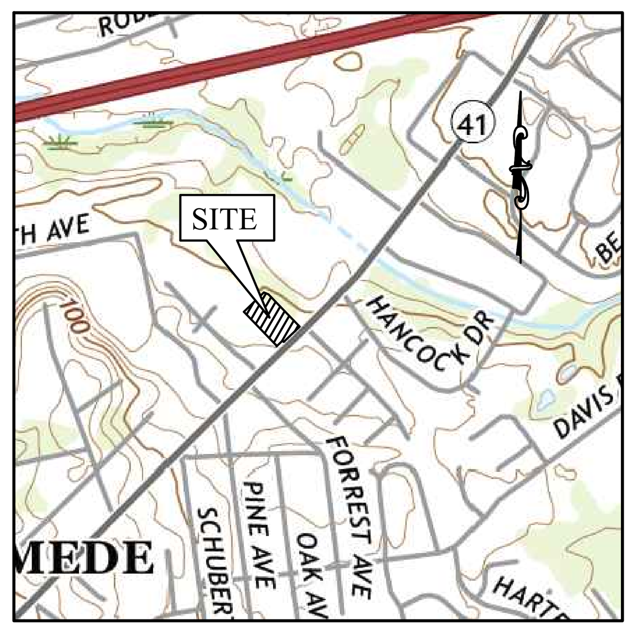
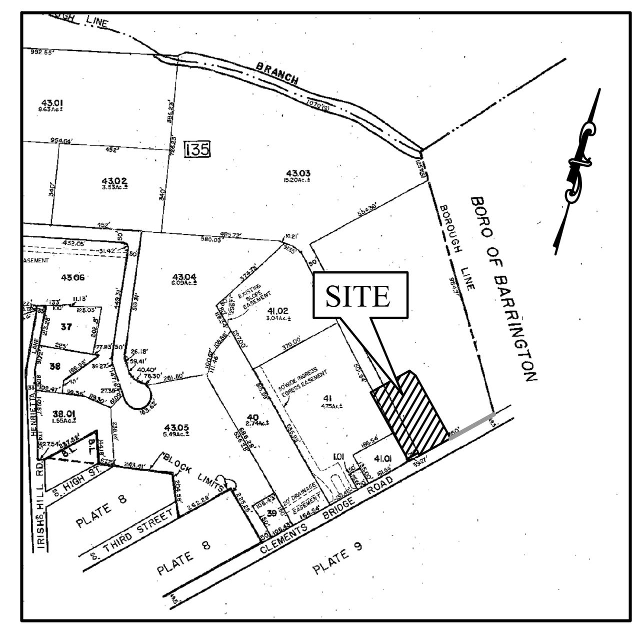
RUNNEMEDE DOLLAR GENERAL

MAJOR SITE PLAN

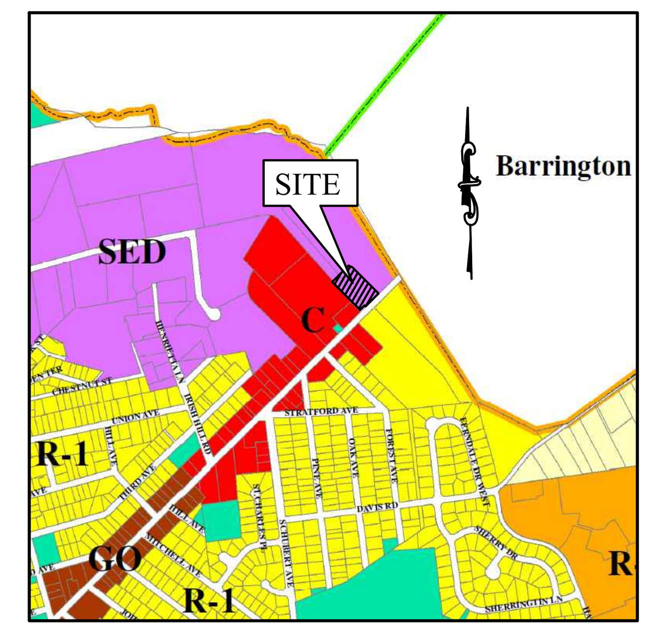
BLOCK 135, PROPOSED LOT 42.01, PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY, NEW JERSEY



U.S.G.S. QUAD MAP
SCALE: 1" = 1,000'



TAX MAP
NOT TO SCALE



ZONING MAP
NOT TO SCALE

PREPARED FOR:

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

PREPARED BY:

THE PETTIT GROUP, LLC
Engineering • Architecture • Planning
497 Center Street • Sewell, NJ 08080
Tel: 856-464-9600 Fax: 856-464-9606
www.pettitgroup.com

APPROVED BY THE MUNICIPAL BOARD ON THIS___DAY OF______20__

APPLICATION#

CHAIRPERSON

SECRETARY

ENGINEER

INDEX OF DRAWINGS

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Certificate of Authorization No. 24GA28131400

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DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: AS SHOWN

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

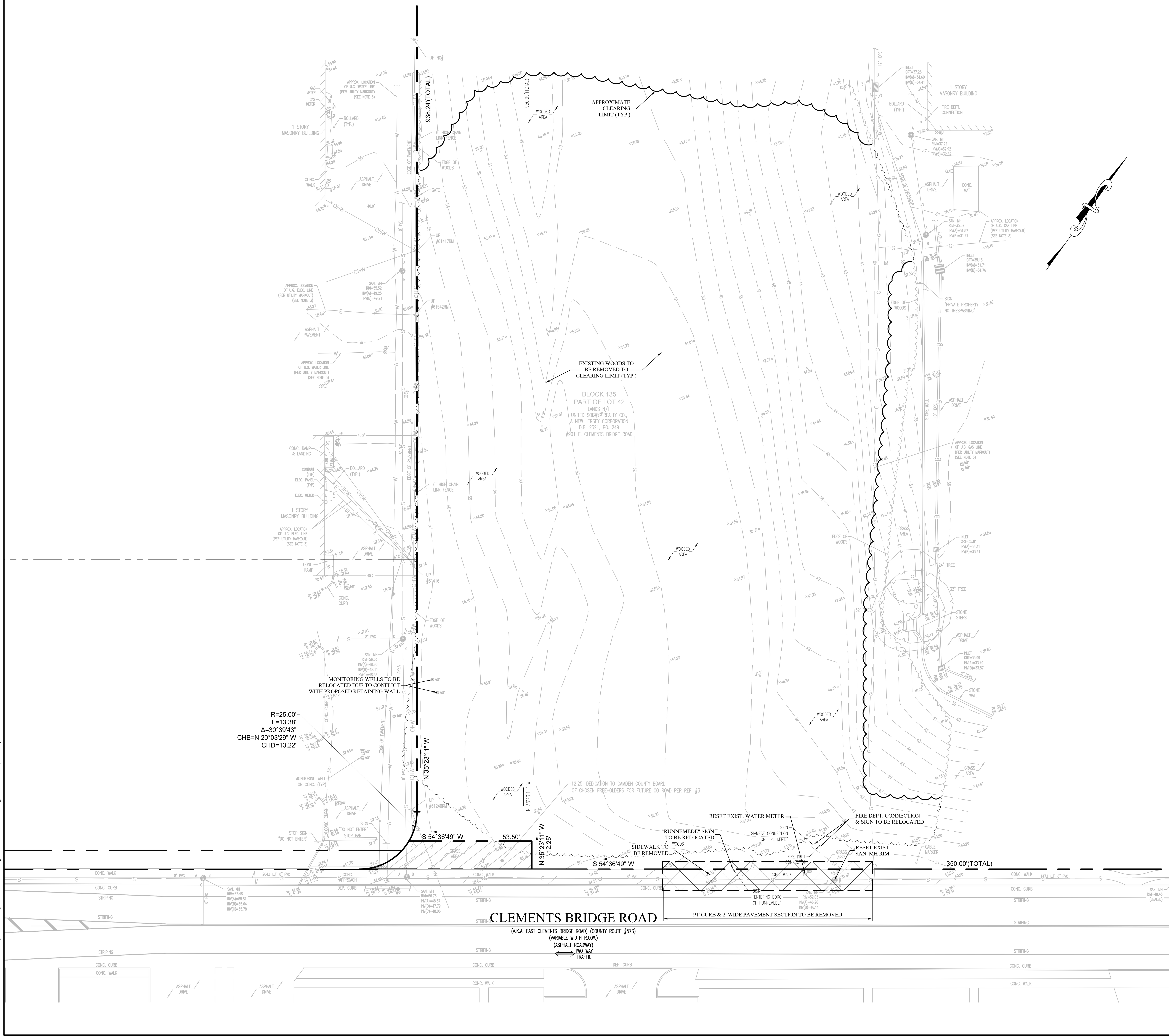
FOR

EAST CLEMENTS
BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:
COVER SHEET & INDEX OF DRAWINGS

SHEET NUMBER:
1 of 10



DEMOLITION & STRUCTURAL FILL NOTES:

1. IF PROVIDED, THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN TAKEN FROM VARIOUS SOURCES AND IS SHOWN FOR DESIGN AND ESTIMATING PURPOSES ONLY. ACTUAL LOCATIONS OF UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR. ANY DISCREPANCIES OR APPARENT CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION. ANY/ALL DISCREPANCIES SHALL BE REPORTED TO ENGINEER IN WRITING PRIOR TO ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS & UTILITIES. A WRITTEN NOTICE SHALL BE FORWARDED TO THE OWNER SETTING FORTH THE DATE OF CONTACT. CONTRACTORS ARE ADVISED TO CALL 1-800-272-1000 BEFORE COMMENCING FOR A MARKOUT OF EXISTING UTILITIES.
2. CONTRACTOR SHALL REVIEW ALL PLAN SHEETS TO DETERMINE IF THE EXTENT OF IMPROVEMENTS TO BE REMOVED, AS INDICATED ON THIS PLAN, IS CORRECT. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER DURING THE BID PHASE.
3. CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES PRIOR TO DEMOLITION.
4. CONTRACTOR TO COORDINATE ALL UTILITY REMOVAL(S) AND SHUT-OFF(S). (TYPICAL)
5. CONTRACTOR TO COORDINATE WITH ALL APPLICABLE AGENCIES DURING THE DEMOLITION OF EXISTING BUILDINGS, IF NOTED TO BE REMOVED.
6. TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION TO LOCATE UNDERGROUND UTILITIES.
7. ANY REQUIRED UTILITY POLE RELOCATIONS FOR THE PROPOSED IMPROVEMENTS SHALL BE COMPLETED AT NO EXTRA COST TO THE OWNER. CONTRACTOR SHALL PROVIDE ALL NECESSARY ARRANGEMENTS FOR UTILITY POLE RELOCATION.
8. THE CONTRACTORS ARE ADVISED THAT ANY REQUIRED UNDERGROUND UTILITY RELOCATIONS INCLUDING GAS MAINS AND SERVICES, WATER MAINS AND SERVICES, SEWER MAINS AND SERVICES, ELECTRIC AND TELEPHONE LINES SHALL BE COMPLETED AT NO COST TO THE OWNER UNLESS SPECIFICALLY NOTED OTHERWISE.
9. EXISTING UTILITIES INCLUDING VALVE BOXES, CLEAN OUTS, CURB STOPS, MANHOLES, ETC., SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED GRADE. STORM DRAINAGE STRUCTURES SHALL NOT BE ADJUSTED UNLESS SPECIFICALLY CALLED FOR. NO TRENCHES SHALL REMAIN OPEN OVERNIGHT.
10. SUPPORT AND STABILIZATION OF REMAINING STRUCTURES SHALL CONFORM TO IBC 2009.
11. ALL DEMOLITION TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
12. NO DISTURBANCES SHALL BE PERMITTED BEYOND THE PROJECT PROPERTY LINE WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER(S) DIRECTLY AFFECTED.
13. CONTRACTOR SHALL CLEAN ADJACENT STRUCTURES AFFECTED BY DEMOLITION, CONTRACTOR TO RETURN ADJACENT AREAS TO CONDITIONS EXISTING PRIOR TO START OF WORK.
14. THE CONTRACTOR SHALL PROPERLY DISPOSE OF SPOILS AND EXCAVATED MATERIALS. NO CONSTRUCTION DEBRIS, CUT VEGETATION, TREE STUMPS, OR ANY OTHER SOLID WASTE EXISTING ON SITE IS TO BE BURIED ON SITE. NO ON SITE BURIAL OR BURNING OF CONSTRUCTION DEBRIS IS PERMITTED. ALL WASTE MUST BE PROPERLY REMOVED AND DISPOSED OFF SITE. ALL MATERIALS REMOVED FROM SITE ARE TO BE DISPOSED OF AT AN APPROVED FACILITY.
15. EXISTING TOPSOIL ONSITE IS TO BE PROTECTED. NO TOPSOIL IS TO BE SOLD OR REMOVED FROM THE SITE OR USED AS SPOIL UNLESS APPLICATION IS MADE TO THE APPROVING AUTHORITY AND APPROVAL IS GRANTED.
16. PROJECT SITE TO BE CLEARED ONLY AS REQUIRED. EXISTING TREES SHALL BE PROTECTED ALONG WITH ALL EXCAVATION AND CONSTRUCTION LIMITS.
17. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIAL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
18. IF STRUCTURES ARE INDICATED TO BE REMOVED, THE CONTRACTOR SHALL DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) BEFORE THE COMMENCEMENT OF DESIGNATED DEMOLITION. CLEARLY IDENTIFY, BEFORE THE COMMENCEMENT OF DESIGNATED DEMOLITION, THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY APPLICABLE UTILITY COMPANIES TO ENSURE CONTINUATION OF SERVICE.
19. IF PRESENT ON-SITE, EXISTING WELLS SHALL BE ABANDONED BY A CERTIFIED WELL DRILLER, IN ACCORDANCE WITH ALL LOCAL, COUNTY, OR STATE REGULATIONS. EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL, COUNTY, OR STATE REGULATIONS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION OF ALL UTILITIES TO BE REMOVED. ALL EXISTING UTILITIES SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH LOCAL MUNICIPAL & MUA SPECIFICATIONS.
21. IF NOTED TO BE REMOVED, EXISTING BUILDING SHALL BE DEMOLISHED INCLUDING ALL BASEMENT FOOTINGS AND FOUNDATION WALLS & MATERIALS. (BASEMENT MATERIAL SHALL BE REMOVED FROM SITE AND NOT USED FOR FILL).
22. THE ON-SITE SOILS WHICH ARE EXCAVATED FOR SITE GRADING MAY BE USED AS STRUCTURAL FILL FOR SUPPORT OF SLAB-ON-GRADE AND PAVEMENT. HOWEVER, THESE SOILS CONTAIN AN APPRECIABLE AMOUNT OF FINES AND WILL BE MOISTURE SENSITIVE. THEREFORE, USAGE OF THE ON-SITE SOIL WILL BE LIMITED TO PERIODS OF WARM AND/OR DRY WEATHER. IF OFF-SITE MATERIALS ARE REQUIRED FOR FILL, CRUSHED STONE OR RECYCLED CRUSHED CONCRETE MEETING THE MINIMUM REQUIREMENTS OF NJDOT COURSE AGGREGATE NO. 2 SHOULD BE USED.
23. STRUCTURAL FILL SHOULD BE PLACED IN HORIZONTAL LIFTS NOT MORE THAN 6 INCHES IN LOOSE THICKNESS. WITHIN THE BUILDING AREA, THE FILL SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY THE "MODIFIED PROCTOR" COMPACTION TEST, ASTM D 1557. ALTERNATIVELY, EACH LIFT OF IMPORTED CRUSHED STONE SHOULD BE COMPACTED TO AT LEAST 85 PERCENT RELATIVE DENSITY AS DETERMINED BY ASTM D 4253 / 4254, OR THE US ARMY CORPS OF ENGINEERS MODIFIED PROVIDENCE VIBRATED DENSITY TEST. THE RELATIVE DENSITY METHOD IS USED FOR FREE-DRAINING SOILS WHICH TO NOT EXHIBIT A WELL-DRAINED PEAK IN THE PROCTOR TEST, OR WHICH BREAK DOWN EXCESSIVELY UNDER THE TEST RAMMER. STRUCTURAL FILL SHOULD BE COMPACTED USING A SELF-PROPELLED, VIBRATORY ROLLER WHICH IMPARTS A TOTAL DYNAMIC FORCE OF AT LEAST 300 POUNDS PER INCH OF DRUM LENGTH. IN CONFINED AREAS, WHERE SMALLER ROLLERS OR MANUALLY OPERATED TAMPERS ARE USED, THE LIFT THICKNESS SHOULD BE REDUCED TO 6 INCHES.
24. BACKFILL AROUND THE EXTERIOR OF THE BUILDING, AND FILL IN PAVEMENT AREAS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. ON-SITE SOIL MAY BE USED FOR EXTERIOR BACKFILL.

SCALE 1" = 20' FEET (20 0 20 40)

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MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:

EX. CONDITIONS & DEMOLITION PLAN

SHEET NUMBER:

P:\1016 John Soubasis\-28 Runnemede Dollar General\Eng\Construction Dwgs\1016-28 Sheet 02 - Existing Conditions & Demolition Plan.dwg, 4/24/2020 11:56 AM, Brian Cleary

GENERAL NOTES

1. OWNERS:
   LOT 42
   UNITED SOFTEE REALTY CO
   901 E. CLEMENTS BRIDGE ROAD
   RUNNEMEDE, NJ 08078

   LOT 43.03
   D & P INDUSTRAIL PARK
   20 COMMUNITY PLACE
   MORRISTOWN, NJ 07960

2. APPLICANT:
   EAST CLEMENTS BRIDGE ROAD, LLC
   1070 KINGS HIGHWAY
   BELLMAWR, NJ 08031

3. EXISTING CONDITIONS TAKEN FROM A PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, EAST CLEMENTS BRIDGE ROAD, LLC, #901 E. CLEMENTS BRIDGE ROAD & #195 9TH AVENUE, PART OF LOTS 42 & 43.03, BLOCK 135, BOROUGH OF RUNNEMEDE, CAMDEN COUNTY, STATE OF NEW JERSEY", PREPARED BY BLUE MARSH ASSOCIATES, INC., DATED 03/23/2020. ADDITIONAL IMPROVEMENTS WITHIN THE CLEMENTS BRIDGE RIGHT-OF-WAY TAKEN FROM AERIAL IMAGERY.

4. APPLICANT SEEKS THE FOLLOWING APPROVALS:
   a. USE VARIANCE APPROVAL TO ALLOW A RETAIL BUILDING IN THE SPECIAL ECONOMIC DISTRICT (SED)
   b. SITE PLAN APPROVAL SO AS TO PERMIT CONSTRUCTION OF A 10,640 SF DOLLAR GENERAL RETAIL BUILDING AND ASSOCIATED SITE IMPROVEMENTS.

5. PROPOSED BUILDINGS TO BE SERVICED WITH NEW SEWER AND WATER LINES.

6. NEW UTILITY LINES (GAS, ELECTRIC) ARE PROPOSED TO SERVICE THE BUILDINGS. ALL ELECTRIC, TELEPHONE, AND CABLE SERVICE LINES SHALL BE UNDERGROUND.

7. ELEVATION DATUM IS NAVD 88.

8. NO FRESHWATER WETLANDS EXIST IN THE VICINITY OF THE DEVELOPMENT AREA, AS REFERENCED FROM NJDEP GEOWEB MAP VIEWER.

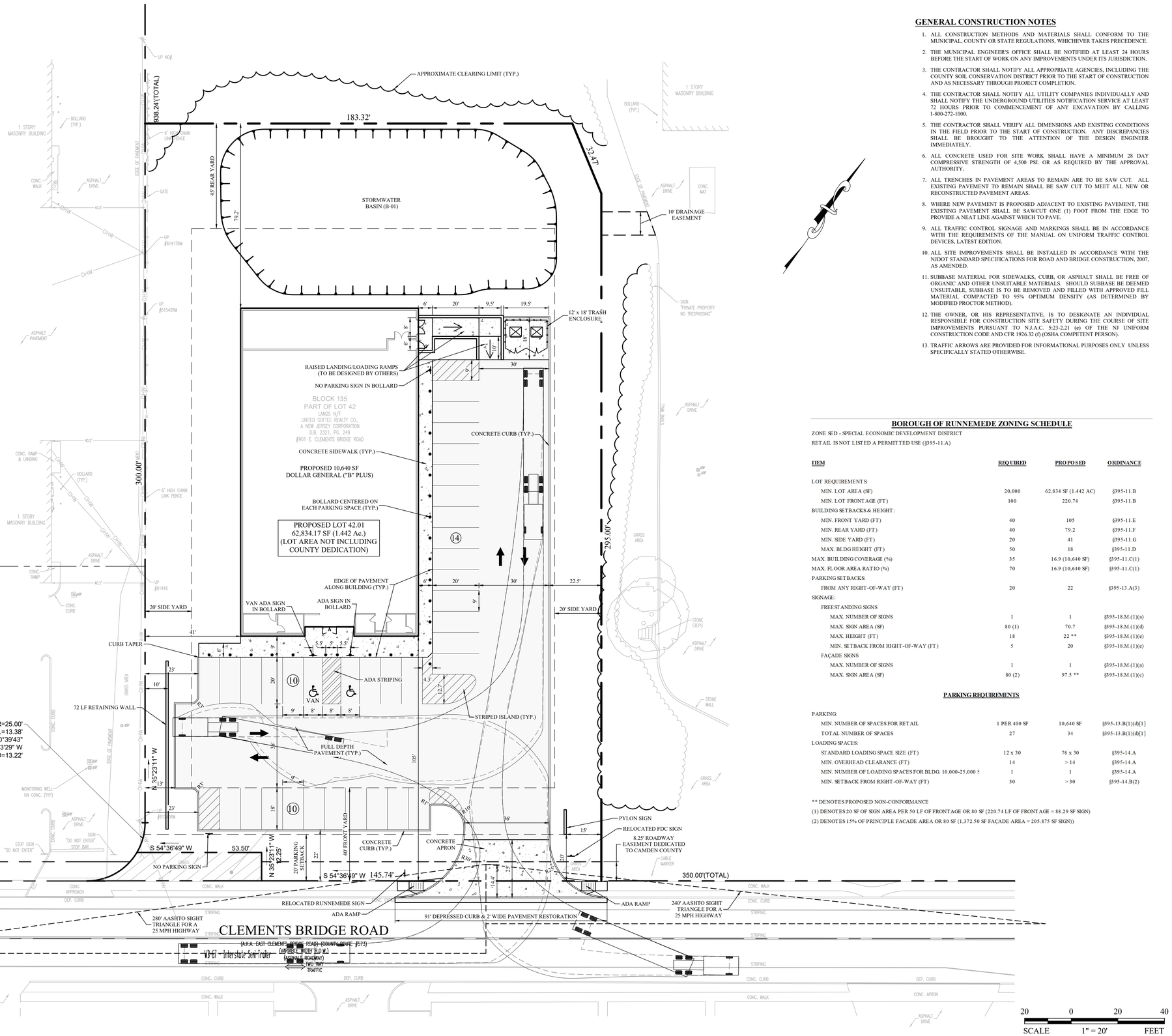
9. THE PROPERTY DOES NOT FALL WITHIN A FLOOD PLAIN ZONE ACCORDING TO THE MOST RECENT FEMA FIRM MAPS 34007C0102F & 34007C0106E.

