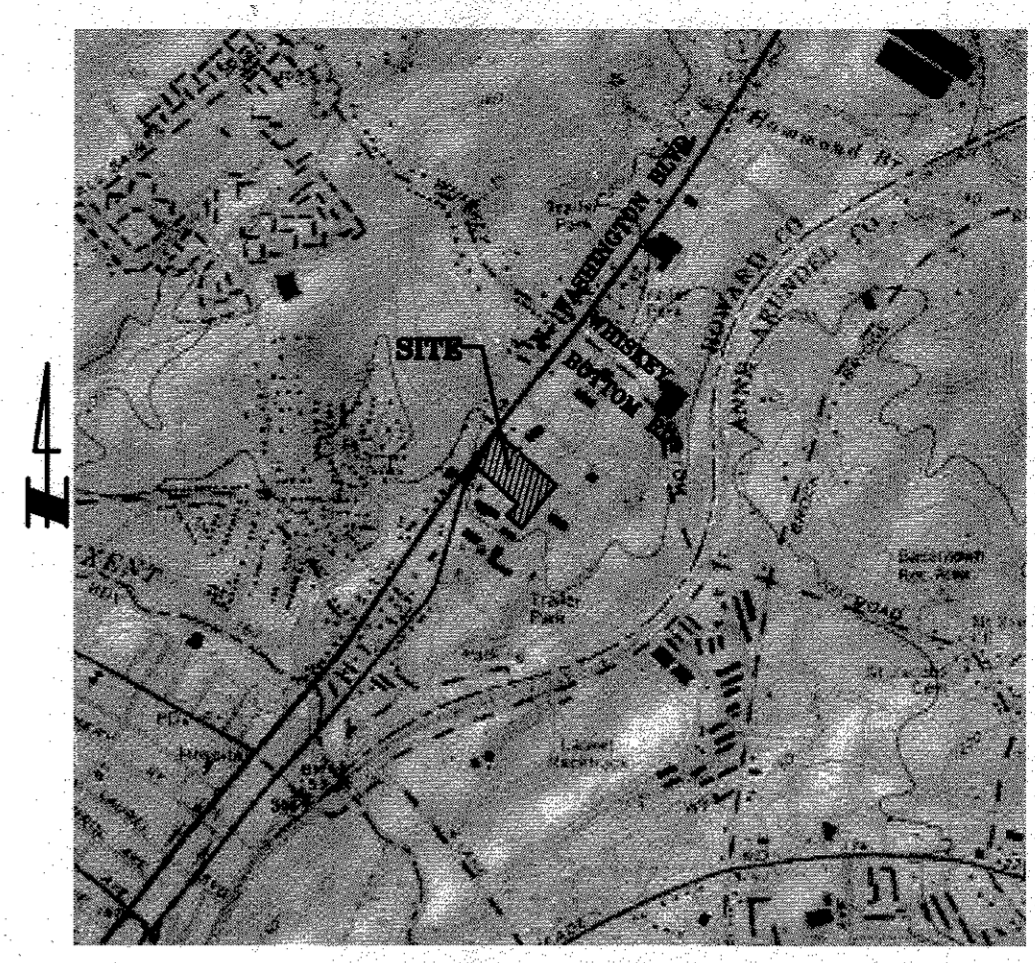


SITE DEVELOPMENT PLAN FOR NAPA WASHINGTON HOWARD COUNTY, MARYLAND



LOCATION MAP
SCALE: 1"=2000'

BENCHMARKS
GEODETC BENCHMARK: 50BM1
GEODETC STATION: 50B8

GENERAL NOTES

- BENCHMARK: CAPPED REBAR SET; ELEVATION = 215.11 (NAVD-88 DATUM).
- NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN AN AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT.
- BOUNDARY AND TOPOGRAPHIC SURVEY BY RETTEW ASSOCIATES, INC. DATED NOVEMBER 2013.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RETTEW ASSOCIATES DATED.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE SITE SHALL BE SERVED WITH PUBLIC WATER AND PUBLIC SANITARY SEWER FACILITIES.
- THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITIES AT LEAST 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. ALL UTILITIES HAVE BEEN IDENTIFIED BASED ON THE BEST AVAILABLE INFORMATION AND LISTED ON THESE PLANS IN ACCORDANCE WITH ACT 187 REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING UTILITIES AND ALL EFFORTS SHALL BE UNDERTAKEN TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. RESTORATION OF ALL EXISTING SURFACE IMPROVEMENTS DAMAGED OR ALTERED DURING CONSTRUCTION, INCLUDING LANDSCAPING, SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING THE SAFE FLOW OF TRAFFIC DURING CONSTRUCTION WITHIN THE SITE AND THE EXISTING ROAD RIGHTS-OF-WAY WHILE ENTERING AND LEAVING THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS RELATIVE TO THE CONSTRUCTION PROPOSED ON THIS PLAN.
- ALL STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND TO THE STANDARDS OF THE HOWARD COUNTY ORDINANCES, PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THERE SHALL BE NO CHANGES OR DEVIATION FROM THESE PLANS UNLESS APPROVED BY THE ENGINEER. SUCH PLAN CHANGES, SHOULD THEY BECOME NECESSARY, ARE SUBJECT TO HOWARD COUNTY ORDINANCES.
- THE CONTRACTOR SHALL INSPECT EXISTING SITE/PROJECT AREA CONDITIONS AND VERIFY ALL QUANTITIES AND MATERIALS PRIOR TO THE START OF CONSTRUCTION.
- STORMWATER FACILITIES, INCLUDING SWALES, STORM PIPING, AND APPURTENANCES SHALL BE MAINTAINED IN GOOD WORKING CONDITION BY THE DEVELOPER OR THE SUCCESSIVE LAND OWNER. HOWARD COUNTY SHALL HAVE THE RIGHT TO INSPECT THE FACILITIES AT ANY TIME; REQUIRE THE OWNER TO TAKE CORRECTIVE MEASURES AND ASSIGN THE OWNER REASONABLE TIME PERIODS FOR ANY NECESSARY ACTION; AUTHORIZE MAINTENANCE TO BE DONE AND LIEN ALL COST OF THE WORK AGAINST THE PROPERTIES OF THE OWNER RESPONSIBLE FOR MAINTENANCE.
- THE STREET, CURBS, AND SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AS APPLICABLE.
- NO PORTION OF THIS TRACT IS INTENDED FOR DEDICATION TO THE HOWARD COUNTY.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ALL PAVEMENT MARKINGS, STREET SIGNS, TRAFFIC DIRECTIONAL AND CONTROL SIGNS SHOWN ON THIS PLAN IN ACCORDANCE WITH APPLICABLE STATE OR HOWARD COUNTY REGULATIONS AND SPECIFICATIONS. ALL SIGNAGE SHALL BE CONSISTENT WITH EXISTING SIGNAGE WITHIN THE HOWARD COUNTY.
- NO OBJECT SHALL BE PERMITTED WHICH OBSCURES VISION WITHIN THE CLEAR SIGHT TRIANGLE.
- HOWARD COUNTY SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OR MAINTENANCE OF ANY AREA NOT DEDICATED FOR THE PUBLIC USE.
- ISSUANCE OF THE ACCESS PERMIT FROM EAPD IS REQUIRED BEFORE SHA WILL SIGN OFF ON ISSUANCE OF BUILDING PERMIT(S).
- THE WETLAND LINES SHOWN ON THIS PLAN ARE BASED UPON THE FINDING WITHIN "WETLAND DELINEATION REPORT FOR WASHINGTON NAPA FACILITY EXPANSION, CITY OF LAUREL, HOWARD COUNTY, MARYLAND," DATED NOVEMBER 2013, BY RETTEW ASSOCIATES, INC.
- ALL EXISTING OR PROPOSED SURFACE DRAINAGE FACILITIES SUCH AS SWALES, STREAMS, STORMWATER MANAGEMENT FACILITIES, UNPAVED OR PAVED CHANNELS, ETC., LOCATED WITHIN PRIVATELY OWNED EASEMENTS OR ON PRIVATELY OWNED LAND WITH NO PUBLIC EASEMENT SHALL BE THE LEGAL RESPONSIBILITY OF THE PROPERTY OWNER, EASEMENT HOLDER AND/OR HOME OWNERS ASSOCIATION FOR OPERATION AND MAINTENANCE IN ACCORDANCE WITH COUNTY REGULATIONS.
- STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED BY THE PROPERTY OWNER.
- CERTIFICATION SHALL BE SUBMITTED BY THE APPROPRIATE DESIGN PROFESSIONAL LICENSED IN THE STATE OF MARYLAND TO ENSURE THAT CONSTRUCTED STORMWATER MANAGEMENT PRACTICES AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. AT A MINIMUM, AS-BUILT CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED STORMWATER MANAGEMENT PLAN WITH WHAT WAS CONSTRUCTED. THE COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL INFORMATION IT DEEMS NECESSARY TO ENSURE COMPLIANCE WITH THE APPROVED PLANS.
- NO PERSON SHALL GRADE, STRIP, EXCAVATE, OR FILL LAND, EXCEPT FOR FARMING, WITHOUT FIRST HAVING OBTAINED APPROVAL OF THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS PURSUANT TO THE REQUIREMENTS OF SUBTITLE 4 OF TITLE 3 OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, HOWARD COUNTY, MARYLAND, LATEST EDITION.
- A TABULATED ESTIMATE OF ALL QUANTITIES AND COSTS, INCLUDING CONTINGENT ITEMS RELATED TO THE CONSTRUCTION OF ALL REQUIRED PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING PRIOR TO PLAN APPROVAL.
- PROPERTY BOUNDARIES, LANDOWNER INFORMATION AND EXISTING STRUCTURES, TREE LINES AND ROADWAYS SHOWN BEYOND THE BOUNDARIES OF PARCEL 442 ARE BASED ON AVAILABLE COUNTY GIS PARCEL DATA.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- THE SUBJECT PROPERTY IS ZONED CE/CLI PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THE BUILDING WILL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLING SYSTEM.
- LANDSCAPE SURETY SHALL BE IN ACCORDANCE WITH HOWARD COUNTY LANDSCAPE MANUAL, ADOPTED JANUARY 4, 1993 AND AMENDED MARCH 2, 1998, SECTION II, INSTALLATION, SURETY AND CERTIFICATION. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$5,400 FOR THE REQUIRED 11 SHADE, 14 EVERGREENS, & 0 SHRUBS WILL BE POSTED WITH THE DEVELOPER AGREEMENT.
- THE REQUIREMENTS OF THE UNDERLYING CE DISTRICT FOR ACCESSORY USES, BULK REQUIREMENTS AND COMPLIANCE WITH THE ROUTE 1 MANUAL SHALL APPLY TO IMPROVEMENTS TO PROPERTIES UTILIZING THE CLI OVERLAY DISTRICT PROVISIONS. BUILDING AND SITE IMPROVEMENT EXPANSIONS UP TO 50% OF THE SQUARE FOOT AREA EXISTING OR APPROVED ON APRIL 13, 2004 ARE PERMITTED FOR WAREHOUSE AND INDUSTRIAL USES. GREATER EXPANSIONS MAY BE AUTHORIZED UNDER THE NONCONFORMING USE PROVISION OF SECTION 129.0. EXPANSIONS FOR USES PERMITTED IN THE CE DISTRICT ARE NOT RESTRICTED, BUT SHALL CONFORM TO THE CE DISTRICT REGULATIONS. OUTDOOR STORAGE AREAS SHALL NOT EXCEED 5% OF THE SITE AND ALL OUTDOOR STORAGE MUST BE SCREENED IN ACCORDANCE WITH THE ROUTE 1 MANUAL.
- ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)". THE "R-1" ("STOP") SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THE DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETE.
- THE DEVELOPER SHALL CONSTRUCT AND PLACE A MONUMENT AT EACH STREET INTERSECTION. MONUMENTATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF COMAR. MONUMENTS SHALL BE SET SO THAT THE TOP IS LEVEL WITH THE SURFACE OF THE SURROUNDING GROUND AT FINAL FINISHED GRADE. MONUMENTS SHALL BE CONCRETE, FOUR INCHES TOP, SIX INCHES BOTTOM, SIX INCHES LONG AND THREE FEET LONG AND STRENGTHENED BY A THREE-EIGHTHS INCH OR GREATER STEEL REINFORCING ROD, AT LEAST 30 INCHES LONG, THROUGH THEIR CENTERS.
- THE DEVELOPER SHALL CONSTRUCT AND PLACE A MARKER ON ALL POINTS OF CURVATURE AND POINTS OF TANGENCY ALONG THE STREET LINE AND AT ALL ANGLE BREAKS. MARKERS SHALL BE STEEL BARS OR IRON PIPES AT LEAST THREE-EIGHTHS OF AN INCH IN DIAMETER AND 30 INCHES LONG.
- SETTING OF MONUMENTS AND MARKERS. MONUMENTS AND MARKERS SHALL HAVE BEEN INSTALLED AT THE TIME THE DEVELOPER APPLIES TO THE COUNTY FOR INSPECTION AND ACCEPTANCE OF HIS SUBDIVISION. MONUMENTS AND MARKERS SHALL EACH HAVE AN IDENTIFYING CAP BEARING THE MARYLAND REGISTRATION NUMBER OF THE LICENSED PROFESSIONAL LAND SURVEYOR, PROPERTY LINE SURVEYOR, CORPORATION, OR PARTNERSHIP RESPONSIBLE FOR SETTING THE MONUMENTS AND MARKERS IN ACCORDANCE WITH THE ANNOTATED CODE OF MARYLAND. MARKERS AND MONUMENTS SHALL BE IDENTIFIED AS DESCRIBED IN THE ANNOTATED CODE OF MARYLAND, TITLE 9, SUBTITLE 13, CHAPTER 3, SECTION 3.
- RECORDATION OF A FINAL PLAT WILL BE REQUIRED PRIOR TO SIGNATURE APPROVAL OF THE SDP FOR THE ESTABLISHMENT OF A FOREST CONSERVATION EASEMENT. THE ADDITION OF A PUBLIC OR PRIVATE EASEMENT MUST BE PROCESSED AS A PLAT AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
- FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IN THE AMOUNT OF 2.68 ACRES SHALL BE FULFILLED IN ACCORDANCE WITH SECTION 16.1200 OF THE FOREST CONSERVATION MANUAL UNDER SDP-15-005 BY PROVIDING 1.28 ACRES OF FOREST RETENTION EASEMENT AND BY PROVIDING 1.42 ACRES OF FOREST RETENTION EASEMENT FROM SDP-15-005, MILL CREEK FOREST MITIGATION BANK.
- PER THE LANDSCAPE MANUAL, LANDSCAPING IS PROVIDED ONLY FOR THE ADDITIONAL DEVELOPMENT SINCE THIS PLAN DOES NOT INCREASE THE AREA BY MORE THAN 50%.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 5-11-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5-11-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5-16-16
DIRECTOR DATE

MD MISS UTILITY TICKET # 14422847
DATED: 07/11/14

LIST OF UTILITIES

DISTRICT	COMPANY NAME	PHONE NUMBER
ACSI03	TIME WARNER TELEPHONE/STAKE CENTER	(801) 364-1063
ATM01	AT&T TRANSMISSION	(800) 252-1133
BCEHW	BCE ELECTRIC-USIC	(800) 778-9140
BCEHWG	BCE GAS-USIC	(800) 778-9140
FBLM01	FIBERLIGHT/SUNBELT TELECOM	(727) 596-1500
HCU01	HOWARD COUNTY WATER/SEWER	(410) 313-4982
HTV01	COMCAST/UTILQUEST	(410) 536-0070
HTV02	COMCAST-FIBER/UTILQUEST	(410) 536-0070
MC01	MC	(800) 289-3427
MFN04	ZAYO/STAKE CENTER LOCATING	(888) 267-1063
TMN01	24/7 MID-ATLANTIC	(410) 553-2605
TPC03	AT&T TRANSMISSION TCG	(800) 252-1133
VHW	VERIZON-LAMBERT CABLE	(410) 536-0070

FIRE AND RESCUE NOTES

- A KNOX BOX (FIRE DEPT. ACCESS BOX) IS REQUIRED TO BE PLACED IN FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5' IN HEIGHT AND NO MORE THAN 8' Laterally FROM THE DOOR. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (NFPA-1 18.2.2.5.1 AMENDED IN TITLE 17).
- MAINTAIN A MINIMUM CANOPY HEIGHT OF 13 FEET, 6 INCHES FOR EMERGENCY EQUIPMENT ACCESS (NFPA-1 18.2.2.5.1 AMENDED IN TITLE 17).
- PROVIDE SIGNAGE ON THE BUILDING IDENTIFYING BUILDING ACCESS.

WAIVERS GRANTED

THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING APPROVED ON OCTOBER 21, 2014 THE FOLLOWING WAIVER FROM THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

SECTION 16.155(A)(1)(i) OF THE SUBDIVISION REGULATIONS TO ALLOW A WAIVER OF THE SITE DEVELOPMENT PLAN REQUIREMENT FOR NEW OR EXPANDED NONRESIDENTIAL DEVELOPMENT, INCLUDING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND UTILITY DEVELOPMENT, TO WAIVER FOR MASS GRADING OF THE SITE PRIOR TO THE SDP BEING APPROVED. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:

- APPROVAL FROM THE HOWARD SOIL CONSERVATION DISTRICT AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS IS REQUIRED FOR THE ASSOCIATED GRADING PLAN PRIOR TO THE ISSUANCE OF ANY REQUIRED PERMITS. THIS WAIVER APPROVAL APPLIES ONLY TO THE LIMIT OF DISTURBANCE AND GRADING PERMIT LIMITS AS SHOWN ON THE WAIVER PLAN EXHIBIT, SHEET 5 OF 17 FOR SDP-15-005.
- COMPLIANCE WITH ALL APPLICABLE COUNTY AND STATE REGULATIONS AND OBTAIN ALL NECESSARY PERMITS FROM THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS PRIOR TO INITIATING DEVELOPMENT ON-SITE.
- COMPLIANCE WITH THE DEED COMMENTS DATED OCTOBER 2, 2014.
- IN ACCORDANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR ASSOCIATED BUFFERS, AND 100-YEAR FLOODPLAIN.
- SHOULD MASS GRADING OF THE SITE BE INITIATED AND PROCESSING OF SDP-15-005 CEASE FOR ANY REASON, OR IS NOT COMPLETED IN A TIMELY MANNER, THE PETITIONER WILL BE REQUIRED TO ADDRESS FOREST CONSERVATION OBLIGATION REQUIREMENTS FOR THE LIMIT OF DISTURBANCE FOR THE MASS GRADING IN ACCORDANCE WITH THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL WITH THE PAYMENT OF A FEE-IN-LIEU AND / OR RECORDING OF A PLAT OF FOREST CONSERVATION EASEMENT FOR FOREST RETENTION.

LIST OF DRAWINGS

1 OF 19	COVER SHEET
2 OF 19	EXISTING CONDITIONS PLAN: SLOPE ANALYSIS
3 OF 19	EXISTING CONDITIONS PLAN: DEMOLITION
4 OF 19	LAYOUT PLAN
5 OF 19	GRADING AND UTILITY PLAN
6 OF 19	ROUTE 1 ACCESS PERMIT PLAN
7 OF 19	LANDSCAPE PLAN
8 OF 19	PROFILES & CROSS-SECTIONS: STORMWATER
9 OF 19	DETAILS: SITE CONSTRUCTION
10 OF 19	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
11 OF 19	DETAILS: STORMWATER MANAGEMENT
12 OF 19	DETAILS: STORMWATER MANAGEMENT
13 OF 19	EROSION AND SEDIMENTATION CONTROL PLAN
14 OF 19	DETAILS: EROSION CONTROL NOTES
15 OF 19	DETAILS: EROSION CONTROL
16 OF 19	DETAILS: EROSION CONTROL
17 OF 19	FOREST CONSERVATION PLAN AND EXISTING CONDITIONS

LANDOWNER
QUAKER CITY MOTOR PARTS CO. INC.
P.O. BOX 5000
MIDDLETOWN DE 19709-5000
PHONE NO. (302) 378-9834

EQUITABLE OWNER/DEVELOPER
GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30326
PHONE NO. (404) 995-6598

SOURCE OF TITLE

DEED REFERENCE	00920/00494
TAX MAP NUMBER	50
PARCEL NUMBER	0442

SITE DATA

TOTAL AREA:	10.943 ACRES	ADDRESS:	9941 WASHINGTON BLVD.
TOTAL NO. OF LOTS:	1	ZONING DISTRICT:	CE-CLI
PRIMARY STRUCTURE BUILT:	1981	DENSITY:	N/A
EXISTING USE:	INDUSTRIAL	PROPOSED USE:	INDUSTRIAL

ZONING DATA CE, CORRIDOR EMPLOYMENT DISTRICT
CLI, CONTINUING LIGHT INDUSTRY OVERLAY DISTRICT

	REQUIRED
MAXIMUM BUILDING HEIGHT	60 FT.
FRONT YARD BUILDING	10 FT.
FRONT YARD PARKING	40 FT.
FRONT YARD LOADING DOCKS,	60 FT.
OUTDOOR STORAGE, DUMPSTERS	
AND ASSOCIATED FENCING	

NOTES:

- PROPOSED BUILDING EXPANSION IS 49.1% OR LESS OF THE EXISTING SQUARE FOOT AREA, A MAXIMUM OF 50% IS ALLOWED. (127.3.D.2).
- PROPOSED RETAIL USE CONFORMS TO THE REQUIREMENTS OF SECTION 127.3.C.4. THE FLOOR AREA DEDICATED TO RETAIL USE IS 1.9% OF THE TOTAL FLOOR AREA (30% IS PERMITTED BY ORDINANCE). NO MORE THAN 30% OF THE FLOOR SPACE OF THE FIRST FLOOR OF THE MAIN STRUCTURE MAY BE DEVOTED TO THE RETAIL SALES OF ARTICLES MADE OR DISTRIBUTED ON THE PREMISES.

SITE ANALYSIS DATA

AREA OF THE SITE	10.94± ACRES; 476,677± SQFT
LIMIT OF DISTURBANCE AREA	4.7 ACRES 5.42 ACRES
ZONING DESIGNATION	CE / CLI
PROPOSED SITE USES	INDUSTRIAL (WAREHOUSE, RETAIL & OFFICE)
	SQUARE FOOTAGE FOR EACH OF THE BUILDING USES:
	RETAIL 1,761 SQUARE FEET
	OFFICE 5,456 SQUARE FEET
	WAREHOUSE 84,151 SQUARE FEET
GROSS FLOOR AREA	91,368 SQ FT
ANTICIPATED NUMBER OF EMPLOYEES	46-57
NUMBER OF PARKING SPACES	REQUIRED: PROPOSED: (SEE PARKING DATA BELOW)
	69 120 SPACES (REVISED)
OPEN SPACE ON SITE	6.88± ACRES 6.08± ACRES
BUILDING COVERAGE ON SITE	6.08± ACRES 4.86± ACRES (61% OF TOTAL SITE AREA)
WETLANDS AND THEIR BUFFERS	0.60± ACRES (19% OF TOTAL SITE AREA)
STREAMS AND THEIR BUFFERS	N/A
FLOODPLAINS AND THEIR BUFFERS	N/A
FORESTS	4.6± ACRES
STEEP SLOPES 15% AND GREATER	1.61± ACRES
ERODIBLE SOILS PROJECT AREA	N/A

PARKING DATA

REQUIREMENTS:	RETAIL: 5 SPACES PER 1,000 S.F. OF GROSS FLOOR AREA
	OFFICE: 3.3 SPACES PER 1,000 S.F. OF GROSS FLOOR AREA
	WAREHOUSE: 0.75 SPACES PER 1,000 S.F. OF GROSS FLOOR AREA
CALCULATIONS:	1,761 SQUARE FEET OF RETAIL: 8.8 SPACE PER 1,000 SQUARE FEET = 8.8 SPACES (9 SPACES)
	5,456 SQUARE FEET OF OFFICE: 3.3 SPACE PER 1,000 SQUARE FEET = 18.0 SPACES (18 SPACES)
	84,151 SQUARE FEET OF WAREHOUSE: 0.75 SPACE PER 1,000 SQUARE FEET = 63.1 SPACES (63 SPACES)
PROPOSED:	69 (INCLUDES 5 ADA SPACES) REVISOR TOTAL: 120 SPACES

* HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING AGREES TO REDUCE THE REQUIRED NUMBER OF PARKING SPACES TO 69 BASED ON A DETAILED PARKING ANALYSIS DATED SEPTEMBER 19, 2014.

LIST OF DRAWINGS

18 OF 19	PROFILES & CROSS-SECTIONS: STORMWATER
19 OF 19	DETAILS: STORMWATER MANAGEMENT

Plat No. 23773

ADDRESS CHART

PARCEL #	STREET ADDRESS
0442	9941 WASHINGTON BLVD., LAUREL, MD 20723-0000

PERMIT INFORMATION CHART

SUBDIVISION NAME	N/A	SECTION/AREA	N/A
L/F	GRID #	ZONING	TAX MAP DISTRICT
00920 - 00494	0010	CE / CLI	50
			ELEC DISTRICT
			6TH

FOR REVIEW ASSOCIATES BY: *[Signature]*

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: JAR
SURV. CHIEF: JAR
DRAWN BY: DCW
CHECK BY: DEW

CLIENT: GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

SCALE AS NOTED

DATE: MARCH 2, 2016
SHEET NO. 1 OF 19
DWG. NO. 099812001

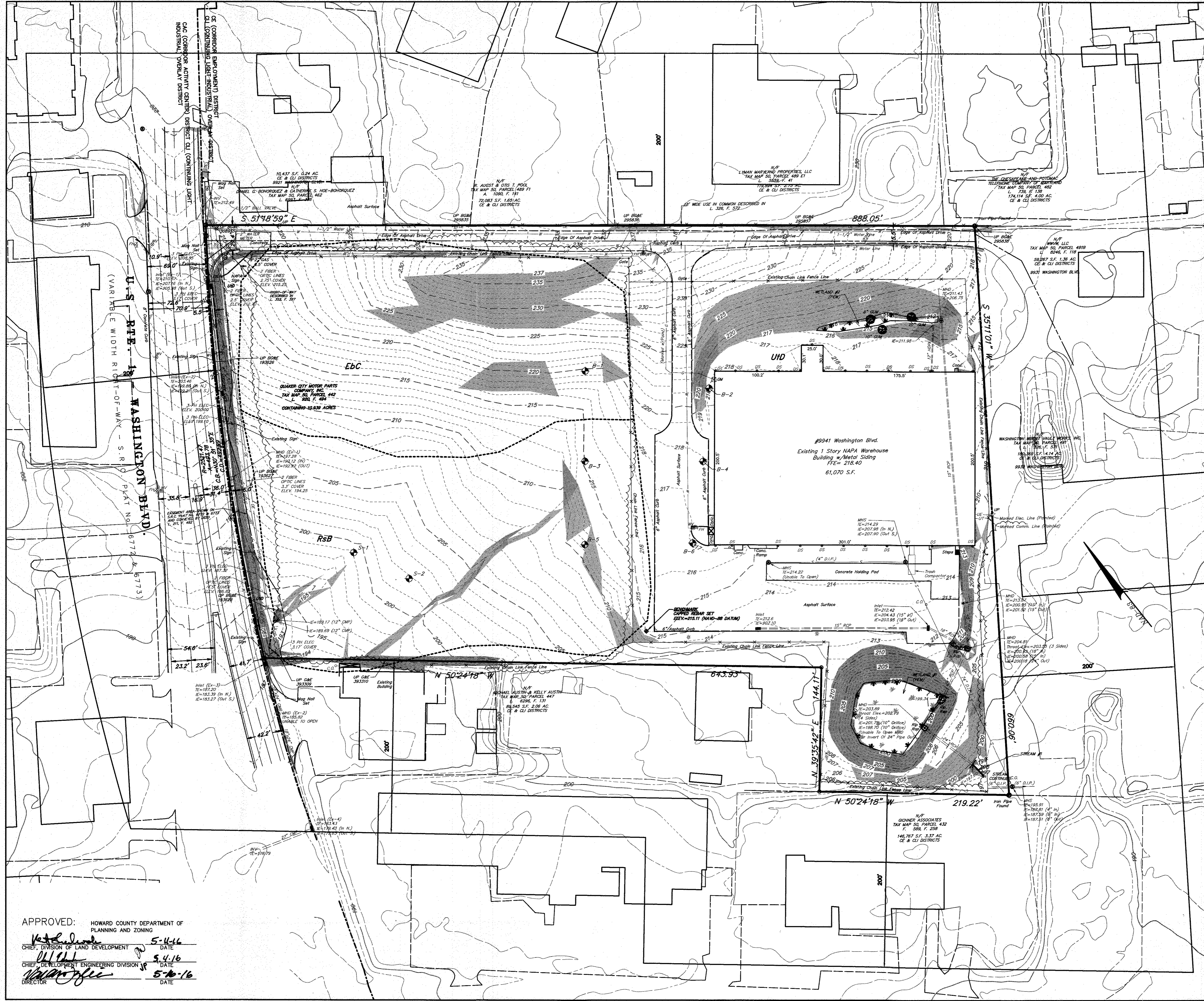
FOR REVIEW ASSOCIATES BY: *[Signature]*

NO. DATE

REVIEWER SITE DEVELOPMENT PLAN

REVISION

HOWARD COUNTY, MD



LEGEND

EXISTING BOUNDARY LINE	---
EXISTING RIGHT-OF-WAY LINE	---
EXISTING EASEMENT LINE	---
EXISTING SETBACK LINE	---
EXISTING CURB	---
EXISTING PAVEMENT	---
EXISTING ZONING BOUNDARY	---
EXISTING VEGETATION	---
DECIDUOUS TREE	○
EVERGREEN TREE	△
EXISTING TRELISE	---
EXISTING FENCE	---
EXISTING UTILITY POLE	○
EXISTING OVERHEAD TELEPHONE LINE	---
EXISTING UNDERGROUND TELEPHONE LINE	---
EXISTING OVERHEAD ELECTRIC LINE	---
EXISTING WELL	○
EXISTING WATER VALVE	○
EXISTING FIRE HYDRANT	○
EXISTING WATER LINE	---
EXISTING SANITARY SEWER MANHOLE	○
EXISTING SANITARY SEWER LINE	---
EXISTING SANITARY SEWER FORCEMAIN	---
EXISTING TELEPHONE BOX	○
EXISTING GAS LINE	---
EXISTING GAS VALVE	○
EXISTING STORM MANHOLE	○
EXISTING STORM INLET	○
EXISTING STORM HEADWALL/ENDWALL	---
EXISTING STORM PIPE	---
EXISTING STREAM	---
EXISTING WETLAND	---
TEST BORINGS	○

SLOPE ANALYSIS:

SLOPES = 15-25%	---
SLOPES = >25%	---

SOILS CLASSIFICATION

EbC: EVESBORE LOAMY SAND, 2 TO 10 PERCENT SLOPES
 RsbB: RUSSET FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES
 Uhd: URBAN LAND-UDORTMENTS COMPLEX, 0 TO 15 PERCENT SLOPES.

ALL SOILS ARE NON-HYDRIC, WITHOUT HYDRIC INCLUSIONS, AND DO NOT EXHIBIT ANY SIGNIFICANT EROSION POTENTIAL.

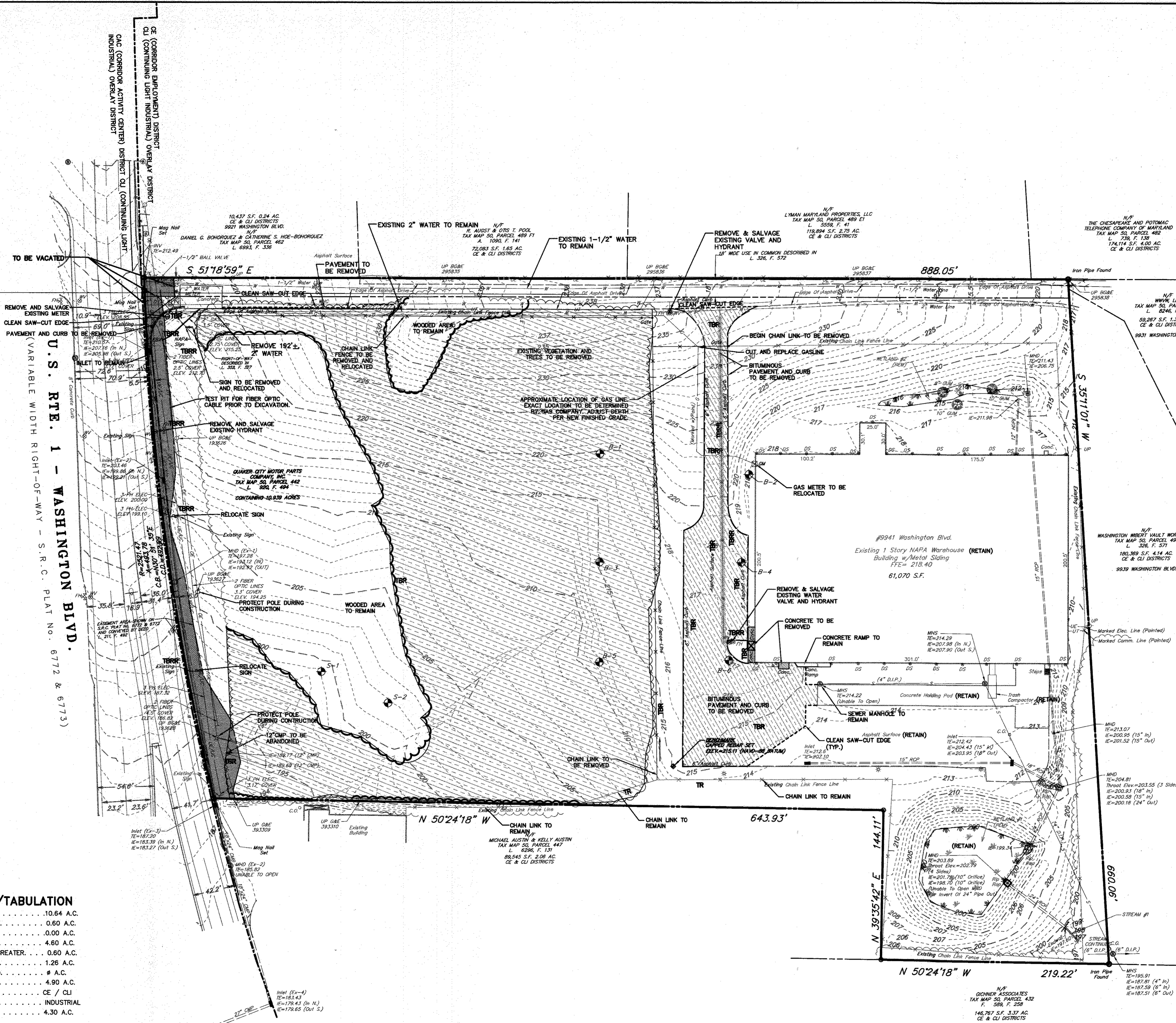
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 5-4-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5-4-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5-10-16
 DIRECTOR DATE

REVIEW ASSOCIATES, INC. 3020 Columbus Ave., Lancaster, PA 17603 Phone: (717) 394-3721 • Fax: (717) 394-1093 Email: review@review.com Website: www.review.com	
CLIENT GENUINE PARTS COMPANY 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700	MANAGER: DAVID D. MILLER, P.E. DESIGN BY: CHD BY: DEW JAR SURV. CHIEF: FELDBOOK NO. DATA COLLECTOR DCW CHD BY: DEW
EXISTING CONDITIONS PLAN: SLOPE ANALYSIS SITE DEVELOPMENT PLAN FOR NAPA WASHINGTON	DATE: MARCH 2, 2016 SHEET NO. 2 OF 19 DWG. NO. 099812001
HOWARD COUNTY, MD SCALE: 1" = 50' 0' 25' 50' 100' 150'	
REVISIONS: NO. DATE REVISION 01/04/17 REVISED SITE DEVELOPMENT PLAN 02/01/17	



LEGEND

EXISTING BOUNDARY LINE	---
EXISTING RIGHT-OF-WAY LINE	---
EXISTING EASEMENT LINE	---
EXISTING SETBACK LINE	---
EXISTING CURB	---
EXISTING PAVEMENT	---
EXISTING ZONING BOUNDARY	---
EXISTING VEGETATION	---
DECIDUOUS TREE	○
EVERGREEN TREE	△
EXISTING TREELINE	---
EXISTING FENCE	---
EXISTING MAILBOX	---
EXISTING UTILITY POLE	---
EXISTING OVERHEAD TELEPHONE LINE	---
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EXISTING WATER VALVE	---
EXISTING FIRE HYDRANT	---
EXISTING WATER LINE	---
EXISTING SANITARY SEWER MANHOLE	---
EXISTING SANITARY SEWER LINE	---
EXISTING SANITARY SEWER FOREMAIN	---
EXISTING STORM MANHOLE	---
EXISTING STORM INLET	---
EXISTING STORM HEADWALL/ENDWALL	---
EXISTING STORM PIPE	---
TEST BORINGS	---
TREES TO BE REMOVED	X
TO REMAIN	TR
TO BE REMOVED AND RELOCATED	TBR
PAVING TO BE REMOVED	---
CONCRETE TO BE REMOVED	---
VEGETATION TO BE REMOVED	---
EASEMENTS TO BE VACATED	---

GENERAL NOTES

- A FOREST STAND DELINEATION WAS PREPARED BY RETTEW ASSOCIATES, INC., DATED JANUARY, 2014. NO SPECIMEN TREES WERE OBSERVED ON THE SITE.
- TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
- THERE ARE NO FLOODPLAIN ON THIS PROPERTY.

SITE ANALYSIS DATA/TABULATION

A) TOTAL PROJECT AREA	10.84 A.C.
B) AREA OF WETLANDS AND BUFFER	0.60 A.C.
C) AREA OF 100-YR. FLOODPLAIN	0.00 A.C.
D) AREA OF FOREST	4.80 A.C.
E) AREA OF STEEP SLOPES 25% OR GREATER	0.60 A.C.
F) AREA OF DEDICATION	1.26 A.C.
G) HIGHLY ERODIBLE SOILS (K > 0.35)	9 A.C.
H) LIMIT OF DISTURBED AREA	4.90 A.C.
I) PRESENT ZONING DESIGNATION	CE / CLI
J) PROPOSED USE	INDUSTRIAL
L) IMPERVIOUS COVER	4.30 A.C.

SPECIMEN TREE CHART

TAG	SPECIES, SIZE (DBH)	COMMENT	STATUS
N/A	NONE	NO SPECIMEN TREES OR SPECIMENS GREATER THAN 30" DIAMETER BREAST HEIGHT (DBH) WERE OBSERVED WITHIN THE STAND.	N/A

FOREST STAND ANALYSIS TABLE

KEY	A. TYPE OF COMMUNITY	B. AREA	C. SOIL INFORMATION			D. EXISTING VEGETATION	E. STAND CHARACTERISTICS KEY			F. FOREST AREA IN SEN. ENV.	G. HABITAT VALUE
			1. SOILS KEY	2. TYPICAL FOREST COVER FOR SOILS TYPE	3. WOODLAND SUITABILITY INDEX		1. SIZE (DIA)	2. AGE (YRS)	3. GENERAL CONDITION		
F-1	MIXED DECIDUOUS	6.4 AC.	EBc R8b	HARDWOODS	-	OAKS, MAPLES, BLACK GUM	2.20	40	GOOD	N/A	GOOD

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 5-11-16

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 5-4-16

DIRECTOR: *[Signature]* DATE: 5-10-16

FOR REVIEW ASSOCIATES BY: *[Signature]*

CLIENT: GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: CHD BY: DEW
SURV. CHIEF: FLEDBOOK NO. DMV COLLECTOR
DRAWN BY: DCW
SCALE: 1" = 50'

EXISTING CONDITIONS PLAN: DEMOLITION
SITE DEVELOPMENT PLAN
FOR
NAPA WASHINGTON

DATE: MARCH 2, 2016
SHEET NO. 3 OF 19
DWG. NO. 099812001

HOWARD COUNTY, MD

PUBLIC FOREST CONSERVATION EASEMENT CURVE TABLE				
CURVE #	RADIUS	ARC	CHORD BEARING	CHORD
CF1	162.47'	66.82'	S20° 26' 40"W	66.35'
CF2	18.90'	24.01'	N87° 58' 21"E	22.42'

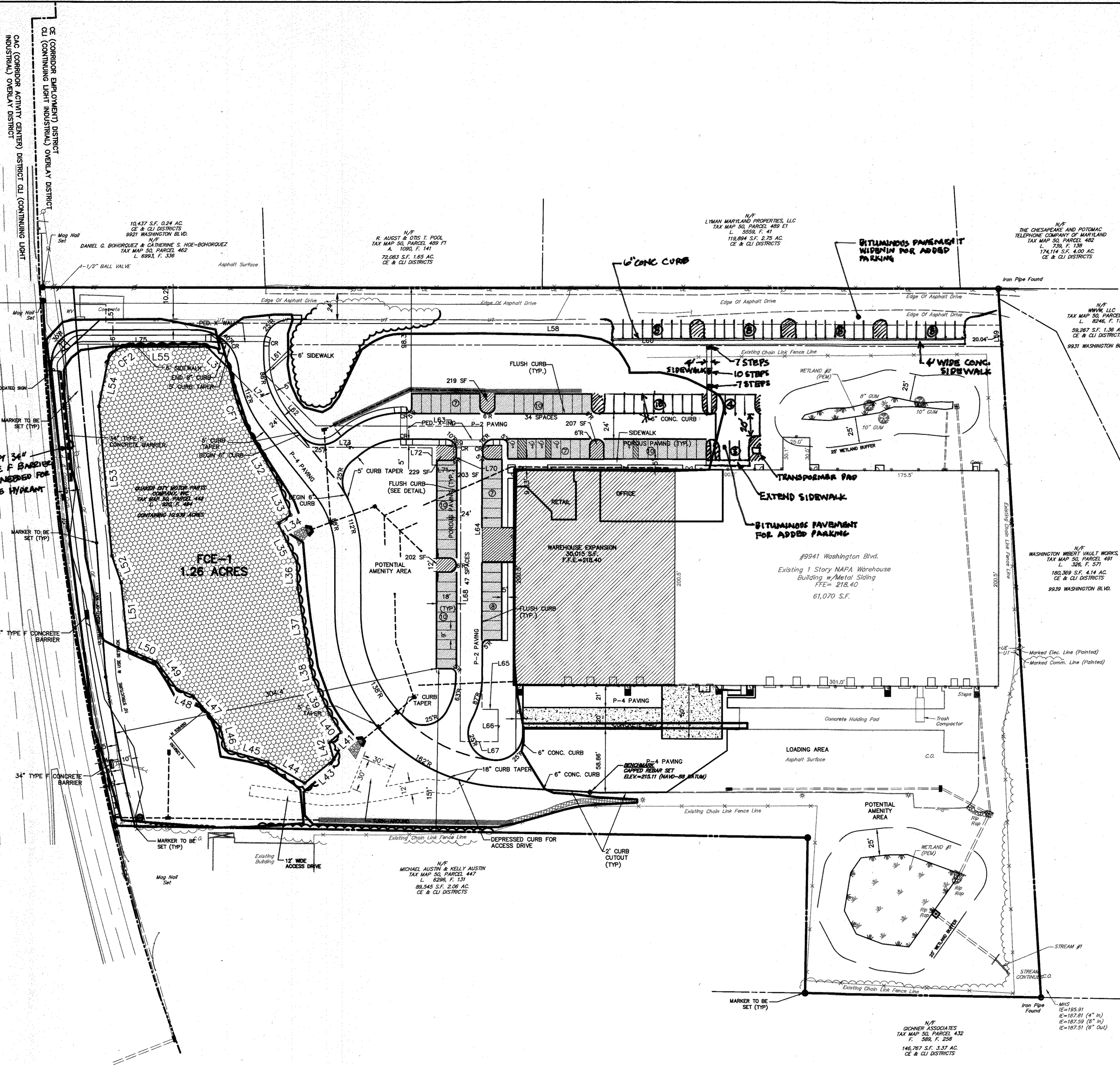
PUBLIC FOREST CONSERVATION EASEMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L31	S06° 15' 00"E	30.18'
L32	S08° 35' 39"W	47.92'
L33	S17° 05' 26"W	32.41'
L34	N83° 28' 06"W	14.02'
L35	S12° 51' 32"W	40.13'
L36	S36° 39' 38"W	24.47'
L37	S29° 25' 34"W	73.95'
L38	S24° 47' 09"W	11.60'
L39	S14° 49' 46"W	35.90'
L40	S06° 23' 56"W	20.56'
L41	S87° 02' 47"W	14.49'
L42	S23° 33' 21"W	16.16'
L43	S89° 21' 52"W	35.00'
L44	N21° 15' 00"W	39.80'
L45	N35° 32' 26"W	40.11'
L46	N24° 11' 09"E	21.81'
L47	N02° 11' 24"W	39.07'
L48	N29° 23' 51"W	15.71'
L49	N02° 09' 53"E	31.76'
L50	N28° 08' 51"W	28.98'
L51	N32° 41' 09"E	62.87'
L52	N19° 32' 45"E	26.53'
L53	N33° 39' 12"E	139.07'
L54	N49° 53' 45"E	41.46'
L55	S51° 28' 47"E	75.58'

20' PUBLIC WATER & UTILITY EASEMENT LINE TABLE		
LINE #	DIRECTION	LENGTH
L56	N51° 15' 00"W	29.00'
L57	N35° 45' 00"E	17.28'
L58	N51° 15' 00"W	831.52'
L59	N35° 11' 01"E	20.04'
L60	S51° 15' 00"E	672.55'
L61	N83° 45' 00"E	28.25'
L62	N06° 14' 59"W	78.53'
L63	N51° 15' 00"W	154.40'
L64	N38° 45' 00"E	263.29'
L65	N51° 15' 02"W	15.01'
L66	N38° 44' 58"E	30.00'
L67	S51° 15' 02"E	35.01'
L68	S38° 45' 00"W	273.29'
L69	S51° 15' 00"E	6.67'
L70	N38° 45' 00"E	16.08'
L71	S51° 15' 00"E	20.00'
L72	S38° 45' 00"W	16.08'
L73	S51° 15' 00"E	116.02'
L74	S06° 15' 00"E	135.06'
L75	S51° 15' 00"E	118.12'

20' PUBLIC WATER & UTILITY EASEMENT CURVE TABLE				
CURVE #	RADIUS	ARC	CHORD BEARING	CHORD
CW1	5246.20'	37.39'	S34° 21' 18"W	37.39'

ULTIMATE RIGHT-OF-WAY CURVE TABLE				
CURVE	RADIUS	ARC	CHORD BEARING	CHORD LENGTH
C1	2521.48'	493.78'	N30° 51' 35"E	492.99'
C2	2968.37'	53.49'	N27° 18' 55"E	53.49'
C3	2138.31'	44.52'	N25° 47' 52"E	44.52'

U.S. RTE. 1 - WASHINGTON BLVD.
 (VARIABLE WIDTH RIGHT-OF-WAY - S.R.C. PLAT NO. 6772 & 6773)



LEGEND	
EXISTING BOUNDARY LINE	---
PROPOSED LOT LINE	---
EXISTING RIGHT-OF-WAY LINE	---
PROPOSED SETBACK LINE	---
EXISTING CURB	---
PROPOSED CURB	---
EXISTING PAVEMENT	---
PROPOSED PAVEMENT	---
PROPOSED CLEAR SITE TRIANGLE	---
EXISTING ZONING BOUNDARY	---
EXISTING VEGETATION	---
DECIDUOUS TREE	---
EVERGREEN TREE	---
EXISTING TREELINE	---
PROPOSED TREELINE	---
EXISTING FENCE	---
PROPOSED FENCE	---
PROPOSED PAVING (P-2)	---
POREUS PAVING	---
PROPOSED PAVING (P-4)	---
PROPOSED CONCRETE	---
EXISTING EASEMENTS	---
ADA CURB RAMP	---

LAYOUT NOTES:	
1.	REFER TO MSHA ACCESS PERMIT PLANS, DATED DEC. 11, 2015, FOR WORK WITHIN SHA RIGHT-OF-WAY.

