SITE DEVELOPMENT PLAN

ST. STEPHENS ADULT DAYCARE

LOT 53

1st ELECTION DISTRICT

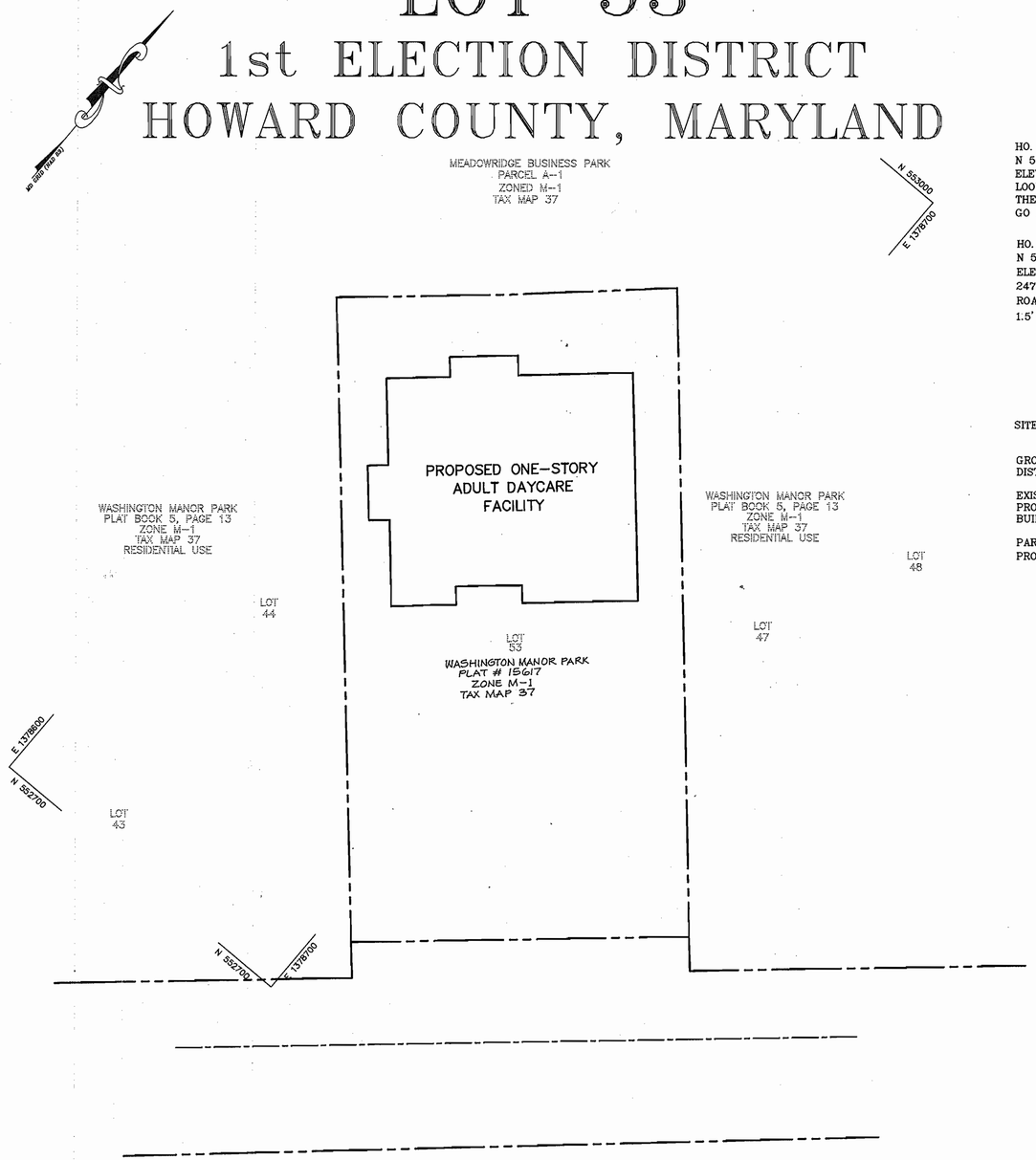
HOWARD COUNTY, MARYLAND

SHEET INDEX	
No.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GRADING, SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP
4	PROFILES AND DETAILS
5	DETAILS
6	LANDSCAPE PLAN

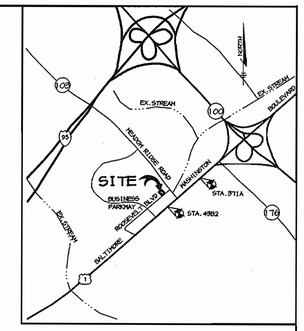
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WTH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
4. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WTH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
5. ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
6. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 43B6 AND 43B2 WERE USED FOR THIS PROJECT.
7. WATER IS PUBLIC. CONTRACT NO. 511-W
8. SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATAPSCO CONTRACT NO. 705-S
9. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST
10. A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
11. THERE ARE NO WETLANDS AFFECTING THIS PROJECT.
12. AN APFO TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM & ASSOCIATES DATED JANUARY, 2002.
13. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
14. THE BOUNDARY FOR THIS PROJECT IS PER SURVEY BY PHR&A PREFORMED IN NOVEMBER, 2001.
15. SUBJECT PROPERTY ZONED M-1 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
16. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
17. SEE DEPARTMENT OF PLANNING AND ZONING FILE NOs : F-02-107
18. THE DEVELOPMENT ENGINEERING DIVISION APPROVED A WAIVER OF DESIGN MANUAL VOLUME III, SECTION 2.6.4 ON JUNE 20, 2002, AND A WAIVER ON DESIGN MANUAL VOLUME I, CHECKLIST ITEM VII.f.3.(c)(3) WAS APPROVED ON JUNE 20, 2002.
19. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
20. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
21. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
22. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
23. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
24. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
25. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WTH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
26. PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
27. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
28. THE EXISTING TOPOGRAPHY IS TAKEN FROM SURVEY BY PHR&A DATED NOVEMBER, 2001 WITH MAXIMUM TWO FOOT CONTOUR INTERVALS.
29. A GEOTECHNICAL STUDY WAS PERFORMED BY ECS LTD DATED DECEMBER 26, 2001.
30. STORMWATER MANAGEMENT IS PROVIDED VIA ROOFTOP AND NON. ROOFTOP RUNOFF CREDITS, AND A PRIVATE BIORETENSION FACILITY AND DRY SWALE.
31. THERE ARE NO CEMETERIES OR BURIAL GROUNDS ON THE SITE TO THE BEST OF OUR KNOWLEDGE.
32. THIS PROJECT IS EXEMPT FROM THE HOWARD COUNTY FOREST CONSERVATION REQUIREMENTS BECAUSE THE PROJECT SIZE IS LESS THAN 40,000 SF. BASED ON SECTION 16. 1202 (b) (1) (i) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
33. THIS PLAN SHALL BE SUBJECT TO COMPLIANCE WITH THE FIFTH EDITION OF THE HOWARD COUNTY SUBDIVISION REGULATIONS AND THE AMENDED ZONING REGULATIONS IN ACCORDANCE WITH COUNCIL BILL 50-2001.
34. STREET LIGHT TO BE 250 (SAG) WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING 12' ARM, ARM RADIAL TO FILLET.

