SITE DEVELOPMENT PLAN
GTW'S WAVERLY WOODS
SECTION 14
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
"THE COURTYARDS AT WAVERLY WOODS – WEST"
TOWNHOUSE & SINGLE FAMILY HOME

AGE RESTRICTED ADULT HOUSING

ZONED: PSC (PLANNED SENIOR COMMUNITY DISTRICT)

TAX MAP No. 16 GRID No. 3 & 4

PARCEL No. P/O 249

SHEET INDEX

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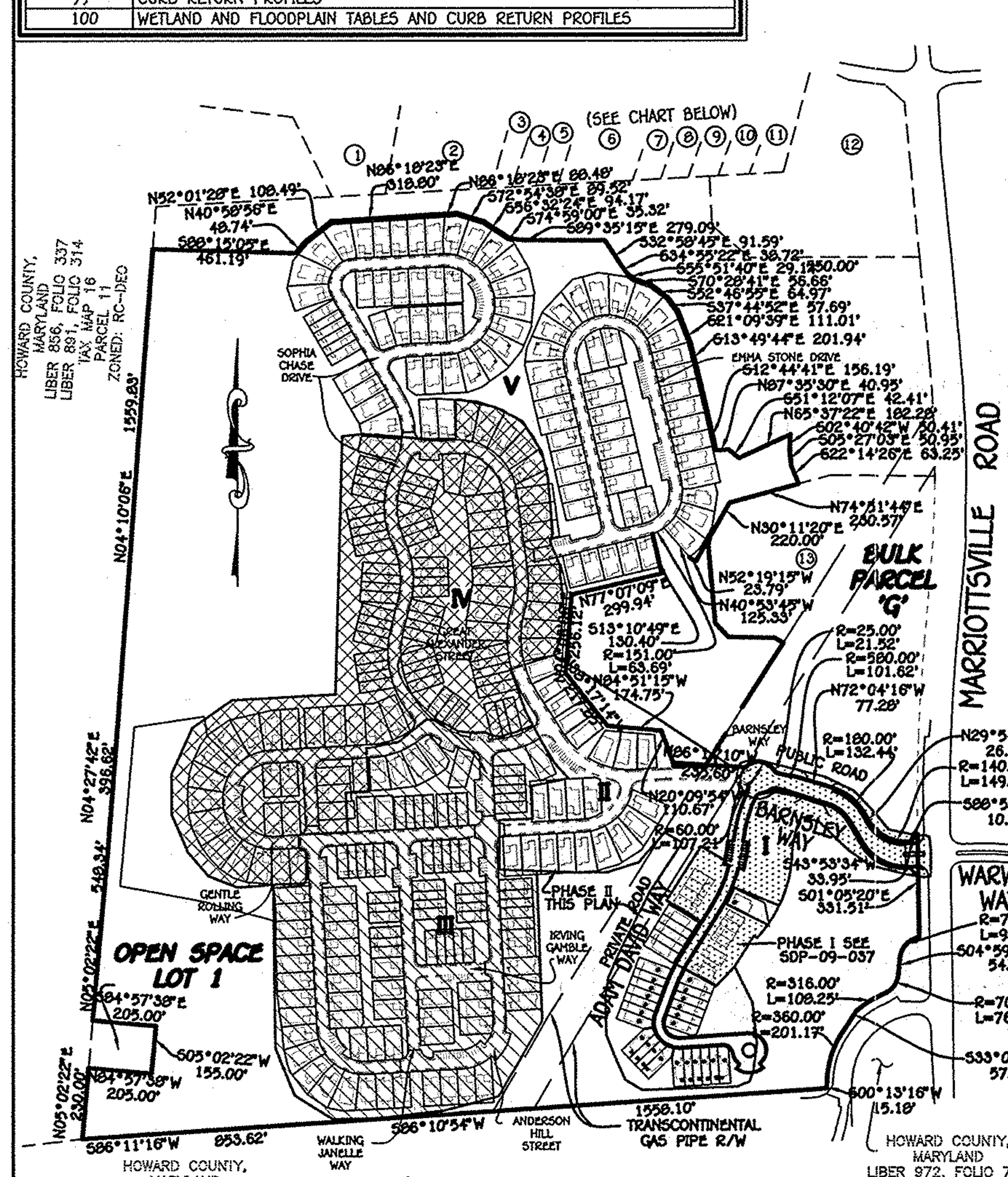
ROAD CLASSIFICATION CHART

ROAD NAME	CLASSIFICATION	R/W WIDTH
BARNSLEY WAY	PRIVATE ACCESS STREET	N/A
SOPHIA CHASE DRIVE	PRIVATE ACCESS STREET	N/A
GENTLE ROLLING DRIVE	PRIVATE ACCESS STREET	N/A
EMMA STONE DRIVE	PRIVATE ACCESS STREET	N/A
GREAT ALEXANDER STREET	PRIVATE ACCESS STREET	N/A
ANDERSON HILL STREET	PRIVATE ACCESS STREET	N/A
WALKING JANELLE WAY	PRIVATE ACCESS STREET	N/A
IRVING GAMBLE ROAD	PRIVATE ACCESS STREET	N/A
NOAH FINN ROAD	PRIVATE ACCESS STREET	N/A

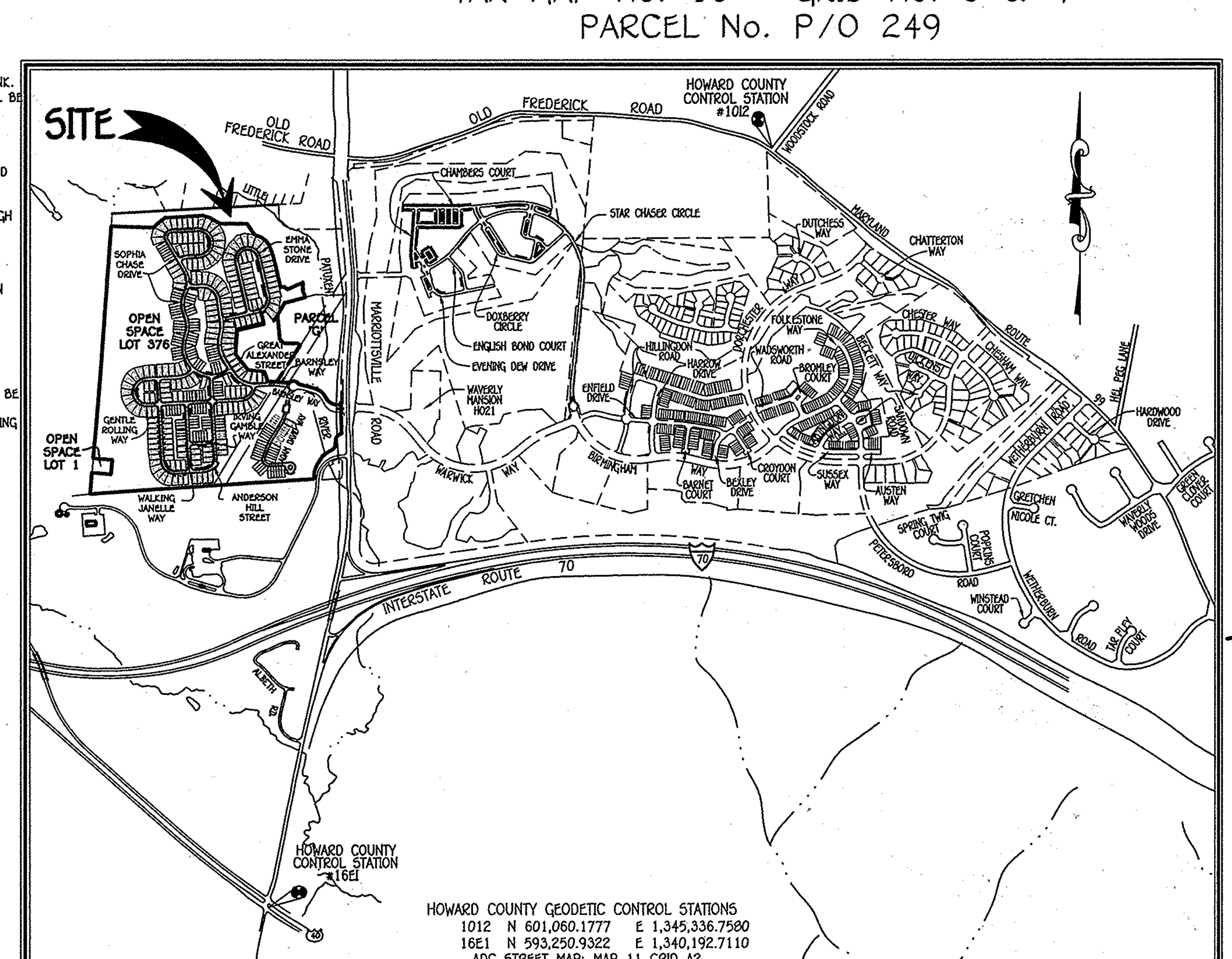
DEVELOPMENT CRITERIA "THE COURTYARDS AT WAVERLY WOODS-WEST" PLANNED SENIOR COMMUNITY

1. MAXIMUM OF 350 HOUSING UNITS WILL BE SPECIALLY DESIGNED FOR RESIDENTS OVER THE AGE 55 WITH WALKING PATHS, SEATING AREAS AND RECREATIONAL AMENITIES ON A 151.30 ACRE BUILDING SITE.
2. 35 MODERATE INCOME DWELLINGS ARE PLANNED.
3. THE PROJECTED DENSITY OF THE HOUSING IS 8 UNITS PER ACRE.
4. MAXIMUM OF 139 SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES WILL BE CONSTRUCTED, WITH FIRST FLOOR MASTER BEDROOMS AND SECOND AND THIRD BEDROOMS UPSTAIRS.
5. THE END UNITS OF THE VILLAS WILL HAVE 2-CAR GARAGES.
6. THE EXTERIOR WALLS OF BOTH THE SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES AND DETACHED UNITS WILL BE BRICK AND/OR STONE AND HARDIPLANK.
7. ACCESS TO AND CIRCULATION WITHIN ALL OF THE BUILDINGS WILL BE WITHIN THE DESIGN CRITERIA OF THE AMERICANS WITH DISABILITIES ACT ("ADA").
8. THERE WILL BE A MEANDERING PATH THROUGH THE COMMUNITY.
9. WAVERLY WOODS GOLF COURSE IS AVAILABLE TO THE RESIDENTS.
10. A SHUTTLE SERVICE WILL TRANSPORT RESIDENTS TO MEDICAL AND OTHER SERVICES, AS NEEDED.
11. VEHICULAR ACCESS INTO AND OFF OF THE SITE WILL BE THROUGH BARNSLEY WAY TO BE BUILT LEADING TO MARRIOTTSVILLE ROAD.
12. A 4490 SQUARE FOOT COMMUNITY BUILDING, CONTAINING A LIBRARY, EXERCISE ROOM, MEETINGS ROOMS AND OTHER ACTIVITY AREAS WILL BE BUILT IN THE CENTER OF THE SITE IN PHASE III.
13. THE EXTERIOR OF THE COMMUNITY BUILDING WILL BE THE SAME STONE AND HARDI-PLANK AS THE CONDOMINIUM SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES AND DETACHED UNITS.
14. PERSONS ELIGIBLE TO PURCHASE ANY OF THE DWELLINGS MUST BE 55 YEARS OF AGE OR OLDER.
15. CHILDREN UNDER THE AGE OF 18 MAY NOT RESIDE IN A DWELLING FOR MORE THAN 90 DAYS IN A CALENDAR YEAR.



PHASING PLAN VIEW

NO SCALE



VICINITY MAP

SCALE: 1" = 1200'

SINGLE FAMILY HOMES ARE TO BE BUILT BY N.V. HOMES
TOWNHOUSES ARE TO BE BUILT BY RYAN HOMES

THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES CONTINUED

50. PLAT SUBJECT TO LETTER DATED JANUARY 31, 2011 EXTENDING THE MILESTONE DEADLINE DATE BETWEEN 07/01/10 AND 01/01/11 UNTIL BETWEEN 07/01/11 AND 01/01/12 TO SUBMIT THE REDLINE REVISION SITE DEVELOPMENT PLAN (SDP-09-039) FOR APFO PHASE IV

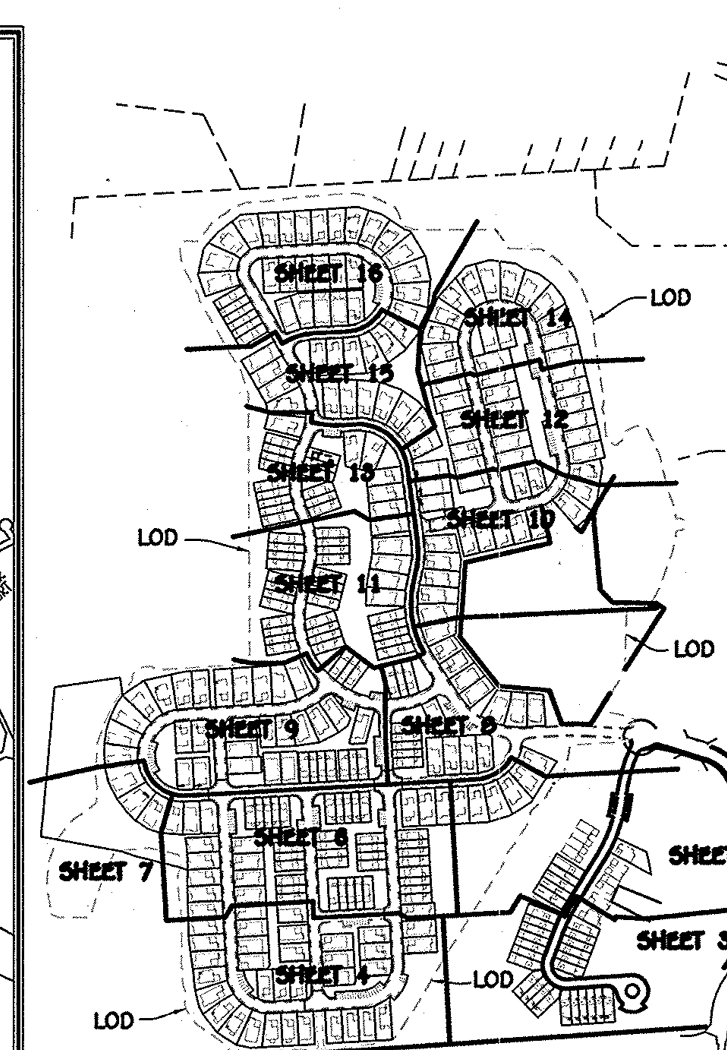
MODERATE INCOME HOUSING UNITS CHART

TOTAL # UNITS	MIHU'S REQUIRED	MIHU'S PROVIDED
PHASE I 10 UNITS	1	1
PHASE II 50 UNITS	5	5
PHASE III 100 UNITS	10	10
PHASE IV 100 UNITS	10	10
PHASE V 90 UNITS	9	9
TOTAL MIHU'S	35	35

A. TOTAL NO. OF MIHU REQUIRED = 350 UNITS x 1 MIHU/10 UNITS = 35
B. TOTAL NO. OF MIHU PROVIDED = 35 UNITS PER ZB CASE NO. 1027M AND ZB CASE NO. 381. THE REQUIRED MIHU UNITS ARE PROVIDED UNDER SDP-04-60 "WAVERLY GARDENS" IN THE 102 UNIT BUILDING.
1. PHASE 1 SDP 09-037 1 MIHU TRANSFERRED TO SDP 04-60 "WAVERLY GARDENS"
2. PHASES 2-5 SDP 09-039 34 MIHU TRANSFERRED TO SDP 04-60 "WAVERLY GARDENS"

NOTE 1. WAVERLY GARDENS AGREEMENT RECORDED IN LAND RECORDES LIBER 8988 FOLIO 001

51. LOTS 3 THRU 64 (F-10-113); PLAT NOS. 21427 – 21435
LOTS 65 THRU 87 (F-12-072); PLAT NOS. 21943 – 21950
LOTS 88 THRU 171 (F-12-089); PLAT NOS. 22082 – 22089
LOTS 172 THRU 237 (F-13-101); PLAT NOS. 22526 – 22533
LOTS 240 THRU 376 (F-14-111); PLAT NOS. 22921 – 22928