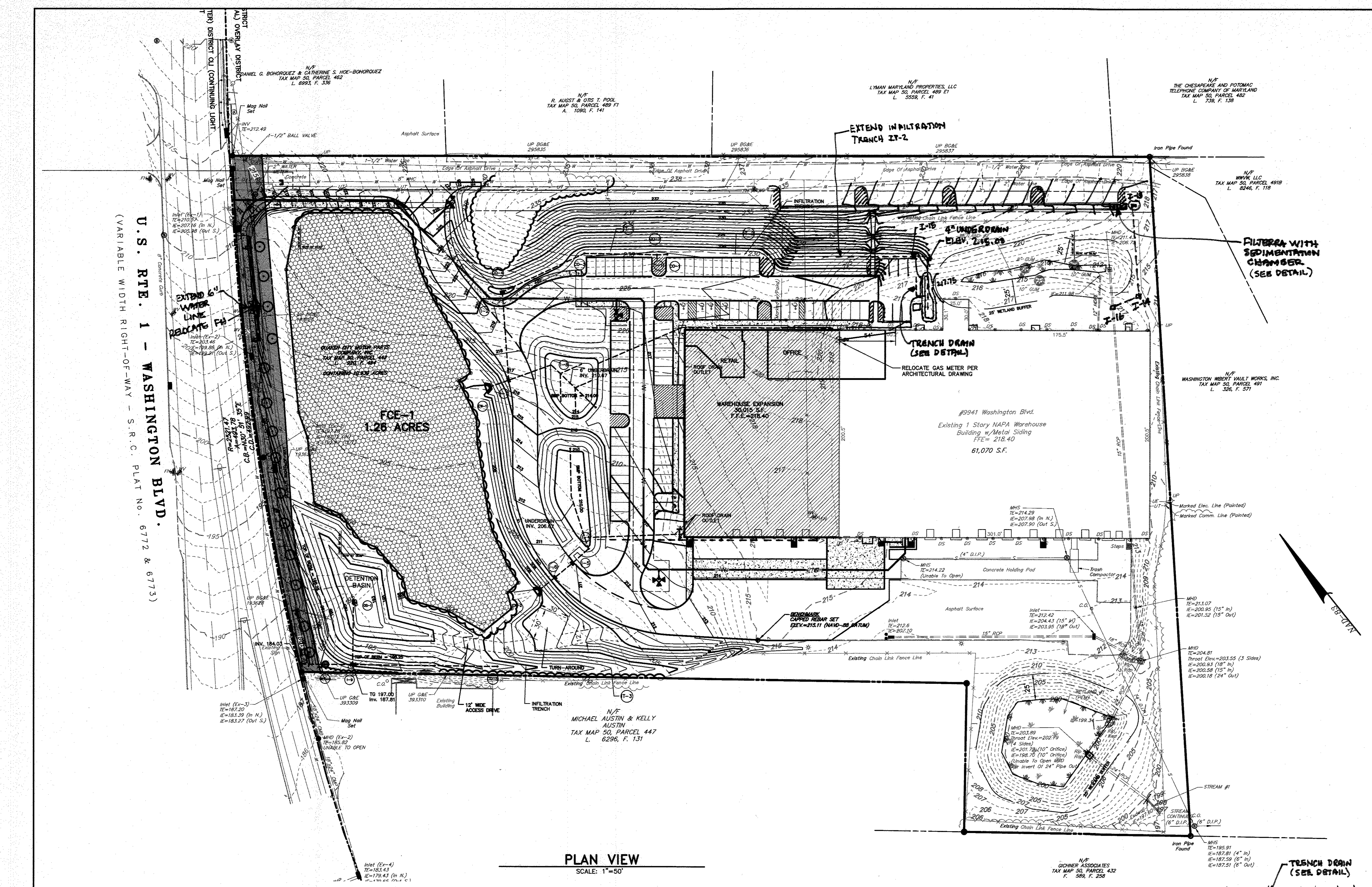
AMENITY AREA NOTES

- A MINIMAL AREA OF 22,660 SQUARE FEET (SF) IS REQUIRED AS AN AMENITY AREA FOR EMPLOYEES AND VISITORS. SEATING AND LANDSCAPING SHALL BE PROVIDED. THE POTENTIAL AMENITY AREAS SHOWN ON THIS PLAN ARE SUGGESTIONS, AND CAN BE RELOCATED AS DIRECTED BY THE OWNER.
- MINIMAL AREA CALCULATION:
 SITE AREA: 10.94 ACRES
 WETLANDS AND BUFFERS: 0.6 ACRES
 NET AREA: 10.34 ACRES
 AMENITY AREA: 0.52 ACRE (22,660 SF) (5% OF NET AREA)
- A MINIMAL OF 0.25 ACRE PER AMENITY AREA IS REQUIRED.

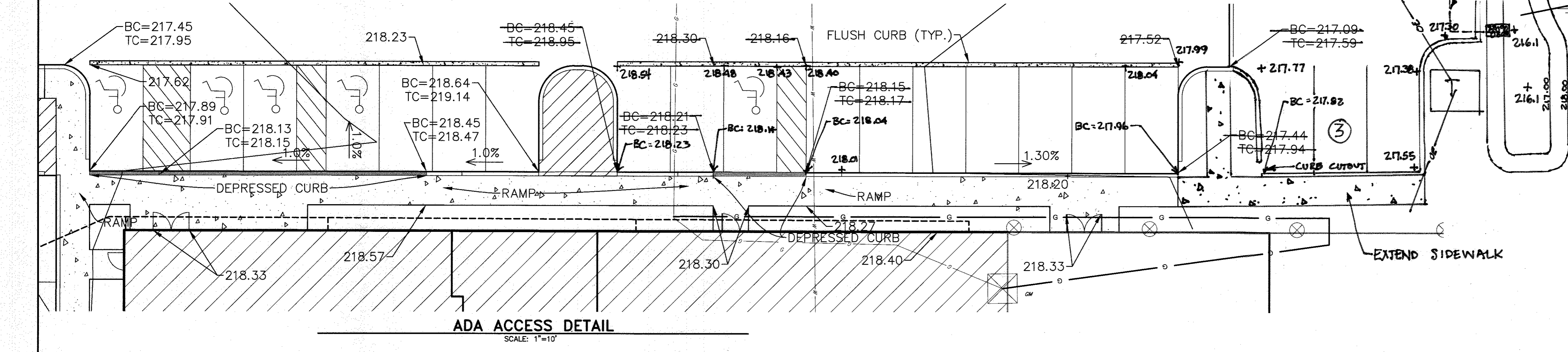
- NOTE:**
- ADDITIONAL 19 PARKING SPACES LOCATED ADJACENT TO BUILDING EXPANSION ARE SCHEDULED TO BE CONSTRUCTED IN THE SPRING TO EARLY SUMMER OF 2017.
 - THE 32 PARKING SPACES ALONG WILBUR LANE ARE SCHEDULED TO BE CONSTRUCTED IN A LATER PHASE, DATE TO BE DETERMINED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: *[Signature]* DATE: 5-11-16
 Chief, Development Engineering Division: *[Signature]* DATE: 5-4-16
 Director: *[Signature]* DATE: 5-10-16

FOR REVIEW ASSOCIATES BY:		DATE	
MANAGER: DAVID D. MILLER, P.E.	CHD BY: DEW	DATE	REVISION
DESIGN BY: DEW	SURV. CHIEF: JURY	DATE	
CLIENT: GENUINE PARTS COMPANY 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700	DRAWN BY: DCW	DATE	
PROJECT: LAYOUT PLAN SITE DEVELOPMENT PLAN FOR NAPA WASHINGTON	DRAWING REFERENCE: C:\retire\retire\099812001-01.dwg	SCALE: 1"=50'	DATE
RETIRE Associates, Inc. 3020 Columbia Ave., Lancaster, PA 17603 Phone (717) 394-3721 • Fax (717) 394-1083 Email: retire@retire.com Website: www.retire.com	ENGINEER: [Signature]		
DATE: MARCH 2, 2016		SHEET NO. 4 OF 19	
DWG. NO. 099812001		HOWARD COUNTY, MD	



PLAN VIEW
SCALE: 1"=50'



ADA ACCESS DETAIL
SCALE: 1"=10'

LEGEND

EXISTING BOUNDARY LINE	---
PROPOSED LOT LINE	----
EXISTING RIGHT-OF-WAY LINE	=====
EXISTING CURB	=====
PROPOSED CURB	=====
EXISTING PAVEMENT	=====
PROPOSED PAVEMENT	=====
EXISTING ZONING BOUNDARY	=====
EXISTING VEGETATION	○
EXISTING TREELINE	=====
PROPOSED TREELINE	=====
EXISTING CONTOUR LINE	=====
PROPOSED CONTOUR LINE	=====
PROPOSED SPOT ELEVATION	+500.00
PROPOSED FINISHED FLOOR ELEVATION	F.F.E.=500.00
EXISTING STORM MANHOLE	○
PROPOSED STORM MANHOLE	○
EXISTING STORM INLET	○
PROPOSED STORM INLET	○
EXISTING STORM HEADWALL/ENDWALL	○
PROPOSED STORM HEADWALL/ENDWALL	○
PROPOSED PIPE OUTLET PROTECTION	○
EXISTING STORM PIPE	---
PROPOSED STORM PIPE	---
PROPOSED STORM STRUCTURE LABEL	○-2
EXISTING FENCE	=====
EXISTING UTILITY POLE	○
EXISTING OVERHEAD TELEPHONE LINE	-----
EXISTING UNDERGROUND TELEPHONE LINE	-----
EXISTING OVERHEAD ELECTRIC LINE	-----
EXISTING TELEPHONE BOX	○
EXISTING GAS LINE	-----
EXISTING GAS VALVE	○
EXISTING WELL	○
EXISTING WATER VALVE	○
EXISTING FIRE HYDRANT	○
EXISTING WATER LINE	-----
PROPOSED WATER VALVE	○
PROPOSED THRUST BLOCK	○
PROPOSED WATER LINE	-----
EXISTING SANITARY SEWER MANHOLE	○
EXISTING SANITARY SEWER LINE	-----
EXISTING SANITARY SEWER FORCEMAIN	-----
PROPOSED SANITARY SEWER FLOW ARROW	→
PROPOSED SANITARY SEWER MANHOLE	○
PROPOSED SANITARY SEWER LINE	-----
PROPOSED SANITARY SEWER STRUCTURE LABEL	○

LIGHTING AND LANDSCAPING NOTES:

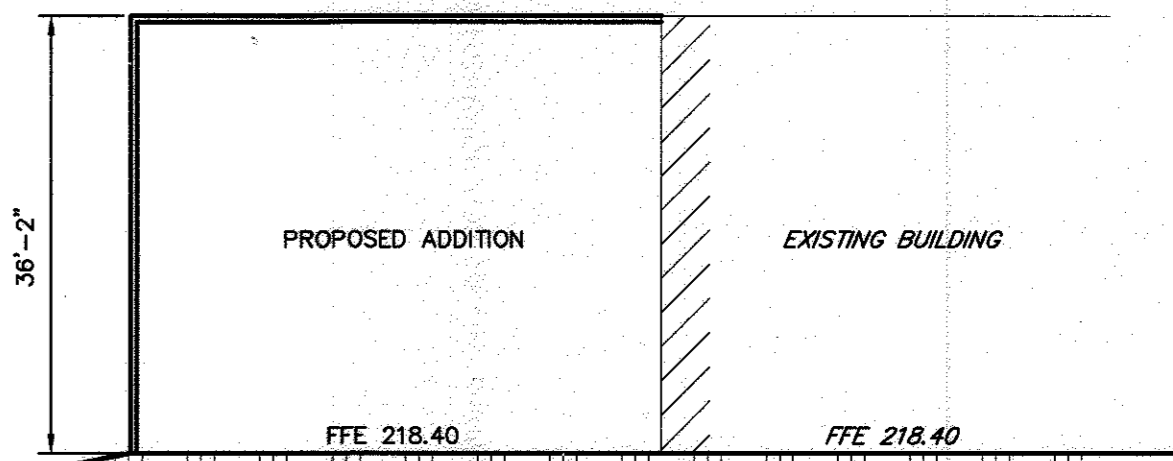
1. ALL LIGHTING SHALL BE WALL-MOUNTED AS PER ARCHITECTURAL PLANS.

WATER AND SEWER NOTES:

1. REFER TO CONTRACT NO. 44-4884-D, NAPA WASHINGTON, NOV. 24, 2015, FOR WATER AND SEWER PLANS.

MSHA NOTES:

1. REFER TO MSHA ACCESS PERMIT PLANS, DATED DEC. 11, 2015, FOR WORK WITHIN SHA RIGHT-OF-WAY.



BUILDING ELEVATION
NOT TO SCALE

NOTE:
REFER TO ARCHITECTURAL PLANS FOR DETAILED INFORMATION.

- NOTES:**
- ADDITIONAL 19 PARKING SPACES LOCATED ADJACENT TO BUILDING EXPANSION ARE SCHEDULED TO BE CONSTRUCTED IN THE SPRING OR EARLY SUMMER, 2017
 - THE 32 PARKING SPACES ALONG WILKUS LANE ARE SCHEDULED TO BE CONSTRUCTED IN A LATER PHASE, DATE TO BE DETERMINED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: MARCH 2, 2016

SHEET NO. 5 OF 19

DWG. NO. 099812001

REVIEW ASSOCIATES, INC.

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: DEW
SURV. CHIEF: JURY
DRAWN BY: DCW

CLIENT: GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

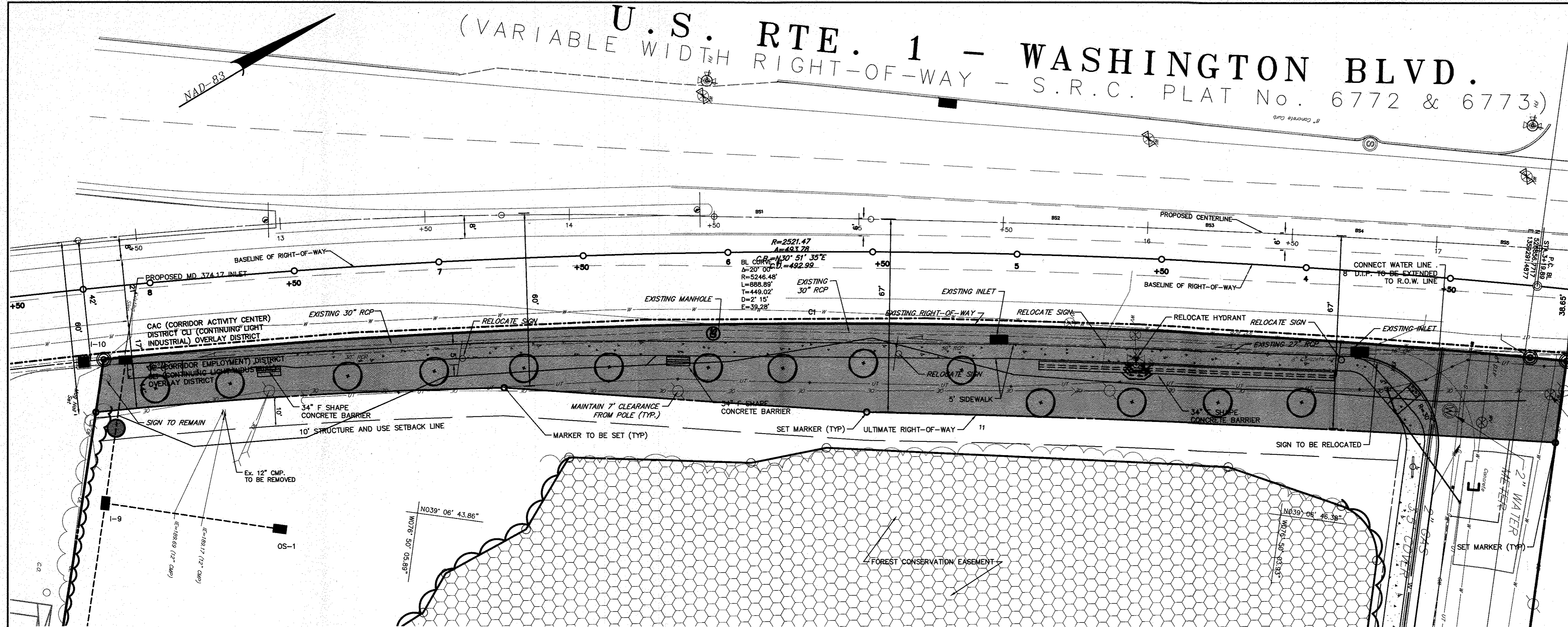
SCALE: AS NOTED

GRADING AND UTILITY PLAN
SITE DEVELOPMENT PLAN
FOR
NAPA WASHINGTON
HOWARD COUNTY, MD

DATE: MARCH 2, 2016
SHEET NO. 5 OF 19
DWG. NO. 099812001

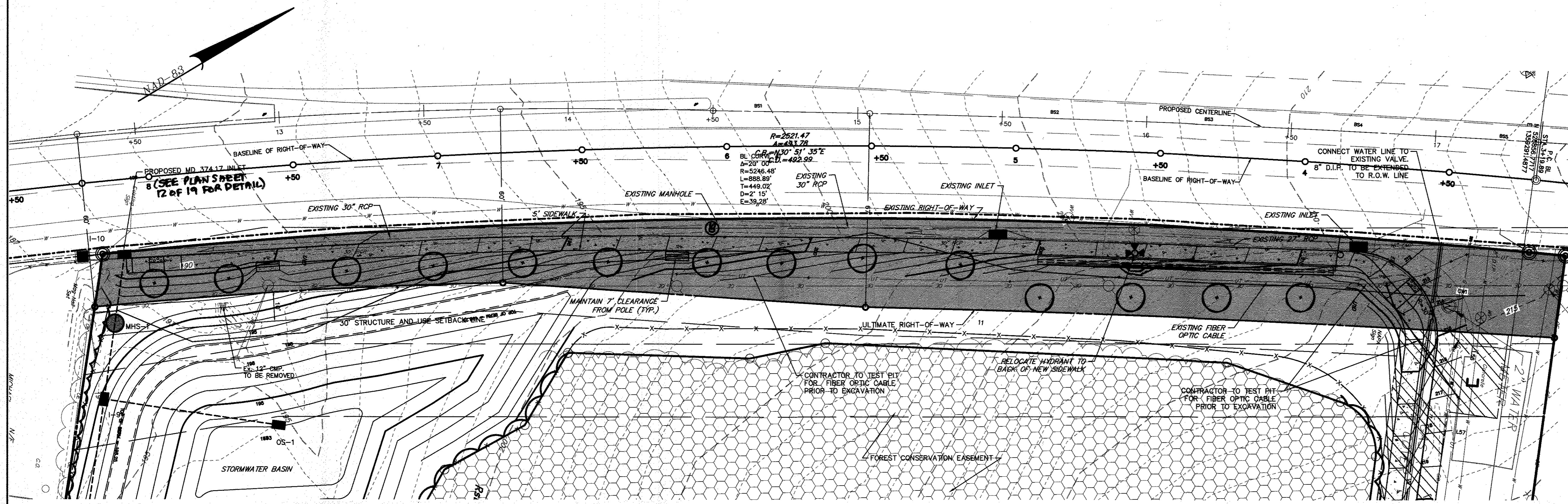
NO. 01/06/10/17
REV. SITE DEVELOPMENT PLAN
REVISION

U.S. RTE. 1 - WASHINGTON BLVD.
 (VARIABLE WIDTH RIGHT-OF-WAY - S.R.C. PLAT No. 6772 & 6773)



ROUTE 1 ACCESS PERMIT LAYOUT PLAN

SCALE: 1"=20'



ROUTE 1 ACCESS PERMIT GRADING PLAN

SCALE: 1"=20'

LEGEND

- EXISTING BOUNDARY LINE
- PROPOSED LOT LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING CURB
- PROPOSED CURB
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ZONING BOUNDARY
- EXISTING VEGETATION
- DECIDUOUS TREE
- EVERGREEN TREE
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- PROPOSED SPOT ELEVATION
- PROPOSED FINISHED FLOOR ELEVATION
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING STORM INLET
- PROPOSED STORM INLET
- EXISTING STORM HEADWALL/ENDWALL
- PROPOSED STORM HEADWALL/ENDWALL
- PROPOSED PIPE OUTLET PROTECTION
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED STORM STRUCTURE LABEL
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING TELEPHONE BOX
- EXISTING GAS LINE
- EXISTING WATER VALVE
- EXISTING WELL
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED THRUST BLOCK
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER FOREMAN
- PROPOSED SANITARY SEWER FLOW AROUND
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY SEWER STRUCTURE LABEL
- PROPOSED AREA TO BE DEDICATED AS RIGHT-OF-WAY

NOTES

1. REFER TO CONTRACT No. 44-4884-D, NAPA WASHINGTON WATER PLAN, DATED APR. 27, 2015, FOR WATER LINE CONNECTION.
2. THE PROTECTION AND OR RELOCATION OF UTILITY POLES, RELOCATION AND OR INSTALLATION OF SIGNS, RELOCATION OF FIRE HYDRANT, AND CONNECTION OF WATER LINE TO EXISTING MAIN LINE WITHIN ROUTE 1 RIGHT-OF-WAY MUST CONFORM TO THE CONDITIONS OF A SHA UTILITY PERMIT.
3. ALL SIGNS SHALL CONFORM SECTION 821, BREAKAWAY BASE SUPPORT SYSTEM.
4. EXISTING SIGNS MAY BE RELOCATED DURING CONSTRUCTION. REMOVE EXISTING AND RELOCATED SIGNS WHEN THE NEW SIGNING SYSTEM IS COMPLETE. ALL NEW SIGNS IN A PARTICULAR SEQUENCE GIVING SIMILAR DIRECTIONS SHALL BE INSTALLED BEFORE EXISTING SIGNS ARE REMOVED. AFTER REMOVING THE SIGN STRUCTURE, REMOVE THE REMAINING CONCRETE FOUNDATIONS AS SPECIFIED IN 207.03.01. HOLES LEFT AFTER SIGN REMOVAL SHALL BE BACKFILLED, COMPACTED, AND RESTORED TO CONDITIONS SIMILAR TO THE SURROUNDING AREA.
5. SIDEWALK CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 603, SIDEWALK.
6. THE DETECTABLE WARNING SURFACE SHALL CONFORM TO THE MOST RECENT ACCESSIBILITY GUIDELINES OF THE AMERICANS WITH DISABILITIES ACT (ADA).
7. REFER TO MSHA ACCESS PERMIT PLAN, BY RETTEW ASSOCIATES, INC., DATED DECEMBER 11, 2015 FOR DETAILS AND SITE INFORMATION FOR WORK PERFORMED IN MSHA RIGHT-OF-WAY

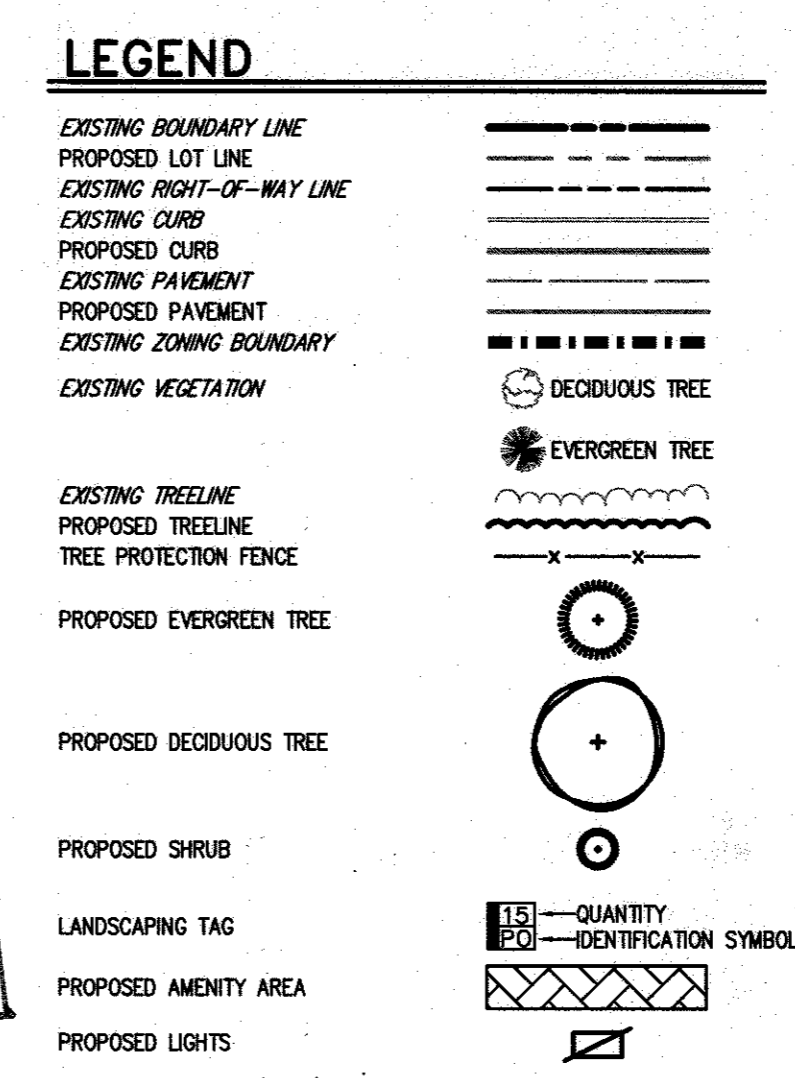
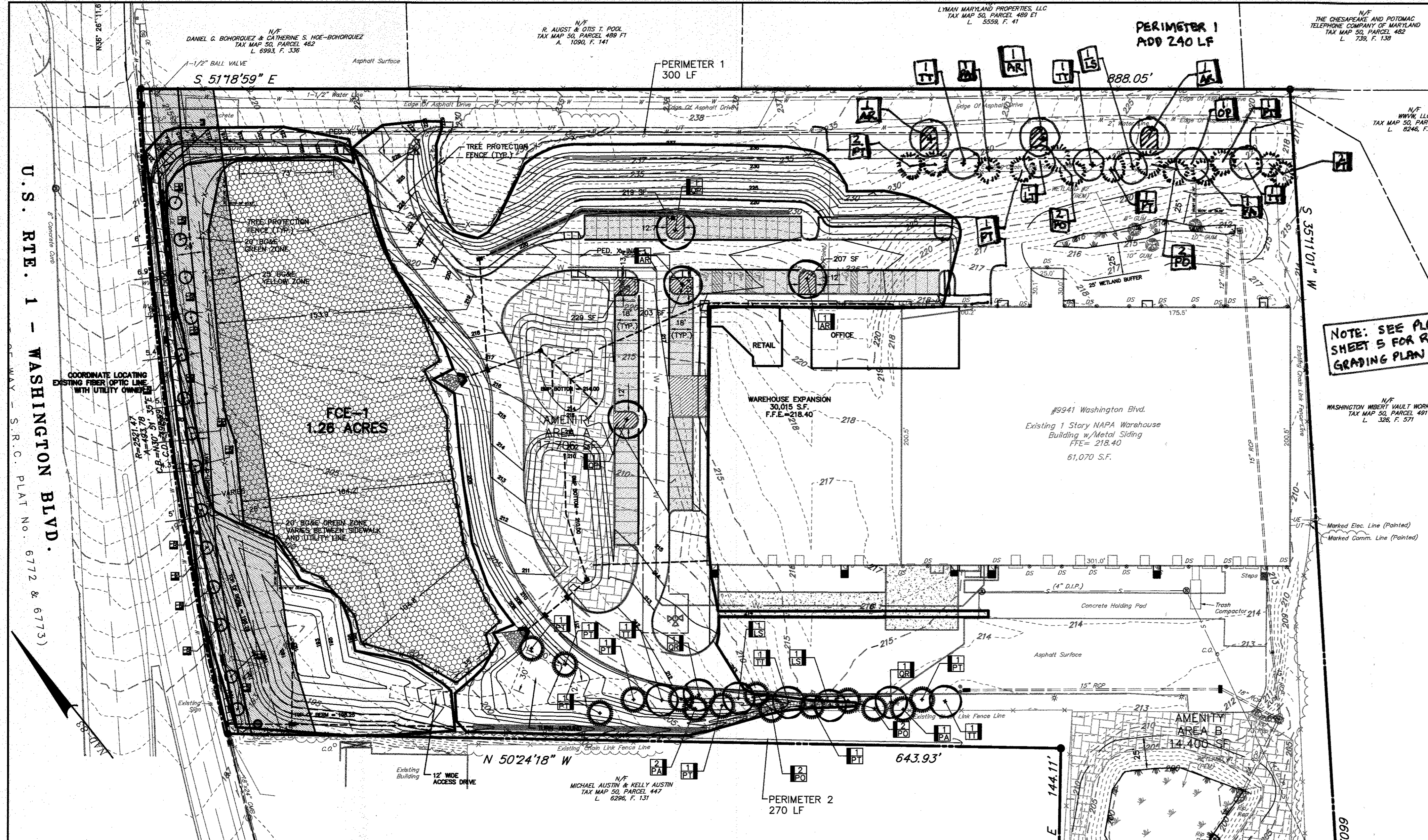
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Valley
 CHIEF, DIVISION OF LAND DEVELOPMENT 5-11-16
 DATE

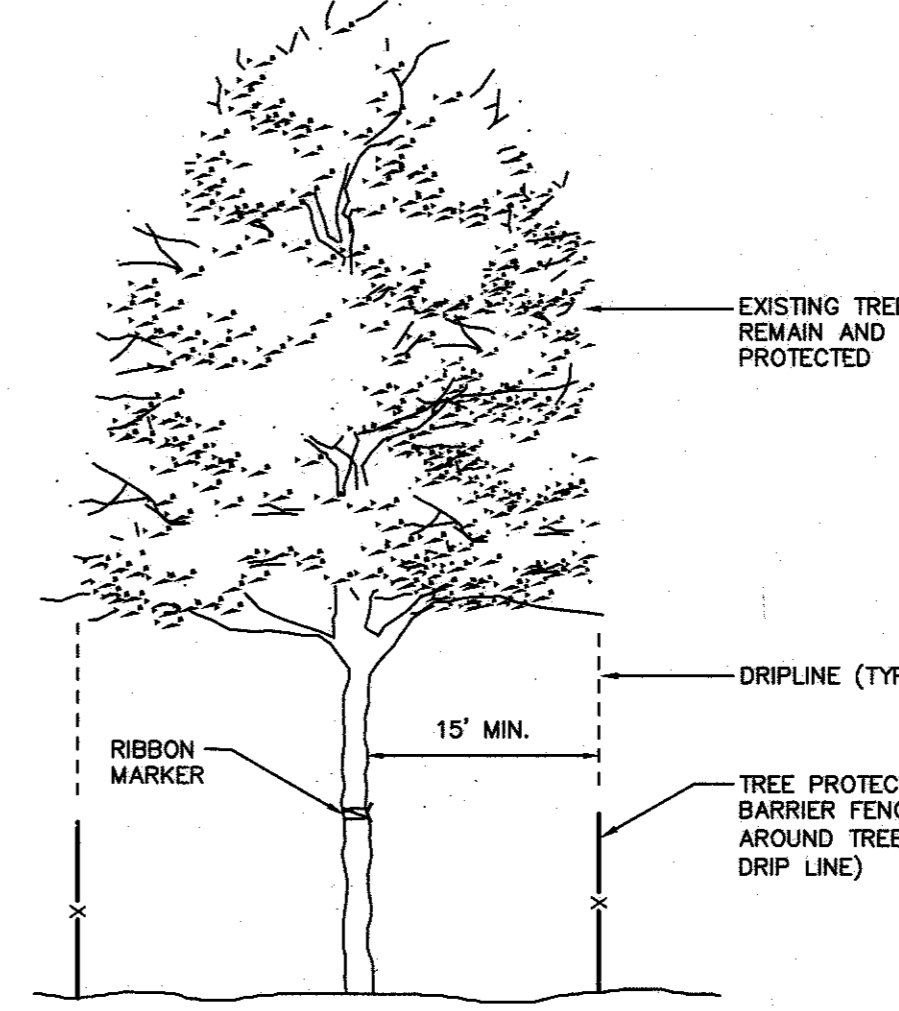
Valley
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5-11-16
 DATE

Valley
 DIRECTOR 5-16-16
 DATE

FOR REVIEW ASSOCIATES BY:		DATE	
		DATE	
MANAGER:	DAVID D. MILLER, P.E.	DESIGN BY:	CHD BY: DEW
DESIGN BY:	JAR	SURV. CHIEF:	DEW
FOR REVIEW ASSOCIATES BY:	RETTEW ASSOCIATES, INC.	DATE:	DATE
CLIENT:	GENUINE PARTS COMPANY 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700	SCALE:	AS NOTED
ROUTE 1 ACCESS PERMIT PLAN	SITE DEVELOPMENT PLAN	FOR	NAPA WASHINGTON
HOWARD COUNTY, MD		DATE:	MARCH 2, 2016
SHEET NO. 6 OF 19		DWG. NO. 099812001	

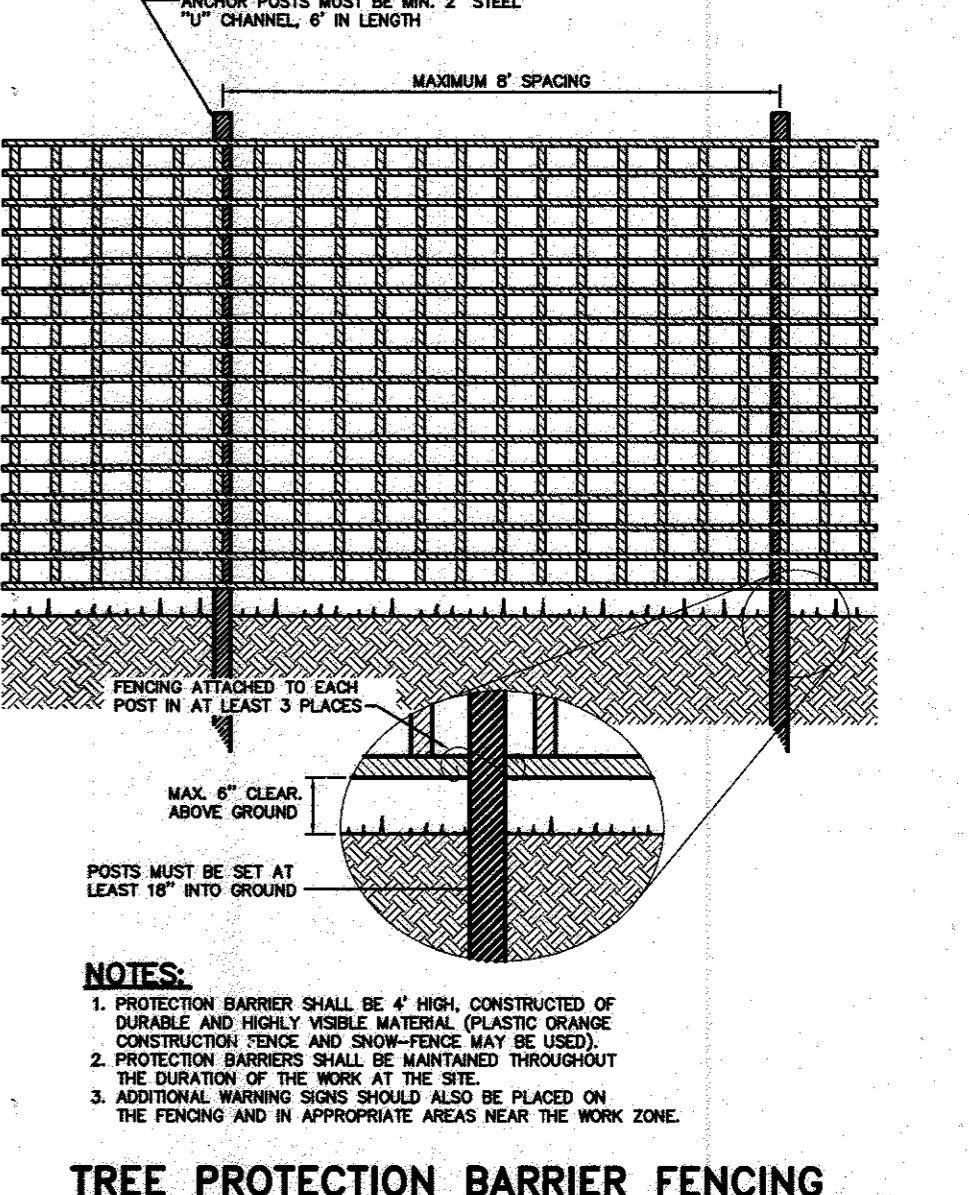
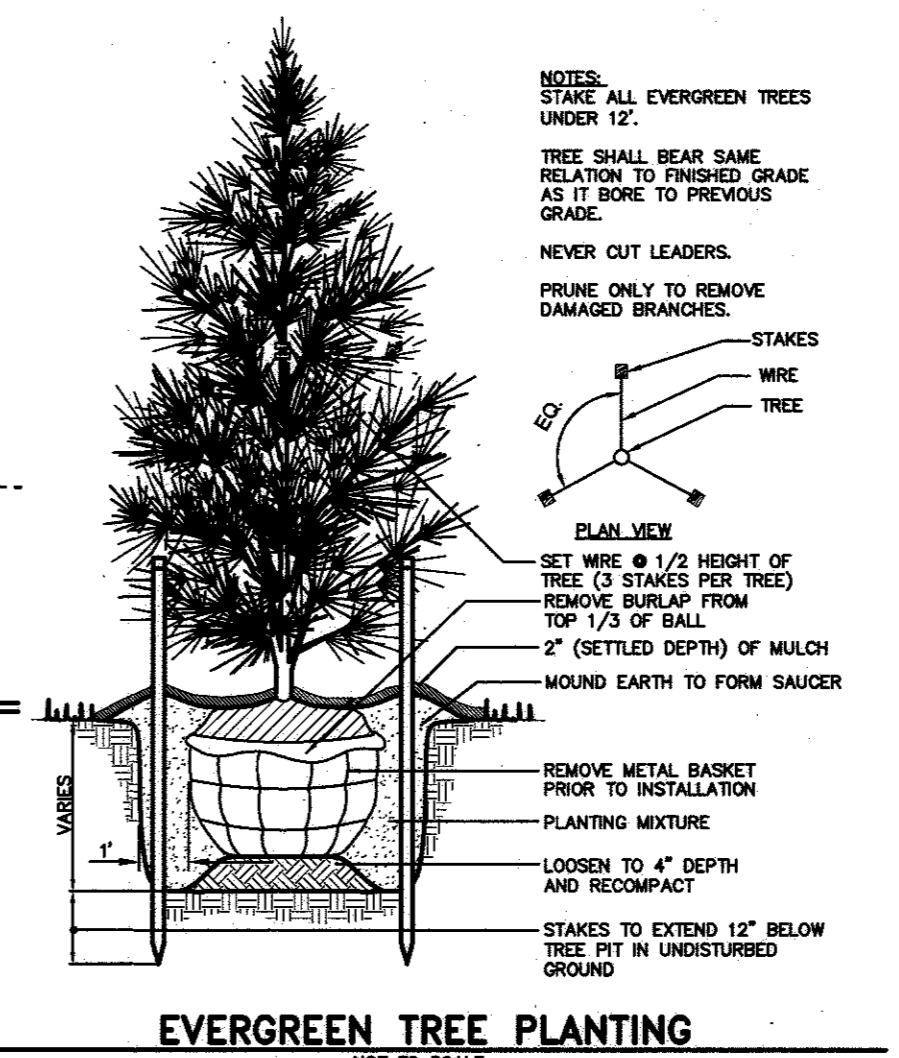


- GRADE CHANGES AND EXCAVATIONS SHALL NOT ENROACH UPON THE TREE PROTECTION ZONE.
- TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED, OR PULLED INTO A TREE PROTECTION ZONE OR INTO TREES TO BE RETAINED.
- NO TOXIC MATERIALS, INCLUDING PETROLEUM BASED AND DERIVED PRODUCTS SHALL BE STORED WITHIN ONE HUNDRED (100) FEET OF A TREE PROTECTION ZONE.
- THE AREA WITHIN THE TREE PROTECTION ZONE SHALL NOT BE BUILT UPON, NOR SHALL ANY MATERIALS BE STORED THERE EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION ZONE.
- SEDIMENT, RETENTION AND DETENTION BASINS SHALL NOT BE LOCATED WITHIN THE TREE PROTECTION ZONE, NOR SHALL THEY DISCHARGE INTO THE TREE PROTECTION ZONE.
- WHEN TREE STUMPS ARE LOCATED WITHIN TEN (10) FEET OF THE TREE PROTECTION ZONE, THE STUMPS SHALL ONLY BE REMOVED BY MEANS OF A STUMP GRINDER TO MINIMIZE THE EFFECT ON THE SURROUNDING ROOT SYSTEMS.
- TREE ROOTS WHICH MUST BE SEVERED SHALL BE CUT BY A BACKHOE OR SIMILAR EQUIPMENT ALIGNED RADICALLY TO THE TREE. (THIS METHOD REDUCES THE LATERAL MOVEMENT OF THE ROOTS DURING EXCAVATION, WHICH IF DONE BY OTHER METHODS, COULD DAMAGE THE INTERTWINED ROOTS OF ADJACENT TREES.)
- WITHIN FOUR (4) HOURS OF ANY SEVERANCE OF ROOTS, ALL TREE ROOTS THAT HAVE BEEN EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY AND COVERED TEMPORARILY WITH MOIST PEAT MOSS, MOIST BURLAP OR OTHER BIODEGRADABLE MATERIAL TO KEEP THEM FROM DRYING OUT UNTIL PERMANENT COVER CAN BE INSTALLED.
- IF THERE IS NO ALTERNATIVE BUT TO LOCATE A UTILITY LINE THROUGH A TREE PROTECTION ZONE, TUNNELING SHALL BE USED INSTEAD OF TRENCHING EXCEPT WHERE IN THE OPINION OF THE TOWNSHIP, SURVIVAL OF THE TREE WOULD NOT BE AFFECTED BY EITHER METHOD. THE TOWNSHIP SHALL DETERMINE THE MOST DESIRABLE LOCATION FOR THE UTILITY LINE. TRENCHES SHALL BE FILLED AS SOON AS POSSIBLE, AND TAMPED LIGHTLY TO AVOID AIR SPACES.
- MARKING THE TREE PROTECTION ZONE ON THE SITE PRIOR TO CONSTRUCTION, THE TREE PROTECTION ZONE SHALL BE DELINEATED BY THE FOLLOWING METHODS:
 - THE TREE PROTECTION ZONE THAT IS DELINEATED ON THE SITE PRIOR TO CONSTRUCTION SHALL CONFORM TO THE APPROVED DEVELOPMENT PLAN.
 - ALL TREES SCHEDULED TO REMAIN SHALL BE MARKED; WHERE GROUPS OF TREES EXIST, ONLY THE TREES ON THE EDGE NEED TO BE MARKED.
 - A SUITABLE FENCE MOUNTED ON STEEL POSTS, LOCATED THROUGH A TREE PROTECTION ZONE, TUNNELING SHALL BE USED INSTEAD OF TRENCHING EXCEPT WHERE IN THE OPINION OF THE TOWNSHIP, SURVIVAL OF THE TREE WOULD NOT BE AFFECTED BY EITHER METHOD. THE TOWNSHIP SHALL DETERMINE THE MOST DESIRABLE LOCATION FOR THE UTILITY LINE. TRENCHES SHALL BE FILLED AS SOON AS POSSIBLE, AND TAMPED LIGHTLY TO AVOID AIR SPACES.
 - IN ADDITION TO THE TREE PROTECTION ZONE, TREES MAY BE LEFT STANDING AS PROTECTION BETWEEN THE TRUNKS OF THE TREES TO BE RETAINED AND THE LIMITS OF GRADING WHEN ADDITIONAL TREES ARE USED AS PROTECTION, THE TREE PROTECTION ZONE ON THE APPROVED PLAN SHALL BE MARKED IN THE FIELD SO THAT THE ADDITIONAL BUFFER AREA IS DELINEATED. WHEN THIS METHOD OF PROTECTION IS USED, THESE ADDITIONAL TREES SHALL BE REMOVED AT THE TIME OF COMPLETION OF THE PROJECT.
- WHERE A TREE DESIGNATED FOR PRESERVATION IS SEVERELY DAMAGED BY CONSTRUCTION (OR IS CLEARLY NOT GOING TO SURVIVE) WITHIN ONE (1) YEAR OF THE END DATE OF CONSTRUCTION, TREE REPLACEMENT SHALL OCCUR AS PROVIDED FOR IN SUBSECTION D, BELOW.



