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SITE DEVELOPMENT PLAN

EMERSON

SECTION ONE AREA TWO

LOTS 40-96

A RESUBDIVISION OF PARCEL A

6th ELECTION DISTRICT

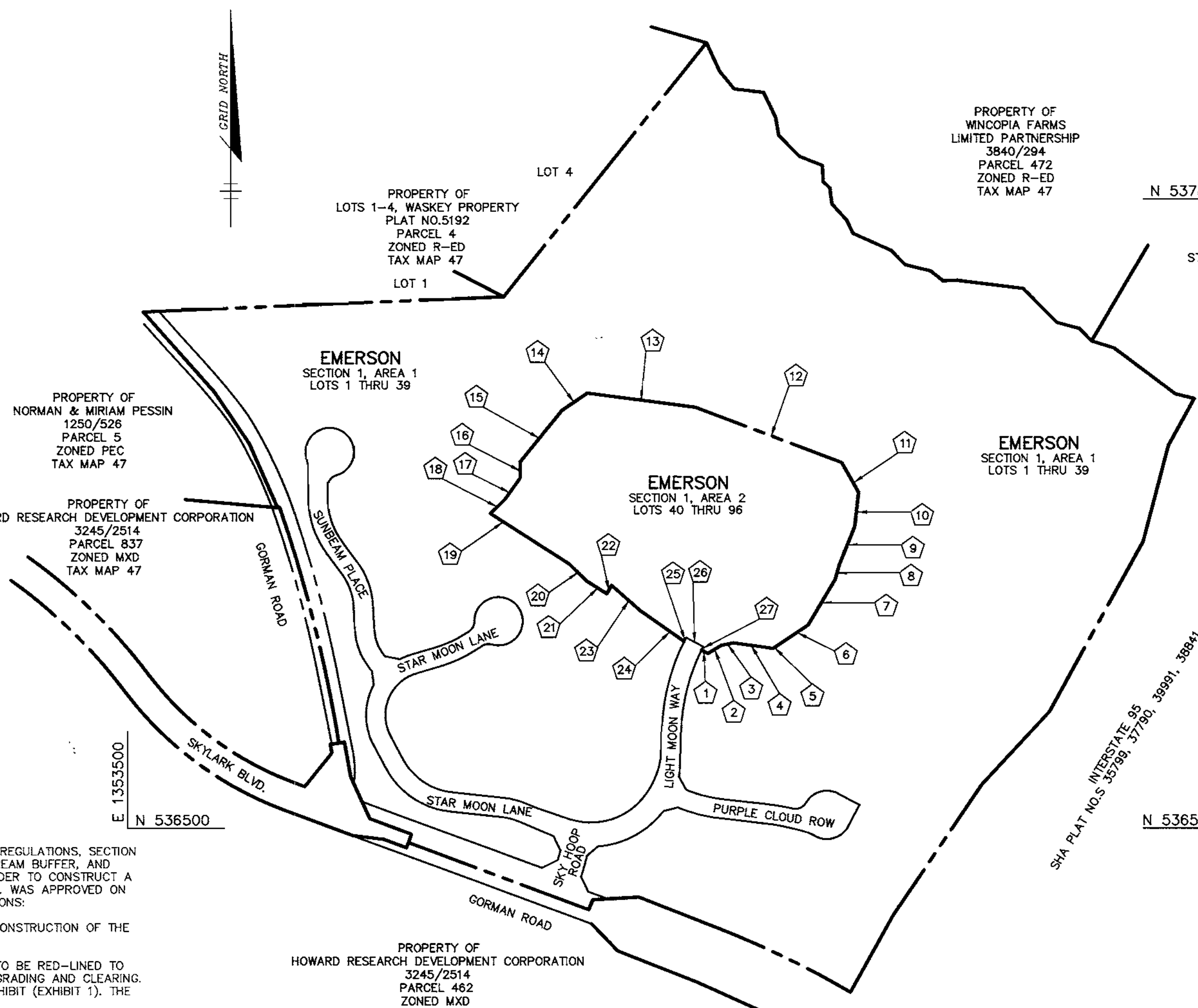
HOWARD COUNTY, MARYLAND

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH 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.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, (JANUARY 1998)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY MAPS WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY AIR SURVEY CORP. FLOWN IN APRIL 1999.
- 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. 47 E4 ALONG WITH 2 TRAVERSE POINTS WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 34-3971-D & 44-3833-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. 34-3971-D & 34-3832-D
- STORMWATER MANAGEMENT FOR THIS DEVELOPMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MDE STORMWATER MANAGEMENT MANUAL UNDER F-01-140. PORTIONS OF OPEN SPACE LOTS 35, 36 & 39 ARE BEING USED AS NATURAL AREA CONSERVATION CREDIT AREAS. A CENTRAL PRIVATELY MAINTAINED STORMWATER WET POND IS BEING USED TO PROVIDE THE WATER QUALITY AND CHANNEL PROTECTION VOLUMES FOR THIS DEVELOPMENT.
- 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 AVAILABLE INFORMATION.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY DAFT McCUNE & WALKER, INC.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY WELLS & ASSOCIATES DATED FEBRUARY 2000, AND WAS APPROVED UNDER F-01-140.
- THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY CENTURY ENGINEERING DATED MARCH 1999, AND WAS APPROVED UNDER F-01-140.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY DAFT, McCUNE & WALKER, INC. JULY 2000.
- SUBJECT PROPERTY ZONED R-ED PER 10-18-93 COMPREHENSIVE ZONING PLAN, DATED JUNE 1999.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S: S-00-12, WP-00-87, WP-01-39, WP-01-99, P-01-21, F-01-140, WP-02-15, F-02-15.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- 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.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOL. III. ALL ROAD RIGHT OF WAYS ARE 40' WIDE AND 25 M.P.H.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 90% COMPACTION OF AASHTO T180
- ALL STREET CURB RETURNS SHALL HAVE 25' RADI UNLESS OTHERWISE NOTED.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- WP-00-87 - A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116(c)(2)(ii), WHICH PROHIBITED GRADING, REMOVAL OF VEGETATION WITHIN 75 FEET OF A STREAM, DATED JULY 21, 2000. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE GRADING AND CLEARING ASSOCIATED WITH IMPACT AREA #1, FOR SUNBEAM PLACE TO CROSS THE STREAM, SHALL BE MINIMIZED AND COMPLY WITH THE FINAL ROAD PLANS, WHICH WILL BE REVIEWED AND APPROVED BY THE SRC, AS PROPOSED BY THE DEVELOPER WITH THIS WAIVER PETITION. THE UTILITY CROSSING OF THE STREAM MUST BE COINCIDENTAL WITH THE ROAD CROSSING. AS POSSIBLE, THE DEVELOPER SHALL COMPLY WITH COMMENT #1 OF THE JUNE 1, 2000, REVIEW COMMENTS FROM THE SOIL CONSERVATION DISTRICT (SCD) REGARDING ROAD DESIGN AND LOCATION, AND SHALL CONFIGURE THE ROAD SO THAT ANY REQUIRED CALMING FEATURE ALIGNS WITH THE STREAM CROSSING, AND THEREBY LESSENS THE ASSOCIATED GRADING/CLEARING.
 - AS INDICATED IN THE COMMENTS FROM THE SCD, THE OUTFALL ASSOCIATED WITH IMPACT AREA #2 IS TO OUTFALL AT GRADE ELEVATION 308, UNLESS THE PRESENCE OF ROCK IS FOUND DURING FIELD INVESTIGATION, IN WHICH CASE THE OUTFALL MAY BE SHIFTED TO OUTFALL AT GRADE ELEVATION 314.
 - THE L.O.D. FOR IMPACT AREAS #3 AND #4 SHALL BE IN ACCORDANCE WITH THEIR WAIVER EXHIBIT DATED MARCH 17, 2000. NEITHER THE WATER NOR THE SEWER LINES MAY BE EXTENDED BEHIND PROPOSED LOTS 34-40 (AS SHOWN IN THE EXHIBIT DATED MAY 8, 2000). DUE TO ADDITIONAL IMPACT TO THE STREAM BUFFER, FOR IMPACT AREAS #3 AND #4, LIMIT TREE CLEARING AS MUCH AS POSSIBLE, ESPECIALLY SPECIMEN TREES, TO FURTHER DECREASE GRADING OR CLEARING. THE UTILITIES MUST BE CONSOLIDATED INTO A SINGLE EASEMENT, AS PROPOSED ON THE WAIVER EXHIBIT. (REVISED BY WP-01-99.)
- WP-01-39 - A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.146, WHICH REQUIRES THE SUBMISSION OF A PRELIMINARY PLAN AFTER A SKETCH PLAN HAS BEEN SIGNED. THE WAIVER WAS DENIED, NOVEMBER 17, 2000.
- PER S-00-12, 50 ALLOCATIONS WERE RESERVED FOR PARCEL A. HOWEVER, THIS PLAN SHOWS 54 LOTS; CONSEQUENTLY, 1 TENTATIVE ALLOCATION WILL BE VOIDED.
- THERE ARE NO EXISTING PERMANENT STRUCTURES ON-SITE.
- WP-01-99 - A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116(c)(2) TO ALLOW GRADING AND CLEARING IN A FLOODPLAIN AREA, AND SECTION 16.116(c)(2)(ii) TO ALLOW GRADING AND CLEARING IN A STREAM BUFFER, FOR WORK ASSOCIATED WITH THE INSTALLATION OF THE WATER AND SEWER EXTENSIONS FROM THE ADJOINING SHA REST AREA PROPERTY. THE WAIVER WAS APPROVED APRIL 6, 2001.
- PERIMETER LANDSCAPING REQUIREMENTS ADDRESSED UNDER F-02-15.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE 100 YEAR FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY PHR&A DATED JULY 2001.

