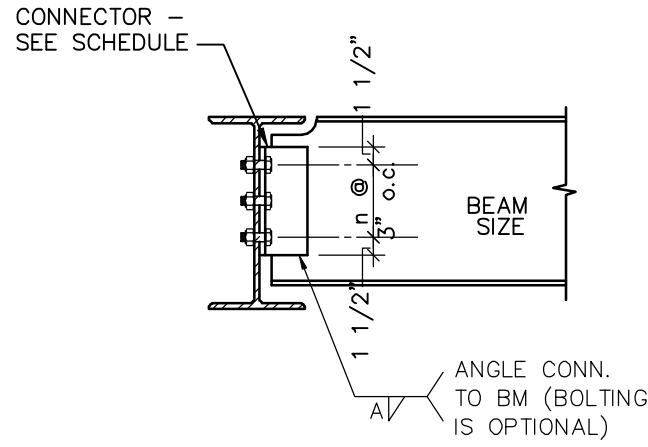
8
S10



PRECAST NON-BEARING AT C.M.U.

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

9
S10



BEAM SIZE	BOLTS	CONNECTOR	WELD 'A'	LRFD REACTION GRADE 50 BEAM
W8, W10	(2) 3/4" DIA.	(2)L3 1/2x 3 1/2x 1/4	3/16	21 K

BEAM CONNECTION DETAIL

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

10
S10

BEARING PLATE SCHEDULE		
BEAM	BEARING PLATE	NOTES
W12x26	1/2"x6"x1'-0"	-
W8x18	1/2"x6"x10"	-
W16x67	7/8"x6"x1'-0"	-
W16x26	3/4"x6"x1'-0"	-
W8x28	1/2"x7"x0'-7"	LINTEL
W8x18	1/2"x7"x0'-7"	LINTEL

BEARING PLATE SCHEDULE

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

11
S10

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
MASONRY & STEEL DETAILS

SCALE AS NOTED
DATE APRIL, 2007
PROJECT NO. RC018-950446
SHEET NO.

S10

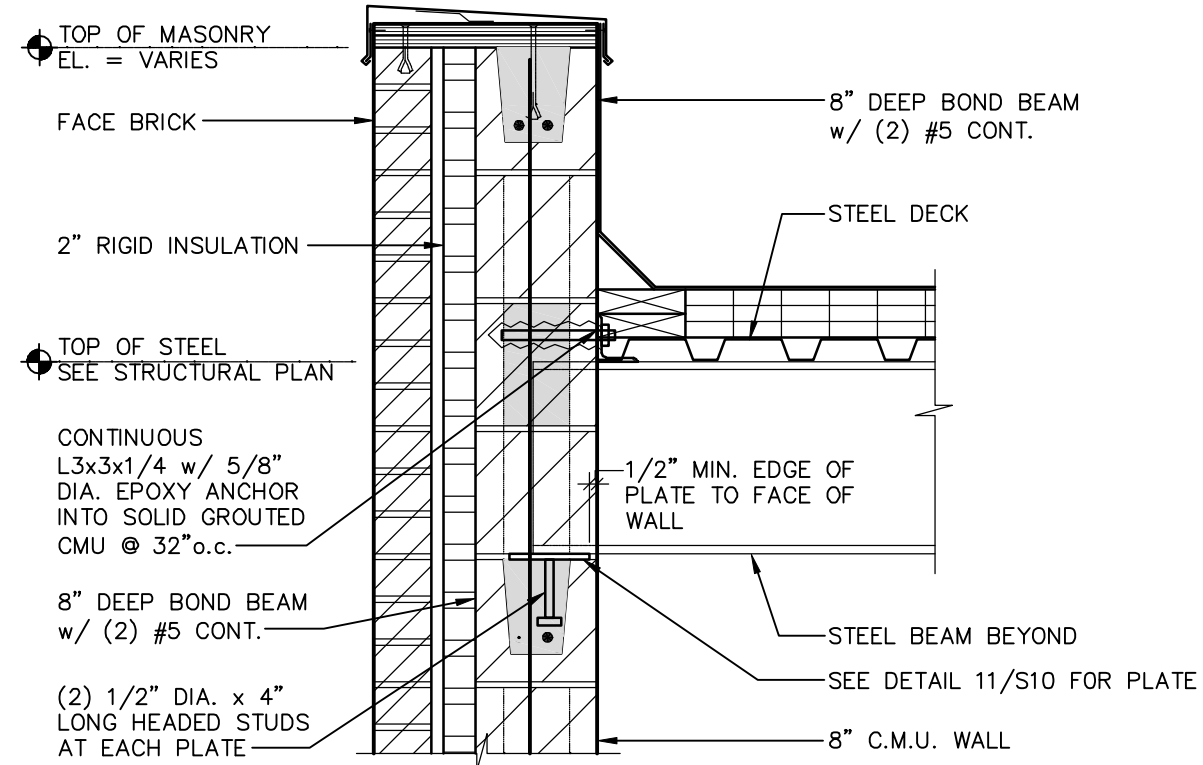
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McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956
TEL: (920) 751-4200 FAX: (920) 751-4204

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1	4/6/07	RELEASED FOR BIDDING
2	7/10/07	RELEASED FOR CONSTR.
3	10/30/09	RECORD DRAWINGS

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STEEL BEAM BEARING DETAIL

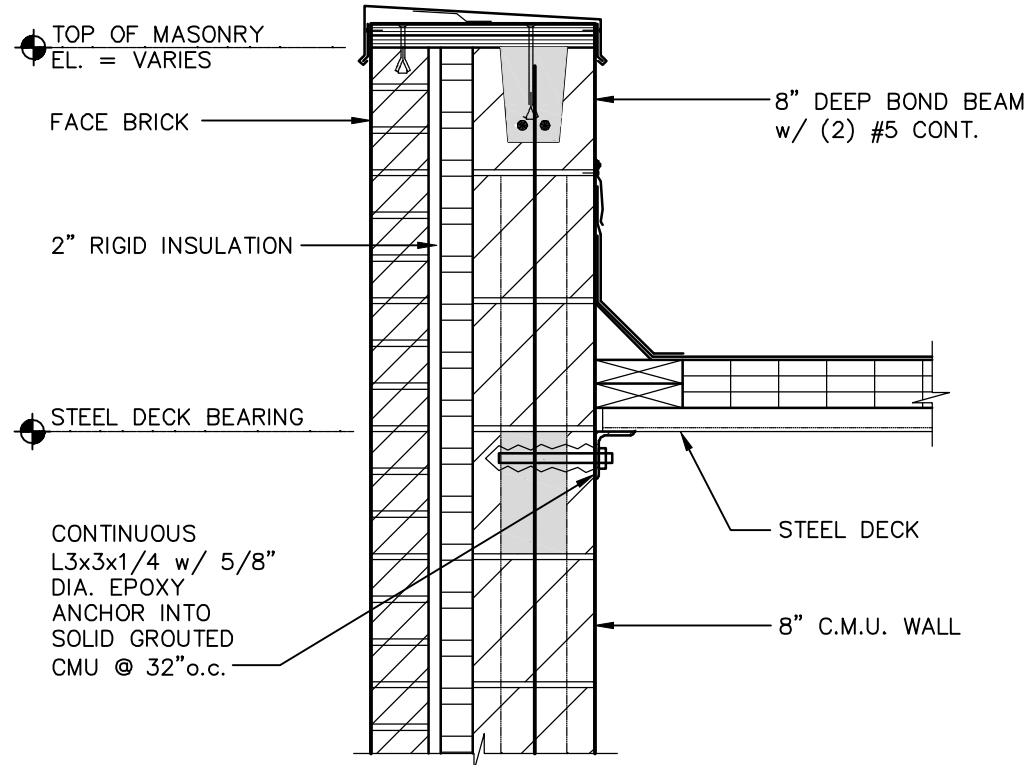
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1
S11

NOT USED

SCALE:

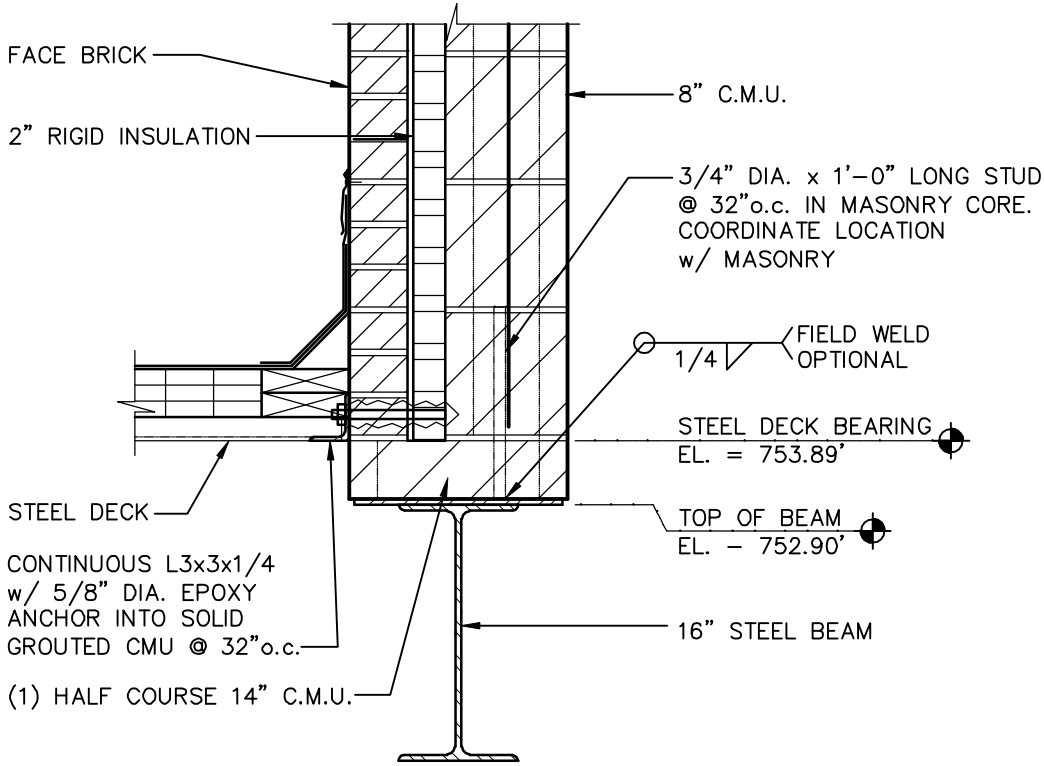
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S11



DECK SUPPORT DETAIL

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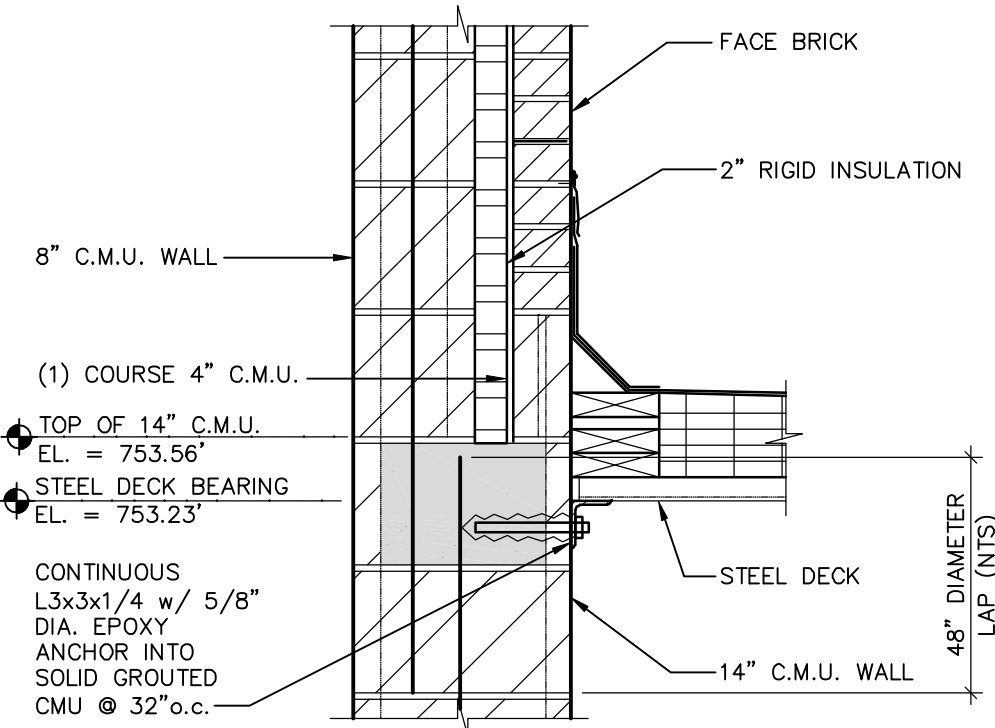
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S11



MASONRY SUPPORT BEAM DETAIL

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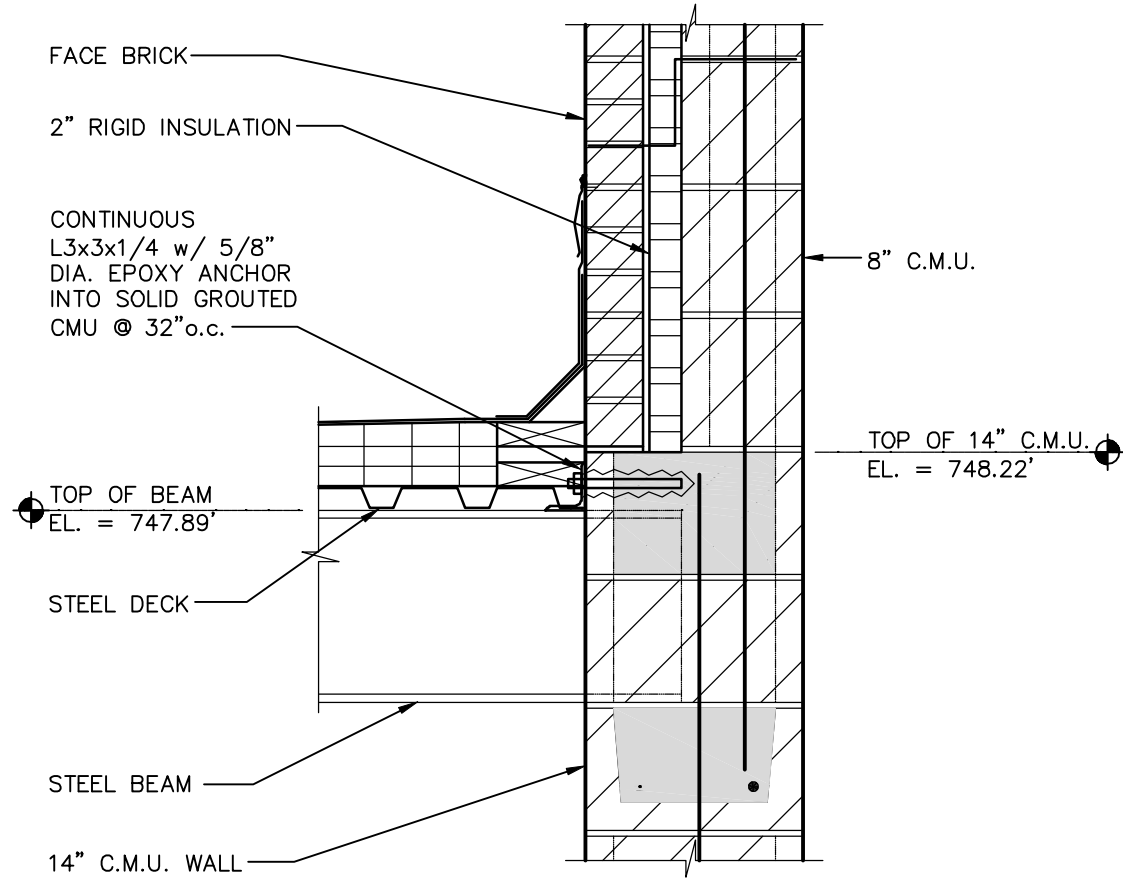
4
S11



MASONRY CHANGE/DECK DETAIL

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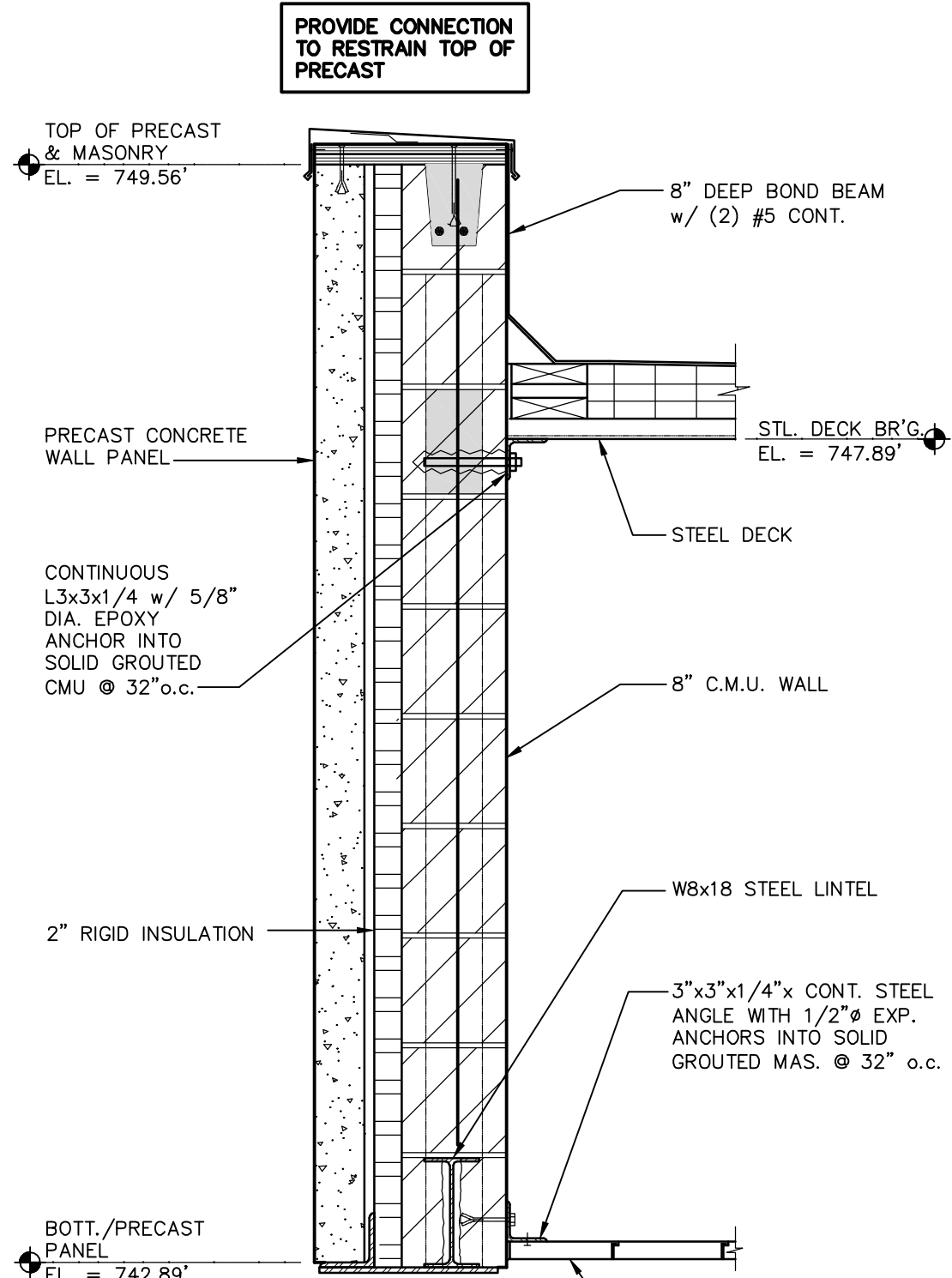
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S11



MASONRY/CHANGE BEAM DETAIL

SCALE: 1" = 1'-0"

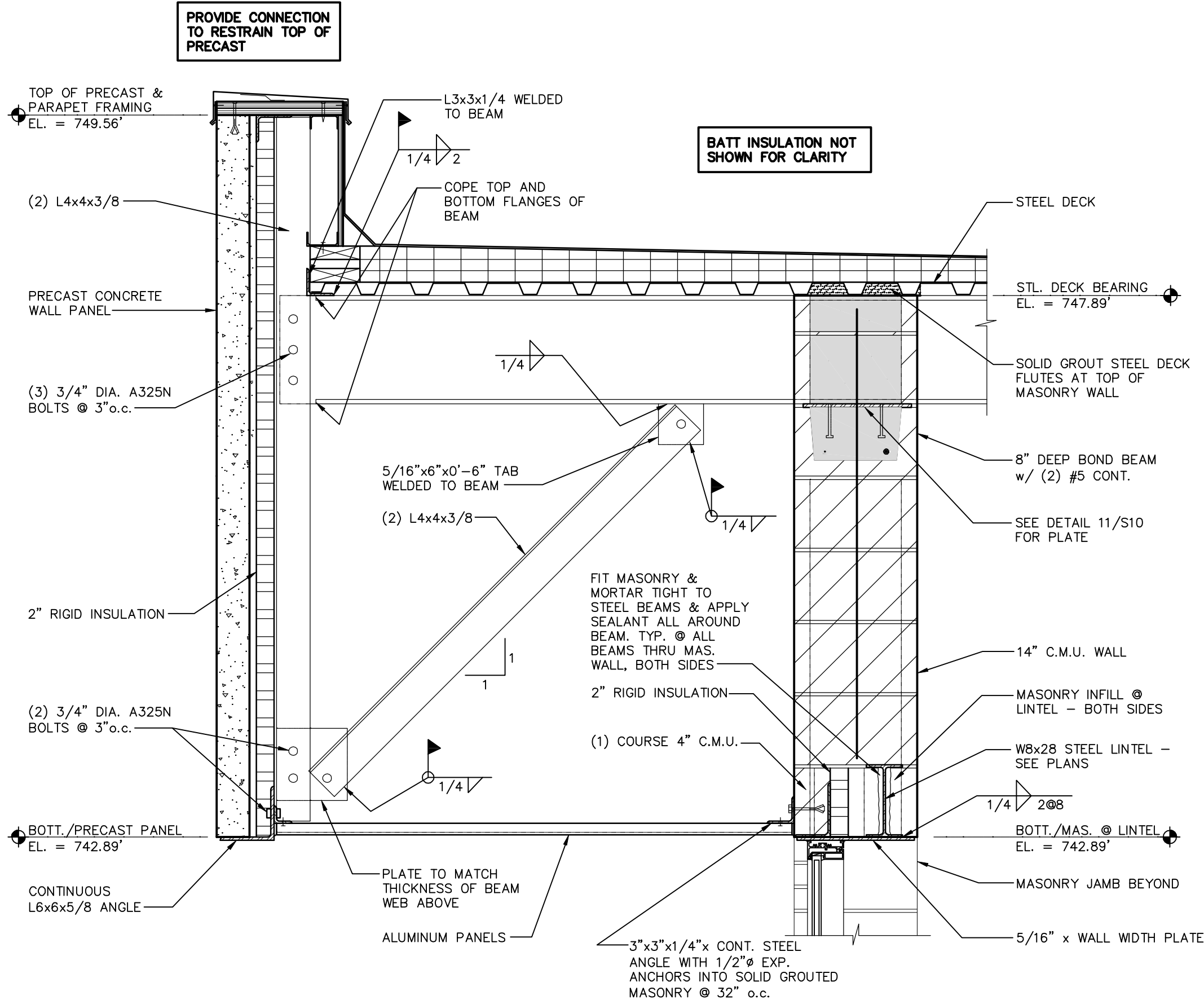
6
S11



MASONRY/PRECAST AT CANOPY DETAIL

SCALE: 1" = 1'-0"

7
S11



CANOPY DETAIL

SCALE: 1" = 1'-0"

8
S11

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
MASONRY & STEEL DETAILS

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
RC0018-950446

SHEET NO.

S11

FILE NO.
CAD

McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 MCMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: 1445 MCMAHON DRIVE
NEENAH, WI 54956
TEL: (920) 751-4200 FAX: (920) 751-4204

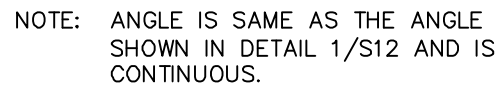
DESIGNED
MOB
DRAWN
SEG
CHECKED
MOB

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REVISION
NO. DATE
1 4/6/07 RELEASED FOR BIDDING
2 7/10/07 REVISED PER ADD. #1, #2
3 10/30/09 RECORD DRAWINGS



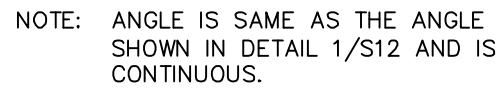
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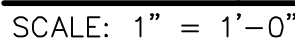
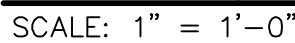
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SCALE: 1" = 1'-0"



SCALE: 1" = 1'-0"

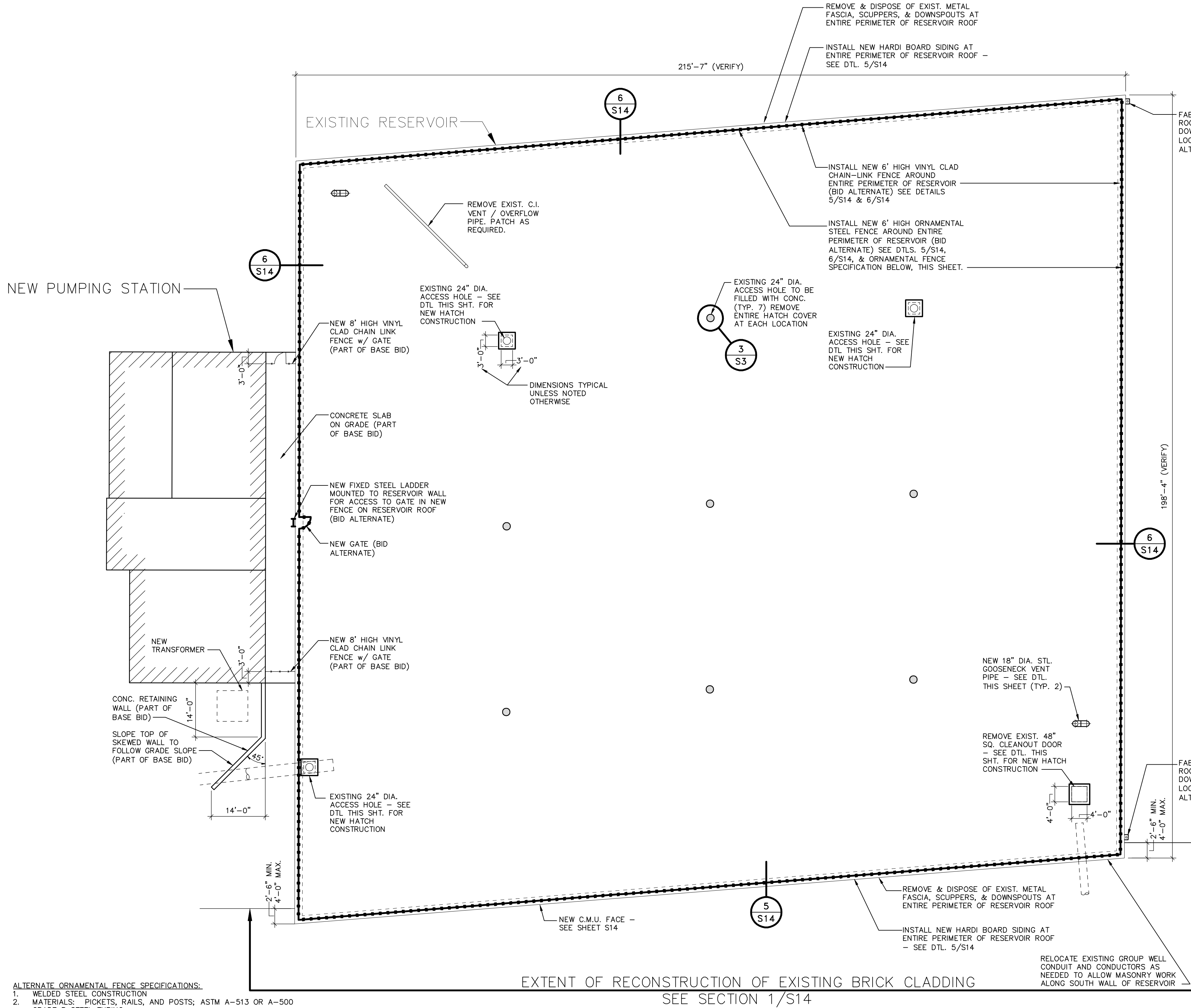


RECORD DRAWINGS	
DRAFTED BY:	<u>PGK 10/30/09</u>
CHECKED:	<u> </u>

- ALTERNATE ORNAMENTAL FENCE SPECIFICATIONS:
- WELDED STEEL CONSTRUCTION
 - MATERIALS: PICKETS, RAILS, AND POSTS: ASTM A-513 OR A-500 GRADE B STEEL TUBING.
 - COMPONENT SIZES:
 - RAILS: 1 1/2"x1 1/2" 14GA. STL. TUBE
 - PICKETS: 3/4"x3/4" 16GA. STL. TUBE @ 6" o.c.
 - POSTS: 2"x2" 14 OR 11GA. STL. TUBE W/PRESSED STL. CAP
 - SWING GATES: FRAMEWORK AS REQUIRED FOR SIZE, BUT NOT LESS THAN THAT OF PANELS.
 - POST SPACING: 8'-0" o.c.
 - POST ANCHORAGE: STEEL BASE PLATE WELDED TO POST AND EXPANSION BOLTED TO EXISTING CONCRETE RESERVOIR ROOF STRUCTURE. SHIM AS REQUIRED FOR LEVEL BASE PLATE AND PLUM POST. SEAL AROUND BASE PLATE PERIMETER.
 - WELD OR BOLT FENCE PANELS TO POSTS. FIELD WELDING OF RAIL TO POST. COMPLETE 360 DEGREE WELD. CLEAN AND PRIME WELDS THE SAME DAY WELDING IS PERFORMED. FINISH COAT TOUCH UP WELDS WITH FINISH OF SAME QUALITY, COLOR, AND GLOSS OF THAT USED BY MANUFACTURER.
 - MANUFACTURER: "ARISTOCRAFT" HEAVY FENCE SYSTEM, STYLE VARIATION #005, WITH "BFC GALVA-GUARD I" POLYURETHANE PAINTED FINISH, BY BUILDERS FENCE COMPANY, INC., OR EQUIVALENT. CONTACT BUILDERS FENCE CO., INC., SUN VALLEY, CA 1-800-767-0367.

RESERVOIR MODIFICATION PLAN

SCALE: 1/16" = 1'-0"



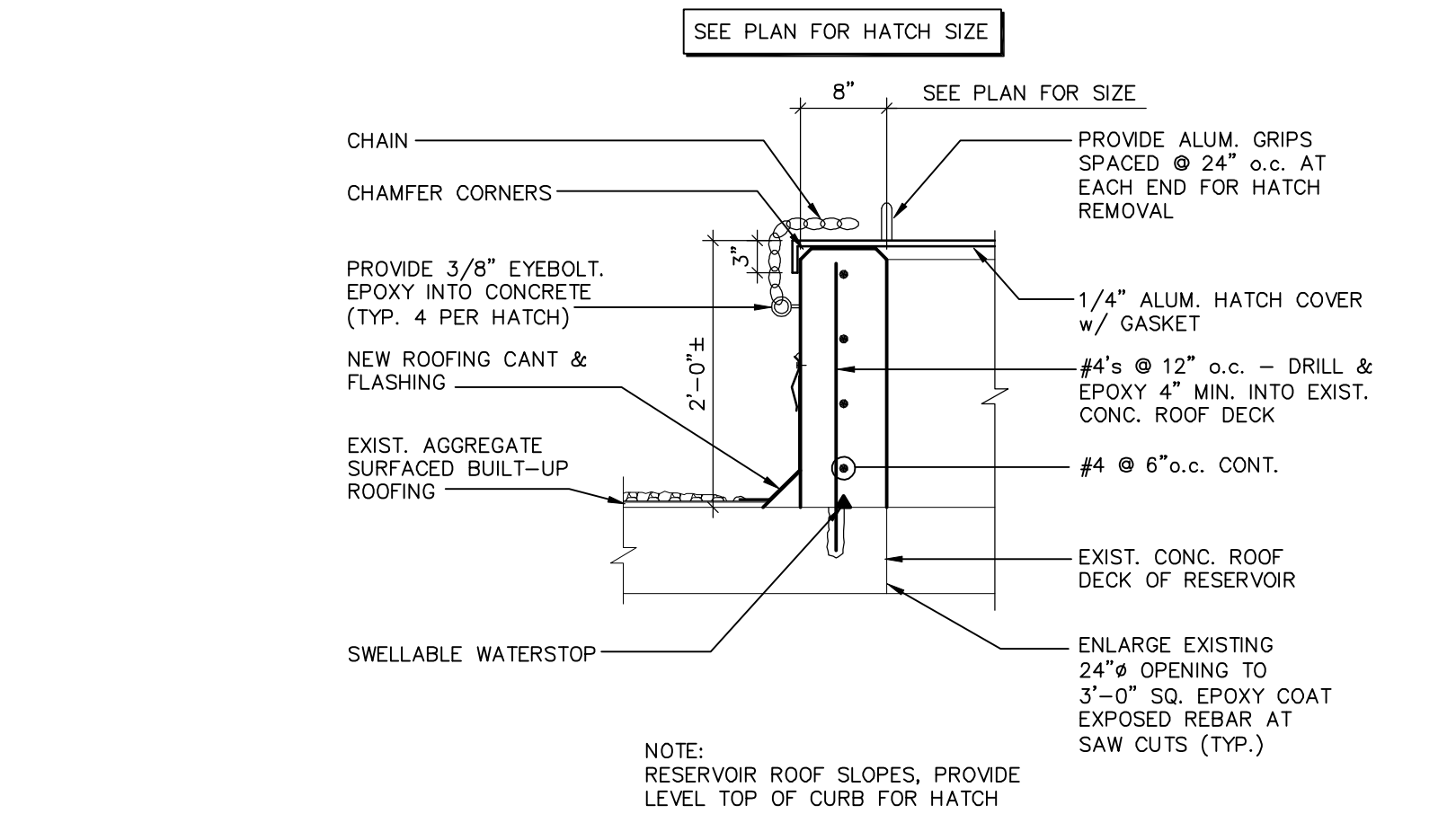
RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

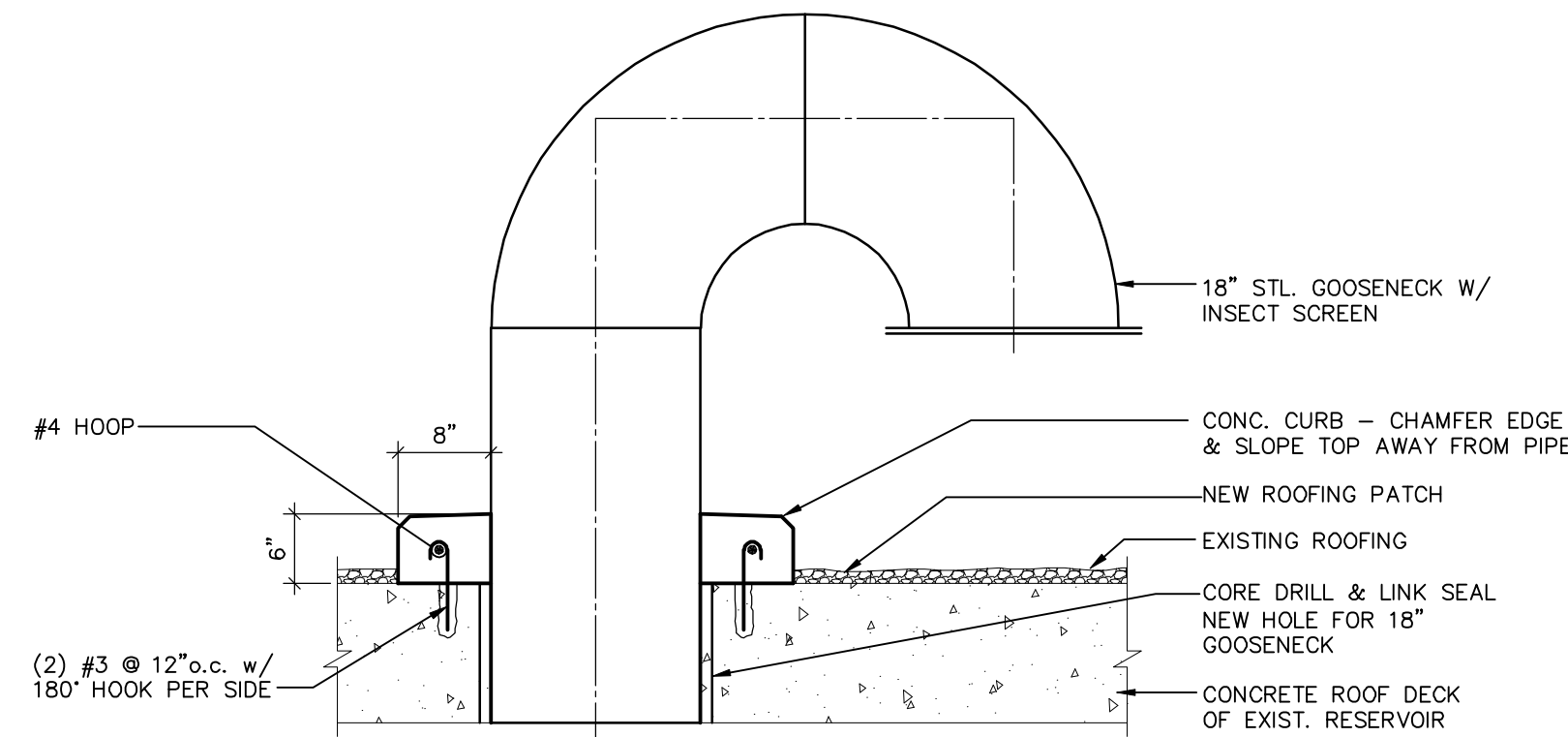
RESERVOIR ACCESS HATCH DETAIL

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



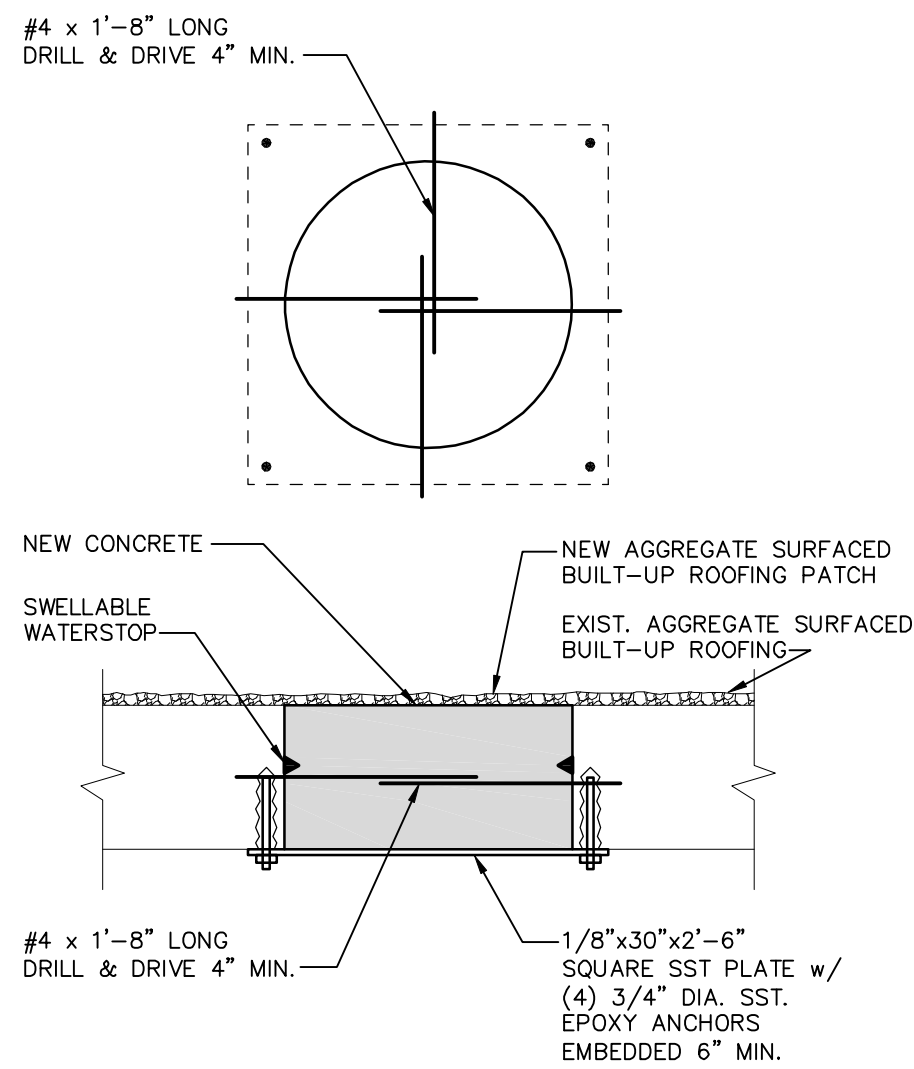
GOOSENECK VENT DETAIL

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



HOLE PATCH DETAIL

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



STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS RESERVOIR MODIFICATION PLAN

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

SHEET NO.

S13

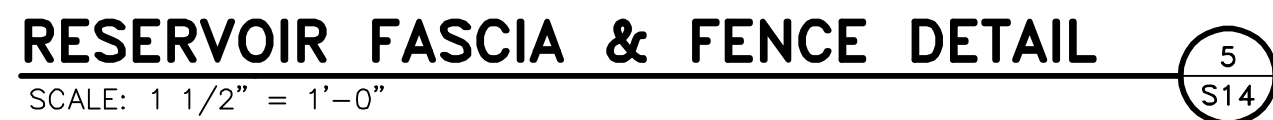
FILE NO.
CAD

NO.	DATE	REVISION	
		RELEASED FOR BIDDING	RELEASED FOR CONSTR.
1	4/6/07		
2	7/10/07		
3	10/30/09		

McMAHON ASSOCIATES
ENGINEERS/ARCHITECTS/SURVEYORS/PROJECT MANAGERS
1445 McMAHON DRIVE, NEENAH, WI 54956
MAILING: 3300 N. WAUWATAM AVE., SUITE 100, WAUWATAM, WI 53095
TEL: (920) 751-4200 FAX: (920) 751-4204

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DESIGNED	MOB	DRAWN	SEG	CHECKED	MOB
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	FILE NO. CAD	SHEET NO.	SCALE AS NOTED DATE APRIL, 2007 PROJECT NO. R0018-950446	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS RESERVOIR MODIFICATION SECTION	DESIGNED MOB DRAWN SEC CHECKED MOB	McMAHON ASSOCIATES, Inc. provides this document as advisory information only. It is not intended to constitute a contract or any other legal instrument of service. All rights reserved. Any reproduction or reuse of this document without written consent by McMahon Associates, Inc. is prohibited. The recipient agrees to the fullest extent possible to indemnify McMahon Associates, Inc. from all claims, damages, costs and expenses, including reasonable attorney's fees, arising from the original drawing or data without prior written consent by McMahon Associates, Inc.	McMAHON ASSOCIATES ENGINEERS & ARCHITECTS 1445 McMAHON DRIVE NEENAH, WI 54956 Mailing: P.O. BOX 1025 NEENAH, WI 54957-1025 Tel: (920) 751-4200 Fax: (920) 751-2284	NO. 1 2 3 	DATE 4/6/07 7/10/07 10/30/08 	REVISION RELEASED FOR BIDDING RELEASED FOR CONSTR. RECORD DRAWINGS
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	STEEL
	CAST IRON OR FIBERGLASS
	BRONZE OR ALUMINUM
	MASONRY
	INSULATION
	PLASTIC, RUBBER OR NEOPRENE
	GRAVEL
	CONCRETE
	SOIL
	SAND
	WOOD (FINISH)

	ALUMINUM OR METAL DECKING
	CHECKERED PLATE
 PAN	GRATING

FHC		FIRE HOSE CABINET
FEX		FIRE EXTINGUISHER
FEXC		FIRE EXTINGUISHER CABINET
UH		UNIT HEATER

		WCO	WALL CLEANOUT
		FCO	FLOOR CLEANOUT
			BLOW OFF ASSEMBLY
			HUB DRAIN
			FLOOR DRAIN
			FLOOR SINK
			DRAIN TRAP

	VAULT OR JUNCTION STRUCTURE
	CHANGE IN PIPING MATERIAL
	ROUND OR DIAMETER
	SQUARE
	AT
	ANGLE
	DRAIN - SCHEMATIC
	NUMBER (PREFIX) POUNDS (SUFFIX)
	NEW STRUCTURAL COLUMN LINE NUMBER
	EXISTING STRUCTURE COLUMN LINE NUMBER
 NIC	EQUIPMENT, ITEMS OR DETAILS NOT PERTAINING TO THIS CONTRACT OR PROJECT ARE SHOWN THUS WITH THE NIC = NOT IN CONTRACT

	EQUIPMENT NUMBER (SEE EQUIPMENT SCHEDULE)
	BACKWATER VALVE
	BACKFLOW PREVENTER
	STOP GATE
	SLIDE GATE
	SLUICE GATE
	AIR VACUUM AND AIR RELEASE ASSEMBLY
	THERMOMETER
	INJECTOR OR EDUCTOR
	FLAME ARRESTER
	CENTRIFUGAL OR TURBINE PUMP OR FAN
	METERING PUMP
	PROGRESSING CAVITY, POSITIVE DISPLACEMENT PUMP
	BLOWER OR COMPRESSOR
	FLOW TUBE
	MAGNETIC METER
	DENSITY METER
	PROPELLER METER
	MASS FLOW METER
	ORIFICE PLATE AND FLANGES
	ROTAMETER
	CONDENSATE TRAP
	PIPE SUPPORT (IN PLAN ONLY)
	PIPE ANCHOR
	PULSATION DAMPENER
	EXPANSION CHAMBER WITH RUPTURE DISC
	RUPTURE DISC
	FLOW SIGHT GLASS
	HOSE BIBB (H/B)

FLANGED JOINT

MECHANICAL JOINT (MJ)
(R=RESTRAINED)

WELDED JOINT (STANDARD)

FABRICATED JOINT

PUSH ON JOINT (BELL AND SPIGOT)

THREADED JOINT

SOCKET JOINT (PVC SOLVENT WELD)

FLEXIBLE TYPE COUPLING

GROOVED TYPE COUPLING (RIGID)

HARNESSE ASSEMBLY (RESTRAINED JOINT)

CUT PIPE (DOUBLE LINE AND SINGLE LINE)

	FLANGED JOINT
	MECHANICAL JOINT (MJ) (R=RESTRAINED)
	WELDED JOINT
	PUSH ON (BELL AND SPIGOT JOINT)
	GROOVED TYPE JOINT (RIGID)
	SCREWED, SOCKET-WELD, FABRICATED OR HUBLESS JOINTS
	FLEXIBLE TYPE COUPLING
	FLANGED ADAPTER COUPLING
	FLANGED ADAPTER - SET SCREW TYPE
	EXPANSION JOINT
	GROOVED TYPE COUPLING (RIGID)
	VIBRATION AND EXPANSION TYPE COUPLING
	UNION
	QUICK DISCONNECT COUPLER
	CAPPED END OR PLUGGED END
	BLIND FLANGE
	REDUCER OR INCREASER
	REDUCED PRESSURE BACKFLOW PREVENTER
	CALIBRATION COLUMN

	GATE VALVE, BURIED WITH VALVE BOX
	BUTTERFLY VALVE, BURIED WITH VALVE BOX
	ECCENTRIC PLUG VALVE, BURIED WITH VALVE BOX
	LUBRICATED PLUG VALVE, BURIED WITH VALVE BOX
	GATE VALVE
	BUTTERFLY VALVE
	ECCENTRIC PLUG VALVE
	LUBRICATED PLUG VALVE
	GLOBE VALVE
	BALL VALVE
	DIAPHRAGM VALVE
	GENERIC CHECK VALVE (SPRING LOADED)
	SWING CHECK VALVE
	DOUBLE FLAP CHECK VALVE
	BALL CHECK VALVE
	PRESSURE REGULATING VALVE
	BACK-PRESSURE VALVE
	MOTOR OPERATOR FOR VALVES (M = ELECTRIC, P = PNEUMATIC)
	TEMPERATURE CONTROL VALVE
	SOLENOID VALVE
	MULTIPORT VALVE - 3 WAY
	MULTIPORT VALVE - 4 WAY
	FLOAT OPERATED VALVE
	NEEDLE VALVE
	BUBBLER LEVEL CONTROL
	Gauge: x = G - GENERIC x = P - PRESSURE x = V - VACUUM x = C - COMBINATION x = S - PRESSURE SWITCH
	Gauge with DIAPHRAGM SEAL: x = G - GENERIC x = P - PRESSURE x = V - VACUUM x = C - COMBINATION x = S - PRESSURE SWITCH
	STRAINER
	PRESSURE RELIEF VALVE
	ANGLE VALVE

NOTE: THE SYMBOLS DRAWING IS A STANDARD DRAWING, THEREFORE, ALL SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT BE INCLUDED WITHIN THIS PROJECT OR SHOWN ON THE PLANS OR DRAWINGS.

ALL SCREENED SYMBOLS SHOWN ON THE DRAWINGS REPRESENT EXISTING OR DISCIPLINE BACKGROUND (TYP)

SECTION CUT CALLOUT

ON DRAWING M-12 SECTION CALLOUT AS FOLLOWS:

SECTION NUMBER

DRAWING NO. WHERE SECTION DRAWING IS SHOWN, SEE NOTE 1

PREFIX LETTER SEE NOTE 2

SECTION DRAWING CALLOUT

TYPICAL DETAIL IDENTIFICATION

SECTION NUMBER

SCALE

AS REQUIRED, SEE NOTE 7

DRAWING CROSS REFERENCE NO. WHERE SECTION CUT IS SHOWN SEE NOTE 1

PREFIX LETTER SEE NOTE 2

DETAIL IDENTIFICATION

NON-TYPICAL

DETAIL LETTER IDENTIFICATION

DRAWING NO. WHERE DETAIL DRAWING IS SHOWN, SEE NOTE 1

PREFIX LETTER SEE NOTE 2

DETAIL CALLOUT

ON DRAWING M-12 DETAILCALLOUT AS FOLLOWS:

DETAIL LETTER IDENTIFICATION

PREFIX LETTER SEE NOTE 2

DETAIL REFERENCE BUBBLE SHOWN FOR DETAIL PLAN OR SECTION

DESCRIPTION

SCALE

AS REQUIRED, SEE NOTE 7

DRAWING CROSS REFERENCE NO. WHERE DETAIL CALLOUT IS SHOWN SEE NOTE 1

SECTION AND DETAIL CALLOUTS DESIGNATE IN NOTE OR TEXT FORM SHALL BE DESIGNATE, SECTION 1/M-12 AND DETAIL A/M-12 FOR EXAMPLE

1. IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A HORIZ. LINE.
2. NOT USED
3. ELECTRICAL SYMBOLS SHOWN ON ELECTRICAL SHEETS.
4. FOR WELDING SYMBOLS USE AMERICAN WELDING SOCIETY STANDARD SYMBOLS, SEE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL
5. FOR ADDITIONAL HVAC SYMBOLS AND ABBREVIATIONS SEE HVAC ABBREVIATION AND SYMBOLS LEGEND
6. INFORMATION INCLUDES FOR EXAMPLE, NO. OF PLACES ITEM IS REQUIRED, SIMILAR, MATERIAL DESIGNATION, SPECIFIC INFORMATION TO CONTRACTOR, ETC
7. ALL PLAN, SECTION AND DETAIL CALLOUTS WHICH REPRESENT EXTERNAL REFERENCE FILES LIST XREF FILENAME WITH EXTENSION JUST BELOW THE SCALE DESIGNATION.

DRAFTED BY: PGK 10/30/09
CHECKED: _____

FILE NO.	SHEET NO.		SCALE AS NOTED DATE APRIL, 2007 PROJECT NO. R0018-950446	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS SYMBOLS AND ABBREVIATIONS		DESIGNED D.W. DRAWN PCK CHECKED	McMahon Associates, Inc. provides this information as a service to its clients. All engineering drawings are prepared by the registered professional engineers of McMahon Associates, Inc. All rights including copyrights are retained by McMahon Associates, Inc. The recipient agrees to the fullest extent that McMahon Associates, Inc. warrants for the drawings and information shown on the original drawing or data without prior written consent by McMahon Associates, Inc.	McMahon Associates, Inc. 1445 McMahon Drive Mailing Address: P.O. Box 1025 Neenah, WI 54957-1025 TEL: 920-751-4284 FAX: 920-751-4284	NO. 1 2	DATE 4/6/07 10/30/09	REVISION RELEASED FOR BIDDING RECORD DRAWINGS

PIPE SCHEDULE			
ABBRV. SEE NOTE 3	SERVICE	TEST METHOD	TEST PRESSURE (PSI)
AA	AQUA AMMONIA	HH	150
AS	AIR SCOUR OR AIR AGITATION	AM	50
BRN	BRINE	HH	50
BWS	BACKWASH SUPPLY	HH	50
CA	CITRIC ACID	HH	150
CAW	CHANNEL AGITATION WATER	HH	50
CBW	CONTACTOR BACKWASH SUPPLY	HH	50
CDT	CONDUIT	--	--
CIN	CORROSION INHIBITOR	HH	150
CE	CONTACTOR EFFLUENT	HH	50
CF	CLEANING FEED	HH	50
CHWS	GLYCOL CHILLED WATER SUPPLY	HH	NOTE 2
CHWR	GLYCOL CHILLED WATER RETURN	HH	NOTE 2
CLS	CHLORINE	HH	50
CN	CENTRATE	HH	150
CO2	CARBON DIOXIDE (GAS & VAPOR)	AM	150
CO2S	CARBON DIOXIDE SOLUTION	HH	150
CR	CLEANING RETENTATE	HH	50
CS	CAUSTIC SODA	HH	150
CTW	CONTACTOR TO WASTE	HH	50
CWW	CONTACTOR WASTE WASHWATER	HH	50
DR	DRAIN	GR	NOTE2
FI	FILTER INLET	HH	50
FBW	FILTER BACKWASH SUPPLY	HH	50
FC/AL	COAGULANT (FERRIC CHLORDE/ALUM)	HH	50
FE	FILTER EFFLUENT	HH	50
FP	FIRE PROTECTION	HH	150
FTW	FILTER TO WASTE	HH	50
FW	FINISHED WATER	HH	50
FWW	FILTER WASTE WASHWATER	HH	50
HWS	HOT WATER SUPPLY	HH	NOTE 2
HF	FLUOSILIC ACID	HH	150
IRR	IRRIGATION WATER (MUNICIPAL)	GR	--
IW	IRRIGATION WATER	HH	150
NG	NATURAL GAS	AM	NOTE 2
OF	OVERFLOW	GR	--
OZS	OZONE SOLUTION	HH	150
PA	PLANT AIR	AM	200
PA1	PLANT AIR TYPE 1 (INSTRUMENT QUALITY)	AM	200
PA2	PLANT AIR TYPE 2 (SHOP QUALITY)	AM	200
PAC	POWDERED ACTIVATED CARBON	HH	150
PD	PERMEATE TO DRAIN	GR	--
PEA	POLYMER - ANIONIC/NONIONIC	HH	150
PEC	POLYMER - CATIONIC	HH	150
PPH	POLYPHOSPHATE	HH	50
PR	PRODUCTION RETENTATE	LH	20
PV	PERMEATE VENT	GR	--
PW	POTABLE WATER	HH	150
RC	RECARBONATED WATER	GR	--
RD	RESERVOIR DRAIN	GR	--
RDW	RECYCLE DECANT WATER	HH	150
RV	RETENTATE VENT	GR	--
RW	RAW WATER	HH	50
RWW	RECYCLE WASH WATER	HH	150
SA	SODA ASH	HH	150
SB	SODIUM BISULFITE	HH	150
SD	STORM DRAIN	GR	--
SH	SODIUM HYPOCHLORITE	HH	150
SL	SLUDGE	HH	150
SLT	SALT	HH	50
SP	SAMPLE LINE	HH	50
SPD	SUMP PUMP DISCHARGE	LH	20
SPR	SPARE	HH	150
SS	SODIUM SILICATE	HH	50
SW	SOFTENED WATER	GR	--
TE	THICKENER EFFLUENT	GR	--
TOF	THICKENER OVERFLOW	GR	--
TS	THICKENED SLUDGE	HH	150
TWS	TEMPERED WATER SUPPLY	HH	150
UW1	UTILITY WATER TYPE 1 (POTABLE PROTECTED)	HH	150
UW2	UTILITY WATER TYPE 2 (NON-POTABLE)	HH	150
VNT	VENT	--	--
WWD	WASHWATER DISCHARGE	HH	150
NOTE1: SEE SPEC SECTION 15956 FOR TEST METHODS AND LEAKAGE ALLOWANCE NOTE2: TEST IN ACCORDANCE WITH APPLICABLE PLUMBING CODE NOTE3: PIPE SCHEDULE INCLUDES SOME DESIGNATIONS NOT INCLUDED WITHIN THIS PROJECT OR DESIGNATED IN THE PLANS OR DRAWINGS			

PIPE MATERIALS SCHEDULE		
ABBRV.	MATERIAL	FITTINGS
C6	HUBLESS CAST IRON PIPE	CAST IRON, ASTM A 74
C7	HUB AND SPIGOT CAST IRON SOIL PIPE	CAST IRON, ASTM A 74
CU1	COPPER, SOFT TEMPERED, TYPE "K"	COPPER, SOLDERED JOINTS
CU2	COPPER HARD TEMPERED, TYPE "K"	COPPER, SOLDERED JOINTS
CU3	COPPER HARD TEMPERED, TYPE "L"	COPPER, SOLDERED JOINTS
D1	DUCTILE IRON, AWWA, C150, PC150, CEMENT MORTAR LINED, RESTRAINED	DUCTILE IRON, AWWA C110, CL 150
D2	DUCTILE IRON, AWWA, C150, PC150, CEMENT MORTAR LINED, NOT RESTRAINED	DUCTILE IRON, AWWA C110, CL 150
P1	POLYVINYL CHLORIDE, SCH. 80	PVC, SCH. 80, SOLVENT WELD SOCKET
P2	POLYVINYL CHLORIDE, SCHEDULE 40	PVC, SCH. 40, SOLVENT WELD SOCKET
P3	POLYVINYL CHLORIDE, SDR 35	
P4	POLYVINYL CHLORIDE, AWWA C900, DR18	DUCTILE IRON, AWWA C110, CL 150
P5	CHLORINATED POLYVINYL CHLORIDE, SCHD. 80	CPVC, SCH 80, SOLVENT WELD SOCKET
P6	POLYPROPYLENE, SCHD. 40, "GSR SLOANE-FUSEAL"	HEAT FUSED SOCKET
P7	HIGH DENSITY POLYETHYLENE, MIN. SDR=7.3	HDPE
P8	NALGENE 980 BRAIDED VINYL TUBING, OR EQUAL	
P9	KYNAR, GLUED JOINTS	KYNAR
S1	STEEL, SCHD. 40, GALVANIZED	THREADED OR FLANGED, GALVANIZED
S2	WELDED STEEL, AWWA C200, MORTAR LINED	STEEL, AWWA C208, MORTAR LINED, SEE SPECS FOR COATING
S4	STAINLESS STEEL, TYPE 316L, SCHD. 5	STAINLESS STEEL
S5	STAINLESS STEEL, TYPE 316L, SCHD. 10	STAINLESS STEEL
S6	STEEL, ASTM A106 OR 53, SCHD. 80, SEAMLESS, BLACK	THREADED, SOCKET, BUTT-WELD OR FLANGED W/ AMMONIA UNIONS
S7	STEEL, ASTM A53, SCHD. 40, BLACK (NATURAL GAS)	MALLEABLE 150 PSI THRD. 2" SMALLER, GREATER THAN 2" WELD

PLUMBING DESIGNATIONS		PIPE DESIGNATION LEGEND
AV AW CB CLW CO CW D ED FCO FD FS HD HW HWR MH NG PA RD RPBP SCD SAN SPD SS ST STO V TD TOG TW UW1 UW2 VTR WCO YCO	ACID VENT ACID WASTE CATCH BASIN CLEAR WATER DRAIN CLEANOUT POTABLE COLD WATER DRAIN EQUIPMENT DRAIN FLOOR CLEANOUT FLOOR DRAIN FLOOR SINK HUB DRAIN POTABLE HOT WATER POTABLE HOT WATER RETURN MANHOLE NATURAL GAS PLANT COMPRESSED AIR ROOF DRAIN REDUCED PRESSURE BACKFLOW PREVENTER SCUM DRAINAGE SANITARY DRAIN SUMP PUMP DISCHARGE SANITARY SEWER STORM DRAIN STORM SEWER SANITARY VENT TRENCH DRAIN TOP OF DRAIN/GRATE POTABLE TEMPERED WATER UTILITY WATER (POTABLE PROCESS WATER) UTILITY WATER (NON-POTABLE PROCESS WATER) VENT THROUGH ROOF WALL CLEANOUT YARD CLEANOUT	PIPE MATERIAL ABBREVIATION (SEE PIPE MTL SCHED) ASTERISK (*) SHOWN THIS LOCATION INDICATES INSULATED PIPE. SEE SPECS FOR INSULATION REQUIREMENTS AND FINISH PAINTING. PIPE DIAMETER SERVICE ABBREVIATION (SEE PIPE SCHEDULE AND PLUMBING DESIGNATION) NOTES: 3"-LSN-PVC INDICATES PIPE SIZE, FLUID ABBREVIATION AND (OPTIONAL) PIPE MATERIAL FOR EXISTING PIPING

- NOTES:
- IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A HORIZ. LINE.
 - ELECTRICAL SYMBOLS SHOWN ON ELECTRICAL SHEETS.
 - FOR WELDING SYMBOLS USE AMERICAN WELDING SOCIETY STANDARD SYMBOLS, SEE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL
 - INFORMATION INCLUDES FOR EXAMPLE, NO. OF PLACES ITEM IS REQUIRED, SIMILAR, MATERIAL DESIGNATION, SPECIFIC INFORMATION TO CONTRACTOR, ETC
 - ALL PLAN, SECTION AND DETAIL CALLOUTS WHICH REPRESENT EXTERNAL REFERENCE FILES LIST XREF FILENAME WITH EXTENSION JUST BELOW THE SCALE DESIGNATION.
 - THE PROCESS PIPING FOR THIS PUMPING STATION DESIGNATION S2 IS FOR WELDED STEEL, AWWA C200, MORTAR LINED, WITH AWWA C208 STEEL FITTINGS, MORTAR LINED. CONTRACTOR MAY SUBSTITUTE, AT THEIR CHOICE, DUCTILE IRON FOR ALL S2 DESIGNATED PROCESS PIPING, BOTH ABOVE-GROUND AND BURIED (CONCRETE ENCASED). PIPE TO MEET REQUIREMENTS OF SECTION 15251.

NOTE
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ALL SCREENED SYMBOLS SHOWN ON THE DRAWINGS REPRESENT EXISTING OR DISCIPLINE BACKGROUND (TYP)

DESIGNED
D.V.V

DRAWN
P.GK

CHECKED

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
MECHANICAL PIPE SCHEDULE

SHEET NO.

GM2

FILE NO.

McMahon
ASSOCIATES, INC.

ENGINEERS
ARCHITECTS
PROJ. MGRS.
SURVEYORS

1445 McMahon Drive
Neenah, WI 54956
Mailing Address:
P.O. Box 1725
Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

REVISION

DATE
4/6/07

NO.
1

RELEASED FOR BIDDING

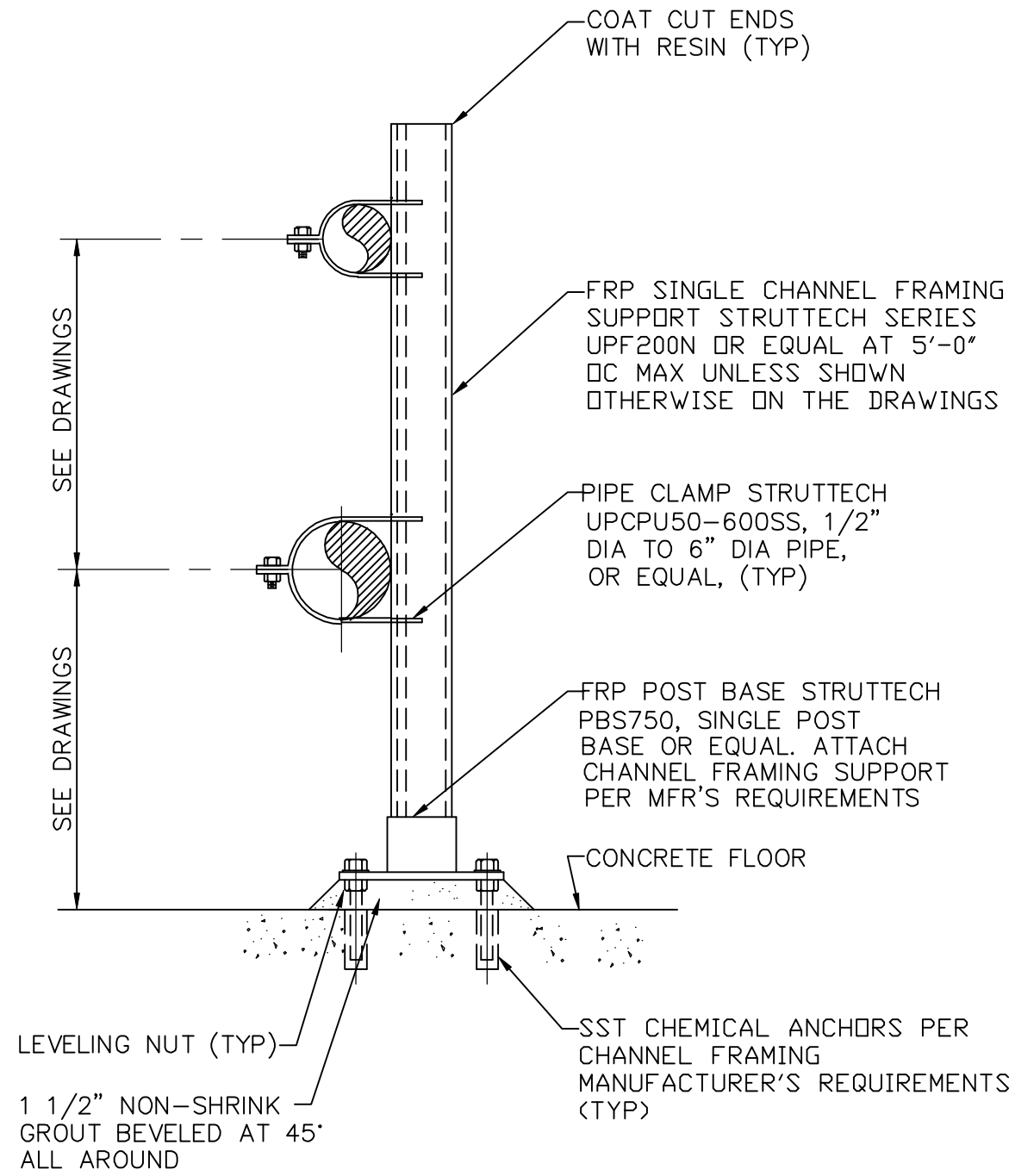
RECORD DRAWINGS

DATE
10/30/09

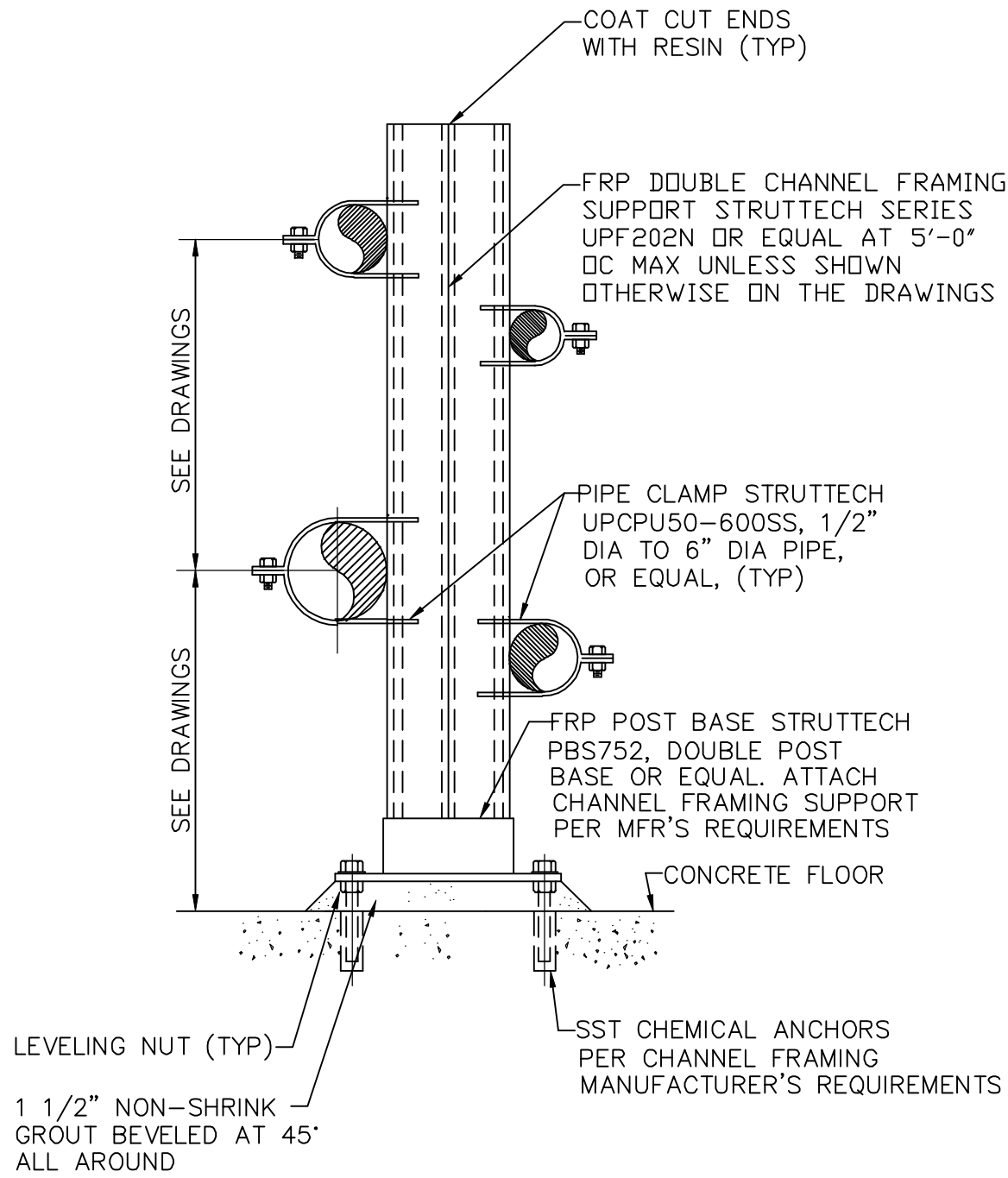
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2

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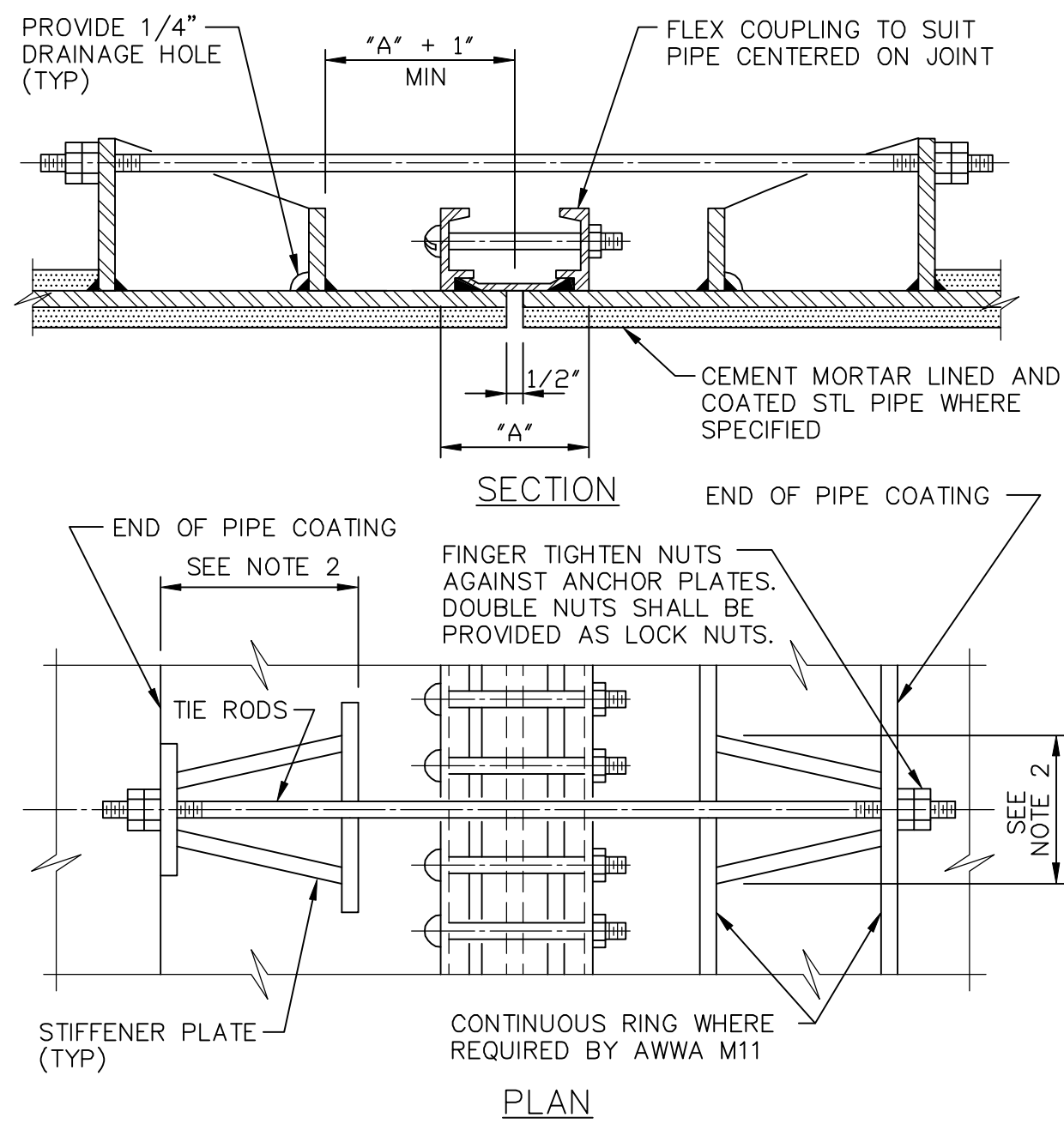


NOTE:
USE NON-METALLIC OR TITANIUM BOLTS AND NUTS
WITHIN FERRIC CHLORIDE (FC) AND SODIUM
HYPOCHLORITE (SH) CONTAINMENT AREAS.