10. REQUIRED OUTSIDE AGENCY APPROVALS:
    a. CAMDEN COUNTY PLANNING BOARD
    b. CAMDEN COUNTY SOIL CONSERVATION DISTRICT

WAIVERS & VARIANCES

1. SUBMISSION WAIVERS ARE REQUESTED FROM THE FOLLOWING:
   a. SECTION 331-55.E(3) - FROM PROVIDING 50 SCALE SITE PLANS
   b. SECTION 331-55.E(12) - FROM PROVIDING THE LOCATION OF TREES WITH A DIAMETER OF FOUR INCHES OR MORE.
   c. FROM PROVIDING THE GENERAL SIZE AND SPECIES OF EXISTING TREES.

2. VARIANCES ARE REQUESTED FROM THE FOLLOWING:
   a. SECTION 395-11.A - USE VARIANCE TO ALLOW A RETAIL USE IN THE SPECIAL ECONOMIC DISTRICT.
   b. SECTION 395-18.M(1)(c) - MAXIMUM FACADE SIGN AREA 80 SF MAX REQUIRED; 97.5 SF PROPOSED
   c. SECTION 395-18.M(1)(e) - MAXIMUM FREESTANDING SIGN HEIGHT 18 FT MAX REQUIRED; 22 FT PROPOSED
   d. SECTION 395-18.M(1)(e) - FROM PROVIDING AN ARCHITECTURAL SIGN BASE.



GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE MUNICIPAL, COUNTY OR STATE REGULATIONS, WHICHEVER TAKES PRECEDENCE.
2. THE MUNICIPAL ENGINEER'S OFFICE SHALL BE NOTIFIED AT LEAST 24 HOURS BEFORE THE START OF WORK ON ANY IMPROVEMENTS UNDER ITS JURISDICTION.
3. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES, INCLUDING THE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE START OF CONSTRUCTION AND AS NECESSARY THROUGH PROJECT COMPLETION.
4. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INDIVIDUALLY AND SHALL NOTIFY THE UNDERGROUND UTILITIES NOTIFICATION SERVICE AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY EXCAVATION BY CALLING 1-800-272-1000.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER IMMEDIATELY.
6. ALL CONCRETE USED FOR SITE WORK SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI. OR AS REQUIRED BY THE APPROVAL AUTHORITY.
7. ALL TRENCHES IN PAVEMENT AREAS TO REMAIN ARE TO BE SAW CUT. ALL EXISTING PAVEMENT TO REMAIN SHALL BE SAW CUT TO MEET ALL NEW OR RECONSTRUCTED PAVEMENT AREAS.
8. WHERE NEW PAVEMENT IS PROPOSED ADJACENT TO EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAWCUT ONE (1) FOOT FROM THE EDGE TO PROVIDE A NEAT LINE AGAINST WHICH TO PAVE.
9. ALL TRAFFIC CONTROL SIGNAGE AND MARKINGS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. ALL SITE IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007, AS AMENDED.
11. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANIC AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
12. THE OWNER, OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21 (e) OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32 (f) (OSHA COMPETENT PERSON).
13. TRAFFIC ARROWS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY UNLESS SPECIFICALLY STATED OTHERWISE.

BOROUGH OF RUNNEMEDE ZONING SCHEDULE

ZONE SED - SPECIAL ECONOMIC DEVELOPMENT DISTRICT

RETAIL IS NOT LISTED A PERMITTED USE (§395-11.A)

ITEM	REQUIRED	PROPOSED	ORDINANCE
LOT REQUIREMENTS:			
MIN. LOT AREA (SF)	20,000	62,834 SF (1.442 AC)	§395-11.B
MIN. LOT FRONTAGE (FT)	100	220.74	§395-11.B
BUILDING SETBACKS & HEIGHT:			
MIN. FRONT YARD (FT)	40	105	§395-11.E
MIN. REAR YARD (FT)	40	79.2	§395-11.F
MIN. SIDE YARD (FT)	20	41	§395-11.G
MAX. BLDG HEIGHT (FT)	50	18	§395-11.D
MAX. BUILDING COVERAGE (%)	35	16.9 (10,640 SF)	§395-11.C(1)
MAX. FLOOR AREA RATIO (%)	70	16.9 (10,640 SF)	§395-11.C(1)
PARKING SETBACKS:			
FROM ANY RIGHT-OF-WAY (FT)	20	22	§395-13.A(3)
SIGNAGE:			
FREESTANDING SIGNS			
MAX. NUMBER OF SIGNS	1	1	§395-18.M.(1)(a)
MAX. SIGN AREA (SF)	80 (1)	70.7	§395-18.M.(1)(d)
MAX. HEIGHT (FT)	18	22 **	§395-18.M.(1)(e)
MIN. SETBACK FROM RIGHT-OF-WAY (FT)	5	20	§395-18.M.(1)(e)
FAÇADE SIGNS			
MAX. NUMBER OF SIGNS	1	1	§395-18.M.(1)(a)
MAX. SIGN AREA (SF)	80 (2)	97.5 **	§395-18.M.(1)(c)

PARKING REQUIREMENTS

PARKING:			
MIN. NUMBER OF SPACES FOR RETAIL	1 PER 400 SF	10,640 SF	§395-13.B(1)(d)[1]
TOTAL NUMBER OF SPACES	27	34	§395-13.B(1)(d)[1]
LOADING SPACES:			
STANDARD LOADING SPACE SIZE (FT)	12 x 30	76 x 30	§395-14.A
MIN. OVERHEAD CLEARANCE (FT)	14	> 14	§395-14.A
MIN. NUMBER OF LOADING SPACES FOR BLDG. 10,000-25,000 S	1	1	§395-14.A
MIN. SETBACK FROM RIGHT-OF-WAY (FT)	30	> 30	§395-14.B(2)

** DENOTES PROPOSED NON-CONFORMANCE

(1) DENOTES 20 SF OF SIGN AREA PER 50 LF OF FRONTAGE OR 80 SF (220.74 LF OF FRONTAGE = 88.29 SF SIGN)

(2) DENOTES 15% OF PRINCIPLE FACADE AREA OR 80 SF (1,372.50 SF FAÇADE AREA = 205.875 SF SIGN))

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PLATE 11
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CAMDEN COUNTY
NEW JERSEY

FOR

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BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

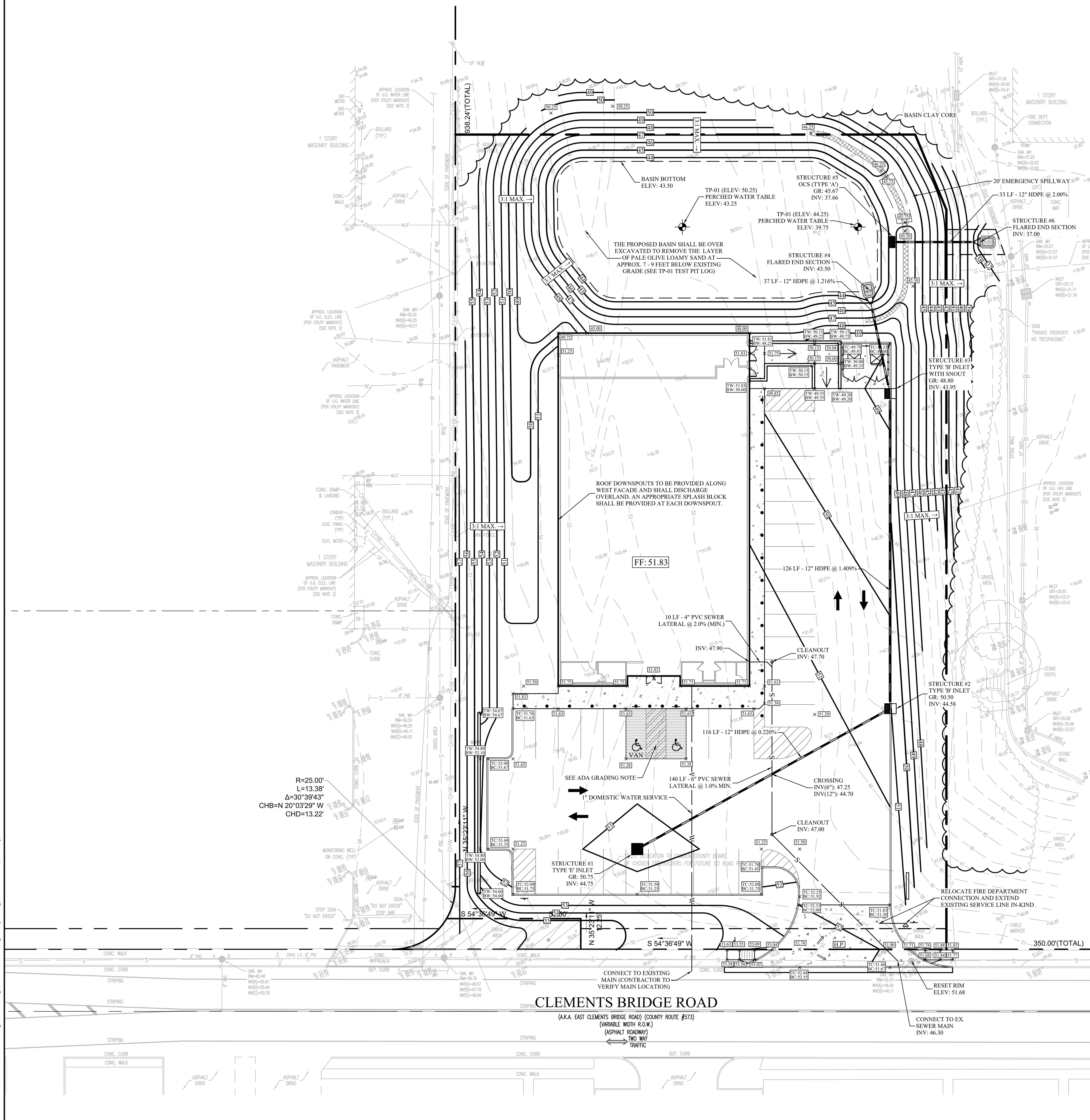
SHEET TITLE:

SITE PLAN

SHEET NUMBER:

3 of 10

P:\1016\Arch Set\sheet 2\Runnemede Dollar General Eng\Construction Plan\1016-2 Sheet 03 - Site Plan.dwg, 4/24/2020 11:56 AM, Brian Cleary



GRADING & UTILITY NOTES:

1. ALL GRADING SHALL PROMOTE POSITIVE DRAINAGE FROM BUILDINGS AND STRUCTURES TO DRAINAGE FACILITIES WITHOUT LOW SPOTS THAT CAUSE PONDING.
2. THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN 2% AND THE MINIMUM IN PAVED AREAS SHALL NOT BE LESS THAN 0.75%.
3. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING UTILITIES SHOWN. THE CONTRACTOR SHALL EMPLOY ALL MEANS NECESSARY, INCLUDING TEST PITS, TO LOCATE AND AVOID DAMAGE TO ALL EXISTING UTILITIES WITHIN THE VICINITY OF THE PROPOSED IMPROVEMENTS. SHOULD ANY EXISTING UTILITY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL REPORT THE CONFLICT TO THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH ANY CONSTRUCTION.
4. ALL ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION AND OTHER PUBLIC UTILITY LINES SHALL BE INSTALLED UNDERGROUND. MINIMUM HORIZONTAL CLEARANCE BETWEEN PUBLIC UTILITY LINES AND WATER OR SEWER MAINS SHALL BE THREE (3) FEET.
5. THE CONTRACTOR SHALL BACKFILL HIS TRENCH AND PROTECT THE PUBLIC FROM THE WORK AREA AT THE END OF EACH WORKING DAY. NO TRENCHES SHALL REMAIN OPEN OVERNIGHT.
6. ALL GRAVITY SANITARY SEWER MAIN AND LATERALS SHALL BE PVC PIPE, SDR-35 CONFORMING TO ASTM D-3034 WITH PUSH-ON JOINTS, UNLESS OTHERWISE SPECIFIED. MINIMUM COVER OVER PVC AND DUCTILE IRON SANITARY SEWER MAINS AND LATERALS SHALL BE THREE (3) FEET. ALL SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS DETAILED.
7. WATER MAINS AND SANITARY SEWER SHALL BE SEPARATED BY 10 FEET HORIZONTALLY WHEREVER POSSIBLE. OTHERWISE, THE SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SEWER 18" BELOW THE BOTTOM OF THE WATER MAIN. AT WATER AND SEWER CROSSINGS, THE SEWER SHALL BE 18" MINIMUM BELOW THE WATER OR SEWER MAIN SHALL BE C.L.D.I.P. WITH SLIP-ON JOINTS AND ENCASED IN CONCRETE FOR 10 FEET MINIMUM ON EACH SIDE OF THE CROSSING. WHERE SANITARY SEWER CROSS OVER OR WITHIN 18" UNDER A STORM PIPE, THE SANITARY SEWER SHALL BE C.L.D.I.P. WITH SLIP-ON JOINTS AND ENCASED IN CONCRETE FOR 10 FEET EACH SIDE OF THE CROSSING.
8. REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
9. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
10. CLEAN OUTS AND CURB BOXES WITHIN THE PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.
11. ALL INLET GRATES SHALL BE BICYCLE-SAFE GRATES.
12. CONSTRUCTION OF THE PROPOSED INFILTRATION BASIN SHALL BE DONE WITHOUT COMPACTING THE BASIN'S SUB-GRADE SOILS. ALL EXCAVATION SHALL BE PERFORMED BY EQUIPMENT PLACED OUTSIDE THE BASIN WHENEVER POSSIBLE.
13. BACKFILL AROUND ALL PROPOSED UTILITIES, AND ASSOCIATED STRUCTURES, SHALL BE COMPACTED TO 90 PERCENT, MINIMUM, OF THE MAXIMUM DRY DENSITY DETERMINED BY THE "MODIFIED PROCTOR" COMPACTION TEST, ASTM D 1557.
14. **ADA GRADING NOTE:** ALL HANDICAPPED ACCESSIBLE AREAS SHALL BE GRADED WITH A 2% MAXIMUM SLOPE.

SHOULD THESE PLANS NOT DEPICT THE PROPOSED ELECTRIC, GAS, AND TELECOMM UTILITY SERVICE DESIGNS, THE CONTRACTOR SHALL COORDINATE THE SCOPE OF THE PROPOSED UTILITY SERVICE DESIGNS IN CONSULTATION WITH THE RESPECTIVE UTILITY PROVIDERS AND SHALL ENSURE THAT THE INSTALLATION OF ELECTRIC, GAS, AND TELECOMM UTILITY SERVICES ARE ADDRESSED WITHIN THE SCOPE OF THEIR BID.

SHOULD THESE PLANS DEPICT FEASIBLE LOCATIONS FOR PROPOSED ELECTRIC, GAS, AND TELECOMM UTILITY SERVICE CONNECTIONS, THEY SHALL ONLY BE UTILIZED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL NOTE THAT THE FINAL UTILITY SERVICE DESIGNS MUST BE COORDINATED WITH THE RESPECTIVE UTILITY PROVIDERS AND THEREFORE, ARE SUBJECT TO CHANGE BASED UPON THE PREFERENCE OF THE UTILITY PROVIDER.

THE PETTIT GROUP, LLC
PIPE PROFILE AND HYDRAULIC CALCULATIONS WORKSHEET

04/24/20

JOB NAME: RUNNEMEDE DOLLAR GENERAL
JOB NO.: 1016-28

MANNINGS = 0.011

Plan No.s	Node ##	Grate Elev	PIPE Diam	PIPE Len	D/S Node #	U/S Inv	D/S Inv	OVERRIDES INVERTS U/S	OVERRIDES INVERTS D/S	MIN. COVER <1.75>	PIPE DROP <0.00>	UPSTREAM NODES # 1	# 2	# 3	DESIGN FLOW Q=CaCIA (CFS) 25 YR	PIPE SLOPE	CAPACITY (CFS)	FULL VEL. (FPS)	CAPCTY CHECK
Str-1	1	50.75	12	125	2	44.85	44.58	44.85							1.35	0.220%	1.98	2.52	OK
Str-2	2	50.50	12	126	3	44.58	43.95	44.58	43.95			1			1.95	0.500%	2.99	3.80	OK
Str-3	3	48.80	12	37	4	43.95	43.50		43.50			2			3.13	1.216%	4.66	5.93	OK
Str-4	4					TW =						3			3.13				
100-YEAR STORM EVENT																			
Str-5	5	42.33	12	33	6	37.66	37.00	37.66	37.00						0.18	2.000%	5.97	7.60	OK
Str-6	6					TW =													

SUB-AREA BASIN CHARACTERISTICS & HYDROLOGY CALCULATIONS

PROJECT: RUNNEMEDE DOLLAR GENERAL
JOB NO.: 1016-28

25 YR STORM FREQUENCY

PLAN I.D.	NODE ##	AREA (acres)	"C" FACTOR	Tc (min)	WOOD AREA (acres)	IMP. AREA (acres)	WOODED "C"	IMPRV "C"	PERV "C"	AGG. UP C*A (acres)	AGG Tc (min)	UPSTREAM REACH TRAVEL TIMES A	B	C	RAINFALL INTENSITY SUBAREA (IN/HR)	RAINFALL INTENSITY ACCUML (IN/HR)	RATIONAL PEAK DISCHARGE Q=C*I*A AREA (cfs)	RATIONAL PEAK DISCHARGE Q=C*I*A ACCUML (cfs)
Str-1	1	0.291	0.74	6	0.000	0.196	0.45	0.95	0.30	0.215	6.0				6.29	6.29	1.35	1.35
Str-2	2	0.105	0.90	6	0.000	0.097	0.45	0.95	0.30	0.309	6.8	0.83			6.29	6.29	0.59	1.95
Str-3	3	0.202	0.94	6	0.000	0.198	0.45	0.95	0.30	0.498	7.4	0.55			6.29	6.29	1.19	3.13
Str-4	4	0.000	1.10	6	0.000	0.000	0.45	0.95	0.30	0.498	7.5	0.10			6.29	6.29	0.00	3.13

SCALE 20 0 20 40 FEET 1" = 20'

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DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: 1" = 20'

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:

GRADING & UTILITY PLAN

SHEET NUMBER:

P:\1016 John Soubasis\-28 Runnemede Dollar General\Eng\Construction Dwgs\1016-28 Sheet 04 - Grading & Utility Plan.dwg, 4/24/2020 11:57 AM, Brian Cleary

Schedule										
Symbol	Label	Quantity	Height	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	5	22'-0"	RAB LIGHTING INC.	ALED4T125N (TYPE IV)	CAST FINNED METAL HOUSING, 6 CIRCUIT BOARDS EACH WITH 1 LED, MOLDED 2-PIECE PLASTIC REFLECTOR WITH SPECULAR FINISH AND 1 APERTURE PER LED, CLEAR FLAT GLASS LENS IN CAST BROWN PAINTED METAL LENS FRAME.	SIX WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDS), 2 LEDS TILTED 56-DEGREES FROM VERTICAL BASE-UP POSITION AND CANTED 18-DEGREES FROM STRAIGHT AHEAD, 2 LEDS TILTED 57-DEGREES FROM VERTICAL BASE-UP POSITION AND CANTED 16-DEGREES FROM STRAIGHT AHEAD, 2 LEDS TILTED 57-DEGREES FROM VERTICAL BASE-UP POSITION AND CANTED 22-DEGREES FROM STRAIGHT AHEAD. ALED4T78Y. ACTUAL PERFORMANCE MAY VARY. Sports, Street, Utility, Automotive, Hotel, Roadway Damp Location, Wet Location, Outdoor, Commercial	rab02138mod12540.ies	2626	1	133.2
	B	6	16'-6"	Lithonia Lighting	WST LED P1 30K VW MVOLT	WST LED, Performance package 1, 3000 K, visual comfort wide, MVOLT	LED	WST_LED_P1_30K_VW_MVOLT.ies	1548	1	12