BOUNDARY CHART

1	S 63°21'59" E	15.00'
2	N 58°47'03" W	31.52'
3	N 78°34'42" E	26.08'
4	S 82°06'32" W	82.50'
5	S 56°37'56" W	7.70'
6	S 56°16'20" W	80.32'
7	S 30°33'56" W	109.08'
8	S 15°52'32" W	31.83'
9	S 21°46'05" W	86.22'
10	S 01°31'11" W	71.33'
11	S 29°37'55" E	70.32'
12	S 69°19'10" E	323.06'
13	S 82°35'36" E	225.01'
14	S 55°53'54" W	83.53'
15	S 38°04'11" W	137.70'
16	S 00°13'45" W	33.36'
17	N 35°41'13" W	54.97'
18	S 45°43'53" W	40.45'
19	S 57°14'52" E	193.04'
20	S 45°42'39" E	50.00'
21	S 57°14'52" E	50.14'
22	S 29°42'51" W	20.03'
23	S 48°37'15" E	80.00'
24	S 54°56'15" E	110.16'
25	R = 440.00' L = 9.00'	
26	S 62°13'14" E	40.00'
27	R = 400.00' L = 8.00'	



PLAN
SCALE: 1"=200'

SITE ANALYSIS DATA CHART

TOTAL AREA	6.123 AC.
LIMIT OF DISTURBED AREA	5.0 AC.
CURRENT ZONING	R-ED
PROPOSED USE	SINGLE FAMILY ATTACHED COMMUNITY
TOTAL NUMBER OF LOTS TO BE RECORDED	54
BUILDABLE LOTS	0
NON-BUILDABLE LOTS	0
OPEN SPACE	3
TOTAL AREA OF LOTS	3.103 AC.
BUILDABLE LOTS	2.175 AC.
OPEN SPACE	2.027 AC.
CREDITED	0.148 AC.
NON-CREDITED	0.148 AC.
TOTAL AREA OF ROAD RIGHT OF WAY TO BE RECORDED INCLUDING WIDENING STRIPS	0.845 AC.

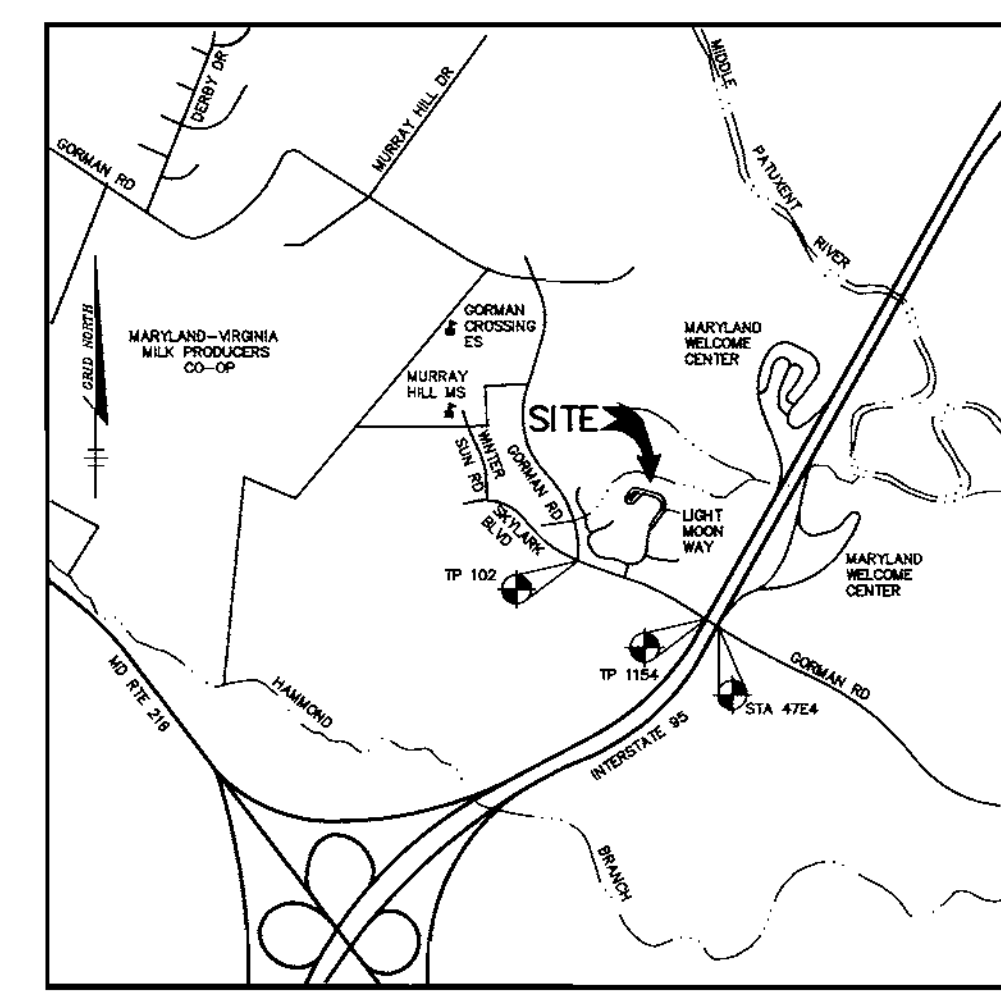
PARKING REQUIREMENTS

OFF-STREET PARKING REQUIRED @ 2/UNIT	108 SPACES
OFF-STREET PARKING PROVIDED:	108 SPACES
GARAGE SPACES	54 SPACES
DRIVEWAY SPACES	54 SPACES
OVERFLOW/GUEST PARKING @ 0.3/UNIT	17 SPACES
ON-STREET PARKING PROVIDED	29 SPACES

SUBDIVISION NAME	SECT./AREA	PARCEL
EMERSON	1/2	P/O 837
PLAT #	BLOCK #	ZONING/TAX MAP NO.
15217-15220	3, 8 & 9	R-ED 47
WATER CODE	ELECT. DIST.	CENSUS TRACT
E-15	6	6088.01
SEWER CODE	160000	

BENCHMARKS

- TRAVERSE POINT 102
ELEVATION 346.19
N 536,499.165
E 1,353,974.017
LOCATED NEAR THE
INTERSECTION OF GORMAN
ROAD AND SKYLARK BLVD.
- TRAVERSE POINT 1154
ELEVATION 347.45
N 536,018.069
E 1,355,129.333
LOCATED NEAR THE
I-95 BRIDGE ALONG
GORMAN ROAD
- CONTROL STATION 47E4
ELEVATION 339.00
N 535,846.16
E 1,355,431.23
LOCATED NEAR THE
I-95 BRIDGE ALONG
GORMAN ROAD



VICINITY MAP
SCALE: 1"=200'

ADDRESS CHART

LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
40	8518 LIGHT MOON WAY	67	8580 LIGHT MOON WAY
41	8520 LIGHT MOON WAY	68	8582 LIGHT MOON WAY
42	8522 LIGHT MOON WAY	69	8584 LIGHT MOON WAY
43	8524 LIGHT MOON WAY	70	8586 LIGHT MOON WAY
44	8526 LIGHT MOON WAY	71	8588 LIGHT MOON WAY
45	8528 LIGHT MOON WAY	72	8592 LIGHT MOON WAY
46	8532 LIGHT MOON WAY	73	8594 LIGHT MOON WAY
47	8534 LIGHT MOON WAY	74	8596 LIGHT MOON WAY
48	8536 LIGHT MOON WAY	75	8598 LIGHT MOON WAY
49	8538 LIGHT MOON WAY	76	8599 LIGHT MOON WAY
50	8540 LIGHT MOON WAY	77	8597 LIGHT MOON WAY
51	8544 LIGHT MOON WAY	78	8595 LIGHT MOON WAY
52	8546 LIGHT MOON WAY	79	8593 LIGHT MOON WAY
53	8548 LIGHT MOON WAY	80	8591 LIGHT MOON WAY
54	8550 LIGHT MOON WAY	81	8587 LIGHT MOON WAY
55	8552 LIGHT MOON WAY	82	8585 LIGHT MOON WAY
56	8554 LIGHT MOON WAY	83	8583 LIGHT MOON WAY
57	8556 LIGHT MOON WAY	84	8581 LIGHT MOON WAY
58	8560 LIGHT MOON WAY	85	8539 LIGHT MOON WAY
59	8562 LIGHT MOON WAY	86	8537 LIGHT MOON WAY
60	8564 LIGHT MOON WAY	87	8535 LIGHT MOON WAY
61	8566 LIGHT MOON WAY	88	8525 LIGHT MOON WAY
62	8568 LIGHT MOON WAY	89	8523 LIGHT MOON WAY
63	8570 LIGHT MOON WAY	90	8521 LIGHT MOON WAY
64	8574 LIGHT MOON WAY	91	8519 LIGHT MOON WAY
65	8576 LIGHT MOON WAY	92	8517 LIGHT MOON WAY
66	8578 LIGHT MOON WAY	93	8515 LIGHT MOON WAY

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James S. Smith 3/7/02
DIRECTOR DATE

John Deane 2/26/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Brant 3/5/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER
STREAMWOOD, LLLP
c/o TROUTMAN COMPANY
9030 RED BRANCH ROAD
SUITE 100
COLUMBIA, MARYLAND 21045
410-730-7065

PROJECT **EMERSON**
SECTION ONE AREA TWO
LOTS 40-96
A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217 - 15220

AREA TAX MAP 47 BLOCK 3, 8 & 9
ZONED: R-ED PARCEL: P/O 837
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE TITLE SHEET

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

2/13/02
DATE

DESIGNED BY : CJR

DRAWN BY: DAM

PROJECT NO. 01058/SDP
SDP1.DWG

DATE : FEBRUARY 14, 2002

SCALE : AS SHOWN

DRAWING NO. 1 OF 6

JOHN W. CLAPFADDE #16956



- NOTES:**
- ALL RESIDENTIAL DRIVEWAY APRONS ARE PER HOWARD COUNTY STANDARD DETAIL R-6.09 UNLESS OTHERWISE NOTED.
 - P-1 PAVING
 - CONCRETE SIDEWALKS
 - USE-IN-COMMON DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DRILLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE)
 - SURFACE - 6" OF COMPACTED CRUSH OR RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.)
 - GEOMETRY - MAX. 15% GRADE, MAX. 10' 45" TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
 - ⊙ DENOTES EX. STREET LIGHT UNDER F-02-15.
 - TYPICAL DRIVEWAY WIDTH TO BE 8' UNLESS OTHERWISE NOTED.
 - ALL BUILDINGS TO BE EQUIPPED WITH AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
 - FIRE LANE MARKINGS TO BE PROVIDED IN ACCORDANCE WITH FIRE MARSHALL REQUIREMENTS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Angela S. Rutter 3/7/02
DIRECTOR DATE

David Cummings 2/26/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Wanda Hanover 2/8/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER

STREAMWOOD, LLLP
c/o TROUTMAN COMPANY
9030 RED BRANCH ROAD
SUITE 100
COLUMBIA, MARYLAND 21045
410-730-7065

PROJECT **EMERSON**
SECTION ONE AREA TWO
LOTS 40-96
A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217-15220

AREA TAX MAP 47 BLOCK 3,8 & 9
ZONED: R-ED PARCEL: P/O B37
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT PLAN**

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.

