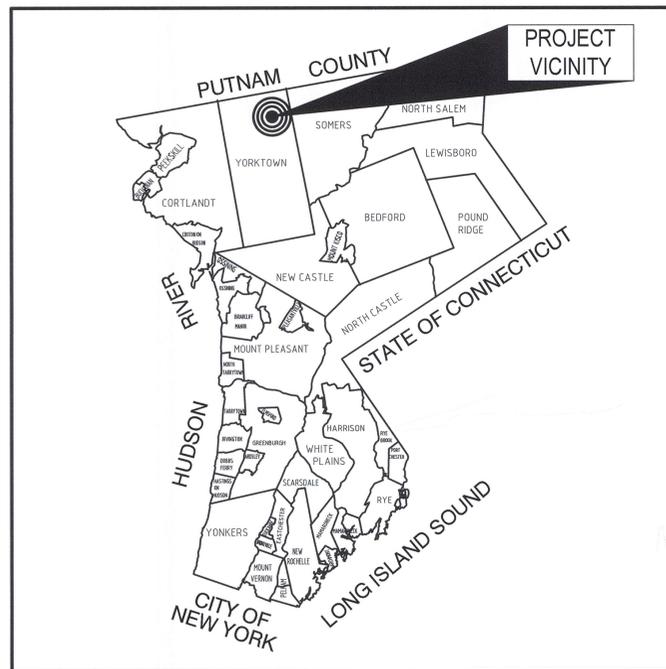


TOWN OF YORKTOWN, NEW YORK PUMP STATION UPGRADE PROGRAM WALDEN WOODS AND JEFFERSON VALLEY



86-18742

**CONTRACT 1 - GENERAL
CONTRACT 2 - ELECTRICAL
CONTRACT 3 - HVAC
SEPTEMBER 2016**



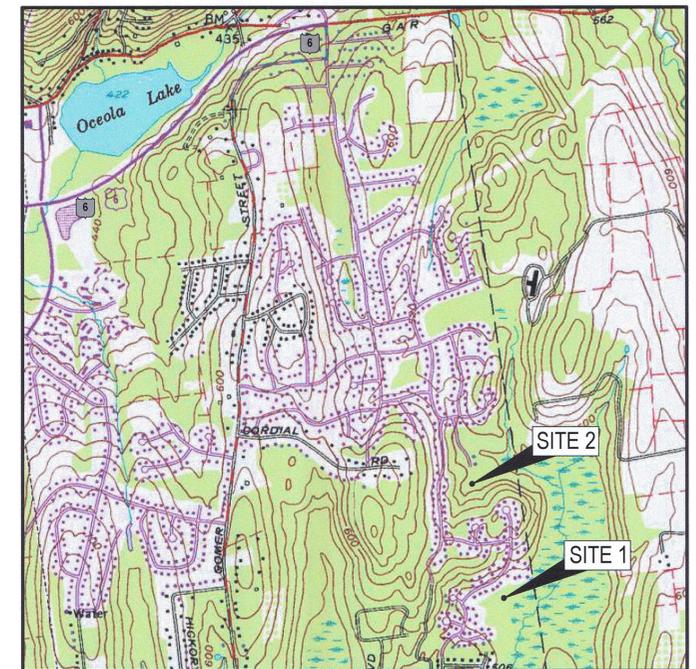
VICINITY MAP
NOT TO SCALE

TOWN SUPERVISOR
MICHAEL J. GRACE

TOWN COUNCILMEN
GREG BERNARD
TOM DIANA
VISHNU PATEL
ED LACHTERMAN

TOWN ENGINEER
MICHAEL QUINN, P.E.

CHIEF OPERATOR
ED MAHONEY



LOCATION MAP
NOT TO SCALE

- SITE 1 - WALDEN WOODS PUMP STATION
- SITE 2 - JEFFERSON VALLEY PUMP STATION



FOR CONSTRUCTION

									Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title COVER SHEET	
0 FOR CONSTRUCTION					IDG	CPP	RB	09/16	Approved (Project Director) <i>Robert Butterworth</i> Date <i>9/29/16</i>	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	Scale AS SHOWN		This Drawing shall not be used for Construction unless Signed and Sealed For Construction Original Size Arch D Drawing No: 86-18742-G001 Rev: 0	

GENERAL NOTES

1. WALDEN WOODS PUMP STATION SURVEY PERFORMED BY MERCATOR LAND SURVEYING, LLC, ON APRIL 13TH, 2015. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS THE NORTH AMERICAN DATUM OF 1983 (NAD83) - EPOCH 2011 -- NAD83 (2011) THE PROJECTION IS NEW YORK - EAST (3103).
2. JEFFERSON VALLEY PUMP STATION, EXISTING CONDITIONS TAKEN FROM DRAWING TITLED "YORKTOWN HEIGHTS SEWER DISTRICT, TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK, CONTRACTS NO. 21 & 22, LOCATION PLAN, REVISION 4, AS CONSTRUCTED, SHEET 2 OF 8" BY ALFRED CREW CONSULTING ENGINEERS, RIDGEWOOD, NEW JERSEY, AND DATED 11/17/16. ELEVATIONS ARE BASED ON U.S.C. & G SURVEY DATUM, B.M.U. SPIKE IN POLE EL 494.19.
3. CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK AND HAVE ALL UTILITIES MARKED OUT PRIOR TO CONSTRUCTION. APPROXIMATE LOCATION OF UTILITIES ARE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES WHEN EXCAVATING IN THE VICINITY OF EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY EXISTING UTILITIES DAMAGED DUE TO HIS OPERATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING FINAL LOCATION AND DEPTH OF ALL UTILITIES.
5. THE CONTRACTOR SHALL STRUCTURALLY SUPPORT AND/OR PROTECT ALL EXISTING UTILITIES IN ACCORDANCE WITH UTILITY OWNERS REQUIREMENT WHEN EXCAVATING ADJACENT TO OR CROSSING THAT UTILITY.
6. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY INTERFERENCE WITH EXISTING UTILITIES AND THE NEW UTILITIES. IF NEW WORK NEEDS TO BE MOVED OR RELOCATED DUE TO A FIELD CHANGE (EXISTING UTILITIES, TREES, OWNER REQUEST, ETC.). COST FOR RELOCATION SHALL BE COVERED WITHIN THE INDIVIDUAL BID ITEM BASED ON THE QUANTITY OF ACTUAL MATERIAL INSTALLED.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF ALL EXCAVATIONS, AS REQUIRED, INCLUDING SHEETING OR BRACING.
8. ALL EXISTING ITEMS, INCLUDING BUT NOT LIMITED TO LANDSCAPING, CURBING AND SIDEWALKS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS AT THE CONTRACTORS EXPENSE.
9. WHEN THE CONTRACTOR IS WITHIN 5 FEET OF A UTILITY POLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING THAT POLE IN ACCORDANCE WITH UTILITY OWNERS REQUIREMENTS AT THE CONTRACTORS EXPENSE.
10. NEW CONDITIONS SHOWN HEAVY. EXISTING CONDITIONS SHOWN LIGHT.
11. ALL PAVEMENT TO BE SAW-CUT, PRIOR TO RESTORATION.
12. ALL OVERHEAD UTILITIES MAY NOT BE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS BEFORE CONSTRUCTION COMMENCES.
13. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10 FEET SEPARATION BETWEEN THE NEW SEWER PIPES AND EXISTING WATER PIPES. IF MINIMUM SEPARATION REQUIREMENTS CANNOT BE SATISFIED, THE CONTRACTOR SHALL PROTECT FACILITIES IN ACCORDANCE WITH SPECIFICATION SECTION 02205 AND PER THE DETAILS PROVIDED IN THE CONTRACT DRAWINGS. WESTCHESTER COUNTY DEPARTMENT OF HEALTH APPROVAL IS REQUIRED PRIOR TO REDUCING SEPARATIONS REQUIREMENTS.
14. CONTRACTOR SHALL FIELD VERIFY ELEVATIONS AND INVERTS PRIOR TO PURCHASE OF EQUIPMENT AND MATERIALS.
15. CONTRACTOR TO PERFORM SUBSURFACE INVESTIGATIONS TO DETERMINE DEPTHS OF EXISTING UTILITIES PRIOR TO ANY SEWER MAIN INSTALLATION.
16. SEE SECTION 01001 FOR SPECIFIC REQUIREMENTS REGARDING THE SEQUENCE OF CONSTRUCTION.
17. ALL MATERIALS USED AND CONSTRUCTION METHODS EMPLOYED ARE TO BE IN ACCORDANCE WITH THE LATEST FEDERAL, STATE AND TOWN REGULATIONS.
18. ALL EXISTING ITEMS MAY NOT BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING ITEMS, INCLUDING BUT NOT LIMITED TO LANDSCAPING, CURBING AND SIDEWALKS. ALL DAMAGED ITEMS SHALL BE RESTORED TO THEIR EXISTING CONDITION OR BETTER AND AT NO ADDITIONAL COST TO THE OWNER.
19. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING DEPTH OF GROUNDWATER AND FOR ALL COSTS ASSOCIATED WITH DEWATERING NECESSARY TO INSTALL PIPING IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
20. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL, R.O.W. MONUMENTS, AND INDIVIDUAL PROPERTY CORNER PINS/MONUMENTS IN THE AREA OF CONSTRUCTION. IF DAMAGED, THE CONTRACTOR SHALL REPLACE, AT NO ADDITIONAL COST TO OWNER, INCLUDING SURVEYED CERTIFICATION.
21. ALL OPEN TRENCH EXCAVATIONS TO BE PROTECTED BY TRENCH BOX, SHEET PILING OR OTHER METHOD IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND SHALL NOT BE LEFT OPEN AND UNATTENDED AT ANY TIME.
22. ALL PAVING SHALL BE MAINTAINED BY THE CONTRACTOR, AS-NEEDED THROUGHOUT CONSTRUCTION AND FOR ONE CALENDAR YEAR AFTER CONTRACT COMPLETION. ANY IMPERFECTIONS IN THE PAVEMENT, AS DETERMINED BY THE TOWN OF YORKTOWN OR THE ENGINEER, DURING THE GUARANTEE PERIOD SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN.
23. ALL FORCE MAIN PIPE SECTIONS WITHIN 60 FEET OF ALL BENDS, UPSTREAM AND DOWNSTREAM, SHALL BE RESTRAINED. SEE SPECIFICATION SECTION 02740.
24. FINAL STAGING AREA LOCATION TO BE DETERMINED WITH THE OWNER PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SECURITY OF ALL MATERIALS AND EQUIPMENT LEFT ON SITE.
25. ANY EXISTING PAVEMENT OR OTHER LANDSCAPED AREA DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
26. UPON COMPLETION AND PRIOR TO USE, TWO (2) SETS OF AS-BUILT PLANS MUST BE SUBMITTED TO WCDOH TOGETHER WITH THE P.E. CERTIFICATIONS OF CONSTRUCTION AND ACCEPTABLE REPORTS FOR PRESSURE TESTING WHEN REQUIRED.
27. 48 HOUR NOTES SHALL BE GIVEN TO WCDOH BEFORE ANY TESTING OF THE FORCEMAIN.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS OPERATION OF EACH PUMP STATION WHILE IT IS BEING REHABILITATED. THIS MAY REQUIRE BYPASS PUMPING OPERATIONS. CONTRACTOR SHALL COORDINATE BYPASS PUMPING WITH THE OWNER AND ENGINEER.
29. WHILE EVERY EFFORT HAS BEEN MADE TO IDENTIFY THE ITEMS TO BE DEMOLISHED, IT IS EACH CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SCOPE OF WORK IN THE FIELD, REVIEW THESE CONTRACT DRAWINGS, ALL PREVIOUS PUMP STATION CONSTRUCTION DRAWINGS, AND DEMOLISH ALL ITEMS NECESSARY TO ACCOMMODATE THE PROPOSED WORK. COORDINATION SHALL BE PERFORMED BETWEEN ALL CONTRACTORS. ALSO THE GENERAL CONTRACTOR SHALL REPAIR ALL SURFACES AND PLUG ABANDONED PENETRATIONS UPON REMOVAL OF THE DEMOLISHED ITEMS PER THE SPECIFICATION.
30. CONTRACTOR TO PROVIDE POSITIVE SITE DRAINAGE DURING CONSTRUCTION OPERATIONS. ALL FINAL LINES AND GRADES SHALL BE CONSTRUCTED TO MAINTAIN POSITIVE SITE DRAINAGE TO EXISTING DRAINAGE STRUCTURES.
31. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION UNLESS NOTED OTHERWISE.
32. CONTRACTOR SHALL ADHERE TO ALL FEDERAL, STATE AND LOCAL REQUIREMENTS AND REGULATIONS FOR CONFINED SPACES.
33. WCDOH APPROVAL OF PLANS AND SPECIFICATIONS ARE AS PROVIDED. MODIFICATIONS REQUIRE WCDOH APPROVAL.

DRAWING LIST

DWG No.	DRAWING TITLE
86-18742-G001	COVER SHEET
86-18742-G002	GENERAL NOTES, LEGEND, ABBREVIATIONS LIST, DRAWING LIST
86-18742-C001	MISCELLANEOUS DETAILS
86-18742-C002	EROSION CONTROL DETAILS
86-18742-A001	GENERAL ARCHITECTURAL INFORMATION AND DETAILS
86-18742-S001	STRUCTURAL DESIGN CRITERIA, GENERAL NOTES, ABBREVIATIONS AND LEGEND
86-18742-S002	STANDARD DETAILS
86-18742-E001	ELECTRICAL ABBREVIATIONS, SYMBOLS, DETAILS, AND NOTES
86-18742-E002	ELECTRICAL STANDARD DETAILS
WALDEN WOODS PUMP STATION	
86-18742-WW-D001	WALDEN WOODS PUMP STATION EXISTING SITE AND DEMOLITION PLAN
86-18742-WW-C003	WALDEN WOODS PUMP STATION SITE AND EROSION CONTROL PLAN
86-18742-WW-C004	WALDEN WOODS PUMP STATION GRADING AND PLANTING PLAN
86-18742-WW-S003	WALDEN WOODS PUMP STATION PLAN AND SECTIONS
86-18742-WW-M001	WALDEN WOODS PUMP STATION WET WELL PLAN AND SECTION
86-18742-WW-E003	WALDEN WOODS PUMP STATION ELECTRICAL SITE PLAN AND ONE-LINE DIAGRAM
JEFFERSON VALLEY PUMP STATION	
86-18742-JV-D002	JEFFERSON VALLEY PUMP STATION EXISTING SITE AND DEMOLITION PLAN
86-18742-JV-D003	JEFFERSON VALLEY PUMP STATION EXISTING DEMOLITION PLANS
86-18742-JV-D004	JEFFERSON VALLEY PUMP STATION EXISTING DEMOLITION SECTIONS
86-18742-JV-C005	JEFFERSON VALLEY PUMP STATION SITE PLAN AND EROSION CONTROL PLAN
86-18742-JV-A002	JEFFERSON VALLEY PUMP STATION - PLANS AND ELEVATIONS
86-18742-JV-A003	JEFFERSON VALLEY PUMP STATION - SECTIONS AND DETAILS
86-18742-JV-S004	JEFFERSON VALLEY PUMP STATION PLANS
86-18742-JV-S005	JEFFERSON VALLEY PUMP STATION SECTIONS
86-18742-JV-M002	JEFFERSON VALLEY PUMP STATION LOWER PLAN
86-18742-JV-M003	JEFFERSON VALLEY PUMP STATION SECTIONS
86-18742-JV-M004	JEFFERSON VALLEY PUMP STATION PLANS, ABBREVIATIONS, SYMBOLS, DETAILS AND NOTES
86-18742-JV-E004	JEFFERSON VALLEY PUMP STATION ELECTRICAL DEMO AND SITE PLAN
86-18742-JV-E005	JEFFERSON VALLEY PUMP STATION ELECTRICAL DEMOLITION PLANS
86-18742-JV-E006	JEFFERSON VALLEY PUMP STATION ELECTRICAL PLANS AND DETAILS
86-18742-JV-E007	JEFFERSON VALLEY PUMP STATION ONE-LINE DIAGRAM AND SCHEDULES
86-18742-JV-H001	JEFFERSON VALLEY PUMP STATION HVAC PLANS, ABBREVIATIONS, SYMBOLS, DETAILS AND NOTES
86-18742-JV-I001	JEFFERSON VALLEY PUMP STATION BACKUP FLOAT CONTROL DIAGRAM & INSTRUMENTATION DETAILS

GENERAL SEQUENCE OF CONSTRUCTION:

1. SETUP BYPASS PUMPING.
2. PRESSURE TEST BYPASS PUMPING PIPING.
3. SUBMIT PRESSURE TESTING DATA SHEET TO WCDOH FOR ACCEPTANCE PRIOR TO START UP.
4. STARTUP BYPASS PUMPING.
5. REHABILITATE PUMP STATION.
6. STARTUP PUMP STATION.
7. DISASSEMBLE BYPASS PUMPING OPERATION.

ABBREVIATIONS LIST

ACP	ASBESTOS CONCRETE PIPE
AFF	ABOVE FINISH FLOOR
CI	CAST IRON
CMP	CONCRETE MASONRY PIPE
CONN	CONNECTION
CONC	CONCRETE
CORP	CORPORATION
CU	COPPER
CY	CUBIC YARD
DI	DUCTILE IRON
DIA	DIAMETER
DWG	DRAWING
E	EAST
EL	ELEVATION
ETC	ETCETERA
FFE	FINISHED FLOOR ELEVATION
FT	FEET / FOOT
GAL	GALVANIZED
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HP	HORSE POWER
HOR	HORIZONTAL
HT	HEIGHT
HZ	HERTZ
INV	INVERT
LB	POUND
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
N	NORTH
NAD	NORTH AMERICA DATUM
NAVD	NORTH AMERICA VERTICAL DATUM
NO.	NUMBER
NY	NEW YORK
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORTATION
O.D.	OUTSIDE DIAMETER
P.E.	PROFESSIONAL ENGINEER
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
REV	REVISION
ROW	RIGHT OF WAY
S	SOUTH
SF	SQUARE FEET
SPEC	SPECIFICATION
SSMH	SANITARY SEWER MANHOLE
TDH	TOTAL DYNAMIC HEAD
TYP	TYPICAL
UP	UTILITY POLE
V	VOLTS
W	WEST
W'	WITH
WCDOH	WESTCHESTER COUNTY DEPARTMENT OF HEALTH

CIVIL LEGEND

	EDGE OF PAVEMENT
	EXISTING FENCE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	GAS MAIN
	LIMIT OF DISTURBANCE
	OVERHEAD WIRES
	PROPERTY LINE
	PROPOSED FENCE
	PROPOSED CONTOUR
	SANITARY SEWER FORCE MAIN
	SANITARY SEWER
	SILT FENCE
	STORM SEWER
	TREE LINE
	UNDERGROUND CABLE TV
	UNDERGROUND ELECTRIC CONDUIT
	WATER MAIN
	100-FT WETLAND CHECK ZONE BOUNDARY
	WETLANDS LIMIT LINE

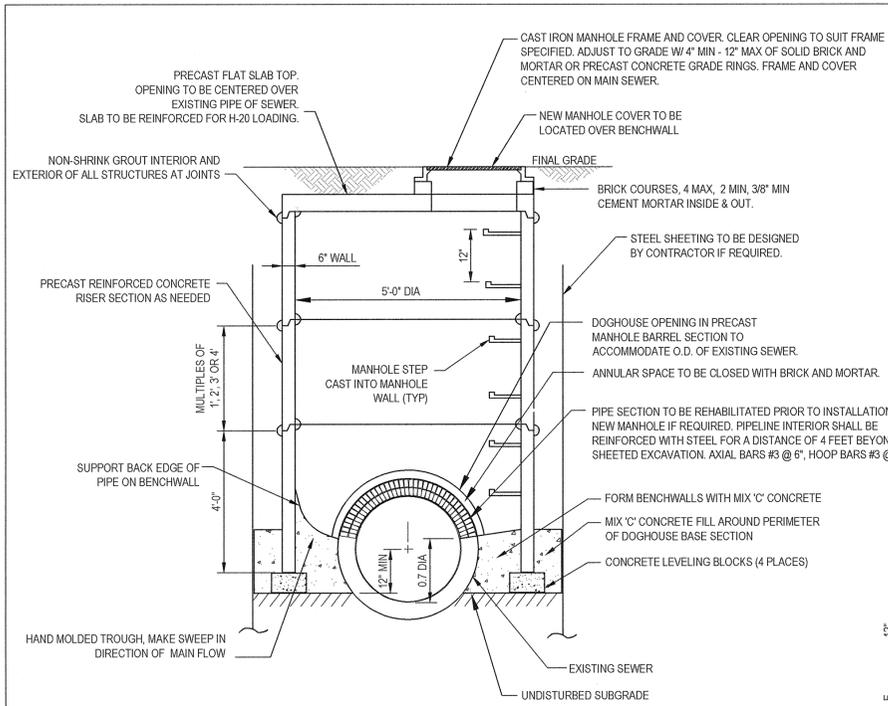
GENERAL LEGEND

NEW GRAPHICS, EQUIPMENT, STRUCTURES, ETC., ARE SHOWN AS BOLD LINEWORK AND IN THIS TEXT FORMAT.

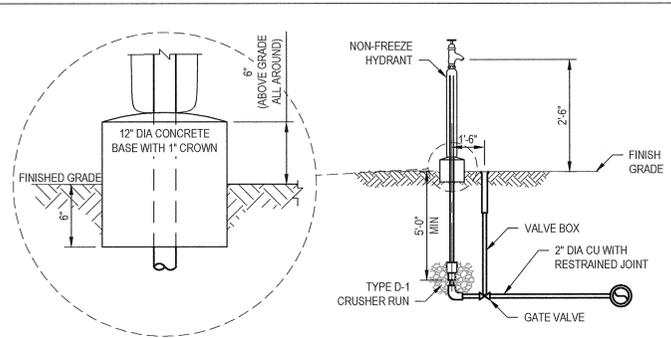
EXISTING GRAPHICS, EQUIPMENT, CONDITIONS, STRUCTURES, ETC. ARE SHOWN AS LIGHT LINEWORK AND IN THIS TEXT FORMAT.

FOR CONSTRUCTION

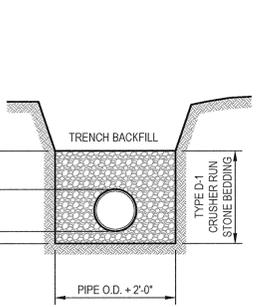
0	FOR CONSTRUCTION	IDG	CPP	RB	09/16	IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E czsmat@ghd.com W www.ghd.com</p>	Drawn IDG Designer CPP Drafting SFB Design Check RMC Approved (Project Director) <i>Robert Butterworth</i> Date 9/29/16 Scale NOT TO SCALE	Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title GENERAL NOTES, LEGEND, ABBREVIATIONS LIST, DRAWING LIST	Original Size Arch D Drawing No: 86-18742-G002 Rev: 0
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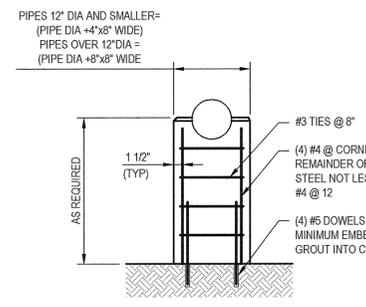
- NOTES:**
- PIPELINE SHALL BE ADEQUATELY SUPPORTED DURING MANHOLE INSTALLATION PROCESS.



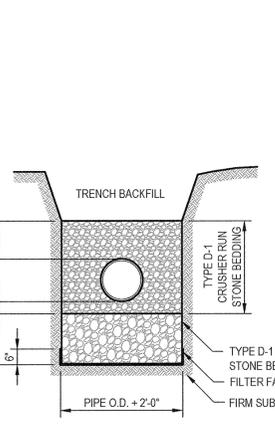
YARD HYDRANT DETAIL
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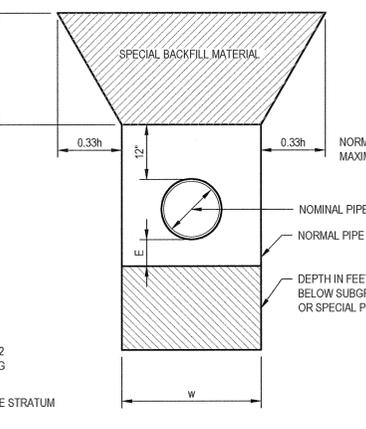
PIPE FOUNDATION NORMAL SOIL
NOT TO SCALE



TYPE 'G' PIPE SUPPORT DETAIL
NOT TO SCALE



MODERATELY UNSTABLE SOIL
NOT TO SCALE

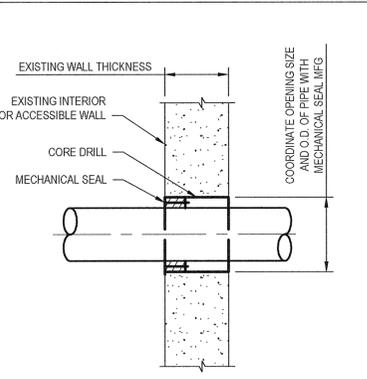


TRENCH SECTION
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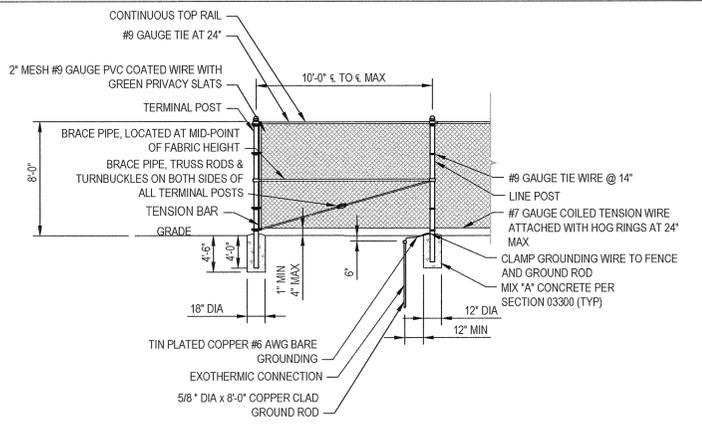
TABLE OF QUANTITY FACTOR

NOMINAL PIPE DIAMETER IN INCHES	MAXIMUM PAYMENT WIDTHS AT TOP OF PIPE FOUNDATION (W)	EXCAVATION BELOW SUBGRADE TRENCH LINING MATERIAL AND SPECIAL PIPE FOUNDATION, CY PER LF OF TRENCH - PER FOOT OF DEPTH *	SPECIAL BACKFILL MATERIAL, CY PER LF OF TRENCH (H = DEPTH IN FEET ABOVE TOP OF FOUNDATION) *	E = DEPTH IN INCHES BETWEEN BOTTOM OF PIPE AND BOTTOM OF NORMAL PIPE FOUNDATION
4	4'-6"	0.17	0.17(h) + 0.012(h ²)	4
6	4'-6"	0.17	0.17(h) + 0.012(h ²)	6
10	4'-6"	0.17	0.17(h) + 0.012(h ²)	6
12	5'-0"	0.185	0.185(h) + 0.012(h ²)	6

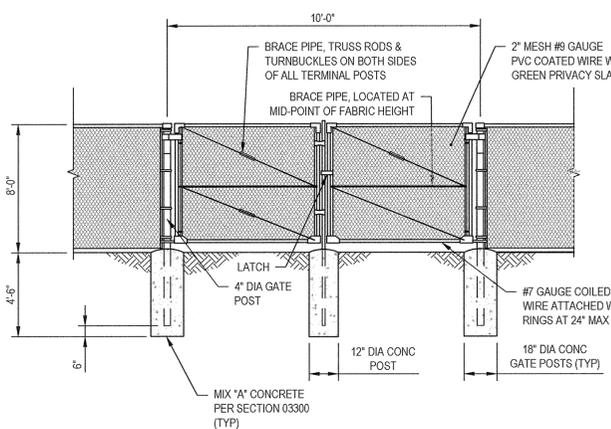
TRENCH SECTION
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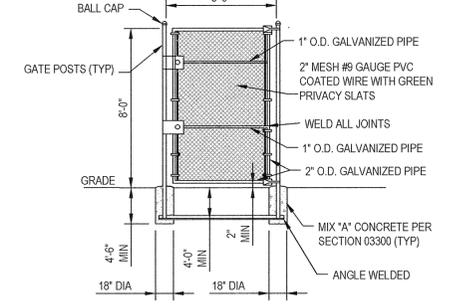
TYPICAL WALL PENETRATION DETAIL EXISTING STRUCTURE
NOT TO SCALE



CHAIN LINK FENCE DETAIL
NOT TO SCALE

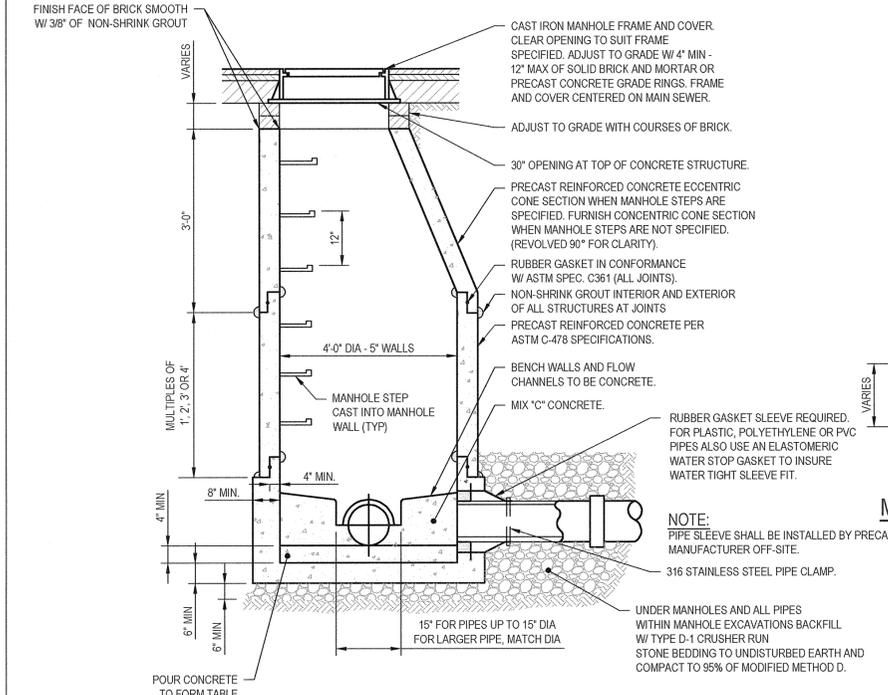


DOUBLE LEAF GATE DETAIL
NOT TO SCALE



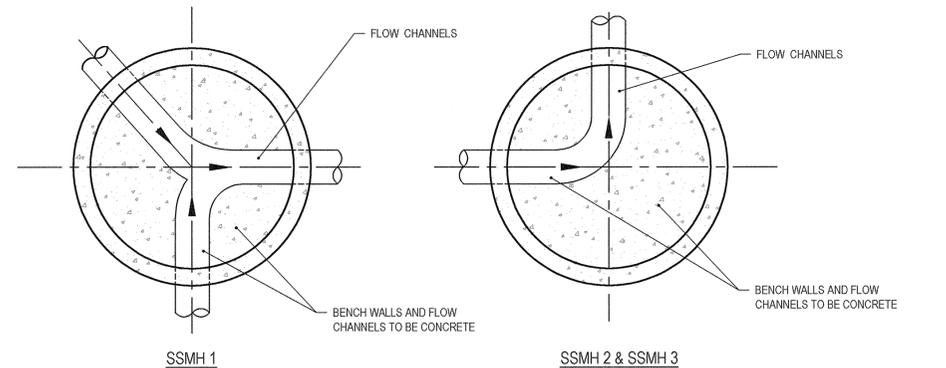
- NOTES:**
- COMMERCIAL GRADE MORTISE LOCK & BOX WITH TURN KNOB ENTRANCE AND EXIT.
 - THE CONTRACTOR SHALL RESTORE EXISTING GRADE TO ORIGINAL CONDITION AFTER INSTALLING ANGLE. RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
 - REFER TO FENCE DETAIL IF BEDROCK IS ENCOUNTERED.

PEDESTRIAN GATE DETAIL
NOT TO SCALE



- NOTES:**
- BENCH WALLS SHALL BE SLOPED 1/2 INCH PER FOOT.

STANDARD PRECAST GRAVITY MANHOLE DETAIL
NOT TO SCALE



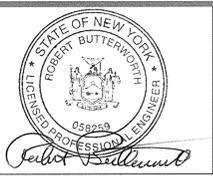
- NOTES:**
- BENCH WALLS SHALL BE SLOPED 1/2 INCH PER FOOT.

PLAN VIEW OF MANHOLE FLOW CHANNELS
NOT TO SCALE

FOR CONSTRUCTION

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
Revised	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	IDG	Designer	CPP
Drafting	SPB	Design	RMC
Approved	(Project Director)	Date	7/21/16
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	MISCELLANEOUS DETAILS		
Arch D	Drawing No:	86-18742-C001	
Rev:	0		

EROSION & SEDIMENTATION CONTROL MEASURES

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR DAILY AND IMMEDIATELY AFTER PERIODS OF RAINFALL. REPAIR AND/OR MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MADE AS SOON AS NEEDED. THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF ALL CONTROL MEASURES ON THIS SITE.
- LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. RESTABILIZATION WILL BE SCHEDULED IMMEDIATELY AFTER ANY DISTURBANCE.
- SILT FENCES SHALL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
- CATCH BASINS SHALL BE PROTECTED WITH INLET PROTECTION BARRIERS OF SILT FENCES OR HAYBALE RING THROUGHOUT THE CONSTRUCTION SEQUENCE AND UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ALL CONSTRUCTION ACTIVITIES.
- ANCHOR ALL TOPSOIL STOCK PILES WITH STRAW MULCH AND RING WITH SILT FENCE, OR HAYBALE BARRIER.
- DURING CONSTRUCTION, ALL EXPOSED SLOPES THAT WILL NOT RECEIVE PERMANENT SURFACE TREATMENT IMMEDIATELY, AND ALL PILES OF SOIL SHALL BE TEMPORARILY SEEDED WITH A MIXTURE OF PERENNIAL RYEGRASS, ANNUAL RYEGRASS AND WINTER GRASS, SHOULD CONSTRUCTION ACTIVITIES BE HALTED. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS BY APPROVED METHODS SUCH AS MULCHING AND HYDROSEEDING.
- SEDIMENT REMOVAL FROM CONTROL STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEDIMENT SHALL BE DISPOSED OF IN A MANNER WHICH DOES NOT RESULT IN ADDITIONAL EROSION AND WHICH IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND REGULATORY REQUIREMENTS.
- THE EROSION AND SEDIMENTATION CONTROL MEASURES DESCRIBED HEREIN ARE INTENDED AS A GENERAL GUIDE FOR THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ANY AND ALL WORK NECESSARY TO PREVENT EROSION OF SOIL FROM THE CONSTRUCTION SITE. TO PREVENT EROSION, THE CONTRACTOR SHALL PROVIDE SILT FENCES OR OTHER CONTROL MEASURES AS THE NEED ARISES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- PAVED ROADWAYS SHALL BE KEPT CLEAN AT ALL TIMES.
- A TEMPORARY CRUSHED STONE PAD OR ROADWAY SHALL BE CONSTRUCTED AT ALL NON-PAVED PARKING AREAS, HEAVY USE AREAS, OR ROADWAYS WHERE THERE IS NO EXISTING PAVEMENT, OR WHERE PAVEMENT HAS BEEN REMOVED.