DEVELOPMENT SHEET INDEX

NO SCALE

GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
3. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
4. SUBJECT PROPERTY ZONED PSC PER 02/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP-LITE ZONING AMENDMENTS DATED 07/28/06.
5. THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 75-2003. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT AND THE COMP-LITE ZONING REGULATIONS DATED JULY 28, 2006.
6. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACK. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK (APPLIES TO RESIDENTIAL SDPS).
7. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S), BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN(S).
8. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
   WIDTH – '12(16' SERVING MORE THAN ONE RESIDENCE);
   SURFACE – "6OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2 MIN.);
   GEOMETRY – MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 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 ENSURE ALL WEATHER USE.
9. THE PREVIOUS WETLANDS REPORT PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. AND APPROVED WITH S-94-07 ON NOVEMBER 30, 1993 HAS BEEN RE-CERTIFIED UNDER THIS PLAN BY ECO-SCIENCE PROFESSIONALS, INC. DATED APRIL, 2006 AND APPROVED WITH S-06-013 ON JANUARY 17, 2008.
10. THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP DATED MARCH, 2006 AND WAS APPROVED UNDER THE S-06-013 PLAN DATED JANUARY 17, 2008. A REVISED NOISE STUDY WAS PREPARED BY MARS GROUP DATED MAY, 2008 AND APPROVED UNDER P-08-010 ON DECEMBER 1, 2008. THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS PLAT IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
11. A PUBLIC 100 YEAR FLOOD PLAIN STUDY WAS PREPARED BY MILDENBERG-BOENDER ASSOCIATES AND APPROVED UNDER S-94-07. A REVISION TO THAT FLOODPLAIN STUDY WAS PREPARED BY FISHER, COLLINS & CARTER, INC. AND APPROVED UNDER S-06-13 ON JANUARY 17, 2008 AND UNDER P-08-010 ON DECEMBER 1, 2008.
12. A TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP AND APPROVED ON JULY 14, 1994 AS PART OF S-94-07 AND AMENDED UNDER S-06-13 APPROVED ON JANUARY 17, 2008.
13. THE FOREST STAND DELINEATION PLAN WAS PREPARED BY ENVIRONMENTAL SYSTEM ANALYSIS, INC. AND APPROVED UNDER S-94-07 ON NOVEMBER 30, 1993.
14. SOILS INFORMATION TAKEN FROM SOILS MAP NO. 17, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY, 1968 ISSUE. THE SOILS INVESTIGATION REPORT WAS PREPARED BY I.T.E., INC. ON JUNE 28, 1994.
15. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AERIAL PHOTOGRAPHIC CONTOUR MAPPING PROVIDED BY HARTFORD AERIALS ON OR ABOUT NOVEMBER 2000 AND SUPPLEMENTED BY FISHER, COLLINS & CARTER, INC.
16. BOUNDARY OUTLINE IS BASED ON A FIELD MONUMENTED SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT AUGUST, 1990.
17. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY CONTROL STATIONS 1012 AND 16E1 WERE USED FOR THIS PROJECT:
    HOWARD COUNTY MONUMENT 1012
    N 601060.177 E 1345336.7580
    HOWARD COUNTY MONUMENT 16E1
    N 593250.9322 E 1340192.7110
18. THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
19. THE PROPERTY SHOWN IS LOCATED IN THE METROPOLITAN DISTRICT.
20. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. THE TOTAL FOREST CONSERVATION OBLIGATION FOR THE COURTYARDS AT WAVERLY WOODS – WEST HAS BEEN PROVIDED UNDER F-09-057, GTW'S WAVERLY WOODS, SECTION 14, PARCELS A AND B AND OPEN SPACE LOT 1.
21. 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 RELATED TO **APFO PHASE II** FOR THE 28 REQUIRED INTERNAL LANDSCAPE TREES, 2 REQUIRED PARKING LANDSCAPE TREES, 32 REQUIRED PERIMETER LANDSCAPE TREES, 48 REQUIRED SWM LANDSCAPE TREES AND THE REQUIRED 73 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $49,950.00.
22. 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 RELATED TO **APFO PHASE III** FOR THE 49 REQUIRED INTERNAL LANDSCAPE TREES, 8 REQUIRED PARKING LANDSCAPE TREES, AND THE REQUIRED 223 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $84,000.00.
23. 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 RELATED TO **APFO PHASE IV** FOR THE 50 REQUIRED INTERNAL LANDSCAPE TREES, 2 REQUIRED PARKING LANDSCAPE TREES, AND THE REQUIRED 157 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $62,700.00.
24. 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 RELATED TO **APFO PHASE V** FOR THE 6 REQUIRED INTERNAL LANDSCAPE TREES, 6 REQUIRED PARKING LANDSCAPE TREES, AND THE REQUIRED 183 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $58,500.00.
25. B.R.L. DENOTES BUILDING RESTRICTION LINE.
26. REFUSE COLLECTION, SNOW REMOVAL AND PRIVATE ROAD MAINTENANCE WILL BE PROVIDED BY THE COURTYARDS AT WAVERLY WOODS – WEST HOMEOWNERS ASSOCIATION.
27. PRIVATE ROADS AND PARKING AREAS ARE PRIVATELY MAINTAINED BY THE COURTYARDS AT WAVERLY WOODS – WEST HOMEOWNERS ASSOCIATION.
28. IN ACCORDANCE WITH SECTION 16.120.B.4(iii)C, FOR CONDOMINIUM UNITS, PROTECTED ENVIRONMENTAL FEATURES SHALL BE LOCATED IN OPEN AREA WITH NO UNIT CLOSER THAN 15 FEET FROM THE PROTECTED FEATURES. DECKS ARE ALLOWED 10 FEET INTO THE PROJECT BOUNDARY SETBACK PER ZONING SECTION 128.A.1(d).
29. STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL. THE STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL VOLUME III (2006) AND AS MODIFIED BY GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (NOV. 2006)? THE NOV. 2006 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN STREET LIGHT AND ANY TREE.
30. ALL HANDICAP RAMPS SHALL MEET CURRENT ADA REQUIREMENTS.
31. TOTAL NUMBER OF MODERATE INCOME HOUSING UNITS (M.I.H.U.) REQUIRED FOR THIS SITE PER THE 'PSC' ZONING DISTRICT IS 10% OF THE TOTAL NUMBER OF UNITS CALCULATED AS FOLLOWS:
    A. TOTAL NUMBER OF"M.I.H.U." REQUIRED = 350 UNITS X 1 M.I.H.U./10 UNITS = 35 UNITS THE COURTYARDS AT WAVERLY
    B. TOTAL NUMBER OF"M.I.H.U." PROVIDED = 35 UNITS PER ZB CASE NO. 1027M AND PB CASE NO. 381 (THE REQUIRED M.I.H.U. UNITS ARE PROVIDED UNDER SDP-04-60 WAVERLY GARDENS IN THE 102 UNIT BUILDING).
    SEE THE MIHU CHART AND NOTES NEXT TO GENERAL NOTES 3-8.
32. THE ZONING BOARD OF HOWARD COUNTY (ZB CASE NO. 1027M) ON JUNE 18, 2003 APPROVED THE RECLASSIFICATION OF 151.3 ACRES FROM PEC TO PSC SUBJECT TO THE FOLLOWING CONDITIONS:
    A. PETITIONER SHALL HAVE THE OPTION OF PROVIDING THE REQUIRED 35 MODERATE INCOME HOUSING UNITS OFF-SITE AT WAVERLY GARDENS (SDP-04-60);
    B. PETITIONER SHALL PROVIDE HANDICAP ACCESS TO THE GARAGES OF ALL DWELLINGS UNITS;
    C. PETITIONER SHALL PROVIDE A CONNECTING PATHWAY TO THE PROPOSED COMMUNITY BUILDING AS DETAILED IN THIS DECISION;
    D. PETITIONER SHALL INCLUDE THE SURVIVORSHIP PROVISIONS DETAILED IN THIS DECISION IN ITS AGE RESTRICTION ENFORCEMENT COVENANTS;
    E. PETITIONER SHALL PROVIDE A MEDIAN DESIGN FOR THE ACCESS TO THE SUBJECT PROPERTY AS DETAILED IN THIS DECISION;
    F. PETITIONER SHALL OFFER TO ALL RESIDENTS OF THE PROPOSED SUBJECT COMMUNITY DISCOUNTED MEMBERSHIPS IN THE HEALTH AND FITNESS CENTER AND WAVERLY WOODS GOLF COURSE AS DETAILED IN THIS DECISION; AND GRANTS THE PETITIONER'S REQUEST TO AMEND THE DOCUMENTED SITE PLAN AS PROPOSED BY PETITIONER FOR THOSE PORTIONS OF THE SITE SUBJECT TO THE ORIGINAL APPROVED DOCUMENTED SITE PLAN IN ZB CASE 929M.
33. THE PLANNING BOARD APPROVED, ON NOVEMBER 1, 2007, PB CASE NO. 381, GTW'S WAVERLY WOODS, SECTION 14, BULK PARCEL 'A', WOODS – WEST A COMPREHENSIVE SKETCH PLAN (S-06-13) AND DEVELOPMENT CRITERIA FOR THE DEVELOPMENT OF 350 AGE-RESTRICTED ADULT HOUSING UNITS (139 SINGLE FAMILY ATTACHED UNITS AND 211 SINGLE FAMILY DETACHED UNITS) ON 149.450 ACRES OF LAND ZONED PLANNED SENIOR COMMUNITY.
34. PUBLIC WATER AND SEWER WILL BE PROVIDED TO THE SITE UNDER CONTRACT NOs. 24-4380-D, 24-4603-D, 44-4604-D, 44-4608-D & 44-4627-D. PRIVATE SEWER MAINS ARE PROVIDED AS PART OF THIS SITE DEVELOPMENT PLAN.
35. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 378 SPECIFICATIONS. FOR PHASE I (F-09-057), WATER QUALITY WAS PROVIDED BY A MICRO-POOL FACILITY. THE STORMWATER MANAGEMENT PONDS ARE PRIVATELY OWNED AND MAINTAINED BY THE H.O.A."NOTE: THE STORMWATER MANAGEMENT STUDY FOR GTW'S WAVERLY WOODS, SECTION 12, BULK PARCEL A, HAS BEEN COMPARED TO THE HYDROLOGY BASELINE STUDY PREPARED BY MILDENBERG ASSOCIATES, INC. OCTOBER, 1994, FOR CONSISTENCY WITH THE ORIGINAL. FOR CONTINUITY PURPOSES, THE SWM REPORT SUPPORTS SEVERAL PHASES OF DEVELOPMENT. FOR THIS PLAN, THE HOWARD COUNTY SOIL CONSERVATION DISTRICT HAS ONLY APPROVED POND Nos. 2 & 3. THE COMPUTATIONS AND DATA ASSOCIATED WITH POND No. 1 HAS BEEN REVIEWED AND APPROVED UNDER F-09-057
36. A COMMUNITY BUILDING CONTAINING A MINIMUM OF 4,490 SQUARE FEET WILL BE PROVIDED WITH THE PHASE III SITE DEVELOPMENT PLAN BASED ON CURRENT REQUIREMENTS AND EXCEEDS THE 3,500 SQUARE FEET IN THE APPROVED DB CASE NO. 381..
37. PLAN SUBJECT TO WP-08-069 WHICH ON MARCH 25, 2008 THE PLANNING DIRECTOR DENIED A REQUEST TO WAIVE SECTION 16.144(g) REQUEST TO NOT BE REQUIRED TO SUBMIT PRELIMINARY PLANS AFTER THE APPROVAL OF SKETCH PLAN, S-06-013 AND INSTEAD BE PERMITTED TO SUBMIT A FINAL PLAT AND A SITE DEVELOPMENT PLAN FOR PHASE I AND APPROVED A REQUEST TO WAIVE SECTION 16.144(a) AND INSTEAD BE PERMITTED TO SUBMIT A FINAL SUBDIVISION PLAT AND SITE DEVELOPMENT PLAN FOR PHASES II, III, IV AND V SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS:
    (i). THE SITE DEVELOPMENT PLAN (SDP) OR RED-LINE REVISION TO AN EXISTING PHASED SDP, AND FINAL SUBDIVISION PLAN/PLAT, IF REQUIRED, FOR PHASE II SHALL BE SUBMITTED BETWEEN 07/01/08 AND 11/01/08.
    (ii). THE SITE DEVELOPMENT PLAN (SDP) OR RED-LINE REVISION TO AN EXISTING PHASED SDP, AND FINAL SUBDIVISION PLAN/PLAT, IF REQUIRED, FOR PHASE III SHALL BE SUBMITTED BETWEEN 07/01/09 AND 01/01/10.
    (iii). THE SITE DEVELOPMENT PLAN (SDP) OR RED-LINE REVISION TO AN EXISTING PHASED SDP, AND FINAL SUBDIVISION PLAN/PLAT, IF REQUIRED, FOR PHASE IV SHALL BE SUBMITTED BETWEEN 07/01/10 AND 01/01/11.
    (iv). THE SITE DEVELOPMENT PLAN (SDP OR RED-LINE REVISION TO AN EXISTINGPHASED SDP, AND FINAL SUBDIVISION PLAN/PLAT, IF REQUIRED, FOR PHASE V SHALL BE SUBMITTED BETWEEN 07/01/11 AND 01/01/12 MILESTONE EXTENDED BETWEEN 07/01/14 AND 11/01/14.
38. THE PLANNING DIRECTOR ON OCTOBER 24, 2008 APPROVED A 60 DAY EXTENSION FROM THE PREVIOUS MILESTONE DATE OF 11/01/08 TO SUBMIT THE SITE DEVELOPMENT PLAN FOR PHASE II OF THIS PROJECT.
39. ALL RESIDENTIAL DWELLING UNITS SHALL HAVE AN 1-1/2" WATER HOUSE CONNECTION WITH A 1" OUTSIDE METER SETTING; STD. DET. W-3.28. THE COMMUNITY CENTER BUILDING SHALL HAVE AN INSIDE METER SETTING
40. THE ZONING BOARD OF HOWARD COUNTY (ZB CASE NO. 102M) ON JUNE 18, 2003 GRANTS THE PETITIONER'S REQUEST TO AMEND THE DOCUMENTED SITE PLAN AS PROPOSED BY THE PETITIONER FOR THOSE PORTIONS OF THE SITE SUBJECT TO THE ORIGINAL APPROVED DOCUMENTED SITE PLAN IN ZB CASE 929M.
41. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
42. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (14 GAUGE) INSERTED INTO A 2 1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)– 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
43. THE DEVELOPER WILL WORK WITH THE OFFICE OF THE FIRE MARSHAL TO ESTABLISH THE MARKINGS NECESSARY TO SHOW THE APPROPRIATE LOCATION OF THE REQUIRED FIRE LANE FOR THE ACCESS OF EMERGENCY VEHICLES.
44. A PRIVATE ROAD STREET NAME SIGN (SNS) ASSEMBLY NEEDS TO BE INSTALLED AT THE INTERSECTION OF THE PRIVATE ROAD WITH THE PUBLIC ROAD. IT SHALL BE FABRICATED AND INSTALLED BY THE HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT THE HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
45. THIS PROJECT IS SUBJECT TO WAIVER PETITION WP-09-210 TO WAIVE SUBDIVISION SECTIONS:
    1. 16.120(c)(2)(i), REQUEST TO NOT BE REQUIRED TO PROVIDE ANY OF THE REQUIRED MINIMUM "SINGLE FAMILY DETACHED" LOT FRONTAGE OF 20 FEET ON AN APPROVED PUBLIC STREET, AND;
    2. 16.120(c)(4), REQUEST TO NOT BE REQUIRED TO PROVIDE ANY OF THE REQUIRED MINIMUM "SINGLE FAMILY ATTACHED" LOT FRONTAGE OF 15 FEET ON AN APPROVED PUBLIC STREET AND, BE PERMITTED TO HAVE THE "SINGLE FAMILY ATTACHED" LOTS FRONT ON A PRIVATE ROAD EXCEEDING 200 FEET IN LENGTH.

    THIS WAIVER HAS BEEN APPROVED SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS:
    1. THE SUBMISSIONS OF THE PLATS TO CREATE THE INDIVIDUAL RESIDENTIAL LOTS FOR EACH PHASE OF THE PROJECT SHALL BE COORDINATED WITH THE SITE DEVELOPMENT PLANS SUBMITTED FOR EACH OF THE FIVE PHASES OF THE PROJECT.
    2. ALL OF THE RESIDENTIAL LOTS SHALL FRONT ON AND OBTAIN ACCESS FROM THE PROPOSED PRIVATE ROADS WITHIN THE PROJECT AREA.
    3. THE PROPOSED PRIVATE ROADS WITHIN THE PROJECT AREA SHALL BE LOCATED ON PROPERTY(IES) OWNED BY A HOMEOWNER'S ASSOCIATION (HOA) AND BE MAINTAINED BY THE SAME HOA.
    4. THE PROPOSED PRIVATE ROADS WITHIN THE PROJECT AREA SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DED AND DFRS.
46. PERMITS APPLICABLE FOR THIS SUBDIVISION ARE AS FOLLOWS: MDE TRACKING NUMBER 200960962/09-NT-3087
47. PLAT SUBJECT TO LETTER DATED DECEMBER 11, 2009 EXTENDING THE MILESTONE DEADLINE DATE OF 01/01/10 UNTIL 03/02/10 TO SUBMIT THE REDLINE REVISION SITE DEVELOPMENT PLAN FOR PHASE III.
48. HOMEOWNERS ASSOCIATION, INC. WAS RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 12196 AT FOLIO 10.
49. ARTICLES OF INCORPORATION FOR THE WAVERLY WOODS WEST HOMEOWNERS ASSOCIATION, INC. WAS FILED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION ON RECEIPT NO. D13845151.

REVISED

GENERAL NOTES CONTINUED

SITE ANALYSIS DATA CHART

A. TOTAL AREA OF THIS SUBMISSION =88.995 AC.*.
B. LIMIT OF DISTURBED AREA = 88.995
C. PRESENT ZONING DESIGNATION = PSC
D. PROPOSED USE: AGE RESTRICTED ADULT HOUSING (TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES)
E. FLOOR SPACE ON EACH LEVEL OF BUILDING: N/A
F. TOTAL NUMBER OF UNITS ALLOCATED FOR PHASE II: 50 UNITS
   TOTAL NUMBER OF UNITS ALLOCATED FOR PHASE III: 100 UNITS
   TOTAL NUMBER OF UNITS ALLOCATED FOR PHASE IV: 100 UNITS
   TOTAL NUMBER OF UNITS ALLOCATED FOR PHASE V: 90 UNITS
G. TOTAL NUMBER OF UNITS PROPOSED ON THIS SUBMISSION: 340 UNITS
   a. NUMBER OF SINGLE FAMILY ATTACHED (TOWNHOUSES) = 133
      PHASE II: 28
      PHASE III: 49
      PHASE IV: 50
      PHASE V: 6
   b. NUMBER OF SINGLE FAMILY DETACHED UNITS = 207
      PHASE II: 22
      PHASE III: 51
      PHASE IV: 50
      PHASE V: 84
H. TOTAL NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: N/A
I. TOTAL NUMBER OF PARKING SPACES REQUIRED IN PHASE II THRU V= 782 SPACES
   a. TOWNHOUSE PARKING REQUIRED = 306 SPACES (133 SFA @ 2.3 SPACES/UNITS)
      PHASE II: 64
      PHASE III: 113
      PHASE IV: 115
      PHASE V: 14
   b. SINGLE FAMILY PARKING REQUIRED = 476 SPACES (207 SFD @ 2.3 SPACES/UNITS)
      PHASE II: 51
      PHASE III: 117
      PHASE IV: 115
      PHASE V: 193
J. TOTAL NUMBER OF PARKING SPACES PROVIDED (PHASES II THRU V) = 1554 SPACES
   a. TOWNHOUSE PARKING PROVIDED (4 SPACES PER UNIT) = 564 SPACES
   b. SINGLE FAMILY DETACHED PARKING PROVIDED (4 SPACES PER UNIT) = 836 SPACES
   c. ON STREET PARKING SPACES PROVIDED: 154 SPACES
K. OPEN SPACE ON SITE: PROVIDED BY F-09-057
L. RECREATIONAL AREA PROVIDED AS PASSIVE HOMEOWNERS ASSOCIATION AREA (I.E. PATHWAYS, GAZEBO, ETC.) IN PHASES I THRU V AND COMMUNITY CENTER BUILDING TO BE CONSTRUCTED IN PHASE III.
M. BUILDING COVERAGE OF SITE: N/A
N. PREVIOUS HOWARD COUNTY FILES: S-94-07, S-06-013, ZB CASE NO. 1027 M, ZB CASE NO. 929-M, PB CASE NO. 381, F-01-091, F-01-093, F-01-148, F-01-147, F-08-159, P-08-010, WP-95-23, WP-08-069, F-09-057, F-07-032, F-09-057 (FC), F-10-113, WP-09-210, SDP-09-037, F-12-072, F-12-089, F-13-067 AND F-14-111 .
O. TOTAL AREA OF FLOODPLAIN IN BULK PARCEL 'A' ON F-09-057 = 6.399 AC*
P. TOTAL AREA OF SLOPES IN EXCESS OF 25% = 0.000 AC*
Q. NET TRACT AREA = 124.384 AC.
   (TOTAL SITE AREA – FLOODPLAIN – STEEP SLOPES AREA)
   (130.783 Ac – 6.399 Ac – 0.000 Ac)
R. DENSITY TABULATION
   A) ALLOWED DENSITY = 995 UNITS
      (NET TRACT AREA x 8 UNITS/NET ACRE)
      (124.384 Ac. x 8 UNITS/Ac.)
   B) PROPOSED RESIDENTIAL UNITS = 350 UNITS

FOREST CONSERVATION DATA

AREA OF FOREST RETENTION REQ.= 17.46 AC.
AREA OF CREDITED FOREST RETENTION PROVIDED
FCE #1-7= 19.08 AC.
ABANDONED FCE= 1.62 AC.
TOTAL 17.46 AC.

AREA OF FOREST PLANTING REQ.= 15.11 AC.
AREA OF CREDITED PLANTING PROVIDED
FCE #1-7= 4.68 AC.
OFFSITE: WITCHING HOUR FARM PROP.= 10.43 AC.
TOTAL 15.11 AC.

* SEE GENERAL NOTE NOS. 38, 47 AND 50 FOR MILESTONE DATE EXTENSIONS

STREET LIGHT CHART (PRIVATE)

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
BARNSLEY WAY	4+02	20'L	100-WATT "COLONIAL" SODIUM VAPOR POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.
	7+14	20'L	
SOPHIA CHASE DRIVE	14+07	20'R	
	29+92	22'L	
GENTLE ROLLING DRIVE	5+66	22'R	
	11+37	22'L	
	21+79	22'L	
EMMA STONE DRIVE	0+28	21'R	
	2+75	21'L	
GREAT ALEXANDER STREET	0+25	21'R	
WALKING JANELLE WAY	0+28	21'R	
	7+16	21'L	
IRVING GAMBLE ROAD	0+24	19'R	
	2+55	19'L	
NOAH FINN ROAD	0+27	22'R	

STREET SIGN CHART

STREET NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE
BARNSLEY WAY	0+80	16'L	STOP	R1-1
BARNSLEY WAY	19+07	21'R	STOP	R1-1
BARNSLEY WAY	2+00	16'R	SPEED LIMIT 25 MPH	R2-1
SOPHIA CHASE DRIVE	0+28	21'L	STOP	R1-1
SOPHIA CHASE DRIVE	29+96	21'R	STOP	R1-1
SOPHIA CHASE DRIVE	0+80	15'R	SPEED LIMIT 25 MPH	R2-1
SOPHIA CHASE DRIVE	15+00	15'R	SPEED LIMIT 25 MPH	R2-1
GENTLE ROLLING DRIVE	0+28	18'L	STOP	R1-1
GENTLE ROLLING DRIVE	21+81	18'R	STOP	R1-1
GENTLE ROLLING DRIVE	1+50	15'R	SPEED LIMIT 25 MPH	R2-1
GENTLE ROLLING DRIVE	20+50	15'L	SPEED LIMIT 25 MPH	R2-1
EMMA STONE DRIVE	0+29	21'L	STOP	R1-1
EMMA STONE DRIVE	19+78	21'R	STOP	R1-1
EMMA STONE DRIVE	1+00	15'R	SPEED LIMIT 25 MPH	R2-1
GREAT ALEXANDER STREET	0+28	20'L	STOP	R1-1
GREAT ALEXANDER STREET	2+47	21'R	STOP	R1-1
ANDERSON HILL STREET	0+28	21'L	STOP	R1-1
ANDERSON HILL STREET	19+18	21'R	STOP	R1-1
ANDERSON HILL STREET	1+50	15'R	SPEED LIMIT 25 MPH	R2-1
ANDERSON HILL STREET	18+50	15'L	SPEED LIMIT 25 MPH	R2-1
WALKING JANELLE WAY	0+28	21'L	STOP	R1-1
WALKING JANELLE WAY	7+15	21'R	STOP	R1-1
WALKING JANELLE WAY	1+00	15'R	SPEED LIMIT 25 MPH	R2-1
IRVING GAMBLE ROAD	0+28	17'L	STOP	R1-1
IRVING GAMBLE ROAD	2+52	17'R	STOP	R1-1
NOAH FINN ROAD	0+28	21'L	STOP	R1-1
NOAH FINN ROAD	2+52	21'R	STOP	R1-1
COMMUNITY BLDG. DRIVEWAY	0+28	10'L	STOP	R1-1

PHASING TABULATION

PHASE	NUMBER OF TENTATIVE ALLOCATIONS	ALLOCATION YEAR	PLANNING AREA	MILESTONE PERIOD	PLAN SUBMISSION
I *	10	2010	ELLICOTT CITY	ON OR BEFORE03/01/08 ON OR BEFORE 04/03/09	PRELIMINARY PLAN FINAL/SDP
II *	50	2011	SENIOR EAST	BETWEEN 07/01/08 AND 11/01/08	REDLINE REVISION TO SDP
III *	100	2012	SENIOR EAST	BETWEEN 07/01/09 AND 01/01/10	REDLINE REVISION TO SDP
IV *	100	2013	SENIOR EAST	BETWEEN 07/01/10 AND 01/01/11	REDLINE REVISION TO SDP
V	90	2014	SENIOR EAST	BETWEEN 07/01/11 AND 01/01/12	REDLINE REVISION TO SDP

ADJOINING PROPERTY OWNERS

NO.	OWNER	LIBER/FOLIO	PARCEL No.	ZONING
1	MORSBERGER LLC	10380/68	224	R-20
2	WILLIAMS	4540/310	60	R-20
3	COOK	4054/547	62	R-20
4	BEAL	9020/657	63	R-20
5	DORSEY	328/404	64	R-20
6	SCOTT	4149/333	65	R-20
7	SCOTT	4149/333	66	R-20
8	KING	10267/197	190	R-20
9	COOK	1462/375	308	R-20
10	TROTMAN	3469/94	68	R-20
11	KIM, ET AL		68	R-20
12	WAVERLY WOODS DEVELOPMENT CORPORATION	PLAT No. 19761-19763	249	POR & PEC
13	HOLE IN THE DOUGHNUT, LLC	5603/168	221	PSC & PEC

UNIVERSAL DESIGN GUIDELINES FOR AGE-RESTRICTED ADULT HOUSING IN HOWARD COUNTY

The Howard County Zoning Regulations allow for "active adult housing" as either a conditional use in residential zoning districts or as a permitted use in the Planned Senior Community, Planned Office Research, Community Center Transition, and Residential Institutional zoning districts. Active adult developments must be appropriately designed for adults at least 55 years of age. Site improvements must ensure accessible routes between parking, dwelling units and common areas. Individual dwellings must incorporate universal design features to be adaptable for residents with mobility and functional limitations that often result from aging.

Design standards for site accessibility and usable common areas have been established for multifamily housing by the Americans 'with' Disabilities Act and the Fair Housing Act of 1988. While recognized standards for individual units for older adults have not been established, "Universal Design" is a relatively new, evolving concept that provides some guidance.

Accordingly, the Department of Planning and Zoning met with several senior housing developers, representatives of the Homes for Life Coalition of Howard County, and the Department of Inspections, Licenses, and Permits to discuss minimum requirements. Divergent views were expressed regarding what features should be required vs optional. Features vary considerably in cost, relevance for different users, and adaptability to different sites and project types. Developers' chief concerns were that the current market doesn't perceive a need for most universal design features since the oldest boomers are still relatively young and aren't focused on how their needs may change over time. Concern was also expressed about increasing the cost of senior housing if many universal design features are required rather than optional.

These guidelines reflect a middle position focusing on requiring those features that are relatively inexpensive if part of initial construction, but would require major renovation to retrofit in the future. Items that are relatively less expensive to retrofit in the future are listed as desirable or optional.

