

HOWARD COUNTY

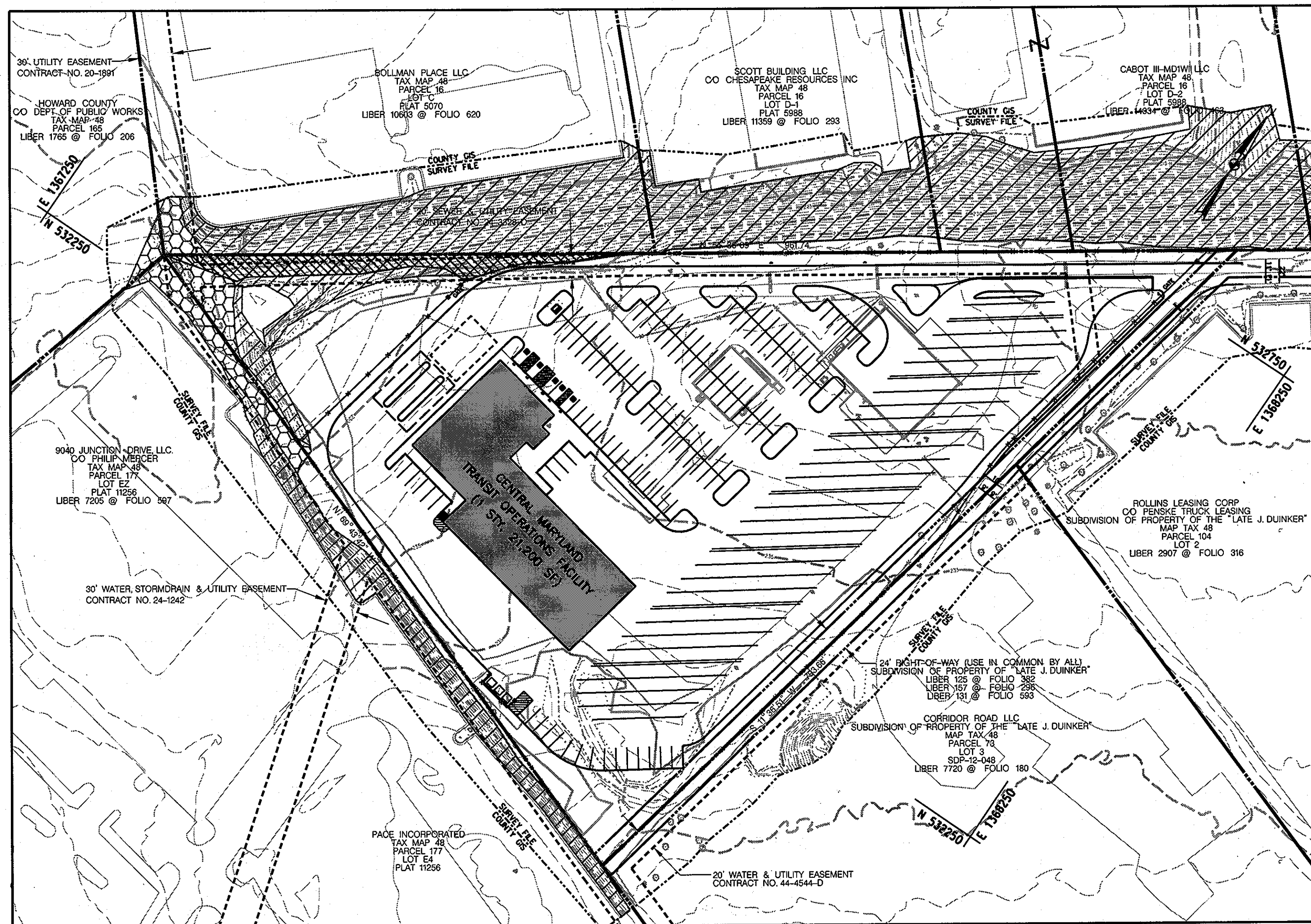
DEPARTMENT OF PUBLIC WORKS

CENTRAL MD TRANSIT OPERATIONS FACILITY

CAPITAL PROJECT NO: C-0289

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PERMIT INFORMATION CHART	
SUBDIVISION NAME	SECTION / AREA
LATE J. DUINKER	N.A.
FLAT # OR R./P.	GRID #
BOOK 151 PAGE 596 (13077 / 222)	13
WATER CODE	SEWER CODE
C04	4110000



GENERAL NOTES:

- 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) 313-1899 AT LEAST FIVE (5) WORKING DAYS PRIOR TO 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.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREETS AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME II (0993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)".
A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY WHITMAN, REQUARDT AND ASSOCIATES, DATED FEBRUARY 2, 2012.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NO. 48DG AND NO. 48DH WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC CONTRACT NO. 44-4544-D, 24-1242.
- SEWER IS PUBLIC CONTRACT NO. 24-3328-D, 24-3476-D, 20-1891.
- THE SITE IS CLASSIFIED AS A REDEVELOPMENT AND IS DESIGNATED AS A HOT SPOT. STORMWATER MANAGEMENT FOR THIS FACILITY IS A SUBMERGED GRAVEL WETLAND. THE FACILITY WILL BE OWNED AND MAINTAINED BY HOWARD COUNTY.
- EXISTING UTILITIES ARE BASED ON THE USE OF ANY OR ALL OF THE FOLLOWING: ROADWAY CONSTRUCTION PLANS, FIELD SURVEY, PUBLIC WATER AND SEWER PLANS, AND OTHER AVAILABLE RECORDED DRAWINGS.
- THERE IS NO FLOOD PLAIN ON THIS SITE.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY WRA DATED JUNE 2012.
- THE SUBJECT PROPERTY IS ZONED M-2 PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENT EFFECTIVE JULY 28, 2009.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLAND(S), STREAM(S), OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN. THE DEPARTMENT OF PLANNING AND ZONING HAS DETERMINED THAT THE DISTURBANCE TO THE STEEP SLOPE IS NECESSARY FOR THE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES WHICH ARE ESSENTIAL FOR REASONABLE DEVELOPMENT OF THE PROPERTY IN ACCORDANCE WITH SECTION 16.116(a) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IS NOT REQUIRED FOR THIS PROJECT BECAUSE IT IS A COUNTY CAPITAL PROJECT.
- THE FOREST CONSERVATION AGREEMENT HAD BEEN FULFILLED BY PAYMENT OF A FEE-IN-LIEU FOR THE 1.24 ACRES OF THE FOREST OBLIGATION IN THE AMOUNT OF \$40,510.80.
- OUTDOOR LIGHTING FOR THE PROPOSED SITE USE WILL BE PROVIDED IN COMPLIANCE WITH SECTION 134 OF THE ZONING REGULATIONS. THE LIGHT TRESPASS LIMITS SHALL NOT APPLY TO LAND WITHIN A PUBLIC STREET RIGHT-OF-WAY OR DEVELOPED FOR NON-RESIDENTIAL USES.
- THIS SITE COMPLES WITH THE HOWARD COUNTY GREEN BUILDING LAW SET FORTH UNDER TITLE 3, SUBTITLE 10 OF THE HOWARD COUNTY CODE AND SECTION 3.1005(a) OF THE CODE REGISTRATION WITH THE GREEN BUILDING COUNCIL AND THE APPLICABLE LEED REGISTRATION FEE WAS PAID ON NOVEMBER 8, 2012. THE LEED NEW CONSTRUCTION CHECKLIST WAS PREPARED, SIGNED AND DATED BY THE PROJECT LEED ACCREDITED PROFESSIONAL AND WAS RECEIVED BY DPZ ON APRIL 11, 2013. THE PROPOSED BUILDING IS TENTATIVELY CERTIFIED BY LEED WITH A SILVER RATING.
- PROJECT BACKGROUND INFORMATION:

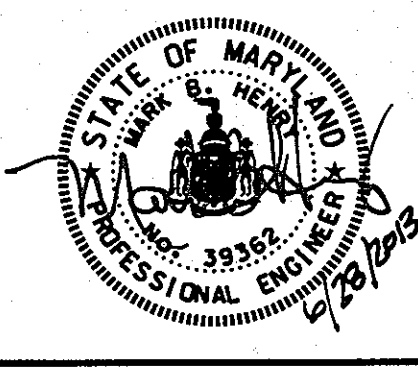
SITE ANALYSIS DATA SHEET	
SITE PLAN AREA	SIZE OR USE
TOTAL PROPERTY AREA	6.08 ACRES +/-
TOTAL PROJECT AREA	6.30 ACRES +/-
LIMIT OF DISTURBANCE	6.30 ACRES +/-
PRESENT ZONING DESIGNATION	M-2
PROPOSED USE	BUS OPERATION MAINTENANCE FACILITY
PROPOSED FLOOR SPACE	21,200 SF
TOTAL NUMBER OF BUSES REQUIRED / PROVIDED	104 BUSES / 104 BUSES
NUMBER OF PARKING SPACES REQUIRED / PROVIDED	*124 SPACES / 124 SPACES
VEHICLE PARKING BREAKDOWN	4 ADA CAR, 1 ADA VAN 6 LOW EMISSION VEHICLES 6 CARPOOL VEHICLE 3 VISITORS PARKING 109 PERSONNEL PARKING
NUMBER OF BICYCLE SPACES REQUIRED / PROVIDED	4 SPACES / 5 SPACES
MAXIMUM NUMBER OF EMPLOYEES	166
OPEN AREA ON SITE	N.A.
AREA OF RECREATION	N.A.
DPZ FILE REFERENCES	SDP-79-015 & ECP-13-025
SLOPES BETWEEN 15%-25%	0.07 ACRES +/-
SLOPES GREATER THAN 25%	0.25 ACRES +/-
SOIL TYPE	Ebc - EVESBORO LOAMY SAND, GROUP A Ud - URBAN LAND, GROUP D

ADDRESS CHART	
LOT / PARCEL	STREET ADDRESS
01 / 075	8800 CORRIDOR RD, ANNAPOLIS JUNCTION, MD 20701
02 / 104	8820 CORRIDOR RD, JESSUP, MD 20794
03 / 073	8810 CORRIDOR RD, ANNAPOLIS JUNCTION, MD 20701
E4 / 177	9030 N. JUNCTION DRIVE, ANNAPOLIS JUNCTION, MD 20701
E2 / 177	9036 N. JUNCTION DRIVE, ANNAPOLIS JUNCTION, MD 20701
G / 016	8735 BOLLMAN PLACE, JESSUP, MD 20794
D-1 / 016	8725 BOLLMAN PLACE, JESSUP, MD 20794
D-2 / 016	8715 BOLLMAN PLACE, JESSUP, MD 20794

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
By: [Signature] DATE: 7/25/2013
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
By: [Signature] DATE: 7/12/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
By: [Signature] DATE: 8/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
By: [Signature] DATE: 8-1-13
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 39362 Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE

COVER SHEET
 SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION GN-01
 SHEET NO. 1 OF 32
 SDP-13-039

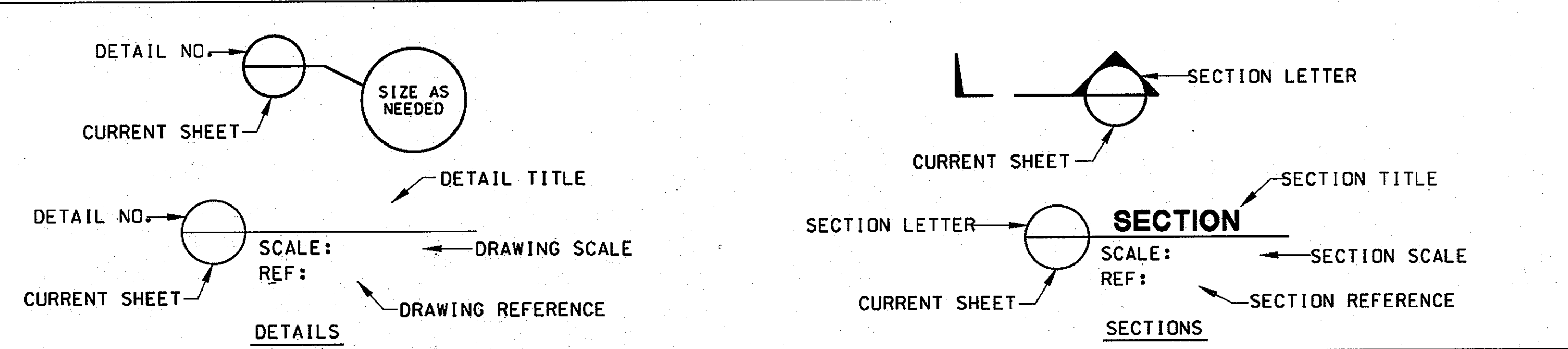
6/25/2013 \$FILES

ABBREVIATIONS

<p>△ TOTAL CENTRAL ANGLE OF SPIRAL AND CIRCULAR CURVES</p> <p>△c CENTRAL ANGLE OF CIRCULAR CURVE</p> <p>AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS</p> <p>AC ASPHALT CONCRETE</p> <p>ABAN ABANDONED</p> <p>ABUT ABUTMENT</p> <p>ADAAG AMERICANS WITH DISABILITIES ACT</p> <p>AGIP AT GRADE INLET PROTECTION</p> <p>AGG AGGREGATE</p> <p>AHD AHEAD</p> <p>AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION</p> <p>APPROX APPROXIMATE</p> <p>ASPH ASPHALT</p> <p>ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS</p> <p>@ AT</p> <p>BIT BITUMINOUS</p> <p>BCCMP BITUMINOUS COATED CORRUGATED METAL PIPE</p> <p>BK BACK</p> <p>BLDG BUILDING</p> <p>B BASELINE</p> <p>BLVD BOULEVARD</p> <p>BM BENCHMARK</p> <p>BOT BOTTOM</p> <p>BRG BEARING</p> <p>BSMT BASEMENT</p> <p>CB CATCH BASIN</p> <p>CC CONCRETE CURB</p> <p>C/C CENTER TO CENTER</p> <p>CD STONE CHECK DAM</p> <p>CEM CEMENT</p> <p>CG CONCRETE GUTTER</p> <p>C&G CURB AND GUTTER</p> <p>CGSP CORR. GALVANIZED STEEL PIPE</p> <p>CIP CAST IRON PIPE</p> <p>CL CENTERLINE</p> <p>CL CLASS</p> <p>CMP CORRUGATED METAL PIPE</p> <p>CLR CLEAR</p> <p>CO CLEAN OUT</p> <p>COL COLUMN</p> <p>COMB COMBINED SEWER</p> <p>CONC CONCRETE</p> <p>CONN CONNECTION</p> <p>CONST CONSTRUCTION</p> <p>CRB CURB LINE</p> <p>CSX CSX TRANSPORTATION INCORPORATED</p> <p>C/T CROSSOVER TRACK</p> <p>CTB CEMENT TREATED BASE</p> <p>Dc DEGREE OF CIRCULAR CURVE</p> <p>DEFL DEFLECTION</p> <p>DEG. DEGREES</p> <p>D/I DROP INLET</p> <p>DIA DIAMETER</p> <p>DIP DUCTILE IRON PIPE</p> <p>DN DOWNSPOUT</p> <p>DRWY DRIVEWAY</p> <p>DWG DRAWING</p> <p>DWLG DWELLING</p> <p>E EAST</p> <p>EA EACH</p> <p>EB EASTBOUND</p> <p>EL ELEVATION</p> <p>ELCP ELLIPTICAL CONCRETE PIPE</p> <p>ELEC ELECTRIC</p> <p>EM ELECTRIC METER</p> <p>EMB EMBANKMENT</p> <p>E/P EDGE OF PAVEMENT</p> <p>EQ EQUAL</p> <p>EQL EQUILATERAL</p> <p>EQN EQUATION</p> <p>E/R EDGE OF ROAD</p> <p>E/S EDGE OF STREAM</p> <p>ESMT EASEMENT</p> <p>EXIST EXISTING</p> <p>EXP EXPANSION</p> <p>EXT EXTERIOR</p> <p>FC FIELD CONNECTION</p>	<p>FF FAR FACE</p> <p>FG FINISH GRADE</p> <p>FH FIRE HYDRANT</p> <p>FL FLOOR, FLOWLINE</p> <p>FR FRAME</p> <p>FT. FOOT, FEET</p> <p>F/T FUTURE TRACK</p> <p>FUT FUTURE</p> <p>GALV GALVANIZED</p> <p>GM GAS METER</p> <p>GND GROUND</p> <p>GR GRADE</p> <p>GV GAS VALVE</p> <p>GW GUY WIRE</p> <p>H HEIGHT</p> <p>HBX HAND BOX</p> <p>HDPE HIGH DENSITY POLYETHYLENE</p> <p>HMA HOT MIX ASPHALT</p> <p>HORIZ HORIZONTAL</p> <p>HP HIGH POINT</p> <p>H/W HEAD WALL</p> <p>I INLET</p> <p>ID INSIDE DIAMETER</p> <p>IN. INCH</p> <p>INT INTERIOR</p> <p>INV INVERT</p> <p>JB JUNCTION BOX</p> <p>LB POUND</p> <p>Lc TOTAL LENGTH OF CIRCULAR CURVE, IN FEET</p> <p>LF LINEAR FEET</p> <p>LOD LIMIT OF DISTURBANCE</p> <p>LP LOW POINT</p> <p>LPLG LEAD PLUG (SURVEY MONUMENT)</p> <p>LR LONG RADIUS</p> <p>LRT LIGHT RAIL TRANSIT</p> <p>LRV LIGHT RAIL VEHICLE</p> <p>LT LEFT</p> <p>MARC MARYLAND RAIL COMMUTER</p> <p>MAX MAXIMUM</p> <p>MH MANHOLE</p> <p>MIN MINIMUM</p> <p>MIN. MINUTE</p> <p>MISC MISCELLANEOUS</p> <p>MON MONUMENT</p> <p>MPH MILES PER HOUR</p> <p>MSL MEAN SEA LEVEL</p> <p>MTA MARYLAND TRANSIT ADMINISTRATION</p> <p>N NORTH</p> <p>N/A NOT APPLICABLE</p> <p>NB NORTHBOUND</p> <p>N/E NORTH LINE - EAST TRACK</p> <p>NF NEAR FACE</p> <p>N/F NOW OR FORMERLY</p> <p>NIC NOT IN CONTRACT</p> <p>NO. NUMBER</p> <p>NTS NOT TO SCALE</p> <p>N/W NORTH LINE - WEST TRACK</p> <p>OD OUTSIDE DIAMETER</p> <p>OPP OPPOSITE</p> <p>PAVT PAVEMENT</p> <p>PC POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE</p> <p>PCC POINT OF COMPOUND CIRCULAR CURVES</p> <p>PED PEDESTRIAN</p> <p>PERF PERFORATED</p> <p>PERM PERMANENT</p> <p>PGE PROFILE GRADE ELEVATION</p> <p>PGL PROFILE GRADE LINE</p> <p>PI POINT OF INTERSECTION OF TWO TANGENTS</p> <p>PK PARKER-KALON NAIL (SURVEY MARKER)</p> <p>PKG PARKING</p> <p>R PROPERTY LINE</p> <p>PLAT PLATFORM</p> <p>POB POINT OF BEGINNING</p> <p>POC POINT ON CURVE</p> <p>PDE POINT OF ENDING</p> <p>POL POINT ON LINE</p> <p>POT POINT ON TANGENT</p> <p>PRC POINT OF REVERSE CURVES</p>	<p>PROP PROPOSED</p> <p>PST PORTABLE SEDIMENT TANK</p> <p>PT POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT</p> <p>PV PETROLEUM VALVE</p> <p>PVC POLYVINYL CHLORIDE</p> <p>R RADIUS</p> <p>RCEP REINFORCED CONCRETE ELLIPTICAL PIPE</p> <p>RCP REINFORCED CONCRETE PIPE</p> <p>REF REFERENCE</p> <p>REINF REINFORCED</p> <p>REQD REQUIRED</p> <p>RET RETAINING</p> <p>RP RAMP</p> <p>RR RAILROAD</p> <p>RT RIGHT</p> <p>R/W RIGHT OF WAY</p> <p>S SOUTH</p> <p>SAN SANITARY</p> <p>SB SOUTHBOUND</p> <p>SCE STABILIZED CONSTRUCTION ENTRANCE</p> <p>SCH SCHEDULE</p> <p>SD STORM DRAIN</p> <p>S/E SOUTH LINE - EAST TRACK</p> <p>SEC. SECOND</p> <p>SECT SECTION</p> <p>SF SILT FENCE</p> <p>S.F. SQUARE FOOT</p> <p>SG SUBGRADE</p> <p>SHA STATE HIGHWAY ADMINISTRATION</p> <p>SHLD SHOULDER</p> <p>SHT SHEET</p> <p>SIG SIGNAL</p> <p>SLP SLOPE</p> <p>SP SPACING</p> <p>STA STATION</p> <p>STD STANDARD</p> <p>STL STEEL</p> <p>STR STRUCTURE</p> <p>SURF SURFACE</p> <p>SW SIDE WALK</p> <p>S/W SOUTH LINE - WEST TRACK</p> <p>SWM STORMWATER MANAGEMENT</p> <p>TB TEST BORING</p> <p>Tc TANGENT LENGTH OF CIRCULAR CURVE</p> <p>T/C TOP OF CURB</p> <p>TEL TELEPHONE</p> <p>TEMP TEMPORARY</p> <p>T/G TOP OF GROUND</p> <p>T.G. TOP OF GRATE</p> <p>TOPO TOPOGRAPHY</p> <p>TP TEST PIT</p> <p>T/P TOP OF PAVEMENT</p> <p>T/R TOP OF RAIL</p> <p>TRK TRACK</p> <p>TR SIG TRAFFIC SIGNAL</p> <p>T.S. TOP OF STRUCTURE</p> <p>TYP TYPICAL</p> <p>UD UNDERDRAIN</p> <p>UND UNLESS NOTED OTHERWISE</p> <p>V VELOCITY</p> <p>VAR VARIES</p> <p>VCP VITRIFIED CLAY PIPE</p> <p>VERT VERTICAL</p> <p>W WEST</p> <p>W/ WITH</p> <p>W/O WITHOUT</p> <p>WAT WATER</p> <p>WB WESTBOUND</p> <p>WHSE WAREHOUSE</p> <p>WM WATER METER</p> <p>WMATA WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</p> <p>WP WORK POINT</p> <p>WS WATER SURFACE</p> <p>WV WATER VALVE</p> <p>X-ING CROSSING</p> <p>X-OVER CROSSOVER</p>
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SYMBOLS

EXISTING	PROPOSED	EXISTING	PROPOSED
RIGHT-OF-WAY	RIGHT-OF-WAY	MAJOR CONTOUR LINE	MAJOR CONTOUR LINE
PROPERTY LINE	PROPERTY LINE	MINOR CONTOUR LINE	MINOR CONTOUR LINE
PARCEL NUMBER	PARCEL NUMBER	SPOT ELEVATION	SPOT ELEVATION
MATCHLINE AND SECTION LINE	MATCHLINE AND SECTION LINE	HIGH WATER	HIGH WATER
TRACK CENTER LINE	TRACK CENTER LINE	DITCH	DITCH
CENTER LINE	CENTER LINE	SWALE	SWALE
BASE LINE	BASE LINE	SURFACE FLOW DIRECTION	SURFACE FLOW DIRECTION
POINT OF INTERSECTION OF TANGENTS	POINT OF INTERSECTION OF TANGENTS	STORM DRAIN LINE	STORM DRAIN LINE
STATION EQUATION	STATION EQUATION	UNDERDRAIN LINE	UNDERDRAIN LINE
PRIMARY HORIZONTAL CONTROL - TRAVERSE POINT	PRIMARY HORIZONTAL CONTROL - TRAVERSE POINT	DROP INLET, CATCH BASIN OR DRAIN	DROP INLET, CATCH BASIN OR DRAIN
BENCH MARK	BENCH MARK	CULVERT WITH HEADWALLS	CULVERT WITH HEADWALLS
TEST BORING 18	TEST BORING 18	MANHOLE (TYPE AS NOTED)	MANHOLE (TYPE AS NOTED)
TEST PIT	TEST PIT	CLEANOUT	CLEANOUT
STRUCTURE OUTLINE	STRUCTURE OUTLINE	WATER LINE	WATER LINE
METAL FENCE (CHAIN LINK)	METAL FENCE (CHAIN LINK)	GAS LINE	GAS LINE
ORNAMENTAL METAL FENCE	ORNAMENTAL METAL FENCE	SANITARY LINE	SANITARY LINE
WOOD FENCE	WOOD FENCE	UNDERGROUND TELEPHONE LINE	UNDERGROUND TELEPHONE LINE
RAILROAD TRACKS	RAILROAD TRACKS	OVERHEAD TELEPHONE LINE	OVERHEAD TELEPHONE LINE
CONCRETE CURB	CONCRETE CURB	UNDERGROUND ELECTRIC LINE	UNDERGROUND ELECTRIC LINE
CONCRETE CURB AND GUTTER	CONCRETE CURB AND GUTTER	OVERHEAD ELECTRIC LINE	OVERHEAD ELECTRIC LINE
DETECTABLE WARNING SURFACE	DETECTABLE WARNING SURFACE	ELECTRICAL JUNCTION BOX	ELECTRICAL JUNCTION BOX
WALLS	WALLS	ELECTRIC METER	ELECTRIC METER
TRAFFIC BARRIER	TRAFFIC BARRIER	UNDERGROUND FIBER OPTIC LINE	UNDERGROUND FIBER OPTIC LINE
BILLBOARD OR LARGE SIGN	BILLBOARD OR LARGE SIGN	OVERHEAD FIBER OPTIC LINE	OVERHEAD FIBER OPTIC LINE
SIGNS - NON-TRAFFIC	SIGNS - NON-TRAFFIC	UTILITY POLE	UTILITY POLE
SIGNS - TRAFFIC	SIGNS - TRAFFIC	LIGHT POLE	LIGHT POLE
CUT SLOPE - TOP	CUT SLOPE - TOP	FIRE HYDRANT	FIRE HYDRANT
FILL SLOPE - TOE	FILL SLOPE - TOE	ITEM TO BE REMOVED	ITEM TO BE REMOVED



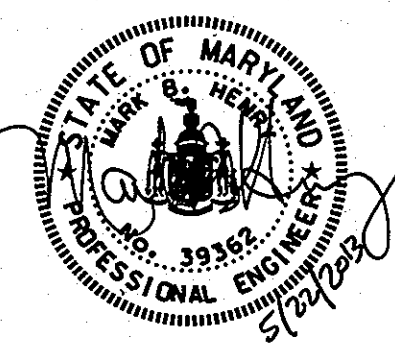
OWNER/DEVELOPER

Howard County
 c/o Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

4/25/2013 \$FILES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 39362 Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE
REVISIONS			

DESIGN LH
 CHECK LH
 MBH

STANDARD SYMBOLS

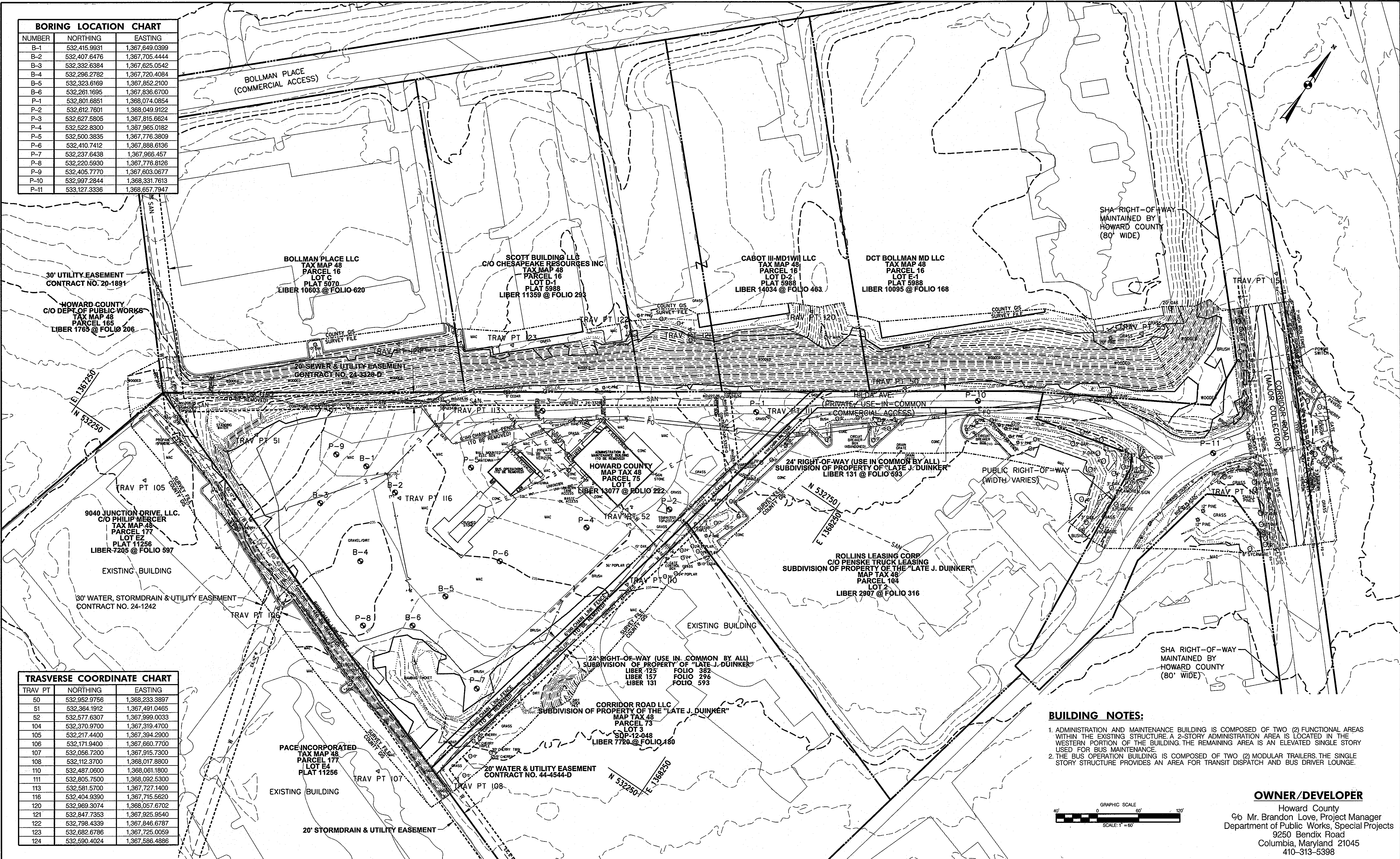
SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION GN-02
 SHEET NO. 2 OF 32

BORING LOCATION CHART		
NUMBER	NORTHING	EASTING
B-1	532,415.9931	1,367,649.0399
B-2	532,407.6476	1,367,705.4444
B-3	532,332.6384	1,367,625.0542
B-4	532,296.2782	1,367,720.4084
B-5	532,323.6169	1,367,852.2100
B-6	532,261.1695	1,367,836.6700
P-1	532,801.6851	1,368,074.0854
P-2	532,612.7601	1,368,049.9122
P-3	532,627.5805	1,367,815.6624
P-4	532,522.8300	1,367,965.0182
P-5	532,500.3935	1,367,776.3809
P-6	532,410.7412	1,367,888.6136
P-7	532,237.6438	1,367,966.457
P-8	532,220.5930	1,367,776.8126
P-9	532,405.7770	1,367,603.0677
P-10	532,997.2844	1,368,331.7613
P-11	533,127.3336	1,368,657.7947

TRASVERSE COORDINATE CHART		
TRAV PT	NORTHING	EASTING
50	532,952.9756	1,368,233.3897
51	532,364.1912	1,367,491.0465
52	532,577.6307	1,367,999.0033
104	532,370.9700	1,367,319.4700
105	532,217.4400	1,367,394.2900
106	532,171.9400	1,367,680.7700
107	532,056.7200	1,367,915.7300
108	532,112.3700	1,368,017.8800
110	532,487.0600	1,368,061.1800
111	532,805.7500	1,368,092.5300
113	532,581.5700	1,367,727.1400
116	532,404.9390	1,367,715.5620
120	532,969.3074	1,368,057.6702
121	532,847.7353	1,367,925.9540
122	532,798.4339	1,367,846.6787
123	532,682.6786	1,367,725.0059
124	532,590.4024	1,367,586.4886



BUILDING NOTES:

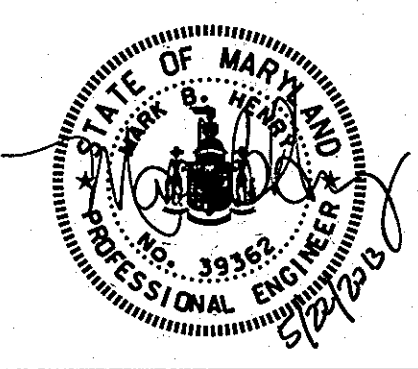
- ADMINISTRATION AND MAINTENANCE BUILDING IS COMPOSED OF TWO (2) FUNCTIONAL AREAS WITHIN THE EXISTING STRUCTURE. A 2-STORY ADMINISTRATION AREA IS LOCATED IN THE WESTERN PORTION OF THE BUILDING. THE REMAINING AREA IS AN ELEVATED SINGLE STORY USED FOR BUS MAINTENANCE.
- THE BUS OPERATION BUILDING IS COMPOSED OF TWO (2) MODULAR TRAILERS. THE SINGLE STORY STRUCTURE PROVIDES AN AREA FOR TRANSIT DISPATCH AND BUS DRIVER LOUNGE.

OWNER/DEVELOPER
 Howard County
 c/o Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

DATE: 6/11/13
 DATE: 6/11/13
 DATE: 6-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

39362 09/24/2014
 License No. Expiration Date

NO.	DESCRIPTION	BY	DATE

EXISTING SITE OVERVIEW PLAN

SCALE: 1" = 60'

DATE: APRIL 26, 2013

GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY

(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 1.3
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SP-01

SHEET NO. 3 OF 32

4/25/2013 \$FILES

Project No. 11-069 LOG OF BOREHOLE B-1									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 233.0 ft		6.1' (1' Approx) Firm brown and grey FINE SANDY CLAY (CL) with gravel							
3.0' Medium dense to very dense reddish brown to tan SILTY SAND (SM) with trace of gravel and clay to 15 ft		- with some gravel between 9.5 to 13 ft							
10' - with trace of gravel between 18 to 25 ft		- wet below 27 ft							
37.0' Firm tan and brown FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	37	@ Drilling							
WL 2	34.5	@ 9 hrs							
WL 3	33.8	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE B-2									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 234.0 ft		6.1' (1' Approx) Soft reddish brown FINE SANDY CLAY (CL)							
3.0' Medium dense reddish brown to tan SILTY SAND (SM) with trace of gravel and clay to 15 ft		- wet below 33 ft							
37.0' Soft tan FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	36	@ Drilling							
WL 2	34.5	@ 9 hrs							
WL 3	37.5	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE B-3									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 233.0 ft		2.1' Firm brown and reddish brown FINE SANDY CLAY (CL)							
3.0' Medium dense reddish brown SILTY SAND (SM) with trace of gravel and clay to 12 ft		- with more gravel between 18 to 23 ft							
37.0' Soft tan FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	38	@ Drilling							
WL 2	35.5	@ 9 hrs							
WL 3	35.5	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE B-4									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 233.0 ft		2.1' Very soft brown and reddish brown FINE SANDY CLAY (CL) with gravel							
3.0' Medium dense nodular brown SILTY SAND (SM) with trace of gravel and clay to 17 ft		- wet below 36 ft							
37.0' Firm tan FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	38	@ Drilling							
WL 2	35.5	@ 9 hrs							
WL 3	35.5	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE B-5									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 234.0 ft		2.1' Firm brown FINE SANDY CLAY (CL)							
3.0' Medium dense reddish brown to tan SILTY SAND (SM) with trace of gravel and clay to 17 ft		- wet below 36 ft							
37.0' Firm tan FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	38	@ Drilling							
WL 2	35.5	@ 9 hrs							
WL 3	35.5	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE B-6									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 234.0 ft		6.1' (1' Approx) Firm brown FINE SANDY CLAY (CL)							
3.0' Medium dense to brown reddish brown to tan SILTY SAND (SM) with trace of gravel and clay to 8 ft		- wet below 27 ft							
37.0' Firm tan FINE SANDY SILT (ML)		End of boring @ 40 ft							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	Dry	@ Drilling							
WL 2	Dry	@ 9 hrs							
WL 3	35	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE P-1									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 242.0 ft		1.0' (1' Approx) Firm reddish brown FINE SANDY CLAY (CL)							
10.0' End of boring @ 10 ft		Upon completion, borehole was backfilled and patched with asphalt							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	Dry	@ Drilling							
WL 2	Dry	@ 9 hrs							
WL 3	35	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE P-2									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 236.0 ft		6.6' (1' Approx) Firm brown FINE SANDY CLAY (CL)							
5.5' Dense to medium dense reddish brown SILTY SAND (SM) with gravel		- wet below 10 ft							
10.0' End of boring @ 10 ft		Upon completion, borehole was backfilled and patched with asphalt							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	Dry	@ Drilling							
WL 2	Dry	@ 9 hrs							
WL 3	35	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE P-3									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 237.0 ft		1.0' (1' Approx) Firm brown FINE SANDY CLAY (CL)							
3.0' Dense to medium dense reddish brown SILTY SAND (SM) with gravel		- wet below 10 ft							
10.0' End of boring @ 10 ft		Upon completion, borehole was backfilled and patched with asphalt							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	Dry	@ Drilling							
WL 2	Dry	@ 9 hrs							
WL 3	35	After 24 hrs							

Project No. 11-069 LOG OF BOREHOLE P-4									
CLIENT: RKKK		PROJECT: Central MdTA Operation Facility							
ARCHITECT/ENGINEER: RKKK		SITE: Howard County, Maryland							
		HOWARD COUNTY, MARYLAND							
		SAMPLES							
		TESTS							
SURFACE ELEV.: 237.0 ft		1.0' (1' Approx) Firm brown FINE SANDY CLAY (CL)							
3.0' Dense to medium dense reddish brown SILTY SAND (SM) with gravel and trace of clay		- wet below 10 ft							
10.0' End of boring @ 10 ft		Upon completion, borehole was backfilled and patched with asphalt							
WATER LEVEL OBSERVATIONS		AB Consultants, Inc. 9450 Annapolis Road Lanham, MD 20706 Phone: 301-306-3091 Fax: 301-306-3092							
WL 1	Dry	@ Drilling							
WL 2	Dry	@ 9 hrs							
WL 3	35	After 24 hrs							

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
 License No. 39362 Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE

SOIL BORING LOGS
 SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUNKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SO-01
 SHEET NO. 4 OF 32

4/25/2013 \$FILE\$

Project No. 11-069		LOG OF BOREHOLE P-5		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 228.0 ft		GRAPHIC LOG		TESTS	
3.0' Asphalt		16-9 N#18		1	
3.0' Firm brown FINE SANDY CLAY (CL)		16-9 N#18		1	
3.0' Medium dense reddish brown SILTY SAND (SM) with gravel and clay		16-9 N#18		1	
10.0'		13-11 N#18		4	
End of boring @ 10 ft					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 7.5 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 7 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

Project No. 11-069		LOG OF BOREHOLE P-6		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 235.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		10-16-21 N#21		1	
2.0' Dense to medium dense reddish brown SILTY SAND (SM) with gravel and trace of clay		10-16-21 N#21		1	
10.0'		10-4 N#2		2	
10.0'		10-4 N#2		2	
10.0'		10-4 N#2		2	
10.0'		10-11-11 N#22		4	
End of boring @ 10 ft					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 8 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 8 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

Project No. 11-069		LOG OF BOREHOLE P-7		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 233.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		2-3 N#6		1	
2.0' Firm reddish brown FINE SANDY CLAY (CL) with gravel and roots		2-3 N#6		1	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		7-8-11 N#19		4	
End of boring @ 10 ft					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 8 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 8 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

Project No. 11-069		LOG OF BOREHOLE P-8		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 238.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		2-3 N#6		1	
2.0' Firm reddish brown FINE SANDY CLAY (CL) with gravel		2-3 N#6		1	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		7-8-11 N#19		4	
End of boring @ 10 ft					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 8 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 8 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

Project No. 11-069		LOG OF BOREHOLE P-9		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 232.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		3-6 N#7		1	
2.0' Firm brown and gray FINE SANDY CLAY (SC) with gravel		3-6 N#7		1	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		3-6 N#7		2	
10.0'		11-15-24 N#20		4	
End of boring @ 20 ft					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 18 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 18 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

Project No. 11-069		LOG OF BOREHOLE P-10		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 241.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		16-43-32 N#72		1	
2.0' Very dense to medium dense to dense light gray and brown SILTY SAND (SM) with gravel and trace of clay		16-43-32 N#72		1	
10.0'		4-2-16 N#22		2	
10.0'		4-2-16 N#22		2	
10.0'		16-28-31 N#69		3	
10.0'		16-28-31 N#69		3	
10.0'		19-36-28 N#58		4	
End of boring @ 10 ft					
Upon completion, borehole was backfilled and patched with concrete and asphalt.					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 6.5 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 6.5 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

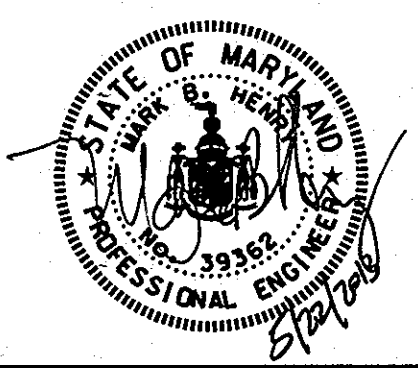
Project No. 11-069		LOG OF BOREHOLE P-11		Sheet 1 of 1	
CLIENT:	RK&K	PROJECT:	Central MdTA Operation Facility		
ARCHITECT/ENGINEER:		SITE:	Howard County, Maryland		
SURFACE ELEV.: 237.0 ft		GRAPHIC LOG		TESTS	
2.0' Asphalt		16-12-9 N#20		1	
2.0' Medium dense brown and gray SILTY SAND (SM) with gravel		16-12-9 N#20		1	
10.0'		2-7-6 N#16		2	
10.0'		2-7-6 N#16		2	
10.0'		2-7-6 N#16		2	
10.0'		2-7-7 N#14		4	
End of boring @ 10 ft					
Upon completion, borehole was backfilled and patched with concrete and asphalt.					
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 11/2/12	
WL Dry @ Drilling		9450 Annapolis Road		FINISHED: 11/2/12	
WL Dry, cased in 5.5 ft @ 0 Hrs		Lanham, MD 20706		DRAWN: ABC	
WL Dry, cased in 5.5 ft After 24 Hrs		Phone: 301-306-3091		CHECKED: PS	
		Fax: 301-306-3092		LOGGED BY: APPROVED	

OWNER/DEVELOPER

Howard County
 %o Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-1-13
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 39362, Expiration Date 09/24/2014

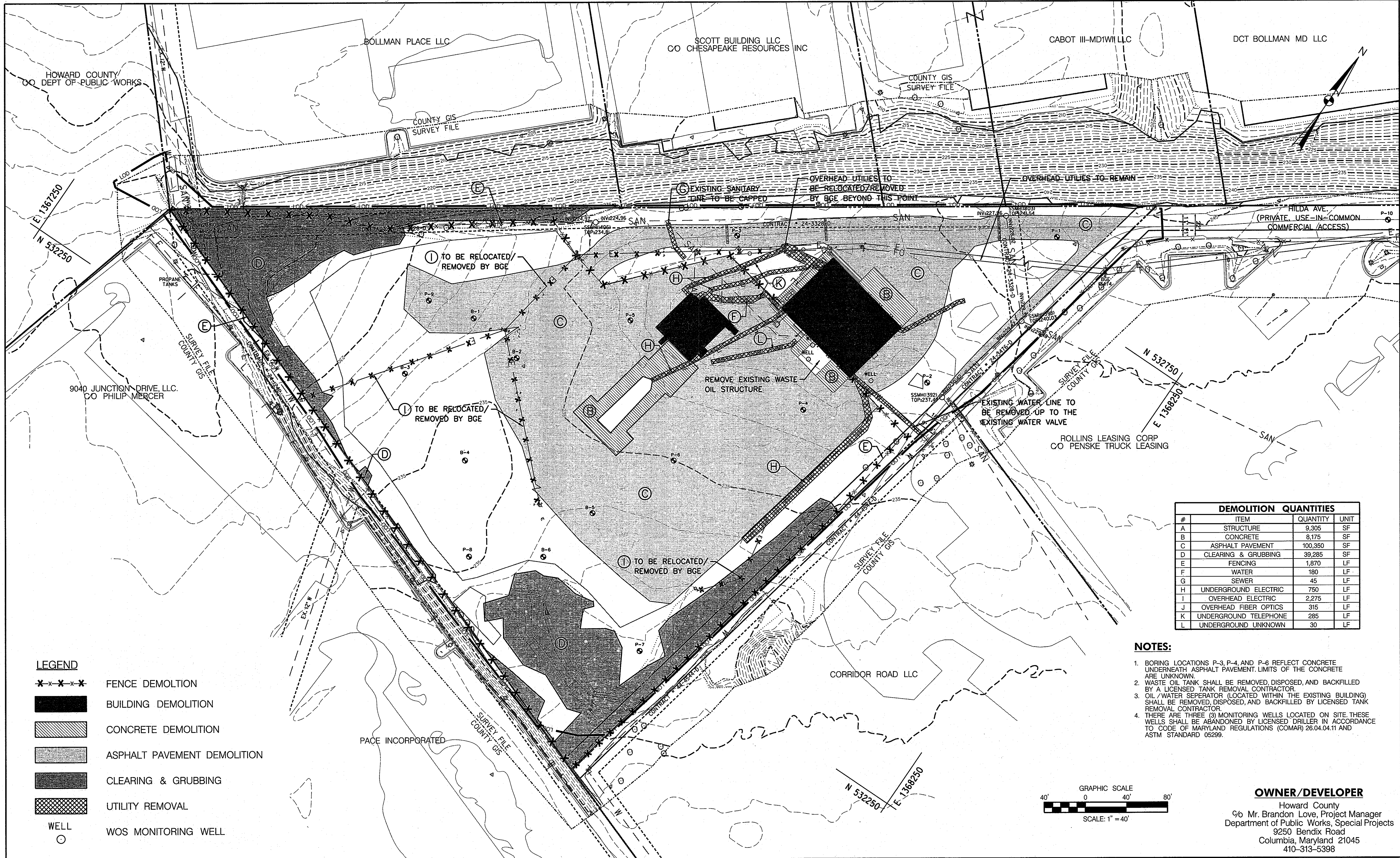
NO.	DESCRIPTION	BY	DATE

DESIGN: AB
 CHECK: AB
 DRAWN: JRN

SOIL BORING LOGS
 SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUNKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

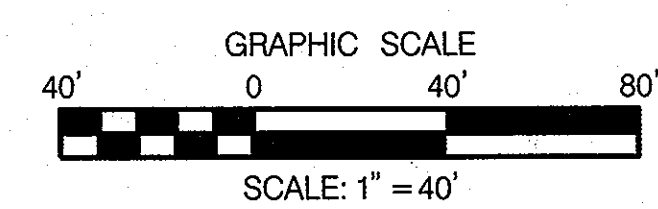
DISCIPLINE ABBREVIATION: SO-02
 SHEET NO. 5 OF 32



DEMOLITION QUANTITIES			
#	ITEM	QUANTITY	UNIT
A	STRUCTURE	9,305	SF
B	CONCRETE	8,175	SF
C	ASPHALT PAVEMENT	100,350	SF
D	CLEARING & GRUBBING	39,285	SF
E	FENCING	1,870	LF
F	WATER	180	LF
G	SEWER	45	LF
H	UNDERGROUND ELECTRIC	750	LF
I	OVERHEAD ELECTRIC	2,275	LF
J	OVERHEAD FIBER OPTICS	315	LF
K	UNDERGROUND TELEPHONE	285	LF
L	UNDERGROUND UNKNOWN	30	LF

- NOTES:**
- BORING LOCATIONS P-3, P-4, AND P-6 REFLECT CONCRETE UNDERNEATH ASPHALT PAVEMENT. LIMITS OF THE CONCRETE ARE UNKNOWN.
 - WASTE OIL TANK SHALL BE REMOVED, DISPOSED, AND BACKFILLED BY A LICENSED TANK REMOVAL CONTRACTOR.
 - OIL/WATER SEPARATOR (LOCATED WITHIN THE EXISTING BUILDING) SHALL BE REMOVED, DISPOSED, AND BACKFILLED BY LICENSED TANK REMOVAL CONTRACTOR.
 - THERE ARE THREE (3) MONITORING WELLS LOCATED ON SITE. THESE WELLS SHALL BE ABANDONED BY LICENSED DRILLER IN ACCORDANCE TO CODE OF MARYLAND REGULATIONS (COMAR) 26.04.04.11 AND ASTM STANDARD 05299.

