

PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein. All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plans and the American Association of Nurserymen (AAN) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable infestations. 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 not be accepted. All plants shall be freshly dug, no heated-in plants from cold storage will be accepted. Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Area", thereafter "Landscape Guidelines" approved by the Landscape Contractors Association of Metropolitan Washington and the National Chapter of the American Society of Landscape Architects, third edition, including all appendices. Contractor shall be required to guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of 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 utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the contractor. Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line. Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from 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 plant list take precedence. All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as details and specified except where noted on plans. Positive drainage shall be maintained in planting beds 2 percent slope.

Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of standard fertilizer per cubic yard of planting mix. Evergreen Plants - Two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines. Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommendations on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific ground cover to be treated. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded. This plan is intended for landscape use only; see other plan sheets for more information on grading, sediment control, layout, etc.

SURETY AMOUNT FOR THIS PLAN IS IN THE AMOUNT OF \$21,750.00

- LANDSCAPING SURETY FOR LOTS 79 & 80 IS \$120,000.00 PER LOT. THE LANDSCAPING SURETY FOR LOTS 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80 IS \$1,500.00 PER LOT. THE LANDSCAPING SURETY FOR LOT 41 IS \$10,000.00 PER LOT. THE LANDSCAPING SURETY FOR LOTS 39 AND 47 IS \$20,000.00 PER LOT. STREET TREES ARE NOT INCLUDED IN MODIFIED SCHEDULE C LANDSCAPE CALCULATIONS.
- TYPE 'B' BUFFER OR PERIMETER LANDSCAPE BUFFER WILL BE CREDITED TOWARDS THE LANDSCAPE REQUIREMENTS.
- LANDSCAPING CAN NOT BE PLANTED IN PUBLIC EASEMENTS.
- FINAL PLANTING TYPE AND LOCATION IS SUBJECT TO APPROVAL BY THE ARCHITECTURAL COMMITTEE.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTING HEREWIT LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH HOWARD COUNTY LANDSCAPE MANUAL.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, PLANT MATERIALS, BENCHES, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- SIZES OF PLANT MATERIALS MUST CONFORM TO THE REQUIREMENTS OF THE LANDSCAPE MANUAL, CHAPTER IV AND APPENDIX C.

KEY PROPERTY DEVELOPMENT CRITERIA, APPROVED 7/1/99

SECTION VII RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

THE QUANTITY AND GENERAL LOCATION OF TREES REQUIRED FOR INTERNAL LANDSCAPING ARE DETERMINED BY CRITERIA APPLIED BY THE ARCHITECTURAL COMMITTEE. THE COMMITTEE WILL CLASSIFY, DURING ARCHITECTURAL REVIEW, ALL LOTS AND PARCELS AS 1) NON-WOODED, 2) SEMI-WOODED, 3) WOODED. SUCH CLASSIFICATION SHALL TAKE INTO ACCOUNT THE EXISTING TREE COVER AND THE POTENTIAL FOR SAVING TREES IN CONSIDERING GRADING AND SITING. THIS CRITERIA ALSO CONSIDER THE SIZE OF THE LOT, AMOUNT OF EXISTING VEGETATION AND THE TYPE AND SITING OF RESIDENTIAL UNITS, IF, DURING OR AFTER CONSTRUCTION, THE COMMITTEE DETERMINES THAT A BUILDER HAS VIOLATED ANY PROVISION OF TREE PRESERVATION, THE BUILDER WILL BE REQUIRED TO ADD NEW PLANT MATERIAL. SHADE TREE REQUIREMENTS ARE SPECIFIED BY THE FOLLOWING TABLE. DENSITIES REFER TO THE DENSITY OF THE INDIVIDUAL PARCEL.

TYPE OF UNIT AND LOT SIZE	MINIMUM NUMBER OF SHADE TREES REQUIRED		
	NON WOODED	SEMI WOODED	WOODED
SMALL RESIDENTIAL LOT (4,000-7,000 SQUARE FEET) CLUSTER HOUSING	4.0/LOT	2.25/LOT	1.25/LOT
MEDIUM RESIDENTIAL LOT (7,000-13,000 SQUARE FEET) 2-4 BUILDCARE	5.0/LOT	3.0/LOT	2.0/LOT
LARGE RESIDENTIAL LOT (13,000 SQUARE FEET)	7.0/LOT	4.0/LOT	3.0/LOT

SUBSTITUTION OF TWO FLOWERING TREES OR TWO EVERGREEN TREES FOR EACH SHADE TREE MAY BE PERMITTED FOR UP TO 50% OF THE REQUIRED NUMBER OF SHADE TREES SHOWN IN THE TABLE SUBJECT TO THE APPROVAL OF THE ARCHITECTURAL COMMITTEE. CREDIT MAY ALSO BE GIVEN FOR ANY AREAS REQUIRED TO BE PROVIDED ALONG ROADWAYS, SUBJECT TO THE APPROVAL OF THE ARCHITECTURAL COMMITTEE.

SCHEDULE A PERIMETER LANDSCAPE EDGE

LOT NO.	PERIMETER	CATEGORY (PROPERTIES/ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY PERIMETER	NUMBER OF PLANTS REQUIRED		
					SHADE TREES	EVERGREEN TREES	TOTAL TREES
41	P-1	ADJACENT TO ROADWAY	B	106.30'	2	3	5
63	P-2	ADJACENT TO ROADWAY	B	85.49'	2	2	4

MODIFIED SCHEDULE C LANDSCAPE CHART

LOT NO.	LOT CLASSIFICATION	INTERNAL LANDSCAPING REQUIRED (# OF SHADE TREES)	TYPE B REQUIRED		SHADE TREE CREDIT	REMAINING SHADE TREE OBLIGATION	TOTAL TREES REQUIRED	
			SHADE	EVERGREEN			SHADE	EVERGREEN
LOTS 38 & 47	NON-WOODED	7 TREES PER LOT	N/A	N/A	0	0	14	0
LOTS 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80	NON-WOODED	5 TREES PER LOT	N/A	N/A	0	0	40	0
LOT 41 CORNER	NON-WOODED	4 TREES PER LOT	N/A	N/A	0	0	8	0
LOT 41 CORNER	NON-WOODED	5 TREES	2	3	3	2	4	3
LOT 63 CORNER	NON-WOODED	5 TREES	2	2	3	2	4	2
TOTAL TREES							70	5

* THIS NUMBER REFLECTS THE MATHEMATICAL CONVERSION OF EVERGREEN TREES TO SHADE TREES (2:1) FOR THE PURPOSE OF MEETING THE INTERNAL PER LOT SHADE TREE OBLIGATION.

BUILDER/DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT THE REQUIRED LANDSCAPING WILL BE DONE ACCORDING TO THE PLAN, SECTION 16124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 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.

Allan Waschak 10-25-04
Signature of Developer: ALLAN WASCHAK Date

INDEX CHART

SHEET	DESCRIPTION
SHEET 1	TITLE SHEET, HOUSE TYPES, TEMPLATES
SHEET 2	SITE DEVELOPMENT PLAN, LOTS 38-41, 47-49 & 79-81
SHEET 3	SITE & SEDIMENT/EROSION CONTROL PLAN LOTS 62-65
SHEET 4	SEDIMENT/EROSION CONTROL PLAN LOTS 38-41, 47-49 & 79-81
SHEET 5	SEDIMENT/EROSION CONTROL NOTES & DETAILS

ENGINEER'S CERTIFICATE

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.

Earl D. Collins 10-25-04
Signature of Engineer: EARL D. COLLINS Date

BUILDER/DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE PLAN, FOR SEDIMENT AND EROSION CONTROL 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 HOWARD SOIL CONSERVATION DISTRICT.

