

THE GRANARY AT DRAPER FARM

SECTION I

BROADKILL RIVER WATERSHED

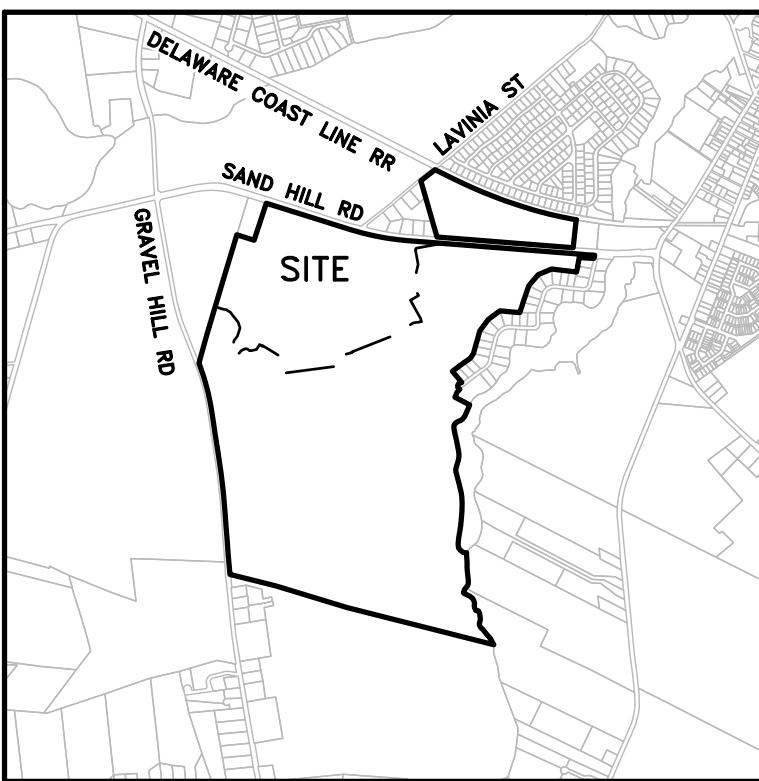
BROADKILL HUNDRED

TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

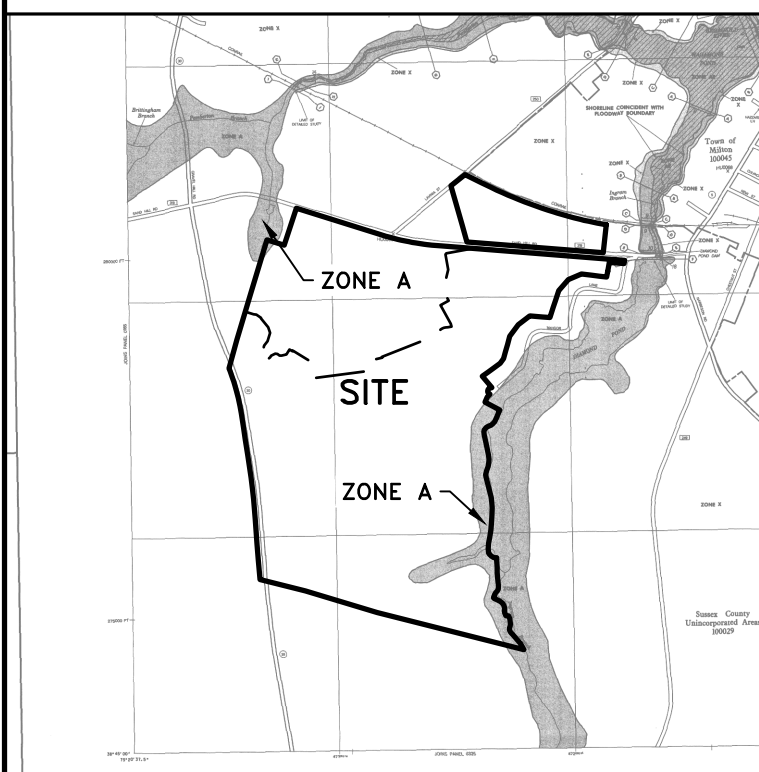
DBF #1443B006

JUNE 2023

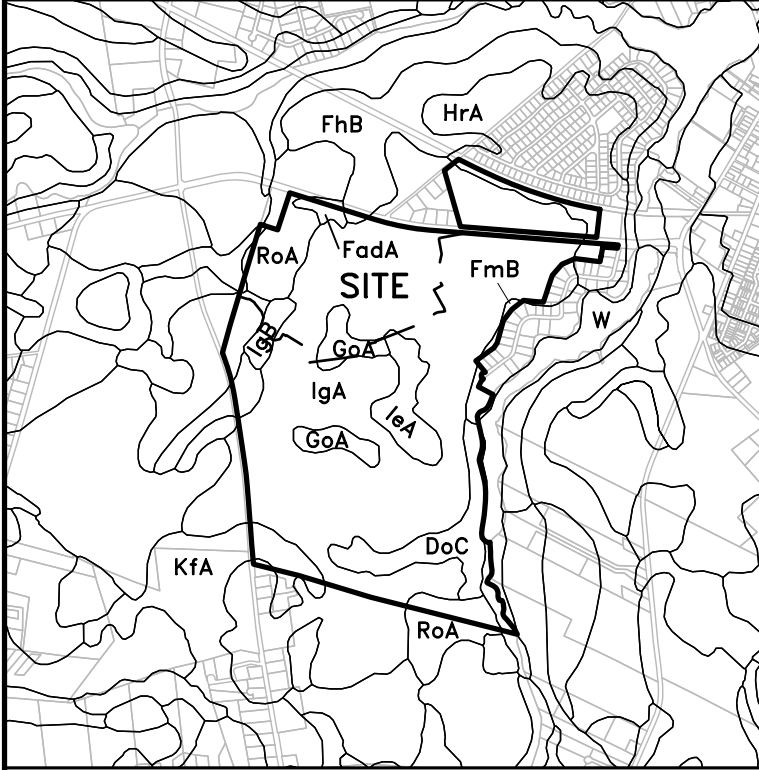
CONSTRUCTION PLANS



LOCATION MAP SCALE: 1" = 1/2 MILE



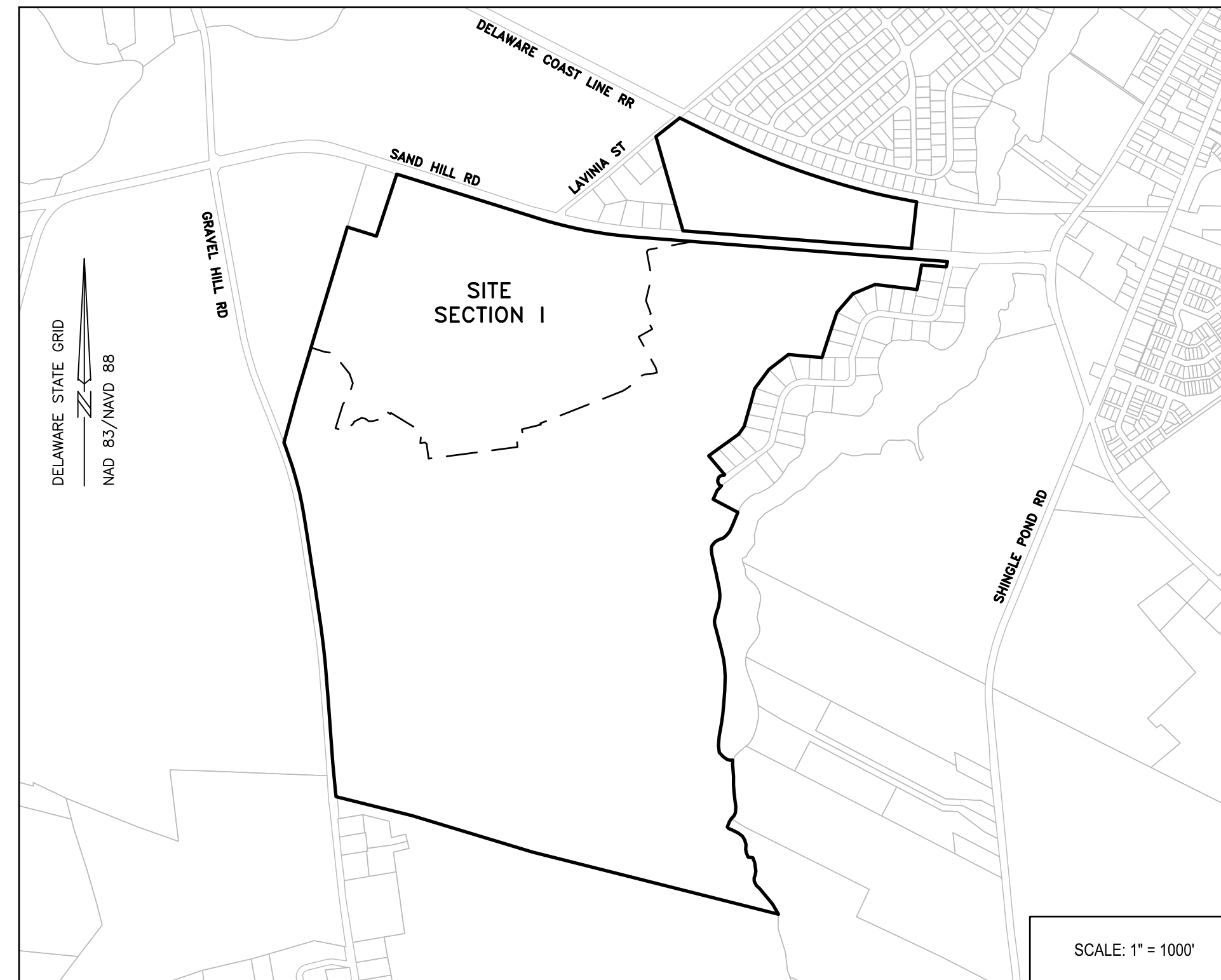
FLOODPLAIN MAP SCALE: 1" = 1/2 MILE
FEMA PANEL #10005C0164J DATED: JANUARY 6, 2005



SOILS MAP SCALE: 1" = 1/2 MILE

LABEL	SOIL NAME	TYPE
DnC	Dwener sandy loam, 5 to 10 percent slopes	A
FsdA	Fallington sandy loam, 0 to 2 percent slopes, Northern Tidewater Area	BD
FmB	Fort Mott loamy sand, 2 to 5 percent slopes	A
GsA	Glassboro sandy loam, 0 to 2 percent slopes	AD
HsA	Hempden-Roadside complex, 0 to 2 percent slopes	A
Iga	Ingleside loamy sand, 0 to 2 percent slopes	A
Igb	Ingleside sandy loam, 0 to 2 percent slopes	A
Igc	Ingleside sandy loam, 2 to 5 percent slopes	A
KsA	Keppert fine sandy loam, 0 to 2 percent slopes	D
Rsa	Rosedale loamy sand, 0 to 2 percent slopes	A

DATA COLUMN		
1 TAX MAP ID	2-35-20.00-12.00 & 2-35-20.00-19.00	
2 PLAT BOOK REFERENCE	PB 371, PG 31	
3 DEED REFERENCE	DB 2614, PG 328 & DB 5421, PG 161	
4 APPROXIMATE PROJECT CENTER	LATITUDE 38.7643 LONGITUDE -75.3321	
5 ENGINEER	OWNER	OWNER
DAVIS, BOWEN & FRIEDEL, INC.	SAND HILL, LLC.	SU-SAX ACRES, LLC
1 PARK AVENUE	P.O. BOX 1686	8419 WENDELL DR.
MILFORD, DE 19963	JACKSON HOLE, WYOMING 83001	ALEXANDRIA, VA 22308
JAMIE L. SECHLER, P.E.	COLBY COX, MEMBER	
PHONE: (302) 424-1441	EMAIL: CCOX@CONINV.COM	
EMAIL: JLS@dbfinc.com		
6 DATUM	HORIZONTAL	VERTICAL
	NAVD 83 (DE STATE PLANE)	NAVD 88
7 ZONING	EXISTING	PROPOSED
	R-2 (LPD)	R-2 (LPD)
8 LAND USE	EXISTING	PROPOSED
	AGRICULTURE	RESIDENTIAL/AGRICULTURE
9 TOTAL PROPOSED UNITS PER APPROVED LPD (TOTAL = 1350 UNITS)	SECTION I RESIDUAL TRACTS (2, 3 & 4)	
	180 SINGLE FAMILY UNITS	1,170 SINGLE FAMILY UNITS NTE 60,000 S.F. COMMERCIAL
10 BUILDING CONSTRUCTION	IBC	NEPA
	V(B)	V(000)
11 UTILITY PROVIDERS	SEWER	WATER
	ARTESIAN WASTEWATER MANAGEMENT INC.	TOWN OF MILTON
12 STATE STRATEGIES MAP	INVESTMENT LEVEL AREA: 1, 2 & 3	
13 POSTED SPEED LIMIT	SAND HILL RD. (SCR 319)	GRAVEL HILL RD. (SCR 248)
	50 MPH	50 MPH
14 FLOODPLAIN	THE PROPERTY IS IMPACTED BY THE 100 YEAR FLOODPLAIN AS DETERMINED BY FEMA PANEL 10005C0164J DATED JANUARY 6, 2005.	
15 TRANSPORTATION IMPROVEMENT DISTRICT (TID)	THE PROPERTY IS LOCATED IN A TRANSPORTATION IMPROVEMENT DISTRICT (TID), MILTON TID (UNDER DEVELOPMENT)	
16 GROUNDWATER RECHARGE	THE PROPERTY IS NOT LOCATED IN AN AREA OF EXCELLENT GROUNDWATER RECHARGE.	
17 WELLHEAD PROTECTION AREA	THE PROPERTY IS NOT LOCATED IN A WELLHEAD PROTECTION AREA.	
18 WETLANDS	THE PROPERTY IS IMPACTED BY FEDERALLY REGULATED WETLANDS.	
19 CODE COMPLIANCE (SECTION I)	REDUCED SETBACKS	
FRONT SETBACK	5 FT	
SIDE SETBACK	5 FT	
REAR SETBACK	10 FT	
STREET SIDE	5 FT	
MAXIMUM DENSITY	2.20 UNITS PER ACRE	
MAXIMUM BUILDING HEIGHT	42 FT (2-1/2 STORIES)	
20 AREAS		
NET DEVELOPMENT AREA	332.6 TO 355.6 ± AC. (PER LPD)	
MIN. REQUIRED LOT AREA	DETACHED SF: 4,000 S.F. (40' WIDE)	
AVERAGE LOT AREA	8,131 S.F.	
MINIMUM LOT AREA	DETACHED SF: 4,000	
MAXIMUM LOT AREA	SINGLE FAMILY SF: 25,000	
DENSITY	ANNEXATION AGREEMENT MAXIMUM FOR TOTAL SITE: 1,350 DU	
WETLANDS	8,039 AC.	
WOODED AREA	87,216 AC.	
IMPERVIOUS COVERAGE (SECTION I)	PAVING: 16%	BUILDINGS : 30%
21 TOTAL SITE AREAS	451,536 AC. (TOTAL)	
SECTION I	73,551 AC.	
TRACT-2 (RESIDUAL LANDS)	28,090 AC.	
TRACT-3 (RESIDUAL LANDS)	321,170 AC.	
TRACT-4 (RESIDUAL LANDS)	28,725 AC.	
22 PROPOSED LAND USE AREAS		
SECTION I	73,551 AC.	
LOTS	33,599 AC. (46%)	
RIGHT-OF-WAY	11,985 AC. (16%)	
OPEN SPACE	27,967 AC. (38%)	
ACTIVE	4,798 AC. (17%)	
PASSIVE	23,169 AC. (83%)	
23 AMENITY AREA PARKING CALCS.	1 SPACE PER 200 S.F. FLOOR AREA	504 S.F. / 200 S.F. = 3 SPACES
		7 SPACES PROVIDED
24 MONUMENTS	EXISTING	PROPOSED
	25	477
25 SURVEY DATE	JANUARY 2021	



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C-230 - C-233	INTERSECTION DETAILS
C-234 - C-236	DETAILS
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C-305	AMENITY AREA GRADING PLAN
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C-402 - C-403	PRE CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
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C-519	FORCEMAIN PROFILE
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E101, E102, E201	LIGHTING PLANS

WETLAND'S STATEMENT

I, Edward M. Launay, SPWS, STATE THAT THE BOUNDARY OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM AS SHOWN ON THIS PLAN WAS DETERMINED USING MY PROFESSIONAL JUDGMENT. THAT DETERMINATION IS BASED UPON THE METHODOLOGY OUTLINED IN THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL AND ALL CURRENTLY APPLICABLE SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL MANUAL (VERSION 2.0) INCLUDING THE 2023 WATERS OF THE U.S. RULE AS AMENDED AUGUST 29, 2023, IN ACCORDANCE WITH (SACKETT v. EPA & RAPANOS v. U.S.) WHICH DEFINE THE JURISDICTION OF THE CLEAN WATER ACT OF 1972.

IN ACCORDANCE WITH THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL, WETLAND MAPS THERE ARE NO STATE (DNREC) REGULATED WETLANDS ON THE SITE.

TAX MAP #: 2-35-20.00-19.00 & 2-35-20.00-12.00

EDWARD M. LAUNAY, SENIOR PWS No. 875
SOCIETY OF WETLANDS SCIENTISTS
CORPS OF ENGINEERS, CERTIFIED WETLAND DELINEATOR WDCP93MD05100368

OWNER/DEVELOPER STATEMENT

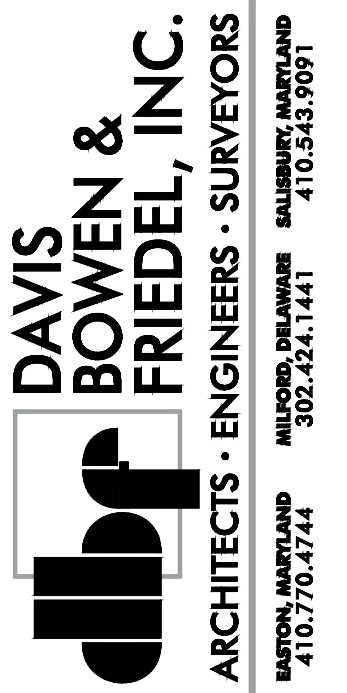
I, THE UNDERSIGNED, HEREBY STATE THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN AND THAT THE PLAN WAS MADE AT MY DIRECTION, THAT ALL STREETS SHOWN HEREON AND NOT HERETOFORE DEDICATED ARE HEREBY DEDICATED TO PUBLIC USE AND THAT ALL PROPOSED MONUMENTS AND MARKERS SHOWN HEREON WILL BE SET AT THE LOCATION INDICATED, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN BE RECORDED ACCORDING TO LAW. SUBDIVISION STREETS CONSTRUCTED WITHIN THE LIMITS OF THE RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE SHOWN ON THIS PLAN ARE TO BE MAINTAINED BY THE TOWN OF MILTON FOLLOWING THE COMPLETION OF THE STREETS BY THE DEVELOPER TO THE SATISFACTION OF THE TOWN. THE TOWN ASSUMES NO MAINTENANCE RESPONSIBILITIES WITHIN THE DEDICATED STREET RIGHT-OF-WAY UNIT THE TOWN HAS ACCEPTED THE STREETS.

SAND HILL, LLC. DATE
P.O. BOX 1686
JACKSON HOLE, WYOMING 83001

ENGINEER'S STATEMENT

I, JAMIE L. SECHLER, P.E., HEREBY STATE THAT I AM A REGISTERED ENGINEER OR LAND SURVEYOR IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING AND SURVEYING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

by JAMIE L. SECHLER, P.E. DATE
DAVIS, BOWEN & FRIEDEL, INC.
1 PARK AVE.
MILFORD, DELAWARE, 19963



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
08-04-2023	TOWN COMMENTS
11-16-2023	DELDOT COMMENTS
12-05-2023	TOWN, SCD & ARTESIAN COMMENTS
02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: AS NOTED
Dwn By: RPK
Proj No.: 1443B006

TITLE
C-001

MANMADE ROADSIDE FEATURES			
FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BOLLARD	○	●	
CURB, TYPE 1 AND 3	=====	=====	(C)
CURB OPENING WITH SIDEWALK			(CS)
FENCE - CHAINLINK OR STRANDED	-x-x-x-x-	=====	(F)
LAMP AND POST - RESIDENTIAL			
MAILBOX	MB	MB	
TRAFFIC SIGN AND POST			
CURB OPENING			(CO)

DRAINAGE FEATURES			
FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
FLARED END SECTION			(FE)
DRAINAGE MANHOLE	Ⓧ	○	(MH)
DRAINAGE INLET	□	□	(DI)
DIRECTIONAL FLOW ARROW	→	→	
RIPRAP			(RR)
DRAINAGE PIPE	=====	=====	(P)
UNDERDRAIN		→	(UD)
UNDERDRAIN OUTLET		→	(DI)
SAFETY END SECTION			(DI)
BIOFILTRATION SWALE		x-----BFS-----x	
DITCH CENTERLINE	→	→	
DRAINAGE JUNCTION BOX	J.B.	□	(JB)
DRAINAGE PIPE HEADWALL			

IDENTIFIERS	
FEATURE DESCRIPTION	ID
ABANDON BY CONTRACTOR	(ABC)
ABANDON BY OTHERS	(ABO)
ADJUST BY CONTRACTOR	(AC)
ADJUST BY OTHERS	(AO)
CONVERT TO JUNCTION BOX	(CJB)
CONVERT TO DRAINAGE MANHOLE	(CMD)
DO NOT DISTURB	(DND)
PEDESTRIAN CONNECTION/TYPE	(DI)
PEDESTRIAN CONNECTION/TYPE WITHOUT DETECTABLE WARNING SYSTEM	(DI)
RELOCATE BY CONTRACTOR	(RLC)
RELOCATE BY OTHERS	(RLO)
REMOVE BY CONTRACTOR	(RMC)
REMOVE BY OTHERS	(RMO)

UTILITY FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
ELECTRIC - UNDERGROUND	UG-E	
ELECTRIC MANHOLE	Ⓧ	
ELECTRIC METER	EM	
ELECTRIC TRANSFORMER	□	□
GAS - UNDERGROUND	UGG	UGG
GAS MANHOLE	Ⓧ	
GAS METER	G.M.	
LIGHT POLE		
GAS VALVE	G.V.	
RAILROAD TRACKS	=====	=====
SANITARY MAIN	EX-SS	SS
SANITARY SEWER MANHOLE	Ⓧ	○
SOIL BORING LOCATION		
TELEPHONE TEST POINT	T	
UTILITY POLE GUY WIRE ANCHOR	→	→
UTILITY POLE	Ⓧ	Ⓧ
WATER MAIN		
WATER - FIRE HYDRANT	→	→
WATER VALVE	Ⓧ	Ⓧ
WATER METER/LATERAL		→
SANITARY SEWER CLEANOUT/LATERAL	Ⓧ	→

NATURAL FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
HEDGEROW OR THICKET		
SHRUBBERY		
TREE - CONIFEROUS		
TREE - DECIDUOUS		
TREE LINE		
CONTOUR ELEVATION & LABEL	---33---	---33---
ELEVATION	44.70 x	21.96

RIGHT-OF-WAY FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
PERMANENT EASEMENT	---++---	---++---
PROPERTY LINE	-----	-----
RIGHT-OF-WAY BASELINE	---+---	---+---
RIGHT-OF-WAY LINE	-----	-----
TAX DITCH RIGHT OF WAY		---TAX RW---
DELDOT PERMANENT EASEMENT	---PE---	---PE---
TEMPORARY CONSTRUCTION EASEMENT		---TCE---

SURVEY CONTROL & MONUMENTATION		
FEATURE DESCRIPTION	EXISTING	PROPOSED
SURVEY BENCHMARK LOCATION		
IRON ROD WITH CAP SET		●
CONCRETE MONUMENT	CMF	■
IRON PIPE FOUND	IPF	○
IRON ROD FOUND	IRF	○

MISCELLANEOUS FEATURES		
FEATURE DESCRIPTION	EXISTING	PROPOSED
LIMIT OF DISTURBANCE		
WETLAND BOUNDARY - DELINEATED	---ψ---	---ψ---

DAVIS BOWEN & FRIEDEL, INC.
 ARCHITECTS - ENGINEERS - SURVEYORS
 MILTON, DELAWARE
 302.241.1441
 410.253.9191

THE GRANARY AT DRAPER FARM
 SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
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Date: JUNE 2023
 Scale: NTS
 Dwn By: RPK
 Proj No.: 1443B006

LEGEND

Dwg No.: C-002

CIVIL PLAN GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:
 TOWN OF MILTON 302-684-4110
 DAVIS, BOWEN & FRIEDEL, INC. 302-424-1441
 SUSSEX CONSERVATION DISTRICT 302-856-2105
 DEPARTMENT OF TRANSPORTATION, SOUTH DISTRICT PERMITS SUPERVISOR 302-853-1342
 ARTESIAN WASTEWATER MANAGEMENT INC. 302-218-2023
- ORIGINAL BOUNDARY AND TOPOGRAPHIC SURVEY WAS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC. JANUARY 2021.
- CONTRACTOR SHALL PROVIDE STAKEOUT NECESSARY FOR THE INSTALLATION OF UTILITIES, STORM DRAINS, PAVING AND ALL OTHER SITE WORK INCLUDED IN THESE PLANS. ALL STAKEOUT WORK IS TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF DELAWARE.
- THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE DESIGN ENGINEER AND AGENCY AUTHORIZATIONS AS MAY BE REQUIRED..
- ACCORDING TO FEMA FLOOD INVENTORY MAP #10005C0164J, DATED JANUARY 6, 2005, THE SITE IS NOT IMPACTED BY THE 100 YEAR FLOODPLAIN.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE DURING THE COURSE OF DEVELOPMENT AND CONSTRUCTION BUT SHALL BE PUSHED ASIDE DURING SUCH PERIOD WHILE FILLING AND GRADING. SUCH TOPSOIL SHALL THEN BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST SIX INCHES OF COVER TO ALL AREAS NOT OCCUPIED BY BUILDING OR OTHER FACILITIES AND SHALL BE ESTABLISHED SO AS TO REMAIN IN PLACE WITH THE PLANTING OF AN 80% MIXTURE OF PERENNIAL GRASS SEED.
- AS-BUILT PLANS SHALL BE PROVIDED TO THE TOWN FOR ALL UTILITY INFRASTRUCTURE CONSTRUCTED IN ACCORDANCE WITH TOWN CODE.
- BUILDINGS AND OTHER STRUCTURES ARE PROHIBITED FROM UTILITY EASEMENTS.

DRAINAGE, GRADING AND SEDIMENT CONTROL GENERAL NOTES

- ALL STORM DRAIN PIPING, INLET, MANHOLE, AND END SECTION INSTALLATION SHALL BE IN ACCORDANCE WITH DNREC AND DELDOT CONSTRUCTION STANDARDS.
- ALL STORM DRAIN DESIGNATED AS RCP IS TO BE REINFORCED CONCRETE PIPE, MEETING AASHTO M 170 SPECIFICATIONS, STORM DRAIN SEE PIPE SCHEDULE FOR PIPE CLASSIFICATION.
- PIPE SPAN LENGTHS ARE MEASURED FROM C/L OF STRUCTURE TO C/L OF STRUCTURE, WHERE APPLICABLE ARE ROUNDED TO THE NEAREST FOOT.
- ALL SEALS MUST BE WATERTIGHT WITH NON SHRINK GROUT OR RUBBER GASKETS AND CONCRETE STRUCTURES MUST BE PRECAST OR POURED IN PLACE.
- CONTRACTOR SHALL GRADE, TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS OF CONSTRUCTION, INCLUDING PIPE INSTALLATION OR DITCH CONSTRUCTION. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL SLOPES GREATER THAN 3:1.
- THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL MEASURES TO PROTECT STOCKPILE AREAS AND STORAGE AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE STAGING AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- EQUIPMENT AND/OR STOCKPILE MATERIAL SHALL NOT BE STORED IN THE DRIPLINE AREA OF ANY TREE.
- IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE SUSSEX CONSERVATION DISTRICT.
- CORRUGATED POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH DELDOT SPECIAL PROVISIONS 6125XX.
- ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES CAN BE FOUND ON THE EROSION AND SEDIMENT CONTROL PLANS.
- A TEN (10) FOOT STRIP IS HEREBY RESERVED AS AN EASEMENT FOR DRAINAGE AND UTILITIES ALONG ALL STREET RIGHTS-OF-WAY AND A FIVE (5) STRIP ALONG ALL SIDES AND REAR LOT LINES.

DEMOLITION AND SAFETY GENERAL NOTES

- MISS UTILITY OF DELMARVA SHALL BE NOTIFIED THREE CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
- EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELMARVA.
- THE CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET OR RECONSTRUCT ALL OBSTRUCTIONS IN THE ROAD WAY, INCLUDING, BUT NOT LIMITED TO, MAILBOXES, SIGNS, LANDSCAPING, LIGHTING, PLANTERS, CULVERTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL, REGULATORY, WARNING AND INFORMATIONAL SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE. THE COST SHALL BE INCLUDED IN THE COST OF ITEMS BID.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY AND PROTECTION.
- DELAWARE REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS ON CONSTRUCTION SITES. ANY SOLID WASTE FOUND DURING THE EXCAVATION FOR STRUCTURES AND UTILITY LINES ON AND OFF SITE MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM. ADDITIONAL COSTS WILL BE NEGOTIATED WITH THE OWNER.
- DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL WORK MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.

INTERNAL PAVING / CONCRETE NOTES

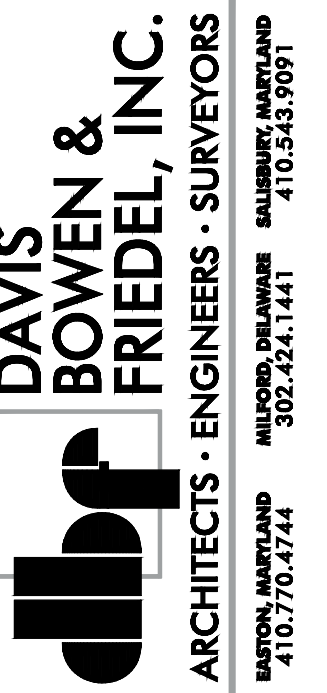
- BITUMINOUS CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE 2022 DELDOT STANDARD SPECIFICATIONS OR LATEST EDITION FOR ROAD AND BRIDGE CONSTRUCTION INCLUDING SPECIAL PROVISIONS.
 1.1. SECTION 401 FOR PLACEMENT OF TACK COAT AND BITUMINOUS CONCRETE.
 1.2. BITUMINOUS CONCRETE SHALL BE FROM A DELDOT APPROVED PLANT.
 1.3. BITUMINOUS CONCRETE SHALL NOT BE APPLIED WHEN THE TEMPERATURE IS BELOW 40° F OR ON ANY WET OR FROZEN SURFACE.
- ALL DISTURBED AREAS NOT COVERED WITH IMPERVIOUS MATERIAL, SHALL BE TOPSOILED (6" MINIMUM), FERTILIZED, SEEDDED AND MULCHED.
- ALL SIGNING AND MAINTENANCE OF TRAFFIC IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL FOLLOW THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- DESIGN, FABRICATION, AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- FOR FINAL PERMANENT PAVEMENT MARKINGS, EPOXY RESIN PAINT SHALL BE REQUIRED FOR LONG LINE STRIPING AND THERMO WILL BE REQUIRED FOR SHORT LINE STRIPING, I.E. SYMBOLS/LEGENDS.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION, SHALL COMPLY WITH THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION), AND SHALL BE NCHRP - 350 APPROVED AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN GOOD CONDITION FOR DURATION OF USE.
- BREAKAWAY POSTS SHALL BE USED WHEN INSTALLING ALL SIGNS. DETAIL CAN BE FOUND IN DELDOT'S STANDARD CONSTRUCTION DETAILS.
- PLAN LOCATION AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PAVING IS INSTALLED TO THE ELEVATIONS SHOWN AND THAT NO PONDING OF WATER EXISTS AFTER PAVING IS COMPLETE. PONDING IS DEFINED AS WATER STANDING IN AN AREA MORE THAN 1 HOUR AFTER A RAINFALL EVENT THAT PRODUCES RUNOFF. ELIMINATION OF PONDING WILL BE COMPLETED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- OPEN-CUT TRENCHES AND PROVIDE PAVEMENT RESTORATION IN ACCORDANCE WITH DELDOT STANDARDS AND SPECIFICATIONS.
- CONCRETE SHALL BE PLACED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS.

POTABLE WATER DISTRIBUTION GENERAL NOTES

- TOWN OF MILTON REPRESENTATIVE SHALL BE ON-SITE AT ALL TIMES WHEN THE CONTRACTOR IS INSTALLING AND/OR TESTING THE WATER DISTRIBUTION AND SERVICE SYSTEM.
- ALL WATER SYSTEM CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE TOWN OF MILTON STANDARD SPECIFICATIONS AND DETAILS FOR UTILITY DESIGN AND CONSTRUCTION.
- ALL WORK MUST BE HYDROSTATICALLY TESTED AND THEN DISINFECTED. CONTRACTOR SHALL SUPPLY ALL MATERIALS TO TEST AND DISINFECT THE SYSTEM. CONTRACTOR IS REQUIRED TO OBTAIN A CERTIFICATE TO OPERATED FROM DHSS OFFICE OF DRINKING WATER.
- ALL AREAS DISTURBED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. IF ADDITIONAL WORK IS REQUIRED IN THE FUTURE THEN THE AREA SHALL BE STABILIZED IN ACCORDANCE WITH THE SEDIMENT AND STORMWATER MANAGEMENT PLANS.
- WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM SEWER MAINS. WATER CROSSING SEWER MAINS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 18" TO OUTSIDE OF PIPES. IF AN 18" CLEARANCE CANNOT BE OBTAINED, A 10 LINEAR FOOT CONCRETE ENCASEMENT SHALL BE USED ON THE SEWER MAIN.
- THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
- PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. THE CONTRACTOR SHALL ADJUST WATERLINE LOCATIONS AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
- ALL WATER MAINS 6" AND UP SHALL BE C-909 CL235 PVC.
- ALL VALVES WITHIN PAVEMENT SHALL BE INSTALLED WITH A CONCRETE COLLAR. VALVE BOXES ARE NOT PERMITTED IN CURBS, SIDEWALKS, OR ADA RAMPS.
- ALL FIRE HYDRANTS SHALL BE KENNEDY GUARDIAN K81-DD. CONTACT LOCAL FIRE CHIEF TO DETERMINE THREAD TYPE.
- ALL RESIDENTIAL WATER SERVICES SHALL BE POLY, SDR-9 (1" C.T.S).
- ALL SERVICE FITTINGS SHALL BE FORD, UNLESS OTHERWISE APPROVED BY THE TOWN, AND ALL TAPPING SADDLES SHALL BE ROMEX, STAINLESS STEEL, FULL CONTINUOUS BAND.
- ALL METERS SHALL BE KAMSTRUP AND PURCHASED FROM THE TOWN.
- CONTRACTOR SHALL INSTALL TRACER WIRE ALONG THE WATER MAIN AND FROM THE MAIN TO THE CURB STOP.

