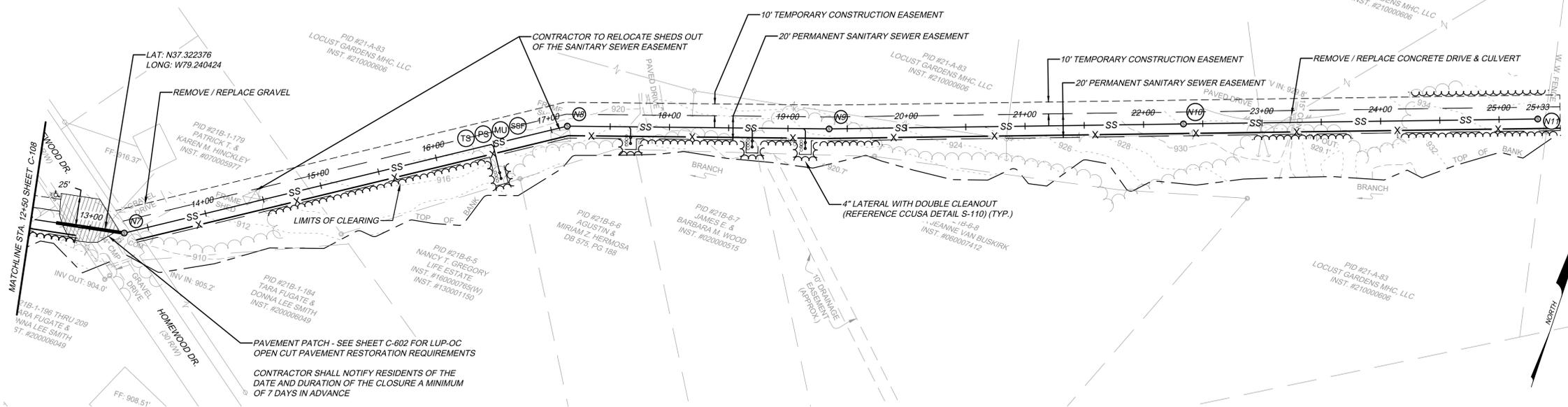


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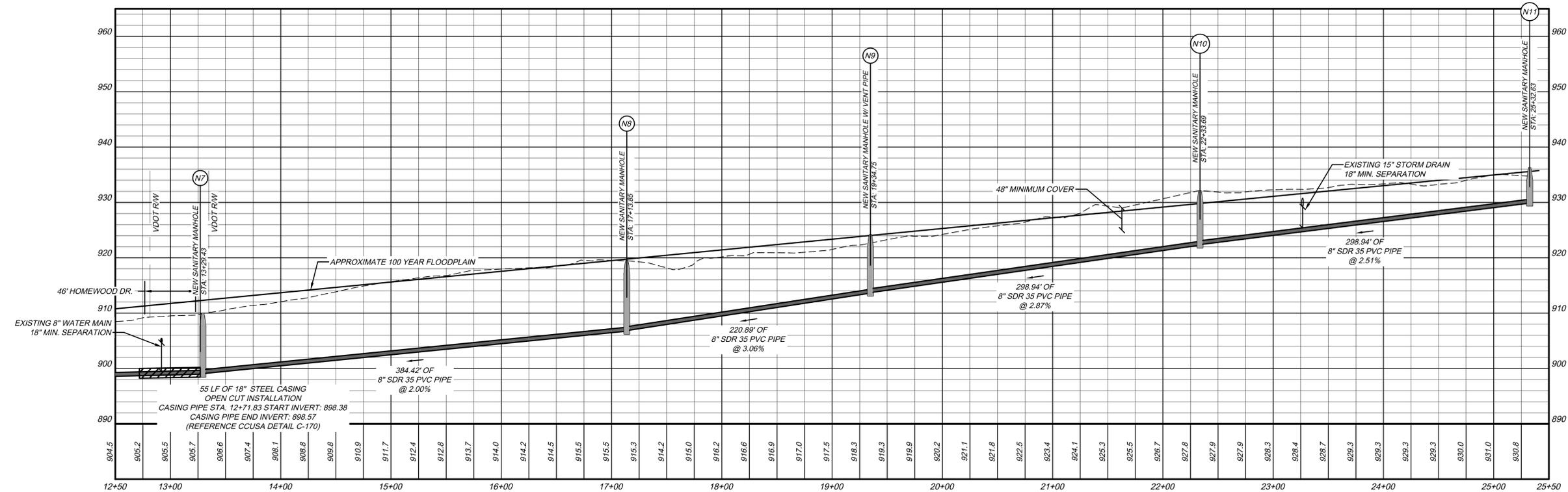
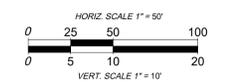
*CONTRACTOR SHALL NOT CUT, REMOVE, OR GRUB ANY TREES OUTSIDE OF THE CCUSA PROPERTY OR EASEMENT.



SANITARY STRUCTURE SCHEDULE

N7	NEW SANITARY MANHOLE WITH WATERTIGHT FRAMES AND COVERS 6" EXTENDED BASE 48" DIA.; H = 10.93' STA: 13+29.43 N: 3641780.41 TOP: 909.93 INV IN=899.10 FROM N8 INV OUT=899.00
N8	NEW SANITARY MANHOLE WITH WATERTIGHT FRAMES AND COVERS 6" EXTENDED BASE 48" DIA.; H = 12.70' STA: 17+13.85 N: 3641984.63 TOP: 919.47 INV IN=906.87 FROM N9 INV OUT=906.77
N9	NEW SANITARY MANHOLE W/ VENT PIPE WITH WATERTIGHT FRAMES AND COVERS 6" EXTENDED BASE 48" DIA.; H = 10.52' STA: 19+34.75 N: 3642052.83 TOP: 924.15 INV IN=913.73 FROM N10 INV OUT=913.63
N10	NEW SANITARY MANHOLE WITH WATERTIGHT FRAMES AND COVERS 6" EXTENDED BASE 48" DIA.; H = 9.81' STA: 22+33.69 N: 3642152.05 TOP: 932.11 INV IN=922.40 FROM N11 INV OUT=922.30
N11	NEW SANITARY MANHOLE WITH WATERTIGHT FRAMES AND COVERS 6" EXTENDED BASE 48" DIA.; H = 6.36' STA: 25+32.63 N: 3642251.27 TOP: 936.26 INV OUT=929.90

- NOTE:**
- ONE LANE OF TRAFFIC MUST BE MAINTAINED AT ALL TIMES.
 - DURING NON-WORKING HOURS ALL OPEN ROAD CUTS SHALL BE PROTECTED BY STEEL PLATES OR BACKFILLED WITH VDOT #21A OR #21B STONE. IF STEEL PLATES ARE TO BE USED, CONSPICUITY MARKINGS AND "STEEL PLATE AHEAD" SIGNS ARE REQUIRED PER SECTION 6G.15 "STEEL PLATE AND CONSPICUITY AND WARNING" OF THE VIRGINIA WORK AREA PROTECTION MANUAL.



ALL MANHOLES IN WOODED AREAS TO BE 18" ABOVE GRADE, ALL OTHERS TO BE AT GRADE.

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SANITARY SEWER PLAN AND PROFILE STA. 12+50 - 25+50
FOR
MARTIN DRIVE REGIONAL W.W.P.S.
CAMPBELL COUNTY, VIRGINIA

PROJECT NO.	20230622
LAT.	37.313701
LONG.	-79.260669
DATE:	03/05/2025
DRAWN BY:	MSF
CHECKED BY:	MDW



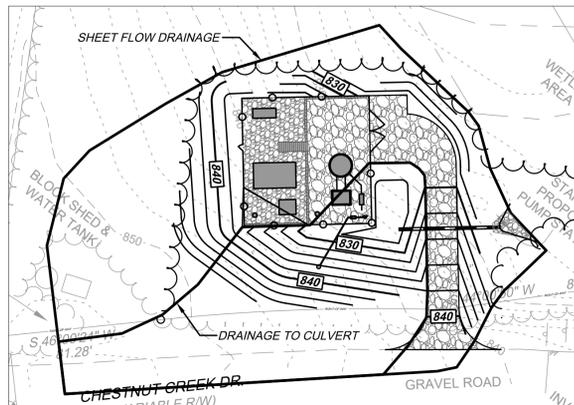
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CCUSA # 80-2304

