

VILLAGE OF OCEAN BEACH WATER DEPARTMENT

SUFFOLK COUNTY, NEW YORK



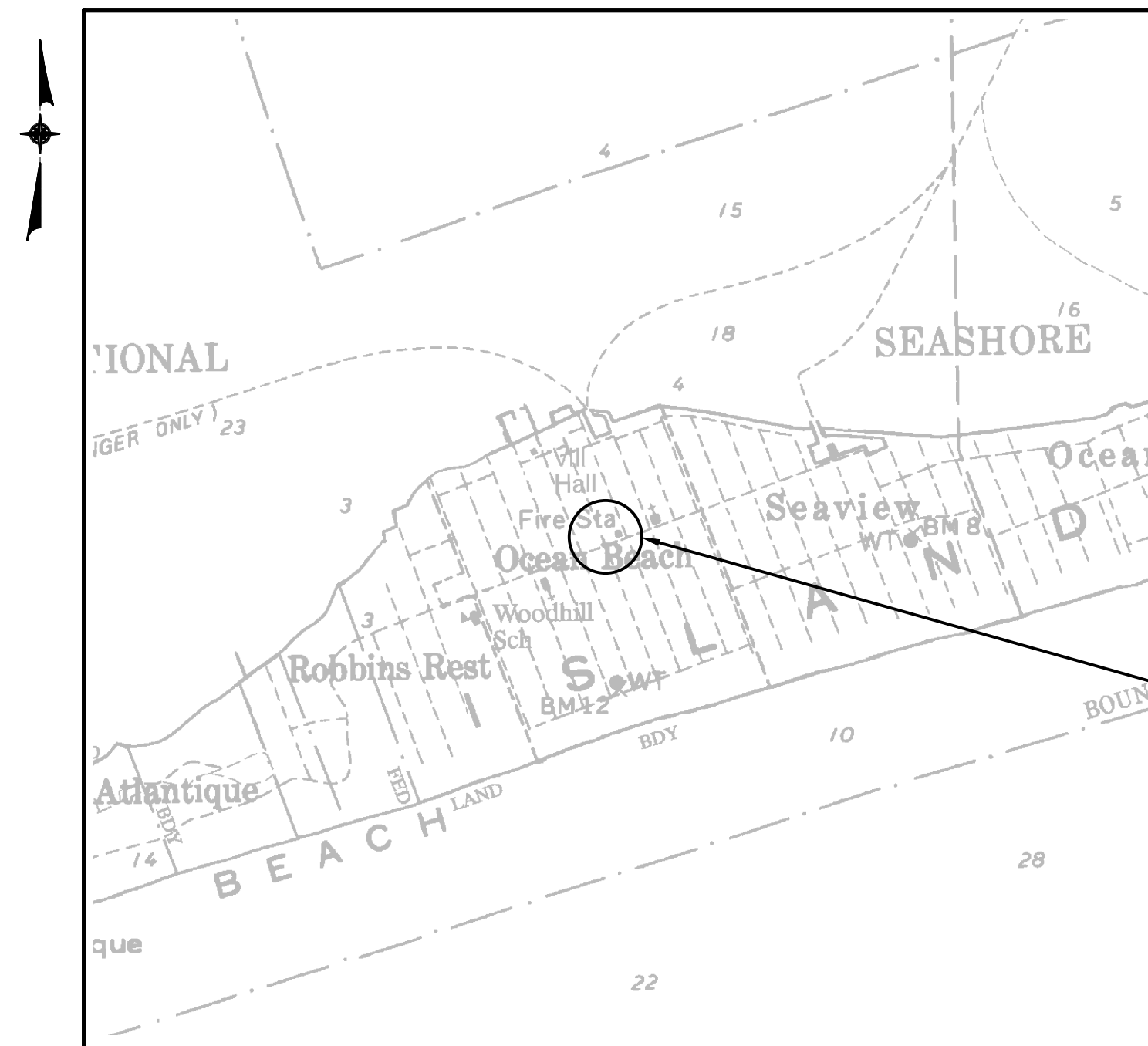
CONSTRUCTION OF WELL STATION NO. 5

OCEAN BEACH, NY

JUNE 2017

LIST OF DRAWINGS

<u>DRAWING No.</u>	<u>DRAWING TITLE</u>
--	COVER SHEET
1	PROPOSED SCHEMATIC
2	WELL NO. 5 BUILDING FLOOR PLAN
3	DETAILS I
4	DETAILS II
5	DETAILS III
E1	WELL NO. 5 BUILDING POWER PLAN
E2	MOTOR CONTROL CENTER MCC-5 ELEVATION AND SINGLE LINE DIAGRAM
E3	CHEMICAL SAFETY SYSTEM RISER DIAGRAM
E4	WIRING DIAGRAM AND DETAILS



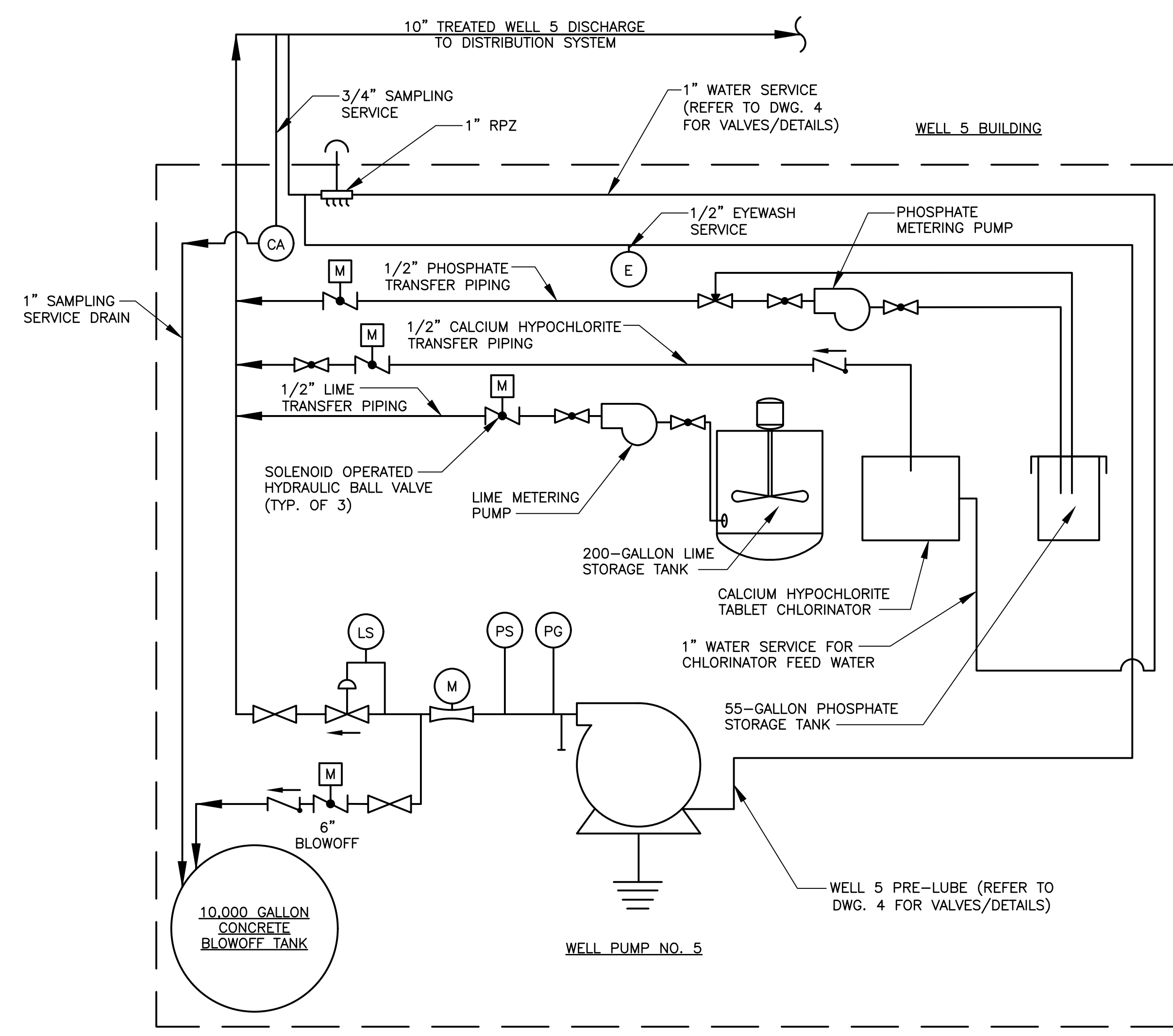
**WELL NO. 5 BUILDING
AT BAYBERRY WALK**

LOCATION MAP
N.T.S.



LEGEND:

- (LS) LIMIT SWITCH
- (PS) PRESSURE SWITCH
- (PG) PRESSURE GAUGE
- (FS) FLOW SWITCH
- (M) FLOW METER
- (FM) FLOW METER
- (S) SOLENOID VALVE
- (BV) BALL VALVE
- (ST) SAMPLE TAP
- (CV) CHECK VALVE
- (GV) GATE VALVE
- (HCV) HYDRAULIC CONTROL VALVE
- (MBV) MOTORIZED BUTTERFLY VALVE
- (BV) BUTTERFLY VALVE
- (R) REDUCER
- (RPZ) RPZ
- (CA) CHEMICAL ANALYZER
- (E) EMERGENCY EYEWASH/SHOWER
- (M) METER
- (HB) HOSE BIBB W/ VACUUM BREAKER
- EXISTING
- PROPOSED



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NO.	DATE	REVISION	INT.

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DESIGNED BY: JG	CHECKED BY: WDM

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KNOWN AS DVIRKA AND BARTILUCCI CONSULTING ENGINEERS

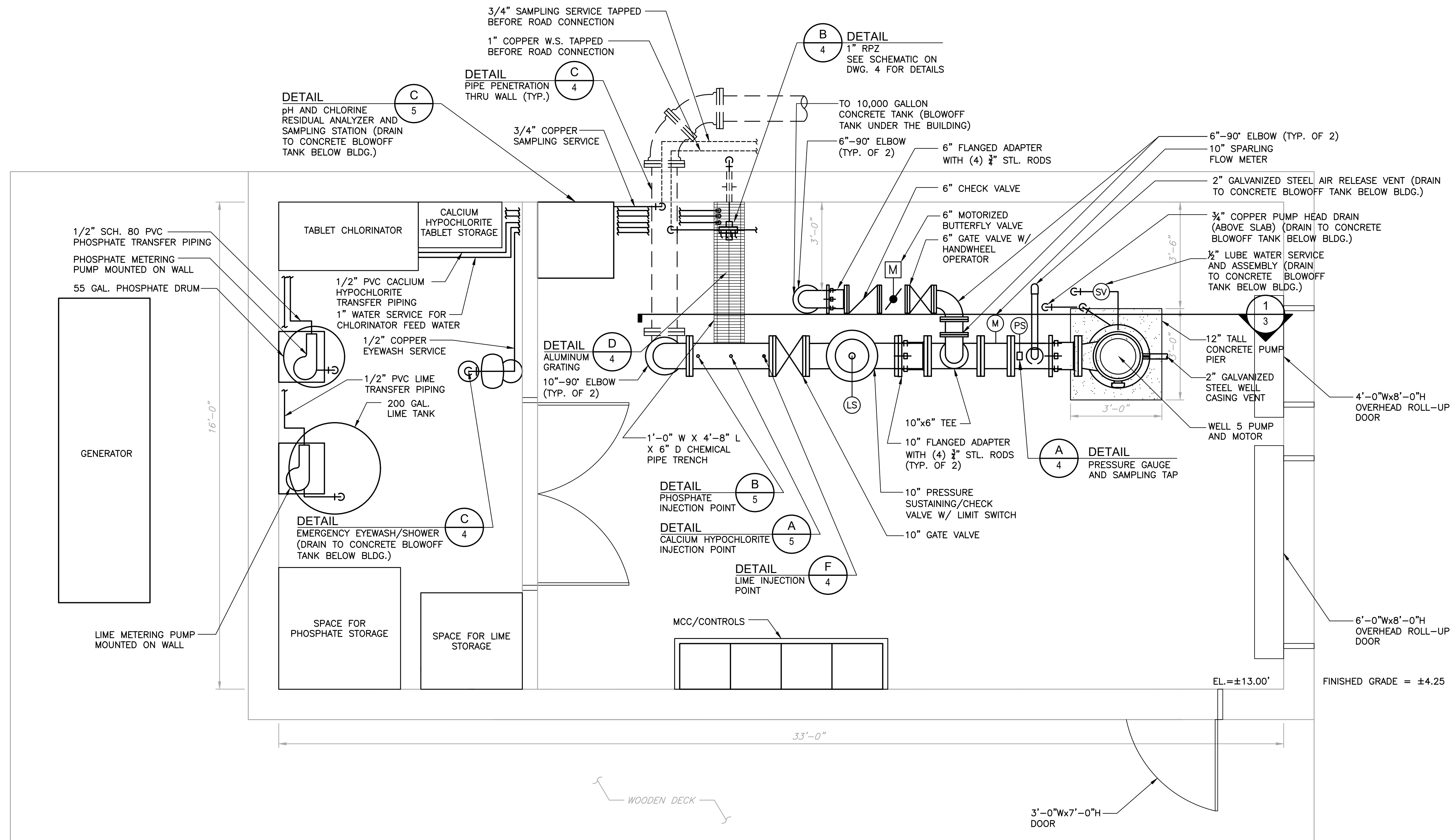
VILLAGE OF OCEAN BEACH
SUFFOLK COUNTY **WATER DEPARTMENT** NEW YORK
CONSTRUCTION OF WELL STATION NO. 5

PROPOSED SCHEMATIC

MECHANICAL

PROJECT NO. 3744	1
DATE: JUNE 2017	
SCALE: N.T.S	

DRAWING NO.



WELL 5 BUILDING PLAN
 SCALE: 1/2"=1'-0"

GENERAL NOTES

- ALL SMALL DIAMETER PIPING SHALL BE ROUTED AND SECURED ALONG THE BUILDING WALLS AND THROUGH THE PIPE TRENCH.

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NO.	DATE	REVISION	INT.