- LEGEND**
- *-x-x-x* FENCE DEMOLITION
 - [Solid Black Box] BUILDING DEMOLITION
 - [Hatched Box] CONCRETE DEMOLITION
 - [Dotted Box] ASPHALT PAVEMENT DEMOLITION
 - [Cross-hatched Box] CLEARING & GRUBBING
 - [Grid Box] UTILITY REMOVAL
 - WELL
 - WOS MONITORING WELL

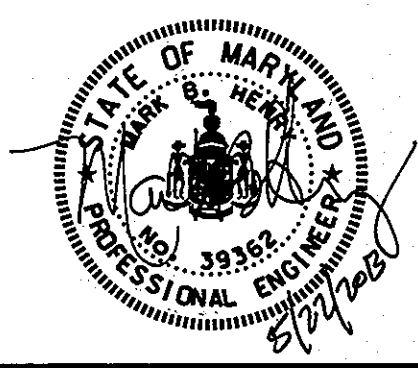


OWNER/DEVELOPER
 Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

4/25/2013
 \$FILES\$

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/1/13
 DIRECTOR

RK&K
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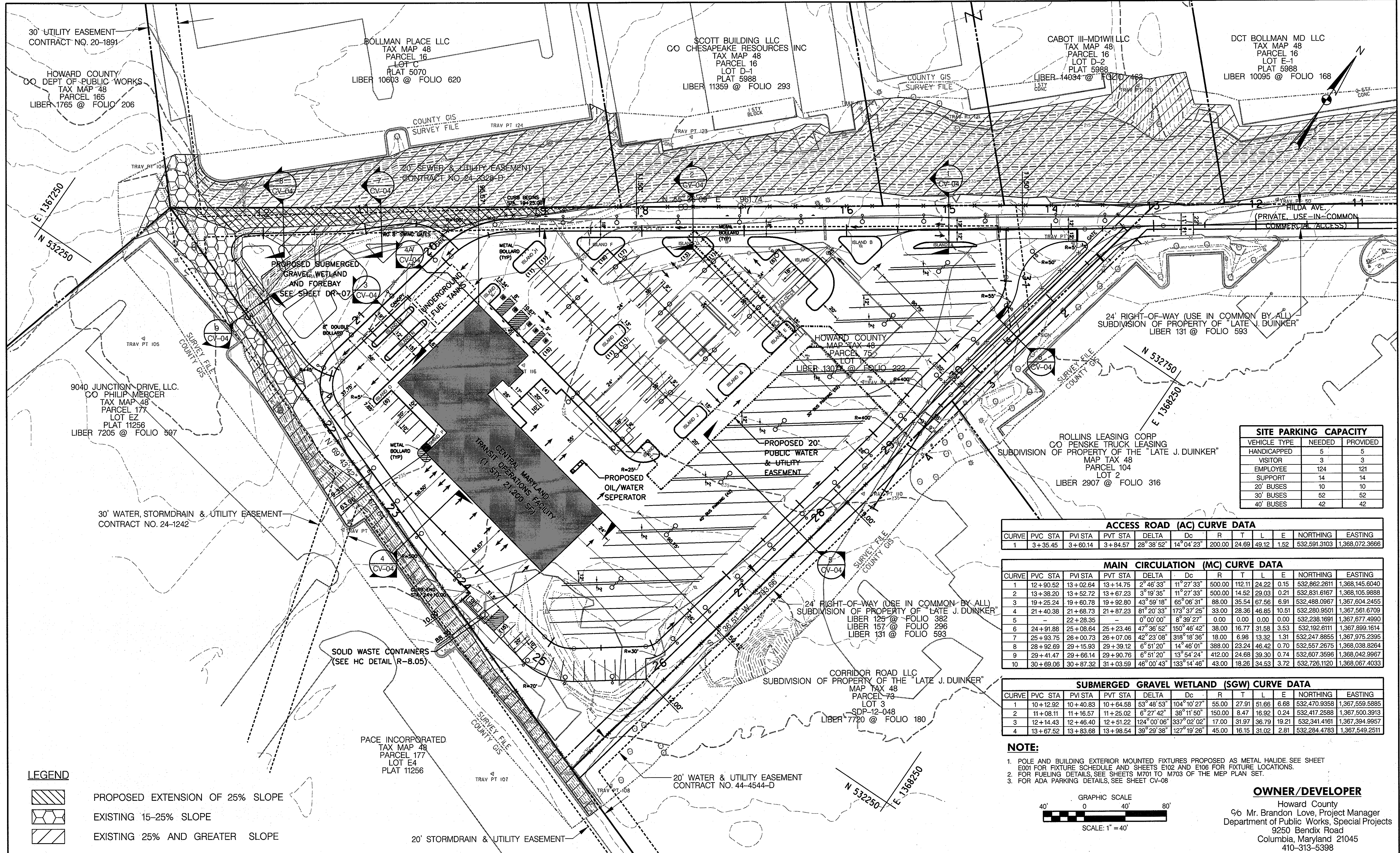
NO.	DESCRIPTION	BY	DATE

APPR CHECK DRAWING DESIGN
 JRN
 JRN
 MBH

SITE DEMOLITION PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION DM-01
 SHEET NO. 6 OF 32
 SDP-13-039



SITE PARKING CAPACITY

VEHICLE TYPE	NEEDED	PROVIDED
HANDICAPPED	5	5
VISITOR	3	3
EMPLOYEE	124	121
SUPPORT	14	14
20' BUSES	10	10
30' BUSES	52	52
40' BUSES	42	42

ACCESS ROAD (AC) CURVE DATA

CURVE	PVC STA	PVI STA	PVT STA	DELTA	Dc	R	T	L	E	NORTHING	EASTING
1	3+35.45	3+60.14	3+84.57	28°38'52"	14°04'23"	200.00	24.69	49.12	1.52	532,591.3103	1,368,072.3666

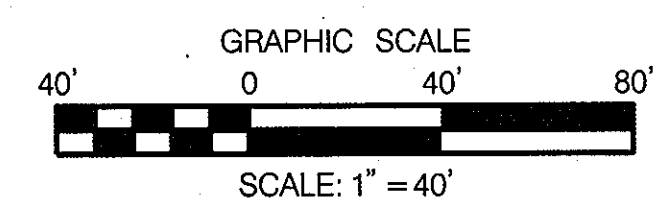
MAIN CIRCULATION (MC) CURVE DATA

CURVE	PVC STA	PVI STA	PVT STA	DELTA	Dc	R	T	L	E	NORTHING	EASTING
1	12+90.52	13+02.64	13+14.75	2°46'33"	11°27'33"	500.00	112.11	24.22	0.15	532,862.2611	1,368,145.6040
2	13+38.20	13+52.72	13+67.23	3°19'35"	11°27'33"	500.00	14.52	29.03	0.21	532,831.6167	1,368,105.9888
3	19+25.24	19+60.78	19+92.80	43°59'18"	65°06'31"	88.00	35.54	67.56	6.91	532,488.0967	1,367,604.2455
4	21+40.38	21+68.73	21+87.23	81°20'33"	173°37'25"	33.00	28.36	46.85	10.51	532,280.9501	1,367,561.6709
5	-	22+28.35	-	0°00'00"	8°39'27"	0.00	0.00	0.00	0.00	532,238.1691	1,367,677.4990
6	24+91.88	25+08.64	25+23.46	47°36'52"	150°46'42"	38.00	16.77	31.58	3.53	532,192.6111	1,367,899.1614
7	25+93.75	26+00.73	26+07.06	42°23'08"	318°18'36"	18.00	6.98	13.32	1.31	532,247.8855	1,367,975.2395
8	28+92.69	29+15.93	29+39.12	6°51'20"	14°46'01"	388.00	23.24	46.42	0.70	532,557.2675	1,368,038.8264
9	29+41.47	29+66.14	29+90.76	6°51'20"	13°54'24"	412.00	24.68	39.30	0.74	532,607.3596	1,368,042.9967
10	30+69.06	30+87.32	31+03.59	46°00'43"	133°14'46"	43.00	18.26	34.53	3.72	532,726.1120	1,368,067.4033

SUBMERGED GRAVEL WETLAND (SGW) CURVE DATA

CURVE	PVC STA	PVI STA	PVT STA	DELTA	Dc	R	T	L	E	NORTHING	EASTING
1	10+12.92	10+40.83	10+64.58	53°48'53"	104°10'27"	55.00	27.91	51.66	6.68	532,470.9358	1,367,559.5885
2	11+08.11	11+16.57	11+25.02	6°27'42"	38°11'50"	150.00	8.47	16.92	0.24	532,417.2588	1,367,500.3913
3	12+14.43	12+46.40	12+51.22	124°00'06"	337°02'02"	17.00	31.97	36.79	19.21	532,341.4161	1,367,394.9957
4	13+67.52	13+83.68	13+98.64	39°29'38"	127°19'26"	45.00	16.15	31.02	2.81	532,284.4783	1,367,549.2511

- NOTE:**
- POLE AND BUILDING EXTERIOR MOUNTED FIXTURES PROPOSED AS METAL HALIDE. SEE SHEET E001 FOR FIXTURE SCHEDULE AND SHEETS E102 AND E106 FOR FIXTURE LOCATIONS.
 - FOR FUELING DETAILS, SEE SHEETS M701 TO M703 OF THE MEP PLAN SET.
 - FOR ADA PARKING DETAILS, SEE SHEET CV-08



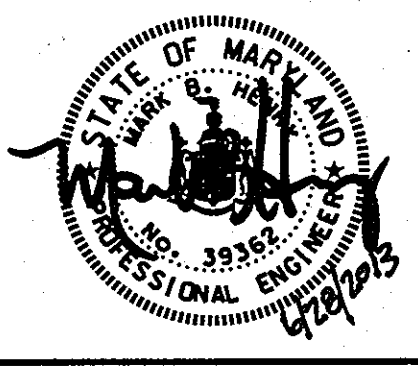
OWNER/DEVELOPER
 Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

- LEGEND**
- PROPOSED EXTENSION OF 25% SLOPE
 - EXISTING 15-25% SLOPE
 - EXISTING 25% AND GREATER SLOPE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION Aw
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

7/17/13
 8/1/13
 8-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

39362 09/24/2014
 License No. Expiration Date

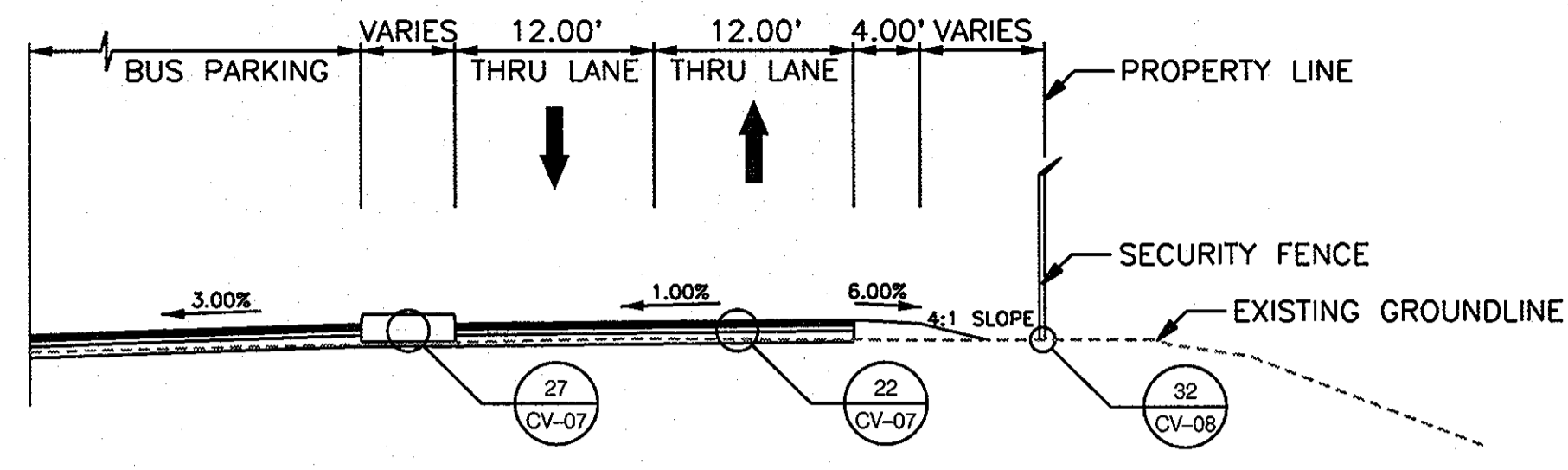
NO.	DESCRIPTION	BY	DATE
		JRN	
		JRN	
		MBH	

SITE LAYOUT PLAN

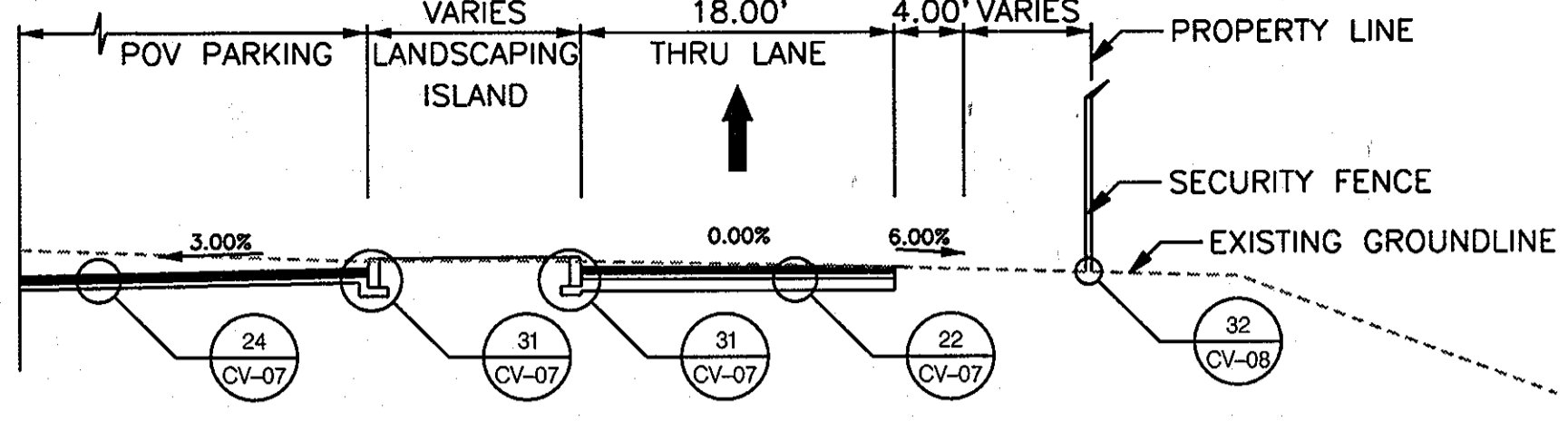
SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

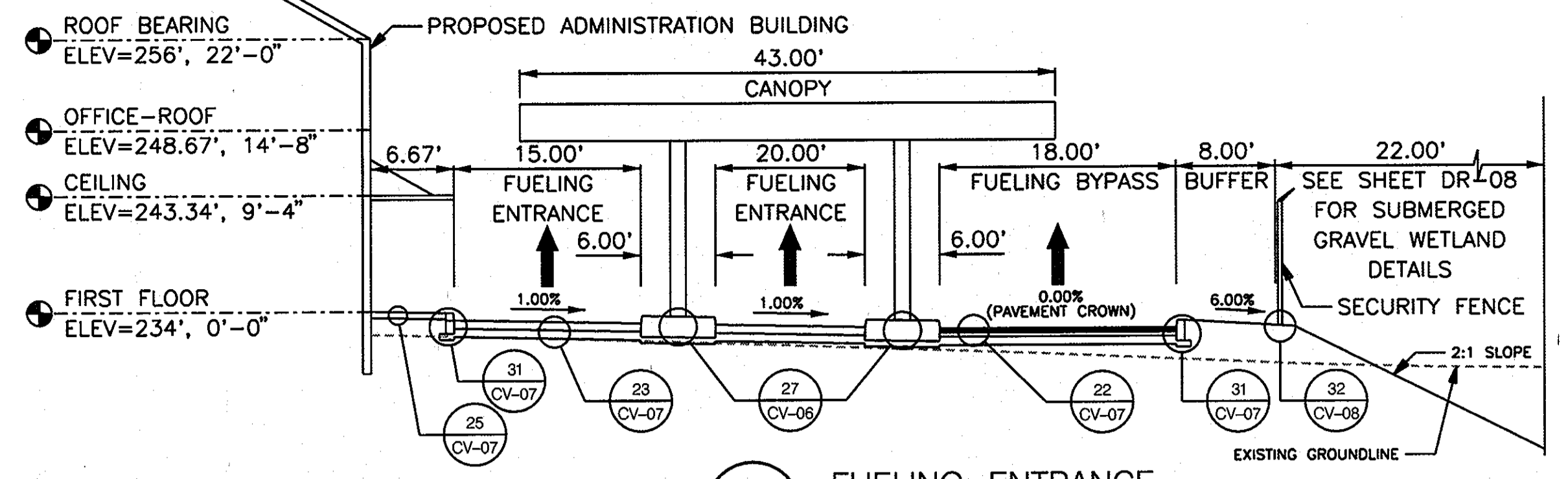
DISCIPLINE ABBREVIATION CV-03
 SHEET NO. 7 OF 32
 SDP-13-039



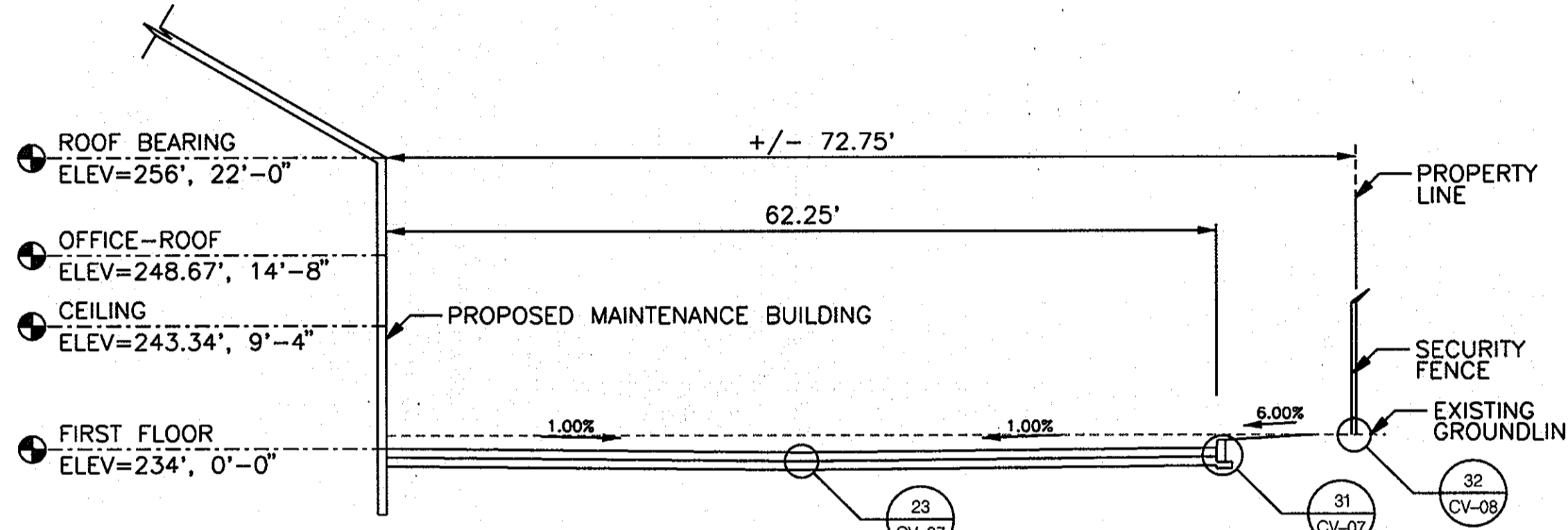
1 FACILITY ENTRANCE
CV-03 SCALE: 1" = 10'-0"



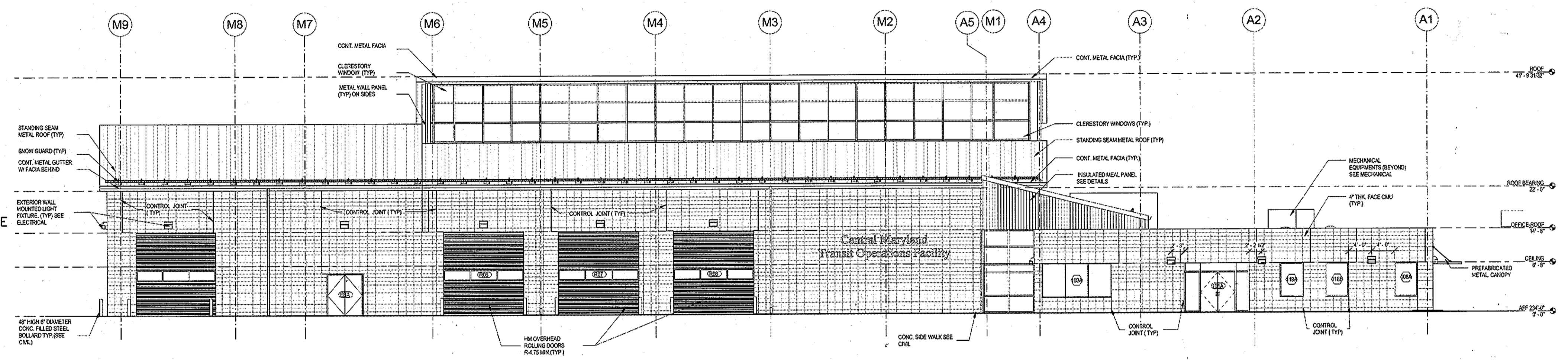
2 MAIN CIRCULATION
CV-03 SCALE: 1" = 10'-0"



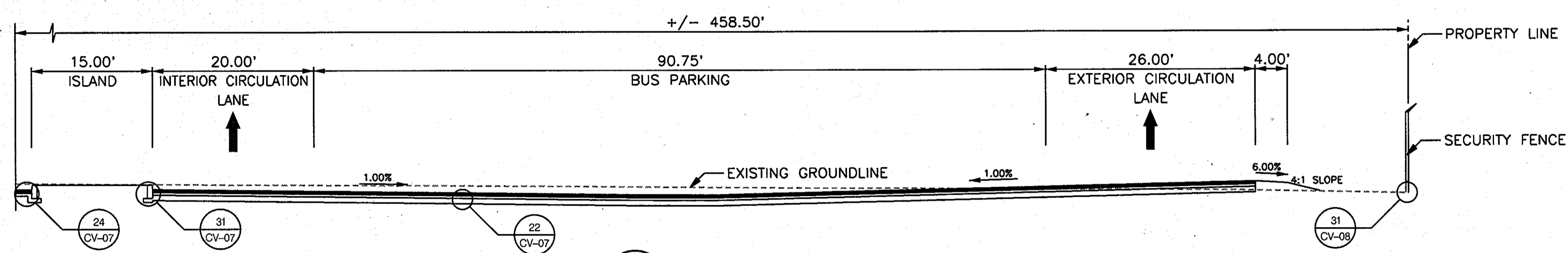
3 FUELING ENTRANCE
CV-03 SCALE: 1" = 10'-0"



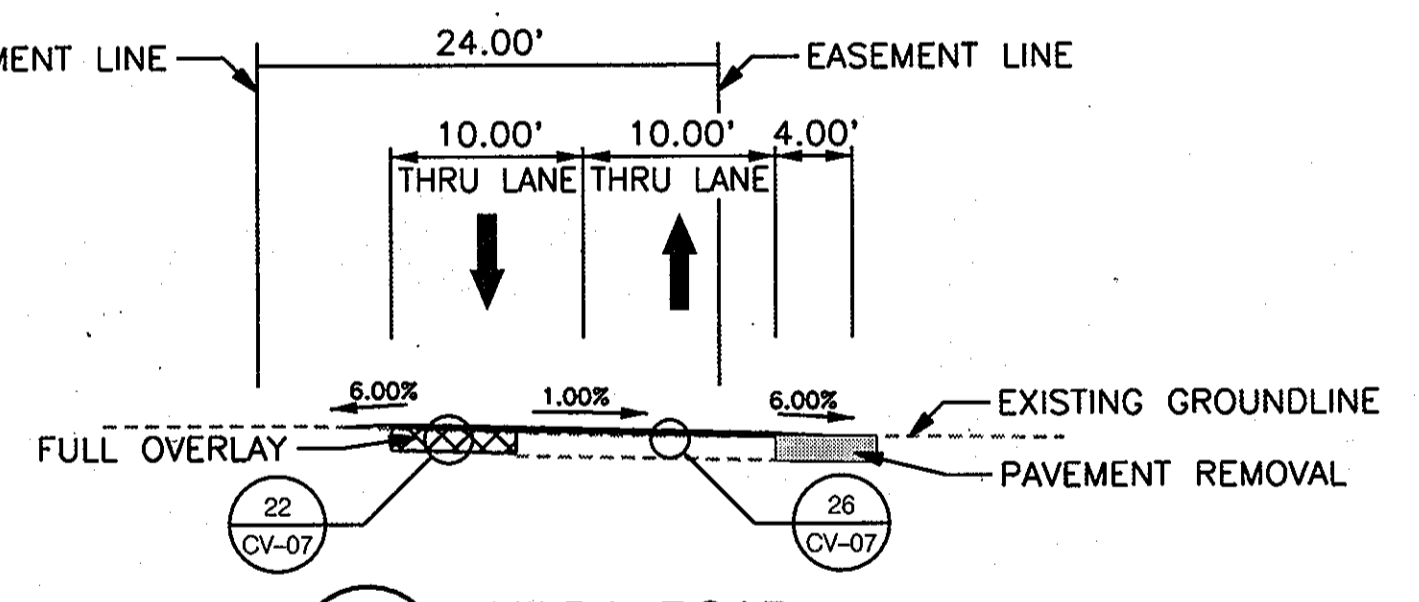
4 MAINTENANCE BAY ENTRANCE
CV-03 SCALE: 1" = 10'-0"



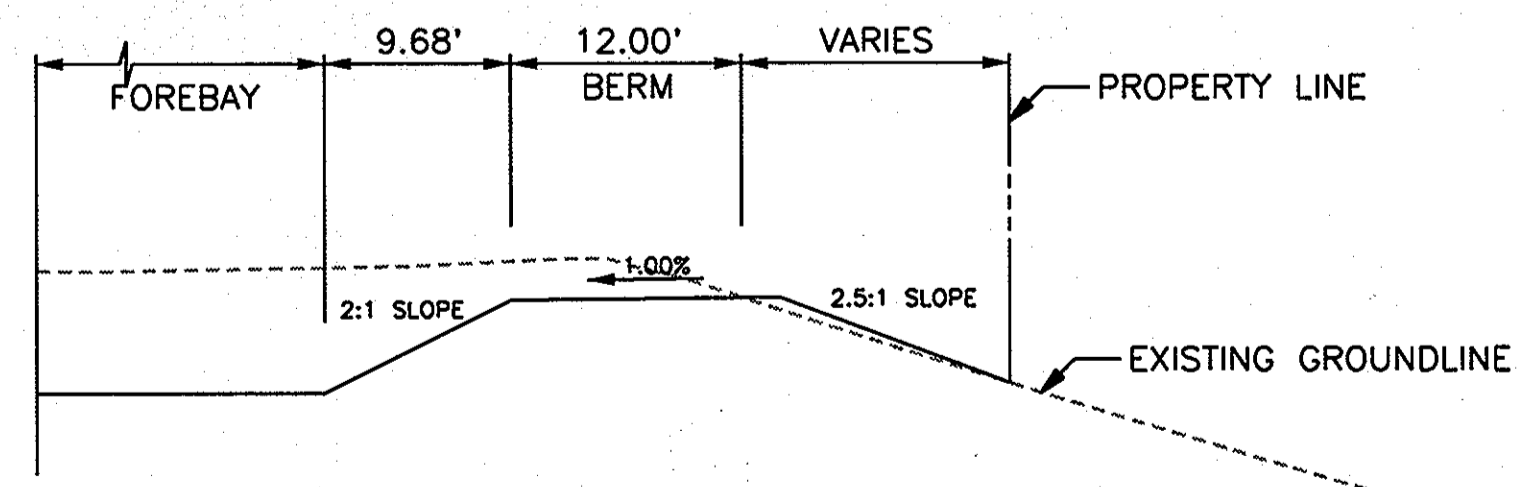
4A BUILDING FACADE
CV-03 SCALE: NOT TO SCALE
NOTE: SEE SHEET A201 IN THE ARCHITECTURAL PLAN SET



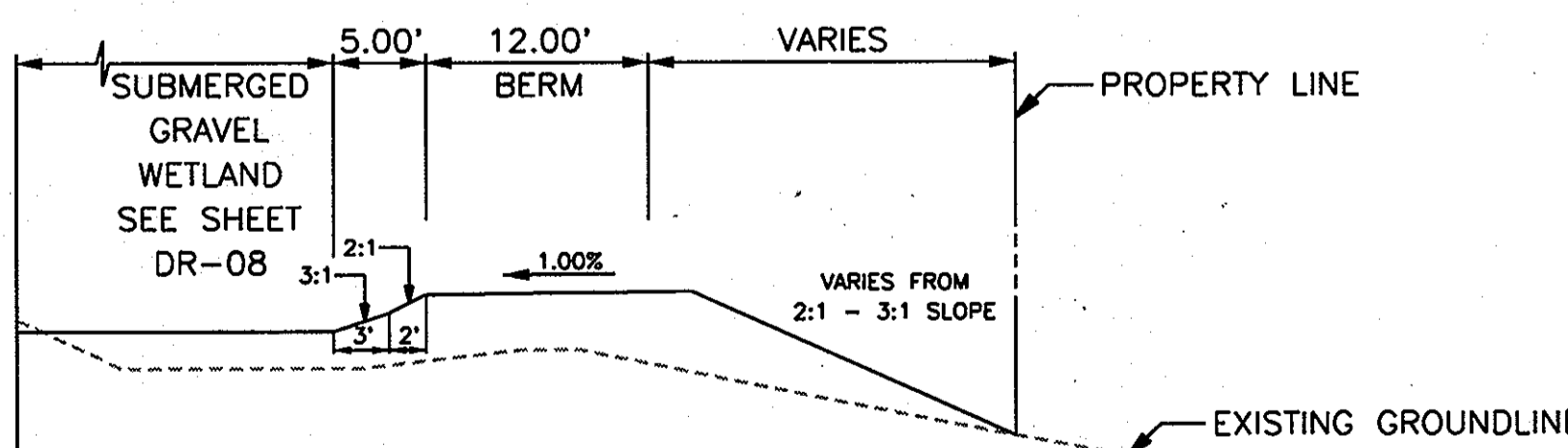
5 BUS PARKING AREA
CV-03 SCALE: 1" = 10'-0"



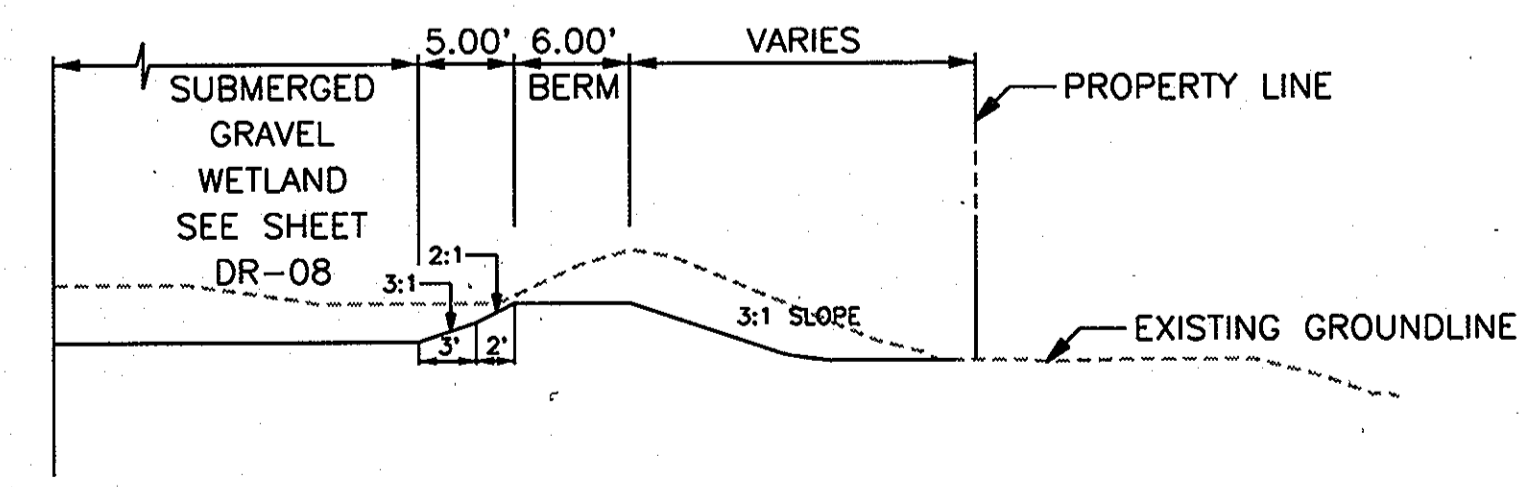
6 HILDA ROAD
CV-03 SCALE: 1" = 10'-0"
STA 13+00.00 TO STA 4+00.00



7 FOREBAY SLOPE
CV-03 SCALE: 1" = 10'-0"



8 WESTERN SLOPE
CV-03 SCALE: 1" = 10'-0"

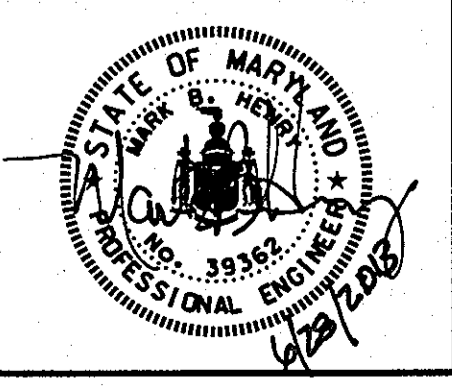


9 SOUTHERN SLOPE
CV-03 SCALE: 1" = 10'-0"

OWNER/DEVELOPER
Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Parcel Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



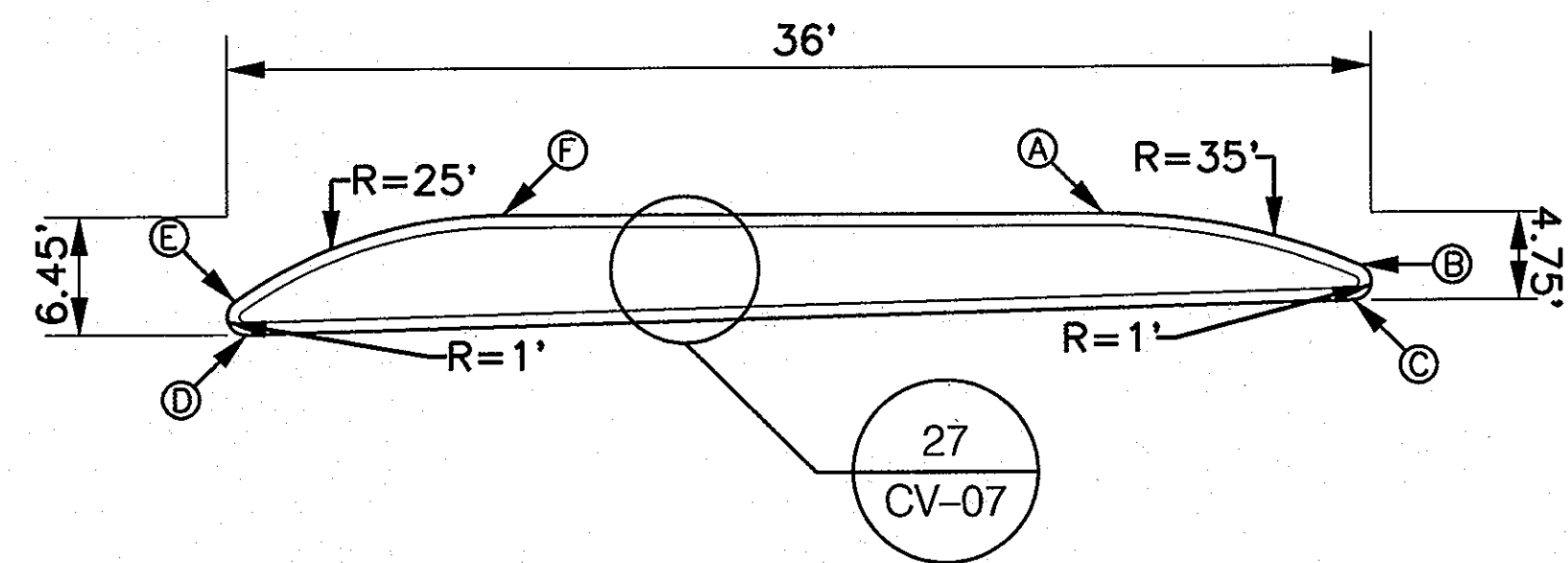
PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
39362 License No. 09/24/2014 Expiration Date

NO.	DESCRIPTION	BY	DATE
		JRN	6/25/2013

APPR	CHECK	DESIGN
	JRN	JRN
	MBH	

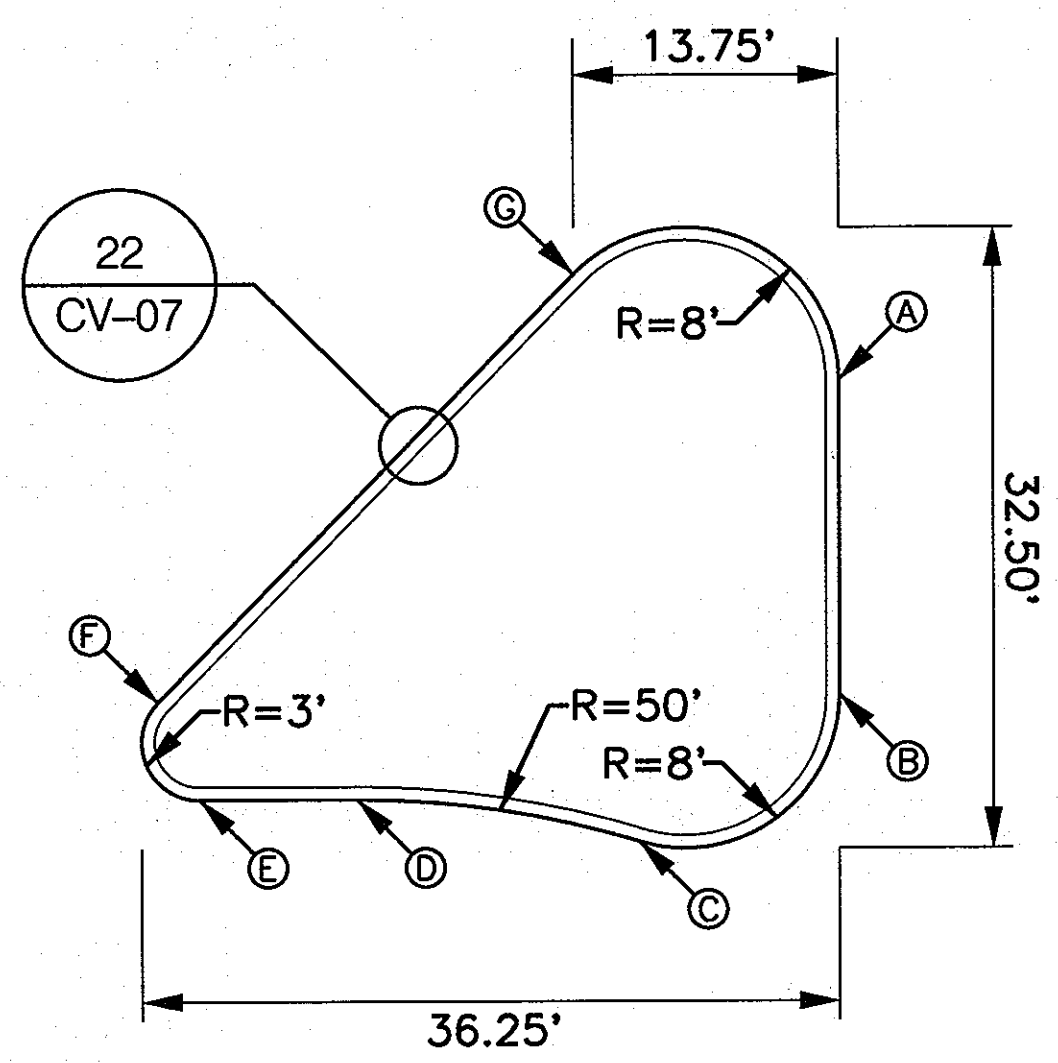
GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD
DISCIPLINE ABBREVIATION CV-04
SHEET NO. 8 OF 32

6/26/2013 \$FILE\$



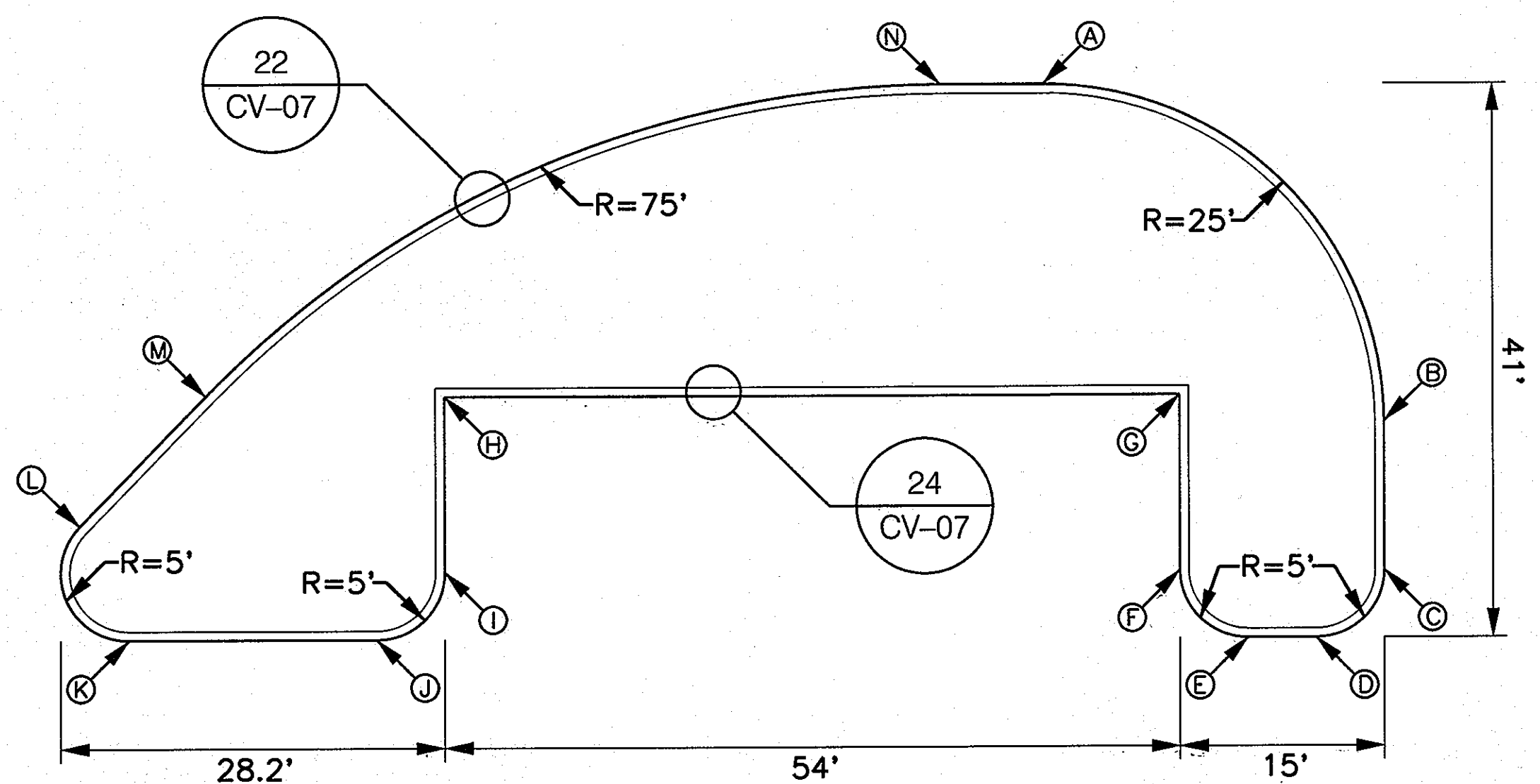
ISLAND A CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,746.7647	1,368,001.8355	240.94
B	532,751.2359	1,368,014.8987	241.12
C	532,749.4454	1,368,015.6782	241.05
D	532,714.2386	1,367,987.2208	240.22
E	532,715.3915	1,367,985.6938	240.25
F	532,727.4232	1,367,975.0459	240.57

10 SITE ISLAND A
CV-03 NOT TO SCALE



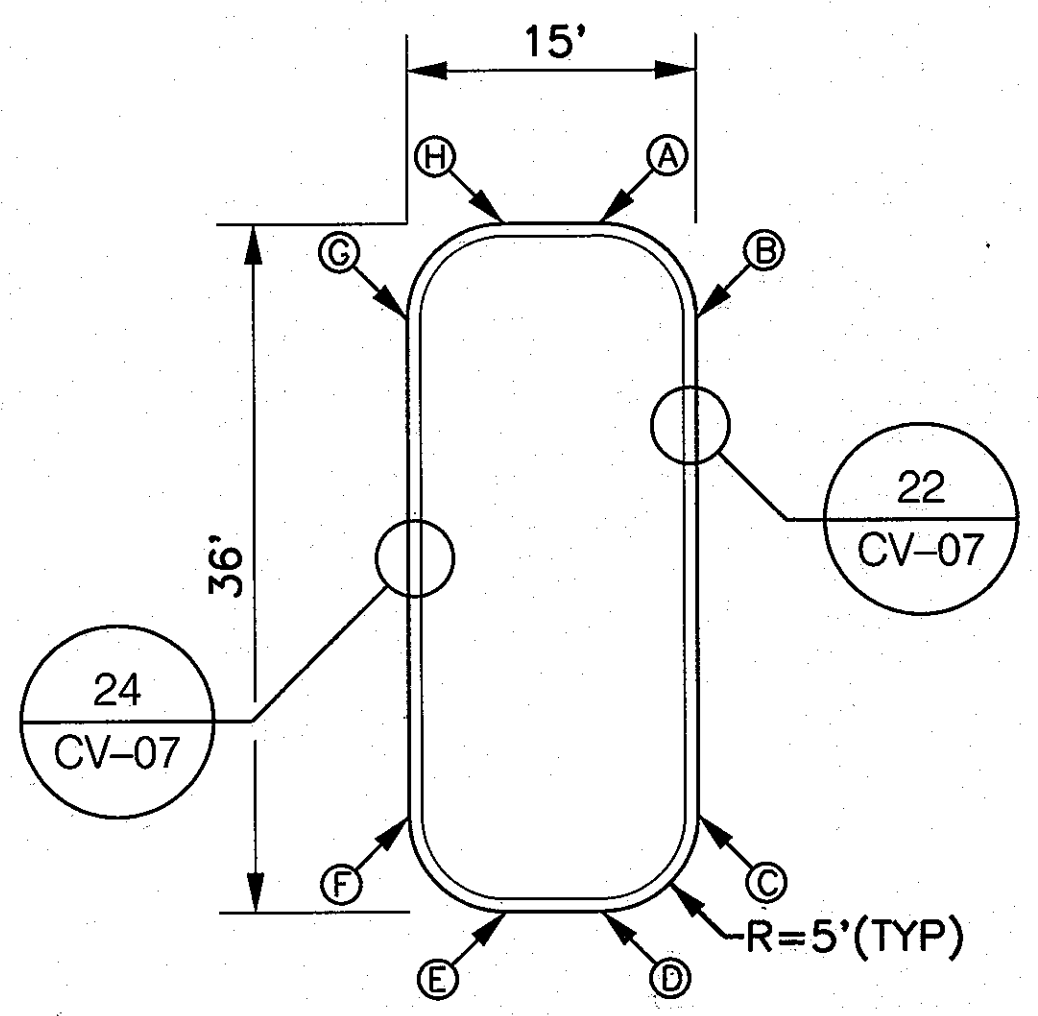
ISLAND B CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,693.6865	1,367,939.4991	239.85
B	532,677.5701	1,367,936.1887	239.53
C	532,672.1607	1,367,924.5139	239.29
D	532,677.2421	1,367,910.6009	239.22
E	532,678.9074	1,367,902.5858	239.16
F	532,684.3252	1,367,901.4765	239.24
G	532,701.8982	1,367,927.1434	239.86

11 SITE ISLAND B
CV-03 NOT TO SCALE



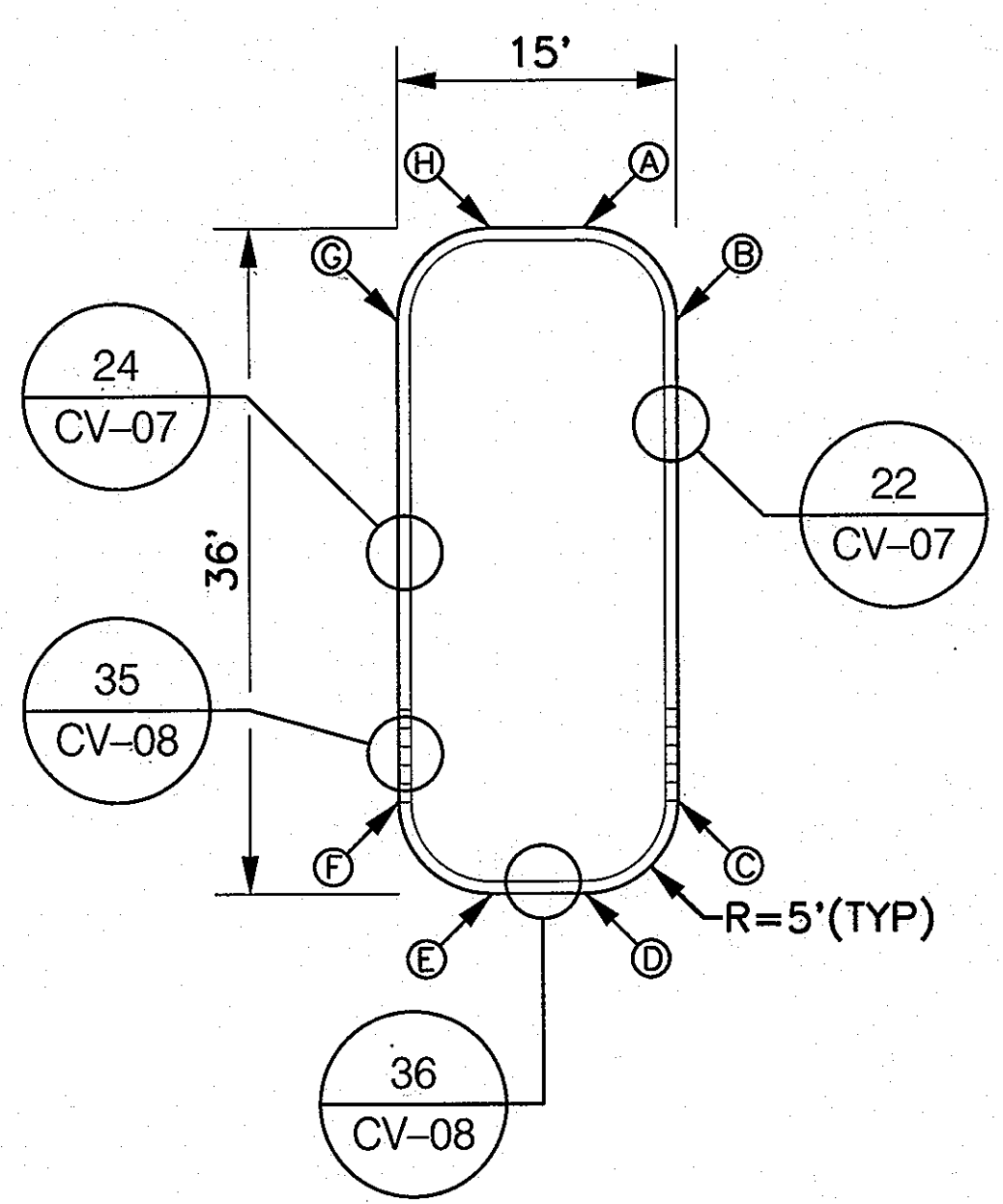
ISLAND C CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,652.7740	1,367,985.5678	238.71
B	532,653.2926	1,367,985.0230	238.42
C	532,612.4820	1,367,922.8093	238.20
D	532,608.5907	1,367,916.9060	238.04
E	532,609.5874	1,367,912.0520	237.98
F	532,615.5006	1,367,908.1161	238.04
G	532,628.5217	1,367,910.7327	238.31
H	532,640.9149	1,367,849.0226	237.91
I	532,628.1838	1,367,846.4060	237.64
J	532,624.2926	1,367,840.5028	237.51
K	532,636.1423	1,367,851.4936	237.37
L	532,638.1658	1,367,839.6746	237.52
M	532,642.7153	1,367,840.7013	237.78
N	532,654.2949	1,367,898.1702	238.65

12 SITE ISLAND C
CV-03 NOT TO SCALE



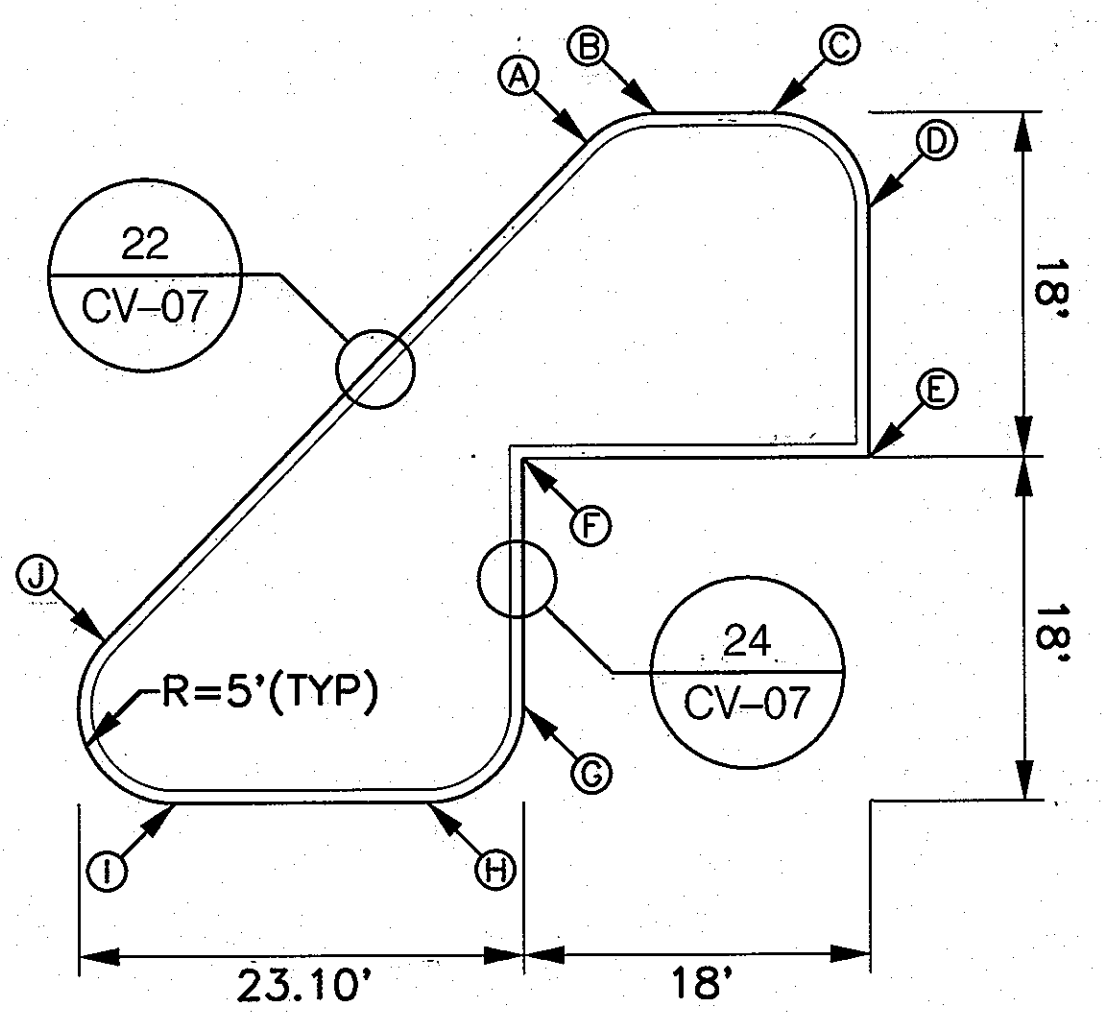
ISLAND E CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,585.0825	1,367,912.0724	237.58
B	532,579.1781	1,367,916.9644	237.59
C	532,553.7104	1,367,910.7300	237.00
D	532,549.8192	1,367,904.8268	236.77
E	532,550.8246	1,367,899.9289	236.64
F	532,556.7291	1,367,896.0369	236.61
G	532,592.1967	1,367,901.2712	237.43
H	532,586.0880	1,367,907.1745	237.49

13 SITE ISLAND E, F
CV-03 NOT TO SCALE



ISLAND H CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,467.5395	1,367,887.9139	233.77
B	532,461.6351	1,367,891.8059	233.66
C	532,436.1664	1,367,895.5714	233.59
D	532,432.2753	1,367,890.8671	233.67
E	532,433.4830	1,367,874.7907	233.66
F	532,438.2065	1,367,871.6771	233.22
G	532,464.6539	1,367,877.1128	233.34
H	532,468.5451	1,367,883.0161	233.69

13 SITE ISLAND H, J
CV-03 NOT TO SCALE



ISLAND D CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,608.4694	1,367,790.6819	236.58
B	532,609.2414	1,367,794.5127	236.64
C	532,608.0306	1,367,800.4065	236.65
D	532,602.1263	1,367,804.2980	236.54
E	532,599.3909	1,367,801.6805	236.22
F	532,593.0147	1,367,784.0490	236.16
G	532,580.2832	1,367,781.4323	235.83
H	532,576.3920	1,367,775.5290	235.69
I	532,579.0301	1,367,762.6917	235.65
J	532,588.0536	1,367,760.8627	235.68

14 SITE ISLAND D
CV-03 NOT TO SCALE

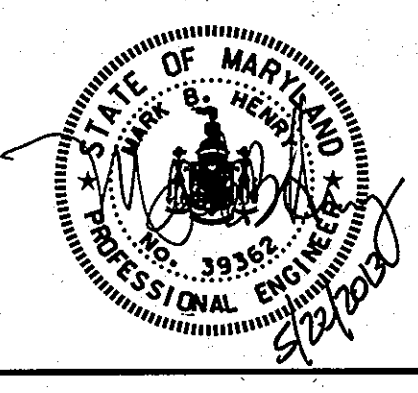
NOTE:
MOUNTABLE CURB TO BE INSTALLED FROM POINT C TO POINT F
ONLY ON ISLANDS H AND J. SEE SHEET CV-08 FOR DETAILS.

