



THE GUTIERREZ COMPANY

RESIDENCES AT STONE RIDGE PHASE II

300 - 400 DEER STREET  
MILFORD, MA

03/15/2021	RESPONSE TO SEWER DEPARTMENT
03/08/2021	CONFORMANCE SET
02/23/2021	SEWER DEPARTMENT REVIEW
09/14/2020	CONFORMANCE SET
03/13/2020	COMPREHENSIVE PERMIT
01/06/2020	PROJECT ELIGIBILITY APPLICATION
MARK DATE:	DESCRIPTION:
ISSUE LOG	
△	CLAUDED CHANGE

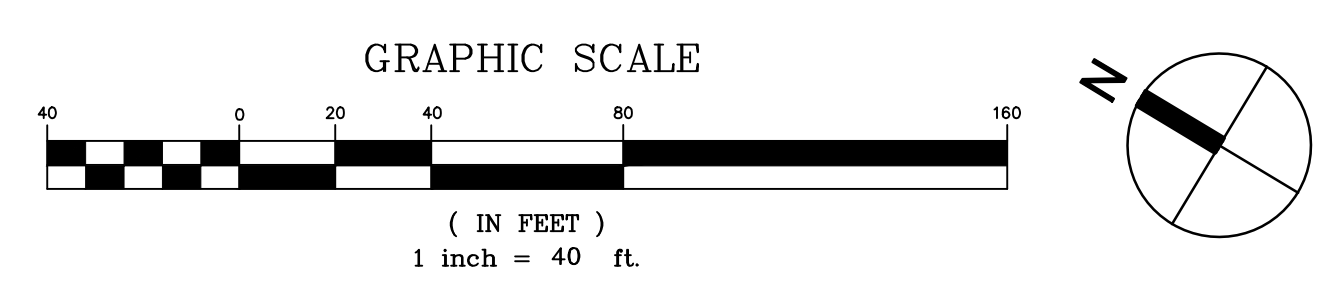
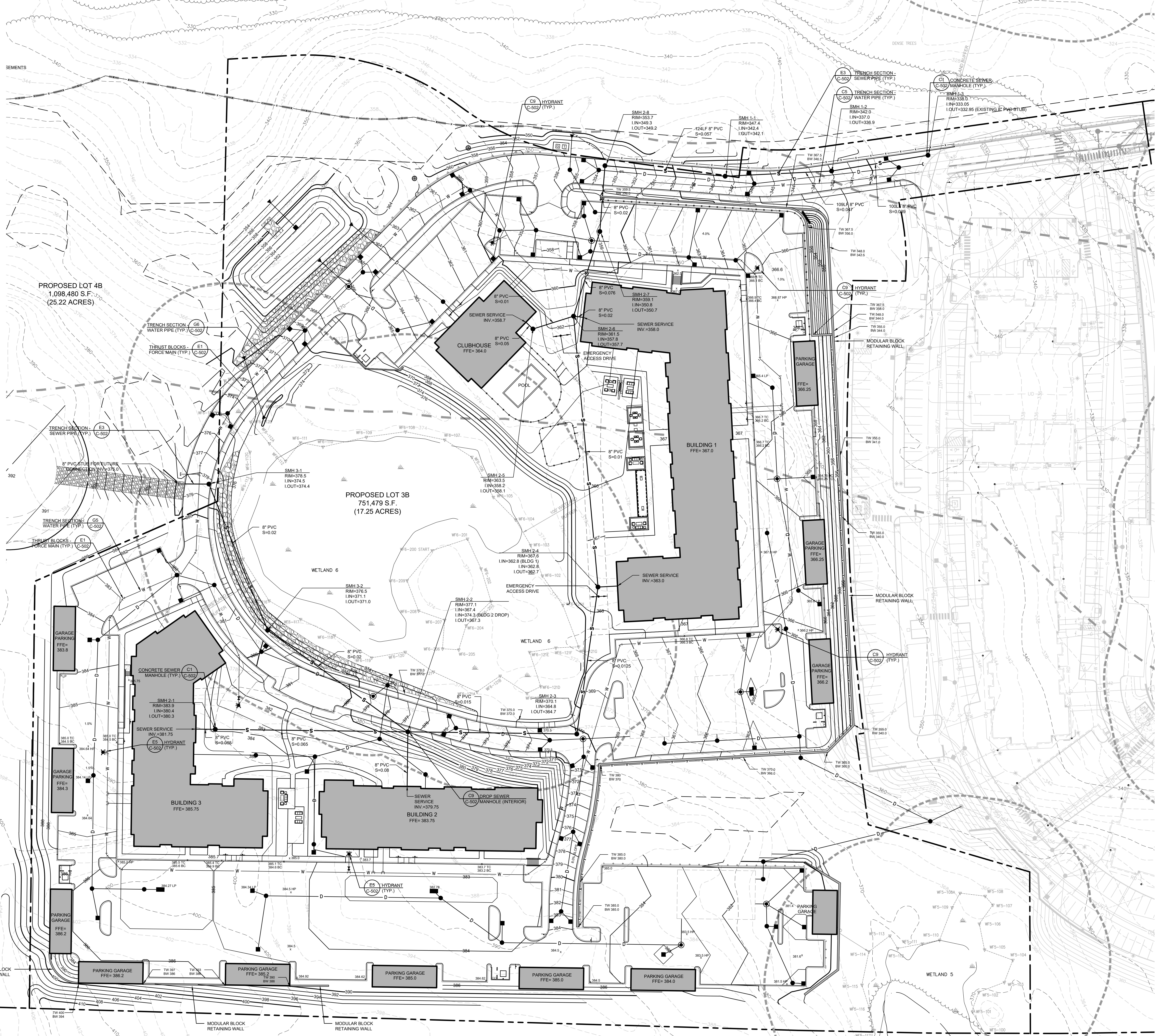
SCALE	1"=40'
DRAWN BY	DCC
CHECK BY	WVP
PROJ.ARCH/ENGR.	JAH
PROJ. MGR.	SAV
JOB NO.	19162
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UTILITIES PLAN

LEGEND

Symbol	WATER GATE
Symbol	SEWER MANHOLE
Symbol	HYDRANT
Symbol	POST INDICATOR VALVE
Symbol	GENERATOR
Symbol	TRANSFORMER
Symbol	RIPRAP
Symbol	SPOT GRADE
Symbol	2' CONTOUR
Symbol	10' CONTOUR
Symbol	WATER LINE
Symbol	DOMESTIC SERVICE
Symbol	FIRE PROTECTION SERVICE
Symbol	SEWER LINE
Symbol	GAS LINE
Symbol	UNDERGROUND ELECTRIC LINE AND TELEPHONE LINE
Symbol	TOP OF CURB / TOP OF WALL
Symbol	BOTTOM OF CURB / BOTTOM OF WALL
Symbol	FINISH FLOOR ELEVATION
Symbol	RIM ELEVATION
Symbol	INVERT ELEVATION
Symbol	POLYVINYL CHLORIDE PIPE
Symbol	CORRUGATED POLYETHYLENE PIPE
Symbol	CEMENT LINE DUCTILE IRON PIPE
Symbol	SOIL BORING

- GRADING & UTILITY NOTES:
- PRIOR TO CONSTRUCTION, VERIFY EXISTING UTILITY LOCATIONS AS SHOWN ON THE DRAWINGS. REPORT DISCREPANCIES TO THE OWNER.
  - PIPE MATERIALS (UNLESS OTHERWISE SPECIFIED):  
STORM DRAIN: CORRUGATED POLYETHYLENE PIPE (CPE)  
WATER: CLASS 52 CEMENT LINED DUCTILE IRON (CLDI)  
SEWER: POLYVINYL CHLORIDE PIPE (PVC)
  - PROVIDE ADEQUATE BRACING AND SHORING OF ALL EXCAVATIONS IN ACCORDANCE WITH ALL GOVERNING CODES AND REGULATIONS.
  - PROTECT NEW AND EXISTING UTILITIES TO REMAIN, DURING CONSTRUCTION.
  - COORDINATE WORK WITH APPROPRIATE UTILITY COMPANIES.
  - CONTACT THE APPROPRIATE UTILITY COMPANY AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. NOTIFY THE ARCHITECT OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION.
  - NOTIFY THE OWNER A MINIMUM OF 5 DAYS PRIOR TO PERFORMING ANY WORK THAT INVOLVES CONFLICTS BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES TO REMAIN.
  - THE GAS, ELECTRIC AND TELEPHONE SERVICES SHOWN ARE APPROXIMATE. COORDINATE ACTUAL LOCATIONS WITH THE APPROPRIATE SUBCONTRACTOR AND UTILITY COMPANY.
  - VERIFY EXISTING DRAINAGE AND SEWER INVERTS WHERE NEW UTILITY CONNECTIONS ARE PROPOSED. REPORT DISCREPANCIES FROM EXISTING OR PROPOSED CONNECTING INVERTS SHOWN TO THE OWNER, PRIOR TO PERFORMING ANY DRAINAGE WORK TRIBUTARY TO THE CONNECTION POINT.
  - CONFIRM NEW HYDRANTS, VALVES, AND FITTINGS MEET THE REQUIREMENTS OF THE TOWN OF MILFORD FIRE DEPARTMENT AND WATER DEPARTMENT.
  - ESTABLISH AND MAINTAIN CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.
  - CONFORM TO RULES & REGULATIONS OF THE MILFORD SEWER DEPARTMENT AND MILFORD WATER COMPANY.





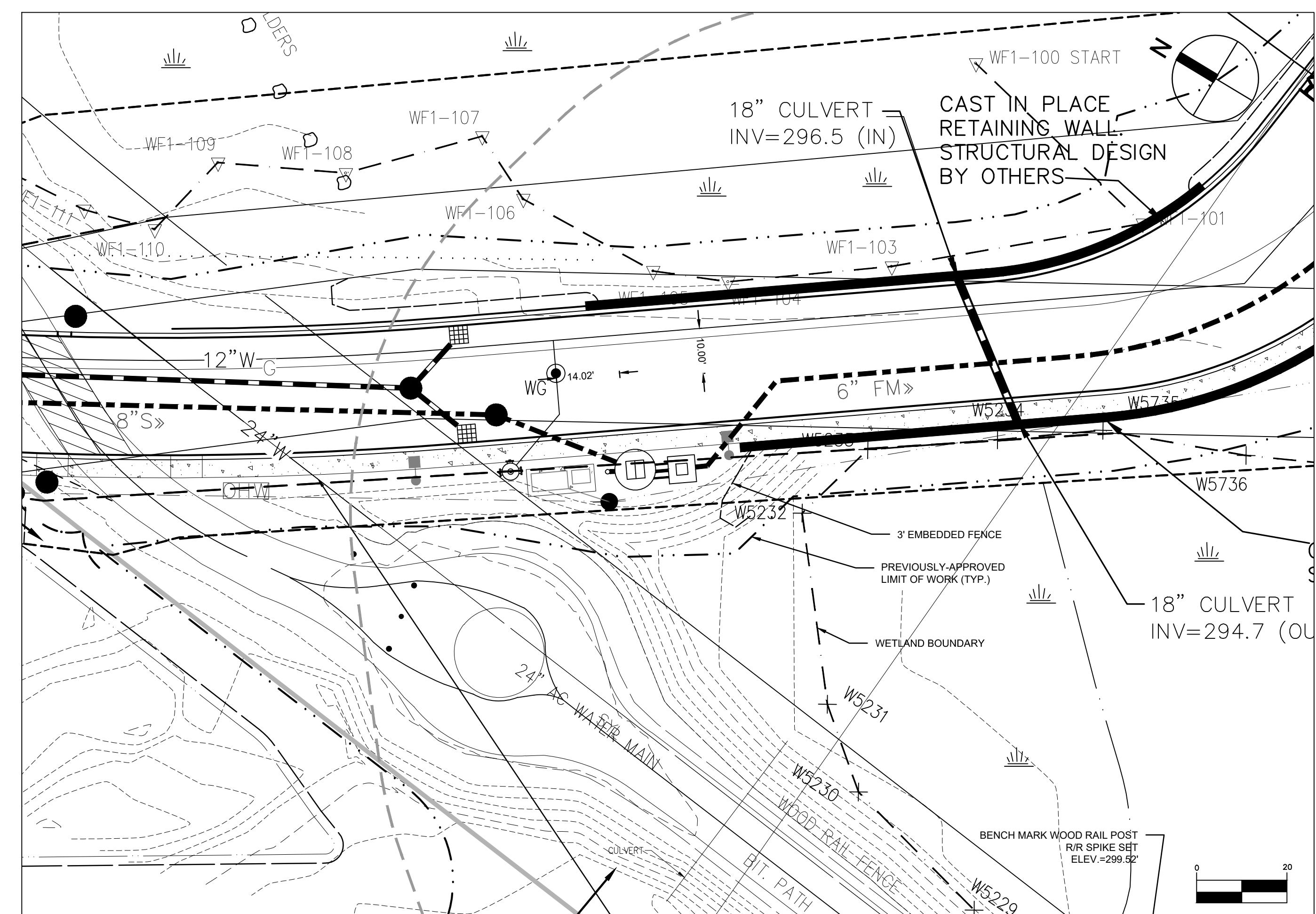
**THE GUTIERREZ COMPANY**  
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 300 - 400 DEER STREET  
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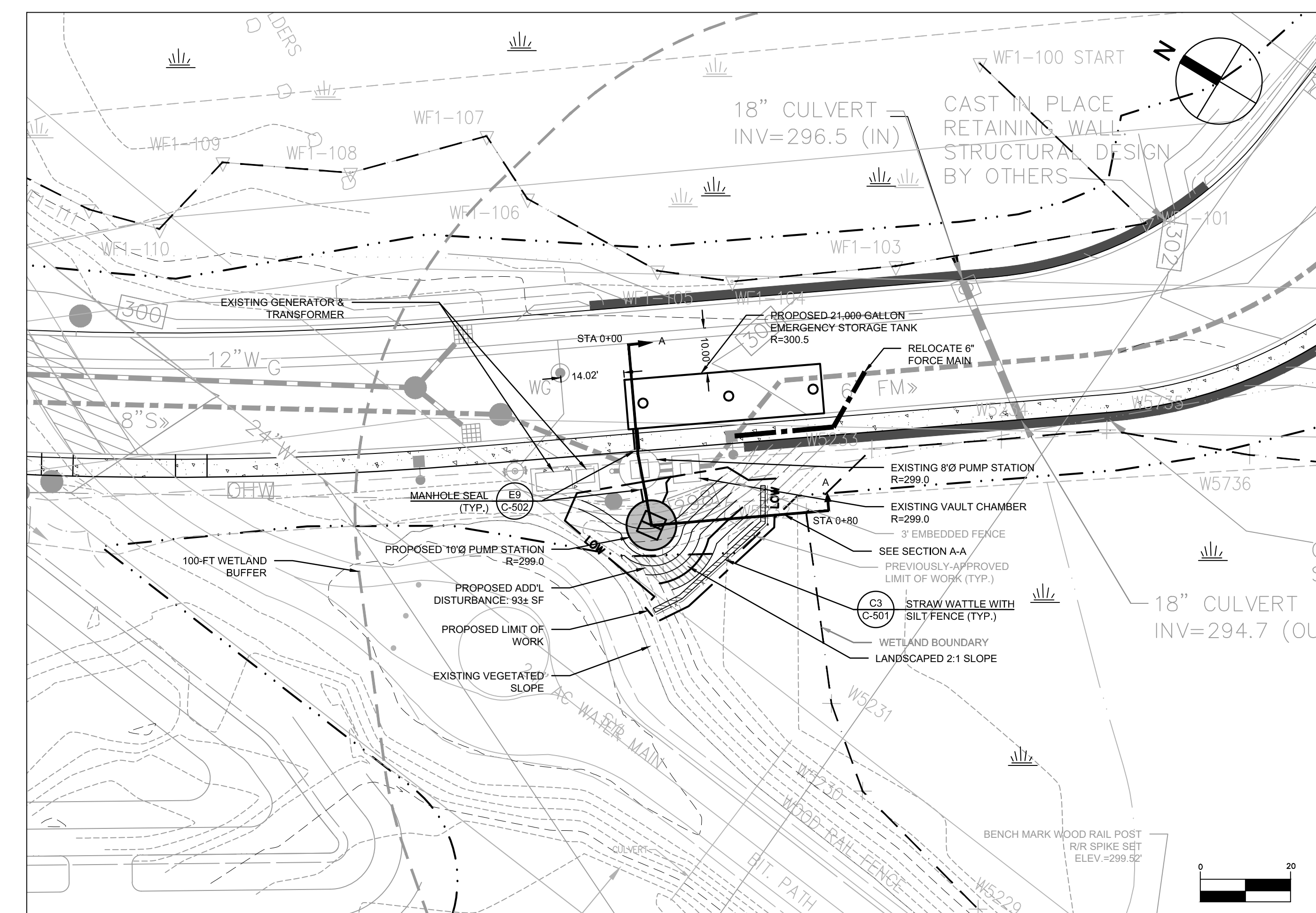
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CHECK BY	WJP
PROJ. ARCH. ENGR.	JAH
PROJ. MGR.	SAV
JOB NO.	19162
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**PUMP STATION PLAN**

