

HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES: PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS, PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING. APPLY 400 LBS, PER ACRE 30-0-0 URFAFORM FERTILIZER (9 LBS /1000 SO.FT.). 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS:/1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30. AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FÉSCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28. PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (3) -SFFD WITH 60 LBS. /ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28. PROTECT SITE BY APPLYING 2 TONS PER ACRÉ OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

HOWARD SOIL CONSERVATION DISTRICT 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 NAY 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 MOST CURRENT "MARYLAND" STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". AND REVISIONS THERETO.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER 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 THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, 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 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT 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:
 - ACRES AREA DISTURBED: 1.4 0.3 ACRES AREA TO BE ROOFED OR PAVED AREA TO BE VEGITATIVELY STABILIZED 0.3
 TOTAL CUT
 TOTAL FILL 3,000 CU. YDS. _ CU. YDS.

TOTAL WASTE/BORROW AREA LOCATION

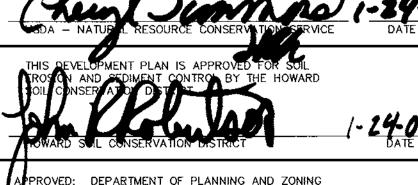
DEVELOPERS CERTIFICATE

- 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 CONTROL 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 CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE ENGINEER'S CERTIFICATE I CERTIFY THAT THIS PLAN FOR EROSION AND SECIMENT CONTROL REPRESENTS PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWEDGE OF AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE HE NATURAL RESOURCE CONSERVATION SERVICE.

JACOB HIKMA PRINTED NAME OF ENGINEE THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL

REQUIREMENTS.



STANDARD AND SPECIFICATIONS FOR TOPSOIL

<u>DEFINITION</u>

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

- 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
- 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.
- 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

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATION. 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 EXPERIMENTAL STATION. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

- 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 CON-TRASTING 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 1/2" IN
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED
- WHERE THE SUBSOIL IS FITHER 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
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
- 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 topsoils 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

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL

- ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS
- - 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
- MAINTAINED, ALBEIT 4" 8" HIGHER IN ELEVATION

DISSIPATION OF PHYTO-TOXIC MATERIALS.

- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 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
- 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:
- 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 SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE
- b. COMPOSTED SLUDGE SHALL CONTAIN AT LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, 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
- iv. 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.

SEQUENCE OF CONSTRUCTION

OBTAIN GRADING PERMIT FINSTALL ALL SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE APPROVED PLAN. (2 DAYS) EXCAVATE AND CONSTRUCT THE UNDERGROUND SWM AND STORMDRAIN SYSTEM. PROVIDE INLET PROTECTION AS INLETS ARE ONSTRUCTED. (15 DAYS)

BRING SITE TO ROUGH GRADE EXCEPT FOR EXISTING PAVED ACCESS DRIVE AND BEGIN EXCAVATION FOR FOUNDATION. (5 DAYS) FINE GRADE AND PAVE REAR PARKING LOT. (5 DAYS) **NOTE** CONTRACTOR MUST PROVIDE STABILIZED ACCESS AND PARKING FOR THE CHURCH AT ALL TIMES DURING CONSTRUCTION

6. BEGIN BUILDING CONSTRUCTION AND INSTALLATION OF UTILITIES. (3 WEEKS) CONSTRUCT REMAINING CURB AND GUTTER AND PAVE REMAINDER OF SITE. (4 DAYS)

INSTALL CONCRETE WALKS AND OTHER SITE AMENITIES. (5 DAYS) COMPLETE PLANTINGS OF TREES AND SHRUBS. (2 DAYS) STABILIZE REMAINING AREAS. (1 DAY)

10. REMOVE SEDIMENT CONTROL DEVICES WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR. (1 DAY)

UNDERGROUND STORMWATER MANAGEMENT SYSTEM CONSTRUCTION SPECIFICATIONS

1. INSTALLATION OF THE UNDERGROUND SWM FACILITY SHALL BE IN ACCORDANCE WITH ASTM D2321 WITH THE EXCEPTION THAT THE MINIMUM COVER SHALL BE 1.0' IN ACCORDANCE WITH THE MANUFACTURER'S STANDARDS.

TEMPORARY DUST CONTROL MEASURES

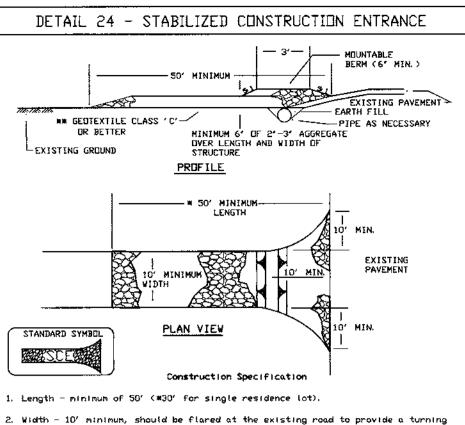
1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT

2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

TILLAGE - TO ROUGHTN 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 APCED ABOUT 12" APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

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 BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED O CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALT 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.



. Geotextile fabric (filter cloth) shall be placed over the existing ground prior

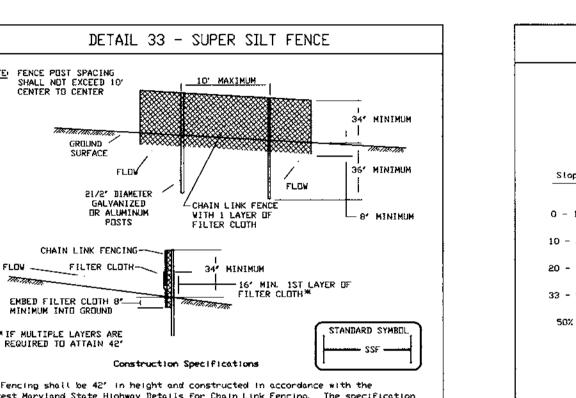
equivalent shall be placed at least 6' deep over the length and width of the

to placing stone. **The plan approval authority may not require single family Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete

5. Surface Water - ail 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 nountable 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.

. 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. PAGE HARYLAND DEPARTMENT DE ENVIRONMENT F - 17 - 3 WATER HANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE



. Fencing shall be 42' in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42' fabric and 6' length 2. Chain link fence shall be fastened securely to the fence posts with wire ties.

The lower tension wire, brace and truss rods, drive anchors and post caps are not 3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24° at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8' into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

Maintenance shall be performed as needed and silt buildups removed when 'bulges develop in the silt fence, or when silt reaches 50% of fence height 7. Filter cloth 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 Tensile Strength 50 lbs/in (min.) Test: MSMT 509 20 lbs/in (min.) Tensile Modulus

0.3 gal/ft*/minute (max.) Test: MSMT 322 Filtering Efficiency 75% (min.) U.S. DEPARTMENT DF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT VATER MANAGEMENT ADMINISTRATION PAGE SUIL CONSERVATION SERVICE

ROUTINE MAINTENANCE

FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER ALL MAJOR STORMS.