OWNER/DEVELOPER
Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

4/25/2013
\$FILE\$

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 6/11/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 3/21/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE 5-1-13
 DIRECTOR

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



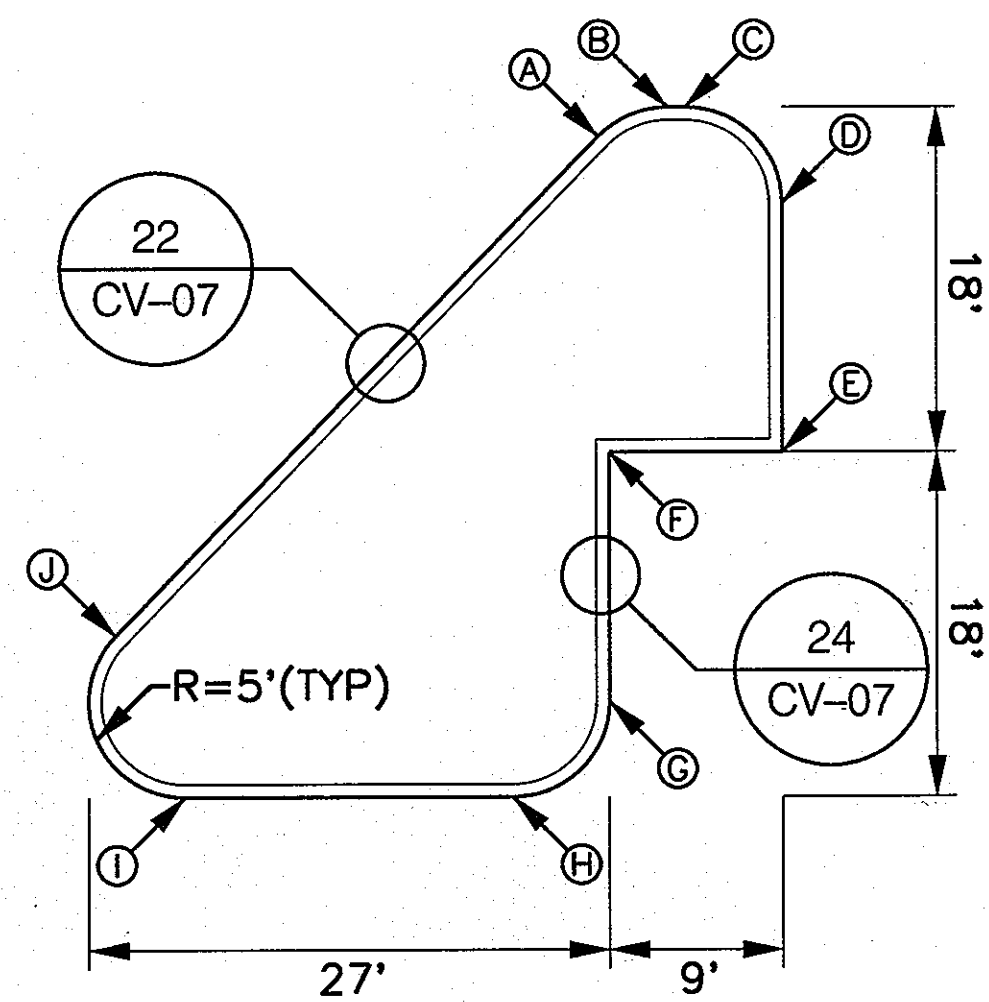
PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
39362 09/24/2014
License No. Expiration Date

NO.	DESCRIPTION	BY	DATE

CIVIL DETAILS
SCALE: AS SHOWN
DATE: APRIL 26, 2013

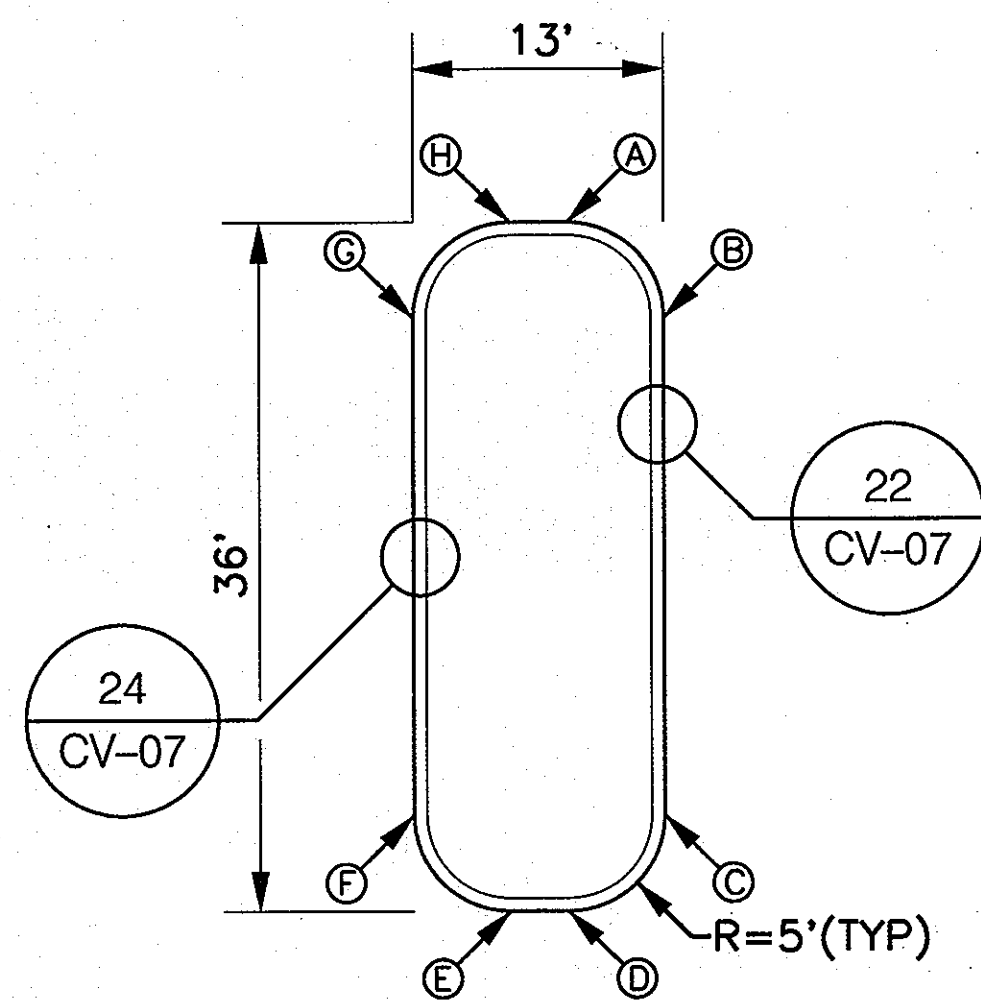
GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION CV-05
SHEET NO. 9 OF 32
SDP-13-039



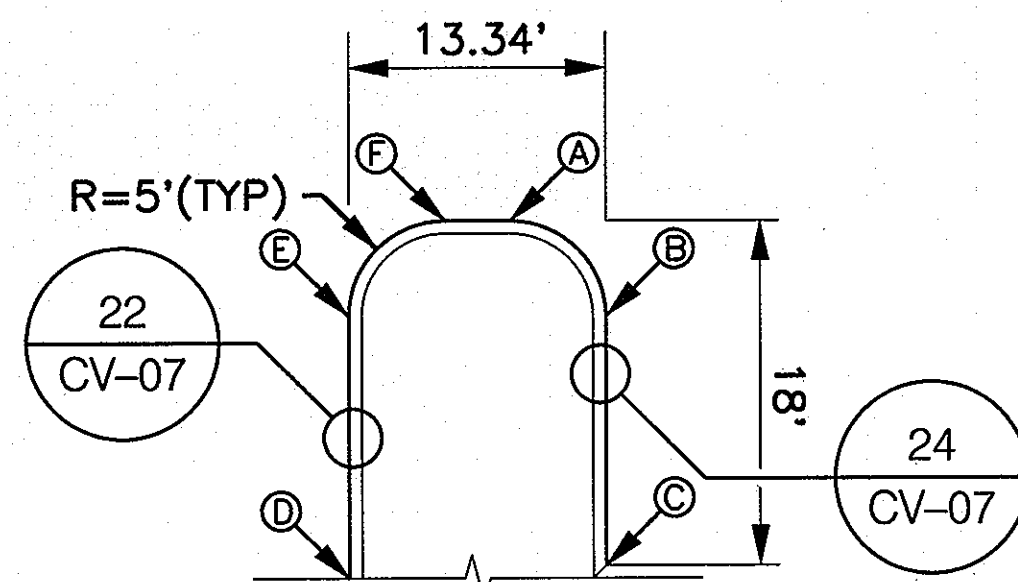
ISLAND F CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,561.3575	1,367,721.8706	234.93
B	532,562.1296	1,367,725.7010	234.98
C	532,561.9416	1,367,728.6165	234.97
D	532,556.0372	1,367,730.5595	234.83
E	532,543.3026	1,367,727.8912	234.41
F	532,545.1144	1,367,719.0754	234.44
G	532,532.3814	1,367,716.4584	234.03
H	532,528.4902	1,367,710.5552	233.90
I	532,531.9179	1,367,693.8700	233.95
J	532,540.9414	1,367,692.0510	234.21

15 SITE ISLAND F
CV-03 NOT TO SCALE



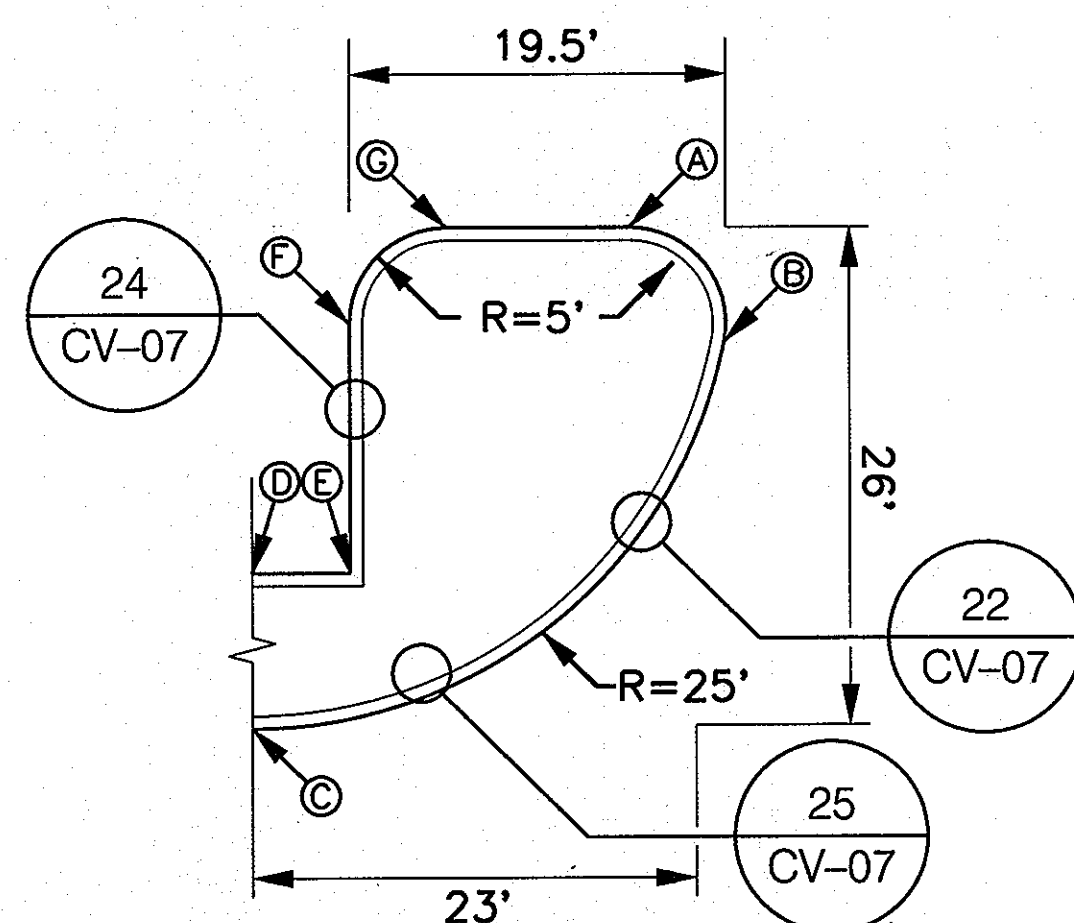
ISLAND I CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,490.4857	1,367,776.2482	234.19
B	532,484.5817	1,367,780.1392	234.13
C	532,459.1140	1,367,774.9049	233.48
D	532,455.2230	1,367,789.0006	233.53
E	532,455.8287	1,367,786.0581	233.59
F	532,461.7350	1,367,782.1671	233.73
G	532,487.1896	1,367,787.4014	233.85
H	532,491.0807	1,367,773.3057	234.15

16 SITE ISLAND I
CV-03 NOT TO SCALE



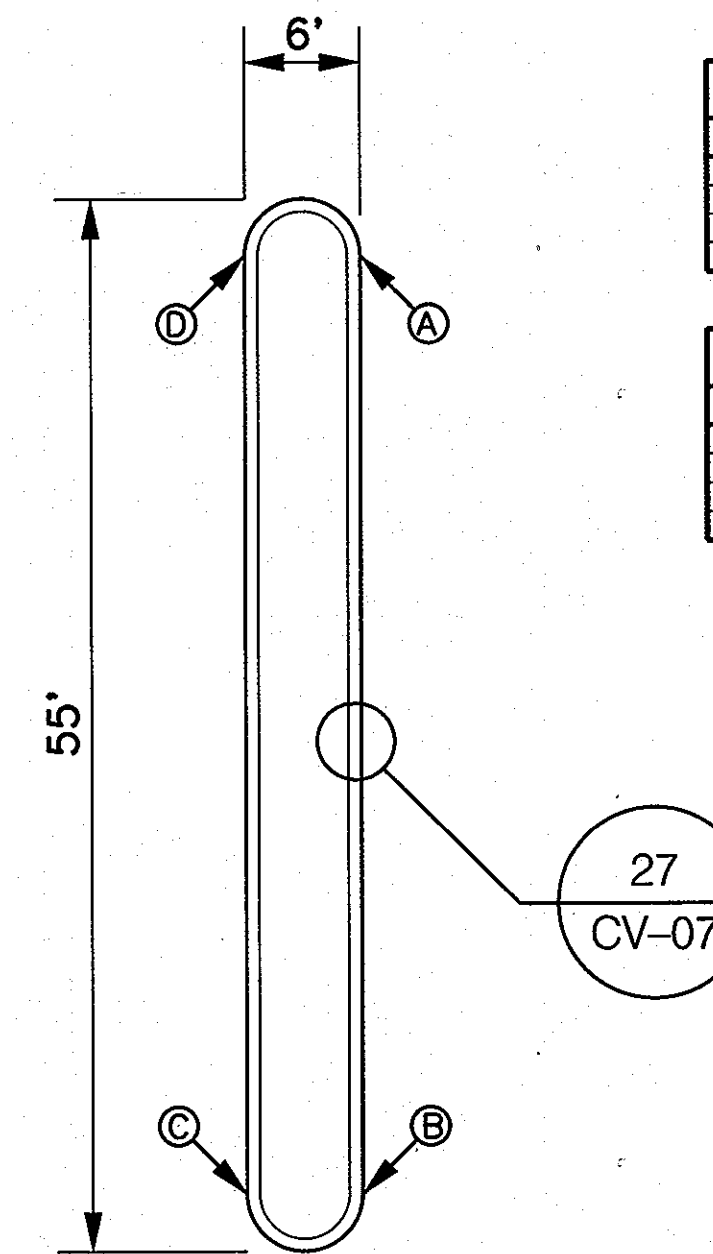
ISLAND K CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,454.5834	1,367,652.8899	233.46
B	532,448.6909	1,367,656.7258	233.58
C	532,435.9537	1,367,654.1087	233.81
D	532,437.9885	1,367,640.9043	233.37
E	532,451.3763	1,367,643.6599	233.37
F	532,455.2675	1,367,649.5632	233.42

17 SITE ISLAND K
CV-03 NOT TO SCALE



ISLAND L CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,409.6704	1,367,871.4505	234.19
B	532,414.3568	1,367,875.0591	234.25
C	532,387.9927	1,367,846.9576	233.79
D	532,395.9891	1,367,848.9002	234.27
E	532,394.9575	1,367,853.6001	234.29
F	532,407.8937	1,367,856.2177	233.94
G	532,411.5849	1,367,862.1210	234.03

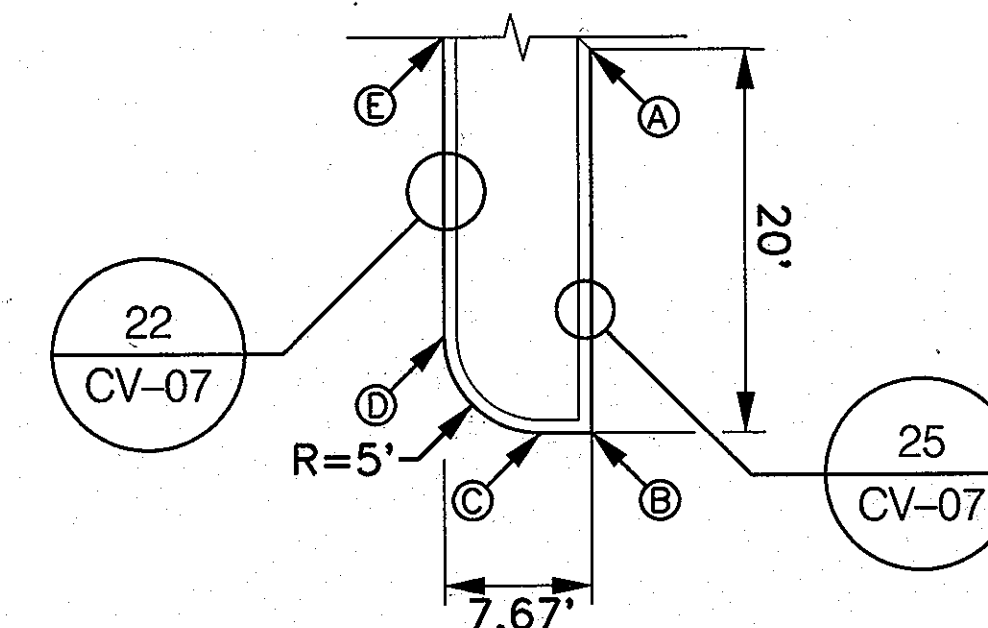
18 SITE ISLAND L
CV-03 NOT TO SCALE



ISLAND M CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,387.4509	1,367,596.8301	233.03
B	532,339.4530	1,367,586.9651	232.86
C	532,390.6604	1,367,581.0904	232.77
D	532,388.6584	1,367,590.9554	232.57

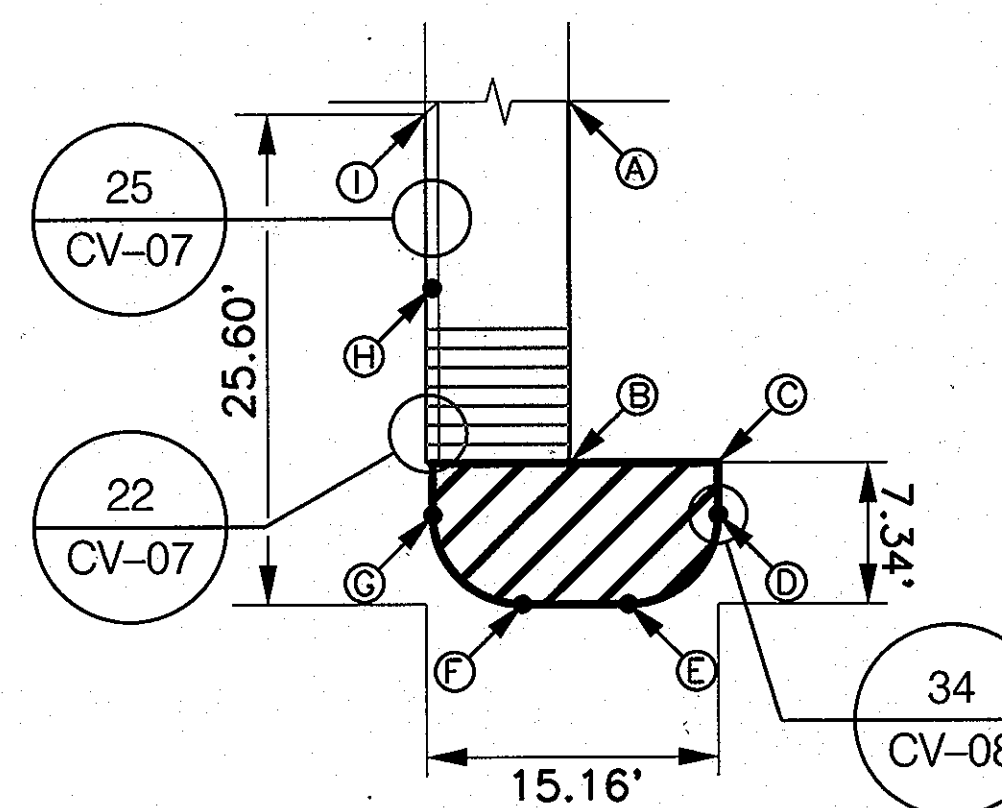
ISLAND N CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,383.8277	1,367,614.4591	233.21
B	532,335.8297	1,367,604.5942	233.14
C	532,337.0372	1,367,598.7194	233.04
D	532,385.0351	1,367,608.5844	233.15

19 SITE ISLAND M, N
CV-03 NOT TO SCALE



ISLAND O CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,311.4699	1,367,622.3309	233.49
B	532,291.8794	1,367,618.9044	233.49
C	532,292.4554	1,367,616.1018	233.37
D	532,298.3597	1,367,612.2106	233.37
E	532,313.0993	1,367,615.2359	233.37

20 SITE ISLAND O
CV-03 NOT TO SCALE



ISLAND P CONSTRUCTION POINTS			
POINT	NORTHING	EASTING	ELEVATION
A	532,298.5467	1,367,688.1367	234.00
B	532,280.0065	1,367,685.3261	234.00
C	532,278.4547	1,367,692.8763	234.00
D	532,275.7964	1,367,692.3351	233.90
E	532,272.1710	1,367,686.8274	233.78
F	532,292.3909	1,367,681.4400	233.72
G	532,278.7820	1,367,677.8087	233.72
H	532,290.3812	1,367,680.1927	233.83
I	532,267.1577	1,367,681.7024	233.93

21 SITE ISLAND P
CV-03 NOT TO SCALE

OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

6/1/13
8/01/13
8-1-13
DATE DATE DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR



CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

39362 09/24/2014
License No. Expiration Date

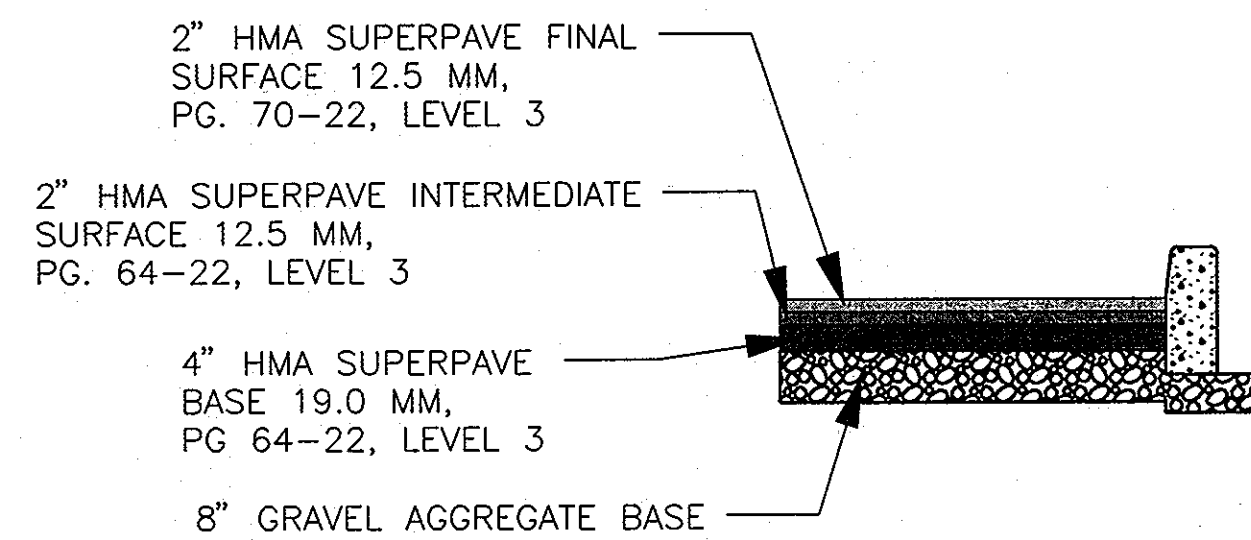
NO.	DESCRIPTION	BY	DATE
REVISIONS			

DESIGN	JRN
CHECK	JRN
APPR	MBH

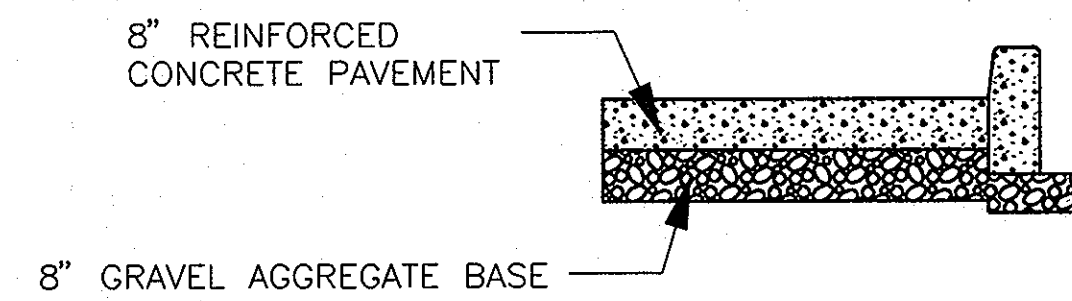
CIVIL DETAILS
SCALE: AS SHOWN
DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

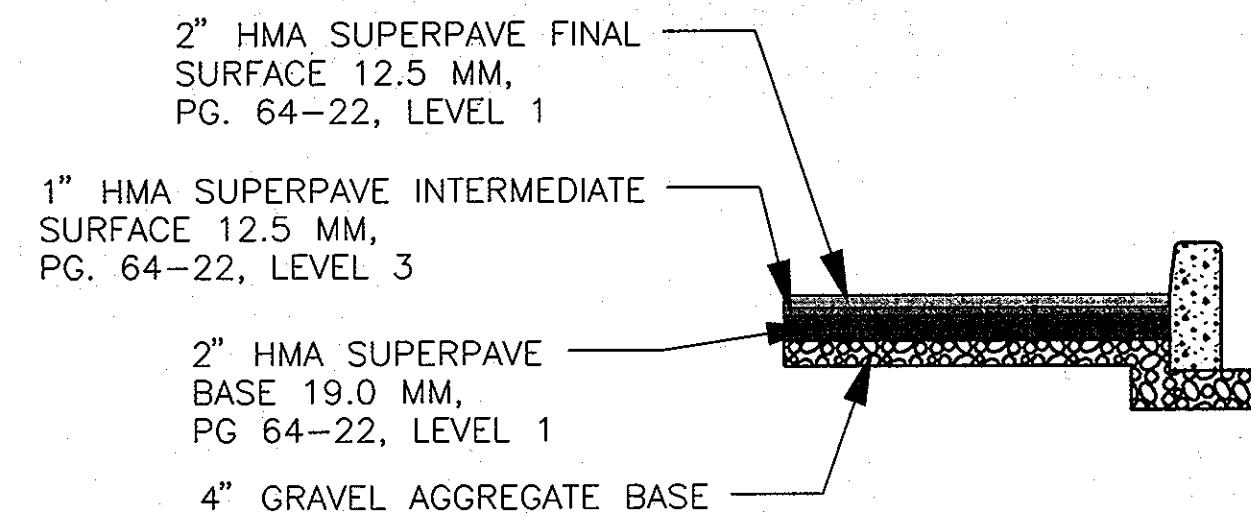
DISCIPLINE ABBREVIATION CV-06
SHEET NO. 10 OF 32



22 BITUMINOUS PAVEMENT SECTION FOR BUS LANES & PARKING
CV-04 SCALE: NOT TO SCALE



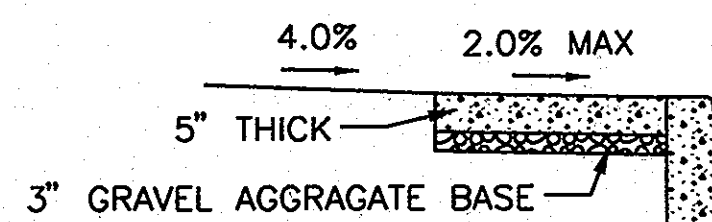
23 CONCRETE PAVEMENT SECTION
CV-04 SCALE: NOT TO SCALE



24 BITUMINOUS PAVEMENT SECTION FOR EMPLOYEE PARKING
CV-04 SCALE: NOT TO SCALE

NOTES

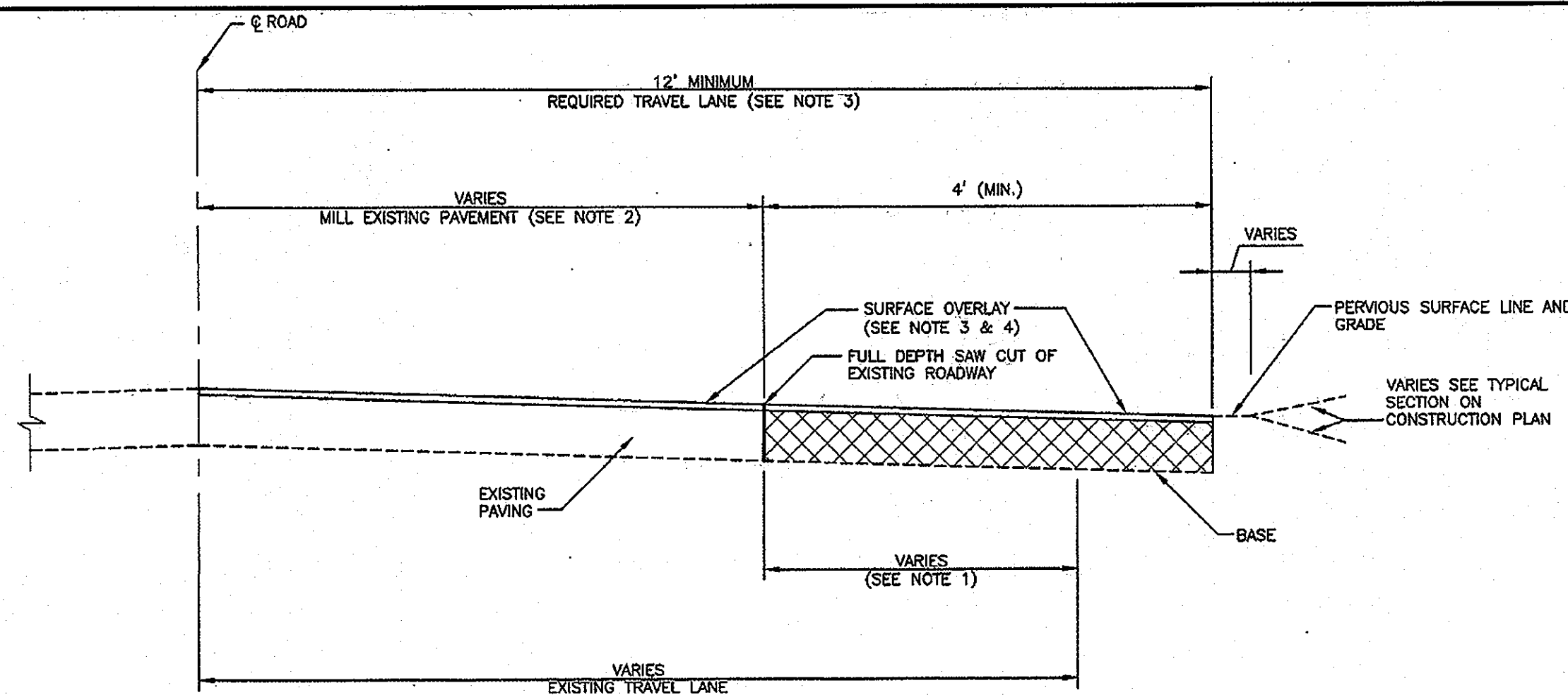
- USE THE FOLLOWING ITEM FOR WEDGE /LEVEL AS DIRECTED BY THE ENGINEER:
VARIABLE DEPTH - HOT MIX ASPHALT SURPAVE 9.5 MM FOR WEDGE /LEVEL, PG. 64-22, LEVEL 2 (1" MINIMUM LIFT, 2" MAXIMUM LIFT THICKNESS)
- COMPACTION LIMITS - 2 LIFTS AT 3" MAX FOR ASPHALT AND 2 LIFTS AT 6" MAX FOR GRADED AGGREGATE BASE.
- HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROXIMATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2" MINIMUM TO 4" MAXIMUM), 12.5 MM SURFACE (1.5" MINIMUM TO 3" MAXIMUM), AND 9.5 MM SURFACE (1" MINIMUM TO 2" MAXIMUM).
- GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAXIMUM COMPACTED THICKNESS LAYERS.
- THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN TWO (2) WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.



NOTES

- SIDEWALK TO BE SCRIBED IN 4' SECTIONS.
- EXPANSION JOINTS ACROSS THE SIDEWALK NOT MORE THAN 16' APART.
- 1/2" PREFORMED BITUMINOUS EXPANSION JOINT FILLER IN THE EXPANSION.
- JOINTS TO BE 1/4" BELOW THE SURFACE OF THE SIDEWALK.
- CONCRETE SHALL BE SHA MIX NO. 2.
- WHEN SIDEWALK ABUTS CURB, THE SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED BITINOUS EXPANSION JOINT FILLER BETWEEN THEM.
- 3" GAB INCIDENTAL TO 5" SIDEALK PAY ITEM

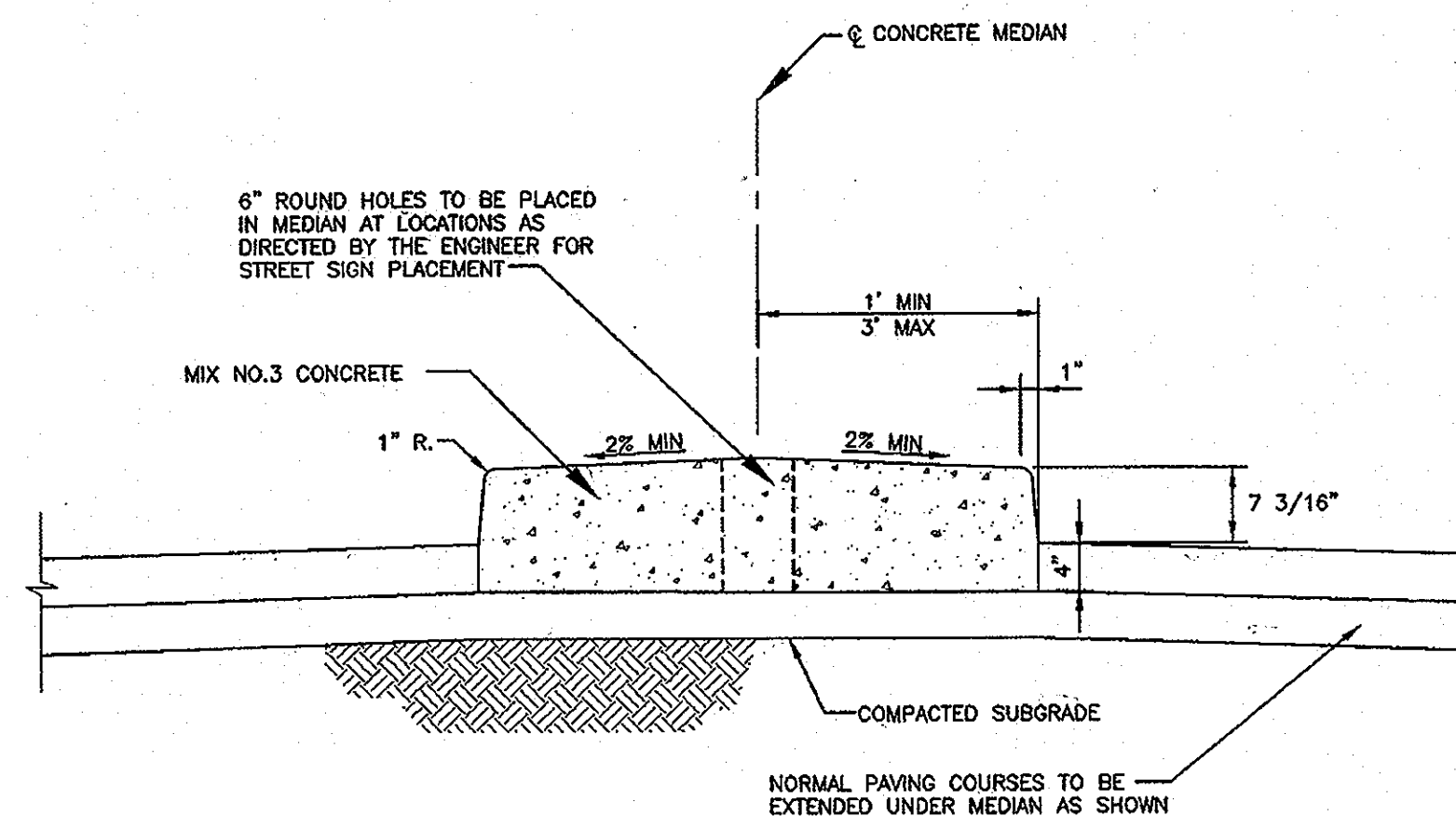
25 STANDARD CONCRETE SIDEWALK
CV-04 SCALE: NOT TO SCALE



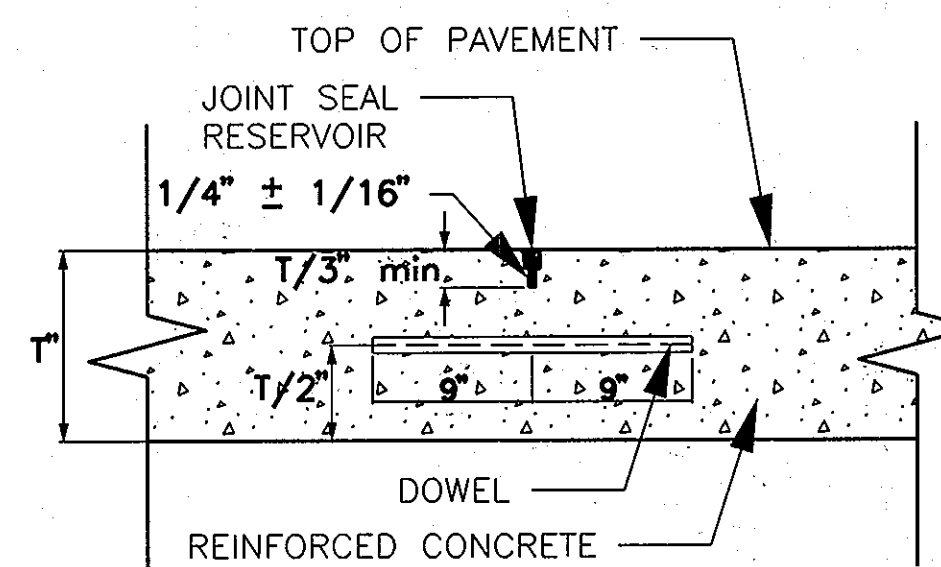
NOTES

- WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE A MINIMUM OF 1' FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4' OF WIDENING FROM FACE OF GUTTER PAN.
- RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION
- HILDA AVENUE WILL HAVE A FULL OVERLAY WHERE WIDENED AND MODIFIED.

