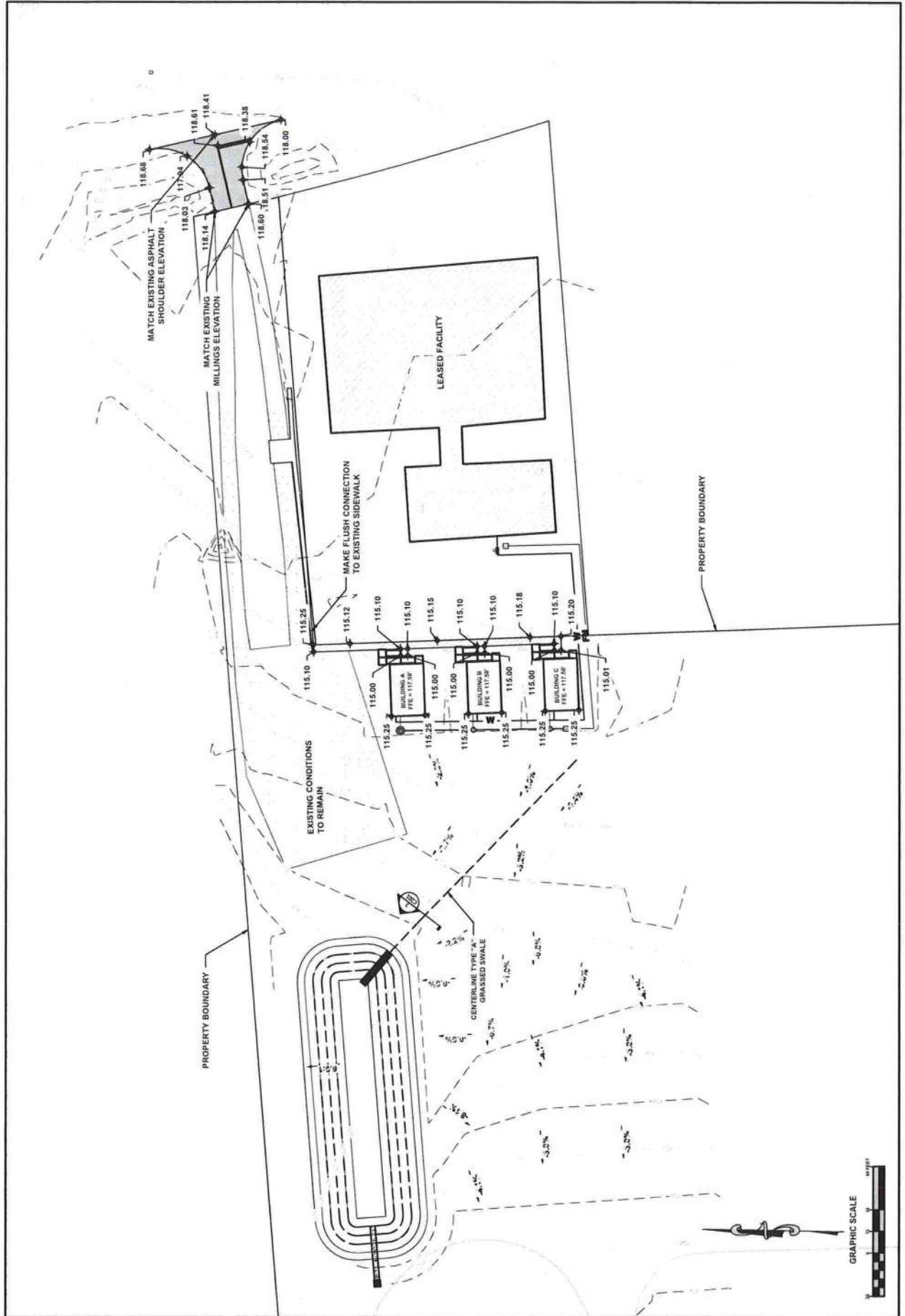


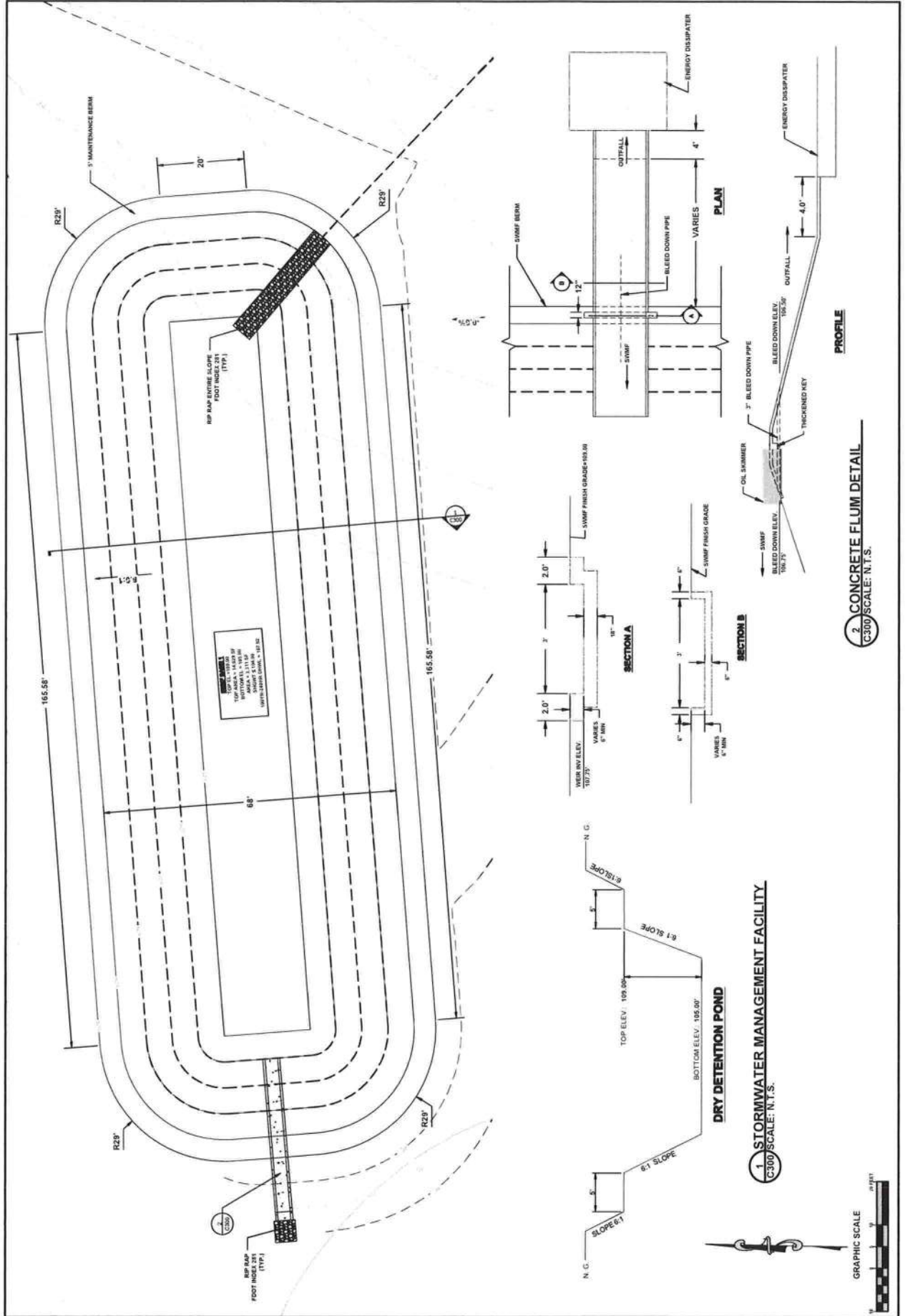
**CAMBRIDGE PREP ACADEMY
PAVING, GRADING & DRAINAGE PLAN
COLUMBIA COUNTY, FL**

NO.	DATE	DESCRIPTION	REVISION HISTORY
1			
2			
3			
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7			
8			
9			
10			

PROJECT NO.	C200
DATE	06/15/2023
DESIGNER	JONES
CHECKED BY	
DATE	
PROJECT NAME	
LOCATION	
SCALE	
SHEET NO.	