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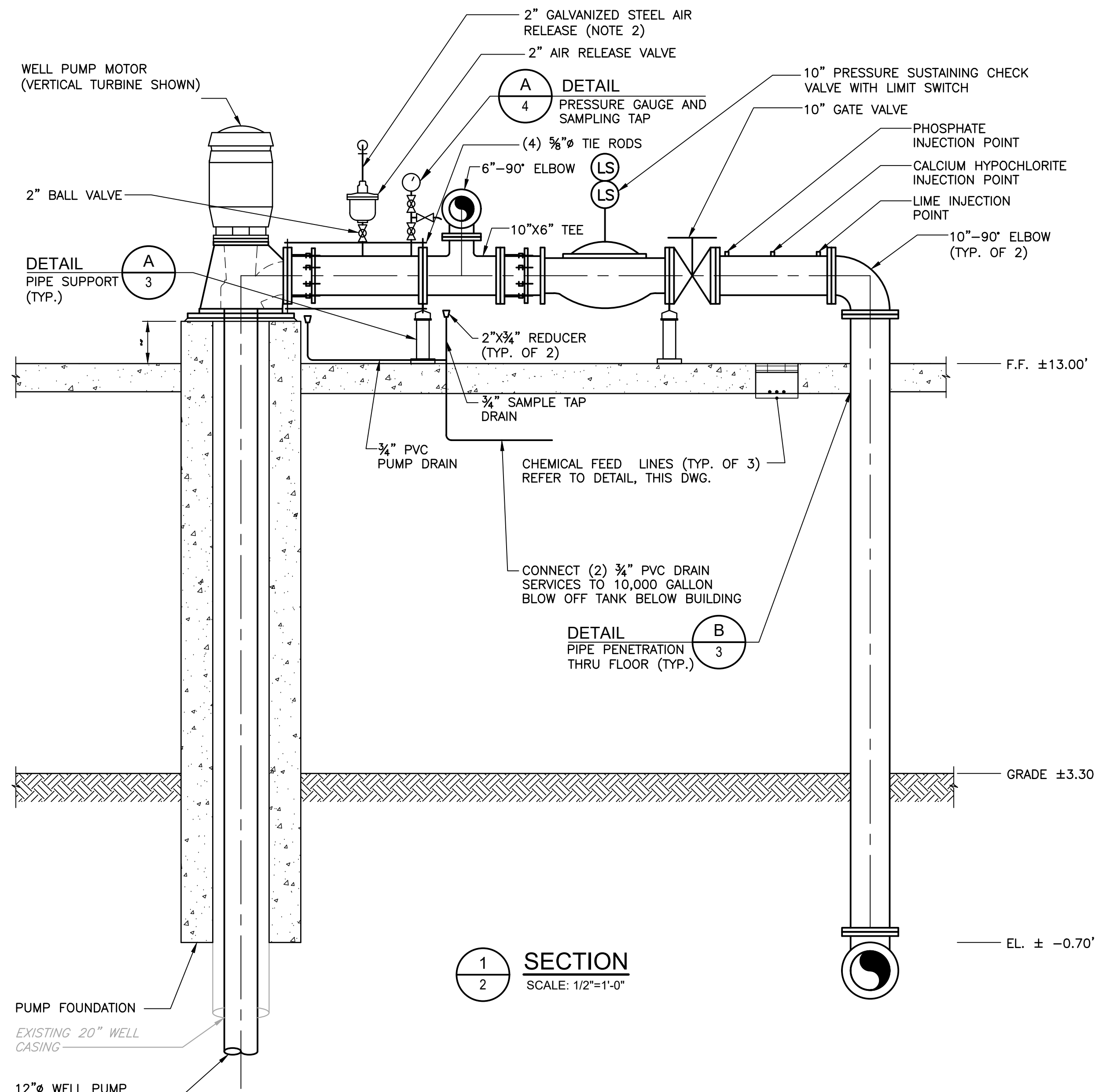
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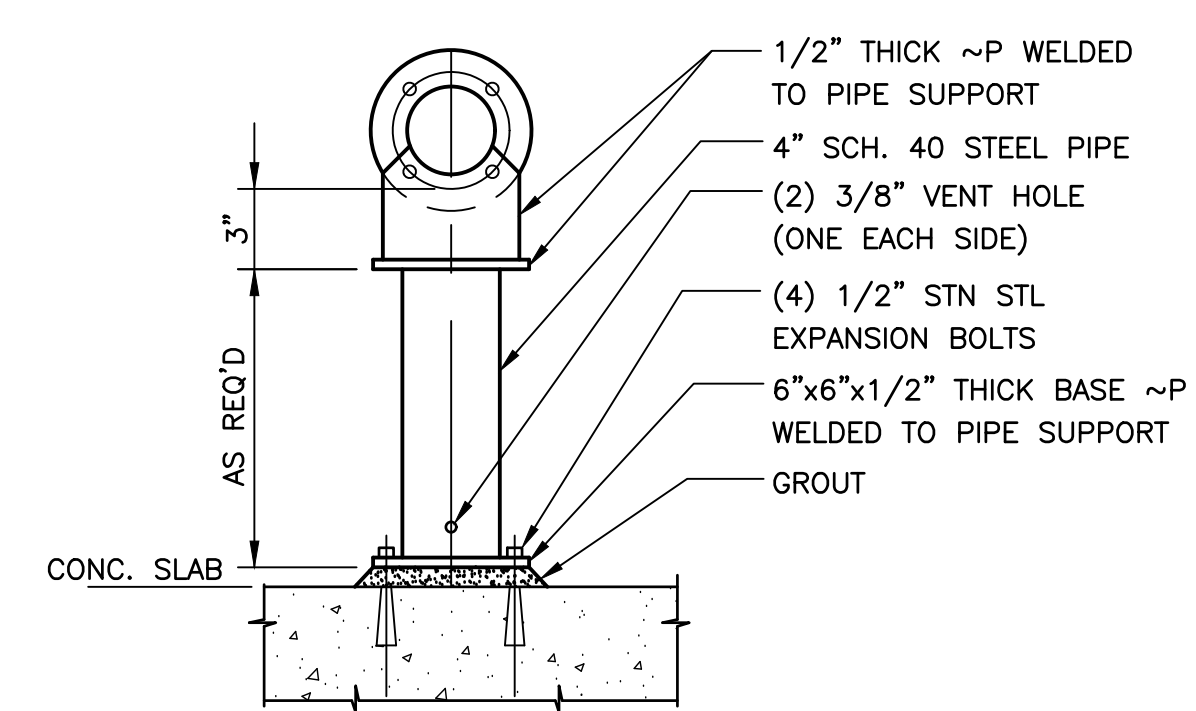
VILLAGE OF OCEAN BEACH
 SUFFOLK COUNTY WATER DEPARTMENT NEW YORK
CONSTRUCTION OF WELL STATION NO. 5

WELL NO. 5 BUILDING FLOOR PLAN
 MECHANICAL

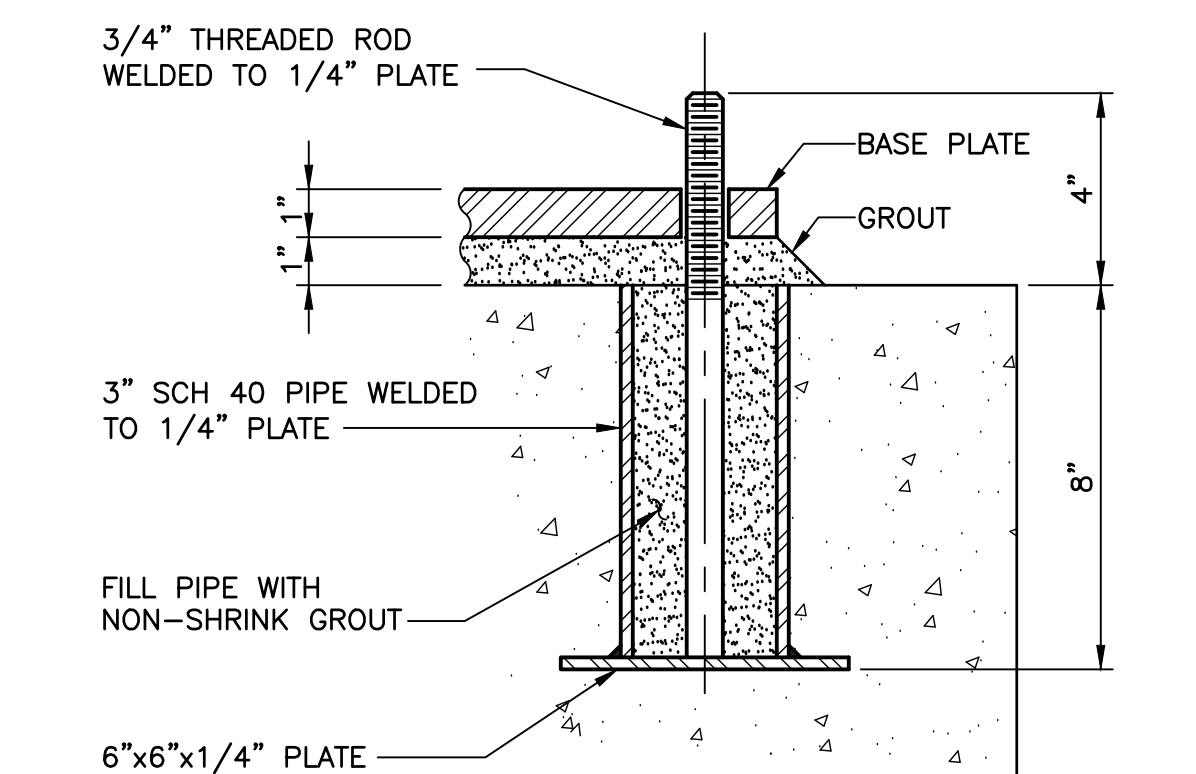
PROJECT NO. 3744	DRAWING NO. 2
DATE: JUNE 2017	
SCALE: AS NOTED	



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

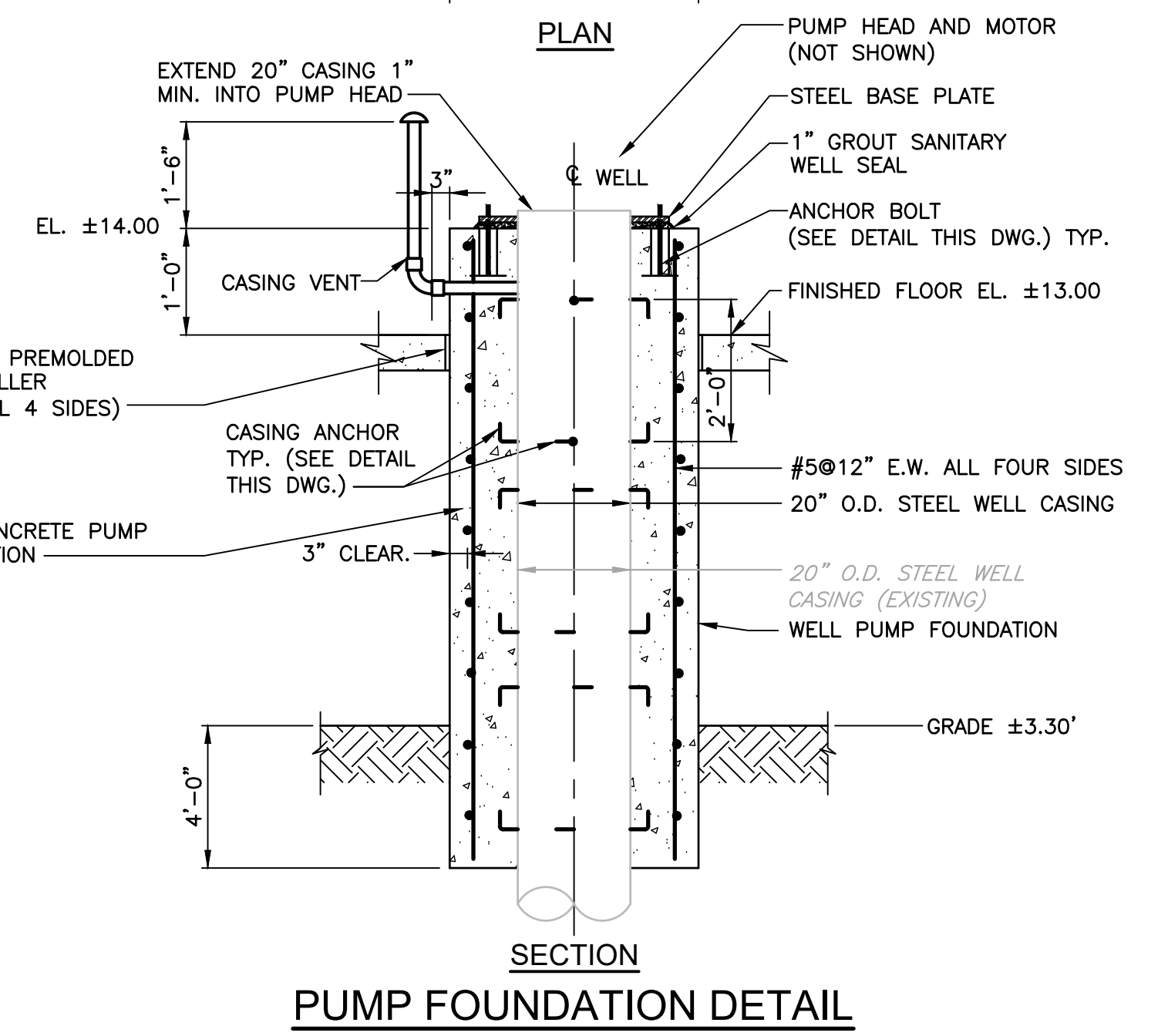
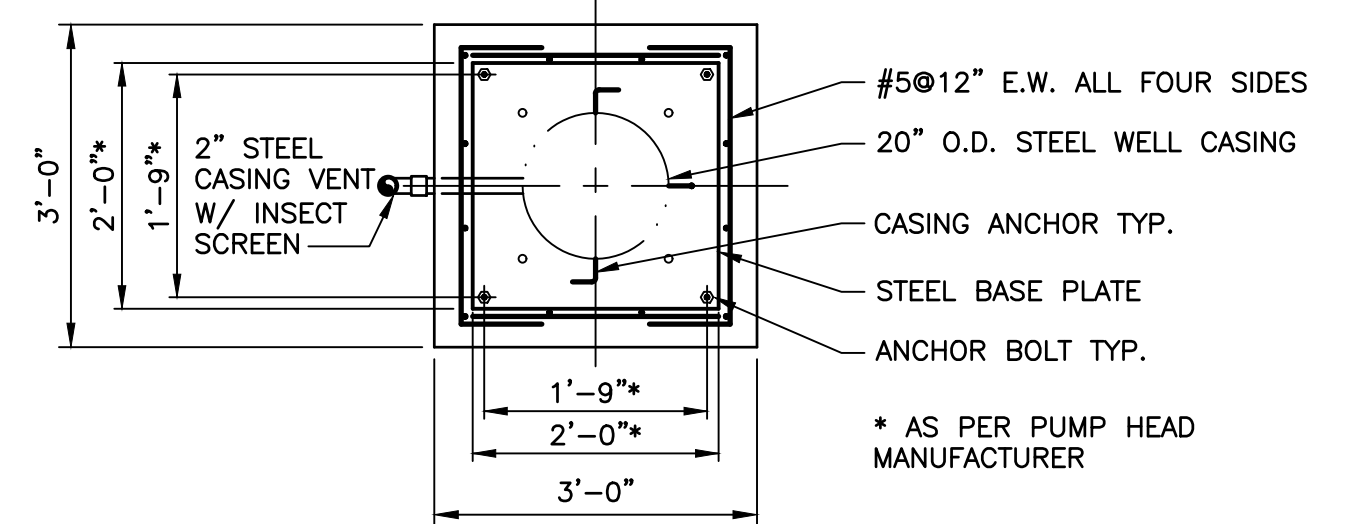


A PIPE SUPPORT DETAIL
SCALE: N.T.S.

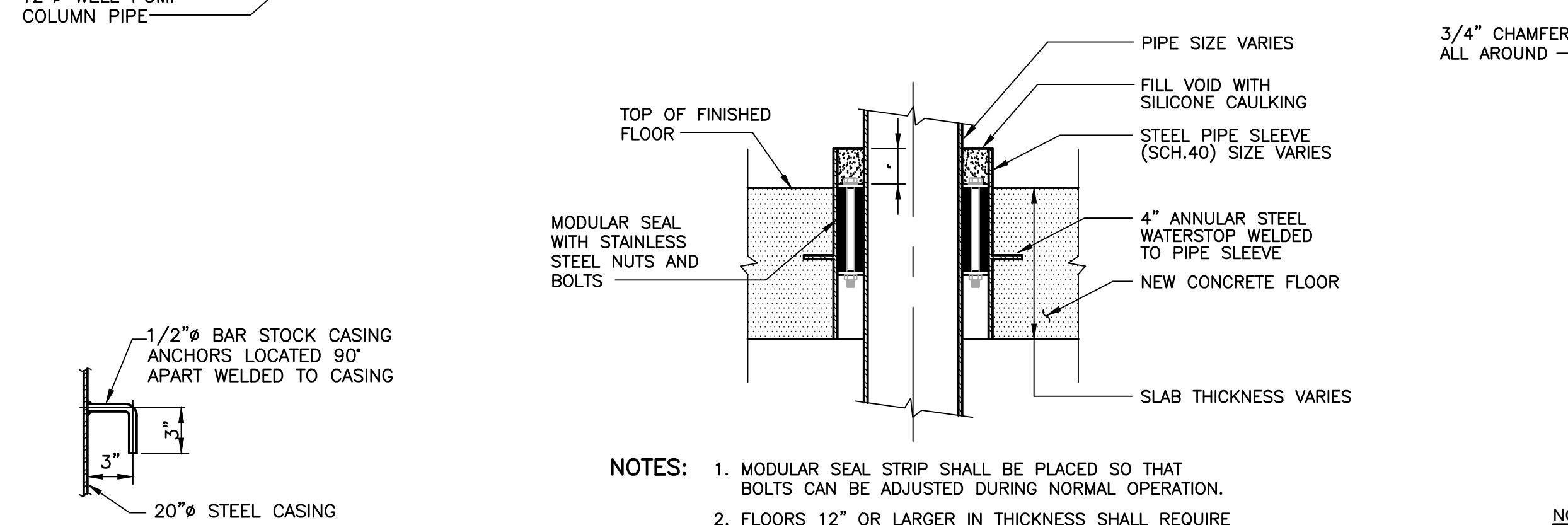


TYPICAL ANCHOR BOLT ASSEMBLY DETAIL
SCALE: N.T.S.