Allan Waschak 10-25-04
Signature of Developer: ALLAN WASCHAK Date

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
38	8815 AUTUMN GRAIN GATE
39	8811 AUTUMN GRAIN GATE
40	8807 AUTUMN GRAIN GATE
41	8803 AUTUMN GRAIN GATE
47	8805 VINTAGE EARTH PATH
48	8801 VINTAGE EARTH PATH
49	8807 VINTAGE EARTH PATH
62	8805 VINTAGE EARTH PATH
63	8801 VINTAGE EARTH PATH
64	8802 IRONLEAF TRAIL
65	8806 IRONLEAF TRAIL
79	8805 FAIR FIELDS WAY
80	8819 FAIR FIELDS WAY
81	8815 FAIR FIELDS WAY

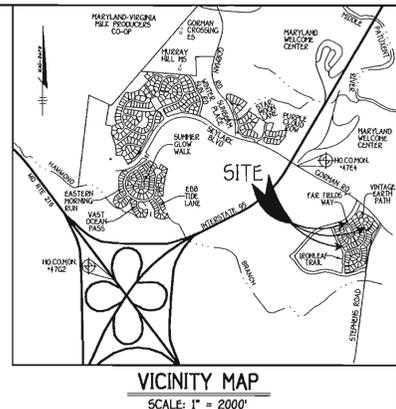
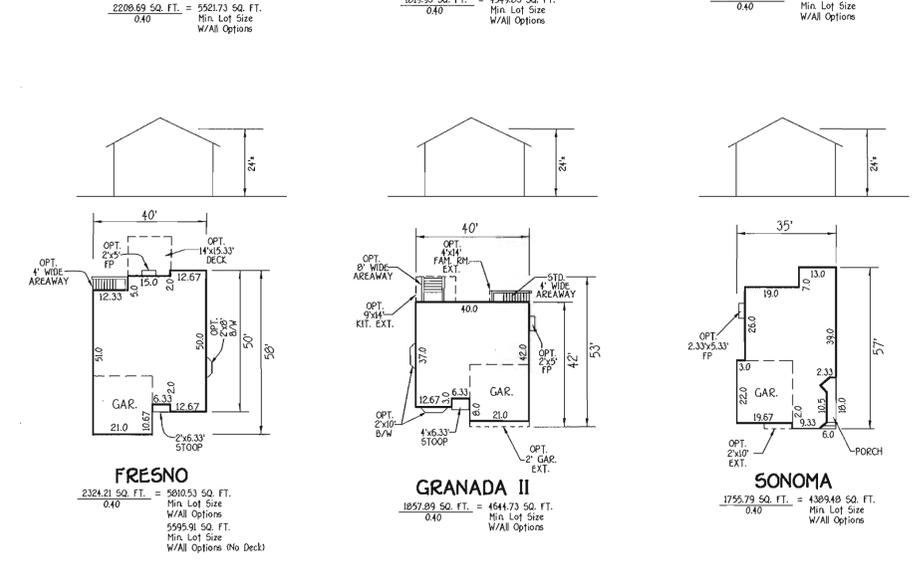
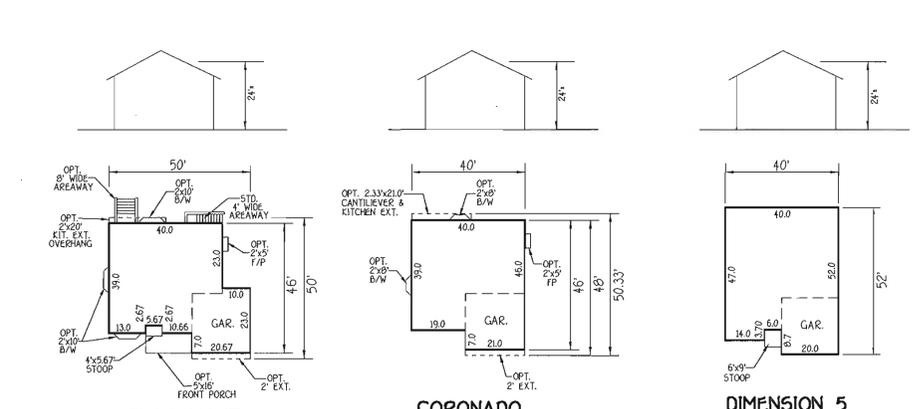
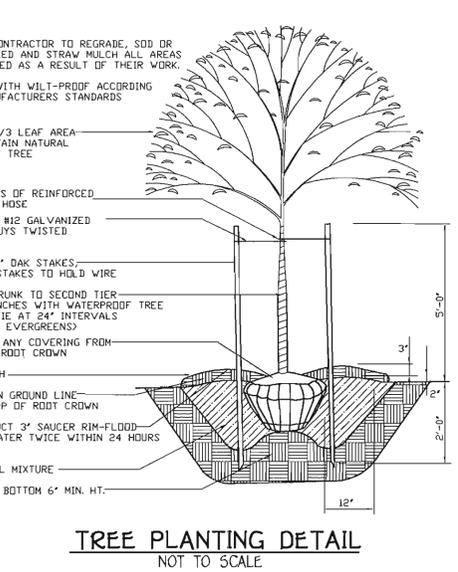
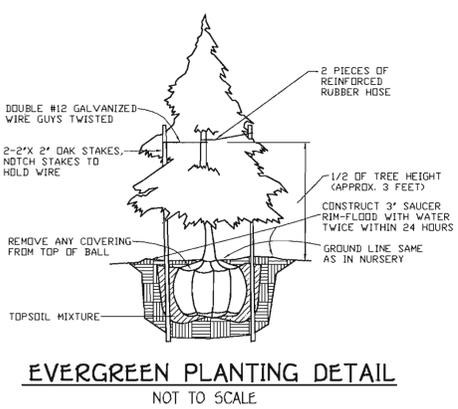
TITLE SHEET

SINGLE FAMILY DETACHED

EMERSON

SECTION 2 PHASE 5A
LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO.: 47 PARCEL NO.: 837 GRID NO.: 9 & 15
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: AUGUST, 2004
SHEET 1 OF 5