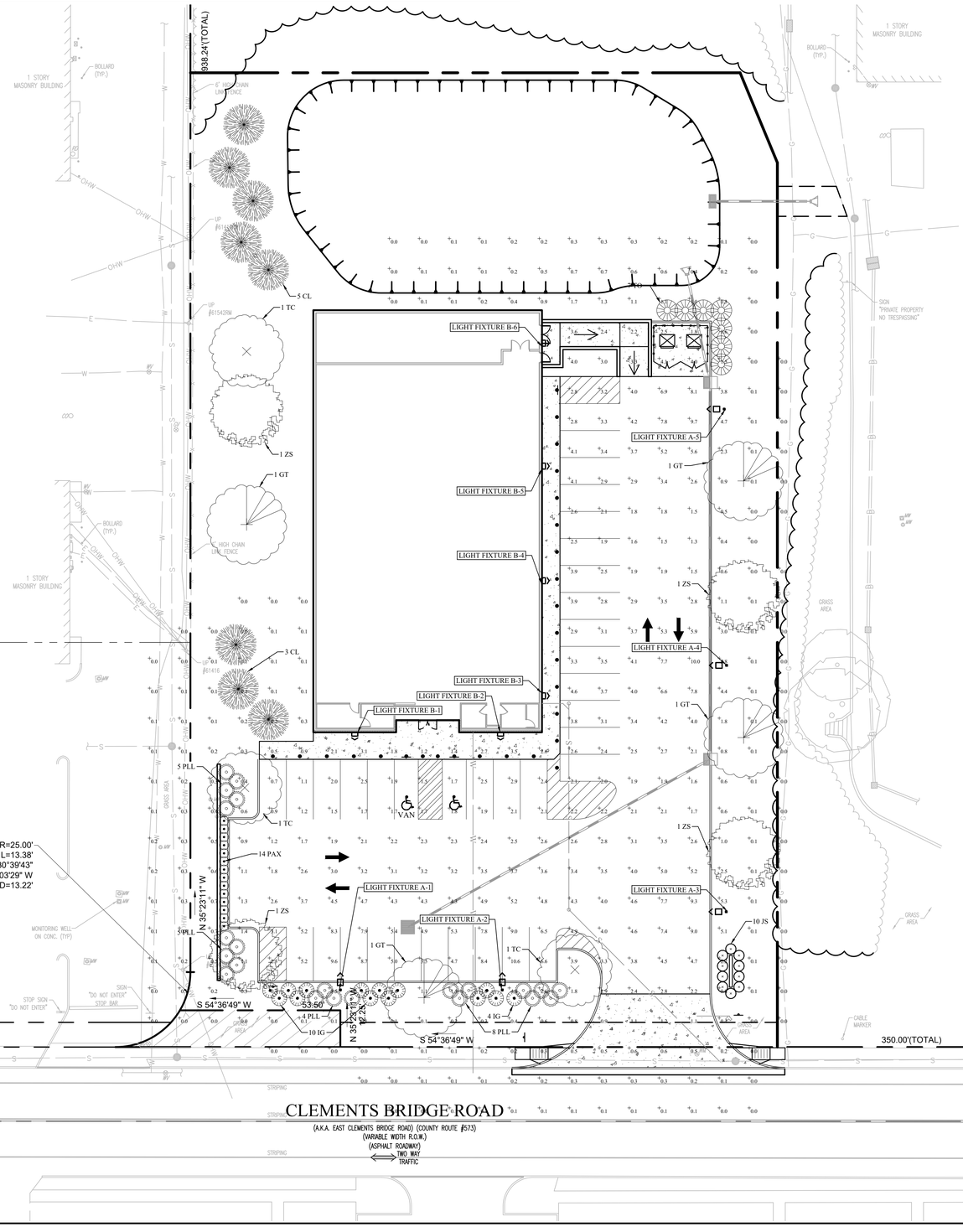
Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calculation Zone	+	1.5 fc	10.6 fc	0.0 fc	N/A	N/A

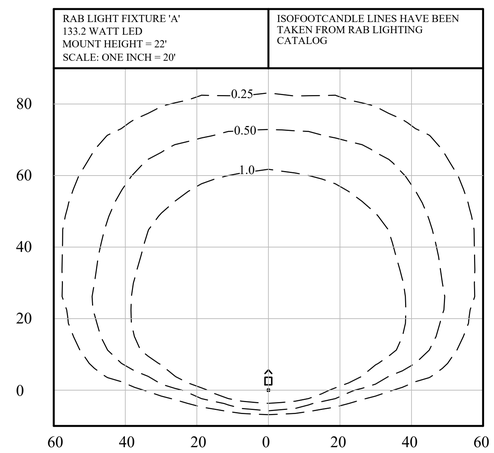
LANDSCAPE NOTES:

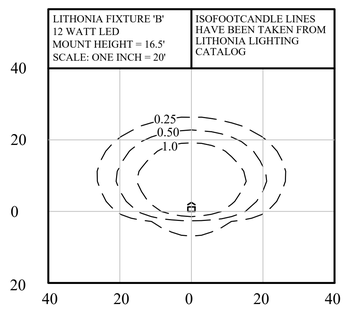
1. ALL DISTURBED AREAS ARE TO BE STABILIZED WITH 6" OF TOPSOIL IN ADDITION TO BEING SEEDED WITH THE SEED MIXTURE NOTED ON THE SOIL EROSION PLAN(S) (AFTER FINAL GRADING).
2. ALL SEEDED AREAS SHALL BE LIMED AND FERTILIZED AT THE RATE DETERMINED BY SOIL ANALYSIS AND APPROVED BY THE MUNICIPAL ENGINEER OR THE SOIL CONSERVATION DISTRICT, OR AT THE RATES SPECIFIED ON THE "SOIL EROSION AND SEDIMENT CONTROL AND DRAINAGE AREA PLAN".
3. LOCATION OF PROPOSED PLANT MATERIAL MAY BE ADJUSTED IN FIELD BY THE LANDSCAPE CONTRACTOR ONLY WITH APPROVAL OF THE LANDSCAPE ARCHITECT OR APPROVING ENGINEER.
4. ALL SHADE TREES SHALL BE PLANTED IN A DORMANT STATE.
5. THE PLANTING HOLE BACKFILL MIX SHALL CONSIST OF 2 PARTS TOPSOIL, 1 PART PEAT MOSS, EXCEPT IN WET SOILS WHERE SAND WILL REPLACE THE PEAT MOSS.
6. ALL PLANT MATERIAL SHALL BE WATERED UNTIL SOAKED IMMEDIATELY AFTER PLANTING.
7. ALL MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH COMMONLY ACCEPTED HORTICULTURAL PRACTICES.
8. SEE SOIL EROSION & SEDIMENT CONTROL PLAN FOR GRASS SEEDING MIXTURE, RATES OF APPLICATION AND/OR SOD COMPOSITION.
9. ALL PLANTS AND PLANTING STANDARDS SHALL CONFORM TO OR SURPASS MINIMUM QUALITY STANDARDS AS DEFINED BY THE CURRENT CURRENT EDITION OF AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICANHORT.
10. SHOULD A SPECIES BE UNAVAILABLE AT THE TIME OF INSTALLATION, ALL SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR APPROVING ENGINEER.
11. IN THE EVENT THAT DISCREPANCIES OCCUR BETWEEN THE QUANTITIES OF PLANTS INDICATED ON THE PLANT LIST AND AS INDICATED ON THE PLAN, THE PLANT QUANTITIES ON THE PLAN SHALL GOVERN.
12. ALL PAVING AND SUBBASE MATERIAL, INDICATED TO BE REMOVED, SHALL BE ENTIRELY REMOVED AND REPLACED WITH CLEAN FILL AND TOPSOIL. TOPSOIL SHALL BE INSTALLED TO A DEPTH AS STATED ABOVE.
13. ALL PROPOSED PLANT MATERIAL SHALL BE FULLY GUARANTEED FOR TWO (2) YEARS FROM DATE OF INSTALLATION AND SHALL BE IN A HEALTHY AND VIGOROUS CONDITION. ANY PLANT MATERIAL WHICH DIES WITHIN THAT PERIOD SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES OF PLANT MATERIAL DURING THE NEXT GROWING SEASON.
14. ALL SHADE TREES TO BE PLANTED IN A MULCHED PLANTING RING. SHRUBS, EVERGREEN TREES, AND ORNAMENTAL TREES SHALL BE PLANTED IN PLANTING BEDS.

LIGHTING NOTES:

1. THIS PLAN ILLUSTRATES LUMINAIRE LOCATIONS AND ILLUMINATION LEVELS ONLY. REFER TO ELECTRICAL ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS.
2. ALL SUBSTITUTIONS TO THE FIXTURES SPECIFIED MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.







20 0 20 40
SCALE 1" = 20' FEET

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DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: 1" = 20'

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

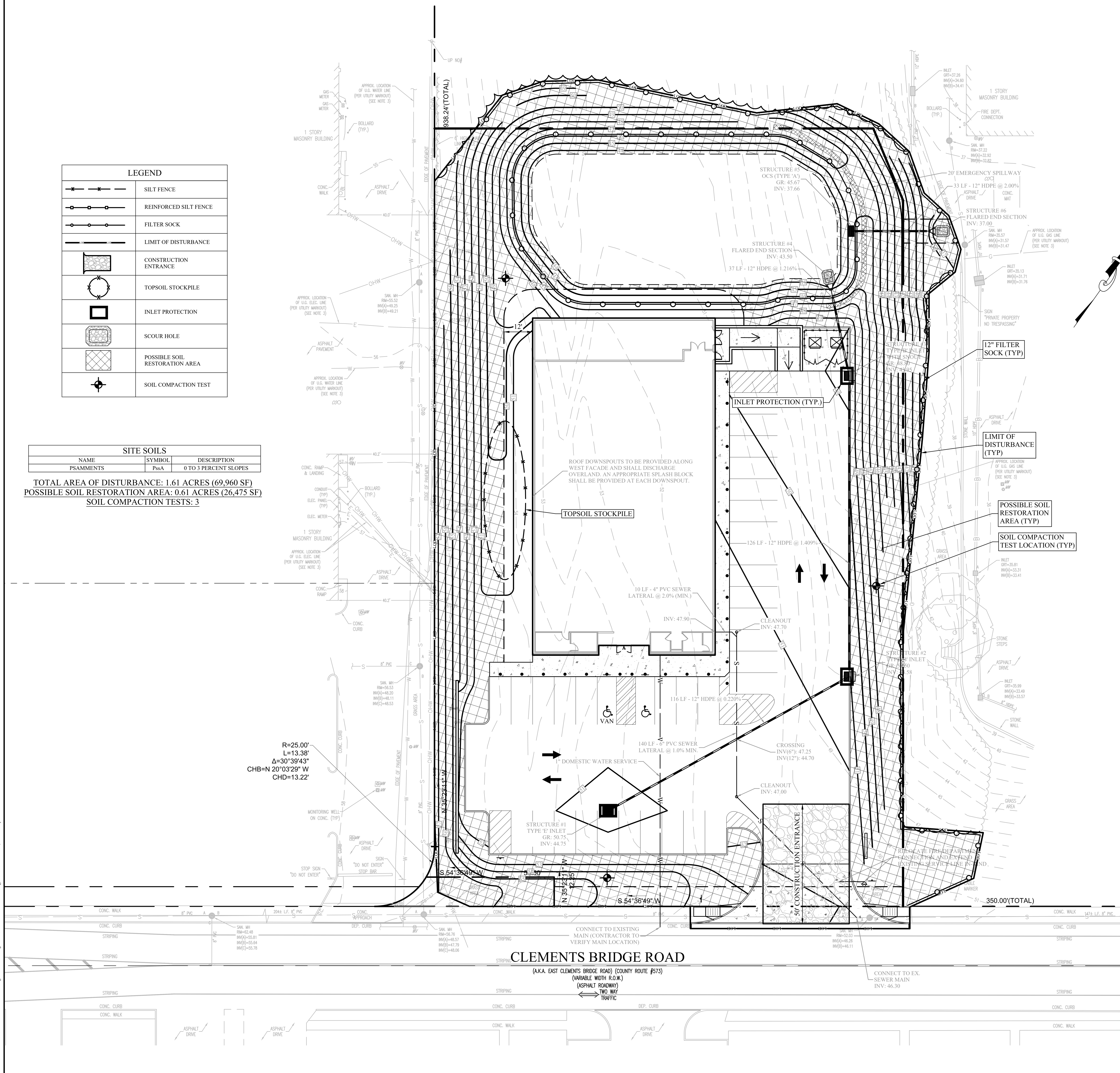
SHEET TITLE:

LANDSCAPING & LIGHTING PLAN

SHEET NUMBER:

5 of 10

P:\1016\Cloud Archive\2-29 Runnemede Dollar General Engr\Construction Dwgs\1016-24 Sheet 05 - Landscaping & Lighting Plan.dwg, 4/24/2020 11:57 AM, Brian Cleary

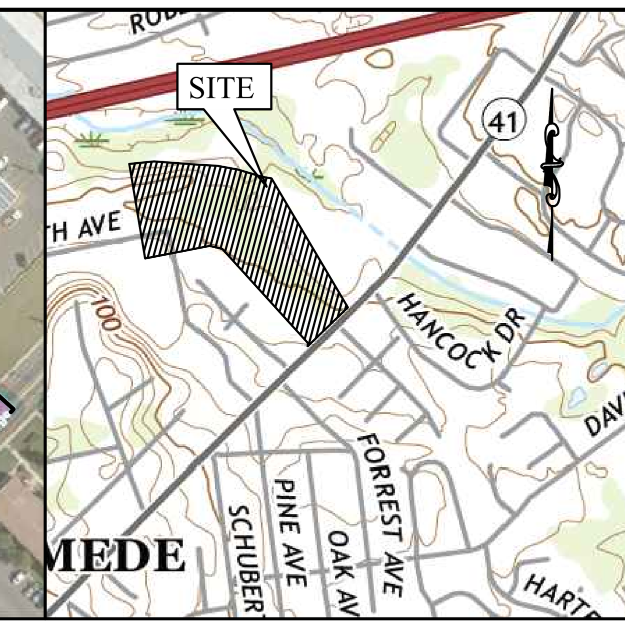


LEGEND	
	SILT FENCE
	REINFORCED SILT FENCE
	FILTER SOCK
	LIMIT OF DISTURBANCE
	CONSTRUCTION ENTRANCE
	TOPSOIL STOCKPILE
	INLET PROTECTION
	SCOUR HOLE
	POSSIBLE SOIL RESTORATION AREA
	SOIL COMPACTION TEST

SITE SOILS		
NAME	SYMBOL	DESCRIPTION
PSAMMENTS	PssA	0 TO 3 PERCENT SLOPES

TOTAL AREA OF DISTURBANCE: 1.61 ACRES (69,960 SF)
POSSIBLE SOIL RESTORATION AREA: 0.61 ACRES (26,475 SF)
SOIL COMPACTION TESTS: 3

SOILS MAP
SCALE: NTS



U.S.G.S. QUAD MAP
SCALE: 1" = 1,000'

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS **PRIOR TO THE APPLICATION OF TOPSOIL** (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE **GRAPHICALLY DENOTED** ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
3. **COMPACTION TESTING LOCATIONS** ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

A. PROBING WIRE TEST (SEE DETAIL)
B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED
D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

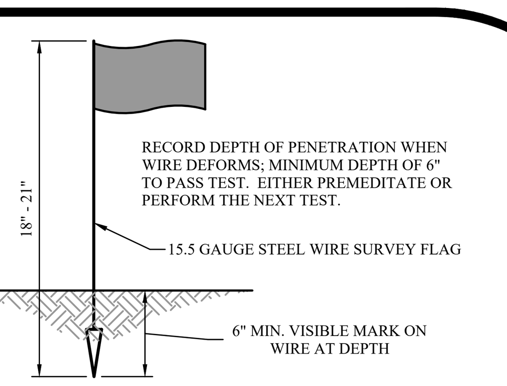
SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

1. PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION **PRIOR TO PLACEMENT OF TOPSOIL** AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. **RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH)** WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.

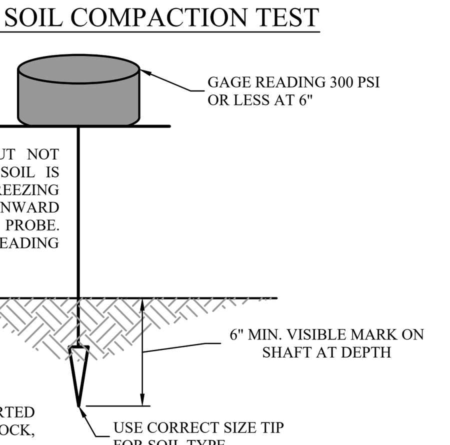
NOTES:
1. WIRE MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED.



PROBING WIRE SOIL COMPACTION TEST

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. MEASURE DEPTH WHEN GAGE READING REACHES 300 PSI OR DEPTH OF 6"

NOTES:
1. PENETROMETER MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED.



HANDHELD SOIL COMPACTION PENETROMETER TEST

SOIL TESTING
N.T.S.

SCALE 1" = 20' FEET (20 0 20 40)

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DRAWN BY: BWC	DATE: 04/24/20
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PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:
SOIL EROSION AND SEDIMENT CONTROL PLAN

GENERAL NOTES

1. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT HIS OPERATIONS TO MINIMIZE EROSION OF SOILS AND TO PREVENT SILTING AND MUDDYING OF STREAMS, RIVERS, IRRIGATION SYSTEMS AND IMPOUNDMENTS (LAKES, RESERVOIRS, ETC.) CONSTRUCTION OF DRAINAGE FACILITIES AND PERFORMANCE OF THEIR CONTRACT WORK WHICH WILL CONTRIBUTE TO THE CONTROL OF EROSION AND SEDIMENTATION SHALL BE CARRIED OUT IN CONJUNCTION WITH EARTHWORK OPERATIONS OR AS SOON THEREAFTER AS PRACTICABLE. THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME BY CONSTRUCTION OPERATIONS SHALL BE KEPT TO A MINIMUM.
2. PRIOR TO A SUSPENSION OF CONSTRUCTION OPERATIONS FOR A PERIOD OF 20 DAYS OR MORE, ANY AREA THAT HAS BEEN DISTURBED AND LEFT EXPOSED SHALL RECEIVE TEMPORARY STABILIZATION.
3. POLLUTANTS SUCH AS FUELS, LUBRICANTS, BITUMENS, RAW SEWAGE AND OTHER HARMFUL MATERIALS SHALL NOT BE DISCHARGED INTO OR NEAR RIVERS, STREAMS AND IMPOUNDMENTS OR INTO NATURAL OR MANMADE CHANNELS LEADING THERETO. WASH WATER OR WASTE FROM CONCRETE MIXING OPERATIONS SHALL NOT BE ALLOWED TO ENTER LIVE STREAMS.
4. ALL APPLICABLE REGULATIONS OF FISH AND WILDLIFE AGENCIES AND STATUTES RELATING TO THE PREVENTION AND ABATEMENT OF POLLUTION SHALL BE COMPLIED WITHIN THE PERFORMANCE OF THE CONTRACT.
5. NJSA 4:24-30 ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE COMPLETION OF A SOIL MITIGATION VERIFICATION FORM AND CONFIRMATION BY THE DISTRICT INSPECTOR THAT THE COMPACTION MITIGATION REQUIREMENTS IN THE STANDARDS FOR LAND GRADING HAVE BEEN SUFFICIENTLY ADDRESSED.

MAINTENANCE NOTES

1. SEDIMENTATION COLLECTED IN THE DETENTION BASIN SHALL BE REMOVED AFTER IT HAS BUILT UP TO THE ELEVATION OF THE BOTTOM OF THE DEWATERING HOLE IN THE WATERTIGHT RISER. ALL SILT COLLECTED SHALL BE PLACED BACK UP ON THE SITE.
2. SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED, AS NECESSARY, AND THEN RESEEDED. ADDITIONAL HAY MULCHING SHALL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
3. AREAS THAT CONTAIN SOD SHALL BE CHECKED VERY CAREFULLY TO ENSURE THAT JOINTS BETWEEN THE SOD STRIPS ARE TIGHT AND SECURE. WHERE JOINT SEPARATION IS IN EVIDENCE, A CAREFUL INSPECTION OF EACH JOINT SHALL BE MADE TO DETERMINE WHETHER UNDERMINING OF THE STRIPS IS OCCURRING. IF IT IS, THE STRIPS SHALL BE ROLLED UP, THE SUBSURFACE SHALL BE FILLED AND GRADED, AS REQUIRED, AND THE SOD STRIPS SHALL BE RELAID WITH THE PROPER JOINTS AND PEGGING.
4. A GOOD STAND OF VEGETATION SHALL BE DEFINED AS THE MANUFACTURER'S RECOMMENDED HEIGHT.
5. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. SPECIAL ATTENTION SHOULD BE GIVEN TO FROZEN SLOPES. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
6. DURING CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE FOR SOIL EROSION CONTROL MAINTENANCE. AFTER CONSTRUCTION THE OWNER WILL BE RESPONSIBLE FOR MAINTAINING THE FACILITIES.