GENERAL EROSION AND SEDIMENTATION NOTES

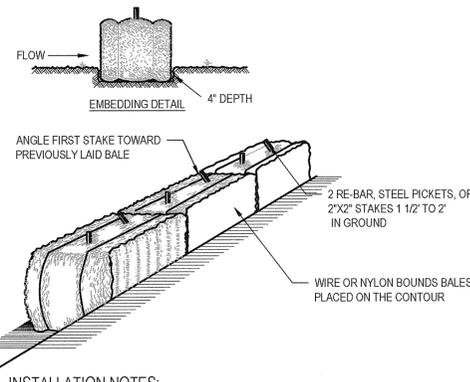
- ALL REQUIRED EROSION CONTROL MEASURES SHALL BE ESTABLISHED WITHIN A DRAINAGE AREA PRIOR TO EXCAVATION WITHIN THE AREA.
- THE LISTED EROSION CONTROL MEASURES ARE REQUIRED. ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED AT THE TIME OF CONSTRUCTION BASED ON CONSTRUCTION PRACTICES AND SITE CONDITIONS.
- SPECIFIC EROSION CONTROL PRACTICES FOR INDIVIDUAL AREAS ARE SHOWN ON THE INDIVIDUAL DRAWINGS. GENERAL PRACTICES AND DETAILS ARE LISTED ON THIS SHEET.
- THE GENERAL SEQUENCE OF CONSTRUCTION WILL BE AS FOLLOWS:
 - IDENTIFY THE LIMITS OF THE DRAINAGE AREA.
 - ESTABLISH EROSION CONTROL MEASURES WITHIN THE DRAINAGE AREA.
 - EXCAVATE MATERIAL FROM THE EXCAVATION AND STOCKPILE ACCEPTABLE MATERIAL ADJACENT TO THE EXCAVATION.
 - REMOVE UNACCEPTABLE MATERIAL FROM THE SITE.
 - HAUL IN ACCEPTABLE BACKFILL AND STOCKPILE MATERIAL ADJACENT TO THE EXCAVATION.
 - INSTALL NEW FACILITIES, IE: BEDDING, PIPE, SIDEWALK.
 - BACKFILL WITH ACCEPTABLE MATERIAL.
 - ESTABLISH SURFACE TREATMENTS.
 - MAINTAIN EROSION CONTROLS UNTIL ALL SURFACE AREAS ARE STABILIZED.
 - REMOVE EROSION CONTROL MEASURES.
- DRAINAGE WILL BE SLOPED AWAY FROM THE EXCAVATION AREA.
- EXCAVATIONS WILL BE KEPT DRY USING SUMP PUMP SYSTEMS. THE SUMP WILL BE LOCATED AT THE LOW POINT OF THE TRENCH, AND WILL CONSIST OF A SUCTION HOSE DRAWING FROM A POCKET OF WASHED GRAVEL WRAPPED IN NON-WOVEN GEOTEXTILE. THE SUMP WILL DISCHARGE TO STABILIZED CATCH BASINS. STABILIZED CATCH BASINS WILL BE CLEANED PRIOR TO HAVING STORMWATER DISCHARGED TO THEM AND THEIR GRATES WILL BE WRAPPED WITH WOVEN GEOTEXTILE (SILT FENCE MATERIAL) TO PREVENT THE ENTRANCE OF FINES. STABILIZED CATCH BASINS WILL ALSO BE CLEANED WHEN THE SILT REACHES THE MIDPOINT OF THE SUMP AND AT THE COMPLETION OF THE PROJECT.
- IF A STABILIZED CATCH BASIN IS NOT AVAILABLE WITHIN A DRAINAGE AREA THE TRENCH SUMP WILL DISCHARGE TO A SILT BAG AND FLOW OVERLAND TO NATURAL DRAINAGE COURSES. THE VOLUME OF WATER DISCHARGED WILL BE MONITORED TO PREVENT EROSION OR DAMAGE WITHIN THE NATURAL DRAINAGE COURSES.
- MATERIAL TAKEN FROM ROADWAYS, CATCH BASINS, AND SILT BAGS WILL BE DISPOSED OF IN A MANNER THAT MEETS ALL LOCAL, STATE AND FEDERAL LAWS.

EROSION CONTROL NARRATIVE

- PRIOR TO COMMENCING WORK, CONTRACTOR SHALL INSTALL SEDIMENT AND EROSION CONTROL MEASURES.
- WHEN THE SITE IS CLEARED, BUT BEFORE GRUBBING, EROSION CONTROLS SHALL BE PLACED AT POINTS NOTED ON THE PLANS. THESE INCLUDE POSITIONING CONTROLS AS NEEDED AT DOWNGRADIENT EDGES OF GRADED AREAS AND AT THE BASE OF PROPOSED FILL SLOPES AND WALLS.
- STABILIZED CONSTRUCTION AND WASHDOWN PAD SHALL BE INSTALLED AS SHOWN ON DRAWINGS. IF NECESSARY, ROUGH GRADES SHALL BE ESTABLISHED AND SHAPED. SITE AREAS SHALL BE ESTABLISHED FOR USE AS CONSTRUCTION MATERIAL STORAGE AND PARKING.
- CUTS AND FILLS WILL BE MADE TO DESIGN GRADES. EXCESS FILL WILL BE HAULED AND PLACED IN FILL AREAS OR DISPOSED OF AT AN APPROVED OFF-SITE LOCATION.
- EROSION CONTROLS SHALL BE PERIODICALLY CHECKED AND MAINTAINED AT THE DOWNHILL EDGE OF DISTURBED AREAS AND SHALL BE PLACED AT THE BASE OF SLOPES. HAYBALES OR SILT FENCES SHALL BE MAINTAINED AT THE POINTS OF RUNOFF PIPE AND DITCH OUTLETS.
- WHEN CONSTRUCTION WORK IS COMPLETED AND STABLE SURFACES (VEGETATED OR PAVED) HAVE BEEN ACHIEVED, THE EROSION CONTROLS SHALL BE REMOVED.

DUST CONTROL MEASURES

- DUST CONTROL MEASURES WILL BE IMPLEMENTED ACROSS AREAS OF SITE DISTURBANCE.
- TEMPORARY STABILIZATION (SEEDING, MULCHING) WILL BE EMPLOYED IF CONSTRUCTION AREAS ARE TO BE LEFT OPEN FOR PERIODS OF TIME. THESE NOTED GENERAL OPERATIONS WILL HELP REDUCE THE POTENTIAL LEVEL OF DUST GENERATED FROM THE SITE.
- DUST CONTROL MEASURES WILL BE EMPLOYED DURING DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- SPECIFIC DUST CONTROL MEASURES FOLLOW IN ORDER OF HIERARCHY.
 - SPRINKLING: WATER WILL BE SPRAYED ON THE SURFACE OF DISTURBED AREAS UNTIL THE SURFACE IS WET. THIS PRACTICE IS ESPECIALLY EFFECTIVE ON TRAFFICED AREAS.
 - VEGETATION: TEMPORARY SEEDING WILL BE EMPLOYED IN SITE DISTURBED AREAS NOT SUBJECT TO TRAFFIC.
 - MULCH: MULCH MATERIAL INCLUDING WOOD CHIPS AND GRAVEL WILL BE USED ON AREAS WHERE A FAST EFFECTIVE MEANS TO CONTROL DUST IS NEEDED.
 - BARRIERS: TEMPORARY "FENCING" WILL BE USED TO CONTROL AIR CURRENTS. EFFECT OF A BARRIER MAY BE AS LARGE AS 15 TIMES THE BARRIER HEIGHT EXISTING OPEN FIELD VEGETATION (3'-4'HT) CAN PROVIDE AN EFFECTIVE CONTROL FOR DUST FROM LOCAL WORK AREAS.

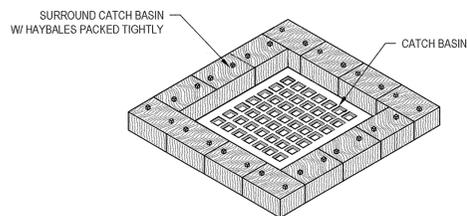


INSTALLATION NOTES:

- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BAR DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAYBALE SEDIMENT BARRIERS

NOT TO SCALE

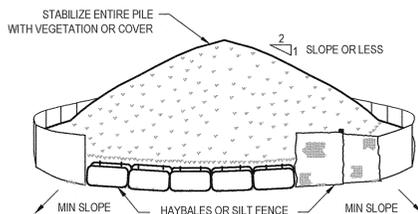


NOTE:

- FOR INLET PROTECTION IN PAVED AREAS USE "SILT SACK" TYPE "A" OR "C" AS MANUFACTURED BY AFC ENVIRONMENTAL, OR APPROVED EQUAL.

HAYBALE RING DETAIL

NOT TO SCALE

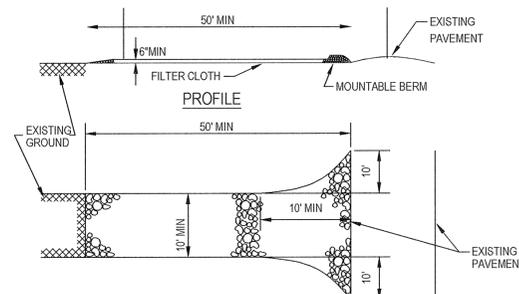


INSTALLATION NOTES:

- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCE OR HAYBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

STOCKPILING DETAIL

NOT TO SCALE

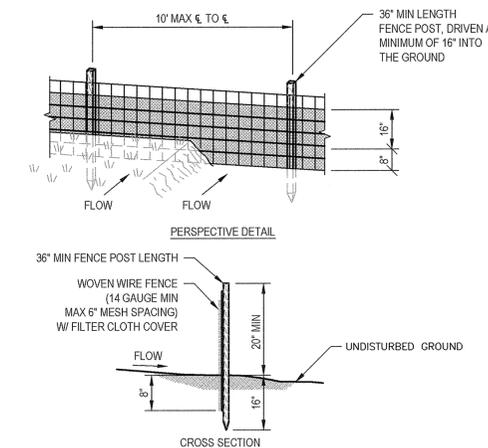


CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE MIN., OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- NOT LESS THAN SIX (6) INCHES THICK.
- TEN (10) FOOT MINIMUM WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO REMOVE TRAPPED SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY.
- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE PERFORMED IN AN AREA STABILIZED WITH STONE WHICH ALSO DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

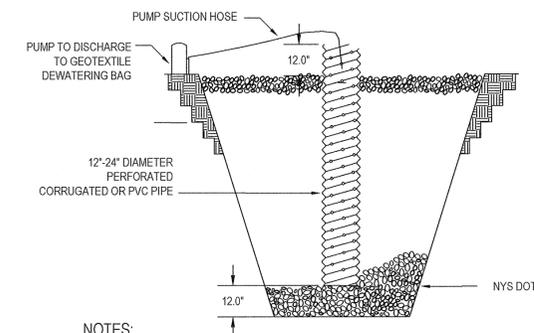


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS, EITHER STEEL TYPE T OR U OR 2" SQUARE HARDWOOD.
- FENCE, WOVEN WIRE, 14 GAUGE WITH A 6" MAXIMUM MESH OPENING.
- FILTER CLOTH, MIRAFI 100X OR APPROVED EQUAL.
- PREFABRICATED UNIT, GEOTAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE

NOT TO SCALE



NOTES:

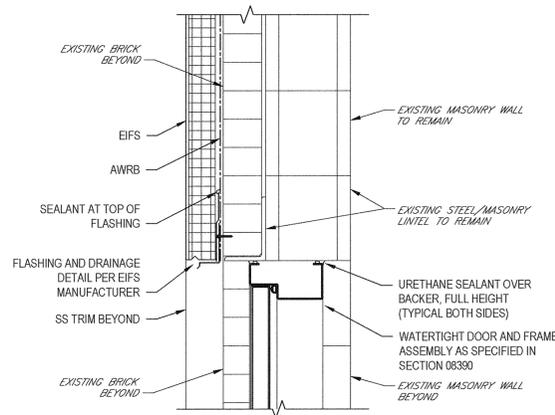
- THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
- A BASE OF 2" AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH 2" AGGREGATE.
- THE STANDPIPE SHOULD EXTEND 12-18" ABOVE THE LIP OF THE PIT.
- THE STANDPIPE SHOULD BE WRAPPED WITH FILTER CLOTH BEFORE INSTALLATION. IF DESIRED, 1/4"-1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE PRIOR TO ATTACHING THE FILTER CLOTH.
- DEWATERING BAG SHALL BE 10 OZ. NON-WOVEN CAPACITY: 6 CUBIC YARDS, BAG SIZE 15 FT. X 10 FT., WATER FLOW RATE PER ASTM 4491, 95 GAL/MIN/SQF

SUMP PIT

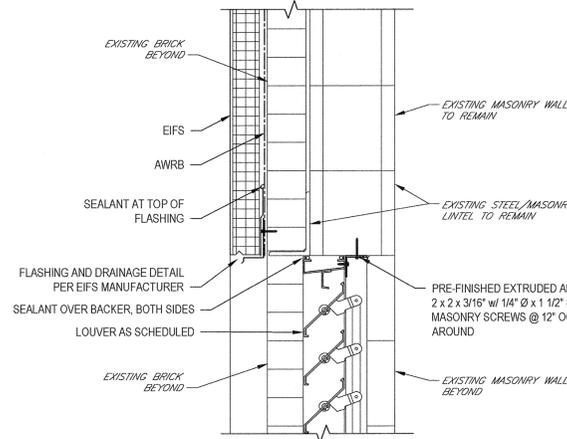
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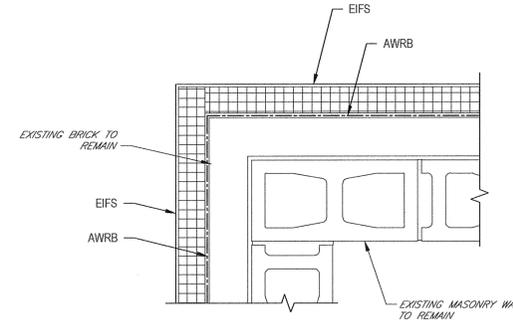
0	FOR CONSTRUCTION	IDG	CPP	RB	09/16	IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E czmail@ghd.com W www.ghd.com</p>	Drawn IDG Designer CPP Drafting SFB Design Check RMC Approved (Project Director) <i>Robert Butterworth</i> Date 9/15/16 Scale AS SHOWN	Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title EROSION CONTROL DETAILS	Original Size Arch D Drawing No: 86-18742-C002 Rev: 0
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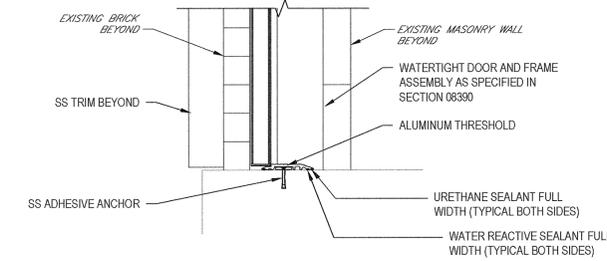
DH DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



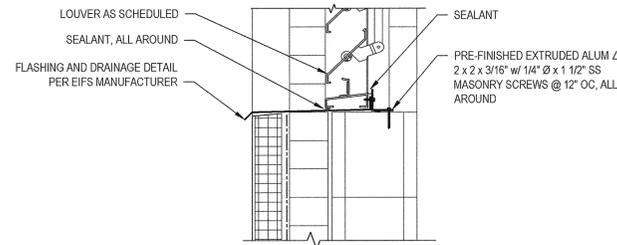
LH LOUVER HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



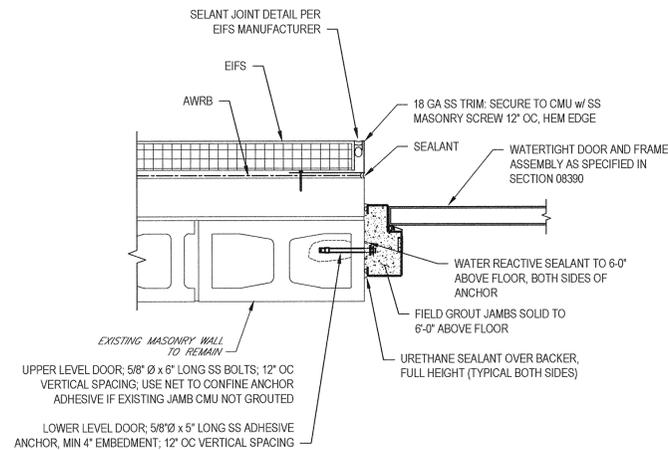
1 CORNER DETAIL
SCALE: 1 1/2" = 1'-0"



DS DOOR SILL DETAIL
SCALE: 1 1/2" = 1'-0"



LS LOUVER SILL DETAIL
SCALE: 1 1/2" = 1'-0"



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

**JEFFERSON VALLEY
PUMPING STATION
TOWN OF YORKTOWN
CONSTRUCTED 1973 - UPGRADED 2016**

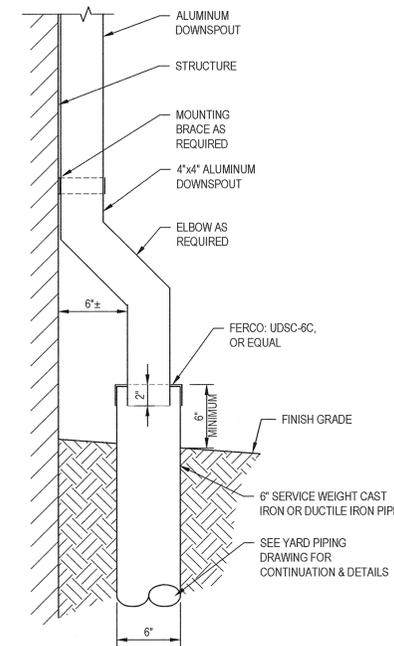
TOWN BOARD
MICHAEL J. GRACE - SUPERVISOR

GREG BERNARD **VISHNU PATEL**
TOM DIANA **ED LACHTERMAN**

TOWN ENGINEER
MICHAEL QUINN, P.E.

GHD - CONSULTING SERVICES INC.

PLAQUE DETAIL (24" x 18")
NOT TO SCALE



**TYPICAL DOWNSPOUT
CONNECTION TO YARD PIPING**
NOT TO SCALE

- ARCHITECTURAL ABBREVIATIONS:**
- & AND
 - ∠ ANGLE
 - @ AT
 - ∅ DIAMETER
 - w/ WITH
 - ALUM ALUMINUM
 - AWRB AIR-AND-WATER-RESISTIVE BARRIER
 - BTWN BETWEEN
 - CB ROOF COVER BOARD
 - CJ CONTROL JOINT
 - CLR CLEAR
 - CMU CONCRETE MASONRY UNIT
 - CONT CONTINUOUS
 - DIM DIMENSION
 - DWG DRAWING
 - DWG'S DRAWINGS
 - EIFS EXTERIOR INSULATION & FINISH SYSTEM
 - EJ EXPANSION JOINT
 - ELEC ELECTRICAL
 - EQ EQUAL
 - FRP FIBERGLASS REINFORCED PLASTIC
 - GALV GALVANIZED
 - GWB GYPSUM WALL BOARD
 - HORIZ HORIZONTAL
 - INSUL INSULATION
 - LLH LONG LEG HORIZONTAL
 - LLV LONG LEG VERTICAL
 - MAX MAXIMUM
 - MECH MECHANICAL
 - MIN MINIMUM
 - MSRY MASONRY
 - MO MASONRY OPENING
 - NOM NOMINAL
 - NTS NOT TO SCALE
 - OC ON CENTER
 - PT PRESSURE TREATED
 - REQD REQUIRED
 - SCHED SCHEDULED
 - SIM SIMILAR
 - SPEC'D SPECIFIED
 - SPEC SPECIFICATIONS
 - SPF SPRAYED POLYURETHANE FOAM
 - SS STAINLESS STEEL
 - STRUC STRUCTURAL
 - TB THERMAL BARRIER ROOF BOARD
 - TYP TYPICAL
 - UNO UNLESS NOTED OTHERWISE
 - VERT VERTICAL
 - VR RETARDER/TEMPORARY ROOF MEMBRANE

- MATERIALS LEGEND:**
- CMU = CONCRETE MASONRY UNIT (BLOCK)
 - BLOCKING OR FRAMING CONTINUOUS
 - BLOCKING OR SHIM NOT CONTINUOUS
 - PLYWOOD OR LAMINATED VENEER LUMBER
 - FINISHED WOOD
 - GWB = GYPSUM WALL BOARD
 - RIGID BOARD INSULATION (DETAIL VIEW)
 - BATT INSULATION
 - EARTH
 - COMPACTED BACKFILL
 - CONCRETE
 - GROUT
 - ALUMINUM CHECKERED PLATE (PLAN VIEW)
 - ALUMINUM GRATING (PLAN VIEW)
 - FRP GRATING (PLAN VIEW)
 - FERROUS OR NON-FERROUS METAL IN SECTION

- DRAWING SYMBOLS:**
- EXISTING TO REMAIN
 - EXISTING TO BE DEMOLISHED
 - NEW WORK
 - DOOR NUMBER
 - ROOM NAME & NUMBER
 - LOUVER NUMBER
 - FIRE EXTINGUISHER
 - FLOOR LEVEL INDICATOR
 - SECTION FLAG
 - PARTIAL PLAN OR DETAIL

FOR CONSTRUCTION

								Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title GENERAL ARCHITECTURAL INFORMATION AND DETAILS	
0 FOR CONSTRUCTION CMS CPP RB 09/16				IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cza@mail@ghd.com W www.ghd.com		Approved (Project Director) Date 9/21/16 Scale AS SHOWN	
Revision Note: * indicates signatures on original issue of drawing or last revision of drawing				Drawn Job Manager Project Director Date		This Drawing shall not be used for Construction unless Signed and Sealed For Construction		Original Size Arch D Drawing No: 86-18742-A001 Rev: 0	

GENERAL STRUCTURAL NOTES:

- STRUCTURAL DRAWINGS SHALL BE COORDINATED AND USED IN CONJUNCTION WITH OTHER DRAWINGS, INCLUDING ARCHITECTURAL, CIVIL (SITE), MECHANICAL, HVAC, PLUMBING, AND ELECTRICAL DRAWINGS. ANY APPARENT DISCREPANCIES SHALL BE BROUGHT TO ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO PROCEEDING ON SUCH WORK.
- NO CHANGES OF THE STRUCTURAL SYSTEM AS INDICATED ON THESE STRUCTURAL DRAWINGS SHALL BE DONE PRIOR TO RECEIVING WRITTEN APPROVAL FROM THE ENGINEER.
- THESE STRUCTURAL DRAWINGS DO NOT IDENTIFY COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROVIDE COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO STARTING AND CONTINUOUSLY DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY BRACING AND MAINTAINING THE STABILITY OF THE STRUCTURES DURING DEMOLITION AND CONSTRUCTION. THE STRUCTURES SHALL BE ASSUMED UNSTABLE UNTIL ALL OF THE WALLS, ROOF (IF APPLICABLE), CONNECTIONS, AND PERMANENT BRACING ARE FULLY INSTALLED.
- SECTIONS AND DETAILS ON THE STRUCTURAL DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONSTRUCTION NOT FULLY DETAILED.
- ALL LIQUID CONTAINMENT CONCRETE STRUCTURES (TANKS, CHANNELS, ETC.) SHALL BE LEAK TESTED IN ACCORDANCE WITH SECTION 03001.
- CHEMICAL ADHESIVE SYSTEMS SHALL BE USED TO INSTALL ALL COMPONENTS AND ACCESSORIES (BOLTS, DOWELS, ETC.) INTO HARDENED CONCRETE AND MASONRY, UNLESS NOTED OTHERWISE.
- THE NOTES ON THIS SHEET ARE ONLY INTENDED TO SUPPLEMENT THE SPECIFICATIONS. REFER TO THE APPLICABLE SPECIFICATIONS FOR ALL REQUIREMENTS AND ADDITIONAL INFORMATION.

EARTHWORK/FOUNDATION NOTES (REFERENCE DIVISION 2 SPECIFICATIONS):

- ALL FOUNDATION WORK, INCLUDING (BUT NOT LIMITED TO) SUBGRADE PREPARATION AND PLACEMENT OF FILL MATERIAL, SHALL BE PERFORMED AS DESCRIBED IN DIVISION 2 OF THE SPECIFICATIONS.
- STRUCTURAL FILL MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 02223 AND SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 02228.
- ALL STRUCTURAL FILL SHALL BE PLACED OVER GEOTEXTILE FABRIC AS SPECIFIED IN SECTION 02223.
- ALL FOUNDATIONS SHALL BE CONSTRUCTED ON FIRM SUBGRADE, BEDROCK, OR STRUCTURAL FILL.
- OPEN EXCAVATIONS SHALL BE PROTECTED FROM RAIN AND/OR GROUNDWATER. SUCH EXCAVATIONS MAY BE PROTECTED BY CASTING A MINIMUM 3-INCH THICK CLSM MUD MAT.
- FOUNDATIONS SHALL NOT BE CAST ON FROZEN SUBGRADE.
- CONTRACTOR SHALL ALLOW OWNER'S REPRESENTATIVE OR ENGINEER TO VERIFY ALL SUBGRADE CONDITIONS PRIOR TO PLACEMENT OF FOUNDATIONS, BASE SLABS, AND SLABS-ON-GRADE.

CONCRETE NOTES (REFERENCE DIVISION 3 SPECIFICATIONS):

- ALL CONCRETE SHALL BE MIXED, CONVEYED, PLACED, CURED, AND TESTED IN ACCORDANCE WITH ACI 301, ACI 318, ACI 350, AND CHAPTER 19 OF THE BUILDING CODE REFERENCED IN THE "STRUCTURAL DESIGN CRITERIA". REFER TO DIVISION 3 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONCRETE CLASSES AND THEIR USE AS SPECIFIED IN SECTION 03001:
MIX A - ALL GENERAL USES (INCLUDING LIQUID CONTAINING STRUCTURES) NOT OTHERWISE SPECIFIED OR PROVIDED FOR BELOW.
MIX C - CONCRETE FILL, TOPPING, AND PIPE SUPPORTS AND ENCASUREMENTS.
- AIR ENTRAINMENT IS REQUIRED FOR ALL EXTERIOR EXPOSED CONCRETE AND FOR ALL LIQUID CONTAINMENT STRUCTURES.
- CLEAR COVER SHALL CONFORM TO ACI 318 AND ACI 350 AS FOLLOWS:
CONCRETE CAST DIRECTLY AGAINST EARTH = 3"
TOP OF BASE SLABS WITH PVC WATERSTOPS = 3"
CONCRETE EXPOSED TO EARTH, WEATHER, AND WATER = 2"
- ALL REINFORCING STEEL BARS SHALL BE ASTM A615, GRADE 60, DEFORMED BARS.
- TYPICAL REINFORCING BAR LAP LENGTHS (SPICES) SHALL BE AS SHOWN IN THE "REINFORCEMENT SPLICE LENGTHS" TABLE ON THIS SHEET, UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS.
- WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A185. THE MINIMUM LAP SPICE SHALL BE 6 INCHES.
- APPLY BONDING AGENT PRIOR TO CASTING CONCRETE AGAINST HARDENED CONCRETE.
- ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/8" BY 3/8" CHAMFER (INCLUDING TOP EDGES AND OUTSIDE CORNERS OF WALLS AND SLABS), UNLESS NOTED OTHERWISE.
- PROVIDE WATERSTOPS IN ALL STRUCTURES THAT ARE INTENDED TO BE WATERTIGHT OR DRY SPACES BELOW GRADE.
 - ALL PVC WATERSTOPS SHOWN ON THE DRAWINGS SHALL BE 6 INCHES, UNLESS NOTED OTHERWISE.
 - PVC WATERSTOPS SHALL BE HEAT-WELDED/GLUED AT ALL SEAMS, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - WATERSTOPS SHALL BE INSTALLED AS A CONTINUOUS LOOP, INTERCONNECTING ALL CONCRETE JOINTS.
 - WATERSTOP SHALL BE TERMINATED 2 INCHES BELOW THE TOP OF WALLS (NOT COVERED WITH A TOP SLAB).
- EXTERIOR SLABS (PADS) SHALL BE A MINIMUM 10" THICK WITH #4@12" T&B EW, OR AS SHOWN ON THE DRAWINGS.
- ALL EXTERIOR SLABS SHALL HAVE A 1/4" PER FOOT SLOPE (1/8" PER FOOT MINIMUM) IN ORDER TO PROVIDE POSITIVE DRAINAGE.
- CONTRACTOR SHALL PROPOSE ADDITIONAL CONSTRUCTION JOINTS AS NEEDED TO FACILITATE CONSTRUCTION. ALL PROPOSED CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTING.
- CONTRACTOR SHALL COORDINATE ALL OPENINGS AND PENETRATIONS IN CONCRETE WITH ALL ARCHITECTURAL, MECHANICAL, HVAC, PLUMBING, AND ELECTRICAL WORK. NOTE THAT NOT ALL OPENINGS AND PENETRATIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
- COORDINATE AND CAST-IN ALL EMBEDDED CONCRETE ACCESSORIES REQUIRED FOR ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL ACCESSORIES AND EQUIPMENT. POST INSTALLATION OF EMBEDDED ITEMS WILL NOT BE ACCEPTABLE.
- COORDINATE SIZE OF ALL CONCRETE PADS, CURBS, AND PIERS WITH APPROVED EQUIPMENT MANUFACTURER.
- ALL CONCRETE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR IN AN APPROVED MANNER.
- ALL EXISTING AND NEW PENETRATIONS INTO UNDERGROUND STRUCTURES SHALL BE SEALED WATERTIGHT AGAINST INFILTRATION OF GROUNDWATER AND SUBMERGENCE.
- REFER TO DIVISION 3 OF THE SPECIFICATIONS FOR ALL OTHER REQUIREMENTS.

METAL AND MISCELLANEOUS FABRICATIONS (REFERENCE DIVISION 5 SPECIFICATIONS):

- ALL ALUMINUM TO BE IN CONTACT, CAST-IN OR EMBEDDED INTO MASONRY OR CONCRETE SHALL BE BACKPAINTED WITH A BITUMINOUS COATING.
- ALL FASTENERS USED TO FASTEN ALUMINUM SHALL BE TYPE 316, STAINLESS STEEL WITH TEFLON WASHERS.
- ALL FASTENERS USED TO FASTEN FIBERGLASS SHALL BE TYPE 316, STAINLESS STEEL.
 - GRATING PANELS SHALL BE EDGE BANDED.
 - REMOVABLE SECTIONS SHALL BE PROVIDED WHERE NEEDED FOR ACCESS.
 - ALL NON-REMOVABLE SECTIONS OF GRATING SHALL BE INSTALLED WITH STAINLESS STEEL HOLD DOWN CLIPS.

SYMBOLS AND LEGEND

	BENTONITE WATERSTOP
	CENTERLINE
	PLATE
	CONCRETE HOUSEKEEPING PAD
	CONCRETE EQUIPMENT/PUMP PAD
	SLOPE CALLOUT
	LIFTING EYE LOCATION
	6" PVC WATERSTOP, UNLESS NOTED OTHERWISE
	DECK / PLANK SPAN
	STEEL REINFORCEMENT IN CONCRETE
	WELDED WIRE REINFORCEMENT IN CONCRETE
	CONCRETE
	EXISTING CONCRETE
	CAST-ON-SITE CONCRETE PANELS
	GROUT
	FERROUS OR NON-FERROUS MATERIAL IN SECTION
	ALUMINUM GRATING
	FRP GRATING
	PUNCHED ALUMINUM PLANK
	ALUMINUM CHECKERED PLATE
	CONCRETE MASONRY BLOCK (CMU)
	BRICK
	BLOCKING OR FRAMING, CONTINUOUS
	BLOCKING OR SHIM, NOT CONTINUOUS
	PLYWOOD OR LAMINATED VENEER LUMBER
	RIGID INSULATION
	UNDISTURBED EARTH
	FINISHED GRADE
	BACKFILLED MATERIAL
	UNDISTURBED ROCK
	COMPACTED STRUCTURAL FILL (SEE SPECIFICATION SECTION 02223)
	EXCAVATION LIMITS
	EXCAVATED BEDROCK PROFILE

STRUCTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT OR ARCHITECTURAL
ASSY	ASSEMBLY
B/	BOTTOM OF
BIT	BITUMINOUS
BLDG	BUILDING
BM	BEAM
BOT OR B	BOTTOM
BP	BASE PLATE
BRG	BEARING
BRK	BRICK
¢	CENTERLINE
CC	CENTER TO CENTER
CF OR CU FT	CUBIC FEET
CI	CAST IRON
CIRC	CIRCLE/CIRCULAR
CL JT	CONTROL JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CLSM	CONTROLLED LOW-STRENGTH MATERIAL
CRF	CHEMICAL RESISTANT FINISH
CS JT	CONSTRUCTION JOINT
CY OR CU YD	CUBIC YARD
DEFL	DEFLECTION
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
FAB	FABRICATE
FD	FLOOR DRAIN
FF	FAR FACE / FINISHED FLOOR
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FOOTING STEP
FT	FEET
FTG	FOOTING
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
HD	HEAVY DUTY
HOR OR H	HORIZONTAL
H PT	HIGH POINT
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
IF	INSIDE FACE
INT	INTERIOR
INV	INVERT
ISO	ISOLATION
JST	JOIST
JT	JOINT
K	1000 POUNDS (1 KIP)
L PT	LOW POINT
L OR L	ANGLE
LG	LONG
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
NF	NEAR FACE
NTS	NOT TO SCALE
OC	ON CENTERS / ODOR CONTROL
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
PL	PLATE
PAR	PARALLEL
PEP	PERSONAL ENTRY POINT
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RISER / REACTION / RADIUS
RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCEMENT
RM	ROOM
RO	ROUGH OPENING
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
STL JT	STEEL JOIST
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRU	STRUCTURAL
T & B	TOP AND BOTTOM
T	TREAD OR TOP
T/	TOP OF
THK	THICK

STRUCTURAL DESIGN CRITERIA

(PER 2010 BUILDING CODE OF NEW YORK STATE)

FLOOR LIVE LOADS:

ELECTRICAL/MECHANICAL ROOMS:	250 (PSF)
WALKWAYS AND PLATFORMS:	250 (PSF)

ROOF LIVE LOADS:

MINIMUM ROOF LIVE LOAD:	20 (PSF)
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ROOF SNOW LOADS:

GROUND SNOW LOAD, P _s :	30 (PSF)
FLAT-ROOF SNOW LOAD, P _f :	28 (PSF)
SLOPED-ROOF SNOW LOAD, P _s :	25 (PSF)
SNOW EXPOSURE FACTOR, C _e :	1.0
SNOW IMPORTANCE FACTOR, I:	1.1
THERMAL FACTOR, C _t :	1.2

WIND LOAD:

BASIC WIND SPEED, V _s :	100 (MPH)
WIND IMPORTANCE FACTOR, I:	1.15
WIND EXPOSURE:	B
INTERNAL PRESSURE COEFFICIENTS:	± 0.18
DESIGN WIND PRESSURE USED FOR COMPONENTS & CLADDING:	
@ WALLS:	+ 26 / - 33 (PSF)
@ ROOFS:	+ 28 / - 38 (PSF)

EARTHQUAKE DESIGN DATA:

SEISMIC IMPORTANCE FACTOR:	1.25
OCCUPANCY CATEGORY:	III
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	
S _w :	0.241 g
S _v :	0.070 g
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS:	
S _{DS} :	0.257 g
S _{1/4} :	0.111 g
SEISMIC DESIGN CATEGORY:	B

SOIL DATA:

DESIGN FROST DEPTH:	42 INCHES
DESIGN SOIL BEARING PRESSURE: ON UNDISTURBED MATERIAL OR STRUCTURAL FILL	2,000 (PSF)

SIZE	HORIZONTAL BARS *	OTHER BARS
#4	24" (2'-0")	18" (1'-6")
#5	30" (2'-6")	21" (1'-9")
#6	36" (3'-0")	24" (2'-0")
#7	48" (4'-0")	33" (2'-9")
#8	54" (4'-6")	39" (3'-3")
#9	60" (5'-0")	42" (3'-6")
#10	66" (5'-6")	48" (4'-0")

- * HORIZONTAL BARS INCLUDE:
- HORIZONTAL WALL REINFORCING BARS.
 - TOP REINFORCING BARS FOR SLABS AND WALL FOOTINGS GREATER THAN 12" THICK.