PHRA
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DATE 2/13/2002

DESIGNED BY: CJR

DRAWN BY: DAM

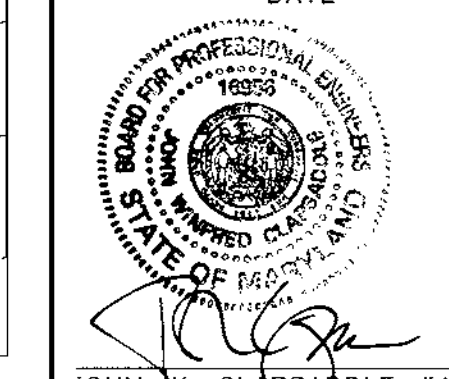
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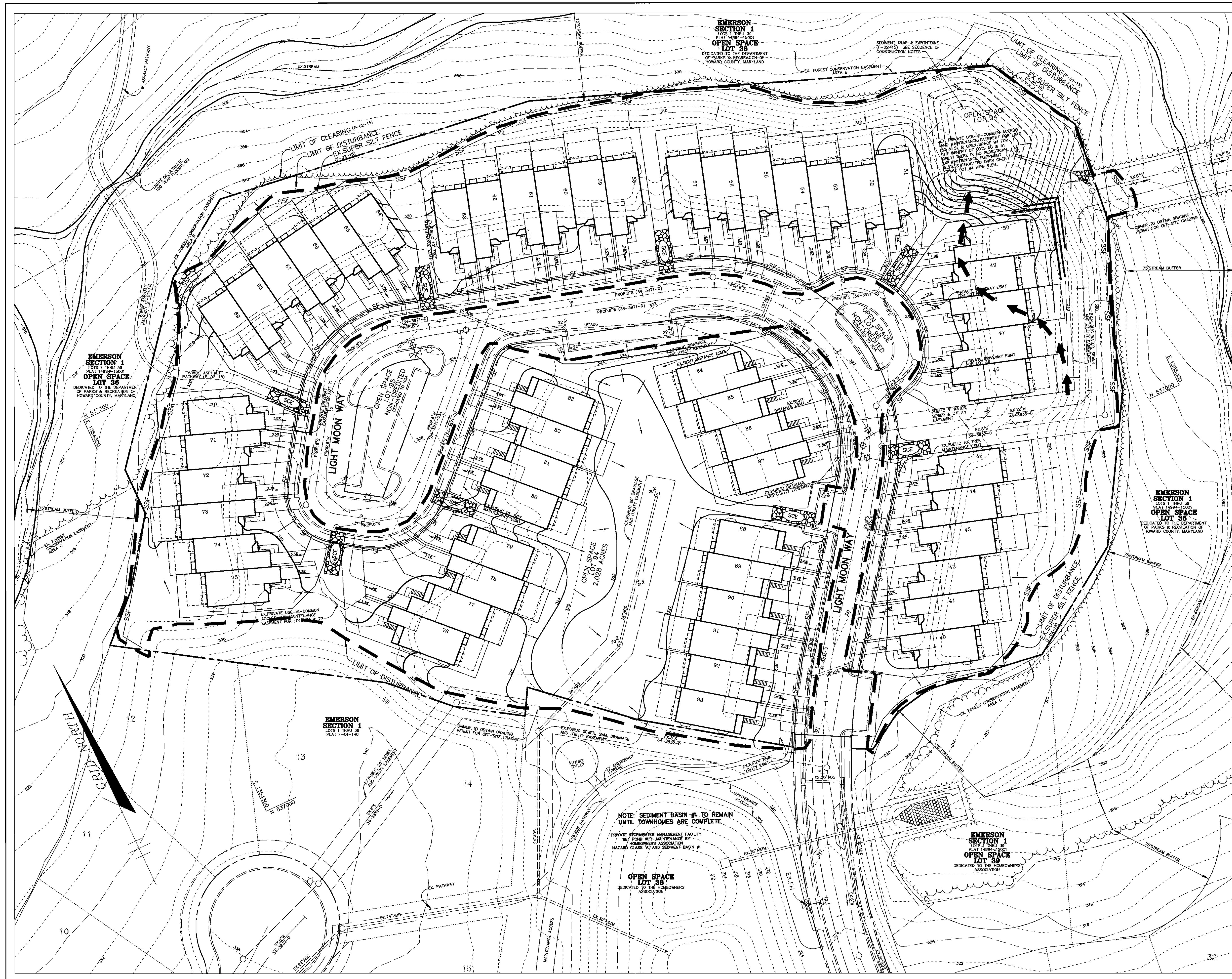
DATE: FEBRUARY 14, 2002

SCALE: 1" = 30'

DRAWING NO. 2 OF 6

JOHN W. CLARKE #16956





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 PROGRAM 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.

Chuck Riebert 2/13/02
 DEVELOPER / CHUCK RIEBERT DATE

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.

John W. Clapsaddle 2/13/2002
 ENGINEER / JOHN W. CLAPSADDLE DATE

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

Jim Meyer 3/1/02
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robertson 3/1/02
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James S. Rutter 3/1/02
 DIRECTOR DATE

Michael DeWitt 2/20/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Lucy Hamilton 3/5/02
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION
OWNER/DEVELOPER	
STREAMWOOD, LLLP c/o TROUTMAN COMPANY 9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 410-730-7065	

PROJECT **EMERSON**
 SECTION ONE AREA TWO
 LOTS 40-96
 A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217-15220

AREA TAX MAP 47 BLOCK 3, 8 & 9
 ZONED: R-ED PARCEL: P/O 837
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE **GRADING AND SEDIMENT CONTROL PLAN**

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.

P.H.R.A.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DATE 2/13/2002

DESIGNED BY : CJR

DRAWN BY: DAM

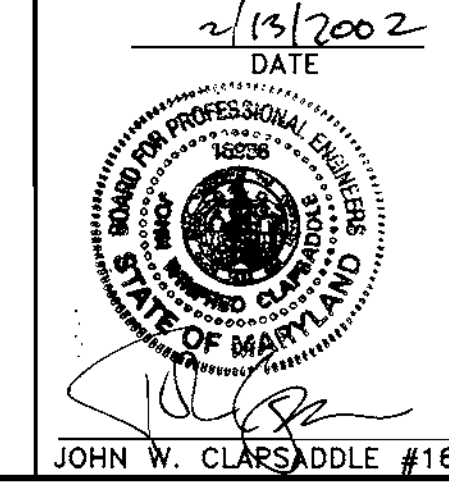
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DATE : FEBRUARY 14, 2002

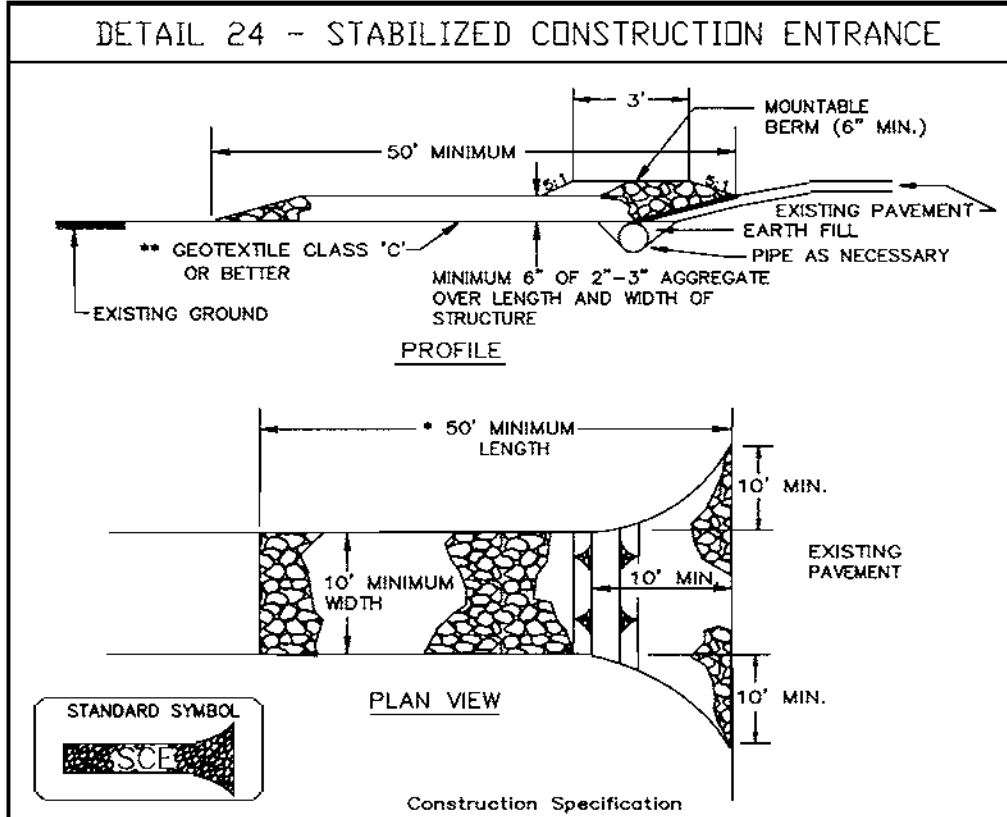
SCALE : 1" = 30'