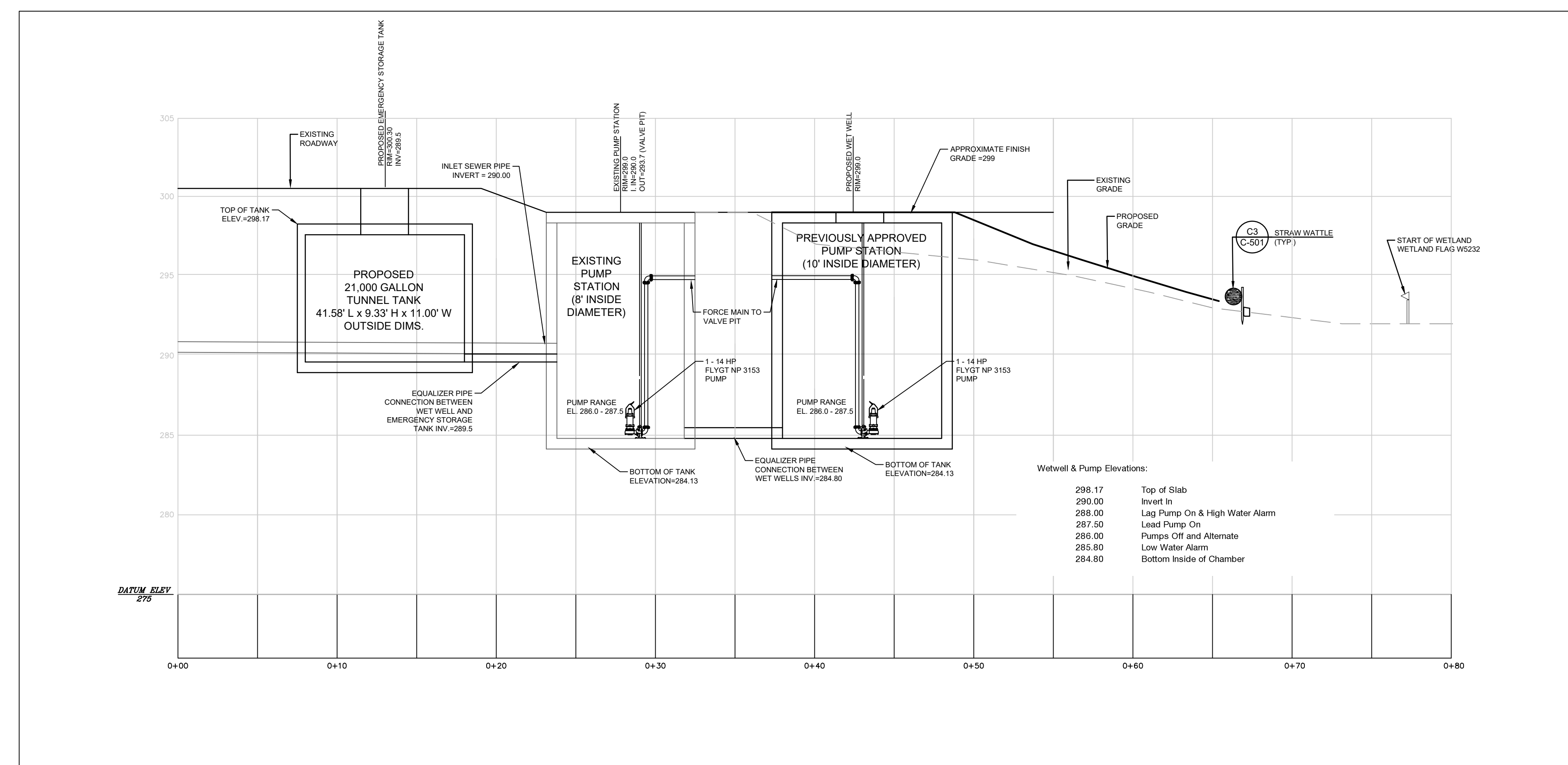
**C-143**



**EXISTING CONDITIONS**  
 SCALE: 1" = 20'



**SITE IMPROVEMENT PLAN**  
 SCALE: 1" = 20'



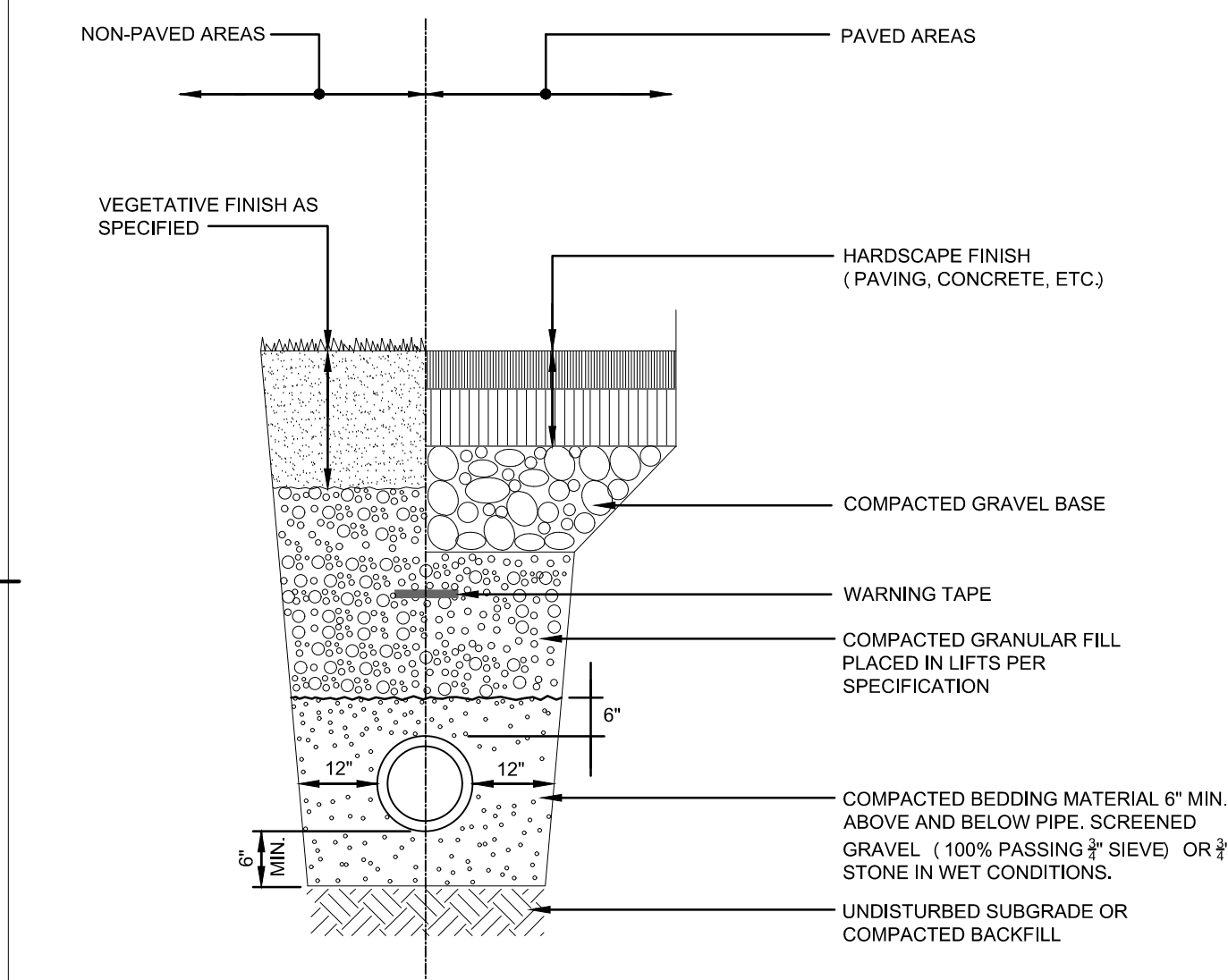
**SECTION A-A**  
 SCALE: 1" = 3'

- NOTES:**
- EXISTING PUMP STATION TO REMAIN. TWO EXISTING SHP PUMPS TO BE REMOVED AND REPLACED WITH ONE 14.0 HP PUMP. RAIRS, FLOATS, CONTROLS, ETC. TO REMAIN.
  - NEW 10 FOOT INSIDE DIAMETER PUMP STATION TO BE INSTALLED WITH ONE 14.0 HP PUMP. PUMP TO BE CONNECTED TO EXISTING CONTROL PANEL. NEW RAIL SYSTEM TO BE INSTALLED. PUMP DISCHARGE TO BE CONNECTED TO EXISTING VALVE PIT. EXISTING VALVES TO REMAIN.
  - PUMPS ARE TO FUNCTION AS A DUPLEX SYSTEM ALTERNATING LAG/LEAD.
  - ADDITIONAL LOW AND HIGH WATER ALARM FLOATS TO BE INSTALLED IN NEW WET WELL.
  - NEW 21,000 GALLON EMERGENCY STORAGE TANK.
- EMERGENCY STORAGE VOLUME PROVIDED**
- EXISTING PUMP STATION VOLUME ABOVE PUMP RANGE = 3,699 GAL.  
 PROPOSED WET WELL VOLUME ABOVE PUMP RANGE = 5,772 GAL.  
 EMERGENCY STORAGE TANK VOLUME = 21,000 GAL. (24,283 GAL. FULL)  
 TOTAL STORAGE = 30,471 GAL.
- TOTAL EMERGENCY STORAGE REQUIRED**
- 8 HOURS OF REQUIRED STORAGE  
 MAXIMUM DAILY FLOW = 118,483 GAL./DAY  
 STORAGE TIME PROVIDED = 30,471 GAL./118,483 GAL./DAY = 0.257 DAYS OR 6.17 HOURS