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SHEET NO.	REV.
C-109	---

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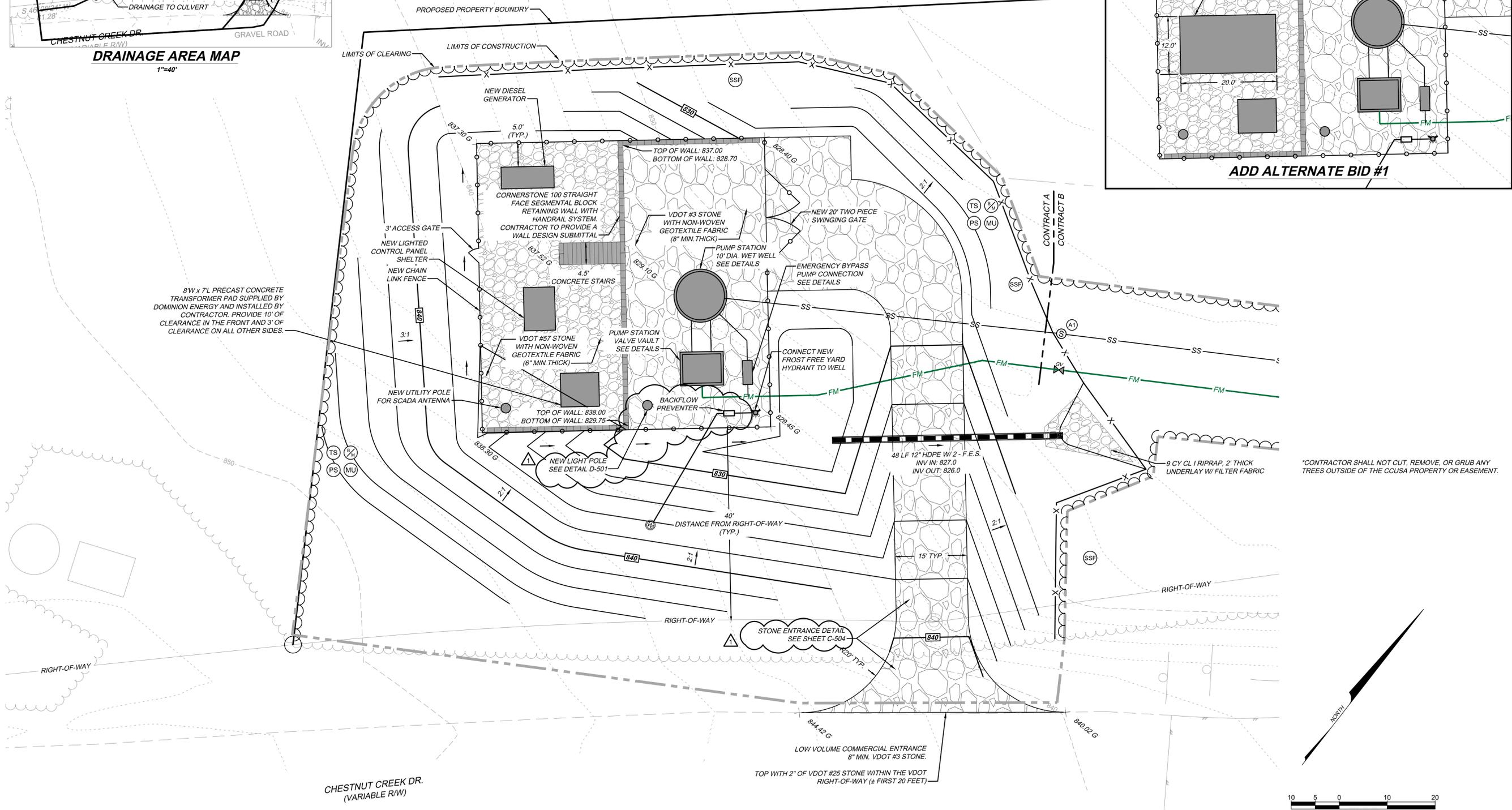
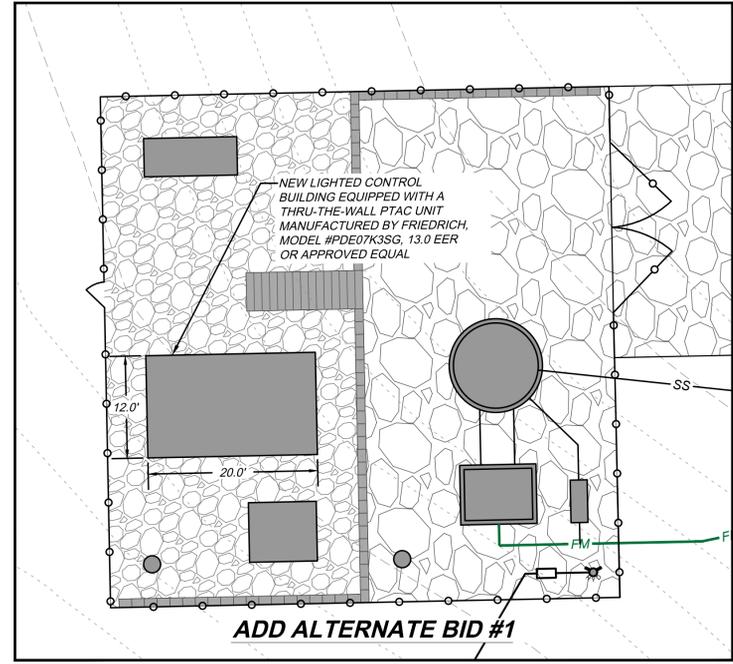


Runoff Calculations			
		Culvert	Sheet Flow
Drainage Area	AC	0.2	0.7
Impervious Area	AC	0.1	0.2
Pervious Area	AC	0.1	0.5
C		0.60	0.47
Time of Concentration	MIN	5	5
Design Flow (10-YR)	CFS	0.7	1.9
Pipe Size	IN	12	
Pipe Slope	%	2	
Pipe n-value	CFS	0.012	N/A
Pipe Capacity	CFS	5.5	

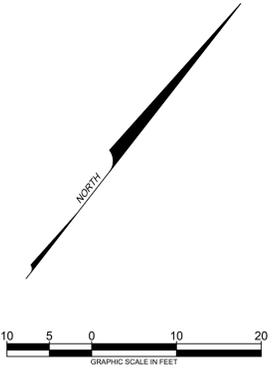
STORMWATER MANAGEMENT NARRATIVE

QUALITY
WATER QUALITY TREATMENT REQUIREMENTS FOR THE PUMP STATION SITE WERE CALCULATED USING THE VIRGINIA RUNOFF REDUCTION METHOD NEW DEVELOPMENT WORKSHEET. NUTRIENT CREDITS WILL BE PURCHASED TO MEET THE REMOVAL REQUIREMENT.

QUANTITY
WATER QUANTITY CONTROL FOR THIS DEVELOPMENT IS SATISFIED THROUGH COMPLIANCE WITH 9VAC25-870-66(D) BY DISCHARGING SITE RUNOFF AS SHEET FLOW. THE RECEIVING AREA BELOW THE SITE HAS BEEN ANALYZED TO SHOW THAT THE FLOW DEPTH IS NO MORE THAN 0.10' FOR STORMS UP TO AND INCLUDING THE 10-YEAR EVENT. THERE IS NO EVIDENCE OF EXISTING EROSION IN THE AREAS WHERE SITE RUNOFF WILL DISCHARGE, AND THE SHEET FLOW VELOCITIES ARE NON-EROSIVE. THUS, THE SHEET FLOW WILL NOT CAUSE OR CONTRIBUTE TO EROSION, SEDIMENTATION, OR FLOODING OF DOWN GRADIENT PROPERTIES OR RESOURCES.



*CONTRACTOR SHALL NOT CUT, REMOVE, OR GRUB ANY TREES OUTSIDE OF THE CCUSA PROPERTY OR EASEMENT.



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PUMP STATION SITE PLAN
FOR
MARTIN DRIVE REGIONAL W.W.P.S.
CAMPBELL COUNTY, VIRGINIA

PROJECT NO.	20230622
LAT.	37.313701
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CHECKED BY:	MDW