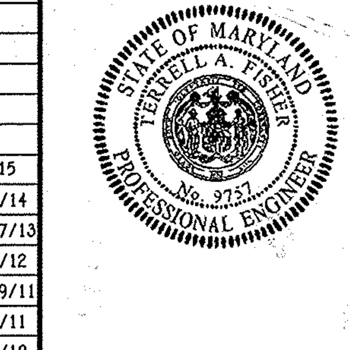
REQUIRED
- for multi-family apartment or condo developments, an accessible path between parking, dwelling units, and common areas that meets ADA standards
- for single family detached and attached developments, a "no-step" access to the front entrance to the community building and all dwellings (a no-step entrance is desirable, but not required at other entrances)
- 36" wide front door with exterior lighting of the entrance
- all interior doorways at least 32" wide (36" is preferable)
- hallways at least 36" wide, (40-42" is preferable)
- complete living area including master bedroom & bath on first floor (or elevator access if multi-story rental/condo apartments) .
- lever handles on interior and exterior doors
- blocking for grab bars in walls in bathroom near toilet and shower

DESIRABLE
- low maintenance exterior materials
- covered main entry
- entry door approach with 18"-24" of clearance at side adjacent to handle
- smooth transitions between rooms (vertical threshold of 2" or less)
- slip resistant flooring
- maximize accessible path between main living rooms (preferably 38-42")
- lever handles on kitchen and bathroom sinks, plus shower
- anti-scald devices on all plumbing fixtures
- 5' turning radius or T turn in kitchen and first floor bathroom
- parallel and forward approach maneuvering space in front of appliances and plumbing fixtures
- main electrical breaker box located on the first floor
- Switches, doorbells, thermostats, and breaker boxes should be located no more than 48" above the floor; electrical receptacles should be at least 15" above the floor

CUSTOM OPTIONS
- security system
- visual ID of visitors
- visual smoke detectors
- handrails on both sides of exterior and interior stairs
- task lighting in kitchen, bath and other work spaces
- rocker light switches
- lighting in closets and pantry
- closet rods adjustable from 3' to 5'-6"
- slip resistant flooring in kitchen and bath
- multi-level or adjustable kitchen countertops and work spaces
- pullout shelves for kitchen base cabinets
- front mounted controls on stove
- installation of grab bars in bathroom
- hand held showerhead in shower
- curbless shower

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE
7.	REV TO ADD FEE SIMPLE LOTS PER F-15-041 AND HOUSE BOX'S C, D, E	5/1/15
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND ADD PHASE V TO SDP-09-039	8/28/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION OF APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES	RYAN HOMES
6085 MARSHALEE DRIVE	6085 MARSHALEE DRIVE
SUITE 130	SUITE 140
ELKRIDGE, MD. 21075	ELKRIDGE, MD. 21075
410-379-5956	410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date
Chief, Development Engineering Division — 7-24-15 Date
Director – Department of Planning and Zoning — 8-4-15 Date

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 172 THRU 231 & 240 THRU 369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

TITLE SHEET

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS – WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 1 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sheet 1 Title Sheet Phase 5 Units .dwg, 7/13/2015 8:58:34 AM, 1:30

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STREET ADDRESS CHART

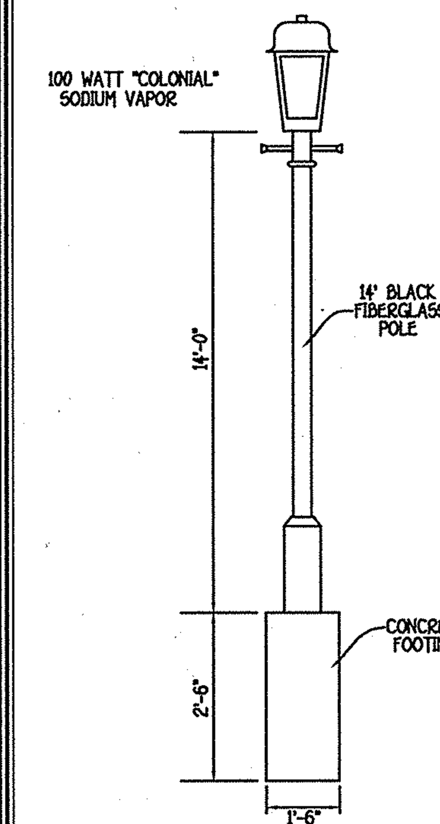
UNIT NO.	LOT NO.	STREET ADDRESS	PHASE
1	5	2321 ADAM DAVID WAY	2
2	6	2325 ADAM DAVID WAY	1
3	7	2327 ADAM DAVID WAY	1
4	8	2329 ADAM DAVID WAY	1
5	9	2331 ADAM DAVID WAY	1
6	10	2335 ADAM DAVID WAY	1
7	11	2339 ADAM DAVID WAY	1
8	12	2343 ADAM DAVID WAY	2
9	13	2345 ADAM DAVID WAY	2
10	14	2347 ADAM DAVID WAY	2
11	15	2349 ADAM DAVID WAY	2
12	16	2351 ADAM DAVID WAY	2
13	17	2353 ADAM DAVID WAY	2
14	18	2380 ADAM DAVID WAY	2
15	19	2378 ADAM DAVID WAY	2
16	20	2376 ADAM DAVID WAY	2
17	21	2374 ADAM DAVID WAY	2
18	22	2372 ADAM DAVID WAY	2
19	23	2370 ADAM DAVID WAY	2
20	24	2366 ADAM DAVID WAY	2
21	25	2364 ADAM DAVID WAY	2
22	26	2362 ADAM DAVID WAY	2
23	27	2360 ADAM DAVID WAY	2
24	28	2354 ADAM DAVID WAY	2
25	29	2352 ADAM DAVID WAY	2
26	30	2350 ADAM DAVID WAY	2
27	31	2348 ADAM DAVID WAY	2
28	32	2346 ADAM DAVID WAY	2
29	33	2344 ADAM DAVID WAY	2
30	34	2342 ADAM DAVID WAY	2
31	35	2338 ADAM DAVID WAY	2
32	36	2336 ADAM DAVID WAY	2
33	37	2334 ADAM DAVID WAY	2
34	38	2332 ADAM DAVID WAY	2
35	39	2330 ADAM DAVID WAY	2
36	40	2326 ADAM DAVID WAY	1
37	41	2324 ADAM DAVID WAY	1
38	42	2320 ADAM DAVID WAY	1
39	43	2318 ADAM DAVID WAY	1
40	44	11105 GENTLE ROLLING DRIVE	2
41	45	11109 GENTLE ROLLING DRIVE	2
42	46	11113 GENTLE ROLLING DRIVE	2
43	47	11117 GENTLE ROLLING DRIVE	2
44	48	11121 GENTLE ROLLING DRIVE	2
45	49	11125 GENTLE ROLLING DRIVE	2
46	50	11129 GENTLE ROLLING DRIVE	2
47	51	11133 GENTLE ROLLING DRIVE	2
48	52	11137 GENTLE ROLLING DRIVE	2
49	65	2315 ANDERSON HILL STREET	3
50	66	2317 ANDERSON HILL STREET	3
51	67	2319 ANDERSON HILL STREET	3
52	68	2321 ANDERSON HILL STREET	3
53	69	2325 ANDERSON HILL STREET	3
54	70	2327 ANDERSON HILL STREET	3
55	71	2329 ANDERSON HILL STREET	3
56	72	2331 ANDERSON HILL STREET	3
57	73	2335 ANDERSON HILL STREET	3
58	74	2339 ANDERSON HILL STREET	3
59	75	2343 ANDERSON HILL STREET	3
60	76	2355 ANDERSON HILL STREET	3
61	77	2359 ANDERSON HILL STREET	3
62	78	2363 ANDERSON HILL STREET	3
63	79	2367 ANDERSON HILL STREET	3
64	130	2375 ANDERSON HILL STREET	3
65	131	2379 ANDERSON HILL STREET	3
66	132	2383 ANDERSON HILL STREET	3
67	133	2387 ANDERSON HILL STREET	3
68	134	2391 ANDERSON HILL STREET	3
69	135	2395 ANDERSON HILL STREET	3
70	136	2399 ANDERSON HILL STREET	3

UNIT NO.	LOT NO.	STREET ADDRESS	PHASE
71	137	2403 ANDERSON HILL STREET	3
72	138	2407 ANDERSON HILL STREET	3
73	139	2411 ANDERSON HILL STREET	3
74	140	2415 ANDERSON HILL STREET	3
75	141	2419 ANDERSON HILL STREET	3
76	142	2423 ANDERSON HILL STREET	3
77	143	2427 ANDERSON HILL STREET	3
78	144	2431 ANDERSON HILL STREET	3
79	145	2435 ANDERSON HILL STREET	3
80	172	11179 GENTLE ROLLING DRIVE	4
81	173	11183 GENTLE ROLLING DRIVE	4
82	174	11187 GENTLE ROLLING DRIVE	4
83	175	11191 GENTLE ROLLING DRIVE	4
84	176	11195 GENTLE ROLLING DRIVE	4
85	177	11199 GENTLE ROLLING DRIVE	4
86	178	11203 GENTLE ROLLING DRIVE	4
87	179	11207 GENTLE ROLLING DRIVE	4
88	180	11211 GENTLE ROLLING DRIVE	4
89	181	11215 GENTLE ROLLING DRIVE	4
90	182	11219 GENTLE ROLLING DRIVE	4
91	183	11223 GENTLE ROLLING DRIVE	4
92	184	11227 GENTLE ROLLING DRIVE	4
93	240	11231 GENTLE ROLLING DRIVE	4
94	241	11235 GENTLE ROLLING DRIVE	4
95	242	11239 GENTLE ROLLING DRIVE	4
96	243	11243 GENTLE ROLLING DRIVE	4
97	244	11247 GENTLE ROLLING DRIVE	4
98	245	2427 SOPHIA CHASE DRIVE	4
99	246	2429 SOPHIA CHASE DRIVE	4
100	247	2431 SOPHIA CHASE DRIVE	4
101	248	2433 SOPHIA CHASE DRIVE	4
102	249	2437 SOPHIA CHASE DRIVE	4
103	250	2439 SOPHIA CHASE DRIVE	4
104	251	2441 SOPHIA CHASE DRIVE	4
105	252	2443 SOPHIA CHASE DRIVE	4
106	253	2447 SOPHIA CHASE DRIVE	4
107	254	2449 SOPHIA CHASE DRIVE	4
108	255	2451 SOPHIA CHASE DRIVE	4
109	256	2453 SOPHIA CHASE DRIVE	4
110	257	2457 SOPHIA CHASE DRIVE	4
111	258	2459 SOPHIA CHASE DRIVE	4
112	259	2461 SOPHIA CHASE DRIVE	4
113	260	2463 SOPHIA CHASE DRIVE	4
114	261	2465 SOPHIA CHASE DRIVE	4
115	262	2469 SOPHIA CHASE DRIVE	4
116	263	2471 SOPHIA CHASE DRIVE	4
117	264	2473 SOPHIA CHASE DRIVE	4
118	265	2475 SOPHIA CHASE DRIVE	4
119	266	2479 SOPHIA CHASE DRIVE	4
120	267	2483 SOPHIA CHASE DRIVE	5
121	268	2487 SOPHIA CHASE DRIVE	5
122	269	2491 SOPHIA CHASE DRIVE	5
123	270	2495 SOPHIA CHASE DRIVE	5
124	271	2501 SOPHIA CHASE DRIVE	5
125	272	2503 SOPHIA CHASE DRIVE	5
126	273	2505 SOPHIA CHASE DRIVE	5
127	274	2507 SOPHIA CHASE DRIVE	5
128	275	2509 SOPHIA CHASE DRIVE	5
129	276	2511 SOPHIA CHASE DRIVE	5
130	277	2515 SOPHIA CHASE DRIVE	5
131	278	2519 SOPHIA CHASE DRIVE	5
132	279	2523 SOPHIA CHASE DRIVE	5
133	280	2527 SOPHIA CHASE DRIVE	5
134	281	2531 SOPHIA CHASE DRIVE	5
135	282	2535 SOPHIA CHASE DRIVE	5
136	283	2539 SOPHIA CHASE DRIVE	5
137	284	2543 SOPHIA CHASE DRIVE	5
138	285	2547 SOPHIA CHASE DRIVE	5
139	286	2551 SOPHIA CHASE DRIVE	5
140	287	2555 SOPHIA CHASE DRIVE	5

UNIT NO.	LOT NO.	STREET ADDRESS	PHASE
141	288	2559 SOPHIA CHASE DRIVE	5
142	289	2563 SOPHIA CHASE DRIVE	5
143	290	2567 SOPHIA CHASE DRIVE	5
144	291	2571 SOPHIA CHASE DRIVE	5
145	292	2575 SOPHIA CHASE DRIVE	5
146	293	2579 SOPHIA CHASE DRIVE	5
147	294	2583 SOPHIA CHASE DRIVE	5
148	295	2587 SOPHIA CHASE DRIVE	5
149	296	2591 SOPHIA CHASE DRIVE	5
150	297	2595 SOPHIA CHASE DRIVE	5
151	298	2599 SOPHIA CHASE DRIVE	5
152	299	11312 BARNSLEY WAY	5
153	300	11308 BARNSLEY WAY	4
154	301	11304 BARNSLEY WAY	4
155	302	11300 BARNSLEY WAY	4
156	303	11296 BARNSLEY WAY	4
157	304	11292 BARNSLEY WAY	4
158	305	11288 BARNSLEY WAY	4
159	306	11284 BARNSLEY WAY	4
160	307	11280 BARNSLEY WAY	4
161	308	11276 BARNSLEY WAY	4
162	347	2748 EMMA STONE DRIVE	5
163	346	2744 EMMA STONE DRIVE	5
164	345	2740 EMMA STONE DRIVE	5
165	344	2736 EMMA STONE DRIVE	5
166	343	2732 EMMA STONE DRIVE	5
167	342	2728 EMMA STONE DRIVE	5
168	341	2724 EMMA STONE DRIVE	5
169	340	2720 EMMA STONE DRIVE	5
170	339	2716 EMMA STONE DRIVE	5
171	338	2712 EMMA STONE DRIVE	5
172	337	2708 EMMA STONE DRIVE	5
173	336	2704 EMMA STONE DRIVE	5
174	335	2700 EMMA STONE DRIVE	5
175	334	2696 EMMA STONE DRIVE	5
176	333	2692 EMMA STONE DRIVE	5
177	332	2688 EMMA STONE DRIVE	5
178	331	2684 EMMA STONE DRIVE	5
179	330	2680 EMMA STONE DRIVE	5
180	329	2676 EMMA STONE DRIVE	5
181	328	2672 EMMA STONE DRIVE	5
182	327	2668 EMMA STONE DRIVE	5
183	326	2664 EMMA STONE DRIVE	5
184	325	2660 EMMA STONE DRIVE	5
185	324	2656 EMMA STONE DRIVE	5
186	323	2652 EMMA STONE DRIVE	5
187	322	2648 EMMA STONE DRIVE	5
188	321	2644 EMMA STONE DRIVE	5
189	320	2640 EMMA STONE DRIVE	5
190	319	2636 EMMA STONE DRIVE	5
191	318	2626 EMMA STONE DRIVE	5
192	317	2622 EMMA STONE DRIVE	5
193	316	2618 EMMA STONE DRIVE	5
194	315	2614 EMMA STONE DRIVE	5
195	314	2610 EMMA STONE DRIVE	5
196	309	11268 BARNSLEY WAY	4
197	310	11264 BARNSLEY WAY	4
198	311	11262 BARNSLEY WAY	4
199	312	11258 BARNSLEY WAY	4
200	313	11254 BARNSLEY WAY	4
201	64	11248 BARNSLEY WAY	2
202	63	11244 BARNSLEY WAY	2
203	62	11240 BARNSLEY WAY	2
204	61	11236 BARNSLEY WAY	2
205	60	11232 BARNSLEY WAY	2
206	59	11228 BARNSLEY WAY	2
207	58	11224 BARNSLEY WAY	2
208	57	11220 BARNSLEY WAY	2
209	56	11114 GENTLE ROLLING DRIVE	2
210	55	11118 GENTLE ROLLING DRIVE	2

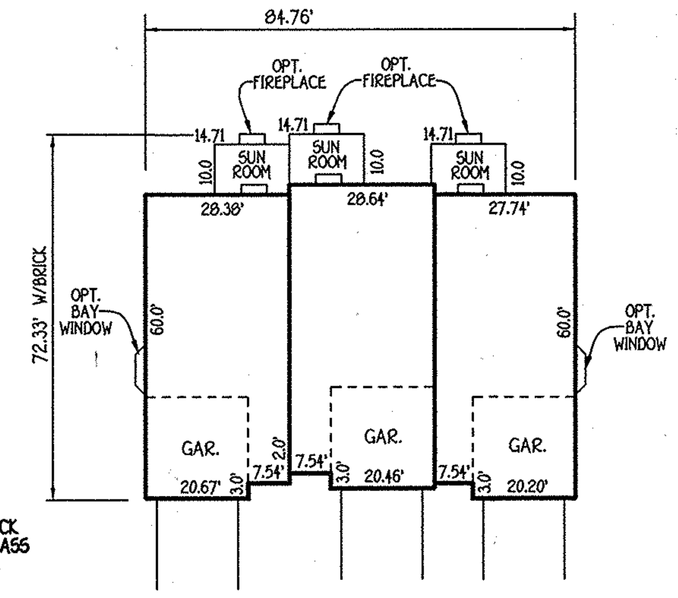
UNIT NO.	LOT NO.	STREET ADDRESS	PHASE
211	54	11122 GENTLE ROLLING DRIVE	2
212	53	11126 GENTLE ROLLING DRIVE	2
213	160	2511 GREAT ALEXANDER STREET	3
214	161	2509 GREAT ALEXANDER STREET	3
215	162	2507 GREAT ALEXANDER STREET	3
216	163	2505 GREAT ALEXANDER STREET	3
217	164	2503 GREAT ALEXANDER STREET	3
218	165	2403 SOPHIA CHASE DRIVE	3
219	86	2314 ANDERSON HILL STREET	3
220	85	2316 ANDERSON HILL STREET	3
221	84	2318 ANDERSON HILL STREET	3
222	83	2320 ANDERSON HILL STREET	3
223	97	11203 IRVING GAMBLE ROAD	3
224	98	11205 IRVING GAMBLE ROAD	3
225	99	11207 IRVING GAMBLE ROAD	3
226	100	11209 IRVING GAMBLE ROAD	3
227	101	11211 IRVING GAMBLE ROAD	3
228	96	2421 WALKING JANELLE WAY	3
229	95	2419 WALKING JANELLE WAY	3
230	94	2417 WALKING JANELLE WAY	3
231	93	2415 WALKING JANELLE WAY	3
232	92	11153 GENTLE ROLLING DRIVE	3
233	91	11151 GENTLE ROLLING DRIVE	3
234	90	11149 GENTLE ROLLING DRIVE	3
235	89	11147 GENTLE ROLLING DRIVE	3
236	88	11145 GENTLE ROLLING DRIVE	3
237	82	2338 ANDERSON HILL STREET	3
238	81	2342 ANDERSON HILL STREET	3
239	80	2346 ANDERSON HILL STREET	3
240	104	2445 WALKING JANELLE WAY	3
241	103	2441 WALKING JANELLE WAY	3
242	102	2437 WALKING JANELLE WAY	3
243	113	2416 WALKING JANELLE WAY	3
244	112	2418 WALKING JANELLE WAY	3
245	111	2420 WALKING JANELLE WAY	3
246	110	2424 WALKING JANELLE WAY	3
247	109	2426 WALKING JANELLE WAY	3
248	108	2428 WALKING JANELLE WAY	3
249	107	2432 WALKING JANELLE WAY	3
250	106	2436 WALKING JANELLE WAY	3
251	105	2440 WALKING JANELLE WAY	3
252	129	2376 ANDERSON HILL STREET	3
253	128	2380 ANDERSON HILL STREET	3
254	127	2384 ANDERSON HILL STREET	3
255	126	2406 ANDERSON HILL STREET	3
256	125	2410 ANDERSON HILL STREET	3
257	124	2414 ANDERSON HILL STREET	3
258	123	2418 ANDERSON HILL STREET	3
259	122	2422 ANDERSON HILL STREET	3
260	121	2426 ANDERSON HILL STREET	3
261	120	2430 ANDERSON HILL STREET	3
262	119	2434 ANDERSON HILL STREET	3
263	118	11169 GENTLE ROLLING DRIVE	3
264	117	11167 GENTLE ROLLING DRIVE	3
265	116	11165 GENTLE ROLLING DRIVE	3
266	115	11163 GENTLE ROLLING DRIVE	3
267	114	11161 GENTLE ROLLING DRIVE	3
268	188	11174 GENTLE ROLLING DRIVE	4
269	187	11178 GENTLE ROLLING DRIVE	4
270	185	11218 GENTLE ROLLING DRIVE	4
271	186	11222 GENTLE ROLLING DRIVE	4
272	155	2415 SOPHIA CHASE DRIVE	3
273	154	11144 GENTLE ROLLING DRIVE	3
274	153	11146 GENTLE ROLLING DRIVE	3
275	152	11148 GENTLE ROLLING DRIVE	3
276	151	11152 GENTLE ROLLING DRIVE	3
277	150	11154 GENTLE ROLLING DRIVE	3
278	149	11156 GENTLE ROLLING DRIVE	3
279	148	11158 GENTLE ROLLING DRIVE	3
280	147	11162 GENTLE ROLLING DRIVE	3

UNIT NO.	LOT NO.	STREET ADDRESS	PHASE
281	146	11166 GENTLE ROLLING DRIVE	3
282	189	2450 ANDERSON HILL STREET	4
283	190	2454 ANDERSON HILL STREET	4
284	191	2458 ANDERSON HILL STREET	4
285	192	11234 GENTLE ROLLING DRIVE	4
286	159	11238 GENTLE ROLLING DRIVE	3
287	158	11242 GENTLE ROLLING DRIVE	3
288	157	11246 GENTLE ROLLING DRIVE	3
289	156	11250 GENTLE ROLLING DRIVE	3
290	229	2406 SOPHIA CHASE DRIVE	4
291	230	2408 SOPHIA CHASE DRIVE	4
292	231	2410 SOPHIA CHASE DRIVE	4
293	211	2468 SOPHIA CHASE DRIVE	4
294	212	2470 SOPHIA CHASE DRIVE	4
295	213	2472 SOPHIA CHASE DRIVE	4
296	208	2460 SOPHIA CHASE DRIVE	4
297	209	2462 SOPHIA CHASE DRIVE	4
298	210	2464 SOPHIA CHASE DRIVE	4
299	204	2450 SOPHIA CHASE DRIVE	4
300	205	2452 SOPHIA CHASE DRIVE	4
301	206	2454 SOPHIA CHASE DRIVE	4
302	207	2456 SOPHIA CHASE DRIVE	4
303	200	2440 SOPHIA CHASE DRIVE	4
304	201	2442 SOPHIA CHASE DRIVE	4
305	202	2444 SOPHIA CHASE DRIVE	4
306	203	2446 SOPHIA CHASE DRIVE	4
307	196	2430 SOPHIA CHASE DRIVE	4
308	197	2432 SOPHIA CHASE DRIVE	4
309	198	2434 SOPHIA CHASE DRIVE	4
310	199	2436 SOPHIA CHASE DRIVE	4
311	193	2420 SOPHIA CHASE DRIVE	4
312	194	2422 SOPHIA CHASE DRIVE	4
313	195	2424 SOPHIA CHASE DRIVE	4
314	214	11305 BARNSLEY WAY	4
315	215	11295 BARNSLEY WAY	4
316	216	11285 BARNSLEY WAY	4
317	217	11281 BARNSLEY WAY	4
318	218	11277 BARNSLEY WAY	4
319	219	11273 BARNSLEY WAY	4
320	220	11269 BARNSLEY WAY	4
321	221	11265 BARNSLEY WAY	4
322	222	11261 BARNSLEY WAY	4
323	223	11257 BARNSLEY WAY	4
324	224	11253 BARNSLEY WAY	4
325	225	11251 BARNSLEY WAY	4
326	226	11249 BARNSLEY WAY	4
327	227	11247 BARNSLEY WAY	4
328	228	11245 BARNSLEY WAY	4
329	363	2590 SOPHIA CHASE DRIVE	5
330	362	2594 SOPHIA CHASE DRIVE	5
331	361	2598 SOPHIA CHASE DRIVE	5
332	360	2602 SOPHIA CHASE DRIVE	5
333	359	2606 SOPHIA CHASE DRIVE	5
334	369	2532 SOPHIA CHASE DRIVE	5
335	368	2536 SOPHIA CHASE DRIVE	5
336	367	2540 SOPHIA CHASE DRIVE	5
337	366	2544 SOPHIA CHASE DRIVE	5
338	365	2548 SOPHIA CHASE DRIVE	5
339	364	2552 SOPHIA CHASE DRIVE	5
340	349	2631 EMMA STONE DRIVE	5
341	348	2625 EMMA STONE DRIVE	5
342	350	2745 EMMA STONE DRIVE	5
343	351	2741 EMMA STONE DRIVE	5
344	352	2737 EMMA STONE DRIVE	5
345	353	2733 EMMA STONE DRIVE	5
346	354	2729 EMMA STONE DRIVE	5
347	355	2725 EMMA STONE DRIVE	5
348	356	2721 EMMA STONE DRIVE	5
349	357	2699 EMMA STONE DRIVE	5
350	358	2695 EMMA STONE DRIVE	5

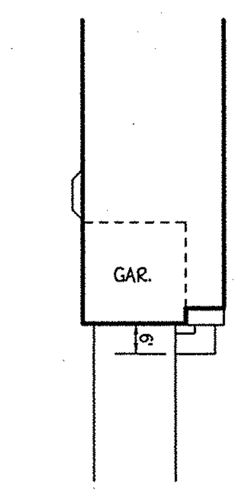


TYPICAL 100-WATT LIGHTING FIXTURE

NO SCALE

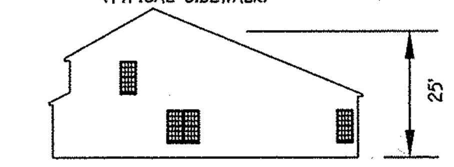


GRIFFIN 3 UNIT

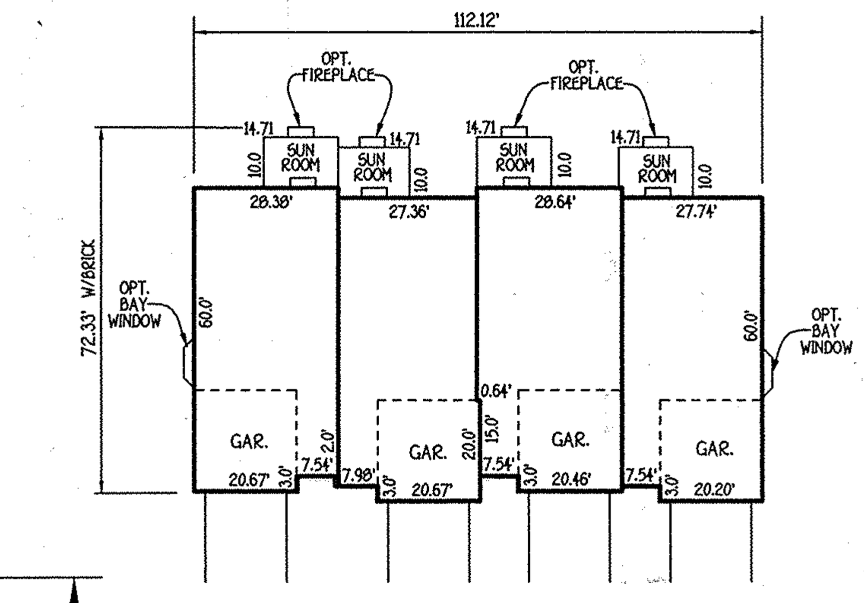


GRIFFIN

(TYPICAL SIDEWALK)