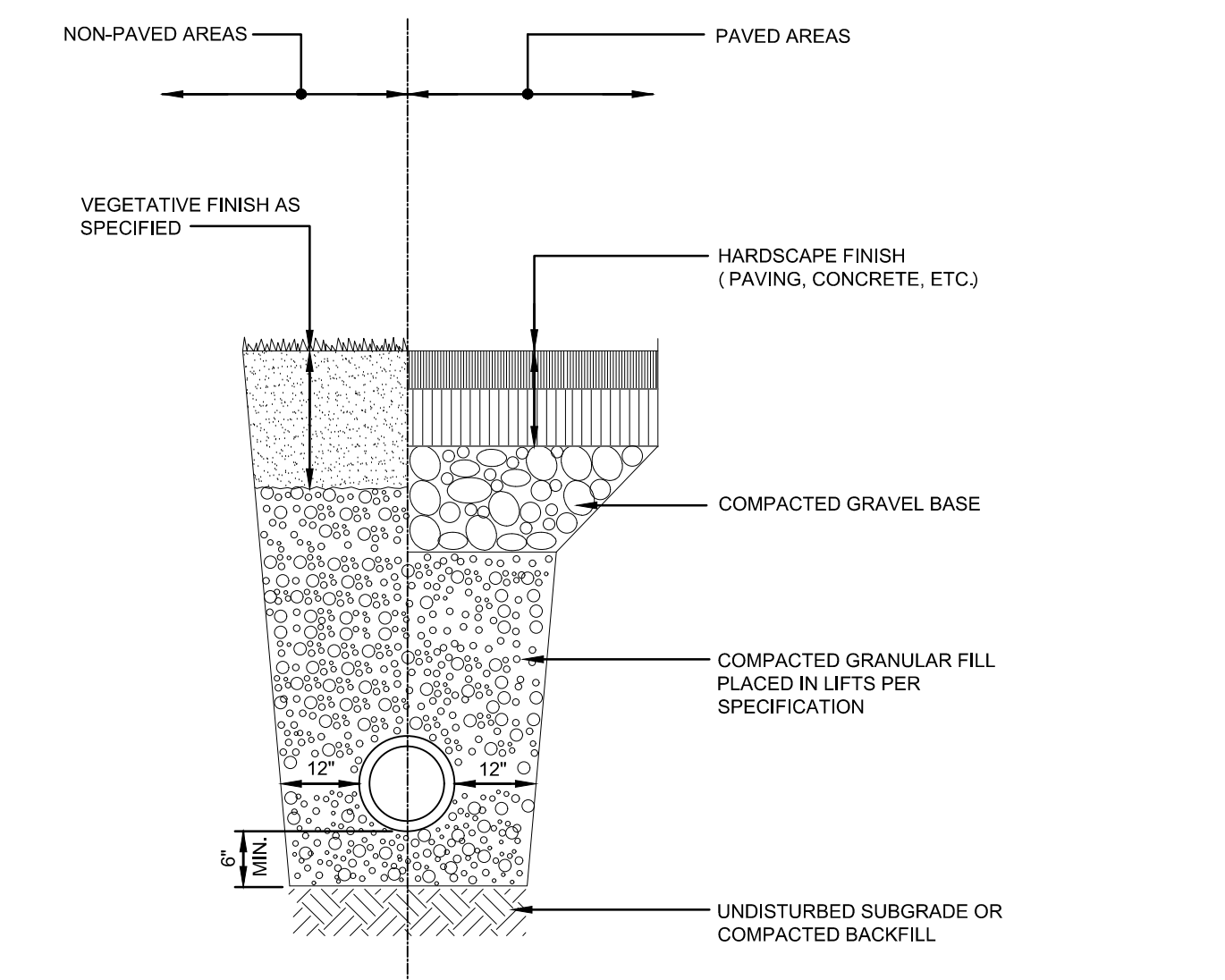
**LEGEND**

---	PROPOSED LIMIT OF WORK
---	PREVIOUSLY APPROVED LIMIT OF WORK
▨	PROPOSED ADDITIONAL BUFFER DISTURBANCE
- - -	WETLAND BOUNDARY
---	STRAW WATTLE

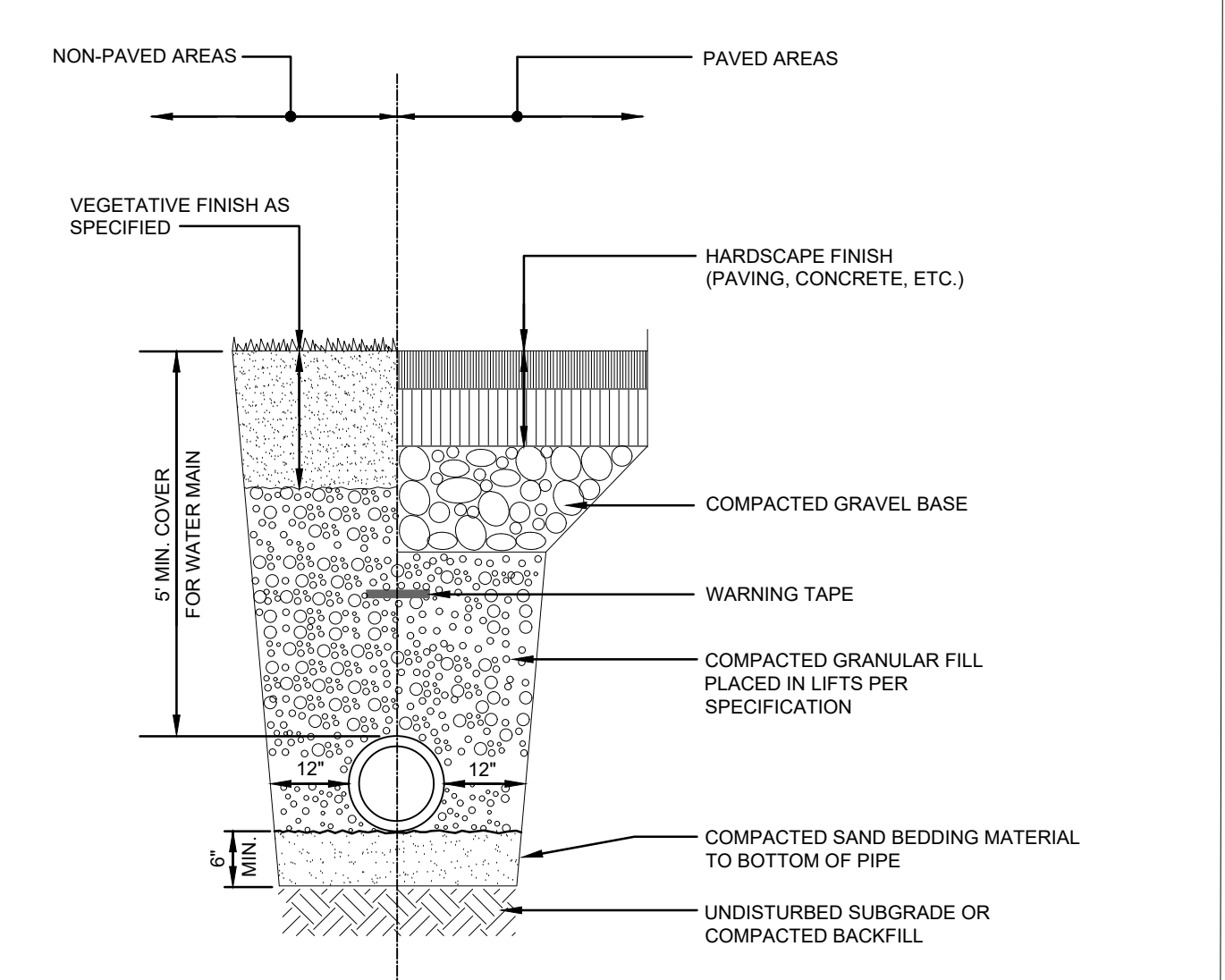
- NOTES:**
- EXISTING PUMP STATION AND VALVE PIT TO REMAIN.
  - NEW 10 FOOT INSIDE DIAMETER PUMP STATION TO BE INSTALLED WITH ONE 14HP PUMP. PUMP TO BE CONNECTED TO EXISTING CONTROL PANEL. NEW RAIL SYSTEM TO BE INSTALLED. PUMP DISCHARGE TO BE CONNECTED TO EXISTING VALVE PIT. EXISTING VALVES TO REMAIN.
  - PUMPS ARE TO FUNCTION AS A DUPLEX SYSTEM ALTERNATING LAG/LEAD.
  - ADDITIONAL LOW AND HIGH WATER ALARM FLOATS TO BE INSTALLED IN NEW WET WELL.
  - CONTRACTOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE MILFORD SEWER DEPARTMENT AND MILFORD WATER COMPANY.



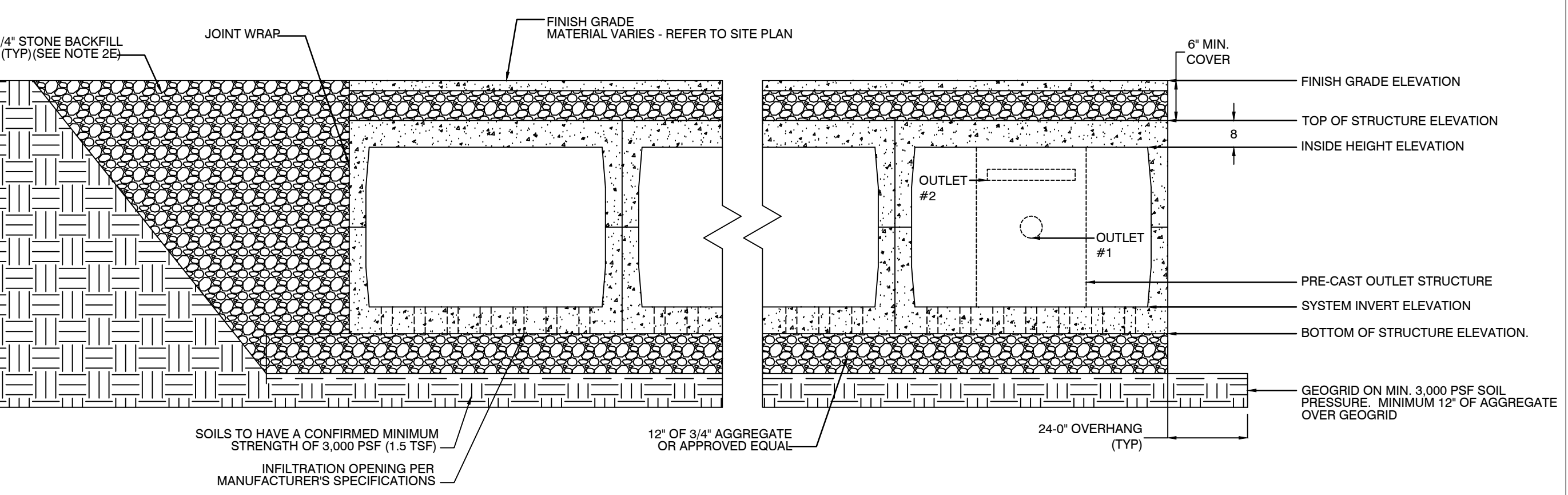
**G1 TRENCH SECTION - SEWER PIPE**  
N.T.S.



**G3 TRENCH SECTION - CPE DRAINS**  
N.T.S.



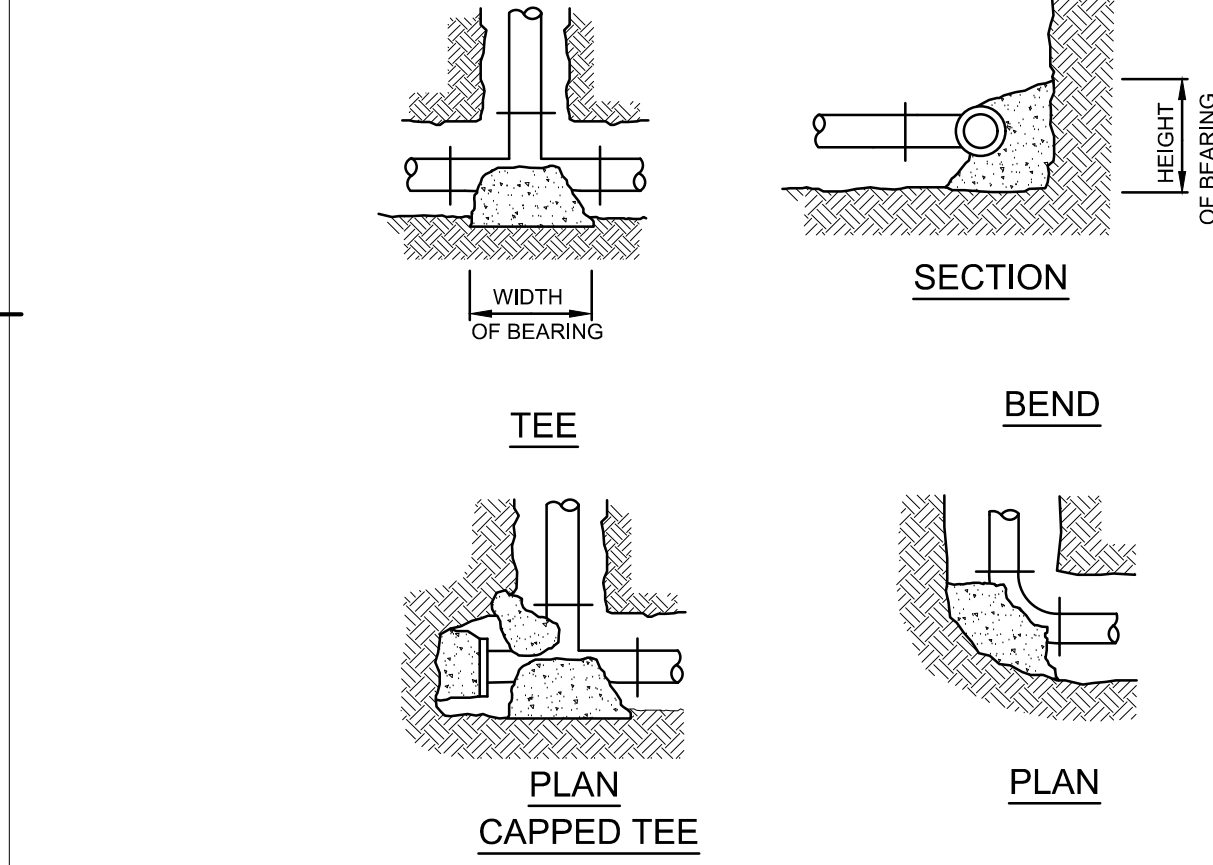
**G5 TRENCH SECTION - WATER + ELEC / TELECOM / GAS**  
N.T.S.