TREE PROTECTION NOTES
NOT TO SCALE

TREE PROTECTION DETAIL
NOT TO SCALE



LANDSCAPING REQUIREMENTS:

- EXISTING TREE PROTECTION:**
- THE AREA BELOW THE DRIPLINE OF AN EXISTING TREE TO REMAIN SHOULD BE UNDISTURBED EITHER BY CUTTING OR FILLING IN THE DEVELOPMENT PROCESS. NO IMPERVIOUS MATERIAL SHOULD BE PLACED UNDER THE DRIPLINE AND A TREE PROTECTION FENCE WILL BE REQUIRED TO BE INSTALLED AROUND TREES AT THE LIMIT OF DISTURBANCE. SPECIFIC GUIDELINE FOR TREE PROTECTION DURING CONSTRUCTION PROCESS CAN BE FOUND IN THE FOREST CONSERVATION MANUAL.
- MAINTENANCE:**
- THE DEVELOPER IS RESPONSIBLE FOR MAINTENANCE OF THE LANDSCAPING DURING CONSTRUCTION AND IS RESPONSIBLE FOR OBTAINING A 1 YEAR GUARANTEE THAT ENSURES THE SURVIVAL OR REPLACEMENT OF ALL REQUIRED PLANT MATERIALS FOR 1 YEAR FROM DATE ON THE LANDSCAPE CERTIFICATION.
 - AT THE END OF THE MAINTENANCE PERIOD, IT IS THE DEVELOPER'S RESPONSIBILITY TO TRANSFER FORMALLY THE LONG TERM RESPONSIBILITY FOR THE REQUIRED LANDSCAPING TO THE OWNER, OR OTHER AGENT, RESPONSIBLE FOR THE LONG TERM MAINTENANCE OF THE DEVELOPMENT. MAINTENANCE RESPONSIBILITIES INCLUDE, BUT ARE NOT LIMITED TO, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES NECESSARY TO THE HEALTH AND SURVIVAL OF THE LANDSCAPING. THE REQUIRED PLANTINGS SHOULD BE MAINTAINED IN GOOD GROWING CONDITION AND, WHENEVER NECESSARY, REPLACED WITH NEW PLANT MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH LANDSCAPE REGULATIONS.
 - IN ADDITION TO PLANTING, BERMS, AND OTHER LANDFORMS INSTALLED AS PART OF THE LANDSCAPE REQUIREMENTS SHOULD BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND, WHENEVER NECESSARY, REPAIRED OR REPLACED.
- PLANTING GUIDELINES:**
- SHADE TREES SHALL BE A MINIMUM OF 2-1/2" CALIPER UNLESS OTHERWISE NOTED.
 - SMALL DECIDUOUS TREES MUST BE AT LEAST 8 - 10 FEET TALL.
 - EVERGREEN TREES SHALL BE 6 - 8 FEET TALL.

GENERAL NOTES:

- PER THE LANDSCAPE MANUAL, LANDSCAPING IS PROVIDED ONLY FOR THE ADDITIONAL DEVELOPMENT SINCE THIS PLAN DOES NOT INCREASE THE AREA BY MORE THAN 50%.
- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN THE DENIAL OR DELAY IN THE RELEASE OF THE LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- THE OWNER, TENANTS, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING PLANT MATERIALS AND BEAMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- LANDSCAPE SURETY SHALL BE IN ACCORDANCE WITH HOWARD COUNTY LANDSCAPE MANUAL, ADOPTED JANUARY 4, 1993 AND AMENDED MARCH 2, 1998, SECTION 11. INSTALLATION, SURETY AND CERTIFICATION. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FINANCIAL SURETY IN THE AMOUNT OF \$5,400 FOR THE REQUIRED 11 SHADE, 14 EVERGREENS, & 0 SHRUBS WILL BE POSTED WITH THE DEVELOPER AGREEMENT.

AMENITY AREA NOTES

- A MINIMAL AREA OF 22,520 SQUARE FEET (SF) IS REQUIRED AS AN AMENITY AREA FOR EMPLOYEES AND VISITORS. SEATING AND LANDSCAPING SHALL BE PROVIDED. THE POTENTIAL AMENITY AREAS SHOWN ON THIS PLAN ARE SUGGESTIONS, AND CAN BE RELOCATED AS DIRECTED BY THE OWNER.
- MINIMAL AREA CALCULATION:
SITE AREA: 10.94 ACRES
WETLANDS AND BUFFERS: - 0.6 ACRES
NET AREA: 10.34 ACRES
AMENITY AREA = 10.34 ACRE * 0.05 (5% OF NET AREA) = 0.517 ACRE (22,520 SF)
- A MINIMAL OF 0.25 ACRE PER AMENITY AREA IS REQUIRED.

PLANT SCHEDULE C - ROUTE 1 STREET TREE LANDSCAPING

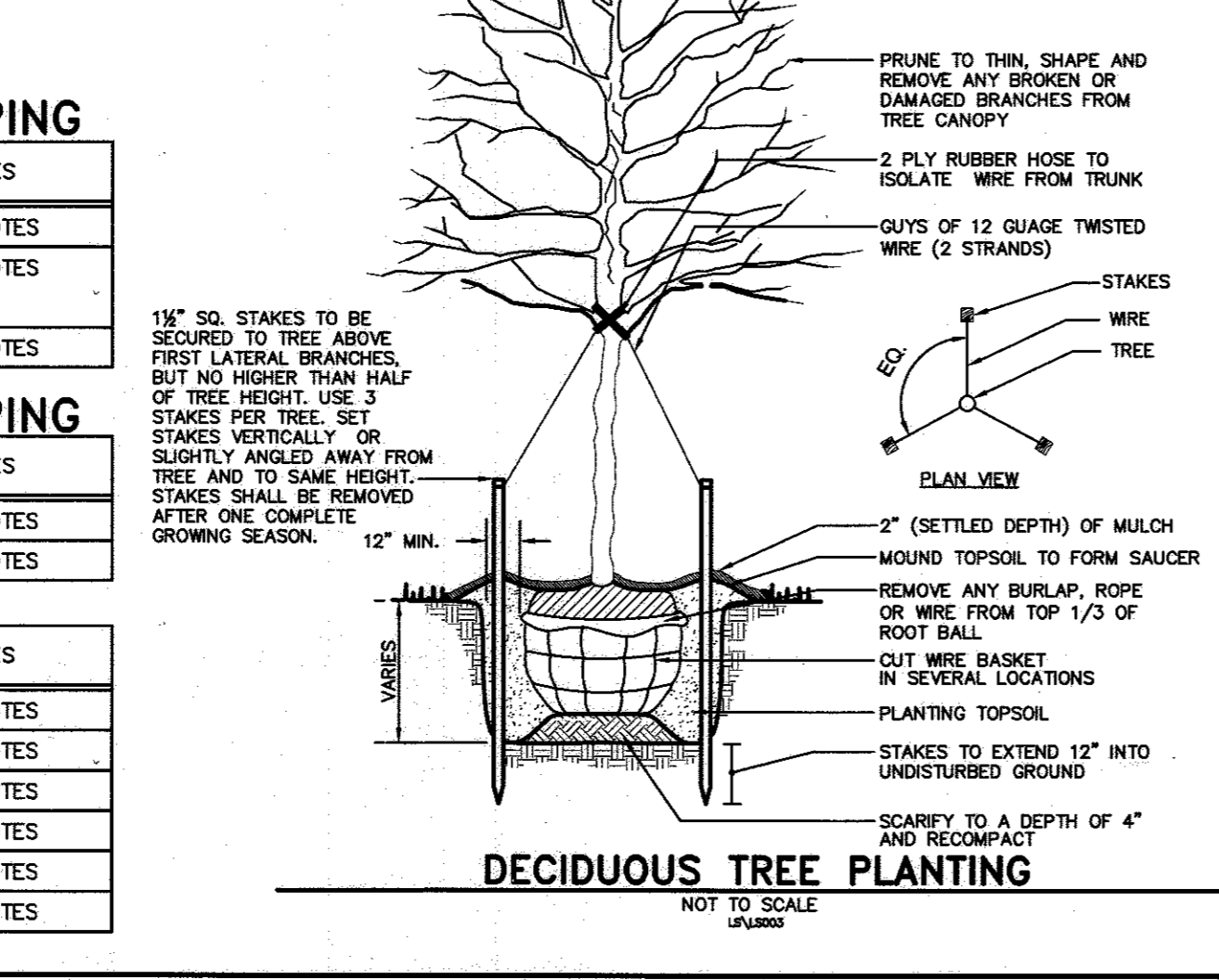
SYM. KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
AG	4	ACER GRISEUM	PAPERBARK MAPLE	2.5" - 3" CAL.	SEE ABOVE NOTES
CF	5	PRUNUS CERASIFERA ATROPURPUREA	THUNDERCLOUD PURPLELEAF PLUM	2.5" - 3" CAL.	SEE ABOVE NOTES
MS	5	MALUS X 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2.5" - 3" CAL.	SEE ABOVE NOTES

PLANT SCHEDULE B - PARKING LOT INTERIOR LANDSCAPING

SYM. KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
AR	2	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2.5" - 3" CAL.	SEE ABOVE NOTES
QP	2	QUERCUS PHELLOS	WILLOW OAK	2.5" - 3" CAL.	SEE ABOVE NOTES

PLANT SCHEDULE A - PERIMETER LANDSCAPE EDGE

SYM. KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
LS	2	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2.5" - 3" CAL.	SEE ABOVE NOTES
QR	2	QUERCUS RUBRA	NORTHERN RED OAK	2.5" - 3" CAL.	SEE ABOVE NOTES
TT	3	TILIA TOMENTOSA	SILVER LINDEN	2.5" - 3" CAL.	SEE ABOVE NOTES
PA	3	PICEA ABIES	NORWAY SPRUCE	6' - 8' HT.	SEE ABOVE NOTES
PO	4	PICEA OMORICA	SERBIAN SPRUCE	6' - 8' HT.	SEE ABOVE NOTES
PT	7	PINUS THUNBERGINA	JAPANESE BLACK PINE	6' - 8' HT.	SEE ABOVE NOTES



SCHEDULE A: PERIMETER LANDSCAPE EDGE

PERIMETER No.	1	2
USE SITUATION	PARKING ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES - LOADING
LANDSCAPE TYPE	E	C
LINEAR FEET OR ROADWAY FRONTAGE/PERIMETER	300 LF.	270 LF.
CREDIT FOR EXISTING VEGETATION	NO	NO
CREDIT FOR WALL, FENCE, BERM, OR GRADE CHANGE	GRADE CHANGE THAT CAUSES THE PARKING LOT TO BE LOCATED LOWER THAN THE ADJACENT ROADWAY BY 3 FEET OR MORE TO BE SUBSTITUTED FOR SHRUB PLANTING	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	NONE.	1:40
EVERGREEN TREES		1:20
SHRUBS		0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	NONE.	1:40
EVERGREEN TREES		1:20
SHRUBS		0

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	108 SPACES
NUMBER OF TREES REQUIRED	6X (1 SHADE TREE PER 20 PARKING SPACES)
NUMBER OF TREES PROVIDED	6X
SHADE TREES	6X
OTHER TREES (2:1 substitution)	N/A

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 5-11-16
 CHIEF DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 5-4-16
 DIRECTOR: [Signature] DATE: 5-16-16

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLAN MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

GENUINE PARTS COMPANY (NAME) TITLE DATE

REVIEW ASSOCIATES, INC. 3020 Columbia Ave., Lancaster, PA 17603
 Phone: (717) 394-3721 • Fax: (717) 394-1083
 Email: review@review.com Website: www.review.com

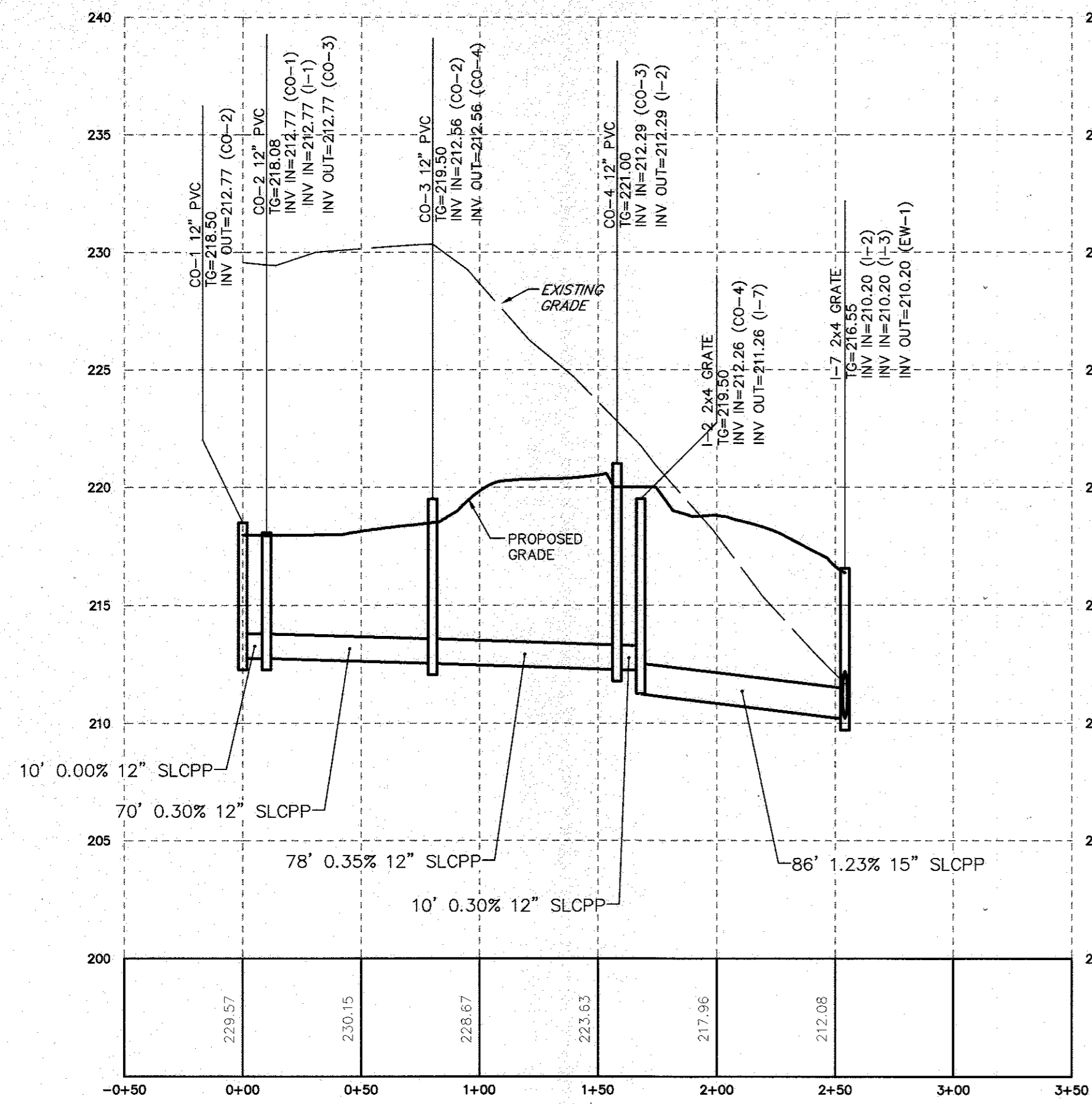
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
 Environmental Consultants

CLIENT: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

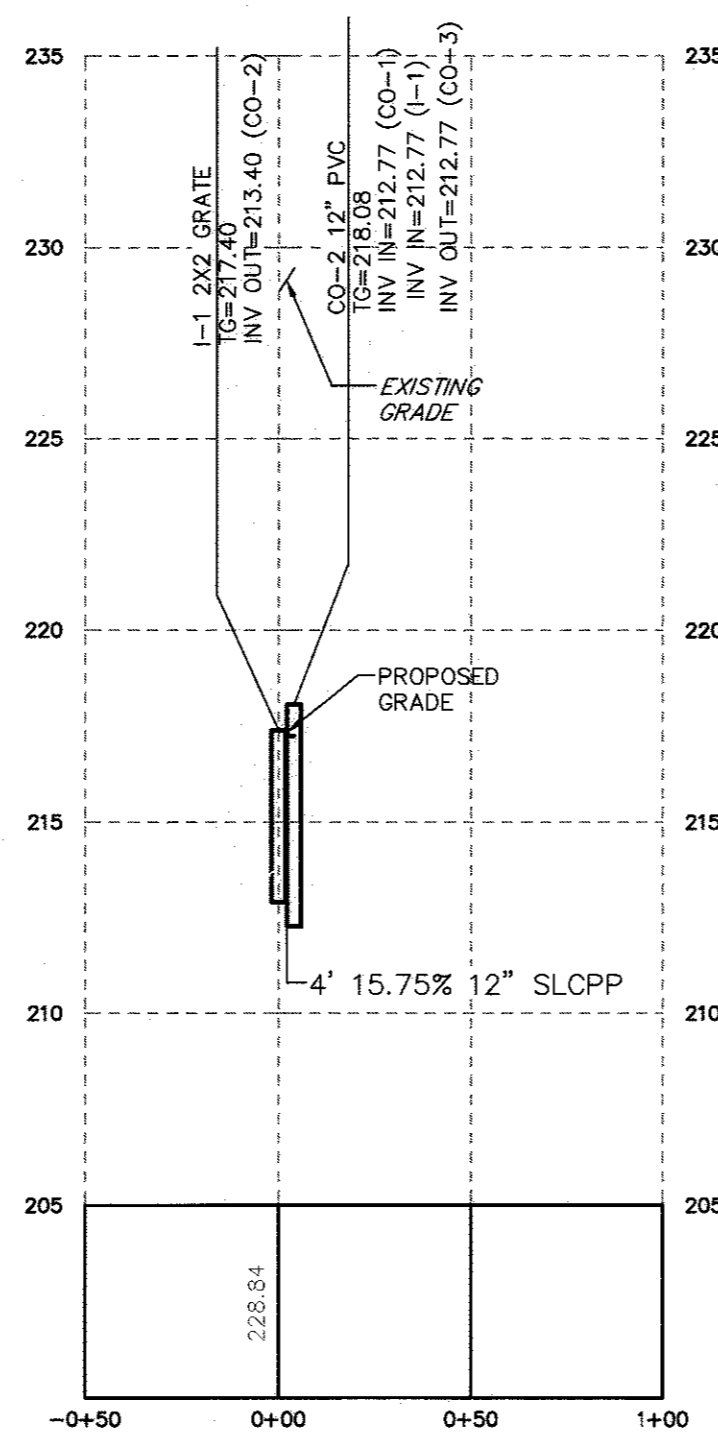
MANAGER: DAVID D. MILLER, P.E.
 DESIGN BY: CHD BY: DEW
 SURV. CHECK: SURV. CHECK: DEW
 DRAWN BY: DCW
 DATE: MARCH 2, 2016

DATE: MARCH 2, 2016
 SHEET NO. 7 OF 19
 DWG. NO. 099812001

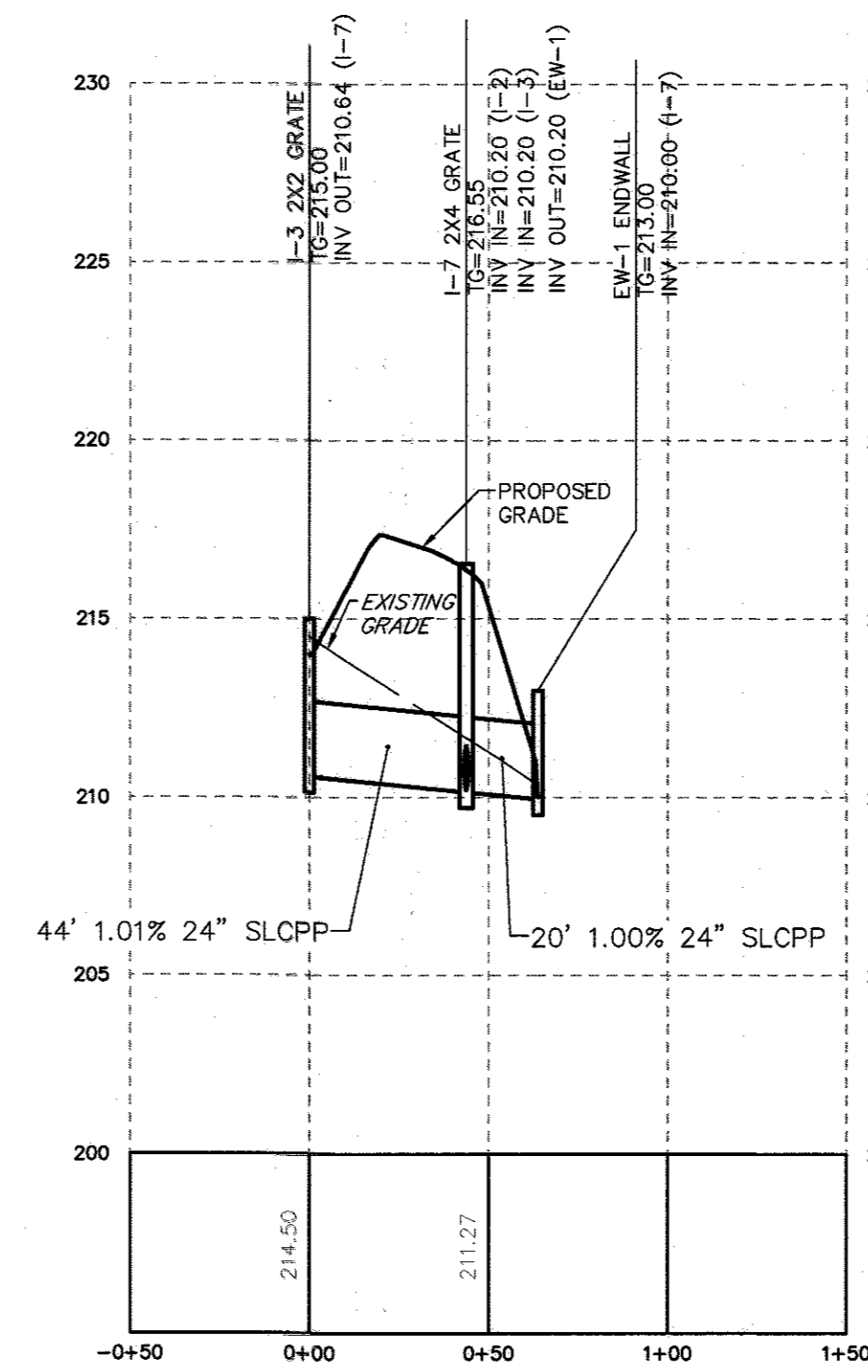
LANDSCAPING PLAN FOR NAPA WASHINGTON HOWARD COUNTY, MD



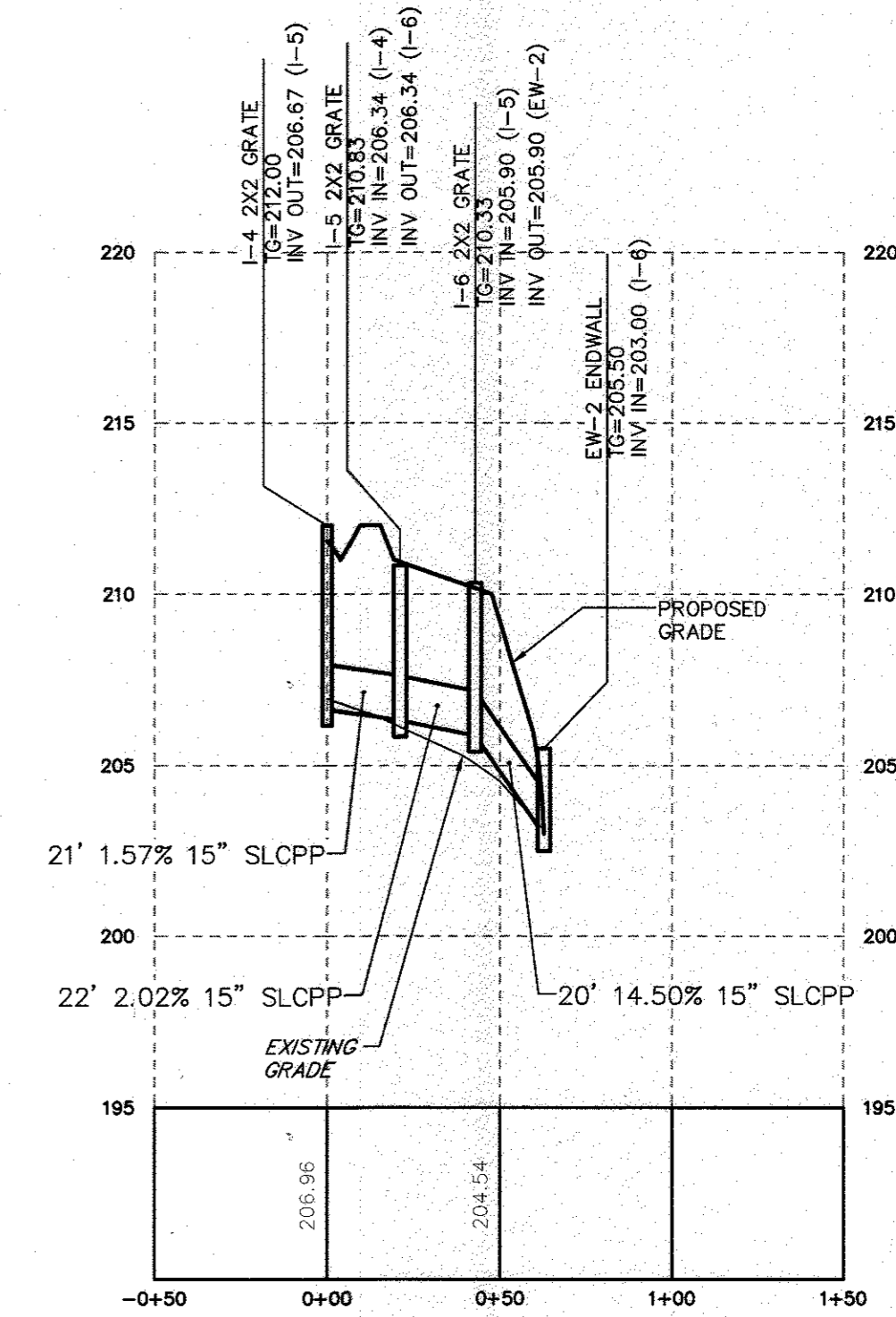
"CENTERLINE PROFILE OF CO-1 TO I-7"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'



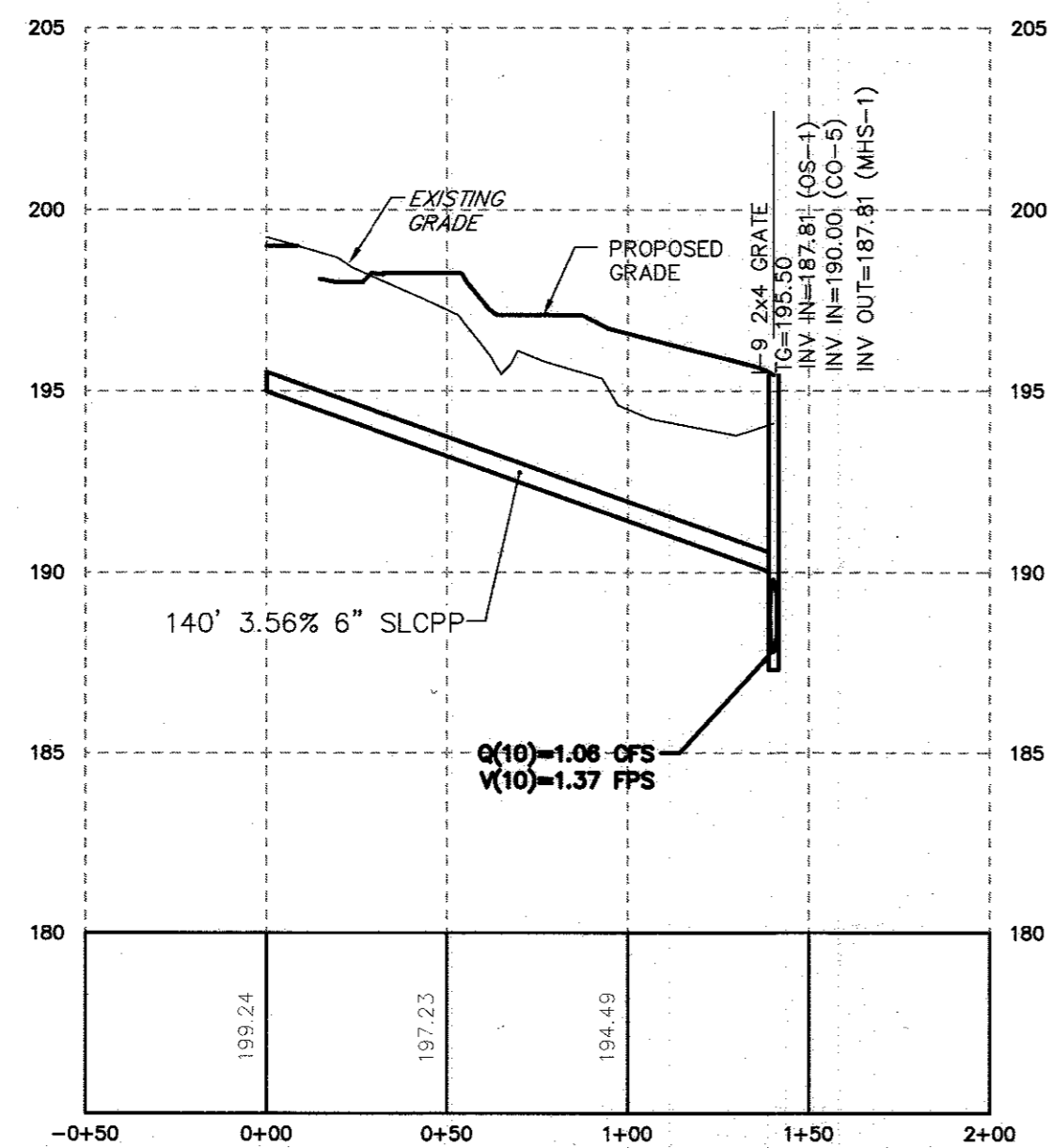
"CENTERLINE PROFILE OF I-1 TO CO-2"
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 VERTICAL SCALE - 1"=5'



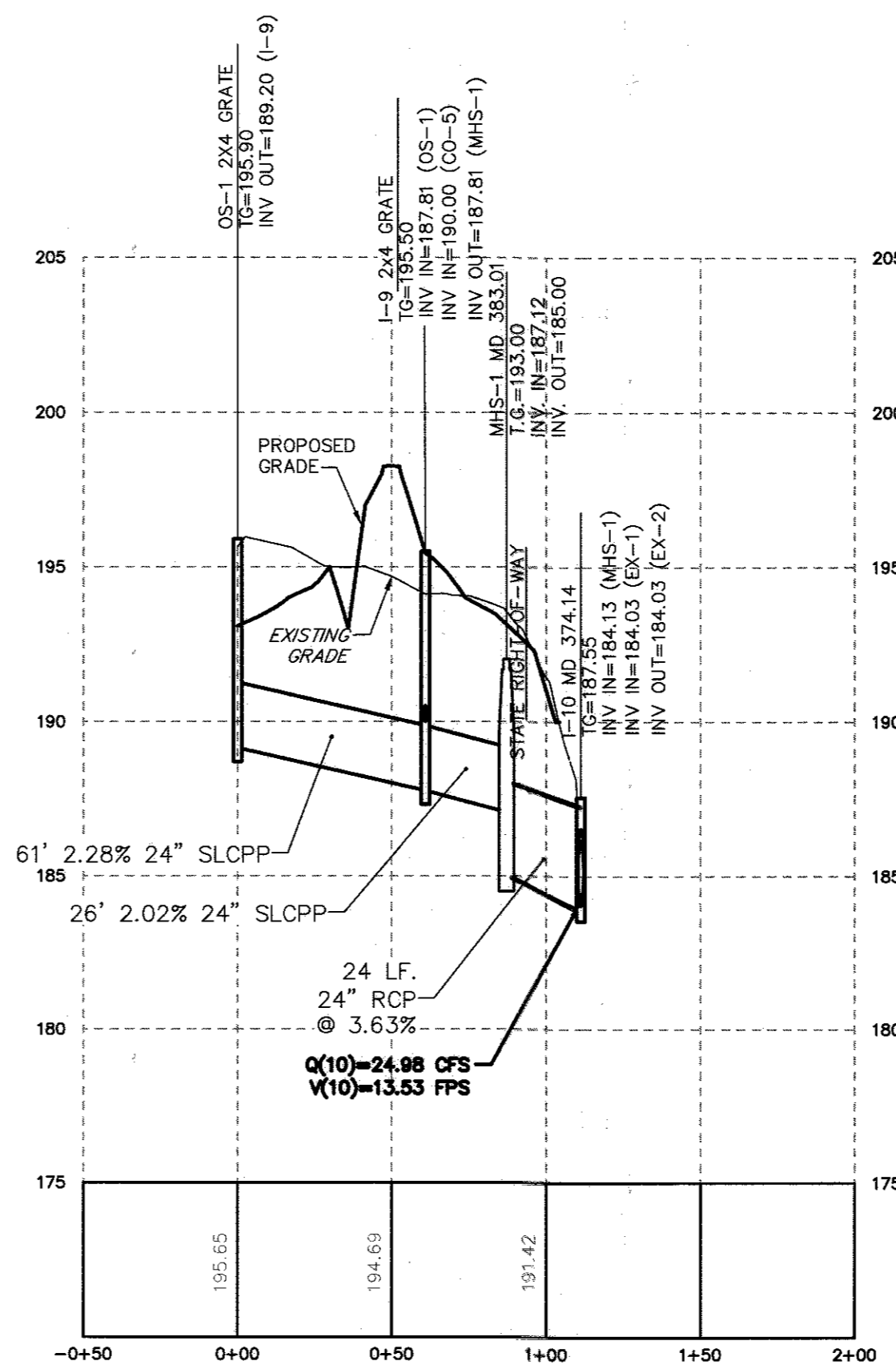
"CENTERLINE PROFILE OF I-3 TO EW-1"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'



"CENTERLINE PROFILE OF I-4 TO EW-2"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'



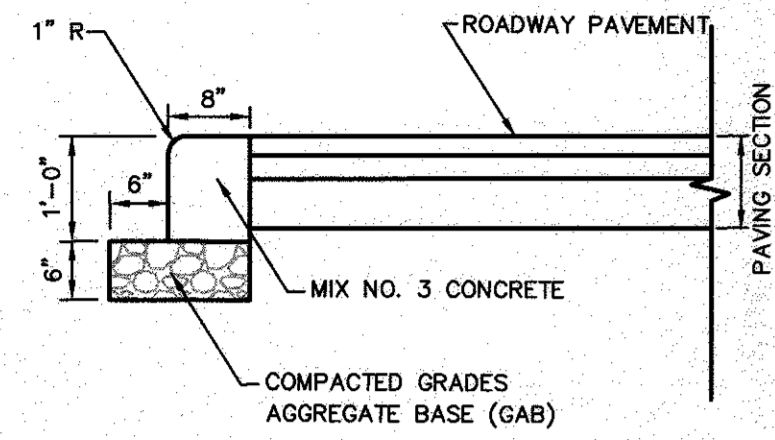
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 VERTICAL SCALE - 1"=5'



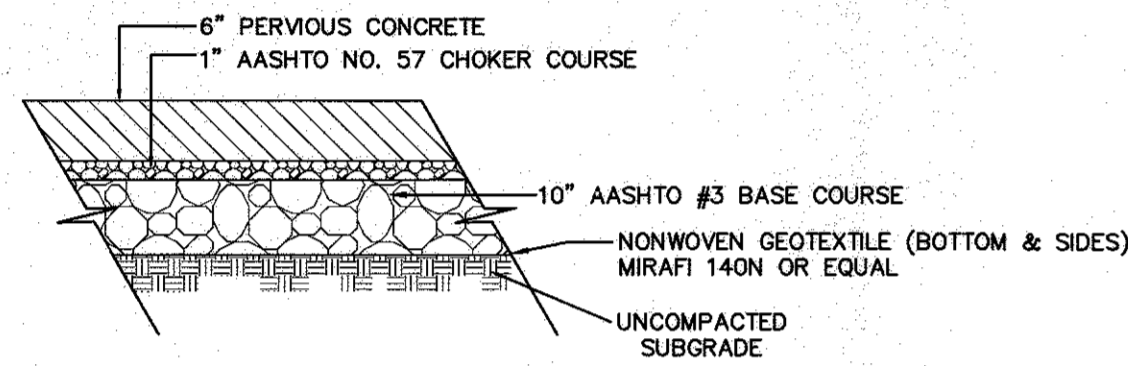
"CENTERLINE PROFILE OF OS-1 TO I-10"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 5-11-16
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 5-4-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 5-16-16
 DIRECTOR

RETTEW ASSOCIATES, INC. ENGINEERS, PLANNERS, ARCHITECTS 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700		CLIENT GENUINE PARTS COMPANY 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700	MANAGER: DAVID D. MILLER, P.E. DESIGN BY: JAR SURV. CHIEF: DATA COLLECTOR DRAWN BY: DCW	CHECKED BY: DEW DATE: 01/06/19 REV. SITE DEVELOPMENT PLAN REVISION
RETTEW Associates, Inc. Phone: (770) 394-3721 • Fax: (770) 394-1083 Email: rettew@rettew.com Website: www.rettew.com		SCALE AS NOTED	PROJECT NO. 099812001	SHEET NO. 8 OF 19
PROFILES: STORMWATER SITE DEVELOPMENT PLAN FOR NAPA WASHINGTON HOWARD COUNTY, MD		DATE: MARCH 2, 2016	DWG. NO. 099812001	SDP-15-005, 6P 15-874

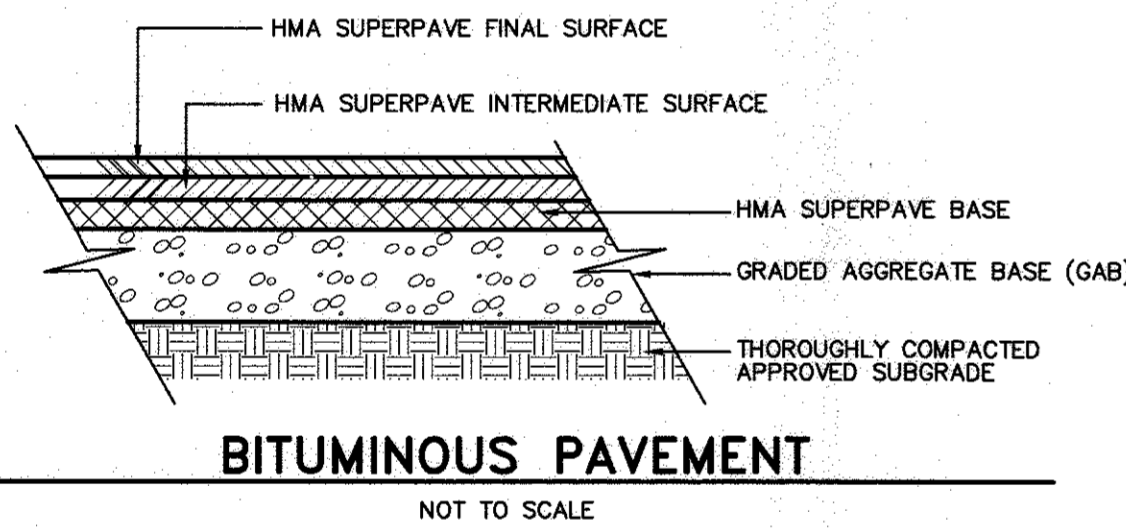


CURB FLUSH (CONC. CURB ONLY)
NOT TO SCALE



PERVIOUS PAVING SECTION
NOT TO SCALE
SD/SD081

NOTES:
1. SEAL ALL JOINTS WITH AC-20 SEALANT
2. SEE PLAN FOR LOCATION OF P-2 AND P-4 PAVING.



BITUMINOUS PAVEMENT
NOT TO SCALE



NOTE: SIGN CODES REFERENCED IN THESE PLANS ARE PER SIGN STANDARDS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

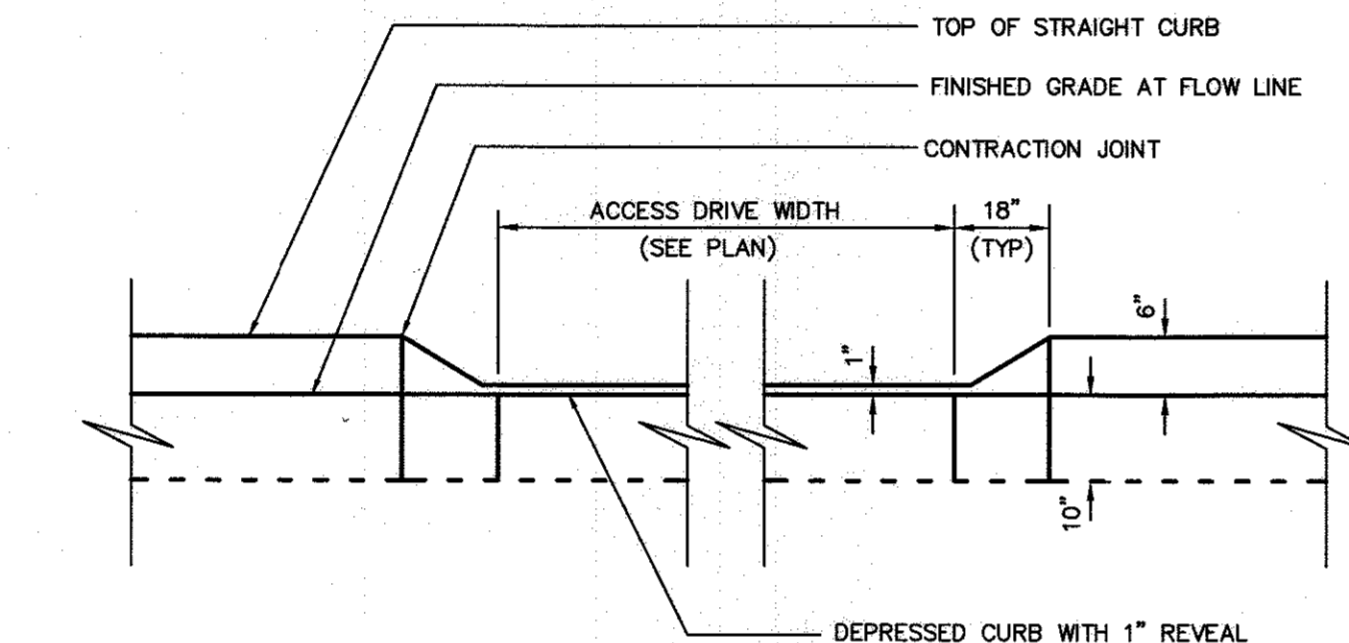
STOP SIGN - R1-1
NOT TO SCALE

NOTE:
SEE MD HSA HOP PLANS FOR DETAILS WITHIN STATE ROAD R.O.W.

