

ADDENDUM NO. 1

BID NO. 19-07

**MIDDLETON ROAD EXTENSION
CITY OF ABERDEEN, MARYLAND**

To all holders of the specifications, the following corrections are hereby made. All other items shall remain unchanged. This addendum shall become part of the Contract Documents for the above referenced project.

Acknowledgement of Addendum

Name: _____

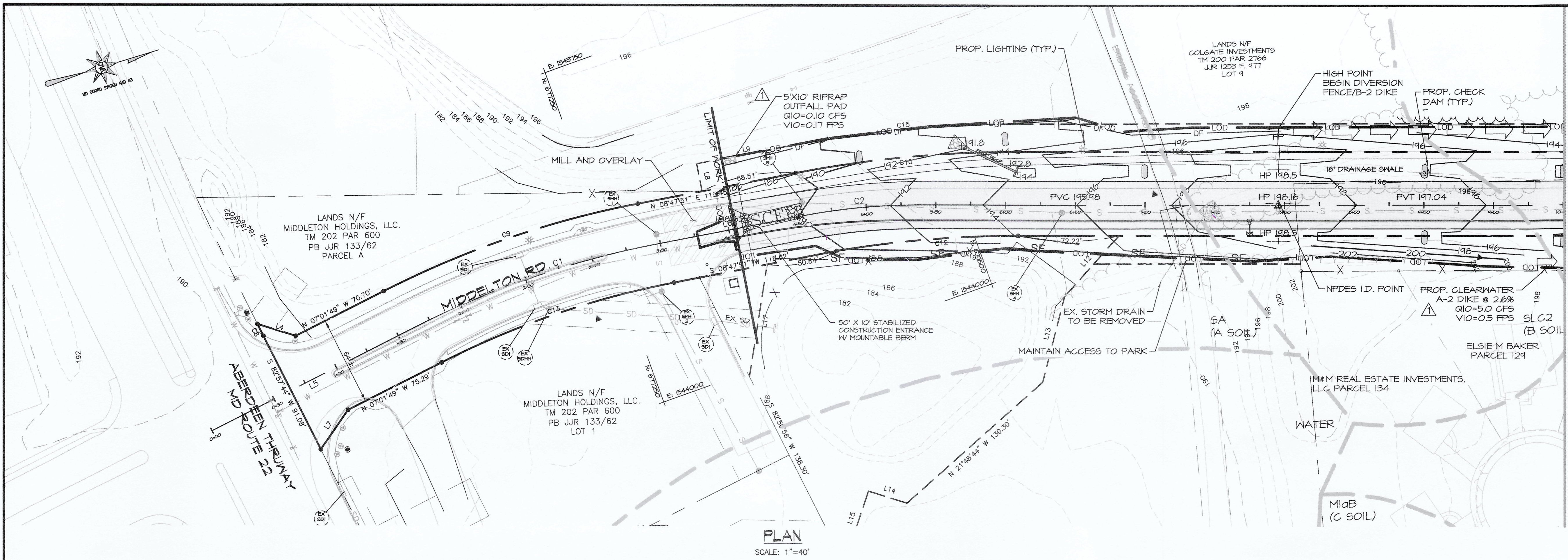
Company: _____

Date: _____

Signature: _____

- **Section 1: Erosion and Sediment Control Plan**

The Erosion and Sediment Control Plan has been revised as indicated on the following plans.



MATCH LINE STA. 10+00 (SHEET 8)

LEGEND

- 432 --- PARCEL BOUNDARY
- 430 --- EXISTING 2' CONTOUR
- --- EXISTING 10' CONTOUR
- --- EXISTING BUILDINGS
- --- EXISTING PROPERTY LINES
- --- EXISTING ROAD LEFT
- --- EXISTING ROAD RIGHT
- --- EXISTING ROAD CENTER LINE
- --- EXISTING TREELINE
- [] EXISTING BUILDING
- --- PROPOSED ROAD CENTER LINE
- 432 --- PROPOSED CONTOUR
- --- PROPOSED TREELINE
- L00 --- LIMIT OF DISTURBANCE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- DF --- DIVERSION FENCE
- [SCE] STABILIZED CONSTRUCTION ENTRANCE
- [] EARTH DIKE

THE PURPOSE OF THIS PLAN IS TO ADDRESS SEDIMENT AND EROSION CONTROL. THE CONTRACTOR/DEVELOPER SHALL REFER TO APPROVED WATER/SEWER, STORMWATER MANAGEMENT, AND SITE CONSTRUCTION DRAWINGS FOR ALL OTHER PHASES OF THE PROJECT.

ALL CONSTRUCTION EQUIPMENT SHALL BE CLEANED/WASHED AT STABILIZED CONSTRUCTION ENTRANCE TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY BY VACUUM SWEEPING, SCRAPING, OR SWEEPING.

Erosion and Sediment Control
Plan #19-02
Recommended for Approval

City of Aberdeen

Technical Concurrence

Harford Soil Conservation District

Approved

Harford Soil Conservation District

SEQUENCE OF CONSTRUCTION

1. NOTIFY CITY OF ABERDEEN PUBLIC WORKS, SEDIMENT CONTROL INSPECTOR AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. PHONE (410) 272-1600. (1 DAY)
2. CLEAR AND GRUB AREA FOR STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
4. CLEAR AND GRUB ONLY THOSE AREAS NECESSARY TO INSTALL PERIMETER SEDIMENT & EROSION CONTROL MEASURES. ALL SEDIMENT & EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. (1 DAY)
5. INSTALL CLEARWATER EARTHDIKES, 38" X 24" ELLIPTICAL, STORM DRAIN, AND TEMPORARY CL- RIPRAP OUTFALLS ON FILTER CLOTH.
6. INSTALL REMAINING SEDIMENT CONTROLS, INCLUDING SILT FENCE AND SUPER SILT FENCE. (1 DAY)
7. CLEAR AND GRUB REMAINDER OF THE SITE. CONTRACTOR TO FOLLOW TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS. (1 DAY)
8. DEMO EXISTING STORM DRAIN. (1 DAY)
9. BEGIN MASS GRADING OF THE SITE. (2 WEEKS)
10. INSTALL PROPOSED WATER MAIN. CONTRACTOR TO FOLLOW TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS.
11. CONTINUE GRADING OPERATIONS. INSTALL STONE BASE FOR ROADWAY AS SOON AS SUBBASE GRADES ARE SET.
12. COMPLETE STORM DRAIN INSTALLATION, INCLUDING OPEN BACK INLETS.
13. COMPLETE ROAD CONSTRUCTION, ROADWAY WORK, INCLUDING THE CURB, SIDEWALK AND THE ROUND ABOUT, IS TO BE BACKFILLED WITH STONE AS SOON AS SUBBASE GRADES ARE SET TO ENSURE STABILIZATION. CONTRACTOR TO FOLLOW TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS FOR ALL GRASS AREAS.
14. BEGIN SWALES CONSTRUCTION. CONTRACTOR TO FOLLOW TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS.
15. INSTALL GRASS SWALES CHECK DAMS.
16. COMPLETE SWALES IN ACCORDANCE WITH APPROVED SWM PLANS.
17. INSTALL SURFACE COURSE. FINE GRADE ALL DISTURBED AREAS AND PERMANENTLY STABILIZE.
18. WITH THE APPROVAL OF THE CITY OF ABERDEEN PUBLIC WORKS, SEDIMENT CONTROL INSPECTOR, REMOVE EXISTING SEDIMENT CONTROLS FROM THE REMAINDER OF THE SITE ONCE PERMANENTLY STABILIZED.

OVERALL SITE ANALYSIS

1. TOTAL SITE AREA: 3.33 AC.±
2. TOTAL DISTURBED AREA: 3.39 AC.± (147,772 SF.)
3. ESTIMATED EARTHWORK:
 - A. GRADING CUT: 226 C.Y.
 - B. GRADING FILL: 1,917 C.Y.
 - C. TOPSOIL: 2,100 C.Y.
4. TOTAL PROPOSED IMPERVIOUS AREA: 1.55 AC.±
5. AREA TO BE VEGETATIVELY STABILIZED: 1.85 AC.±
6. NPDES I.D. POINT N: 677,712.44 E: 1,544,017.06
7. WATERSHED: BUSH RIVER
8. SITE IS NOT LOCATED WITHIN A TIER II WATERSHED

NOTE: THESE EARTHWORK ESTIMATES ARE FOR SEDIMENT CONTROL USE ONLY. CONTRACTOR SHALL NOT RELY ON THESE EARTHWORK FIGURES FOR ESTIMATING AND BIDDING PURPOSES.

SUMMARY OF SEDIMENT CONTROL QUANTITIES

SWALE:	0	L.F.
EARTH DIKE:	2,073±	L.F.
DIVERSION FENCE:	406±	L.F.
SILT FENCE:	379±	L.F.
SUPER SILT FENCE:	55±	L.F.
GRASS CONSTRUCTION FENCE:	0	L.F.
SEDIMENT BASIN:	0	EA.
SEDIMENT TRAP:	0	EA.
MOUNTABLE BERM:	0	EA.
STABILIZED CONSTRUCTION ENTRANCE:	1	ENTRANCE(S)
AREA TO BE PERMANENTLY STABILIZED:	3.40±	ACRES

NOTE: THIS SUMMARY OF SEDIMENT CONTROL QUANTITIES IS FOR USE BY THE CITY OF ABERDEEN. THIS SUMMARY IS NOT INTENDED TO BE USED BY THE CONTRACTOR FOR ESTIMATING AND BIDDING PURPOSES.

CITY OF ABERDEEN SEDIMENT CONTROL NOTES

1. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER, NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
2. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ALL FOREST RETENTION AREAS WILL BE DELINEATED WITH BLAZE ORANGE FENCE AS WELL AS ANY SWM INFILTRATION PRACTICE PRIOR TO ANY CLEARING. WORK BEYOND THE LIMITS OF DISTURBANCE AND IN ANY AREA INSIDE THE FOREST RETENTION AND SWM INFILTRATION AREA IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.
3. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES THE SITE MUST BE INSPECTED BY THE DEPARTMENT OF PUBLIC WORKS (DPW). NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL FROM DPW.
4. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY A WASH RACK MAY NEED TO BE ESTABLISHED.
5. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE RE-APPROVAL BY THE HARFORD SOIL CONSERVATION DISTRICT.
6. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - A. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
 - B. SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
7. DUST CONTROL MUST BE MANAGED AS PART OF ALL SEDIMENT CONTROL PLANS. FAILURE TO DO SO IS A VIOLATION OF THIS PLAN.
8. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN ON THE PLAN. IF THE BASIN IS TO BE USED AS A FUTURE SWM FACILITY, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 STANDARDS AND SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HARFORD SOIL CONSERVATION DISTRICT.
9. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.
10. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL BY THE CONTRACTOR. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
11. ENSURE POSITIVE DRAINAGE TO ALL ROAD INLETS DURING ALL PHASES OF ROAD CONSTRUCTION TO ENSURE POSITIVE FLOW TO TRAPS AND OR BASINS.
12. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR LAND GRADING.
13. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.
14. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
15. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
16. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
17. TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL ESSENTIAL PARTS OF THE SEDIMENT CONTROL PLAN AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
18. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
19. PRIOR TO REMOVAL OF TRAPS OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED
20. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF THE DPW INSPECTOR. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR'S APPROVAL CONSTITUTES A VIOLATION.