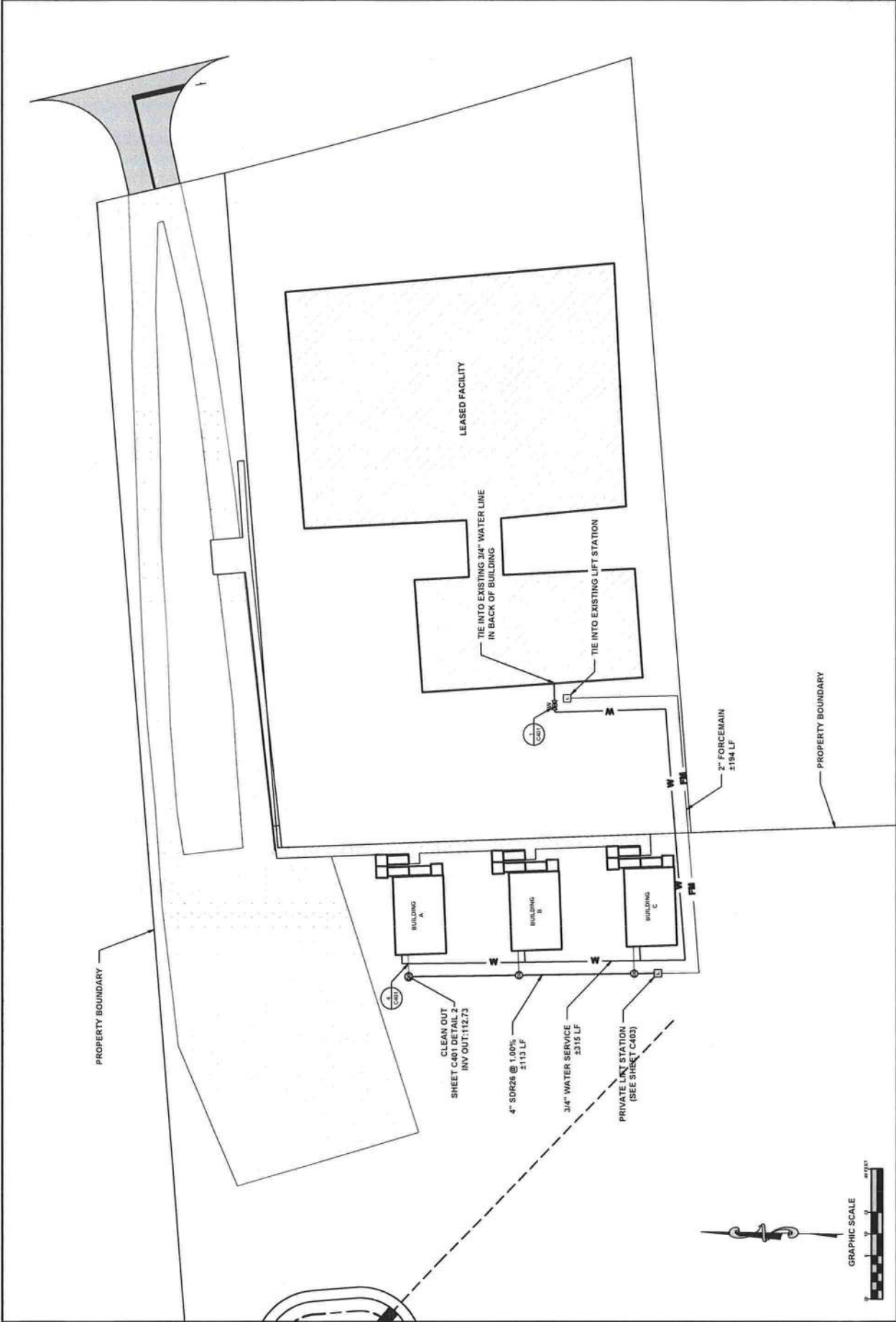


CHRISTOPHER L. JONES #44010477	_____ _____ _____	SPECIALTY NO 37304RCPA	SHEET NO C300
		EXPIR DATE 01/15/2012	



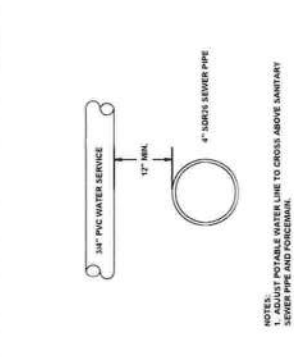
NO.	DATE	DESCRIPTION
1		AS-BUILT
2		DESIGNED BY
3		DRAWN BY
4		CHECKED BY
5		IN CHARGE