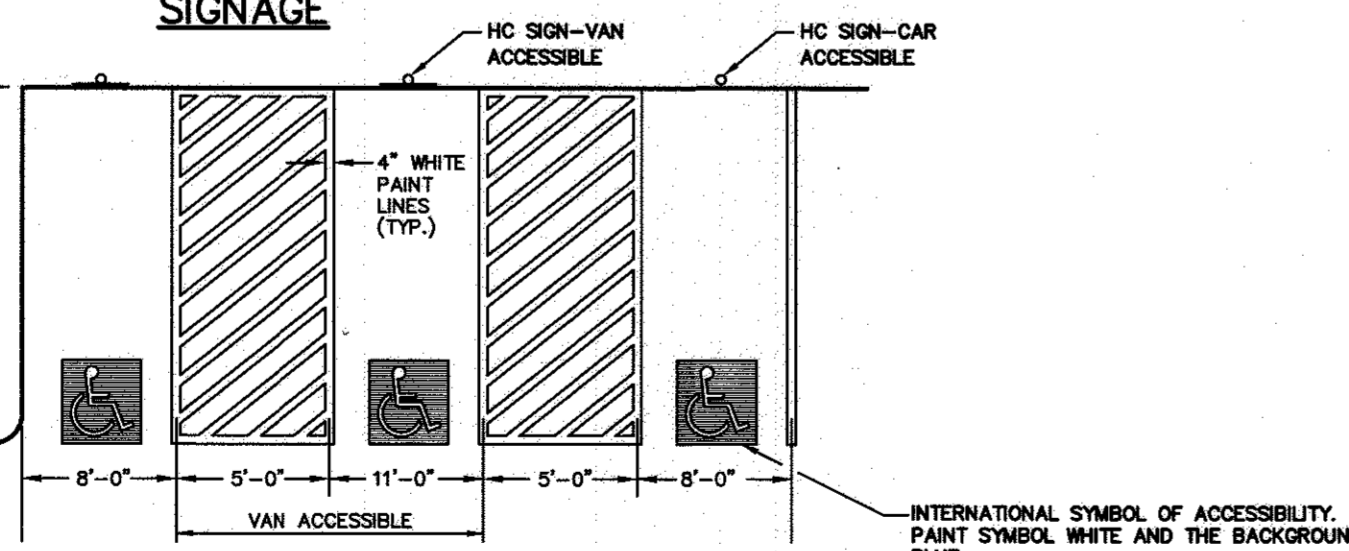
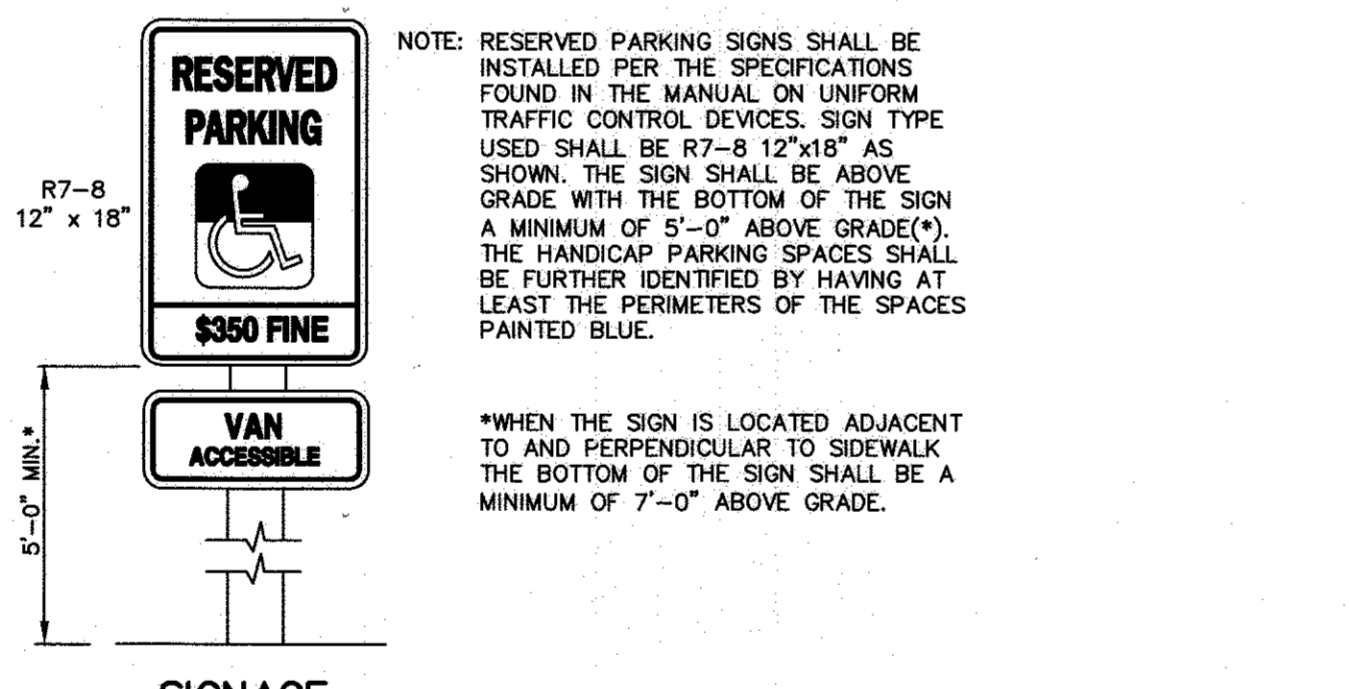
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	PAVEMENT MATERIAL (INCHES)						
			3 TO <3	5 TO <7	> 7	3 TO <3	5 TO <7	> 7	
P-1	PARKING RATE: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ALLEYS RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	
			HMA SUPERPAVE INTERMEDIATE SURFACE (NA)	NA	NA	NA	NA	NA	NA
			HMA SUPERPAVE BASE 18.0 MM PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.0	3.0	3.0
			GRADED AGGREGATE BASE (GAB)	8.0	7.0	3.0	4.0	4.0	4.0
P-2	PARKING DRIVE ALLEYS: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS STREET RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	
			HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
			HMA SUPERPAVE BASE 18.0 MM PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.0	3.0	3.0
			GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0
P-3	PARKING DRIVE ALLEYS: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS STREET 65-60' NON-RESIDENTIAL MINOR COLLECTORS RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5	
			HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
			HMA SUPERPAVE BASE 18.0 MM PG 64-22, LEVEL 1 (ESAL)	3.0	3.0	3.0	4.0	3.0	3.0
			GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0
P-4	MINOR COLLECTORS: NON-RESIDENTIAL MAJOR COLLECTORS	HMA SUPERPAVE FINAL SURFACE 12.5 MM PG 64-22, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0	
			HMA SUPERPAVE INTERMEDIATE SURFACE 12.5 MM PG 64-22, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
			HMA SUPERPAVE BASE 18.0 MM PG 64-22, LEVEL 2 (LOW ESAL)	4.0	4.0	3.0	6.0	5.0	3.0
			GRADED AGGREGATE BASE (GAB)	13.0	7.0	4.0	6.0	6.0	6.0

NOTES:
1) HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING COMBINE TRUCKS.
2) HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESSES: 18.0 MM BASE (2.0" MIN TO 4.0" MAX), 9.5 MM SURFACE (1.0" MIN TO 3.0" MAX), AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX).
3) GRADED AGGREGATE BASE (GAB) SHALL BE PLACED AND COMPACTED IN 4" MAX COMPACTED THICKNESS LAYERS.
4) THE INTERMEDIATE SURFACE COURSE LAYERS MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSEQUENT CONSTRUCTION AND SOIL REMEDIATION.
5) IN USE OF PLACING THE INTERMEDIATE SURFACE COURSE LAYERS FOR COMMERCIAL/INDUSTRIAL ENTRANCE AREAS WITHIN THE COUNTY RIGHT-OF-WAY WHERE ADEQUATE LANE AND SOIL REMEDIATION, THE THICKNESS OF THE INTERMEDIATE SURFACE LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6) THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

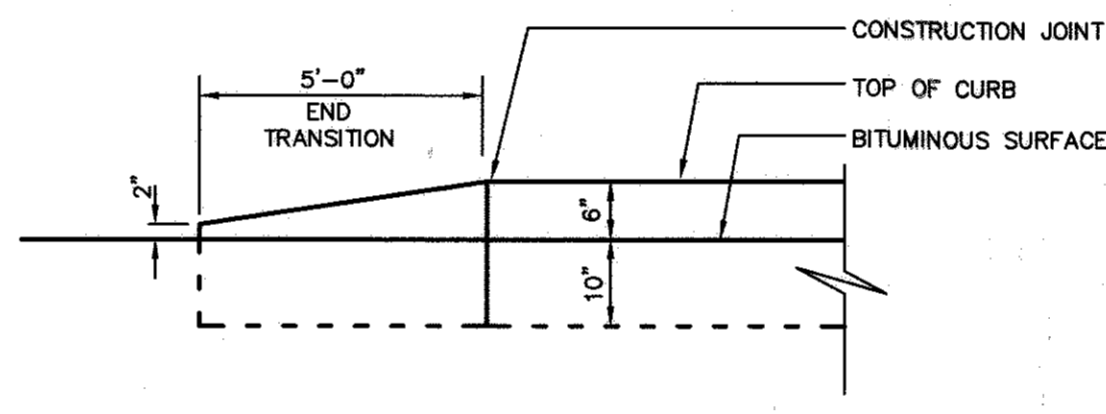
Howard County, Maryland
Department of Public Works
PAVING SECTIONS
P-1 to P-4
Detail
R-2.01



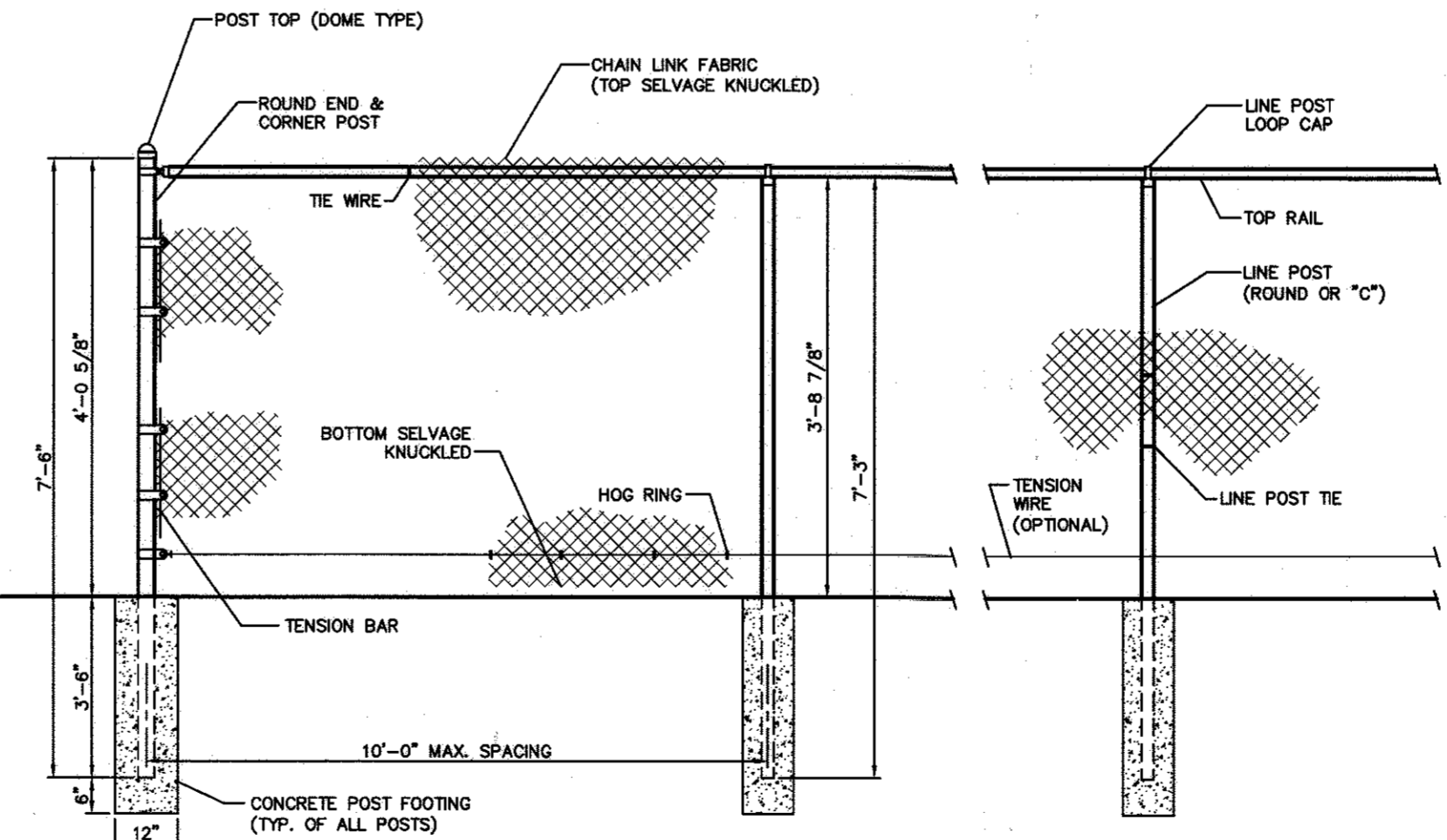
ACCESS DRIVE CURB CUT
NOT TO SCALE
02/02/09



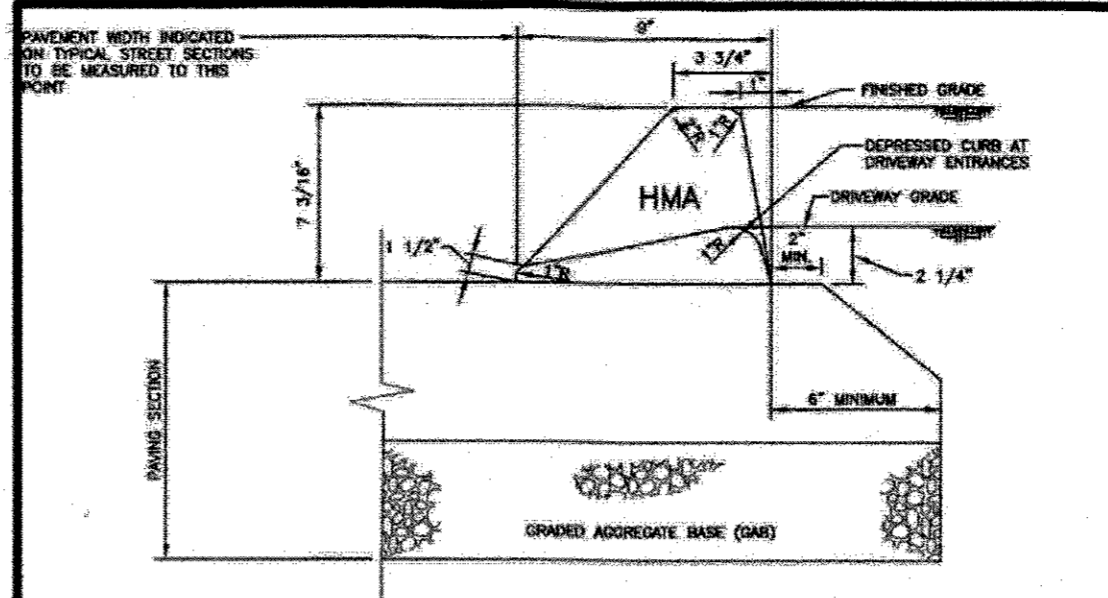
HANDICAPPED PARKING STALL DETAIL
NOT TO SCALE



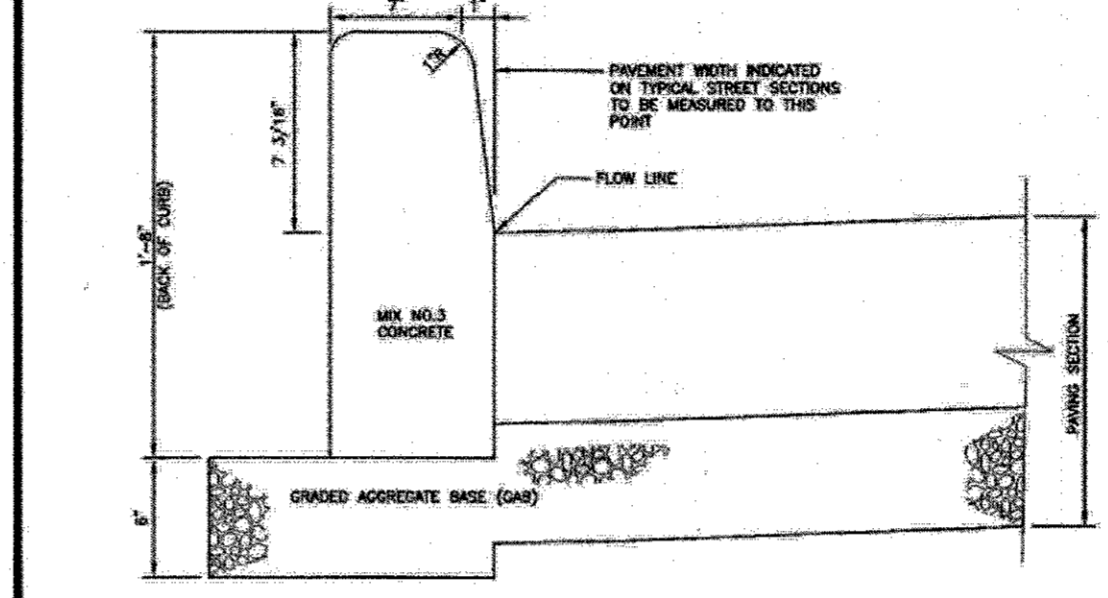
END CURB TRANSITION DETAIL (CONC. CURB ONLY)
NOT TO SCALE
02/02/03



CHAIN LINK FENCE DETAIL - 4'-0"
NOT TO SCALE
02/02/03



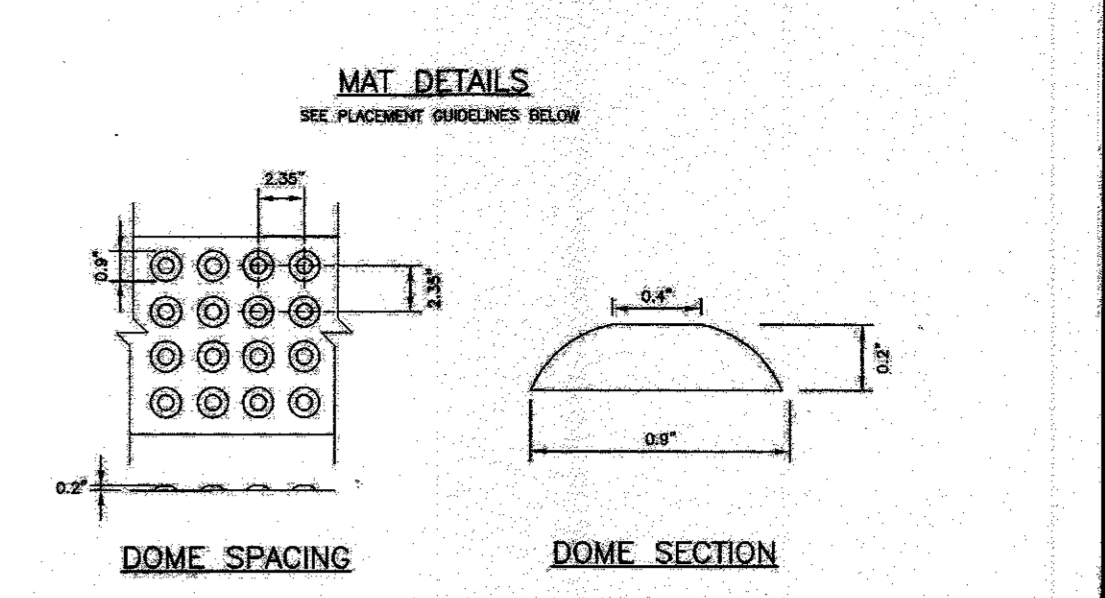
HOT MIX ASPHALT CURB



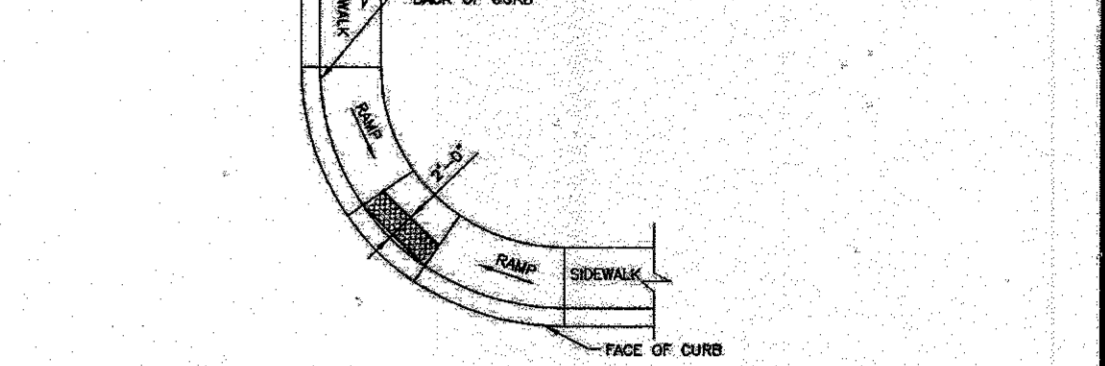
CONCRETE BARRIER CURB

NOTES:
1. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH OR EQUIVALENTS SHALL SUPPORT THE OVERLAP BACK OF CURB.
2. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ACROSS THE GUTTER AND FLOW LINE.

Howard County, Maryland
Department of Public Works
CURBS
Hot Mix Asphalt & Concrete Barrier
Detail
R-3.03



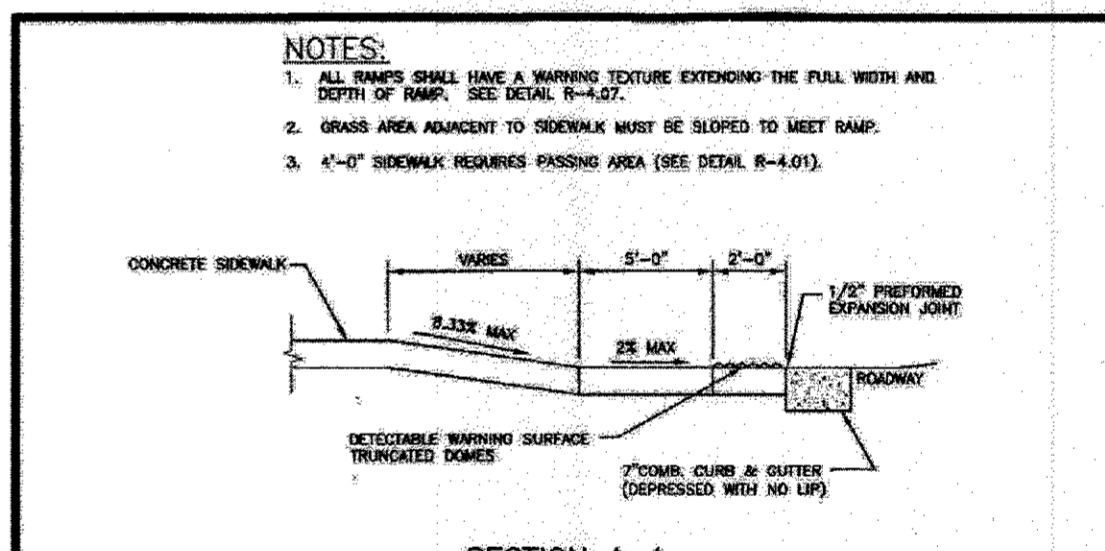
MAT DETAILS
SEE PLACEMENT GUIDELINES BELOW



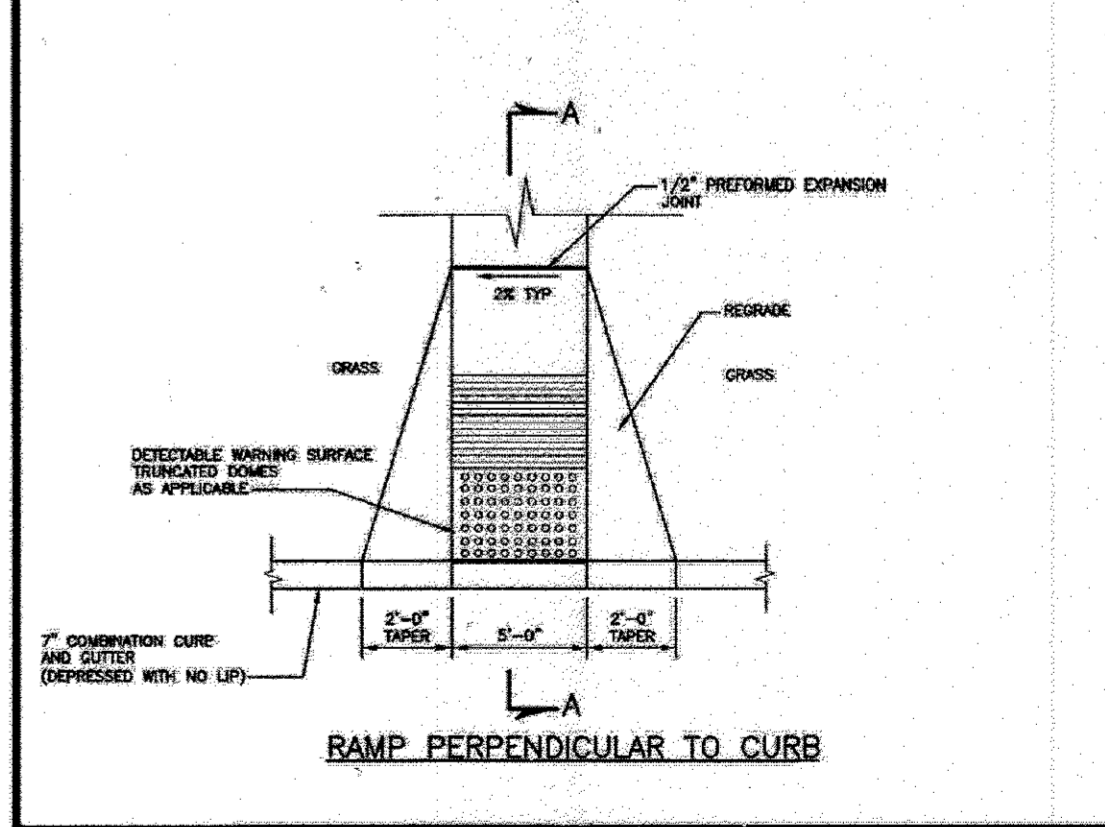
RAMP RADIAL AND ADJACENT TO CURB

NOTES:
1. THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 8 TO 8 INCHES FROM THE FACE OF THE CURB.
2. FOR SLOPED APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF THE CURB ARE NO LESS THAN 8.5" AND NO MORE 3.0" FROM THE BACK OF THE CURB. TRUNCATED DOME SURFACES SHALL BE FABRICATED TO PROVIDE FULL DOMES ONLY.

Howard County, Maryland
Department of Public Works
SIDEWALK RAMP
Detectable Warning Truncated Domes
Detail
R-4.07



SECTION A-A



RAMP PERPENDICULAR TO CURB

Howard County, Maryland
Department of Public Works
SIDEWALK RAMP
Layout & Grading Perpendicular to Curb
Detail
R-4.05

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 5-4-16
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 5-4-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 5-16-16
DIRECTOR

FOR RETIEW ASSOCIATES BY: [Signature]

FOR RETIEW ASSOCIATES BY: [Signature]

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: JAR
SURV. CHIEF: [Signature]
DRAWN BY: DCW

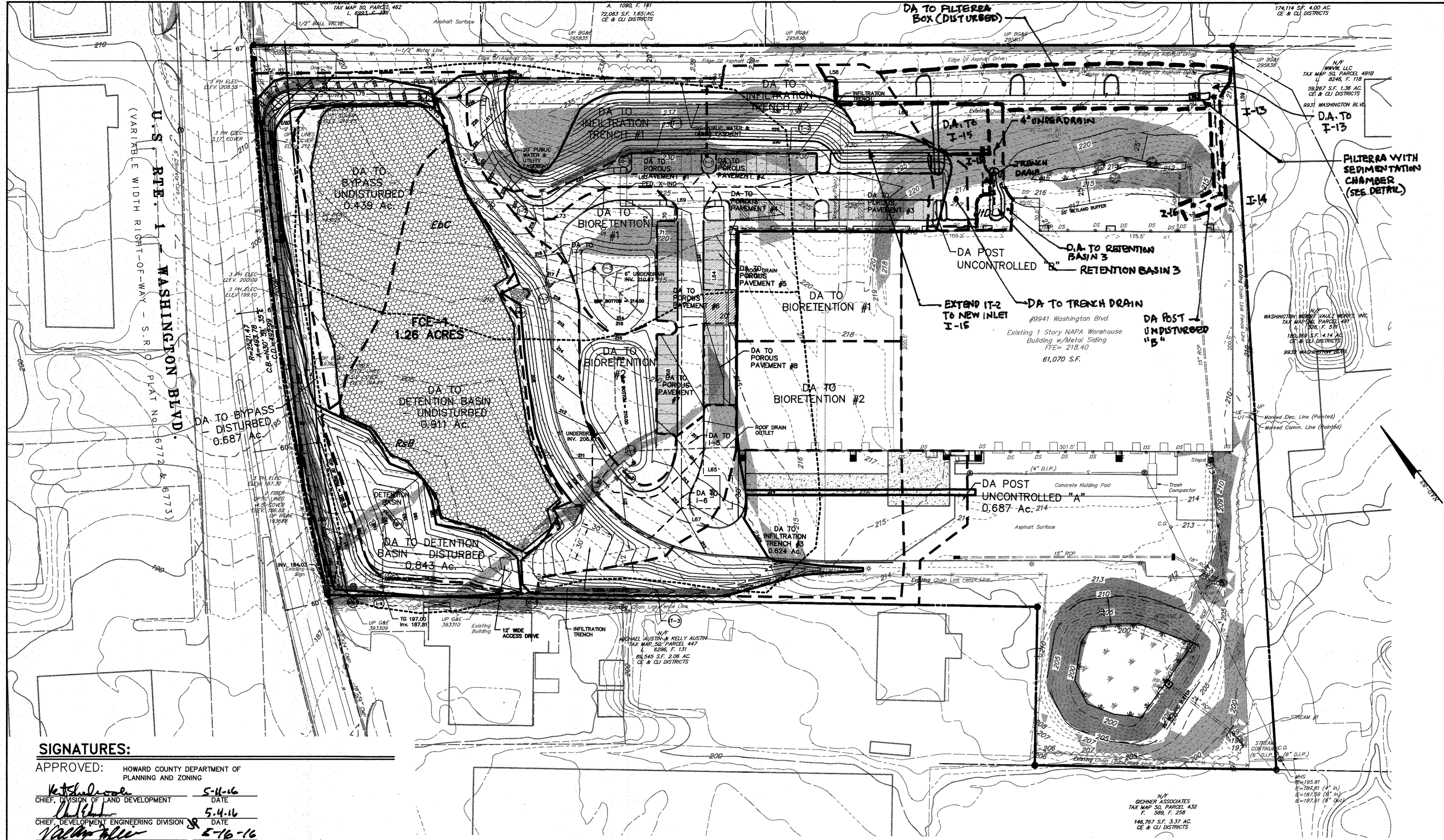
GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

REVIEW Associates, Inc.
3020 Columbia Ave., Lancaster, PA 17603
Phone (717) 394-3721 • Fax (717) 394-1083
Email: retiew@retiew.com
Website: www.retiew.com

DETAILS: SITE CONSTRUCTION
SITE DEVELOPMENT PLAN
FOR
NAPA WASHINGTON

DATE: MARCH 2, 2016
SHEET NO. 9 OF 19
DWG. NO. 099812001

HOWARD COUNTY, MD



LOCATION MAP

SCALE: 1"=2000'
 GEODETIC BENCHMARK: 50BM1
 GEODETIC STATION: 50BD

BENCHMARKS

LEGEND

EXISTING BOUNDARY LINE	--- (dashed)
PROPOSED LOT LINE	--- (solid)
EXISTING RIGHT-OF-WAY LINE	--- (dashed)
EXISTING CURB	--- (solid)
PROPOSED CURB	--- (dashed)
EXISTING PAVEMENT	--- (stippled)
PROPOSED PAVEMENT	--- (stippled)
EXISTING ZONING BOUNDARY	--- (dashed)
EXISTING VEGETATION	--- (various symbols)
EXISTING TREELINE	--- (dashed)
PROPOSED TREELINE	--- (dashed)
EXISTING CONTOUR LINE	--- (solid)
PROPOSED CONTOUR LINE	--- (dashed)
PROPOSED SPOT ELEVATION	+500.00
PROPOSED FINISHED FLOOR ELEVATION	F.F.E.=500.00
EXISTING STORM MANHOLE	(circle with cross)
PROPOSED STORM MANHOLE	(circle with cross)
EXISTING STORM INLET	(circle with cross)
PROPOSED STORM INLET	(circle with cross)
EXISTING STORM HEADWALL/ENDWALL	(circle with cross)
PROPOSED STORM HEADWALL/ENDWALL	(circle with cross)
PROPOSED PIPE OUTLET PROTECTION	(circle with cross)
EXISTING STORM PIPE	(circle with cross)
PROPOSED STORM PIPE	(circle with cross)
PROPOSED STORM STRUCTURE LABEL	(circle with cross)
EXISTING FENCE	(circle with cross)
EXISTING UTILITY POLE	(circle with cross)
EXISTING OVERHEAD TELEPHONE LINE	(circle with cross)
EXISTING UNDERGROUND TELEPHONE LINE	(circle with cross)
EXISTING OVERHEAD ELECTRIC LINE	(circle with cross)
EXISTING TELEPHONE BOX	(circle with cross)
EXISTING GAS LINE	(circle with cross)
EXISTING GAS VALVE	(circle with cross)
EXISTING WELL	(circle with cross)
EXISTING WATER VALVE	(circle with cross)
EXISTING FIRE HYDRANT	(circle with cross)
EXISTING WATER LINE	(circle with cross)
PROPOSED FIRE HYDRANT	(circle with cross)
PROPOSED WATER VALVE	(circle with cross)
PROPOSED THRUST BLOCK	(circle with cross)
PROPOSED WATER LINE	(circle with cross)
EXISTING SANITARY SEWER MANHOLE	(circle with cross)
EXISTING SANITARY SEWER LINE	(circle with cross)
EXISTING SANITARY SEWER FORCEMAIN	(circle with cross)
PROPOSED SANITARY SEWER FLOW ARROW	(circle with cross)
PROPOSED SANITARY SEWER MANHOLE	(circle with cross)
PROPOSED SANITARY SEWER LINE	(circle with cross)
PROPOSED SANITARY SEWER STRUCTURE LABEL	(circle with cross)
SOIL TYPE BOUNDARY LINE	--- (dashed)
SOIL TYPE DESIGNATION	EbC
DRAINAGE AREA LINE	--- (dashed)

SIGNATURES:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 5-11-16

DATE: 5-4-16

DATE: 5-16-16

STORMWATER MANGEMENT PROVIDED

ESD Practice	Drainage Area		Imp. Area (SF)	Perv. Area (SF)	Woods (SF)	QE (inches)	ESDv (cf)	Volume Provided in ESD Practice (cf)
	(SF)	(Acre)						
Infiltration Trench #1 *	18,231	0.42	1,278	16,953	0	0.71	1,086	612
Infiltration Trench #2 **	15,960	0.37	2,464	13,496	0	0.71	951	924
Infiltration Trench #3 ***	27,161	0.62	15,586	11,575	0	0.71	1,618	945
Bioretention #1 ****	23,730	0.54	17,450	6,280	0	0.71	1,414	2,142
Bioretention #2 *****	21,800	0.50	15,008	6,792	0	0.71	1,299	2,161
Porous Pavement #1 *****	3,070	0.07	2,050	1,020	0	0.71	183	255
Porous Pavement #2 *****	2,693	0.06	2,693	0	0	0.71	160	365
Porous Pavement #3 *****	5,050	0.12	4,476	574	0	0.71	301	365
Porous Pavement #4 *****	3,274	0.08	3,034	240	0	0.71	195	308
Porous Pavement #5 *****	2,200	0.05	1,477	723	0	0.71	131	255
Porous Pavement #6 *****	6,350	0.15	6,350	0	0	0.71	378	365
Porous Pavement #7 *****	3,900	0.09	3,900	0	0	0.71	232	365
Porous Pavement #8 *****	2,220	0.05	1,790	430	0	0.71	132	292

* Volume provided by 48" of stone with 30% voids along the entire length of the trench
 ** Volume provided by 44" of stone with 30% voids along the entire length of the trench
 *** Volume provided by 45" of stone with 30% voids along the entire length of the trench
 **** Volume provided by 78" of stone with 30% voids along the entire length of the trench
 ***** Volume provided by 1' ponding depth over surface area of bioretention
 ***** Volume provided by 9" of stone with 30% voids under porous paving

- NOTE:**
- SEE PLAN SHEET 19 OF 19 FOR REVISED ESD PRACTICES SUMMARY CHART.
 - EXTENSION OF IT-2 AND CONSTRUCTION OF RETENTION POND 3 ARE SCHEDULED TO BE CONSTRUCTED IN THE SPRING TO EARLY SUMMER OF 2017.
 - WORK ALONG WILBUR LANE IS SCHEDULED TO BE CONSTRUCTED IN A LATER PHASE, DATE TO BE DETERMINED.
 - REFER TO PLAN SHEET 5 OF 19 FOR REVISED GRADING PLAN.
 - REFER TO PLAN SHEET 19 OF 19 FOR TRENCH DRAIN AND FILTERBA DETAIL.

GRADING & UTILITY NOTES:

1. ALL SPOT GRADES IN PARKING AREAS & DRIVES ARE SHOWN AS BOTTOM OF CURB ELEVATIONS.

SLOPE ANALYSIS:

SLOPES = 15-25%
 SLOPES = >25%

SOILS CLASSIFICATION

EbC: EVESBORE LOAMY SAND, 2 TO 10 PERCENT SLOPES
 RbB: RUSSET FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES
 Uld: URBAN LAND-UDORTHERENTS COMPLEX, 0 TO 15 PERCENT SLOPES.

ALL SOILS ARE NON-HYDRIC, WITHOUT HYDRIC INCLUSIONS, AND DO NOT EXHIBIT ANY SIGNIFICANT EROSION POTENTIAL.

RETTEW ASSOCIATES, INC.
 3020 Columbia Ave., Lancaster, PA 17603
 Phone: (717) 394-3721 • Fax: (717) 394-1063
 Email: rettew@rettew.com
 Website: www.rettew.com

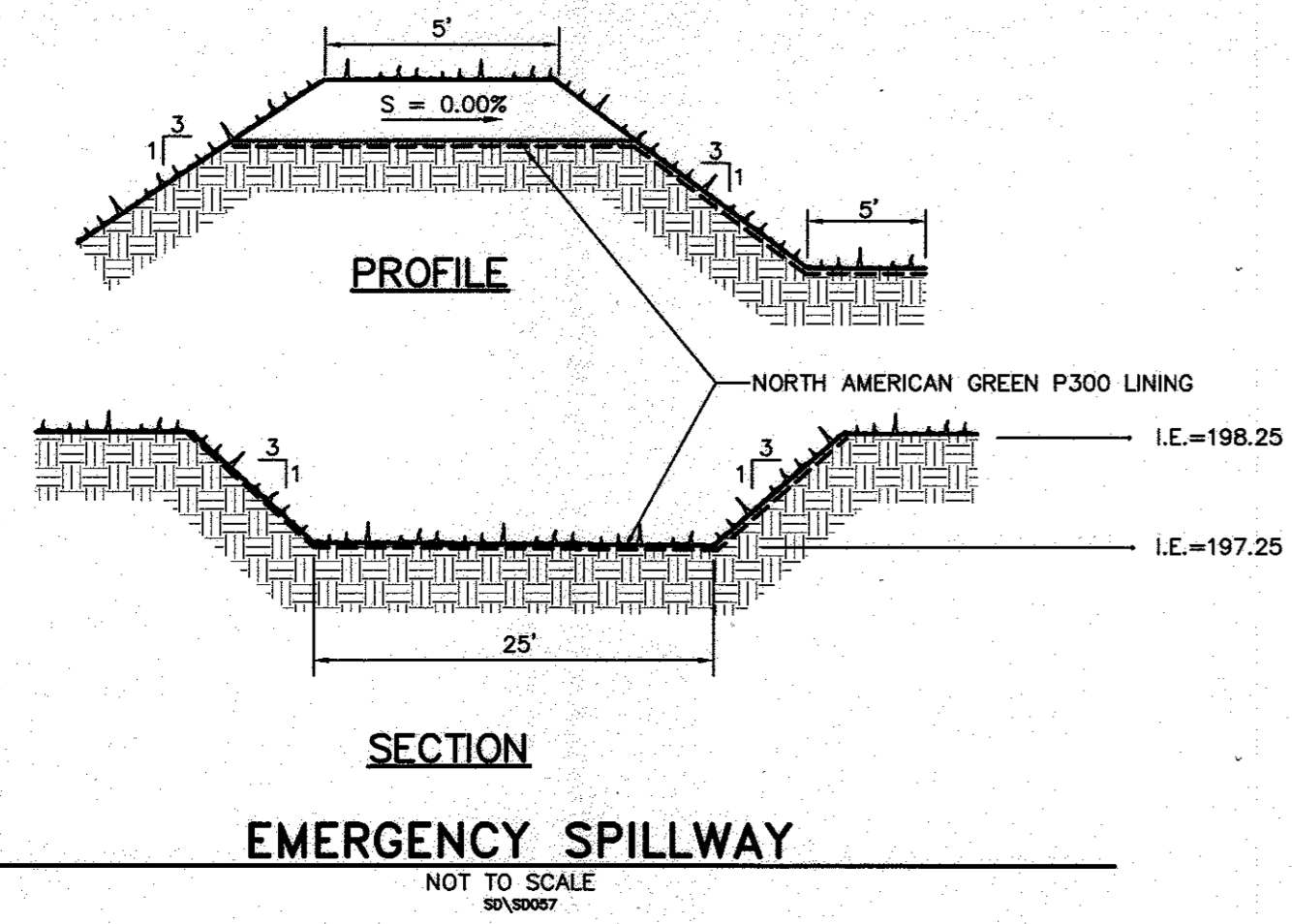
CLIENT: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: CHD BY: DEW
JURY: SURV. CHIEF: JAR
DATE: DRAWN BY: DCW
DATE: CHECKED BY: DEW

FOR RETTEW ASSOCIATES BY: DATE: 01/19/17
 NO. 19
 DATE: 01/19/17
 NO. 19

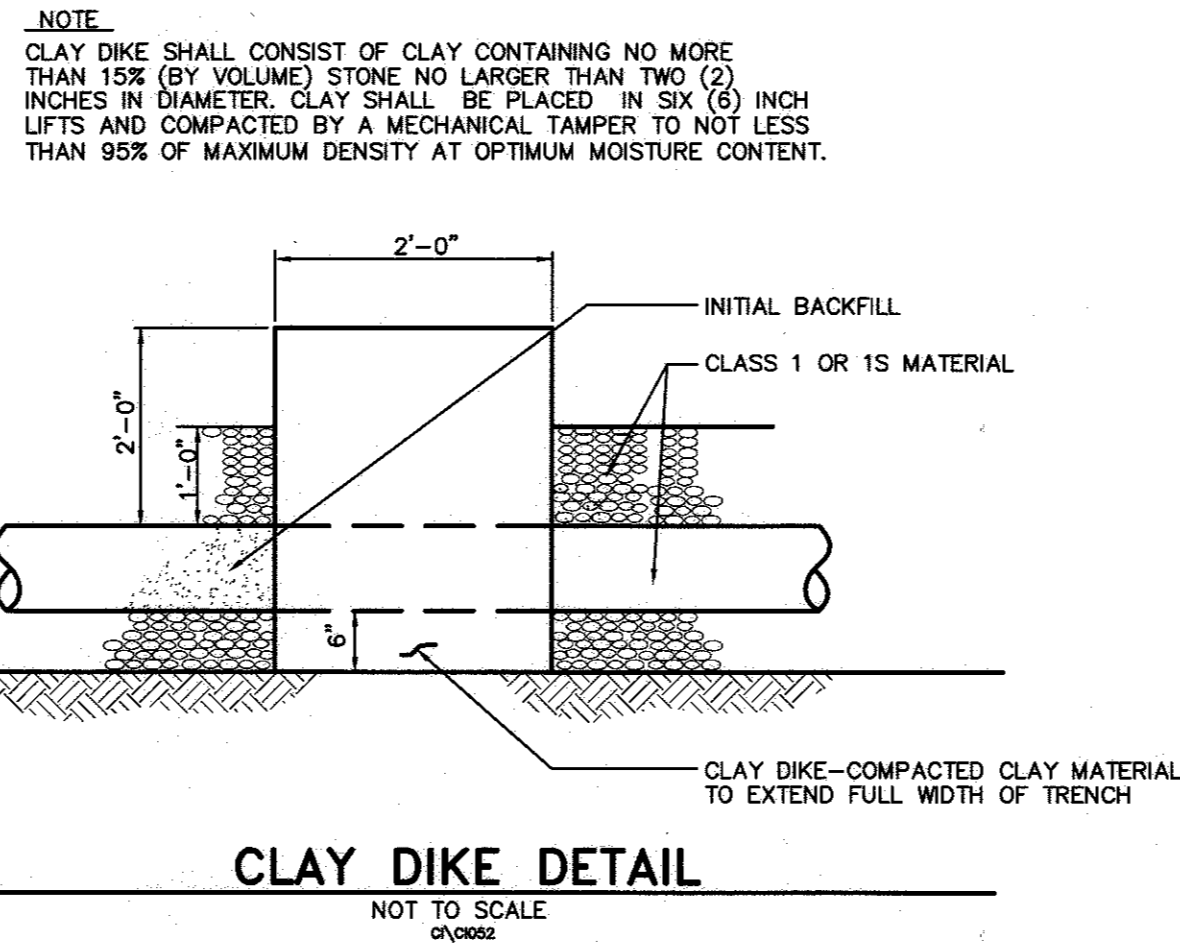
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
 SITE DEVELOPMENT PLAN
 FOR
NAPA WASHINGTON
 HOWARD COUNTY, MD