**SYSTEM DIMENSIONS AND ELEVATIONS**

BASIN	DIMENSIONS	% VOIDS	STORAGE VOLUME	SYSTEM INVERT	STRUCT. I.D.	OUTLET #1	OUTLET #2	INV. OUT
B-3A	40' X 80' X 5'	90%	14,400 C.F.	362.50'	DMH 3-11	4" DIA. @ 363.25'	4" X 1" WEIR @ 366.00'	363.25'
B-3B	50' X 80' X 4'	90%	14,400 C.F.	372.50'	DMH 5-6	4" DIA. @ 373.30'	4" X 1" WEIR @ 374.80'	373.30'
B-3D	20' X 100' X 4'	90%	7,200 C.F.	356.90'	DMH 3-3	4" DIA. @ 357.50'	4" X 1" WEIR @ 359.90'	357.50'
B-3B	40' X 60' X 4'	90%	8,640 C.F.	362.50'	DMH 3-12	4" DIA. @ 363.25'	4" X 1" WEIR @ 365.50'	363.25'
B-5C	42' X 75' X 4'	90%	11,340 C.F.	351.50'	DMH 2-13	4" DIA. @ 352.00'	4" X 1" WEIR @ 354.25'	352.00'

**G7 SUBSURFACE INFILTRATION BASIN**  
N.T.S.

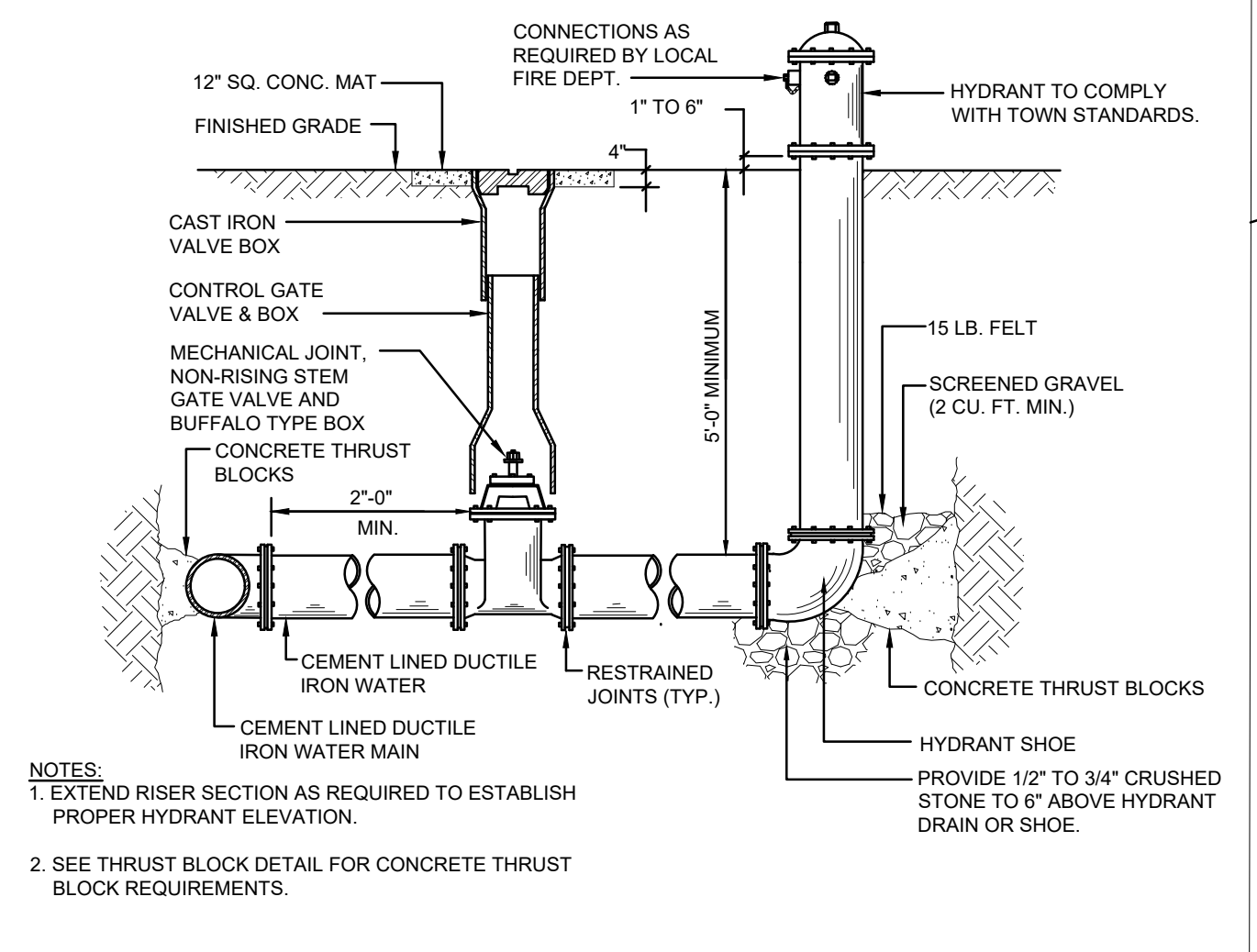


**E1 THRUST BLOCKS - FORCE MAIN**  
N.T.S.

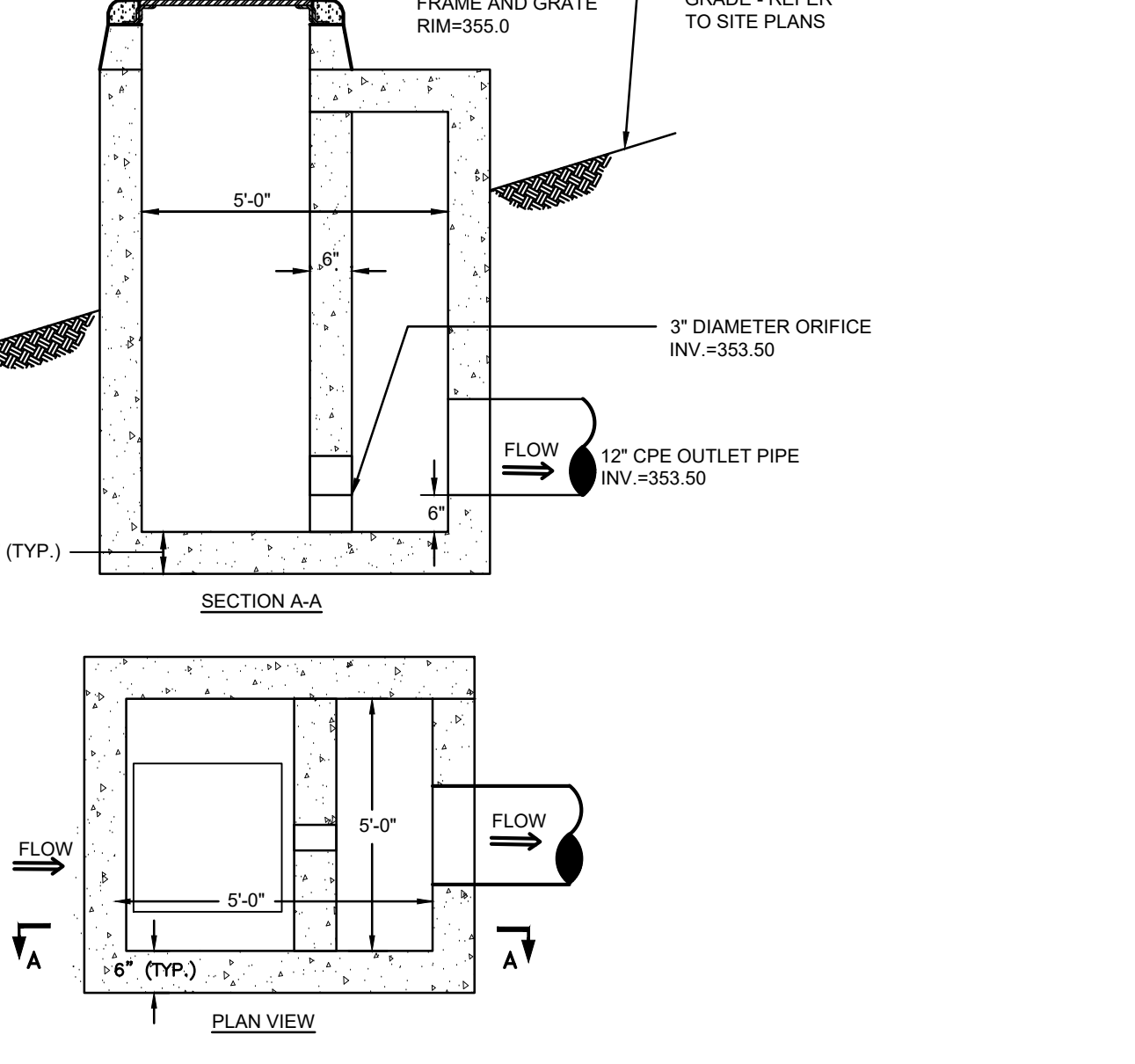
**MINIMUM BEARING AREA (SQUARE FEET)**

FITTINGS PIPE SZ.	BENDS				CAPS & TEES		REDUC.
	90°	45°	22-12"	11-14"	VALVES	3"	
6"	4	2	2	2	3	3	3
8"	6	3	3	3	5	5	5
10"	8	4	4	4	6	6	6
12"	12	7	4	3	9	9	9

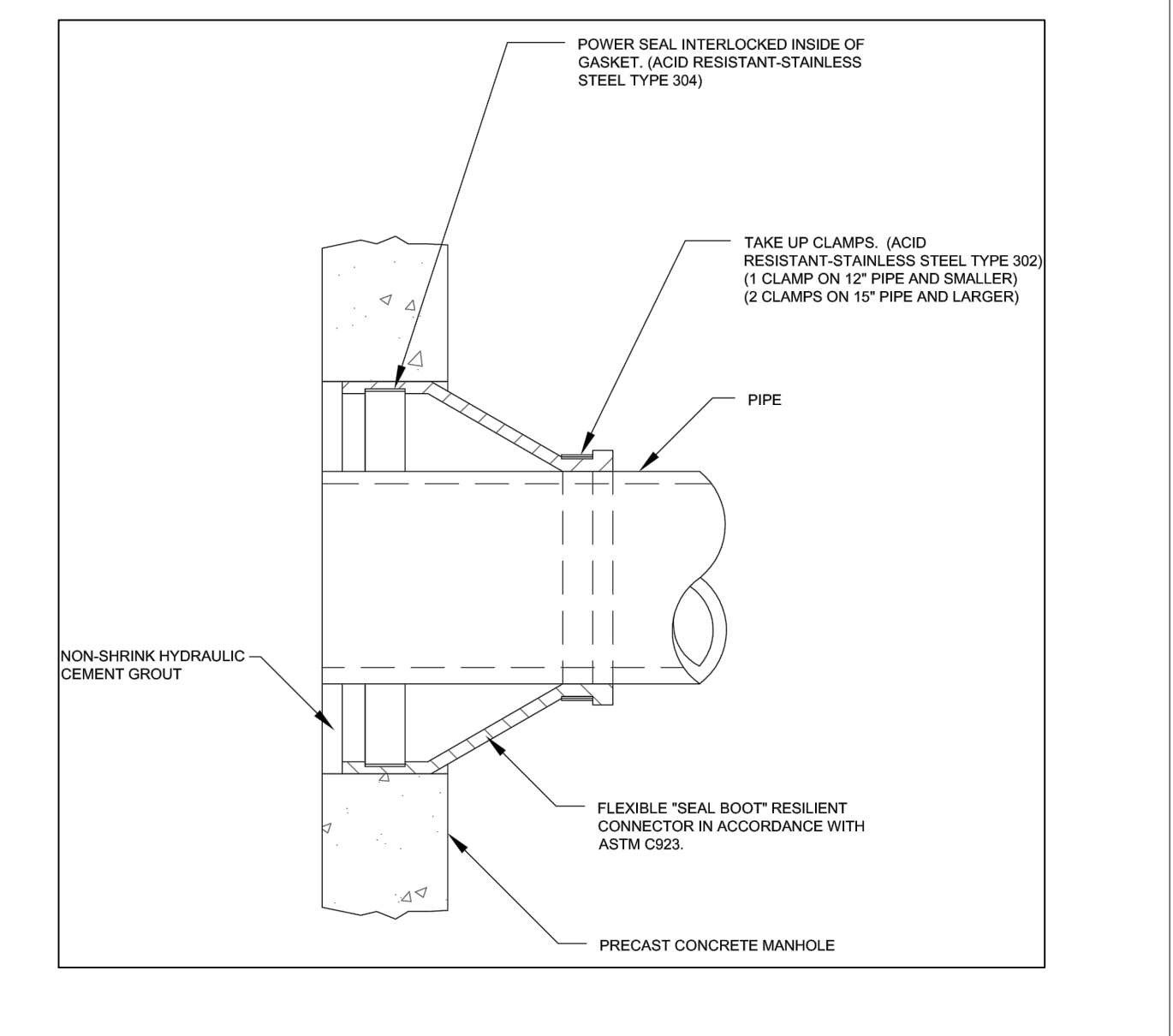
NOTE:  
1. WIDTH & HEIGHT OF BEARING AREAS SHALL BE APPROX. THE SAME.  
2. BEARING SHALL BE ON UNDISTURBED SOIL.



