

NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1

CAPITAL PROJECT K-5035

2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

INDEX OF DRAWINGS

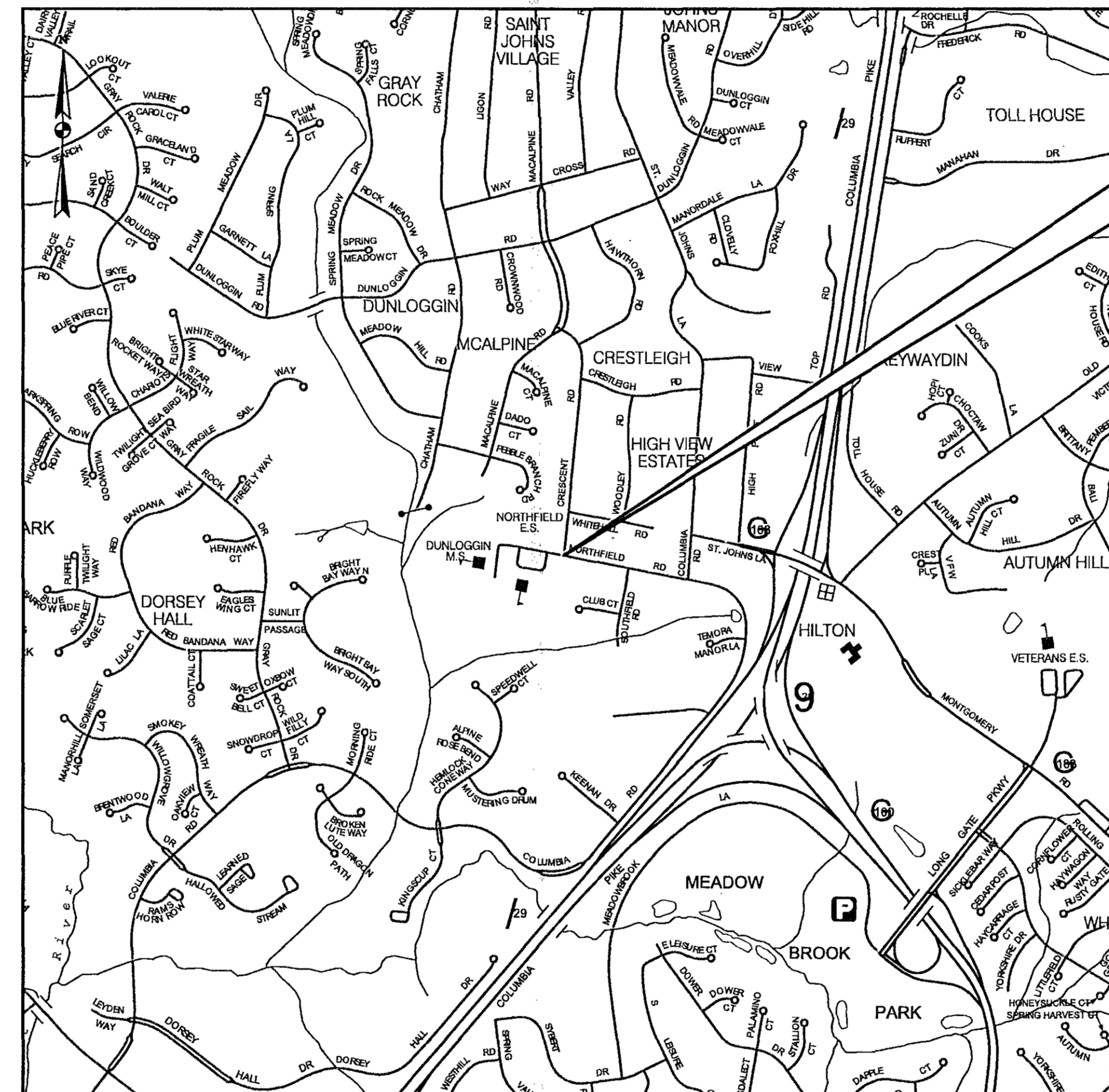
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GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 HOWARD COUNTY PUBLIC SCHOOLS AT 410-313-6600 AND MISS UTILITY AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK.
 2. THE HORIZONTAL AND VERTICAL CONTROL FOR THESE PLANS ARE BASED ON THE MARYLAND STATE SYSTEM OF PLANE COORDINATES AS ESTABLISHED FROM THE FOLLOWING HOWARD COUNTY CONTROL POINTS:
24F3, 24F4, 24IA, 24IB
THE SYSTEM OF COORDINATES USED IS BASED ON THE FOLLOWING DATUMS AND PROJECTIONS:
HORIZONTAL: NAD83/2011
VERTICAL: NAVD83
 3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
 4. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE '2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL,' ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND THE NATURAL RESOURCES CONSERVATION SERVICE.
 5. TOPOGRAPHIC SURVEYS WERE PERFORMED BY URS CORPORATION IN APRIL 2014.
 6. THE PROPERTY LINES AND EASEMENT LINES ARE APPROXIMATE.
 7. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
 8. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 9. APPROXIMATE UTILITIES ARE SHOWN FROM AVAILABLE RECORDS AND/OR FIELD RECONNAISSANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

UTILITY CONTACTS:

AT&T	1-800-252-1133
BGE (CONSTRUCTION SERVICES)	(410) 637-8713
BGE (EMERGENCY)	(410) 685-0123
HOCO BUREAU OF UTILITIES	(410) 313-4900
COLONIAL PIPELINE CO.	(410) 785-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
VERIZON	1-800-743-0033



LOCATION MAP
HOWARD COUNTY
1000 0 1000 2000
SCALE: 1" = 1000'

TRAVERSE POINTS AND BENCHMARK INFORMATION			
POINT NO.	NORTHING	EASTING	ELEVATION
24F3	581,299.858	1,360,713.774	365.347
24F4	582,298.642	1,360,571.016	386.118
24IA	579,167.044	1,360,260.252	357.152
24IB	578,753.50	1,362,302.987	390.56

DEVELOPER'S CERTIFICATION
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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."
Steve Shavar 7/10/14
SIGNATURE OF DEVELOPER DATE

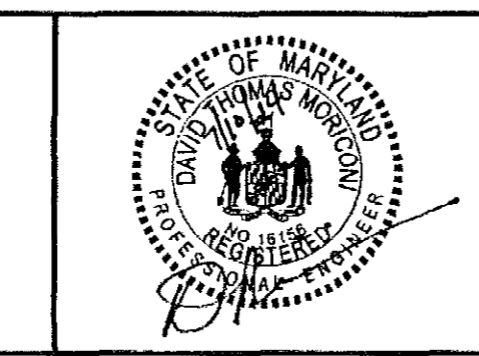
ENGINEER'S CERTIFICATION
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
DA 7/9/2014
URS CORPORATION
4 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
John R. Johnston 7/10/14
HOWARD SOIL CONSERVATION DISTRICT DATE
EP-15-001

PROFESSIONAL CERTIFICATION
"I HEREBY CERTIFY THAT 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. 16156. EXPIRATION DATE: 3/28/2014."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ray 7/11/13
DIRECTOR OF PUBLIC WORKS DATE
Steve Shavar 7/10/14
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE
Morgan B. Butler 7/10/14
CHIEF, BUREAU OF ENGINEERING DATE
Walter Serrano 7/11/14
CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

