

**STANDARD RESPONSIBILITY NOTES**

- I (We) certify that:
  - All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil Conservation District (AASCD) Board of Supervisors or their authorized agents.
  - Any responsible personnel involved in the construction project will have a certificate of attendance from the Maryland Department of the Environment's approved training program for the control of sediment and erosion before beginning the project.

Responsible personnel on site: \_\_\_\_\_

  - If applicable, the appropriate enclosure will be constructed and maintained on sediment basin(s) included in this plan. Such structure(s) will be in compliance with the Anne Arundel County Code.
- The developer is responsible for the acquisition of all easements, right, and/or rights-of-way that may be required for the sediment and erosion control practices, storm water management practices and the discharge of storm water onto or across adjacent or downstream properties included in the plan.
- For initial soil disturbance or re-disturbance, permanent and/or temporary stabilization per the AASCD Vegetative Establishment shall be completed within three calendar days for the surface of all controls, dikes, swales, ditches, perimeter slopes and all slopes greater than 3 horizontal to 1 vertical (3:1); and seven days for all other disturbed or graded areas on the project site.
- The grading and sediment control approval on this plan extends only to those areas within the limits of disturbance.
- The approval of this plan for sediment and erosion control does not relieve the developer/consultant from complying with Federal, State or County requirements pertaining to environmental issues.
- The developer must request that the sediment and erosion control inspector approve work completed in accordance with the approved erosion and sediment control plan, the grading or building permit, and the ordinance.
- All material shall be taken to a site with an approved sediment and erosion control plan.
- First phase inspection and approval of the sediment and erosion control inspector shall be required upon completion of the installation of erosion and sediment controls prior to proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until the initial approval by the sediment and erosion control inspector is given. Inspection and Permits may also require that an inspection and certification of the installation of sediment control also be performed by a design professional prior to construction commencing.
- Approval from the inspector must be requested on final stabilization of all sites prior to removal of sediment and erosion controls.
- Existing topography must be field verified by responsible personnel to the satisfaction of the sediment control inspector prior to commencing work.

Signature of Developer/Owner \_\_\_\_\_ Date \_\_\_\_\_

Print: Name: MS. Khadija Abdur Rahman, P.E.

Title: Engineer Manager

Address: Anne Arundel County Department of Public Works

Capital Projects Program

225 Riva Road, Suite 120

Annapolis, MD 21401

Telephone Number: 410-222-4261

Email Address: pwabdu22@aaacounty.org

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	EXISTING CONDITIONS AND RESOURCE MAPPING
3	OVERALL SITE PLAN
4-5	SITE PLAN
6	TRAIL PROFILE
7-10	DRAINAGE AREA MAPS
11-12	STORMWATER MANAGEMENT PLANS
13	EROSION AND SEDIMENT CONTROL GENERAL NOTES
14	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
15	EROSION AND SEDIMENT CONTROL DETAILS
16-18	EROSION AND SEDIMENT CONTROL PLANS
19	BOARDWALK PLAN AND ELEVATION
20	BOARDWALK TYPICAL SECTION

**CONSULTANT'S CERTIFICATION**

"The Developer's plan to control silt and erosion is adequate to contain the silt and erosion on the property covered by the plan. I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of this site, and was prepared in accordance with the requirements of the Anne Arundel Soil Conservation District Plan Submittal Guidelines and the current Maryland Standards and Specifications for Sediment and Erosion Control. I have reviewed this erosion and sediment control plan with the owner/developer."

Signature: \_\_\_\_\_ MD P.E. License # \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ MD Land Surveyor License # \_\_\_\_\_

Name: Redeat Lodamo, P.E. Firm Name: Brudis and Associates, Inc.

Address: 11000 Broken Land Pkwy, Suite 450

Columbia, MD 21044

# ANNE ARUNDEL COUNTY, MD.

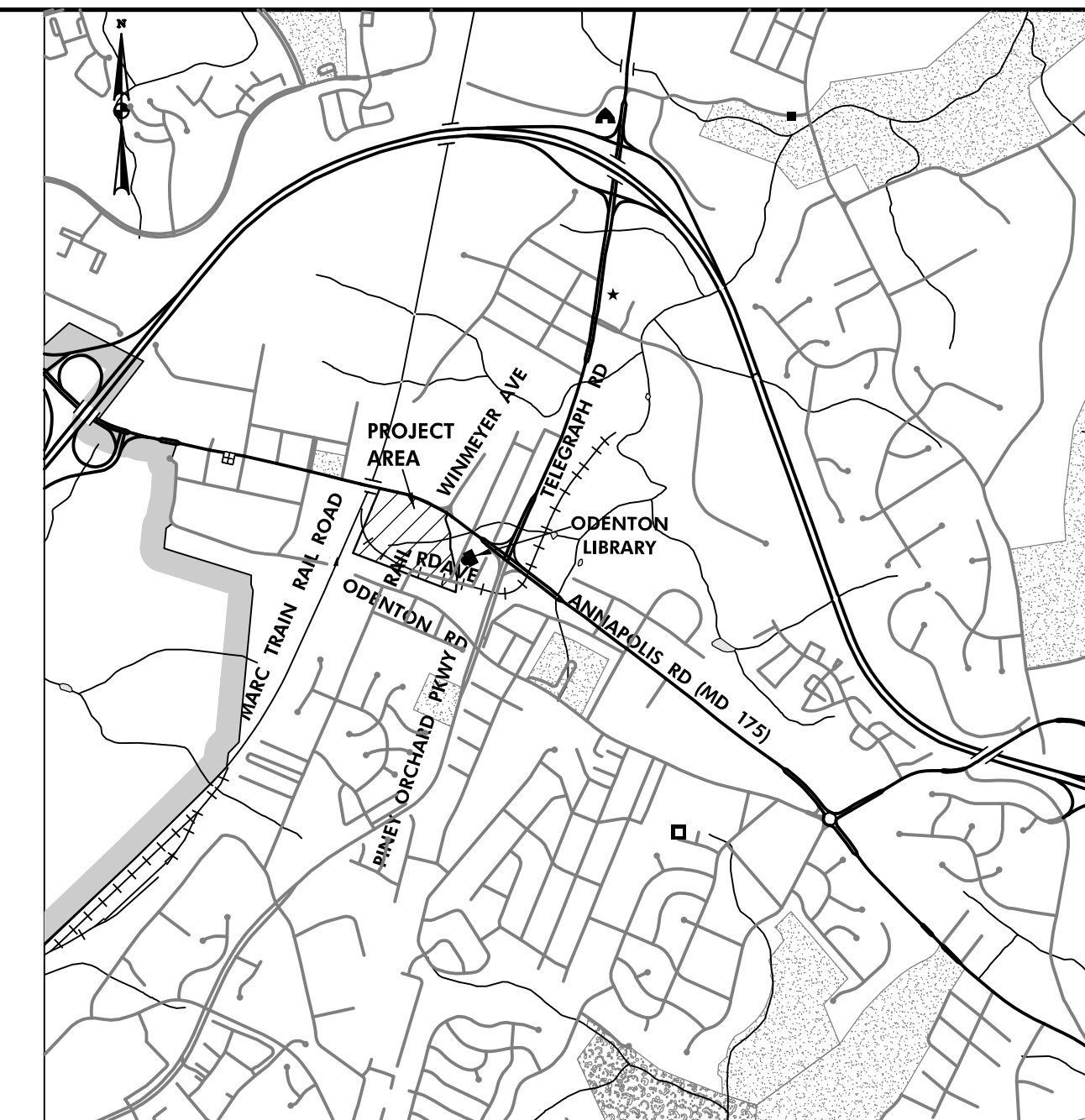
## DEPARTMENT OF PUBLIC WORKS

### ODENTON LIBRARY COMMUNITY PARK

#### PHASE 1

#### PROJECT NO.: P584400

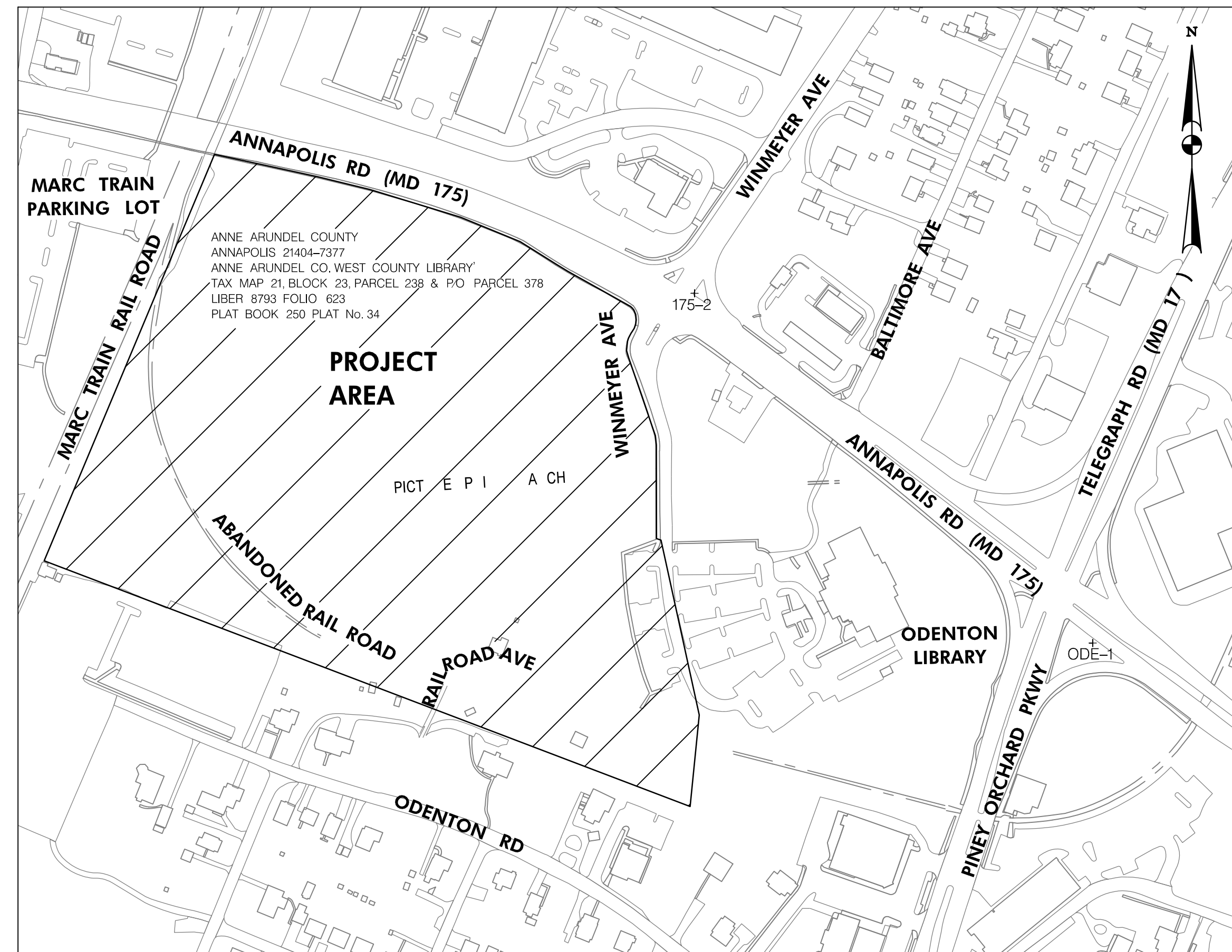
#### CONTRACT NO.: P584401



**VICINITY MAP**  
 1000' 0 1000' 2000'  
 SCALE: 1"=1000'

BENCHMARK NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
175-2	518072.2690	1397088.1230	148.3700	REBAR & CAP
ODE-1	517383.7810	1397871.4940	144.4852	REBAR & CAP

BENCHMARK NOTE:  
 ALL COORDINATES AND ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM (NAD 83/2011) AND VERTICAL ELEVATION (NAVD 88).



**LOCATION MAP**

DAT M: AD 83 1 Horizontal  
 A D 88 erti al

200' 0 200' 400'  
 SCALE: 1"=200'

SCHEMATIC DESIGN SUBMITTAL  
 NOT FOR CONSTRUCTION  
 MAY 2022

 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. <b>T-1</b> OF <b>1</b>  <b>ODENTON LIBRARY COMMUNITY PARK</b> <b>PHASE 1</b> <b>TITLE SHEET</b>
	REVISED	APPROVED	DATE	DATE	
	DATE	BY	DATE	DATE	
	DATE	BY	DATE	DATE	
	CHIEF ENGINEER		PROJECT MANAGER	DRAWN BY	
	APPROVED	DATE		CHECKED BY	
	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	SHEET OF 20	
			APPROVED	PROJECT NO.	
			DATE	PROPOSAL NO.	

**SITE TABULATIONS**

**ZONING OF THE LOT**

O-COR ODENTON CORE

**PLAT AREA**

TOTAL PLAT AREA: 23.927 ACRES  
 TOTAL NO. LOTS 1  
 TOTAL LOT AREA ("LOT A") - 18.761 ACRES  
 PART 1 OF 3 - 8.733 ACRES  
 PART 2 OF 3 - 9.962 ACRES  
 PART 3 OF 3 - 0.066 ACRES

**FLOODPLAIN AREA**

100 YEAR FLOODPLAIN "A" (PER PLATS) - 4.324 ACRES  
 100 YEAR FLOODPLAIN "B" (PER PLATS) - 0.842 ACRES

**WETLAND AREA**

TOTAL WETLANDS - 2.34 ACRES  
 NOT-TIDAL EXISTING "A" - 1.41 ACRES  
 NON-TIDAL EXISTING "B" - 0.36 ACRES  
 NON-TIDAL ISOLATED EXISTING WETLAND "C" - 0.22 ACRES  
 EXISTING STORMWATER WATLAND "D" - 0.35 ACRES

**WETLAND BUFFER AREA**

TOTAL NON-TIDAL WETLAND BUFFER - 4.48 ACRES  
 "A" - 2.31 ACRES  
 "B" - 0.84 ACRES  
 "C" - 0.60 ACRES  
 "D" - 0.73 ACRES

**STREAM BUFFER**

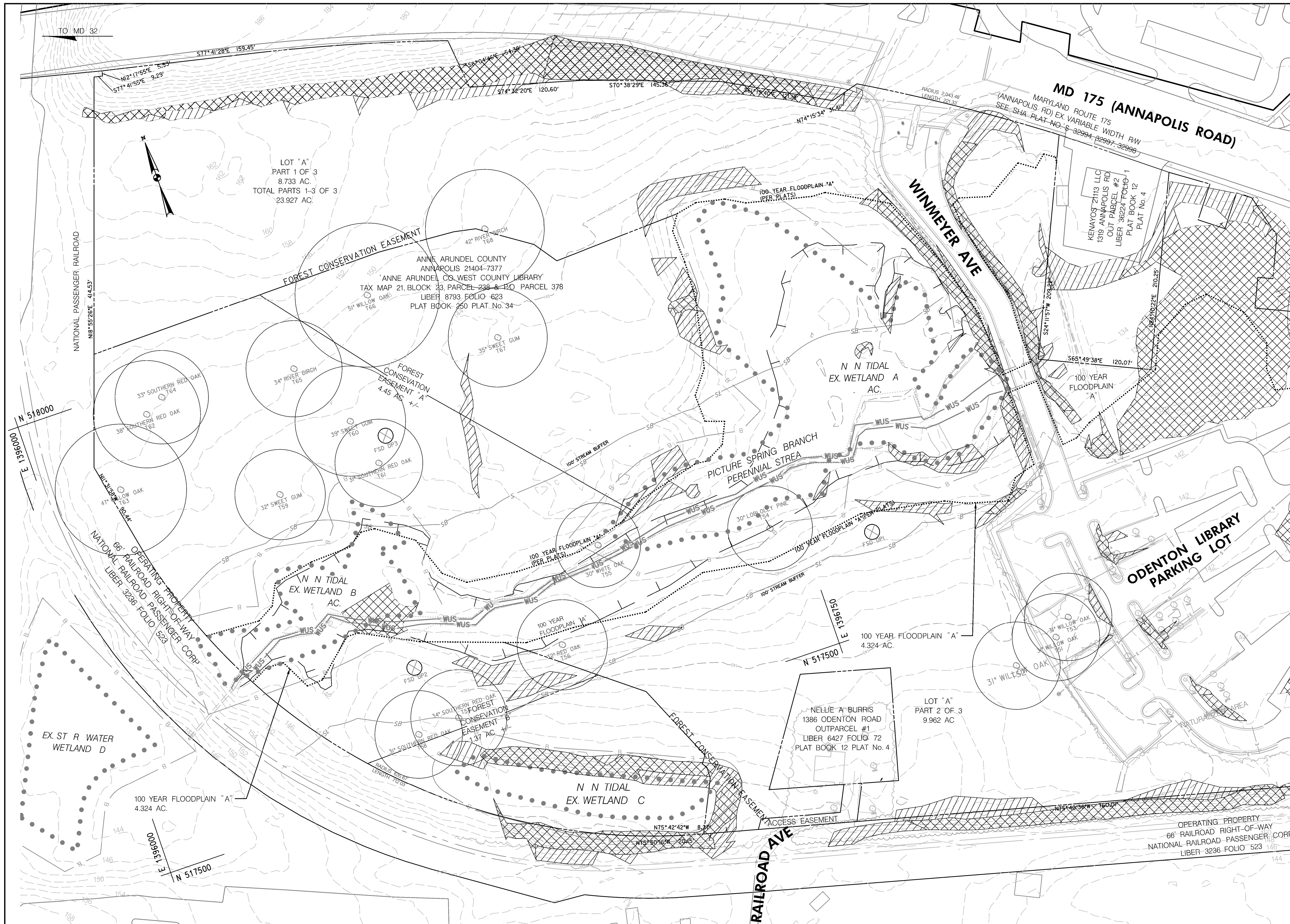
WUS STREAM BUFFER - 4.44 ACRES  
 RIPARIAN PERENNIAL STREAM - 935 FEET

**IMPERVIOUS AREA**

TOTAL BUILDING FOOTPRINT AREA (INCLUDING PORCHES & GARAGES) - 38,571 SF (0.885 ACRES)  
 TOTAL SIDEWALK AREA - 15,682 SF (0.360 ACRES)  
 TOTAL ROAD /ALLEYWAY AREA - 116,317 SF (2.670 ACRES)  
 TOTAL ON-SITE IMPERVIOUS AREA - 170,570 SF (3.915 ACRES)  
 RATIO OF EX. IMPERVIOUS COVERAGE TO TOTAL SITE AREA  
 170,570 SF (3.915 AC) / 1,042,297.3 SF (23.9 AC) = 16%

