THE FOLLOWING CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL STANDARDS ARE REQUIRED

MD-104.02-09 - FLAGGING OPERATION/2-LANE, 2-WAY GREATER THAN 40 MPH MD-354.01 - STANDARD TYPE C ENDWALL METAL OR CONCRETE ROUND PIPE

FOR ALL SHA STANDARDS AND DETAILS REFERRED TO ON THE PLANS THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:

http://apps.roads.maryland.gov/businesswithsha/bizStdsSpecs/desManualStdPub/publications online /ohd/bookstd/index.gsp

ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.

M-NCPPC GENERAL NOTES

DETAILED DRAWINGS AND SCHEDULES DESCRIBE CONSTRUCTION AT GIVEN AREAS. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL UTILIZE EQUIVALENT CONSTRUCTION METHODS IN ALL AREAS.

CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO GET FAMILIAR WITH THE EXISTING CONDITIONS, DIFFICULTIES AND RESTRICTIONS ASSOCIATED IN PERFORMING THE WORK REQUIRED UNDER THE

THE BID. FAILURE TO DO SO WILL NOT BE CONSIDERED A REASON FOR ADDITIONAL COMPENSATION.

ALL NOTES AND DETAILS SHOWN ON THE DRAWINGS ARE TYPICAL UNLESS OTHERWISE NOTED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

OF M-NCPPC, MONTGOMERY COUNTY, MARYLAND STATE AND FEDERAL REQUIREMENTS. ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST MDSHA AND ICDOT STANDARDS AND SPECIFICATION. THIS WORK INCLUDES, BUT NOT LIMITED TO: REPAIRING: RESTORING:

A PRE-CONSTRUCTION MEETING WILL BE SCHEDULED AND CONDUCTED BY THE CONSTRUCTION MANAGER. PRIOR TO THIS MEETING THE CONTRACTOR SHALL NOT PERFORM ANY CONSTRUCTION RELATED ACTIVITY AT THE PROJECT SITE, EXCEPT LIMITED CLEARANCE FOR STAKEOUT AND FLAGGING OF LOD. THE LOD SHALL BE APPROVED BY THE CONSTRUCTION MANAGER AND PERMITTING AGENCIES. CONSTRUCTION MANAGER MAY REQUIRE MINOR ADJUSTMENTS THIS ADJUSTMENT SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE M-NCPPC

CONTRACTOR SHALL VERIFY, IN THE FIELD, ALL DIMENSIONS PROVIDED ON DRAWINGS AND SPECIFICATIONS BEFORE

10. ALL EXISTING CONDITIONS TO REMAIN SHALL BE VERIFIED, PHOTOGRAPHED AND DOCUMENTED PRIOR CONSTRUCTION. IF THEY ARE DIFFERENT THE CONSTRUCTION MANAGER SHALL BE NOTIFIED BEFORE PROCEEDING WIT THE WORK, ALL OTHER DAMAGES SHALL BE CORRECTED AND RESTORATION WORK SHALL BE PERFORMED IN

11. PRIOR TO START OF CONSTRUCTION, TREE PROTECTION MEASURES SHALL BE INSTALLED AND SHALL BE MAINTAINED

12. IF IT IS DETERMINED THAT THE TREES ARE DAMAGED DURING CONSTRUCTION, AN M-NCPPC CERTIFIED ARBORIST SHALL INSPECT THEM AND SUBMIT A REPORT RECOMMENDING APPROPRIATE ACTION EITHER TO REPAIR OR REPLACE. IF APPROVED BY THE CONSTRUCTION MANAGER, CORRECTIVE WORK SHALL BE PERFORMED AT NO ADDITIONAL COST 13. LOCATION FOR STABILIZED CONSTRUCTION ENTRANCE AND ACCESS ROUTES SHALL BE IDENTIFIED AND ADJUSTED IN

THE FIELD. CONSTRUCTION MANAGER SHALL PROVIDE THE APPROVAL 14. STAGING AND STORAGE AREA SHALL BE APPROVED BY CONSTRUCTION MANAGER AND SHALL BE SECURED BY THE

CONTRACTOR AT NO ADDITIONAL EXPENSE TO M-NCPPC.

15. ALL THE EXISTING UTILITIES AT THE PROJECT MAY NOT BE SHOWN ON THE DRAWINGS. PRIOR TO START OF CONSTRUCTION RELATED ACTIVITY, ALL UTILITIES WITHIN THE LOD SHALL BE LOCATED AND IDENTIFIED UTILIZING

APPROPRIATE INSTRUMENTS. THE LOCATION SHALL BE STAKED AND FLAGGED. THE CONSTRUCTION MANAGER SHALL BE NOTIFIED IMMEDIATELY IF EXISTING UTILITIES ARE FOUND WITHIN THE WORK AREA (DURING UTILITY SURVEY) THAT ARE NOT SHOWN ON THE DRAWINGS AND THEY IMPACT THE CONTRACT WORK

17. DAMAGES TO EXISTING UTILITIES SHALL BE CORRECTED IMMEDIATELY IN ACCORDANCE WITH THE REQUIREMENTS OF THE AFFECTED UTILITY. UPON COMPLETION OF THE CORRECTIVE ACTION A COPY OF THE APPROVAL DOCUMENT FROM THE UTILITY SHALL BE SUBMITTED TO THE CONSTRUCTION MANAGER.

18. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET CURRENT MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES STANDARDS AND DIRECTIVES. THESE SHALL BE APPROVED BY THE PERMITTING AUTHORITIES PRIOR TO THE START OF CONSTRUCTION.

19. BEFORE START OF CONSTRUCTION, AN ON SITE REPRESENTATIVE OF THE CONTRACTOR SHALL HAVE A CERTIFICATE OF ATTENDANCE AT THE STATE OF MARYLAND APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND

20. UPON COMPLYING WITH ALL THE APPLICABLE REQUIREMENTS STATED ABOVE, CONSTRUCTION OF THE PROJECT WITHIN THE APPROVED LOD MAY START.

21. NO WORK SHALL BE PERFORMED OUTSIDE OF THE LOD. AREAS DISTURBED OUTSIDE APPROVED LOD SHALL BE RESTORED IMMEDIATELY TO THE SATISFACTION OF CONSTRUCTION MANAGER AT NO COST TO M-NCPPC.

22. DURING CONSTRUCTION, IF THE CONTRACTOR FINDS THAT CONFLICTS EXIST AMONG VARIOUS CONTRACT DOCUMENTS, THE CONTRACTOR SHALL COMPLY WITH THE MOST STRINGENT REQUIREMENT.

23. GRADING WORK SHALL BE DONE TO PROVIDE POSITIVE DRAINAGE UNLESS OTHER WISE SHOWN. 24. SURFACED ROADWAY AND PARKING AREAS SHALL BE MAINTAINED IN A CLEAN CONDITION. APPROPRIATE MEANS SHALL BE PROVIDED TO CLEAN MUD AND DUST FROM THESE AREAS. TRUCKS AND OTHER EQUIPMENT SHALL NOT TRACK MUD INTO NEARBY ROADWAYS.

25. ALL PLANTING SUBSTITUTIONS SHALL BE APPROVED BY THE CONSTRUCTION MANAGER. PLANT MATERIALS AND LOCATIONS SHALL BE INSPECTED BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION. CONSTRUCTION MANAGER SHALL BE NOTIFIED AT LEAST THREE (3) WORKING DAYS IN ADVANCE FOR INSPECTION.

26. PRIOR TO VEGETATIVE STABILIZATION, TOP SOIL SHALL BE APPLIED FOR ALL DISTURBED AREAS. THIS SHALL BE IN ACCORDANCE WITH THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL". IF ON-SITE MATERIALS DO NOT MEET REQUIREMENTS OF TOPSOIL, TILLING-IN OF CERTIFIED COMPOST TO ON-SITE SOILS TO MEET SPECIFICATIONS SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER.

27. FIELD RUN TOPOGRAPHIC SURVEY PROVIDED BY A. MORTON THOMAS AND ASSOCIATES, INC PERFORMED MAY 2012; SUPPLEMENTED BY FIELD VISITS IN FEBRUARY 2013. SURVEY IS IN STATE PLANE DATUM NAD83/2007. PROJECT SITE BOUNDARIES SHOWN ARE BASED A BOUNDARY SURVEY IN CONJUNCTION WITH DEEDS AND PLATS OF RECORD. ADJACENT PROPERTY BOUNDARIES SHOWN ARE BASED ON GIS INFORMATION.

28. SUPPLEMENTAL TOPOGRAPHY INFORMATION IS TAKEN FROM MONTGOMERY COUNTY GIS; PROVIDED BY M-NCPPC.

DPS GENERAL NOTES

CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES. PONDING OF WATER SHALL NOT BE PERMITTED. AL PONDING WATER SHALL BE FILTERED THROUGH A SEDIMENT CONTROL DEVICE PRIOR TO DISCHARGE INTO THE PUBLIC

CONTRACTOR SHALL INSTALL FOREST CONSERVATION AND EROSION CONTROL MEASURES PRIOR TO ANY

ALL CONSTRUCTION TRAFFIC MUST ENTER SITE USING CONSTRUCTION ENTRANCE ON FREDERICK AVENUE (ROUTE 355).

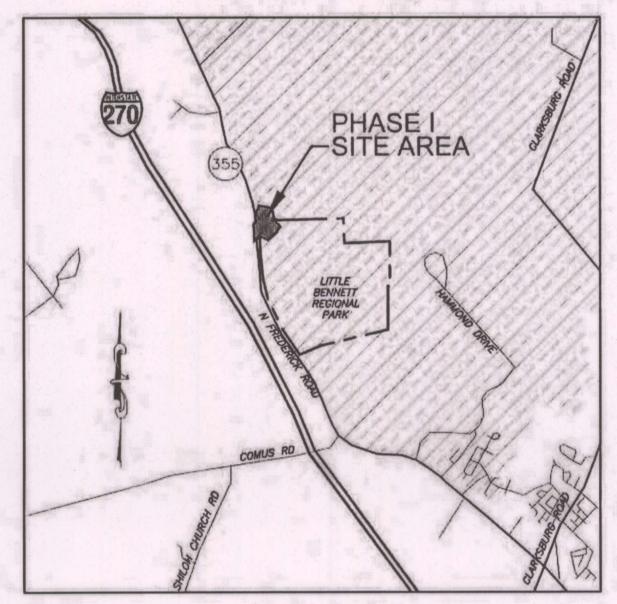
STANDARD TOP SOIL NOTE:

PRIOR TO VEGETATIVE STABILIZATION ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL"

The Maryland - National Capital Park and Planning Commission

LITTLE BENNETT REGIONAL PARK DAY USE AREA - PHASE II 100% CONSTRUCTION PLANS CONSTRUCTION PLANS CONSTRUCTION PHASE II: BID PACKAGE

24615, 24625, 24675 N. FREDERICK ROAD CLARKSBURG, MARYLAND 20871



VICINITY MAP SCALE: 1"=2,000' MONTGOMERY COUNTY MAP: 29 GRID: A-4 WSSC GRID: 234NW14

PROPERTY OWNER/APPLICANT

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION (M-NCPPC) 9500 BRUNETT AVENUE SILVER SPRING, MD 20901 ATTN: CHING-FANG CHEN PH: (301) 495-2535

- SEDIMENT CONTROL/STORMWATER MANAGEMENT CERTIFICATION -

CERTIFICATION OF THE QUANTITIES OWNER'S/DEVELOPER'S CERTIFICATE "I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR HEREBY CERTIFY THAT THE AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PLANS HAS BEEN COMPUTED TO 3,300 CUBIC YARDS OF EXCAVATION, 3,250 CUBIC PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF YARDS OF FILL AND THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING HAS BEEN DETERMINED TO BE 99,450 SQUARE FEET." PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THIS 1-28-13 REGISTRATION NUMBER Ching-Fang Chen Project Manager NOTE: THE EARTHWORK CUT AND FILL QUANTITIES AND THE AREA OF DISTURBANCE

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN DESIGN CRITERIA", DATED **AUGUST 1988."**

01/30/2013

38504

REGISTRATION NUMBER

BHARLES A. HARPER TO

MAINTENANCE CERTIFICATION "I/WE HEREBY CERTIFY THAT I/WE ASSUME MAINTENANCE RESPONSIBILITIES FOR ALL

INDICATED IN THIS CERTIFICATE ARE CALCULATED FOR THE PURPOSE OF PLAN

PPROVAL AND SHOULD NOT BE USED FOR CONTRACTUAL OBLIGATIONS.