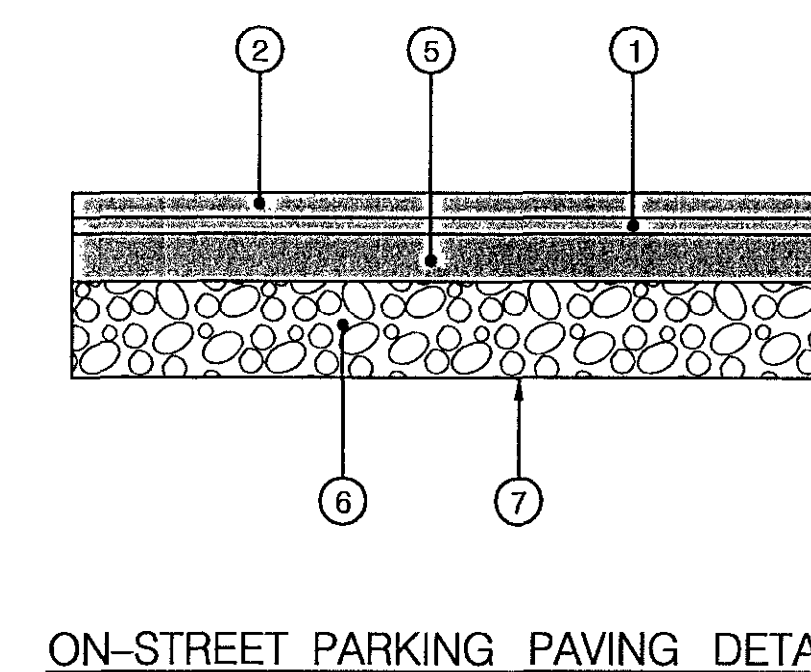
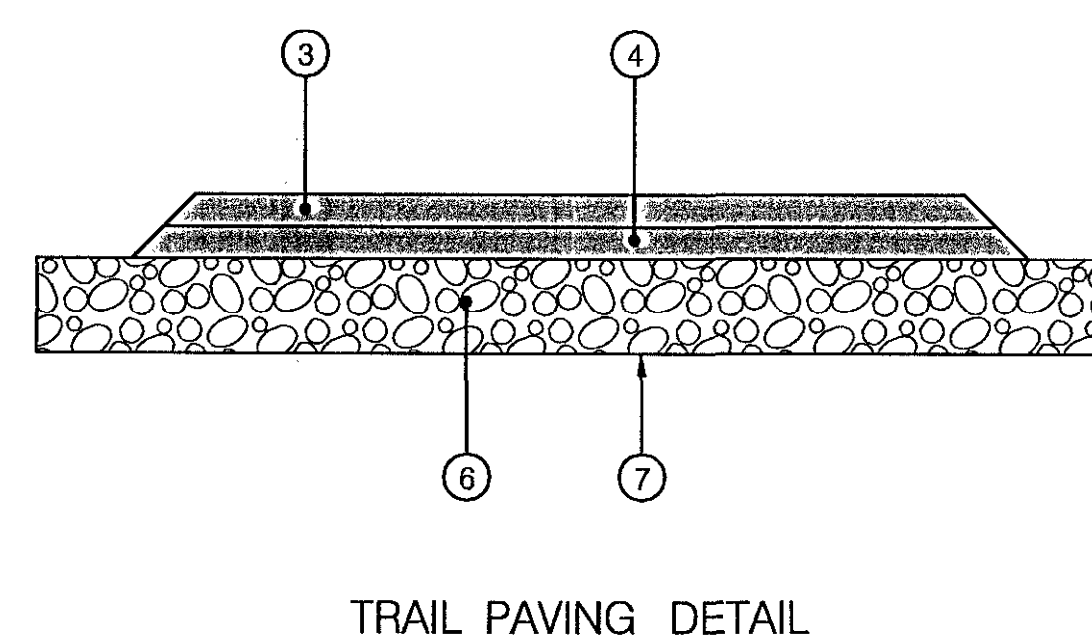
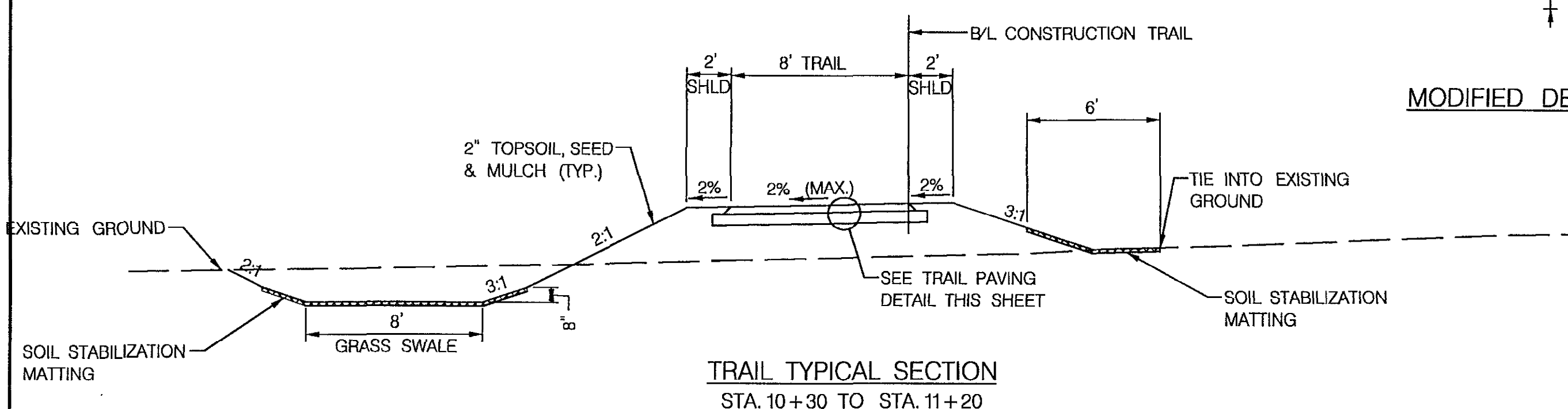
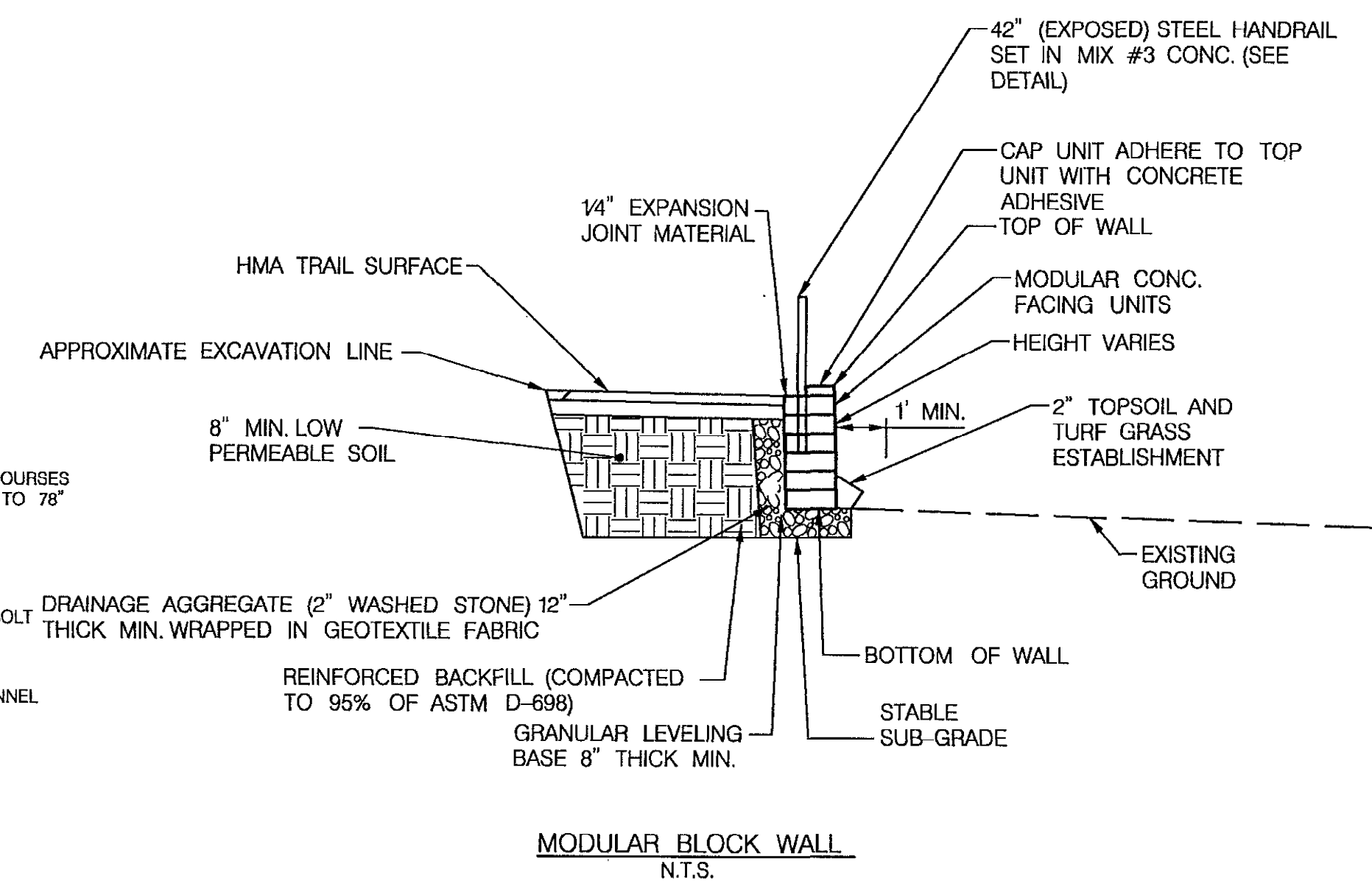
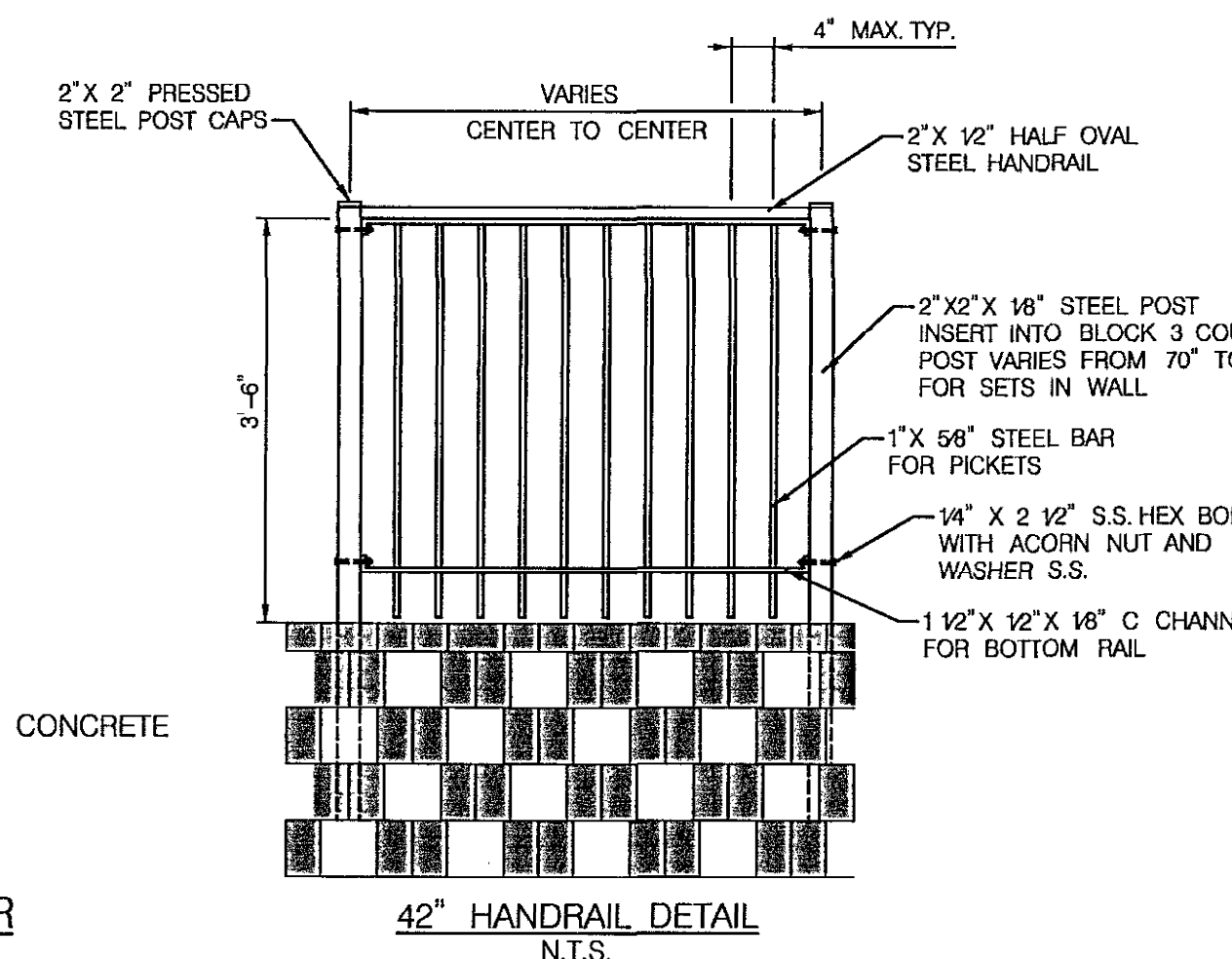
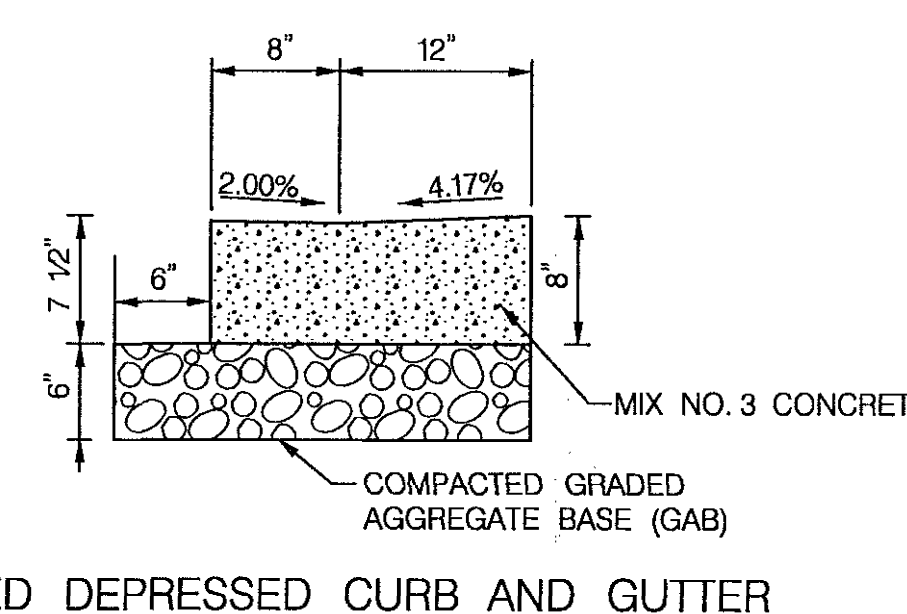