DATE: MARCH 2, 2016
 SHEET NO. 10 OF 19
 DWG. NO. 099812001



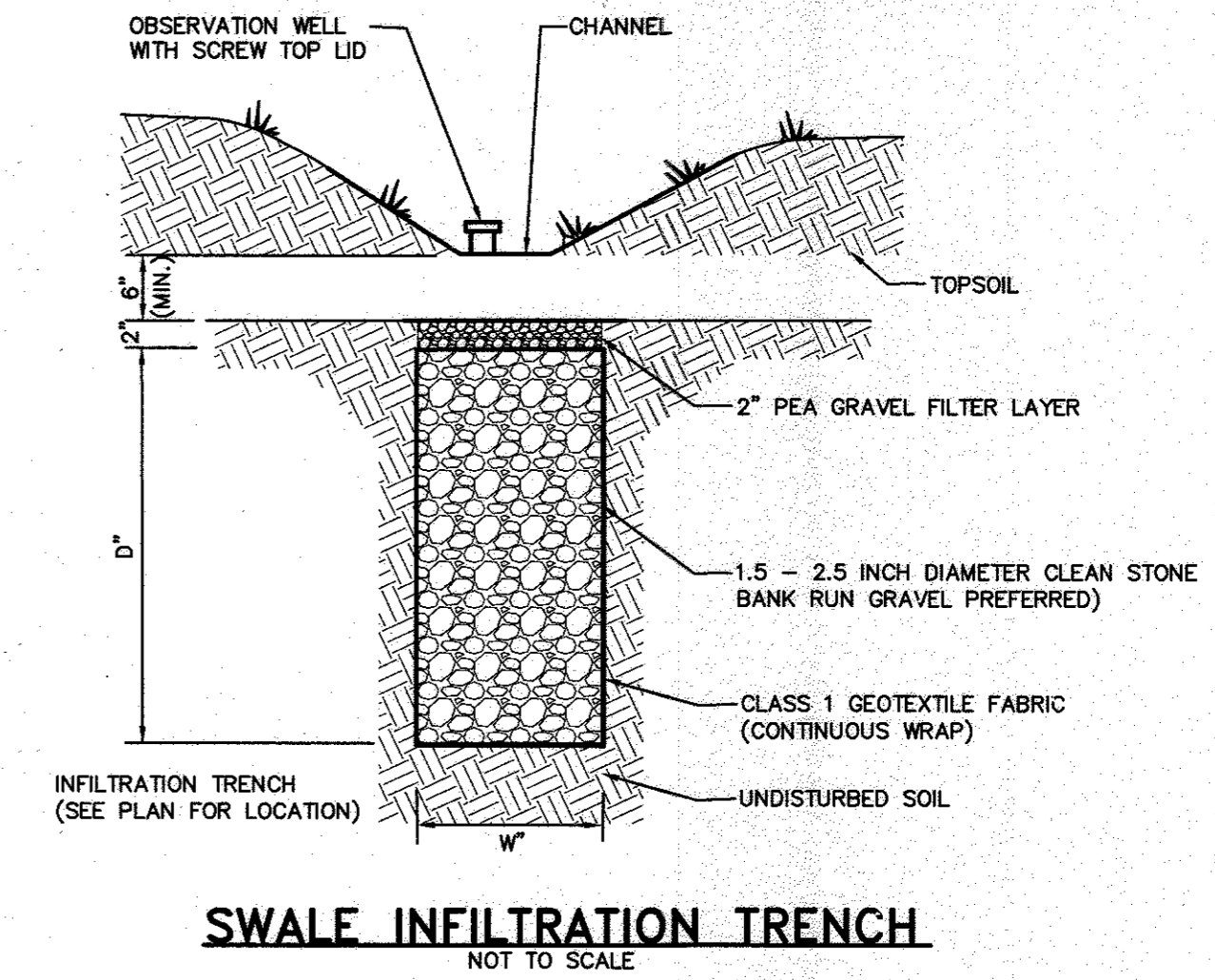
EMERGENCY SPILLWAY

NOT TO SCALE
SD/00027



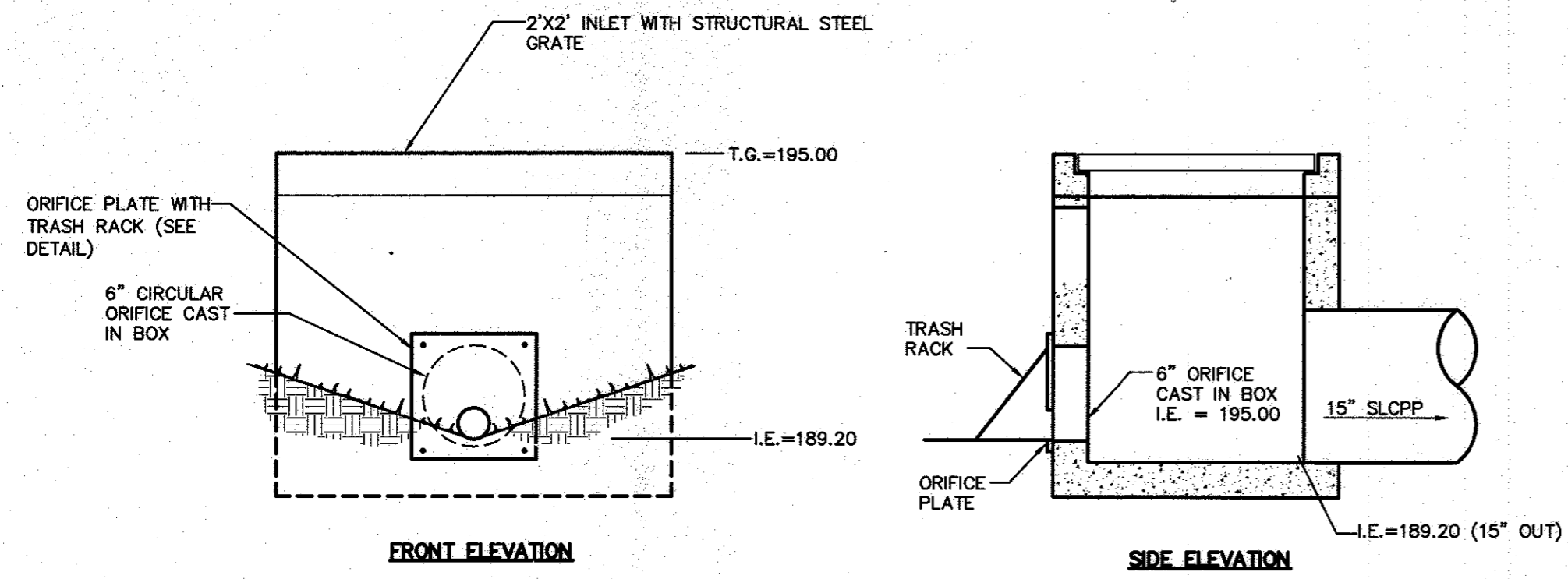
CLAY DIKE DETAIL

NOT TO SCALE
01/0002



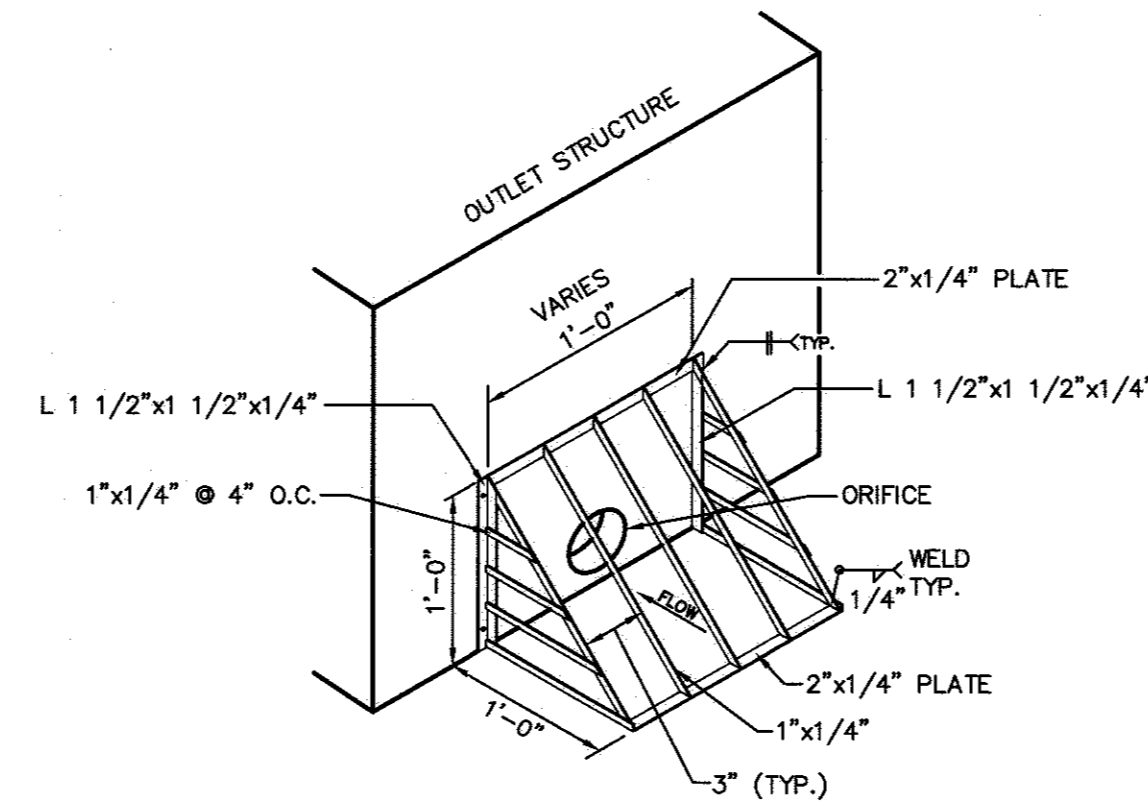
SWALE INFILTRATION TRENCH

NOT TO SCALE



DETENTION BASIN OUTLET STRUCTURE

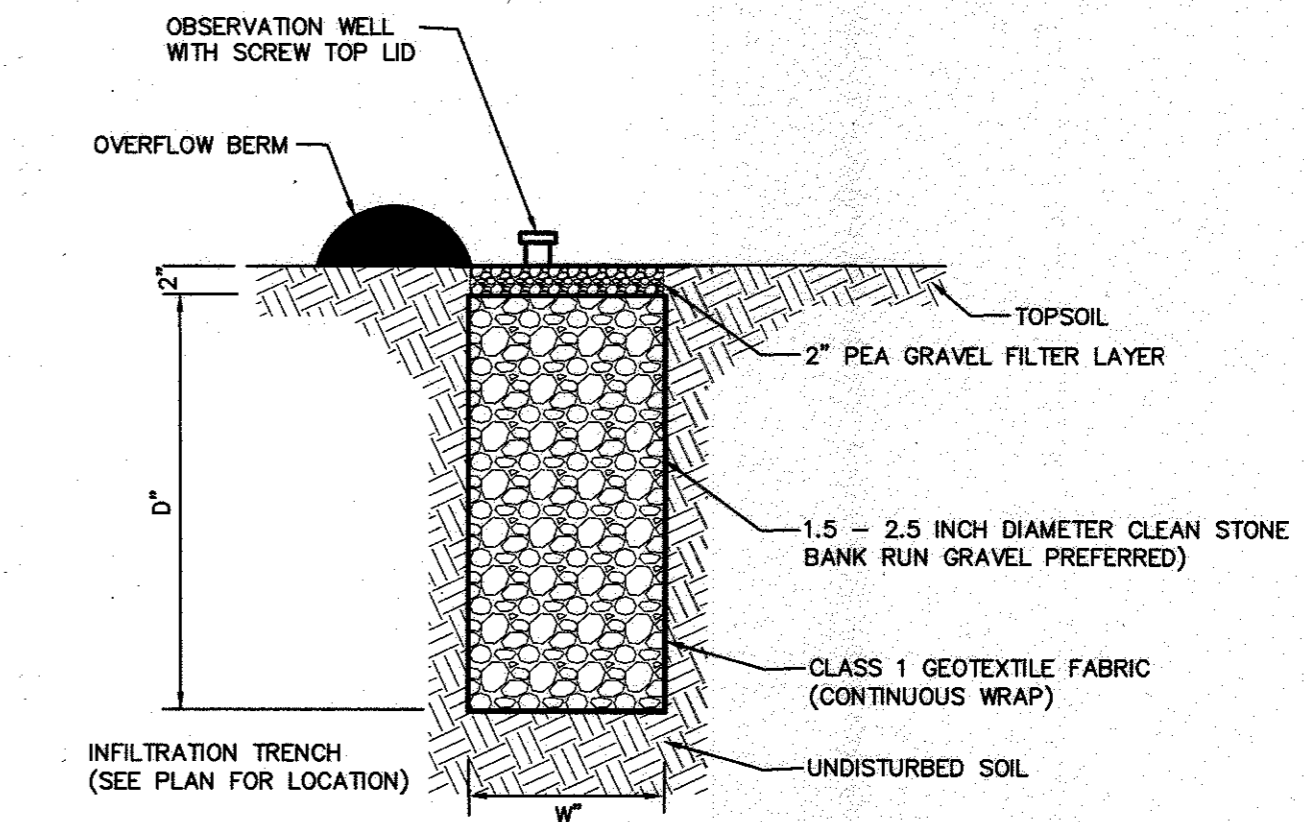
NOT TO SCALE
SD/00042



TRASH RACK

NOT TO SCALE
SD/00045

- NOTES:
1. MATERIAL TO BE STAINLESS STEEL.
 2. ATTACH WITH 1/2" DIA. 2" STAINLESS STEEL ANCHOR BOLTS, 12" O.C.
 3. BOLT TRASH RACK TO INLET BOX OR ORIFICE PLATE AS REQUIRED.



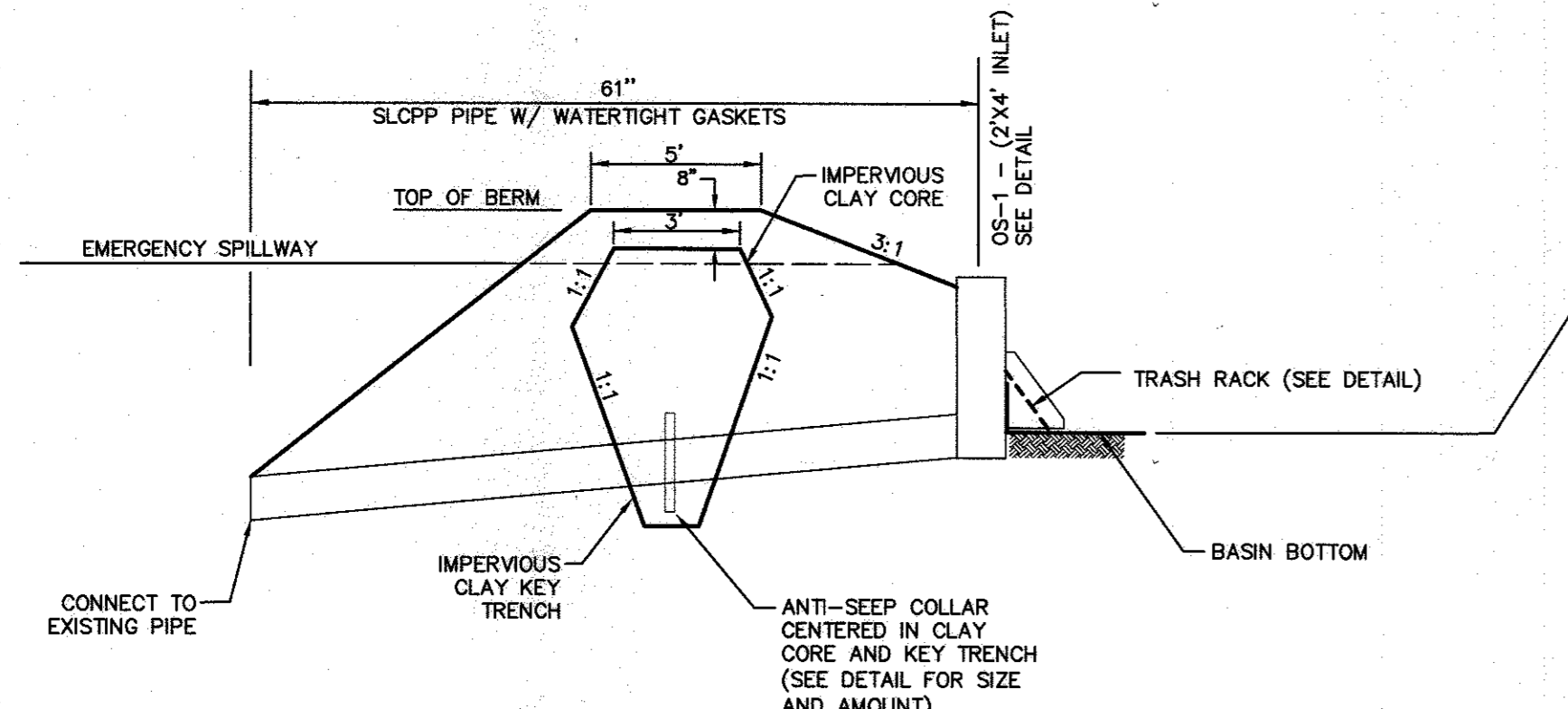
INFILTRATION TRENCH NUMBER	PIPE DIAMETER (IN)	TRENCH DIMENSIONS	BOTTOM OF TRENCH ELEV.		
		LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	
IT-1	N/A	174	3.0	4.0	212.77
IT-2	12	210.200	4.0	3.67	213.10-215.00
IT-3	N/A	180	4.0	3.75	199.33

INFILTRATION TRENCH

NOT TO SCALE

MAINTENANCE NOTES:

1. REMOVAL OF SEDIMENT WHEN ACCUMULATION EXCEEDS 30% OF THE DESIGN STORAGE VOLUME. IN FOREBAYS, REMOVAL OF SEDIMENT SHALL OCCUR WHEN THE ACCUMULATION EXCEEDS 50% OF THE FOREBAY VOLUME.
2. REMOVAL OF ACCUMULATED PAPER, TRASH AND DEBRIS AS NECESSARY.
3. VEGETATION GROWING ON THE EMBANKMENT TOP AND FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
4. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.
5. CORRECTIVE MAINTENANCE IS REQUIRED ANY TIME THE FOREBAY DOES NOT DRAIN DOWN COMPLETELY WITHIN 60 HOURS (I.E., NO STANDING WATER IS ALLOWED).
6. MAINTENANCE OF POND LANDSCAPING SHALL INCLUDE REPLACEMENT OF DEAD OR DYING VEGETATION, AS NECESSARY.

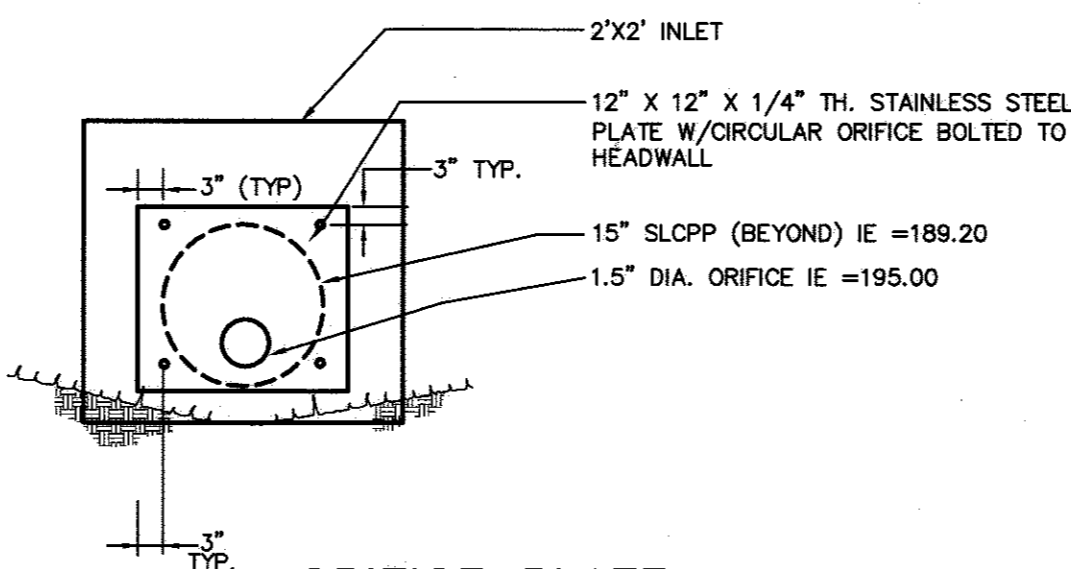


- NOTES:
1. CLAY CORE & KEY TRENCH SHALL BE CONSTRUCTED TO 95% STD. PROCTOR DENSITY WITH CL OR ML SOILS.
 2. EXTEND CLAY CORE & KEY TRENCH THE FULL LENGTH OF THE BASIN EMBANKMENT.

BASIN BOTTOM	TOP OF BERM	SPILLWAY INVERT	OUTLET PIPE SIZE	OUTLET PIPE SLOPE	UPSTREAM PIPE INVERT	DOWNSTREAM PIPE INVERT
193.00	198.25	197.25	24"	2.28%	189.20	187.81

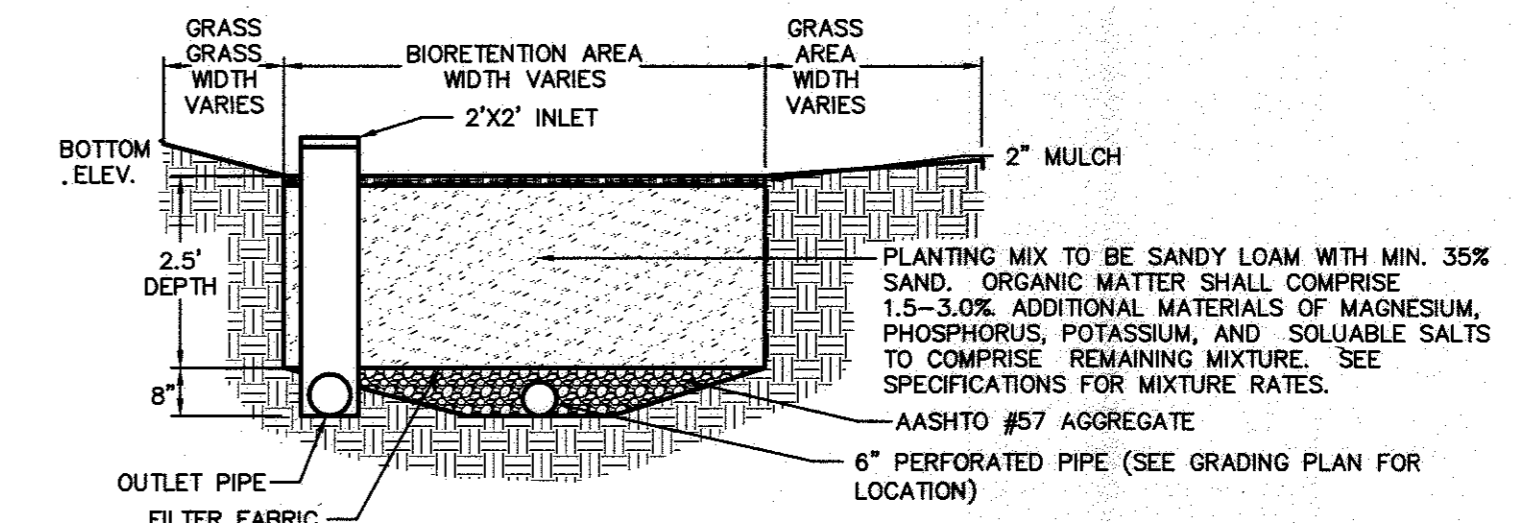
DETENTION BASIN - OUTLET AND EMBANKMENT

NOT TO SCALE
SD/00091



ORIFICE PLATE

NOT TO SCALE
SD/00091



NOTE: SEED BIORETENTION AREA WITH ERNST SEED MIX PER SUPPLIERS RECOMMENDATION.

BIORETENTION NUMBER	BOTTOM ELEV.	TOP OF BERM	TOP OF GRATE	OUTLET PIPE SIZE	UPSTREAM PIPE INVERT	DOWNSTREAM PIPE INVERT
#1	214.00	216.00	215.00	24"	210.64	210.20
#2	210.00	212.00	211.50	15"	206.67	206.34
#3	216.10	219.00	N/A	N/A	N/A	N/A

BIORETENTION

NOT TO SCALE
SD/00078

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: *[Signature]* DATE: 5-4-16
 Chief, Development Engineering Division: *[Signature]* DATE: 5-4-16
 Director: *[Signature]* DATE: 5-10-16

FOR REVIEW ASSOCIATES BY: *[Signature]*

MANAGER: DAVID D. MILLER, P.E.
 DESIGN BY: CHD BY: DEW
 SURV. CHIEF: FELDBROOK NO. DATA COLLECTOR
 DRAWN BY: DCW
 CHECKED BY: DEW

CLIENT: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

SCALE: AS NOTED

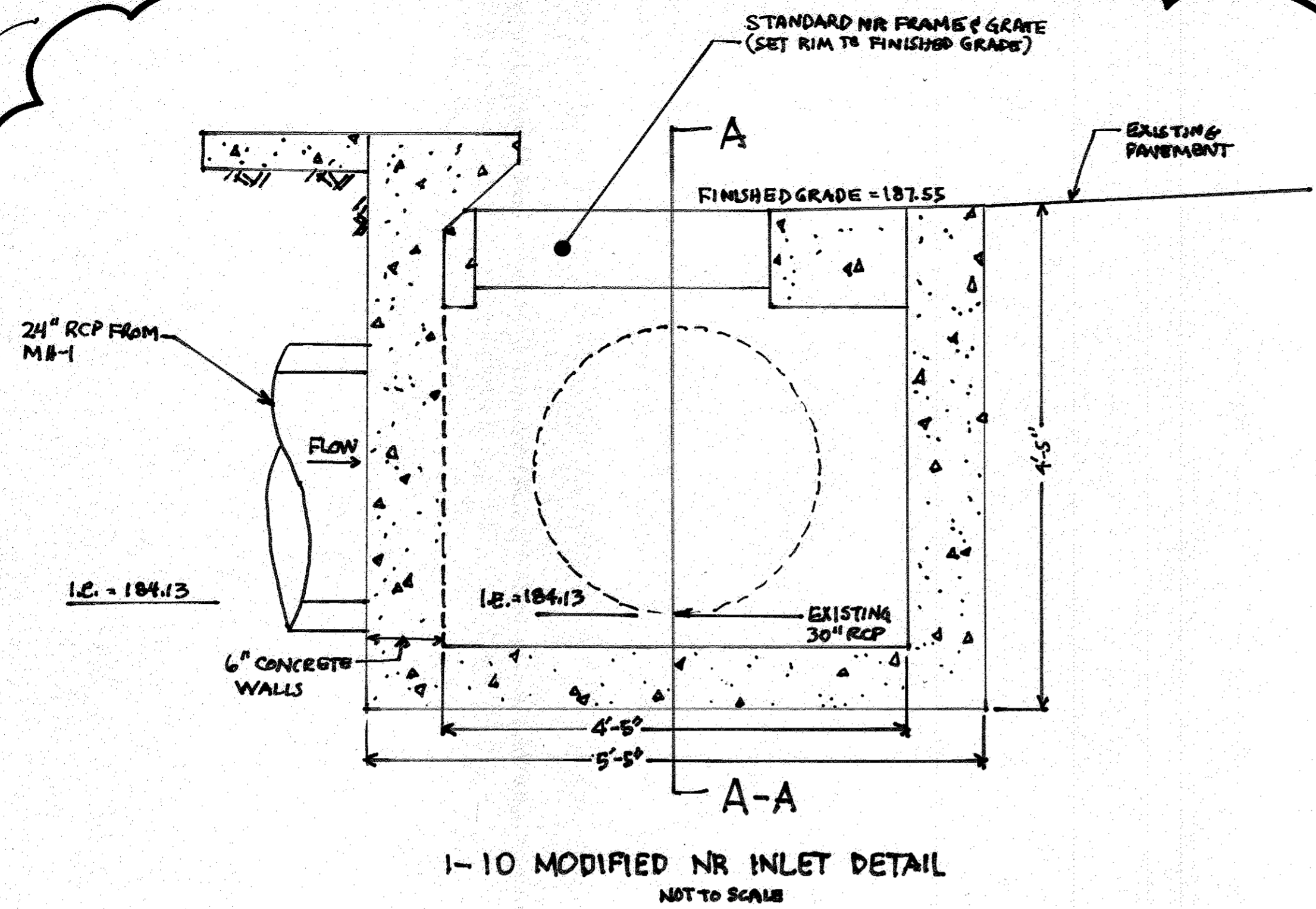
REVIEW ASSOCIATES, INC.
 3020 Columbia Ave., Lancaster, PA 17603
 Phone (717) 394-3721 • Fax (717) 394-1063
 Website: www.review.com

Engineers • Planners • Surveyors • Landscape Architects
 Environmental Consultants

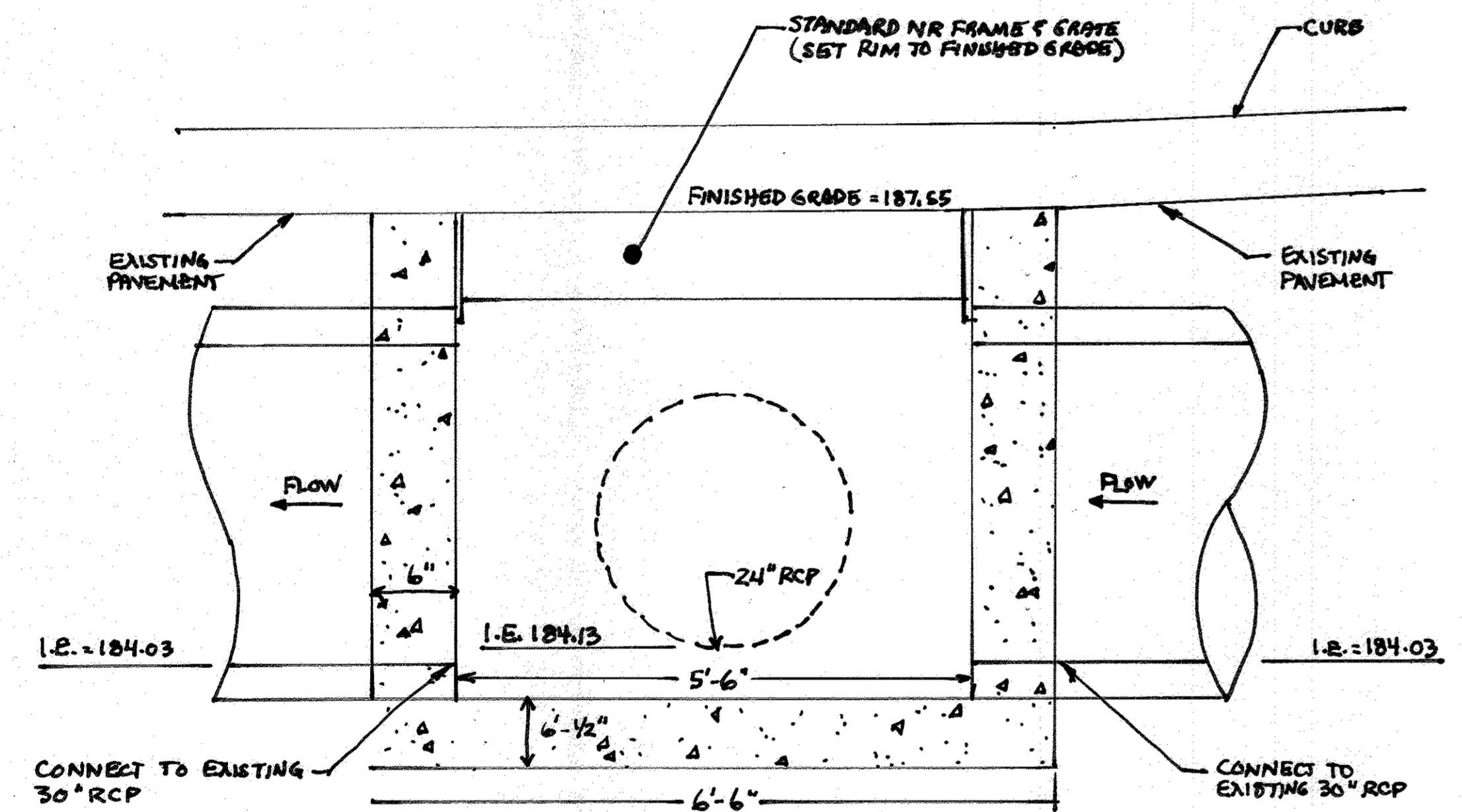
DETAILS: STORMWATER MANAGEMENT
 SITE DEVELOPMENT PLAN
 FOR
NAPA WASHINGTON
 HOWARD COUNTY, MD

DATE: MARCH 2, 2016
 SHEET NO. 11 OF 19
 DWG. NO. 099812001

DATE: 5-10-16



1-10 MODIFIED NR INLET DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE

NOTE:
PRIOR TO FABRICATION, CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL TO HIGHWAY HYDRAULIC DIVISION, STATE HIGHWAY ADMINISTRATION

NOTES:
1. CONTRACTOR SHALL PROVIDE 3"-6" BEVEL AROUND PIPE OPENING UPSTREAM HEADWALLS.

D	E	F	G	H	I	J	K	L	M	N	Δ VOL. CY	Δ CHANG. SLOPE AND 45° ANGLE
12"	2'-8"	7'-2"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
15"	2'-11"	7'-5"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
18"	3'-2"	7'-8"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
21"	3'-5"	8'-1"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
24"	3'-8"	8'-4"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
27"	4'-1"	8'-7"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
30"	4'-4"	9'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
36"	4'-10"	9'-6"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
42"	5'-6"	10'-2"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
48"	6'-2"	10'-8"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
54"	6'-8"	11'-4"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
60"	7'-4"	12'-0"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
66"	8'-0"	12'-6"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	
72"	8'-6"	13'-2"	3'-0"	2'-0"	2'-0"	8"	8"	8"	8"	8"	1.30	

PLAN
FRONT ELEVATION
SECTION A-A
SECTION B-B

Howard County, Maryland
Department of Public Works
TYPE 'A' Headwall
Circular Pipe
Detail
D-5.11

NOTE:
1. INLET TO BE USED IN A SINGLE OR SHARP WAVE CAPACITY UNDER 25-3 C.F.E. TO BE USED WITH 18" CURB OR SIMILAR. NOT TO BE USED IN ROADWAY OR PARKING AREA.
2. TO BE USED ONLY WHEN APPROVED BY COUNTY.

Howard County, Maryland
Department of Public Works
Yard Inlet
Detail
D-4.14

GENERAL NOTES:
1. CONCRETE TO BE MIX NO. 3 (GROUP 1).
2. REINFORCING - 2 LAYERS OF #4-#6-#8 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR INVERTING.
4. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. SEE SIZE, LOCATION, AND INVERT ELEVATIONS, REFER TO COMPRESSION PLAN.
5. GRATE TO BE OF STEEL CONSTRUCTION AND SHALL BE SQUARE, PLATE AND THICK, RECTANGULAR GRATE TO BE GALVANIZED WITH FINISHING BY ACCORDANCE WITH ASTM A123, WAVE GRATE AND FRAME AS PREFERRED.

DOUBLE OPENING
SINGLE OPENING

Howard County, Maryland
Department of Public Works
Open End Grate
Precast
Detail
D-4.36

NOTES:
1. SLOPE PROTECTION USING 4" TO 7" STONE SHALL BE USED. THE WIDTH OF STONE PROTECTION TO BE 2'.
2. WITH THE APPROVAL OF THE ENGINEER, THE UNDERDRAIN SHALL BE WAVED WHERE UNDERDRAIN DISCHARGES INTO AN INLET OR WHERE OTHER UNUSUAL CONDITIONS PREVAIL. SEE SPECIFICATIONS FOR TRENCH FOR EXTRA TRENCH DEPTH.
3. UNDERDRAIN SHALL BE LAD ON A MINIMUM 0.5% GRADE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. UNDERDRAIN SHALL BE DISCHARGED INTO INLETS AND MANHOLES WHERE POSSIBLE AND SHALL BE DISCHARGED ONTO THE ROADWAY SLOPES ONLY WHERE NO INLETS OR MANHOLES ARE AVAILABLE FOR CONNECTION.
5. FOR JOINTS, REFER TO SPECIFICATIONS.

Howard County, Maryland
Department of Public Works
Underdrain
Detail
R-1.09

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development
 Chief, Development Engineering Division
 DATE: 5-16-16
 DATE: 5-4-16
 DATE: 6-10-16

REVIEW ASSOCIATES BY: [Stamp]

MANAGER: DAVID D. MILLER, P.E.
 DESIGN BY: JAR
 SURV. CHECK: [Name]
 DRAWN BY: DCW

CLIENT: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

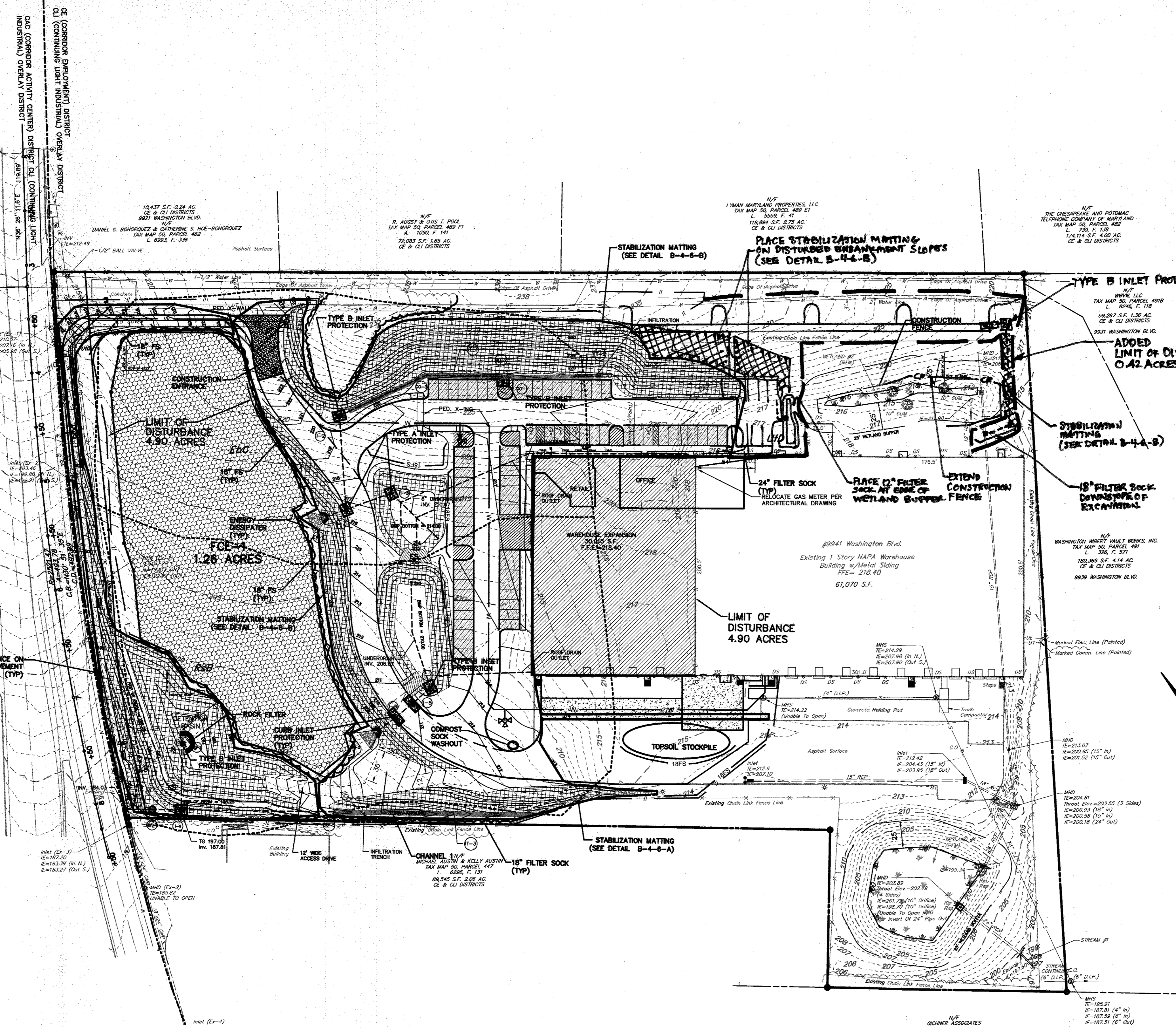
SCALE: AS NOTED

DETAILS: STORMWATER MANAGEMENT
 SITE DEVELOPMENT PLAN
 FOR
 NAPA WASHINGTON

DATE: MARCH 2, 2016
 SHEET NO. 12 OF 19
 DWG. NO. 099812001

HOWARD COUNTY, MD

U.S. RTE. 1 - WASHINGTON BLVD
(VARIABLE WIDTH RIGHT-OF-WAY - S.R.C. PLAT NO. 6772 & 6773)



LEGEND

EXISTING BOUNDARY LINE	---
PROPOSED LOT LINE	---
EXISTING RIGHT-OF-WAY LINE	---
PROPOSED CURB	---
EXISTING CURB	---
EXISTING PAVEMENT	---
PROPOSED PAVEMENT	---
EXISTING VEGETATION	---
DECIDUOUS TREE	---
EVERGREEN TREE	---
EXISTING TREELINE	---
PROPOSED TREELINE	---
EXISTING CONTOUR LINE	---
PROPOSED CONTOUR LINE	---
PROPOSED SPOT ELEVATION	---
EXISTING FENCE	---
PROPOSED STORM MANHOLE	---
EXISTING STORM MANHOLE	---
PROPOSED STORM INLET	---
EXISTING STORM HEADWALL/ENDWALL	---
PROPOSED STORM HEADWALL/ENDWALL	---
PROPOSED PIPE OUTLET PROTECTION	---
EXISTING STORM PIPE	---
PROPOSED STORM PIPE	---
NFDS BOUNDARY	---
LIMITS OF DISTURBANCE	---
ROCK FILTER	---
STANDARD INLET PROTECTION	---
CURB INLET PROTECTION	---
12" FILTER SOCK	---
18" FILTER SOCK	---
ROCK CONSTRUCTION ENTRANCE	---
COMPOST SOCK WASHOUT	---
STABILIZATION MATTING	---
SOIL TYPE BOUNDARY LINE	---
SOIL TYPE DESIGNATION	EbC

SOILS CLASSIFICATION

EbC: Evesboro Loamy Sand, 2 to 10 Percent Slopes
 BbB: Russet Fine Sandy Loam, 2 to 5 Percent Slopes
 Ubd: Urban Land-Urorthents Complex, 0 to 15 Percent Slopes.

ALL SOILS ARE NON-HYDRIC, WITHOUT HYDRIC INCLUSIONS, AND DO NOT EXHIBIT ANY SIGNIFICANT EROSION POTENTIAL.

RECEIVING WATER CLASSIFICATION WATER QUALITY DESIGNATION

- UNNAMED TRIBUTARY TO UPPER PATUXENT RIVER WATERSHED
 - TROUT STOCK FISHERY (TSF)
 - MIGRATORY FISHERY (MF)

HOWARD SOIL CONSERVATION NOTES

- TEMPORARY AND PERMANENT SEEDING IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME INTERVALS REQUIRED BY THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- "SUPER" SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

REFERENCE

SITE DEVELOPMENT PLAN, DATED DECEMBER 11, 2014
 STORMWATER MANAGEMENT REPORT, DATED JULY 11, 2014
 ECP PLAN, DATED APR. 3, 2014.

NOTES

AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, FILTER SOCKS ARE TO BE REPLACED BY EITHER SILT FENCE OR "SUPER" SILT FENCE.

- NOTE:**
- EXTENSION OF IT-2, INSTALLATION OF TRENCH DRAIN AND CONSTRUCTION OF RETENTION BEAM 3 ARE SCHEDULED TO BE CONSTRUCTED IN SPRING TO EARLY SUMMER OF 2017.
 - THE FILTERRA BOX AND PARKING ALONG WILBUR LANE IS SCHEDULED TO BE CONSTRUCTED IN A LATER PHASE, DATE TO BE DETERMINED.
 - REFER TO PLAN SHEET 5 OF 19 FOR REVISED GRADING PLAN.

ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature of Engineer (print name below signature) *Cam W. Harvey* Date *4/14/2016*

DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
 Signature of Developer (print name below signature) *Rick Borman* Date *4/16/2016*

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Director *John K. Blanton* Date *4/19/16*

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Signature of Chief, Division of Land Development *W. J. [Signature]* Date *5-11-16*
 Signature of Chief, Development Engineering Division *W. J. [Signature]* Date *5-4-16*
 Signature of Director *W. J. [Signature]* Date *5-16-16*

FOR REVIEW ASSOCIATES BY: [Signature]

MANAGER: DAVID D. MILLER, P.E.
 DESIGN BY: CHOD BY: DEW
 SURV. CHECK: FELDBROOK NO. DATA COLLECTOR
 DRAWN BY: DEW
 CHECK BY: DEW

CLIENT: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

EROSION AND SEDIMENTATION CONTROL PLAN
 SITE DEVELOPMENT PLAN
 FOR
NAPA WASHINGTON

DATE: MARCH 2, 2016
 SHEET NO. 13 OF 19
 DWG. NO. 099812001

HOWARD COUNTY, MD

REVISION: [Table with columns for NO., DATE, and REVISION]

GRADING AND SEDIMENT CONTROL NOTES:

GENERAL NOTES:

- ALL PLANS, DESIGNS AND COMPUTATIONS FOR GRADING AND SEDIMENT CONTROL WHICH ARE SUBMITTED TO THE HOWARD SOIL CONSERVATION DISTRICT FOR REVIEW AND APPROVAL ARE TO BE IN CONFORMANCE WITH THE CRITERIA ESTABLISHED IN THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.