TEMPORARY SEEDING NOTES

1. SITE PREPARATION:
   - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
   - WHERE SOILS HAVE BEEN COMPACTED, THE GROUND SURFACE SHALL BE SCARIFIED TO A DEPTH OF 6" TO 12" IMMEDIATELY PRIOR TO SEEDING.
2. TEMPORARY SEEDBED PREPARATION:
   - APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS COOPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/).
   - FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.
   - APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE.
   - WORK LIME AND FERTILIZER INTO THE FIRST FOUR (4) INCHES OF SOIL WITH A SPRING TOOTH OR DISC HARROW OR OTHER SUITABLE EQUIPMENT. RE-TILLING OF THE SOIL WILL BE REQUIREDIF SEEDBED IS COMPACTED PRIOR TO APPLICATION OF SEED.
   - HIGH SULFIDE SOILS OR SOILS HAVING A PH OF 4 OR LESS SHALL BE INTERMIXED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA).
3. TEMPORARY SEEDING SHALL CONSIST OF ONE OF THE SEED SELECTIONS AND OPTIMUM SEEDING DATES PROVIDED IN THE TABLE BELOW:
   - CONVENTIONAL SEEDING: PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. THE DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
   - HYDRO-SEEDING: HYDROSEEDING MAY BE EMPLOYED AS AN ALTERNATIVE TO CONVENTIONAL SEEDING USING THE FERTILIZATION, LIMING, AND SEEDING RATES DESCRIBED HEREIN. THE USE OF HYDROSEEDING IS LIMITED TO FLATTER SLOPES AND ONLY DURING THE OPTIMUM SEEDING PERIODS IN THE SPRING AND FALL. FOLLOWING THE HYDROSEEDING OPERATION, SHORT-FIBERED WOOD OR PAPER MULCH MAY BE APPLIED WITH THE HYDROSEEDER AT A RATE OF 1500 LB/ACRE. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED.
   - AFTER SEEDING, IT IS RECOMMENDED THAT THE SOIL BE FIRMED WITH A CORRUGATED ROLLER TO ENSURE A GOOD SEED TO SOIL CONTACT AND IMPROVE SEEDLIND EMERGENCE.
4. MULCHING: ALL SEEDED AREAS SHALL BE MULCHED. MULCH SHALL BE UNIFORMLY SPREAD AND SHALL CONSIST OF SMALL GRAIN STRAW OR SALT HAY FREE OF SEEDS APPLIED AT A RATE OF 70-90 LBS PER 1000 SF AND ANCHORED WITH A LIQUID MULCH BINDER OR A CRIMPER. IF A CRIMPER IS USED, THE MULCH APPLICATION RATE SHALL BE INCREASED TO 135 LBS PER 1,000 SF.
5. IF SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY SEEDING, EXPOSED AREAS TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 4.

TEMPORARY SEEDING SELECTIONS AND OPTIMUM SEEDING DATES

TEMPORARY SEEDING SHALL BE APPLIED ACCORDING TO THE ENCLOSED CHART. THE CONTRACTOR SHALL ADHERE TO THE RECOMMENDED SEEDING DATES WHEN SELECTING TEMPORARY SEED TYPES. FERTILIZE, LIME, AND MULCH IN ACCORDANCE WITH RATES AND MATERIALS INDICATED ABOVE.

SEED SELECTION	SEEDING RATE		SEEDING DATES
	PER ACRE	PER 1,000 SF	ZONE 6b-7a
SPRING OATS	86 LBS.	2 LBS.	MAR 1 - MAY 15 (6b) AUG. 15 - OCT. 1 (6b) FEB. 15 - MAY 1 (7a) AUG. 15 - OCT. 15 (7a)
PERENNIAL RYE GRASS	100 LBS.	1 LBS.	MAR 1 - MAY 15 (6b) AUG. 15 - OCT. 1 (6b) FEB. 15 - MAY 1 (7a) AUG. 15 - OCT. 15 (7a)
WINTER BARLEY	96 LBS.	2.2 LBS.	AUG. 15 - OCT. 1 (6b) AUG. 15 - OCT. 15 (7a)
ANNUAL RYE GRASS	100 LBS.	1 LBS.	MAR. 15 - JUNE 1 (6b) AUG. 1 - SEP. 15 (6b) FEB. 15 - MAY 1 (7a) AUG. 15 - OCT. 15 (7a)
WINTER CEREAL RYE	112 LBS.	2.8 LBS.	AUG 1 - NOV. 15 (6b) AUG 1 - DEC. 15 (7a)
PEARL MILLET *	20 LBS.	0.5 LBS.	MAY 15 - AUG. 15 (6b) MAY 1 - SEP. 1 (7a)
GERMAN OR HUNGARIAN MILLET *	30 LBS.	0.7 LBS.	MAY 15 - AUG. 15 (6b) MAY 1 - SEP. 1 (7a)

* MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED

PERMANENT SEEDING NOTES

1. SITE PREPARATION:
   - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
   - TOPSOIL SHALL BE APPLIED TO A UNIFORM APPLICATION DEPTH OF FIVE (5) INCHES AND SHOULD ONLY BE HANDLED WHEN DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE.
2. PERMANENT SEEDBED PREPARATION:
   - UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS COOPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/).
   - FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.
   - APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE.
   - WORK LIME AND FERTILIZER INTO THE FIRST FOUR (4) INCHES OF SOIL WITH A SPRING TOOTH OR DISC HARROW OR OTHER SUITABLE EQUIPMENT.
   - SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION.
3. PERMANENT SEEDING SHALL CONSIST OF MIXTURE NO. 15, AS SPECIFIED IN THE STANDARDS FOR SOIL EROSION AND SEDIMENT IN NEW JERSEY, OR APPROVED EQUAL, AND THE FOLLOWING SEED RATES APPLY TO ALL PROPOSED METHODS OF SEEDING:

   MIXTURE NO. 15 (EXCESSIVELY TO MODERATELY WELL DRAINED SOILS)
   - HARD FESCUE @ 3 LBS/1,000 SF
   - CHEWINGS FESCUE @ 1 LBS/1,000 SF
   - STRONG CREEPING RED FESCUE @ 1 LBS/1,000 SF
   - PERENNIAL RYE GRASS @ 0.25 LBS/1,000 SF

   MIXTURE NO. 16 (SOMEWHAT POOY TO POORLY DRAINED SOILS)
   - ROUGH BLUEGRASS @ 2 LBS/1,000 SF
   - STRONG CREEPING RED FESCUE @ 3 LBS/1,000 SF

   - OPTIMUM SEEDING DATES
     -- ZONE 5B/6A - BETWEEN AUGUST 1 AND OCTOBER 1
     -- ZONE 6B - BETWEEN AUGUST 15 AND OCTOBER 15
     -- ZONE 7A/7B - BETWEEN AUGUST 15 AND OCTOBER 30
   - CONVENTIONAL SEEDING: PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION AND TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. THE DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
   - HYDRO-SEEDING: HYDROSEEDING MAY BE EMPLOYED AS AN ALTERNATIVE TO CONVENTIONAL SEEDING TO ESTABLISH PERMANENT VEGETATIVE COVER USING THE FERTILIZATION, LIMING, AND SEEDING RATES DESCRIBED HEREIN. THE USE OF HYDROSEEDING IS LIMITED TO FLATTER SLOPES AND ONLY DURING THE OPTIMUM SEEDING PERIODS IN THE SPRING AND FALL. FOLLOWING THE HYDROSEEDING OPERATION, SHORT-FIBERED WOOD OR PAPER MULCH MAY BE APPLIED WITH THE HYDROSEEDER AT A RATE OF 1500 LB/ACRE. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED.
   - AFTER SEEDING, IT IS RECOMMENDED THAT THE SOIL BE FIRMED WITH A CORRUGATED ROLLER TO ENSURE A GOOD SEED TO SOIL CONTACT AND IMPROVE SEEDLIND EMERGENCE.
4. MULCHING: ALL SEEDED AREAS SHALL BE MULCHED. MULCH SHALL BE UNIFORMLY SPREAD AND CONSIST OF SMALL GRAIN STRAW OR SALT HAY FREE OF SEEDS APPLIED AT A RATE OF 70-90 LBS PER 1000 SF AND ANCHORED WITH A LIQUID MULCH BINDER OR A CRIMPER. IF A CRIMPER IS USED, THE MULCH APPLICATION RATE SHALL BE INCREASED TO 135 LBS PER 1,000 SF.
5. IF SEASON PREVENTS THE ESTABLISHMENT OF A PERMANENT SEEDING, EXPOSED AREAS TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 4.
6. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER OF THE SEEDED SPECIES AND MOWED ONCE.

STANDARDS FOR TOPSOILING

1. MATERIALS:
   A. TOPSOIL SHOULD BE FRIABLE1, LOAMY2, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
   B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.
2. STRIPPING:
   A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
   B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
   C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1.
   D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
   E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
   F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG.7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.
3. SITE PREPARATION:
   A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE.
   B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.
   C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
   D. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. **THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).**
   E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
4. APPLYING TOPSOIL:
   A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).
   B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).

ANTICIPATED CONSTRUCTION SCHEDULE

1.	INSTALLATION OF CONSTRUCTION ENTRANCE AND SILT FENCE.	2 DAY
2.	SITE CLEARING AND SELECTIVE CLEARING OF OBSTRUCTIONS LOCATED IN AND/OR ADJACENT TO GENERAL CONSTRUCTION AREA.	15 DAYS
3.	ROUGH GRADE SITE.	10 DAYS
4.	CONSTRUCTION OF UTILITIES.	10 DAYS
5.	CONSTRUCTION OF BASIN B-01 (EXCEPT FOR SAND LAYER), AND PARKING LOT. PERFORM SUBSOIL REMEDIATION, IF REQ'D, AND PLACE TOPSOIL. SUBSOIL REMEDIATION TO BE PERFORMED PRIOR TO PLACEMENT OF TOPSOIL.	30 DAYS
6.	ONCE SITE IS STABILIZED, CLEAN AND DISCARD SEDIMENT AT THE BOTTOM OF B-01 AND INSTALL BASIN SAND LAYER.	2 DAYS
7.	CONSTRUCTION OF BUILDING.	40 DAYS
8.	REMOVAL OF ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL PROTECTION DEVICES SUBSEQUENT TO VERIFICATION THAT ALL CONSTRUCTION DISTURBED AREAS HAVE BEEN STABILIZED TO THE SATISFACTION OF THE TOWNSHIP AND THE SOIL EROSION INSPECTOR.	1 DAYS
9.	ANY AREAS DISTURBED AFTER THIS PERIOD, AND BEFORE ACCEPTANCE BY THE TOWNSHIP, SHALL BE RESTABILIZED IN ACCORDANCE WITH THESE PLANS, THE SPECIFICATIONS AND THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY".	

DUST CONTROL

DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS PER ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARDS ON PAGE 26-1 OF THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY".		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO SURFACE. THIS IS A TEMPORARY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

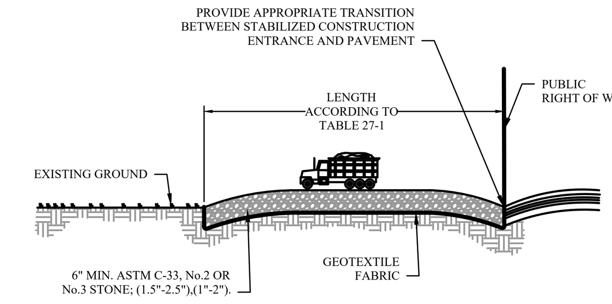
SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

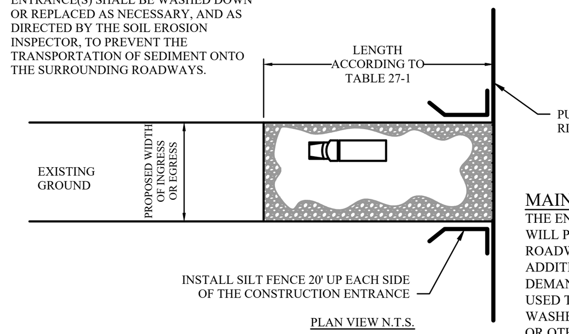
STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

MULCHING IS REQUIRED ON ALL SEEDED AREAS TO ENSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATIVE COVER.



PROFILE N.T.S.

THE STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE WASHED DOWN OR REPLACED AS NECESSARY, AND AS DIRECTED BY THE SOIL EROSION INSPECTOR, TO PREVENT THE TRANSPORTATION OF SEDIMENT ONTO THE SURROUNDING ROADWAYS.



PLAN VIEW N.T.S.

TABLE 27-1		
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAIN SOIL	FINE GRAIN SOIL
O TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT	200 FT.
> 5%	ENTIRE SURFACE STABILIZE WITH FABC BASE COURSE	

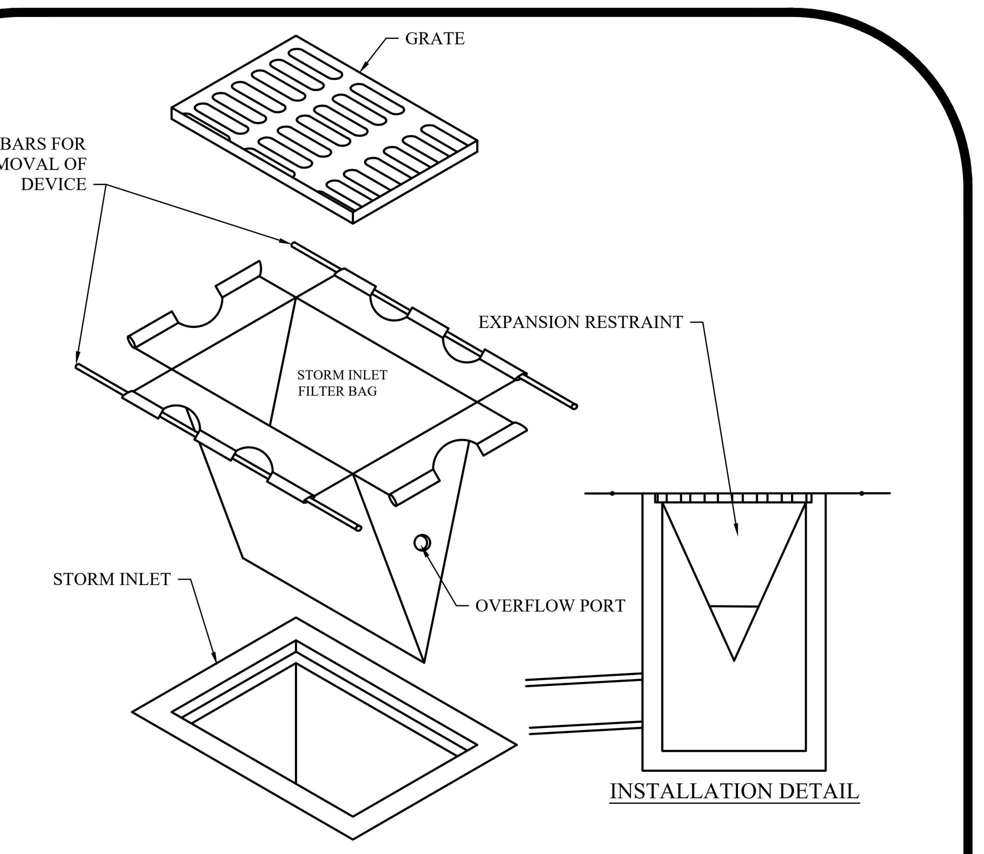
MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO ROADWAYS (PUBLIC OR PRIVATE) OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY.

WHERE ACCUMULATION OF DUST/SEDIMENT IS INADEQUATELY CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER WILL BE REQUIRED TO CLEAN PAVED OR IMPERVIOUS SURFACES. ALL OTHER ACCESS POINTS WHICH ARE NOT STABILIZED SHALL BE BLOCKED OFF.

STABILIZED CONSTRUCTION ENTRANCE

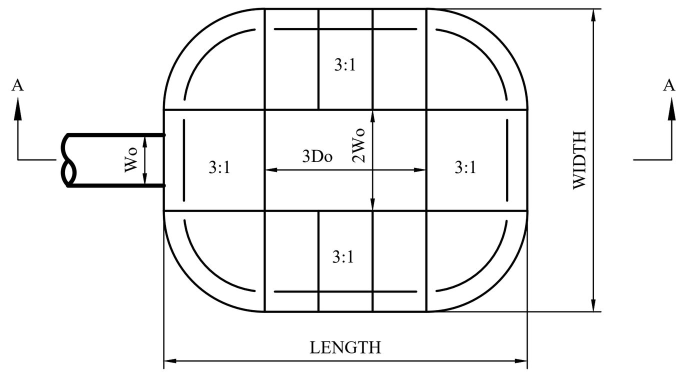
N.T.S.



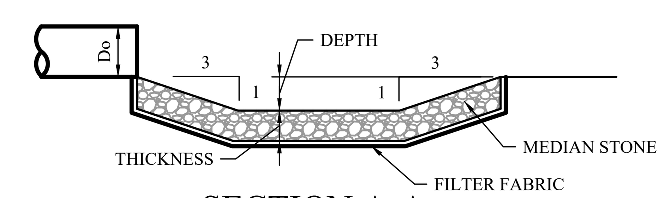
NOTE:
INSTALL FILTER BAGS IN ALL INLETS.

STORM INLET FILTER BAG

N.T.S.



PLAN

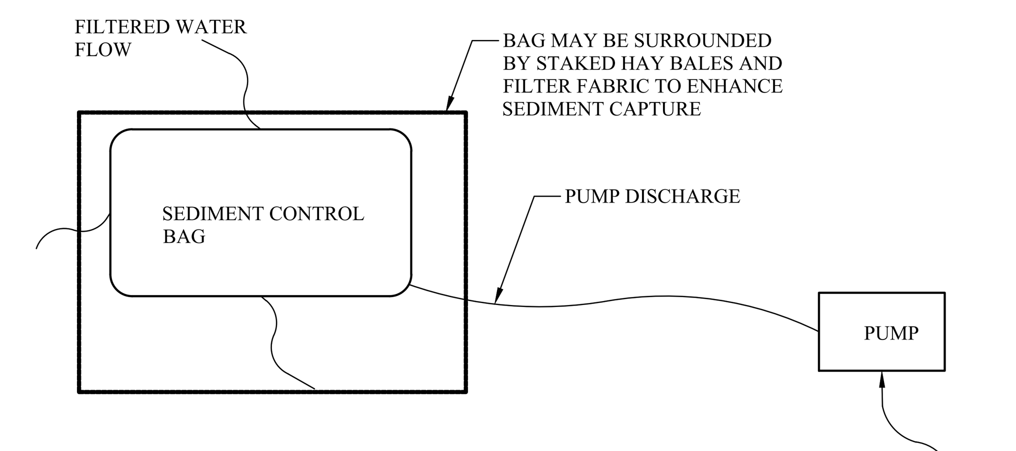


SECTION A-A

SCOUR HOLE CALCULATIONS											
STRUCTURE	Q (cfs)	YEAR STORM	"Do" ft	"Wo" ft	"2Wo" ft	"3Do" ft	DEPTH ft	LENGTH ft	WIDTH ft	MEDIAN STONE D50-in	STONE THICKNESS in
STR #4	3.13	25	1.00	1.00	2.00	3.00	0.50	6.00	5.00	4.00	8.00
STR #6	0.18	100	1.00	1.00	2.00	3.00	0.50	6.00	5.00	4.00	8.00

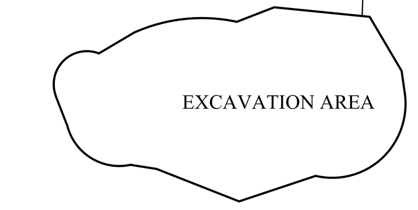
SCOUR HOLE

N.T.S.



NOTES:

1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
2. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
3. BAGS MUST NOT BE REUSED.



