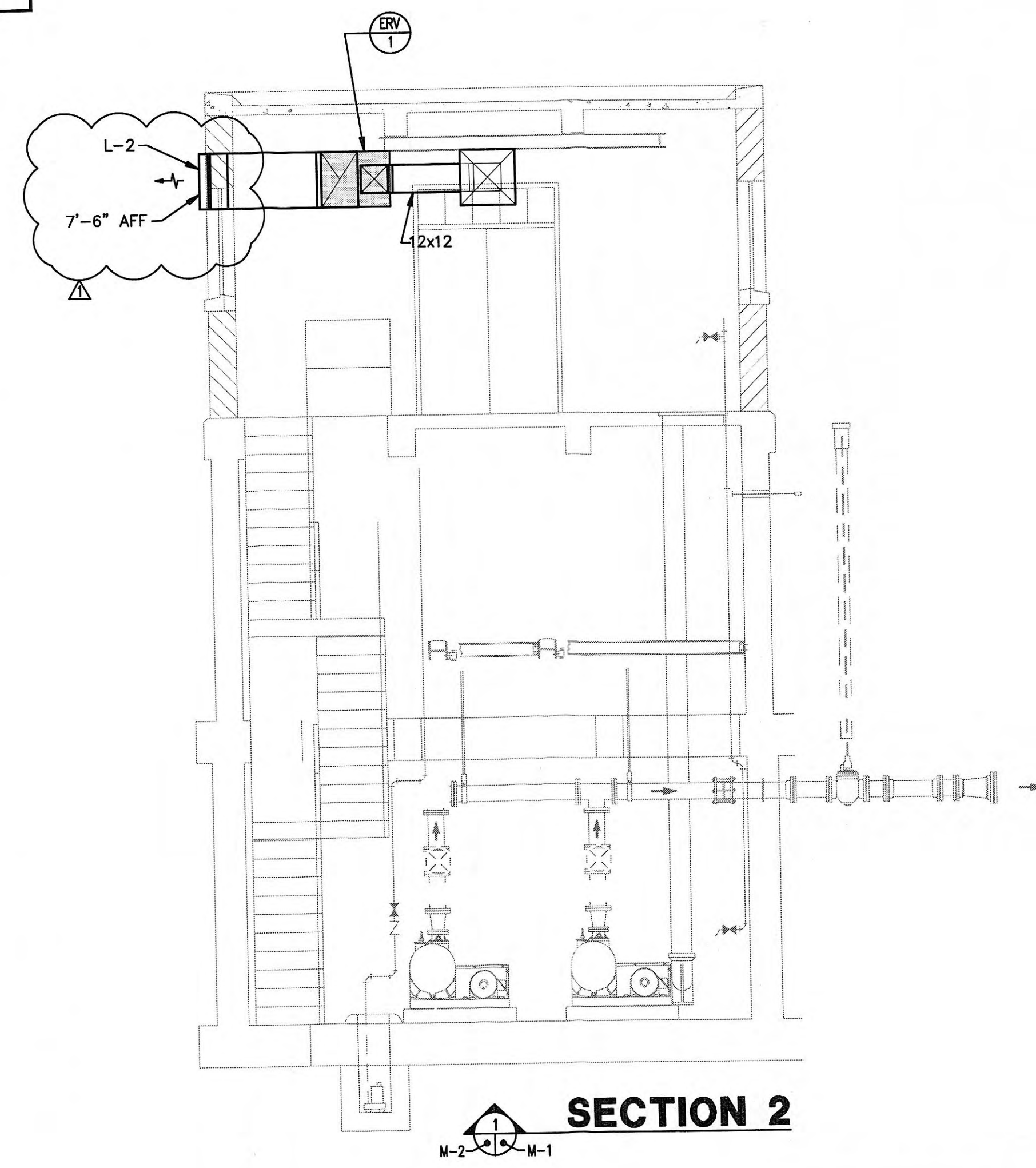
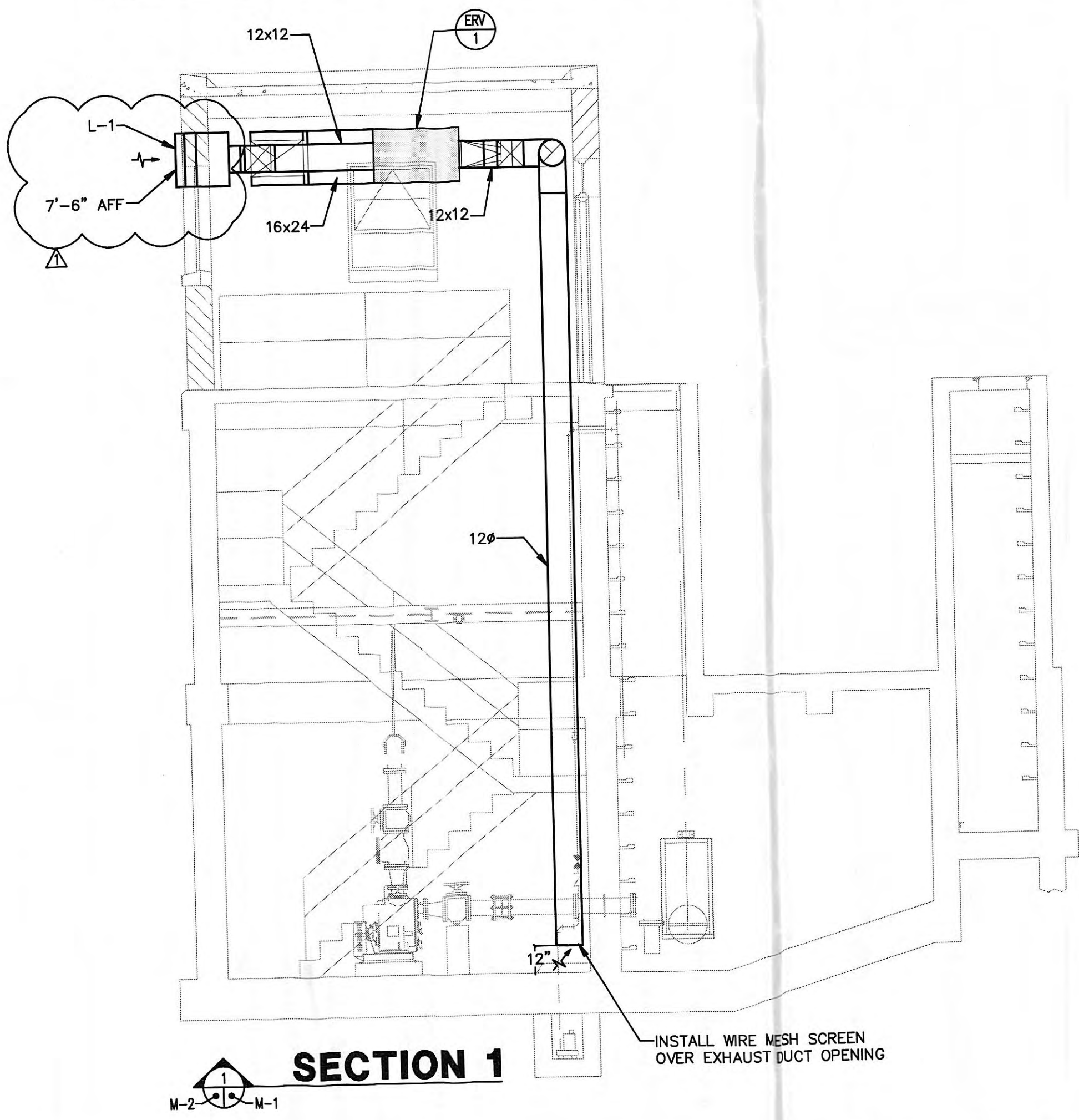


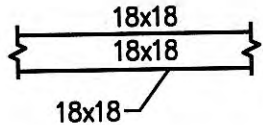
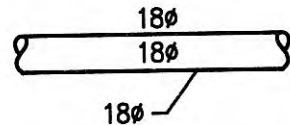
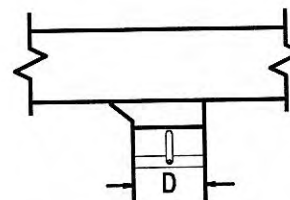
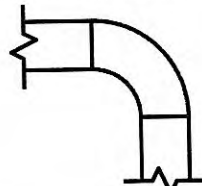



LOUVER SCHEDULE						
DRAWING SYMBOL	LOUVER SIZE (WIDTH X HEIGHT)	CFM	MINIMUM SQ/FT FREE AREA	MAXIMUM PRESSURE DROP (IN. WG)	MANUFACTURER AND MODEL NUMBER	NOTES
	24x24	850	1.92	0.05	RUSKIN ELF 375DXH	SEE BELOW
	24x24	850	1.92	0.05	RUSKIN ELF 375DXH	SEE BELOW
NOTES AND FEATURES: * LOUVERS SHALL BE BEAR AMCA SEAL AND SHALL BE TESTED IN ACCORDANCE WITH AMCA 511. * KYNAR COATING * WATER PENETRATION THROUGH LOUVER SHALL NOT OCCUR BELOW 1000 FPM (FREE AREA) * ALUMINUM CONSTRUCTION						

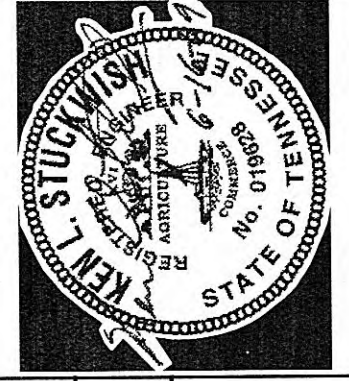
ELECTRIC HEATER SCHEDULE							
DRAWING SYMBOL	TYPE	KW	CFM	VOLTAGE/PHASE	FAN R.P.M.	FAN WATTS	MANUFACTURER & MODEL NO.
	HOSE-DOWN	10	700	480/3	1550	21	TRANE UHRA
HEATERS * TRANSFORMER FOR 24V. THERMOSTAT * LOW VOLTAGE THERMOSTAT WITH HEAT-OFF-FAN SWITCH, MOUNTED ON UNIT. * THERMAL OVERLOAD PROTECTION. * 16-GAUGE, 304 STAINLESS STEEL CASING. * DISCONNECT SWITCH. * CONTROLS SHALL BE IN A NEMA 4x ENCLOSURE ON UNIT. * MOUNT 7'-0" A.F.F. * STAINLESS STEEL WALL/CEILING MOUNTING BRACKET.							

ENERGY RECOVERY VENTILATION SCHEDULE													
DRAWING SYMBOL	SUPPLY SIDE				EXHAUST SIDE				VOLT/PHASE	MCA	MOCP	WEIGHT	MANUFACTURER MODEL NUMBER
	CFM	E.S.P.	HP	WHEEL EFFICIENCY	CFM	E.S.P.	HP	WHEEL EFFICIENCY					
<div>ERV 1</div>	850	0.5	1/2	70.8%	850	0.5	1/2	70.8%	120/1	23.8	30.0	350	GREENHECK ERV-251H-20-A
<div>NOTES AND FEATURES:</div> <div><div>* DUCT FLANGES.</div><div>* REMOTE PANEL WITH HAND-OFF-AUTO SWITCH.</div><div>* OUTSIDE AIR AND EXHAUST AIR FILTERS, 2" PLEATED, 30% EFFICIENCY.</div><div>* TIMED EXHAUST FROST CONTROL.</div><div>* OUTDOOR AIR TEMPERATURE: -SUMMER: 92.0/74.0 F. -WINTER: 5.0 F.</div><div>* INDOOR AIR TEMPERATURE: -SUMMER: 85.0 F. -WINTER: 50.0 F.</div></div>													



MECHANICAL LEGEND			
STANDARD ABBREVIATIONS AND NOTATIONS			
FFE	FINISHED FLOOR ELEVATION	NIC	NOT IN CONTRACT
FA	FROM ABOVE	SU	SUPPLY DUCTWORK
DN	DOWN	RE	RETURN DUCTWORK
CD	CEILING DIFFUSER	EX	EXHAUST DUCTWORK
CR	CEILING RETURN	OA	OUTDOOR AIR DUCTWORK
CE	CEILING EXHAUST		
SR	SUPPLY REGISTER		
RR	RETURN REGISTER		
ER	EXHAUST REGISTER		

SYMBOL	DESCRIPTION
	RECTANGULAR DUCT: MANUAL OPPOSED BLADE DAMPER WITH LOCKING QUADRANT. LEVER OPERATOR, OF STEEL CONSTRUCTION. LOUVERS & DAMPERS MODEL CD-400; KRUEGER MODEL OBD-DM TYPE 2 OPERATION FOR LESS THAN 10" WIDE.
	ROUND DUCT: ROUND BLADE CONTROL DAMPER OF STEEL CONSTRUCTION WITH MANUAL OPERATOR LOUVERS AND DAMPERS MODEL CD-600.
	SHEET METAL CONNECTORS, INC. HIGH EFFICIENCY TAKEOFF WITH DAMPER AND LOCKING QUADRANT FOR ROUND DUCT TAKEOFFS FROM RECTANGULAR DUCTWORK. INCREASE MAIN DUCT SIZE AT FITTING TO ACCOMMODATE ITS INSTALLATION IF REQUIRED TO MEET SMACNA AND MANUFACTURER'S INSTRUCTIONS. ALL BRANCH TAKEOFFS SHALL HAVE BALANCING DAMPERS FOR BALANCING PURPOSES. DIMENSION: D = RUNOUT DIAMETER (6"-14")
	RECTANGULAR ELBOW WITH SINGLE THICKNESS TURNING VANES OF STEEL CONSTRUCTION.
	EQUIPMENT TAG
	ELECTRICAL PANEL - AVOID INSTALLING EQUIPMENT IN PANEL BOARD SPACE PER ARTICLE 110 OF THE NATIONAL ELECTRIC CODE.
 XX-1	WALL SWITCH - XXX-1



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CLIENT PROJECT NO. XXXX  
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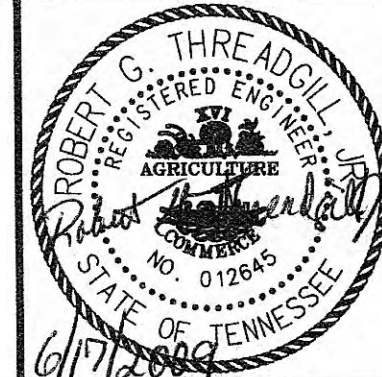
**CHRISTMAS PUMP STATION NO. A-2**  
**PUMP STATION REHABILITATION**  
**CITY OF HARRIMAN, TENNESSEE**