SIDE ELEVATION



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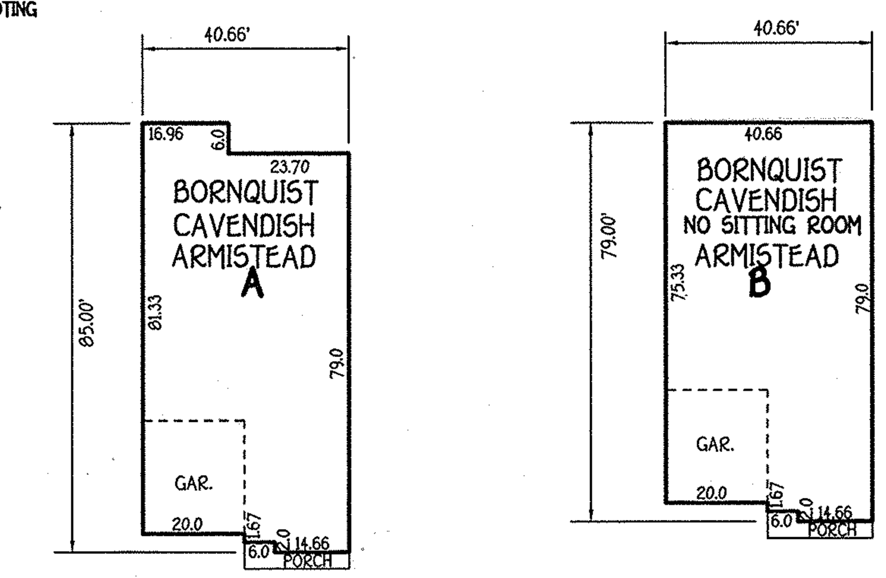
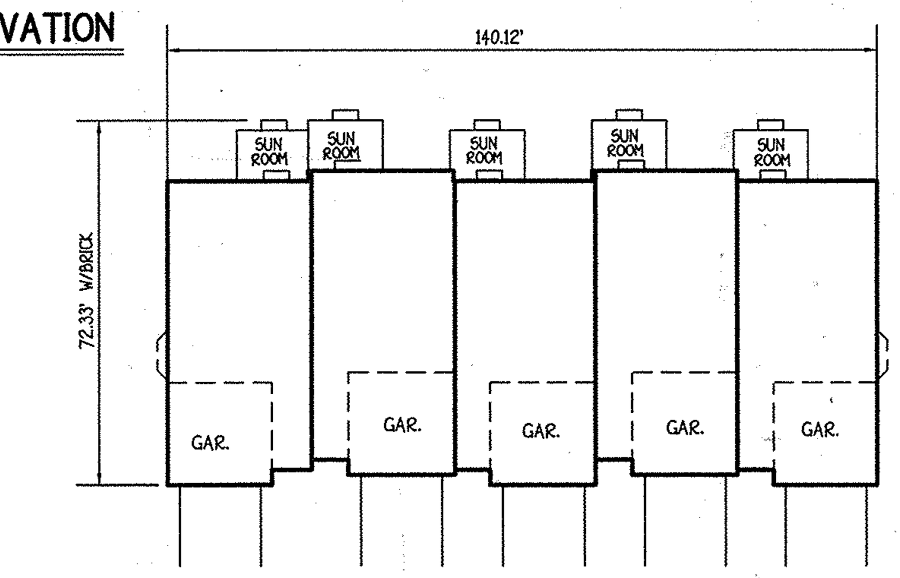
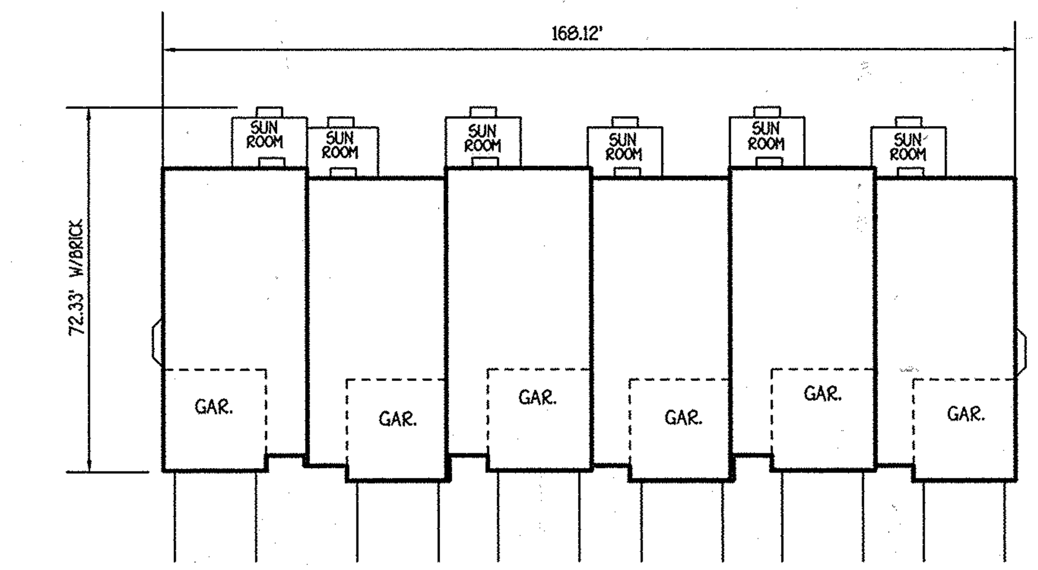


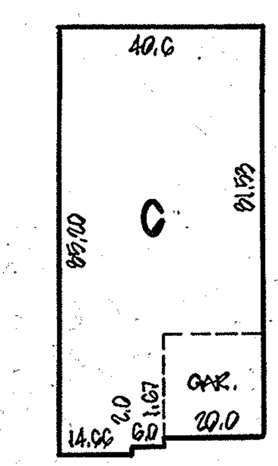
GENERIC BOXES



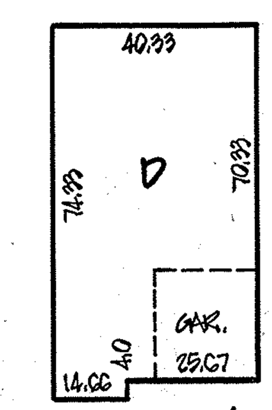
GRIFFIN 5 UNIT



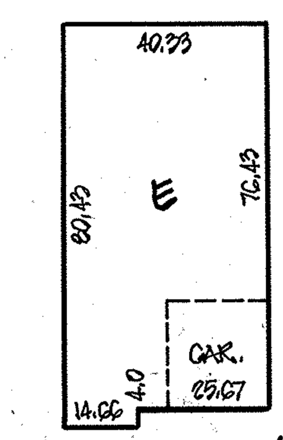
GRIFFIN 6 UNIT



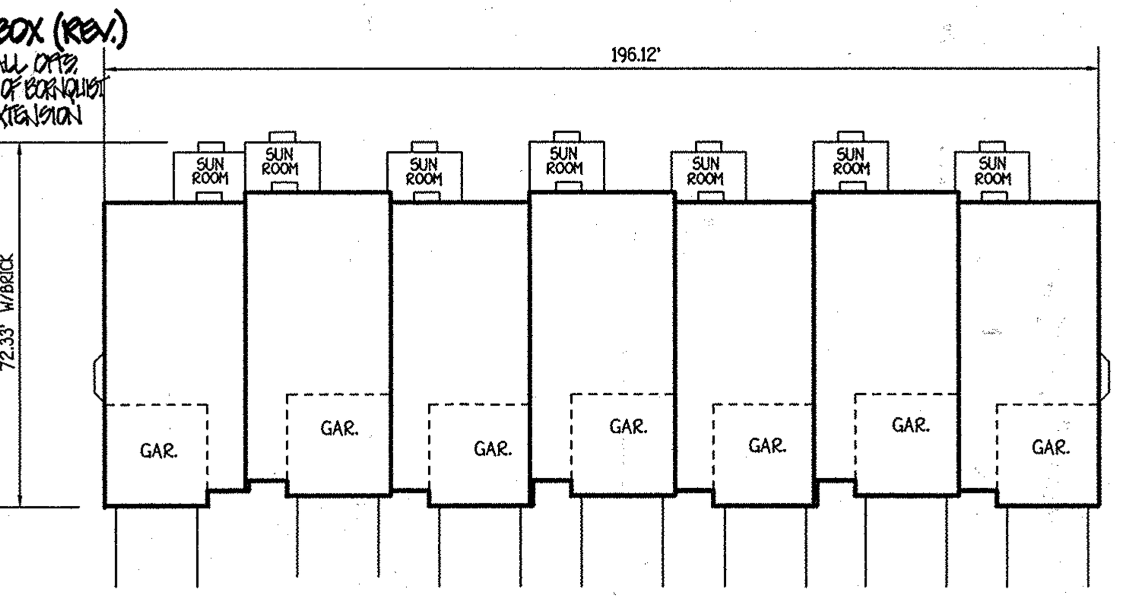
NEW GENERIC BOX
FITS BOTH ARMISTEAD & BORNQUIST W/ALL OPTS.



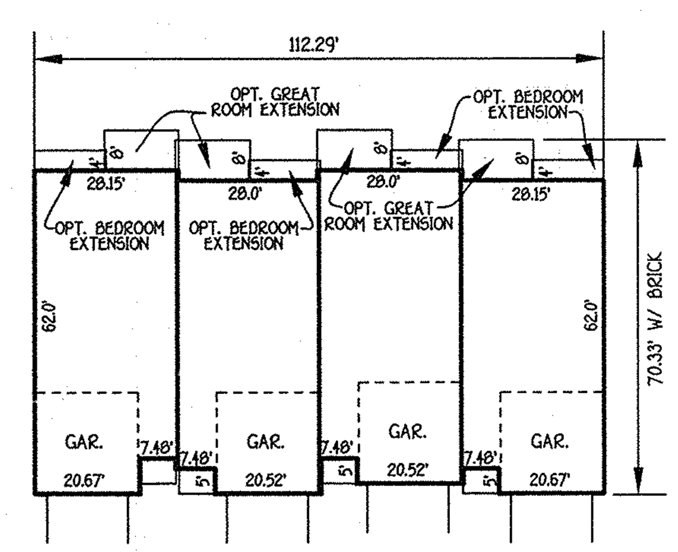
NEW GENERIC BOX (REV.)
FITS ARMISTEAD W/ALL OPTS.
FITS ONLY BASE HOUSE OF BORNQUIST
BORNQUIST ELEV. 'C' DOES NOT FIT



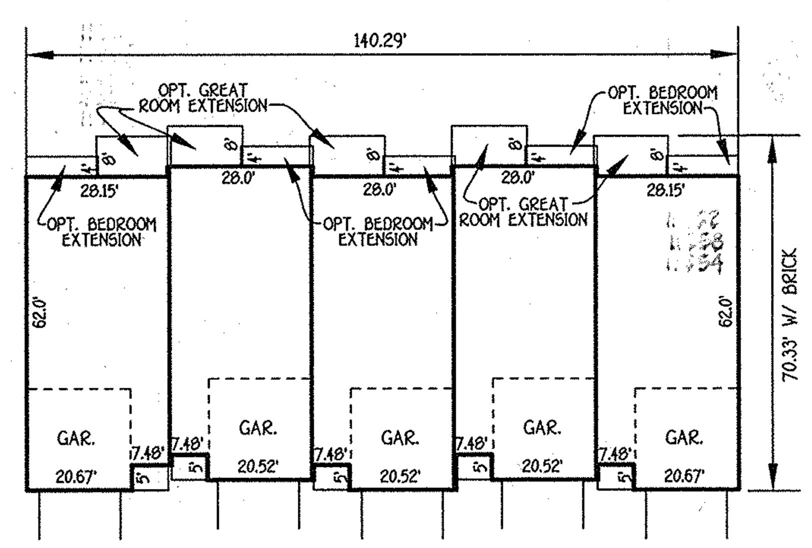
NEW GENERIC BOX (REV.)
FITS ARMISTEAD W/ALL OPTS.
FITS ONLY BASE HOUSE OF BORNQUIST
W/4' GREAT ROOM EXTENSION
& FITS ELEV. 'C'



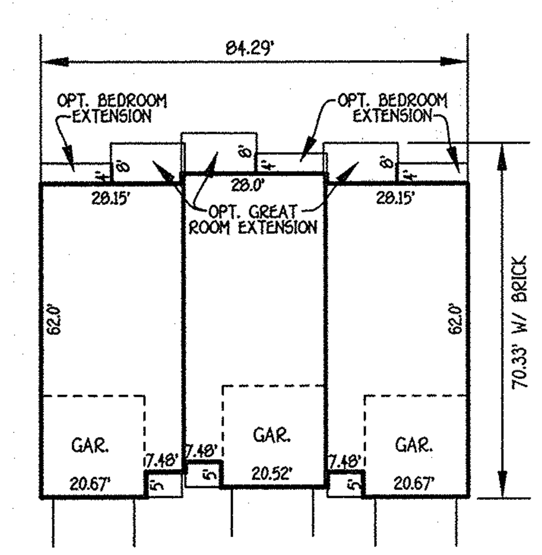
GRIFFIN 7 UNIT



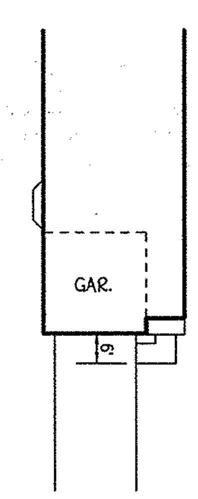
GRIFFIN HALL 4-UNIT



GRIFFIN HALL 5-UNIT

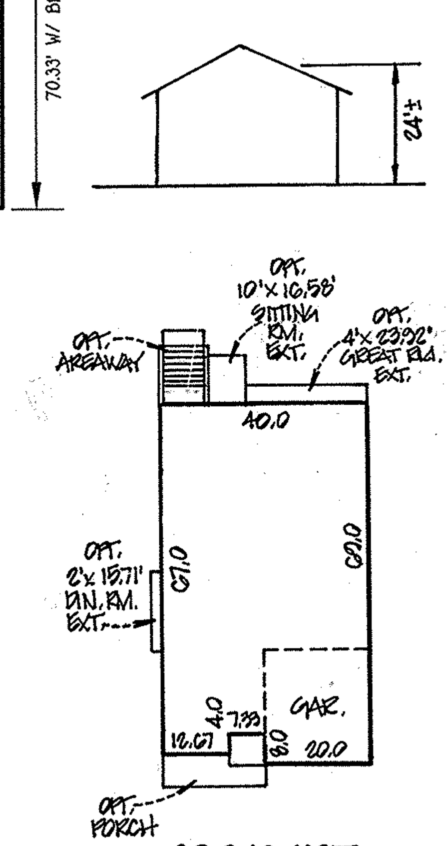


GRIFFIN HALL 3-UNIT

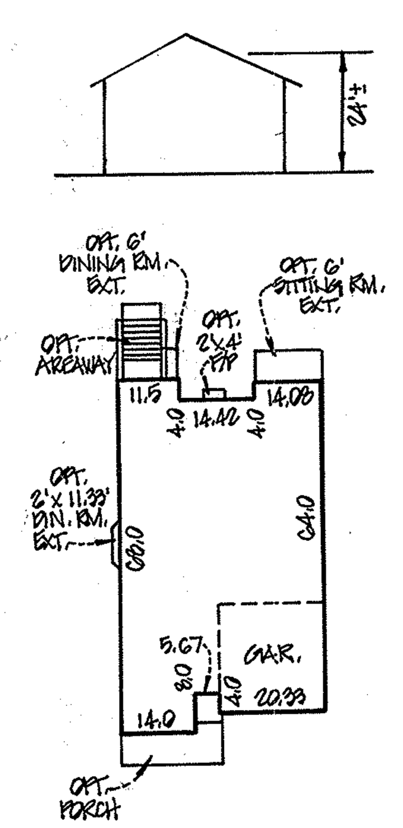


GRIFFIN HALL

(TYPICAL SIDEWALK)



BORNQUIST



ARMISTEAD

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	ADDED NEW GENERIC BOXES 'C', 'D' & 'E'	5/1/15
4	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
3	ADDED ARMISTEAD (VER.10) & BORNQUIST (VER.10) HSE. TYPES	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND · TERRELL A. FISHER · NO. 9757 REGISTERED · PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

REVISED

HOUSE TYPES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

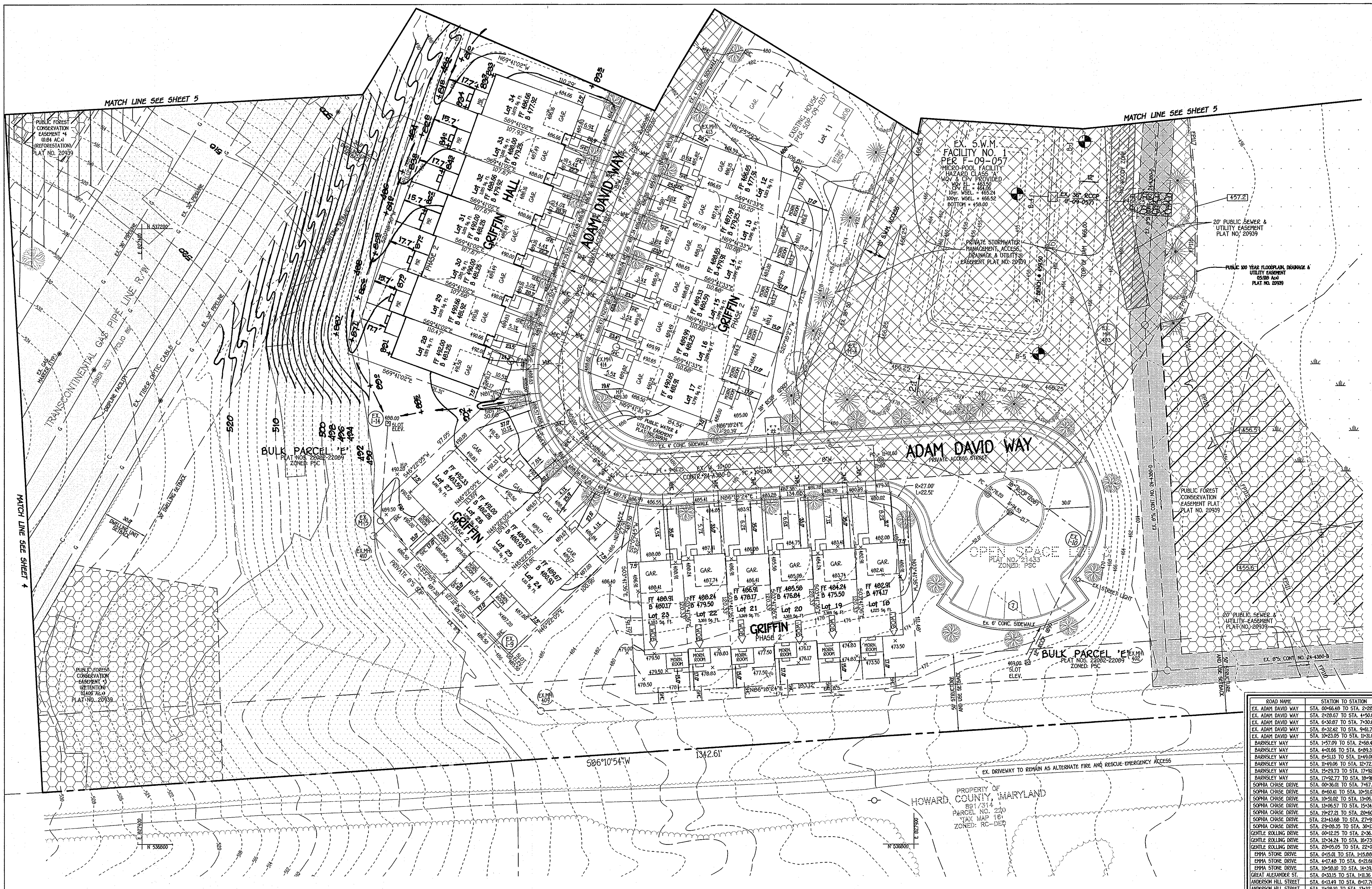
"THE COURTYARDS AT WAVERLY WOODS - WEST"

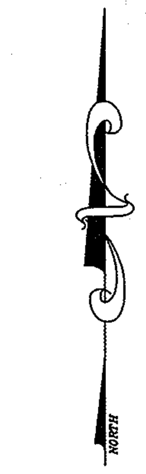
PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 2 OF 100

SDP-09-039





PLAN
SCALE 1"=30'

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 17

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
× 362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
✡	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
12" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
— SSF —	SUPER SILT FENCE