- NOTES:**
1. PUMP BASE PLATE SHALL BE USED AS TEMPLATE FOR PLACING ANCHOR BOLTS.



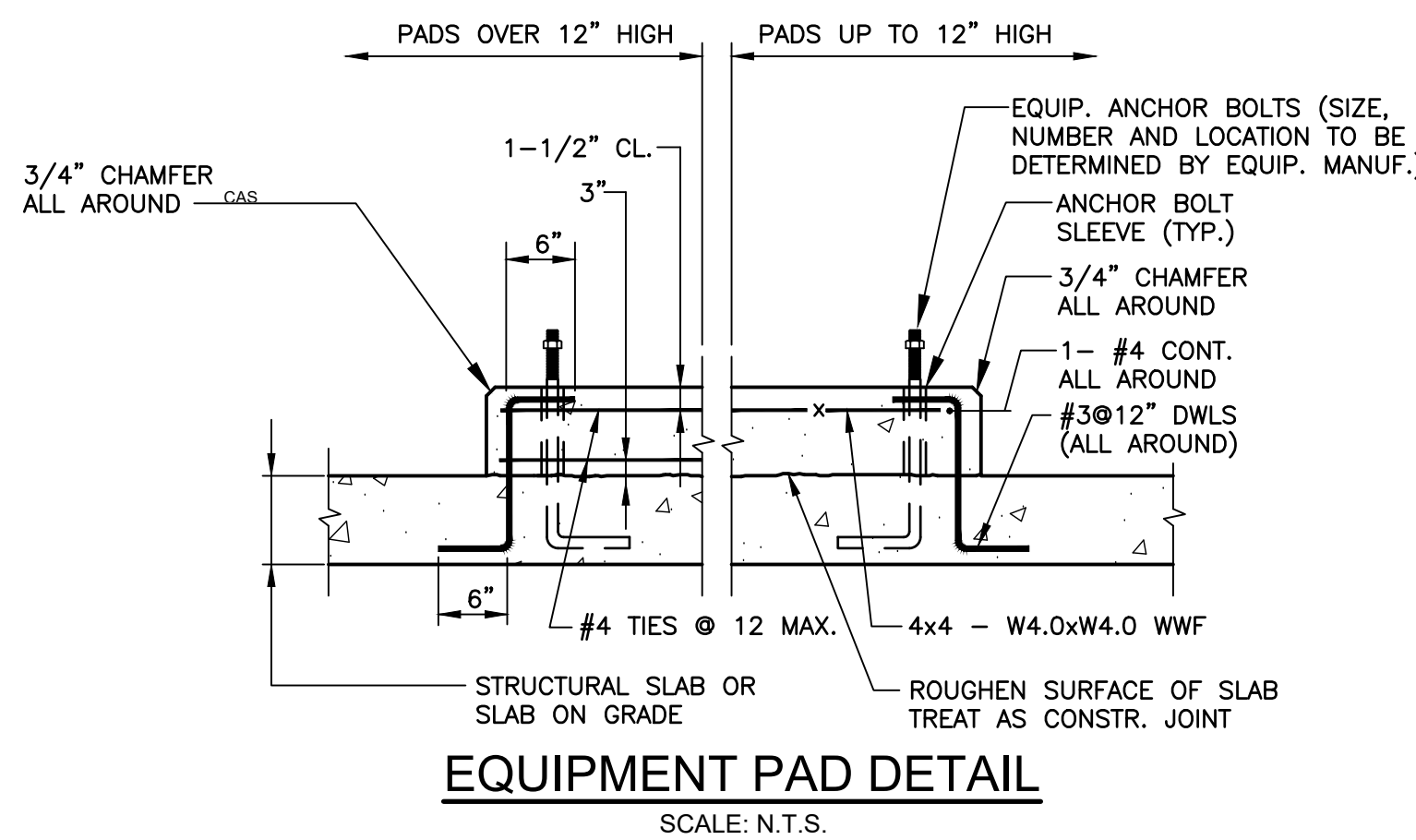
- NOTE:**
- * CONTRACTOR SHALL COORDINATE ALL DIMENSIONS WITH APPROVED EQUIPMENT SHOP DRAWINGS.



CASING ANCHOR DETAIL
SCALE: N.T.S.
(TYPICAL OF 24 ANCHORS)

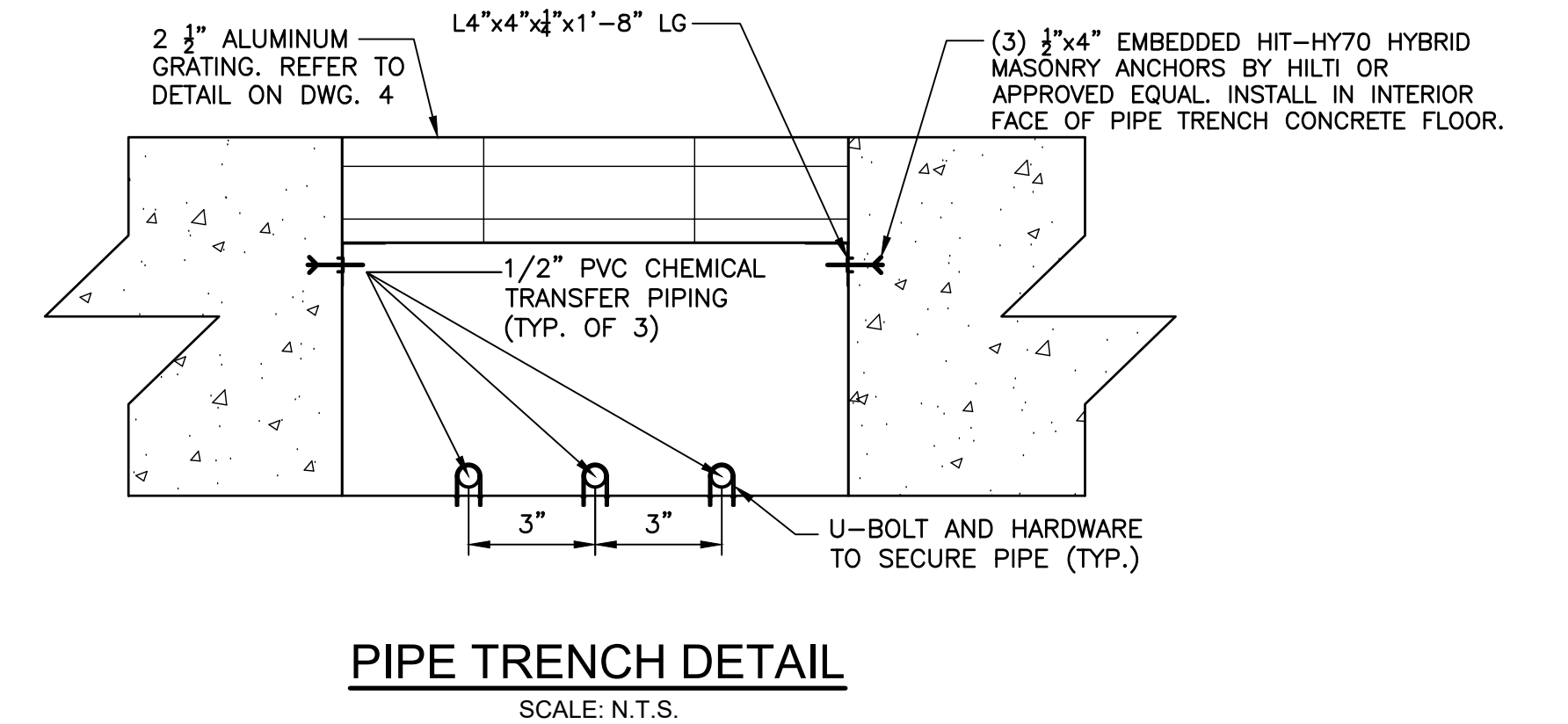
B TYPICAL PIPE PENETRATION THRU NEW FLOOR
SCALE: N.T.S.

- NOTES:**
1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.
 2. FLOORS 12" OR LARGER IN THICKNESS SHALL REQUIRE



EQUIPMENT PAD DETAIL
SCALE: N.T.S.

- NOTES:**
1. THE EXACT SIZE, SHAPE, AND LOCATIONS OF ALL EQUIPMENT (HOUSEKEEPING) PADS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, FOLLOWING THE APPROVAL OF EQUIPMENT SHOP DRAWINGS.
 2. ALL PADS SHALL BE LEVEL.



PIPE TRENCH DETAIL
SCALE: N.T.S.

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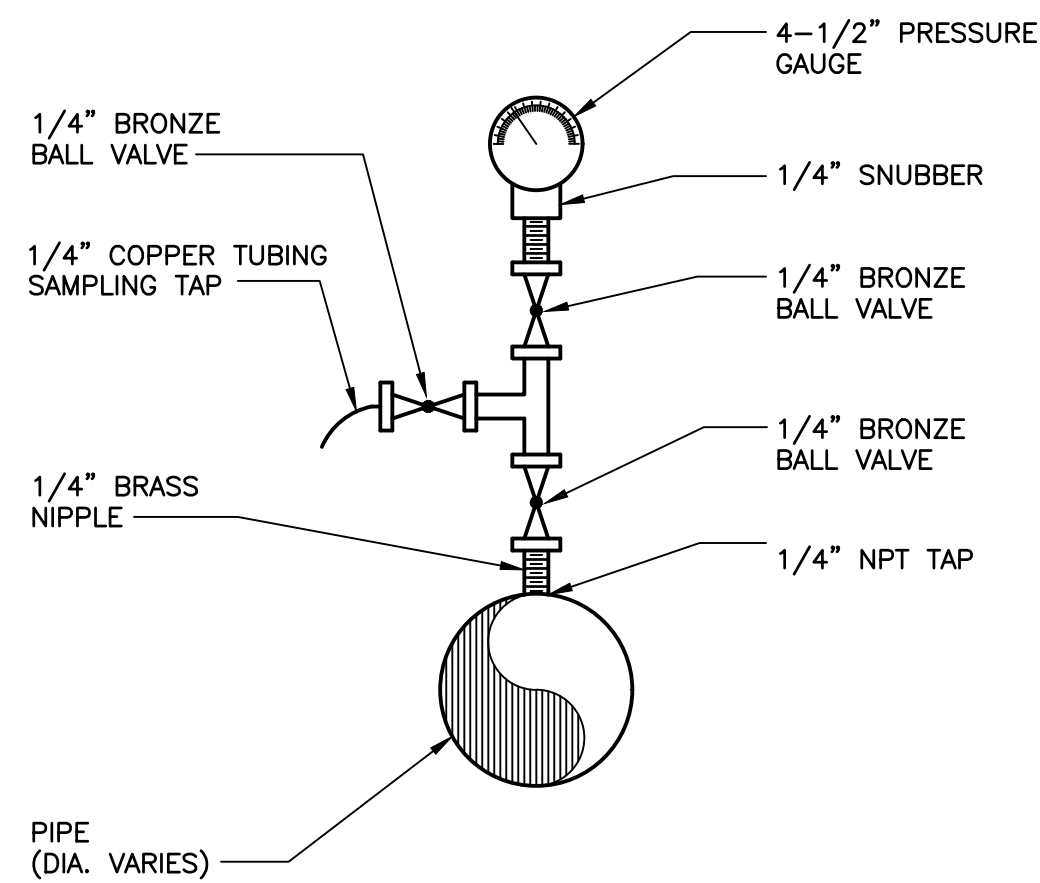
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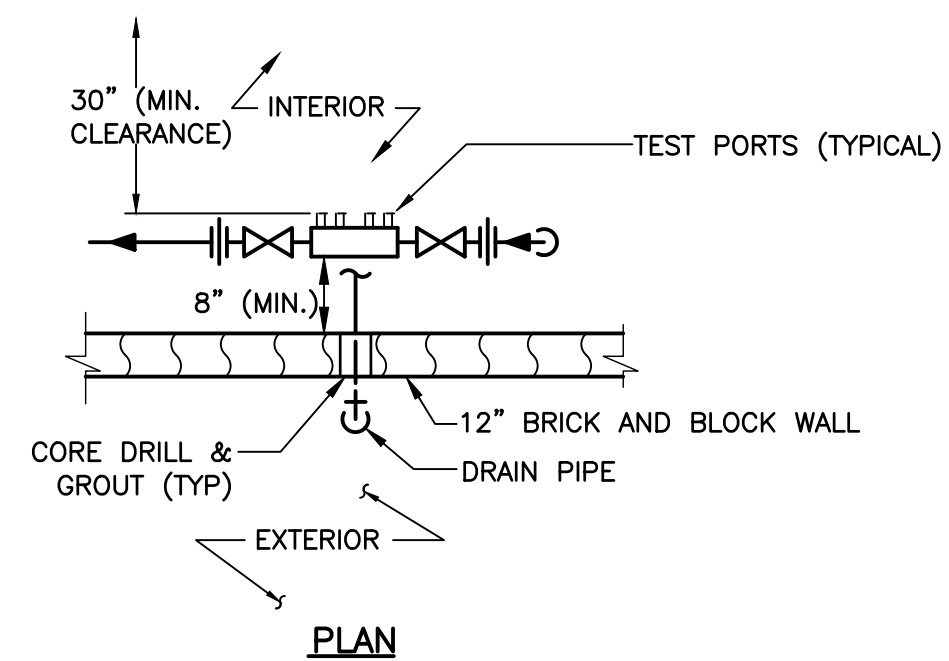
VILLAGE OF OCEAN BEACH
 WATER DEPARTMENT
 CONSTRUCTION OF WELL STATION NO. 5

DETAILS I
MECHANICAL

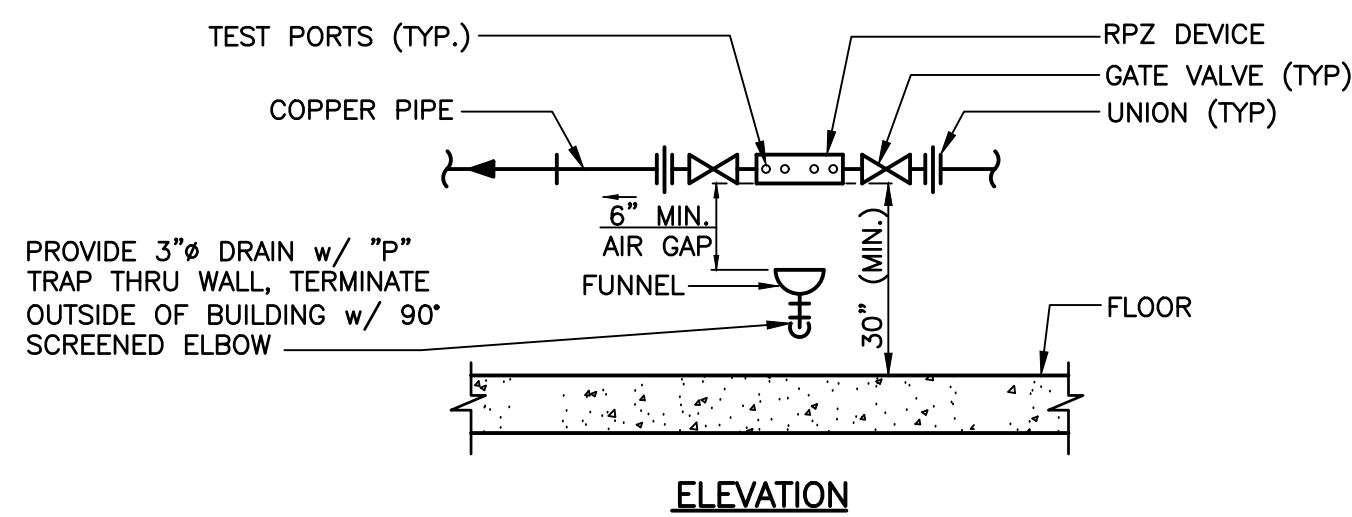
PROJECT NO. 3744	DRAWING NO. 3
DATE: JUNE 2017	SCALE: AS NOTED



A
2 **A**
3 **TYPICAL PRESSURE GAUGE SAMPLE TAP ASSEMBLY DETAIL**
SCALE: N.T.S.