DRAWING NO. 3 OF 6

JOHN W. CLAPSADDLE #16956



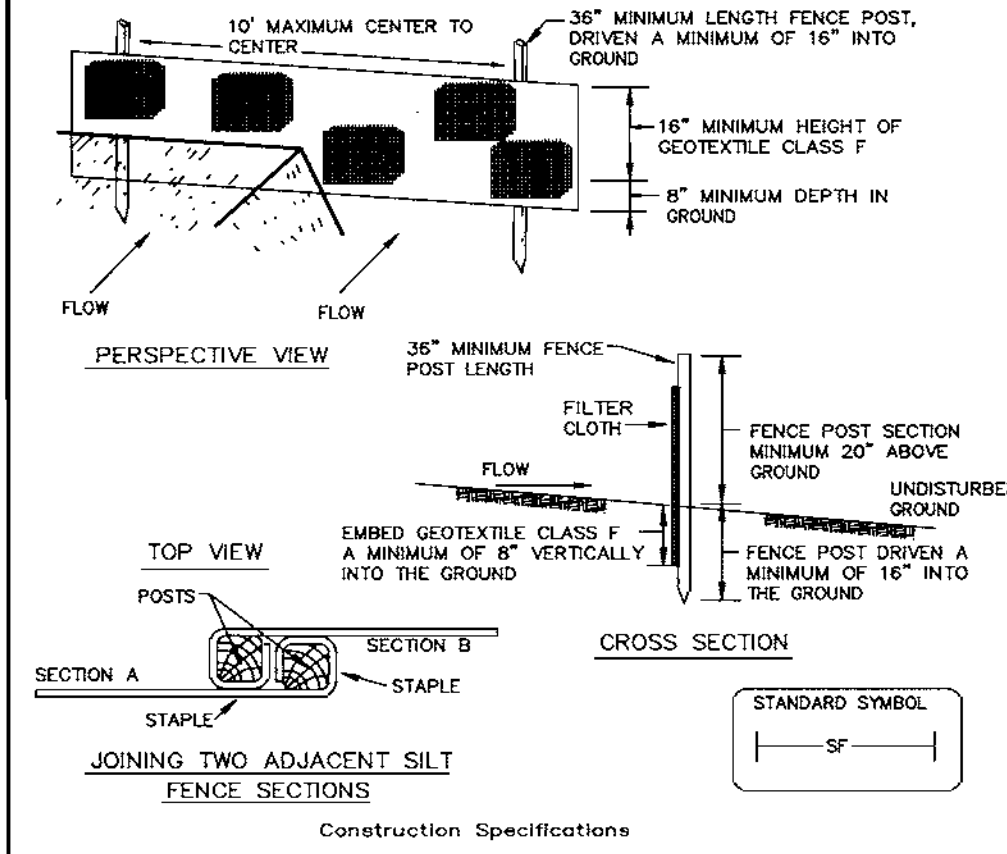
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- Length - minimum of 50' (+30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The stone approval authority may not require single family residences to use geotextile.
- 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.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be passed through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable beam 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.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE E-15-3 WATER MANAGEMENT ADMINISTRATION

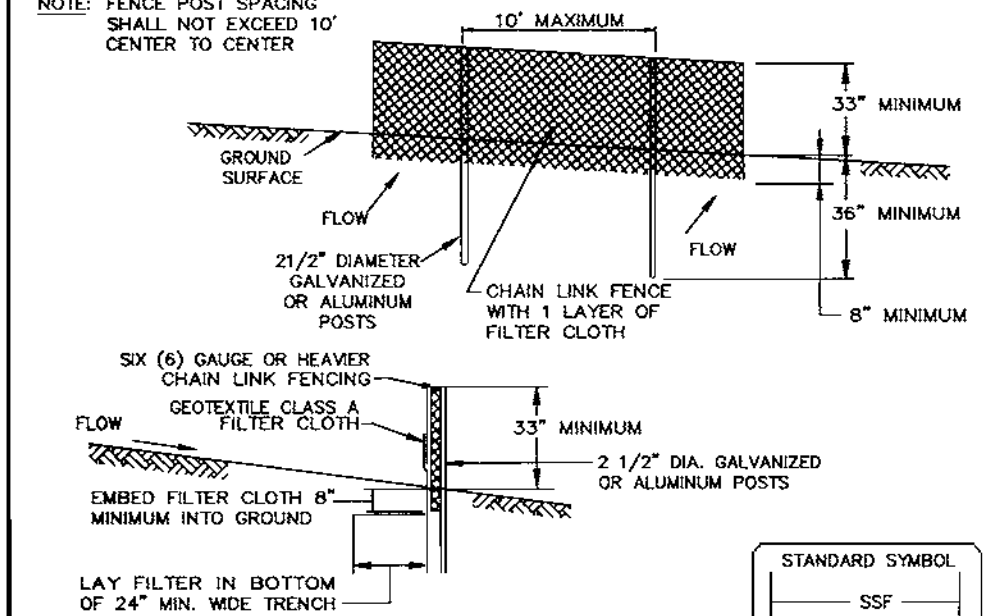
DETAIL 22 - SILT FENCE



- Fence posts shall be a minimum of 3/8" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" 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 pound per linear foot.
- 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/ft (min.) Test: MSMT 509
Tensile Modulus 20 lbs/ft (min.) Test: MSMT 509
Filter Rate 0.3 gal ft² / minute (max.) Test: MSMT 322
Flowering Efficiency 75% (min.) Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE E-15-3 WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and trap rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildup removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.

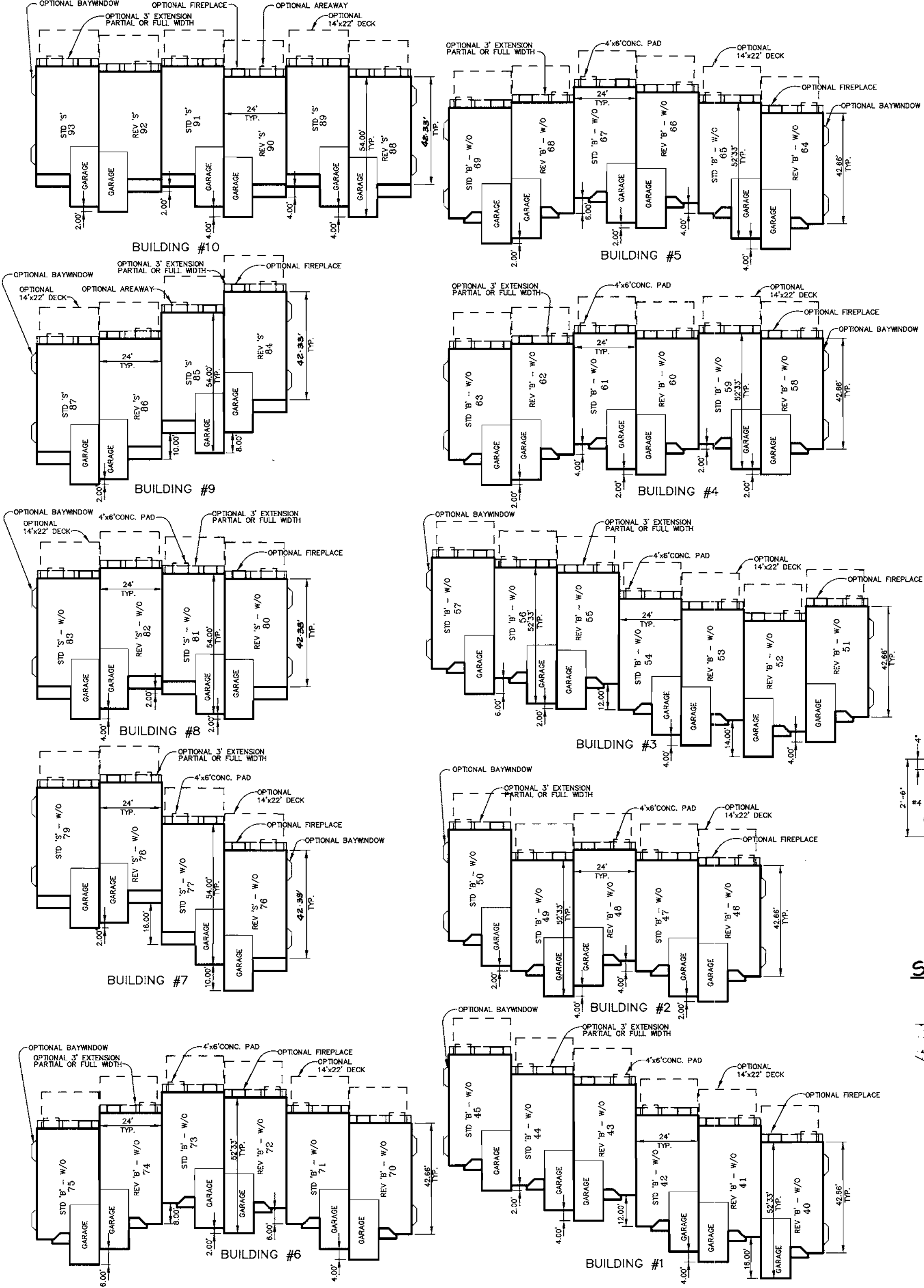
U.S. DEPARTMENT OF AGRICULTURE PAGE 1 MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE E-15-3 WATER MANAGEMENT ADMINISTRATION

SHC CHART

LOT NO.	INV.	PL	MCE	LOT NO.	INV.	PL	MCE
40	310.0	314.1	67	314.6	318.7		
41	309.9	314.0	68	315.3	319.3		
42	309.7	313.7	69	315.3	319.6		
43	309.7	313.9	70	315.7	319.9		
44	309.4	313.6	71	316.1	320.2		
45	309.4	313.4	72	316.5	320.6		
46	309.5	313.8	73	317.3	321.4		
47	309.8	313.9	74	317.3	321.5		
48	309.9	314.0	75	317.3	321.5		
49	310.0	314.2	76	316.9	321.9		
50	311.0	314.9	77	316.9	321.3		
51	310.7	314.6	78	316.8	321.1		
52	310.3	314.3	79	316.3	320.3		
53	310.4	314.5	80	315.8	319.9		
54	310.7	314.7	81	314.6	318.7		
55	310.8	315.0	82	314.4	318.5		
56	310.9	314.9	83	313.0	317.0		
57	311.1	315.1	84	311.3	315.3		
58	311.3	315.3	85	310.3	314.6		
59	311.4	315.5	86	309.7	313.8		
60	311.5	315.5	87	309.6	313.6		
61	311.7	315.8	88	310.0	314.0		
62	311.7	315.8	89	310.1	314.3		
63	312.3	316.3	90	310.2	314.3		
64	312.8	317.0	91	310.4	314.6		
65	313.1	317.3	92	310.4	314.5		
66	313.6	317.7	93	310.6	314.9		