PROPOSED ONE-STORY ADULT DAYCARE FACILITY ELEVATION
SCALE: 1"=10'



PLAN
SCALE: 1"=20'
ROOSEVELT BOULEVARD
(HOWARD COUNTY PUBLIC ROAD)
LOCAL ROAD



VICINITY MAP
SCALE: 1" = 2000'

BENCH MARK

HO. CO. SURVEY CONTROL STATION: 43B2
N 551,655.008 E 1,378,176.941
ELEVATION: 209.665'
LOOK FOR THE C&P MANHOLE IN FRONT OF THE BASS MOTEL. MANHOLE IS IN THE ROAD (ROUTE 1) GO 15.55' SOUTHEAST, FROM THE MANHOLE TO THE MEDIAN.

HO. CO. SURVEY CONTROL STATION: 371A
N 553,315.16 E 1,379,982.12
ELEVATION: 195.728'
247' NORTH FROM ℄ ENTRANCE TO THE MAIN ROAD TO MEADOWRIDGE MEMORIAL PARK.
1.5' FROM THE FACE OF CURB.

SITE DATA

SITE ZONING:	M-1
GROSS SITE AREA:	0.43 ACRES (19,000±SF)
DISTURBED AREA:	0.43 ACRES
EXISTING USE:	VACANT
PROPOSED USE:	ADULT DAYCARE (55 CLIENTS) (ONE-STORY)
BUILDING COVERAGE:	4800 SF
PARKING REQUIRED @ 3 SP/1000 SF	15 SPACES
PROPOSED PARKING:	15 SPACES INCLUDING 1 HC SPACE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE 12/24/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 12/10/02
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 12/20/02

DATE	NO.	REVISION

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT
ST. STEPHENS ADULT DAYCARE

AREA
WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
TITLE SHEET

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

11.22.02
DATE

STATE OF MARYLAND
CHRISTOPHER J. REID
No. 19949
PROFESSIONAL ENGINEER

CHRISTOPHER J. REID #19949

DESIGNED BY :	CJR
DRAWN BY:	
PROJECT NO :	01295/ SDP1.DWG
DATE :	NOVEMBER 25, 2002
SCALE :	1" = 20'
DRAWING NO.	1 OF 6

ADDRESS CHART

LOT	ADDRESS
53	7320 ROOSEVELT BOULEVARD

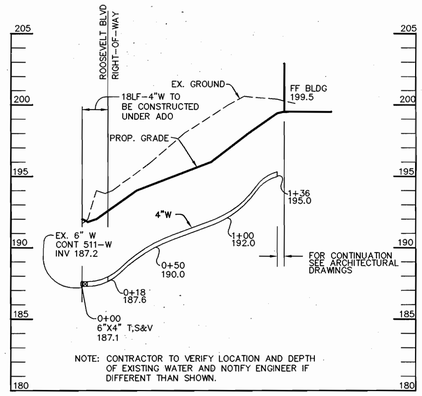
SUBDIVISION NAME -	SECT./AREA -	PARCEL -
ST. STEPHENS ADULT DAYCARE	-	375

PLAT # -	BLOCK # -	ZONING -	TAX MAP NO. -	ELECT. DIST. -	CENSUS TRACT -
15617	5	M-1	43	1st	6012.02

WATER CODE -	SEWER CODE -
B01	2153000

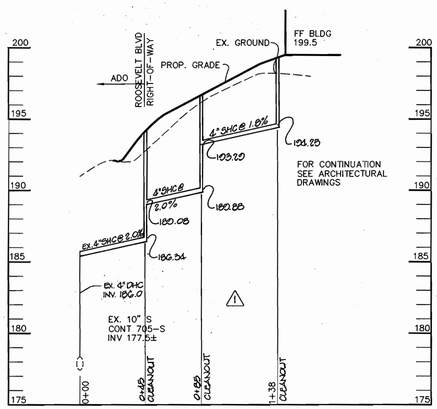
SDP-02-80

S:\project\01295\1-01Engr\Plans\SDP1.dwg, Model, 11/22/2002 11:24:19 AM, HP750C(36).pc3, Arch D - 24 x 36 in. (landscape), 1:20



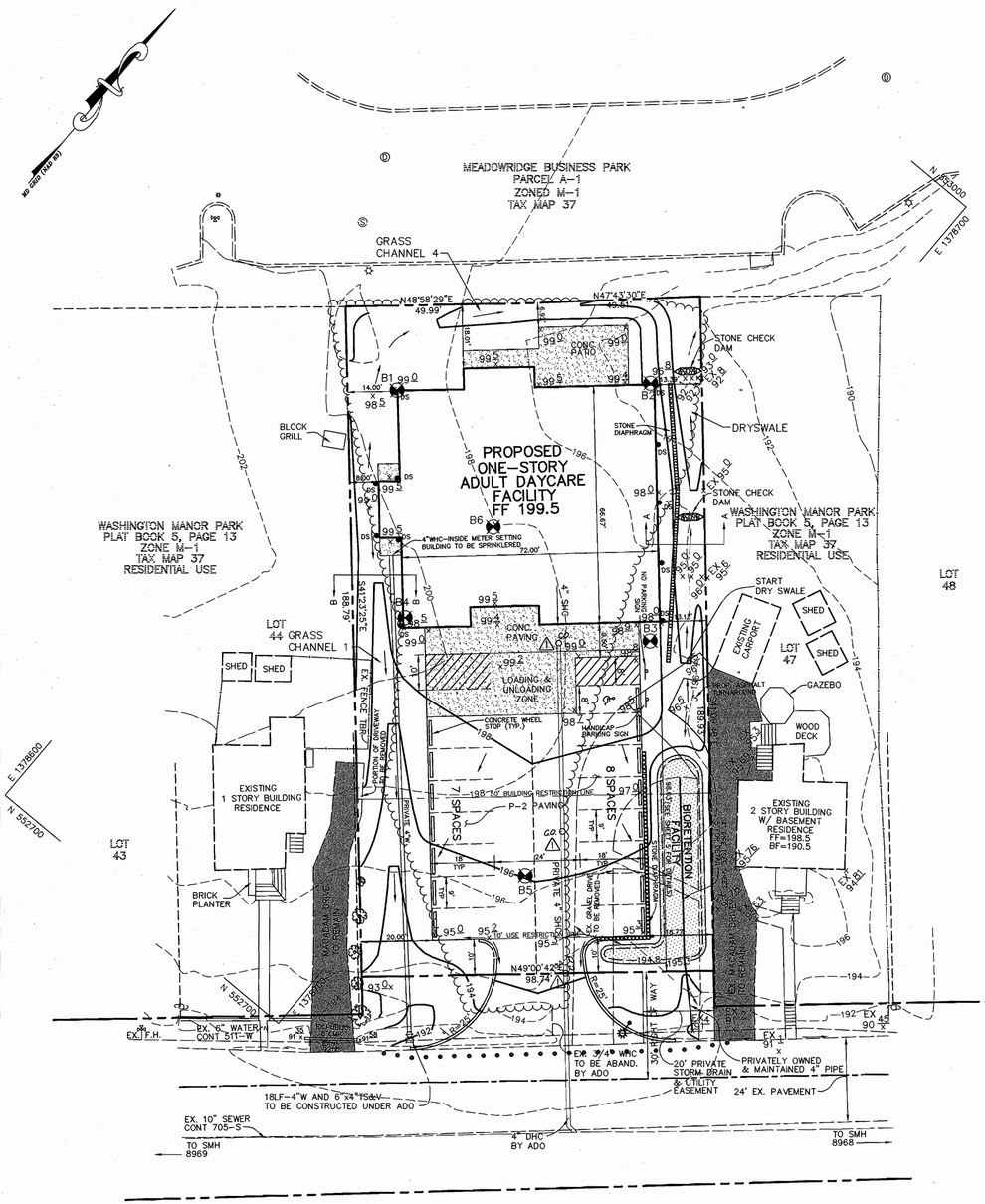
WATER PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'