STANDARD E&S PLAN NOTES

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNLINED, THE MARYLAND EROSION CONTROL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-257-7777 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL APPROVING AGENCY.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S Bmps SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL APPROVING AGENCY.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT Bmps SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT Bmps AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY, IF THE E&S Bmps FAIL TO PERFORM AS EXPECTED, REPLACEMENT Bmps, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S Bmps WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT FROM THE PROJECT SHALL BE REMOVED FROM THE SITE AND DISPOSED IN THE MANNER SHOWN ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLUPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOIL, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- E&S Bmps SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL Bmp APPROVED BY THE LOCAL APPROVING AGENCY.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT Bmps MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT Bmps. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE Bmps SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
- WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES, MUST BE REMOVED FROM ALL AREAS SHOWN TO BE DISTURBED WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 9" LAYERED LIFTS AT 95% DENSITY.
- STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD Bmp BLANKETING. A TEMPORARY STABILIZATION SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
- IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS' NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- PERMITS: SITE ANALYSIS:
 - TOTAL AREA OF SITE: 10.93 ACRES AREA TO BE VEGETATIVELY STABILIZED: 3.2 ACRES
 - AREA DISTURBED: 5.1 ACRES TOTAL CUT: 10,100 CU. YDS.
 - AREA TO BE ROOFED OR PAVED: 1.9 ACRES TOTAL FILL: 9,680 CU. YDS.
 - OFFSITE WASTE/BORROW ARE LOCATION: N/A
- ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR CORRECTIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WITH AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING CONSTRUCTION SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE THE FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION MEETING WITH THE HOWARD SOIL CONSERVATION DISTRICT (HSCSD) THAT TAKE PLACE AT THE SITE WITH THE DEVELOPER, THE CONTRACTOR, AND THE COUNTY ENGINEER AT LEAST 10 DAYS PRIOR TO BEGINNING ANY EARTH WORKING ACTIVITIES. BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN (OR REVISIONS TO OTHER PLANS THAT WILL AFFECT THE EFFECTIVENESS OF THE APPROVED E&S PLAN) THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISION FROM THE LOCAL APPROVING AUTHORITY.

- OBTAIN GRADING PERMIT.
- THE CONTRACTOR SHALL FIELD MARK THE LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES.
- INSTALL THE ROCK CONSTRUCTION ENTRANCE AT THE PROPOSED LOCATION. ALL CONSTRUCTION VEHICLES ENTERING AND EXITING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCE. ALL MUD AND SEDIMENT TRACKED ONTO THE EXISTING ROADWAY SHALL BE REMOVED BY THE SITE CONTRACTOR AT THE END OF EACH WORKDAY. WASHING OF THE ROADWAY IS NOT PERMITTED.

THE CONTRACTOR IS TO VERIFY THE LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES. CONFLICTS SHALL BE IDENTIFIED AND ANY RELOCATION REQUIRED SHALL BE COORDINATED WITH THE UTILITY OWNER(S). INSTALL ALL THE PERIMETER FILTER LOGS AT THE LOCATIONS SHOWN ON THE PLANS. CARE SHOULD BE TAKEN TO PROTECT THE METHODS FROM ANY SEDIMENT POLLUTION. THE CONTRACTOR SHALL MAINTAIN THE FILTER LOGS IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PERIOD. MAKE REPAIRS IMMEDIATELY AFTER EACH RAINFALL EVENT AND MAKING ANY NECESSARY REPAIRS. IN THE EVENT THAT ANY FILTER LOG SHOULD FAIL IN THE COURSE OF CONSTRUCTION, SUPER SILT FENCE MAY BE INSTALLED AS A TEMPORARY MEASURE.

- DEMOLISH EXISTING STRUCTURES TO BE REMOVED.
- STRIP AND STOCKPILE TOPSOIL AT LOCATION SHOWN. STOCKPILES AND ANY EARTH DISTURBANCE THAT EXPERIENCE CESSATION OF CONSTRUCTION ACTIVITIES LONGER THAN 3 DAYS SHOULD BE TEMPORARILY SEED AND MULCH. STOCKPILE TOPSOIL TO BE RETAINED ON THE SITE IN THE APPROXIMATE LOCATION SHOWN ON THE PLANS. IMMEDIATELY INSTALL FILTER LOGS AROUND STOCKPILES, SOW TEMPORARY SEED AND MULCH STOCKPILES.
- ROUGH GRADE THE SITE. AS AREAS ARE BROUGHT TO FINISHED GRADE STABILIZE WITH TOPSOIL, SEED, AND MULCH OR STONE BASE AS SOON AS POSSIBLE. SPECIAL CARE MUST BE TAKEN TO AVOID COMPACTION OF THE BIORETENTION AREAS, THE PERVIOUS PAVING, AND THE INFILTRATION TRENCHES.
- BEGIN CONSTRUCTION OF THE BIORETENTION AREAS, THE PERVIOUS PAVING, INFILTRATION TRENCH, AND STORM SEWER SYSTEM. PLACE INLET PROTECTION AS DESIGNATED ON PLAN SHEET 13 ON THE INLETS IMMEDIATELY INTENT IS TO KEEP THE INLETS CLEAN UNTIL THE BIORETENTION AREAS HAVE BEEN PERMANENTLY STABILIZED.
- BEGIN BUILDING CONSTRUCTION. INSTALL FILTER LOGS UPSLOPE OF BIORETENTION AREAS TO PREVENT SEDIMENT FROM ENTERING.
- CONSTRUCT THE DETENTION BASIN, OUTLET STRUCTURE, AND OUTFALL CULVERT. INSTALL ROCK FILTER AROUND OUTLET STRUCTURE. APPLY TOPSOIL, SEED, EROSION CONTROL MAT, AND MULCH TO THE AREAS DISTURBED BY THE CONSTRUCTION OF THE BASIN; FINISH THE PARKING LOT AND BUILDING. SEDIMENT BASIN MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THE PUBLIC.
- UNTIL SUCH TIME AS THE SITE IS PERMANENTLY STABILIZED, ALL EROSION AND SEDIMENTATION AND SEDIMENTATION CONTROL DEVICES SHALL BE MAINTAINED IN WORKING ORDER. MAINTENANCE SHALL INCLUDE THE INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER EACH RUNOFF EVENT, AS WELL AS ON A WEEKLY BASIS.
- NOTIFY HOWARD SOIL CONSERVATION DISTRICT OF COMPLETION OF WORK.
- UPON RECEIVING PERMISSION FROM THE HO. CO. SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. CUT OPEN COMPOST FILTER LOG AND SPREAD MATERIAL. ANY REMAINING EARTH DISTURBANCE SHALL BE PERMANENT STABILIZED WITH SEED AND MULCH OR EROSION CONTROL BLANKET.

OPERATION AND MAINTENANCE NOTES:

- OPEN CHANNEL SWALE:**
- THE OPEN CHANNEL SWALE SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS. INSPECTION SHALL BE IN WET WEATHER TO DETERMINE IF FACILITY IS FUNCTIONING.
 - REPAIR EROSION AND MAINTAIN ACCESS SURFACE IN GOOD CONDITION.
 - CHECK FOR DEWATERING WITHIN 48 HOURS OF RAINFALL, NOTICEABLE ODORS, WATER STAINS ON THE FILTER SURFACE OR AT THE OUTLET AND PRESENCE OF ALGAE OR AQUATIC VEGETATION.
 - REMOVE AND REPLACE FILTER MEDIA AS NEEDED.
 - THE OPEN CHANNEL SWALE SHALL BE MOWED TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
 - MONITOR CHECK DAMS AND WEIRS FOR FLOW GOING AROUND STRUCTURE, EROSION AT THE DOWNSTREAM TOE AND STRUCTURAL DETERIORATION.

- INFILTRATION TRENCH:**
- CHECK ACCESSIBILITY TO TRENCH AREA AND OUTLETS, IF ANY.
 - CHECK FOR WOODY VEGETATION IN THE TRENCH AND TRENCH PERIMETER.
 - CHECK FOR DISPLACEMENT OF STONE OR OTHER TRENCH MATERIAL, STABLE CONVEYANCE AND EROSION BELOW THE OUTLET.
 - REPAIR EROSION, CLEAN DEBRIS AND LITTER. MOW GRASS DURING GROWING SEASON TO MAINTAIN 4 TO 8 INCH HEIGHT.
 - WHEN DEWATERING FALLS WITHIN 48 HOURS, REMOVE THE TOP 3 TO 6 INCHES OF SOIL/SEDIMENT AND REPLACE WITH SUITABLE MATERIAL PER PLAN. FOLLOW UP INSPECTIONS SHALL CONFIRM ADEQUATE DEWATERING.
 - WITH OBSERVATION WELLS, CHECK FOR PRESENCE OF WATER. REPAIR AS NEEDED.

- PERMEABLE PAVEMENT:**
- PAVEMENTS SHOULD ONLY BE USED WHERE REGULAR MAINTENANCE CAN BE PERFORMED. MAINTENANCE AGREEMENTS SHOULD CLEARLY SPECIFY HOW TO CONDUCT ROUTINE TASKS TO ENSURE LONG TERM PERFORMANCE.
 - PAVEMENT SURFACES SHOULD BE SWEEP AND VACUUMED TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING SYSTEMS AND COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
 - DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN THE DRAINAGE TO THE SUBGRADE SHOULD BE CLEANED OUT AT REGULAR INTERVALS.
 - TRUCKS AND OTHER HEAVY VEHICLES CAN GRIND DIRT AND GRIT INTO POROUS SURFACES, LEADING TO CLOGGING AND PREMATURE FAILURE. THESE VEHICLES SHOULD BE PREVENTED FROM TRACKING AND SPILLING MATERIAL ONTO THE PAVEMENT.
 - DEICERS SHOULD BE USED IN MODERATION. WHEN USED, DEICERS SHOULD BE NON-TOXIC AND ORGANIC AND CAN BE APPLIED EITHER AS A BLENDED MAGNESIUM CHLORIDE-BASED LIQUID OR AS PRETREATED SALT. SNOW PLOWING SHOULD BE DONE CAREFULLY WITH BLADES SET ONE INCH HIGHER THAN NORMAL. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

- DRY POND:**
- FACILITY SHOULD BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS. INSPECTION SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF POND IS FUNCTIONING PROPERLY.
 - CHECK FOR WOODY VEGETATION ON DAM AND WITHIN 25 FEET OF RISER.
 - VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS THE RIPRAP STONES OUTLET AREA SHALL BE REPAIRED.
 - STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, RISER AND PIPES SHALL BE REPAIRED UPON DETECTION OF ANY FAILURE. CHECK FOR MISSING MANHOLE COVERS OR GRATES, CONDITION OF CONCRETE AND METAL; OVERALL STRUCTURAL INTEGRITY. GRASS SHOULD BE MAINTAINED AND IN GOOD CONDITION AND BE LESS THAN 12" IN MOWING HEIGHT.
 - DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS.
 - SEDIMENT SHALL BE REMOVED FROM POND WHEN 30% OF STORAGE LOSS HAS BEEN ACHIEVED OR WHEN NECESSARY FOR AESTHETIC REASONS.

- BIO-RETENTION:**
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, SAND MEDIA AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTION AREAS OF EROSION AND WASHOUT. CHECK FOR DEWATERING WITHIN 48 HOURS, WHEN NECESSARY, REPLACE FILTER MEDIA PER PLAN.
 - SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD, DISEASED, AND EXCESSIVE VEGETATION CONSIDERED BEYOND TREATMENT. REPLACEMENT OF ALL DISEASED TREES, SHRUBS, DEFICIENT STAKES AND WIRES WILL BE REQUIRED.
 - MULCH LAYERS SHALL BE INSPECTED EACH SPRING. ONCE EVERY 3 TO 3 YEARS, REMOVE PREVIOUS MULCH LAYERS AND APPLY NEW 2 TO 3 INCH LAYER.
 - SOIL EROSION AND FLOW BLOCKAGES TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORMS. INSPECT CLEANOUTS AND OBSERVATION WELLS ALONG WITH THE OVERFLOW/OUTFALL/EXIT PIPES.
- STOCKPILE AREA:**
- THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
 - SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO.
 - THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION.
 - IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

SEEDING NOTES: TEMPORARY

NO.	SPECIES	SEEDING RATE		SEEDING DEPTHS (INCH)	SEEDING DATES	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	FERTILIZER RATE		LIME RATE		
		LBS/AC	LBS/1000SQ FT					LBS/AC	LBS/1000SQ FT			
1	ANNUAL RYERGRASS (DOUJIM PEREGRINUS MULTIFLORUM)	40	1.0		MAR 1 TO MAY 15 AUG 1 TO OCT 15	0.5*	99%	85%	456	10.0	2	90
WARM-SEASON GRASSES												
2	FOXTAIL MILLET (SETARIA ITALICA)	30	0.75		MAY 16 TO JUL 15	0.5*	98%	80%	436	10.0	2	90
3	PEARL MILLET (Pennisetum GLAUCUM)	30	0.75		MAY 16 TO JUL 15	0.5*	98%	80%	436	10.0	2	90
COOL-SEASON GRASSES												

- NOTES:**
- SEEDING RATES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED.
 - FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
 - THE PLANTING DATES ARE AVERAGES FOR SAID ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

- GENERAL TEMPORARY SEEDING NOTES:**
- ALL AREAS TO BE SEEDED SHALL BE LOOSENEED TO A DEPTH OF AT LEAST TWO INCHES BY MECHANICAL MEANS.
 - MULCH SEEDING AREAS IMMEDIATELY AFTER SEEDING.
 - UNLESS OTHERWISE DIRECTED BY THE ENGINEER, MULCH (HAY OR STRAW) SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE DURING NON-GERMINATION PERIOD OF OCTOBER 15 - MARCH 1.
 - SEED MIXTURE SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE VARIETIES SHOWN ON THIS PLAN.
 - MULCH - CLEAN OUT OR WHEAT STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS. APPLY AT A RATE OF 3 TONS PER ACRE. PRECAUTION SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED.

SEEDING NOTES: PERMANENT

NO.	SPECIES	SEEDING RATE		SEEDING DEPTHS (INCH)	SEEDING DATES	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	FERTILIZER RATE		LIME RATE	
		LBS/AC	LBS/1000SQ FT					LBS/AC	LBS/1000SQ FT		
1	PREPARED MIXTURE PRYSTICA RUBRA VAR. RUBRA	30	0.69	1/2"	MAR 1 TO MAY 15 AUG 1 TO OCT 15	97%	85%	456	10.0	2	90
2	PREPARED MIXTURE PRYSTICA RUBRA SSP. COMMUTATA	30	0.69	1/2"	COMMON	97%	85%	456	10.0	2	90
3	KENTUCKY BLUEGRASS (POA PRATENSIS)	30	0.66	1/2"	RECOMMENDED MIXTURE	97%	80%				

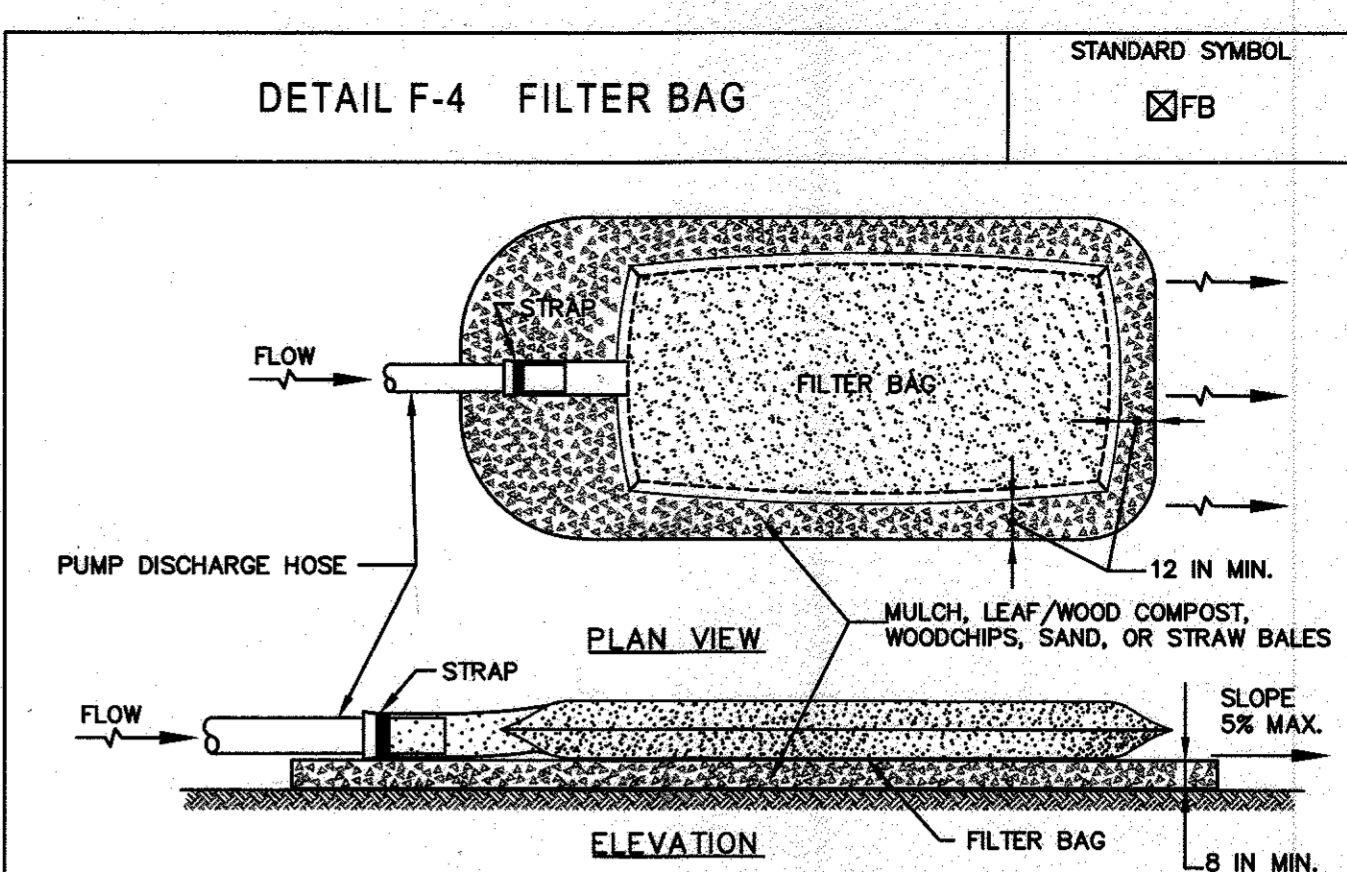
- NOTES:**
- SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE NOT USUALLY NEEDED FOR THE COOL-SEASON GRASSES, LEGUMES, OR MIXTURES WHICH SHOULD BE SCARIFIED BEFORE PLANTING WITH THE APPROPRIATE PREGRIED BACTERIA, WHEN FEASIBLE.
 - FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
 - THE PLANTING DATES ARE AVERAGES FOR SAID ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

- GENERAL PERMANENT SEEDING NOTES:**
- ALL AREAS TO BE SEEDED SHALL BE LOOSENEED TO A DEPTH OF AT LEAST TWO INCHES BY MECHANICAL MEANS.
 - MULCH OF LONG-STEM STRAW SHALL BE APPLIED AT EVEN APPLICATION OF 3 TONS PER ACRE WITH A SURFACE COVERAGE OF 80% TO 90% LIMESTONE AND PEPPER SHALL BE APPLIED UNIFORMLY TO AREAS TO BE SEEDING AND WORKED INTO SOIL TO A DEPTH OF 4".
 - UNLESS OTHERWISE DIRECTED BY THE ENGINEER, MULCH (LONG-STEM STRAW) SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AND AT A RATE OF 3 TONS PER ACRE DURING NON-GERMINATION PERIOD OF OCTOBER 15 - MARCH 1.
 - SEED MIXTURE SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE VARIETIES SHOWN ON THIS PLAN.

INSPECTION NOTES:

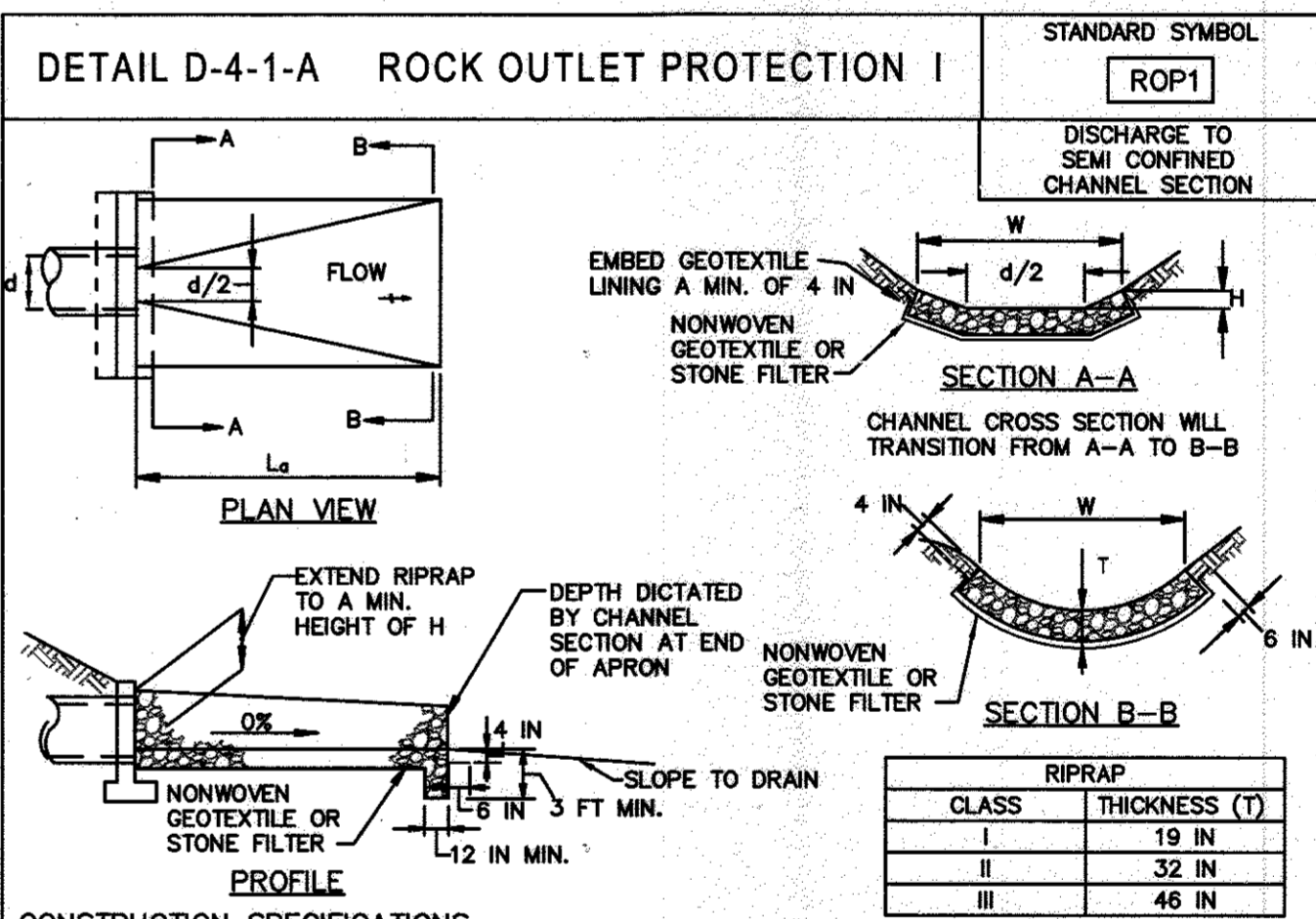
- INSPECTION SCHEDULE AND REPORTS:**
- THE DEVELOPER SHALL NOTIFY THE COUNTY AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH THE STORMWATER MANAGEMENT PLAN AND UPON COMPLETION OF A PROJECT WHEN A FINAL INSPECTION WILL BE CONDUCTED.
 - REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED FOR EACH ESD PLANNING TECHNIQUE AND PRACTICE AT THE STAGES OF CONSTRUCTION SPECIFIED IN THE DESIGN MANUAL BY MARYLAND, ITS AUTHORIZED REPRESENTATIVE, OR CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND. AT A MINIMUM, ALL ESD AND OTHER NONSTRUCTURAL PRACTICES SHALL BE INSPECTED UPON COMPLETION OF FINAL GRADING, THE ESTABLISHMENT OF PERMANENT STABILIZATION, AND BEFORE ISSUANCE OF USE AND OCCUPANCY APPROVAL.
 - WRITTEN INSPECTION REPORTS SHALL INCLUDE:
 - DATE AND LOCATION OF THE INSPECTION;
 - WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN;
 - ANY VIOLATIONS FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND
 - ANY VIOLATIONS THAT EXIST.
 - THE OWNER/DEVELOPER AND ON-SITE PERSONNEL SHALL BE NOTIFIED IN WRITING WHEN VIOLATIONS ARE OBSERVED. WRITTEN NOTIFICATION SHALL DESCRIBE THE NATURE OF THE VIOLATION AND THE REQUIRED CORRECTIVE ACTION.
 - NO WORK SHALL PROCEED UNTIL THE COUNTY INSPECTS AND APPROVES THE WORK PREVIOUSLY COMPLETED AND FURNISHES THE DEVELOPER WITH THE RESULTS OF THE INSPECTION REPORTS AFTER COMPLETION OF EACH REQUIRED INSPECTION.

- INSPECTION REQUIREMENTS DURING CONSTRUCTION:**
- AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING SPECIFIED STAGES OF CONSTRUCTION:
 - PODS
 - UPON COMPLETION OF EXCAVATION TO SUB-FOUNDATION AND WHEN REQUIRED, INSTALLATION OF STRUCTURAL SUPPORTS OR REINFORCEMENT FOR STRUCTURES, INCLUDING BUT NOT LIMITED TO CORE TRENCHES FOR STRUCTURAL EMBANKMENTS, INLET AND OUTLET STRUCTURES, ANTI-SEEP COLLARS OR FILTER DIAPHRAGMS, WATERTIGHT CONNECTORS ON PIPES AND TRENCHES FOR ENCLOSED STORM DRAIN FACILITIES;
 - DURING PLACEMENT OF STRUCTURAL FILL, CONCRETE AND INSTALLATION OF PIPING AND CATCH BASINS;
 - DURING BACKFILL OF FOUNDATION AND TRENCHES;
 - DURING EMBANKMENT CONSTRUCTION; AND
 - UPON REMOVAL OF ANY TEMPORARY SEDIMENT CONTROL FEATURE OR DEVICES; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
 - WETLANDS
 - AT STAGES SPECIFIED FOR POND CONSTRUCTION;
 - DURING AND AFTER WETLAND RESERVOIR PLANTINGS; AND
 - DURING THE SECOND GROWING SEASON TO VERIFY A VEGETATION SURVIVAL RATE OF AT LEAST 50 PERCENT.
 - INFILTRATION TRENCHES
 - DURING EXCAVATION TO SUBGRADE;
 - DURING PLACEMENT OF BACKFILL OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS;
 - DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
 - DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PRE-FILTERS, FILTERS, OUTLETS AND FLOW DISTRIBUTION STRUCTURES; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
 - INFILTRATION BASINS
 - AT STAGES SPECIFIED FOR POND CONSTRUCTION; AND
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEM.
 - FILTERING SYSTEMS
 - DURING EXCAVATION TO SUBGRADE;
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEM;
 - DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
 - DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PRE-FILTERS, FILTERS, OUTLETS AND FLOW DISTRIBUTION STRUCTURES; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
 - OPEN CHANNEL SYSTEMS
 - DURING EXCAVATION TO SUBGRADE;
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS FOR DRY SWALES;
 - DURING INSTALLATION OF DIAPHRAGMS, CHECK DAMS, OR WEIRS; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

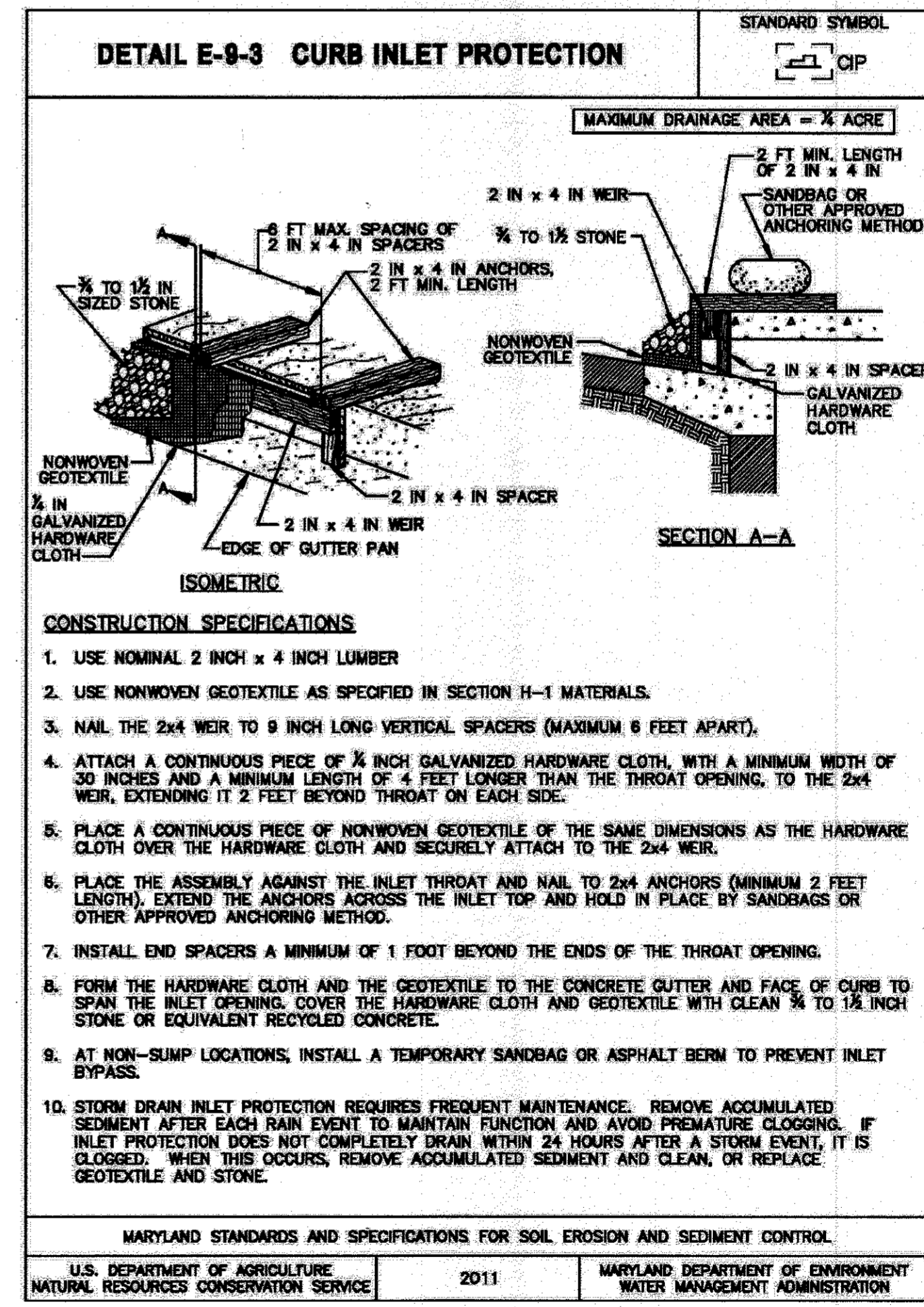
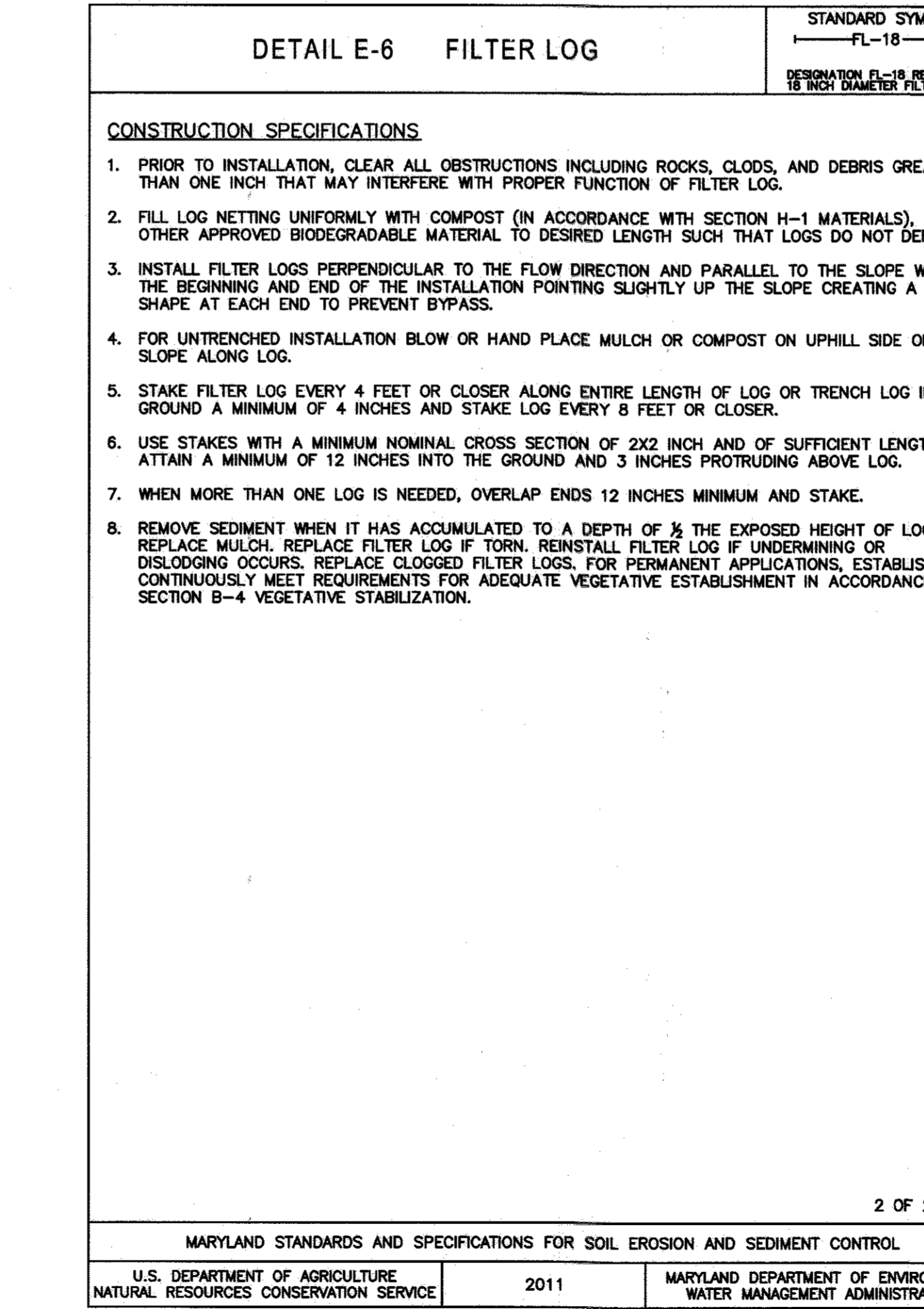
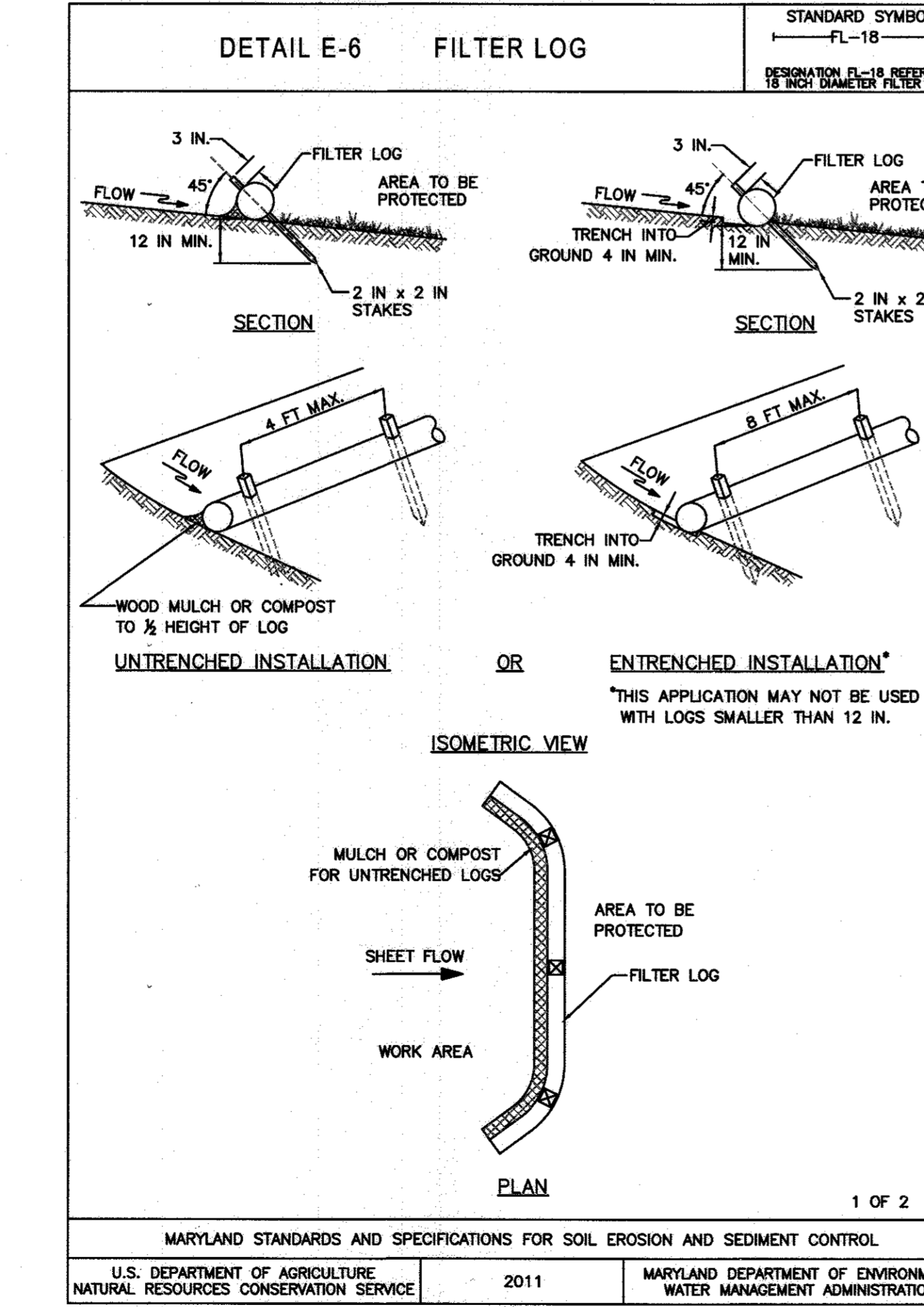
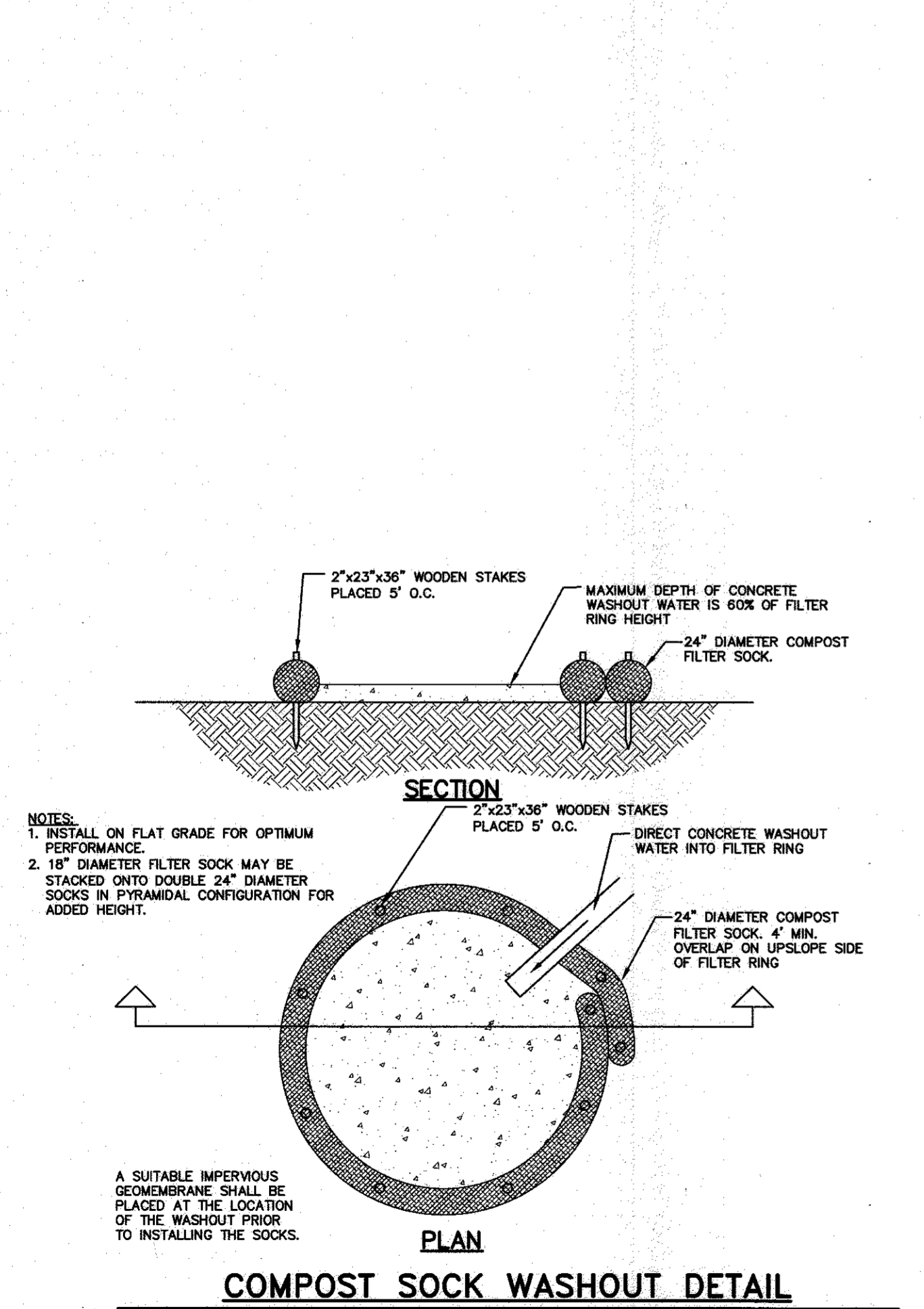
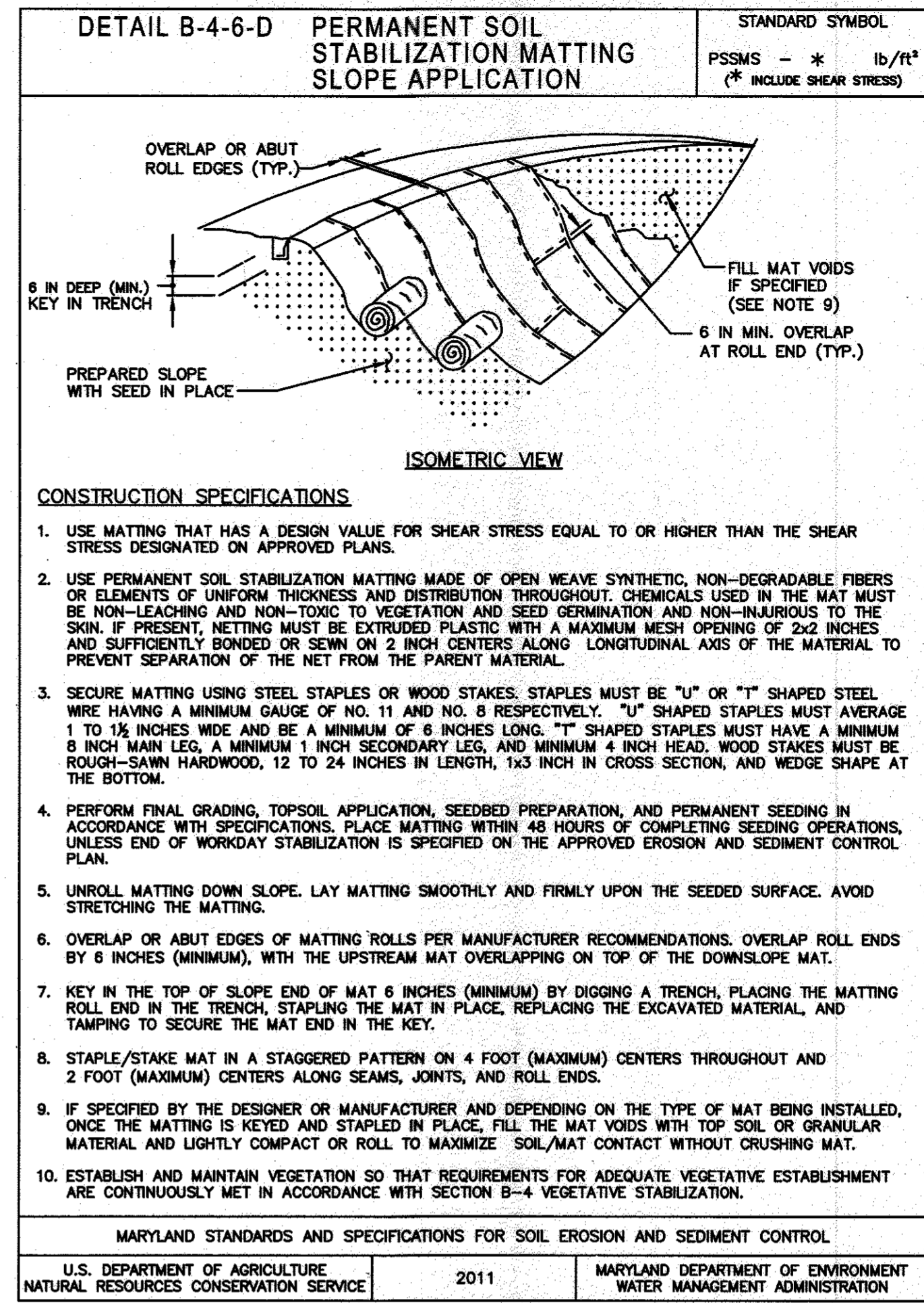
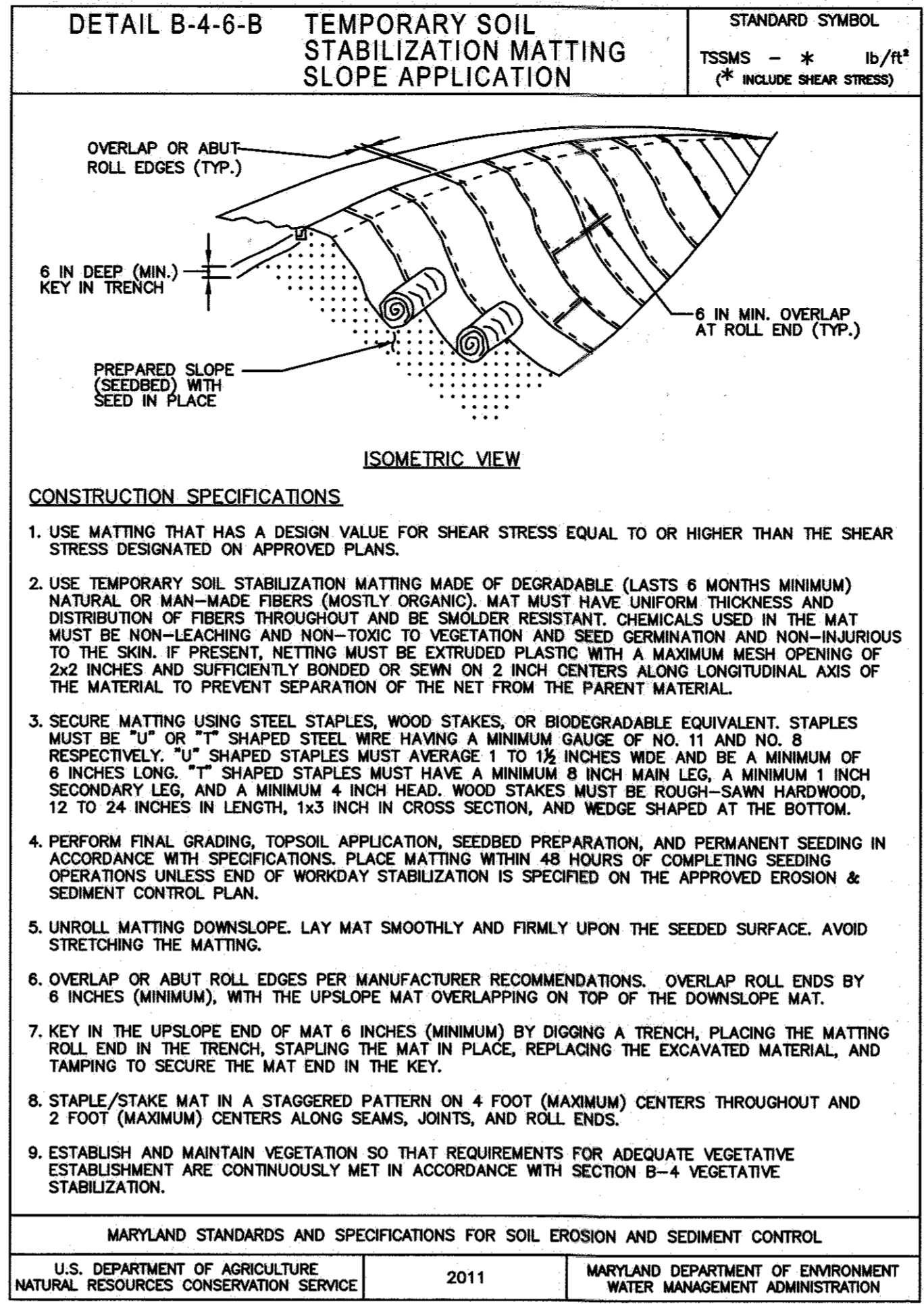
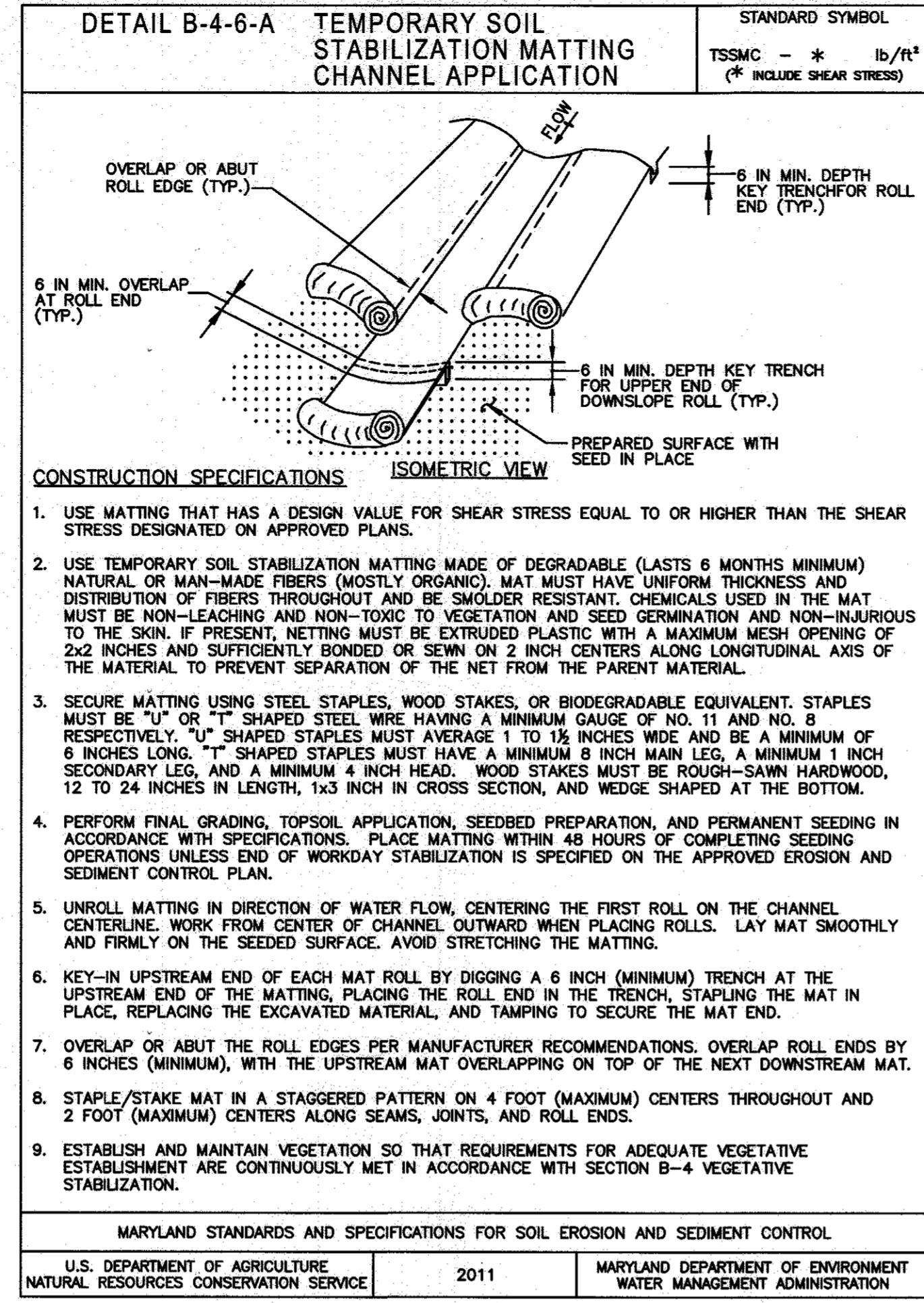
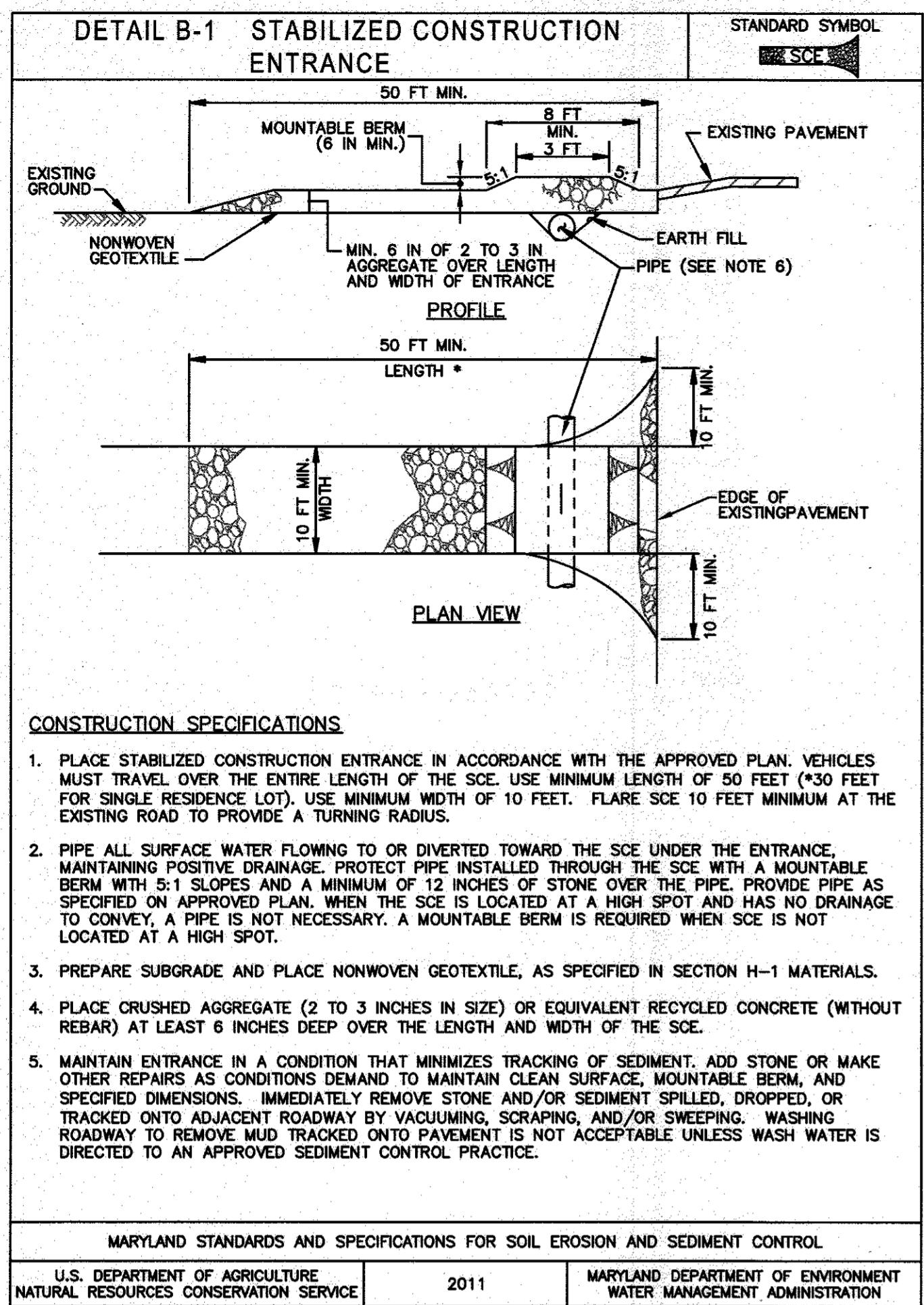