DESIGNED BY	KLS	DRAWN BY	RTB	REVIEWED BY	KLS	APPROVED BY	KLS
DATE	6/9/08	DATE		DATE		DATE	
REVISIONS	1. ADDED LOUVER HEIGHT						

DATE: March 23, 2009  
SCALE: 1/4"=1'-0"  
SHEET NO. M-1

SCALE CHECK: 1"=1'-0" (THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED)





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CLIENT PROJECT NO. XXXX  
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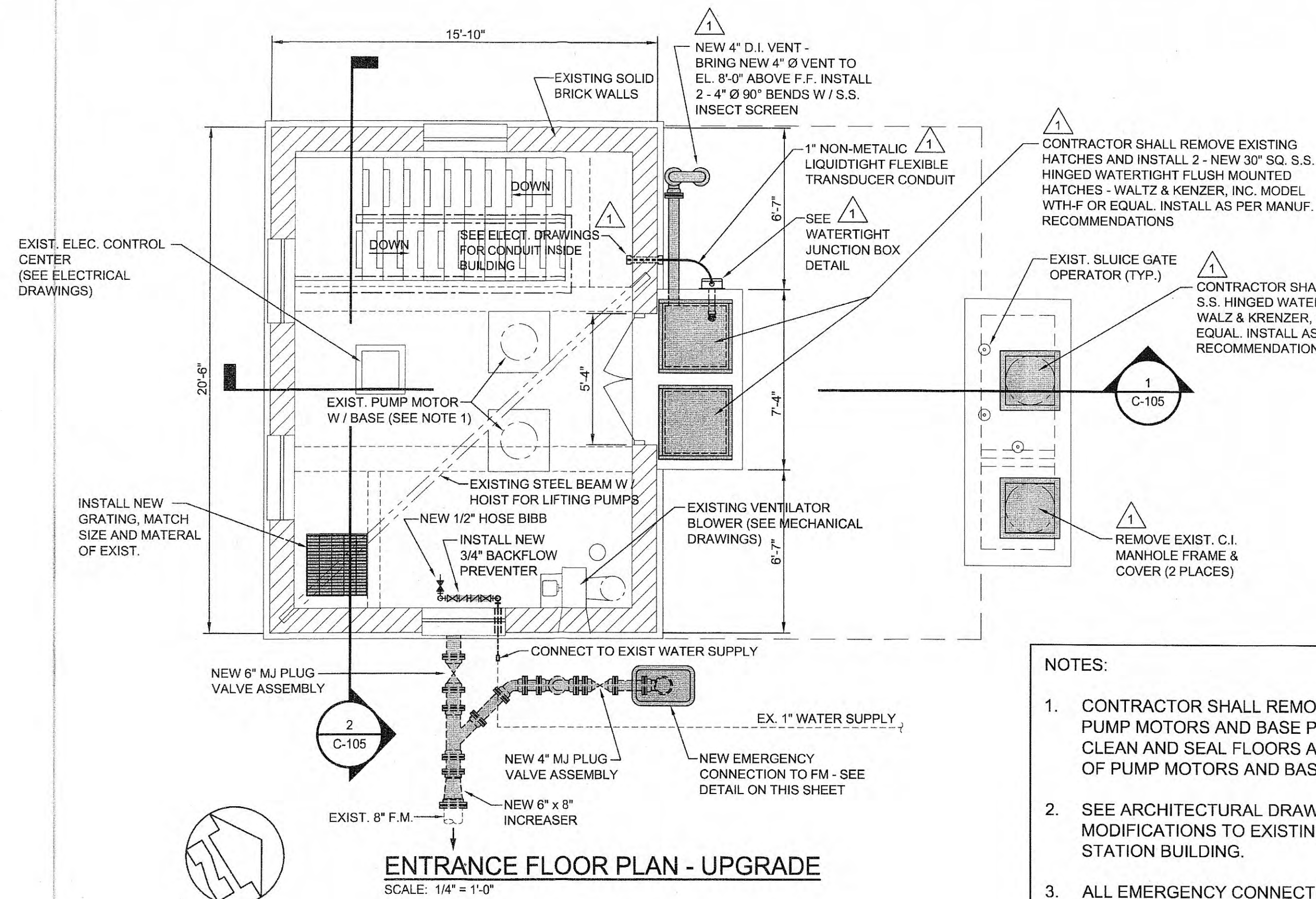
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**CHRISTMAS PUMP STATION NO. A-2  
UPGRADE - PLAN VIEWS  
PUMP STATION REHABILITATION  
CITY OF HARRIMAN, TENNESSEE**

REVISIONS	DATE	BY	SG	SG	SG	SG	SG
NO.							
1	6/17/09	SG					
2							
3							
4							
5							
6							
7							
8							
9							
10							

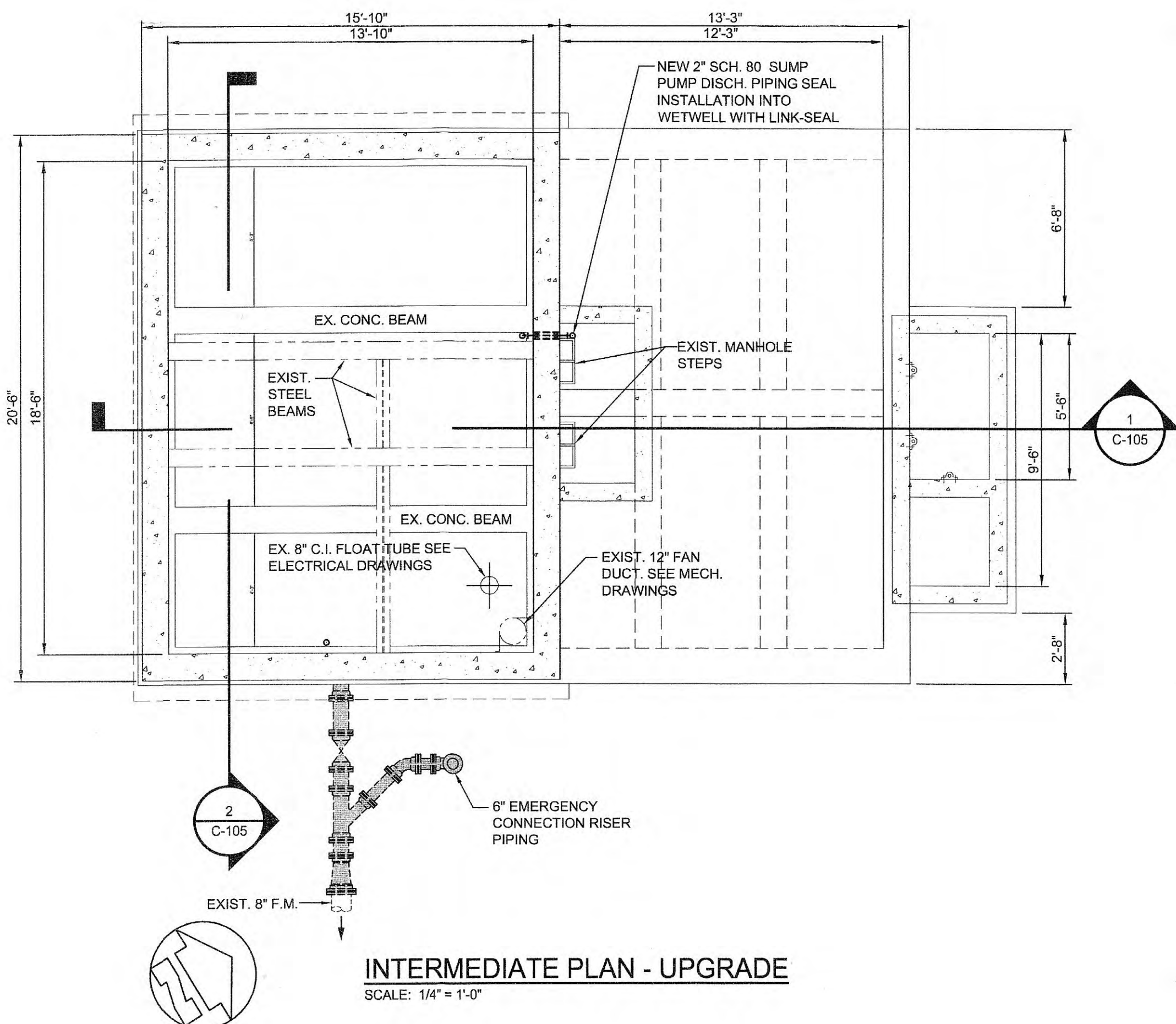
DATE: APRIL, 2009  
SCALE: AS NOTED  
SHEET NO.

**C-104**

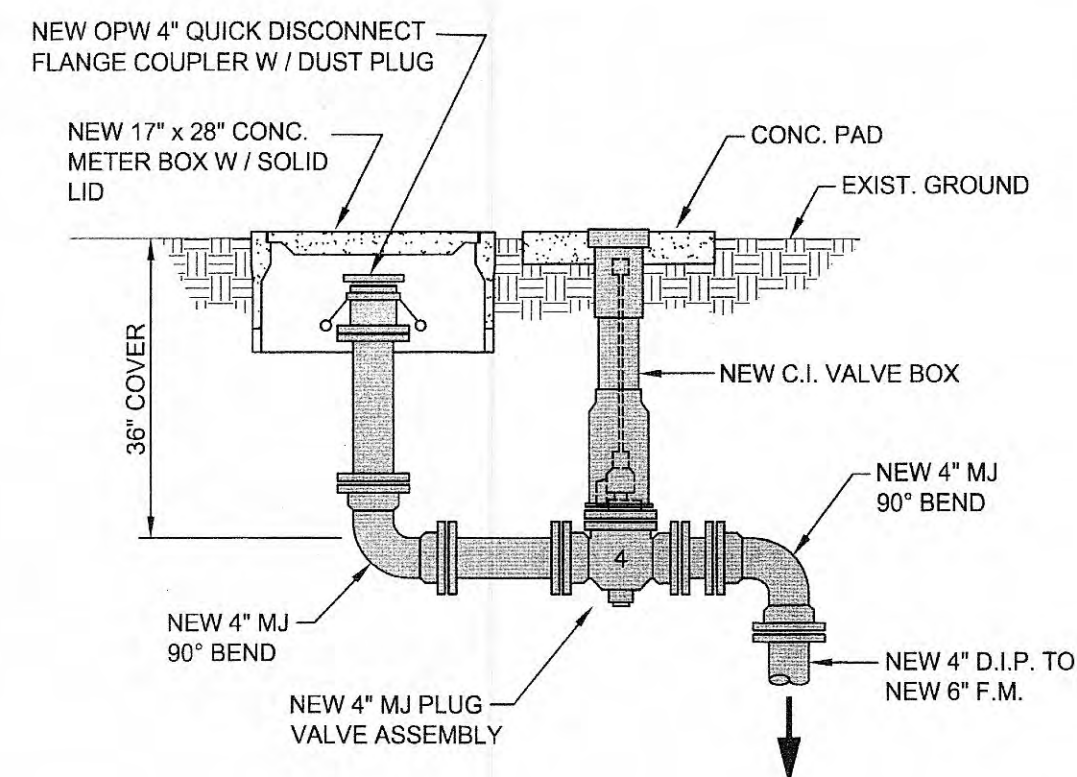


**NOTES:**

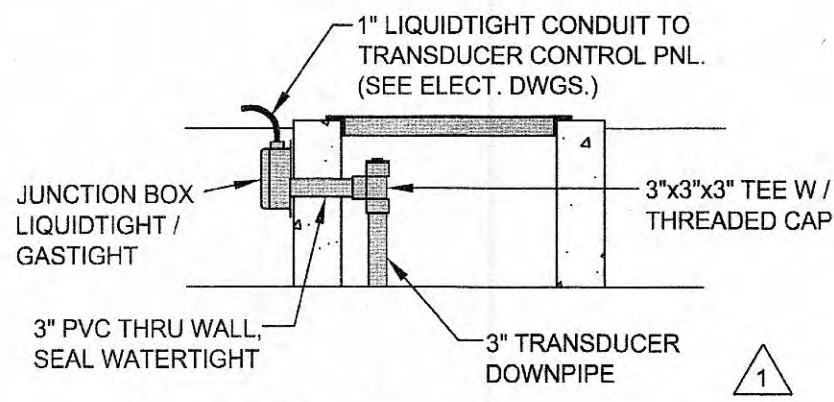
1. CONTRACTOR SHALL REMOVE EXISTING PUMP MOTORS AND BASE PLATES - PATCH, CLEAN AND SEAL FLOORS AFTER REMOVAL OF PUMP MOTORS AND BASE PLATES.
2. SEE ARCHITECTURAL DRAWINGS FOR MODIFICATIONS TO EXISTING PUMP STATION BUILDING.
3. ALL EMERGENCY CONNECTION PIPING AND CONNECTION TO EXISTING TO EXISTING F.M. SHALL BE RESTRAINED JOINT.