FOR CONSTRUCTION

0	FOR CONSTRUCTION	BTM	CPP	RB	09/16	
0	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

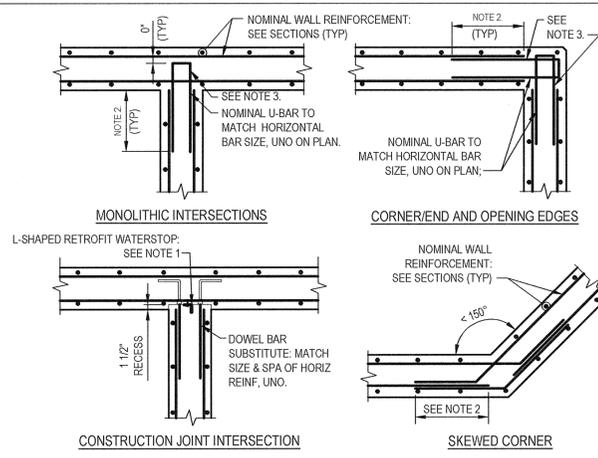
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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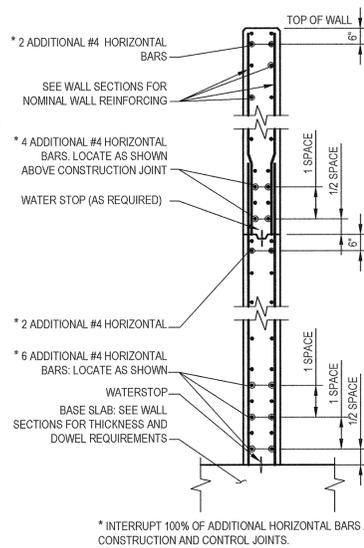
Drawn	BTM	Designer	BTM
Drafting Check	CMK	Design Check	CMK
Approved (Project Director)		Date	9/16/16
Scale	AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	

Client	TOWN OF YORKTOWN, NEW YORK
Project	PUMP STATION UPGRADE PROGRAM
Title	STRUCTURAL DESIGN CRITERIA, GENERAL NOTES ABBREVIATIONS AND LEGEND
Arch D	Drawing No: 86-18742-S001
Rev:	0

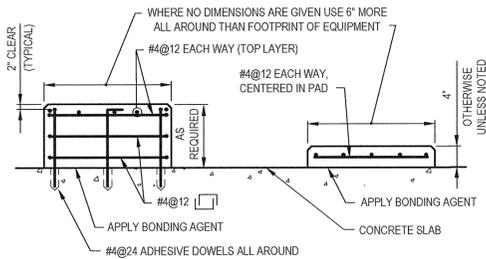


- NOTES:**
1. WATERSTOPS SHALL BE USED AS SHOWN FOR:
 - LIQUID CONTAINMENT STRUCTURES (TANKS, CHANNELS, WETWELLS, ETC.)
 - BASEMENTS AND GALLERIES BELOW GRADE (TERMINATE WATERSTOP 6" ABOVE FINISHED GRADE)
 2. REINFORCEMENT LAP SPLICE LENGTH: SEE SPLICE LENGTH TABLE ON SHEET S001.
 3. TERMINATE NOMINAL HORIZONTAL BARS IN LINE WITH INSIDE FACE OF WALL. DO NOT EXTEND INTO WALL CORNER OR INTO FACE OF INTERSECTING WALL.

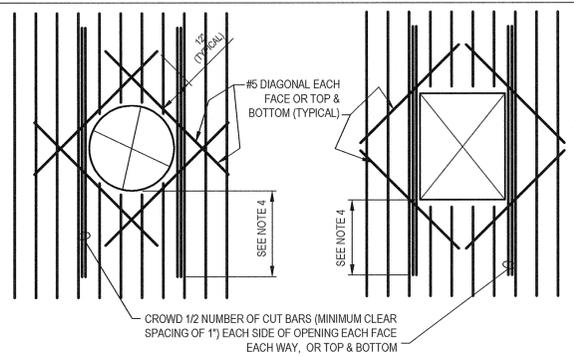
HORIZONTAL WALL REINFORCEMENT - PLAN VIEW
NOT TO SCALE



HORIZONTAL WALL REINFORCING SECTION VIEW
NOT TO SCALE

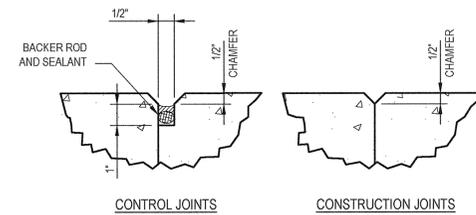


TYPICAL EQUIPMENT/PUMP PAD ▲ **HOUSEKEEPING PAD** ◆
REINFORCEMENT FOR CONCRETE PADS
NOT TO SCALE

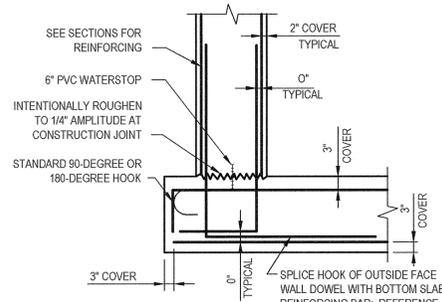


- NOTES:**
1. CROWDED BARS ARE REQUIRED IN BOTH DIRECTIONS. BARS ARE SHOWN IN ONLY ONE DIRECTION FOR CLARITY. INSTALL BARS IN OTHER DIRECTION IN SAME MANNER.
 2. DETAIL TO BE USED AT ALL WALL/SLAB PENETRATIONS AND OPENINGS GREATER THAN 1.25 X BAR SPACING. AT SMALLER OPENINGS, SPREAD REINFORCING AROUND OPENING.
 3. CROWDED BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.
 4. CROWDED BARS SHALL EXTEND PAST OPENING FULL SPLICE LENGTH. PROVIDE STANDARD HOOK IF FULL SPLICE LENGTH IS NOT POSSIBLE.
 5. REINFORCING STEEL IS TO BE CARRIED THROUGH ALL CONSTRUCTION JOINTS.
 6. ALL BARS ARE ROLLED TO THE APPLICABLE RADIUS IN CURVED CONSTRUCTION.

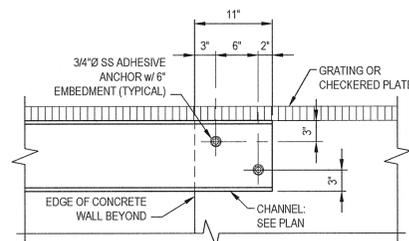
OPENINGS IN WALL/SLAB



V-GROOVE JOINT DETAIL
NOT TO SCALE

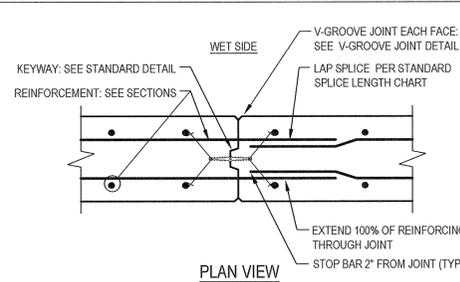


TYPICAL BASE OF WALL
NOT TO SCALE



NOTE:
WHERE CHANNEL SIZE IS NOT SPECIFIED ON THE PLANS, PROVIDE ALUMINUM C86X2.63.

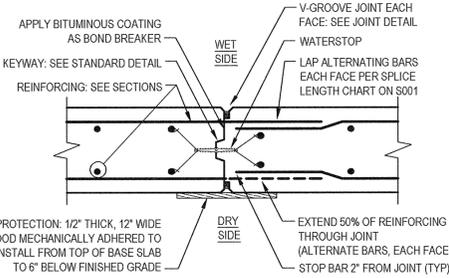
SIDE-MOUNTED CHANNEL FOR SUPPORT OF GRATING/CHECKERED PLATE
NOT TO SCALE



- NOTES:**
1. SEE PLAN FOR REQUIRED CONSTRUCTION JOINT LOCATIONS.
 2. EACH SLAB SECTION SHALL BE CURED FOR 3 DAYS BEFORE ADJACENT SECTION IS PLACED. REFER TO SPEC SECTION 03001.

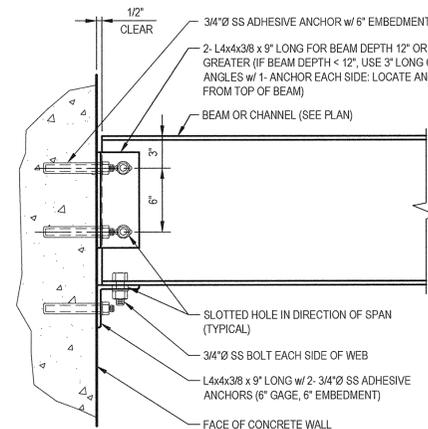
WALL CONSTRUCTION JOINT (CS JT)

NOT TO SCALE



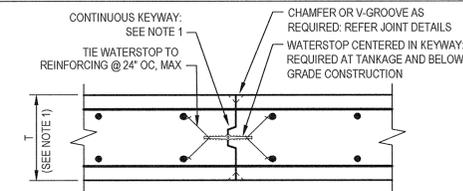
- NOTES:**
1. SEE PLAN FOR REQUIRED CONTROL JOINT LOCATIONS.
 2. EACH WALL SECTION SHALL BE CURED FOR 3 DAYS BEFORE ADJACENT SECTION IS PLACED. REFER SPEC SECTION 03001.

WALL CONTROL JOINT (CL JT)
NOT TO SCALE



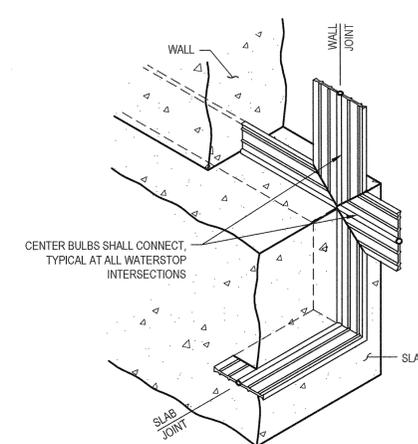
- NOTES:**
1. CLIP ANGLE MATERIAL TO MATCH BEAM MATERIAL.
 2. SEE PLANS FOR BEAM SIZE AND MATERIAL.

BEAM AND CHANNEL CONNECTION TO CONCRETE WALL
NOT TO SCALE

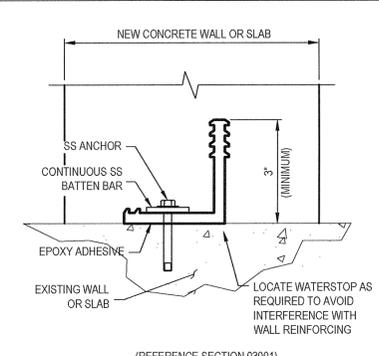


- NOTES:**
1. WHERE "T" IS LESS THAN 16", USE NOMINAL 2"x4" KEYWAY. WHERE "T" IS 16" OR LARGER, USE NOMINAL 2"x6" KEYWAY.
 2. CENTER KEYWAY BETWEEN REINFORCING MATS.
 3. STOP KEYWAY (AND WATERSTOP) 3" FROM TOP OF WALL.
 4. OMIT KEYWAY AT WALLS LESS THAN 10" THICK.
 5. SEE SECTIONS FOR REINFORCING.

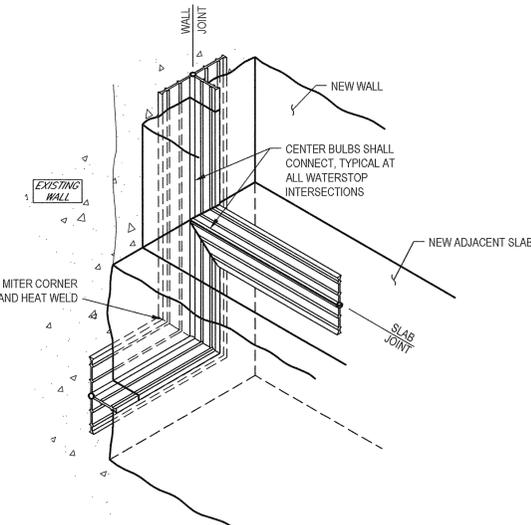
PLAN OR SECTION VIEW KEYWAY IN WALL OR SLAB
NOT TO SCALE



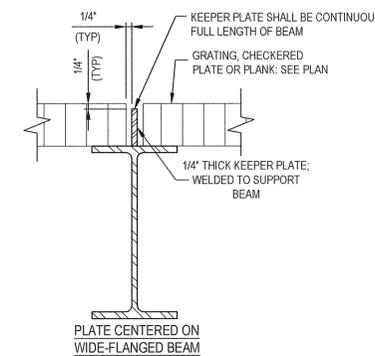
WATERSTOP DETAIL
NOT TO SCALE



RETROFIT WATERSTOP SYSTEM (L-SHAPED)
NOT TO SCALE

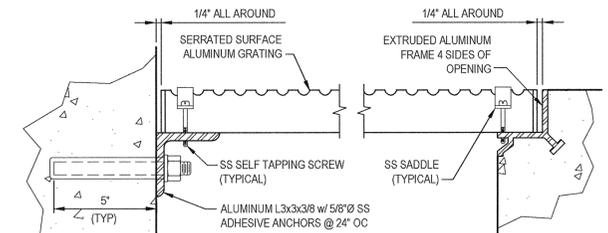


RETROFIT WATERSTOP INSTALLATION DETAIL
NOT TO SCALE



- NOTES:**
1. KEEPER PLATE MATERIAL SHALL MATCH BEAM MATERIAL.
 2. UNLESS OTHERWISE NOTED, KEEPER PLATE SHALL BE PROVIDED ON ALL BEAMS AND CHANNELS SUPPORTING CHECKERED PLATE OR GRATING.

GRATING "KEEPER PLATE"
NOT TO SCALE



GRATING SCHEDULE		
SPAN	BEARING BAR DEPTH	
	SERRATED ALUMINUM	FRP
6" TO 2'-0"	1 1/4"	1"
2'-1" TO 3'-0"	1 1/2"	1 1/2"
3'-1" TO 4'-0"	1 1/2"	2"
4'-1" TO 5'-0"	2"	NA
5'-1" TO 6'-0"	2 1/4"	NA

GRATING
NOT TO SCALE
(REFERENCE SECTION 05500)

FOR CONSTRUCTION

0	FOR CONSTRUCTION	BTM	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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Drawn	BTM	Designer	BTM
Drafting Check	CMK	Design Check	CMK
Approved (Project Director)	<i>[Signature]</i>		
Date	9/22/16		
Scale	AS SHOWN		

Client **TOWN OF YORKTOWN, NEW YORK**
Project **PUMP STATION UPGRADE PROGRAM**
Title **STANDARD DETAILS**

Original Size **Arch D**
Drawing No: **86-18742-S002**
Rev: **0**

ABBREVIATIONS

A or AMP	AMPERE, AMPS
AC	ALTERNATING CURRENT
AF	AMPERE FRAME SIZE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CURRENT
ALT	ALTERNATOR
AM	AMMETER
ANN	ANNUNCIATOR
AS	AMMETER SWITCH
ASV	AIR SOLENOID VALVE
AT	AMPERE TRIP RATING
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BB	CK BOOST
BKR	BREAKER
BTS	BEARING TEMPERATURE SENSOR
C or CONDUIT	CONDUIT
C&W	CONDUIT & WIRE
CA	CABLE
CB	CIRCUIT BREAKER
CDRS	CONDUCTORS
CIRC	CIRCUIT
CLF	CURRENT LIMITING FUSE
COMP	COMPARTMENT
COR	CORROSION RESISTANT
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT
DM	DAMPEN MOTOR
DS	DISCONNECT SWITCH
EA	EACH
EMH	ELECTRICAL MANHOLE
EMT	ELECTRICAL METALLIC TUBING
EMTP	EMBEDDED MOTOR THERMAL PROTECTOR
ES	EMERGENCY SWITCH
ESTOP	EMERGENCY STOP
ETM	ELAPSED TIME METER
FA	FIRE ALARM
FLEX	FLEXIBLE
FLOA	FLOAT SWITCH
FOSA	FAST-OFF-SLOW-AUTOMATIC
FOS	FAST-OFF-SLOW
FS	FLOW SWITCH
FSW	FUSED SWITCH
FVNR	FULL VOLTAGE NON REVERSING
FVR	FULL VOLTAGE REVERSING
FVTS	FULL VOLTAGE TWO SPEED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GENSET	EMERGENCY POWER GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HP	HORSE POWER
IBOB	INBOARD/OUTBOARD
IL	INDICATING LIGHT
IO	INPUT/OUTPUT
ISR	INTRINSICALLY SAFE RELAY
JB	JUNCTION BOX
JIC	JOINT INDUSTRIAL COUNCIL
KCMIL	THOUSAND CIRCULAR MILS
KSU	KEY SERVICE UNIT
KVA	KILOVOLT AMPERES
KW	KILOWATT
LA	LIGHTNING ARRESTOR
LC	LIGHTING CIRCUIT
LO	LOCKOUT
LS	LIMIT SWITCH
mA	MILLIAMPS
MAG	MAGNETIC
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MCS/	MOLDED CASE SWITCH
T	THERMAL ONLY
M	MAGNETIC ONLY
AUTO	AUTOMATIC ONLY
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MMS	MANUAL MOTOR STARTER
MSS	MOTOR STARTING SWITCH
MTR	MOTOR TIMING RELAY
MWTP	MOTOR WINDING THERMAL PROTECTION
Mx	MOTOR CONTACTOR/AUXILIARY CONTACT
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NO	NORMALLY OPEN
NP	NAMEPLATE
OHE	OVERHEAD ELECTRIC
OHL	OVERHEAD TELEPHONE
OL	OVERLOAD RELAY
Ø	PHASE
P	POLE
PB	PUSHBUTTON
PBx	PULL BOX
PF	PULLING FITTING
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
POT	POTENTIOMETER
PR	PAIR
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
R&R	REMOVE & REPLACE
RECP	RECEPTACLE
RGS	RIGID GALVANIZED STEEL CONDUIT
ROS	REMOTE OPERATING STATION
RV-AT	REDUCED VOLTAGE AUTO TRANSFORMER
SA	SURGE ARRESTOR
SCR	SILICON CONTROLLED RECTIFIER
SEC	SECOND

SEL or	SELECTOR SWITCH
SEL SW	SELECTOR SWITCH
SHLD	SHIELDED
SIL	STOP/LOCKOUT SWITCH
SIL	SIL
SN	SOLID NEUTRAL
SS	STAINLESS STEEL
SSRVS	SOLID STATE REDUCED VOLTAGE STARTER
SSW	SAFETY SWITCH
S/S	STOP/START PUSH BUTTON
STR	STRANDED
SV	SOLENOID VALVE
SW	SWITCH
SWD	SWITCHING DUTY
SWSV	SEAL WATER SOLENOID VALVE
TC	TERMINAL CABINET OR TIMED CLOSED
TDR	TIME DELAY RELAY
TERM	TERMINAL
TR	TIMER
TR.SW.	TRANSFER SWITCH
TR24	24-HOUR TIMER
TPR	TERTIARY PHOSPHOROUS REMOVAL
TS	TORQUE SWITCH
TSP	TWISTED SHIELDED PAIR
TST	TWISTED SHIELDED TRIAD
TYP	TYPICAL
UG/E	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UNK.	UNKNOWN
UPS	UNINTERRUPTIBLE POWER SUPPLY
VA	VOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLTMETER
VS	VOLTMETER SWITCH
VSC	VARIABLE SPEED CONTROL
W	WITH
WP	WEATHER PROOF, WATER PROOF
XP	EXPLOSION PROOF
2S1W	2 SPEED, 1 WINDING
2S2W	2 SPEED, 2 WINDING
XFMR	TRANSFORMER

GENERAL NOTES

- POWER AND LIGHTING CIRCUITS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION OF CONDUIT RUNS SHALL BE DETERMINED BY THE ELECTRICAL INSTALLER IN THE FIELD. UNLESS SPECIFICALLY DIMENSIONED ON THE PLANS. CONDUIT AND WIRE INFORMATION CAN BE FOUND ON THE PLANS. EQUIPMENT SCHEDULES AND SCHEMATICS.
- EXACT EQUIPMENT CONDUIT CONNECTIONS ARE TO BE DETERMINED BY THE ELECTRICAL INSTALLER BASED UPON THE ACTUAL FIELD LOCATION OF EQUIPMENT. INSTALL CONDUIT IN ACCORDANCE WITH SPEC. SEC. 16055 OR 16110.
- ALL PENETRATIONS THROUGH EXISTING SOLID CONCRETE STRUCTURES WHERE SLEEVES HAVE NOT BEEN PROVIDED SHALL BE CORE DRILLED AND SIZED TO ACCEPT MECHANICAL LINK SEALS. THROUGH NON-FIRE RATED WALLS, CORE HOLE AND SEAL AROUND CONDUIT WITH NON-SHRINK GROUT. THROUGH EXTERIOR WALL SEAL WATER TIGHT WITH SILICONE MASONRY SEALANT.
- EVERY EFFORT HAS BEEN MADE TO IDENTIFY REMOTE ITEMS TO BE CONNECTED BY THE ELECTRICAL CONTRACTOR, EITHER IN THE ELEMENTARIES OR IN THE SCHEDULES. HOWEVER, NOT ALL OF THE REMOTE DEVICES MAY HAVE BEEN SHOWN ON THE ELECTRICAL PLAN DRAWINGS. SEE THE DRAWINGS OF RESPECTIVE CONTRACTS TO LOCATE OR CONFIRM THEIR LOCATION.
- IN GENERAL, ALL WORK SHOWN ON THESE ELECTRICAL SHEETS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY STATED OTHERWISE. WORK OF THIS CONTRACT IS GENERALLY SHOWN USING HEAVY LINE WEIGHTS. WITH EXISTING FACILITIES AND THE WORK OF OTHER CONTRACTS SHOWN WITH LIGHTER LINE WEIGHTS AND/OR CALLED OUT ON THE PLANS.
- SEE DRAWINGS OF OTHER CONTRACTS FOR ADDITIONAL CONTRACT LIMITS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF EQUIPMENT SUCH THAT INSTALLATION OF HIS EQUIPMENT IS NOT STARTED UNTIL AFTER PAINTING & FINISHES, IN ACCORDANCE WITH THE ROOM FINISH SCHEDULE, HAVE BEEN COMPLETED IN EACH OF THE AREAS OR THE GENERAL CONTRACTOR AGREES THAT EQUIPMENT THAT IS INSTALLED WILL NOT PREVENT AREAS FROM BEING PAINTED OR FINISHES APPLIED IN THEIR ENTIRETY.

GROUNDING NOTES

- THE GROUNDING SYSTEM IS SHOWN DIAGRAMMATICALLY. EXACT LOCATION OF CABLE GROUND RODS AND CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.
- ALL BURIED GROUNDING CABLE CONNECTIONS SHALL BE CADWELD OR THERMOWELD. THE WELDED CONNECTIONS SHALL BE LEFT EXPOSED FOR INSPECTION BY ENGINEER PRIOR TO BACKFILLING.
- WHERE EXPOSED TO MECHANICAL INJURY, THE GROUNDING CONDUCTOR SHALL BE SUITABLY PROTECTED BY PIPE OR OTHER MECHANICAL PROTECTION. EACH END OF PROTECTING CONDUIT (IF METALLIC) SHOULD BE GROUNDED TO THE BARE CABLE.
- ALL EXPOSED CABLE LUGS AND CONNECTORS SHALL BE OF THE COMPRESSION TYPE UNLESS OTHERWISE NOTED.
- STEEL MUST BE CLEANED THOROUGHLY AND CABLE MUST BE COMPLETELY DRY BEFORE MAKING WELD CONNECTIONS.
- THE GROUNDING SYSTEM SHALL BE CONNECTED TO A METALLIC WATERLINE WITH A MINIMUM OF 10 FEET LENGTH UNDERGROUND AND TO THE GROUNDING ELECTRODES.
- REMOVE PAINT FROM UNDER ALL GROUND LUGS AND BARS, INCLUDING SHOP FABRICATED PANELS.

LIGHTING NOTES

- INSTALL LIGHTING FIXTURES IN LOCATIONS AS SHOWN OR AS NOTED, AS CLOSE AS POSSIBLE TO THESE LOCATIONS WHEN ADJUSTMENTS TO AVOID INTERFERENCES ARE REQUIRED. FIXTURES SHALL BE INSTALLED LEVEL AND PLUMB.
- CONNECT FIXTURES ON CIRCUITS AS SHOWN ON DRAWINGS AND ON PANELBOARD SCHEDULES. LIGHTING CIRCUIT CONDUIT AND CONDUCTORS SHALL BE PER NEC OR AS NOTED ON THE DRAWINGS.
- CLEAN EACH FIXTURE AT TIME OF SUBSTANTIAL COMPLETION.
- OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR AND REPAIR ALL IMPROPER CONNECTIONS AND OPERATION.
- LIGHT SWITCHES SHALL BE AS SPECIFIED IN SECTION 16055 OR 16142.
- PROVIDE THE FOLLOWING SPARE COMPONENTS
LAMPS:
12 - 48" T-8, 32 WATT, FLUORESCENT
2 - 50 WATT, HPS, CLEAR FOR TYPE SS FIXTURES
6 - 150 WATT, HPS, CLEAR FOR TYPES M & W FIXTURES
6 - 18 WATT, PL, COMPACT FLUORESCENT, FOR TYPE G FIXTURES
BALLASTS:
PROVIDE 4 BALLASTS FOR EACH TYPE OF FLUORESCENT FIXTURE PROVIDED. PROVIDE 2 BALLAST FOR EACH TYPE OF HPS FIXTURE PROVIDED.
- SUBMIT SHOP DRAWINGS FOR ALL FIXTURES UNDER THIS CONTRACT IN ACCORDANCE WITH SECTION 01300 IF THE CONTRACT DOCUMENTS. PROVIDE COMPLETE INFORMATION INCLUDING FIXTURE ACCESSORIES, INSTALLATION INSTRUCTIONS, OPERATIONS AND MAINTENANCE INFORMATION, AND LIST OF FIXTURES TYPES AND MANUFACTURER TO BE USED FOR EACH.
- PROVIDE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SECTION 01700 AND 16055 OR 16050 OF THE CONTRACT DOCUMENTS. RECORD DOCUMENTS SHALL ACCURATELY SHOW FIXTURE LOCATIONS OF EACH LUMINAIRE INCLUDING THE CONNECTIONS, AND FOR EACH TYPE OF FIXTURE PROVIDE MANUFACTURERS NAME, CATALOG NUMBER, VOLTAGE, LAMP TYPE AND POWER REQUIREMENTS.

SYMBOLS

	INDICATING LIGHT = COLOR R - RED W - WHITE G - GREEN A - AMBER
	PUSH-TO-TEST INDICATING LIGHT
	CONTACT NORMALLY OPEN
	CONTACT NORMALLY CLOSED
	TERMINAL STRIP CONNECTION
	CURRENT LIMITING FUSE
	SWITCH WITH CURRENT LIMITING FUSE
	MOLDED CASE CIRCUIT BREAKER
	CONTINUOUS RATING MOTOR CIRCUIT PROTECTOR-TRIP RANGE SETTING BASED ON ACTUAL MOTOR FULL LOAD AMPS
	CONTACTOR TYPE AND NEMA SIZE AS REQUIRED FOR MOTOR FULL LOAD AND CHARACTERISTICS OVERLOAD HEATERS OR RELAY
	MUSHROOM HEAD PUSHBUTTON (MAINTAINED)
	MOMENTARY OPEN PUSHBUTTON (NORMALLY OPEN)
	MOMENTARY CLOSED PUSHBUTTON (NORMALLY CLOSED)
	MAINTAINED CONTACT PUSHBUTTON WITH MECHANICAL INTERLOCK
	THREE POSITION MAINTAINED SELECTOR SWITCH
	FOUR POSITION MAINTAINED SELECTOR SWITCH
	TIME DELAY SWITCH NORMALLY OPEN TIMED OPEN
	TIME DELAY SWITCH NORMALLY OPEN TIMED CLOSE
	TIME DELAY SWITCH NORMALLY CLOSE TIMED OPEN
	TIME DELAY SWITCH NORMALLY CLOSE TIMED CLOSE
	TEMPERATURE SWITCH
	LIMIT SWITCH
	FLOAT SWITCH
	PRESSURE SWITCH
	FLOW SWITCH
	MOTORIZED VALVE ACTUATOR
	SOLENOID VALVE COIL
	CONTROL RELAY
	TIMER
	TIME DELAY RELAY
	MOTOR STARTER CONTACTOR COIL
	ELAPSED TIME METER
	NAME PLATE
	JUNCTION BOX
	PULL BOX
	CONTROL STATION
	DISCONNECT SWITCH
	MOTOR OPERATED DAMPER
	MOTOR
	FLEXIBLE CONDUIT
	DRAW OUT
	TRANSFORMER
	DELTA
	WYE

	MOUNTING STAND
	WIRES CONNECTED
	WIRES NOT CONNECTED
	GROUND GRID
	GROUND ROD
	SINGLE POLE SWITCH (P) PILOT LIGHT
	THREE WAY SWITCH
	FOUR WAY SWITCH
	MANUAL MOTOR STARTER WITH OVERLOAD PROTECTION
	MOTOR STARTING SWITCH
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE CR = CORROSION RESISTANT WP = WEATHER PROOF
	SEAL OFF
	TWISTED SHIELDED PAIR
	ITEM TO BE DEMOLISHED

LIGHTING SYMBOLS

	LUMINAIRE "X" = TYPE
	LUMINAIRE WITH INTEGRAL BATTERY PACK
	STANCHION/POLE MOUNTED LUMINAIRE
	WALL OR BOX MOUNTED LUMINAIRE
	CEILING OR PENDANT MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE
	EXIT SIGN
	EMERGENCY LIGHT UNITS
	ALARM LIGHT

THE ABBREVIATIONS AND SYMBOLS LISTED HEREIN ARE STANDARDS OF THIS OFFICE AND APPLY TO A VARIETY OF PROJECTS. ONLY A PORTION OF THEM WILL NECESSARILY APPLY TO ANY GIVEN PROJECT.

SEE THE LISTINGS IN OTHER SECTIONS OF THIS DOCUMENT FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS.

ALL CONTRACTORS ARE ISSUED A COMPLETE SET OF CONTRACT DRAWINGS. WHILE EVERY EFFORT HAS BEEN MADE TO CONCENTRATE THE WORK OF TRADES ON SPECIFIC SHEETS AND LABELED ACCORDINGLY, THERE ARE NECESSARY INSTANCES WHERE WORK IS SHOWN ON, OR CROSS-REFERENCED TO, OTHER DRAWINGS. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO REVIEW ALL DRAWINGS AND COORDINATE HIS WORK WITH OTHERS.

NOTE!
ALL WORK ON THIS SHEET
BY ELECTRICAL CONTRACT
UNLESS SPECIFICALLY NOTED
OTHERWISE

FOR CONSTRUCTION

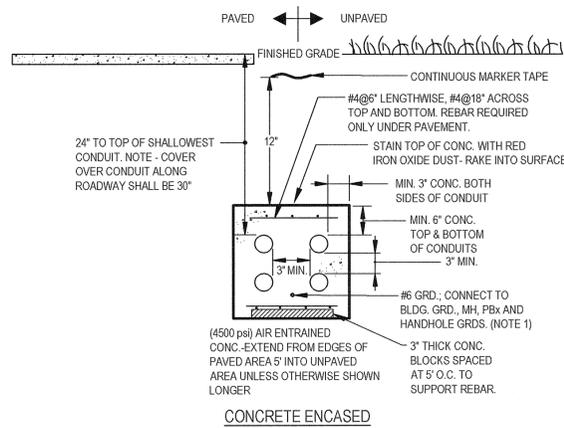
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No	Revision	Note: indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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Drafting Check	TWD	Design Check	TWD
Approved (Project Director)		Date	7/29/16
Scale	AS SHOWN	Original Size	Arch D

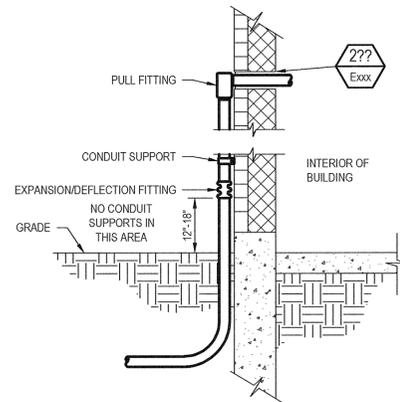
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Project	PUMP STATION UPGRADE PROGRAM
Title	ELECTRICAL ABBREVIATIONS, SYMBOLS, DETAILS, AND NOTES
Arch D	Drawing No: 86-18742-E001
Rev:	0



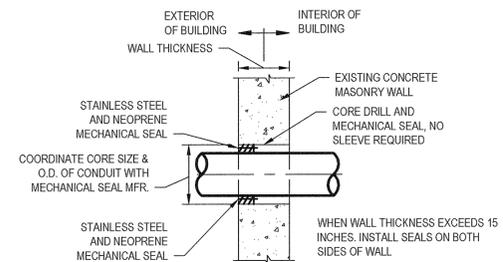
104 DUCTBANK DETAIL
SCALE: NTS

DUCTBANK NOTES:

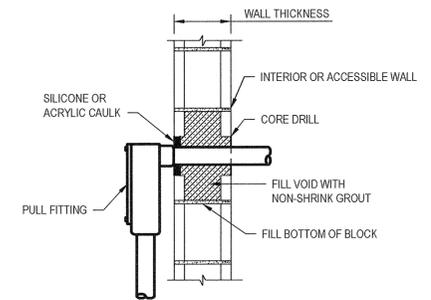
- IF EXISTING OR NEW GROUNDS ARE NOT AVAILABLE AT DUCTBANK ENDS, PROVIDE ONE 3/4"x10" GROUND ROD, OFFSET TO SIDE OF DUCTBANK, FOR TERMINATION OF DUCTBANK GROUNDING CONDUCTORS.
- ON DUCTBANKS WIDER THAN 30-INCHES, PROVIDE TWO ROWS OF WARNING TAPE, PLACED NEAR THE OUTER EDGES OF THE DUCTBANK.