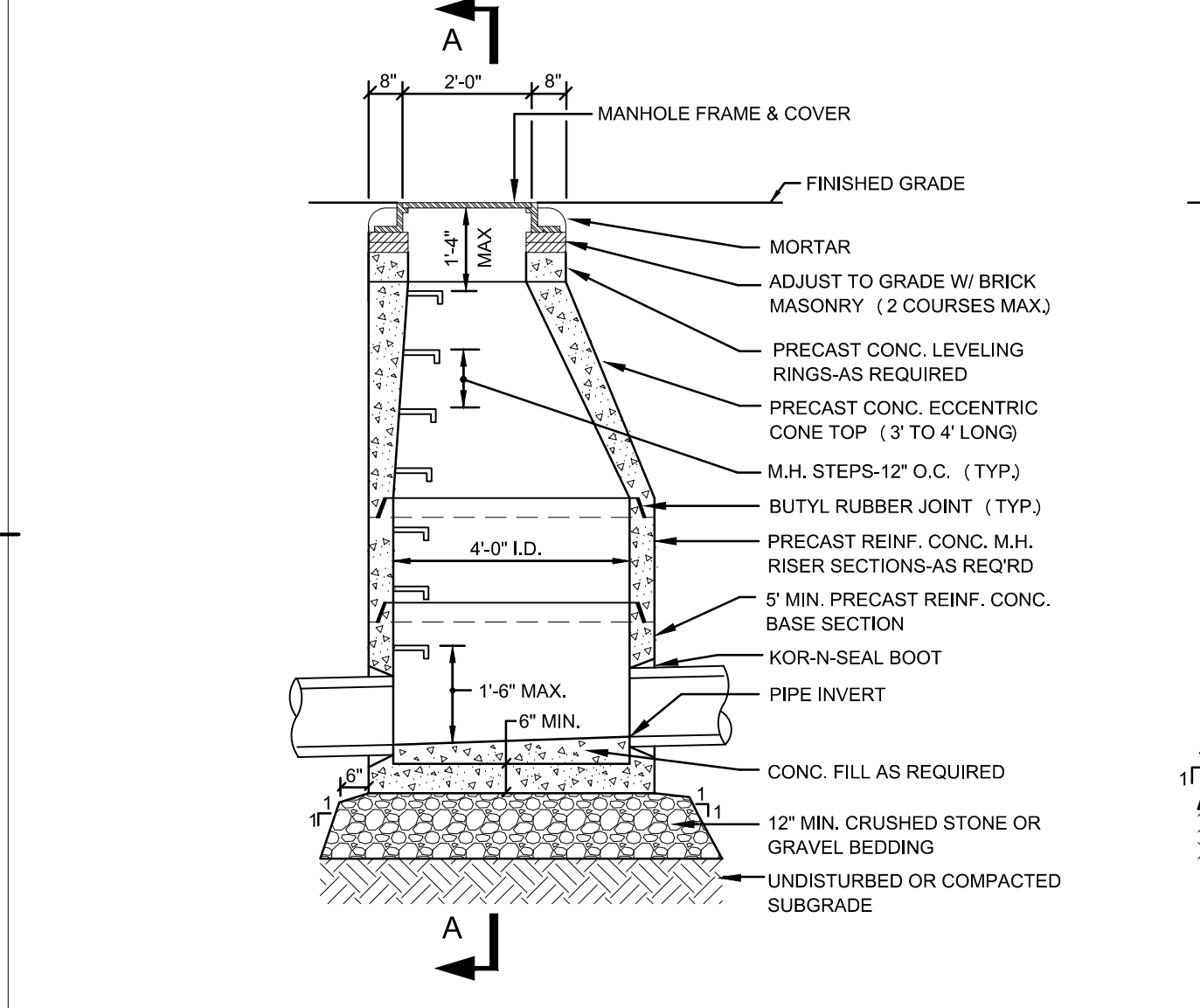
**E5 HYDRANT**  
N.T.S.



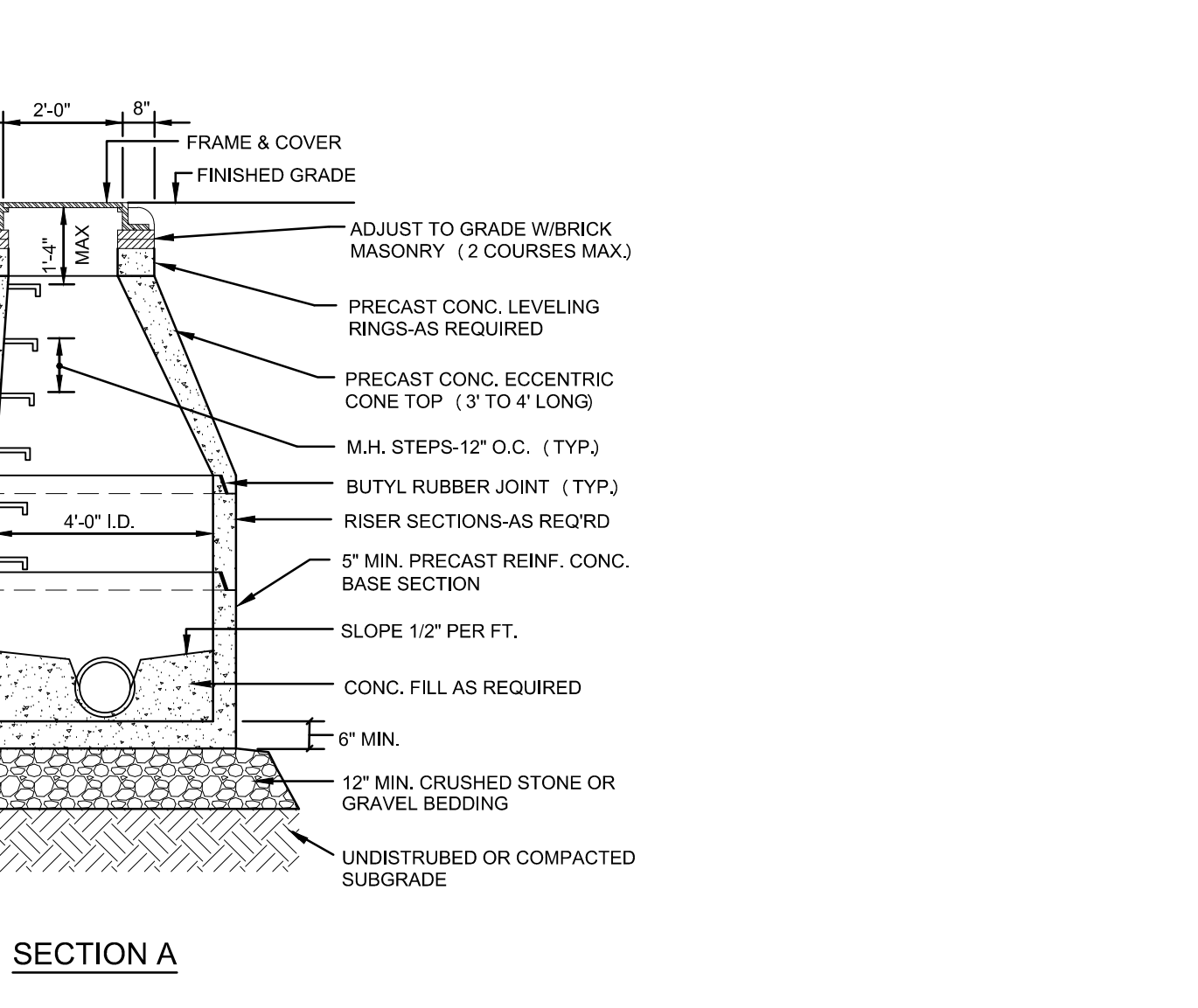
**E7 OUTLET CONTROL STRUCTURE**  
N.T.S.



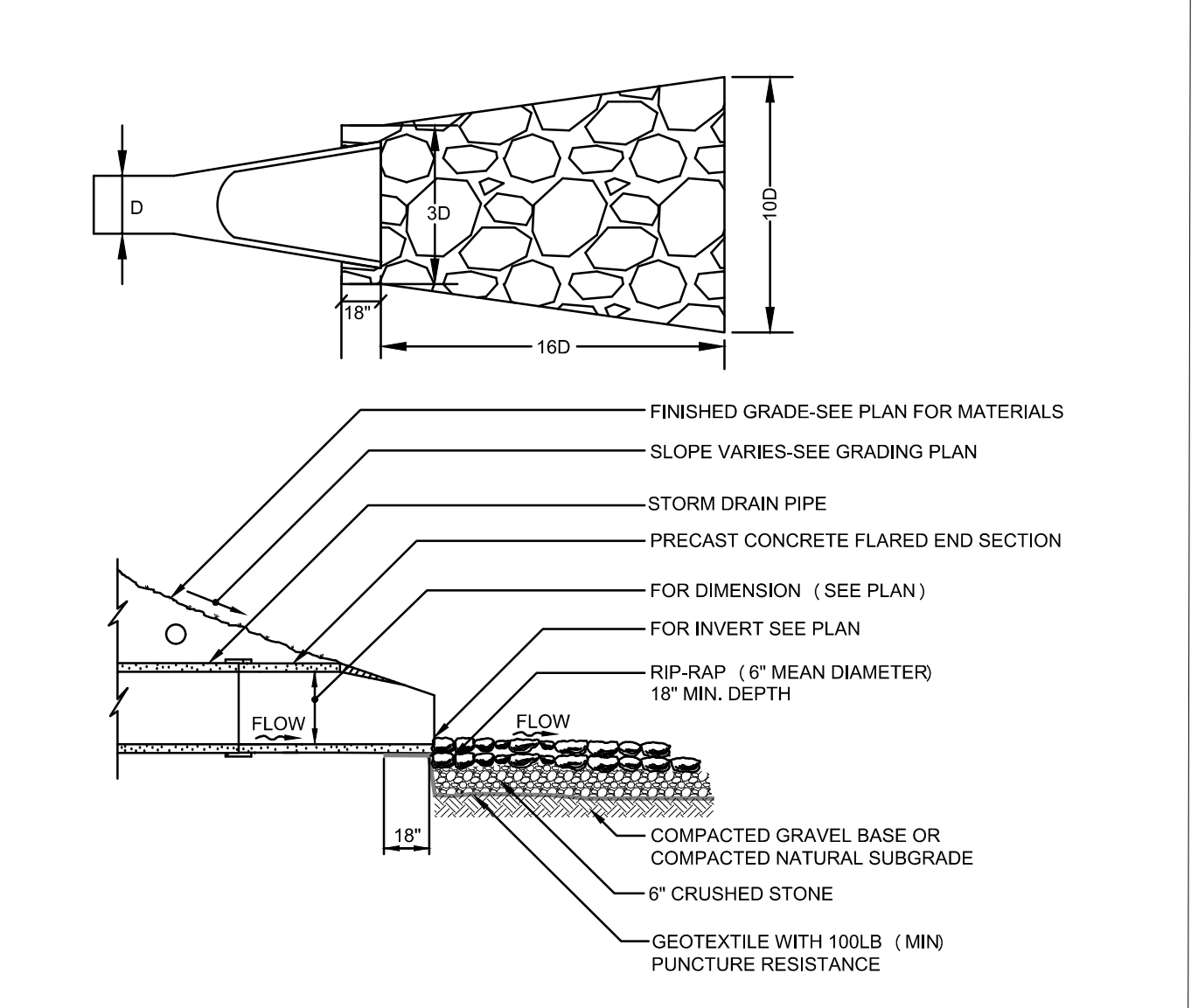
**E9 MANHOLE SEAL**  
N.T.S.



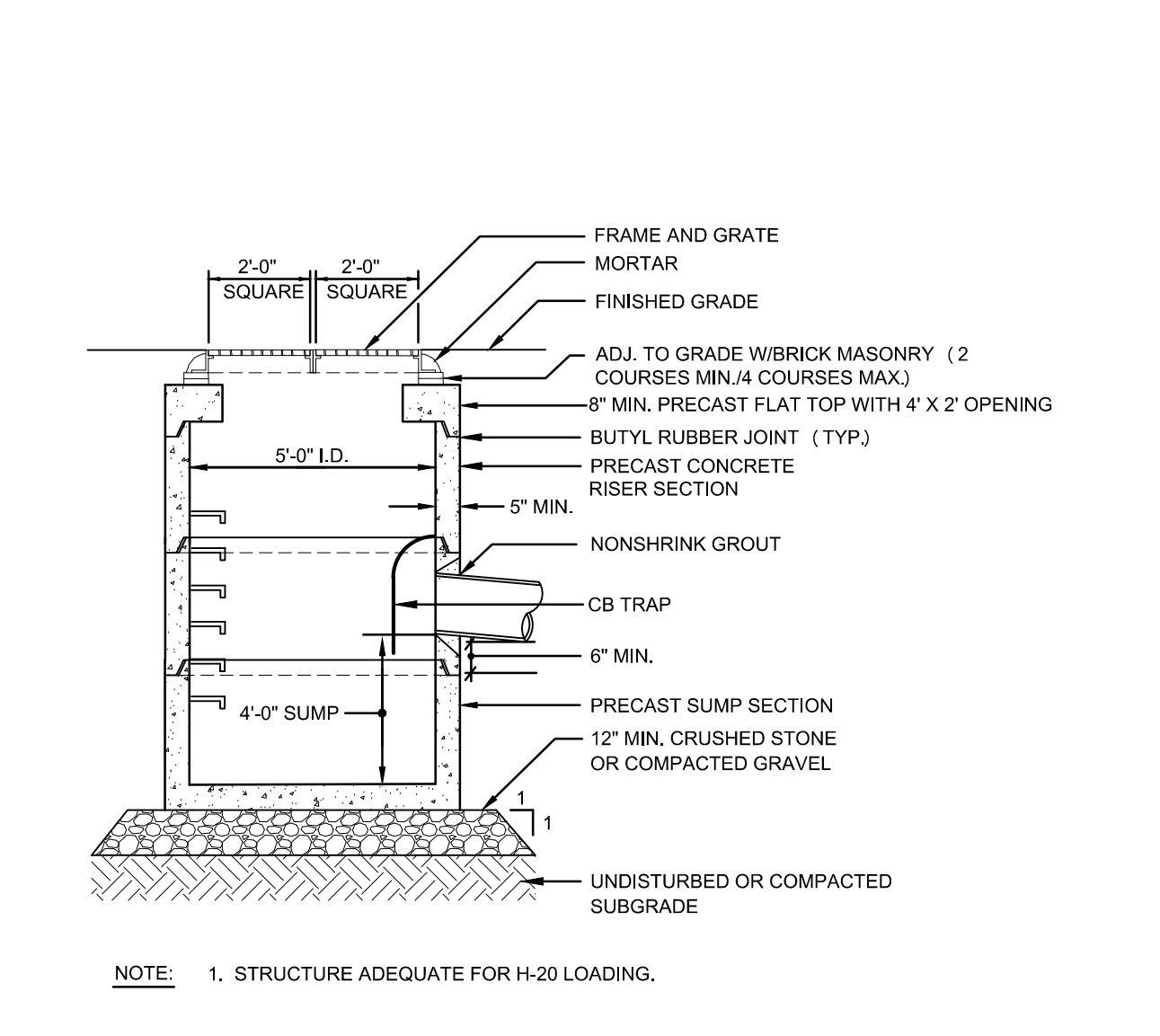
**C1 CONCRETE SEWER MANHOLE**  
N.T.S.