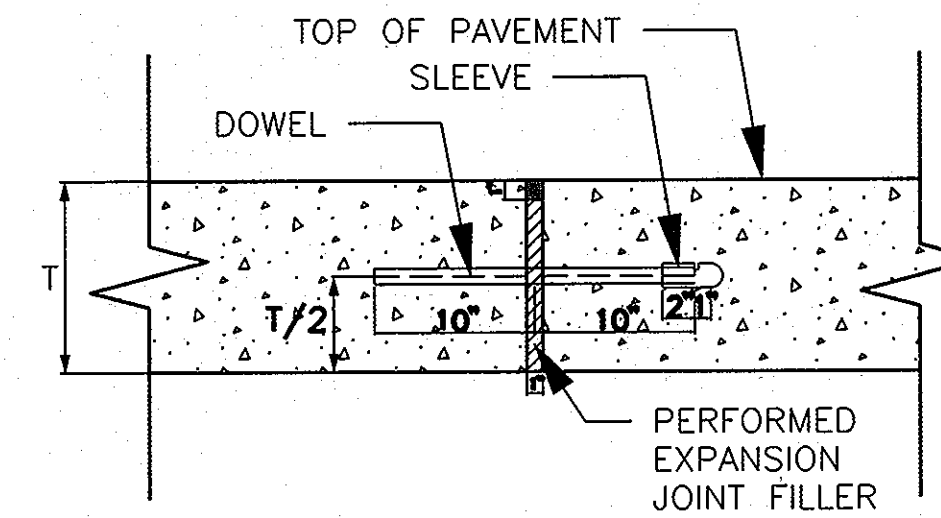
26 EXISTING ROADWAY WIDENING STRIP
CV-04 SCALE: NOT TO SCALE
HOWARD COUNTY STD DWG R-1.08
DATED: 5 / 7 / 2007



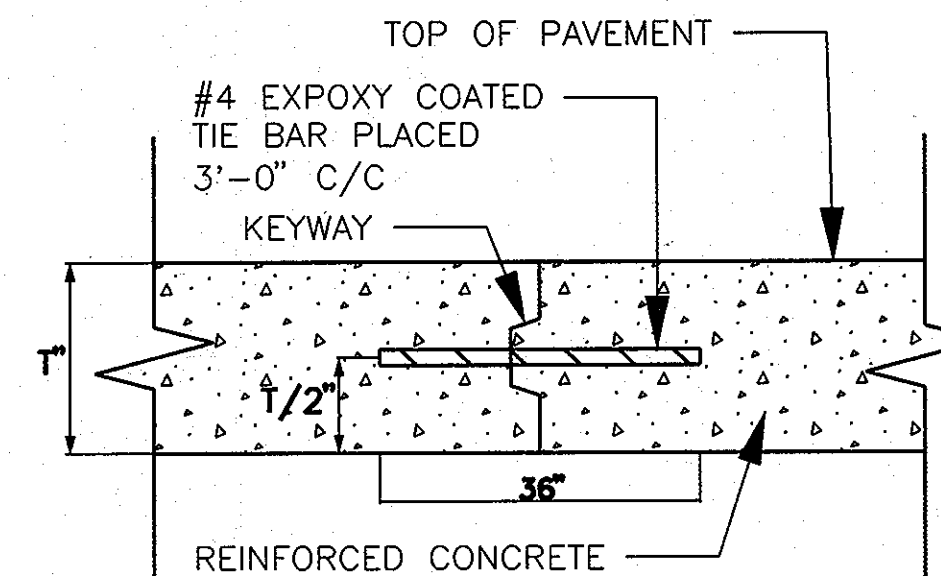
27 MONOLITHIC CONCRETE MEDIAN
CV-04 SCALE: NOT TO SCALE
HOWARD COUNTY STD DWG R-3.04
DATED: 5 / 7 / 2007



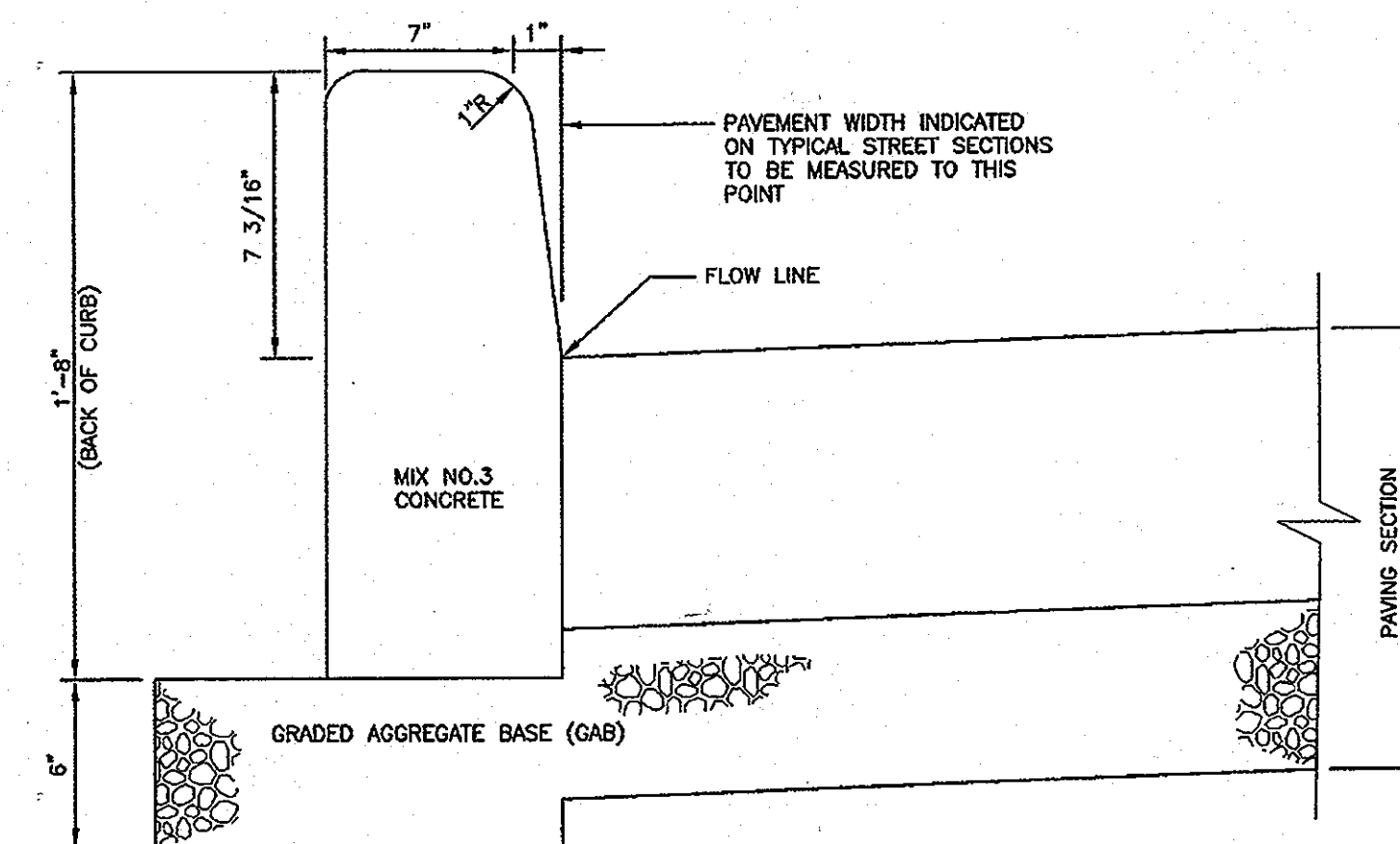
28 CONTRACTION JOINT
CV-08 SCALE: NOT TO SCALE



29 EXPANSION JOINT
CV-08 SCALE: NOT TO SCALE



30 TIE DEVICE - ONE - PIECE BAR
CV-08 SCALE: NOT TO SCALE



NOTES:
CONCRETE BARRIER CURB
1. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
2. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

31 CURBS HOT MIX ASPHALT AND CONCRETE BARRIER
CV-04 SCALE: NOT TO SCALE
HOWARD COUNTY STD DWG R-3.03
DATED: 5 / 7 / 2007

OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
39362 09/24/2014
License No. Expiration Date

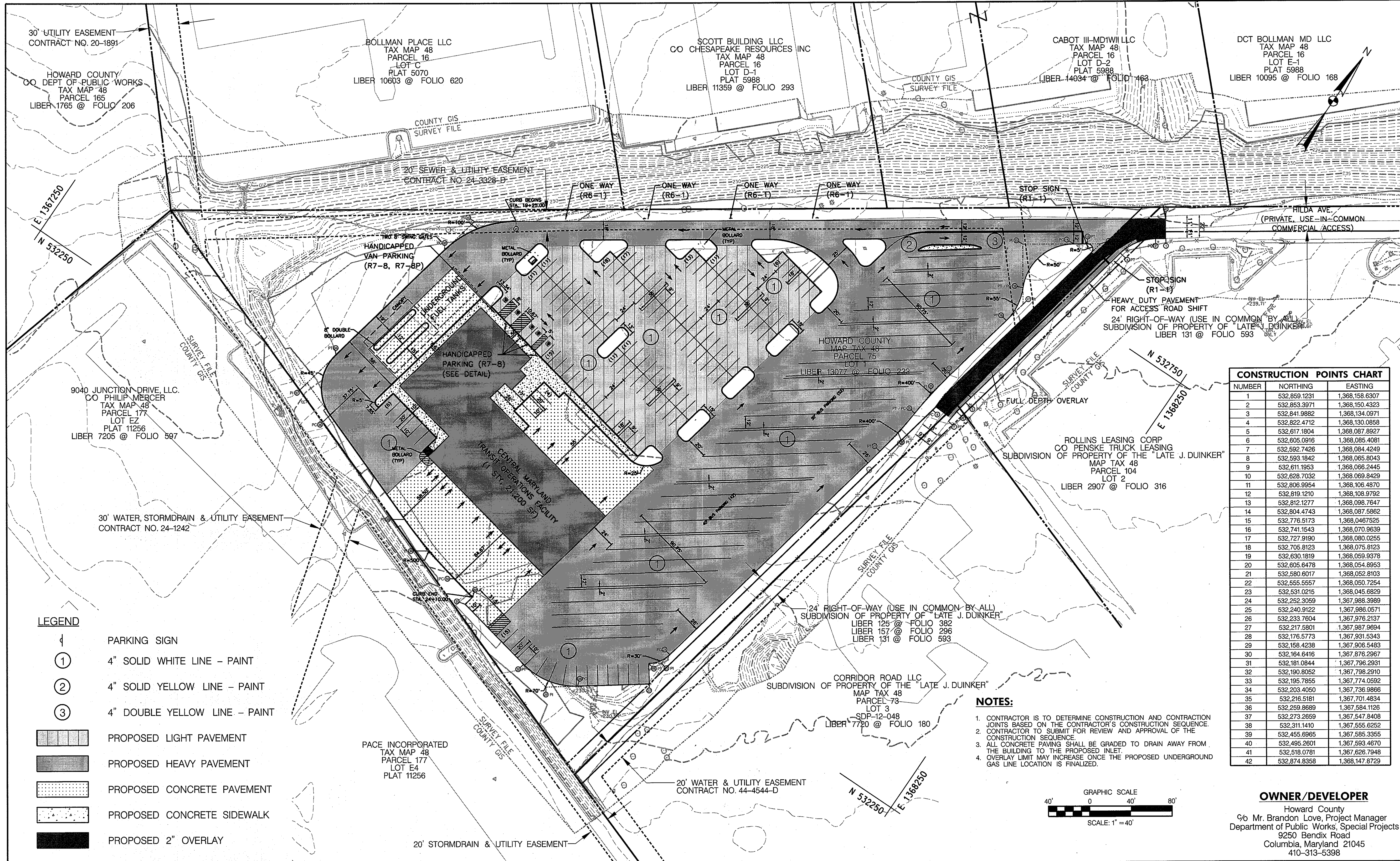
NO.	DESCRIPTION	BY	DATE
REVISIONS			

APPR. CHECK DRAWING DESIGN
JRN
JRN
MBH

CIVIL DETAILS
SCALE: AS SHOWN
DATE: APRIL 26, 2013

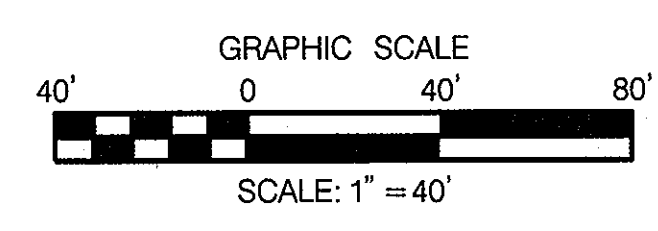
GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION CV-07
SHEET NO. 11 OF 32



NUMBER	NORTHING	EASTING
1	532,859.1231	1,368,158.6307
2	532,853.3971	1,368,150.4323
3	532,841.9882	1,368,134.0971
4	532,822.4712	1,368,130.0858
5	532,617.1804	1,368,087.8927
6	532,605.0916	1,368,085.4081
7	532,592.7426	1,368,084.4249
8	532,593.1842	1,368,085.8043
9	532,611.1953	1,368,066.2445
10	532,628.7032	1,368,069.8429
11	532,806.9954	1,368,106.4870
12	532,819.1210	1,368,108.9792
13	532,812.1277	1,368,098.7647
14	532,804.4743	1,368,087.5862
15	532,776.5173	1,368,046.7525
16	532,741.1543	1,368,070.9639
17	532,727.9190	1,368,080.0255
18	532,705.8123	1,368,075.8123
19	532,630.1819	1,368,059.9378
20	532,605.6478	1,368,054.8953
21	532,580.6017	1,368,052.8103
22	532,555.5557	1,368,050.7254
23	532,531.0215	1,368,045.6829
24	532,252.3059	1,367,988.3989
25	532,240.9122	1,367,986.0571
26	532,233.7604	1,367,976.2137
27	532,217.5801	1,367,987.9694
28	532,176.5773	1,367,931.5343
29	532,158.4238	1,367,906.5483
30	532,164.6416	1,367,876.2967
31	532,181.0844	1,367,796.2931
32	532,190.8052	1,367,798.2910
33	532,195.7855	1,367,774.0592
34	532,203.4050	1,367,736.9866
35	532,216.5181	1,367,701.4834
36	532,259.8689	1,367,584.1126
37	532,273.2659	1,367,547.8408
38	532,311.1410	1,367,555.6252
39	532,455.8965	1,367,585.3355
40	532,495.2601	1,367,593.4670
41	532,518.0781	1,367,626.7948
42	532,874.8358	1,368,147.8729

- NOTES:**
- CONTRACTOR IS TO DETERMINE CONSTRUCTION AND CONTRACTION JOINTS BASED ON THE CONTRACTOR'S CONSTRUCTION SEQUENCE.
 - CONTRACTOR TO SUBMIT FOR REVIEW AND APPROVAL OF THE CONSTRUCTION SEQUENCE.
 - ALL CONCRETE PAVING SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDING TO THE PROPOSED INLET.
 - OVERLAY LIMIT MAY INCREASE ONCE THE PROPOSED UNDERGROUND GAS LINE LOCATION IS FINALIZED.

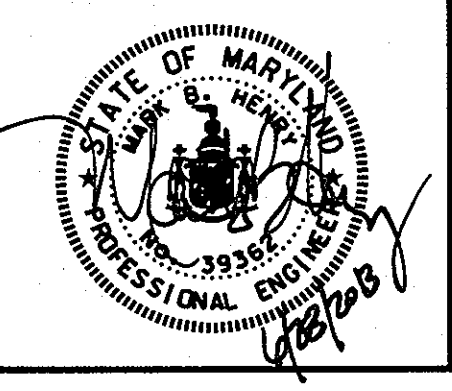


OWNER/DEVELOPER
 Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

- LEGEND**
- PARKING SIGN
 - 4" SOLID WHITE LINE - PAINT
 - 4" SOLID YELLOW LINE - PAINT
 - 4" DOUBLE YELLOW LINE - PAINT
 - PROPOSED LIGHT PAVEMENT
 - PROPOSED HEAVY PAVEMENT
 - PROPOSED CONCRETE PAVEMENT
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED 2" OVERLAY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7/17/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8/1-13
 DATE: 8/1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



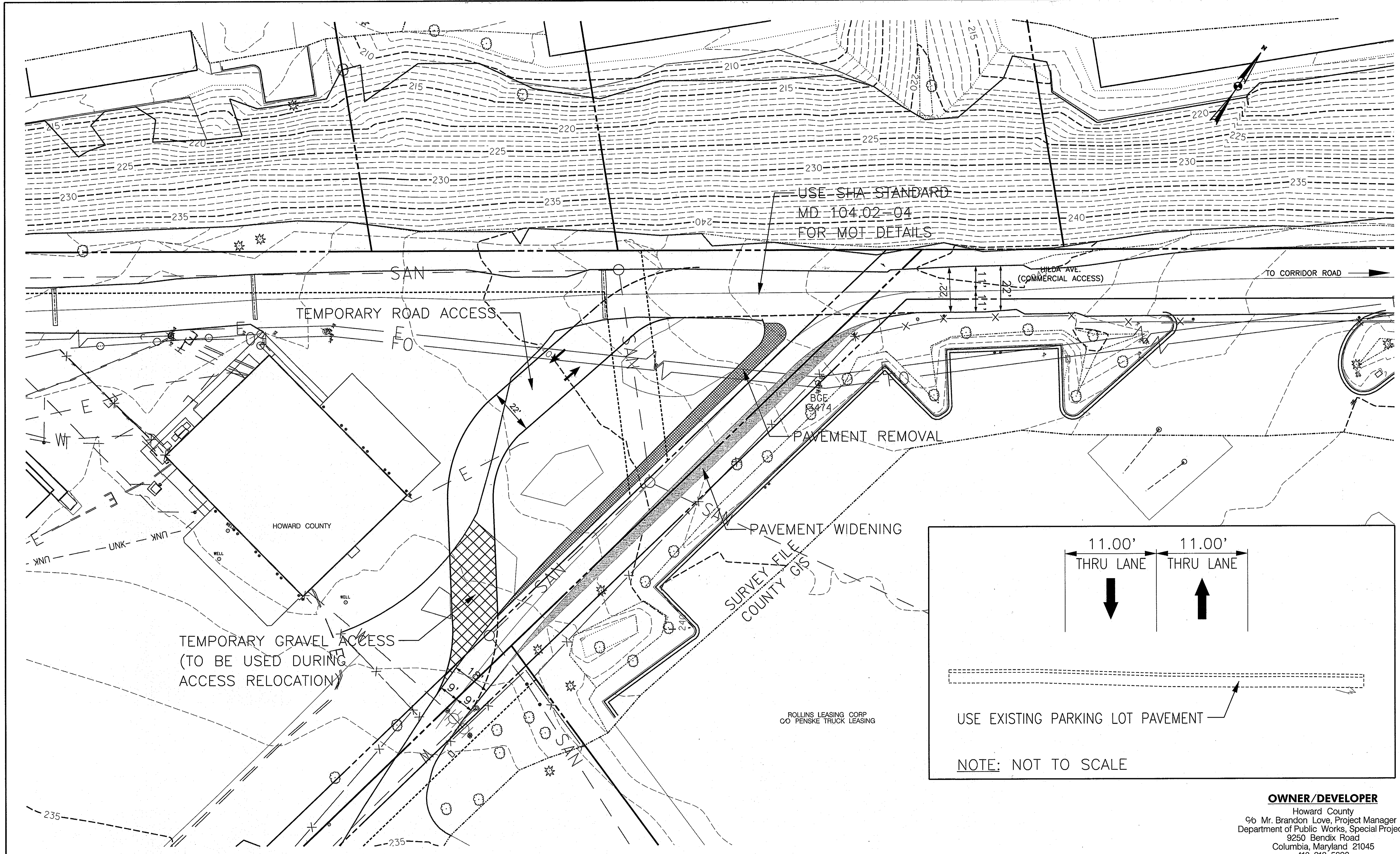
PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 39362, Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE

PAVEMENT DESIGN PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48, GRID 13
 CAPITAL PROJECT NO: C-0289, PARCEL 75
 6TH ELECTION DISTRICT, HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION: PV-01
 SHEET NO.: 13 OF 32



USE SHA STANDARD
MD 104.02-04
FOR MOT DETAILS

TEMPORARY ROAD ACCESS

WILDA AVE.
(COMMERCIAL ACCESS)

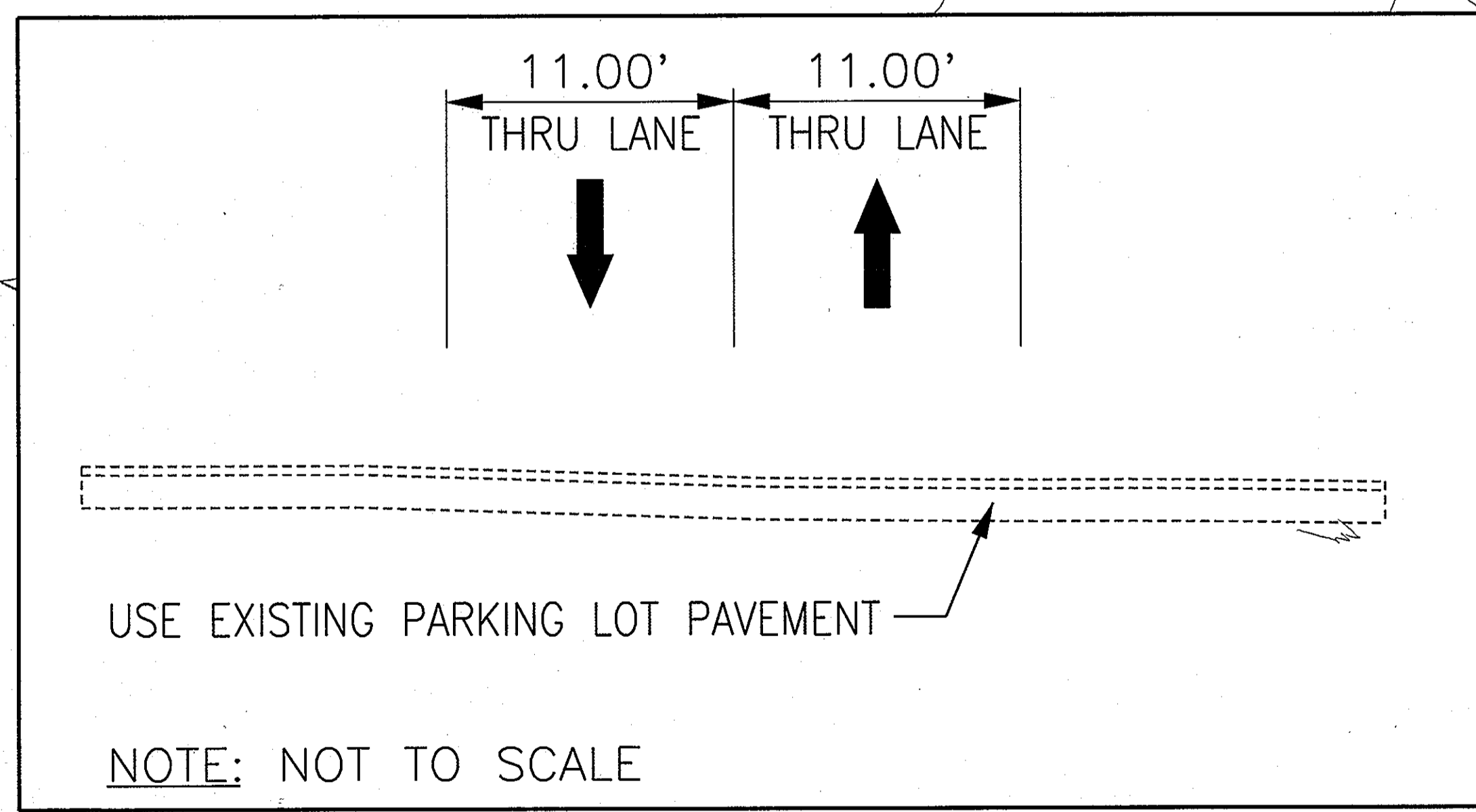
TO CORRIDOR ROAD

PAVEMENT REMOVAL

PAVEMENT WIDENING

TEMPORARY GRAVEL ACCESS
(TO BE USED DURING
ACCESS RELOCATION)

ROLLINS LEASING CORP
OO PENSKE TRUCK LEASING



OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John P. ...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Kate ...
 CHIEF, DIVISION OF LAND DEVELOPMENT
Kimberly ...
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
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 (800)-787-3755



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 License No. 39362 Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE

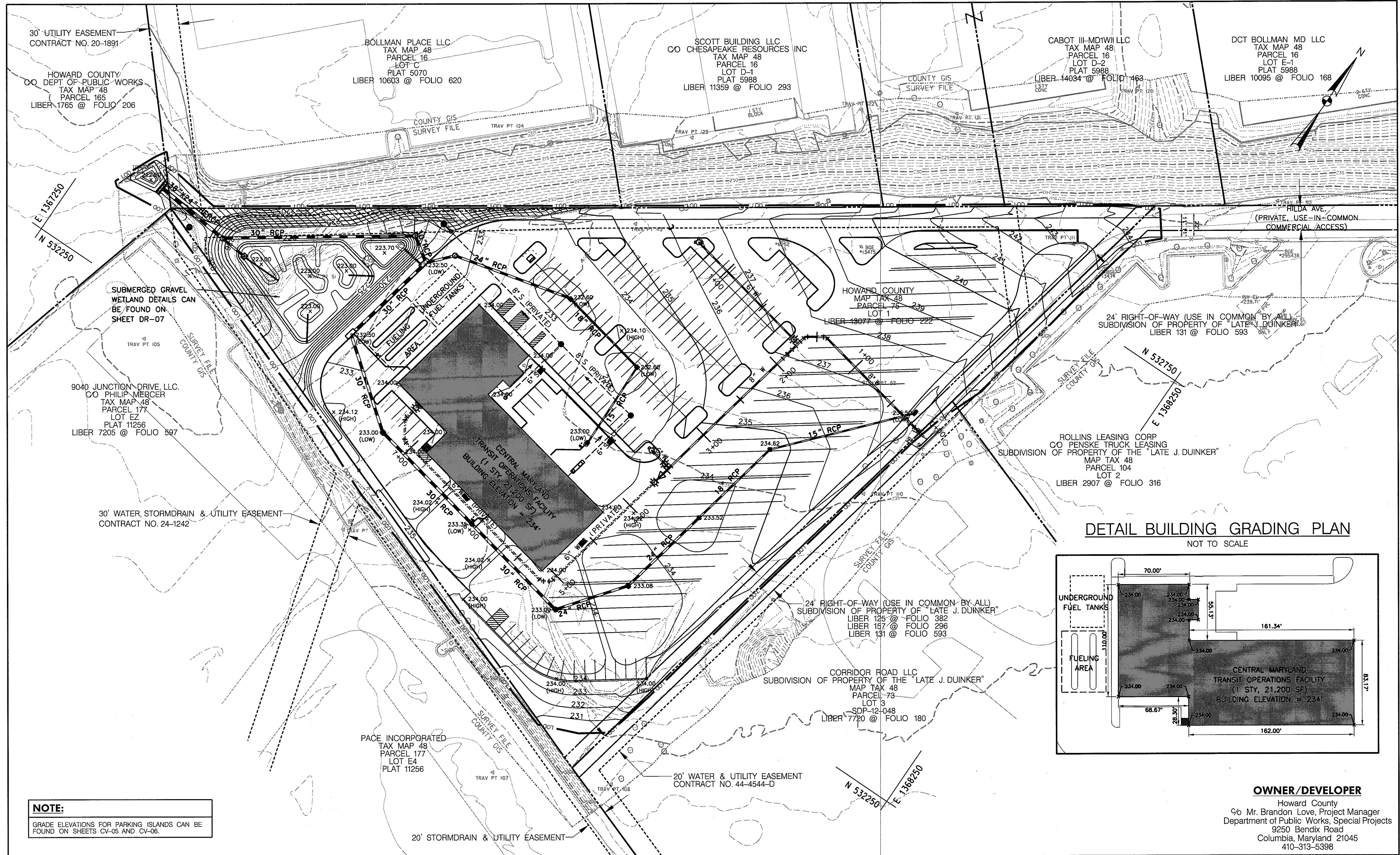
ACCESS ROAD
MOT PLAN

SCALE: 1" = 20'
DATE: APRIL 26, 2013

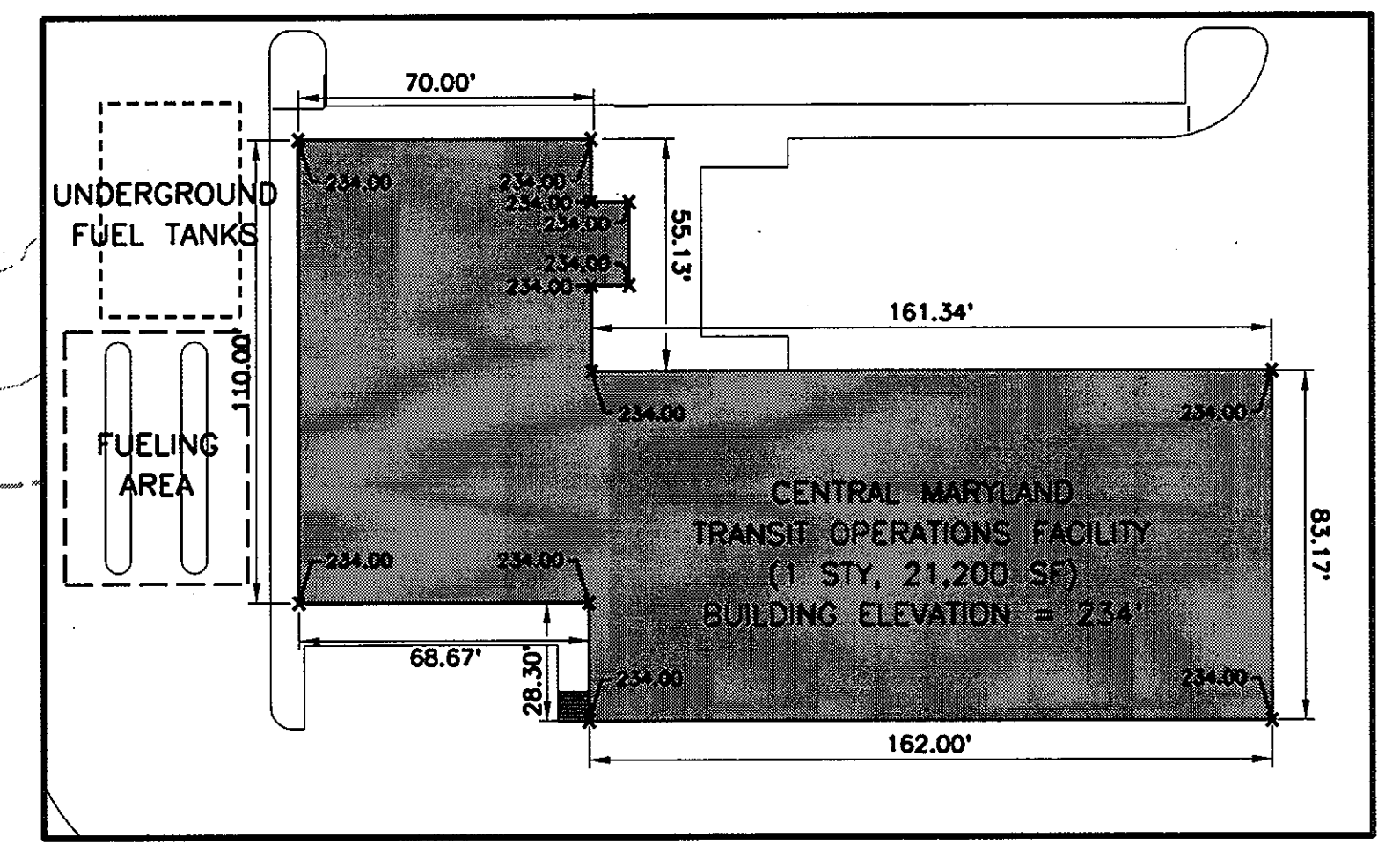
**GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY**
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION MT-01
SHEET NO. 14 OF 32

4/25/2013 \$FILES



DETAIL BUILDING GRADING PLAN
NOT TO SCALE

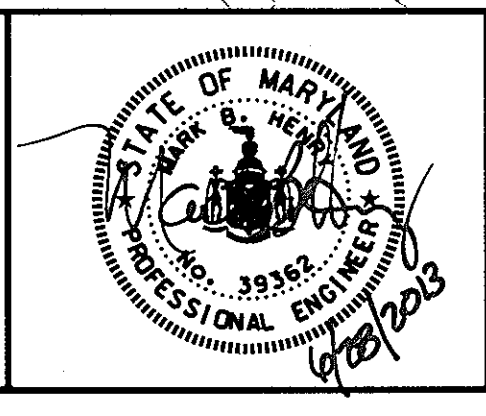


NOTE:
GRADE ELEVATIONS FOR PARKING ISLANDS CAN BE FOUND ON SHEETS CV-05 AND CV-06.

OWNER/DEVELOPER
Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7/17/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 9/01/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 8-1-13
 for DIRECTOR

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



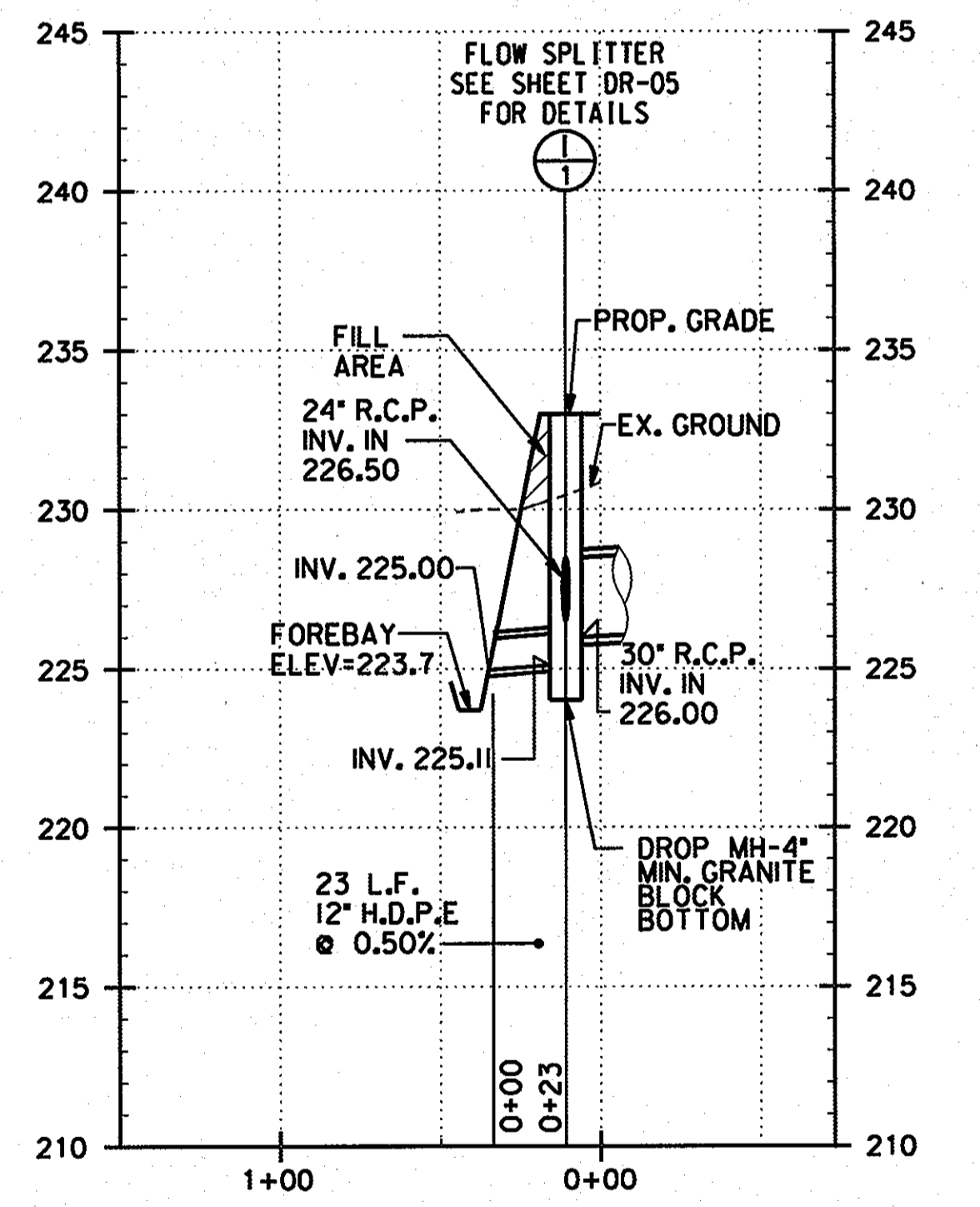
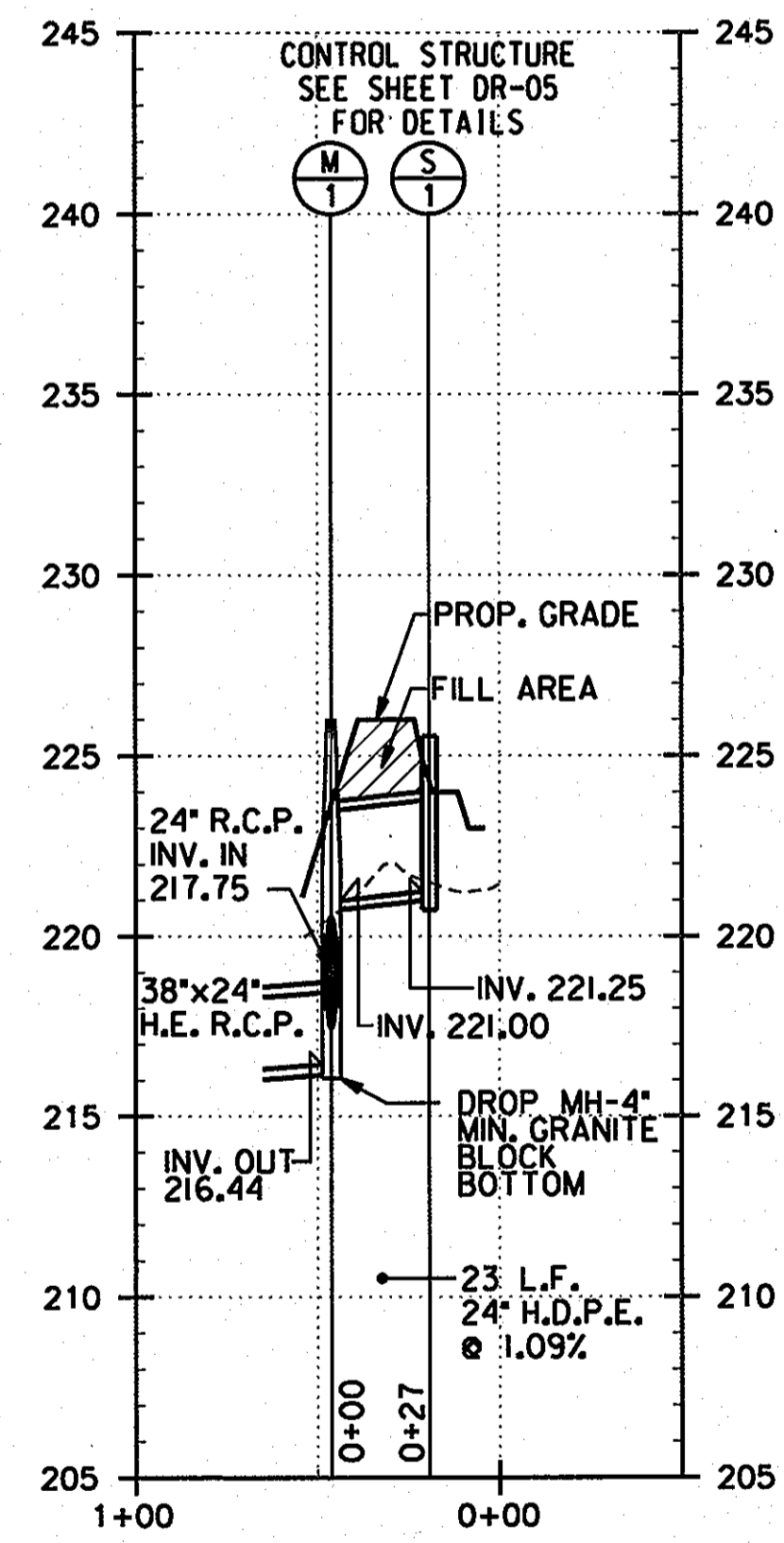
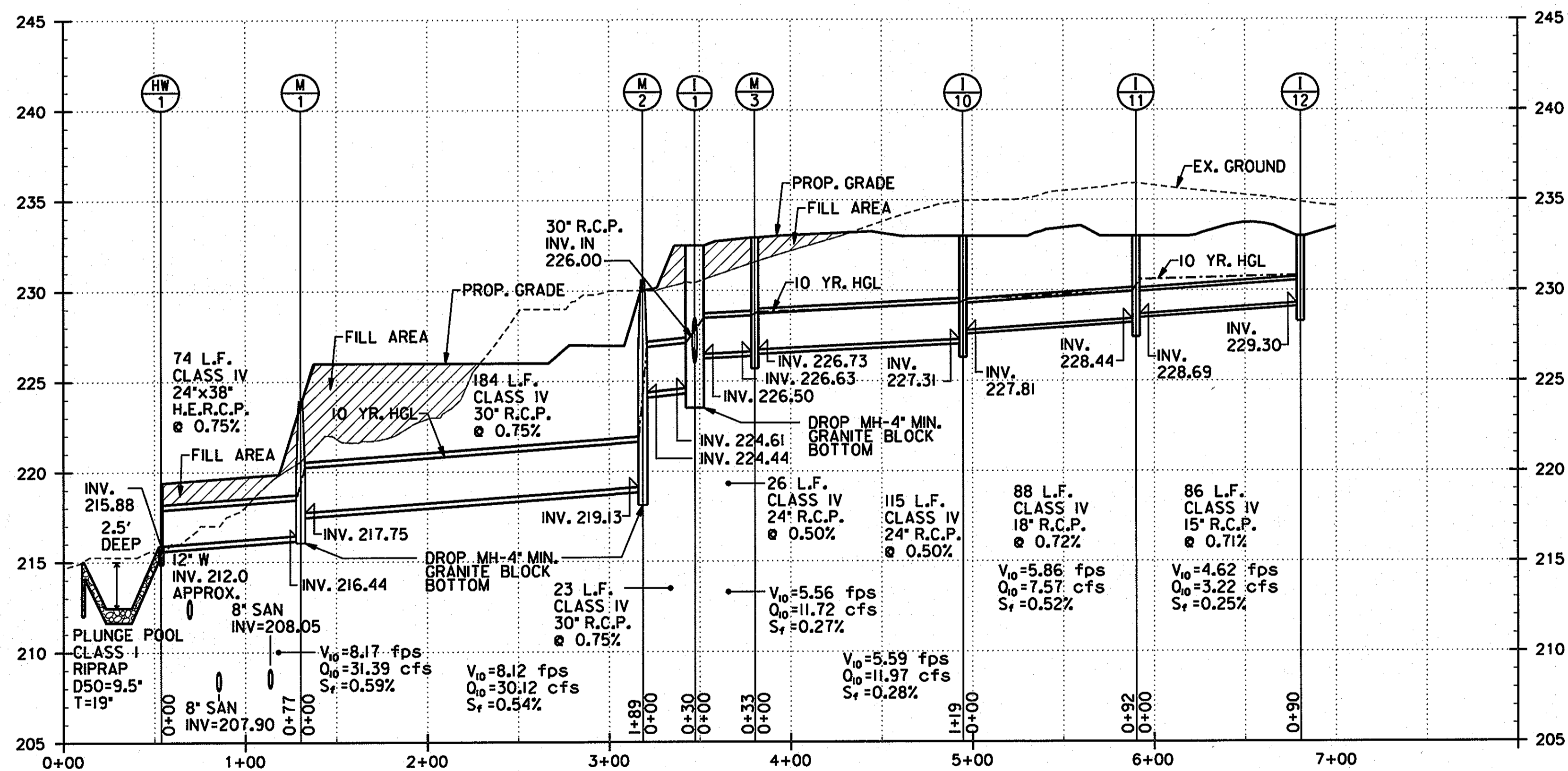
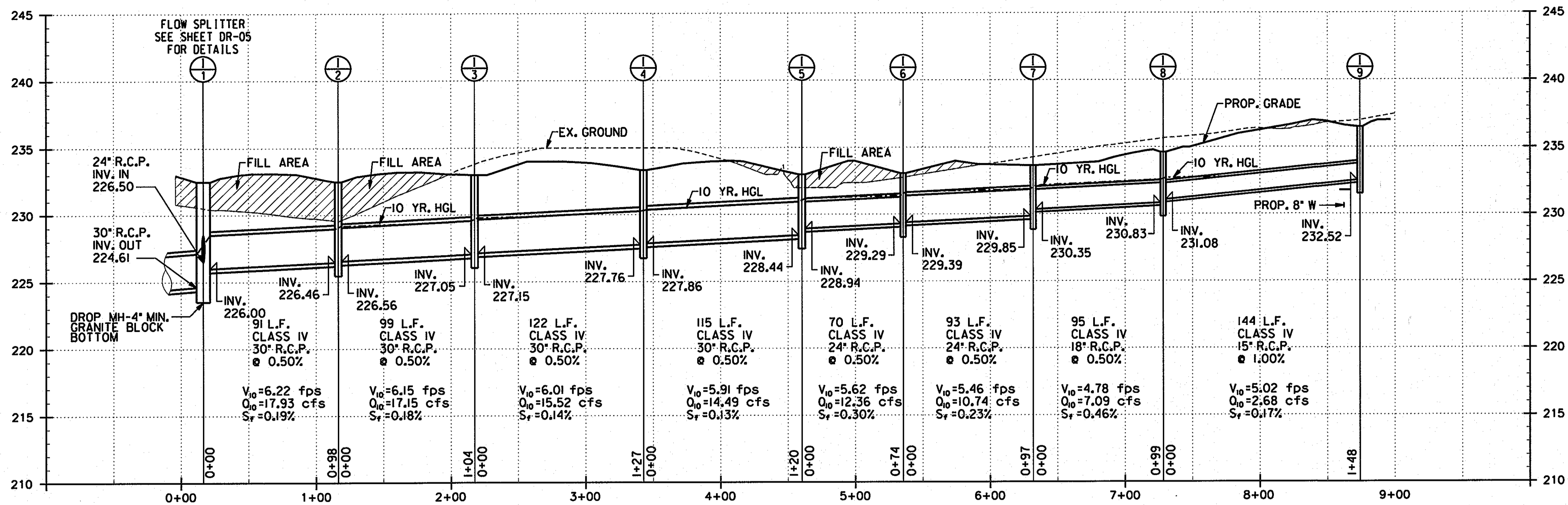
PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
 License No. 39362 Expiration Date 09/24/2014

NO.	DESCRIPTION	BY	DATE
1	REVISED SERVICE CONNECTION LABELS	MBH	10/19/2013

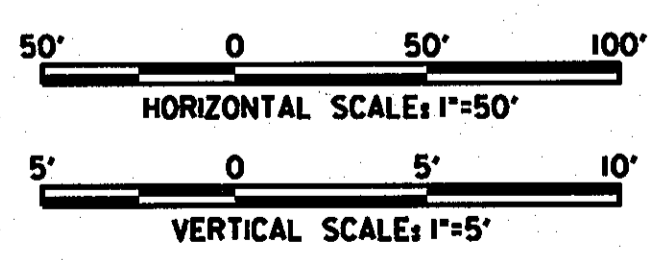
PROPOSED GRADING PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SP-03
 SHEET NO. 15 OF 32
 SDP-13-039



NOTE:
ALL FILL AREAS TO BE COMPACTED PER HOWARD COUNTY CONSTRUCTION SPECIFICATIONS AND TESTED BY A CERTIFIED GEOTECHNICAL AGENCY.

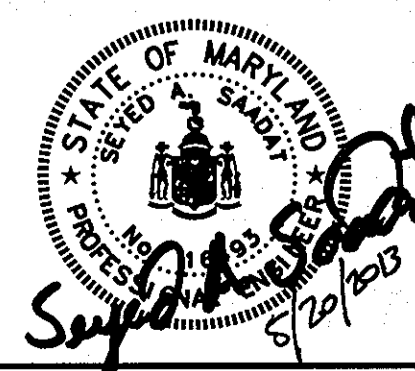


OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 8/1/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 8-1-13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
16493 05/16/2015
License No. Expiration Date