SANITARY SEWER GENERAL NOTES

- CONTRACTOR SHALL PROVIDE STAKEOUT SURVEY NECESSARY FOR THE INSTALLATION OF UTILITY WORK AND APPURTENANCES AS REQUIRED PER ARTESIAN WASTEWATER MANAGEMENT, INC. STANDARDS AND SPECIFICATIONS. (LATEST EDITION)
- SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH ARTESIAN WASTEWATER MANAGEMENT, INC., STANDARDS AND SPECIFICATIONS AND DETAILS.
- ALL SANITARY SEWER MATERIALS AND APPURTENANCES SHALL MEET OR EXCEED THOSE REQUIRED BY ARTESIAN WASTEWATER MANAGEMENT, INC., STANDARDS AND SPECIFICATIONS AND DETAILS.
- SANITARY SEWER LATERAL SHALL BE 8" SDR-26 GREEN PVC (UNLESS OTHERWISE NOTED). SEWER LATERAL SHALL INCLUDE A 8" CLEANOUT, WYE, AND CAP JUST INSIDE THE RIGHT-OF-WAY LINE OR UTILITY EASEMENT.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- TOP OF MANHOLE ELEVATIONS ARE TOP OF MANHOLE FRAME AND COVER.
- PIPE SPAN LENGTHS ARE MEASURED FROM C/L OF STRUCTURE TO C/L OF STRUCTURE, WHERE APPLICABLE ARE ROUNDED TO THE NEAREST FOOT.
- THE CONTRACTOR SHALL FIELD VERIFY INVERTS AND LOCATION OF EXISTING SANITARY SEWER MAINS OR MANHOLES TO WHICH NEW CONSTRUCTION WILL CONNECT.
- THE SEWER LATERAL SHALL HAVE A MINIMUM COVER OF 3.0 FEET FROM PROPOSED GRADE, AS MEASURED FROM THE TOP OF PIPE.
- THE CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH OR ACCESS PITS WHICH CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKING DAY. STEEL PLATES SHALL BE USED ON ANY TRENCH OR ACCESS PITS WHICH MUST REMAIN OPEN OVERNIGHT. THIS REQUIREMENT DOES NOT APPLY TO AREAS COMPLETELY CLOSED AND SECURE FROM VEHICULAR OR PEDESTRIAN TRAFFIC.
- FINAL APPROVED SET OF PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
- THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES, EASEMENTS, AND RIGHT-OF-WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO ARTESIAN WASTEWATER MANAGEMENT, INC. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COST OF ITEMS BID.
- ALL TESTING AND INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH ARTESIAN WASTEWATER MANAGEMENT, INC. STANDARDS AND SPECIFICATIONS.
- ALL SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 26 OR DUCTILE IRON (EPOXY COATED) PIPE (DIP), CLASS 52. ALL DIP SHALL HAVE AN BITUMINOUS COATING ON THE OUTSIDE SURFACE. ALL FITTINGS SHALL BE SDR-26.
- ALL PIPE SHALL HAVE DETECTOR TAPE AS REQUIRED BY ARTESIAN WASTEWATER MANAGEMENT, INC. STANDARDS AND SPECIFICATIONS.
- SEWER AND FORCE MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM WATER MAINS. SEWER CROSSING WATER MAINS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 18" TO OUTSIDE OF PIPES. IF AN 18" CLEARANCE CANNOT BE OBTAINED, A 10 LINEAR FOOT CONCRETE ENCASEMENT SHALL BE USED ON THE SEWER MAIN.



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

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02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: NTS
 Dwn By: RPK
 Proj No.: 1443B006

GENERAL NOTES

Dwg No.: **C-003**

C-501

C-502

C-503

C-504

N/F
KRISTIE M. BROWN
235-20.00-18.00
D.B. 1708/87
ZONE: AR-1

N/F
C D CAREY FARMS LLC.
235-20.00-17.00
D.B. 2785/103
ZONE: AR-1

ACTIVE
OPEN SPACE

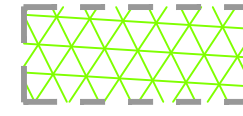
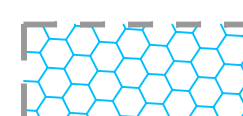

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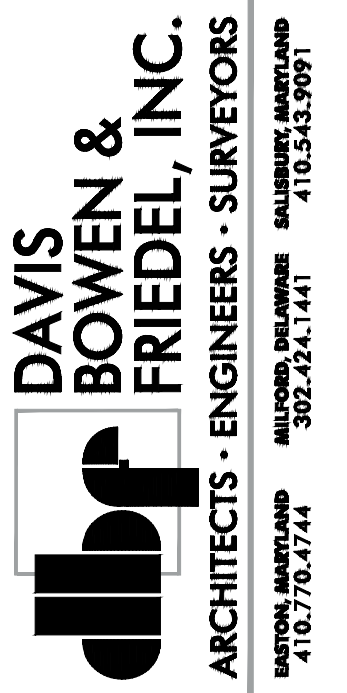
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OPEN SPACE

FUTURE PHASE

FUTURE PHASE

SANITARY SEWER PHASING

-  PHASE 1 - LOTS 1-22, 107-108, 118-155, PUMPSTATION (62 EDU'S)
-  PHASE 2 - LOTS 23-24, 37-63, 93-106, 109-117, 156-180 (77 EDU'S)
-  PHASE 3 - LOTS 25-36, 64-92 (41 EDU'S)



THE GRANARY AT DRAPER FARM
SECTION I
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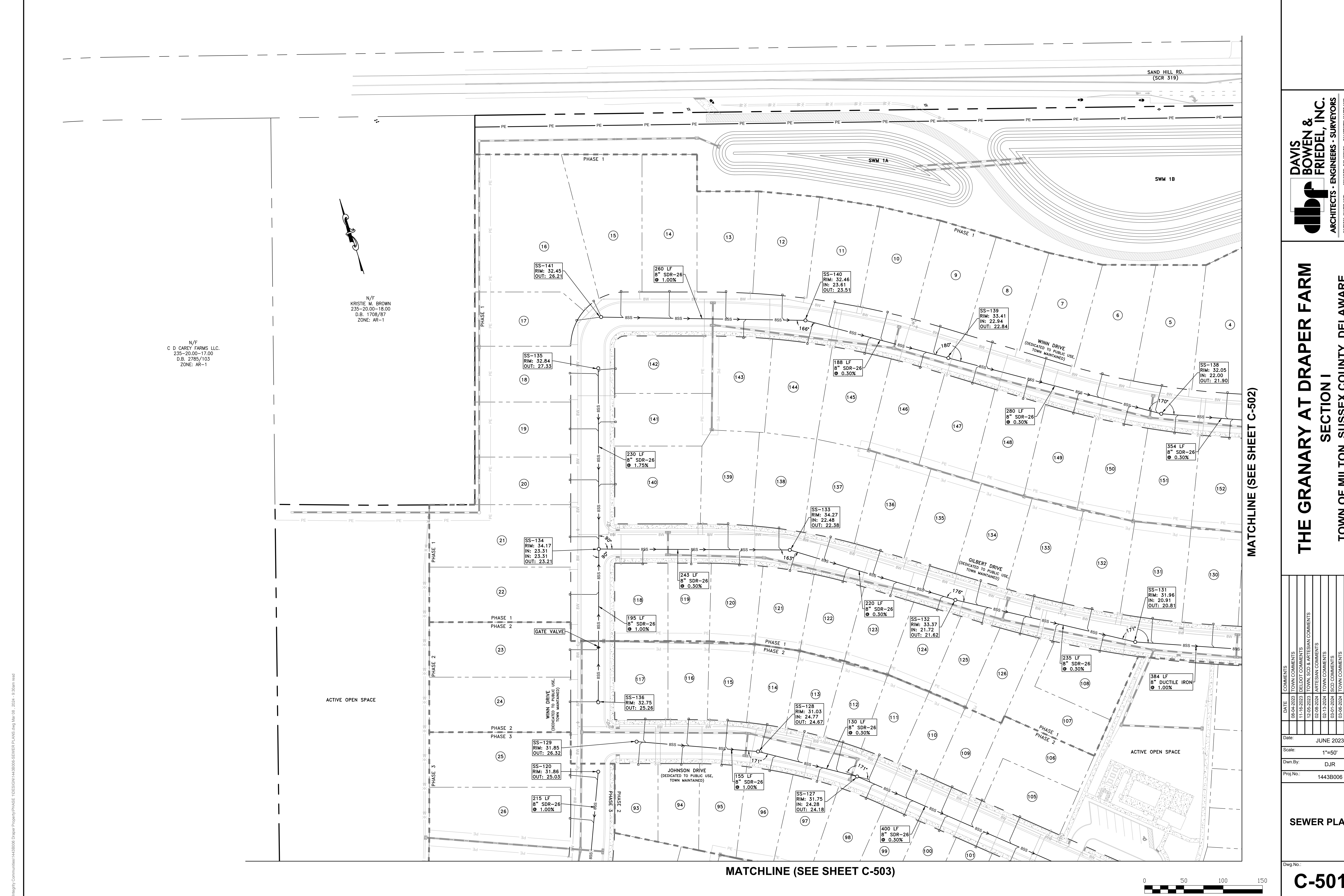
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03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: 1"=100'
Dwn By: DJR
Proj No.: 1443B006

SEWER OVERVIEW

Dwg No.: **C-500**

P:\Integrify\Comments\1443B006 Draper Property\PHASE 1\DESIGN\1443B006-SEWER PLANS.dwg Mar 08, 2024, 9:20am read



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D.B. 1708/87
ZONE: AR-1

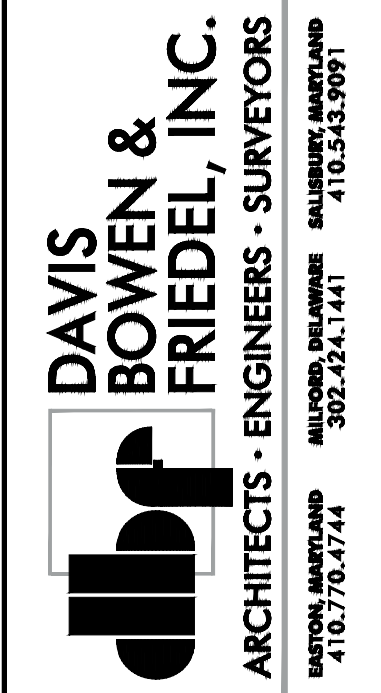
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KRISTIE M. BROWN
235-20.00-18.00
D.B. 1708/87
ZONE: AR-1

ACTIVE OPEN SPACE

ACTIVE OPEN SPACE

MATCHLINE (SEE SHEET C-502)

MATCHLINE (SEE SHEET C-503)



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

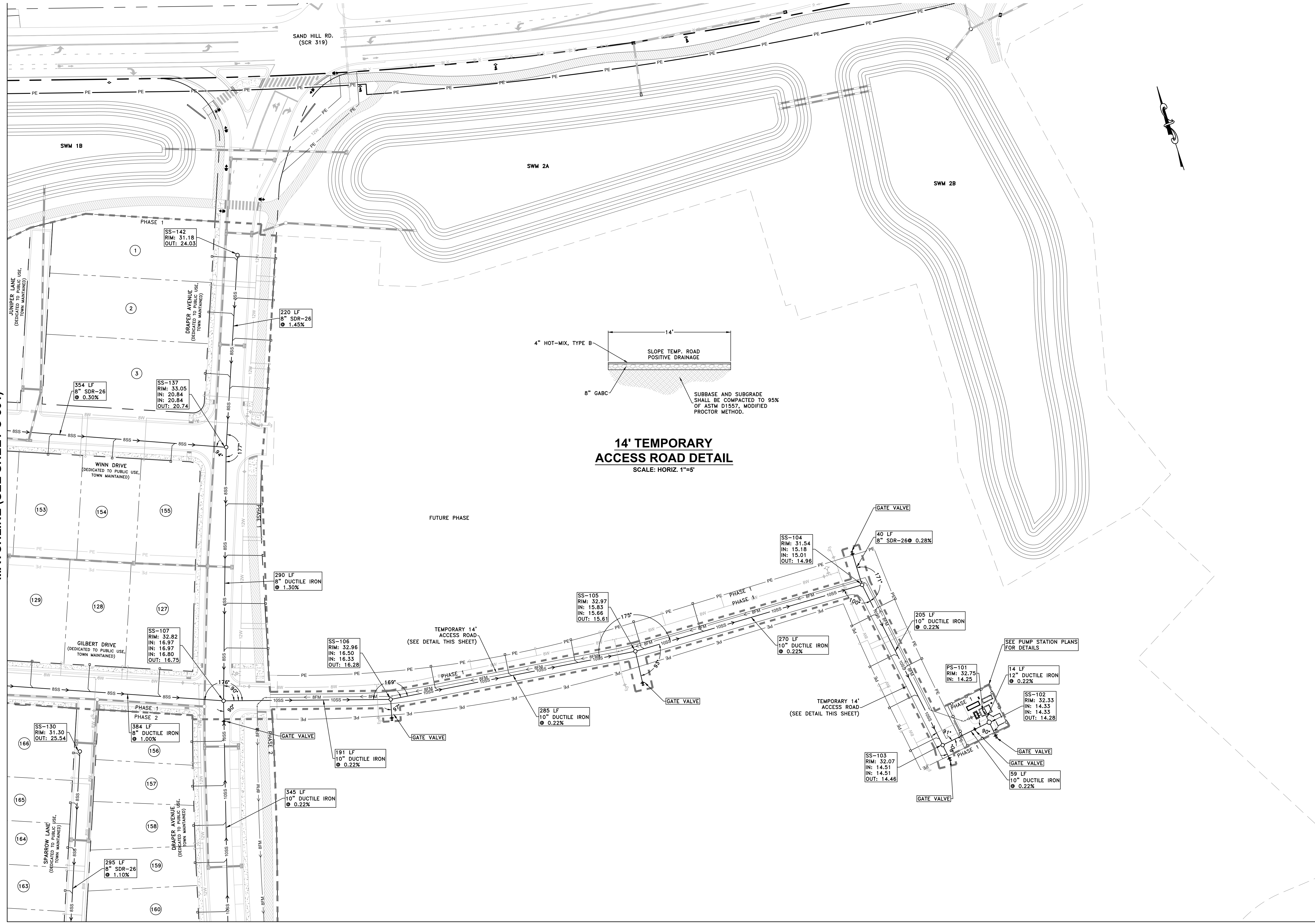
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03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: 1"=50'
Dwn By: DJR
Proj No.: 1443B006

SEWER PLAN

Dwg No.: **C-501**

MATCHLINE (SEE SHEET C-501)



14' TEMPORARY ACCESS ROAD DETAIL
SCALE: HORIZ. 1"=5'

MATCHLINE (SEE SHEET C-504)



THE GRANARY AT DRAPER FARM
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03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: 1"=50'
Dwn By: DJR
Proj No.: 1443B006

SEWER PLAN

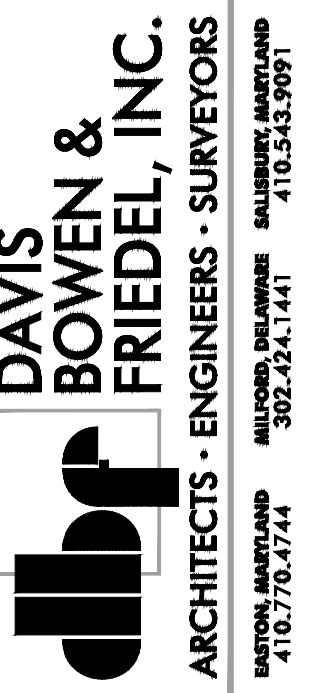
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MATCHLINE (SEE SHEET C-501)

N/F
C. D. CAREY FARMS LLC.
235-20.00-17.00
D.B. 2785/103
ZONE: AR-1



MATCHLINE (SEE SHEET C-504)



THE GRANARY AT DRAPER FARM
SECTION I
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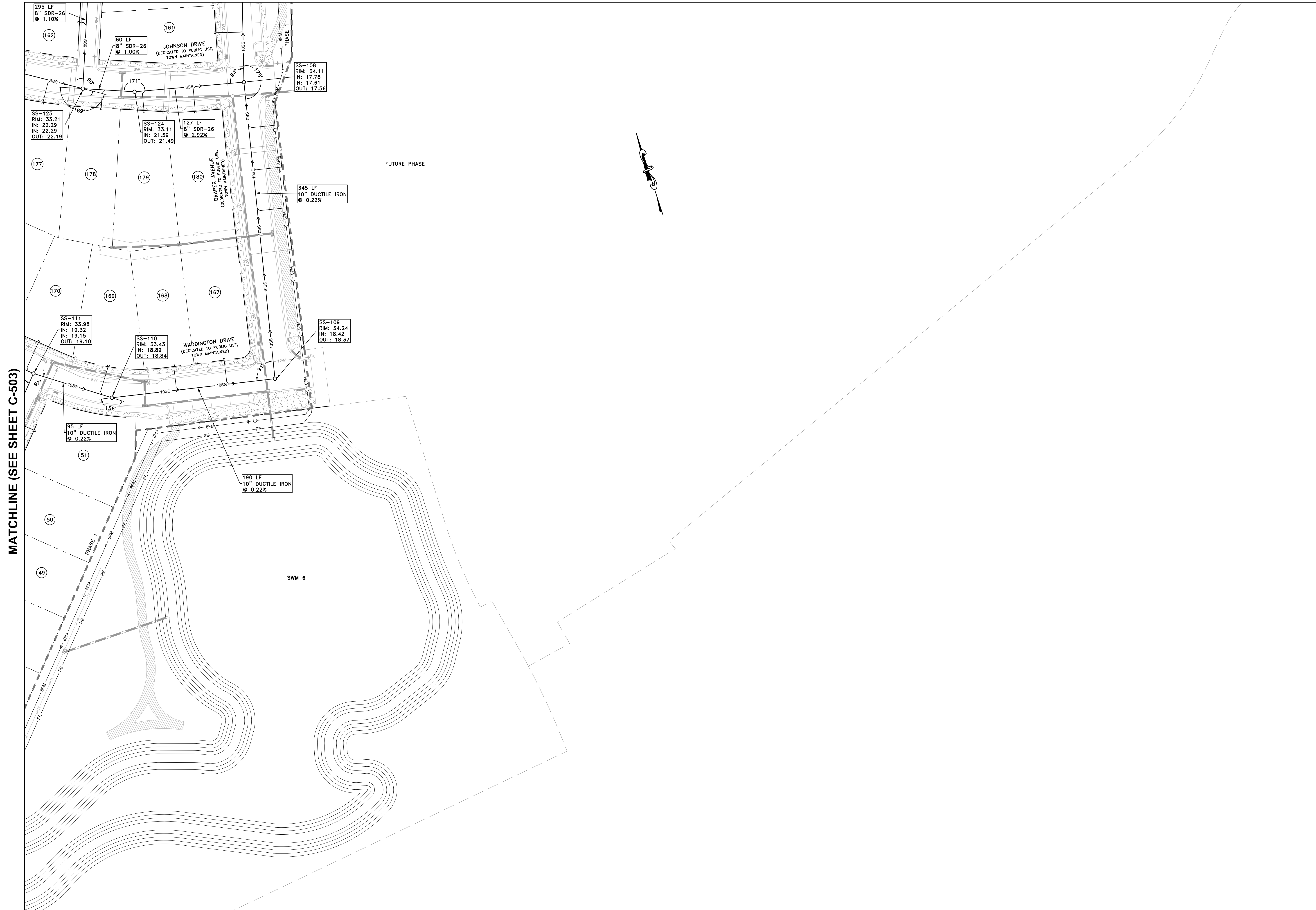
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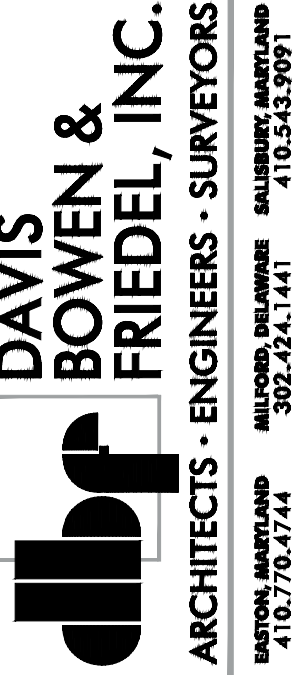
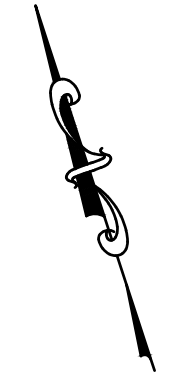
SEWER PLAN

Dwg No.: **C-503**

MATCHLINE (SEE SHEET C-502)



MATCHLINE (SEE SHEET C-503)



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ARCHITECTS • ENGINEERS • SURVEYORS
MILTON, DELAWARE 19968-1471
410.343.5791

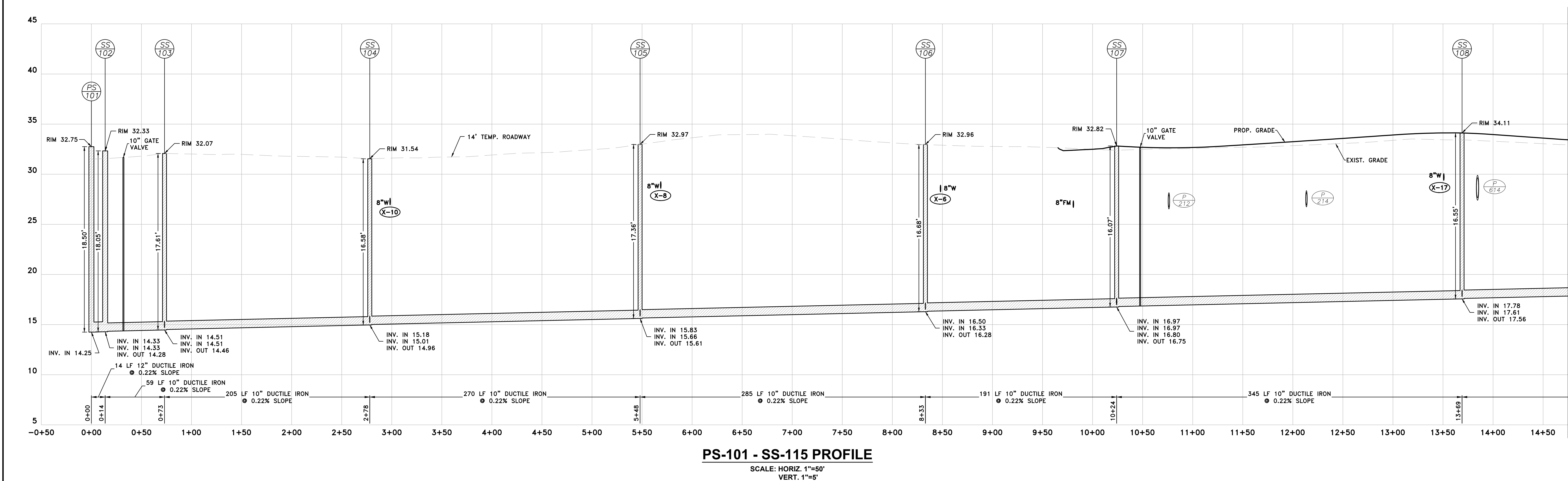
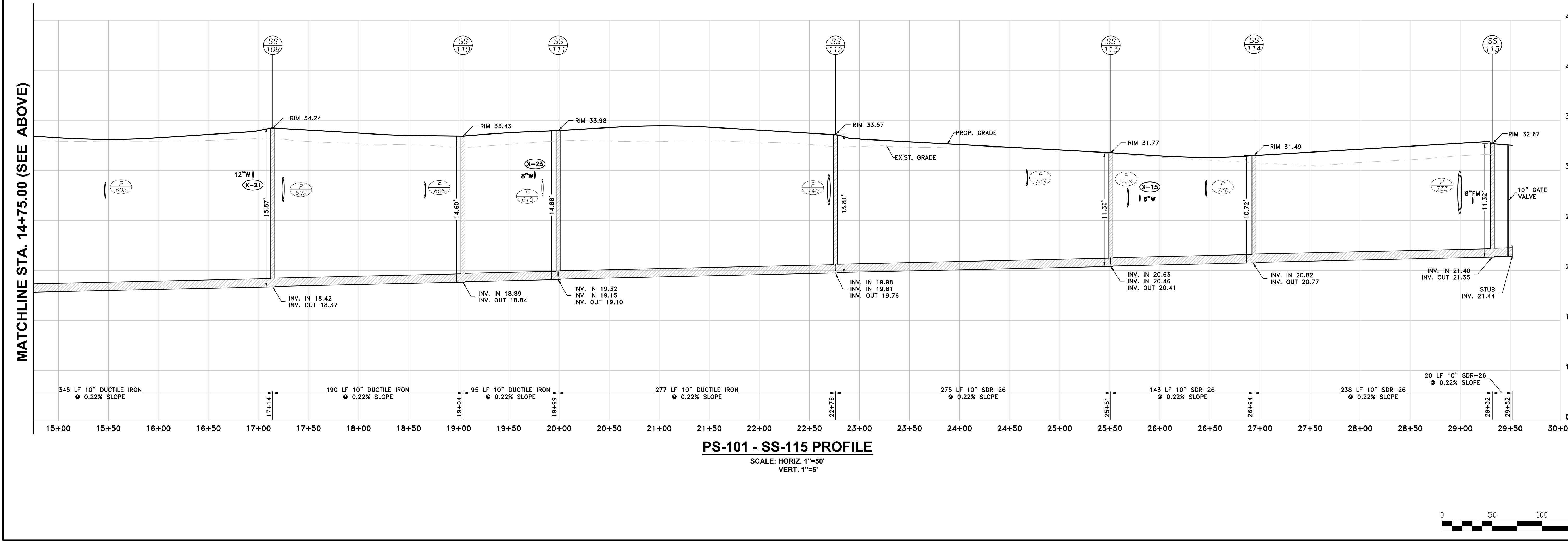
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Date: JUNE 2023
Scale: 1"=50'
Dwn By: DJR
Proj No.: 1443B006

SEWER PLAN

Dwg No.: **C-504**



MATCHLINE STA. 14+75.00 (SEE ABOVE)

MATCHLINE STA. 14+75.00 (SEE BELOW)

DAVIS BOWEN & FRIEDEL, INC.
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MILTON, DELAWARE
902.431.1411
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THE GRANARY AT DRAPER FARM
SECTION I
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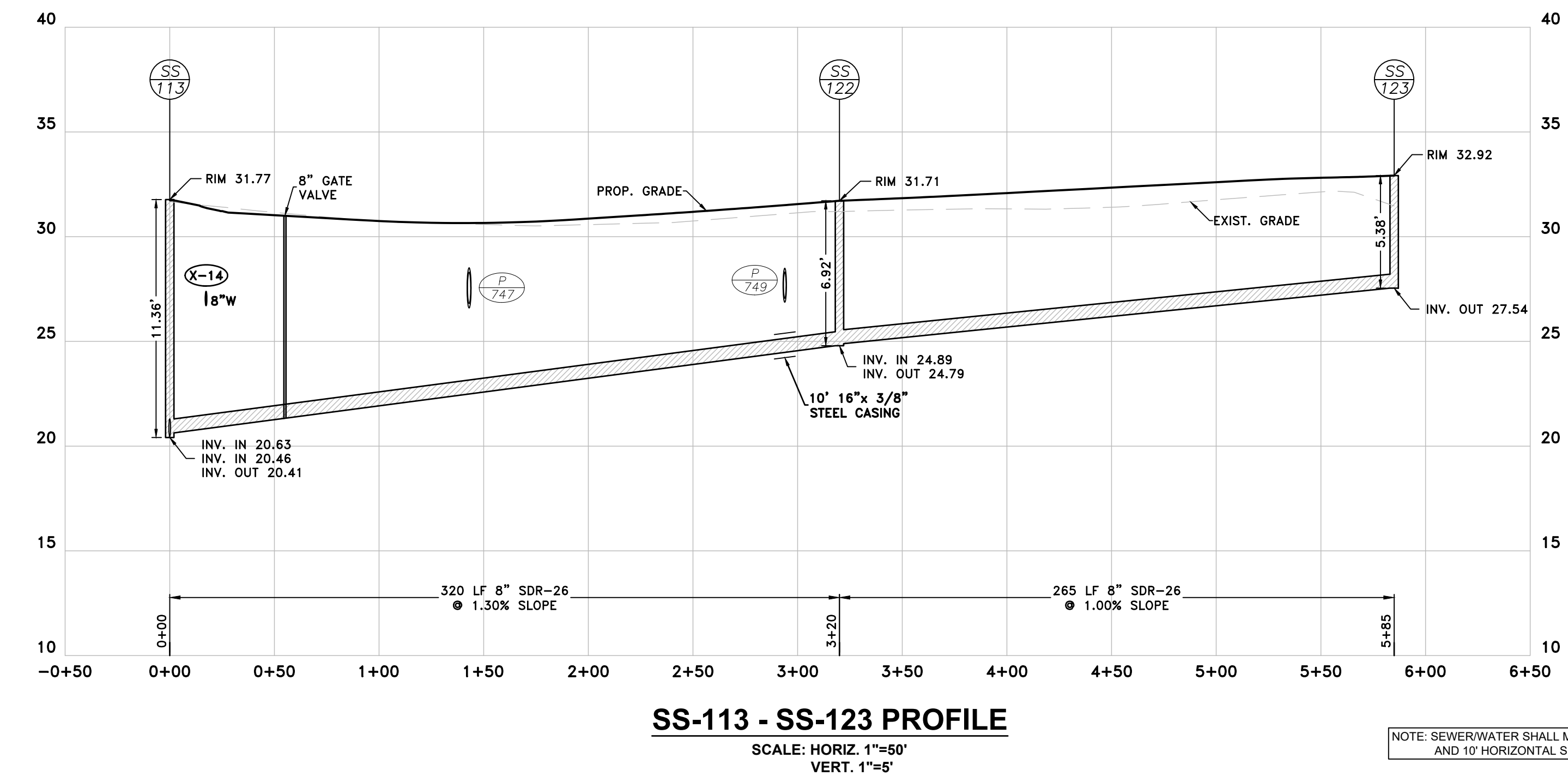
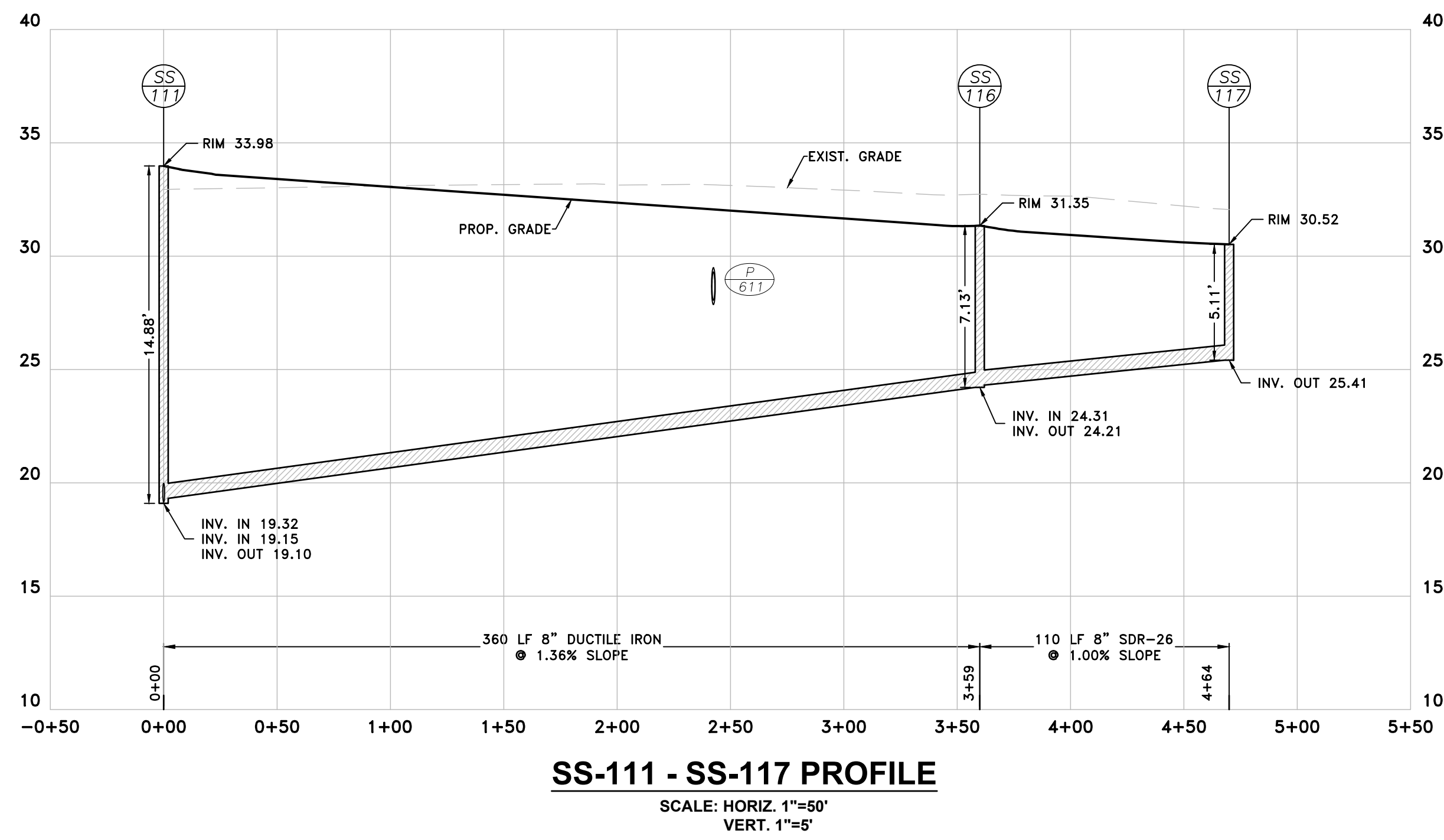
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Date: JUNE 2023
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VERT. 1"=5'
Dwn By: DJR
Proj No.: 1443B006