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CCUSA # 80-2304

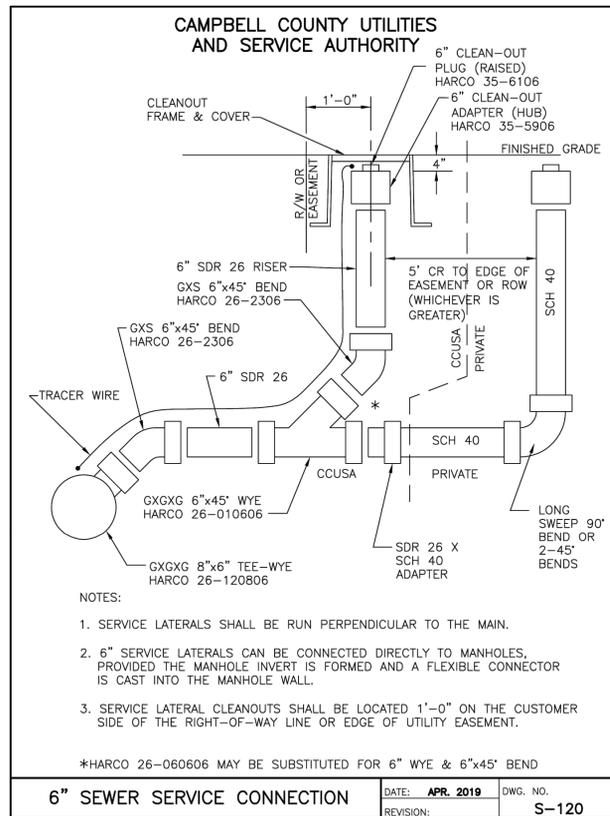
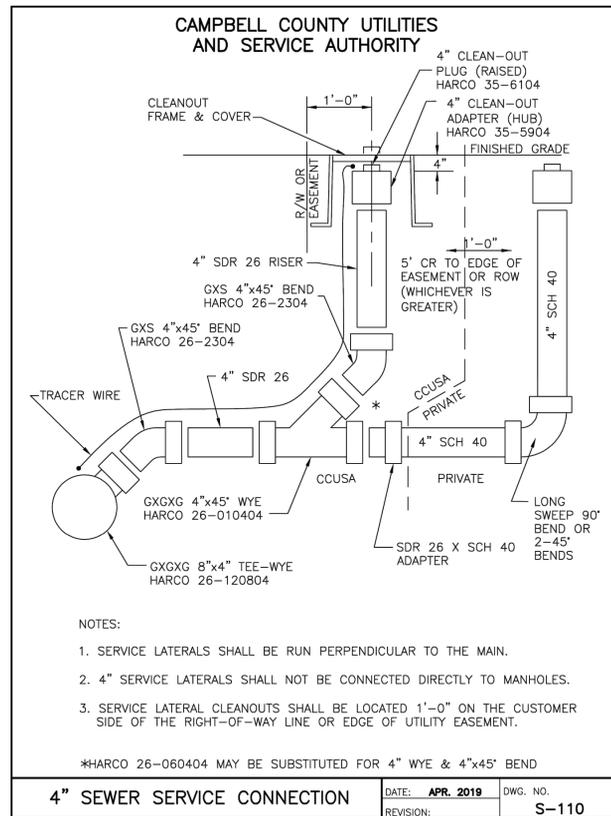
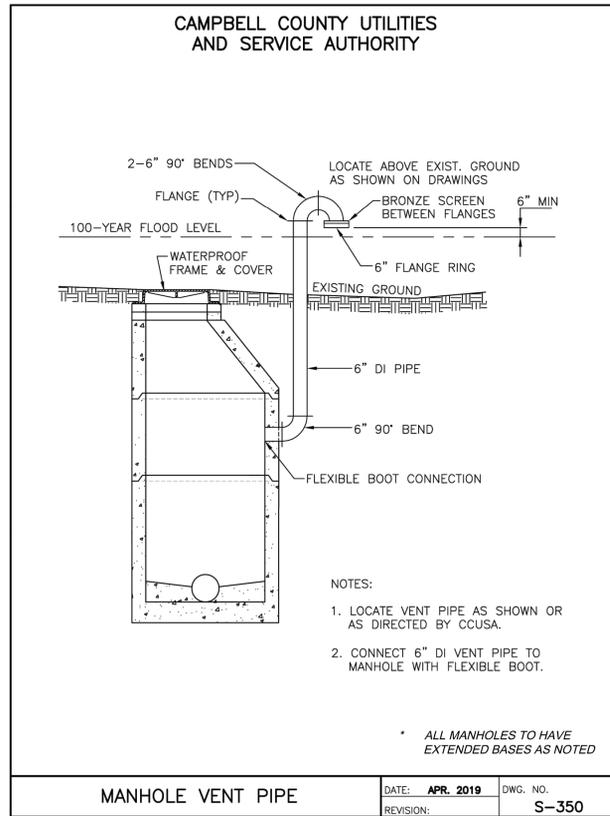
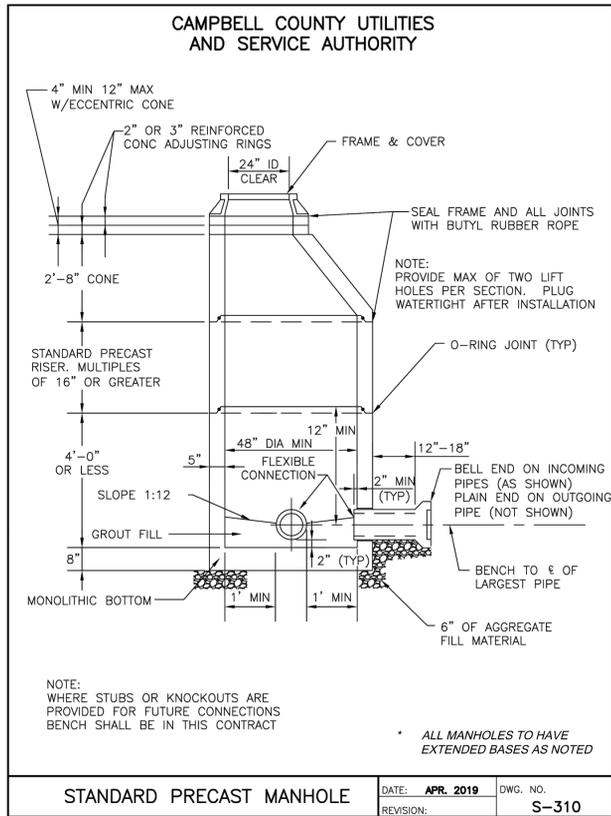
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SHEET NO.	REV.
C-110	---