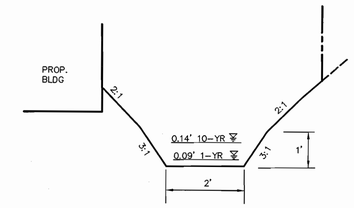


SEWER PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'

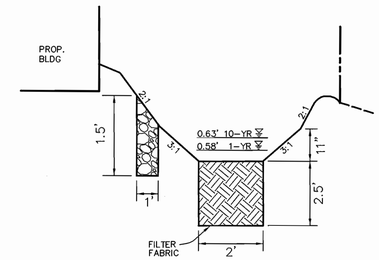


ROOSEVELT BOULEVARD
(HOWARD COUNTY PUBLIC ROAD)
LOCAL ROAD



GRASS CHANNEL 1 SECTION B-B

N.T.S.



DRY SWALE CROSS SECTION A-A

N.T.S.

TRAFFIC CONTROL SIGNAGE LEGEND

SIGN

TEMPORARY BARRIER

SHOULDER WORK
W21-5
30"x 30"

ROAD WORK AHEAD
W20-1
30"x 30"

END ROAD WORK
G20-2
60"x 24"

ADVANCED DEPOSIT ORDER AGREEMENT

DEVELOPER WILL POST A DEPOSIT TO HOWARD COUNTY, SO THAT HOWARD COUNTY CAN CONSTRUCT A NEW 4" WATER SERVICE AND A NEW 4" SHC WITHIN THE COUNTY RIGHT-OF-WAY AND ABANDON THE EXISTING 3/4" WHC.

NOTES:

1. STREET LIGHT TO BE 250 (SAG) WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING 12' ARM, ARM RADIAL TO FILLET.
2. ALL EXTERIOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS SECTION 134.
3. ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
4. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
5. * LIMITS OF STD/REV CURB AND GUTTER.
6. NO ON-SITE DUMPSTER REQUIRED, PRIVATE TRASH PICK-UP PLANNED.
7. ALL ON-SITE DRIVEWAYS ARE PRIVATE.
8. UNDERDRAIN FOR BIORETENTION SHALL BE 4" SHEDULE 40 PVC PIPE WITH 1/2" PERFORATIONS ON 6 INCH C.C.

SWM SUMMARY

THE REQUIRED VOLUMES FOR THIS PROJECT ARE LIMITED TO WQv & Rev RESPECTIVELY
WQ_v REQUIRED= 1361 CF
Re_v REQUIRED= 2180 SF (% AREA METHOD)
THE DISCONNECTION OF ROOFTOP AND NON ROOFTOP RUNOFF CREDITS WAS USED TO MEET THE Rev REQUIREMENT AND TO REDUCE THE WQv REQUIREMENT.
A DRY SWALE WAS USED TO MEET THE REMAINING WQv FOR DRAINAGE AREA #2.
THE BIORETENTION FACILITY WILL MEET THE REMAINING WQv FOR DRAINAGE AREAS 1, 3, AND 5.
* SEE CHART ON SHEET 3 FOR DRAINAGE AREA BREAKDOWN

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	12/24/02 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/10/02 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	12/20/02 DATE

DATE	NO.	REVISION
7-3-03	1	REVISED SEWER LAYOUT & ADDED CLEANOUTS

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT
ST. STEPHENS ADULT DAYCARE

AREA: WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

11.22.02
DATE

STATE OF MARYLAND CHRISTOPHER J. REID No. 19949 PROFESSIONAL ENGINEER

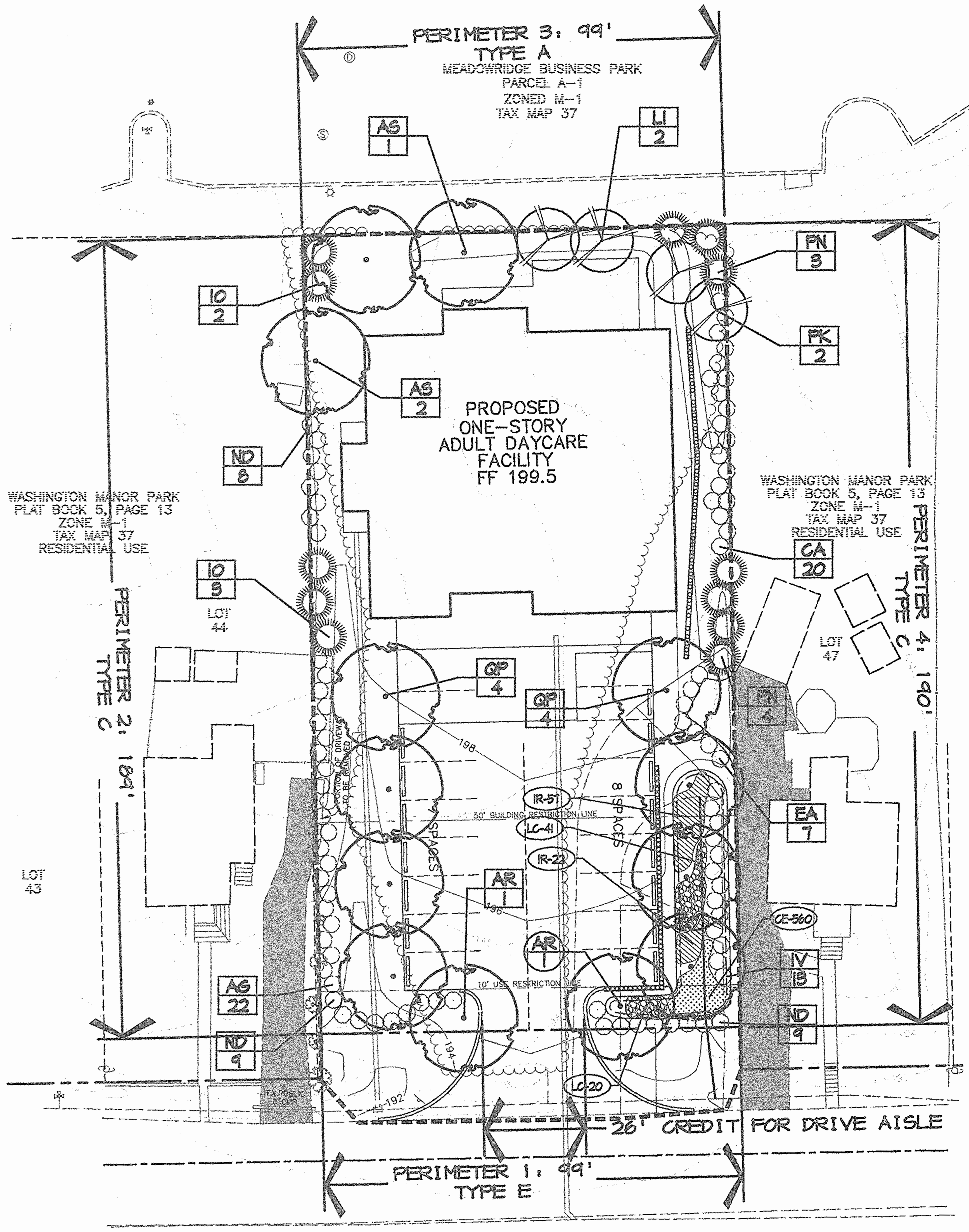
CHRISTOPHER J. REID #19949

DESIGNED BY : CJR
DRAWN BY:
PROJECT NO : 01295/SDP2.DWG
DATE : NOVEMBER 25, 2002
SCALE : 1" = 20'
DRAWING NO. 2 OF 6

APPROVAL OF THIS SITE DEVELOPMENT PLAN IS SUBJECT TO LIMITED ACCESS TO PROPOSED PARKING LOT AND DRIVEWAY ENTRANCE TO BUS AND P DESIGN VEHICLES ONLY. ANY OTHER PROPOSED USE OF THIS SITE REQUIRING ACCESS BY LARGER VEHICLES SHALL REQUIRE AN APPROVED REDLINED REVISION TO THIS PLAN.