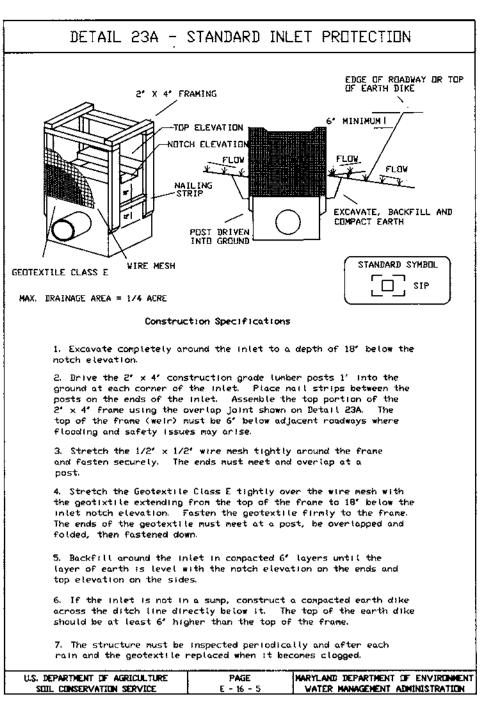
TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES PER YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND ACCESS SHALL BE MOWED AS NEEDED.

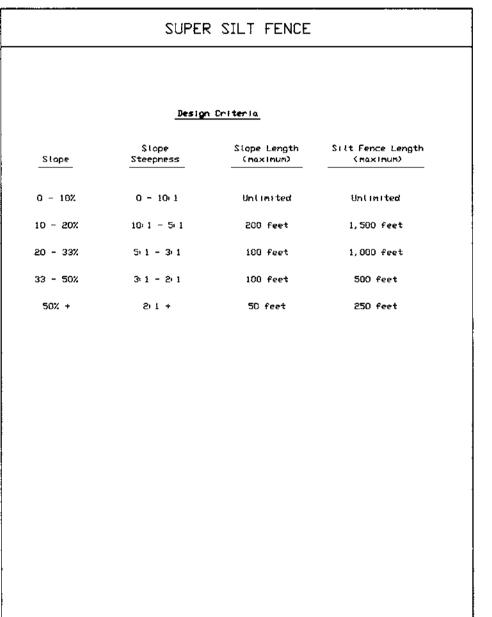
VISUAL SIGNS OF EROSION IN THE POND, RIP-RAP, AND/OR GABION OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

THE DAM EMBANKMENT SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS OF THE POND SHALL BE INSPECTED DURING ALL ROUTINE

OWNER

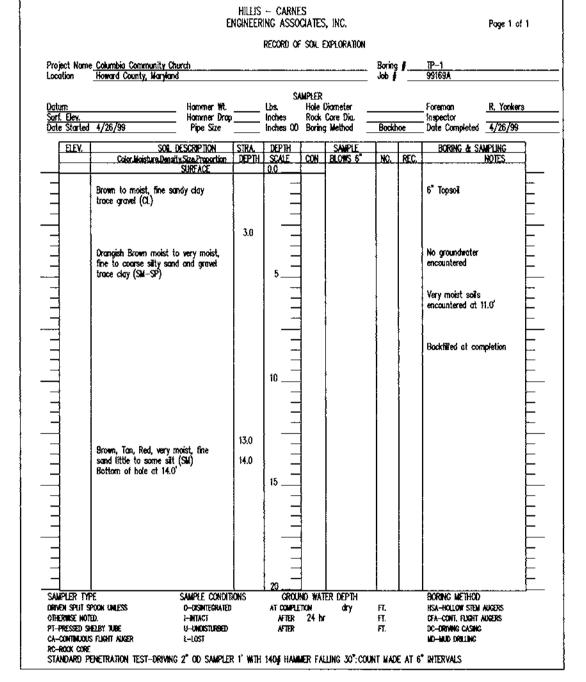
COLUMBIA COMMUNITY CHURCH C/O REVEREND REGINALD ELLIOT PO BOX 2292 COLUMBIA, MD 21044





MARYLAND DEPARTMENT OF ENVIRONMEN

U.S. DEPARTMENT OF AGRICULTURE



DETAIL 22 - SILT FENCE

36' MINIMUM FENCE-

TISTISTISTISTISTISTISTISTISTI

EMBED GENTEXTUE CLASS E

Construction Specification

. 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 costs will be

standard T or U section weighting not less than 1.00 pond per linear foot

2. Gentextile shall be fastened securely to each fence post with wire ties

or staples at top and mid-section and shall meet the following requirements

50 (bs/เก (คเก.)

20 lbs/in (min.)

3. Where ends of geotextile fabric come together, they shall be overlapped,

bulges occur or when sediment accumulation reached 50% of the fabric height.

4. Silt Fence shall be inspected after each rainfail event and maintained when

0.3 gai ft*/ minute (max.) Test: MSMT 322

A MINIMUM OF B' VERTICALLY

FLOW

PERSPECTIVE VIEW

SECTION A

STAPLE/

JOINING TWO ADJACENT SILT

FENCE SECTIONS

Tensile Strength

Tensile Modulus

U.S. REPARTMENT DE AGRICULTURE

Filtering Efficiency 75% (min.)

folded and stapled to prevent sediment bypass

Flow Rate

— 36' MINIMUM LENGTH FENCE POST, DRIVEN A MINIMUM OF 16' INTO GROUND

-16' MINIMUM HEIGHT O

FENCE POST SECTION
MINIMUM 20' ABOVE

FENCE POST DRIVEN A

MINIMUM OF 16' INTO

STANDARD SYMBOL

SF -----

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

MARYLAND DEPARTMENT OF ENVIRONMEN

GROUND

CROSS SECTION

GEBTEXTILE CLASS F

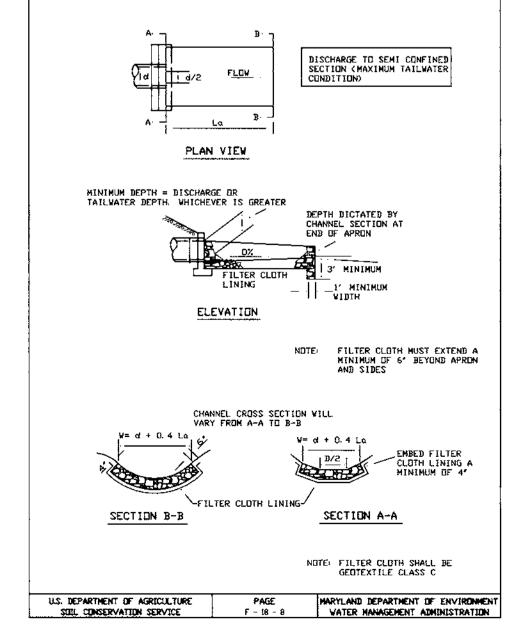
OPERATION AND MAINTENANCE SCHEDULE FOR THE EXISTING INFILTRATION POND

INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.

DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND

NON-ROUTINE MAINTENANCE

SILT AND SEDIMENT SHALL BE REMOVED FROM THE INFILTRATION BASIN WHEN THE ACCUMULATED SEDIMENT LEVEL REACHES A DEPTH OF SIX INCHES (6").