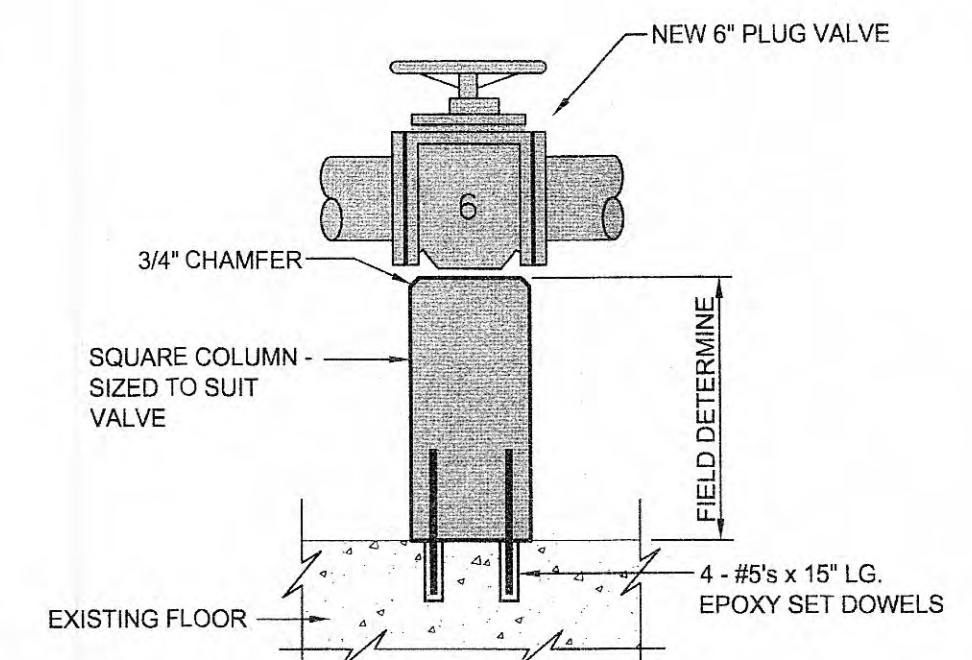
**INTERMEDIATE PLAN - UPGRADE**  
SCALE: 1/4" = 1'-0"



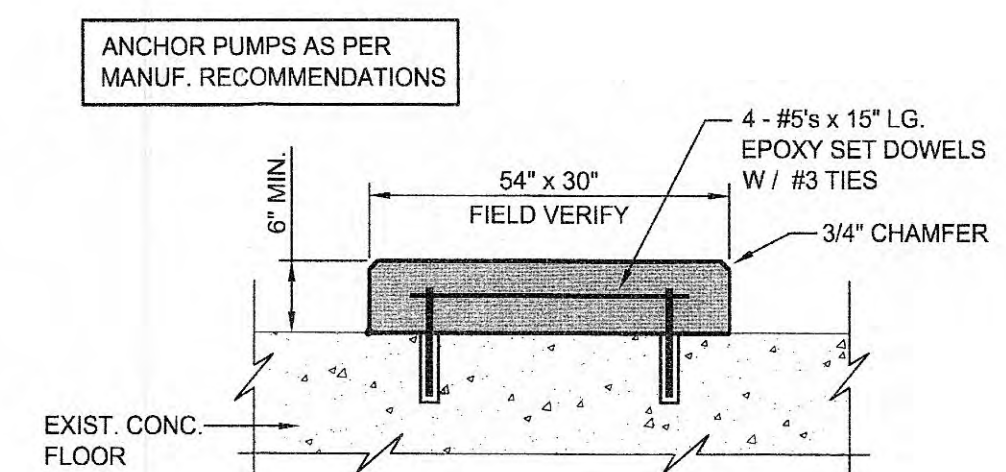
**EMERGENCY CONNECTION DETAIL**  
SCALE: 1/2" = 1'-0"



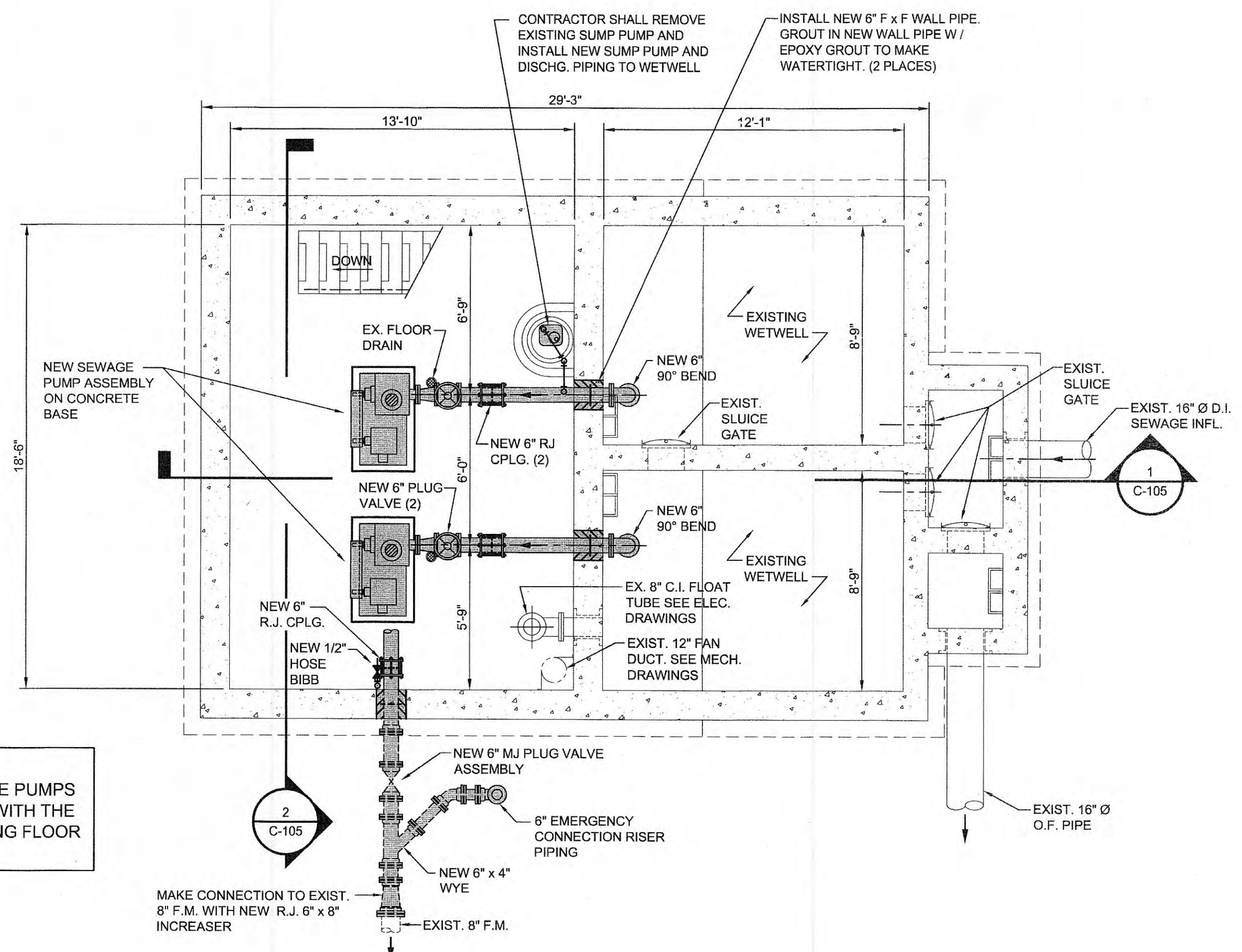
**WATERTIGHT J.B. DETAIL**  
SCALE: 3/8" = 1'-0"



**VALVE SUPPORT DETAIL**  
SCALE: 3/4" = 1'-0"



**PUMP BASE DETAIL**  
SCALE: 3/4" = 1'-0"

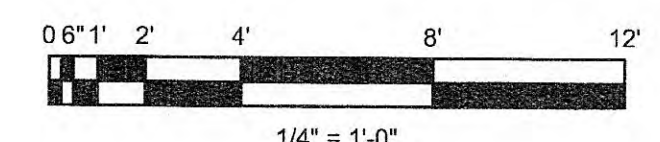


**PUMP ROOM PLAN - UPGRADE**  
SCALE: 1/4" = 1'-0"

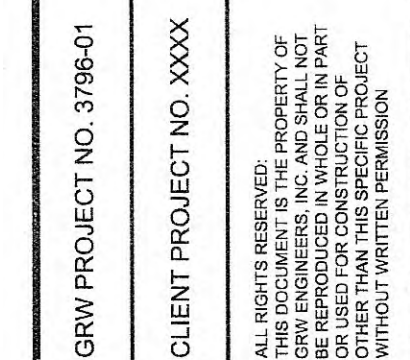
NOTE:  
FIELD LOCATE NEW SEWAGE PUMPS  
SO AS TO NOT INTERFERE WITH THE  
OPERATION OF THE EXISTING FLOOR  
DRAINS.

**UPGRADE LEGEND**

- INDICATES NEW EQUIPMENT / PIPING
- INDICATES EXISTING CONC. STRUCTURE
- INDICATES EXISTING EQUIPMENT / PIPING TO REMAIN







CHRISTMAS PUMP STATION NO. A2  
UPGRADE - SECTIONS  
PUMP STATION REHABILITATION  
CITY OF HARRIMAN, TENNESSEE

REVISIONS				DESIGNED
NO	DESCRIPTION	DATE	BY	RGT
1	ADDENDUM NO. 2	6/17/09	SG	SG
				REVISED
				RGT
				APPROVED
				RGT

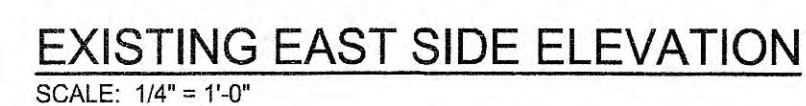
SCALE CHECK: \_\_\_\_\_ THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE:  
APRIL, 2009

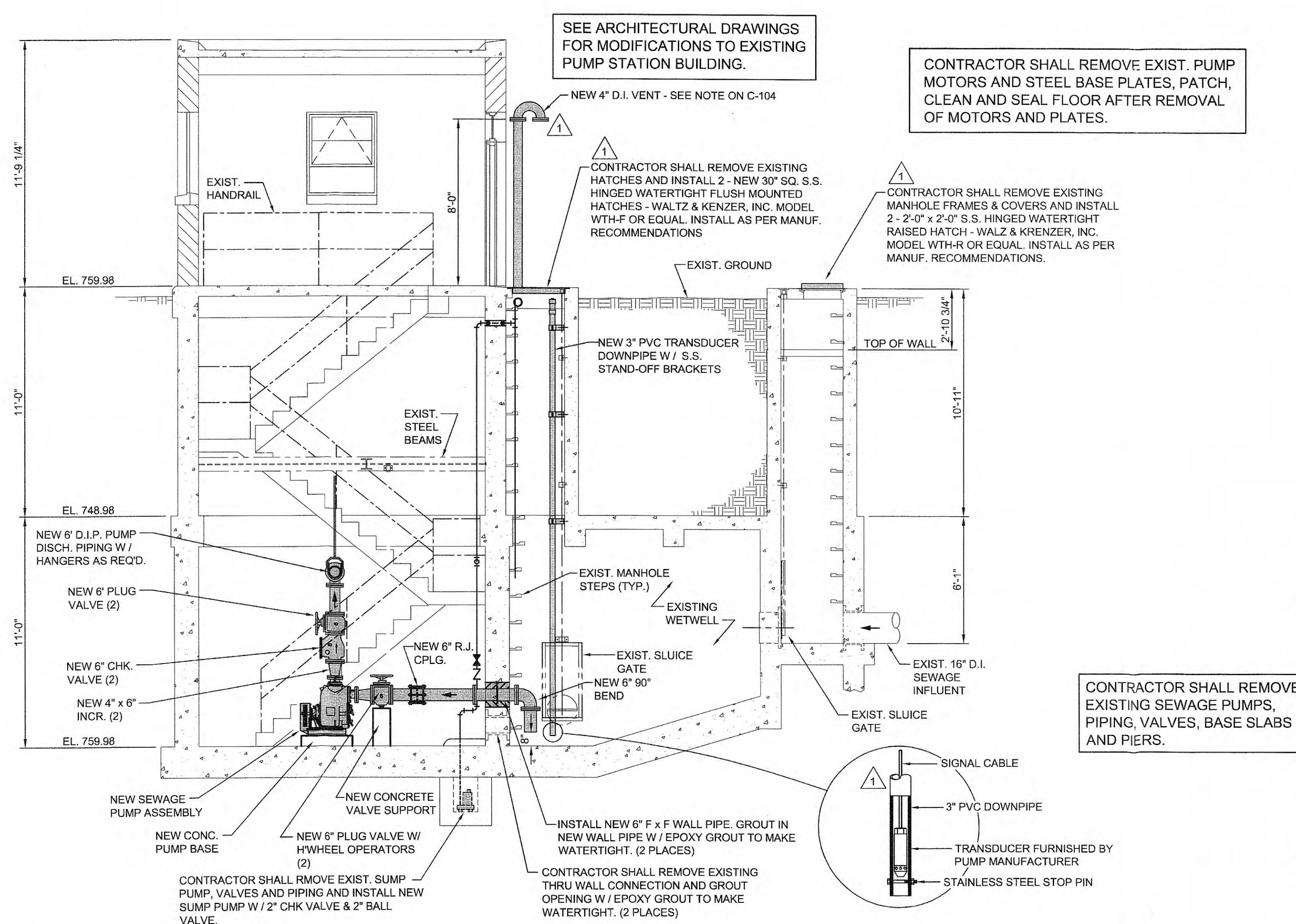
SCALE:  
AS NOTED

SHEET NO.

C-105






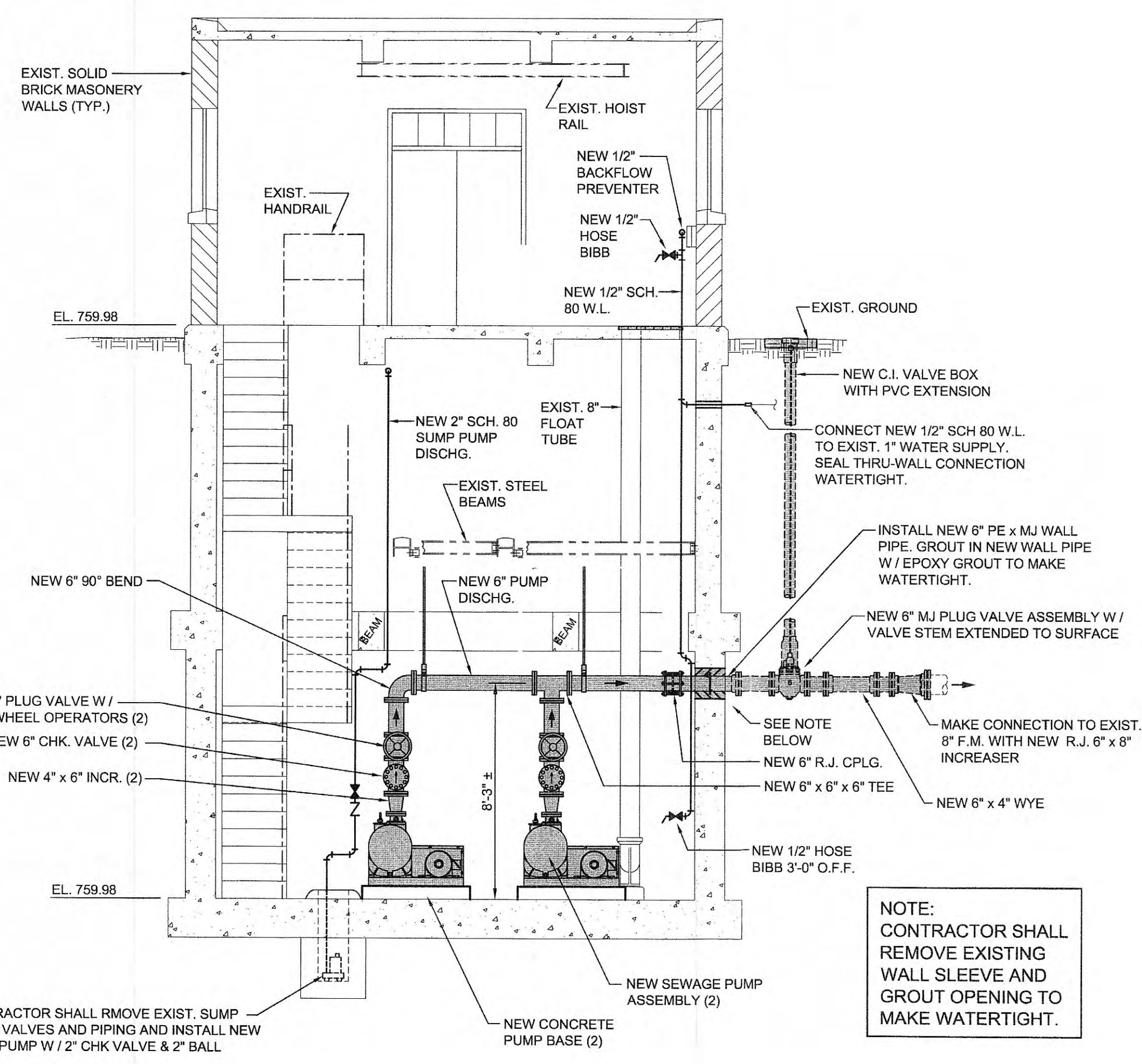
SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR MODIFICATIONS TO EXISTING PUMP STATION BUILDING.