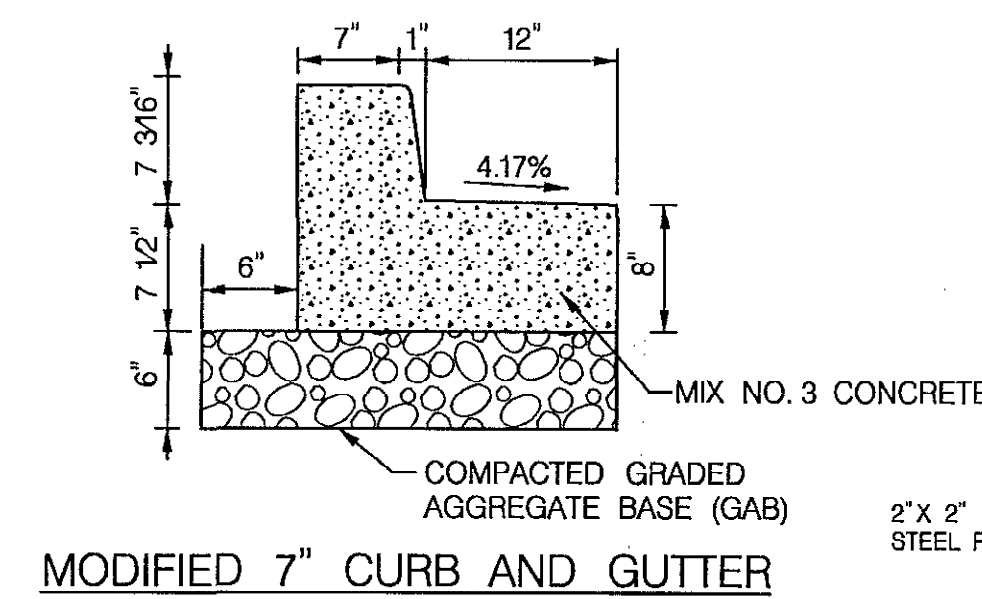
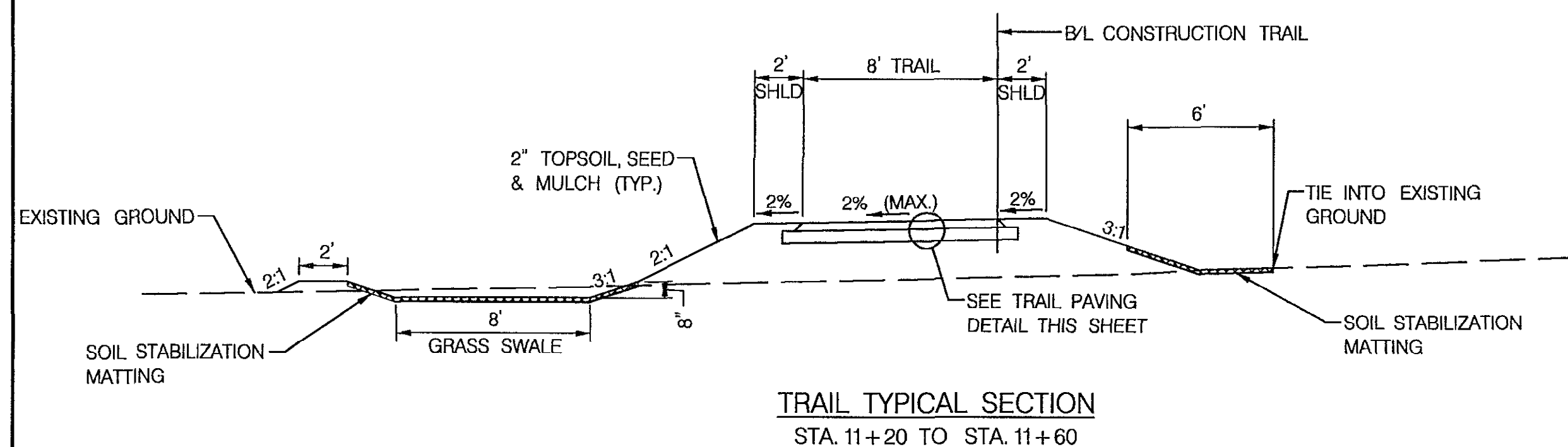
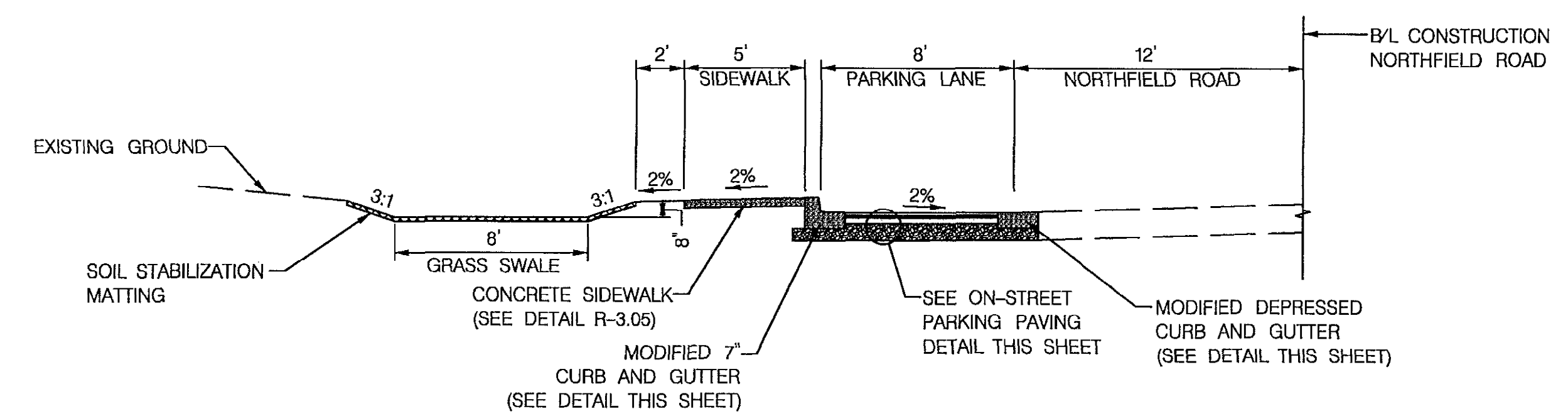
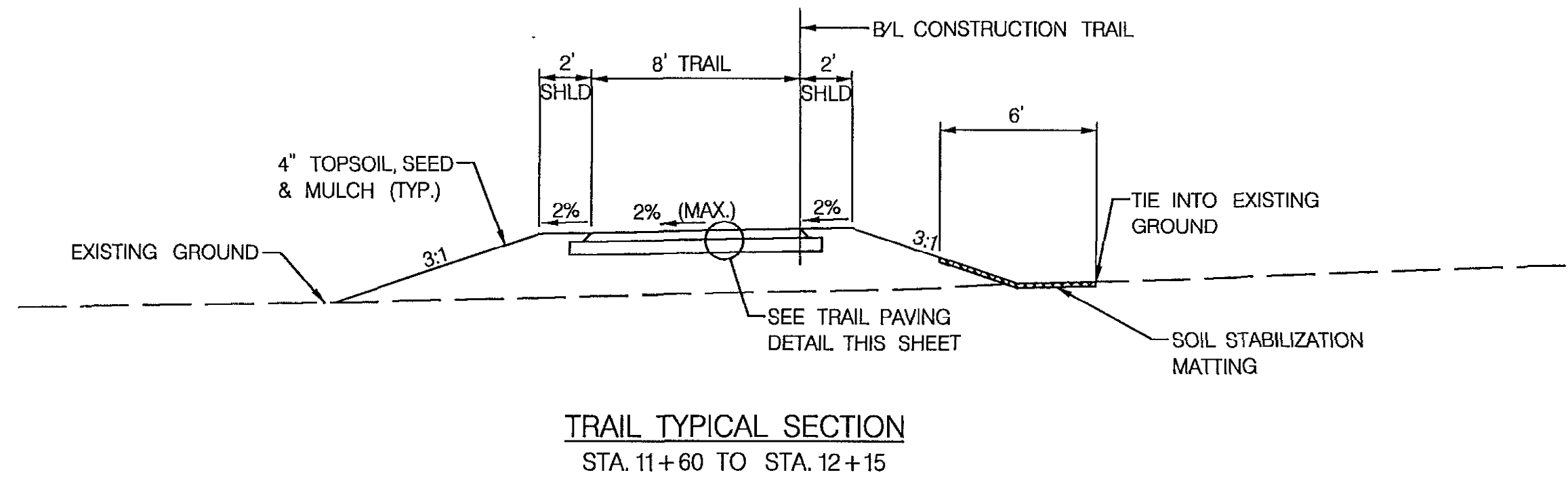
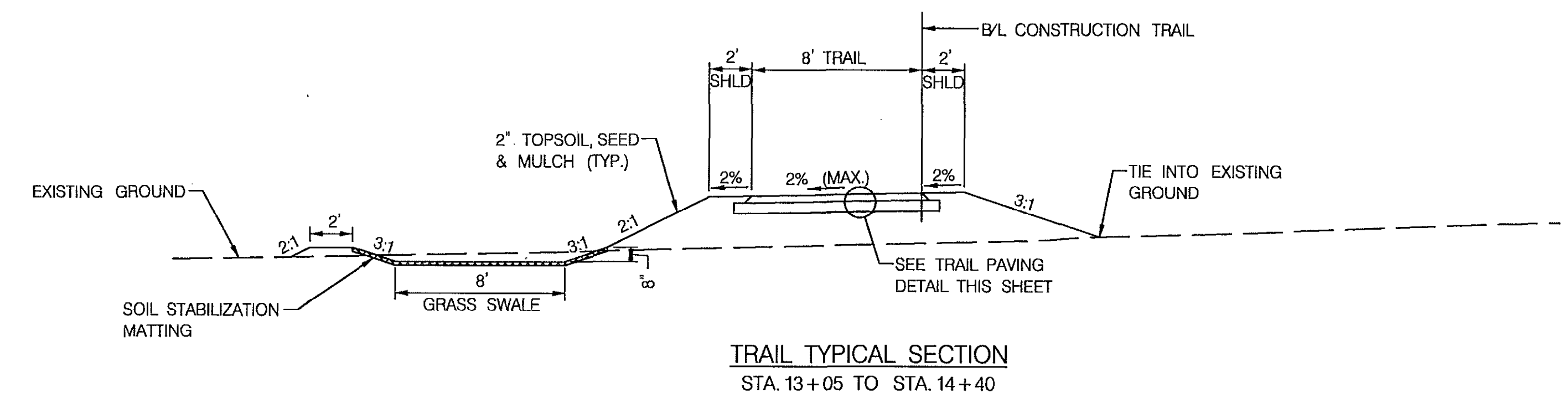
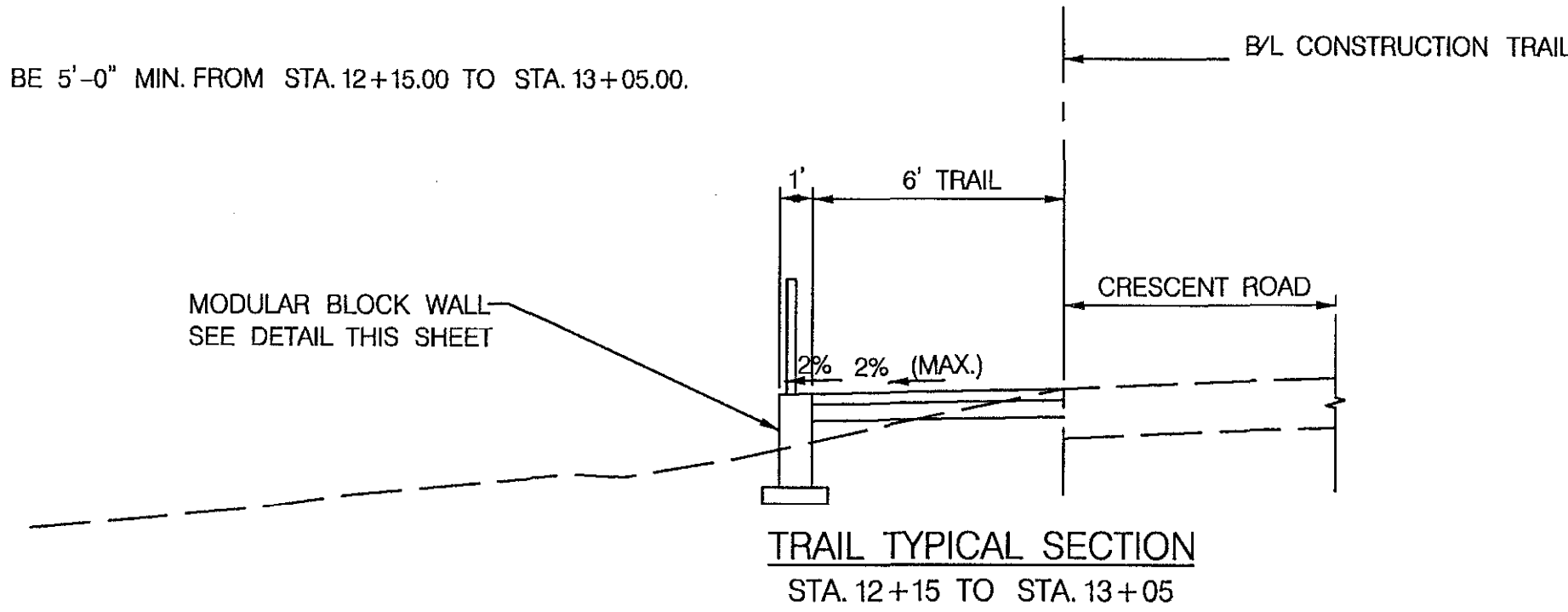


DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 7/2014			
BY NO.		REVISION	DATE

TITLE SHEET
SCALE MAP NO. _____ BLOCK NO. _____

SCALE AS SHOWN
SHEET 1 OF 8
NORTHFIELD ROAD
SIDEWALK PLAN - PHASE 1
2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

NOTES
1) TRAIL SHALL BE 5'-0" MIN. FROM STA. 12+15.00 TO STA. 13+05.00.



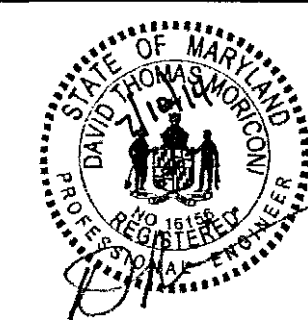
- PAVING LEGEND**
- ① 1" HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1
 - ② 1.5" HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1
 - ③ 2" HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1
 - ④ 2" HMA SUPERPAVE BASE 12.5 MM, PG 64-22, LEVEL 1
 - ⑤ 3" HMA SUPERPAVE BASE 12.5 MM, PG 64-22, LEVEL 1
 - ⑥ 6" GRADED AGGREGATE BASE (GAB)
 - ⑦ TOP OF SUBGRADE, LIMIT OF CLASS 1 EXCAVATION
 - ⑧ FULL DEPTH SAWCUT
 - ⑨ SOIL STABILIZATION MATTING

PROFESSIONAL CERTIFICATION
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *John J. ...* 7/11/13
 Chief, Bureau of Engineering: *Thomas E. Butler* 7/10/14
 Chief, Transportation and Special Projects Division: *Steve Sharav* 7/10/14
 Chief, Bureau of Highways: *Holger Sevens* 7/11/14

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220



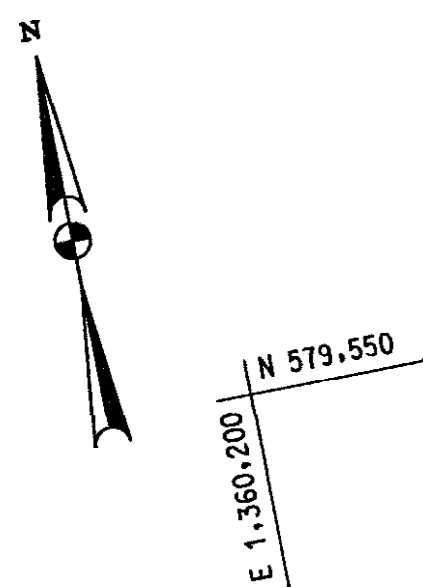
DES:	RLI		
DRN:	CDP		
CHK:	DTM		
DATE:	7/2014		
BY:	NO.	REVISION	DATE

TYPICAL SECTIONS
AND DETAILS I

SCALE MAP NO. BLOCK NO.

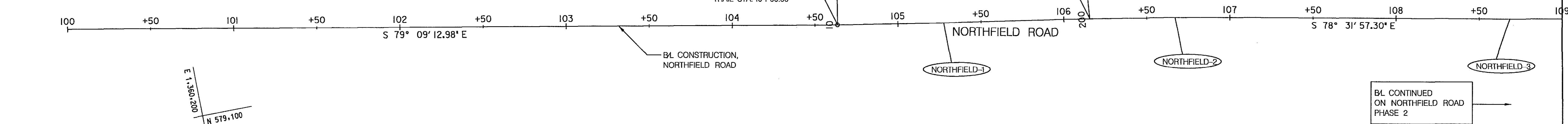
NORTHFIELD ROAD
SIDEWALK PLAN - PHASE 1
2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE
1"=5'
SHEET
2 OF 8

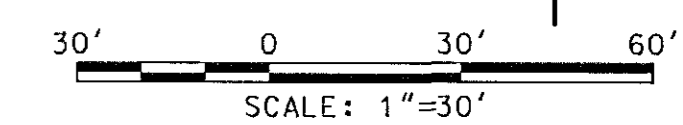


CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
TRAIL-1	74° 28' 32.58" RT	63° 39' 43.12"	90.00	68.41	116.99	23.05
TRAIL-2	94° 02' 13.44" LT	76° 23' 39.74"	75.00	80.48	123.09	35.01
TRAIL-3	14° 04' 00.50" RT	63° 39' 43.11"	90.00	11.10	22.10	0.68
NORTHFIELD-1	1° 31' 33.43" LT	1° 08' 45.30"	5,000.00	66.59	133.16	0.44
NORTHFIELD-2	2° 08' 49.11" RT	1° 25' 56.62"	4,000.00	74.95	149.89	0.70
NORTHFIELD-3	0° 43' 46.83" LT	0° 45' 50.20"	7,500.00	47.76	95.51	0.15
NORTHFIELD-4	0° 21' 55.28" RT	0° 22' 55.10"	15,000.00	47.83	95.65	0.08
CRESCENT-1	1° 13' 12.94" RT	1° 35' 29.58"	3,600.00	38.34	76.67	0.20

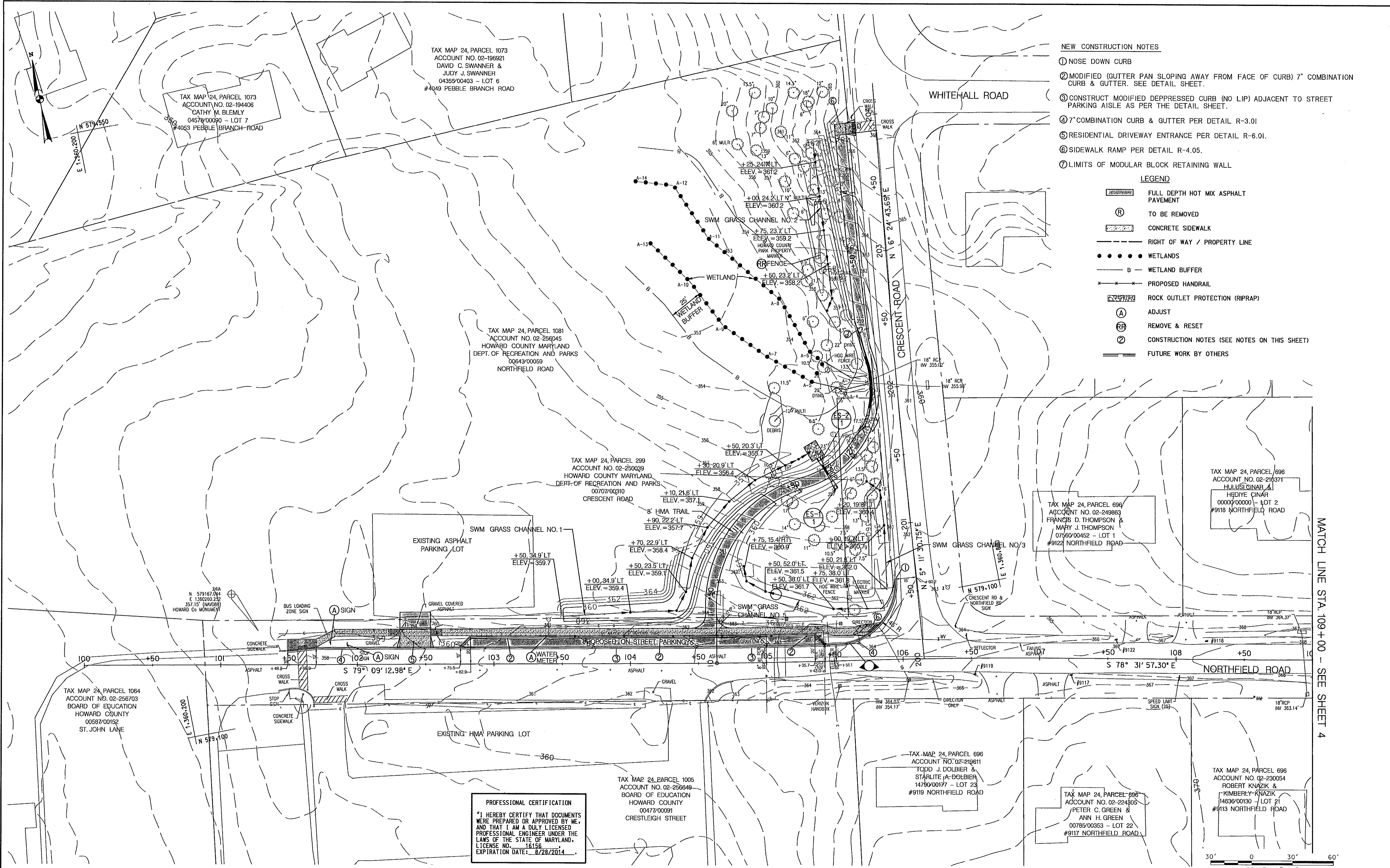
CONSTRUCTION CONTROL COORDINATES				
CURVE	STATION	NORTHING	EASTING	BEARING
B/L TRAIL				
	POT 10+00.00	579,097.5760	1,360,605.3406	N 10° 27' 44.45" E
	PC 10+40.72	579,119.6167	1,360,592.9185	N 10° 27' 44.45" E
TRAIL-1	PI 11+09.13	579,186.8869	1,360,605.3406	
	PT 11+57.70	579,192.9227	1,360,673.4813	N 84° 56' 17.04" E
	PC 11+57.70	579,192.9227	1,360,673.4813	N 84° 56' 17.04" E
TRAIL-2	PI 12+38.18	579,200.0233	1,360,753.6433	
	PT 12+80.79	579,279.4817	1,360,740.9206	N 9° 05' 46.40" W
	PC 12+80.79	579,279.4817	1,360,740.9206	N 9° 05' 46.40" W
TRAIL-3	PI 12+91.90	579,290.4514	1,360,739.1652	
	PT 13+02.89	579,301.5135	1,360,740.1273	N 4° 58' 14.10" E
	POT 14+43.18	579,441.2737	1,360,752.2824	N 4° 58' 14.10" E
B/L NOTRHFIELD ROAD				
	POT 100+00.00	579,166.6789	1,360,130.3183	S 79° 09' 12.98" E
	PC 104+29.95	579,085.7722	1,360,552.5879	S 79° 09' 12.98" E
NORTHFIELD-1	PI 104+96.54	579,073.2423	1,360,617.9846	
	PT 105+63.12	579,062.4582	1,360,683.6918	S 80° 40' 46.41" E
	PC 105+63.12	579,062.4582	1,360,683.6918	S 80° 40' 46.41" E
NORTHFIELD-2	PI 106+38.07	579,050.3193	1,360,757.6546	
	PT 107+13.00	579,035.4179	1,360,831.1108	S 78° 31' 57.30" E
	PC 108+35.47	579,011.0703	1,360,951.1326	S 78° 31' 57.30" E
NORTHFIELD-3	PI 108+83.23	579,001.5755	1,360,997.9370	
	PT 109+30.98	578,992.6776	1,361,044.8586	S 79° 15' 44.13" E
	PC 112+83.37	578,927.0230	1,361,391.0757	S 79° 15' 44.13" E
NORTHFIELD-4	PI 113+31.20	578,918.1125	1,361,438.0634	
	PT 113+79.02	578,908.9026	1,361,484.9933	S 78° 53' 48.85" E
	POT 120+06.56	578,788.0532	1,362,100.7914	S 78° 53' 48.85" E
B/L CRESCENT ROAD				
	POT 200+00.00	579,053.6252	1,360,735.3888	N 5° 11' 30.75" E
	PC 201+62.25	579,215.2117	1,360,750.0713	N 5° 11' 30.75" E
CRESCENT-1	PI 202+00.59	579,253.3915	1,360,753.5404	
	PT 202+38.92	579,291.4887	1,360,757.8219	N 6° 24' 43.69" E
	POT 204+22.45	579,473.8694	1,360,778.3183	N 6° 24' 43.69" E