STORMWATER MANAGEMENT STRUCTURES SHOWN HEREON. IF MAINTENANCE RESPONSIBILITY IS LEGALLY TRANSFERRED. I WE AGREE TO SUPPLY THE MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION WITH A COPY OF THE DOCUMENT

Project Manager

CD101 | Demolition Plan not used CD102 Tree Protection Plan CD501 | Tree Protection Plan 2 of 13 CE101 | Erosion Control Plan-Initial Phase not used 3 of 13 CE102 | Erosion Control Plan-Final Phase CE501 | Erosion Control Details CE502 | Erosion Control Notes 5 of 13 6 of 13 CE503 | Erosion Control Notes CG101 | Site Grading Plan CS101 | Site Layout Plan 12 CS201 Sight Distance Profile Left Turn 13 not used CS202 | Sight Distance Profile Right Turn not used CS203 Entrance Profiles 15 not used 16 CS204 | Site Profiles CS401 | Site Layout Enlargement CS501 |Site Details 18 CS502 |Site Details 19 CS503 |Site Details 20 21 CT101 | Maintenance of Traffic Plan not used CW101 Stormwater Management Plan 7 of 13 8 of 13 | CW201 | Storm Drain Profiles 9 of 13 CW301 Stormwater Management Sections not used 10 of 13 | CW501 | Facility Specs and Inspector Checklists not used 11 of 13 | CW601 | Soil Boring Logs/SWM Concept Approval Letter not used 12 of 13 LP101 | Site Landscape Plan not used LP102 | Site Landscape Plan not used 13 of 13 LP501 | Landscape Details not used FC101 | Final Forest Conservation Plan not used FC102 | Final Forest Conservation Plan not used FC103 | Final Forest Conservation Plan 32 not used FC104 Final Forest Conservation Plan 33 not used

INDEX OF DRAWINGS

GI 001 | Cover Sheet

VF101 | Field Survey

Description

Sheet # DPS Sheet # Drawing #

1 of 13

| TYPE OF PERMIT | REQ'D | NOT REQ'D | PERMIT# | EXPIRATION | WORK RESTRICTI |
|------------------------------------|--|-------------------------|--|--|---|
| MCDPS Floodplain District | Legisland and the second secon | X. | | I St. St. St. | Personal Security Control |
| Waterway/Wetland(s) | State of the state | X | 14 | ent Pappagelle - Anna Anna Anna Anna Anna Anna Anna An | \$1935 property of the decimal of the |
| Corps of Engineers | mi yagi | X | 7 14 7 15 15 15 15 15 15 15 15 15 15 15 15 15 | The state of the s | 100 110 110 110 110 110 110 110 110 110 |
| MDE | | X | | | |
| MDE Water Quality Certification | State of Roles Adv. Alle | X | The state of the s | The second secon | Taring the destroyment the special |
| MDE Dam Safety | - M. 2 | X | | N | 2 |
| N.P.D.E.S. NOTICE OF INTENT | X | Passenting Constitution | We illustrated to a | The state of the s | DATE FILED: 11/14/2012 |
| Site Access Permit | X | 38555 | | OF THE STATE OF TH | AND THE STATE OF T |
| Others (list) | 2010- 1 | X | A STATE OF THE STA | The second | 100 100 100 100 100 100 100 100 100 100 |

commencing construction work. The Contractor is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

The Contractor is also responsible for locating all private utilities (not located by Miss Utility) within M-NCPPC property at their expense. All utilities shown on the plans are provided for information only and shall be considered approximate. M-NCPPC shall not be responsible for locating underground utilities. Any utilities or other inderground facilities damaged during construction shall be repaired/replaced at the Contractor's expense.

| UTILITY | DATE REQUESTED | DATE RECEIVED | SHOWN ON PLANS | RELOCATION REQT |
|---------|----------------|---------------|----------------|-----------------|
| PEPCO | 11/6/2012 | 1/2/2013 | YES | NO |
| WSSC | 4/26/2012 | 4/26/2012 | N/A | NO |
| TATA | 11/6/2012 | NO RESPONSE | TBD | TBD |
| WG&L | 4/26/2012 | 4/27/2012 | N/A | NO |
| VERIZON | 11/6/2012 | NO RESPONSE | YES | YES |
| COMCAST | 11/6/2012 | 11/12/2012 | YES | NO |

UTILITY STATEMENT THE ABOVE UTILITY COMPANIES HAVE BEEN CONTACTED REGARDING EXISTING UTILITIES WITHIN THIS PROJECT AREA AND INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM AVAILABLE RECORDS. HENCE, ANY UTILITY MODIFICATIONS REQUIRED BY THIS PROJECT HAVE BEEN COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES, THIS STATEMENT DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR FIELD LOCATING AND VERIFYING ALL UNDERGROUND UTILITIES PRIOR TO STARTING CONSTRUCTION.

MCDPS SHEET 1 OF 13

Remarks

not used

| | MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR: | | |
|------------------------|---|--|--|
| Stormwater Management: | Sediment Control Technical Requirements: | Administrative Requirements: | |
| Reviewed Date | Reviewed Date | SEDIMENT CONTROL PERMIT NO. | |
| | Approved Date | | |
| Approved Date | | MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED. | |

| P TOWNS IN THE PARTY WITH THE PARTY WITH | | DESIGN | one of the second | Pi |
|--|---------------------|---------------|-------------------|------|
| A MORTON THOMAS AND ASSOCIATES, INC. Designer's Name | AMT | 03/26/13 | AMT | do |
| 12750 TWINBROOK PARKWAY | Landscape Architect | Date | Checked By: | T th |
| Address | N/A | N/A | N/A | |
| ROCKVILLE, MD 20852 | Architect AMT | Date 03/26/13 | Checked By: | Li |
| 301-881-2545 | Engineer AMT | Date 03/26/13 | Checked By: | E |
| Telephone Number | Drawn by | Date | Checked By: | 1 |

fessional Certification. I hereby certify that these uments were prepared or approved by me, and it I am a duly licensed professional engineer under aws of the State of Maryland.

CHARLES A. HARPER IV



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

| REVIEW AND APPROVAL | ISSUED FOR PROCUREMENT ON | | | | |
|------------------------------|---------------------------|---------|-------------|--|--|
| 1-28-13 | | | | | |
| China-Fanachen | Rev. No. | Date | Description | | |
| Project Manager Date | | | | | |
| Construction Manager Date | | AP BOOK | | | |
| Park Manager Date | | | | | |

ADA COMPLIANCE CERTIFICATION

THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES FOR

THE ELDERLY AND HANDICAPPED IN COMPLIANCE WITH THE COUNTY.

CHARLES HARPER 03/01/2013

APPROVED FOR PROCUREMENT

STATE AND FEDERAL LEGISLATION.

MITRA PEDOFFM. PE

CHIEF, PARK DEVELOPMENT DIVISION

Cover Sheet

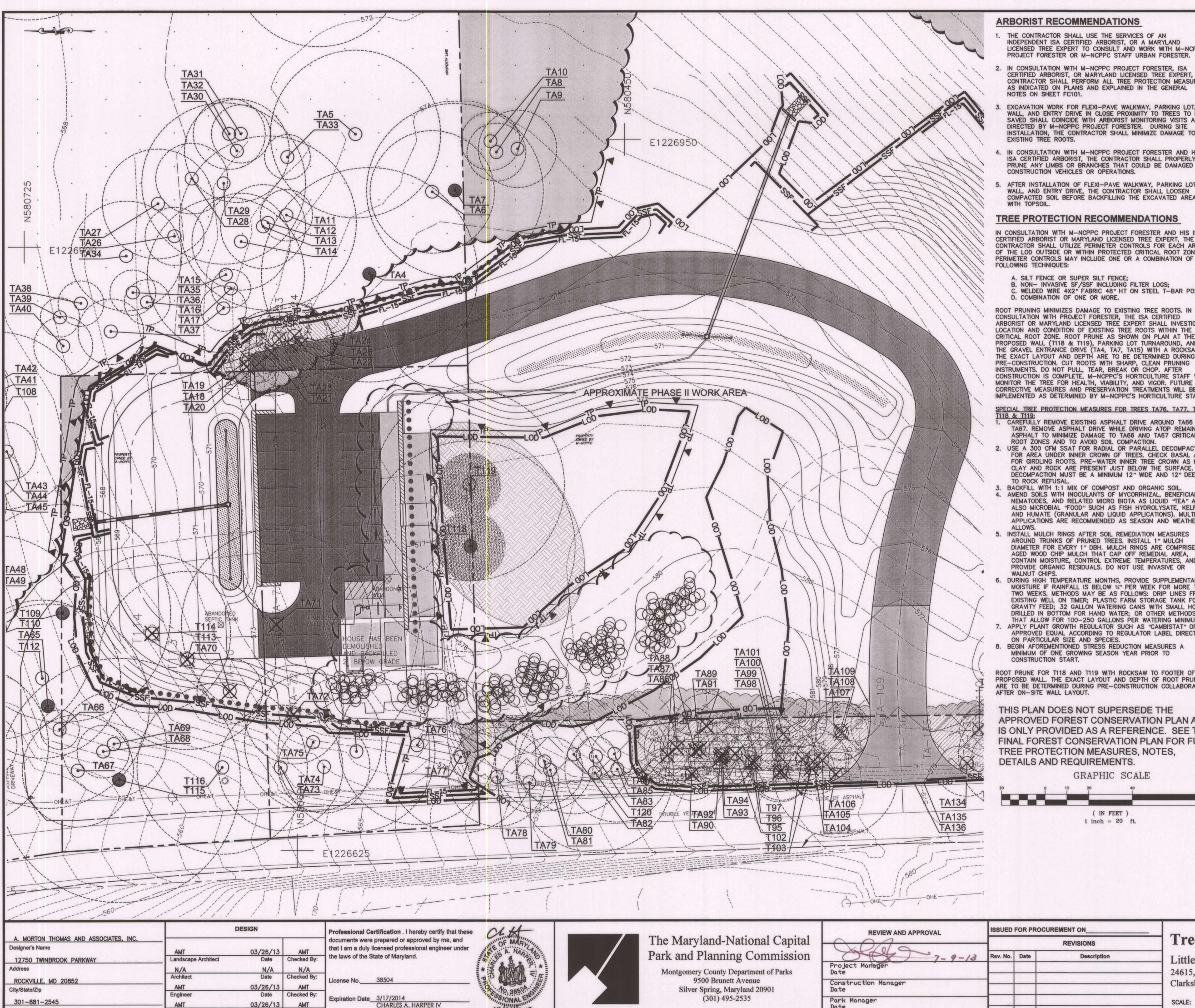
SCALE: AS SHOWN

Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road Clarksburg, MD 20871 WSSC Grid Map

GI001

#234NW14

SHEET 1 of 33



ARBORIST RECOMMENDATIONS

- THE CONTRACTOR SHALL USE THE SERVICES OF AN INDEPENDENT ISA CERTIFIED ARBORIST, OR A MARYLAND LICENSED TREE EXPERT TO CONSULT AND WORK WITH M-NCPPC PROJECT FORESTER OR M-NCPPC STAFF URBAN FORESTER.
- IN CONSULTATION WITH M-NCPPC PROJECT FORESTER, ISA CERTIFIED ARBORIST, OR MARYLAND LICENSED TREE EXPERT, THE CONTRACTOR SHALL PERFORM ALL TREE PROTECTION MEASURES AS INDICATED ON PLANS AND EXPLAINED IN THE GENERAL
- EXCAVATION WORK FOR FLEXI-PAVE WALKWAY, PARKING LOT, WALL, AND ENTRY DRIVE IN CLOSE PROXIMITY TO TREES TO BE SAVED SHALL COINCIDE WITH ARBORIST MONITORING VISITS AS DIRECTED BY M-NCPPC PROJECT FORESTER. DURING SITE INSTALLATION, THE CONTRACTOR SHALL MINIMIZE DAMAGE TO
- IN CONSULTATION WITH M-NCPPC PROJECT FORESTER AND HIS ISA CERTIFIED ARBORIST, THE CONTRACTOR SHALL PROPERLY PRUNE ANY LIMBS OR BRANCHES THAT COULD BE DAMAGED BY CONSTRUCTION VEHICLES OR OPERATIONS.
- AFTER INSTALLATION OF FLEXI-PAVE WALKWAY, PARKING LOT, WALL, AND ENTRY DRIVE, THE CONTRACTOR SHALL LOOSEN COMPACTED SOIL BEFORE BACKFILLING THE EXCAVATED AREA

TREE PROTECTION RECOMMENDATIONS

IN CONSULTATION WITH M-NCPPC PROJECT FORESTER AND HIS ISA CERTIFIED ARBORIST OR MARYLAND LICENSED TREE EXPERT. THE CONTRACTOR SHALL UTILIZE PERIMETER CONTROLS FOR EACH AREA OF THE LOD OUTSIDE OR WITHIN PROTECTED CRITICAL ROOT ZONES. PERIMETER CONTROLS MAY INCLUDE ONE OR A COMBINATION OF THE

- A. SILT FENCE OR SUPER SILT FENCE;
 B. NON- INVASIVE SF/SSF INCLUDING FILTER LOGS;
- C. WELDED WIRE 4X2" FABRIC 48" HT ON STEEL T-BAR POSTS;

CONSULTATION WITH PROJECT FORESTER, THE ISA CERTIFIED ARBORIST OR MARYLAND LICENSED TREE EXPERT SHALL INVESTIGATE LOCATION AND CONDITION OF EXISTING TREE ROOTS WITHIN THE CRITICAL ROOT ZONE. ROOT PRUNE AS SHOWN ON PLAN AT THE PROPOSED WALL (T118 & T119), PARKING LOT TURNAROUND, AND THE GRAVEL ENTRANCE DRIVE (TA4, TA7, TA15) WITH A ROCKSAW. THE EXACT LAYOUT AND DEPTH ARE TO BE DETERMINED DURING PRE-CONSTRUCTION. CUT ROOTS WITH SHARP, CLEAN PRUNING INSTRUMENTS. DO NOT PULL, TEAR, BREAK OR CHOP. AFTER CONSTRUCTION IS COMPLETE, M-NCPPC'S HORTICULTURE STAFF WILL MONITOR THE TREE FOR HEALTH, VIABILITY, AND VIGOR. FUTURE CORRECTIVE MEASURES AND PRESERVATION TREATMENTS WILL BE IMPLEMENTED AS DETERMINED BY M-NCPPC'S HORTICULTURE STAFF.

SPECIAL TREE PROTECTION MEASURES FOR TREES TA76, TA77, T115.