1 SECTION - UPGRADE  
C-103 SCALE: 1/4" = 1'-0"

- ### UPGRADE LEGEND

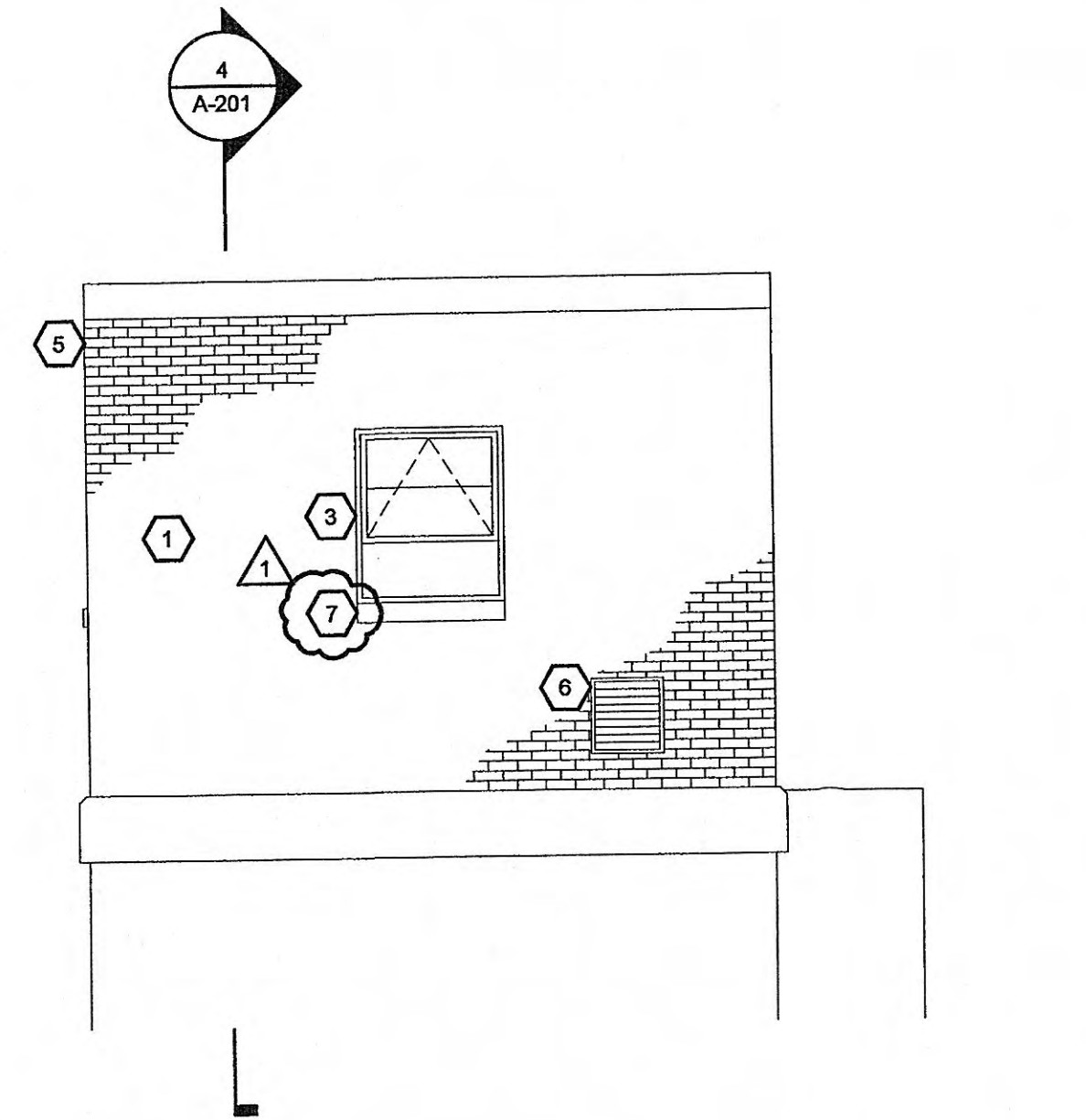
-  INDICATES NEW EQUIPMENT / PIPING  
 INDICATES EXISTING CONC. STRUCTURE  
 INDICATES EXISTING EQUIPMENT / PIPING TO REMAIN



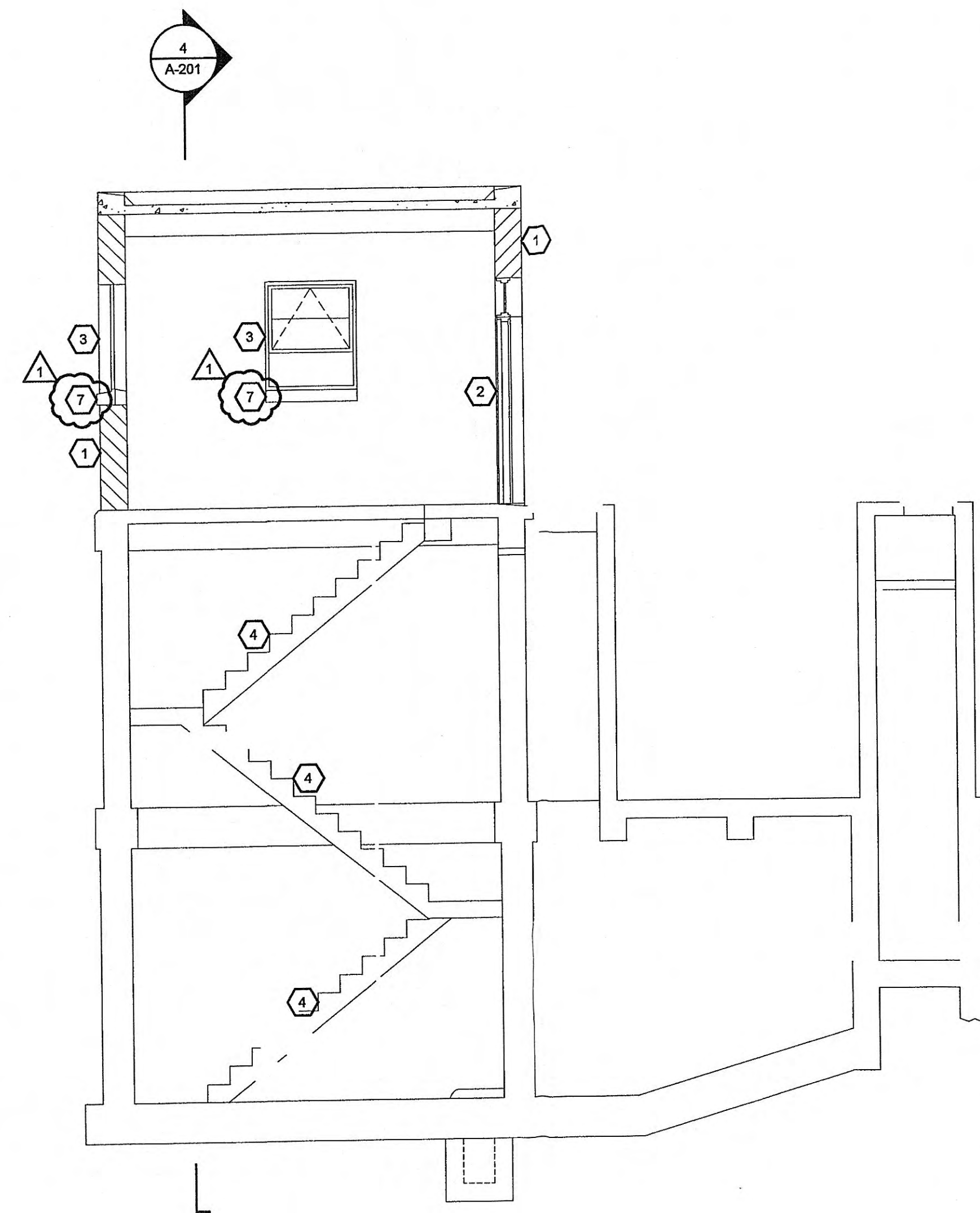
2 SECTION - UPGRADE  
C-103 SCALE: 1/4" = 1'-0"