**Odenton Park, Phase 1, Specimen and Significant Trees Table**

Label	Size	Species	Common	Condition	Stand	Note
T51	31	<i>Quercus phellos</i>	Willow Oak	Good	A	"to remain"
T52	31	<i>Quercus phellos</i>	Willow Oak	Good	A	
T53	31	<i>Quercus phellos</i>	Willow Oak	Good	A	"to remain"
T54	30	<i>Pinus taeda</i>	Loblolly Pine	Good	A	
T55	30	<i>Quercus alba</i>	White Oak	Good	A	crooked/near stream
T56	32	<i>Quercus rubra</i>	Red Oak	Good	A	
T57	34	<i>Quercus falcata</i>	Southern Red Oak	Good	A	
T58	31	<i>Quercus falcata</i>	Southern Red Oak	Good	A	
T59	32	<i>Liquidambar styraciflua</i>	Sweet gum	Good	A	heavy poison ivy
T60	39	<i>Liquidambar styraciflua</i>	Sweet gum	Good	A	
T61	31	<i>Quercus falcata</i>	Southern Red Oak	Good	A	
T62	38	<i>Quercus falcata</i>	Southern Red Oak	Good	A	
T63	46.5	<i>Quercus phellos</i>	Willow Oak	Good	A	doubler at 6'
T64	33	<i>Quercus falcata</i>	Southern Red Oak	Good	A	
T65	34	<i>Betula nigra</i>	River Birch	Fair	A	doubler at 7'
T66	51	<i>Quercus phellos</i>	Willow Oak	Good	A	
T67	35	<i>Liquidambar styraciflua</i>	Sweet gum	Good	A	heavy poison ivy
T68	42	<i>Betula nigra</i>	River Birch	Good	A	multistem



**LEGEND**

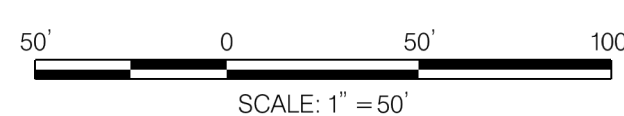
- ● ● ● NON-TIDAL WETLAND
- 25' WETLAND BUFFER
- WUS WATERS OF THE US
- 100' STREAM BUFFER
- PROPERTY/LOT LINE
- EX. 100-YR FLOOD PLAIN (CURRENT CONDITION ANALYSIS)
- EX. 100-YR FLOOD PLAIN (PER PLATS)
- EX. CONTOUR
- EX. STORM DRAIN
- S EX. SEWER
- E EX. ELECTRICAL
- F EX. COMMUNICATION

**SOIL LEGEND**

- A (PeB - PATAPSCO-EVESBORO-FORT MOTT COMPLEX 0-5 % SLOPES)
- A (PgB - PATAPSCO-FORT MOTT-URBAN LAND COMPLEX 0-5% SLOPES)

**STEEP SLOPES**

- ▨ 15% TO 25%
- ▩ > 25%

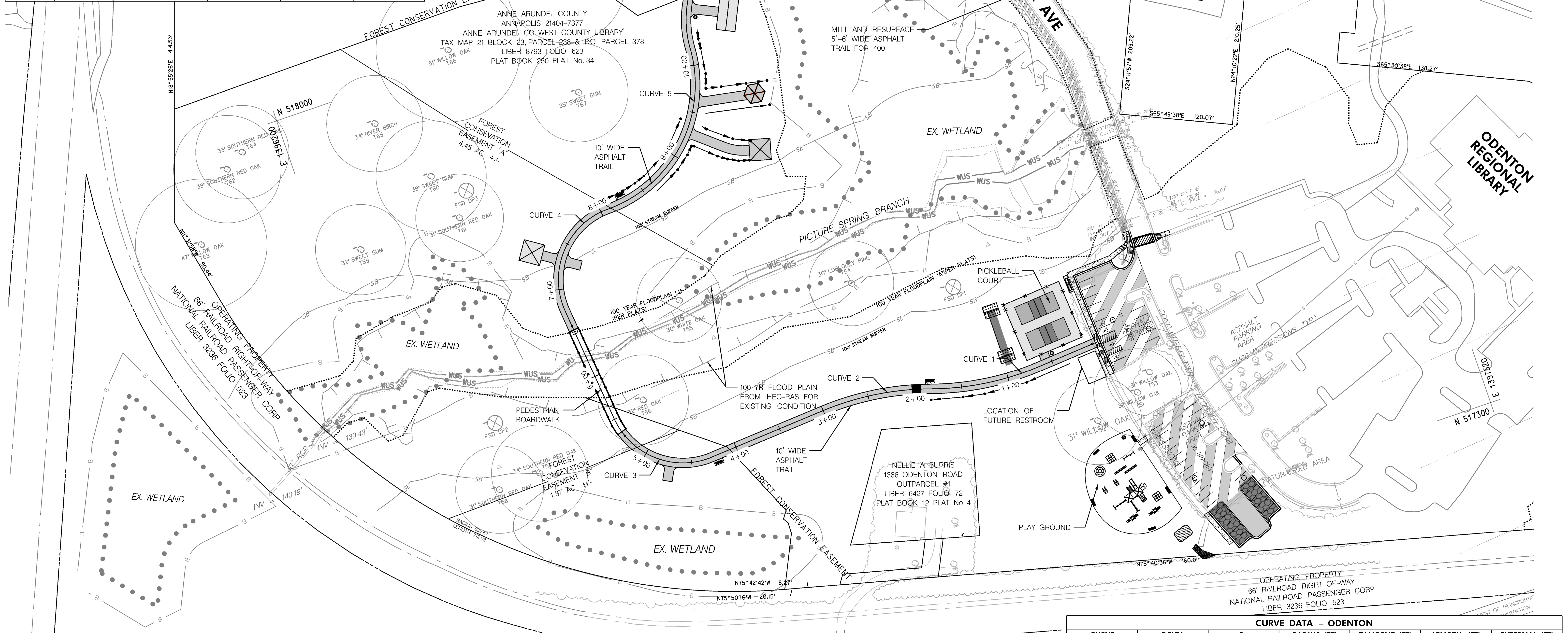


**BAI**  
**BRUDIS & ASSOCIATES, INC.**  
 Consulting Engineers  
 11000 Broken Land Pkwy, Suite 450  
 Columbia, Maryland 21044  
 Phone 410-884-3607  
 www.brudis.com

ANNE ARUNDEL COUNTY  
 DEPARTMENT OF PUBLIC WORKS

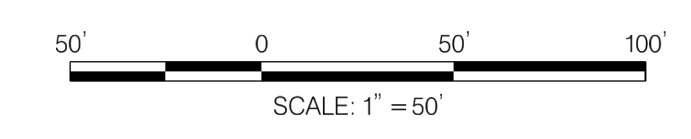
REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE 1" = 50'	DRAWING NO. OF
		CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY WH	<b>ODENTON LIBRARY COMMUNITY PARK                      PHASE 1                      EXISTING CONDITIONS AND                      RESOURCE MAPPING</b>
		APPROVED	DATE	APPROVED	DATE	CHECKED BY RL	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET 2 OF 20	
						PROJECT NO.	
						PROPOSAL NO.	

CONSTRUCTION CONTROL COORDINATES					
BASILINE	POINT NO.	STATION	NORTH	EAST	BEARING
ODENTON	POT	0+00	517496.0456	1396944.5061	N 85° 53' 47.80" E
	PC	0+64.51	517491.4291	1396880.1571	
	PI	1+24.78	517487.1167	1396820.045	
	PRC	1+83.46	517506.3536	1396762.9311	N 86° 12' 39.90" E
	PI	2+42.87	517525.3173	1396706.6284	
	PT	3+00.77	517521.3914	1396647.3476	
	PC	4+27.57	517513.0123	1396520.8242	N 5° 29' 12.43" W
	PI	5+05.23	517507.8802	1396443.3302	
	PT	5+50.86	517585.1881	1396435.9043	
	PC	6+76.35	517710.098	1396423.9059	N 80° 25' 59.40" W
	PI	7+62.84	517796.1964	1396415.6356	
	PRC	8+08.25	517797.7346	1396502.1167	
	PI	9+39.02	517800.0602	1396632.8644	N 80° 25' 59.40" W
	PRC	10+18.62	517930.6627	1396639.4493	
	PI	11+42.25	518054.1417	1396645.6751	
	PT	12+04.23	518033.5937	1396767.5916	
	PC	13+13.10	518015.4991	1396874.9514	
	PI	13+56.57	518008.2743	1396917.8176	
PT	13+99.25	517987.4983	1396956.0022		



**LEGEND**

- ● ● ● NON-TIDAL WETLAND
- B — 25' WETLAND BUFFER
- WUS — WATERS OF THE US
- 100' STREAM BUFFER
- — PROPERTY/LOT LINE
- — EX. 100-YR FLOOD PLAIN (CURRENT CONDITION ANALYSIS)
- — EX. 100-YR FLOOD PLAIN (PER PLATS)
- TREE /FOREST LINE
- SPECIMEN TREE WITH CRITICAL ROOT ZONE
- ▨ CONCRETE WALK
- ▩ ASPHALT CONSTRUCTION
- ▩ ASPHALT MILL & RESURFACING
- ▨ PERMEABLE PAVEMENT



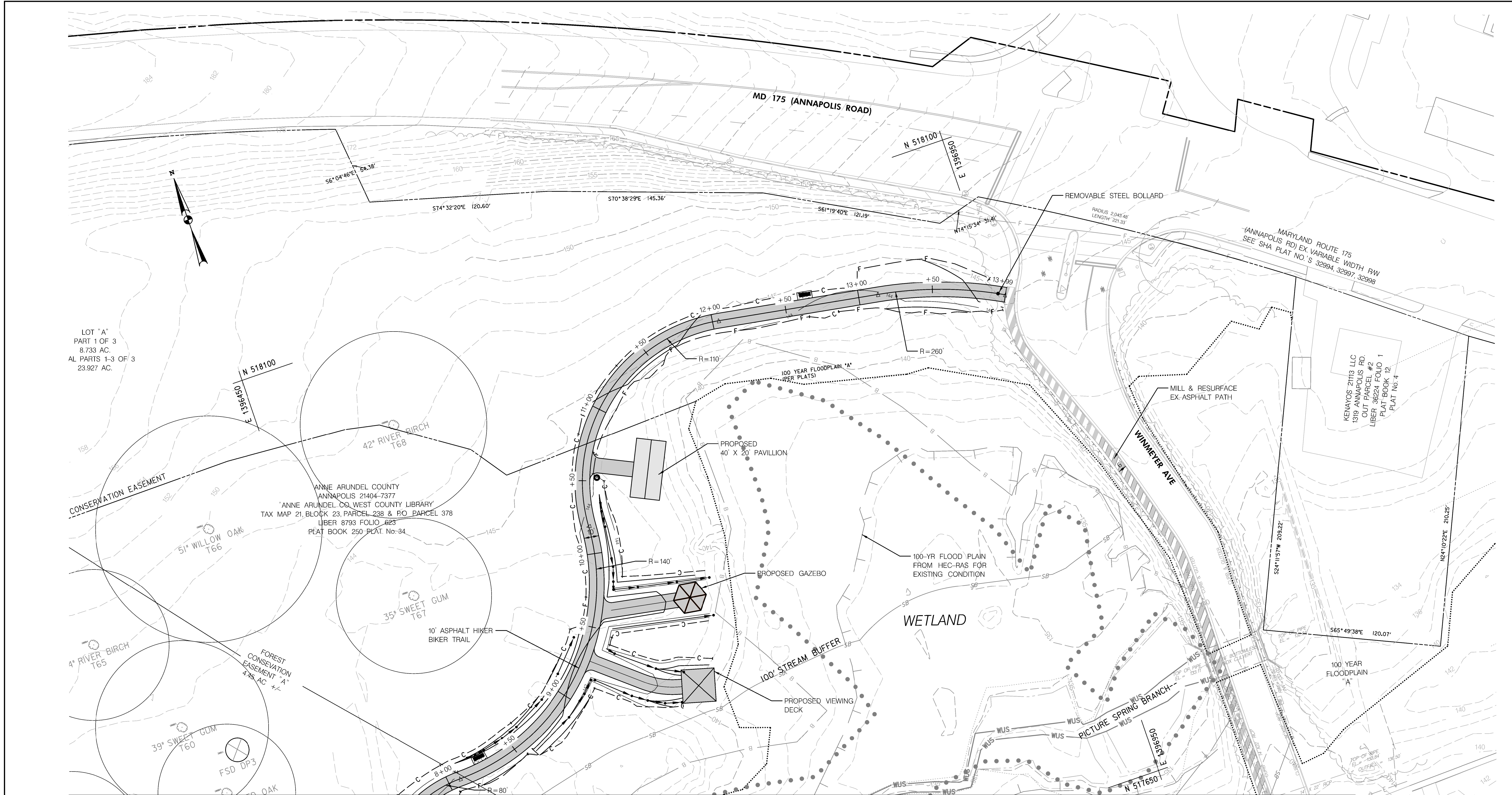
34 EXISTING SPACES  
47 PROPOSED PACES

CURVE DATA - ODENTON						
CURVE	DELTA	Dc	RADIUS (FT)	TANGENT (FT)	LENGTH (FT)	EXTERNAL (FT)
CURVE #1	22° 43' 03.97"	19° 05' 54.94"	300	60.26	118.95	5.99
CURVE #2	22° 24' 11.86"	19° 05' 54.94"	300	59.41	117.30	5.82
CURVE #3	88° 18' 07.67"	71° 37' 11.01"	80	77.66	123.29	31.49
CURVE #4	94° 28' 04.05"	71° 37' 11.01"	80	86.50	131.90	37.82
CURVE #5	88° 05' 40.61"	40° 55' 32.00"	140	130.76	210.36	51.57
CURVE #6	96° 40' 49.59"	52° 05' 13.46"	110	123.63	185.61	55.48
CURVE #7	18° 59' 00.83"	22° 02' 12.82"	260	43.47	86.14	3.60

**ANNE ARUNDEL COUNTY**  
DEPARTMENT OF PUBLIC WORKS

REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE 1"=50'	DRAWING NO. C-1 OF 4
		CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY JG	<b>ODENTON LIBRARY COMMUNITY PARK</b> <b>PHASE 1</b> <b>OVERALL SITE PLAN</b>
		APPROVED	DATE	APPROVED	DATE	CHECKED BY RL	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO.	
						SHEET 3 OF 20	PROPOSAL NO.