1 | 03/03/2025 | ADDENDUM No.1

PUMP STATION SITE PLAN

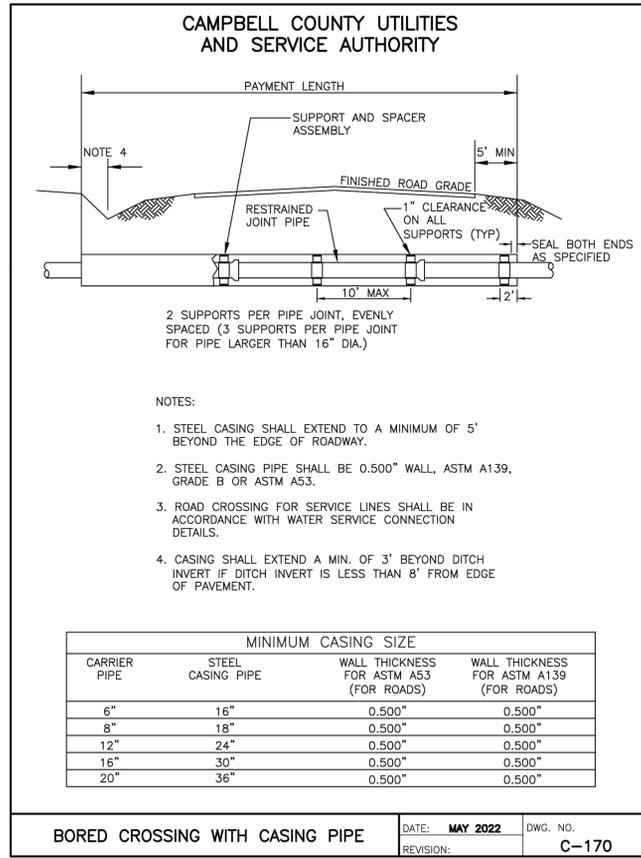
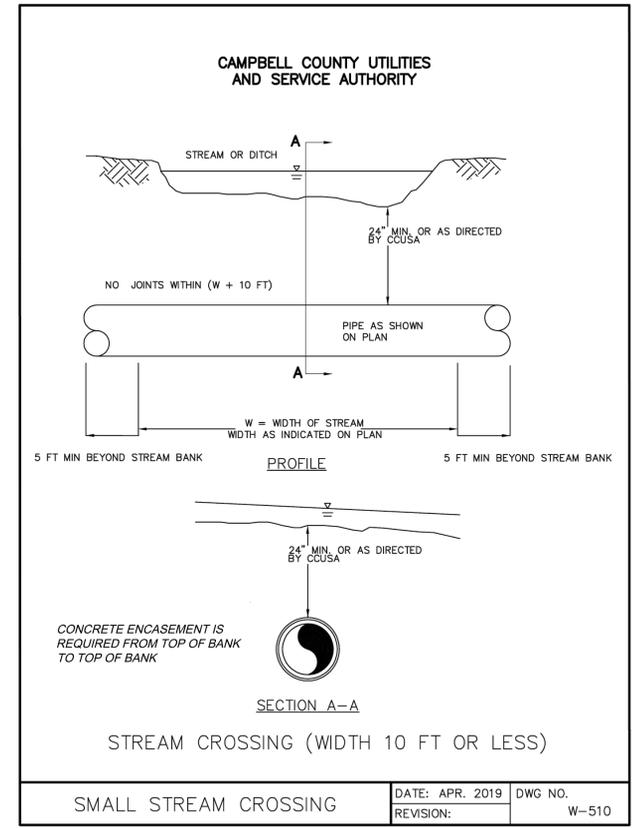
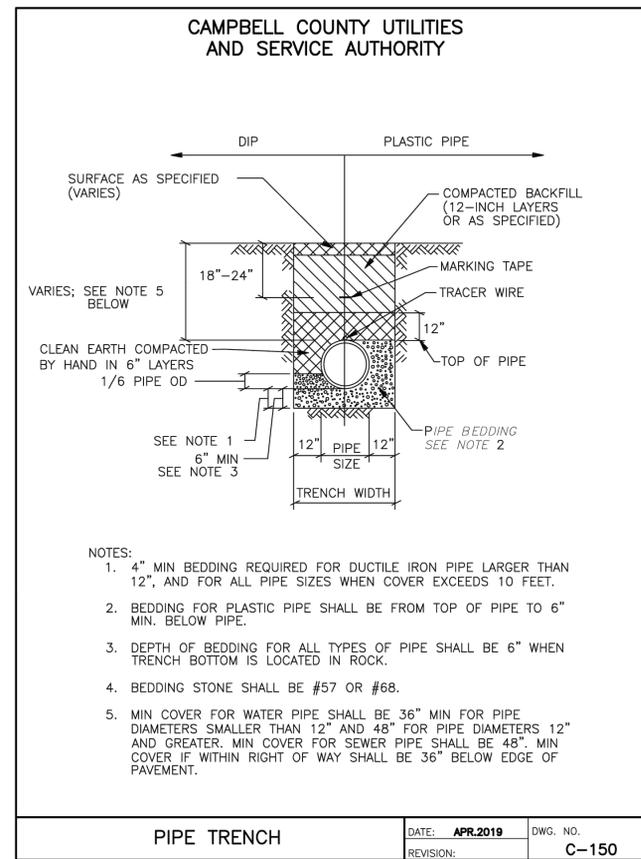
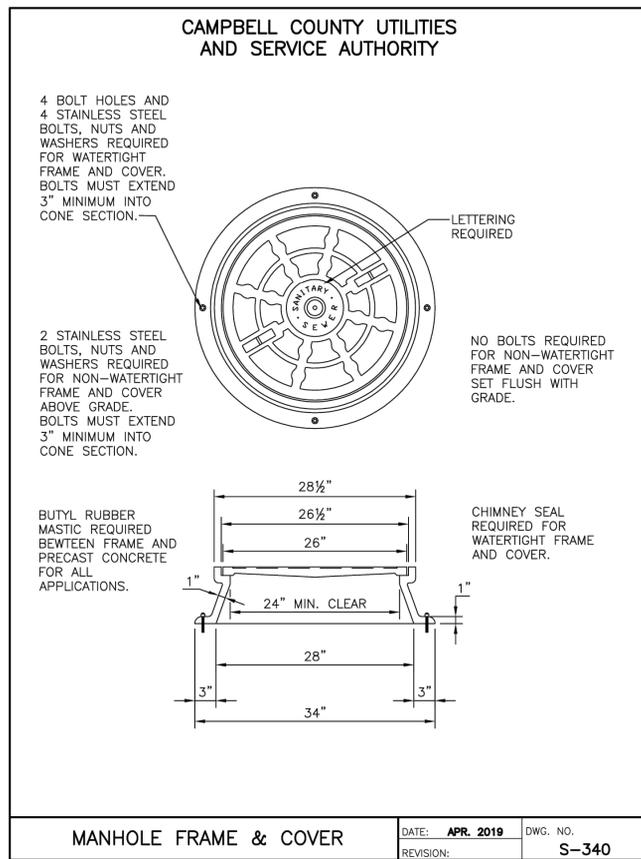
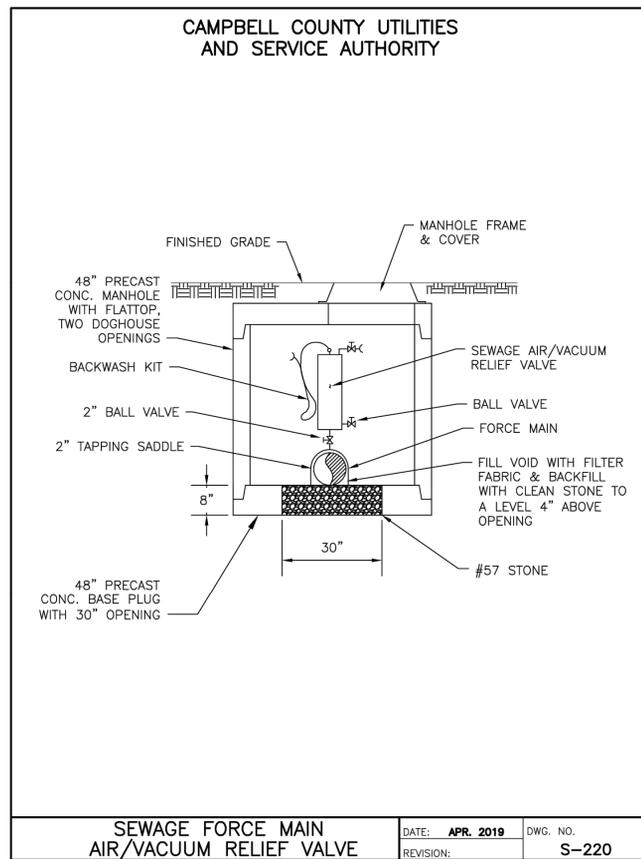
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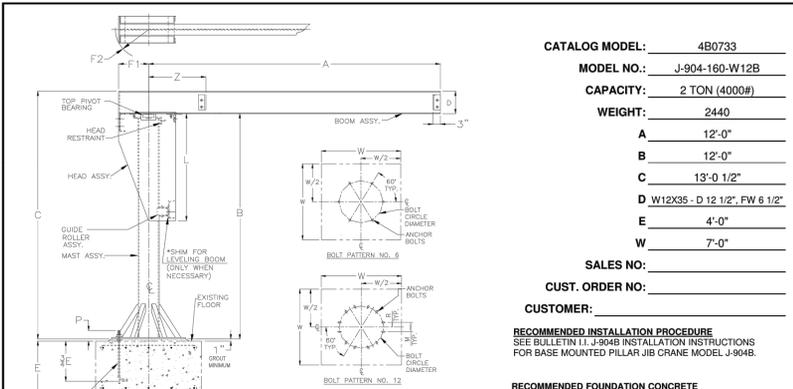
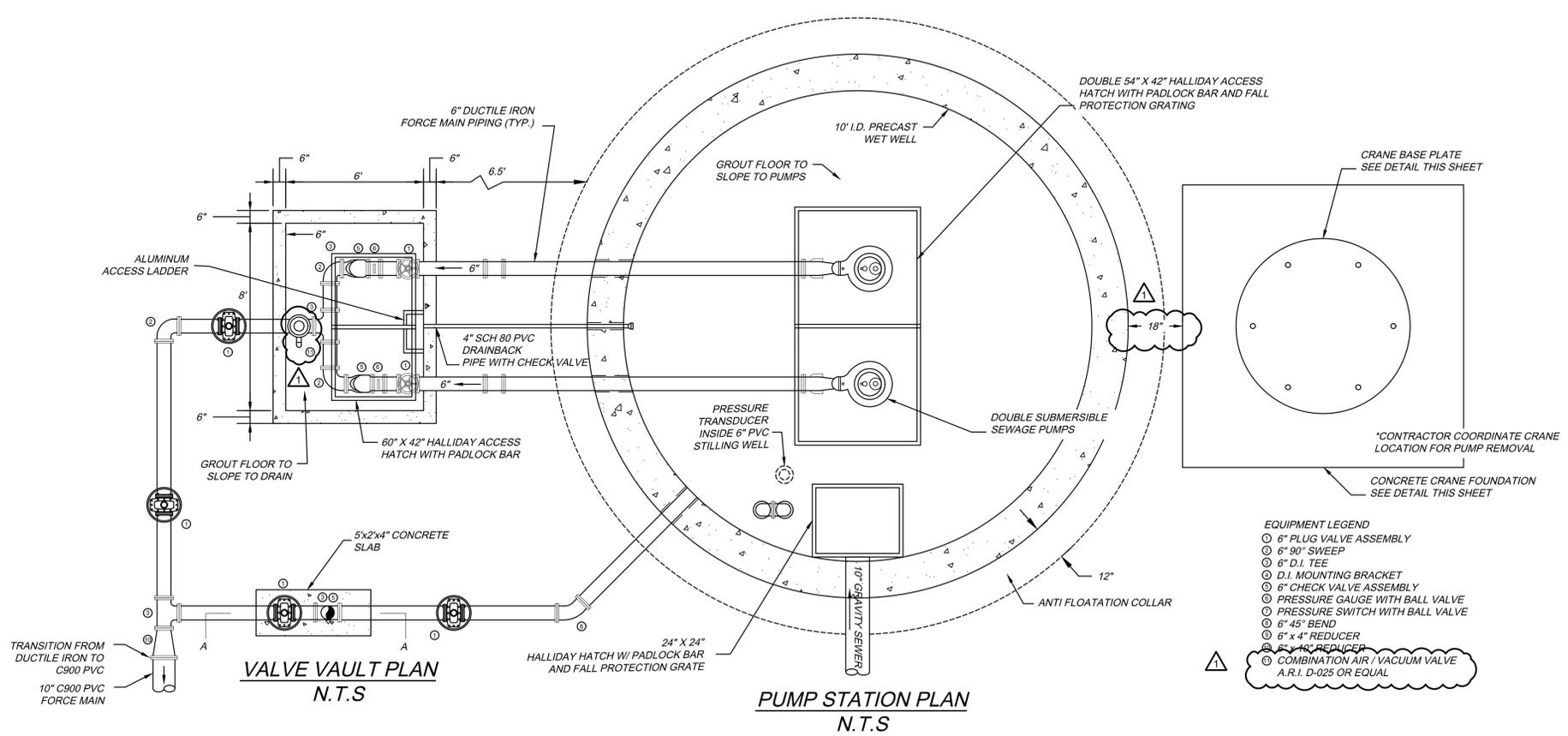
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LONG.	-79.260669
DATE:	03/05/2025
DRAWN BY:	MSF
CHECKED BY:	MDW



THIS SHEET IS INTENDED TO BE REPRODUCED AT 24X36". REPRODUCTION OF THIS SHEET AT A DIFFERENT SIZE THAN INTENDED SHALL VOID THE SCALE SHOWN ON THE SHEET.