SEDIMENT CONTROL BAG FOR DEWATERING

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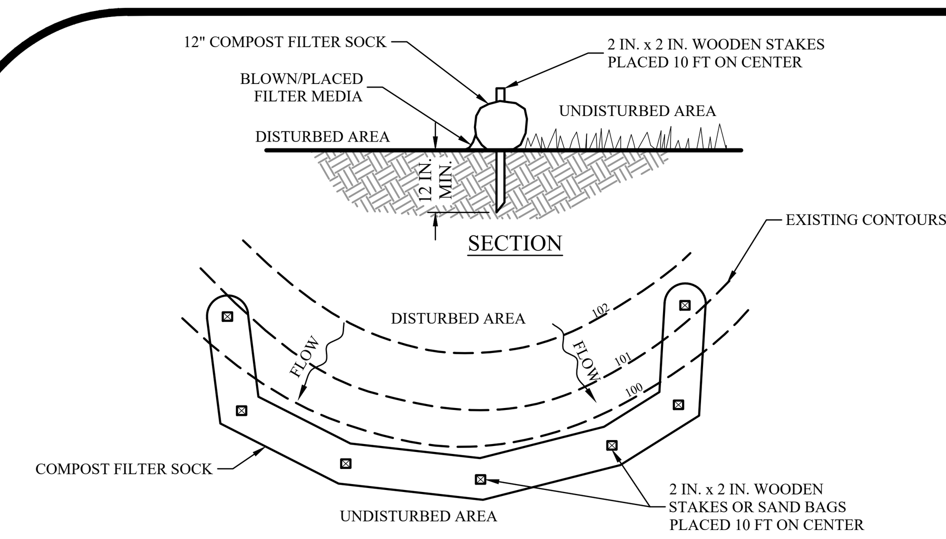

NOTES:

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

Material Type	Cotton BioSoxx™	5 mil High Density Polyethylene (HDPE)	5 mil High Density Polyethylene (HDPE)	Multi-Filament Polypropylene (MFPP, previously HDPP)	Multi-Filament Polypropylene SafteySoxx™	Multi-Filament Polypropylene DuraSoxx®	Multi-Filament Polypropylene DuraSoxx® (Heavy Duty)
Material Characteristic	Biodegradable	Oxo-degradable	Photodegradable	Photodegradable	Photodegradable	Photodegradable	Photodegradable
Design Diameters	8 in (200mm), 12 in (300mm)	8 in (200mm), 12 in (300mm), 18 in (400mm)	5 in (125mm), 8 in (200mm), 12 in (300mm), 18 in (400mm)	8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm), 32 in (800mm)	8 in (200mm), 12 in (300mm), 18 in (400mm)	8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm), 32 in (800mm)	5 in (125mm), 8 in (200mm), 12 in (300mm), 18 in (400mm)
Mesh Opening	1/8 in (3mm)	3/8 in (10mm)	3/8 in (10mm)	3/8 in (10mm)	1/8 in (3mm)	1/8 in (3mm)	1/8 in (3mm)
Tensile Strength	44 psi	26 psi	26 psi	44 psi	202 psi	202 psi	242 psi
% Original Strength from Ultraviolet Exposure (ASTM G-155)	ND	ND	23% at 1000 hr	100% at 1000 hr	100% at 1000 hr	100% at 1000 hr	100% at 1000 hr
Functional Longevity/ Project Duration***	up to 12 months**	6 mo-3.5 yr	9 mo-4 yr	1-4 yr	2-5 yr	2-5 yr	2-5 yr

TABLE 4.2 Compost Standards	
Organic Matter Content	80% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.0
Moisture Content	35% - 55%
Particle Size	98% pass through 1” screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

COMPOST SHOULD BE A WELL DECOMPOSED, WEED-FREE ORGANIC MATTER DERIVED FROM AGRICULTURE, FOOD, STUMP GRINDINGS, AND YARD OR WOOD/BARK ORGANIC MATTER SOURCES. THE COMPOST SHOULD BE AEROBICALLY COMPOSTED. THE COMPOST SHOULD POSSESS NO OBJECTIONABLE ODORS AND SHOULD BE REASONABLY FREE (<1% BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER. THE COMPOST PRODUCT SHOULD NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

THE PHYSICAL PARAMETERS OF THE COMPOST SHOULD COMPLY WITH THE STANDARDS IN TABLE 4.2. THE STANDARDS CONTAINED IN THE PENNDOT PUBLICATION 408 ARE AN ACCEPTABLE ALTERNATIVE

FILTER SOCK

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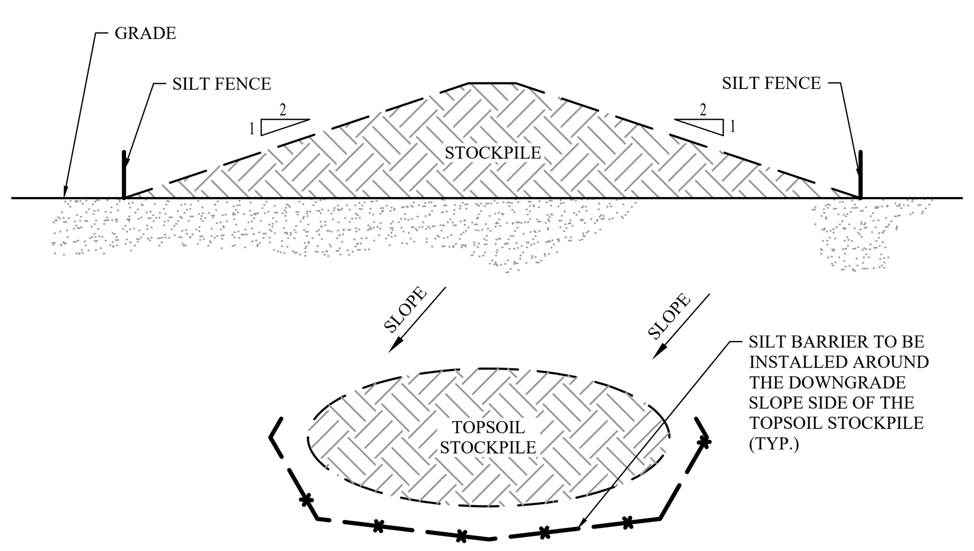

NOTES:
1. STOCKPILE WILL BE STABILIZED WITH GRASS SEED COVERED WITH STRAW MULCH.
2. ACCESS TO STOCKPILE SHALL BE LIMITED TO THE UP SLOPE SIDE.
3. MAXIMUM HEIGHT NOT TO EXCEED FIVE (5) FEET.

TOPSOIL STOCKPILE

N.T.S.

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REVISIONS		
NO.	DESCRIPTION	DATE

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THE CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE OWNER OF ANY DISCREPANCIES. THE CONTRACTOR SHALL UNDERSTAND THAT THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE ONLY APPROXIMATE. IT IS IMPORTANT TO NOTE THAT NOT ALL UTILITIES MAY BE SHOWN ON THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITIES (AERIAL AND BURIED) PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE UNDERGROUND UTILITY MARK OUT SERVICE (1-800-272-1000) PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REPAIR (AT HIS EXPENSE) ALL DAMAGED UTILITIES RESULTING FROM HIS WORK.

DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: NOT TO SCALE

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

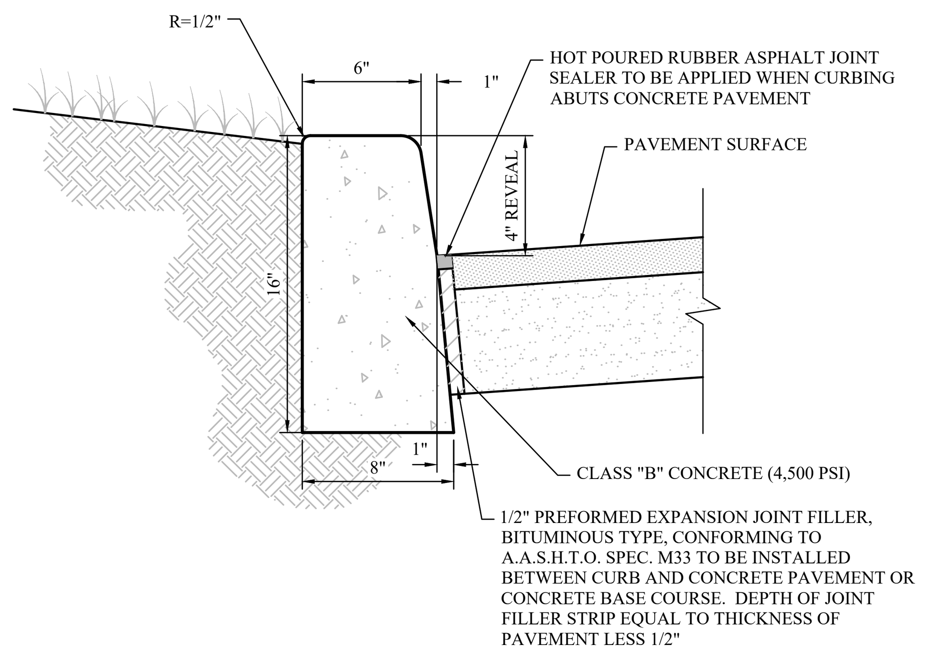
EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:

SESC NOTES AND DETAILS

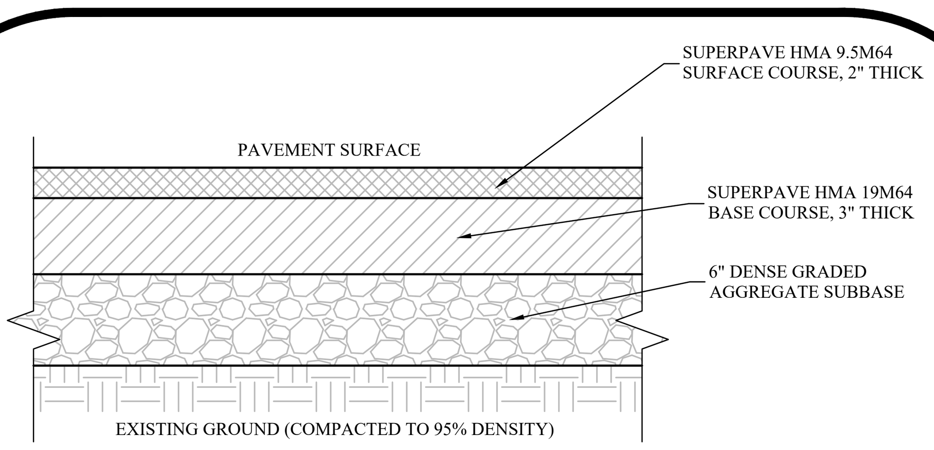
P:\1016 John Soubasis\-28 Runnemede Dollar General\Eng\Construction Dwgs\1016-28 Sheet 07 - SESC Details.dwg, 4/24/2020 11:58 AM, Brian Cleary



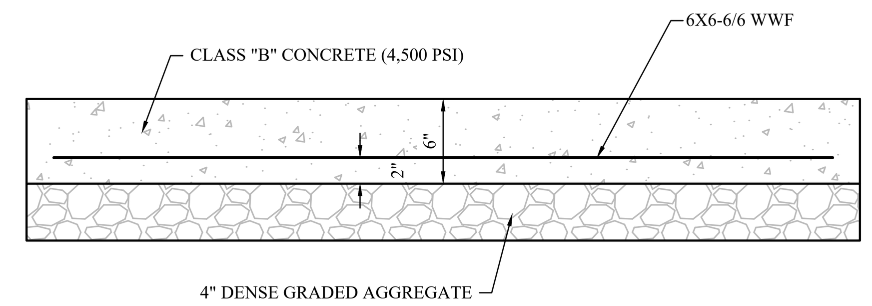
TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART & FILLED W/ PREFORMED BITUM. IMPREGNATED FIBER JOINT FILLER, COMPLYING W/ A.A.S.H.O. SPEC. M 213, RECESSED 1/4" IN FROM FRONT FACE & TOP OF CURB.

CONCRETE CURB

N.T.S.



ASPHALT PAVEMENT



CONCRETE PAD

PAVEMENT & CONCRETE PAD

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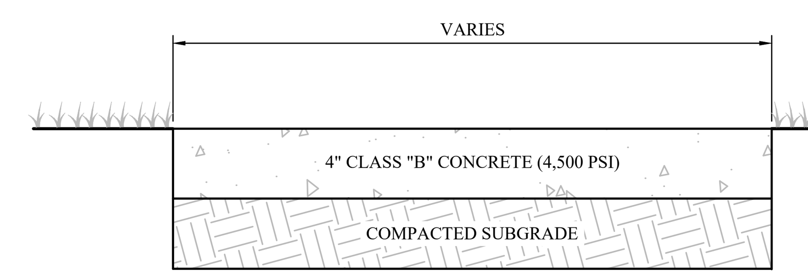

NOTES:
1. FULL DEPTH EXPANSION JOINTS TO BE AT 20 FT C.C.
2. 1/4" DEEP CONTROL JOINTS TO BE AT 4 FT C.C.
3. CONCRETE SHALL BE 6" THICK AT DRIVEWAYS
4. SIDEWALK TO BE SLOPED AT 2.0% MAX. TOWARDS PAVED AREAS AND AWAY FROM BUILDINGS.

CONCRETE SIDEWALK

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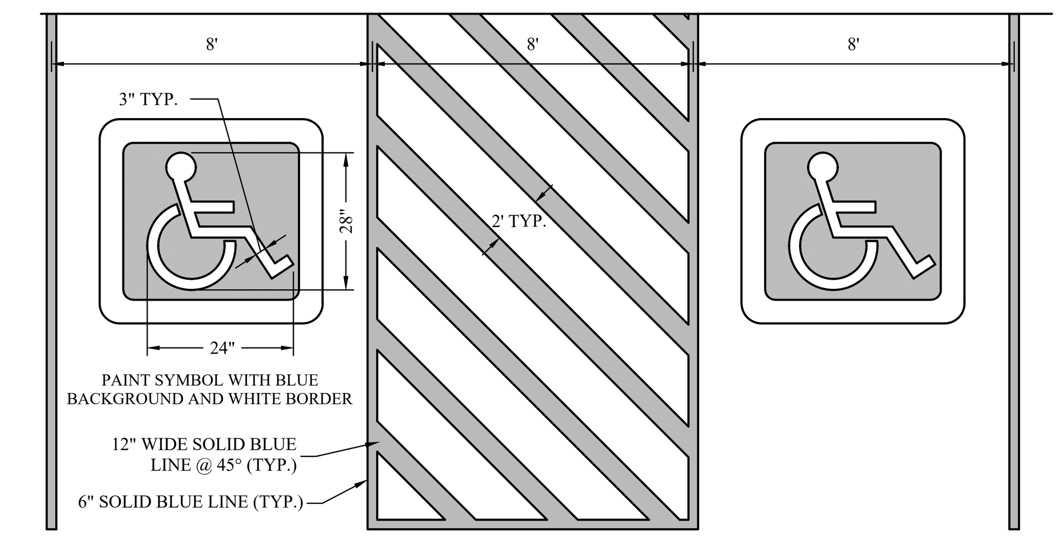

ADA PARKING LAYOUT

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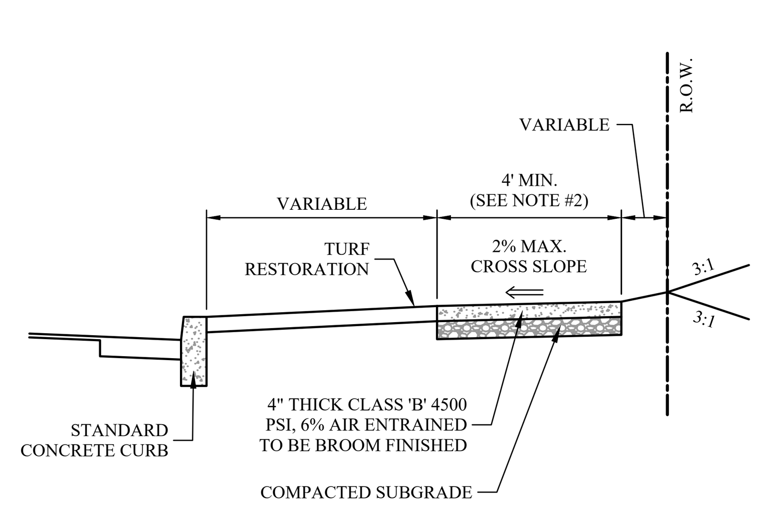
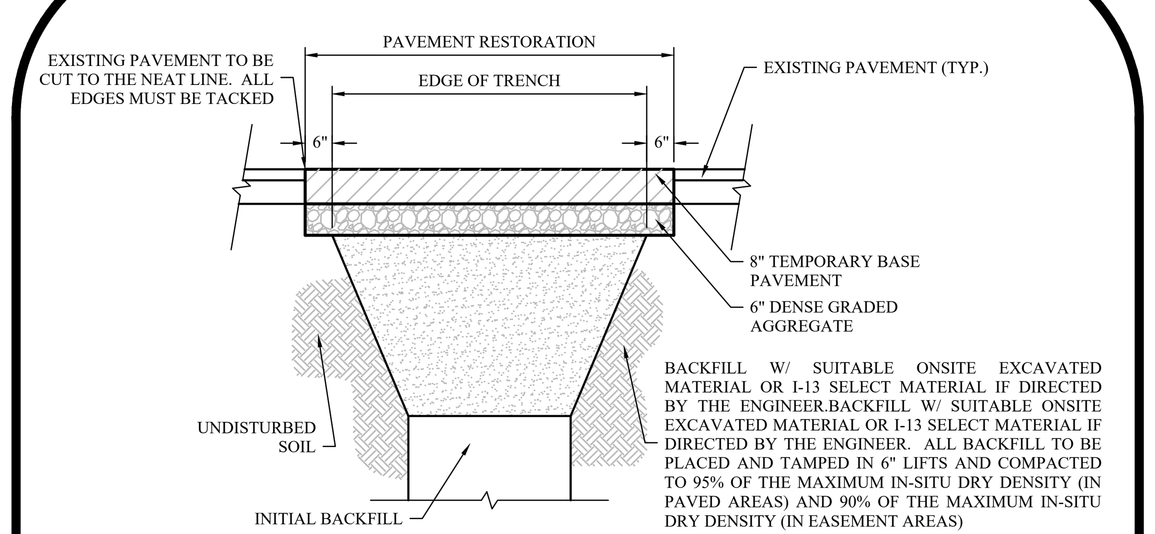


NOTES:

1. TURF RESTORATION TO CONSIST OF A MINIMUM OF 4" OF SELECT TOPSOIL, FERTILIZER, AND SEED PER SPECIFICATIONS.
2. SIDEWALK SHALL BE 4'-0" MINIMUM, UNLESS OTHERWISE NOTED ON THE APPROVED PLANS.
3. CONCRETE SHALL BE CLASS 'B' WITH 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI AND 6% (±1.5%) AIR ENTRAINMENT.

CAMDEN COUNTY SIDEWALK

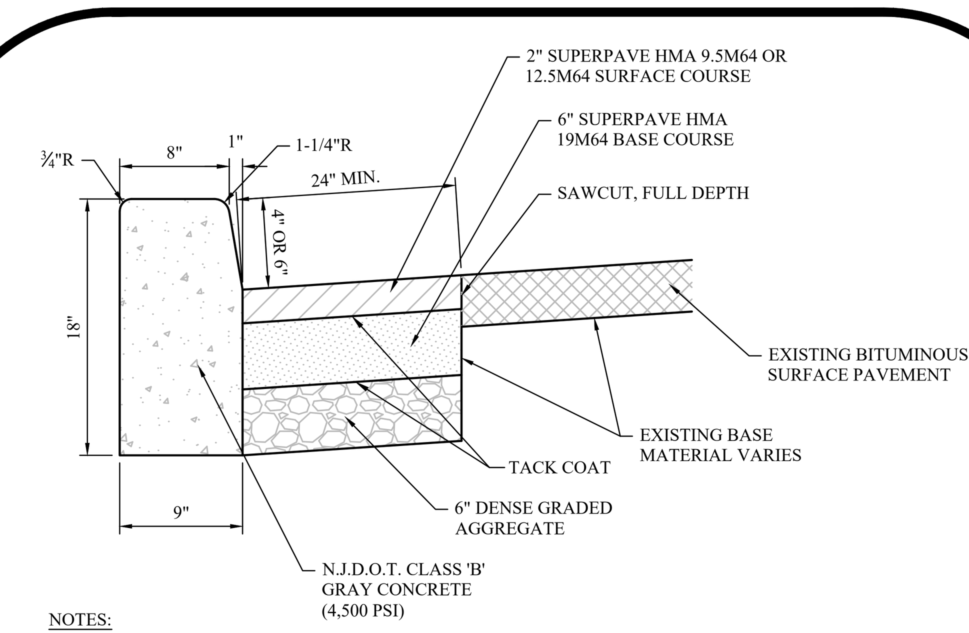
N.T.S.



NOTES
1. STABILIZED BASE COURSE MATERIAL SHALL INITIALLY BE INSTALLED TO MATCH THE TOP OF THE EXISTING PAVEMENT ELEVATION AND INSPECTED ON A WEEKLY BASIS. AS REQUIRED TO PROVIDE A LEVEL PAVEMENT SURFACE, THE BASE MATERIAL SHALL BE SUPPLEMENTED WITH ADDITIONAL MATERIAL. FOLLOWING A MINIMUM OF 3-4 MONTHS, THE BASE MATERIAL SHALL BE REMOVED TO A DEPTH OF TWO (2) INCHES. THE SURFACE COURSE SHALL THEN BE INSTALLED SUCH THAT THE MATERIAL THICKNESSES ARE AT LEAST EQUAL TO THOSE SHOWN.
2. EXCAVATION, BACKFILL, DENSE GRADED AGGREGATE, COMPACTION, PAVEMENT RESTORATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL AND ALL ASSOCIATED WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID FOR THE PIPING.
3. AS PART OF PAVEMENT RESTORATION, ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY STANDARD 3.3.1.16.

FINAL TRENCH BACKFILLING W/PAVEMENT RESTORATION

N.T.S.

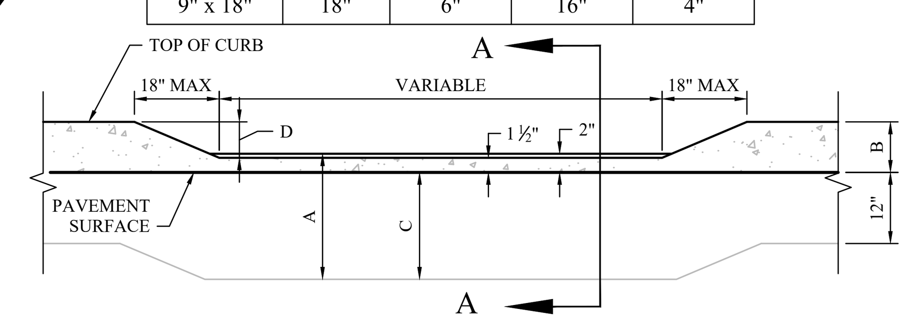


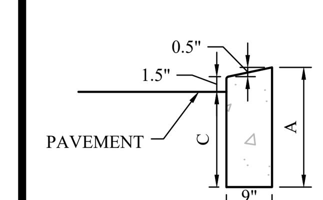
NOTES:
1. EXPANSION JOINTS ½" WIDE IN THE CURB SHALL BE PROVIDED AT APPROXIMATELY EQUAL DISTANCES OF NOT MORE THAN 20' BETWEEN THE JOINTS. EXISTING PAVED DRIVING SURFACE SHALL BE SAWCUT IN A CONTINUOUS LINE THAT IS PARALLEL TO THE NEW CURB FACE.
2. CONCRETE SHALL BE CLASS 'B' WITH 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI, AND 6% (±1.5%) AIR ENTRAINMENT.
3. CURB SUBGRADE TO BE FIRM, COMPACTED, LEVEL SURFACE, FREE OF PONDED WATER, ROOTS OR OTHER DELETERIOUS MATERIALS.
4. NEW PAVEMENT SHALL BE TACKED & BUTTED TO EXISTING PAVEMENT.
5. MIX NUMBERS ARE IN ACCORDANCE WITH NJDOT STANDARDS.
6. SURFACE COURSE MAY BE 9.5M64 ON COUNTY ROADS WITH AADT LESS THAN 5,000.
6. SURFACE COURSE MUST BE 12.5M64 ON COUNTY ROADS WITH EQUAL TO OR GREATER THAN 5,000.
7. DISTURBED AREAS WITHIN PLANTER STRIP TO BE RESTORED WITH 4" THICK TOPSOIL, FERTILIZER, SEED, MULCHED AND SLOPED TOWARD THE ROAD TO PROVIDE A 2% MIN. GRADE.