NOTE:
USE NON-METALLIC OR TITANIUM BOLTS AND NUTS
WITHIN FERRIC CHLORIDE (FC) AND SODIUM
HYPOCHLORITE (SH) CONTAINMENT AREAS.

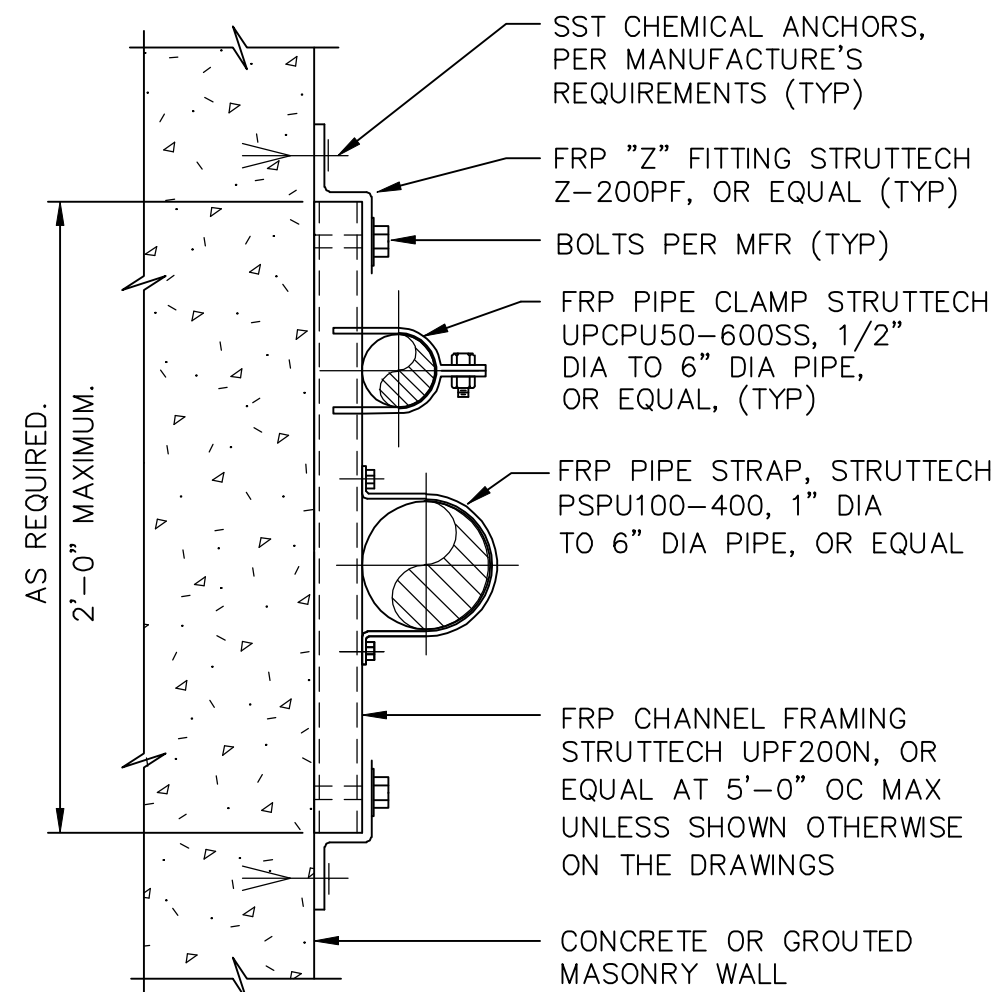
M111
TYP
FRP FLOOR PIPE SUPPORT
02/18/03



NOTES:

1. ALL EXPOSED FLEXIBLE COUPLINGS SHALL HAVE TIE RODS UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS.
2. DESIGN SHALL BE BASED ON TEST PRESSURE.
3. ANCHOR LUGS AND TIE RODS FOR STEEL PIPE SHALL BE DESIGNED BY PIPE MANUFACTURER IN ACCORDANCE WITH AWWA M11 STEEL PIPE MANUAL.
4. GRIND ALL CORNERS SMOOTH.
5. COAT ALL EXPOSED STL SURFACES WITH EPOXY PAINT PER SPECIFICATIONS.

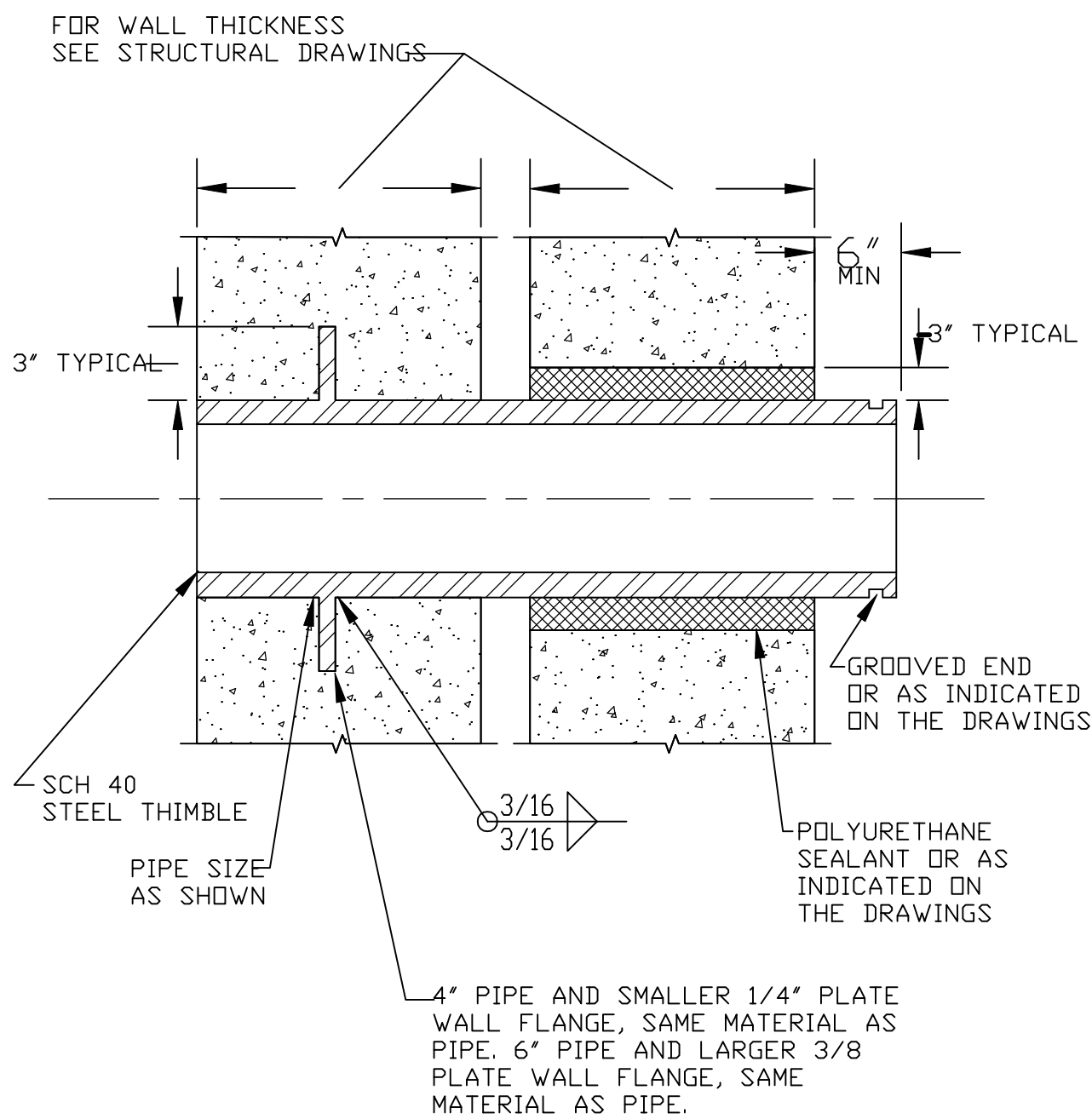
M112
TYP
STEEL PIPE FLEXIBLE COUPLING
TIE DOWN
06-01-03



NOTES:

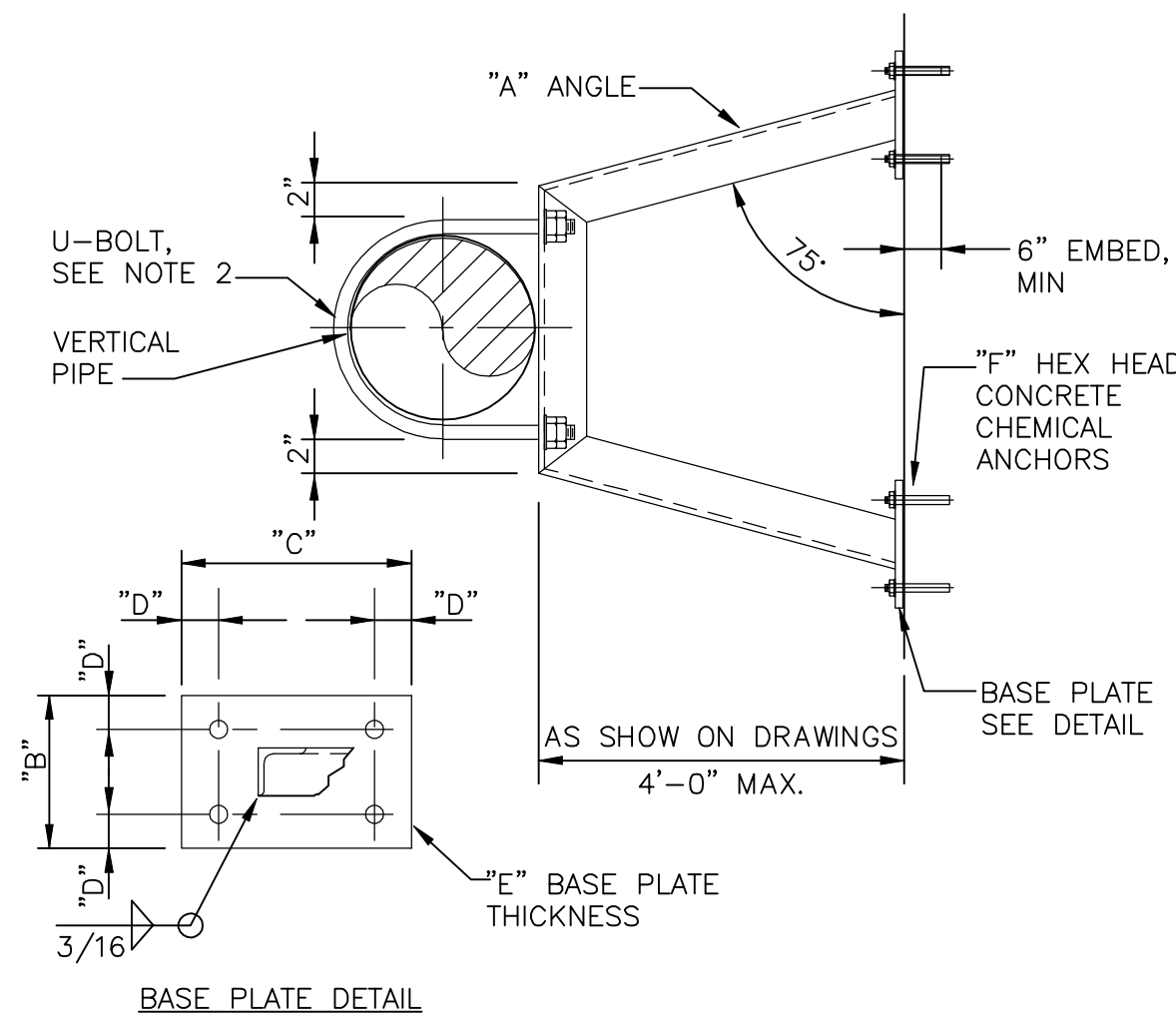
1. VERTICAL INSTALLATION FOR SMALL DIAMETER PIPE (4" MAX) OR ELECTRICAL CONDUIT
2. IF STRUTTECH IS NOT USED, A STOP LOCK KIT IS REQUIRED

M115
TYP
FRP FLUSH MOUNTED PIPE SUPPORT
12/12/97



NOTE:
GALVANIZE AFTER FABRICATION

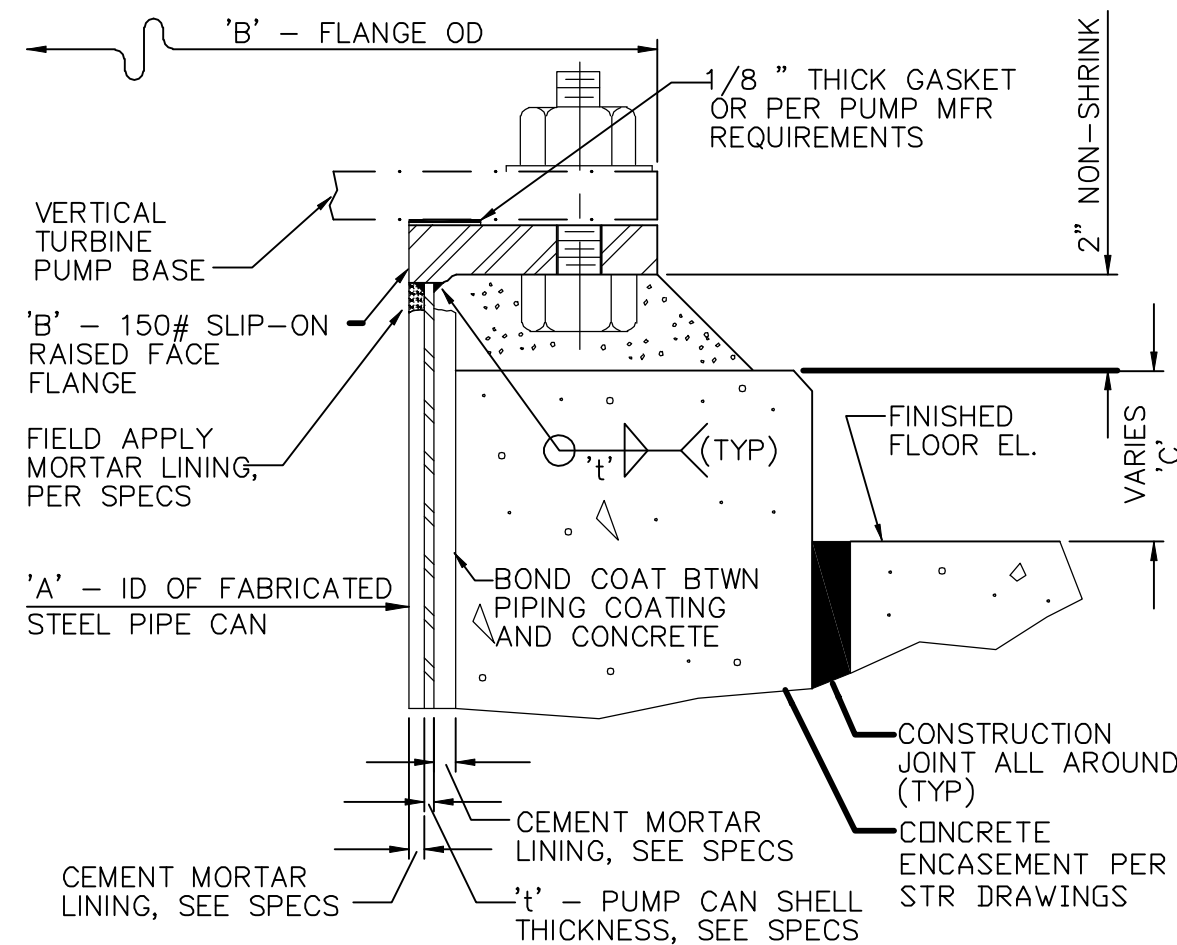
M123
TYP
PIPE THRU TWO (2) WALLS



NOTES:

1. WHEN SUBMERGED USE STAINLESS STEEL MATERIALS FOR ANGLE, U-BOLT, BOLTS, NUTS AND WASHERS.
2. SIZE U-BOLT ACCORDING TO PIPE SUPPORT MFR RECOMMENDATIONS.

M131
TYP
FABRICATED PIPE BRACE
05/08/01



DIMENSIONS IN INCHES (NOMINAL-MM)			
'A'	'B'	'C' MIN. SEE NOTE	
14 (350)	21 (533)	12 (300)	
16 (400)	23.5 (597)	12 (300)	
18 (450)	25 (635)	12 (300)	
20 (500)	27.5 (698)	12 (300)	
22 (560)	29.5 (749)	6 (150)	
24 (600)	32 (813)	6 (150)	
26 (660)	34.25 (870)	6 (150)	
28 (710)	36.5 (927)	6 (150)	
30 (760)	38.75 (984)	6 (150)	

NOTE: HEIGHT BASED UPON DISTANCE FROM CENTERLINE OF PUMP DISCHARGE TO BASE PLATE WHICH VARIES PER MFR, SEE DWGS FOR CENTERLINE ELEVATION OR DISTANCE FROM FINISHED FLOOR TO CENTERLINE OF PUMP DISCHARGE.

NOTE: AS AN ALTERNATE TO CEMENT MORTAR LINING INSIDE THE PUMP CAN, EPOXY COATING MAY BE PROPOSED.

M133
TYP
VERTICAL PUMP CAN FLANGE
04/07/98

RECORD DRAWINGS

DRAFTED BY: **PGK** 10/30/09

CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 1

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

GM3

FILE NO.

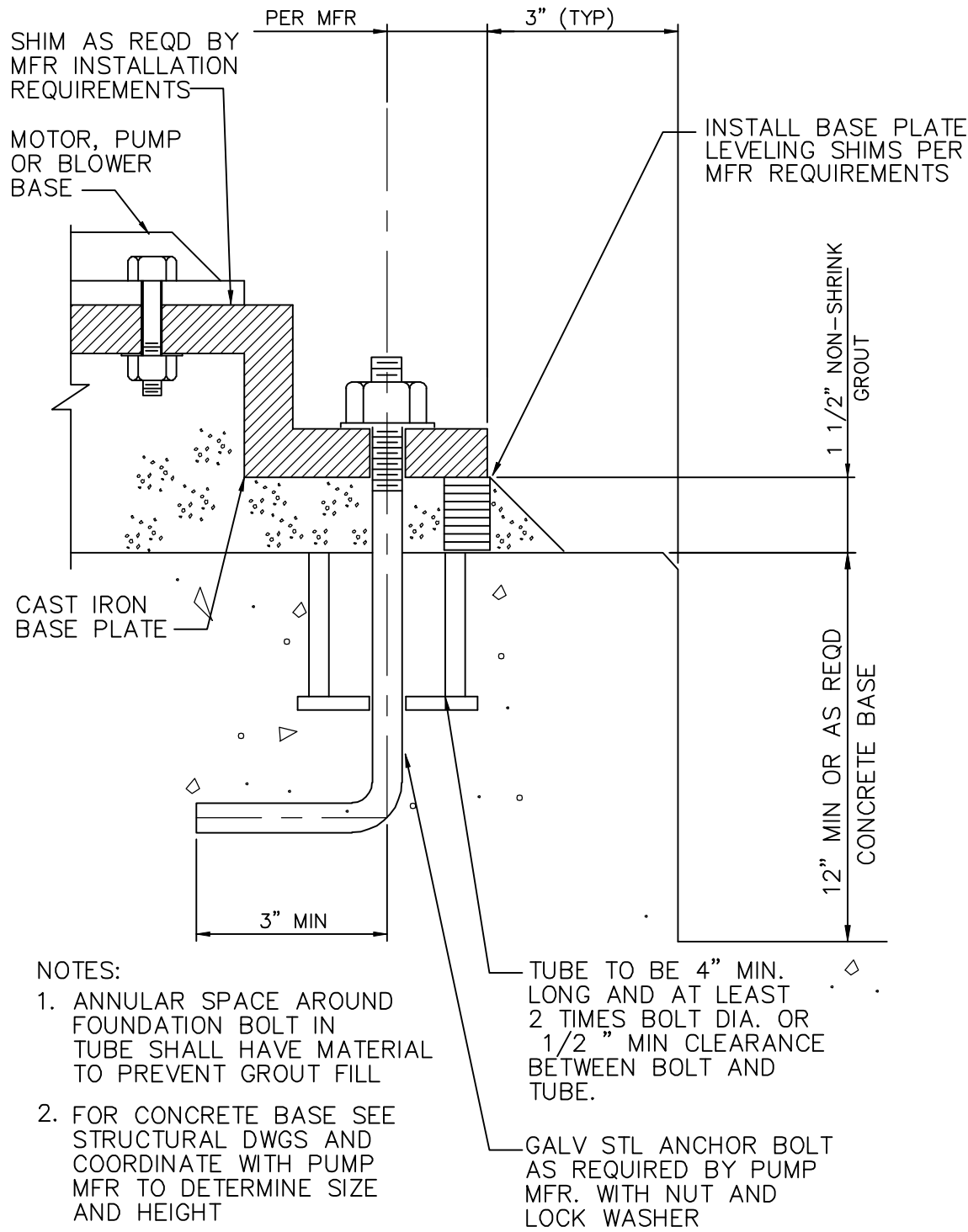
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McMahon ASSOCIATES, INC. ENGINEERS ARCHITECTS SURVEYORS
1445 McMahon Drive Neenah, WI 54956
Mailing Address: P.O. Box 1225 Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

REVISION
DATE 4/6/03
NO. 1
RELEASED FOR BIDDING
RECORD DRAWINGS

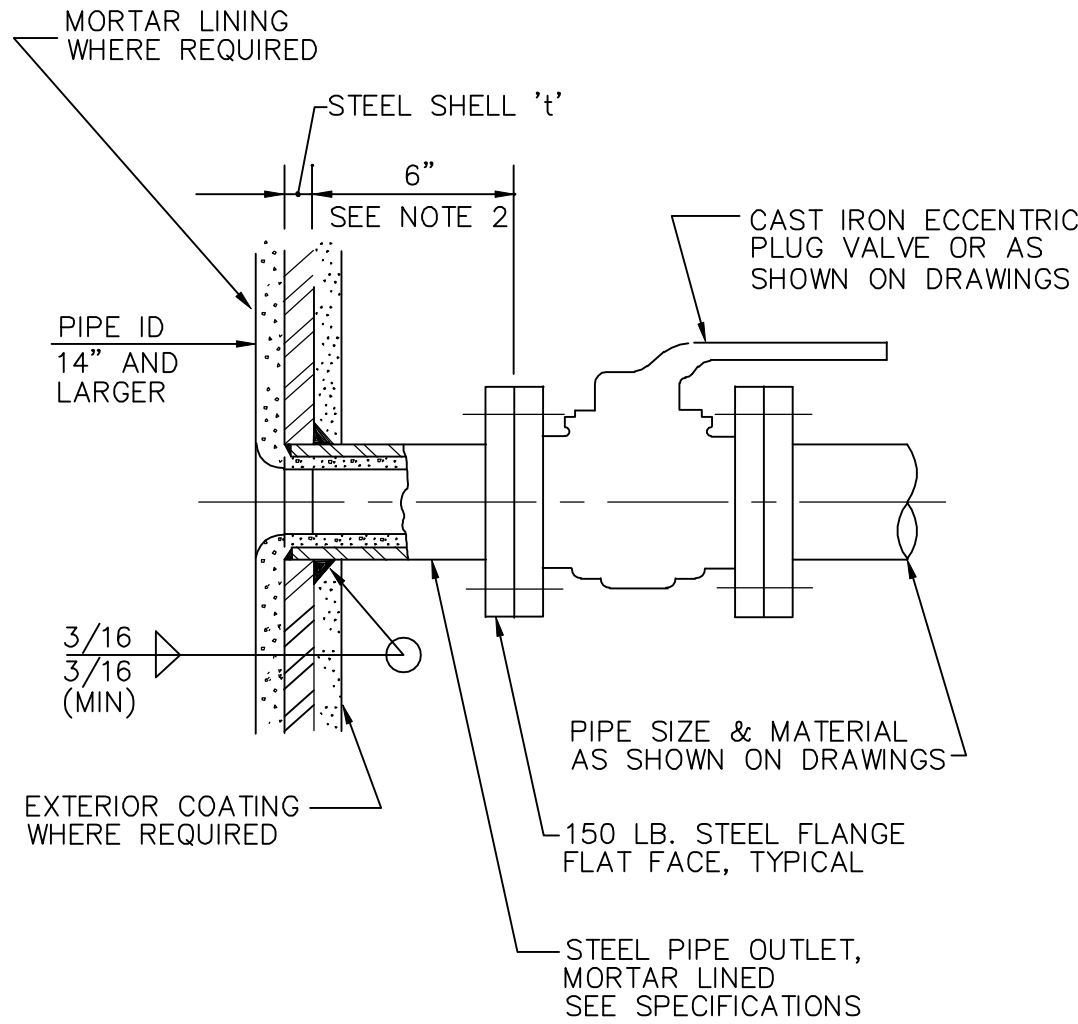
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M139
TYP

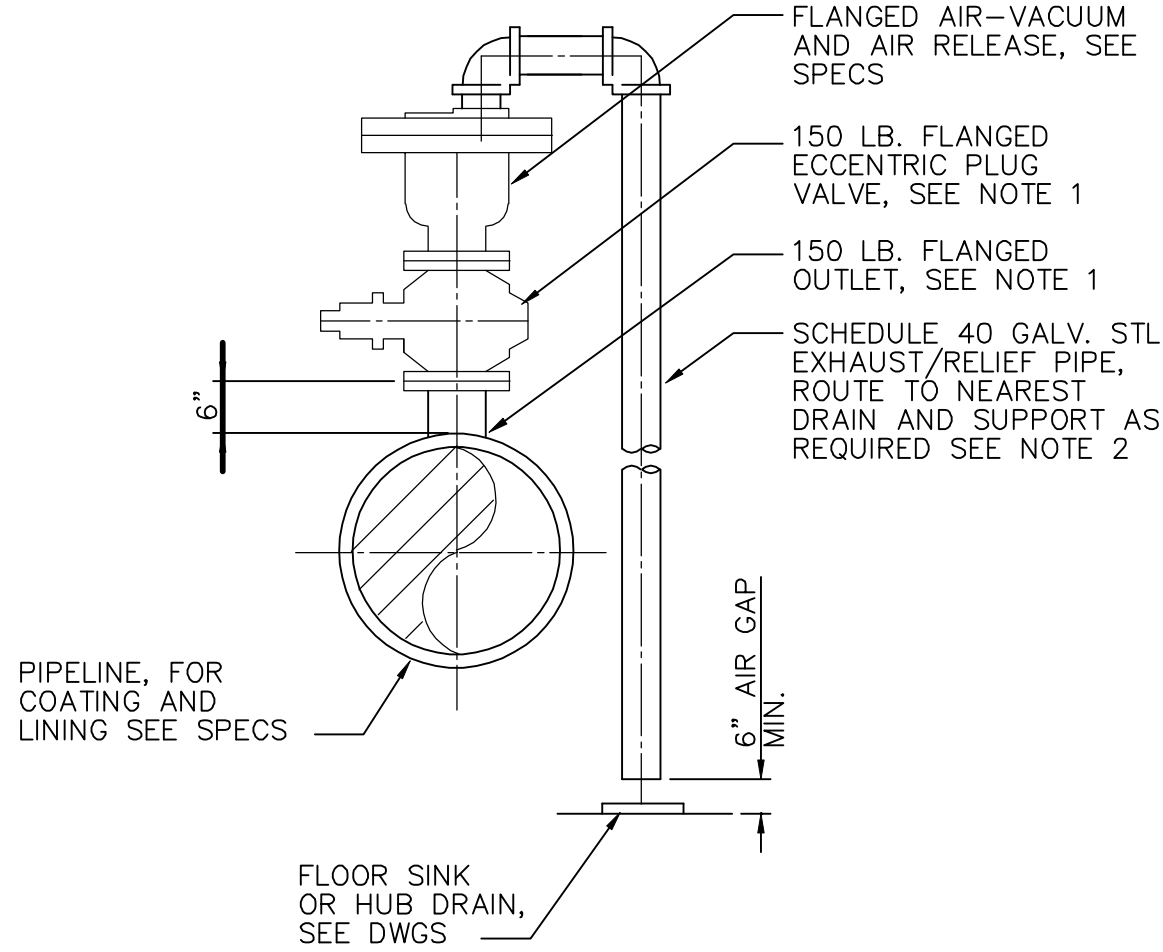
**CAST IRON EQUIPMENT
BASE MOUNTING** 11/05/97



M203
TYP

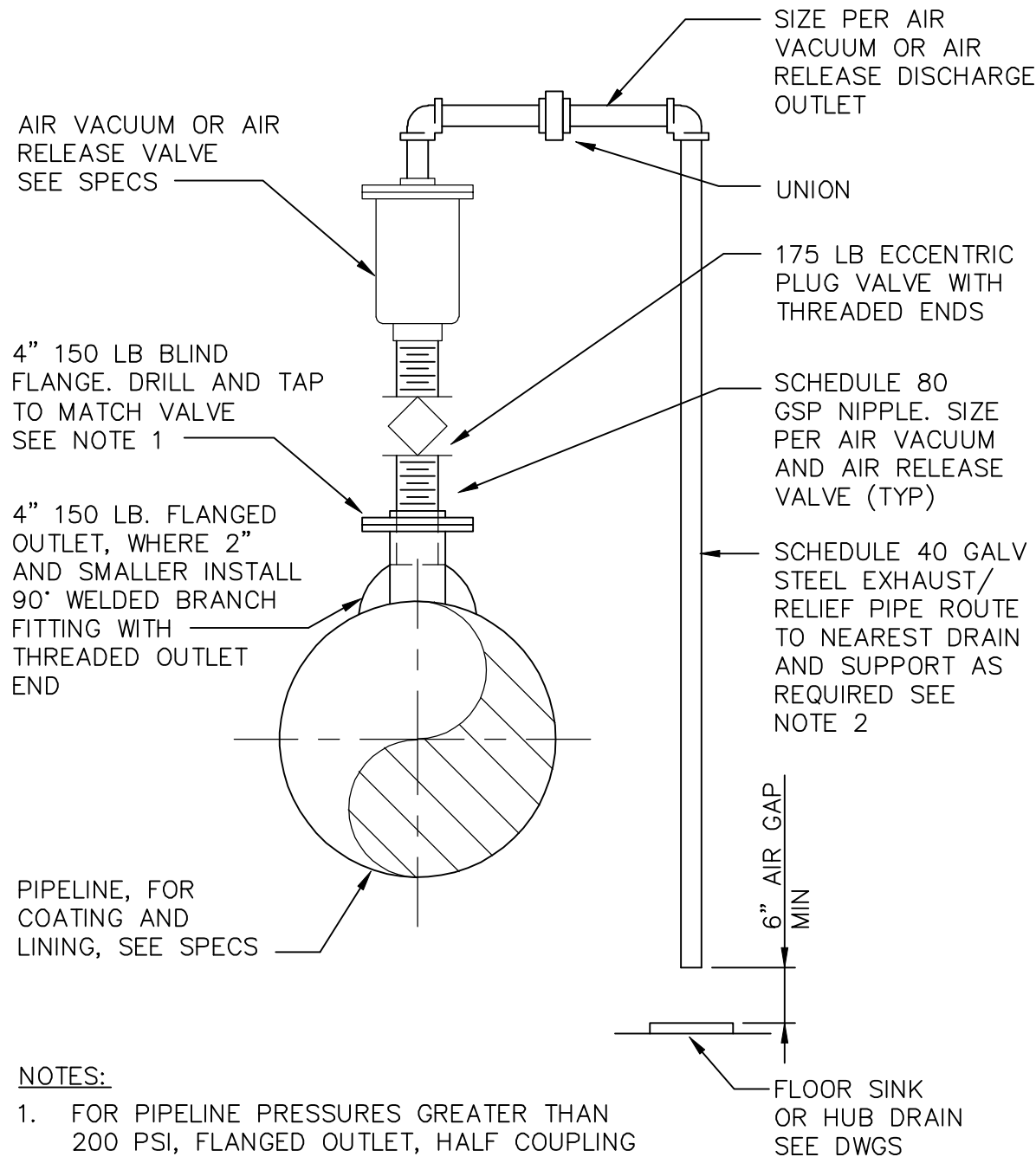
4" AND LARGER CONNECTION

NOTES:
1. FOR HIGH PRESSURE APPLICATION USE WELDED STEEL SADDLE
2. FOR 36" DIA. AND LARGER PIPES USE AWWA M11 STANDARD



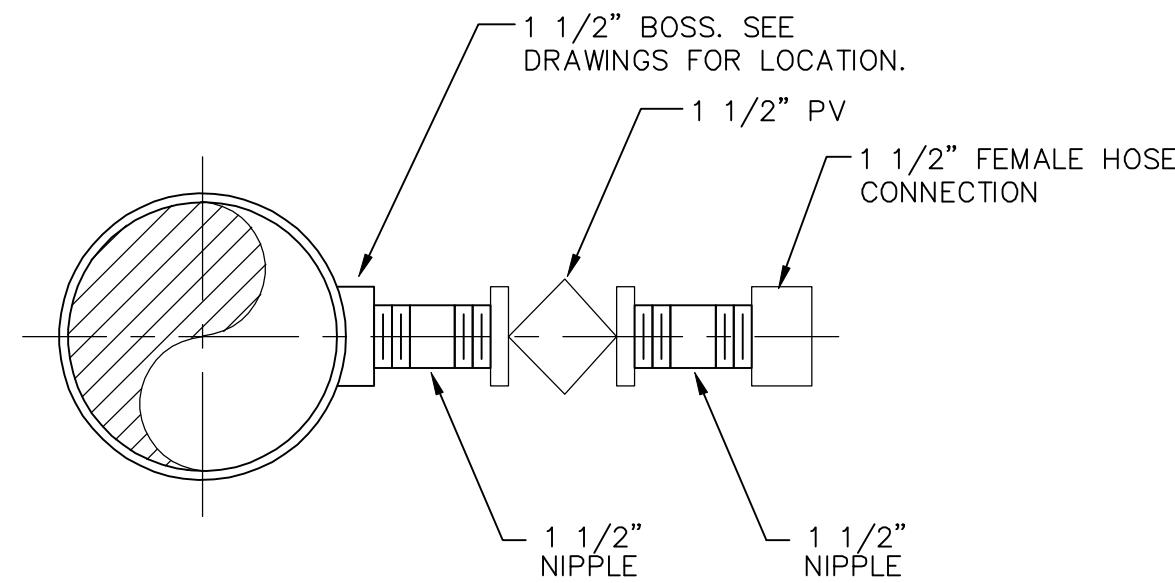
M205
TYP

**AIR-VACUUM AND AIR RELEASE VALVE
ASSEMBLY 4" AND LARGER** 11/05/97



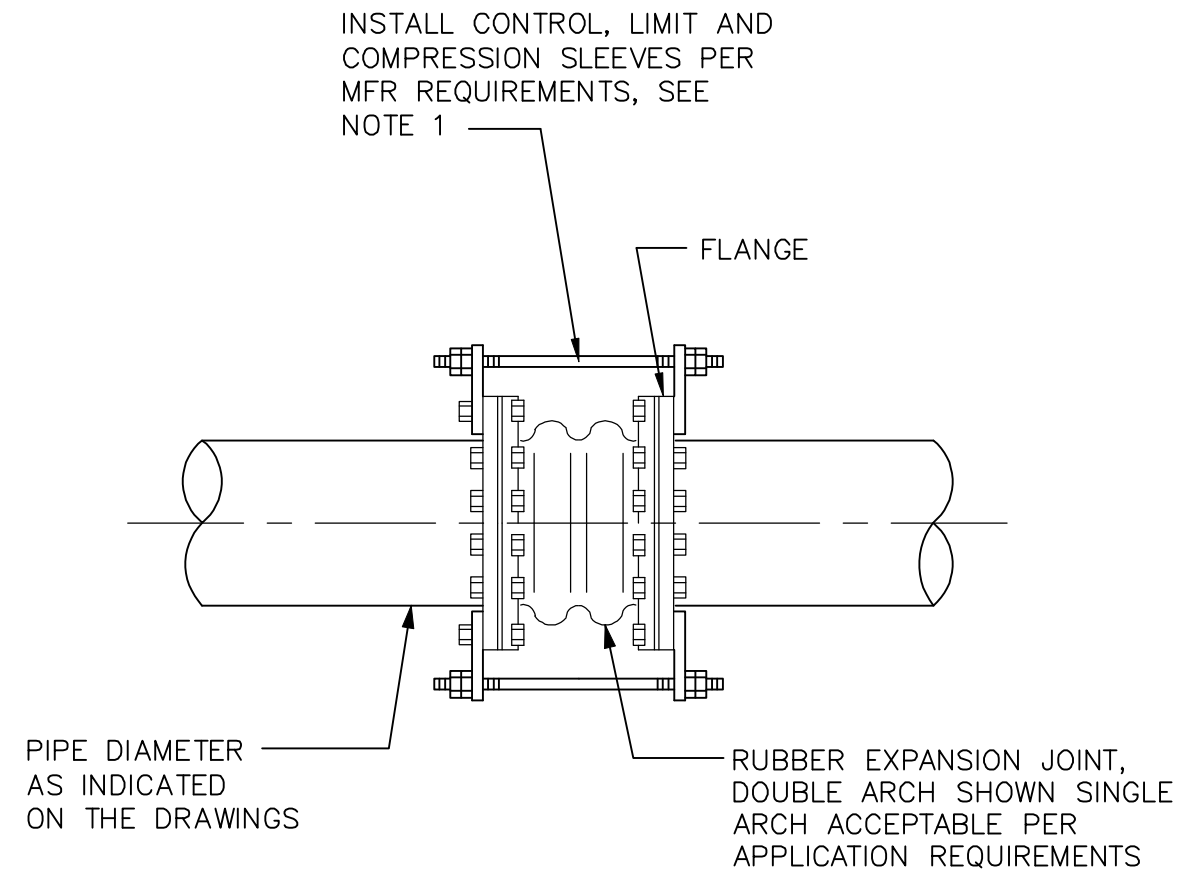
M207
TYP

**AIR VACUUM AND AIR RELEASE VALVE
ASSEMBLY 3" AND SMALLER**



M213
TYP

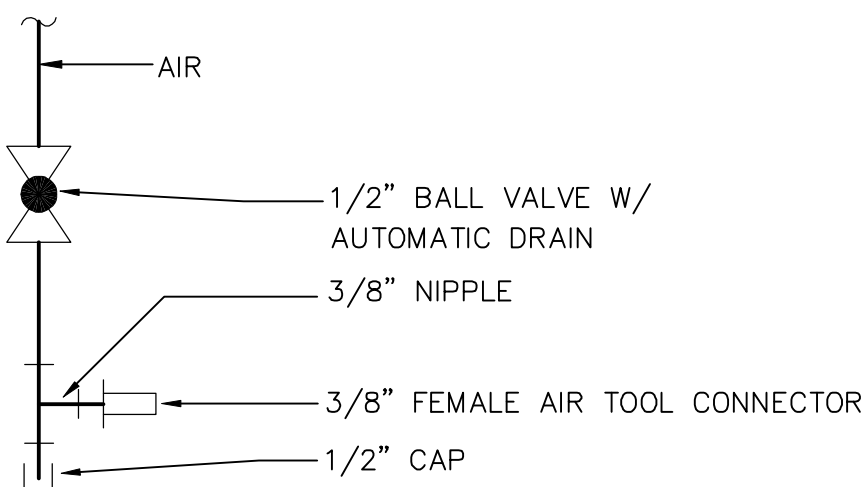
**STEEL PIPE FLUSHING
CONNECTION** 11-01-96



M220
TYP

RUBBER EXPANSION JOINTS 11-01-96

NOTES:
1. FOR TYPE OF CONTROL UNIT PER APPLICATION SEE DRAWINGS AND NOTE AT DETAIL CALLOUT



M258
TYP

AIR TOOL CONNECTOR 11-22-04

RECORD DRAWINGS	
DRAFTED BY:	PGK 10/30/09
CHECKED:	

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 2

SCALE AS NOTED	DATE APRIL, 2007	PROJECT NO. R0018-950446
SHEET NO.		
GM4		
FILE NO.		

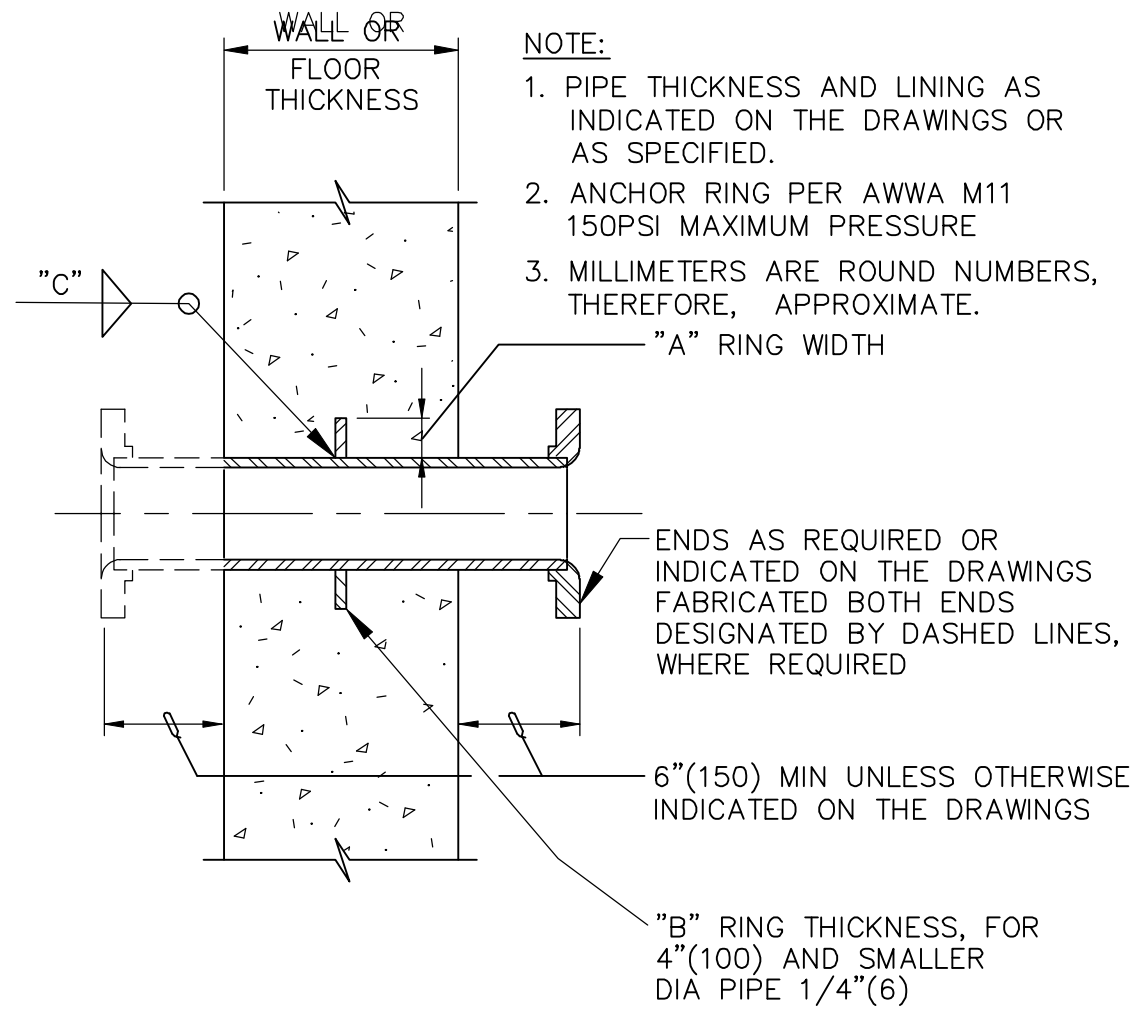
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1445 McMahon Drive Neenah, WI 54956
Mailing Address: P.O. Box 1725 Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

NO.	DATE	REVISION
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2	10/30/09	RECORD DRAWINGS

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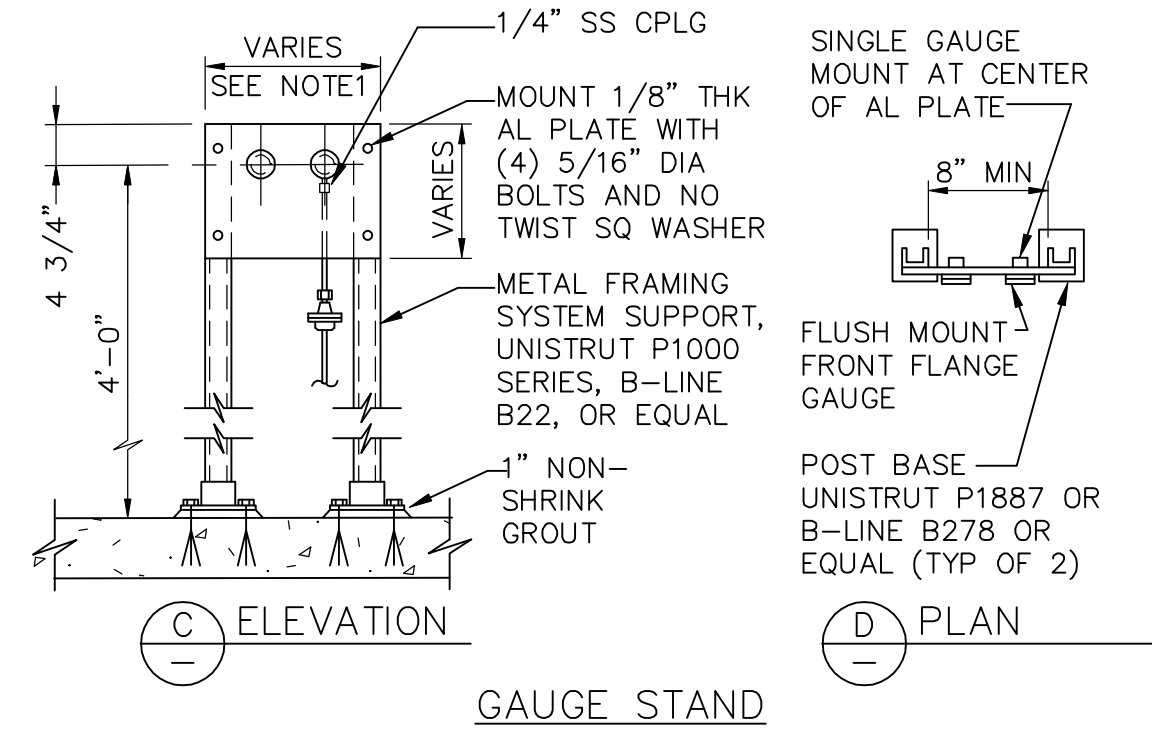
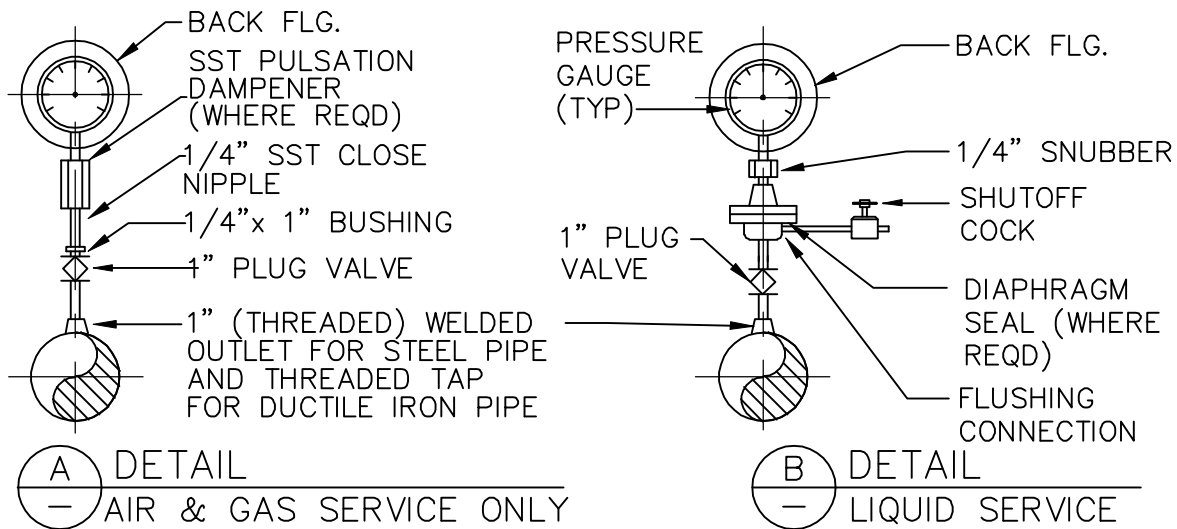
ANCHOR RING DIMENSIONS IN (mm) SEE NOTE 3			
PIPE OD *	"A"	"B"	"C"(MIN)
6(150)	1(25)	3/8(10)	1/8(3)
8(200)	1(25)	3/8(10)	1/8(3)
10(250)	1 1/2(38)	3/8(10)	1/8(3)
12(300)	1 1/2(38)	3/8(10)	1/8(3)
14(350)	2(51)	3/8(10)	1/8(3)
16(400)	2(51)	3/8(10)	1/8(3)
18(450)	2(51)	3/8(10)	1/8(3)
20(500)	3(76)	1/2(13)	1/8(3)
24(600)	3(76)	1/2(13)	1/8(3)
30(760)	4(102)	5/8(16)	3/16(5)
36(910)	4(102)	3/4(19)	3/16(5)

* = NOMINAL PIPE DIAMETER

M310
TYP

FABRICATED WALL THIMBLE

11/05/97

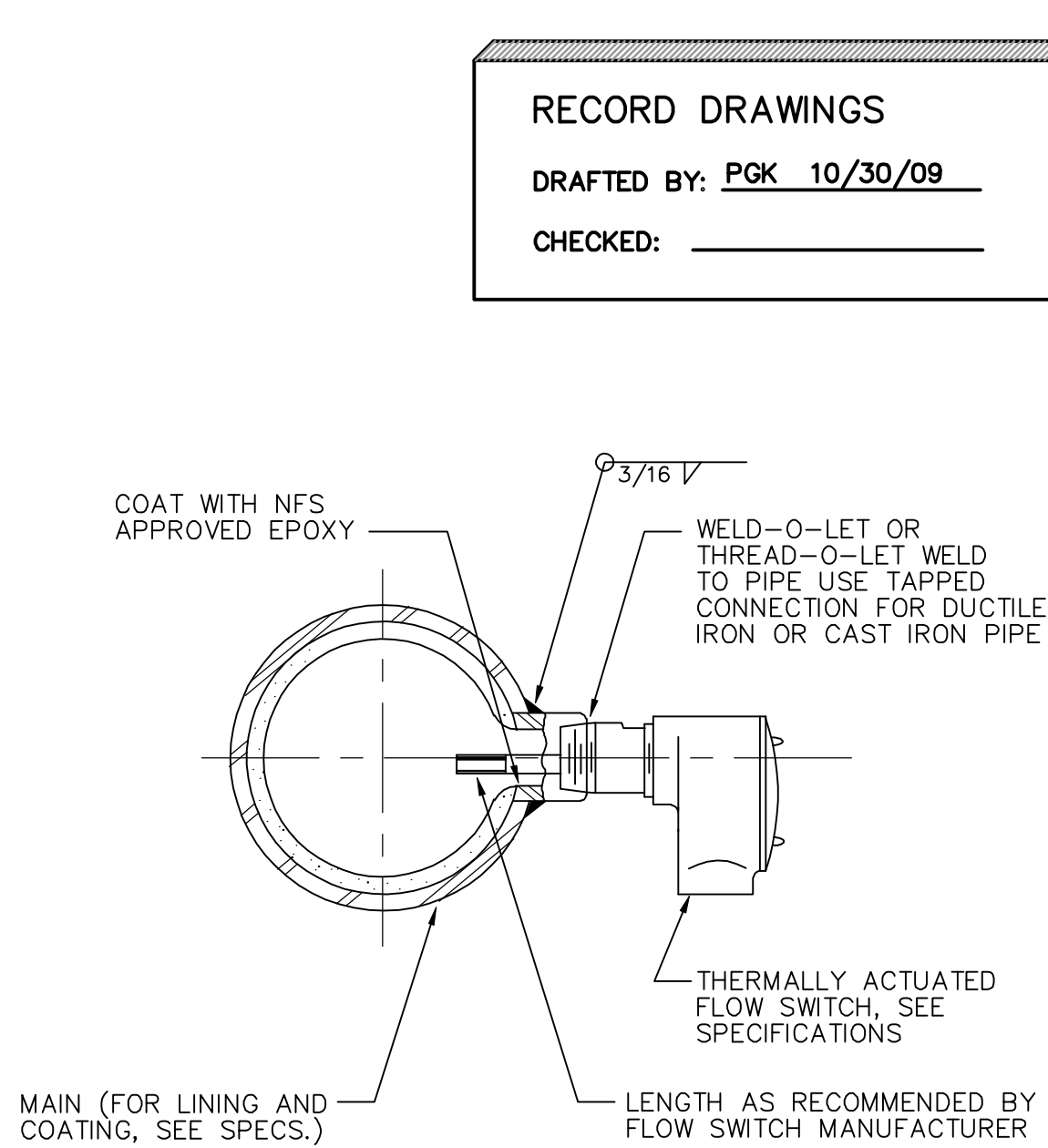


- NOTES:
- MOUNTING PLATE DIMENSIONS VARY ACCORDING TO SIZE AND NUMBER OF GAUGES REQUIRED.
 - ONE INCH DIA PIPE SHALL BE ROUTED BETWEEN DIAPHRAGM AND ISOLATION PLUG VALVE. CROSSES WITH THREADED PLUGS SHALL BE USED IN LIEU OF 90° ELBOWS, WITH AT LEAST ONE UNION PER CROSS.
 - MOUNT POST BASE TO FLOOR WITH CHEMICAL ANCHORS AND LEVELING NUT AS REQUIRED BY METAL FRAMING MANUFACTURER
 - FOR PRESSURE GAUGE SCHEDULE SEE EQUIPMENT SCHEDULE DWGS

M294
TYP

PRESSURE GAUGE DETAIL

11/10/97

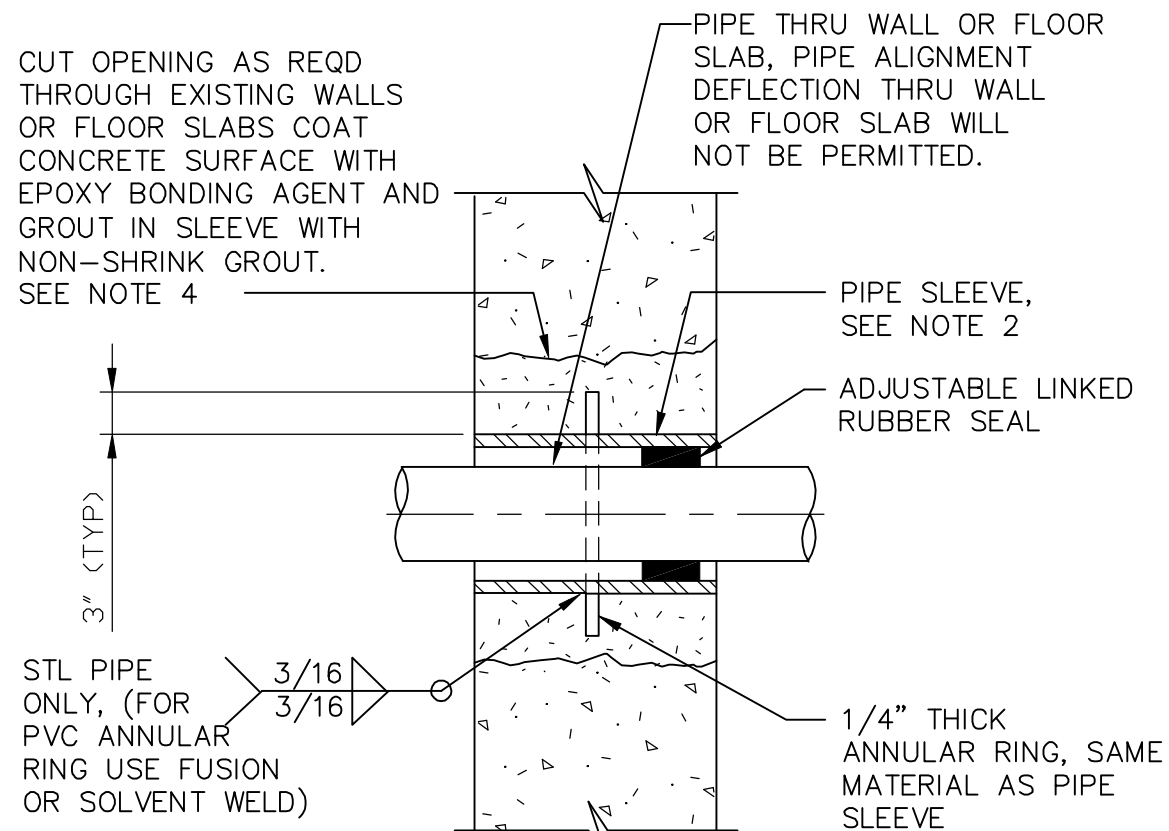


- NOTE:
- COORDINATE WITH ELECTRICAL AND INSTRUMENTATION CONTROL AND DRAWINGS

M295
TYP

FLOW SWITCH

11/05/97



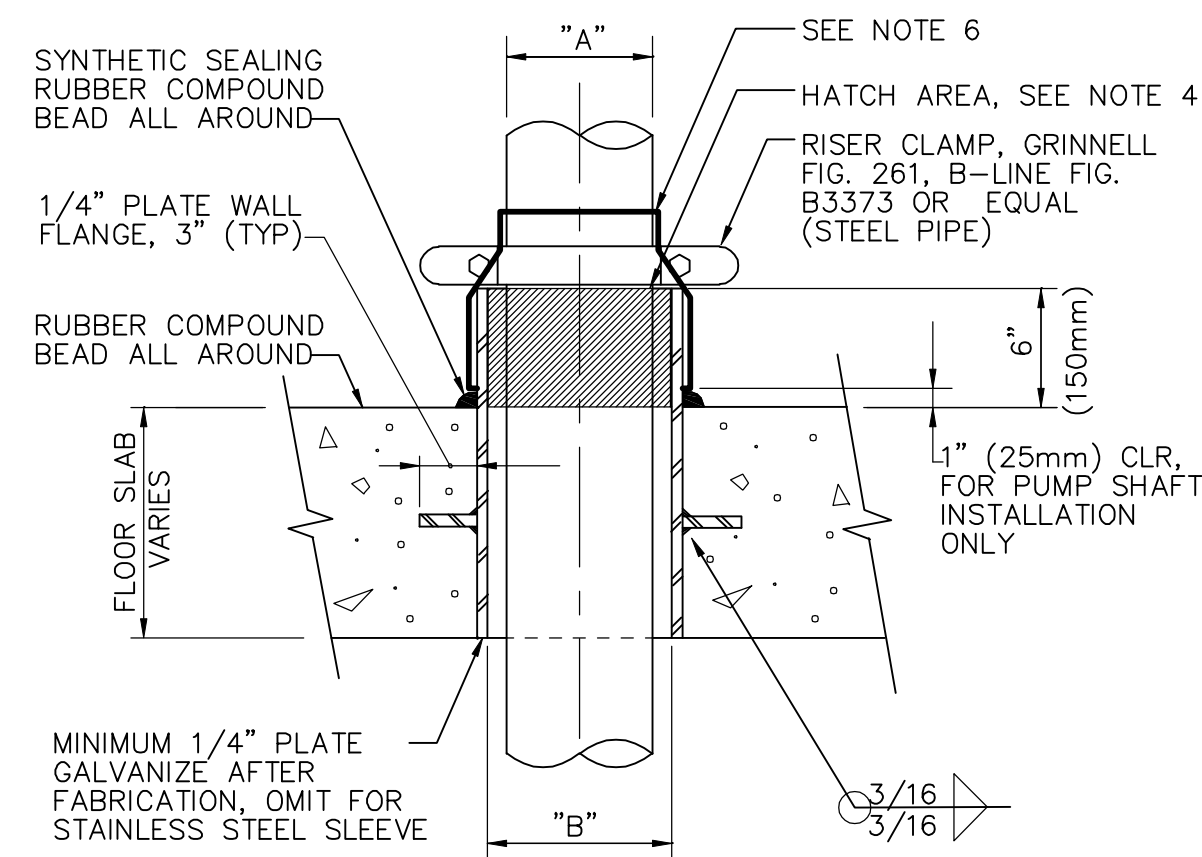
NOTES:

- FOR NEW CONSTRUCTION, SLEEVES SHALL BE CAST INTO WALL OR FLOOR SLAB WITH THERMOPLASTIC PIPE SLEEVE, LINK SEAL OR EQUAL.
- 6" DIA SLEEVES AND SMALLER SHALL BE SCH 40 STL PIPE. AND SLEEVES 6" DIA AND GREATER SHALL BE 1/4" THICK (MIN) STEEL PLATE. ALL SLEEVE DIAMETERS SHALL BE PER SEAL MANUFACTURER'S REQUIREMENTS.
- IN WALLS OR FLOOR SLABS THICKER THAN 12" OR WHERE SUBMERGED, LINKED SEAL SHALL BE INSTALLED AT BOTH ENDS OF PIPE SLEEVE.
- FOR INSTALLATION IN EXISTING STRUCTURE WHERE CORE DRILLING IS ACCEPTABLE ELIMINATE PIPE SLEEVE AND INSTALL ADJUSTABLE LINKED SEAL

M304
TYP

SLEEVE INSTALLATION THROUGH WALLS AND FLOOR SLABS

11/05/97



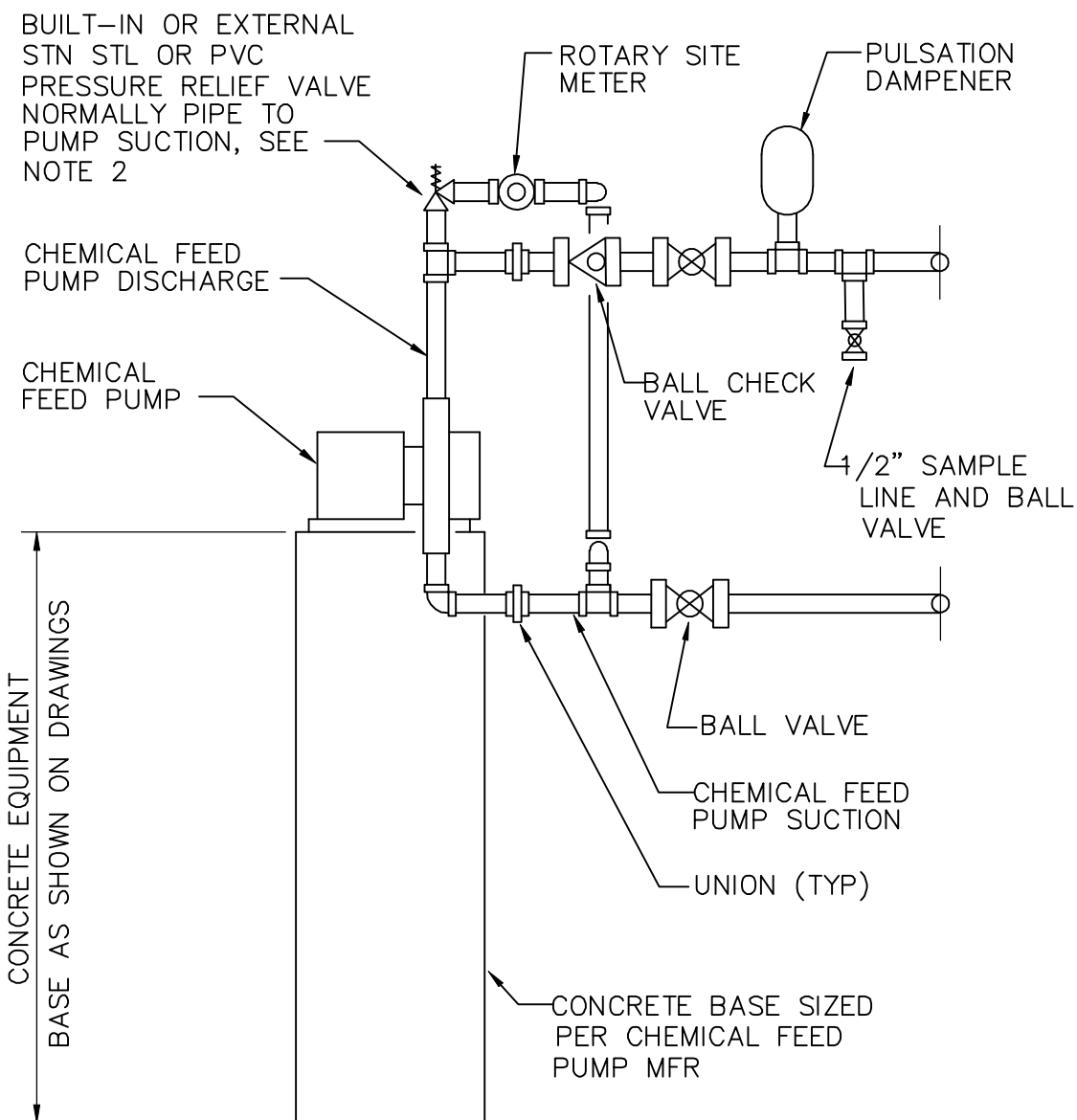
NOTES:

- PIPE AND SLEEVE SIZES AS FOLLOWS: "A" = PIPE OD SEE DRAWINGS FOR SIZE. SEE NOTE 2. "B" = "A" + 1" (25mm) MIN (NON-INSULATED PIPES). "B" = INSULATION OD + 1" (25mm) MIN (INSULATED PIPES). FOR PUMP SHAFT SEE NOTE 2.
- PUMP SHAFT "B" SHALL BE SIZED TO OD OF PUMP SHAFT COUPLING + 1" (25mm) MIN ALL AROUND.
- EXTEND INSULATION THROUGH THE PIPE SLEEVE FOR INSULATED PIPES AND INSTALL RISER CLAMP.
- EXTEND INSULATION THROUGH THE PIPE SLEEVE FOR INSULATED IS SUPPORTED FROM BELOW THE RISER CLAMP SHALL BE OMITTED AND POLYURETHANE SEALANT INSTALLED AS SHOWN.
- THE SLEEVE IS TO BE INSTALLED AT DRY SPACES ONLY. THE VERTICAL LOADS SHALL BE AS PER MFR REQUIREMENTS WITH WELDED LUGS ON STEEL PIPE OR COUPLING WITH OTHER PIPING MATERIALS. COORDINATE RISER CLAMP WITH PIPE MATERIALS PER MFR RECOMMENDATIONS.
- FOR PUMP SHAFT INSTALLATION, OMIT RISER CLAMP AND SEALANT. INSTALL 2 PIECE 18 GA STAINLESS STEEL CLOSURE CAP. FASTEN TOGETHER WITH SST MACHINE SCREWS. MAINTAIN 1/8" (3mm) MIN CLEARANCE ALL AROUND PUMP SHAFT.