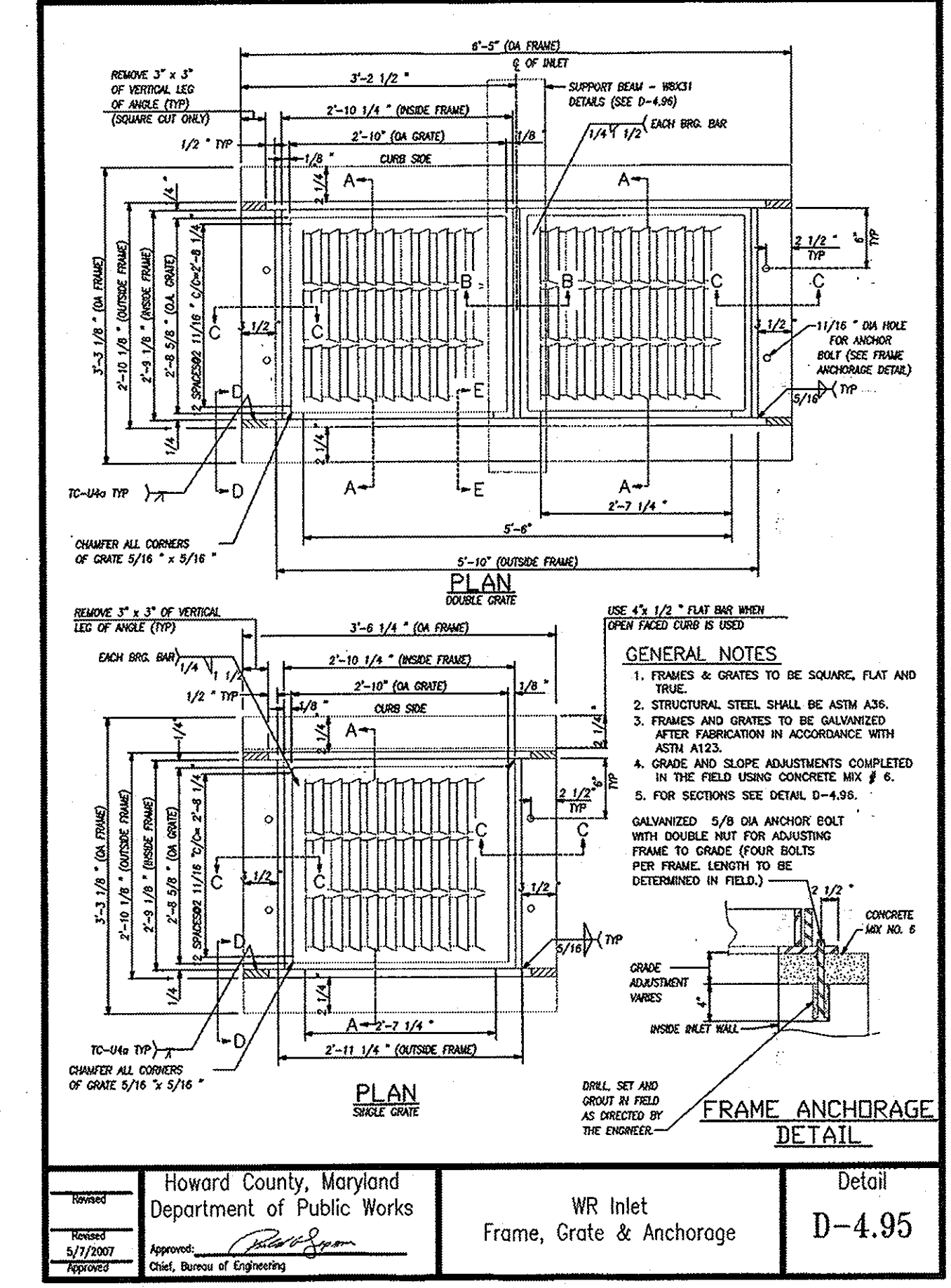
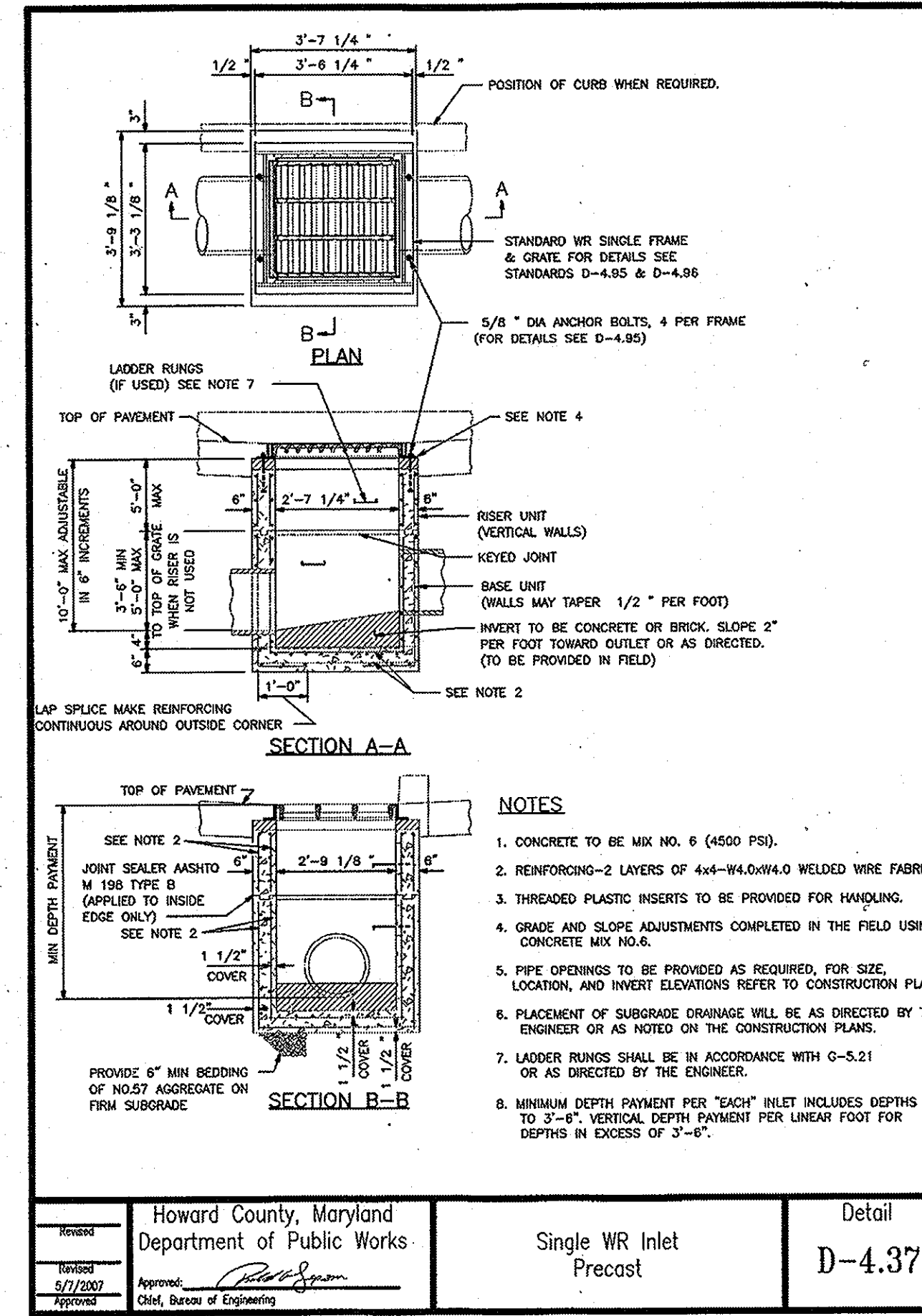
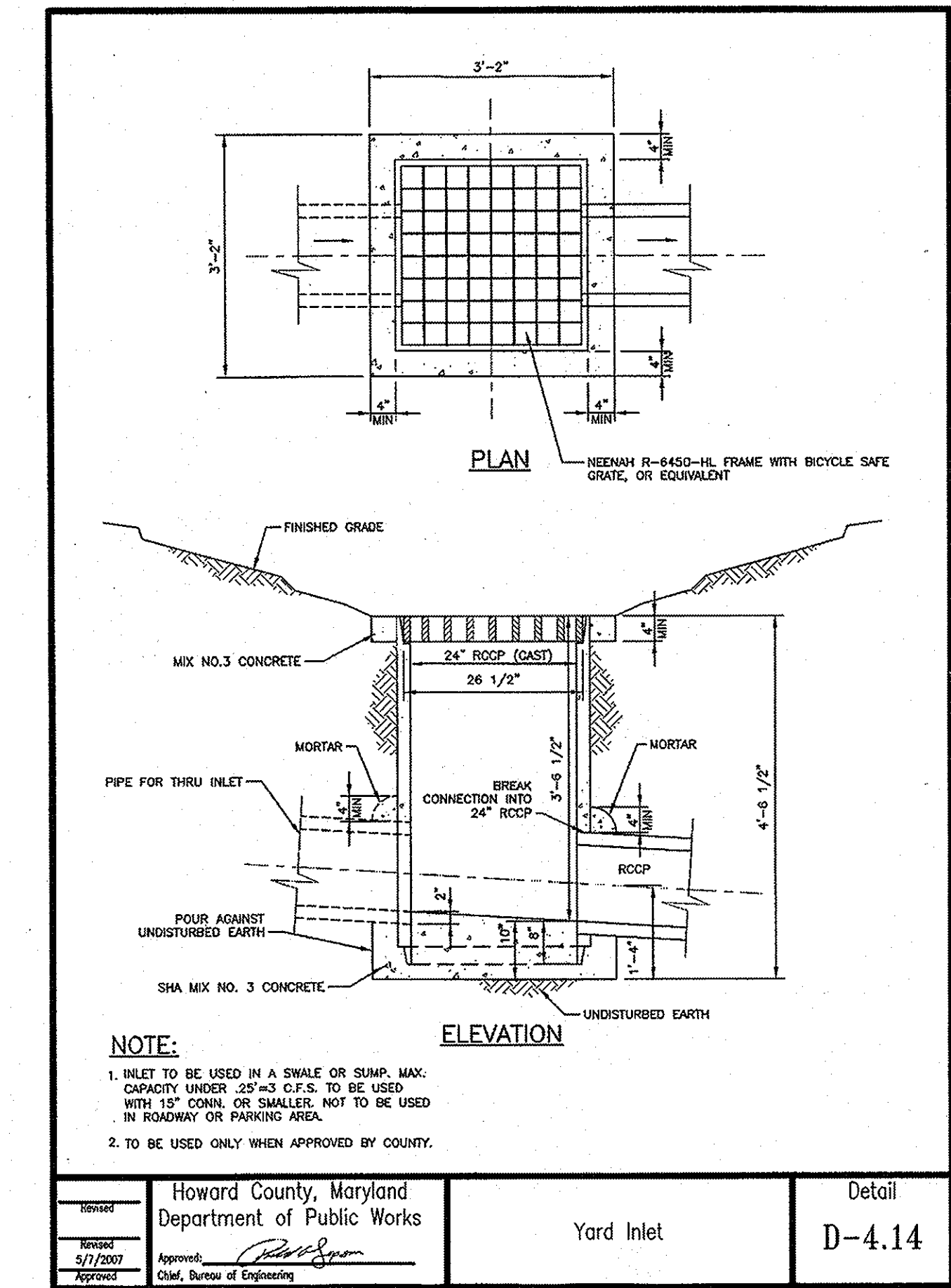
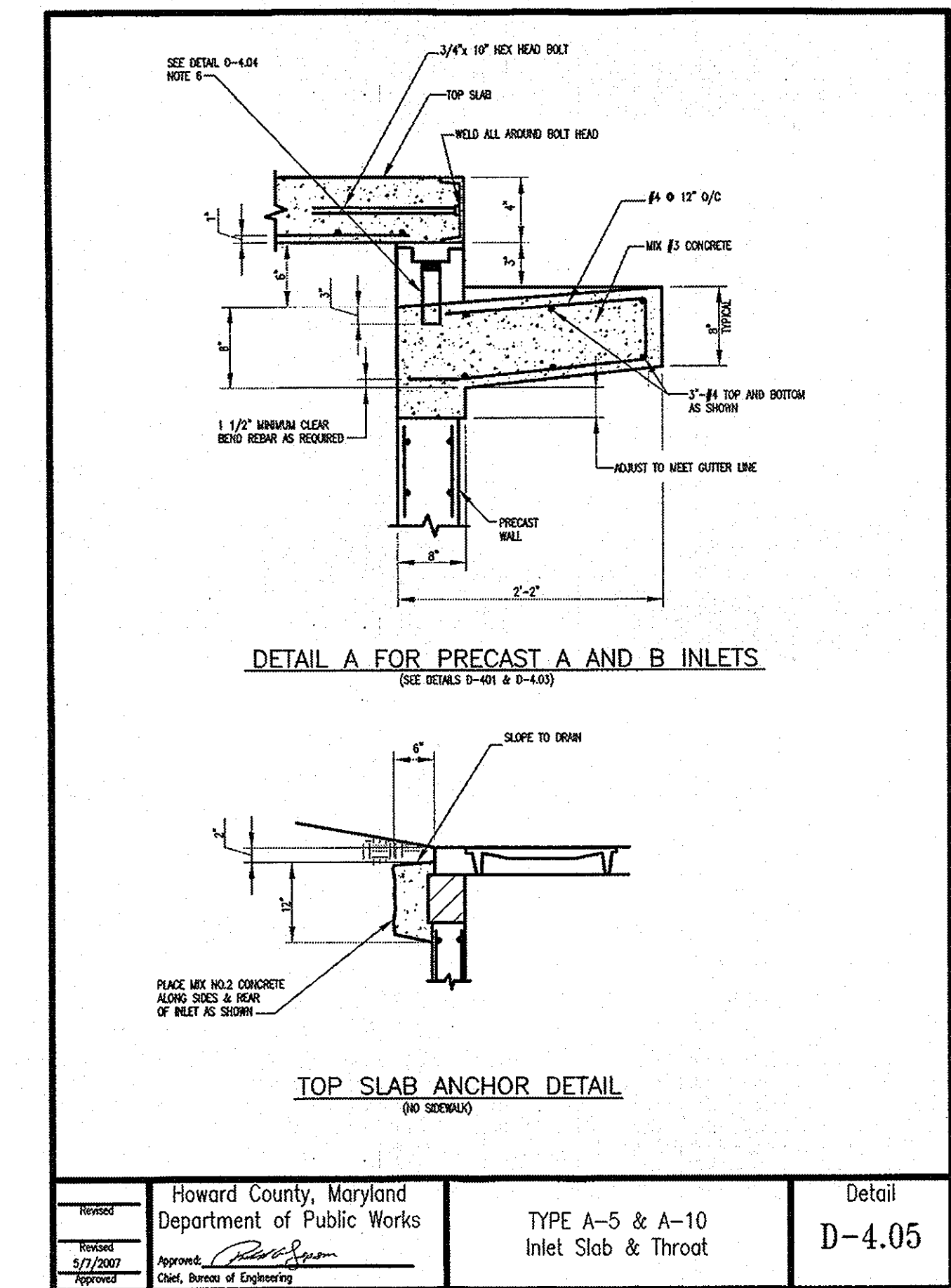
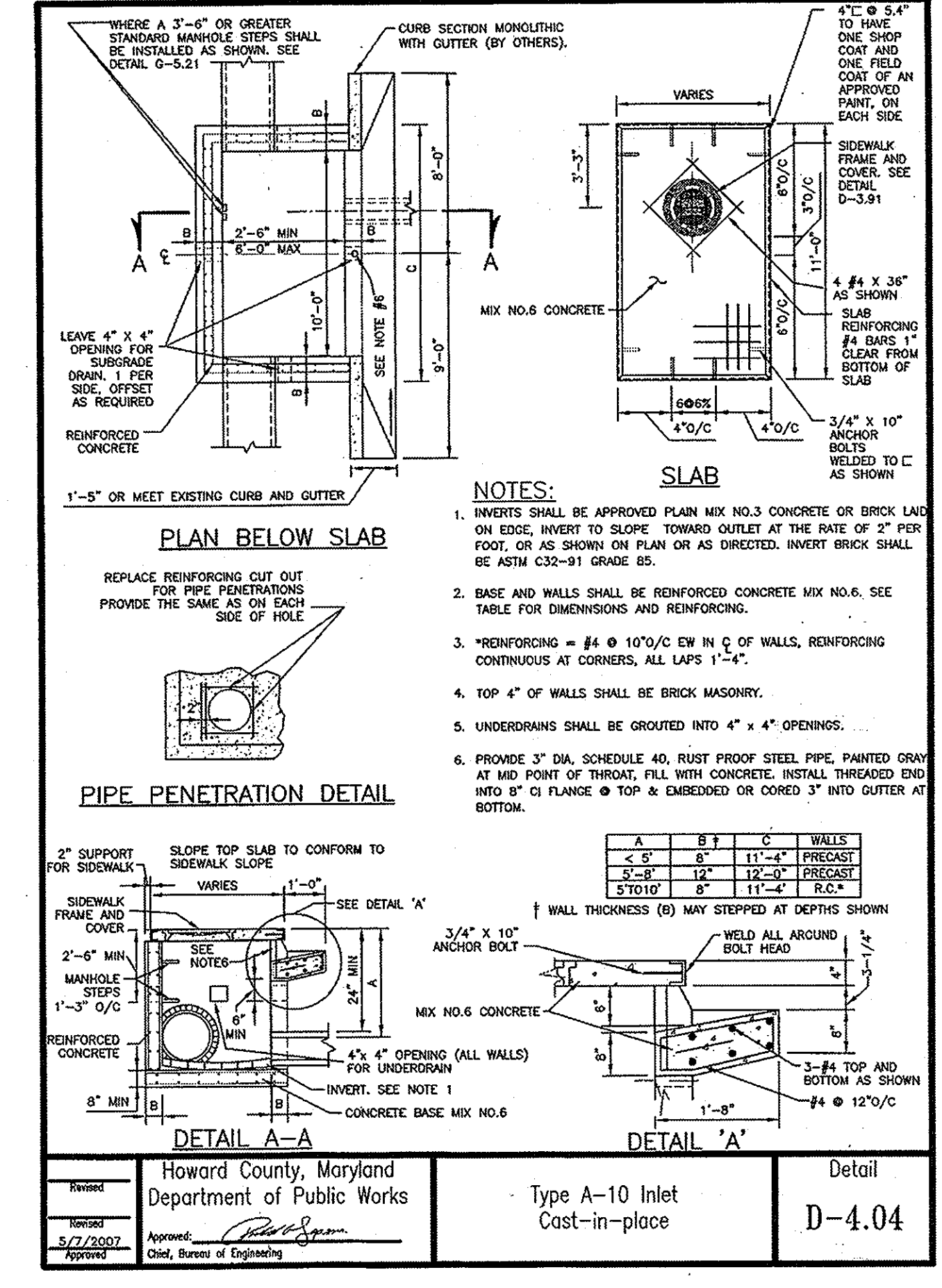
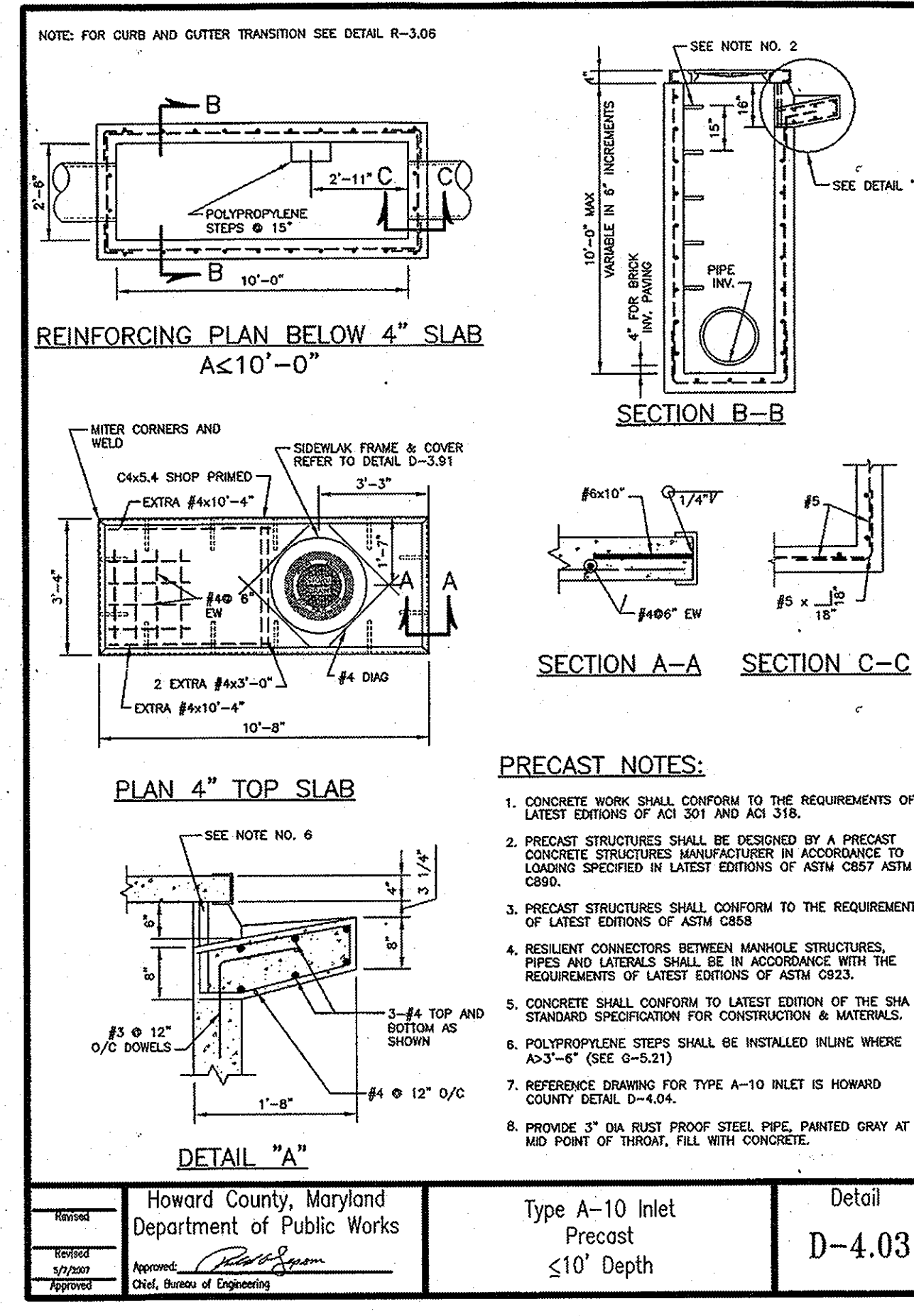
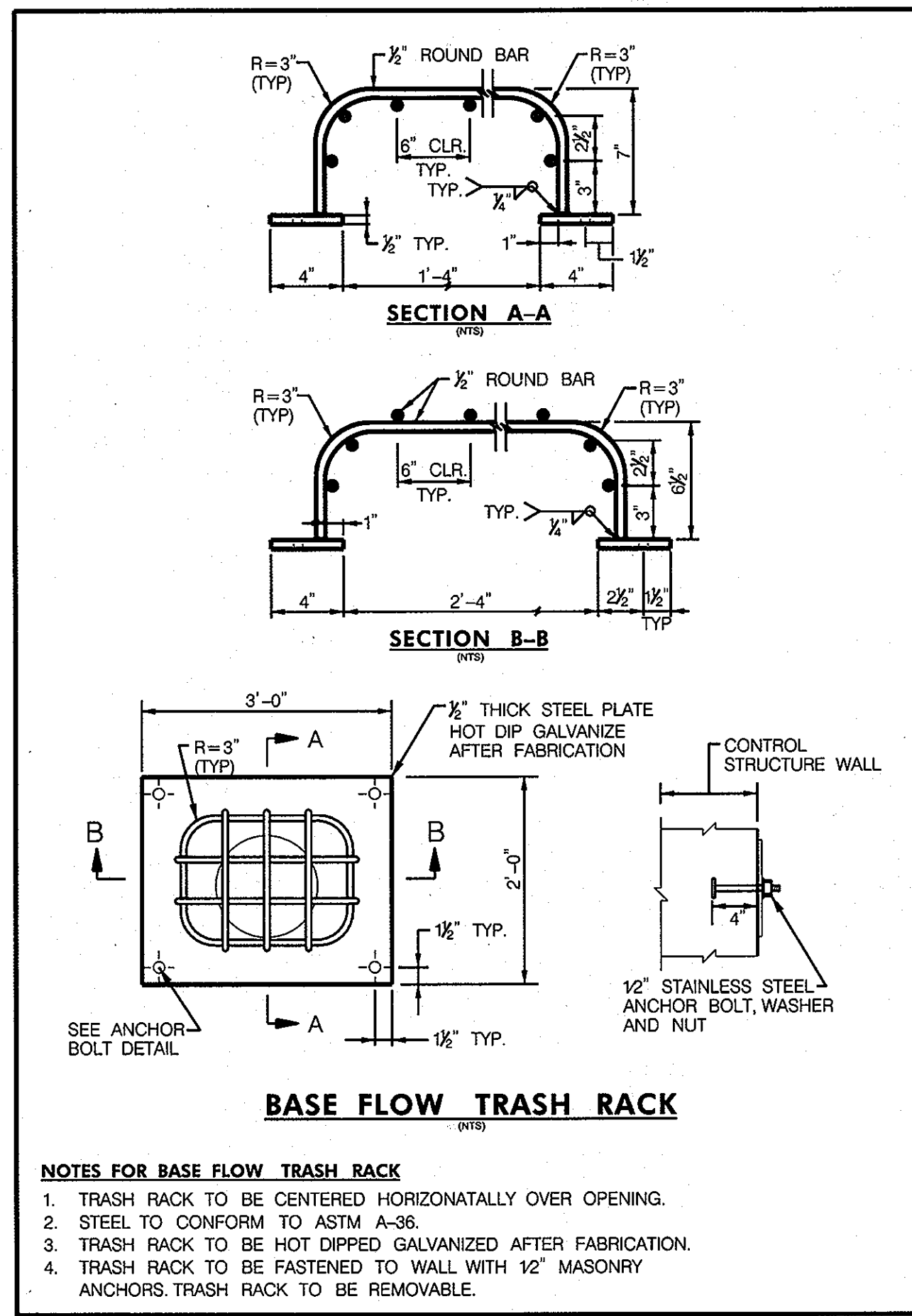
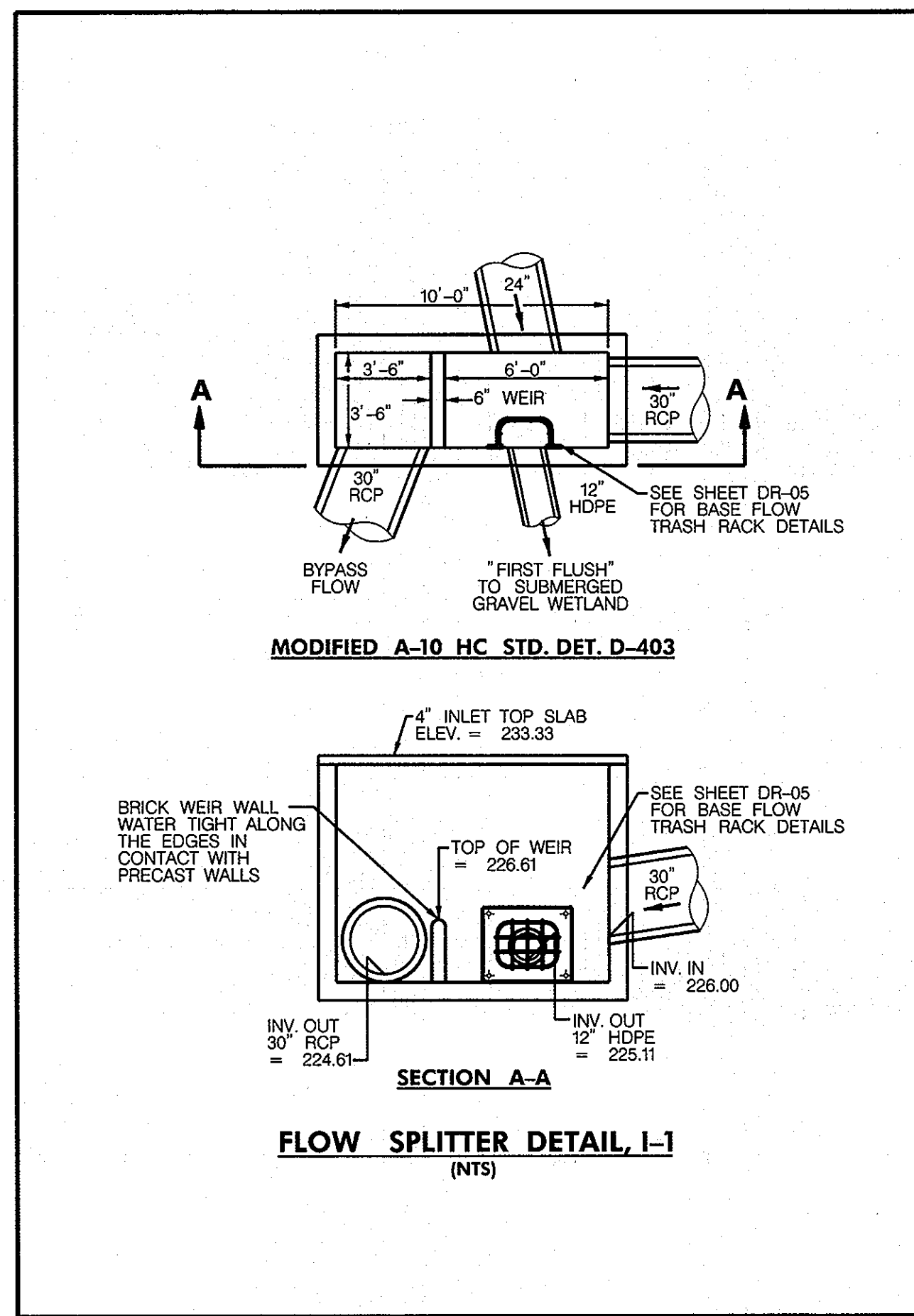
NO.	DESCRIPTION	BY	DATE

DESIGN: KWS
DETAILED: DEA
CHECKED: REP

STORM DRAIN PROFILE
SCALE: AS SHOWN
DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUNKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION: DR-02
SHEET NO.: 17 OF 32



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7/2/13
 DATE: 8/1-13
 DATE: 8-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755

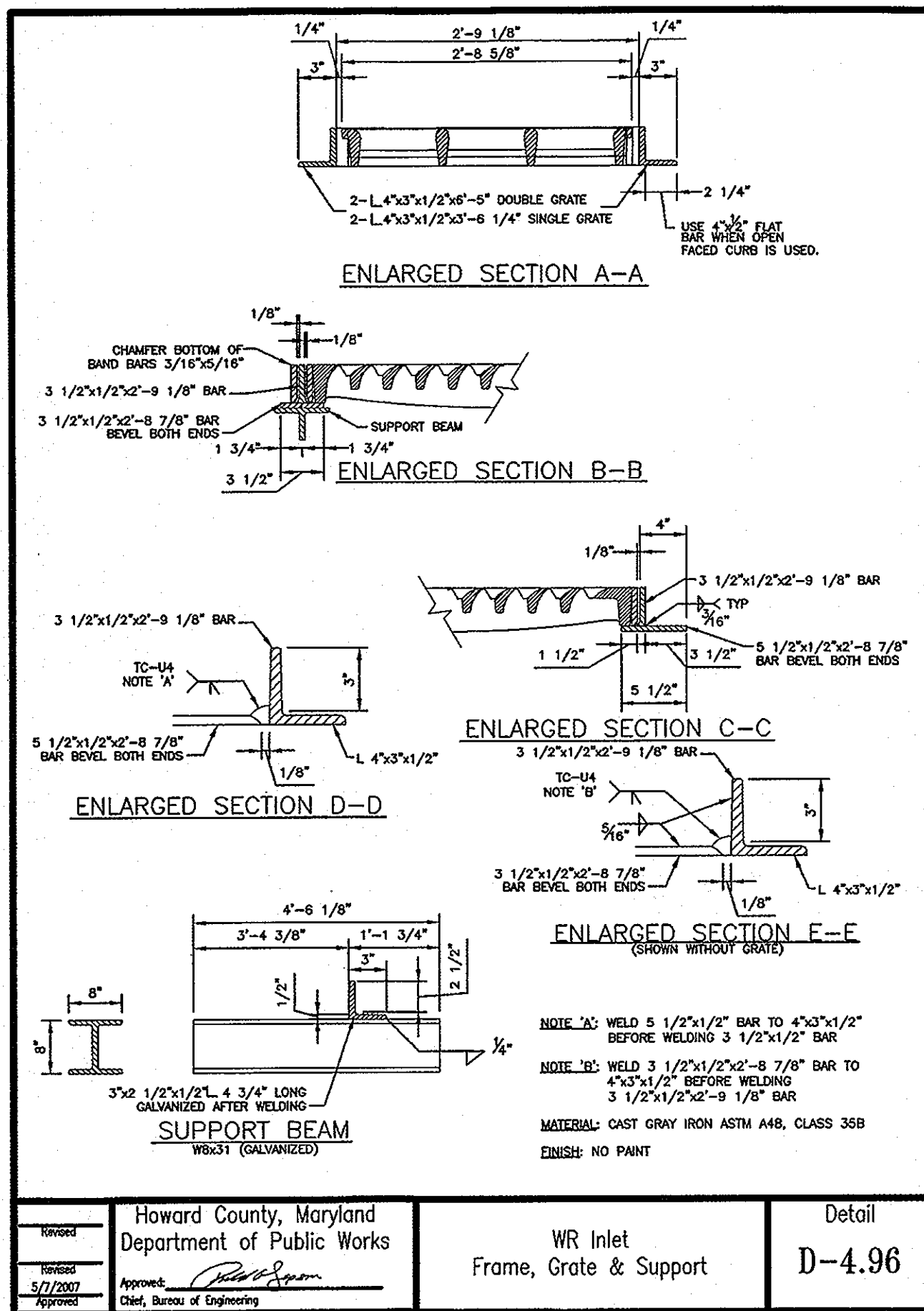
PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
 16493 05/16/2015
 License No. Expiration Date

NO.	DESCRIPTION	BY	DATE

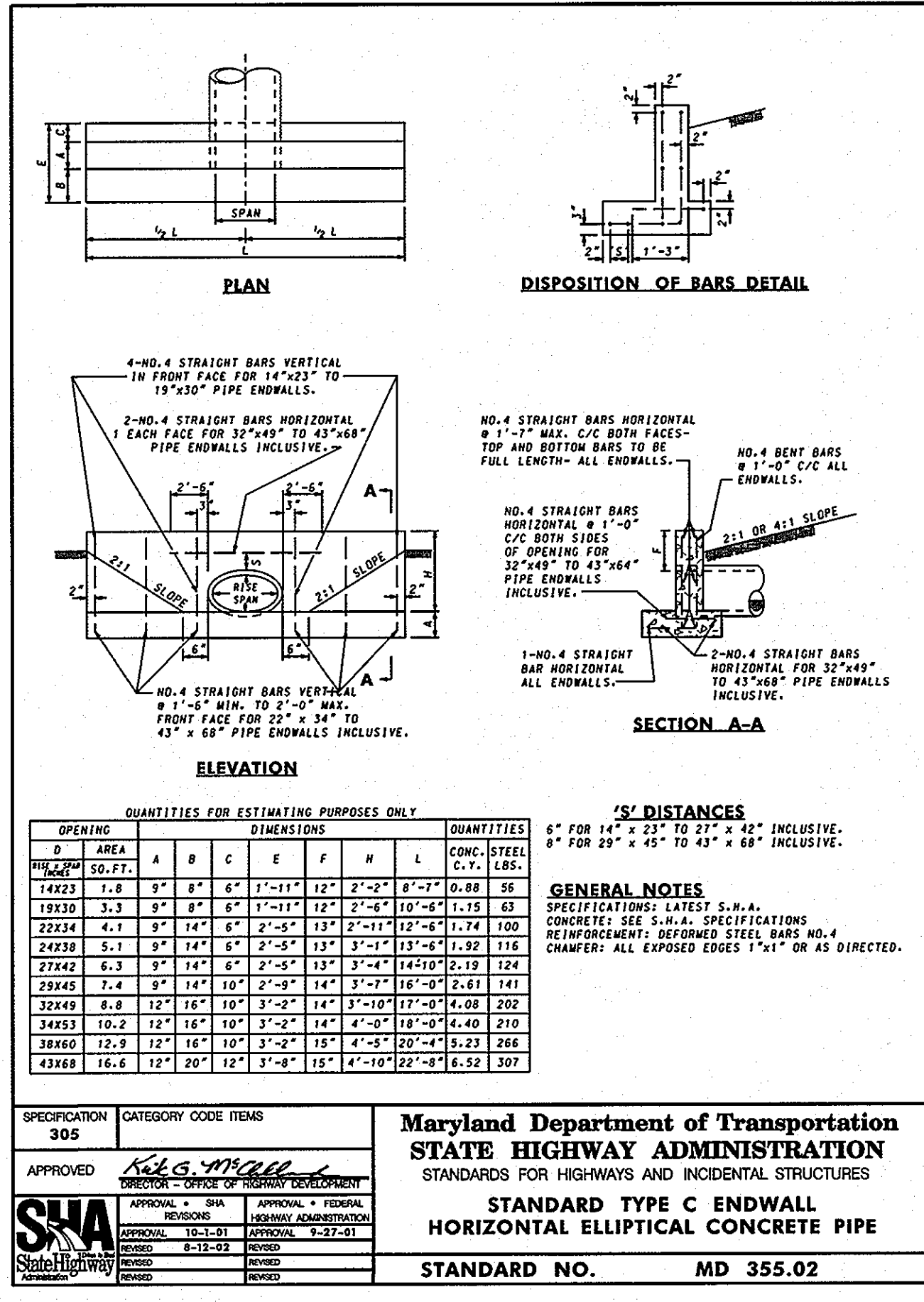
STORMDRAIN AND STORMWATER MANAGEMENT DETAILS
 SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING
HOWARD COUNTY
CENTRAL MARYLAND
TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

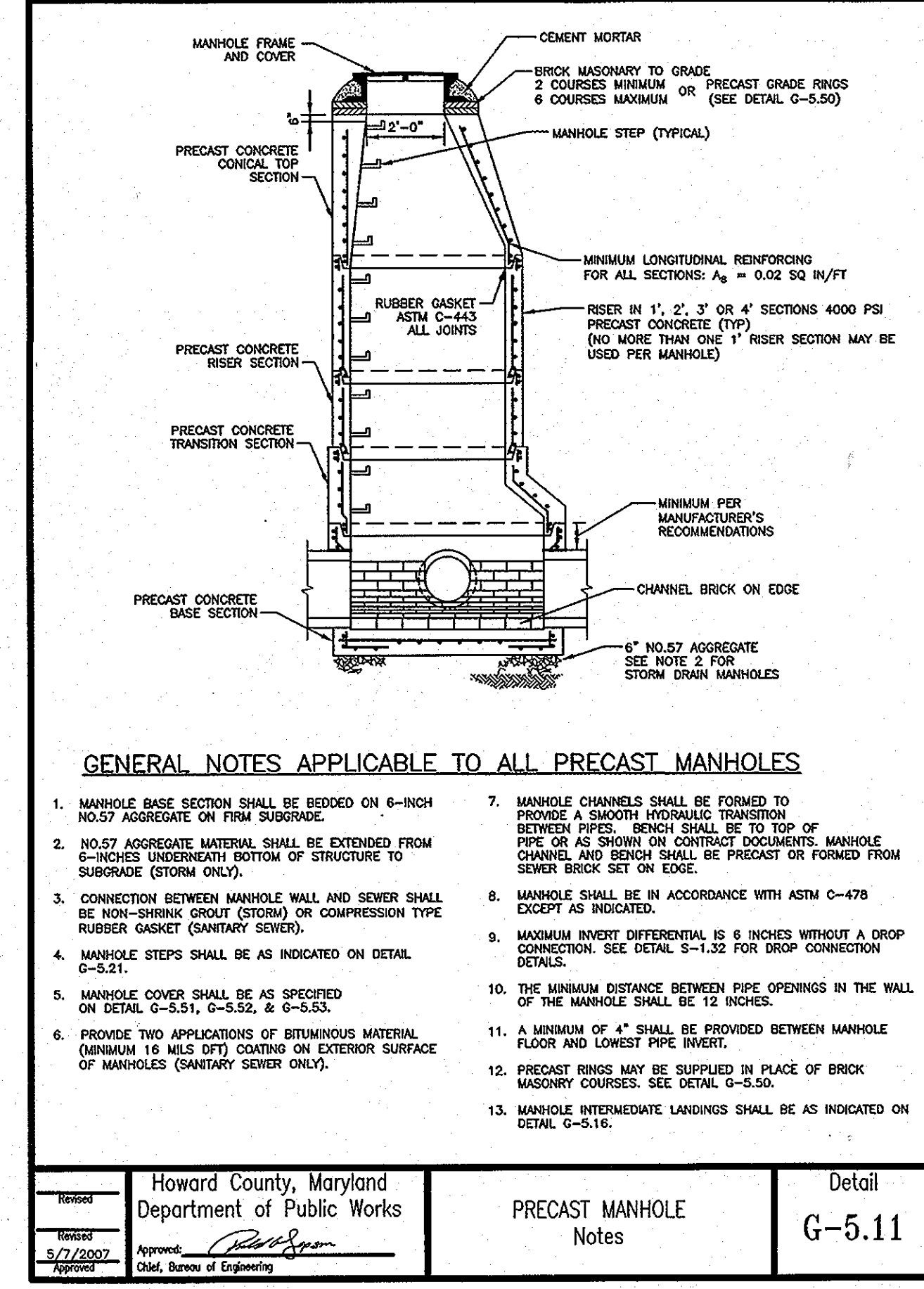
DISCIPLINE ABBREVIATION DR-05
 SHEET NO. 18 OF 32
 SDP-13-039



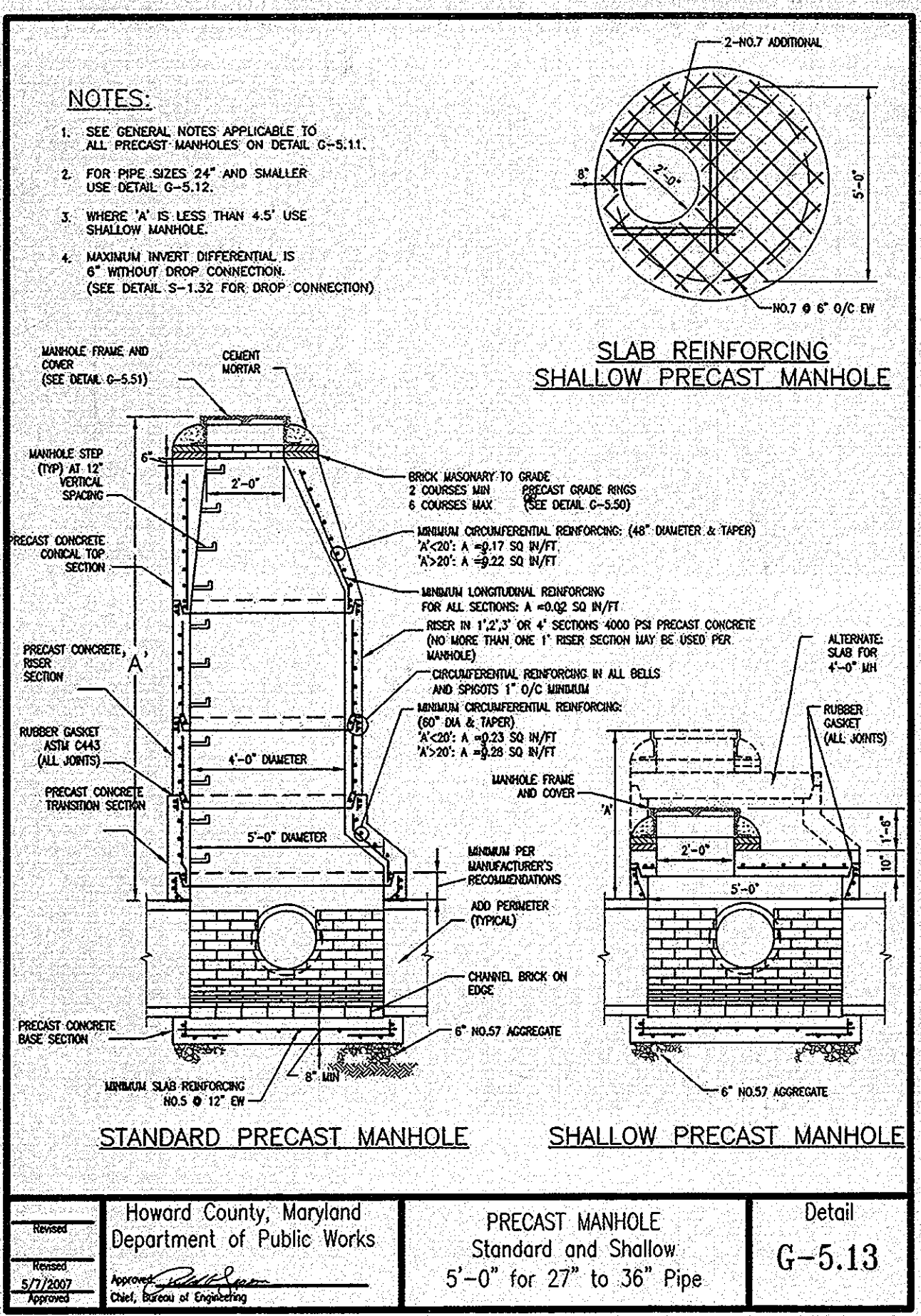
HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	WR Inlet Frame, Grate & Support	Detail D-4.96
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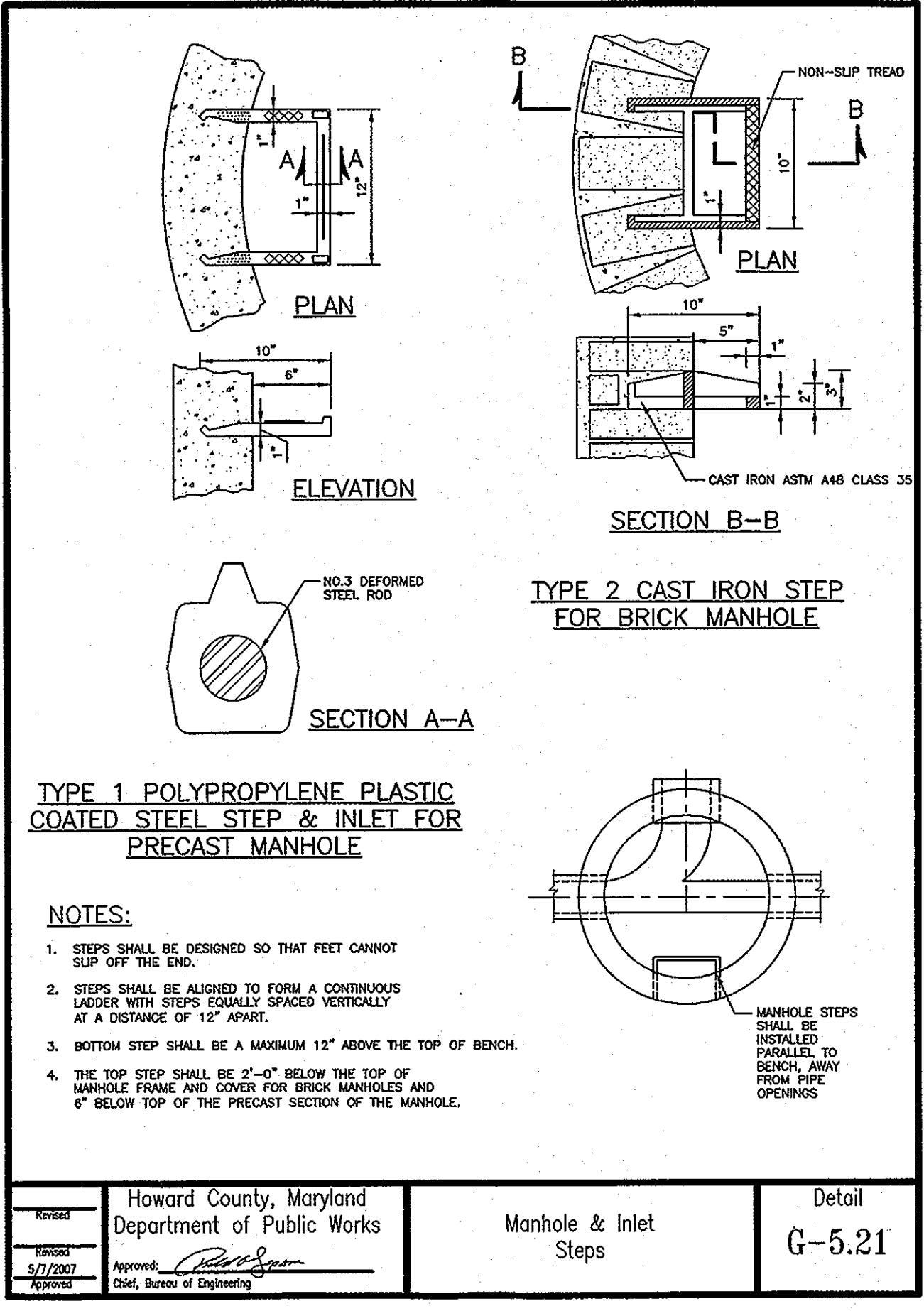
HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	Manhole & Inlet Steps	Detail G-5.21
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HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	PRECAST MANHOLE Notes	Detail G-5.11
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HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	PRECAST MANHOLE Standard and Shallow 5'-0" for 27" to 36" Pipe	Detail G-5.13
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HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	Manhole & Inlet Steps	Detail G-5.21
---	--------------------------	------------------

OWNER/DEVELOPER
 Howard County
 c/o Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

4/25/2013
 \$FILES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

DATE: 6/11/13
 DATE: 8/01/13
 DATE: 8-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 License No. 16493
 Expiration Date: 05/16/2015

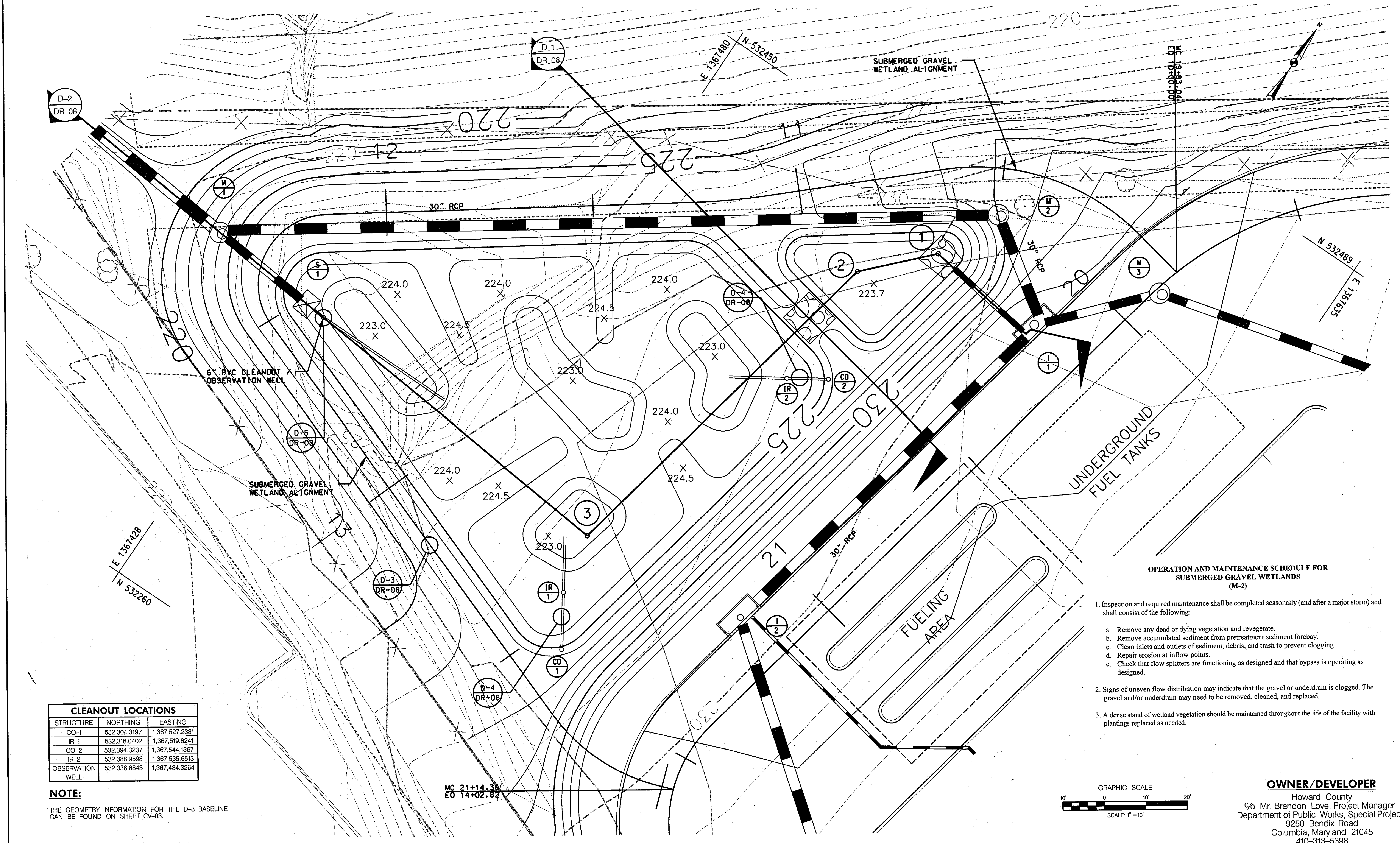
NO.	DESCRIPTION	BY	DATE

STORMDRAIN AND STORMWATER MANAGEMENT DETAILS

SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUNKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION: DR-06
 SHEET NO. 19 OF 32
 SDP-13-039

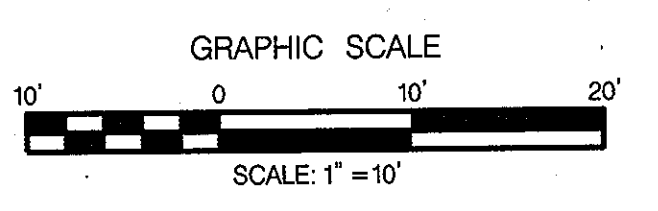


CLEANOUT LOCATIONS

STRUCTURE	NORTHING	EASTING
CO-1	532,304.3197	1,367,527.2331
IR-1	532,316.0402	1,367,519.8241
CO-2	532,394.3237	1,367,544.1367
IR-2	532,388.9598	1,367,535.6513
OBSERVATION WELL	532,338.8843	1,367,434.3264

NOTE:
THE GEOMETRY INFORMATION FOR THE D-3 BASELINE CAN BE FOUND ON SHEET CV-03.

- OPERATION AND MAINTENANCE SCHEDULE FOR SUBMERGED GRAVEL WETLANDS (M-2)**
- Inspection and required maintenance shall be completed seasonally (and after a major storm) and shall consist of the following:
 - Remove any dead or dying vegetation and revegetate.
 - Remove accumulated sediment from pretreatment sediment forebay.
 - Clean inlets and outlets of sediment, debris, and trash to prevent clogging.
 - Repair erosion at inflow points.
 - Check that flow splitters are functioning as designed and that bypass is operating as designed.
 - Signs of uneven flow distribution may indicate that the gravel or underdrain is clogged. The gravel and/or underdrain may need to be removed, cleaned, and replaced.
 - A dense stand of wetland vegetation should be maintained throughout the life of the facility with plantings replaced as needed.