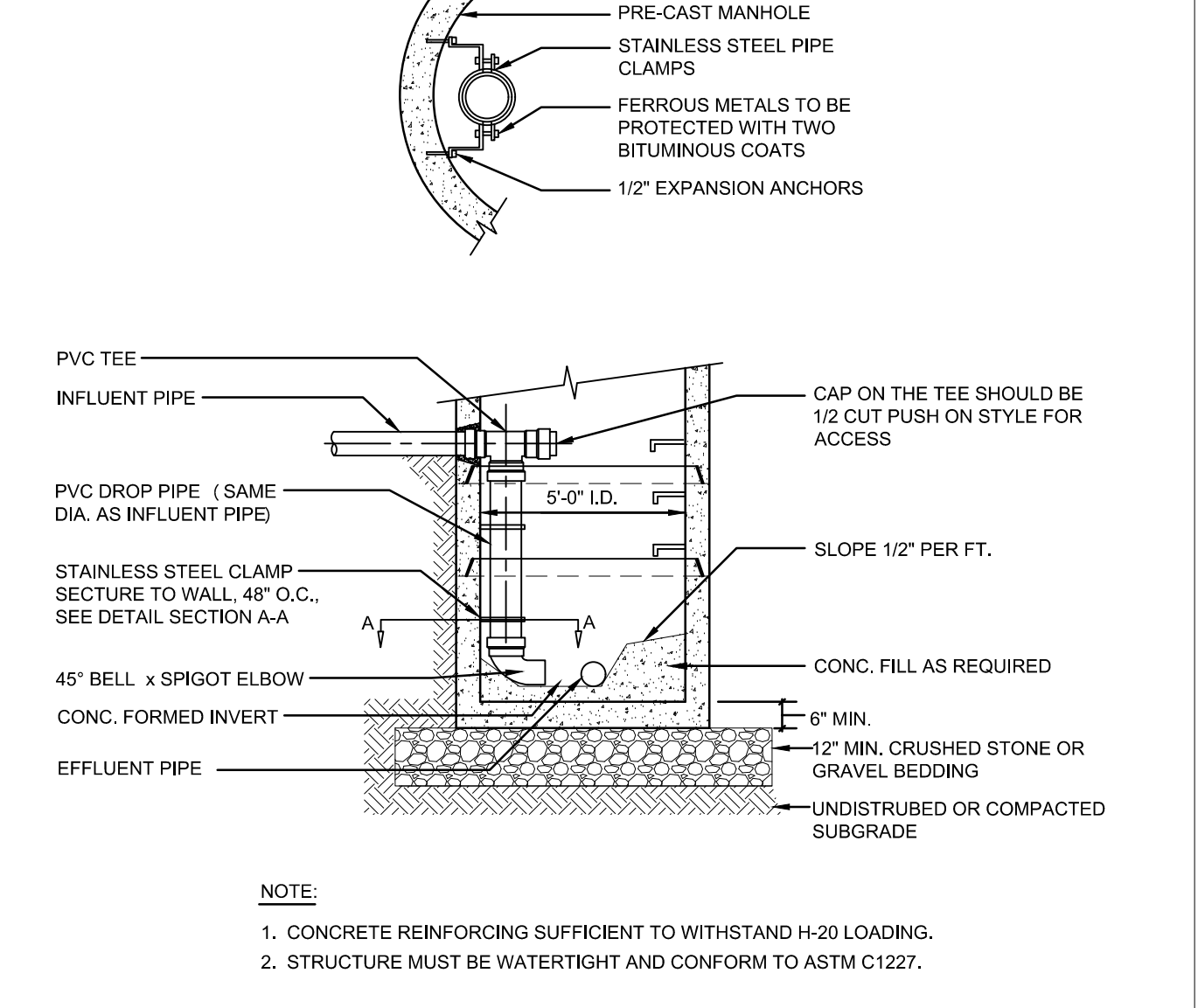
**SECTION A**



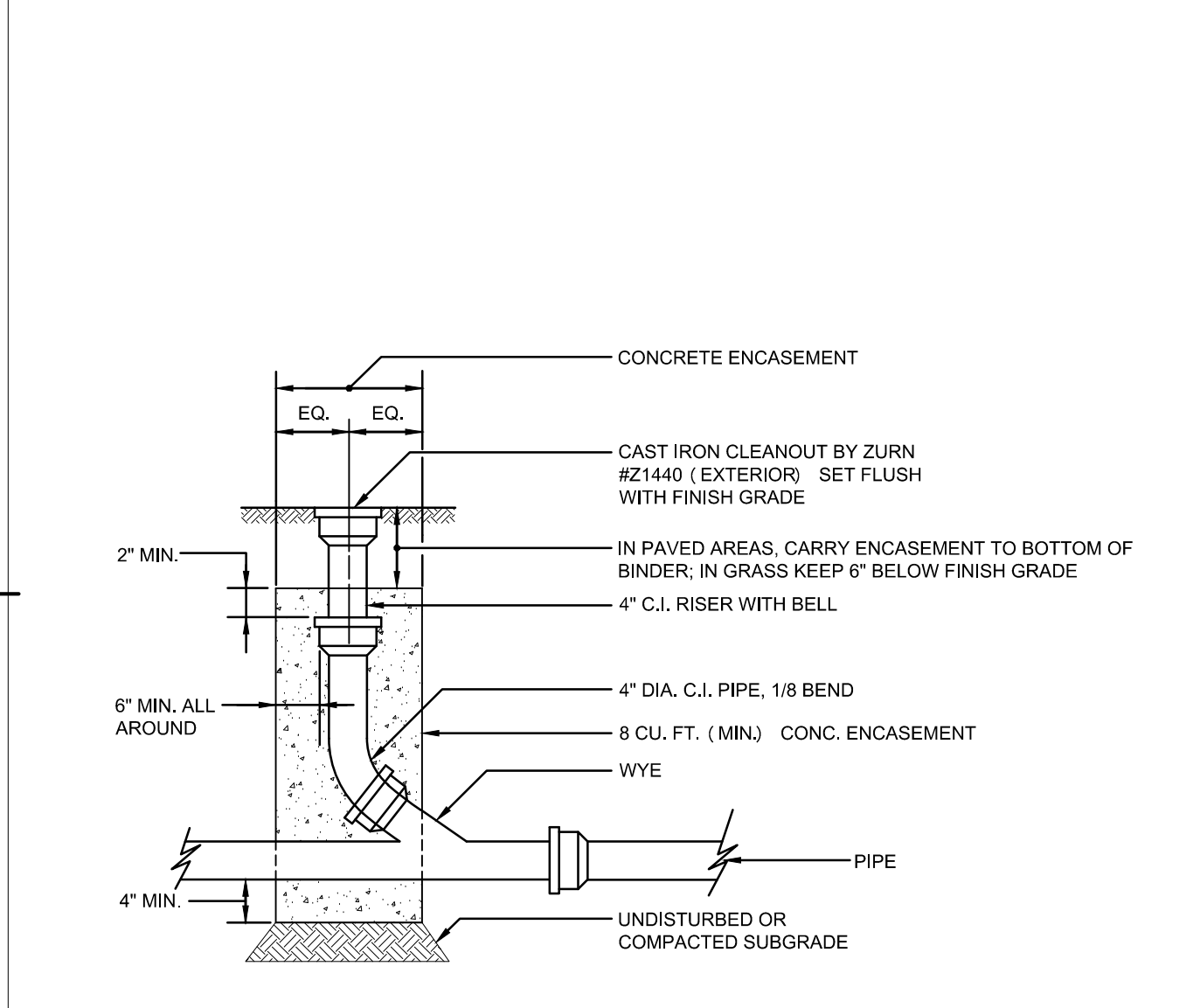
**C5 FLARED END**  
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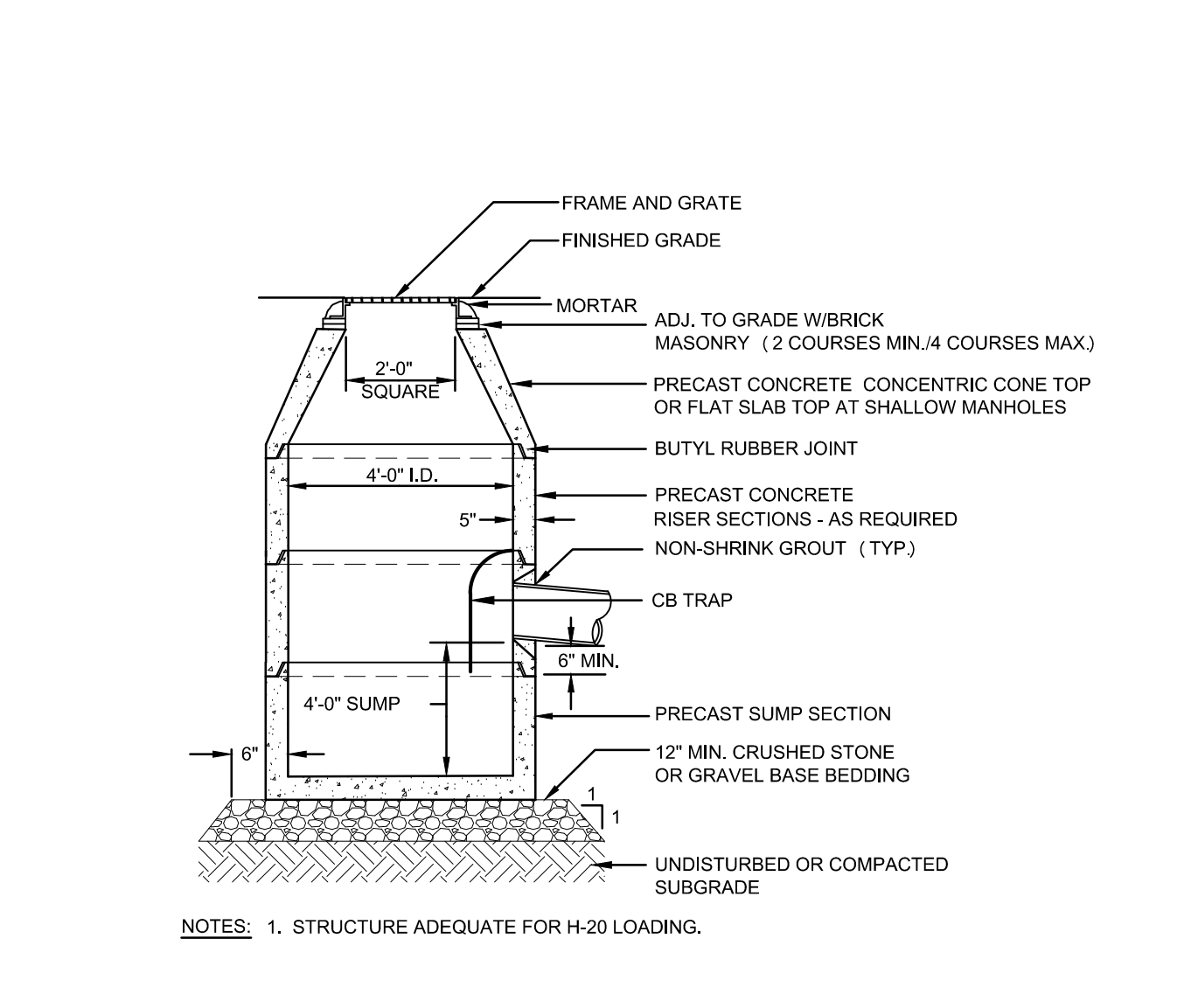
**C7 DOUBLE PRECAST CONCRETE CATCHBASIN**  
N.T.S.



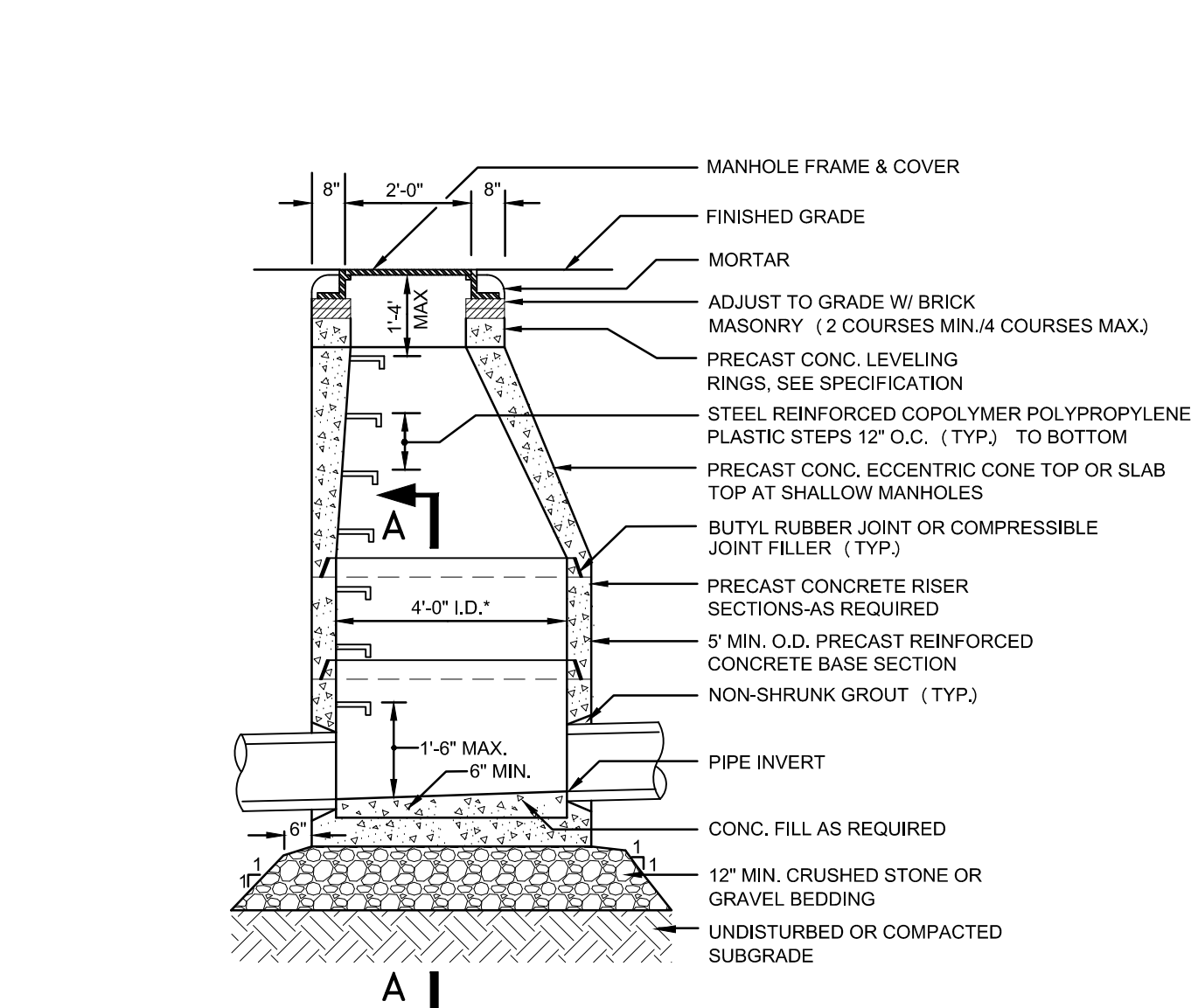
**C9 DROP SEWER MANHOLE (INTERIOR)**  
N.T.S.