- 
- 0 6" 1' 2' 4' 8' 12'
- $\frac{1}{4}" = 1'-0"$

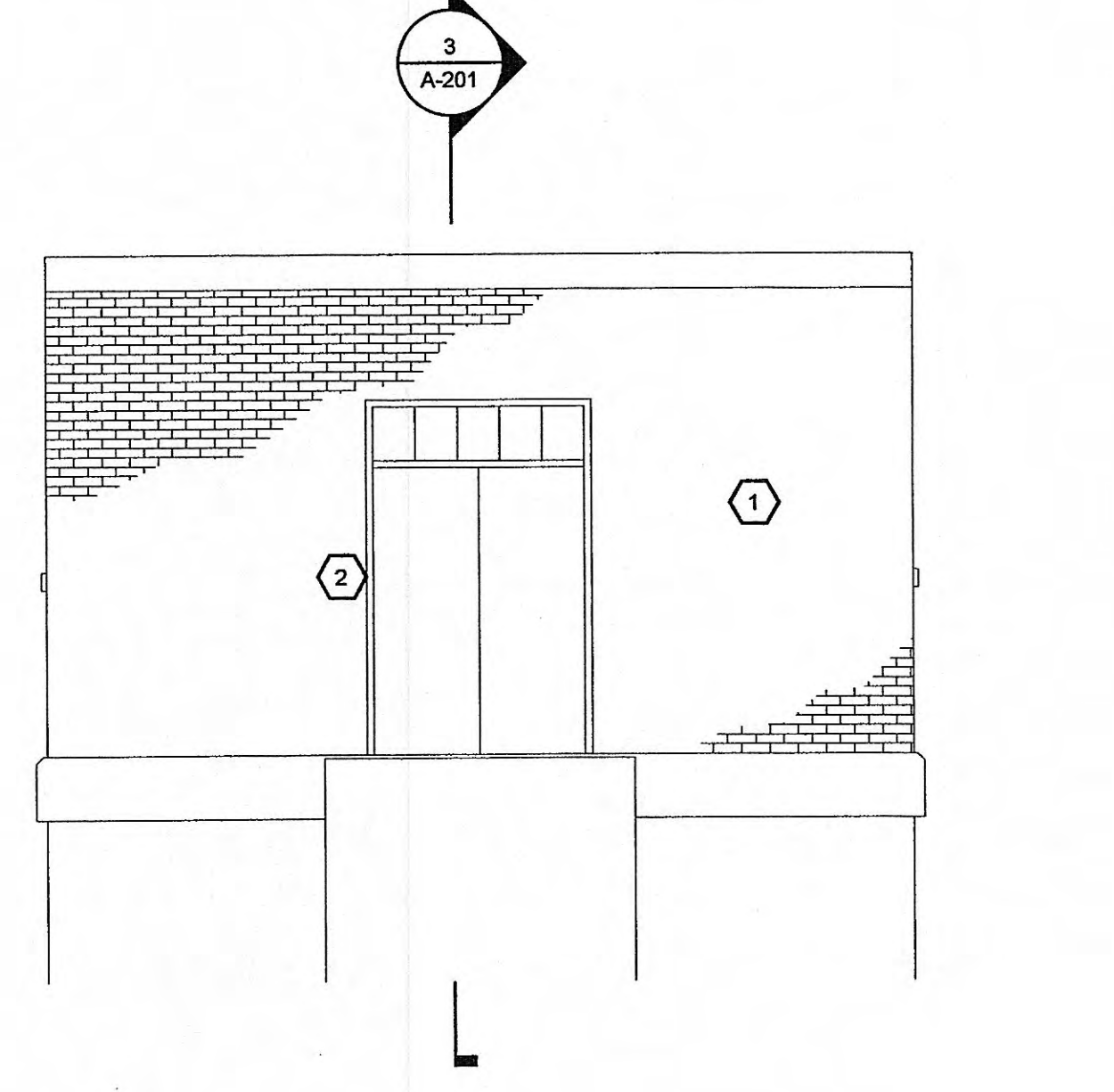




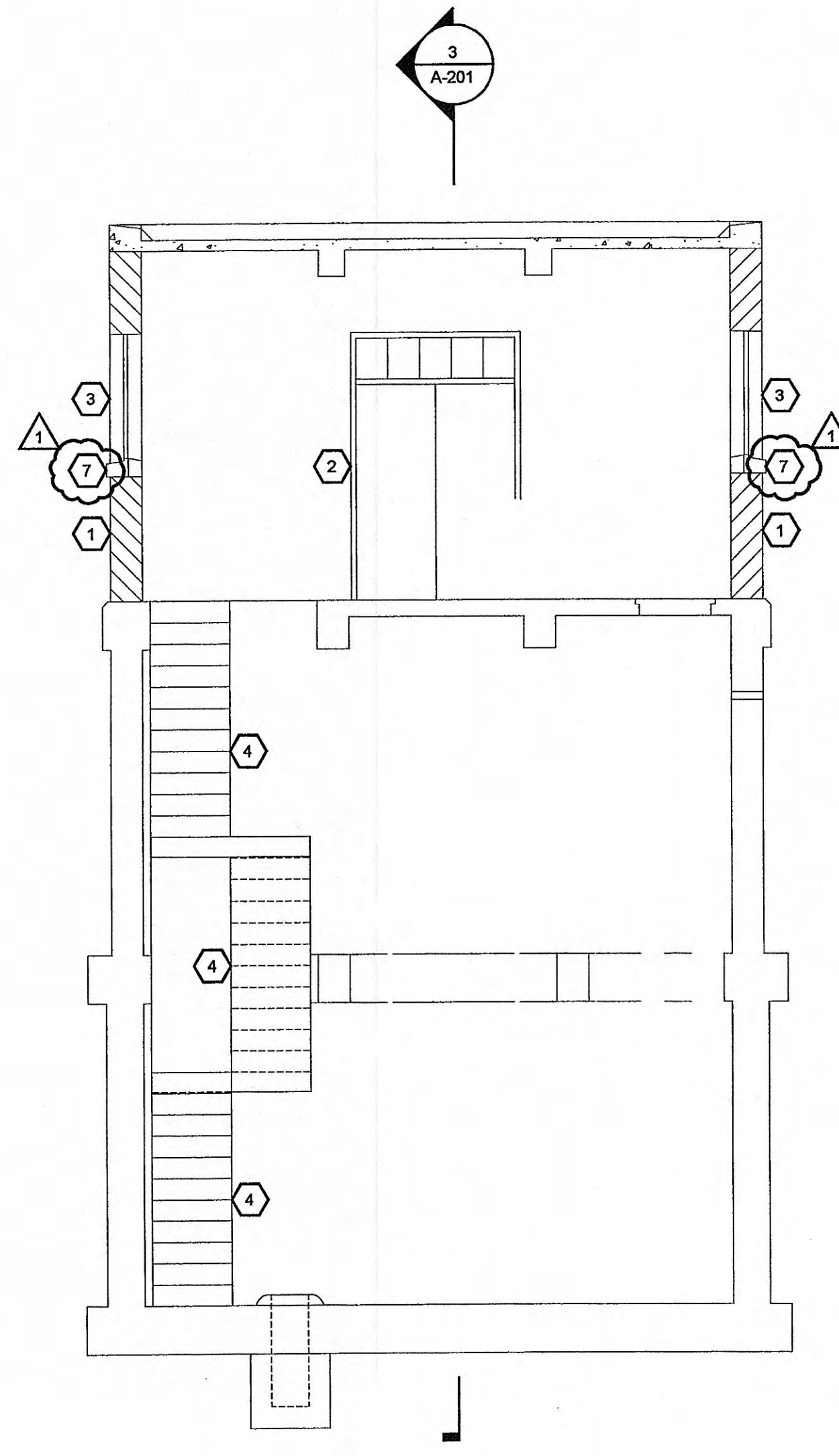
**1 SIDE ELEVATION - DEMO**  
SCALE: 1/4"=1'-0"



**3 BUILDING SECTION - DEMO**  
SCALE: 1/4"=1'-0"



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



**4 BUILDING SECTION - DEMO**  
SCALE: 1/4"=1'-0"

**GENERAL NOTES:**

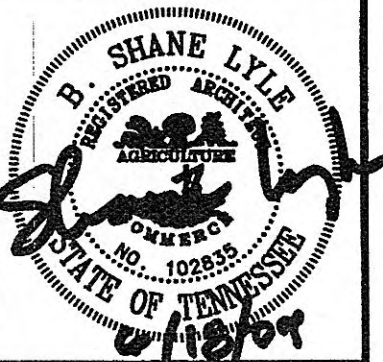
1. SANDBLAST EXISTING INTERIOR WALLS, STAIRS, RAILINGS AND CEILINGS AT ALL LEVELS - PREP FOR PAINTING
2. EXISTING EXTERIOR WALLS TO BE CLEANED AND SEALER APPLIED - SEE SPEC SECTIONS 04500 & 07190
3. REMOVE EXISTING ROOFING MATERIAL DOWN TO EXISTING CONCRETE ROOF DECK - PATCH AND LEVEL AS REQUIRED FOR NEW ROOF STRUCTURE INSTALLATION

**SYMBOL KEY:**

#  
0-000 DETAIL INDICATOR

**#KEYNOTES:**

1. EXISTING BRICK COMPOSITE WALL - REMOVE BRICK AT LOCATIONS DESIGNATED FOR NEW LOUVER OPENINGS - SEE MECHANICAL
2. EXISTING DOOR, FRAME, AND THRESHOLD TO BE REMOVED - PATCH OPENING AS REQUIRED TO RECEIVE NEW DOOR, FRAME AND THRESHOLD
3. EXISTING WINDOWS TO BE REMOVED - PATCH OPENING AS REQUIRED TO RECEIVE NEW WINDOWS
4. EXISTING STAIR AND RAILING TO REMAIN
5. EXISTING SCUPPERS TO BE REMOVED
6. EXISTING LOUVER TO BE REMOVED
7. REMOVE EXISTING PRE-CAST CONCRETE WINDOW SILL FOR REUSE



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CLIENT PROJECT NO. XXXX  
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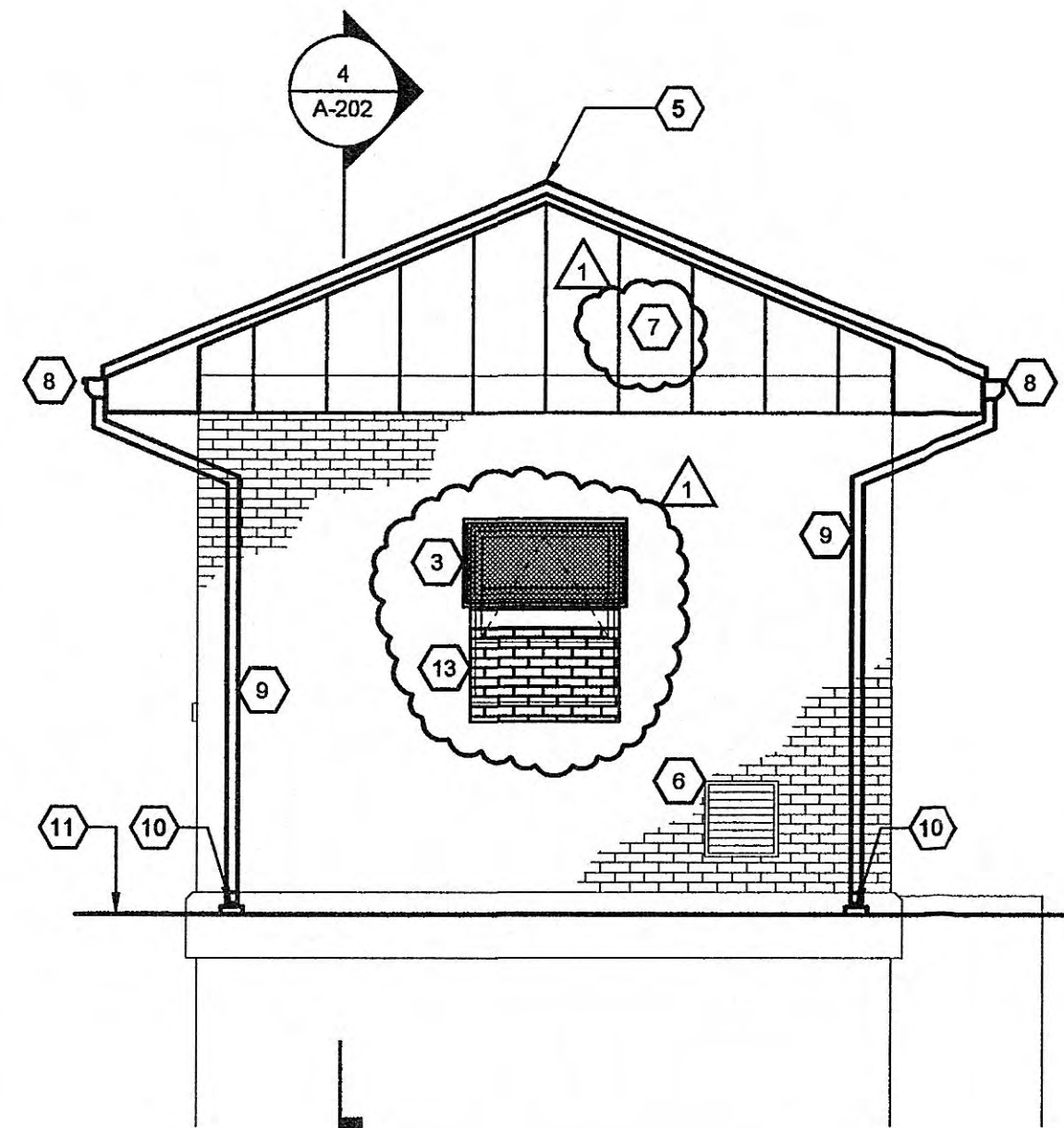
**CHRISTMAS PUMP STATION NO. A-2**  
**DEMO - SECTIONS & ELEVATIONS**  
PUMP STATION REHABILITATION  
CITY OF HARRIMAN, TENNESSEE

NO.	DESCRIPTION	DATE	BY	DESIGNED
1	REVISED WINDOW DEMOLITION	6-12-09	JEE	JEE
				BSL
				BSL

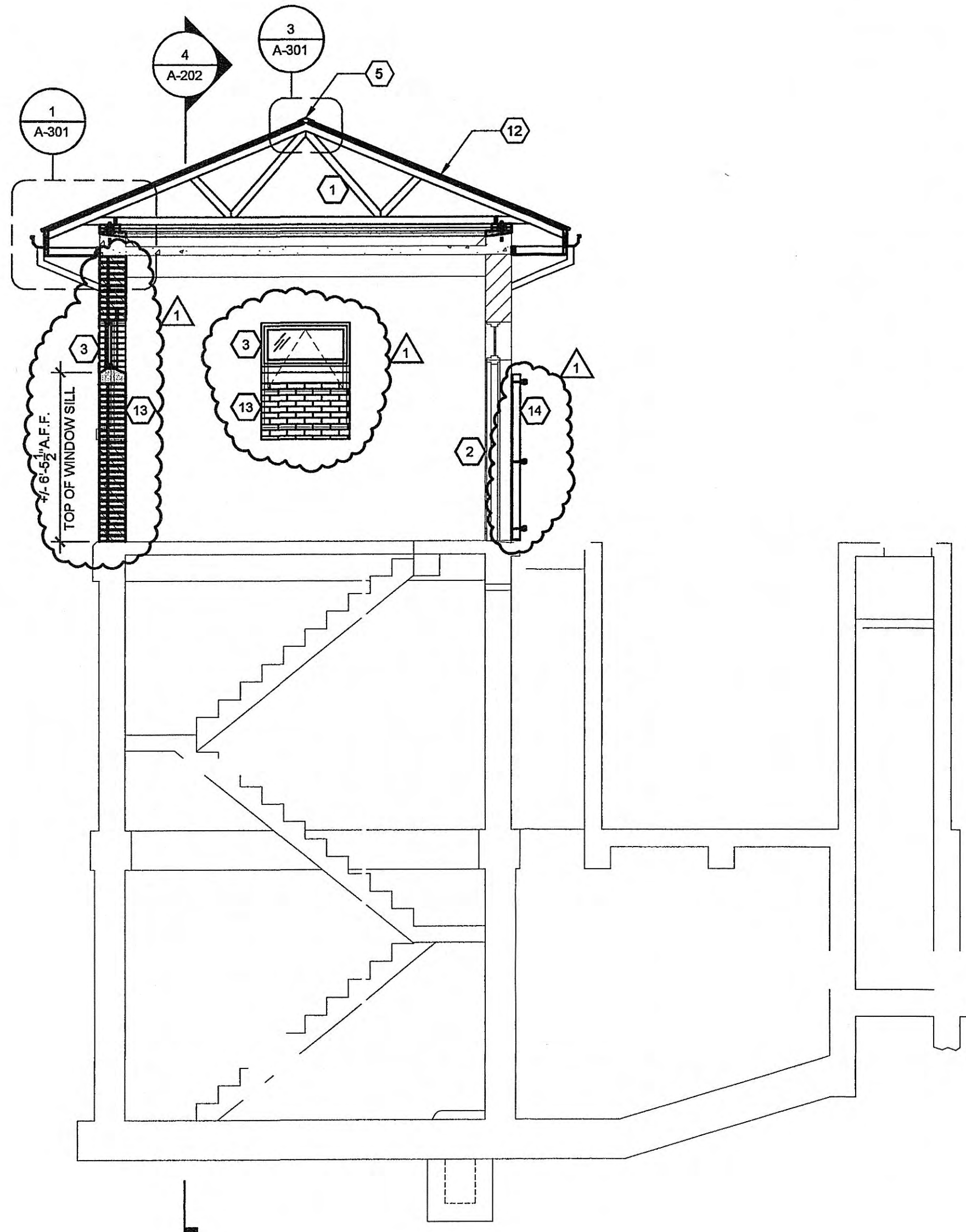
DATE: APRIL 10, 2009  
SCALE: 1/4" = 1'-0"  
SHEET NO.