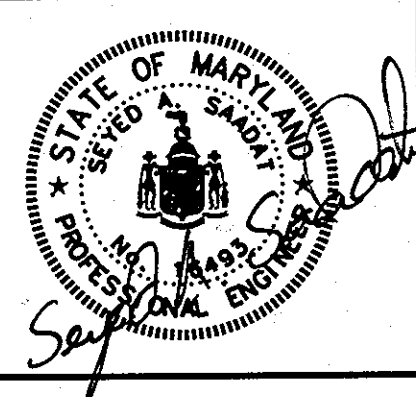
OWNER/DEVELOPER
Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

6/26/2013
\$FILE\$

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

DATE: 7/17/13
 DATE: 8/1/13
 DATE: 8-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 16493, Expiration Date 05/16/2015

NO.	DESCRIPTION	BY	DATE
REVISIONS			

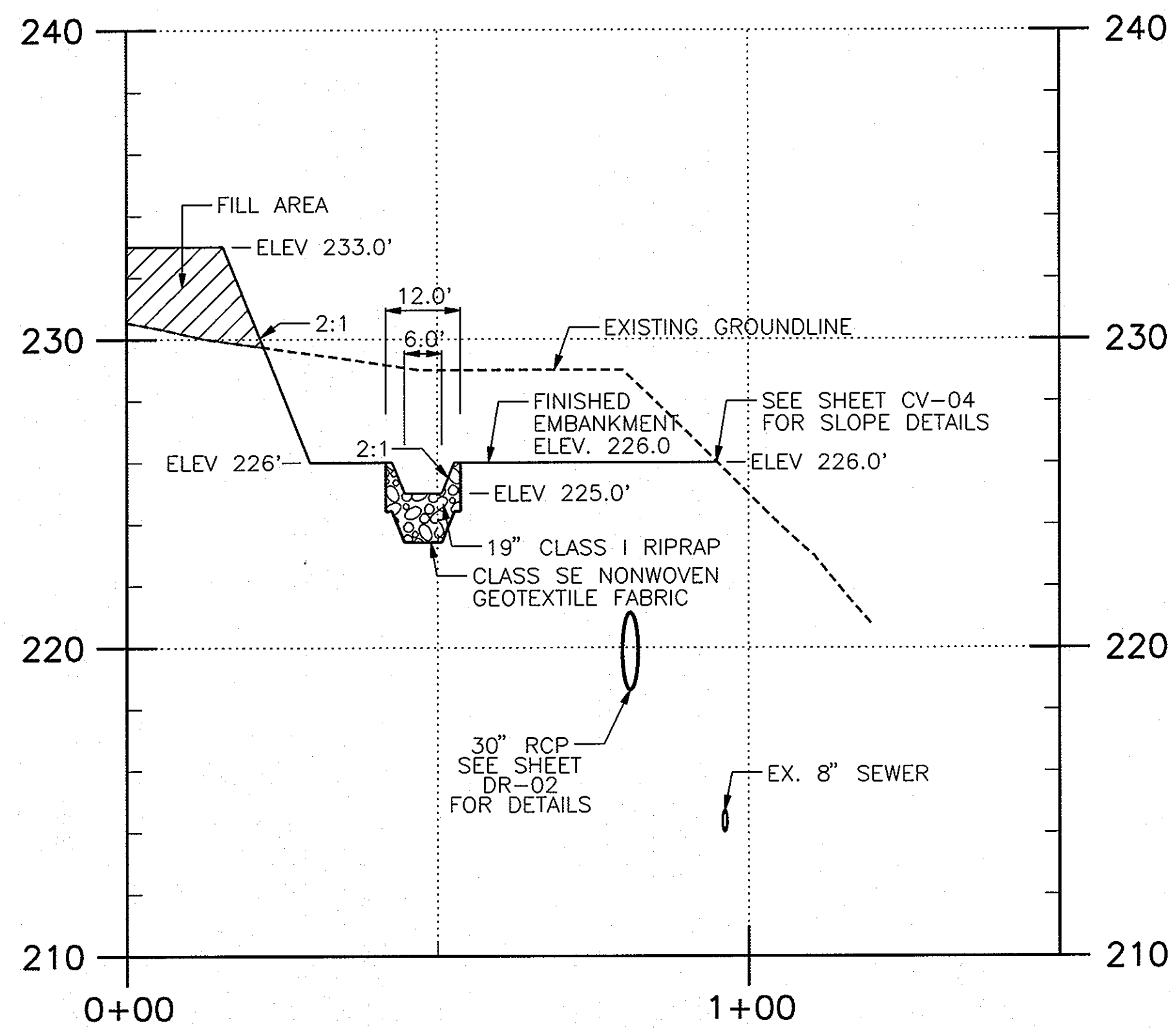
DESIGN: JRN
 CHECK DRAWING: JRN
 MBH

SUBMERGED GRAVEL WETLAND PLAN

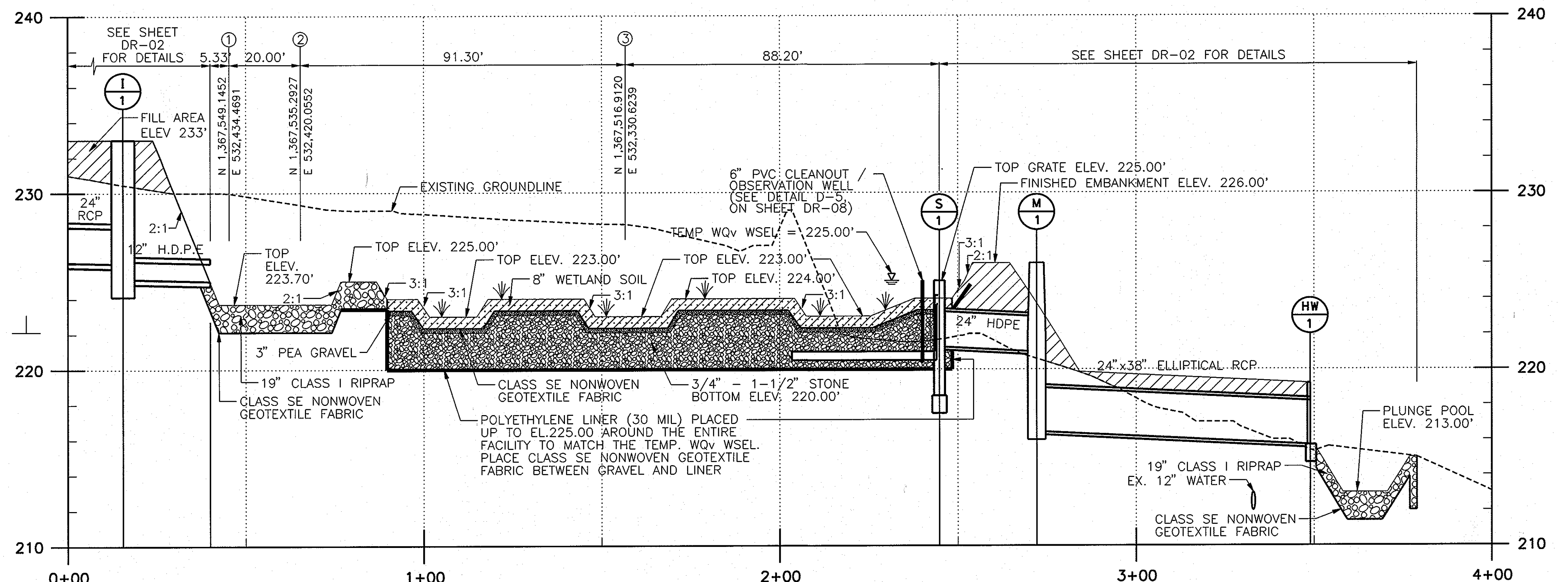
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 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

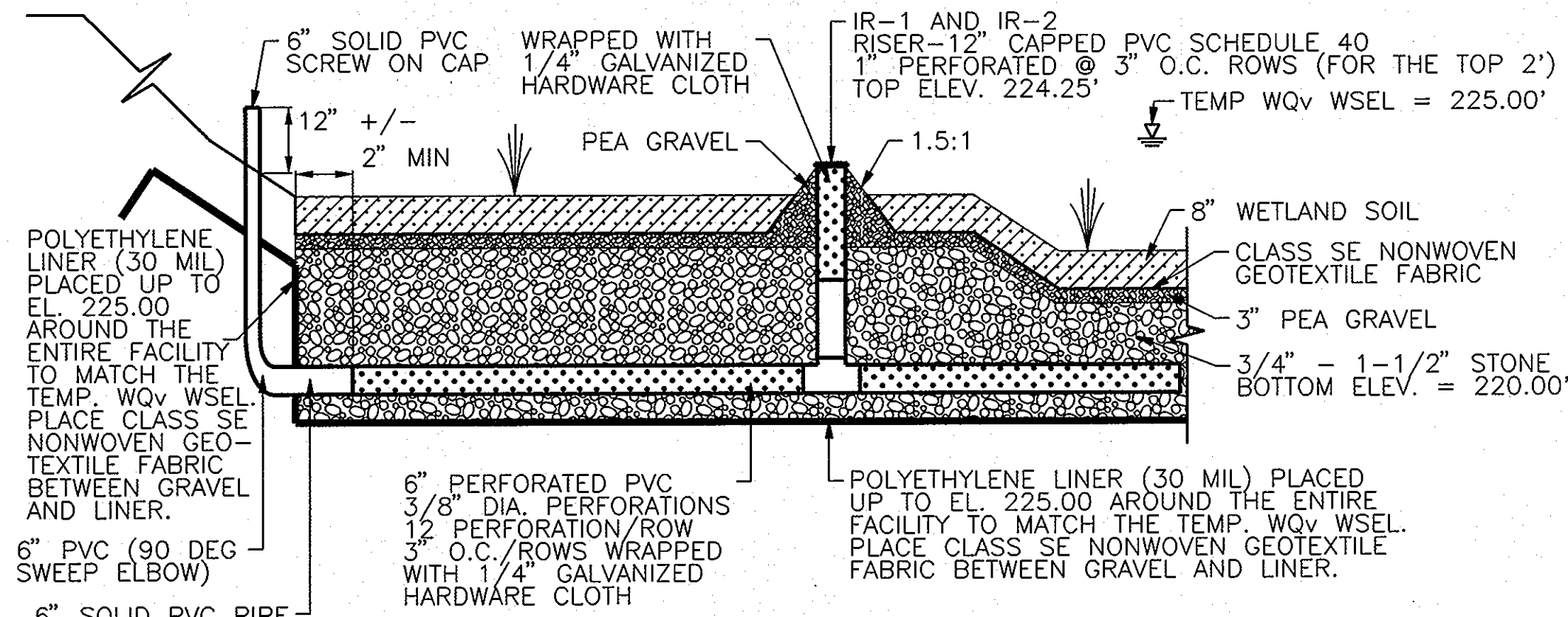
DISCIPLINE ABBREVIATION: DR-07
 SHEET NO.: 20 OF 32
 SDP-13-039



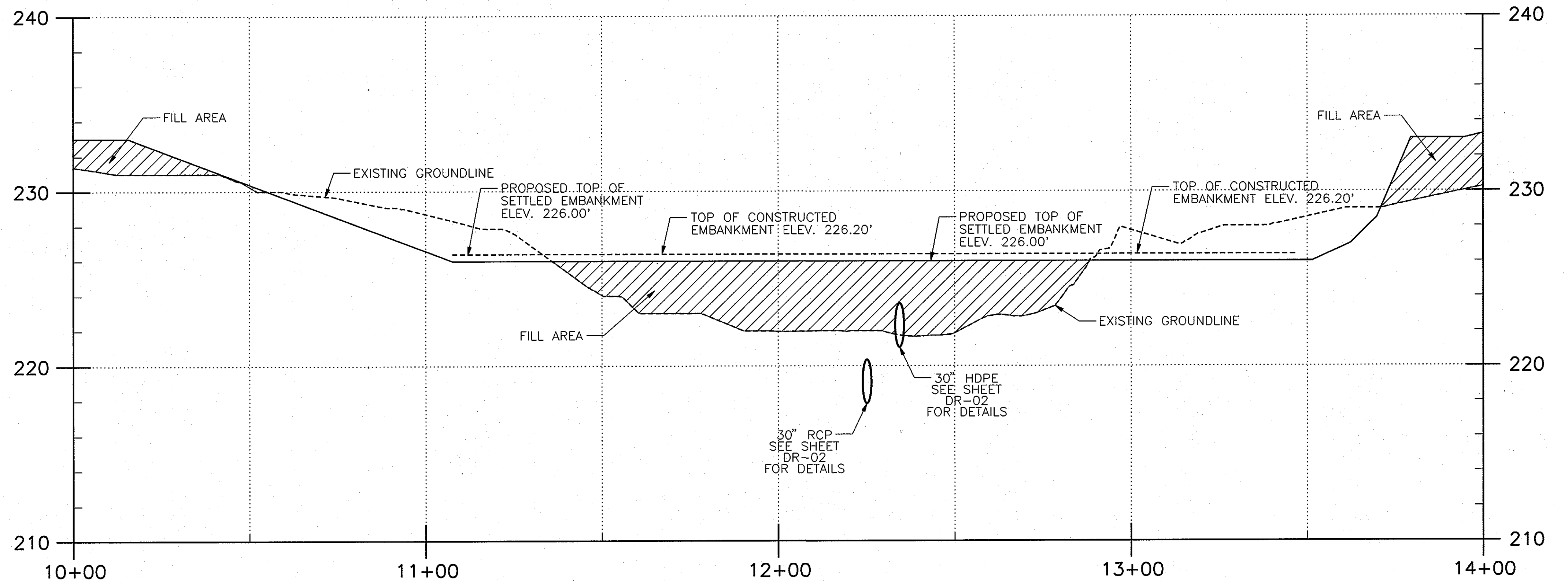
D-1 SPILLWAY BERM
 DR-07 SCALE: 1" = 20'-0" HORIZONTAL
 1" = 4'-0" VERTICAL



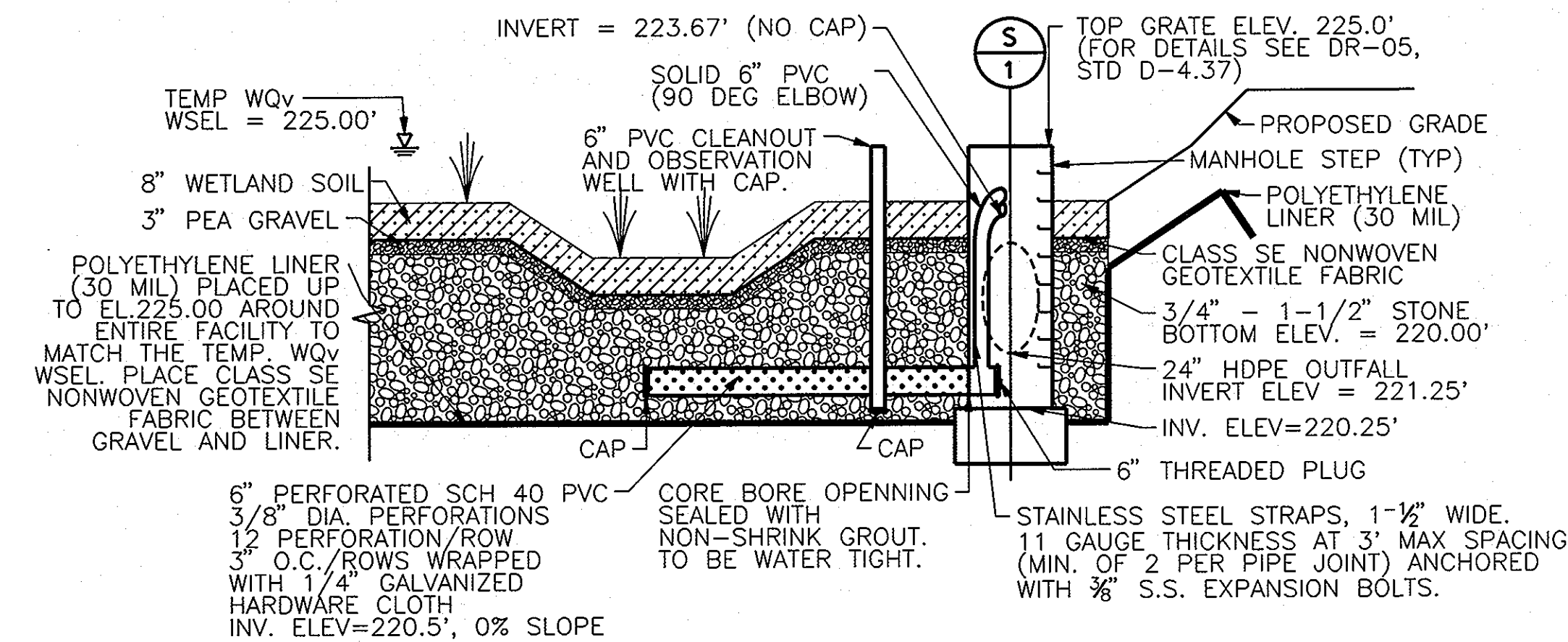
D-2 SUBMERGED GRAVEL WETLAND
 DR-07 SCALE: 1" = 20'-0" HORIZONTAL
 1" = 4'-0" VERTICAL



D-4 PVC CLEANOUT AND VERTICAL RISER DETAIL (TYP)
 DR-07 SCALE: 1" = 5'-0" HORIZONTAL
 1" = 2'-6" VERTICAL



D-3 SUBMERGED GRAVEL WETLAND ALIGNMENT
 DR-07 SCALE: 1" = 20'-0" HORIZONTAL
 1" = 4'-0" VERTICAL



D-5 OBSERVATION WELL / CLEANOUT
 DR-08 SCALE: 1" = 5'-0" HORIZONTAL
 1" = 2'-6" VERTICAL

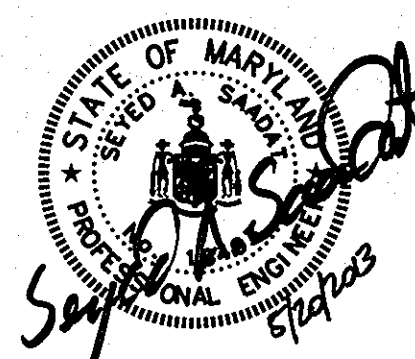
NOTE:
 ALL FILL AREAS TO BE COMPACTED PER HOWARD COUNTY CONSTRUCTION SPECIFICATIONS AND TESTED BY A CERTIFIED GEOTECHNICAL AGENCY.

OWNER/DEVELOPER

Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
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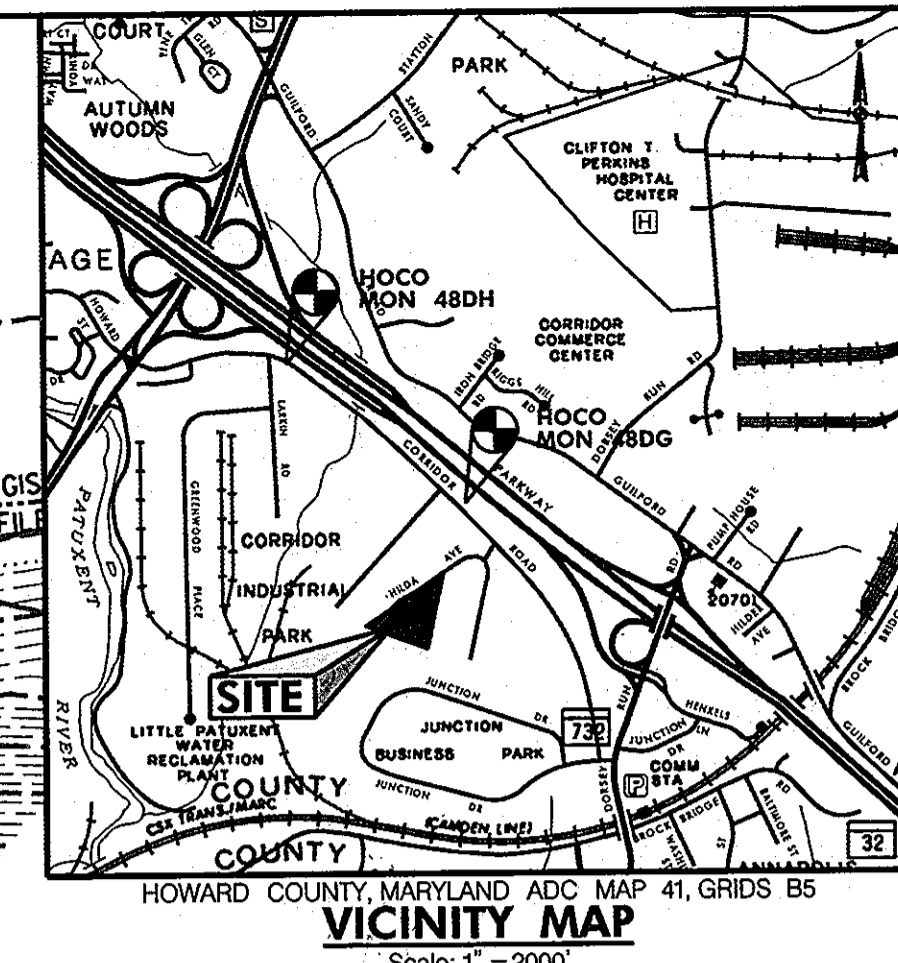
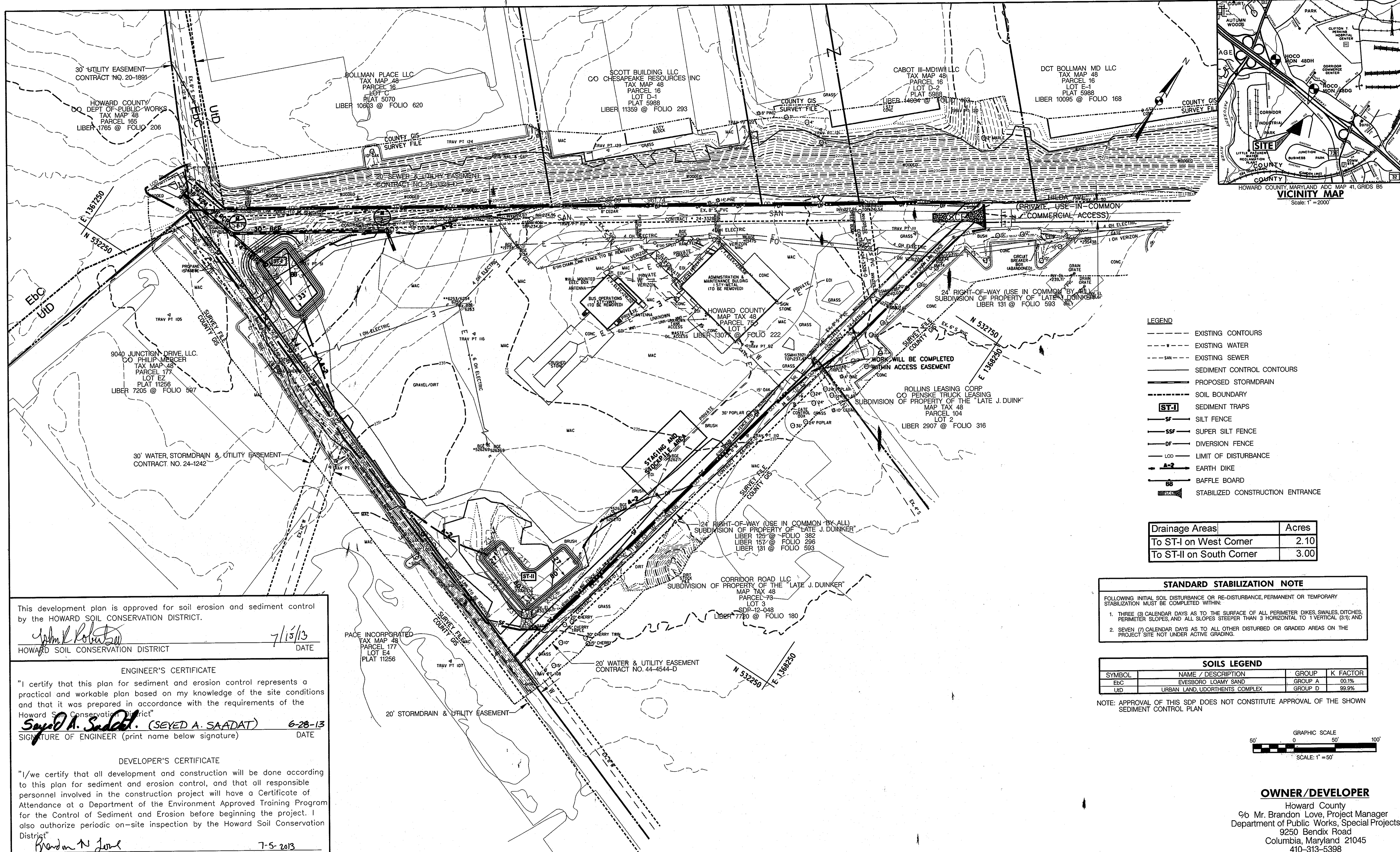
NO.	DESCRIPTION	BY	DATE

JRN
 JRN
 MBH

SUBMERGED GRAVEL WETLAND DETAILS
 SCALE: AS SHOWN
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION DR-08
 SHEET NO. 21 OF 32



- LEGEND**
- EXISTING CONTOURS
 - EXISTING WATER
 - SAN EXISTING SEWER
 - SEDIMENT CONTROL CONTOURS
 - PROPOSED STORMDRAIN
 - SOIL BOUNDARY
 - ST-I** SEDIMENT TRAPS
 - SF** SILT FENCE
 - SSF** SUPER SILT FENCE
 - DF** DIVERSION FENCE
 - LOD** LIMIT OF DISTURBANCE
 - A-2** EARTH DIKE
 - BB** BAFFLE BOARD
 - SC** STABILIZED CONSTRUCTION ENTRANCE

Drainage Areas	Acres
To ST-I on West Corner	2.10
To ST-II on South Corner	3.00

STANDARD STABILIZATION NOTE

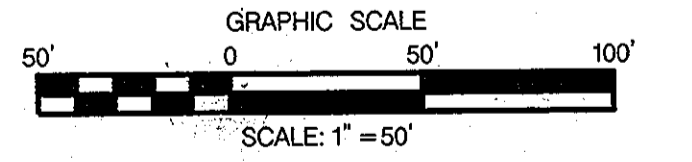
FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR
Ebc	EVESBORO LOAMY SAND	GROUP A	00.1%
UD	URBAN LAND, UDORTHERTS COMPLEX	GROUP D	99.9%

NOTE: APPROVAL OF THIS SDP DOES NOT CONSTITUTE APPROVAL OF THE SHOWN SEDIMENT CONTROL PLAN



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John K. Roberts 7/15/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Seyed A. Saadat (SEYED A. SAADAT) 6-28-13
 SIGNATURE OF ENGINEER (print name below signature) DATE

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."

Brandon N. Love 7-5-2013
 SIGNATURE OF DEVELOPER (print name below signature) DATE

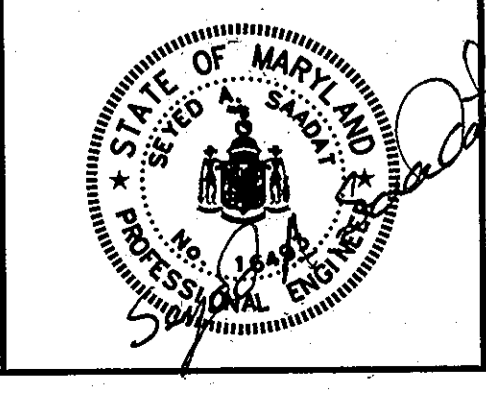
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Walter J. ... 7/17/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 4w DATE

Walter J. ... 8/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Walter J. ... 8-1-13
 DIRECTOR DATE

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

16493 05/16/2015
 License No. Expiration Date

NO.	DESCRIPTION	BY	DATE
REVISIONS			

**PHASE I
 SEDIMENT & EROSION
 CONTROL PLAN**

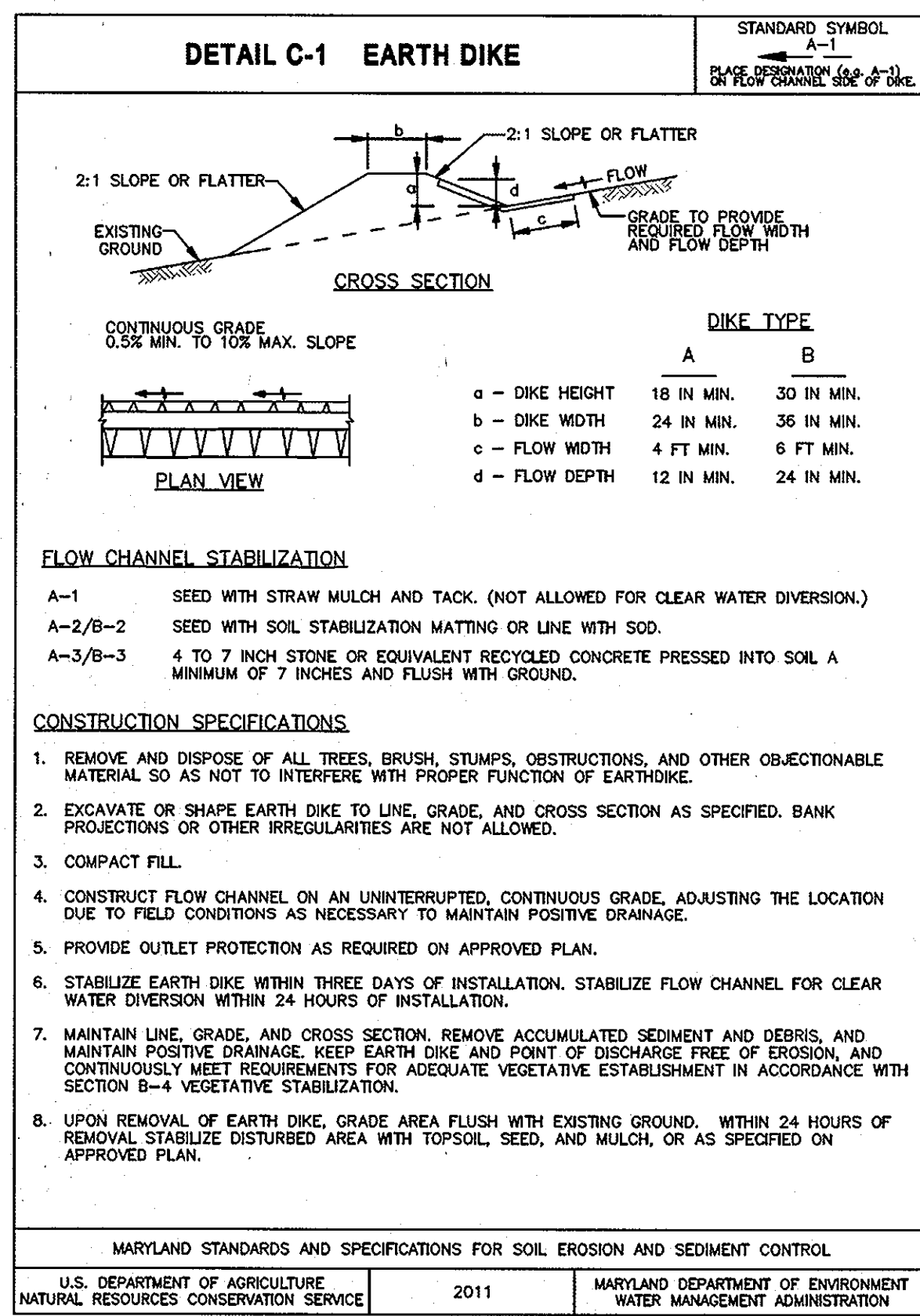
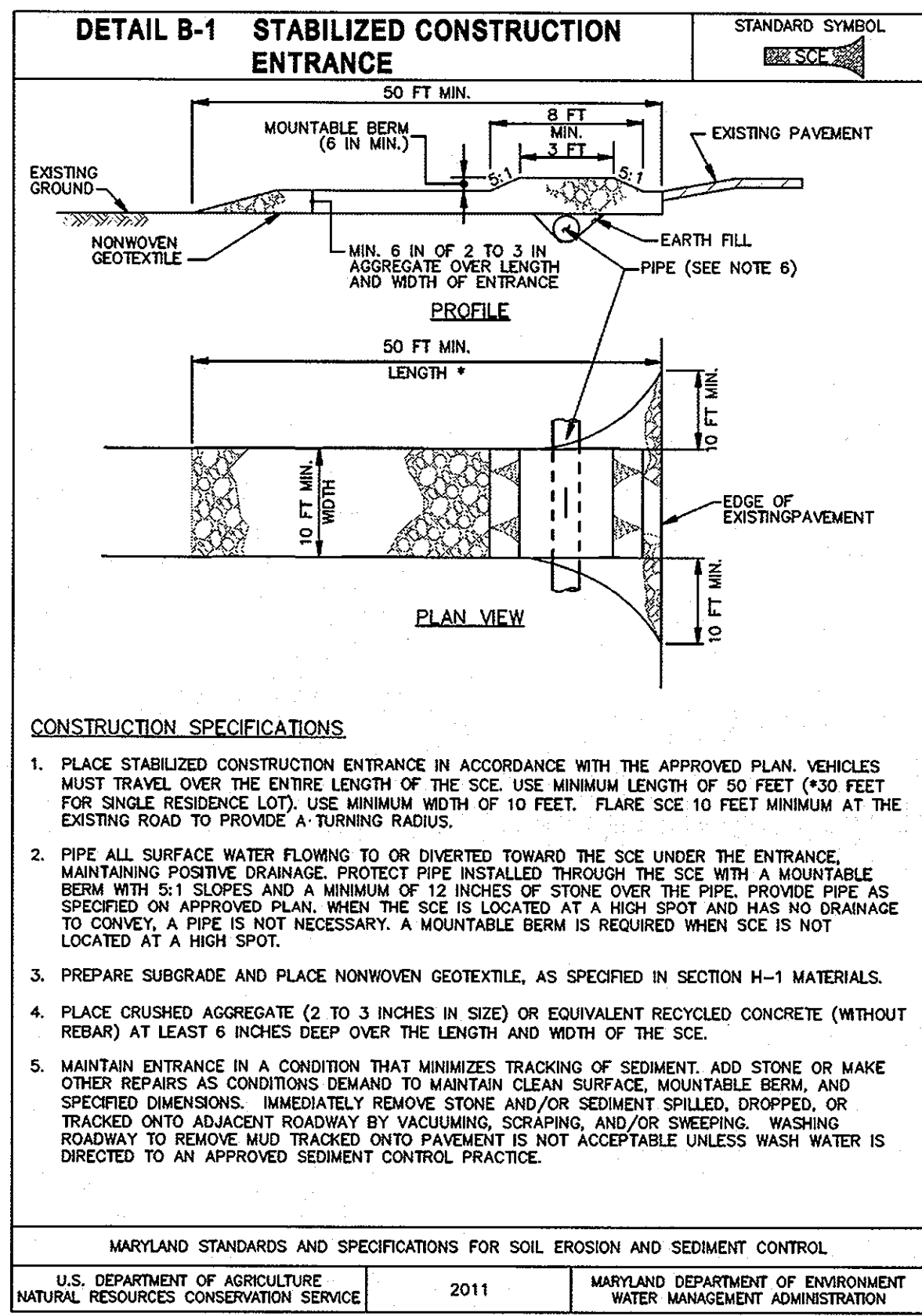
SCALE: 1" = 50'
 DATE: APRIL 26, 2013

**GREEN BUILDING
 HOWARD COUNTY
 CENTRAL MARYLAND
 TRANSIT OPERATIONS FACILITY**

(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

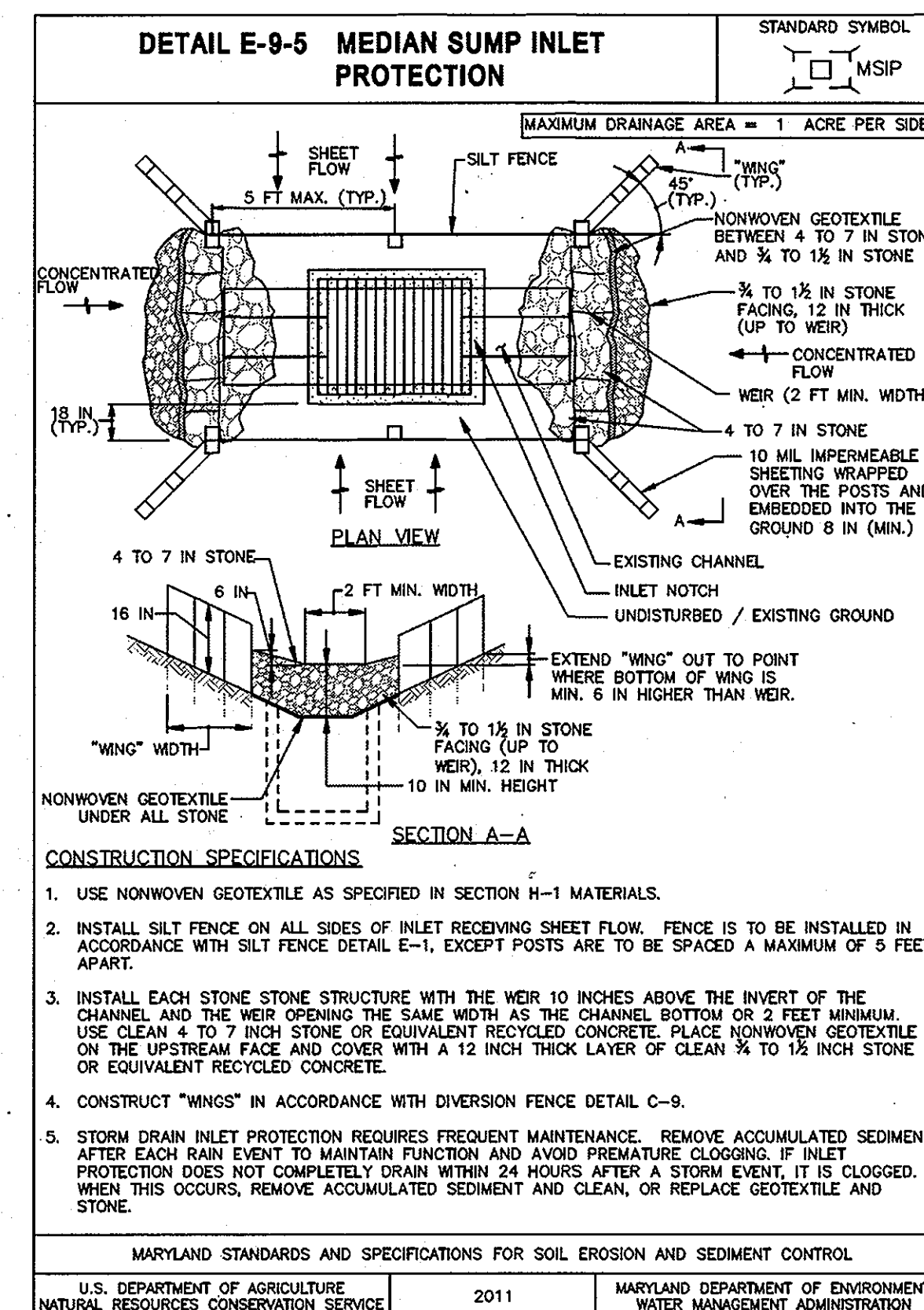
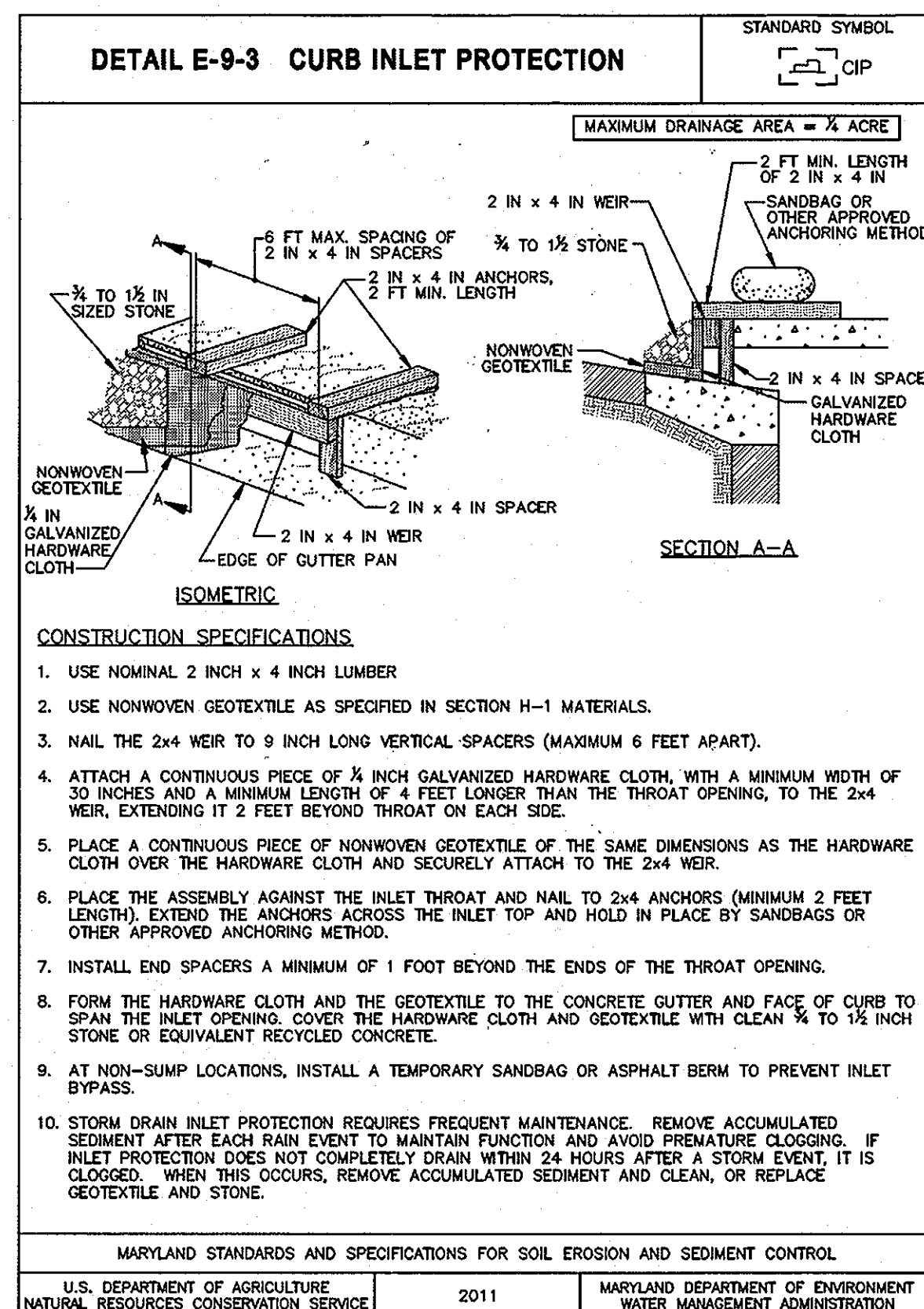
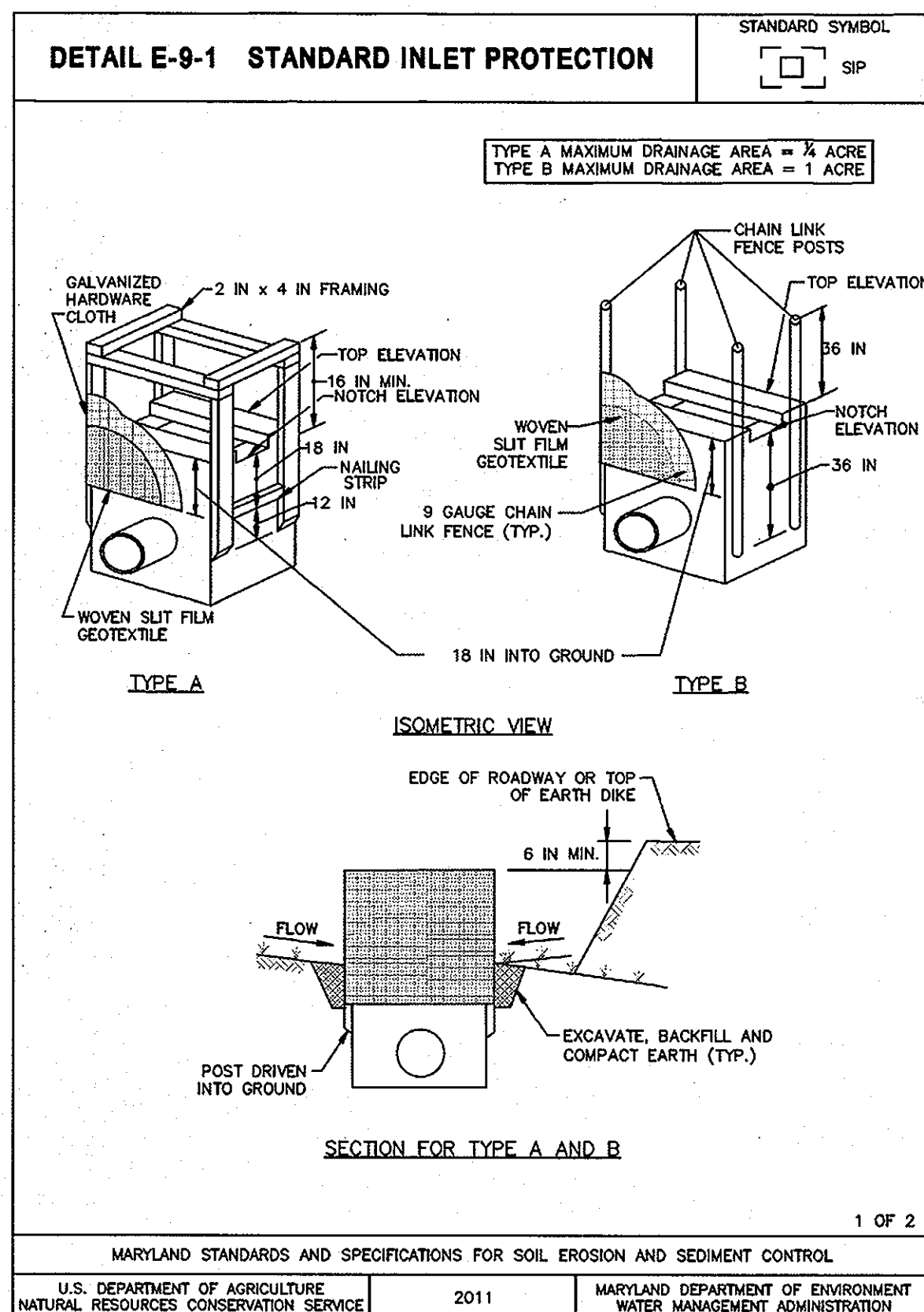
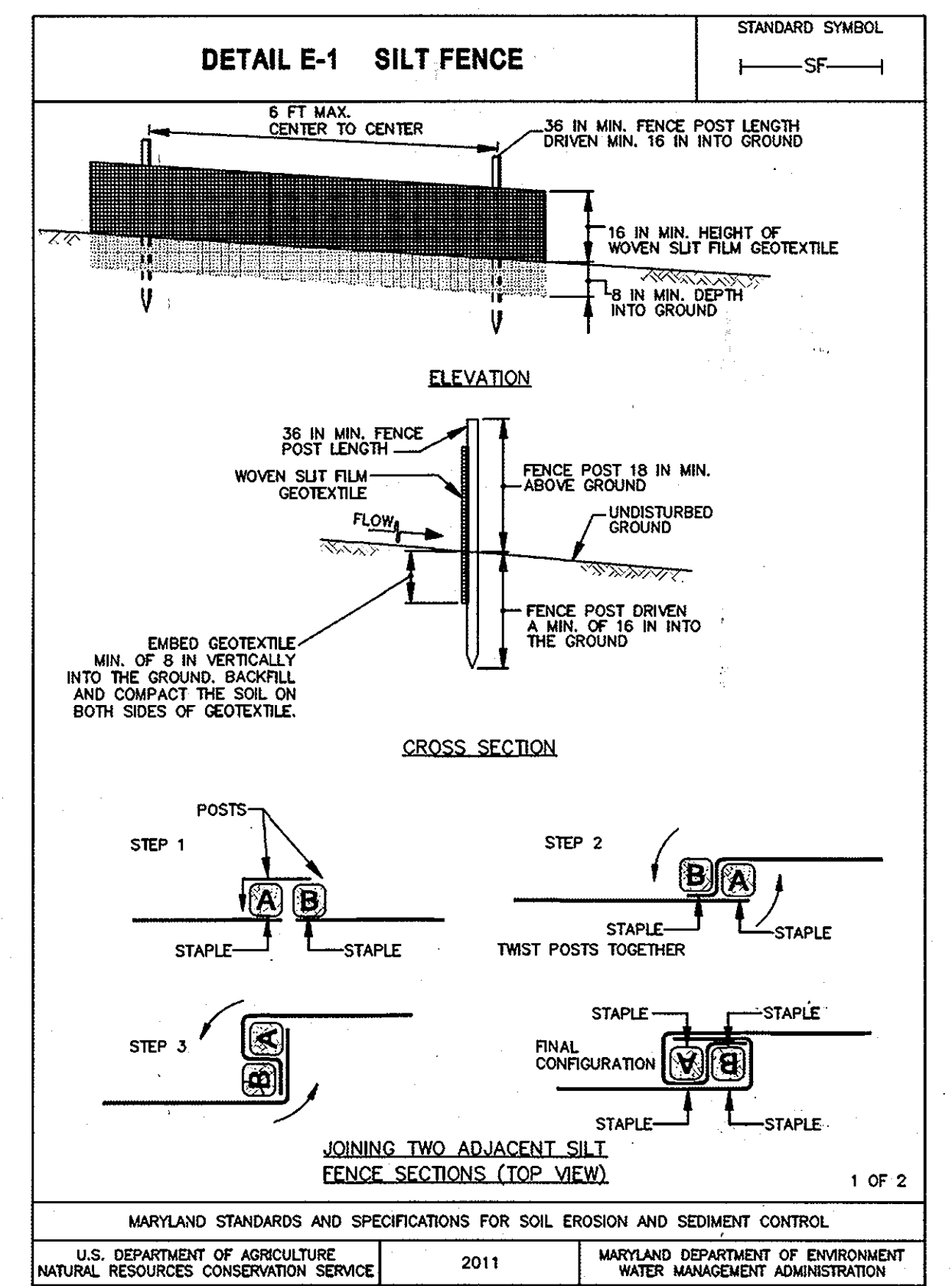
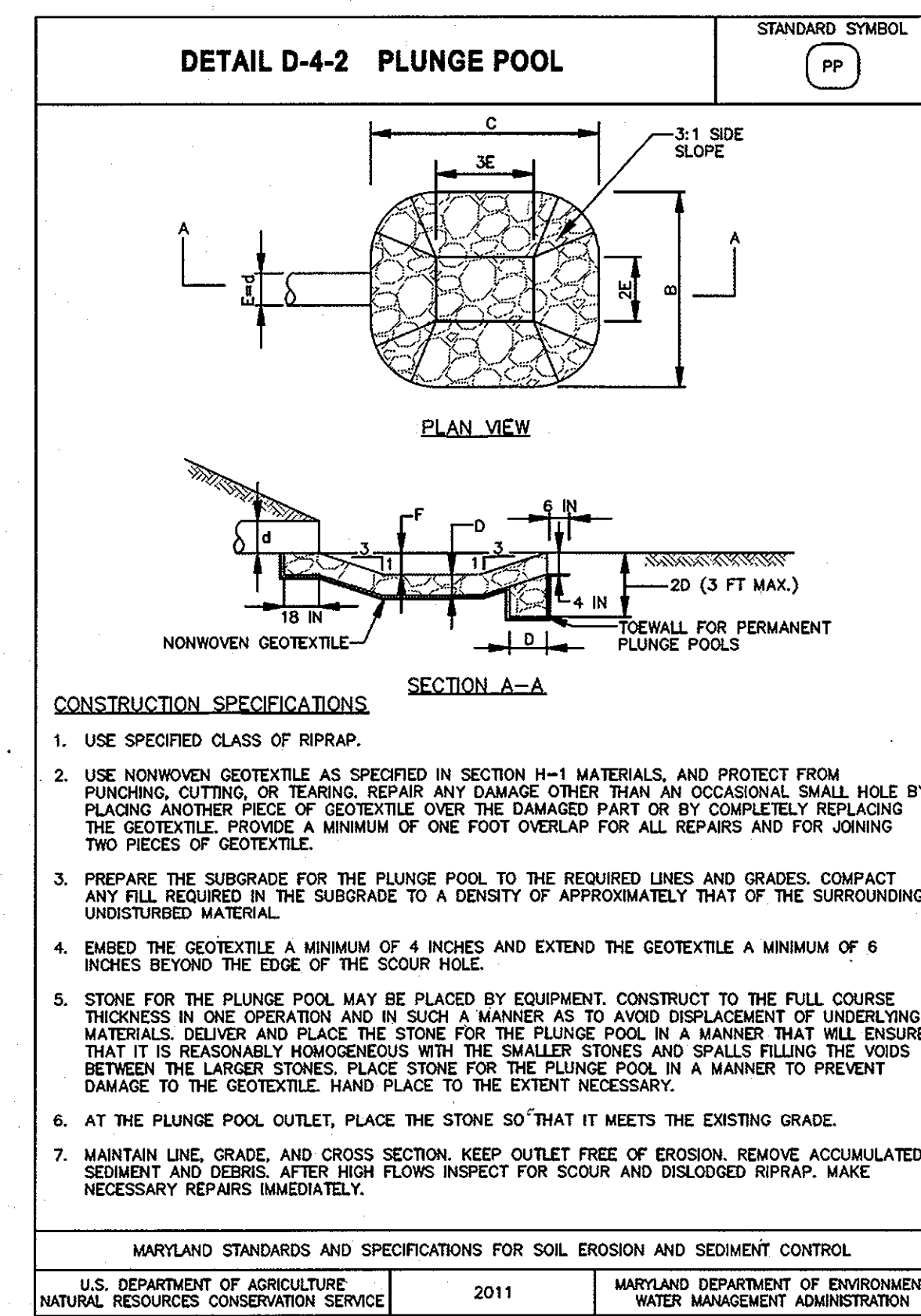
DISCIPLINE ABBREVIATION SC-01

SHEET NO. 22 OF 32



PLUNGE POOL COMPUTATIONS

B	20 FEET
C	22.5 FEET
D	19 INCHES
E	2.5 FEET
F	2.5 FEET
d50	9.5 INCHES
RIPRAP THICKNESS, T	19 INCHES
RIPRAP CLASS	I



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson 7/15/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District"

Sayed A. Skadat 6/28/13
SIGNATURE OF ENGINEER (print name below signature) DATE
SEYED A. SKADAT LIC.# 16493 EX. E-16-2015

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"

Brandon P. Love 7-5-2013
SIGNATURE OF DEVELOPER (print name below signature) DATE
Brandon P. Love

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7/17/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8/01/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 8-1-13
DIRECTOR DATE