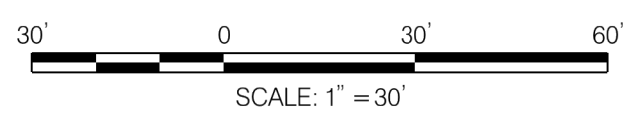
**BAI**  
BRUDIS & ASSOCIATES, INC.  
Consulting Engineers  
11000 Broken Land Pkwy, Suite 450  
Columbia, Maryland 21044  
Phone 410-884-3807  
www.brudis.com



**LEGEND**

- NON-TIDAL WETLAND
- B — 25' WETLAND BUFFER
- WUS — WATERS OF THE US
- 100' STREAM BUFFER
- — PROPERTY/LOT LINE/EASEMENTS
- — EX. 100-YR FLOOD PLAIN (CURRENT CONDITION ANALYSIS)
- — EX. 100-YR FLOOD PLAIN (PER PLATS)
- C — CUT
- F — FILL
- [Pattern] CONCRETE WALK
- [Pattern] FULL DEPTH ASPHALT
- [Pattern] ASPHALT MILL & RESURFACING
- [Pattern] PERMEABLE PAVEMENT

MATCH LINE- SEE C-3

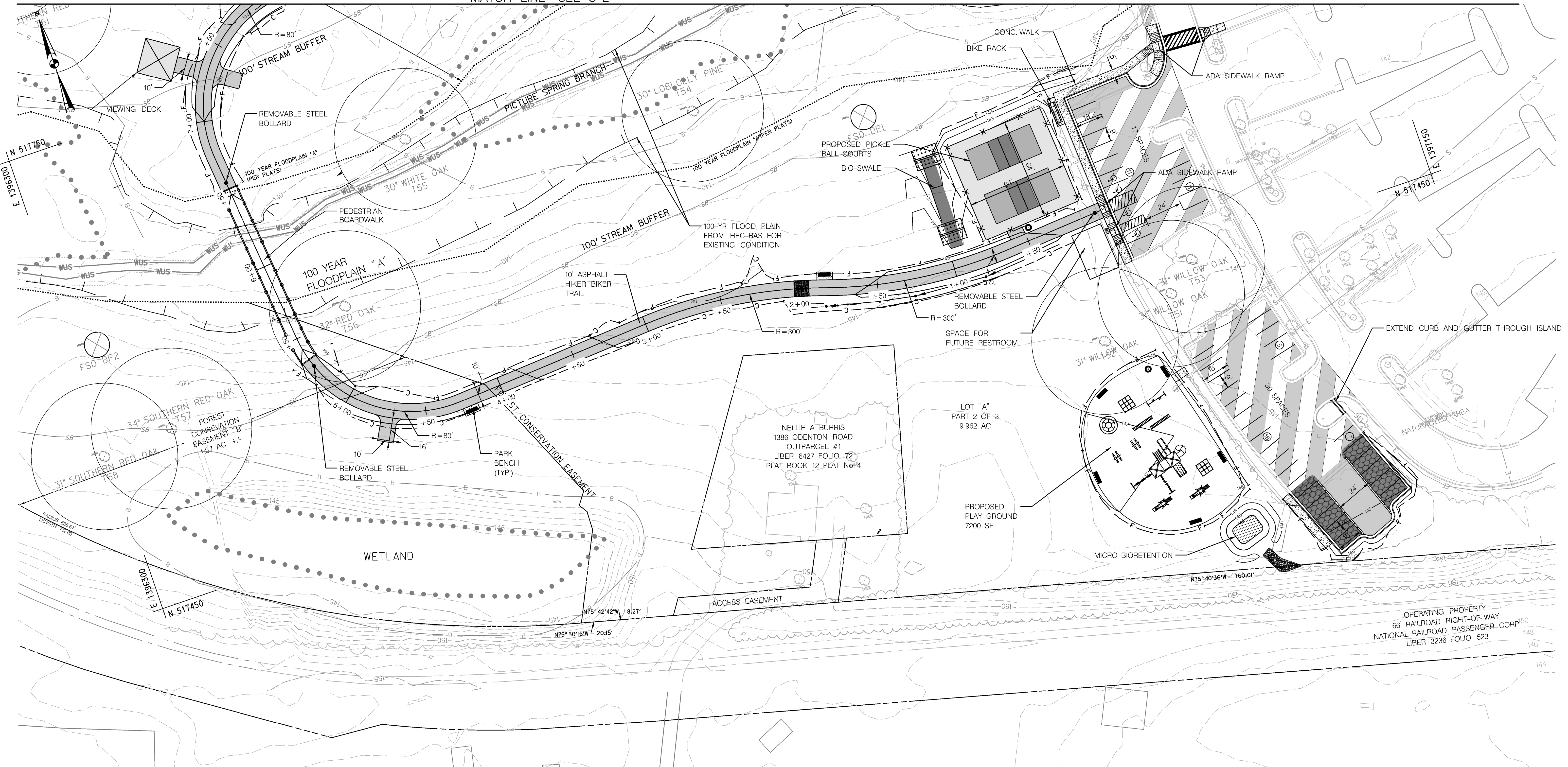


11000 Broken Land Pkwy, Suite 450  
Columbia, Maryland 21044  
Phone: 410-384-3807  
www.brudis.com

ANNE ARUNDEL COUNTY  
DEPARTMENT OF PUBLIC WORKS

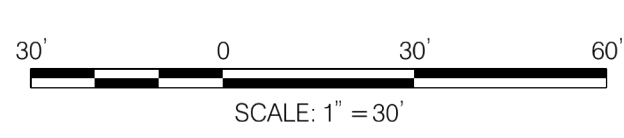
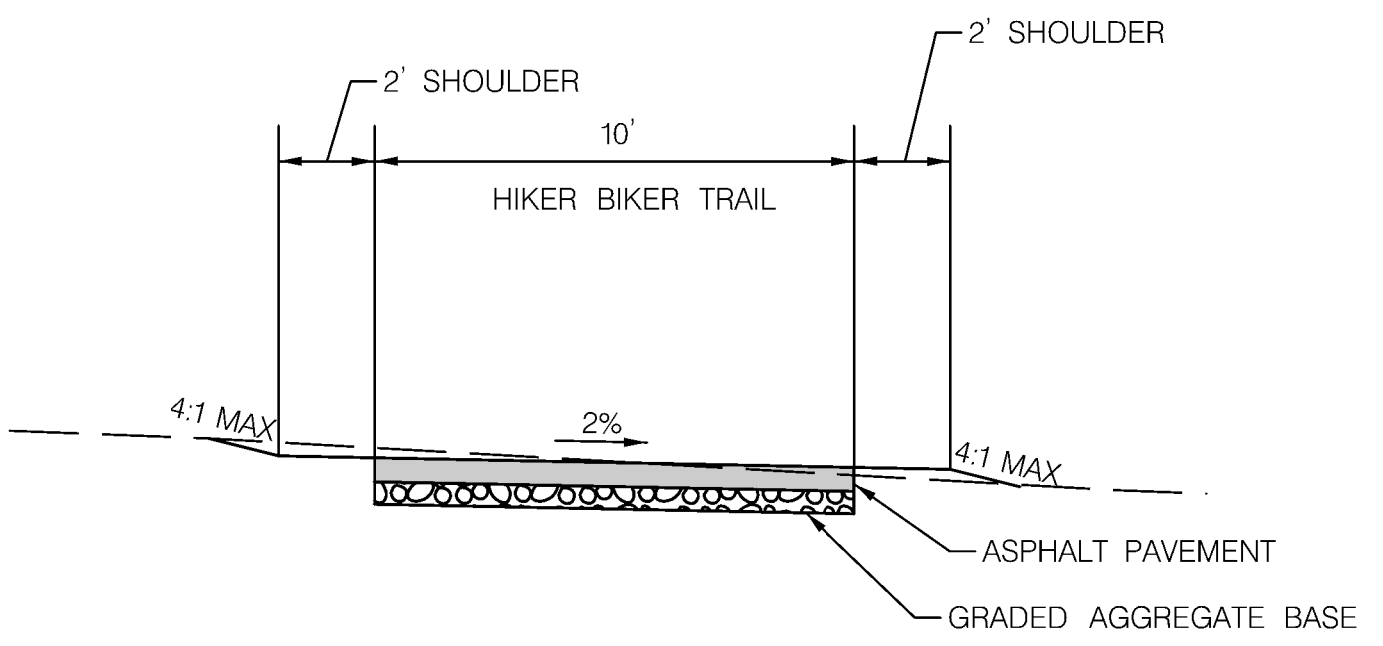
REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE 1"=30"	DRAWING NO. C-2 OF 4
		CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY JG	<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 SITE PLAN</b>
		APPROVED	DATE			CHECKED BY RL	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET 4 OF 20	
						PROJECT NO.	
						PROPOSAL NO.	

MATCH LINE- SEE C-2



**LEGEND**

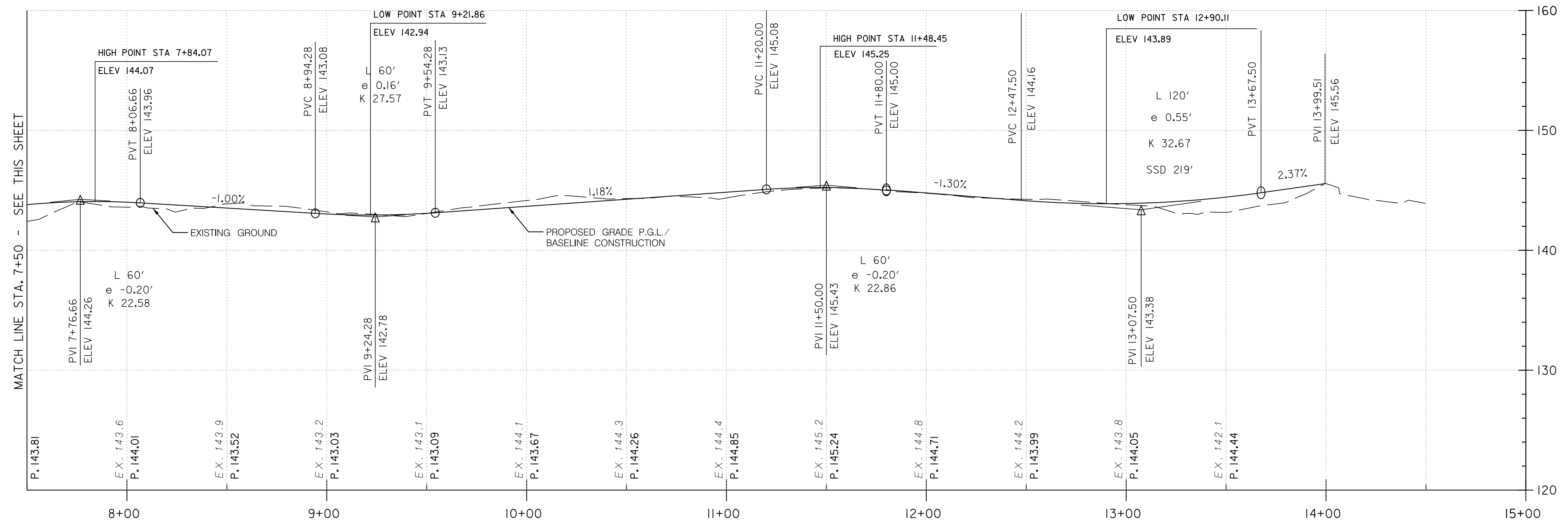
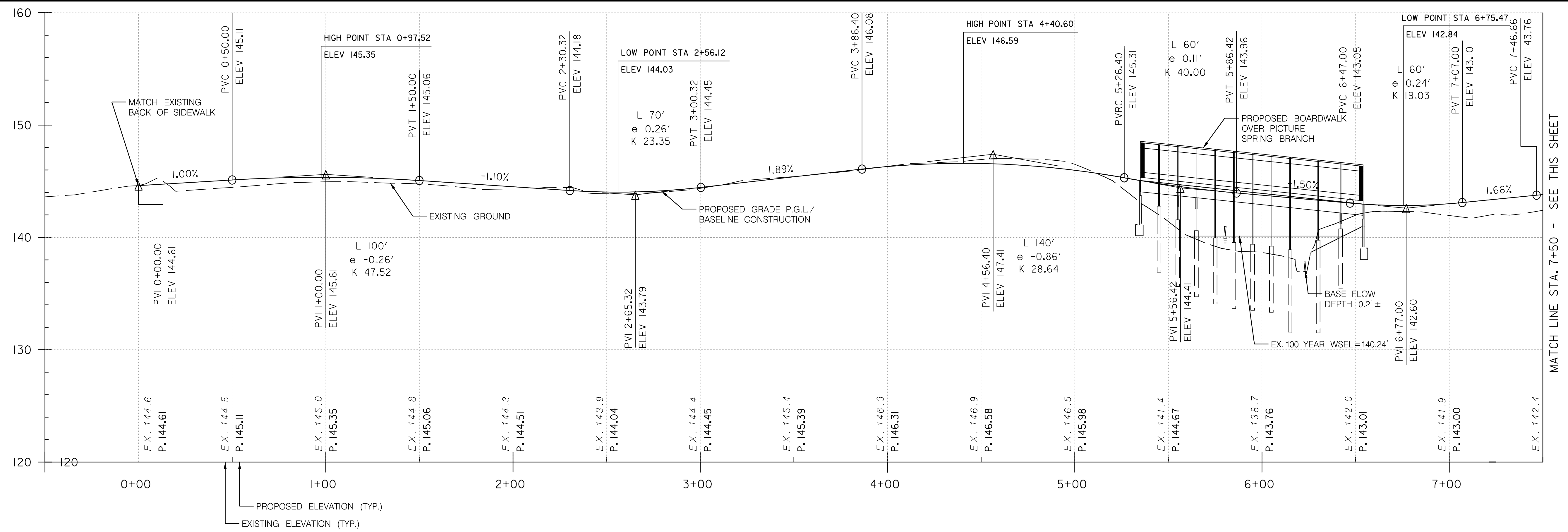
- NON-TIDAL WETLAND
- B — 25' WETLAND BUFFER
- WUS — WATERS OF THE US
- 100' STREAM BUFFER
- — — PROPERTY/LOT LINE/EASEMENTS
- - - EX. 100-YR FLOOD PLAIN (CURRENT CONDITION ANALYSIS)
- ..... EX. 100-YR FLOOD PLAIN (PER PLATS)
- - - C - - - CUT
- - - F - - - FILL
- [Pattern] CONCRETE WALK
- [Pattern] FULL DEPTH ASPHALT
- [Pattern] ASPHALT MILL & RESURFACING
- [Pattern] PERMEABLE PAVEMENT



11000 Broken Land Pkwy, Suite 450  
Columbia, Maryland 21044  
Phone: 410-884-3807  
www.brudis.com

ANNE ARUNDEL COUNTY  
DEPARTMENT OF PUBLIC WORKS

REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE	DRAWING NO.
		CHIEF ENGINEER		PROJECT MANAGER		1" = 30'	C-3 OF 4
		APPROVED				DRAWN BY JG	<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 SITE PLAN</b>
						CHECKED BY RL	
						SHEET 5 OF 20	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO.	
						PROPOSAL NO.	



ODENTON HIKER BIKER TRAIL PROFILE

1" = 30' H , 1" = 5' V

		ANNE ARUNDEL COUNTY				DRAWING NO. C-4 OF 4
		DEPARTMENT OF PUBLIC WORKS				
REVISOR	APPROVED	DATE	APPROVED	DATE	SCALE 1"=30' H , 1"=5' V	<b>ODENTON LIBRARY COMMUNITY PARK</b> <b>PHASE 1</b> <b>TRAIL PROFILE</b>
DATE	BY		PROJECT MANAGER		DRAWN BY JG	
	CHIEF ENGINEER		CHECKED BY RL		SHEET 6 OF 20	
	APPROVED	DATE	PROJECT NO.		PROPOSAL NO.	
	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY			



N 1517021  
E 1394417

E 1395824

LEGEND

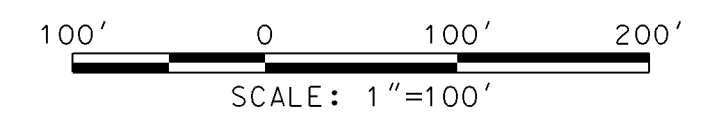
EXISTING CONTOURS	---
PROPERTY LINE	---
EXISTING RIGHT OF WAY	---
TIME OF CONCENTRATION (TC PATH)	→
DRAINAGE AREA BOUNDARY	---
SOIL BOUNDARY	---
POINT OF INVESTIGATION (POI)	○
IMPERVIOUS AREA	█
OPEN SPACE	▨
WOODED AREA	▩

NOTE:

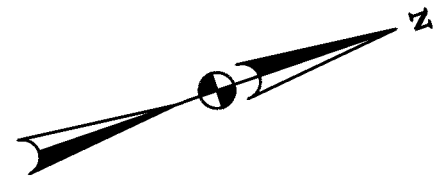
DRAINAGE AREA SUMMARY AND SOILS INFORMATION CAN BE FOUND ON SHEET DA-02

N 1517021  
E 1395824

MATCH LINE SEE SHEET DA-02



		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. DA-01 OF DA-04
		REVISOR	DATE	APPROVED	DATE	
DATE	BY	DATE	DATE	SCALE 1"=100'	DRAWN BY DMK	
		CHIEF ENGINEER		PROJECT MANAGER	CHECKED BY AP	
		APPROVED	DATE		SHEET 7 OF 20	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	PROJECT NO.	
11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-884-3807 www.brudis.com					PROPOSAL NO.	
					<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 EXISTING DRAINAGE AREA MAP</b>	