PROJECT NO.	C-400
DATE	06/14/2023
PROJECT NAME	CAMBRIDGE PREP ACADEMY
PROJECT LOCATION	COLUMBIA COUNTY, FL

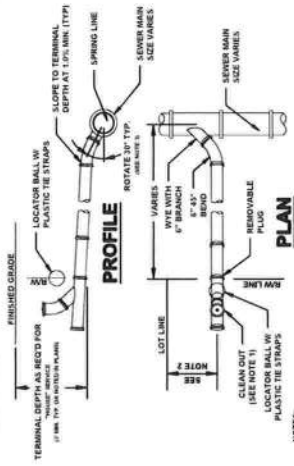


NO.	DATE	DESCRIPTION	REVISION HISTORY
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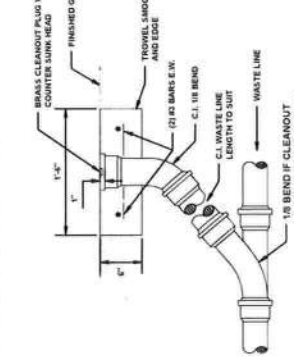
PROJECT NO.	22020000000000000000
PROJECT NAME	C401
DATE	06/14/2022
DESIGNED BY	
CHECKED BY	
IN CHARGE	
APPROVED	
START DATE	
END DATE	



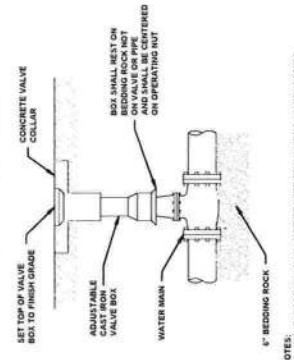
1 VALVE & BOX DETAIL
C401 SCALE: N.T.S.



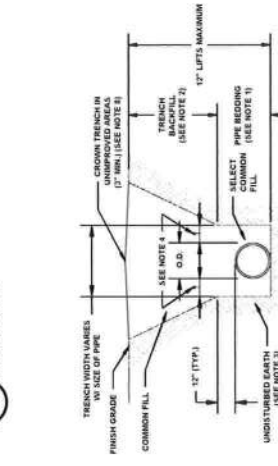
2 CLEAN OUT DETAIL
C401 SCALE: N.T.S.



3 SANITARY SEWER SERVICE LATERAL
C401 SCALE: N.T.S.



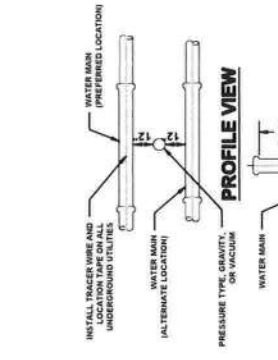
4 PIPE CONFLICT DETAIL
C401 SCALE: N.T.S.



5 TRENCH & BACKFILL DETAIL
C401 SCALE: N.T.S.



6 WATER/SEWER SEPARATION DETAIL
C401 SCALE: N.T.S.



7 TRENCH & BACKFILL DETAIL
C401 SCALE: N.T.S.

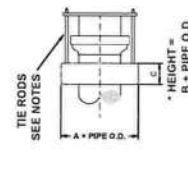
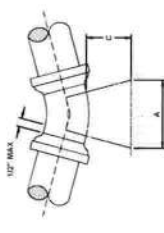
LENGTH (L) TO BE RESTRAINED

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS		VALVES OR DEAD-ENDS	
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	45° BENDS L (FT.)	11.25° BENDS L (FT.)	45° BENDS L (FT.)	VALVES OR DEAD-ENDS L (FT.)
4	20	8	4	2	20	3	50	70
6	28	10	5	2	28	4	70	90
8	36	14	6	3	36	5	90	110
10	40	18	8	4	45	6	110	140
12	50	20	9	4	52	8	120	160
14	56	23	10	5	60	9	140	180
16	60	26	11	6	67	10	160	195
18	69	29	12	6	74	12	180	200
20	75	32	13	7	80	13	195	210
24	76	33	15	7	81	14	200	235
30	88	38	18	9	97	16	235	270
36	100	40	20	10	110	20	270	300
42	115	48	23	11	125	24	300	340
48	125	52	25	12	140	30	340	

PVC PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER, FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE. AT A MINIMUM, UNLESS OTHERWISE INDICATED, ALL REQUIRED RESTRAINTS SHALL BE INCLUDED IN PRICE OF FITTING, VALVE OR PIPE.
- ASSUMPTIONS: PVC PIPE, SAFETY FACTOR = 1.4, TEST PRESSURE = 150 PSI, SOIL = GM OR SM, TRENCH TYPE 1, DEPTH OF COVER = 30 INCHES FOR 24" AND SMALLER PIPE SIZE OR 36 INCHES FOR 30" AND LARGER PIPE SIZE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL ASSUME 45 DEGREE BENDS.
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUM) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
- HOPES TO PVC TRANSITION: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURER'S RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD BE INSTALLED AFTER THE RESTRAINT IS INSTALLED. OVER TIGHTENING THE NUTS MAY CAUSE A FAILURE AT THE BELL, RESULTING IN A SERVICE OUTAGE.