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DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 7/11/13 Chief, Transportation and Special Projects Division: <i>[Signature]</i> 7/11/14	PREPARED BY URS 4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-7220		DES: RLL			GEOMETRY PLAN	NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1 2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND	SCALE 1"=30'	
			DRN: CDF					DATE: 7/2014	BY NO. _____



- NEW CONSTRUCTION NOTES**
- ① NOSE DOWN CURB
 - ② MODIFIED (GUTTER PAN SLOPING AWAY FROM FACE OF CURB) 7" COMBINATION CURB & GUTTER. SEE DETAIL SHEET.
 - ③ CONSTRUCT MODIFIED DEPRESSIONED CURB (NO LIP) ADJACENT TO STREET PARKING AISLE AS PER THE DETAIL SHEET.
 - ④ 7" COMBINATION CURB & GUTTER PER DETAIL R-3.01
 - ⑤ RESIDENTIAL DRIVEWAY ENTRANCE PER DETAIL R-6.01.
 - ⑥ SIDEWALK RAMP PER DETAIL R-4.05.
 - ⑦ LIMITS OF MODULAR BLOCK RETAINING WALL

- LEGEND**
- [Symbol] FULL DEPTH HOT MIX ASPHALT PAVEMENT
 - [Symbol] TO BE REMOVED
 - [Symbol] CONCRETE SIDEWALK
 - RIGHT OF WAY / PROPERTY LINE
 - WETLANDS
 - B- WETLAND BUFFER
 - PROPOSED HANDRAIL
 - [Symbol] ROCK OUTLET PROTECTION (RIPRAP)
 - (A) ADJUST
 - (R) REMOVE & RESET
 - (2) CONSTRUCTION NOTES (SEE NOTES ON THIS SHEET)
 - [Symbol] FUTURE WORK BY OTHERS

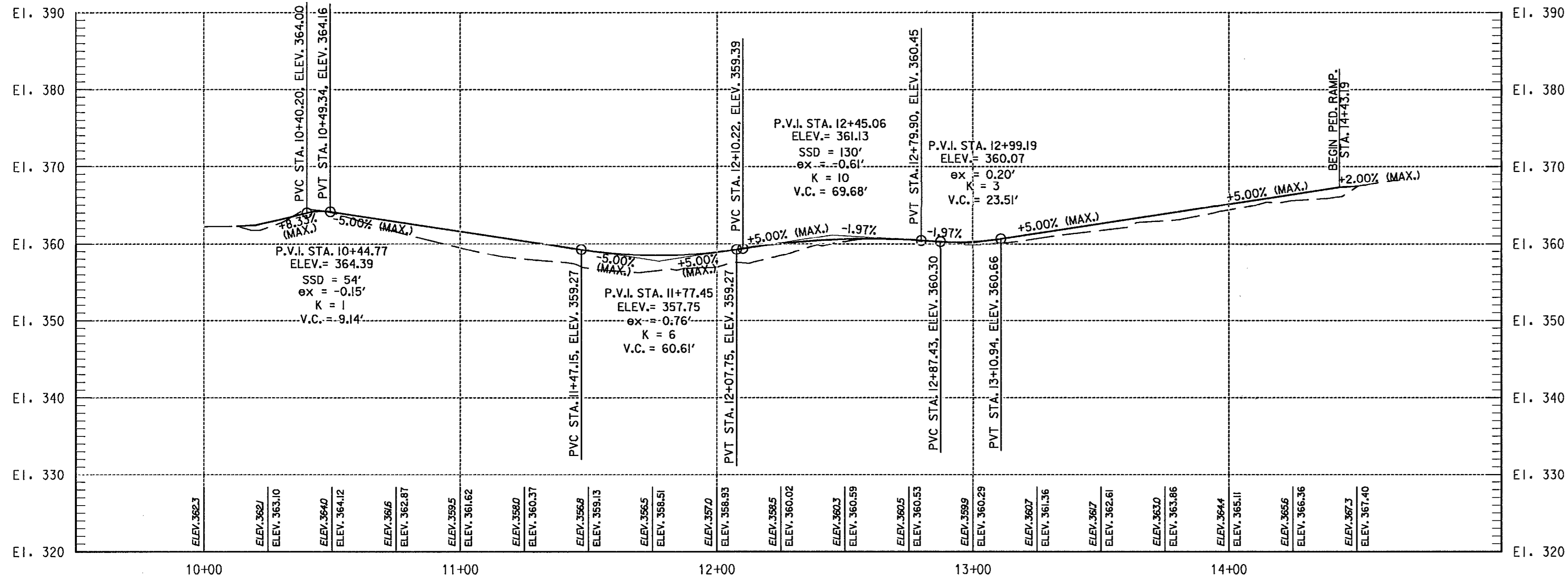
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TAX MAP 24, PARCEL 1005
 ACCOUNT NO. 02-256849
 BOARD OF EDUCATION
 HOWARD COUNTY
 00477/00091
 CRESTLEIGH STREET

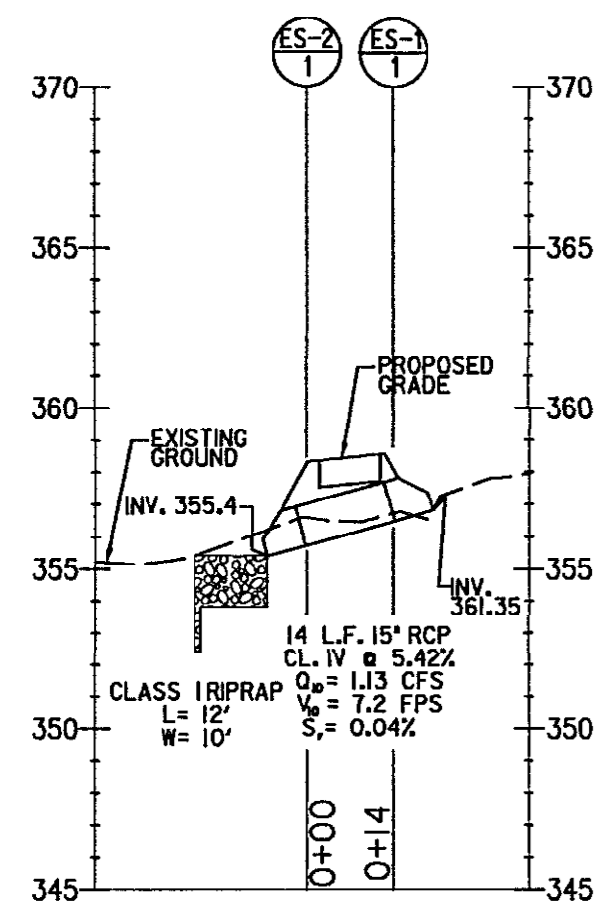
TAX MAP 24, PARCEL 696
 ACCOUNT NO. 02-224505
 PETER C. GREEN &
 ANN H. GREEN
 00785/00353 - LOT 22
 #9117 NORTHFIELD ROAD

SCALE: 1"=30'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature] 7/10/14 DIRECTOR OF PUBLIC WORKS DATE [Signature] 7/10/14 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE		PREPARED BY URS 4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-7220 [Signature] 7/10/14 CHIEF, BUREAU OF ENGINEERING DATE [Signature] 7/11/14 CHIEF, BUREAU OF HIGHWAYS DATE		DES: RLL DRN: CDF CHK: DTM DATE: 7/2014		TRAIL PLAN SHEET NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1 2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND		SCALE 1"=30' SHEET 4 OF 8
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TRAIL PROFILE
SCALE: 1" = 30' HORIZ./1" = 10' VERT.