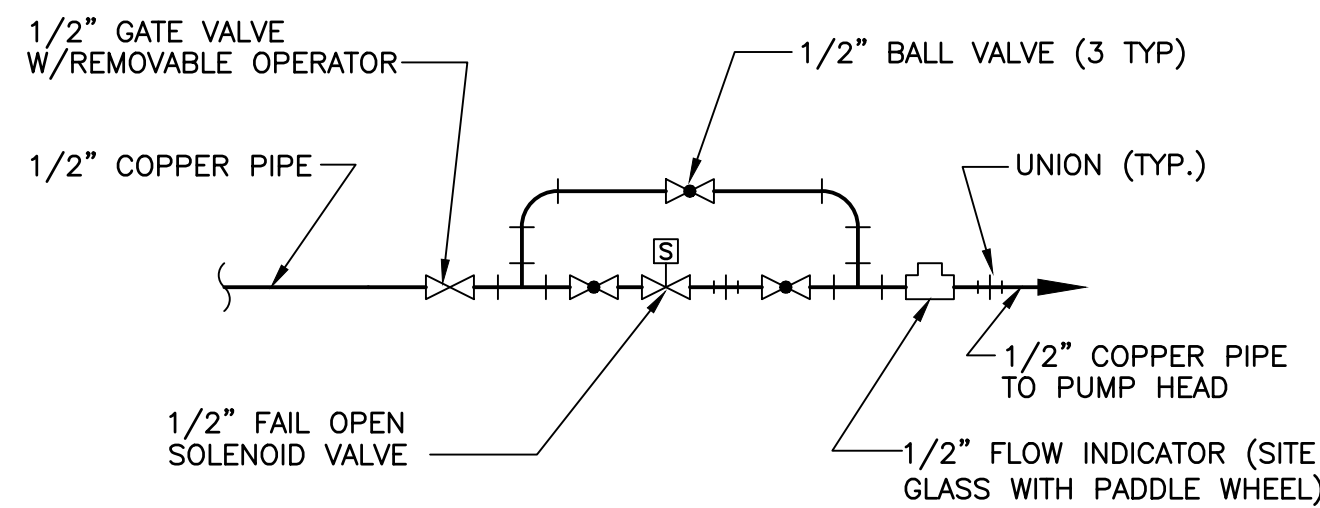
PLAN



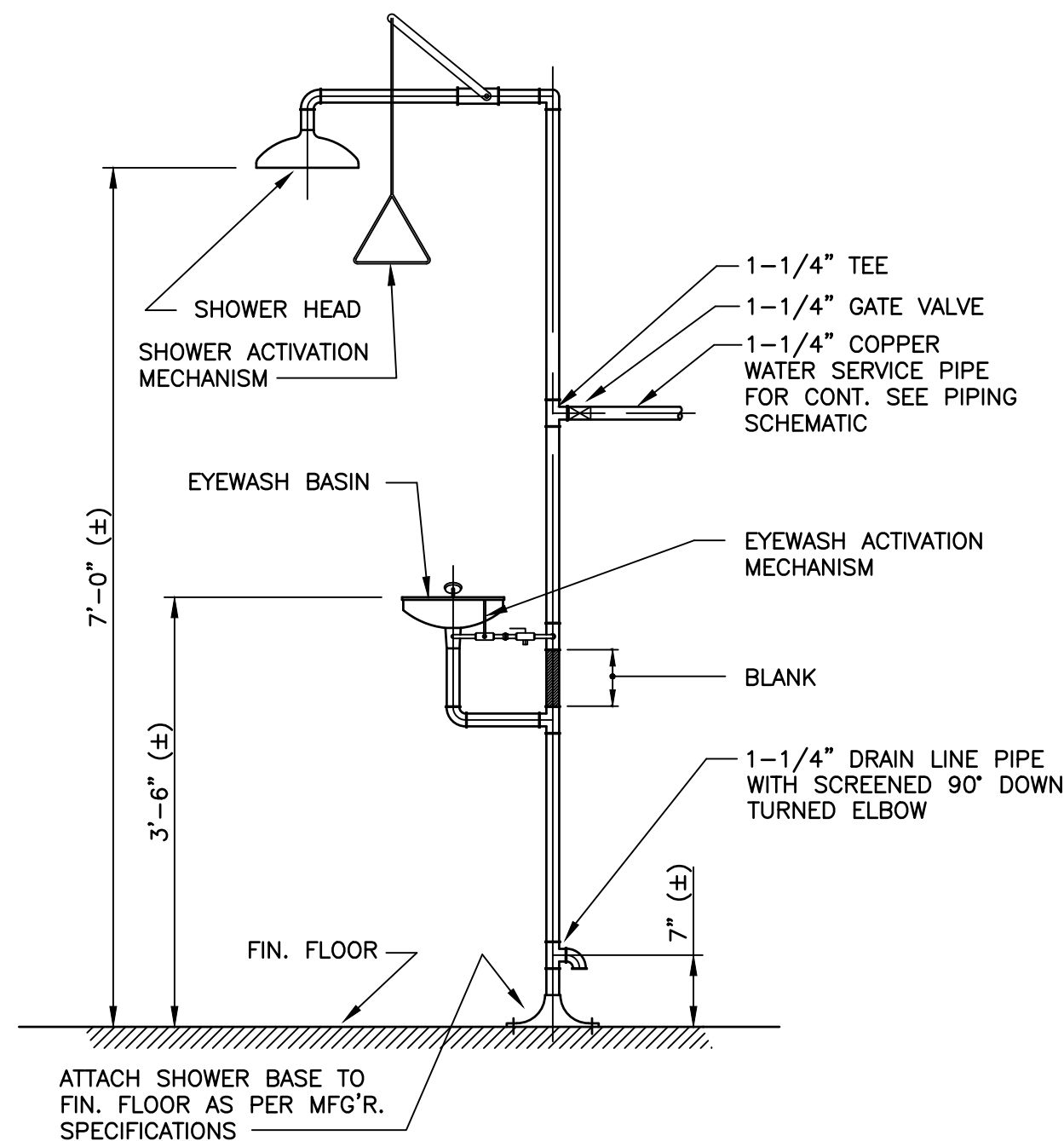
ELEVATION

B
2 **RPZ DETAIL**
SCALE: N.T.S.

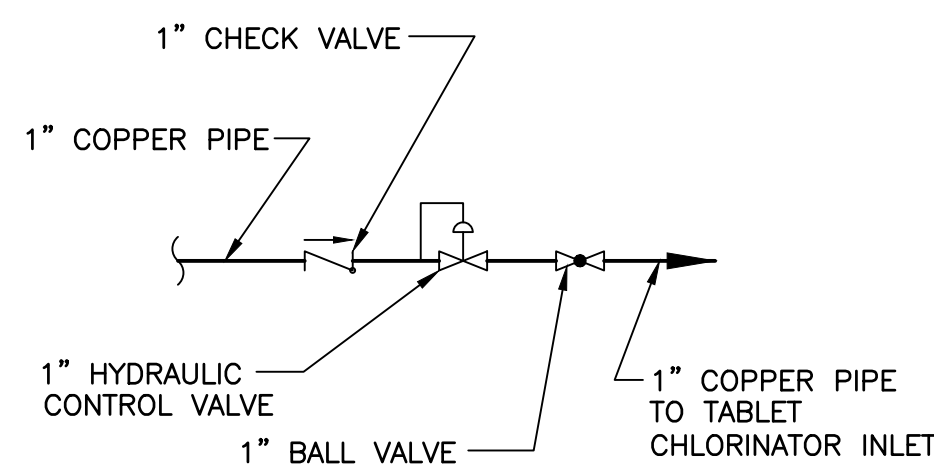
- NOTES:**
1. RPZ INSTALLATION SHALL MEET ALL SCDHS AND NYSDOH REQUIREMENTS.
 2. DEVICES MUST NOT BE SUBJECT TO FREEZING.
 3. PIPING SHALL BE UNBRANCHED AND UNRESTRICTED FROM MAIN TO PRIMARY DEVICE EXCEPT FOR METER AND EMERGENCY EYEWASH/SHOWER STATIONS.
 4. DEVICES MUST BE TESTED ANNUALLY BY A NYSDOH CERTIFIED TESTER.
 5. DRAINAGE FROM DEVICE MUST BE POSITIVE WITH EFFLUENT VISIBLE.
 6. BUILDING SERVICE WATER METER MUST BE INSTALLED BEFORE THE RPZ.
 7. RPZ SHALL BE FEBCO 825Y, OR APPROVED EQUIVALENT.
 8. RESILIENT WEDGE OR BALL VALVES SHALL BE USED.
 9. DEVICES SHALL BE SUPPORTED FROM THE FLOOR OR WALL WITH PIPE STANCHIONS.
 10. SEE WATER SCHEMATIC ON THIS DRAWING FOR RPZ SIZES AND LOCATIONS.
 11. ANY PIPING UNPROTECTED BY THE RPZ SHALL BE STENCILED "DO NOT TAP".
 12. DEVICES SHALL BE LEAD-FREE.



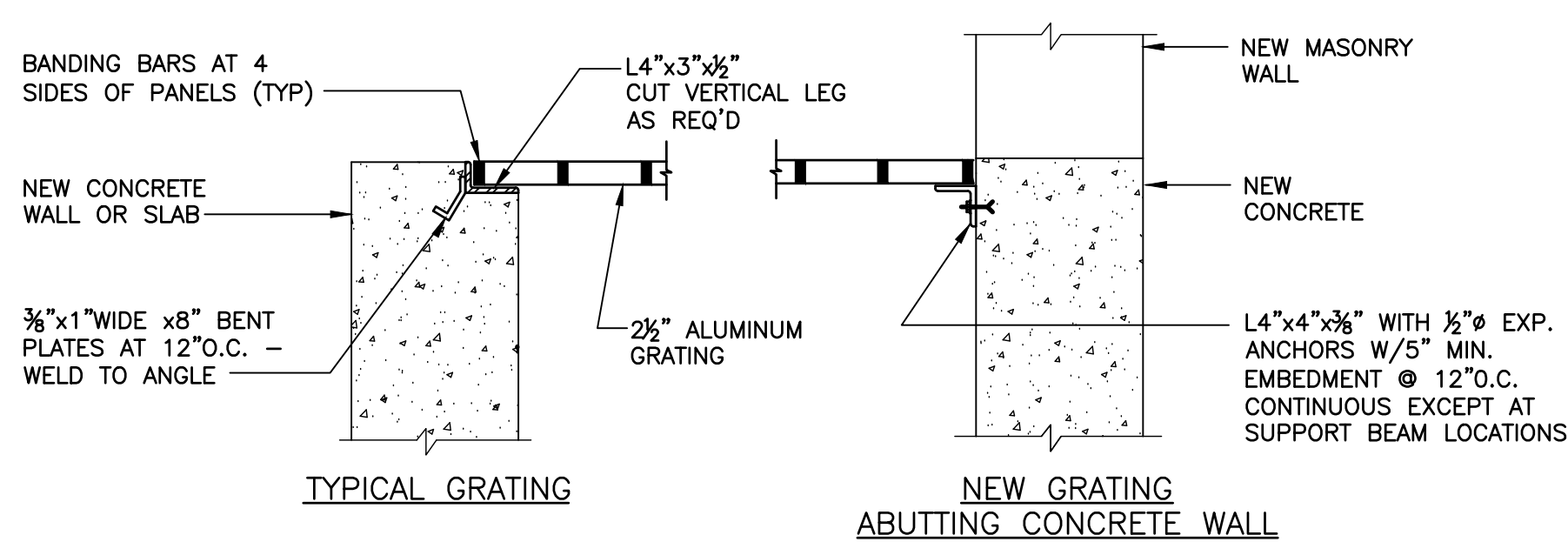
LUBE WATER ASSEMBLY DETAIL
SCALE: N.T.S.



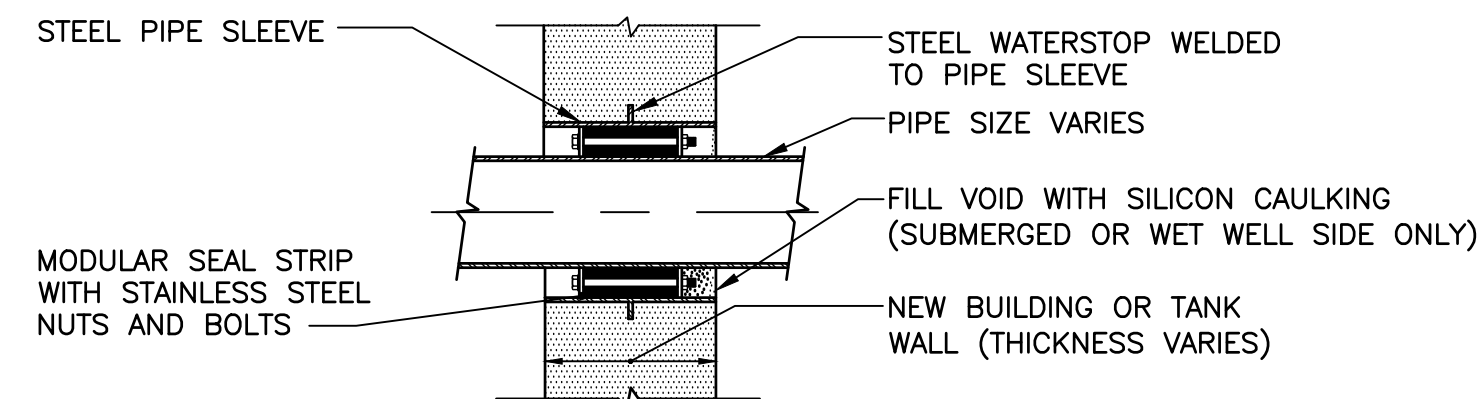
E
2 **EMERGENCY EYEWASH AND SHOWER DETAIL**
SCALE: N.T.S.



TABLET CHLORINATOR WATER ASSEMBLY DETAIL
SCALE: N.T.S.

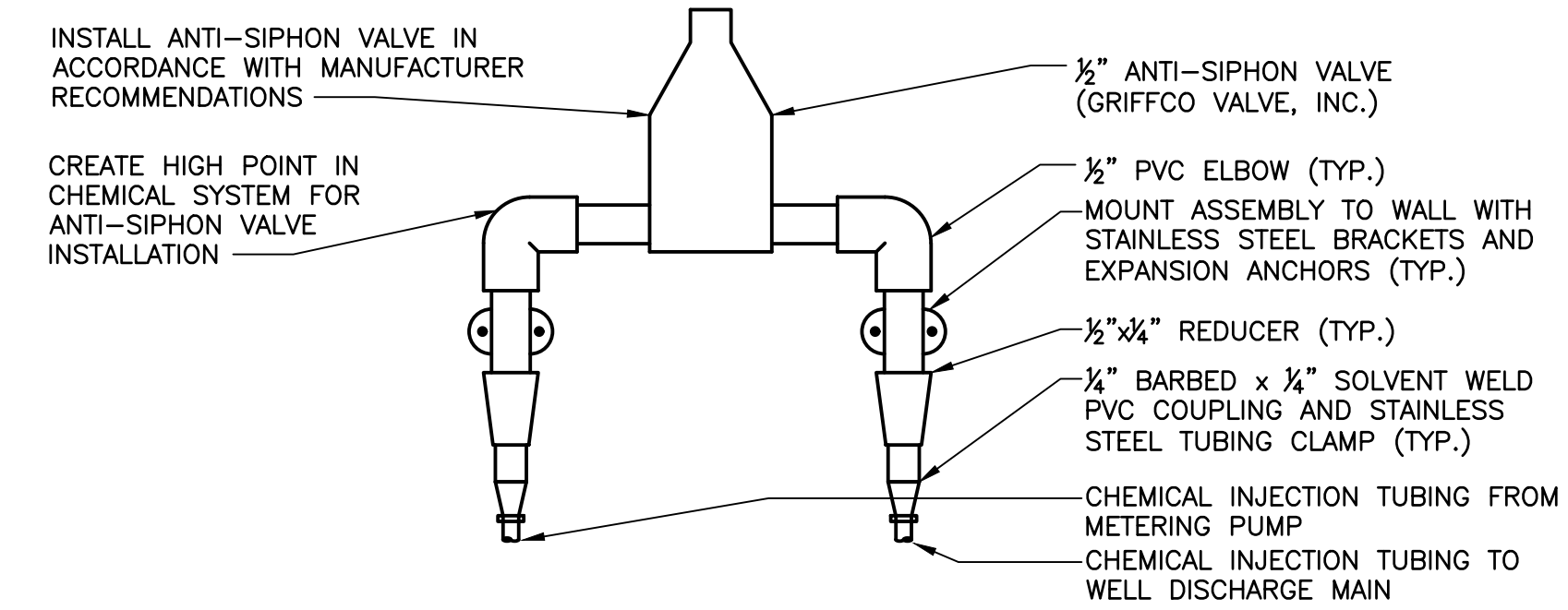


D
2 **ALUMINUM GRATING**
SCALE: N.T.S.