ADDITIONAL SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, SEDIMENT CONTROL INSPECTOR AT (410) 901-4020 AND CITY OF ABERDEEN PUBLIC WORKS SEDIMENT CONTROL INSPECTOR AT (410) 638-3127 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES AND, UNLESS WAIVED BY THE SEDIMENT CONTROL INSPECTOR, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING AT THE PROJECT SITE. THE CONTRACTOR MUST PROVIDE THE NAME OF THE PERSON ON THE SITE WHO IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES, AND A COPY OF THEIR GREEN CARD TO THE SEDIMENT CONTROL INSPECTOR.
2. ALL "PROJECTS WITH CONSTRUCTION ACTIVITIES DISTURBING 1 ACRE OR MORE ARE REQUIRED TO SUBMIT A NOTICE OF INTENT (NOI) TO MDE TO COMPLY WITH THE GENERAL PERMIT-FOR CONSTRUCTION ACTIVITY FOR STORMWATER DISCHARGES. THE NOI SHOULD BE SUBMITTED AFTER E&SC/SWM APPROVAL HAS BEEN ISSUED AND PRIOR TO BEGINNING CONSTRUCTION. TO ATTAIN A NOI FORM CONTACT BARBARA TYLER, MDE GENERAL PERMITS COORDINATOR AT (410) 537-3525 OR, PREFERABLY, BY E-MAIL AT BTYLER@MDE.STATE.MD.US
3. THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE KEPT AT THE PROJECT SITE.
4. THE HARFORD SOIL CONSERVATION DISTRICT RESERVES THE RIGHT TO MODIFY THE EROSION AND SEDIMENT CONTROL PLAN.
5. THE HARFORD SOIL CONSERVATION DISTRICT MAY REVOKE THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL PLAN IF WORK PERFORMED AT THE PROJECT SITE DOES NOT CONFORM TO THE PROVISIONS OF THE GRADING PERMIT, THE APPROVED PLAN OR TO ANY WRITTEN INSTRUCTIONS. FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, THE CITY OF ABERDEEN PUBLIC WORKS OR THE HARFORD SOIL CONSERVATION DISTRICT
6. THE CONTRACTOR MUST REQUEST THAT THE CITY OF ABERDEEN APPROVE WORK COMPLETED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT AND THE CITY OF ABERDEEN AT THE FOLLOWING POINTS OF PROJECT DEVELOPMENT:
 - A. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, 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 MDE IS MADE.
 - B. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).
 - C. UPON FINAL STABILIZATION OF THE SITE AND PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL MEASURES.
7. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND, SHALL HAVE THEM INSPECTED AND APPROVED BY THE CITY OF ABERDEEN INSPECTOR PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES.
8. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE CITY OF ABERDEEN. THE CONTRACTOR IS RESPONSIBLE FOR THE SEDIMENT CONTROL INSPECTION AND DOCUMENTATION IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF THE ENVIRONMENT NPDES/NOI REQUIREMENTS.
9. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE CITY OF ABERDEEN.
15. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL THE ENTIRE CONTRIBUTING AREA TO THE PRACTICE HAS BEEN STABILIZED TO THE SATISFACTION OF THE SEDIMENT CONTROL INSPECTOR. SEDIMENT CONTROLS MAY ONLY BE REMOVED WITH THE AUTHORIZATION OF THE SEDIMENT CONTROL INSPECTOR.
16. ALL AREAS DISTURBED BY THE REMOVAL OF SEDIMENT CONTROL DEVICES MUST BE IMMEDIATELY STABILIZED.
17. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLANS WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATION STABILIZATION.
18. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A FOUNDATION WHICH IS EXISTING OR UNDER CONSTRUCTION. NO STRUCTURE MAY BE CONSTRUCTED WITHIN 20 FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.
19. TEMPORARY SEDIMENT TRAP(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A POINT ONE HALF (1/2) THE DEPTH BETWEEN THE OUTLET GREST AND THE BOTTOM OF THE TRAP. SEDIMENT BASINS SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ONE HALF (1/2) THE DEPTH BETWEEN THE DEWATERING ELEVATION AND THE BOTTOM OF THE BASIN.
20. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR FOREST RETENTION AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
21. SEDIMENT CONTROL DEVICES PLACED IN INFILTRATION AREAS MUST HAVE BOTTOM ELEVATIONS AT LEAST TWO (2) FEET HIGHER THAN THE FINISHED GRADE ELEVATION OF THE INFILTRATION PRACTICE. WHEN CONVERTING SEDIMENT TRAP TO AN INFILTRATION DEVICE, ALL ACCUMULATED SEDIMENT MUST BE REMOVED AND DISPOSED OF PRIOR TO FINAL GRADING OF INFILTRATION DEVICE.
22. WHEN A STORM DRAIN SYSTEM OUTFALL IS DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN AND THE SYSTEM IS TO BE USED FOR TEMPORARILY CONVEYING SEDIMENT LADEN WATER, ALL STORM DRAIN INLETS IN NON-SUMP AREAS SHALL HAVE TEMPORARY ASPHALT BERMS CONSTRUCTED AT THE TIME OF BASE PAVING TO DIRECT GUTTER FLOW INTO THE INLETS TO AVOID SURCHARGING AND OVERFLOW OF INLETS IN SUMP AREAS.

CITY OF ABERDEEN
MARYLAND

APPROVED: ABERDEEN DEPT. OF PUBLIC WORKS

CITY ENGINEER DATE

DIRECTOR DATE

GRADING PERMIT NO. 19-02

STORM WATER MANAGEMENT NO. 19-02

PUBLIC WORKS AGREEMENT NO. N/A

MIDDELTON ROAD EXTENSION - CONTRACT #19-07
EROSION AND SEDIMENT CONTROL PLAN

CITY OF ABERDEEN HARFORD COUNTY, MARYLAND

CNA
Civil Engineers - Land Surveyors - Landscape Architects
Professional Engineers - Environmental Engineers

DESIGNED: SPM/RLR
DRAWN: SPM/RLR
CHECKED: CRM

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. 28378, Expiration Date: 01/01/2021.

SCALE: AS SHOWN

DATE: 02/28/21

NO. 7

OF 14

DATE	REVISION	BY
02/28/21	ISC REVISIONS	SPM
02/24/21	ISC REVISIONS	SPM
DATE	REVISION	BY

DRIVING COMPLETED

TAX MAP PARCEL 2004 600

ADJ. MAP NO. 7

GRID NO. XX X-X X-X

FILES

JO 172016.00

OWNER/DEVELOPER

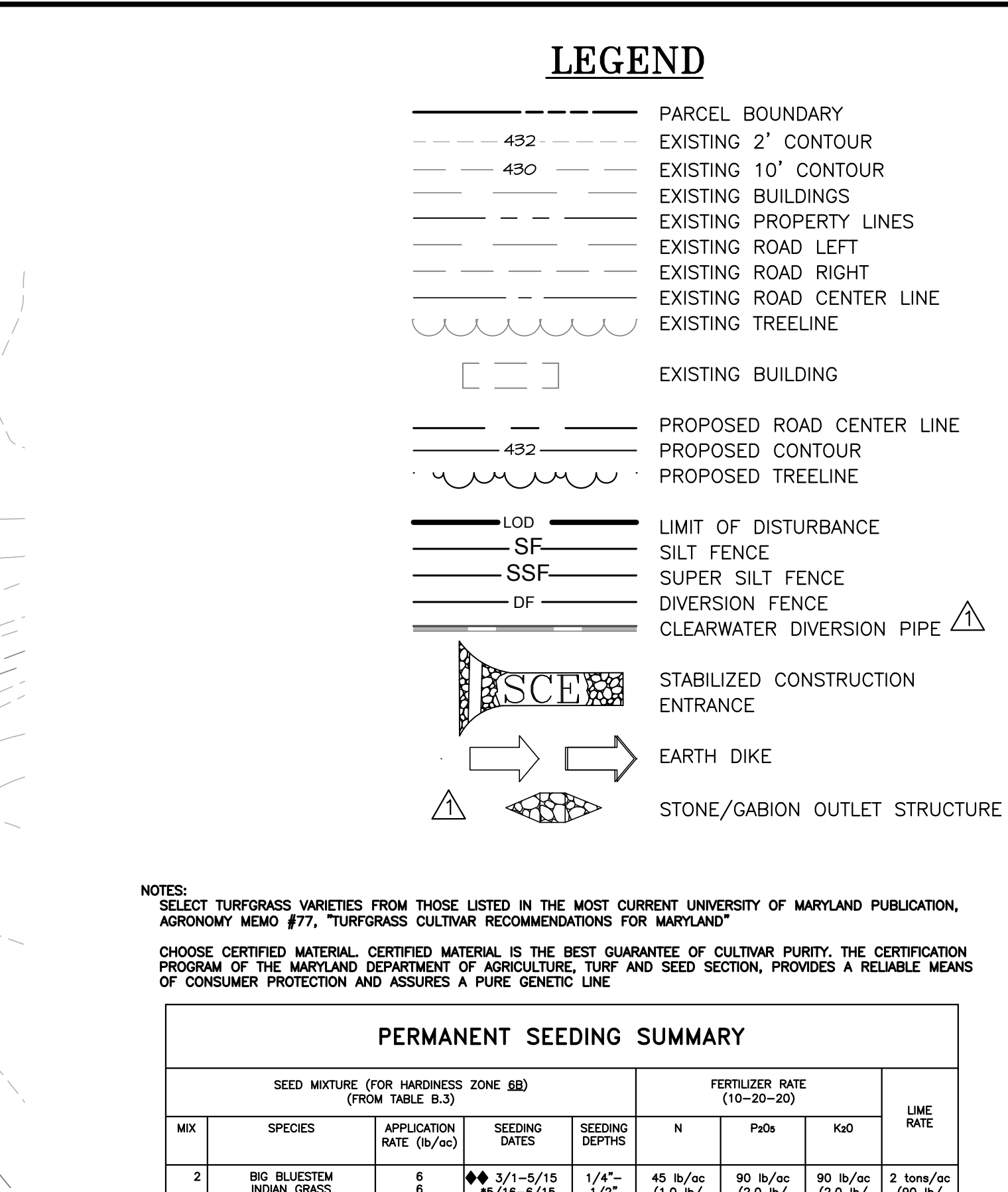
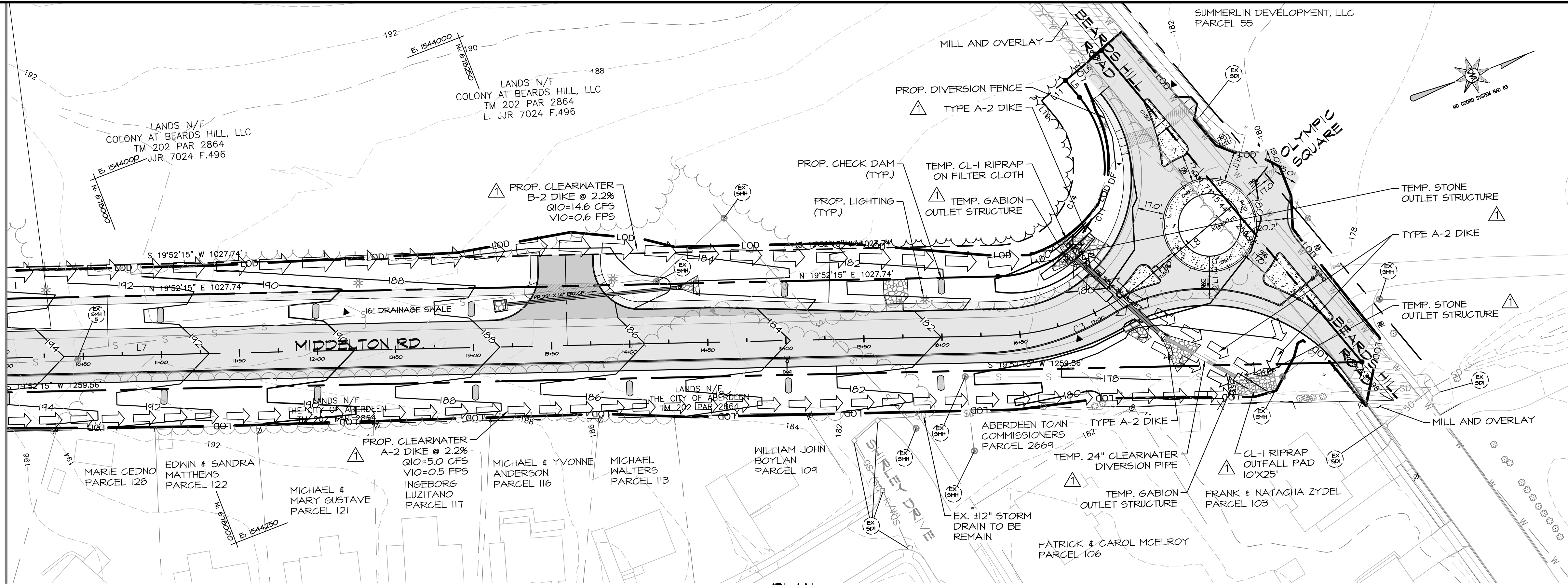
CITY OF ABERDEEN
60 N. PARKE STREET
ABERDEEN, MD 21001
410-272-1600