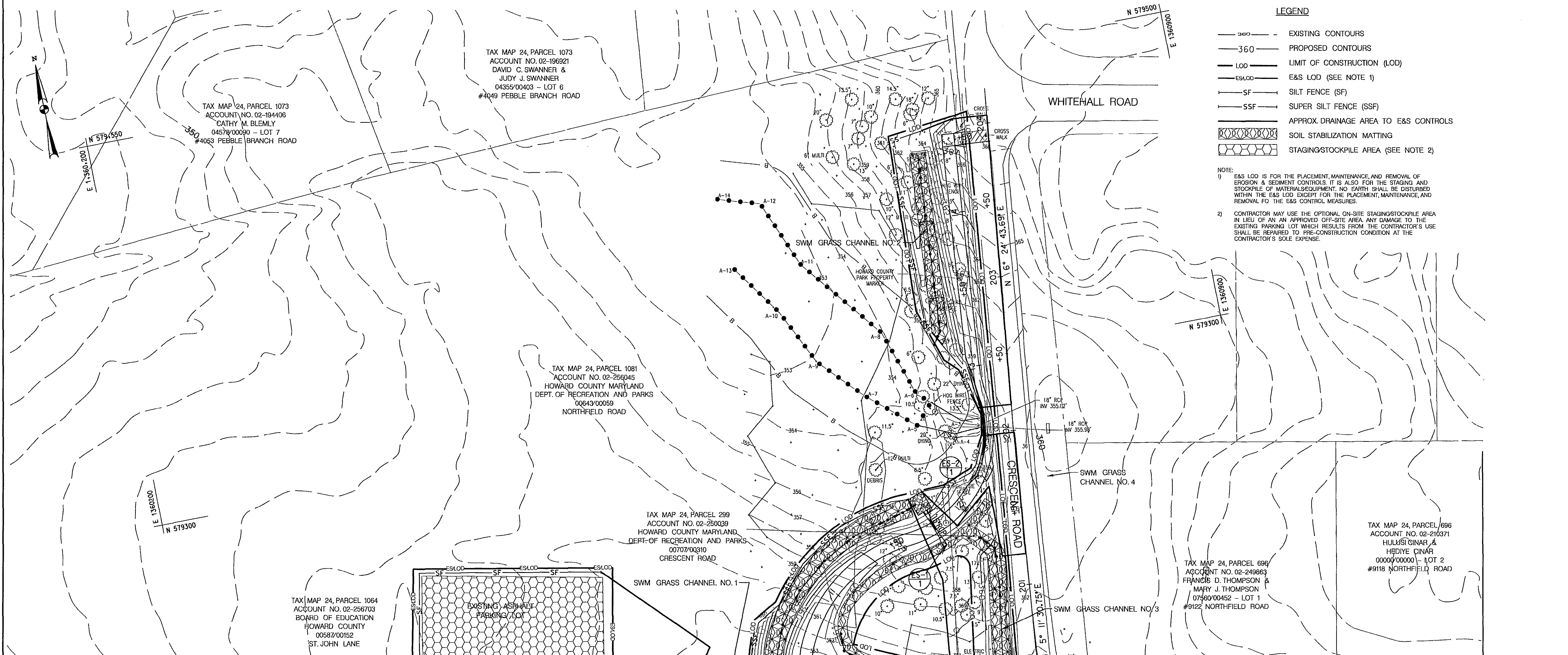


PIPE PROFILE
SCALE: 1" = 30' HORIZ./1" = 6' VERT.

STRUCTURE DESIGNATION	WORK POINT*		STRUCTURE TYPE	HOWARD CO. DETAIL NO.	INVERT ELEVATION		TOP ELEVATION	REMARKS
	BASELINE STATION	OFFSET			IN	OUT		
END SECTION								
ES-1/1	TRAIL	11+77.45	3.24' RT	D-5.51	--	361.35	--	--
ES-2/1	TRAIL	11+77.45	10.27' LT	D-5.51	355.4	--	--	--

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 LICENSE NO. 16156
 EXPIRATION DATE: 8/28/2014

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND James P. [Signature] 7/10/14 DIRECTOR OF PUBLIC WORKS DATE Steve Shawar 7/10/14 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE		PREPARED BY URS 4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-7220 [Signature] 7/10/14 CHIEF, BUREAU OF ENGINEERING DATE Hilga Senawo 7/11/14 CHIEF, BUREAU OF HIGHWAYS DATE		DES: RLL DRN: CDF CHK: DTM DATE: 7/2014		PROFILE SHEET		NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1 2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND		SCALE 1" = 30' SHEET 5 OF 8	
		[Professional Seal]		BY NO. REVISION DATE		SCALE MAP NO. BLOCK NO.				[Professional Seal]	



- LEGEND**
- 360 --- EXISTING CONTOURS
 - 360 --- PROPOSED CONTOURS
 - LOD --- LIMIT OF CONSTRUCTION (LOD)
 - ESLOD --- E&S LOD (SEE NOTE 1)
 - SF --- SILT FENCE (SF)
 - SSF --- SUPER SILT FENCE (SSF)
 - APPROX. DRAINAGE AREA TO E&S CONTROLS
 - [Symbol] SOIL STABILIZATION MATTING
 - [Symbol] STAGING/STOCKPILE AREA (SEE NOTE 2)

NOTE:

- 1) E&S LOD IS FOR THE PLACEMENT, MAINTENANCE, AND REMOVAL OF EROSION & SEDIMENT CONTROLS. IT IS ALSO FOR THE STAGING AND STOCKPILE OF MATERIALS/EQUIPMENT. NO EARTH SHALL BE DISTURBED WITHIN THE E&S LOD EXCEPT FOR THE PLACEMENT, MAINTENANCE, AND REMOVAL OF THE E&S CONTROL MEASURES.
- 2) CONTRACTOR MAY USE THE OPTIONAL ON-SITE STAGING/STOCKPILE AREA IN LIEU OF AN APPROVED OFF-SITE AREA. ANY DAMAGE TO THE EXISTING PARKING LOT WHICH RESULTS FROM THE CONTRACTOR'S USE SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT THE CONTRACTOR'S SOLE EXPENSE.

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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."

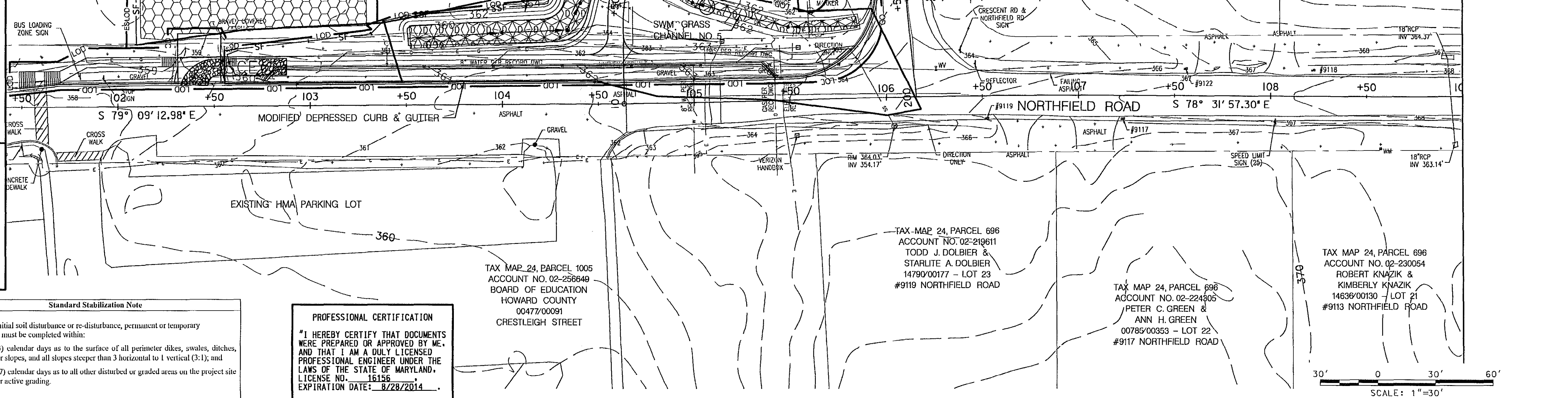
Steve Shaver 7/10/14
SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 7/9/2014
DATE

URS CORPORATION
4 NORTH PARK DRIVE
HUNT VALLEY, MD 21030



THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 7/10/14
HOWARD SOIL CONSERVATION DISTRICT DATE

Standard Stabilization Note

Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within:

- a.) Three (3) calendar days to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
- b.) Seven (7) calendar days to all other disturbed or graded areas on the project site not under active grading.

PROFESSIONAL CERTIFICATION

"I HEREBY CERTIFY THAT 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. 15156 EXPIRATION DATE: 8/28/2014."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

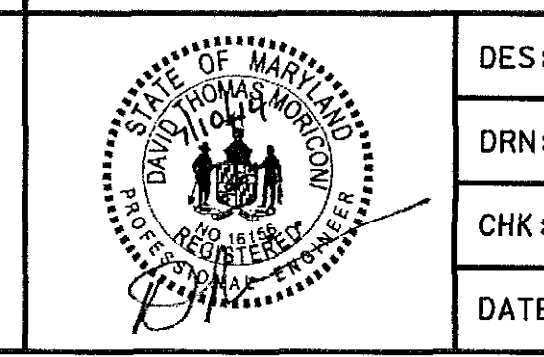
[Signature] 7/11/14
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 7/10/14
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 7/11/14
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

[Signature] 7/11/14
CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220



DES:	RLL		
DRN:	CDF		
CHK:	DTM		
DATE:	7/2014	BY:	NO.
REVISION:		DATE:	

EROSION & SEDIMENT CONTROL PLAN

SCALE MAP NO. _____ BLOCK NO. _____

NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1

2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE 1"=30'

SHEET 6 OF 8

B-2 STANDARDS AND SPECIFICATIONS

FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS
Definition
The process of preparing the soils to sustain adequate vegetative stabilization.
Purpose
To provide a suitable soil medium for vegetative growth.
Conditions Where Practice Applies
Where vegetative stabilization is to be established.
Criteria
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. The minimum soil conditions required for permanent establishment are:
i. Soil pH between 6.0 and 7.0.
ii. Soluble salts less than 500 parts per million (ppm).

b. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture.
c. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
d. Graded areas must be maintained to a neat and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

II. Topsoiling
1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth.
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications.
3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants of desirable quantity and quality.

C. Soil Amendments (Fertilizer and Lime Specifications)
1. Soil tests must be performed to determine the exact ratios and application rates for both liquid and fertilizer on sites having disturbed areas of 5 acres or more.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment.
3. Lime materials must be good limestone (hydrated or burnt lime may be substituted except when hydrolysing) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide).

DEVELOPER'S CERTIFICATION
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 PERSONAL ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: Steve Shauer
Date: 7/10/14

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: [Redacted]
Date: 7/9/2014
URS CORPORATION
4 NORTH PARK DRIVE
HUNT VALLEY, MD 21030

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
Signature: John R. Blanton
Date: 7/10/14
HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: Steve Shauer
Date: 7/10/14
Chief, Bureau of Engineering: Thomas R. Ruttle
Date: 7/10/14
Chief, Transportation and Special Projects Division: Holger Seemann
Date: 7/11/14

B-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING
Definition
The application of seed and mulch to establish vegetative cover.
Purpose
To stabilize disturbed soils from erosion during and at the end of construction.
Conditions Where Practice Applies
To the surface of all perimeter controls, slopes, and any disturbed areas not under active grading.
Criteria
A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland Seed List. All seed must be subject to testing by a recognized laboratory.
b. Match stone may be applied between the fall and spring seedings only if the ground is frozen.
c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species.

2. Application
a. Dry Seeding: This includes use of conventional dry broadcast spraying.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.1, or site-specific seeding mixtures.
ii. Apply seed in two directions, perpendicular to each other.
b. Drill or Catapult Seeding: Mechanical means that apply seed and soil together.

III. Mulching
1. Mulch Materials (in order of preference)
a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color.
b. Wood Cellulose Fiber Mulch (WC230) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
c. WCGM (wheat, oat, or barley) mulch must be made available to the job foreman and inspector.

IV. Anchoring
1. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water.
2. Soil Mulchmats
a. In the absence of adequate rainfall, water daily during the first week or so within and sufficiently as necessary to maintain soil moisture to a depth of 4 inches.
b. After the first week, water not watering is required as necessary to maintain adequate moisture content.