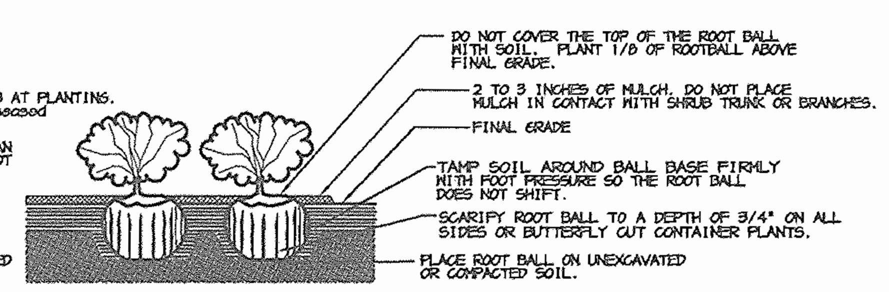
SDP-02-80

P:\projects\01295\1-0\Engr\Plans\SDP2.dwg, Model, 11/22/2002 11:25:04 AM, HP750C(36).pc3, Arch D - 24 x 36 in. (landscape), 1:20



NOTES:

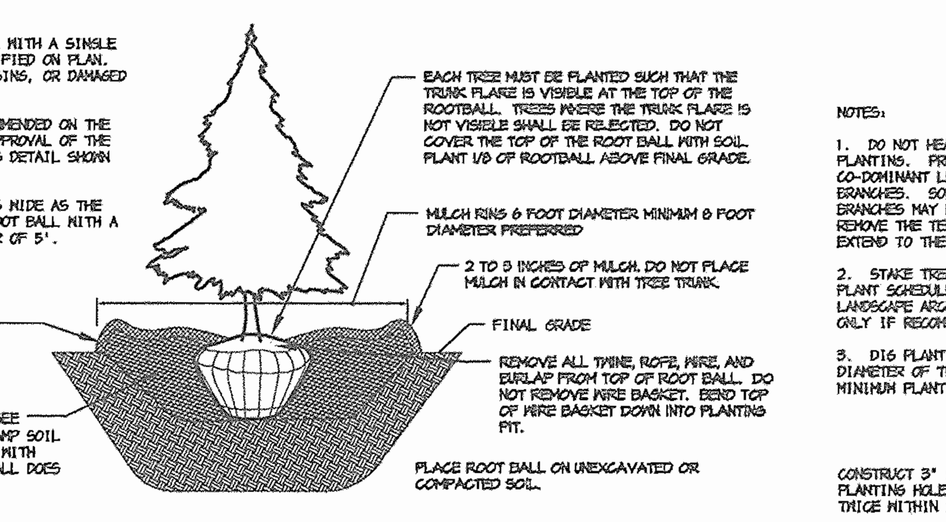
1. SEE PLANTING SPECIFICATIONS FOR PREPARATION OF PLANTING BED.
2. DO NOT HEAVILY PRUNE THE SHRUB AT PLANTING. PRUNE ONLY BROKEN, DAMAGED, OR Diseased BRANCHES.
3. DIG PLANTING PIT 12" WIDER THAN THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 18".
4. FOR B&B SHRUBS: REMOVE ALL TWINE, ROPE, AND BURLAP FROM TOP OF ROOT BALL.
5. ALL CONTAINERS SHALL BE REMOVED BEFORE INSTALLATION.



SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS
NOT TO SCALE

NOTES:

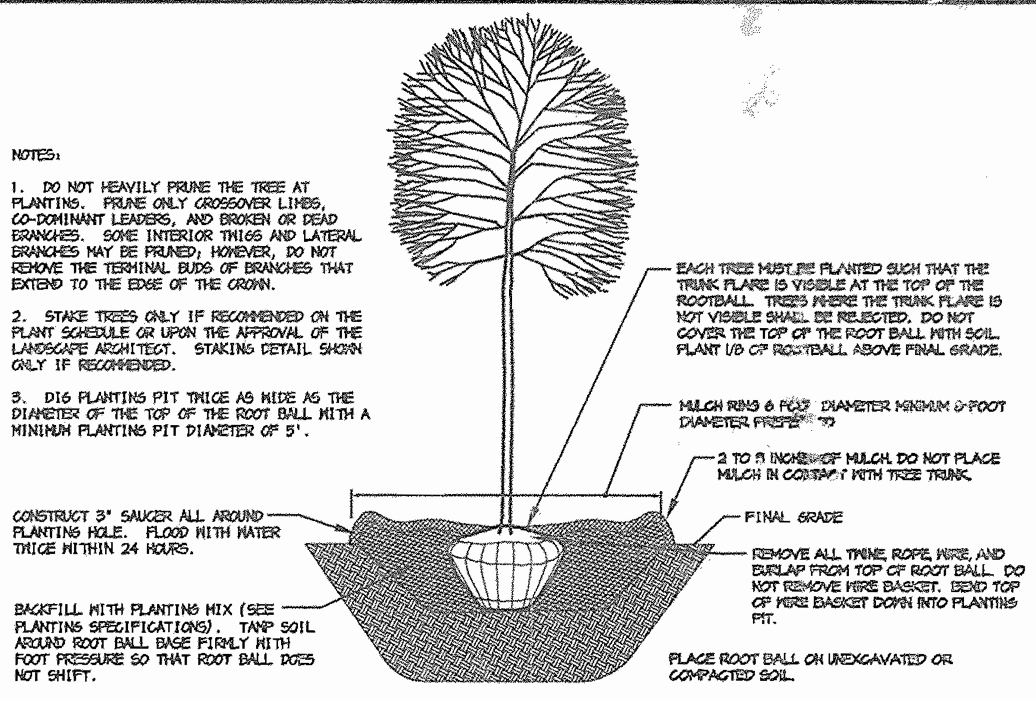
1. SELECT ONLY NURSERY STOCK WITH A SINGLE LEADER UNLESS OTHERWISE SPECIFIED ON PLAN. PLANTS WITH CO-DOMINANT, MISSING, OR DAMAGED LEADERS SHALL BE REJECTED.
2. STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.
3. DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.



EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE

NOTES:

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
2. STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.
3. DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.