2 PVC PIPE RESTRAINT JOINT SCHEDULE
C402/SCALE: N.T.S.

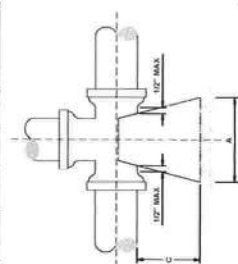


1. THRUST BLOCK SIZE CHART
C402/SCALE: N.T.S.

SIZE	90° BEND				45° BEND				22 1/2° BEND				11 1/4° BEND				SQ. FT. BEARING SURFACE		SQ. FT. BEARING SURFACE	
	A	B	C	THRU	A	B	C	THRU	A	B	C	THRU	A	B	C	THRU	A	B	C	THRU
4"	16"	16"	18"	1.78	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
6"	22"	32"	18"	4.89	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
8"	32"	36"	18"	8.00	24"	28"	18"	4.87	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56
10"	36"	46"	18"	11.50	26"	36"	18"	6.50	20"	24"	18"	3.33	14"	18"	18"	1.75	14"	16"	18"	1.56
12"	44"	56"	24"	17.11	32"	40"	24"	8.89	24"	30"	24"	5.00	16"	20"	24"	2.22	14"	16"	18"	1.56
14"	52"	62"	24"	22.39	38"	48"	24"	12.00	26"	36"	24"	6.50	20"	24"	24"	3.33	14"	16"	18"	1.56
16"	58"	72"	24"	29.00	40"	54"	24"	15.00	32"	38"	24"	8.44	22"	26"	24"	3.97	14"	16"	18"	1.56
18"	64"	80"	24"	35.56	46"	60"	24"	19.17	36"	42"	24"	10.50	24"	32"	24"	5.33	14"	16"	18"	1.56
20"	72"	88"	24"	44.00	52"	66"	24"	23.83	38"	48"	24"	12.67	26"	36"	24"	6.50	14"	16"	18"	1.56
24"	96"	96"	24"	63.78	64"	78"	24"	34.67	46"	56"	24"	17.89	32"	40"	24"	8.89	14"	16"	18"	1.56
30"	122"	102"	24"	86.11	72"	94"	24"	47.00	56"	62"	24"	24.11	36"	48"	24"	12.00	14"	16"	18"	1.56
36"	166"	104"	24"	123.33	88"	108"	24"	66.00	64"	78"	24"	34.67	44"	54"	24"	16.50	14"	16"	18"	1.56

THRUST BLOCK FOR TEES & PLUGS

SIZE	TEE				SQ. FT. BEARING SURFACE	
	A	B	C	THRU	A	B
4"	16"	16"	18"	1.78	14"	16"
6"	20"	24"	18"	3.33	16"	20"
8"	26"	32"	18"	5.78	20"	26"
10"	32"	40"	18"	8.89	24"	32"
12"	38"	48"	24"	12.00	28"	38"
14"	40"	56"	24"	15.56	30"	40"
16"	48"	60"	24"	20.00	36"	48"
18"	56"	64"	24"	24.89	40"	56"
20"	60"	76"	24"	31.67	44"	60"
24"	72"	90"	24"	45.00	52"	72"
30"	88"	102"	24"	60.87	64"	88"
36"	116"	108"	24"	86.11	80"	116"





CUSTOM PUMP & CONTROLS, INC.
PACKAGED FIBERGLASS LIFT STATION
PACKAGED FIBERGLASS VALVE BOX
WITH D E P CONTROL PANEL

DESIGN CONDITIONS

MODEL	MYERS VS20-21	H.P.	2.0
IMPELLER	STD	VOLTS/PHASE	230/1
DISCHARGE	1.25"	SPEED	3450 RPM
GPM	30	TDH	100 TDH

PU

THE PUMP SHALL HAVE AN INTEGRALLY BUILT IN GARDEN LINE TYPE MOTOR. THE PUMP SHALL BE SWEPT IN THE MAIN BY TWO (2) QUICK DISCONNECT LIFT OFF MOUNTING ASSEMBLY. SOLIDS SHALL BE FED IN AN OVERDIRECTION TO THE GRINDER MECHANISM WITH NO OBSTRUCTIONS BELOW THE GRINDER INLET.