CAMDEN COUNTY CURB W/RESTORATION

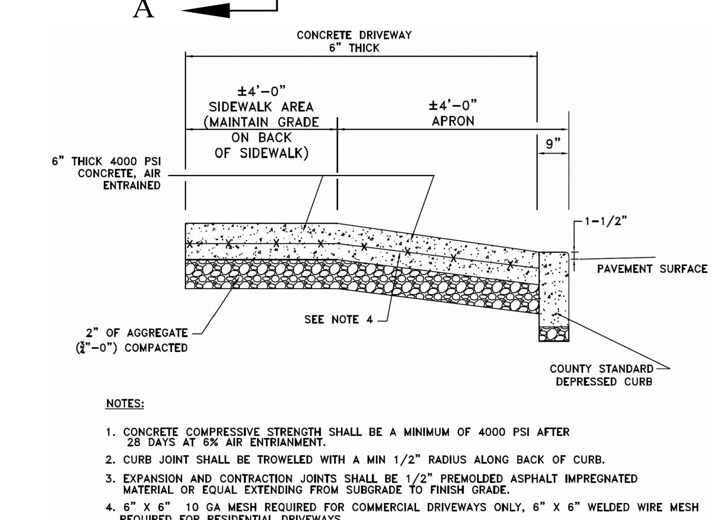
N.T.S.

CURB SIZE	DIM. A	DIM. B	DIM. C	DIM. D
9" x 18"	18"	6"	16"	4"





SECTION A-A



CAMDEN COUNTY DEPRESSED CURB & APRON

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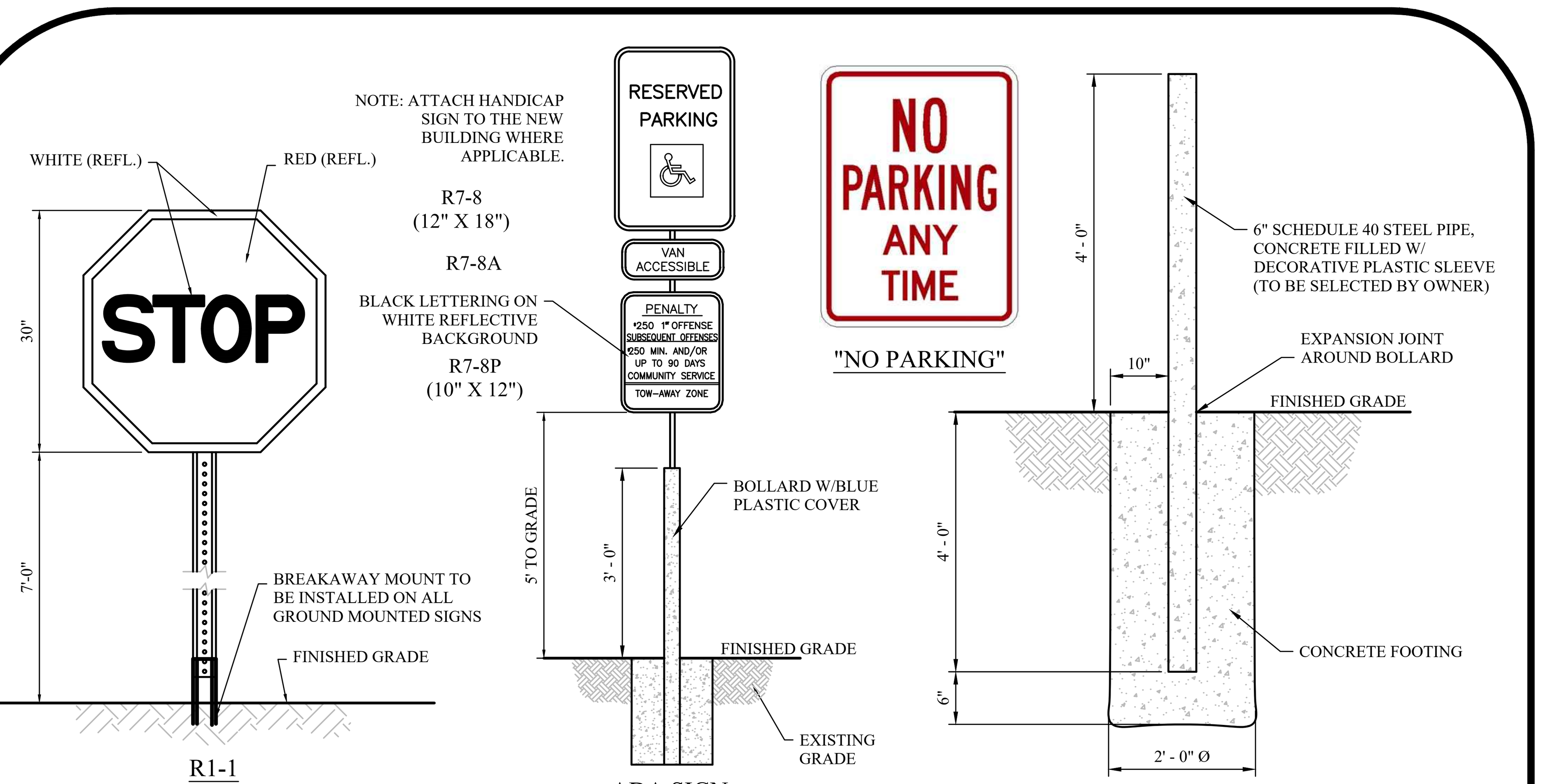

TRAFFIC CONTROL SIGNS & BOLLARD

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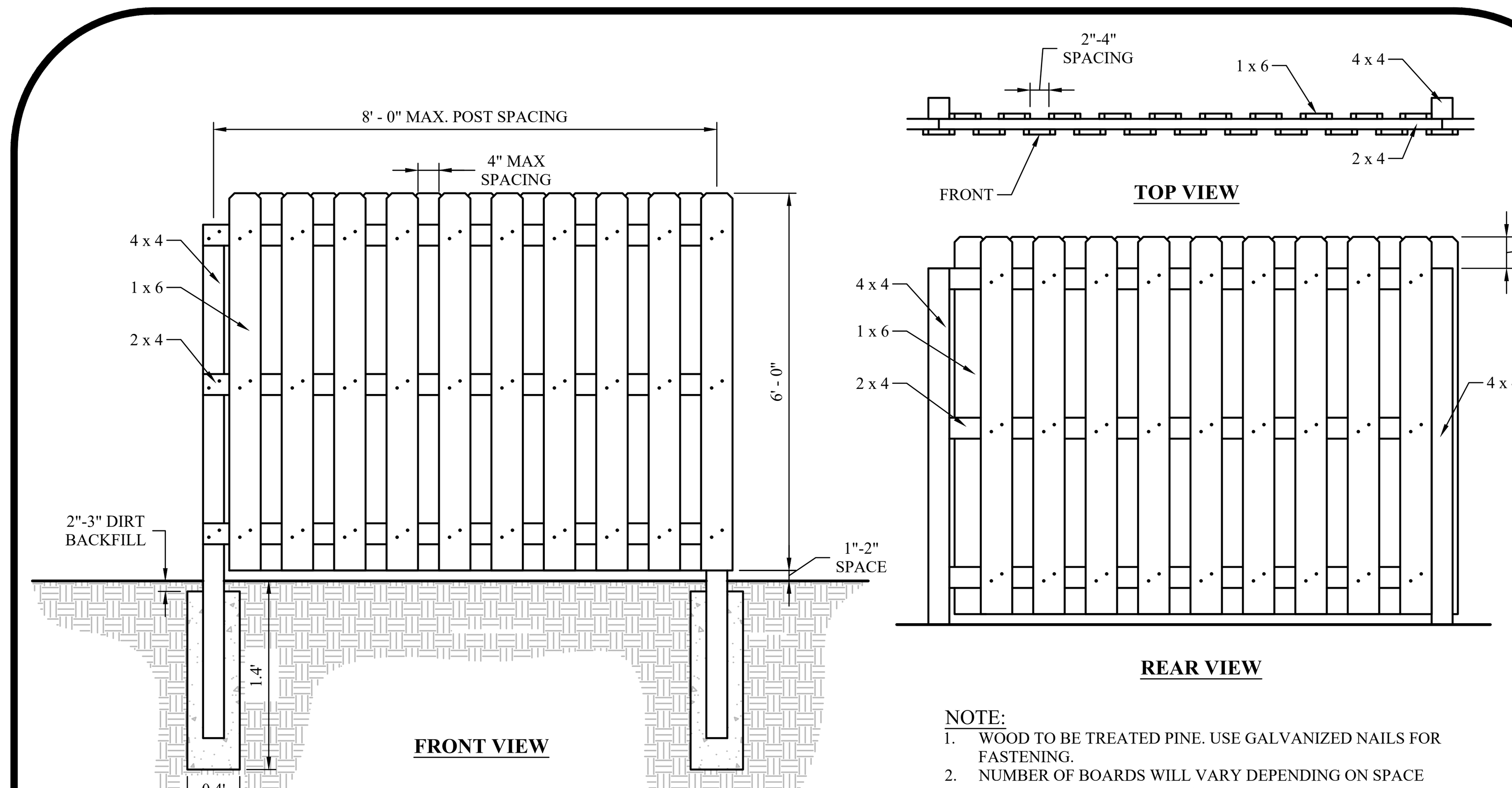

NOTE:
1. WOOD TO BE TREATED PINE. USE GALVANIZED NAILS FOR FASTENING.
2. NUMBER OF BOARDS WILL VARY DEPENDING ON SPACE BETWEEN BOARDS AND ACTUAL WIDTH OF BOARDS.

TRASH ENCLOSURE FENCING

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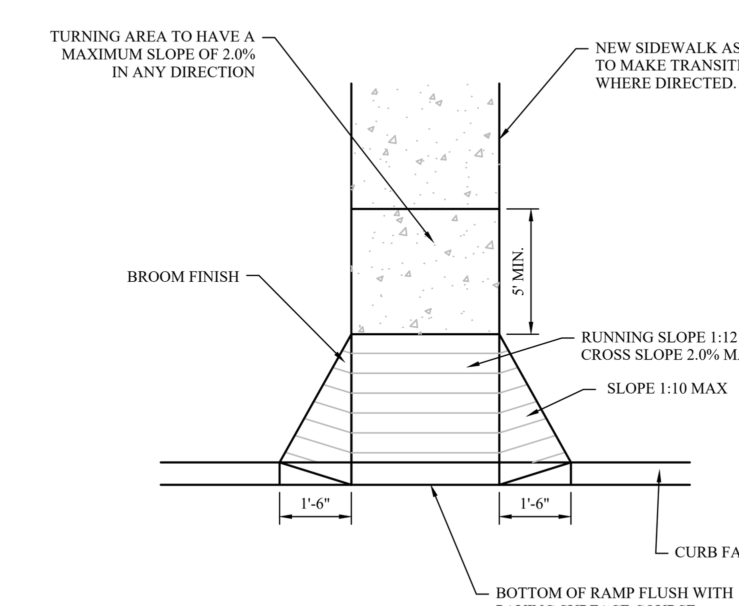

CONCRETE CURB RAMP

N.T.S.

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Certificate of Authorization No. 24GA28131400

REVISIONS

NO.	DESCRIPTION	DATE

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DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: NOT TO SCALE

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

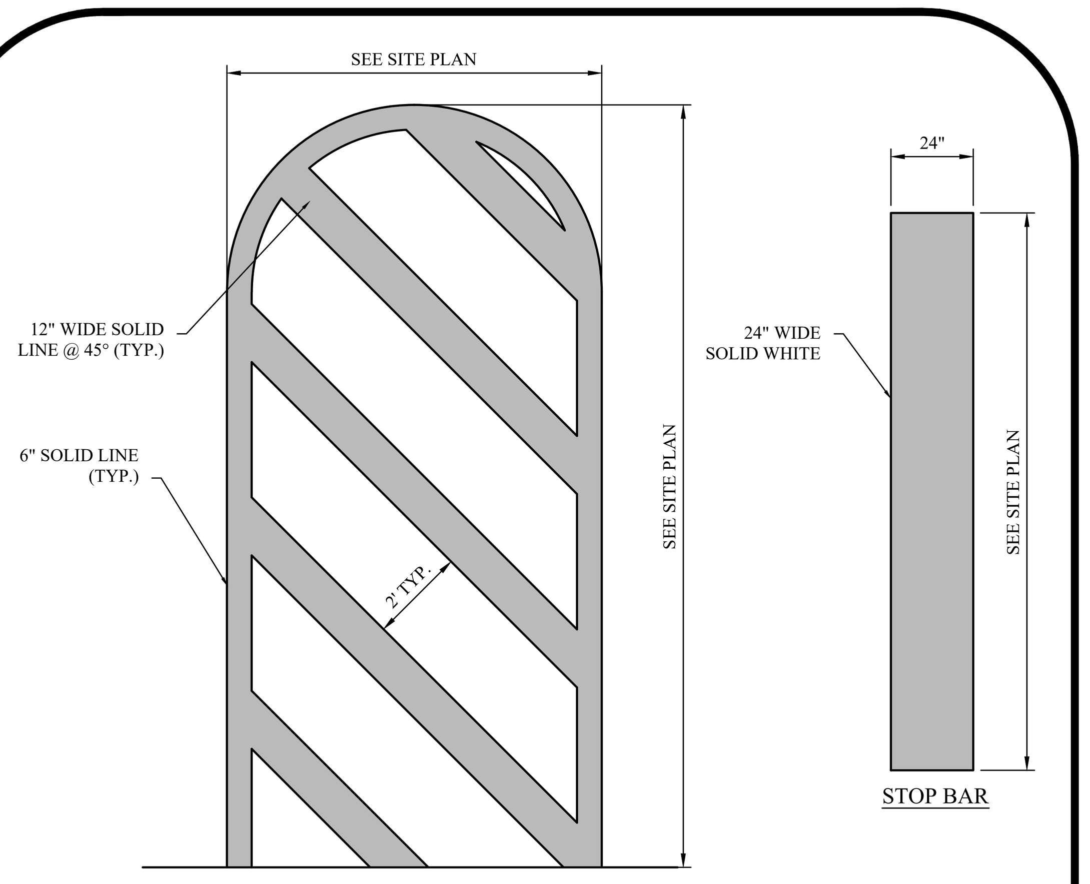
EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:

CONSTRUCTION DETAILS

P:\1016 John Soubasis\-28 Runnemede Dollar General\Eng\Construction Dwgs\1016-28 Sheet 08-10 - Construction Details.dwg, 4/24/2020 11:58 AM, Brian Cleary



SITE STRIPING

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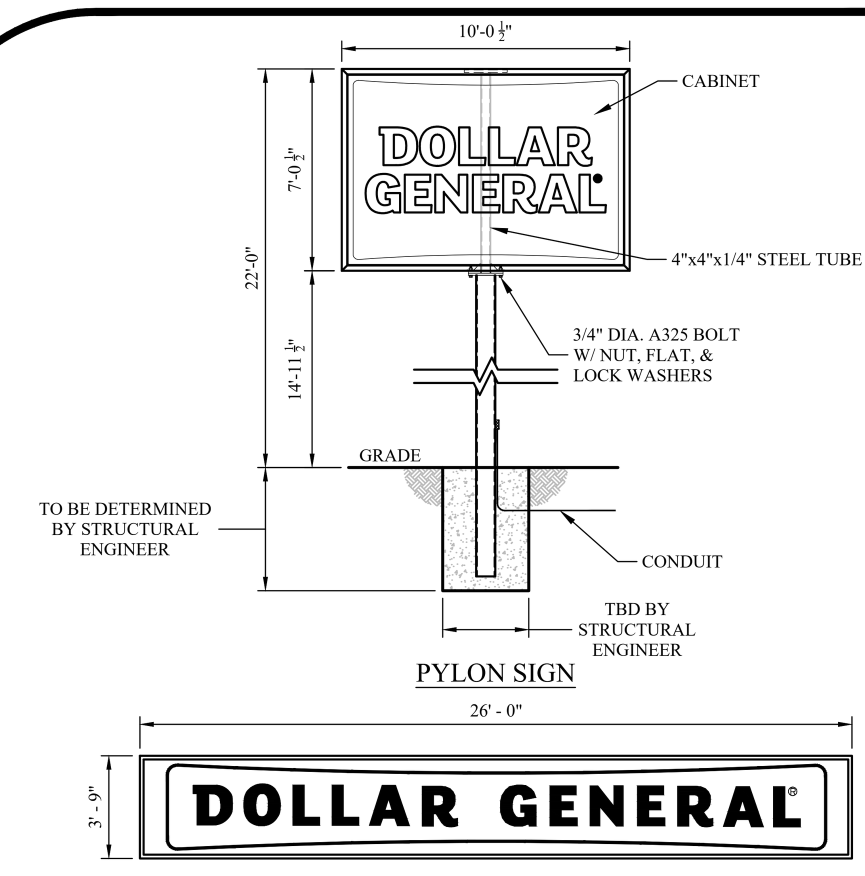

DOLLAR GENERAL SIGNAGE

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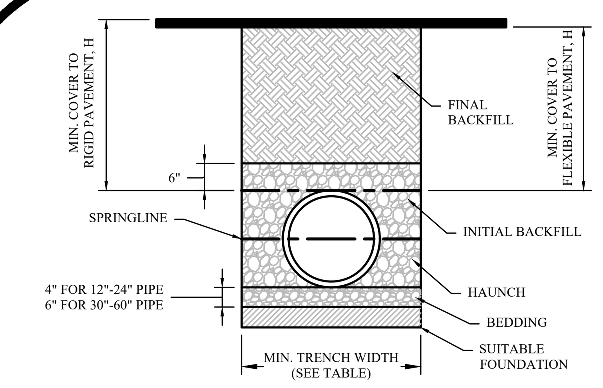

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: COMPACTED AASHTO #67 AGGREGATE. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24"; 6" FOR 30"-60".
5. INITIAL BACKFILL: 90-95% COMPACTED BACKFILL. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION: H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
*** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

HDPE PIPE BEDDING

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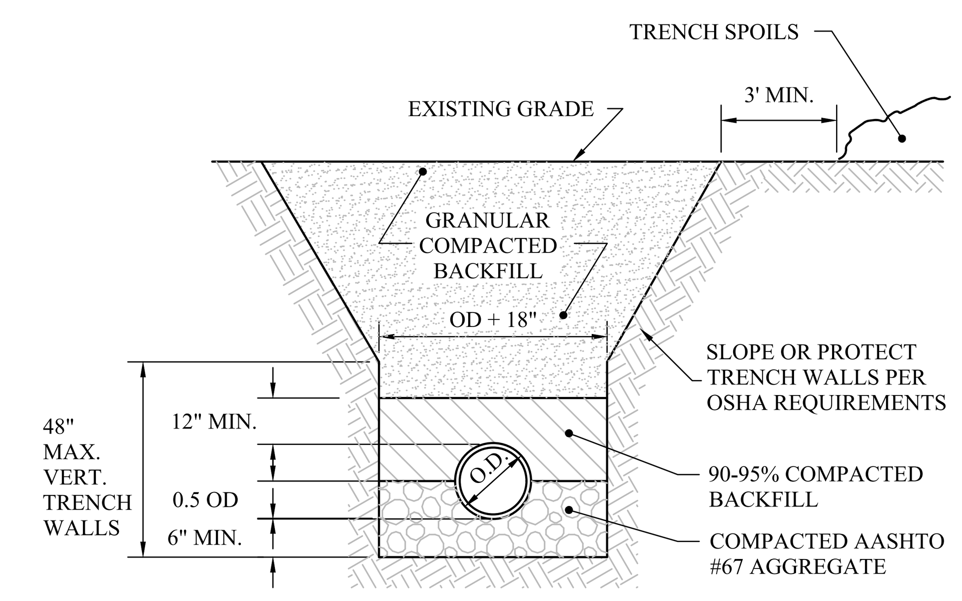


NOTES:

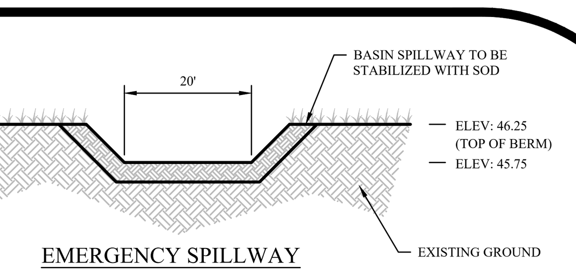
TRENCHING OPERATIONS SHALL CONFORM TO ALL OSHA REQUIREMENTS. IF THE PIPE DIAMETER EXCEEDS 48", THE MINIMUM 12" COVER SHALL STILL APPLY. THIS TRENCH IS SUITABLE FOR USE UNDER WET OR UNSTABLE SOIL CONDITIONS.