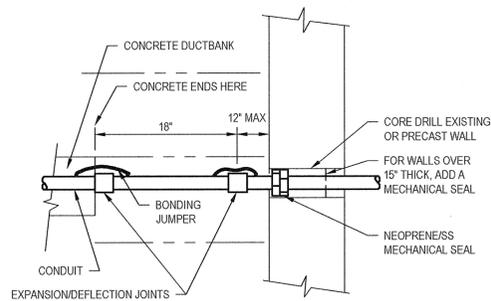
201 TYPICAL BELOW GRADE TO ABOVE GRADE CONDUIT DETAIL
SCALE: NTS



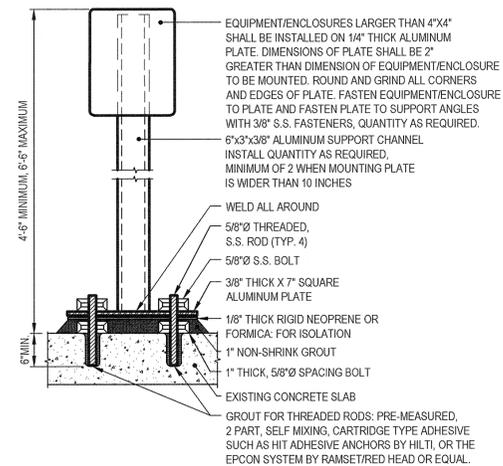
203 CONDUIT PENETRATION THRU CONCRETE WALL
SCALE: NTS



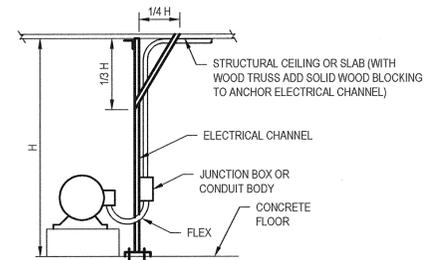
206 TYPICAL CONDUIT THROUGH MASONRY WALL
SCALE: NTS



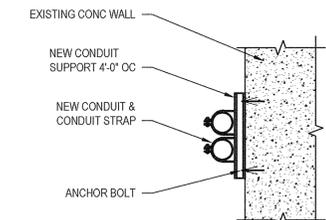
210 CONDUIT ENTRY INTO WELL
SCALE: NTS



301 TYPICAL MOUNTING STAND DETAIL
SCALE: NTS



501 OVERHEAD ELECTRICAL FEED DETAIL
SCALE: NTS



502 VERTICAL WALL MOUNT CONDUIT SUPPORT DETAIL
SCALE: NTS

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No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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Drawn	EPP	Designer	TWD
Drafting Check	TWD	Design Check	TWD
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/16/16		
Scale	AS SHOWN		

Client **TOWN OF YORKTOWN, NEW YORK**
Project **PUMP STATION UPGRADE PROGRAM**
Title **ELECTRICAL STANDARD DETAILS**

Original Size **Arch D** Drawing No: **86-18742-E002**

Rev: 0



- NOTES:**
1. WETLAND DELINEATION PERFORMED BY ENGINEERING DESIGN & RESEARCH (EDR) AND VERIFIED BY NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REPRESENTATIVES.
 2. EXCAVATION AND FILL WITHIN THE 100-FT WETLAND CHECK ZONE IS PROHIBITED WITHOUT NYSDEC WETLAND PERMIT.
 3. CONTRACTOR SHALL DEWATER THE WORK AREA THROUGH COMPLETION OF THE WORK. SOIL BORING LOGS INDICATE THE PRESENCE OF GROUNDWATER AT THE SITE. WATER SHALL BE DISCHARGED TO THE STORM SEWER SYSTEM LOCATED ON DOUGLAS DRIVE.
 4. CONTRACTOR SHALL VERIFY THAT TREE REMOVAL PERMIT HAS BEEN OBTAINED BY OWNER PRIOR TO REMOVAL IF ANY TREES. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND REGULATIONS INCLUDED IN THE PERMIT ISSUED.
 5. CONTRACTOR SHALL REMOVE EXISTING MARSHALL ALARM PANEL AND STORE UNTIL CONSTRUCTION IS COMPLETED. ONCE CONSTRUCTION IS COMPLETED, INSTALL ALARM PANEL IN PUMP STATION.

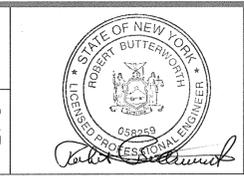
LEGEND

DEMOLISH

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0	Revision	Drawn	Job Manager	Project Director	Date

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Drawn	IDG	Designer	CPP
Drafting Check	SPB	Design Check	RMC
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/16/16		
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	WALDEN WOODS PUMP STATION EXISTING SITE AND DEMOLITION PLAN		
Arch D	Drawing No:	86-18742-WW-D001	
Rev:	0		

NO-MOW LAWN AND LAWN AREAS SEED MIX

RESTORATION SEEDING OF THE DISTURBED PUMP STATION SITE AREAS SHALL BE ACCOMPLISHED USING WHAT IS CALLED A "NO MOW" LAWN SEED MIXTURE THAT PRIMARILY CONTAINS 4 TO 5 VARIETIES OF SELECTED, LOW GROWTH, FESCUE GRASS SPECIES SUITABLE FOR GROWTH ON THE SANDY SOILS OF CAPE COD. A NURSE CROP OF 10% PERENNIAL RYE GRASS OR RED TOP SHALL BE ADDED TO THE FESCUE SEED MIX TO ESTABLISH QUICK GERMINATION OF SEED. SEED SHALL BE OBTAINED FROM AN APPROVED SUPPLIER. THE PURPOSE OF THE SEED MIXTURE IS TO DEVELOP A STABLE GRASS COVER OVER DISTURBED SOILS THAT MAY BE MOWED IN AREAS OR THAT DO NOT REQUIRE REGULAR MOWING OR THE WEEDING THAT WOULD BE INVOLVED WITH MAINTAINING A DEVELOPED SITE. THE "NO MOW" LAWN SEED SHALL BE SPREAD ON THE PREPARED SEEDING SOIL AT THE RATE OF 3 POUNDS PER 1000 SQUARE FEET. THE SEED SHALL BE RAKED LIGHTLY TO ESTABLISH GOOD SOIL CONTACT AND THE SEED BED SHALL BE MULCHED WITH A 2 INCH LOOSE LAYER OF CLEAN OAT STRAW ON FLATTER SITE AREAS AND COVERED WITH AN EROSION CONTROL BLANKET ON SLOPES OVER 10 PERCENT. NORMAL LAWN ESTABLISHMENT OPERATIONS SHALL BE IMPLEMENTED UNTIL THE SEEDING GRASS AREAS HAVE STABLE GROWTH.

WOODY PLANT LIST (WALDEN WOODS PUMP STATION)

PLANTS SHALL BE LOCATED IN FIELD BY ENGINEER
PLANT LIST QUANTITIES SHALL BE USED FOR PROJECT REQUIREMENTS

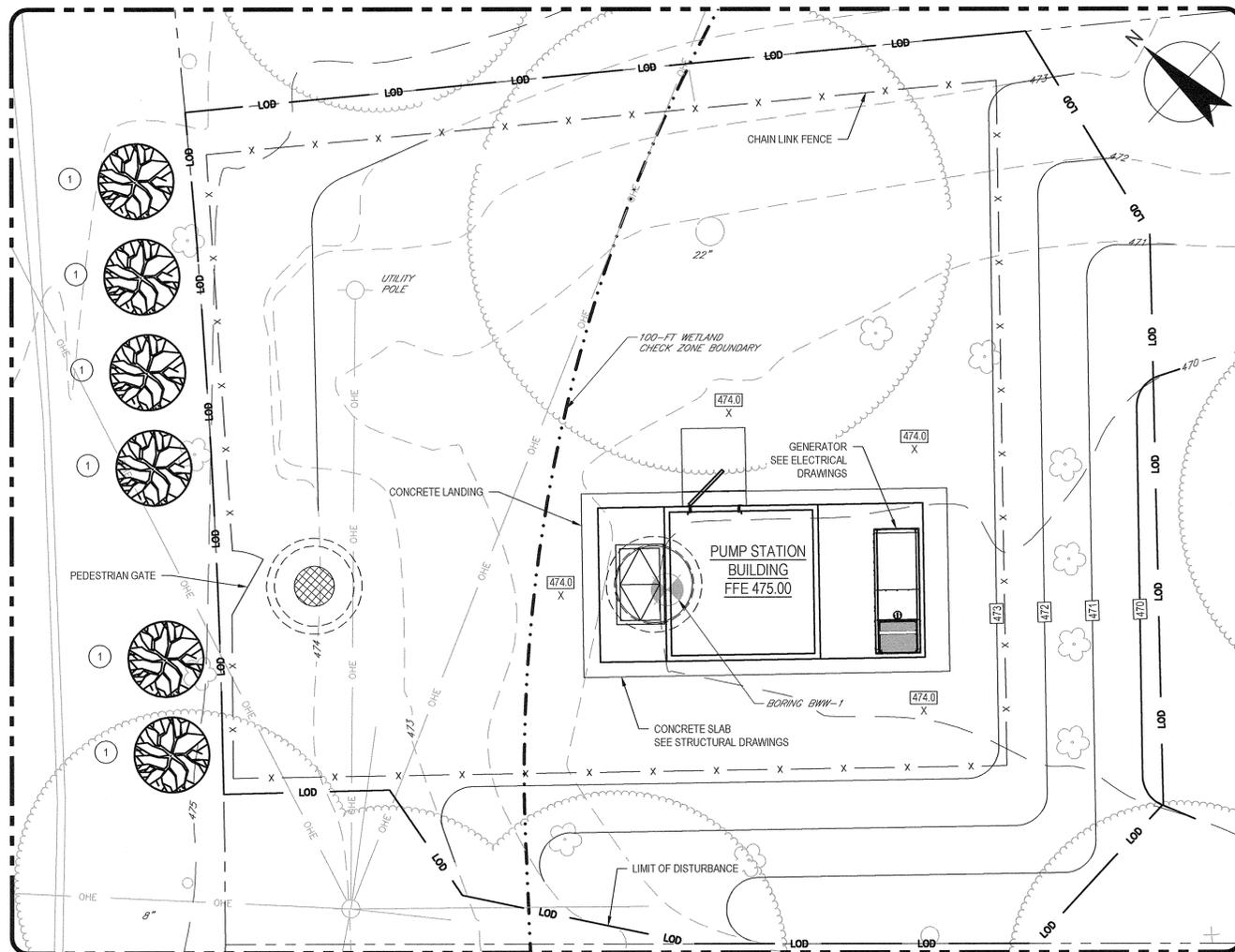
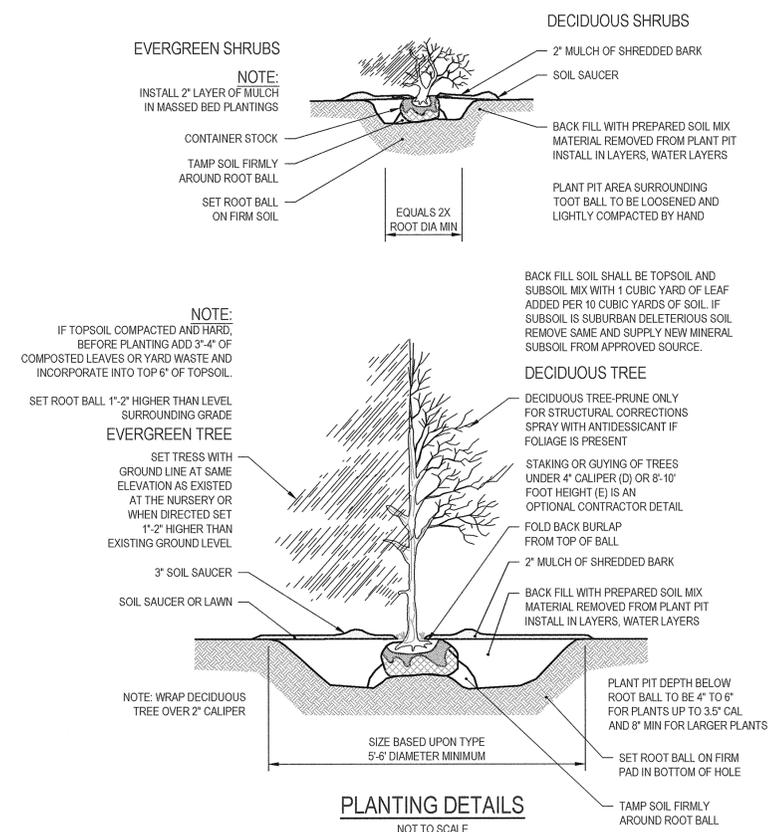
KEY	BOTANICAL NAME	COMMON NAME	QUANTITY	SPACING
1	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	6	6 FEET ON CENTER

SAND DUNE AREA SEED MIX

SEED MIX FOR DRY SOILS (SAND, SANDY LOAM) CONTAINING AT LEAST 5% OF THE FOLLOWING SPECIES: BOUTELOUA GRACILIS, BLUE GAMA, ERAGROSTIS TRICHODES, PANICUM AMARUM, ATLANTIC COASTAL PANIC GRASS, PANICUM VIRGATUM, SWITCHGRASS, SPOROBOLUS ASPER, ROUGH DROPSEED, SPOROBOLUS CRYPTANDRUS, SAND DROPSEED, AND TRIDENS FLAVUS, PURPLE TOP AND BETWEEN 2% TO 5% OF THE FOLLOWING WILDFLOWER SEEDS: ASTER SPECTABILIS, SHOWY ASTER, MONARDA PUNCTATA, SPOTTED BEEBALM, AND PENSTEMON MULTIFLORUS, MANYFLOWER BEARD TONGUE. CONTRACTOR MAY SUGGEST AND OBTAIN APPROVAL FOR SUBSTITUTES OF OTHER COASTAL SAND DUNE TOLERANT SPECIES FOR THE MIX. SEED AT THE RATE OF 15 POUNDS PER ACRE (1/3 TO 1/2 LB PER 1000 SF) OVER 50 PERCENT OF SAND DUNE AREA NOT PLANTED TO WOODY PLANT, GRASSES, AND HERBACEOUS MATERIAL. SEED MIX SHALL BE PROVIDED BY ERNST CONSERVATION SEEDS, MEADVILLE, PENNSYLVANIA, NEW ENGLAND WETLAND PLANTS INC, AMHERST, MASSACHUSETTS, OR AN APPROVED SUBSTITUTE COMMERCIAL SEED SUPPLIER. SUBMIT SEED MIX DATA FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING SEEDING OPERATIONS.

GENERAL SEEDING / PLANTING NOTES

- TOPSOIL SHALL BE FERTILE SOIL SURFACE OBTAINED FROM CONSTRUCTION SITE STOCKPILES. ROOTS AND OTHER WOODY VEGETATION DEBRIS FROM FORMER PLANT GROWTH SHALL BE REMOVED PRIOR TO SPREADING TOPSOIL. TOPSOIL PH AND FERTILITY SHALL BE TESTED BY AN INDEPENDENT LABORATORY AND THE REQUIRED AMOUNTS OF SOIL AMENDMENTS (GROUND LIMESTONE, FERTILIZER) THAT WILL BE NEEDED TO ESTABLISH PLANT GROWTH WILL BE IDENTIFIED. SHOULD ON SITE TOPSOIL NOT BE SUITABLE OR IN SUFFICIENT TO COMPLETE THE WORK, THE CONTRACTOR SHALL PROVIDE SUITABLE TOPSOIL FROM AN APPROVED OFF SITE SOURCE.
- PRIOR TO SPREADING TOPSOIL, COMPACTED SITE SURFACES SHALL BE LOOSENEED TO A DEPTH OF 12" AND THE WILL BE LEVELED AND SMOOTHED, BUT NOT ROLLED AND COMPACTED.
- TOPSOIL SHALL BE SPREAD ON THE PREPARED SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AFTER NATURAL SETTLEMENT AND COMPACTION.
- IN AREAS TO BE SEEDED, SODDED AND/OR PLANTED THE TOPSOIL SHALL BE SHAPED AND FINE GRADED TO FINISH GRADES. IN LAWNS, STONES >1 INCHES SHALL BE REMOVED FROM THE TOPSOIL, AS PART OF THE FINE GRADING OPERATIONS. IN SEEDED AND SODDED AREAS GROUND LIMESTONE AND FERTILIZER SHALL BE APPLIED IN ACCORDANCE WITH TEST RESULTS AND LANDSCAPE INDUSTRY PRACTICE IN THE AMOUNTS NECESSARY TO SUPPORT GRASS GROWTH. THE FERTILIZER USED ON THE PROJECT SHALL CONTAIN AT LEAST 50% ORGANIC NITROGEN CONTENT (FOR SLOW RELEASE).
- SEEDING SHALL BE DONE BETWEEN 1 SEPTEMBER AND 15 OCTOBER OR BETWEEN 1 APRIL AND 1 JUNE. SEED SHALL BE EVENLY APPLIED OVER THE SURFACE OF THE PREPARED SEEDBED AND APPLIED AT THE RATES NOTED. AFTER SEEDING THE SURFACES SHALL BE LIGHTLY RAKED TO INSURE THAT THE SEED HAS GOOD SOIL CONTACT AND MULCH SHALL BE APPLIED TO SOIL SURFACE. MULCH FOR MAY BE COMMERCIAL WOOD FIBER PRODUCTS APPLIED BY HAND OR BY HYDROSEEDING OR MAY BE CLEAN STRAW. STRAW MULCH SHALL BE APPLIED AT A LOOSE DEPTH OF 2 INCHES.
- SODDING, IF ANY ON THE PROJECT SITE, SHALL BE DONE AT ANY TIME PREDICATED UPON LOCAL WEATHER CONDITIONS. SODDING OPERATION SHALL BE SIMILAR TO THOSE FOR SEEDING.
- THE CONTRACTOR SHALL PROTECT, MAINTAIN, WATER, AND MOW ALL SEEDED AND SODDED AREAS UNTIL A DENSE STAND OF GRASS IS ESTABLISHED. 3 MOWINGS SHALL BE REQUIRED. IN LAWN AREAS.
- PLANTING OF NEW WOODY SHRUBS, TREES, AND GROUND COVERS SHALL CONFORM TO THE PLANTING STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERMEN (AAN). PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL HAVE COME FROM LOCATIONS WITH SOIL CHARACTERISTICS SIMILAR TO THE SITE'S SOILS. PLANTS ARE SUBJECT TO SELECTION AND INSPECTION AT THE PLACE OF ORIGIN/PURCHASE BY THE LANDSCAPE ARCHITECT AND WILL BE INSPECTED ON THE SITE PRIOR TO PLANTING. PLANTING SHALL BE FROM 1 SEPTEMBER TO 30 OCTOBER AND 15 APRIL TO 15 JUNE. CERTAIN SPECIES MAY NOT BE COMPATIBLE TO A FALL PLANTING SEASON AND THE PLANTING OF THESE, IF ANY, SHALL BE DEFERRED TO THE FOLLOWING SPRING.
- NEW PLANT MATERIAL SHALL BE PROTECTED, MAINTAINED, WATERED AND THE PLANT BEDS AND SOIL SAUCER AREAS SHALL BE KEPT FREE OF WEEDS UNTIL THE MATERIAL IS ACCEPTED. ACCEPTANCE OF NEW PLANTINGS SHALL BE AFTER ALL MATERIAL HAS BEEN PLANTED AND HAS BEEN INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT AS BEING IN SATISFACTORY CONDITION AT THIS TIME THE OWNER SHALL ACCEPT THE RESPONSIBILITY FOR THE MAINTENANCE AND WATERING OF THE PLANTINGS.
- NEW PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR 1 YEAR FROM THE DATE OF ACCEPTANCE. AT THE START OF THE FOLLOWING PLANTING SEASON A SITE INSPECTION SHALL BE MADE WITH THE LANDSCAPE ARCHITECT AND ALL DEAD, DYING, DISFIGURED PLANTS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.



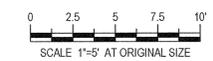
PLANTING PLAN
SCALE: 1"=5'

NOTES:

- EXCAVATION AND FILL WITHIN THE 100'-FT WETLAND CHECK ZONE IS PROHIBITED WITHOUT NYSDEC WETLAND PERMIT.
- CONTRACTOR SHALL DEWATER THE WORK AREA THROUGH COMPLETION OF THE WORK. SOIL BORING LOGS INDICATE THE PRESENCE OF GROUNDWATER AT THE SITE.

FOR CONSTRUCTION

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

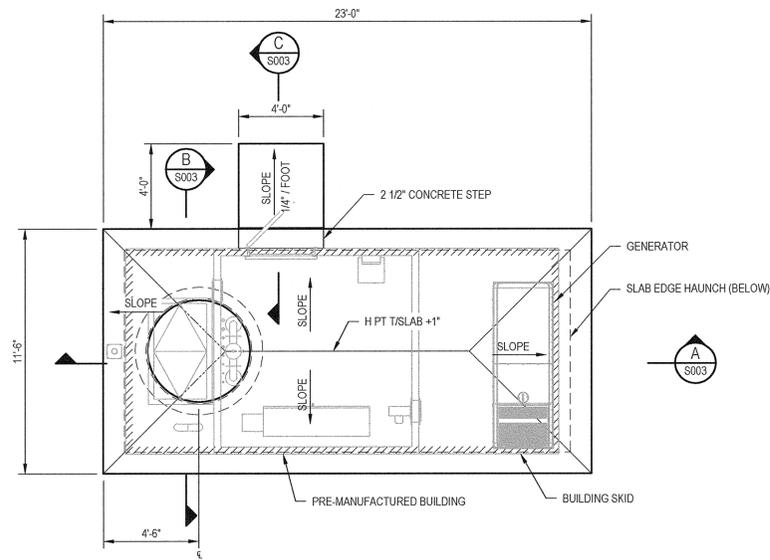


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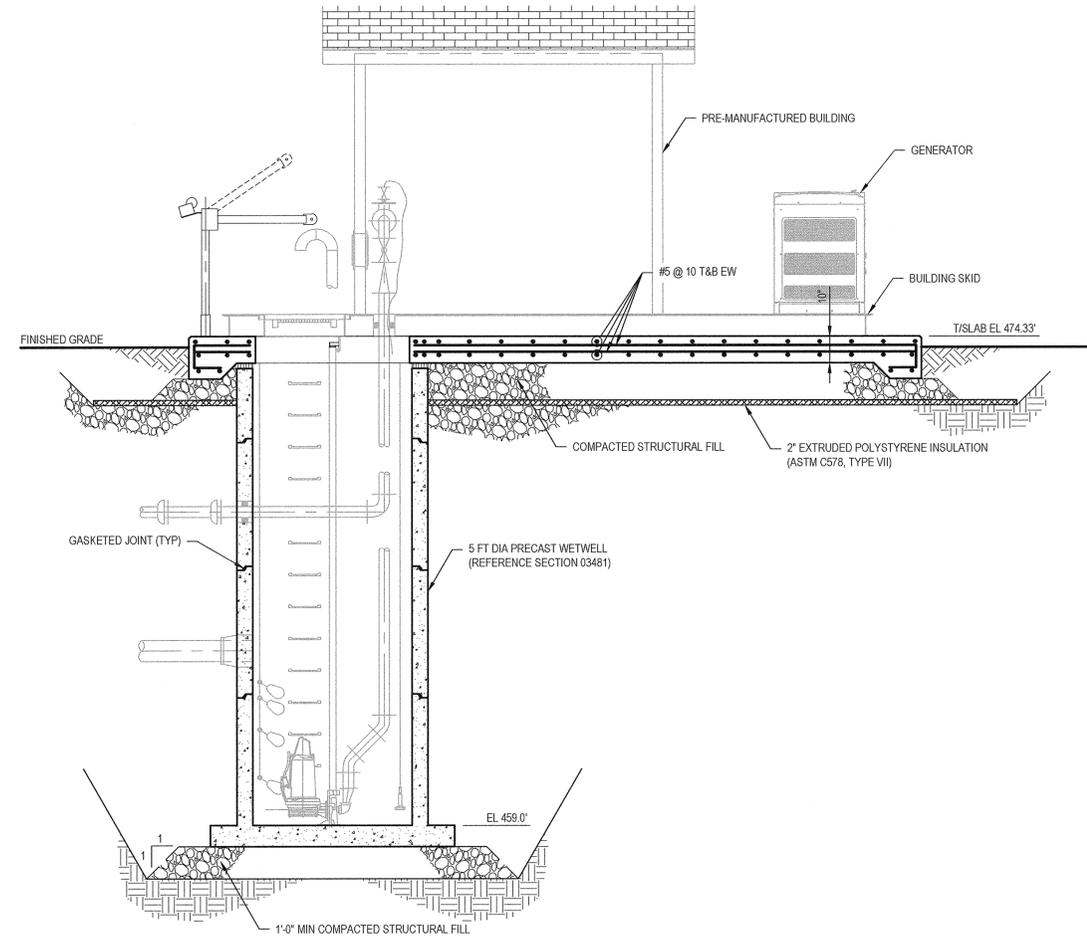
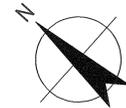


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Drafting Check	SFB	Design Check	RMC
Approved (Project Director)	<i>Paul J. Butterworth</i>	Date	9/16/16
Scale	AS SHOWN	Original Size	Arch D

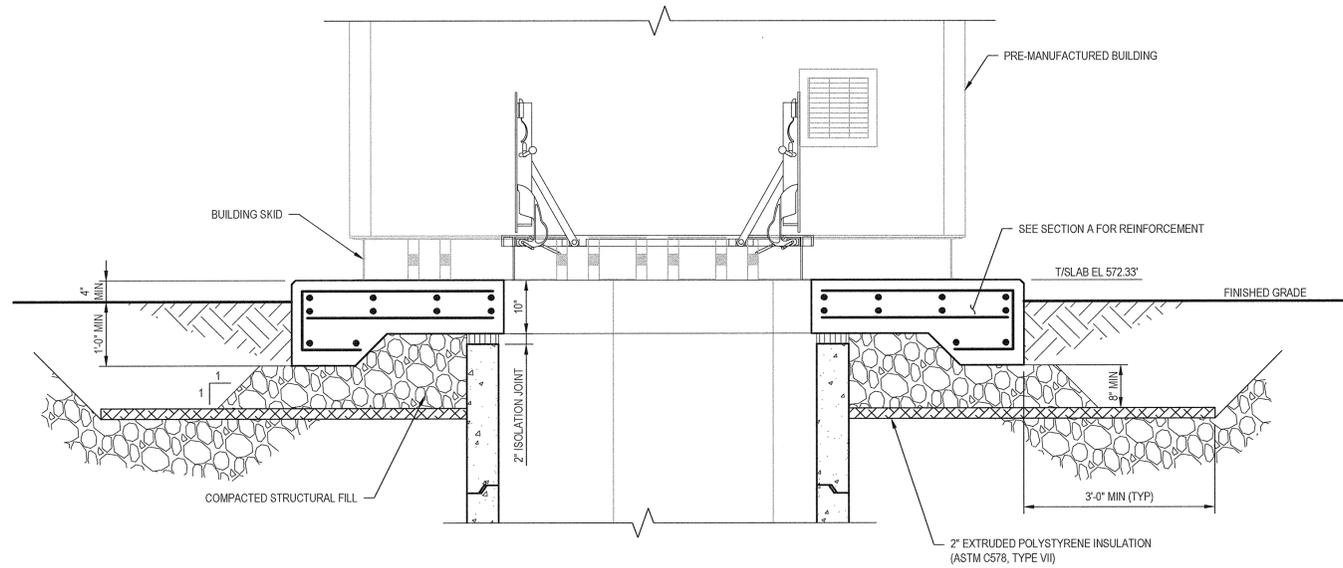
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Project	PUMP STATION UPGRADE PROGRAM
Title	WALDEN WOODS PUMP STATION GRADING AND PLANTING PLAN
Drawing No:	86-18742-WW-C004
Rev:	0



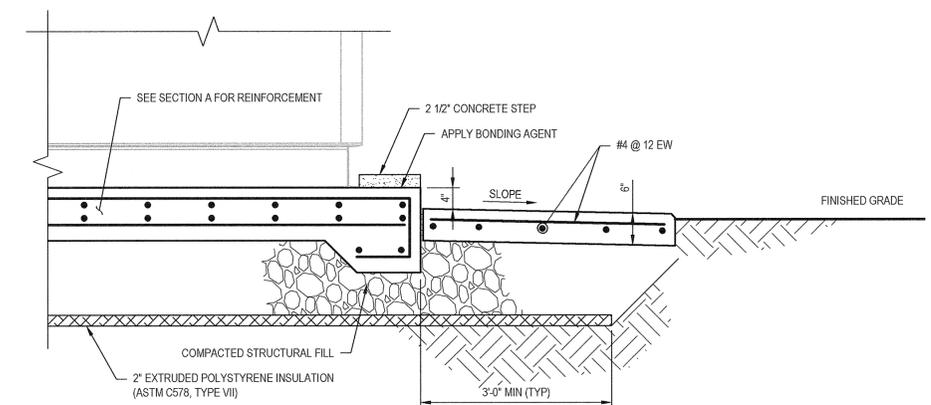
PLAN
SCALE: 1/4" = 1'-0"



A SECTION
S003 SCALE: 3/8" = 1'-0"



B SECTION
S003 SCALE: 3/4" = 1'-0"



C SECTION
S003 SCALE: 3/4" = 1'-0"

FOR CONSTRUCTION

0	FOR CONSTRUCTION	BTM	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

0 2'-0" 4'-0" 6'-0" 8'-0" SCALE 1/4"=1'-0" AT ORIGINAL SIZE

0 2'-0" 4'-0" 6'-0" SCALE 3/8"=1'-0" AT ORIGINAL SIZE

0 1'-0" 2'-0" 3'-0" SCALE 3/4"=1'-0" AT ORIGINAL SIZE

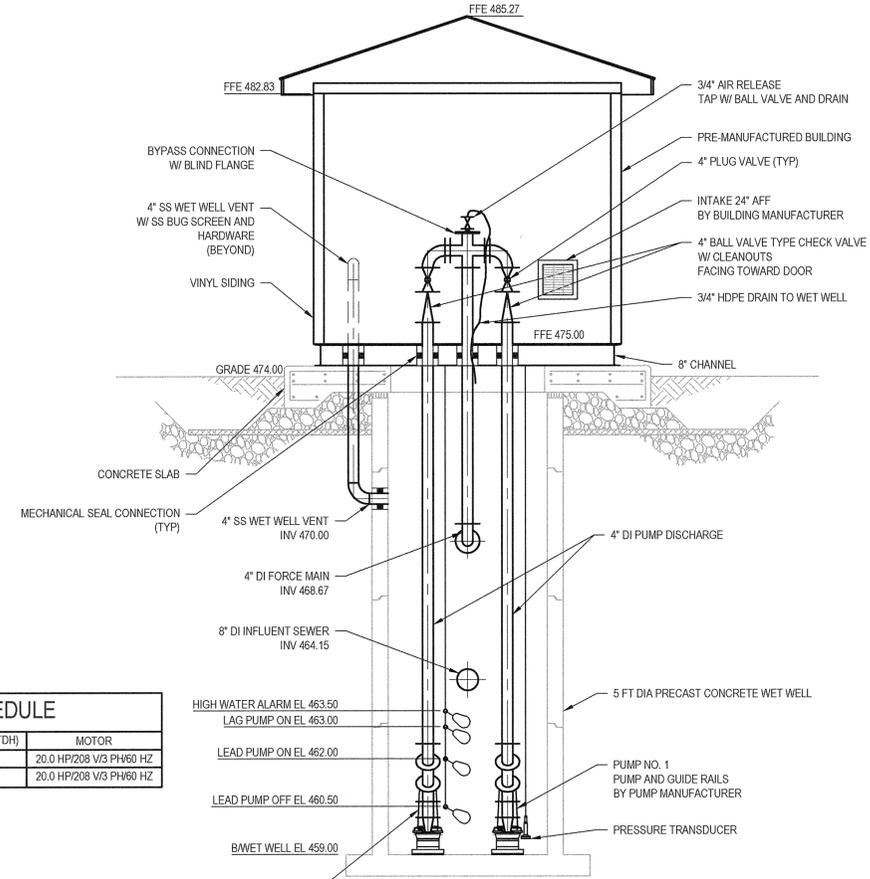
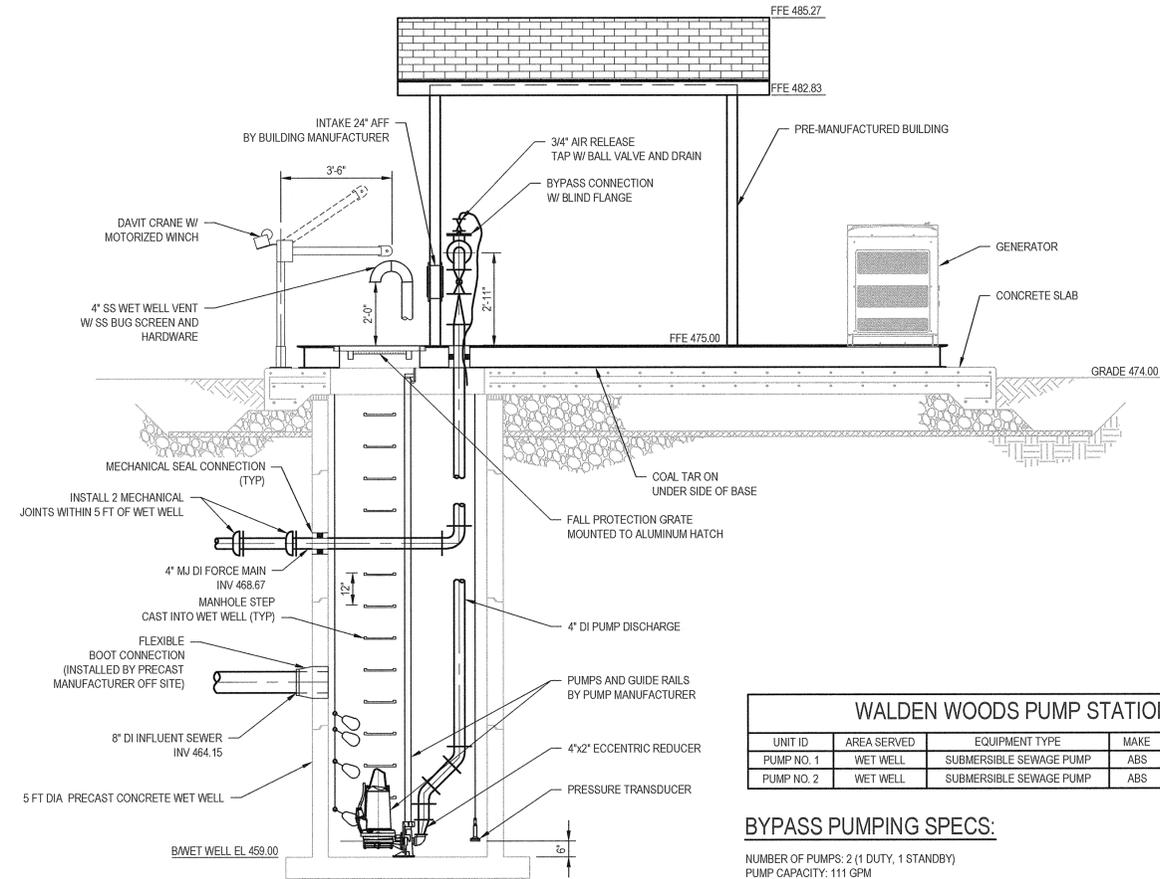
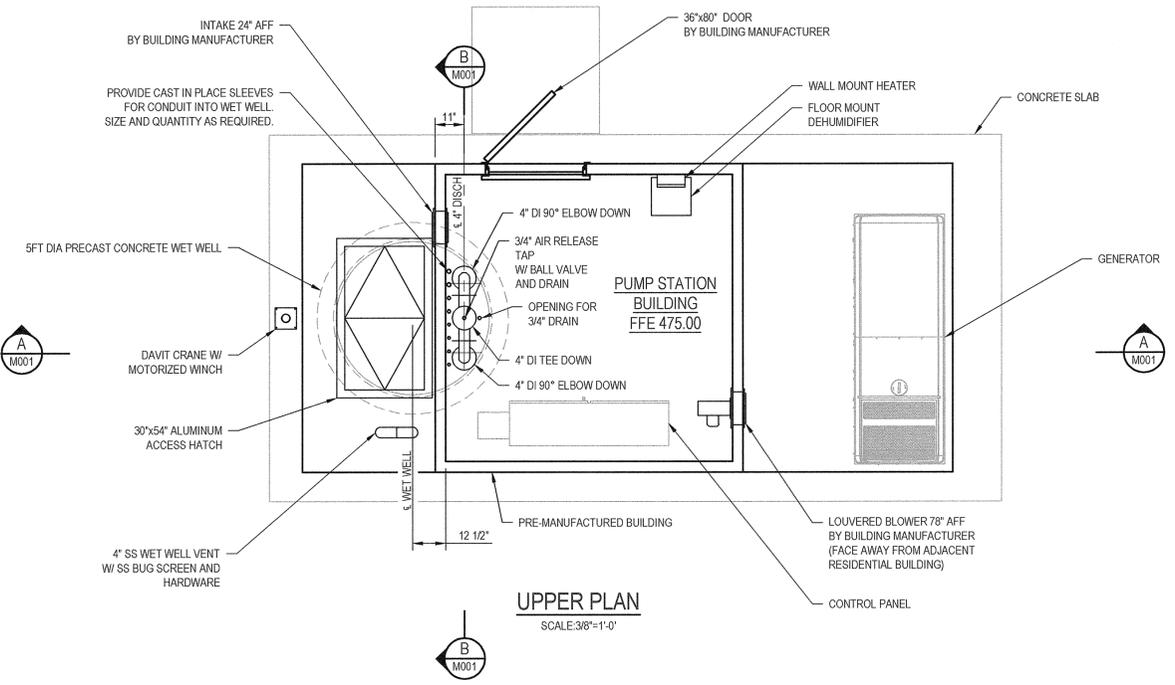
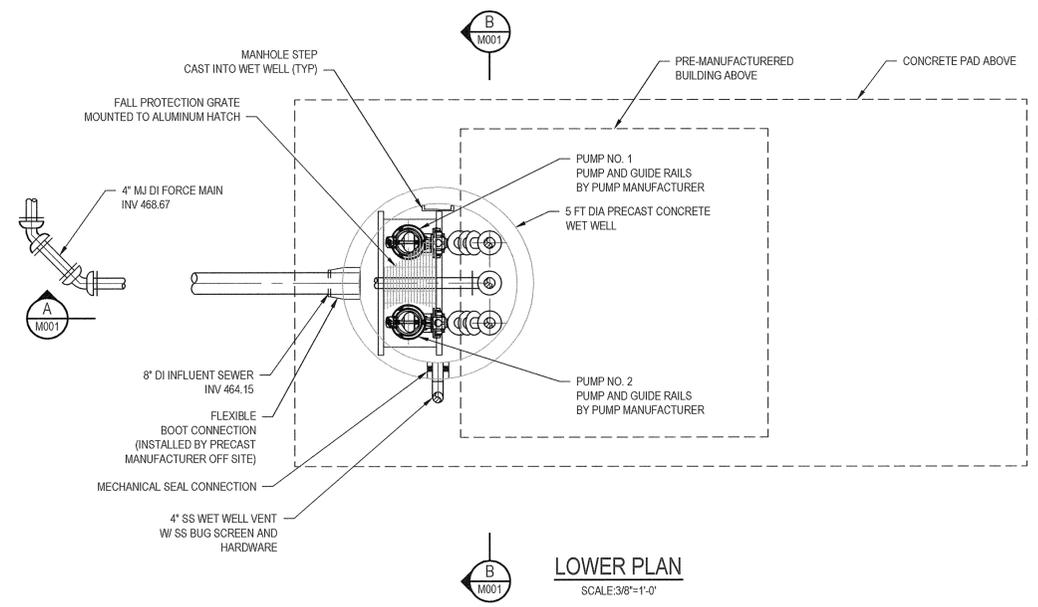
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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Drawn	BTM	Designer	BTM
Drafting Check	CMK	Design Check	CMK
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/16/16		
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	WALDEN WOODS PUMP STATION PLAN AND SECTIONS		
Original Size	Arch D	Drawing No:	86-18742-WW-S003
Rev:	0		

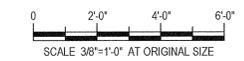


WALDEN WOODS PUMP STATION MECHANICAL EQUIPMENT SCHEDULE

UNIT ID	AREA SERVED	EQUIPMENT TYPE	MAKE	MODEL	RATED CAPACITY	TOTAL DYNAMIC HEAD (TDH)	MOTOR
PUMP NO. 1	WET WELL	SUBMERSIBLE SEWAGE PUMP	ABS	PE 802-125/2	111 GPM	124 FT	20.0 HP/208 V/3 PH/60 HZ
PUMP NO. 2	WET WELL	SUBMERSIBLE SEWAGE PUMP	ABS	PE 802-125/2	111 GPM	124 FT	20.0 HP/208 V/3 PH/60 HZ

BYPASS PUMPING SPECS:
 NUMBER OF PUMPS: 2 (1 DUTY, 1 STANDBY)
 PUMP CAPACITY: 111 GPM
 PUMP TDH: 124 TDH

NOTE:
 1. SEE SPECIFICATION SECTION 02769 FOR BYPASS PUMPING REQUIREMENTS.
 2. CONTRACTOR SHALL FIELD VERIFY INVERTS AND DIMENSIONS.