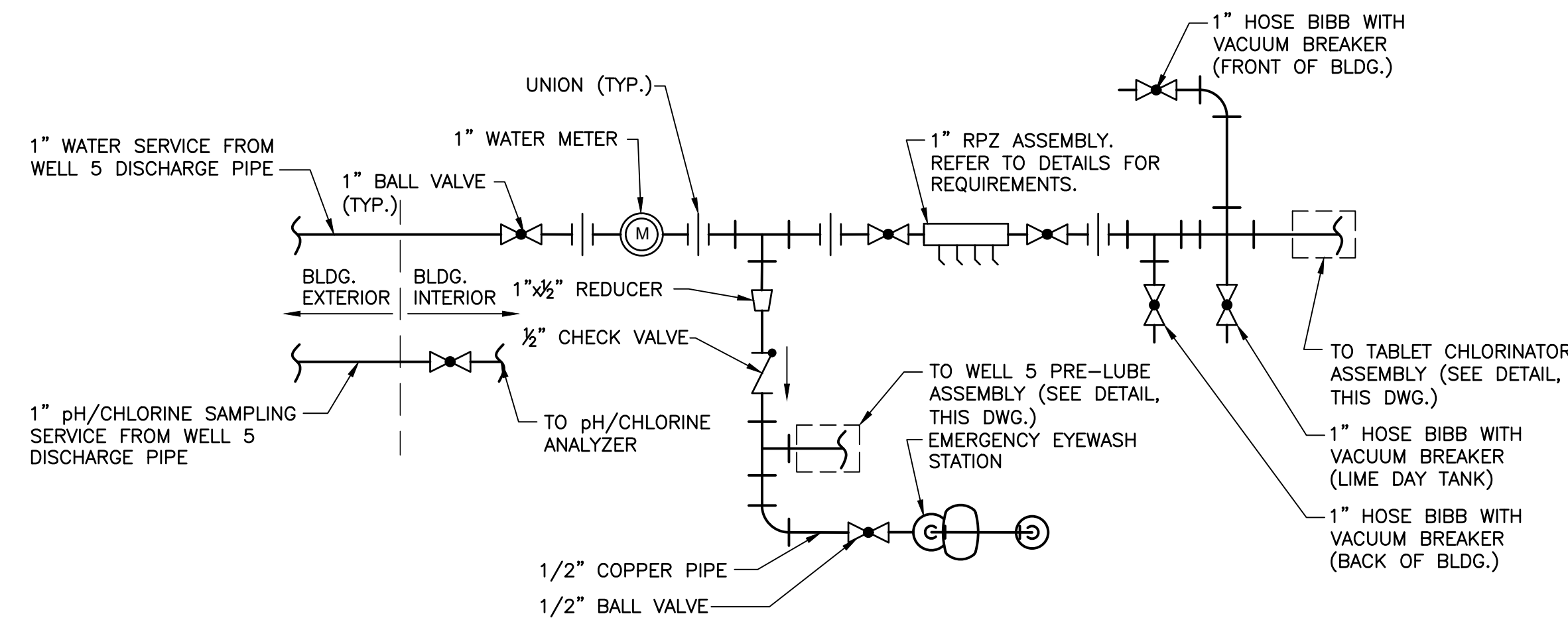


- NOTES:**
1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.
 2. WALLS 12" OR LARGER IN THICKNESS SHALL REQUIRE 2 MODULAR SEAL STRIPS.

C
2 **TYPICAL PIPE PENETRATION THRU NEW WALL**
SCALE: N.T.S.

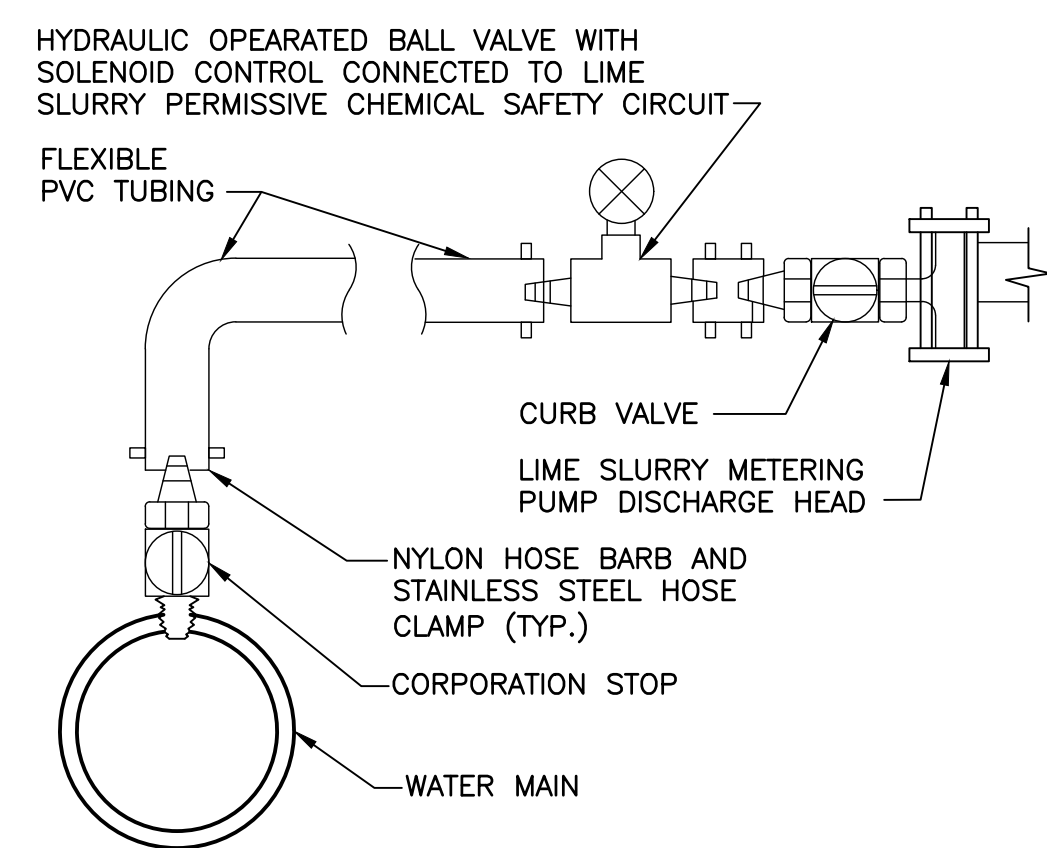


CHEMICAL PIPING ANTI-SIPHON ASSEMBLY DETAIL
SCALE: N.T.S.



WELL 5 BUILDING WATER SUPPLY SCHEMATIC
SCALE: N.T.S.

- NOTES:**
1. REFER TO MECHANICAL PLANS FOR EQUIPMENT LOCATIONS.
 2. PROVIDE UNIONS AT 10'-0" O.C. OR AT MAJOR EQUIPMENT TO ALLOW DISASSEMBLY.



LIME SLURRY SYSTEM TYPICAL INJECTOR DETAIL
SCALE: N.T.S.

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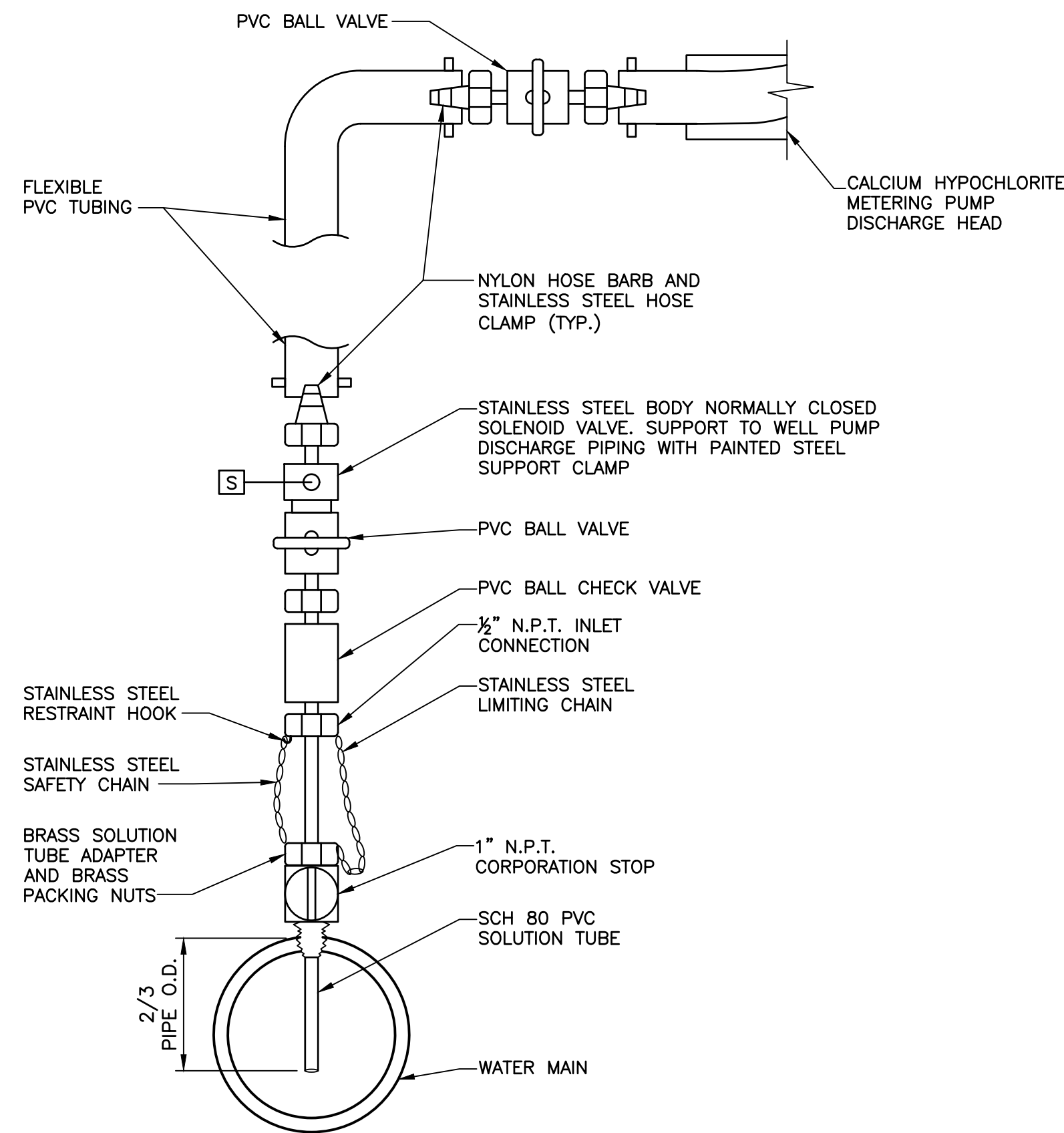
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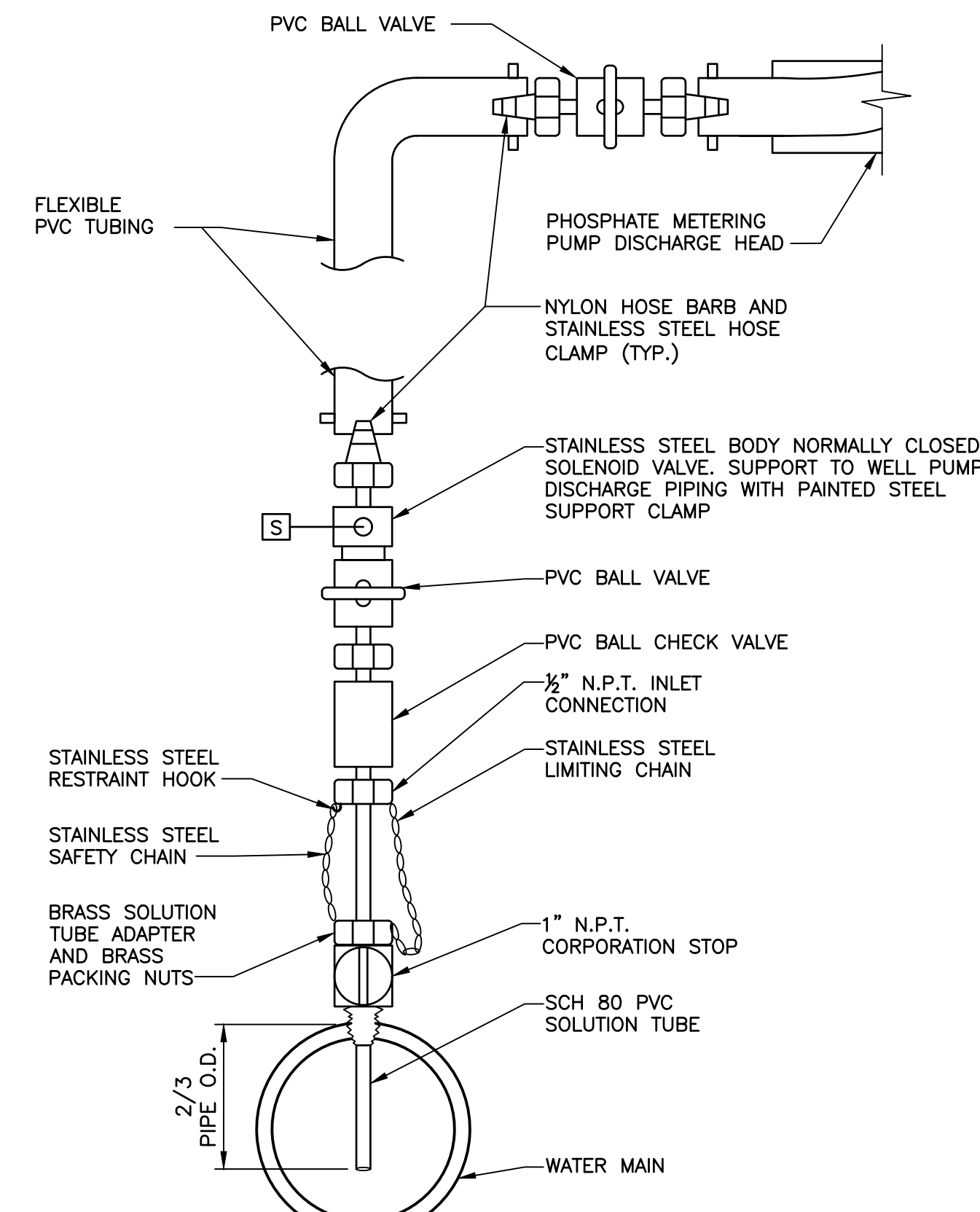
VILLAGE OF OCEAN BEACH
SUFFOLK COUNTY **WATER DEPARTMENT** NEW YORK
CONSTRUCTION OF WELL STATION NO. 5