M359
TYP

FABRICATED FLOOR SLEEVE

02/06/99



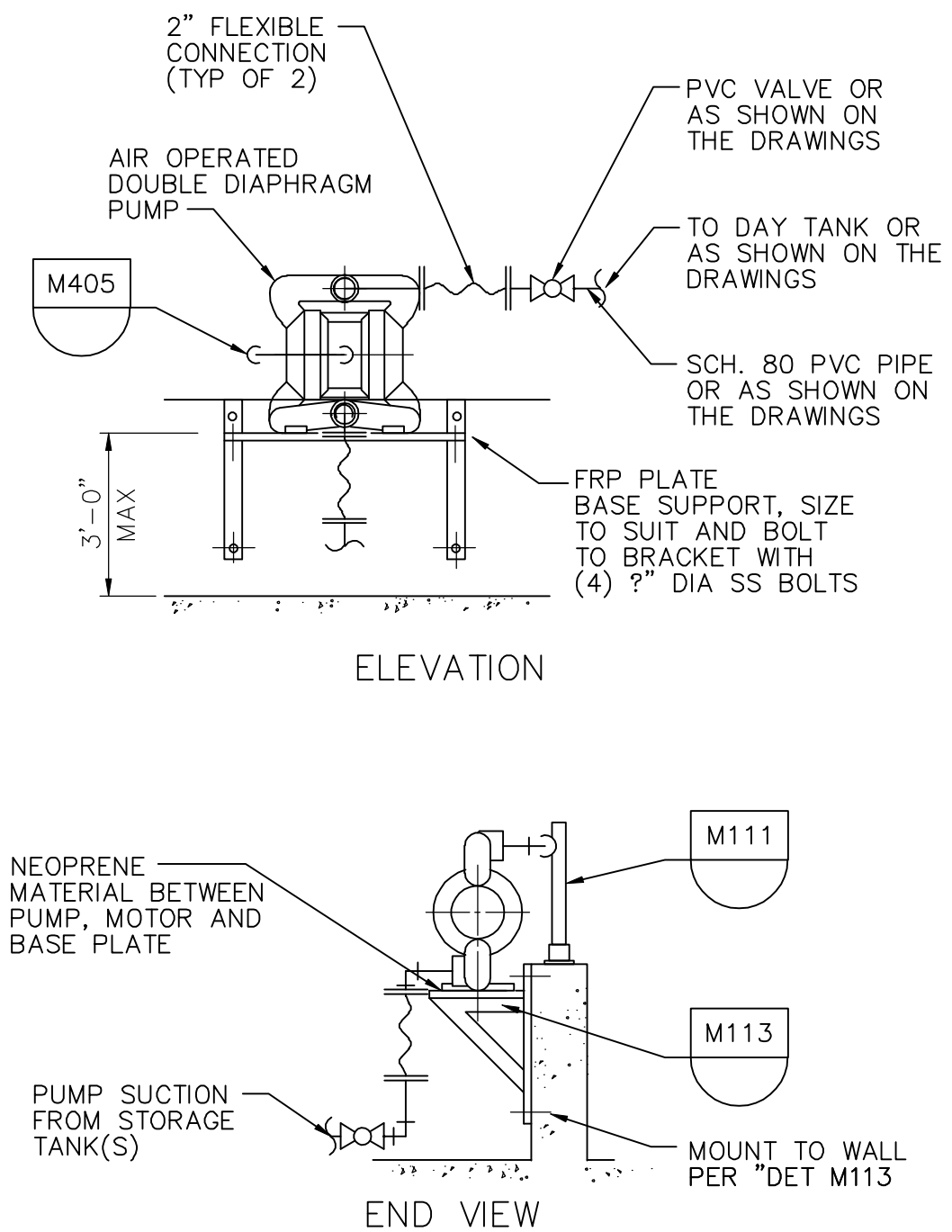
NOTES:

- PROVIDE PIPE SUPPORTS AT ALL VALVES ON SUCTION AND DISCHARGE OF PUMP
- WHERE SHOWN ON THE DRAWINGS, ROUTE PRESSURE RELIEF PIPING TO DAY TANK OR NEAREST FLOOR SINK TO ALLOW VISIBLE OBSERVATION OF DISCHARGE BY PLANT OPERATORS OR EMPLOYEES

M400
TYP

DIAPHRAGM CHEMICAL FEED PUMP WITH BACKPRESSURE VALVE

06/10/96



NOTES:

- FOR PUMP SUCTION, DISCHARGE SIZES, AND ROUTING OF PIPE, SEE DRAWINGS.

M403
TYP

AIR OPERATED TRANSFER PUMP

11/05/97

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 3

SCALE AS NOTED
DATE APRIL, 2007
PROJECT NO. R0018-950446

SHEET NO.

GM5

FILE NO.

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D.J.V.
DRAWN
P.G.K.
CHECKED

REVISION
DATE
NO.

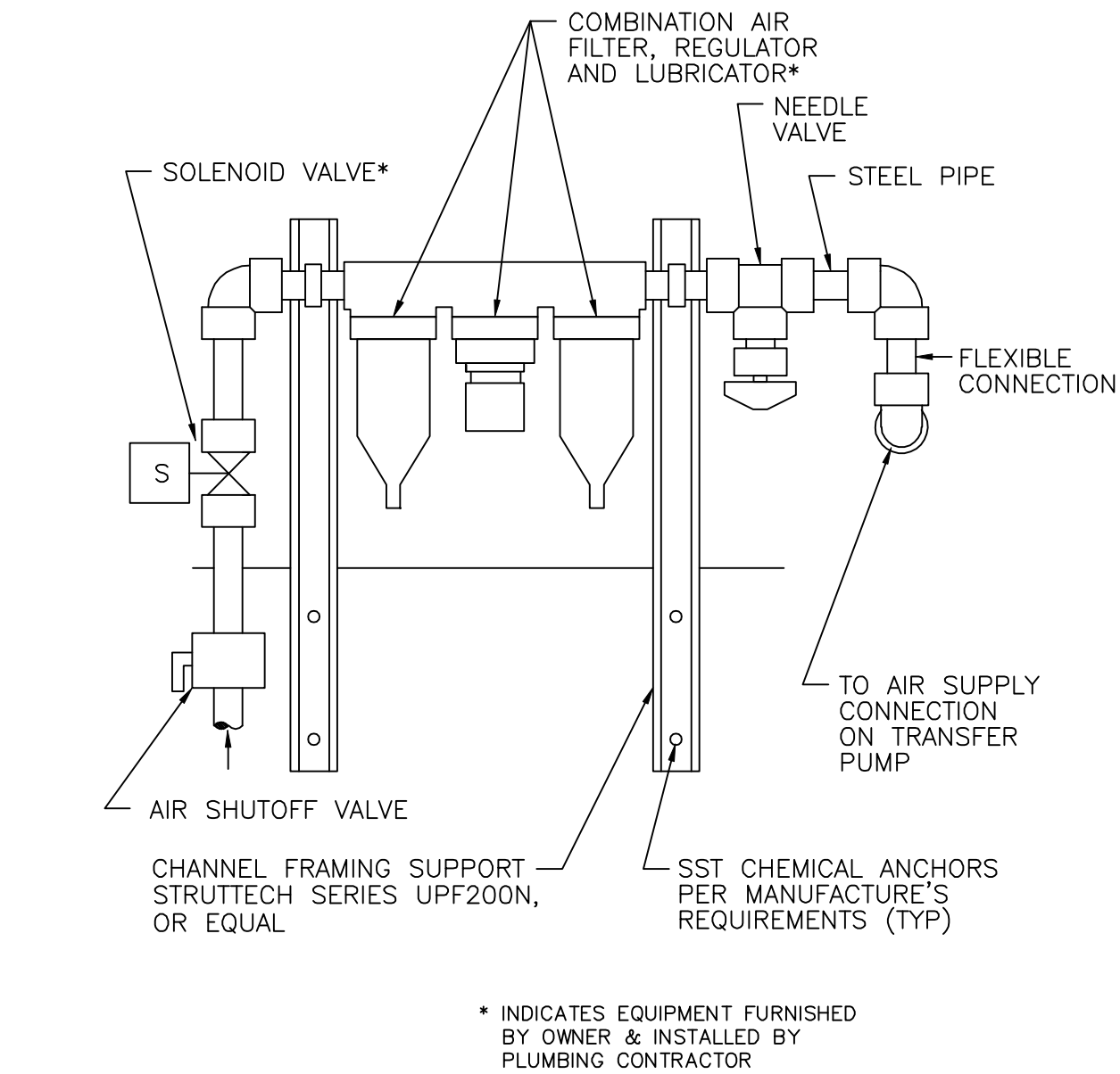
1	4/6/07	RELEASED FOR BIDDING
2	10/30/09	RECORD DRAWINGS

ENGINEERS
ARCHITECTS
PROJ. MGRS.
SURVEYORS

McMahon Associates, Inc.
1445 McMahon Drive
Neenah, WI 54956
Mailing Address:
P.O. Box 1225
Neenah, WI 54957-1023
TEL: 920-751-4200 FAX: 920-751-4284

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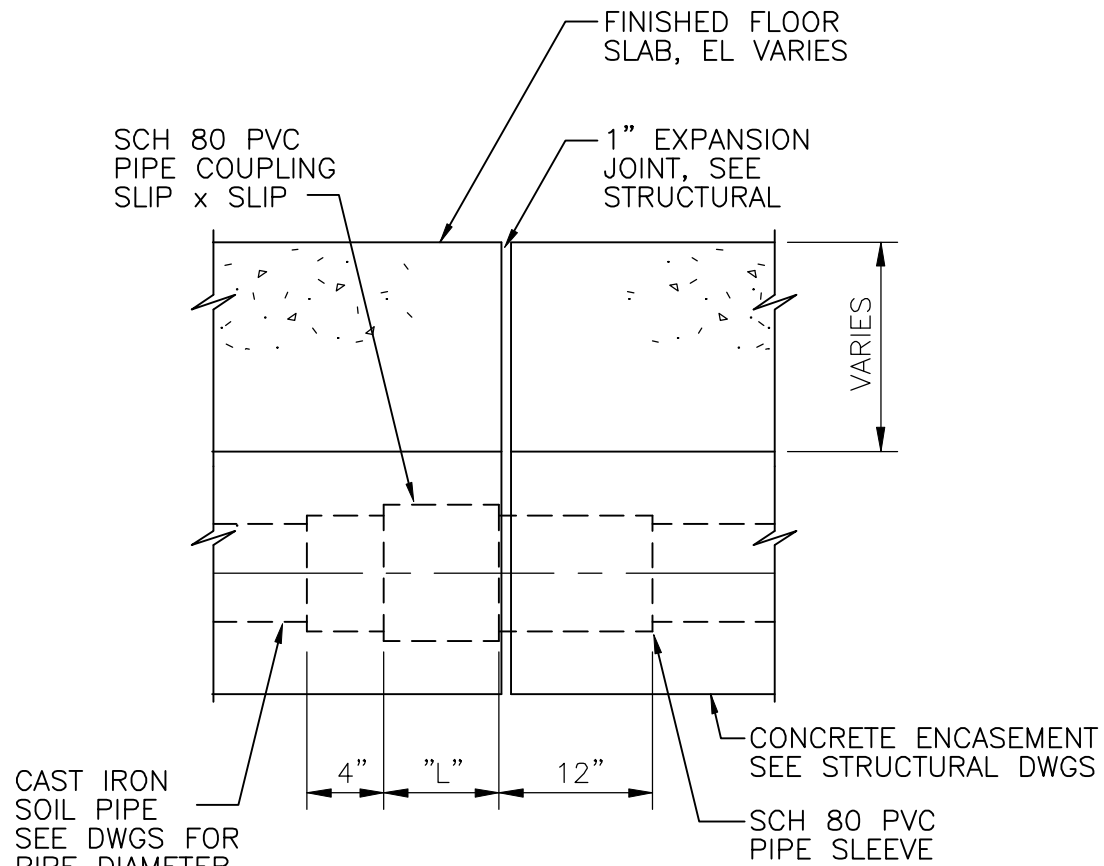


M405
TYP

TRANSFER PUMP AIR SUPPLY

11/05/97

PIPE SLEEVE DIMENSIONS		
CAST IRON PIPE SIZE	PVC PIPE SIZE	"L"
4" (100mm)	6" (150mm)	4 3/4" (121mm)
6" (150mm)	8" (200mm)	6 1/4" (159mm)
8" (200mm)	10" (200mm)	8 7/16" (214mm)
10" (250mm)	12" (300mm)	13 1/2" (343mm)

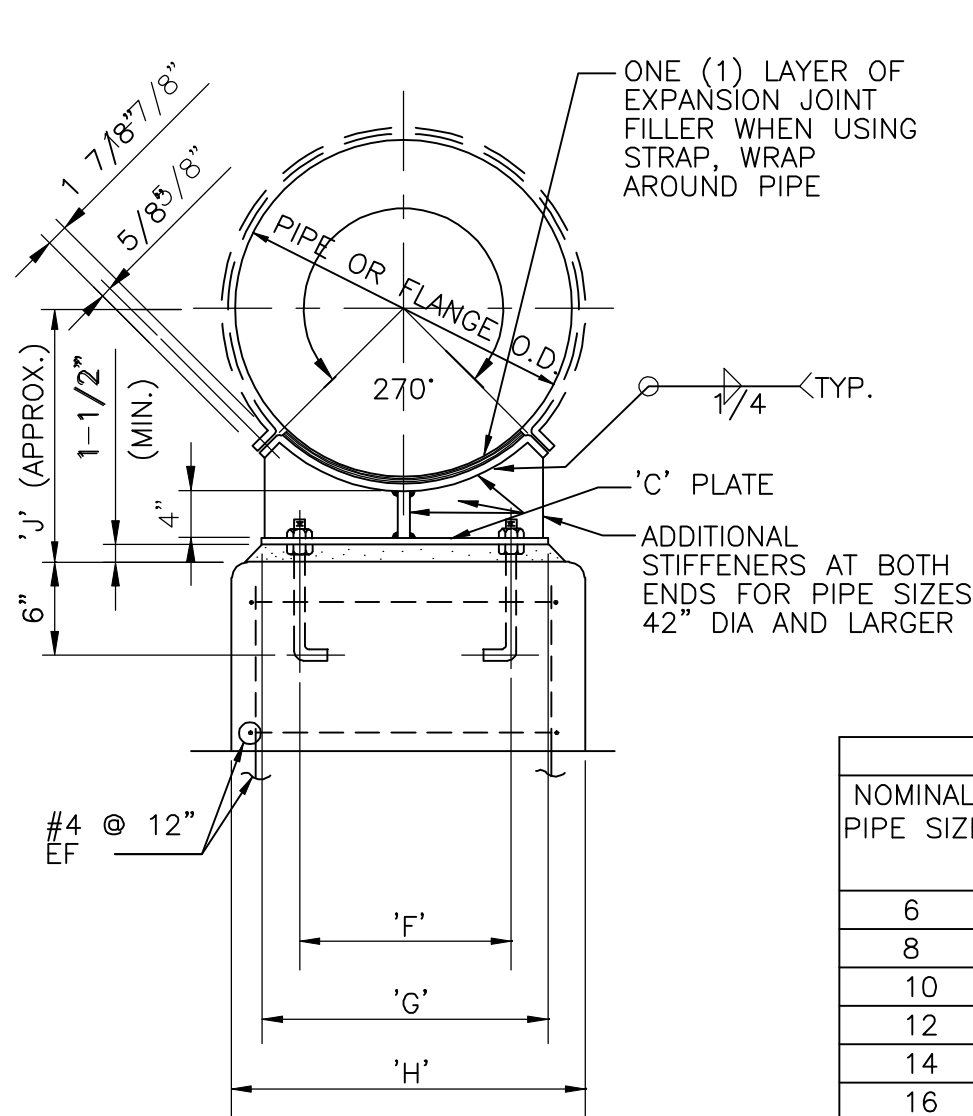


- NOTES:
1. ANNULAR SPACE AROUND DRAINAGE PIPE SHALL HAVE FLEXIBLE MATERIAL TO PREVENT CONCRETE ENCROACHMENT

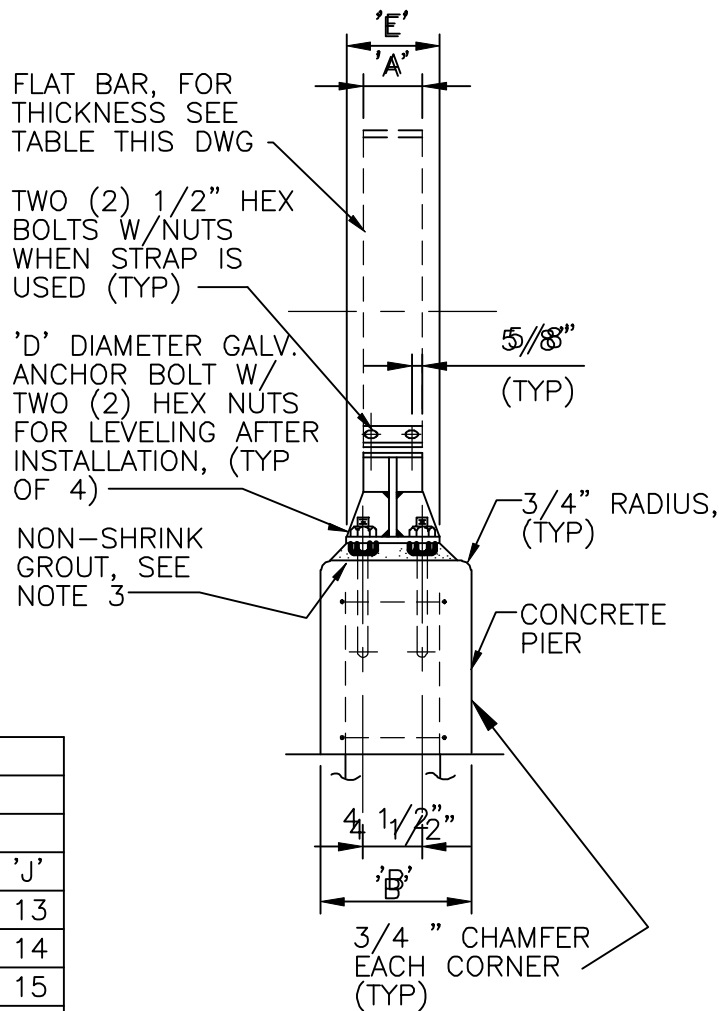
M425
TYP

DRAINAGE PIPE AT EXPANSION JOINT BELOW STRUCTURE

02/04/99



- NOTES:
1. WHEN SUPPORTING PIPE AND FLANGE ALTERNATELY ON THE SAME LINE, CONCRETE PIERS FOR PIPE SUPPORTS SHALL ALL HAVE THE SAME DIMENSION 'H' FOR FLANGE SUPPORT
 2. PIPE SUPPORTS TO BE LOCATED IN PLAN AT PLACES DESIGNATED WITH (X)
 3. WHERE DIFFERENTIAL SETTLEMENT IS LIKELY TO OCCUR, OMIT GROUT AS DIRECTED BY THE ENGINEER.
 4. GALVANIZE AFTER FABRICATION

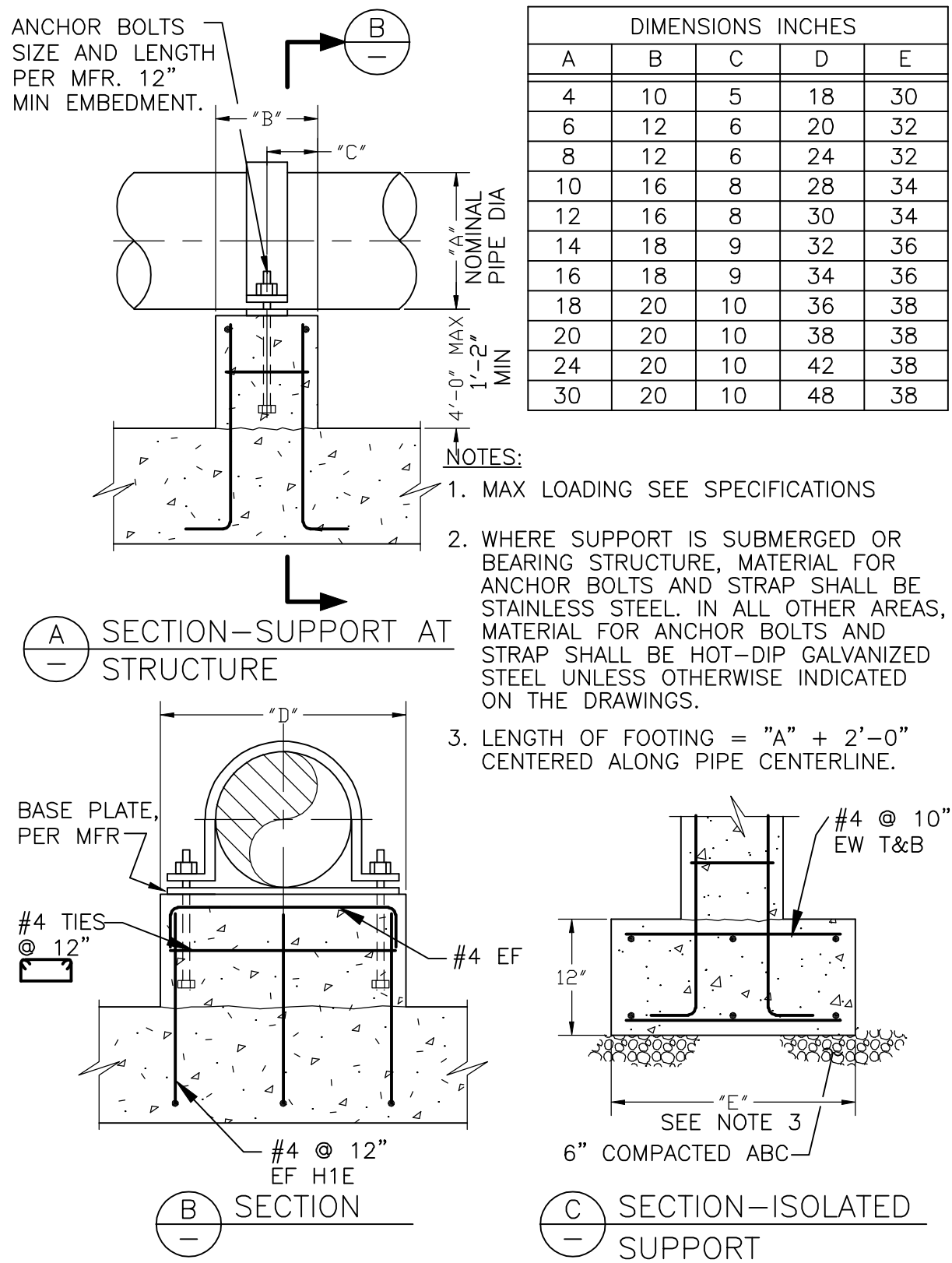


NOMINAL PIPE SIZE	DIMENSIONS IN INCHES															
	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'	'L'	'M'	'N'	'O'	'P'
6	4	12	3/8	5/8	6	1/4	4	1/2	8	14	10	6	1/2	11	16	13
8	4	12	3/8	5/8	6	1/4	5	9	1/2	14	11	7	1/2	13	18	14
10	4	12	3/8	5/8	6	1/4	6	11	16	12	9	15	20	15		
12	4	12	3/8	5/8	6	1/4	7	13	18	13	10	17	22	16		
14	4	12	3/8	5/8	6	1/4	8	13	18	14	11	18	23	17		
16	4	12	3/8	5/8	6	1/4	9	15	21	15	12	20	26	18		
18	4	12	3/8	5/8	6	1/4	10	16	22	16	13	21	26	19		
20	5	12	3/8	5/8	6	3/8	10	18	24	17	15	23	28	21		
22	5	12	3/8	5/8	6	3/8	12	19	24	18	16	25	30	22		
24	5	12	3/8	5/8	6	3/8	13	21	26	19	16	26	32	23		
26	5	12	3/8	3/4	6	3/8	14	22	28	20	18	28	34	24		
30	5	12	3/8	3/4	6	3/8	16	25	30	22	20	31	36	26		
34	5	15	3/8	3/4	6	3/8	18	28	33	24	22	35	41	29		
36	6	15	3/8	3/4	6	3/8	19	29	34	25	24	36	42	30		
42	6	18	1/2	1	8	3/8	21	33	39	28	27	41	47	33		
48	6	18	1/2	1	8	3/8	24	38	44	31	30	46	52	37		
54	6	18	1/2	1	8	3/8	28	42	48	34	34	50	56	40		
60	6	18	1/2	1 1/8	8	3/8	32	46	52	37	36	56	62	44		
66	6	18	1/2	1 1/8	8	3/8	33	51	58	40	40	61	68	47		
72	6	18	1/2	1 1/8	8	3/8	36	55	62	43	44	65	72	50		

M601
TYP

PIPE SUPPORT WITH OR WITHOUT STRAP

11//05/97



M603
TYP

CONCRETE PIPE ANCHOR

04/12/01

RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 4

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PROJECT NO.
R0018-950446

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GM6

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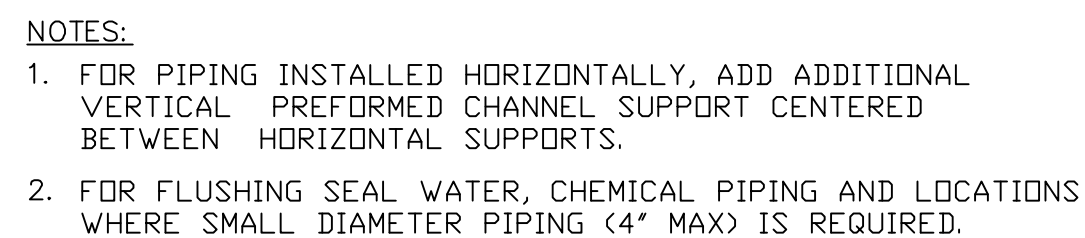
DESIGNED
D.J.V.

DRAWN
P.G.K.

CHECKED

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Mailing Address: P.O. Box 1725 Neenah, WI 54957-1023
TEL: 920-751-4200 FAX: 920-751-4284

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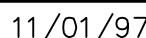
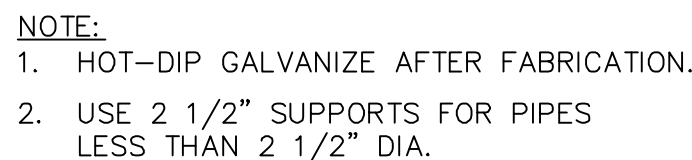


04/15/02

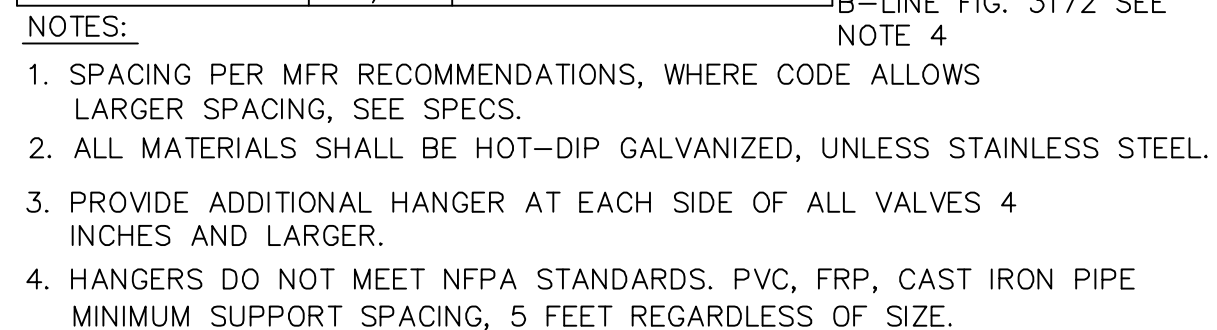
* = NOMINAL PIPE DIAMETER

NOTES:

1. PIPE SUPPORT MATERIALS SHALL MATCH PIPE ELBOW MATERIALS
2. HOT DIP GALVANIZED SUPPORT AFTER FABRICATION, UNLESS MATERIALS ARE STAINLESS STEEL
3. MILLIMETERS ARE ROUND NUMBERS, THEREFORE, APPROXIMATE.

* PFR MFR

02-20-98



06-01-98

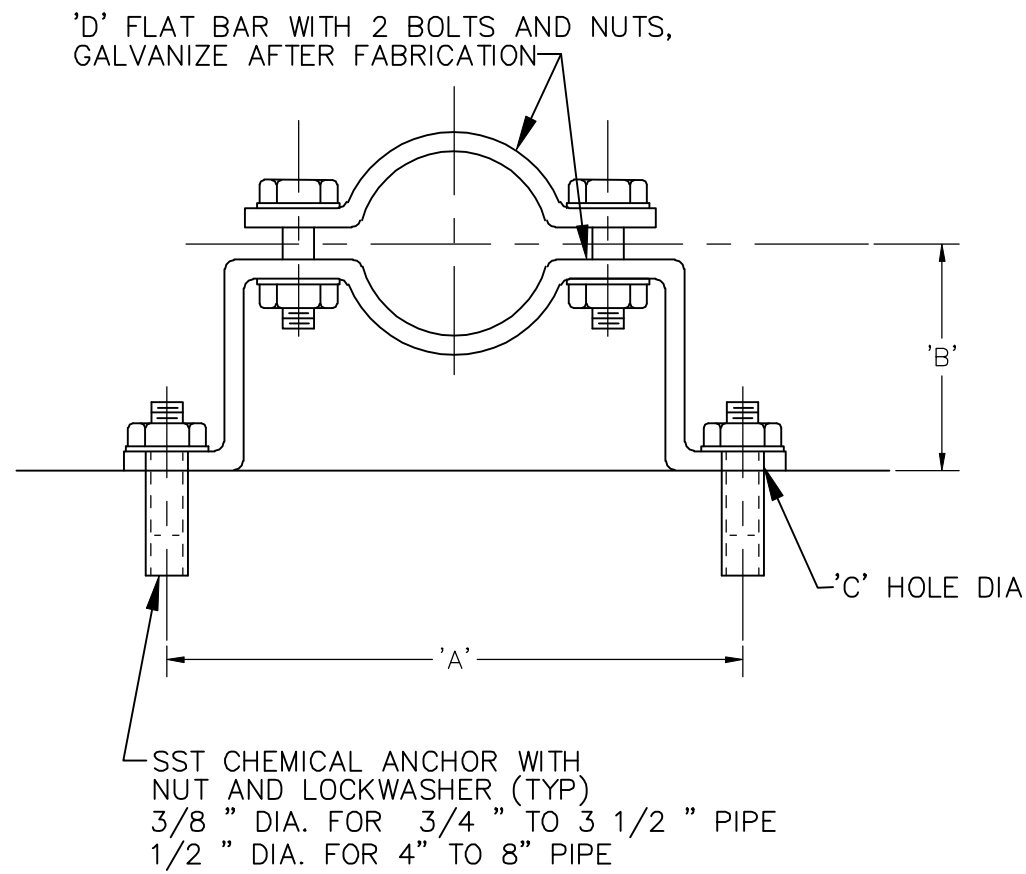


NOTES:

1. MAXIMUM LONGITUDINAL BRACE SPACING = 20'-0".
2. MAXIMUM TRANSVERSE BRACE SPACING = 20'-0".
3. DO NOT CONNECT BRACE TO BOTTOM OF ROOF BEAM OR C8 PIPE SUPPORT, EXCEPT AS SHOWN IN TYPICAL DETAIL P638.
4. USE LONGITUDINAL AND TRANSVERSE BRACES FOR PIPES 4" AND LARGER.

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NOTE:
DETAIL INTENDED FOR HORIZONTAL
PIPE RUNS ONLY. USE FOR SWAY
(NO LOAD) IN VERTICAL INSTALLATION

DIMENSIONS IN INCHES					
PIPE DIA.	'A'	'B' SEE NOTE 3 BELOW	'C' HOLE DIA	'D' FLAT BAR SIZE	LOAD RATING LBS.*
3/4	5-15/16	2-1/2	7/16	3/16 x 1-1/4	300
1	6-1/4	2-5/8	7/16	3/16 x 1-1/4	300
1-1/4	6-11/16	2-3/4	7/16	3/16 x 1-1/4	300
1-1/2	6-15/16	3	7/16	3/16 x 1-1/4	300
2	8-5/16	3-3/16	7/16	1/4 x 1-1/4	500
2-1/2	8-7/8	3-7/16	7/16	1/4 x 1-1/4	500
3	9-1/8	3-3/4	7/16	1/4 x 1-1/4	500
3-1/2	10-1/16	4	7/16	1/4 x 1-1/4	500
4	10-9/16	4-1/4	9/16	1/4 x 1-1/2	600
5	11-3/4	4-3/4	9/16	1/4 x 1-1/2	600
6	14-3/8	5-5/16	9/16	3/8 x 1-1/2	850
8	16-5/8	6-5/16	9/16	3/8 x 1-1/2	850

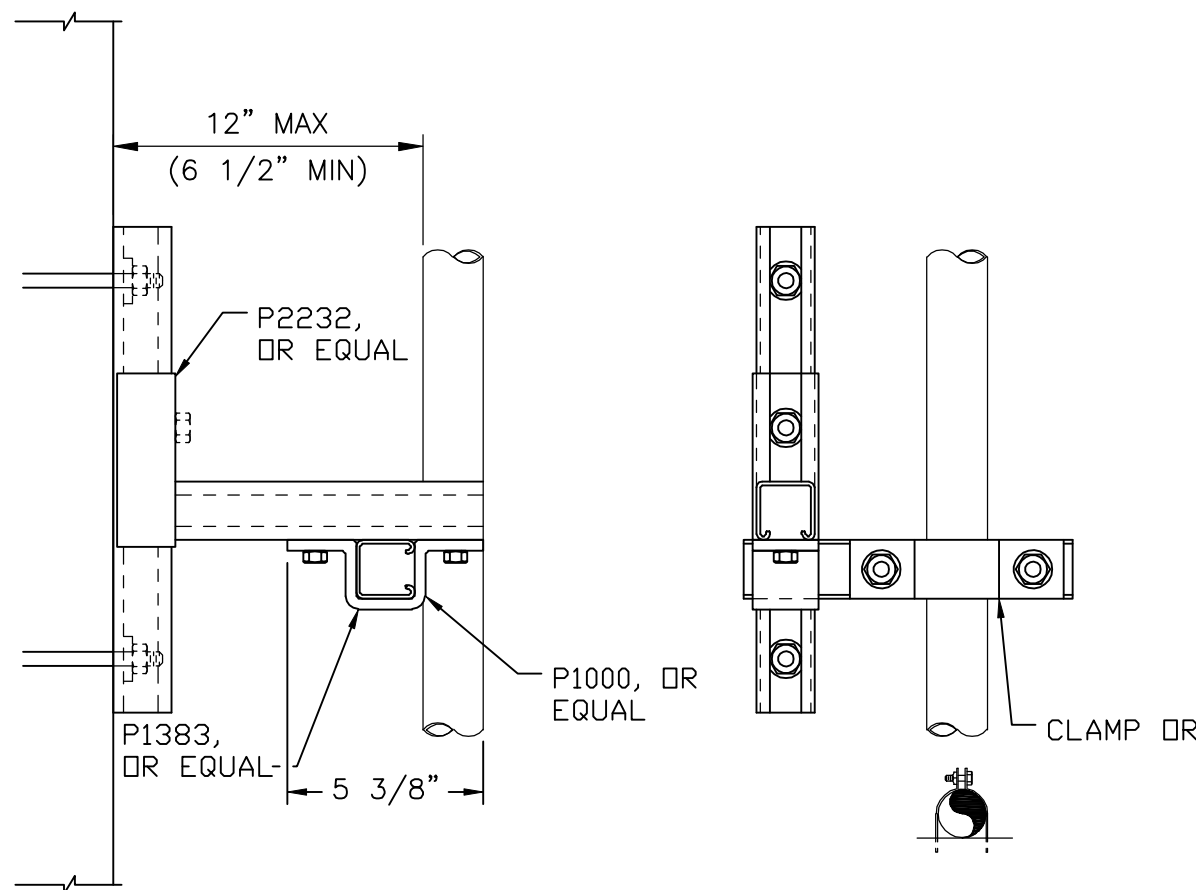
* SAFETY FACTOR OF 5

- NOTES:
- WHERE SUBMERGED, PIPE CLAMP, ANCHOR, SHIELD, NUTS AND LOCKWASHER TO BE TYPE 316 STAINLESS STEEL.
 - WHEN USED WITH PVC OR FIBERGLASS PIPE, PROVIDE STEEL SHIELD AROUND PIPE AT CLAMP, WITH LOOSE FIT. WRAP COPPER TUBES WITH 2" STRIP OF RUBBER FABRIC.
 - FOR FLANGED PIPING, INCREASE 'B' DIMENSION AS REQUIRED.

M631
TYP

FABRICATED OFFSET PIPE CLAMP

01/22/97

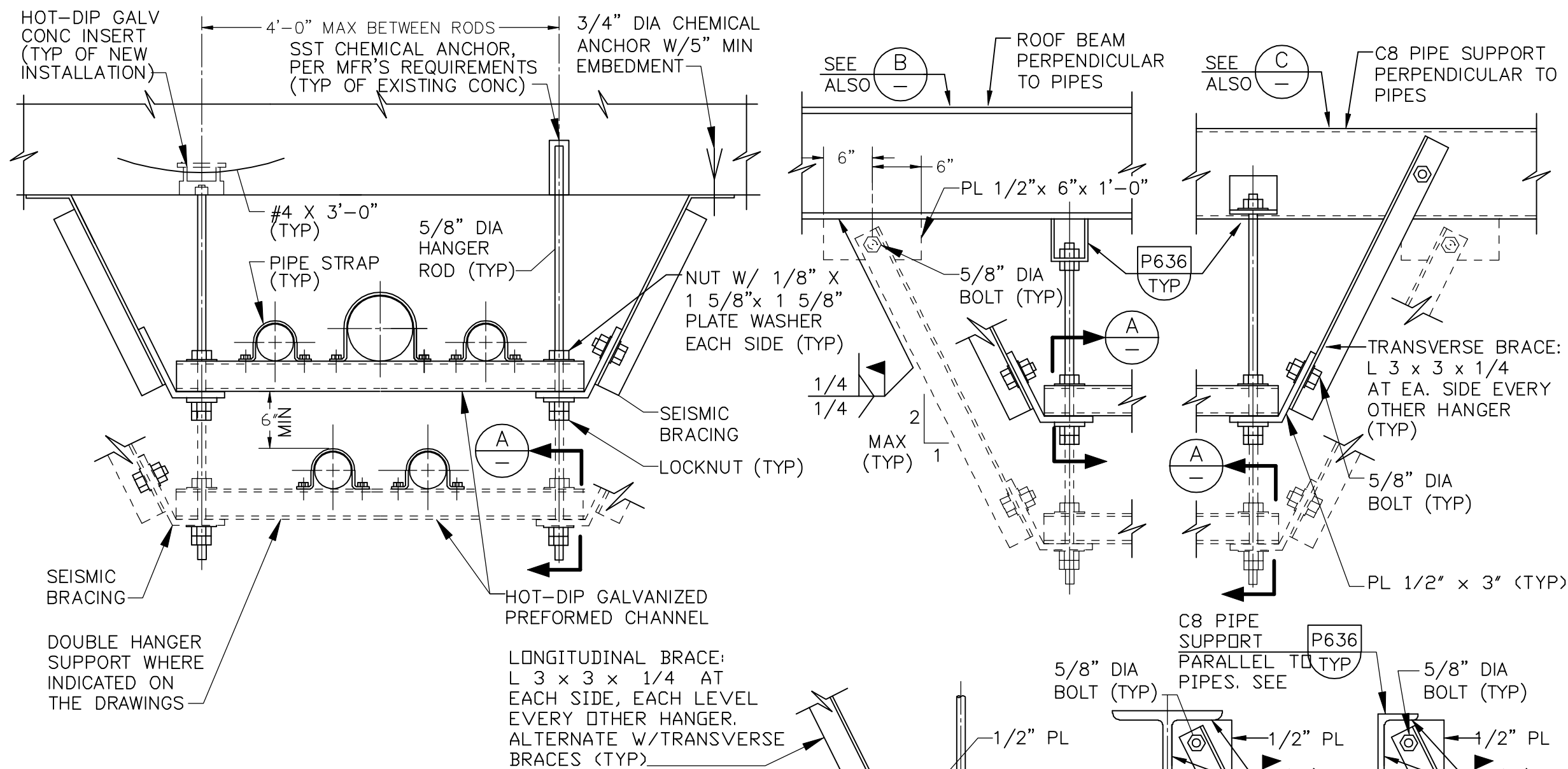


M635
TYP

ADJUSTABLE VERTICAL PIPE SUPPORT

4" AND SMALLER

04/28/04

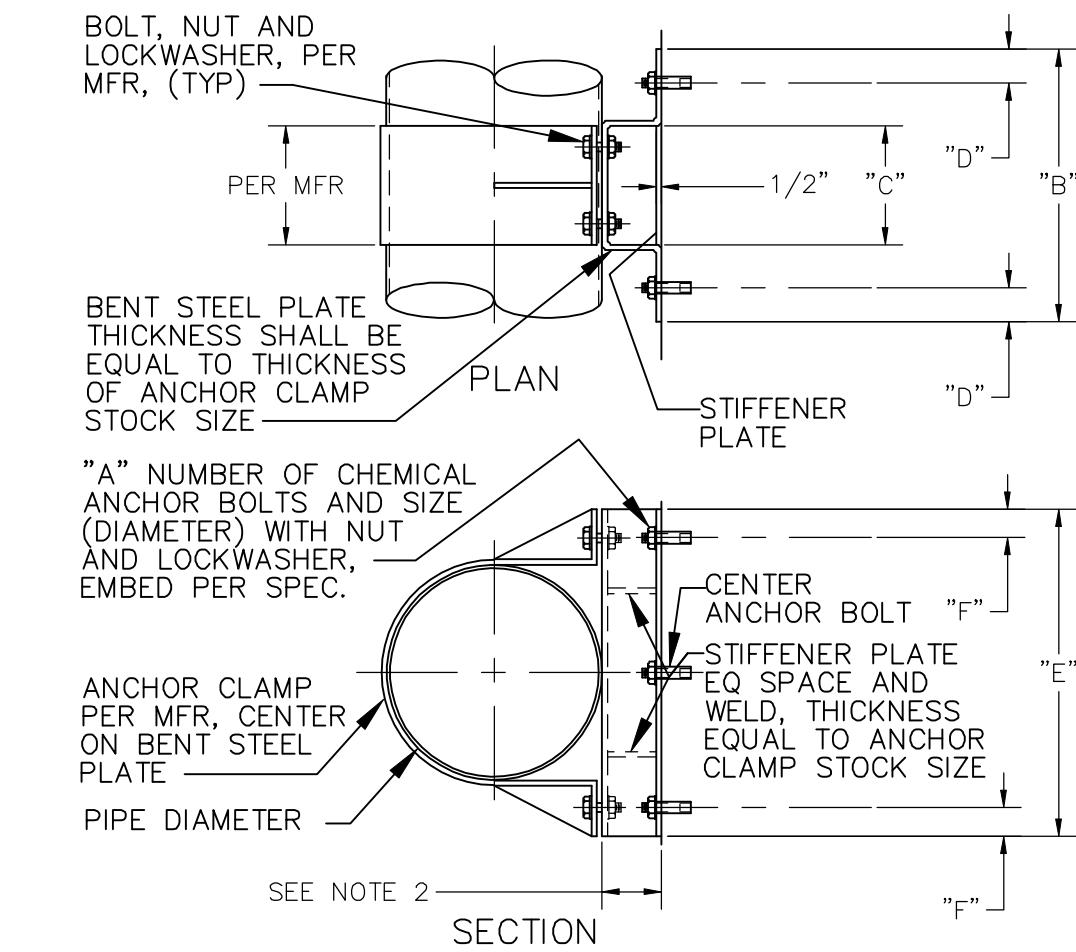


- NOTES:
- MAXIMUM VERTICAL LOAD EQUALS 2000 LBS.
 - HANGER SPACING SHALL BE BASED ON MAXIMUM SPAN ALLOWABLE FOR ANY INDIVIDUAL PIPE AND FOR MAXIMUM LOAD.
 - ALL-THREAD ROD SHALL BE USED ONLY FOR DOUBLE SUPPORTS.
 - ALL MATERIALS SHALL BE HOT-DIP GALVANIZED.

M638
TYP

DOUBLE ROD PIPE HANGER

11/05/97



DIMENSIONS IN INCHES (mm) SEE NOTE 3						
PIPE DIA *	"A"	"B"	"C"	"D"	"E"	"F"
10(250)	6 - 1(25)	14(356)	8(203)	2 1/2(64)	20(508)	2 3/8(60)
12(300)	6 - 1(25)	14(356)	8(203)	2 1/2(64)	22(559)	2 3/8(60)
14(350)	6 - 1(25)	16(406)	10(254)	3(76)	24(610)	2 3/4(70)
16(400)	6 - 1(25)	16(406)	10(254)	3(76)	26(660)	2 3/4(70)
18(450)	6 - 1(25)	18(457)	12(305)	3 1/2(89)	28(711)	2 3/4(70)
20(500)	6 - 1(25)	18(457)	12(305)	3 1/2(89)	30(762)	2 3/4(70)
24(600)	6 - 1(25)	18(457)	12(305)	3 1/2(89)	34(864)	2 3/4(70)
30(750)	6 - 1(25)	18(457)	12(305)	3 1/2(89)	40(1016)	2 3/4(70)

* = NOMINAL PIPE DIAMETER

- NOTES:
- WHERE SUBMERGED, PIPE CLAMP, ANCHOR, SHIELD, NUTS AND LOCKWASHER TO BE TYPE 316 STAINLESS STEEL.
 - FLANGED PIPE DIMENSION SHALL BE 1/2"(13) BETWEEN FLANGE AND WALL, MIN. DIMENSION NOT TO EXCEED 18"(457) MAX.
 - MILLIMETERS ARE ROUND NUMBERS, THEREFORE, APPROXIMATE.

M639
TYP

STEEL PIPE ANCHOR

10" AND LARGER

01/04/01

RECORD DRAWINGS

DRAFTED BY: **PGK** 10/30/09

CHECKED: _____

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 6

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

SHEET NO.

GM8

FILE NO.

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D.J.V.

DRAWN
P.G.K.

CHECKED
P.G.K.

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TEL: 920-751-4200 FAX: 920-751-4284

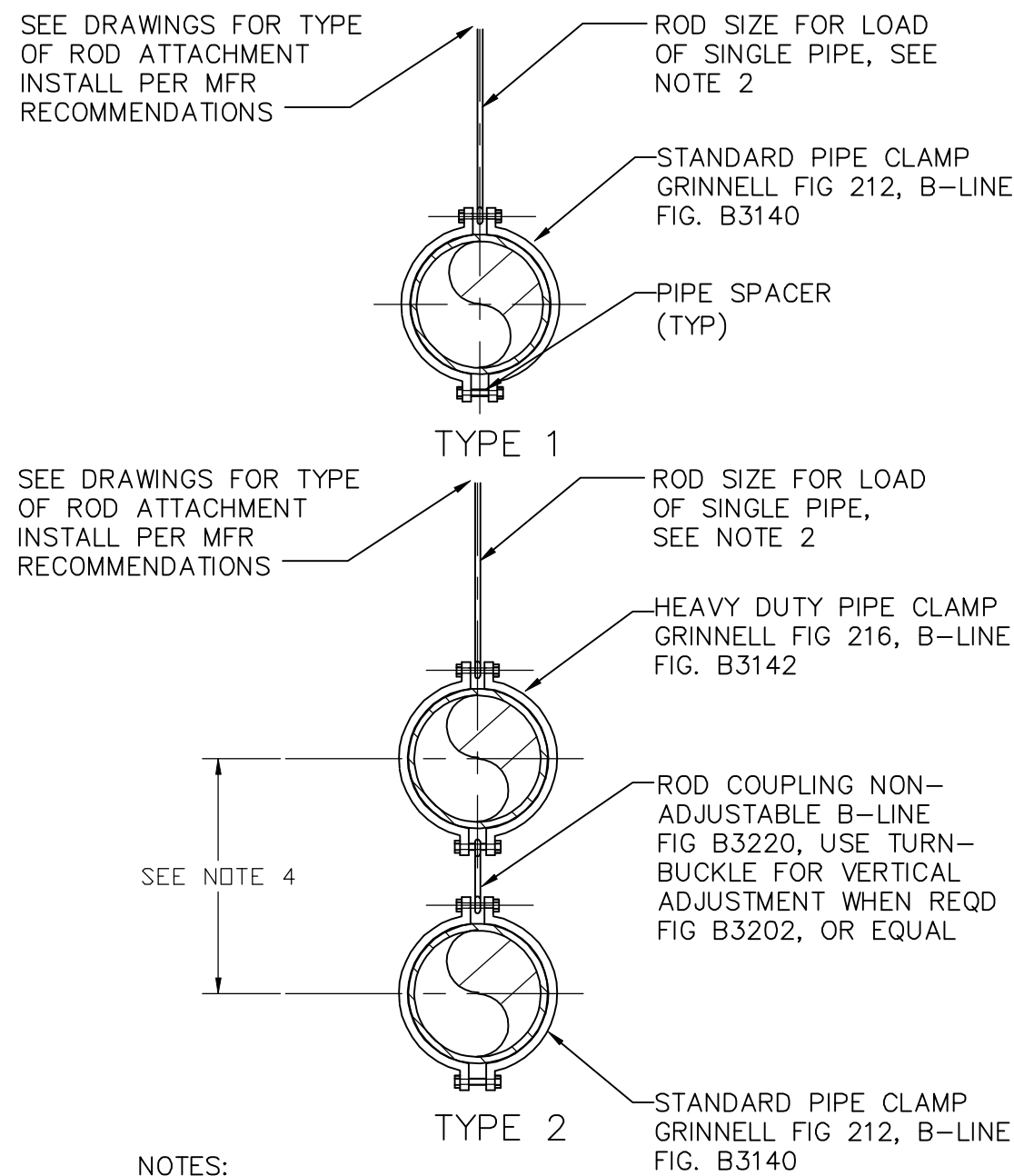
NO. 1 2

DATE 4/6/07 10/30/09

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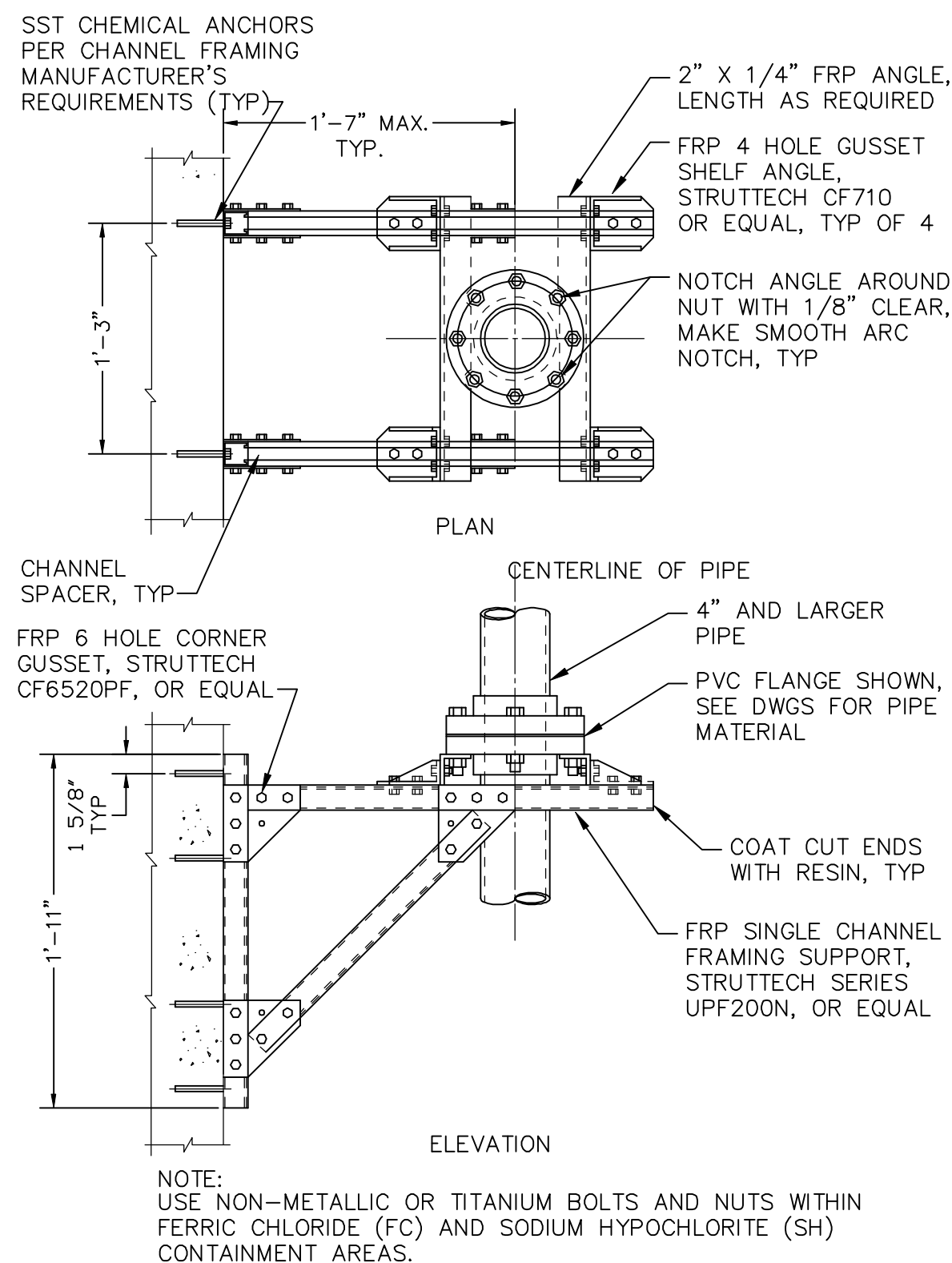
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NOTES:

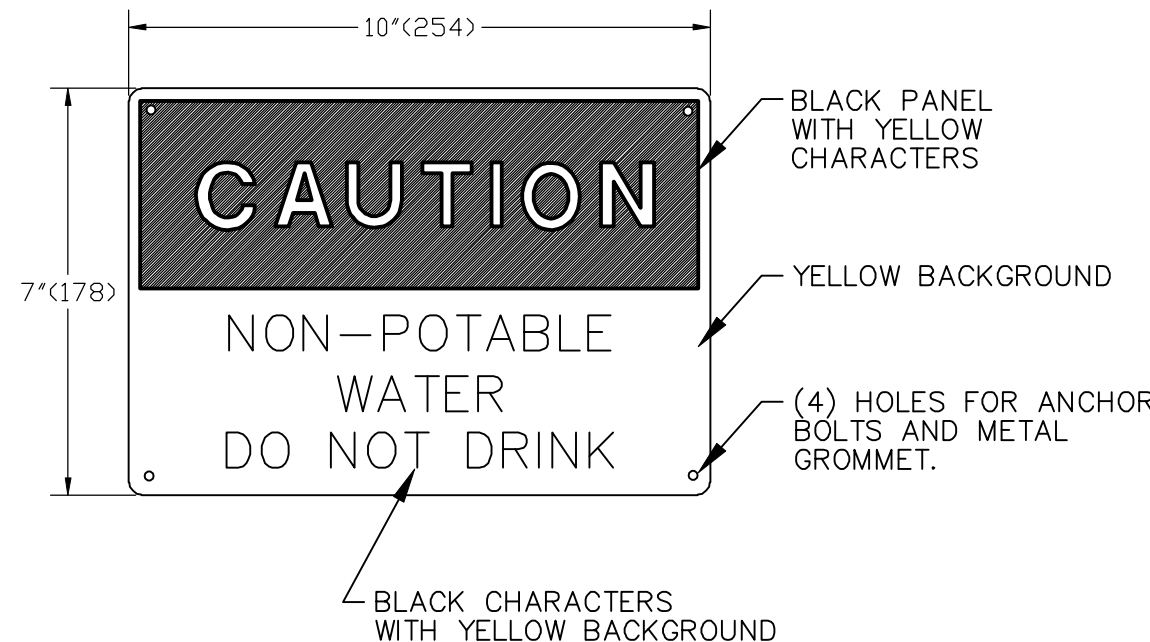
- RECOMMENDED WHERE NO INSULATION IS REQUIRED
- INSTALL PER MFR REQUIREMENTS FOR ROD AND HANGER LOAD CAPACITY AND SPACING
- SEISMIC BRACING BRACKET REQUIREMENTS PER MFR, SIMILAR TO M630
- LENGTH BETWEEN PIPES SEE DRAWINGS, APPROXIMATE SIZE ROD COUPLING PER MFR REQUIREMENTS

M643 **HEAVY DUTY PIPE HANGER**
TYP 03/01/99



NOTE:
USE NON-METALLIC OR TITANIUM BOLTS AND NUTS WITHIN FERRIC CHLORIDE (FC) AND SODIUM HYPOCHLORITE (SH) CONTAINMENT AREAS.

M647 **FRP FABRICATED VERTICAL SINGLE PIPE SUPPORT - TYPE 2**
TYP 02/18/03



NOTES:

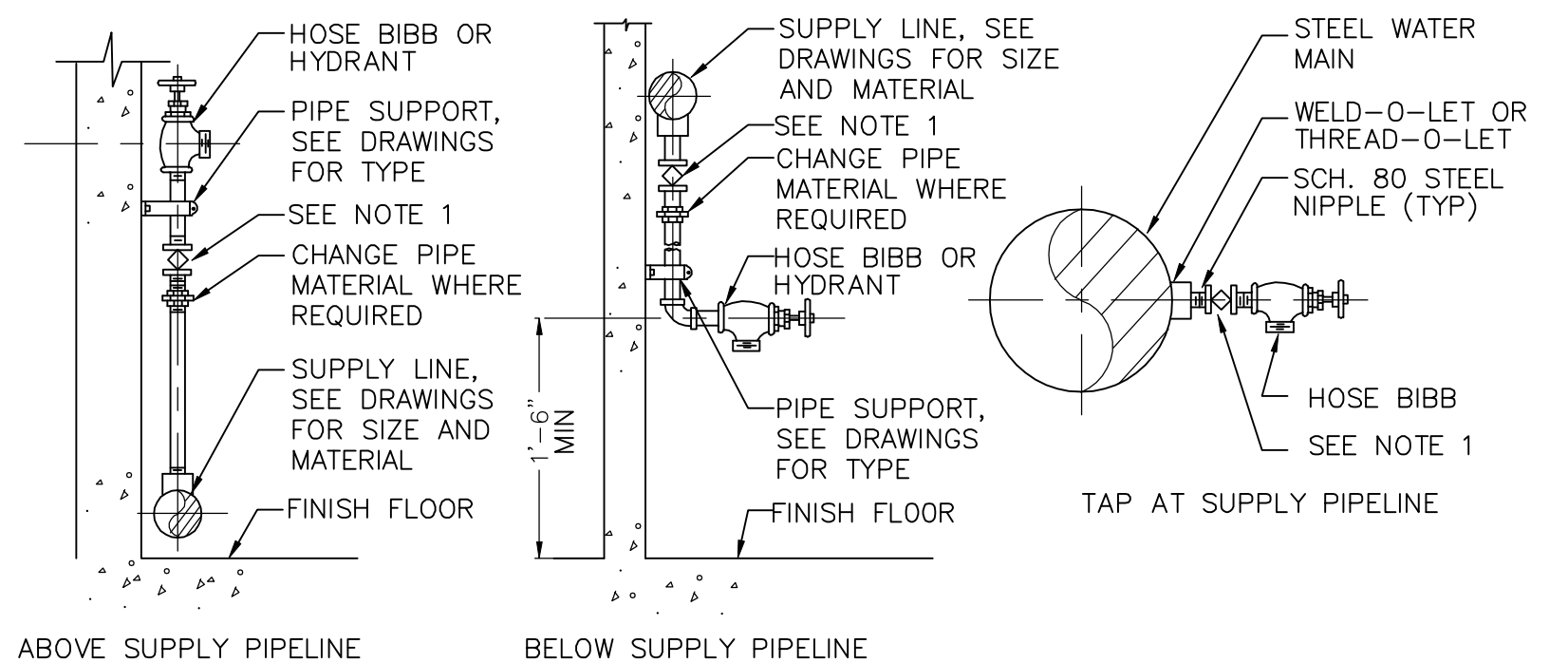
- MATERIAL TO BE SEMI-RIGID BUTYRATE OR APPROVED EQUAL, AS MFD BY SETON NAME PLATE CORP., NEW HAVEN, CONN., 06505; W.H. BRADY CO., MILWAUKEE, WIS. 53201 OR EQUAL.
- COLORS AND LETTER SIZES TO BE PER OSHA STANDARDS FOR CAUTION SIGNS.
- PROVIDE THIS SIGN AT ALL HOSE BIBB LOCATIONS WHERE WATER IS NON-POTABLE (UTILITY WATER)
- MILLIMETERS ARE ROUND NUMBERS, THEREFORE, APPROXIMATE.