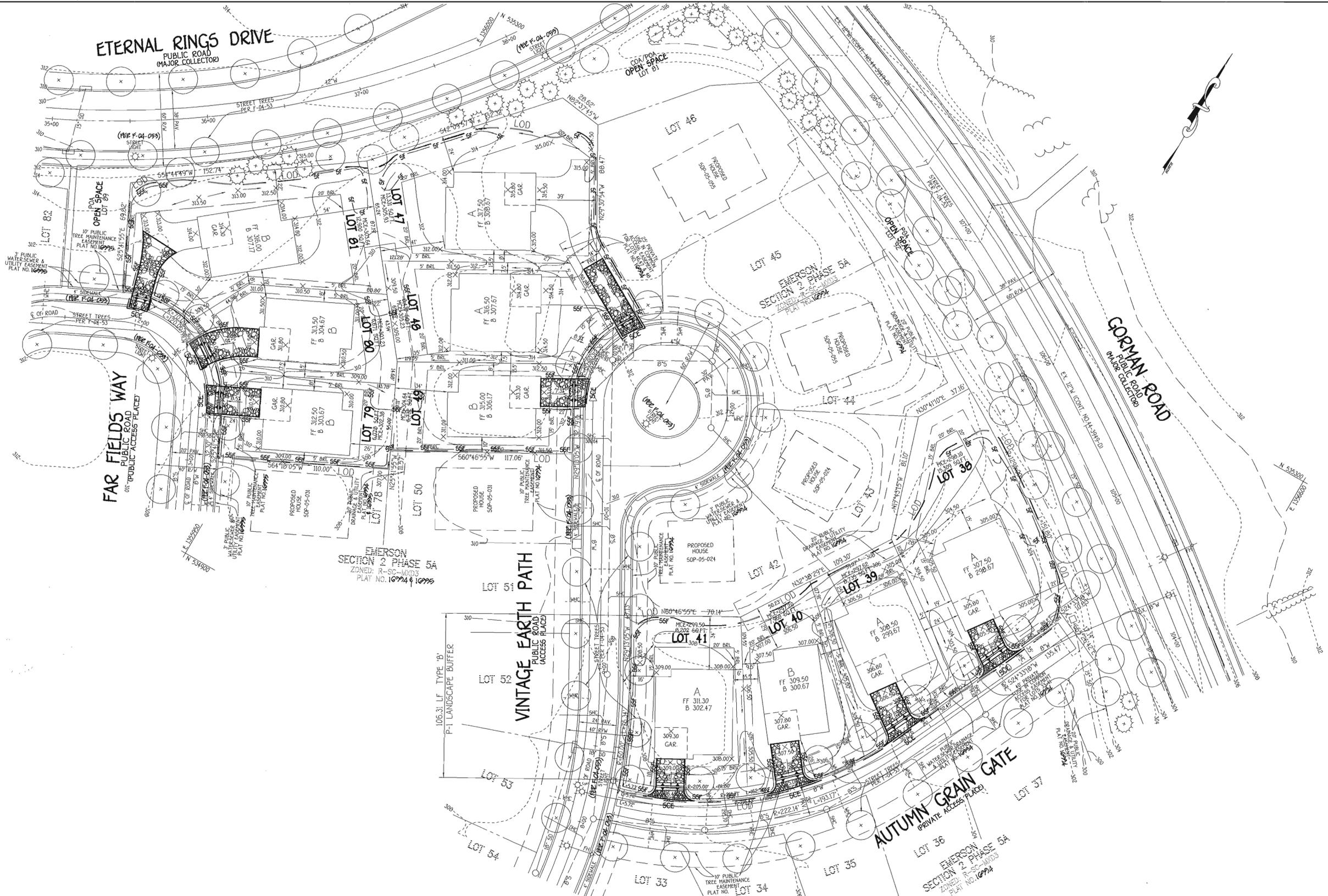
BENCH MARKS

T.P. 474 ELEV. 339.00
N. 535,045.189
E. 1355,431.224
LOC. NEAR I-95 BRIDGE ALONG GORMAN ROAD

T.P. 4762 ELEV. 363.53
N. 532,930.964
E. 1,351,224.095
LOC. NEAR HD. RTE 216 WEST NEAR EXIT RAMP TO I-95

- ### GENERAL NOTES
- SUBJECT PROPERTY ZONED PEC-MXD-3 & RSC-MXD-3 AS GRANTED BY THE ZONING BOARD ON 9/29/95 AS CASE NO. Z2979M.
 - TOTAL AREA OF SITE: 2,943 ACRES
 - TOTAL NUMBER OF LOTS SUBMITTED: 14 SFD
 - THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT 410-513-1800 24 HOURS 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.
 - THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: ZB-979M, WP 99-96, S 99-12, PB-339, P-02-15, 1-04-53, W&S CONT. #24-4043-D.
 - THIS PLAN IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT JUNE, 1999 BY DAFT McCUNE WALKER, INC.
 - HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
 - HOWARD COUNTY MONUMENT #74 N 535,045.189 E 1355,431.224 HOWARD COUNTY MONUMENT #742 N 532,930.964 E 1352,244.095
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS F-04-53 AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 24-4043-D.
 - CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
 - STORMWATER MANAGEMENT WILL BE PROVIDED AS APPROVED ON THE ROAD CONSTRUCTION DRAWINGS FILED UNDER F-04-53.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND DEVELOPMENT CRITERIA APPROVED BY THE PLANNING BOARD 7-1-99 PER CASE NO. PB-339 AS REQUIRED. LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$21,750.00 FOR 75 INTERIOR LANDSCAPING TREES.
 - PERIMETER LANDSCAPING AND STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 1614 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND DEVELOPMENT CRITERIA APPROVED BY THE PLANNING BOARD 7-1-99 PER CASE NO. PB-339 AS SHOWN ON THE APPROVED ROAD CONSTRUCTION DRAWINGS FILED UNDER F-04-53.
 - FOREST CONSERVATION REQUIREMENTS HAVE BEEN ADDRESSED WITH F-04-53.
 - FOR DRIVEWAY ENTRANCE DETAILS REFER TO HD CODES MANUAL VOL. IV DETAILS R.6.03 & R.6.05.
 - OPEN SPACE REQUIREMENTS FOR THESE LOTS HAVE BEEN PROVIDED UNDER F-04-53.
 - MINIMUM BUILDING RESTRICTION SETBACKS FROM PROPERTY LINES AND PUBLIC ROAD RIGHTS-OF-WAY ARE TO BE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA APPROVED WITH THE COMPREHENSIVE SKETCH PLAN 5-99-12 AND THE DECISION AND ORDER FOR PB-339 APPROVED ON JULY 1, 1999.
 - THE MINIMUM SETBACKS FOR STRUCTURES SHALL BE AS FOLLOWS:
FRONT SETBACK 15' FROM THE RIGHT-OF-WAY TO THE HOUSE OR GARAGE.
SIDE SETBACK 5' TO THE PROPERTY LINE WITH A MINIMUM OF 15' BETWEEN STRUCTURES.
REAR SETBACK 10' FROM THE PROPERTY LINE TO AN OPEN DECK. AS AN ADVISORY, THE 15' DISTANCE DOES APPLY TO THE SECOND STORY OVERHANG.
DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12' (4" IF SERVING MORE THAN ONE RESIDENCE)
B) SURFACE - 15' OF COMPACTED CRUSHED RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
C) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS.
D) STRUCTURES - (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS (15% LOADING)
E) DRAINAGE: ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
 - THERE WILL BE NO LANDSCAPING ALLOWED IN THE REAR YARD EASEMENT.
 - AUTUMN GRAIN GATE WILL BE A PRIVATELY MAINTAINED ROAD.

J:\50001 Emerson Property\Map\Site\Phase5A\0502-6004 Cover LOTS 38-41, 47-49, 62-65 & 79-81.dwg, 10/25/2004 3:27:14 PM



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FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL PIKE
 ELKLOTT CITY, MARYLAND 21042
 410.461.2929

NO.	REVISION	DATE



ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Reviewed for HOWARD SCD and meets Technical Requirements.

Jan Meyer 11/1/04
 Director, Natural Resources Conservation Service

John L. Robertson 11/1/04
 Howard SCD

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Karl Sheehan 4/10/04
 Chief, Division of Land Development

John S. Williams 11/2/04
 Chief, Development Engineering Division

Mark A. Weyant 11/2/04
 Director - Department of Planning and Zoning

PROJECT: EMERSON SECTION 2 PHASE 5A
 SECTION 2 PHASE 5A
 LOTS NO. 38-41, 47-49, 62-65 & 79-81

PLA.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
10992 THEU 10997	9 & 15	PEC-MXD-3 RSC-MXD-3	47	SIXTH	6069.02

WATER CODE: E-15
 SEWER CODE: 7640000

SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED
EMERSON
SECTION 2 PHASE 5A
LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO: 47 PARCEL NO: 837 GRID NO.: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"= 30' DATE: AUGUST, 2004

SHEET 4 OF 5

SDP 05-026

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into temporary seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpiles and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation and groundwater recharge. Vegetation over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating these substances present within the root zone. Sediment control devices must remain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

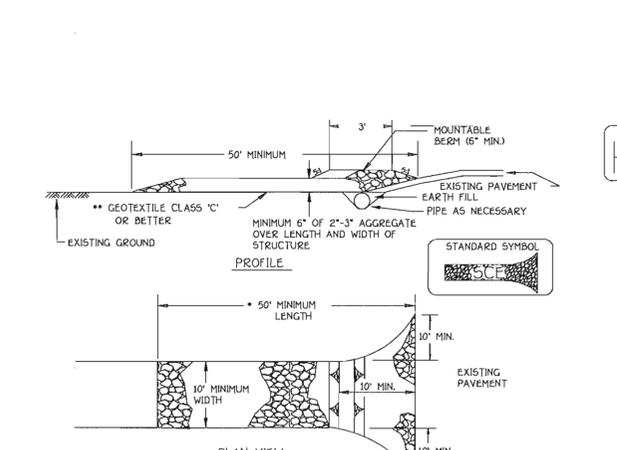
- Site Preparation
 - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- Soil Amendments (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime) may be substituted which contains at least 80% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90-100% will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- Seeded Preparation
 - Temporary Seeding
 - Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas greater than 3:1 should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
 - Permanent Seeding
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay, but provide the capacity to hold a moderate amount of moisture. An exception is for loessages or silt loesses to be planted, then a sandy soil (50% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil test or as included on the plans.
 - Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seeded preparation loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (greater than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

- Seed Specifications
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed testing agency. All seed used shall have been tested within 6 months immediately preceding the date of sowing such material on this job.
 - Incubant - The incubant for treating bagged seed is the seed mixture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Incubants shall not be used later than the date indicated on the package. Add fresh incubant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep incubant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the incubant less effective.
- Methods of Seeding
 - Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen P205 (phosphorus) 200 lbs/acre; K2O (potassium) 200 lbs/acre.
 - Lime - use only ground agricultural limestone. Up to 2 tons per acre may be applied by hydroseeding. Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - Dry Seeding - This includes use of conventional drop or broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in and cover a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- Mulch Specifications (in order of preference)
 - Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Cellulose Fiber Mulch (WCFM)
 - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM shall be green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniform spread slurry.
 - WCFM including dye shall contain no germination or growth inhibiting factors.
 - WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 15% maximum and water holding capacity of 90% maximum.