CAREFULLY REMOVE EXISTING ASPHALT DRIVE AROUND TA66 AND TA67. REMOVE ASPHALT DRIVE WHILE DRIVING ATOP REMAINING ASPHALT TO MINIMIZE DAMAGE TO TAGG AND TAG7 CRITICAL

USE A 300 CFM SSAT FOR RADIAL OR PARALLEL DECOMPACTION FOR AREA UNDER INNER CROWN OF TREES. CHECK BASAL AREA FOR GIRDLING ROOTS. PRE-WATER INNER TREE CROWN AS HARD CLAY AND ROCK ARE PRESENT JUST BELOW THE SURFACE. DECOMPACTION MUST BE A MINIMUM 12" WIDE AND 12" DEEP OR

BACKFILL WITH 1:1 MIX OF COMPOST AND ORGANIC SOIL AMEND SOILS WITH INOCULANTS OF MYCORRHIZAL, BENEFICIAL NEMATODES, AND RELATED MICRO BIOTA AS LIQUID "TEA" AND

ALSO MICROBIAL "FOOD" SUCH AS FISH HYDROLYSATE, KELP AND HUMATE (GRANULAR AND LIQUID APPLICATIONS), MULTIPLE APPLICATIONS ARE RECOMMENDED AS SEASON AND WEATHER ALLOWS.
INSTALL MULCH RINGS AFTER SOIL REMEDIATION MEASURES AROUND TRUNKS OF PRUNED TREES. INSTALL 1" MULCH

DIAMETER FOR EVERY 1" DBH. MULCH RINGS ARE COMPRISED OF AGED WOOD CHIP MULCH THAT CAP OFF REMEDIAL AREA, CONTAIN MOISTURE, CONTROL EXTREME TEMPERATURES, AND PROVIDE ORGANIC RESIDUALS. DO NOT USE INVASIVE OR DURING HIGH TEMPERATURE MONTHS, PROVIDE SUPPLEMENTAL

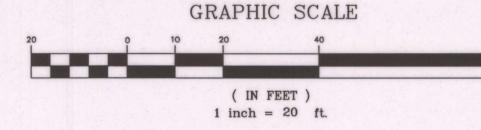
MOISTURE IF RAINFALL IS BELOW 3/4" PER WEEK FOR MORE THAN TWO WEEKS. METHODS MAY BE AS FOLLOWS: DRIP LINES FROM EXISTING WELL ON TIMER; PLASTIC FARM STORAGE TANK FOR GRAVITY FEED; 32 GALLON WATERING CANS WITH SMALL HOLES DRILLED IN BOTTOM FOR HAND WATER: OR OTHER METHODS THAT ALLOW FOR 100-250 GALLONS PER WATERING MINIMUM.

APPLY PLANT GROWTH REGULATOR SUCH AS "CAMBISTAT" OR APPROVED EQUAL ACCORDING TO REGULATOR LABEL DIRECTIONS ON PARTICULAR SIZE AND SPECIES.

BEGIN AFOREMENTIONED STRESS REDUCTION MEASURES A MINIMUM OF ONE GROWING SEASON YEAR PRIOR TO

ROOT PRUNE FOR T118 AND T119 WITH ROCKSAW TO FOOTER OF PROPOSED WALL. THE EXACT LAYOUT AND DEPTH OF ROOT PRUNING ARE TO BE DETERMINED DURING PRE-CONSTRUCTION COLLABORATION

THIS PLAN DOES NOT SUPERSEDE THE APPROVED FOREST CONSERVATION PLAN AND IS ONLY PROVIDED AS A REFERENCE. SEE THE FINAL FOREST CONSERVATION PLAN FOR FULL TREE PROTECTION MEASURES, NOTES, **DETAILS AND REQUIREMENTS.**



LIMITS OF DISTURBANCE TP TREE PROTECTION FENCING & SIGNAGE SSF SUPER SILT FENCE FL-15-15" FILTER LOG - O O O O O O O - ROOT PRUNING PROPERTY LINE SIGNIFICANT TREE WITH CRITICAL ROOT ZONE (1" DBH = 1.5' CRZ RADIUS)

SPECIMEN TREE WITH

CRITICAL ROOT ZONE

TO BE REMOVED

(1" DBH = 1.5' CRZ RADIUS)

SIGNIFICANT/SPECIMEN TREE

FOREST STAND EDGE TREE STAND EDGE

AGED WOOD CHIP MULCH RINGS (1" DBH = 1' MULCH DIAMETER)

TREE STAND ON SITE

FOREST STAND

TREE STAND

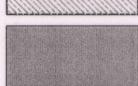
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FOREST STAND ON SITE



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TREE STAND TO BE CLEARED

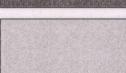


PROPOSED ASPHALT APRON

FOREST STAND TO BE CLEARED



PROPOSED GRAVEL DRIVE/ PARKING LOT



PROPOSED PERVIOUS FLEXI-PAVE

SEQUENCE OF CONSTRUCTION

ASPHALT DRIVEWAY MAY REMAIN FOR STAGING AND EQUIPMENT ACCESS UNTIL DEMOLITION. . INSTALL INTERIM DEMOLITION FENCE (TREE PROTECTION FENCING) 18"
OFFSET FROM THE SOUTHERN EDGE OF EXISTING ASPHALT DRIVEWAY. USE
TRENCHLESS SSF INSTALLATION AS INDICATED ON FC103 PLAN USING FILTER

LOG OR APPROVED EQUAL.

3. DEMOLITION AS INDICATED — SEE DEMOLITION PLAN AND TREE PROTECTION

3. DEMOLITION AS INDICATED — SEE DEMOLITION PLAN AND TREE PROTECTION MEASURES ON THIS SHEET FOR PROCEDURES.
4. ONCE PAVEMENT IS DEMOLISHED, INSPECTION BY ARBORIST TO DETERMINE DEPTH OF ROOTS IN BASE COURSE. REMOVE BASE COURSE TO ROOT REFUSAL OR MORE IF NO ROOTS ARE DETECTED. BASED UPON ARBORIST'S INSPECTION, SOIL REMEDIATION MAY BE RECOMMENDED.
5. BACKFILL PAVING AND STONE BASE VOID WITH APPROVED BULK TOPSOIL FROM LOCAL SOURCE. DO NOT COMPACT EXCEPT FOR GRADING MACHINE SMOOTHING. PROPOSED FILL AS INDICATED ON PLANS AND/OR LAID OUT ON SITE.

SITE.

6. ADJUST INTERIM TREE PROTECTION FENCING TO PROPOSED GRADE FILL AREAS INSIDE CRITICAL ROOT ZONES. WELL DRAINED TOPSOIL MIX UP TO 9" IS APPROVED WITHIN CRITICAL ROOT ZONE UNTIL AERATION MATTING IS REQUIRED FOR DEEPER FILLS. SEE FC101 FOR LOCATION OF TREE PROTECTION FENCING. SEE DETAIL 3 ON FC104 FOR SPECIAL STRESS REDUCTION MEASURES FOR TREES TA76/TA77, T115, AND T118/T119.

7. ONCE TOPSOIL IS COMPLETE, INSTALL INTERIM FENCE AROUND THE TOPSOIL AREA TO PROTECT FROM VEHICLES AND STAGING.

8. ROOT PRUNE PRIOR TO GRADE CUT. ROOT PRUNING METHODS TO BE DETERMINED DURING PRE—CONSTRUCTION MEETING.

9. ROOT PRUNE FOR PROPOSED WALL FOOTER WITH ROCKSAW. EXACT LAYOUT AND DEPTH TO BE DETERMINED DURING PRE—CONSTRUCTION MEETING AFTER WALL LAYOUT.

10. ROOT PRUNE FOR PERIMETER LOD WITHIN CRITICAL ROOT ZONES PRIOR TO TREE PROTECTION FENCING INSTALLATION OR ESC INSTALLATION.

11. INSTALL TREE PROTECTION FENCING AT LOD AND AS REQUIRED FOR TREE

12. SEQUENCE SELECTIVE REMOVAL OF TREES BY ARBORIST TO AVOID DAMAGE TO ROOTS, STEM, OR CROWN OF ADJACENT PROTECTED TREES. IN NATURAL AREAS, STUMPS ARE CUT LOW AND LEFT. IN PROPOSED TURF AREAS, STUMPS ARE GROUND OUT TO A 6" DEPTH. RAKE OUT CHIPS AND REPLACE WITH TOPSOIL.



elephone Number

Date Checked By:

Drawn by

(301) 495-2535

| | REVIEW AND APPROVAL | ISSUED | FOR PROCI | JREMENT ON | |
|-----|------------------------------|----------|-----------|-------------|----------------------------------|
| tal | COAS | - | | REVISIONS | Tree Prot |
| on | Project Manager Date | Rev. No. | Date | Description | Little Bennett 24615, 24625, 246 |
| | Construction Manager Date | | | | Clarksburg, MD 2 |
| | Park Manager Date | | | | SCALE: 1" = 20' |

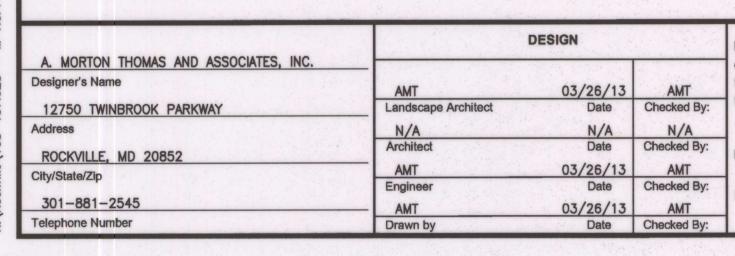
Tree Protection Plan

Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road Clarksburg, MD 20871

WSSC Grid Map #234NW14

SHEET 4 of 33

CD102



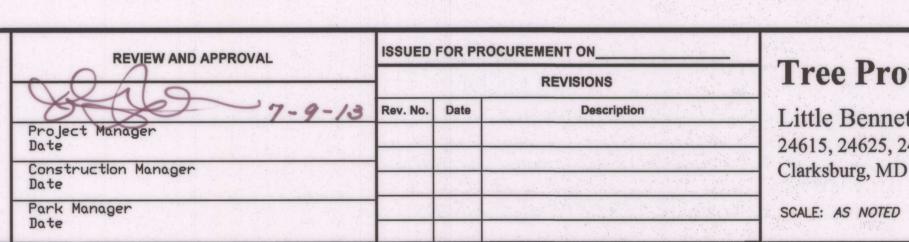
Professional Certification . I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

Expiration Date 3/17/2014 CHARLES A. HARPER IV





Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535



Clarksburg, MD 20871

Tree Protection Details

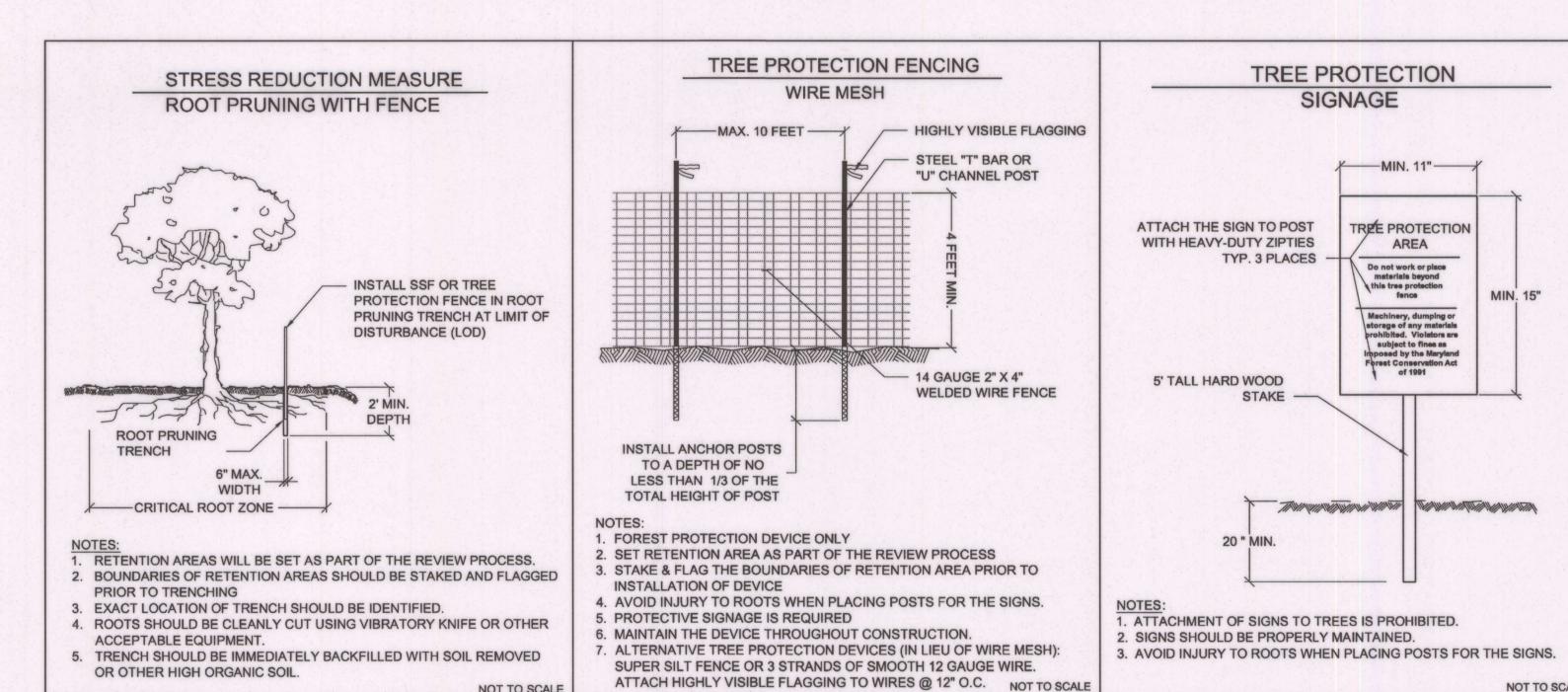
Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road