MATCH LINE SEE SHEET DA-01

LEGEND

EXISTING CONTOURS	--- --
PROPERTY LINE	— — — —
EXISTING RIGHT OF WAY	— — — —
TIME OF CONCENTRATION (TC PATH)	→ — — —
DRAINAGE AREA BOUNDARY	- - - - -
SOIL BOUNDARY	- · - · -
POINT OF INVESTIGATION (POI)	*
IMPERVIOUS AREA	■
OPEN SPACE	▨
WOODED AREA	▩
WETLANDS	● ● ● ● ● ● ● ●
WETLAND BUFFER	— · — · — ·
100 YEAR FLOOD PLAIN	- - - - -
100' STREAM BUFFER	— · — · — ·

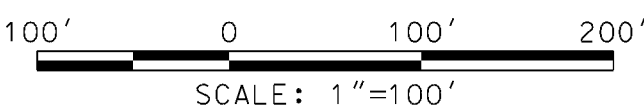


DRAINAGE AREA SUMMARY

DA ID	AREA (ACRES)	IMPERVIOUS AREA(ACRES)	T <sub>c</sub> (HOURS)	CN	OUTFALL
1	87.93	36.99	0.450	61	60" RCP
2	0.43	0.04	0.100	90	DITCH

HYDROLOGIC SOIL GROUP SUMMARY

SOIL MAP UNIT SYMBOL	SOIL NAME	RATING
DvC	DOWNER-HAMMONTON COMPLEX, 5 TO 10 PERCENT SLOPES	A
DwB	DOWNER-HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	A
EVC	EVESBORO AND GALESTOWN SOILS, 5 TO 10 PERCENT SLOPES	A
PeB	PATAPSCO-EVESBORO-FORT MOTT COMPLEX, 0 TO 5 PERCENT SLOPES	A
PIB	PATAPSCO-FORT MOTT COMPLEX, 0 TO 5 PERCENT SLOPES	A
PgB	PATAPSCO-FORT MOTT-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	A
RnB	RUSSETT-CHRISTIANA-HAMBROOK COMPLEX, 0 TO 5 PERCENT SLOPES	C



<p><b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone 410-884-3807 www.brudis.com</p>		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. DA-02 OF DA-04  <b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 EXISTING DRAINAGE AREA MAP</b>																									
		<table border="1"> <tr> <th>REVISED DATE</th> <th>BY</th> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISED DATE	BY	APPROVED		DATE					<table border="1"> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	APPROVED	DATE			<table border="1"> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	APPROVED	DATE			<table border="1"> <tr> <th>SCALE</th> <td>1"=100'</td> </tr> <tr> <th>DRAWN BY</th> <td>DMK</td> </tr> <tr> <th>CHECKED BY</th> <td>AP</td> </tr> <tr> <th>SHEET</th> <td>8 OF 20</td> </tr> <tr> <th>PROJECT NO.</th> <td> </td> </tr> <tr> <th>PROPOSAL NO.</th> <td> </td> </tr> </table>	SCALE	1"=100'	DRAWN BY	DMK	CHECKED BY	AP	SHEET	8 OF 20	PROJECT NO.
REVISED DATE	BY	APPROVED	DATE																												
APPROVED	DATE																														
APPROVED	DATE																														
SCALE	1"=100'																														
DRAWN BY	DMK																														
CHECKED BY	AP																														
SHEET	8 OF 20																														
PROJECT NO.																															
PROPOSAL NO.																															





LEGEND


EXISTING CONTOURS	---
PROPERTY LINE	---
EXISTING RIGHT OF WAY	---
TIME OF CONCENTRATION (TC PATH)	→
DRAINAGE AREA BOUNDARY	- - - -
SOIL BOUNDARY	- · - · -
POINT OF INVESTIGATION (POI)	⊙
IMPERVIOUS AREA	▒
OPEN SPACE	▨
WOODED AREA	▩

NOTE:

DRAINAGE AREA SUMMARY AND SOILS INFORMATION CAN BE FOUND ON SHEET DA-04

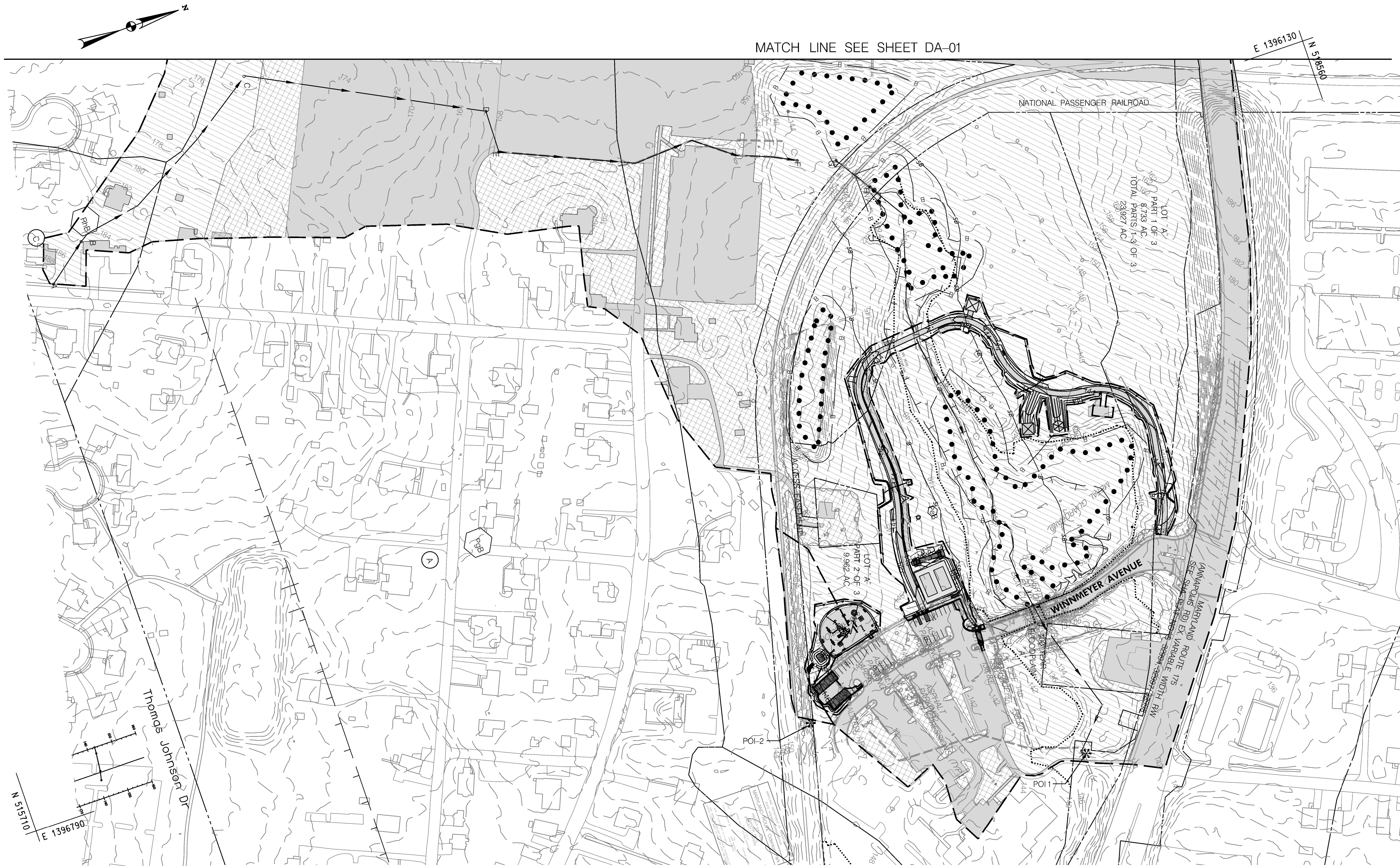
MATCH LINE SEE SHEET DA-04



 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-884-3807 www.brudis.com	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. DA-03 OF DA-04  <b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 PROPOSED DRAINAGE AREA MAP</b>
	REVISED DATE	BY	APPROVED DATE	APPROVED DATE	
			CHIEF ENGINEER	PROJECT MANAGER	
			APPROVED DATE	APPROVED DATE	
		ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	SCALE 1"=100'	DRAWN BY DMK CHECKED BY AP SHEET 9 OF 20 PROJECT NO. PROPOSAL NO.

LEGEND

EXISTING CONTOURS	---
PROPERTY LINE	---
EXISTING RIGHT OF WAY	---
TIME OF CONCENTRATION (TC PATH)	→
DRAINAGE AREA BOUNDARY	---
SOIL BOUNDARY	---
POINT OF INVESTIGATION (POI)	*
IMPERVIOUS AREA	■
OPEN SPACE	▨
WOODED AREA	▩
WETLANDS	●
WETLAND BUFFER	---
100 YEAR FLOOD PLAIN	---
100' STREAM BUFFER	---

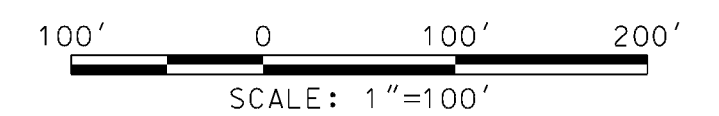


**DRAINAGE AREA SUMMARY**

DA ID	AREA (ACRES)	IMPERVIOUS AREA(ACRES)	Tc (HOURS)	CN	OUTFALL
1	87.71	37.66	0.450	62	60' RCP
2	0.65	0.14	0.100	44	DITCH

**HYDROLOGIC SOIL GROUP SUMMARY**

SOIL MAP UNIT SYMBOL	SOIL NAME	RATING
DvC	DOWNER-HAMMONTON COMPLEX, 5 TO 10 PERCENT SLOPES	A
DwB	DOWNER-HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	A
EVC	EVESBORO AND GALESTOWN SOILS, 5 TO 10 PERCENT SLOPES	A
PeB	PATAPSCO-EVESBORO-FORT MOTT COMPLEX, 0 TO 5 PERCENT SLOPES	A
PIB	PATAPSCO-FORT MOTT COMPLEX, 0 TO 5 PERCENT SLOPES	A
PgB	PATAPSCO-FORT MOTT-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	A
RnB	RUSSETT-CHRISTIANA-HAMBROOK COMPLEX, 0 TO 5 PERCENT SLOPES	C



 BRUDIS & ASSOCIATES, INC. Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone 410-884-3807 www.brudis.com		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
		REVISIONS DATE BY	APPROVED DATE	APPROVED DATE	SCALE 1"=100'
CHIEF ENGINEER APPROVED DATE	PROJECT MANAGER APPROVED DATE	CHIEF, RIGHT OF WAY APPROVED DATE	DRAWN BY DMK	CHECKED BY AP	
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROJECT NO.	SHEET 10 OF 20	PROPOSAL NO.	