- Incremental Stabilization - Cut Slopes
 - All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
 - Construction sequence (refer to Figure 3) below:
 - excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 - Perform Phase 1 excavation, dress, and stabilize.
 - Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
 - Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation of completing the operation of the seeding season will necessitate the application of temporary stabilization.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation of completing the operation of the seeding season will necessitate the application of temporary stabilization.



- Length - minimum of 50' (40' 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 plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2\"/>

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

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 (101-185).
- 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.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, 10 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - 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.
 - 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 (SEC. 51), SOIL (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.
 - ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSON FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	2,843 ACRES
AREA TO BE ROOFED OR PAVED	0.854 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1,989 ACRES
TOTAL CUT	1,500 CU.YDS.
TOTAL FILL	1,500 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A CU.YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER 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.
- 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.

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:

- 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 30-0-10 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
- 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.

Mulching: 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 210 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.

TEMPORARY SEEDING NOTES

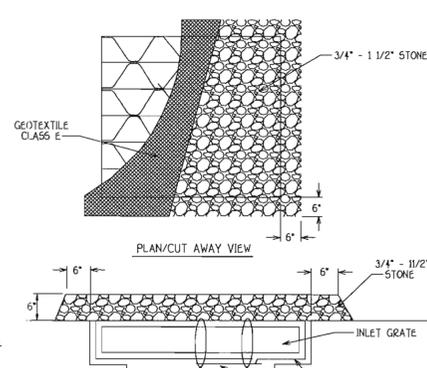
Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
Seeded Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (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 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 210 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.

SEQUENCE OF CONSTRUCTION

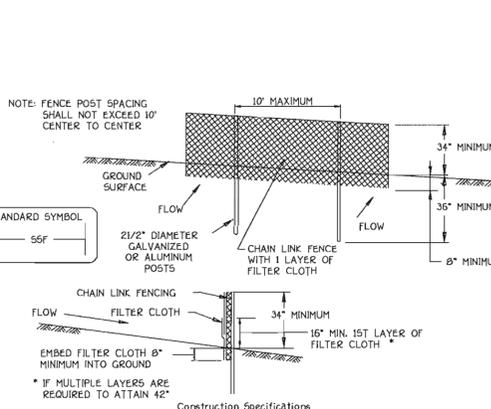
- OBTAIN GRADING PERMIT 7 DAYS
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN 7 DAYS
- CLEAR AND GRUB TO LIMITS OF DISTURBANCE 4 DAYS
- INSTALL TEMPORARY SEEDING 2 DAYS
- CONSTRUCT BUILDINGS 60 DAYS
- FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE 14 DAYS
- REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR. 7 DAYS



Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 3/4\"/>

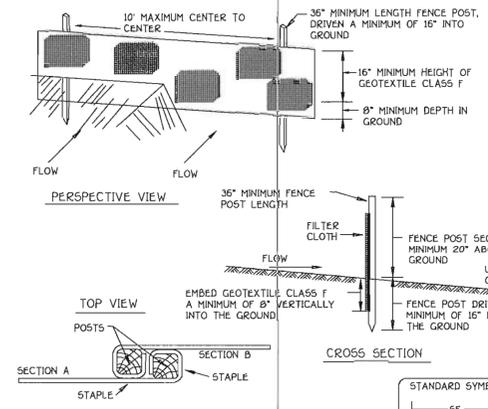
AT GRADE INLET PROTECTION
NOT TO SCALE



- Fencing shall be 42\"/>
- | Design Criteria | Slope Steepness | Slope Length (maximum) | Silt Fence Length (maximum) |
|-----------------|-----------------|------------------------|-----------------------------|
| 0 - 10% | 0 - 101 | Unlimited | Unlimited |
| 10 - 20% | 101 - 51 | 200 feet | 1500 feet |
| 20 - 33% | 51 - 31 | 100 feet | 1000 feet |
| 33 - 50% | 31 - 21 | 100 feet | 500 feet |
| 50% + | 21 - 1 | 50 feet | 250 feet |

SUPER SILT FENCE

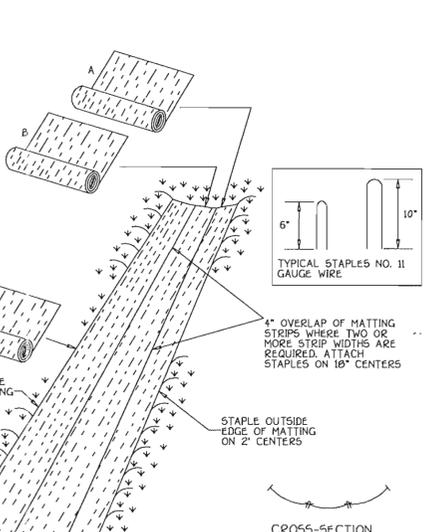
NOT TO SCALE



- Fence posts shall be a minimum of 36\"/>
- | Slope Steepness | Slope Length (Maximum) | Silt Fence Length (Maximum) |
|-------------------|------------------------|-----------------------------|
| Flatter than 50:1 | unlimited | unlimited |
| 50:1 to 10:1 | 125 feet | 1000 feet |
| 10:1 to 5:1 | 100 feet | 750 feet |
| 5:1 to 3:1 | 60 feet | 500 feet |
| 3:1 to 2:1 | 40 feet | 250 feet |
| 2:1 and steeper | 20 feet | 125 feet |

SILT FENCE

NOT TO SCALE



- Key-in the matting by placing the top ends of the matting in a narrow trench, 6\"/>

EROSION CONTROL MATTING

NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 2972 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-1999

NO.	REVISION	DATE

ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-14-04
DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-14-04

Requested for HOWARD SCD and meets Technical Requirements.

Signature: *Jim Meyer* Date: 11/1/04
 Signature: *John P. Plutson* Date: 11/1/04

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10250 OLD COLUMBIA PIKE
 RIVERS CORPORAITE PARK
 COLUMBIA, MARYLAND 21045
 410-391-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *Kathleen...* Date: 11/1/04
 Signature: *...* Date: 11/1/04
 Signature: *...* Date: 11/1/04