- CONSTRUCTION SPECIFICATIONS:**
- TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
 - PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
 - CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
 - REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
 - USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE PUNCTURE	250 LB	ASTM D-4632
FLOW RATE	70 GAL/MIN/FT	ASTM D-4833
PERMITTIVITY (SEC ⁻²)	1.2	ASTM D-4481
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4385
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632
 - REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
- U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



- CONSTRUCTION SPECIFICATIONS:**
- RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
 - USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.</



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John L. [Signature] DATE 5-16-16

Howar SCD DATE 4/29/16

John [Signature] DATE 5-4-16

Wendy [Signature] DATE 5-16-16

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DIRECTOR DATE

DETAILS: EROSION CONTROL SCALE: AS NOTED COUNTY: MD

SITE DEVELOPMENT PLAN FOR **NAPA WASHINGTON**

DATE: MARCH 2, 2016

SHEET NO. 15 OF 19

DWG. NO. 099812001

SDP-15-005, 0P-15-074

FOR REVIEW ASSOCIATES BY:

MANAGER: DAVID D. MILLER, P.E. CHD BY: DEW

DESIGN BY: JAR SURV. CHIEF: DEW

FIELDBOOK NO. DRAWN BY: DEW

BIM COLLECTOR DCW

DRAWING REFERENCE: DATE

CLIENT:

GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

RETNEW

RETNEW Associates, Inc. 17603
3020 Columbia Ave., Lancaster, PA 17603
Phone: (717) 394-3721 Fax: (717) 394-1063
Email: retnew@retnew.com www.retnew.com

Engineers • Planners • Surveyors • Landscape Architects
Environmental Consultants

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

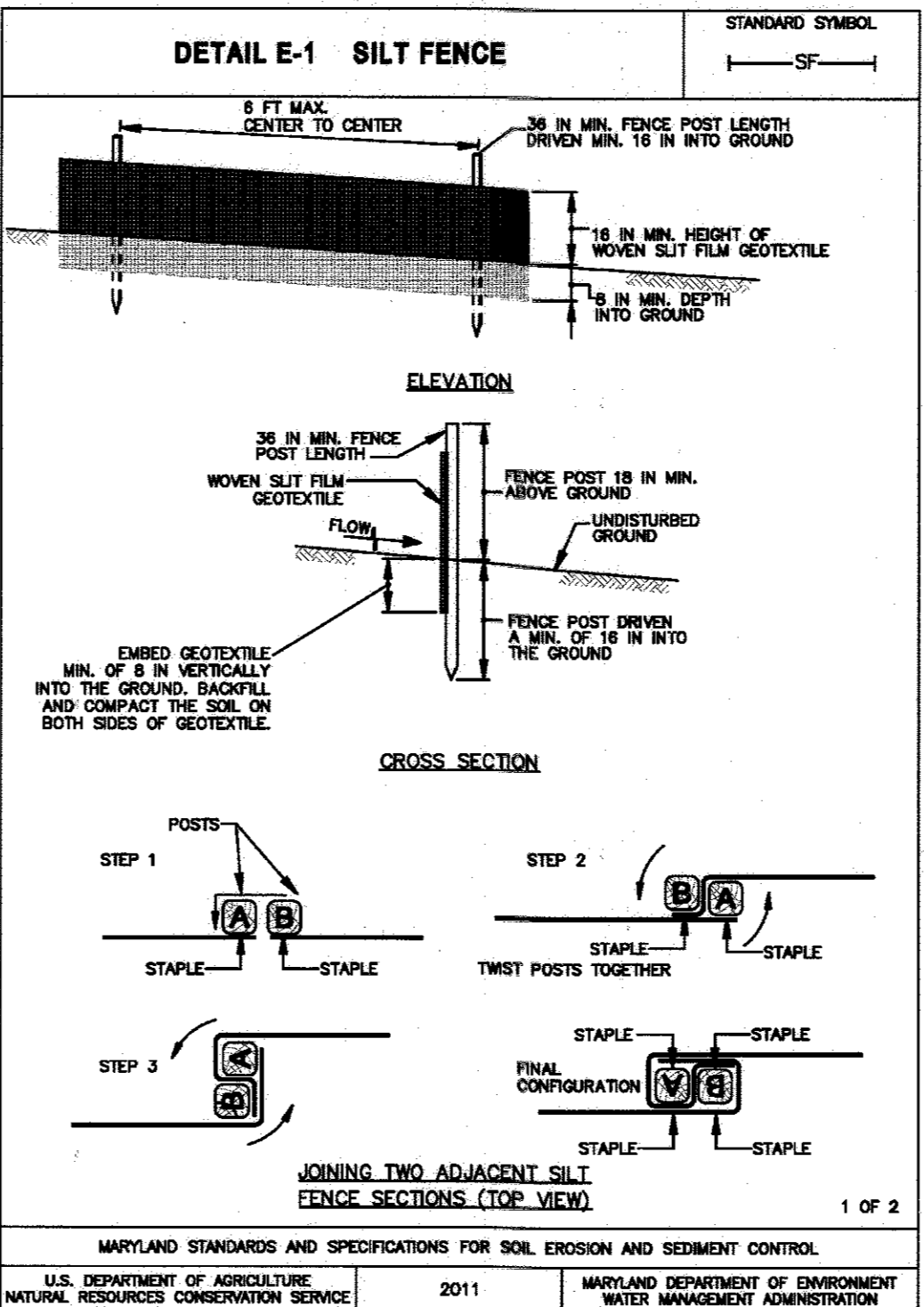
- A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
a. SEEDED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL EQUIPMENT...
b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE...
b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS...
c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN...
d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST...
e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS...
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH...
b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS...
c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH...
d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE...
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND...
b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS...
c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST...
6. TOPSOIL APPLICATION
a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL...
b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES...
c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION...
7. SOIL AMENDMENTS (FERTILIZER AND LIME) SPECIFICATIONS
a. TESTS MUST BE PERFORMED TO DETERMINE THE CORRECT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER...
b. FERTILIZERS MUST BE UNIFORM IN COMPOSITION...
c. LIME MATERIALS MUST BE GROUND LIMESTONE...
d. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL...
e. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE...

INSTALLATION, SURETY AND CERTIFICATION INSTALLATION

- SURETY FOR LANDSCAPE INSTALLATION
• BONDING OR POSTING OF OTHER SURETY FOR REQUIRED LANDSCAPING IS MANDATORY...
• IF NO BOND OR DEVELOPER'S AGREEMENT IS REQUIRED FOR A PROJECT THAT REQUIRES A LANDSCAPE PLAN...
• RELEASE OF SURETY WILL NOT BE GRANTED UNTIL ALL LANDSCAPING SHOWN ON THE APPROVED FINAL PLAN OR SITE DEVELOPMENT PLAN HAS BEEN COMPLETED...
CERTIFICATION
• TO OBTAIN A RELEASE OF SURETY, A PROFESSIONAL QUALIFIED TO PREPARE A LANDSCAPING PLAN MUST SUBMIT WRITTEN CERTIFICATION TO THE DEPARTMENT OF PLANNING AND ZONING...
• IF THE ORIGINAL LANDSCAPE PLAN PREPARER IS NOT ABLE TO PROVIDE THE REQUIRED CERTIFICATION...
MAINTENANCE
• THE DEVELOPER IS RESPONSIBLE FOR MAINTENANCE OF THE LANDSCAPING DURING CONSTRUCTION AND IS RESPONSIBLE FOR OBTAINING A 1 YEAR GUARANTEE THAT ENSURES THE SURVIVAL OR REPLACEMENT OF ALL REQUIRED PLANT MATERIALS...
• AT THE END OF THE MAINTENANCE PERIOD, IT IS THE DEVELOPER'S RESPONSIBILITY TO TRANSFER FORMALLY THE LONG TERM RESPONSIBILITY FOR THE REQUIRED LANDSCAPING TO THE OWNER, TENANT, HOMEOWNERS ASSOCIATION...

A. SEEDING

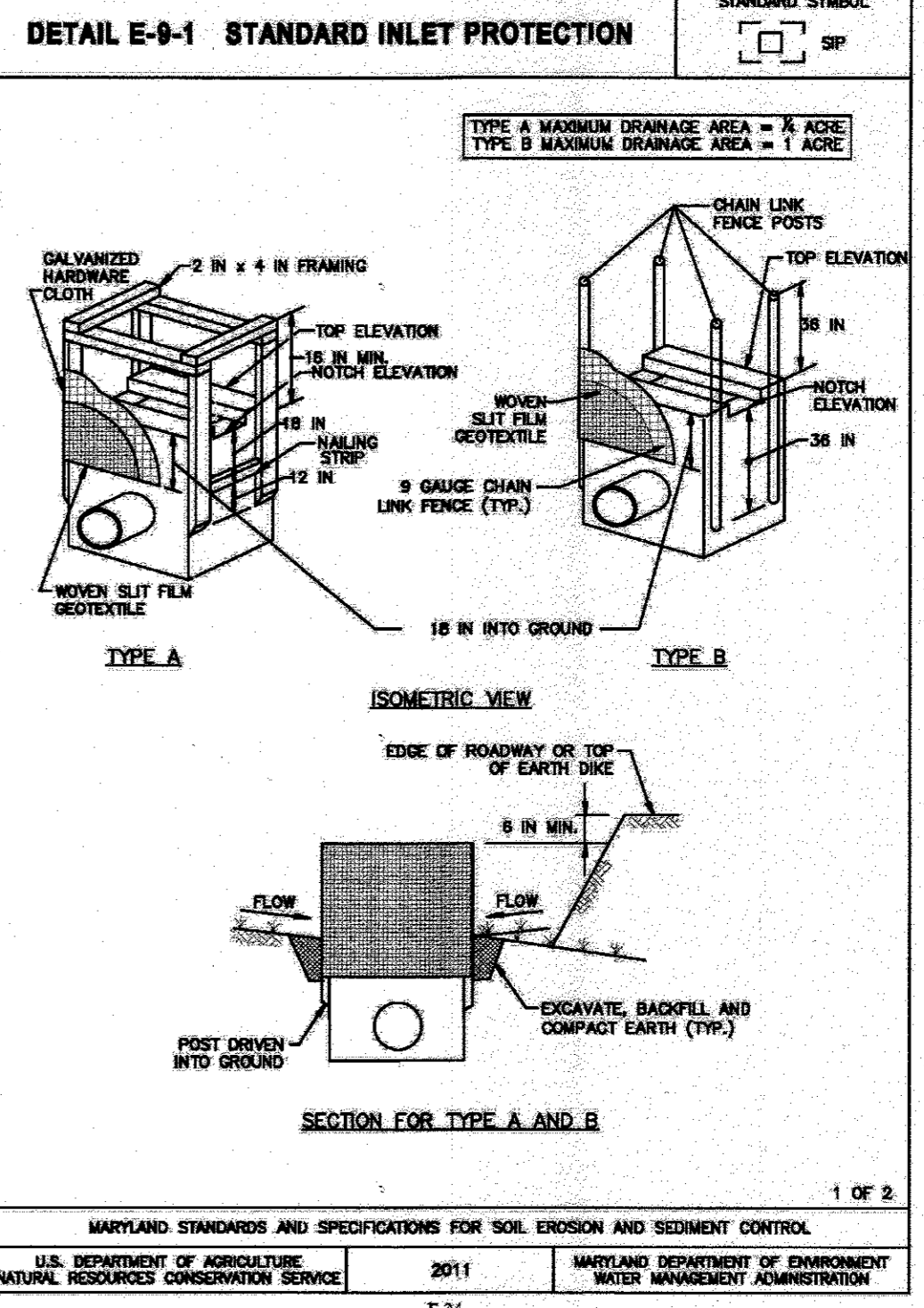
- 1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW...
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES...
C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA...
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROPPERS OR BROADCAST SPREADERS...
B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL...
C. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER)...
B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY...
b. WOOD CELLULOSE FIBER MULCH (WCFF) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE...
c. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE...
d. WCFM INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS...
e. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION...
f. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC...
g. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS...
2. APPLICATION
A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING...
B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE...
C. WOOD CELLULOSE FIBER MULCH IS TO BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE...
3. ANCHORING
A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER...
1. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE...
2. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW...
3. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSEAL, TERRA TACK II, TERRA TACK III, OR OTHER APPROVED SOILS MAY BE USED...
4. LIGHTWEIGHT PLASTIC NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

CONSTRUCTION SPECIFICATIONS

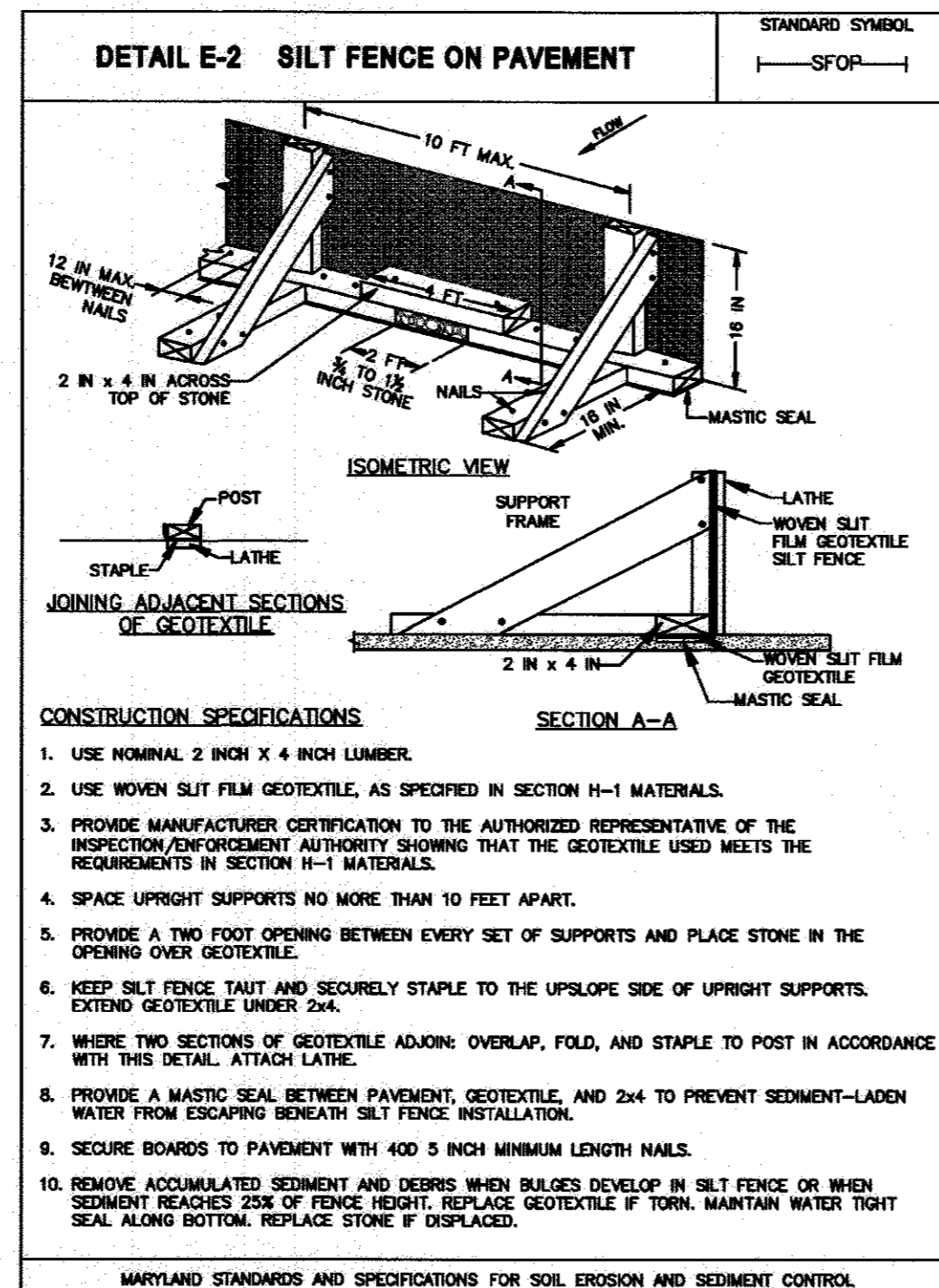
- 1. USE WOOD POSTS 1 1/2 X 1 1/2 X 146 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD...
2. USE 36 INCH MINIMUM POSTS DRIVEN 18 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART...
3. USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION...
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS...
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND...
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL...
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE...
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT...
9. INCIDENTAL STABILIZATION - CUT SLOPES
1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT...
2. CONSTRUCTION SEQUENCE
a. CONSTRUCTION AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION...
b. PERFORM PHASE 1 EXCAVATION (FROM TOP OF CUT TO 15' DEPTH)...
c. PERFORM PHASE 2 EXCAVATION (FROM 15' DEPTH TO BOTTOM OF CUT)...
d. PERFORM FINAL PHASE EXCAVATION...
NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL...
10. NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH...
11. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



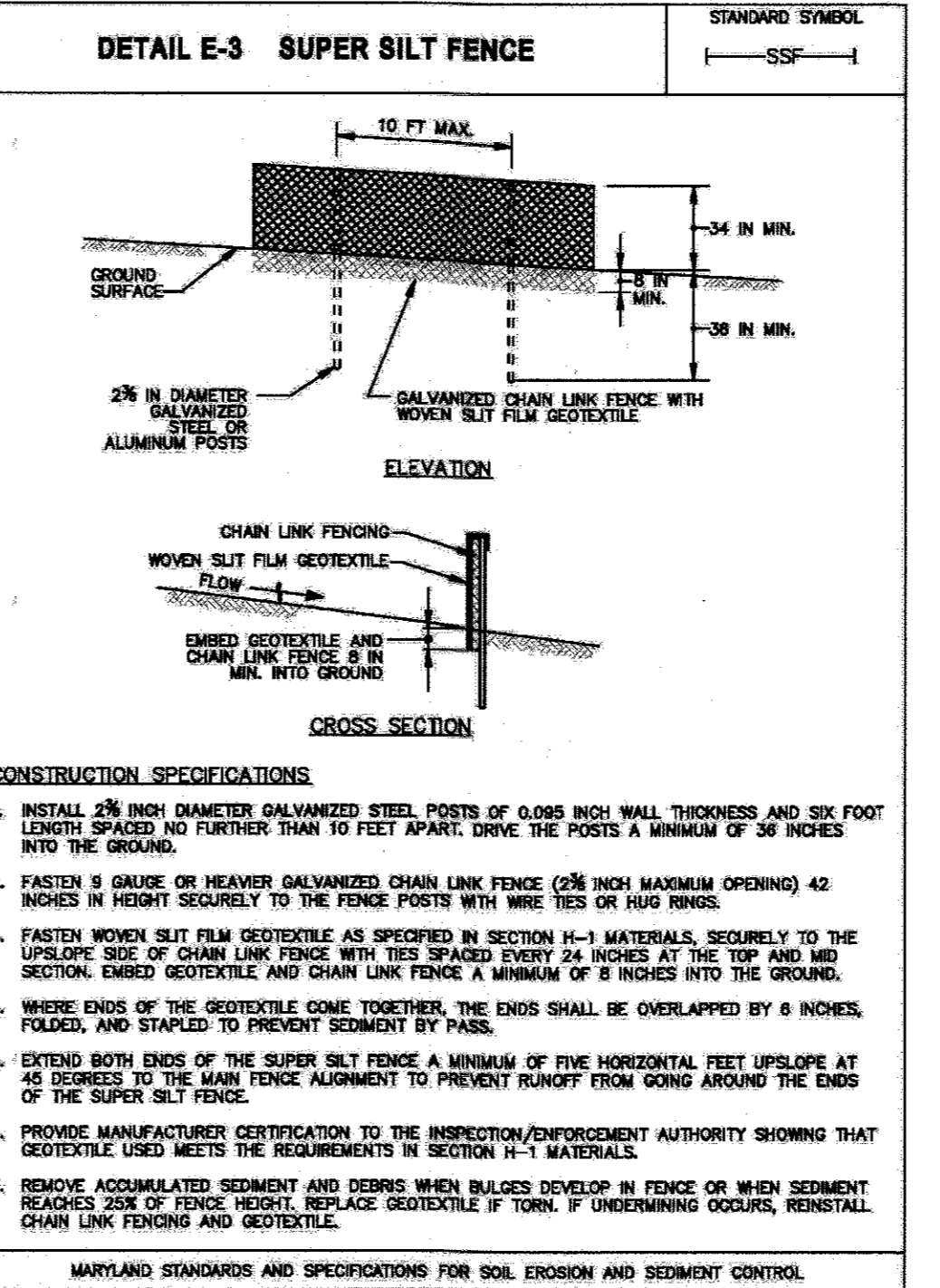
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

CONSTRUCTION SPECIFICATIONS

- 1. USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS...
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION...
3. FOR TYPE A USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS...
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION...
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE...
CONSTRUCTION SEQUENCE - ADDITIONAL PARKING (LOWER PARKING AREA)
1. OBTAIN REVISED SITE DEVELOPMENT PLAN APPROVAL...
2. THE CONTRACTOR SHALL FIELD MARK ADDITIONAL LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES...
3. INSTALL ALL THE PERIMETER FILTER LOGS WHERE SHOWN ON THE PLANS...
4. ROUGH GRADE THE SITE AND CONSTRUCT RETENTION AREA 3...
5. EXTEND IMPERMEABLE TRENCH IT-2 AS SHOWN...
6. FINISH SITE GRADING, PLACE BASE ROCK, CURB AND SIDEWALK, PAVE PARKING AREA...
7. UNTIL SUCH TIME AS THE SITE IS PERMANENTLY STABILIZED, ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE MAINTAINED...
8. NOTIFY HOWARD COUNTY SOIL CONSERVATION DISTRICT OF COMPLETION OF WORK...
9. UPON RECEIVING PERMISSION FROM THE HO. CO. SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES...
CONSTRUCTION SEQUENCE - ADDED PARKING ALONG WILBUR LANE
1. THE CONTRACTOR SHALL FIELD MARK LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES...
2. INSTALL PERIMETER FILTER LOGS AND CONSTRUCTION FENCE...
3. ROUGH GRADE, INSTALL FILTER LOG STANDARD INLET W/ SEDIMENTATION CHAMBER, AND STORM SYSTEM I-16 TO I-13...
4. FINISH SITE GRADING, PLACE BASE ROCK, CURB AND SIDEWALK, PAVE PARKING AREA...
5. FOLLOW STEPS 7 THRU 9 ABOVE FOR CONSTRUCTION SEQUENCE - ADDITIONAL PARKING (LOWER PARKING AREA)



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

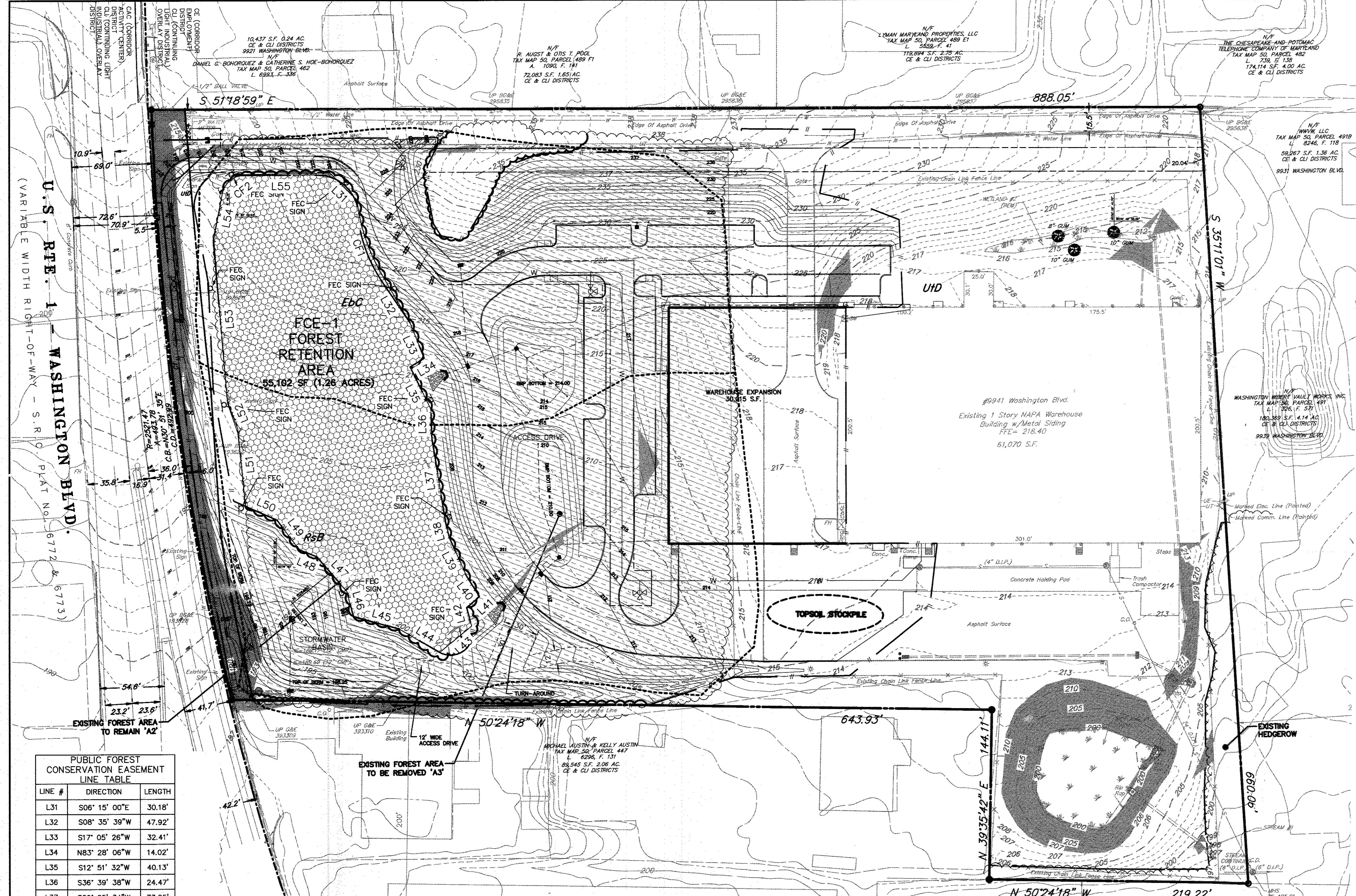


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

CONSTRUCTION SPECIFICATIONS

- 1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART...
2. FASTEN 2 INCH GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE...
3. FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS...
4. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES...
5. REMOVE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS...
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT...
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
John R. Hunter
4/29/16

REVISION table with columns for DATE, REVISION, and NO.
FOR REVIEW: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, NAPA WASHINGTON
CLIENT: GENUINE PARTS COMPANY, 2999 CIRCLE 75 PARKWAY, ATLANTA, GA 30339, PHONE: (770) 953-1700
MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: JAR
CHK BY: JAR
SURV. CHIEF: FELDBROOK, NO. 30339
DRAWN BY: DCW
CHK BY: DEW
DRAWING REFERENCE:
SCALE: AS NOTED
DETAILS: EROSION CONTROL, SITE DEVELOPMENT PLAN FOR NAPA WASHINGTON
FOR HOWARD COUNTY, MD
DATE: MARCH 2, 2016
SHEET NO. 16 OF 18
DWG. NO. 099812001
SDP-15-005, GP-15-074



MAP SYMBOL	SOIL GROUP	SOIL TYPE
EbC	X	EVESBROE LOAMY SAND, 2 TO 10 PERCENT SLOPES
RbB	X	RUSSET FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES
UID	X	URBAN LAND-UDORTMENTS COMPLEX, 0 TO 15 PERCENT SLOPES

ALL SOILS ARE NON-HYDRIC, WITHOUT HYDRIC INCLUSIONS, AND DO NOT EXHIBIT ANY SIGNIFICANT EROSION POTENTIAL.

LEGEND	
	FOREST CONSERVATION EASEMENT SIGN
	SLOPES GREATER THAN 25%
	PROPOSED FOREST RETENTION AREA
	EXISTING FOREST AREA TO BE REMOVED
	LIMIT OF DISTURBANCE = 4.90 ACRES.
	SOIL TYPE BOUNDARY LINE

SITE ANALYSIS DATA/TABULATION

A) TOTAL (GROSS) PROJECT AREA	10.62 A.C.
B) AREA OF WETLANDS AND BUFFER	0.60 A.C.
C) AREA OF 100-YR. FLOODPLAIN	0.00 A.C.
D) AREA OF FOREST	4.71 A.C.
E) AREA OF STEEP SLOPES 25% OR GREATER	0.60 A.C.
F) AREA OF DEDICATION	1.26 A.C.
G) HIGHLY ERODIBLE SOILS (K > 0.35)	0 A.C.
H) LIMIT OF DISTURBED AREA	4.90 AC. 5.36 AC.
I) PRESENT ZONING DESIGNATION	CE / CLJ
K) PROPOSED USE	INDUSTRIAL
L) IMPERVIOUS COVER	4.30 A.C.

SUPPLEMENTAL INFORMATION

GROSS SITE AREA	10.621 ACRES ±
ZONED	CE / CLJ
PROPOSED USE	INDUSTRIAL
WATERSHED	PATUENT RIVER
DNR NO.	02-13-11-04

PRE AND POST MANAGEMENT PROGRAM

PRE & POST MANAGEMENT PROGRAM
 PRE-CONSTRUCTION PHASE: PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL:

1. READ AND BECOME FAMILIAR WITH THE SITE DEVELOPMENT PLANS INCLUDING, BUT NOT LIMITED TO, THE FOREST CONSERVATION PLAN.
2. ATTEND A PRE-CONSTRUCTION MEETING TO REVIEW THE LOCATION OF THE TREES TO BE REMOVED AND THE TREES TO REMAIN.
3. CLEARLY MARK THE LIMIT OF DISTURBANCE AND THE FOREST CONSERVATION EASEMENT.
4. CLEARLY MARK THE LOCATION OF EMPLOYEE/CONTRACTOR PARKING AREAS, MATERIAL LAYDOWN AREAS AND EQUIPMENT STAGING AREAS. AREA DESIGNATED AS WITHIN THE FOREST CONSERVATION AREA SHALL NOT BE UTILIZED FOR ANY OF THE ABOVE ACTIVITIES.

DURING CONSTRUCTION PHASE:

1. AT THE EDGE OF THE FOREST CONSERVATION AREA THE CONTRACTOR SHALL TAKE STEPS TO REDUCE STRESS ON THE VEGETATION TO REMAIN.
2. NO VEHICLE SHALL ENTER THE FOREST CONSERVATION AREA INCLUDING, BUT NOT LIMITED TO, EMPLOYEE/CONTRACTOR VEHICLES, CONSTRUCTION EQUIPMENT AND TRAILERS.
3. MATERIALS SHALL NOT BE STORED IN THE FOREST CONSERVATION AREA INCLUDING, BUT NOT LIMITED TO, BUILDING MATERIALS, FUEL, EROSION CONTROL SUPPLIES, TRASH OR SANITARY FACILITIES.
4. EQUIPMENT WORKING ADJACENT TO THE FOREST CONSERVATION AREA SHALL TAKE CARE NOT TO DAMAGE OVERHANGING LIMBS. SHOULD THERE BE A NEED, A LIMB SHALL BE PRUNED TO AVOID INJURY.

POST CONSTRUCTION PHASE:

THE PROTECTION AND MANAGEMENT PRACTICES FOR THE CONSTRUCTION PERIOD MUST BE CONTINUED FOR AT LEAST 2 GROWING SEASONS FOLLOWING OFFICIAL NOTIFICATION OF COMPLETION OF THE DEVELOPMENT (OR A SPECIFIC PHASE OF THE OVERALL DEVELOPMENT IF PHASING HAS BEEN APPROVED). IMPLEMENTATION OF THE POST-CONSTRUCTION MANAGEMENT PROGRAM MUST BE SUPERVISED BY A QUALIFIED PROFESSIONAL WHO SHOULD INSPECT THE STATUS OF ALL FOREST RETENTION AREAS AT SPECIFIED TIMES DURING THE LIFE OF THE POST CONSTRUCTION AGREEMENT AND WHO MUST CERTIFY THAT THE REQUIRED SURVIVAL RATES HAVE BEEN ACHIEVED IN ACCORDANCE WITH THE AGREEMENT PRIOR TO RELEASE OF BONDS.

1. REMOVE ANY TREE PROTECTION/LIMIT OF DISTURBANCE MATERIALS
2. INSPECT THE TREES FOR DAMAGE AND REPAIR AS NEEDED
3. INSPECT THE FOREST CONSERVATION AREA AT LEAST TWICE A YEAR.
4. MONITOR THE FOREST CONSERVATION AREA FOR UNAUTHORIZED USE.
5. REPLACE ANY DEAD OR DAMAGED TREES
6. REQUEST A FINAL INSPECTION ONCE THE MAINTENANCE PERIOD IS OVER.