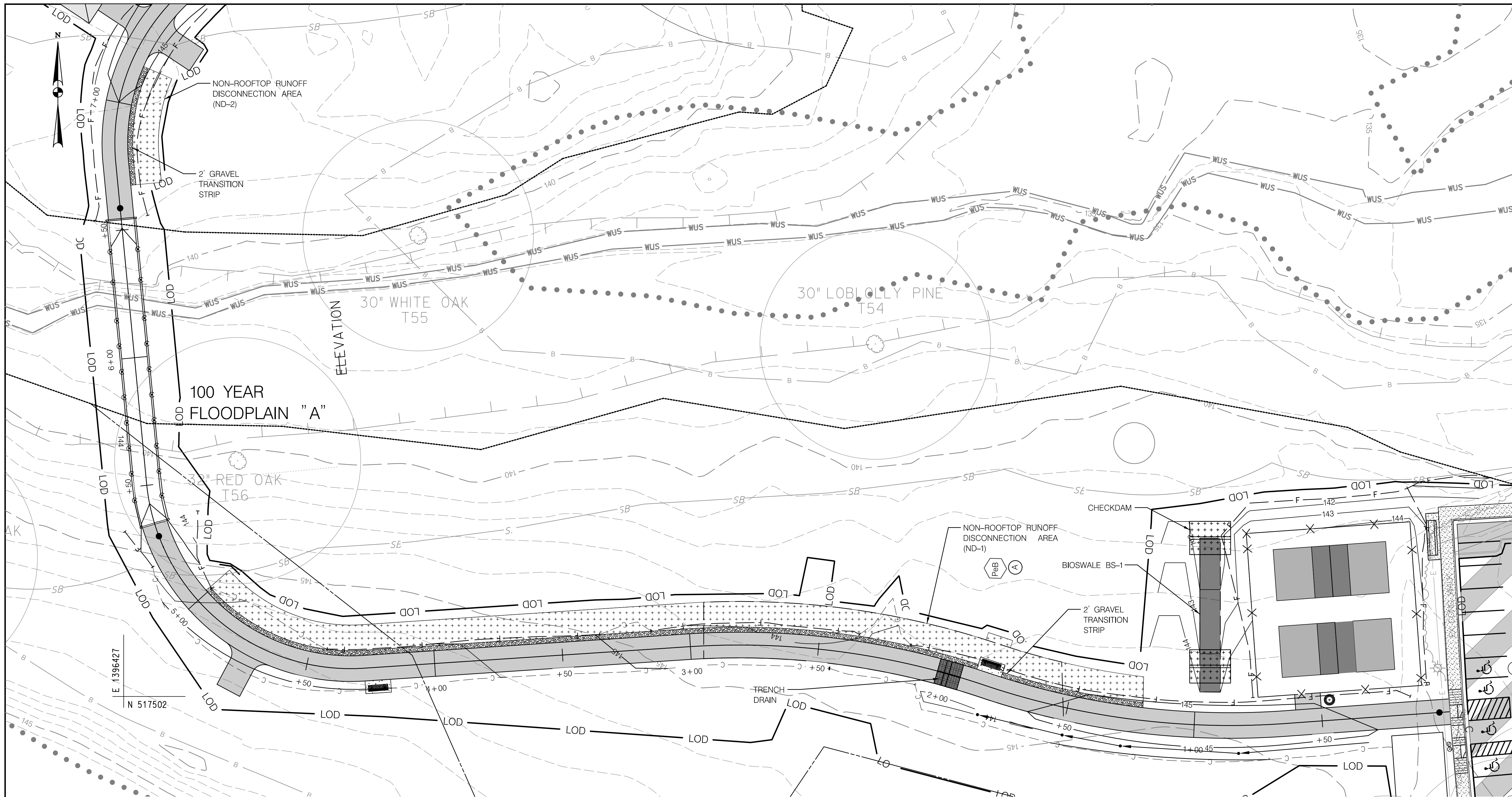
**ODENTON LIBRARY COMMUNITY PARK  
PHASE 1  
PROPOSED DRAINAGE AREA MAP**

N 517764

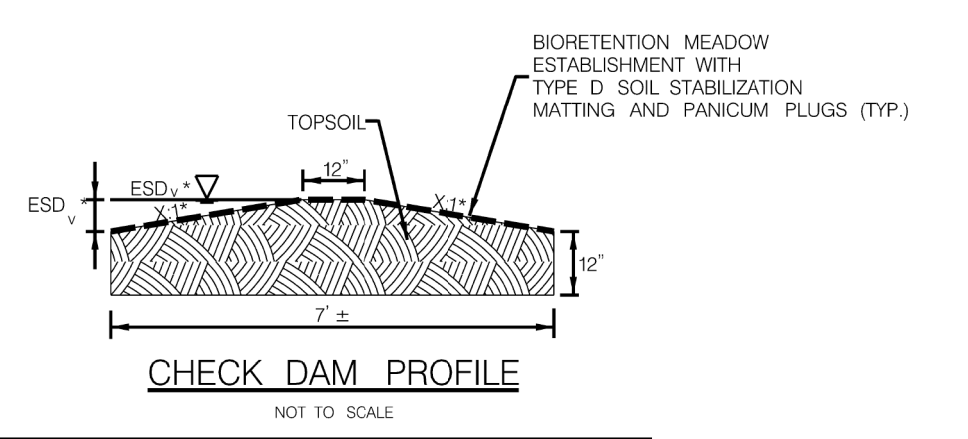
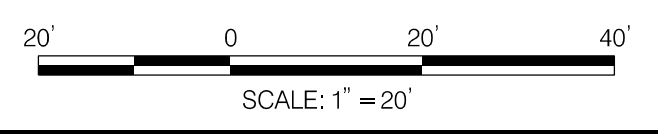
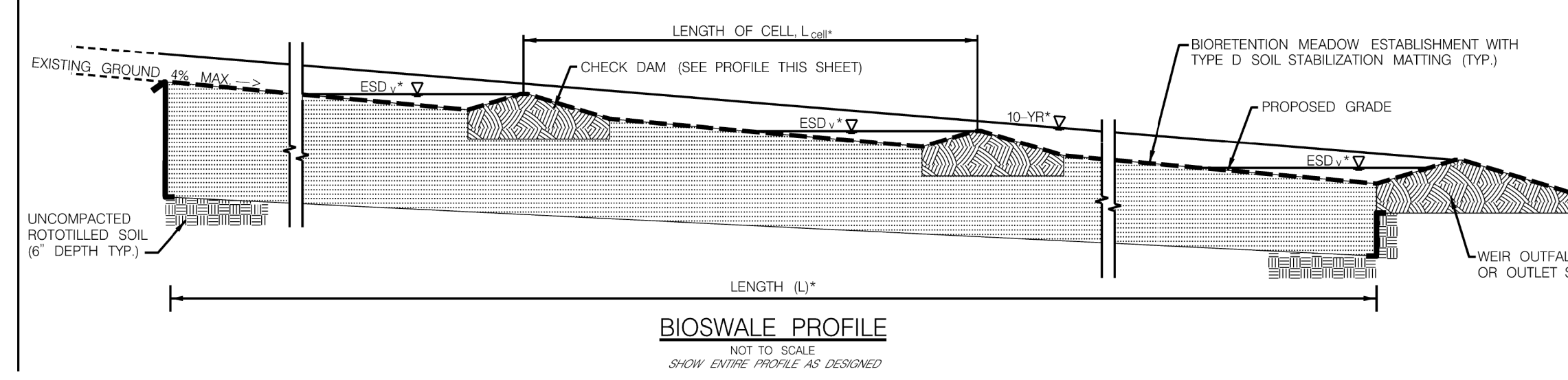
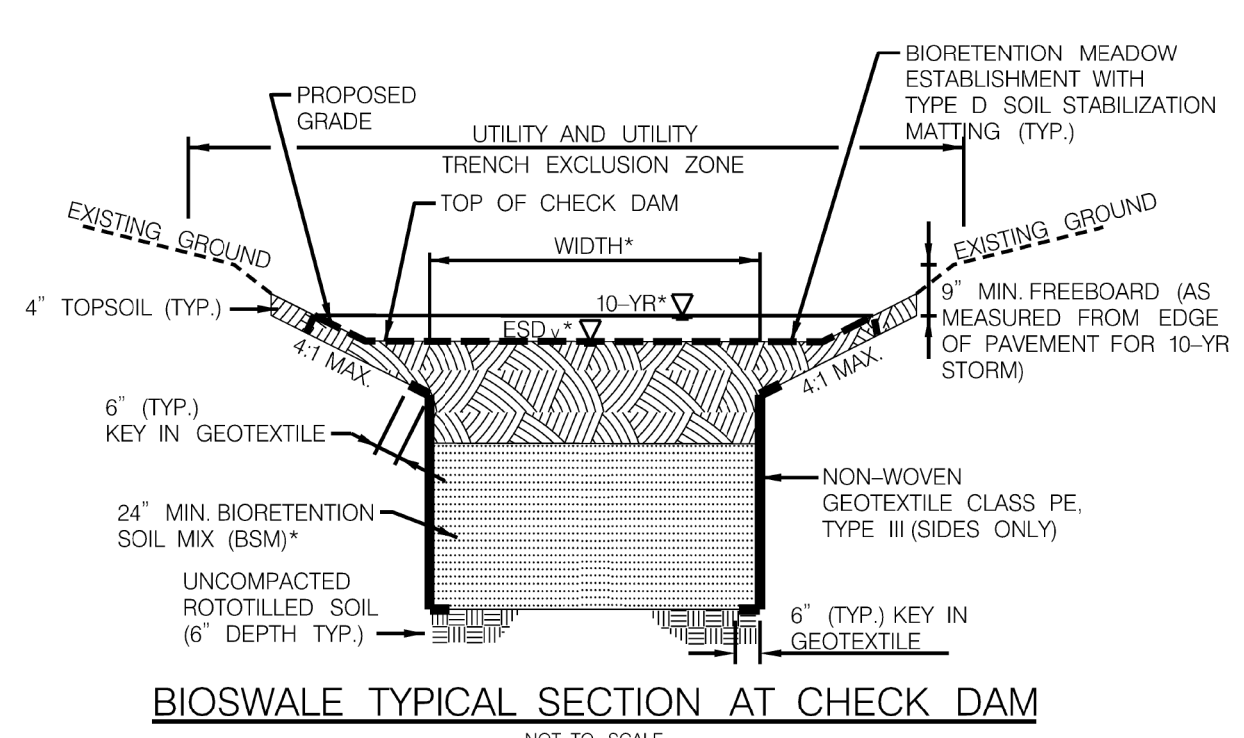
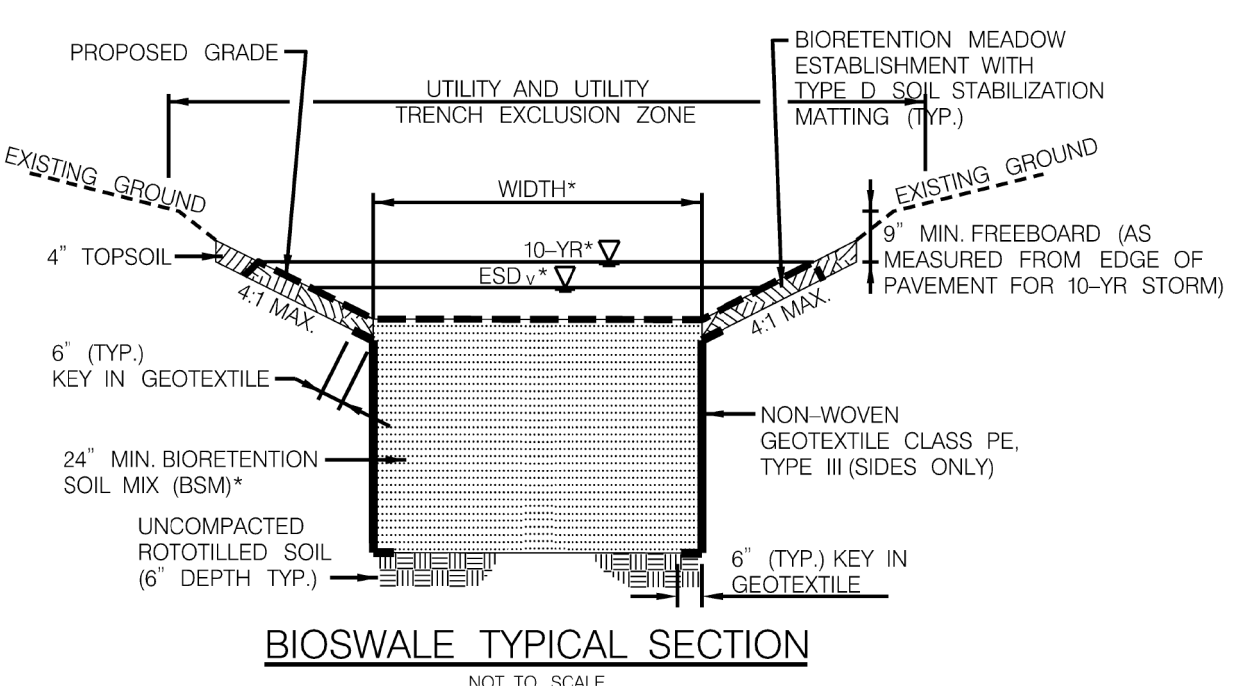
E 1397007

**LEGEND**

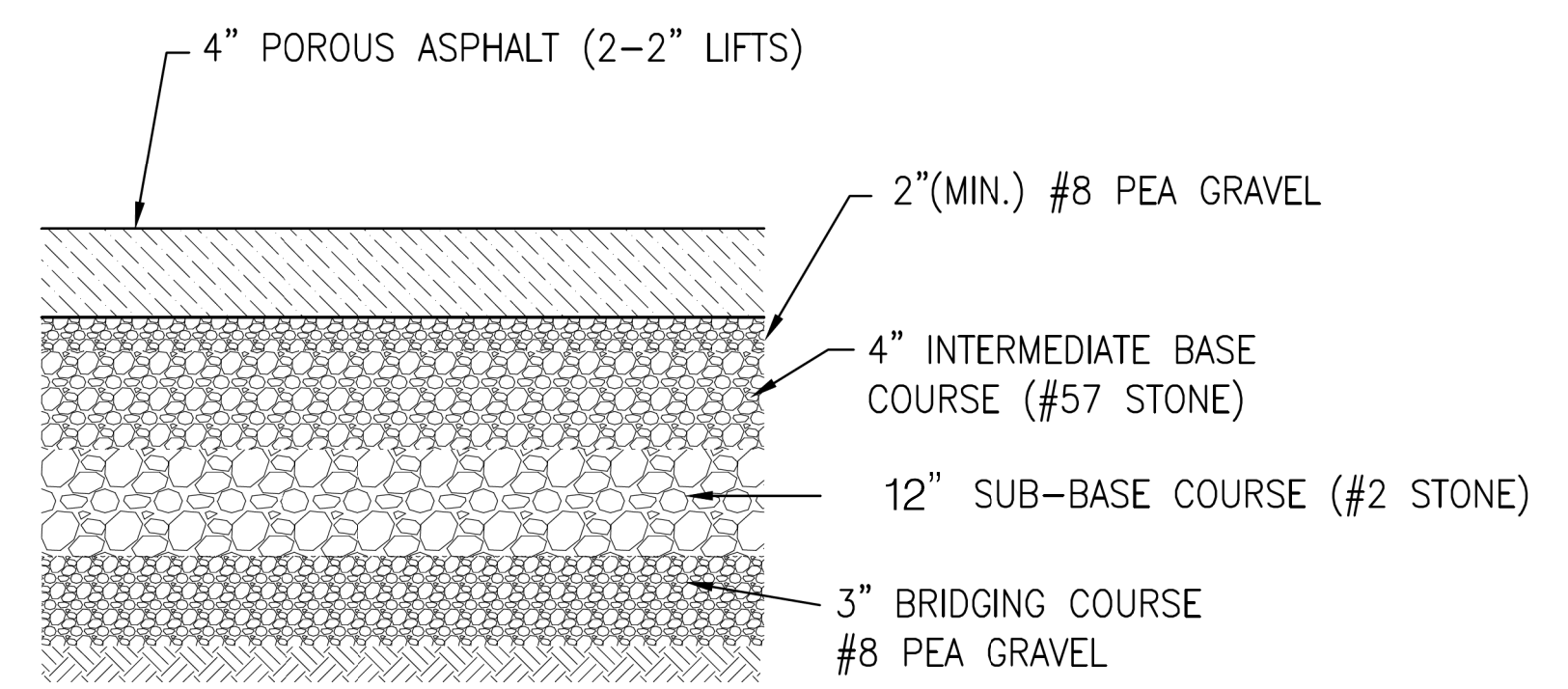
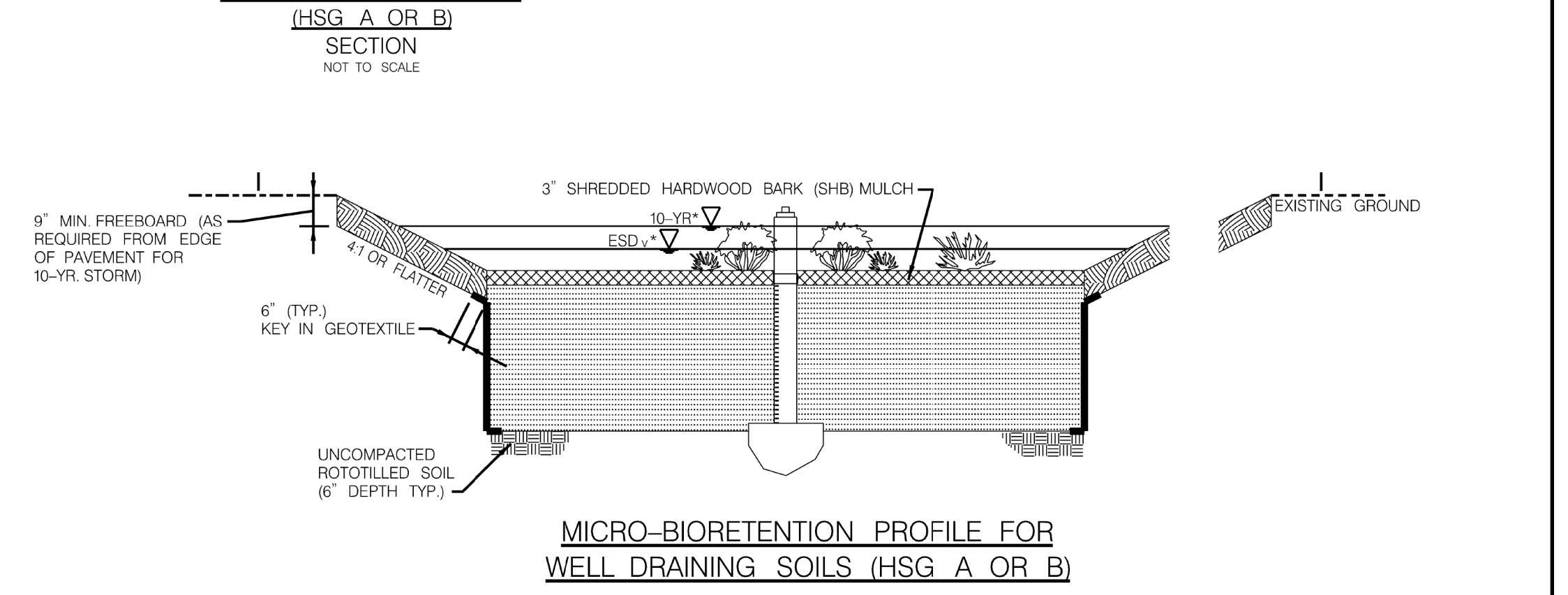
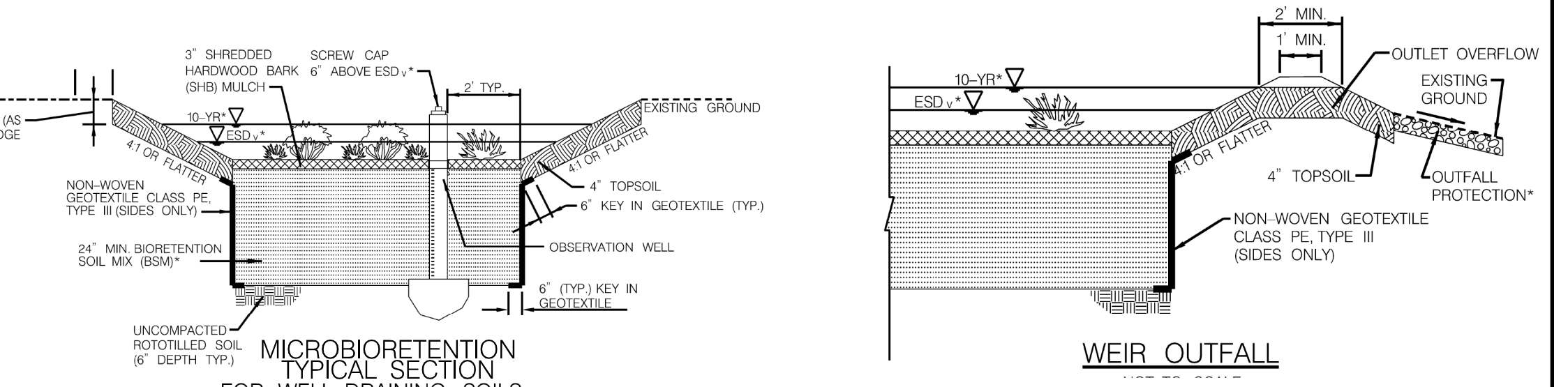
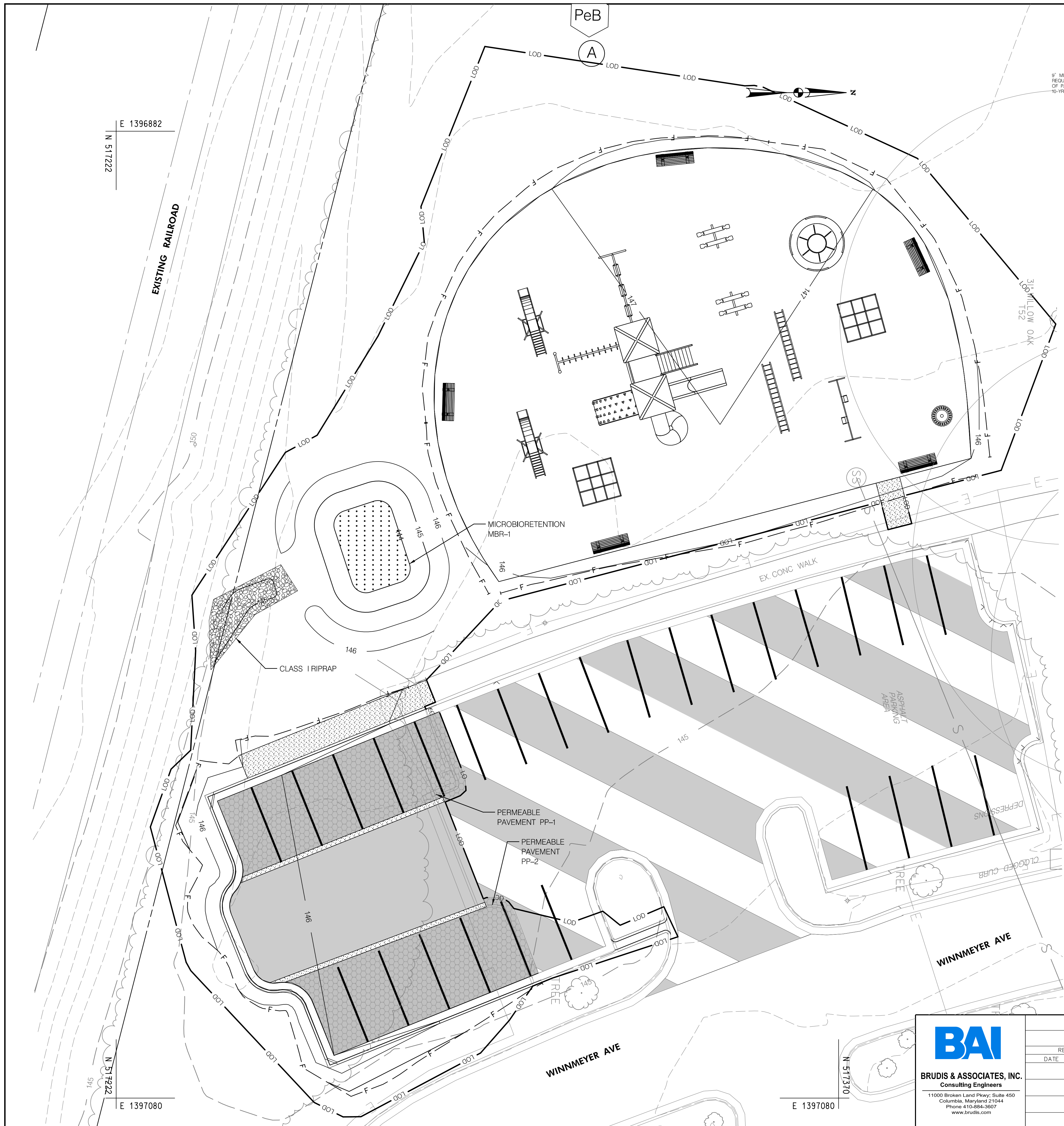
- EXISTING CONTOURS ——— 143 ———
- PROPERTY LINE ———
- WETLANDS ●●●●●●●●
- WETLAND BUFFER B ———
- 100' STREAM BUFFER SB ———
- WATERS OF THE US WUS ———
- 100 YEAR FLOODPLAIN ———
- PROPOSED CONTOURS ——— 143 ———
- PROPOSED PATH ———
- PROPOSED SIDEWALK [Pattern]