PROJECT
 EMERSON

SECTION
 SECTION 2 PHASE 5A

LOTS NO.
 38-41,47-49, 62-65 & 79-81

PLAT
 10992
TRELL
 10977

BLOCK NO.
 9 & 15

ZONE
 REC-MXD-3
 REC-MXD-3

TAX/ZONE
 47

ELEC. DIST.
 6

CENSUS TR.
 6069.02

WATER CODE
 E-15

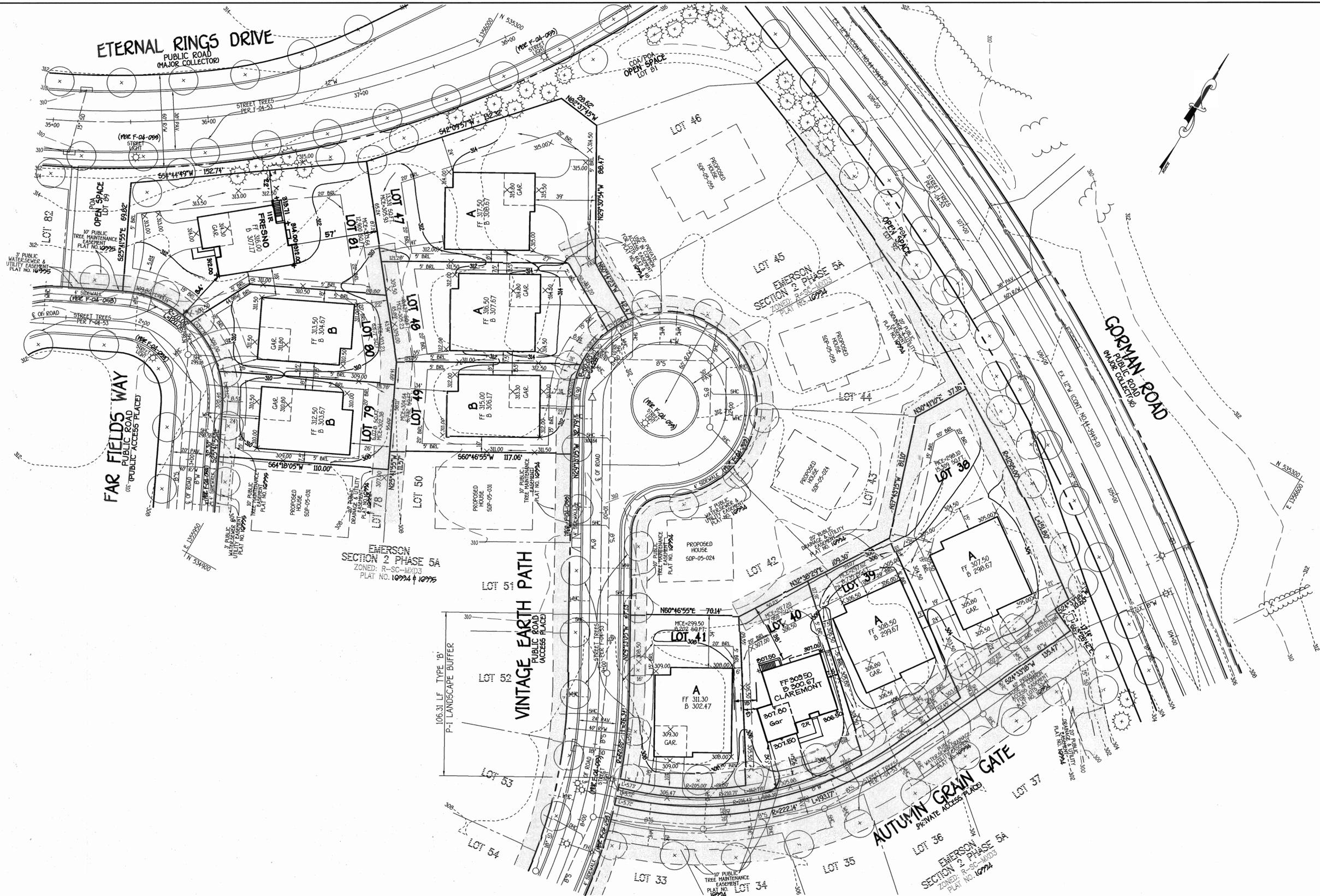
SEWER CODE
 7640000

SEDIMENT/EROSION CONTROL NOTES & DETAILS

SINGLE FAMILY DETACHED
EMERSON
 SECTION 2 PHASE 5A
 LOTS 38-41,47-49,62-65 & 79-81
 TAX MAP NO.: 47 PARCEL NO.: 837 GRID NO.: 9 & 15
 SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: A5 SHOWN DATE: AUGUST, 2004

SHEET 5 OF 5

SDP 05-026



FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE ELKROTT CITY, MARYLAND 21042 410.481.1000		
2	Rev. house type & qrd., Lot 81	3-11-05
1	Rev. hsc. type & qrd., Lot 40	3-3-05
NO.	REVISION	DATE

--	--

ENGINEER'S CERTIFICATE
 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.
 Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District.
 Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Reviewed for HOWARD SCD and meets Technical Requirements.
 U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for sediment and erosion control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *JRC* Date: _____
 HOWARD SCD

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-391-1414

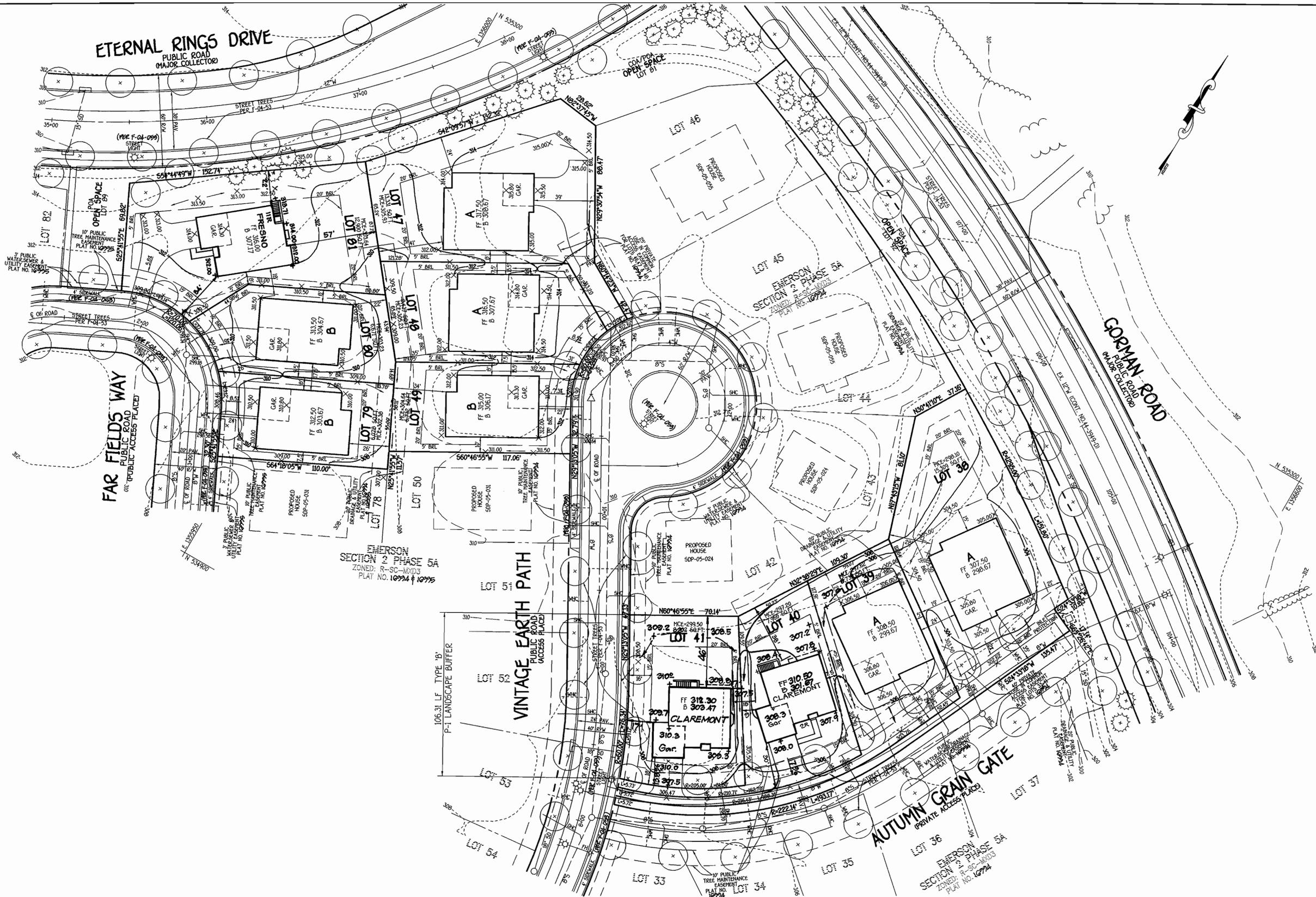
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: *Keith A. ...* Date: 11/10/04
 Chief, Department of Planning and Zoning: *...* Date: 10/27/04
 Director, Department of Planning and Zoning: *...* Date: 10/27/04

PROJECT	EMERSON	SECTION	SECTION 2 PHASE 5A	LOTS NO.	38-41, 47-49, 62-65 & 79-81
PLAT	10994, 10995, 10997	BLOCK NO.	9 & 15	ZONE	PEC-MXD-3 R5C-MXD-3
TAX/ZONE	47	ELEC. DIST.	SIXTH	CENSUS TR.	6069.02
WATER CODE	E-15	SEWER CODE	7640000		

SITE DEVELOPMENT PLAN
 SINGLE FAMILY DETACHED
EMERSON
 SECTION 2 PHASE 5A
 LOTS 38-41, 47-49, 62-65 & 79-81
 TAX MAP NO.: 47 PARCEL NO.: 837 GRD NO.: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026

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FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 681-2955