DETAIL 25 - ROCK DUTLET PROTECTION

ROCK BUTLET PROTECTION

CONSTRUCTION SPECIFICATIONS

1. The subgrade for the filter, rip-rap, or gabian shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter. 3. Geatextile shall be protected from punching, cutting, or tearing. Any

damage other damage other than an occasional small hole shall be repaired

by placing another piece of geotextile over the damaged part or by completely replacing

the geotextile. All overlaps whether for repairs or for joining two places of geotextile shall be a minimum of one foot. 4. Stone for the rip-rap or gabion outlets may be placed by equipment They shall be constructed to the full course thickness in one operation and In such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will

be required to the extent necessary to prevent damage to the permanent works. 5. The stone shall be placed so that It blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

VATER MANAGEMENT ADMINISTRATION

DET

NO, ONT SEDIMENT

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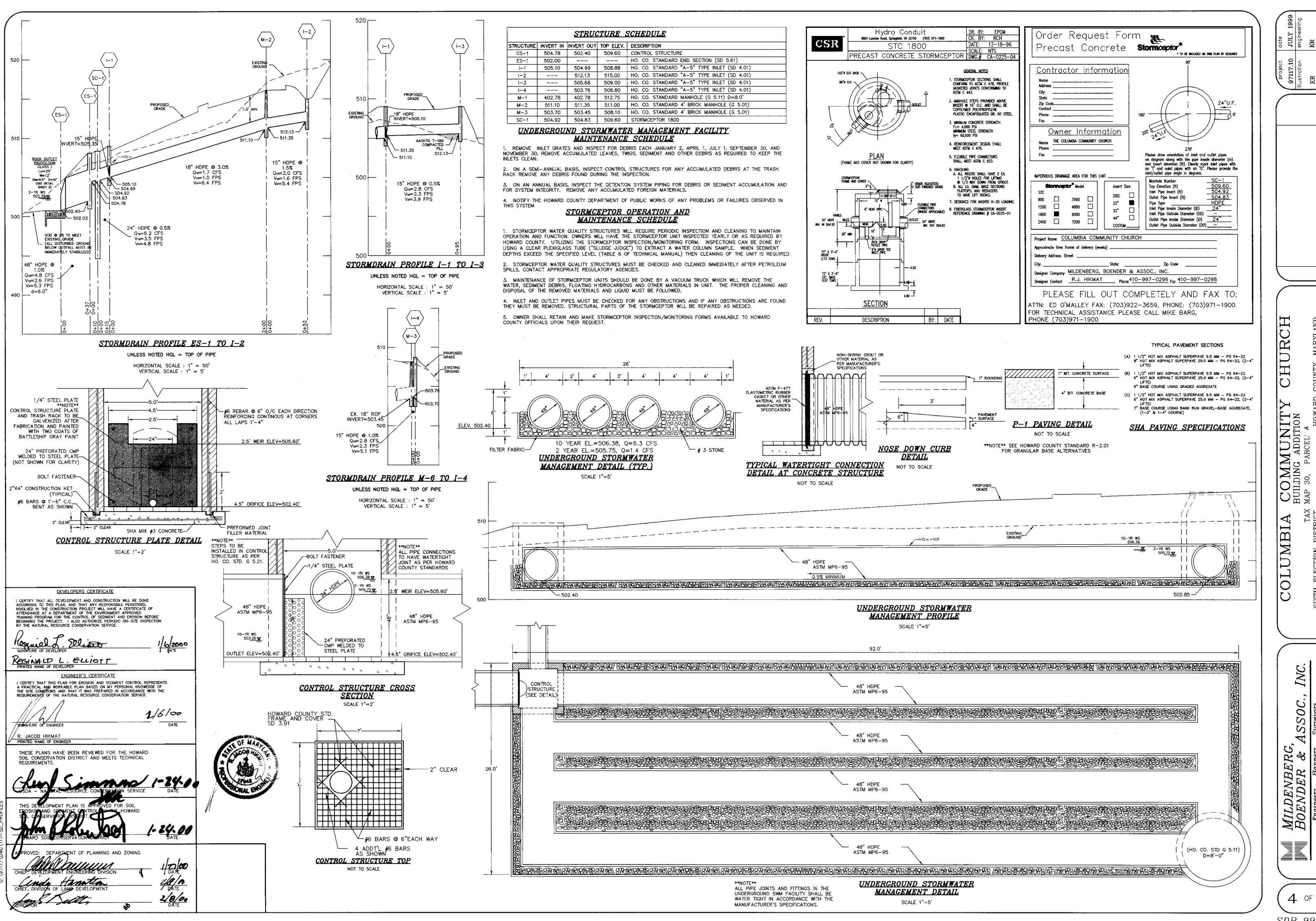
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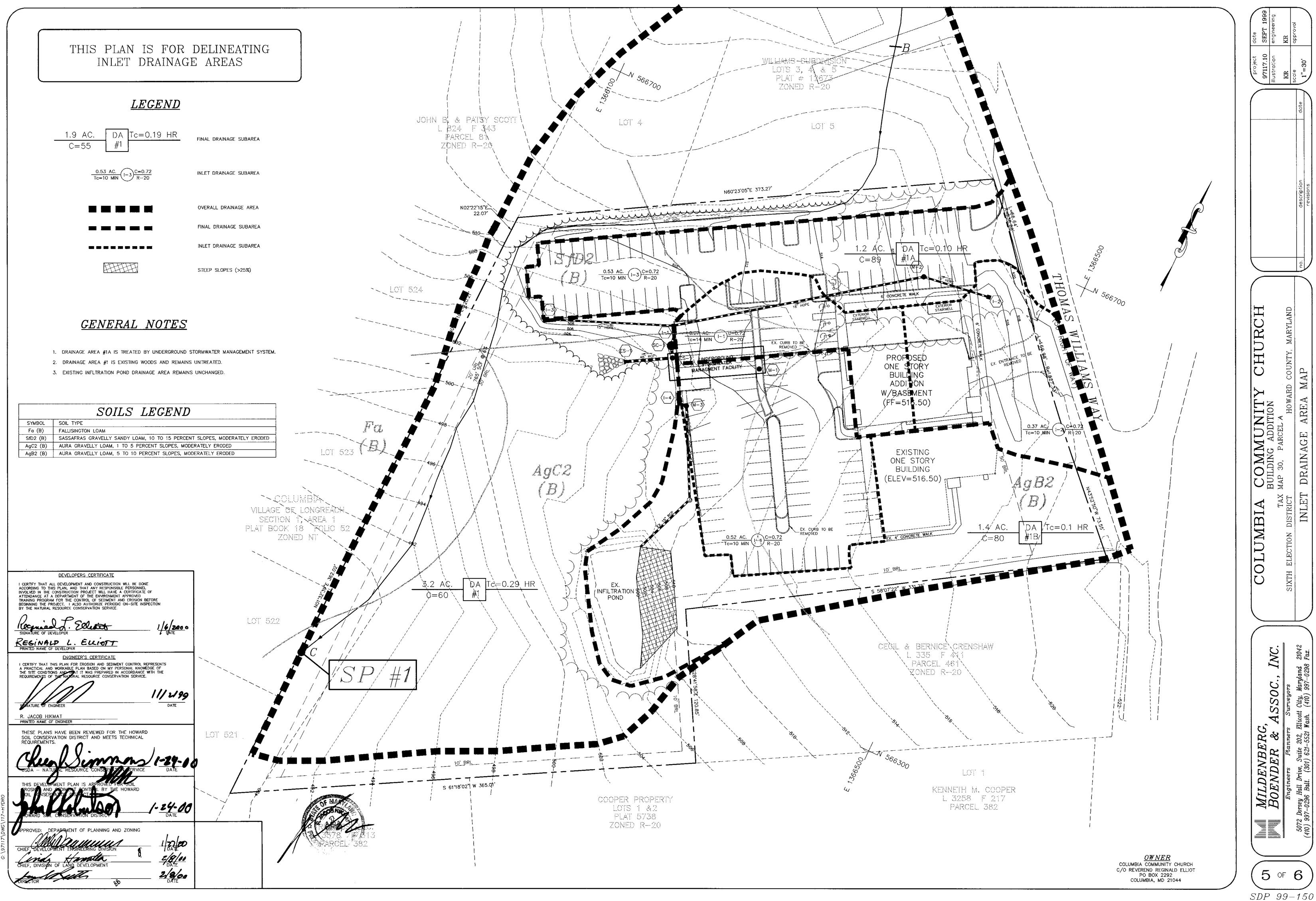
SDP 99-150