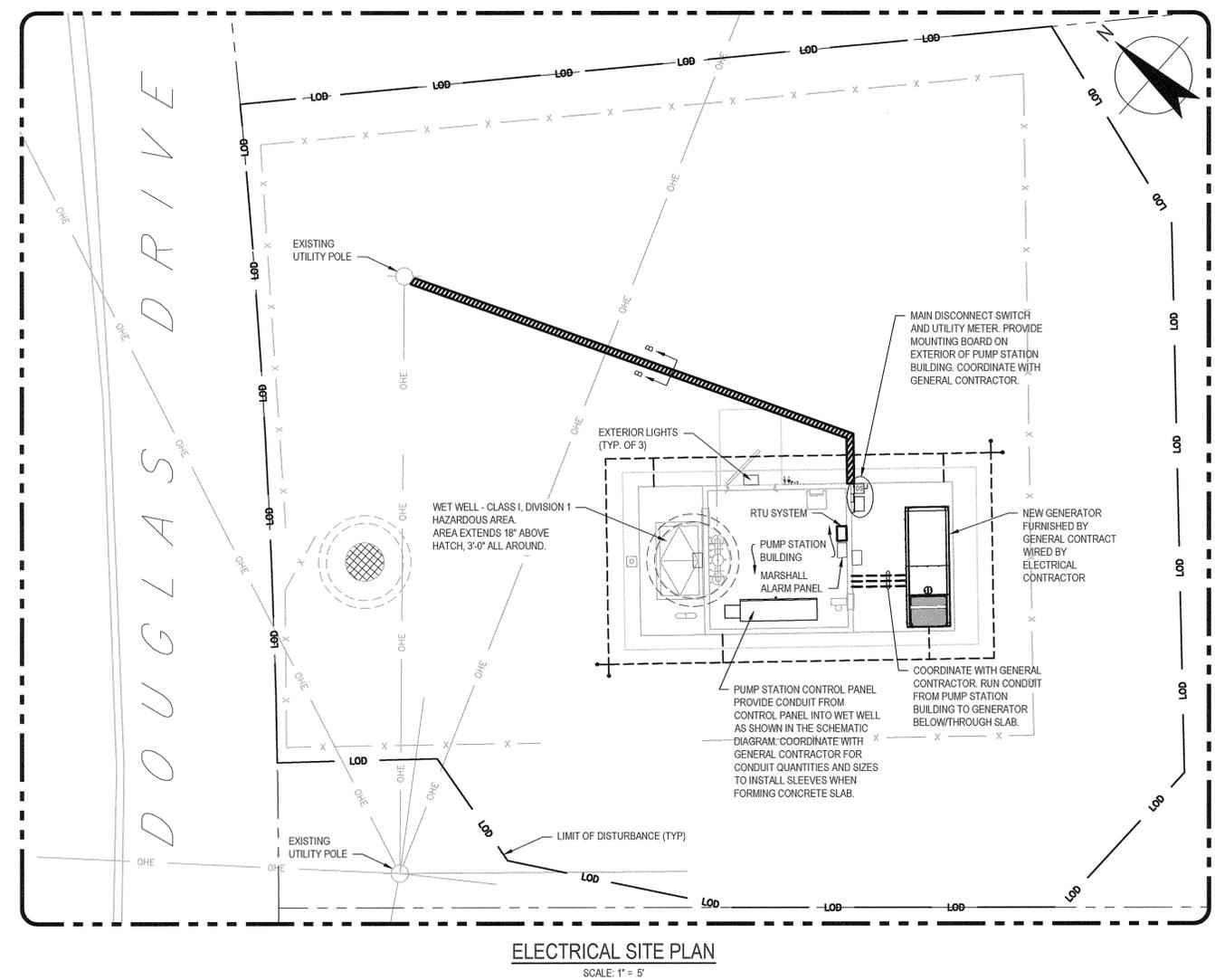
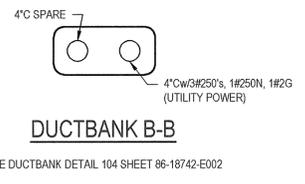


FOR CONSTRUCTION

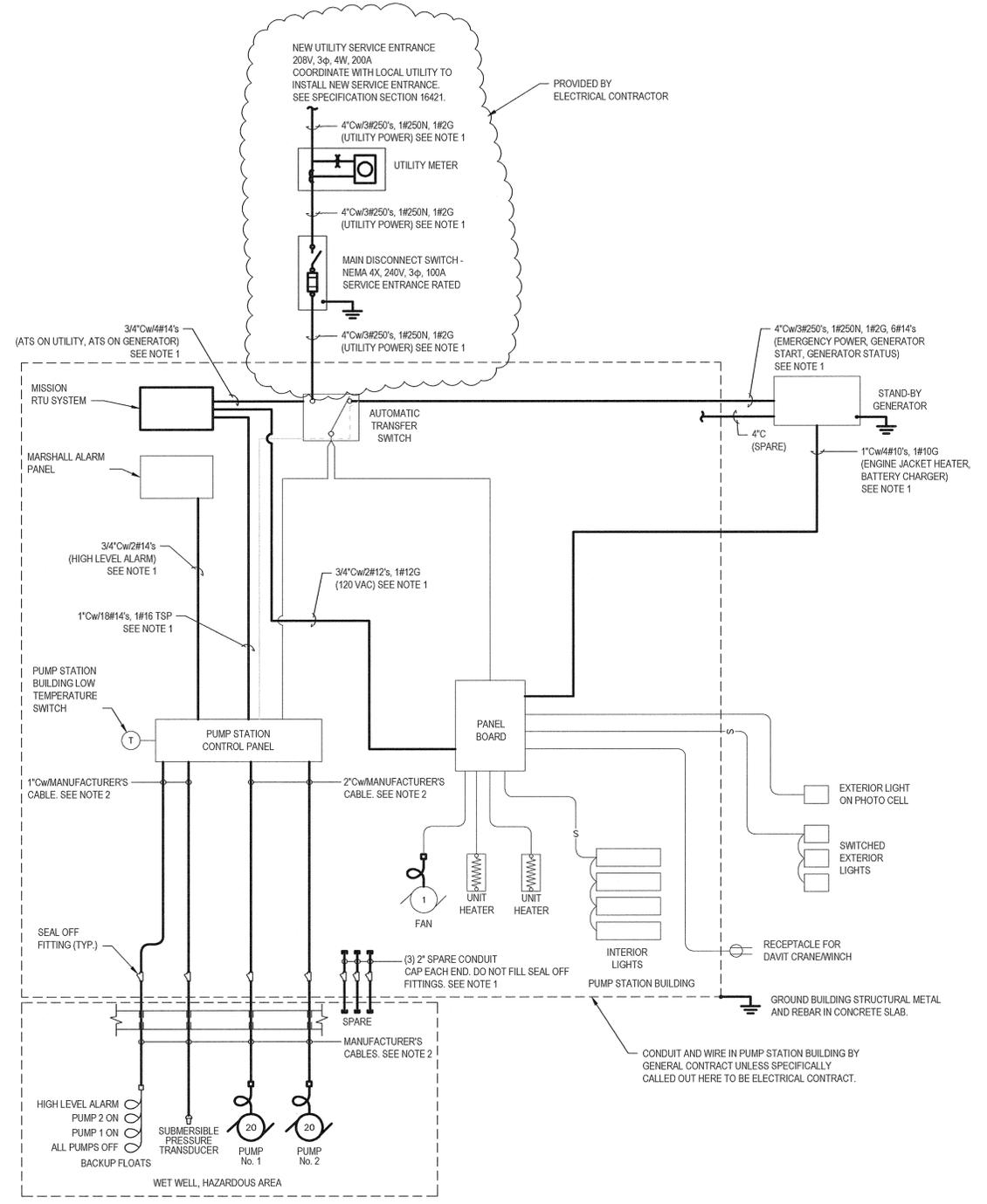
Drawn	IDG	Designer	CPP	Client	TOWN OF YORKTOWN, NEW YORK
Drafting	SFB	Design	RMC	Project	PUMP STATION UPGRADE PROGRAM
Approved	(Project Director)	Date	9/27/16	Title	WALDEN WOODS PUMP STATION WET WELL PLAN AND SECTION
Scale	AS SHOWN	Original Size	Arch D	Drawing No:	86-18742-WW-M001
Plot Date: 26 September 2016 - 9:03 AM					Rev: 0

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
Revised	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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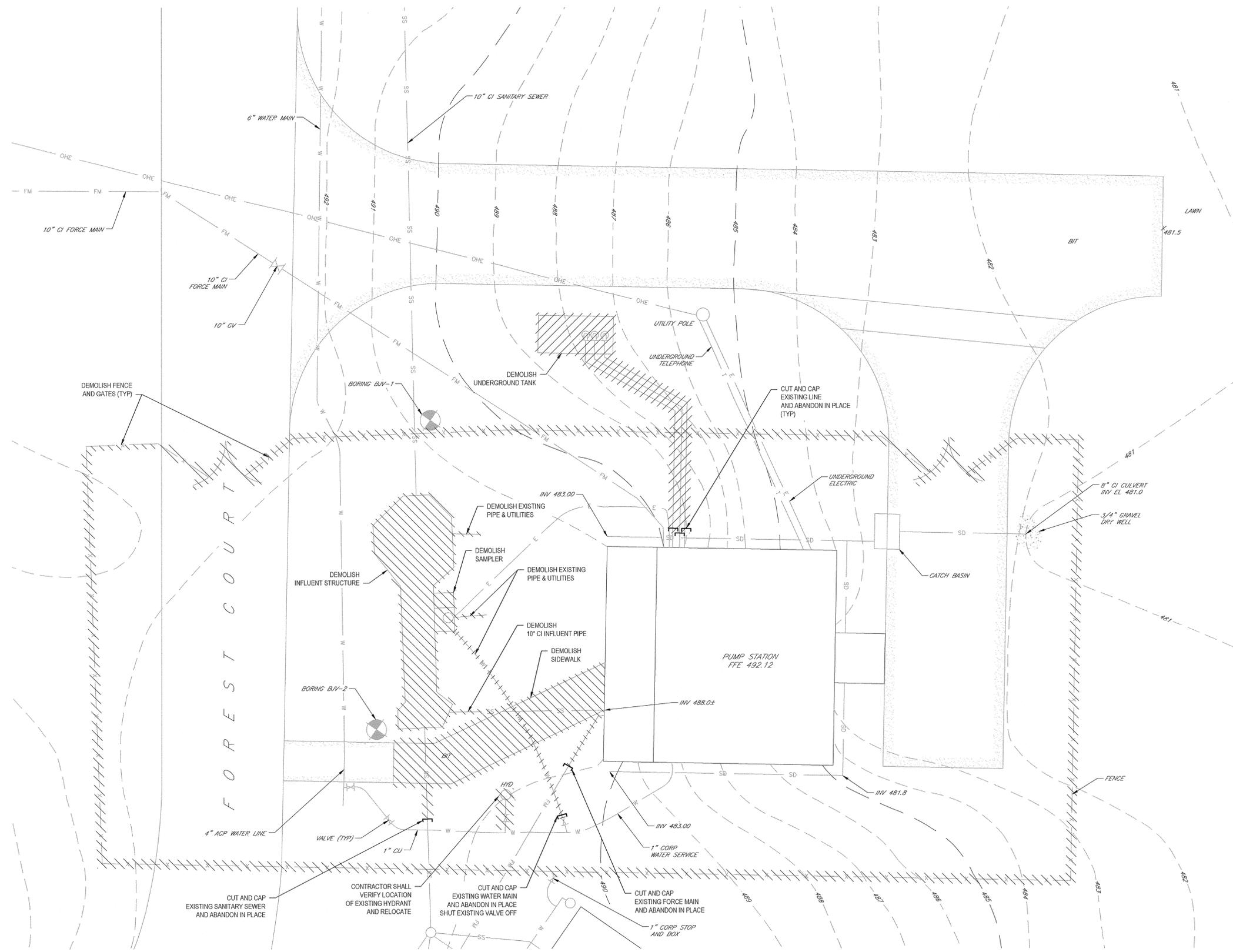
- DEMOLITION NOTES:**
1. ELECTRICALLY DISCONNECT EXISTING PUMP STATION EQUIPMENT. REMOVE EXISTING CONDUIT AND WIRE. REMOVE EXISTING CONTROL PANELS AND SWITCHES AND TURN OVER TO THE OWNER. DEMOLISH EXISTING MOUNTING STAND. INSTALL NEW MOUNTING STAND PER DETAIL 301 ON SHEET 86-18742-E002. MOUNTING STAND SIZE AS REQUIRED BY EQUIPMENT SHOWN ON SCHEMATICS. COORDINATE EXACT MOUNTING STAND LOCATION IN THE FIELD. COORDINATE WITH OWNER, ENGINEER AND GENERAL CONTRACT.
 2. OPERATION OF THE PUMP STATION MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. MAINTAIN SYSTEM ALARMS AND LEVELS. COORDINATE WITH GENERAL CONTRACT FOR BY-PASS SEQUENCE AND OPERATION.
 3. WHERE ELECTRICAL EQUIPMENT IS REMOVED OR RELOCATED, ALSO REMOVE ALL WIRING BACK TO SOURCE. ASSOCIATED CONDUITS, SUPPORTS, STANDS, ETC. SHALL BE REMOVED UNLESS OTHERWISE NOTED OR REQUIRED TO MAINTAIN OPERATION OF REMAINING EQUIPMENT.
 4. UPGRADE EXISTING UTILITY METER FOR NEW SERVICE. COORDINATE WITH LOCAL UTILITY.
 5. SEE SPECIFICATION SECTION 02030 - DEMOLITION.



- NOTES:**
1. CONDUIT AND WIRE PROVIDED BY ELECTRICAL CONTRACTOR.
 2. CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. CONDUITORS FURNISHED BY GENERAL CONTRACT AND INSTALLED BY ELECTRICAL CONTRACT.
 3. PUMP STATION BUILDING EXTERIOR LIGHTS, SWITCHES, AND RECEPTACLE(S) PROVIDED AND WIRED BY PUMP STATION BUILDING SUPPLIER.

FOR CONSTRUCTION

0 FOR CONSTRUCTION		EPP	CPP	RB	09/16	IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E czm@mail@ghd.com W www.ghd.com</p>	Drawn EPP Drafting Check TWD Approved (Project Director) <i>[Signature]</i> Date 9/29/16 Scale AS SHOWN	Designer TWD Design Check TWD This Drawing shall not be used for Construction unless Signed and Sealed For Construction	Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title WALDEN WOODS PUMP STATION ELECTRICAL SITE PLAN AND ONE-LINE DIAGRAM	Original Size Arch D Drawing No: 86-18742-WW-E003 Rev: 0
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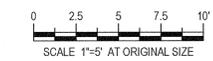


EXISTING SITE PLAN
SCALE: 1"=5'

LEGEND
[Hatched Box] DEMOLISH

FOR CONSTRUCTION

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
1	Revision	Drawn	Job Manager	Project Director	Date

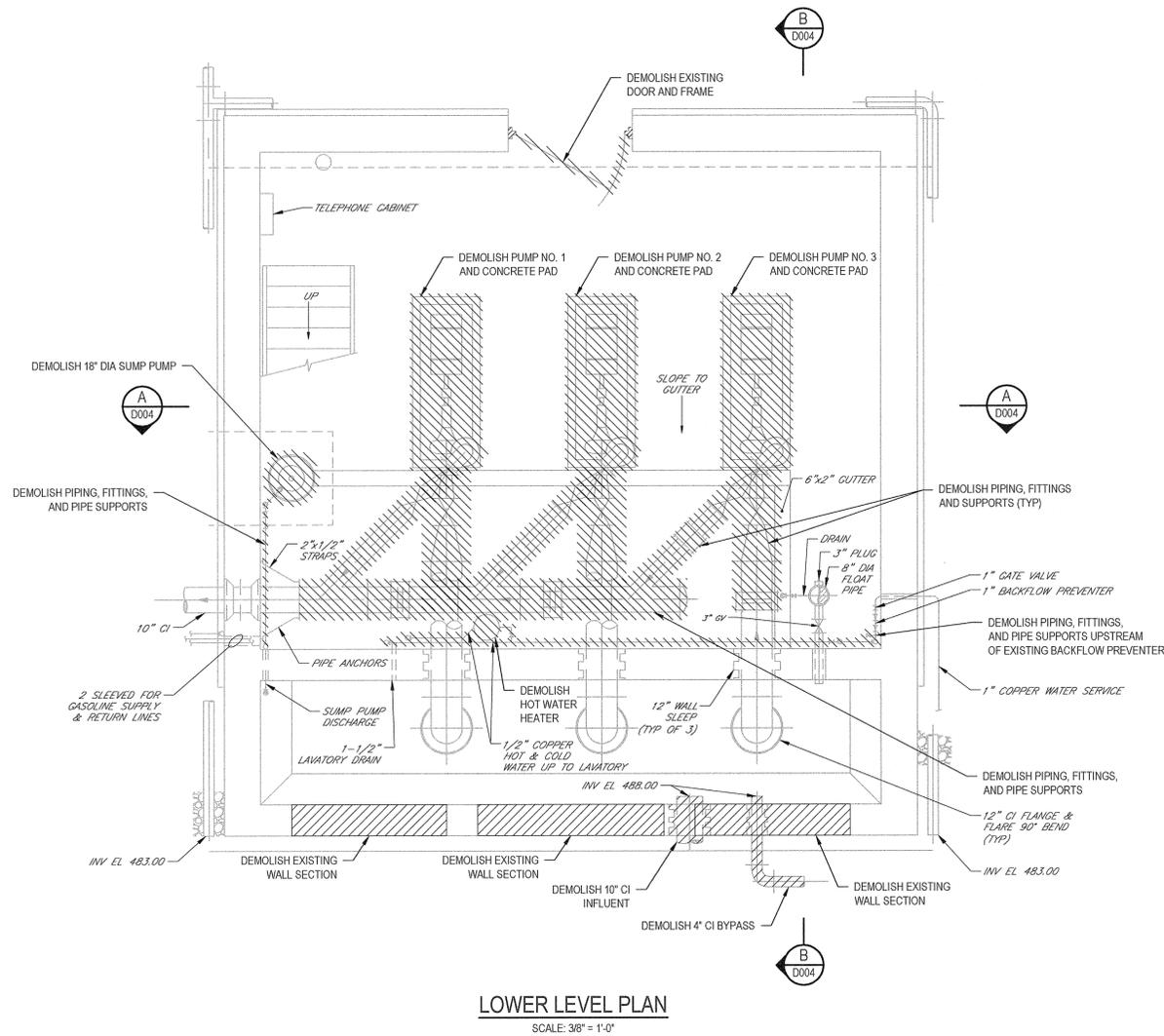


IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	IDG	Designer	CPP
Drafting Check	SPB	Design Check	RMC
Approved (Project Director)	<i>[Signature]</i>		
Date	9/29/16		
Scale	AS SHOWN		

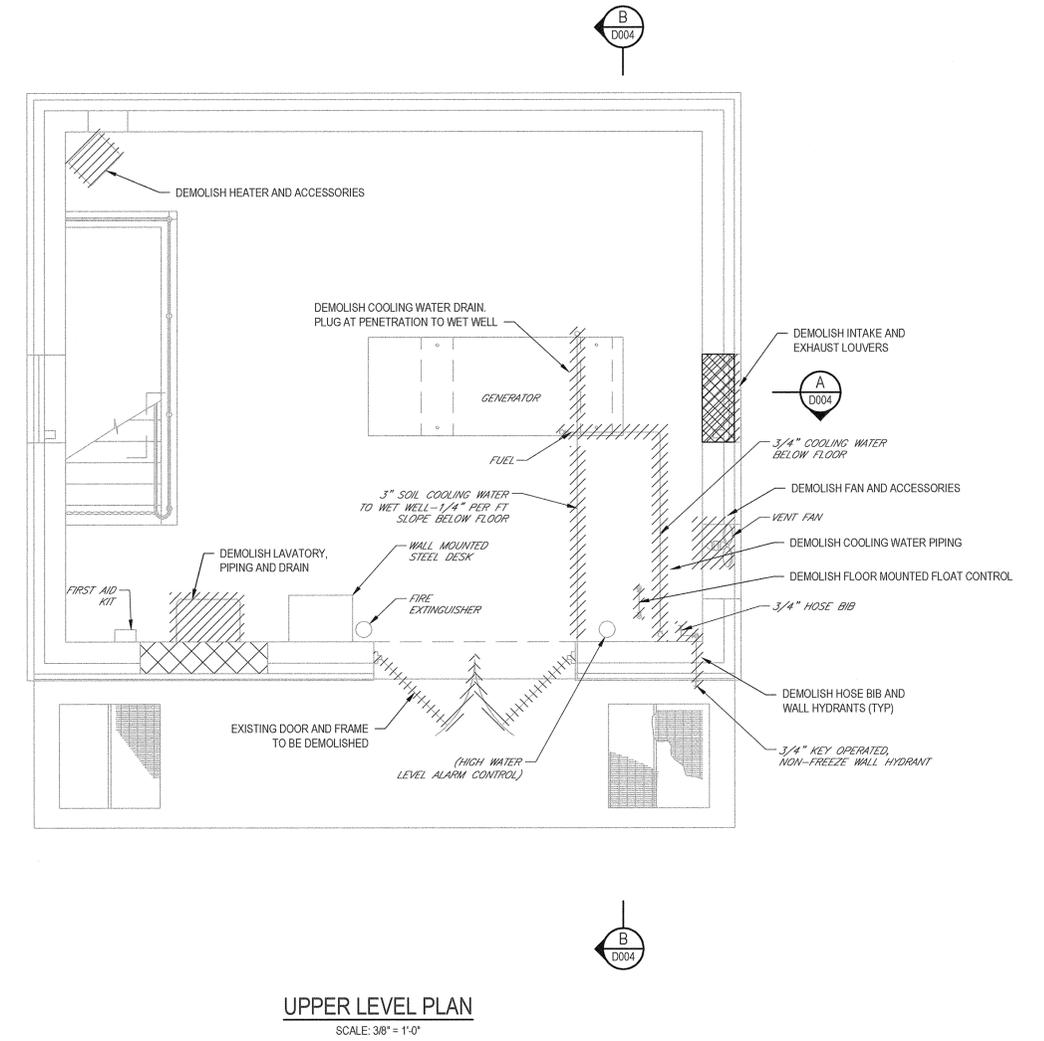
Client	TOWN OF YORKTOWN, NEW YORK
Project	PUMP STATION UPGRADE PROGRAM
Title	JEFFERSON VALLEY PUMP STATION EXISTING SITE AND DEMOLITION PLAN
Arch D	Drawing No: 86-18742-JV-D002
Rev:	0



LOWER LEVEL PLAN
SCALE: 3/8" = 1'-0"

NOTE:

1. EXISTING GORMAN RUPP PUMP SHALL BE TURNED OVER TO THE OWNER UPON DEMOLITION.
2. FLOAT SWITCH CONTAINS MERCURY, CONTRACTOR SHALL DEMOLISH AND DISPOSE OF FLOAT SWITCHES IN ACCORDANCE WITH HAZARDOUS MATERIAL REGULATIONS.



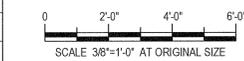
UPPER LEVEL PLAN
SCALE: 3/8" = 1'-0"

LEGEND

DEMOLISH

FOR CONSTRUCTION

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

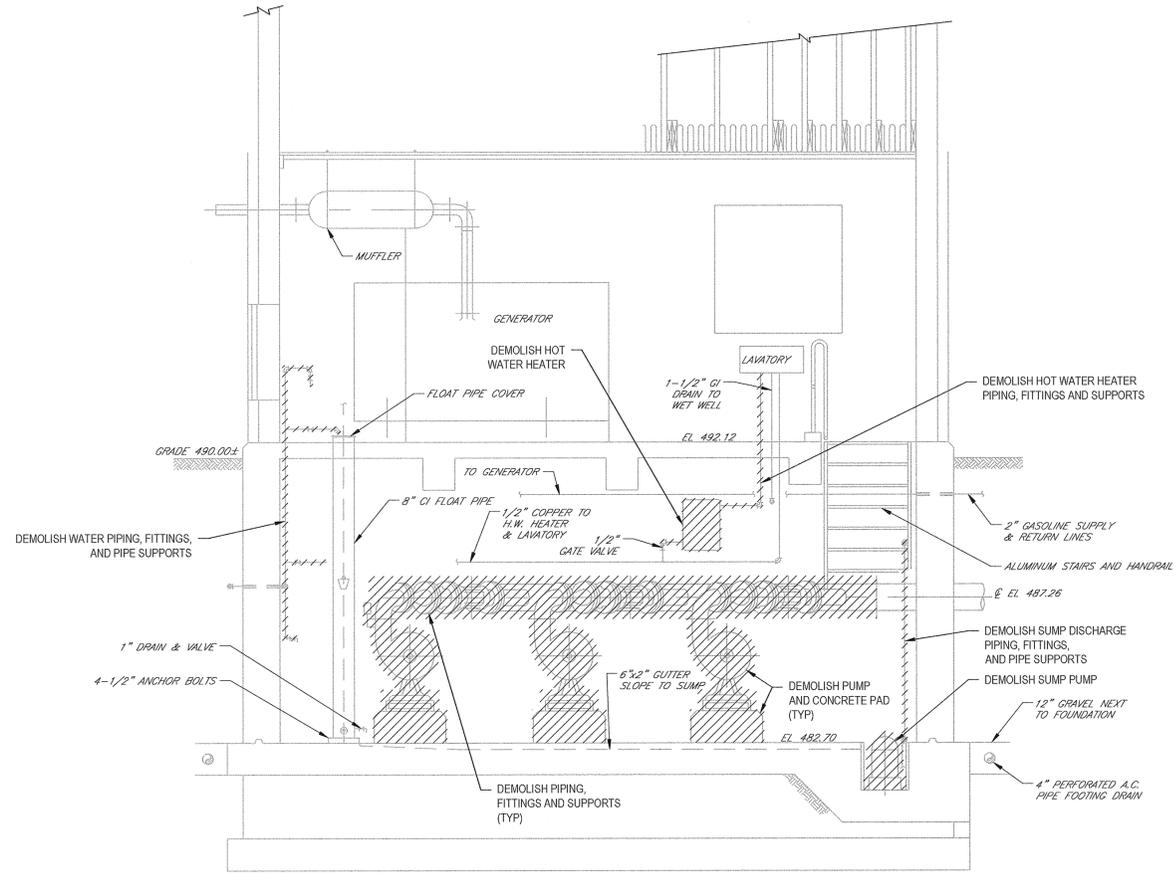


IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

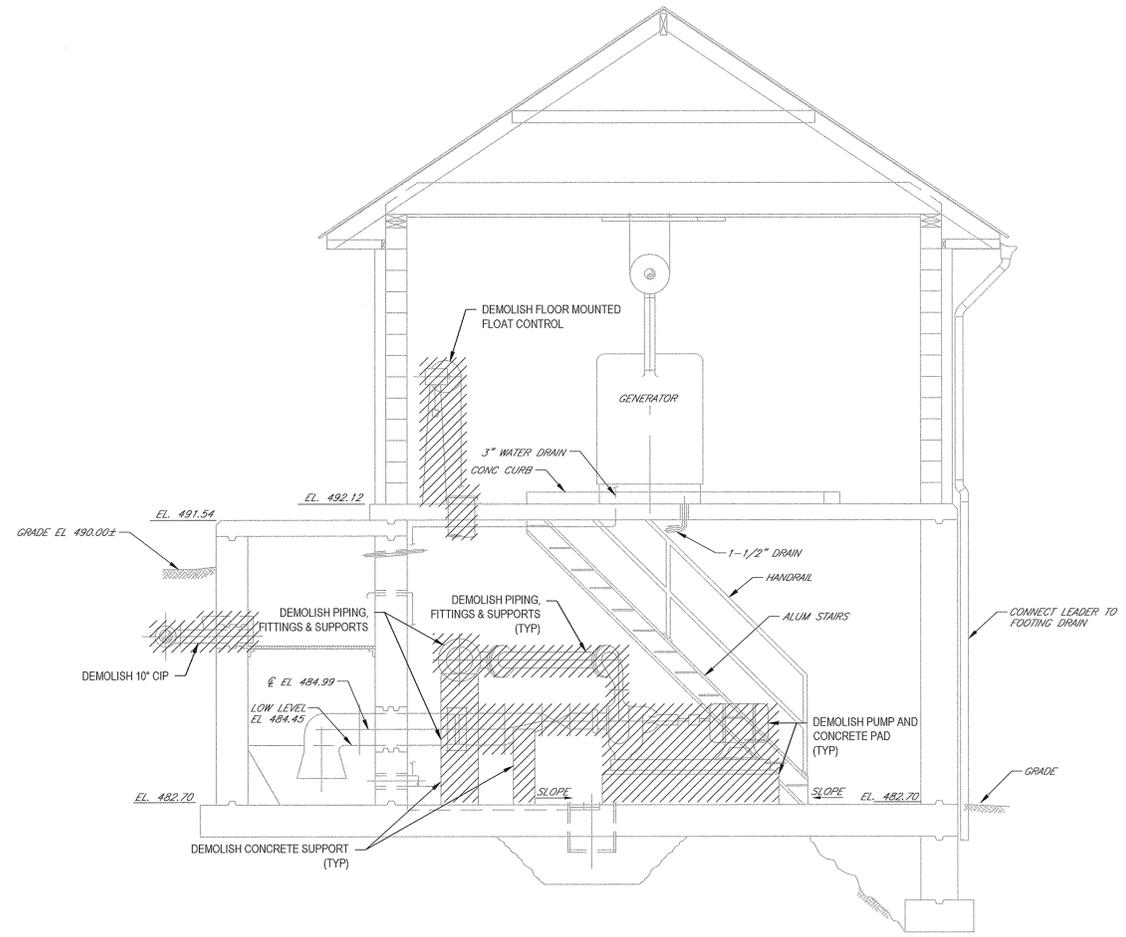


Drawn	IDG	Designer	CPP
Drafting Check	SFB	Design Check	RMC
Approved (Project Director)			
Date	9/27/16		
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	JEFFERSON VALLEY PUMP STATION EXISTING DEMOLITION PLANS		
Arch D	Drawing No:	86-18742-JV-D003	
Rev:	0		



A SECTION
D003 SCALE: 3/8" = 1'-0"



B SECTION
D003 SCALE: 3/8" = 1'-0"

NOTE:

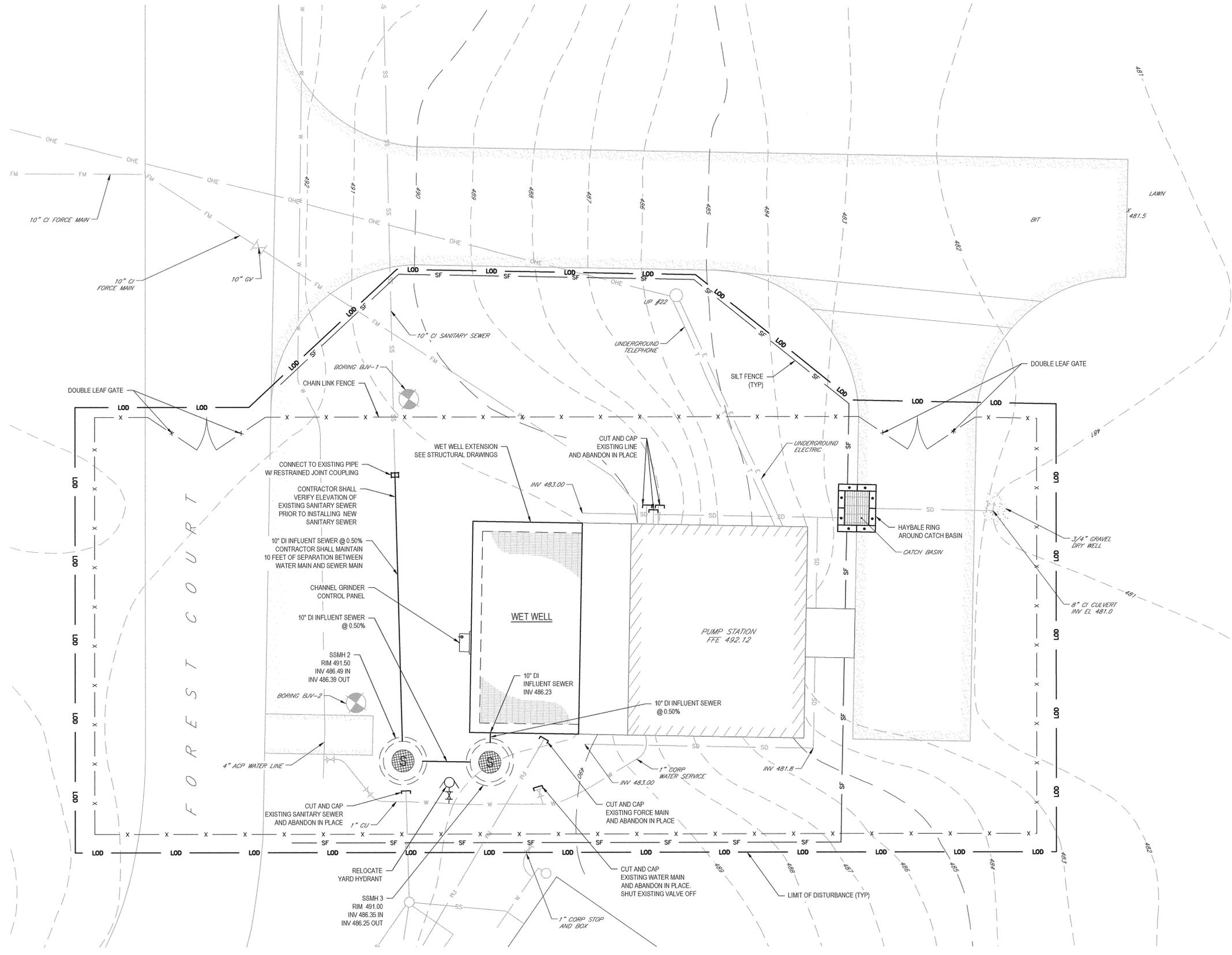
- EXISTING GORMAN RUPP PUMP SHALL BE TURNED OVER TO THE OWNER UPON DEMOLITION.
- FLOAT SWITCH CONTAINS MERCURY, CONTRACTOR SHALL DEMOLISH AND DISPOSE OF FLOAT SWITCHES IN ACCORDANCE WITH HAZARDOUS MATERIAL REGULATIONS.