M649 **CUSTOM WARNING SIGN NON-POTABLE WATER**
TYP 11/05/97

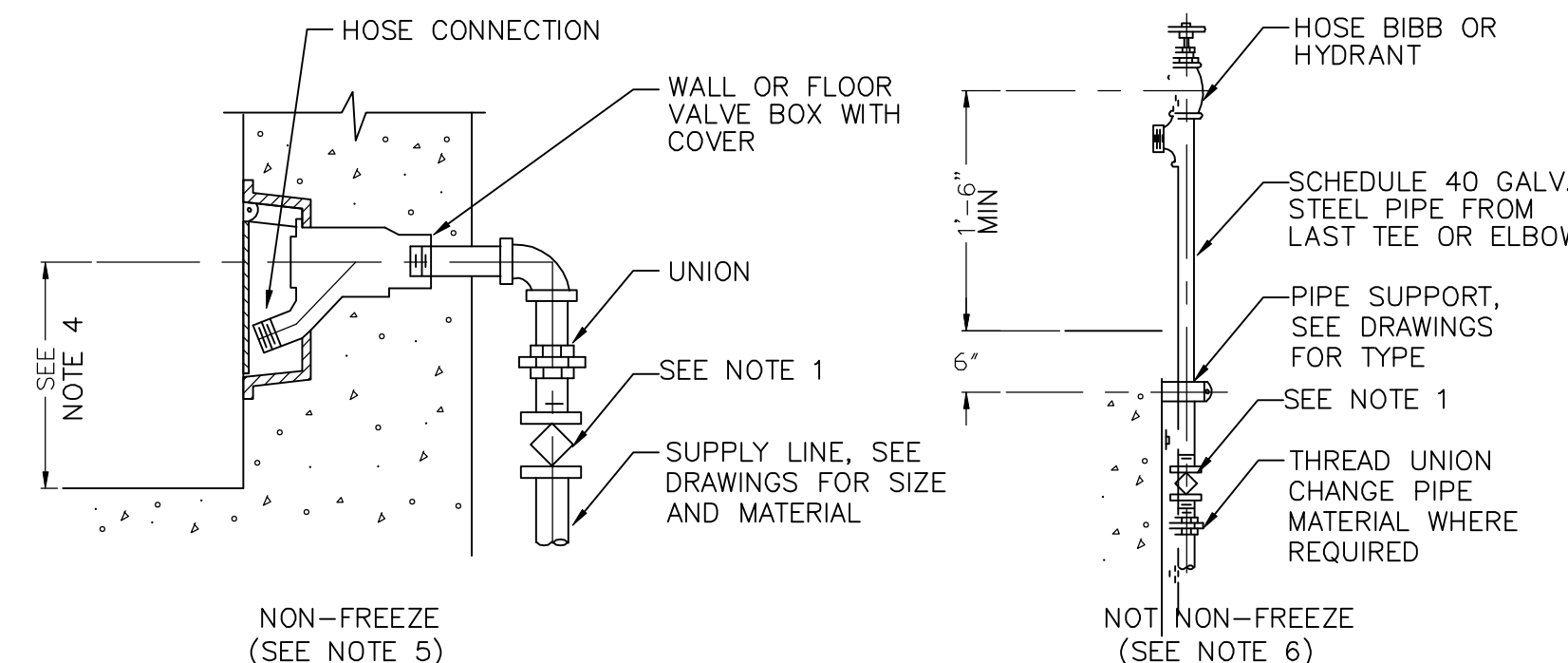
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DRAFTED BY: **PGK** 10/30/09

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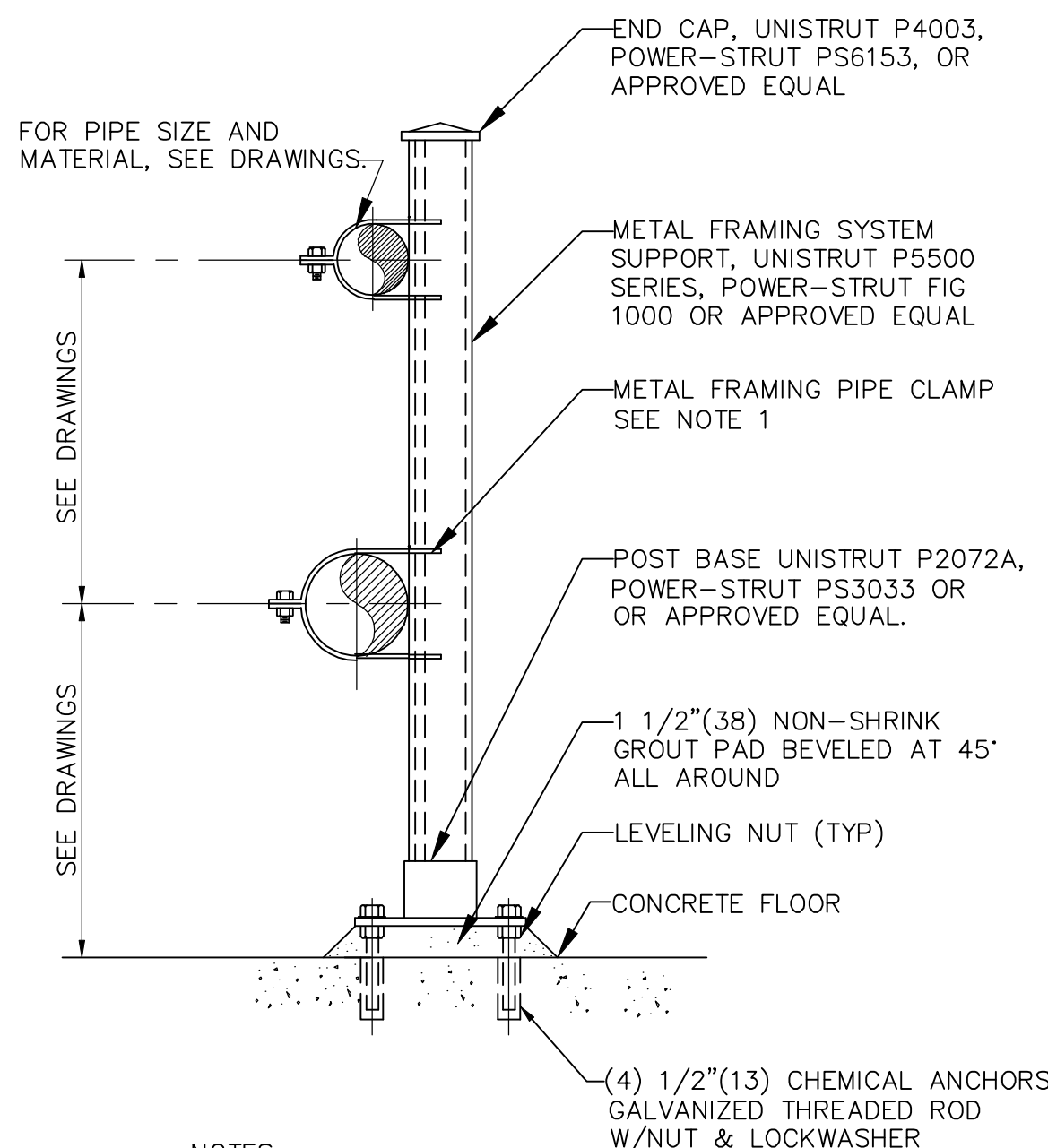
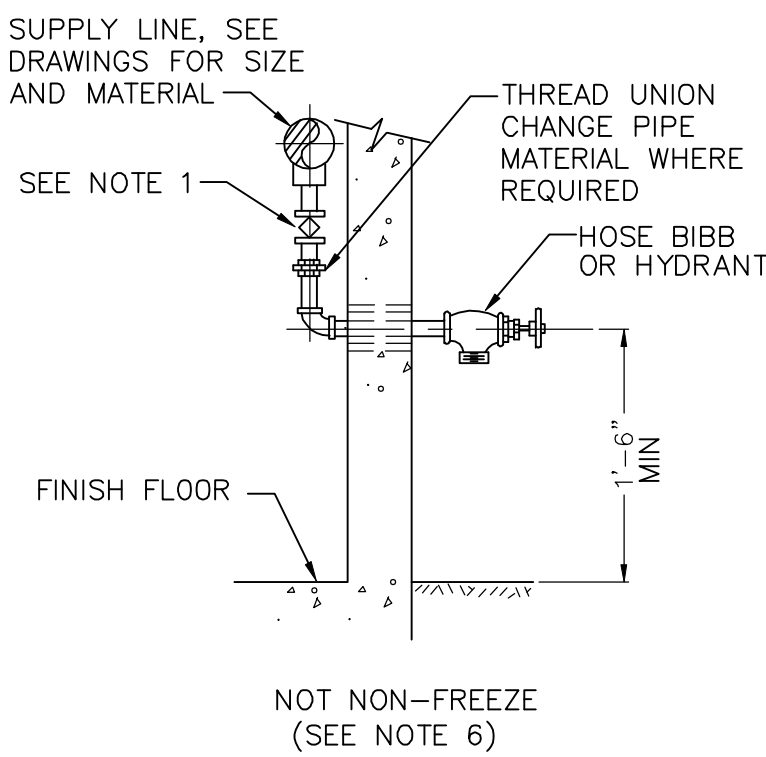
ELEVATION - INTERIOR LOCATION



M651 **HOSE BIBB AND HYDRANT INSTALLATION**
TYP 11/05/97

NOTES:

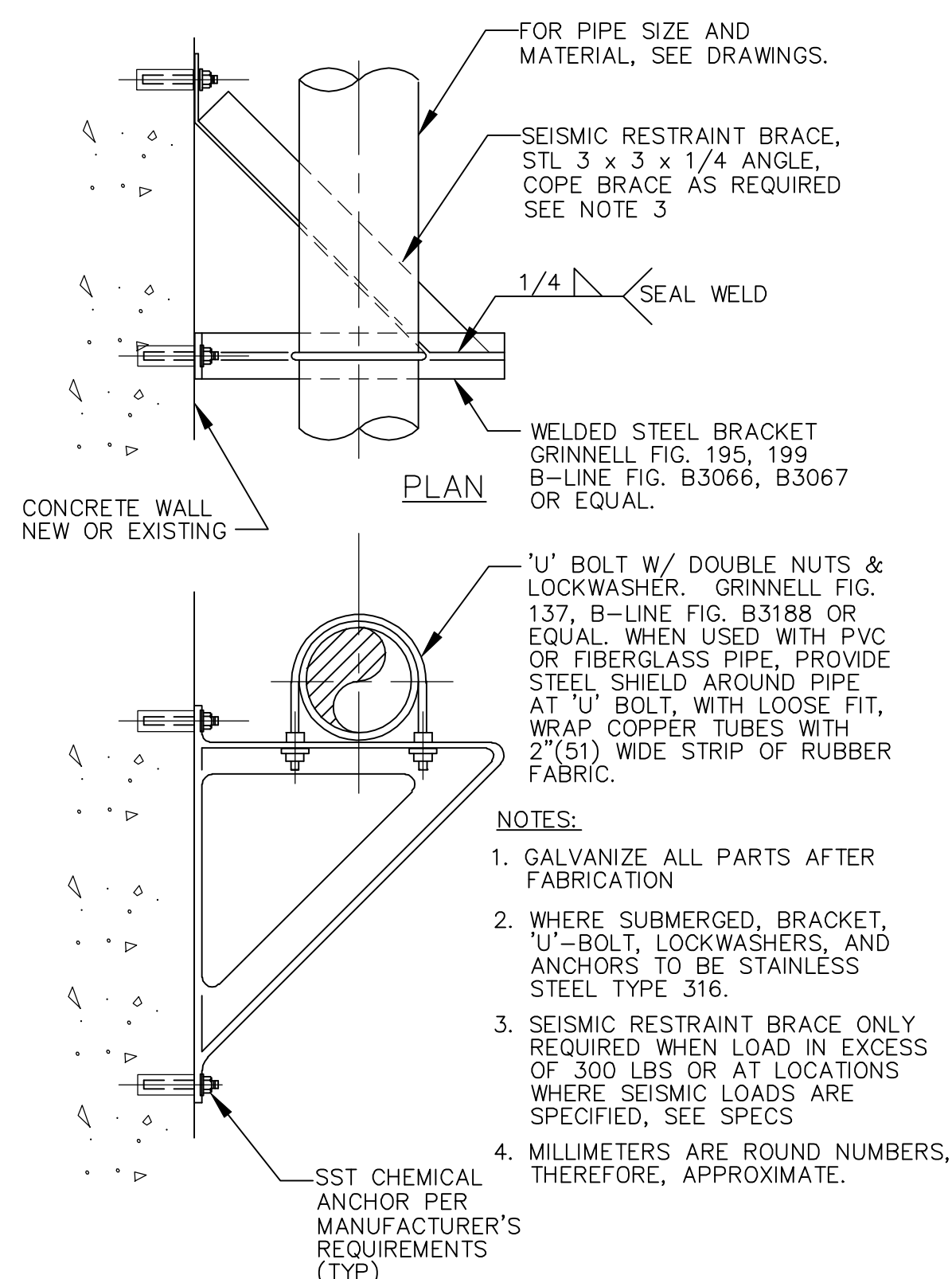
- ALL HOSE BIBBS TO BE CONTROLLED BY INDIVIDUAL ISOLATION VALVES (BALL OR PLUG).
- PROVIDE WARNING SIGN WHEN USED FOR NON-POTABLE (UTILITY WATER) PER DETAIL M649.
- PROVIDE HOSE RACK EACH HOSE BIBB INSTALLATION, PER DETAIL M653.
- INSTALL AT HEIGHT PER LOCAL CODE REQUIREMENTS.
- FOR ADDITIONAL NON-FREEZE YARD HYDRANTS SEE ADDITIONAL MECHANICAL DETAILS.
- FOR COLD AREA INSTALLATION SUPPLY MAIN AND HOSE BIBB SHALL BE DRAINED AND COMPRESSED AIR PURGED TO PREVENT FREEZING.



NOTES:

- WHEN USED WITH PVC OR FIBERGLASS PIPE, INSTALL STEEL SHIELD AROUND PIPE AT PIPE CLAMP, WITH LOOSE FIT. WRAP COPPER TUBING WITH 2"(51) WIDE STRIP OF RUBBER FABRIC, TYP.
- FOR 4"(100) NOMINAL DIA AND SMALLER PIPE OR ELECTRICAL CONDUIT.
- MILLIMETERS ARE ROUND NUMBERS, THEREFORE, APPROXIMATE.

M657 **FLOOR PIPE SUPPORT**
TYP 11/05/97



NOTES:

- GALVANIZE ALL PARTS AFTER FABRICATION
- WHERE SUBMERGED, BRACKET, 'U'-BOLT, LOCKWASHERS, AND ANCHORS TO BE STAINLESS STEEL TYPE 316.
- SEISMIC RESTRAINT BRACE ONLY REQUIRED WHEN LOAD IN EXCESS OF 300 LBS OR AT LOCATIONS WHERE SEISMIC LOADS ARE SPECIFIED, SEE SPECS
- MILLIMETERS ARE ROUND NUMBERS, THEREFORE, APPROXIMATE.

M658 **PIPE SUPPORT BRACKET**
TYP 11/05/97

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 7

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

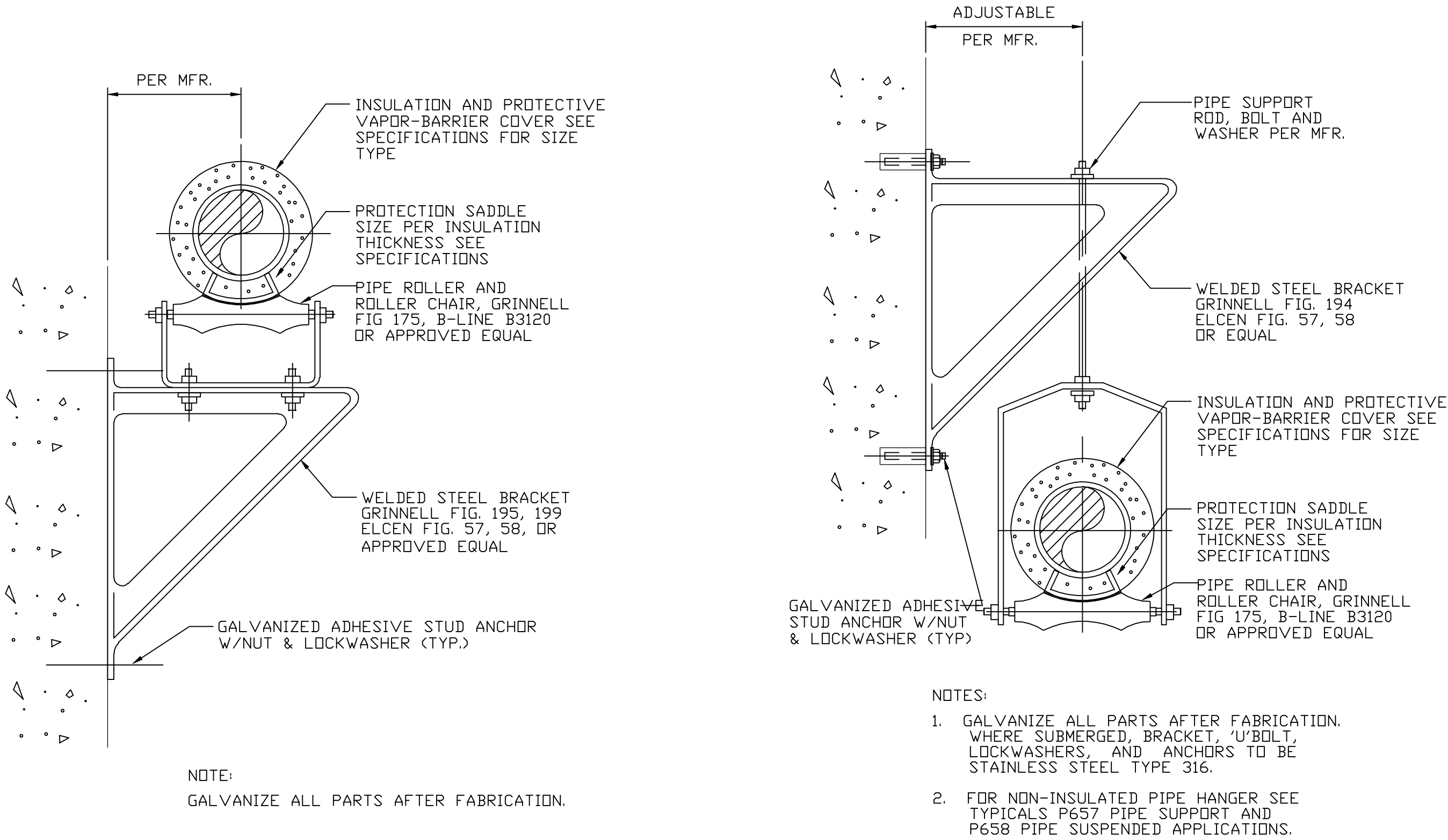
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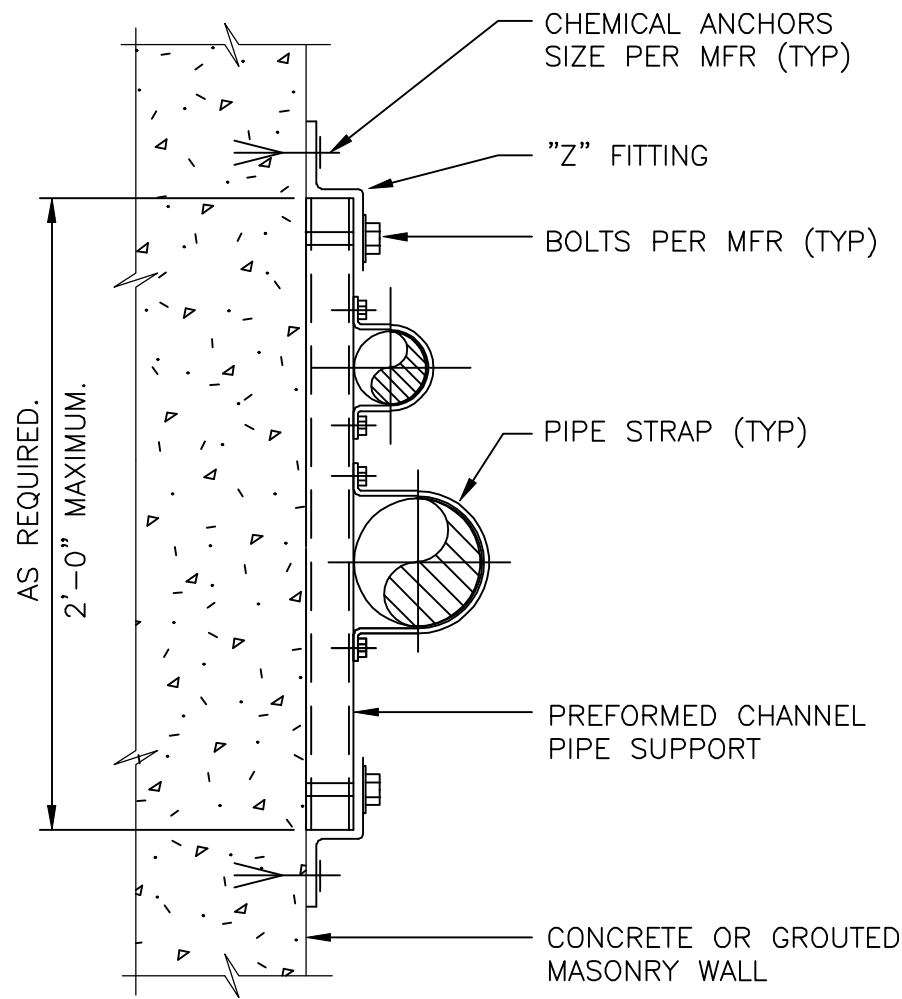
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1	4/6/07	1		
2	10/30/09	2		



P659
TYP

INSULATED PIPE SUPPORT BRACKET

01/22/97

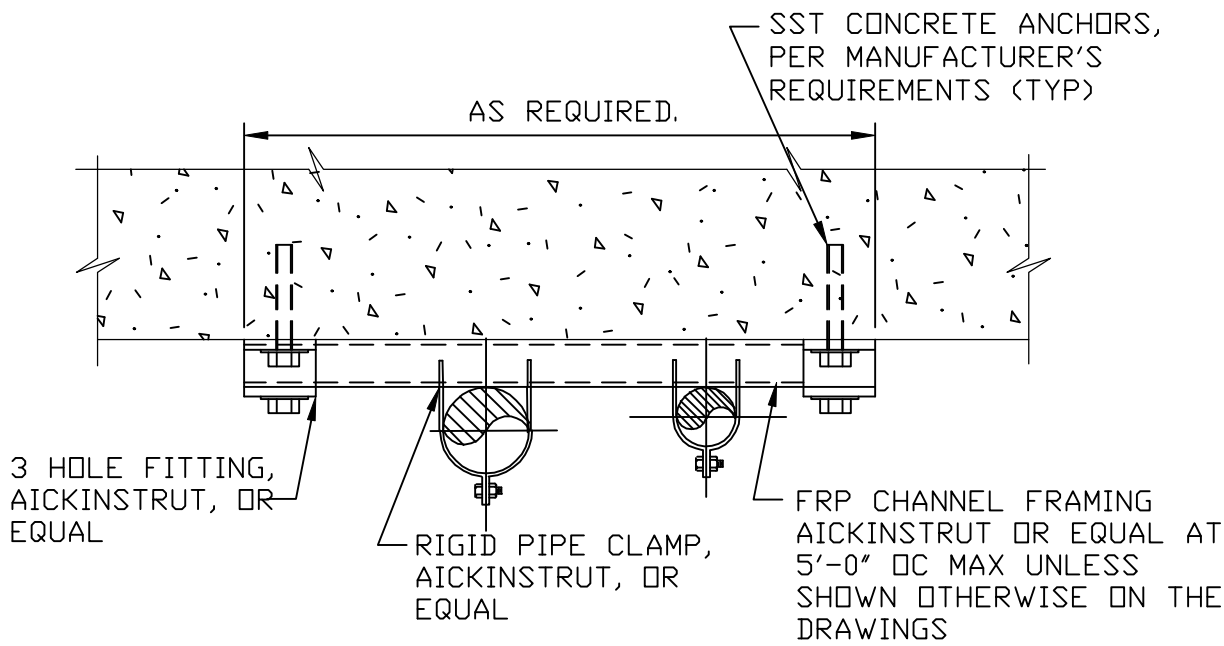


- NOTES:
1. VERTICAL INSTALLATION FOR SMALL DIAMETER PIPE (3" MAX) OR ELECTRICAL CONDUIT
 2. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL SHALL BE STAINLESS STEEL.

M660
TYP

FLUSH MOUNT PIPE SUPPORT

12/12/97



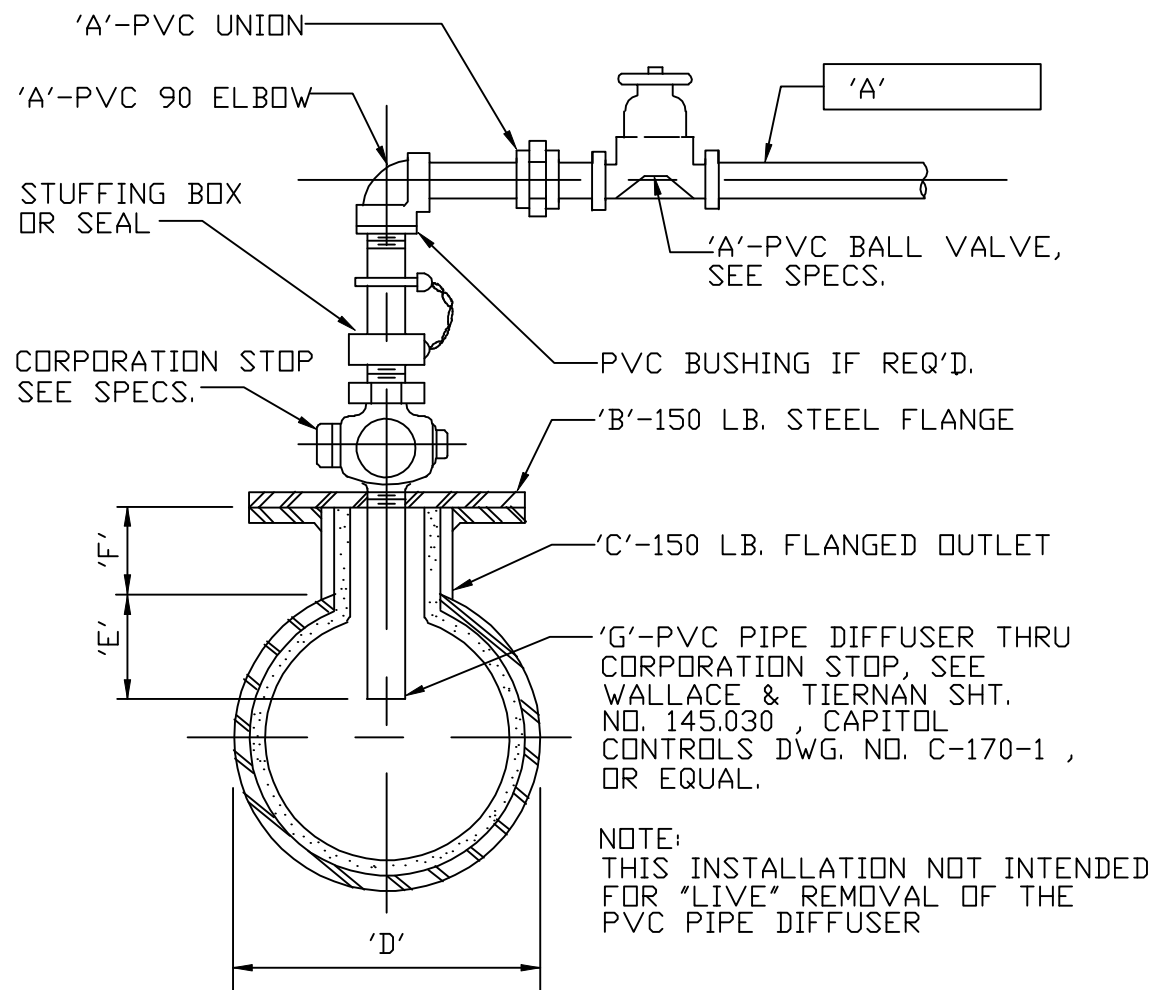
- NOTES:
1. VERTICAL INSTALLATION FOR SMALL DIAMETER PIPE (4" MAX) OR ELECTRICAL CONDUIT.
 2. SUPPORT VERTICAL PIPING INDEPENDENTLY OF CONNECTED HORIZONTAL PIPING. SUPPORT VERTICAL PIPES AT EVERY [OTHER] FLOOR. WHEREVER POSSIBLE, LOCATE RISER CLAMPS DIRECTLY BELOW PIPE COUPLINGS OR SHEAR LUGS. FOR CARRIER PIPE RISER RUNS GREATER THAN 15'-0" PROVIDE AND INSTALL COUPLINGS EVERY 10 FEET.

P665
TYP

FRP FLUSH MOUNTED PIPE SUPPORT VERTICAL INSTALLATION

IDENT. MARK	CHEMICAL	GPM	DIMENSIONS IN INCHES						
			'A'	'B'	'C'	'D'	'E'	'F'	'G'
1/2" FA	FLUORIDE	-	1/2"	3"	3"	30"	8"	6"	1/2"
3/4" SS	SILICATE	-	3/4"	3"	3"	30"	8"	6"	3/4"
1 1/2" SA	SODA ASH	-	1/2"	3"	3"	30"	8"	6"	1 1/2"
3/4" SH	SOD. HYPO.	-	1/2"	3"	3"	24"	6"	6"	3/4"
3/4" SH	SOD. HYPO.	-	1/2"	3"	3"	30"	8"	6"	3/4"
3/4" SH	SOD. HYPO.	-	1/2"	3"	3"	30"	8"	6"	3/4"
1 1/2" SA	SODA ASH	-	1/2"	3"	3"	30"	8"	6"	1 1/2"

* SEE DRAWING FOR DIMENSIONS.



M705
TYP

CHEMICAL DIFFUSER

01/24/97

RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TYPICAL DETAILS - 8

SCALE
AS NOTED

DATE
APRIL, 2007

PROJECT NO.
R0018-950446

SHEET NO.

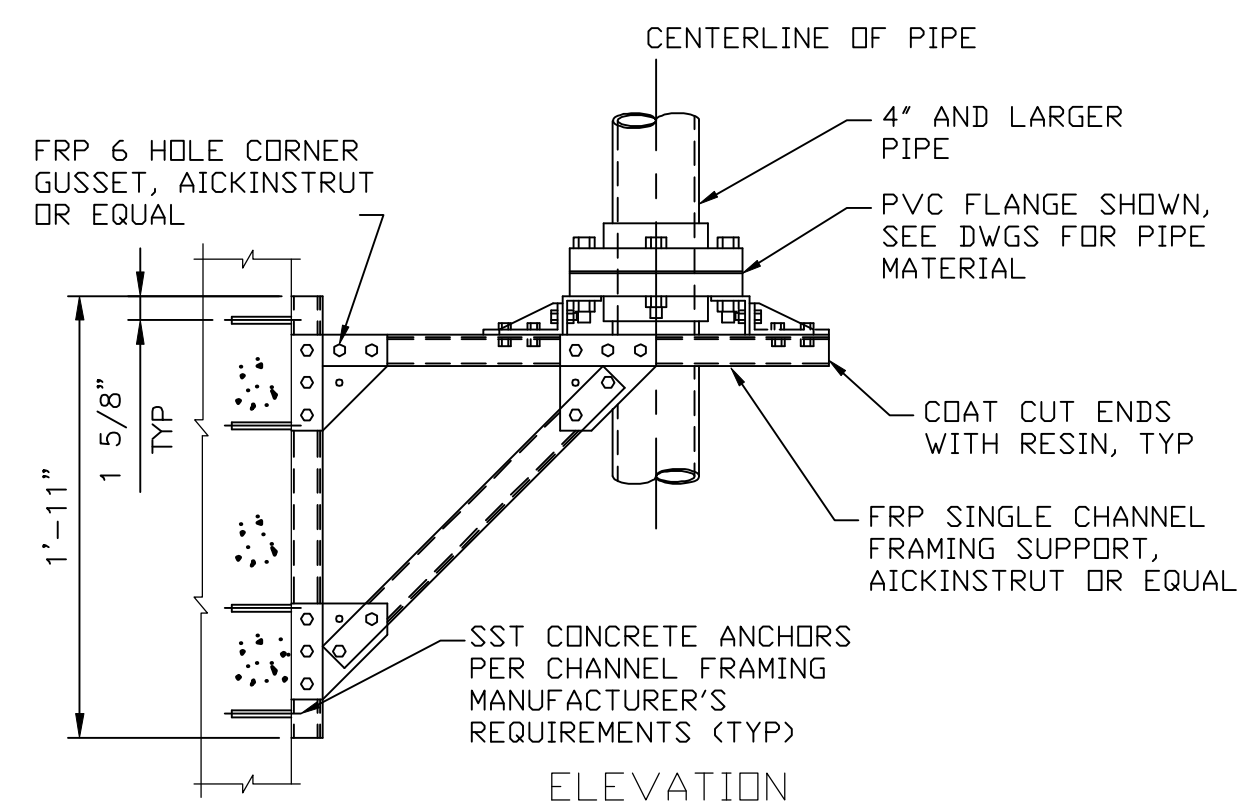
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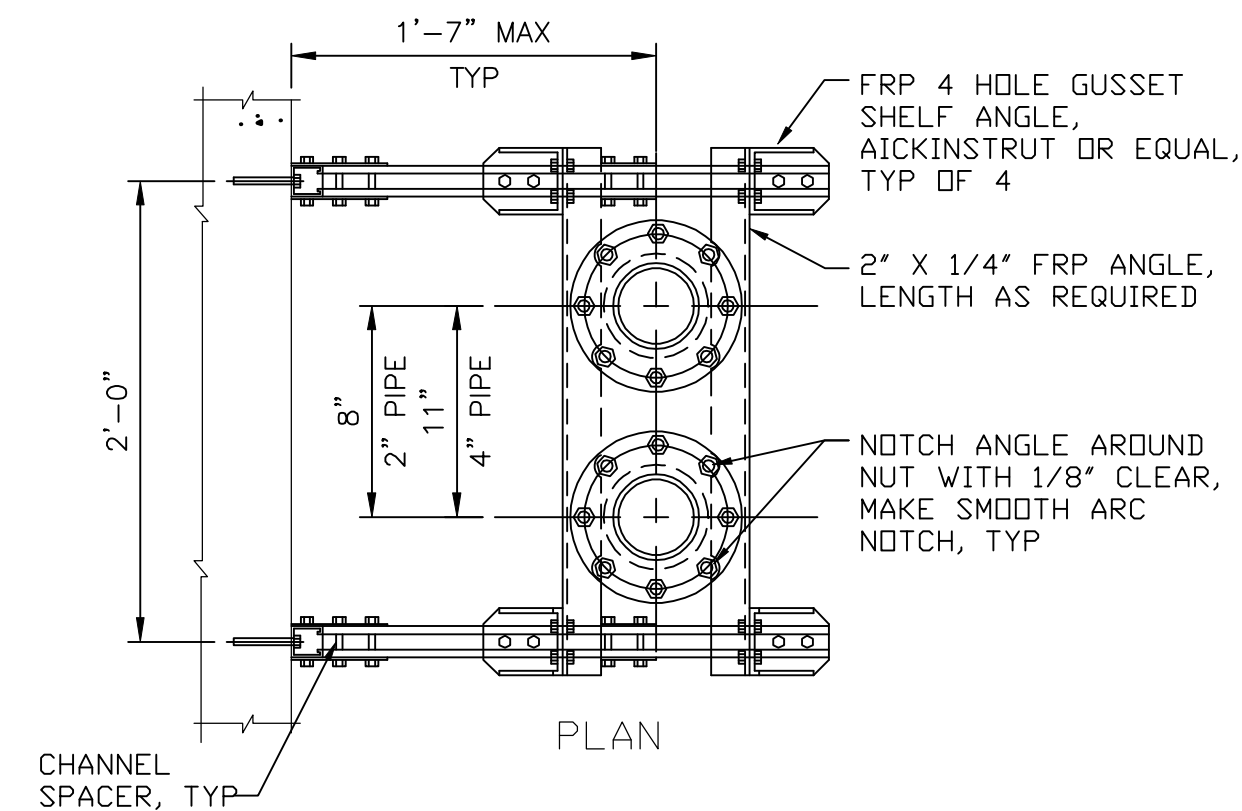
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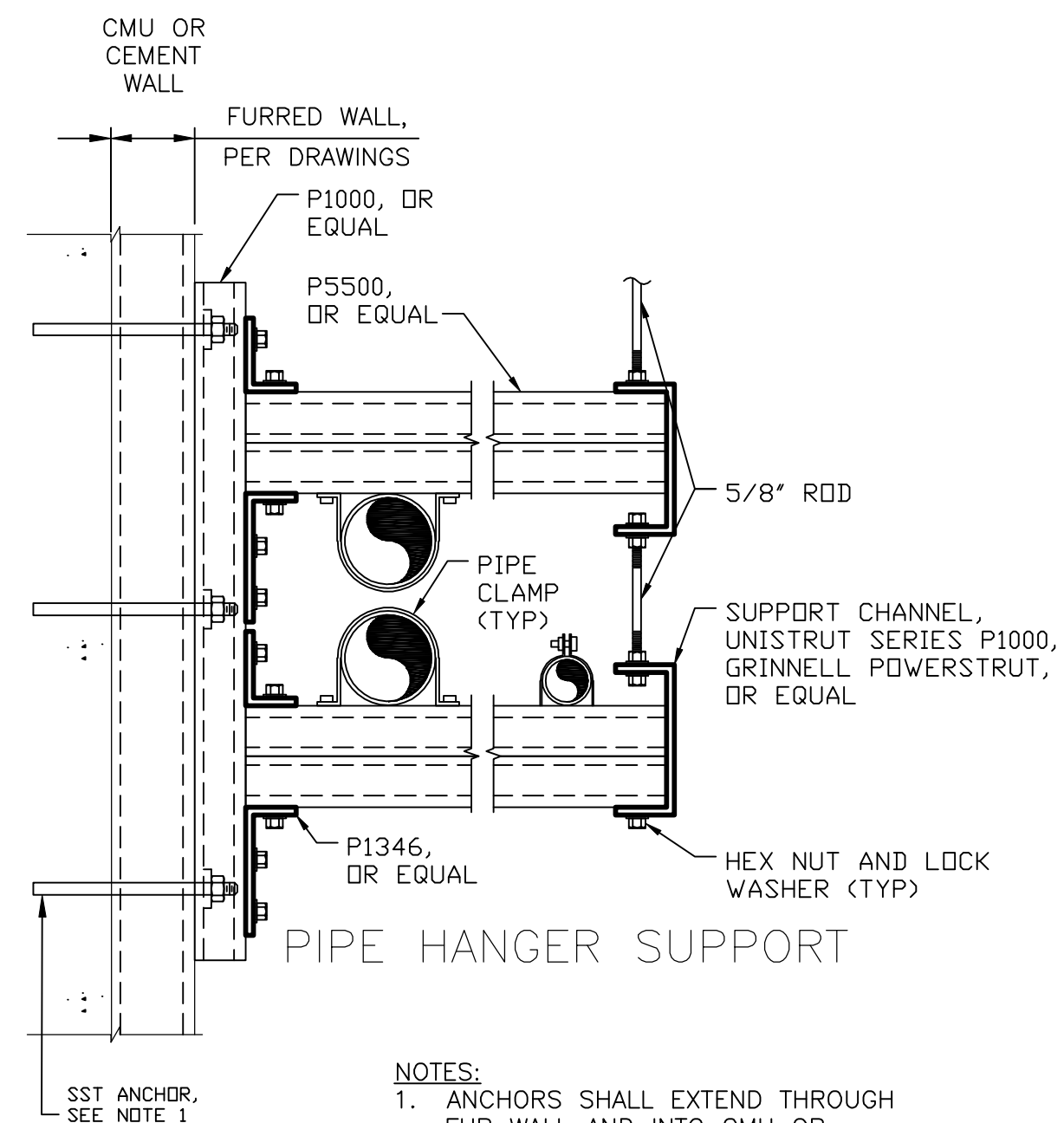
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		RELEASED FOR BIDDING	RECORD DRAWINGS
1	4/6/07		
2	10/30/09		



NOTE:
USE NON-METALLIC OR TITANIUM BOLTS AND NUTS WITHIN
FERRIC CHLORIDE (FC) AND SODIUM HYPOCHLORITE (SH)
CONTAINMENT AREAS.



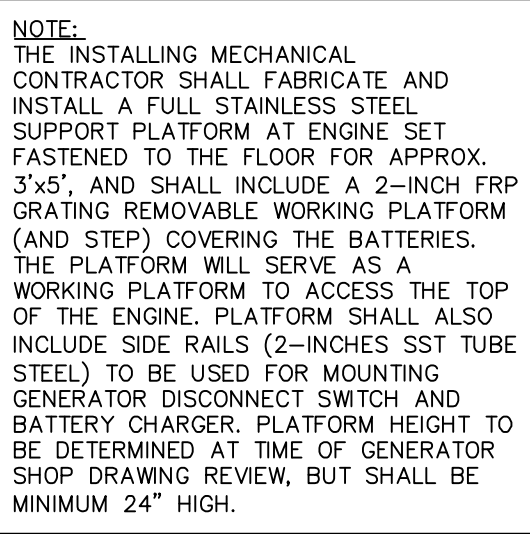
P719 FRP PIPE WALL BRACKET
TYP



- NOTES:**
1. ANCHORS SHALL EXTEND THROUGH FUR WALL AND INTO CMU OR CONCRETE WALL FOR BEARING.
 2. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION.

M721 EXTENDED SPLIT PIPE CLAMP
TYP 04/21/98

		SCALE AS NOTED		STANLEY STREET PUMPING STATION			
		DATE APRIL, 2007		CITY OF ROCKFORD, ILLINOIS			
		PROJECT NO. R0018-950446		TYPICAL DETAILS - 9			
SHEET NO.							
FILE NO.							
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				D.J.V.			
				DRAWN			
				P.K.K.			
				CHECKED			
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				REVISION			

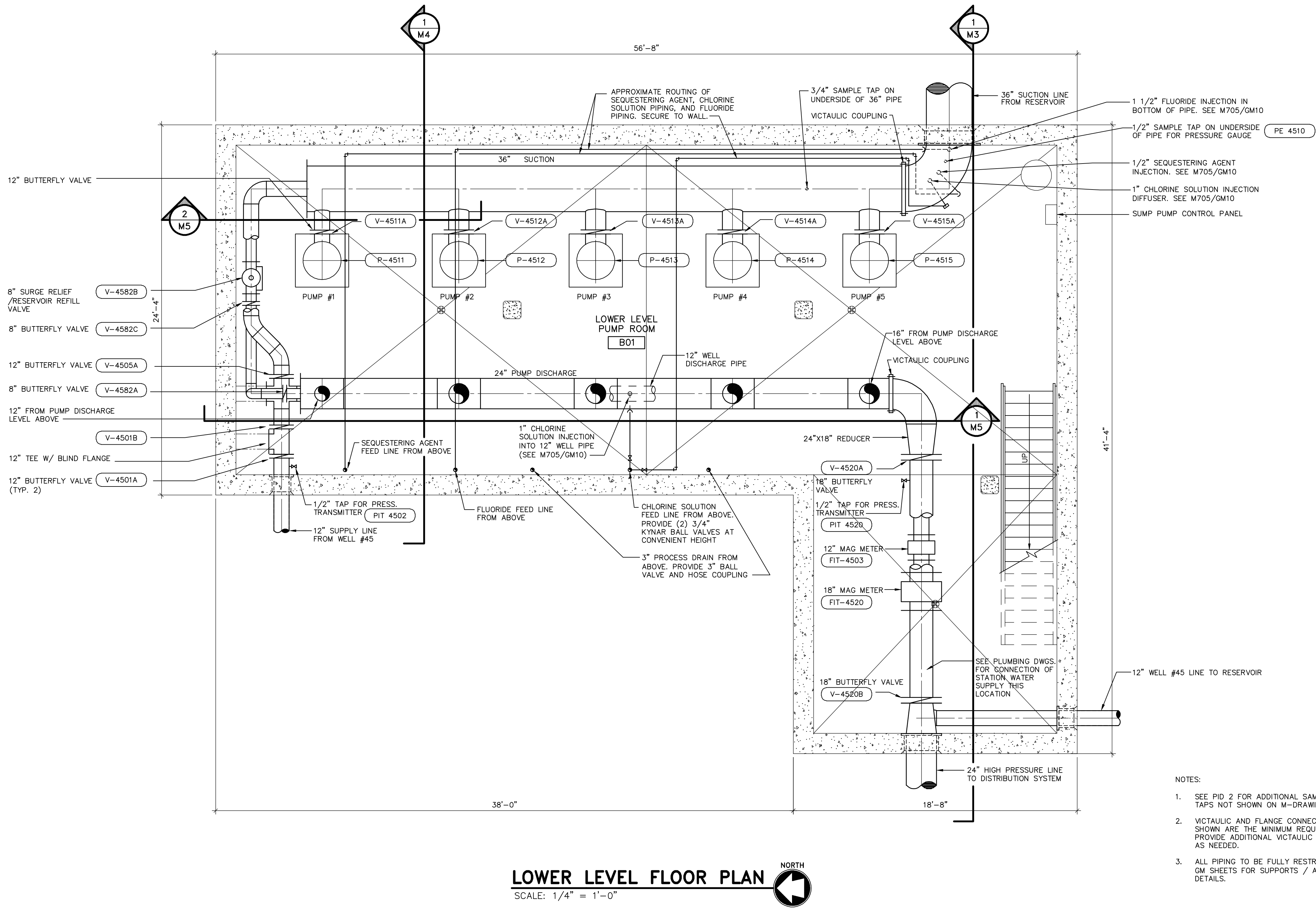


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		1	4/6/07		
		2	9/17/07		CONSTRUCTION BULLETIN #6
		3	12/04/07		CONSTRUCTION BULLETIN #14
		4	10/30/09		RECORD DRAWINGS

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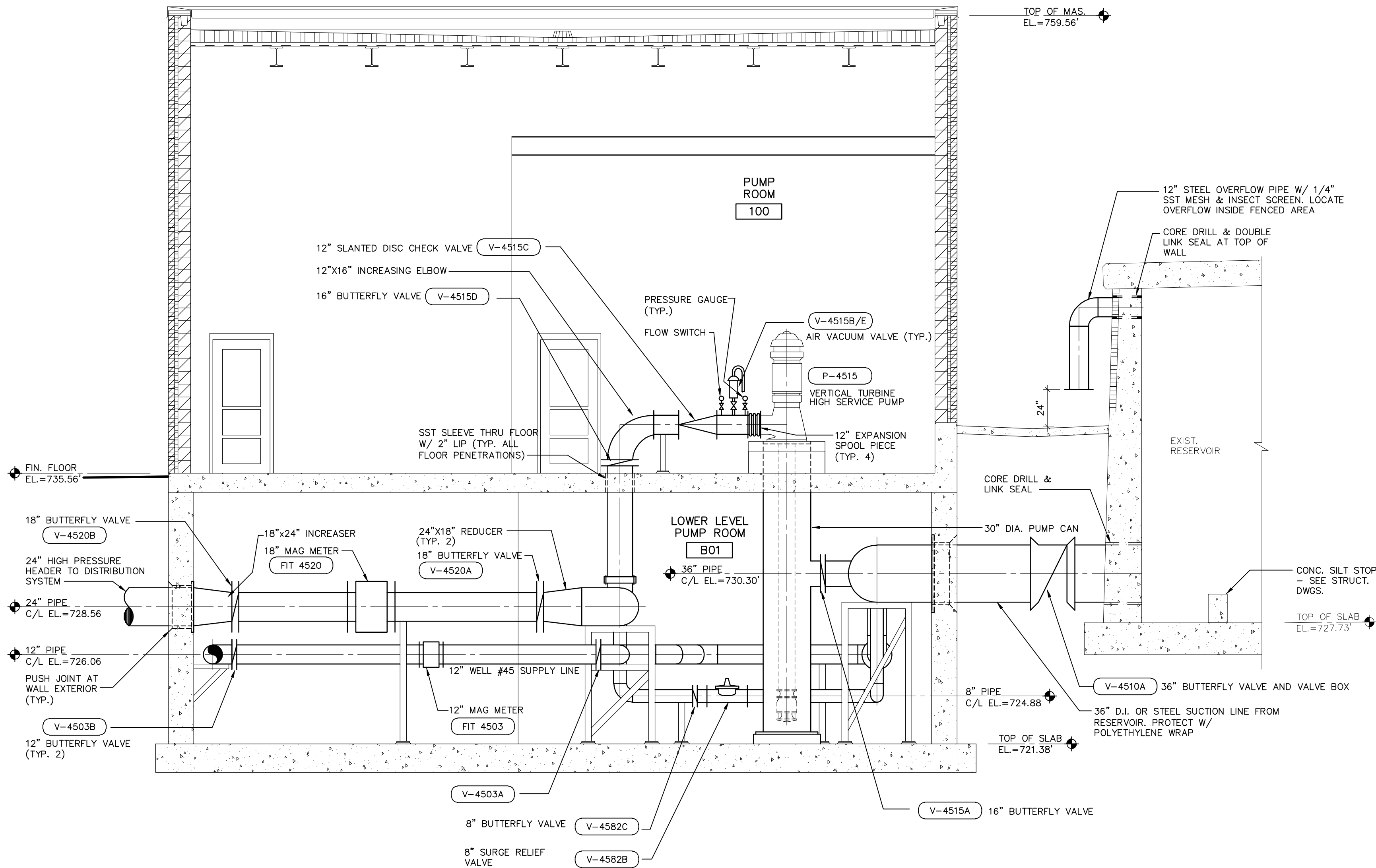
STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
PUMP STATION LOWER LEVEL PIPING PLAN

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.
M2
FILE NO.

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SECTION

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

1
M3

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
PUMP STATION PIPING SECTION

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

M3

FILE NO.

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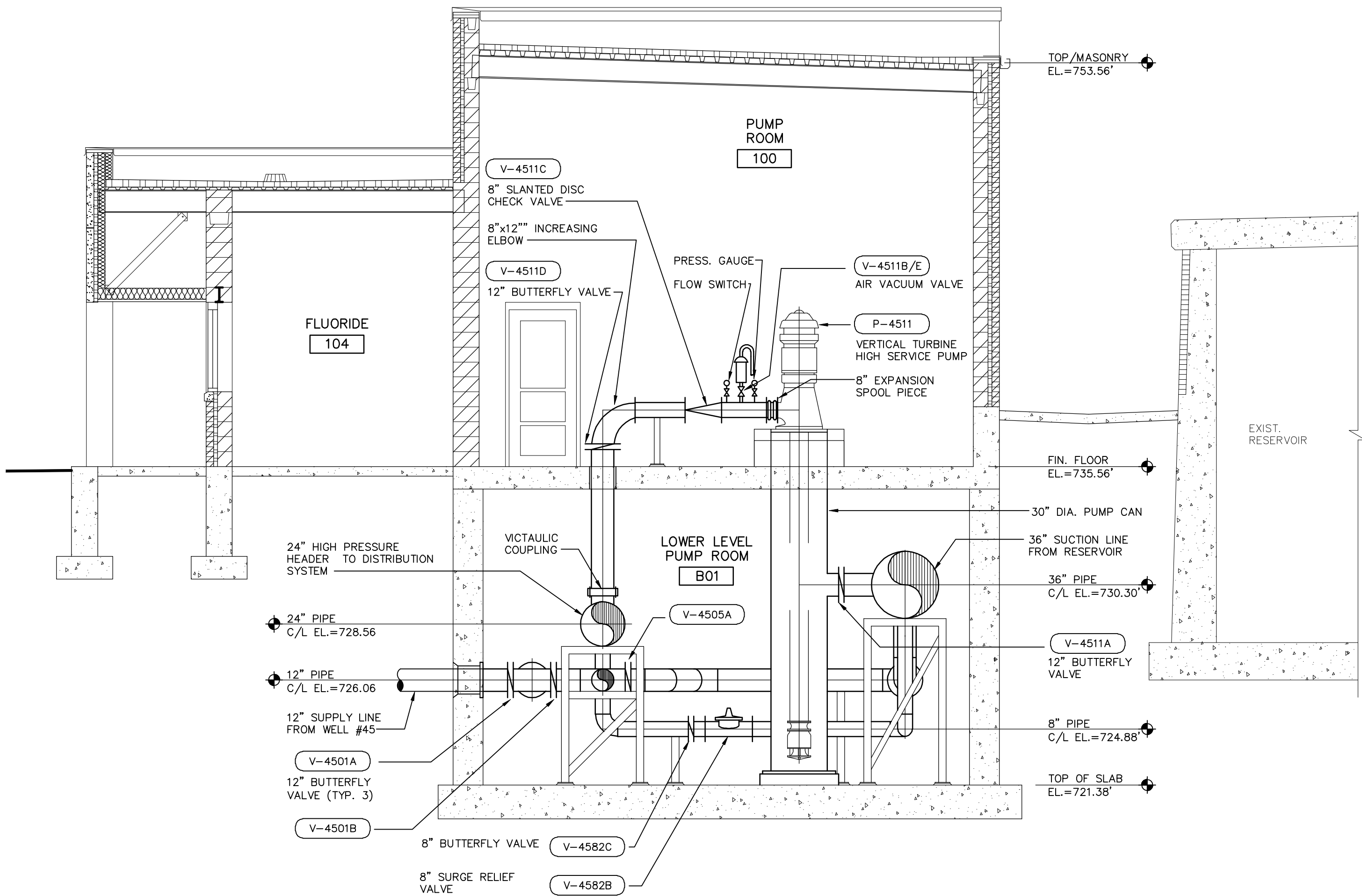
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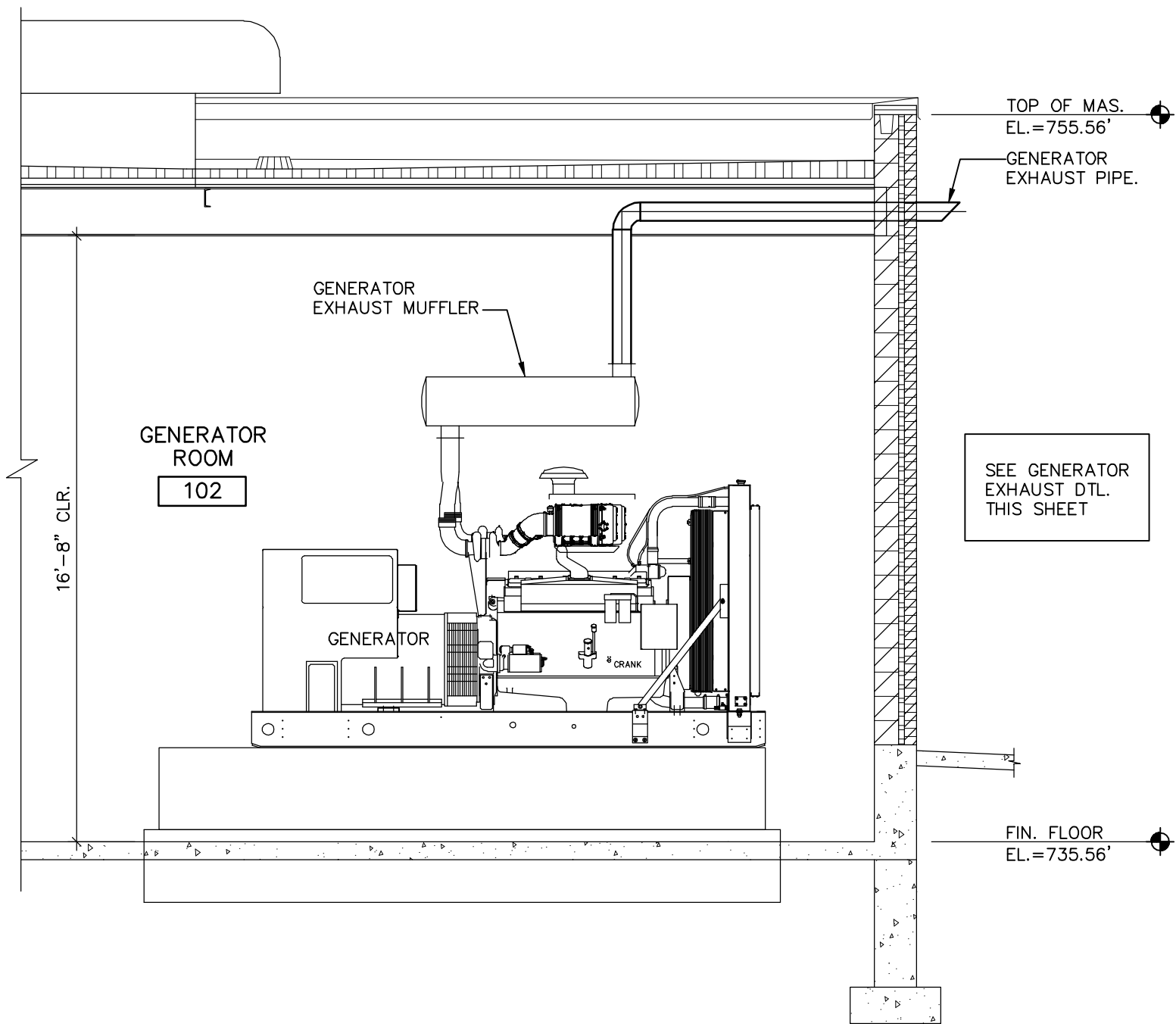
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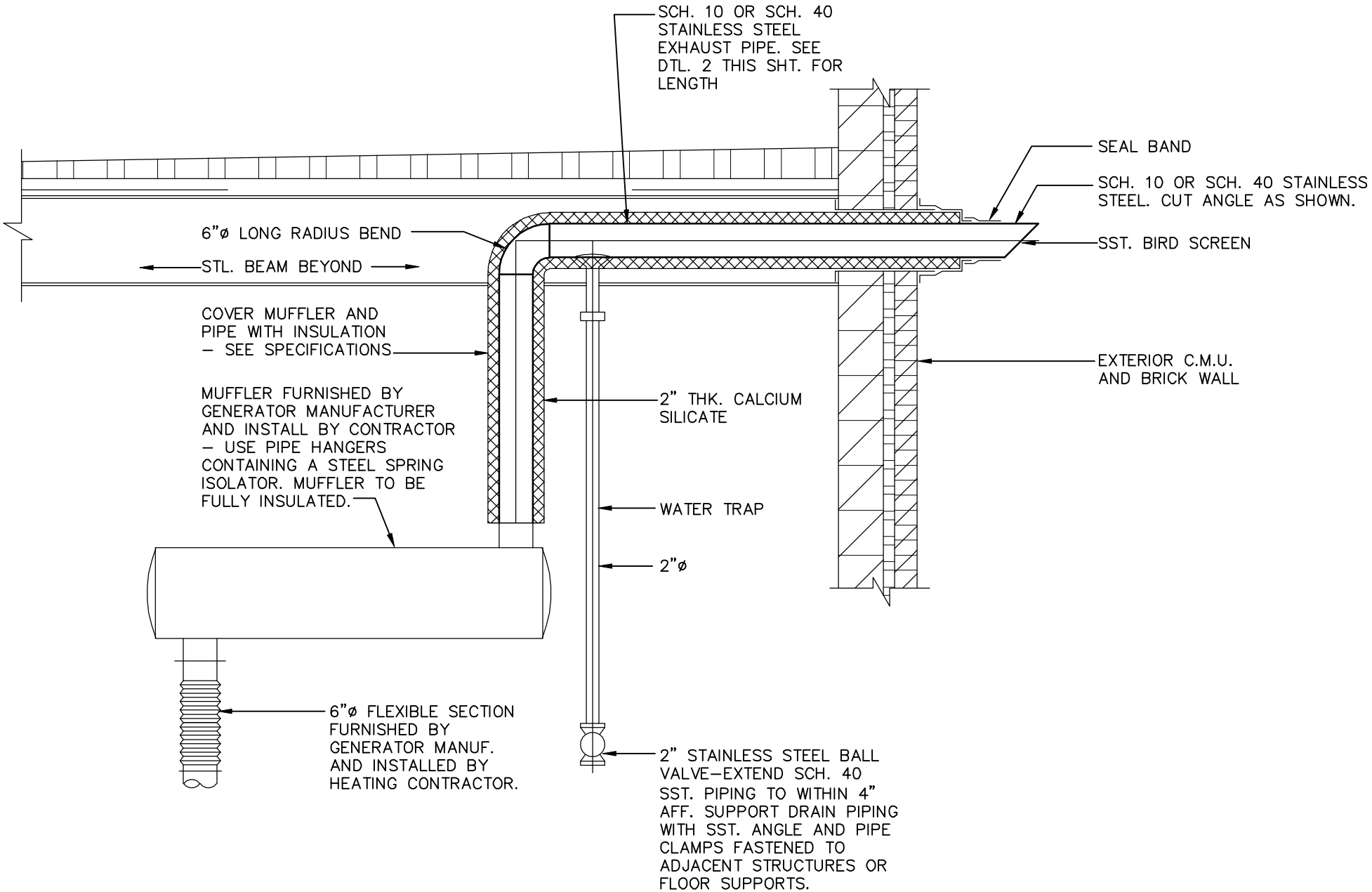
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SECTION 1
SCALE: 1/4" = 1'-0"



GENERATOR SECTION 2
SCALE: 1/4" = 1'-0"



GENERATOR EXHAUST DETAIL 3
NO SCALE

RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
PUMP STATION PIPING SECTIONS

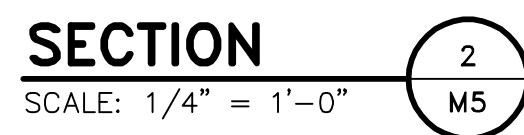
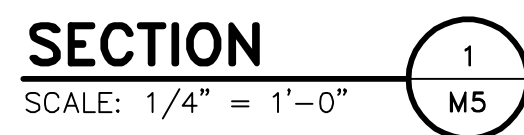
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M4

FILE NO.

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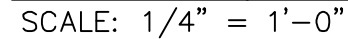
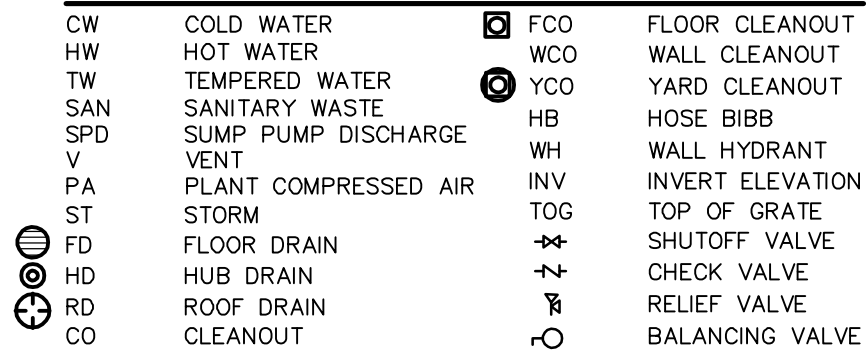
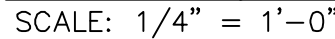
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CITY OF ROCKFORD, ILLINOIS
MEZZANINE & LOWER LEVEL FOUNDATION PLUMBING

NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	7/10/07	REVISED PER ADD. #1, #2
3	10/30/09	RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
MEZZANINE & LOWER LEVEL FOUNDATION PLUMBING PLAN

SCALE	DATE	PROJECT NO.
AS NOTED	APRIL, 2007	R0018-950446

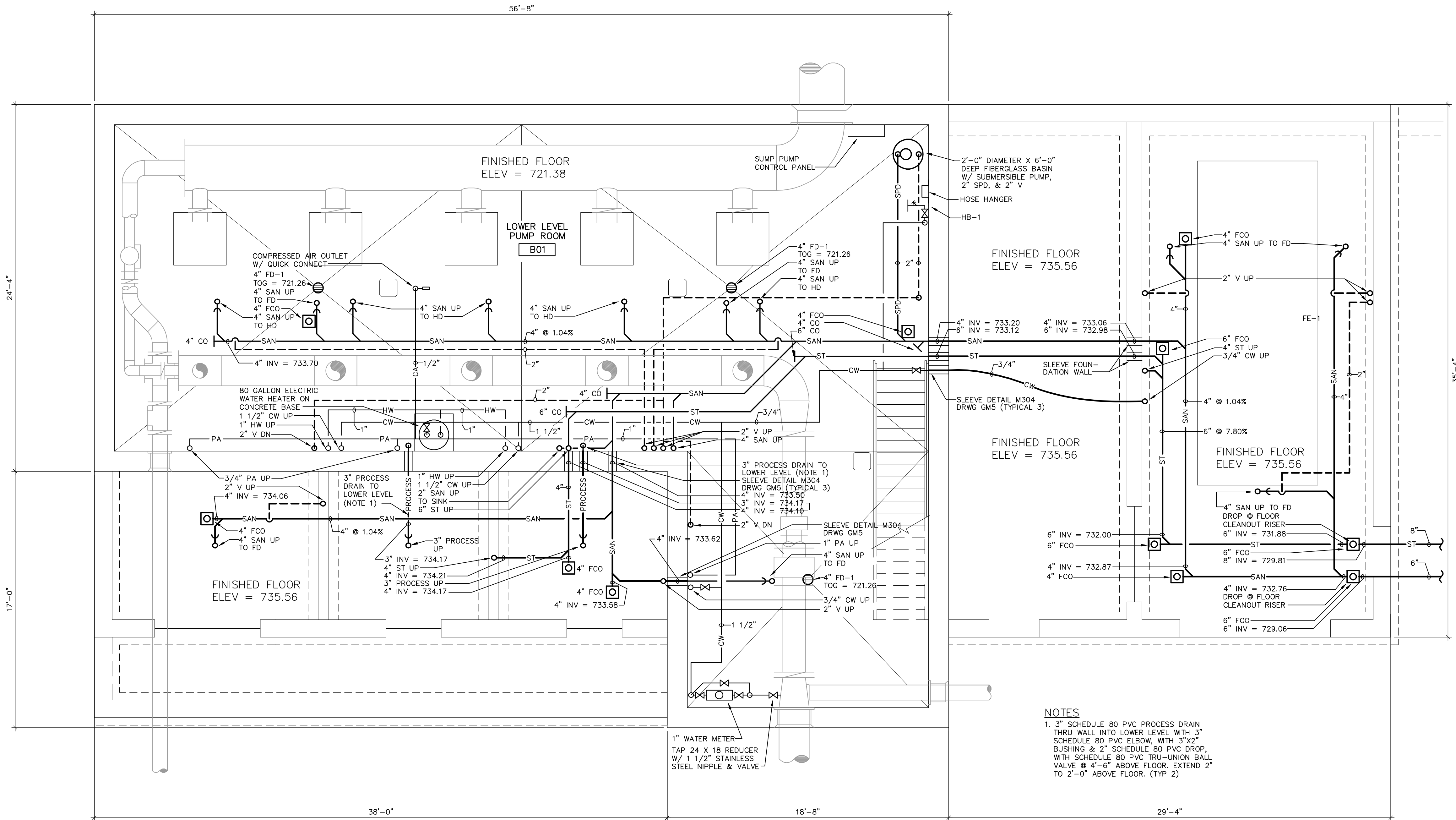
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FILE NO.

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LOWER LEVEL PLUMBING PLAN
SCALE: 1/4" = 1'-0"

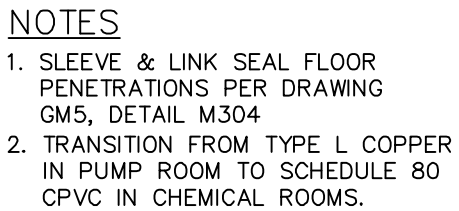
RECORD DRAWINGS
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2		2		7/10/07		REVISED PER ADD. #1, #2	
3		3		12/4/07		CONSTRUCTION BULLETIN #14	
4		4		10/30/09		RECORD DRAWINGS	

McMAHON ASSOCIATES		ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS	
1445 McMAHON DRIVE NEENAH, WI 54956		MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956	
TEL: (920) 751-4200		FAX: (920) 751-4204	

DESIGNED	MLS	DRAWN	MLS	CHECKED	MLS
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STANLEY STREET PUMPING STATION		CITY OF ROCKFORD, ILLINOIS	
LOWER LEVEL PLUMBING PLAN		PROJECT NO. RC0018-950446	
SCALE AS NOTED		DATE APRIL, 2007	
SHEET NO.		P2	
FILE NO.			



SCALE: $1/4" = 1'-0"$

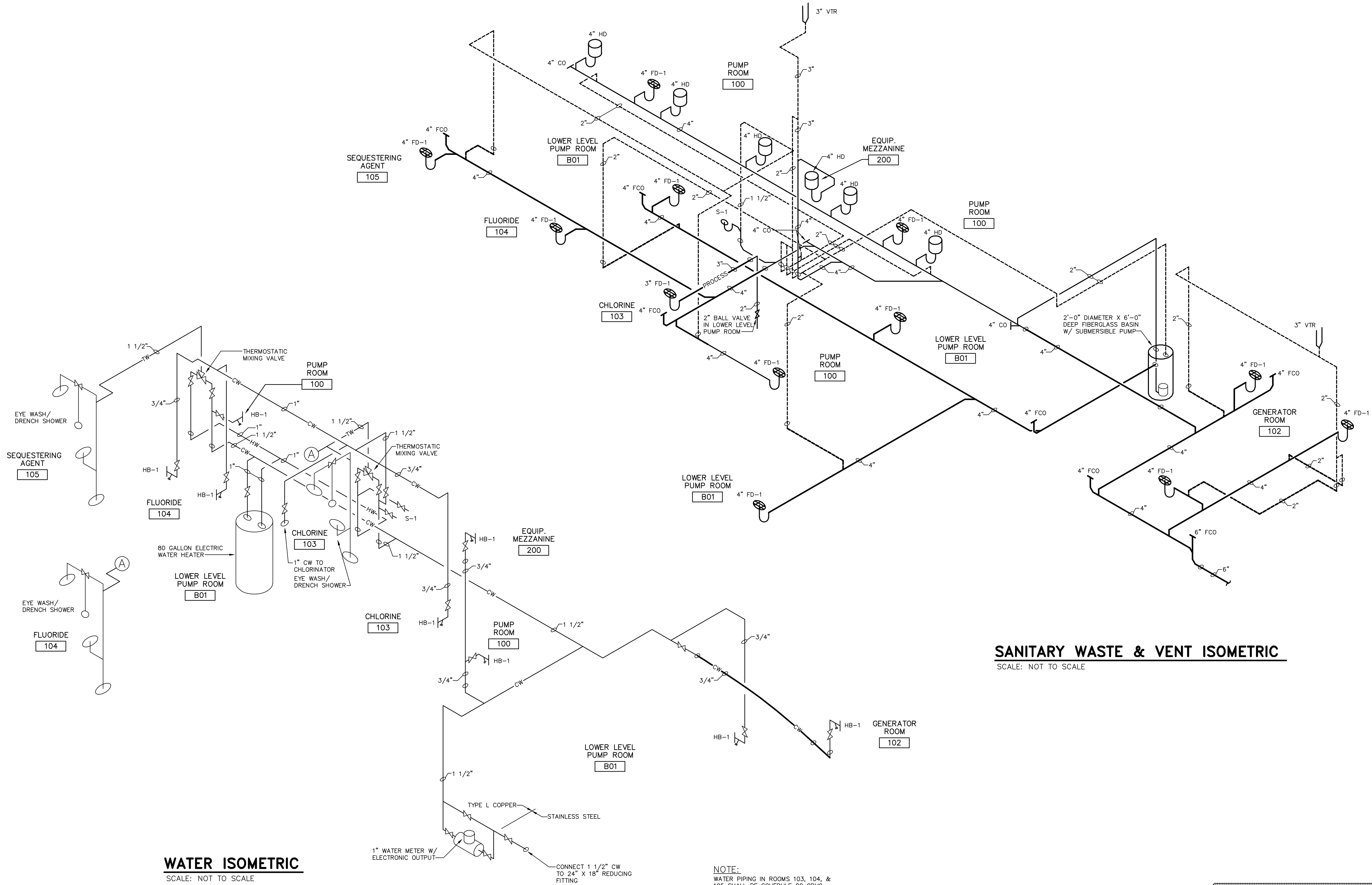


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P3	FILE NO.	SHEET NO.	SCALE	AS NOTED	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS GRADE LEVEL PLUMBING PLAN	DESIGNED	McMahon Associates, Inc. provides this drawing as a service to the client. McMahon Associates, Inc. does not warrant the accuracy or completeness of the information or instruments of service. All rights including copyright are reserved by McMahon Associates, Inc. The recipient of this document agrees to the fullest extent possible to hold McMahon Associates, Inc. harmless for any and all claims, damages, losses, and expenses, including reasonable attorney's fees, arising out of or from the use of the original drawing or data without prior written consent by McMahon Associates, Inc.			McMAHON ASSOCIATES 1445 MAHON DRIVE NEENAH, WI 54956 Mailing P.O. BOX 1025 NEENAH, WI 54957-1025 Tel. (920) 751-4200 Fax: (920) 751-4284		
	PROJECT NO. R0018-950446		MLS	NO.		DATE	REVISION					
			DRAWN	1		4/6/07	RELEASED FOR BIDDING					
			MLS	2		7/10/07	REVISED PER ADD. #1, #2					
			CHECKED	3		12/4/07	CONSTRUCTION BULLETIN #14					
		MLS	4	10/30/09	RECORD DRAWINGS							

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FILE NO.		SHEET NO.		SCALE		STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS PLUMBING ISOMETRICS		DESIGNED		McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 Mailing P.O. BOX 1025 NEENAH, WI 54957-1025 Tel: (920) 751-4200 Fax: (920) 751-4204		NO.		DATE		REVISION	
				AS NOTED				MLS		McMAHON ASSOCIATES		1		4/6/07		RELEASED FOR BIDDING	
				DATE		APRIL, 2007		DRAWN		McMAHON ASSOCIATES		2		7/10/07		REVISED PER ADD. #1, #2	
				PROJECT NO.		RC0018-950446		CHECKED		McMAHON ASSOCIATES		3		10/30/09		RECORD DRAWINGS	
								MLS		McMAHON ASSOCIATES							

RECORD DRAWINGS
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CHECKED: _____

STANLEY STREET PUMPING STATION

CITY OF ROCKFORD ILLINOIS

JOHN C. LONGBERG CONSULTING, LLC

*Designer of Engineering Systems
Heating Ventilating & Air Conditioning*

EMAIL: longberg@aol.com

Phone: 920-882-9151 Fax: 920-882-7887 Cell: 920-470-8202

Mailing Address:

PO Box 203
Greenville, WI 54942

Street Address:

W6152 Cedar Cliff Dr.
Hortonville, WI 54944

SYMBOLS LIST:

HUMIDISTAT		— HWS —	HOT WATER SUPPLY
THERMOSTAT		— HWR —	HOT WATER RETURN
OUTSIDE AIR OR SUPPLY AIR DUCT UP OR SECTION		— CWS —	CHILLED WATER SUPPLY
EXHAUST AIR OR RETURN AIR DUCT UP OR SECTION		— CWR —	CHILLED WATER RETURN
OUTSIDE AIR OR SUPPLY AIR DUCT DOWN OR AWAY		— C —	CONDENSATE
EXHAUST AIR OR RETURN AIR DUCT DOWN OR AWAY		— PC —	PUMPED CONDENSATE
AUTOMATIC DAMPER (A.D.) OR BACKDRAFT DAMPER (B.D.)		— G —	NATURAL GAS
FIRE DAMPER (F.D.)			BALL VALVE (3" AND SMALLER)
MANUAL VOLUME DAMPER (M.V.D.)			BUTTERFLY VALVE (4" AND LARGER)
ACOUSTICALLY LINED DUCT			CHECK VALVE
EXTERNALLY INSULATED DUCT			2-WAY AUTOMATIC VALVE
FLEXIBLE DUCT			3-WAY AUTOMATIC VALVE
CUBIC FEET PER MINUTE	CFM		DRAIN VALVE W/ HOSE BIB
GALLONS PER MINUTE	GPM		PRESSURE RELIEF VALVE
DUCT ACCESS PANEL	D.A.P.		UNION
DUCT REDUCED			PRESSURE GAUGE
UNDER CUT DOOR	U.C.		PRESSURE SENSOR
SLOT DIFFUSER	(TYPE)CFM		TEMPERATURE SENSOR
BACK DRAFT DAMPER	B.D.		FLOW REGULATOR
CEILING EXHAUST GRILLE			FLOW SWITCH
CEILING TRANSFER GRILLE			MANUAL AIR VENT
CEILING RETURN GRILLE			Pressure/Temp Test Plug
CEILING DIFFUSER			STRAINER W/ FULL SIZE BLOW-DOWN VALVE
SUPPLY GRILLE			THERMOMETER
			TRIPLE DUTY VALVE
			FLEX CONNECTION
			CONCENTRIC REDUCER

GENERAL NOTES:

- THE HVAC CONTRACTOR SHALL PROVIDE COMPLETE CONTRACTING SERVICES INCLUDING HEATING, VENTILATING AND AIR-CONDITIONING WORK AND TEMPERATURE CONTROL WORK.
- ALL QUESTIONS SHALL BE SUBMITTED VIA E-MAIL TO: longberg@aol.com (COPY TO: dvoogt@mcmgrp.com)
- ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE.
- SEE DRAWINGS FOR SCHEDULES.
- THESE NOTES COMPLEMENT THE SPECIFICATIONS; READ THE SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
- HEATING CONTRACTOR SHALL INSTALL CONTROL VALVES AND SENSING WELLS PROVIDED BY THE TEMPERATURE CONTROL CONTRACTOR. SEE TEMPERATURE CONTROL SPECIFICATIONS AND VERIFY WITH T.C.C..
- FOR EACH PIPE HANGER THE HEATING CONTRACTOR SHALL PROVIDE SHIELDS.
- ALL WATER PIPING SHALL HAVE BOTTOM TAKE-OFFS FROM THE MAIN WHENEVER POSSIBLE.
- HVAC CONTRACTOR SHALL INSTALL NEW ROOF CURBS AS SOON AS POSSIBLE AND PROVIDE TEMPORARY CAP TO PREVENT DAMAGE TO BUILDING.
- PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS, EXTEND THE VENT PIPING TO 24" A.F.F. WITH VENT VALVE.
- PROVIDE BALL VALVES AND CAP AT ALL LOW POINTS FOR DRAINING.
- THE MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE THE START-UP OF ALL EQUIPMENT.
- THE "MECHANICAL PIPING" (PROCESS PIPING) SHALL HAVE RIGHT-OF-WAY OVER ALL OTHER TRADES....INCLUDING THE HVAC WORK.
- GENERATOR EXHAUST PIPING IS NOT PART OF THE HVAC WORK.
- GENERATOR EXHAUST PIPE INSULATION IS PART OF THE HVAC WORK.
- GENERATOR OIL AND RADIATOR PIPING BY GENERATOR SUPPLIER.
- LOCATE ALL PIPING AS HIGH AS POSSIBLE. ALL SUSPENDED EQUIPMENT, AND PIPING LOCATED BELOW 7'0" SHALL BE PROVIDED WITH EDGE PROTECTION AND LOW CLEARANCE IDENTIFICATION.
- THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION OR THE SAFETY OF THE JOB SITE, AND THAT THESE RESPONSIBILITIES ARE INTENDED AND REMAIN SOLELY THOSE OF THE CONTRACTOR.
- PIPE INSULATION SHALL NOT BE APPLIED UNTIL HYDROSTATIC PRESSURE TESTING HAS BEEN APPROVED BY OWNER.
- THE COST OF GAS INSTALLATION SHALL BE BY THIS CONTRACTOR. NOTE: 14" WC PRESSURE.
- PROVIDE FOR THE THREE (3) CHEMICAL ROOMS, NON-METALLIC PIPE SUPPORT SYSTEM. SEE SPEC SECTION 15063.
- ALL VFD MOTORS SHALL MEET NEMA MG1 PART 31.
- THE DEHUMIDIFIER SHALL BE "HI-E DRY"
- ALL DUCTWORK SHALL BE ALUMINUM.
- HANGERS, ANGLE IRON, ETC., SHALL BE GALVANIZED EXCEPT FOR THE CHEMICAL ROOMS.
- PAINT GAS PIPING OSHA YELLOW.