DETAILS II
MECHANICAL

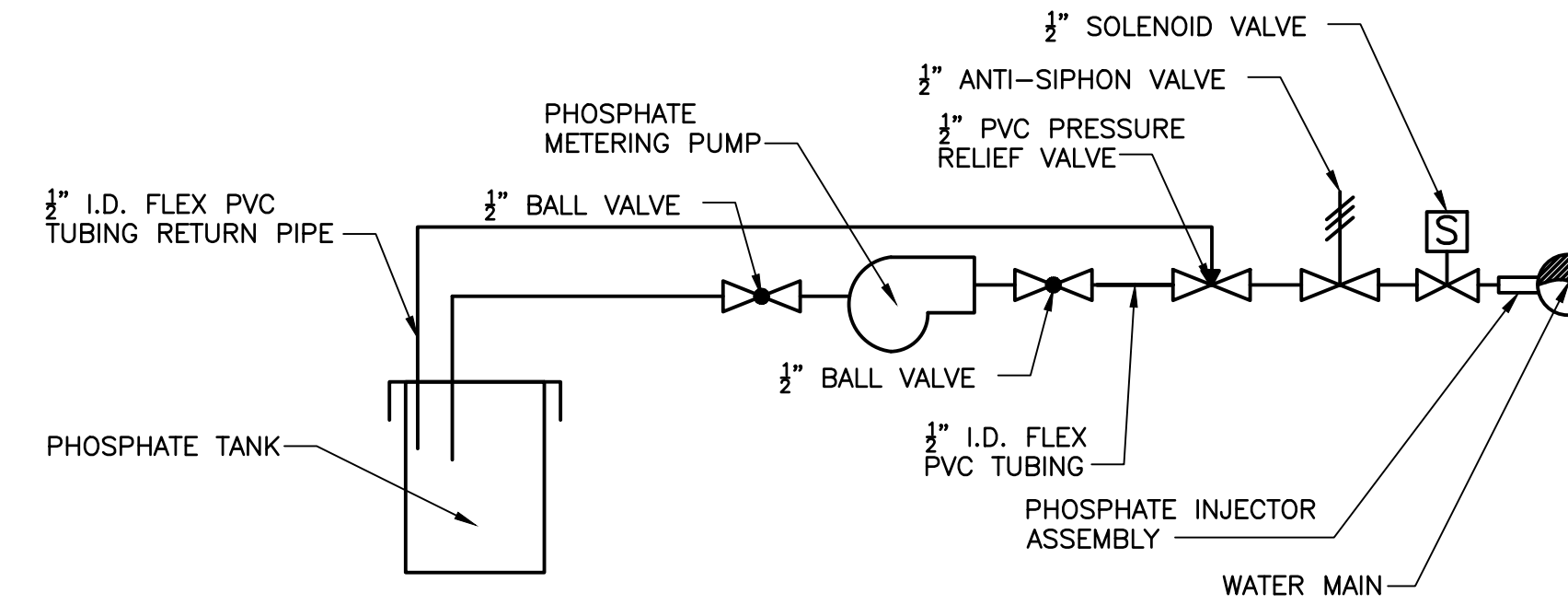
PROJECT NO. 3744	DRAWING NO. 4
DATE: JUNE 2017	
SCALE: N.T.S.	



A
2
CALCIUM HYPOCHLORITE SYSTEM
TYPICAL INJECTION DETAIL
SCALE: N.T.S.

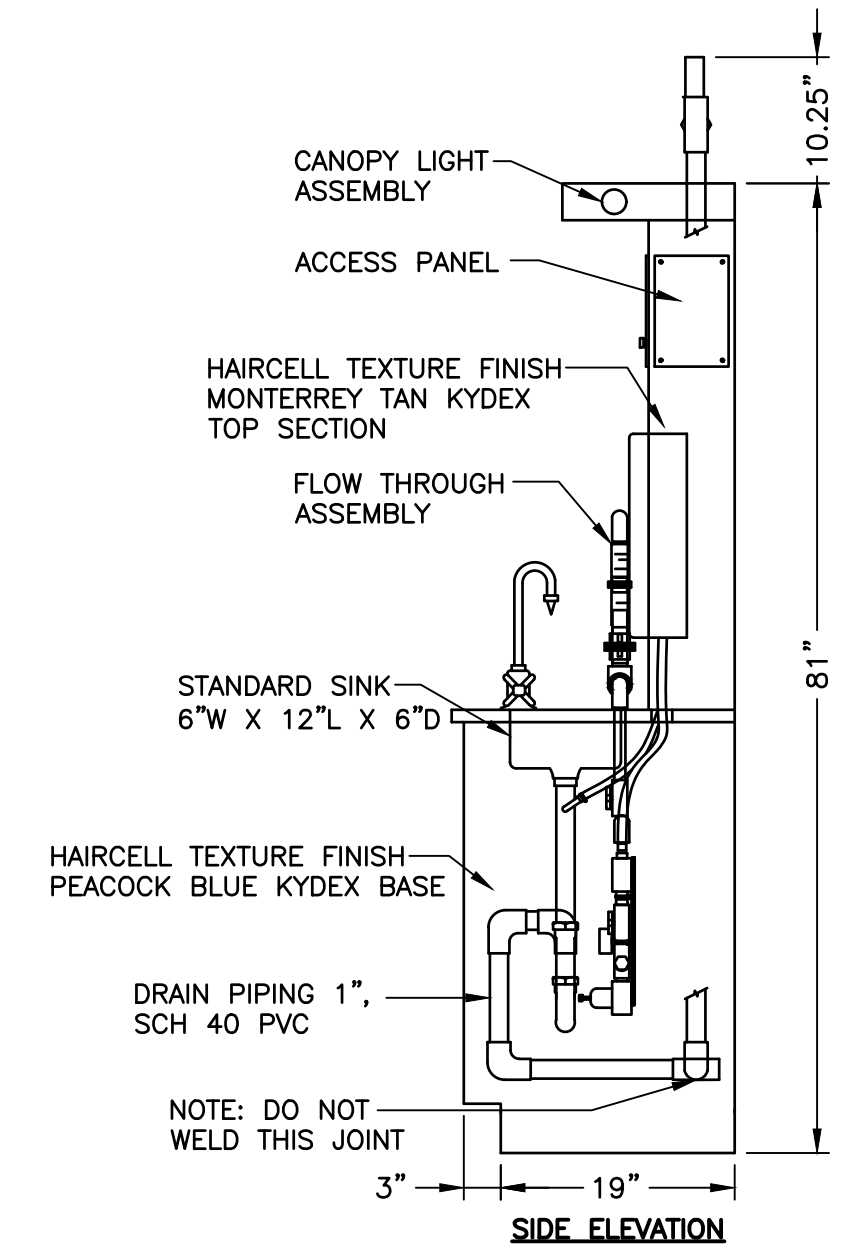
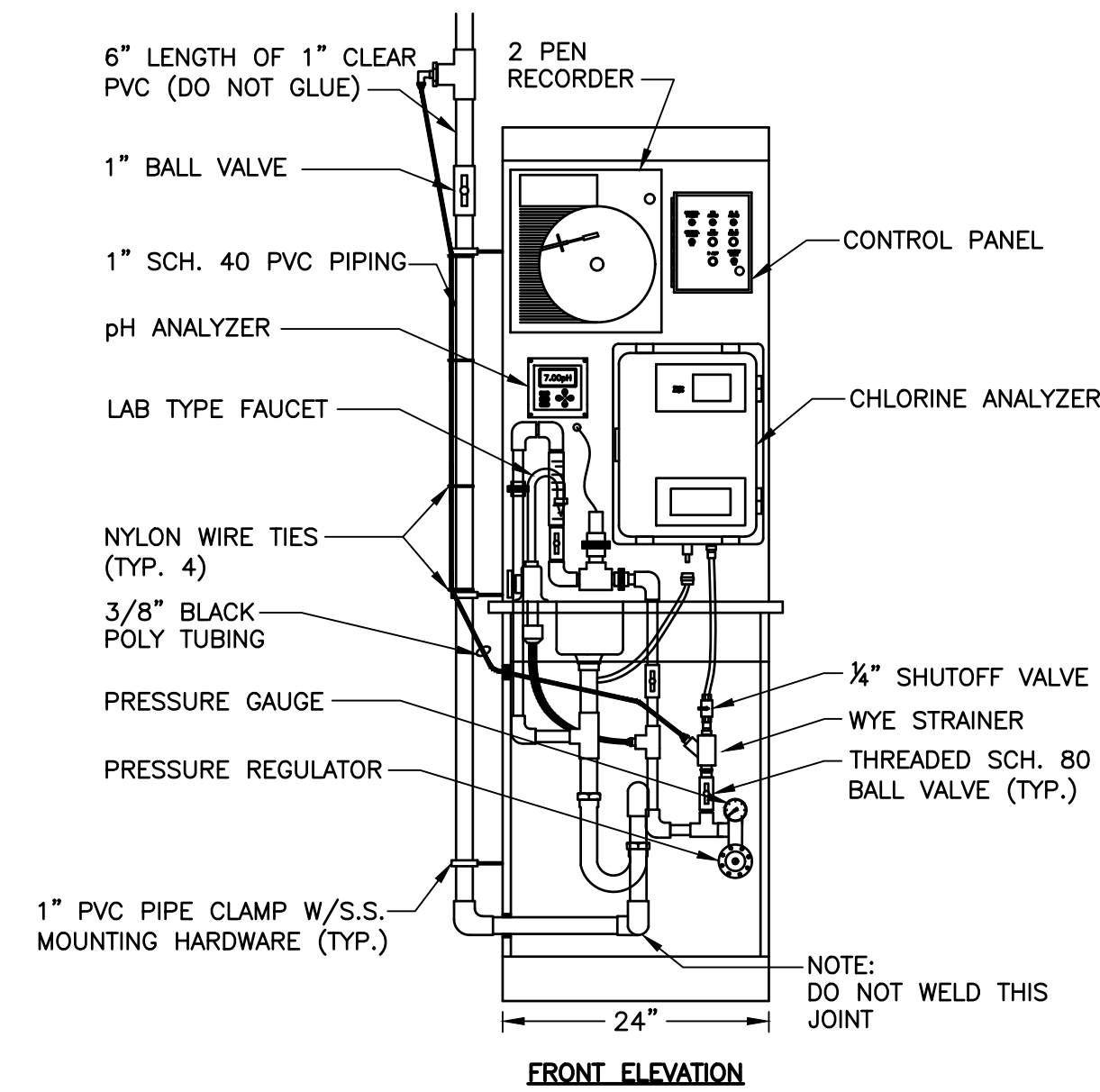


B
2
PHOSPHATE SYSTEM
TYPICAL INJECTION DETAIL
SCALE: N.T.S.



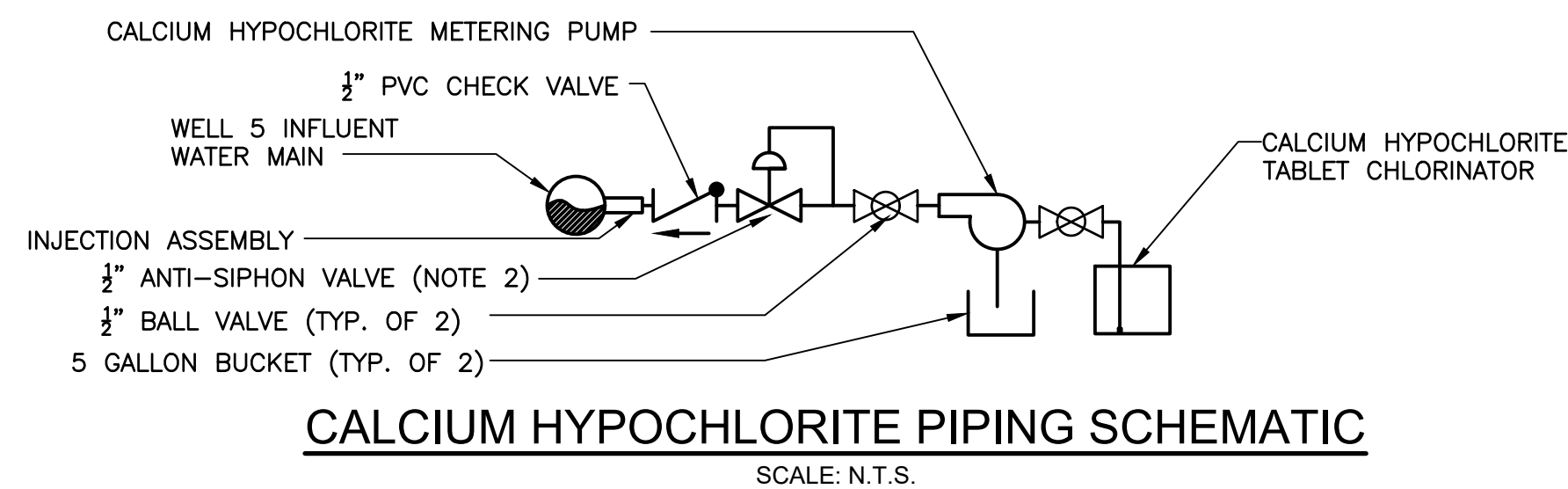
PHOSPHATE PIPING SCHEMATIC
SCALE: N.T.S.

- NOTES:**
- ALL PHOSPHATE PIPING SHALL BE LABELED WITH YELLOW TAPE IN ACCORDANCE WITH SPECIFICATIONS. "PHOSPHATE" AND ARROW INDICATING DIRECTION OF FLOW SHALL BE LABELED EACH 10 FEET OF PIPING.
 - INSTALL ANTI-SIPHON VALVE AT HIGH POINT IN SYSTEM AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



C
2
pH/CHLORINE RESIDUAL ANALYZER
AND SAMPLING STATION
SCALE: N.T.S.

- NOTES:**
- ALL CALCIUM HYPOCHLORITE PIPING SHALL BE LABELED WITH YELLOW TAPE IN ACCORDANCE WITH SPECIFICATIONS. "CALCIUM HYPOCHLORITE" AND ARROW INDICATING DIRECTION OF FLOW SHALL BE LABELED EACH 10 FEET OF PIPING.
 - INSTALL ANTI-SIPHON VALVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE FLEXIBLE PVC PIPE AND FITTINGS FROM CHLORINATOR ENCLOSURE DRAINAGE CONNECTION TO 5 GALLON PLASTIC BUCKET.



CALCIUM HYPOCHLORITE PIPING SCHEMATIC
SCALE: N.T.S.

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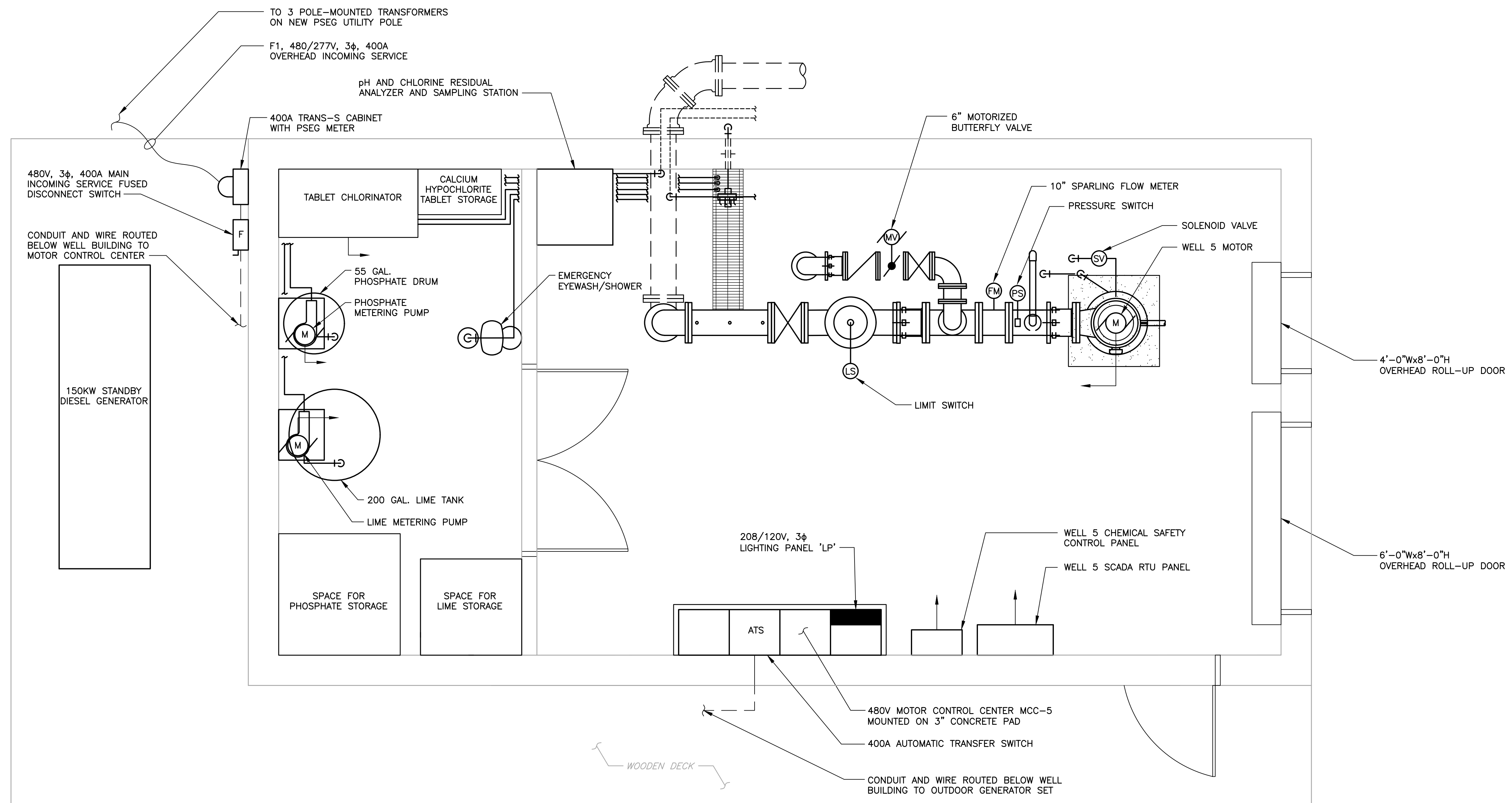
VILLAGE OF OCEAN BEACH		
SUFFOLK COUNTY	WATER DEPARTMENT	NEW YORK
CONSTRUCTION OF WELL STATION NO. 5		

DETAILS III	
MECHANICAL	

PROJECT NO. 3744	DRAWING NO. 5
DATE: JUNE 2017	
SCALE: N.T.S.	