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SEF

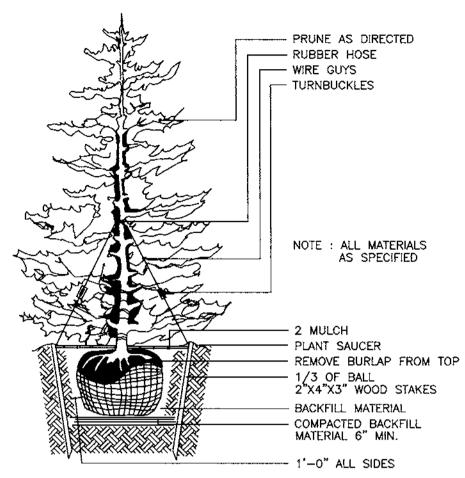


TORM

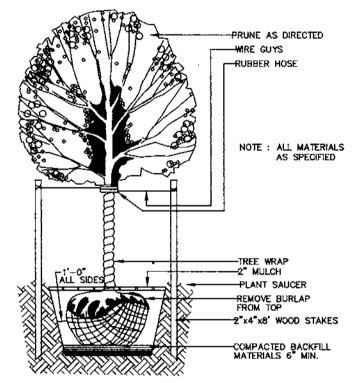


0 SHRUBS

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.



TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



TYPICAL DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

- 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE
- 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF
- 3. SWM LANDSCAPING IS NOT REQUIRED. SWM IS PROVIDED VIA
- 4. SEE SHEET 3 FOR PERMANENT AND TEMPORARY SEEDING SPECIFICATIONS.

				
JANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
21		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
9		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLE LEAF LINDEN	2 1/2" - 3" CAL.
49	**	PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.
21	0	TAXUS MEDIA 'HICKSII'	HICKS YEW	2 1/2' - 3' HT.

<u>OWNER</u> COLUMBIA COMMUNITY CHURCH 6204 BRIGHT PLUME COLUMBIA, MD 21044

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NUMBER OF PLANTS PROVIDED 2 SHADE TREES 0 EVERGREEN TREES SHADE TREES 17 SHADE TREES 5 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 38 EVERGREEN TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) O SUBSTITUTION TREES 2 SUBSTITUTION TREES SHRUBS (10:1 SUBSTITUTION) 21 SHRUBS 0 SHRUBS (4 EVERGREEN TREES)