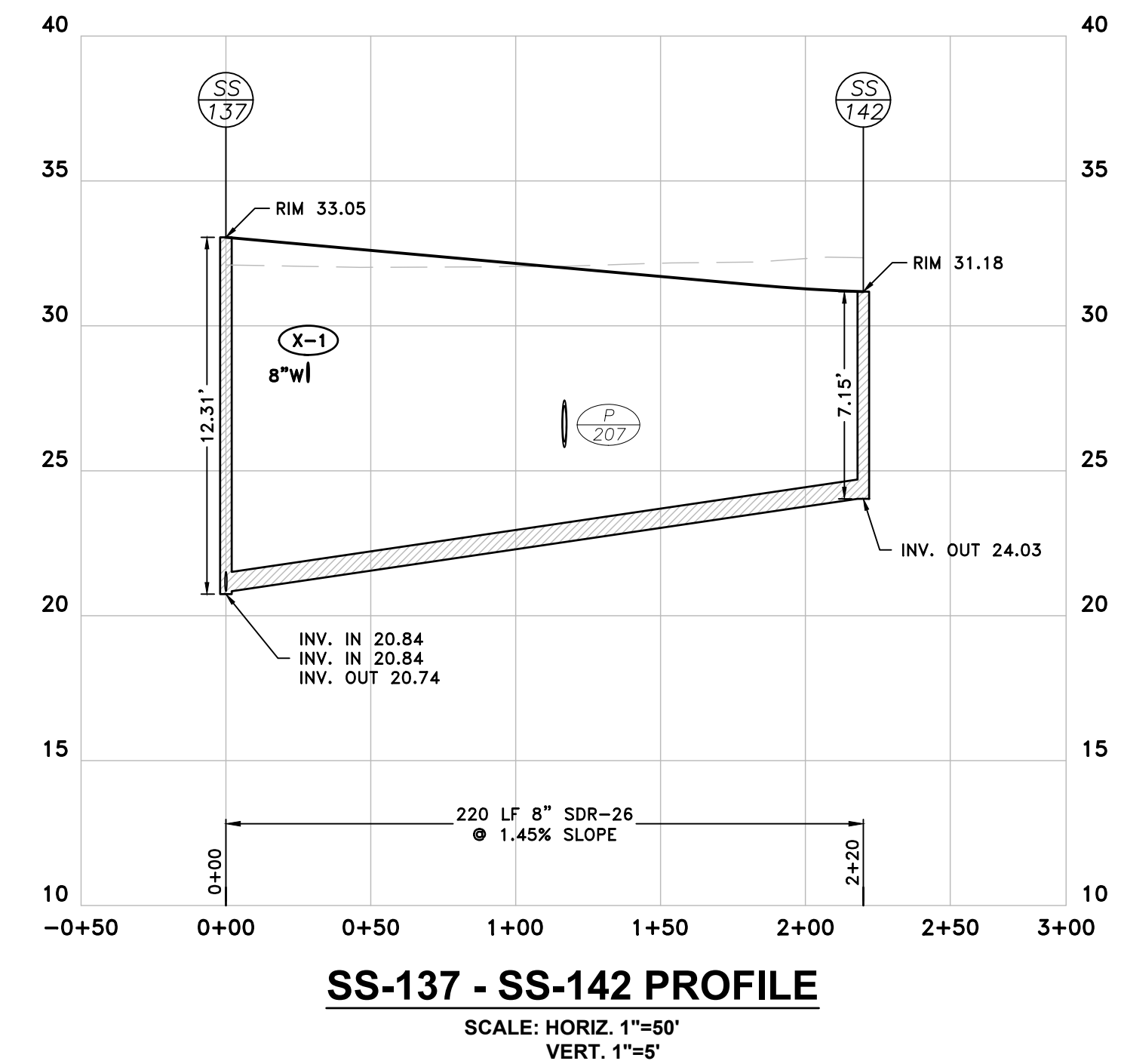
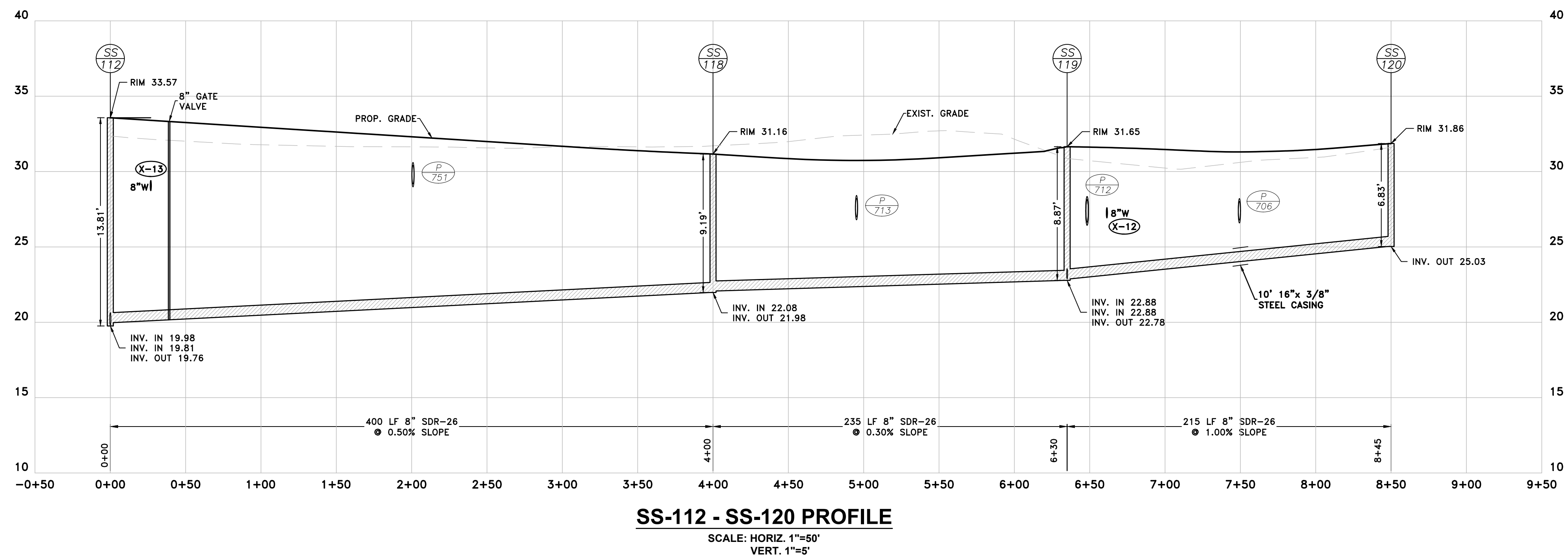
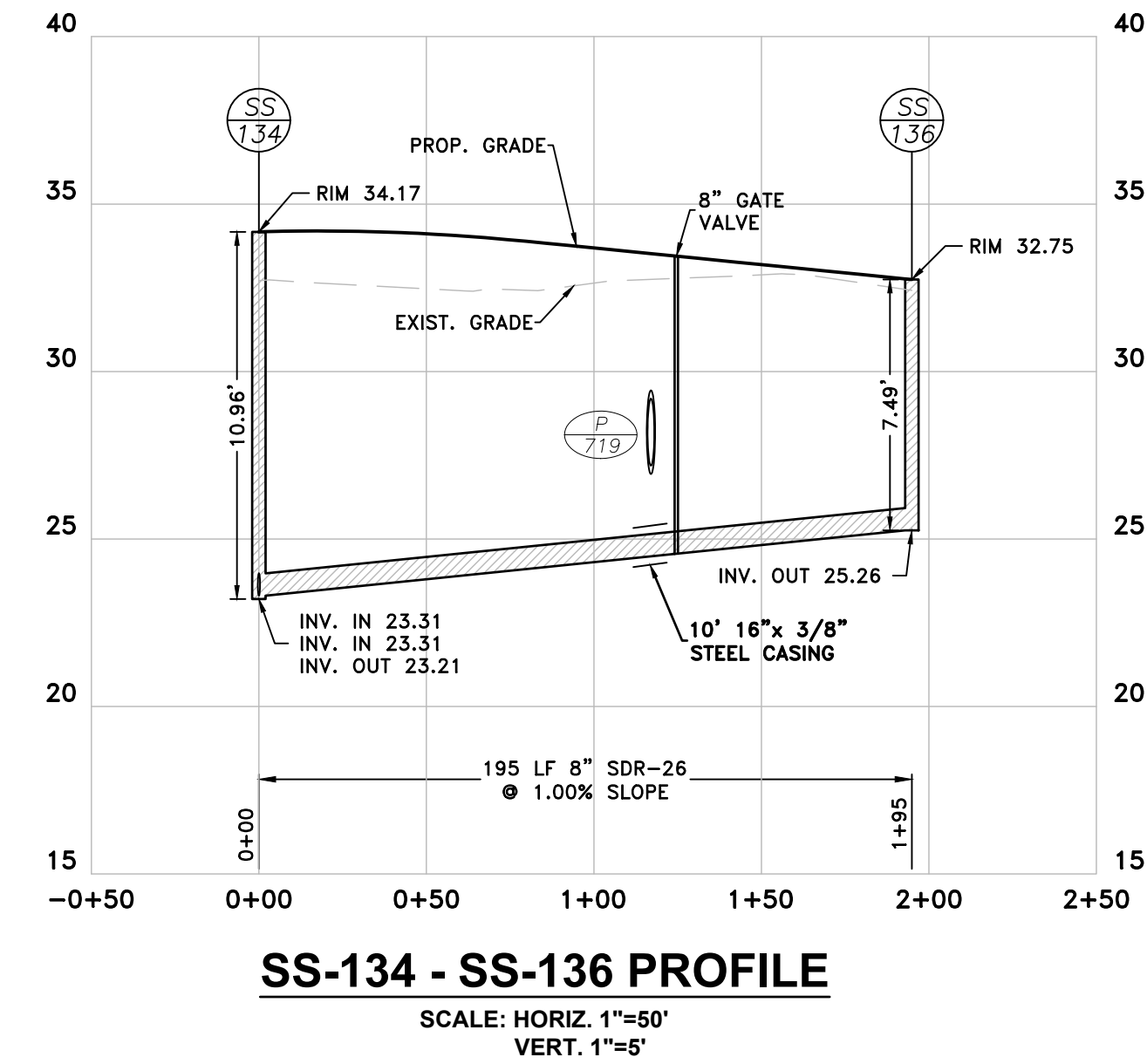
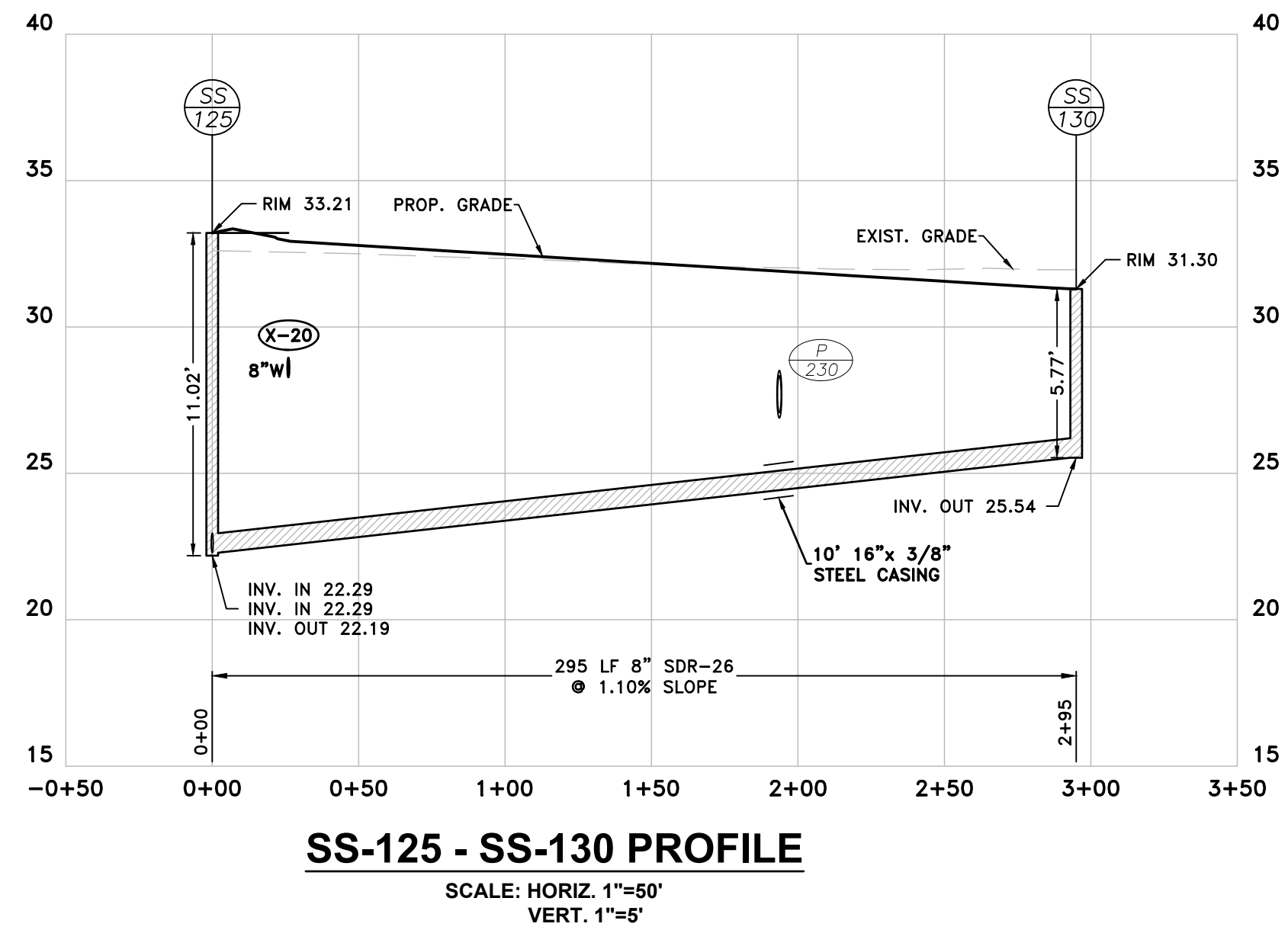
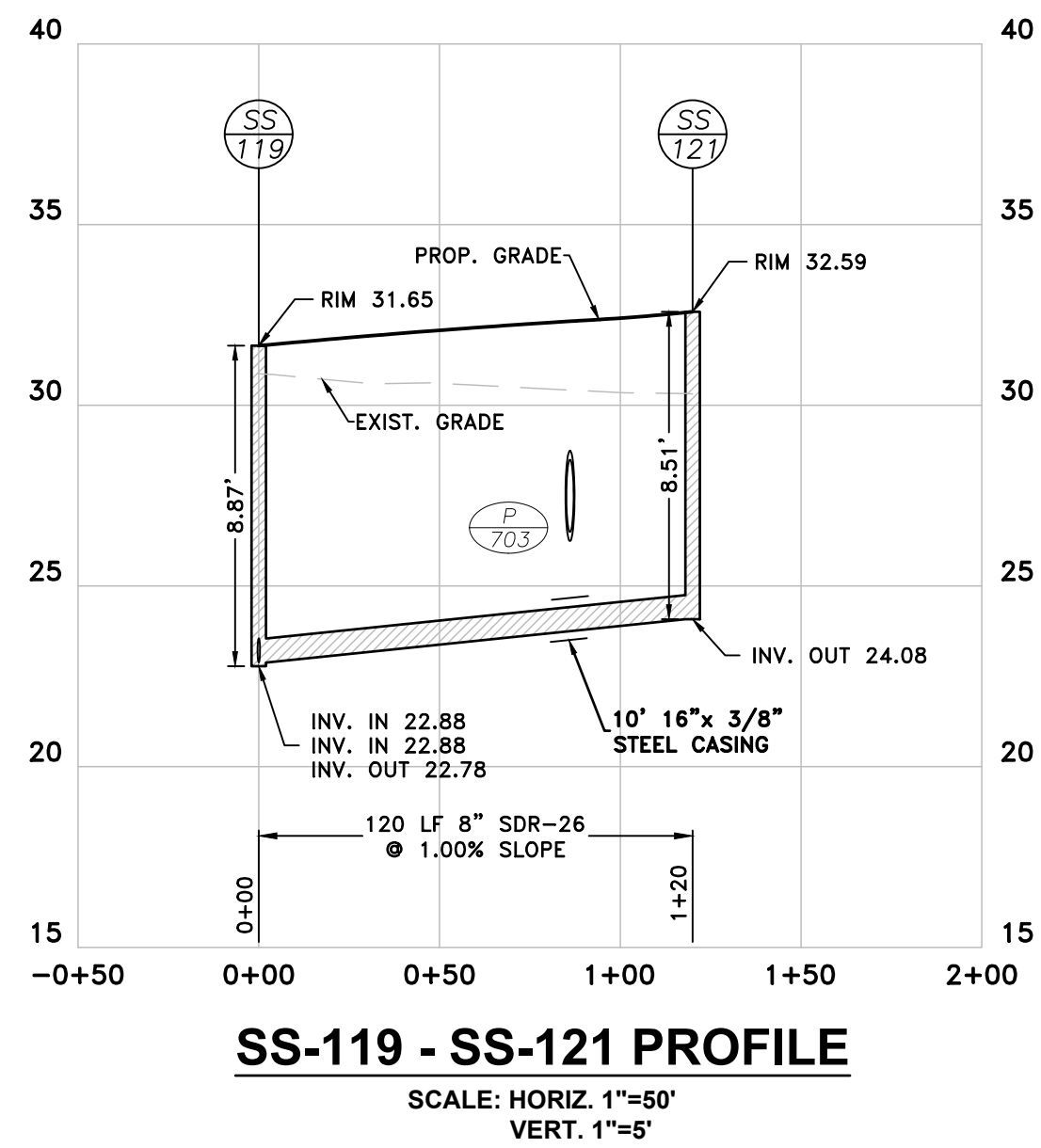
SEWER PROFILES

Dwg No.: **C-505**





NOTE: SEWERWATER SHALL MAINTAIN 18" VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION.

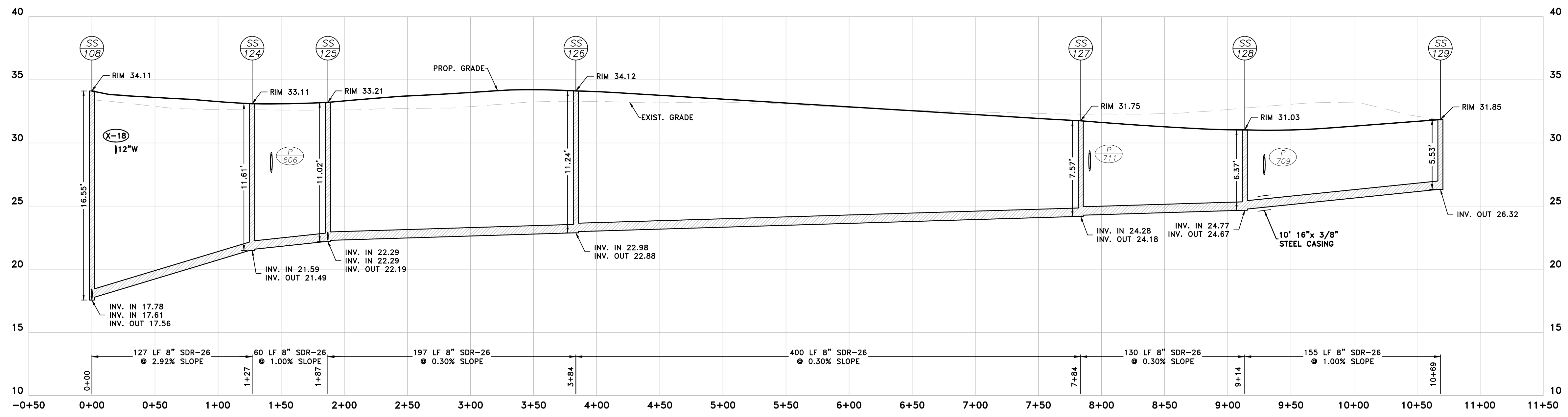


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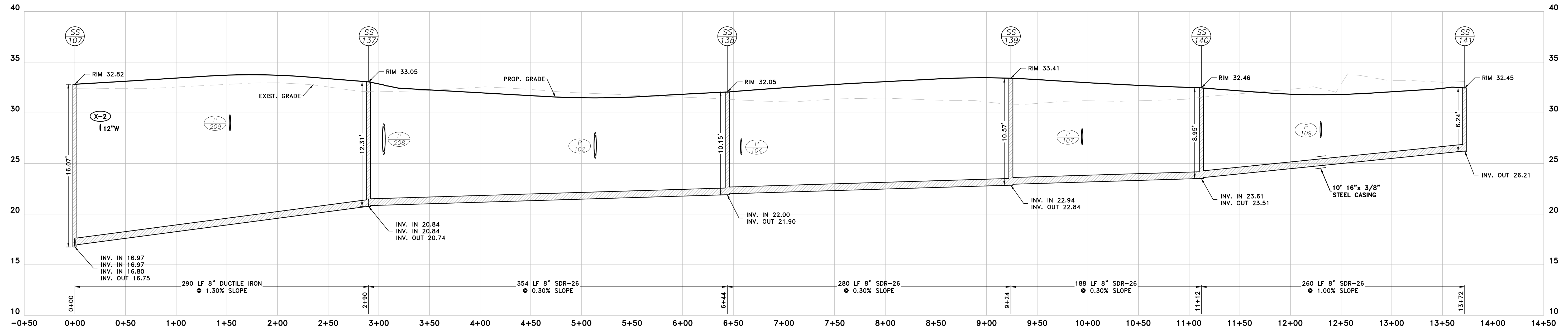
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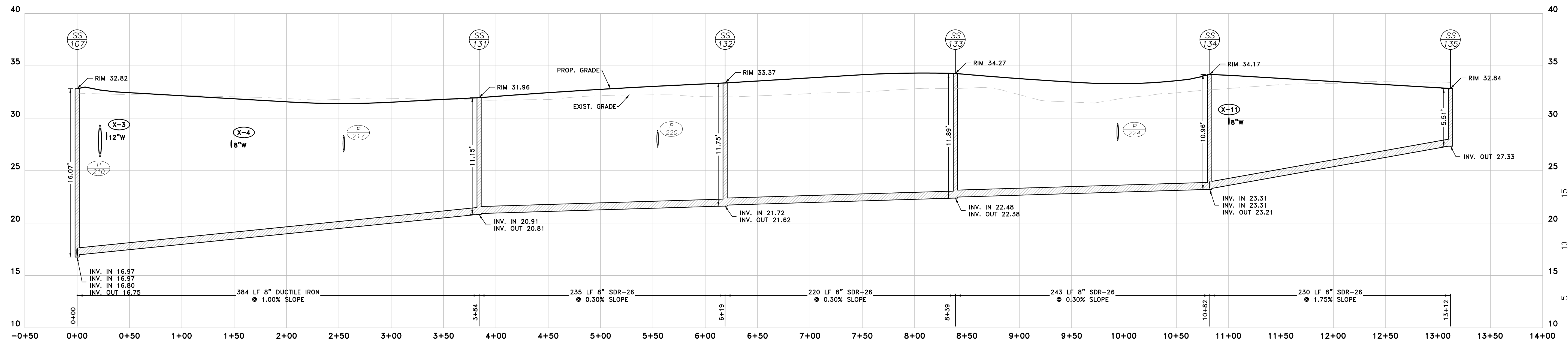


SS-108 - SS-129 PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

NOTE: SEWER/WATER SHALL MAINTAIN 18" VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION.