NOTES:

1. REFER TO DRAWING X FOR SYMBOLS AND ABBREVIATIONS.
2. REFER TO DRAWING X FOR CHEMICAL SAFETY SYSTEM RISER DIAGRAM.



WELL 5 BUILDING PLAN
SCALE: 1/2"=1'-0"

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VILLAGE OF OCEAN BEACH
SUFFOLK COUNTY **WATER DEPARTMENT** NEW YORK

CONSTRUCTION OF WELL STATION NO. 5

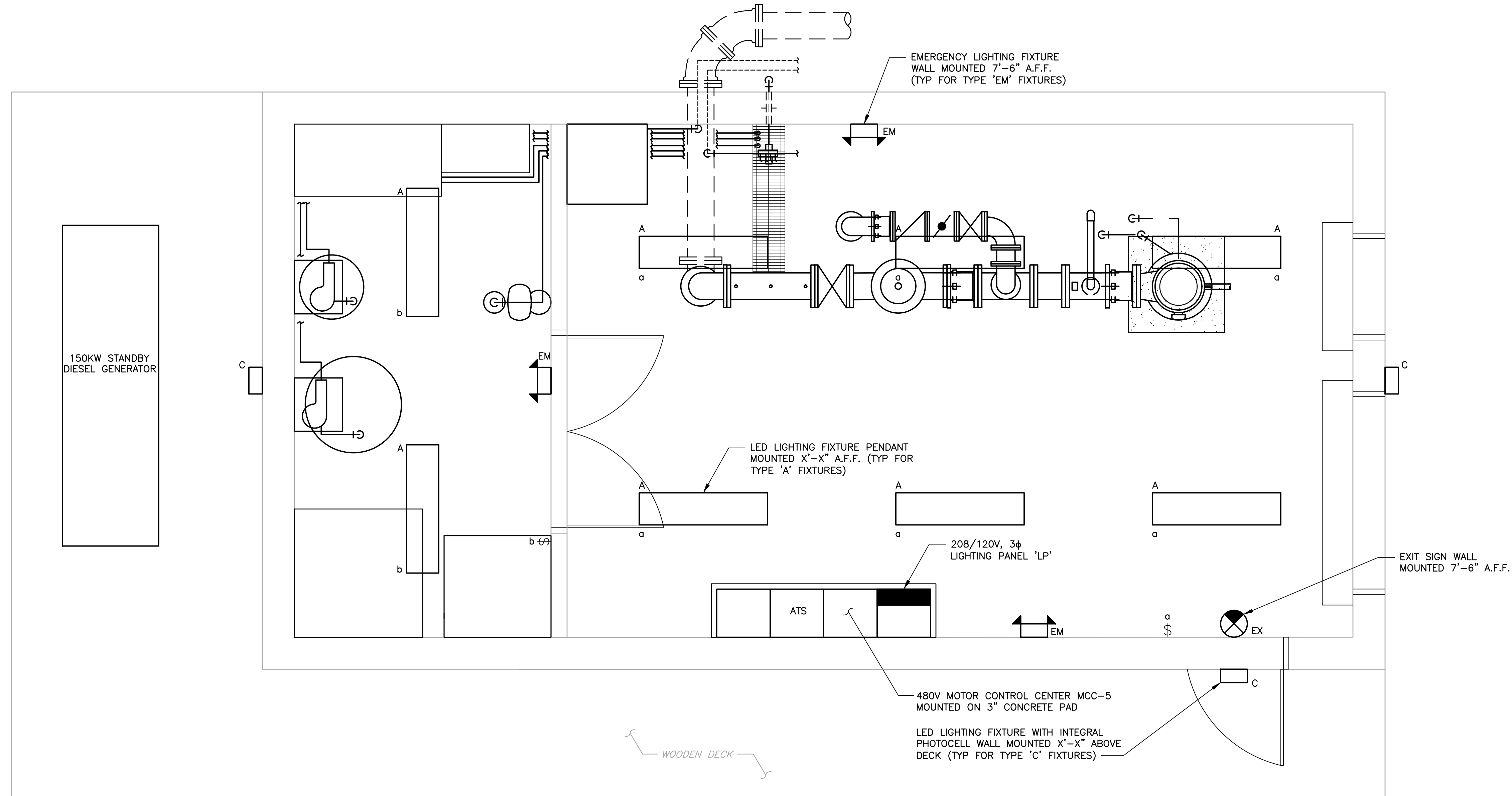
WELL NO. 5 BUILDING POWER PLAN
ELECTRICAL

PROJECT NO. **3744**
DATE: **JUNE 2017**
SCALE: **1/2"=1'-0"**

DRAWING NO. **6**


NOTES:

1. REFER TO DRAWING X FOR SYMBOLS AND ABBREVIATIONS.
2. REFER TO SPECIFICATION SECTION 16510 FOR LIGHTING FIXTURE SCHEDULE.
3. WIRING AND CONDUIT BETWEEN LIGHTING FIXTURES AND RESPECTIVE SWITCHES ARE NOT SHOWN. FURNISH AND INSTALL WIRE AND CONDUIT TO CONNECT THE FIXTURES TO THEIR RESPECTIVE SWITCHES. BRANCH CIRCUITS TO LIGHTING FIXTURES SHALL BE AS DETAILED ON PANELBOARD SCHEDULE. CONNECT EMERGENCY FIXTURES AHEAD OF SWITCHES AND FIXTURES.
4. CIRCUIT NUMBERS FOR LIGHTING FIXTURES INDICATE CIRCUIT BREAKER IN PANELBOARD 'LP'.



WELL 5 BUILDING PLAN
SCALE: 1/2"=1'-0"

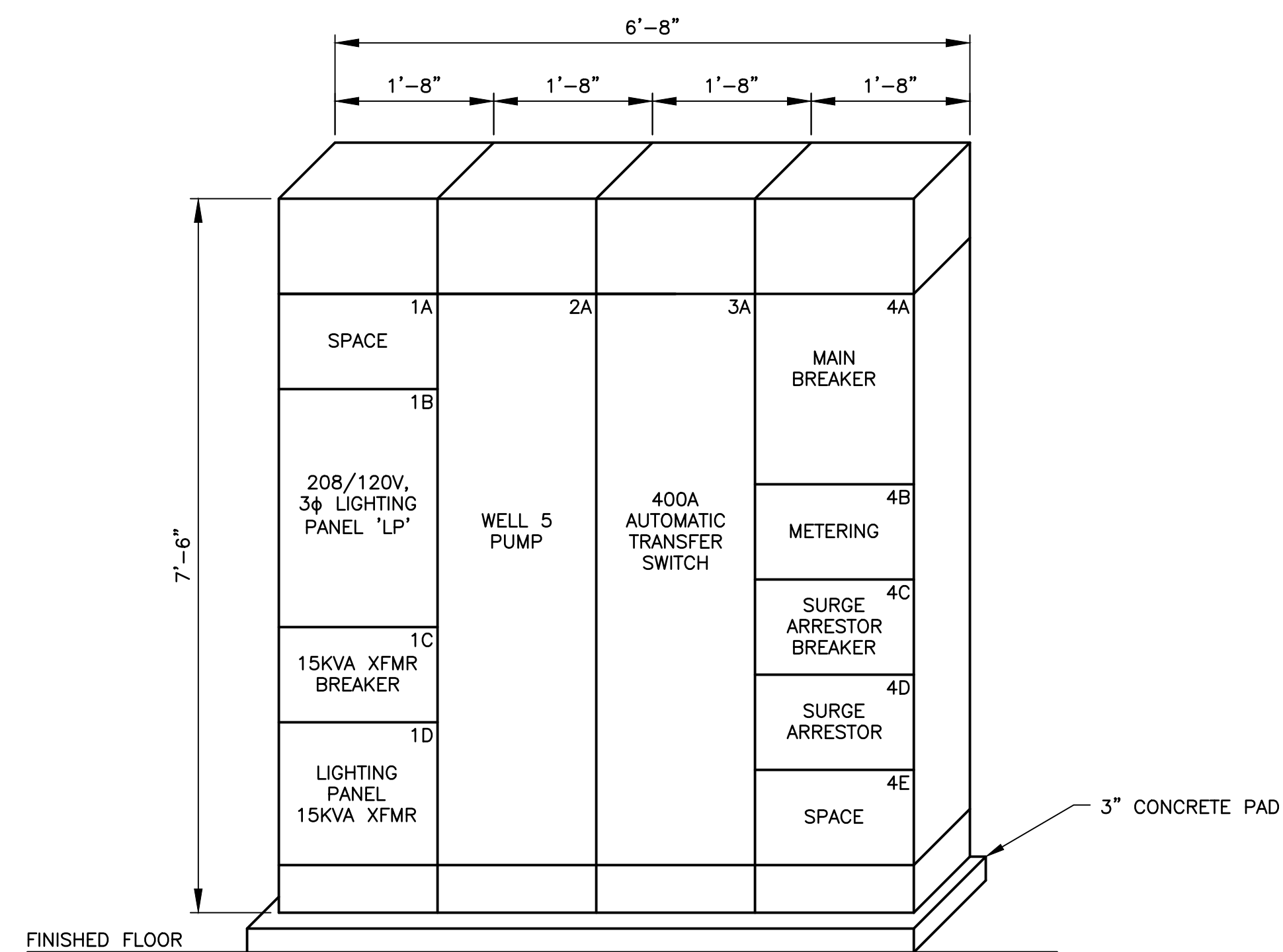
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				PROJECT ENGINEER: SP	DRAWN BY: SP		CONSTRUCTION OF WELL STATION NO. 5		DATE: JUNE 2017	DRAWING NO.		
NO.	DATE	REVISION	INT.	DESIGNED BY: TW	CHECKED BY: MN			SCALE: 1/2"=1'-0"				

NOTES:

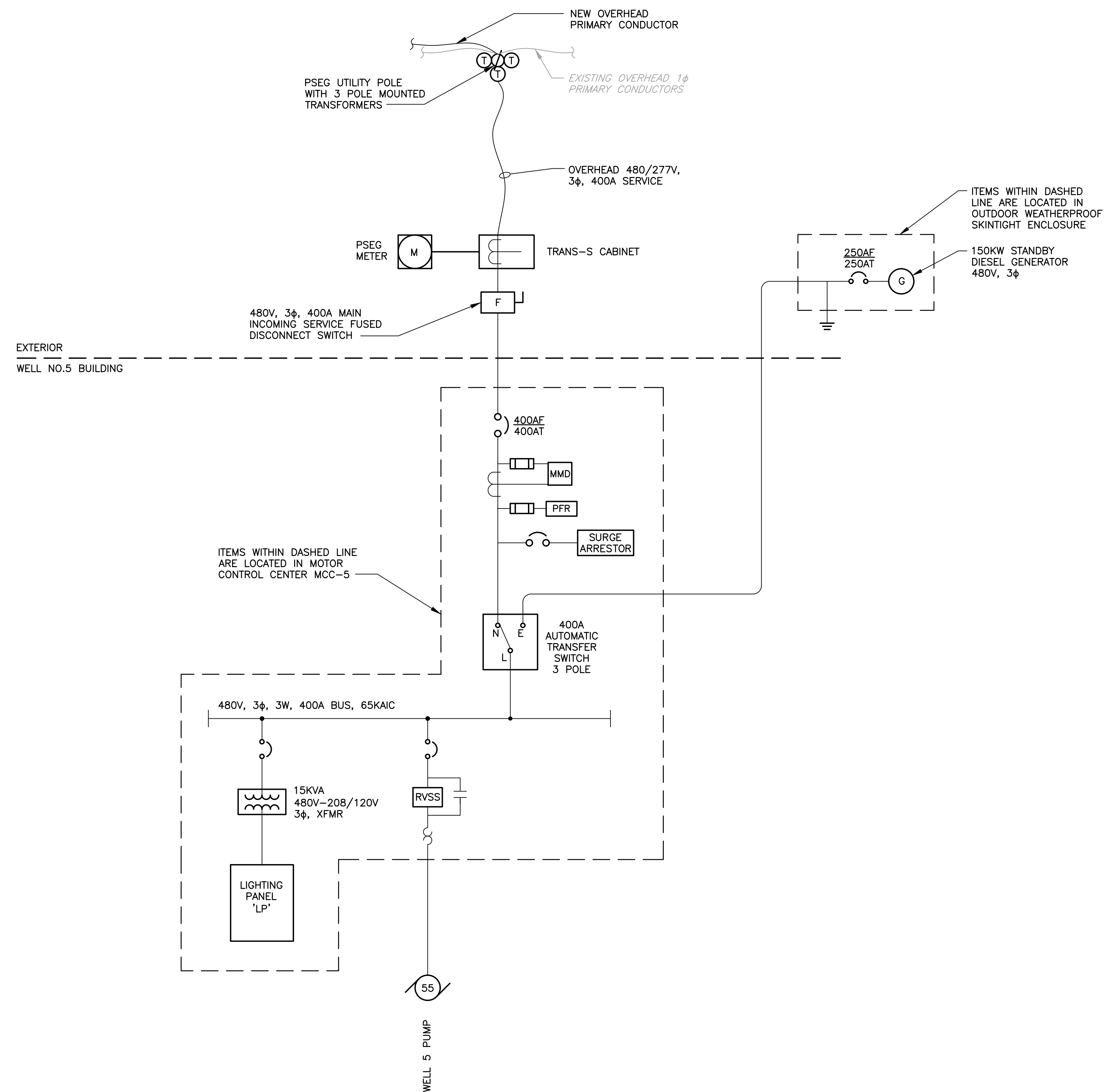
1. REFER TO DRAWING X FOR SYMBOLS AND ABBREVIATIONS.

MOTOR CONTROL CENTER MCC-5								VOLTS: 480V	BUS AMPS: 400A	PHASE: 3PH,3W+GND	AIC: 65,000 AMPS
ITEM NO.	NAMEPLATE	UNIT DESIGN	BREAKER		HP (KVA)	CONDUIT NO.	WIRING DIAGRAM NO.	REMARKS			
			FRAME	TRIP							
1A	SPACE										
1B	LIGHTING PANEL "LP"							SEE SCHEDULE			
1C	15KVA TRANSFORMER BREAKER	CB	100	30							
1D	15KVA TRANSFORMER				(15)						
2A	WELL 5 PUMP	RVSS	100	100	55						
3A	AUTOMATIC TRANSFER SWITCH	ATS						400A			
4A	MAIN BREAKER	CB	400	400				SERVICE ENTRANCE RATED			
4B	METERING										
4C	SURGE ARRESTOR BREAKER	CB	100	30							
4D	SURGE ARRESTOR										
4E	SPACE										



ELEVATION: MOTOR CONTROL CENTER MCC-5

SCALE: N.T.S.