<u>PERIMETER</u>

PERIMETER 1

PERIMETER 2

PERIMETER 3

PERIMETER 5

PERIMETER 6

PERIMETER 7

TOTAL PLANTING OBLIGATION

NUMBER OF PARKING SPACES

NUMBER OF TREES REQUIRED

NUMBER OF TREES PROVIDED

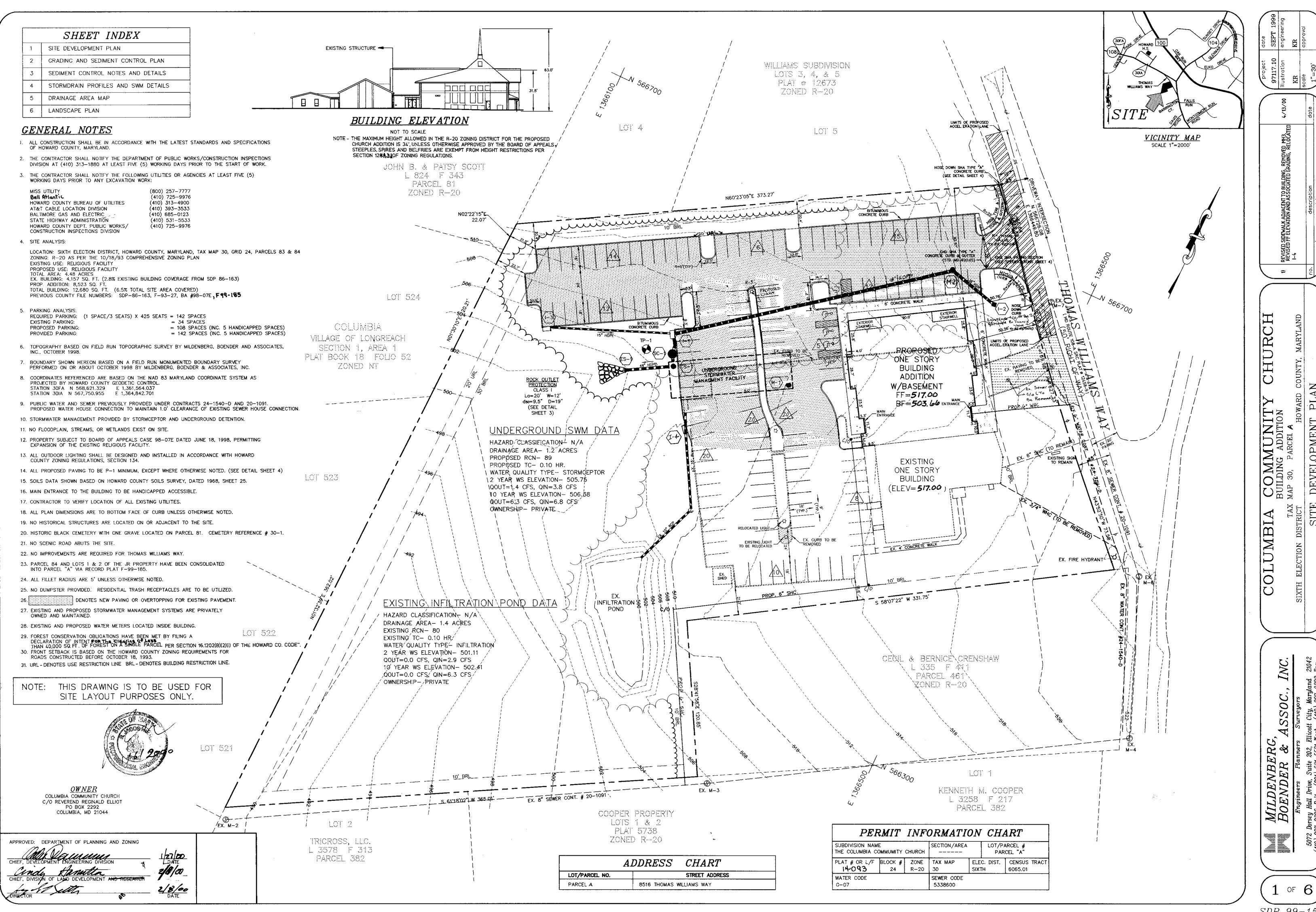
SHADE TREES

SHADE TREES

SHADE TREES EVERGREEN TREES

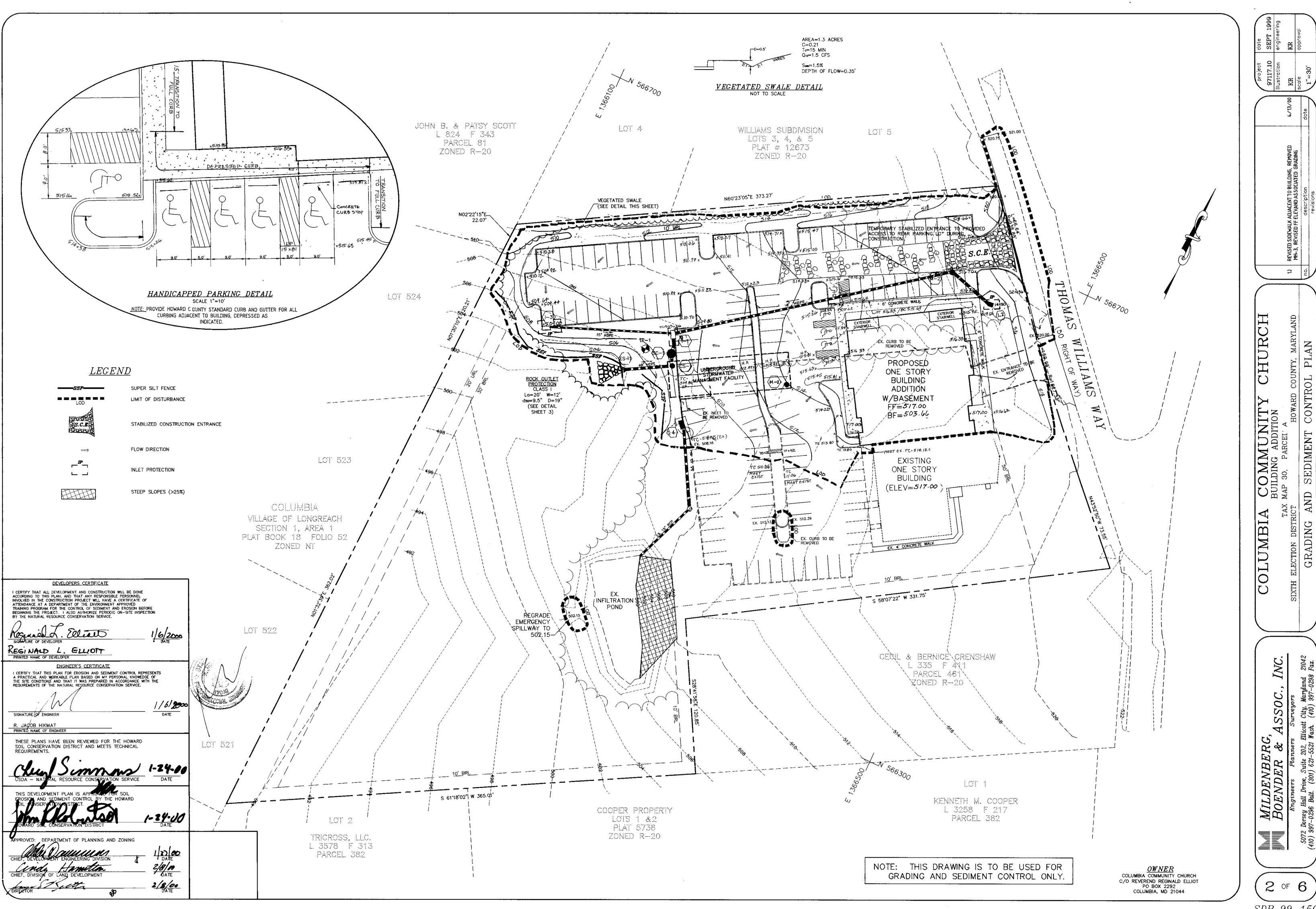
SHRUBS

PARKING TO SFD - 15 LF



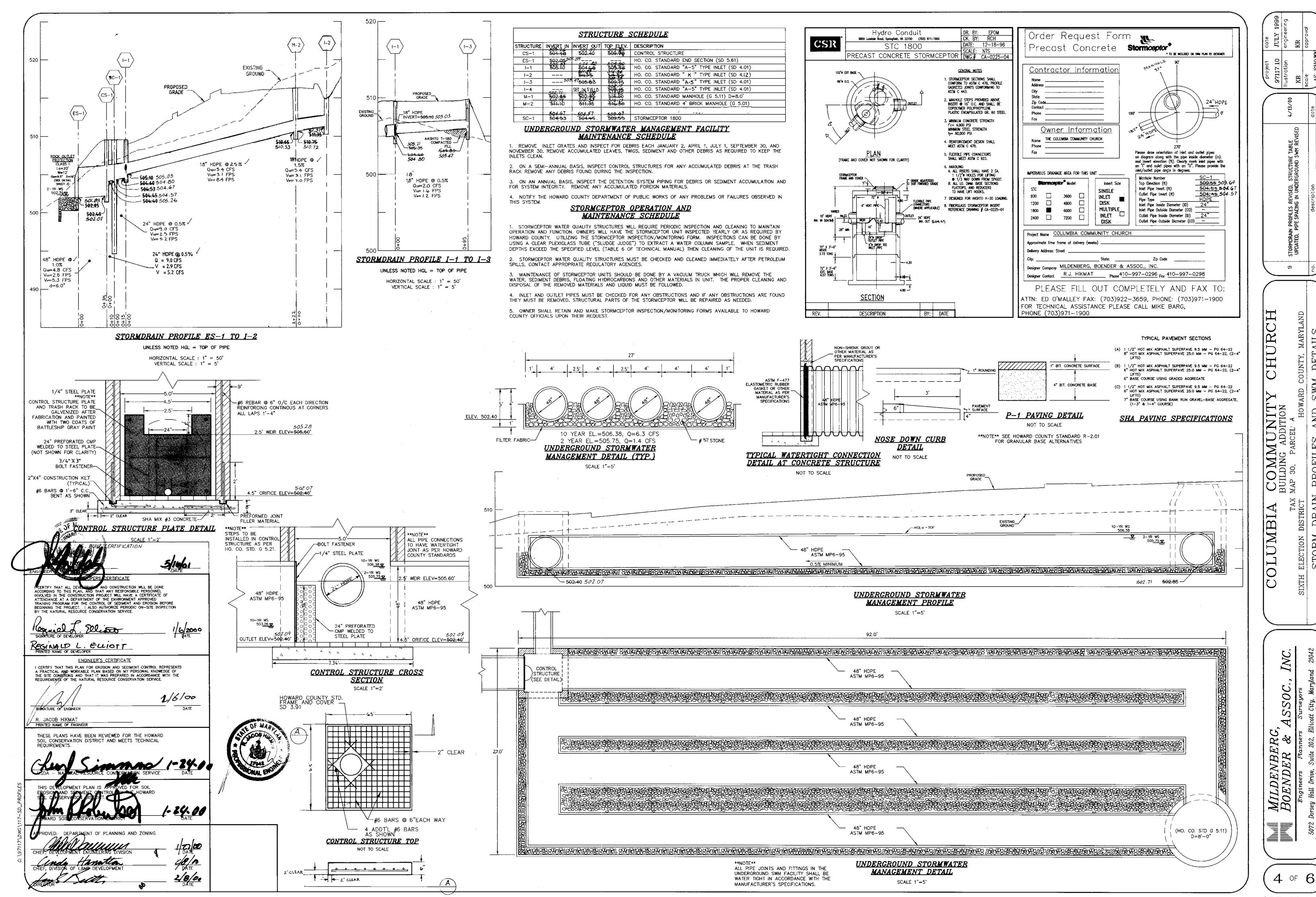
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DE