NO.	REVISION	DATE
3	Rev. hse. & grd. lots 40-41 to show Ex. Conditions	8-11-05
2	Rev. house type & grd., Lot 81	8-3-05
1	Rev. hse. type & grd., Lot 40	8-3-05



ENGINEER'S CERTIFICATE
 "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."
 Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS
BUILDER/DEVELOPER'S CERTIFICATE
 "I certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District."
 Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Reviewed for HOWARD SCD and meets Technical Requirements.
 U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Jen* Date: _____
 HOWARD SCD
 Date: _____
OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000
BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: *Kate DeLoach* Date: 11/10/04
 Chief, Development Engineering Division: *Mike* Date: 11/10/04
 Director - Department of Planning and Zoning: *Paul R. Wynn* Date: 11/10/04
 PROJECT: EMERSON SECTION 2 PHASE 5A
 LOTS NO. 39-41, 47-49, 62-65 & 79-81
 PLAT: 10792 THRU 10797
 BLOCK NO. 9 & 15
 ZONE: REC-MXD-3
 TAX/ZONE: 47
 ELEC. DIST.: SIXTH
 CENSUS TR.: 6069.02
 WATER CODE: E-15
 SEWER CODE: 7640000

SITE DEVELOPMENT PLAN
 SINGLE FAMILY DETACHED
EMERSON
 SECTION 2 PHASE 5A
 LOTS 38-41, 47-49, 62-65 & 79-81
 TAX MAP NO.: 47 PARCEL NO.: 837 GRID NO.: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"= 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026



NO.	REVISION	DATE
4	Rev. 9/1/04 to show Ex. Conditions	9-13-04
3	Rev. hse type & grd. lots 40 & 41 to show Ex. Conditions	8-5-05
2	Rev. hse type & grd., Lot 81	8-11-05
1	Rev. hse type & grd., Lot 40	8-3-05



ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Reviewed for HOWARD SCD and meets Technical Requirements.

U.S.D.A.-Natural Resources Conservation Service Date: *10/25/04*

This development plan is approved for sediment and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD Date: *10/25/04*

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10250 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development Date: 11/15/04
 Chief, Development Engineering Division Date: 11/15/04
 Director - Department of Planning and Zoning Date: 11/15/04

PROJECT: EMERSON SECTION 2 PHASE 5A
 SECTION 2 PHASE 5A
 LOTS NO. 38-41, 47-49, 62-65 & 79-81

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
10992 (REV) 10997	9 & 15	PEC-MXD-3 RSC-MXD-3	47	SIXTH	6069.02

WATER CODE: E-15 SEWER CODE: 750000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

EMERSON

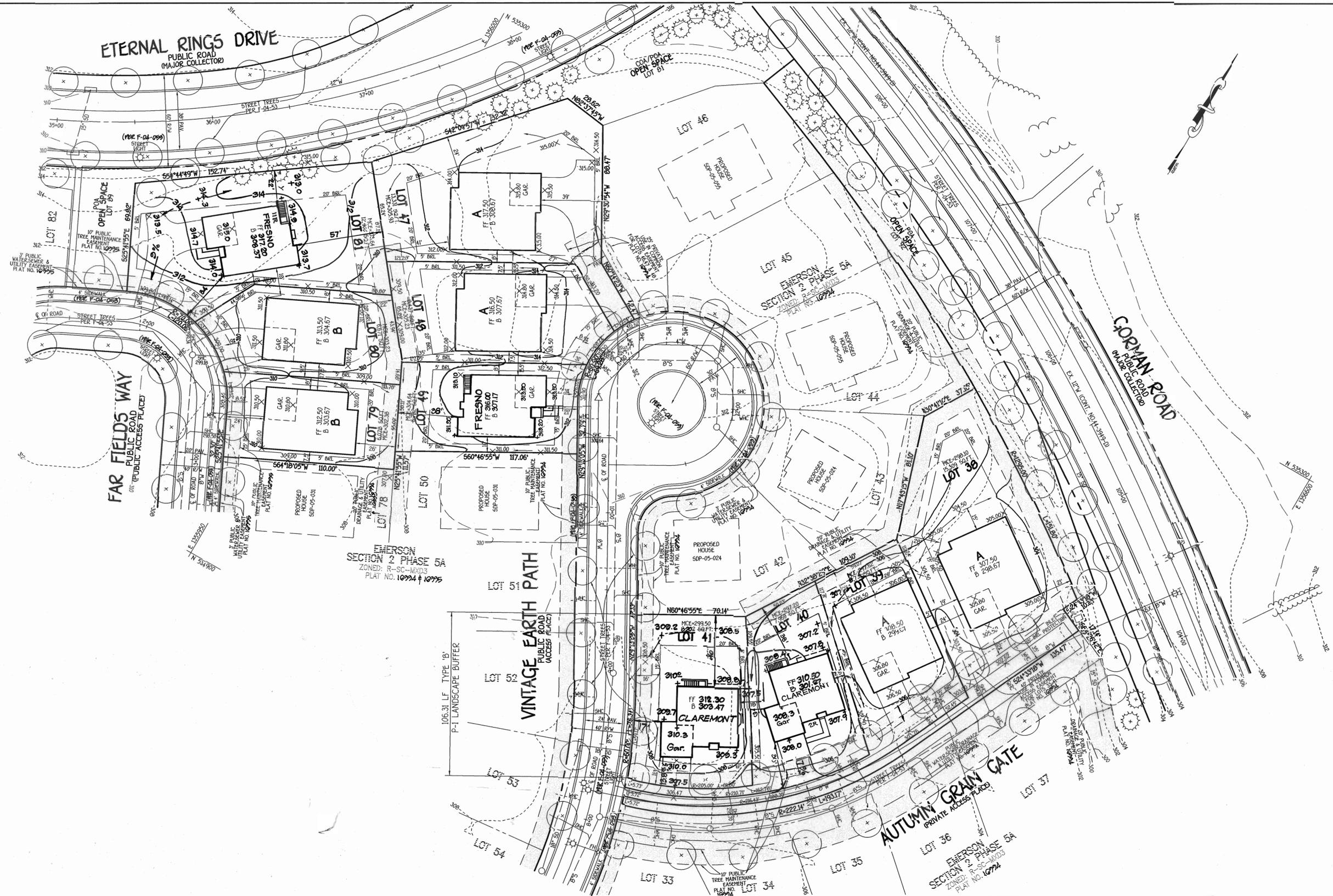
SECTION 2 PHASE 5A

LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO: 47 PARCEL NO: 837 GRID NO: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026

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NO.	REVISION	DATE
5	Rev. hse. 4 qrd. lot 49 to show Ex. Conditions	11-29-05
4	Rev. 9rd. lot 81 to show Ex. Conditions	9-13-05
3	Rev. hse. 2 qrd. lots 40&41 to show Ex. Conditions	8-5-05
2	Rev. house type 4 qrd., Lot 81	9-11-04
1	Rev. hse. type 4 qrd., Lot 40	9-9-04



ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

APPROVED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for sediment and erosion control by the HOWARD SOIL CONSERVATION DISTRICT.

Signature: *[Signature]* Date: _____

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATIENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1114

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development: *[Signature]* Date: 11/1/04
 Chief, Department of Engineering & Environment: *[Signature]* Date: 11/1/04
 Director, Department of Planning and Zoning: *[Signature]* Date: 11/1/04

PROJECT	SECTION	LOTS INC.
EMERSON	SECTION 2 PHASE 5A	38-41, 47-49, 62-65 & 79-81

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
10992, 10993, 10997	9 & 15	PEC-MXD-3, RSC-MXD-3	47	SIXTH	6069.02

WATER CODE	SEWER CODE
E-15	7640000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