THIS SHEET IS INTENDED TO BE REPRODUCED AT 200% REPRODUCTION OF THIS SHEET AT A DIFFERENT SIZE THAN INTENDED SHALL VOID THE SCALE SHOWN ON THE SHEET



MODEL NO.	DIMENSIONS				ANCHOR BOLTS			
J-904B-	F1	F2	Z	L	PATT NO.	B.C. DIA.	BOLT DIA.	P
080	1'-0 1/8"	1'-1 1/2"	1'-1 5/8"	4'-0"	6	24"	1"	4.3/4"
120	1'-3"	1'-5 1/4"	1'-5 1/8"	4'-6"	6	30"	1 1/4"	5 1/2"
140	1'-5"	1'-7 1/2"	1'-7"	4'-6"	6	36"	1 1/4"	5 1/2"
X 160	1'-4 3/8"	1'-7 3/4"	1'-7 3/4"	5'-0"	12	42"	1 1/4"	5 1/2"
180	1'-6 3/8"	1'-9 1/2"	1'-9 3/4"	5'-0"	12	48"	1 1/4"	5 1/2"
200	1'-8 3/8"	1'-11 3/4"	1'-10 3/4"	5'-0"	12	54"	1 1/4"	5 1/2"
240	1'-11 1/8"	2'-3 1/4"	2'-1 1/8"	6'-5"	12	60"	1 1/4"	5 1/2"
300H **	2'-2"	2'-7 1/2"	2'-7"	8'-0"	12	66"	1 1/4"	5 1/2"
360	2'-5"	2'-11 3/4"	2'-10 3/4"	8'-0"	6	72"	2 1/2"	8"
420	3'-0"	3'-6 7/8"	3'-3"	10'-10"	6	78"	3"	9"

CATALOG MODEL: 4B0733
 MODEL NO.: J-904-160-W12B
 CAPACITY: 2 TON (4000#)
 WEIGHT: 2440
 A 12'-0"
 B 12'-0"
 C 13'-0 1/2"
 D W12X35 - D 12 1/2", FW 6 1/2"
 E 4'-0"
 W 7'-0"
 SALES NO.:
 CUST. ORDER NO.:
 CUSTOMER:

RECOMMENDED INSTALLATION PROCEDURE
 SEE BULLETIN L1-J-904B INSTALLATION INSTRUCTIONS FOR BASE MOUNTED PILLAR-JIB CRANE MODEL J-904B.

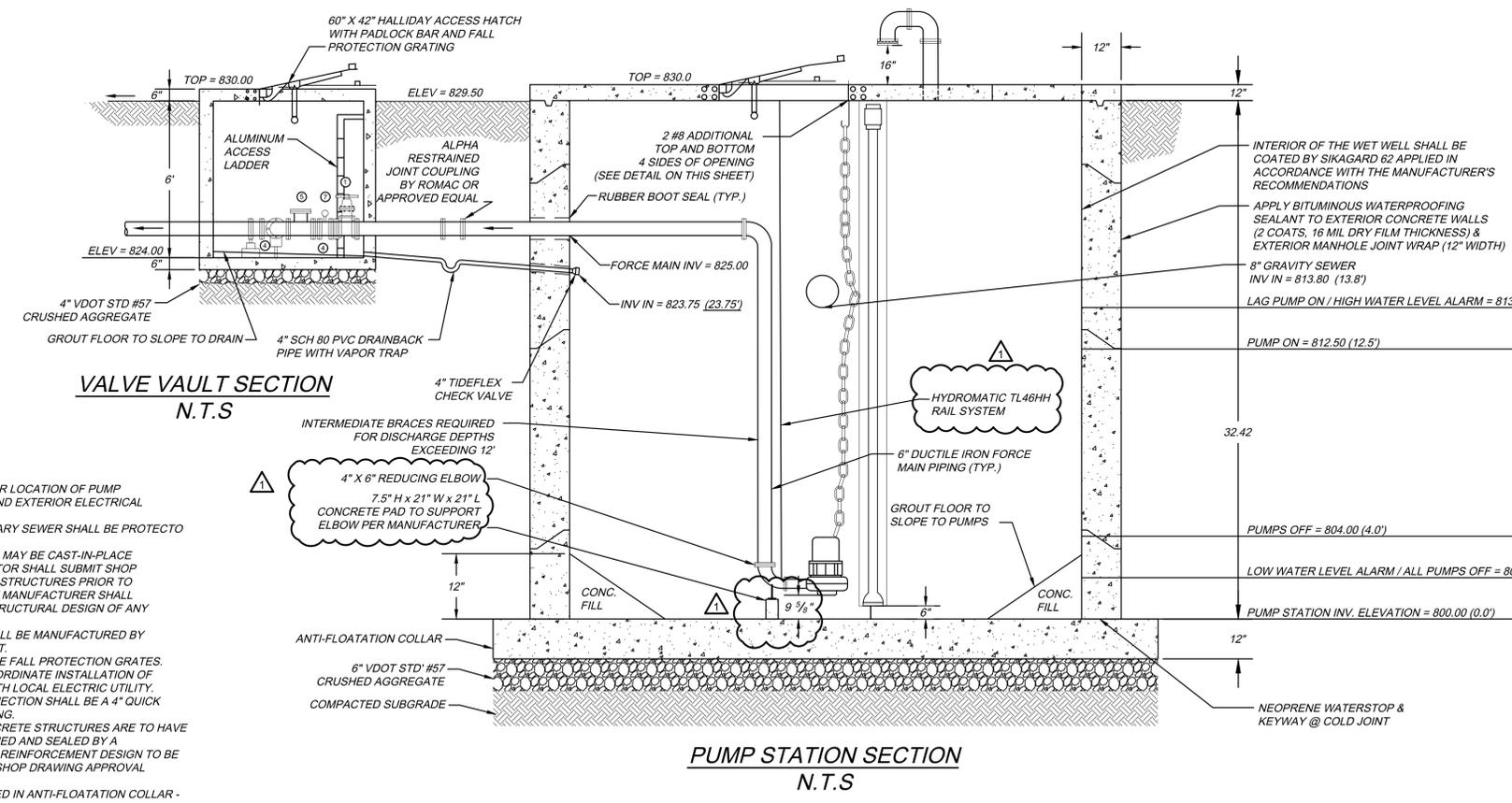
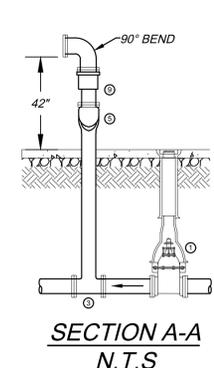
RECOMMENDED FOUNDATION CONCRETE
 JIB CRANE FOUNDATION REQUIREMENTS ARE BASED ON A SOIL PRESSURE OF 2500 LBS. PER SQUARE FOOT. 3000 LBS. P.S.I. (PER SQ. INCH) COMPRESSIVE CONCRETE (5 BAG MIX-ONE YARD OF CONCRETE).

ABELL-HOWE CRANES ASSUMES NO RESPONSIBILITY FOR LOADING IMPOSED ON BUILDING STRUCTURE OR FOOTINGS BY THIS EQUIPMENT. WE SUGGEST THIS BE CHECKED BY A LICENSED STRUCTURAL ENGINEER AND ANY NECESSARY PERMITS BE SECURED.

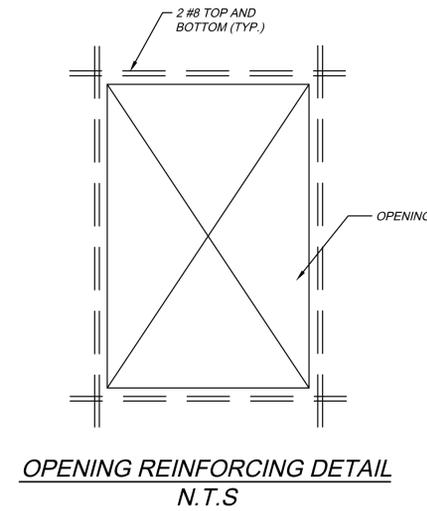
INSTALLATION DRAWING 360" BASE MOUNTED PILLAR JIB CRANE MODEL J-904B

ABELL-HOWE CRANES
 DIVISION OF CRANE, EQUIPMENT & SERVICE, INC.
 10321 WERCH DR. UNIT 100, WOODBRIDGE, ILLINOIS 60517

SCALE: NONE CHECKED BY:
 DRAWN BY: RKN APPROVED BY:
 DATE: 9/19/2006
 DWG NO.: A3-904B SHEET NO.: 1 OF 1



CRANE DETAIL
N.T.S.