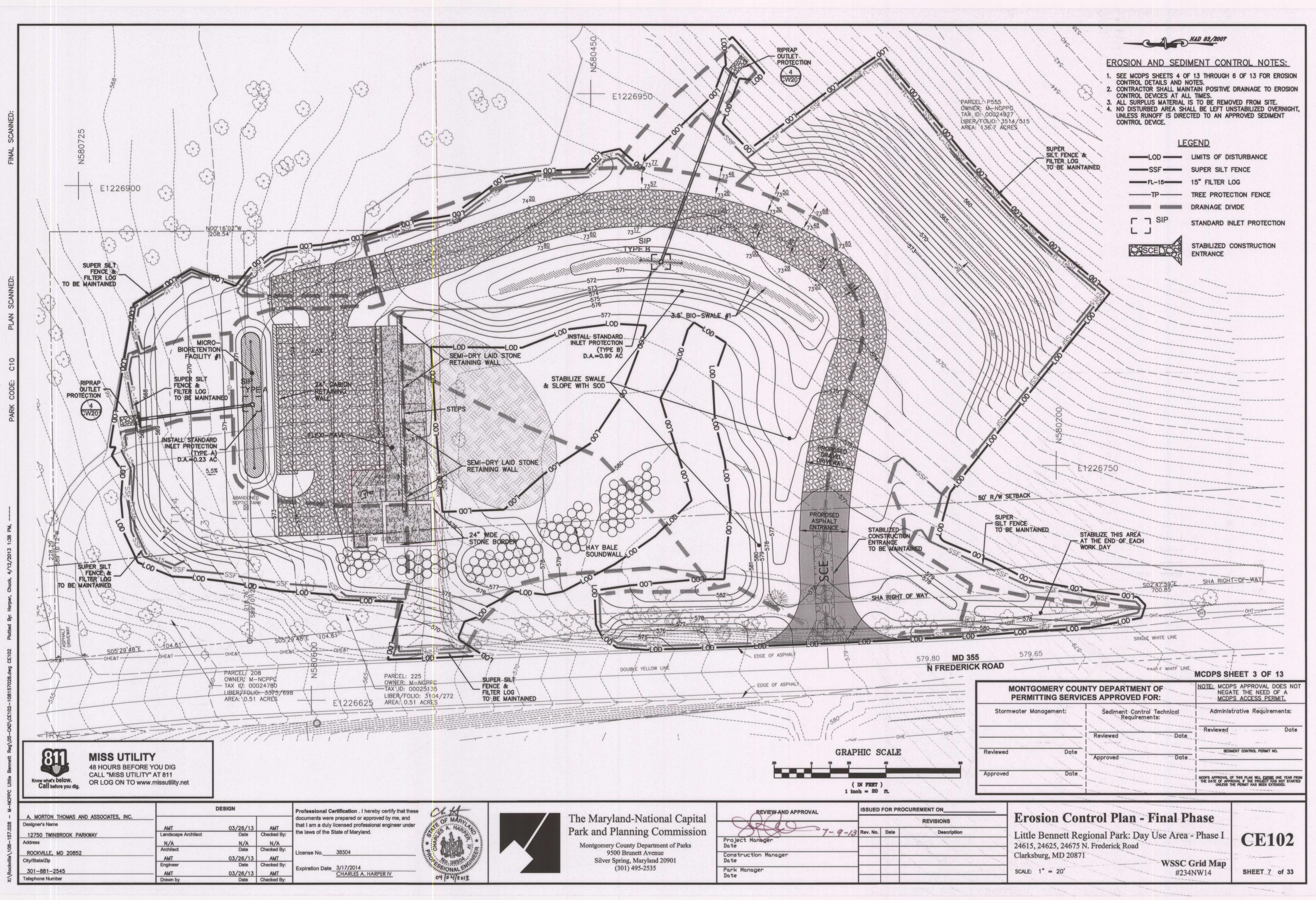
WSSC Grid Map #234NW14

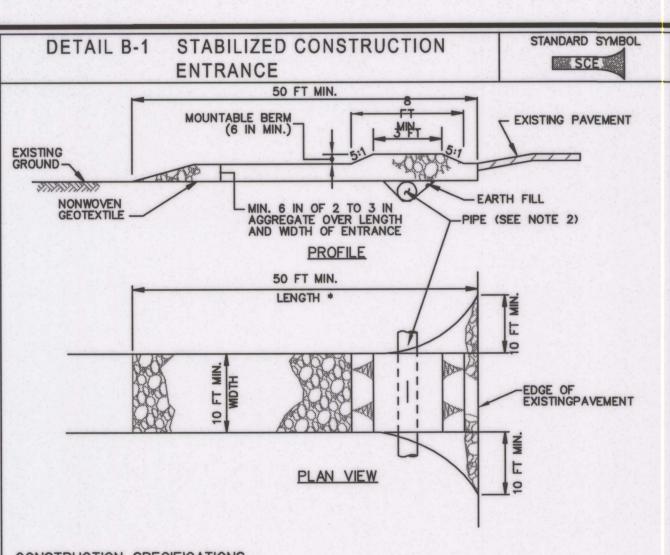
SHEET 5 of 33

CD501

NOT TO SCALE







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 (*30 FEET FOR SINGLE RESIDENCE LOT). 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 5:1 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.
- I. 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 MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION NATURAL RESOURCES CONSERVATION SERVICE

> SLIT FILM **GEOTEXTILE**

18 IN INTO GROUND -

EDGE OF ROADWAY OR TOP-

OF EARTH DIKE

6 IN MIN.

9 GAUGE CHAIN -

LINK FENCE (TYP.)

ISOMETRIC VIEW

SECTION FOR TYPE A AND B

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

TYPE A MAXIMUM DRAINAGE AREA = 1/4 ACRE TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE

TYPE B

-EXCAVATE, BACKFILL AND COMPACT EARTH (TYP.)

> MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

- CHAIN LINK FENCE POSTS

TOP ELEVATION

ELEVATION

1 OF 2

DETAIL E-9-1 STANDARD INLET PROTECTION

-2 IN x 4 IN FRAMING

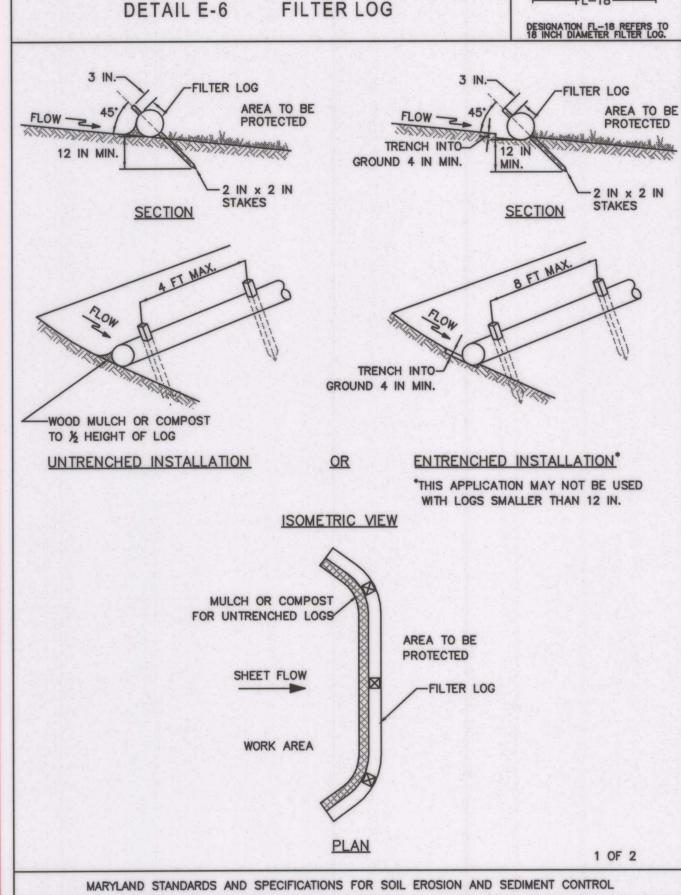
HARDWARE CLOTH

- WOVEN SLIT FILM

TYPE A

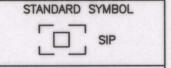
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

GEOTEXTILE



U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION



STANDARD SYMBOL

FL-18----

CONSTRUCTION SPECIFICATIONS

- 1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. 2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED,
- FOR TYPE B, USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DETAIL E-6 FILTER LOG

CONSTRUCTION SPECIFICATIONS

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

- PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
- . FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.

STANDARD SYMBOL

FL-18-----

DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG

- INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
- FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
- S. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
- 6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
- WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
- B. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF 1/2 THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH, REPLACE FILTER LOG IF TORN, REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS, REPLACE CLOGGED FILTER LOGS, FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

Fold filter fabric over top of fence fabric a minimum of 6" and fasten to fence. Ground Surface-1/1/1/1/ Min. Filter Fabric-Chain Link Fence Fabric-Round Steel Posts-STANDARD SYMBOL

1. Steel Posts must be Schedule 40 or 'SS-40', 2.5" diameter, galvanived pipe. Post Spacing must not exceed 10 linear feet. Posts do not need to be set in concrete.

2. Chain link fence fabric must be 2" x #9 gauge x 42" KK wire. Chainlink fence fabric must be stretched taut and securely fastened to posts with fence wire.

3. Filter fabric must be MSHA Class 'F' fabric. Filter fabric must be streched taut and securely fastened to chain link fence, front and back. Where two ends of filter cloth meet, they must be overlapped a minimum of 6", folded together and fastened.

4. Maintenance must be performed as needed and silt buildups removed when they reach an 18" depth above existing ground or when "bulges" develop in the

5. All other details and specifications shall be in accordance with U.S.D.A.—S.C.S., M.D.E.—W.M.A. and M.S.H.A. specifications.



2 OF 2

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES WATER RESOURCES

MODIFIED SUPER SILT FENCE DATE: 6/03 SCALE: NONE

----SSF-

- SUPER SILT FENCE TAKE CARE NOT TO -PUNCTURE SILT 15" FILTER LOG-FENCE FABRIC WHEN INSTALLING STAKE AREA TO BE

FILTER LOG/SUPER SILT FENCE COMBINATION DETAIL

A. To remove the server is supplicative, as mested and all cultidate removed when MCDPS SHEET 4 OF 13

| | | MCDPS SHEET 4 OF 13 |
|---------------------------|---------------------------|--|
| | | NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT. |
| Sediment Cont Requiren | rol Technical nents: | Administrative Requirements: |
| Reviewed | Date | Reviewed Date |
| Approved | Date | SEDIMENT CONTROL PERMIT NO. |
| | | MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED. |
| | Sediment Contact Requirem | |

1. Steel Peerle must be Schoolyle - 2 or "SS-40", 2.5" diameter, ac vanived block

2. Chair late a de fearle cast les 2 a 63 aques x 40 KK wire.

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Point to let upon to be call in sonorcia.

DESIGN A. MORTON THOMAS AND ASSOCIATES, INC. Designer's Name 03/26/13 Landscape Architect Checked By: Date 12750 TWINBROOK PARKWAY Checked By:

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. 38504 Expiration Date 3/17/2014 CHARLES A. HARPER IV



NATURAL RESOURCES CONSERVATION SERVICE

Park and Planning Commission

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTE TO THE CONTRACTOR: "EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED" THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY

2 OF 2

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

| REVIEW AND APPROVAL | ISSUED FOR PROCUREMENT ON | | | | |
|-------------------------|--|-------|-------------|--|--|
| | REVISIONS | | | | |
| 7-9-13 | Rev. No. | Date | Description | | |
| Project Manager Date | | | | | |
| Construction Manager | | | | | |
| ark Manager | | | | | |
| ate | NAME OF THE OWNER, OWNE | T SEE | | | |

rosion Control Details

: AS NOTED

tle Bennett Regional Park: Day Use Area - Phase I 15, 24625, 24675 N. Frederick Road ksburg, MD 20871

WSSC Grid Map #234NW14

SHEET 8 of 33

CE501

Date ROCKVILLE, MD 20852 03/26/13 City/State/Zip Date Checked By: Engineer 301-881-2545 Date Checked By: Telephone Number

The Maryland-National Capita

MORTON THOMAS AND ASSOCIATES, INC.