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755

[Signature]
PROFESSIONAL ENGINEER
STATE OF MARYLAND
EXPIRES 05/16/2015

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

16493 05/16/2015
License No. Expiration Date

NO.	DESCRIPTION	BY	DATE

APPR CHECK DRAWN DESIGN KWS
DEA
REP

EROSION AND SEDIMENT CONTROL DETAILS

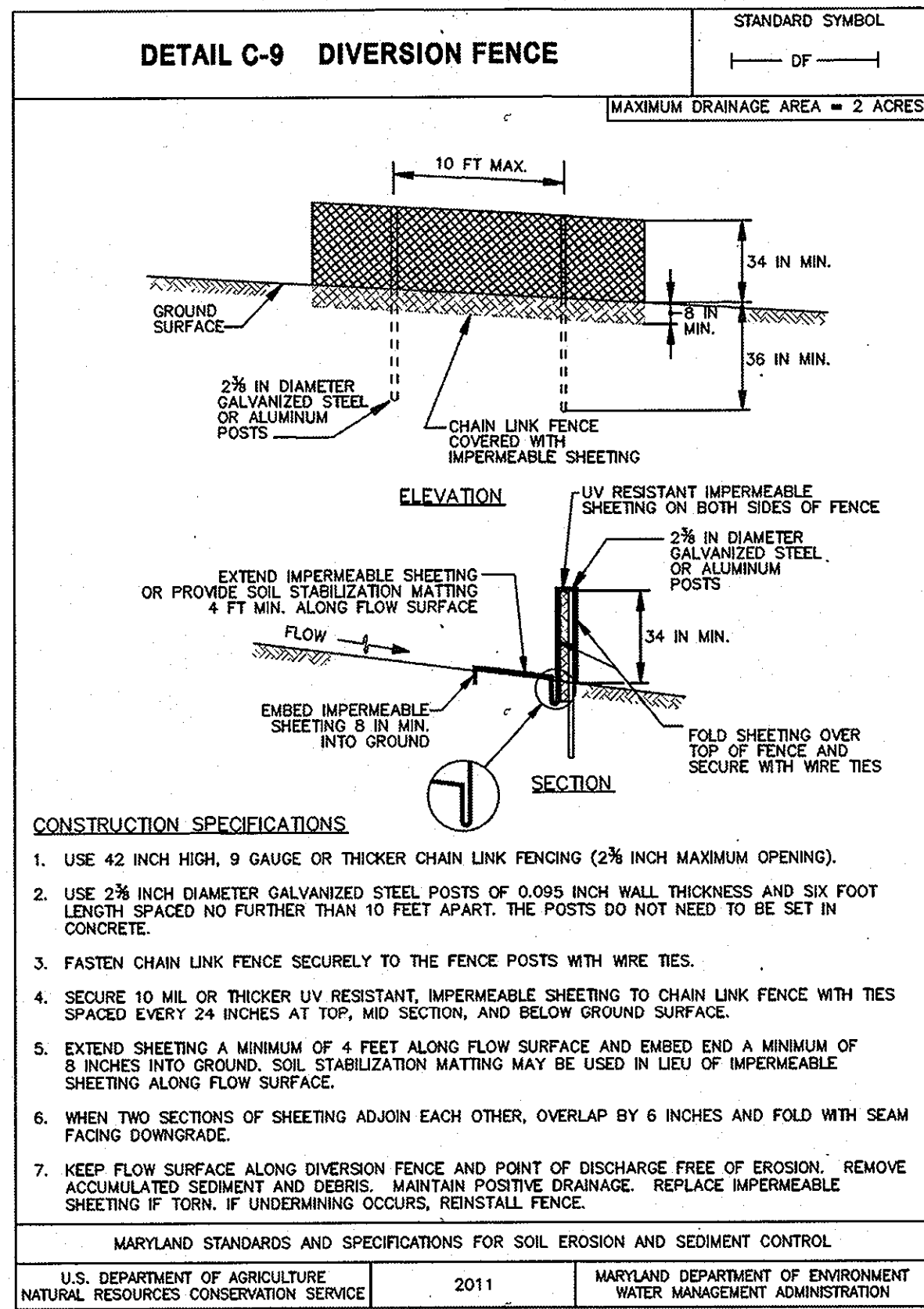
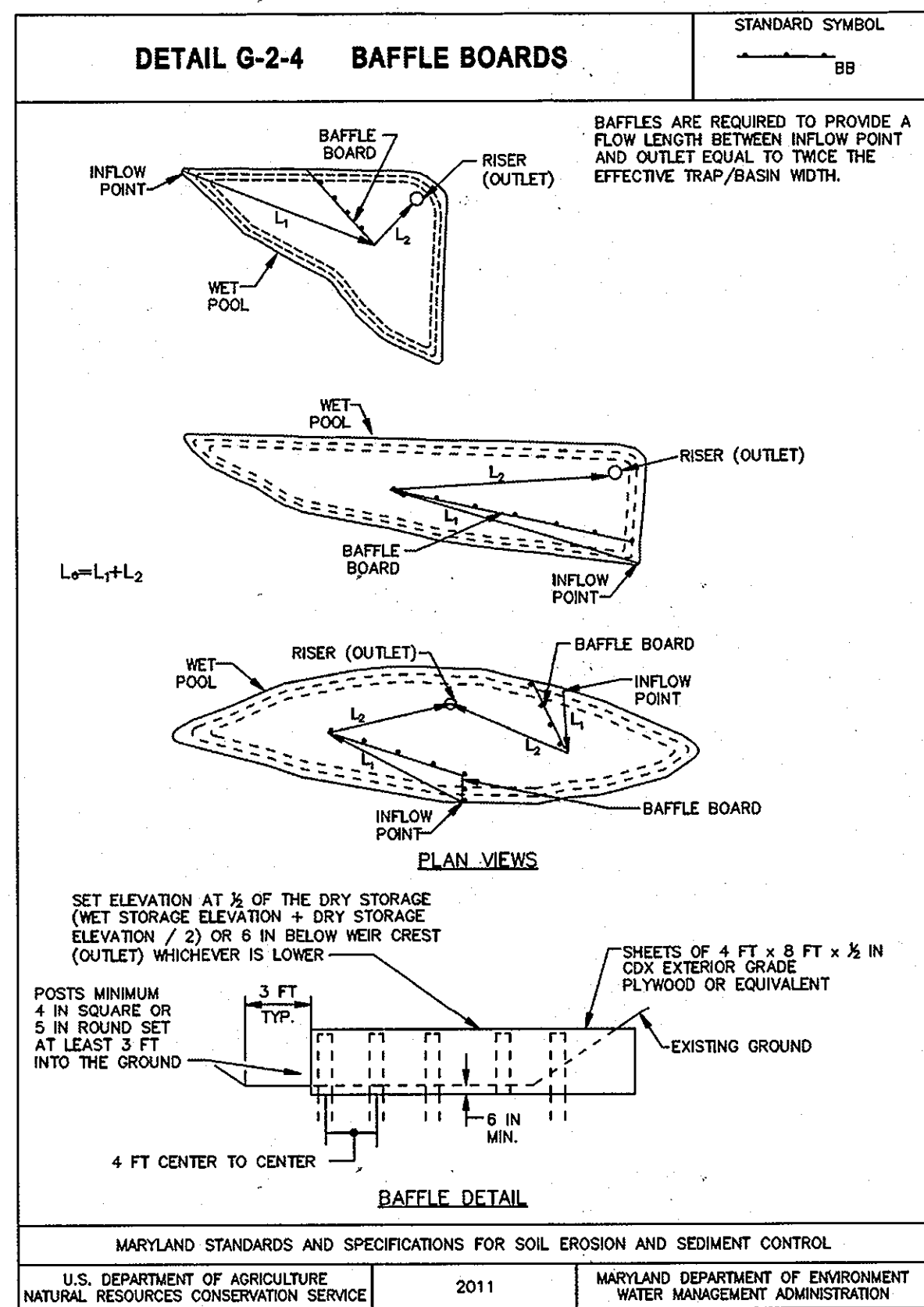
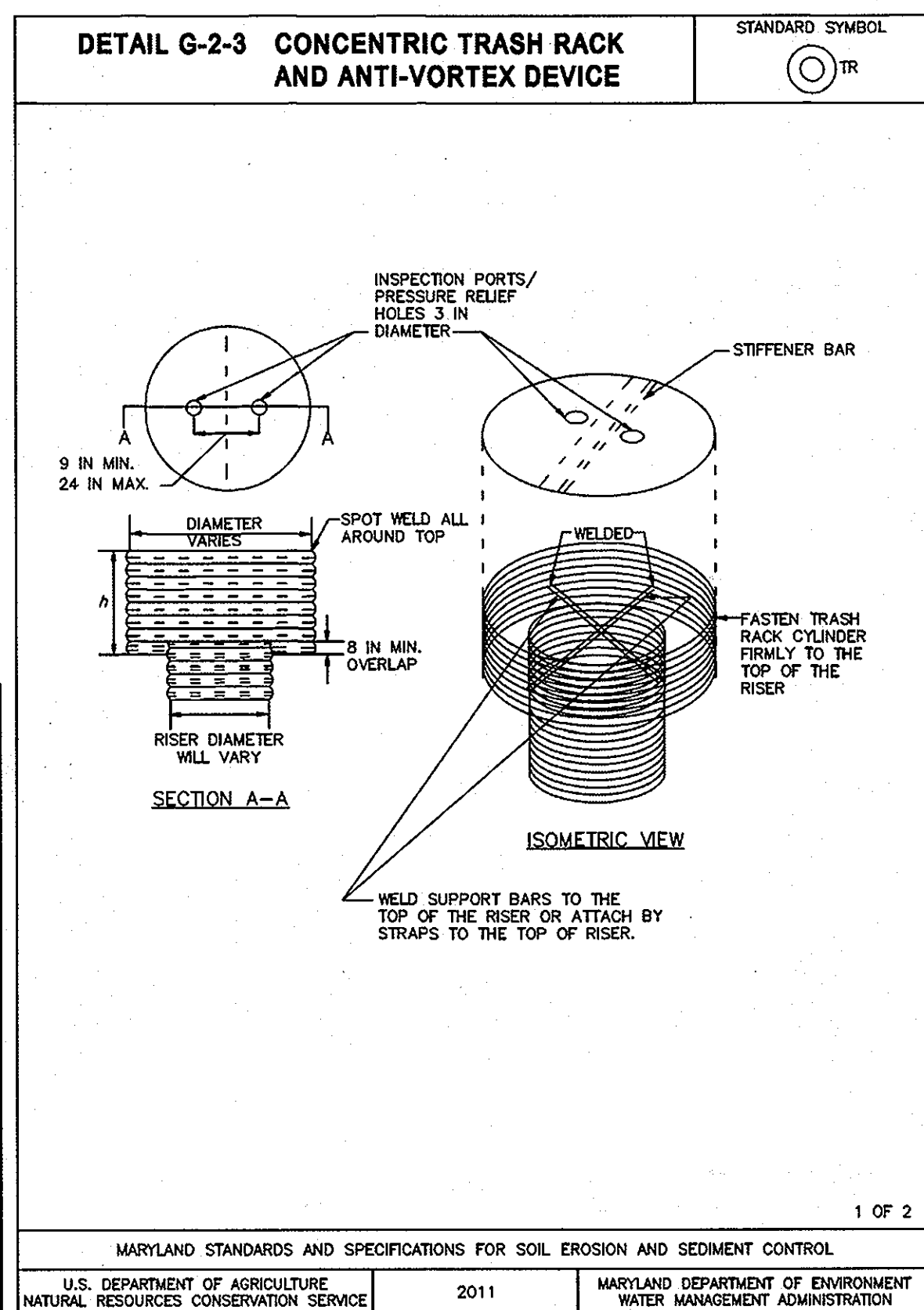
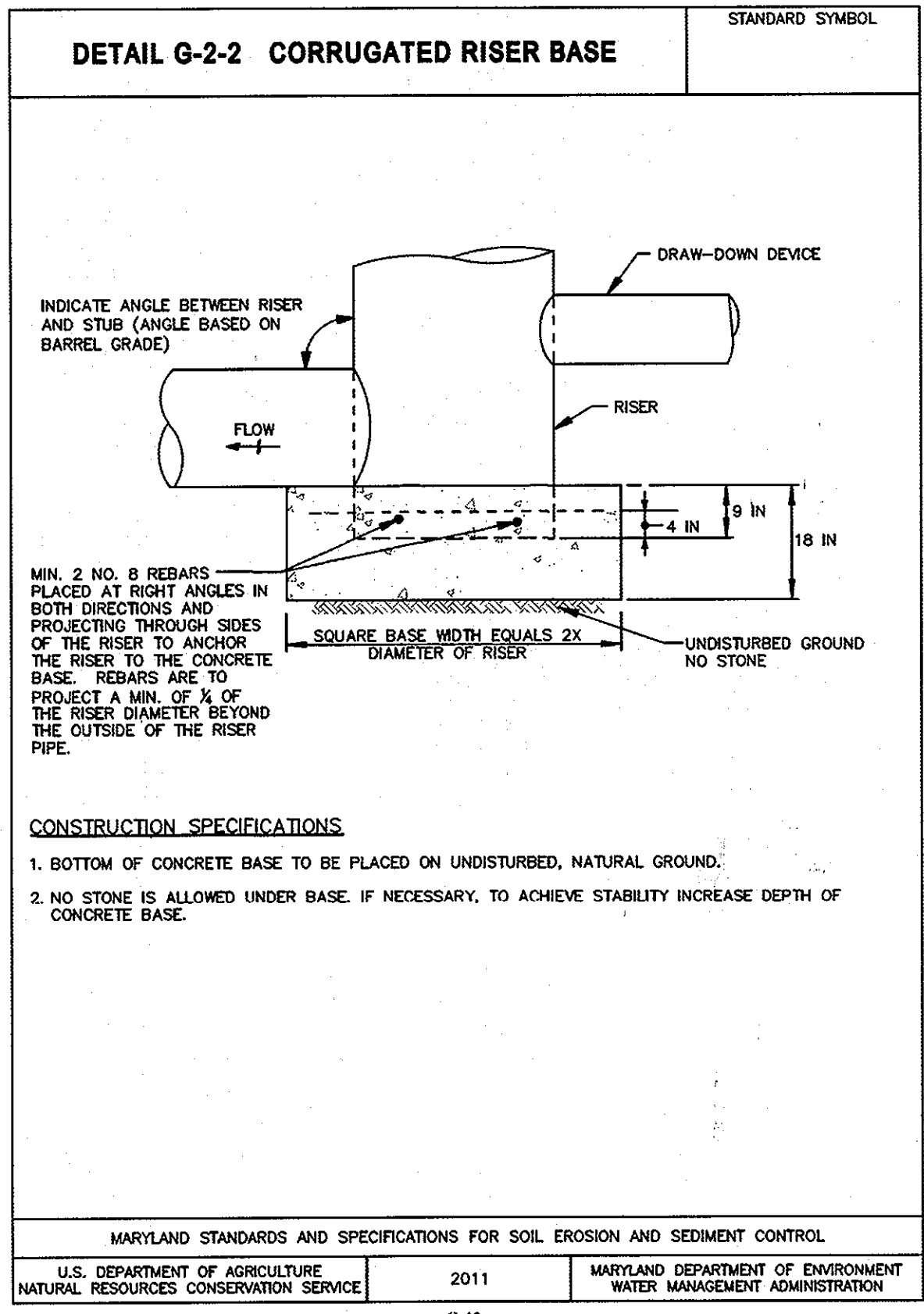
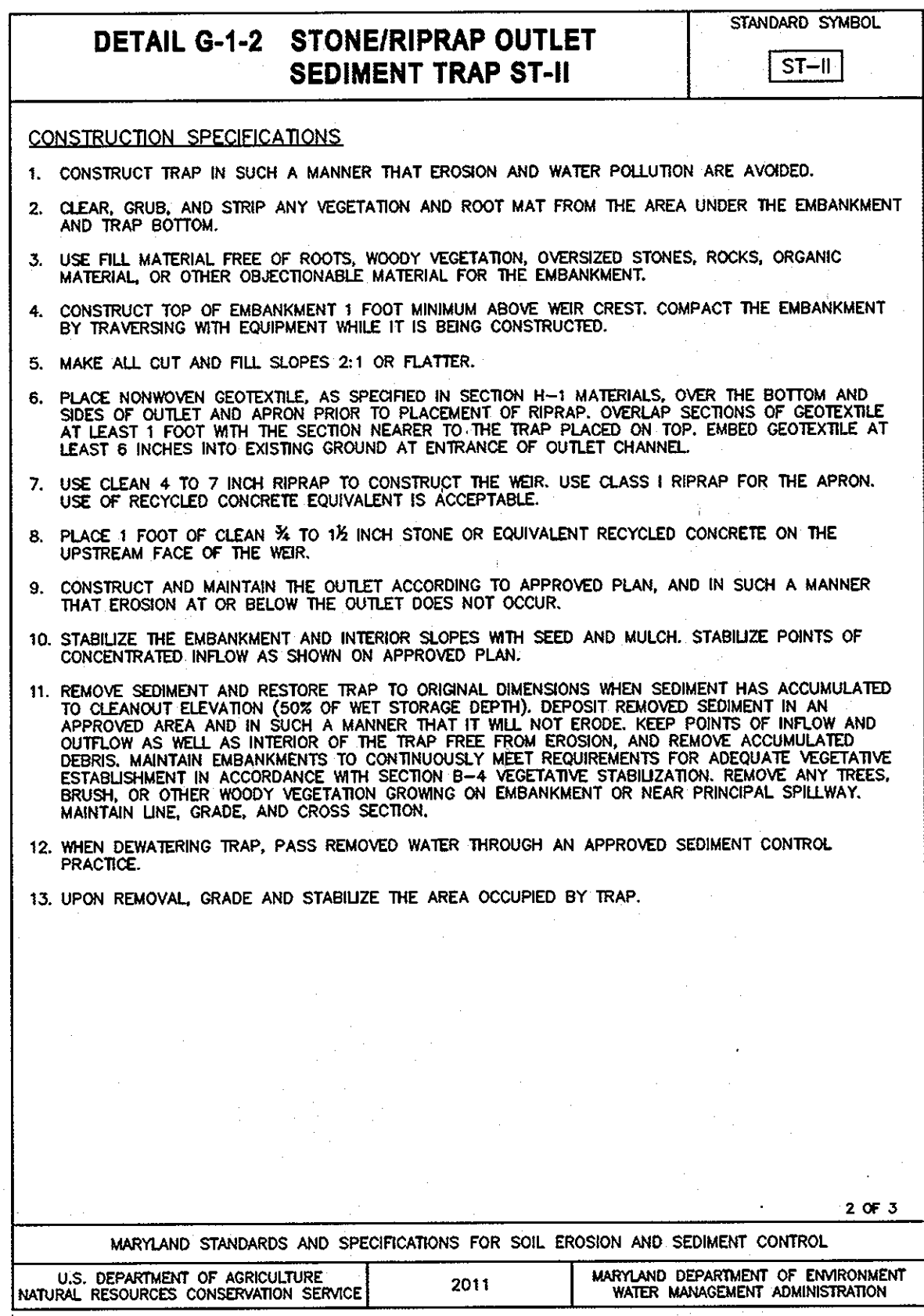
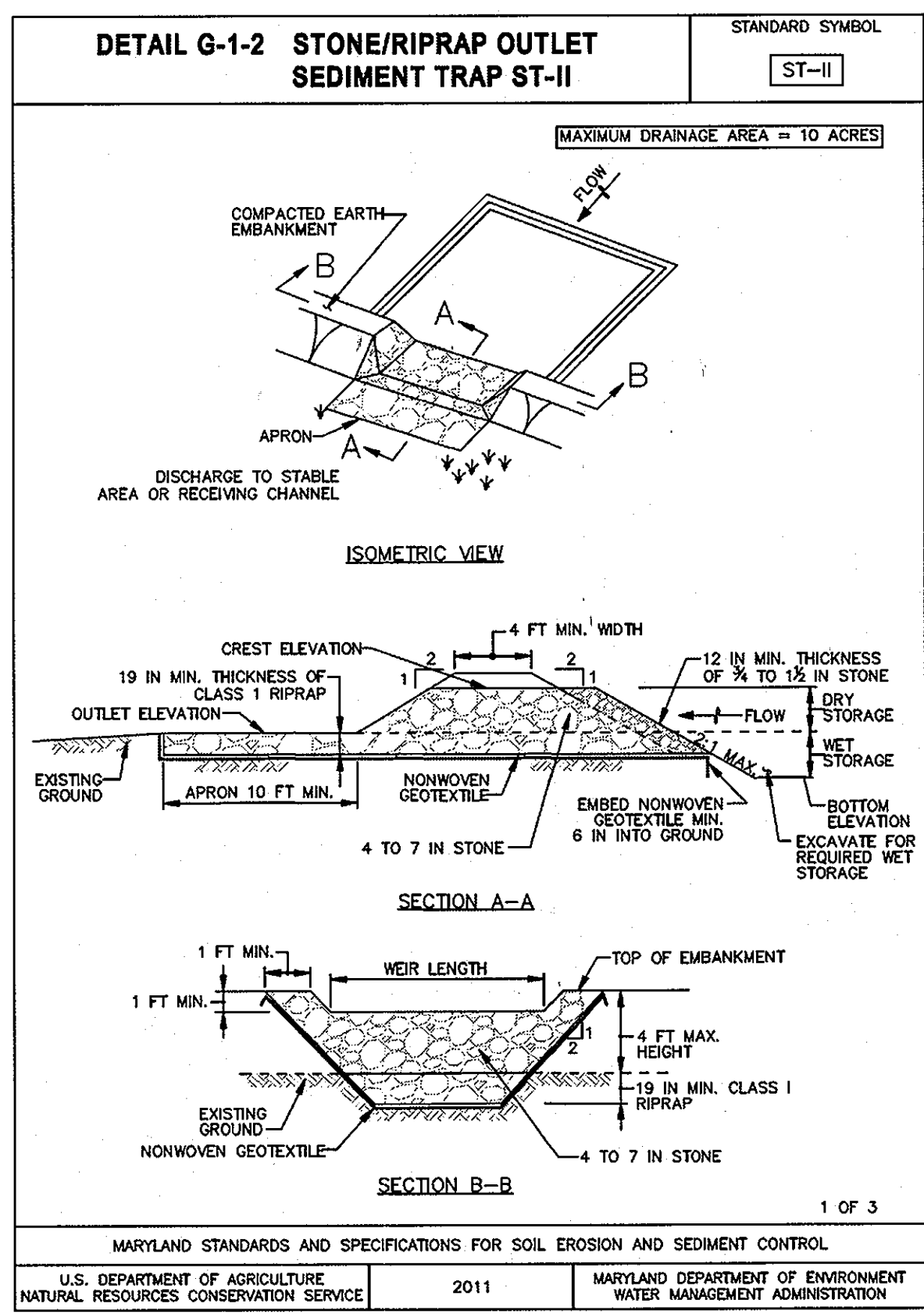
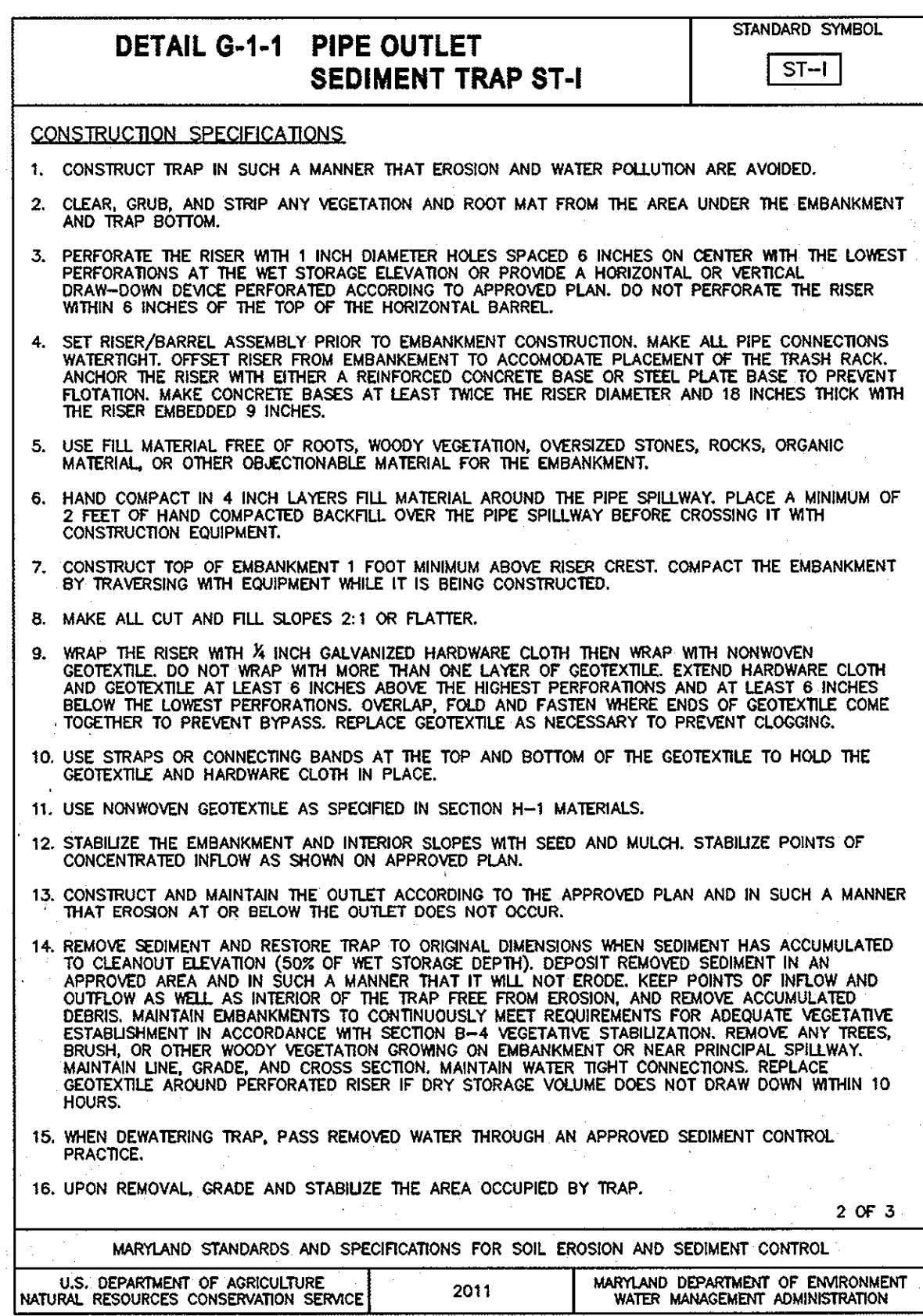
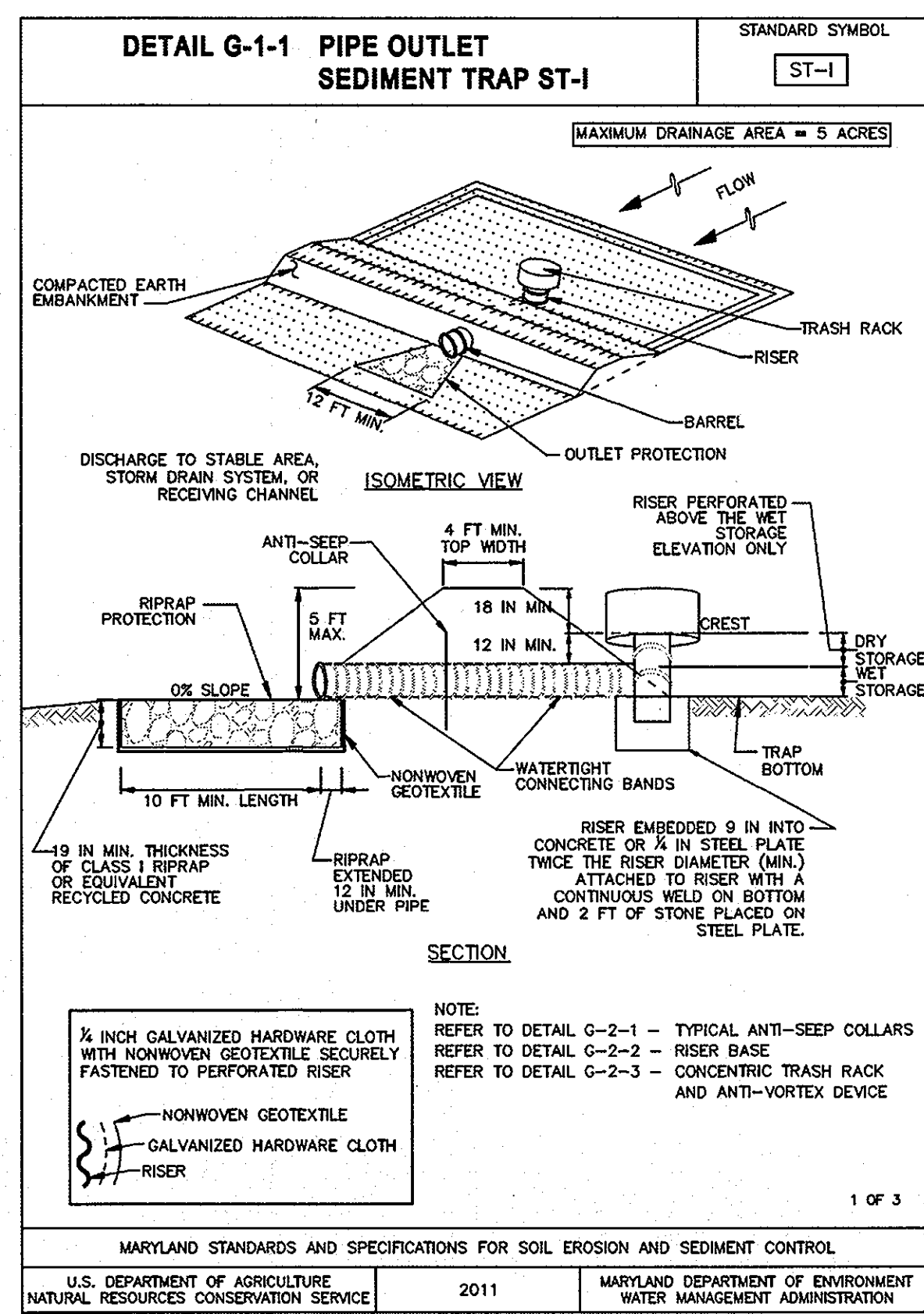
SCALE: AS SHOWN DATE: APRIL 26, 2013

OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SC-03
SHEET NO. 24 OF 32



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John A. Roberts 7/15/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District"

Sayed A. Saadati 6/28/13
 SIGNATURE OF ENGINEER (print name below signature) DATE
 SAYED A. SAADATI LIC. # 16493 EX. 5-16-2015

DEVELOPER'S CERTIFICATE

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Brandon N. Love 7-5-2013
 SIGNATURE OF DEVELOPER (print name below signature) DATE
 BRANDON N. LOVE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kurt Steinhilber 7/17/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 40 DATE
Kimberly Jewell 8-1-13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

16493 05/16/2015
 License No. Expiration Date

NO.	DESCRIPTION	BY	DATE
REVISIONS			

KWS
 DEB
 REP

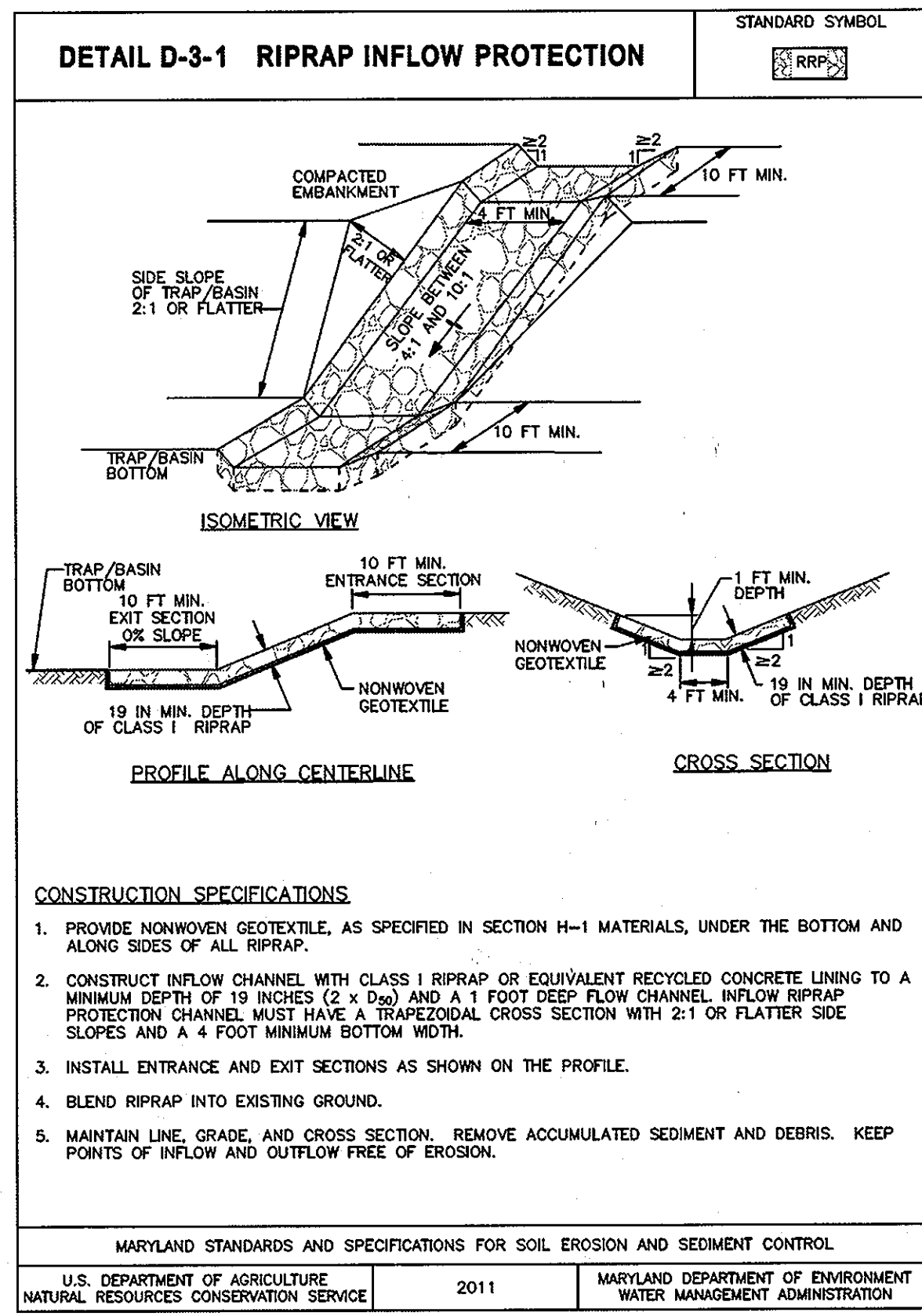
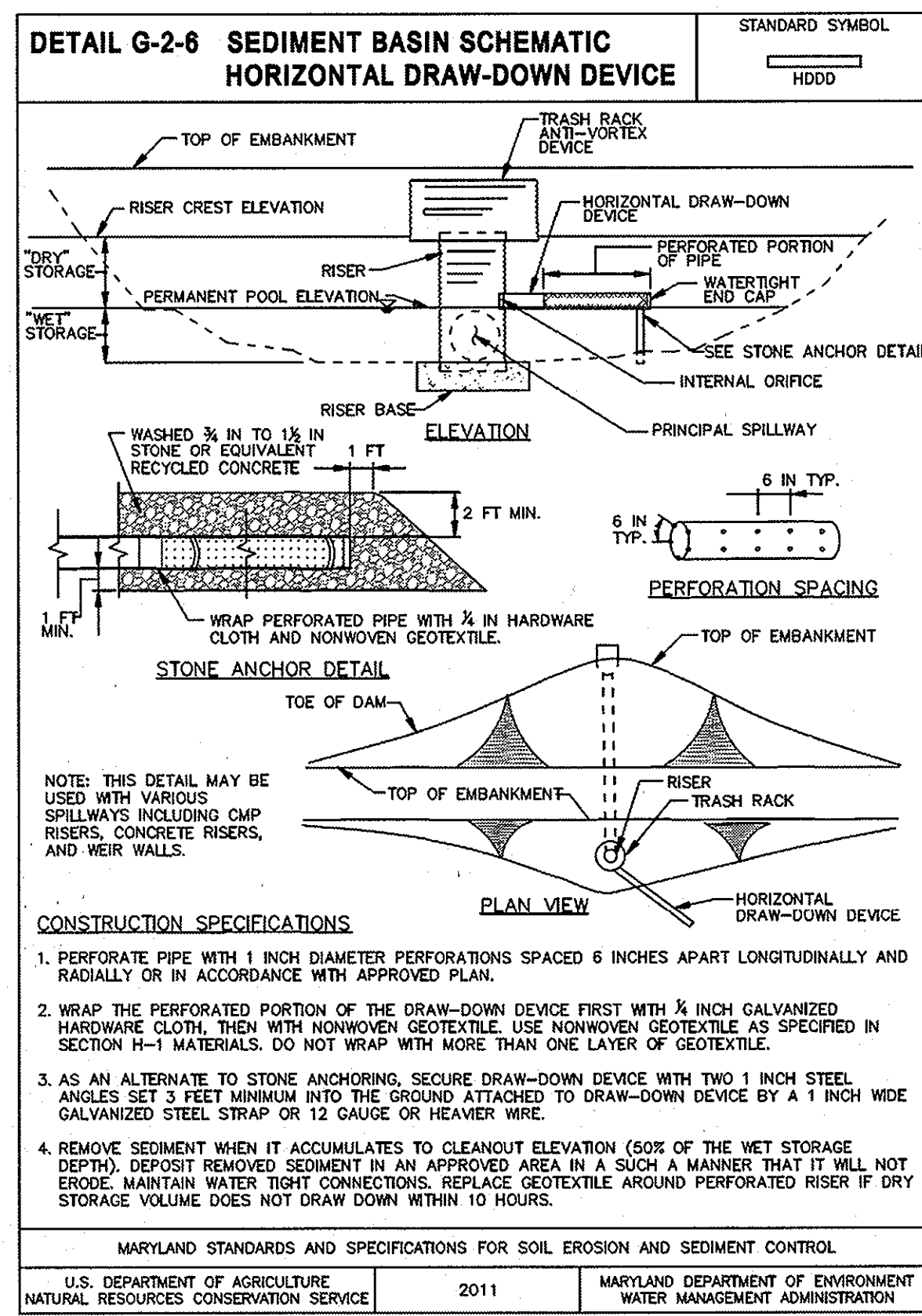
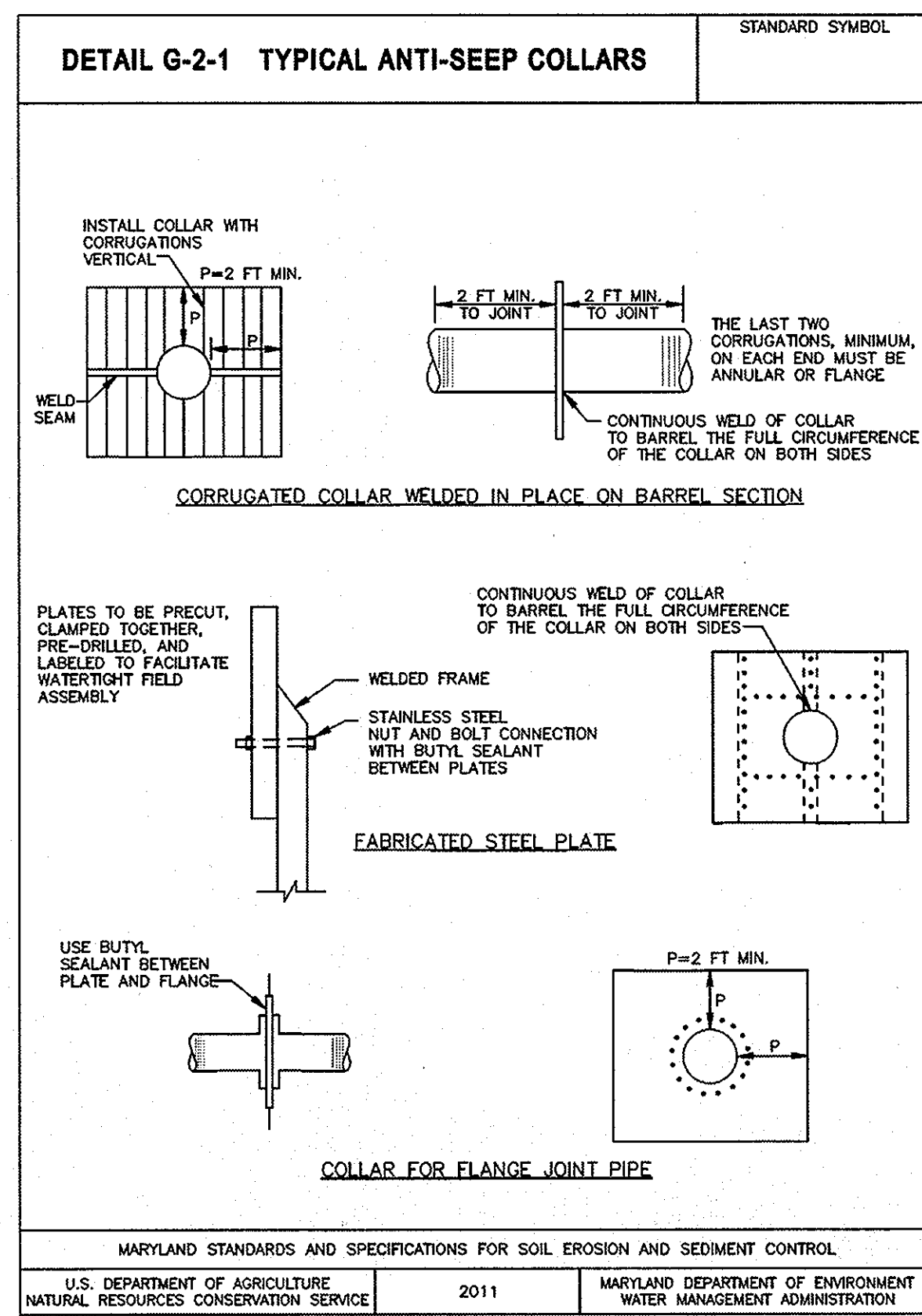
EROSION AND SEDIMENT CONTROL DETAILS

SCALE: AS SHOWN DATE: APRIL 26, 2013

OWNER/DEVELOPER
 Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SC-04
 SHEET NO. 25 OF 32



DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. ON SOUTH CORNER		
DRAINAGE AREA - INITIAL	3.0	ACRES
DRAINAGE AREA - INTERIM	-	ACRES
DRAINAGE AREA - FINAL	0	ACRES
TOTAL STORAGE REQUIRED	10,800	CF
TOTAL STORAGE PROVIDED	11,500	CF
WET STORAGE REQUIRED	5,400	CF
WET STORAGE PROVIDED	6,000	CF
DRY STORAGE REQUIRED	5,400	CF
DRY STORAGE PROVIDED	5,500	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	230.50	FT
TRAP BOTTOM ELEVATION	229.10	FT
TRAP BOTTOM DIMENSIONS	27' x 80' + 27' x 53'	FT x FT
WEIR LENGTH	12	FT
WEIR CREST (DRY STORAGE) ELEVATION	231.60	FT
CLEANOUT ELEVATION	229.80	FT
TOP OF EMBANKMENT ELEVATION	232.60	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - DEPTH	19"	IN

DETAIL G-1-1 PIPE OUTLET SEDIMENT TRAP ST-I

PIPE OUTLET SEDIMENT TRAP ST-I, TRAP NO. ON WEST CORNER		
DRAINAGE AREA - INITIAL	2.1	ACRES
DRAINAGE AREA - INTERIM	-	ACRES
DRAINAGE AREA - FINAL	0	ACRES
TOTAL STORAGE REQUIRED	7,560	CF
TOTAL STORAGE PROVIDED	8,130	CF
WET STORAGE REQUIRED	3,780	CF
WET STORAGE PROVIDED	4,000	CF
DRY STORAGE REQUIRED	3,780	CF
DRY STORAGE PROVIDED	4,130	CF
TRAP BOTTOM ELEVATION	221.50	FT
TRAP BOTTOM DIMENSIONS	33' x 71'	FT x FT
RISER CREST (DRY STORAGE) ELEVATION	224.50	FT
OUTLET (WET STORAGE) ELEVATION	223.20	FT
CLEANOUT ELEVATION	223.35	FT
TOP OF EMBANKMENT ELEVATION	226.0	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	6.0	FT
PRINCIPAL SPILLWAY MATERIAL (BARREL, RISER, ANTI-SEEP COLLAR)	HDPE	
RISER DIAMETER	33"	IN
BARREL DIAMETER	24"	IN
TRASH RACK DIAMETER	48"	IN
TRASH RACK HEIGHT	23"	IN
ANTI-SEEP COLLAR DIMENSIONS	2.0'	FT
OUTLET PROTECTION - LENGTH	PLUNGE POOL	FT
OUTLET PROTECTION - WIDTH	PLUNGE POOL	FT
OUTLET PROTECTION - DEPTH	PLUNGE POOL	IN

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. [Signature] 7/15/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District"

Sayed A. Sadat 6/26/13
 SIGNATURE OF ENGINEER (print name below signature) DATE
 Sayed A. SADAT LIC. # 16493 EXP. 5-16-2015

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"

Brandon M. Love 7-5-2013
 SIGNATURE OF DEVELOPER (print name below signature) DATE
 Brandon P. Love

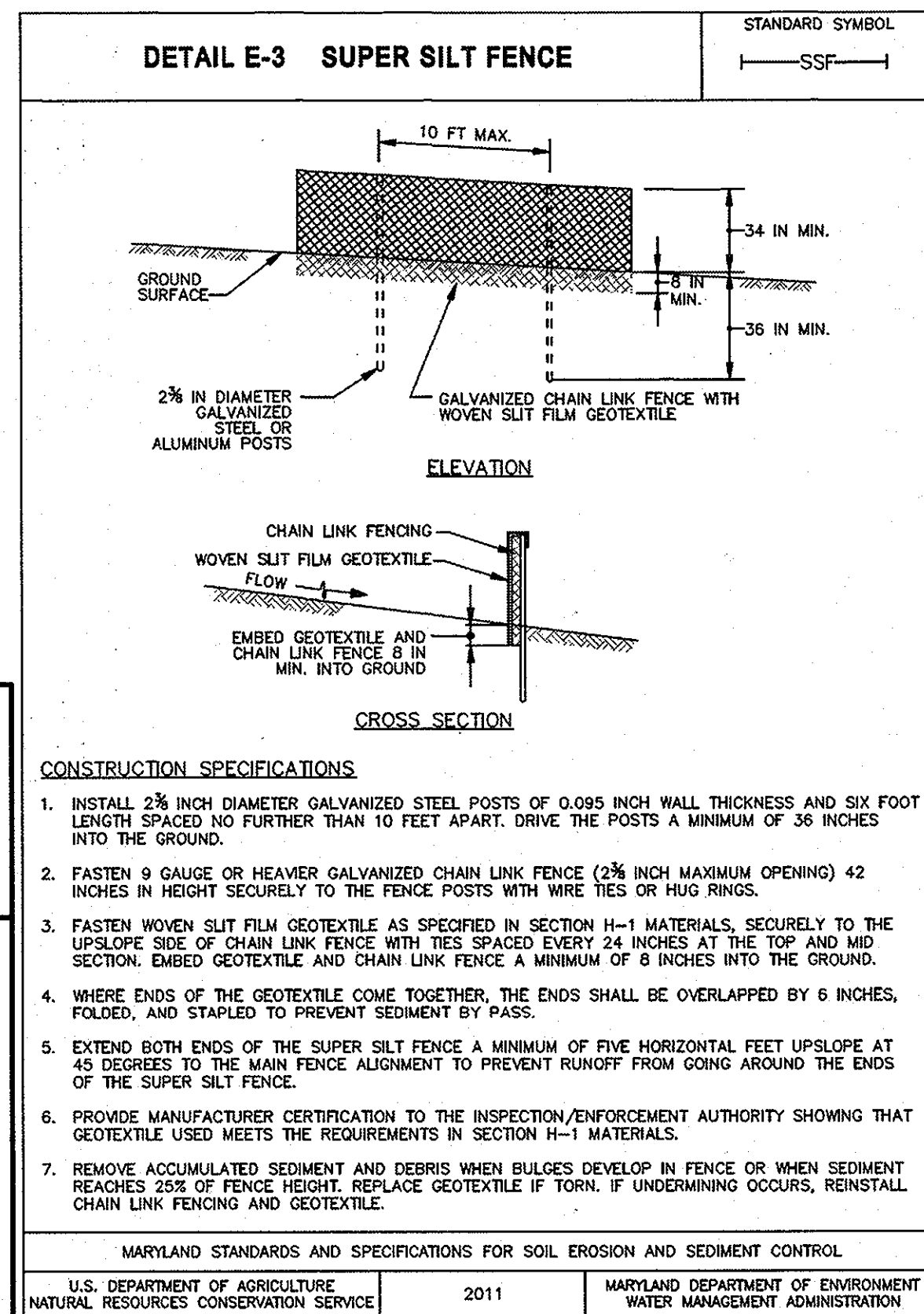


Table B.1: Temporary Seeding for Site Stabilization

Plant Species	Seeding Rate ^{1/}		Seeding Depth ^{2/} (inches)	Recommended Seeding Dates by Plant Hardiness Zone ^{3/}
	lb/ac	lb/1000 ft ²		
Cool-Season Grasses				
Annual Ryegrass (<i>Lolium perenne ssp. multiflorum</i>)	40	1.0	0.5	Mar 1 to May 15; Aug 1 to Oct 15
Barley (<i>Hordeum vulgare</i>)	96	2.2	1.0	Mar 1 to May 15; Aug 1 to Oct 15
Oats (<i>Avena sativa</i>)	72	1.7	1.0	Mar 1 to May 15; Aug 1 to Oct 15
Wheat (<i>Triticum aestivum</i>)	120	2.8	1.0	Mar 1 to May 15; Aug 1 to Oct 15
Cereal Rye (<i>Secale cereale</i>)	112	2.8	1.0	Mar 1 to May 15; Aug 1 to Nov 15
Warm-Season Grasses				
Foxtail Millet (<i>Setaria italica</i>)	30	0.7	0.5	May 16 to Jul 31
Pearl Millet (<i>Pennisetum glaucum</i>)	20	0.5	0.5	May 16 to Jul 31

NOTES:

1/ 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 usually not needed for the cool-season grasses.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses.

2/ For sandy soils, plant seeds at twice the depth listed above.

3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

B.20

6/27/2013
 \$FILES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7/17/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 8/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
[Signature] 8-1-13
 DIRECTOR DATE

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 [Signature]

16493 05/16/2015
 License No. Expiration Date

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

NO.	DESCRIPTION	BY	DATE
REVISIONS			

EROSION AND SEDIMENT CONTROL DETAILS

SCALE:	DATE:
AS SHOWN	APRIL 26, 2013

OWNER/DEVELOPER

Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION SC-05
 SHEET NO. 26 OF 32

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 SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). 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.
- SITE ANALYSIS:

TOTAL AREA OF SITE:	6.45	ACRES
AREA DISTURBED:	6.45	ACRES
AREA TO BE ROOFED OR PAVED:	4.68	ACRES
AREA TO BE VEGETATIVELY STABILIZED:	1.77	ACRES
TOTAL CUT:	5,945	CU. YDS.
TOTAL FILL:	4,366	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION:		
- ANY SEDIMENT CONTROL PRACTICE WHICH 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 WORK DAY, WHICHEVER IS SHORTER.

SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT.
- CONTACT HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION TO SCHEDULE A PRE-CONSTRUCTION MEETING.

PHASE I - SEDIMENT CONTROL

- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- CLEAR AND GRUB ALONG PERIMETER OF THE SITE ENOUGH TO INSTALL PERIMETER CONTROLS, STORMDRAIN FROM HW-1 TO M-1, AND TRAPS. INSTALL PERIMETER CONTROLS, I.E. EARTH DIKES, SILT FENCE, AND SUPER SILT FENCE, IN ACCORDANCE WITH THE E&S PLAN.
- CONSTRUCT STORMDRAIN FROM HW-1 TO M-2 AND STUB PIPE FOR I-1, INCLUDING PLUNGE POOL AT OUTFALL. ALL DISTURBED AREA SHALL BE STABILIZED BY THE END OF EACH DAY.
- DEWATER THE TWO (2) EXISTING SEDIMENT TRAPS AND CONSTRUCT TWO (2) TRAPS IN CORNERS OF THE SITE. INSTALL DIVERSION FENCE AND EARTH DIKES. PROVIDE POSITIVE DRAINAGE FROM THE DIKES INTO THE TRAPS.
 - THE TRAP IN THE WEST CORNER TO BE ST-II WITH TRASH RACK, ANTI-VORTEX DEVICE, RISER, OUTFALL BARREL CONNECTING M-1 AND ANTI-SEEP COLLAR.
 - THE TRAP IN THE SOUTHEAST CORNER TO BE ST-I WITH A RIPRAP WEIR CREST AND OUTFALL.
- WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB THE REMAINING SITE.

PHASE II - SEDIMENT CONTROL

- INSTALL THE REMAINDER OF THE STORMDRAIN SYSTEM EXCEPT FOR THE 12" PVC PIPE FROM THE FLOW-SPLITTER AT I-1. BLOCK THE 12" OPENING AT THE FLOW-SPLITTER. INSTALL INLET PROTECTION IMMEDIATELY AFTER CONSTRUCTION OF THE INLET. AT NO TIME WILL UNTREATED WATER ENTER INTO THE TRAP THROUGH THE FLOW-SPLITTER. POSITIVE SURFACE DRAINAGE TO THE TRAPS IS TO BE MAINTAINED UNTIL PROTECTION IS INSTALLED ON THE STORMDRAIN INLETS.
- FINE GRADE THE SITE INCLUDING CONSTRUCTION OF THE BUILDING AND PARKING LOT.
- WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE TRAP ST-II, EARTH DIKES AND DIVERSION FENCE AND CLOSE GAP IN SILT FENCE.
- WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, CONVERT ST-I ON WEST CORNER TO A SUBMERGED GRAVEL WETLAND INCLUDING INSTALLATION OF THE LINER, RIPRAP, FOREBAY, 12" PVC INFLOW PIPE FROM THE FLOW SPLITTER AT I-1, AND THE OVERFLOW INLET S-1 LOCATED WITHIN THE SUBMERGED GRAVEL WETLAND.
- STABILIZE AREAS DISTURBED DURING CONSTRUCTION.
- WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE INLET PROTECTION AND OPEN THE FLOW-SPLITTER AT I-1.
- REMOVE PERIMETER SEDIMENT CONTROLS AND STABILIZE AREAS DISTURBED DURING REMOVAL.