SS-107 - SS-141 PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



SS-107 - SS-135 PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



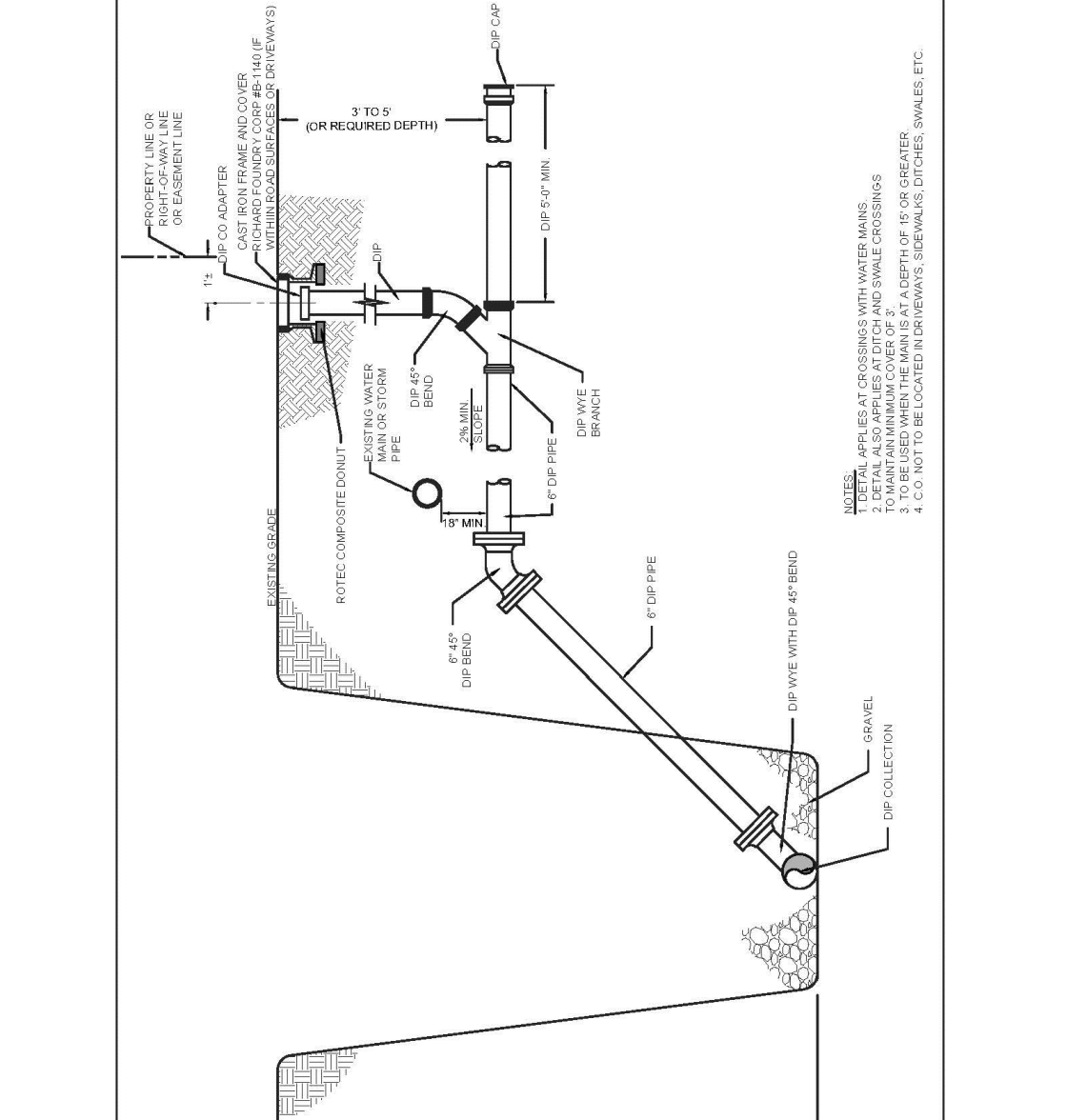
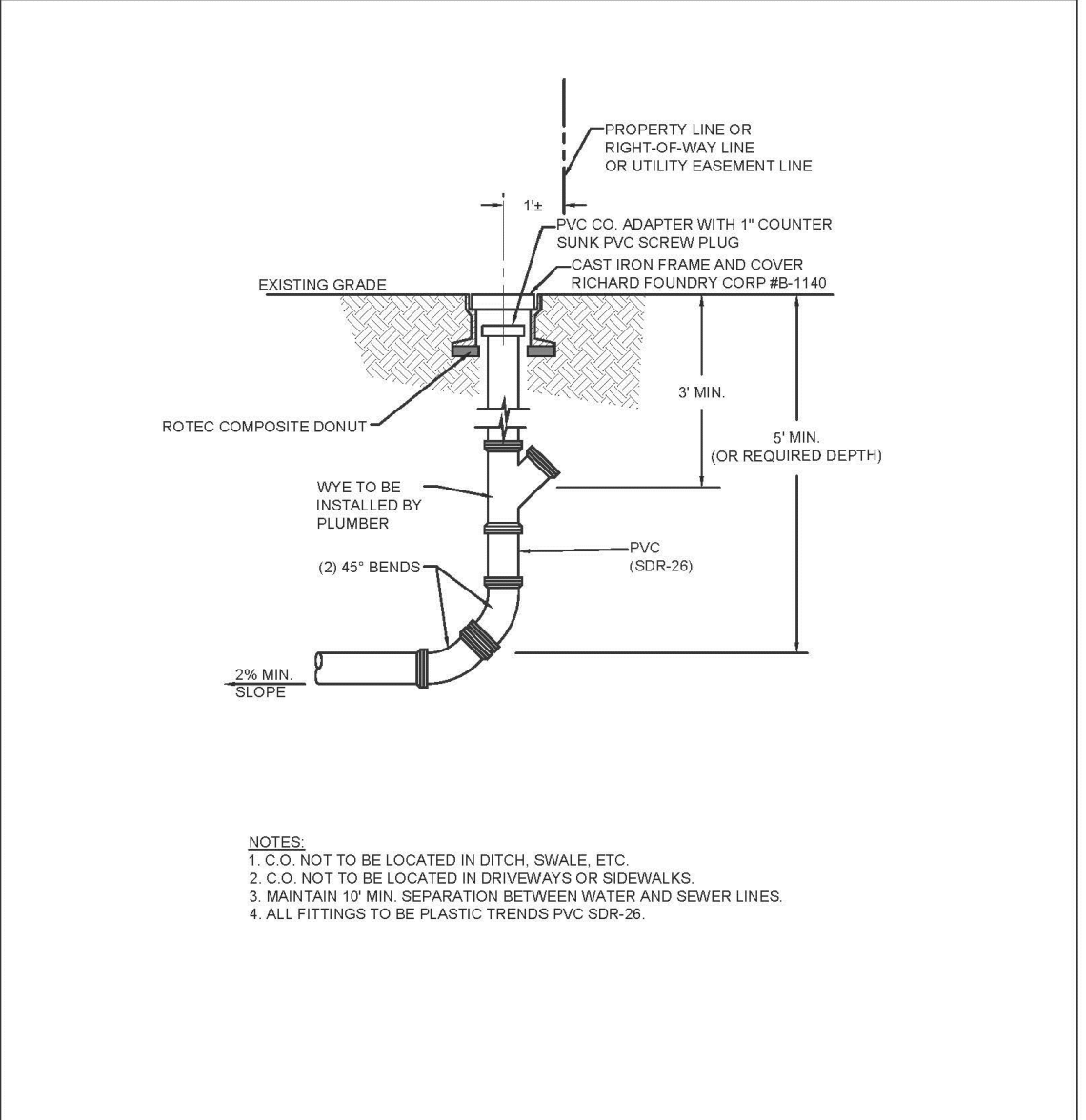
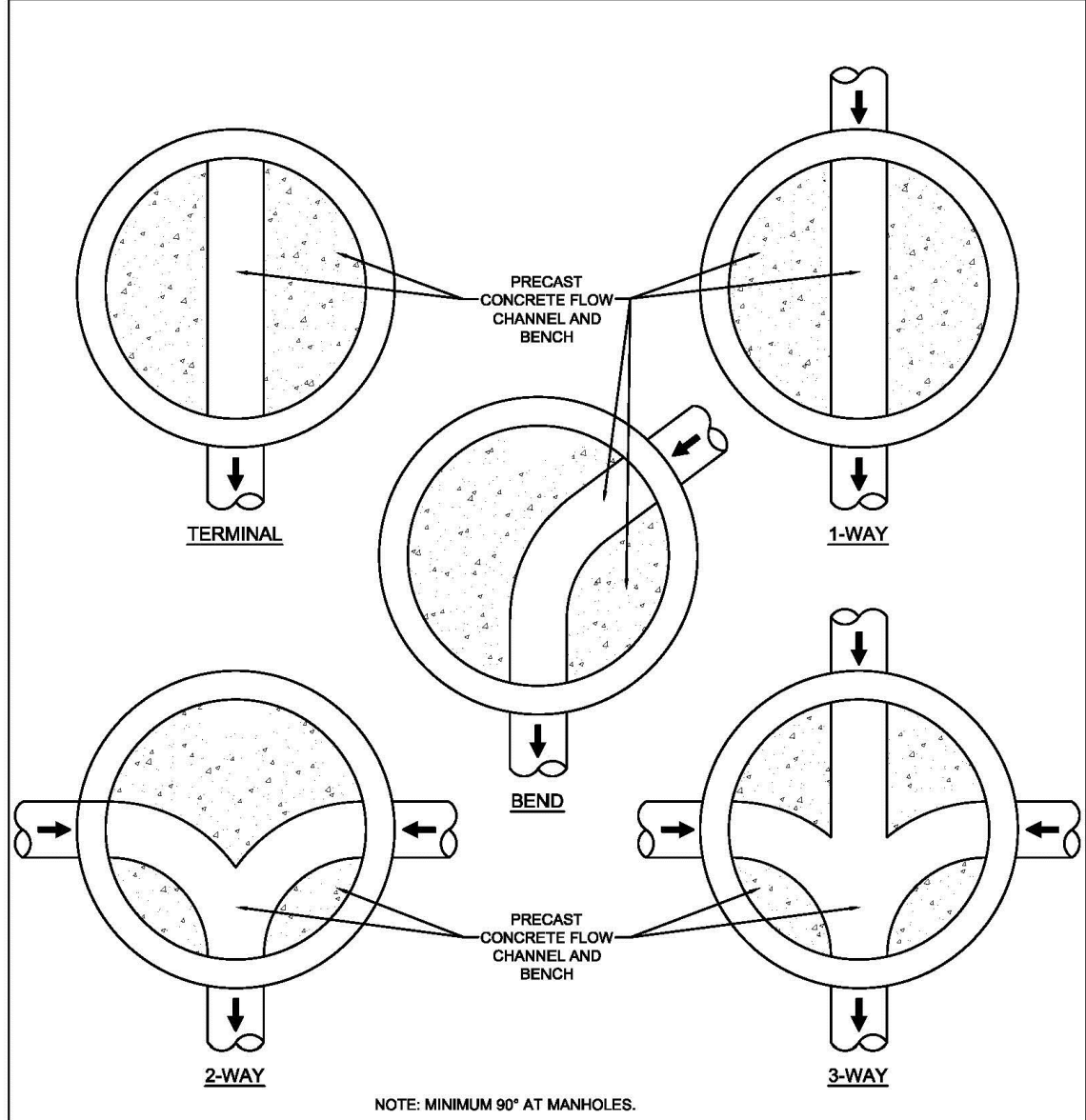
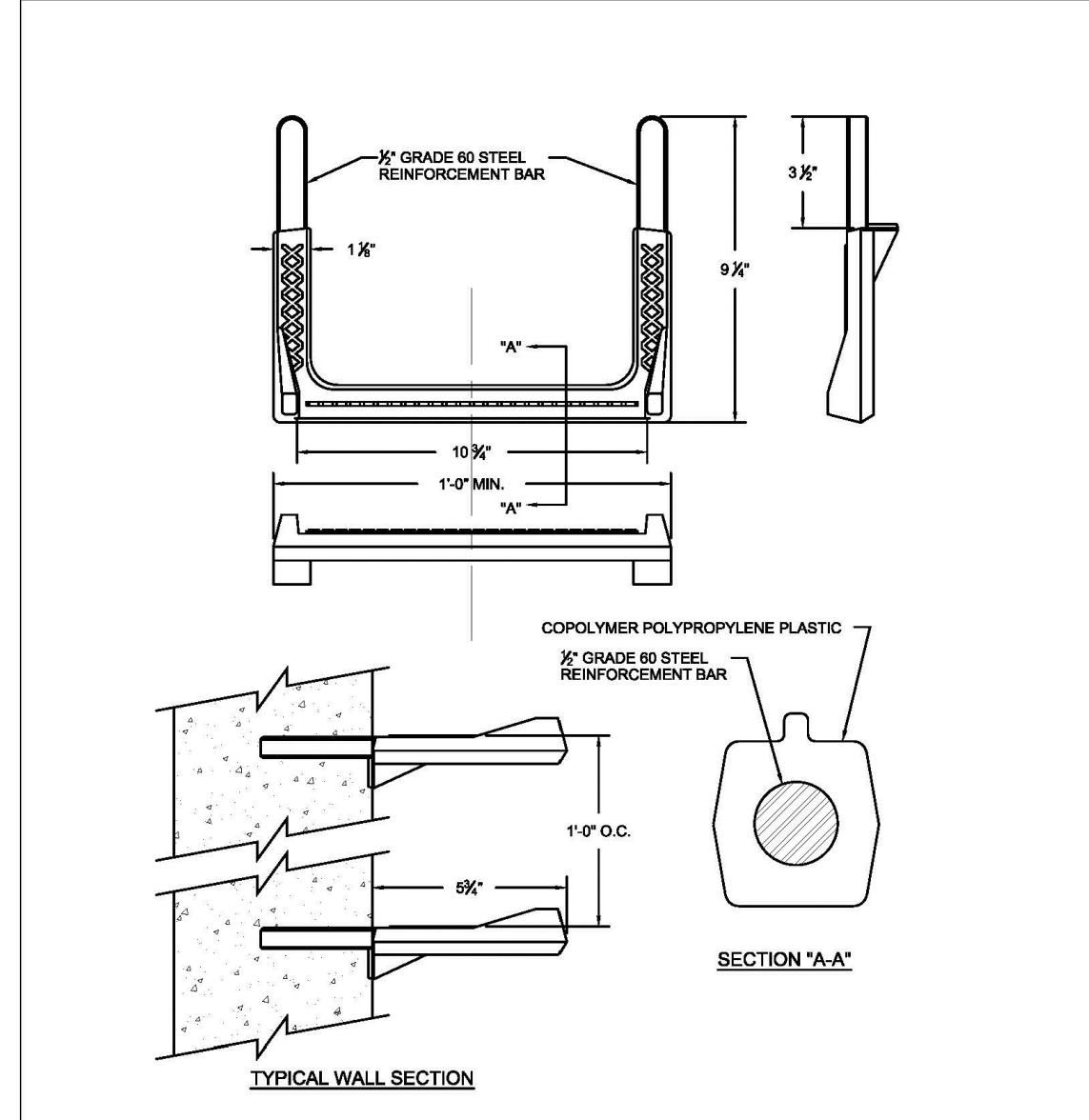
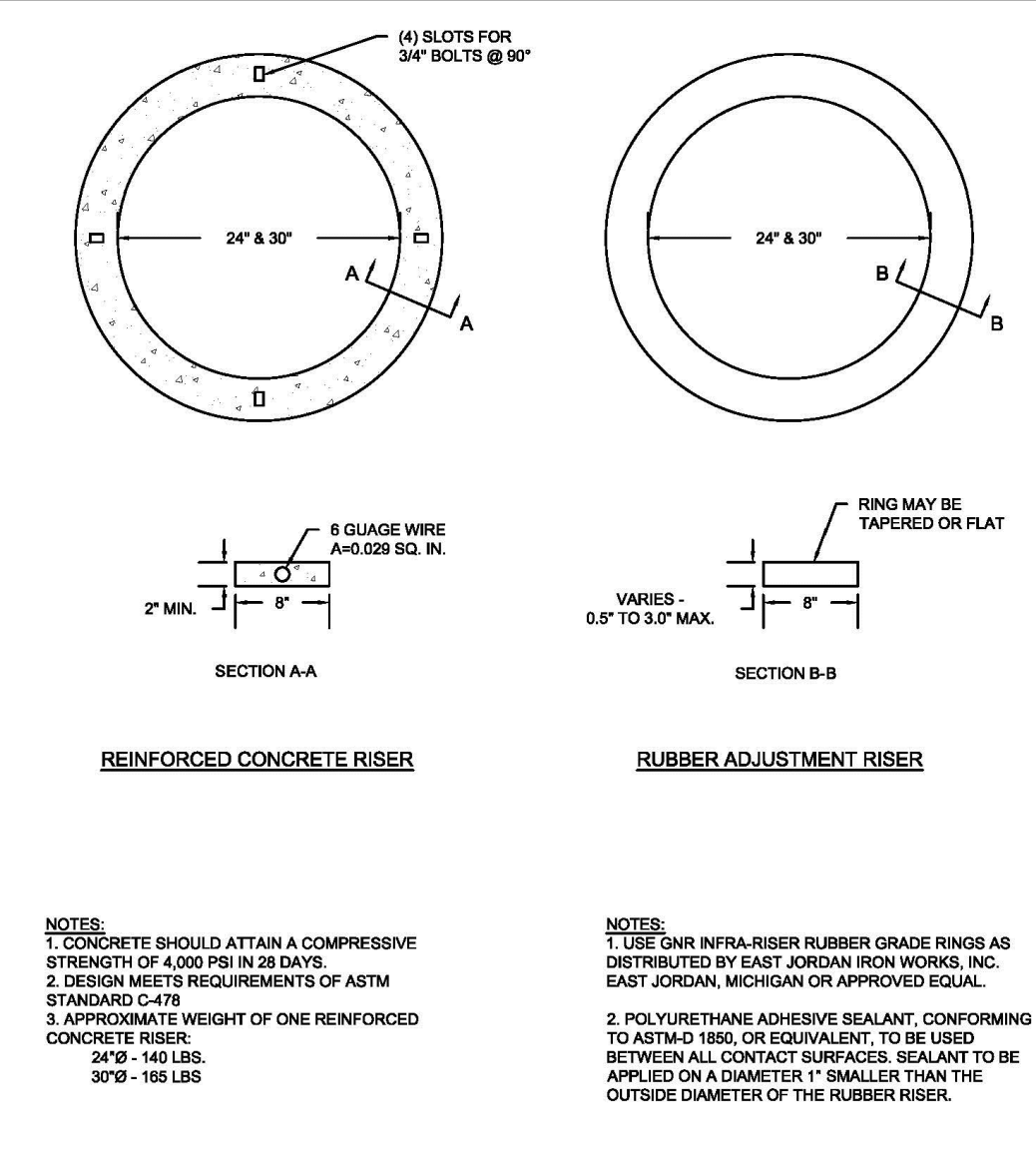
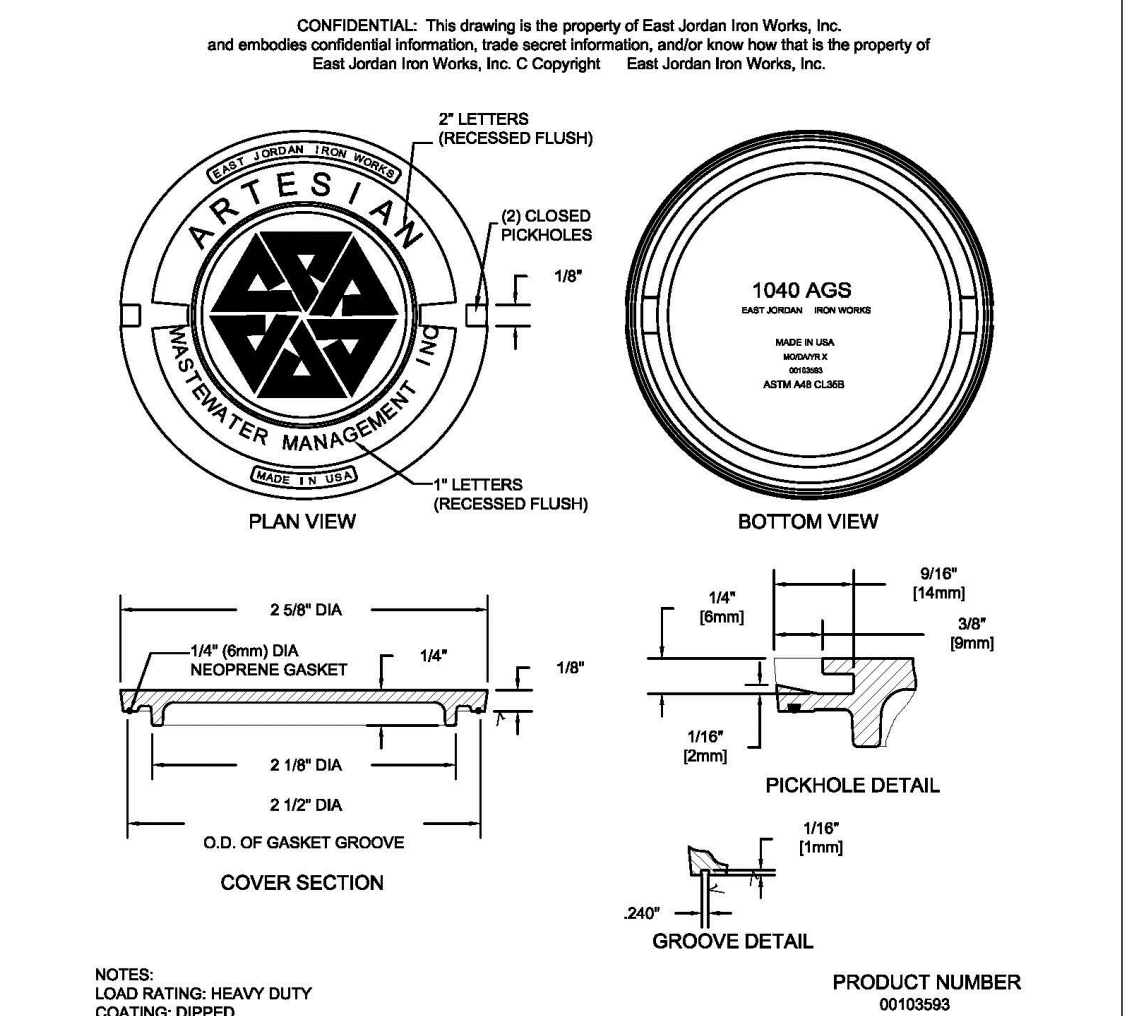
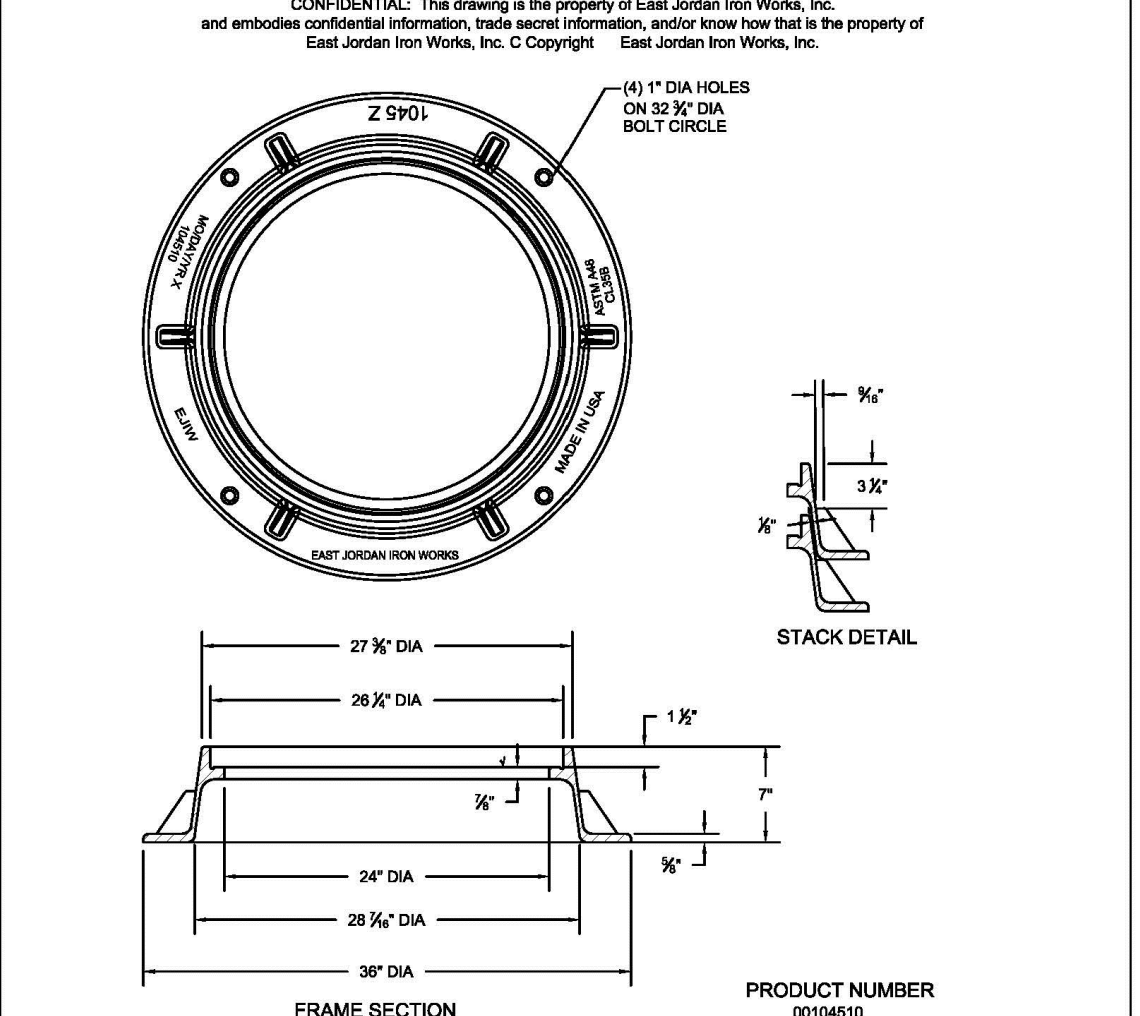
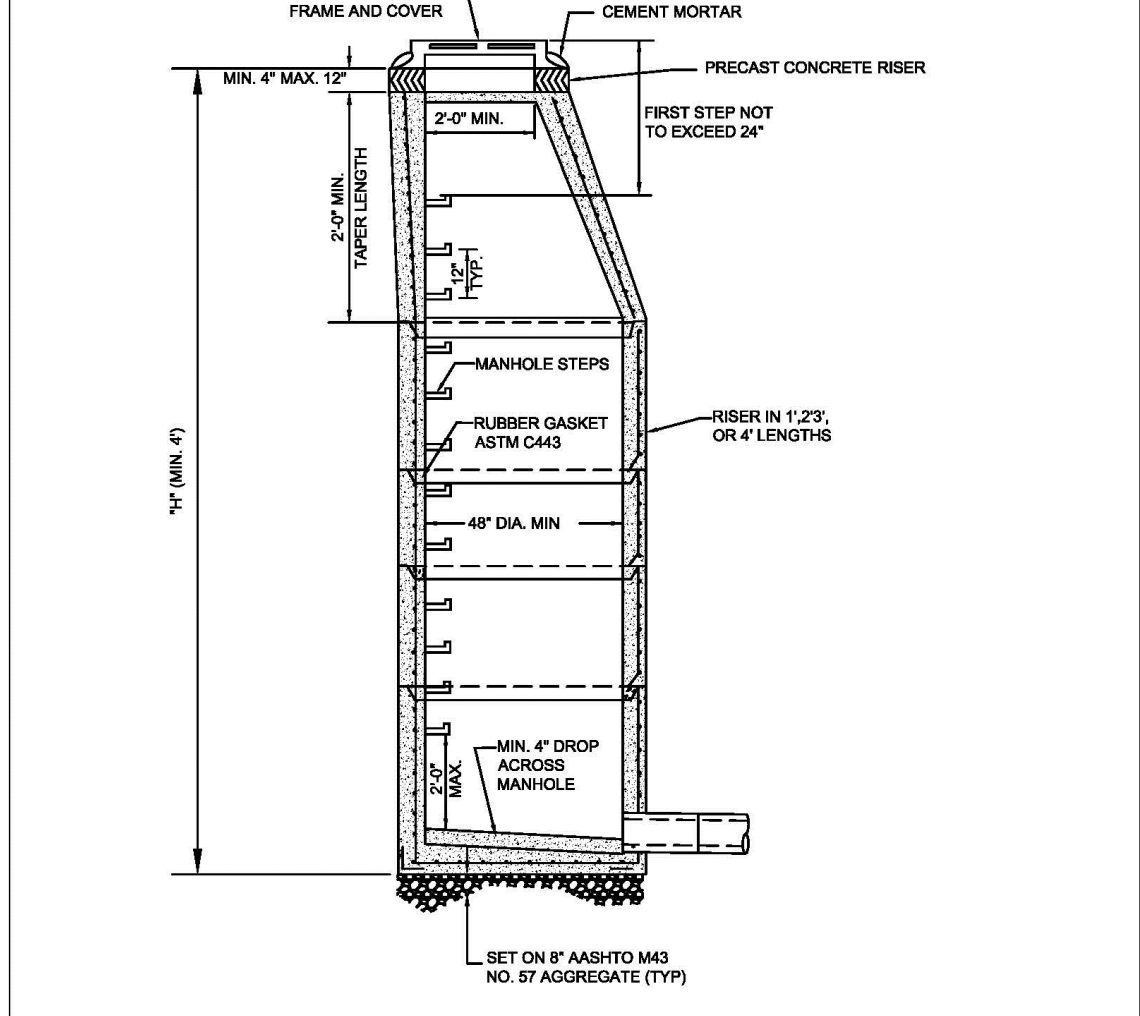
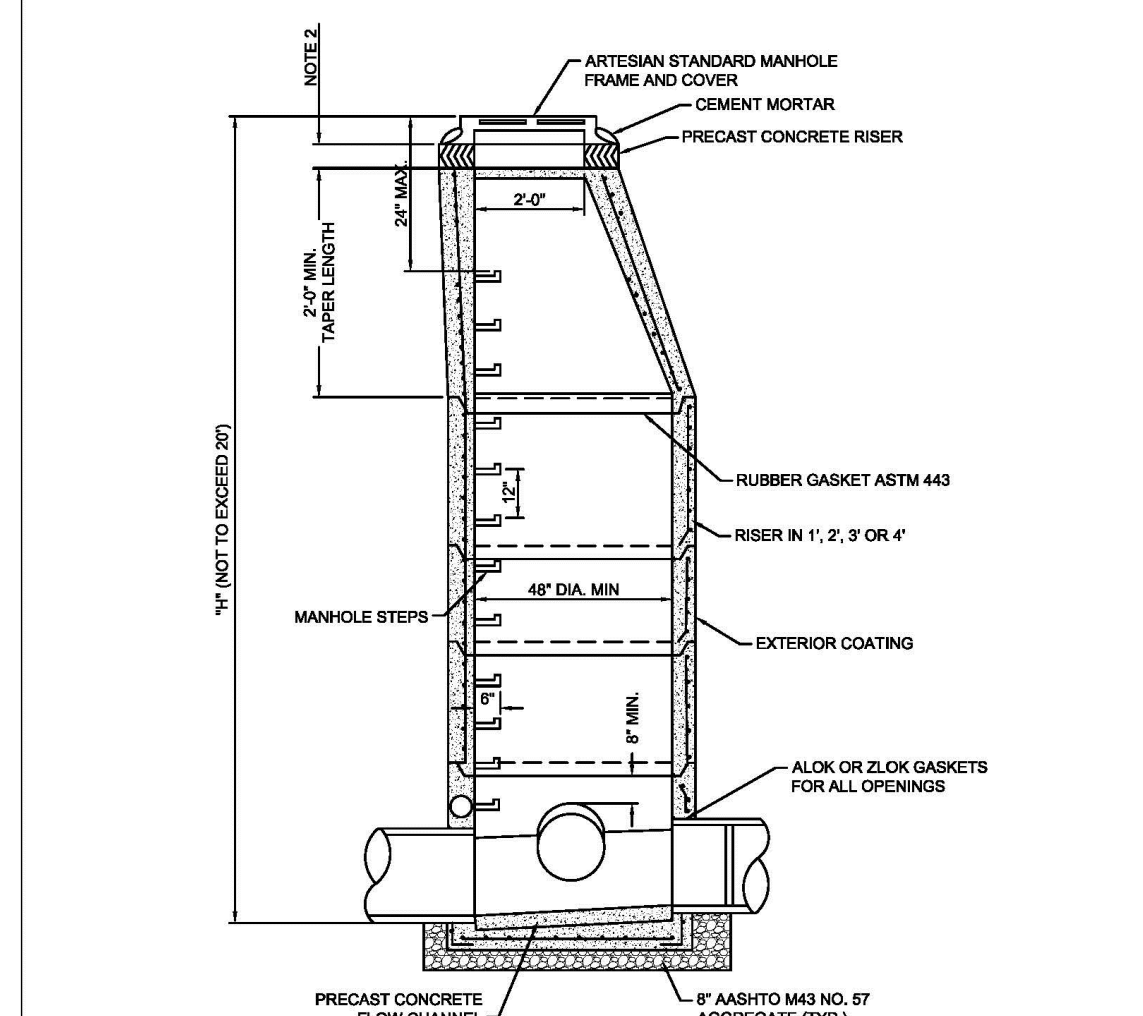
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SEWER PROFILES

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- MANHOLE NOTES:**
- ALL PRECAST CONCRETE MANHOLE TAPERS, RISERS, AND BASES SHALL CONFORM TO THE LATEST REVISION OF ASTM C478.
 - CONCRETE SHALL BE 4000 PSI AT 28 DAYS MINIMUM.
 - STEEL REINFORCEMENT SHALL BE GRADE 40 BILLET STEEL CONFORMING TO THE LATEST REVISION OF ASTM A-185 FOR WALL REINFORCEMENT THE LATEST REVISION OF ASTM A615 FOR BASE REINFORCEMENT.
 - STANDARD JOINTS SHALL BE RUBBER D-RING GASKET PER ASTM-C443.
 - MANHOLE INLETS AND OUTLETS SHALL BE PRECAST WITH ALOK OR ZLOK GASKETS.
 - THE MINIMUM SEPARATION OF INVERT IN TO INVERT OUT WITHIN A MANHOLE IS 0.05 FEET. WHEN THE SEPARATION IS GREATER THAN 24 INCHES A DROP MANHOLE MUST BE USED.
 - MANHOLES GREATER THAN 18 FEET IN DEPTH SHALL HAVE AN INSIDE DIAMETER OF 5'. FOR SANITARY SEWER MAINS GREATER THAN 18 INCHES IN DIAMETER, MANHOLES SHALL BE A MINIMUM OF 5' IN DIAMETER.
 - RIM ELEVATIONS SHALL BE AT GRADE IN STREETS & PARKING LOTS.
 - RIM ELEVATIONS ALONG OUTFALLS SHALL BE A MINIMUM OF 3' ABOVE EXISTING GROUND ELEVATIONS. IF THE OUTFALL IS LOCATED WITHIN THE FLOOD PLAIN, RIM ELEVATIONS SHALL BE 2' ABOVE THE 100-YEAR FLOOD ELEVATION (WHILE STILL MAINTAINING THE 3' ABOVE THE EXISTING GROUND ELEVATION MINIMUM REQUIREMENT). THE 100-YEAR FLOOD ELEVATION SHALL BE NOTED ON THE CONSTRUCTION DRAWINGS.
 - MANHOLE STEPS TO BE NO. 3 REBAR ENCASED IN POLYPROPYLENE, SPACED AS SHOWN IN A SINGLE VERTICAL ALIGNMENT.
 - EXTERIOR COATING TO BE 2 COATS OF WATERPROOF BITUMASTIC COMPOUND.
 - APPROVED BITUMINOUS BASE SEALANT TO BE APPLIED TO TOP OF CONE FOR WATERTIGHT SEAL.
 - MANHOLE SECTIONS TO BE WRAPPED IN EZ-WRAP BUTYL JOINT WRAP.



DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS

MILTON, DELAWARE
4101/761-1747

THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

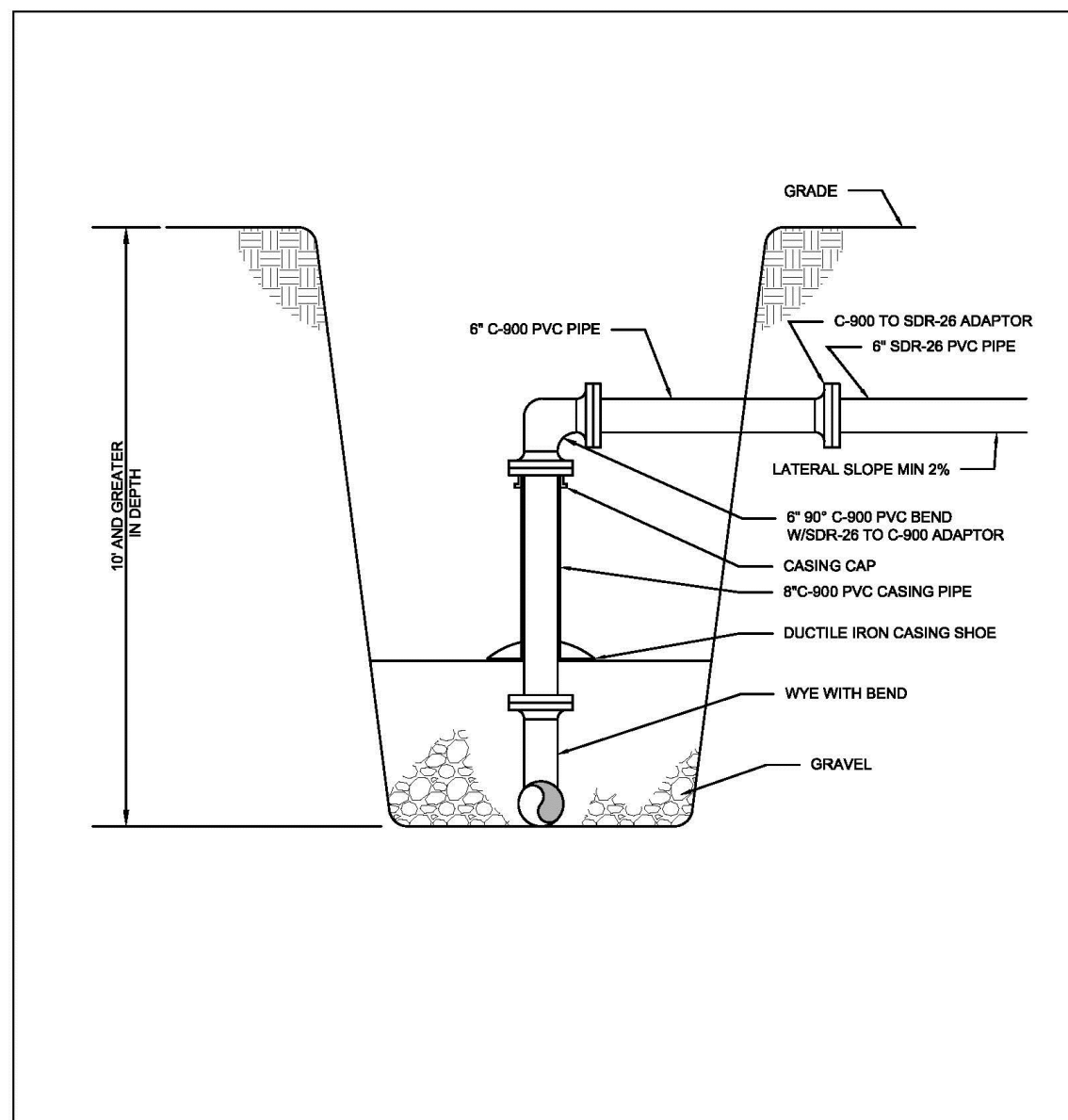
DATE	COMMENTS
08-04-2023	TOWN COMMENTS
11-16-2023	DELDOT COMMENTS
12-05-2023	TOWN, SCD & ARTESIAN COMMENTS
02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: N.T.S.
Dwn By: DJR
Proj No.: 1443B006

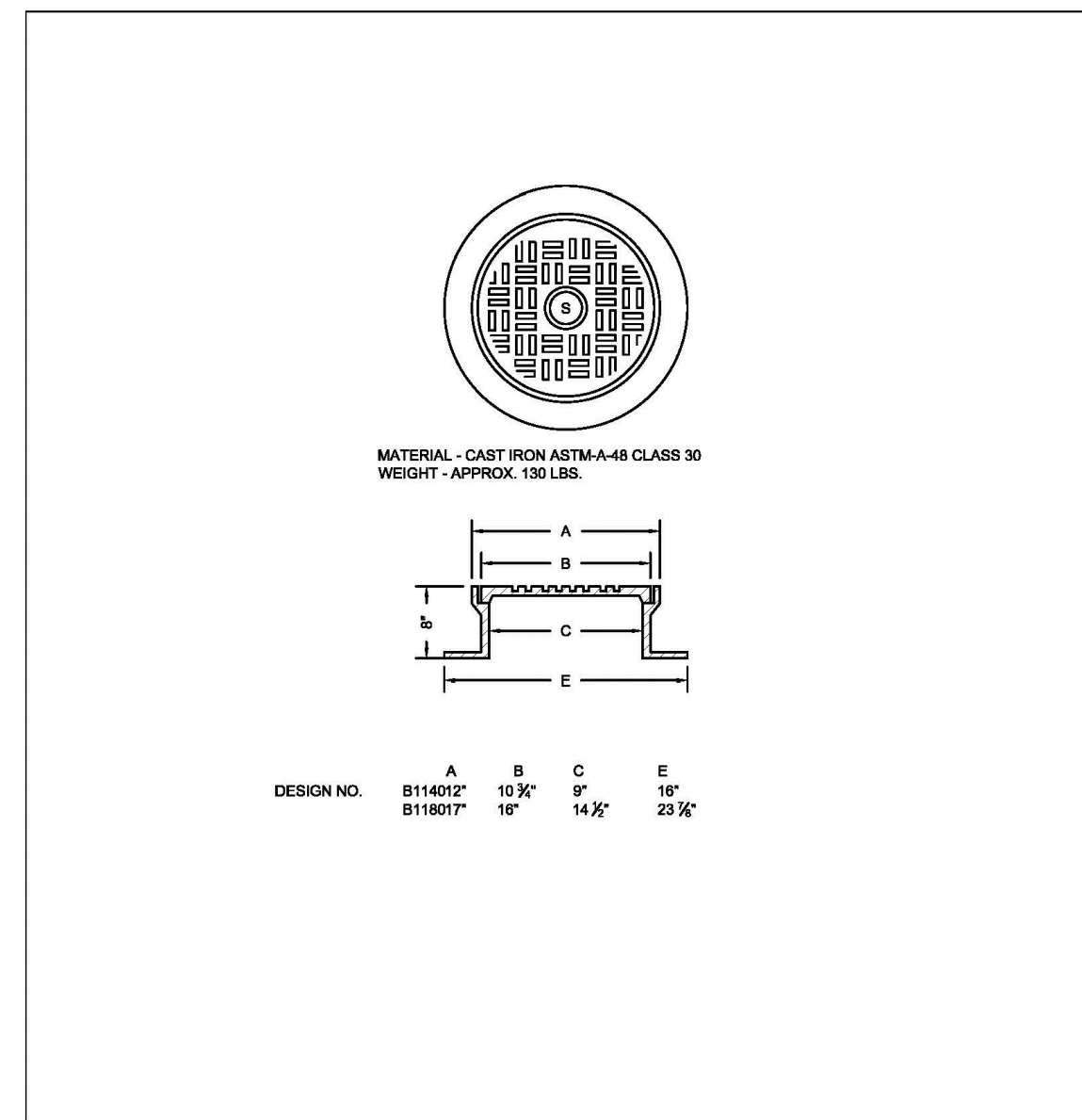
SEWER DETAILS

Dwg No.: **C-508**

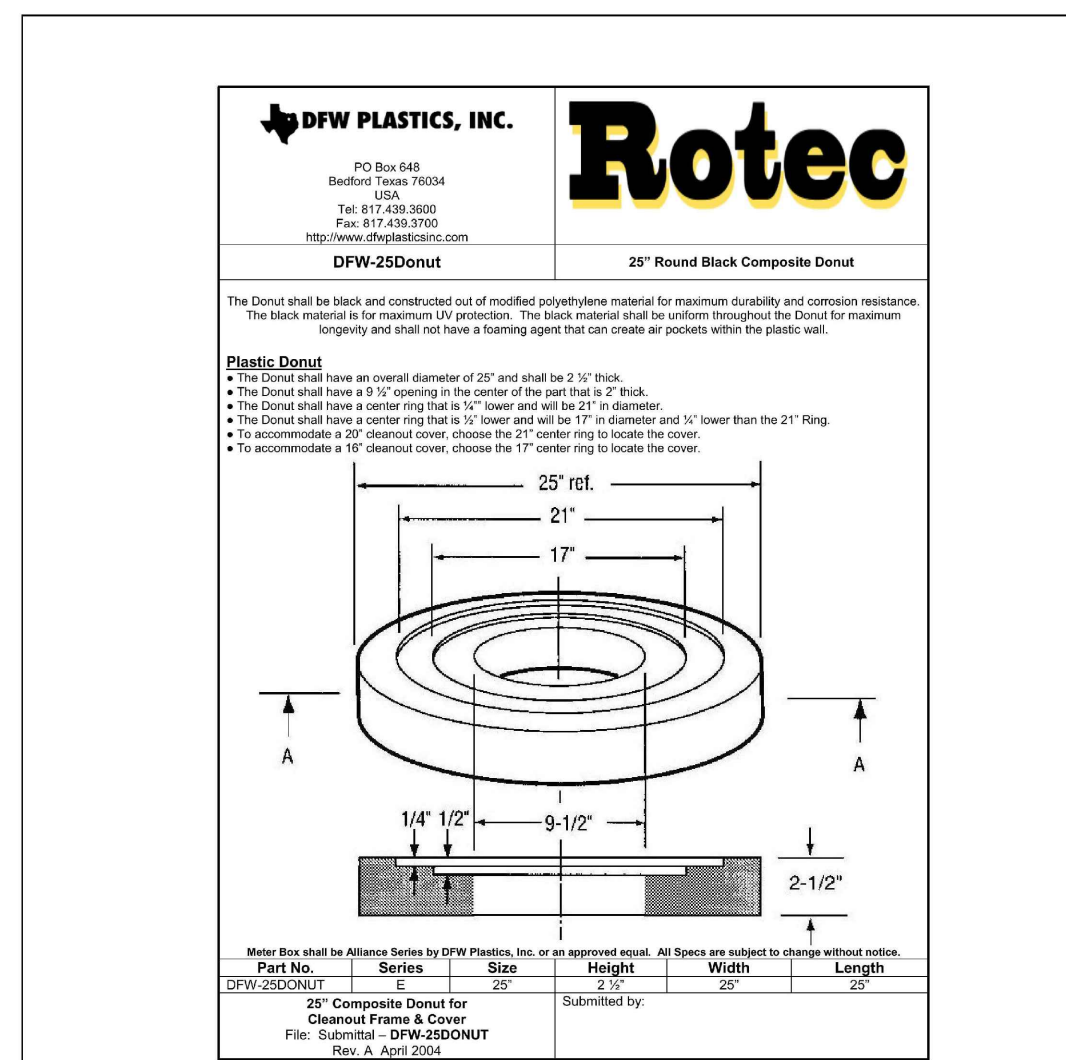
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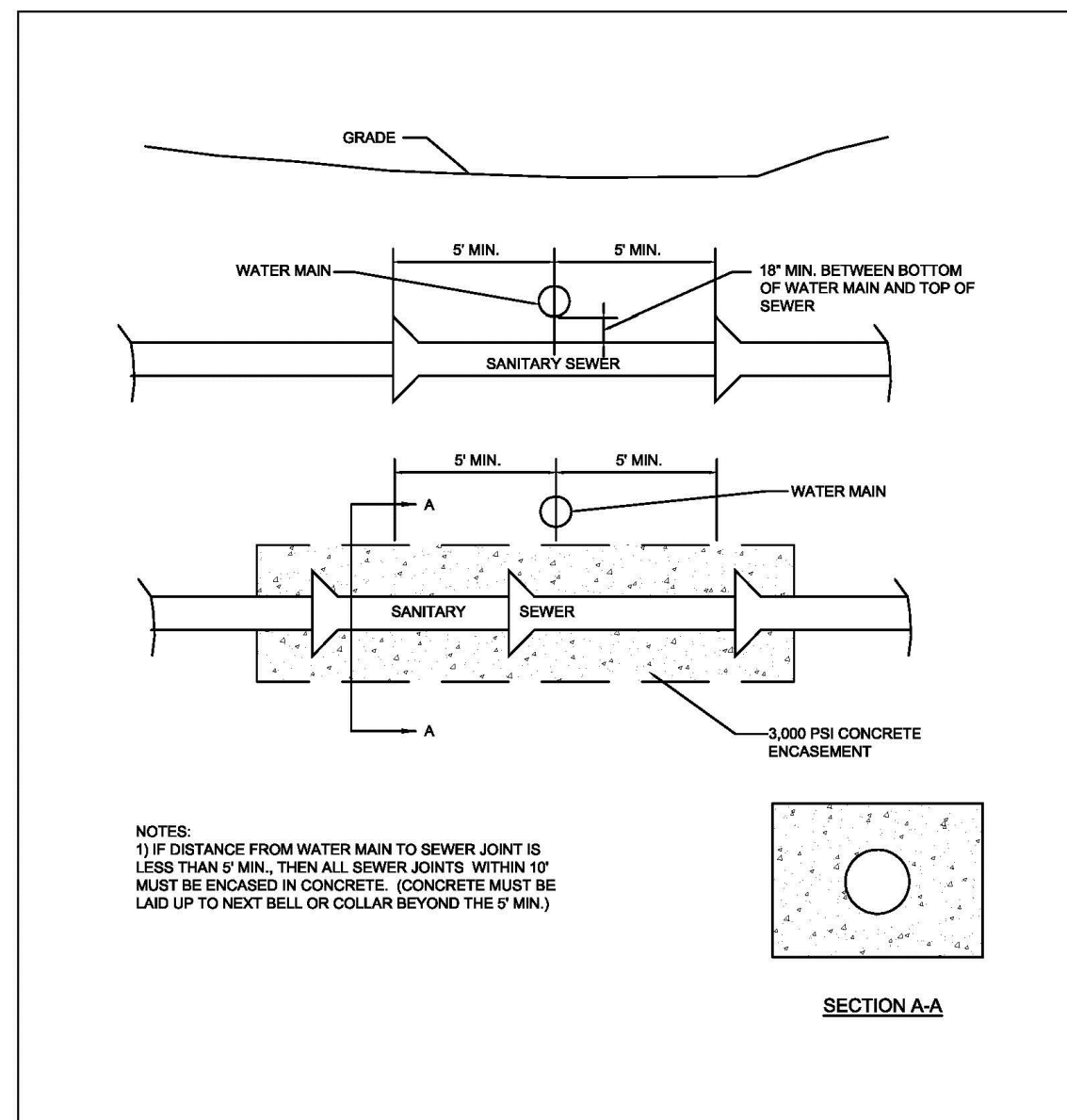
STANDARD DETAILS	
DEEP LATERAL RISER	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 26, 2014	PLATE: CD-04