OPENING REINFORCING DETAIL
N.T.S.

- GENERAL NOTES:**
- SEE SITE PLAN SHEET FOR LOCATION OF PUMP STATION, FORCE MAIN, AND EXTERIOR ELECTRICAL CONTROL BUILDING.
 - ALL DUCTILE IRON SANITARY SEWER SHALL BE PROTECTED 401 LINED.
 - CONCRETE STRUCTURES MAY BE CAST-IN-PLACE OR PRE-CAST. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRE-CAST STRUCTURES PRIOR TO INSTALLATION. PRE-CAST MANUFACTURER SHALL BE RESPONSIBLE FOR STRUCTURAL DESIGN OF ANY PRE-CAST STRUCTURE.
 - ALUMINUM HATCHES SHALL BE MANUFACTURED BY HALLIDAY OR EQUIVALENT.
 - ALL HATCHES SHALL HAVE FALL PROTECTION GRATES. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL SERVICE WITH LOCAL ELECTRIC UTILITY.
 - EMERGENCY PUMP CONNECTION SHALL BE A 4" QUICK DISCONNECT HOSE FITTING.
 - ALL CAST-IN-PLACE CONCRETE STRUCTURES ARE TO HAVE REINFORCEMENT DESIGNED AND SEALED BY A STRUCTURAL ENGINEER. REINFORCEMENT DESIGN TO BE SUBMITTED AS PART OF SHOP DRAWING APPROVAL PROCESS.
 - REBAR IS TO BE INSTALLED IN ANTI-FLOATATION COLLAR - #5 AT 12" ON CENTER EACH WAY.

PUMP SCHEDULE	
DESIGNATION	LEAD/LAG PUMPS
DESCRIPTION	SUBMERSIBLE SOLIDS HANDLING
MANUFACTURER	PENTAIR HYDROMATIC
MODEL NUMBER	S4T
VOLTAGE	480 VOLTS - 3 PHASE
FLOW CAPACITY - GPM	675.0
TOTAL DYNAMIC HEAD - FT.	224.0
MOTOR HORSEPOWER	125.0
PUMP SPEED - RPM	1,750
IMPELLER DIAMETER	14.25"

PUMP LEVEL CONTROL SEQUENCE		
CONDITION	LEVEL	ELEVATION
LAG PUMP ON / HIGH WATER LEVEL ALARM (CONTROLLED BY FLOAT SWITCH)	13.5'	813.50
* PUMP ON (CONTROLLED BY PRESSURE TRANSDUCER)	12.5'	812.50
* PUMP OFF (CONTROLLED BY PRESSURE TRANSDUCER)	4.0'	804.00
LOW WATER LEVEL ALARM / ALL PUMPS OFF (CONTROLLED BY FLOAT SWITCH)	3.0'	803.00
PUMP STATION INV. ELEVATION	0.0'	800.00

* KELLER LEVEL RAT MODEL 1023.01607.05196.13 OR EQUAL

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PUMP STATION DETAILS
 FOR
MARTIN DRIVE REGIONAL W.W.P.S.
CAMPBELL COUNTY, VIRGINIA