N 517502 E 1397007

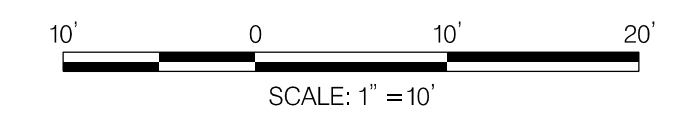


 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-884-3807 www.brudis.com		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. SW-01 OF SW-02	
		REVISIONS DATE BY	APPROVED DATE CHIEF ENGINEER APPROVED DATE ASSISTANT CHIEF ENGINEER	APPROVED DATE PROJECT MANAGER	APPROVED DATE CHIEF, RIGHT OF WAY	SCALE 1" = 20' DRAWN BY DMK CHECKED BY AP SHEET 11 OF 20 PROJECT NO. PROPOSAL NO.	<b>ODENTON LIBRARY COMMUNITY PARK          PHASE 1          STORMWATER MANAGEMENT PLAN</b>



**LEGEND**

EXISTING CONTOURS	— 143 —
EXISTING SEWER	— S —
EXISTING ELECTRIC	— E —
LIMIT OF DISTURBANCE	— LOD —
PROPERTY LINE	— — —
PROPOSED CONTOURS	— 143 —
PROPOSED PATH	— — —
PROPOSED SIDEWALK	▨
PERMEABLE PAVEMENT	▩



<p><b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com</p>		<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p>		<p>SCALE 1"=10'</p>		<p>DRAWING NO. SW-02 OF SW-02</p>																				
		<table border="1"> <tr> <th>REVISED DATE</th> <th>BY</th> <th>APPROVED DATE</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISED DATE	BY	APPROVED DATE	DATE					<table border="1"> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	APPROVED	DATE			<table border="1"> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	APPROVED	DATE			<table border="1"> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	APPROVED	DATE			<table border="1"> <tr> <td> <p>DRAWN BY DMK</p> <p>CHECKED BY AP</p> <p>SHEET 12 OF 20</p> <p>PROJECT NO.</p> <p>PROPOSAL NO.</p> </td> <td> <p><b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 STORMWATER MANAGEMENT</b></p> </td> </tr> </table>
REVISED DATE	BY	APPROVED DATE	DATE																							
APPROVED	DATE																									
APPROVED	DATE																									
APPROVED	DATE																									
<p>DRAWN BY DMK</p> <p>CHECKED BY AP</p> <p>SHEET 12 OF 20</p> <p>PROJECT NO.</p> <p>PROPOSAL NO.</p>	<p><b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 STORMWATER MANAGEMENT</b></p>																									

# EROSION AND SEDIMENT CONTROL – GENERAL NOTES

## 17. ANNE ARUNDEL SOIL CONSERVATION DISTRICT DETAILS AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

### 2018 VEGETATIVE ESTABLISHMENT

Following initial soil disturbances or redisturbance, permanent or temporary stabilization shall be completed within three calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and seven days for all other disturbed or graded areas on the project site.

#### 1. Permanent Seeding:

- A. Soil Tests: Lime and fertilizer will be applied per soil tests results for sites greater than 5 acres. Soil tests will be done at completion of initial rough grading or as recommended by the sediment control inspector. Rates and analyses will be provided to the grading inspector as well as the contractor.

Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 6-week incubation period to allow oxidation of sulfates.

The minimum soil conditions required for permanent vegetative establishment are:

- a. Soil pH shall be between 6.0 and 7.0.
- b. Soluble salts shall be less than 500 parts per million (ppm).
- c. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or sericea lespedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.
- d. Soil shall contain 1.5% minimum organic matter by weight.
- e. Soil must contain sufficient pore space to permit adequate root penetration.
- f. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with the Standard and Specification for Soil Preparation, Topsoiling and Soil Amendments from the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control or amendments made as recommended by a certified agronomist.

- B. Seedbed Preparation: Area to be seeded shall be loose and friable to a depth of at least 3-5 inches. The top layer shall be loosened by raking, disking or other acceptable means before seeding occurs. For sites less than 5 acres, apply 100 pounds dolomitic limestone and 21 pounds of 10-10-10 fertilizer per 1,000 square feet. Harrow or disk lime and fertilizer into the soil to a depth of at least 3-5 inches on slopes flatter than 3:1.

- C. Seeding: Apply 5-6 pounds per 1,000 square feet of tall fescue between February 1 and April 30 or between August 15 and October 31. Apply seed uniformly on a moist firm seedbed with a cyclone seeder, cultipacker seeder or hydroseeder (slurry includes seeds and fertilizer, recommended on steep slopes only). Maximum seed depth should be ¼ inch in clayey soils and ½ inch in sandy soils when using other than the hydroseeder method. Irrigate where necessary to support adequate growth until vegetation is firmly established. If other seed mixes are to be used, select from Table B3 and B5 of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

- D. Mulching: Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading. Mulch shall be unrotted, unchopped, small grain straw applied at a rate of 2 tons per acre or 90 pounds per 1,000 square feet (2 bales). Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch-anchoring tool is used, apply 2.5 tons per acre. Mulch materials shall be relatively free of all kinds of weeds and shall be completely free of prohibited noxious weeds. Spread mulch uniformly, mechanically or by hand, to a depth of 1-2 inches.

- E. Securing Straw Mulch: Straw mulch shall be secured immediately following mulch application to minimize movement by wind or water. The following methods are permitted:

- i. Use a mulch-anchoring tool which is designed to punch and anchor mulch into the soil surface to a minimum depth of 2 inches. This is the most effective method for securing mulch, however, it is limited to relatively flat areas where equipment can operate safely.
- ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. If mixed with water, use 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Liquid binders may be used. Apply at higher rates at the edges where wind catches mulch, such as in valleys and on crests of slopes. The remainder of the area should appear uniform after binder application. Binders listed in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control or approved equal shall be applied at rates recommended by the manufacturers.
- iv. Lightweight plastic netting may be used to secure mulch. The netting will be stapled to the ground according to manufacturer's recommendations.

#### 2. Temporary Seeding:

- Lime: 100 pounds of dolomitic limestone per 1,000 square feet.
- Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.
- Seed: Perennial rye – 0.92 pounds per 1,000 square feet (February 1 through April 30 or August 15 through October 31).  
Millet – 0.92 pounds per 1,000 square feet (May 1 through August 15).
- Mulch: Same as 1 D and E above.

- 3. No fills may be placed on frozen ground. All fill is to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All compaction requirements are in accordance to Anne Arundel County Standard Specifications for Construction as well as the AA County Design Manual and Standard Details. Fills for pond embankments shall be compacted as per MD-378 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

#### 4. Permanent Sod:

Installation of sod should follow permanent seeding dates. Seedbed preparation for sod shall be as noted in section (B) above. Permanent sod is to be tall fescue, state approved sod; lime and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control netting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod.

#### 5. Mining Operations:

Sediment control plans for mining operations must include the following seeding dates and mixtures:

For seeding dates of February 1 through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and sericea lespedeza at the minimum rate of 0.5 pounds per 1,000 square feet.

- 6. Topsoil shall be applied as per the Standard and Specifications for Soil Preparation, Topsoiling, and Soil Amendments from the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

- 7. Use of these Vegetative Establishment Specifications does not preclude the permittee or contractor from meeting all of the requirements set forth in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

## 18. STANDARD RESPONSIBILITY NOTES

I (WE) CERTIFY THAT:

- 1.
  - A. ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS SEDIMENT AND EROSION CONTROL PLAN, AND FURTHER, AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE ANNE ARUNDEL SOIL CONSERVATION DISTRICT (AASCD) BOARD OF SUPERVISORS OR THEIR AUTHORIZED AGENTS.
  - B. ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

RESPONSIBLE PERSONNEL ON SITE:

- C. IF APPLICABLE, THE APPROPRIATE ENCLOSURE WILL BE CONSTRUCTED AND MAINTAINED ON SEDIMENT BASIN(S) INCLUDED IN THIS PLAN. SUCH STRUCTURE(S) WILL BE IN COMPLIANCE WITH THE ANNE ARUNDEL COUNTY CODE.

- 2. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHT, AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THE PLAN.

- 3. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT AND/OR TEMPORARY STABILIZATION PER THE AASCD VEGETATIVE ESTABLISHMENT SHALL BE COMPLETED WITHIN THREE CALENDAR DAYS FOR THE SURFACE OF ALL CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SEVEN DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

- 4. THE GRADING AND SEDIMENT CONTROL APPROVAL ON THIS PLAN EXTENDS ONLY TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE.

- 5. THE APPROVAL OF THIS PLAN FOR SEDIMENT AND EROSION CONTROL DOES NOT RELIEVE THE DEVELOPER/CONSULTANT FROM COMPLYING WITH FEDERAL, STATE, OR COUNTY REQUIREMENTS PERTAINING TO ENVIRONMENTAL ISSUES.

- 6. THE DEVELOPER MUST REQUEST THAT THE SEDIMENT AND EROSION CONTROL INSPECTOR APPROVE WORK COMPLETED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT, AND THE ORDINANCE.

- 7. ALL MATERIAL SHALL BE TAKEN TO A SITE WITH AN APPROVED SEDIMENT AND EROSION CONTROL PLAN.

- 8. FIRST PHASE INSPECTION AND APPROVAL OF THE SEDIMENT AND EROSION CONTROL INSPECTOR SHALL BE REQUIRED UPON COMPLETION OF THE INSTALLATION OF EROSION AND SEDIMENT CONTROLS PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THE INITIAL APPROVAL BY THE SEDIMENT AND EROSION CONTROL INSPECTOR IS GIVEN. INSPECTION AND PERMITS MAY ALSO REQUIRE THAT AN INSPECTION AND CERTIFICATION OF THE INSTALLATION OF SEDIMENT CONTROL ALSO BE PERFORMED BY A DESIGN PROFESSIONAL PRIOR TO CONSTRUCTION COMMENCING

- 9. APPROVAL FROM THE INSPECTOR MUST BE REQUESTED ON FINAL STABILIZATION OF ALL SITES PRIOR TO REMOVAL OF SEDIMENT AND EROSION CONTROLS.

- 10. EXISTING TOPOGRAPHY MUST BE FIELD VERIFIED BY RESPONSIBLE PERSONNEL TO THE SATISFACTION OF THE SEDIMENT CONTROL INSPECTOR PRIOR TO COMMENCING WORK.

CONSULTANT'S CERTIFICATION

"THE DEVELOPER'S PLAN TO CONTROL SILT AND EROSION IS ADEQUATE TO CONTAIN THE SILT AND EROSION ON THE PROPERTY COVERED BY THE PLAN. I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THIS SITE, AND WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASCD PLAN SUBMITTAL GUIDELINES AND THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER."

27015  
MD P.E. LICENSE NO.

MD LAND SURVEYOR LICENSE NO. SIGNATURE

MD LANDSCAPE ARCHITECT NO. DATE

SAIFUDDIN AHMED

NAME

BRUDIS AND ASSOCIATES, INC.

FIRM NAME

11000 BROKEN LAND PKWAY, SUITE 450

ADDRESS

COLUMBIA, MD 21044

CITY STATE ZIPCODE

SEAL

"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. \_\_\_\_\_, EXPIRATION DATE: \_\_\_\_\_."

 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers <small>11000 Broken Land Pkwy, Suite 450                  Columbia, Maryland 21044                  Phone: 410-384-3807                  www.brudis.com</small>	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. ESN-01 OF ESN-03	
	REVISED DATE	BY	APPROVED DATE	APPROVED DATE	SCALE	SCALE
			CHIEF ENGINEER	PROJECT MANAGER	DRAWN BY	DMK
			APPROVED DATE	APPROVED DATE	CHECKED BY	AP
		ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	SHEET	13 OF 20	
				PROJECT NO.		
				PROPOSAL NO.		

**ODENTON LIBRARY COMMUNITY PARK  
PHASE 1  
EROSION AND SEDIMENT  
CONTROL GENERAL NOTES**

# EROSION AND SEDIMENT CONTROL GENERAL NOTES

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION IN ASSOCIATION WITH THE NATURAL RESOURCES CONSERVATION SERVICE AND MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS (REFERENCED AS THE 2011 STANDARDS AND SPEC'S).
2. AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THEN 5 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION. ANY AREAS THAT ARE IN TEMPORARY VEGETATION FOR OVER 6 MONTHS WILL NEED TO BE PERMANENTLY VEGETATED.
3. FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION SEE B-4-4 AND B-4-5.
4. MULCHING CAN ONLY BE USED ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS. FOR SPECIFICATIONS SEE B-4-3, A.1.B.
5. FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1.
6. THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATIONS IN B-4-2.
7. THE REQUIRED SEQUENCE OF CONSTRUCTION MUST BE FOLLOWED DURING SITE DEVELOPMENT. ANY CHANGE IN THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
8. ANY REVISIONS TO THE SEDIMENT CONTROL PLAN, NOT COVERED UNDER THE LIST OF PLAN MODIFICATIONS THAT CAN BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR, NEED TO BE SUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR APPROVAL.
9. NO PROPOSED SLOPE THAT IS SEEDED AND/OR MULCHED SHALL BE GREATER THAN 2:1. SLOPES GREATER THAN 2:1 SHALL REQUIRE AN ENGINEERED DESIGN FOR STABILIZATION.
10. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED, SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE 2011 STANDARDS AND SPEC'S.
11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
12. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NOT STARTED, THE PLAN WILL NEED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT ARE CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RE-SUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR.

SITE ANALYSIS

1. TOTAL AREA OF SITE: 24 AC
2. AREA DISTURBED: 2.26 AC
3. CUT:
4. FILL:

NOTE: EARTHWORK CUT AND FILL QUANTITIES INDICATED ON THIS PLAN ARE SHOWN FOR PURPOSES OF OBTAINING SEDIMENT CONTROL PLAN APPROVAL AND NOT TO BE USED FOR CONTRACTUAL OBLIGATIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY QUANTITIES.

STABILIZATION SPECIFICATIONS

TEMPORARY SEEDING NOTES

SCOPE: PLANTING SHORT TERM (NO MORE THAN 6 MONTHS) VEGETATION TO TEMPORARILY STABILIZE ANY AREAS WHERE SOIL DISTURBANCE HAS OCCURRED, UNTIL THE AREA CAN BE PERMANENTLY STABILIZED WITH VEGETATIVE OR NON-VEGETATIVE PRACTICES.

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION, THE NATURAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.

1. THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2.
2. FOR TEMPORARY STABILIZATION, FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT A RATE OF 436 LB. PER ACRE (10 LB. PER 1000 SQ. FT.) AND WILL MEET THE REQUIREMENTS IN SECTION B-4-2. LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER SQ. FT.) AND SHALL MEET THE REQUIREMENTS IN SECTION B-4-2 AND B-4-4.
3. SEED TYPE AND APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-3 SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND RATE OF SEED USED. MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C AND WILL BE APPLIED ALONG WITH THE SEED OR IMMEDIATELY AFTER SEEDING
4. SEEDING MIXTURES SHALL BE SELECTED FROM OR WILL BE EQUAL TO THOSE ON TABLE B.1 (PAGE B.20).

TEMPORARY SEEDING SUMMARY

THE SEEDING CHART BELOW WILL NEED TO BE PLACED ON AND FILLED IN ON THE SEDIMENT CONTROL PLAN.

HARDINESS ZONE (FROM FIGURE B.3): 7A SEED MIXTURE (FROM TABLE B.1):					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
1.	ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MULTIFLORUM)	40 LB/AC	215 - 430; 815 - 1130	0.5"	436 LB/AC (10 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF)
2.	FOXTAIL MILLET (SETARIA ITALICA)	30 LB/AC	51 - 814	0.5"		

PERMANENT SEEDING NOTES

SCOPE: PLANTING PERMANENT, LONG LIVED VEGETATIVE COVER ON GRADED AND/OR CLEARED AREAS AND AREAS THAT HAVE BEEN IN TEMPORARY VEGETATION FOR MORE THAN 6 MONTHS.

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.

1. THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2.
2. FOR SITES OVER 5 AC. SOIL TESTS WILL BE PERFORMED. SOIL TESTS WILL BE CONDUCTED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. MINIMUM SOIL CONDITIONS SHALL MEET THE REQUIREMENTS OF SECTION B-4-2-A-2-A. OTHERWISE SOIL AMENDMENTS OR TOPSOIL WILL NEED TO BE APPLIED.
3. TOPSOILING MAY OCCUR WHEN SOIL CONDITIONS MEET THE MINIMUM REQUIREMENTS AS STATED IN SECTION B-4-2-B. SOIL AMENDMENTS MUST MEET THE REQUIREMENTS AS SET FORTH IN SECTION B-4-2-C AND MUST BE APPLIED AS INDICATED BY THE SOILS TESTS.
4. FOR SITES OF 5 AC. OR LESS OF DISTURBANCE, THE FOLLOWING FERTILIZER AND LIME RATES SHALL APPLY. FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT THE FOLLOWING RATES: N = 45 LB. PER ACRE (1 LB. PER 1000 SQ. FT.) P205 = 90 LB. PER ACRE (2 LB. PER 1000 SQ. FT.) K20 = 90 LB. PER ACRE (2 LB. PER 1000 SQ. FT.) LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER 1000 SQ. FT.)
5. SEED TYPE, TURFGRASS OR SOD APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-5. SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND APPLICATION RATE OF SEED USED. MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C, AND WILL BE APPLIED ALONG WITH SEED OR IMMEDIATELY AFTER SEEDING
6. SEEDING MIXTURES SHALL BE SELECTED FROM OR WILL BE EQUAL TO THOSE ON TABLE B-3. THE SEEDING CHART BELOW WILL NEED TO BE PLACED ON AND FILLED IN ON THE SEDIMENT CONTROL PLAN.

TRACKING NOTE:

ON AREAS WHERE THE SLOPE IS 3:1 OR STEEPER AND THE HEIGHT IS 8' OR GREATER, CONTRACTOR SHALL TRACK THE SLOPE USING CLEATED DOZER PRIOR TO PLACING ASPHALT BINDER. DOZER SHALL RUN UP-AND-DOWN SO THAT CLEAT MARKS ARE HORIZONTAL WHERE TRACKING IS REQUIRED, IT SHALL BE DONE FROM EXISTING GRADE LEVEL TO FINISHED GRADE LEVEL WITHIN THE LIMITS ESTABLISHED BY THE 8' HEIGHT CRITERIA.

UTILITY CONSTRUCTION NOTES

1. PLACE ALL EXCAVATED MATERIAL ON THE HIGH SIDE OF THE TRENCH.
2. ONLY DO AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, AND PERMANENT STABILIZATION CAN OCCUR.
3. ANY SEDIMENT CONTROL MEASURES DISTURBED BY THE UTILITY CONSTRUCTION WILL BE REPAIRED THE SAME DAY.

STOCKPILE/TOPSOIL NOTES

1. STOCKPILING WILL NOT BE ALLOWED ON ANY IMPERVIOUS AREA.
2. ALL STOCKPILES LEFT AT THE END OF THE DAY WILL NEED TO BE TEMPORARILY STABILIZED UNTIL THEY ARE AGAIN DISTURBED, UNLESS THEY ARE WITHIN EXISTING PERIMETER SEDIMENT CONTROLS.
3. ALL STOCKPILE AREAS SHALL BE CONFINED WITHIN PERIMETER CONTROLS. IN THE EVENT THAT STOCKPILE AREAS MUST BE LOCATED OUTSIDE DISTURBED AREAS, THE LOCATION SHALL BE AS DIRECTED BY THE INSPECTOR IN THE FIELD.

HARDINESS ZONE (FROM FIGURE B.3): 7A SEED MIXTURE (FROM TABLE B.1):					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
4.	DEERTONGUE (DICHANTHELIUM CLADESTINUM)	15 LB/AC	215 - 430*	0.25 - 0.5 IN	45 LB/AC (1 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	2 TONS/AC (90 LB/1000 SF)
	CREEPING RED FESCUE (FESTUCA RUBRA VAR. RUBRA)	20 LB/AC						
11.	CANADA WILD RYE (ELYMUS CANADENSIS)	5 LB/AC	215 - 430 815 - 1031	0.25 - 0.5 IN				
	CREEPING RED FESCUE (FESTUCA RUBRA VAR. RUBRA)	30 LB/AC						
	CHEWINGS FESCUE (FESTUCA RUBRA SP. COMMUTATA)	30 LB/AC						
	KENTUCKY BLUEGRASS (POA PRATENIS)	20 LB/AC						

<b>ANNE ARUNDEL COUNTY</b> DEPARTMENT OF PUBLIC WORKS					
 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers <small>11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com</small>	REVISED	APPROVED	DATE	APPROVED	DATE
	DATE	BY		PROJECT MANAGER	
			DATE	APPROVED	DATE
				ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY
			SCALE	NTS	DRAWING NO. ESN-02 OF ESN-03
			DRAWN BY	DMK	<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 EROSION AND SEDIMENT CONTROL GENERAL NOTES</b>
			CHECKED BY	AP	
			PROJECT NO.	SHEET 14 OF 20	
				PROPOSAL NO.	

# EROSION AND SEDIMENT CONTROL – DETAILS

**DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE** STANDARD SYMBOL

**CONSTRUCTION SPECIFICATIONS**

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (1-30 FEET FOR SINGLE RESIDENCE LOTS, USE MINIMUM WIDTH OF 10 FEET). FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5% SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL E-3 SUPER SILT FENCE** STANDARD SYMBOL

**CONSTRUCTION SPECIFICATIONS**

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL F-2 SUMP PIT** STANDARD SYMBOL

**CONSTRUCTION SPECIFICATIONS**

- USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATER-TIGHT SEAL.
- WRAP PIPE WITH 1/2 INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
- EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
- SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
- BACKFILL PIT AROUND THE PIPE WITH 3/4 TO 1 1/2 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
- DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
- A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL F-4 FILTER BAG** STANDARD SYMBOL

**CONSTRUCTION SPECIFICATIONS**

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

GRAB TENSILE	250 LB	ASTM D-4832
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT <sup>2</sup>	ASTM D-4491
PERMITIVITY (SEC <sup>-1</sup> )	1.2 SEC <sup>-1</sup>	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4832

- REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BECDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**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.

 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-884-3807 www.brudis.com	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. ESN-03 OF ESN-03  <b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 EROSION AND SEDIMENT CONTROL DETAILS</b>	
	REVISED	APPROVED	DATE	APPROVED		DATE
	DATE	BY		PROJECT MANAGER		CHECKED BY
				APPROVED		DATE
			ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROPOSAL NO.	



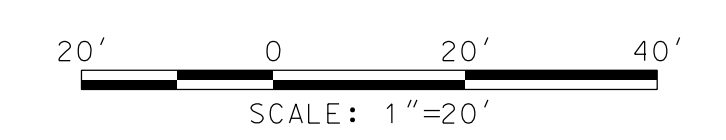
LEGEND	
EXISTING CONTOURS	---143---
PROPERTY LINE	-----
WETLANDS	●●●●●●●●
WETLAND BUFFER	—B—
100' STREAM BUFFER	—SB—
WATERS OF THE US	—WUS—
100 YEAR FLOODPLAIN	—100YFP—
PROPOSED CONTOURS	—143—
SUPER SILT FENCE	—SSF—
DIVERSION FENCE	—DF—
SANDBAG	▨▨▨▨▨▨▨▨
LIMIT OF DISTURBANCE	—LOD—




MATCHLINE SEE SHEET ES-02

E 1396500  
N 517750

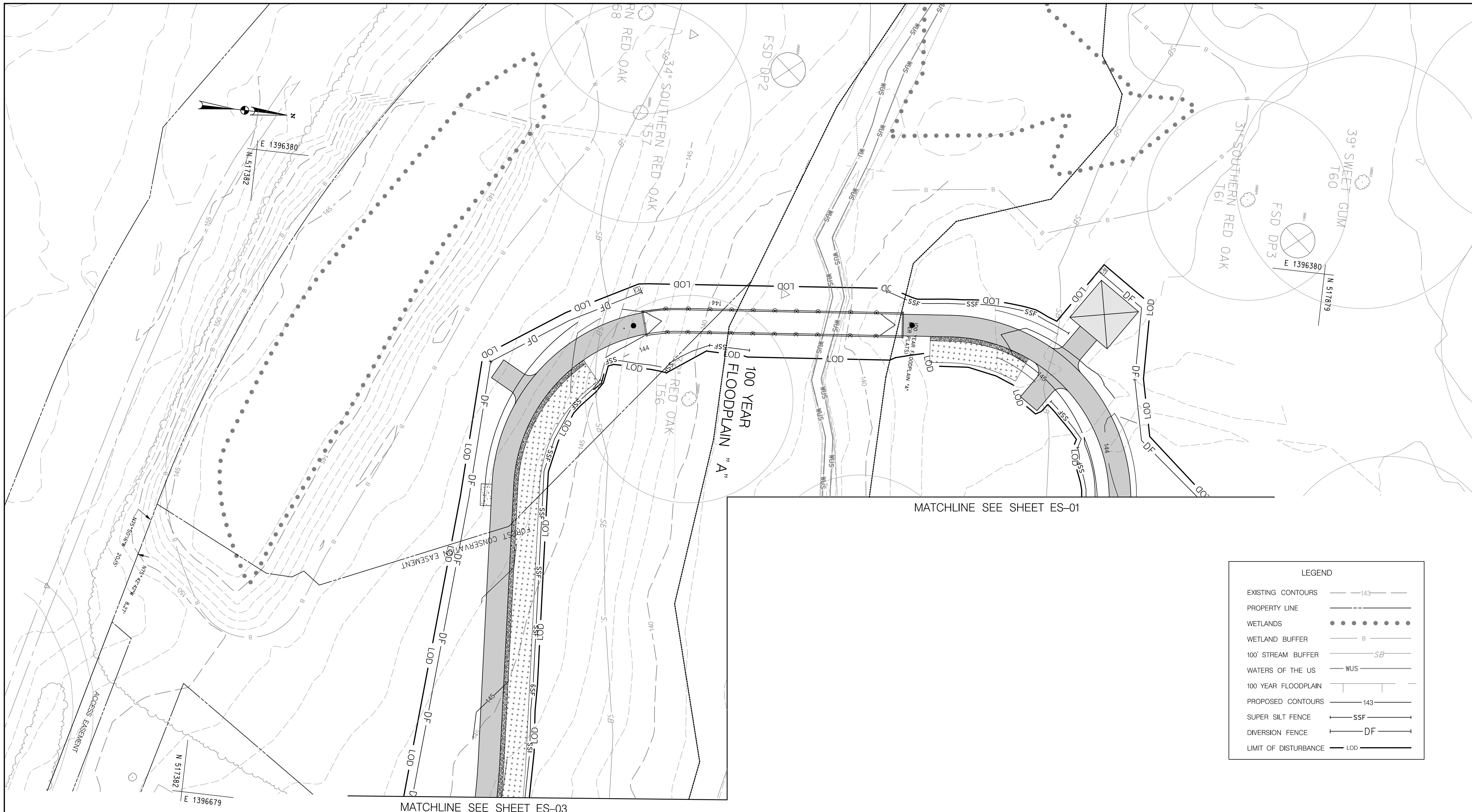
N 518016  
E 1397032



 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers <small>11000 Broken Land Pkwy, Suite 450          Columbia, Maryland 21044          Phone: 410-384-3807          www.brudis.com</small>	<b>ANNE ARUNDEL COUNTY</b> DEPARTMENT OF PUBLIC WORKS				DRAWING NO. ES-01 OF ES-03	
	REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE
			CHIEF ENGINEER		PROJECT MANAGER	
			APPROVED	DATE	APPROVED	DATE
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		
				SCALE 1"=20'		
				DRAWN BY DMK		
				CHECKED BY AP		
				SHEET 16 OF 20		
				PROJECT NO.		
				PROPOSAL NO.		

**ODENTON LIBRARY COMMUNITY PARK  
PHASE 1  
EROSION AND SEDIMENT  
CONTROL PLAN**



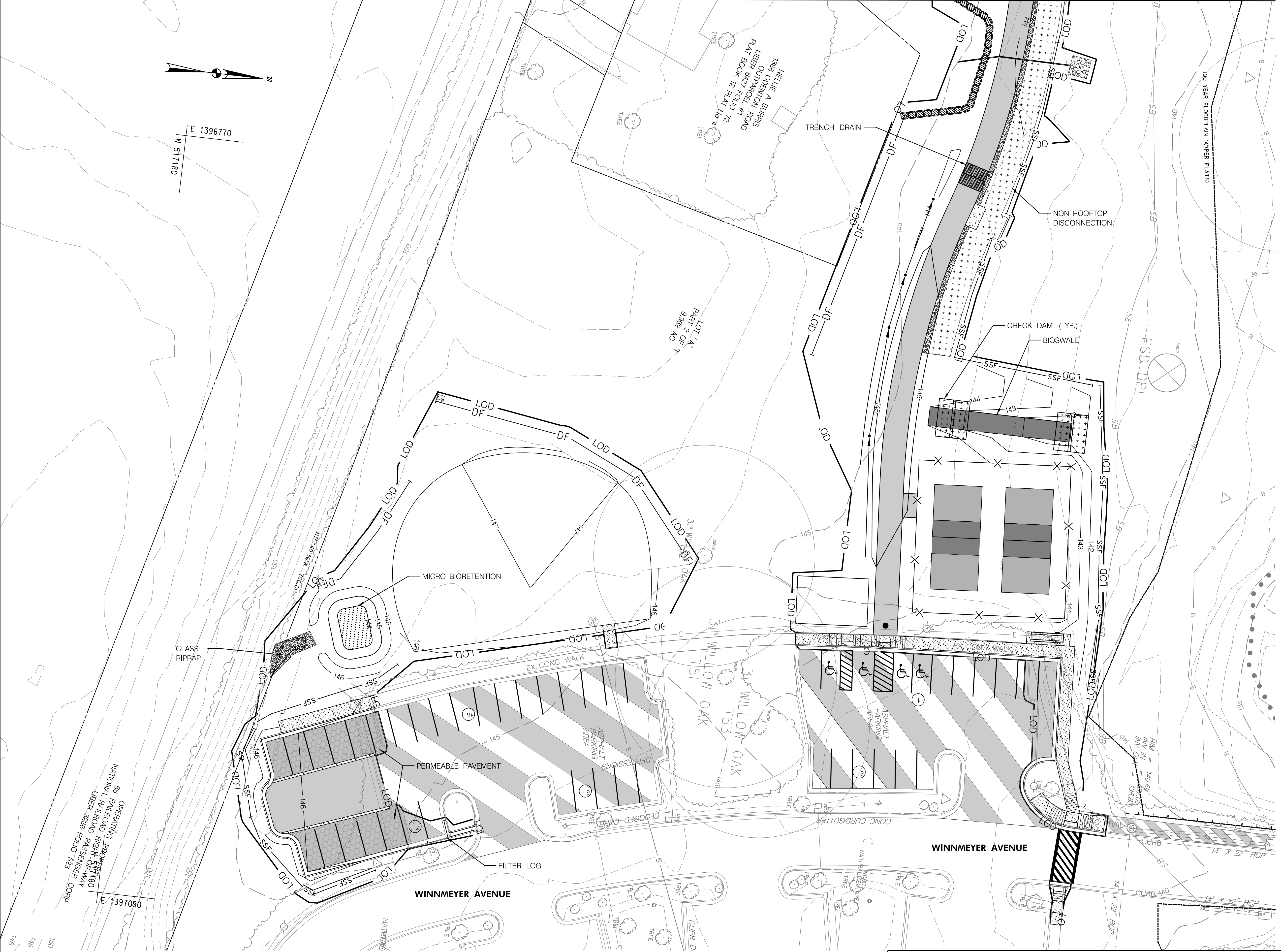


LEGEND	
EXISTING CONTOURS	--- 143 ---
PROPERTY LINE	-----
WETLANDS	•••••
WETLAND BUFFER	B
100' STREAM BUFFER	SB
WATERS OF THE US	WUS
100 YEAR FLOODPLAIN	100' FLOODPLAIN
PROPOSED CONTOURS	--- 143 ---
SUPER SILT FENCE	SSSF
DIVERSION FENCE	DF
LIMIT OF DISTURBANCE	LOD



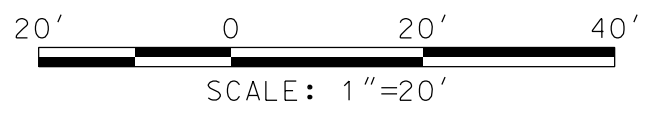
 <b>BRUDIS &amp; ASSOCIATES, INC.</b> Consulting Engineers 11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. ES-02 OF ES-03  <b>ODENTON LIBRARY COMMUNITY PARK</b> <b>PHASE 1</b> <b>EROSION AND SEDIMENT</b> <b>CONTROL PLAN</b>			
	REVISED	APPROVED	DATE	APPROVED		DATE	SCALE 1"=20'	DRAWING NO. ES-02 OF ES-03
	DATE	BY		PROJECT MANAGER			DRAWN BY DMK	
				CHECKED BY AP			SHEET 17 OF 20	
			APPROVED	DATE	PROJECT NO.			
			ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROPOSAL NO.			