EMERSON

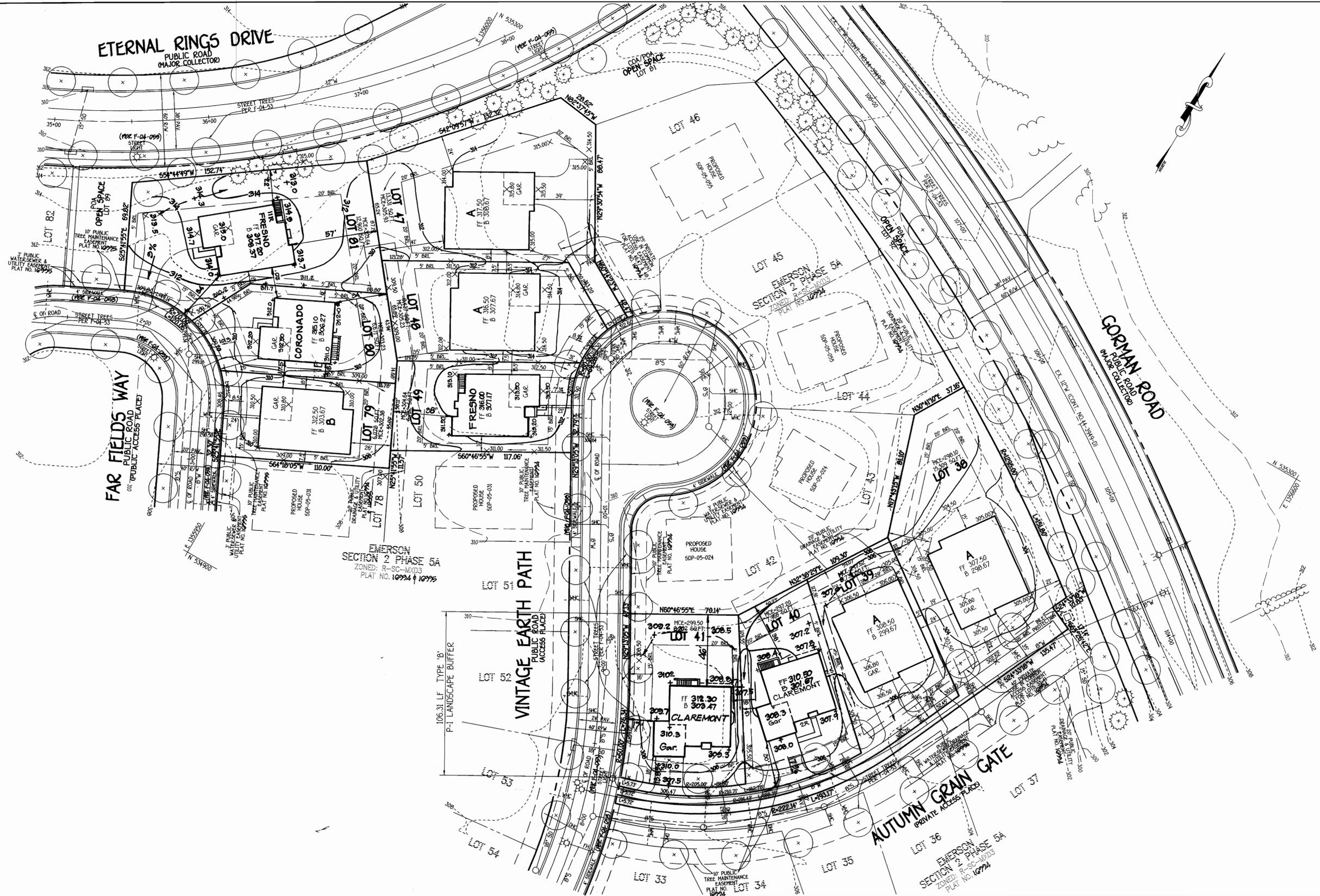
SECTION 2 PHASE 5A

LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO: 47 PARCEL NO: 837 GRID NO: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"= 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026

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FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONFIDENTIAL SQUARE OFFICE PARK - 10272 BALTHAZAR NATIONAL PIKE
 ELKOTT CITY, MARYLAND 21142
 (410) 461-2895

NO.	REVISION	DATE
6	Rev. hsc & grd. lot 80 to show Ex. Conditions	2-28-06
5	Rev. hsc & grd. lot 49 to show Ex. Conditions	11-27-05
4	Rev. grd. lot 81 to show Ex. Conditions	9-13-05
3	Rev. hsc & grd. lots 40 & 41 to show Ex. Conditions	8-5-05
2	Rev. house type & grd., Lot 81	9-11-05
1	Rev. hsc. type & grd., Lot 40	9-3-05



ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan, for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Approved for HOWARD SCD and meets Technical Requirements.

U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for sediment and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John* Date: _____
 HOWARD SCD

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATRICK PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *Karl Helms* Date: 11/10/04
 Chief, Division of Land Development

Signature: *Mark* Date: 11/2/04
 Chief, Development Engineering Division

Signature: *Paul* Date: 11/2/04
 Director - Department of Planning and Zoning

PROJECT	SECTION	LOTS NO.
EMERSON	SECTION 2 PHASE 5A	38-41, 47-49, 62-65 & 79-81

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
10992 11411 10977	9 & 15	PEC-MXD-3 RSC-MXD-3	47	SIXTH	6069.02

WATER CODE	SEWER CODE
E-15	7640000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

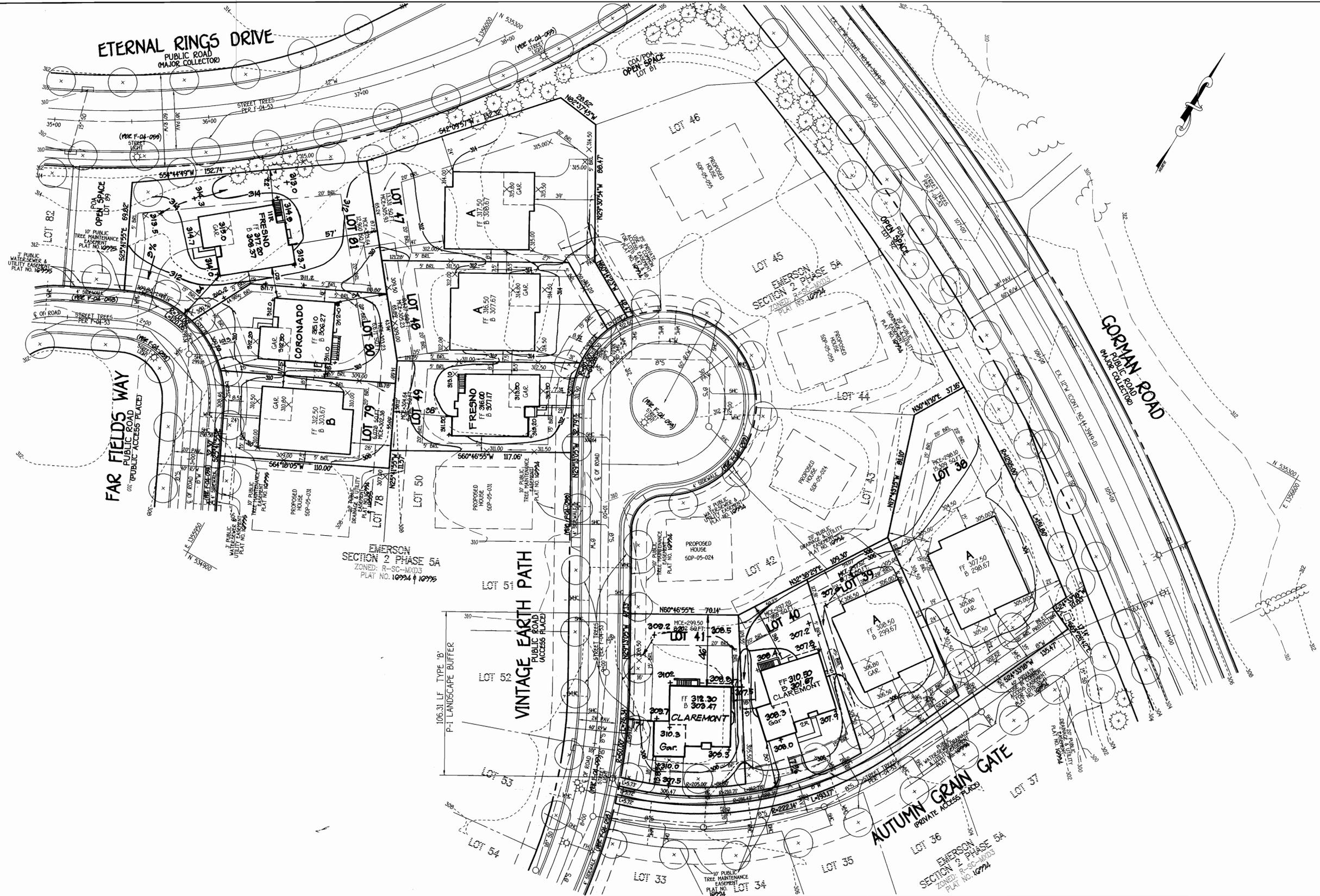
EMERSON

SECTION 2 PHASE 5A

LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO: 47 PARCEL NO: 837 GRID NO: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026



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FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONFIDENTIAL SQUARE OFFICE PARK - 10272 BALTHAZOR NATIONAL FREE
 ELLKOTT CITY, MARYLAND 21114
 (410) 461-2895

NO.	REVISION	DATE
6	Rev. hsc & grd. lot 80 to show Ex. Conditions	2-28-06
5	Rev. hsc & grd. lot 49 to show Ex. Conditions	11-27-05
4	Rev. grd. lot 81 to show Ex. Conditions	9-13-05
3	Rev. hsc & grd. lots 40 & 41 to show Ex. Conditions	8-5-05
2	Rev. house type & grd., Lot 81	9-11-05
1	Rev. hsc. type & grd., Lot 40	9-3-05



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 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
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Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Approved for HOWARD SCD and meets Technical Requirements.