LOT COVERAGE CHART

HOUSE TYPE 'B'	1145 SF
WITH OPTIONS	1216 SF
HOUSE TYPE 'S'	1196 SF
WITH OPTIONS	1267 SF
AREA OF LOTS	1267 SF
MINIMUM AREA	2148 SF
MAXIMUM AREA	3229 SF
MAXIMUM COVERAGE ALLOWED % OF COVERAGE PROVIDED	60
HOUSE TYPE 'B'	53
WITH OPTIONS	57
HOUSE TYPE 'S'	56
WITH OPTIONS	59



TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
Seeded Preparation - Loosen upper three inches of soil by raking, disking 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 ryegrass (3.2 lbs. per 1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of annual ryegrass (3.6 lbs. per 1000 sq. ft.). For the period November 15 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 seed.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seeded 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:
1) Preferred - Apply 2 tons per acre dolomitic limestone (42 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 50-0-0 ureaform fertilizer (4 lbs. per 1000 sq. ft.).
2) Acceptable - Apply 2 tons per acre dolomitic limestone (42 lbs. per 1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (28 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 40 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. per acre (2 lbs. per 1000 sq. ft.) of Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.06 lbs. per 1000 sq. ft.) of creeping lovegrass. During the period October 15 thru February 28, protect site by one of the following options:
1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring.
2) Use seed.
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 (30 to 60 lbs. per 1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal. per acre (5 gal. per 1000 sq. ft.) of mulchified asphalt on flat areas. On slopes 5 ft. or higher, use 347 gal. per acre (6 gal. per 1000 sq. ft.) for anchoring.
Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseedings.

STANDARD SEDIMENT CONTROL NOTES

- 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 (13-10955).
- THIS PROJECT MAY NOT BEGIN UNTIL ALL THE CONTROLS APPROVED UNDER F-02-15 ARE INSTALLED AND FUNCTIONING AND PERMISSION IS OBTAINED BY THE HOWARD COUNTY DLP SEDIMENT CONTROL INSPECTOR. (1 DAY)
- INSTALL STABILIZED CONSTRUCTION ENTRANCES AND SILT FENCE. (2 DAYS)
- BEGIN HOUSE CONSTRUCTION AND FINE GRADING. HOUSE CONSTRUCTION FOR LOTS 46-50 WILL BEGIN ONCE F-02-15 EARTH DIKE AND SEDIMENT TRAP ARE REMOVED PER HOWARD COUNTY DLP SEDIMENT CONTROL INSPECTOR.
- INSTALL DRIVEWAYS AS NECESSARY. (2 WEEKS)
- APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)
- PERFORM LANDSCAPING AND COMPLETE HOUSE CONSTRUCTION. (3 WEEKS)
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES AND SILT FENCE. (2 DAYS)
- BEGIN HOUSE CONSTRUCTION AND FINE GRADING. HOUSE CONSTRUCTION FOR LOTS 46-50 WILL BEGIN ONCE F-02-15 EARTH DIKE AND SEDIMENT TRAP ARE REMOVED PER HOWARD COUNTY DLP SEDIMENT CONTROL INSPECTOR.
- INSTALL DRIVEWAYS AS NECESSARY. (2 WEEKS)
- APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)
- PERFORM LANDSCAPING AND COMPLETE HOUSE CONSTRUCTION. (3 WEEKS)
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)

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: *Chick Riebert* DATE: 2/13/02

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: *John W. Clapsaddle* DATE: 2/15/2002

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: 3/4/02
John Myer

HOWARD SOIL CONSERVATION DISTRICT DATE: 3/1/02
John Clapsaddle

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

3/7/02 DATE
DIRECTOR
2/20/02 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
3/5/02 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

OWNER/DEVELOPER

STREAMWOOD, LLLP
c/o TROUTMAN COMPANY
9030 RED BRANCH ROAD
SUITE 100
COLUMBIA, MARYLAND 21045
410-730-7065

PROJECT: EMERSON SECTION ONE AREA TWO
A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217-15220
AREA: TAX MAP 47 BLOCK 3,8 & 9
ZONED: R-ED PARCEL: P/O 837
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DETAIL SHEET

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

DATE: 2/12/2002
DESIGNED BY: CJR
DRAWN BY: DAM
PROJECT NO: 01058/SDP
DATE: FEBRUARY 14, 2002
SCALE: AS SHOWN
DRAWING NO. 4 OF 6

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

- 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 poor that a topsoil zone is not developed to support plants or furnish containing supplies of moisture and plant nutrients.
c. The original soil is so vegetated containing natural soil 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.

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-NRCS in cooperation with Agricultural Experimentation Station.

- 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 8% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
- Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, johnsongrass, nutgrass, poison ivy, thistle, or others as specified.

When 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 the designated areas and worked into the soil in conjunction with tillage operations as described in the following specifications.

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

- On soil needing 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 seed or mulch 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 phytotoxic 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.

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

Topsoil Application

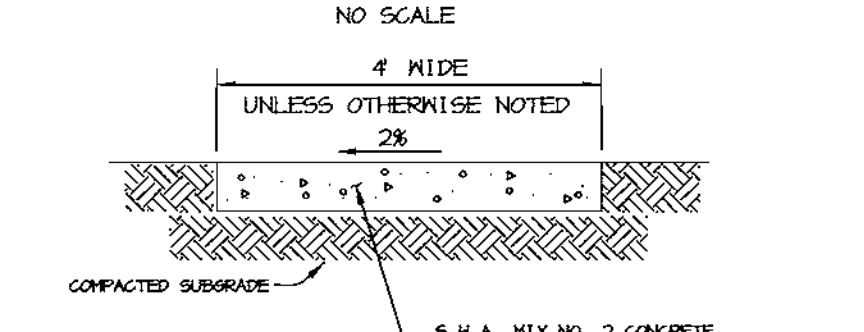
- When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
- 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.
- 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.

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.

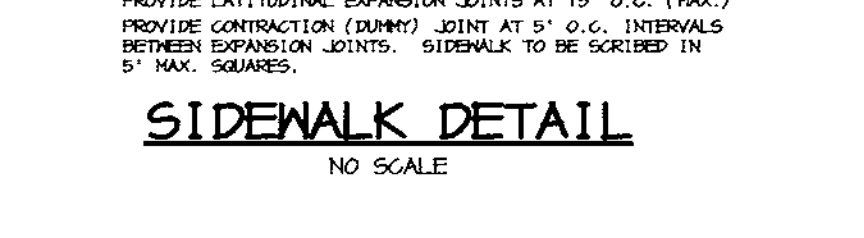
- Composted Sludge Material For use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to provide amendments and for site having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of application 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 6.0 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 to 1.5 tons/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 1979.