PROJECT NO. 20230622
 LAT. 37.313701
 LONG. -79.260669
 DATE: 03/05/2025
 DRAWN BY: MSF
 CHECKED BY: MDW



BID SET

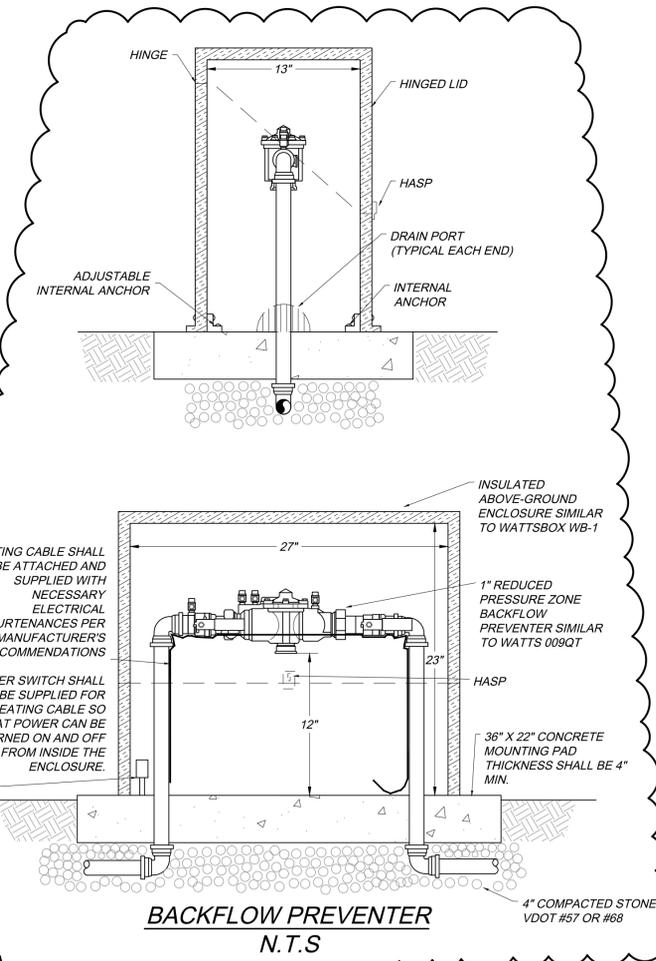
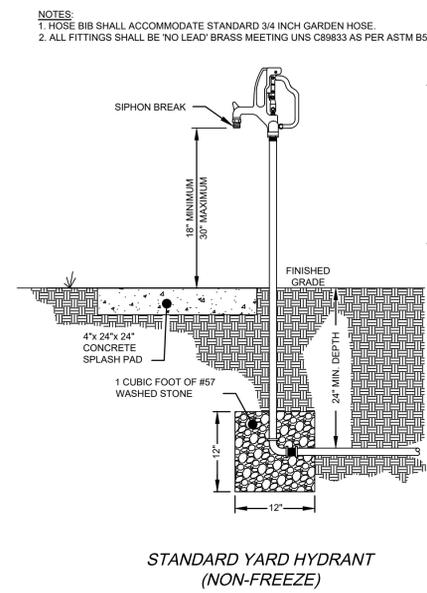
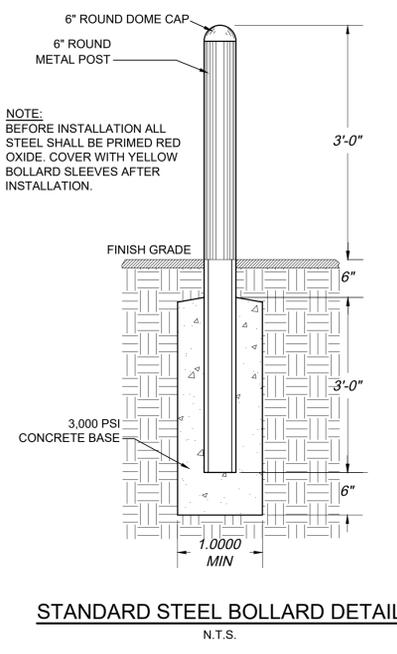
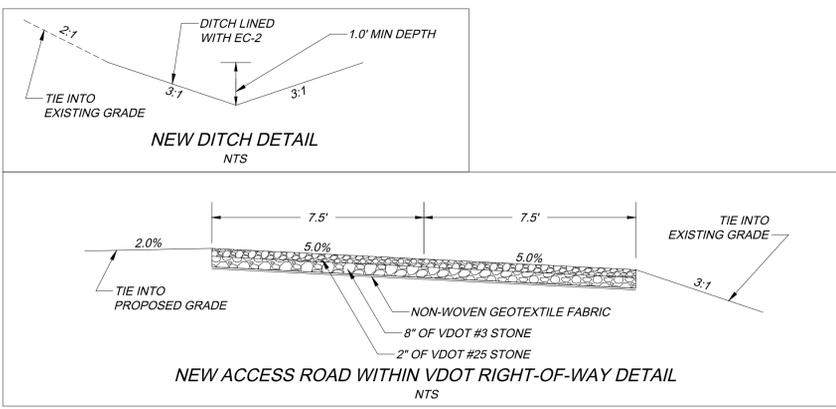
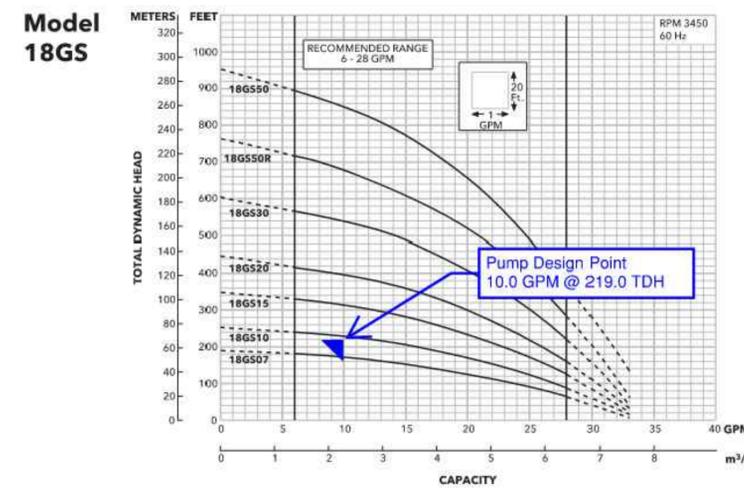
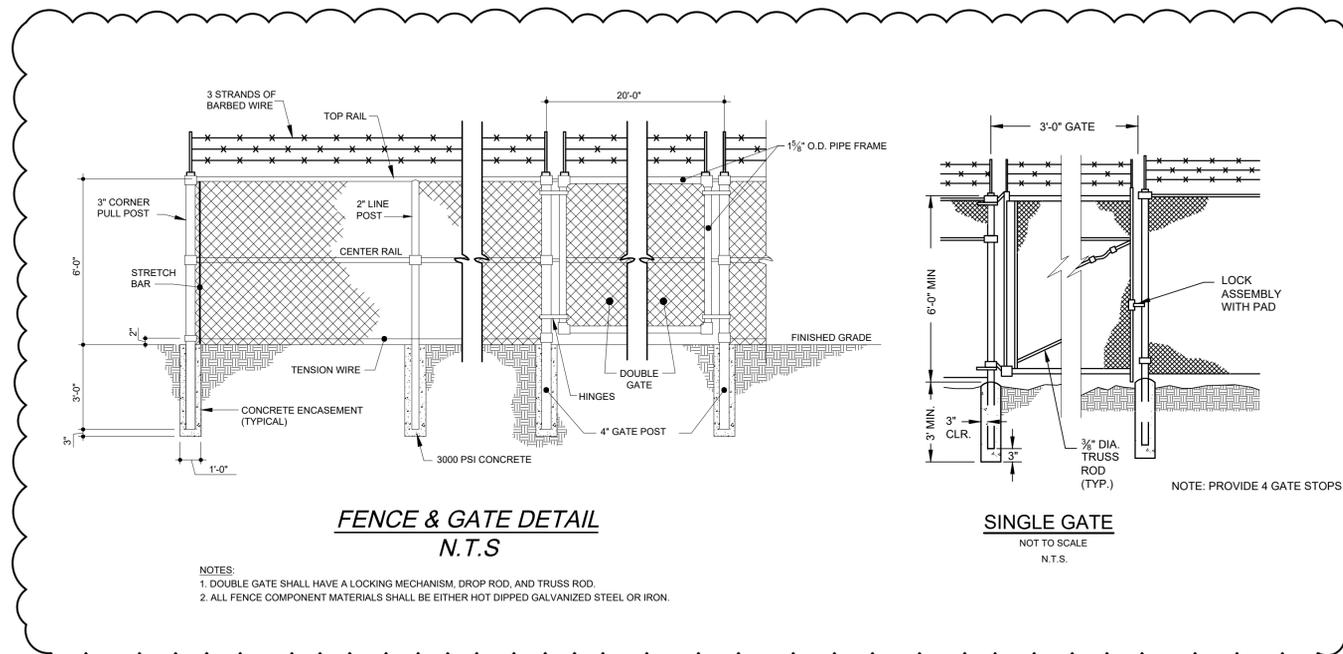
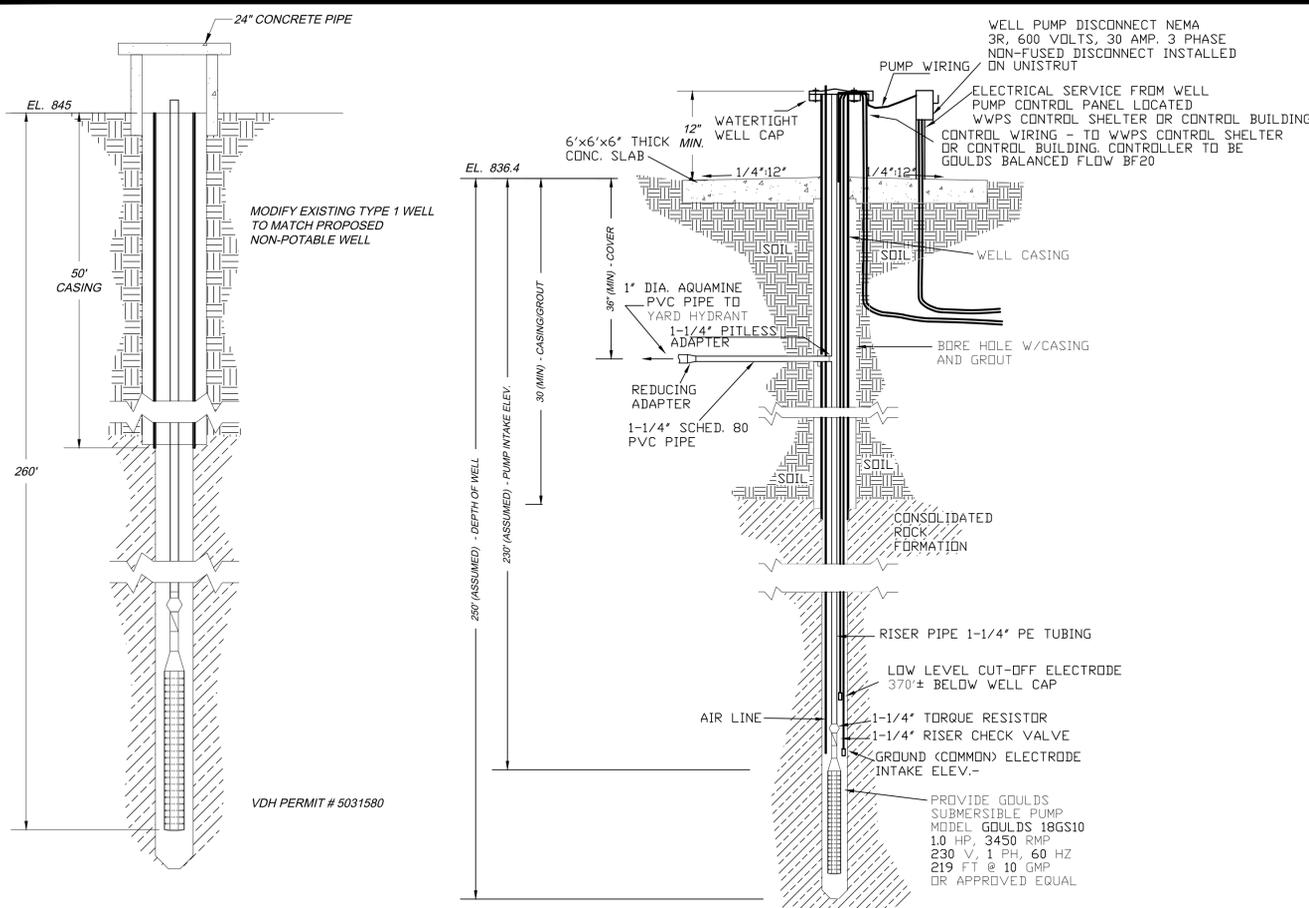
CCUSA # 80-2304

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SHEET NO. C-503 REV. ---

1 | 03/03/2025 | APPENDUM No.1

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PUMP STATION SITE DETAILS
FOR
MARTIN DRIVE REGIONAL W.W.P.S.
CAMPBELL COUNTY, VIRGINIA

PROJECT NO. 20230622
LAT. 37.313701
LONG. -79.260689
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DRAWN BY: MSF
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BID SET

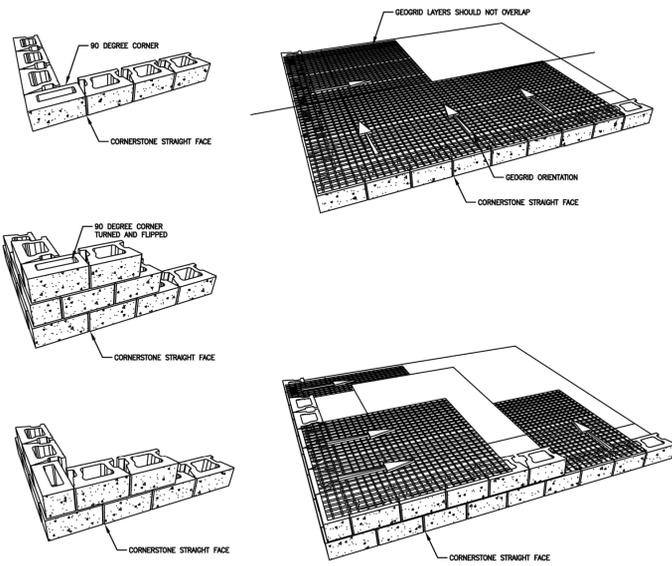
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HURT & PROFFITT