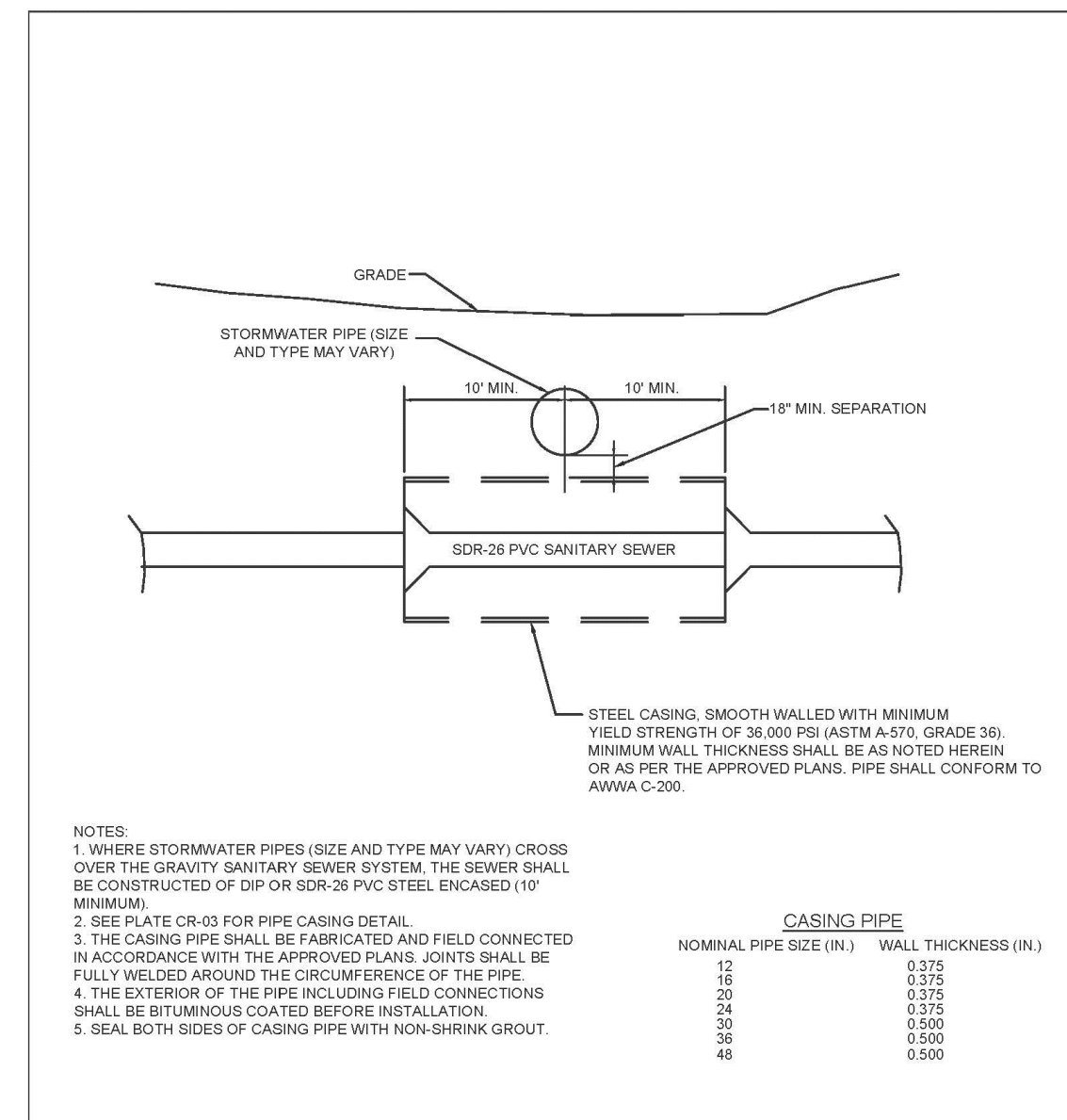
STANDARD DETAILS	
RICHARD FOUNDRY CORP. CLEANOUT FRAME AND COVER B-1140 & B-1160	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 26, 2014	PLATE: CD-05



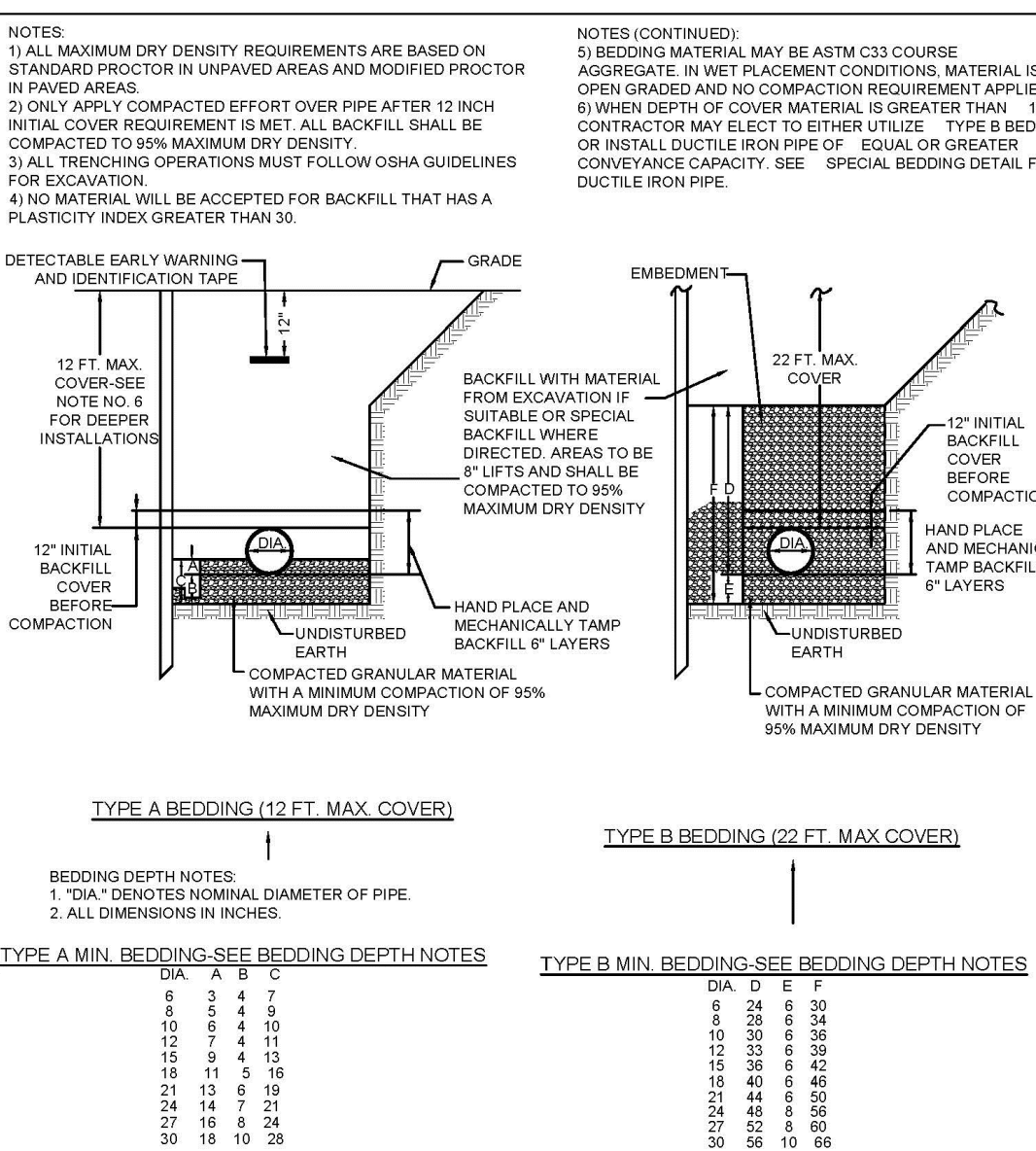
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CLEANOUT COMPOSITE DONUT	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 26, 2014	PLATE: CD-06



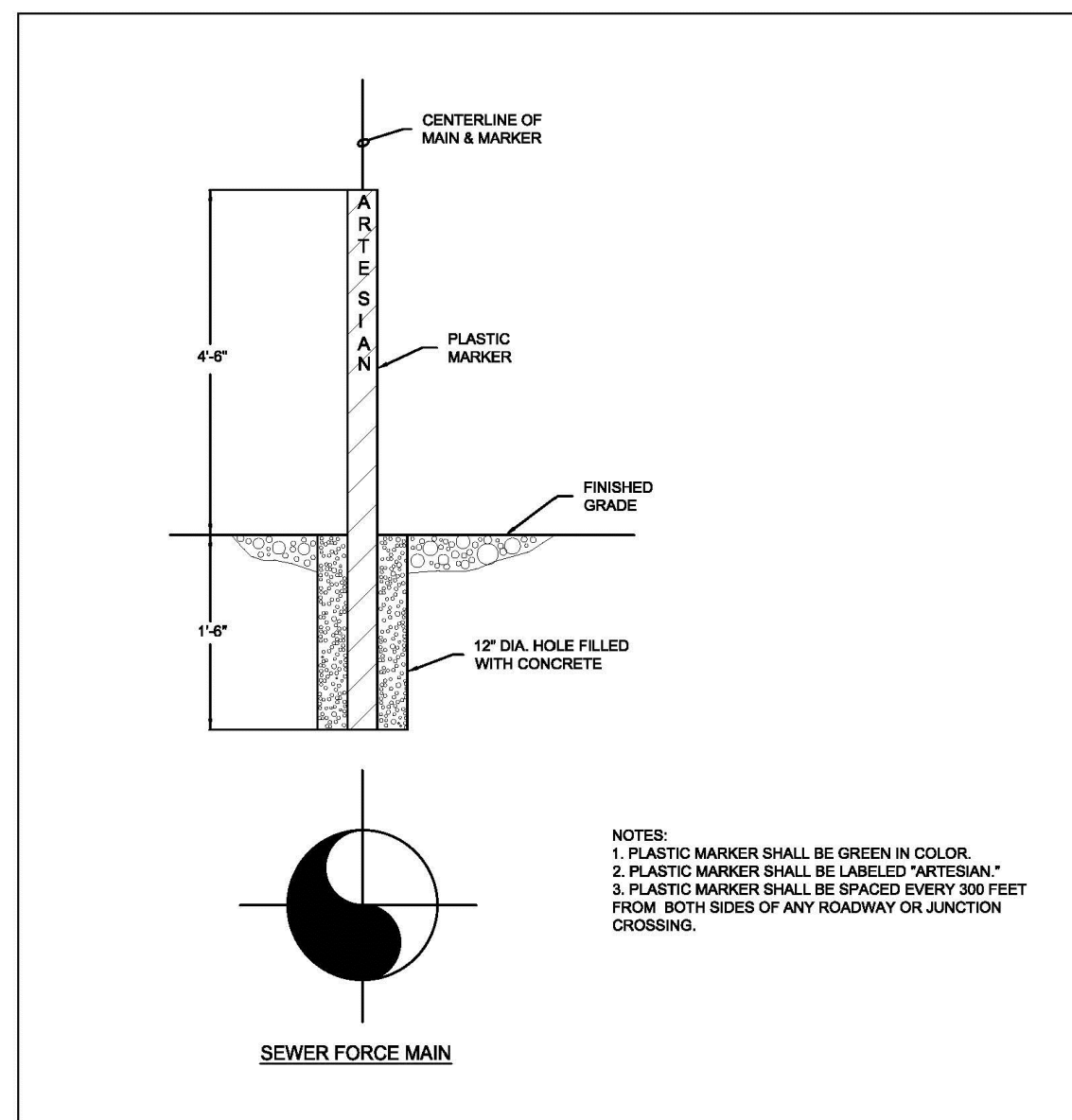
STANDARD DETAILS	
WATER AND SEWER CROSSING	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 20, 2014	PLATE: CR-01



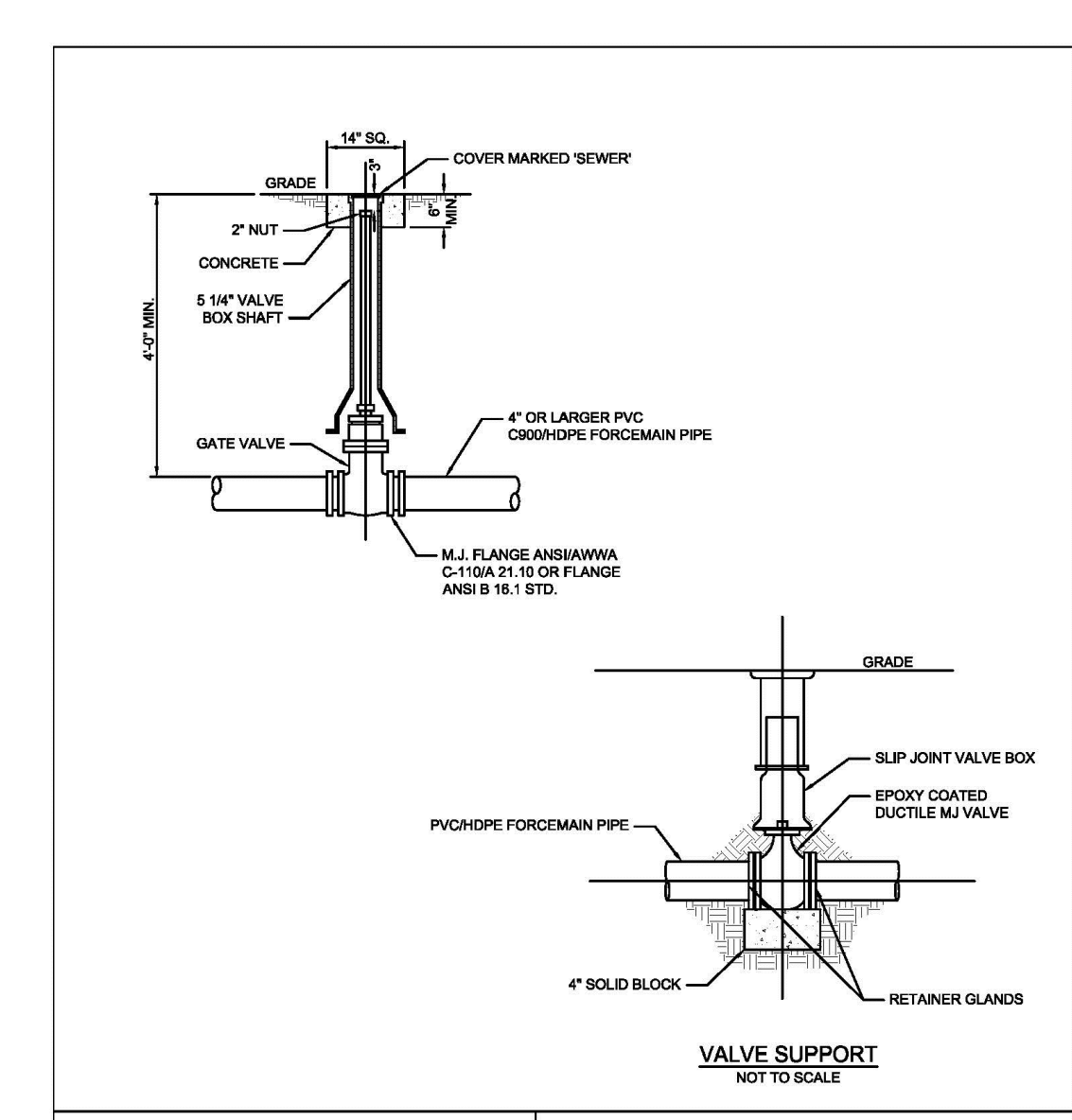
STANDARD DETAILS	
STORMWATER AND SEWER CROSSING	
ISSUED: JANUARY 31, 2019	SCALE: NOT TO SCALE
REVISED:	PLATE: CR-02



STANDARD DETAILS	
SPECIAL BEDDING AND EMBEDMENT FOR PVC SANITARY SEWER PIPE	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 20, 2014	PLATE: BD-01



STANDARD DETAILS	
STANDARD MARKER FOR SEWER FORCE MAINS IN EASEMENTS	
ISSUED: JUNE 16, 2012	SCALE: NOT TO SCALE
REVISED: FEBRUARY 20, 2014	PLATE: BD-03



STANDARD DETAILS	
TYPICAL VALVE, VALVE BOX & VALVE SUPPORT	
ISSUED: FEBRUARY 20, 2014	SCALE: NOT TO SCALE
REVISED:	PLATE: AVCRS-0A

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ARCHITECTS • ENGINEERS • SURVEYORS
MILTON, DELAWARE
982.421.1411
410.762.1441

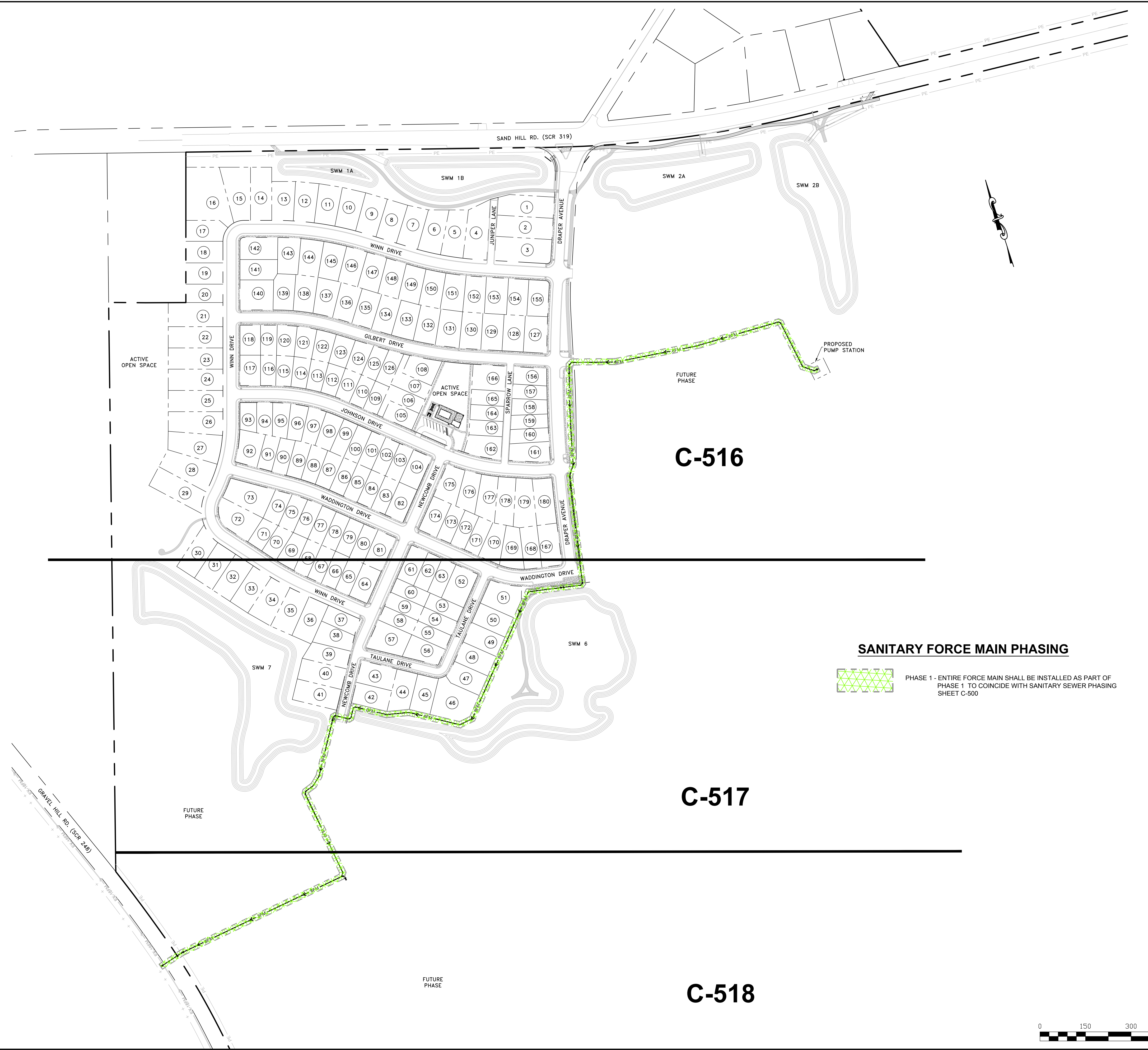
THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
08-04-2023	TOWN COMMENTS
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02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

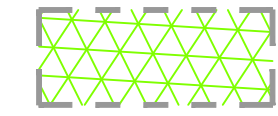
Date: JUNE 2023
Scale: N.T.S.
Dwn By: DJR
Proj No.: 1443B006

SEWER DETAILS

Dwg No.: **C-509**



SANITARY FORCE MAIN PHASING

 PHASE 1 - ENTIRE FORCE MAIN SHALL BE INSTALLED AS PART OF PHASE 1 TO COINCIDE WITH SANITARY SEWER PHASING SHEET C-500



THE GRANARY AT DRAPER FARM
 SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

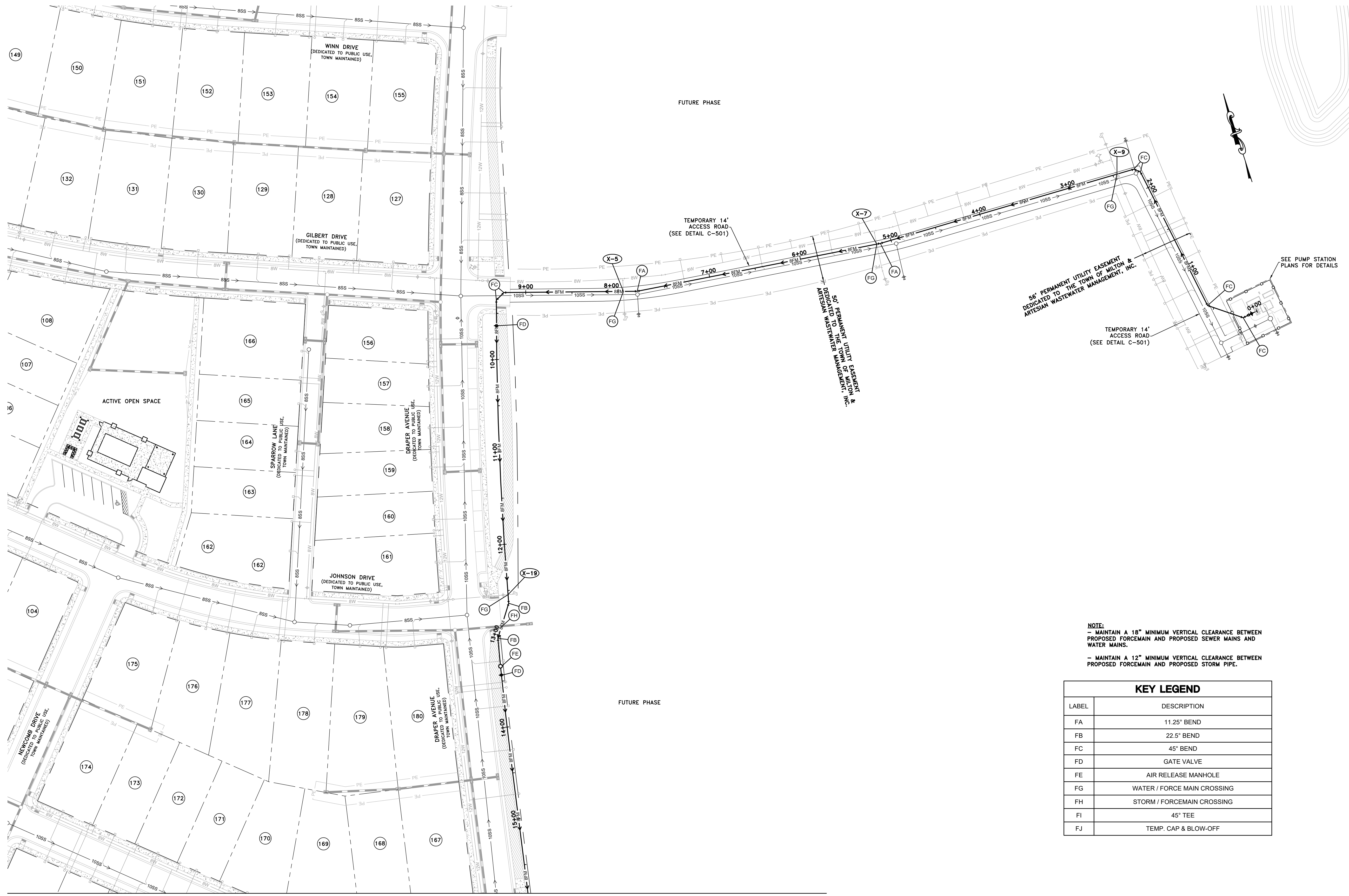
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02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: 1"=150'
 Dwn By: DJR
 Proj No.: 1443B006

FORCEMAIN OVERVIEW

Dwg No.: **C-515**

P:\Integrify\Communities\1443B006\Draper Property\PHASE 1\DESIGN\1443B006-FORCEMAIN PLANS.dwg Mar 08 2024 - 9:31 am read



MATCHLINE (SEE SHEET C-517)

NOTE:
 - MAINTAIN A 18" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED SEWER MAINS AND WATER MAINS.
 - MAINTAIN A 12" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED STORM PIPE.

KEY LEGEND	
LABEL	DESCRIPTION
FA	11.25° BEND
FB	22.5° BEND
FC	45° BEND
FD	GATE VALVE
FE	AIR RELEASE MANHOLE
FG	WATER / FORCE MAIN CROSSING
FH	STORM / FORCEMAIN CROSSING
FI	45° TEE
FJ	TEMP. CAP & BLOW-OFF



THE GRANARY AT DRAPER FARM
 SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

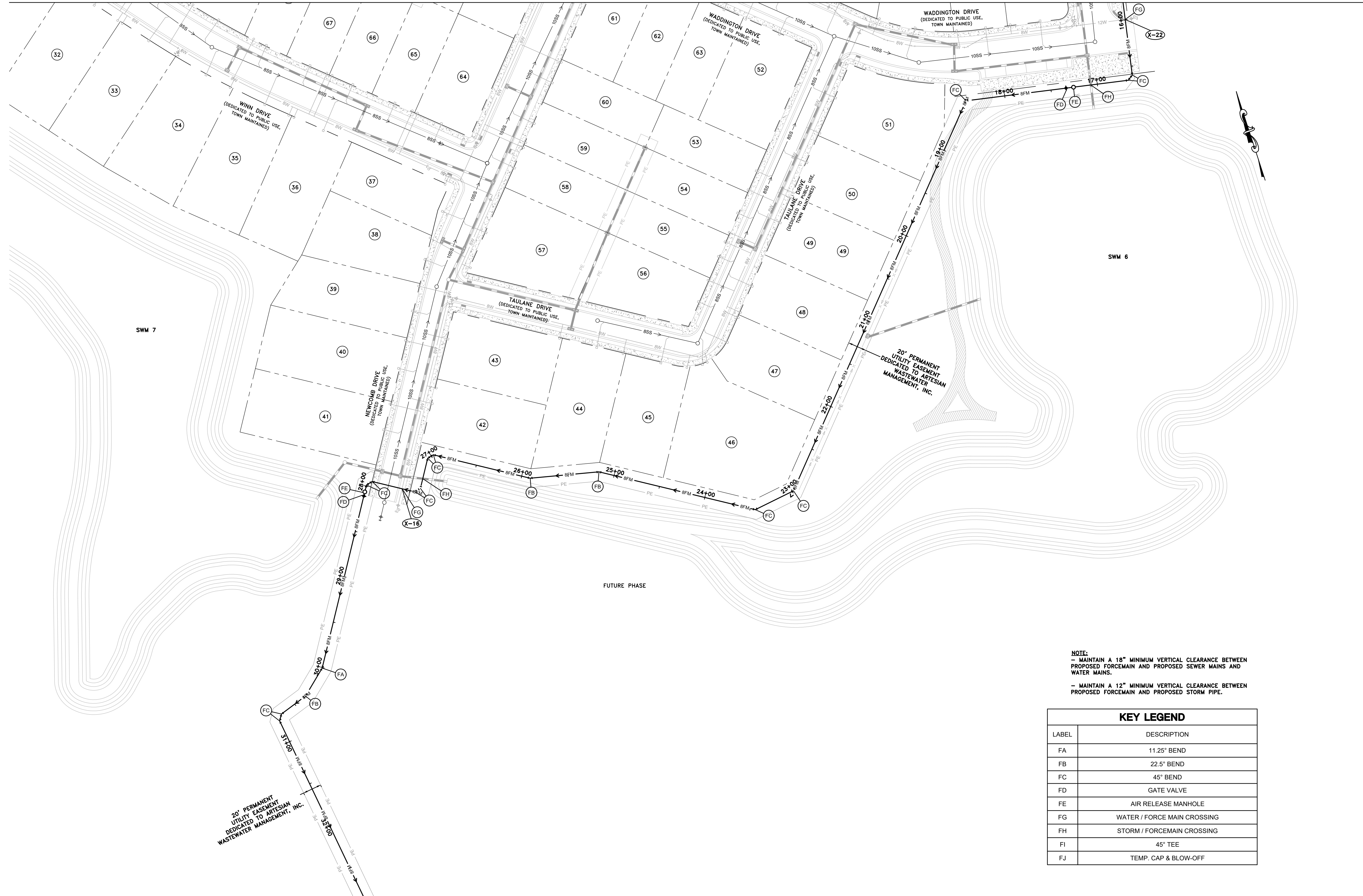
DATE	COMMENTS
08-04-2023	TOWN COMMENTS
11-16-2023	DELDOT COMMENTS
12-05-2023	TOWN, SCD & ARTESIAN COMMENTS
02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: 1"=50'
 Dwn By: DJR
 Proj No.: 1443B006

FORCEMAIN PLAN

Dwg No.: **C-516**

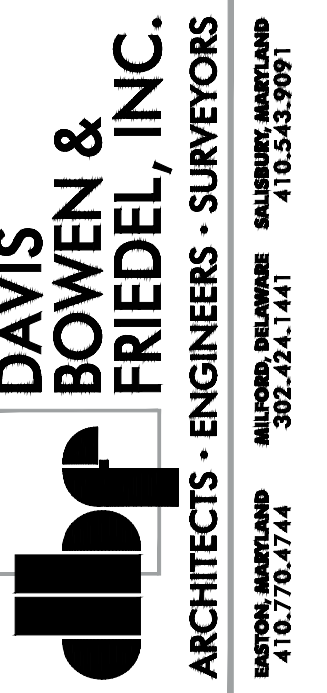
MATCHLINE (SEE SHEET C-516)



MATCHLINE (SEE SHEET C-518)

NOTE:
 - MAINTAIN A 18" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED SEWER MAINS AND WATER MAINS.
 - MAINTAIN A 12" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED STORM PIPE.

KEY LEGEND	
LABEL	DESCRIPTION
FA	11.25° BEND
FB	22.5° BEND
FC	45° BEND
FD	GATE VALVE
FE	AIR RELEASE MANHOLE
FG	WATER / FORCE MAIN CROSSING
FH	STORM / FORCEMAIN CROSSING
FI	45° TEE
FJ	TEMP. CAP & BLOW-OFF



THE GRANARY AT DRAPER FARM
SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

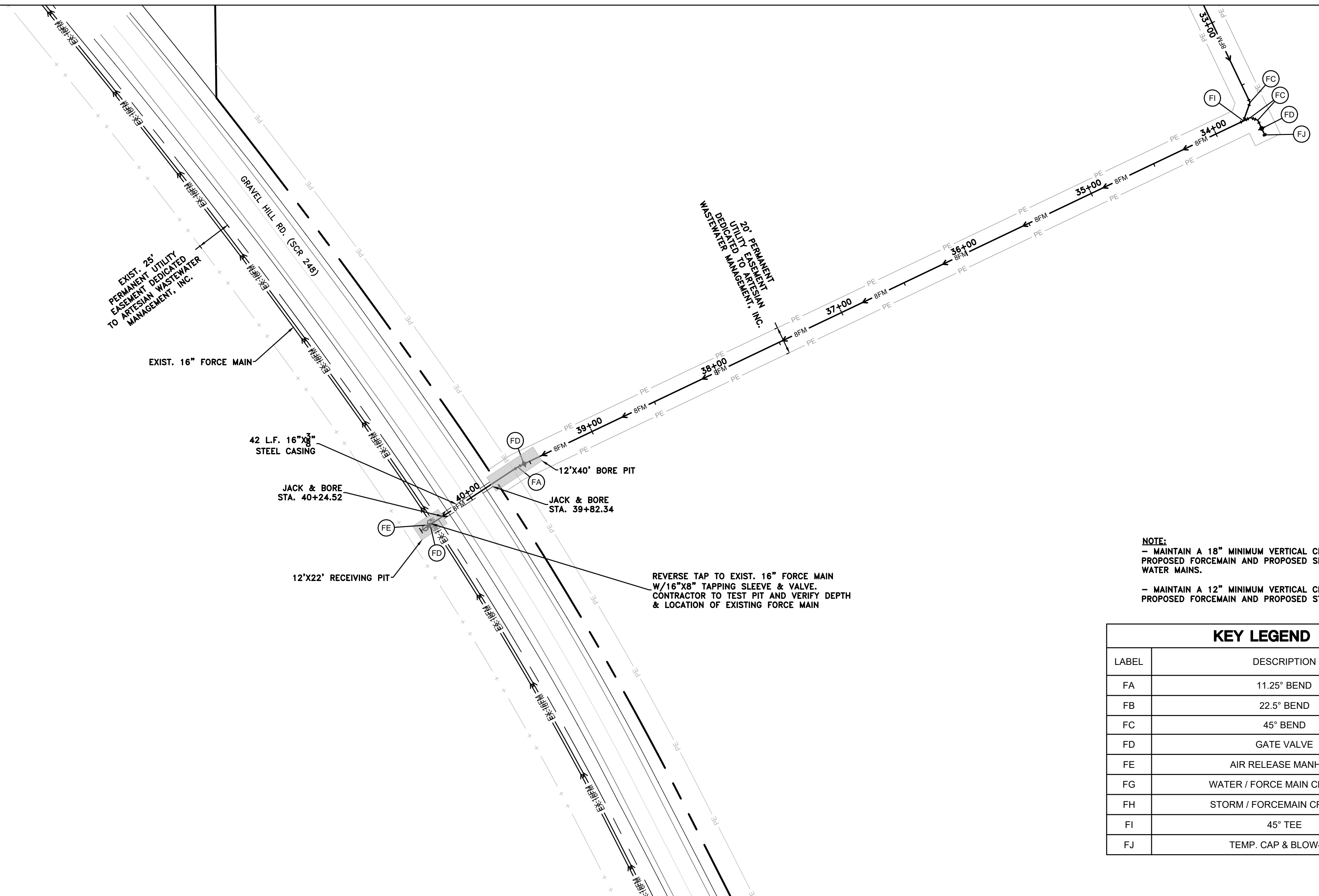
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11-16-2023	DELDOT COMMENTS
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02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: 1"=50'
 Dwn By: DJR
 Proj No.: 1443B006

FORCEMAIN PLAN

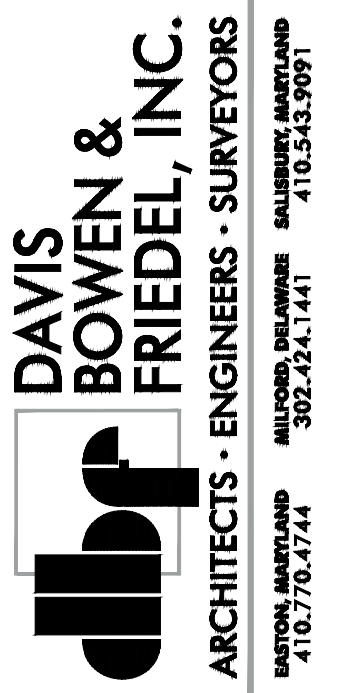
Dwg No.: **C-517**

MATCHLINE (SEE SHEET C-517)



NOTE:
 - MAINTAIN A 18" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED SEWER MAINS AND WATER MAINS.
 - MAINTAIN A 12" MINIMUM VERTICAL CLEARANCE BETWEEN PROPOSED FORCEMAIN AND PROPOSED STORM PIPE.