**A-201R**

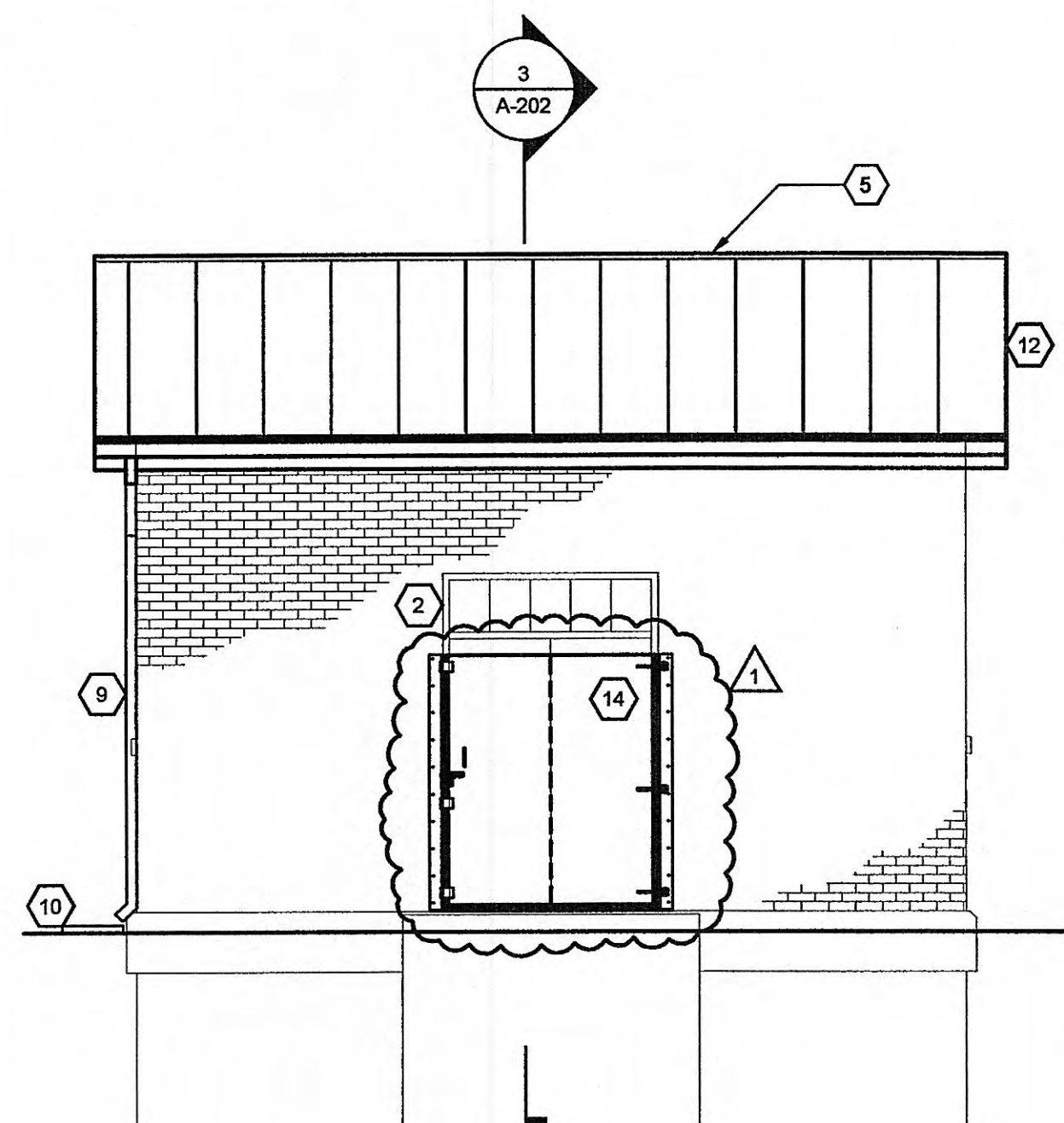




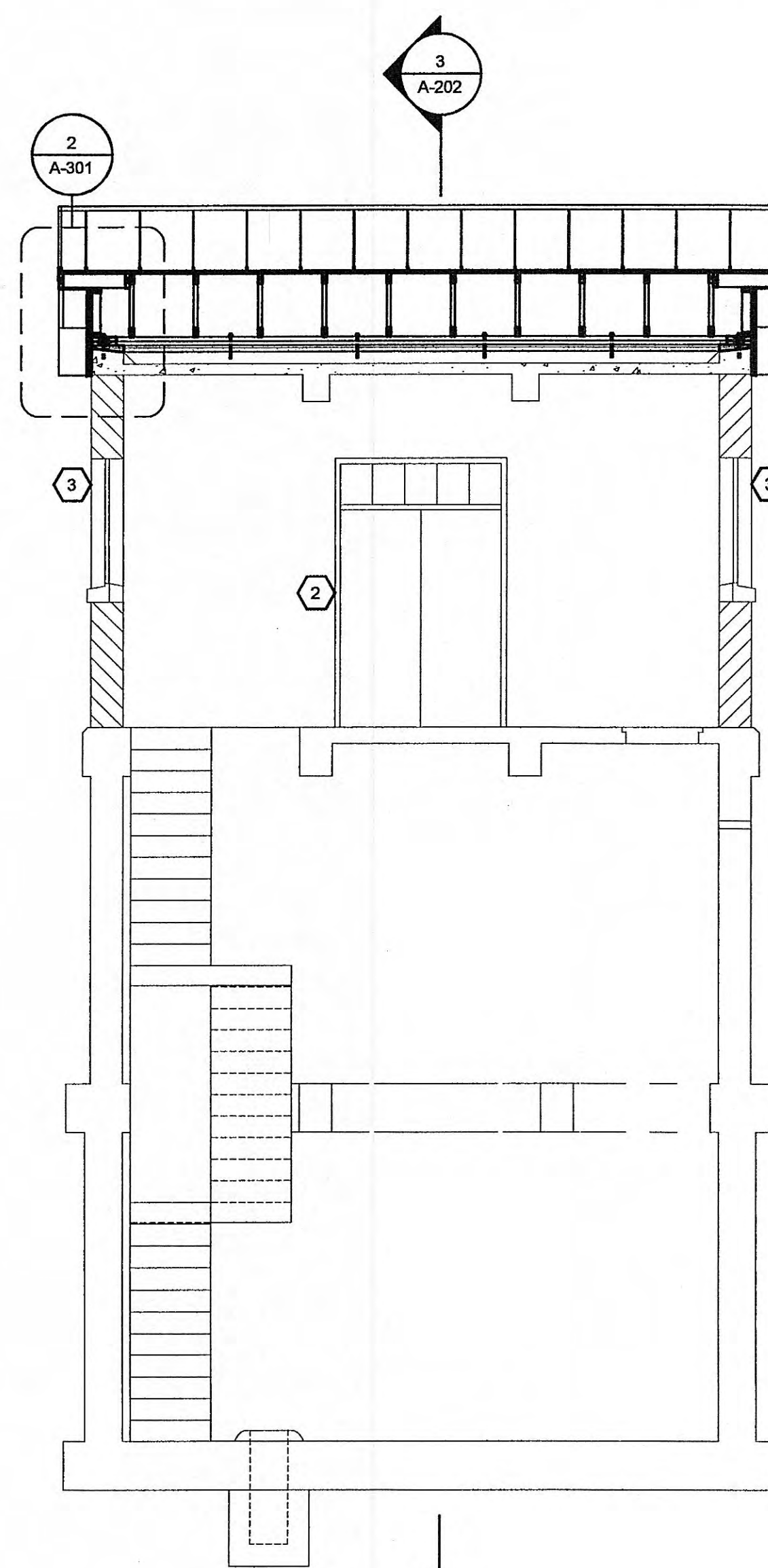
**1 SIDE ELEVATION - UPGRADE**  
SCALE: 1/4"=1'-0"



**3 BUILDING SECTION - UPGRADE**  
SCALE: 1/4"=1'-0"



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



**4 BUILDING SECTION - UPGRADE**  
SCALE: 1/4"=1'-0"

## GENERAL NOTES:

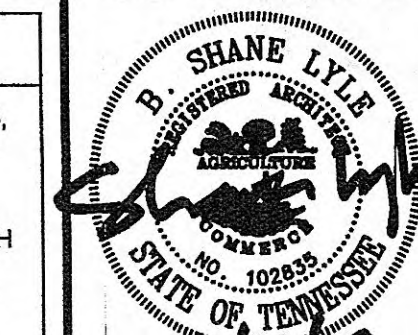
1. PAINT INTERIOR WALLS, CEILINGS, STAIRS, RAILINGS, DOORS AND FRAMES - SEE SPEC SECTIONS 09900 & 09910
2. REPOINT ALL CRACKS IN MORTAR JOINTS AND PATCH HOLES WHERE EQUIPMENT, SCUPPERS OR PIPING HAS BEEN REMOVED - APPLY FINISH SEALANT - SEE SPEC SECTIONS 04500 & 07190
3. PATCH HOLES WHERE EQUIPMENT, SCUPPERS, OR PIPING HAS BEEN REMOVED - SEE SPEC SECTION 01731

## SYMBOL KEY:

#  
0-000  
DETAIL INDICATOR

## KEYNOTES:

1. PROVIDE PRE-ENGINEERED WOOD TRUSS @ 24" O.C. TYPICAL - SEE SPEC SECTION 06176
2. PROVIDE NEW FIBERGLASS DOOR, TRANSOM AND FRAME - FIELD VERIFY MASONRY OPENING - SEE SHEET A-301 FOR DETAILS
3. PROVIDE NEW WINDOWS AND WINDOW GUARDS - SEE SHEET A-301 FOR DETAILS
4. PROVIDE STANDING SEAM METAL ROOF
5. PROVIDE NEW CONTINUOUS RIDGE VENT
6. INFILL DEMO LOUVER OPENING WITH BRICK TO MATCH EXISTING WALL
7. PROVIDE PRE-FINISHED METAL GABLE END PANELS
8. PROVIDE PRE-FINISHED METAL GUTTERS
9. PROVIDE PRE-FINISHED 3" X 3" METAL DOWNSPOUT
10. PROVIDE NEW SPLASHBLOCK
11. EXISTING GROUND LINE
12. PROVIDE PRE-FINISHED STANDING SEAM METAL ROOF
13. PROVIDE BRICK INFILL TO WINDOW OPENING UP TO HEIGHT NOTED IN DRAWING - INSTALL PRE-CAST CONCRETE WINDOW SILL FROM DEMOLITION - BRICK TO MATCH EXISTING WALL - TYPICAL ALL WINDOWS
14. PROVIDE NEW FLOOD BARRIER



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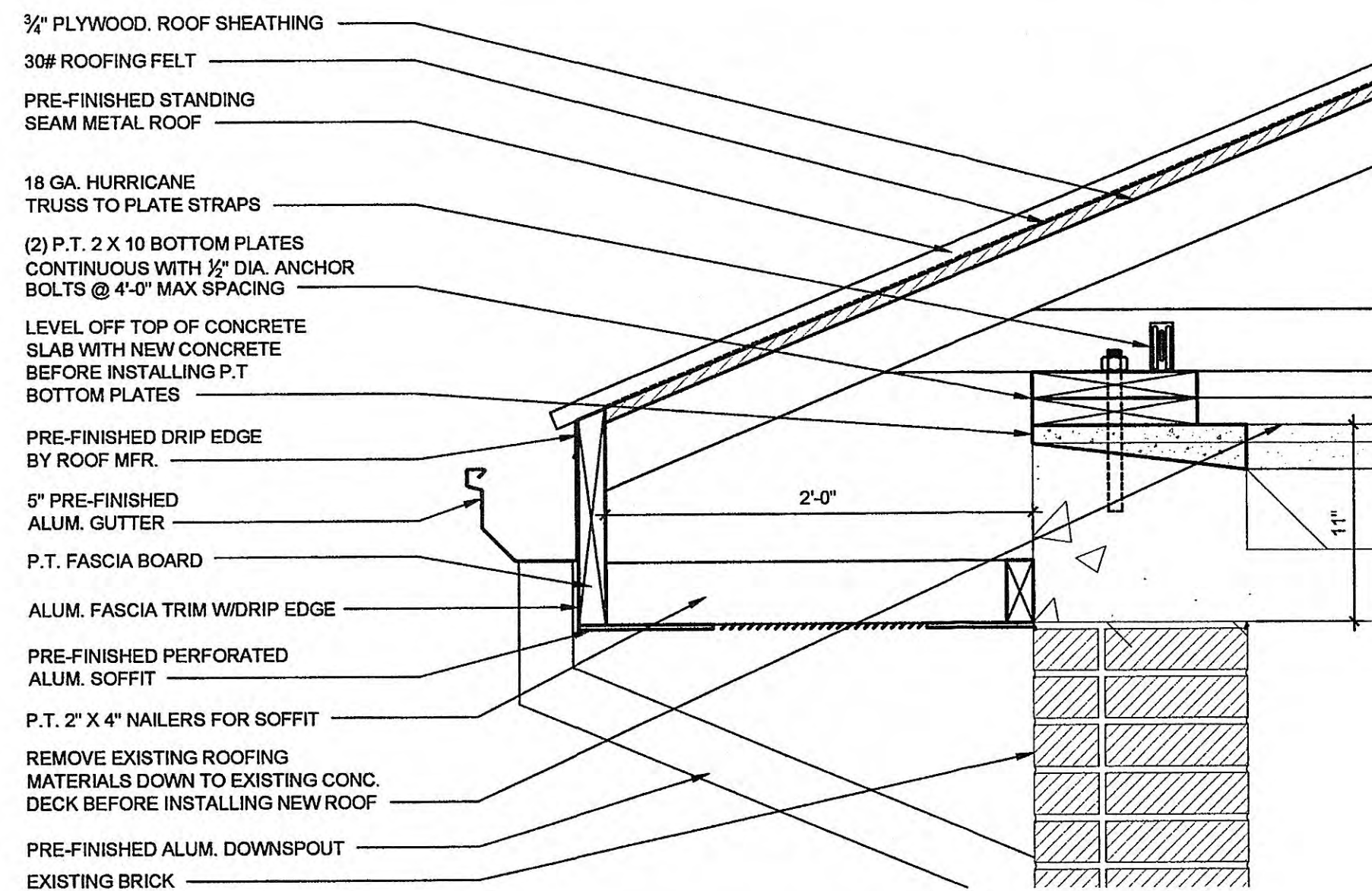
**CHRISTMAS PUMP STATION NO. A-2**  
**UPGRADE - SECTIONS & ELEVATIONS**  
**PUMP STATION REHABILITATION**  
**CITY OF HARRIMAN, TENNESSEE**

DESIGNED	BY	DATE	DESCRIPTION	REVIEWED	APPROVED
JEE	JEE	8/2/09	REVISED WINDOW SILL HEIGHT AND WINDOW SIZE + ADDITION OF NEW FLOOD BARRIER	JEE	BSL
JEE	JEE			JEE	BSL
JEE	JEE			JEE	BSL
JEE	JEE			JEE	BSL

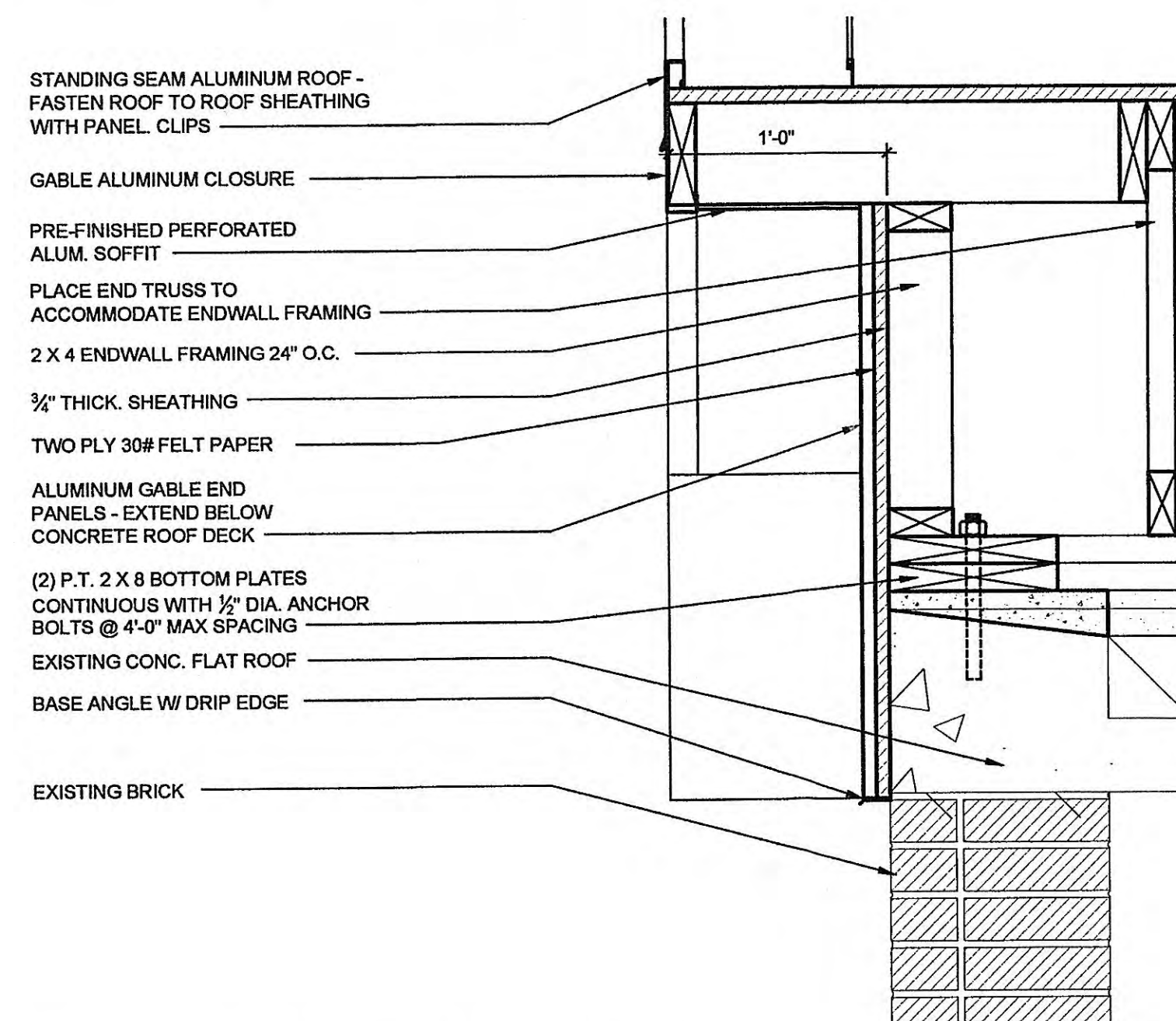
DATE: APRIL 10, 2009  
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SHEET NO.