SHEET NO. C-504
REV. ---

CORNERSTONE 100

>>>OUTSIDE CORNER



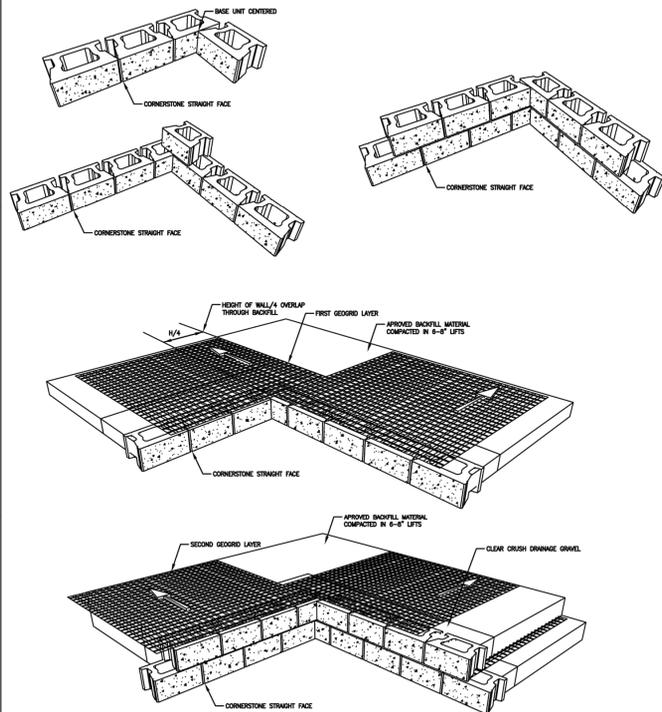
These preliminary details are intended solely to act as an aid when designing a wall. This drawing should not be used for final design or construction. Each site-specific wall should be certified and signed by a registered geotechnical engineer in the State or Province that it is being built. The accuracy and use of the details in this document are the sole responsibility of the user.

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CORNERSTONE 100

>>>INSIDE CORNER



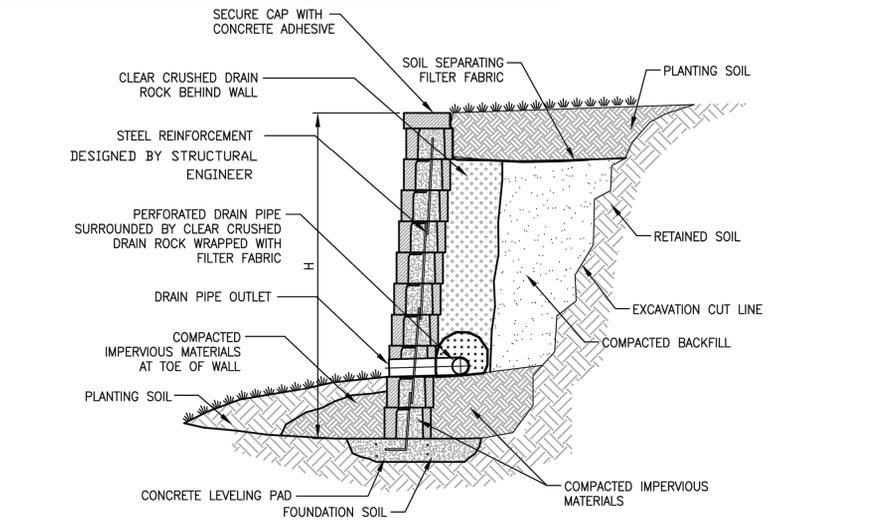
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>>>STEEL REINFORCED



Date: _____
Designed By: _____
Company: _____

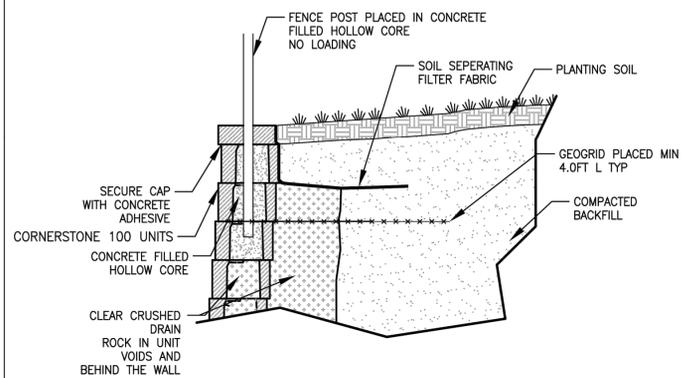
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>>>FENCE IN WALL



NOTE: CONCRETE CORE FILL MIN 3 UNITS DEEP ALONG THE FULL LENGTH OF WALL WITH A 4.0FT MIN LENGTH GEOGRID AT THE SECOND LAYER.
WIND LOADS AND LATERAL LOADS HAVE NOT BEEN CONSIDERED. CONSULT A QUALIFIED ENGINEER

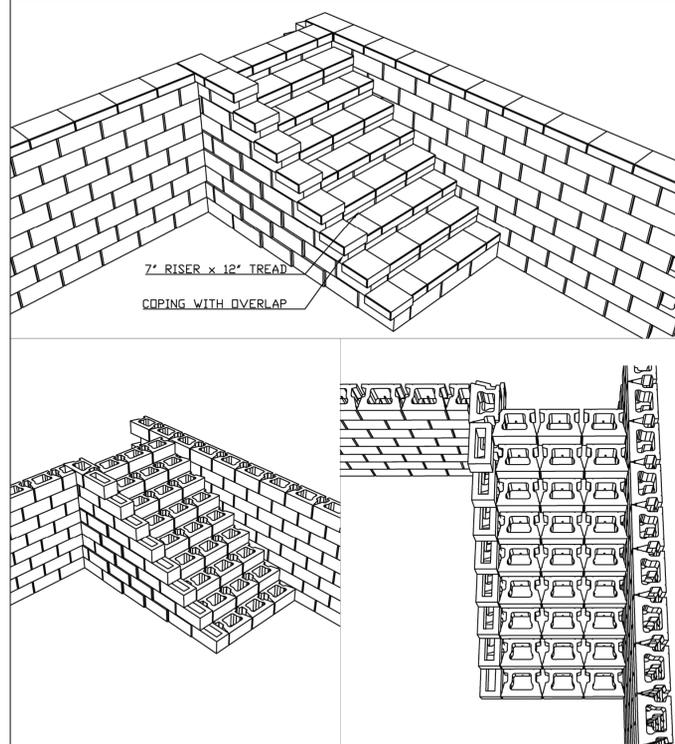
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>>>OUT STAIR DETAIL



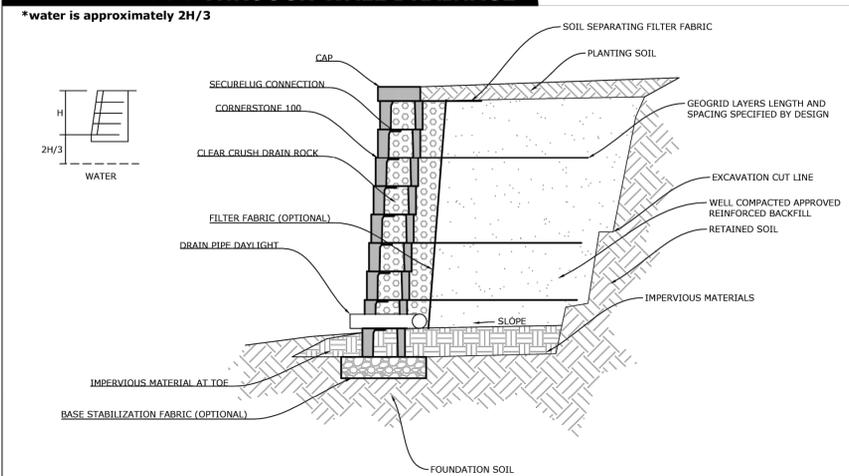
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>>>THROUGH WALL DRAINAGE



Date: _____
Designed By: _____
Company: _____

These preliminary details are intended solely to act as an aid when designing a wall. This drawing should not be used for final design or construction. Each site-specific wall should be certified and signed by a registered geotechnical engineer in the State or Province that it is being built. The accuracy and use of the details in this document are the sole responsibility of the user.

CORNERSTONE
WALL SOLUTIONS INC.

www.cornerstonewallsolutions.com

NOTE:
CONTRACTOR TO PROVIDE A WALL DESIGN SUBMITTAL

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RETAINING WALL DETAILS
FOR
MARTIN DRIVE REGIONAL W.W.P.S.
CAMPBELL COUNTY, VIRGINIA

PROJECT NO. 20230622
LAT. 37.313701
LONG. -79.260669
DATE: 03/05/2025
DRAWN BY: MSF
CHECKED BY: MDW

COMMONWEALTH OF VIRGINIA
MICHAEL D. WILSON
Lic. No. 044203
03/05/2025
PROFESSIONAL ENGINEER

BID SET

CCUSA # 80-2304

HURT & PROFFITT
SHEET NO. C-505 REV. ---

THIS SHEET IS INTENDED TO BE REPRODUCED AT 20X36". REPRODUCTION OF THIS SHEET AT A DIFFERENT SIZE THAN INTENDED SHALL VOID THE SCALE SHOWN ON THE SHEET.