THE GRINDER UNIT SHALL BE CAPABLE OF CUTTING SOLID MATERIAL, FORMAL DOAMS ETC. SEWAGE INCLUDING REASONABLE AMOUNTS OF FURON OBJECTS, SUCH AS WOOD PLASTIC GLASS, RUBBER, SANITARY TAPPING, DISPOSABLE, DAPING AND PASTY HOSE INTO A FINE SLURRY THAT WILL PASS FREELY THROUGH THE PUMP. SERVICE LIFT AND FORCE MAIN.

WIC

[illegible]

TIME

A GREAT THERMOSTAT AND CONTROL SHALL BE ATTACHED TO THE TOP AND OF THE MOTOR AND BE DESIGNED TO STOP THE MOTOR IF THE MOTOR OPERATING TEMPERATURE REACHES 100°F. THE HIGH TEMPERATURE SHALLOFF SHALL CAUSE THE PUMP TO CEASE OPERATION. SHOULD A CONTROL FAILURE CAUSE THE PUMP TO RUN IN A HOT WELL, THE THERMOSTAT SHALL RESET AUTOMATICALLY WHEN THE MOTOR COOLS TO A SAFE OPERATING TEMPERATURE.

38

THE MOTOR SHALL BE PROTECTED BY TWO (2) ROTARY SEAL SEALS MOUNTED IN THICKER WITH AN OIL FILLED CHAMBER SEPARATING THE SEALS. THE SEALS SHALL HAVE CARBON AND CERAMIC SEAL FACES DAMAGED LAPPED TO ONE END (BACK OF ONE COIL BEND). METAL PARTS AND SPRINGS FOR SEALS SHALL BE STAINLESS STEEL. AN ELECTRICAL BENDING MECHANISM SHALL BE MOUNTED IN THE SEAL CHAMBER TO DETECT AND MARK LEAKAGE PAST THE LOWER SEAL.

Paul

THICKENED ZONE ON THE STAINLESS STEEL SHEET AND SHALL BE LOCATED WITH A SLOPE AND MAXIMUM THE STATIONARY DRILLING RIGS ARE PRESTRESSED USING AN NON-HOLDING FLANGE FOR EASY REMOVAL. PLATE SHALL BE PROVIDED WITHOUT TAPPED HOLES SO THAT SCREWS CAN BE USED TO PUSH THE PLATE DOWN FROM THE OUTSIDE WITHOUT DAMAGING THE PIPE. SCREWS ASSEMBLY SHALL BE OF SUCH CONSTRUCTION THAT NO GLAZEMENT ADJUSTMENTS ARE REQUIRED WHEN ASSEMBLING. ALL ORDERING OF SOLID SHIELD SHALL BE AT THE ACTION OF THE MAJOR CUTTER AGAINST THE PHOSPHORIC RINGS. THE MAJOR CUTTER AND MINOR DRILLING SHALL BE OF #40 STAINLESS STEEL HARDENED TO 80-90 ROCKWELL C.

PUMP INSTALLER

三三

PUMP & MOTOR CASTINGS

ALL IRON CASTINGS SHALL BE OF HIGH TENILE CAST IRON AND SHALL BE HIGHLY CLEANED PRE-TREATED AND HAVE PUMP OUT VANCES ON THE BACK SIDE OF THE IMPELLER TO KEEP SOUSIN FROM LOZEN SEEL AND REDUCE PRESSURE AT THE SEAL FACES. IMPELLER SHALL BE THREADED ONTO THE STAINLESS STEEL SHAFT.

三

shall be a filament wound fiberglass bag utilizing a commercial grade of glass fiber having a coating agent which will provide a suitable bond between the glass reinforcement and the resin. The laminate shall consist of an inner surface and an outer layer and an exterior layer of laminate strip. The inner surface shall be free of cracks and chipping with a smooth finish. After laminating, the bag shall be cured in a smooth and flat condition. The bag shall be made of a filament wound fiberglass bag. The bag shall be placed on a flat surface with an anti-static matting to prevent static. The bag shall be placed on a flat surface with an anti-static matting to prevent static.

VA

[illegible]

ALL

SHALL BE FABRICATED FROM 1/4" ALUMINUM EXTRUSION PLATE AND BUILT TO WITHSTAND A LOAD OF 100 LB. PER SQ. FT. AND SHALL BE MANUFACTURED BY U.S. FOURCORK NAILCAY OR EQUAL.