**A-202R**

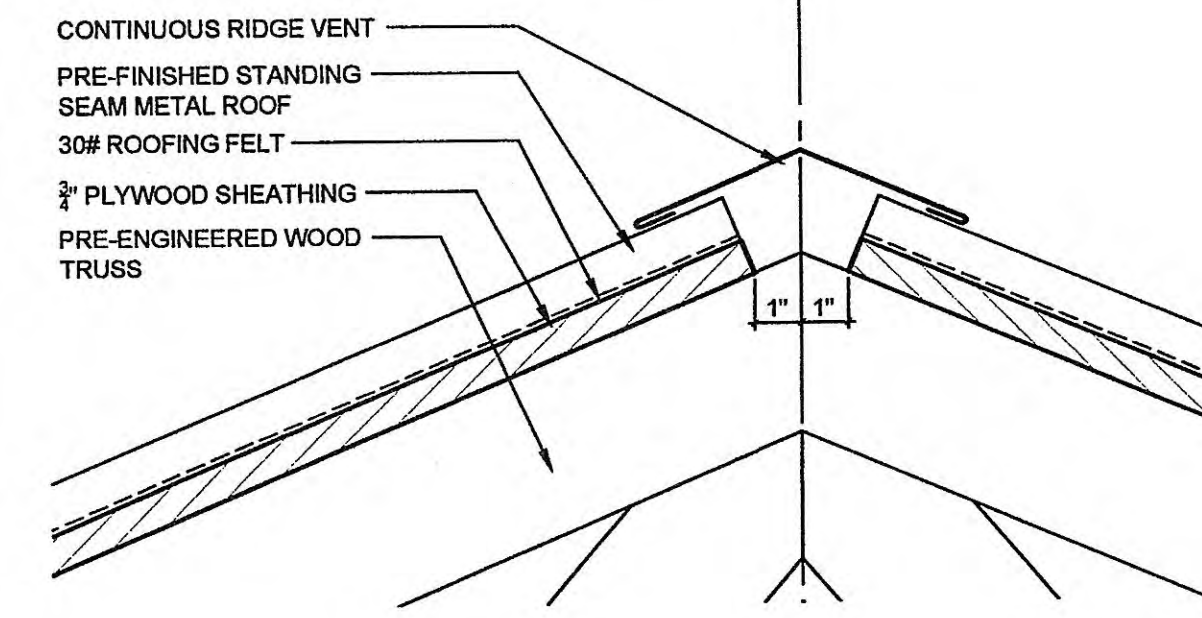




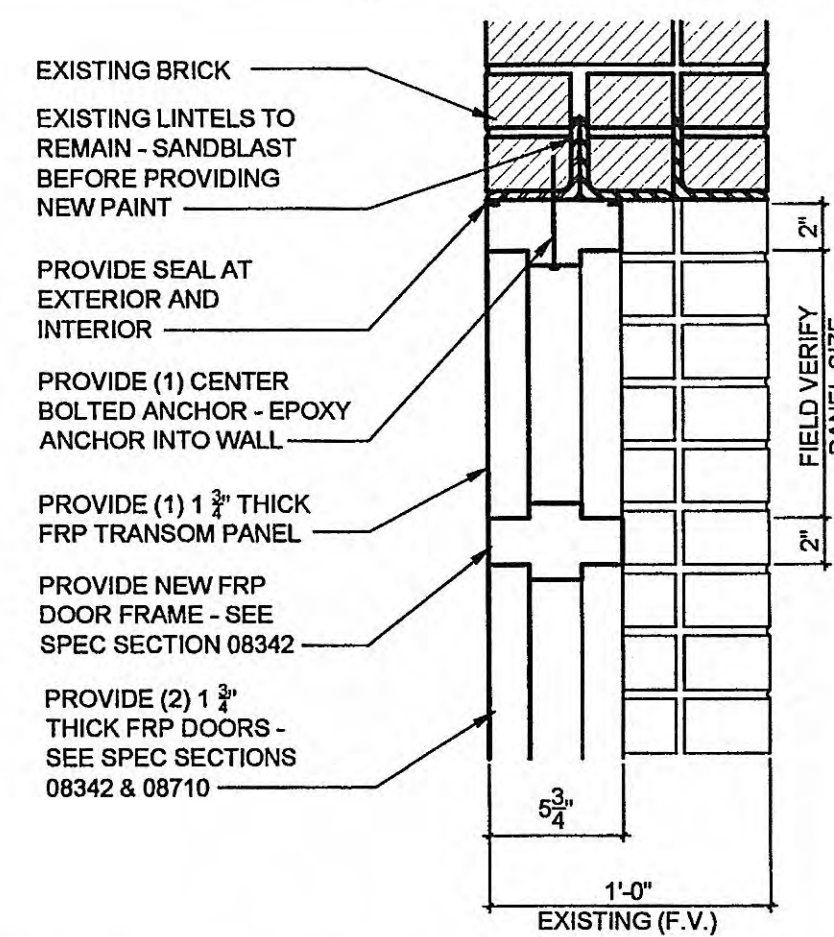
**1 TYPICAL EAVE DETAIL**  
SCALE: 1 1/2"=1'-0"



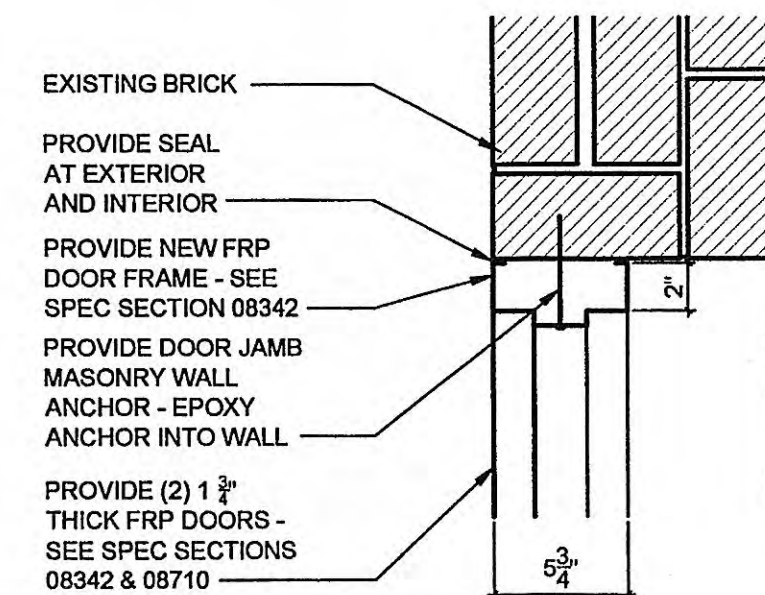
**2 TYPICAL ENDWALL DETAIL**  
SCALE: 1 1/2"=1'-0"



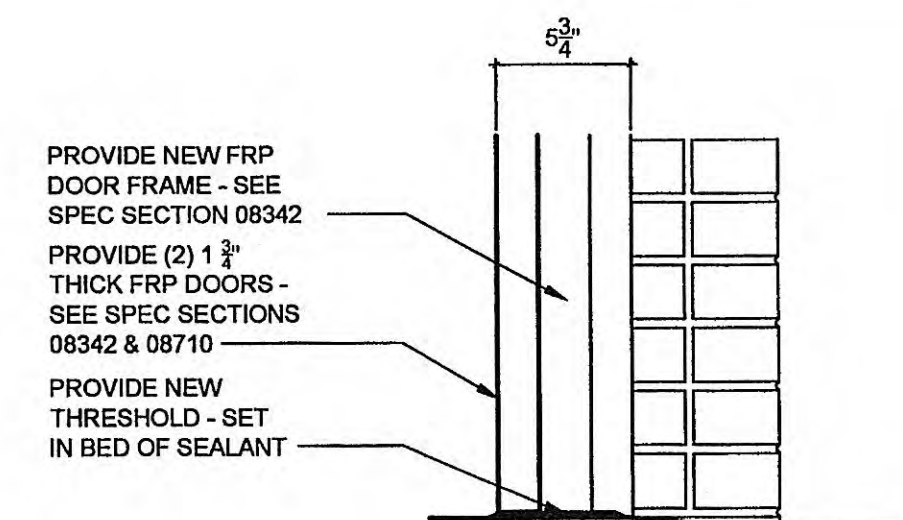
**3 RIDGE VENT DETAIL**  
SCALE: 3"=1'-0"



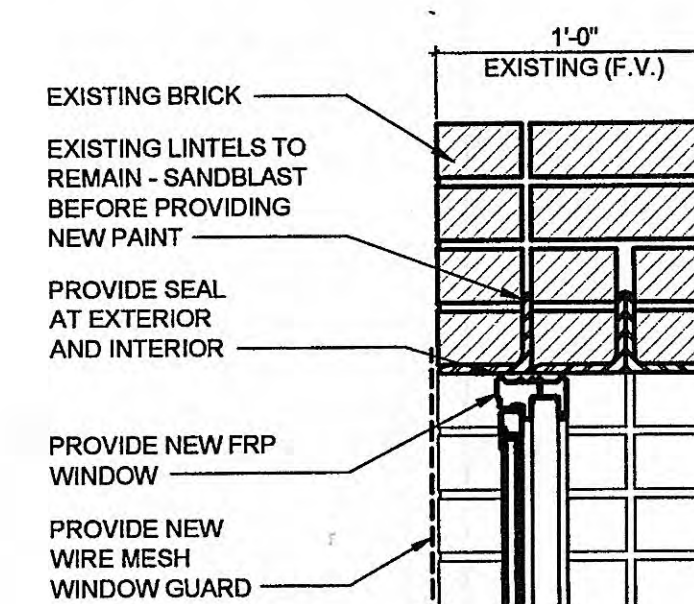
**4 DOOR HEAD & TRANSOM DETAIL**  
SCALE: 1 1/2"=1'-0"



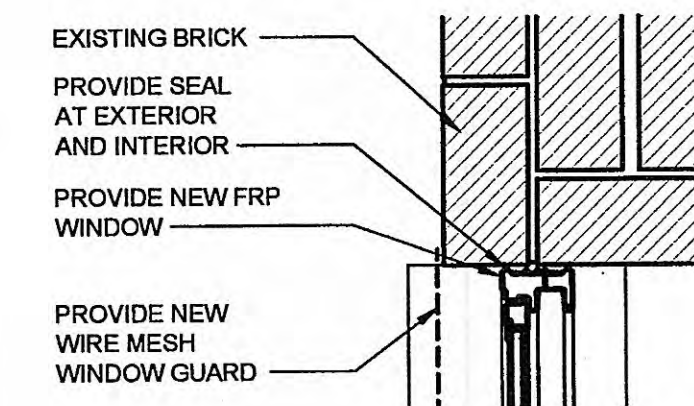
**5 DOOR JAMB DETAIL**  
SCALE: 1 1/2"=1'-0"



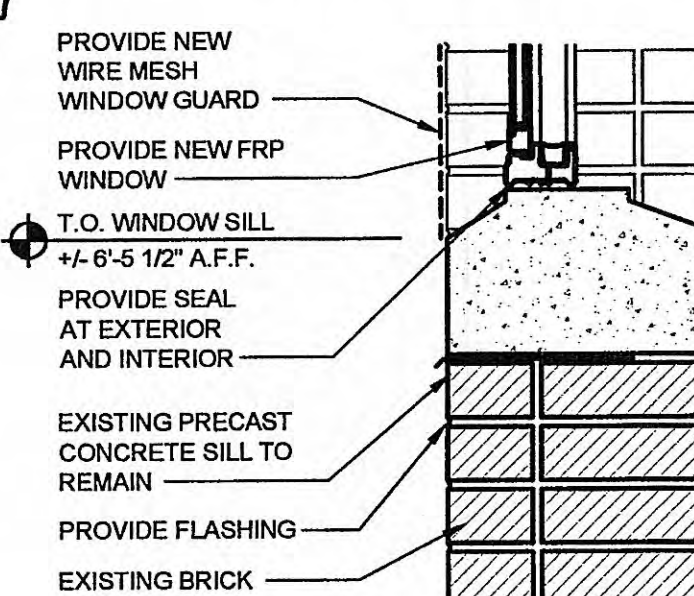
**6 DOOR THRESHOLD DETAIL**  
SCALE: 1 1/2"=1'-0"