Designer's Name

City/State/Zip

301-881-2545

Telephone Number

12750 TWINBROOK PARKWAY

ROCKVILLE, MD 20852

STANDARD EROSION AND SEDIMENT CONTROL NOTES

- 1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE DEPARTMENT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN THEM OR THEIR REPRESENTATIVE. THEIR ENGINEER AND AN AUTHORIZED REPRESENTATIVE OF THE DEPARTMENT.
- THE PERMITTEE MUST OBTAIN INSPECTION AND APPROVAL BY DPS AT THE FOLLOWING POINTS:
- A. AT THE REQUIRED PRE-CONSTRUCTION MEETING. B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES AND PRIOR TO ANY OTHER LAND DISTRIBUTING ACTIVITY.
- C. DURING THE INSTALLATION OF A SEDIMENT BASIN OR STORMWATER MANAGEMENT STRUCTURE AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION IS MANDATORY.
- D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).
- E. PRIOR TO FINAL ACCEPTANCE.
- 3. THE PERMITTEE SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE, SHALL HAVE THEM INSPECTED AND APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE DEPARTMENT.
- 4. THE PERMITTEE SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARE(S). ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY.
- 5. THE PERMITTEE SHALL INSPECT PERIODICALLY AND MAINTAIN CONTINUOUSLY, IN EFFECTIVE OPERATING CONDITION, ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE DEPARTMENT. THE PERMITTEE IS RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ANY SEDIMENT CONTROL MEASURES WHICH HAVE BEEN DAMAGED OR REMOVED BY PERMITTEE OR ANY OTHER PERSON.
- 6. ALL SEDIMENT BASINS, TRAP EMBANKMENTS, PERIMETER DIKES AND ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1 SHALL BE STABILIZED WITH SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES, WITHIN THREE (3) CALENDAR DAYS OF ESTABLISHMENT. ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED AND STABILIZED IMMEDIATELY. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
- 7. THE PERMITTEE SHALL APPLY, SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. ACTIVE CONSTRUCTION AREAS, SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN FIFTY (50) FEET OF A BUILDING UNDER CONSTRUCTION MAY BE EXEMPT FROM THIS REQUIREMENT, PROVIDED THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND MAINTAINED TO PROTECT THOSE AREAS.
- 8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS WITH REQUIRED SOIL AMENDMENTS AND TOPSOIL, USING SOD OR AN APPROVED PERMANENT SEED MIXTURE AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHEN THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN (7) CALENDAR DAYS OF ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY. AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE COMPLETED PRIOR TO THE FOLLOWING APRIL 15.
- 9. THE SITE PERMIT, WORK, MATERIALS, APPROVED SC/SM PLANS AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF MONTGOMERY COUNTY.
- 10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. MECHANICAL DEVICES MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
- 11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN THREE (3) CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.
- 12. TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE REMOVED, WITH PERMISSION OF THE DEPARTMENT, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
- 13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS OR ON RESIDENTIAL LOTS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW- MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENTS STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.
- 14. THE PERMITTEE SHALL INSTALL A SPLASHBLOCK AT THE BOTTOM OF EACH DOWNSPOUT UNLESS THE DOWNSPOUT IS CONNECTED BY A DRAIN LINE TO AN ACCEPTABLE OUTLET.
- 15. FOR FINISHED GRADING, THE PERMITTEE SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN TWENTY-FOUR (24) HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS, WHICH MAY DRAIN AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL
- 16. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN TWENTY (20) FEET OF A BUILDING WHICH IS EXISTING OR UNDER CONSTRUCTION. NO BUILDING MAY BE CONSTRUCTED WITHIN TWENTY (20) FEET OF A SEDIMENT TRAP OR BASIN.
- 17. ALL INLETS IN NON-SUMP AREAS SHALL HAVE ASPHALT BERMS INSTALLED AT THE TIME OF BASE PAVING ESTABLISHMENT.
- 18. THE SEDIMENT CONTROL INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SEDIMENT CONTROL MEASURES, AS DEEMED NECESSARY.
- 19. ALL TRAP ELEVATIONS ARE RELATIVE TO THE OUTLET ELEVATION, WHICH MUST BE ON EXISTING UNDISTURBED GROUND.
- 20. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 21. TEMPORARY SEDIMENT TRAP(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE POINT OF ONE-HALF (1/2) THE WET VOLUME OF THE TRAP OR WHEN REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.
- 22. SEDIMENT REMOVED FROM TRAPS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN.
- 23. ALL SEDIMENT BASINS AND TRAPS MUST BE SURROUNDED WITH A WELDED WIRE SAFETY FENCE. THE FENCE MUST BE AT LEAST FORTY-TWO (42) INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN EIGHT (8) FEET, HAVE MESH OPENINGS NO GREATER THAN TWO (2) INCHES IN WIDTH AND FOUR (4) INCHES IN HEIGHT, WITH A MINIMUM OF FOURTEEN (14) GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
- 24. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK.
- 25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR APPROVAL BY DPS.
- 26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE DPS INSPECTOR'S PERMISSION. THE INSPECTOR MUST APPROVE THE DEWATERING METHOD FOR EACH APPLICATION. THE FOLLOWING METHODS MAY BE CONSIDERED: A. PUMP DISCHARGE MAY BE DIRECTED TO ANOTHER ON-SITE SEDIMENT TRAP OR BASIN, PROVIDED IT IS OF SUFFICIENT VOLUME AND THE PUMP INTAKE IS FLOATED TO PREVENT AGITATION OR SUCTION OF DEPOSITED SEDIMENTS; OR B. THE PUMP INTAKE MAY UTILIZE A REMOVABLE PUMPING STATION AND MUST DISCHARGE INTO AN UNDISTURBED AREA THROUGH A NON-EROSIVE

C. THE PUMP INTAKE MAY BE FLOATED AND DISCHARGE INTO A DIRT BAG (12 OZ. NON-WOVEN FABRIC), OR APPROVED EQUIVALENT, LOCATED IN AN UNDISTURBED BUFFER AREA.

- REMEMBER: DEWATERING OPERATION AND METHOD MUST HAVE PRIOR APPROVAL BY THE DPS INSPECTOR.
- 27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.
- 28. TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MONTGOMERY COUNTY STANDARDS AND SPECIFICATIONS FOR TOPSOILING.

NOTE TO THE CONTRACTOR: "EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED" THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

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 3/17/2014

CHARLES A. HARPER IV

DESIGN

Landscape Architect

Engineer

03/26/13

Date

Date

Date

Checked By:

Checked By:

Checked By:

Date | Checked By:



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

ISSUED FOR PROCUREMENT ON_ **REVIEW AND APPROVAL** REVISIONS Rev. No. Date Description Project Manager Construction Manager Date Park Manager SCALE: AS NOTED Date

STANDARDS AND SPECIFICATIONS FOR TOP SOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

<u>PURPOSE</u>

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES.

FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON

CONSTRUCTION AND MATERIAL SPECIFICATIONS

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IS MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS.

TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING.

1. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY DPS. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS. AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1" IN DIAMETER.

THE SUBSOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 6 INCHES BEFORE PLACEMENT OF TOPSOIL.

WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS. GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 LBS PER 1000 SQ FT) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL.

TOPSOIL SHALL BE TESTED AND AMENDED AS PER SOIL TEST RECOMMENDATIONS.

TOPSOIL APPLICATION

- 1. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES.
- 2. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4-8 INCH LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- 3. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

- 1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
- 2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
- 3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL
- 4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
- 5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL; A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE
- PRESSURE GAUGE: ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE
- COVERAGE OF GROUND WITH WATER: C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
- 6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
- A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES. B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR
- C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.

OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS

MCDPS SHEET 5 OF 13

| | MERY COUNTING SERVICE | NOTE: MCDPS APPROVAL DOES NO NEGATE THE NEED OF A MCDPS ACCESS PERMIT. | | |
|-----------------|---|--|------|--|
| Stormwater Mana | ater Management: Sediment Control Technical Requirements: | | | Administrative Requirements: |
| | | Reviewed | Date | Reviewed Date |
| Reviewed | Date | Approved | Date | SEDIMENT CONTROL PERMIT NO. |
| Approved | Date | - | | MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FF THE DATE OF APPROVAL IF THE PROJECT HAS NOT START UNLESS THE PERMIT HAS BEEN EXTENDED. |

Erosion Control Notes

Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road Clarksburg, MD 20871

WSSC Grid Map

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#234NW14

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

SITE PREPARATION

- INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS.
- PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDING.
- SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA OVER 5 ACRES.
- B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
- FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING, AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL BE DELIVERED TO THE SITE, FULLY LABELED ACCORDING TO APPLICABLE STATE FERTILIZER LAWS AND SHALL BEAR THE NAME, TRADE NAME OR TRADEMARK, AND WARRANTY OF THE
- LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A #100 MESH SIEVE, AND 98 TO 100% WILL PASS THROUGH A #20 MESH
- IV. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- C. SEEDBED PREPARATION

L TEMPORARY SEEDING

- SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS, CHISEL PLOWS, OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH, BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
- APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
- INCORPORATE LIME AND FERTILIZER INTO THE TOP 3" TO 5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

IL PERMANENT SEEDING

- MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:
- 1. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
- 2. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
- 3. 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 SERECIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (<30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
- SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
- 5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- 6. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 "STANDARD AND SPECIFICATION FOR TOPSOIL" OF THE 1994 MD STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE.
- APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED IN THE CONTRACT DOCUMENTS.
- MIX SOIL AMENDMENTS INTO THE TOP 3 5 INCHES OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE; REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP 1 -3 INCHES OF SOIL SHOULD BE LOOSE AND FRIABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON NEWLY DISTURBED

D. SEED SPECIFICATIONS

- ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.
- NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.
- INOCULANTS THE INOCULANTS FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING.
- NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE INOCULANTS LESS EFFECTIVE.

E.METHODS OF SEEDING

- HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR ACULTIPACKER SEEDER.
- IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS WILL NOT EXCEED THE FOLLOWING: NITROGEN MAXIMUM OF 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS): 200 POUNDS/ACRE; K20 (POTASSIUM): 200 POUNDS/ACRE.
- LIME USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
- C. SEED AND FERTILIZER SHALL BE MIXED ON SITE, AND SEEDING SHALL BE DONE IMMEDIATELY WITHOUT INTERRUPTION.
- DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
- SEED SPREAD SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 25 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
- WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- III. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
- WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

A. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)

- STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY, AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW.
- WOOD CELLULOSE FIBER MULCH (WCFM)
 - a. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WCFM SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDINGS.
 - WCFM SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - WOOD CELLULOSE FIBER MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 mm., DIAMETER APPROXIMATELY 1 mm., PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM, AND WATER HOLDING CAPACITY OF 90% MINIMUM.

NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE A STAND OF ONE SPECIES OF GRASS IS DESIRED.

- B. MULCHING SEEDED AREAS MULCH SHALL BE APPLIED SEEDED AREAS IMMEDIATELY AFTER SEEDING
- IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1 AND 2 INCHES. MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD
- WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- C. SECURING STRAW MULCH (MULCH ANCHORING)
 - MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION HAZARD:
- A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS IS THE MOST EFFECTIVE ON LARGE AEAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR, IF POSSIBLE.
- WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE PPLIED AT A NET DRY WEIGHT OF 750 LBS. /ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED ITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- APPLICATIONS OF LIQUID BINDERS SHOULD BE APPLIED HEAVIER AT EDGES WHERE WIND CATCHES ULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF AREA SHOULD BE NIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS SUCH AS ACRYLIC DRL (AGRO—TACX), DCA—70, PETROSET, TERRA TAX II, TERRA TACK AR, OR OTHER APPROVED EQUAL MAY BE USED AT ATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.
- LIGHTWEIGHT: PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO ,000 FEET LONG.

SECTION II: TEMPORARY SEEDING

VEGETATION - ANNUAL GRASS OR GRAIN USED TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO TWELVE MONTHS. FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT SEEDING IS REQUIRED.

TEMPORARY SEEDING SUMMARY

| | SEED M | (FROM TAB | | 6B) | FERTILIZER LIME RATE | | |
|-----|--|-----------------------------|------------------------|-------------------|------------------------------|-------------------------------|--|
| NO. | SPECIES | APPLICATION RATE (lb/gc) | SEEDING DATES | SEEDING DEPTHS | (10-10-10) | | |
| 1 | BARLEY OR RYE PLUS FOXTAIL MILLET | | 2/1-10/15 2/1-11/30 | | 600 lb/50 | | |
| 2 | ANNUAL RYEGRASS | 50 | 2/1-4/30 8/15-11/1 | 1/4"-1/2" | 600 lb/ac (15 lb/1000 sf) | 2 tons/ac (100 lb/1000 sf) | |
| 3 | WEEPING LOVEGRASS | 4 | 5/1-8/14 | 1/4"-1/2" | | | |

SECTION III: PERMANENT SEEDING

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM PERIOD OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

PERMANENT SEEDING SUMMARY

| SEED MIXTURE (HARDINESS ZONE (FROM TABLE 25) | | | | FE | LIME | | |
|---|-----------------------------------|-----------------------------|------------------------|-------------------|---------------------|---------------------|-----------------------|
| MIX NO. | SPECIES | APPLICATION RATE (lb/qc) | SEEDING DATES | N | P205 | K20 | RATE |
| | TALL FESCUE(85%) | 125 | 3/1-5/15 | | | | |
| 3 | PERENNIAL RYEGRASS(10%) | 15 | 8/15-11/15 | | | | |
| | KENTUCXY BLUEGRASS(5%) | 10 | 8/15-11/15 | 90 lb/ac (2.0 lb/ | 175 lb/ac (4 lb/ | 175 lb/ac (4 lb/ | 2 tons/ac (100 lb/ |
| 10 | TALL FESCUE(80%) HARD FESCUE(20%) | 120 30 | 3/1-5/15 8/15-11/15 | 1000 st) | 1000 st) | 1000 st) | 1000 st) |

SECTION IV - SOD TO PROVIDE QUICK COVER ON DISTURBED AREA (2:1 GRADE OR FLATTER)

A. GENERAL SPECIFICATIONS

- CLASS OF TURFGRASS SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR APPROVED. SOD LABELS SHALL BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
- SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4", PLUS OR MINUS 1/4", AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIER'S WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- IV. SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL
- SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
- B. SOD INSTALLATION
- L DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, THE SUBSOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD.
- THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- WHEREVER POSSIBLE, SOD SHALL BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. SOD SHALL BE ROLLED AND TAMPED, PEGGED, OR OTHERWISE SECURED TO PREVENT SLIPPAGE ON SLOPES AND TO ENSURE SOLID CONTACT BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- IV. SOD SHALL BE WATERED IMMEDIATELY FOLLOWING ROLLING OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.
- C. SOD MAINTENANCE
- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4". WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- THE FIRST MOWING OF SOD SHOULD NOT BE ATTEMPTED UNTIL THE FINAL SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES, UNLESS OTHERWISE SPECIFIED.