U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for sediment and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John* Date: _____
 HOWARD SCD

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATRICK PARWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10260 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *Karl Helms* Date: 11/10/04
 Chief, Division of Land Development

Signature: *Mark* Date: 11/2/04
 Chief, Development Engineering Division

Signature: *Paul* Date: 11/2/04
 Director - Department of Planning and Zoning

PROJECT	SECTION	LOTS NO.
EMERSON	SECTION 2 PHASE 5A	38-41, 47-49, 62-65 & 79-81

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
10992 1141 10977	9 & 15	PEC-MXD-3 RSC-MXD-3	47	SIXTH	6069.02

WATER CODE	SEWER CODE
E-15	7640000

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

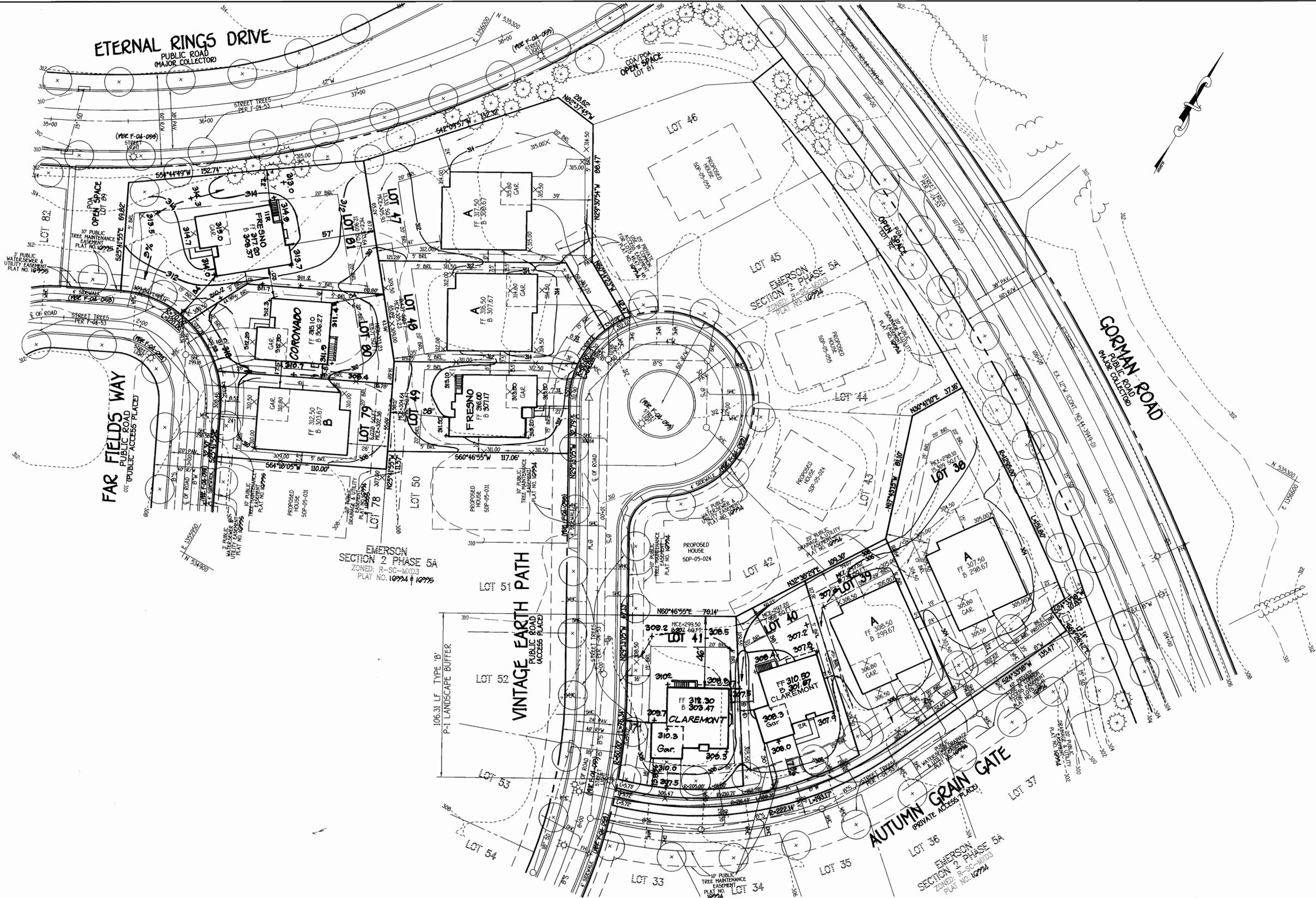
EMERSON

SECTION 2 PHASE 5A

LOTS 38-41, 47-49, 62-65 & 79-81

TAX MAP NO: 47 PARCEL NO: 837 GRID NO: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026



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NO.	REVISION	DATE
7	Rev. grd. lot 80 to show Ex. Conditions	5-9-05
6	Rev. hse. lot 80 to show Ex. Conditions	2-28-06
5	Rev. hse. lot 49 to show Ex. Conditions	11-29-05
4	Rev. grd. lot 81 to show Ex. Conditions	9-13-05
3	Rev. hse. lots 40&41 to show Ex. Conditions	8-5-05
2	Rev. house type & grd., Lot 81	3-11-05
1	Rev. hse. type & grd., Lot 40	8-3-05

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 1000 NATIONAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL FREE
 ELLICOTT CITY, MARYLAND 21114
 410-461-2995



ENGINEER'S CERTIFICATE
 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.

Signature of Engineer: *Earl D. Collins* Date: 10-25-04
 EARL D. COLLINS

BUILDER/DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control 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 Howard Soil Conservation District.

Signature of Developer: *Allan Waschak* Date: 10-25-04
 ALLAN WASCHAK

Reviewed for HOWARD SCD and meets Technical Requirements.

U.S.D.A.-Natural Resources Conservation Service
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD Date: *Jan*

OWNER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 10275 LITTLE PATUENT PARKWAY
 COLUMBIA, MARYLAND 21044
 410-992-6000

BUILDER/DEVELOPER
 ALLAN HOMES
 10250 OLD COLUMBIA PIKE
 RIVERS CORPORATE PARK
 COLUMBIA, MARYLAND 21045
 410-381-1414

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development: *Kelley...* Date: 11/15/04
 Chief, Development Engineering Division: *...* Date: 11/2/04
 Director - Department of Planning and Zoning: *...* Date: 1/26/04

PROJECT	EMERSON	SECTION	SECTION 2 PHASE 5A	LOTS NO.	38-41,47-49, 62-65 & 79-81
PLAT	10972 (THE) 10973	BLOCK NO.	9 & 15	ZONE	REC-MXD-3
WATER CODE	E-15	TAX/ZONE	47	ELEC. DIST.	SIXTH
		SEWER CODE	7640000	CENSUS TR.	6069.02

SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED

EMERSON

SECTION 2 PHASE 5A

LOTS 38-41,47-49,62-65 & 79-81

TAX MAP NO.: 47 PARCEL NO.: 837 GRID NO.: 9 & 15
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1"= 30' DATE: AUGUST, 2004
 SHEET 2 OF 5

SDP 05-026