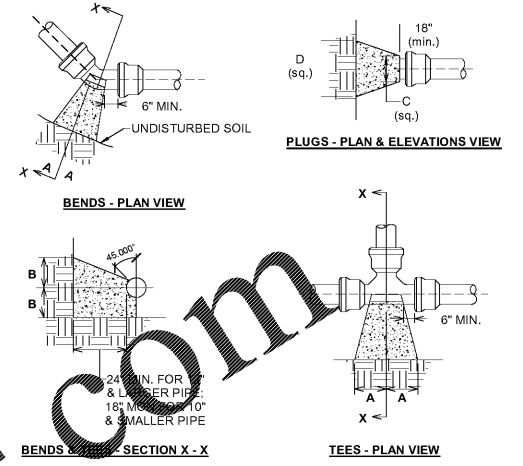


1 PLUMBING SITE UTILITY PLAN  
U101  
1" = 10'-0"

NOTE: SOIL CONDITIONS SHALL BE VERIFIED BEFORE A PIPE JOINT RESTRAINT DESIGN IS IMPLEMENTED. FORMATION OF CONCRETE SHALL BE SUCH THAT CONCRETE DOES NOT INTERFERE WITH BOLTS/NUTS OR HOLES.

SOIL BEARING LOADS	
SOIL TYPE	BEARING LOAD (lb/ft <sup>2</sup> )
MUCK (TYPE III)	0
SOFT CLAY (TYPE III)	1000
SILT (TYPE III)	1500
SANDY SILT (TYPE II)	3000
SAND (TYPE I)	4000
SANDY CLAY (TYPE I)	6000

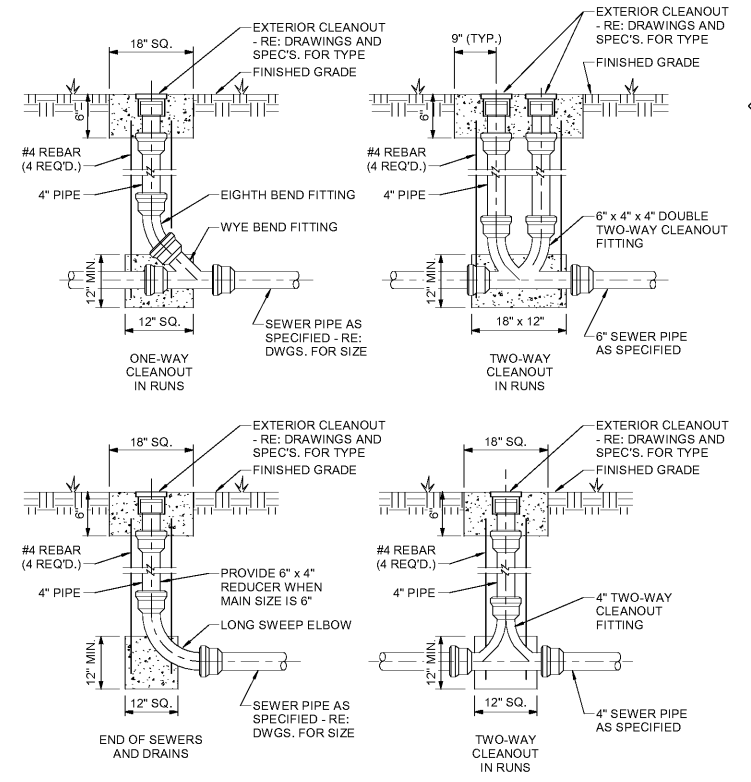
NOTES:  
1. FOR TYPE I AND TYPE II SOILS USE THRUST BLOCKS FOR PIPE JOINT RESTRAINT - REFER TO THE DETAILS AND THE "THRUST BLOCK MINIMUM DIMENSIONS" CHART FOR REQUIRED THRUST BLOCK SIZES.  
2. FOR TYPE III SOILS USE STRAPS AND RODS FOR PIPE JOINT RESTRAINT - REFER TO THE SOCKET CLAMP AND ANCHOR STRAP DETAILS AND CHAR