SECTION V - TURFGRASS ESTABLISHMENT

AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE TILLED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVELED AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1-1/2 INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.

NOTE: CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVARS PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

A. TURFGRASS MIXTURES

- KENTUCKY BLUEGRASS FULL SUN MIXTURE FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND THE EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5-TO 2.0 POUNDS/1000 SQUARE FEET. A MINIMUM OF THREE BLUEGRASS CULTIVARS SHOULD BE CHOSEN, RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE
- KENTUCKY BLUEGRASS/PERENNIAL RYE FULL SUN MIXTURE FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE/1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE MIXTURE BY WEIGHT.
- TALL FESCUE/KENTUCXY BLUEGRASS FULL SUN MIXTURE FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95% 100%; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 - 5%. SEEDING RATE: 5 TO 8 POUNDS/1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
- KENTUCKY BLUEGRASS/FINE FESCUE SHADE MIXTURE FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30-40% AND CERTIFIED FINE FESCUE AND 60 -75%. SEEDING RATE: 1-1/2 TO 3 POUNDS/1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE MIXTURE BY WEIGHT.
- TURFGRASS VARIETIES SHOULD BE SELECTED FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND."
- B. IDEAL TIMES OF SEEDING

WESTERN MARYLAND: MARCH 15-JUNE 1; AUGUST 1-OCTOBER 1 (HARDINESS ZONES - 5b, 6a)

CENTRAL MARYLAND: MARCH 1-MAY 15; AUGUST 15-OCTOBER 15 (HARDINESS ZONES-6b)

SOUTHERN MARYLAND, EASTERN SHORE: MARCH 1-MAY 15, AUGUST 15-OCTOBER 15

C. IRRIGATION

(HARDINESS ZONES - 7a, 7b)

IF SOIL MIXTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2" - 1" EVERY 3 TO 4 DAYS, DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES.

D. REPAIRS AND MAINTENANCE

INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RE-SEEDINGS WITHIN THE PLANTING SEASON.

- ONCE THE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED.
- IF THE STAND PROVIDES LESS THAN 40% GROUND COVERAGE, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING RECOMMENDATIONS. IF THE STAND PROVIDES BETWEEN 40% AND 94% GROUND COVERAGE, OVERSEEDING AND FERTILIZING USING HALF OF THE RATES ORIGINALLY APPLIED MAY BE NECESSARY.
- MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDINGS ARE SHOWN IN TABLE 24 OF THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. FOR LAWNS AND OTHER MEDIUM TO HIGH MAINTENANCE TURFGRASS AREAS, REFER TO THE UNIVERSITY OF MARYLAND PUBLICATION, "LAWN CARE IN MARYLAND", BULLETIN NO. 171.

MCDPS SHEET 6 OF 13

| | MERY COUNTING SERVICE | NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT. | | | |
|-----------------|-----------------------|---|------|--|-------------------------|
| Stormwater Mand | agement: | Sediment Cont Requirer | | Administrative F | Requirements: |
| 400 | | Reviewed | Date | Reviewed | Date |
| | | | | F | |
| eviewed | Date | Approved | Date | SEDIMENT CONTROL | L PERMIT NO. |
| | | Approved | Date | 1 3 /6 | |
| pproved | Date | of ox south and | | MCDPS APPROVAL OF THIS PLAN IN THE DATE OF APPROVAL IF THE UNLESS THE PERMIT HAS | PROJECT HAS NOT STARTED |

NOTE TO THE CONTRACTOR: "EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED" THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY.

DESIGN A. MORTON THOMAS AND ASSOCIATES, INC Designer's Name 03/26/13 12750 TWINBROOK PARKWAY Landscape Architect Date Checked By: Address Architect Date Checked By: ROCKVILLE, MD 20852 License No. 03/26/13 City/State/Zip Engineer Date Checked By: Expiration Date 3/17/2014 301-881-2545 Telephone Number Date Checked By:

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.

CHARLES A. HARPER IV



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

| REVIEW AND APPROVAL 7-9-13 | ISSUED FOR PROCUREMENT ON | | |
|------------------------------|---------------------------|------|-------------|
| | REVISIONS | | |
| | Rev. No. | Date | Description |
| Project Manager Date | | | |
| Construction Manager Date | | | |
| Park Manager Date | | | |

Erosion Control Notes

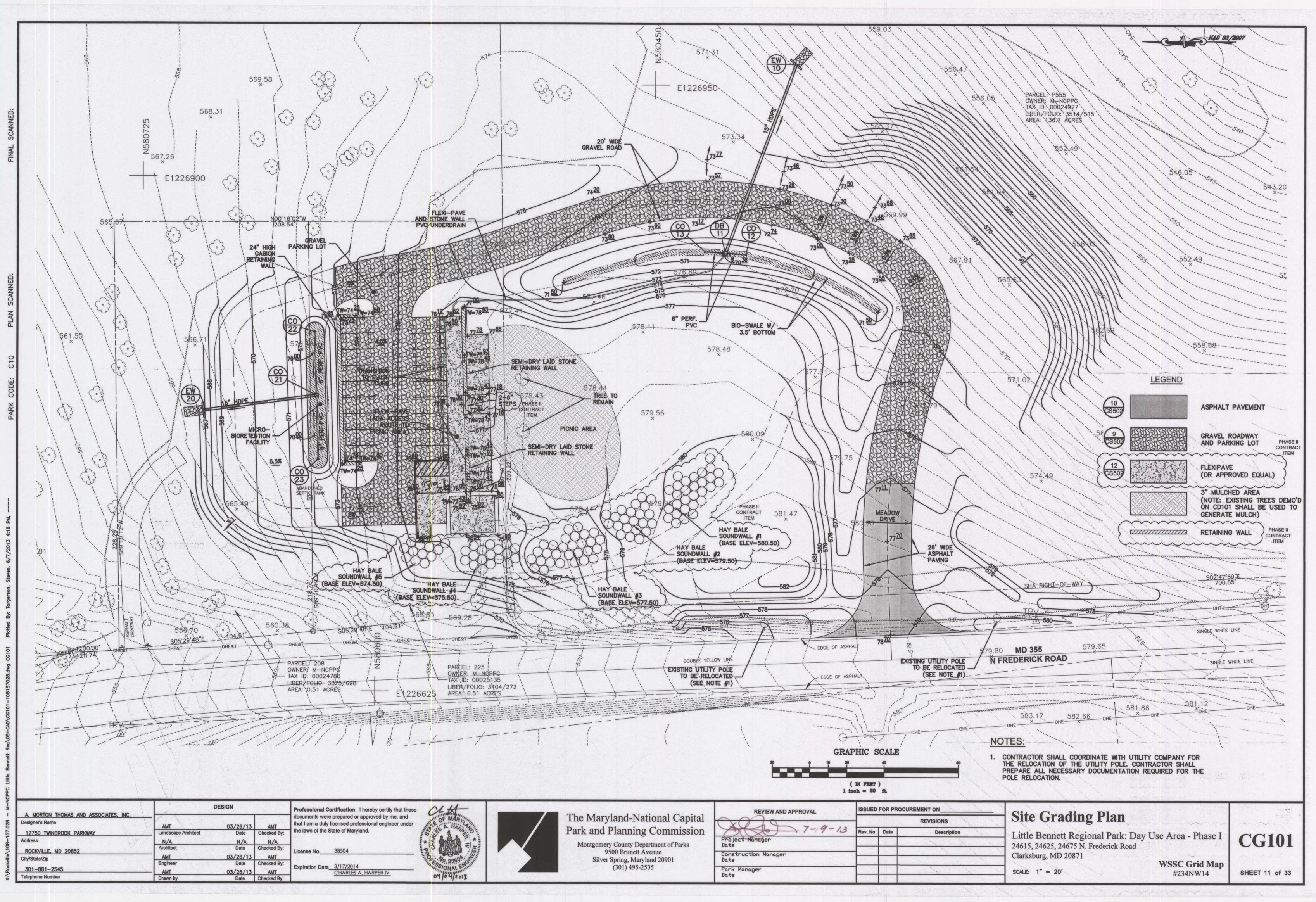
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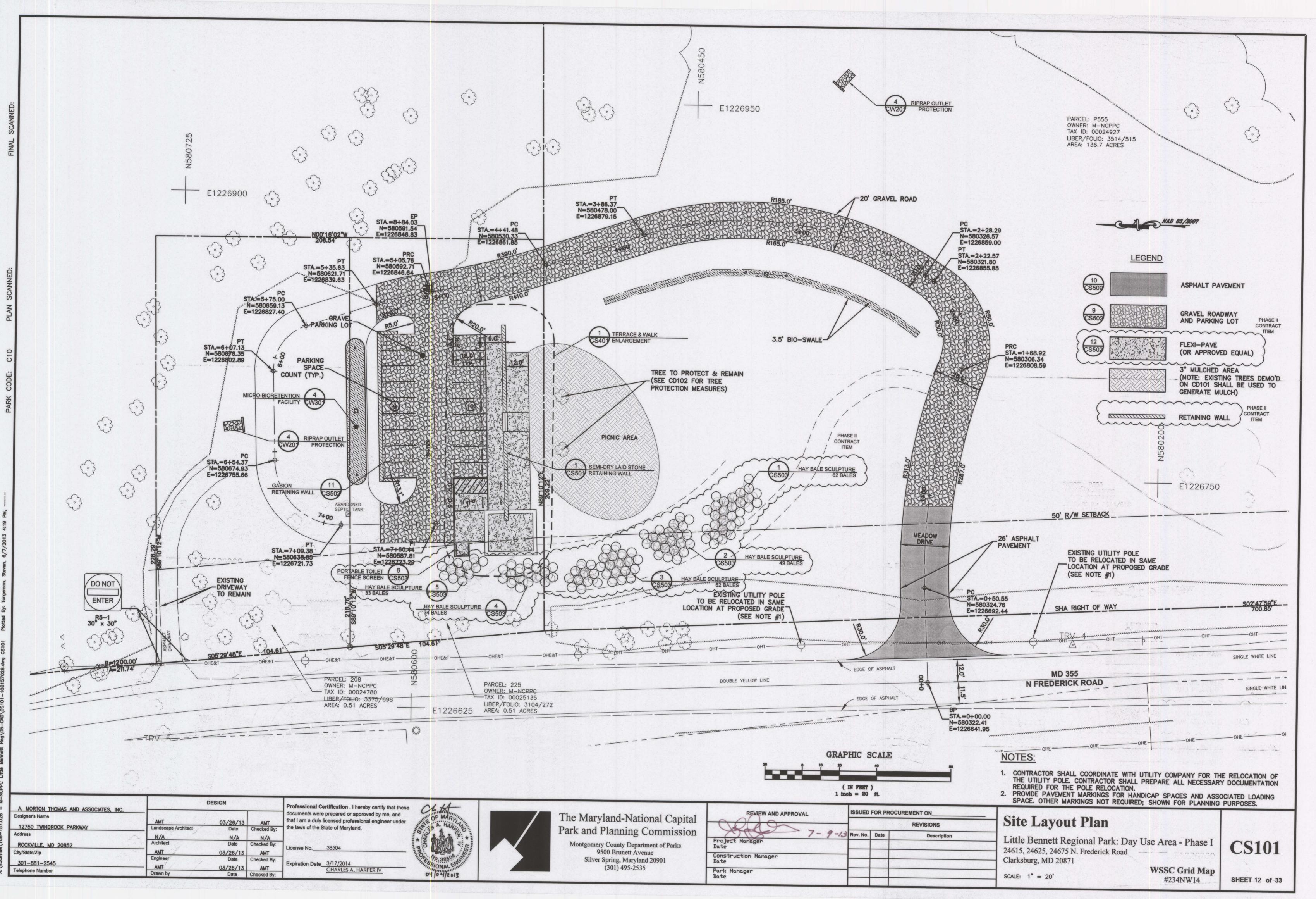
Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road Clarksburg, MD 20871