●

ACCESSORIES

- STANLEY STEEL CABLE RACK
- STANLEY STEEL LEFT CABLE

ANN

CONCRETE IS RECOMMENDED TO PREVENT PLANTATION OF THE PINEAPPLE BARK. THE FOLLOWING LETTER THE CLING FEET ASSUMED FOR ROOT OF BARK DEPTH.

DIAMETER	PER FOOT OF BASIN DEPTH
3/4"	5

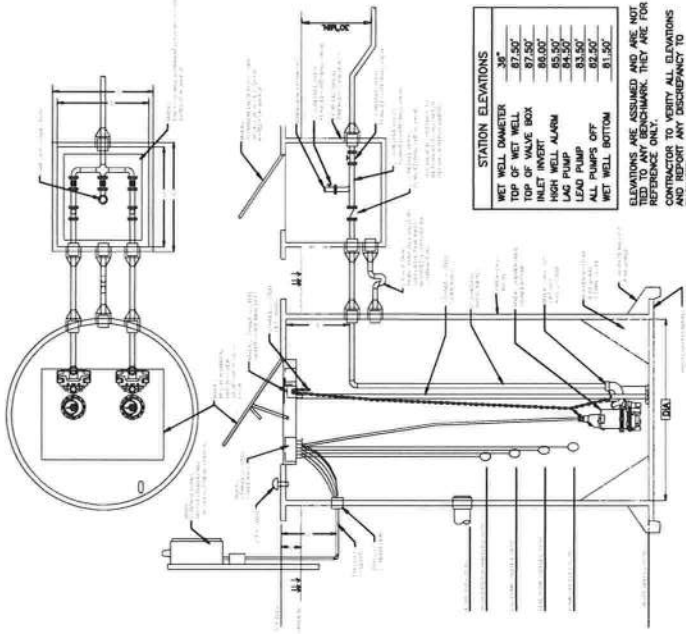
36	6
48	0.6
60	12

3

SHOULD BE FORMULATED OF PLASTER OR GROUTING MATERIAL, INSTALLED IN A LOCATION VISIBLE TO THE PUBLIC WITH THE ENDORSER'S NAME OF A POINT OF CONTACT IN CASE OF EMERGENCY.

BASIN DIAMETER	CUBIC FEET OF CONCRETE REQUIRED PER FOOT OF BASIN DEPTH
24"	2
30"	3.6
36"	6
48"	9.6
60"	12

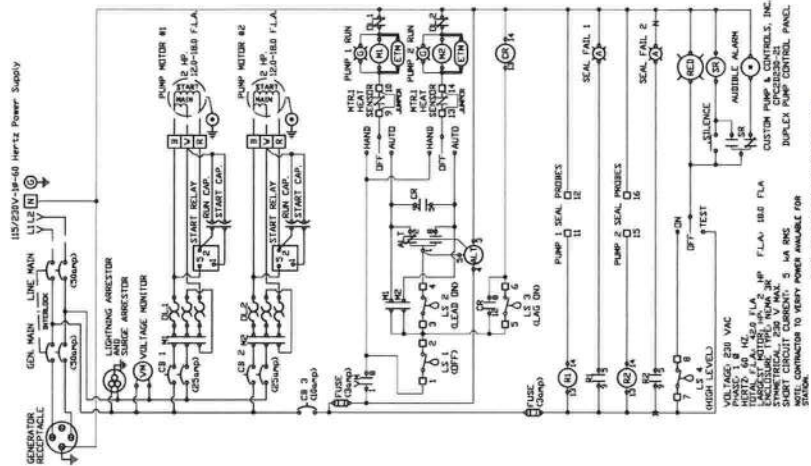
EMERGENCY SIGN
SHALL BE PERMANENTLY OR TEMPORARILY INSTALLED IN A LOCATION VISIBLE TO THE PUBLIC WITH TELEPHONE NUMBER OF A POINT OF CONTACT IN CASE OF EMERGENCY.



STATION ELEVATIONS	
WET WELL DIAMETER	36"
TOP OF WET WELL	87.50'
TOP OF VALVE BOX	87.50'
INLET INVERT	86.00'
HIGH WELL ALARM	85.50'
LAG WELL	84.50'
LEAD PUMP	83.50'
ALL PUMPS OFF	82.50'
WET WELL BOTTOM	81.50'

ELEVATIONS ARE ASSUMED AND ARE NOT TIED TO ANY BENCHMARK. THEY ARE FOR REFERENCE ONLY.

CONTRACTOR TO VERIFY ALL ELEVATIONS AND REPORT ANY DISCREPANCY TO ENGINEER.