Table B.1: Permanent Seeding Summary
Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth (in), Fertilizer Rate (lb/1000 sq ft), Lime Rate (lb/1000 sq ft)
Rows: 6. FOXTAIL MILLET, 7. PEARL MILLET

B-4 STANDARDS AND SPECIFICATIONS

FOR PERMANENT STABILIZATION
Definition
To stabilize disturbed soils with permanent vegetation.
Purpose
To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.
Conditions Where Practice Applies
Exposed soils where ground cover is needed for 6 months or more.
Criteria
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 Hardiness Zone (from Figure B.3) and based on the site conditions or purpose listed in Table B.2.
b. Additional planting specifications for exceptional sites such as ditches, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment, are found in USDA-NRCS Technical Field Office Guide, Section 142 - Critical Area Planning.

2. Turfgrass Mixtures
a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a moderate 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. Turfgrass mixtures include Certified Kentucky Bluegrass Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet.

Table B.3: Temporary Seeding Summary
Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth (in), Fertilizer Rate (lb/1000 sq ft), Lime Rate (lb/1000 sq ft)
Rows: 6. FOXTAIL MILLET, 7. PEARL MILLET

Table B.4: Permanent Seeding Summary
Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth (in), Fertilizer Rate (lb/1000 sq ft), Lime Rate (lb/1000 sq ft)
Rows: 1. TALL FESCUE

III. Anchoring
1. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water.
2. Soil Mulchmats
a. In the absence of adequate rainfall, water daily during the first week or so within and sufficiently as necessary to maintain soil moisture to a depth of 4 inches.
b. After the first week, water not watering is required as necessary to maintain adequate moisture content.

B-4 STANDARDS AND SPECIFICATIONS

FOR TEMPORARY STABILIZATION
Definition
To stabilize disturbed soils with vegetation for up to 6 months.
Purpose
To use fast growing vegetation that provides cover on disturbed soils.
Conditions Where Practice Applies
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
Criteria
1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths.
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-A.1.A and maintain until the next seeding season.

Table B.1: Temporary Seeding Summary
Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth (in), Fertilizer Rate (lb/1000 sq ft), Lime Rate (lb/1000 sq ft)
Rows: 6. FOXTAIL MILLET, 7. PEARL MILLET

Table B.2: Permanent Seeding Summary
Columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth (in), Fertilizer Rate (lb/1000 sq ft), Lime Rate (lb/1000 sq ft)
Rows: 1. TALL FESCUE

III. Anchoring
1. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water.
2. Soil Mulchmats
a. In the absence of adequate rainfall, water daily during the first week or so within and sufficiently as necessary to maintain soil moisture to a depth of 4 inches.
b. After the first week, water not watering is required as necessary to maintain adequate moisture content.

III. Anchoring
1. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water.
2. Soil Mulchmats
a. In the absence of adequate rainfall, water daily during the first week or so within and sufficiently as necessary to maintain soil moisture to a depth of 4 inches.
b. After the first week, water not watering is required as necessary to maintain adequate moisture content.

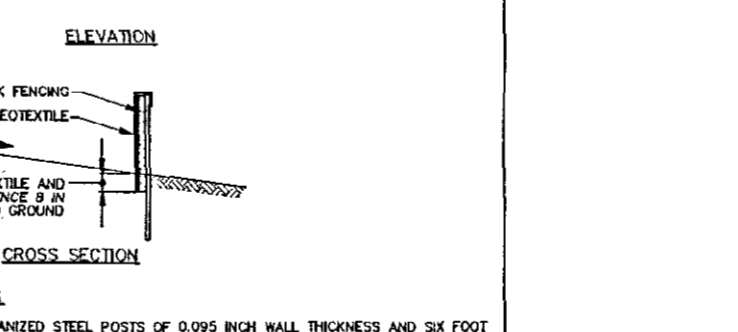
SEQUENCE OF CONSTRUCTION - GENERAL NOTES

- 1. THE CONTRACTOR SHALL NOTIFY THE HOWARD SOIL CONSERVATION DISTRICT AT (410) 488-7987 AT LEAST SEVEN (7) DAYS PRIOR TO ANY EARTH DISTURBANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE INSPECTOR.
2. UTILITIES AND STORM DRAINS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS ARE FOR THE GUIDANCE OF THE CONTRACTOR ONLY.
3. THE EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONING PRIOR TO CLEARING THE ENTIRE SITE.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES, AND OTHER EROSION SEDIMENT CONTROL DEVICES AS PER THE EROSION AND SEDIMENT CONTROL PLANS.
5. MAINTAIN ALL SEDIMENT CONTROL PRACTICES ACCORDING TO THE MARYLAND 2011 STANDARDS UNTIL THE ENTIRE SITE IS STABILIZED.
6. CONTRACTOR SHALL LOCATE THE STAGING AND STOCKPILE AREA AND IS RESPONSIBLE FOR PROVIDING ANY ADDITIONAL EROSION CONTROLS FOR STAGING AND STOCKPILE AREAS AS REQUIRED BY THE INSPECTOR.
7. CLEAR AND GRUB AND PROCEED TO CONSTRUCTION ACCORDING TO THE SEQUENCE SPECIFIED ON THE TRAFFIC CONTROL PLAN SHEETS.
8. CONSTRUCTION SHALL BE COMPLETED IN THE FOLLOWING SEQUENCE:

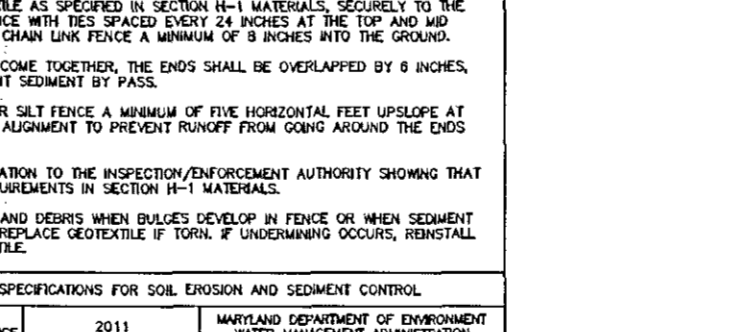
SEQUENCE OF CONSTRUCTION

- 1. OBTAIN THE GRADING PERMIT PRIOR TO CONSTRUCTION (1 DAY).
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE) AS INDICATED ON THE PLANSET (1 DAY).
3. INSTALL SILT FENCE (SF) AND SUPER SILT FENCE (SSF) AS INDICATED ON THE PLANSET (1 DAY).
4. CONTRACTOR SHALL NOT CONVEY DIRTY WATER TO ES-1 BY TEMPORARILY PLUGGING ES-1 UNTIL UPSTREAM AREAS ARE CONSTRUCTED AND STABILIZED.
5. CONSTRUCT THE PROPOSED PARKING AISLE, COMBINATION CURB & GUTTER AND MODIFIED DEPRESSED CURB & CUTTER STARTING DOWNSTREAM AND WORKING UPSTREAM.
6. CONSTRUCT THE NEW TRAIL AND SIDEWALK INCLUDING ALL GRADING, PEDESTRIAN RAMPS, DRIVEWAY APRONS/INS.
7. CONSTRUCT THE STORMWATER MANAGEMENT GRASS CHANNELS WORKING DOWNSTREAM TO UPSTREAM AFTER ALL CONSTRUCTION WORK UPSTREAM OF THE GRASS CHANNELS HAVE BEEN COMPLETED AND STABILIZED (7 DAYS).
8. UPON THE HOWARD COUNTY INSPECTOR'S APPROVAL, REMOVAL ALL EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZE THE REMAINING DISTURBED AREAS WITH PERMANENT SEEDING (1 DAY).

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE



DETAIL E-3 SUPER SILT FENCE



SEDIMENT CONTROL GENERAL NOTES

- 1. 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.
2. 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.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
A. THREE (3) CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
B. SEVEN (7) CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3).
5. MAINTAIN ALL SEDIMENT CONTROL PRACTICES ACCORDING TO THE MARYLAND 2011 STANDARDS UNTIL THE ENTIRE SITE IS STABILIZED.
6. CONTRACTOR SHALL LOCATE THE STAGING AND STOCKPILE AREA AND IS RESPONSIBLE FOR PROVIDING ANY ADDITIONAL EROSION CONTROLS FOR STAGING AND STOCKPILE AREAS AS REQUIRED BY THE INSPECTOR.
7. CLEAR AND GRUB AND PROCEED TO CONSTRUCTION ACCORDING TO THE SEQUENCE SPECIFIED ON THE TRAFFIC CONTROL PLAN SHEETS.
8. CONSTRUCTION SHALL BE COMPLETED IN THE FOLLOWING SEQUENCE:

SEDIMENT CONTROL GENERAL NOTES

- 9. 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.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME.
13. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
14. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
15. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES.
16. CONSTRUCTION WITHIN, ALONG OR ACROSS STREAM CHANNELS SHALL, AS A MINIMUM, CONFORM TO CRITERIA DESCRIBED UNDER "MARYLAND'S WATERWAY CONSTRUCTION GUIDELINES."
17. ALL SEDIMENT TRAP/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOLUME 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
* APPROXIMATE

DEVELOPER'S CERTIFICATION

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 PERSONAL ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: Steve Shauer
Date: 7/10/14