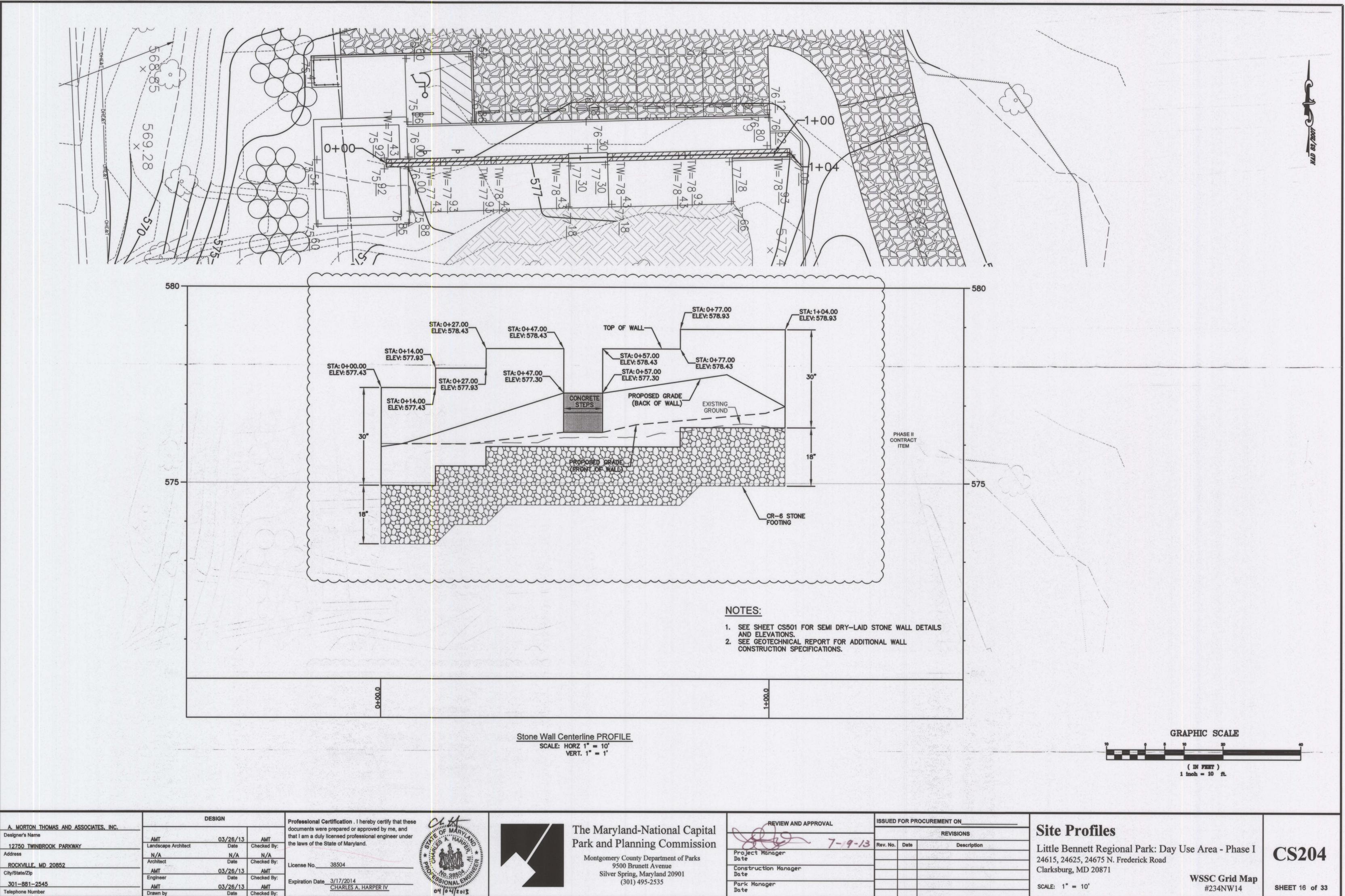
> **WSSC Grid Map** #234NW14

SHEET 10 of 33

CE503



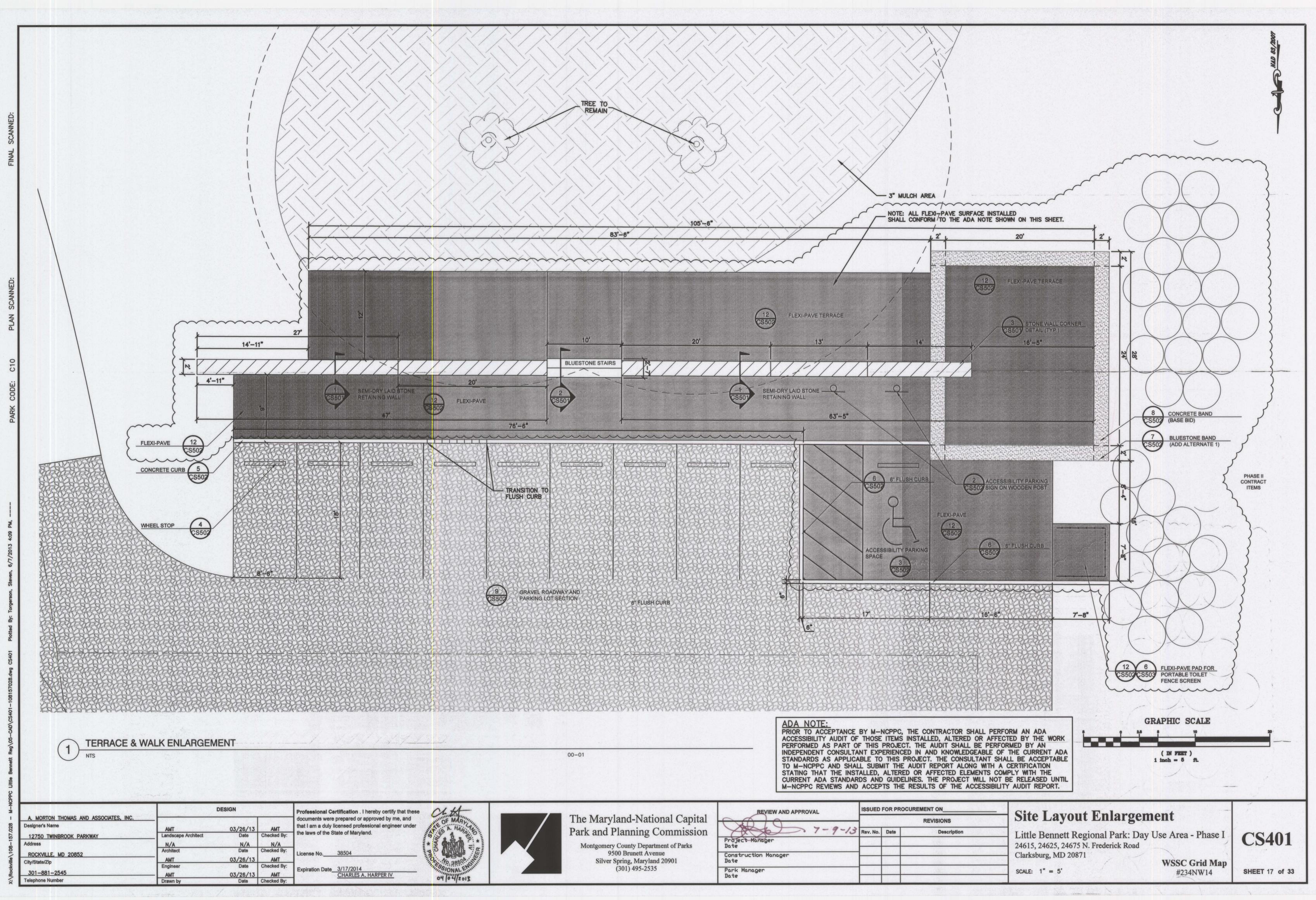


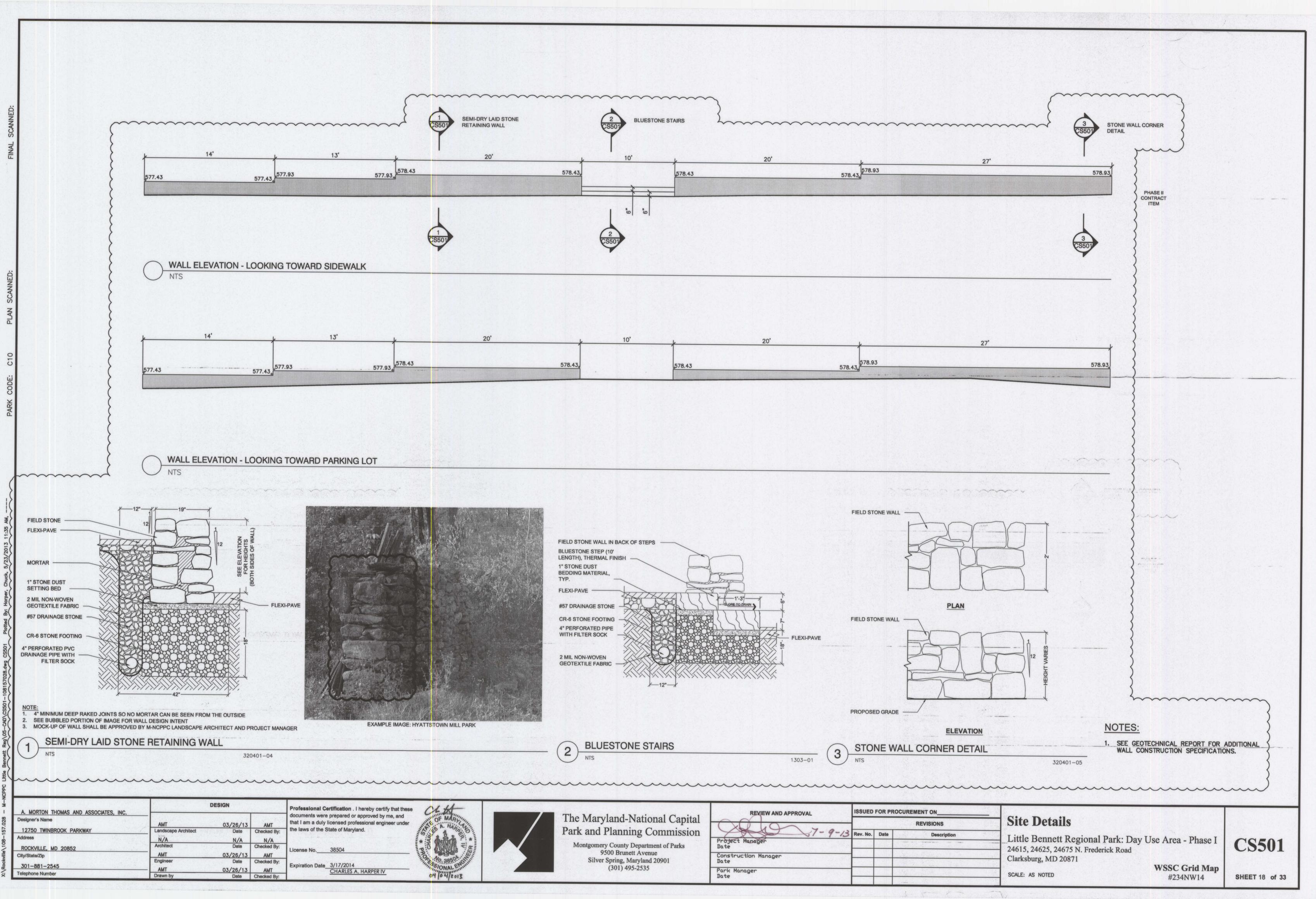


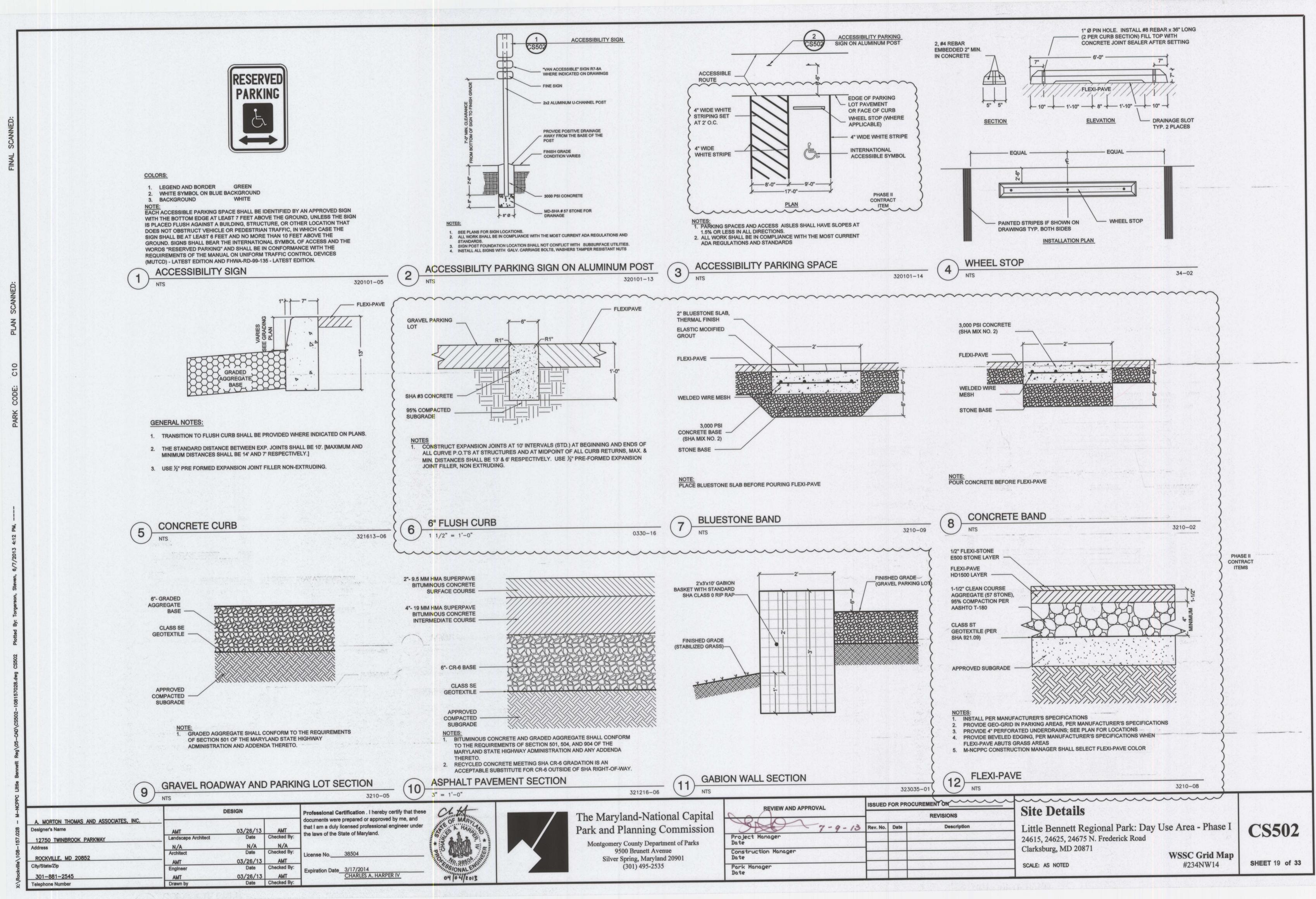
Telephone Number

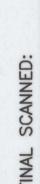
#234NW14

SHEET 16 of 33

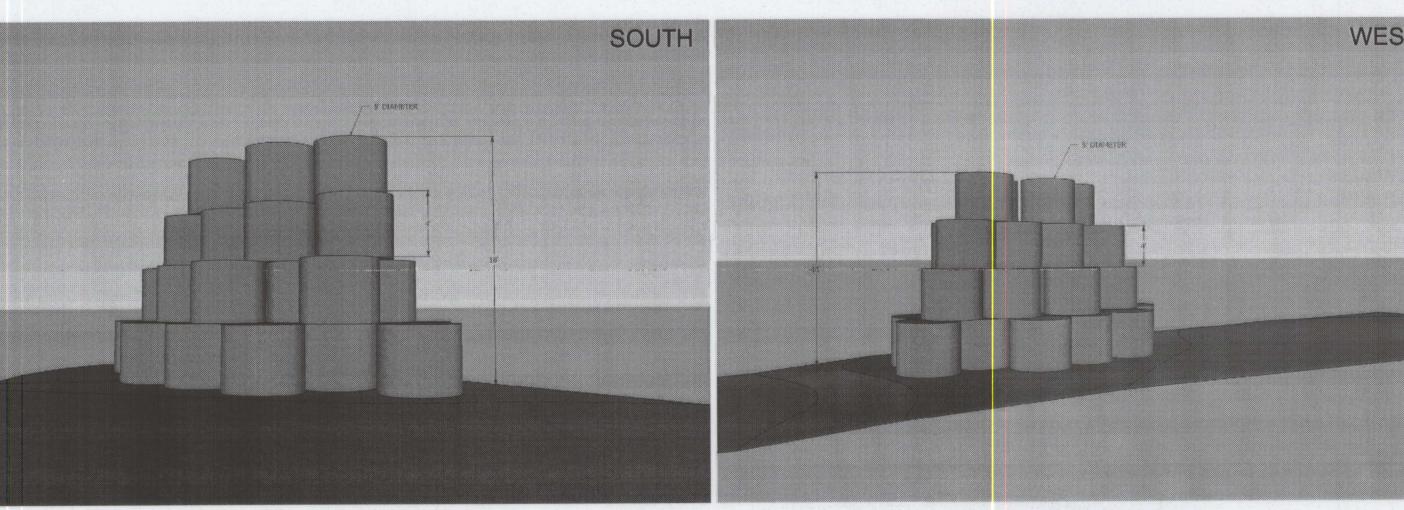






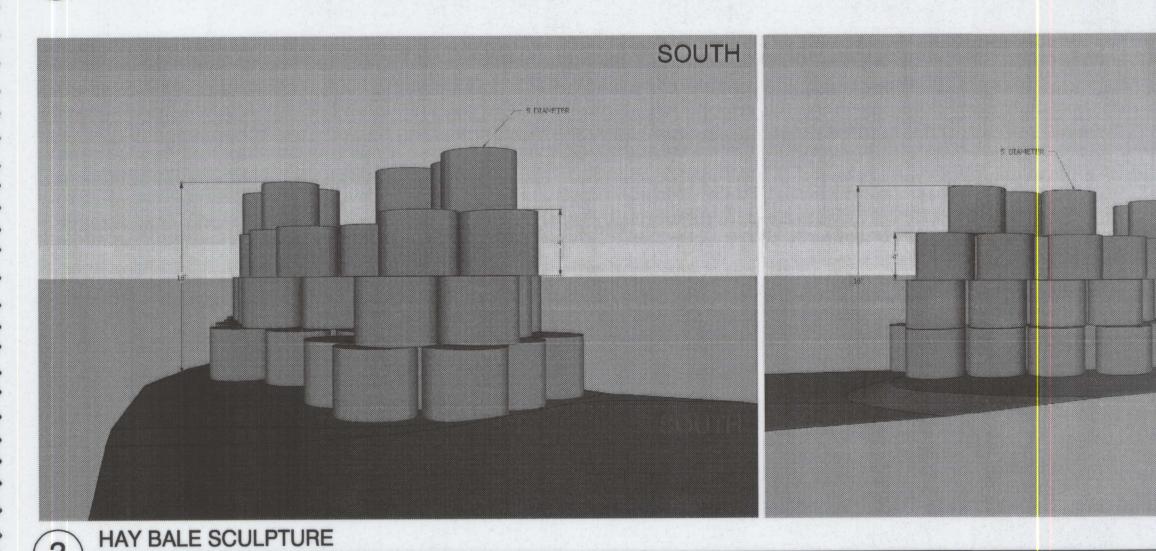


HAY BALE SCULPTURE

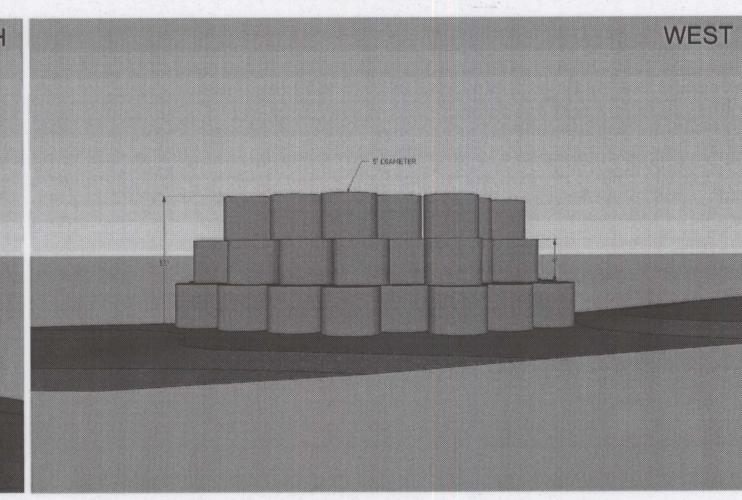


SOUTH

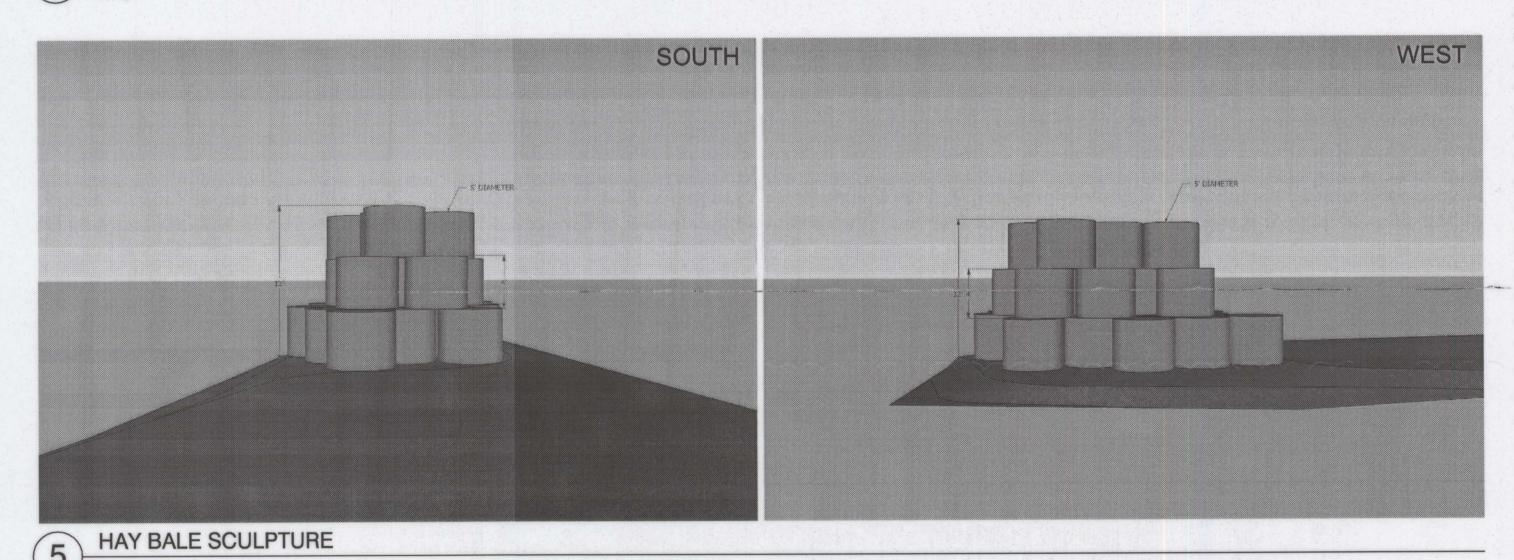
HAY BALE SCULPTURE



SOUTH



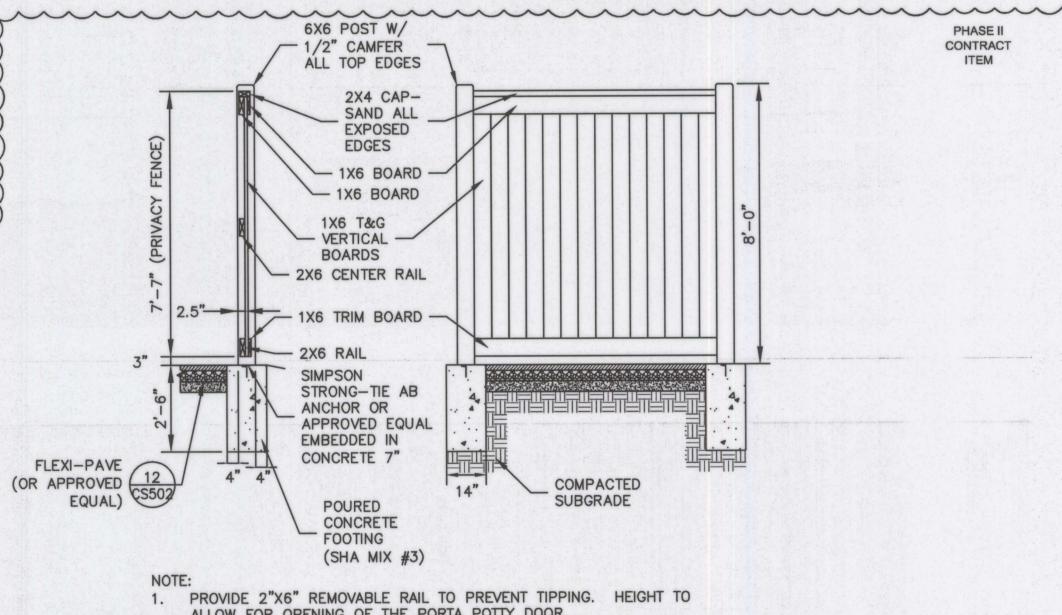
HAY BALE SCULPTURE



NOTES:

WEST

1. HAY BALES TO BE PLACED UNDER THE DIRECTION AND SUPERVISION OF THE M-NCPPC CONSTRUCTION MANAGER.



PROVIDE 2"X6" REMOVABLE RAIL TO PREVENT TIPPING. HEIGHT TO ALLOW FOR OPENING OF THE PORTA POTTY DOOR.
 FASTENERS TO BE COORDINATED WITH CONSTRUCTION MANAGER.

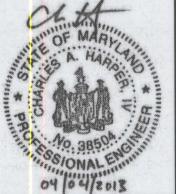
PRESSURE TREATED WOOD (#2 PINE) FOR 6"X6" POSTS. ALL OTHER WOOD TO BE CLEAR CEDAR BOARDS SISSE. REFERENCE PLAN FOR LAYOUT DIMENSIONS. GRADE TO MAINTAIN POSITIVE DRAINAGE ACROSS SLAB (1.0%)
ALLOW CLEAR SPACE ON WALK SIDE FOR ACCESS TO PORTABLE
TOILET. FENCE TO BE PROVIDED ON 3 SIDES ONLY.

PORTABLE TOILET FENCE SCREEN

| | DESIGN | | |
|--|---------------------|----------|-------------|