℄ CURVE DATA

ROAD NAME	STATION TO STATION	RADIUS	LENGTH	DELTA	TANGENT	NORTHING & EASTING
EX. ADAM DAVID WAY	STA. 00+66.48 TO STA. 2+28.67	R=500.00'	L=162.2	=18°35'07"	TAN=81.81	CHORD=S15°41'41"W 161.48'
EX. ADAM DAVID WAY	STA. 2+28.67 TO STA. 4+50.02	R=500.00'	L=221.4	=25°21'55"	TAN=112.52	CHORD=S19°05'05"W 219.55'
EX. ADAM DAVID WAY	STA. 6+30.87 TO STA. 7+30.87	R=500.00'	L=100.0	=11°27'33"	TAN=50.17	CHORD=S26°02'16"W 99.83'
EX. ADAM DAVID WAY	STA. 8+32.42 TO STA. 9+61.75	R=65.00'	L=129.3	=41°15'22"	TAN=100.09	CHORD=S36°41'33"E 109.03'
EX. ADAM DAVID WAY	STA. 10+23.05 TO STA. 11+31.06	R=150.00'	L=108.0	=41°15'22"	TAN=56.46	CHORD=N65°40'43"E 105.69'
BARNSLEY WAY	STA. 1+57.09 TO STA. 2+68.45	R=550.00'	L=111.4	=11°36'03"	TAN=55.87	CHORD=N88°17'19"W 111.17'
BARNSLEY WAY	STA. 4+01.66 TO STA. 6+89.32	R=270.00'	L=287.7	=61°02'37"	TAN=159.18	CHORD=N63°34'02"W 274.25'
BARNSLEY WAY	STA. 8+51.13 TO STA. 11+49.06	R=350.00'	L=297.9	=48°46'21"	TAN=158.67	CHORD=N08°39'33"W 289.02'
BARNSLEY WAY	STA. 11+49.06 TO STA. 12+72.91	R=300.00'	L=123.8	=23°39'11"	TAN=62.82	CHORD=N03°54'02"E 122.97'
BARNSLEY WAY	STA. 15+29.73 TO STA. 17+92.77	R=170.00'	L=263.0	=88°39'05"	TAN=166.04	CHORD=N52°15'06"W 237.57'
BARNSLEY WAY	STA. 17+92.77 TO STA. 18+98.47	R=400.00'	L=105.7	=05°08'26"	TAN=53.16	CHORD=N89°00'26"W 105.39'
SOPHIA CHASE DRIVE	STA. 00+36.01 TO STA. 7+67.17	R=305.00'	L=731.2	=137°21'04"	TAN=781.30	CHORD=N54°22'12"W 568.24'
SOPHIA CHASE DRIVE	STA. 8+60.41 TO STA. 10+51.02	R=275.00'	L=190.6	=39°42'54"	TAN=99.32	CHORD=N05°33'07"W 186.83'
SOPHIA CHASE DRIVE	STA. 10+51.02 TO STA. 13+06.57	R=275.00'	L=255.5	=53°14'30"	TAN=137.83	CHORD=N01°12'41"E 246.45'
SOPHIA CHASE DRIVE	STA. 13+06.57 TO STA. 15+34.96	R=225.00'	L=228.4	=58°09'33"	TAN=125.13	CHORD=N01°14'50"W 218.71'
SOPHIA CHASE DRIVE	STA. 19+27.21 TO STA. 20+60.38	R=65.00'	L=133.1	=117°23'11"	TAN=106.88	CHORD=N28°21'59"E 111.07'
SOPHIA CHASE DRIVE	STA. 23+43.68 TO STA. 27+92.82	R=142.97'	L=449.1	=180°00'00"	TAN=INFINITE	CHORD=S02°56'25"E 285.93'
SOPHIA CHASE DRIVE	STA. 29+08.35 TO STA. 30+13.51	R=220.00'	L=105.2	=27°23'11"	TAN=53.60	CHORD=S73°21'59"W 104.16'
GENTLE ROLLING DRIVE	STA. 00+12.25 TO STA. 2+36.44	R=150.00'	L=224.2	=85°37'53"	TAN=138.98	CHORD=S44°01'12"W 203.89'
GENTLE ROLLING DRIVE	STA. 12+34.24 TO STA. 16+73.41	R=139.79'	L=439.2	=180°00'00"	TAN=INFINITE	CHORD=N03°09'51"W 279.59'
GENTLE ROLLING DRIVE	STA. 20+05.05 TO STA. 22+07.15	R=250.00'	L=202.1	=46°19'03"	TAN=106.94	CHORD=N63°40'38"E 196.64'
EMMA STONE DRIVE	STA. 0+15.01 TO STA. 1+15.88	R=1100.00'	L=100.9	=05°15'15"	TAN=50.47	CHORD=N79°26'49"E 100.84'
EMMA STONE DRIVE	STA. 4+17.48 TO STA. 6+21.68	R=130.00'	L=204.2	=90°00'00"	TAN=130.00	CHORD=N31°49'11"E 183.85'
EMMA STONE DRIVE	STA. 10+58.10 TO STA. 14+39.81	R=180.00'	L=381.7	=180°00'00"	TAN=INFINITE	CHORD=S76°49'11"W 243.00'
GREAT ALEXANDER ST.	STA. 0+33.15 TO STA. 1+11.36	R=1000.00'	L=78.2	=04°28'52"	TAN=39.13	CHORD=S00°55'25"E 78.19'
ANDERSON HILL STREET	STA. 6+13.49 TO STA. 8+17.70	R=130.00'	L=204.2	=90°00'00"	TAN=130.00	CHORD=S41°50'09"W 183.85'
ANDERSON HILL STREET	STA. 11+28.10 TO STA. 13+32.30	R=130.00'	L=204.2	=90°00'00"	TAN=130.00	CHORD=N48°09'51"W 183.85'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
9	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
8	Rev. grd. lots 28-34 to show As-Built Cond.	7.15.13
7	Rev. grd. Rear of Lots 12-17 to show excord	9.11.12
6	Flip Units 29-33 to show Ex. Conditions	8.7.12
5	Rev. Title Block, Add lots 65-86 & o.s. Lot 87	6.20.12
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND · TERRELL A. FISHER · NO. 9757 · REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 12/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, III & IV LOTS 5, 12-39, 44-86, 88-165 & 172-231 PHASES IV & V UNITS 93-119, 153-161, 196-200 & 237-239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sdp Phase Two Thru 4 with 78 lots.dwg, Sheet 3, 12/14/2012 10:52:31 AM, 1:1

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 10

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 3

IRVING GAMBLE ROAD
PRIVATE ACCESS STREET

WALKING PANELLE WAY
PRIVATE ACCESS STREET

ANDERSON HILL STREET
PRIVATE ACCESS STREET

OPEN SPACE LOT 97

BULK PARCEL 'F'

ARMISTEAD
BORNQUIST
(REV) BORNQUIST
HOUSE FACE NORTH
HOUSE FACE EAST
HOUSE FACE WEST
PHASE 3

PUBLIC FOREST CONSERVATION EASEMENT #5 (RETENTION 0.633 Ac.±) PLAT NO. 20935

PUBLIC WATER & UTILITY EASEMENT PLAT NO. 20939

EXISTING 20' PUBLIC WATER & UTILITY EASEMENT PLAT NO. 20939

PROPOSED RETAINING WALL #1 SEE DETAIL SHEET 11

PROPOSED 4' MACADAM PATHWAY

12" PLUG & BUTTRESS

PROPERTY OF HOWARD COUNTY, MARYLAND 891/31W PARCEL NO. 302 TAX MAP 16 ZONED: RC-DEO

EX. DRIVEWAY TO REMAIN AS ALTERNATE FIRE AND RESCUE EMERGENCY ACCESS

EX. DRIVEWAY TO REMAIN

20' EMERGENCY ACCESS

TRANSCONTINENTAL GAS PIPE LINE R/W

LIBER 305 / FOLIO 89

GASPIPE FACILITY

N 537200

E 827400

N 536800

E 826900

N 536800

E 827400

PLAN
SCALE 1"=30'

REVISED

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
	WALKOUT BASEMENT
SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
36" SD RCP	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
	SUPER SILT FENCE

NO.	REVISION	DATE
17	Rev. Grd. Lot 80 to Show Ex. Conditions	6-7-13
16	Rev. hse & grd Lot 134	5-28-13
15	Rev. hse. & grd. Lot 131	4-5-13
14	Rev. hse. types, Lot 137 from Cavandish to Bornquist	1-29-13
13	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
12	REV. HSE. & GRD. LOT 129, FROM GEN. BOX TO BORNQUIST	10/25/12
11	REV. HSE. & GRD. LOT 130, 133, 136, 138 FROM GEN. BOX TO BORNQUIST	10/16/12
10	REV. HSE. & GRD. LOT 78, FROM GEN. BOX TO ARMISTEAD	6/18/12
9	REV. HSE. & GRD. LOT 75, FROM GEN. BOX TO BORNQUIST	6/14/12
8	REV. HSE. & GRD. LOT 74, FROM GEN. BOX TO BORNQUIST	6/13/12
7	REV. GRDS. LOT 48, TO SHOW ASBUILT COND.	2/7/12
6	REV. GRDS. LOT 47, TO SHOW ASBUILT COND.	2/3/12
5	REV. GRDS. LOT 46, TO SHOW ASBUILT COND.	1/24/12
4	REV. GRDS. LOT 5, TO SHOW ASBUILT COND.	7/26/11
3	REV. HSE. TYP, LOT 5, FROM ARMISTEAD TO BORNQUIST	2/14/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/28/2100

18	Rev. hse. & grd. Lot 135	4-25-13	
19	Rev. hse. & grd. Lot 105	6-19-13	
20	Rev. hse. & grd. Lot 106	7-9-13	
21	Rev. hse. & grd. Lot 127	8-13-13	
22	REV. HSE. & GRD. LOT 21, TO BORNQUIST, ELEV. B	2/20/13	
23	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13	

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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(410) 461 - 2855

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 12/14/12 DATE

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/15/12

Chief, Development Engineering Division — Date 12/14/12

Director - Department of Planning and Zoning — Date 12/14/12

PROJECT		SECTION	PARCEL NO. 'B'
GTW'S WAVERLY WOODS		14	PHASES II, III & IV LOTS 5, 12 THRU 32, 44 THRU 80, 86 THRU 105 & 172 THRU 231 PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

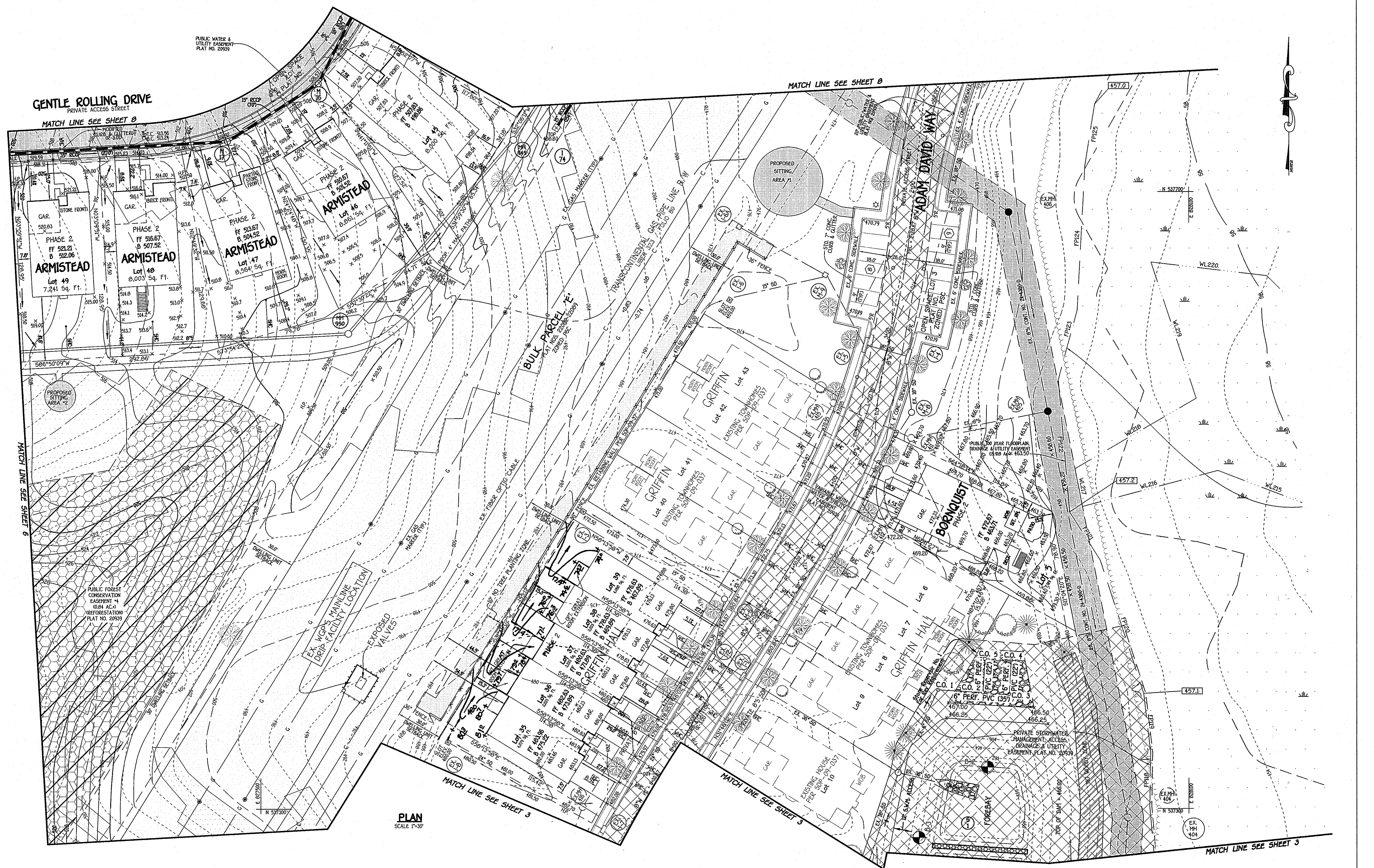
SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 32, 44 THRU 80, 86 THRU 105 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 4 OF 100 SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sdp Phase Two Thru 4 with 78 lots.dwg, Sheet-1, 12/14/2012 10:54:14 AM, 1:1



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
	SUPER SILT FENCE

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 19

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	Rev. grd. rear of Lots 35-39	3/15/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED — PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
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443-367-0422

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION		PARCEL NO. 'E' PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-165 & 172-231, PHASES IV & V - UNITS 93-119, 153-161, 196-200 & 237-239
GTW'S WAVERLY WOODS			14		
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

REVISED
SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 5 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sdp Phase Two Thru 4 with 78 lots.dwg, Sheet 5, 11/9/2012 3:17:22 PM, 1:1

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
-SSF/TP-	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
-SSF-	SUPER SILT FENCE

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 20

MATCH LINE SEE SHEET 9

MATCH LINE SEE SHEET 7

MATCH LINE SEE SHEET 4

MATCH LINE SEE SHEET 5

PUBLIC WATER & UTILITY EASEMENT PLAT NO. 20939

GENTLE ROLLING DRIVE
PRIVATE ACCESS STREET

ANDERSON HILL STREET
PRIVATE ACCESS STREET

WALKING JANELLE WAY
PRIVATE ACCESS STREET

IRVING GAMBLE ROAD
PRIVATE ACCESS STREET

BULK PARCEL 'F'

PUBLIC FOREST CONSERVATION EASEMENT #5 (OR TINTED) 10.33 AC.± PLAT NO. 20939

NOTE: GRAVITY SEWER SERVICE FIRST FLOOR ONLY LOTS 141-145 BASEMENT SEWER SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP

STONE RESERVOIR NO. 2 (20' x 20' & 9' DEEP)

PUBLIC FOREST CONSERVATION EASEMENT #4 (0.84 AC.±) REFORESTATION PLAT NO. 20939

PROPOSED 24' ACCESS DRIVEWAY

PLAN
SCALE 1"=30'

REVISED

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 12/14/12 DATE

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

NO.	REVISION	DATE
11	REV. LOT 122 TO BORNQUIST, EL.C	6/17/14
10	REV. LOT 121 TO BORNQUIST EL.B, VER.13 & ASSOC. GRADING	4/17/14
9	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
8	Rev. hse. lot 144	7.2.13
7	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
6	REV. HSE. & GRD. LOT 52, FROM ARMISTEAD TO BORNQUIST	5/23/12
5	REV. TITLE BLOCK ADDED LOTS 65-66 & O.S. LOT 87	6/20/12
4	REV. PER ADDITION APFO PHASE 4 BLDGS & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT	12/19/11
3	REV. GRDS. LOT 50, TO SHOW ASBUILT CONDITIONS	3/2/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
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PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASE II, III & IV LOTS 1-3, 12-15, 44-50, 88-129 & 172-231 PHASE IV & V - LOTS 93 THRU 119, 153 THRU 161, 196 THRU 220 & 237 THRU 239
PLAT 21427 AND 21435 AND 22082 AND 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

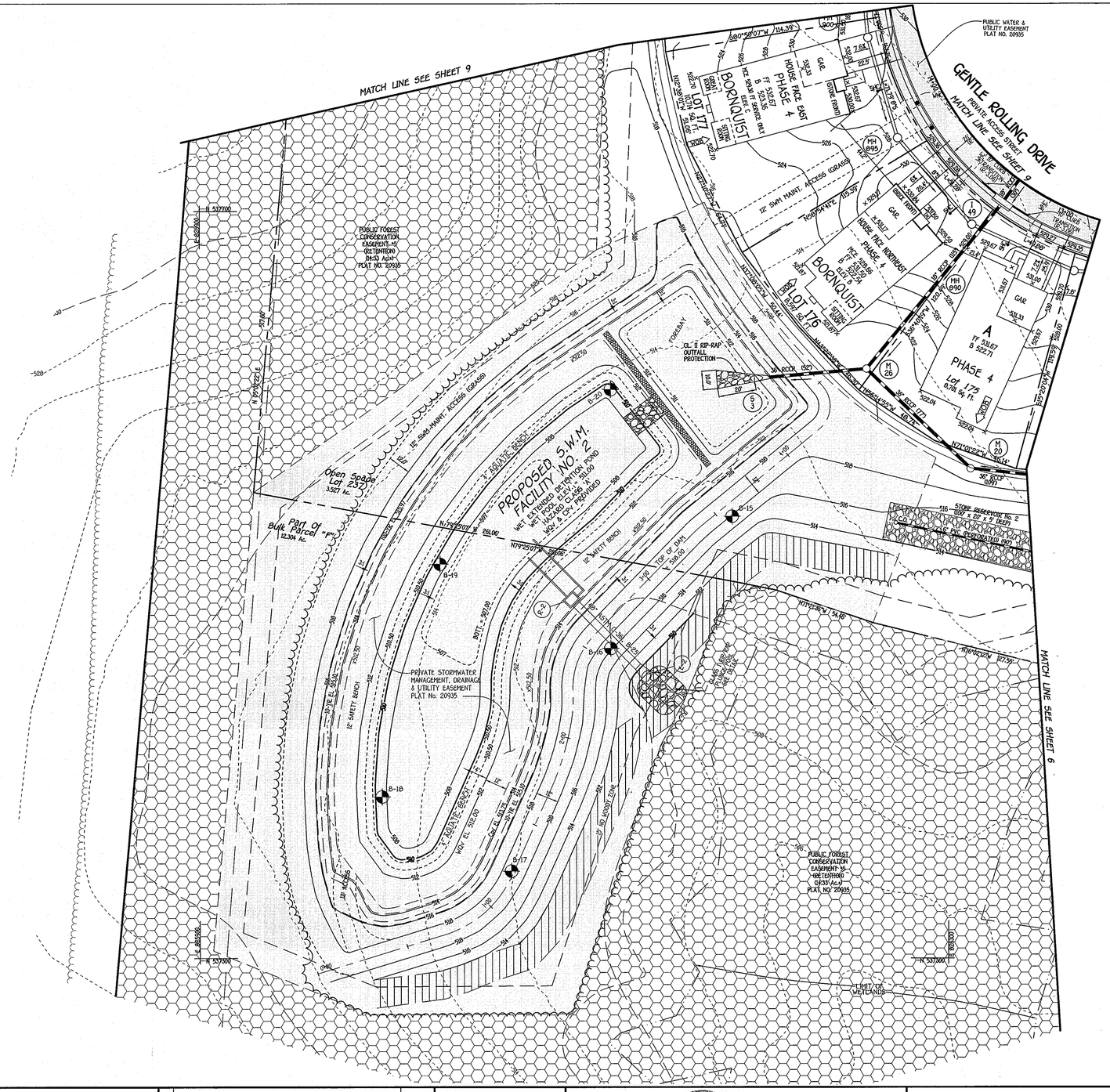
PHASES II, III & IV LOTS 1-3, 12 THRU 39, 44 THRU 86, 88 THRU 105 & 172 THRU 231
PHASES IV & V - LOTS 93 THRU 119, 153 THRU 161, 196 THRU 220 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 2012
SHEET 6 OF 100

SDP-09-039

K:\SDSKRFRD\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Rec Simple 78 Lots\Construction Document - 30770 SDp Phase Two Thru 4 with 78 lots.dwg, Sheet 6, 12/14/2012 11:42:32 AM, 1:1



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
DRBE>	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
SD 30	PROPOSED STORM DRAIN PIPE
PS	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 21

PLAN
SCALE 1"=30'

REVISED

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 7 OF 100

SDP-09-039

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development	2/10/14 Date
Chief, Development Engineering Division	2.10.14 Date
Director - Department of Planning and Zoning	2/10/14 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, III & IV LOTS 5, 12 - 39, 44 - 86, 88 - 165 & 172 - 231 PHASES IV & V - UNITS 93 - 119, 153 - 161, 196 - 200 & 237 - 239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22092 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/12.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 1/9/14

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. HSE. & GRD. LOT 177, FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
3	REV. HSE. & GRD. LOT 176, FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

J:\SDS\PROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\REVISED Construction Document - 30770 Sdp Phase Two Thru 4 with 60 Fee Simple lots.dwg, Sheet 7, 1/8/2014 4:30:01 PM, 1:1

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×562.2	SPOT ELEVATION
	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

LEGEND

SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
— SSF —	SUPER SILT FENCE

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 22

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
13	REV NEW UTILITIES AND REV. GRADING ON SDP 09-039	5/1/15
12	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V SDP-09-039	10/31/14
11	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
10	REV. HSE. & GRD., LOT 165 FROM GEN. BOX TO BORNQUIST	9/13/13
9	REV. HSE. & GRD., LOT 58 TO SHOW "ASBUILT" EX. CONDITIONS	1/21/13
8	REV. HSE. & GRD., LOT 57 TO SHOW "ASBUILT" EX. CONDITIONS	1/21/13
7	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
6	REV. HSE. & GRD., LOT 53 FROM GEN. BOX TO BORNQUIST	7/12/12
5	REV. HSE. & GRD., LOT 61 FROM ARMISTEAD TO BORNQUIST	4/27/12
4	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB	12/19/11
3	REV. HSE. TYPE LOT 56, FROM ARMISTEAD TO BORNQUIST	3/8/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND
TERRELL A. FISHER
No. 9757
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date
Chief, Development Engineering Division — 7-24-15 Date
Director - Department of Planning and Zoning — 8-4-15 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 8 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sdp Phase 5 Raised Road.dwg, 7/13/2015 9:46:56 AM, 1:1

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 23

LEGEND

SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
—SSF—	SUPER SILT FENCE

REVISED

REVISIONS CONT. →

NO.	REVISION	DATE
22	REV. GRADING FOR LOT 241 TO AS-BUILT CONDITIONS	4/10/15
21	REV LOT 242 TO BORNQUIST ELEV. B GAR. LEFT	2/20/15
20	REV. LOT 244 TO A BORNQUIST ELEV. A	01/14/15
19	REV. LOTS 240 & 241 TO BORNQUIST ELEV. B & ELEV. C & ASSOC. GRADING	11/3/14
18	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & PHASE V TO SDP-09-039	10/31/14
17	REV. LOT 180 PER AS-BUILT (ADDED MORN. RM.)	6/23/14
16	REV. LOT 192 TO ARMISTEAD EL. A & ASSOC. GRADING	4/02/14
15	REV. LOT 184 TO BORNQUIST EL. A, LOT 182 TO BORNQUIST EL. C & GRADING	3/28/14
14	REV. LOT 190 TO BORNQUIST ELEV. C & ASSOC. GRADING	3/13/14
13	REV. LOT 183 TO BORNQUIST ELEV. B, LOT 189 TO BORNQUIST ELEV. B & GRADING	3/7/14
12	REV. LOT 185 TO BORNQUIST EL. B, LOT 186 TO BORNQUIST EL. A, & ASSOC. GRADING	3/7/14
11	REV. TO ADD GREAT ROOM EXTENSION ON LOT 152	1/15/14
10	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
9	REV. HSE. & GRD., LOT 181 FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
8	REV. HSE. & GRD., LOT 180 FROM GEN. BOX 'A' TO ARMISTEAD	10/30/13
7	REV. HSE. & GRD., LOT 178 FROM GEN. BOX 'A' TO ARMISTEAD	10/30/13
6	REV. HSE. & GRD., LOT 156 FROM GEN. BOX 'A' TO ARMISTEAD	6/25/13
5	REV. HSE. & GRD., LOT 157 FROM GEN. BOX 'A' TO BORNQUIST	5/7/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 1/9/14 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

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WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 2/13/14 Date
Chief, Development Engineering Division — 2.10.14 Date
Director - Department of Planning and Zoning — 2/18/14 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 5, 12 - 39, 44 - 86, 88 - 165 & 172 - 231, & 240 - 369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