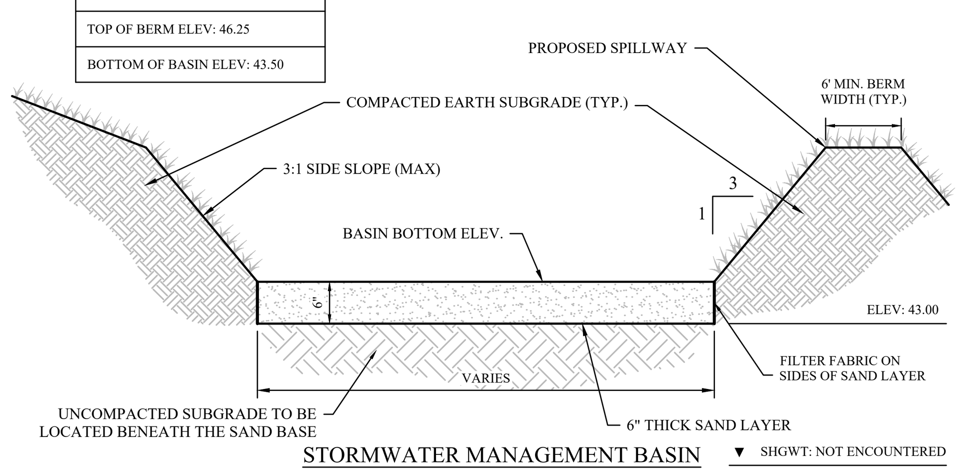
(USED FOR PVC PIPE)

TRENCH DETAIL CLASS B BEDDING

N.T.S.

STORMWATER MANAGEMENT BASIN	
STORM EVENT	STORM ELEVATION
2 YEAR	44.51
10 YEAR	44.89
100 YEAR	45.66
SPILLWAY ELEV: 45.75	
TOP OF BERM ELEV: 46.25	
BOTTOM OF BASIN ELEV: 43.50	





NOTES:

- CONSTRUCTION OF THE PROPOSED INFILTRATION SYSTEMS SHALL BE DONE WITHOUT COMPACTING THE BASIN'S SUB-GRADE SOILS. ALL EXCAVATION SHALL BE PERFORMED BY EQUIPMENT PLACED OUTSIDE THE BASIN WHENEVER POSSIBLE.
- THE SAND MUST MEET ALL THE SPECIFICATIONS FOR CLEAN, MEDIUM-AGGREGATE CONCRETE SAND IN ACCORDANCE WITH AASHTO M-6 OR ASTM C-33, AS CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY.
- THE MAXIMUM PERCENTAGE OF FINES IS 15%.
- THE MINIMUM TESTED PERMEABILITY RATE IS 20 INCHES/HOUR.
- REFER TO CHAPTER 9 OF THE MOST RECENT NJ BMP MANUAL FOR ADDITIONAL SPECIFICATIONS.

BASIN CROSS SECTION & SPILLWAY

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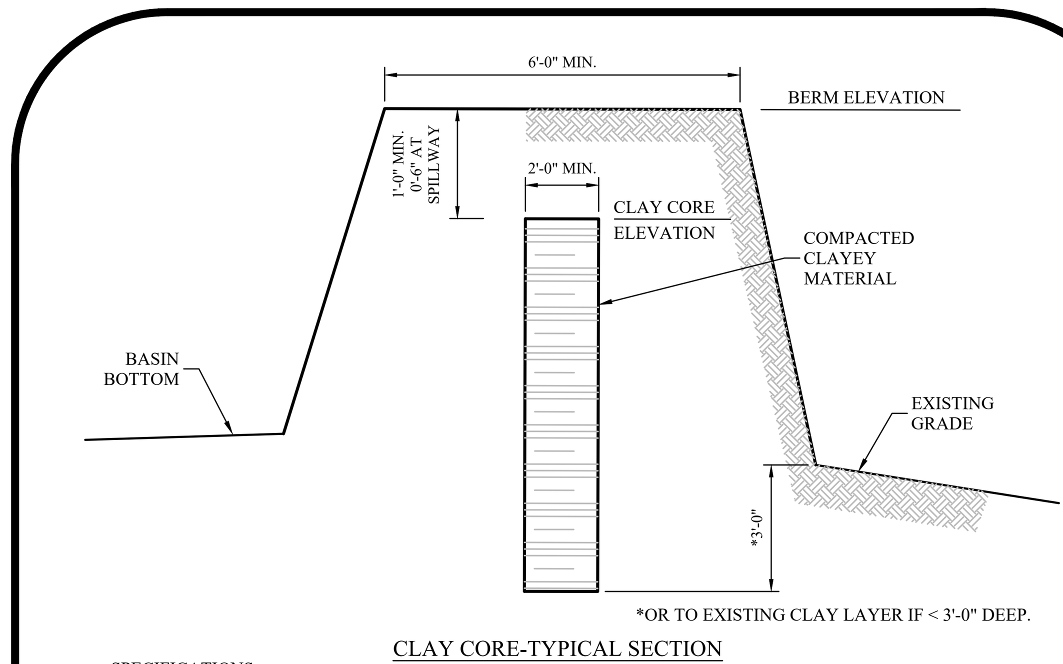


SPECIFICATIONS:

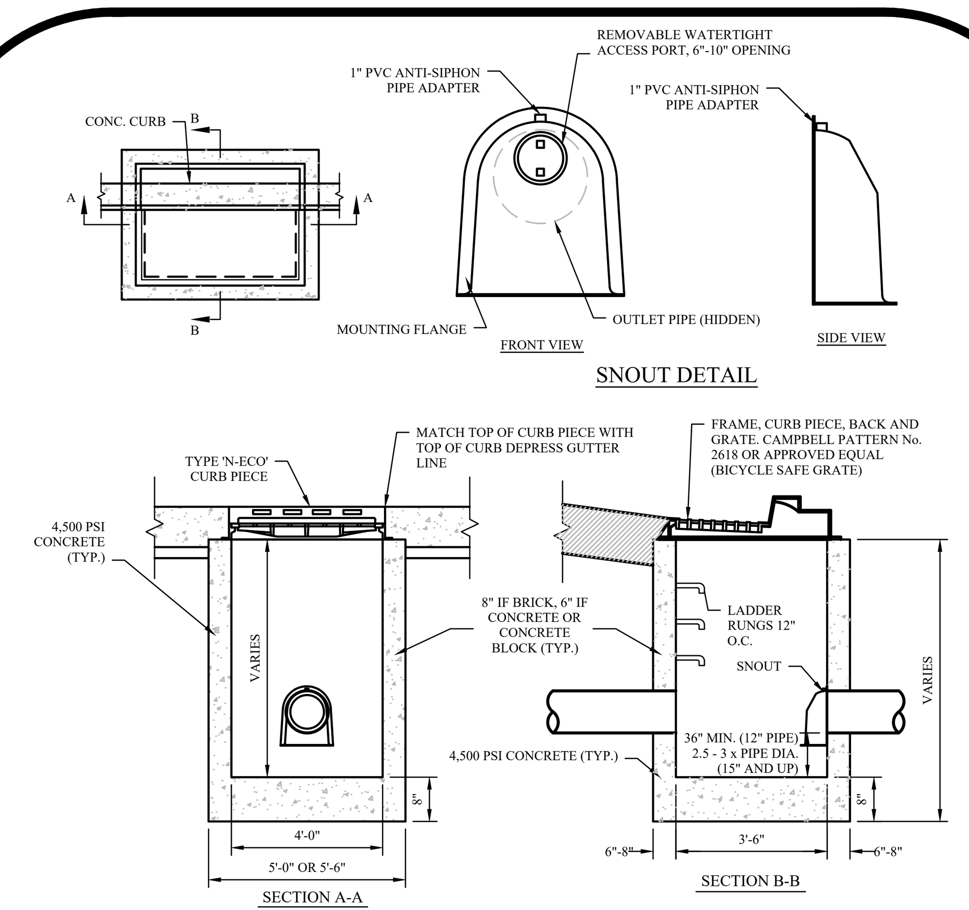
THE CLAY LINER AND CLAY CORE TO BE CONSTRUCTED OF ON-SITE EXCAVATED CLAY MATERIAL OR OFF-SITE MATERIAL AS APPROVED BY THE MUNICIPAL ENGINEER AND MEETING THE FOLLOWING SPECIFICATIONS.

A. PROVIDE A MINIMUM 45% BY WEIGHT OF MATERIAL PASSING U.S. STANDARD NO. 200 SIEVE.
B. PROVIDE A MINIMUM PLASTICITY INDEX OF 5%.
C. COMPACTED MATERIAL TO BE A MINIMUM OF 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 TEST PROCEDURE.

ALL MATERIAL PLACED TO CONSTRUCT THE CLAY LINER AND CLAY CORE SHALL BE INSTALLED IN HORIZONTAL LAYERS ON THE THE ORDER OF 8" TO 12" IN LOOSE THICKNESS WITH EACH LAYER COMPACTED TO ITS REQUIRED DENSITY.

CLAY CORE DETAIL FOR DRY BASINS

N.T.S.



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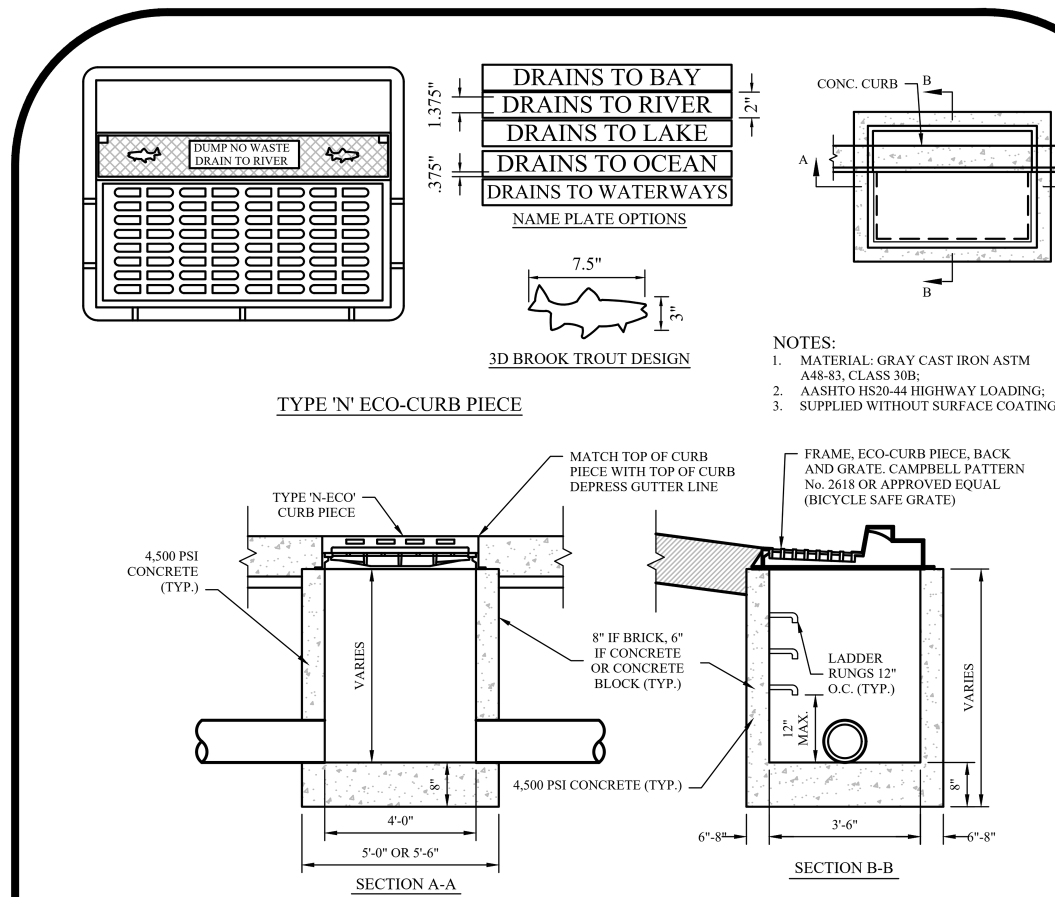

TYPE "B" INLET

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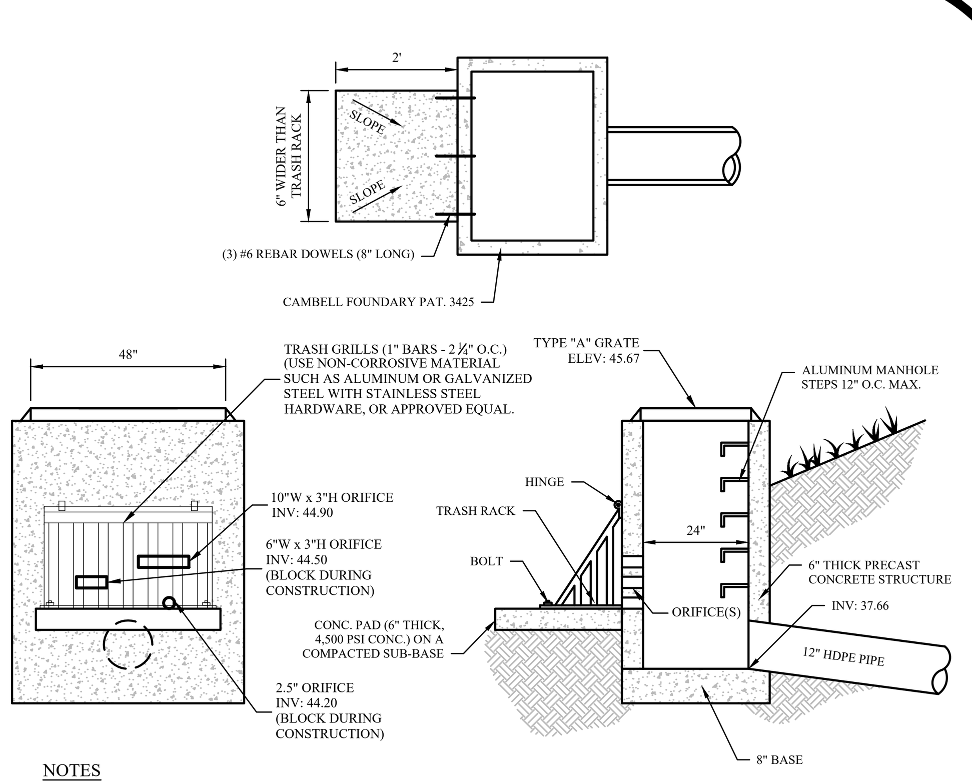


NOTES

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE TRASH RACK FOR MUNICIPAL ENGINEER'S APPROVAL.
2. ALL ORIFICES SHALL BE SPACED A MINIMUM OF 4" APART.

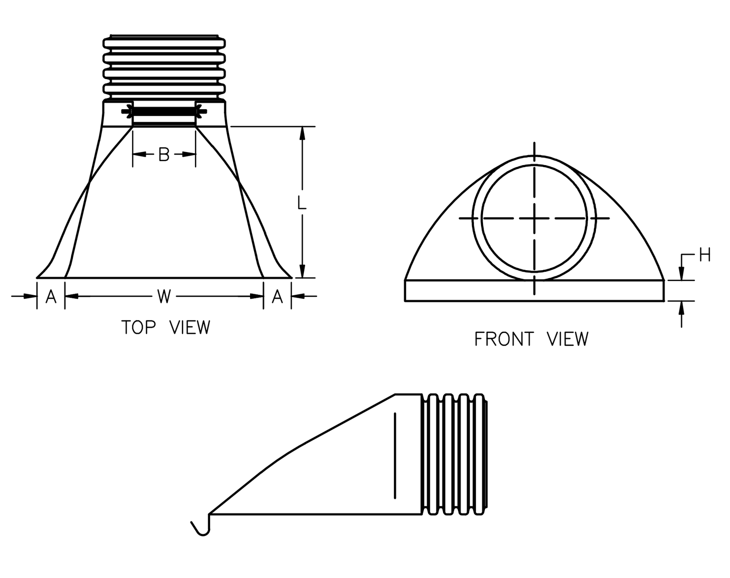
CONCRETE OUTFLOW STRUCTURE

N.T.S.

Sizing Table (Dimensions in Inches)

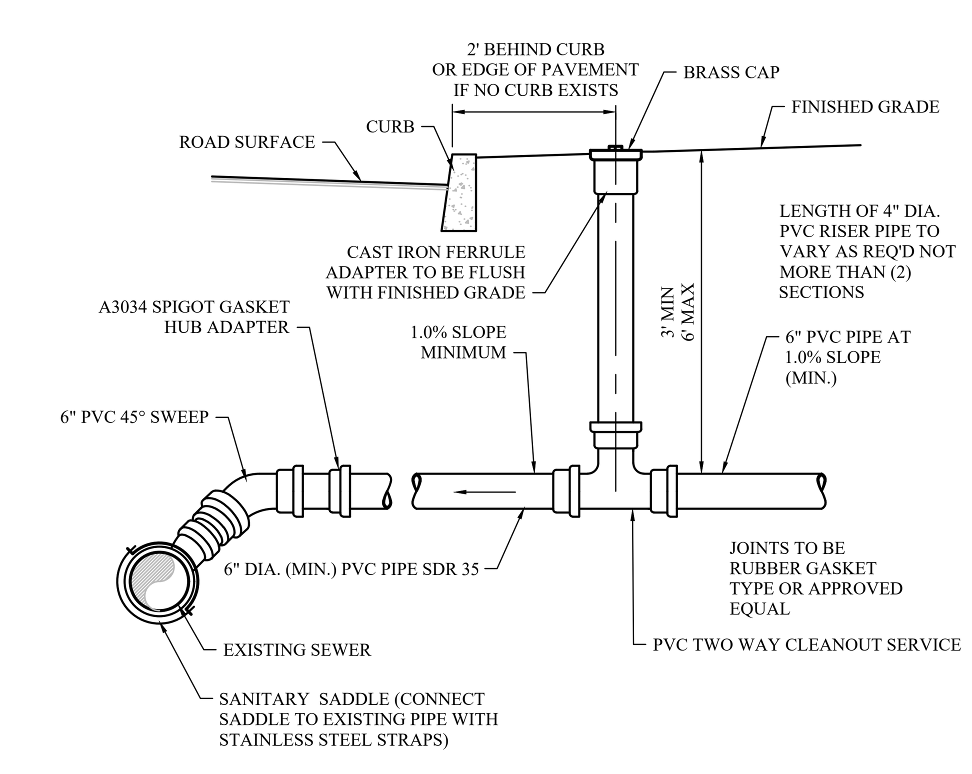
Pipe Diameter	12	15	18	24	30	36
'A'	6.5	6.5	7.5	7.5	7.5	7.5
'B'	10	10	15	18	22	25
'H'	6.5	6.5	6.5	6.5	8.6	8.6
'L'	25	25	32	36	58	58
'W'	29	29	35	45	63	63

*Product detail may differ slightly from actual product appearance



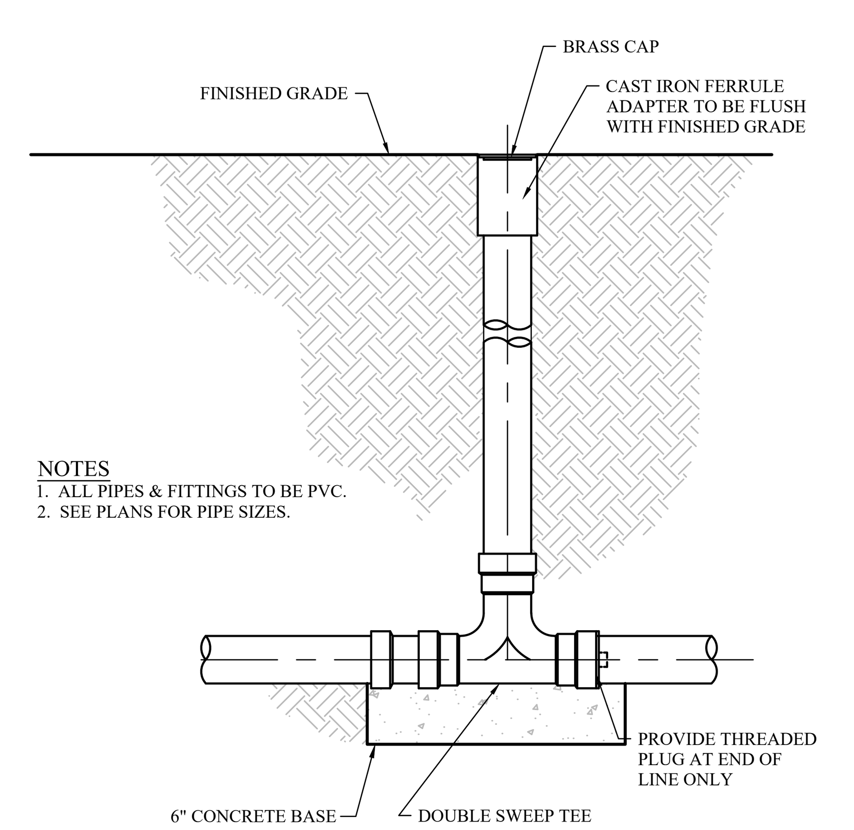
FLARED END SECTION

N.T.S.