MATCHLINE SEE SHEET ES-02



**LEGEND**

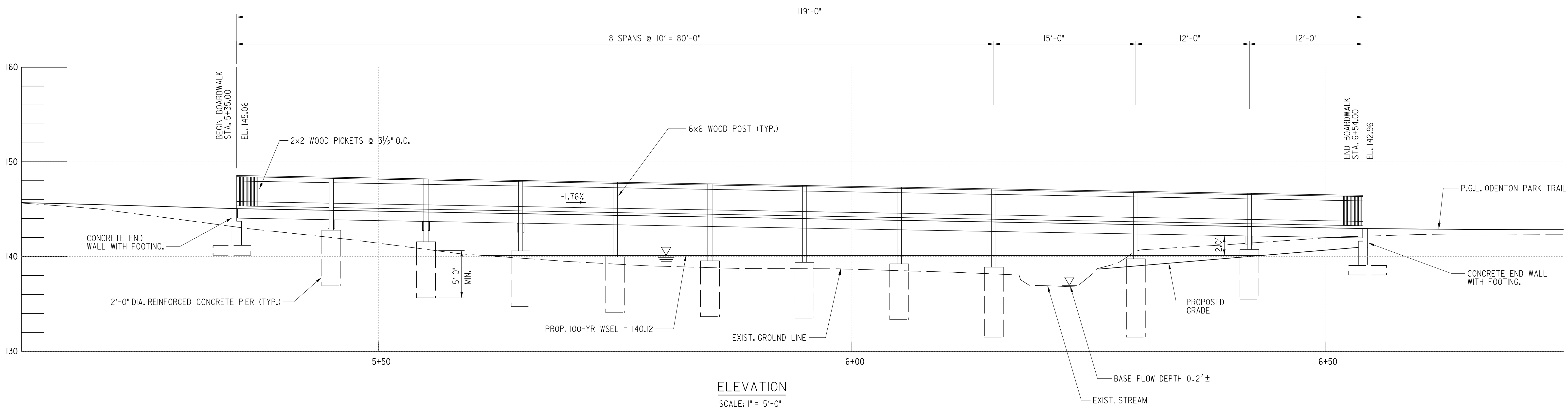
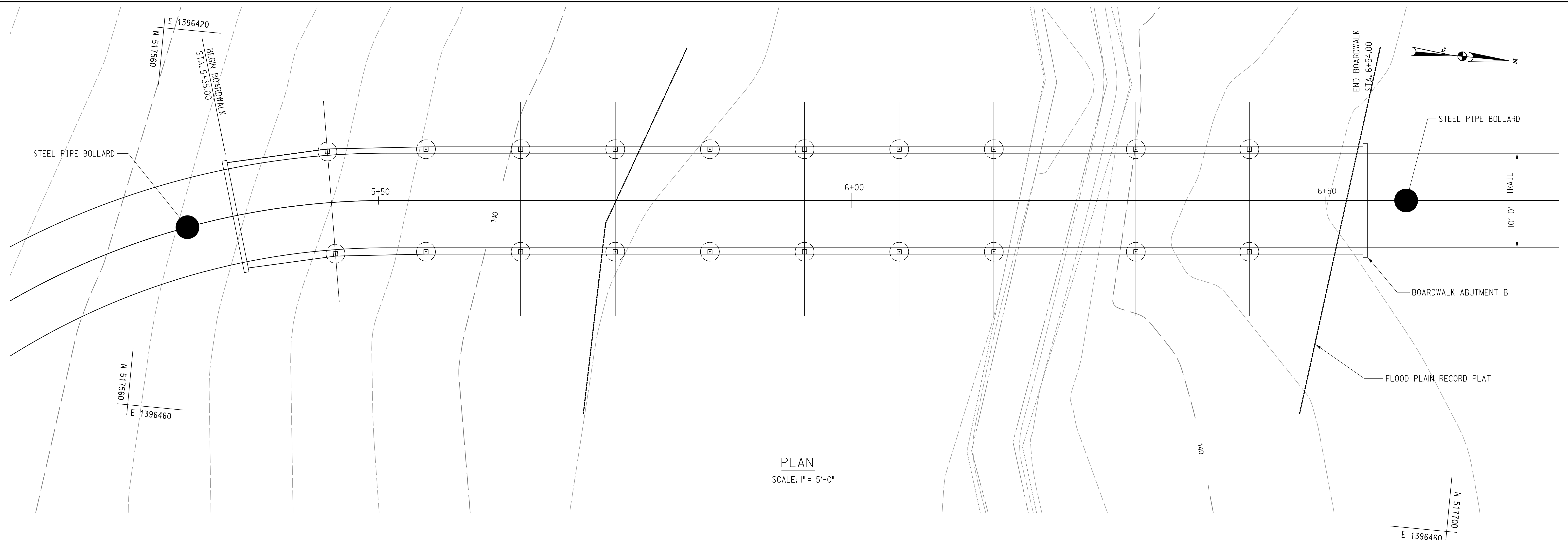
- EXISTING CONTOURS ——— 143 ———
- PROPERTY LINE ———
- EXISTING RIGHT OF WAY ———
- WETLANDS ●●●●●●●●●●
- WETLAND BUFFER — B —
- 100' STREAM BUFFER — SB —
- WATERS OF THE US — WUS —
- 100 YEAR FLOODPLAIN ———
- PROPOSED CONTOURS ——— 143 ———
- PROPOSED DITCH ———>
- DIVERSION FENCE — DF —
- SUPER SILT FENCE — SSF —
- SANDBAG ———
- LIMIT OF DISTURBANCE — LOD —



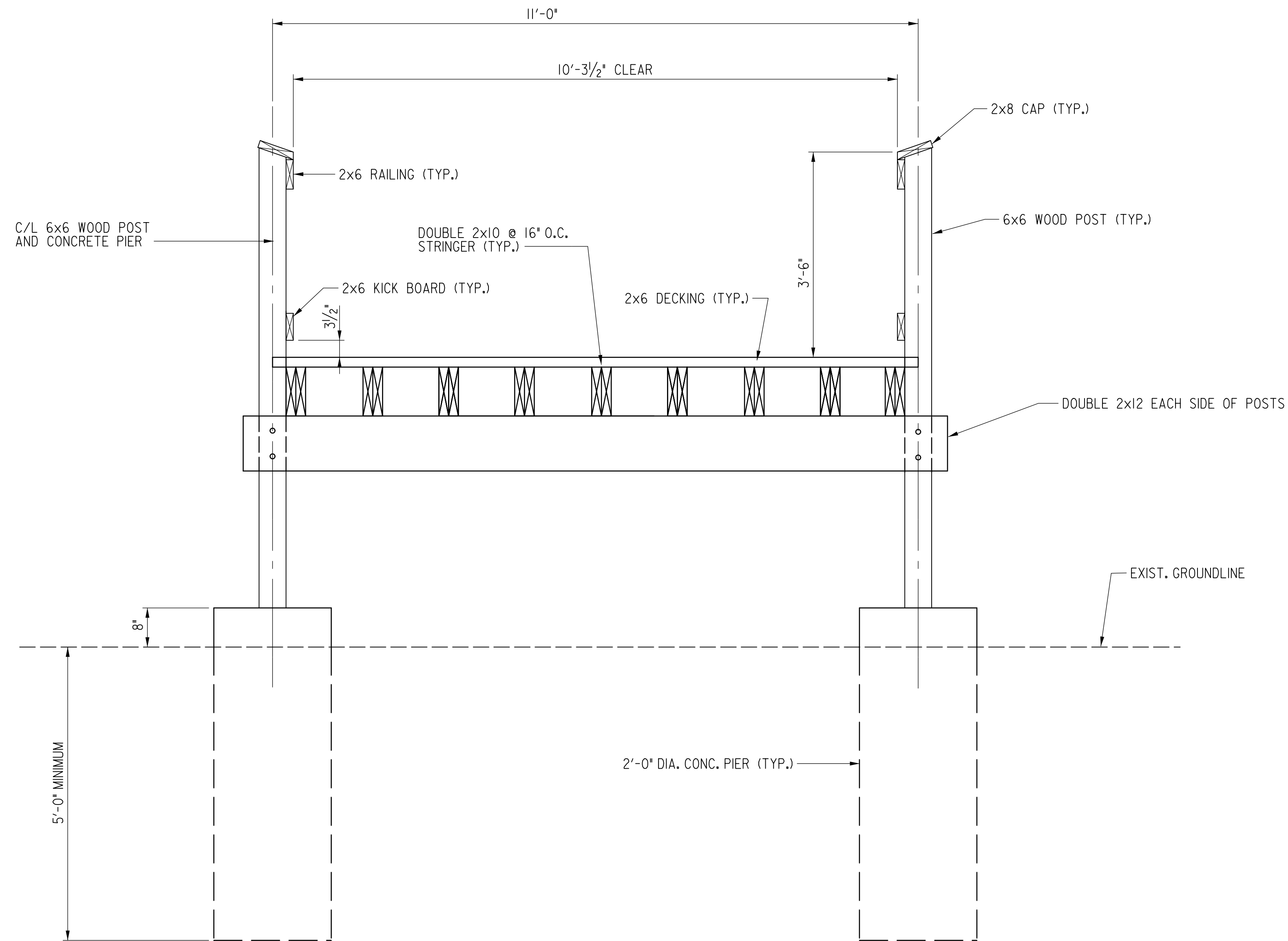
11000 Broken Land Pkwy, Suite 450  
Columbia, Maryland 21044  
Phone: 410-384-3607  
www.brudis.com

ANNE ARUNDEL COUNTY  
DEPARTMENT OF PUBLIC WORKS

REVISED DATE	BY	APPROVED	DATE	APPROVED	DATE	SCALE	DRAWING NO.
						1"=20'	ES-03 OF ES-03
		CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY DMK	<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 EROSION AND SEDIMENT CONTROL PLAN</b>
		APPROVED	DATE			CHECKED BY AP	
		ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET 18 OF 20	
						PROJECT NO.	
						PROPOSAL NO.	



		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. <b>S-1</b> OF <b>2</b>	
		REVISIONS DATE BY	APPROVED DATE	APPROVED DATE	SCALE DRAWN BY	<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 BOARDWALK PLAN AND ELEVATION</b>	
BRUDIS & ASSOCIATES, INC. Consulting Engineers <small>11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com</small>	CHIEF ENGINEER APPROVED DATE	PROJECT MANAGER APPROVED DATE	CHECKED BY SHEET 19 OF 20 PROJECT NO. PROPOSAL NO.				
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROJECT NO.	PROPOSAL NO.				

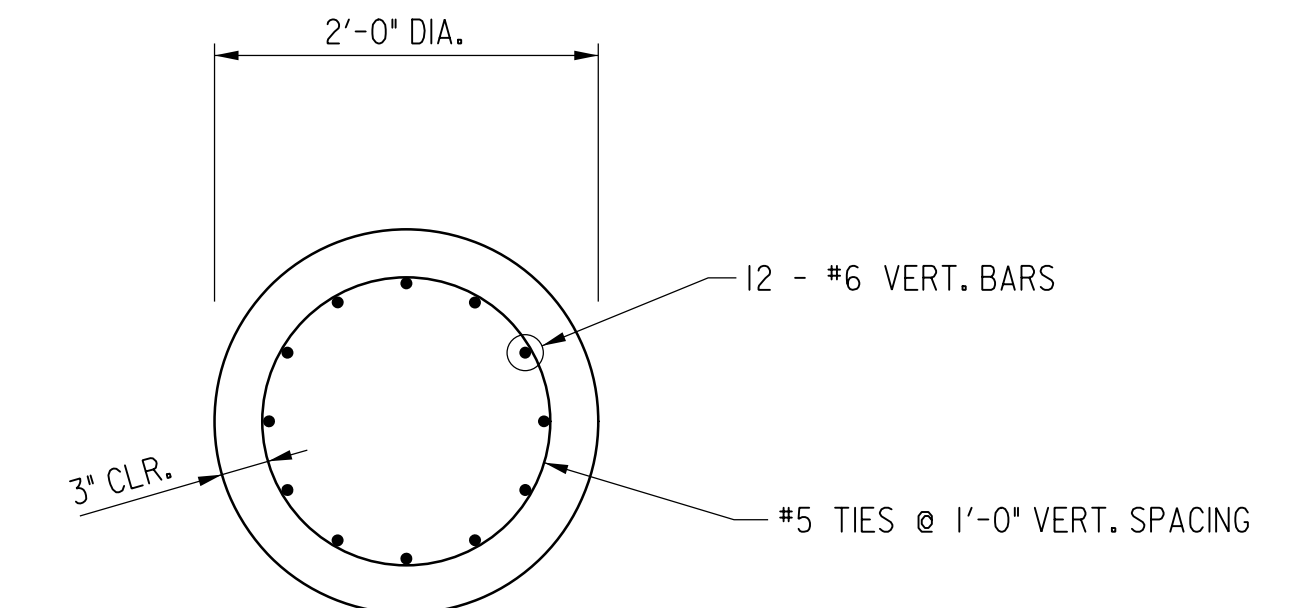


TYPICAL SECTION

SCALE: 3/4" = 1'-0"

STRUCTURE GENERAL NOTES

- SPECIFICATIONS: SHA SPECIFICATIONS DATED JULY, 2022 AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.  
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION (2020)  
LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, 2015
- DESIGN METHOD: CONCRETE DESIGN: LRFD DESIGN METHOD  
THE DESIGN COMPRESSIVE STRENGTH SHALL BE  
F'c = 3000 PSI FOR ELEMENTS USING MIX. NO. 3 CONCRETE.  
REINFORCING STEEL DESIGN: FY = 60,000 PSI  
TIMBER: WSD DESIGN METHOD.
- DESIGN LOADING: 90 PSF PEDESTRIAN LOAD
- TIMBER: UNLESS OTHERWISE NOTED, ALL TIMBER SHALL BE OF NOMINAL SIZE CROSS SECTION AS INDICATED ON THE PLANS AND SHALL BE SOUTHERN PINE No. 2 WITH MINIMUM STRENGTH VALUES OF:  
Fb = 1300 PSI  
Fv = 90 PSI  
E = 1,600,000 PSI  
ALL TIMBER SHALL BE PRESSURE TREATED.
- CONCRETE: ALL CONCRETE FOR THIS STRUCTURE SHALL BE MIX NO. 3 (4500 PSI).
- REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60.  
ONLY GRADE 60 CAN BE USED ON THIS PROJECT.  
MINIMUM COVER FOR ANY BAR SHALL BE 2" U.O.N.
- STRUCTURE STEEL: ALL MISCELLANEOUS STRUCTURAL STEEL SHALL CONFORM TO A709, GRADE 36.



TYPICAL REINFORCED CONCRETE PIER SECTION

SCALE: 1" = 1'-0"

		ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DRAWING NO. <b>S-2</b> OF <b>2</b>
		REVISOR	APPROVED	DATE	APPROVED	
DATE	BY	DATE	DATE	DATE	DATE	DRAWN BY
			CHIEF ENGINEER		PROJECT MANAGER	CHECKED BY
			APPROVED	DATE	APPROVED	DATE
			ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	PROPOSAL NO.
11000 Broken Land Pkwy, Suite 450 Columbia, Maryland 21044 Phone: 410-384-3807 www.brudis.com						<b>ODENTON LIBRARY COMMUNITY PARK PHASE 1 BOARDWALK TYPICAL SECTION</b>