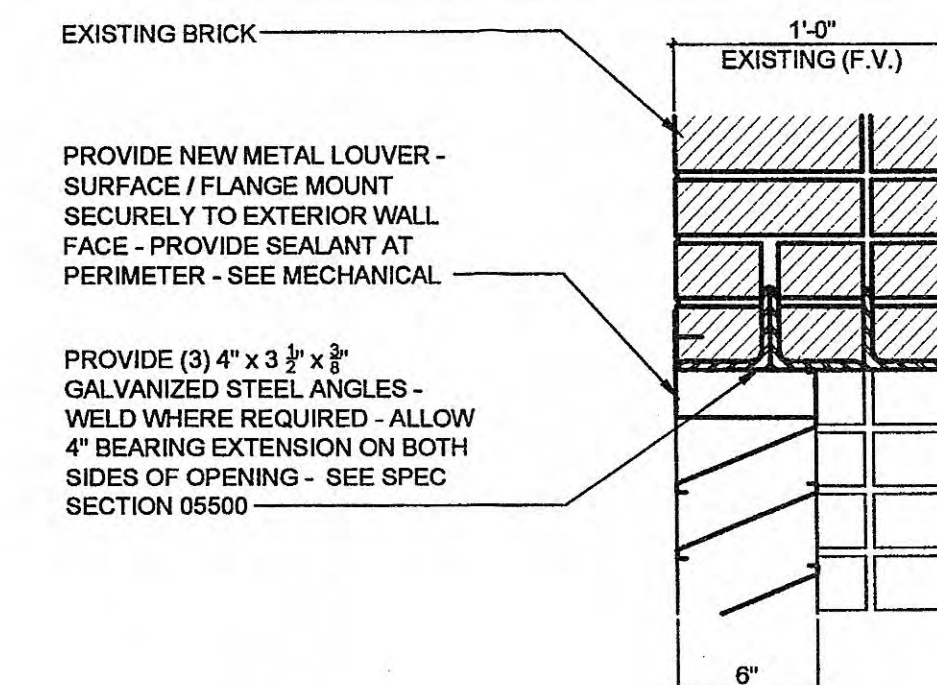
**9 WINDOW HEAD DETAIL**  
SCALE: 1 1/2"=1'-0"



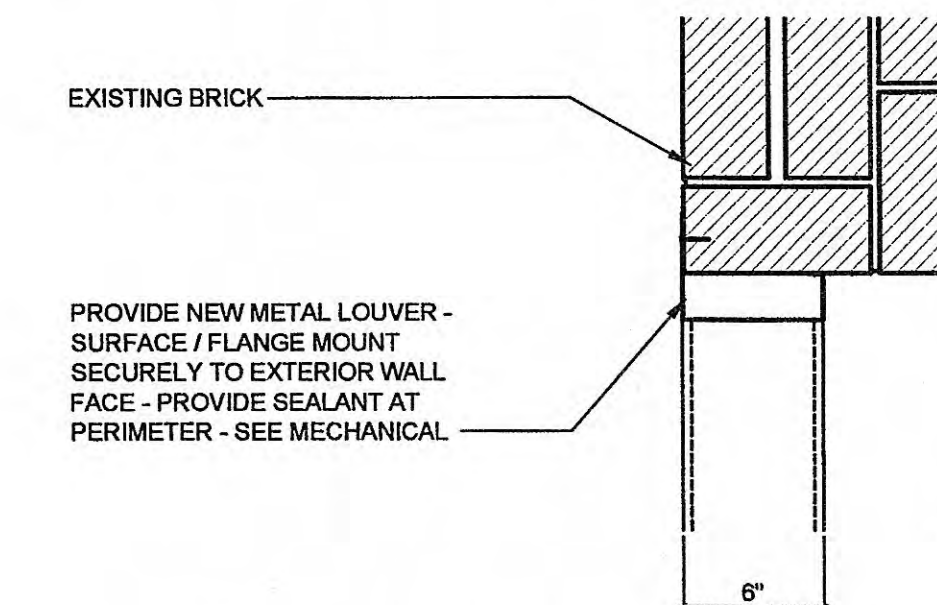
**10 WINDOW JAMB DETAIL**  
SCALE: 1 1/2"=1'-0"



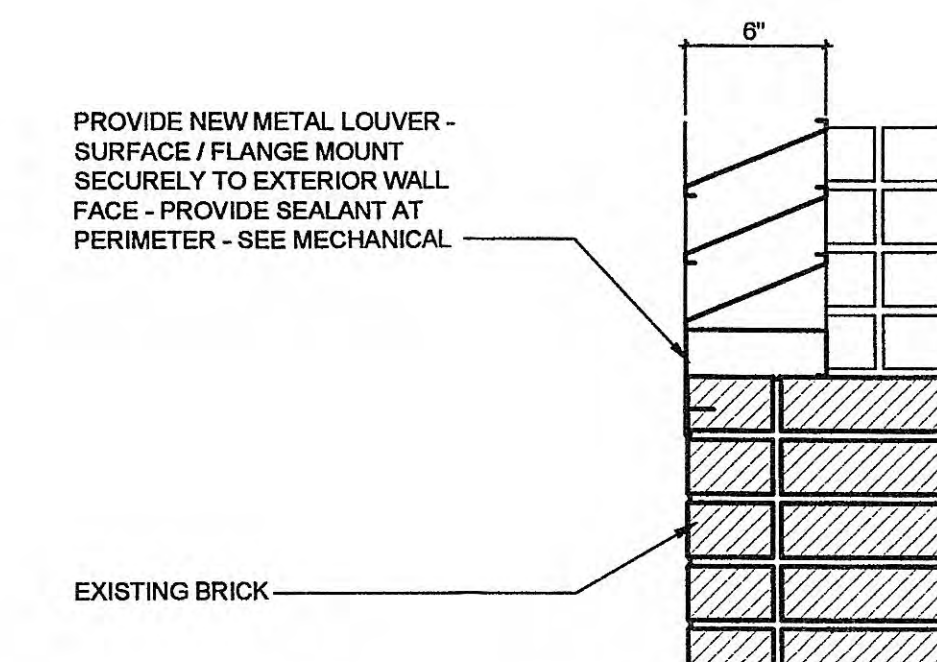
**11 WINDOW SILL DETAIL**  
SCALE: 1 1/2"=1'-0"



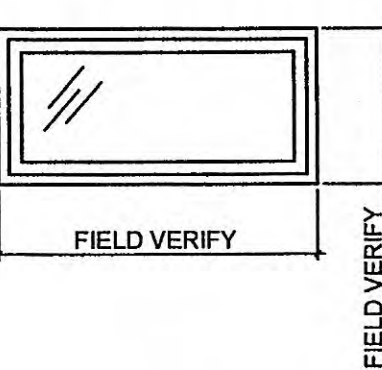
**13 NEW LOUVER OPENING HEAD DETAIL**  
SCALE: 1 1/2"=1'-0"



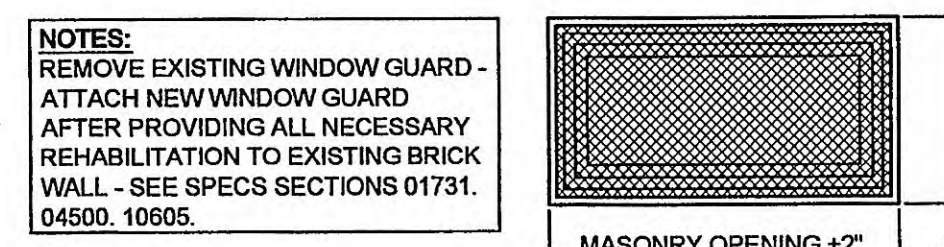
**14 NEW LOUVER OPENING JAMB DETAIL**  
SCALE: 1 1/2"=1'-0"



**15 NEW LOUVER OPENING SILL DETAIL**  
SCALE: 1 1/2"=1'-0"

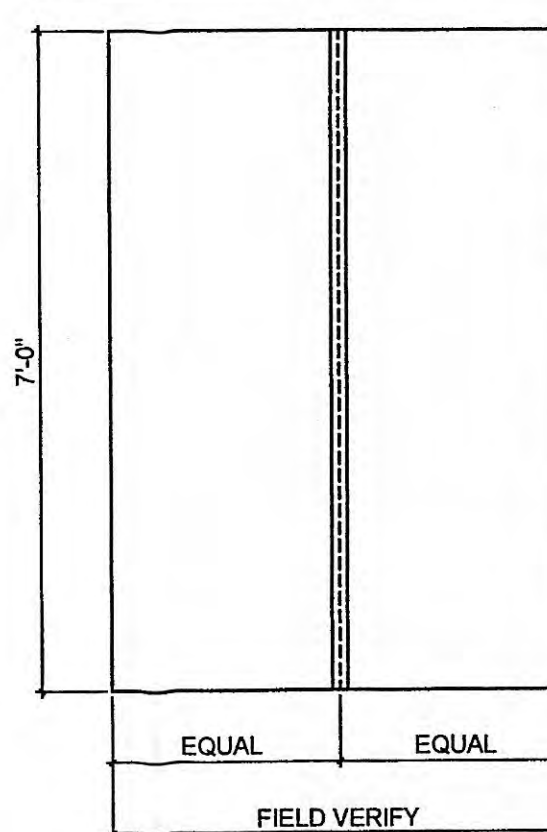


**7 NEW WINDOW ELEVATION**  
SCALE: 1/2"=1'-0"

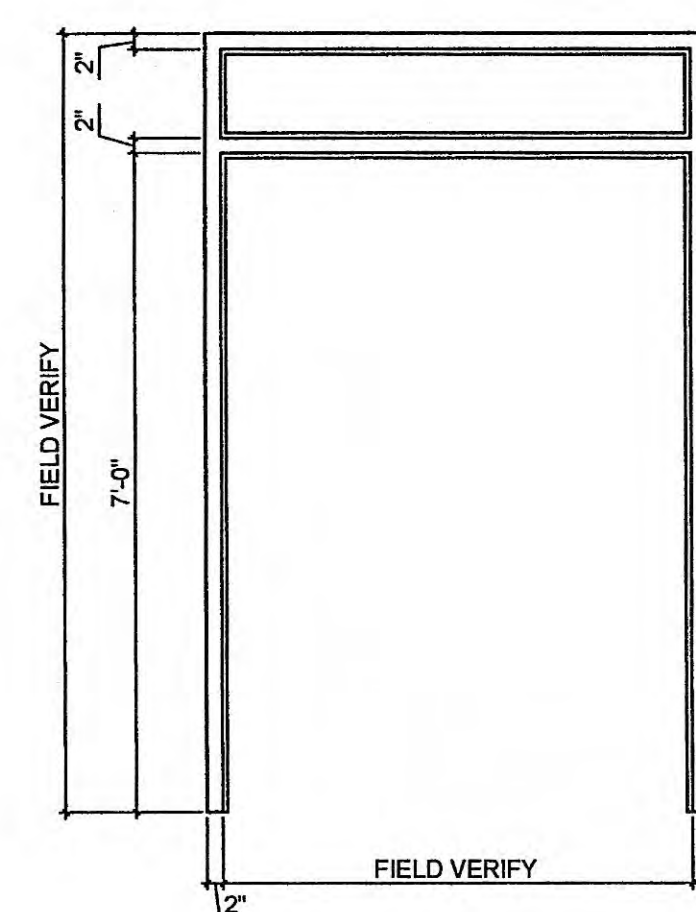


**8 WINDOW GUARD DETAIL**  
SCALE: 1/2"=1'-0"

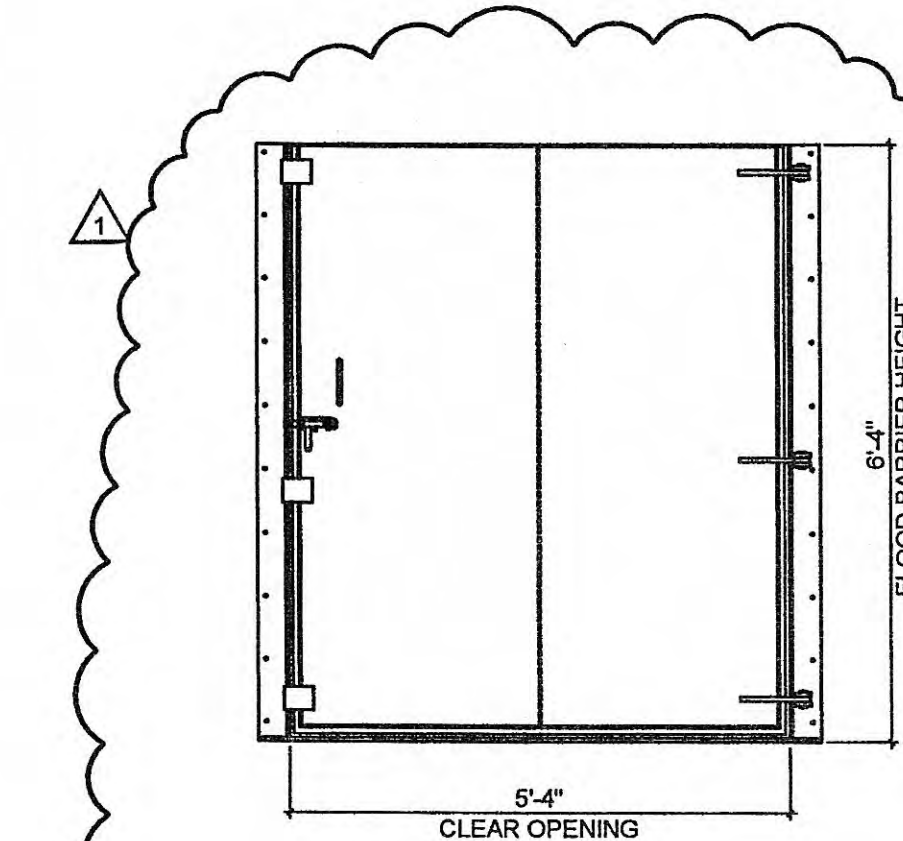
NOTES:  
PROVIDE (1) FRP ASTRAGAL TO NEW FRP DOOR - ASTRAGAL TO BE INSTALLED ON EXTERIOR SIDE OF DOOR



**12 NEW DOOR ELEVATION**  
SCALE: 1/2"=1'-0"



**16 NEW DOOR FRAME ELEVATION**  
SCALE: 1/2"=1'-0"



**17 FLOOD BARRIER ELEVATION**  
SCALE: 1/2"=1'-0"

**SHANE LYLE ENGINEERING**  
ARCHITECTS - PLANNERS

CRW PROJECT NO. 3796-01  
CLIENT PROJECT NO. XXXX  
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**CHRISTMAS PUMP STATION NO. A-2**  
**DETAILS**  
**PUMP STATION REHABILITATION**  
**CITY OF HARRIMAN, TENNESSEE**

DESIGNED	BY	DATE	DESCRIPTION	REVIEWED	APPROVED
JEE	JEE	6-12-09	REVISED WINDOW SIZE AND SILL HEIGHT + ADDITION OF NEW FLOOD BARRIER + ASTRAGAL ADDITION TO NEW FRP DOORS	BSL	BSL

DATE: APRIL 10, 2009  
SCALE: AS NOTED  
SHEET NO. A-301R