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER R. MINK
P.E. #28378



ES-1

MATCH LINE STA. 10+00 (SHEET 7)



VEGETATIVE SPECIFICATIONS

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

- A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT...
2. PERMANENT STABILIZATION
a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE...
i. SOIL pH BETWEEN 6.0 AND 7.0
ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)
iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL...
iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

B-4-3 STANDARDS AND SPECIFICATION FOR SEEDING AND MULCHING

- A. SEEDING
1. SPECIFICATIONS
a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW...
b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES...
c. INCULCANTS: THE INCULCANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES...
2. APPLICATION
a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1...
b. DRILL OR CULTEPACER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL...
c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER)...

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

- CONDITIONS WHERE PRACTICE APPLIES: EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS...
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE...
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY...
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.b AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

- CONDITIONS WHERE PRACTICE APPLIES: EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE...
A. SEED MIXTURES
1. GENERAL USE
a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE...
b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES...
c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
2. TURFGRASS MIXTURE
a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE...
b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE...
c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDNESS ZONES: 5B, 6A)
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONE: 6B)
SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7A, 7B)
d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES...
e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR ESTABLISHMENT...

NOTES:
SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, 'TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND'
CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY... THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

PERMANENT SEEDING SUMMARY table with columns for MIX, SPECIES, APPLICATION RATE, SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE (N, P2O5, K2O), and LIME RATE.

PERMANENT SEEDING NOTE:
PLANT THIS MIX WITH A SPECIALIZED NATIVE SEED DRILL.
ALL SPECIES ARE NATIVE TO MARYLAND
* ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT.
** WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE...
SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

TEMPORARY SEEDING SUMMARY table with columns for NO., MIXTURE, APPLICATION RATE, SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE, and LIME RATE.

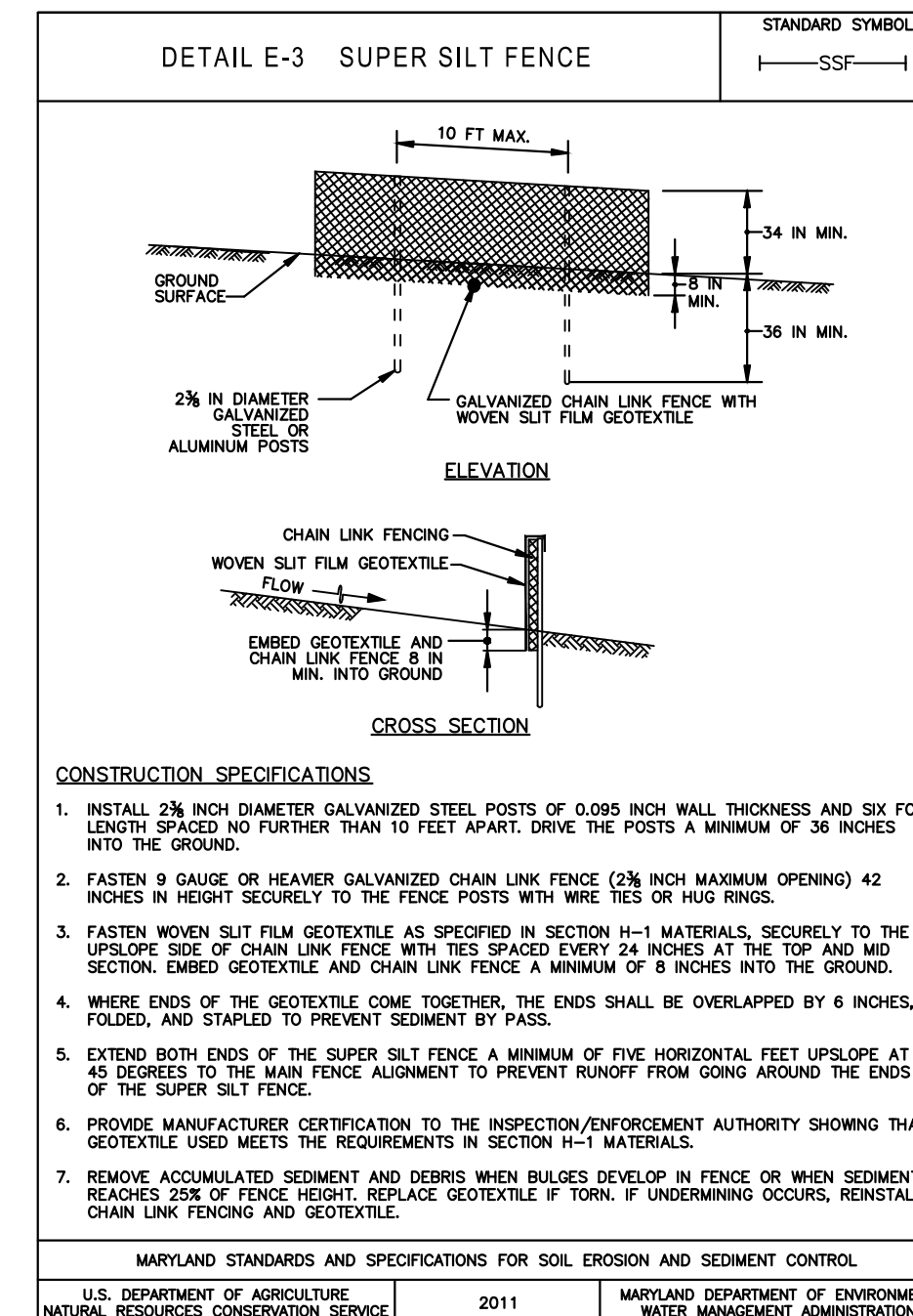
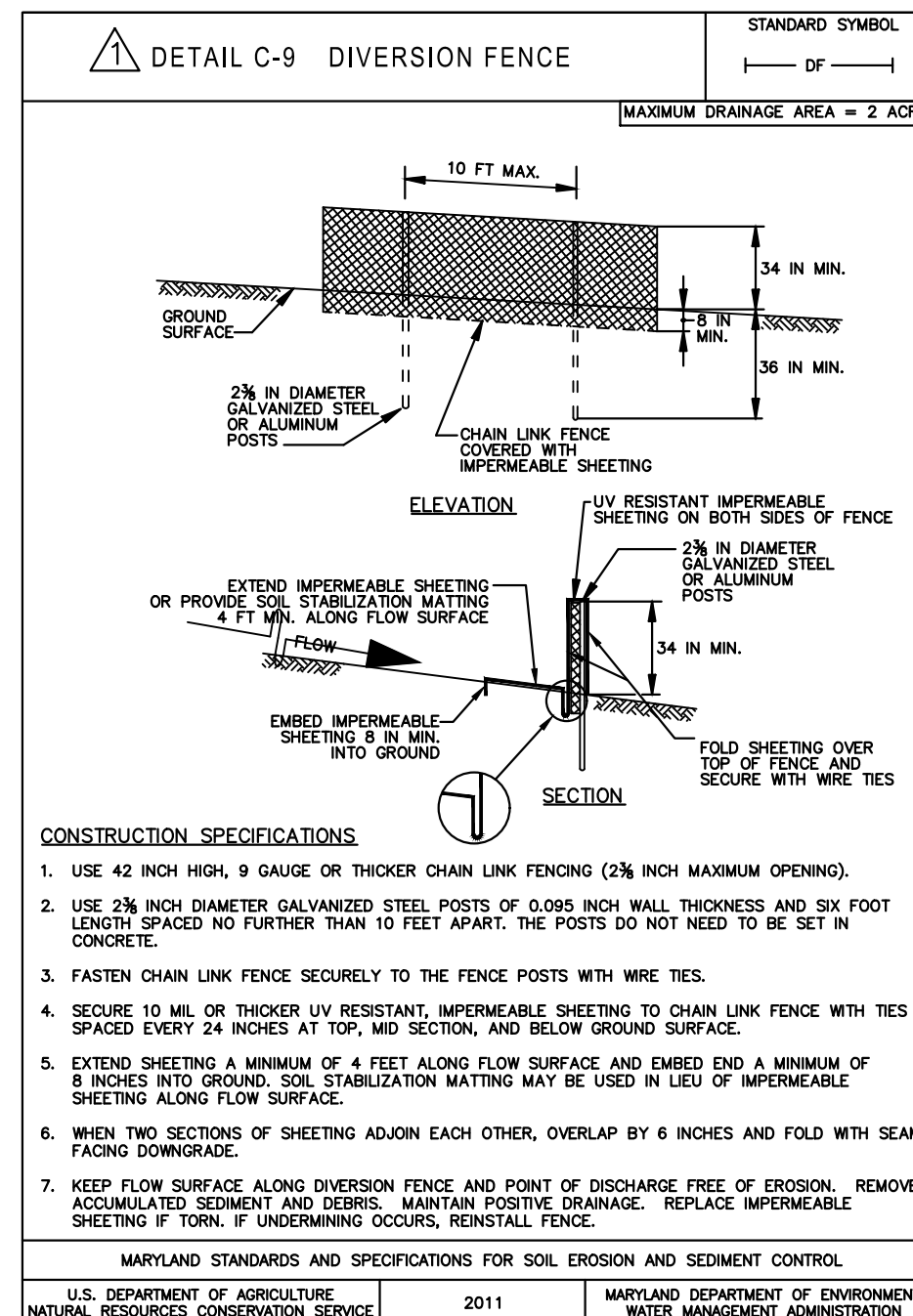
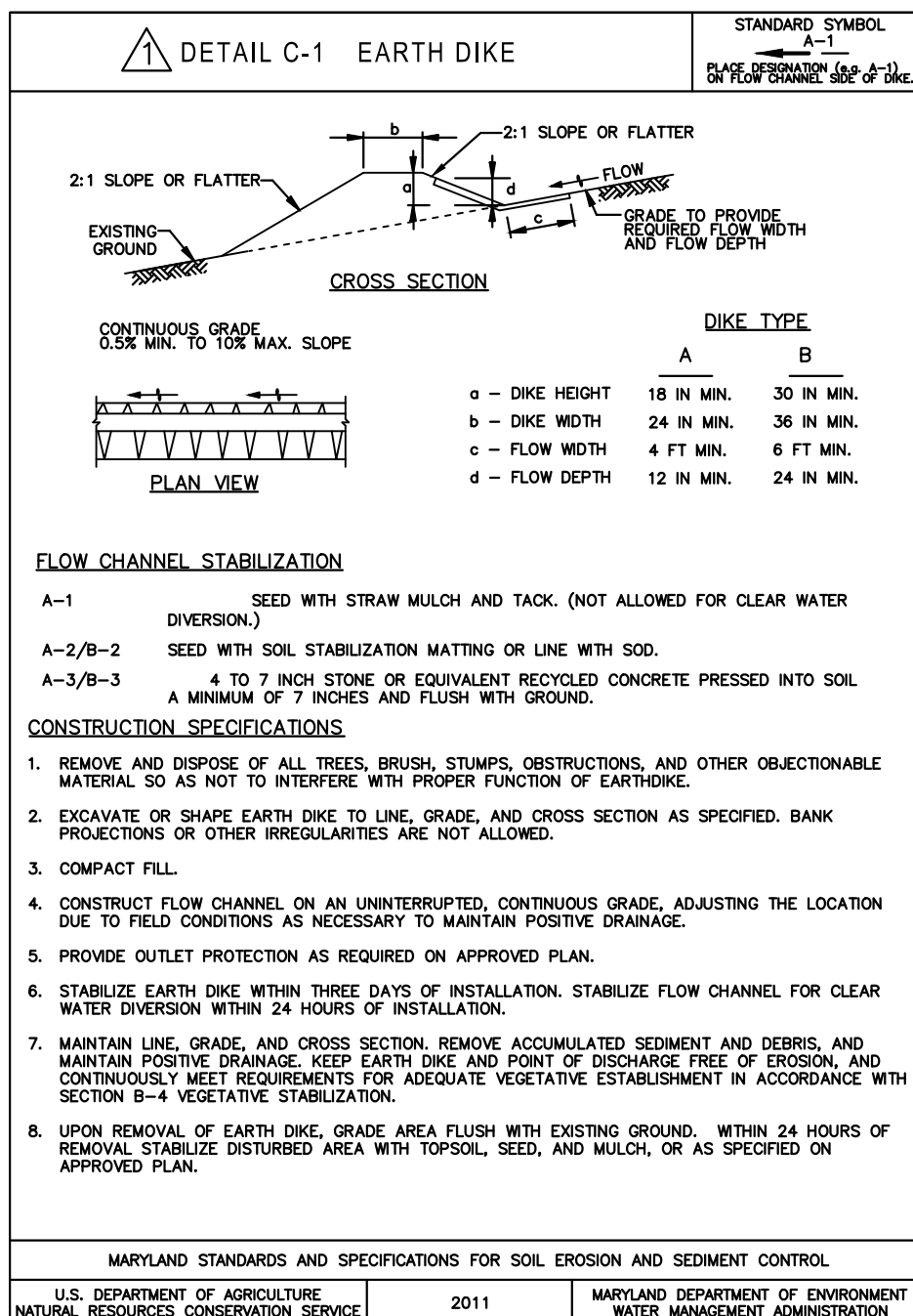
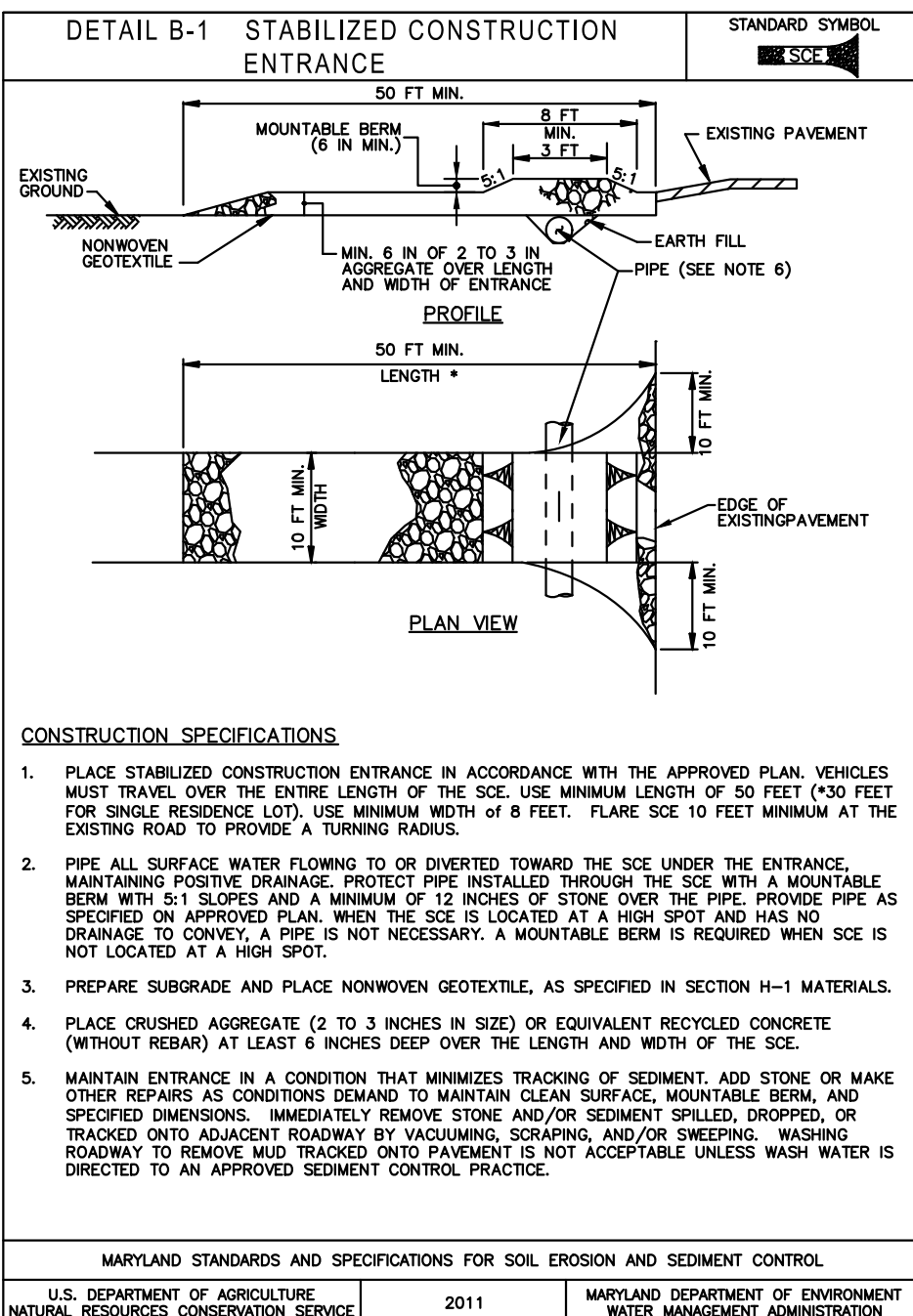
CITY OF ABERDEEN MARYLAND