| A. MORTON THOMAS AND ASSOCIATES, INC. Designer's Name | AMT | 03/26/13 | AMT |
| 12750 TWINBROOK PARKWAY | Landscape Architect | Date | Checked By: |
| Address | N/A | N/A | N/A |
| ROCKVILLE, MD 20852 | Architect | Date | Checked By: |
| City/State/Zip | AMT | 03/26/13 | AMT |
| City/State/Zip | Engineer | Date | Checked By: |
| 301-881-2545 | — AMT | 03/26/13 | AMT |
| Telephone Number | Drawn by | Date | Checked By: |

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. 38504 Expiration Date 3/17/2014 CHARLES A. HARPER IV



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

| REVIEW AND APPROVAL 7-9-13 | ISSUED | FOR PR | OCUREMENT ON | | |
|----------------------------|----------|---------------|--------------|------------------|--|
| | | | REVISIONS | Site Detai | |
| | Rev. No. | Date | Description | Little Bennet | |
| Project Manager Date | | | | 24615, 24625, 24 | |
| Construction Manager | | | | Clarksburg, MD | |
| Date | | | | Clarksburg, IVID | |
| Park Manager | | | | SCALE: AS NOTED | |
| Date | | 1 2 2 2 2 2 2 | | | |

Site Details

Little Bennett Regional Park: Day Use Area - Phase I 24615, 24625, 24675 N. Frederick Road Clarksburg, MD 20871

WSSC Grid Map #234NW14

SHEET 20 of 33

CS503

PHASE II CONTRACT

ITEM