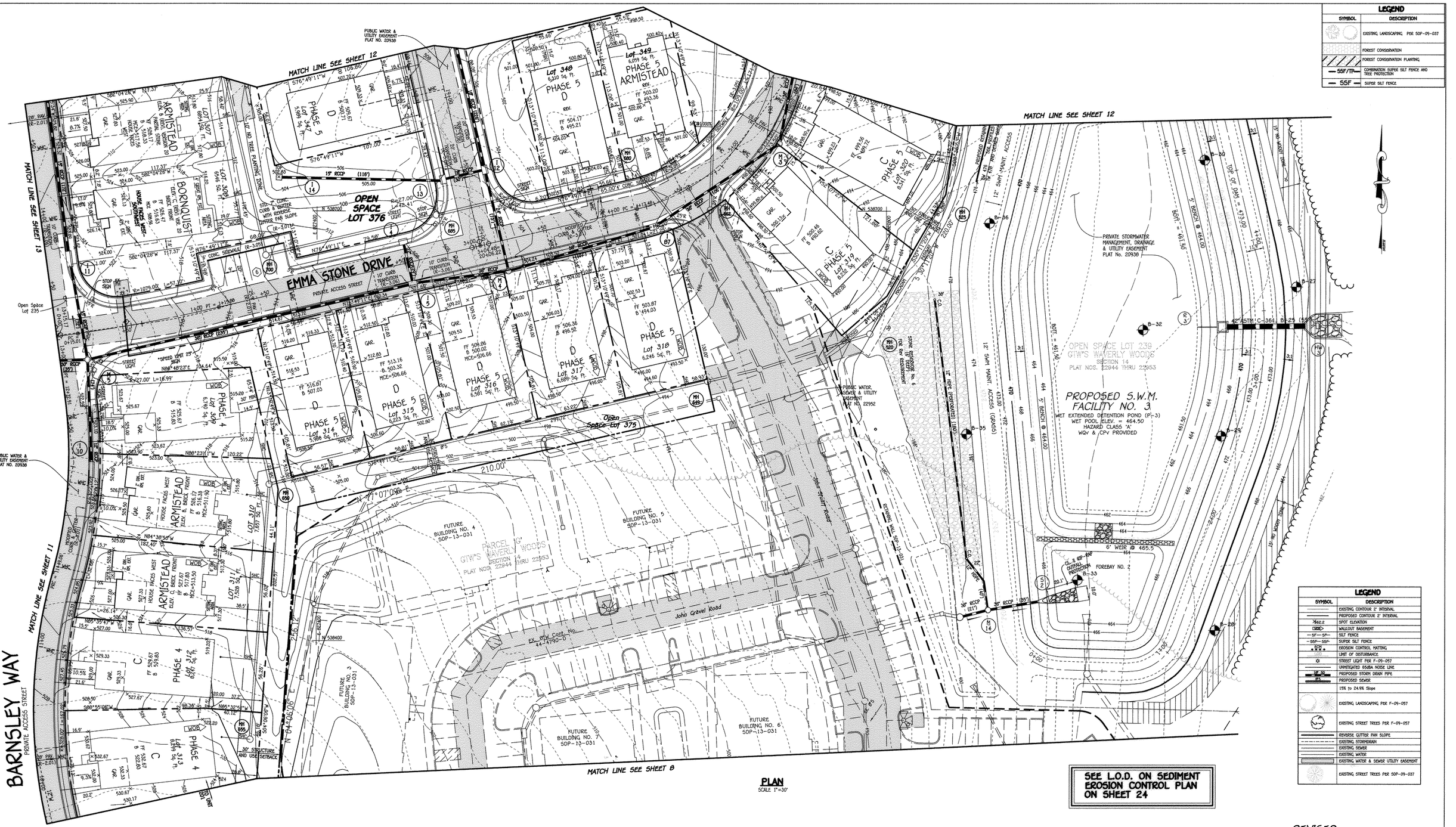
SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 9 OF 100

SDP-09-039

S:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\REVISED Construction Document - 30770 Sdp Phase Two Thru 4 with 60 Fee Simple lots.dwg, Sheet 9, 1/15/2014 1:53:02 PM, 1:1



PLAN
SCALE 1"=30'

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 24

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
7	REV. NEW UTILITIES AND REV. SDP 09-039 WITH HSE BOX C, D, E.	5/1/15
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	8/28/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND
TERRELL A. FISHER
No. 9757
PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date

Chief, Development Engineering Division — 7-24-15 Date

Director - Department of Planning and Zoning — 8-4-15 Date

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 88, 89 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

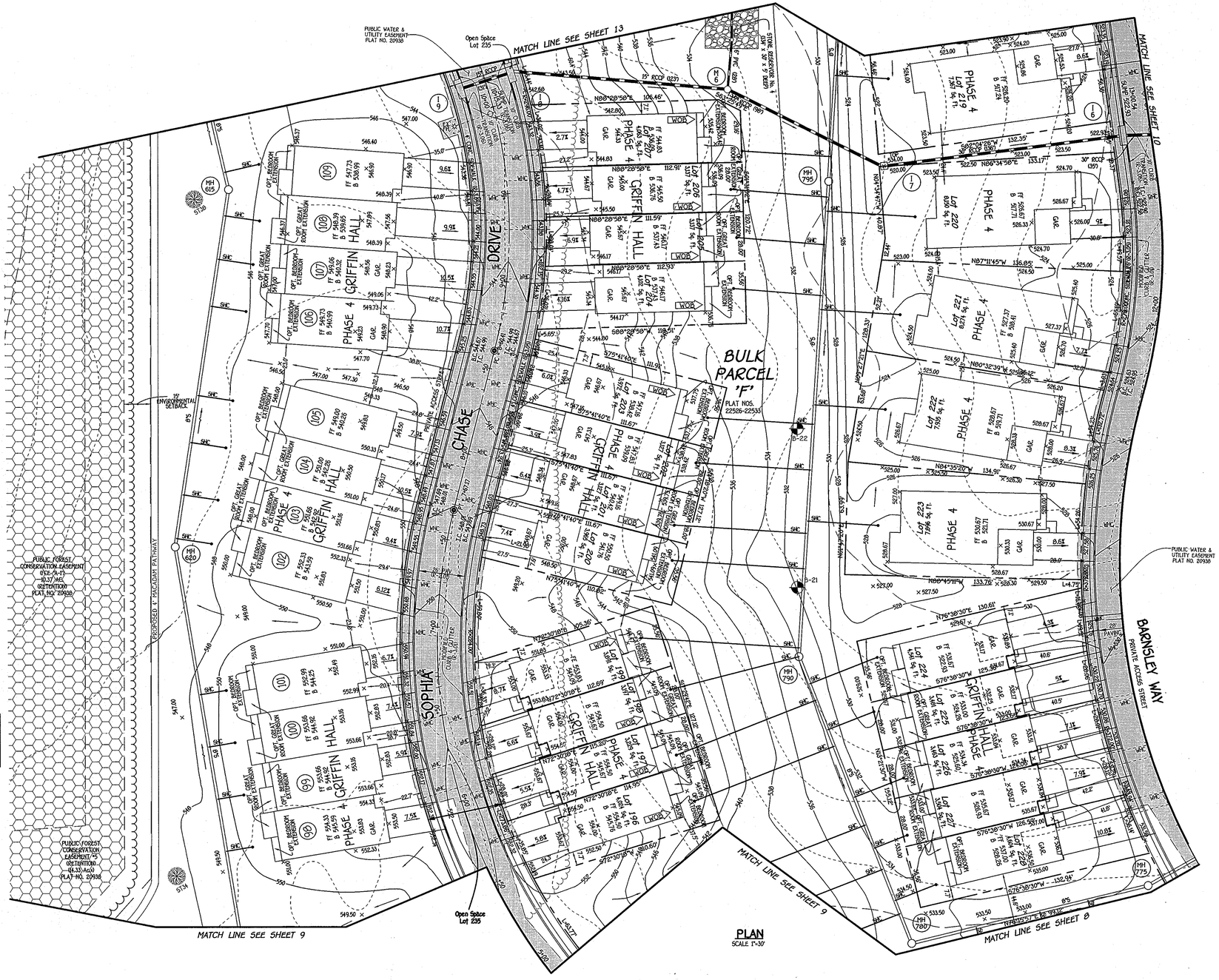
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 88, 89 THRU 105, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 10 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sdp Phase 5 Raised Road.dwg, 7/13/2015 10:02:06 AM, 1:1



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×562.2	SPOT ELEVATION
OBE>	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
-SSF/TP-	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
-SSF-	SUPER SILT FENCE

REVISED

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231

PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: DECEMBER, 2013

SHEET 11 OF 100

SDP-09-039

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL.	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 11/9/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/12/14

Chief, Development Engineering Division — Date 2.10.14

Director - Department of Planning and Zoning — Date 2/18/14

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II, III & IV 1275 & 12 - 39, 44 - 86, 88 - 165 & 172 - 231 PHASES IV & V UNITS 93 - 119, 153 - 161, 196 - 200 & 237 - 239

PLAT 21427 AND 22082 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

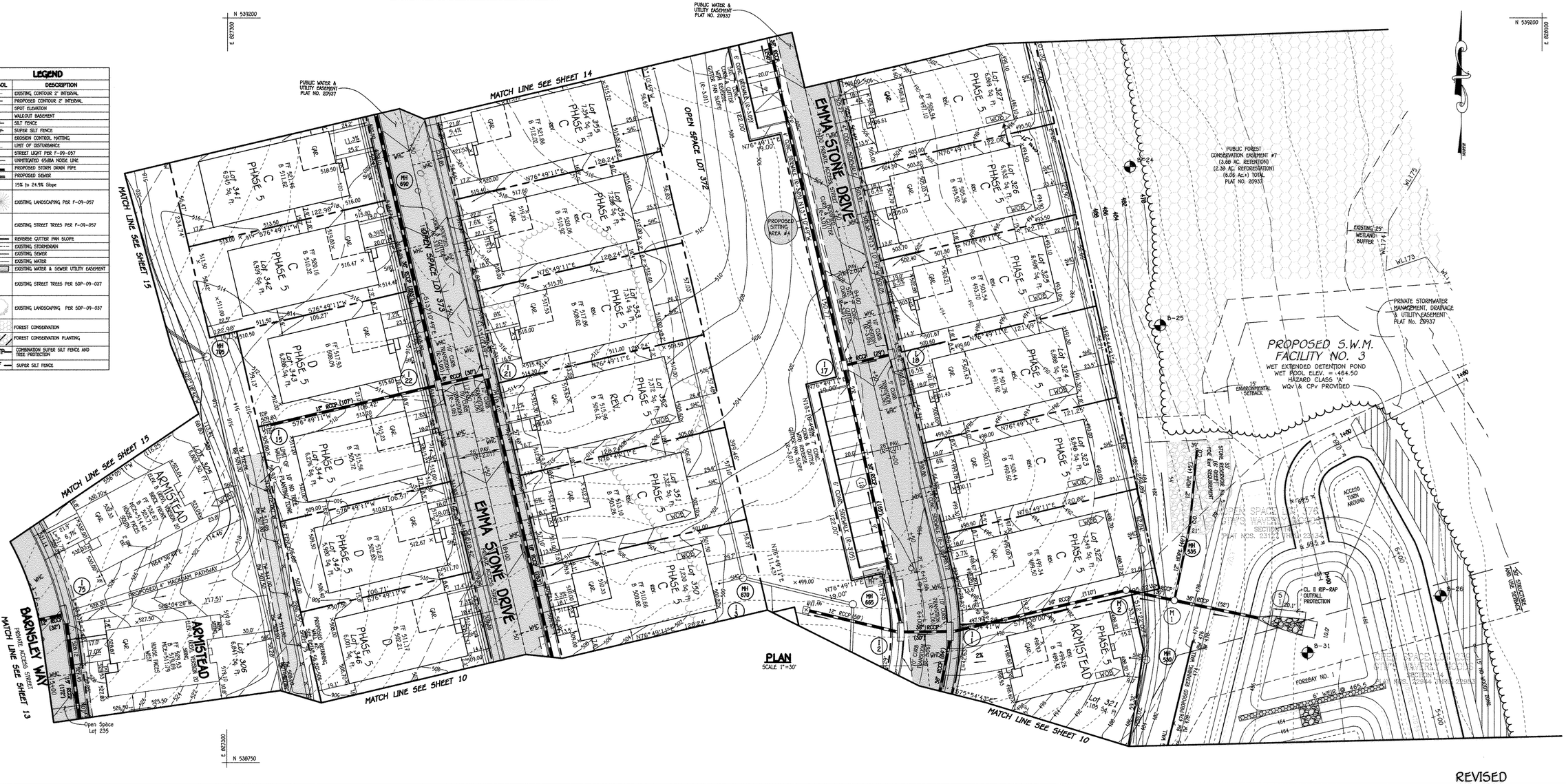
WATER CODE	SEWER CODE
K-02	5992000

:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\REVISED Construction Document - 30770 Sdp Phase Two Thru 4 with 60 Fee Simple lots.dwg, Sheet 11, 1/10/2014 8:10:07 AM, 1:1

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sdp Phase 5 Raised Road.dwg, 7/13/2015 10:09:47 AM, 1:1

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 26

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.0	SPOT ELEVATION
LOD	WALKOUT BASEMENT
SF	SILT FENCE
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
HP 30	PROPOSED STORM DRAIN PIPE
FES	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE



REVISED

NO.	REVISION	DATE
7	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	8/28/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TITLE BLOCK ADDED LOTS 65-66 & O.S. LOT 87	6/20/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE: 7/14/15

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15

Chief, Development Engineering Division — Date 7-24-15

Director - Department of Planning and Zoning — Date 8-4-15

PROJECT		SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14		PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 65, 69 THRU 165, 172 THRU 231 & 240 THRU 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	P5C	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

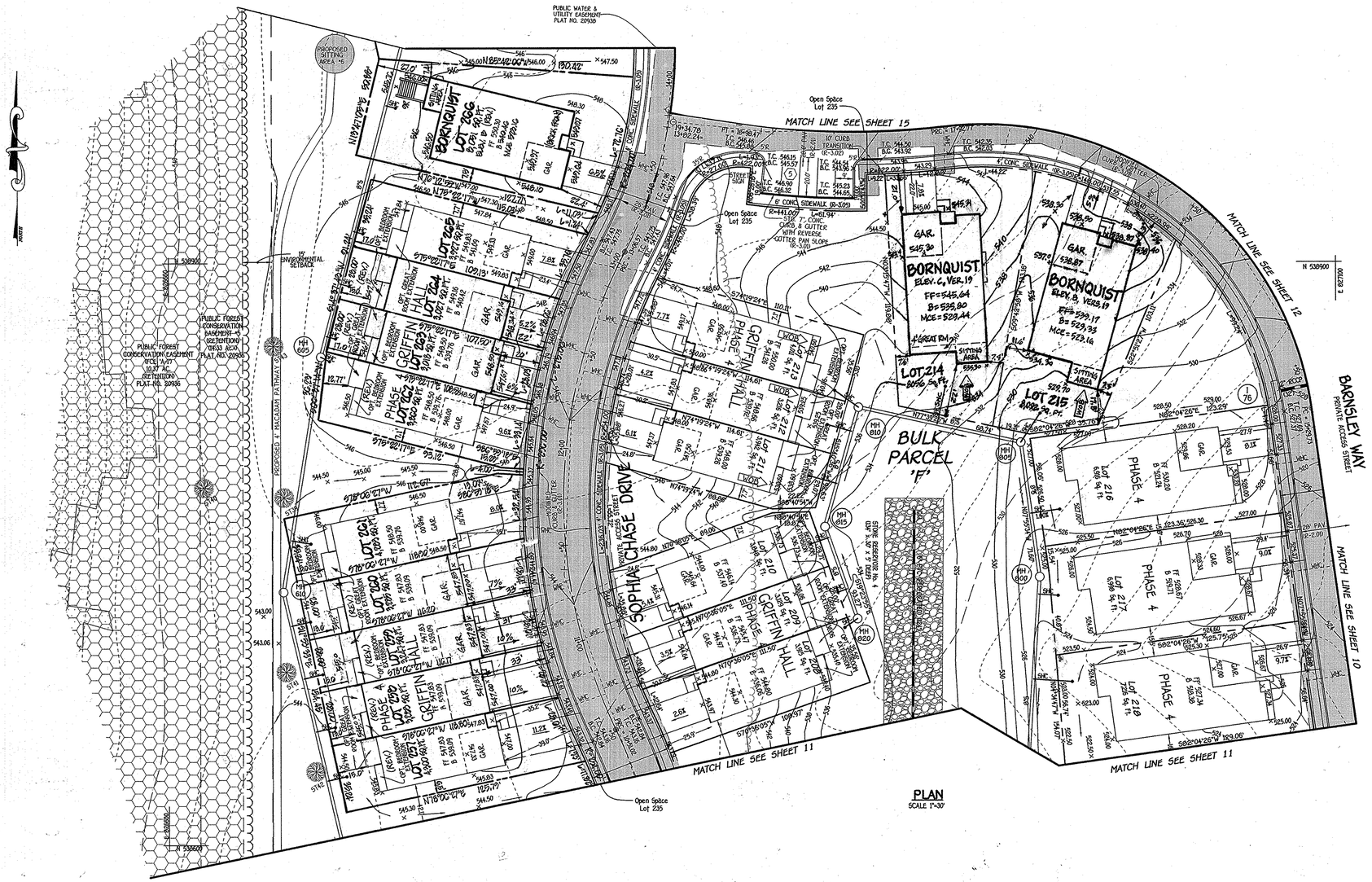
SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 65, 69 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: P5C
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 12 OF 100

5DP-09-039



PLAN
SCALE 1"=30'

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 27

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
+362.2	SPOT ELEVATION
EXISTING	WALKOUT BASEMENT
SF	SILT FENCE
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE

REVISED

NO.	REVISION	DATE
9	REV. LOTS 258-260 & 263-264 TO REVERSE UNITS (GAR. LEFT)	9/16/15
8	REV. HSE. & DECK LOT 226, FROM MID. BOX TO BORNQUIST, ELEV. 'B'	10/9/14
7	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD HOUSE V TO SDP-09-039	10/9/14
6	REV. LOTS 214 & 215 TO BORNQUIST ELEV. C & B RESPECTIVELY	7/21/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
2	REV. PER ADDITION APFO PHASE 4 BLDGS & 5-06-13 PHASING TAB	12/19/11
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 11/9/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14
Chief, Development Engineering Division — Date 2.10.14
Director - Department of Planning and Zoning — Date 2/18/14

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 260 & 262-267

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

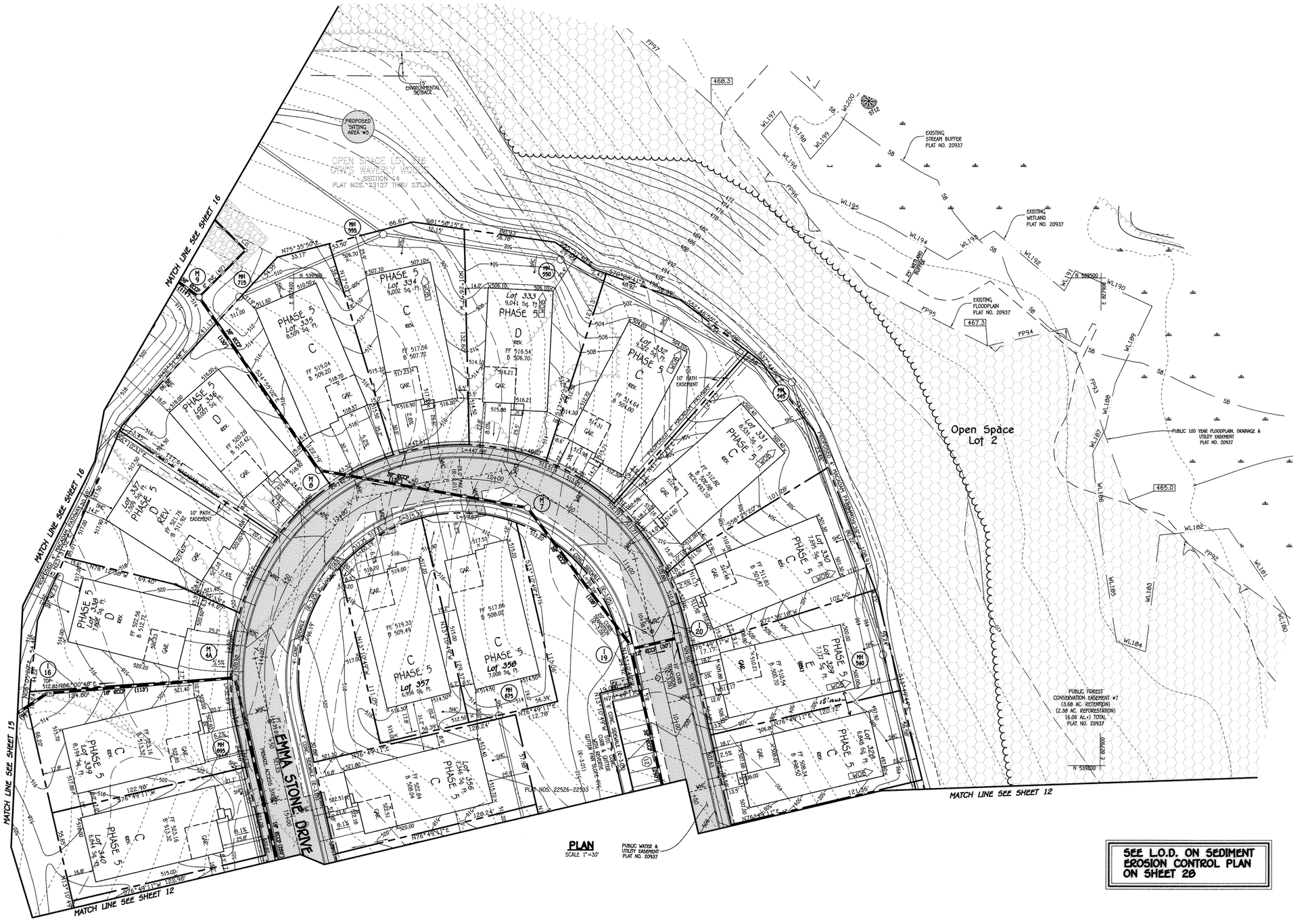
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 260

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 13 OF 100 SDP-09-039

I:\SDSKPRO1\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\REVISED Construction Document - 30770 Sdp Phase Two Thru 4 with 60 Fee Simple lots.dwg, Sheet 13, 1/10/2014 8:11:59 AM, 1:1

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
	WALKOUT BASEMENT
— SF — SF —	SILT FENCE
— SSF — SSF —	SUPER SILT FENCE
ESM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
	SUPER SILT FENCE



REVISED

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 69 THRU 105, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: MAY, 2015

SHEET 14 OF 100

5DP-09-039

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
4	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	8/28/14
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15

Chief, Development Engineering Division — Date 7-24-15

Director - Department of Planning and Zoning — Date 8-4-15

PROJECT		SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS		14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 69 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

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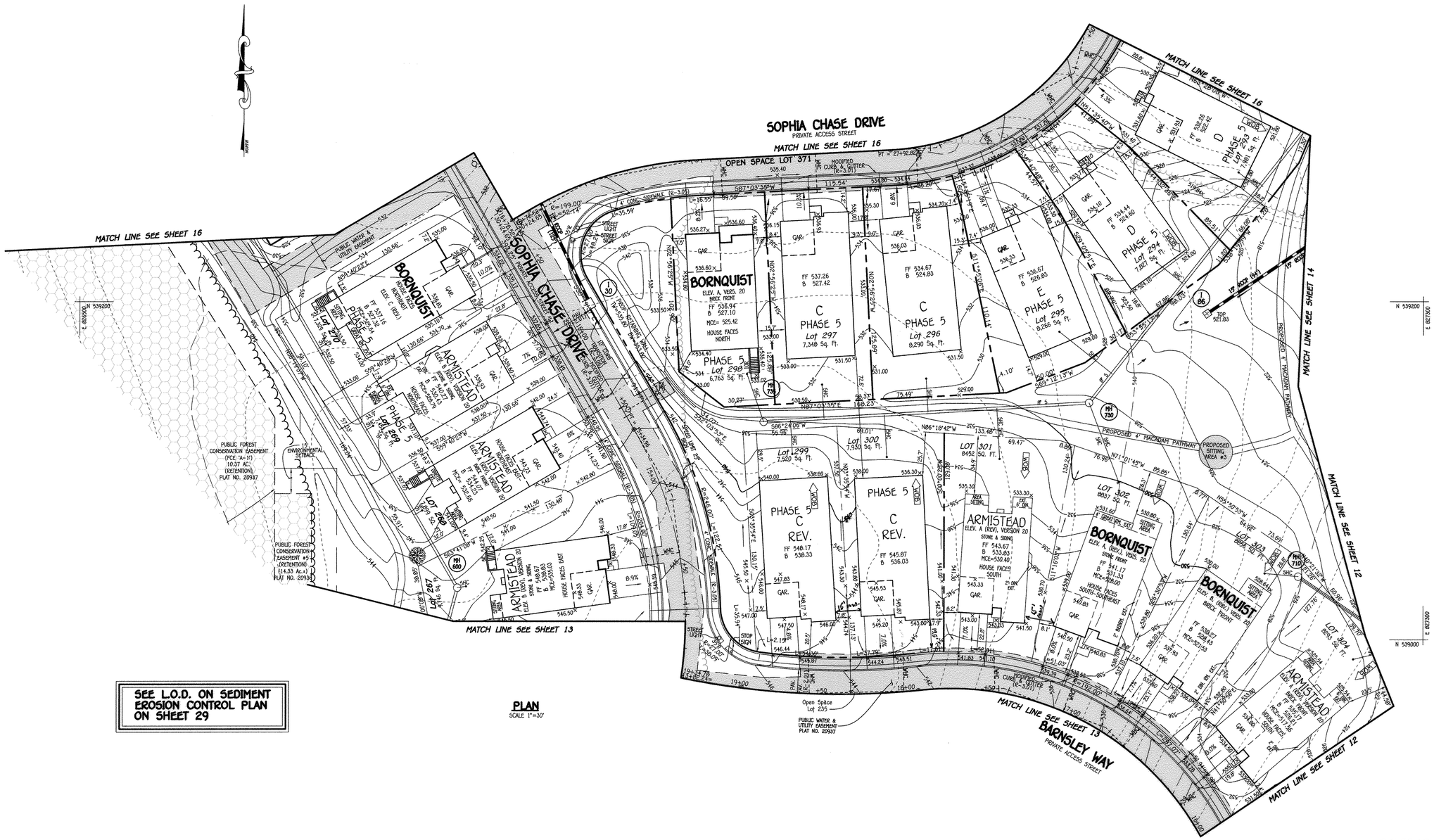