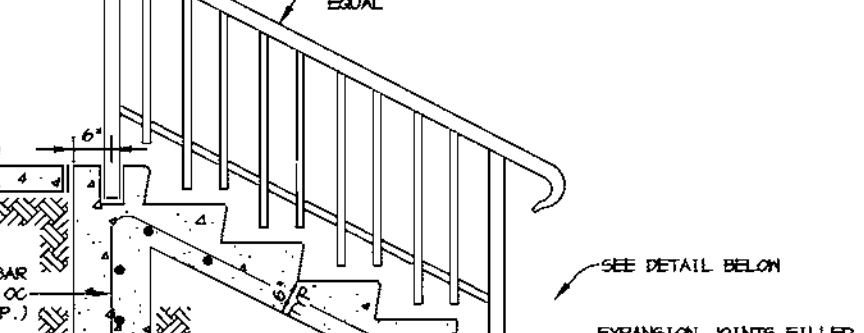
TYP. BUILDING ELEVATION



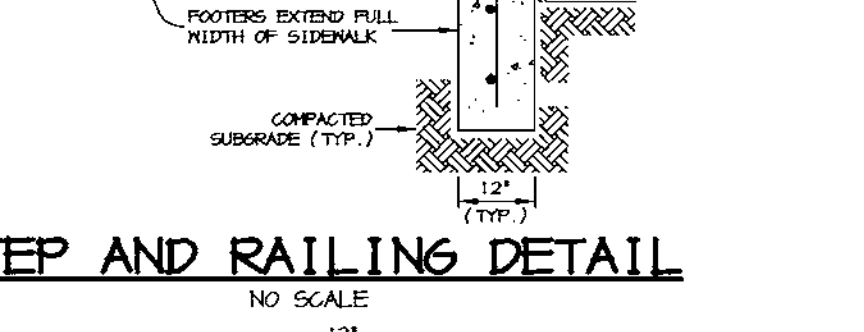
SIDEWALK DETAIL

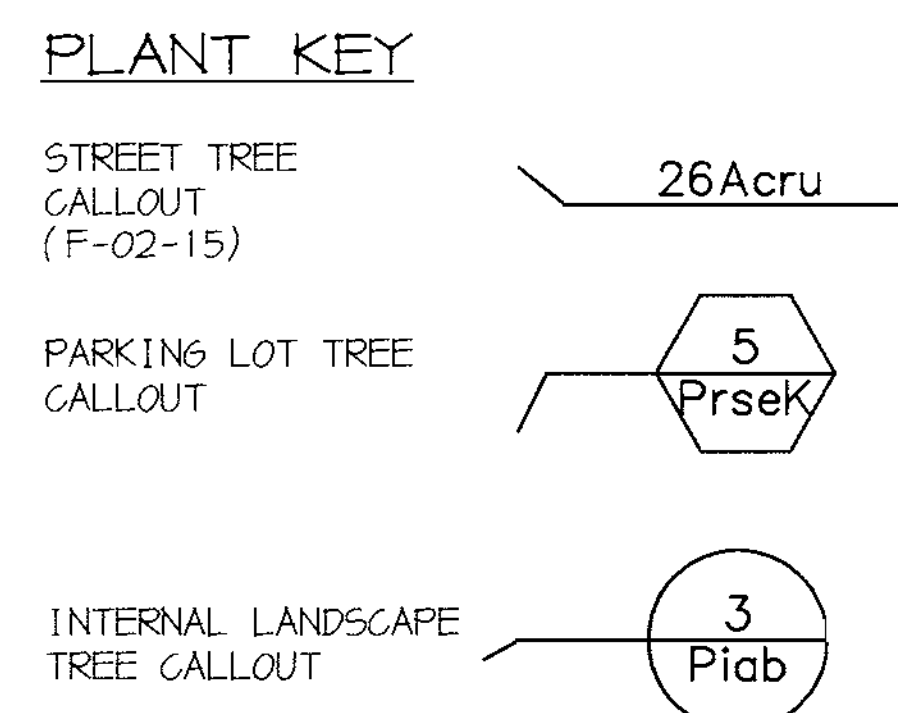
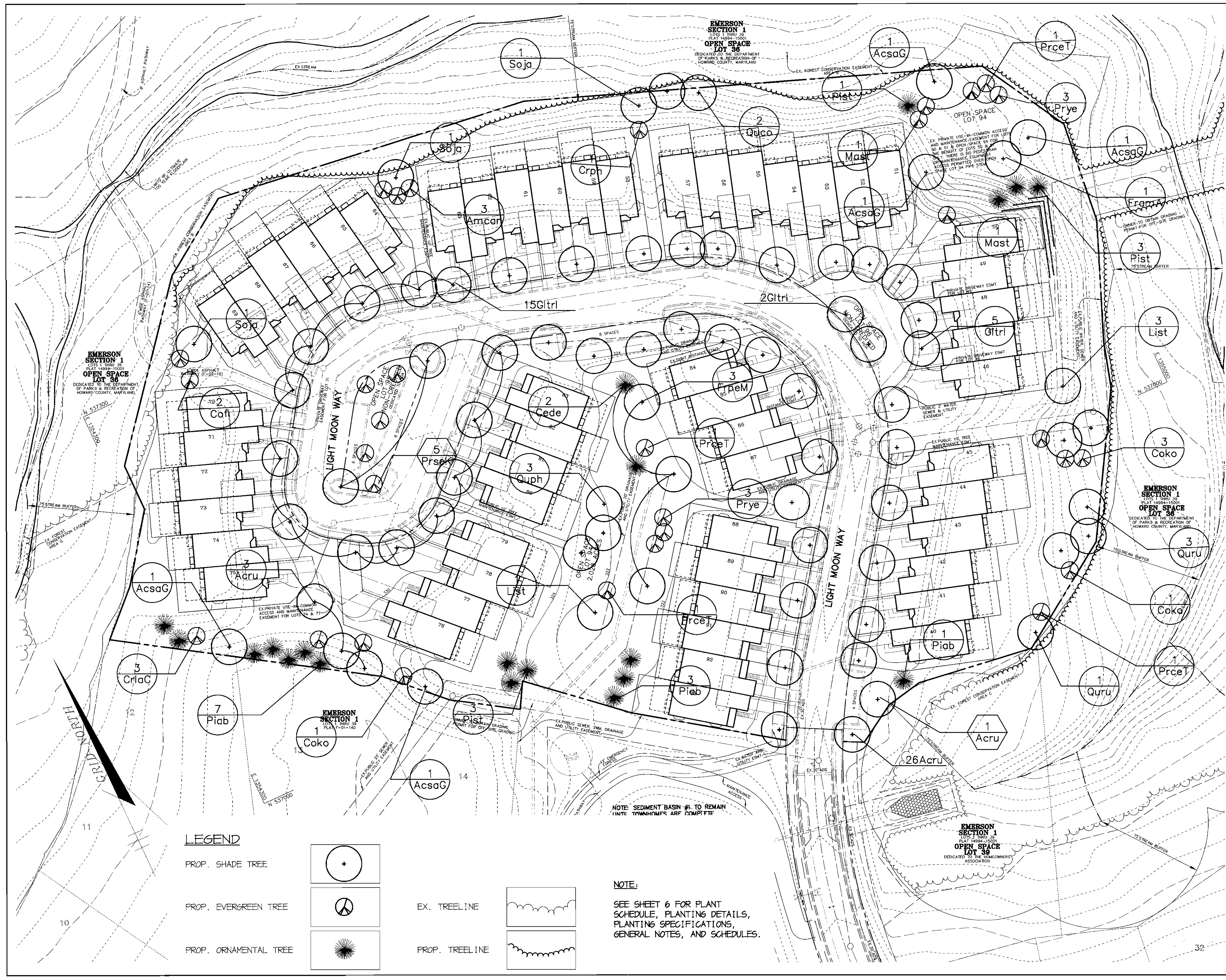


STEP AND RAILING DETAIL

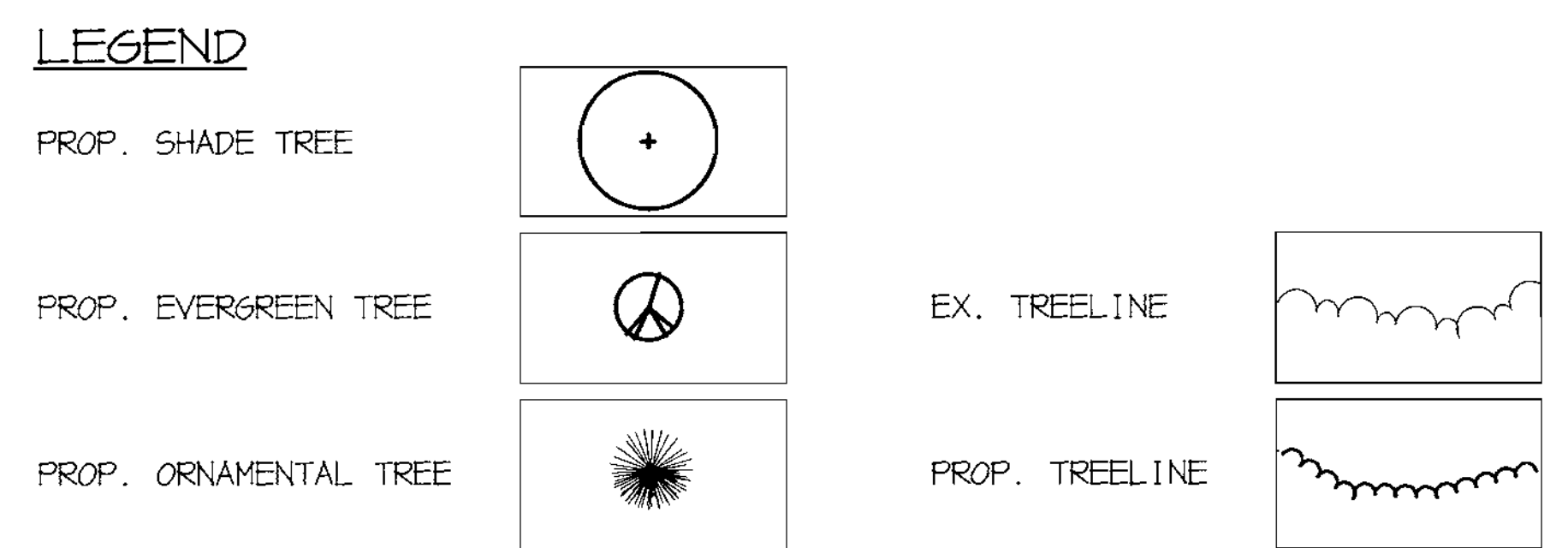


TYPICAL CONCRETE STEP WITH RAIL DETAIL





APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Paul R. Rust</i>	3/7/02 DATE
<i>McDermott</i>	2/26/02 DATE
<i>Wendy Hamilton</i>	3/5/02 DATE
OWNER/DEVELOPER	
STREAMWOOD, LLLP c/o TROUTMAN COMPANY 9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 410-730-7065	
PROJECT EMERSON SECTION ONE AREA TWO LOTS 40-96	
A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217-15220	
AREA	TAX MAP 47 BLOCK 3.8 & 9 ZONED: R-ED PARCEL: P/O 837 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE LANDSCAPE PLAN	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. PHRA 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DATE	DESIGNED BY : D.M.D.
	DRAWN BY: G.T.H.
	PROJECT NO. 01058/SDP SDP5.DWG
	DATE : FEBRUARY 14, 2002
	SCALE : 1" = 30'
	DRAWING NO. 5 OF 6



NOTE:
SEE SHEET 6 FOR PLANT SCHEDULE, PLANTING DETAILS, PLANTING SPECIFICATIONS, GENERAL NOTES, AND SCHEDULES.