INDEX OF DRAWINGS:

SHEET	DESCRIPTION
H1	TITLE SHEET / GENERAL NOTES
H2	LOWER LEVEL / MEZZANINE HVAC PLAN
H3	GRADE LEVEL HVAC PLAN
H4	PUMP ROOM & MEZZANINE SECTIONS
H5	WELL WATER COOLING / AHU SCHEMATIC
H6	HOT WATER SCHEMATIC
H7	HVAC SCHEDULES
H8	HVAC SCHEDULES

RECORD DRAWINGS

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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
TITLE SHEET / GENERAL NOTES

SCALE
AS NOTED
DATE
APRIL 6, 2007
PROJECT NO.
R0018-950446

SHEET NO.

H1

FILE NO.
CAD

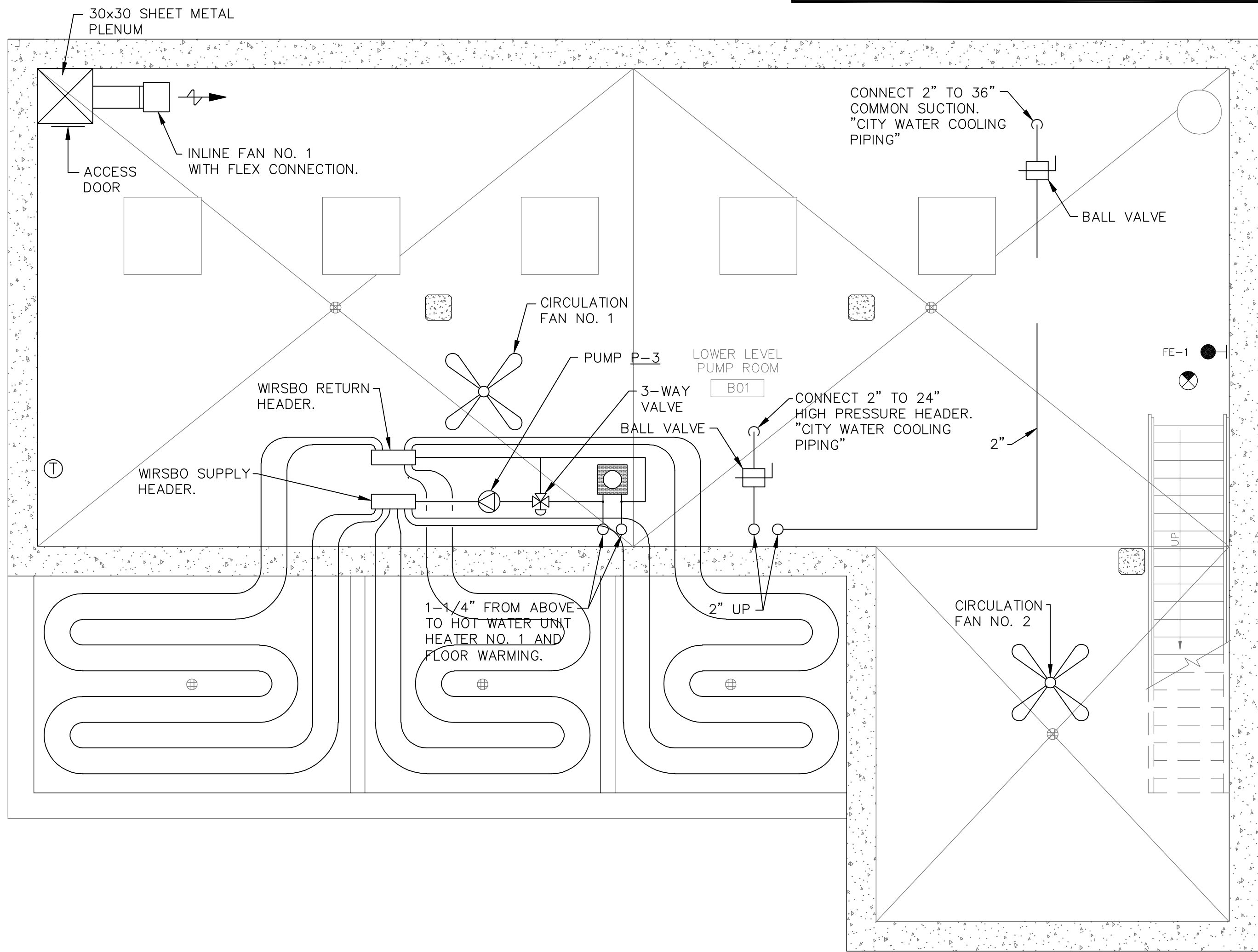
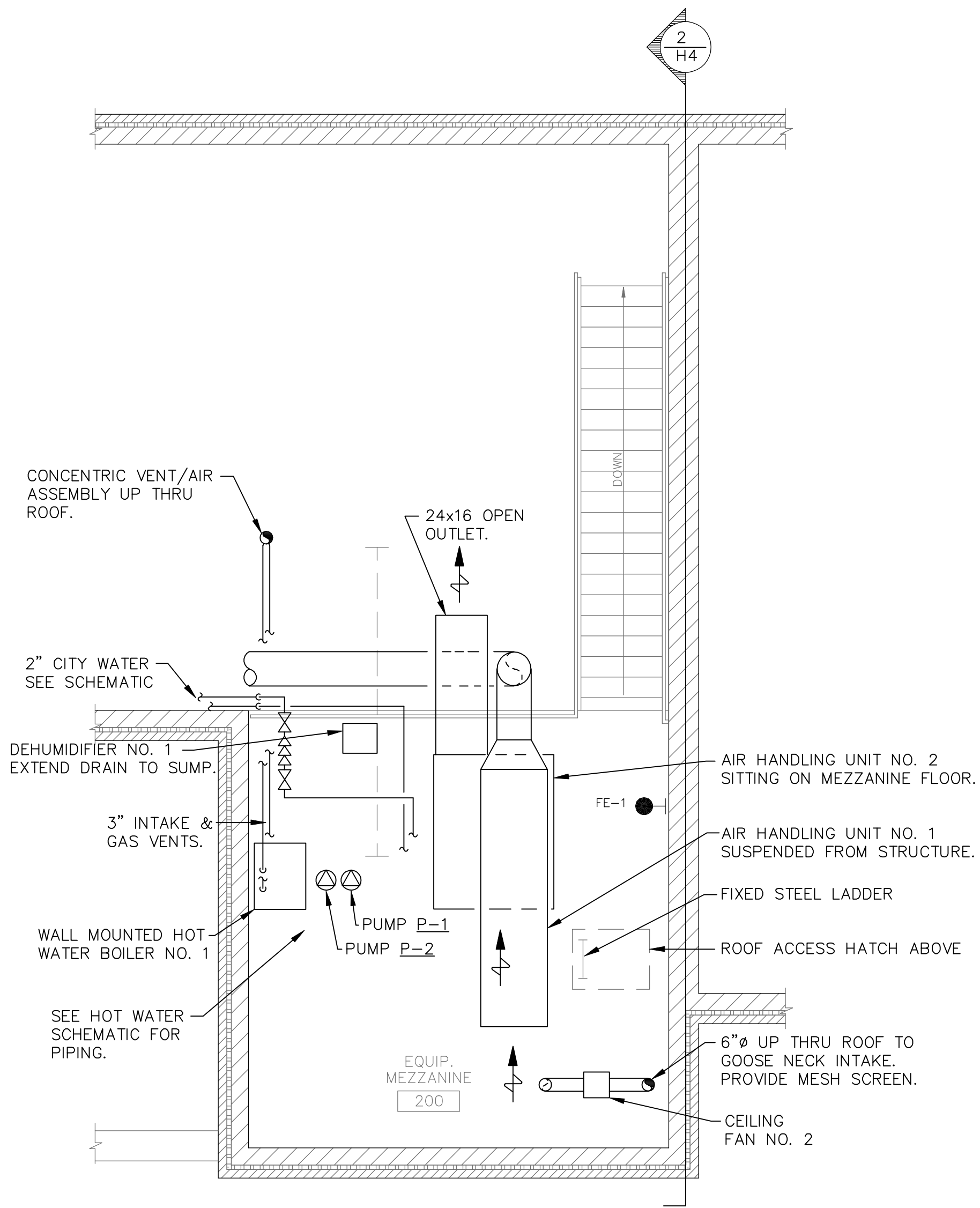
McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: NEENAH, WI 54956
TEL (920) 751-4200 FAX (920) 751-4204

DESIGNED
JCL
DRAWN
WDM
CHECKED

NO. DATE
1 4/6/07
2 7/11/07
3 10/30/09

REVISION
ADDENDUM 1, 2
RECORD DRAWINGS

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UNDER FLOOR RADIATION

- FURNISH AND INSTALL AN UPONOR-WIRSBO RADIANT FLOOR HEAT DISTRIBUTION SYSTEM. INSTALLATION MUST BE BY A "CERTIFIED WIRSBO INSTALLER".
- COMPLETE WITH: 5/8" I.D. CROSS-LINKED POLYETHYLENE PIPE MEETING ASTM STANDARD F 876-877, RATED 180°F., 100 PSI AND 25 YEAR WARRANTY.
- USING WIRSBO WIRE TIES, THE TUBING IS SECURED TO THE WIRE MESH OR REBAR. WIRE TIES ARE PLACED A MINIMUM OF EVERY FOUR FEET ALONG STRAIGHT RUNS. AT THE 180 DEGREE TURNS, THE TUBING IS TIED AT THE TOP OF THE ARC AND ONCE EACH SIDE, 12" FROM THE TOP OF THE ARC. THIS WILL PREVENT THE TUBING FROM DISLODGING AND/OR FLOATING UP INTO THE POUR. PLASTIC STAPLE SYSTEM ALSO ALLOWED.
- A MINIMUM OF 9 FOOT LENGTH OF TUBING MUST REMAIN ON BOTH ENDS IN ORDER TO ALLOW TUBING TO BE TERMINATED.
- MINIMUM OF 2" POUR OVER TUBING.
- IN THE CASE OF ANY DEVIATIONS FROM THIS LAYOUT -- A PLAN WITH CHANGES MARKED-UP IN RED MUST BE TURNED OVER TO THE H.V.A.C. DESIGNER.
- ALL AREAS THAT CONTAIN UNDERFLOOR RADIATION MUST HAVE 2" OF STYROFOAM INSULATION PLACED UNDER THE RADIATION PIPING.
- UNDERFLOOR INSULATION IS NOT BY HVAC CONTRACTOR.
- REFER TO PLAN FOR APPROXIMATE LOCATIONS OF TUBING AND CORRECT ZONING.
- HATCHED AREAS REPRESENT UNDERFLOOR INSULATION.
- THE PEX SHALL HAVE INTEGRAL OXYGEN DIFFUSION BARRIER IN CLOSED SYSTEM. NO OXYGEN DIFFUSION BARRIER FOR SYSTEMS THAT ARE A PART OF THE PLUMBING SYSTEM.
- PEX IN THE RETURN AIR CEILING PLENUM DOES NOT REQUIRE INSULATION.
- ASTM E84 CERTIFICATION FOR FIRE SPREAD/ SMOKE DEVELOPMENT RATING OF 25/50. FOR SIZES THROUGH 3/4".
- PROVIDE 2" THICK BY 8' WIDE STYROFOAM INSULATION UNDER FLOOR AREAS WITH FLOOR WARMING SYSTEM.

RECORD DRAWINGS

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STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS LOWER LEVEL / MEZZANINE HVAC PLAN

SCALE
AS NOTED

DATE
APRIL 6, 2007

PROJECT NO.
R0018-950446

SHEET NO.

H2

FILE NO.
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McMAHON ASSOCIATES
ENGINEERS / ARCHITECTS / SURVEYORS / PROJECT MANAGERS
1445 McMAHON DRIVE, NEENAH, WI 54956
MAILING: P.O. BOX 1025, NEENAH, WI 54956
TEL: (920) 751-4200 FAX: (920) 751-4204

NO.	DATE	REVISION	
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1	4/6/07	ADDENDUM 1, 2	
2	7/11/07	RECORD DRAWINGS	
3	10/30/09		

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Stanley St Pumping Station\ROC-H1_3_06/07 8:34 AM (X-MQM22X34_INFO_x-plan)

HVAC CONSTRUCTION NOTES:

- ① 8"x12" DOWN TO 12" ABOVE FLOOR WITH MVD AND 8"x12" EGGCRATE GRILLE.
- ② 8"x12" DUCT AT CEILING WITH MVD AND 8"x12" EGGCRATE GRILLE.
- ③ 1-1/2" FLEXIBLE HOSE DOWN TO CHEMICAL DRUM. CONNECT TO VENT TAPPING ON CHEMICAL DRUM.
- ④ 12"x12" UP TO ROOF EXHAUST FAN NO. 1
- ⑤ 12"x12" DOWN TO 12" ABOVE FINISHED FLOOR. COVER INLET WITH ALUMINUM EGGCRATE.
- ⑥ 16"x16" SOFFIT INTAKE GRILLE. 16"x8" DUCT THROUGH WALL TO ALUMINUM EGGCRATE GRILLE WITH BACK DRAFT DAMPER.
- ⑦ 8"x8" UP THROUGH ROOF TO EXHAUST FANS REF-5 AND REF-6.
- ⑧ 4"Ø DOWN TO 8"x8" SUPPLY GRILLES IN ROOMS. PROVIDE MVD IN EACH DROP. BALANCE TO 50 CFM FOR ROOM 103 AND 30 CFM EACH FOR ROOM 104 AND 105.
- ⑨ PROVIDE ROOF EXHAUSTERS WITH PLENUM AND 4x4 EXHAUST GRILLES. 15 CFM EACH.

RECORD DRAWINGS

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NO.	DATE	REVISION	RELEASED FOR BIDDING
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2	7/11/07		ADDENDUM 1, 2
3	10/30/09		RECORD DRAWINGS

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STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS GRADE LEVEL HVAC FLOOR PLAN

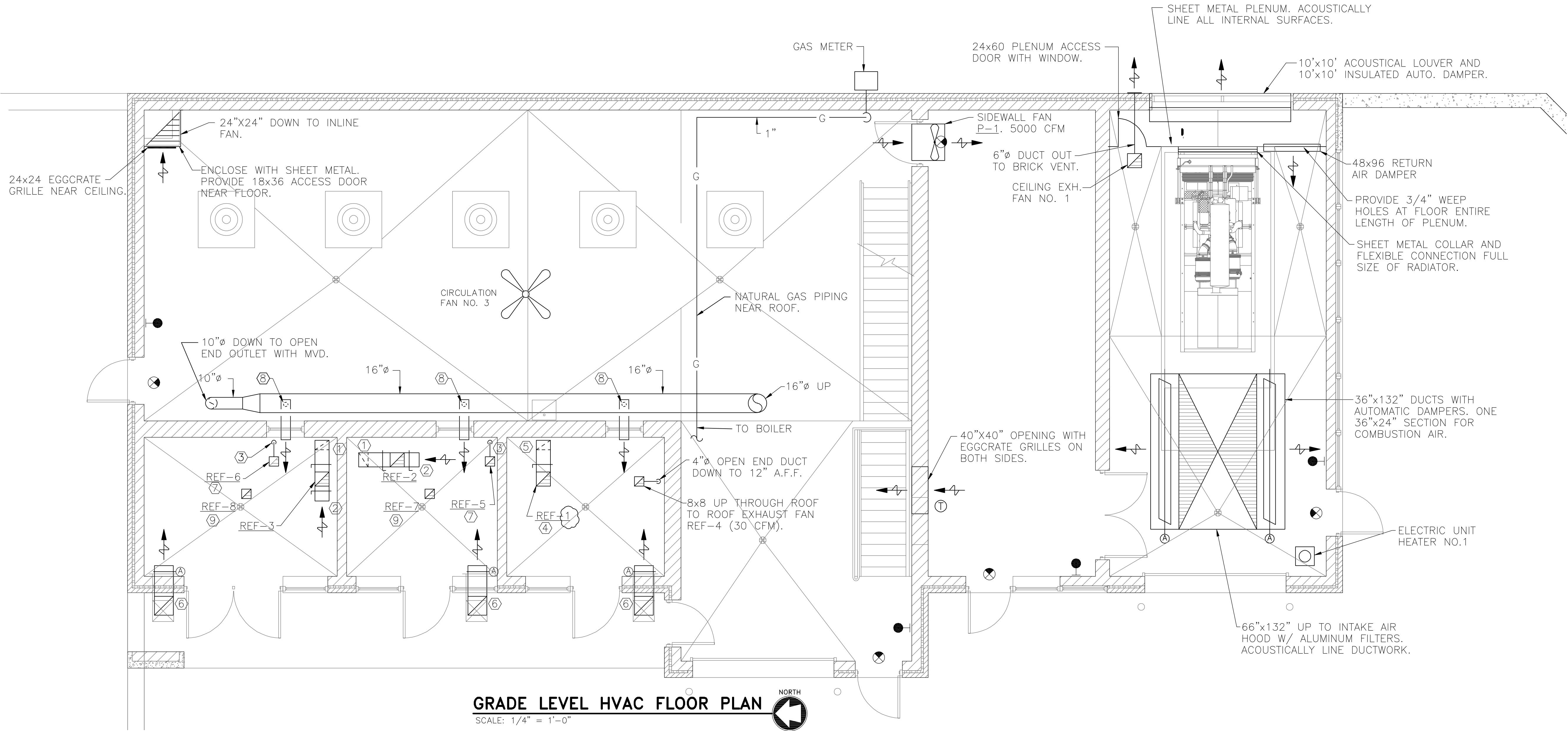
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DATE	PROJECT NO.
APRIL 6, 2007	RC018-950446

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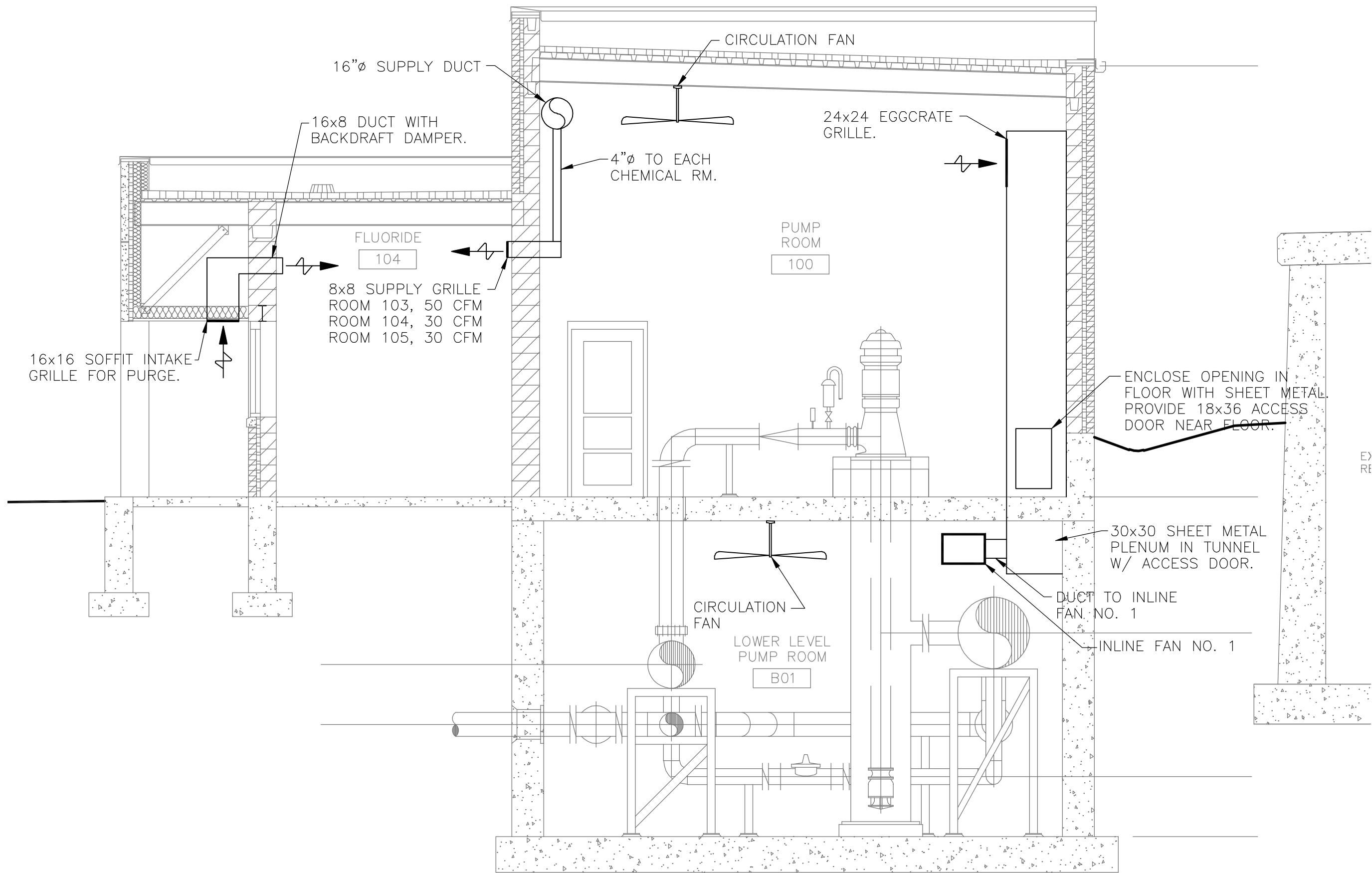
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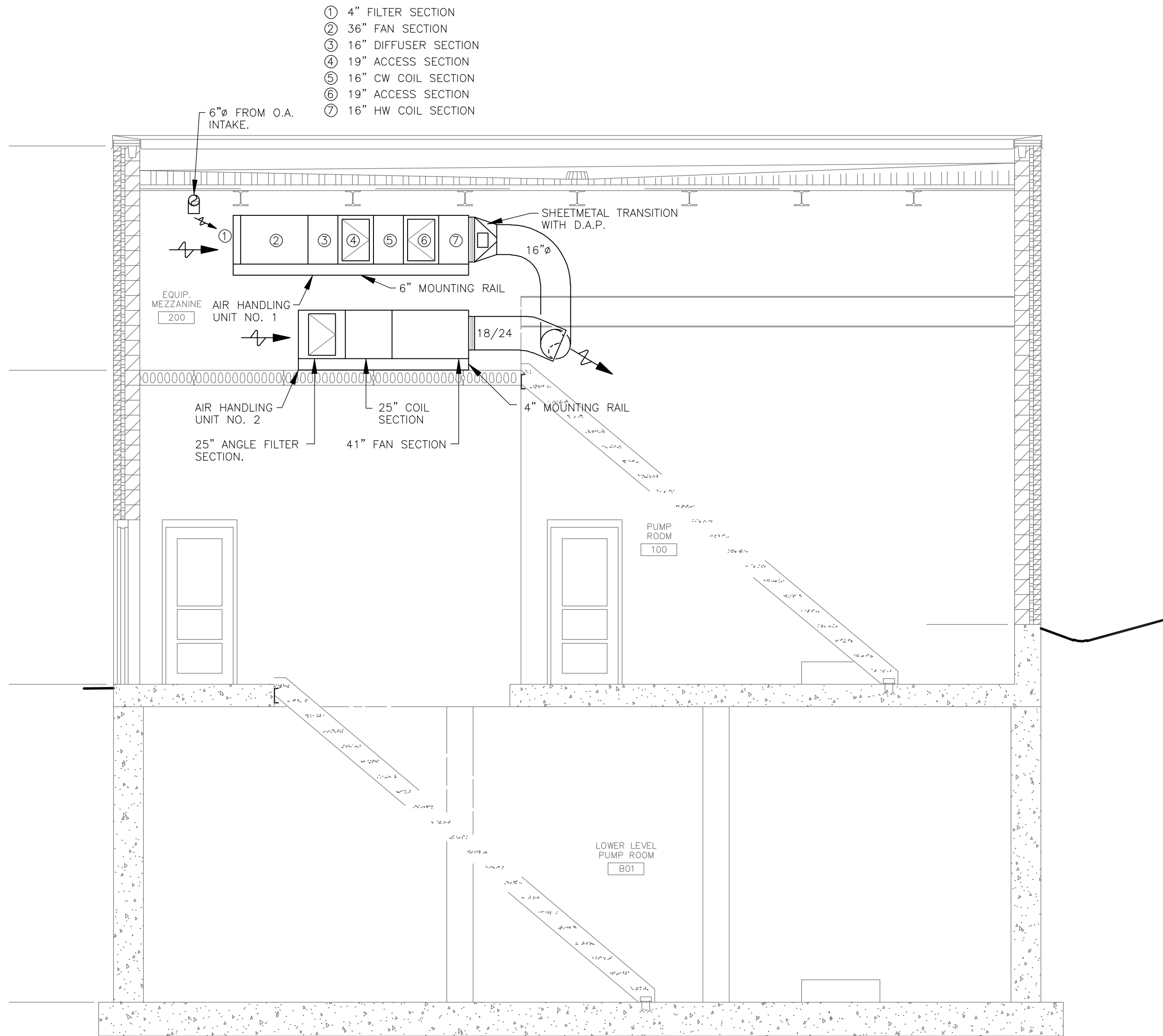


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1 PUMP ROOM SECTION
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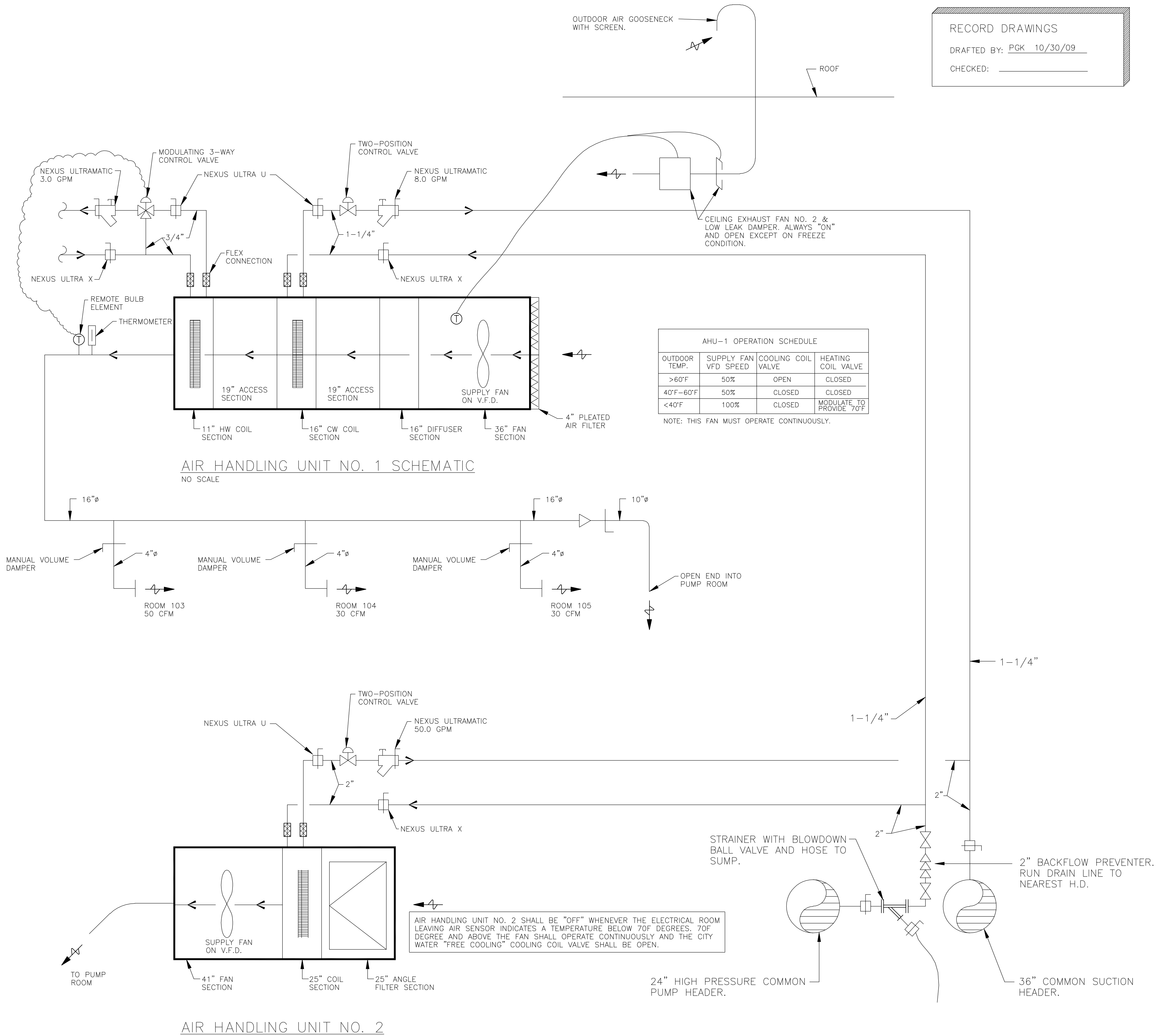
2 MEZZANINE SECTION
1/4" = 1'-0"

RECORD DRAWINGS
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McMAHON ASSOCIATES ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING BOX 1225 NEENAH, WI 54956 TEL (920) 751-4200 FAX (920) 751-4204	NO.	DATE	REVISION		
	1	4/6/07	RELEASED FOR BIDDING		
	2	7/11/07	ADDENDUM 1, 2		
DESIGNED JCL	DRAWN WDM	CHECKED	3	10/30/09	RECORD DRAWINGS
STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS PUMP ROOM & MEZZANINE SECTIONS					
SCALE AS NOTED	DATE APRIL 6, 2007	PROJECT NO. R0018-950446	SHEET NO.		
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			FILE NO. CAD		

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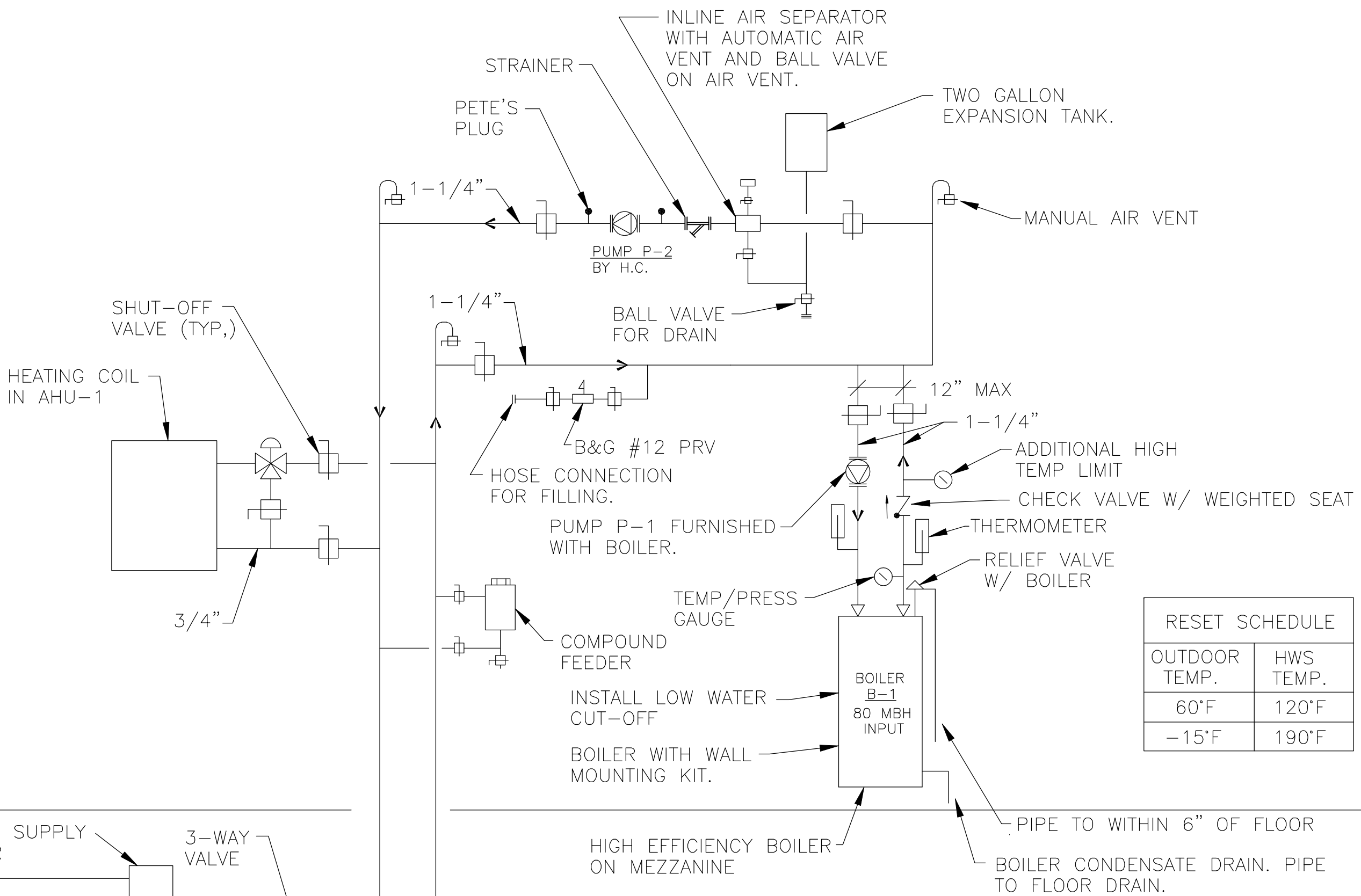
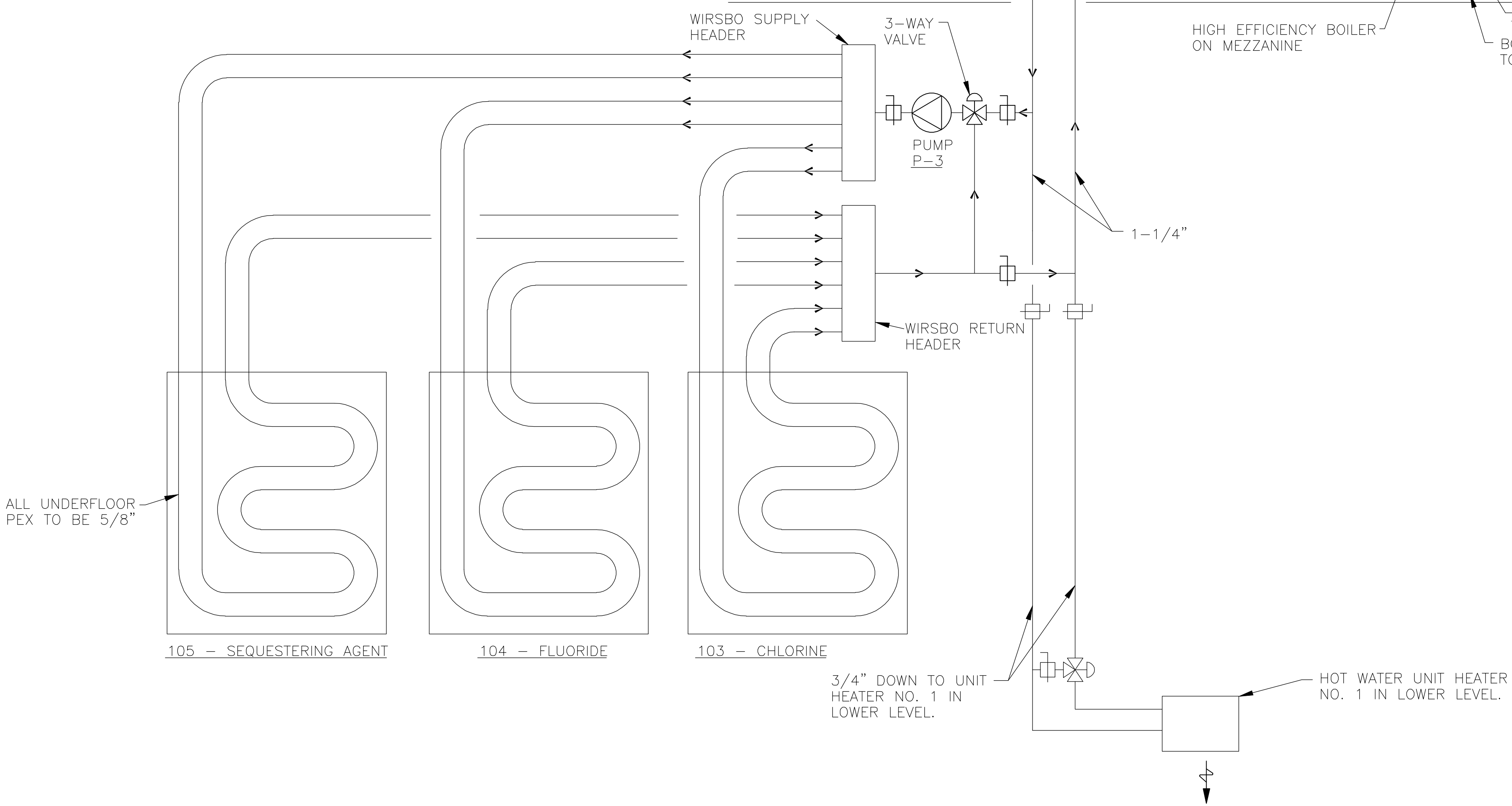
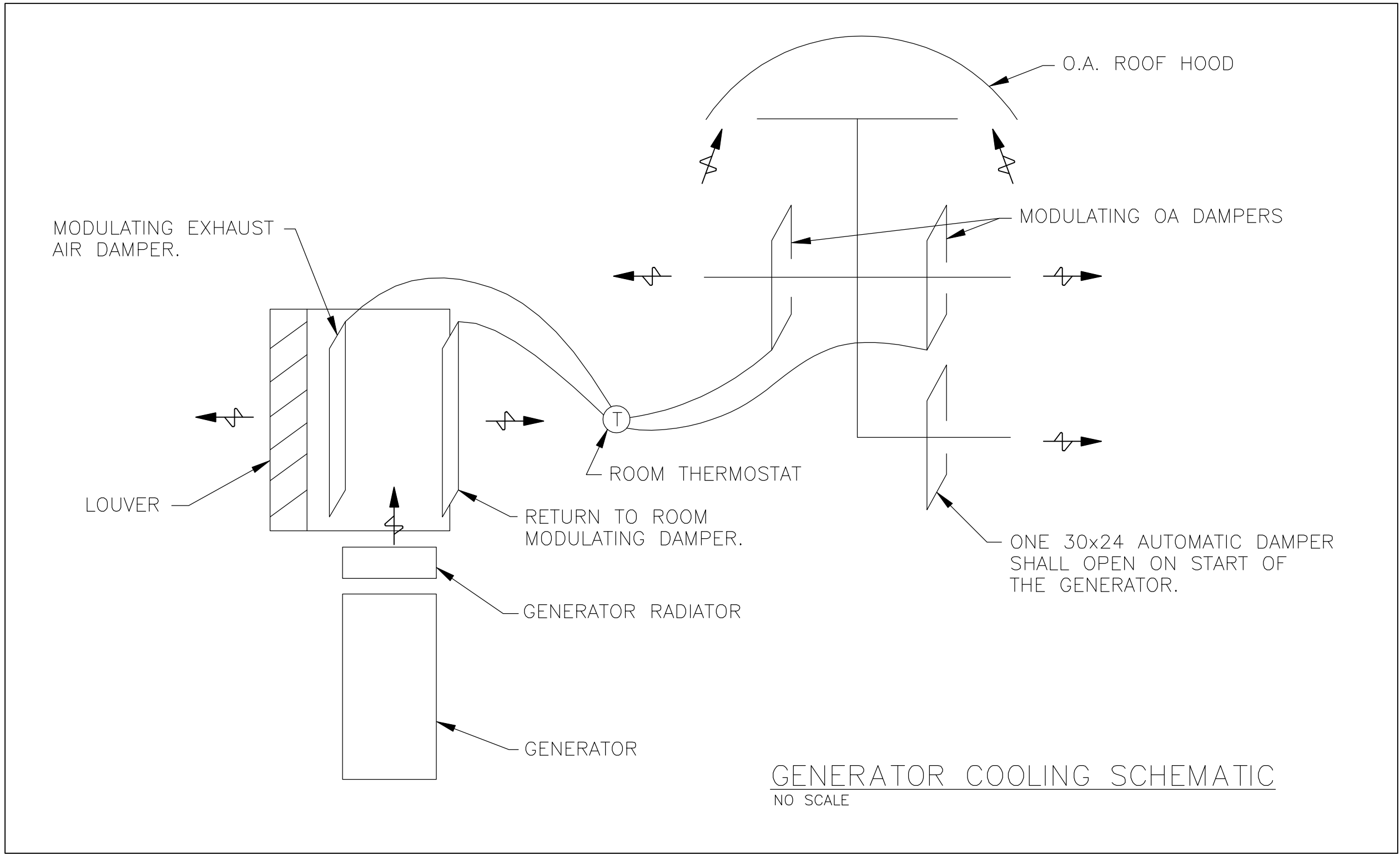


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	2	DATE	7/11/07	ADDENDUM 1, 2
	3	DATE	10/30/09	RECORD DRAWINGS
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STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS WELL WATER COOLING / AHU SCHEMATIC				
SCALE	AS NOTED	DATE	APRIL 6, 2007	PROJECT NO.
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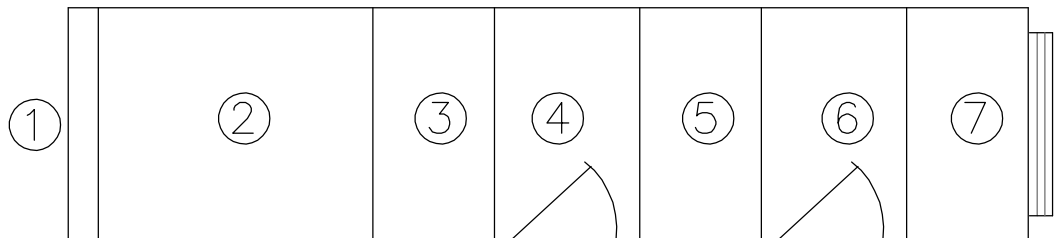
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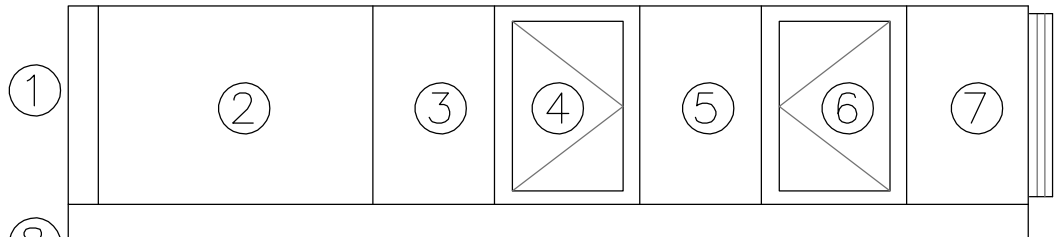
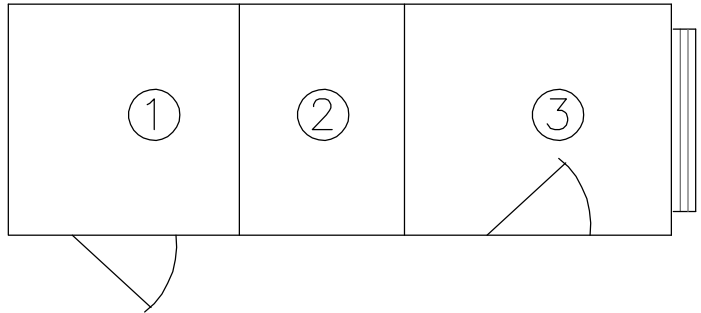
RESET SCHEDULE	
OUTDOOR TEMP.	HWS TEMP.
60°F	120°F
-15°F	190°F

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DRAFTED BY: PGK 10/30/09
CHECKED: _____

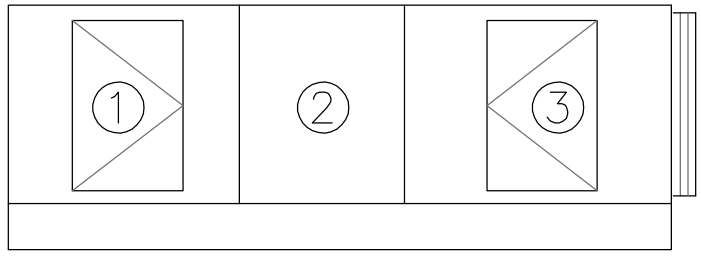
McMAHON ASSOCIATES ENGINEERS / ARCHITECTS / SURVEYORS / PROJECT MANAGERS 1445 McMAHON DRIVE NEENAH, WI 54956 MAILING: P.O. BOX 1025 NEENAH, WI 54956-1025 TEL: (920) 751-4200 Fax: (920) 751-4204	DESIGNED JCL	DRAWN WDM	CHECKED
SCALE AS NOTED	DATE APRIL 6, 2007	PROJECT NO. R0018-950446	SHEET NO.
STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS HOT WATER SCHEMATIC			H6
NO. 1			FILE NO. CAD
DATE 4/6/07	REVISION RELEASED FOR BIDDING	ADDENDUM 1, 2	RECORD DRAWINGS



- ① 4" FILTER SECTION
② 36" FAN SECTION
③ 16" DIFFUSER SECTION
④ 19" ACCESS SECTION
⑤ 16" CW COIL SECTION
⑥ 19" ACCESS SECTION
⑦ 11" HW COIL SECTION
⑧ 6" MOUNTING RAILS

PLAN VIEW**ELEVATION****AIR HANDLING UNIT NO. 1****PLAN VIEW**

- ① 25" ANGLE FILTER SECTION. COVER
INLET W/ EXPANDED METAL SCREEN.
② 25" WELL WATER COIL SECTION
③ 41" FAN SECTION
④ 4" MOUNTING RAIL

**ELEVATION****AIR HANDLING UNIT NO. 2****FAN SCHEDULE**

UNIT NO.	AREA SERVED	CFM	TOTAL STATIC PRESS.	H.P.	R.P.M.	TYPE	DRIVE	VOLTAGE PHASE	MFR.	MODEL	CONTROL	REMARKS
REF-1	103 PURGE	1200	0.5	1/4	1725	U.B.	DIRECT	120/1	GREENHECK	CUE-10A	MANUAL	1
REF-2	104 PURGE	1200	0.5	1/4	1725	U.B.	DIRECT	120/1	GREENHECK	CUE-10A	MANUAL	1
REF-3	105 PURGE	1200	0.5	1/4	1725	U.B.	DIRECT	120/1	GREENHECK	CUE-10A	MANUAL	1
REF-4	103	30	0.2	1/200	1050	U.B.	DIRECT	120/1	GREENHECK	CUE-060	MANUAL	1
REF-5	104	10	0.2	1/200	1050	U.B.	DIRECT	120/1	GREENHECK	CUE-060	MANUAL	1
REF-6	105	10	0.2	1/200	1050	U.B.	DIRECT	120/1	GREENHECK	CUE-060	MANUAL	1
REF-7	104	15	0.2	1/200	1050	U.B.	DIRECT	120/1	GREENHECK	CUE-060	MANUAL	1
REF-8	105	15	0.2	1/200	1050	U.B.	DIRECT	120/1	GREENHECK	CUE-060	MANUAL	1
IF-1	B01	1100	0.5	1/3	1200	DUCT FAN	BELT	120/1	GREENHECK	BFD-80	MANUAL	2
P-1	101	5000	0.5	3/4	1750	PROP	DIRECT	460/3	GREENHECK	SC3-24	VFD	3

- REMARKS: 1. ROOF EXHAUSTERS SHALL HAVE 16" HIGH CURBS AND BACK DRAFT DAMPERS.
2. SUSPEND WITH VIBRATION ISOLATORS.
3. MOUNT IN WALL WITH GUARDS ON BOTH SIDES. PROVIDE WITH VFD RATED MOTOR.

AIR HANDLING UNIT NO. 1 SCHEDULE

UNIT NO.	LOCATION	SERVICE	TYPE	UNIT ARR.	FACE & BY-PASS DPR.	FAN											CLG. COIL NO.	HTG. COIL NO.	WELL WATER COIL	VIBRATION ISOLATORS	ANGLED FILTERS	CARTRIDGE FILTERS	FLAT FILTER BOX	AIR BLENDER MODEL	MIXING BOX	ACCESS BLANK	COMB. FILTER/ MIXING BOX	MANUFACTURER	MODEL	SIZE		
						TOTAL CFM	O.A. CFM	T.S.T. IN. H2O	TYPE	DIAMETER	INLET VANES	MAX. RPM	MOTOR																			
													H.P.	VOLT	PH	SPEEDS	VFD	RATED	NOM. RPM													
1	MECH. MEZZ.	CHEMICAL ROOMS	BLOW THRU	HORIZ.	NO	1,100	110	2.0	BI	9	NO	2600	1	460	3	VARIES	YES	1750	NONE	H-1	WW-1	INTERNAL	NO	NO	YES	NO	NO	TWO	NO	TRANE	MOD	03D
1	MECH. MEZZ.	PUMP & ELECTRICAL	DRAW THRU	HORIZ.	NO	9,000	0	2.5	AF	14	NO	2100	10	460	3	VARIES	YES	1750	NONE	NONE	WW-2	INTERNAL	YES	NO	NO	NO	NO	TWO	NO	TRANE	MOD	14D

AIR FILTER SCHEDULE

UNIT NO.	SERVICE	LOCATION	CFM	TYPE	OVERALL DIMENSIONS					MEDIA AREA PER SQ.FT. OF SURFACE AREA	QUANTITY	CELL SIZE				INITIAL P.D.	FINAL P.D.	ASHRAE EFF.	PRE-FILTERS	ELECTRICAL			MANUF.	MODEL	ACCESS	REMARKS
												H	W	D	FACE AREA	FACE VELOCITY				H.P., KW OR AMPS	VOLTS	PH				
1	AHU-1	END OF AHU-1	1,100	FLAT	25	32	4	5.55	200	-	2	25	16	4	200	.10	.90	30	NO	-	-	-	FARR	30/30	END	END OF AHU-1
2	AHU-2	AHU-2	9,000	ANGLE	41	68	25	26.7	330	-	12	20	16	4	330	.17	.90	30	NO	-	-	-	FARR	30/30	SIDE	IN AHU-2

WELL WATER COOLING COIL SCHEDULE

UNIT NO.	SERVICE	CFM	FACE AREA	COIL SIZE	VEL. FPM	MAX. AIR P.D. 'H2O	E.A.T. DEG. F.		L.A.T. DEG. F.		CAPACITY		E.W.T.	L.W.T.	GPM	MAX.H2O P.D. 'H2O	GLYCOL TYPE	% GLYCOL	TUBE SIZE	TUBE MATERIAL	TUBE THICKNESS	ROWS	TURBULATORS	FINS/FT	FIN MATERIAL	FIN TYPE	CASING MATERIAL	MANUFACTURER	COIL TYPE
WW-1	AHU-1	1,100	3.3	22x22	330	0.2	91	72	60	59	60	5	55	-	8	10	NONE	0	1/2"	CU	.025	6	YES	96	AL	-	STAINLESS	TRANE	UW
WW-2	AHU-2	9,000	13.9	35.5x58	650	1.50	100	72	60	59	321	26.8	55	-	50		NONE	0	5/8"	CU	.035	8	YES	96	AL	-	STAINLESS	TRANE	WD

1. ALL COIL AND ACCESS SECTIONS SHALL HAVE STAINLESS STEEL DRAIN PANS.

HOT WATER HEATING COIL SCHEDULE

UNIT NO.	SERVICE	CFM	FACE AREA	COIL SIZE	VEL. FPM	MAX. AIR P.D. 'H2O	E.A.T. DEG. F.		L.A.T. DEG. F.		CAPACITY	E.W.T.	L.W.T.	GPM	MAX.H2O P.D. 'H2O	GLYCOL TYPE	% GLYCOL	TUBE SIZE	TUBE MATERIAL	TUBE THICKNESS	ROWS	TURBULATORS	FINS/FT	FIN MATERIAL	FIN TYPE	CASING MATERIAL	MANUFACTURER	COIL TYPE
H-1	AHU-1	1,100	3.3	22x22	330	0.20	44	-	80	-	44	180	150	3	2 FT.	N.A.	0	1/2"	CU	0.020	2	YES	84	AL	DELTA-FLO-H	STAINLESS STEEL	TRANE	UW

NOTES: 1. ALL COIL AND ACCESS SECTIONS SHALL HAVE STAINLESS STEEL DRAIN PANS - DRAIN PAN IS NEEDED FOR CLEANING.

HOT WATER BOILER SCHEDULE

UNIT	FUEL TYPE	INPUT MBH	OUTPUT MBH	DOE AFUE	VENTING	COMB. AIR	VENT SIZE	ELECTRICAL			GAS PIPE CONNECTION	GAS TRAIN	GAS PRESS. REQUIRED	UTILITY GAS PRESS.	BURNER		RELIEF VALVE	MANUF.	MODEL	ASME WORKING PRESSURE	REMARKS
1	NAT. GAS	80	71	93%	DIRECT SEALED	3"ø	3"ø	15 AMP	120	1	3/4"	CSA/U.L.	5" WC	14" WC	POWER	5:1 MODULATING	30 PSI	WEIL-McLAIN	ULTRA PHD 80	150	SEE BELOW

- REMARKS: 1. PROVIDE CONCENTRIC VENT PACKAGE AND VENT PIPING.
2. PROVIDE CIRCULATING PUMP WITH BOILER.
3. PROVIDE LOW-WATER CUT-OFF WITH BOILER.
4. PROVIDE ADDITIONAL GAS PRESSURE REGULATOR TO REDUCT TO 10" W.C.
5. SMITH GT-150 IS AN APPROVED EQUAL.

PUMPS AND CIRCULATORS

UNIT NO.	ARRANGEMENT	LOCATION	SERVICE	GPM	HEAD FT/H2O	EFF. %	FLUID TYPE	FLUID %	OPER. TEMP.	RPM	MOTOR				TYPE	MFR.	MODEL	SIZE	STAGES
											H.P.	VOLT	P.H.	VFD					
P-1	ALONE	MEZZANINE	BOILER PRIMARY	—	—	—	WATER	100	—	—	—	120	1	NO	INLINE	TACO	—	—	1
P-2	ALONE	MEZZANINE	HW SECONDARY	10	25	—	WATER	100	200	3300	1/6	120	1	NO	INLINE	B&G	PL	36	1
P-3	ALONE	LOWER LEVEL	FLOOR WARMING	10	25	—	WATER	100	90	3300	1/6	120	1	NO	INLINE	B&G	PL	36	1

- REMARKS: 1. PUMP P-1 FURNISHED BY BOILER MFR.
2. ALL MOTORS TO BE PREMIUM EFFICIENCY.

HOT WATER UNIT HEATER SCHEDULE

UNIT NO.	LOCATION	CFM	MBH	RPM	E.A.T.	E.W.T.	L.A.T.	L.W.T.	GLYCOL	GPM	ROWS	FINS/FT.	MOTOR			MANUFACTURER	MODEL	CONTROL VALVE
													H.P.	VOLTS	PH			
1	TUNNEL	1790	46	1100	60	180	84	140	0	2.4	1	144	1/6	120	1	TRANE	122-P	3-WAY

CIRCULATION FAN SCHEDULE

UNIT NO.	SERVICE	SIZE	MOTOR			MANUF.	MODEL
			WATTS	VOLTS	PH.		
1	LL PUMP RM B01	56"	76	120	1	ENVIROFAN	SILVER LINE 60F-7
2	LL PUMP RM B01	56"	76	120	1	ENVIROFAN	SILVER LINE 60F-7
3	PUMP RM 100	56"	76	120	1	ENVIROFAN	SILVER LINE 60F-7

RECORD DRAWINGS

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ELECTRIC UNIT HEATER SCHEDULE

UNIT NO.	SERVICE	TYPE	FAN				CAP.		VOLTS	PHASE	MANUFACTURER	MODEL
			CFM	RPM	H.P.	SPEED	K.W.	MBH				
1	GENERATOR ROOM	UNIVERSAL MOUNT	910	1530	1/20	ONE	10	51	480	3	Q-MARK	MUH -10

- NOTE: UNITS COMPLETE WITH THE FOLLOWING OPTIONS AND ACCESSORIES:
1. FURNISH WITH WALL BRACKETS.
2. FURNISH 24 VOLT RELAYS FOR EACH UNIT.
3. FURNISH INTEGRAL THERMOSTATS (24 VOLTS) FOR EACH UNIT.
4. FIELD VERIFY LOCATIONS OF ALL UNITS WITH OWNER.
5. ALL UNITS WITH DISCONNECT SWITCHES.

CEILING FAN SCHEDULE

UNIT NO.	SERVICE	ARRANGEMENT	CFM	S.P. IN 'H2O	RPM	MOTOR				B.D. DPR	INLET GRILLE	SPEED CONTROL	WALL JACK	DISCONNECT	MANUFACTURER	MODEL
						WATTS	VOLTS	PH.	SPEED							
1	GENERATOR RM	X	200	.375	1000	83	120	1	ONE	YES	YES	NO	YES	YES	GREENHECK	SP-A250
2	OUTDOOR AIR	X	100	.25	950	51	120	1	ONE	YES	NO	NO	YES	YES	GREENHECK	CSP-A110

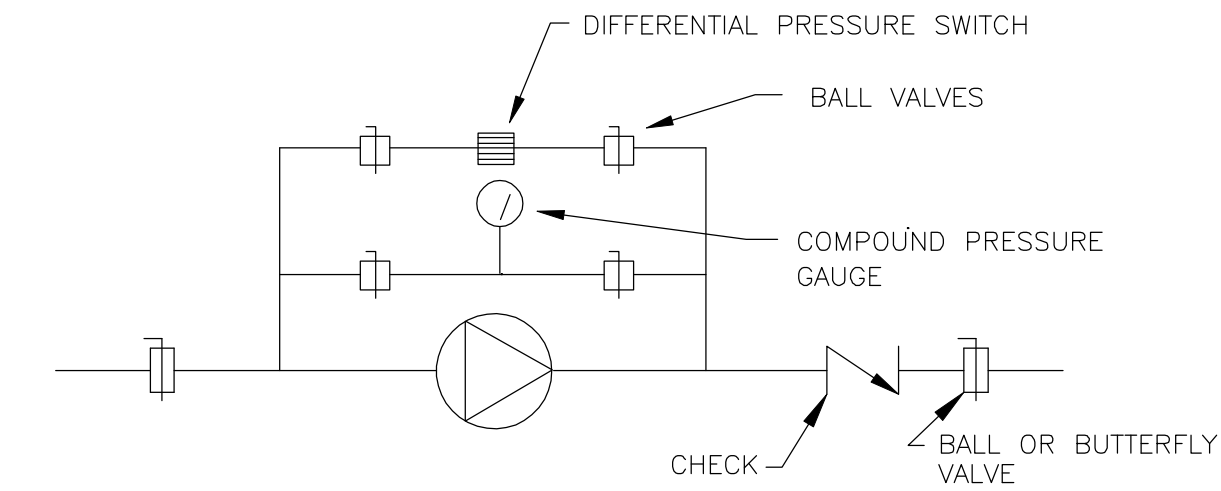
MOTOR CONTROL SCHEDULE																								
UNIT NAME AND NUMBER	LOCATION	H.P., K.W. OR AMPS	VOLTS & PHASE	STAND-BY POWER	STARTER										DISCONNECT SWITCH			CONTROL				REMARKS		
					TYPE	COMB. TYPE	H.O.A. SEL. SW.	PUSH-BUTTON	PUSH TO TEST PILOT LIGHTS	AUX. CONTACTS	CONTROL TRANSFORMER	OTHER	FURNISHED BY	WIRED BY	LOCATION	FURNISHED BY	WIRED BY	LOCATION	TYPE	FURNISHED BY	WIRED BY		LOCATION	
ROOF EXH FAN NO. 1	ROOM 103	1/4 H.P.	120/1	YES	MANUAL								E.C.	E.C.	OUTSIDE ROOM 103	UNIT MFR	E.C.	ON UNIT	0-4 HOUR TIMER	E.C.	E.C.	OUTSIDE ROOM 103	PURGE	
ROOF EXH FAN NO. 2	ROOM 104	1/4 H.P.	120/1	NO	MANUAL								E.C.	E.C.	OUTSIDE ROOM 104	UNIT MFR	E.C.	ON UNIT	0-4 HOUR TIMER	E.C.	E.C.	OUTSIDE ROOM 104	PURGE	
ROOF EXH FAN NO. 3	ROOM 105	1/4 H.P.	120/1	NO	MANUAL								E.C.	E.C.	OUTSIDE ROOM 105	UNIT MFR	E.C.	ON UNIT	0-4 HOUR TIMER	E.C.	E.C.	OUTSIDE ROOM 105	PURGE	
ROOF EXH FAN NO. 4	ROOM 103	1/200 H.P.	120/1	YES	OVERLOAD PROTECTION								UNIT MFR.	E.C.	PUMP ROOM	UNIT MFR	E.C.	ON UNIT	MSPL/ SPEED CONTROL	E.C./MFR	E.C.	PUMP ROOM	1,7	
ROOF EXH FAN NO. 5	ROOM 104	1/200 H.P.	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	ROOM 104	UNIT MFR	E.C.	ON UNIT	MSPL/ SPEED CONTROL	E.C./MFR	E.C.	ROOM 104	1,7	
ROOF EXH FAN NO. 6	ROOM 105	1/200 H.P.	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	ROOM 105	UNIT MFR	E.C.	ON UNIT	MSPL/ SPEED CONTROL	E.C./MFR	E.C.	ROOM 105	1,7	
ROOF EXH FAN NO. 7	ROOM 104	1/200 H.P.	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	ROOM 104	UNIT MFR	E.C.	ON UNIT	MSPL/ SPEED CONTROL	E.C./MFR	E.C.	ROOM 104	1,7	
ROOF EXH FAN NO. 8	ROOM 105	1/200 H.P.	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	ROOM 105	UNIT MFR	E.C.	ON UNIT	MSPL/ SPEED CONTROL	E.C./MFR	E.C.	ROOM 105	1,7	
ELECTRIC UNIT HEATER NO. 1	GENERATOR	10 KW	480/3	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	IN UNIT	UNIT MFR	E.C.	ON UNIT	INTEGRAL THERMOSTAT	UNIT MFR.	E.C.	ON UNIT		
INLINE FAN NO. 1	LOWER LEVEL	1/3 H.P.	120/1	NO	MSPL								E.C.	E.C.	LOWER LEVEL	E.C.	E.C.	NEAR UNIT	MSPL	E.C.	E.C.	LOWER LEVEL	1	
HOT WATER UNIT HEATER NO. 1	LOWER LEVEL	1/6 H.P.	120/1	NO	MANUAL								E.C.	E.C.	NEAR UNIT	E.C.	E.C.	NEAR UNIT	ROOM THERMOSTAT	T.C.C.	T.C.C.	LOWER LEVEL		
SIDEWALL FAN NO. 1	ELECTRICAL RM	3/4 H.P.	460/3	YES	VFD								E.C.	E.C.	ELECTRICAL ROOM	E.C.	E.C.	NEAR UNIT	THERMOSTAT VFD	T.C.C.	E.C.	E.C.	ELECTRICAL ROOM	2
DEHUMIDIFIER	MEZZANINE	20 AMP CKT.	120/1	NO	INTEGRAL								UNIT MFR	UNIT MFR		UNIT MFR	UNIT MFR	PLUG ON CORD	INTEGRAL	UNIT MFR.	UNIT MFR.			
BOILER NO. 1	MEZZANINE	20 AMP CKT.	120/1	YES	MANUAL								E.C.	E.C.	NEAR UNIT	E.C.	E.C.	NEAR UNIT	O.A. RESET	UNIT MFR.	T.C.C.			
CIRCULATION FAN NO. 1	SEE PLAN	0.15 KW	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	IN UNIT	E.C.	E.C.	NEAR UNIT	MSPL	E.C.	E.C.	NEAR UNIT	1	
CIRCULATION FAN NO. 2	SEE PLAN	0.15 KW	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	IN UNIT	E.C.	E.C.	NEAR UNIT	MSPL	E.C.	E.C.	NEAR UNIT	1	
CIRCULATION FAN NO. 3	SEE PLAN	0.15 KW	120/1	NO	OVERLOAD PROTECTION								UNIT MFR.	E.C.	IN UNIT	E.C.	E.C.	NEAR UNIT	MSPL	E.C.	E.C.	NEAR UNIT	1	
PUMP NO. 1	MEZZANINE	1/6 H.P.	120/1	YES	MANUAL								E.C.	E.C.	NEAR UNIT	E.C.	E.C.	NEAR UNIT	DDC / RELAY	T.C.C.	T.C.C.		3	
PUMP NO. 2	MEZZANINE	1/6 H.P.	120/1	YES	MANUAL								E.C.	E.C.	NEAR UNIT	E.C.	E.C.	NEAR UNIT	DDC / RELAY	T.C.C.	T.C.C.		3	
PUMP NO. 3	LOWER LEVEL	1/6 H.P.	120/1	YES	MANUAL								E.C.	E.C.	NEAR UNIT	E.C.	E.C.	NEAR UNIT	DDC / RELAY	T.C.C.	T.C.C.		3	
AIR HANDLING UNIT NO. 1	MEZZANINE	1.0 H.P.	460/3	NO	VFD								E.C.	E.C.	ELECTRICAL ROOM	E.C.	E.C.	NEAR UNIT	DDC / O.A. TEMP	T.C.C.	T.C.C.		1,4	
AIR HANDLING UNIT NO. 2	MEZZANINE	10.0 H.P.	460/3	NO	VFD								E.C.	E.C.	ELECTRICAL ROOM	E.C.	E.C.	NEAR UNIT	DDC / O.A. TEMP	T.C.C.	T.C.C.		5	
CEILING FAN NO. 1	GENERATOR RM	83 WATTS	120/1	NO	MSPL								E.C.	E.C.	NEAR UNIT	UNIT MFR	E.C.	ON UNIT	MSPL	E.C.	E.C.			
CEILING FAN NO. 2	MEZZANINE	51 WATTS	120/1	NO	MSPL								E.C.	E.C.	NEAR UNIT	UNIT MFR	E.C.	ON UNIT	MSPL	E.C.	E.C.		1,6	
CONTROL PANEL	MEZZANINE	20 AMP CKT.		YES	-																			
CONTROL PANEL	GENERATOR RM	20 AMP CKT		YES	-																			

ABBREVIATIONS

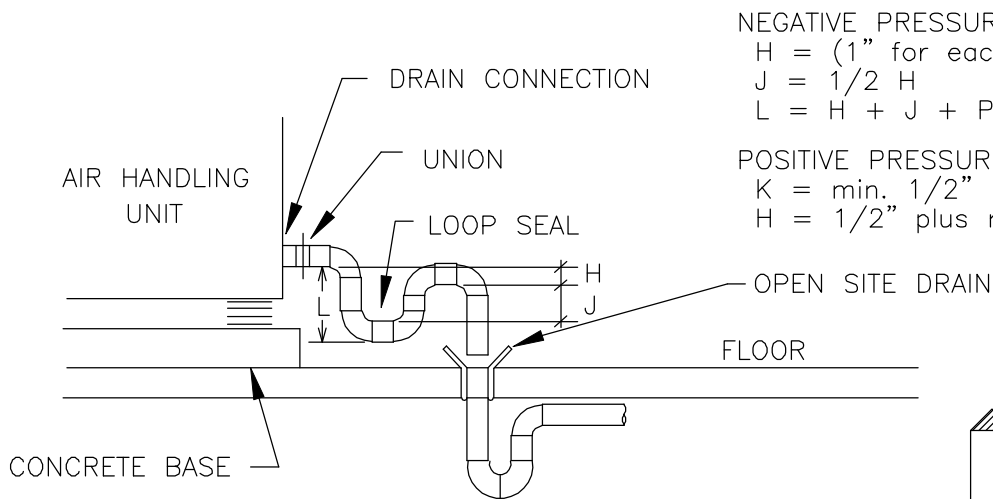
V. F. D.	VARIABLE FREQUENCY DRIVE
CFM	CUBIC FEET PER MINUTE
C. S.	CONTROL STATION
E. C.	ELECTRICAL CONTRACTOR
E. T. C. P.	ELECTRONIC TEMPERATURE CONTROL PANEL
GPM	GALLONS PER MINUTE
H. C.	HEATING CONTRACTOR
H. O. A.	HAND-OFF-AUTO
MAG.	COMBINATION MAGNETIC STARTER
MAN.	MANUAL STARTER
M. C. C.	MOTOR CONTROL CENTER
MFR.	MANUFACTURER
M.O.C.P.	MAX. OVER CURRENT PROTECTION
M. S. P. L.	MANUAL STARTER WITH PILOT LIGHT
N. S.	NEAR STARTER
N. U.	NEAR UNIT AND ACCESSIBLE AT FLOOR
P. B. P. L.	PUSH BUTTON WITH PILOT LIGHT
P. C.	PROGRAMMABLE CONTROLLER
SP. POT.	SPEED POTENTIOMETER
T. C. C.	TEMPERATURE CONTROL CONTRACTOR
T. C. P.	TEMPERATURE CONTROL PANEL

MCC REMARKS:

- FAN SHALL ALWAYS BE "ON".
- THE SPEED OF THE SIDEWALL FAN SHALL BE CONTROLLED VIA THE ELECTRICAL ROOM LEAVING AIR TEMPERATURE. THE SENSOR SHALL BE MOUNTED ON THE TRANSFER GRILLE. MINIMUM SPEED SHALL BE 30HZ. THE FAN SHALL OPERATE AT MINIMUM SPEED WHENEVER THE LEAVING AIR IS 70F DEGREES OR LESS. THE SPEED SHALL MODULATE TO FULL SPEED AT 80F DEGREES.
- THE PUMPS SHALL BE INTERLOCKED WITH THE BOILER OPERATION. THE INITIAL SET UP SHALL BE THAT THE BOILER AND PUMP SHALL BE "ON" WHENEVER THE OUTDOOR AIR TEMPERATURE IS 60F DEGREES OR LESS.
- SEE THE AHU-1 SCHEMATIC FOR THE VFD OPERATION SCHEDULE.
- AIR HANDLING UNIT NO. 2 SHALL BE "OFF" WHENEVER THE ELECTRICAL ROOM LEAVING AIR SENSOR INDICATES A TEMPERATURE BELOW 70F DEGREES. 70F DEGREE AND ABOVE THE FAN SHALL OPERATE CONTINUOUSLY AND THE CITY WATER "FREE COOLING" COOLING COIL VALVE SHALL BE OPEN.
- PROVIDE FREEZE STAT TO STOP CEILING FAN NO. 2 AND CLOSE THE OUTDOOR AIR DAMPER. SEE AHU-1 SCHEMATIC.
- THE SPEED CONTROL SHALL BE USED FOR BALANCING.