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
562.2	SPOT ELEVATION
WKO	WALKOUT BASEMENT
SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
HDPE 60 #5	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
	SUPER SILT FENCE

SEE L.O.D. ON SEDIMENT EROSION CONTROL PLAN ON SHEET 29

PLAN
SCALE 1"=30'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. NEW UTILITIES, GRADING, AND HOUSE BOXES	5/1/15
4	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	8/28/14
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND
TERRELL A. FISHER
No. 9757
PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7.24.15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 88, 89 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SITE DEVELOPMENT PLAN

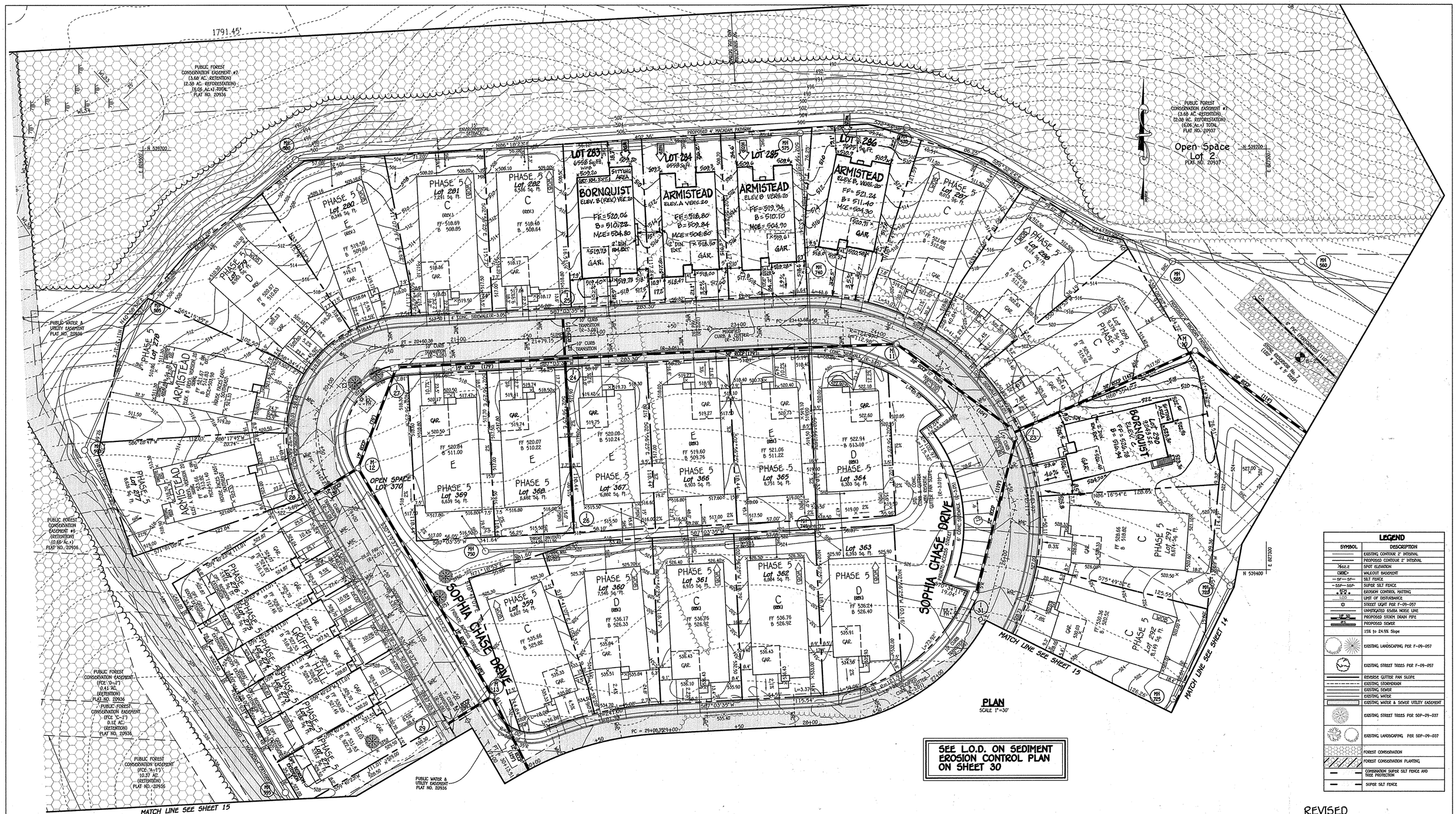
AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 88, 89 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 15 OF 100

SDP-09-039

C:\Temp\Construction Document - 30770 Sdp Phase 5 Raised Road.dwg 7/13/2015 10:38:15 AM 1:1



PLAN
SCALE 1"=50'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
862.2	SPOT ELEVATION
WKOUT	WALKOUT BASEMENT
SF	SILT FENCE
SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
ST	STREET LIGHT PER F-09-057
65	UNMITIGATED 65dBA NOISE LINE
SD	PROPOSED STORM DRAIN PIPE
SS	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER 50P-09-037
	EXISTING LANDSCAPING PER 50P-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
	SUPER SILT FENCE

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 – 2855

NO.	REVISION	DATE
7	REV. LOTS 283-286, ADJUSTED ORIENTATION	2/15/16
6	REV. LOT 290 PER ASBUILT	1/8/16
5	REV NEW UTILITIES, STORM DRAIN, GRADING AND HOUSE BOXES	5/1/15
4	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO 50P-09-039	8/28/14
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

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SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7.29.15
Director – Department of Planning and Zoning — Date 8-4-15

PROJECT			SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS			14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	P5C	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

SITE DEVELOPMENT PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS – WEST"

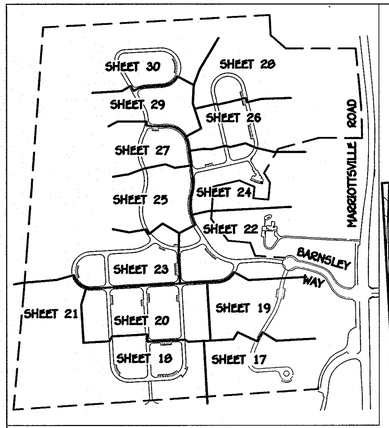
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: P5C
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 16 OF 100

SDP-09-039

K:\DS\PROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sdp Phase 5 Raised Road.dwg, 7/13/2015 9:45:33 AM, 1:1



SHEET INDEX
NO SCALE

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
—SSF—	SUPER SILT FENCE
	EROSION CONTROL MATTING
"HVF"	HIGH VISIBILITY FENCING
5.00 D %	EARTH DIKE w/ELEVATION

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

HIGH VISIBILITY FENCING "HVF" NOTE:
PROVIDE WITH ALL INTERNAL EARTH DIKES.

SILT FENCE NOTE:
CONTRACTOR TO IMBRICATE ALL SF/SSF RUNNING DOWNHILL INTO J-SHAPED SEGMENTS AT 25' AND CURL ENDS UPHILL 2' IN ELEVATION.

CONTRACTOR NOTE:
CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH AND DEBRIS FROM FORESTS, FLOODPLAIN, STREAMS, WETLANDS AND THEIR BUFFERS.

TEMPORARY SEDIMENT BASIN No. 1 & BMP #1 (F-09-057)
INITIAL D.A. = 9.30 Ac.±
FINAL D.A. = 12.77 Ac.±
STORAGE REQUIRED
WET = 1800 x 12.77 = 22,986 CuFt.
DRY = 1800 x 12.77 = 22,986 CuFt.
STORAGE PROVIDED
WET = 22,986 CuFt. @ ELEV. 463.30
DRY = 22,986 CuFt. @ ELEV. 465.45
BOTTOM ELEV. = 458.00
STORAGE DEPTH = 5.3'
TOP OF SETTLED EMBANKMENT = 469.00
CLEAN OUT ELEV. = 461.50
RISER CREST ELEV. = 465.50
1 YR. ORIFICE EL. = 463.30
Q1 exist. = 0.47 c.f.s.
Q1 prop. = 0.6 c.f.s. @ 465.46

PLAN
SCALE: 1" = 30'

REVISED

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-19-101	10/17/19
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDGS & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDGS & 9-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND TERRELL A. FISHER No. 6175 REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE
"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE
"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS
NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS			14	PHASES II, III & IV LOTS 1, 12-99, 44-86, 88-109 & 172-231; PHASES IV & V - UNITS 88-170, 190-191, 200-202 & 231-239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

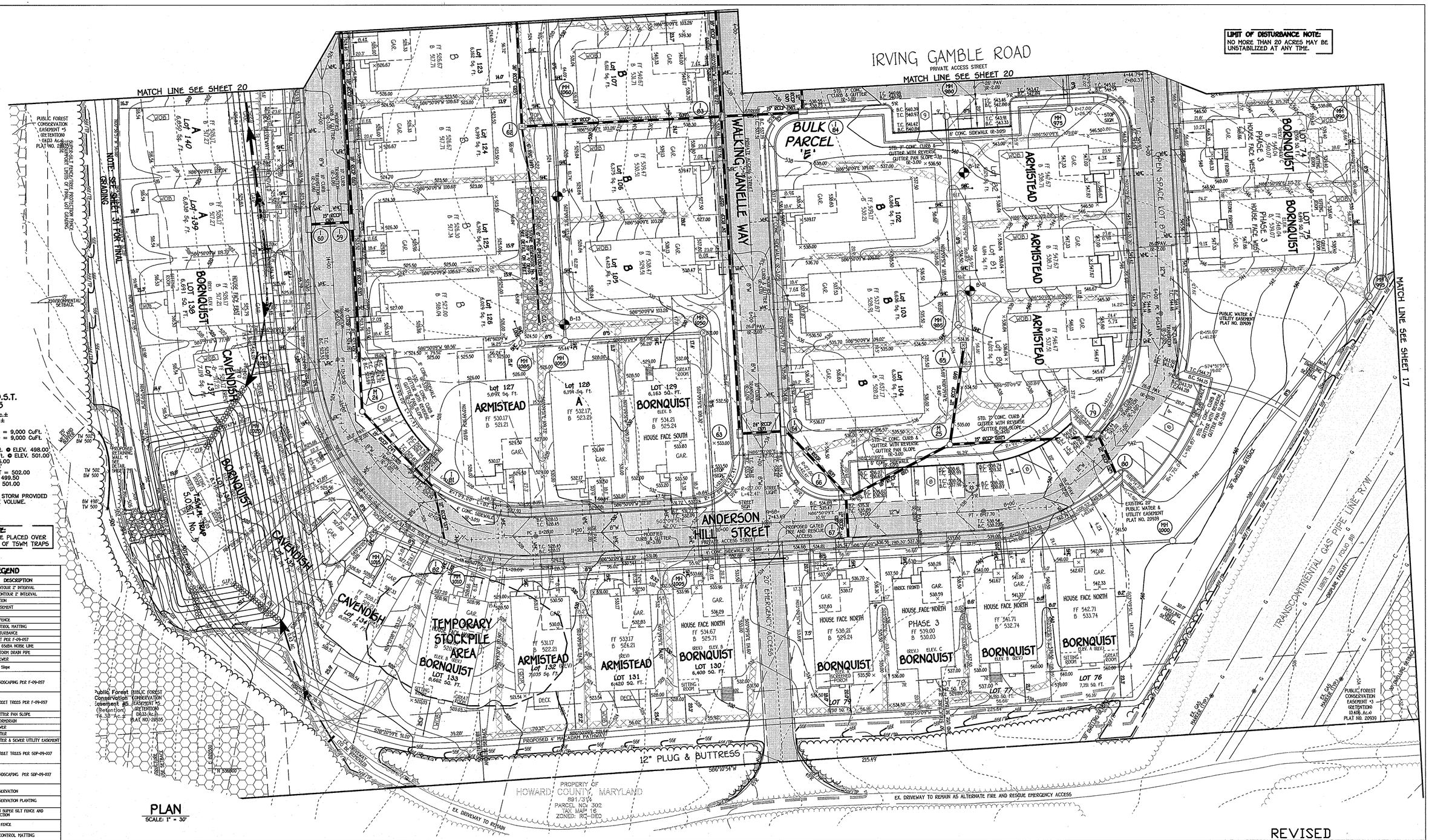
SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 1, 12 THRU 30, 44 THRU 86, 88 THRU 109 & 172 THRU 231
PHASES IV & V - UNITS 88 THRU 119, 153 THRU 191, 196 THRU 200, & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 17 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sec Phase Two Units 1,8,35,40-48,202-213.dwg, Sheet 17, 11/12/2012 11:53:52 PM, ti1



LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

TEMPORARY S.O.S.T. (ST. II) No. 5
INITIAL D.A. = 5.0 Ac.±
FINAL D.A. = 1.9 Ac.±
STORAGE REQUIRED
WET = 1800 x 5.0 = 9,000 CuFt.
DRY = 1800 x 5.0 = 9,000 CuFt.
STORAGE PROVIDED
WET = 11,016 CuFt. @ ELEV. 498.00
DRY = 17,400 CuFt. @ ELEV. 501.00
BOTTOM ELEV. = 495.00
STORAGE DEPTH = 3'
TOP OF EMBANKMENT = 502.00
CLEAN OUT ELEV. = 499.50
WEIR CREST ELEV. = 501.00
WEIR LENGTH = 20'
TEMP. SWM FOR 1yr. STORM PROVIDED WITHIN DRY STORAGE VOLUME.

T.S.W.M. TRAP NOTE:
GEOTEXTILE SHALL BE PLACED OVER THE UPSTREAM FACE OF TSWM TRAPS

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
DRIVE	VAULT/ BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
-SSF/TP-	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-167	10/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND — TERRELL A. FISHER — No. 21615 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/5/12 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 66, 88 THRU 166 & 178 THRU 231 PHASES IV & V - UNITS 93 THRU 119, 193 THRU 201, 196 THRU 200 & 232 THRU 239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

SEDIMENT/EROSION CONTROL PLAN
(PHASE ONE)

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 66, 88 THRU 166 & 178 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 193 THRU 201, 196 THRU 200 & 232 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 18 OF 100

SDP-09-039

K:\SDO\PROJ\13070 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 18, 11/12/2012 2:03:00 PM, 1:1

(F-09-057)

TEMPORARY SEDIMENT BASIN No. 1 @ BMP #1

INITIAL D.A. = 9.30 Ac.±
FINAL D.A. = 12.77 Ac.±
STORAGE REQUIRED
WET = 1800 x 12.77 = 22,986 CuFt.
DRY = 1800 x 12.77 = 22,986 CuFt.
STORAGE PROVIDED
WET = 22,986 CuFt. @ ELEV. 463.30
DRY = 22,986 CuFt. @ ELEV. 465.45
BOTTOM ELEV. = 458.00
STORAGE DEPTH = 5.3'
TOP OF SETTLED EMBANKMENT = 469.00
CLEAN OUT ELEV. = 461.50
RISER CREST ELEV. = 465.50
1 YR. ORIFICE EL. = 463.30
Q1 exist. = 0.47 c.f.s.
Q1 prop. = 0.6 c.f.s. @ 465.46

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×368.2	SPOT ELEVATION
DWDO>	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING

PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
2	REV. PER ADDITION APFO PHASE 4 BLDGS & 5-06-13 PHASING TAB	12/19/11
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9981 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

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"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/15/12 Date
Chief, Development Engineering Division — 12/10/12 Date
Director - Department of Planning And Zoning — 12/10/12 Date

PROJECT		SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14		PARCEL II, III & V LOTS 5, 12 THRU 30, 44 THRU 86, 88 THRU 168 & 172 THRU 231 PARCEL IV & V - LOTS 93 THRU 119, 153 THRU 161, 196 THRU 200, & 237 THRU 239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PARCEL II, III & V LOTS 5, 12 THRU 30, 44 THRU 86, 88 THRU 168 & 172 THRU 231
PHASES IV & V - LOTS 93 THRU 119, 153 THRU 161, 196 THRU 200, & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 19 OF 100

SDP-09-039

K:\SDP\RO3\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 76 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 19, 11/12/2012 2:04:57 PM, 1:1

T.S.W.M. TRAP NOTE:
GEOTEXTILE SHALL BE PLACED OVER THE UPSTREAM FACE OF TSWM TRAPS

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

PLAN
SCALE: 1" = 30'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
— SSF —	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
"HVF"	HIGH VISIBILITY FENCING

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

HIGH VISIBILITY FENCING "HVF" NOTE:
PROVIDE WITH ALL INTERNAL EARTH DIKES.

SILT FENCE NOTE:
CONTRACTOR TO IMBRICATE ALL SF/SSF RUNNING DOWNHILL INTO J-SHAPED SEGMENTS AT 25' AND CURL ENDS UPHILL 2' IN ELEVATION.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
6	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
5	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
4	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
3	REV. GRDS. LOT 50, TO SHOW ASBUILT CONDITIONS	3/2/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 REGISTERED — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE
"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE
"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 4/15/12

BUILDERS

NV HOMES	RYAN HOMES
6085 MARSHALEE DRIVE	6085 MARSHALEE DRIVE
SUITE 130	SUITE 140
ELKRIDGE, MD. 21075	ELKRIDGE, MD. 21075
410-379-5956	410-379-5956

DEVELOPER	OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION	WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.	C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102	5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042	ELLICOTT CITY, MARYLAND 21042
443-367-0422	443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-105 & 172-231 PHASES IV & V - UNITS 93-119, 153-161, 196-200 & 237-239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

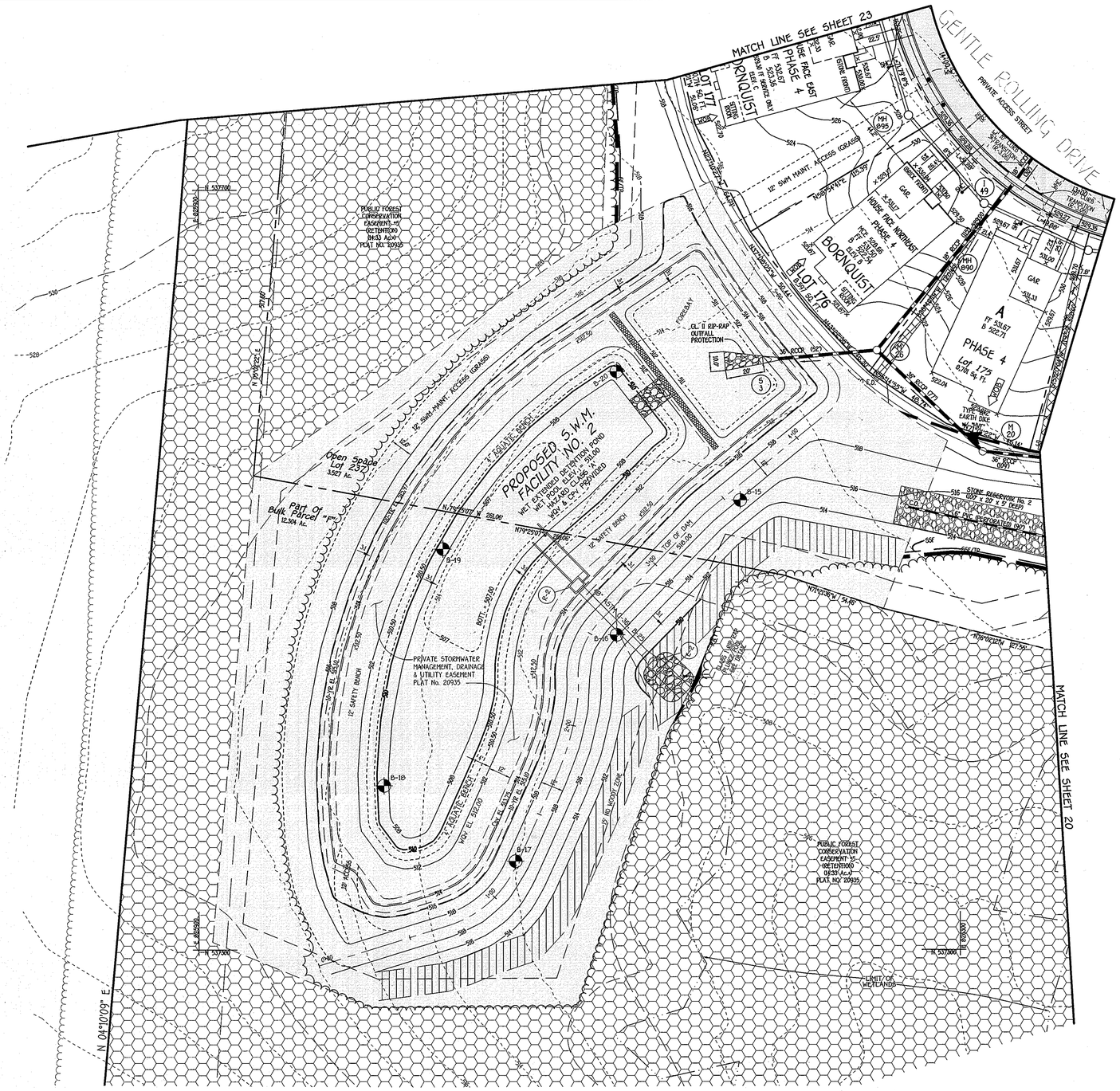
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 20 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 20, 11/12/2012 2:08:11 PM, 1:1



TEMPORARY SEDIMENT BASIN No. 2 @ BMP #2

INITIAL D.A. = 13.36 Ac.±
FINAL D.A. = 26.81 Ac.±
STORAGE REQUIRED
WET = 1800 x 26.81 = 48,258 CuFt.
DRY = 1800 x 26.81 = 48,258 CuFt.
STORAGE PROVIDED
WET = 48,118 CuFt. @ ELEV. 511.00
DRY = 48,258 CuFt. @ ELEV. 512.90
BOTTOM ELEV. = 507.00
STORAGE DEPTH = 4.0'
TOP OF SETTLED EMBANKMENT = 518.00
CLEAN OUT ELEV. = 509.70
RISER CREST ELEV. = 513.75
1 YR. ORIFICE EL. = 511.00
Q1 exist. = 1.0 c.f.s.
Q1 prop. = 1.8 c.f.s. @ 513.89 (NON-EROSIVE)

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.8	SPOT ELEVATION
CRWD>	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
522	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
— SSF/TP —	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
— SSF —	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING

PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. HSE. & GRD. LOT 177, FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
3	REV. HSE. & GRD. LOT 176, FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 1/9/14 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Soil Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He Should Employ A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 1/9/14 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 1/28/14 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 2/19/14 Date
Chief, Development Engineering Division — 2.10.14 Date
Director - Department of Planning and Zoning — 2/10/14 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231, PHASES IV & V - LOTS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239, OPEN SPACE LOTS 232 & 233, PHASE V - OPEN SPACE LOTS 240 & 241