GRADING PERMIT NO. 19-02
STORM WATER MANAGEMENT NO. 19-02
PUBLIC WORKS AGREEMENT NO. N/A

MIDDLETON ROAD EXTENSION - CONTRACT #19-07
EROSION AND SEDIMENT CONTROL PLAN
HARFORD COUNTY, MARYLAND

CNA logo and contact information: Civil Engineers - Land Surveyors - Landscape Architects, etc.

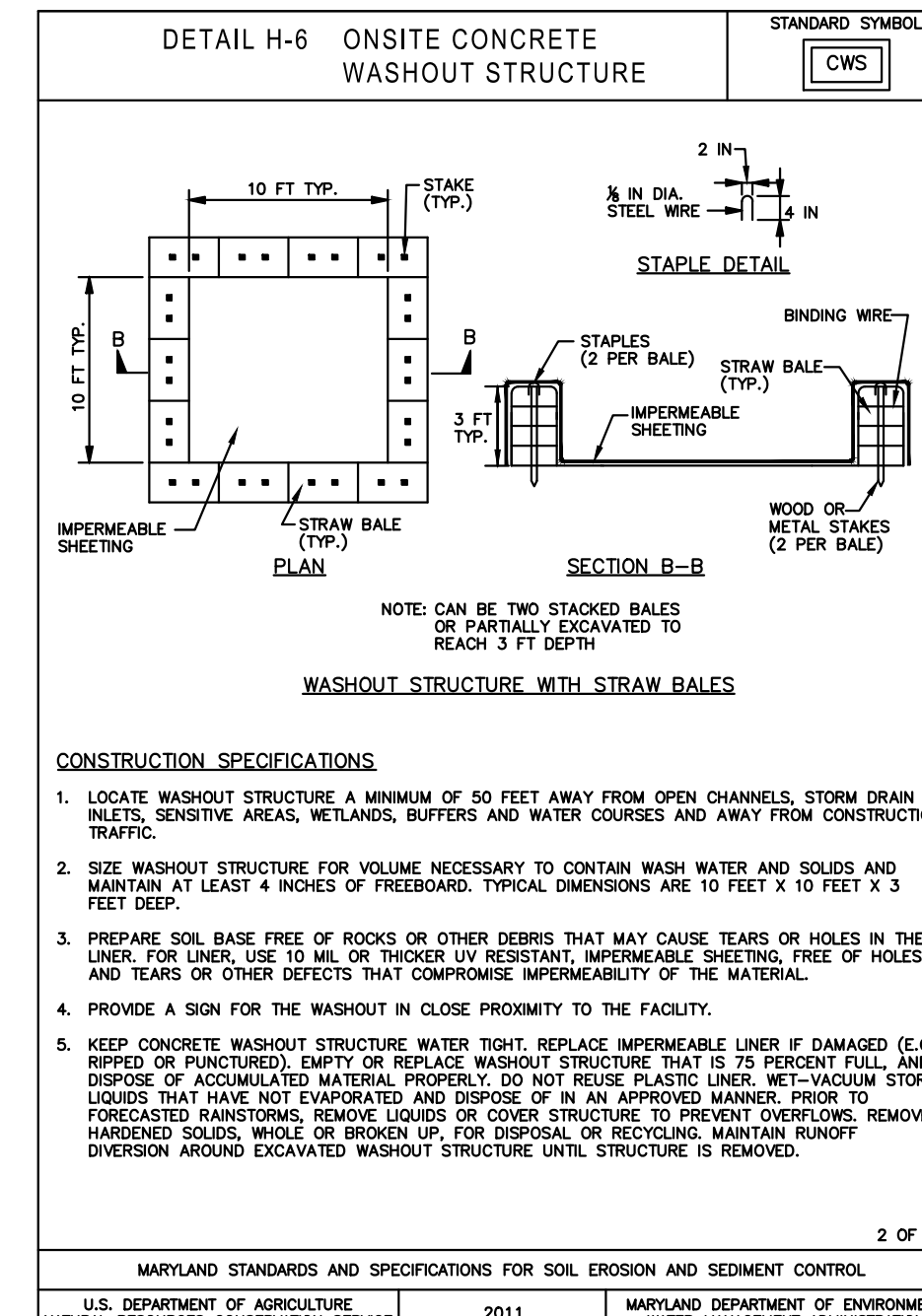
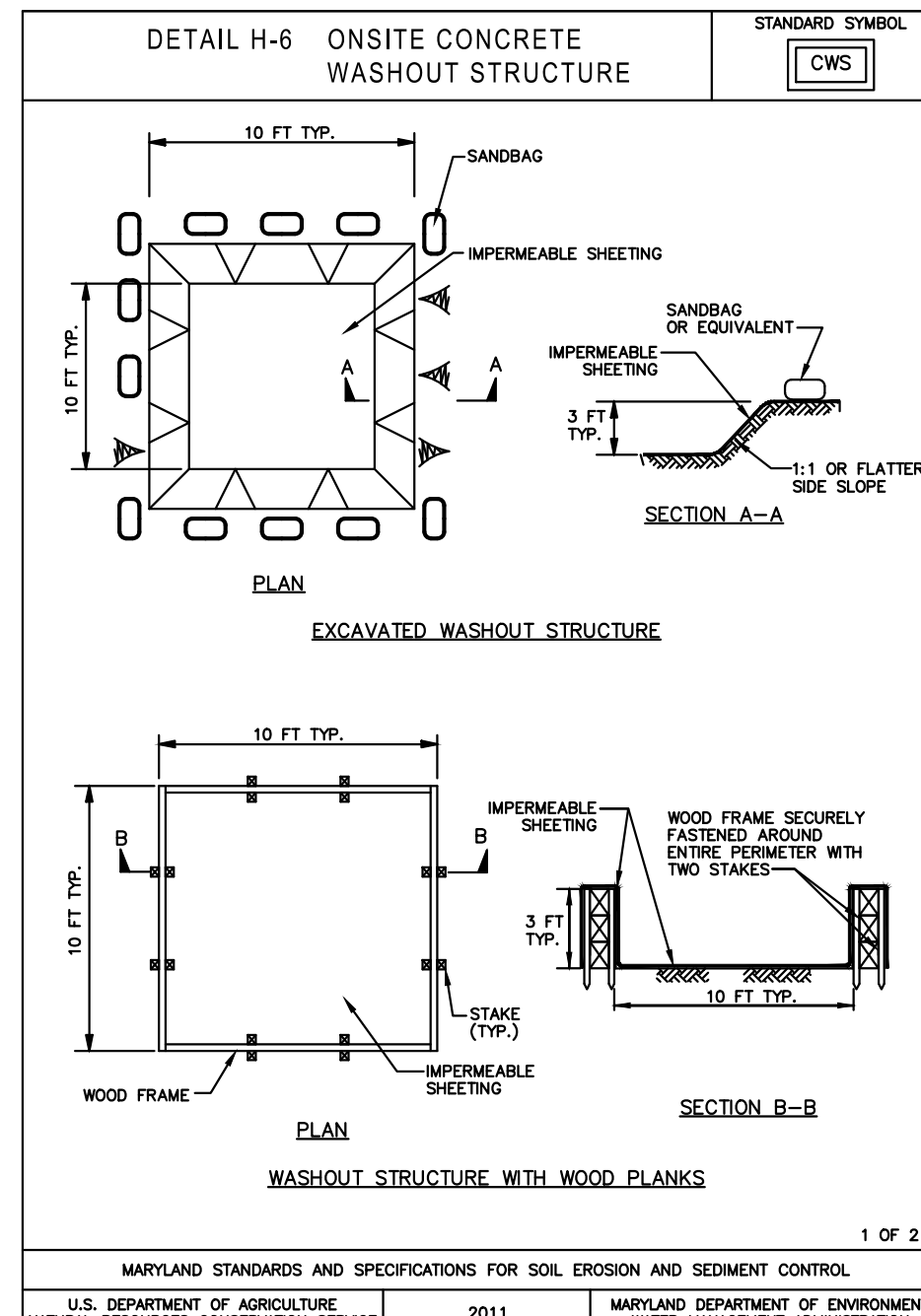
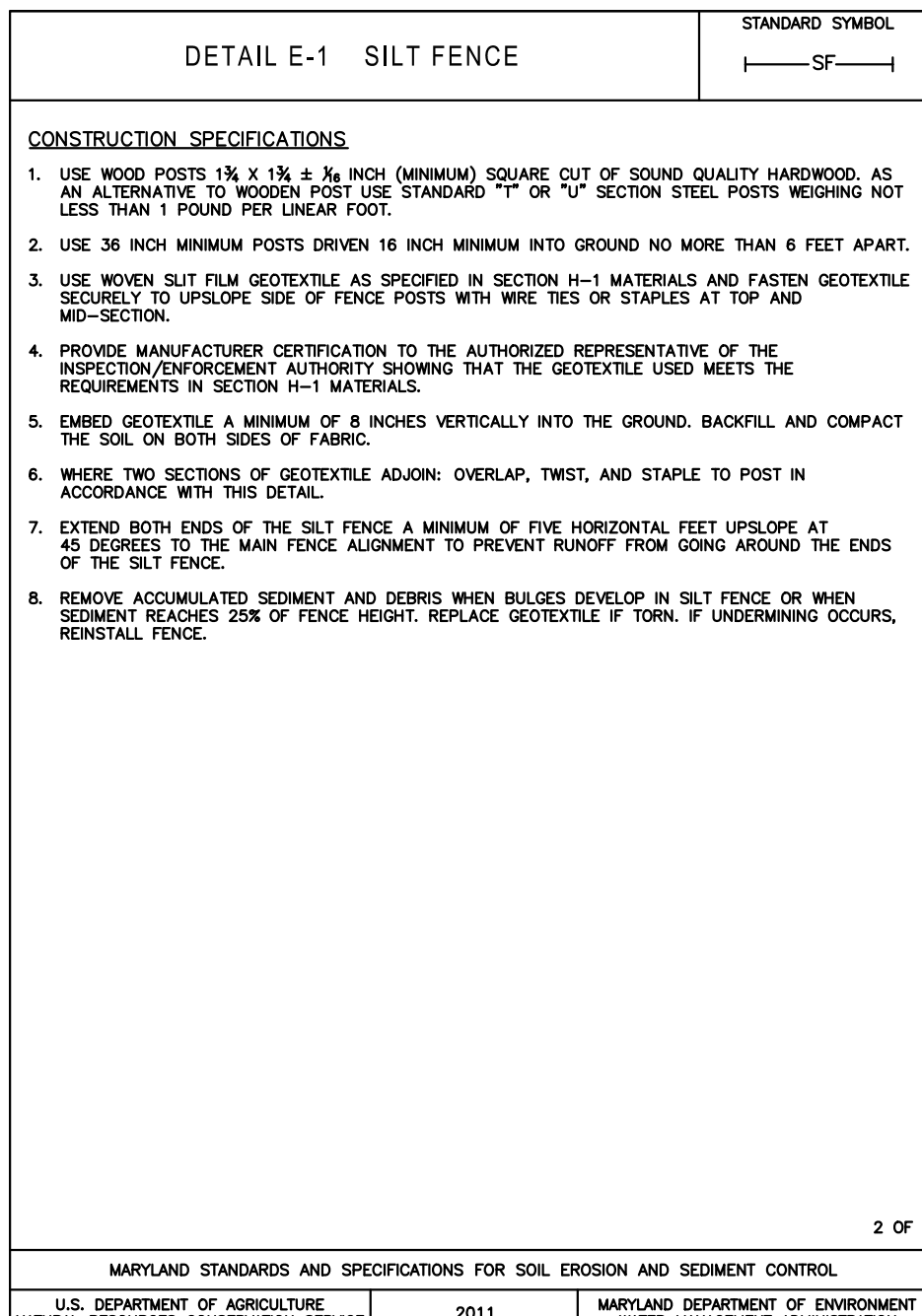
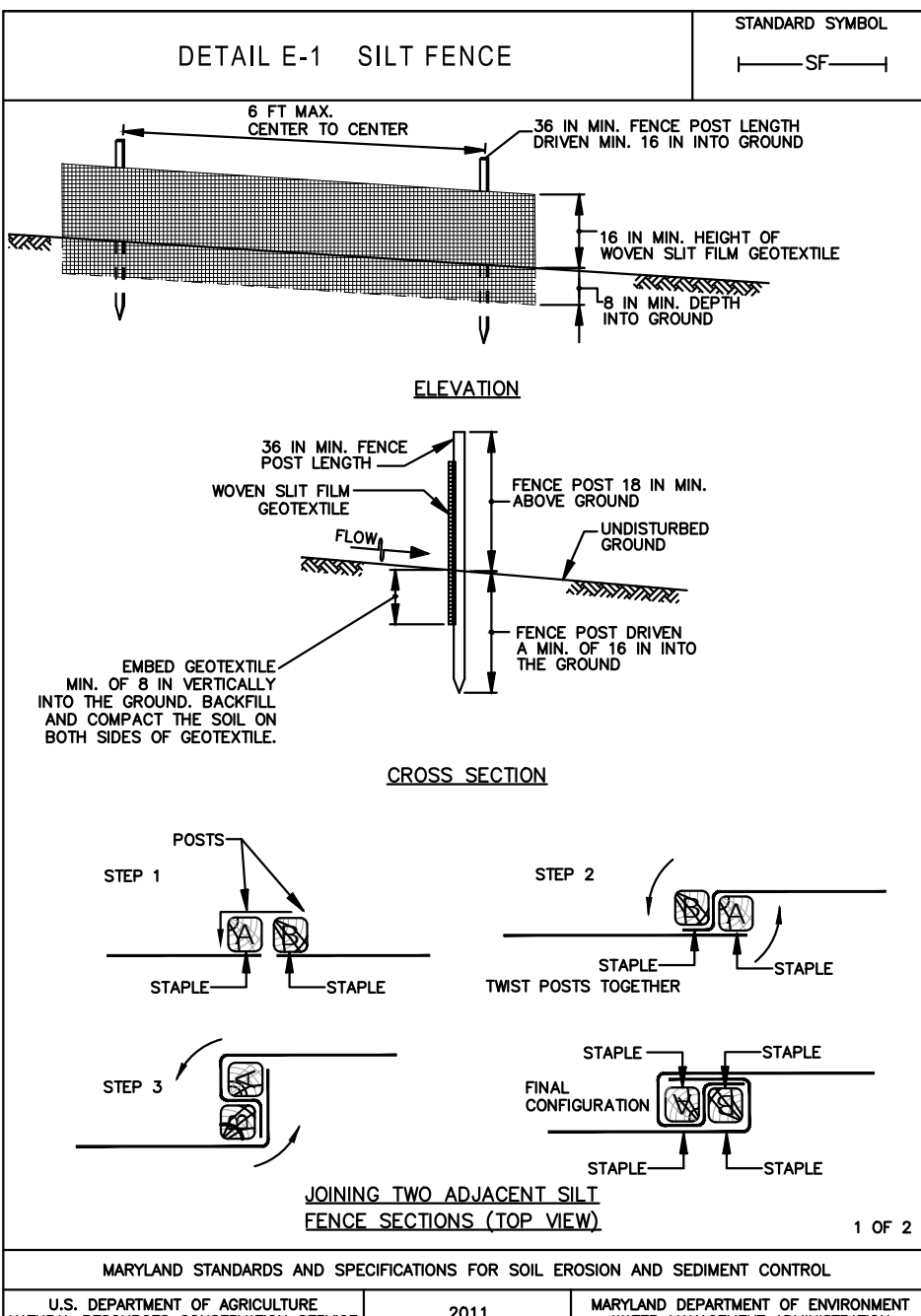
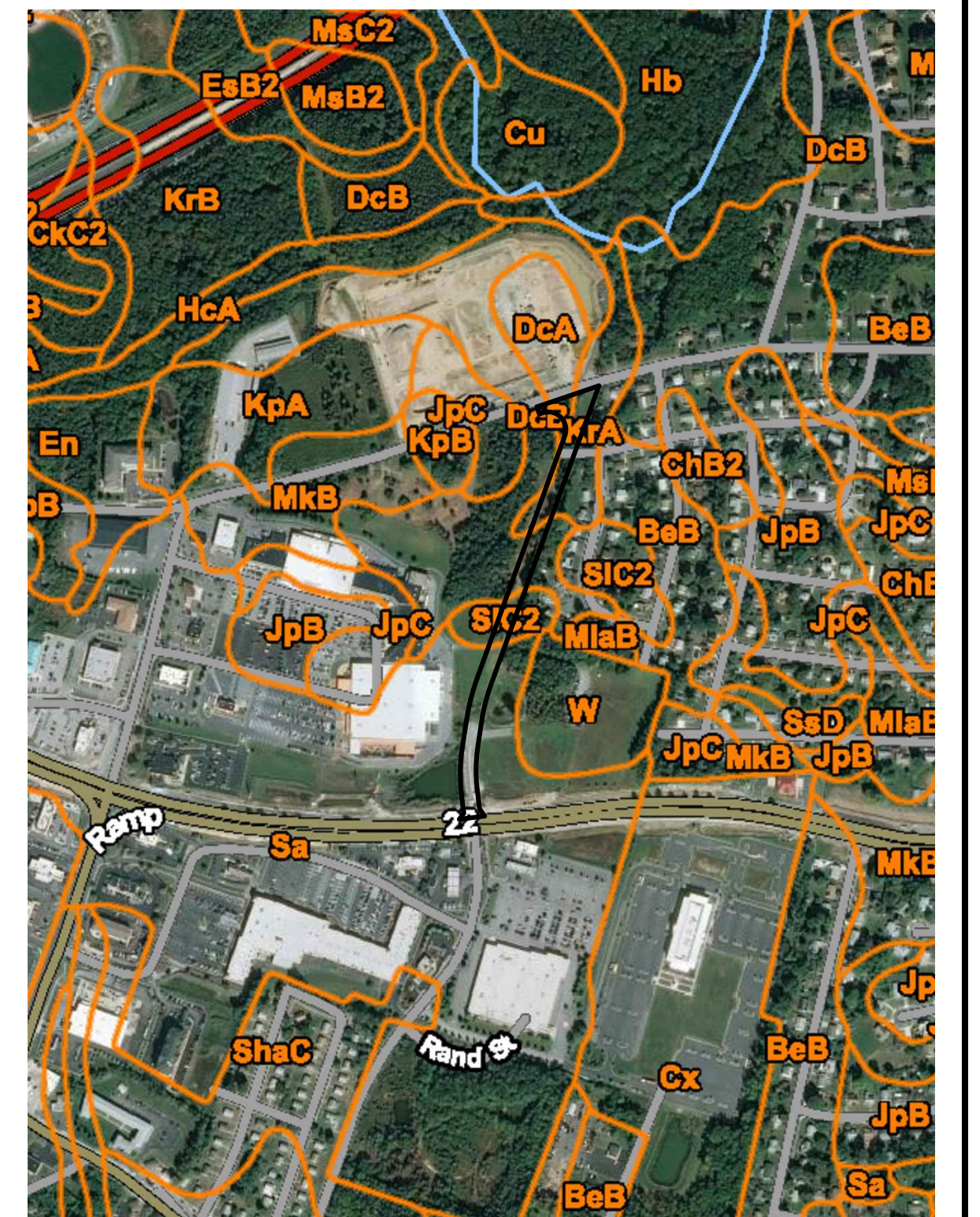
DESIGNED: SPM/RLR
DRAWN: SPM/RLR
CHECKED: RLR
SCALE: AS SHOWN
SHEET: 14 OF 14



Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
A8B	Aldro silt loam, 3 to 8 percent slopes	11.0	1.7%
A9C	Aldro silt loam, 8 to 15 percent slopes	0.2	0.0%
A9B	Aldro very stony silt loam, 0 to 5 percent slopes	7.1	1.0%
B9A	Belleville silt loam, 0 to 2 percent slopes	2.2	0.3%
B9B	Belleville silt loam, 2 to 5 percent slopes	41.4	6.0%
B9C	Belleville silt loam, 5 to 10 percent slopes	2.3	0.3%
CH2	Chilren silt loam, 2 to 5 percent slopes, moderately eroded	26.9	3.9%
CH2C	Chilren-ashpanny loams, 5 to 10 percent slopes, moderately eroded	2.3	0.3%
Cu	Codorus silt loam	7.2	1.1%
Cx	Cut and fill land	51.2	7.5%
DOA	Delanco silt loam, 0 to 3 percent slopes	3.7	0.5%
DOB	Delanco silt loam, 3 to 8 percent slopes	64.7	12.4%
En	Elton silt loam	20.7	3.0%
EA	Esplanora silt loam, 0 to 2 percent slopes	0.3	0.0%
S8B2	Esplanora silt loam, 2 to 5 percent slopes, moderately eroded	15.0	2.2%
EU2	Esplanora silt loam, 5 to 10 percent slopes, moderately eroded	7.1	1.0%
Hb	Haltom silt loam	22.4	3.3%
H9A	Haltom-Codorus complex, 0 to 3 percent slopes, irregularly flooded	26.3	3.8%
JpB	Joppa gravelly sandy loam, 2 to 5 percent slopes	23.3	3.4%
JpC	Joppa gravelly sandy loam, 5 to 10 percent slopes	26.5	3.9%
K9A	Kayport silt loam, 0 to 2 percent slopes	10.4	1.5%
K9B	Kayport silt loam, 2 to 5 percent slopes	33.6	4.9%
K9A	Kirkers silt loam, 0 to 3 percent slopes	6.9	1.0%