DECIDUOUS B&B TREE PLANTING DETAIL
NOT TO SCALE

PLANT LIST

SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
AS	3	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	2½" - 3" Cal.	B & B	Full Crown Central Leader
AR	2	Acer rubrum 'October Glory' October Glory Red Maple	2½" - 3" Cal.	B & B	Full Crown Central Leader
GT	4	Gleditsia tri. inermis 'Shademaster' Shademaster Locust	2½" - 3" Cal.	B & B	Full Crown Central Leader
QP	4	Quercu phellos Willow Oak	2½" - 3" Cal.	B & B	Full Crown Central Leader
IO	5	Ilex opaca American Holly	6' - 8' Ht.	B & B	Full Crown Central Leader
PN	7	Pinus nigra Austrian Pine	6' - 8' Ht.	B & B	Full Form Central Leader
LI	2	Lagerstromia indica 'Tuscarora' Tuscarora Crapemyrtle	1½"-2" Ht.	B & B	Full Crown Central Leader
PK	2	Prunus serrulata 'Kwanzan' Kwanazan Cherry	1½"-2" Ht.	B & B	Full Crown Central Leader
AG	22	Abelia grandiflora 'Edward Gaucher' Edward Gaucher Abelia	24" - 30" Ht.	Cont.	4' o.c.
CA	20	Clethra alnifolia 'Hummingbird' Hummingbird Sweet Pepperbush	18" - 24" Sp.	Cont.	4' o.c.
EA	7	Euonymus alatus Burning Bush	24" - 30" Ht.	Cont.	4' o.c.
IV	13	Ilex verticilata 'Red Sprite' Winterberry	18" - 24" Sp.	Cont.	4' o.c.
ND	26	Nandina domestica 'Gulf Stream' Gulf Stream Nandina	18" - 24" Sp.	Cont.	4' o.c.

BIORETENTION PLANT LIST

KEY	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	SPACING	ZONE*
CE	560	CAREX ELATA 'AUREA'** BOWLES GOLDEN SEDGE	2" PEAT POT	CONT.	6" SPACING	(1,2),3
IR	79	IRIS VERSICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 GAL.	CONT.	18" SPACING	(1,2),3
LC	61	LOBELIA CARDINALIS CARDINAL FLOWER	1 GAL.	CONT.	18" SPACING	1,(2,3),4

BIORETENTION PLANT LIST NOTES:

* HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.

** ALSO KNOWN CAREX STRICTA 'AUREA'

(XX-XX) BIORETENTION PLANTING REQUIREMENT

(XX/XX) PARKING LOT LANDSCAPE REQUIREMENT

[XX/XX] PERIMETER LANDSCAPE REQUIREMENT

PLANTING LEGEND

PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PROP. SHRUB	
EXISTING SHADE TREE	
EXISTING TREELINE	

PLANTING SPECIFICATIONS

1. Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.

2. All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.

3. Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.

4. Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

5. Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

6. Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.

7. Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or XCupressacyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.

8. Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.

9. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.

10. Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.

11. All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.

12. Positive drainage shall be maintained on planting beds (minimum 2 percent slope).

13. Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.

14. Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.

15. Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.

16. Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid dessication.

17. Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.

18. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

	ADJACENT TO PERIMETER PROPERTIES			ADJACENT TO ROADWAYS
PERIMETER	2	3	4	1
LANDSCAPE TYPE	C	A	C	E
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±189'	±99'	±190'	±99'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	YES ±26'
LINEAR FEET REMAINING	±189'	±99'	±190'	±73'
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	 5 10 -	 2 - -	 5 10 -	 2 - 18
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SMALL FLOWERING TREES SHRUBS	 6 5 - 30	 1 - 2 -	 3 7 2 40	 2 - - 18

SUBSTITUTION NOTES:

PERIMETER 2: (1) SHADE TREES AND (30) SHRUBS WERE SUBSTITUTED FOR (5) EVERGREEN TREES.
PERIMETER 3: (2) FLOWERING TREE WERE SUBSTITUTED FOR (1) SHADE TREE.
PERIMETER 4: (2) FLOWERING TREES AND (40) SHRUBS WERE SUBSTITUTED FOR (2) SHADE TREES AND (3) EVERGREEN TREES.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

PARKING LOT	1
NUMBER OF PARKING SPACES	15
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	1
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	 1 -
NUMBER OF ISLANDS PROVIDED	1

GENERAL NOTES:

1) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

2) FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED with the GRADING PERMIT IN THE AMOUNT OF $8,940.
13 SHADE TREES @ $300 = $3,900
12 EVERGREEN TREES @ $150 = $1,800
4 FLOWERING TREES @ $150 = $600
88 SHRUBS @ $30 = $2,640

3) THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.

4) CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

5) ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

6) ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.

7) AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.

8) NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.

9) PRIOR TO CONSTRUCTION, THE CONTRACTOR AND DEVELOPER WILL COORDINATE WITH THE ADJACENT PROPERTY OWNER, LOT 47, REGARDING THE PRESERVATION, REPLACEMENT, OR SUBSTITUTION OF EXISTING VEGETATION DIRECTLY ADJACENT TO THE DRIVEWAY ON LOT 47.

DEVELOPER'S/BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE 11-25-02 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR 12/24/02 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION 12/10/02 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 12/20/02 DATE

DATE	NO.	REVISION

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT
ST. STEPHENS ADULT DAYCARE

AREA
WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
LANDSCAPE PLAN

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

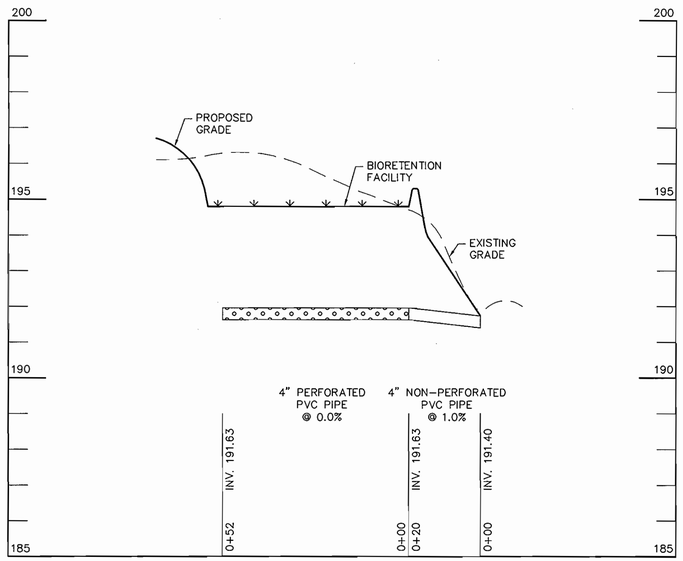
11-25-02
DATE
BOARD OF EXAMINERS OF LANDSCAPE ARCHITECTS 830 DAVID DOWS STATE OF MARYLAND

DAVID T. DOWS R.L.A.#830

DESIGNED BY : KT
DRAWN BY: GTH
PROJECT NO : 01295/ LSCP1.DWG
DATE : NOVEMBER 25, 2002
SCALE : 1" = 20'
DRAWING NO. 6 OF 6

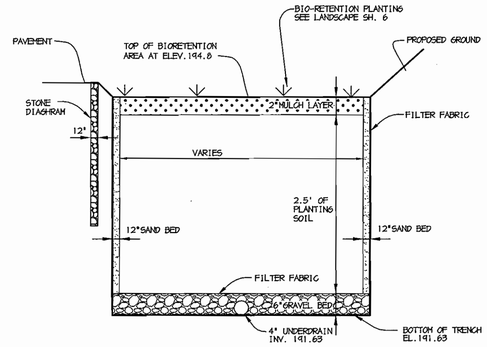
SDP-02-80

P:\project\01295\1-0\Engr\Plans\LSCP1.dwg, Model, 11/22/2002 11:31:22 AM, HP750C(36).pc3, Arch D - 24 x 36 in