SINGLE LINE DIAGRAM: MOTOR CONTROL CENTER MCC-5

SCALE: N.T.S.

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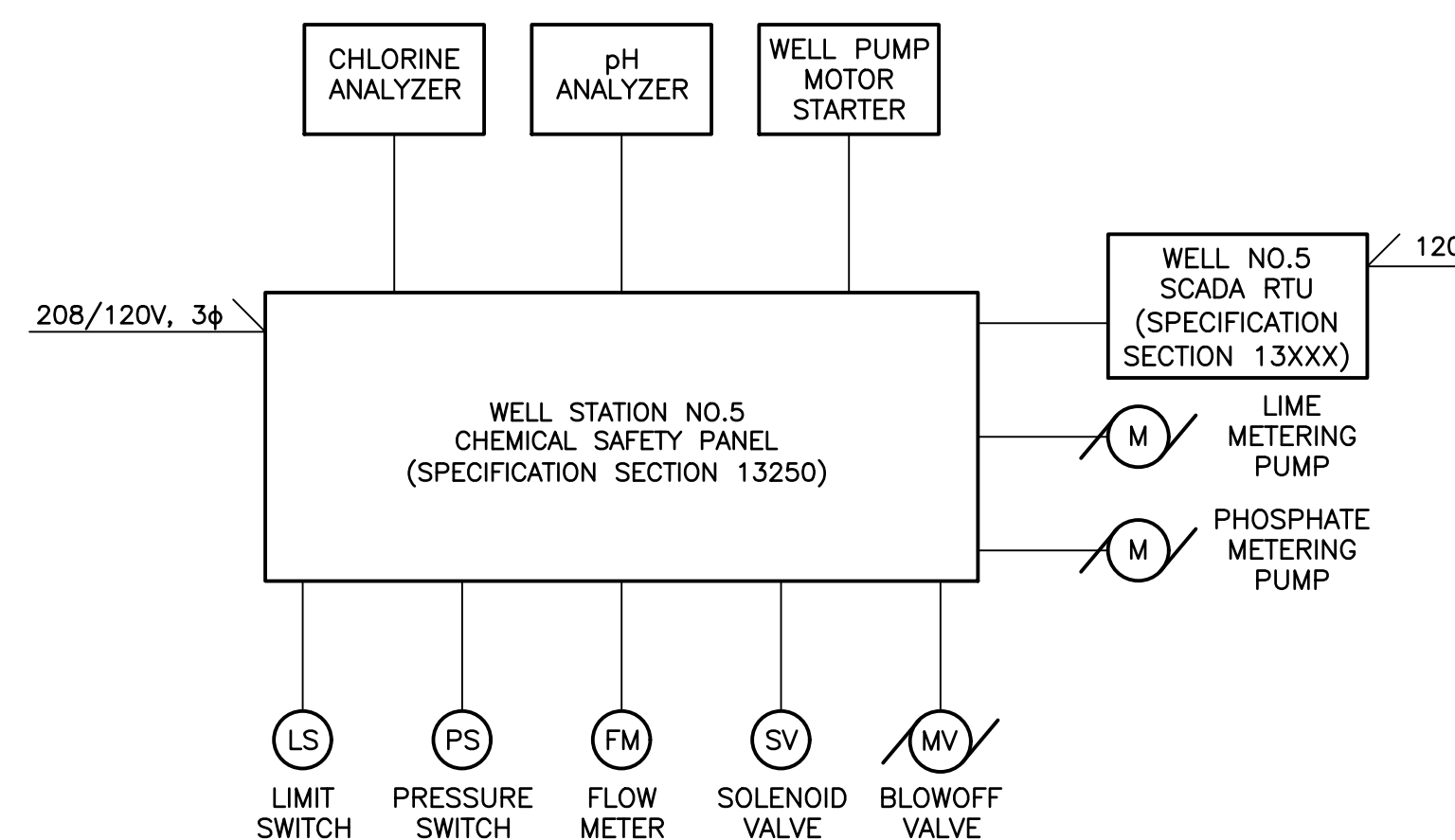
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SUFFOLK COUNTY WATER DEPARTMENT NEW YORK
CONSTRUCTION OF WELL STATION NO. 5

MOTOR CONTROL CENTER MCC-5
ELEVATION AND SINGLE LINE DIAGRAM
ELECTRICAL

PROJECT NO. 3744	DRAWING NO. 8
DATE: JUNE 2017	
SCALE: N.T.S.	


NOTES:

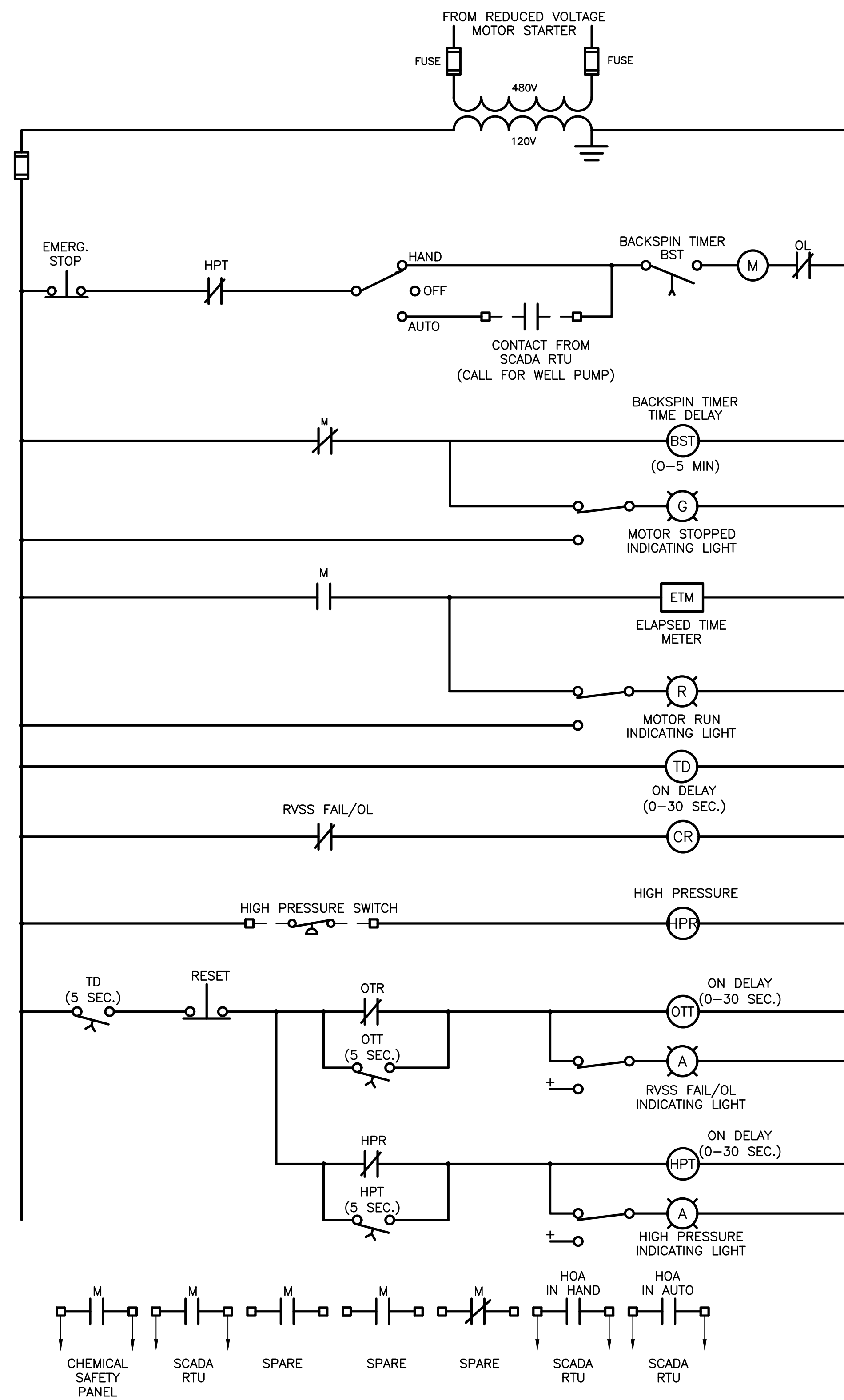
1. REFER TO DRAWING X FOR SYMBOLS AND ABBREVIATIONS.



RISER DIAGRAM: CHEMICAL SAFETY SYSTEM

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				PROJECT ENGINEER: SP	DRAWN BY: TW		CONSTRUCTION OF WELL STATION NO. 5		DATE: JUNE 2017	DRAWING NO.		
DESIGNED BY: TW	CHECKED BY: MN	SCALE: N.T.S.										
NO.	DATE	REVISION	INT.					PROJECT NO. 3744	DATE: JUNE 2017	SCALE: N.T.S.	DRAWING NO.	



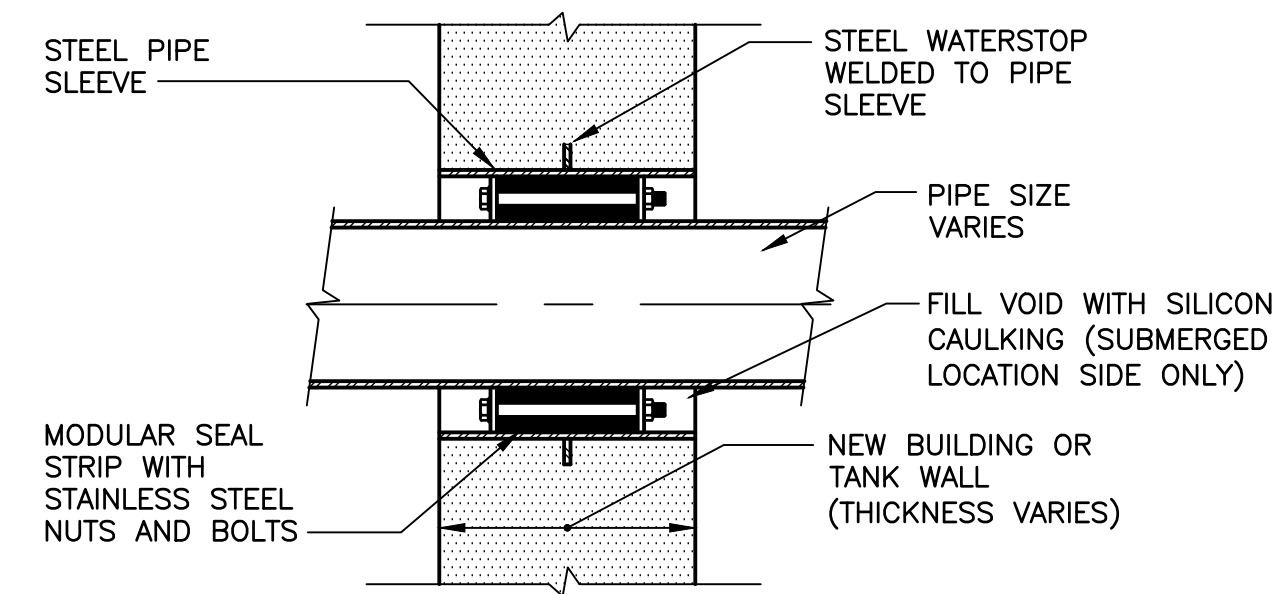
WIRING DIAGRAM NO. 1

WELL 5 PUMP

- NOTES:**
1. MOTOR STARTER SHALL BE REDUCED VOLTAGE, SOLID STATE.
 2. MOTOR STARTER SHALL CONTAIN SINGLE PHASE AMMETER AND CURRENT TRANSFORMER.
 3. MOTOR STARTER SHALL CONTAIN SURGE ARRESTOR.
 4. REFER TO SPECIFICATION SECTION 16920 FOR CONTROL ACCESSORIES. NOT ALL CONTROLS ARE SHOWN ON THE WIRING DIAGRAM.

NOTES:

1. REFER TO DRAWING X FOR SYMBOLS AND ABBREVIATIONS.

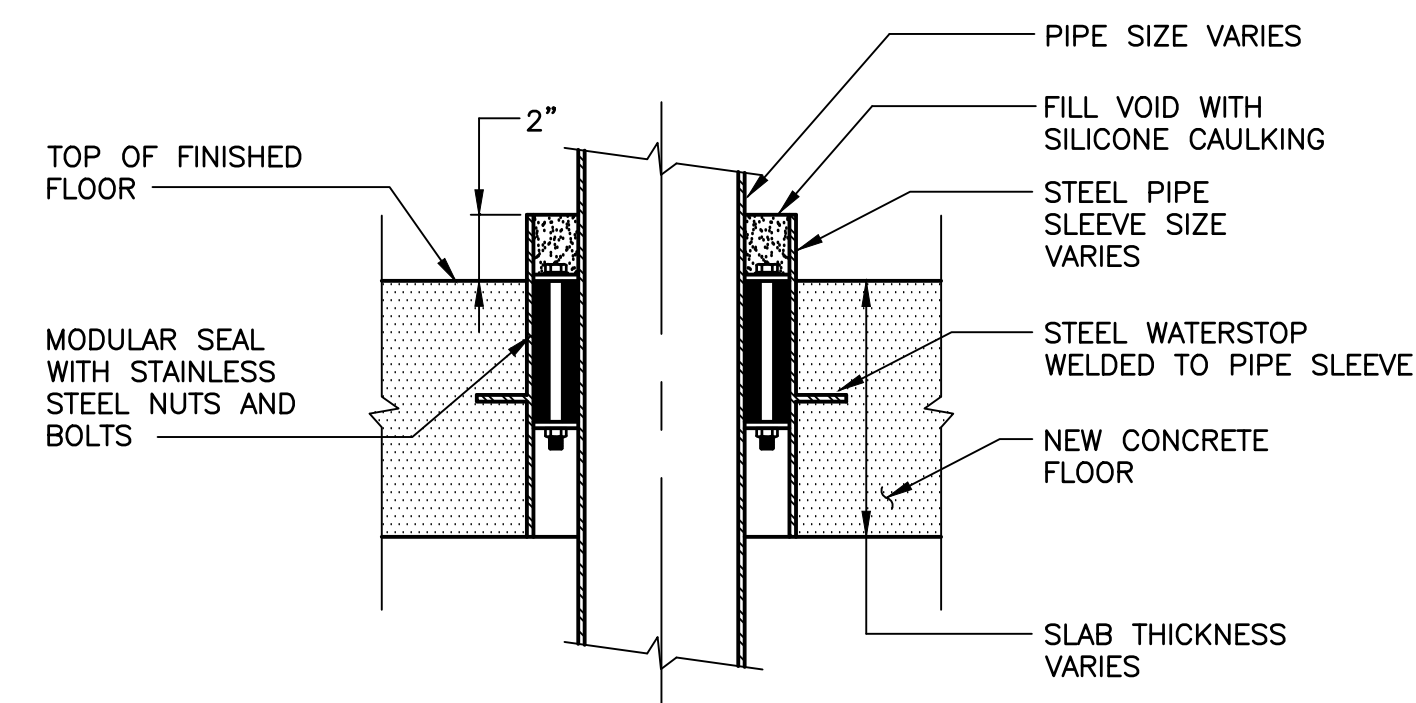


NOTES:

1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.
2. WALLS 12" OR LARGER IN THICKNESS SHALL REQUIRE 2 MODULAR SEAL STRIPS.

TYPICAL CONDUIT PENETRATION THRU NEW WALL

(USE FOR ALL NEW WALL PENETRATIONS)
N.T.S.



NOTES:

1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.
2. FLOORS 12" OR LARGER IN THICKNESS SHALL REQUIRE 2 MODULAR SEAL STRIPS.

TYPICAL CONDUIT PENETRATION THRU NEW FLOOR

(USE FOR ALL NEW FLOOR PENETRATIONS)
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VILLAGE OF OCEAN BEACH
SUFFOLK COUNTY **WATER DEPARTMENT** NEW YORK
CONSTRUCTION OF WELL STATION NO. 5

WIRING DIAGRAM AND DETAILS
ELECTRICAL

PROJECT NO. 3744	DRAWING NO. 10
DATE: JUNE 2017	
SCALE: N.T.S.	