SOIL TYPE	SIZE (in)	90° BEND		45° BEND		22-12° BEND		11-1/4° BEND		TEES		PLUGS	
		A (in.)	B (in.)	A (in.)	B (in.)	A (in.)	B (in.)	A (in.)	B (in.)	A (in.)	B (in.)	C (in.)	D (in.)
TYPE I MINIMUM 4000 PSF SOIL	4"	10"	10"	6"	8"	2"	6"	2"	6"	8"	8"	10"	15"
	6"	12"	12"	8"	10"	3"	8"	3"	8"	8"	8"	10"	15"
	8"	14"	14"	10"	12"	4"	10"	4"	10"	11"	11"	14"	20"
	10"	16"	16"	12"	14"	5"	12"	5"	12"	12"	12"	16"	25"
TYPE II MINIMUM 2000 PSF SOIL	4"	12"	12"	8"	10"	3"	8"	3"	8"	8"	8"	10"	15"
	6"	14"	14"	10"	12"	4"	10"	4"	10"	11"	11"	14"	20"
	8"	16"	16"	12"	14"	5"	12"	5"	12"	12"	12"	16"	25"
	10"	18"	18"	14"	16"	6"	14"	6"	14"	14"	14"	18"	30"
12"	20"	20"	16"	18"	7"	16"	7"	16"	16"	16"	20"	35"	
14"	22"	22"	18"	20"	8"	18"	8"	18"	18"	18"	22"	40"	
16"	24"	24"	20"	22"	9"	20"	9"	20"	20"	20"	24"	45"	
18"	26"	26"	22"	24"	10"	22"	10"	22"	22"	22"	26"	50"	
20"	28"	28"	24"	26"	11"	24"	11"	24"	24"	24"	28"	55"	
22"	30"	30"	26"	28"	12"	26"	12"	26"	26"	26"	30"	60"	
24"	32"	32"	28"	30"	13"	28"	13"	28"	28"	28"	32"	65"	
26"	34"	34"	30"	32"	14"	30"	14"	30"	30"	30"	34"	70"	
28"	36"	36"	32"	34"	15"	32"	15"	32"	32"	32"	36"	75"	
30"	38"	38"	34"	36"	16"	34"	16"	34"	34"	34"	38"	80"	
32"	40"	40"	36"	38"	17"	36"	17"	36"	36"	36"	40"	85"	
34"	42"	42"	38"	40"	18"	38"	18"	38"	38"	38"	42"	90"	
36"	44"	44"	40"	42"	19"	40"	19"	40"	40"	40"	44"	95"	
38"	46"	46"	42"	44"	20"	42"	20"	42"	42"	42"	46"	100"	
40"	48"	48"	44"	46"	21"	44"	21"	44"	44"	44"	48"	105"	
42"	50"	50"	46"	48"	22"	46"	22"	46"	46"	46"	50"	110"	
44"	52"	52"	48"	50"	23"	48"	23"	48"	48"	48"	52"	115"	
46"	54"	54"	50"	52"	24"	50"	24"	50"	50"	50"	54"	120"	
48"	56"	56"	52"	54"	25"	52"	25"	52"	52"	52"	56"	125"	
50"	58"	58"	54"	56"	26"	54"	26"	54"	54"	54"	58"	130"	
52"	60"	60"	56"	58"	27"	56"	27"	56"	56"	56"	60"	135"	

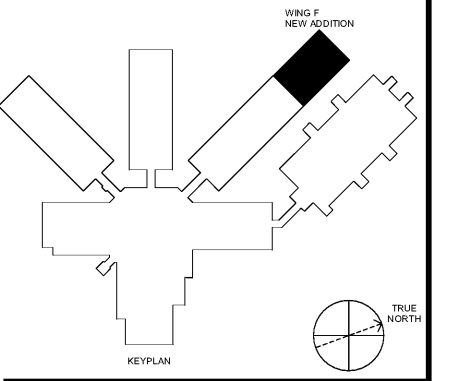
NOTE: BASED ON 100 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.