TYPICAL PUMP GUAGE DETAIL
NO SCALE



CONDENSATE LOOP SEAL DETAIL
NO SCALE

NEGATIVE PRESSURE:
H = (1" for each 1" of max neg pressure) + 1"
J = 1/2" H
L = H + J + Pipe Diameter + Insulation

POSITIVE PRESSURE:
K = min. 1/2"
H = 1/2" plus maximum static pressure

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE, NEENAH, WI 54956
MAILING: P.O. BOX 1025, NEENAH, WI 54956-1025
TEL: (920) 751-4200 FAX: (920) 751-4204

DESIGNED: JCL
DRAWN: WDM
CHECKED: _____

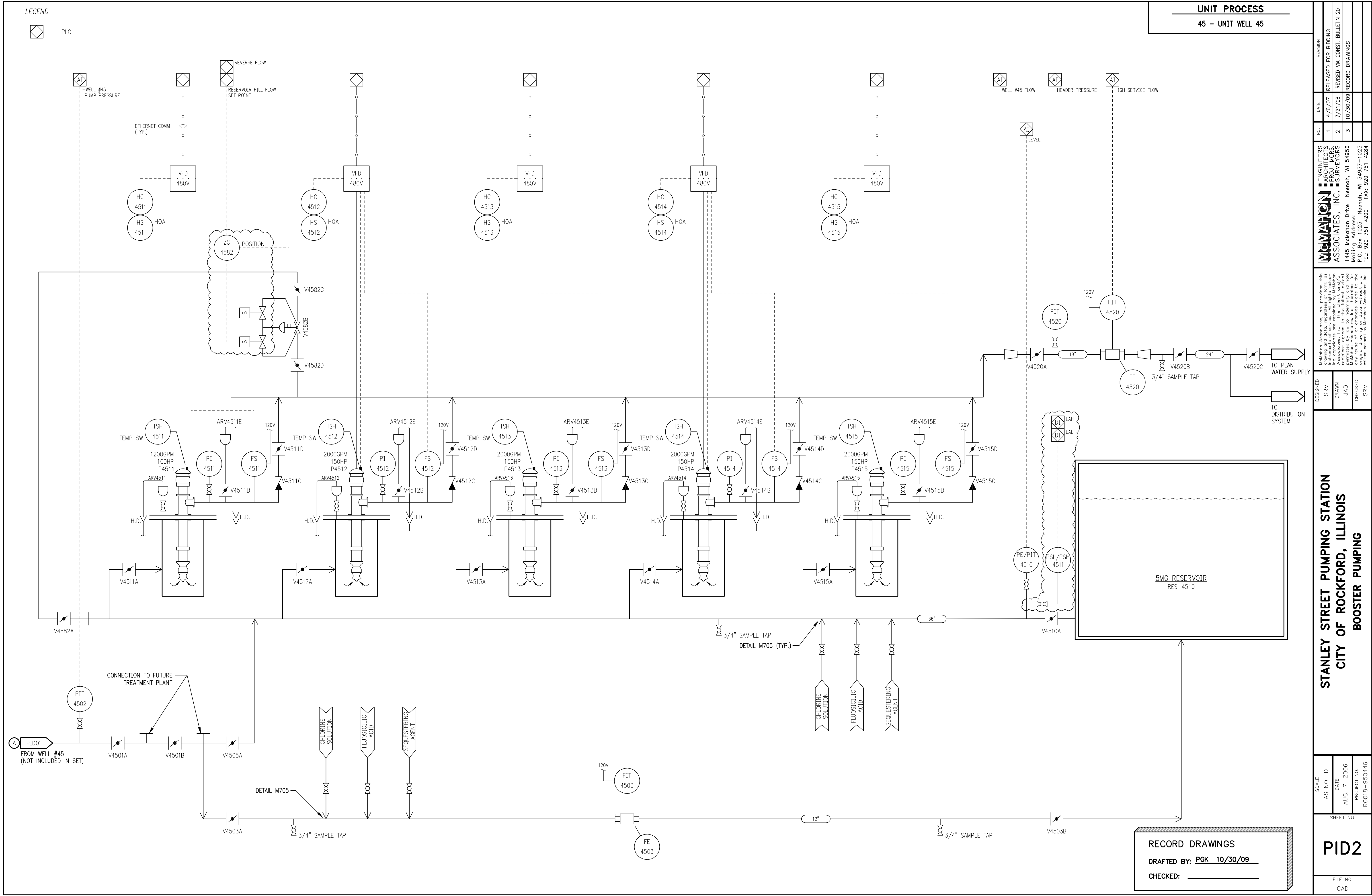
SCALE: AS NOTED
DATE: APRIL 6, 2007
PROJECT NO.: R0018-950446

SHEET NO.: H8
FILE NO.: CAD

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
HVAC SCHEDULES

NO. 1
DATE: 4/6/07
RELEASED FOR BIDDING: 7/11/07
ADDENDUM 1, 2
RECORD DRAWINGS: 10/30/09

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– PLC

45 - UNIT WELL 45

NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	10/30/09	RECORD DRAWINGS

McMATHON
ASSOCIATES, INC.

1445 McMathon Drive Neenah, WI 54956
Mailing Address:
P.O. Box 1025 Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

■ ENGINEERS
■ ARCHITECTS
■ PROJ. MGRS.
■ SURVEYORS

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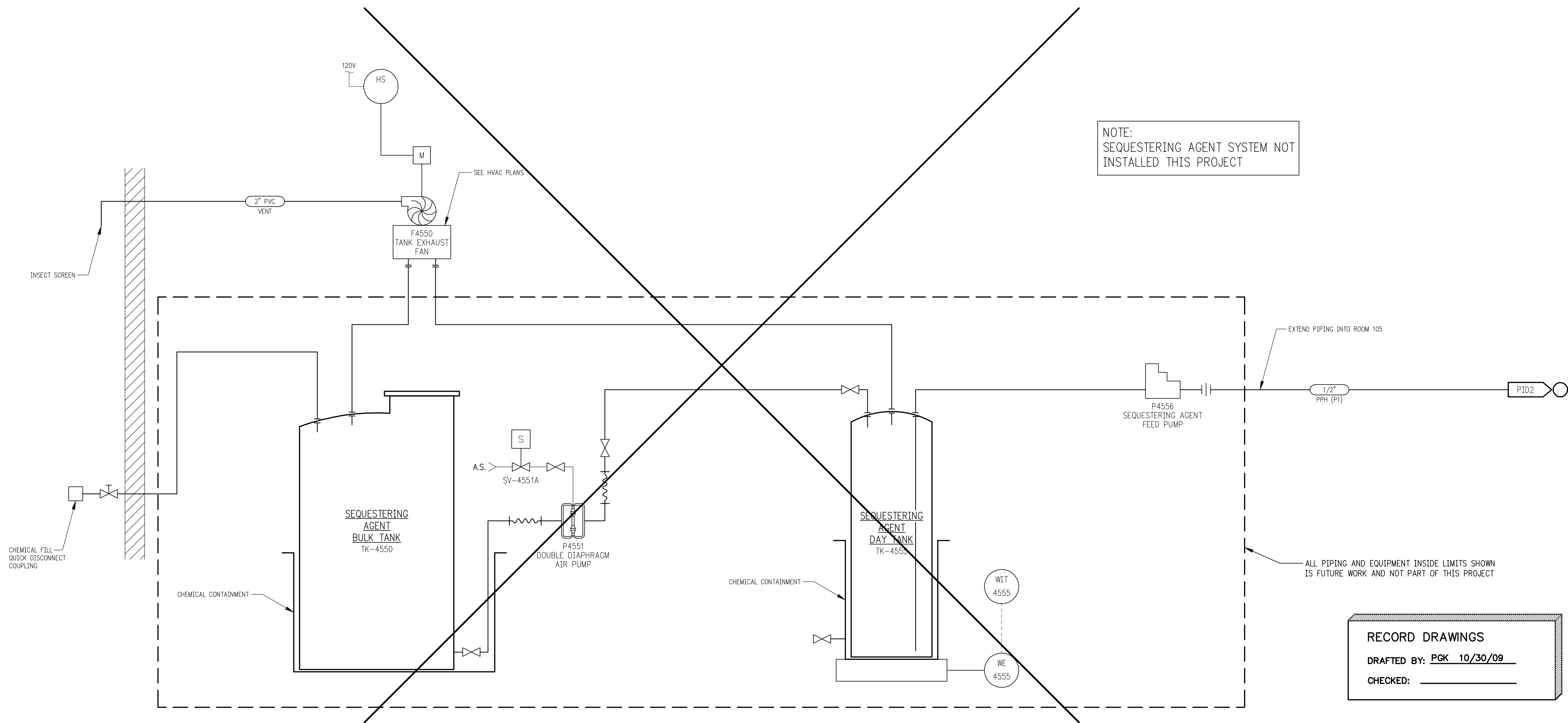
**STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
SEQUESTERING AGENT**

SCALE	DATE	PROJECT NO.
AS NOTED	AUG. 7, 2006	R0018-950446

SHEET NO.

PID3

FILE NO.
CAD



\\davis\w:\DWG\R0018\950446\14\PID\ROC-PID03.dwg 04/09/07 10:40 AM (X-MCM22X34 INFO)

PID4

FILE NO.

CAD

SHEET NO.

STANLEY STREET PUMPING STATION

CITY OF ROCKFORD, ILLINOIS

FLOUSILIC ACID

DESIGNED
SRM

DRAWN
JAD

CHECKED
SRM

SCALE
AS NOTED

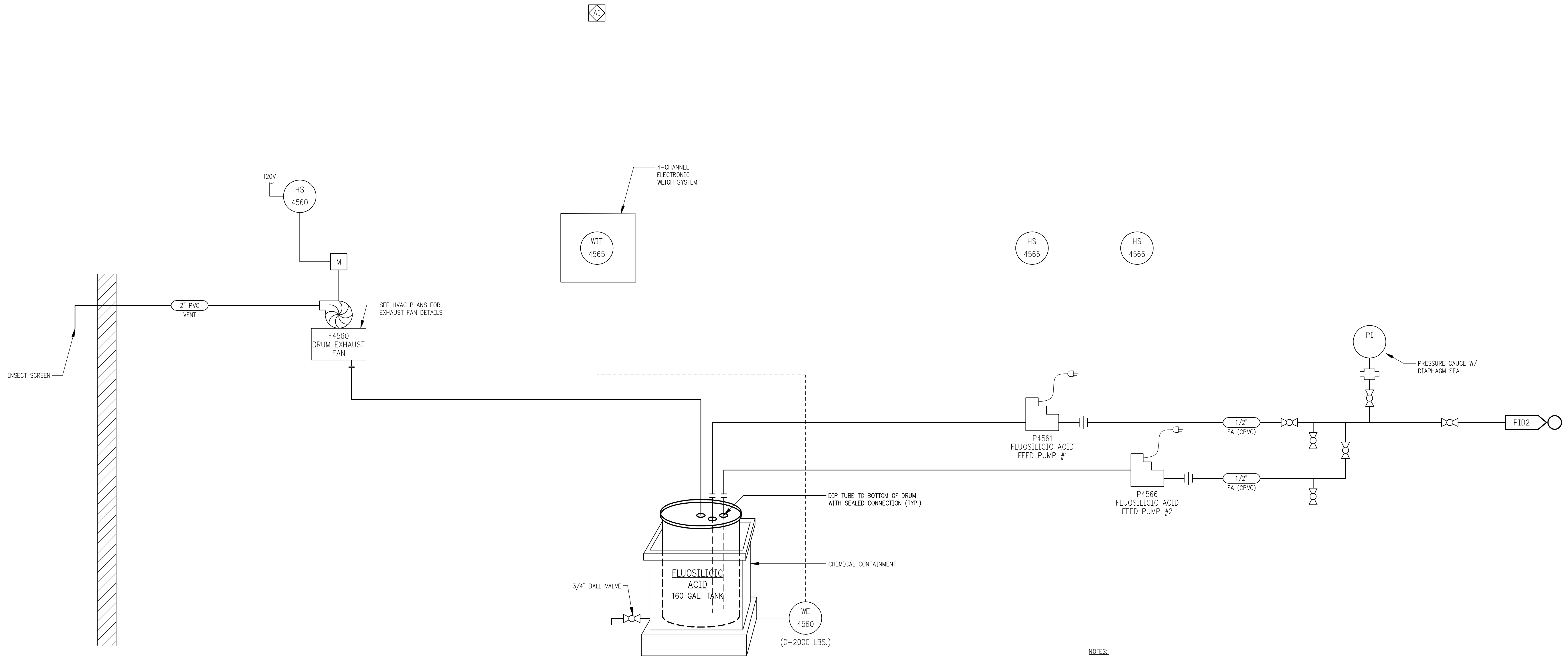
DATE
AUG. 7, 2006

PROJECT NO.
R0018-950446

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	ENGINEERS	NO.	DATE	REVISION
	ARCHITECTS	1	4/6/07	RELEASED FOR BIDDING
	PROJ. MGRS.	2	12/4/07	CONSTRUCTION BULLETIN #14
	SURVEYORS	3	10/30/09	RECORD DRAWINGS

McMahon
 ASSOCIATES, INC.
 1445 McMahon Drive
 Mailing Address:
 Neeah, WI 54956
 P.O. Box 1025
 Neeah, WI 54957-1025
 TEL: 920-751-4200 FAX: 920-751-4284



- NOTES:
1. ALL PIPING AND FITTINGS FOR FLUOSILICIC ACID SHALL BE SCHEDULE 80 CPVC OR POLYPROPYLENE TUBING IN CARRIER PIPE.
 2. ALL BALL VALVES FOR FLUORIDE SHALL BE CPVC.
 3. MOUNT ALL VALVES IN AN ACCESSIBLE LOCATION, LESS THAN 6' A.F.F.
 4. ALL PIPE SUPPORTS IN FLUOSILICIC ACID ROOM SHALL BE NON-METALLIC.

RECORD DRAWINGS

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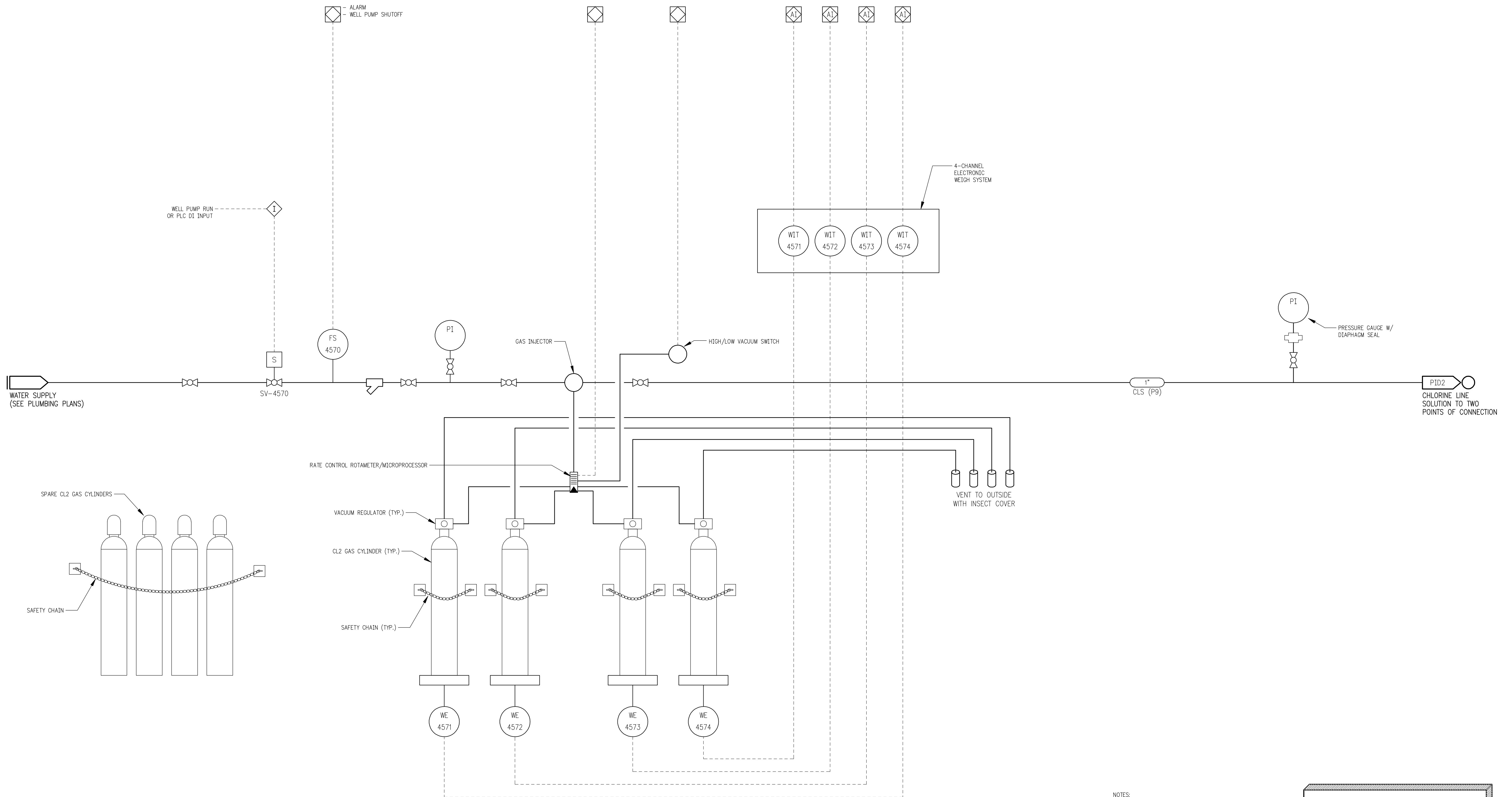
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SHEET NO.

FILE NO.
CAD

45 - UNIT WELL 45

	FILE NO. CAD	PID5	SHEET NO.	SCALE AS NOTED DATE AUG. 7, 2006 PROJECT NO. R0018-950446	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS CHLORINATION SYSTEM		DESIGNED SRM DRAWN JAD CHECKED SRM		Malden Associates, Inc. provides this document as advisory information only. It is not intended to constitute a contract or instrument of service. All rights are reserved by Malden Associates, Inc. and no copyright in the drawing and/or design shall be claimed by Malden Associates, Inc. The user of this drawing and/or design agrees to the fullest extent possible to indemnify and hold Malden Associates, Inc. harmless for all claims, damages, costs and expenses, including reasonable attorneys' fees, arising from or due to the use of this drawing or design without prior written consent by Malden Associates, Inc. MALDEN ASSOCIATES, INC. ENGINEERS ARCHITECTS SURVEYORS 1445 McMahon Drive Neenah, WI 54956 Mailing Address: P.O. Box 1025 Neenah, WI 54957-1025 TEL: 920-751-4200 FAX: 920-751-4284				NO. 1	DATE 4/6/07	REGION RELEASED FOR BIDDING #9 RECORD DRAWINGS
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- NOTES:
1. ALL CHLORINE SOLUTION PIPING TO BE KYNAR.
 2. ALL PIPING AND EQUIPMENT SUPPORTS IN CHLORINE ROOM SHALL BE NON-METALLIC.

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

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SHEET NO.

PID5

FILE NO.
CAD

ABBREVIATIONS	
ABBR.	DESCRIPTION
A	AMPERES
AF	AMPERES FRAME SIZE
A.F.F.	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AT	AMPERES TRIP
ATRVS	AUTO TRANSFORMER REDUCED VOLTAGE STARTER
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BC	BYPASS CONTACTOR
C	CONDUIT, CONTACTOR
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
CNTL	CONTROL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CT	CURRENT TRANSFORMER
CU	COPPER
D.C.	DIRECT CURRENT OR DRIVE CONTACTOR
DET.	DETAIL
DISC	DISCONNECT
DSW	DISCONNECT SWITCH
E.C.	ELECTRICAL CONTRACTOR
E.C.C.	EDDY CURRENT CONTROLLER
EF	EXHAUST FAN
EGC	EQUIPMENT GROUNDING CONDUCTOR
EL	ELEVATION
EMT	ELECTRICAL METALLIC TUBING
ES	EMERGENCY STOP
ETM	ELAPSED TIME METER
EW	ELECTRIC WATER COOLER
EX	EXISTING
F.B.O.	FURNISHED BY OTHERS
F.C.	FAIL CLOSED
FCP	FAN CONTROL PANEL
FDR	FEEDER
FDSW	FUSIBLE DISCONNECT SWITCH
F.O.	FAIL OPEN
FUT	FUTURE
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G.C.	GENERAL CONTRACTOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFEP	GROUND FAULT INTERRUPTING FOR EQUIPMENT PROTECTION
GFI	GROUND FAULT INTERRUPTING FOR PERSONNEL
GND	GROUND
GP	GROUND PLATE
GW	GROUND WELL
HOA	HANDS-OFF-AUTO
HP	HORSEPOWER
HW	HOT WATER
HWH	HOT WATER HEATER
HZ	HERTZ, CYCLES PER SECOND
IC	ISOLATION CONTACTOR
IMC	INTERMEDIATE METAL CONDUIT
INSTALL	INSTALLATION, WIRING, & CONNECTIONS BY E.C.
INTLK	INTERLOCK
IS	INTRINSICALLY SAFE
ISB	INTRINSIC SAFETY BARRIER
I/O	INPUT/OUTPUT
Kcmil	THOUSAND CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES (APPARENT POWER)
KVAR	KILOVARS (REACTIVE POWER)
KW	KILOWATTS (REAL POWER)
LC	LIGHTING CONTRACTOR
LCS	LOCAL CONTROL STATION
LP	LIGHTING PANEL
LV	LOW VOLTAGE
MAN	MANUAL
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MCP	MOTOR CIRCUIT PROTECTOR
M, MTR	MOTOR
MOD	MOTOR OPERATED DAMPER
MPA	MANUAL PURGE/ALARM
mA	MILLIAMPERE
mV	MILLIVOLT
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN CONTRACT
N.O.	NORMALLY OPEN
N.U.	NEAR UNIT
NEC	NATIONAL ELECTRICAL CODE
NL	NIGHT LIGHT
O.C.	ON CENTER
O.L.	OVERLOAD
O.T.	OVER TORQUE
PB	PUSHBUTTON
PLC	PROGRAMMABLE LOGIC CONTROLLER
PROVIDE	FURNISHED, INSTALLED, WIRED AND CONNECTED BY E.C.
PTT	PUSH TO TEST
PVC	POLYVINYL CHLORIDE CONDUIT
RAC	RIGID ALUMINUM CONDUIT
RECPT	RECPACLE
RGC	RIGID GALVANIZED CONDUIT
RMC	RIGID METAL CONDUIT
RMS SYM	ROOT-MEAN-SQUARED VALUE OF SYMMETRICAL COMPONENT
RPC	RIGID PVC-COATED CONDUIT
S.C.KVA	SHORT CIRCUIT KVA
SD	SMOKE DETECTOR
SPEC	SPECIFICATIONS
SSRVS	SOLID STATE REDUCED VOLTAGE STARTER
SW	SWITCH
SSW	SAFETY SWITCH
ST	SHUNT TRIP
T.C.C.	TEMPERATURE CONTROL CONTRACTOR
TM	THERMAL MAGNETIC
TR	TIMING RELAY
TS	TEMPERATURE SWITCH
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY AC DRIVE
VSD	VARIABLE SPEED DC DRIVE
W/	WITH
W/O	WITHOUT
WP	WEATHER PROTECTIVE
XFER	TRANSFER
XFMR	TRANSFORMER
XMTR	TRANSMITTER
Z	IMPEDENCE

LIGHTING		
SYMBOL	DESCRIPTION	SUBSCRIPTS
	RECESSED 2'x4' TROFFER	
	RECESSED 1'x4' TROFFER	
	RECESSED 2'x2' TROFFER	
	WALL MOUNT BRACKET	
	SURFACE MOUNT STRIP	
	WALL BRACKET- HID, FLUORESCENT OR INCANDESCENT	
	CEILING MOUNT-FLUSH OR SURFACE-HID, FLUORESCENT OR INCANDESCENT	
	POLE MOUNTED FIXTURE	
	RECESSED WALL WASHER	
	EXIT SIGN, SINGLE FACE, CEILING MOUNT	← = ARROW LEFT
	EXIT SIGN, DOUBLE FACE, CEILING MOUNT	↔ = DOUBLE ARROW
	EXIT SIGN, SINGLE FACE, WALL MOUNT	→ = ARROW RIGHT
	EXIT SIGN, DOUBLE FACE, WALL MOUNT	G = GUARD
	EMERGENCY UNIT EQUIPMENT	
	EMERGENCY UNIT EQUIPMENT REMOTE	
	LIGHT TRUSS MODULE	
	OCCUPANCY SENSOR	D = DUAL TECHNOLOGY IR = INFRARED & ULTRASONIC G = GUARD PIR = PASSIVE INFRARED U = ULTRASONIC DM = DUAL TECHNOLOGY INFRARED & MICROPHONICS a,b = FOR SWITCHING
	PHOTO-CELL	
	RELAY	
	TIME SWITCH	
	LOW VOLTAGE SWITCH	
	WALL SWITCH	2 = DOUBLE POLE 3 = 3-WAY 4 = 4-WAY D = DIMMER SWITCH K = KEYSwitch L = LIGHTED HANDLE M = MOMENTARY, 3-POSITION, CENTER OFF P = PILOT LIGHT R = REMOTE SWITCH UNIT (COMPANION TO DIGITAL DIMMER SWITCH) T = TIMER SWITCH CR = CORROSION RESISTANT EP = EXPLOSION PROOF EX = EXISTING LV = LOW VOLTAGE MC = MOMENTARY CONTACT OS = OCCUPANCY SENSOR OS/D = DUAL RELAY OCCUPANCY SENSOR SC = MOTOR SOLID STATE SPEED CONTROL SM = SURFACE MOUNT WP = WEATHER PROTECTIVE (USE KILLARK WCS SWITCH COVER OR EQUAL) MOT = MANUAL MOTOR STARTING WP = OCCUPANCY SENSOR WITH DUAL RELAY "small letter" = SWITCHING CIRCUIT

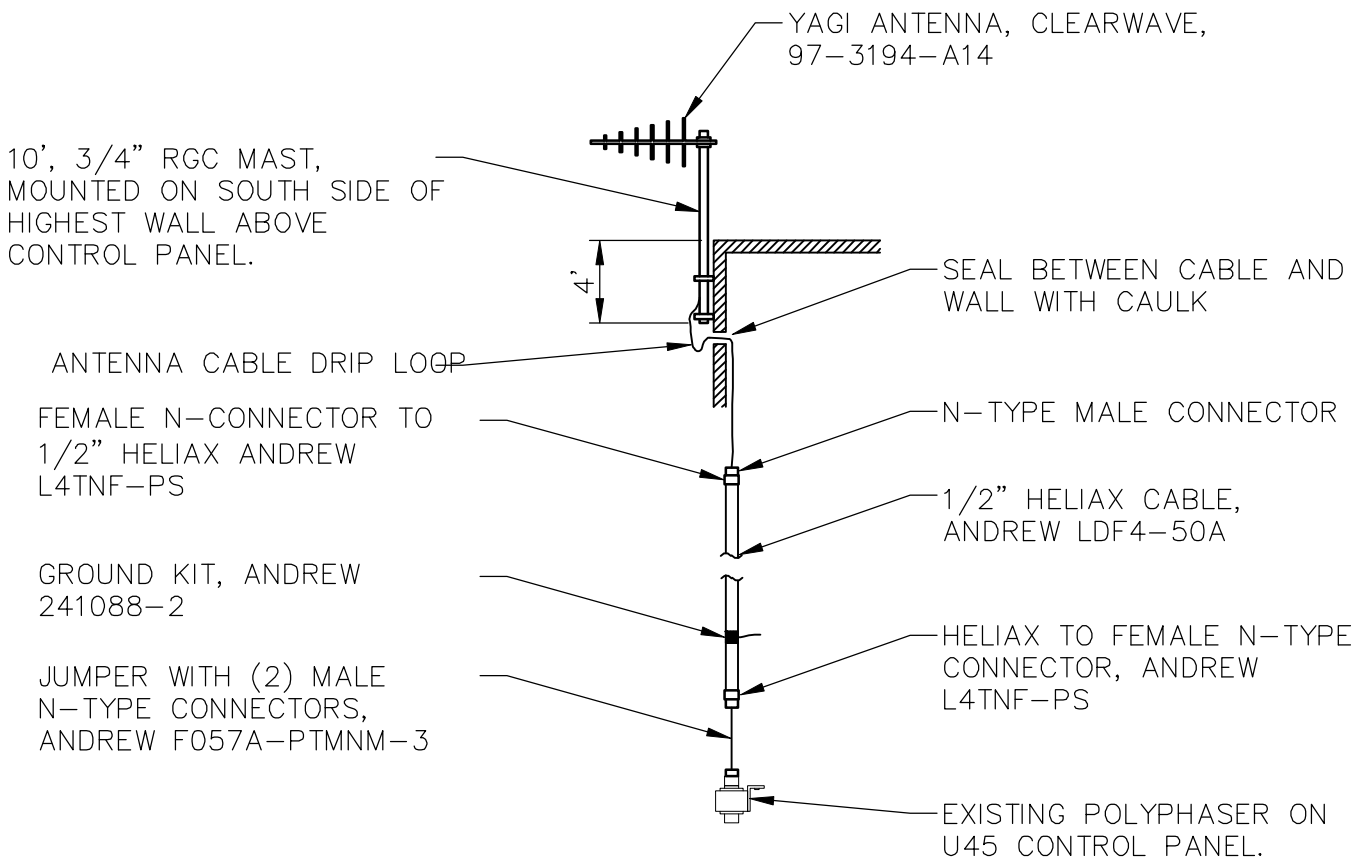
TELEPHONE/DATA		
SYMBOL	DESCRIPTION	SUBSCRIPTS
	TELEPHONE OUTLET	P = PUBLIC PAY PHONE W = WALL MOUNTED PHONE WP = WEATHER PROTECTIVE *** SEE PLAN SYMBOLS NOTE 3
	DATA OUTLET	"No" = QUANTITY OF DATA PORTS *** SEE PLAN SYMBOLS NOTE 3
	COMBINATION TELEPHONE/DATA OUTLET	#1/#D = FIRST No. IS QUANTITY OF TELEPHONE PORTS, SECOND No. IS QUANTITY OF DATA PORTS. ** SEE PLAN SYMBOLS NOTE 3
	TELEVISION OUTLET	
	AUXILIARY OUTLET	
	MICROPHONE OUTLET	
	DATA OUTLET FLOOR BOX MOUNTED	
	TELEPHONE OUTLET FLOOR BOX MOUNTED	

POWER/SPECIAL SYSTEMS		
SYMBOL	DESCRIPTION	SUBSCRIPTS
	CONDUIT	UE = UNDERGROUND ELECTRIC UT = UNDERGROUND TELEPHONE UTV = UNDERGROUND CABLE T.V.
	CONDUIT STUBBED DOWN	
	CONDUIT STUBBED UP	
	CONDUIT STUBBED OUT	
	BRANCH CIRCUIT	
	HOMERUN	
	COMM/DATA CIRCUIT	
	EQUIPMENT CONNECTION	
	MOTOR	
	MANUAL MOTOR STARTING SWITCH, SURFACE MOUNT	PL = WITH PILOT LIGHT
	DISCONNECT OR SAFETY SWITCH	NF = NON-FUSED WP = WEATHER PROTECTIVE none = FUSED
	COMBINATION STARTER	
	SINGLE PUSHBUTTON STATION	D = DURESS none = DOOR BELL
	3-BUTTON PUSHBUTTON STATION	
	GEC CONNECTION POINT	
	METER	
	EMERGENCY SHUT-OFF SWITCH	G = GUARD
	TRANSFORMER	
	VOLUME CONTROL	
	CALL STATION	
	HUMIDISTAT	
	PULL BOX	
	AUTOMATIC TRANSFER SWITCH	
	NON-AUTOMATIC TRANSFER SWITCH	
	SPECIAL OUTLET WALL MOUNT	
	SPECIAL OUTLET CEILING OR FLOOR MOUNT	
	GENERATOR	
	CLOCK RECEPTACLE	G = GUARD DBL = DOUBLE FACED
	CLOCK/SPEAKER COMBINATION	
	SURFACE RACEWAY MOUSEHOLE GROMMET OPENING	
	PA SYSTEM SPEAKER	
	POWER PANEL	H = HIGH VOLTAGE (16: 277/480V) L = LOW VOLTAGE (16: 120/208V) MDP = MAIN DISTRIBUTION PANEL
	GROUND PLATE	
	2-COMPARTMENT SURFACE RACEWAY WITH WIRING DEVICES (LENGTH AS PER DRAWINGS)	
	SINGLE COMPARTMENT SURFACE RACEWAY WITH WIRING DEVICES (LENGTH AS PER DRAWINGS)	
	MULTI-OUTLET STRIP	
	POWER POLE	
	HOA	HOA = HAND-OFF-AUTO
	DOOR POSITION SWITCH	

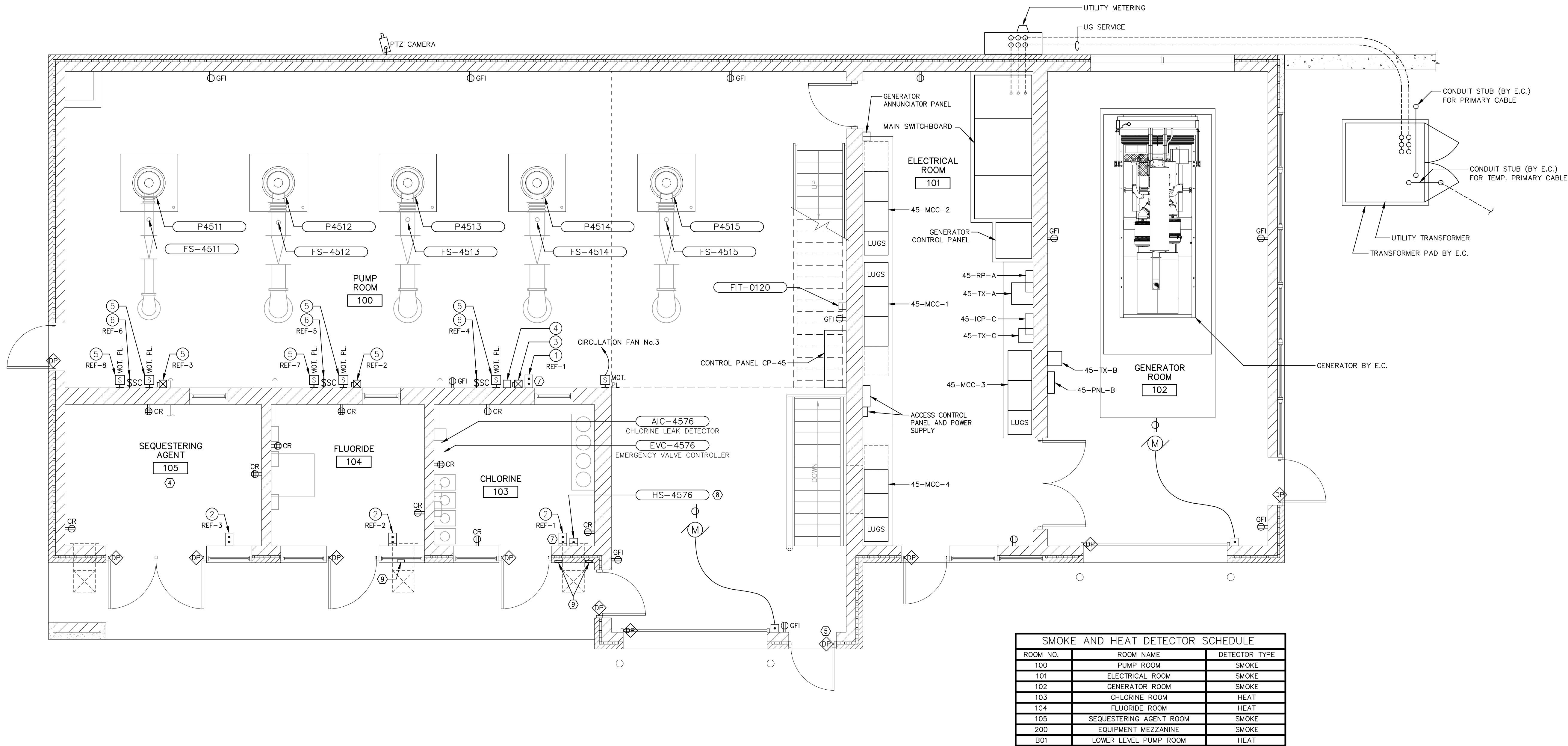
RECEPTACLES		
SYMBOL	DESCRIPTION	SUBSCRIPTS
	SIMPLEX (SINGLE) RECEPTACLE	
	DUPLEX RECEPTACLE	
	DUPLEX RECEPTACLE CEILING MOUNTED	240 = 240 VOLT 277 = 277 VOLT 480 = 480 VOLT D = DEDICATED R = EMERGENCY (RED FACE FACEPLATE)
	DOUBLE DUPLEX RECEPTACLE	CR = CORROSION RESISTANT DF = DRINKING FOUNTAIN EX = EXISTING HG = HOSPITAL GRADE IG = ISOLATED GROUND RW = RAIN-TIGHT WHILE IN USE COVER
	DOUBLE DUPLEX RECEPTACLE CEILING MOUNTED	SM = SURFACE MOUNT SP = SUMP PUMP TP = TAMPER PROOF WP = WEATHER PROTECTIVE GFI = GROUND FAULT INTERRUPTING TVSS = TRANSIENT VOLTAGE SURGE SUPPRESSION
	SWITCHED RECEPTACLE	
	HOSPITAL GRADE RECEPTACLE	
	EMERGENCY DUPLEX RECEPTACLE	
	EMERGENCY DOUBLE DUPLEX RECEPTACLE	
	AC-DC OUTLET WALL MOUNT	
	AC-DC OUTLET, FLOOR MOUNT, PEDESTAL FITTING	
	FLOOR BOX	
	FLOOR BOX WITH DUPLEX RECEPTACLE	FB = FLOOR BOX PT = POKE THRU TS = SURFACE, "TOMBSTONE" TYPE
	FLOOR BOX MOUNTED DUPLEX RECEPTACLE	
	FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE & DATA JACK	
	JUNCTION BOX CEILING MOUNTED	P = POWER FA = FIRE ALARM T/D = TELEPHONE/DATA
	JUNCTION BOX WALL MOUNTED	

NOTES – PLAN SYMBOLS	
1.	TYPICAL LUMINAIRE NOMENCLATURE: LUMINAIRE TYPE SWITCHING – FIRST LETTER INDICATES CONTROL OF (2) OUTBOARD LAMPS, SECOND LETTER: CENTER LAMP CIRCUIT No. 3 8'-6" MOUNTING HEIGHT SHADED LUMINAIRE INDICATES UNIT ON EMERGENCY CIRCUIT.
2.	ELECTRICAL SYMBOLS WITH SUBSCRIPT: "X": EXISTING DEVICE, TO REMAIN. "X/R": EXISTING DEVICE, TO BE DISCONNECTED & REMOVED. "X/S": EXISTING DEVICE, TO BE DISCONNECTED & SALVAGED. TURN OVER TO OWNER. REFEED NEW/RELOCATED DEVICES FROM NEW OR EXISTING POWER DISTRIBUTION SYSTEMS AS PER CONSTRUCTION DOCUMENTS.
3.	WHEN DRAWINGS SHOW NO TELEPHONE/DATA JACK QUANTITIES, SEE SPECIFICATIONS FOR DIRECTION.

STANLEY STREET PUMPING STATION
TELEMETRY ANTENNA

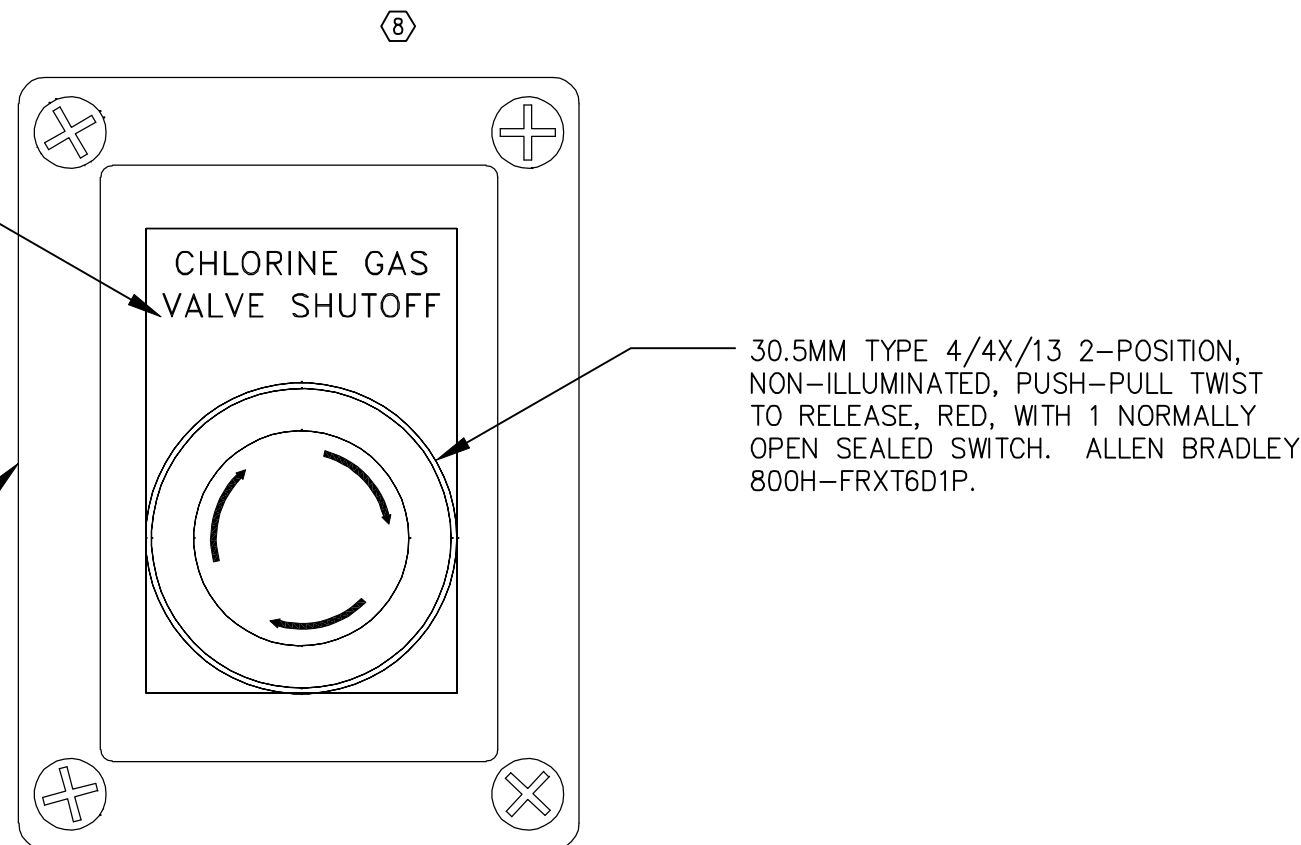


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JUMBO LEGEND PLATE, PLASTIC, WHITE WITH BLACK LETTERING, TYPE 4/4X WITH LEGEND: "CHLORINE GAS VALVE SHUTOFF"

PUSHBUTTON ENCLOSURE, ROSITE GLASS POLYESTER TYPE 4/4X/3 WITH 1 KNOCKOUT. ALLEN BRADLEY 800H-1HZ4R.



HS-4576
DETAIL

FLOOR PLAN

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



CHEMICAL ROOM EXHAUST FANS:

- 1 LOCAL CONTROL STATION - IN ROOM
- 2 LOCAL CONTROL STATION - AT WINDOW
- 3 COMBINATION MOTOR STARTER
- 4 LATCHING RELAY AND ENCLOSURE
- 5 MANUAL MOTOR STARTER
- 6 SPEED CONTROL (BY UNIT MFR.)

NOTES:

1. SEE HVAC PLANS FOR HVAC LOAD LOCATIONS.
2. ALL BASIC MATERIALS (STRUTS, HANGERS, BOXES, ETC) SHALL BE ALUMINUM, N.O.N.
3. USE CORROSION-RESISTANT DEVICES IN CHEMICAL ROOMS 103, 104, & 105.
4. ROOM 105: WIRE LIGHTING AND RECEPTACLES COMPLETE. PROVIDE ROUGH-IN ONLY OF CHEMICAL FEED EQUIPMENT.
5. WIRE DOOR POSITION SWITCHES (BY E.C.) TO ACCESS CONTROL PANEL.
6. NOT USED
7. CHLORINE ROOM PURGE FAN REMOTE CONTROL STATION.
8. E.C. TO FURNISH AND INSTALL.
9. CARD READER AND OTHER DOOR ACCESS EQUIPMENT. SEE DETAILS SHEET E14.

RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

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STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS PUMP STATION ELECTRICAL PLAN

SCALE
AS NOTED
DATE
APRIL, 2007
PROJECT NO.
R0018-950446

SHEET NO.

E2

FILE NO.

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McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 McMAHON DRIVE NEENAH, WI 54956
MAILING ADDRESS: 1445 McMAHON DRIVE NEENAH, WI 54956
TEL (920) 751-4200 FAX (920) 751-4204

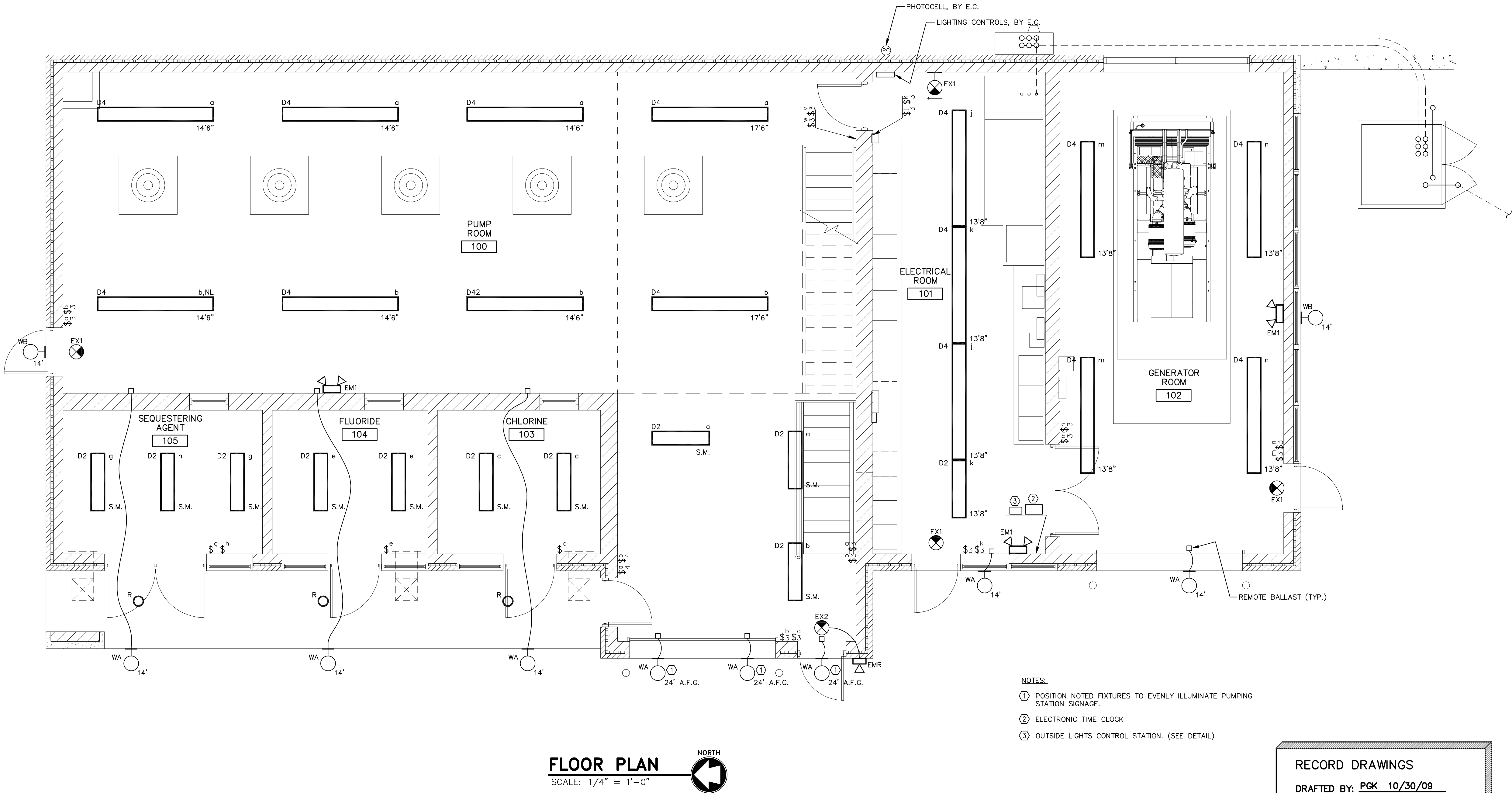
NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	9/12/07	RELEASED VIA CB 5
3	3/7/08	RELEASED VIA CB 17
4	3/21/08	RELEASED VIA CB 18
5	10/30/09	RECORD DRAWINGS



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

LIGHT FIXTURE SCHEDULE – INDOOR

TYPE	MFR.	CATALOG NUMBER	LAMP QTY & TYPE	BALLAST QTY & TYPE	ELECTRICAL INPUT WATT	INPUT VOLT	FIXTURE MOUNTING	DESCRIPTION	NOTE
EM1	EXITRONIX CHLORIDE	LRP12/18 12MF36WJ1212-2	(2) 12Watt		18.3	120/277	SURFACE	EMERGENCY LIGHT. Thermoplastic housing. Maintenance free battery. 12-volt. Two halogen heads.	
EX1	EXITRONIX CHLORIDE	VEX-U-BP-WB-WH ERB-equiv.	LED			120/277	UNIVERSAL Surface, Ceiling, or End	LED EXIT SIGN. Damp rated. Polycarbonate housing. Universal mounting. One or two-faced, selectable on installation. With battery backup.	
EX2	EXITRONIX CHLORIDE	VEX-U-BP-WB-WH-EL90-R ERB-equiv.	LED			120/277	UNIVERSAL Surface, Ceiling, or End	LED EXIT SIGN. Damp rated. Polycarbonate housing. Universal mounting. One or two-faced, selectable on installation. With battery backup. With Emergency heads, and remote head capability	
EMR	EXITRONIX CHLORIDE	VR2-V10H-W-D		n/a			Surface	Remote heads for outdoor egress lighting 6-volt, 11-watt, (2) 5.5 W MR lamps	
D2	WILLIAMS DAYBRITE	92-4-232-A-WET/2-SSMB/VBY-EBLH2-120 DWAE232-equiv.	(2) L2	(1) B2	59	120	As Noted w/ factory spacers (u.n.o.)	ENCLOSED AND GASKETED INDUSTRIAL, 4-ft., 2-lamp. Two end hubs.	
D4	WILLIAMS DAYBRITE	92-8-432-A-WET/2-SSMB/VBY-EBLH4-120 DWAE432-equiv.	(4) L2	(1) B4	118	120	As Noted w/ factory spacers (u.n.o.)	ENCLOSED AND GASKETED INDUSTRIAL, 8-ft., 4-lamp. Two end hubs.	
D42	WILLIAMS DAYBRITE	92-8-432-A-WET/2-SSMB/VBY-EBLH2/2-120 DWAE432-equiv.	(4) L2	(2) B2	118	120	As Noted w/ factory spacers (u.n.o.)	ENCLOSED AND GASKETED INDUSTRIAL, 8-ft., 4-lamp. Two end hubs.	
K2E	WILLIAMS DAYBRITE	29-4-232-A-DL-EM7-EB2-120	(2) L2	(1) Elect	60	120	Wall Mount	4' UP AND DOWN LIGHT. Wall mounted fluorescent, with up and down components, divided compartment. With emergency battery pack operation.	

LIGHT FIXTURE SCHEDULE – OUTDOOR

TYPE	MFR.	CATALOG NUMBER	LAMP QTY & TYPE	BALLAST QTY & TYPE	ELECTRICAL INPUT WATT	INPUT VOLT	FIXTURE MOUNTING	DESCRIPTION	NOTE
WA	ANP	M710 - color - E3 - MHRO 70	(1) 70W PMH (L1)	(1) HPF Remote	75	120	Wall	Wall-mounted fixture, with 24" hook arm, and angled shade. Color choice at submittal time.	
WB	GE Gardco Visionaire	CCDX07P4H3B-BLCK-D 101 Series SIL Series	(1) 70W PMH (L1)	(1) HPF	75	120	Wall	Cut-off wall pack. Type III Optics. 4:1 S/MH. Die-cast aluminum. W/ Photocell	
R	Williams	MHRL-70-ED17-MED-BH-120	(1) 70W PMH (L1)	(1) HPF	75	120	Recessed Clg.	7.5" Recessed HID Recessed Light. UL Listed for wet location under ceiling. Tempered Glass Lens.	

LAMPS

TYPE	MANUFACTURER	TYPE	DESCRIPTION	WATTS	SYLV. CAT. NO.	COATING	LIFE (hrs.)	LUMENS INITIAL	GRI	CCT (K)
L1	SYLVANIA (Note 1)	PM	Pulse Start Metal Halide	70	MP70/C/U/MED	COATED	15,000	4,700	75	2900
L2	SYLVANIA (Note 1)	F	T8 Fluorescent	32	F032/841/XPS/ECO		30,000	2,800	85	4100

BALLAST TYPES

TYPE	MANUFACTURER (Note 2)	DESCRIPTION	No. of Lamps	Lamp Watts	Volts	ADVANCE CAT. NO.	Input Watts	B.F.	Max TDH %	P.F.
B1	ADVANCE	T8 Electronic, Instant Start	1	32	120/277	ICN-1P32-SC	30	0.90	10%	0.98
B2	ADVANCE	T8 Electronic, Instant Start	2	32	120/277	ICN-2P32-SC	59	0.88	10%	0.98
B3	ADVANCE	T8 Electronic, Instant Start	3	32	120/277	ICN-3P32-SC	85	0.88	10%	0.99
B4	ADVANCE	T8 Electronic, Instant Start	4	32	120/277	ICN-4P32-SC	112	0.88	10%	0.99

LAMP NOTES:

1. PROVIDE SYLVANIA, OR EQUIVALENT BY G.E., OR PHILLIPS
2. PROVIDE ADVANCE, OR EQUIVALENT

ABBREVIATIONS:

F FLUORESCENT
M METAL HALIDE
PM PULSE START METAL HALIDE
HPS HIGH PRESSURE SODIUM
I INCANDESCENT

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
PUMP STATION LIGHTING PLAN

SCALE
AS NOTED

DATE
AUG. 7, 2006

PROJECT NO.
RC018-950446

SHEET NO.