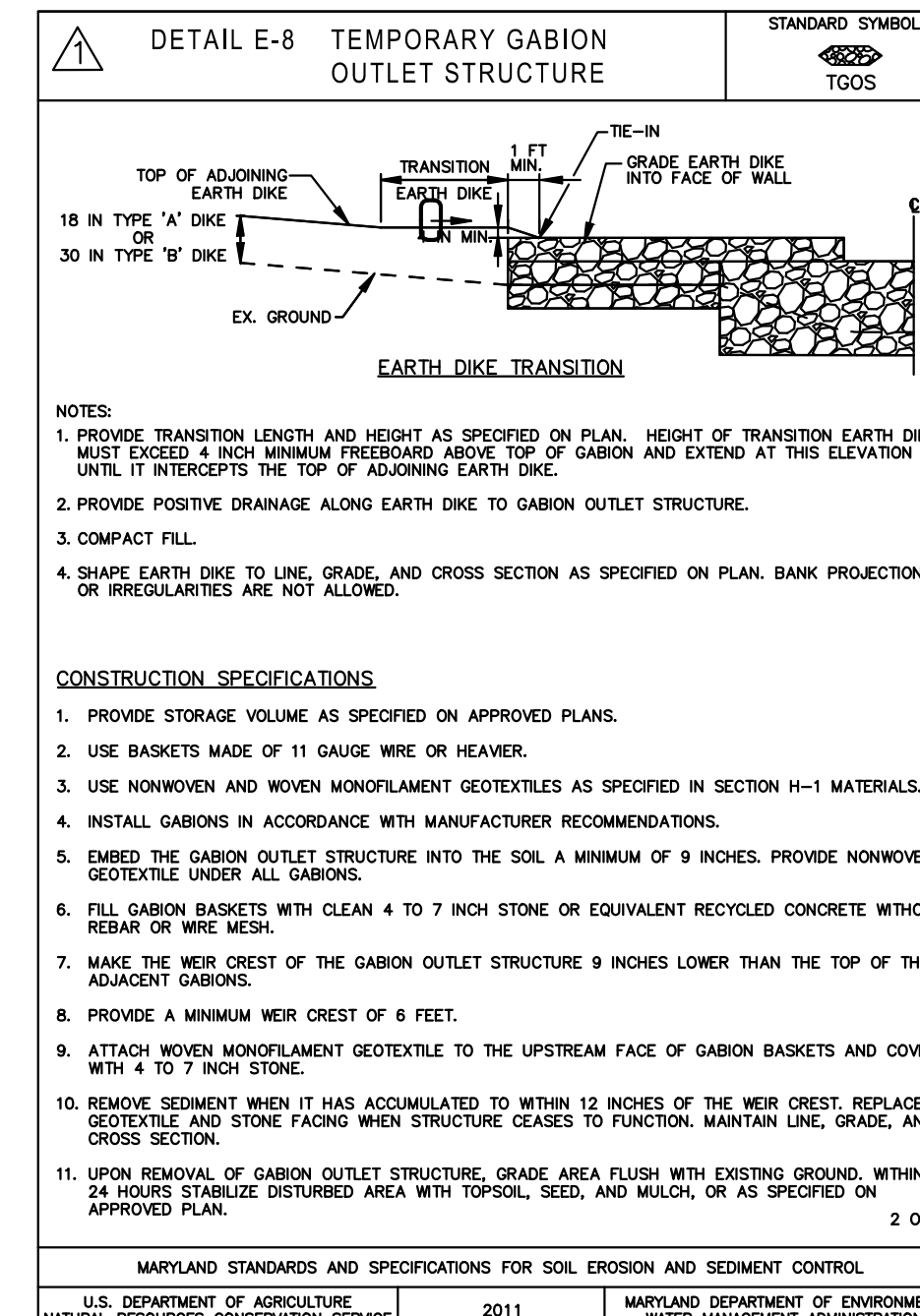
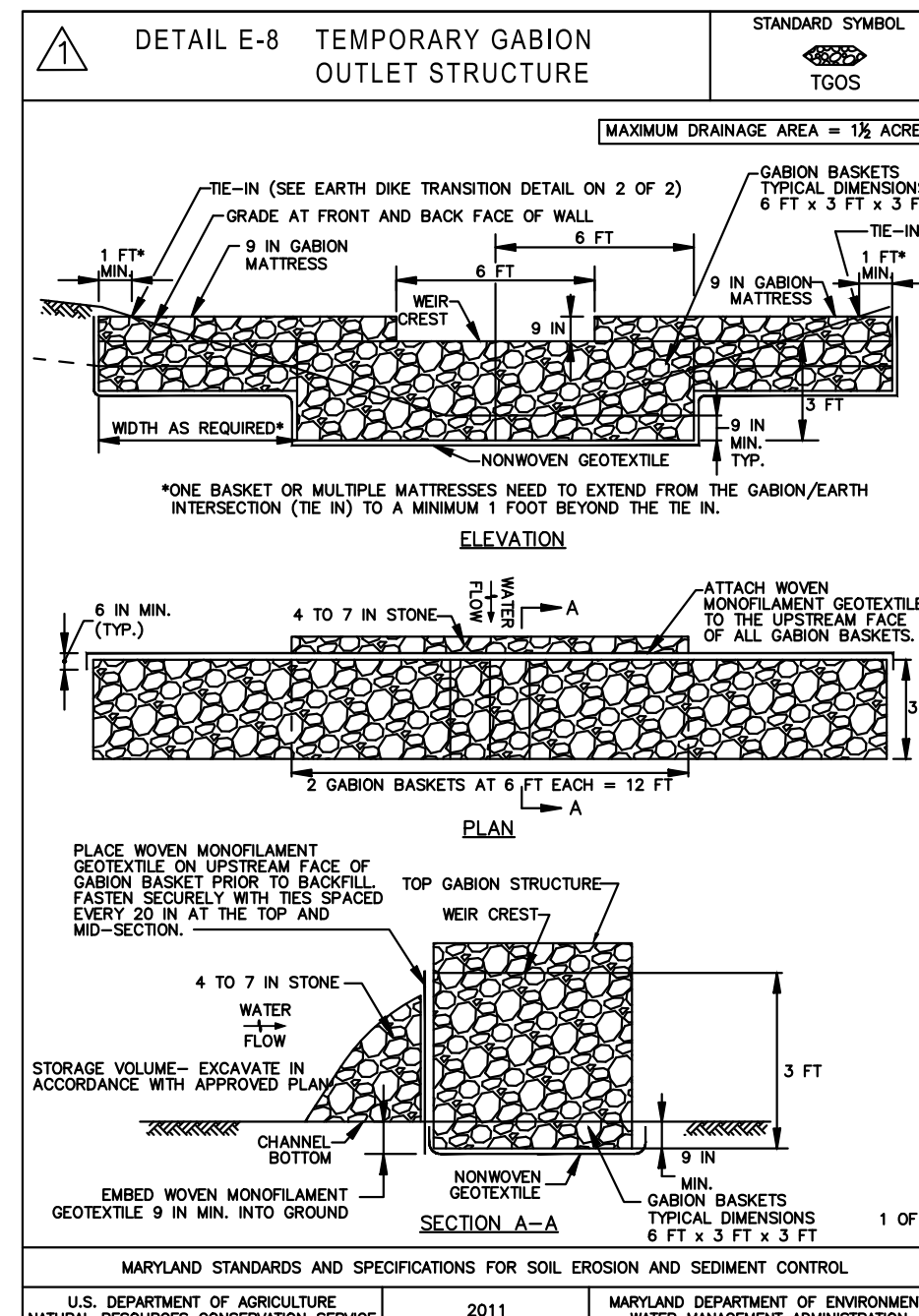
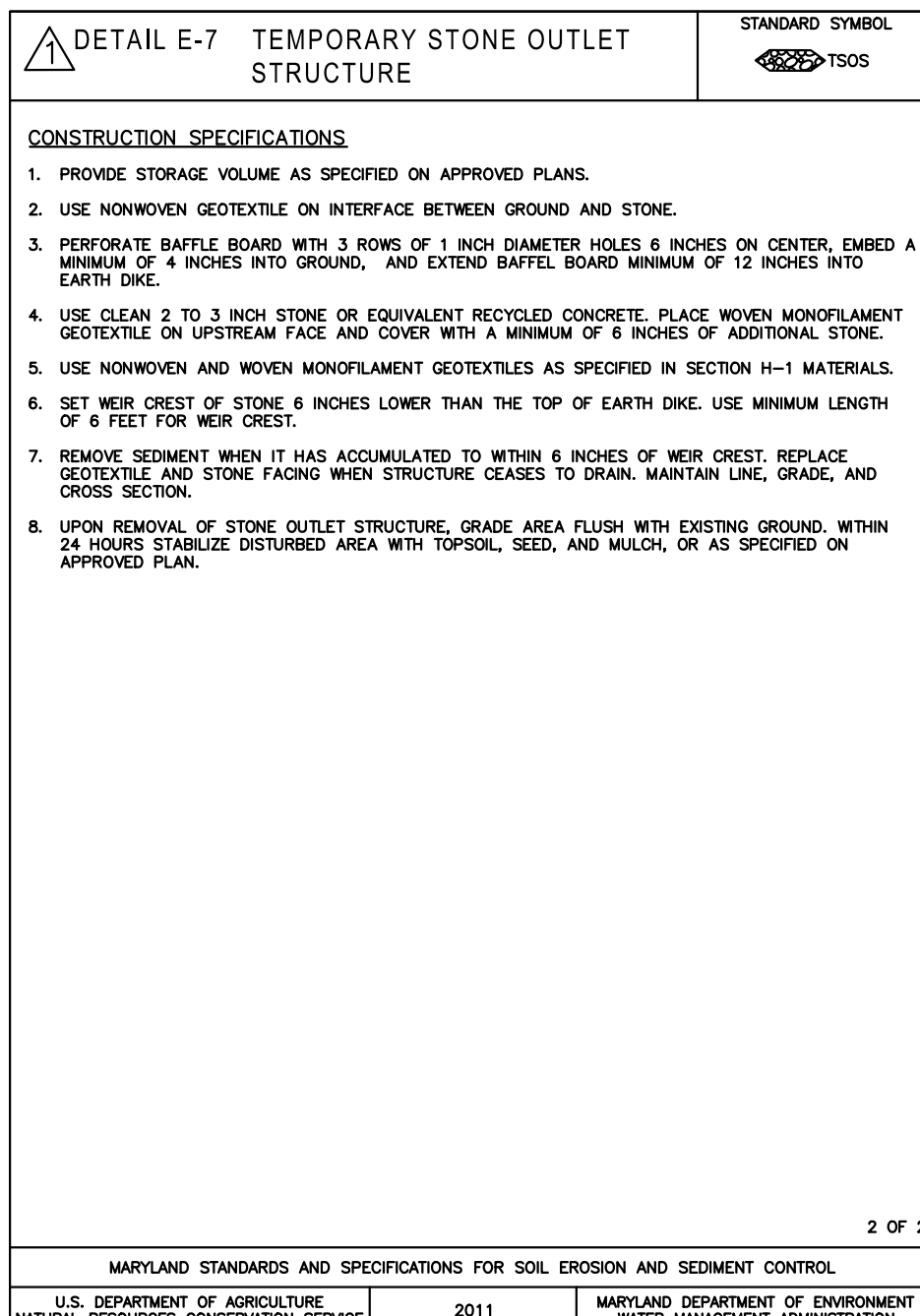
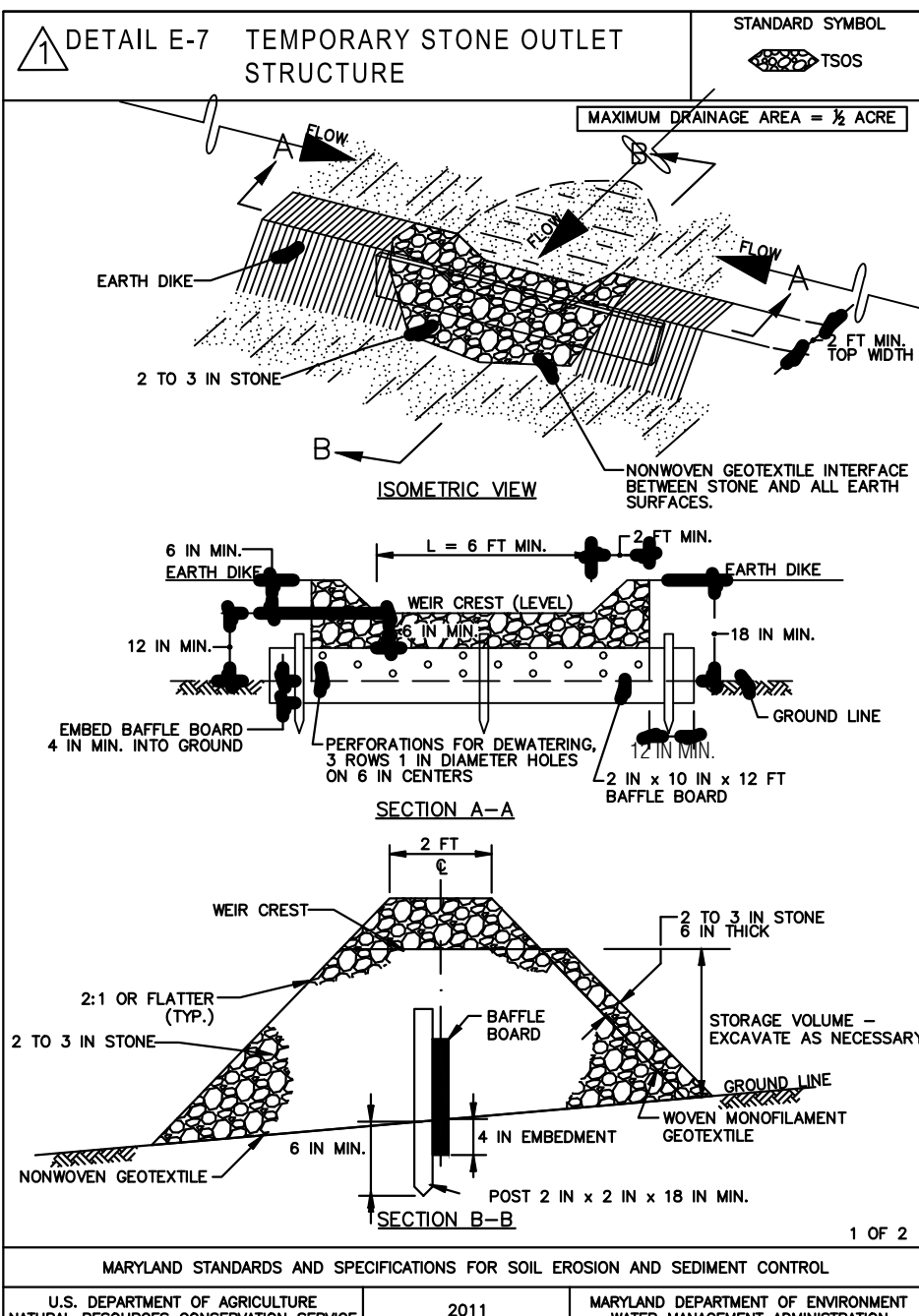