2 THRUST BLOCK PIPE JOINT RESTRAINT DETAILS  
U101 NTS



NOTES:  
1. REBAR NOT REQUIRED WHEN CLEANOUT INSTALLED IN PAVED AREAS.  
2. ALL EXTERIOR CLEANOUTS SHALL BE ONE-WAY EXCEPT WHERE SPECIFICALLY INDICATED ON THE DRAWINGS AS TWO-WAY.

3 EXTERIOR CLEANOUT DETAIL  
U101 NTS



SA&E PROJECT NUMBER: 01-632-056  
 BID PACKAGE: BP-1  
 ISSUED FOR CONSTRUCTION: FEB. 4, 2020  
**Southern AE**  
 7951 Traxon Circle  
 Austell, Ga 30168  
 (770) 819-7777  
 architects & engineers  
 FACILITY CODE NUMBER: 672-0109

(6) CLASSROOM ADDITION TO:  
**CREEKSIDE MIDDLE SCHOOL**  
 CATAULA, GEORGIA  
**HARRIS COUNTY BOARD OF EDUCATION**  
 HAMILTON, GEORGIA

PLUMBING UTILITY SITE PLAN AND DETAILS

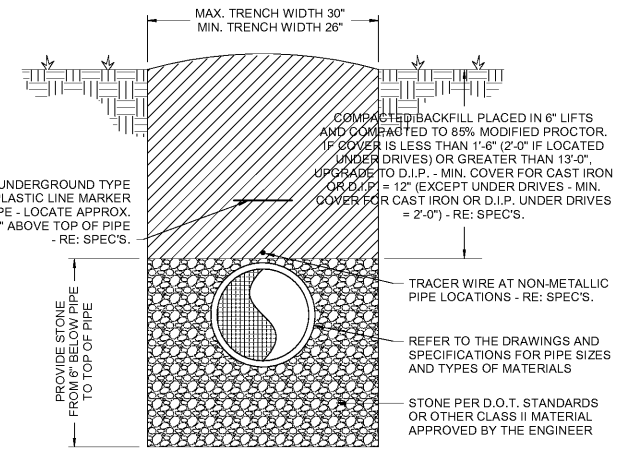
DRAWING NUMBER: U101  
 REGISTERED PROFESSIONAL ARCHITECT  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF GEORGIA

PLUMBING SITE UTILITIES SYMBOL LEGEND  
 NOTE: NOT ALL SYMBOLS TABULATED BELOW ARE NECESSARILY USED ON THE DRAWINGS. (N/A = NOT APPLICABLE)

SS	SAN	SANITARY SOIL OR WASTE LINE
V	SANITARY VENT LINE	
ST	STORM WASTE LINE	
CW	DOMESTIC WATER MAIN	
G	GAS	
F	FIRE WATER LINE	
GV	EXTERIOR GATE VALVE	
CV	EXTERIOR CHECK VALVE	
PIV	INDICATOR VALVE	
FH	FIRE HYDRANT ASSEMBLY	
FDC	FIRE DEPARTMENT CONNECTION	
MH	MANHOLE	
CO	EXTERIOR CLEANOUT	

KEYNOTE SCHEDULE

#	KEYNOTE DESCRIPTION
U1	SANITARY WASTE LINE - RE: 2P101 FOR CONTRACTION.
U2	2" DIA. - RE: SPECS AND DETAIL 3U101.
U3	INSTALLING 6" SANITARY SEWER LINE - CONTRACTOR VERIFY SIZE AND LOCATION OF EXISTING.



4 SEWER PIPE BEDDING DETAIL  
U101 NTS