ENGINEER'S CERTIFICATION

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: [Redacted]
Date: 7/9/2014

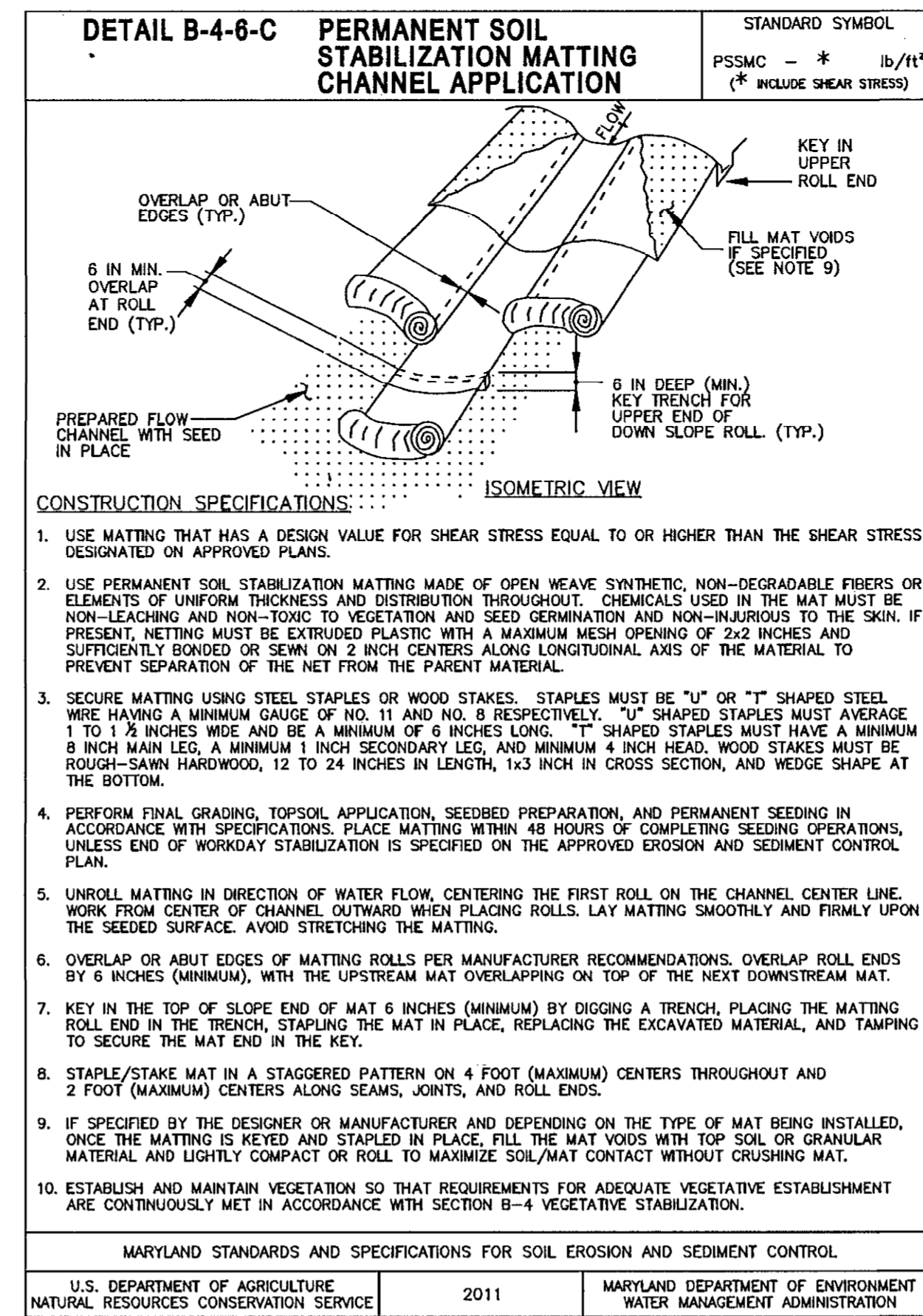
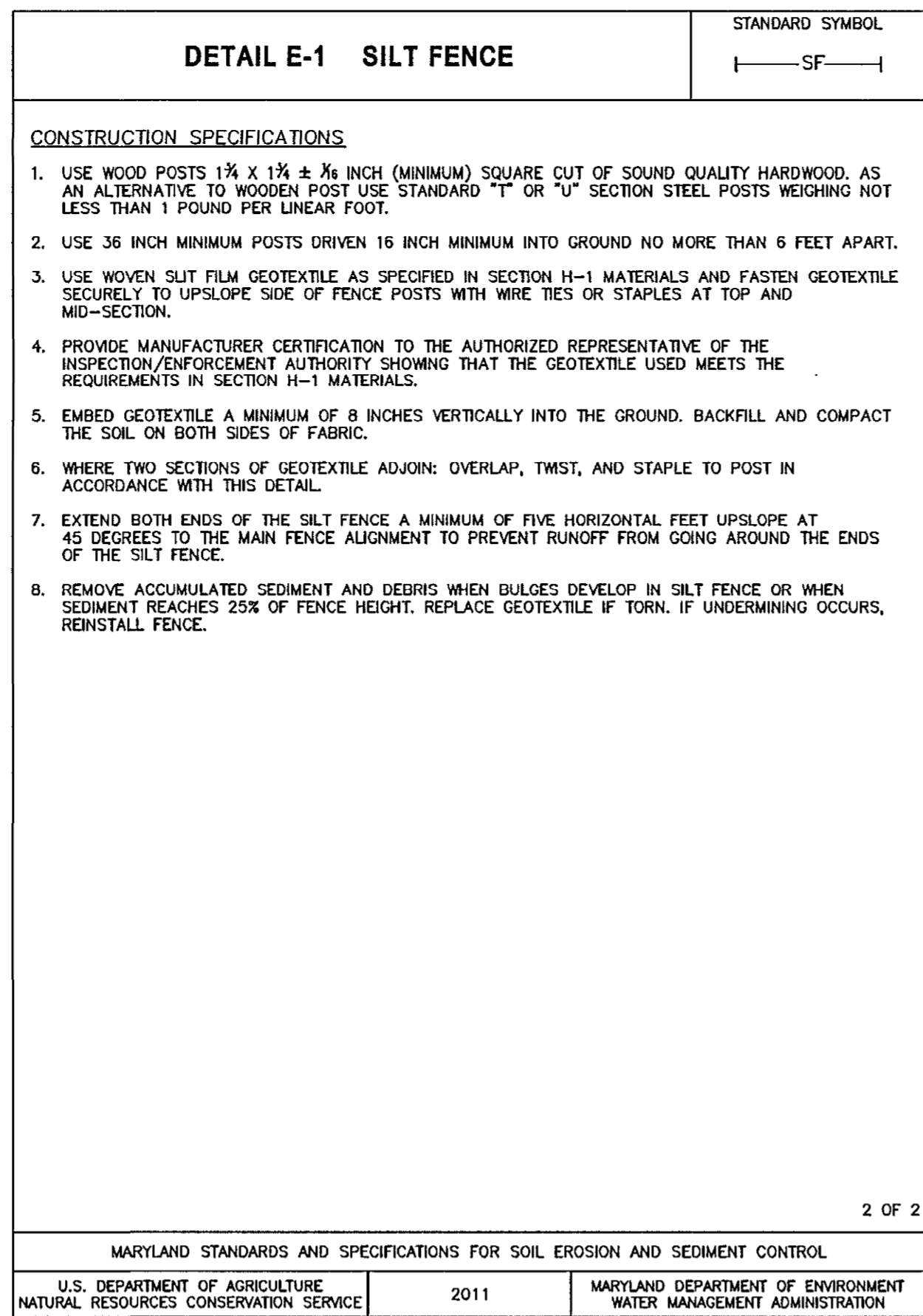
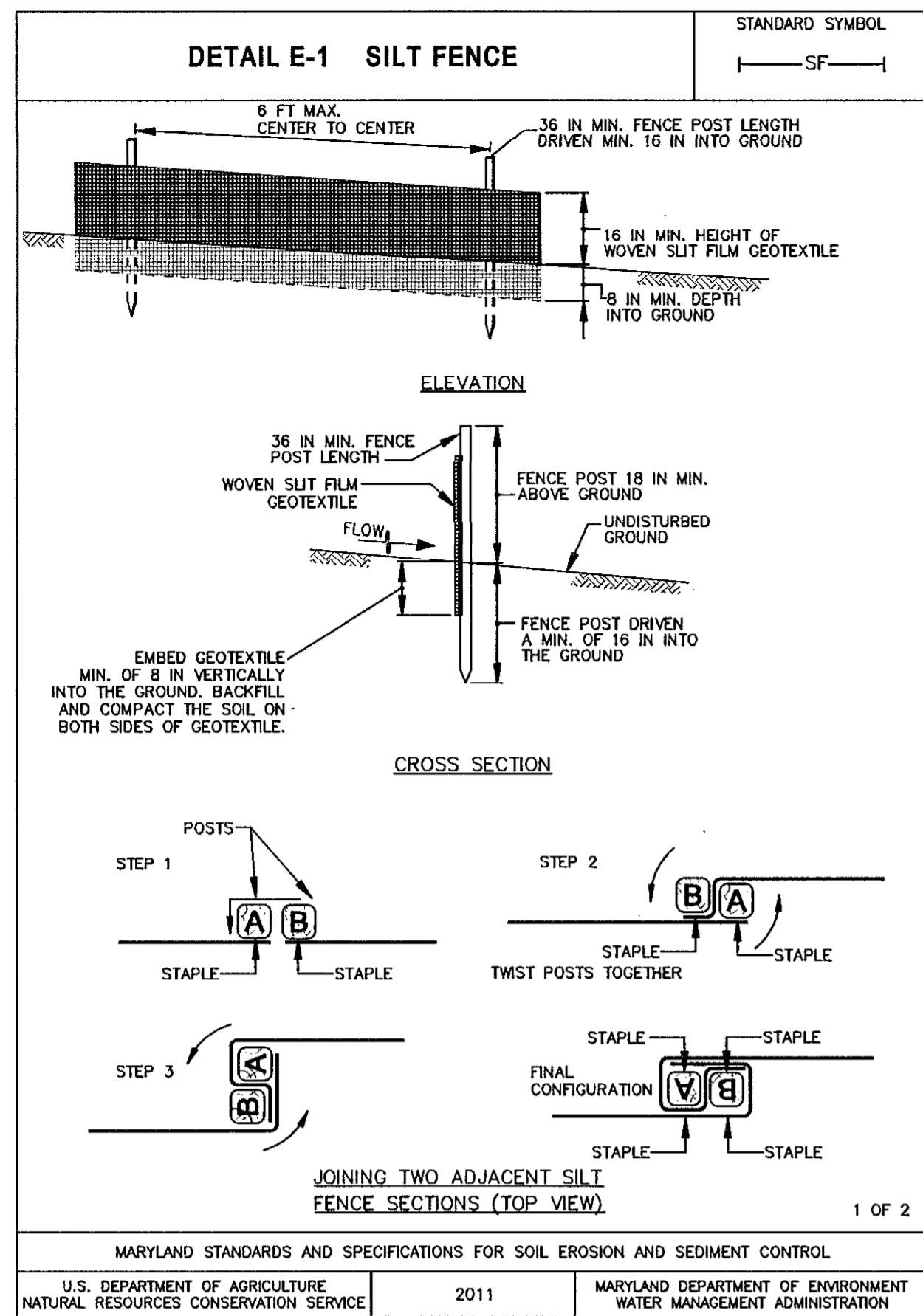
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT 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: 16156
Expiration Date: 8/28/2014

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: Steve Shauer
Date: 7/10/14
Chief, Bureau of Engineering: Thomas R. Ruttle
Date: 7/10/14
Chief, Transportation and Special Projects Division: Holger Seemann
Date: 7/11/14

DES: RLL
DRN: CDF
CHK: DTM
DATE: 7/2014
BY NO. REVISION
SCALE MAP NO. BLOCK NO.
EROSION AND SEDIMENT CONTROL
NORTHFIELD ROAD
SIDEWALK PLAN - PHASE 1
2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 7 OF 8



B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

Definition
 A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose
 To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies
 Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the upgrade side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance
 The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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."

Steve Shavan 7/10/14
 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

DA 7/9/2014
 URS CORPORATION DATE
 4 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT

John K. Blunt 7/10/14
 HOWARD SOIL CONSERVATION DISTRICT DATE

PROFESSIONAL CERTIFICATION

"I HEREBY CERTIFY THAT 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. 16156, EXPIRATION DATE: 8/28/2014."

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Paul J. Jones</i> 7/10/14 DIRECTOR OF PUBLIC WORKS DATE <i>Steve Shavan</i> 7/10/14 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE		PREPARED BY URS 4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-1220 <i>Thomas E. Sutter</i> 7/10/14 CHIEF, BUREAU OF ENGINEERING DATE <i>Holger Summers</i> 7.10.14 CHIEF BUREAU OF HIGHWAYS DATE		DES: RLL DRN: CDF CHK: DTM DATE: 7/2014		EROSION AND SEDIMENT CONTROL DETAILS AND NOTES - 2		NORTHFIELD ROAD SIDEWALK PLAN - PHASE 1 2ND ELECTION DISTRICT - HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 8 OF 8	
		PROFESSIONAL ENGINEER STATE OF MARYLAND JOHN K. BLUNT LICENSE NO. 16156 EXPIRES 8/28/2014		BY NO. REVISION DATE		SCALE MAP NO. BLOCK NO.					