Custom Soil Resource Report

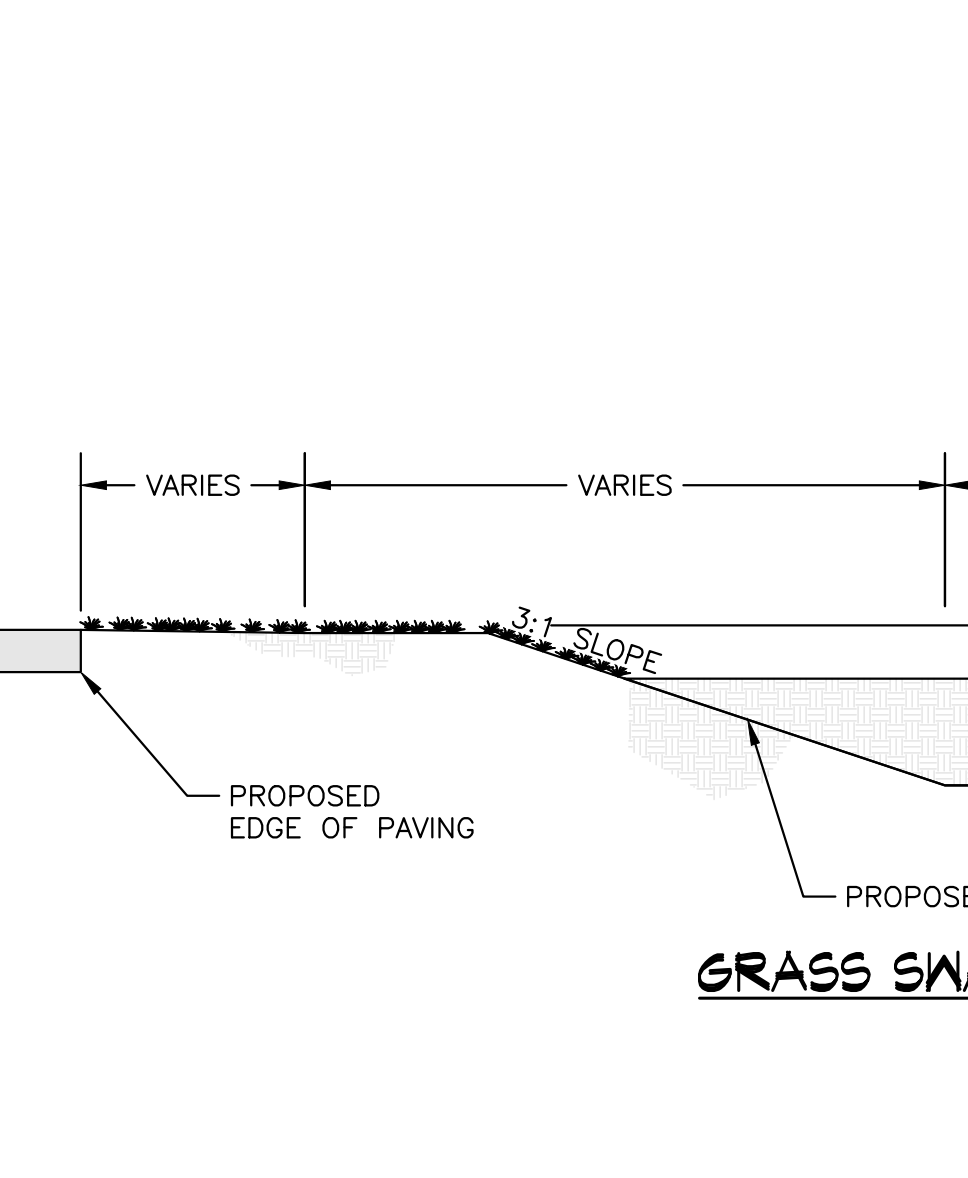
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
A9B	Kirkers silt loam, 3 to 8 percent slopes	12.0	1.8%
L1C	Lager very stony silt loam, 0 to 15 percent slopes	3.8	0.6%
LgC3	Lager silty clay loam, 8 to 15 percent slopes, severely eroded	0.6	0.1%
M9A	Mattawake silt loam, 0 to 2 percent slopes	5.9	0.9%
M9B	Mattawake silt loam, 2 to 5 percent slopes	23.8	3.5%
M9B	Mattawake silt loam, 2 to 5 percent slopes, northern coastal plain	5.0	0.7%
M9A	Montello silt loam, 0 to 3 percent slopes	0.4	0.1%
M9B2	Montello silt loam, 3 to 8 percent slopes, moderately eroded	17.3	2.5%
MC2	Montello silt loam, 8 to 15 percent slopes, moderately eroded	4.0	0.6%
N9C	Neshaminy and Montello very stony silt loam, 0 to 15 percent slopes	4.2	0.6%
N9D	Neshaminy and Montello very stony silt loam, 15 to 25 percent slopes	0.8	0.1%
Sa	Sand and gravel pits	100.3	14.6%
SB9B	Sassafras sandy loam, 2 to 5 percent slopes, Northern Coastal Plain	22.0	3.2%
ShC	Sassafras sandy loam, 5 to 10 percent slopes, Northern Coastal Plain	27.0	3.9%
S8B2	Sassafras silt loam, 2 to 5 percent slopes	5.0	0.7%
S9C2	Sassafras silt loam, 5 to 10 percent slopes, moderately eroded	8.4	1.2%
ShD	Sassafras and Joppa soils, 10 to 15 percent slopes	1.5	0.2%
W	Water	5.8	0.8%
W9A	Washing silt loam, 0 to 3 percent slopes	0.8	0.1%
W9B	Washing silt loam, 3 to 8 percent slopes	2.1	0.3%
Totals for Area of Interest		685.5	100.0%

SOILS PLAN
SCALE: 1"=600'



Custom Soil Resource Report



CHECK DAM PROFILE
NOT TO SCALE

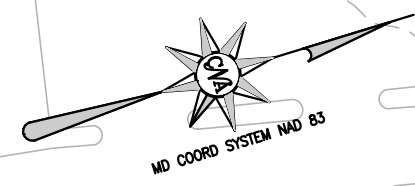
CITY OF ABERDEEN
MARYLAND

GRADING PERMIT NO. 19-02
STORM WATER MANAGEMENT NO. 19-02
PUBLIC WORKS AGREEMENT NO. N/A

MIDDELTON ROAD EXTENSION - CONTRACT #19-07
EROSION AND SEDIMENT CONTROL PLAN DETAILS
CITY OF ABERDEEN
HARFORD COUNTY, MARYLAND

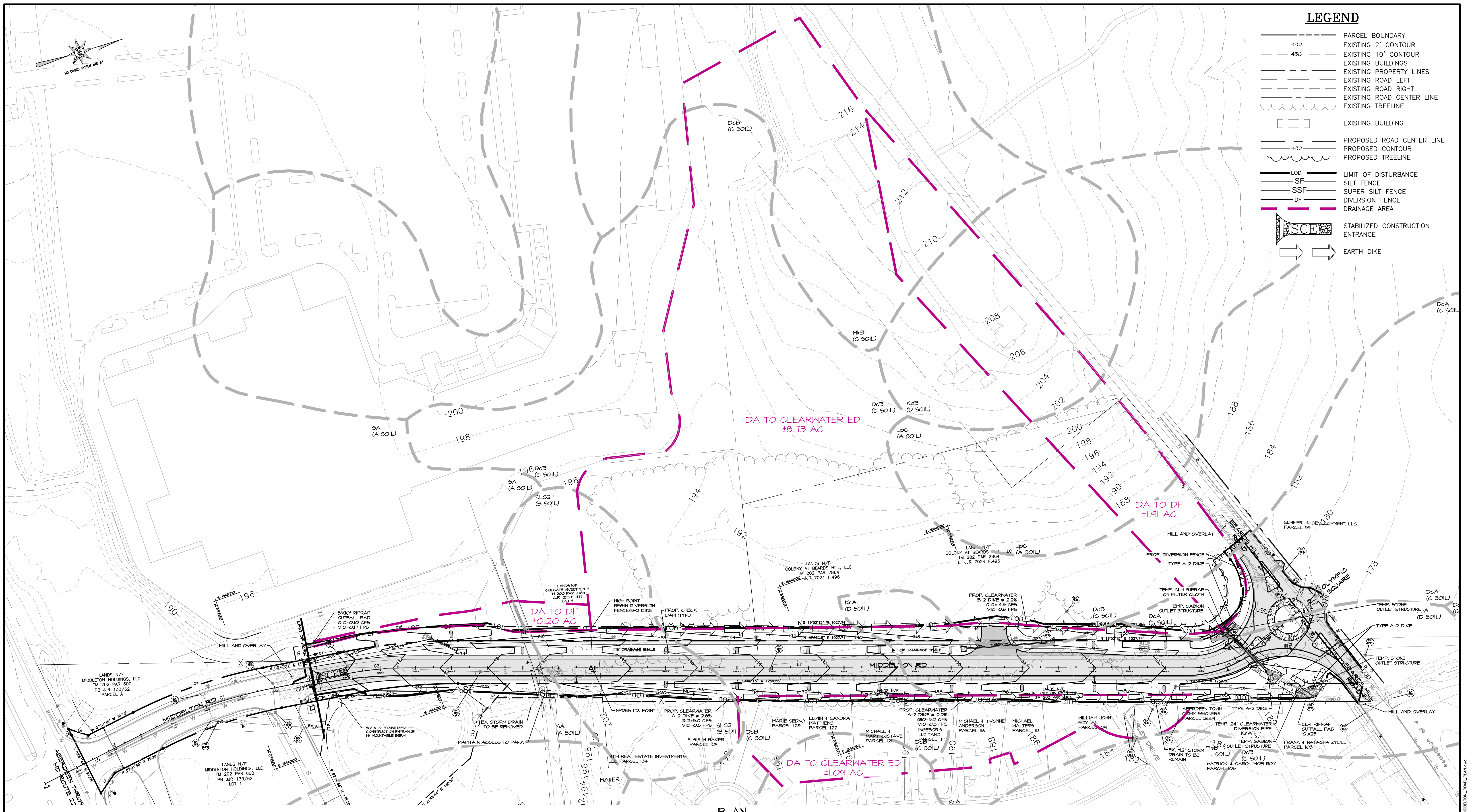
CNA
Civil Engineers - Land Surveyors - Landscape Architects
Planners - Geotechnical Engineers - Environmental Engineers
1800 Ricks Drive
Ft. Belvoir, Maryland 21050
Phone (443) 462-4141 Fax (410) 538-1811
E-mail: cna@cnacorp.com

DESIGNED: SPM/RLR
DRAWN: SPM/RLR
CHECKED: RLR
SCALE: AS SHOWN
SHEET: 14 OF 14
DATE: 02/26/11
PROJECT: 202-01-600
NO. GRIDS: 9
OF: 14
FILES: 10.1720116.00
ES-3



LEGEND

- PARCEL BOUNDARY
- - - 432 EXISTING 2' CONTOUR
- - - 430 EXISTING 10' CONTOUR
- - - EXISTING BUILDINGS
- - - EXISTING PROPERTY LINES
- - - EXISTING ROAD LEFT
- - - EXISTING ROAD RIGHT
- - - EXISTING ROAD CENTER LINE
- - - EXISTING TREELINE
- [] EXISTING BUILDING
- - - PROPOSED ROAD CENTER LINE
- - - PROPOSED CONTOUR
- - - PROPOSED TREELINE
- LOD LIMIT OF DISTURBANCE
- SF SILT FENCE
- SSF SUPER SILT FENCE
- DF DIVERSION FENCE
- DRAINAGE AREA
- [SCE] STABILIZED CONSTRUCTION ENTRANCE
- [] EARTH DIKE



PLAN
SCALE: 1"=60'

0 1" = 60'		ES-4
02/26/11	ISC REVISIONS	SPM
02/24/11	ISC REVISIONS	SPM
DATE	REVISION	BY
DRAWING COMPLETED		

CITY OF ABERDEEN MARYLAND	GRADING PERMIT NO.: 19-02 STORM WATER MANAGEMENT NO.: 19-02 PUBLIC WORKS AGREEMENT NO.: N/A	MIDDLETON ROAD EXTENSION - CONTRACT #19-07 ESC PLAN DRAINAGE AREA MAP EXHIBIT <small>CITY OF ABERDEEN HARBOR COUNTY, MARYLAND</small>	<small>Civil Engineers - Land Surveyors - Landscape Architects Planners - Geotechnical Engineers - Environmental Engineers 1800 Robin Drive Fosses Hill, Maryland 21050 Phone (443) 862-8141 Fax (410) 838-1811 E-mail: cna@md-cna-engineers.com</small>	DESIGNED: SPM/RLR DRAWN: SPM/RLR CHECKED: CRM	SCALE: AS SHOWN TAX MAP PARCEL: 200-4 AD & MAP: 600 NO. GRIDS: NO XX X-X X-X OF: OF	SHEET: 1 FILES: 1 No. 1720116.00
--	---	--	---	---	--	--

T:\CNA\Design\Design\1720116.00_Middleton_Road\CON\REVISION\1720116.00_MIDDLETON_ROAD_PLAN.rvt