LEGEND

DEMOLISH

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0 FOR CONSTRUCTION		IDG	CPP	RB	09/16			<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cazmail@ghd.com W www.ghd.com</p>	Drawn IDG Drafting Check SFB Approved (Project Director) <i>[Signature]</i> Date 9/29/16 Scale AS SHOWN	Designer CPP Design Check RMC	Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title JEFFERSON VALLEY PUMP STATION EXISTING DEMOLITION SECTIONS
Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Drawn Job Manager Project Director		Original Size Arch D Drawing No: 86-18742-JV-D004		This Drawing shall not be used for Construction unless Signed and Sealed For Construction	Rev: 0						



SITE PLAN
SCALE: 1"=5'

FOR CONSTRUCTION

0	FOR CONSTRUCTION	IDG	CPP	RB	09/16
1	Revision	Drawn	Job Manager	Project Director	Date



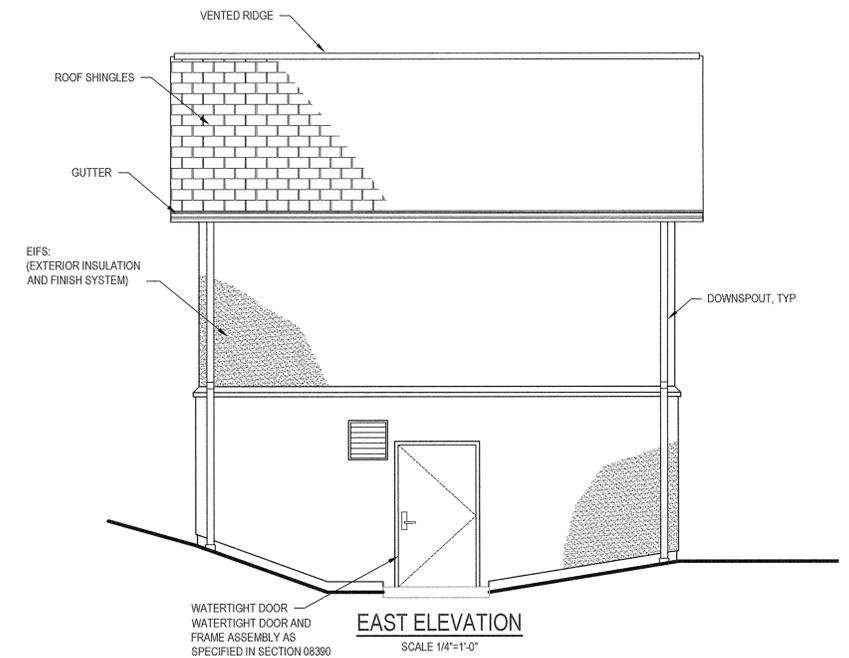
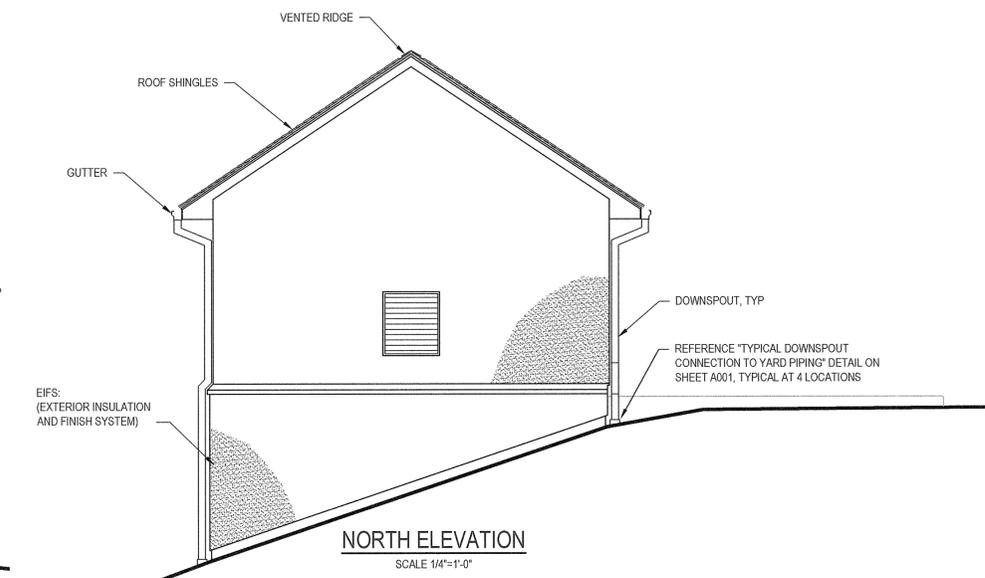
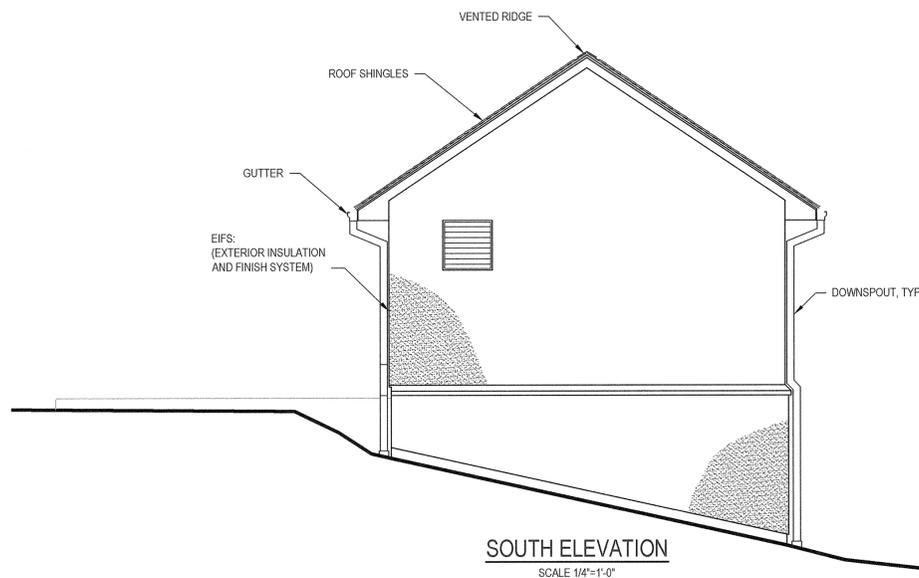
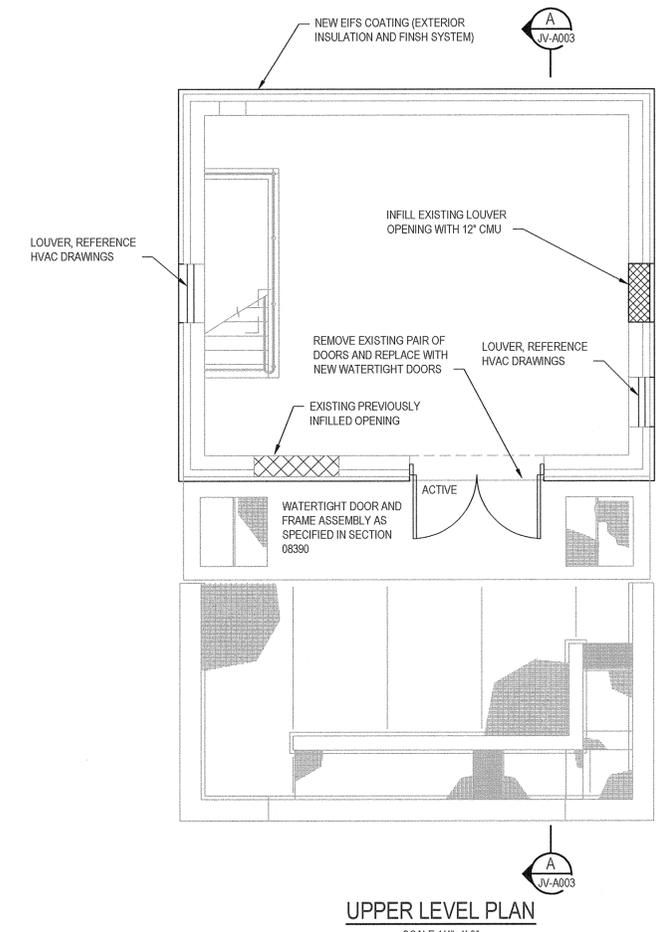
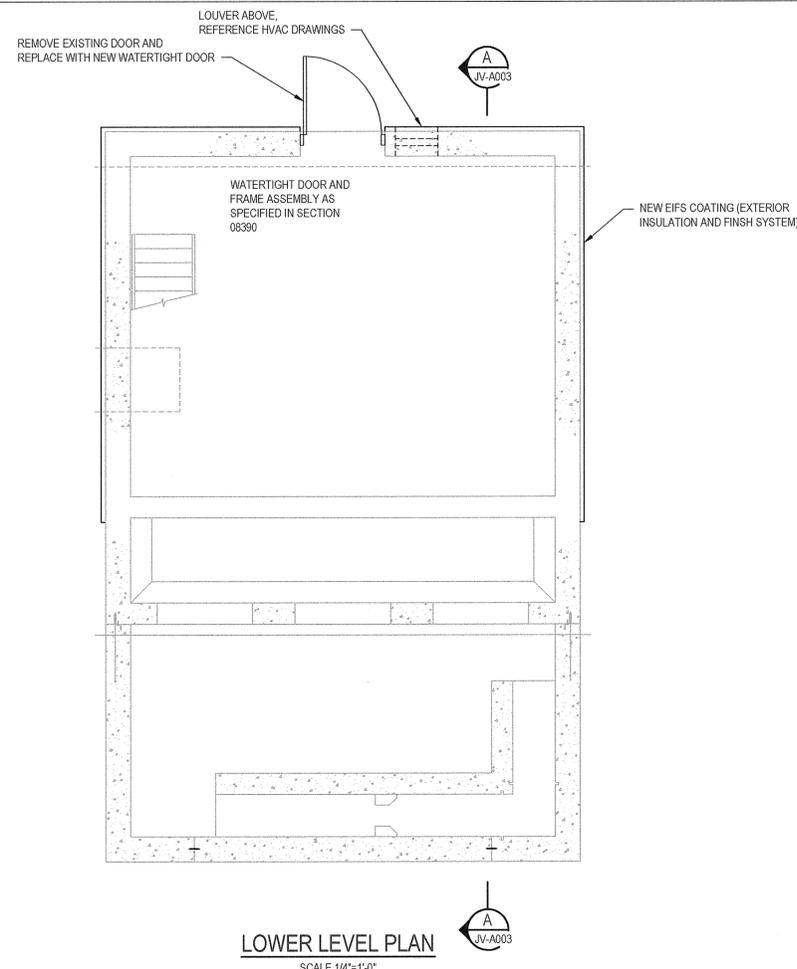
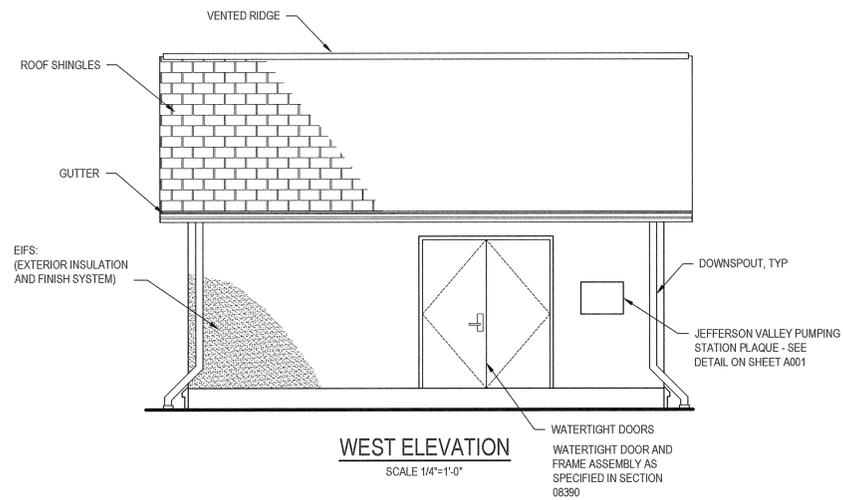
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	IDG	Designer	CPP
Drafting	SPB	Design	RMC
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/21/16		
Scale			

Client	TOWN OF YORKTOWN, NEW YORK
Project	PUMP STATION UPGRADE PROGRAM
Title	JEFFERSON VALLEY PUMP STATION SITE PLAN AND EROSION CONTROL PLAN
Arch D	Drawing No: 86-18742-JV-C005

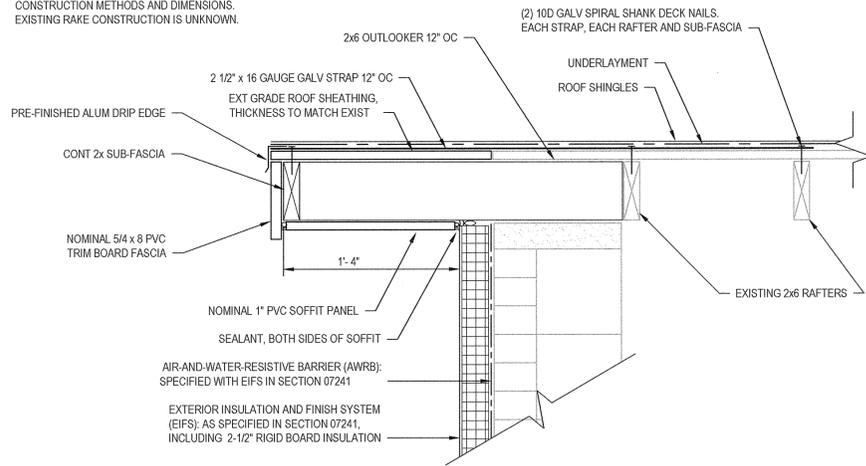
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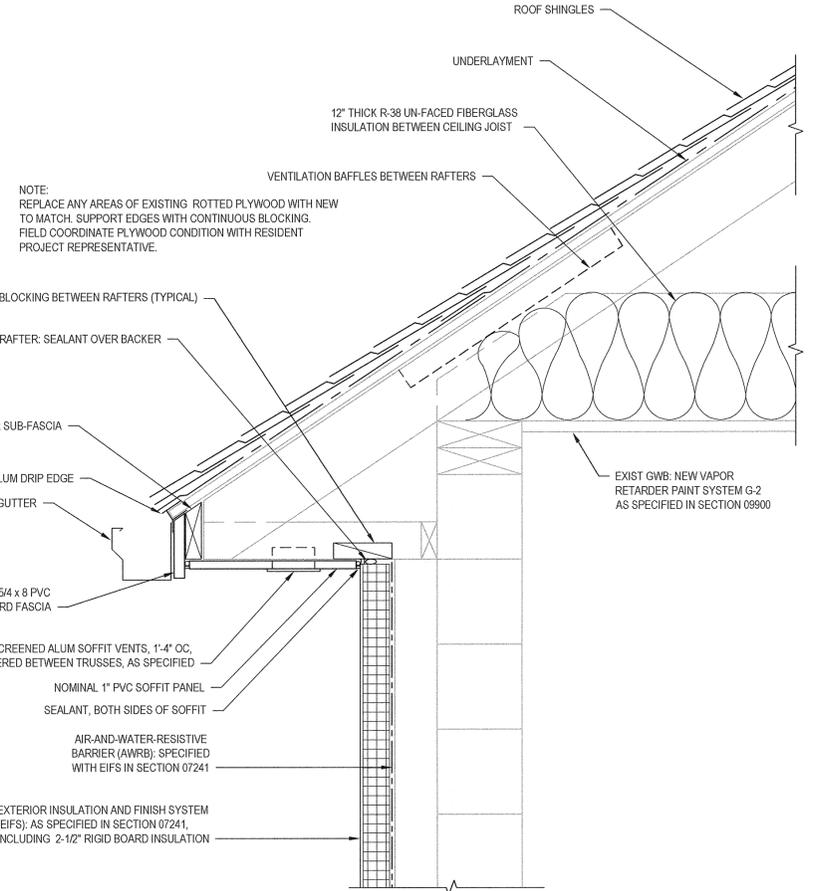
FOR CONSTRUCTION

				 SCALE 1/4"=1'-0" AT ORIGINAL SIZE				 GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cazmail@ghd.com W www.ghd.com		Drawn CMS Designer SEB Drafting Check TML Design Check SEB Approved (Project Director) <i>Robert Butterfield</i> Date 9/27/16 Scale AS SHOWN		Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title JEFFERSON VALLEY PUMP STATION PLANS AND ELEVATIONS	
0 FOR CONSTRUCTION Revision Note: * indicates signatures on original issue of drawing or last revision of drawing				Drawn CMS Job Manager CPP RB Project Director Date 09/16		IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		Original Size Arch D Drawing No: 86-18742-JV-A002		Rev: 0			

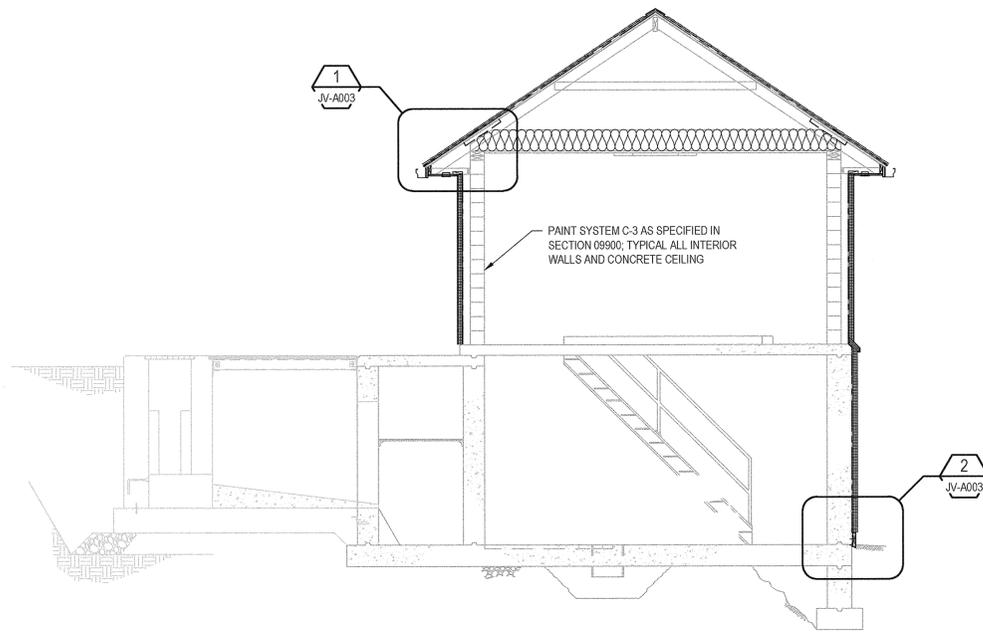
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VERIFY EXISTING CONSTRUCTION MATERIALS,
CONSTRUCTION METHODS AND DIMENSIONS.
EXISTING RAKE CONSTRUCTION IS UNKNOWN.



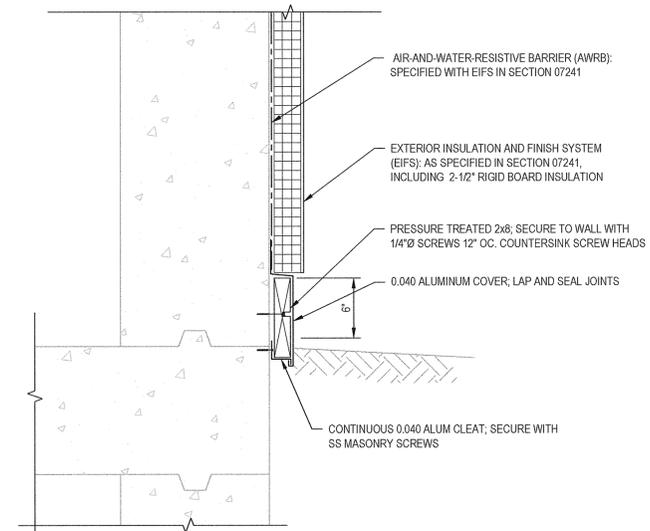
TYPICAL RAKE DETAIL
SCALE: 1/12"=1'-0"



1 DETAIL
JV-A003 SCALE: 1/12" = 1'-0"



A SECTION
JV-A002 SCALE: 1/4"=1'-0"



2 DETAIL
JV-A003 SCALE: 1-1/2" = 1'-0"

FOR CONSTRUCTION

0	FOR CONSTRUCTION	CMS	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

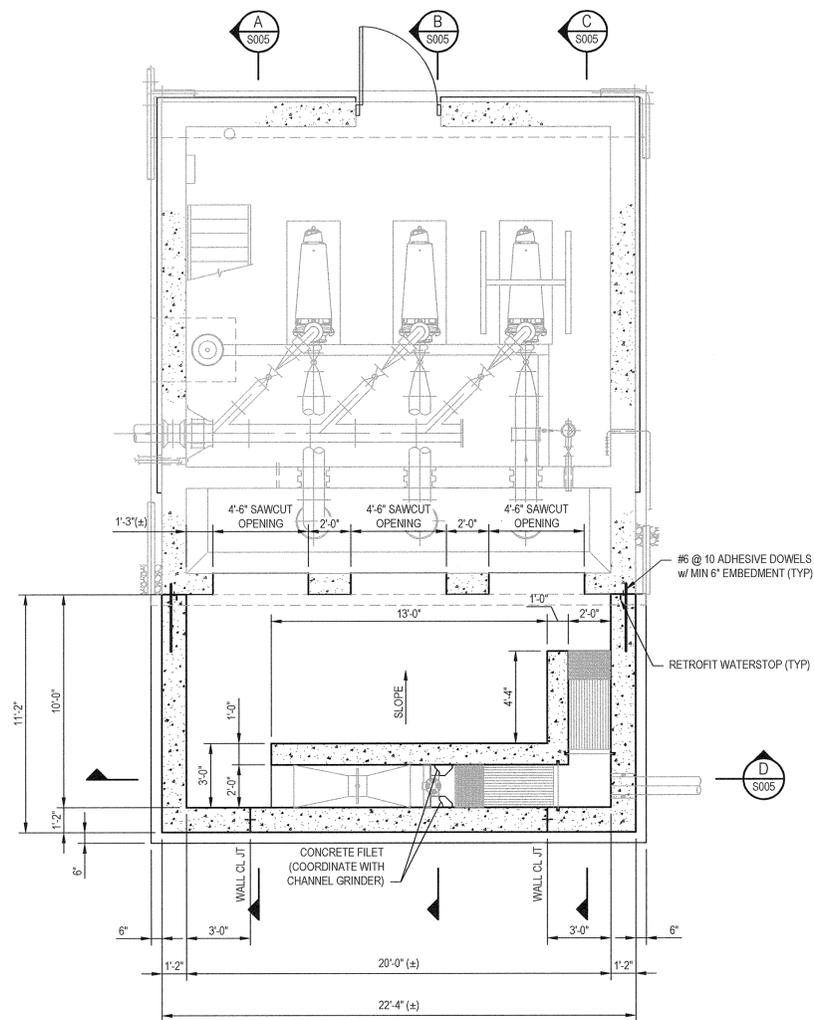


IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

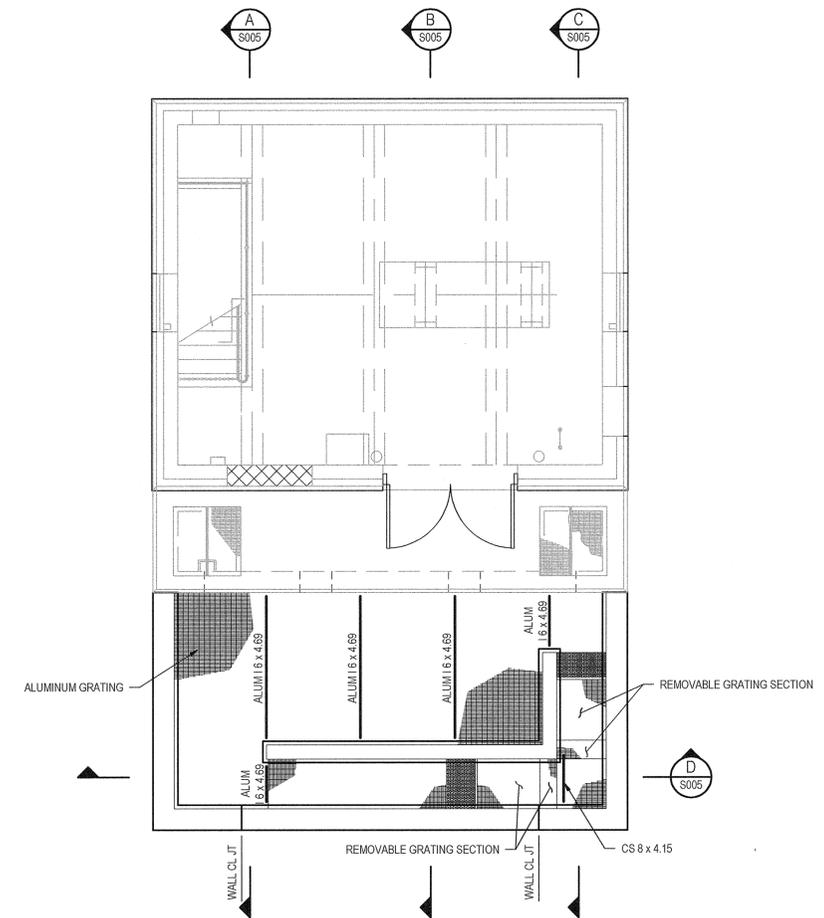
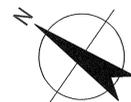


Drawn	CMS	Designer	SEB
Drafting Check	TML	Design Check	SEB
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/29/16		
Scale	AS SHOWN		

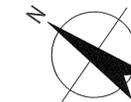
Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	JEFFERSON VALLEY PUMP STATION SECTIONS AND DETAILS		
Original Size	Arch D	Drawing No:	86-18742-JV-A003
Rev:	0		



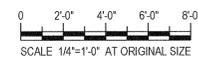
LOWER PLAN
SCALE: 1/4" = 1'-0"



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



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Drafting Check	CMK	Design Check	CMK
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/29/16		
Scale	AS SHOWN		

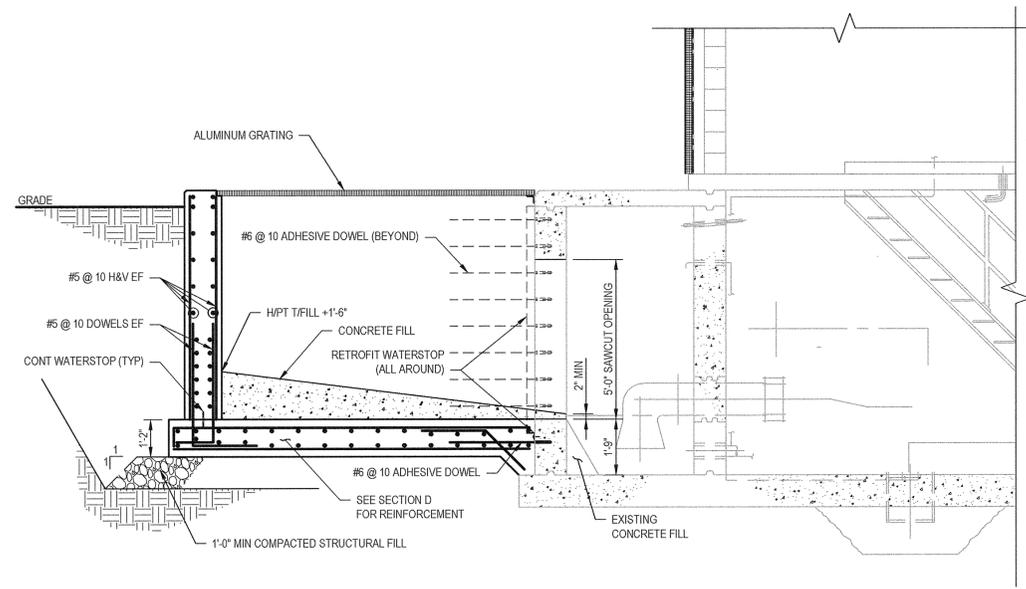
Client **TOWN OF YORKTOWN, NEW YORK**
Project **PUMP STATION UPGRADE PROGRAM**
Title **JEFFERSON VALLEY PUMP STATION PLANS**

Arch D Drawing No: **86-18742-JV-S004**

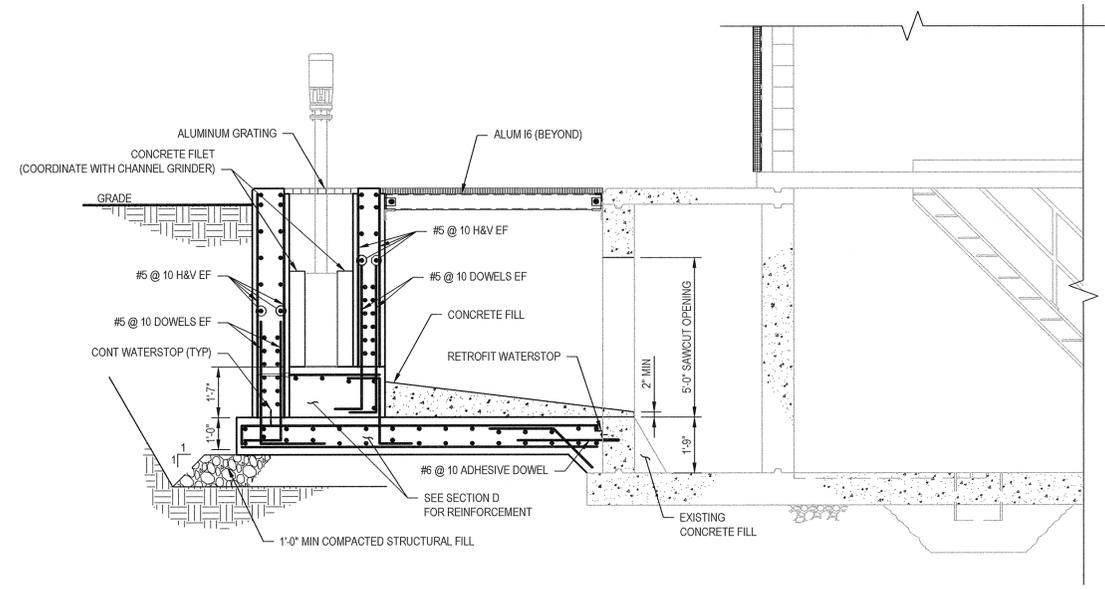
Rev: 0

0	FOR CONSTRUCTION	BTM	CPP	RB	09/16
Revised	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

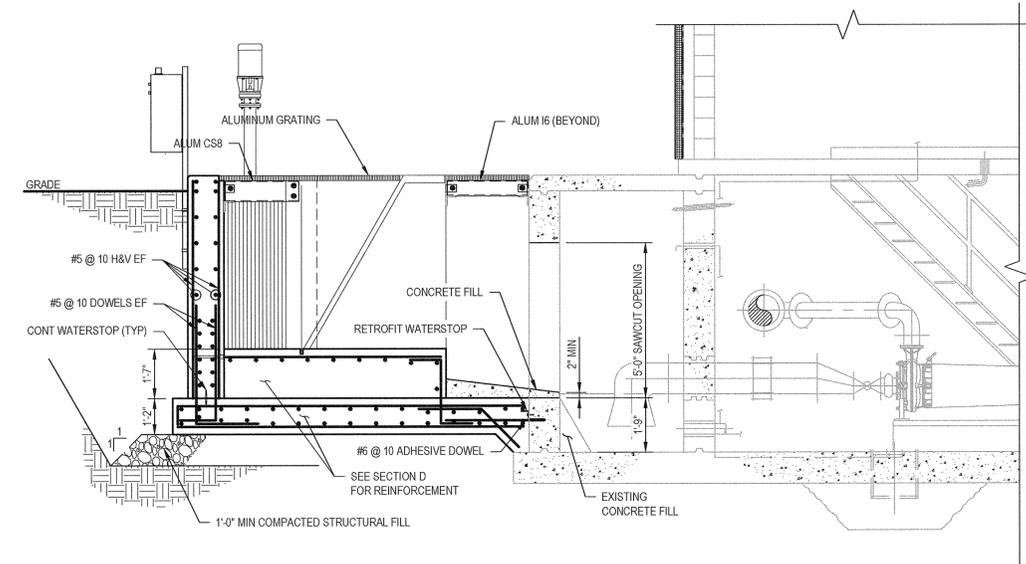
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