P:\proj\821\01058\sdp5.dwg Wed Feb 13 11:11:39 2002 Placer: Kuegler, a div:sc: of PHRA

PLANT SCHEDULE					
Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
AcrU	4	Acer rubrum 'Red Sunset'	Red Sunset red maple	2.5"-3" Cal.	as shown
AcsaG	5	Acer saccharum 'Green Mountain'	Green Mountain sugar maple	2.5"-3" Cal.	as shown
FramA	1	Fraxinus americana 'Autumn Purple'	Autumn Purple white ash	2.5"-3" Cal.	as shown
Frpem	3	Fraxinus pennsylvanica 'Marshall'	Marshall's seedless green ash	2.5"-3" Cal.	as shown
GttrI	5	Gleditsia triacanthos inermis 'Imperial'	Imperial thornless honeylocust	2.5"-3" Cal.	as shown
List	4	Liquidambar styraciflua	American sweetgum	2.5"-3" Cal.	as shown
Quco	2	Quercus coccinea	Scarlet oak	2.5"-3" Cal.	as shown
Quph	3	Quercus phellos	Willow oak	2.5"-3" Cal.	as shown
Quru	4	Quercus rubra	Northern red oak	2.5"-3" Cal.	as shown
Soja	3	Sophora japonica	Japanese pagoda tree	2.5"-3" Cal.	as shown

Evergreen Trees					
Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Cede	2	Cedrus deodara	Deodar cedar	6'-8' ht.	as shown
Piab	11	Picea abies	Norway spruce	6'-8' ht.	as shown
Pist	7	Pinus strobus	Eastern white pine	6'-8' ht.	as shown

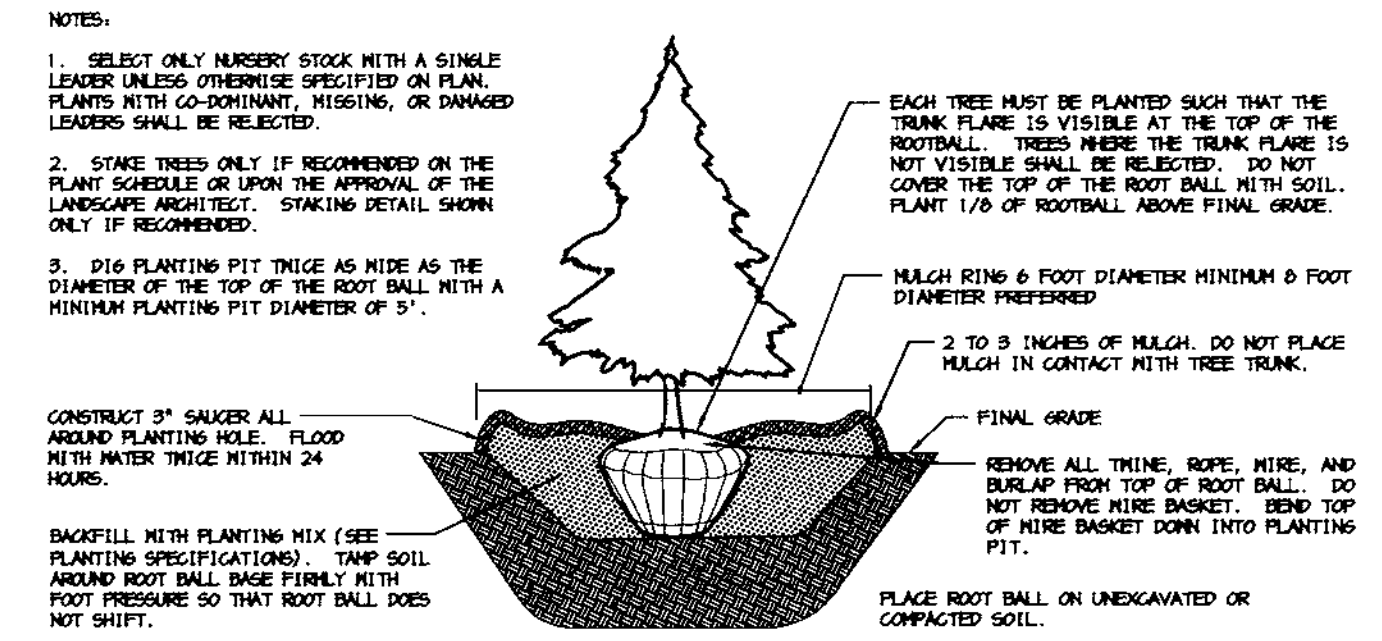
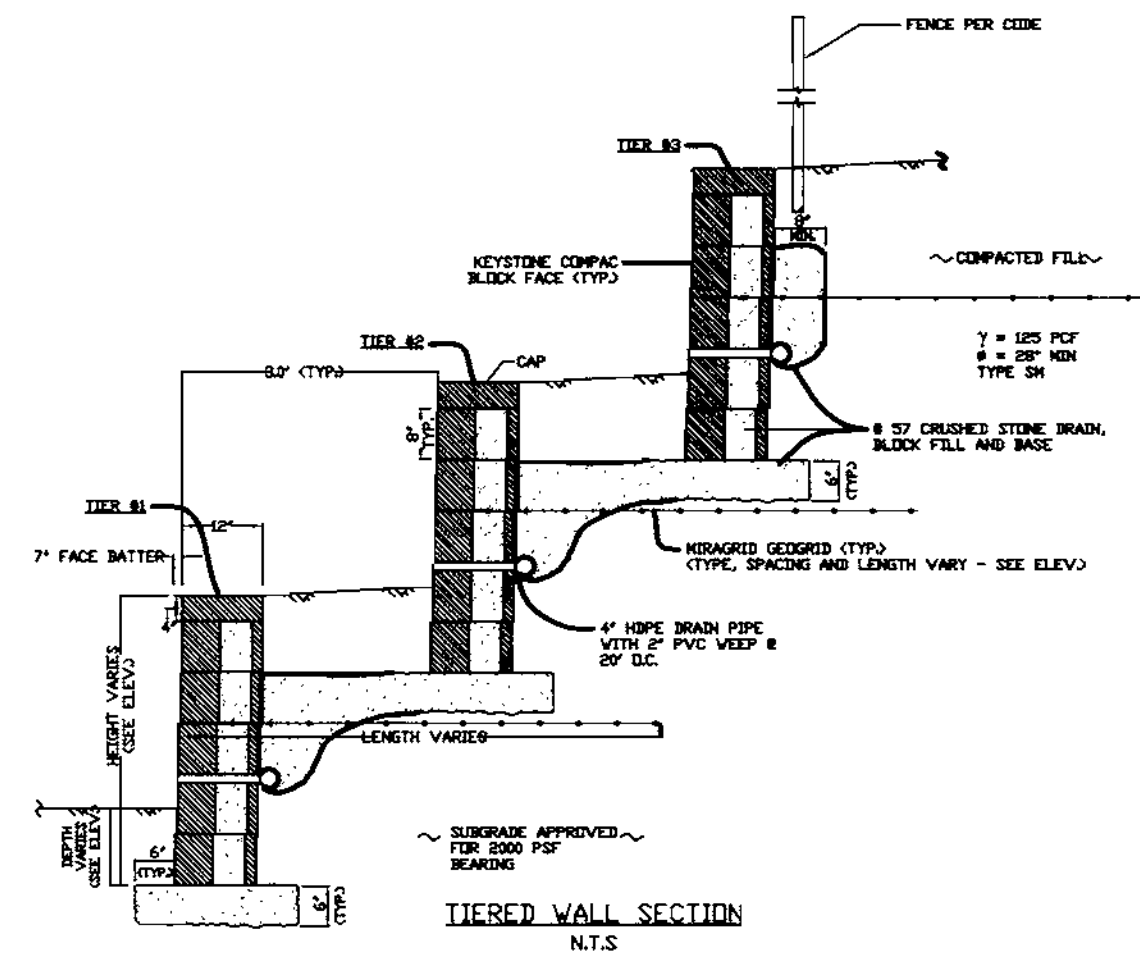
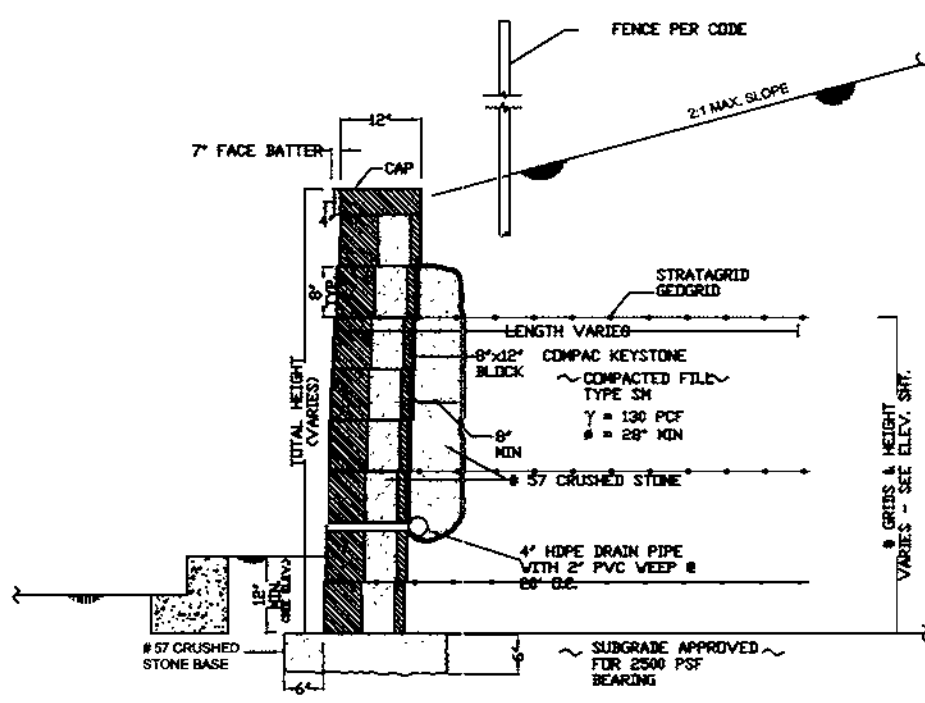
Ornamental Trees					
Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Amcan	3	Amelanchier canadensis	Shadblow serviceberry	8' - 10' ht.	as shown
Cofl	2	Cornus florida	Flowering dogwood	8' - 10' ht.	as shown
Coko	5	Cornus kousa	Kousa dogwood	8' - 10' ht.	as shown
CriaC	3	Crataegus laevigata 'Crimson Cloud'	Crimson Cloud hawthorn	1.5"-2" Cal	as shown
Orph	1	Crataegus phaenopyrum	Washington hawthorn	1.5"-2" Cal	as shown
Mast	2	Magnolia stellata	Star magnolia	6"-8" ht.	as shown
PrceT	4	Prunus cerasifera 'Thundercloud'	Thundercloud purpleleaf plum	1.5"-2" Cal	as shown
PrseK	5	Prunus serrulata 'Kwanzan'	Kwanzan cherry	1.5"-2" Cal	as shown
Prye	6	Prunus yedoensis	Yoshino Cherry	1.5"-2" Cal	as shown

STREET TREE SCHEDULE					
Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
AcrU	26	Acer rubrum 'Red Sunset'	Red Sunset red maple	2.5"-3" Cal.	as shown
GttrI	17	Gleditsia triacanthos inermis 'Imperial'	Imperial thornless honeylocust	2.5"-3" Cal.	as shown