E4

FILE NO.
CAD

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McMAHON ASSOCIATES
ENGINEERS ARCHITECTS SURVEYORS PROJECT MANAGERS
1445 MCMAHON DRIVE NEENAH, WI 54956
MAILING: 1500 WEST WISCONSIN AVENUE
FISH KILL, IL 60120
TEL: (815) 751-4200 FAX: (815) 751-4204

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1	4/6/07	RELEASED FOR BIDDING
2	3/7/08	RELEASED VIA CB 17
3	10/30/09	RECORD DRAWINGS



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R0018-950446 |
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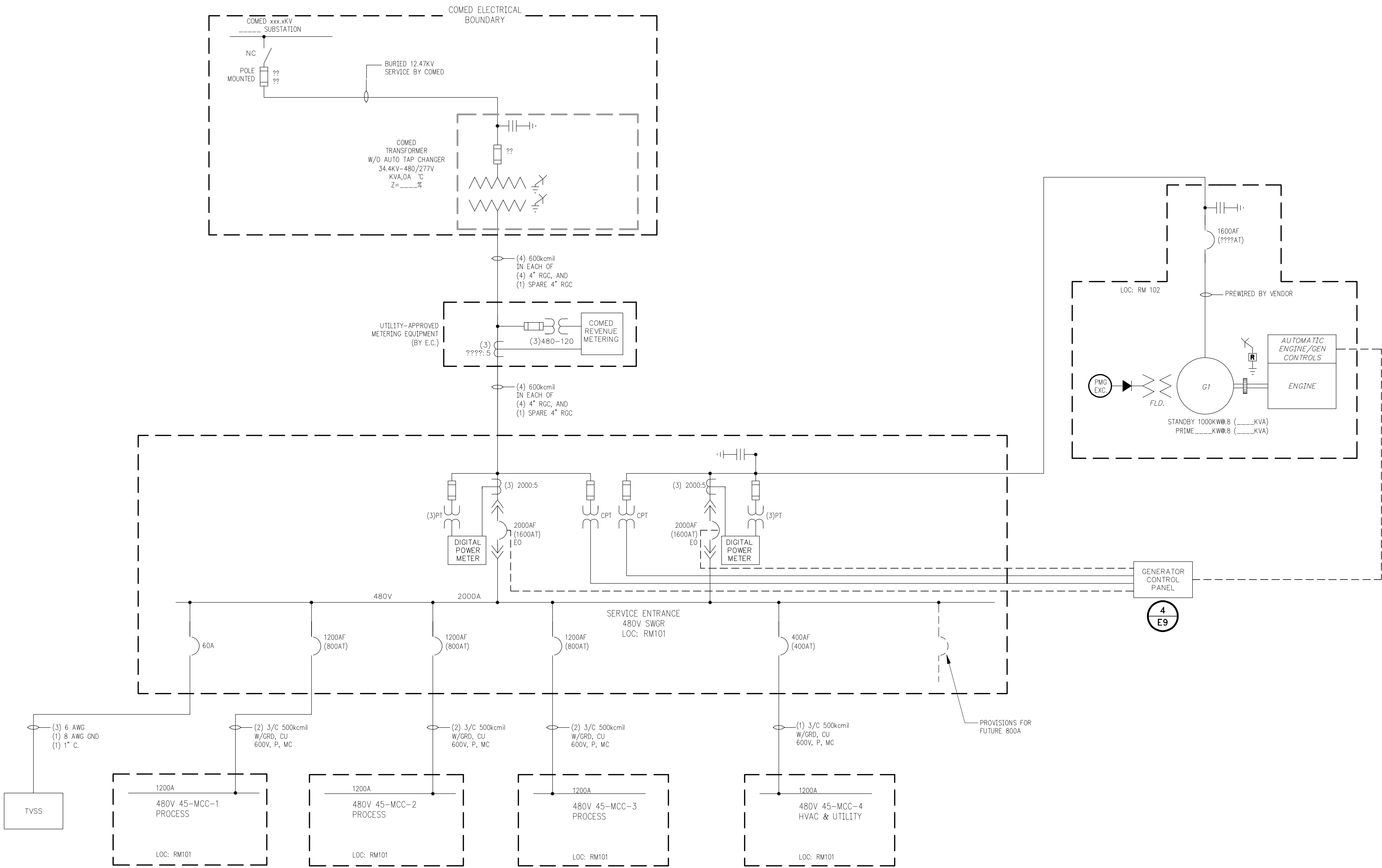
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**STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
PUMP STATION CABLE TRAY PLAN**

NO.	DATE
1	4/6/07
2	10/30/07

REVISION
RELEASED FOR BIDDING
RECORD DRAWINGS



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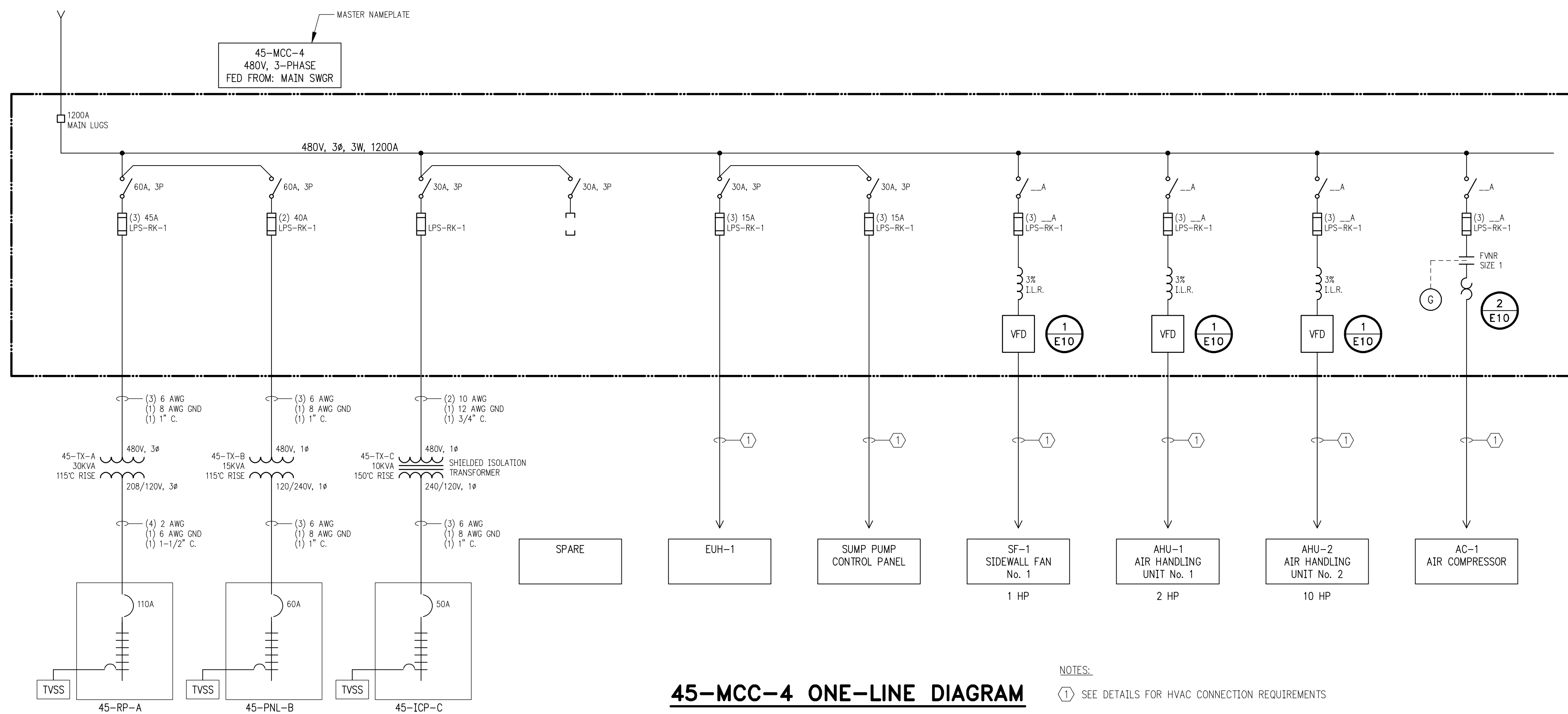
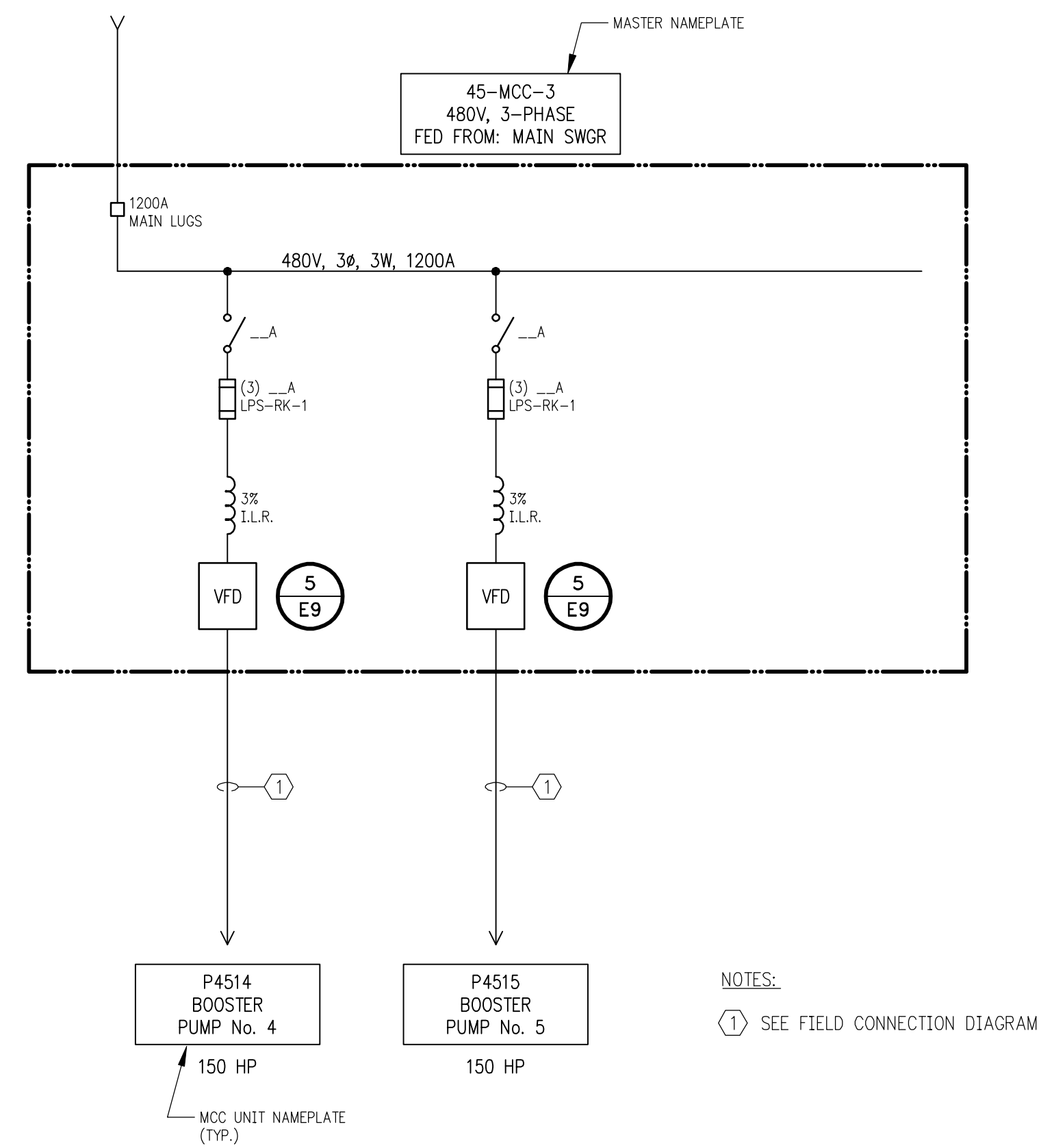
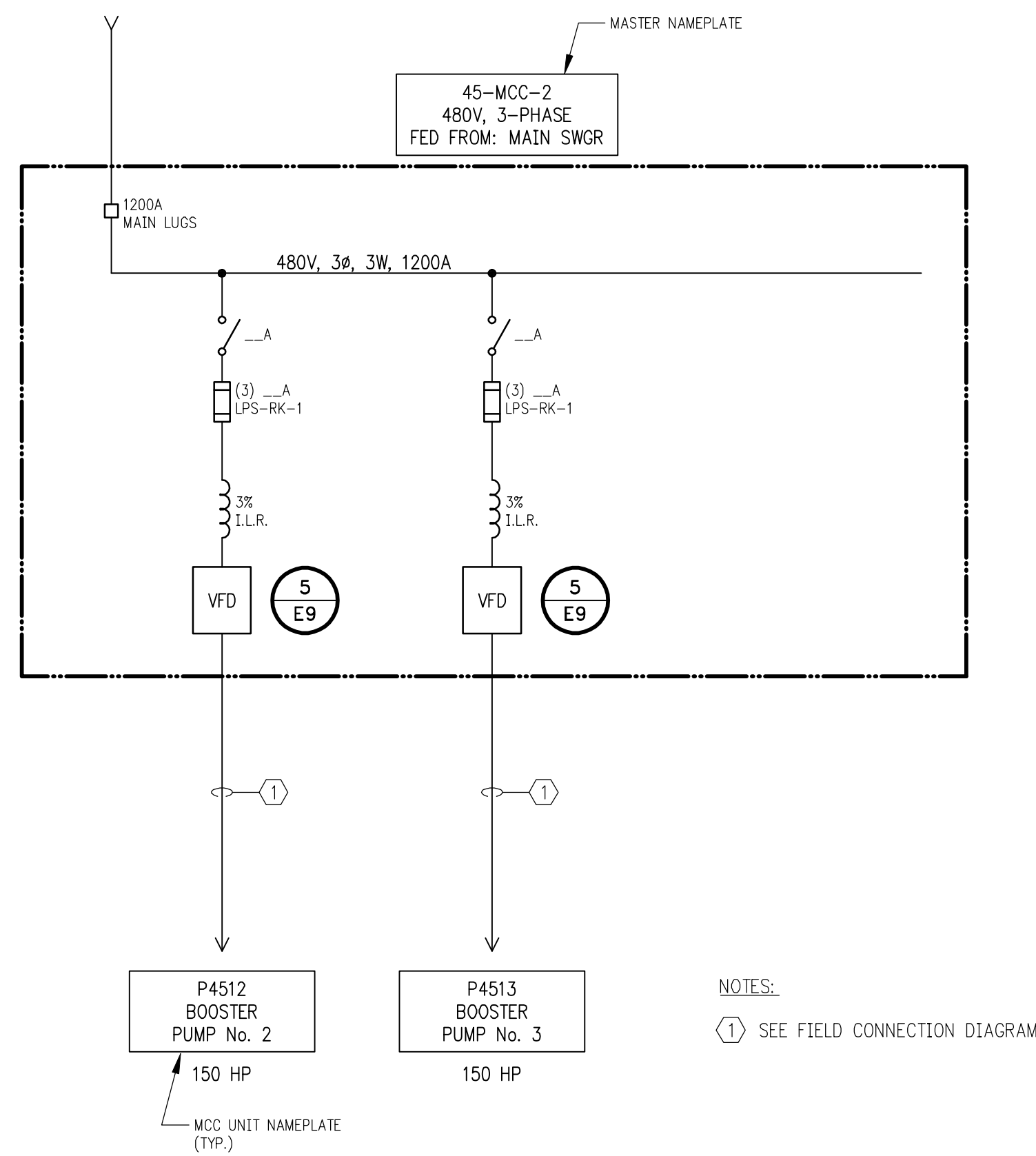
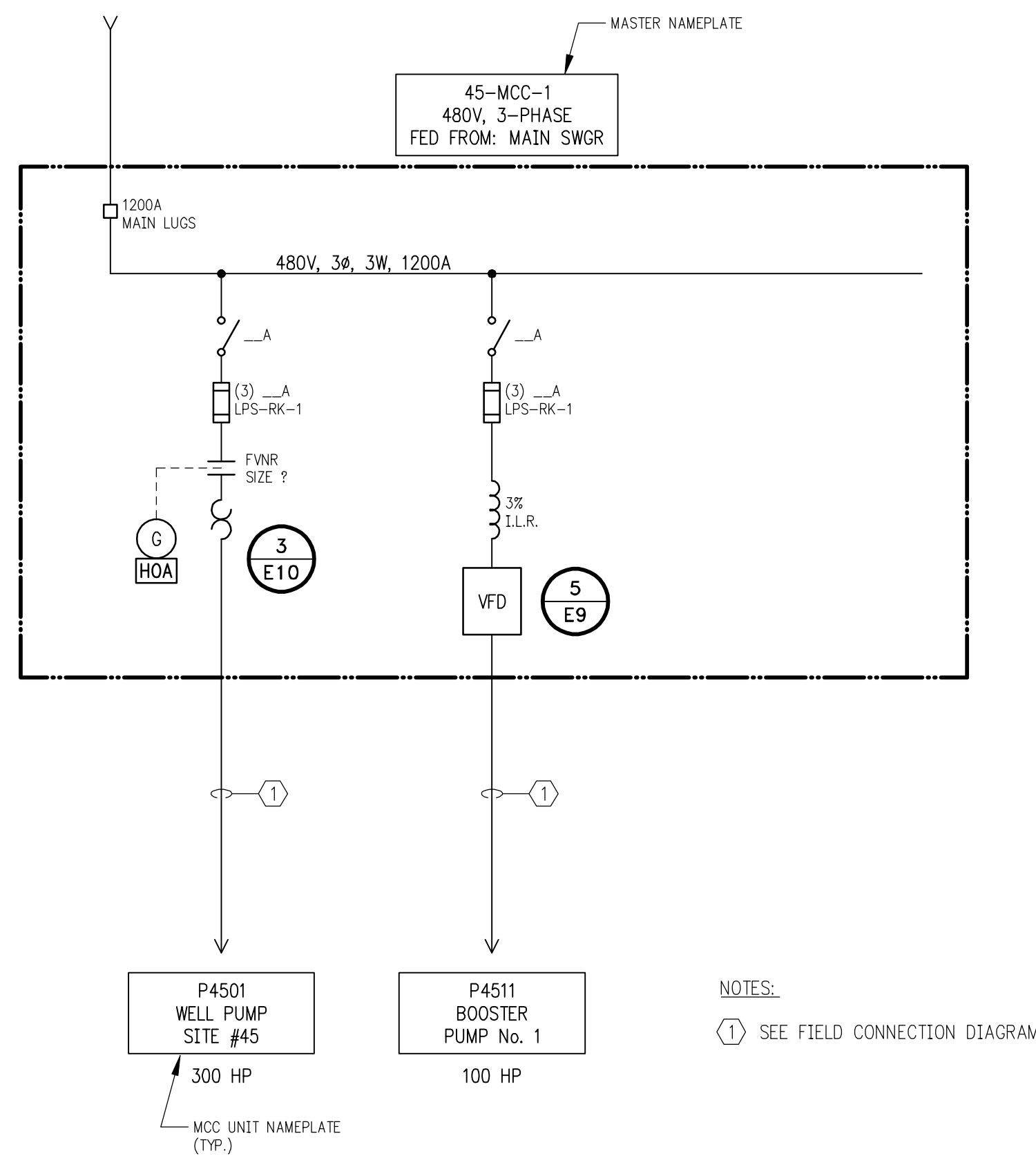
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- ENGINEERS
- ARCHITECTS
- PROJ. MGRS.
- SURVEYORS

1445 McMahon Drive Neenah, WI 54956
Mailing Address:
P.O. Box 1025 Neenah, WI 54957-1025
TEL: 920-751-4200 FAX: 920-751-4284

D.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	10/30/09	RECORD DRAWINGS



RECORD DRAWINGS

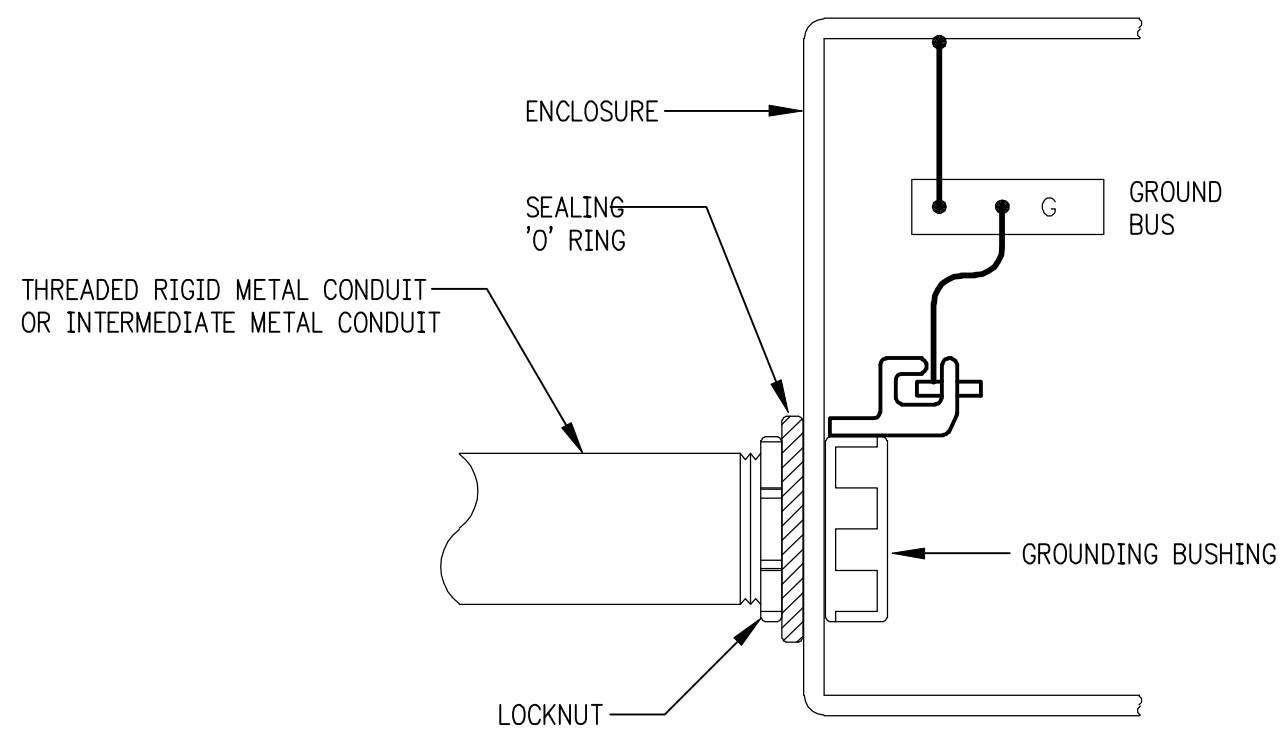
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CHECKED: SRM

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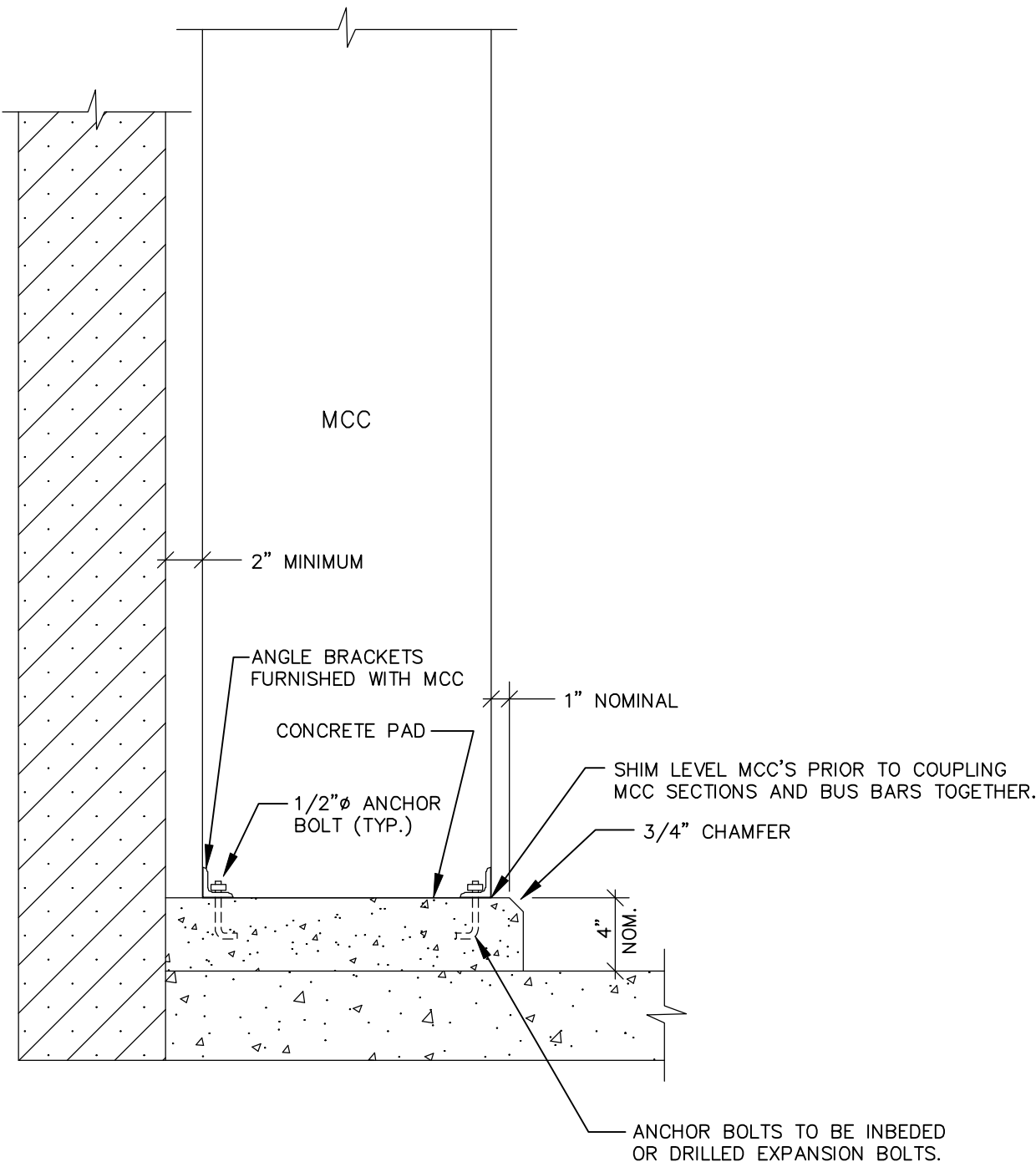
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NOTES

1. USE CONDUIT AS EQUIPMENT GROUND ON FEEDER CIRCUITS, USE GREEN INSULATED CONDUCTOR EQUIPMENT GROUND ON ALL BRANCH CIRCUITS.
2. SEE ALSO SPECIFICATIONS, DIVISION 16, (GROUNDING).

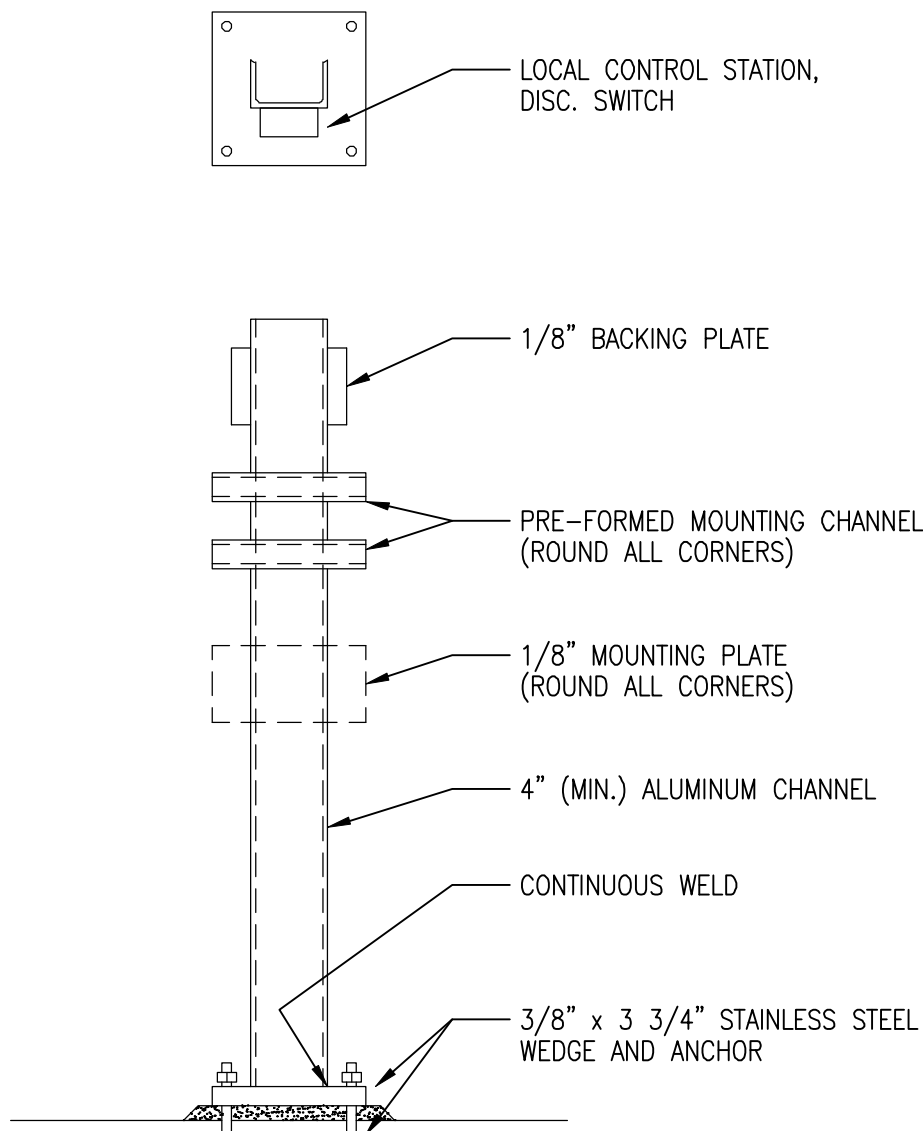
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E8 **CONDUIT EQUIPMENT GROUNDING**
NTS



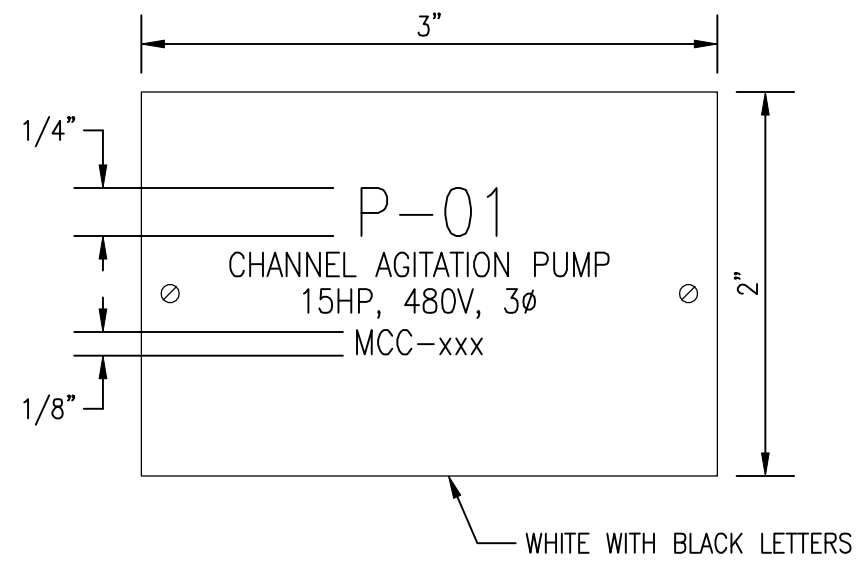
NOTES

1. CORNER SECTIONS AND SECTIONS WIDER THAN 20" MAY REQUIRE ADDITIONAL ANCHOR BOLTS.

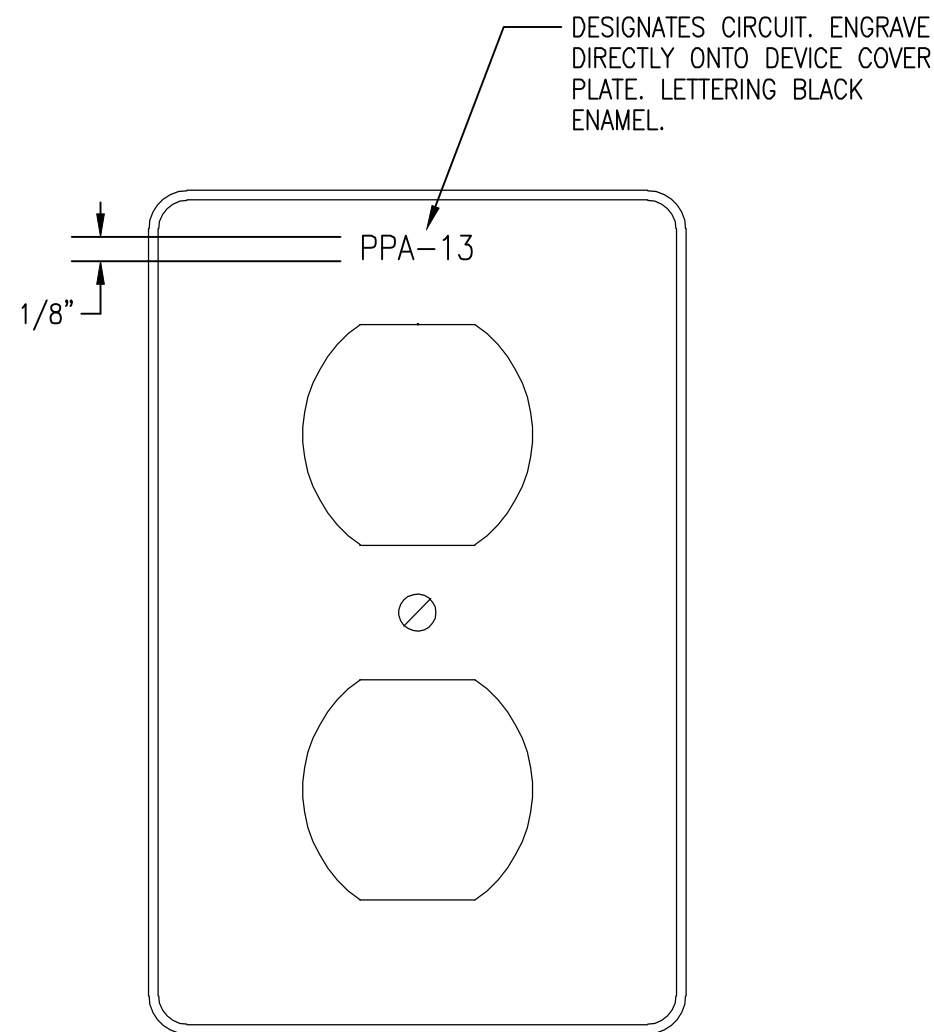
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E8 **MCC INSTALLATION**
NOT TO SCALE



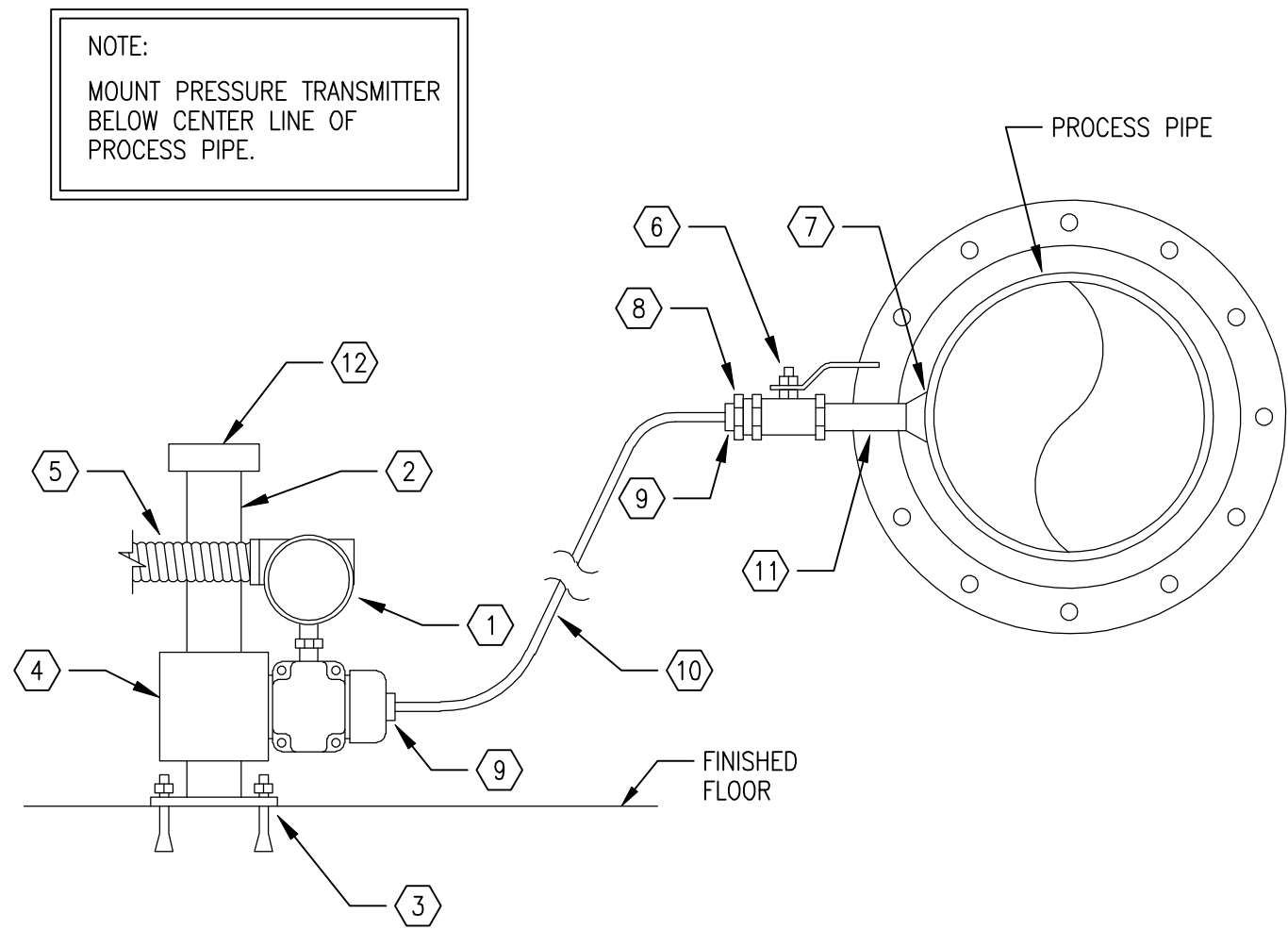
3
E8 **EQUIPMENT MOUNTING STAND**
NOT TO SCALE



4
E8 **DISCONNECT SWITCH NAMEPLATE**
NOT TO SCALE



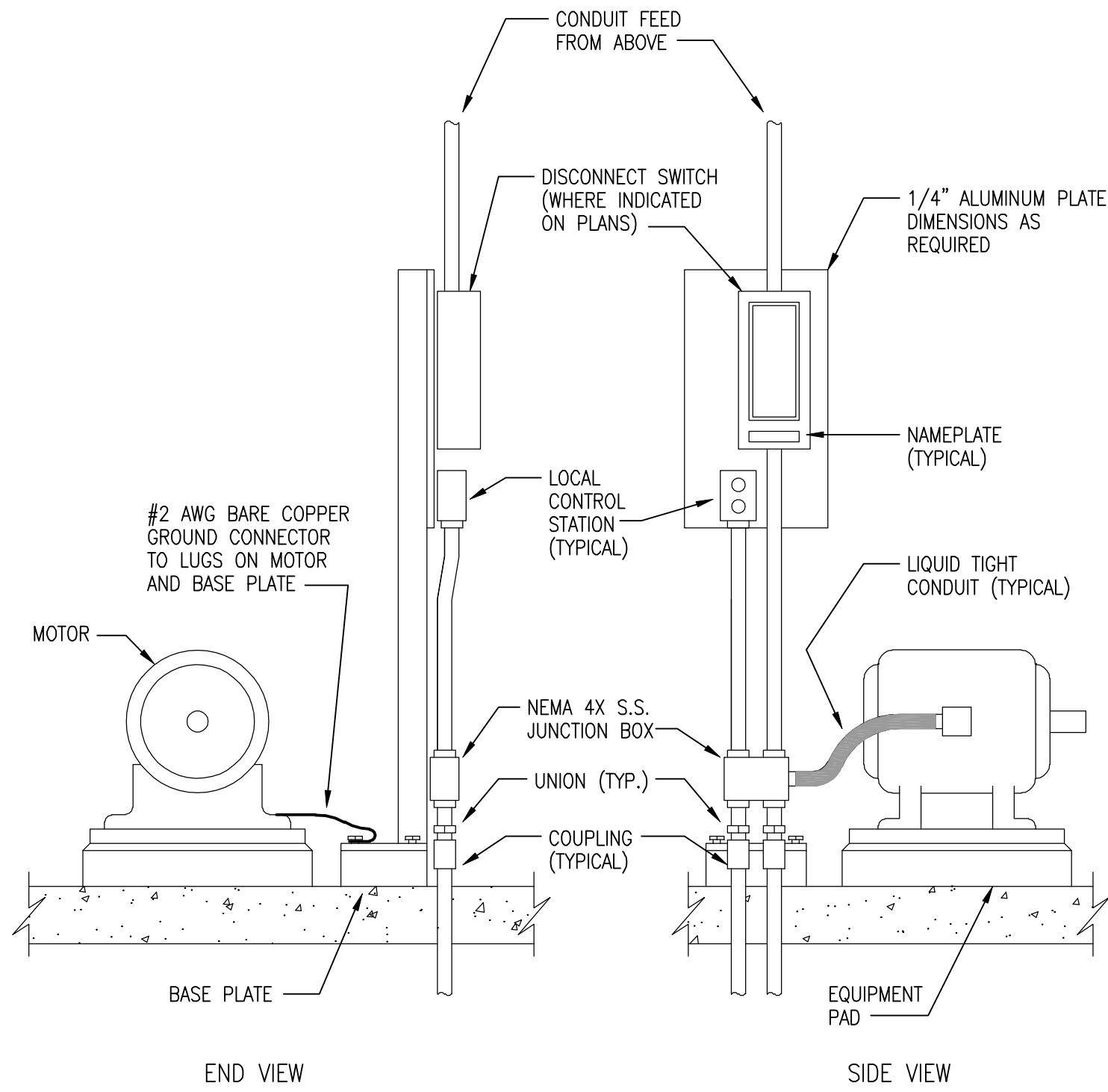
5
E8 **NAMEPLATE FOR RECEPTACLE COVERS**
NOT TO SCALE



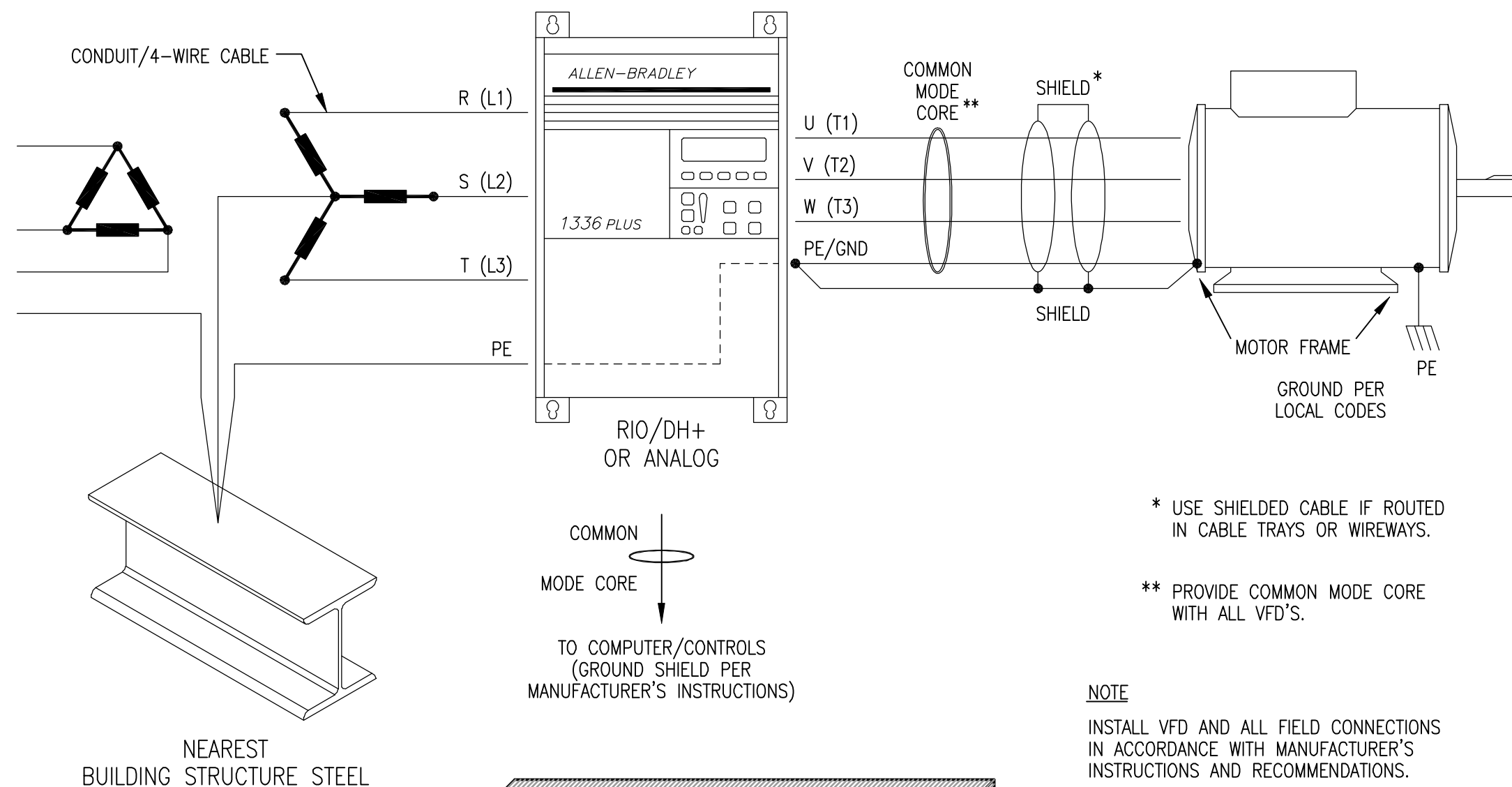
NOTES

- | | |
|---|---|
| ① PRESSURE TRANSMITTER, BY OTHERS. | ⑦ 1" S.S. WELDOLET. |
| ② 2" DIA. GALVANIZED STEEL PIPE. | ⑧ 1" TO 1/2" S.S. REDUCER. |
| ③ 1/4" GALVANIZED STEEL FLOOR MOUNTING PLATE WITH ANCHOR BOLTS. WELD TO PIPE. | ⑨ 1" TO 1/2" MALE CONNECTOR FOR 1/4" S.S. TUBING. |
| ④ BRACKET FOR 2" PIPE MOUNTING. | ⑩ 1/4" S.S. TUBING. |
| ⑤ LIQUID TIGHT FLEX. | ⑪ 1" S.S. PIPE NIPPLE. |
| ⑥ 1" S.S. UNI-BODY BALL VALVE. | ⑫ 2" DIA. GALVANIZED STEEL PIPE CAP. |

6
E8 **PRESSURE TRANSMITTER MOUNTING DETAIL**
NTS



7
E8 **MOTOR INSTALLATION**
NOT TO SCALE



8
E8 **VFD APPLICATIONS - GENERAL GROUNDING**
NTS

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
ELECTRICAL DETAILS

SCALE AS NOTED	DATE AUG. 7, 2006	PROJECT NO. RO018-950446
SHEET NO. E8		
FILE NO. CAD		

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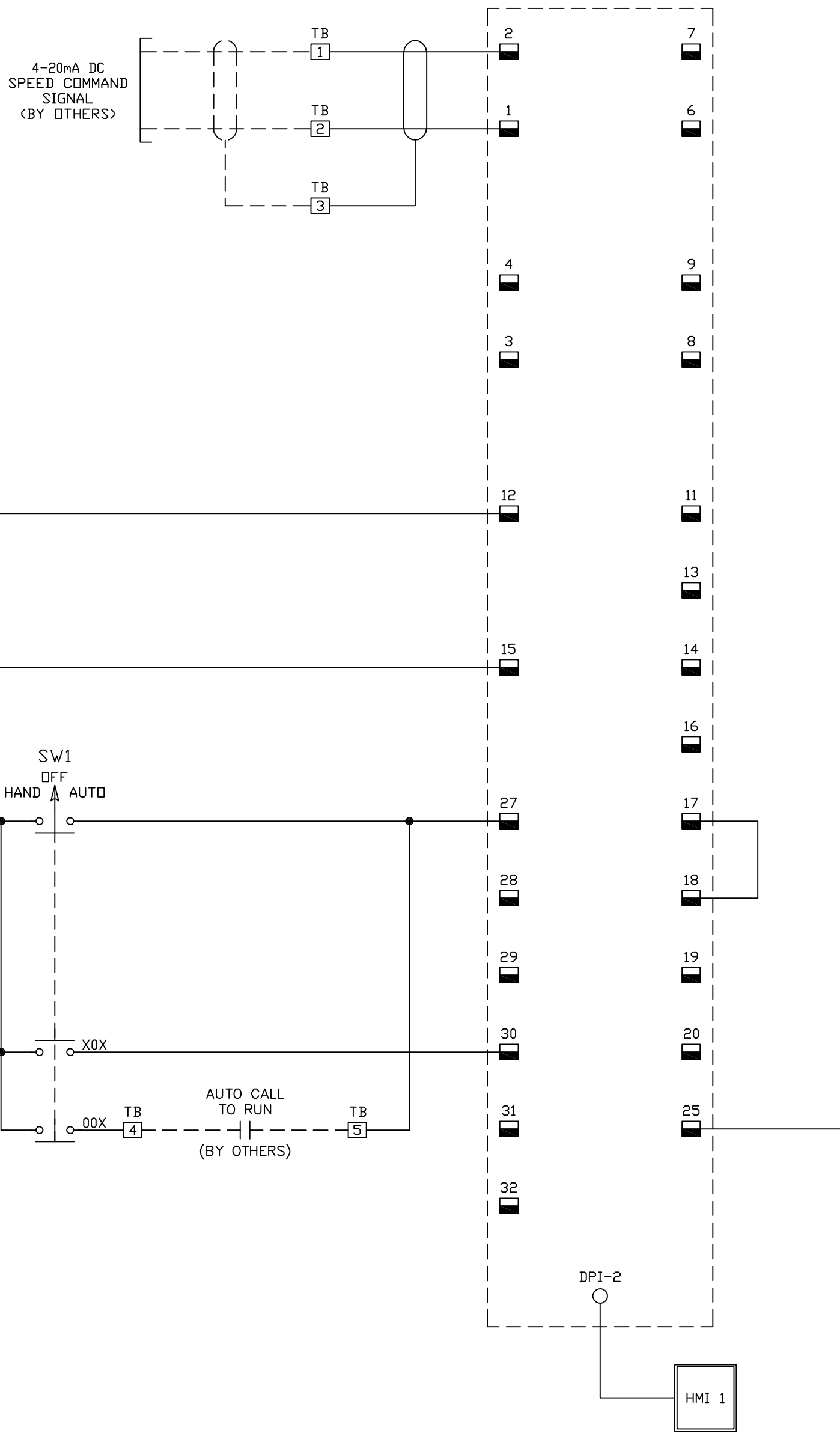
DESIGNED SRM	DRAWN JAD	CHECKED SRM
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1445 McMahon Drive Neenah, WI 54956
Mailing Address: P.O. Box 1025 Neenah, WI 54951-0025
TEL: 920-751-4200 FAX: 920-751-4284

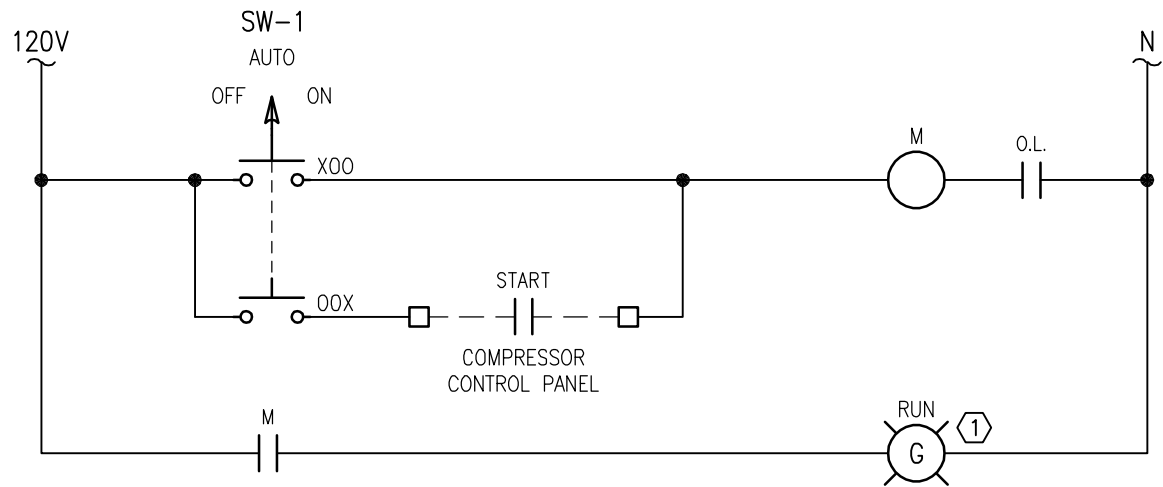
NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	10/30/09	RECORD DRAWINGS

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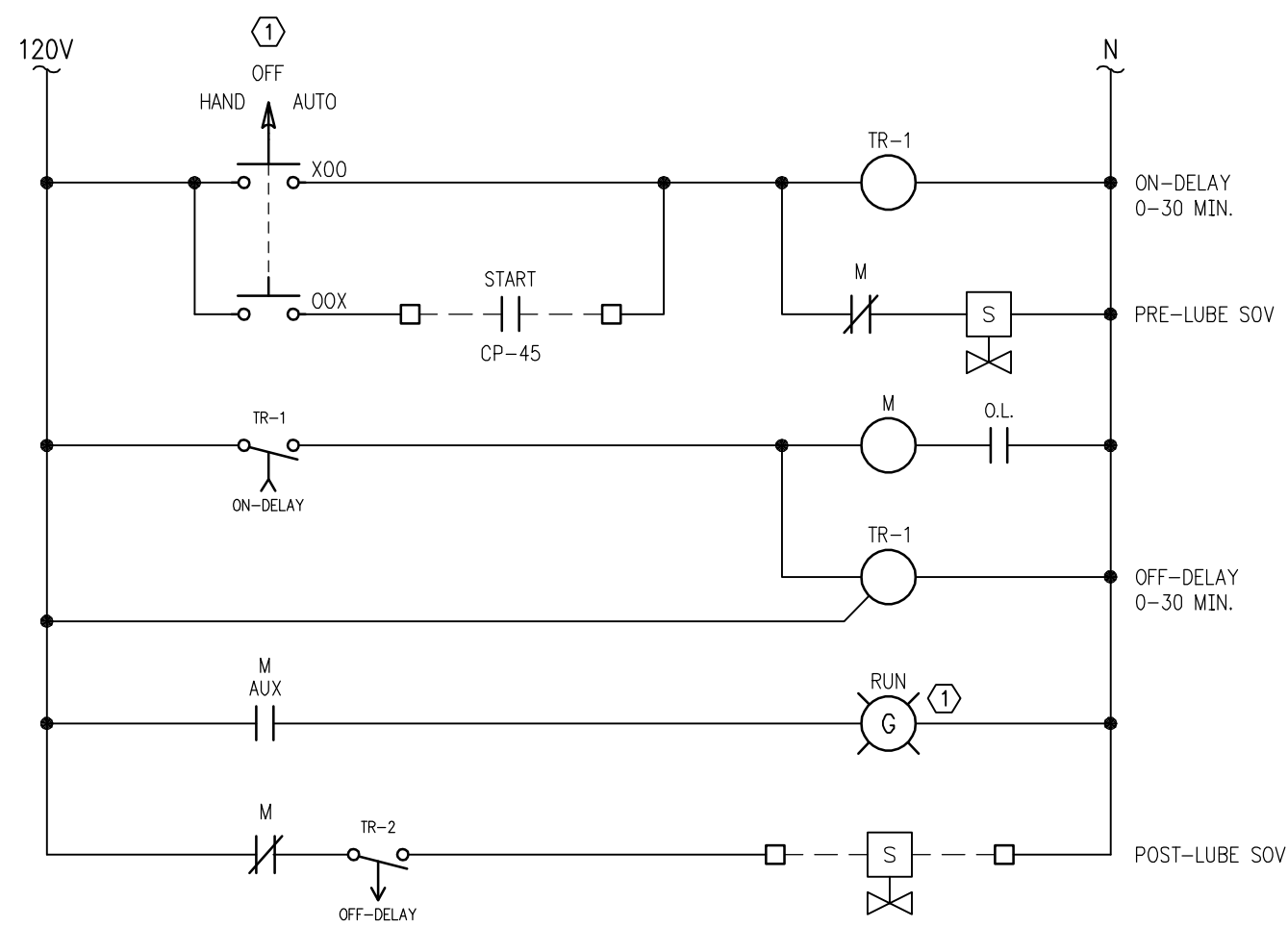
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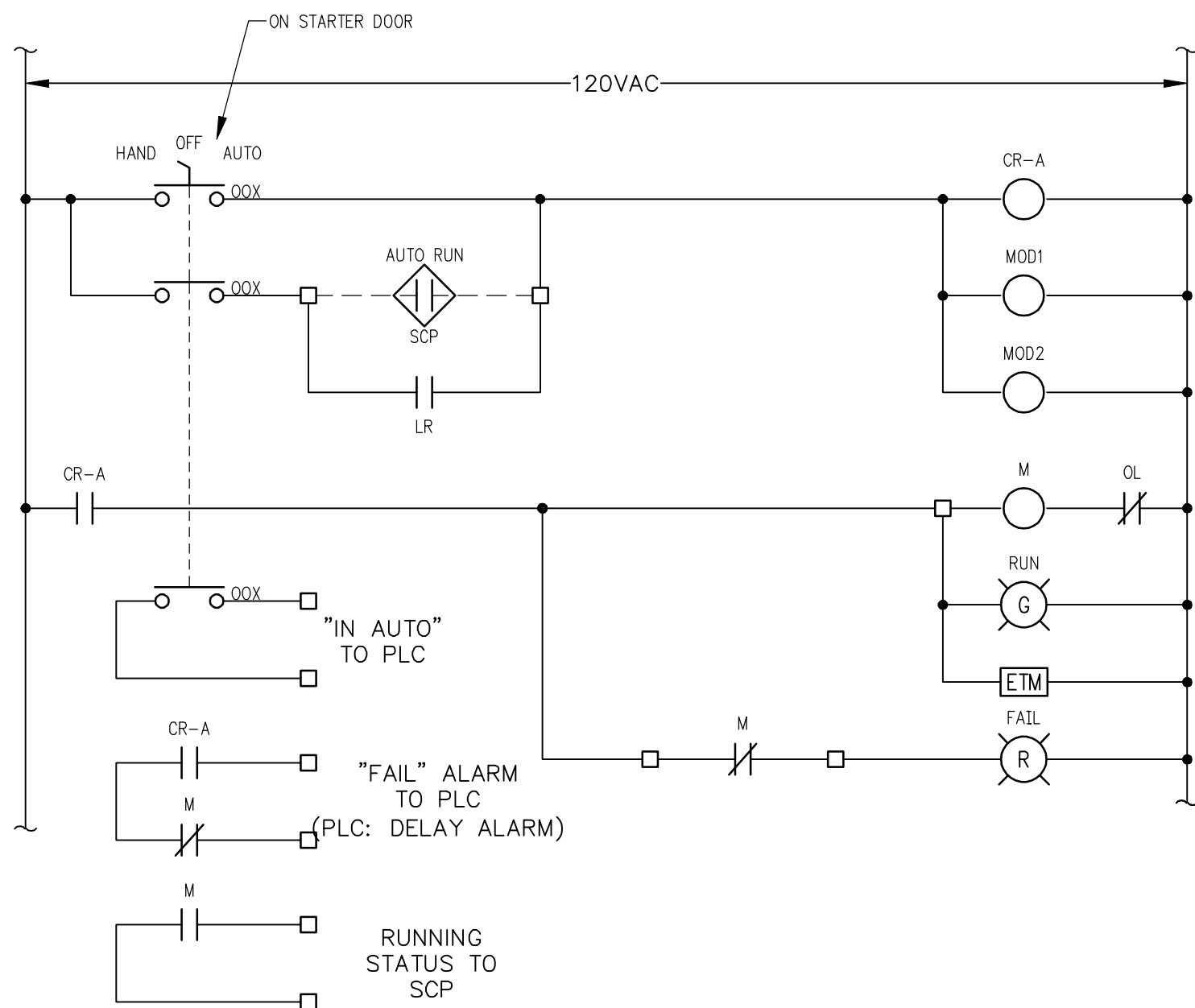
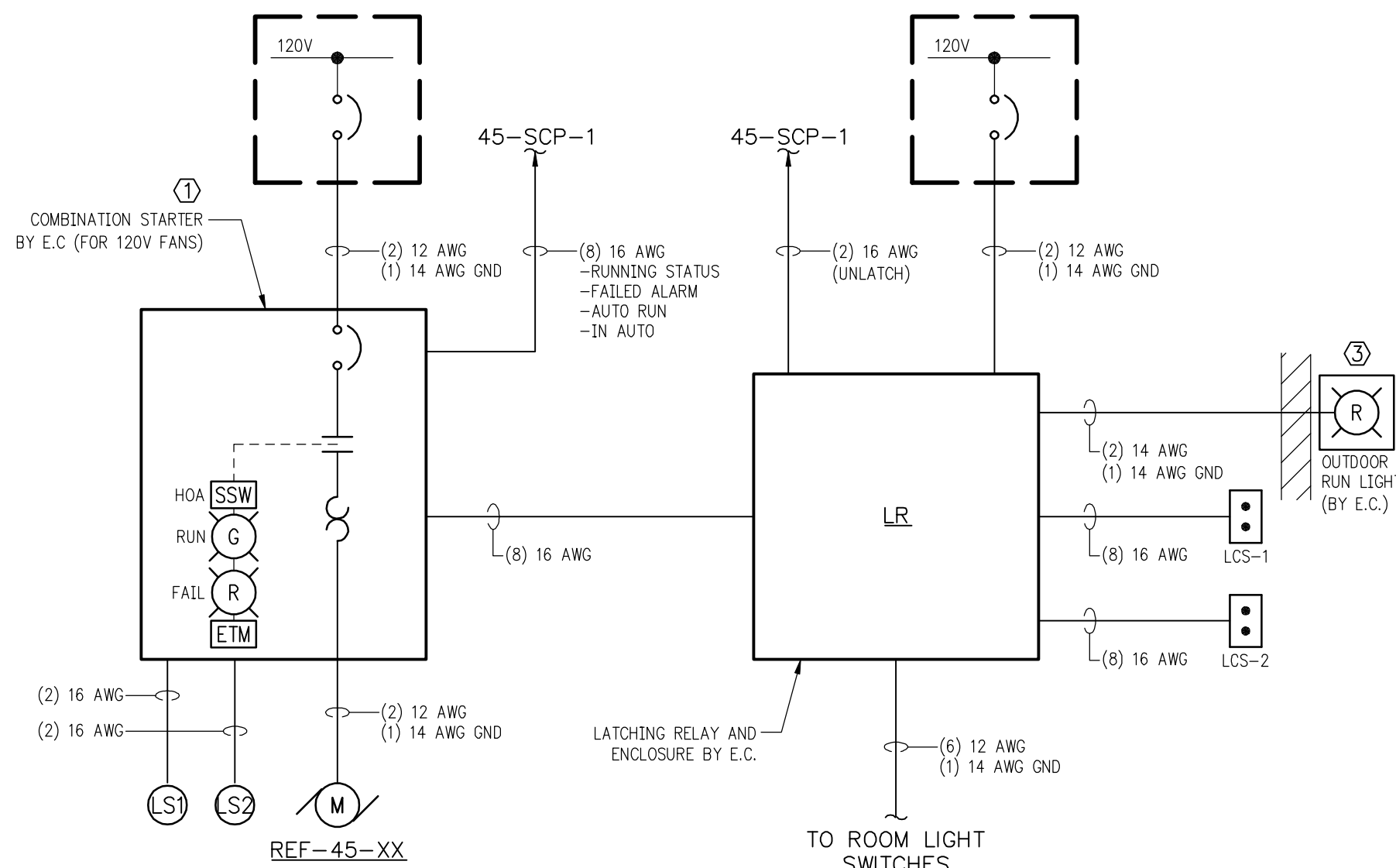
1
E10 **VARIABLE FREQUENCY DRIVE**
ELEMENTARY DIAGRAM



2
E10 **AIR COMPRESSOR**
ELEMENTARY DIAGRAM
① ON MCC DOOR

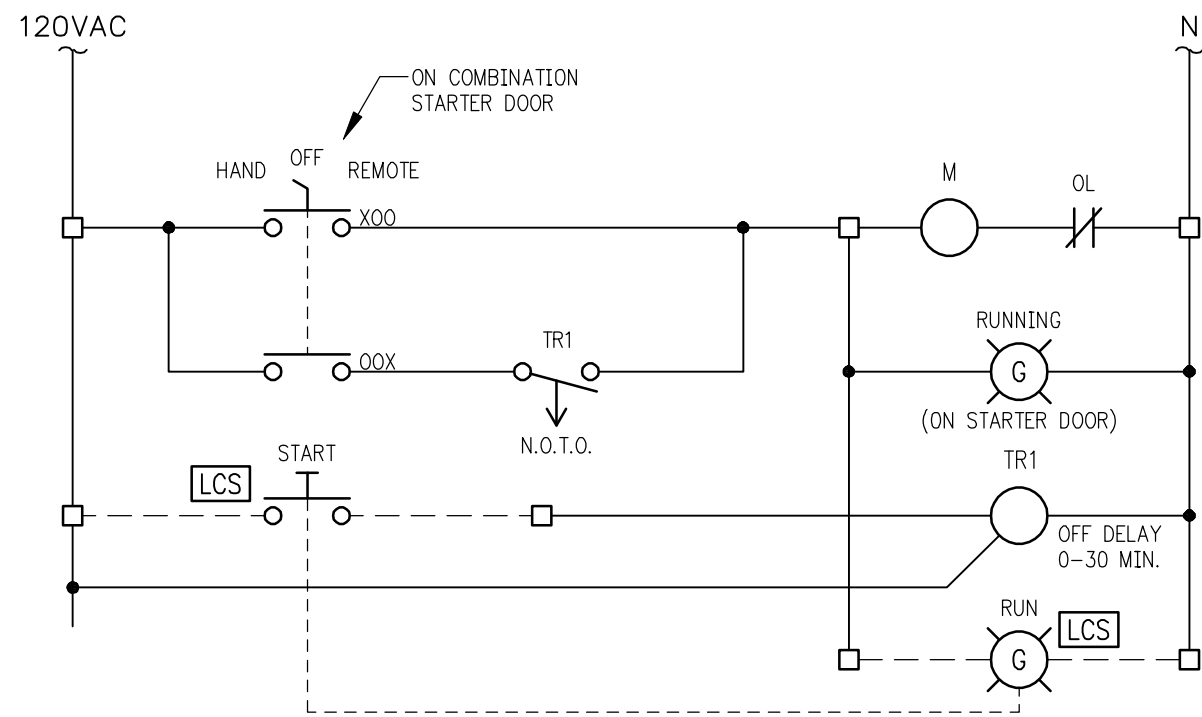


3
E10 **WELL PUMP**
ELEMENTARY DIAGRAM
① ON MCC DOOR
2. TIMERS FURNISHED AND INSTALLED BY E.C.



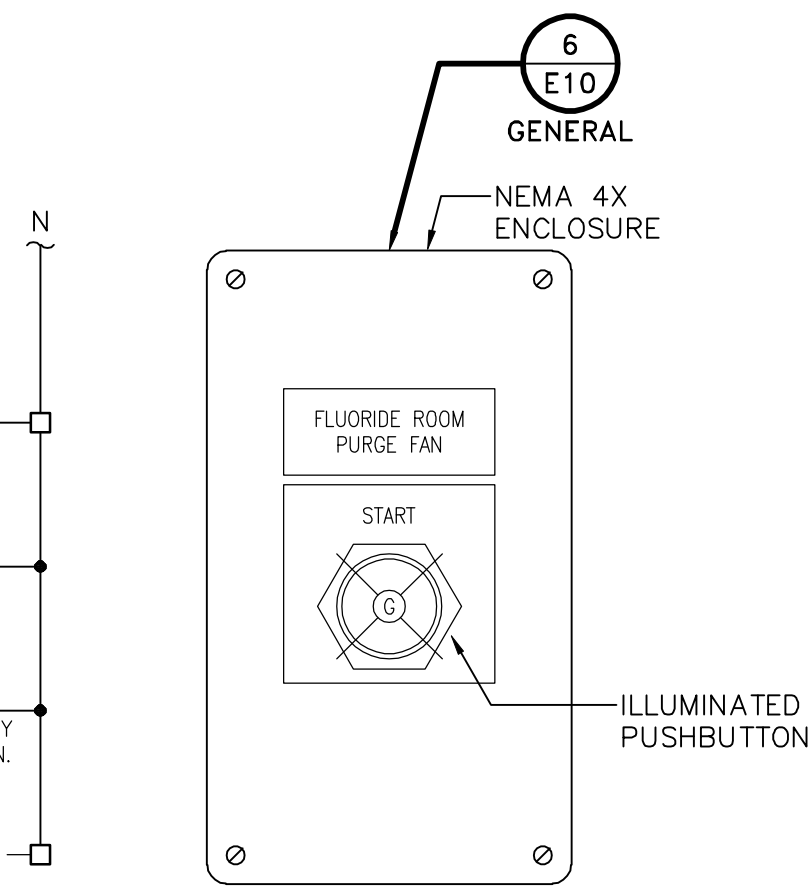
4
E10 **CHLORINE ROOM PURGE FAN**
TYPICAL DETAIL

- ① 120V COMBINATION STARTER BY E.C. (ALLEN-BRADLEY OR SQUARE D). MOUNT NEAR INSPECTION WINDOW.
2. CONTRACTOR SHALL PREPARE FULL SCHEMATIC DRAWINGS OF SYSTEM, AND SUBMIT FOR REVIEW PRIOR TO FABRICATION.
- ③ NEMA 7 PILOT LIGHT: ADALET XL SERIES, WITH GUARDED LENS CAP, RED. NEMA 7 SURFACE ENCLOSURE. NAMEPLATE: "EXHAUST FAN".



PURGE FAN
ELEMENTARY DIAGRAM

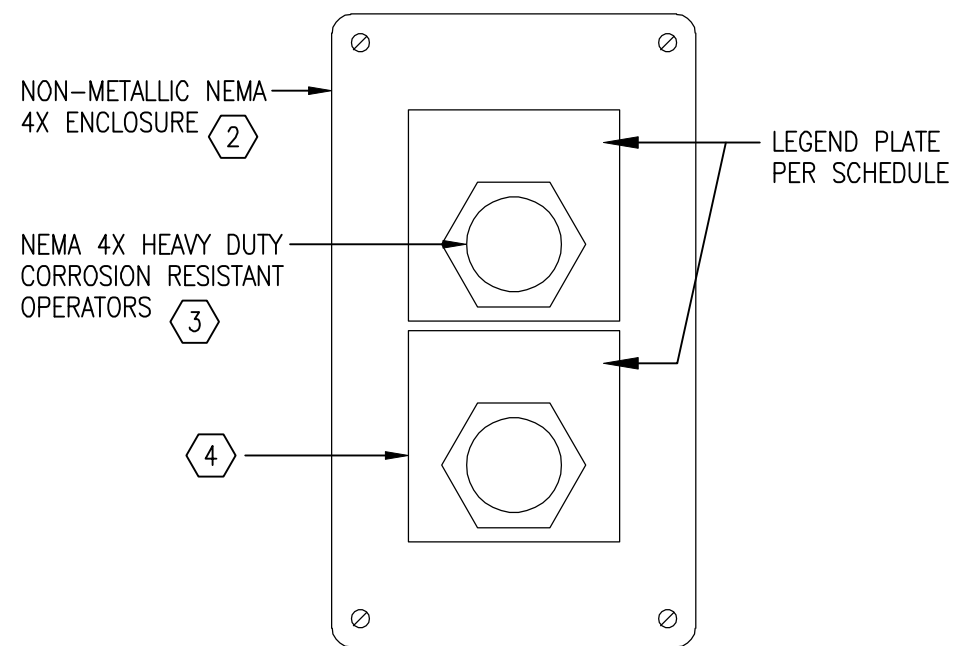
1. 120V COMBINATION STARTER BY E.C. (ALLEN-BRADLEY OR SQUARE D). MOUNT NEAR FLUORIDE ROOM INSPECTION WINDOW.
2. LOCAL CONTROL STATION BY E.C.
3. TIMING RELAY BY E.C. MOUNTED IN STARTER ENCLOSURE.



RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

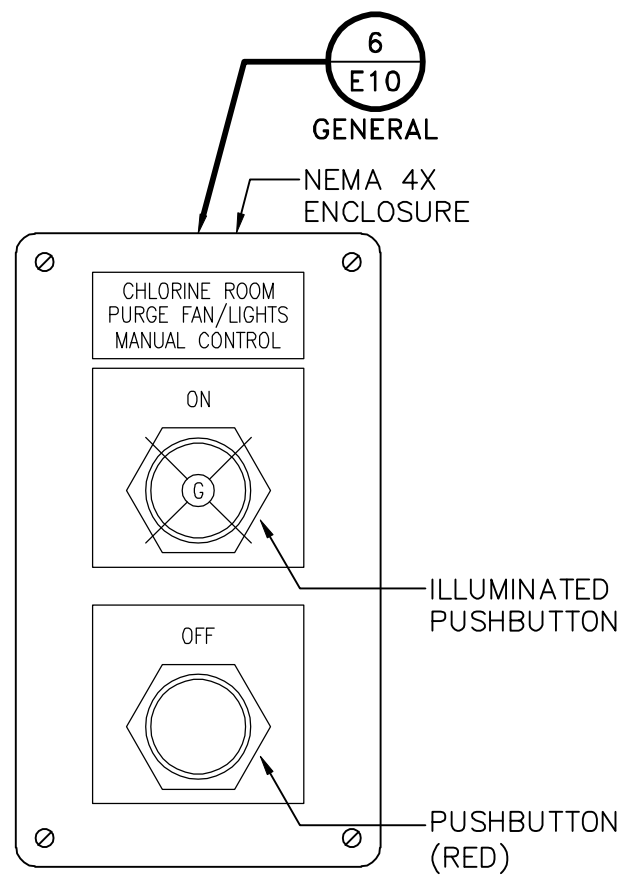
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NOTES:

1. APPLICABLE WHERE UP TO THREE CONTROL DEVICES ARE REQUIRED.
- ② ALLEN-BRADLEY 800H, SQUARE D SKY, OR EQUAL
- ③ ALLEN-BRADLEY 30.5mm 800H, SQUARE D 30mm TYPE SK, OR EQUAL
- ④ OPERATOR NAMEPLATES: JUMBO, WHITE WITH BLACK LETTERS

6
E10 **LOCAL CONTROL STATIONS**
TYPICAL DETAIL (NTS)



MANUAL ON/OFF LCS
(TYP. 2)
-1 IN ROOM
-1 AT INSPECTION WINDOW

STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
ELECTRICAL DETAILS

SCALE
AS NOTED

DATE
AUG. 7, 2006

PROJECT NO.
RO018-950446

SHEET NO.

E10

FILE NO.
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DESIGNED
SRM

DRAWN
JAD

CHECKED
SRM

McMahon Associates, Inc.
ARCHITECTS
PROJ. MGRS.
ASSOCIATES, INC. SURVEYORS

1445 McMahon Drive
Neenah, WI 54956

Mailing Address:
P.O. Box 1025
Neenah, WI 54957-0025

TEL: 920-751-4200 FAX: 920-751-4284

REVISION

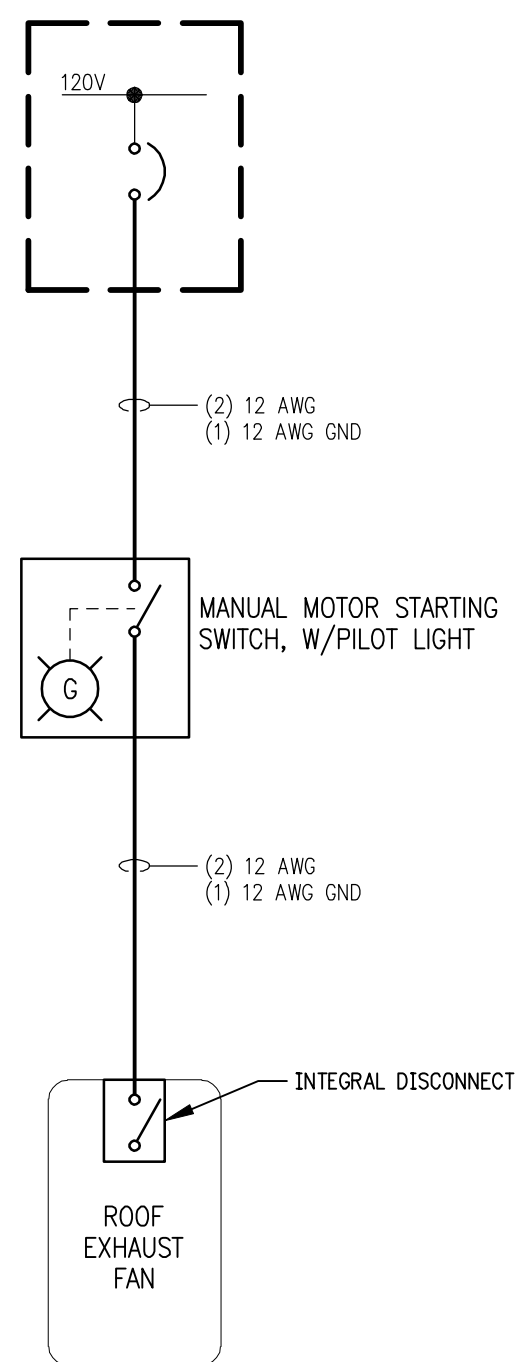
DATE

NO.