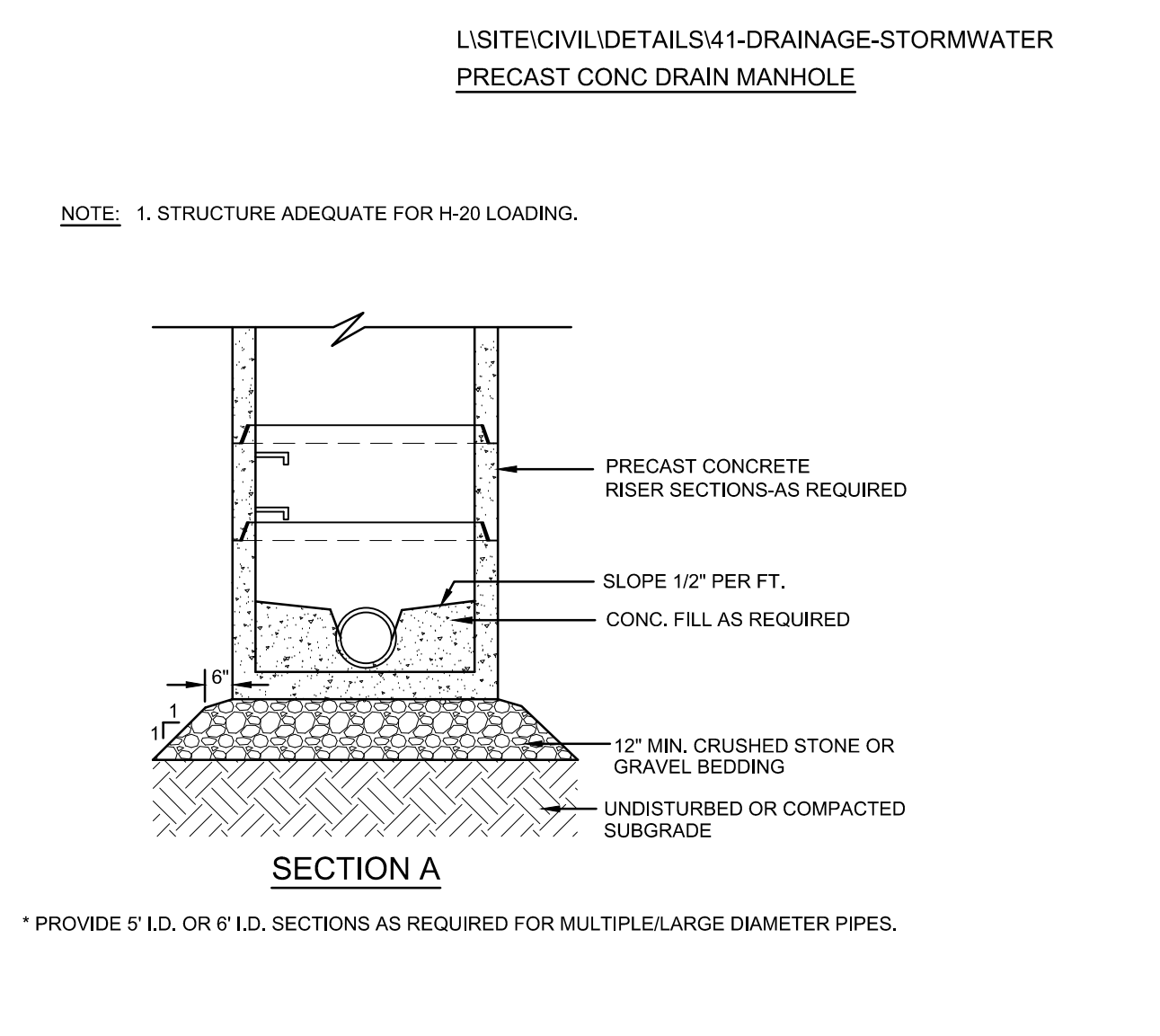
**A1 CLEANOUT**  
N.T.S.



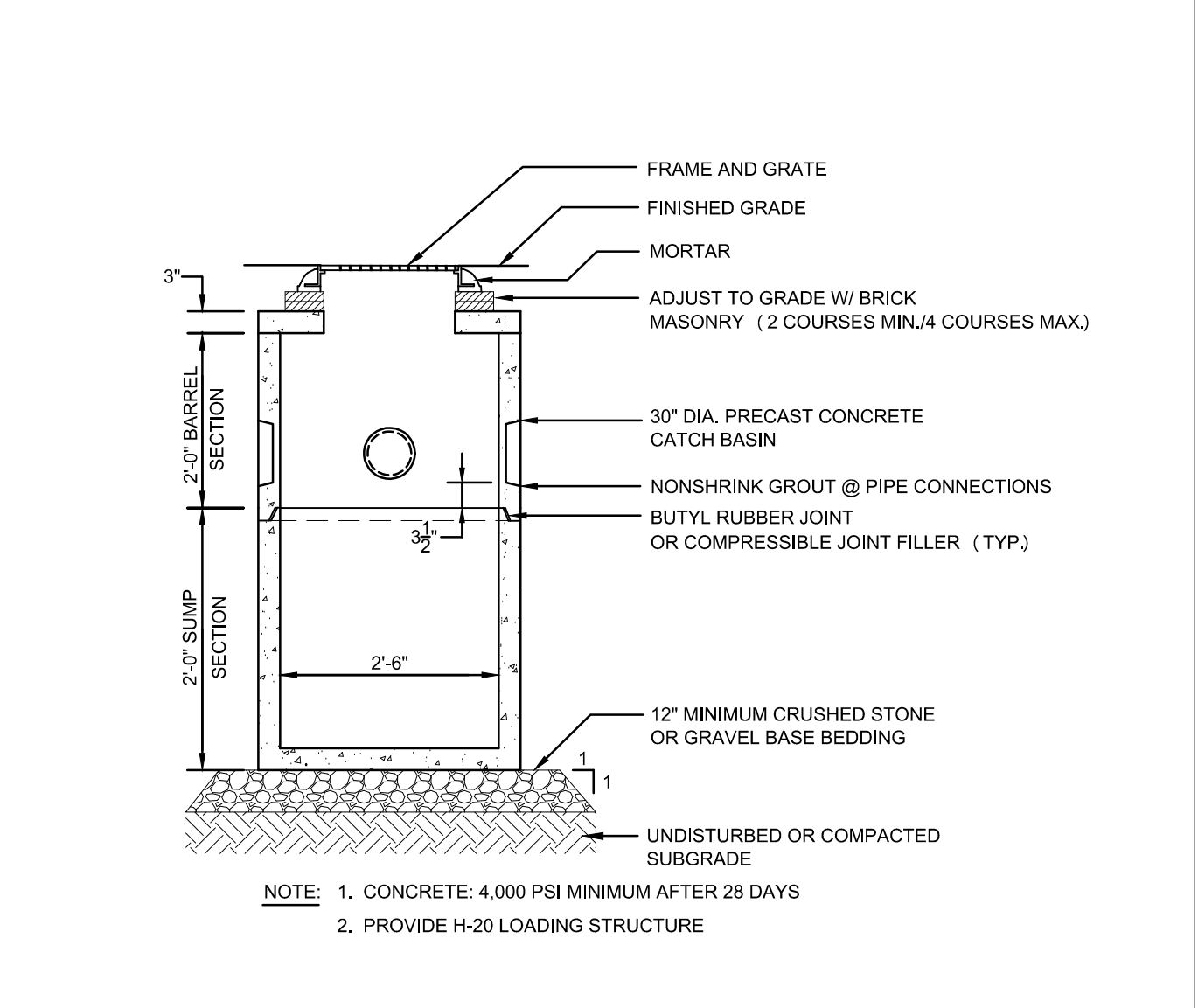
**A3 PRECAST CONCRETE CATCHBASIN**  
N.T.S.



**A5 PRECAST CONCRETE DRAIN MANHOLE**  
N.T.S.



**A5 PRECAST CONCRETE DRAIN MANHOLE**  
N.T.S.



**A9 AREA DRAIN**  
N.T.S.

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SCALE AS NOTED

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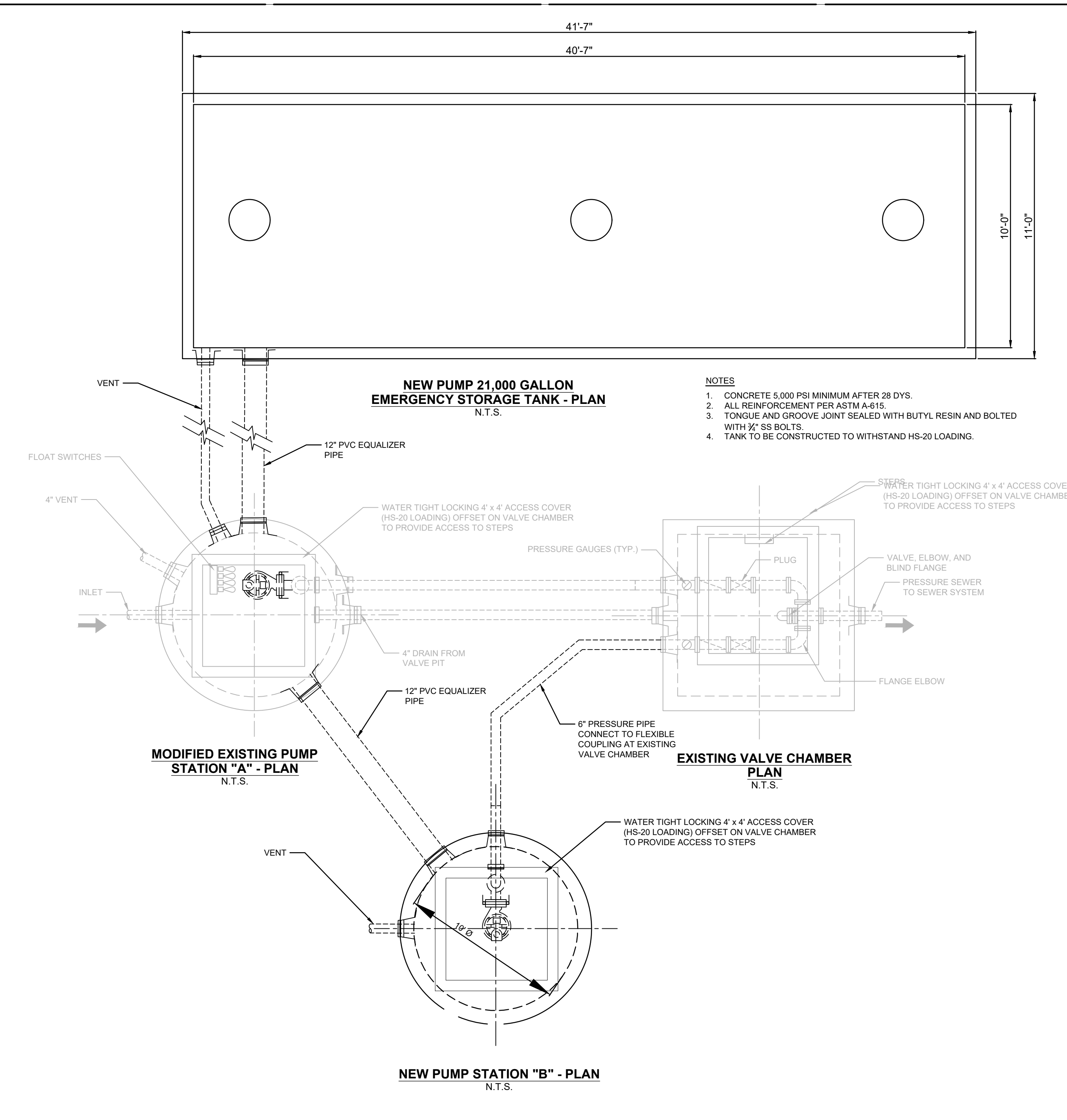
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**DETAILS II**