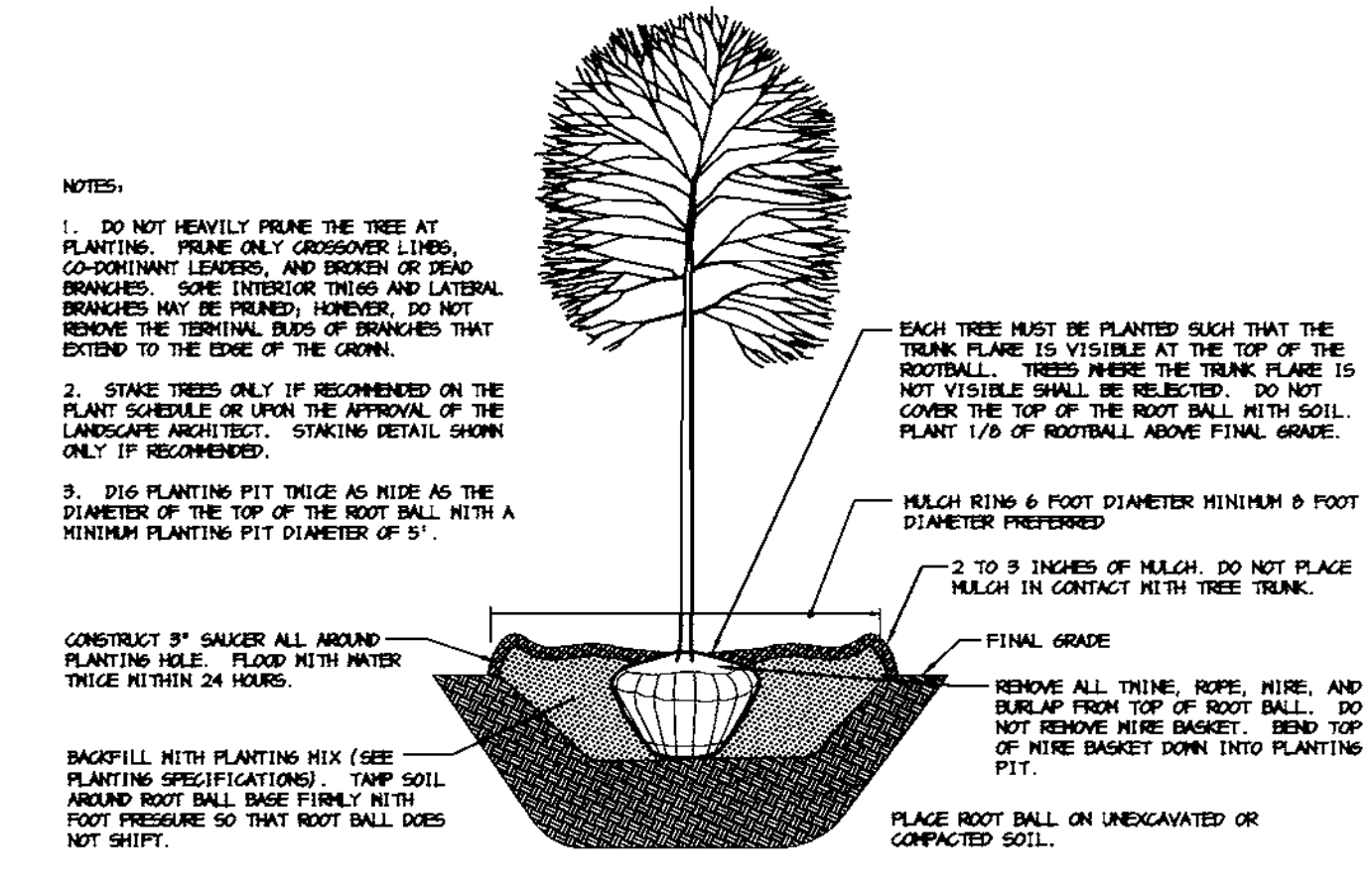
* PLANT QUANTITIES SHOWN IN THE ABOVE STREET TREE SCHEDULE ARE BONDED UNDER F-02-15 (SEE F-02-15 TITLE SHEET, GENERAL NOTE #31).

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING	
PARKING LOT	1
NUMBER OF PARKING SPACES	24
NUMBER OF SHADE TREES REQUIRED (1/10 SPACES)	3
NUMBER OF TREES PROVIDED	1
SHADE TREES	5
OTHER TREES (2:1 SUBSTITUTION)	3
NUMBER OF ISLANDS PROVIDED	

SCHEDULE C - RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS	54
NUMBER OF SHADE TREES REQUIRED (1/1 SFA)	54
NUMBER OF TREES PROVIDED	31
SHADE TREES	46
OTHER TREES (2:1 SUBSTITUTION)	



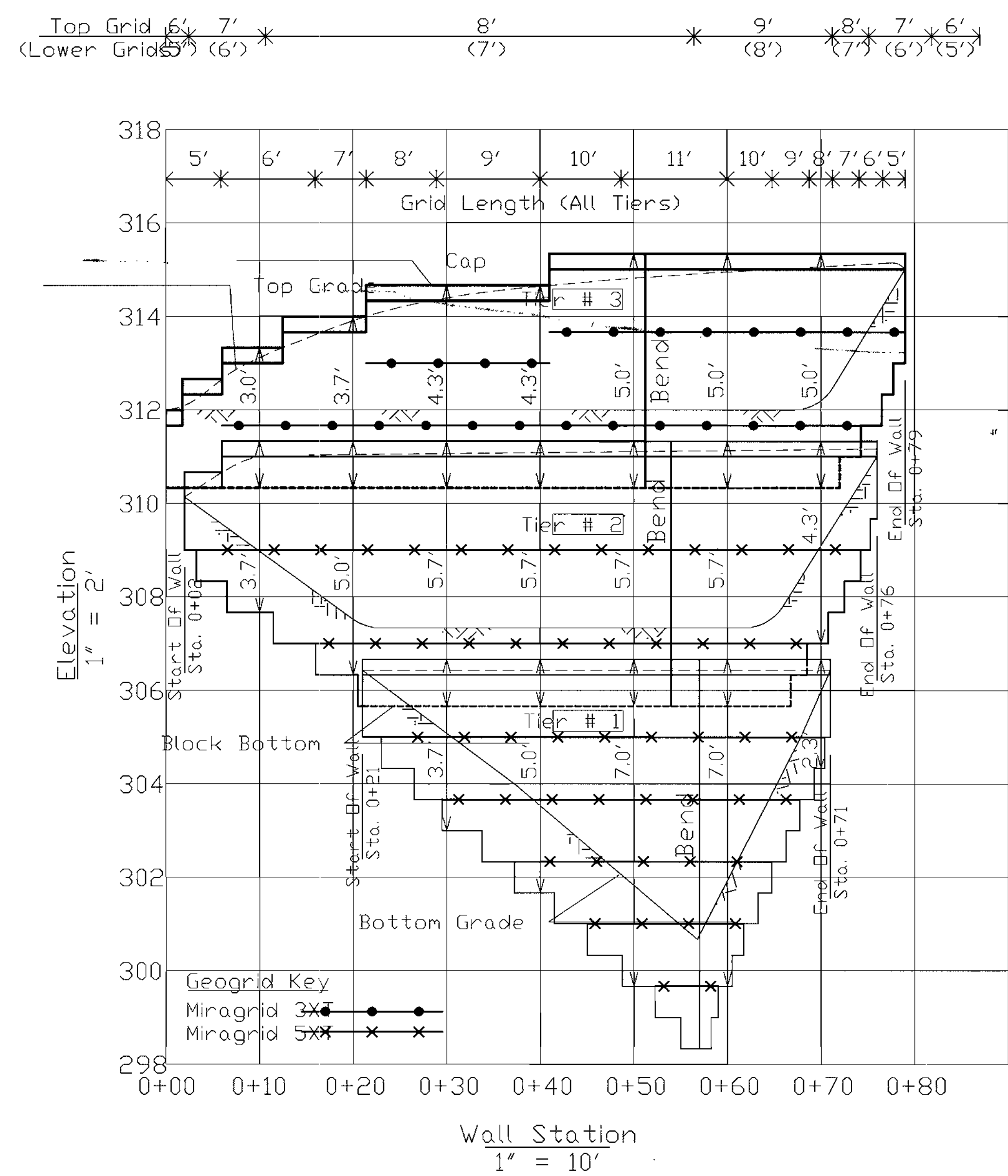
EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE



DECIDUOUS B&B TREE PLANTING DETAIL
NOT TO SCALE

PLANTING SPECIFICATIONS

- 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.
- 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 head-in plants or plants from cold storage will be accepted.
- 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.
- 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.
- 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.
- 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.
- 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 Xyprussoxyris laylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- 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.
- 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.
- 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.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- 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 yew) top dress after planting with 1/4 to 1/2 cup lime each.
- 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.
- Mud & 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.
- 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 desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- 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.



GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$17,850.
34 SHADE TREES @ \$300 = 10,200
31 ORNAMENTAL TREES @ \$150 = 4,650
20 EVERGREEN TREES @ \$150 = 3,000
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- 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.
- 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.
- 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.
- 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.

DEVELOPER'S/BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN SHALL 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: *Chuck Riegert* DATE: 2/13/02

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James S. Hunter 3/7/02
DIRECTOR DATE

Chris Dammann 2/26/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hamstra 3/5/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER
STREAMWOOD, LLLP
c/o TROUTMAN COMPANY
9030 RED BRANCH ROAD
SUITE 100
COLUMBIA, MARYLAND 21045
410-730-7065

PROJECT: EMERSON
SECTION ONE AREA TWO
LOTS 40-96
A RESUBDIVISION OF PARCEL A, PLAT NO'S 15217-15220

AREA: TAX MAP 47 BLOCK 3.8 & 9
ZONED: R-ED PARCEL: P/O 837
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE NOTES & DETAILS

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

DATE: 2/13/02
DESIGNED BY: D.M.D.
DRAWN BY: G.T.H.
PROJECT NO: 01058/SDP
SDP.DWG
DATE: FEBRUARY 14, 2002
SCALE: 1" = 30'
DRAWING NO. 6 OF 6

STATE OF MARYLAND
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
Scott R. Wolford
SCOTT R. WOLFORD #797