KEY LEGEND	
LABEL	DESCRIPTION
FA	11.25° BEND
FB	22.5° BEND
FC	45° BEND
FD	GATE VALVE
FE	AIR RELEASE MANHOLE
FG	WATER / FORCE MAIN CROSSING
FH	STORM / FORCEMAIN CROSSING
FI	45° TEE
FJ	TEMP. CAP & BLOW-OFF



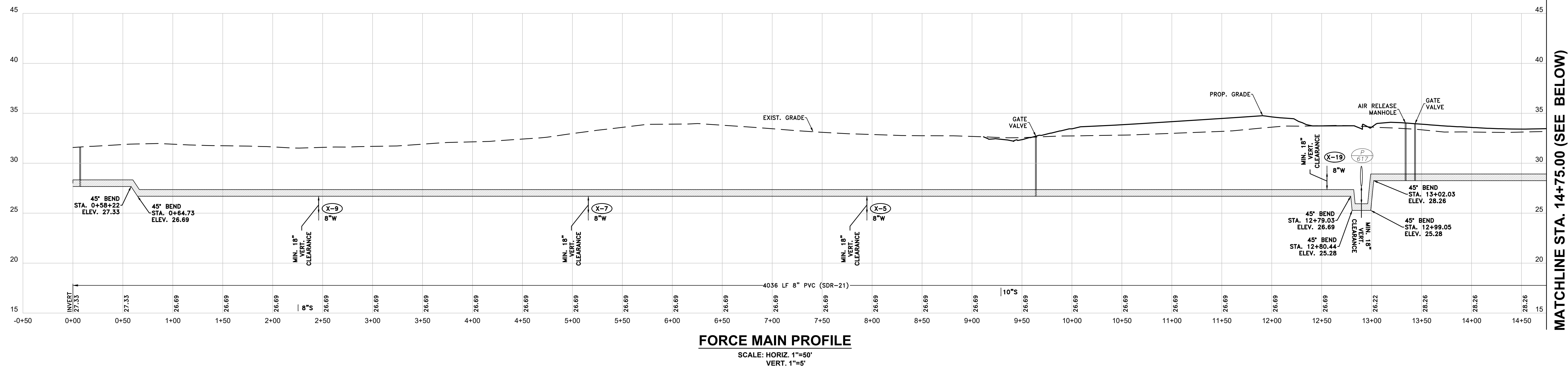
THE GRANARY AT DRAPER FARM
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03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: 1"=50'
 Dwn By: DJR
 Proj No.: 1443B006

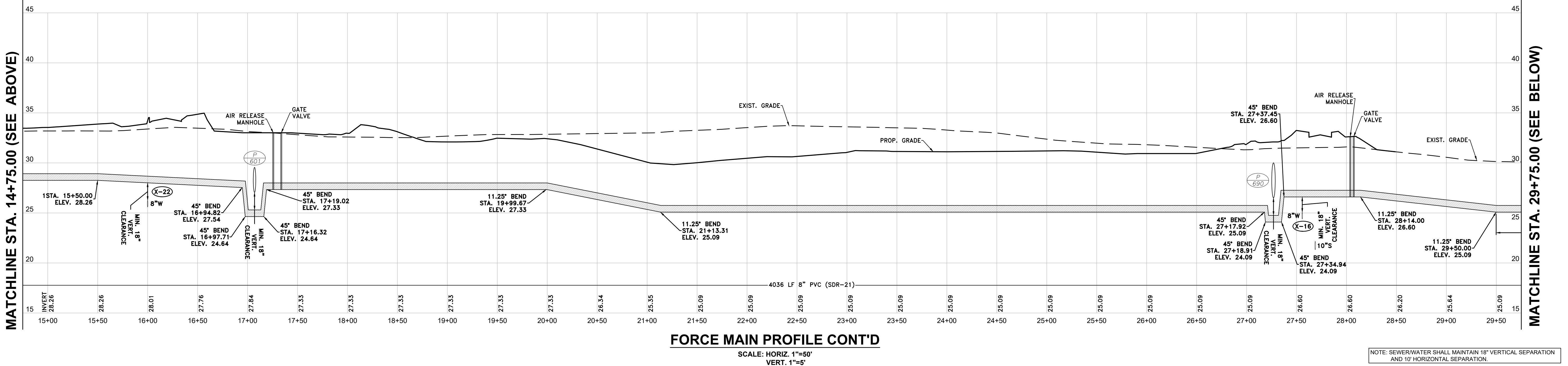
FORCEMAIN PLAN

Dwg No.: **C-518**



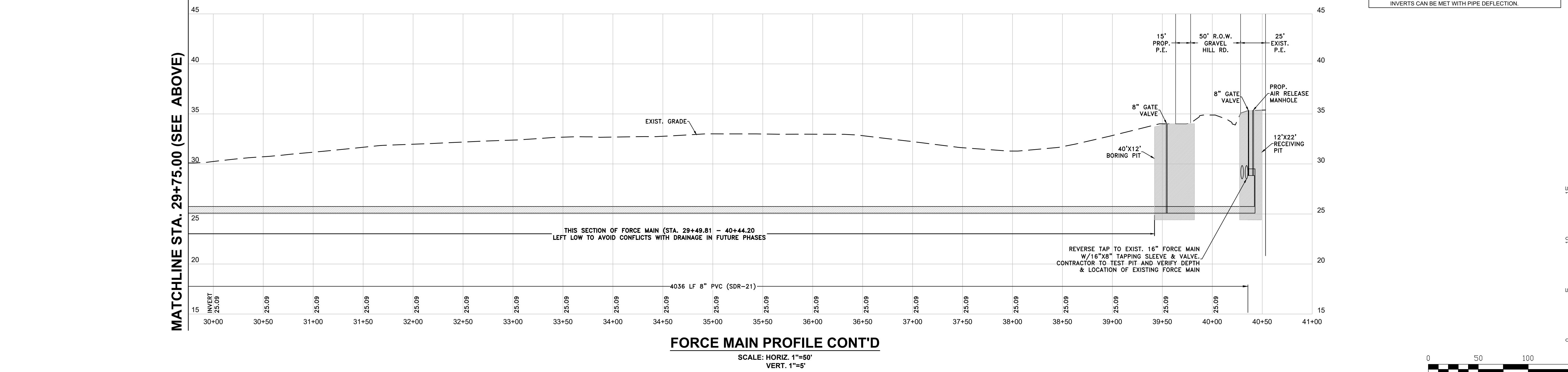
FORCE MAIN PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

MATCHLINE STA. 14+75.00 (SEE BELOW)



FORCE MAIN PROFILE CONT'D
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

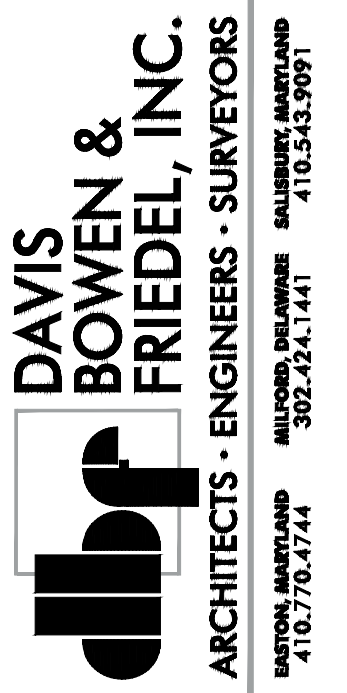
NOTE: SEWERWATER SHALL MAINTAIN 18" VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION.
NOTE: CONTRACTOR MAY ELIMINATE BENDS IF PROPOSED INVERTS CAN BE MET WITH PIPE DEFLECTION.



FORCE MAIN PROFILE CONT'D
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



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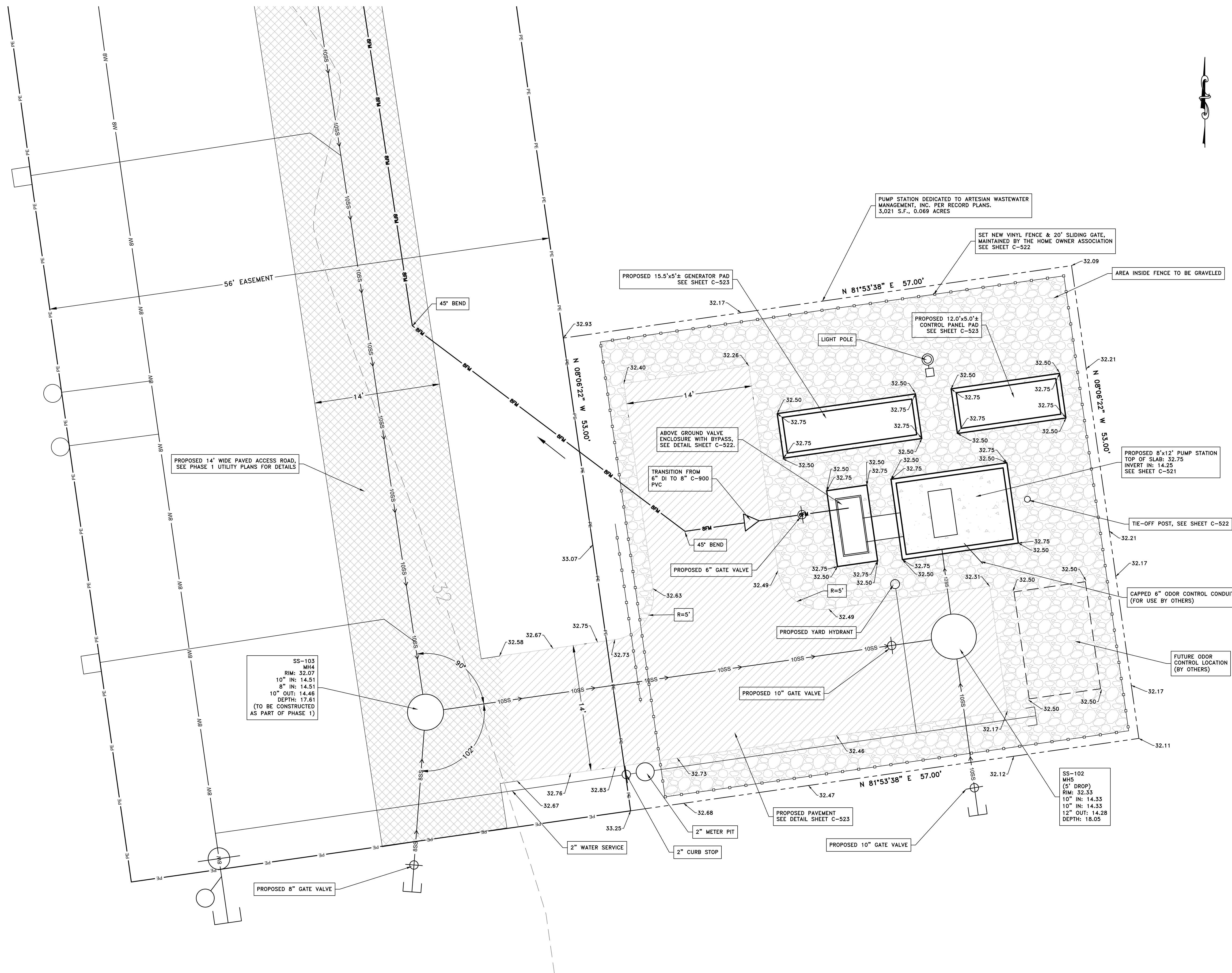
THE GRANARY AT DRAPER FARM
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08-04-2023	TOWN COMMENTS
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03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: HORIZ. 1"=50'
VERT. 1"=5'
Dwn By: DJR
Proj No.: 1443B006

FORCEMAIN PROFILE

Dwg No.: **C-519**



SS-103
MH4
RIM: 32.07
10" IN: 14.51
8" IN: 14.51
10" OUT: 14.46
DEPTH: 17.61
(TO BE CONSTRUCTED
AS PART OF PHASE 1)

SS-102
MH5
(5' DROP)
RIM: 32.33
10" IN: 14.33
10" IN: 14.33
12" OUT: 14.28
DEPTH: 18.05



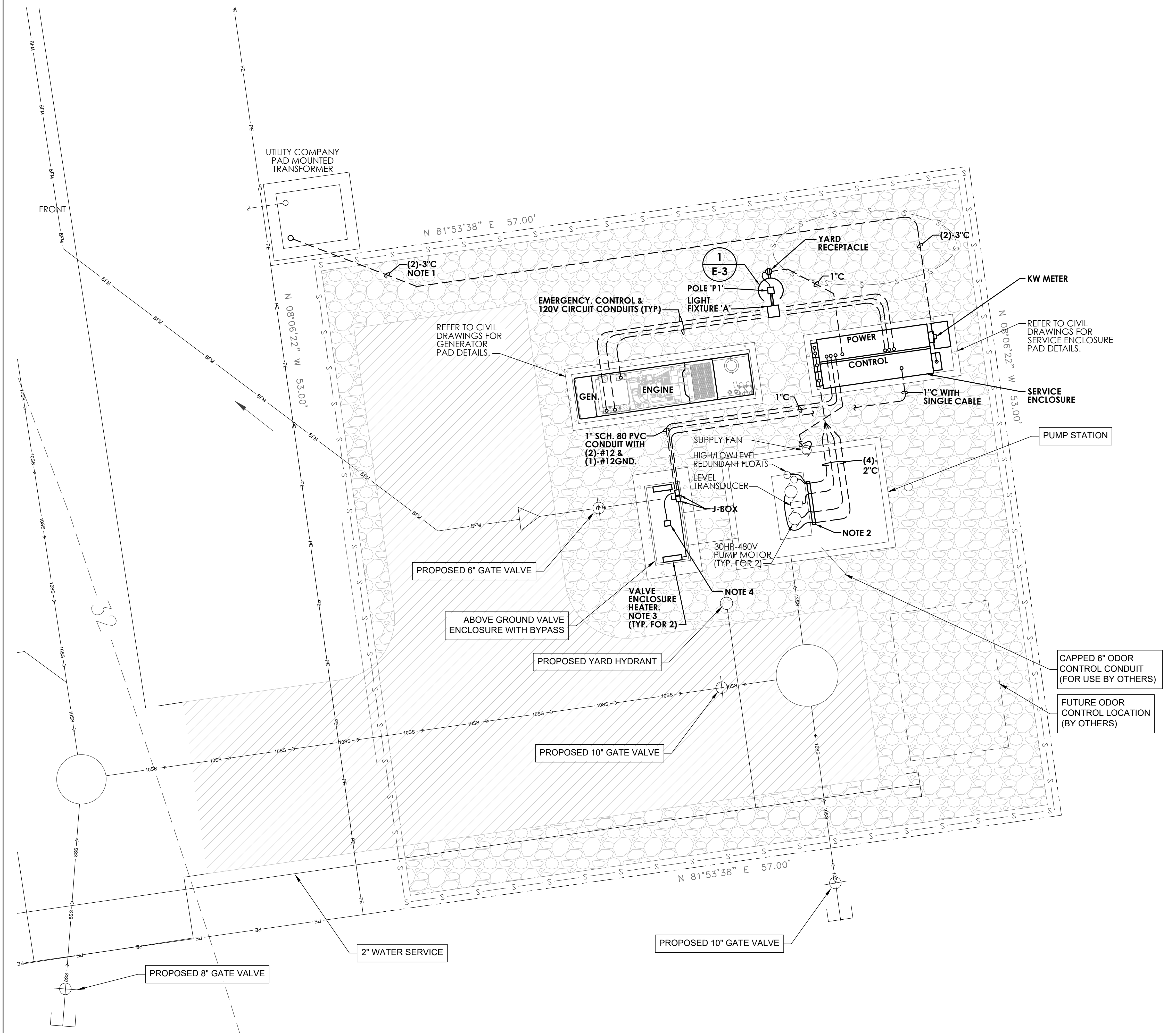
THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS

Date: JUNE 2023
Scale: 1"=5'
Dwn By: DJR
Proj No.: 1443B006

PUMP STATION PLAN

Dwg No.: **C-520**



LEGEND AND ABBREVIATIONS

- DP-3 EXISTING WIRING AND/OR EQUIPMENT TO REMAIN, OR PROVIDED BY OTHERS
- NEW WIRING AND/OR EQUIPMENT. ARROW INDICATES HOMERUN, LETTERS DENOTE CIRCUIT
- NEW WIRING RUN IN FLOOR CONSTRUCTION AND/OR UNDERGROUND
- EQUIPMENT REFERENCE SYMBOL
- A LIGHTING FIXTURE - UPPER CASE LETTER DENOTES FIXTURE TYPE IN LIGHTING FIXTURE SCHEDULE
- S SWITCH: SINGLE POLE
- CIRCUIT BREAKER
- DISCONNECT SWITCH: POLES & AMPACITY AS NOTED
- STARTER: SIZE & TYPE AS NOTED
- DUPLEX CONVENIENCE RECEPTACLE MOUNTED 18" A.F.F.-U.N.O.
- SPECIAL PURPOSE RECEPTACLE WITH NEMA DESIGNATION
- MOTOR AND MOTOR OUTLET: NUMBER DENOTES HORSEPOWER OR WATTS IF GREATER THAN 50
- TRANSFORMER
- Q QUAZITE BOX
- T THERMOSTAT - SELF CONTAINED WITH EQUIPMENT
- ATL ACROSS THE LINE STARTER
- BH BLOCK HEATER
- BC BATTERY CHARGER
- BCo BYPASS CONTACTOR
- DM DIGITAL METER
- EPO EMERGENCY PUSHBUTTON OPERATOR - GENERATOR
- G/A GENERATOR ANNUNCIATOR
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- IC ISOLATION CONTACTOR
- PC PHOTOCCELL
- PLM PHASE LOSS MONITOR
- SCM SELF CONTAINED METER
- SPD SURGE PROTECTIVE DEVICE
- SSC SOFT START CONTROLLER
- TB TERMINAL BLOCK
- UNO UNLESS NOTED OTHERWISE
- VFD VARIABLE FREQUENCY DRIVE
- W/ WITH
- XFMR TRANSFORMER

GENERAL NOTES

(NOT REFERENCED ON DRAWINGS)

1. COORDINATE LOCATION OF PAD MOUNTED TRANSFORMER AND ROUTE OF NEW INCOMING SERVICE WITH UTILITY COMPANY. UNDERGROUND CONDUIT SIZE AND ROUTING SHOWN IS DIAGRAMMATIC. MODIFY ROUTING AS REQUIRED. UTILITY COMPANY IS DELAWARE ELECTRIC CO-OP (DEC).
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ARTESIAN WASTEWATER SPECIFICATIONS.
3. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC. ALL CONDUIT RISING ABOVE GRADE SHALL BE RIGID STEEL. TRANSITION RIGID STEEL TO PVC 24" BELOW GRADE.
4. ARTESIAN WASTEWATER DIVISION SHALL PROVIDE THE SHORT CIRCUIT AND ARC FLASH STUDIES/LABELS FOR THIS PROJECT.
5. PROVIDE TO THE GENERAL CONTRACTOR, FINAL DIMENSIONS OF GENERATOR AND EQUIPMENT ENCLOSURE SO THAT CONCRETE PADS WILL BE PROVIDED TO ACCOMMODATE ALL EQUIPMENT SHOWN ON PLANS.

SHEET NOTES

1. MINIMUM BURIAL DEPTH OF ALL CONDUITS SERVING EQUIPMENT LESS THAN 600V SHALL BE 24" BELOW GRADE. CLOSELY COORDINATE INSTALLATION OF ALL CONDUITS WITH UNDERGROUND PIPING, EQUIPMENT AND SERVICES.
2. PROVIDE STAINLESS STEEL HOOKS AT TOP OF WELL BELOW HATCH. PROVIDE KELLEMS GRIP TO SUPPORT EACH CABLE. SECURE TO STAINLESS STEEL WELL MOUNTED BRACKET. MOUNT BRACKET 18" BELOW TOP OF WELL.
3. VALVE ENCLOSURE HEATER SHALL BE QMARK, MODEL #WHT500, 120VAC, 500W WITH LINE VOLTAGE THERMOSTAT. COORDINATE MOUNTING OF HEATERS WITHIN ENCLOSURE WITH PIPING AND EQUIPMENT.
4. FLOWMETER LOCATED ABOVE GRADE. CABLE TO BE PROVIDED WITH DRIP-LOOP, CONDUIT PENETRATING ENCLOSURE MOUNTING PAD TO BE SEALED TO PREVENT WATER INCURSION INTO CONDUIT.



DAVIS BOWEN & FRIEDEL, INC.
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 410.943.0191

THE GRANARY AT DRAPER FARM

SECTION 1

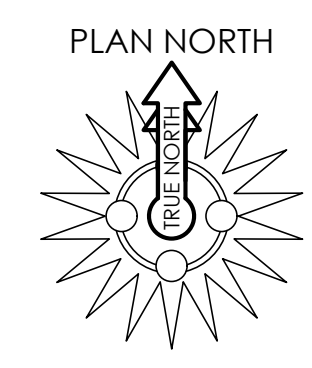
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
02-09-2024	PER ARTESIAN COMMENTS
03-06-2024	TOWN COMMENTS

Date: MARCH 2024
 Scale: AS NOTED
 Dwn By: MJG/EF
 Proj No.: 1443B006

PUMP STATION - PARTIAL SITE PLAN

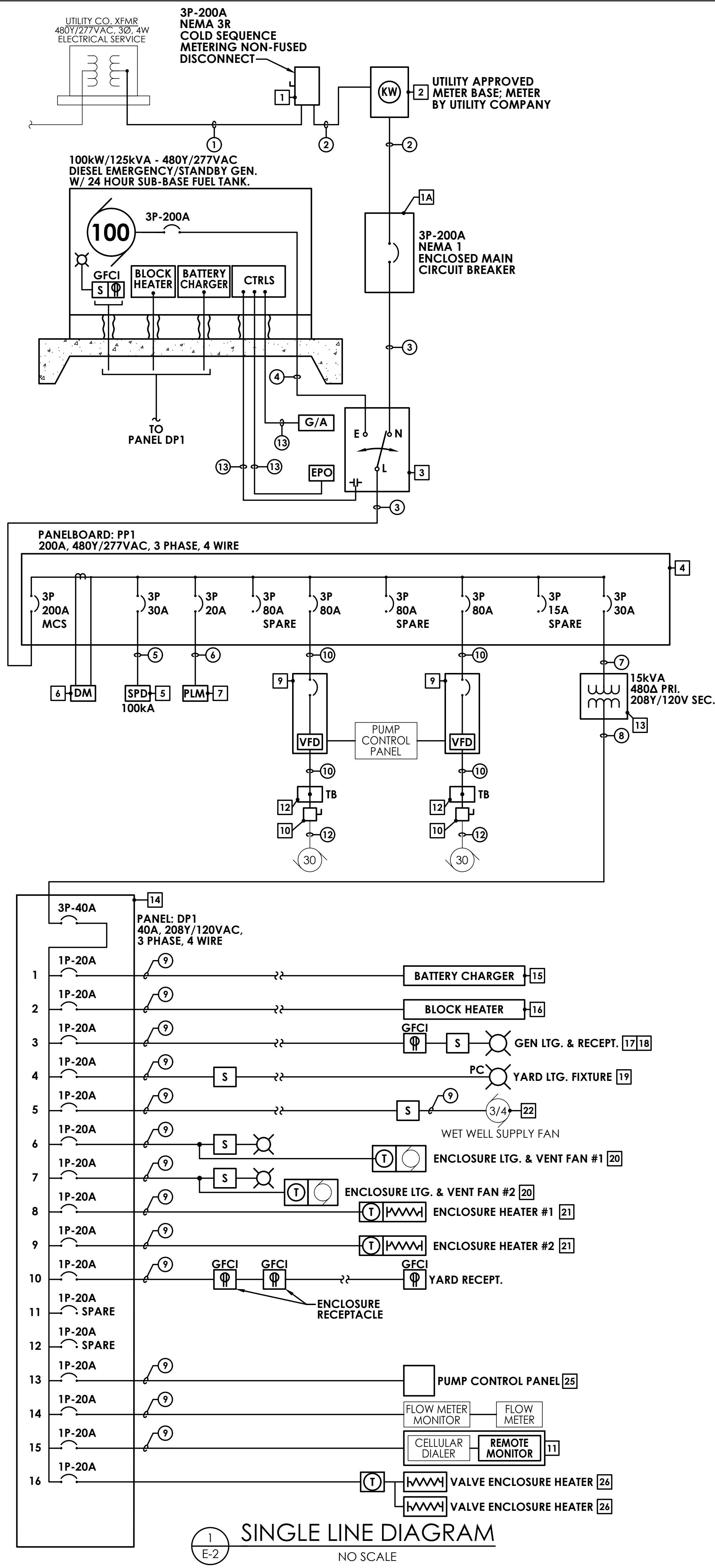
1 PUMP STATION - PARTIAL SITE PLAN
 E-1 SCALE: 1/4"=1'-0"



TOWN COMMENTS	03-06-2024
PER ARTESIAN COMMENTS	02-09-2024
ISSUED FOR REVIEW	11-14-2023

FAYDA ENGINEERING & ENERGY SOLUTIONS, LLC
 801 W. Newport Pike, Wilmington, DE 19804
 Tel: 302-999-1060, Fax: 302-999-1053
 www.FaydaEES.com FE&ES COMM. NO: 23-1585

Dwg No.: E-1



1 SINGLE LINE DIAGRAM
E-2 NO SCALE

EQUIPMENT SCHEDULE	
1	3P-200A NEMA 3R NON FUSED SERVICE DISCONNECT SWITCH - UTILITY APPROVED
1A	3P-200A NEMA 1 ENCLOSED MAIN CIRCUIT BREAKER WITH ELECTRONIC TRIP
2	CT RATED UTILITY APPROVED METER SOCKET - DELMARVA POWER
3	3P-200A CUMMINS MODEL OTC TRANSFER SWITCH W/ GEN START & OUTPUT TO SCADA PANEL
4	3P-200A MOLDED CASE SWITCH, PANEL PP1 RATED 480Y/277VAC, 14KAIC - 30 CIRCUIT
5	SQUARE D MODEL TVS4HWA10X; 100kA SURGE PROTECTIVE DEVICE
6	SQUARE D MODEL P820 DIGITAL METER W/ SPLIT CORE CT'S TO MONITOR LOAD OF PANEL PP1
7	PHASE LOSS MONITOR WITH OUTPUT TO SCADA PANEL
8	SQUARE D MODEL VHU363DSGL, 3P-100A NON-FUSED DISCONNECT SWITCH-NEMA 4SS
9	SQUARE D ALTIVAR 660 30HP VFD W/ HMI CONTROL INTERFACE & NEMA 1 TERMINAL ENCLOSURE; MODEL ATV660D22T4NGNW.
10	NOT USED
11	SENSAPHONE SENTINEL WITH CELLULAR HIGH GAIN ANTENNA
12	EXTERIOR NEMA 4X ENCLOSURE - SEE DETAIL
13	15kVA DRY TYPE TRANSFORMER W/ RAINHOOD - 480A PRIMARY, 208Y/120VAC SECONDARY
14	PANEL DP1 - 3P-40A BACKFED MAIN - 14" WIDE CABINET - 30 CIRCUIT
15	GENERATOR BATTERY CHARGER - SIZED PER GENERATOR MANUFACTURER - 120VAC
16	GENERATOR BLOCK HEATER - 1.5kW - 120VAC
17	GENERATOR LIGHT - VAPORTIGHT W/ GUARD/GLOBE AND 27WATT LED SCREW-IN LAMP
18	GFCI RECEPTACLE IN WEATHERPROOF BOX
19	YARD LIGHTING FIXTURE - SEE FIXTURE SCHEDULE
20	VENTILATING EXHAUST FAN WITH RAINHOOD & MATCHING INTAKE LOUVER WITH RAINHOOD & FILTERS - BY SERVICE ENCLOSURE MANUFACTURER. SEE 23
21	THERMOSTATICALLY CONTROLLED SPACE HEATER - BY SERVICE ENCLOSURE MANUFACTURER - SEE 23
22	WET WELL FAN - SEE FAN SCHEDULE
23	SERVICE ENCLOSURE - EQUIPMENT ENCLOSURE: HOFFMAN NEMA 3R, 48"D x 108"W x 90"H, STEEL, PAINTED WHITE INTERIOR/EXTERIOR. TO HOUSE ALL ELECTRICAL EQUIPMENT AS SHOWN ON SINGLE-LINE DIAGRAM. ENCLOSURE SHALL BE COMPLETELY ASSEMBLED BY A U.L. LISTED PANEL SHOP. PROVIDE INTERNAL HVAC EQUIPMENT AS NECESSARY TO CONTROL ENVIRONMENTAL CONDITIONS WITHIN SUITABLE RANGE OF ALL EQUIPMENT IN ENCLOSURE. ENCLOSURE DIMENSIONS SHOWN ON PLAN ARE APPROXIMATE - VERIFY ACTUAL SIZE REQUIRED. PROVIDE POWDERCOAT PAINT FINISH IN COMPLIANCE WITH ARTESIAN WASTEWATER ENGINEERING DEPARTMENT STANDARDS.
24	NOT USED
25	PUMP CONTROL PANEL - BY FLYGT MULTITRODE/MULTISTART, NO EQUALS
26	VALVE ENCLOSURE HEATER: QMARK, MODEL #WHT500, 120VAC, 500W WITH LINE VOLTAGE THERMOSTAT.

FEEDER/BRANCH CIRCUIT SCHEDULE	
1	(2)-3"C: (1) W/ (4)-#3/0 & (1)-3"C SPARE
2	(2)-3"C: (1) W/ (4)-#3/0 & (1)-#6GND & (1)-3"C SPARE
3	(4)-#3/0 & (1)-#6GND - 2-1/2"C
4	(2)-3"C: (1) WITH (4)-#3/0 & (1)-#6GND & (1)-3"C SPARE
5	(4)-#10 & (1)-#10GND - 3/4"C (MAX 24" LEAD LENGTH)
6	(4)-#12 & (1)-#12GND - 3/4"C
7	(3)-#10 & (1)-#10GND - 3/4"C
8	(4)-#6 & (1)-#10GND - 1"C
9	(2)-#12 & (1)-#12GND - 3/4"C
10	(3)-#2 & (1)-#8GND - 1-1/4"C
11	(1) - 1-1/4"C
12	(1) - 2"C - PUMP CABLE BY MOTOR MANUFACTURER
13	3/4"C: CONDUCTOR PER GENERATOR MANUFACTURER
14	1"C: CONDUCTORS PER UTILITY COMPANY
15	(3)-#12 & (1)-#12GND - 3/4"C

- ### GENERAL NOTES
- (NOT REFERENCED ON DRAWINGS)
- ALL INTERCONNECTING WIRING WITHIN ENCLOSURE SHALL BE IN SCHEDULE 40 PVC OR RIGID ALUMINUM CONDUIT. LIQUID-TIGHT FLEXIBLE NONMETALLIC CONDUIT IN LENGTHS NOT EXCEEDING 12" MAY BE USED WHERE INSTALLATION OF RIGID CONDUIT IS IMPRACTICAL.
 - ELECTRICAL CONTRACTOR IS ENCOURAGED TO CONSOLIDATE PANEL EQUIPMENT, AND/OR PRESENT AN ALTERNATE LAYOUT FOR REVIEW BY ELECTRICAL ENGINEER OF RECORD.
 - SEAL FAILURE AND OVERTEMPERATURE MODULES TO BE FURNISHED BY PUMP MANUFACTURER.
 - EQUIPMENT ENCLOSURE: PROVIDE A NEMA 12/OUTDOOR WITH SLOPED TOP ENCLOSURE TO HOUSE ALL ELECTRICAL EQUIPMENT AS SHOWN ON SINGLE-LINE DIAGRAM. ENCLOSURE SHALL BE COMPLETELY ASSEMBLED BY A U.L. LISTED PANEL SHOP. PROVIDE INTERNAL HVAC EQUIPMENT AS NECESSARY TO CONTROL ENVIRONMENTAL CONDITIONS WITHIN SUITABLE RANGE OF ALL EQUIPMENT IN ENCLOSURE. ENCLOSURE DIMENSIONS SHOWN ON PLAN ARE APPROXIMATE - VERIFY ACTUAL SIZE REQUIRED AND MODIFY ACCORDINGLY. PROVIDE BRUSHED ALUMINUM FINISH.



DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
MILTON, DELAWARE
302.341.1444
410.767.7474

THE GRANARY AT DRAPER FARM
SECTION 1
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

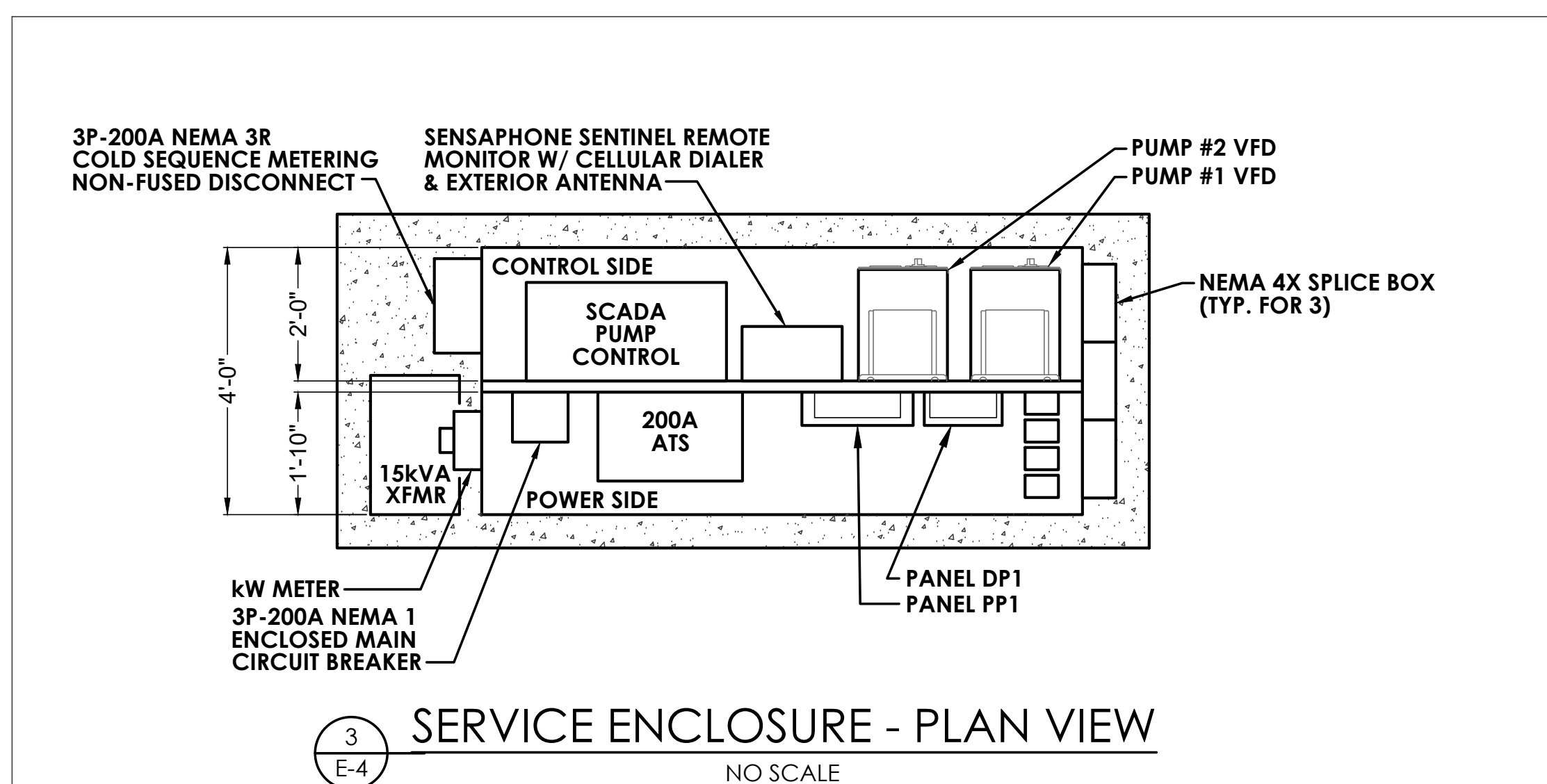
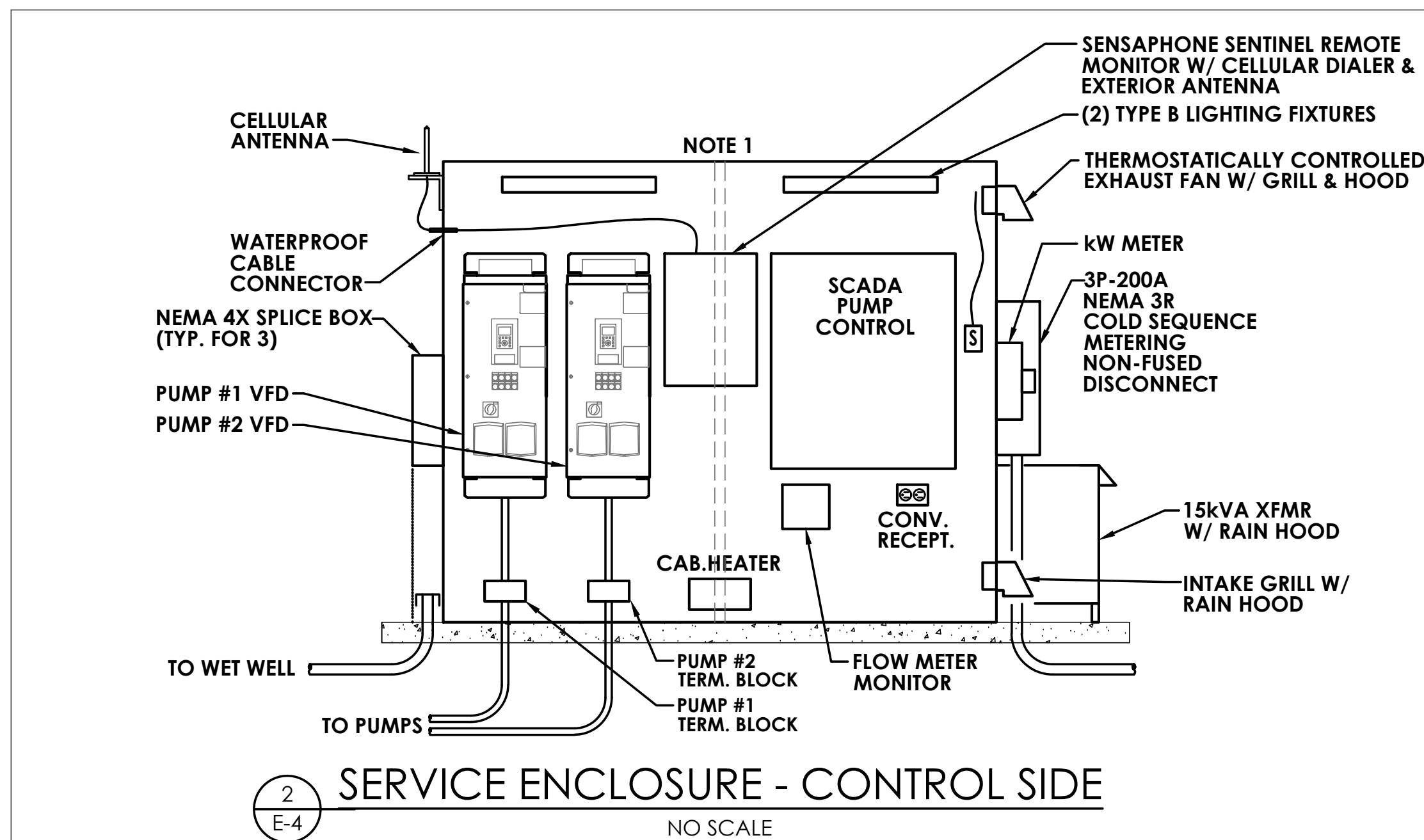
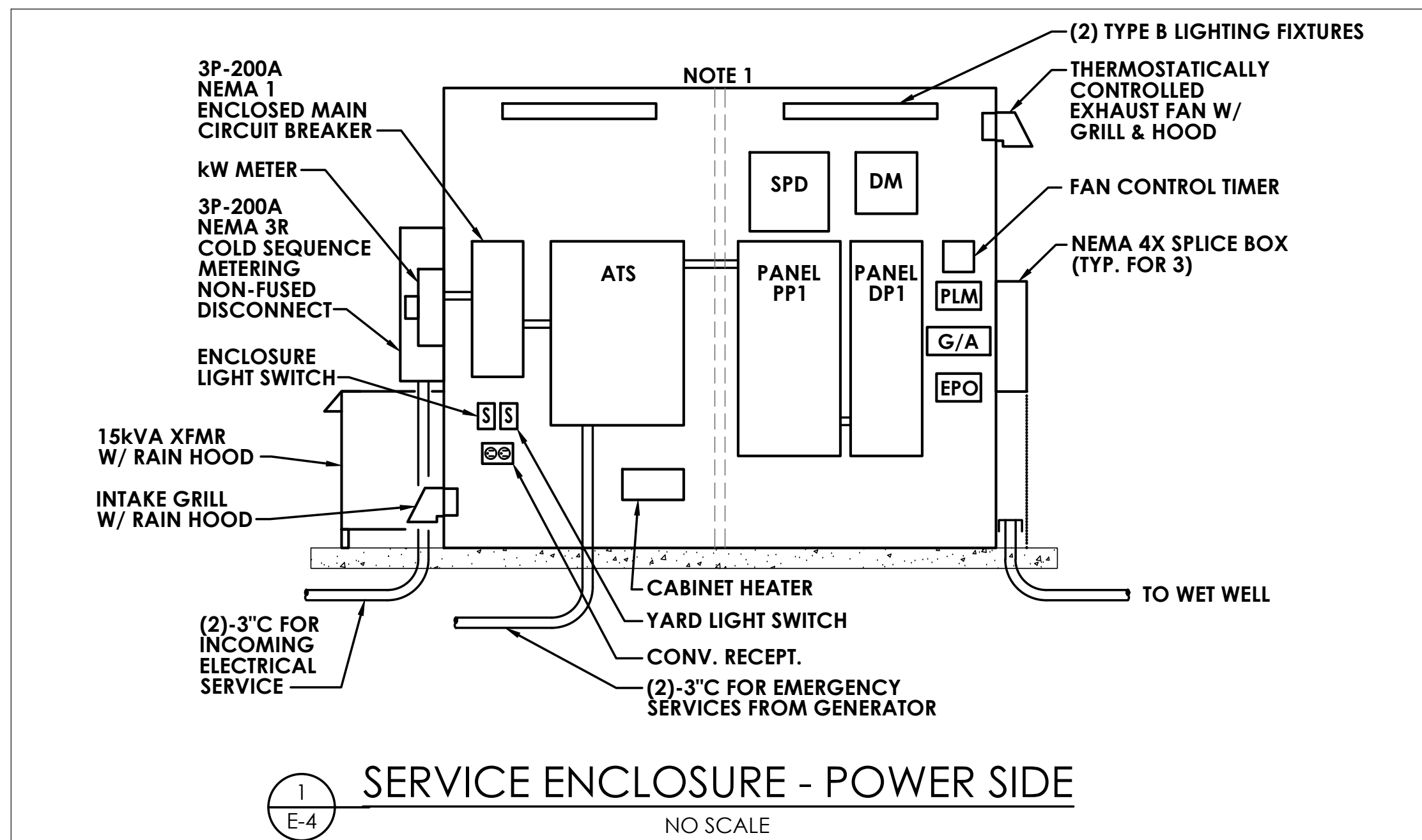
DATE	COMMENTS
02-09-2024	PER ARTESIAN COMMENTS
03-06-2024	TOWN COMMENTS

Date: MARCH 2024
Scale: AS NOTED
Dwn By: MJG/EF
Proj No.: 1443B006

TOWN COMMENTS	03-06-2024
PER ARTESIAN COMMENTS	02-09-2024
ISSUED FOR REVIEW	11-14-2023

FAYDA ENGINEERING & ENERGY SOLUTIONS, LLC
801 W. Newport Pike, Wilmington, DE 19804
Tel: 302-999-1060, Fax: 302-999-1053
www.FaydaEES.com FE&ES COMM. NO: 23-1585

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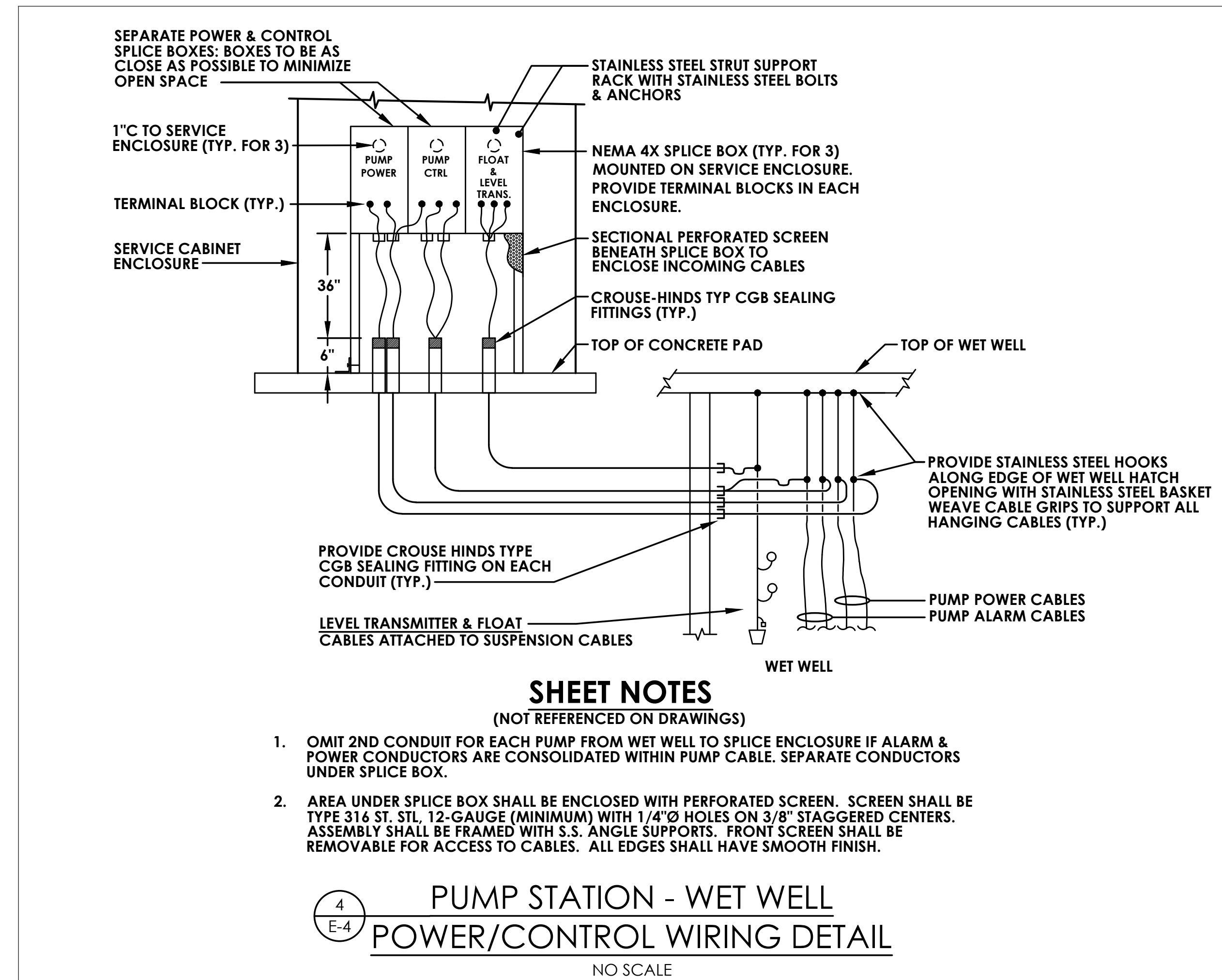


SHEET NOTES

1. MODIFY LOCATIONS OF ALL EQUIPMENT TO ENSURE CENTER MULLION OF SERVICE ENCLOSURE DOES NOT RESTRICT ACCESS TO ANY EQUIPMENT INSIDE ENCLOSURE.

GENERAL NOTES
(NOT REFERENCED ON DRAWINGS)

1. ALL INTERCONNECTING WIRING WITHIN ENCLOSURE SHALL BE IN SCHEDULE 40 PVC. LIQUID-TIGHT FLEXIBLE NONMETALLIC CONDUIT IN LENGTHS NOT EXCEEDING 12" MAY BE USED WHERE INSTALLATION OF RIGID CONDUIT IS IMPRACTICAL.
2. ELECTRICAL CONTRACTOR IS ENCOURAGED TO CONSOLIDATE PANEL EQUIPMENT, AND/OR PRESENT AN ALTERNATE LAYOUT FOR REVIEW BY ARTESIAN WATER.
3. SEAL FAILURE AND OVERTEMPERATURE MODULES TO BE FURNISHED BY PUMP MANUFACTURER.
4. ARTESIAN WASTEWATER DIVISION WILL PROVIDE PROGRAMMING OF SCADA SYSTEM.



DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
MILTON, DELAWARE 19968
302.241.1444
410.945.0191

THE GRANARY AT DRAPER FARM
SECTION 1
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
02-09-2024	PER ARTESIAN COMMENTS
03-06-2024	TOWN COMMENTS

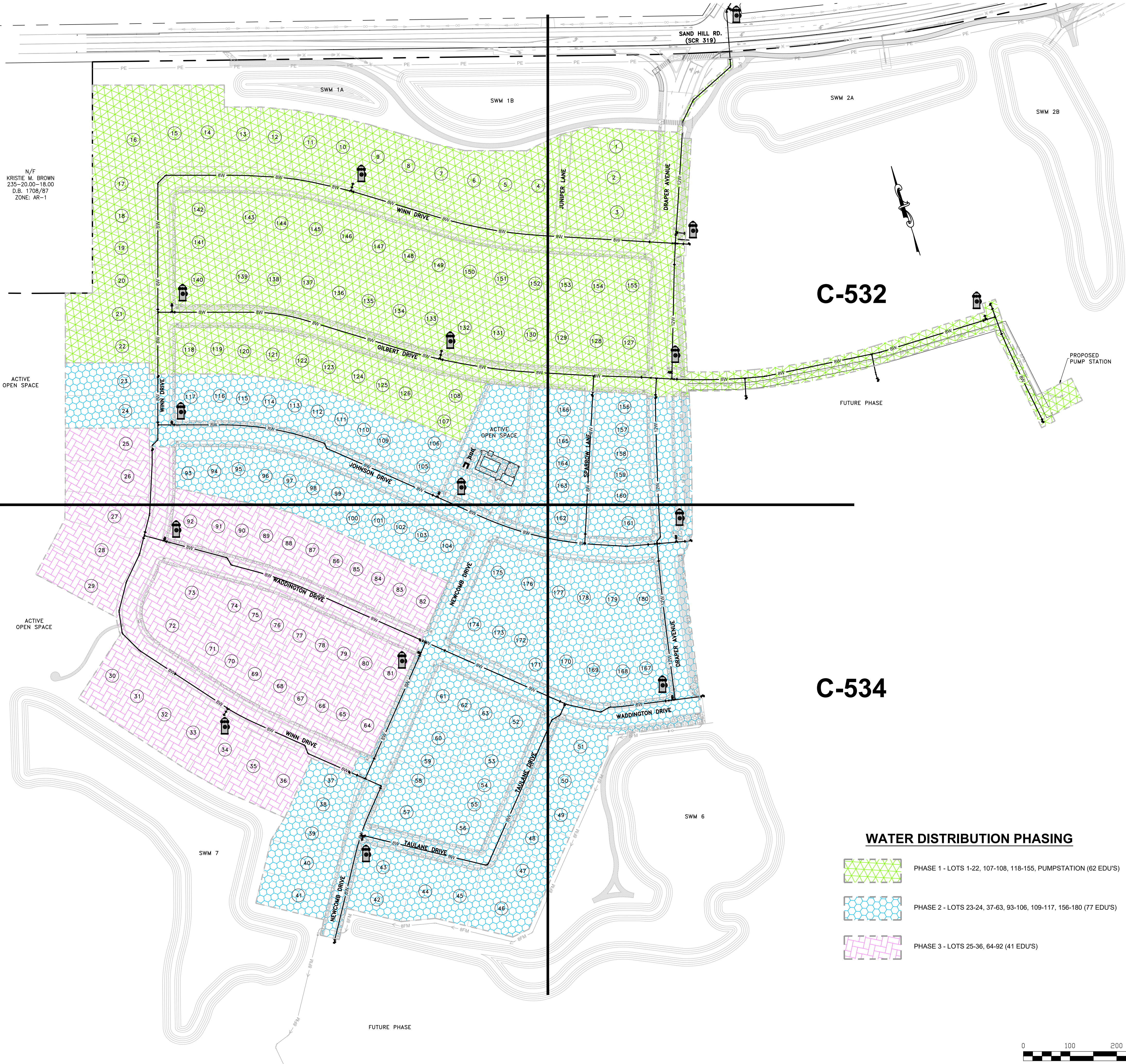
Date: MARCH 2024
Scale: AS NOTED
Dwn By: MJG/EF
Proj No.: 1443B006

DETAILS

TOWN COMMENTS 03-06-2024
PER ARTESIAN COMMENTS 02-09-2024
ISSUED FOR REVIEW 11-14-2023

Dwg No.: **E-4**

FAYDA ENGINEERING & ENERGY SOLUTIONS, LLC
801 W. Newport Pike, Wilmington, DE 19804
Tel: 302-999-1060, Fax: 302-999-1053
www.FaydaEES.com FE&ES COMM. NO: 23-1585



C-531

C-532

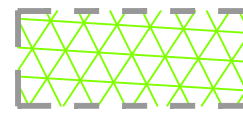
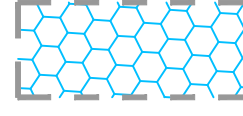
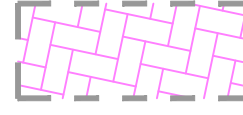
C-533

C-534

N/F
KRISTIE M. BROWN
235-20.00-18.00
D.B. 1708/87
ZONE: AR-1

N/F
C D CAREY FARMS, LLC.
235-20.00-17.00
D.B. 2785/103
ZONE: AR-1

WATER DISTRIBUTION PHASING

-  PHASE 1 - LOTS 1-22, 107-108, 118-155, PUMPSTATION (62 EDU'S)
-  PHASE 2 - LOTS 23-24, 37-63, 93-106, 109-117, 156-180 (77 EDU'S)
-  PHASE 3 - LOTS 25-36, 64-92 (41 EDU'S)



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
08-04-2023	TOWN COMMENTS
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03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: 1"=100'
Dwn By: DJR
Proj No.: 1443B006

WATER OVERVIEW

Dwg No.: **C-530**

THE GRANARY AT DRAPER FARM
 SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

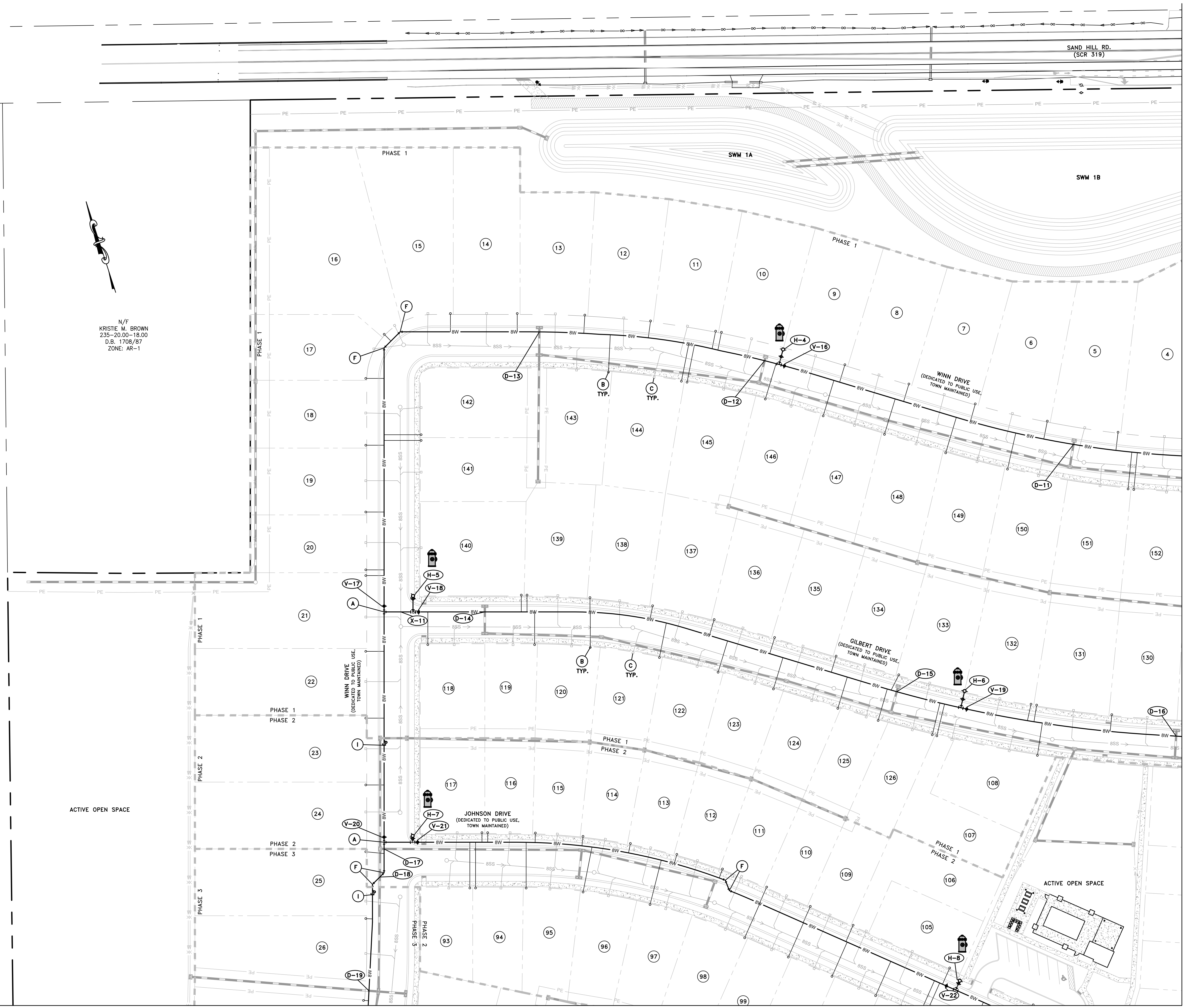
MATCHLINE (SEE SHEET C-532)

DATE	COMMENTS
08-04-2023	TOWN COMMENTS
11-16-2023	DELDOT COMMENTS
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02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: 1"=50'
 Dwn By: DJR
 Proj No.: 1443B006

WATER PLAN

Dwg No.: **C-531**



N/F
 C D CAREY FARMS LLC.
 235-20.00-17.00
 D.B. 2785/103
 ZONE: AR-1

N/F
 KRISTIE M. BROWN
 235-20.00-18.00
 D.B. 1708/87
 ZONE: AR-1

KEY LEGEND	
LABEL	DESCRIPTION
(H-1)	FIRE HYDRANT (SEE DETAIL)
(V-1)	PROPOSED 8" OR 12" WATER VALVE
A	PROPOSED 8" TEE
B	PROPOSED WATER METER (TYP.)
C	PROPOSED SEWER LATERAL (TYP.)
D	CONNECT TO EXISTING WATER MAIN WATER MAIN (BY OTHERS)
E	PROPOSED 90° BEND
F	PROPOSED 45° BEND
G	PROPOSED 22.5° BEND
H	PROPOSED 11.25° BEND
I	WATER CAP & 2" BLOW OFF
J	PROPOSED 12"x12" CROSS
K	PROPOSED 12"x8" REDUCER
L	PROPOSED 12"x12" TEE
(X-1)	WATER/SEWER CROSSING
(D-1)	WATER/STORM CROSSING

- NOTE:**
1. FIRE HYDRANTS, WATER VALVES, TEES, CROSSES, REDUCERS, WATER METERS AND BLOW-OFF SYMBOLS ON THE SITE PLAN ARE FOR GENERAL LOCATIONS. FOR PROPER LOCATION OF INSTALLATION OF THE ABOVE ITEMS, REFER TO DETAIL SHEET C-535 & C-536.
 2. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH DELAWARE STATE FIRE PREVENTION REGULATIONS.
 3. ALL VALVE CURB BOXES INSTALLED ALONG UNIMPROVED EASEMENT AREAS SHALL HAVE A BLUE FIBERGLASS MARKER.

MATCHLINE (SEE SHEET C-533)



N/F
C. D. CAREY FARMS LLC.
235-20.00-14.00
D.B. 2785/103

SEE WATER MAIN EXTENSION
PLANS

PROPOSED 24" STEEL
CASING PIPE

SAND HILL RD.
(SCR 319)

SWM 1B

SWM 2A

SWM 2B

PHASE 1

1

2

3

153

154

155

FUTURE PHASE

GILBERT DRIVE
(DEDICATED TO PUBLIC USE,
TOWN MAINTAINED)

129

128

127

166

165

164

163

156

157

158

159

160

PHASE 1

PHASE 2

PHASE 1

PHASE 2

PHASE 1

PHASE 2

PHASE 1

PHASE 2

PHASE 1

PHASE 2

PUMP STATION

PHASE 1

PHASE 1

PHASE 1

PHASE 1

PHASE 1

PHASE 1

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PHASE 1

PHASE 1

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PHASE 1

PHASE 1

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PHASE 1

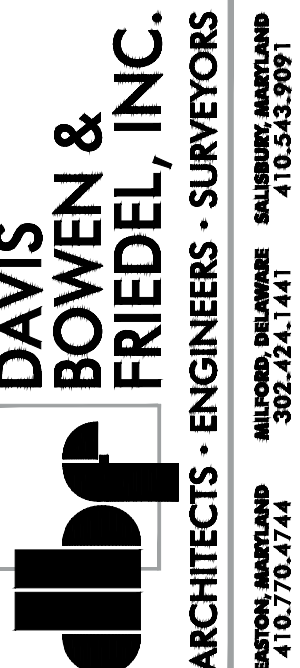
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MATCHLINE (SEE SHEET C-531)

MATCHLINE (SEE SHEET C-534)



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
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03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: 1"=50'
Dwn By: DJR
Proj No.: 1443B006

WATER PLAN

Dwg No.: **C-532**

MATCHLINE (SEE SHEET C-531)



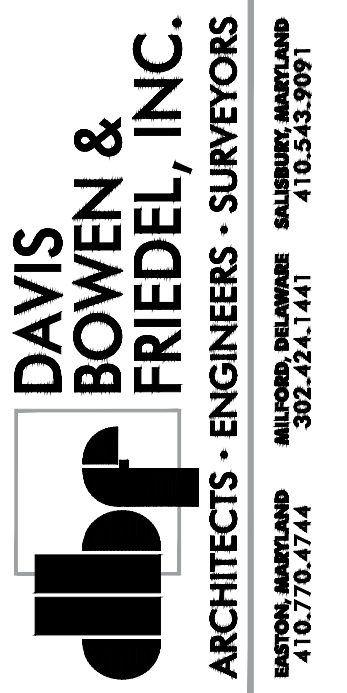
N/F
C. D. CAREY FARMS LLC.
235-20.00-17.00
D.B. 2785/103

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MATCHLINE (SEE SHEET C-534)



THE GRANARY AT DRAPER FARM
SECTION I
TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

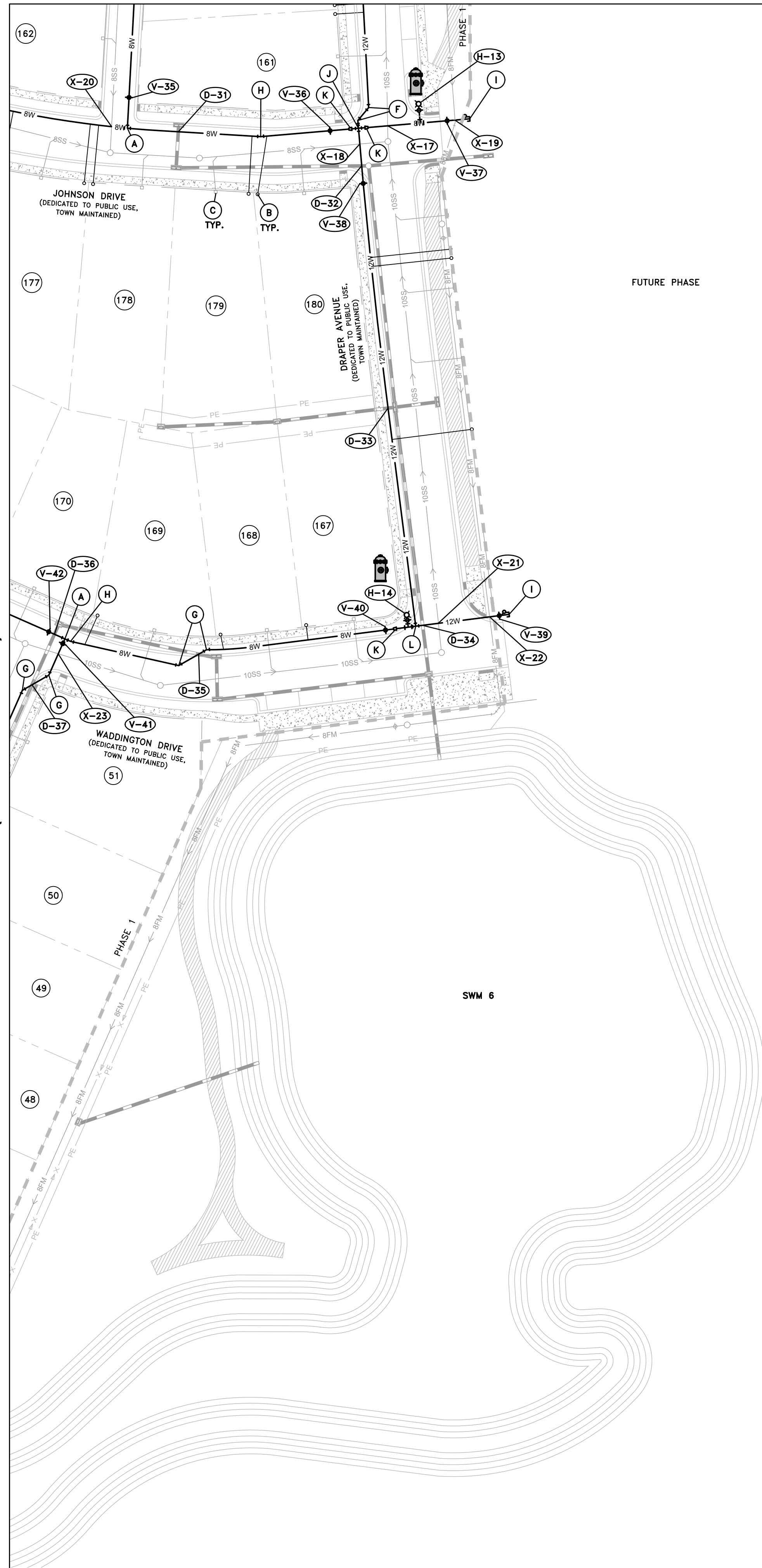
DATE	COMMENTS
08-04-2023	TOWN COMMENTS
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Dwn By: DJR
Proj No.: 1443B006

WATER PLAN

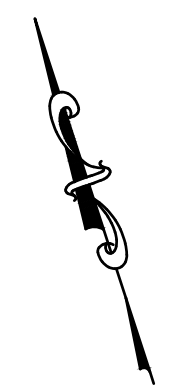
Dwg No.: **C-533**

MATCHLINE (SEE SHEET C-532)



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DAVIS BOWEN & FRIEDEL, INC.
 ARCHITECTS - ENGINEERS - SURVEYORS
 MILTON, DELAWARE
 982.24.1441
 410.343.0791