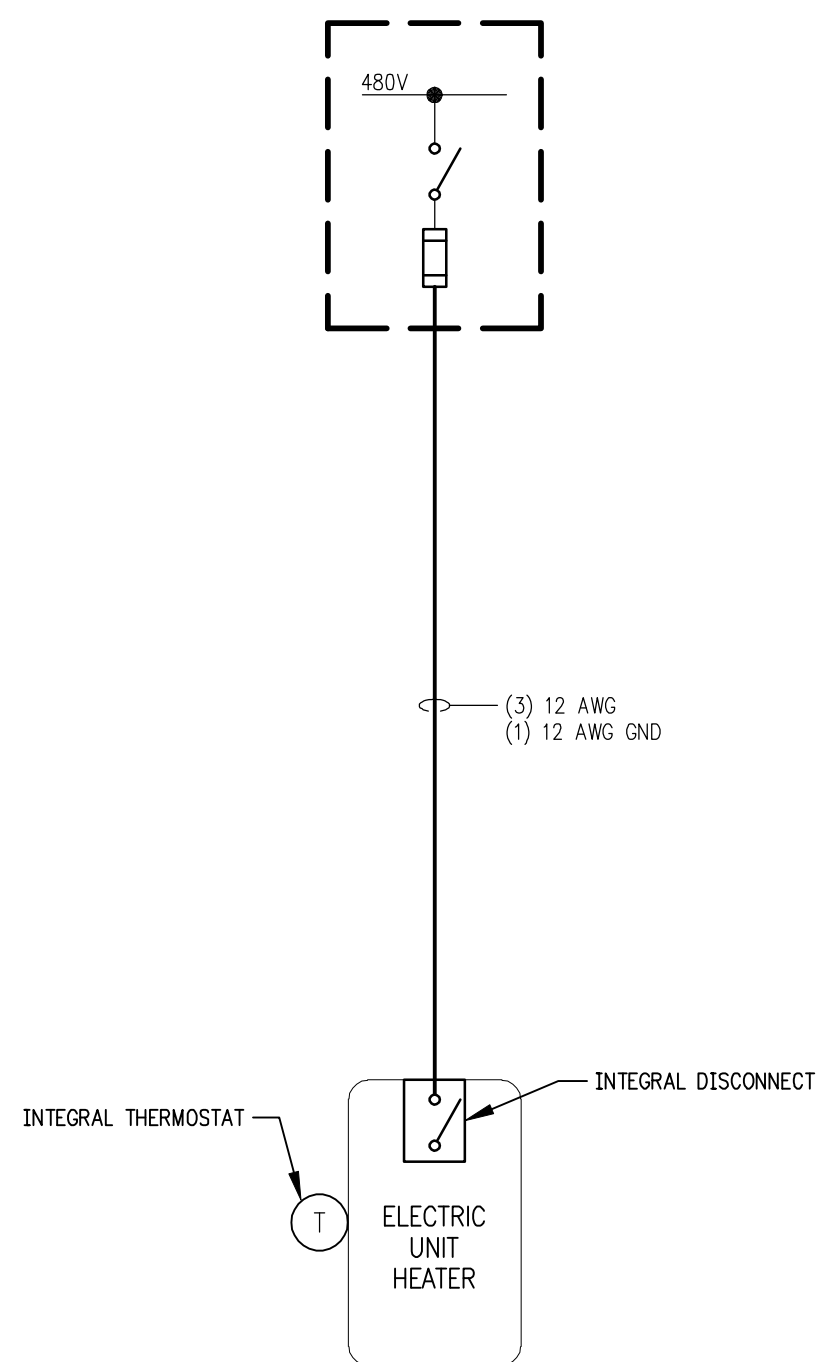
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2 3/7/08 RELEASED VIA CB 17

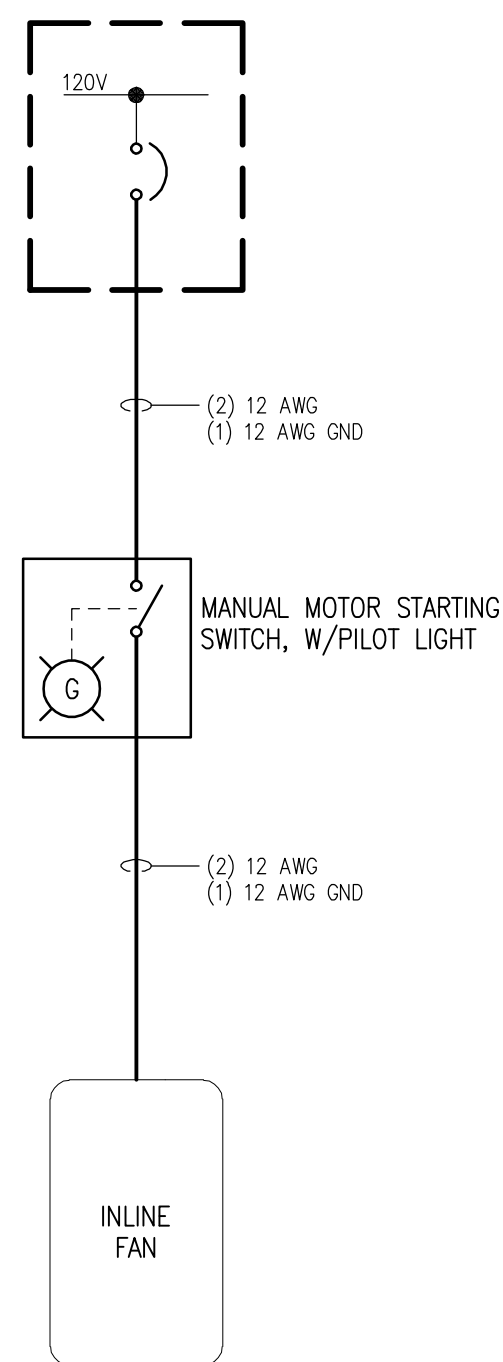
3 10/30/09 RECORD DRAWINGS



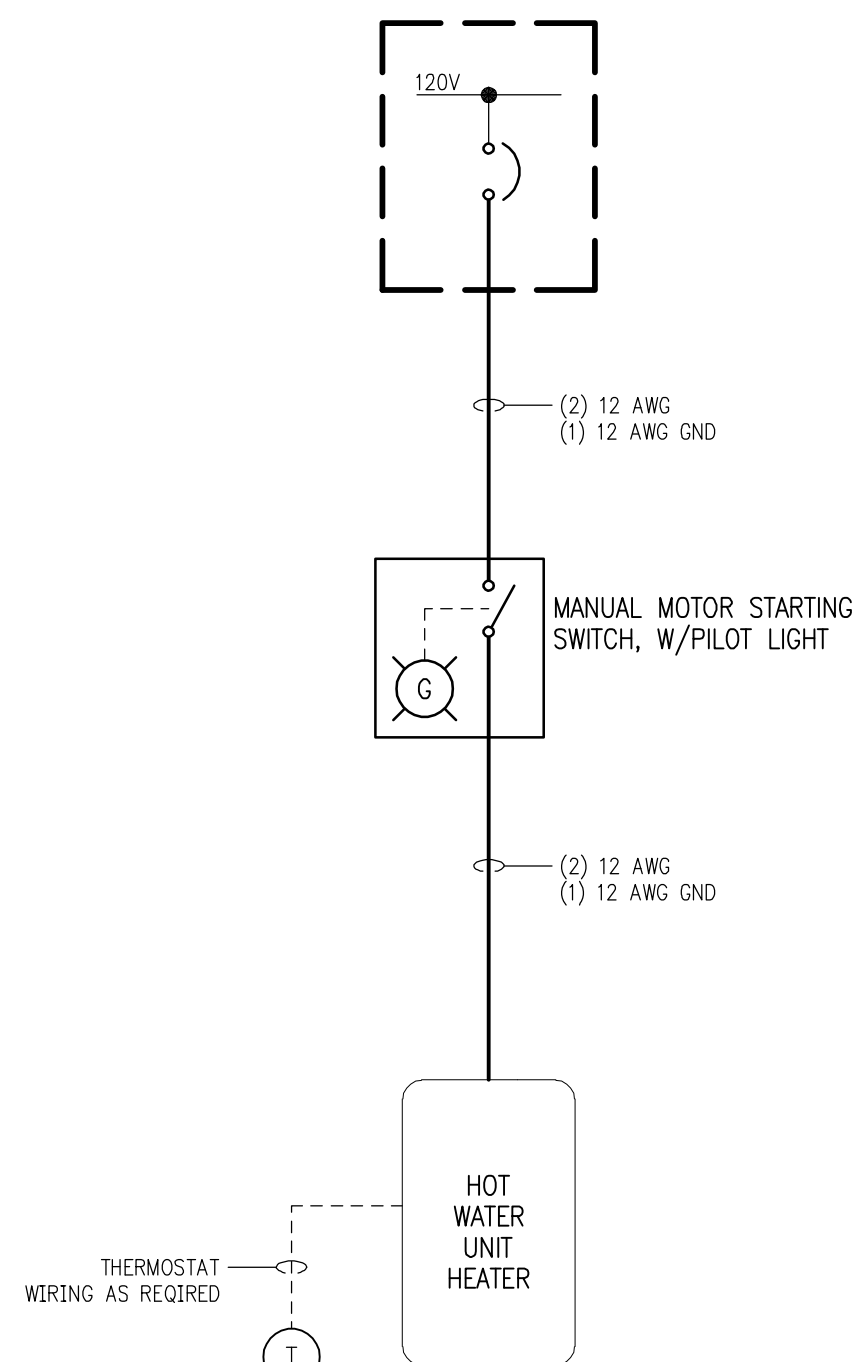
1 **ROOF EXHAUST FAN-120V**
E11 TYPICAL



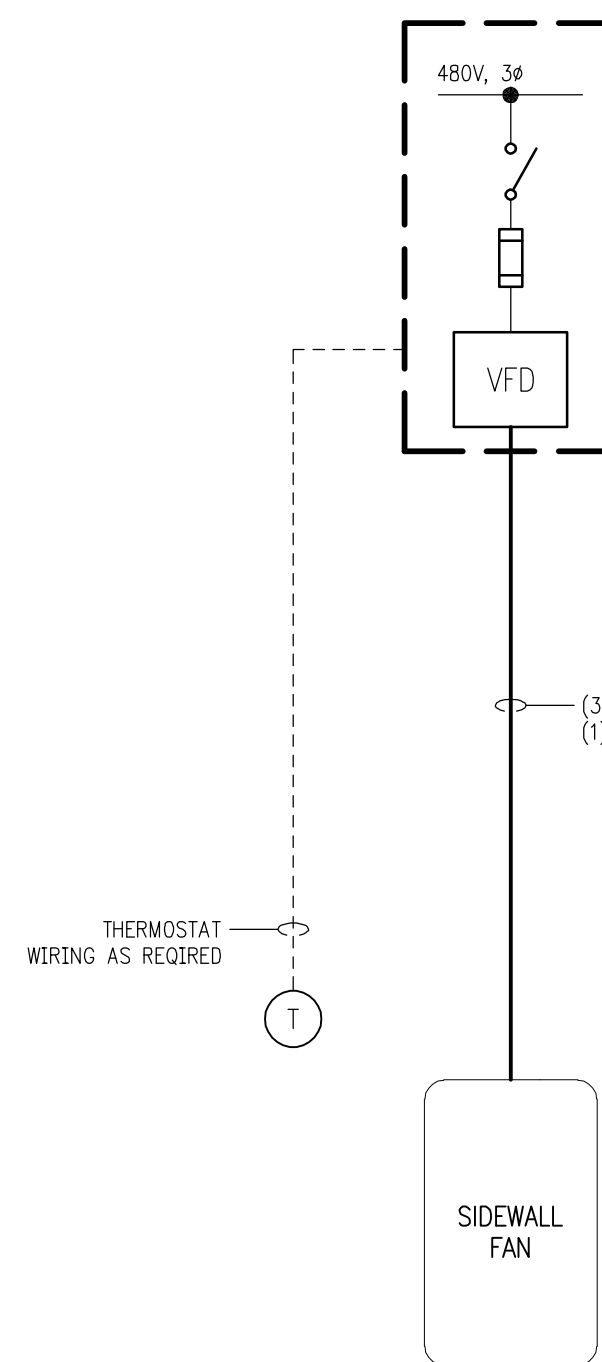
ELECTRIC UNIT HEATER



3 **INLINE FAN-120V**
E11 TYPICAL



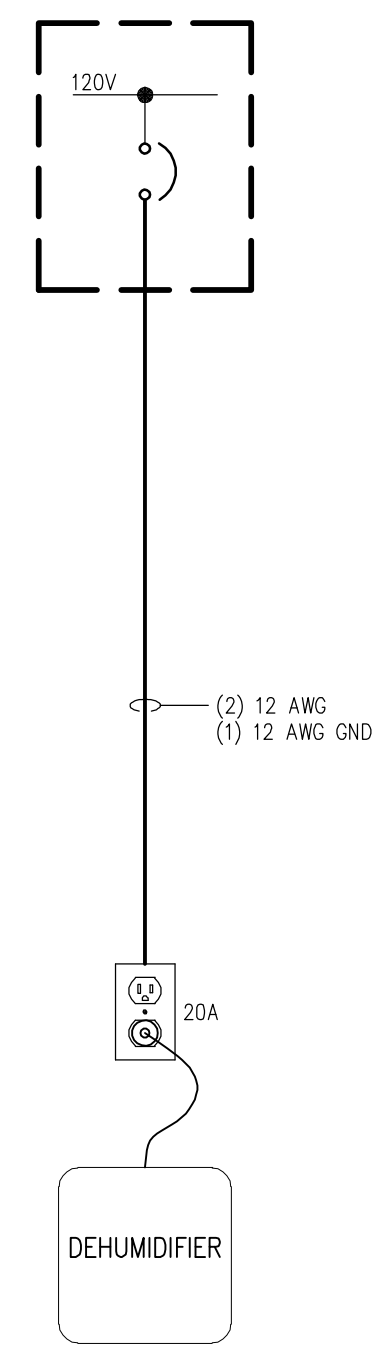
4 **HOT WATER UNIT HEATER**
E11 TYPICAL



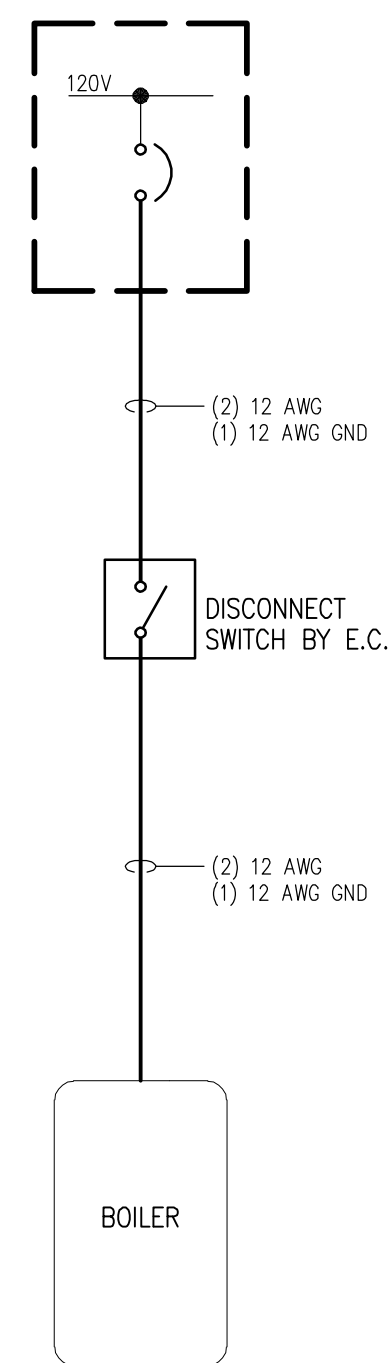
5
E11

SIDEWALL FAN-480V, VFD

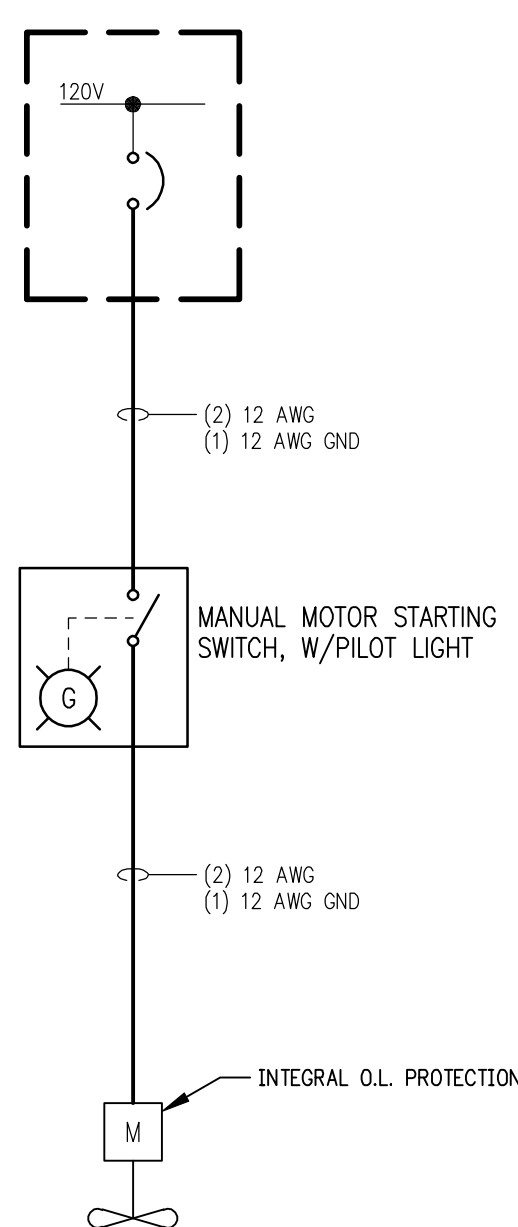
TYPICAL



2 **DEHUMIDIFIER-120V**
E11 TYPICAL



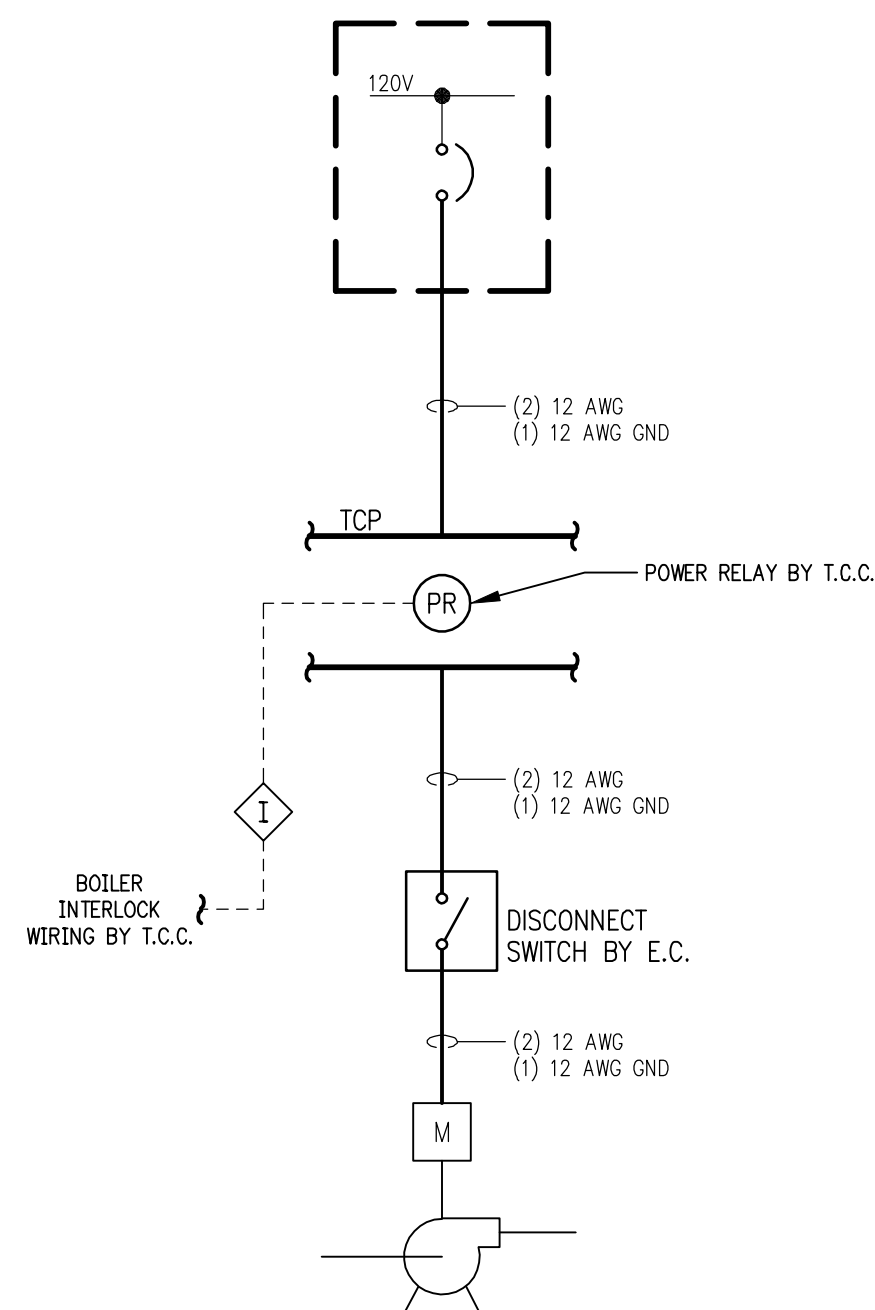
7
E11 **BOILER-120V**
TYPICAL



8
E11

CIRCULATION FAN-120V

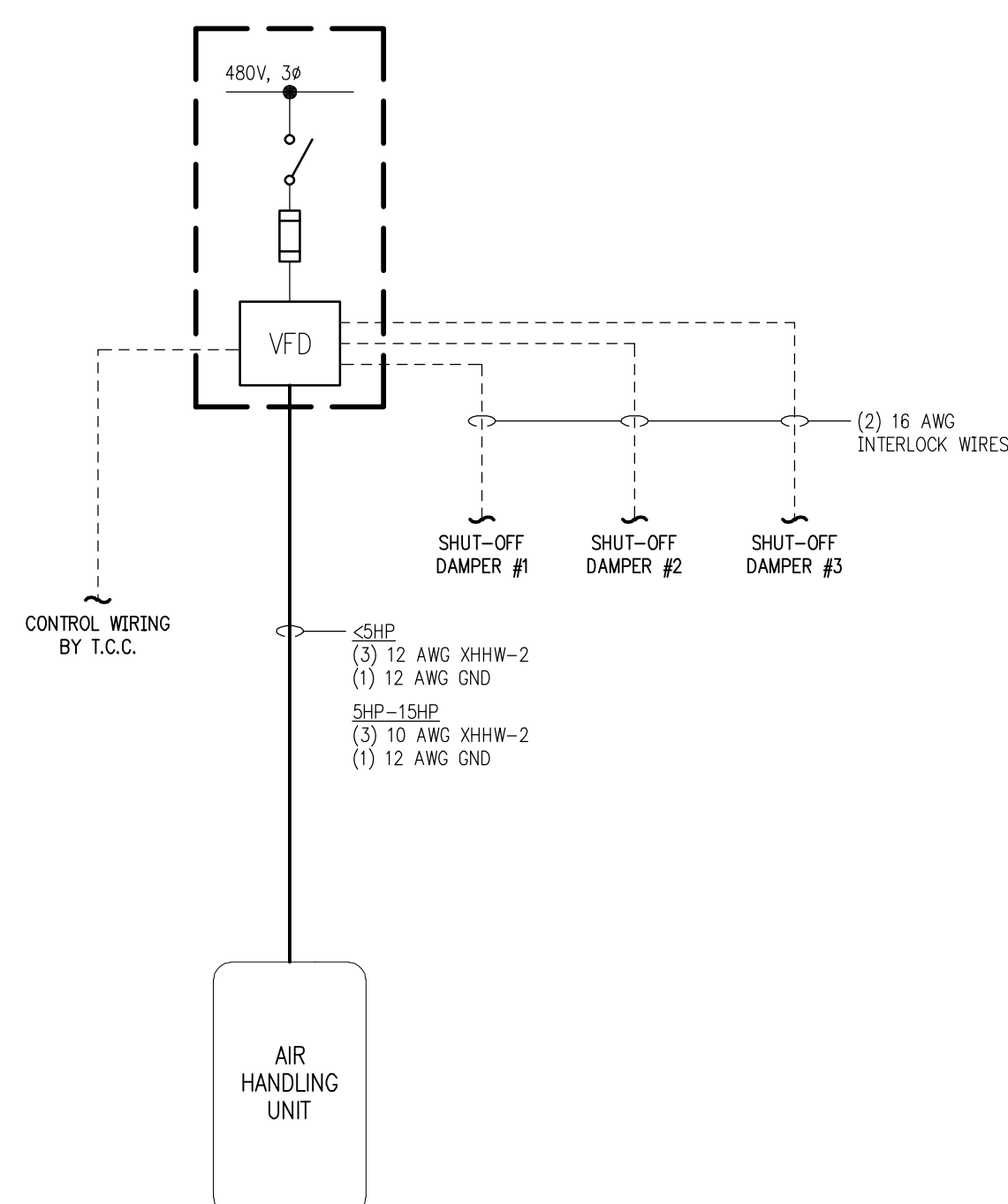
TYPICAL



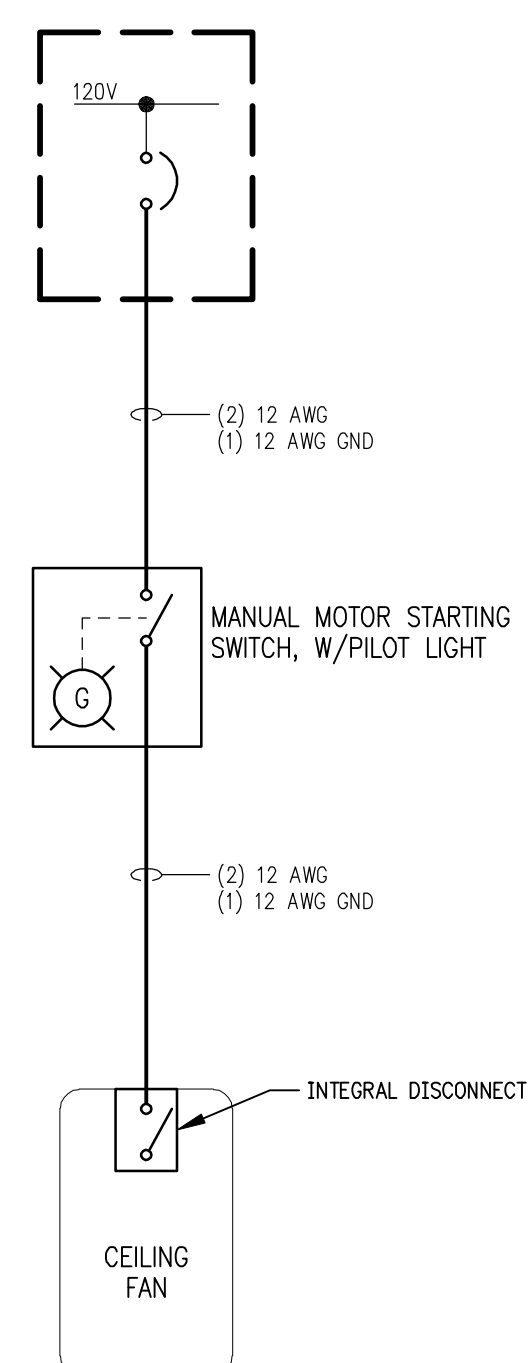
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E11

HOT WATER PUMP-120V

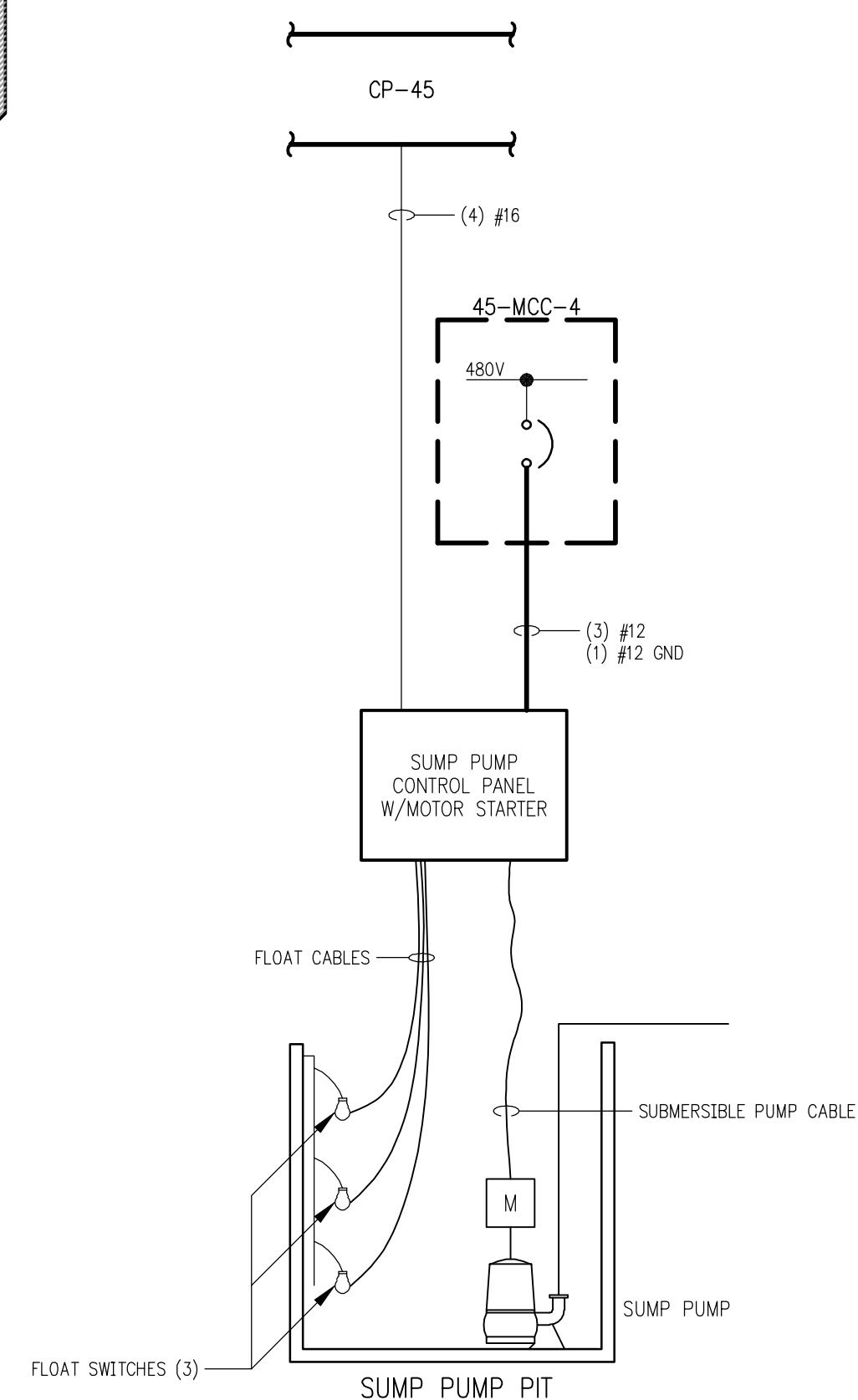
TYPICAL



AIR HANDLING UNIT—480V, VFD



CEILING FAN-120V
TYPICAL



SUMP PUMP
TYPICAL

RECORD DRAWINGS

DRAFTED BY: AMF

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**STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
ELECTRICAL DETAILS**

SCALE
AS NOTED
DATE
AUG. 7, 2006
PROJECT NO.

SHEET NO.	
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E1 1

FILE NO.
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NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	11/9/09	RECORD DRAWING

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DRAWN	JAD
CHECKED	SRM

MOTOR AND SPECIAL OUTLET SCHEDULE

IDENTIFICATION		LOCATION	LOAD				CONTROLLER		
Equip. Tag	NAME	Room / Area	HP	kW	kVA	Volt/ph	MCC / Panel	Type	Size or Rating
	Process Loads								
P4501	Well Pump - Unit Well 45	Remote	300	-	288.0	460/3	45-MCC-1	FVNR	NEMA Sz.6
P4511	Booster Pump No.1	Pump Station	100	-	98.7	460/3	45-MCC-1	VFD	180 Amps
P4512	Booster Pump No.2	Pump Station	150	-	143.0	460/3	45-MCC-2	VFD	180 Amps
P4513	Booster Pump No.3	Pump Station	150	-	143.0	460/3	45-MCC-2	VFD	180 Amps
P4514	Booster Pump No.4	Pump Station	150	-	143.0	460/3	45-MCC-3	VFD	180 Amps
P4515	Booster Pump No.5	Pump Station	150	-	143.0	460/3	45-MCC-3	VFD	180 Amps
P4551	Sequestering Agent Transfer Pump				0.5	120/1	45-RP-A	Plug	
P4556	Sequestering Agent Feed Pump				0.5	120/1	45-RP-A	Plug	
P4561	Fluosilicic Acid Feed Pump				0.5	120/1	45-RP-A	Plug	
P4566	Fluosilicic Acid Feed Pump				0.5	120/1	45-RP-A	Plug	
	HVAC Loads								
REF-1	Roof Exhaust Fan No.1 (Purge)	Chlorine 103	0.25		0.7	120/1	45-RP-A	C/B	15A
REF-2	Roof Exhaust Fan No.2 (Purge)	Fluoride 104	0.25		0.7	120/1	45-RP-A	C/B	15A
REF-3	Roof Exhaust Fan No.3 (Purge)	Sequestering 105	0.25		0.7	120/1	45-RP-A	C/B	15A
REF-4	Roof Exhaust Fan No.4	Chlorine 103	frac.		0.2	120/1	45-RP-A	C/B	15A
REF-5	Roof Exhaust Fan No.5	Fluoride 104	frac.		0.2	120/1	45-RP-A	C/B	15A
REF-6	Roof Exhaust Fan No.6	Sequestering 105	frac.		0.2	120/1	45-RP-A	C/B	15A
REF-7	Roof Exhaust Fan No.7	Fluoride 104	frac.		0.2	120/1	45-RP-A	C/B	15A
REF-8	Roof Exhaust Fan No.8	Sequestering 105	frac.		0.2	120/1	45-RP-A	C/B	15A
EUH-1	Electric Unit Heater No.1	Generator 102	-	10.0	10.0	480/3	45-MCC-4	FDS	30A
IF-1	Inline Fan No.1	Lower Level B01	0.33		0.8	120/1	45-RP-A	C/B	15A
HWUH-1	Hot Water Unit Heater No.1	Lower Level B01	frac.		0.2	120/1	45-RP-A	C/B	15A
SF-1	Sidewall Fan No.1	Electrical Rm. 101	0.75		1.1	460/3	45-MCC-4	VFD	1 HP
	Dehumidifier	Mezz. 200			1.0	120/1	45-RP-A	C/B	20/1
	Boiler No.1	Mezz. 200			1.0	120/1	45-RP-A	C/B	20/1
CF-1	Circulation Fan No.1	Lower Level B01		0.2	0.2	120/1	45-RP-A	C/B	15/1
CF-2	Circulation Fan No.2	Lower Level B01		0.2	0.2	120/1	45-RP-A	C/B	15/1
CF-3	Circulation Fan No.3	Pump Rm. 100		0.2	0.2	120/1	45-RP-A	C/B	15/1
P1	Pump No.1	Mezz. 200	0.16		0.5	120/1	45-RP-A	C/B	15/1
P2	Pump No.2	Mezz. 200	0.16		0.5	120/1	45-RP-A	C/B	15/1
P3	Pump No.3	Mezz. 200	0.16		0.5	120/1	45-RP-A	C/B	15/1
AHU-1	Air Handling Unit No.1	Mezz. 200	1		1.4	460/3	45-MCC-4	VFD	2 HP
AHU-2	Air Handling Unit No.2	Mezz. 200	10		14.0	460/3	45-MCC-4	VFD	10 HP
CLGF-1	Ceiling Fan No.1	Generator 102	frac.		0.1	120/1	45-RP-A	C/B	15/1
CLGF-2	Ceiling Fan No.2	Mezz. 200	frac.		0.1	120/1	45-RP-A	C/B	15/1
TCP-1	Control Panel No.1				1.0	120/1	45-ICP-B	C/B	20/1
TCP-2	Control Panel No.2				1.0	120/1	45-ICP-B	C/B	20/1
	Misc. Loads								
	Control Panel CP-45	Pump Room 100	n/a		1.0	120/1	45-ICP-B	C/B	20/1
	Water Heater	Lower Level B01	n/a	4.5	4.5	208/1	45-RP-A	C/B	30/2
	Door Operator 1	Pump Room 100	0.5	-	0.8	120/1	45-RP-A	C/B	20/1
	Door Operator 2	Generator 102	0.5	-	0.8	120/1	45-RP-A	C/B	20/1
AC-1	Air Compressor	Mezz. 200	10		11.2	460/3	45-MCC-4	FVNR	NEMA Sz.1
	Sump Pump	Lower Level B01	1		1.4	460/3	45-MCC-4	FVNR	30A
	Misc. Generator System Loads	(See Plans & Spec's)							
	Transformer Load								
	45-TX-A, 30kVA (120/208V Power)	Electrical Room 101	n/a			480/3	45-MCC-4	FDS	60A

NEW FIELD INSTRUMENT & CONTROL DEVICE SCHEDULE

TAG	LOOP	INST. TYPE	PROCESS – DESCRIPTION	LOCATION		DRAWINGS		POWER	DELIVERY		Spec. Section
					Elect. Plan	PID	Conn. Diag	Panel	Furn. By	Installed / Wired By	
PIT	4502	PRESSURE TRANSMITTER	WELL PUMP PRESSURE	LOWER LEVEL	E3	PID2	FC2	LOOP	CONTRACTOR	CONTRACTOR	13425
FE/FT	4503	MAG FLOW METER	WELL TO RESERVOIR	LOWER LEVEL	E3	PID2	FC2	120V	CONTRACTOR	CONTRACTOR	13420
PT	4510	PRESSURE TRANSMITTER	RESERVOIR LEVEL	LOWER LEVEL	E3	PID2	FC2	LOOP	CONTRACTOR	CONTRACTOR	13425
FE/FT	4520	MAG FLOW METER	HIGH SERVICE FLOW	LOWER LEVEL	E3	PID2	FC2	120V	CONTRACTOR	CONTRACTOR	13420
FS		FLOW SWITCHES	BOOSTER PUMPS (5)	PUMP ROOM	E2	PID2	FC2	120V	CONTRACTOR	CONTRACTOR	13424
WE/WIT	4555	WEIGHT SCALE	SEQUESTERING AGENT			PID3	FC3	120V	CONTRACTOR	CONTRACTOR	
WE/WIT	4560/65	WEIGHT SCALE	FLUOSILICIC ACID			PID4	FC4	120V	CONTRACTOR	CONTRACTOR	
WE/WIT	457x	WEIGHT SCALE	CHLORINATION			PID5	FC5	120V	CONTRACTOR	CONTRACTOR	
FS	4570	FLOW SWITCH	CHLORINATION	CHLORINE 103		PID5	FC5		CONTRACTOR	CONTRACTOR	
FTC	4575	ROTOMETER / CONTROLLER	CHLORINATION	CHLORINE 103		PID5	FC5	120V	CONTRACTOR	CONTRACTOR	

LOCAL DISCONNECT SWITCH / MANUAL STARTER SCHEDULE

TYPE	DESCRIPTION	VOLTAGE	POLES	AMPS	HP RATING	FUSE SIZE	ENCLOSURE	NEMA	MATERIAL	MOUNT	NOTES
MS1	MANUAL STARTER WITH OVERLOAD RELAY	120V	1	30	1HP	n/a	1		STEEL	SURFACE	1, 2, 3
MS1F	MANUAL STARTER WITH OVERLOAD RELAY	120V	1	30	1HP	n/a	OPEN		n/o	FLUSH	1, 2, 3
MS1X	MANUAL STARTER WITH OVERLOAD RELAY	120V	1	30	1HP	n/a	4		DIE CAST ZINC	SURFACE	1, 2, 3
MS1R	MANUAL STARTER WITH OVERLOAD RELAY	120V	1	30	1HP	n/a	3R		STEEL	SURFACE	1, 3
C&P	CORD & PLUG, RECEPTACLE	120V									
MS2	MANUAL SWITCH, WITHOUT O.L.	120V	2	30	2HP	n/a	1		STEEL	SURFACE	1, 3
MS2X	MANUAL SWITCH, WITHOUT O.L.	120V	2	30	2HP	n/a	4		DIE CAST ZINC	SURFACE	1, 3
MS2D	MANUAL SWITCH, WITHOUT O.L.	240V	2	30	5HP	n/a	1		STEEL	SURFACE	1, 3
MS3B	MANUAL SWITCH, WITHOUT O.L.	208V	3	30	5HP	n/a	1		STEEL	SURFACE	1, 3
MS3C	MANUAL SWITCH, WITHOUT O.L.	480V	3	30	10HP	n/a	1		STEEL	SURFACE	1, 3
DS1	UNFUSED DISCONNECT SWITCH	480VAC	3	20A	5HP	n/a			NONMETALLIC	SURFACE	
DS3	UNFUSED DISCONNECT SWITCH	480VAC	3	10HP	30A	n/a	4X		NONMETALLIC	SURFACE	
DS6	UNFUSED DISCONNECT SWITCH	480VAC	3	60A	30HP	n/a	4X		NONMETALLIC	SURFACE	
DS10	UNFUSED DISCONNECT SWITCH	480VAC	3	100A	50HP	n/a	4X		NONMETALLIC	SURFACE	
HD3	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	12		STEEL	SURFACE	4
HD3R	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	3R		STEEL	SURFACE	4
HD3RA	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	3R		ALUMINUM	SURFACE	4
HD3XS	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	4X		304 SST	SURFACE	4
HD3XA	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	4X		ALUMINUM	SURFACE	4
HD3XP	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	4X		FRP	SURFACE	4
HD3Z	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	3	30A	20HP	n/a	7		STEEL	SURFACE	4
HD3Z2	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	6	30A	20HP	n/a	12		STEEL	SURFACE	4
HD3ZR	UNFUSED HEAVY DUTY SAFETY SWITCH	480VAC	6	30A	20HP	n/a	3R		STEEL	SURFACE	4

NO	
1	HP RATING AT RATED VOLTAGE
2	SEE ALSO SPECIFICATIONS, 16440, 16480
3	WHERE NON-METALLIC DISCONNECTS ARE USED, PROVIDE SUITABLE BONDING BUSHINGS AND JUMPERS,
4	TO MEET NEC BONDING REQUIREMENTS.
5	E.C. TO REVIEW SHOP DRAWINGS OF ALL ELECTRICAL UTILIZATION EQUIPMENT. VERIFY ANY O.L. REQUIREMENTS.
6	
7	TOGGLE TYPE OPERATOR
8	WITH PILOT LIGHT
9	WITH HANDLE LOCK-OFF
10	WITH (2) AUX CONTACTS
11	WITH ROCKER TYPE OPERATOR
12	MOUNT ADJACENT TO LIGHT SWITCH

CONDUIT SCHEDULE

ROOM No.	ROOM NAME	ROOM ENVIRONMENT	ACCEPTABLE CONDUIT TYPES	NOTES
			(See Notes)	
B01	LOWER LEVEL	Damp	RMC/AL	
100	PUMP ROOM	Damp	RMC/AL	
101	ELECTRICAL ROOM	Dry	RMC/AL	
102	GENERATOR ROOM	Dry	RMC/AL	
103	PHOSPHATE	Corrosive	RMC/AL	
104	CHLORINE	Corrosive	RMC/AL	
105	FLUORIDE	Corrosive	RMC/AL	
200	EQUIPMENT MEZZ.	Dry	RMC/AL	
IN SLAB ON GRADE	n/a	n/a	RNC, RMC/ST, IMC	
EXTERIOR, ABOVE GRADE	n/a	n/a	RMC/AL	
UG, WITHIN 5' FROM BLDG.	n/a	n/a	RMC/ST, IMC	
UG, MORE THAN 5' FROM BLDG.	n/a	n/a	RNC, RMC/ST, IMC	
UG, CONC. COVER	n/a	n/a	RNC, RMC/ST, IMC	
UG, CONC. ENCASED	n/a	n/a	RNC, RMC/ST, IMC	

CONDUIT TYPES

- IMC: INTERMEDIATE METAL CONDUIT (NEC ARTICLE 342)
- RMC/ST: RIGID METAL CONDUIT – STEEL (NEC ARTICLE 344)
- RMC/AL: RIGID METAL CONDUIT – ALUMINUM (NEC ARTICLE 344)
- RMC/PCS: RIGID METAL CONDUIT – PVC COATED STEEL (NEC ARTICLE 344)
- RMC: RIGID METAL CONDUIT – ANY MATERIAL (NEC ARTICLE 344)
- FMC: FLEXIBLE METAL CONDUIT (NEC ARTICLE 348)
- LFMC: LIQUIDTIGHT FLEXIBLE METAL CONDUIT (NEC ARTICLE 350)
- RNC: RIGID NON-METALLIC CONDUIT (NEC ARTICLE 352)
- NUCC: NON-METALLIC UNDERGROUND CONDUIT WITH CONDUCTORS (NEC ARTICLE 354)
- LFNC: LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT (NEC ARTICLE 356)
- ENT: ELECTRICAL METALLIC TUBING (NEC ARTICLE 358)
- FMT: FLEXIBLE METALLIC TUBING (NEC ARTICLE 360)
- ENT: ELECTRICAL NONMETALLIC TUBING (NEC ARTICLE 362)

NOTES

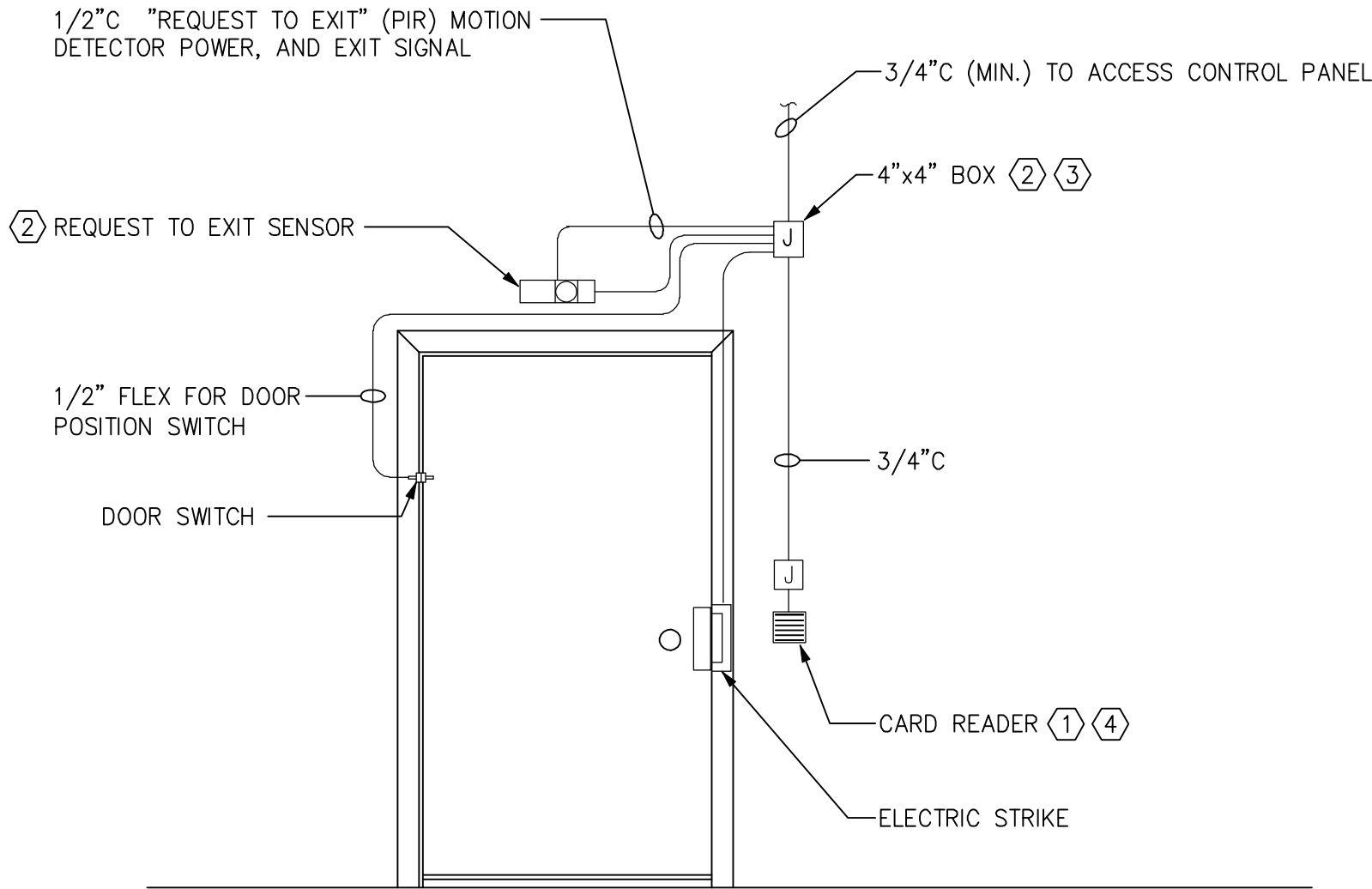
1. EMT MAY BE USED IN INDOOR, DRY LOCATIONS, AT CEILING LEVEL, FOR CONTROL CIRCUITS AND 120V CIRCUITS PROTECTED AT 20A OR LESS.
2. DO NOT USE RMC/AL CONDUIT UNDERGROUND, IN CONCRETE, OR IN DIRECT CONTACT WITH CONCRETE.
3. WHERE THREADED CONDUIT IS REQUIRED, USE SUITABLE THREADED WEATHERPROOF BOXES.
4. Not used
5. Not used
6. USE RIGID STEEL CONDUIT FOR CONCRETE PENETRATIONS
7. WHERE CONDUITS ARE CONCRETE ENCASED, USE PVC; NO REQUIREMENT FOR TRANSITION TO RIGID.

	FILE NO. CAD	E12	SHEET NO.	SCALE AS NOTED DATE AUG. 7, 2006 PROJECT NO. R0018-950446	STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS ELECTRICAL SCHEDULES	DESIGNED SRM DRAWN JAD CHECKED SRM	MohMahon Associates, Inc. provides this contract as a guide only. It is not intended as an instrument of service. All rights belong to MohMahon Associates, Inc. The client may or may not be permitted by law to reproduce and hold it for their own use without prior written consent by MohMahon Associates, Inc.	NO. DATE 1 4/6/07 2 11/9/09	ENGINEERS ARCHITECTS PROJ. MGRS. SURVEYORS RECORD DRAWING	MOHAMAH ASSOCIATES, INC. 1445 McMahon Drive Neenah, WI 54956 Mailing Address: P.O. Box 1025 Neenah, WI 54957-1025 TEL: 920-751-4200 FAX: 920-751-4284
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PANEL SCHEDULE

PANEL ID: 45-RP-A		VOLTS/PH/W: 208Y/120V, 3-PH, 4W		BUS: 200A, COPPER		CONSTRUCTION TYPE: PANELBOARD				
LOCATION: ELECTRICAL ROOM		MAIN: Breaker		AIC RATING: 10,000		ENCLOSURE/MOUNT: 20"W, NEMA 1, SURFACE				
LOAD TYPE: 120/208V POWER		MAIN AMPS: 110A		OTHER:		DOOR: DOOR-IN-DOOR TRIM				
		BRANCHES: Bolt-on C/B's		OTHER:		OTHER:				
LOAD/CIRCUIT DESCRIPTION	LOAD KVA	CKT BKR	P	CIR #	P H	CIR #	P	CKT BKR	LOAD KVA	LOAD/CIRCUIT DESCRIPTION
Receptacles - Pump Room 100	1.00	20	1	1	A	2	1	20	1.80	Lights - Pump Room 100
Receptacles - Electrical Room 101, Gen. Room 102	1.00	20	1	13	B	4	1	20	1.30	Lights - Rooms 101, 102
Receptacles - Chem Room 103	1.00	20	1	5	C	6	1	20	0.50	Lights - Chem Rooms 103, 104, 105
Receptacles - Chem Room 104	1.00	20	1	7	A	8	1	20	1.80	Lights - Lower Level
Receptacles - Chem Room 105	1.00	20	1	9	B	10	1	20	0.40	Lights - Mezz
Receptacles - Lower Level	1.00	20	1	11	C	12	1	15	0.50	Lights - Outside, Decorative
Receptacles - Mezz.	1.00	20	1	13	A	14	1	15	0.50	Lights - Outside, Wall-packs and recessed
Overhead Door - Pump Room	1.00	20	1	15	B	16	1	20	0.30	Dedicated Recept. For Sequest. Agent Feed Pump P4556
Overhead Door - Generator Room	1.00	20	1	17	C	18	1	20	0.30	Dedicated Recept. For Fluoride Feed Pumps P4561, P4566
Receptacles - Air Handling Units, Convenience Recept's.	0.00	20	1	19	A	20	2	30	0.00	Hot Water Heater
REF-1	0.70	15	1	21	B	22				
REF-2	0.70	15	1	23	C	24	1	15	0.30	Motor Space Heaters
REF-3	0.70	15	1	25	A	26	1	15	0.00	Chemical Tank Exhaust Fans (REF #7 & #8)
REF-4, REF-5, REF-6	0.60	15	1	27	B	28	1	15	0.00	Main Switchgear Controls
Inline Fan IF-1	0.80	15	1	29	C	30	1	15	0.00	Valve Vault Sump Pump
Hot Water Unit Heater - Lower Level	0.20	15	1	31	A	32	1	15	0.00	SPARE
Dehumidifier	1.00	20	1	33	B	34	1	15	0.00	SPARE
Boiler	1.00	20	1	35	C	36	1	15	0.00	SPARE
Circulation Fans (3)	0.50	15	1	37	A	38				
Boiler Pumps P1, P2, & P3	1.00	20	1	39	B	40	3	50	0.00	Surge Protector
Ceiling Fan CLGF-2	0.20	15	1	41	C	42				
		16.40						7.70		

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NOTES:

- ① MOUNT IN HOUSING BLOCKOUT IN WALL.
② MOUNT ON SECURED SIDE OF DOOR ("INSIDE")
③ FIELD-LOCATE NEAR DOOR.
④ SEE RISER DIAGRAM (2/E14) FOR CABLING REQUIREMENTS.

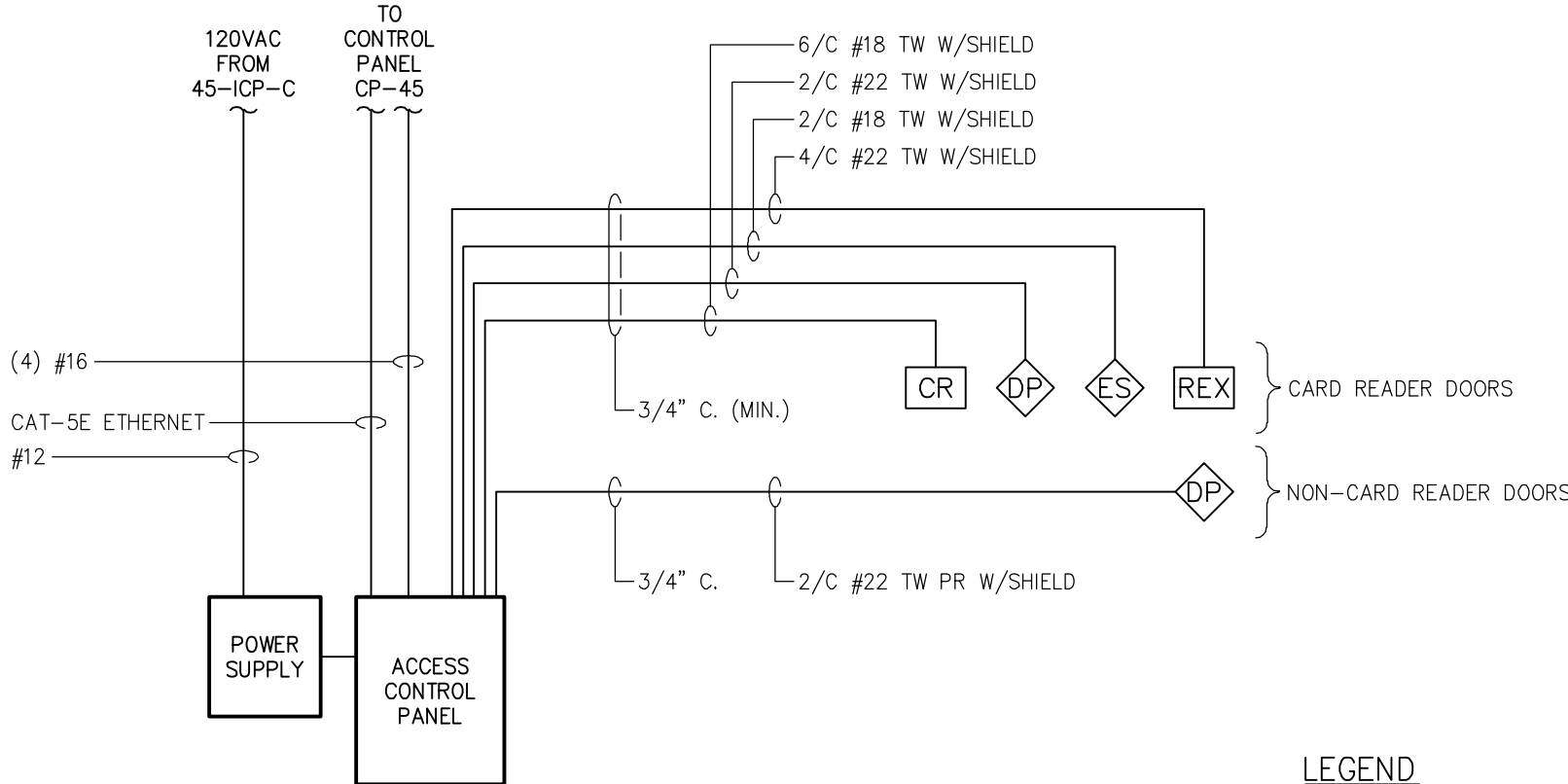
GENERAL NOTES:

1. ALL WIRING TO BE IN RACEWAY USING FLEX, OR RAC, AS APPROPRIATE. ALL RACEWAYS TO BE EXPOSED UNLESS NOTED OTHERWISE. EXACT RACEWAY ROUTING BY FIELD.
2. CAREFULLY COORDINATE DOOR HARDWARE, BEFORE PURCHASING OR INSTALLING, TO ENSURE COMPATIBILITY WITH DOOR AND FRAME.
3. EXTERNAL DOORS WITHOUT CARD READER HAVE DOOR POSITION SWITCH ONLY.

RACEWAY INSTALLATION AT ACCESS CONTROL DOOR

NOT TO SCALE

1
E14



LEGEND

- CR - CARD READER
REX - REQUEST FOR EXIT SENSOR
DP - DOOR POSITION SWITCH
ES - ELECTRIC STRIKE

RISER DIAGRAM

NOT TO SCALE

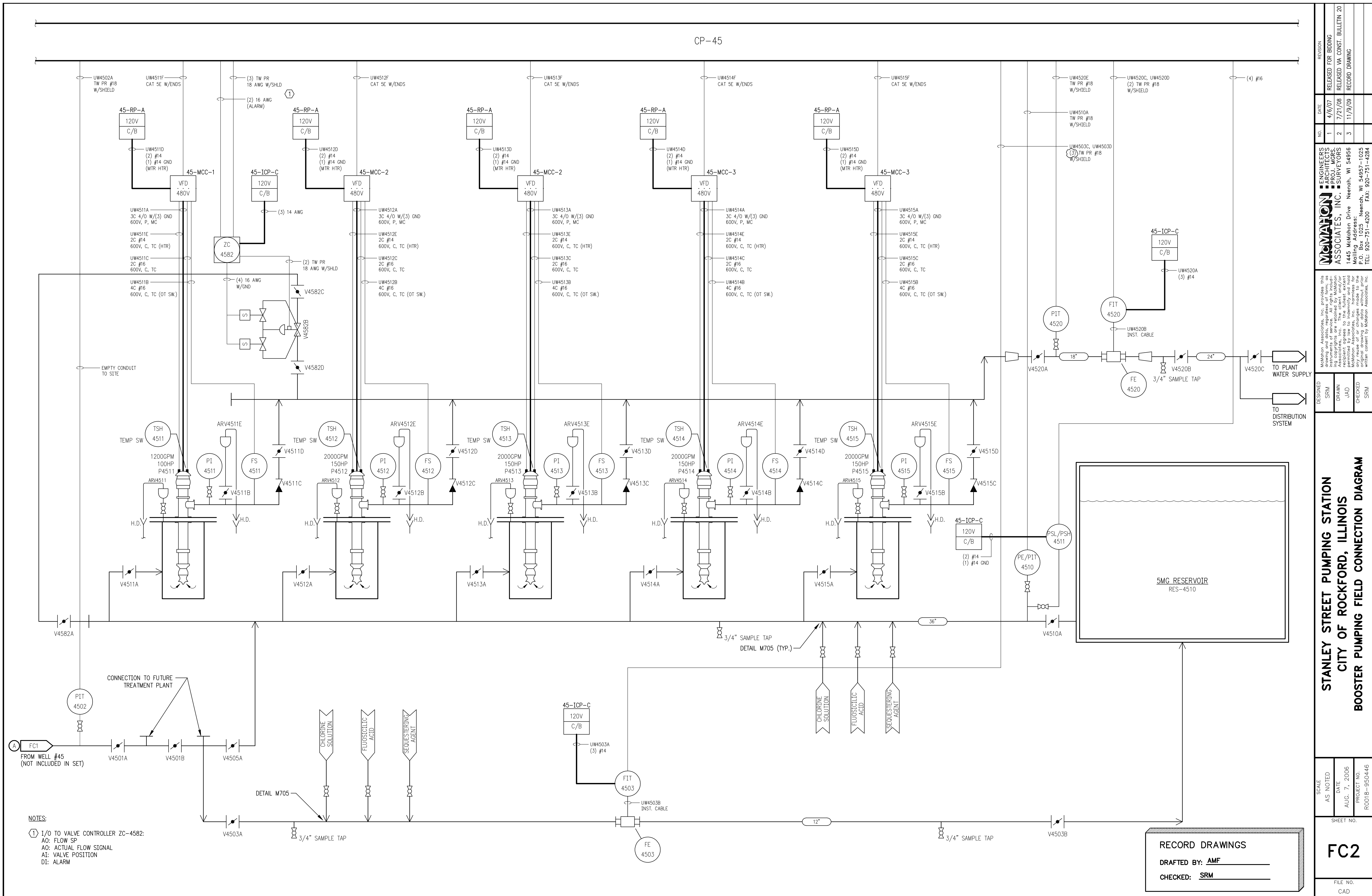
2
E14

NOTES:

1. DOOR POSITION SWITCHES AND ELECTRIC STRIKES BY CONTRACTOR.
2. OTHER ACCESS CONTROL EQUIPMENT FURNISHED BY OWNER, INSTALLED AND WIRED COMPLETE BY CONTRACTOR.

RECORD DRAWINGS	
DRAFTED BY:	PGK 10/30/09
CHECKED:	

SHEET NO.		E 14	
FILE NO.		CAD	
SCALE	AS NOTED	DATE	APRIL, 2006
PROJECT NO.		R0018-95046	
DESIGNED	SRM	DRAWN	JAD
CHECKED		SRM	
STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS ELECTRICAL DETAILS			
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STANLEY STREET PUMPING STATION
CITY OF ROCKFORD, ILLINOIS
SEQUESTERING AGENT FIELD CONNECTION DIAGRAM

SCALE	DATE	PROJECT NO.
AS NOTED	AUG. 7, 2006	

SHEET NO.

FC3

FILE NO.
CAD

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McMAHON
ASSOCIATES, INC.

- ENGINEERS
- ARCHITECTS
- PROJ. MGRS.
- SURVEYORS

1445 McMahon Drive Neenah, WI 54956
Mailing Address:
P.O. Box 1025 Neenah, WI 54957-1025

NO.	DATE	REVISION
1	4/6/07	RELEASED FOR BIDDING
2	10/30/09	RECORD DRAWINGS

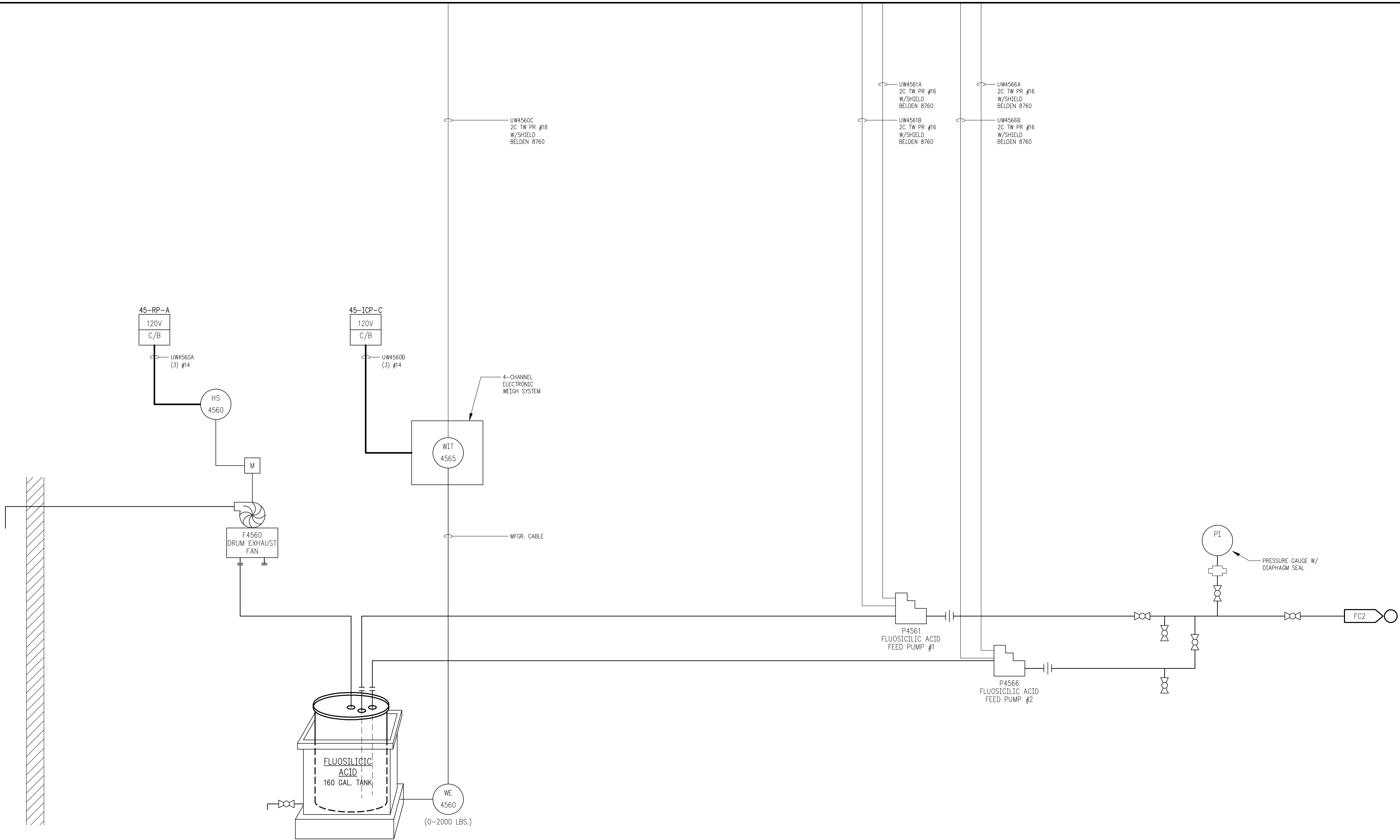
RECORD DRAWINGS

DRAFTED BY: PGK 10/30/09

CHECKED: _____

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RECORD DRAWINGS
DRAFTED BY: PGK 10/30/09
CHECKED: _____

CP-45

FILE NO.		SHEET NO.		SCALE		STANLEY STREET PUMPING STATION CITY OF ROCKFORD, ILLINOIS FLUOSILICIC ACID FIELD CONNECTION DIAGRAM		DESIGNED		McMahon Associates, Inc. provides this drawing and data, regardless of form, as instruments of service. All rights are reserved. No part of this drawing may be reproduced without written consent by McMahon Associates, Inc.		McMahon Associates, Inc. reserves the right to modify this drawing without prior written consent by McMahon Associates, Inc.		McMahon Associates, Inc. is not responsible for any errors or omissions in this drawing or data without prior written consent by McMahon Associates, Inc.		McMahon Associates, Inc. is not responsible for any errors or omissions in this drawing or data without prior written consent by McMahon Associates, Inc.		McMahon Associates, Inc. is not responsible for any errors or omissions in this drawing or data without prior written consent by McMahon Associates, Inc.		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