BIORETENTION 4" UNDERDRAIN PROFILE

SCALE :
HOR.-1"=20'
VERT.-1"=2'



BIORETENTION SECTION

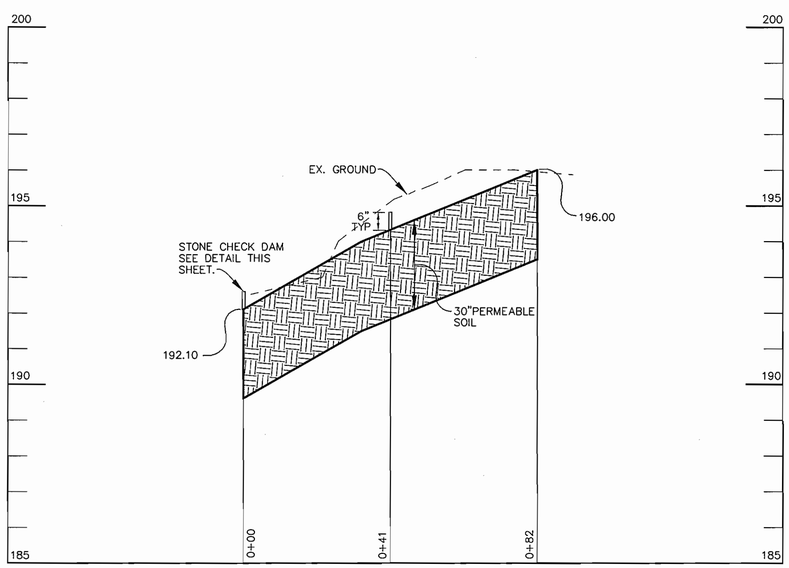
SCALE :
HOR.-1"=10'
VERT.-1"=1'

Table: Materials Specifications for Bioretention

MATERIAL	SPECIFICATIONS	SIZE	NOTES
PLANTINGS	SEE LANDSCAPE PLAN SHEET	N/A	
PLANTING SOIL (2.5' TO 4' DEEP)	SAND 35 – 60 % SILT 30 – 55 % CLAY 10 – 25 %	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM, OR LOAM
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM
STONE DIAGHRAM AND CURTAIN DRAIN	PEA GRAVEL: ASTM-D-448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: No. 6 STONE: 2" to 5"	
GEOTEXTILE	CLASSE "C"-APPARENT OPENING SIZE (ASTM-D-4751), GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4822)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY.
UNDERDRAIN GRAVEL	AASHTO M-43	0.375" to 0.75"	
UNDERDRAIN PIPE	F 758, TYPE PS 28 OR AASHTO M-278	4" RIGID SCHEDULE 40 PVC	1/2" PERF. @ 6"O/C, 4 HOLES PER ROW
SAND	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRASTONE #10 ARE NOT ACEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITY

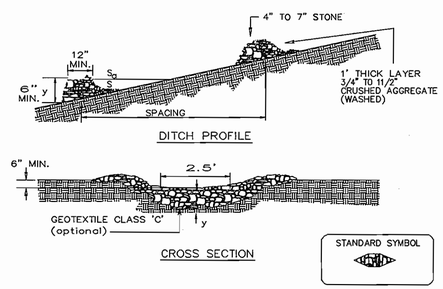
1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



DRY SWALE PROFILE

SCALE :
HOR.-1"=20'
VERT.-1"=2'

DETAIL 7 – STONE CHECK DAM



Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2, Standards and Specifications for Temporary Swale.
2. The check dam shall be constructed of 4"-7" stone. The stone shall be placed so that it completely covers the width of the channel and keyed into the channel banks.
3. The top of the check dam shall be constructed so the the center is approximately 6" lower than the outer edges, forming a weir that water can flow across.
4. The maximum height of the check dam at the center shall not exced 8".
5. The upstream sideof the check dam shall be lined with approximately 1" of 3/4" to 11/2" crushed aggregate.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE B – 8 – 5	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

TABLE: MATERIALS SPECIFICATIONS FOR DRY SWALE

MATERIAL	SPECIFICATIONS	SIZE	NOTES
DRY SWALE SOIL	USCD; ML, SM, SC	N/A	SOIL WITH A HIGHER PERCENT ORGANIC CONTENT IS PREFERRED
DRY SWALE SAND	ASTM C-33 FINE AGGREGATE CONCRETE SAND	0.02" TO 0.04"	
CHECK DAM	SEE DETAIL THIS SHEET		
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN	ASTM-D-448	VARIES: NO. 6 OR 1/8" TO 3/8"	USE CLEAN BANK-RUN GRAVEL
UNDERDRAIN GRAVEL	AASHTO M-43	0.25" TO 0.75"	
UNDERDRAIN	F 758, Type PS 28 or AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC	1/2" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES
FILTER FABRIC	CLASS "C" – APPARENT OPENING SIZE (ASTM-D-4751) GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	
RIP RAP	PER COUNTY CRITERIA; IF NONE GIVEN, USE MSHA STANDARDS AND SPECS SECTION 905	SIZE PER COUNTY DOT REQUIREMENTS BASED ON 10-YEAR DESIGN FLOWS	

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED DRYSWALE

1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
2. THE OPEN CHANNEL SHALL BE MOWED AS NEEDED DURING THE GROWING SEASON TO MAINTAIN MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL WQv.

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE 11·25·02

BY THE ENGINEER :

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

ENGINEER CHRISTOPHER J. REID #19949 — DATE 11.22.02

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 12/4/02

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 12/4/02

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 12/24/02

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/10/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 12/20/02

DATE	NO.	REVISION

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT
ST. STEPHENS ADULT DAYCARE

AREA
WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
DETAILS

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

11.22.02
DATE

STATE OF MARYLAND — CHRISTOPHER J. REID — No. 19949 — PROFESSIONAL ENGINEER

CHRISTOPHER J. REID #19949

DESIGNED BY :	CJR
DRAWN BY:	
PROJECT NO :	01295/ SDP5.DWG
DATE :	NOVEMBER 25, 2002
SCALE :	1" = 20'
DRAWING NO.	5 OF 6

SDP-02-80

P:\project\01295\1-01Engr\Plans\SDP5.dwg, Model, 11/22/2002 11:29:20 AM, HP750C(36).pc3, Arch D - 24 x 36 in. (landscape), 1:20

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

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

I. This practice is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.

II. 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 the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimentation Station.

II. 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 the appropriate approval authority. 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 1½" in diameter.

II. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

III. Where 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 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:
1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

1. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes to amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority may be used in lieu of natural topsoil.

II. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

II. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

III. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. 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.

IV. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments : Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding : For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation : Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments : In lieu of soil test recommendations, use one of the following schedules :

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options :

1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.

2) Use sod.

3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching : Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Maintenance : Inspect all seeded areas and make needed repairs, replacements and reseedings.