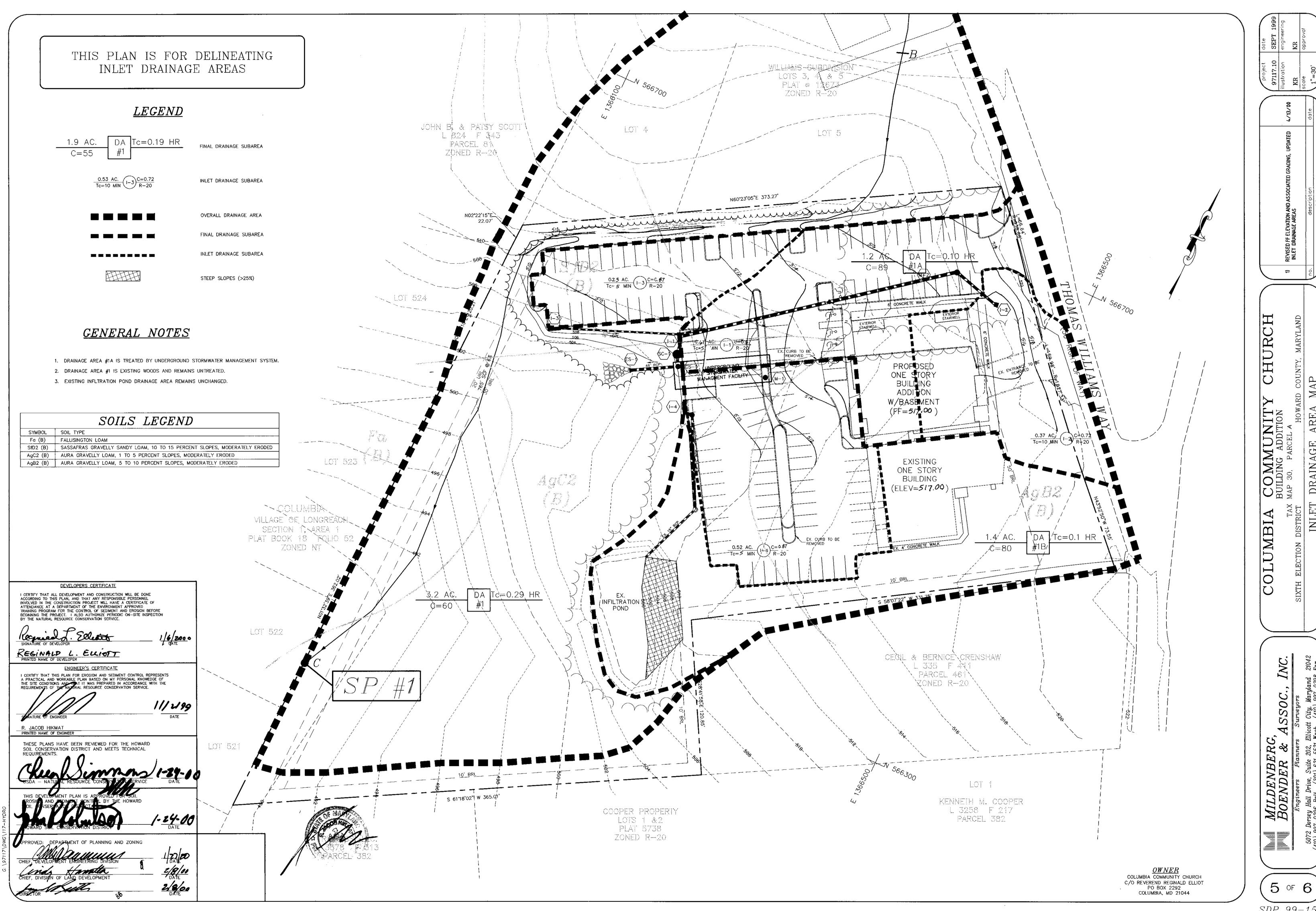


CONTROL

EDIMENT



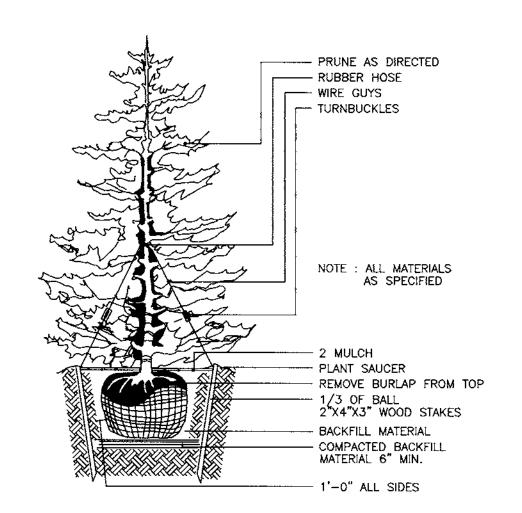
TORM



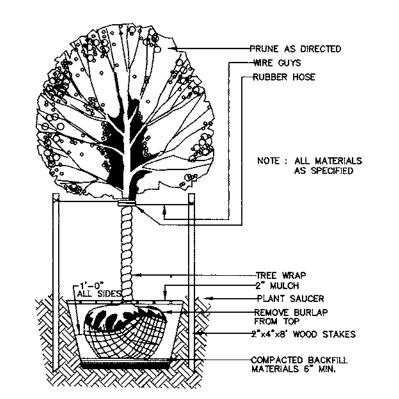
DRA

INLET

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TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



TYPICAL DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

- 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE
- 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF
- SWM LANDSCAPING IS NOT REQUIRED. SWM IS PROVIDED VIA UNDERGROUND SWM FACILITY.
- 4. SEE SHEET 3 FOR PERMANENT AND TEMPORARY SEEDING SPECIFICATIONS.

LANDSCAPE REQUIREMENT PLANTING SCHEDULE					
<u>QUANTITY</u>	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	
21	£43	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.	
9		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLE LEAF LINDEN	2 1/2" - 3" CAL.	
49	***	PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.	
21	€	TAXUS MEDIA 'HICKSII'	HICKS YEW	2 1/2' - 3' HT.	

100 PLANTS (30 SHADE TREES, 49 EVERGREEN TREES, 21 SHRUBS)

SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	E (PERIMETER 2)	B (PERIMETER 3)	C (PERIMETERS 1, 4 THRU 7)
LINEAR FEET OF PERIMETER	82.40 LF	267.87 LF	1,673.11
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO .	NO	YES - 927.74 LF
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 21 SHRUBS	5 SHADE TREES 7 EVERGREEN TREES 0 SHRUBS	19 SHADE TREES 38 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION)	2 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 21 SHRUBS	5 SHADE TREES 7 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	17 SHADE TREES 38 EVERGREEN TREES 2 SUBSTITUTION TREES (4 EVERGREEN TREES) 0 SHRUBS