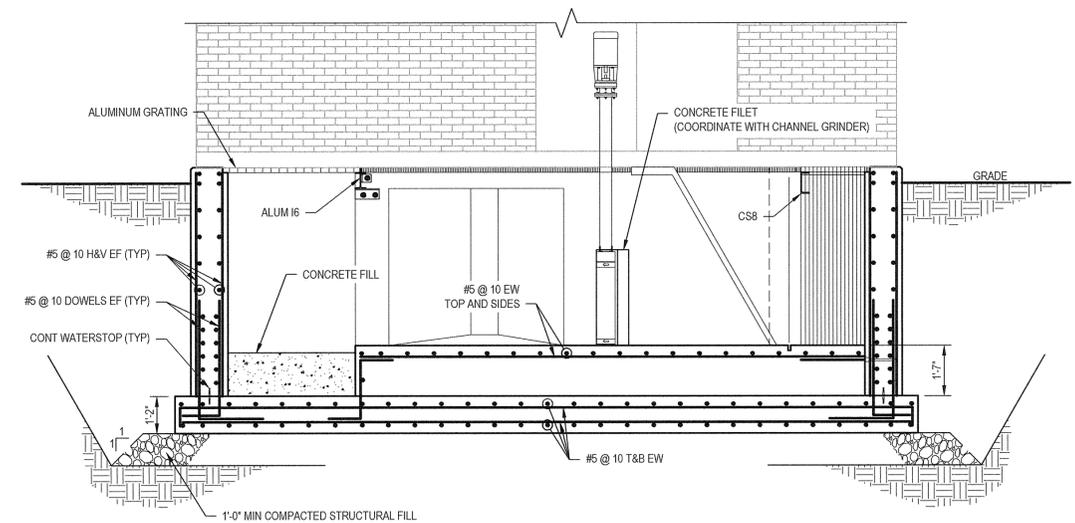
A SECTION
S004 SCALE: 3/8" = 1'-0"



B SECTION
S004 SCALE: 3/8" = 1'-0"

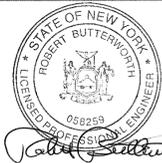
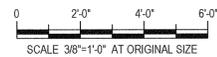


C SECTION
S004 SCALE: 3/8" = 1'-0"



D SECTION
S004 SCALE: 3/8" = 1'-0"

FOR CONSTRUCTION



Drawn	BTM	Designer	BTM
Drafting Check	CMK	Design Check	CMK
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/29/16		
Scale	AS SHOWN		

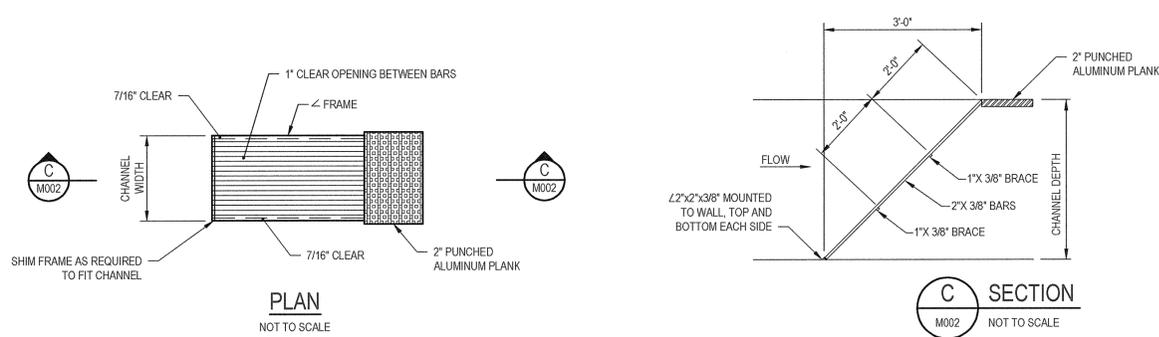
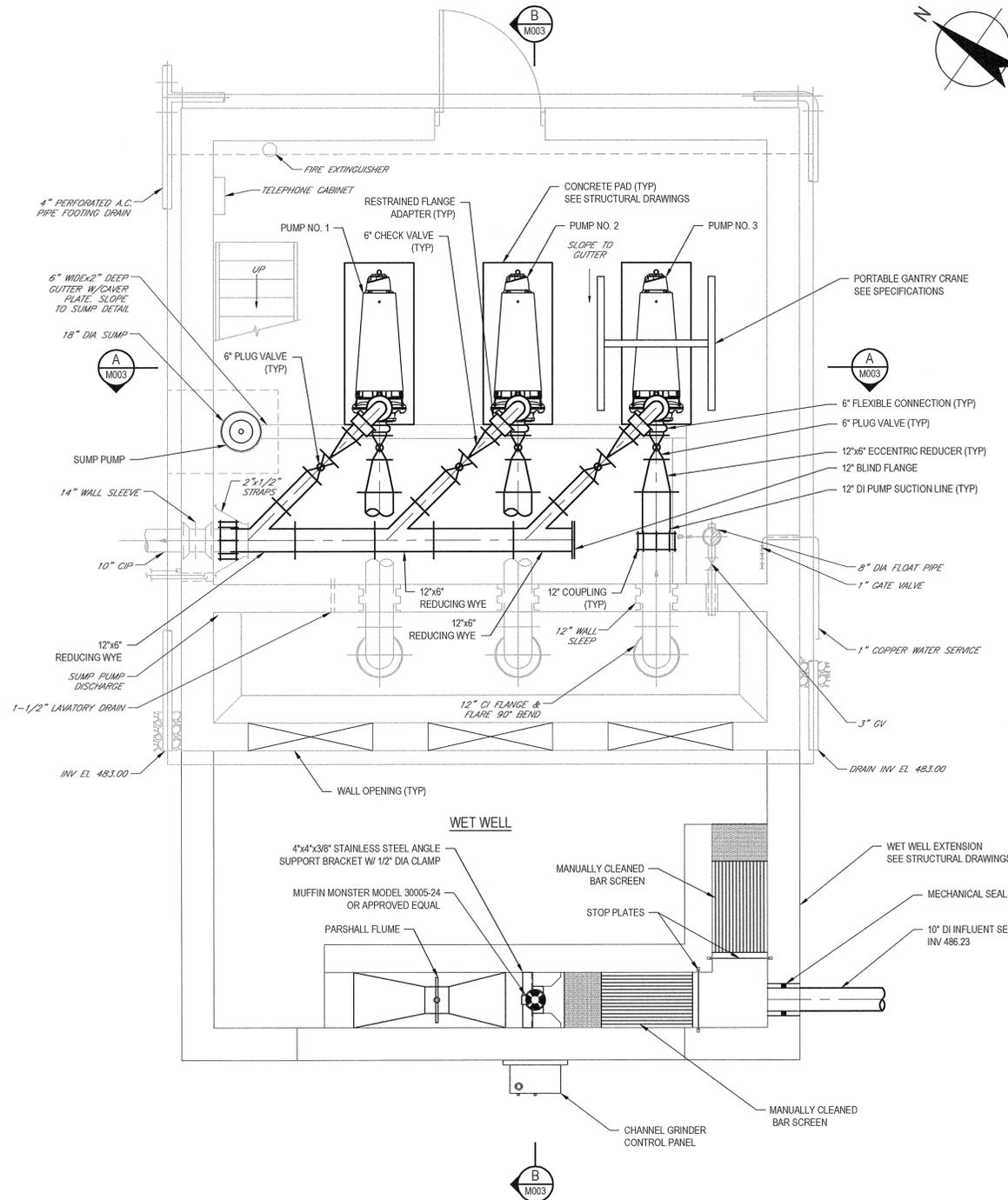
Client **TOWN OF YORKTOWN, NEW YORK**
Project **PUMP STATION UPGRADE PROGRAM**
Title **JEFFERSON VALLEY PUMP STATION SECTIONS**

Arch D Drawing No: **86-18742-JV-S005**

Rev: 0

0	FOR CONSTRUCTION	BTM	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



NOTES:

1. MATERIALS: BARS, PLATES, ANGLES - 6061-T6 ALUMINUM.
2. MILL FINISH.
3. BACK PAINT ALUMINUM IN CONTACT WITH CONCRETE WITH BITUMINOUS PAINT.
4. BAR SCREEN TO BE ALL WELDED CONSTRUCTION AND REMOVABLE FROM CHANNEL.
5. CONTRACTOR SHALL CLEAN, REMOVE AND DISPOSE OF CONTENTS WITHIN ENTIRE HEADWORKS STRUCTURE.

MANUALLY CLEANED BAR SCREEN DETAIL
NOT TO SCALE

JEFFERSON VALLEY PUMP STATION MECHANICAL EQUIPMENT SCHEDULE							
UNIT ID	AREA SERVED	EQUIPMENT TYPE	MAKE	MODEL	RATED CAPACITY	TOTAL DYNAMIC HEAD (TDH)	MOTOR
PUMP NO. 1	DRY WELL	DRY PIT SUBMERSIBLE SEWAGE PUMP	ABS	XFP 105J-CB2	690 GPM	85 FT	60.0 HP/460 V/3 PH/60 HZ
PUMP NO. 2	DRY WELL	DRY PIT SUBMERSIBLE SEWAGE PUMP	ABS	XFP 105J-CB2	690 GPM	85 FT	60.0 HP/460 V/3 PH/60 HZ
PUMP NO. 3	DRY WELL	DRY PIT SUBMERSIBLE SEWAGE PUMP	ABS	XFP 105J-CB2	690 GPM	85 FT	60.0 HP/460 V/3 PH/60 HZ

BYPASS PUMPING SPECS:

NUMBER OF PUMPS: 3 (2 DUTY, 1 STANDBY)
PUMP CAPACITY: 690 GPM
PUMP TDH: 85 TDH

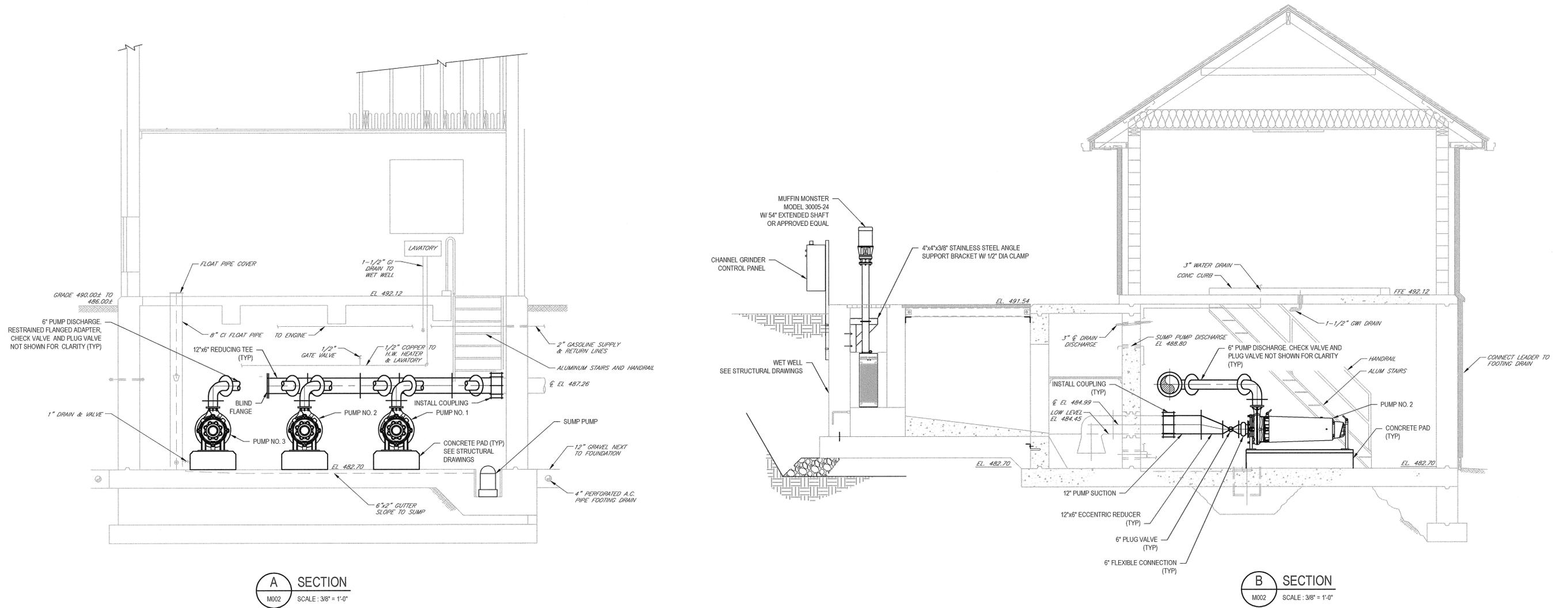
NOTE:

1. SEE SPECIFICATIONS 02769 FOR ADDITIONAL BYPASS PUMPING REQUIREMENTS.
2. CONTRACTOR SHALL FIELD VERIFY INVERTS AND DIMENSIONS.

LOWER LEVEL PLAN
SCALE: 3/8" = 1'-0"

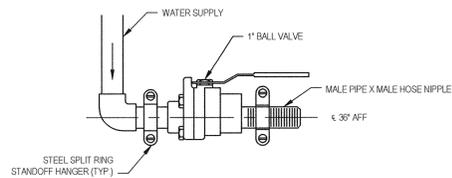
FOR CONSTRUCTION

<p>SCALE 3/8"=1'-0" AT ORIGINAL SIZE</p>						<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cazmail@ghd.com W www.ghd.com</p>		<table border="1"> <tr> <td>Drawn</td> <td>IDG</td> <td>Designer</td> <td>CPP</td> </tr> <tr> <td>Drafting Check</td> <td>SFB</td> <td>Design Check</td> <td>RMC</td> </tr> <tr> <td>Approved (Project Director)</td> <td colspan="2"></td> <td>Date</td> </tr> <tr> <td>Date</td> <td colspan="2">9/29/16</td> <td></td> </tr> <tr> <td>Scale</td> <td colspan="2">AS SHOWN</td> <td></td> </tr> </table>		Drawn	IDG	Designer	CPP	Drafting Check	SFB	Design Check	RMC	Approved (Project Director)			Date	Date	9/29/16			Scale	AS SHOWN			<table border="1"> <tr> <td>Client</td> <td colspan="3">TOWN OF YORKTOWN, NEW YORK</td> </tr> <tr> <td>Project</td> <td colspan="3">PUMP STATION UPGRADE PROGRAM</td> </tr> <tr> <td>Title</td> <td colspan="3">JEFFERSON VALLEY PUMP STATION LOWER LEVEL PLAN</td> </tr> <tr> <td>Original Size</td> <td>Arch D</td> <td>Drawing No:</td> <td>86-18742-JV-M002</td> </tr> </table>		Client	TOWN OF YORKTOWN, NEW YORK			Project	PUMP STATION UPGRADE PROGRAM			Title	JEFFERSON VALLEY PUMP STATION LOWER LEVEL PLAN			Original Size	Arch D	Drawing No:	86-18742-JV-M002
Drawn	IDG	Designer	CPP																																												
Drafting Check	SFB	Design Check	RMC																																												
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Drawn	IDG	Job Manager	CPP																																												
Project Director	RB	Date	09/16																																												
<p>Revision Note: * indicates signatures on original issue of drawing or last revision of drawing</p>				<p>This Drawing shall not be used for Construction unless Signed and Sealed For Construction</p>																																											

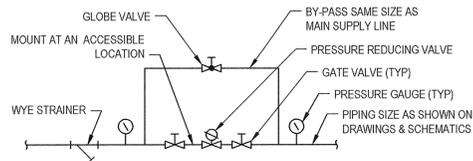


FOR CONSTRUCTION

<p>0 FOR CONSTRUCTION</p>				<p>IDG CPP RB 09/16</p>		<p>IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.</p>				<p>GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cazmail@ghd.com W www.ghd.com</p>		<p>Drawn IDG Designer CPP</p> <p>Drafting SFB Design Check RMC</p> <p>Approved (Project Director) <i>Robert Butternorth</i></p> <p>Date 9/27/16</p> <p>Scale AS SHOWN</p>		<p>Client TOWN OF YORKTOWN, NEW YORK</p> <p>Project PUMP STATION UPGRADE PROGRAM</p> <p>Title JEFFERSON VALLEY PUMP STATION SECTIONS</p>		<p>Original Size</p> <p>Arch D Drawing No: 86-18742-JV-M003</p>		<p>Rev: 0</p>
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HOSE BIBB INSTALLATION DETAIL
NOT TO SCALE
(INSTALL PARALLEL TO WALL)



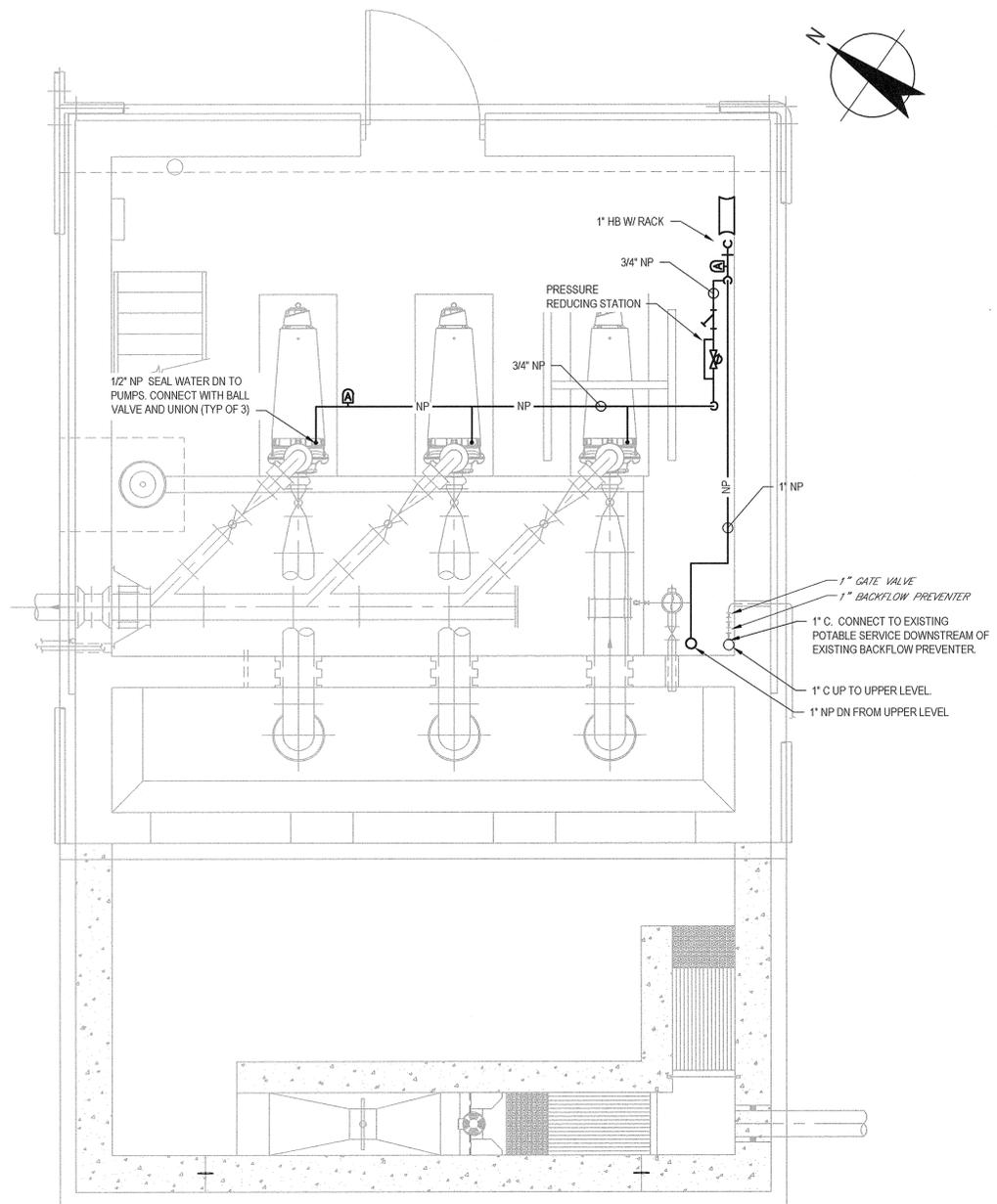
WATER PRESSURE REDUCING STATION DETAIL
NO TO SCALE

ABBREVIATIONS

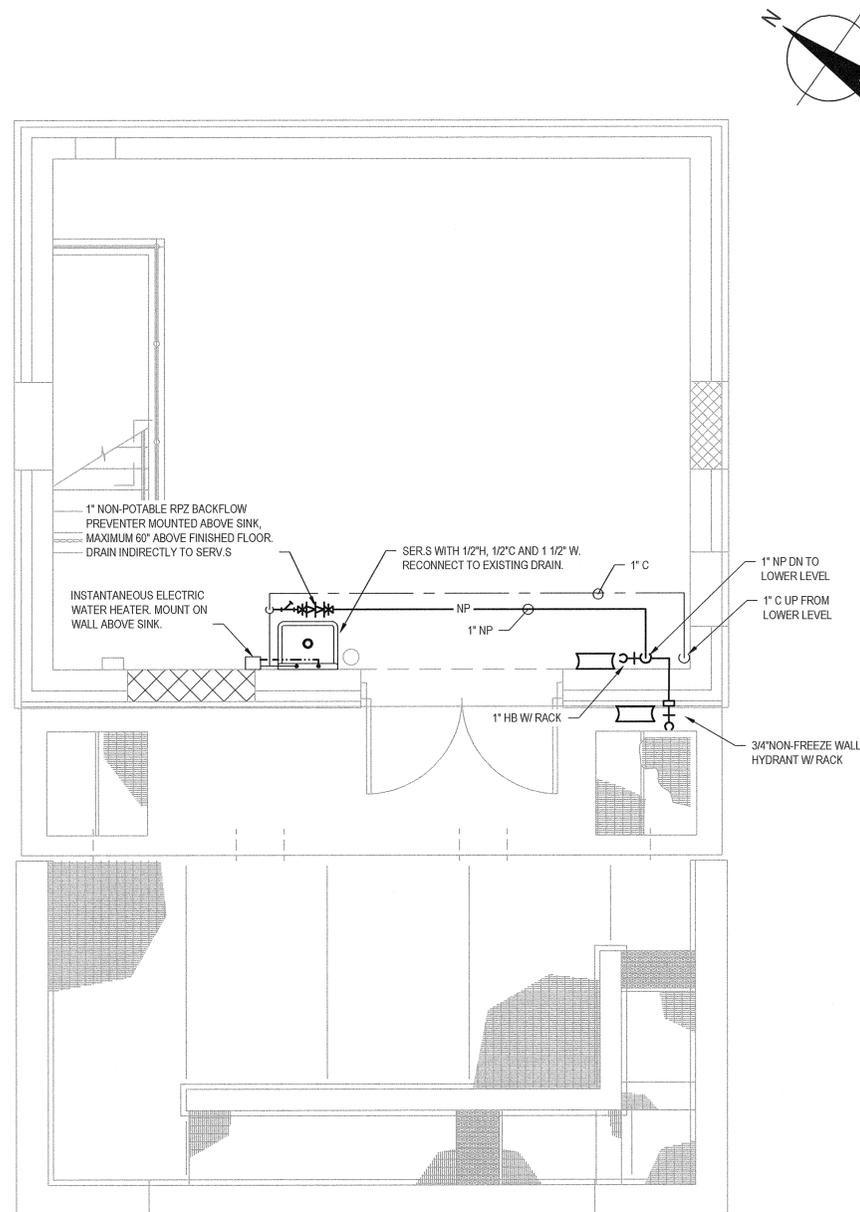
AV	ACID VENT
AW	ACID WASTE
A	AIR
C	COLD WATER
CO	CLEANOUT
COOP	CLEANOUT DECK PLATE
COWP	CLEANOUT WALL PLATE
CU	COPPER
DH	DECK HYDRANT
D	DRAIN
DN	DOWN
DWV	DRAINWASTE/VENT
EFW	EFFLUENT WATER
EW	ELECTRIC WATER COOLER
EWL	ELECTRIC WATER HEATER
FD	FLOOR DRAIN
NG	NATURAL GAS
GW	GAS WATER HEATER
HB	HOSE BIBB
HW	HOT WATER
IW	INDIRECT WASTE
K	KITCHENETTE
L	LAVATORY
LPG	LIQUIFIED PETROLEUM GAS
MR	MOP RECEPTOR
NF	NON-FREEZE
NP	NON-POTABLE WATER
PLW	PLANT WATER
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
REF	REFRIGERATOR
RL	ROOF LEADER
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
SAN	SANITARY
SER.S	SERVICE SINK
SH	SHOWER
SW	SERVICE WATER
SK	SINK
S	SOIL
TW	TEMPERED WATER
UR	URINAL
VA	VACUUM
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET

SYMBOLS

--- --	VENT PIPING
--- --	HOT WATER PIPING
--- --	COLD WATER PIPING
--- X ---	STORM PIPING BELOW SLAB
--- X ---	SANITARY PIPING BELOW SLAB
--- PLW ---	PLANT WATER
--- TW ---	TEMPERED WATER
--- NP ---	NON-POTABLE WATER
--- --	HEAT TRACING
--- --	BALANCING VALVE
--- --	BALL VALVE
--- --	CHECK VALVE
--- --	GATE VALVE
--- --	GAS COCK
--- --	GLOBE VALVE
--- --	PRESSURE REDUCING VALVE
--- --	PRESSURE REDUCING STATION
--- --	WATER HAMMER ARRESTER W/POI SYMBOL
--- --	PRESSURE GAUGE
--- --	CLEANOUT
--- --	CLEANOUT
--- --	FLOOR DRAIN
--- --	"Y" STRAINER
--- --	EMERGENCY EYEWASH/SHOWER
--- --	HOSE BIBB
--- --	HOSE RACK
--- --	PVC HOSE RACK
--- --	WALL HYDRANT
--- --	BUILDING TRAP, VENT & CO
--- --	EQUIPMENT CONNECTION
--- --	PIPE DOWN
--- --	PIPE UP
--- --	VALVE IN VERTICAL



LOWER PLAN
SCALE: 3/8" = 1'-0"



UPPER PLAN
SCALE: 3/8" = 1'-0"

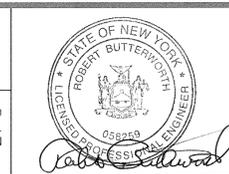
GENERAL NOTES:

- COORDINATE ALL WORK WITH OTHER CONTRACTS.
- RUN ALL PIPING AS HIGH AS POSSIBLE ALONG CEILINGS UNLESS OTHERWISE NOTED.
- ISOLATION VALVES SHALL BE INSTALLED AT ALL BRANCH LINES, FIXTURES, AND EQUIPMENT.
- ALL PIPING SHALL BE ADEQUATELY SUPPORTED PER SPECIFICATIONS.
- ALL PIPING SHOWN AS SINGLE LINE. SUPPLY ALL FITTINGS REQUIRED TO MAINTAIN SMOOTH FLOW LINES, CHANGE IN ELEVATIONS AND TO MEET ALL TRANSITIONS FOR A COMPLETE SYSTEM.
- ALL CONTRACTORS ARE ISSUED A COMPLETE SET OF CONTRACT DRAWINGS. WHILE EVERY EFFORT HAS BEEN MADE TO CONCENTRATE THE WORK OF CONTRACTS ON SPECIFIC SHEETS AND LABEL IT ACCORDINGLY, THERE ARE NECESSARILY INSTANCES WHERE WORK IS SHOWN ON OR CROSS REFERENCED TO OTHER DRAWINGS. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO REVIEW ALL DRAWINGS AND COORDINATE HIS WORK WITH OTHERS.

FOR CONSTRUCTION

0	FOR CONSTRUCTION	MMR	CPP	RB	09/16
Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

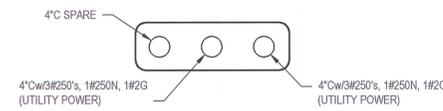
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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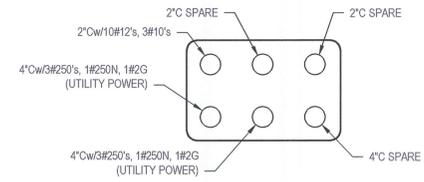
Drawn	MMR	Designer	MMR
Drafting Check	IDG	Design Check	CPP
Approved (Project Director)	<i>Robert Butterworth</i>		
Date	9/16/16		
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	JEFFERSON VALLEY PUMP STATION - PLANS, ABBREVIATIONS, SYMBOLS, DETAILS AND NOTES		
Arch D	Drawing No:	86-18742-JV-M004	Rev: 0



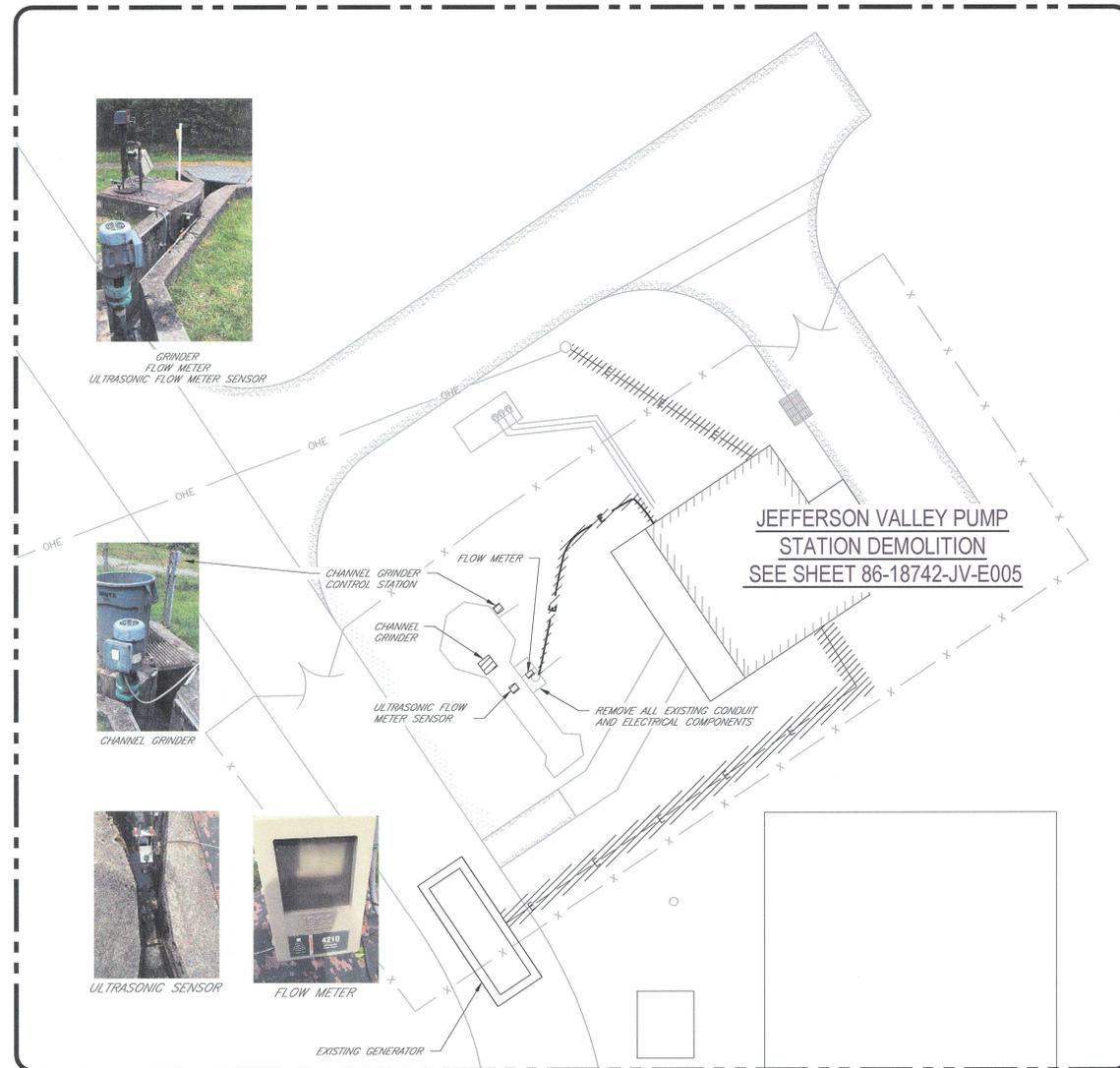
DUCTBANK C-C

SEE DUCTBANK DETAIL 104 SHEET 86-18742-E002



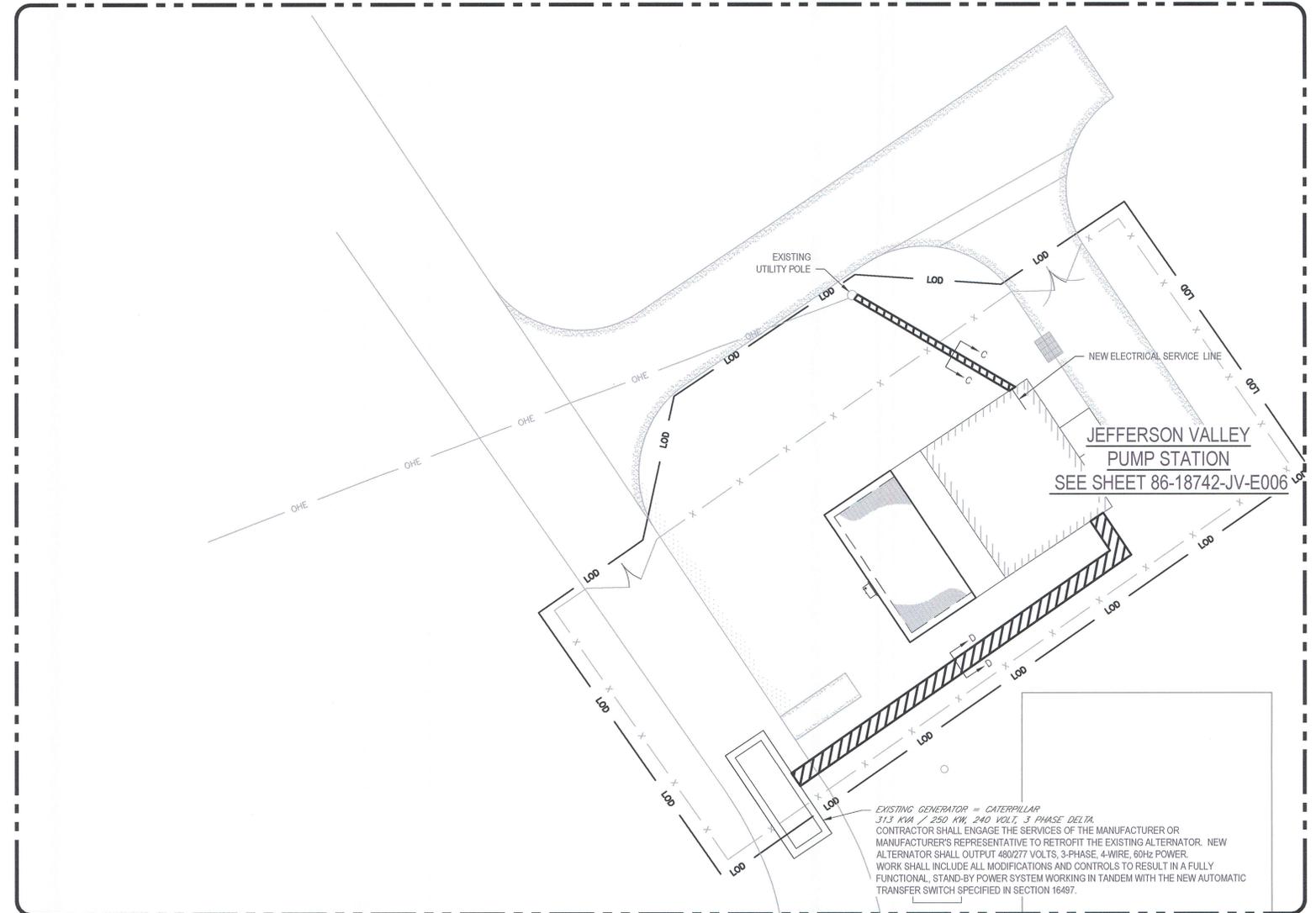
DUCTBANK D-D

SEE DUCTBANK DETAIL 104 SHEET 86-18742-E002



ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1" = 10'