SERVICE LATERAL

N.T.S.



CLEANOUT DETAIL

N.T.S.

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Engineering • Architecture • Planning
497 Center Street • Sewell, NJ 08080
Tel: 856-464-9600 Fax: 856-464-9606
www.pettitgroup.com
Certificate of Authorization No. 24GA28131400

REVISIONS		
NO.	DESCRIPTION	DATE

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DESIGNED BY: BWC	JOB NO: 1016-28
DRAWN BY: BWC	DATE: 04/24/20
CHECKED BY: BWC	SCALE: NOT TO SCALE

PROJECT:

MAJOR SITE PLAN

BLOCK 135
PROPOSED LOT 42.01
PLATE 11
BOROUGH OF RUNNEMEDE
CAMDEN COUNTY
NEW JERSEY

FOR

EAST CLEMENTS BRIDGE ROAD, LLC
1070 KINGS HIGHWAY
BELLMAWR, NJ 08031

BRIAN W. CLEARY, PE
Professional Engineer
State of New Jersey • License # GE 51748
State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

SHEET TITLE:

CONSTRUCTION DETAILS

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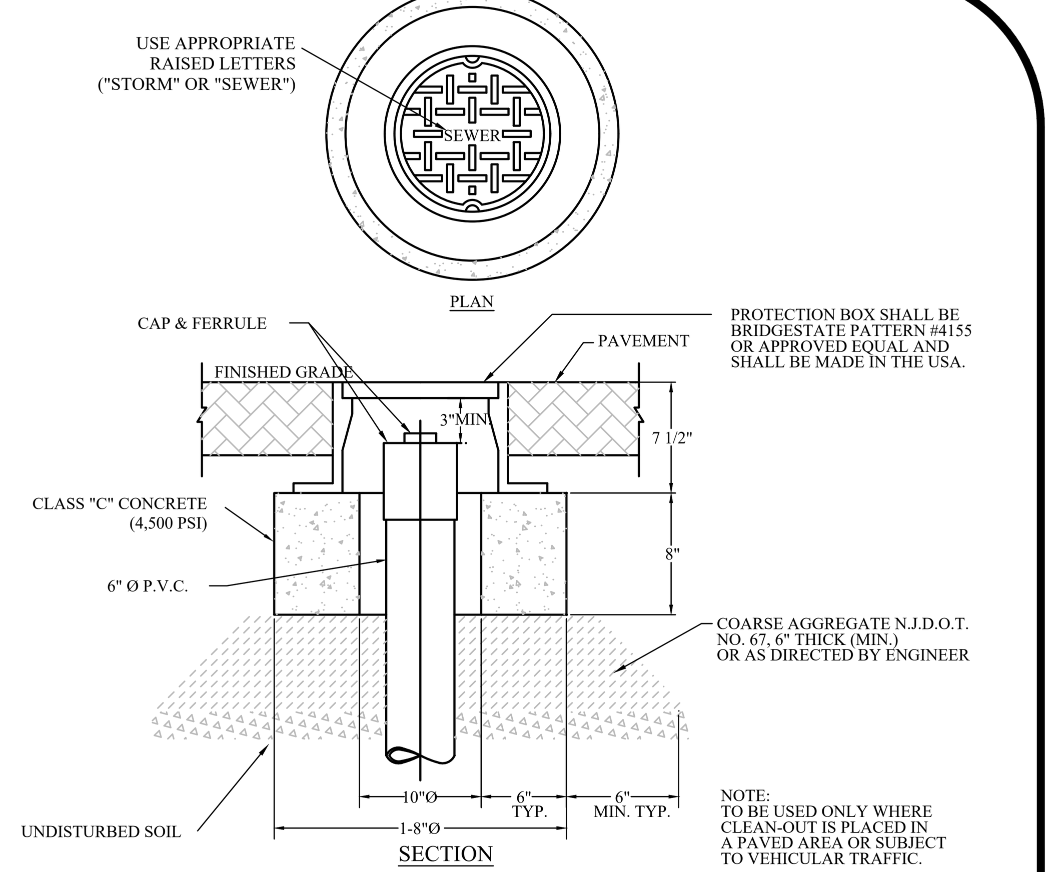
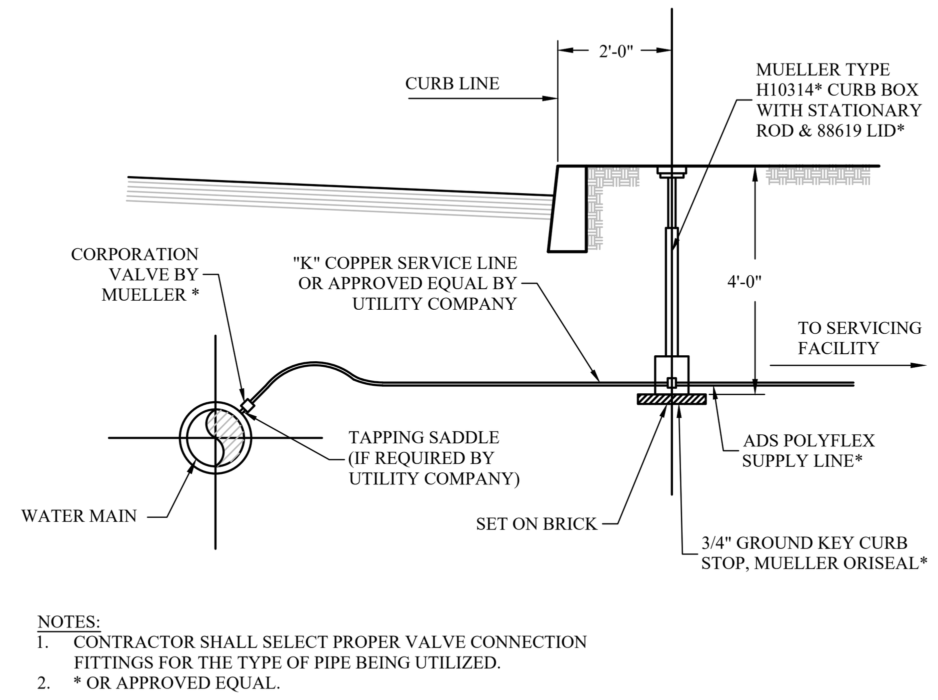


CLEANOUT PROTECTION BOX

N.T.S.

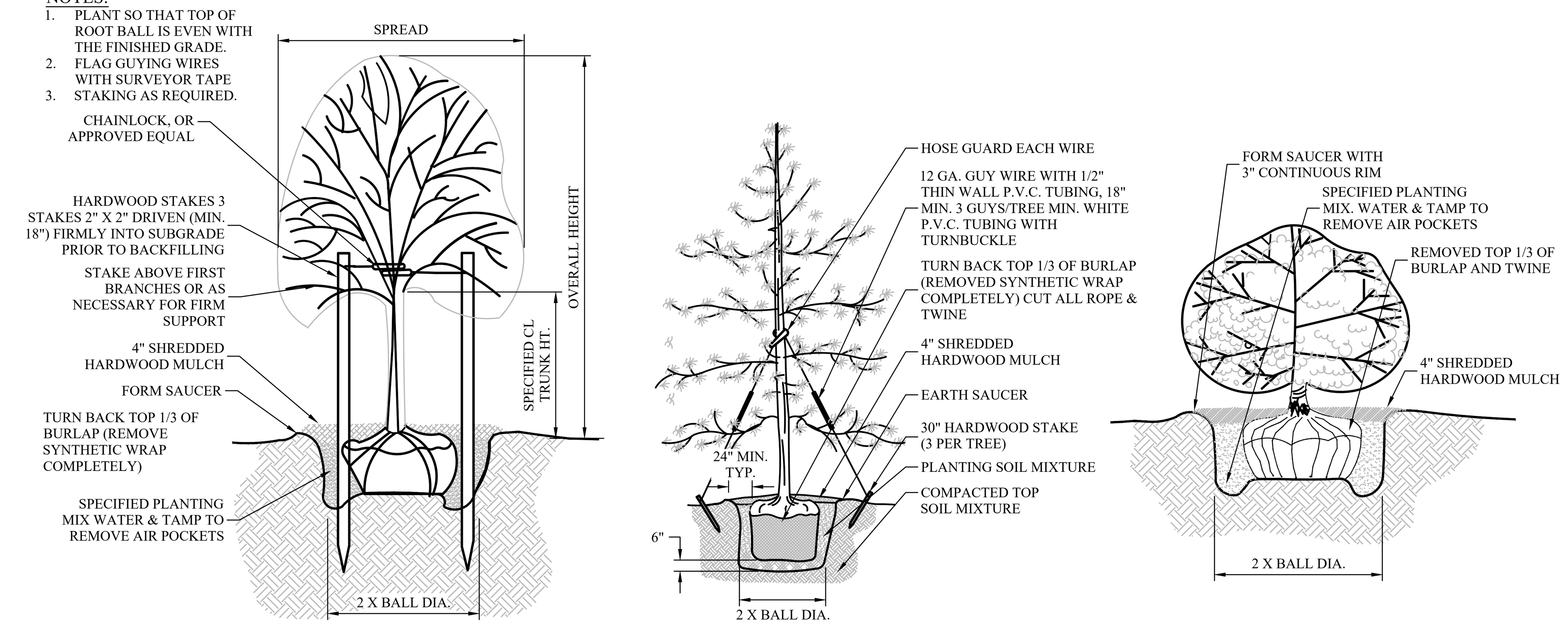


NOTES:
1. CONTRACTOR SHALL SELECT PROPER VALVE CONNECTION FITTINGS FOR THE TYPE OF PIPE BEING UTILIZED.
2. * OR APPROVED EQUAL.

WATER SERVICE CONNECTION

N.T.S.

NOTES:
1. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
2. FLAG GUYING WIRES WITH SURVEYOR TAPE
3. STAKING AS REQUIRED.



TREE PLANTING - GUY WIRES

EVERGREEN TREE PLANTING

SHRUB PLANTING

PLANTINGS

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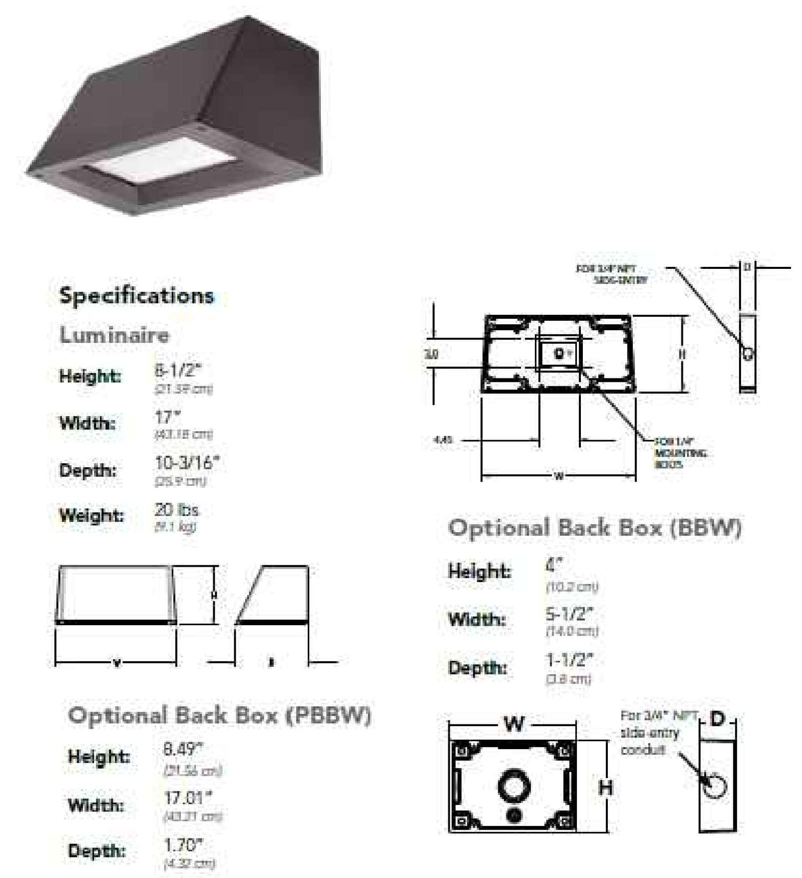
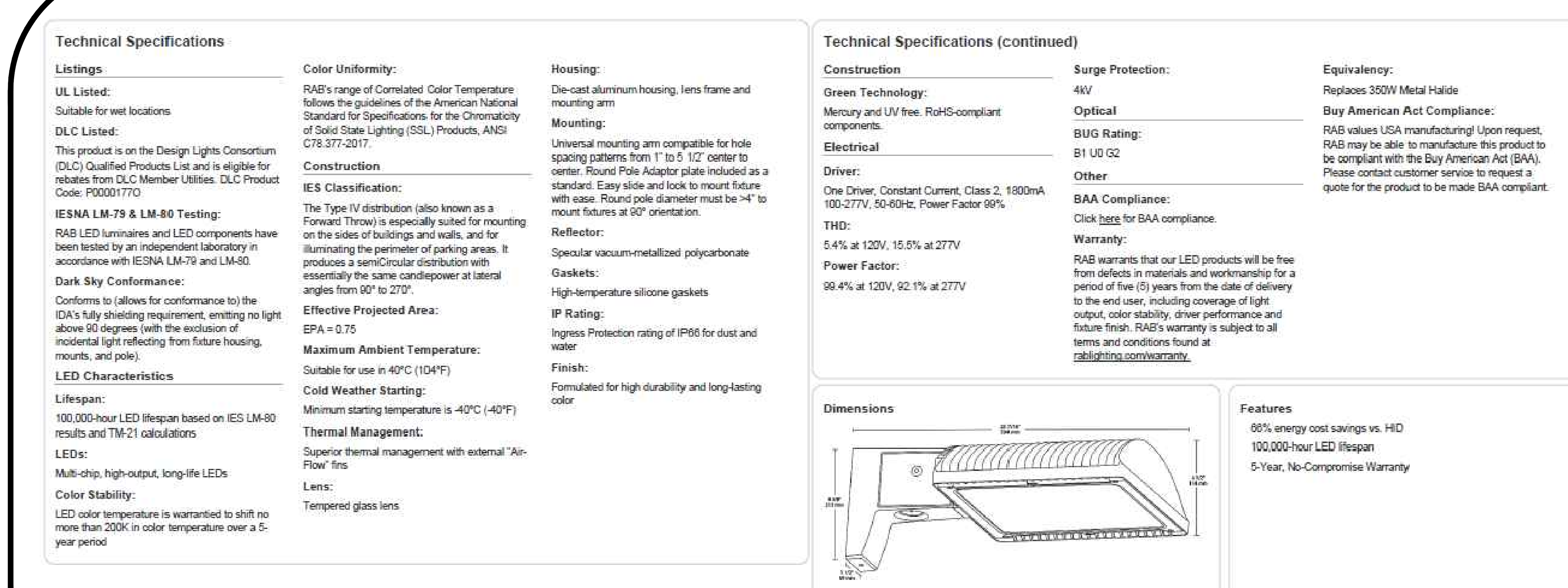


LITHONIA WALL MOUNTED LIGHT DETAIL

N.T.S.



Technical Specifications

Listings

UL Listed:
Suitable for wet locations

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. DLC Product Code: P0000177O

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:
Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

LED Characteristics

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:
Multi-chip, high-output, long-life LEDs

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IES Classification:
The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Effective Projected Area:
EPA = 0.75

Maximum Ambient Temperature:
Suitable for use in 40°C (104°F)

Cold Weather Starting:
Minimum starting temperature is -40°C (-40°F)

Thermal Management:
Superior thermal management with external "Air-Flow" fins

Lens:
Tempered glass lens

Housing:
Die-cast aluminum housing, lens frame and mounting arm

Mounting:
Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Reflector:
Specular vacuum-metallized polycarbonate

Gaskets:
High-temperature silicone gaskets

IP Rating:
Ingress Protection rating of IP66 for dust and water

Finish:
Formulated for high durability and long-lasting color

Technical Specifications (continued)

Construction

Green Technology:
Mercury and UV free. RoHS-compliant components.

Electrical

Driver:
One Driver, Constant Current, Class 2, 1800mA 100-277V, 50-60Hz, Power Factor 99%

THD:
5.4% at 120V, 15.5% at 277V

Power Factor:
99.4% at 120V, 92.1% at 277V

Surge Protection:
4kV

Optical

BUG Rating:
B1 U0 G2

Other

BAA Compliance:
Click here for BAA compliance.

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Equivalency:
Replaces 350W Metal Halide

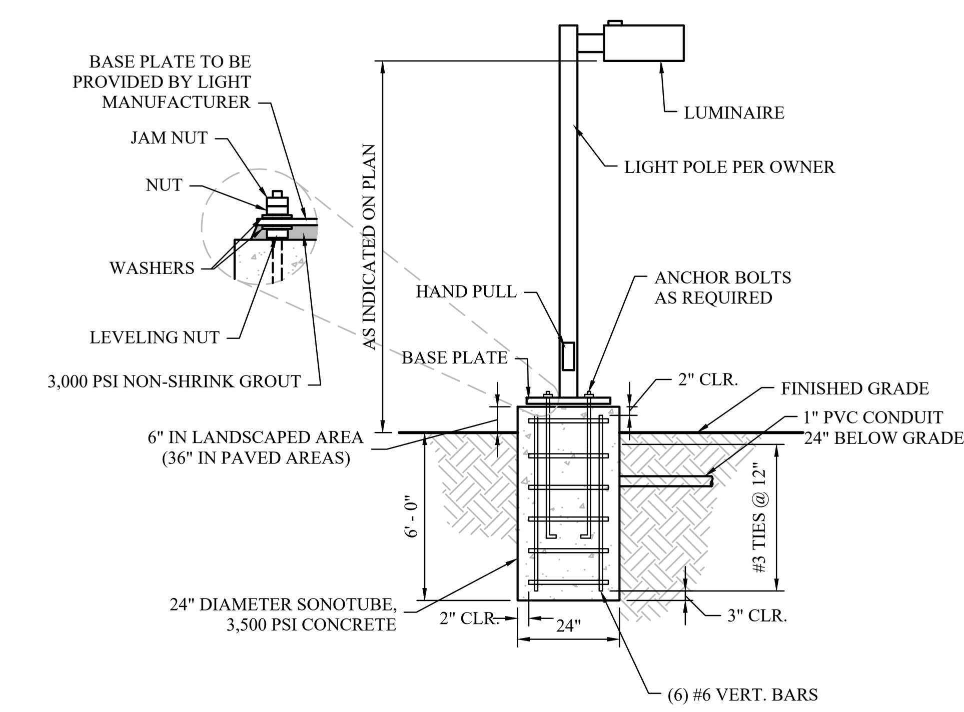
Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions

Features
66% energy cost savings vs. HID
100,000-hour LED lifespan
5-Year, No-Compromise Warranty

RAB POLE MOUNTED LIGHT DETAIL

N.T.S.



LIGHT POLE AND FOUNDATION AT GRADE

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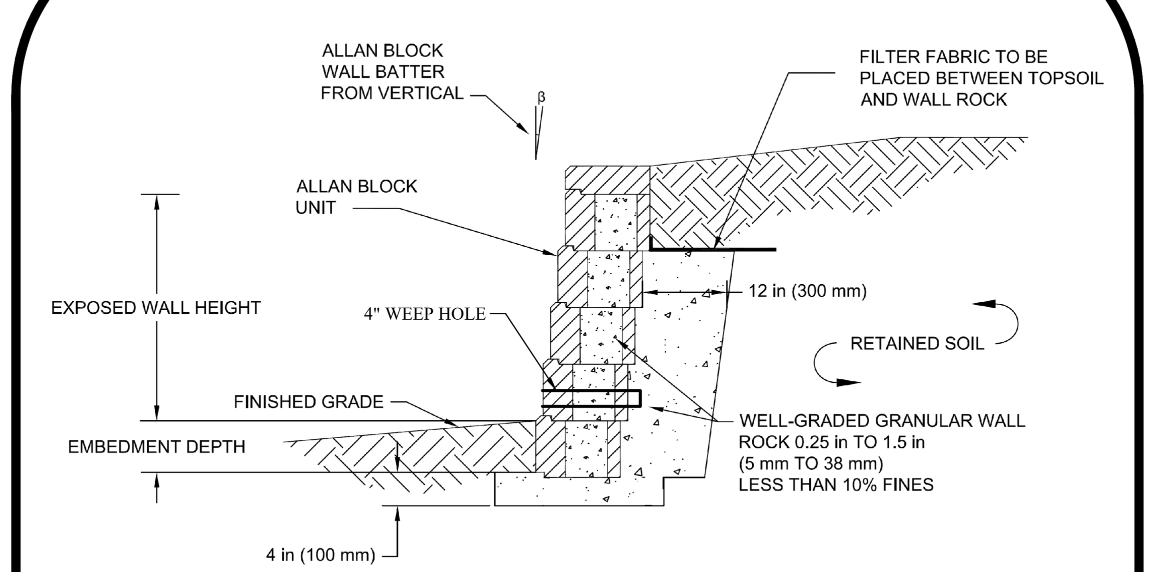

NOTES:
1. DETAIL PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
2. RETAINING WALL MATERIAL SHALL BE BLOCK WALL. MANUFACTURER TO BE SELECTED BY OWNER.
3. COLOR TO BE SELECTED BY OWNER.

SCHEMATIC RETAINING WALL

N.T.S.

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Professional Engineer
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State of Pennsylvania • License # PE081074
State of Maryland • License # 54411

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CONSTRUCTION DETAILS

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