<u>PERIMETER</u>

PERIMETER 1

PERIMETER 2

PERIMETER 3

PERIMETER 5

PERIMETER 6

PERIMETER 7

PARKING TO SFD - 15 LF

EXISTING TREES TO REMAIN

1 SHADE TREE / 40 LF 9 1 EVERGREEN / 20 LF 18

PARKING TO ROAD - 82.40 LF

1 SHADE TREE / 40 LF

2 SHRUB / 4 LF

21

NON-RES TO ROAD - 267.87 LF 1 SHADE TREE / 50 LF 5

1 EVERGREEN / 40 LF 7

1 SHADE TREE / 40 LF 8 1 EVERGREEN / 20 LF 17

SWM & NON-RES TO SFD - 65 LF

EXISTING TREES TO REMAIN

1 SHADE TREE/ 40 LF

NON-RES TO SFD - 365.01 LF EXISTING TREES TO REMAIN

NON-RES TO SFD - 482.23 LF

TOTAL PLANTING OBLIGATION

SHADE TREES EVERGREEN TREES SHRUBS

EXISTING TREES TO REMAIN

SCHEDULE B: PARKING LOT INTERNAL LANDSCAPING

7 SHADE TREES

NUMBER OF PARKING SPACES

NUMBER OF TREES REQUIRED SHADE TREES

NUMBER OF TREES PROVIDED

SHADE TREES

NUMBER OF PLANTING ISLANDS REQUIRED

NUMBER OF PLANTING ISLANDS PROVIDED

OTHER TREES (2:1 SUBSTITUTION)

SWM & NON-RES TO SFD - 55.85 LF

1 EVERGREEN / 20 LF 3

PERIMETER 4 NON-RES & PA**RKING** TO SFD - 331.75 LF C

PARKING TO SFD - 358.27 LF

EDGE TYPE

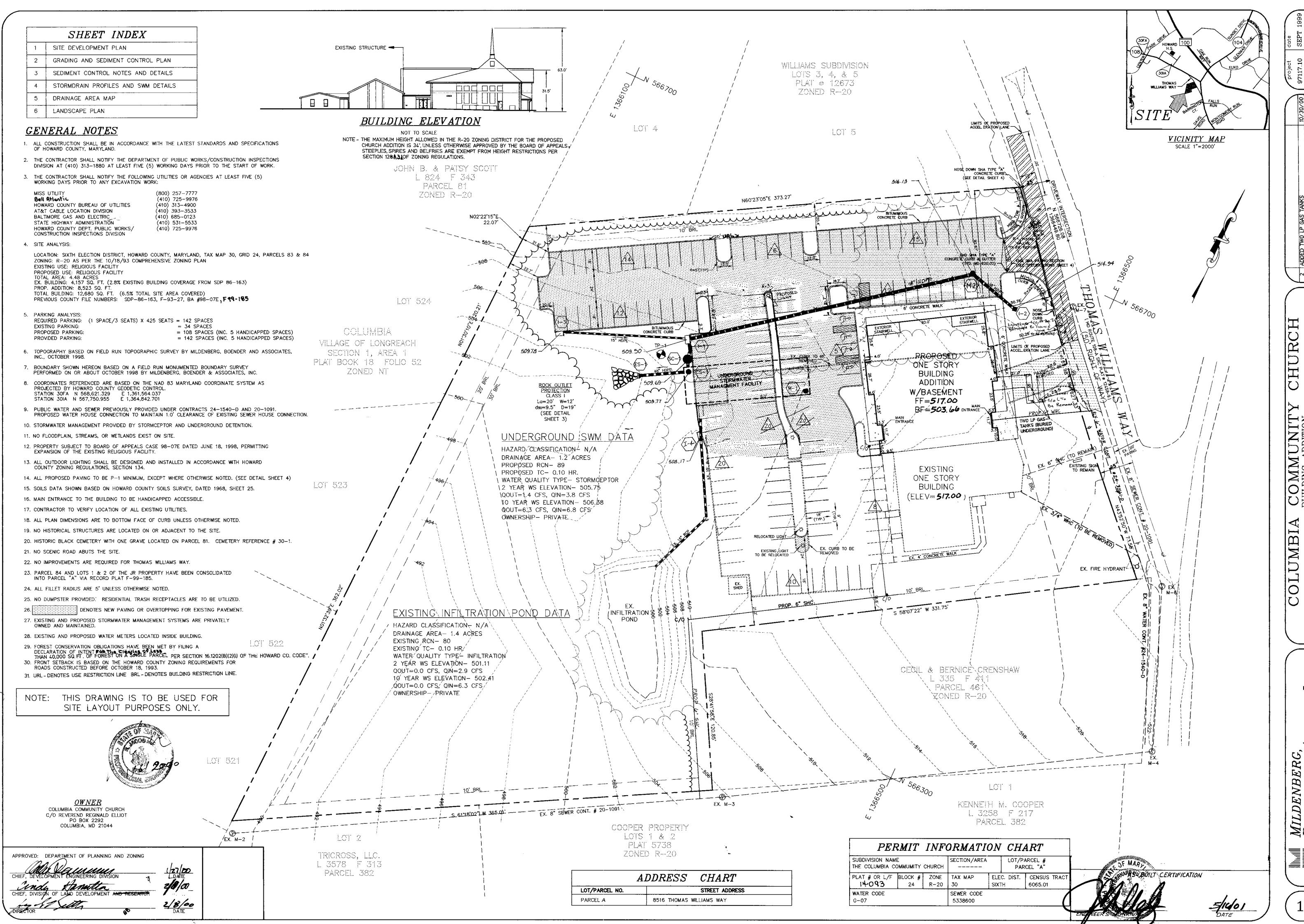
COLUMBIA COMMUNITY CHURCH 6204 BRIGHT PLUME COLUMBIA, MD 21044

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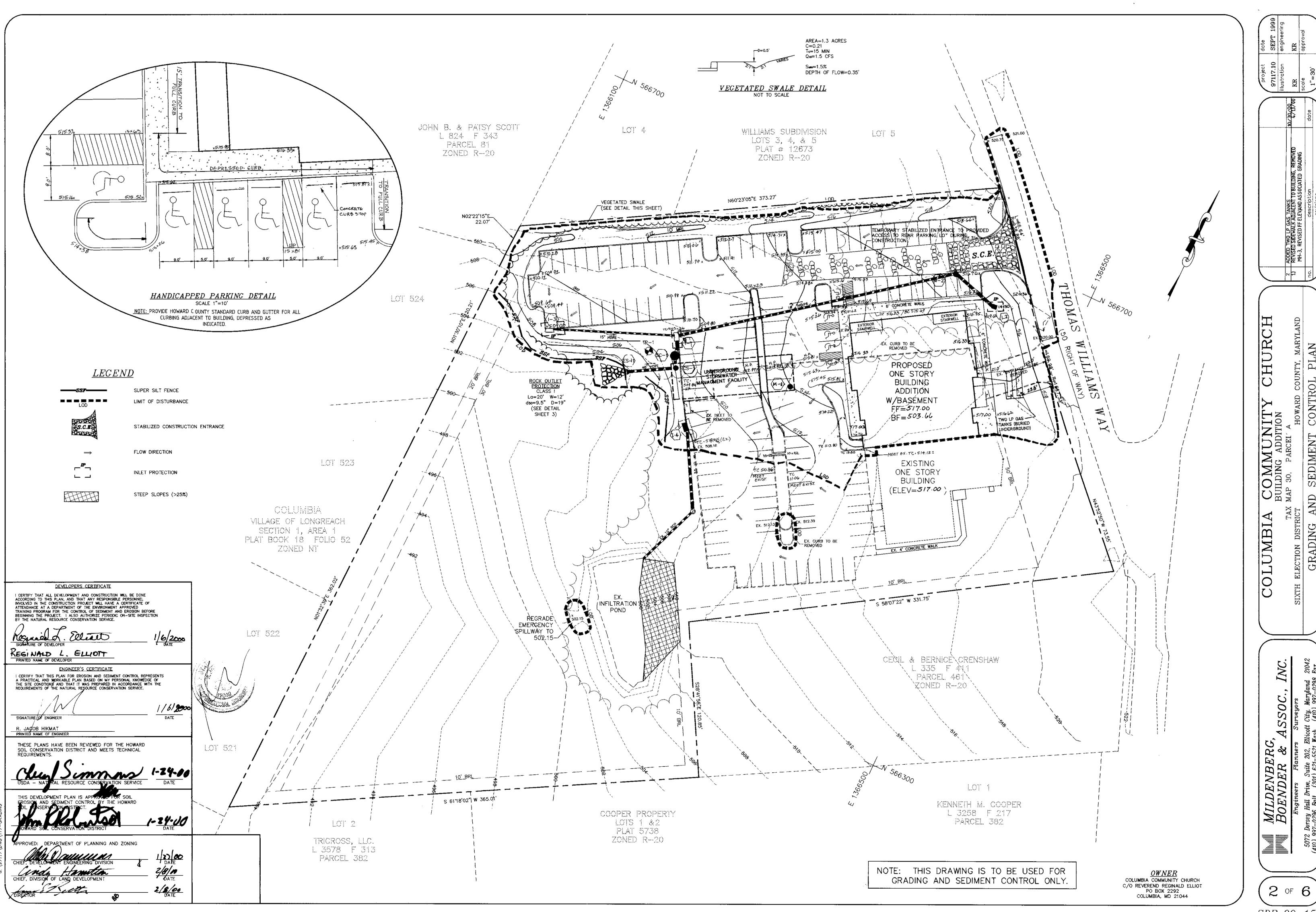
SDP 99-150