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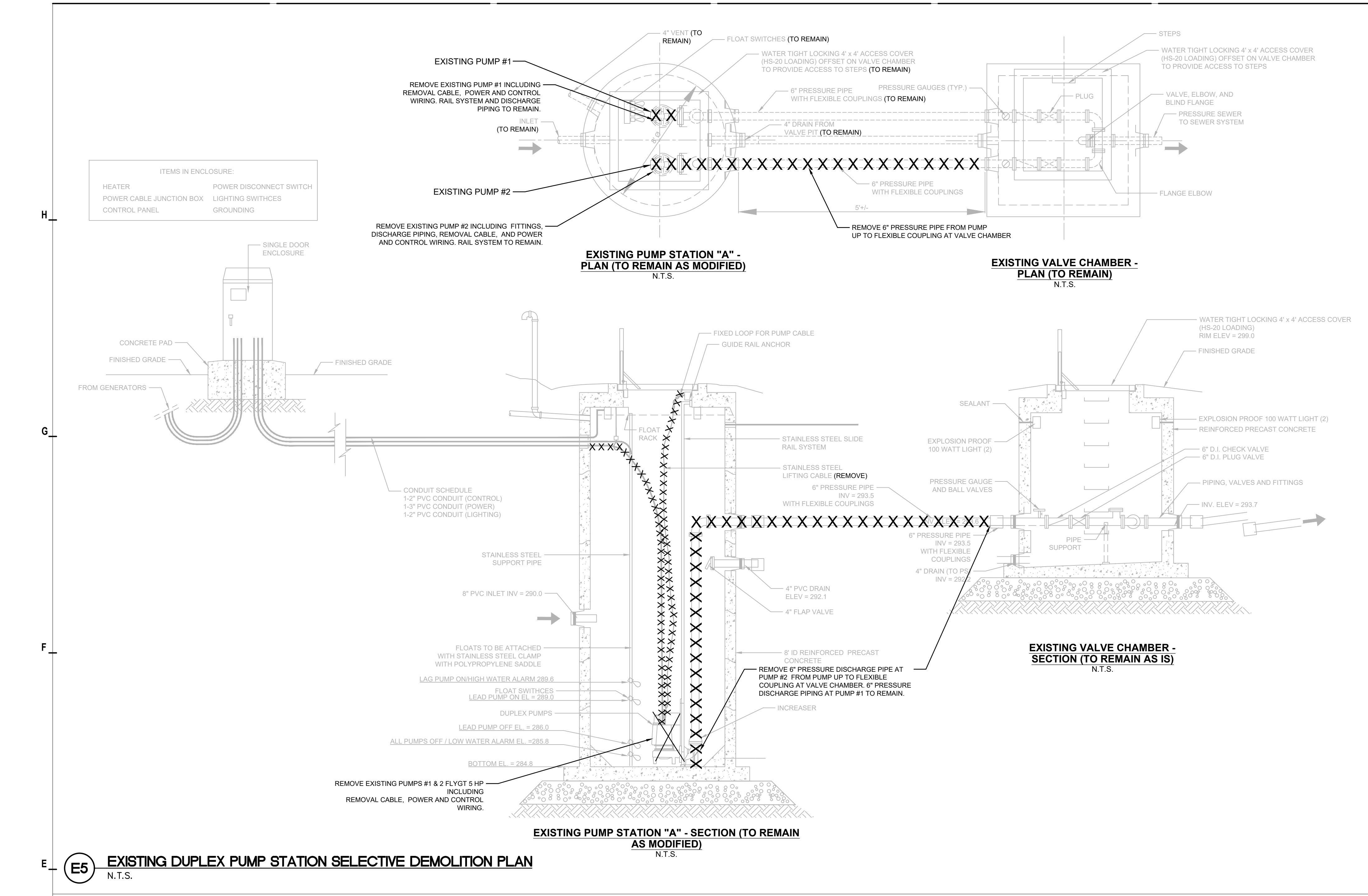
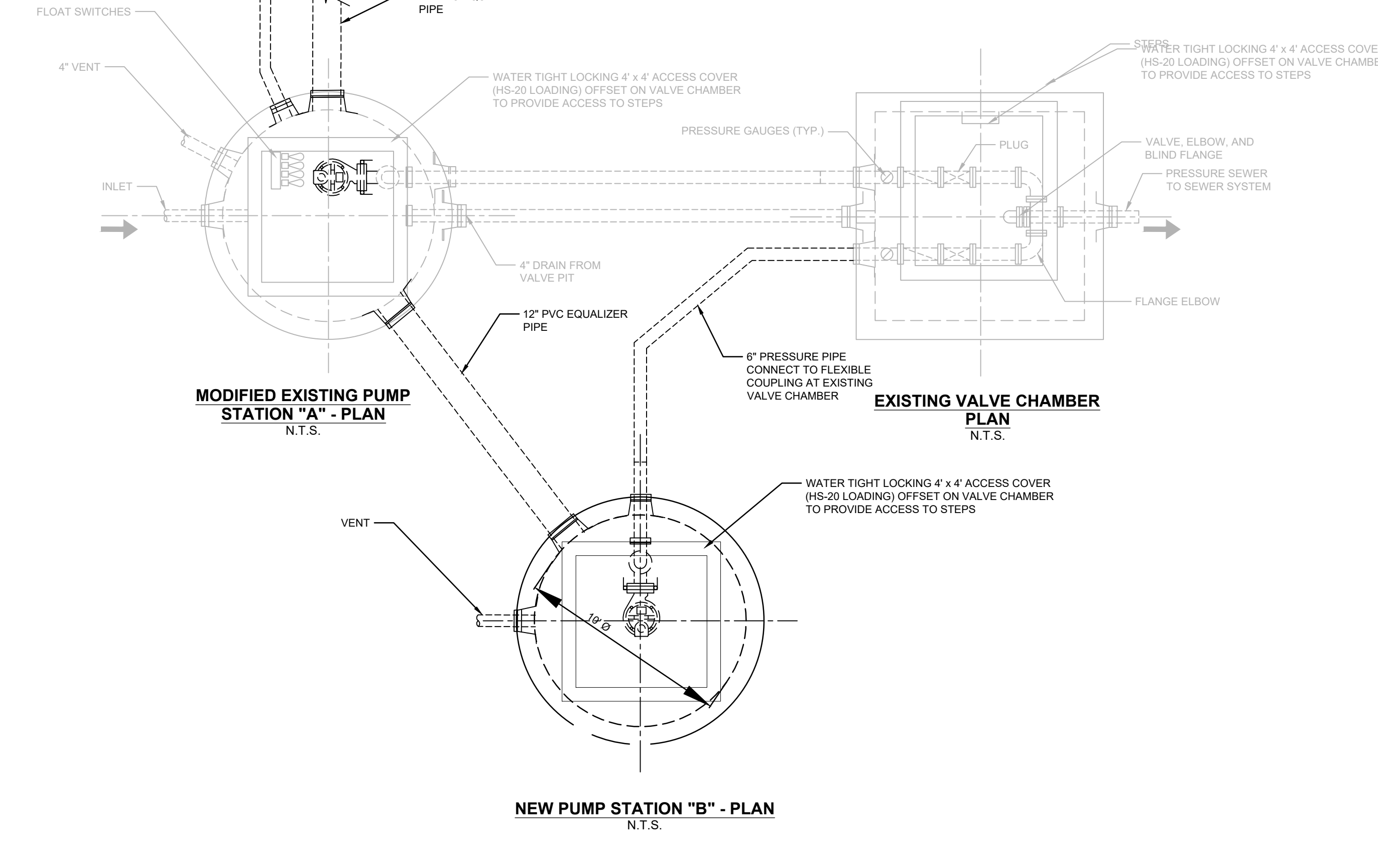
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DETAILS V

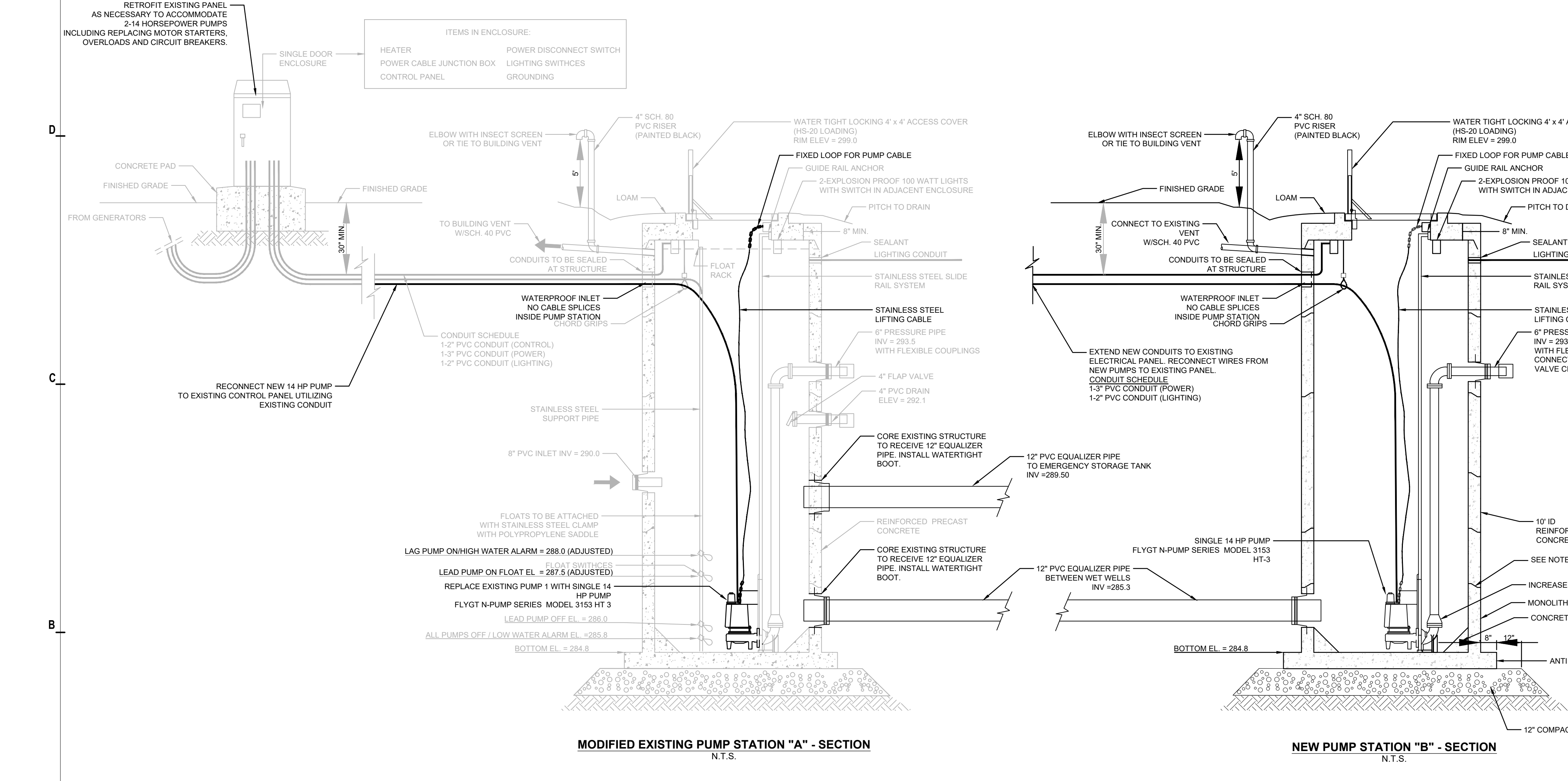
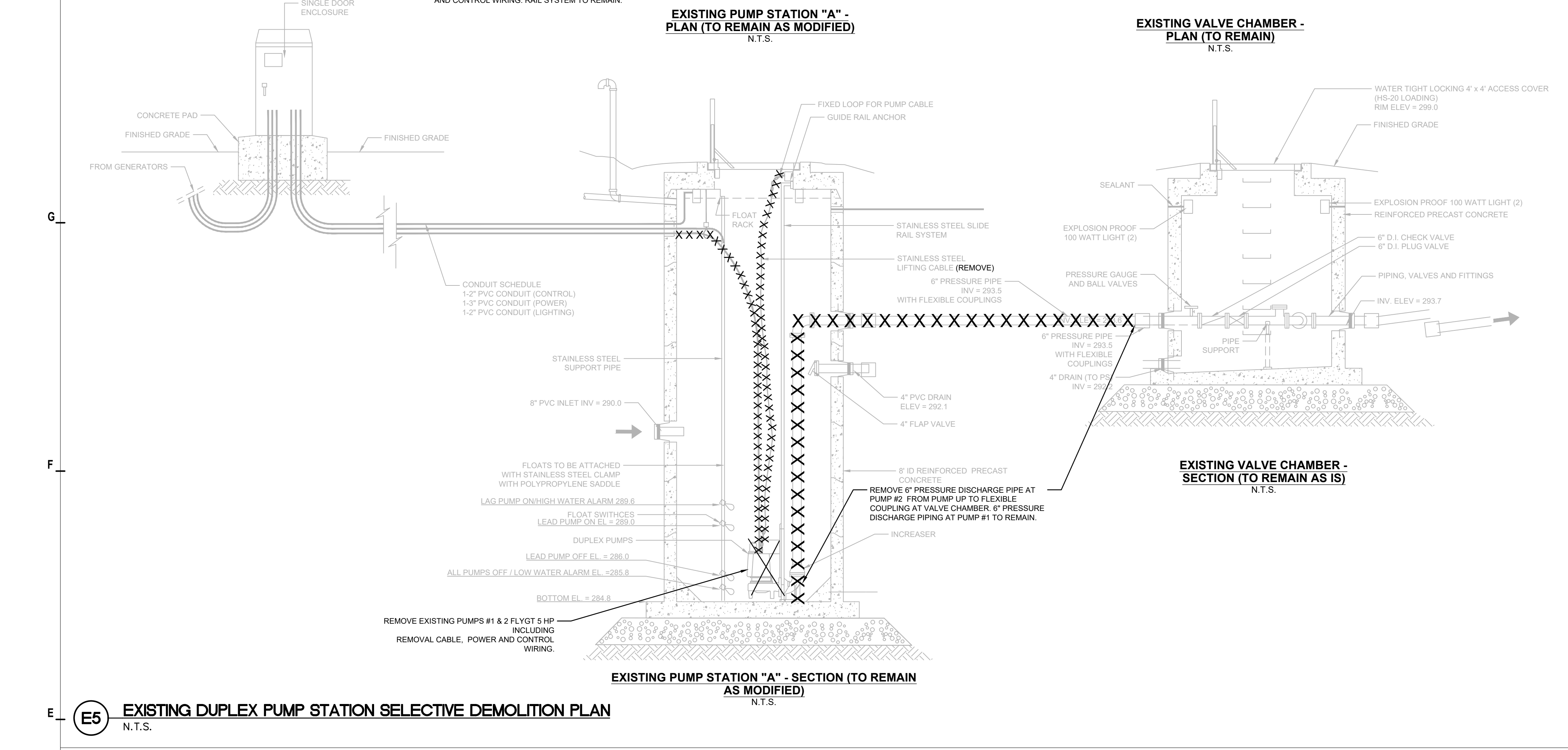


**NOTES**

1. CONCRETE 5,000 PSI MINIMUM AFTER 28 DYS.
2. ALL REINFORCEMENT PER ASTM A615.
3. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN AND BOLTED WITH 1/2" SS BOLTS.
4. TANK TO BE CONSTRUCTED TO WITHSTAND HS-20 LOADING.



- ITEMS IN ENCLOSURE:**
- HEATER
  - POWER CABLE JUNCTION BOX
  - CONTROL PANEL
  - POWER DISCONNECT SWITCH
  - LIGHTING SWITCHES
  - GROUNDING



EXISTING PUMP STATION MODIFICATION AND INSTALLATION OF PUMP STATION "B" UNDER CONSTRUCTION.