STANDARD SEDIMENT CONTROL NOTES

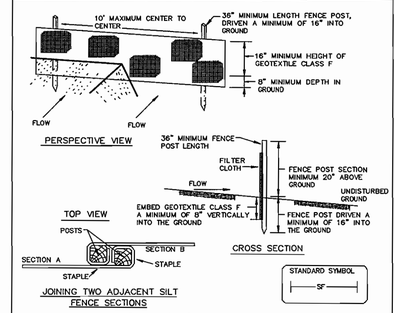
1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

TOTAL AREA OF SITE	0.43 ACRES
AREA DISTURBED	0.43 ACRES
AREA TO BE ROOFED OR PAVED	0.21 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.22 ACRES
TOTAL CUT	400 CU. YARDS
TOTAL FILL	600 CU. YARDS

OFFSITE WASTE/BORROW LOCATION TO HAVE AN ACTIVE GRADING PERMIT

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

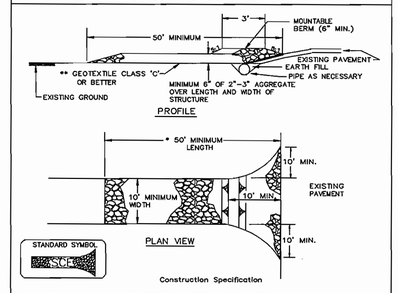
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

30.0 - DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS

1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
2. VEGATATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

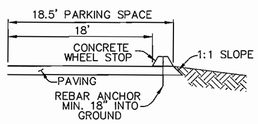
PERMANENT METHODS

1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
2. TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES

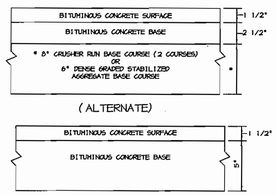
1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION, USDA-ARS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 30 - 1	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONCRETE WHEEL STOP LOCATION PLAN

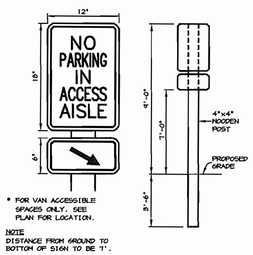
NO SCALE



HOWARD COUNTY DESIGN MANUAL VOLUME IV- STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

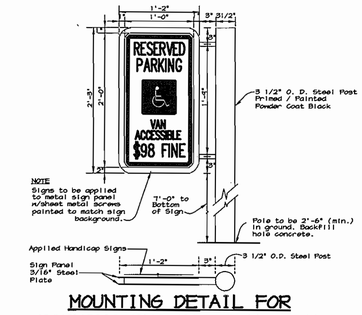
P-2 PAVING

NO SCALE



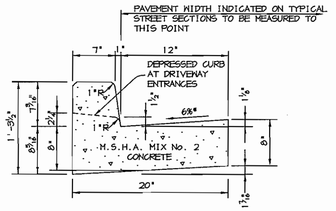
ACCESS AISLE SIGN

NO SCALE



MOUNTING DETAIL FOR PARKING RESTRICTION SIGN

NO SCALE

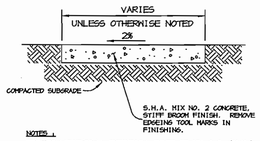


HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01).

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER

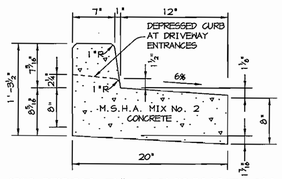
NO SCALE



NOTES :
PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.)
PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5' MAX. SQUARES.

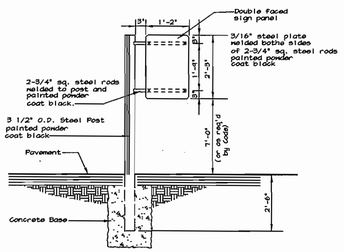
SIDEWALK DETAIL

NO SCALE



REVERSE 7" COMBINATION CURB AND GUTTER

NO SCALE



POST & SIGN PANEL DETAIL FOR PARKING RESTRICTION SIGN

NO SCALE

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE 11-25-02

BY THE ENGINEER :

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

ENGINEER CHRISTOPHER J. REID #19949 — DATE 11.22.02

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 12/4/02

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 12/4/02

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 12/24/02

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/10/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 12/20/02

DATE	NO.	REVISION

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT: ST. STEPHENS ADULT DAYCARE

AREA: WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: NOTES AND DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