HOWA PLAN

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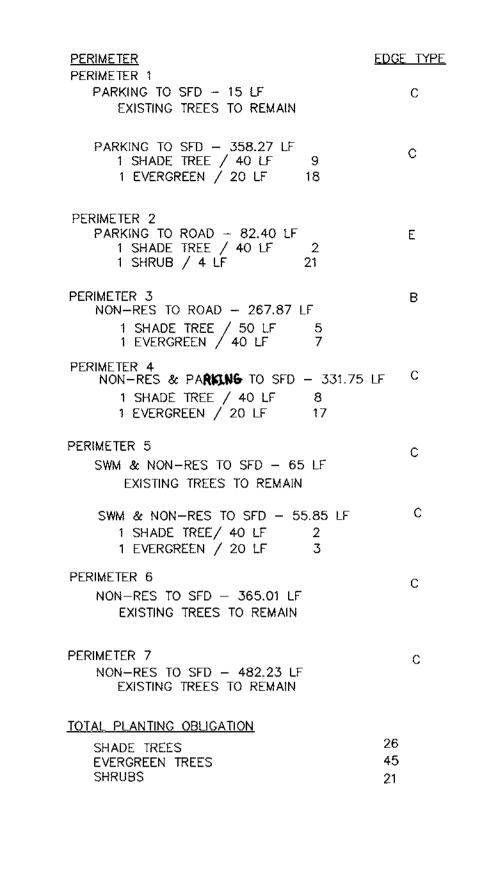


OF **6**



SEDIMENT

ELECTION DISTR GRADING



WILLIAMS SUBDIVISION LOIS 3, 4, & 5 PLAT # 12673 ZONED R-20 LOT 5 __N 566700 T FOL 4 CREDIT FOR EXISTING VEGETATION - 15 LF JOHN B. & PATSY SCOTT L 824 F 343 PARCEL 81 ZONED R-20 LOT 524 COLUMBIA VILLAGE OF LONGREACH SECTION 1, AREA 1 PLAT BOOK 18 FOLIO 52 ZONED NT CECIL & BERNICÈ CRENSHAW L 335 F 411 PARCEL 461 ZONED R-20 CREDIT FOR EXISTING VEGETATION - 65 LF COLUMBIA VILLAGE OF LONGREACH SECTION 1, AREA 1 PLAT BOOK 18 FOLIO 52 ZONED NT KENNETH M. COOPER ----L 3258 F 217 PARCEL 382 LOT 522 LOTS 1 &2 PLAT 5738 ZONED R-20 LOT 521

SCHEDULE B: PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	142
NUMBER OF PLANTING ISLANDS REQUIRED	7
NUMBER OF PLANTING ISLANDS PROVIDED	8
NUMBER OF TREES REQUIRED SHADE TREES	7 SHADE TREES
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	7 TREES 0 TREES

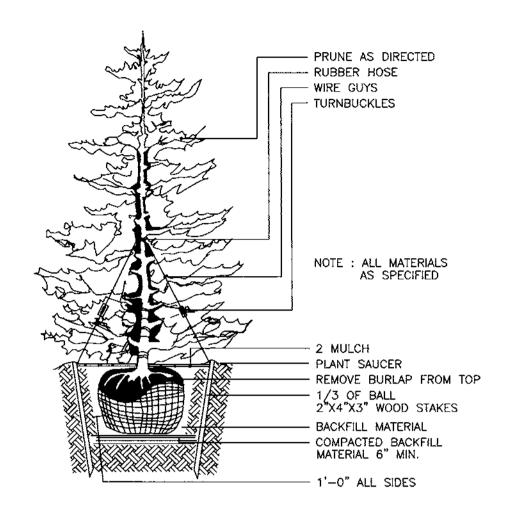
SCHEDULE A: PERIMETER LANDSCAPED EDGE

TRICROSS, LLC. L 3578 F 313 PARCEL 382

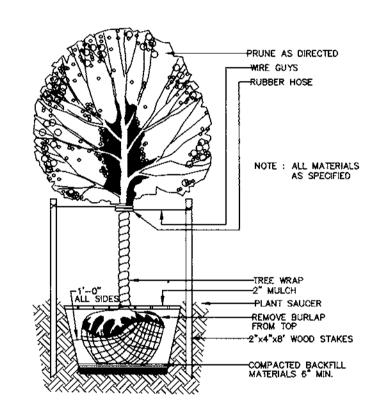
LOT 520

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	E (PERIMETER 2)	B (PERIMETER 3)	C (PERIMETERS 1, 4 THRU 7)
LINEAR FEET OF PERIMETER	82.40 LF	267.87 LF	1,673.11
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	YES - 927.74 LF
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 21 SHRUBS	5 SHADE TREES 7 EVERGREEN TREES 0 SHRUBS	19 SHADE TREES 38 EVERGREEN TREES 0 SHRUBS
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TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



TYPICAL DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

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- 3. SWM LANDSCAPING IS NOT REQUIRED. SWM IS PROVIDED VIA UNDERGROUND SWM FACILITY.
- 4. SEE SHEET 3 FOR PERMANENT AND TEMPORARY SEEDING SPECIFICATIONS.

LANDSCAPE REGULERMENT PLANTING SCHEDULE

LANDSCAPE REQUIREMENT PLANTING SCHEDULE				
<u>YTITAAU</u>	SYMBOL	BOTANICAL NAME	COMMON NAME	<u>SIZE</u>
21	£ 3	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
9		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLE LEAF LINDEN	2 1/2" - 3" CAL.
49	**	PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.
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100 PLANTS (30 SHADE TREES, 49 EVERGREEN TREES, 21 SHRUBS)

COLUMBIA COMMUNITY CHURCH 6204 BRIGHT PLUME COLUMBIA, MD 21044

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SDP 99-150

PLAN