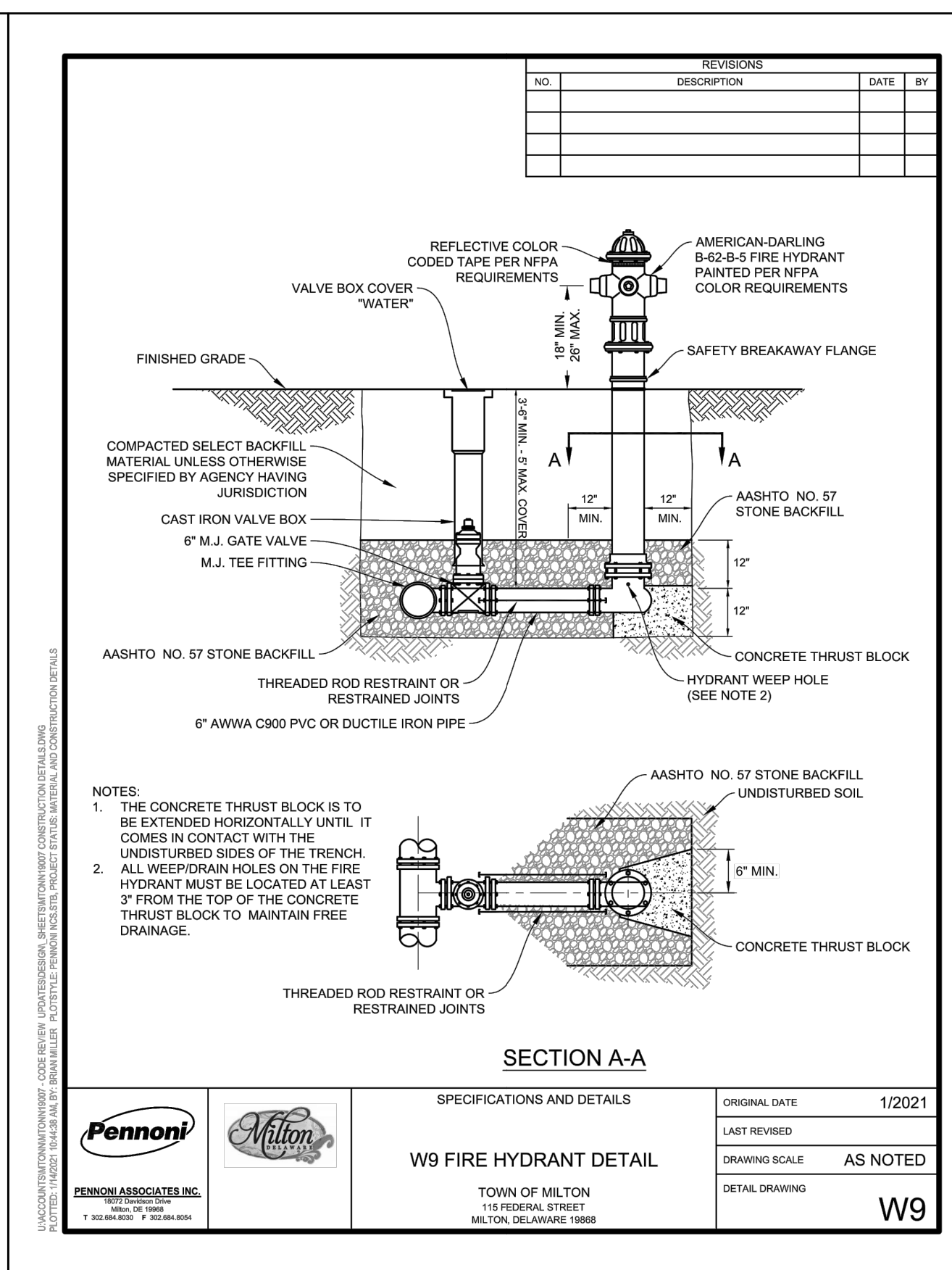
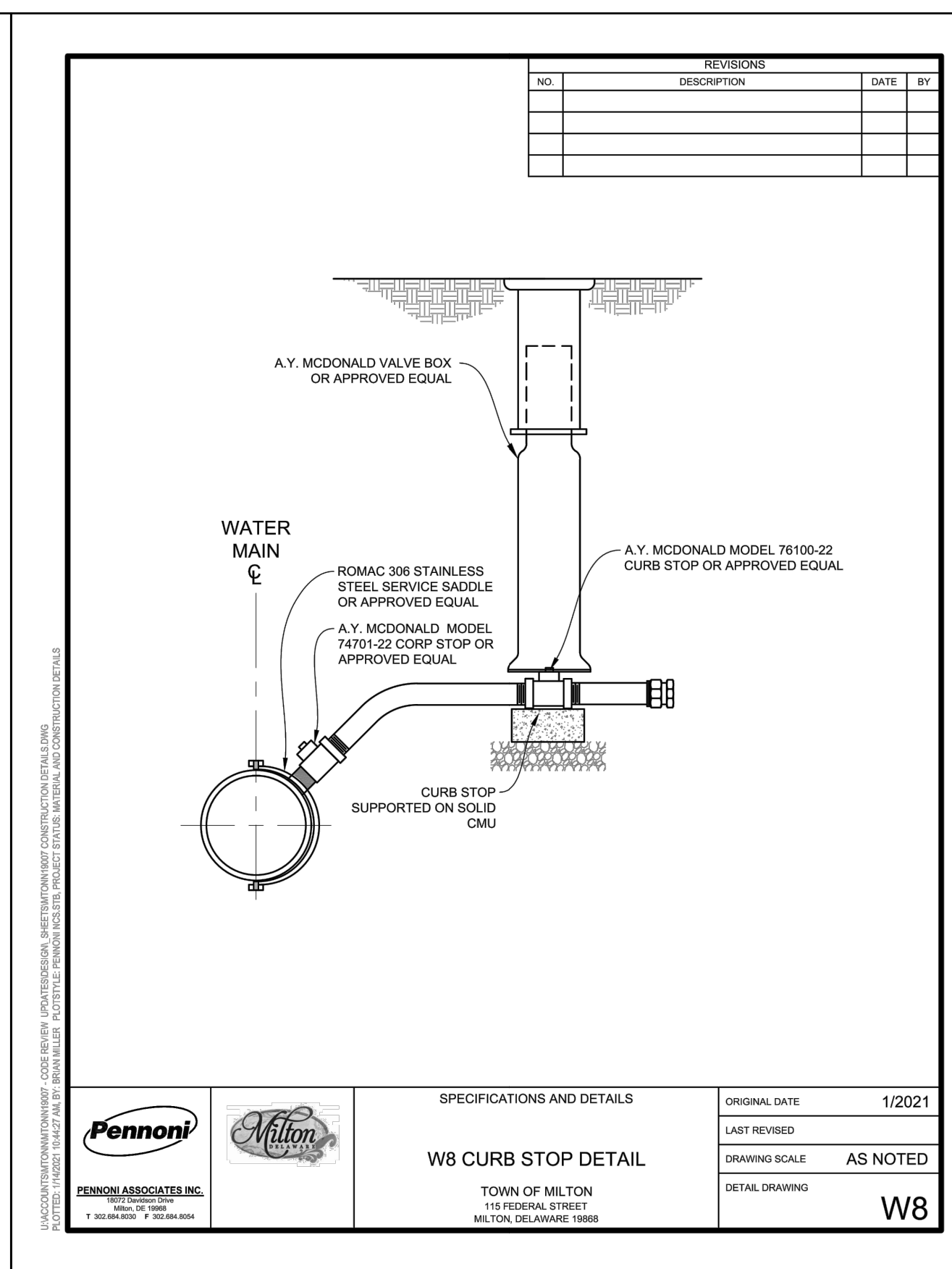
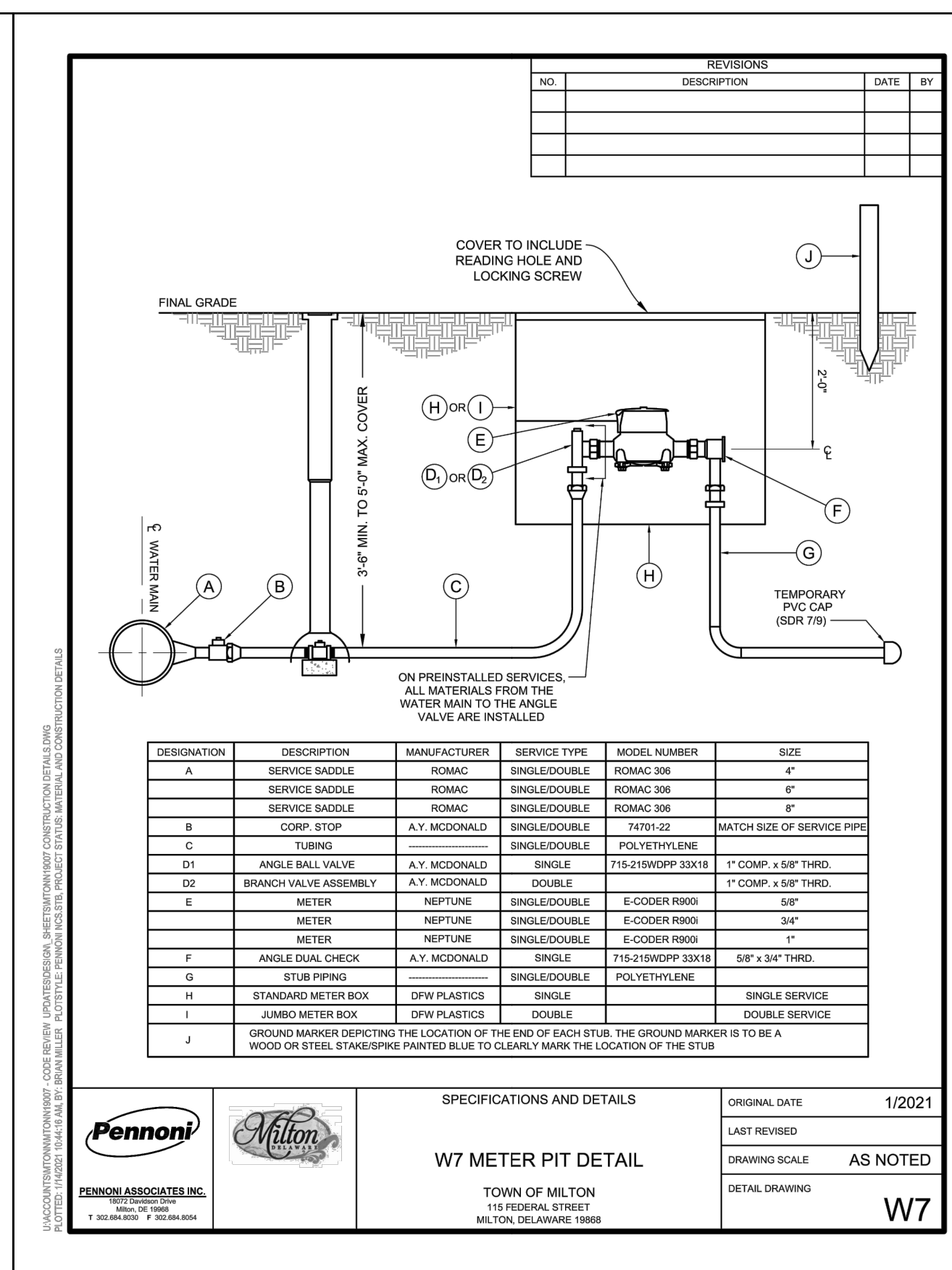
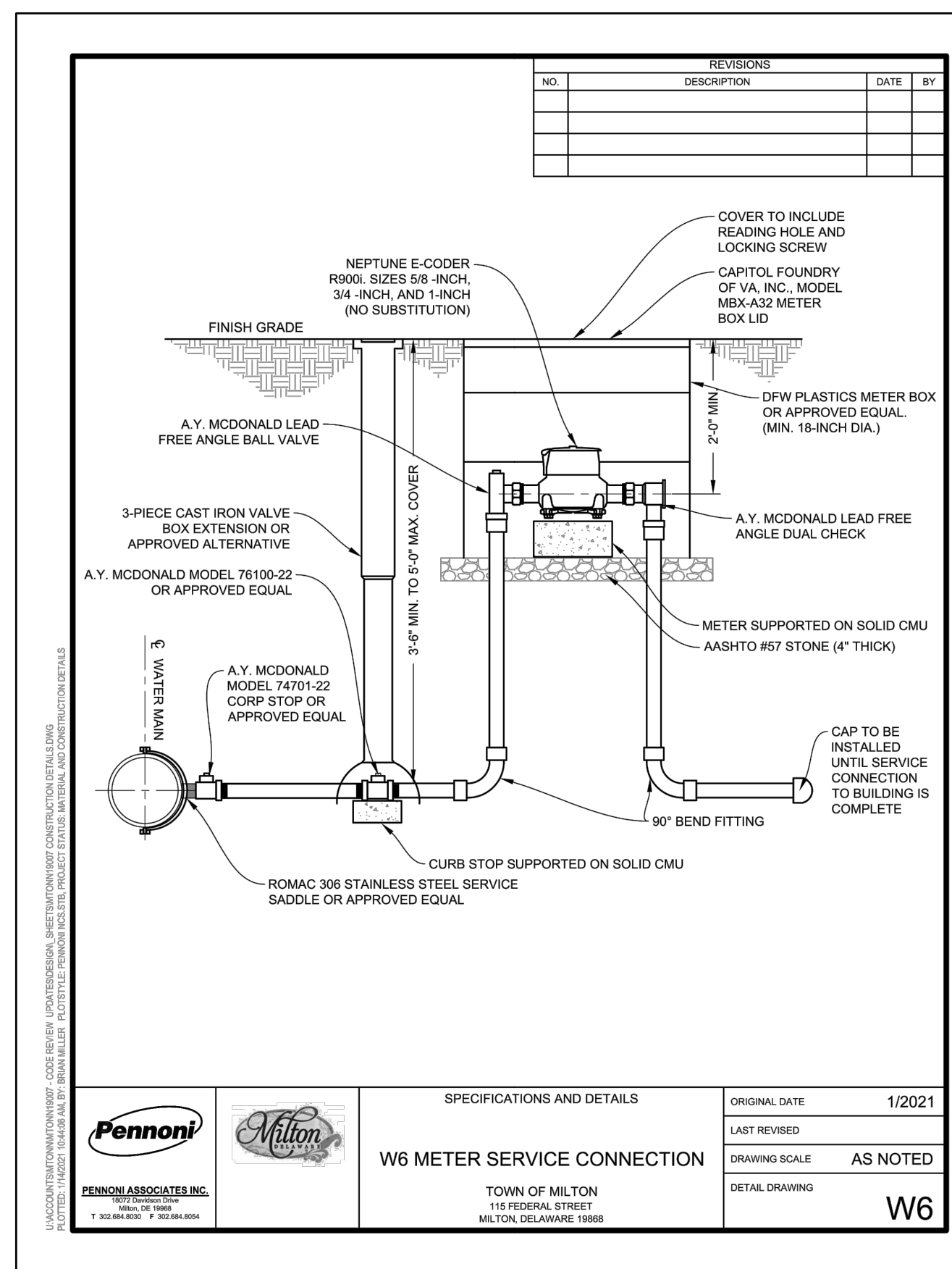
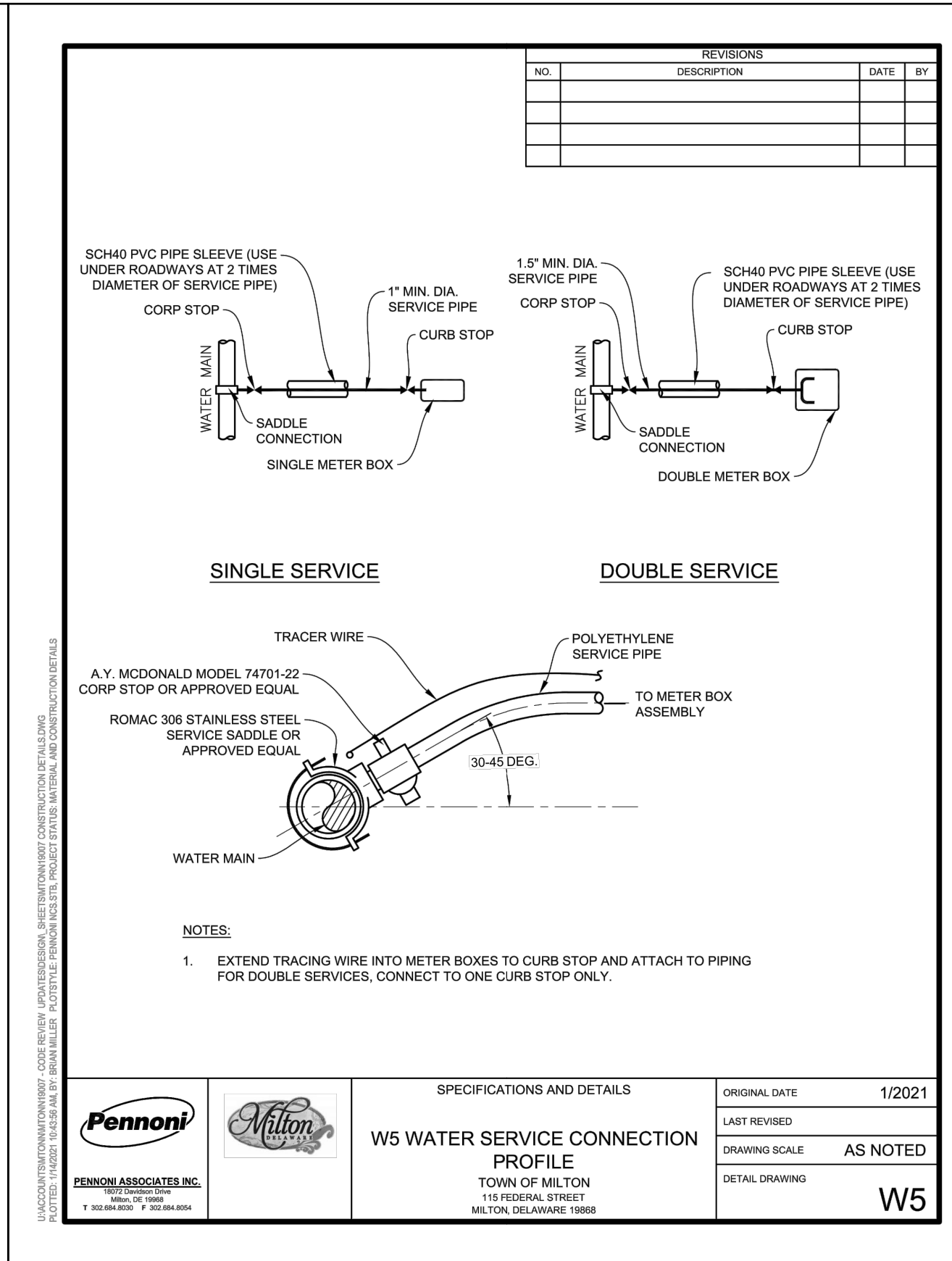
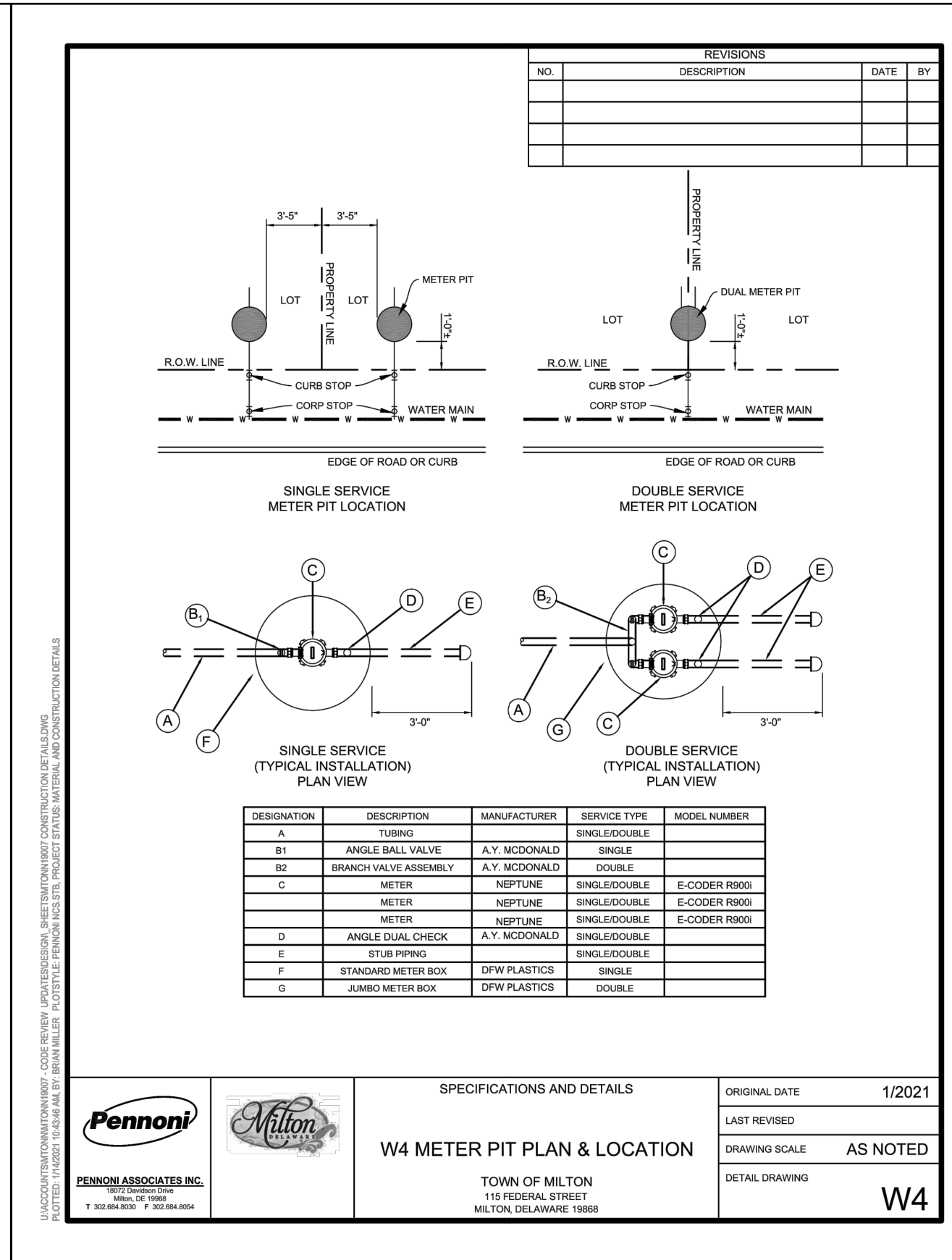
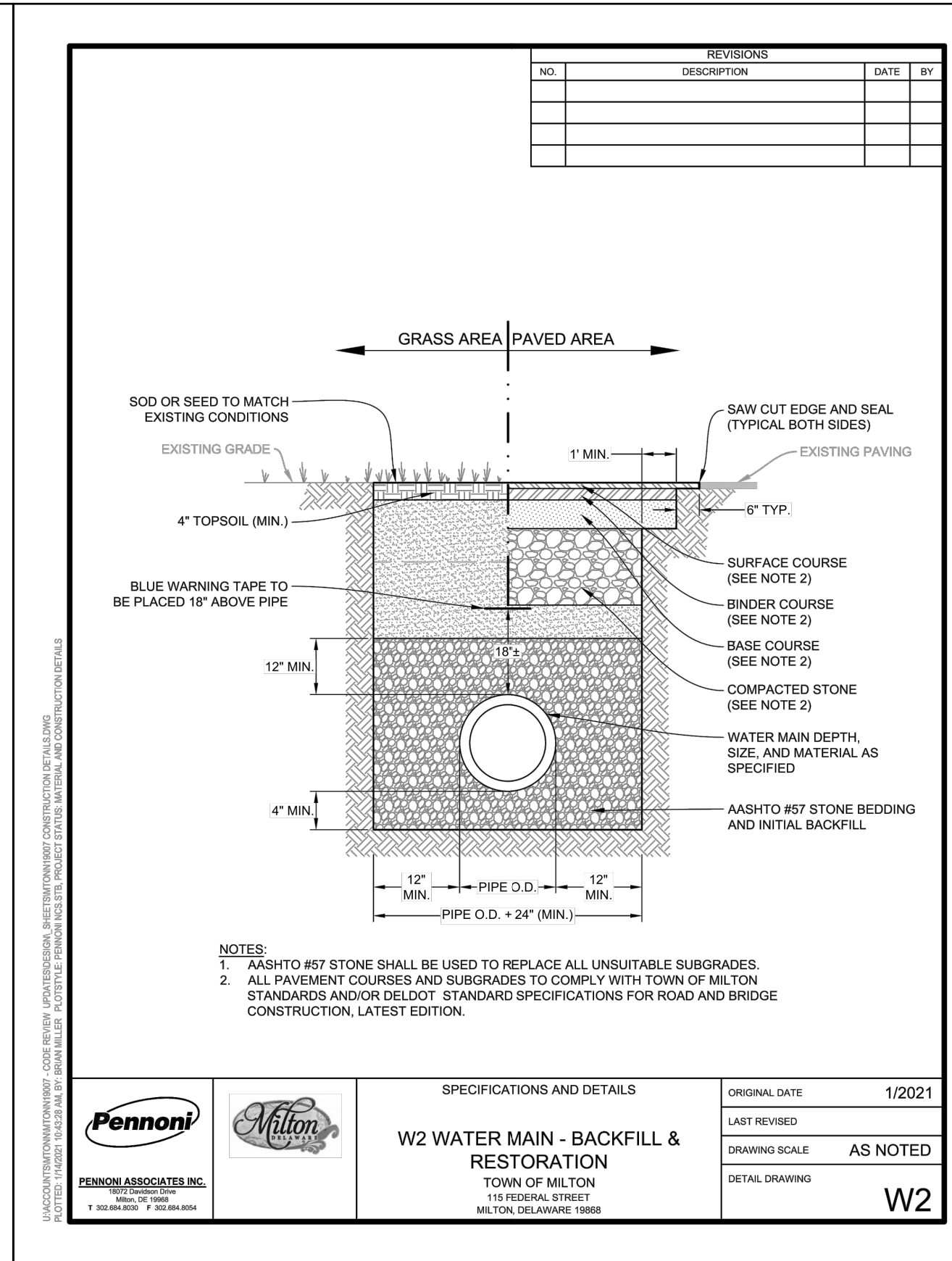
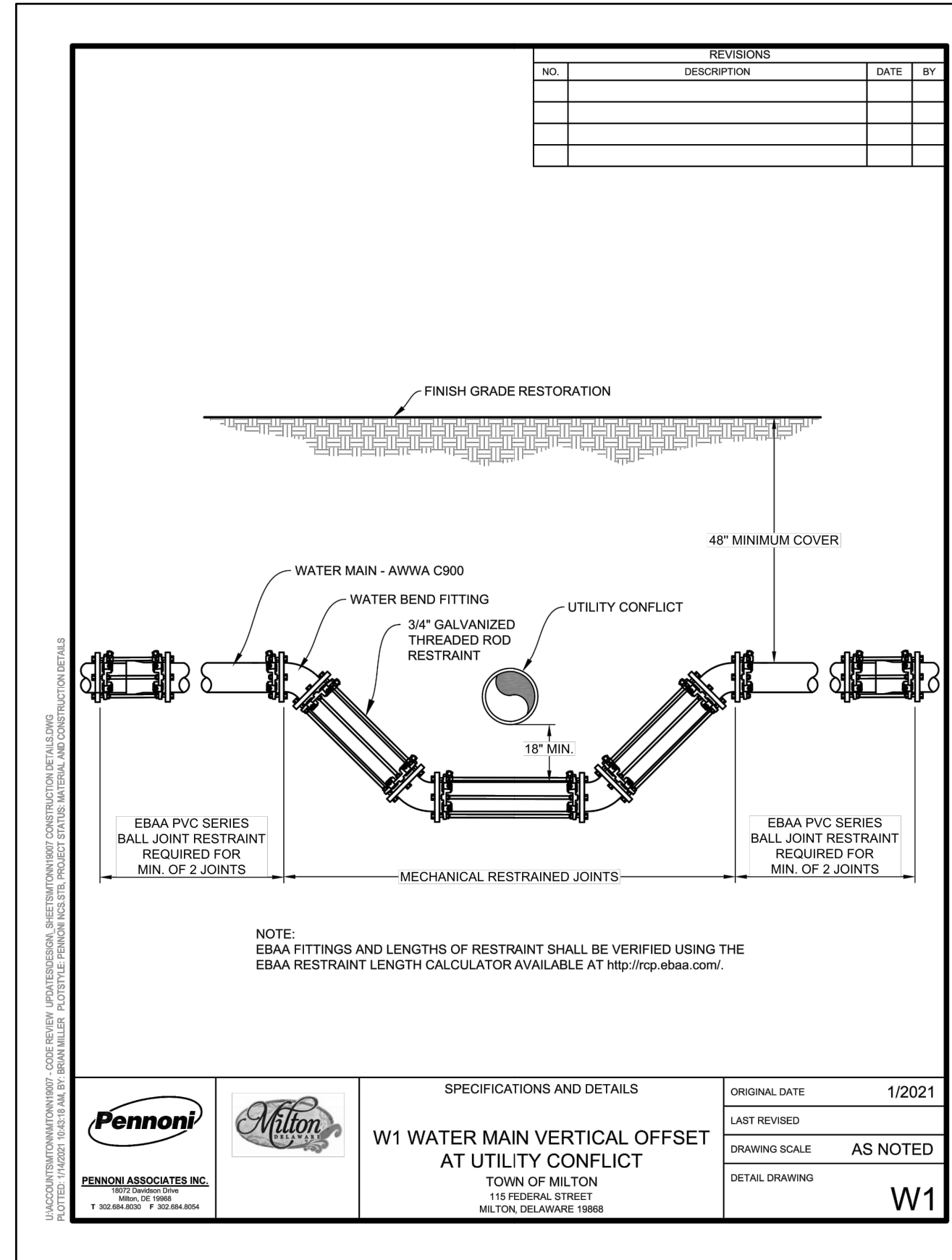
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Date: JUNE 2023
 Scale: 1"=50'
 Dwn By: DJR
 Proj No.: 1443B006

WATER PLAN

Dwg No.: **C-534**



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03-06-2024	TOWN COMMENTS

Date: JUNE 2023
Scale: N.T.S.
Dwn By: DJR
Proj No.: 1443B006

BEARING SURFACE REQUIRED - SQ. FT.
THRUST BLOCKING FOR HORIZONTAL AND VERTICAL DOWNWARD THRUSTS
*** 200 PSI WORKING PRESSURE**

PIPE SIZES	6" AND 8"		10" AND 12"		16", 18" AND 20"		24"										
	D.E.	90 D.E.	D.E.	90 D.E.	D.E.	90 D.E.	D.E.	90 D.E.									
SAND	0.75	6.8	12.0	22.0	14.7	13.4	25.6	46.8	32.5	69.1	127.6	90.3	52.2	99.5	183.9	130.1	
SOFT CLAY	1	5.2	9.2	16.4	11.1	10.0	19.2	35.0	24.4	26.4	51.8	95.7	68.0	39.2	74.7	137.9	97.5
SAND & GRAVEL	2	2.6	4.6	8.2	5.5	5.0	9.6	17.6	12.2	13.2	25.9	47.9	33.9	19.6	37.3	69.0	48.8
CLAY	4	2.0	2.4	4.2	2.8	2.6	4.8	8.8	6.1	6.6	13.0	23.9	16.9	9.8	18.7	34.5	24.4
SOFT ROCK	5	2.0	2.0	3.3	2.2	2.0	3.8	7.0	5.0	5.3	10.4	19.1	13.5	7.8	14.9	27.6	19.5
ROCK	15	2.0	2.0	2.0	0.8	2.0	2.4	1.6	2.0	3.5	6.4	4.5	2.6	5.0	9.2	6.5	

NOTES:
 * MUST BE ADJUSTED FOR TEST PRESSURES ABOVE 200 P.S.I.
 ** SOIL TESTING AGENCY TO ESTABLISH ALLOWABLE BEARING PRESSURE BASED ON FIELD CONDITIONS. AND BEARING AREAS ARE TO BE ADJUSTED ACCORDINGLY. (ALLOWANCES MUST BE MADE FOR SATURATED SOILS.)
 *** D.E. DENOTES DEAD END AND APPLIES AT TEES AND PLUGS.

REVISIONS

NO.	DESCRIPTION	DATE	BY

Specifications and Details
W18 THRUST BLOCKS - HORIZONTAL & VERTICAL DOWNWARD THRUST
 TOWN OF MILTON
 119 FEDERAL STREET
 MILTON, DELAWARE 19868

ORIGINAL DATE: 1/2021
 LAST REVISED: AS NOTED
 DRAWING SCALE: AS NOTED
 DETAIL DRAWING: W18

MINIMUM THRUST BLOCKING DIMENSIONS * FOR VERTICAL UPWARD THRUST
200 P.S.I. TEST PRESSURE

PIPE SIZES (IN.)	DEGREE OF BEND OR DEFLECTION		
	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)
6-8	4.0	4.5	3.0
10-12	4.5	5.0	4.0
14-16	5.5	6.0	5.0
18-20	6.0	7.5	6.0
24	6.5	10.0	7.0

NOTES:
 1. FOR 4" AND 6" PIPE, USE THREE #4 BARS OVER FITTING ONLY.
 2. FOR 8" THROUGH 20" PIPE, USE SIX #8 BARS WITH TWO OVER FITTINGS AND FOUR OVER PIPES.
 3. FOR 24" PIPE, USE SEVEN #7 BARS AS SHOWN.
 4. CONCRETE TO HAVE 3,000 P.S.I. MINIMUM 28 DAY COMPRESSIVE STRENGTH.
 5. REINFORCING STEEL TO BE ASTM A-615, GRADE 60
 6. COVER ALL FITTINGS AND JOINTS WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE
 7. COAT ALL EXPOSED FERROUS SURFACES WITH TWO COATS BITUMASTIC, APPLIED PER MFG'S RECOMMENDATIONS.
 8. BEND REINFORCING BARS TO U SHAPE CONFORMING TO OUTSIDE PIPE DIAMETER.
 9. KEEP CONCRETE CLEAR OF JOINTS AND LUGS.
 10. FORM UNSUPPORTED AREAS OF CONCRETE.

REVISIONS

NO.	DESCRIPTION	DATE	BY

Specifications and Details
W19 THRUST BLOCKS - VERTICAL UPWARD THRUST
 TOWN OF MILTON
 119 FEDERAL STREET
 MILTON, DELAWARE 19868

ORIGINAL DATE: 1/2021
 LAST REVISED: AS NOTED
 DRAWING SCALE: AS NOTED
 DETAIL DRAWING: W19

Specifications and Details
W10 2IN BLOW OFF DETAIL
 TOWN OF MILTON
 119 FEDERAL STREET
 MILTON, DELAWARE 19868

ORIGINAL DATE: 1/2021
 LAST REVISED: AS NOTED
 DRAWING SCALE: AS NOTED
 DETAIL DRAWING: W10

Specifications and Details
W11 GATE VALVE DETAIL
 TOWN OF MILTON
 119 FEDERAL STREET
 MILTON, DELAWARE 19868

ORIGINAL DATE: 1/2021
 LAST REVISED: AS NOTED
 DRAWING SCALE: AS NOTED
 DETAIL DRAWING: W11

DAVIS BOWEN & FRIEDEL, INC.
 ARCHITECTS - ENGINEERS - SURVEYORS
 1100 N. MARKET STREET
 SUITE 200
 WILMINGTON, DE 19801
 302.471.1411
 410.243.5299

THE GRANARY AT DRAPER FARM
SECTION I
 TOWN OF MILTON, SUSSEX COUNTY, DELAWARE

DATE	COMMENTS
08-04-2023	TOWN COMMENTS
11-16-2023	DELDOT COMMENTS
12-05-2023	TOWN, SCD & ARTESIAN COMMENTS
02-08-2024	ARTESIAN COMMENTS
02-13-2024	TOWN COMMENTS
03-01-2024	SCD COMMENTS
03-06-2024	TOWN COMMENTS

Date: JUNE 2023
 Scale: N.T.S.
 Dwn By: DJR
 Proj No.: 1443B006

WATER DETAILS

Dwg No.: **C-536**