GENERAL NOTES
 SCALE: 1"=200'

1. BENCHMARK: CAPPED REBAR SET; ELEVATION = 215.11 (NAVD-88 DATUM)
2. NOTHING SHALL BE PLANTED, SET OR PUT WITHIN AN AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT.
3. BOUNDARY AND TOPOGRAPHIC SURVEY BY RETTEW ASSOCIATES, INC. DATED NOVEMBER 2013.
4. THE SITE SHALL BE SERVED WITH PUBLIC WATER AND PUBLIC SANITARY SEWER FACILITIES.
5. SUBJECT PROPERTY ZONED CE/CLJ PER THE 10-6-13 COMPREHENSIVE ZONING PLAN.
6. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. GPS RECEIVERS WERE USED TO ESTABLISH THE CONTROL FOR THIS PROJECT.
8. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM, OR THEIR REQUIRED BUFFERS UNLESS DEEMED NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING.
9. A FOREST STAND DELINEATION WAS PREPARED BY RETTEW ASSOCIATES, INC. DATED JANUARY, 2014. NO SPECIMEN TREES WERE OBSERVED ON THE SITE.
10. THERE IS NO NEED FOR A PRELIMINARY FLOOD STUDY FOR THIS PROJECT. THERE ARE NO FLOODPLAIN ON THIS PROPERTY.
11. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
12. A NOISE STUDY IS NOT REQUIRED FOR THIS PLAN. AS THIS PROJECT IS NOT A RESIDENTIAL PLAN.
13. THE WETLAND LINES SHOWN ON THIS PLAN ARE BASED UPON THE FINDING WITHIN 'WETLAND DELINEATION REPORT FOR WASHINGTON NAPA FACILITY EXPANSION, CITY OF LAUREL, HOWARD COUNTY, MARYLAND,' DATED NOVEMBER 2013, BY RETTEW ASSOCIATES, INC.
14. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
15. THERE ARE NO WETLANDS ON SITE THAT WILL BE DISTURBED OR THAT WILL REQUIRE 401 AND 404 WETLAND PERMITS FROM THE STATE OF MARYLAND.
16. THE PREVIOUS DPZ FILE FOR THIS SITE IS SDP-80-05, WP-15-043, AND WP-15-084.
17. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
18. FOREST CONSERVATION OBLIGATION FOR THIS PROJECT IN THE AMOUNT OF 2.65 ACRES SHALL BE FULFILLED IN ACCORDANCE WITH SECTION 16.1200 OF THE FOREST CONSERVATION MANUAL UNDER SDP-15-005 BY PROVIDING 1.26 ACRES OF FOREST RETENTION EASEMENT AND BY PROVIDING 1.42 ACRES OF FOREST RETENTION EASEMENT FROM SDP-15-035, MILL CREEK FOREST MITIGATION BANK. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
20. TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCZ BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
21. PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
22. ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.

VICINITY MAP
 SCALE: 1"=200'

ADDRESS CHART

LOT	STREET ADDRESS
1	9941 WASHINGTON BLVD.

PERMIT INFORMATION CHART

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL #
N/A	N/A	0442

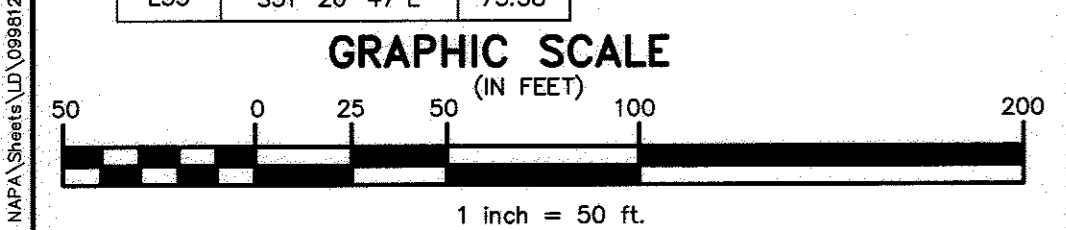
PLAT No. OR L/F	GRID No.	ZONE	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
00920-00494	0010	CE/CLJ	50	6	N/A

PUBLIC FOREST CONSERVATION EASEMENT LINE TABLE

LINE #	DIRECTION	LENGTH
L31	S06° 15' 00"E	30.18'
L32	S08° 35' 39"W	47.92'
L33	S17° 05' 26"W	32.41'
L34	N83° 28' 06"W	14.02'
L35	S12° 51' 32"W	40.13'
L36	S36° 39' 38"W	24.47'
L37	S29° 25' 34"W	73.95'
L38	S24° 47' 09"W	11.60'
L39	S14° 49' 46"W	35.90'
L40	S06° 23' 56"W	20.56'
L41	S87° 02' 47"W	14.49'
L42	S23° 33' 21"W	16.16'
L43	S89° 21' 52"W	35.00'
L44	N21° 15' 00"W	39.80'
L45	N35° 32' 28"W	40.11'
L46	N24° 11' 09"E	21.81'
L47	N02° 11' 24"W	39.07'
L48	N29° 23' 51"W	15.71'
L49	N02° 09' 53"E	31.76'
L50	N28° 08' 51"W	28.98'
L51	N32° 41' 09"E	62.87'
L52	N19° 32' 45"E	26.53'
L53	N33° 39' 12"E	139.07'
L54	N49° 53' 45"E	41.46'
L55	S51° 26' 47"E	75.58'

PUBLIC FOREST CONSERVATION EASEMENT CURVE TABLE

CURVE #	RADIUS	ARC	CHORD BEARING	CHORD
CF1	162.47'	66.82'	S20° 26' 40"W	66.35'
CF2	18.90'	24.01'	N87° 58' 21"E	22.42'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Chumbley 9-4-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kate Schluender 5-11-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Walter Joplin 5-16-16
 DIRECTOR DATE

FOREST CONSERVATION AREA DO NOT DISTURB

NATURAL RESOURCES DIVISION OF THE HOWARD COUNTY DEPT. OF RECREATION AND PARKS
 (410) 313-6201

FCE SIGN NO SCALE

FOREST CONSERVATION WORKSHEET VERSION 1.0

NET TRACT AREA:

A. Total tract area	10.6
B. Area within 100 year floodplain	0.0
C. Area to remain in agricultural production	0.0
D. Net tract area	10.6

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	0	0	1

E. Afforestation Threshold 15% x D = 1.6

F. Conservation Threshold 15% x D = 1.6

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain)	4.7
H. Area of forest above afforestation threshold	3.1
I. Area of forest above conservation threshold	3.1

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation	2.2
K. Clearing permitted without mitigation	2.5

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared	3.5
M. Total area of forest to be retained	1.3

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold	0.8
P. Reforestation for clearing below conservation threshold	0.7
Q. Credit for retention above conservation threshold	0.0
R. Total reforestation required	1.4
S. Total afforestation required	0.0
T. Total reforestation and afforestation required	1.4

REASON FOR CLEARING

THIS PROJECT PROPOSES TO EXPAND AN EXISTING WAREHOUSE, AS PART OF THIS EXPANSION ADDITIONAL PARKING IS REQUIRED AND THE ORIGINAL ACCESS ROAD WILL NOT FUNCTION DUE TO GRADE FOR THE NEW FACILITY. IN ORDER TO ACCOMMODATE THE NEW IMPERVIOUS, STORMWATER MANAGEMENT PRACTICES ARE PROPOSED IN ORDER TO ACCOMMODATE THE ADDITIONAL AREA AND VOLUME. THE SIZE, LOCATION AND QUANTITY OF THESE FACILITIES IS BASED ON GRADE AND COUNTY REQUIREMENTS. THE LIMIT OF DISTURBANCE TO THE EXISTING FOREST HAS BEEN MINIMIZED TO THE FULLEST PRACTICAL MEASURES IN ORDER TO PROTECT THE EXISTING FOREST.

NOTE:
 SEE PLAN SHEETS 4, 5 AND 10 OF 19 FOR REVISED LAYOUT, GRADING AND STORMWATER MANAGEMENT PLAN.

NOTE: THIS PLAN HAS BEEN REVIEWED AND CERTIFIED BY BOHLER ENGINEERING, VA. FOR THE PURPOSE OF FOREST CONSERVATION ONLY. THIS PLAN IS BASED ON THE BOUNDARY AND TOPOGRAPHIC SURVEY BY RETTEW ASSOCIATES, INC. DATED NOVEMBER 2013, AND AN APPROVED FSD BY RETTEW ASSOCIATES, INC.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 3697 EXPIRATION DATE: 9-20-2016

[Signature] 5-13-16

DATE: 5-13-2016

RETTEW
 RETTEW Associates, Inc.
 3020 Columbia Ave., Lancaster, PA 17603
 Phone (717) 394-3721 · Fax (717) 394-1063
 Email: rettew@rettew.com
 Website: www.rettew.com

BOHLER ENGINEERING
 801 DELANEY VALLEY ROAD, SUITE 201 TOWSON, MD 21286
 PHONE (410) 821-7900 FAX (410) 821-7907

Engineers · Planners · Surveyors · Landscape Architects
 Environmental Consultants

OWNER: GENUINE PARTS COMPANY
 2999 CIRCLE 75 PARKWAY
 ATLANTA, GA 30339
 PHONE: (770) 953-1700

PROJECT: NAPA WASHINGTON

LOCATION: 9941 WASHINGTON BLVD.
 LAUREL, MD 20723
 PHONE: 301-776-9600
 HOWARD COUNTY, MARYLAND, 21043

TITLE: SITE DEVELOPMENT PLAN
 FOREST CONSERVATION PLAN
 AND EXISTING CONDITIONS

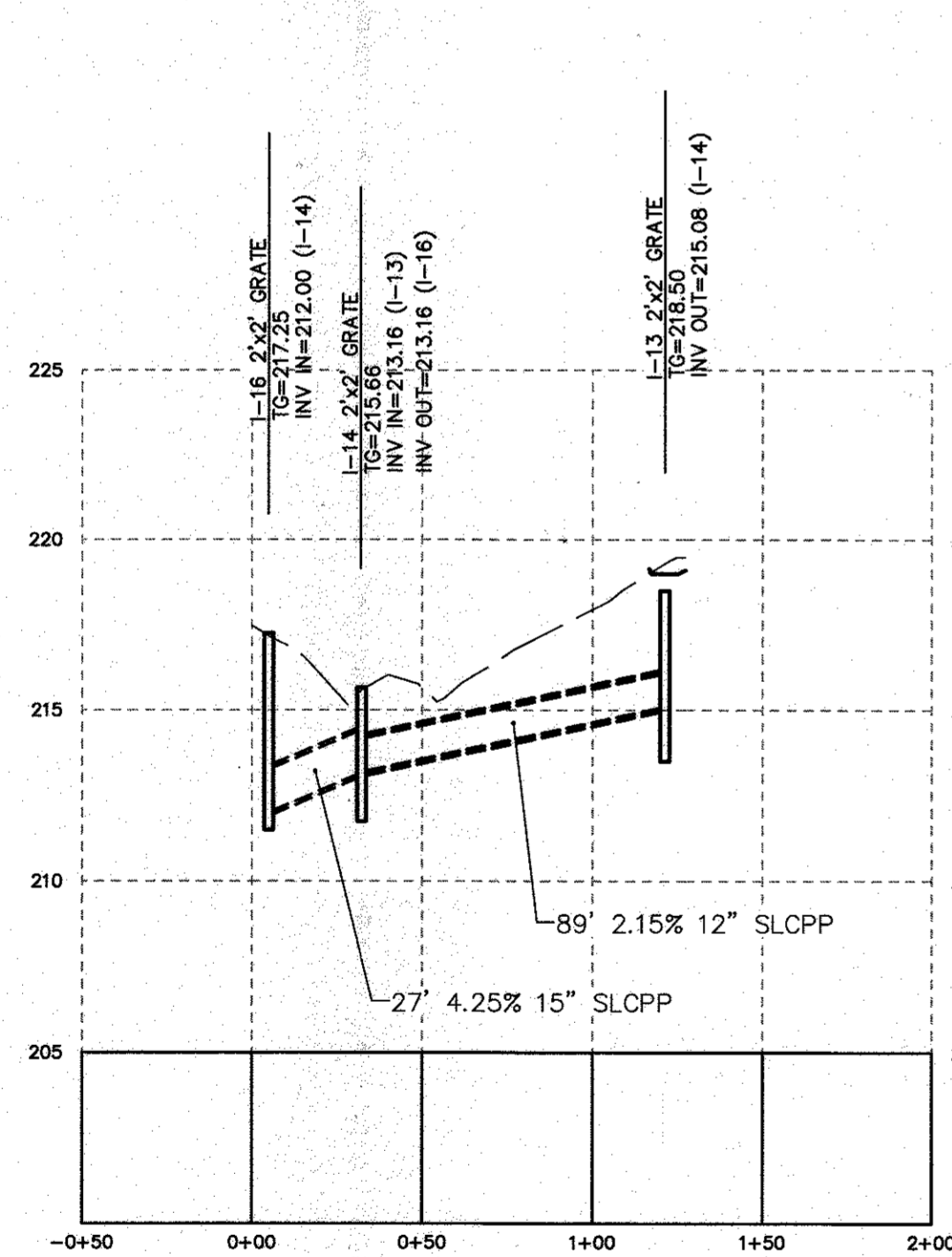
DATE: MARCH 2, 2016
 04/19/17 (REV. 01)

PROJECT NO.: 099812001

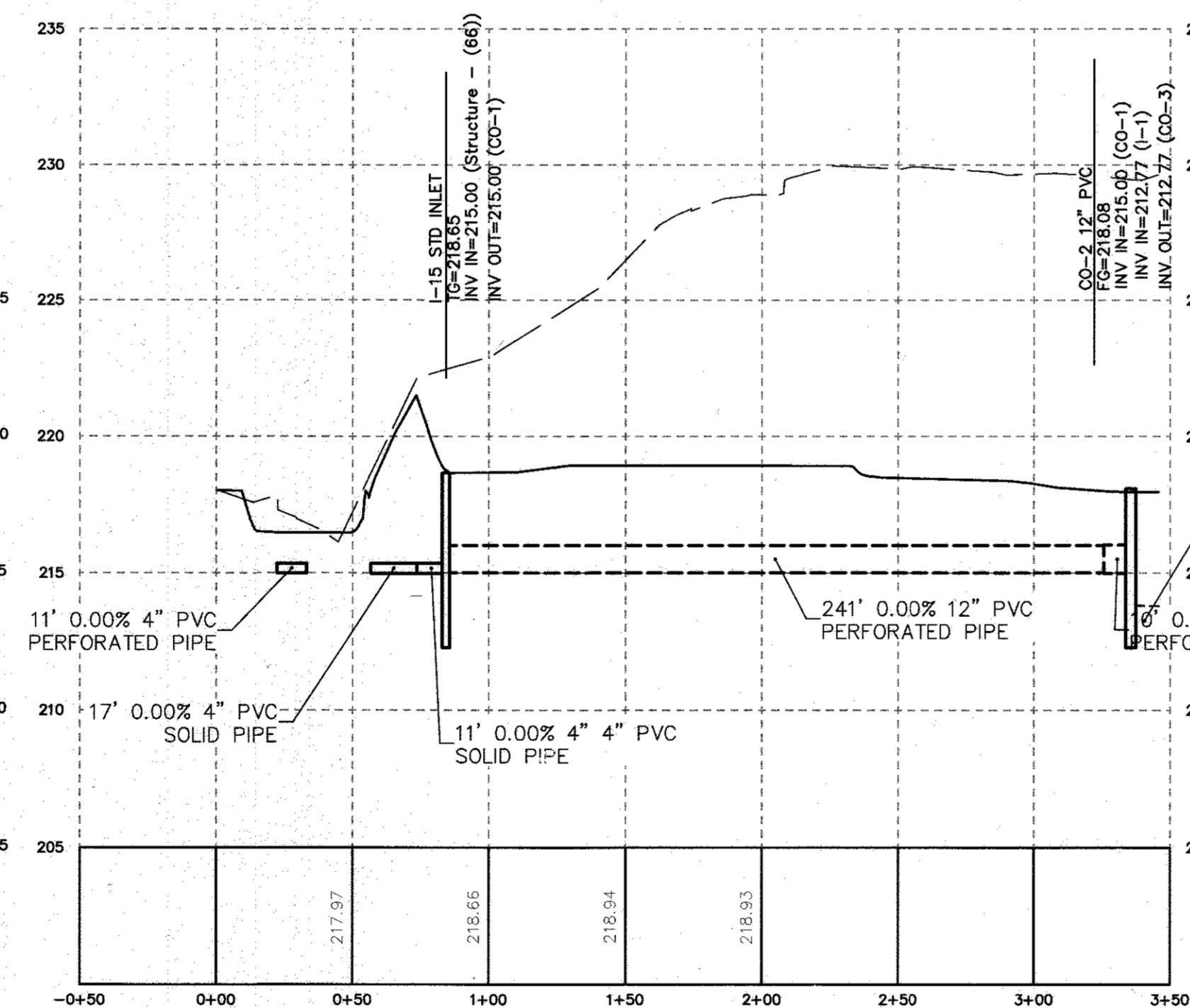
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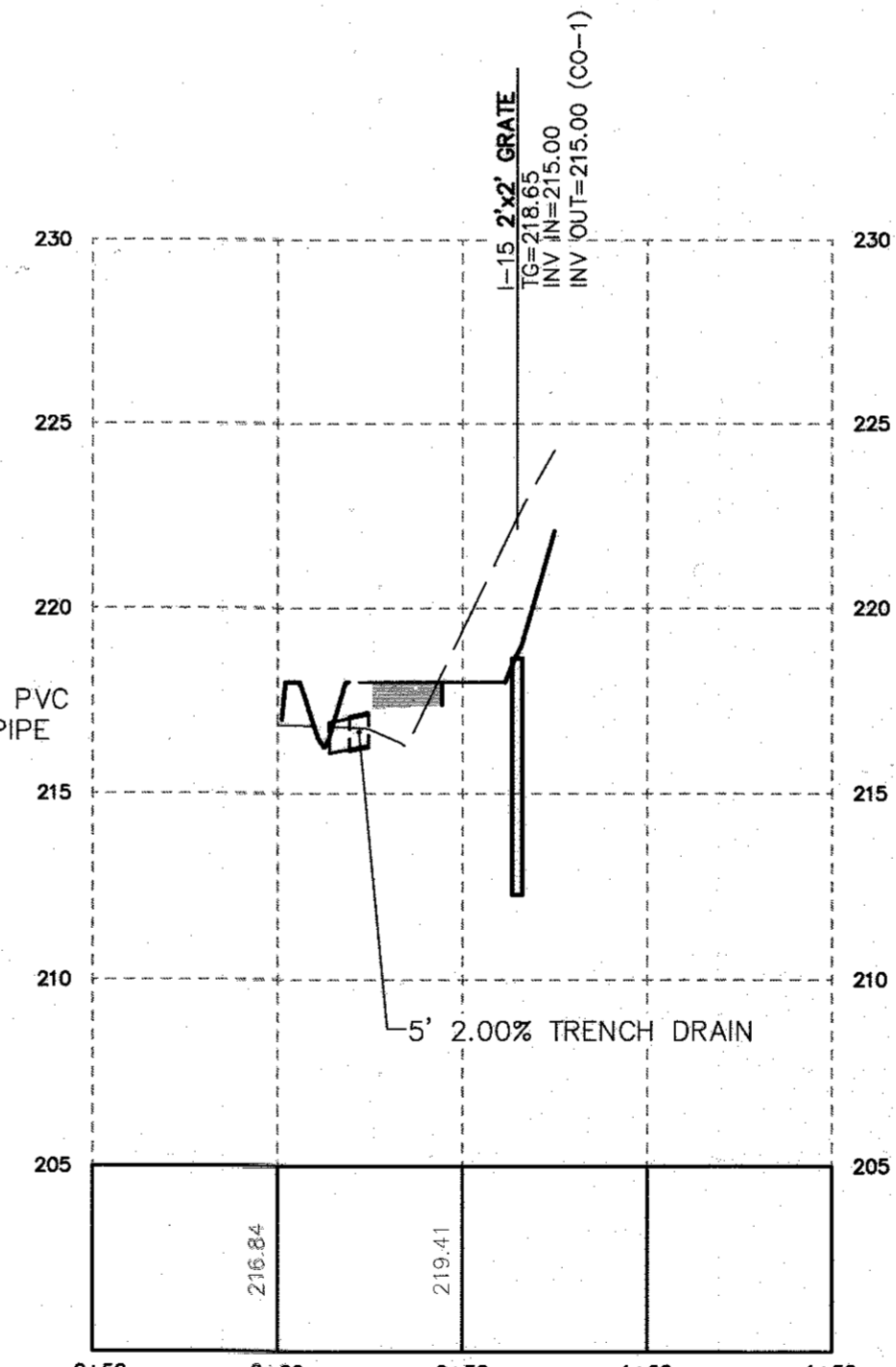
SHEET NO.: 17 OF 19



"CENTERLINE PROFILE OF I-16 to I-13"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'



"CENTERLINE PROFILE OF I-15 to CO-2"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'



"CENTERLINE PROFILE OF TRENCH DRAIN TO BASIN 3"
 HORIZONTAL SCALE - 1"=50'
 VERTICAL SCALE - 1"=5'

NOTE:
 1. EXTENSION OF I-2 AND CONSTRUCTION OF RETENTION BASIN 3 ARE SCHEDULED TO BE CONSTRUCTED IN THE SPRING OF 2017.
 2. INSTALLATION OF FILTERRA BOX IS SCHEDULED TO BE CONSTRUCTED IN A LATER PHASE, DATE TO BE DETERMINED.

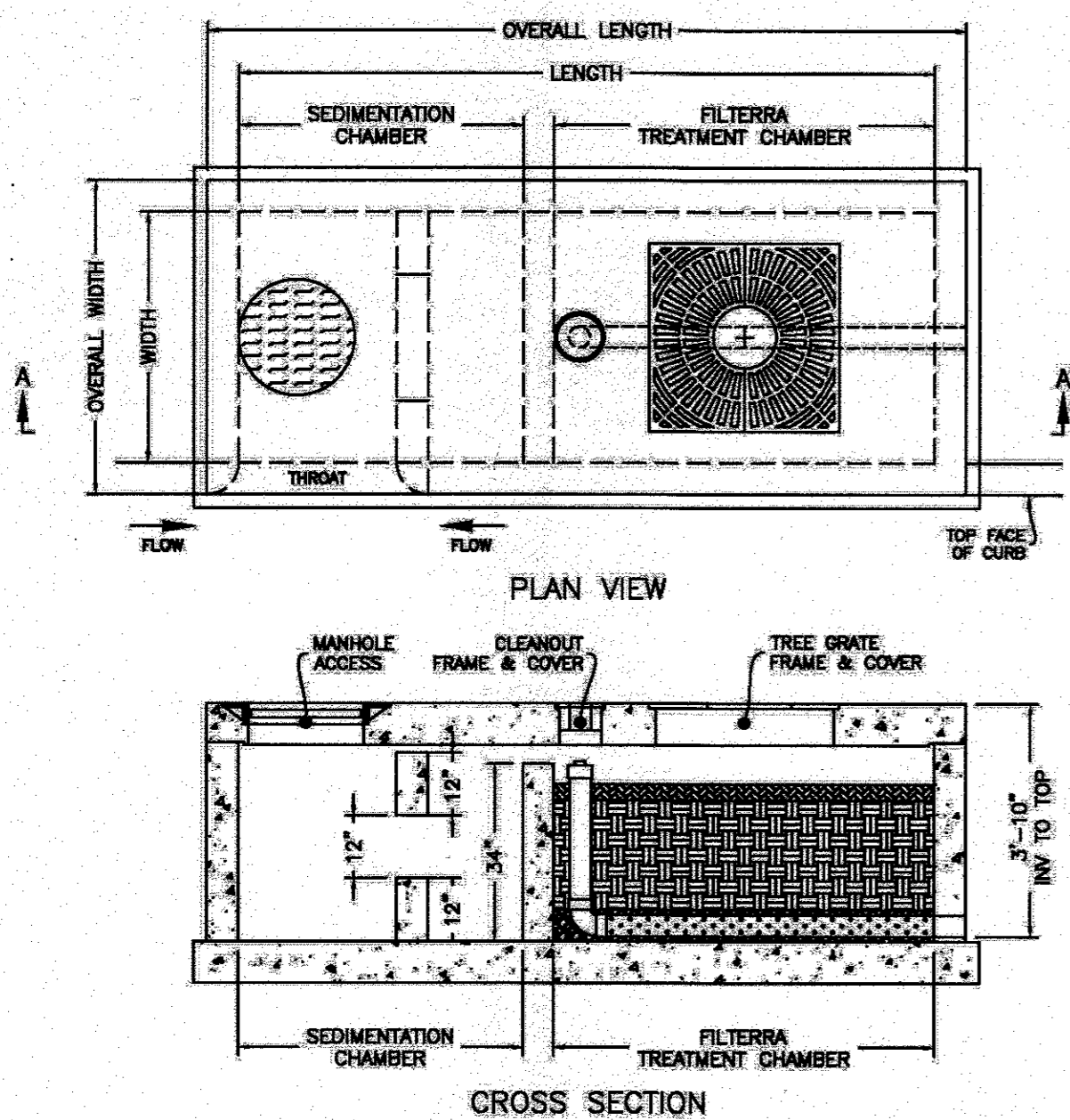
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 T. Mark RKS 8-1-17
 CHIEF, DIVISION OF LAND DEVELOPMENT JP DATE
 DATE 7-18-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION JP DATE
 DATE 8-2-17
 DIRECTOR DATE

FOR RETIEW ASSOCIATES BY:			
MANAGER:	DAVID D. MILLER, P.E.	CHD BY:	DEW
DESIGN BY:	JAR	SURV. CHIEF:	DEW
DRWN BY:	DCW	DATE:	08/19/17
REVISED:	08/19/17	NO.	099812001
DATE:	08/19/17	REVISION:	REVISED SITE DEVELOPMENT PLAN

CLIENT:	GENUINE PARTS COMPANY 2999 CIRCLE 75 PARKWAY ATLANTA, GA 30339 PHONE: (770) 953-1700
SCALE:	AS NOTED

 RETIEW Associates, Inc. 3020 Columbus Ave., Lancaster, PA 17603 Phone: (717) 394-1063 Email: retiew@retiew.com Website: www.retiew.com	Engineers • Planners • Surveyors • Landscape Architects Environmental Consultants
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PROFILES: STORMWATER	SITE DEVELOPMENT PLAN
FOR	
NAPA WASHINGTON	
HOWARD COUNTY, MD	



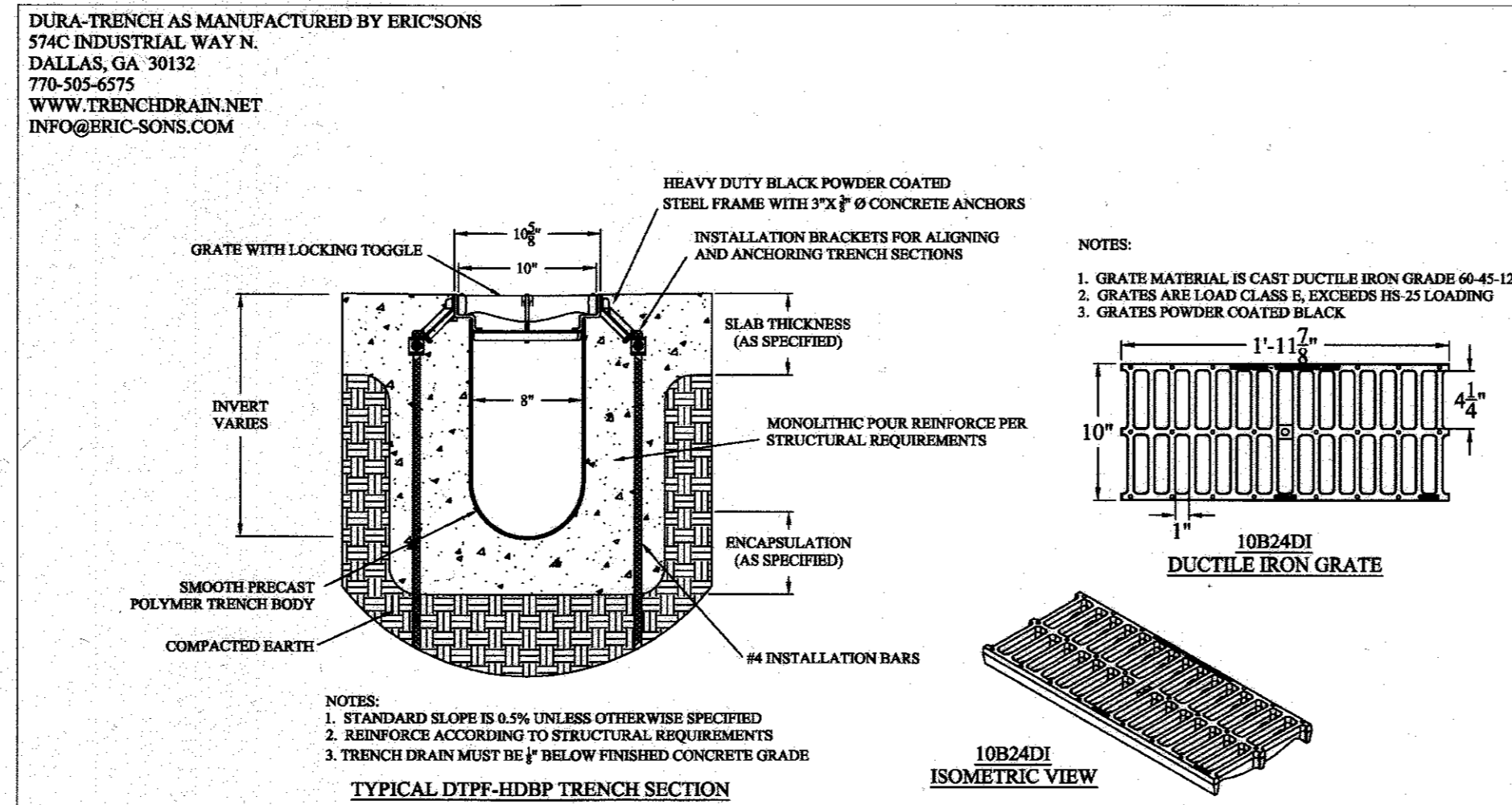
MODIFICATIONS OF DRAWINGS ARE ONLY PERMITTED BY WRITTEN AUTHORIZATION FROM CONTECH

UNIT DESIGNATION	OVERALL DIMENSIONS	FILTERRA TREATMENT AREA	LENGTH	WIDTH	OUTLET PIPE
FTSC 12" x 4"	13" x 5"	6" x 4"	12'-0"	4'-0"	4" PVC
FTSC 16" x 4"	17" x 5"	8" x 4"	16'-0"	4'-0"	4" PVC
FTSC 12" x 6"	13" x 7"	6" x 6"	12'-0"	6'-0"	4" PVC
FTSC 16" x 6"	17" x 7"	8" x 6"	16'-0"	6'-0"	4" PVC
FTSC 19" x 6"	20" x 7"	10" x 6"	19'-0"	6'-0"	6" PVC
FTSC 20" x 8"	21" x 9"	10" x 8"	20'-0"	8'-0"	6" PVC
FTSC 22" x 8"	23" x 9"	11" x 8"	22'-0"	8'-0"	6" PVC

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com

PRECAST FILTERRA® WITH SEDIMENTATION CHAMBER

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
909-338-1122 513-645-7000 513-645-7993 FAX
DATE: 11/26/14 SCALE: NONE PRODUCT NO: FTSD DRAWN BY: BG



DURA-TRENCH AS MANUFACTURED BY ERICSONS
574C INDUSTRIAL WAY N.
DALLAS, GA 30132
770-505-6575
WWW.TRENCHDRAIN.NET
INFO@ERIC-SONS.COM

NOTES:
1. GRATE MATERIAL IS CAST DUCTILE IRON GRADE 60-45-12
2. GRATES ARE LOAD CLASS E, EXCEEDS IS 25 LOADING
3. GRATES POWDER COATED BLACK

10B24DI DUCTILE IRON GRATE

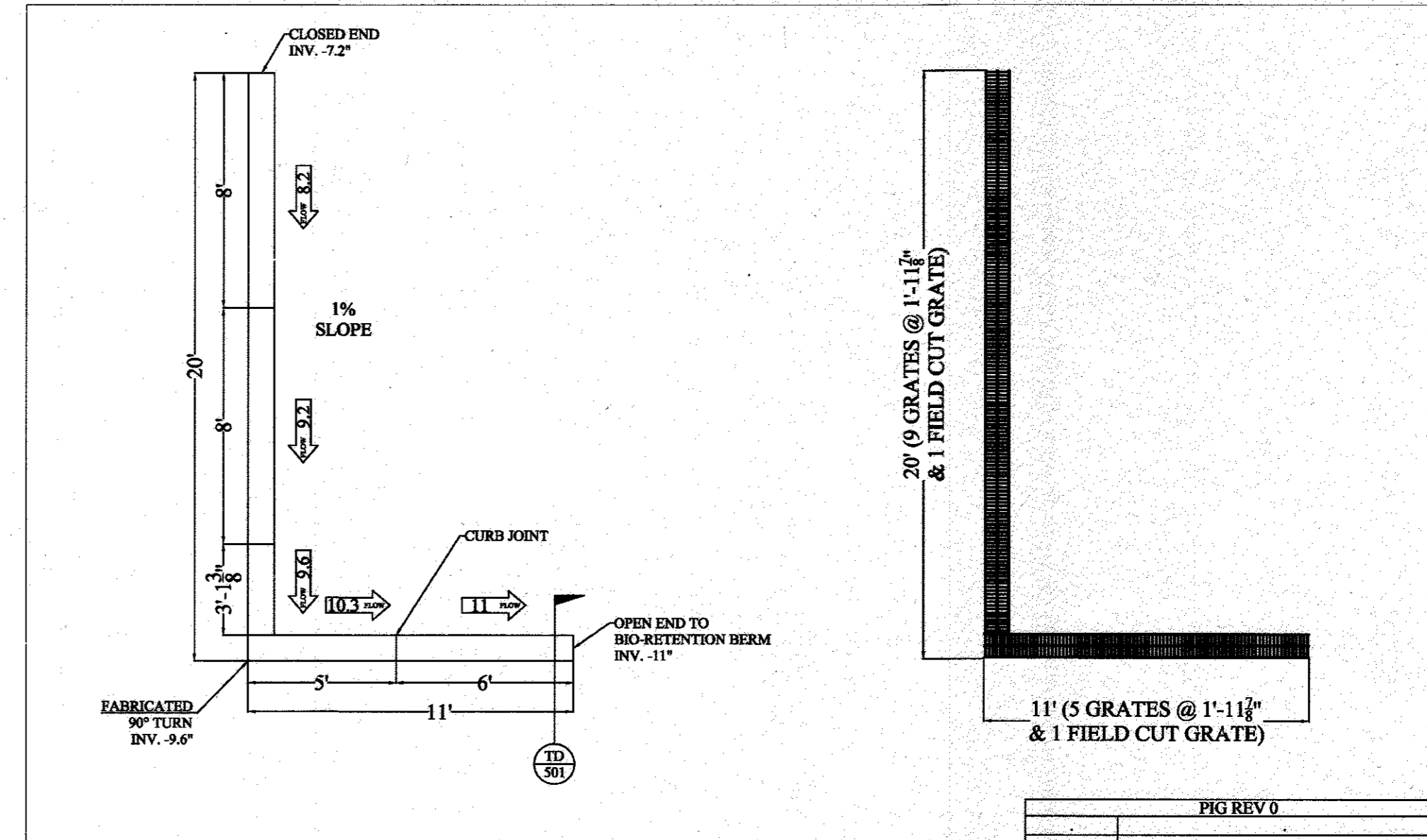
PGI REV 0

1 TRENCH DRAIN SECTION Scale: NTS

APPROVED AS NOTED:
REVISOR & REQUIREMENT:

CONTECH ENGINEERED SOLUTIONS LLC
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
909-338-1122 513-645-7000 513-645-7993 FAX

NAPA - WASHINGTON PARKING LOT TRENCH DRAIN SECTION
DATE: 11/20/14
SCALE: NTS
REVISED: 5/23/2017
DRAWN BY: TD-501



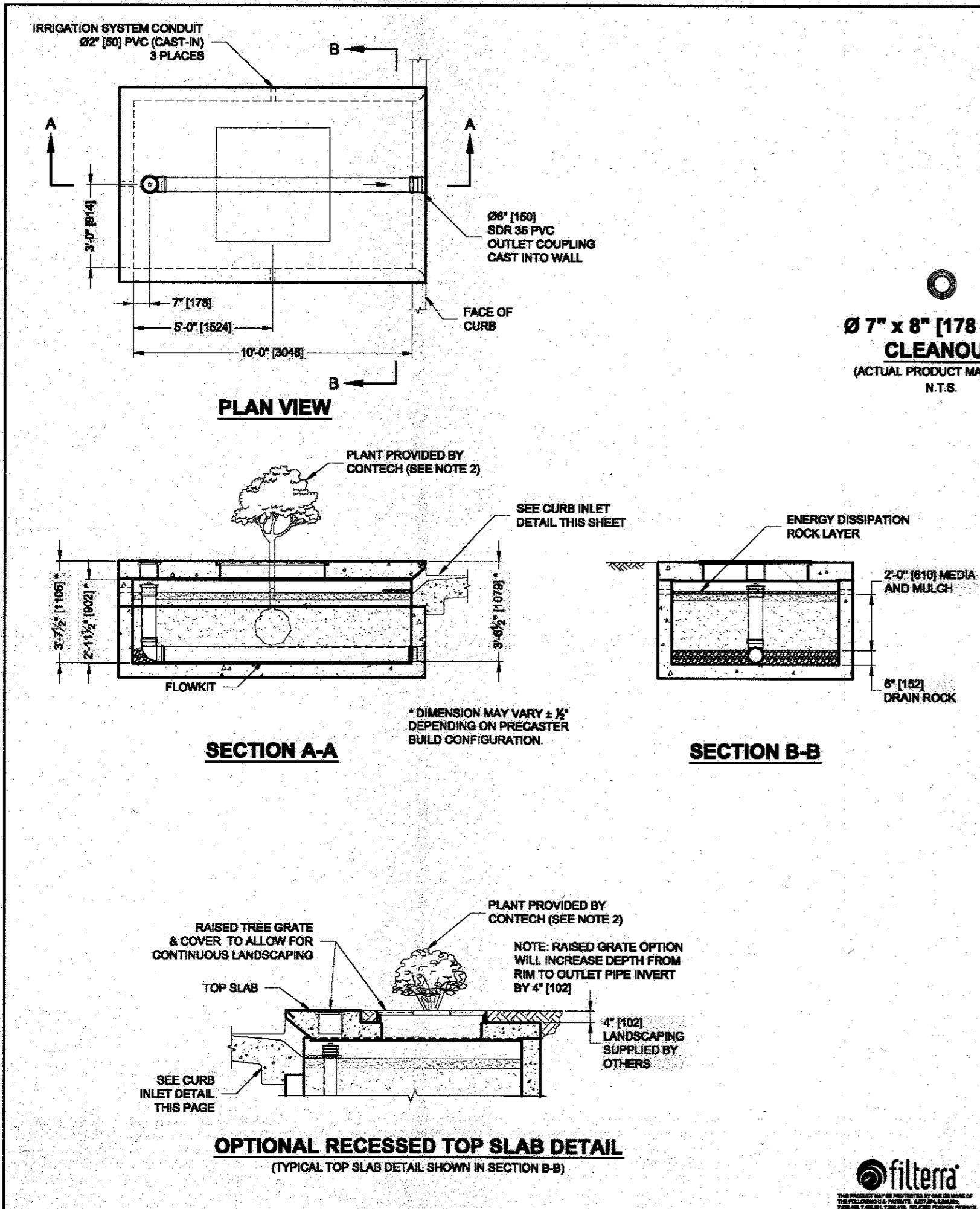
1 TD - PLAN TOP VIEW
1 RUN: DRAWN TO FRAME
NOT TO SCALE

PGI REV 0

APPROVED AS NOTED:
REVISOR & REQUIREMENT:

CONTECH ENGINEERED SOLUTIONS LLC
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
909-338-1122 513-645-7000 513-645-7993 FAX

NAPA - WASHINGTON PARKING LOT TRENCH DRAIN PLAN
DATE: 11/20/14
SCALE: NTS
REVISED: 5/23/2017
DRAWN BY: TD-101



FILTERRA DESIGN NOTES

THE FILTERRA TREATMENT CAPACITY IS DETERMINED BY THE TREATMENT RATE OF THE FILTERRA MEDIA. A SEPARATE INLET STRUCTURE MUST BE INSTALLED DOWNSTREAM OF THE OFFLINE FILTERRA TO CONVEY FLOWS IN EXCESS OF THE SYSTEM DESIGN CAPACITY. SEE THE FILTERRA DESIGN, OPERATION, AND PERFORMANCE GUIDE FOR MORE INFORMATION.

7" x 8" [178 x 203] CLEANOUT (ACTUAL PRODUCT MAY VARY) N.T.S.

48" x 48" [1219 x 1219] TREE GRATE (ACTUAL PRODUCT MAY VARY) N.T.S.

OUTFLOW PIPE ORIENTATION OPTIONS
ORIENTATION REFERENCE IS INLET THROAT

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	SYSTEM TREATMENT CAPACITY (CFS / IN)	WATER QUALITY FLOW RATE (CFS / IN)	PEAK FLOW RATE (CFS / IN)	RETURN PERIOD OF PEAK FLOW (YRS)	REQUIRED MEDIA INFILTRATION RATE
PIPE DATA	IE	MATERIAL	DIAMETER		
OUTLET PIPE		SCH 40 PVC	6"		
CURB OPENING ORIENTATION					
TOP OF CURB ELEVATION					
ANTI-FLOTATION BALLAST IF REQUIRED					
NOTES/SPECIAL REQUIREMENTS					

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. PLANT, MULCH, AND DISSIPATION ROCK ARE SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
3. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
4. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com
5. FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
6. STRUCTURE DESIGNED FOR PEDESTRIAN LIVE LOAD WITH 16 (4,000 LBS.) WHEEL LOAD MOUNTING THE CURB AND ADJACENT HS-20 LIVE LOAD SURCHARGE ON THE WALLS ON THE STRUCTURE.
7. FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-867, ASTM C-916, AND ACI-318 LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES:
A. ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA VAULT (LIFTING CLUTCHES PROVIDED). SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
D. CONTRACTOR TO PROVIDE AND INSTALL OUTLET PIPE. PVC COUPLING CAST-IN TO WALL FOR OUTLET PIPE CONNECTION.
E. CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION-RELATED EROSION RUNOFF.
G. CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM AND PLANTING OF THE PLANT THAT IS SPECIFIED. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED, FINAL PAVEMENT INSTALLED AND SWEEP CLEAN OF CONSTRUCTION SEDIMENT.
H. ALL FILTERRA UNITS MUST BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. EACH FILTERRA UNIT INCLUDES IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES.

OPTIONAL RECESSED TOP SLAB DETAIL (TYPICAL TOP SLAB DETAIL SHOWN IN SECTION B-B)

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
909-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA 6x10 OFFLINE STANDARD DETAIL
SHORT SIDE INLET
MODEL: FT0610

REVISED PLAN WITH ADDED PARKING (Includes Upper and Lower Lots)

ESD Practices Summary

ESD Practice	Drainage Area (SF)	QE (inches)	ESDv (cf)	Volume Provided in ESD Practice (cf)
Infiltration Trench #1	18,085	0.54	812	835
Infiltration Trench #2	15,138	0.54	680	936
Infiltration Trench #3	27,191	0.54	1,221	1,080
Bioretention #1	25,906	0.54	1,163	2,142
Bioretention #2	24,300	0.54	1,091	2,161
Bioretention #3	4,770	0.54	214	344
Porous Pavement #1	4,527	0.54	203	255
Porous Pavement #2	2,750	0.54	123	365
Porous Pavement #3	7,747	0.54	348	381
Porous Pavement #4	3,417	0.54	153	308
Porous Pavement #5	2,290	0.54	103	255
Porous Pavement #6	6,359	0.54	286	365
Porous Pavement #7	3,922	0.54	176	365
Porous Pavement #8	2,736	0.54	123	365
Filtterra With Sedimentation Chamber	12,060	0.54	542	737
TOTAL:				10,892

Filtterra With Sedimentation Chamber [16]
[1] Volume provided by 48" of stone with 30% voids along the entire length of the trench
[2] Volume provided by 44" of stone with 30% voids along the entire length of the trench
[3] Volume provided by 45" of stone with 30% voids along the entire length of the trench
[4] Volume provided by 1' ponding depth over surface area of bioretention
[5] Volume provided by 9" of stone with 30% voids under porous paving
[6] Volume provided by 1.25' ponding depth over surface area of bioretention
[7] 737 CF provided in Redevelopment/Flow Basing Sizing and 204 CF provided in Filterra Sizing

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

T. Marshall RKS 8-1-17
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7.18.17
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

8-2-17
DIRECTOR DATE

FOR REVIEW ASSOCIATES BY: [Signature]

MANAGER: DAVID D. MILLER, P.E.
DESIGN BY: JAR
SURV. CHIEF: DMH
DRAWN BY: DCW

CLIENT: GENUINE PARTS COMPANY
2999 CIRCLE 75 PARKWAY
ATLANTA, GA 30339
PHONE: (770) 953-1700

SCALE: AS NOTED

DETAILS: STORMWATER MANAGEMENT
SITE DEVELOPMENT PLAN
FOR
NAPA WASHINGTON

DATE: MARCH 2, 2016
SHEET NO. 19 OF 19
DWG. NO. 099812001

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
T. Marshall RKS 8-1-17
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
7.18.17
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
8-2-17
DIRECTOR DATE

DATE: 06/19/17
NO. DATE
REVISED SITE DEVELOPMENT PLAN
REVISION

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
909-338-1122 513-645-7000 513-645-7993 FAX

REVIEW ASSOCIATES, INC.
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Engineers • Planners • Surveyors • Landscape Architects
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HOWARD COUNTY, MD

SDP-15-005-0P-45-074