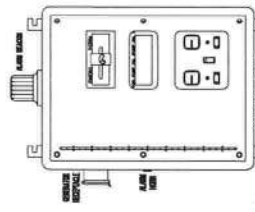
SCHEMATIC DIAGRAM
230V 1PHASE

NOTES:

NET WELL AND VALVE BOX MUST HAVE LOCKABLE HATCH OR OTHER APPROPRIATE FEATURES TO DISCOURAGE THE ENTRY OF ANIMALS OR UNAUTHORIZED PERSONS.

THE OWNER SHALL CONTRACT THE SERVICES OF A CERTIFIED LIFT STATION SERVICE COMPANY TO SERVICE AND MAINTAIN ALL SYSTEM COMPONENTS WITHIN PRIVATE PROPERTY. THE UTILITY COMPANY SHALL BE RESPONSIBLE FOR ALL COMPONENTS WITHIN THE PUBLIC RIGHT OF WAY.

THE CERTIFIED LIFT STATION SERVICE COMPANY SHALL HAVE AS A MINIMUM, ONE SPARE PART OF ALL SYSTEM COMPONENTS.



48 4022 FIBERGLASS ENCLOSURE WITH PROLOGUE LAUNCHER COVER PANEL SHALL HAVE PROVISION TO AUTOMATICALLY ALARM THE PUMP.

NO.	DATE	DESCRIPTION
1		REVISION
2		
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8		
9		
10		

PROJECT NO.	C-500
SHEET NO.	102-401
DATE	10/15/2022
DESIGNED BY	JL
CHECKED BY	JL
IN CHARGE	JL
DATE	10/15/2022
PROJECT NAME	CAMBRIDGE PREP ACADEMY

FOOT CONNECTION NOTES:

1. CONSTRUCT DRIVEWAY PER FDOT STANDARD INDEX 330-601 FOR NEW DRIVEWAY.
2. MATCH EXISTING ELEVATIONS FOR EDGE OF TRAVEL LANE, EDGE OF PAVEMENT, AND MILLINGS DRIVEWAY.
3. THE EXISTING ASPHALT PAVED SHOULDER SHALL BE MECHANICALLY SAW CUT AND REMOVED AS WELL AS ALL PRE-EXISTING SUBGRADE MATERIALS WITHIN THE LIMITS OF THE PROJECT IMPROVEMENTS WORK ZONE OR AS MAY BE CALLED FOR UNDER THE STATE FDOT PERMIT.
4. ALL PERMITTED PAVEMENT STRIPING PERTAINING TO THIS ACCESS PERMIT SHALL REQUIRE CERTIFIED LEAD FREE, THERMOPLASTIC MARKING MATERIALS AS THE FINAL PLACEMENT ITEM. TEMPORARY TRAFFIC BEARING SHALL BE REQUIRED TO BE IN PLACE 30 MINUTES BEFORE OFFICIAL SUNDOWN. BOTH TEMPORARY TRAFFIC BEARING PAINTS AND THERMOPLASTIC MARKING MATERIALS SHALL BE LEAD FREE AND SHALL MEET/STANDARD FOOT MINIMUM SPECIFICATIONS FOR NIGHT REFLECTIVITY. TEMPORARY RPM'S SHALL BE INSTALLED DURING BOTH TEMPORARY AND PERMANENT STRIPING PHASES. REMOVAL OF EXISTING STRIPING SHALL BE HYDRO-BLASTED.
5. FAILURE BY THE PERMITEE AND/OR HIS/HER CONTRACTOR TO HAVE A CERTIFIED STRIPING CREW ON SITE BEFORE THE START OF PAVING CAN BE REASON TO SUSPEND THE APPROVED PERMIT UNTIL SUCH TIME AS THE PERMITEE AND/OR HIS/HER CONTRACTOR CORRECTS THE SITUATION TO THE SATISFACTION OF THE ON-SITE STATE FDOT PERMITS PERSONNEL/INSPECTOR.
6. FOR MAINTENANCE OF TRAFFIC PLAN REFER TO FDOT STANDARD PLANS 102-600, 102-401, 102-402, 102-403, AND 102-625.
7. 24 INCH STOP BARS TO BE PLACED AT ALL INTERSECTIONS IN ACCORDANCE WITH CURRENT EDITION FDOT DESIGN STANDARDS INDEX 17-346.
8. THE PERMITEE SHALL CONTACT THE FDOT PERMITS OFFICE A MINIMUM OF 48 HOURS IN ADVANCE OF THE PLANNED CONNECTION.