11.22.02
DATE

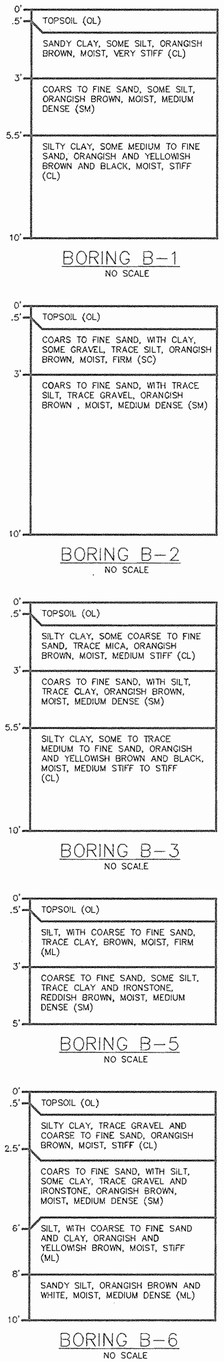
STATE OF MARYLAND — CHRISTOPHER J. REID — No. 19949 — PROFESSIONAL ENGINEER

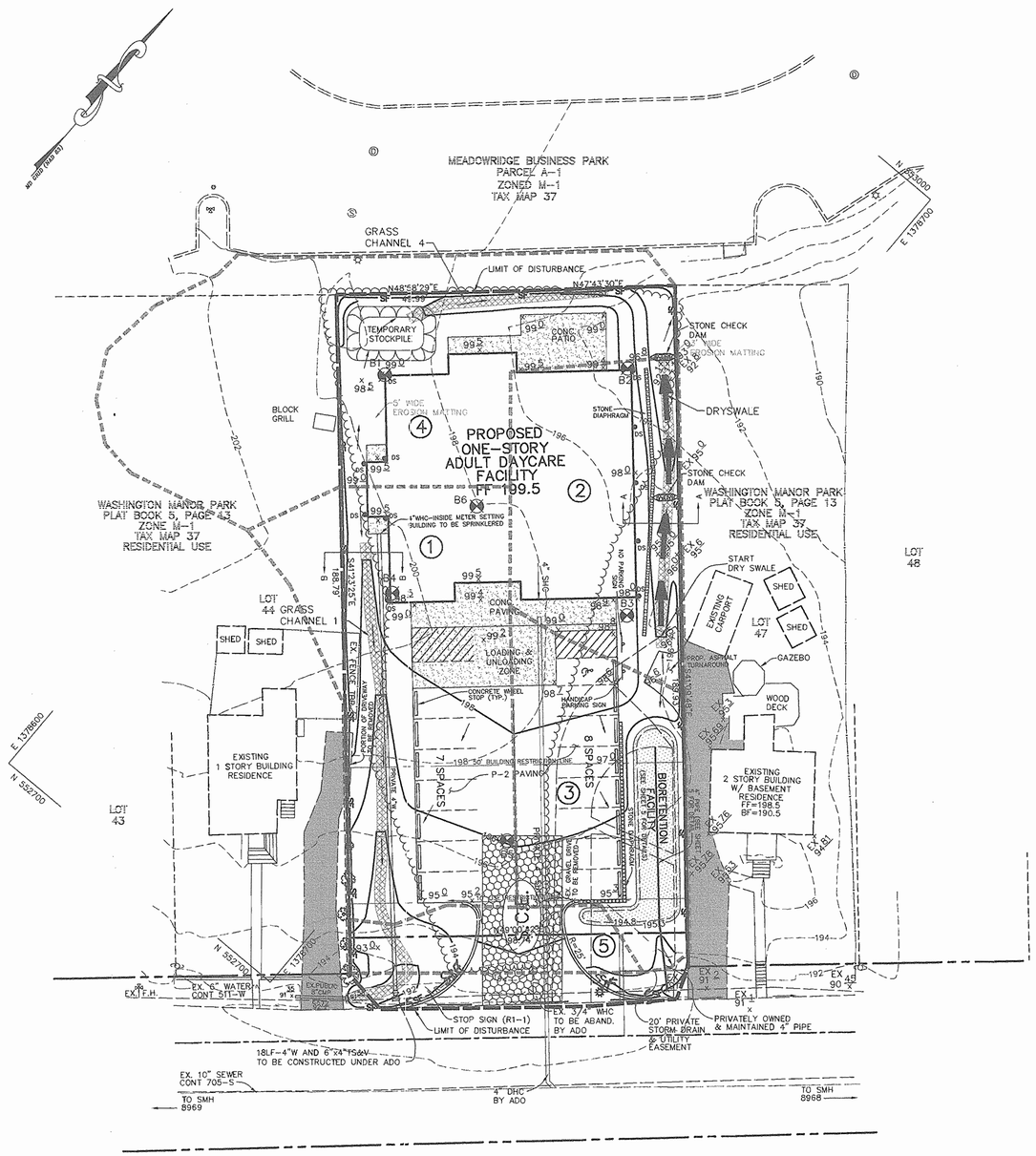
CHRISTOPHER J. REID #19949

DESIGNED BY : CJR	
DRAWN BY:	
PROJECT NO : 01295/SDP4.DWG	
DATE : NOVEMBER 25, 2002	
SCALE : 1" = 20'	
DRAWING NO. 4 OF 6	

SDP-02-80

J:\project\01295\1-0\Engr\Plans\SDP4.dwg, Model, 11/22/2002 11:28:07 AM, HP750C(35).pc3, Arch D - 24 x 36 in.





ROOSEVELT BOULEVARD
(HOWARD COUNTY PUBLIC ROAD)
LOCAL ROAD

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL SCE AND SILT FENCE.(2 DAYS)
3. WITH PERMISSION OF HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, BEGIN CLEARING, ROUGH GRADING AND BEGIN BUILDING CONSTRUCTION.
4. AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL UTILITIES INCLUDING SEWER AND WATER. (3 WEEKS)
5. INSTALL CURB & GUTTER THEN PAVE. (1 WEEK)
6. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.(2 DAYS)
7. COMPLETE BUILDING CONSTRUCTION, FINE GRADING, LANDSCAPING, LIGHTING AND SIDEWALKS.(3 MONTHS)
8. INSTALL BIORETENTION FACILITY AND DRY SWALE ONCE AREAS DRAINING TO FACILITIES ARE STABILIZED. (3 DAYS)
9. UPON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

LEGEND

DRAINAGE AREA DIVIDE (FOR SWM SWALES)

SF——SF——SF SILT FENCE

LIMIT OF DISTURBANCE

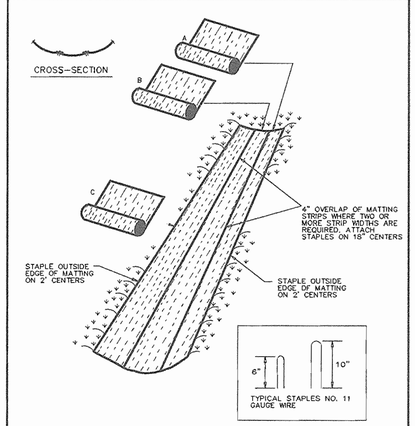
(1) DRAINAGE AREA DESIGNATION

ALL SOIL ARE TYPE 'C', SED, SANDY CLAYEY LAND.

DRY SWALE

EROSION CONTROL MATTING

DETAIL 30 – EROSION CONTROL MATTING



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".

2. Staple the 4" overlap in the channel center using an 18" spacing between staples.

3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.

4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.

5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SWM SUMMARY

THE REQUIRED VOLUMES FOR THIS PROJECT ARE LIMITED TO WQv & Rev RESPECTIVELY
WQ_v REQUIRED= 1361 CF
Re_v REQUIRED= 2180 SF (% AREA METHOD)
THE DISCONNECTION OF ROOFTOP AND NON ROOFTOP RUNOFF CREDITS WAS USED TO MEET THE Rev REQUIREMENT AND TO REDUCE THE WQv REQUIREMENT.
A DRY SWALE WAS USED TO MEET THE REMAINING WQv FOR DRAINAGE AREA #2.
THE BIORETENTION FACILITY WILL MEET THE REMAINAING WQv FOR DRAINAGE AREAS 1, 3, AND 5.

DRAINAGE AREA SUMMARY

#	AREA	RCN	Tc*	Q_1	Q_{10}	WQv	Rev	PROVIDED MANAGEMENT FOR WQv AND Rev
1	0.159 AC	94	0.1 HR	0.4 CFS	0.9 CFS	415 CF	675 SF	DISCONNECTION OF ROOFTOP AND NON-ROOFTOP CREDIT AND BIORETENTION
2	0.094 AC	94	0.1 HR	0.3 CFS	0.5 CFS	266 CF	433 SF	DISCONNECTION OF ROOFTOP AND NON-ROOFTOP CREDIT AND DRY SWALE
3	0.097 AC	94	0.1 HR	0.3 CFS	0.5 CFS	296 CF	482 SF	DISCONNECTION OF ROOFTOP AND NON-ROOFTOP CREDIT AND BIORETENTION
4	0.218 AC	94	0.1 HR	0.6 CFS	1.3 CFS	266 CF	433 SF	DISCONNECTION OF ROOFTOP AND NON-ROOFTOP CREDIT AND BIORETENTION
5	0.034 AC	94	0.1 HR	0.1 CFS	0.2 CFS	29 CF	47 SF	BIORETENTION

*MINIMUM Tc ASSUMED

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER _____ DATE 11.25.02

BY THE ENGINEER :

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

ENGINEER CHRISTOPHER J. REID #19949 DATE 11.22.02

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE DATE 12/4/02

THIS DEVELOPMENT PLAN IS [illegible] FOR SOIL EROSION AND SEDIMENT CONTROL [illegible] HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE 12/4/02

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE 12/24/02

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 12/17/02

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 12/20/02

DATE	NO.	REVISION

OWNER: MEADOWRIDGE LOTS 4546LLC
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041-0417
410-465-4244

DEVELOPER: ST. STEPHENS ECONOMIC DEVELOPMENT CORPORATION
7741 MAYFIELD AVENUE
ELKRIDGE, MD 21075

PROJECT
ST. STEPHENS ADULT DAYCARE

AREA WASHINGTON MANOR PARK
ZONED M-1 LOT 53
TAX MAP 43, BLOCK 5
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

11.22.02
DATE

STATE OF MARYLAND CHRISTOPHER J. REID PROFESSIONAL ENGINEER

CHRISTOPHER J. REID #19949

DESIGNED BY : CJR
DRAWN BY:
PROJECT NO : 01295/SDP3.DWG
DATE : NOVEMBER 25, 2002
SCALE : 1" = 20'
DRAWING NO. 3 OF 6

SDP-02-80

P:\projects\01295\1-01Eng\Plans\SDP3.dwg, Model, 11/22/2002 11:26:11 AM, HP750C(36).pc3, Arch D - 24 x 36 in. (landscape), 1:20