HOWARD SOIL CONSERVATION DISTRICT
PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. PREFERRED -- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (90 IBS/1000 SQ. FT.) AND 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 150 IBS/ACRE 46-0-0 UREAFORM FERTILIZER (3.5 IBS/1000 SQ. FT.)

2. ACCEPTABLE -- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (90 IBS/1000 SQ. FT.) AND 1000 IBS/ACRE 10-10-10 FERTILIZER (23 IBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING -- FOR THE PERIODS MARCH 1 -- MAY 15, AND AUGUST 1 -- OCTOBER 15, SEED WITH 60 IBS/ACRE (1.4 IBS/1000 SQ. FT.) OF TALL FESCUE, KENTUCKY BLUEGRASS. FOR THE PERIOD MAY 16 -- JULY 31, SEED WITH 60 IBS TALL FESCUE, KENTUCKY BLUEGRASS PER ACRE AND 2 IBS/ACRE (.05 IBS/100() SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 -- FEBRUARY 28, PROTECT SITE BY:
OPTION 1 -- TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.
OPTION 2 --USE SOD. OPTION 3 --- SEED: WITH 60 IBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING -- APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE -- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS. APPLY 500 IBS/ACRE 10-10-10 FERTILIZER (11.5 IBS/1000 SQ. FT.) YEARLY AS NEEDED.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: -- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: -- APPLY 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.).

SEEDING: -- FOR PERIODS MARCH 1 -- APRIL 15 AND FROM AUGUST 1 -- OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 IBS/1000 SQ. FT.). FOR THE PERIOD MAY 16 -- JULY 31, SEED WITH 3 IBS/ACRE OF FOXTAL MILLET (.07 IBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 -- FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: -- APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

HYDROLOGIC SOIL GROUP

HYDROLOGIC SOIL GROUP - SUMMARY BY MAP UNIT - HOWARD COUNTY, MARYLAND (MD027)				
MAP UNIT SYMBOL	MAP UNIT NAME	RATING	ACRES IN AOI	PERCENT OF AOI
EdC	EVESBORO LOAMY SAND, 2 TO 10 PERCENT SLOPES	A	0.0	0.1%
UID	URBAN LAND-UDORMENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D	5.8	99.9%
TOTALS FOR AREA OF INTEREST			5.8	100.0%

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District"

Sayed A. Sabachat 6/28/13
SIGNATURE OF ENGINEER (print name below signature) DATE
SEYED A. SAKHAT LIC. # 16743 EX. 5-16-2015

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"

Brandon M. Love 7-5-2013
SIGNATURE OF DEVELOPER (print name below signature) DATE
Brandon M. Love

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John P. Robertson 7/15/13
HOWARD SOIL CONSERVATION DISTRICT DATE

OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Robert J. ... 7/17/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION Aw DATE
Robert J. ... 8/01/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Robert J. ... 8-1-13
DIRECTOR DATE



CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

16493 05/16/2015
License No. Expiration Date

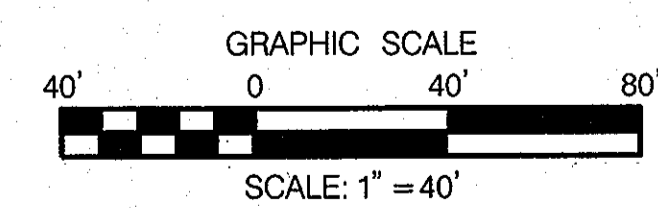
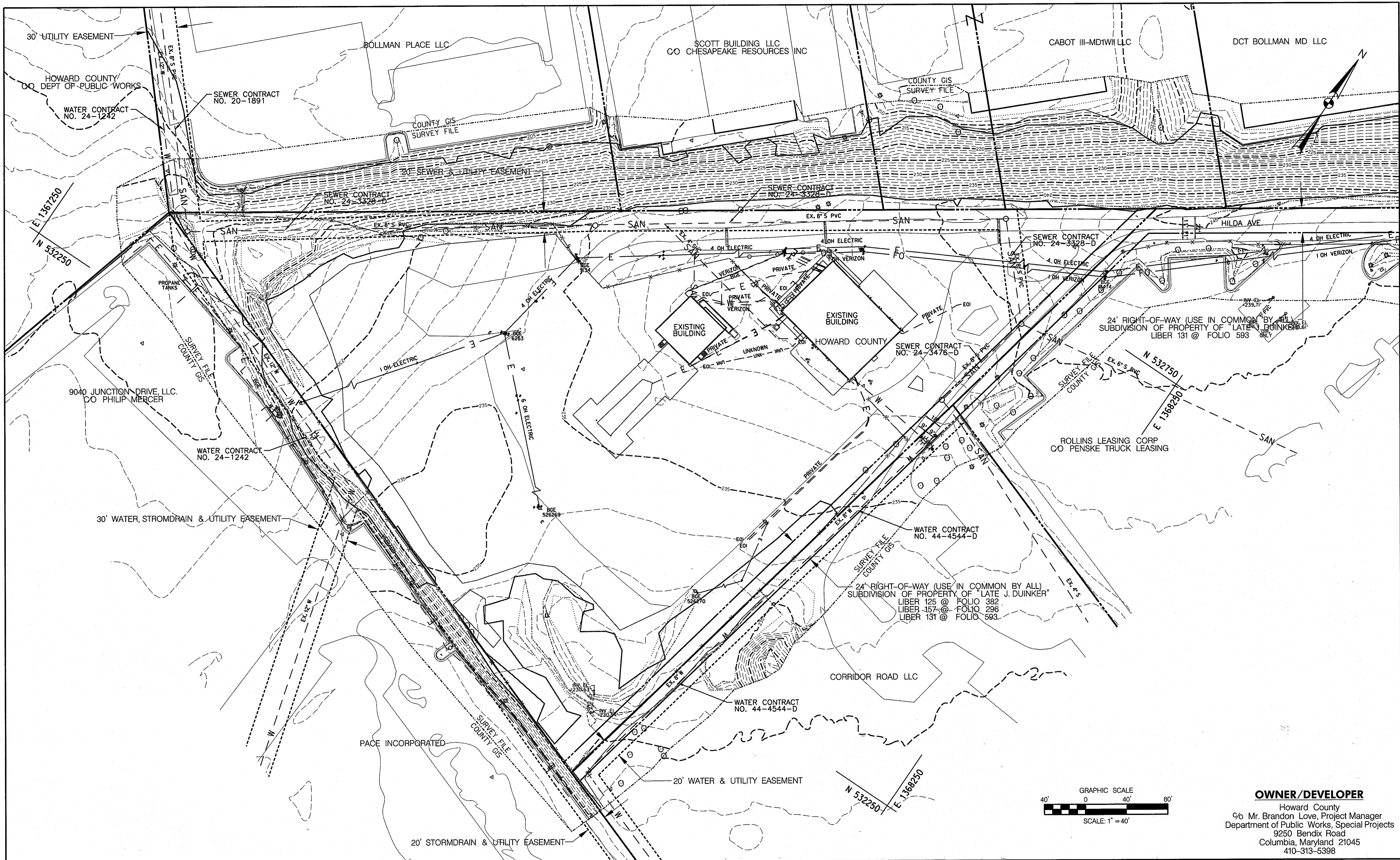
NO.	DESCRIPTION	BY	DATE
	REVISIONS		

APPR	CHECK	DESIGN
		KWS
		DEA
		REP

EROSION AND SEDIMENT CONTROL NOTES

SCALE: N/A DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY		DISCIPLINE ABBREVIATION
(LOT 1 OF THE LATE J. DUINKER SUBDIVISION) TAX MAP 48 GRID 13 CAPITAL PROJECT NO: C-0289 PARCEL 75 6TH ELECTION DISTRICT HOWARD COUNTY, MD		SC-06
		SHEET NO. 27 OF 32

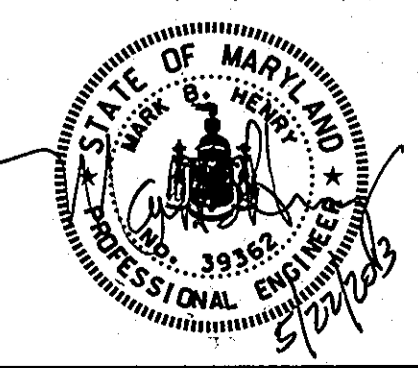


OWNER/DEVELOPER

Howard County
 % Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 6/11/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 2/01/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE 8/1/13
 DIRECTOR

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 39362 09/24/2014
 License No. Expiration Date

NO.	DESCRIPTION	BY	DATE

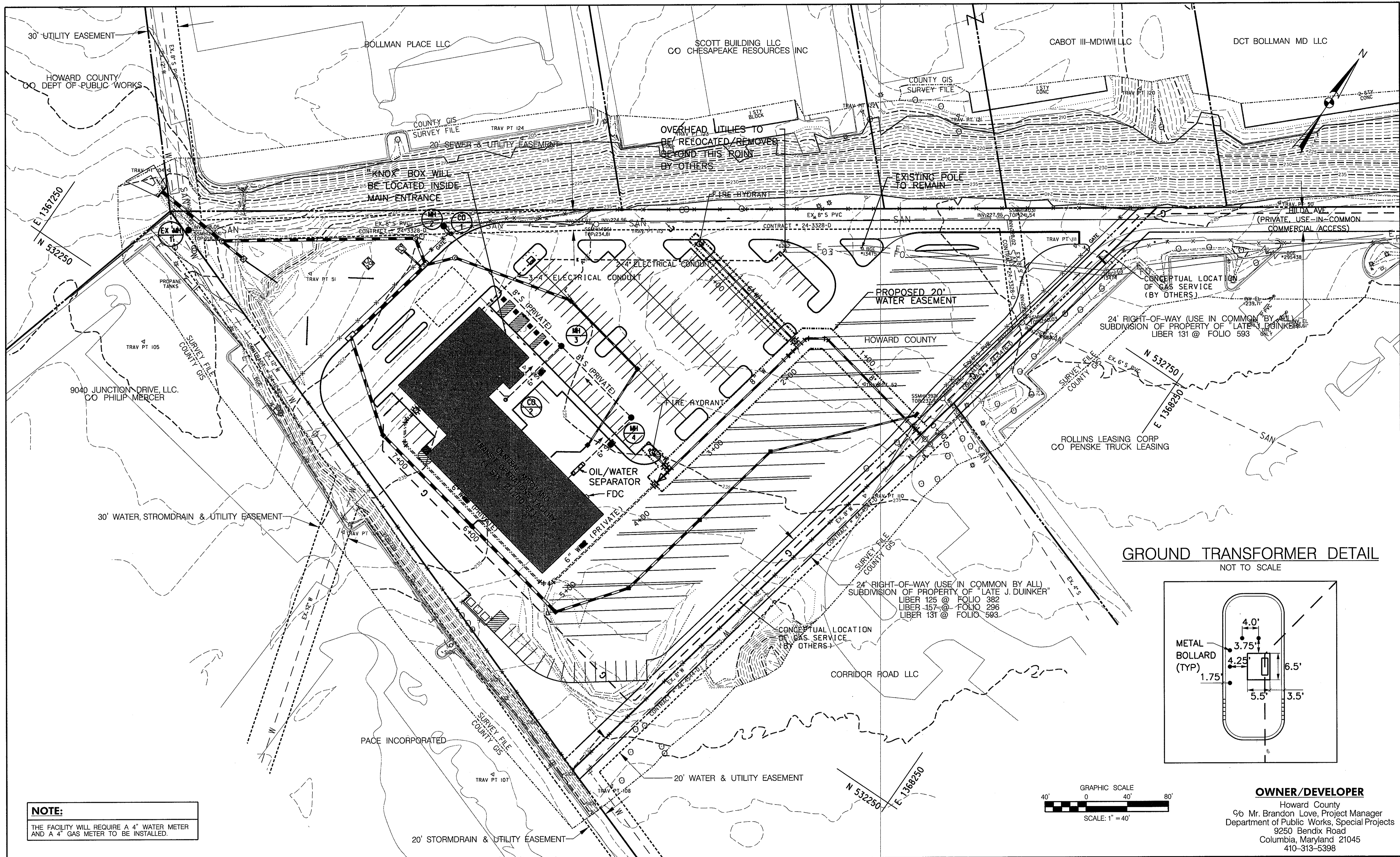
DESIGN: JRN
 CHECK: JRN
 MBH

EXISTING UTILITY COMPOSITE PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

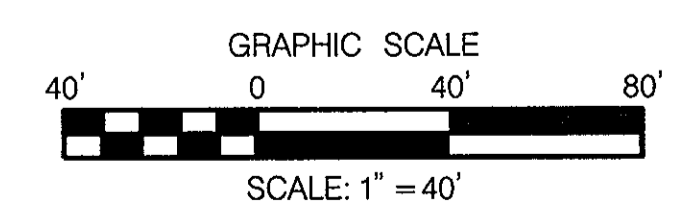
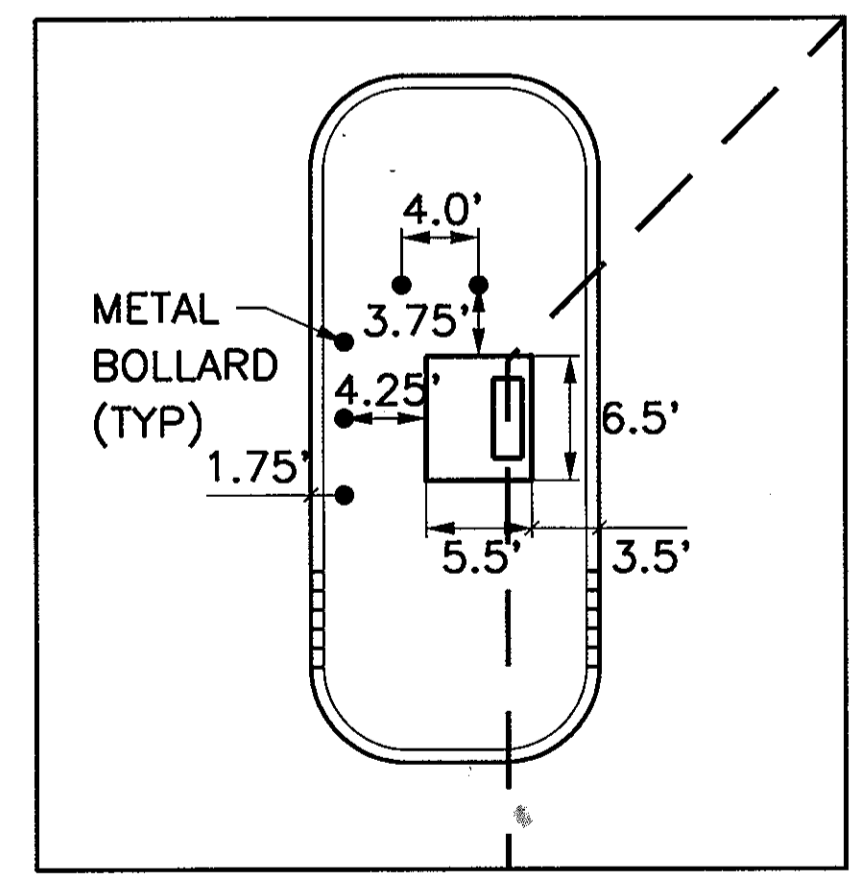
GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION: UT-01
 SHEET NO.: 28 OF 32

4/25/2013 \$FILES



GROUND TRANSFORMER DETAIL
NOT TO SCALE



NOTE:
THE FACILITY WILL REQUIRE A 4" WATER METER AND A 4" GAS METER TO BE INSTALLED.

OWNER/DEVELOPER
Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/1/13
[Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-1-13
[Signature]
 DIRECTOR

RK&K
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
(800)-787-3755



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
39362 09/24/2014
License No. Expiration Date

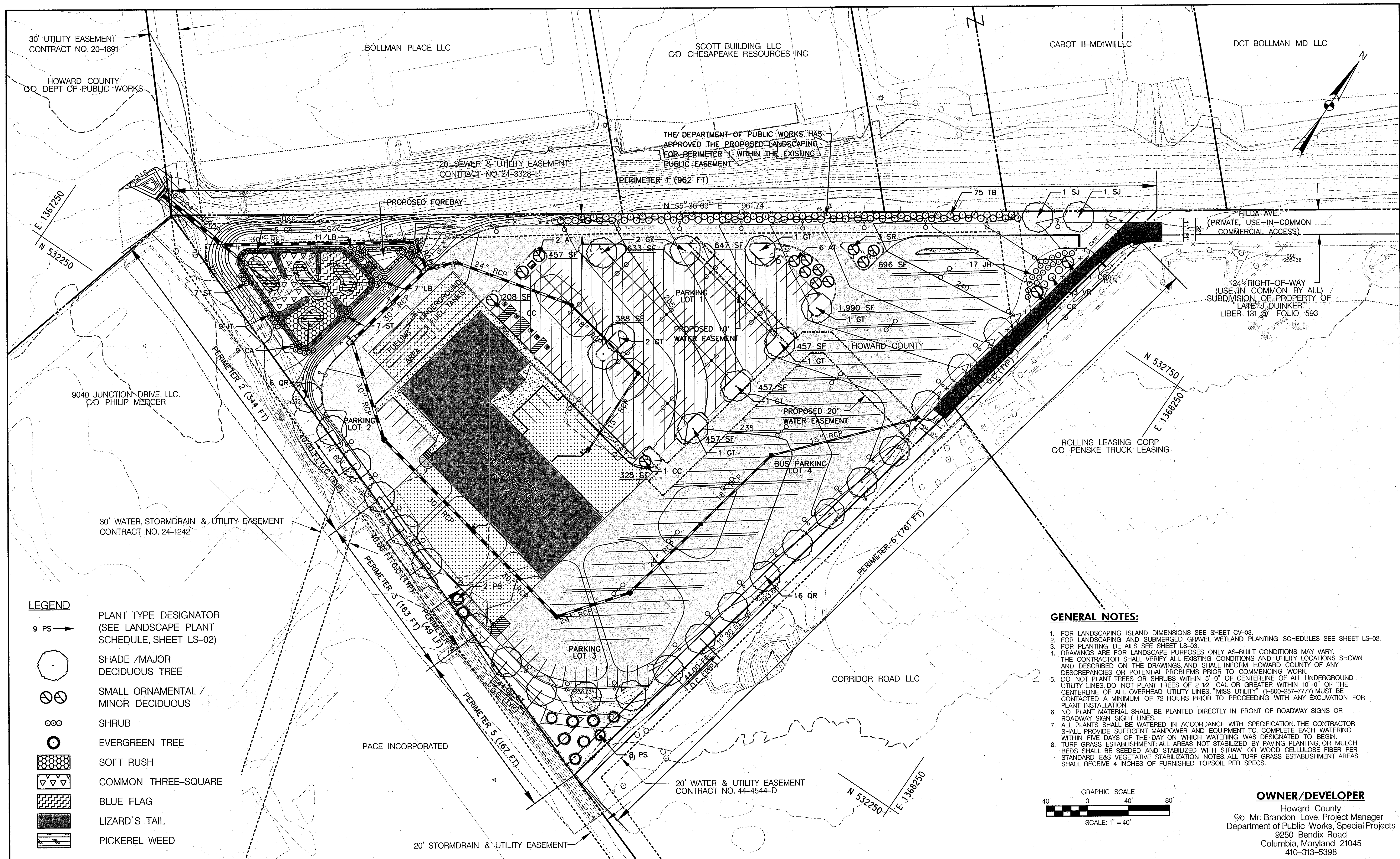
NO.	DESCRIPTION	BY	DATE
1	REVISED SERVICE CONNECTION LABELS	MBH	8/1/13

DESIGN: JRN
 CHECK: JRN
 DRAWN: MBH
PROPOSED UTILITY COMPOSITE PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

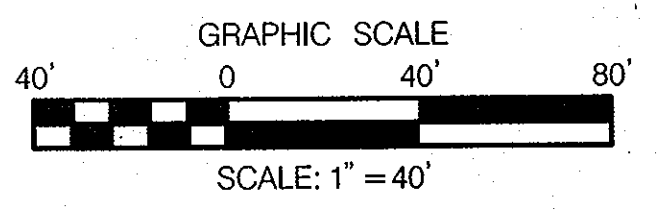
DISCIPLINE ABBREVIATION: UT-02
 SHEET NO.: 29 OF 32
 SDP-13-039

5/16/2013 \$FILES



- LEGEND**
- 9 PS → PLANT TYPE DESIGNATOR (SEE LANDSCAPE PLANT SCHEDULE, SHEET LS-02)
 - SHADE / MAJOR DECIDUOUS TREE
 - SMALL ORNAMENTAL / MINOR DECIDUOUS
 - SHRUB
 - EVERGREEN TREE
 - SOFT RUSH
 - COMMON THREE-SQUARE
 - BLUE FLAG
 - LIZARD'S TAIL
 - PICKEREL WEED

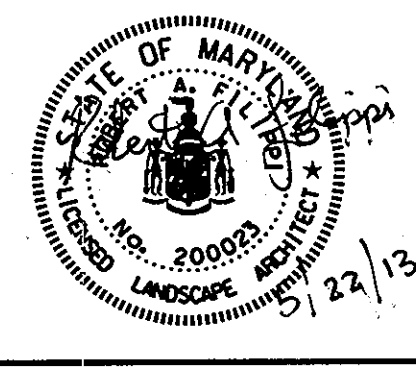
- GENERAL NOTES:**
1. FOR LANDSCAPING ISLAND DIMENSIONS SEE SHEET CV-03.
 2. FOR LANDSCAPING AND SUBMERGED GRAVEL WETLAND PLANTING SCHEDULES SEE SHEET LS-02.
 3. FOR PLANTING DETAILS SEE SHEET LS-03.
 4. DRAWINGS ARE FOR LANDSCAPE PURPOSES ONLY. AS-BUILT CONDITIONS MAY VARY. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND UTILITY LOCATIONS SHOWN AND DESCRIBED ON THE DRAWINGS, AND SHALL INFORM HOWARD COUNTY OF ANY DISCREPANCIES OR POTENTIAL PROBLEMS PRIOR TO COMMENCING WORK.
 5. DO NOT PLANT TREES OR SHRUBS WITHIN 5'-0" OF CENTERLINE OF ALL UNDERGROUND UTILITY LINES. DO NOT PLANT TREES OF 2 1/2" CAL OR GREATER WITHIN 10'-0" OF THE CENTERLINE OF ALL OVERHEAD UTILITY LINES. "MISS UTILITY" (1-800-257-7777) MUST BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION FOR PLANT INSTALLATION.
 6. NO PLANT MATERIAL SHALL BE PLANTED DIRECTLY IN FRONT OF ROADWAY SIGNS OR ROADWAY SIGN SIGHT LINES.
 7. ALL PLANTS SHALL BE WATERED IN ACCORDANCE WITH SPECIFICATION. THE CONTRACTOR SHALL PROVIDE SUFFICIENT MANPOWER AND EQUIPMENT TO COMPLETE EACH WATERING WITHIN FIVE DAYS OF THE DAY ON WHICH WATERING WAS DESIGNATED TO BEGIN.
 8. TURF GRASS ESTABLISHMENT: ALL AREAS NOT STABILIZED BY PAVING, PLANTING, OR MULCH BEDS SHALL BE SEEDED AND STABILIZED WITH STRAW OR WOOD CELLULOSE FIBER PER STANDARD E&S VEGETATIVE STABILIZATION NOTES. ALL TURF GRASS ESTABLISHMENT AREAS SHALL RECEIVE 4 INCHES OF FURNISHED TOPSOIL PER SPECS.



OWNER/DEVELOPER
 Howard County
 c/o Mr. Brandon Love, Project Manager
 Department of Public Works, Special Projects
 9250 Bendix Road
 Columbia, Maryland 21045
 410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8-1-13

RK&K
 CONSULTING ENGINEERS
 81 MOSHER STREET
 BALTIMORE, MARYLAND 21217
 (800)-787-3755



PROFESSIONAL CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 200023 Expiration Date 10/21/2015

NO.	DESCRIPTION	BY	DATE

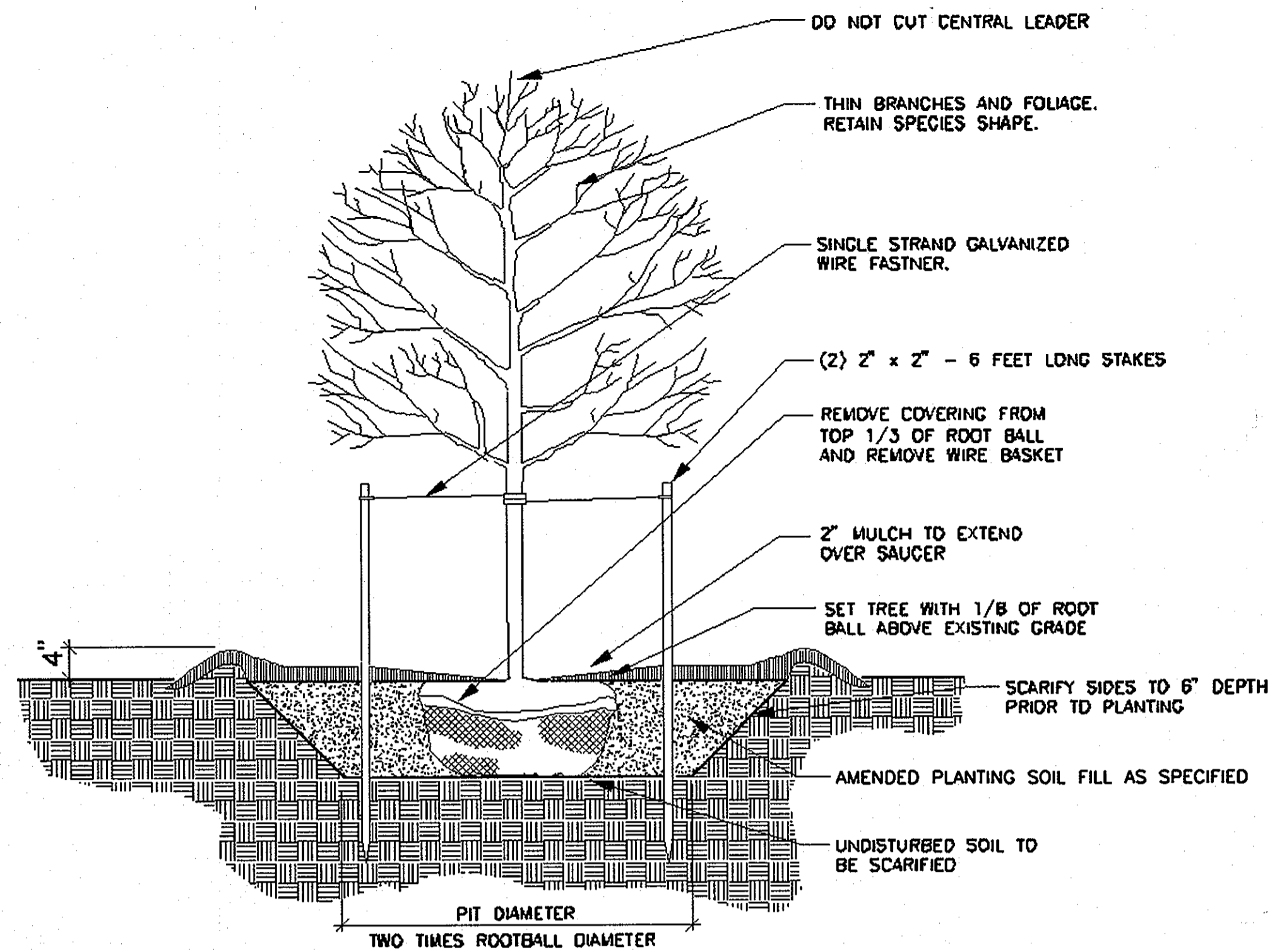
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 DRAWN: RAF
 CHECK: MBH

LANDSCAPING PLAN
 SCALE: 1" = 40'
 DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY
 (LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
 TAX MAP 48 GRID 13
 CAPITAL PROJECT NO: C-0289 PARCEL 75
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

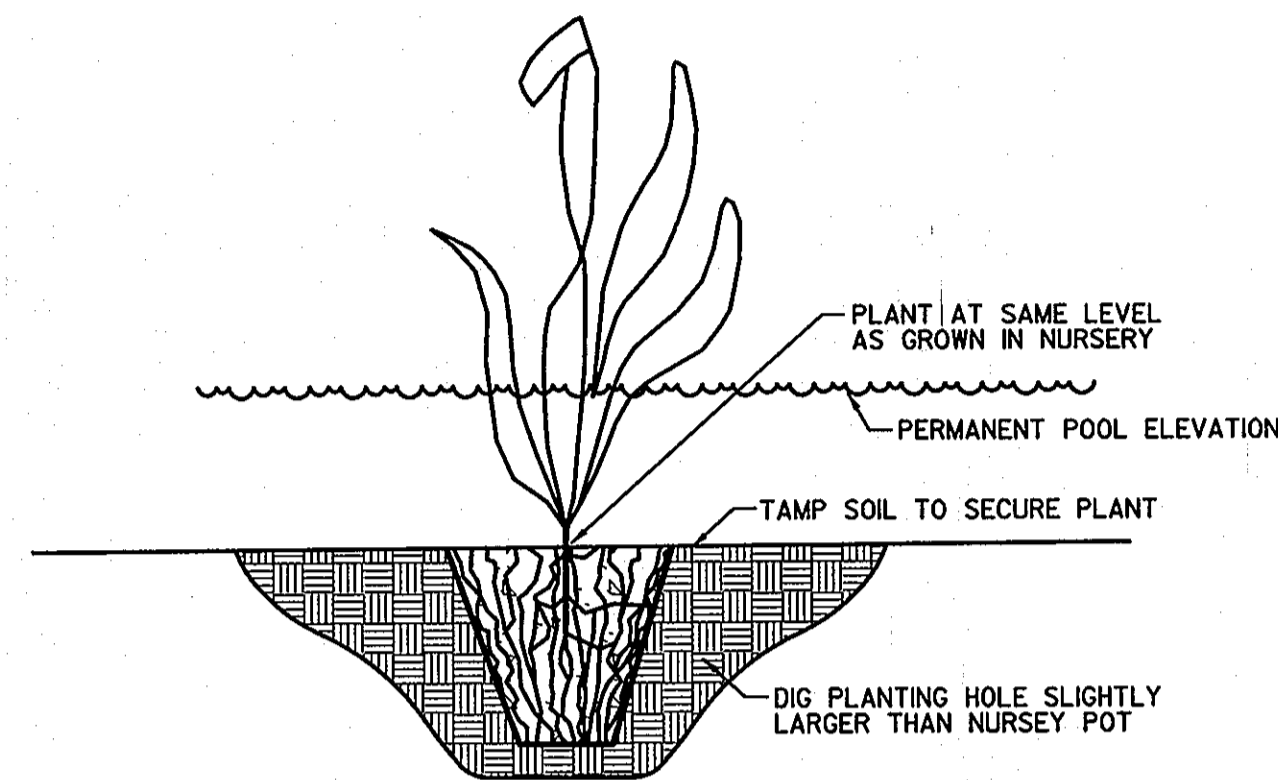
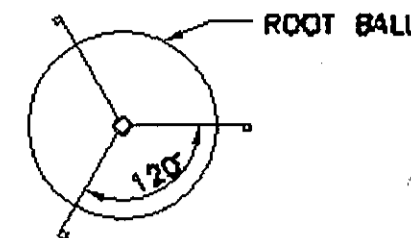
DISCIPLINE ABBREVIATION: LS-01
 SHEET NO.: 30 OF 32

5/21/2013 \$FILES

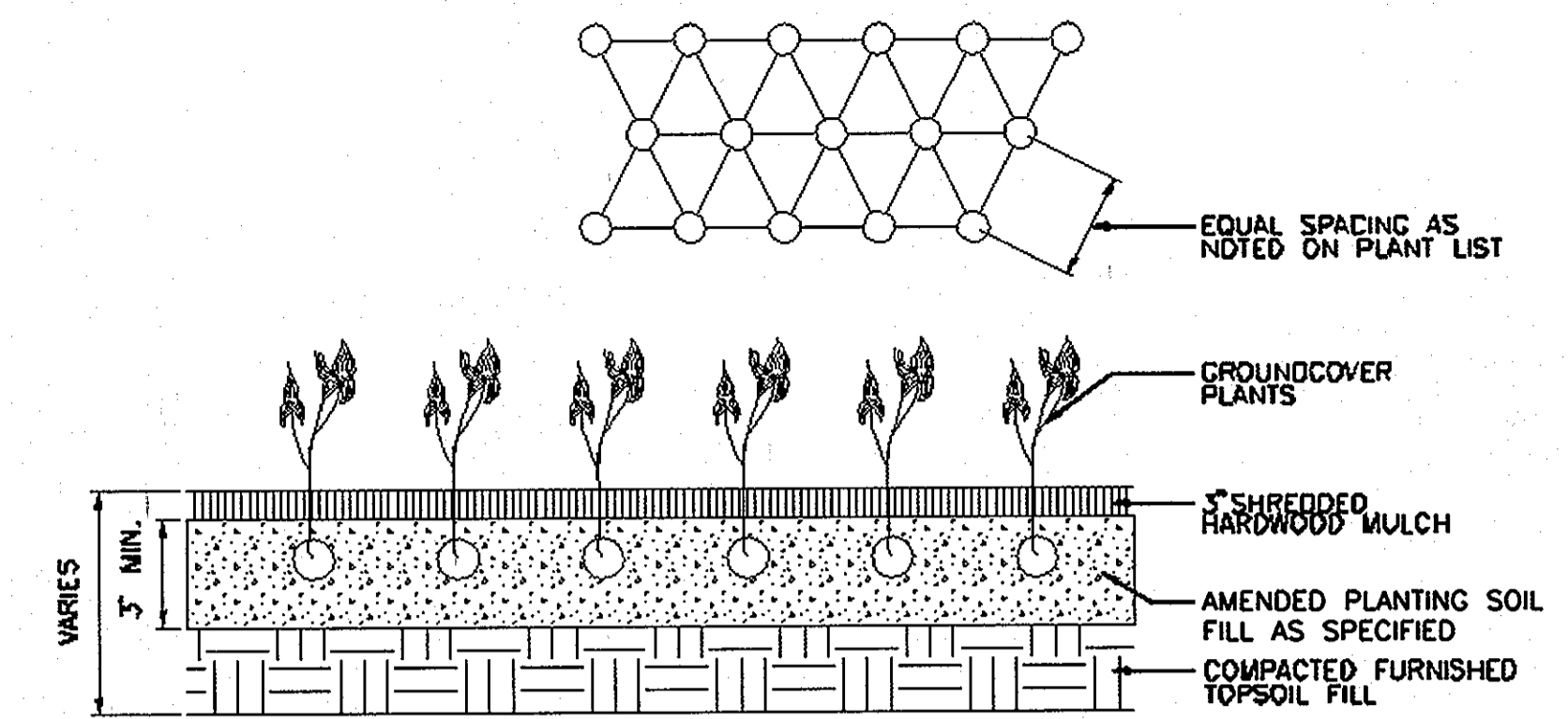


TYPICAL TREE PLANTING IN LAWN AREAS
NOT TO SCALE

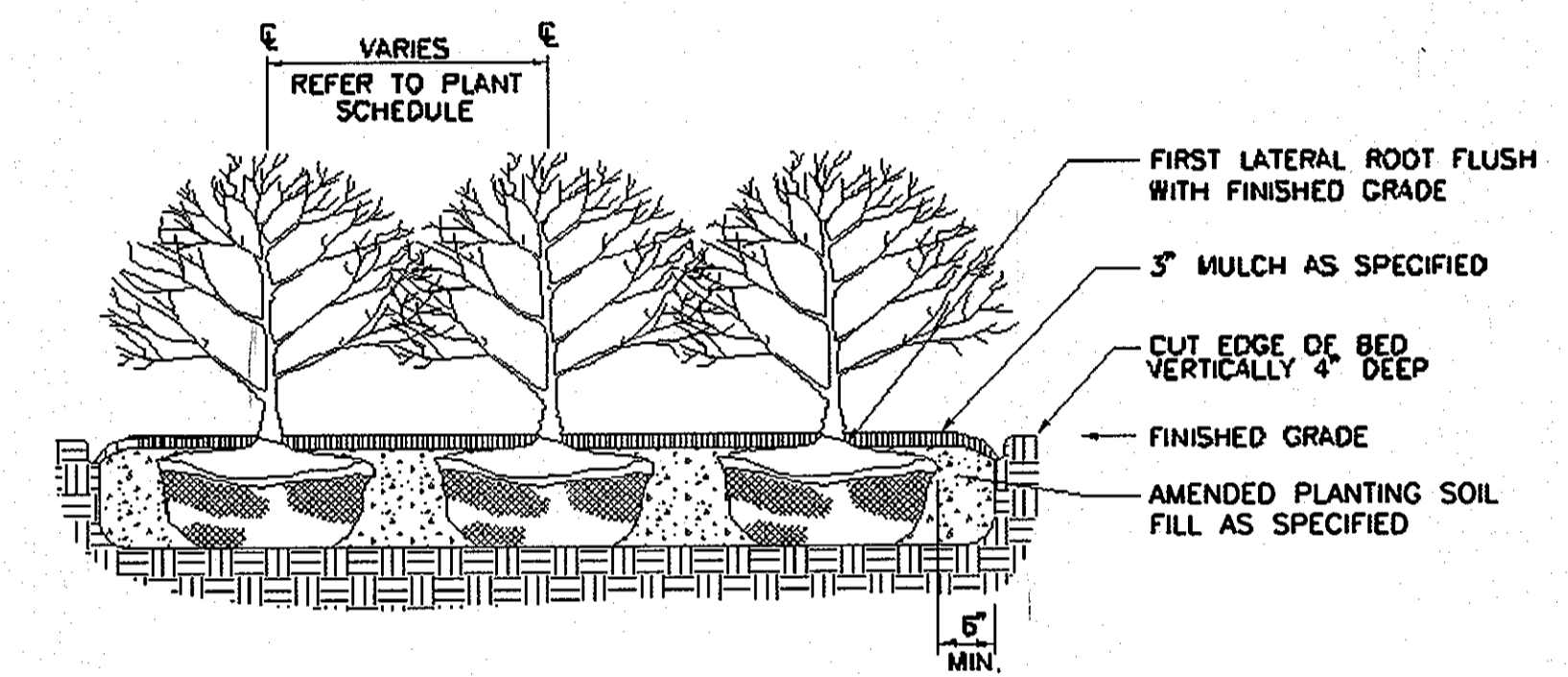
PLAN VIEW OF STAKING FOR TREES WHEN THREE STAKES ARE SPECIFIED.



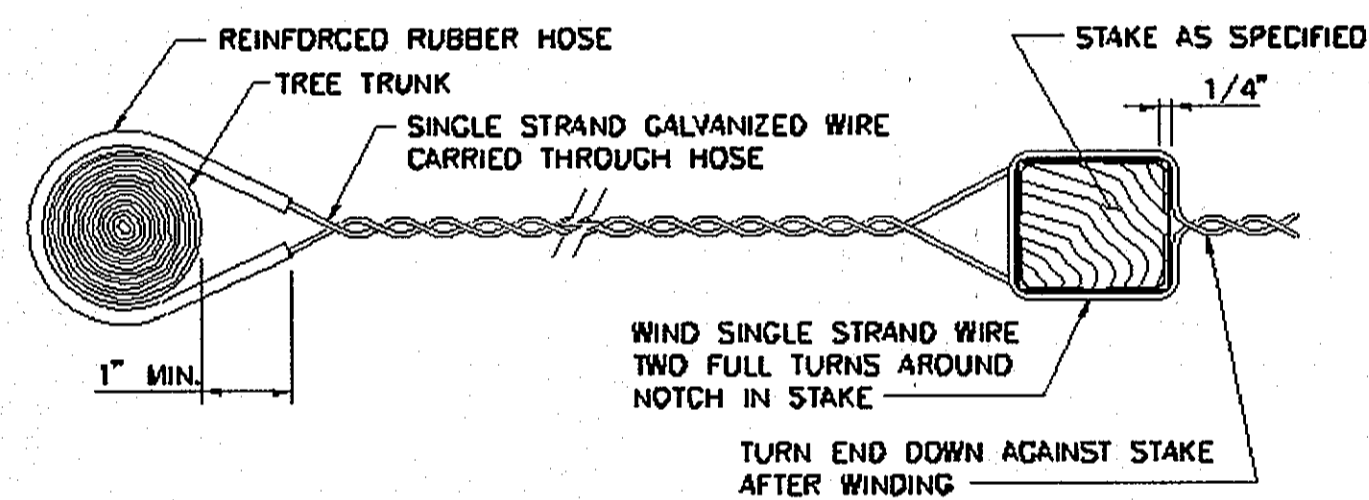
EMERGENT HERBACEOUS PLANTING DETAIL
NOT TO SCALE



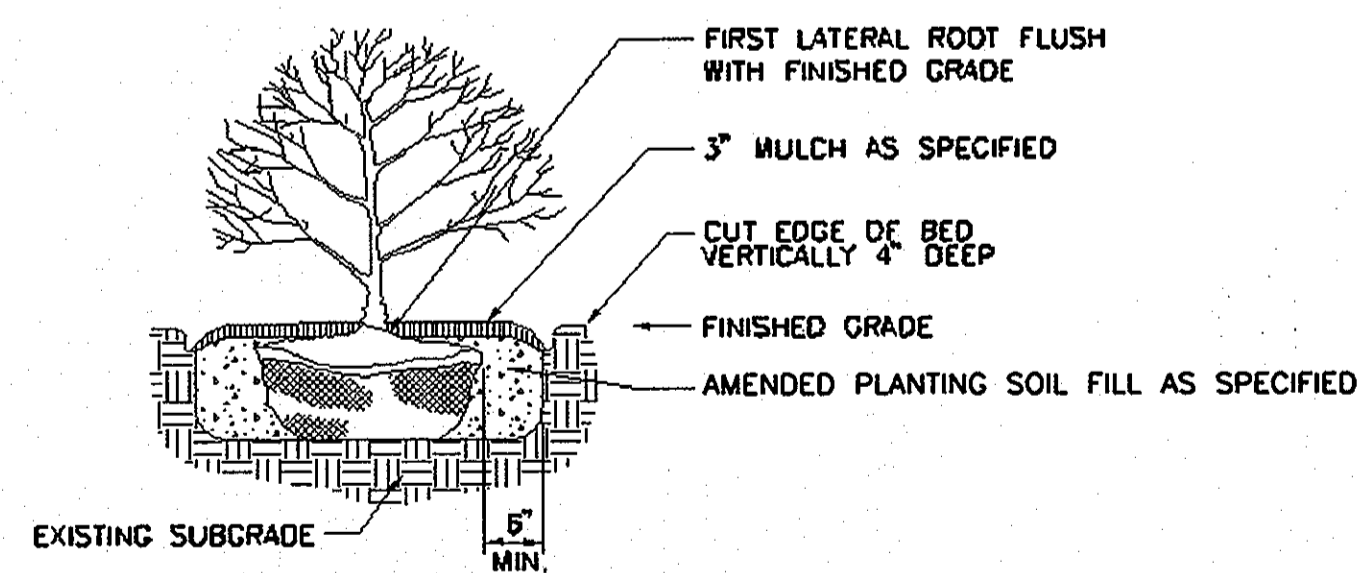
TYPICAL GROUNDCOVER PLANTING DETAIL
NOT TO SCALE



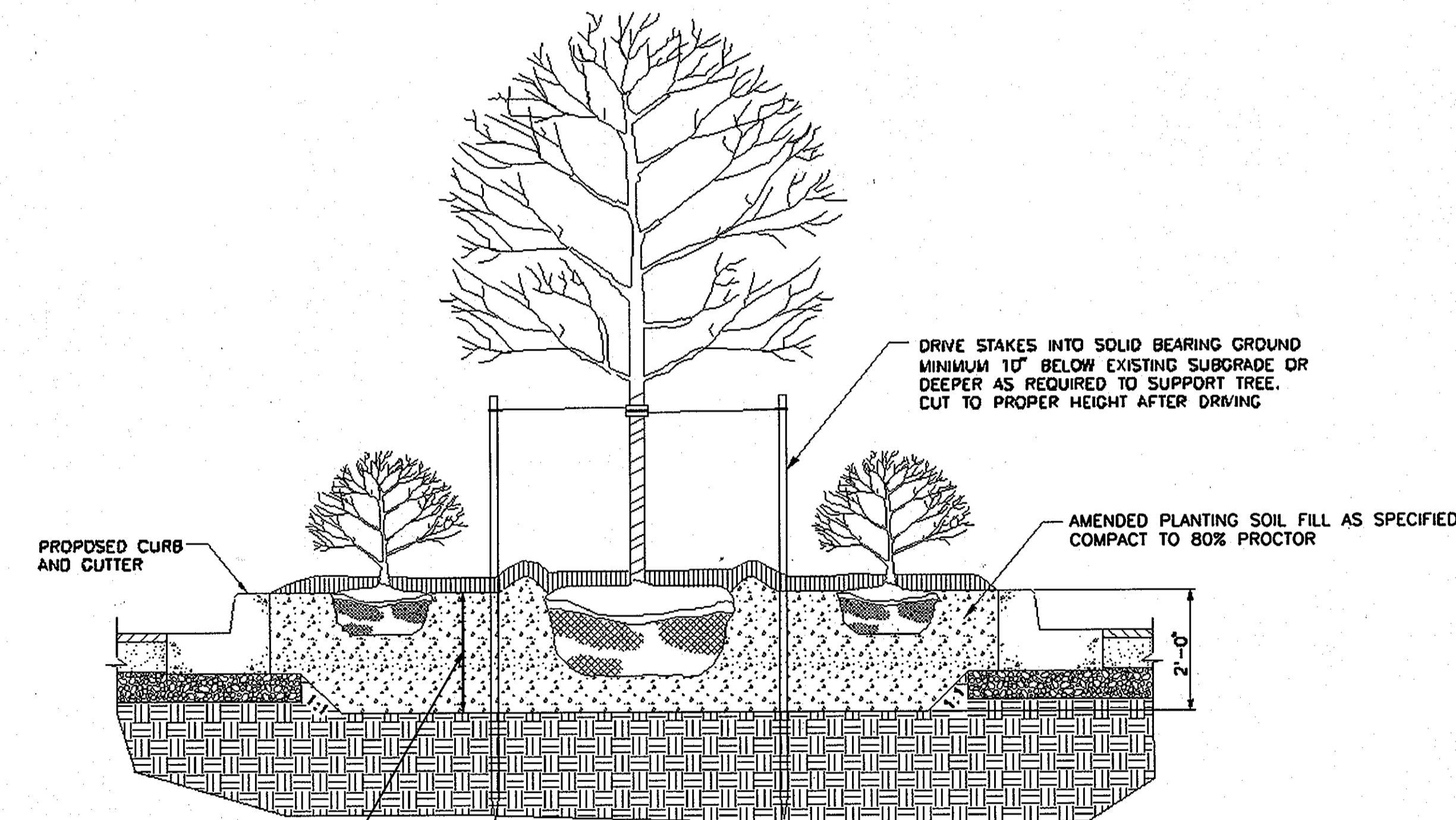
SHRUB MASS PLANTING DETAIL
NOT TO SCALE



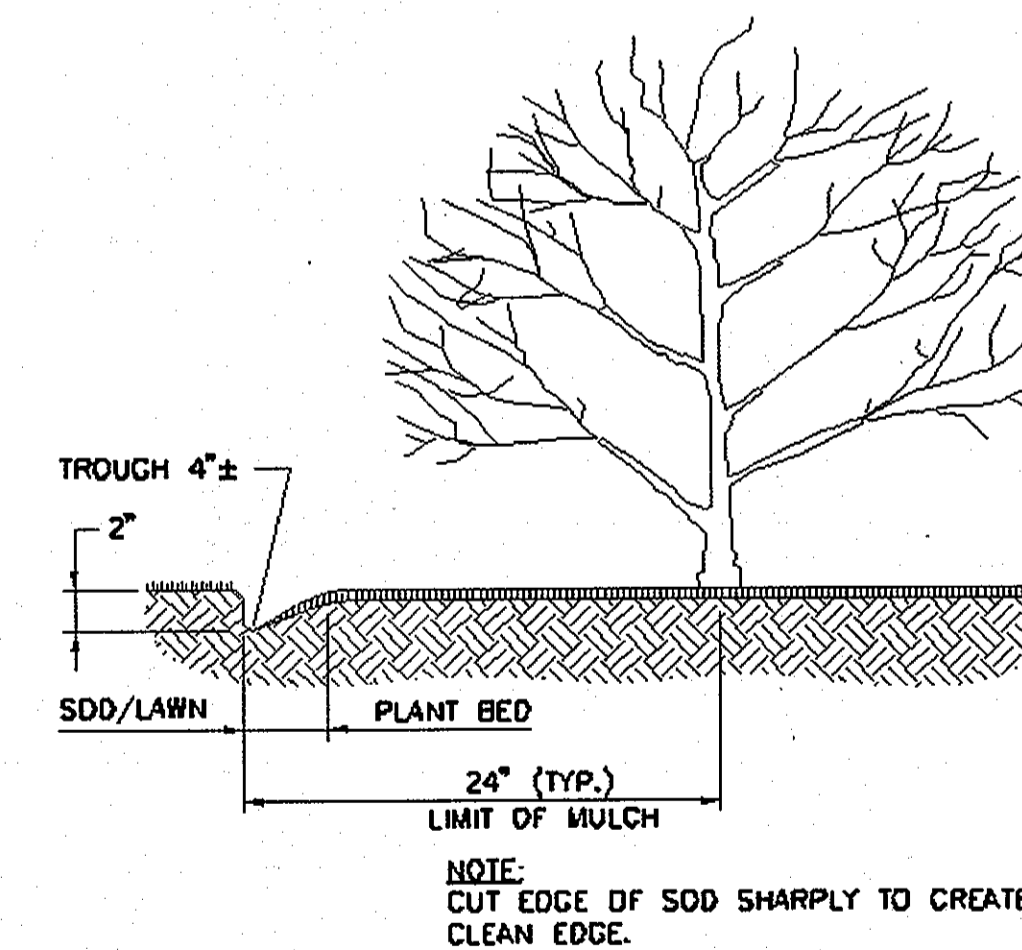
SINGLE STRAND GALVANIZED WIRE FASTENER
NOT TO SCALE



SINGLE SHRUB PLANTING DETAIL
NOT TO SCALE



SOIL PREPARATION IN ISLAND
NOT TO SCALE



PLANT BED EDGING
NOT TO SCALE

OWNER/DEVELOPER

Howard County
% Mr. Brandon Love, Project Manager
Department of Public Works, Special Projects
9250 Bendix Road
Columbia, Maryland 21045
410-313-5398

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
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81 MOSHER STREET
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NO.	DESCRIPTION	BY	DATE
REVISIONS			

APPR	RAF
CHECK	RAF
DRAWN	MBH
DESIGN	

LANDSCAPING DETAILS

SCALE: AS SHOWN

DATE: APRIL 26, 2013

GREEN BUILDING HOWARD COUNTY CENTRAL MARYLAND TRANSIT OPERATIONS FACILITY

(LOT 1 OF THE LATE J. DUINKER SUBDIVISION)
TAX MAP 48 GRID 13
CAPITAL PROJECT NO: C-0289 PARCEL 75
6TH ELECTION DISTRICT HOWARD COUNTY, MD

DISCIPLINE ABBREVIATION LS-03

SHEET NO. 32 OF 32