ELECTRICAL SITE PLAN

SCALE: 1" = 10'

FOR CONSTRUCTION

0	FOR CONSTRUCTION	EPP	CPP	RB	09/16	
0	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

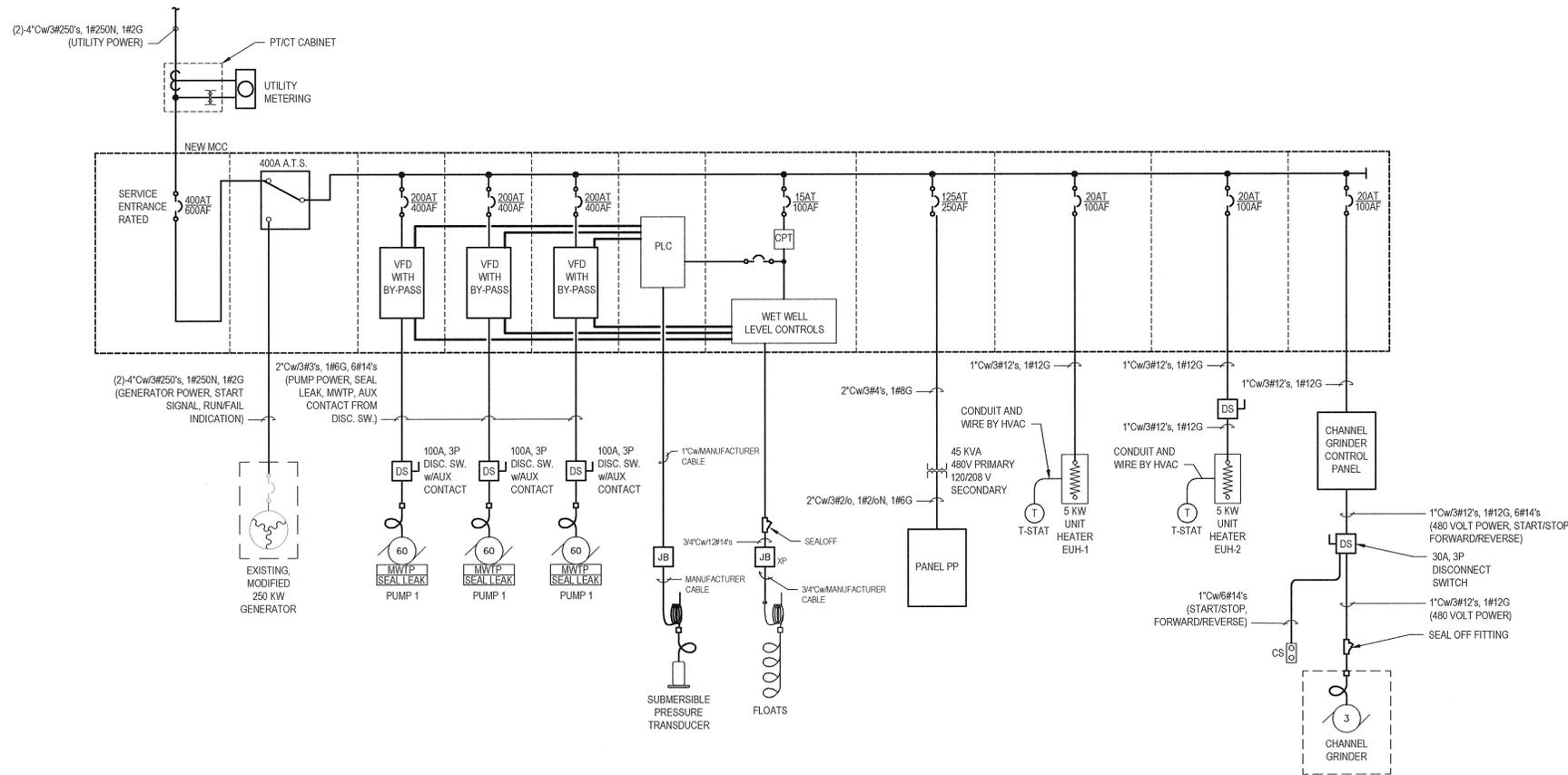
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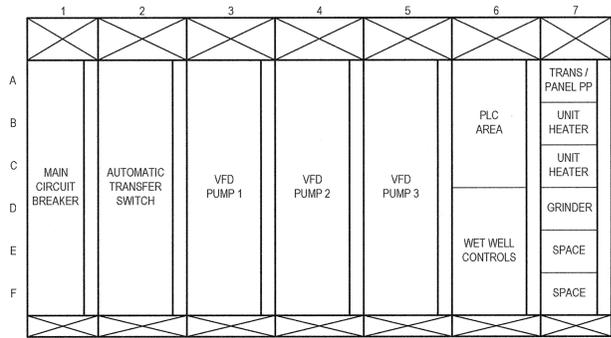
Drawn	EPP	Designer	TWD
Drafting Check	TWD	Design Check	TWD
Approved (Project Director)	<i>Robert Butternorth</i>		
Date	9/21/16		
Scale	AS SHOWN		

Client	TOWN OF YORKTOWN, NEW YORK		
Project	PUMP STATION UPGRADE PROGRAM		
Title	JEFFERSON VALLEY PUMP STATION ELECTRICAL DEMO AND SITE PLAN		
Original Size	Arch D	Drawing No:	86-18742-JV-E004
Rev:	0		



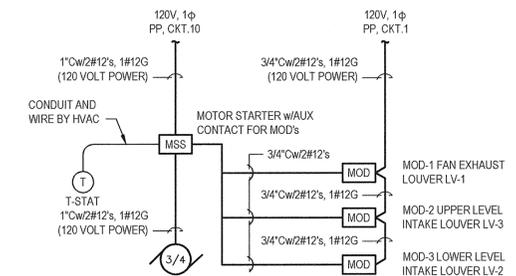
ONE LINE DIAGRAM

NTS



MCC ELEVATION

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



BUILDING FAN SCHEMATIC (F-1)

SCALE: NTS

COMPARTMENT NUMBER	EQUIPMENT IN MOTOR CONTROL CENTER MCC						FIELD MOUNTED DEVICES		ELEMENTARY OR SCHEMATIC DIAGRAM ON SHEET	
	EQUIPMENT DESCRIPTION	LOAD	CIRCUIT BREAKER		STARTER		DOOR MOUNTED ACCESSORIES	BY ELECTRICAL		EXISTING OR BY OTHERS
1A	MAIN CIRCUIT BREAKER	-	400AT	600AF	-	-	CBDH	-	-	E-007
2A	AUTOMATIC TRANSFER SWITCH	400A	-	-	-	-	PB's, IL's	-	-	E-007
3A*	PUMP 1	60 HP	200AT	250AF	60 HP	VFD w/BY-PASS	-	DISCONNECT SWITCH	PUMP	E-007
4A*	PUMP 2	60 HP	200AT	250AF	60 HP	VFD w/BY-PASS	-	DISCONNECT SWITCH	PUMP	E-007
5A*	PUMP 3	60 HP	200AT	250AF	60 HP	VFD w/BY-PASS	-	DISCONNECT SWITCH	PUMP	E-007
6A*	WET WELL CONTROLS	-	15AT	100	-	-	-	-	FLOATS, TRANSDUCER	E-007
7A	TRANSFORMER / PANEL PP	45 KVA	125AT	250	-	-	CBDH	TRANSFORMER/PANEL PP	-	E-007
7B	UNIT HEATER EUH-1	5 KW	20AT	100	-	-	CBDH	-	UNIT HEATER	E-007
7C	UNIT HEATER EUH-2	5 KW	20AT	100	-	-	CBDH	DISCONNECT SWITCH	UNIT HEATER	E-007
7D	CHANNEL GRINDER	3 HP	20AT	100AT	-	-	CBDH	DISCONNECT SWITCH	CONTROL PANEL, CS	E-007
7E	SPACE									
7F	SPACE									

NOTE:

GENERAL CONTRACTOR TO FURNISH ITEMS MARKED WITH AN * INSTALLED ON BACKPLANE SUITABLE FOR MOUNTING INSIDE THE MCC COMPARTMENT. ELECTRICAL CONTRACTOR SHALL INSTALL BACKPLANES INTO THE MCC AND MAKE POWER CONNECTION BETWEEN THE MCC BUS AND BACKPLANE MOUNTED CIRCUIT BREAKER. ELECTRICAL CONTRACTOR TO WIRE FROM THESE COMPARTMENTS TO FIELD DEVICES. GENERAL CONTRACTOR SHALL PROVIDE INTERCONNECTING WIRING BETWEEN THESE COMPARTMENTS AS REQUIRED AND COORDINATE WITH ELECTRICAL CONTRACTOR.

PANELBOARD PP SCHEDULE										FED FROM: 45 KVA TRANSFORMER INCOMING FEED: 3 #20's, 1#20N, 1#6G ENCLOSURE: NEMA1 * INDICATES GFCI CIRCUIT BREAKER		
DESCRIPTION	SHEET / NOTES	LOAD	CB TRIP/PHASE	CIR.	A	B	C	CIR.	CB TRIP/PHASE	LOAD	SHEET / NOTES	DESCRIPTION
INSTANTANEOUS WATER HEATER - UPPER LEVEL	E-006	3.6KW	30A	1	—	—	—	2	20A, 1P		E-007	FAN DAMPER, MOD OPERATORS (MOD-1, MOD-2, MOD-3)
↓	E-006		2P	3	—	—	—	4	15A, 1P		E-007	FLOW METER (FE-1001)
LIGHTING UPPER LEVEL	E-006			5	—	—	—	6				SAMPLER
LIGHTING LOWER LEVEL	E-006			7	—	—	—	8				AUTOMATIC DIALER / ALARM / MARSHAL PANEL
* RECEPTACLES UPPER LEVEL	E-006			9	—	—	—	10	30A, 1P	3/4 HP	E-007	WALL FAN (F-1) UPPER LEVEL
* RECEPTACLES LOWER LEVEL	E-006			11	—	—	—	12	20A, 1P		E-007	SUMP PUMP RECEPTACLE - LOWER LEVEL
LIGHTING EXTERIOR	E-006			13	—	—	—	14				
* RECEPTACLES EXTERIOR	E-006			15	—	—	—	16				
GENERATOR HEATER	E-004			17	—	—	—	18				
↓	E-004			19	—	—	—	20				
↓	E-004			21	—	—	—	22				
GENERATOR BATTERY CHARGER				23	—	—	—	24				
				25	—	—	—	26				
				27	—	—	—	28				
				29	—	—	—	30				
				31	—	—	—	32				
				33	—	—	—	34				
				35	—	—	—	36				
				37	—	—	—	38				
				39	—	—	—	40				
				41	—	—	—	42				

FOR CONSTRUCTION

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LOUVER SCHEDULE											
UNIT ID	ROOM SERVED	EQUIPMENT TYPE	INTAKE/ EXHAUST	MIN. FREE AREA (SQFT)	DIMENSIONS (W" X H" X D")	BLADE ANGLE	OPERATOR TYPE	VOLTS/ PHASE	INTERLOCK WITH	DESIGN BASIS	NOTES
										MANUFACTURER, MODEL	
LV-1	UPPER/LOWER	FIXED LOUVER	EXHAUST	2.47	28" X 28" X 4"	45°	-	-	-	GREENHECK, ESJ-401	1
LV-2	LOWER	FIXED LOUVER	INTAKE	1.48	22" X 22" X 4"	45°	-	-	-	GREENHECK, ESJ-401	1
LV-3	UPPER	FIXED LOUVER	INTAKE	2.80	32" X 36" X 4"	45°	-	-	-	GREENHECK, ESJ-401	1
MOD-1	UPPER/LOWER	PARALLEL BLADE DAMPER	EXHAUST	-	28" X 28" X 4"	-	POWER OPEN/SPRING CLOSED	120/1	F-1	GREENHECK, ICD-45	1
MOD-2	LOWER	PARALLEL BLADE DAMPER	INTAKE	-	22" X 22" X 4"	-	POWER OPEN/SPRING CLOSED	120/1	F-1	GREENHECK, ICD-45	1
MOD-3	UPPER	PARALLEL BLADE DAMPER	INTAKE	-	24" X 36" X 4"	-	POWER OPEN/SPRING CLOSED	120/1	F-1	GREENHECK, ICD-45	1

FAN AND EXHAUSTER SCHEDULE													
UNIT ID	ROOM SERVED	EQUIPMENT TYPE	FAN				MAX INLET SONES	ELECTRICAL			CONTROLS CONTROLLED BY	DESIGN BASIS	NOTES
			DRIVE	CFM	EXT SP (" WG)	RPM		HP	RPM	VOLTS/ PHASE		MANUFACTURER, MODEL	
F-1	UPPER/LOWER	SIDEWALL	DIRECT	2,700	1/4	1,350	10.2	3/4	1,725	120/1	TSTAT	GREENHECK, SE1-16-436-VG	2

ELECTRIC UNIT HEATER SCHEDULE										
UNIT ID	ROOM SERVED	EQUIPMENT TYPE	HEATING DATA		MOTOR DATA		VOLTS/ PHASE	DESIGN BASIS MANUFACTURER, MODEL	NOTES	
			KW OUTPUT	CFM	HP	RPM				
EUH-1	UPPER LEVEL	HORIZONTAL ELECTRIC	5.0	530	1/40	1,550	480/3	MODINE, HER50	-	
EUH-2	LOWER LEVEL	HORIZONTAL ELECTRIC	5.0	530	1/40	1,550	480/3	MODINE, HER50	-	

GENERAL NOTES

- REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL LOUVER INSTALLATION DETAILS.
- COORDINATE ALL HVAC WORK WITH ELECTRICAL, PLUMBING AND GENERAL DRAWINGS.
- ALL PENETRATIONS PASSING THRU A CLASSIFIED ROOM INTO A NON-CLASSIFIED ROOM SHALL HAVE GAS TIGHT WALL PENETRATIONS.
- ALL ELECTRICAL EQUIPMENT, ENCLOSURES AND ACCESSORIES PROVIDED BY CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE NEC IN ACCORDANCE WITH THE AREA CLASSIFICATION SCHEDULE IN SECTION 16050.

LOUVER NOTES

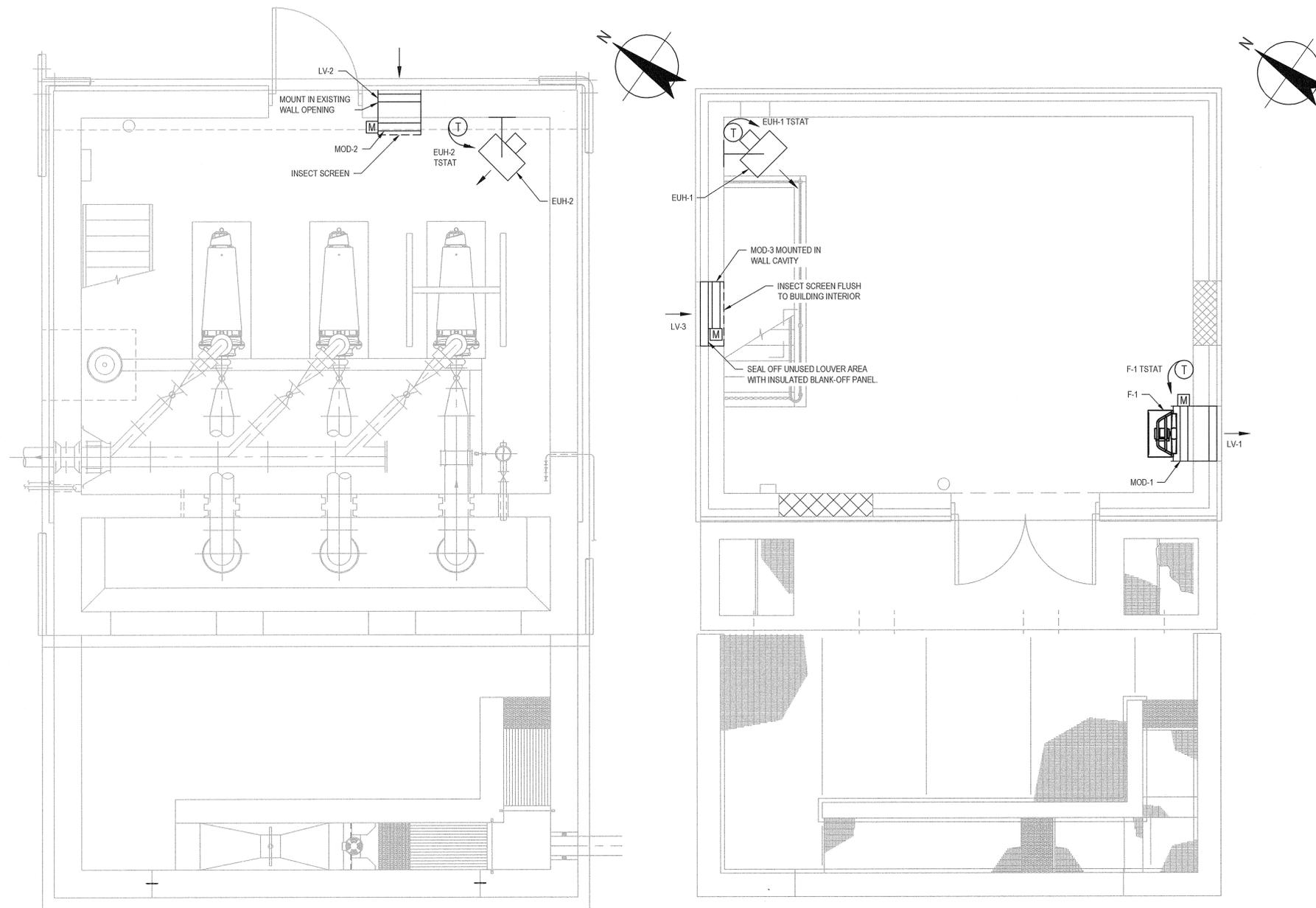
- LOUVER ACCESSORIES, INCLUDING MOUNTING ANGLES AND SILL FLASHING FOR LOUVERS, ARE TO BE FURNISHED BY CONTRACT 1 AND INSTALLED AS SHOWN ON THE ARCHITECTURAL DRAWINGS. FASTENERS, SHIMS HEAD FLASHING, SEALANTS AND EXTERIOR CASING TYPE TRIMS AND OTHER ACCESSORIES FOR LOUVER INSTALLATION ARE ALSO TO BE FURNISHED BY CONTRACT 1 AND INSTALLED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
- LOUVER FLASHING AND MOUNTING ANGLE DIMENSIONS AND CONFIGURATIONS, AS WELL AS FINISHES AND FINISH COLORS, ARE TO BE AS SHOWN BY THE DETAILS REFERENCED BY THE LOUVER INSTALLATION SCHEDULE IN THE ARCHITECTURAL DRAWINGS, AND AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.
- LOUVERS ARE TO BE FURNISHED BY CONTRACT 3 AND INSTALLED IN COMPLIANCE WITH SECTION 15940, INCLUDING THE LOUVER AND MOTOR OPERATED DAMPER SCHEDULE IN THE HVAC DRAWINGS, AND OTHER INFORMATION SHOWN IN THE HVAC DRAWINGS. LOUVER FINISHES AND FINISH COLORS ARE TO BE AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.

SCHEDULE NOTES

- CONTRACTOR TO FIELD VERIFY WALL OPENING AND SIZE LOUVER TO FIT EXISTING CONDITIONS.
- PROVIDE WITH ELECTRICALLY COMMUTATED MOTOR AND MOTOR MOUNTED SPEED DIAL.

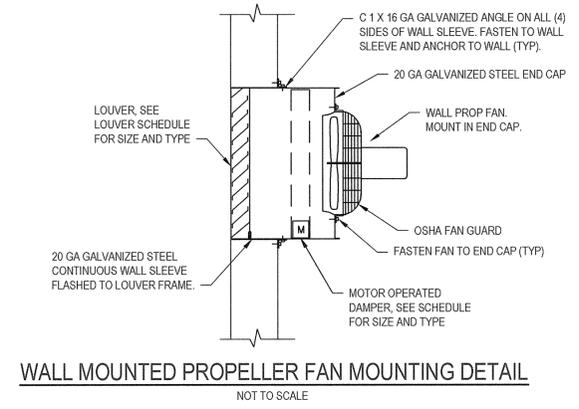
ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BOD	BOTTOM OF DUCT
BOH	BOTTOM OF HEATER
BOF	BOTTOM OF FAN
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CL	CENTERLINE
CP	CONTROL PANEL
CS	CONTROL STATION
CORR RES	CORROSION RESISTANT
dBa	DECIBELS
DBWB	DRY BULB WET BULB TEMPERATURE
DIA	DIAMETER
DL	DRUM LOUVER
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EL	ELEVATION
EXH	EXHAUST
EXT	EXTERNAL
F	FAN
FD	FIRE DAMPER
FF	FINISHED FLOOR
FRP	FIBERGLASS REINFORCED PLASTIC
FSOA	FAST-SLOW-OFF-AUTO SWITCH
FPM	FEET PER MINUTE
FO	FUEL OIL
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
HP	HORSEPOWER
HOA	HAND-OFF-AUTO SWITCH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LV	LOUVER
MBH	THOUSAND BTUS PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MCCP	MAXIMUM OVER CURRENT PROTECTION
MOD	MOTOR OPERATED DAMPER
MTR	MOTOR
NEC	NATIONAL ELECTRICAL CODE
PNEU	PNEUMATIC
R	ELECTRIC FIN TUBE
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SENS	SENSIBLE
SP	STATIC PRESSURE
SS	STAINLESS STEEL
STL	STEEL
SUP	SUPPLY
TEMP	TEMPERATURE
T-STAT	THERMOSTAT
TS	TEMPERATURE SENSOR
TYP	TYPICAL
UH	UNIT HEATER
VA	VERTICAL ACCELERATOR
W	WATTS
WPD	WATER PRESSURE DROP
WG	WATER GAUGE
	INCH



LOWER PLAN
SCALE: 3/8" = 1'-0"

UPPER PLAN
SCALE: 3/8" = 1'-0"



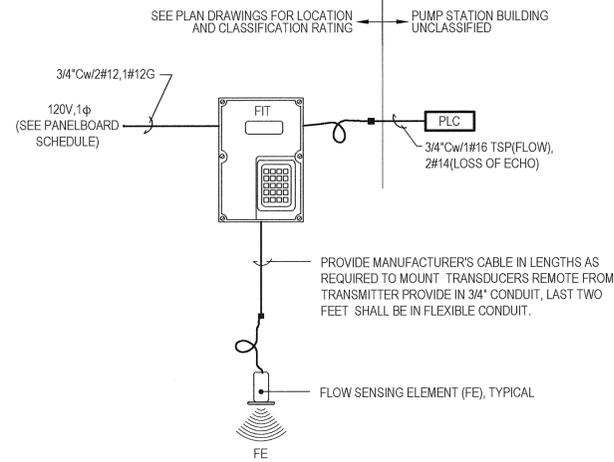
WALL MOUNTED PROPELLER FAN MOUNTING DETAIL
NOT TO SCALE

SYMBOLS

	THERMOSTAT, CONTROL STATION
	SPEED DIAL
	MOTOR OPERATOR
	EXHAUST OR RETURN AIR DUCT END SECTION
	SUPPLY OR RELIEF AIR DUCT END SECTION
	DUCT SIZE IN INCHES (FIRST NO., SIDE SHOWN, SECOND NO., SIDE NOT SHOWN)
	HORIZONTAL UNIT HEATER

FOR CONSTRUCTION

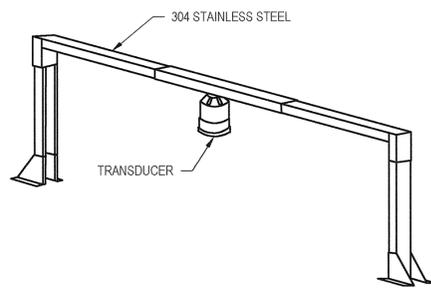
 SCALE 3/8"=1'-0" AT ORIGINAL SIZE						 GHD Consulting Services Inc. One Remington Park Drive Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E cza@mail@ghd.com W www.ghd.com		Drawn MMR Designer MMR Drafting IDG Design Check CPP Approved (Project Director) <i>Robert Butterworth</i> Date 9/29/16 Scale AS SHOWN		Client TOWN OF YORKTOWN, NEW YORK Project PUMP STATION UPGRADE PROGRAM Title JEFFERSON VALLEY PUMP STATION - HVAC PLANS, ABBREVIATIONS, SYMBOLS, DETAIL AND NOTES Arch D Drawing No: 86-18742-JV-H001 Rev: 0	
0 FOR CONSTRUCTION Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Drawn MMR Job Manager CPP RB Project Director Date 09/16				IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.		This Drawing shall not be used for Construction unless Signed and Sealed For Construction		Original Size			



ULTRASONIC LEVEL MONITORING EQUIPMENT WIRING DETAIL

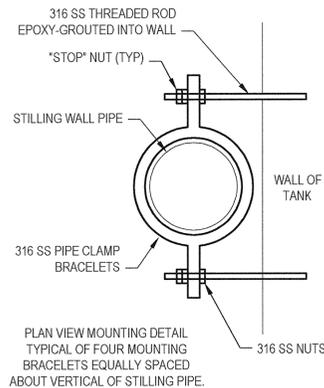
300 NTS

TYPICAL FOR		
INFLUENT FLOW	INFLUENT FLOW INTO JEFFERSON VALLEY PUMP STATION	FIT-1001



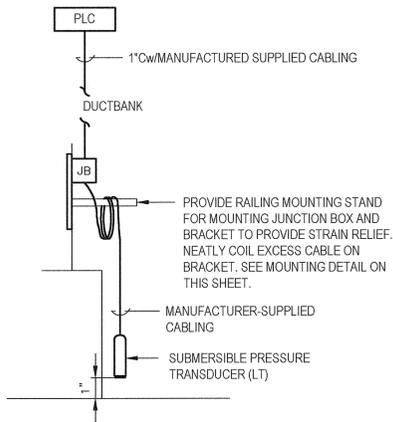
CHANNEL BRACKET (FLOOR MOUNT)

322 NTS



380 SUBMERSIBLE PRESSURE SENSOR MOUNTING IN STILLING WELL DETAIL

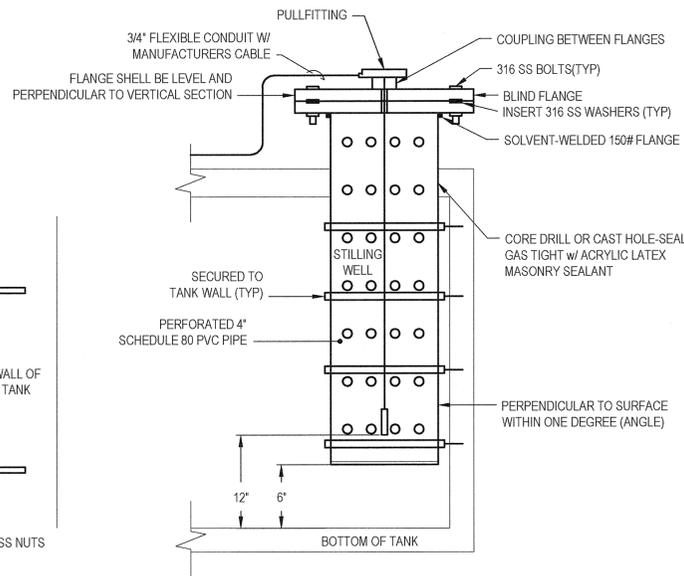
NTS



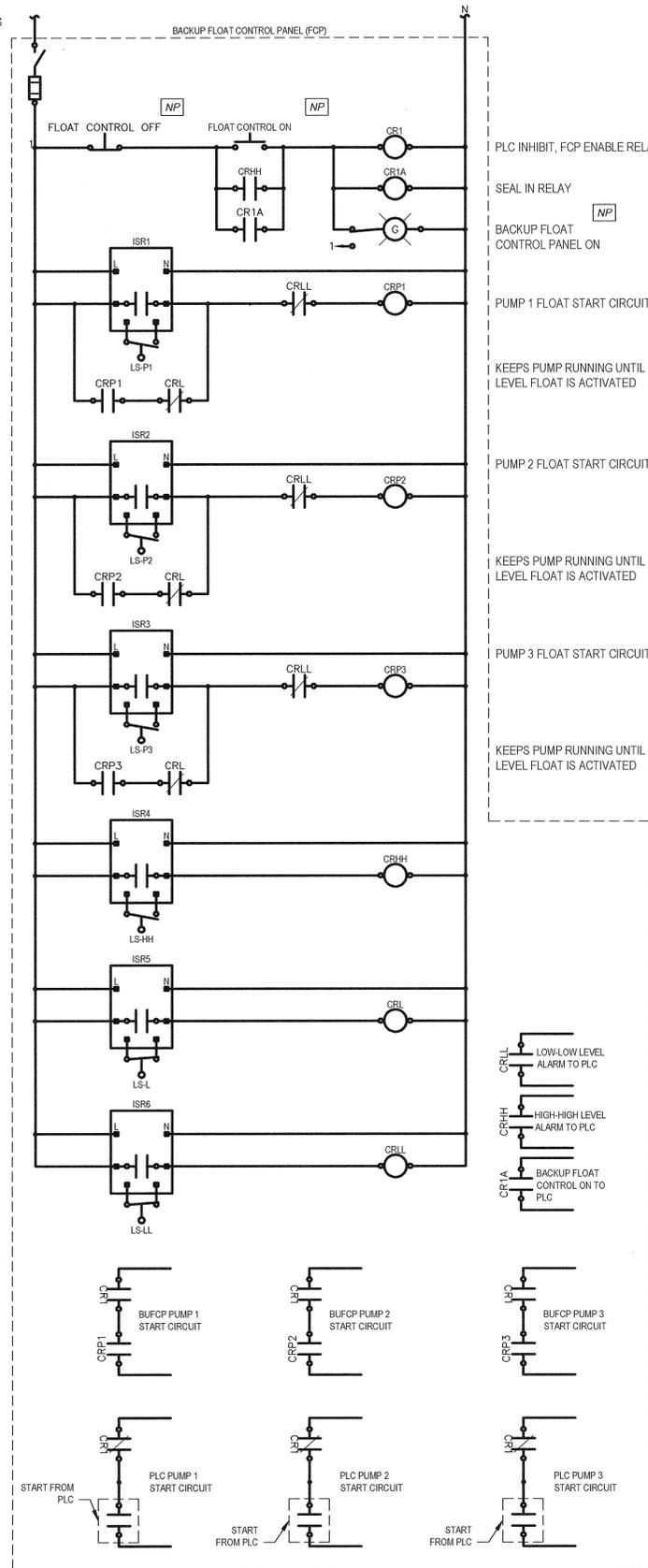
375 SUBMERSIBLE PRESSURE TRANSMITTER/TRANSDUCER WIRING DETAIL

375 NTS

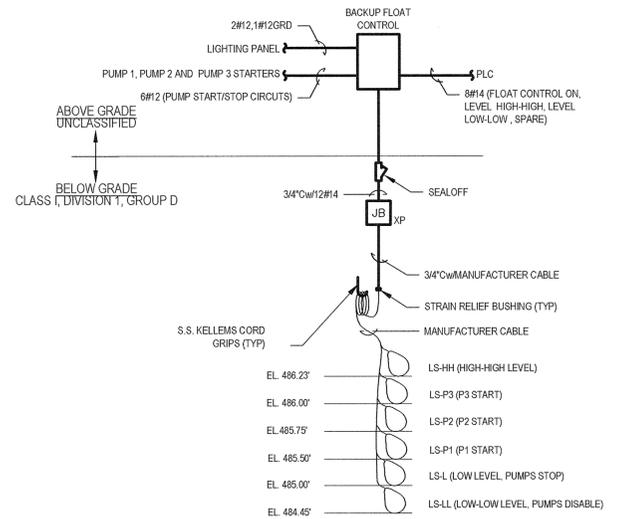
TYPICAL FOR	
WET WELL LEVEL	LT-1101



120V/1φ FROM LIGHTING PANEL



ELEMENTARY
TYPICAL FOR WET WELL FLOAT CONTROL /FCP TO PLC



SCHEMATIC

BACKUP FLOAT CONTROL DIAGRAMS

NOT TO SCALE

NOTES:

- PLC INHIBIT/FCP ENABLE RELAY (CR1) PROHIBITS PLC CONTROL WHEN ENERGIZED AND ENABLED FLOAT CONTROL. PUMP SHALL START IF APPROPRIATE FLOAT IS TRIPPED.
- SEAL IN RELAY (CR1A) KEEPS PANEL IN FCP OPERATION ONCE ACTIVATED.
- SEQUENCE OF OPERATION
 - FCP ENABLES PLC CONTROL WHEN HIGH-HIGH FLOAT (CRHH) IS DE-ENERGIZED AND WHEN THE PLC INHIBIT RELAY (CR1) IS DE-ENERGIZED.
 - ONCE THE HIGH-HIGH LEVEL FLOAT ENERGIZES, PLC CONTROL IS INHIBITED AND ALL PUMPS BEGIN RUNNING.
 - ALL PUMPS CONTINUE TO RUN UNTIL THE LOW LEVEL FLOAT (CRL) IS ACTIVATED, AT WHICH POINT ALL PUMPS STOP RUNNING.
 - AFTER THIS INITIAL PUMP DOWN CYCLE, INDIVIDUAL PUMPS RUN WHEN THE RESPECTIVE FLOAT IS ACTIVATED.
 - THE FCP REMAINS IN CONTROL OF THE PUMPS UNTIL AN OPERATOR VISITS THE FCP AND PHYSICALLY DEPRESSES THE FLOAT CONTROL OFF PUSHBUTTON.

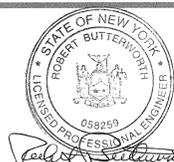
INTRINSICALLY SAFE RELAY NOTE:

- ALL INTRINSICALLY SAFE RELAYS SHALL BE SEPARATED FROM ALL OTHER CONTROL DEVICES BY A PHYSICAL BARRIER INSIDE THE ENCLOSURE.
- PROVIDE TERMINAL BLOCKS & RELAY LOGIC AS REQUIRED TO ACHIEVE THE SEQUENCE OF OPERATION.

FOR CONSTRUCTION

0	FOR CONSTRUCTION	EPP	CPP	RB	09/16	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	EPP	Designer	DEC
Drafting Check		Design Check	CDS
Approved (Project Director)	<i>Robert Butterworth</i>	Date	9/27/16
Scale	AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	

Client	TOWN OF YORKTOWN, NEW YORK
Project	PUMP STATION UPGRADE PROGRAM
Title	JEFFERSON VALLEY PUMP STATION BACKUP FLOAT CONTROL DIAGRAM & INSTRUMENTATION DETAILS
Arch D	Drawing No: 86-18742-JV-I001
Rev:	0