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 21 OF 100

SDP-09-039

I:\SDS\PROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 21, 1/8/2014 5:22:59 PM, 1:1

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 25

MATCH LINE SEE SHEET 23

MATCH LINE SEE SHEET 20

MATCH LINE SEE SHEET 19

MATCH LINE SEE SHEET 19

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
WO	WALKOUT BASEMENT
SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TM	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

PLAN
SCALE: 1" = 30'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
9	REV NEW UTILITIES AND REV. SDP 09-039	5/1/15
8	REV TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
7	REV. HSE. & GRD., LOT 165 FROM GEN. BOX TO BORNQUIST	4/26/13
6	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
5	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
4	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
3	REV. HSE. TYPE LOT 56, FROM ARMISTEAD TO BORNQUIST	3/8/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 21212 — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 7/14/15

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 7/14/15

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

John R Robertson — 7/14/15
Howard SCD — Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	P5C	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: P5C
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 22 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sec Phase 5.dwg, 7/13/2015 10:53:15 AM, 1:1

I:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 23, 1/10/2014 8:41:08 AM, 1:1

PLAN
SCALE: 1" = 30'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×562.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18"SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

LEGEND

SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
10	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
9	REV. HSE. & GRD., LOT 181 FROM GEN. BOX 'A' TO BORNQUIST	10/30/13
8	REV. HSE. & GRD., LOT 180 FROM GEN. BOX 'A' TO ARMSTEAD	10/30/13
7	REV. HSE. & GRD., LOT 178 FROM GEN. BOX 'A' TO ARMSTEAD	10/30/13
6	REV. HSE. & GRD., LOT 156 FROM GEN. BOX 'A' TO ARMSTEAD	6/25/13
5	REV. HSE. & GRD., LOT 157 FROM GEN. BOX 'A' TO BORNQUIST	5/7/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 1/9/14

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Sediment And Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He Must Employ A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 1/9/14

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 1/28/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14
Chief, Development Engineering Division — Date 2.10.14
Director - Department of Planning and Zoning — Date 2/18/14

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, III & IV LOTS 5, 12 - 39, 44 - 86, 88 - 165 & 172 - 231 PHASES IV & V UNITS 93 - 95, 110 - 112, 196 - 200 & 227 - 239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

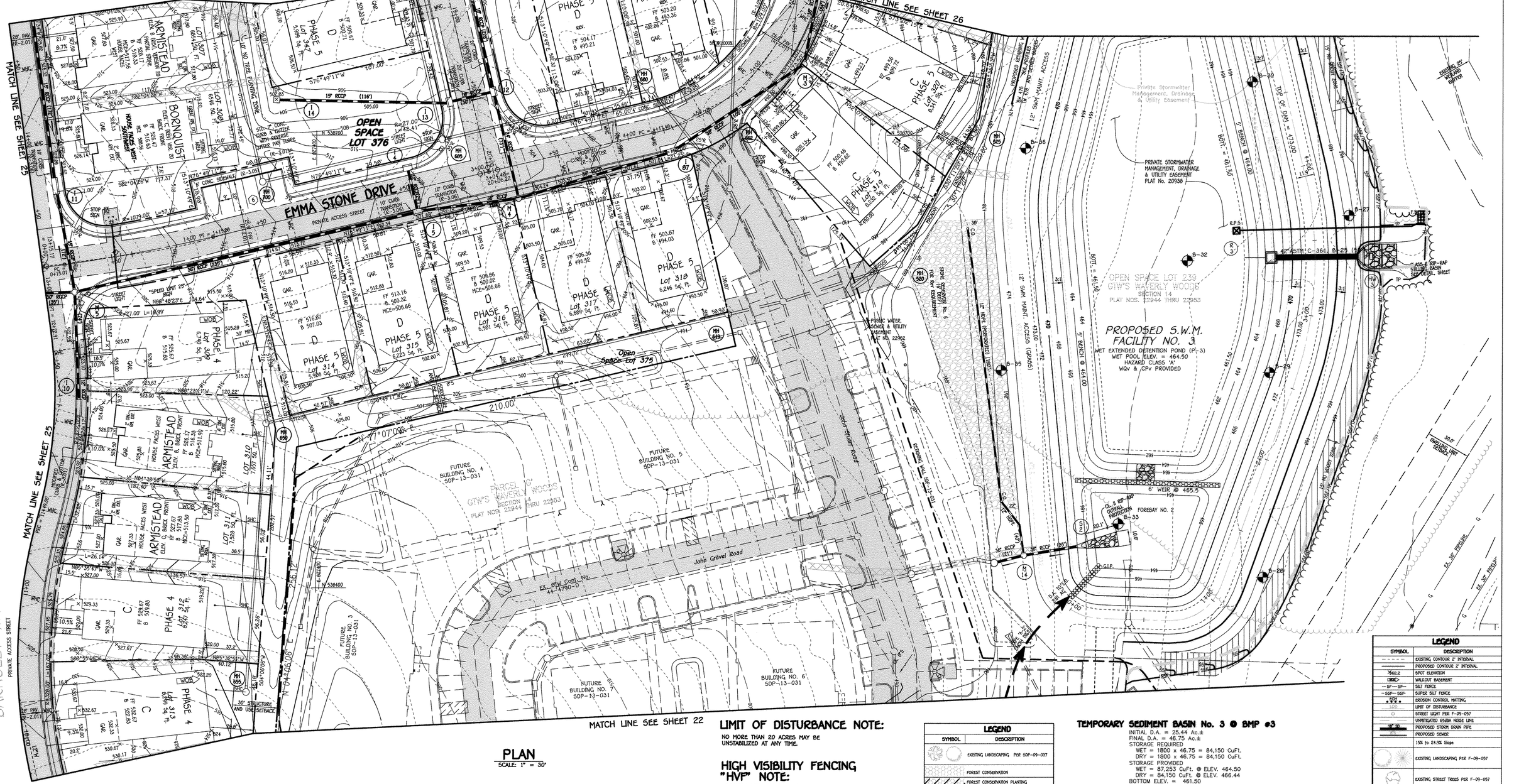
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 23 OF 100

SDP-09-039



PLAN
SCALE: 1" = 30'

CONTRACTOR NOTE:
CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH AND DEBRIS FROM FORESTS, FLOODPLAIN, STREAMS, WETLANDS AND THEIR BUFFERS.

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

HIGH VISIBILITY FENCING "HVF" NOTE:
PROVIDE WITH ALL INTERNAL EARTH DIKES.

SILT FENCE NOTE:
CONTRACTOR TO IMBRICATE ALL SF/SSF RUNNING DOWNHILL INTO J-SHAPED SEGMENTS AT 25' AND CURL ENDS UPHILL 2' IN ELEVATION.

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
— SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
— SSF —	SUPER SILT FENCE
	EROSION CONTROL MATTING

TEMPORARY SEDIMENT BASIN No. 3 @ BMP #3
INITIAL D.A. = 25.44 Ac.±
FINAL D.A. = 46.75 Ac.±
STORAGE REQUIRED
WET = 1800 x 46.75 = 84,150 CuFt.
DRY = 1800 x 46.75 = 84,150 CuFt.
STORAGE PROVIDED
WET = 87,253 CuFt. @ ELEV. 464.50
DRY = 84,150 CuFt. @ ELEV. 466.44
BOTTOM ELEV. = 461.50
STORAGE DEPTH = 3.0'
TOP OF SETTLED EMBANKMENT = 473.00
CLEAN OUT ELEV. = 463.10
RISER CREST ELEV. = 468.40
1 YR. ORIFICE EL. = 464.50
Q1 exist. = 1.4 c.f.s.
Q1 prop. = 3.2 c.f.s. @ 468.37 (NON-EROSIVE)

REVISED

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
	WALKOUT BASEMENT
— SF — SF —	SILT FENCE
— SSF— SSF—	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE SLOPE PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
7	REV. NEW UTILITIES AND REV. SDP 09-039 WITH HSE BOX C. D. E.	5/1/15
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — ENGINEER — 15,974

DEVELOPER'S CERTIFICATE
"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature of Developer — Date 7-14-15

ENGINEER'S CERTIFICATE
"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 7/14/15

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

John R Robertson — 7/14/15
Howard SCD — Date

BUILDERS
NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-23-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 69 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)
AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 66, 69 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 24 OF 100

SDP-09-039

K:\SDSKPRO\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sec Phase 5.dwg, 7/13/2015 10:54:01 AM, 1:1

:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 25, 1/10/2014 8:42:33 AM, 1:1

PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

LEGEND

SYMBOL	DESCRIPTION
- - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
—SSF/TP—	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
—SSF—	SUPER SILT FENCE
E.C.M.	EROSION CONTROL MATTING

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 1/9/14

ENGINEER'S CERTIFICATE

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Signature Of Engineer — Date 1/9/14

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 1/28/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
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SUITE 140
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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14
Chief, Development Engineering Division — Date 2.10.14
Director - Department of Planning and Zoning — Date 2/18/14

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASE II, III & IV LOTS 5, 12 - 39, 44 - 86, 88 - 165 & 172 - 231 PHASES IV & V UNITS 93 - 119, 153 - 161, 196 - 200 & 237 - 239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

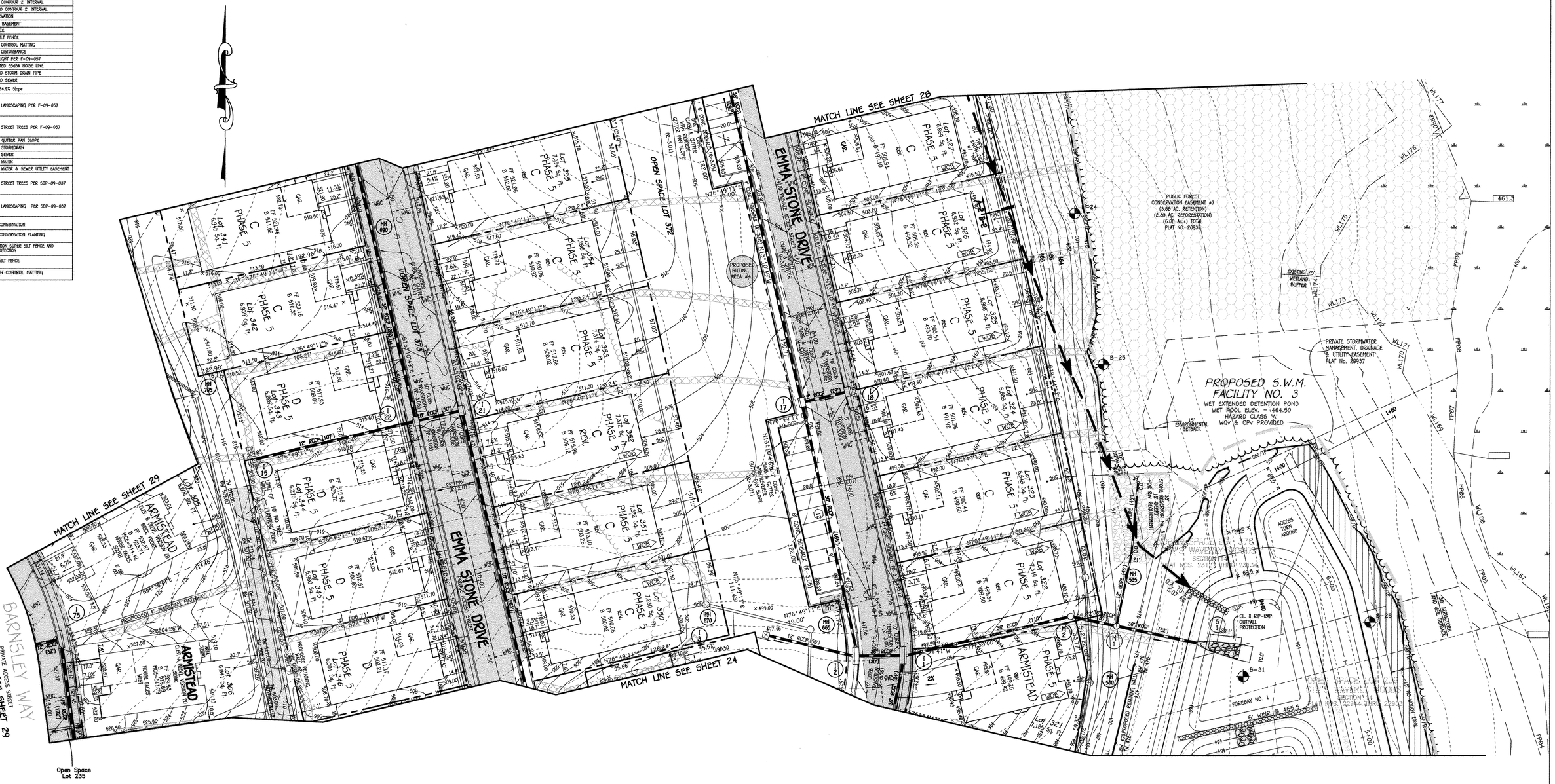
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 25 OF 100

SDP-09-039

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
	WALKOUT BASEMENT
SF	SILT FENCE
SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF / TM	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING



PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
7	REV. NEW UTILITIES, AND HOUSE BOXES	5/1/15
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — ROBERT A. KRONE — No. 10705 — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 7-14-15

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Signature Of Engineer — Date 7/14/15

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Howard SCD — Date 7/14/15

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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "S"
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 89 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT OR GENERAL NOTE # 51	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 89 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 26 OF 100

SDP-09-039

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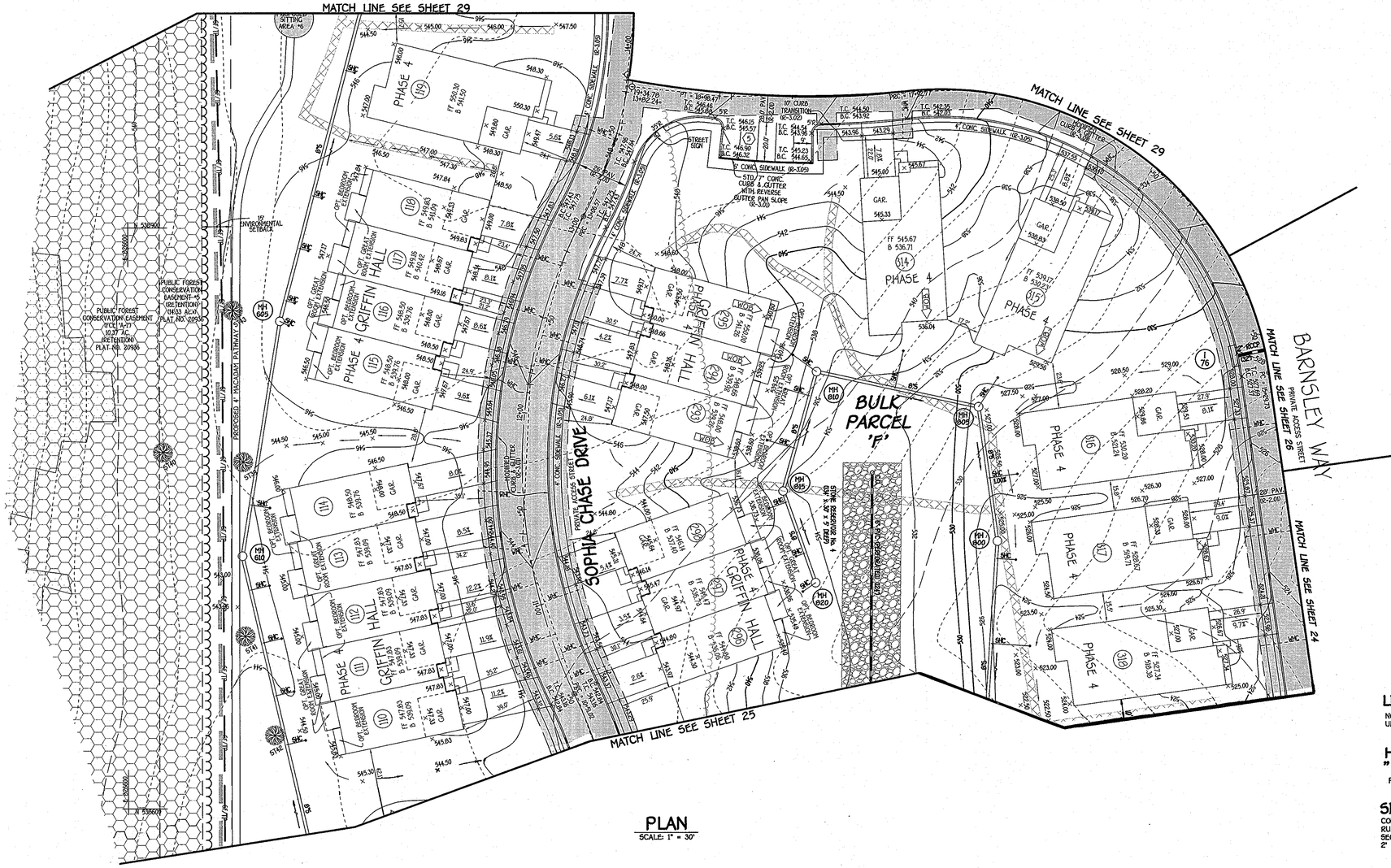
LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×360.2	SPOT ELEVATION
OBDE>	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☆	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
SS	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING



PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

HIGH VISIBILITY FENCING "HVF" NOTE:
PROVIDE WITH ALL INTERNAL EARTH DIKES.

SILT FENCE NOTE:
CONTRACTOR TO IMBRICATE ALL SF/SSF RUNNING DOWNHILL INTO J-SHAPED SEGMENTS AT 25' AND CURL ENDS UPHILL 2' IN ELEVATION.

CONTRACTOR NOTE:
CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH AND DEBRIS FROM FORESTS, FLOODPLAIN, STREAMS, WETLANDS AND THEIR BUFFERS.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	ADD TO ADD FEE SIMPLE LOTS PER F-13-101	12/7/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDGS & 5-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDGS & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — RUSSELL A. FISHER — NO. 9151 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

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Signature Of Engineer — Date 11/14/12

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Howard SCD — Date 11/15/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/19/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT		SECTION		PARCEL NO. "E"
GTW'S WAVERLY WOODS		14		PHASES II, III & V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231 AK-85, 86-165 & 172-231 PHASES IV & V- LOTS 93 THRU 103 - 165, 190 THRU 200 & 232 - 239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

SEDIMENT/EROSION CONTROL PLAN
(PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

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PHASES IV & V - UNITS 93 THRU 119, 123 THRU 161, 190 THRU 200 & 232 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY-HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 27 OF 100

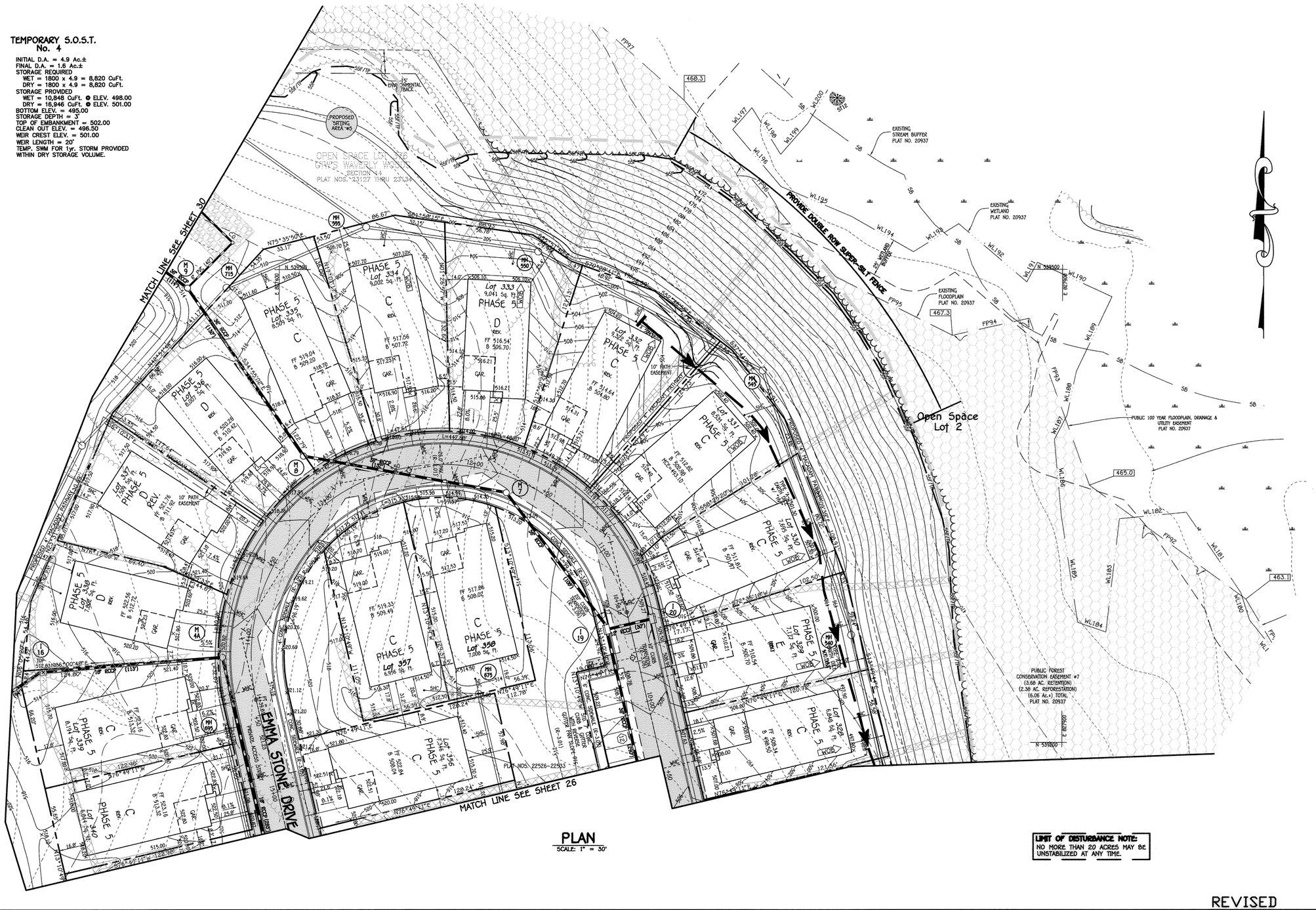
SDP-09-039

K:\SDSKPROJ\10779 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30779 Sec Phase Two Units 1,8-35,40-48,202-213.dwg, Sheet 27, 11/12/2012 2:27:37 PM, 11

TEMPORARY S.O.S.T. No. 4

INITIAL D.A. = 4.9 Ac.±
FINAL D.A. = 1.6 Ac.±
STORAGE REQUIRED
WET = 1800 x 4.9 = 8,820 CuFt.
DRY = 1800 x 4.9 = 8,820 CuFt.
STORAGE PROVIDED
WET = 10,848 CuFt. @ ELEV. 498.00
DRY = 16,946 CuFt. @ ELEV. 501.00
BOTTOM ELEV. = 495.00
STORAGE DEPTH = 3'
TOP OF EMBANKMENT = 502.00
CLEAN OUT ELEV. = 496.50
WEIR CREST ELEV. = 501.00
WEIR LENGTH = 20'
TEMP. SWM FOR 1yr. STORM PROVIDED WITHIN DRY STORAGE VOLUME.

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF- SF-	SILT FENCE
-SSF- SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
HC 30	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
500.0	EARTH DIKE w/ELEVATION



PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

REVISED

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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
2	REV TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 7/14/15

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Signature Of Engineer — Date 7/14/15

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Howard SCD — Date 7/14/15

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410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-21-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-9-15

PROJECT		SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS		14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309
PLAT SEE GENERAL NOTE # 51	BLOCK NO. 3 & 4	ZONE P5C	TAX/ZONE 16
			ELEC. DIST. THIRD
			CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000	

SEDIMENT/EROSION CONTROL PLAN
(PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: P5C
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 28 OF 100

SDP-09-039

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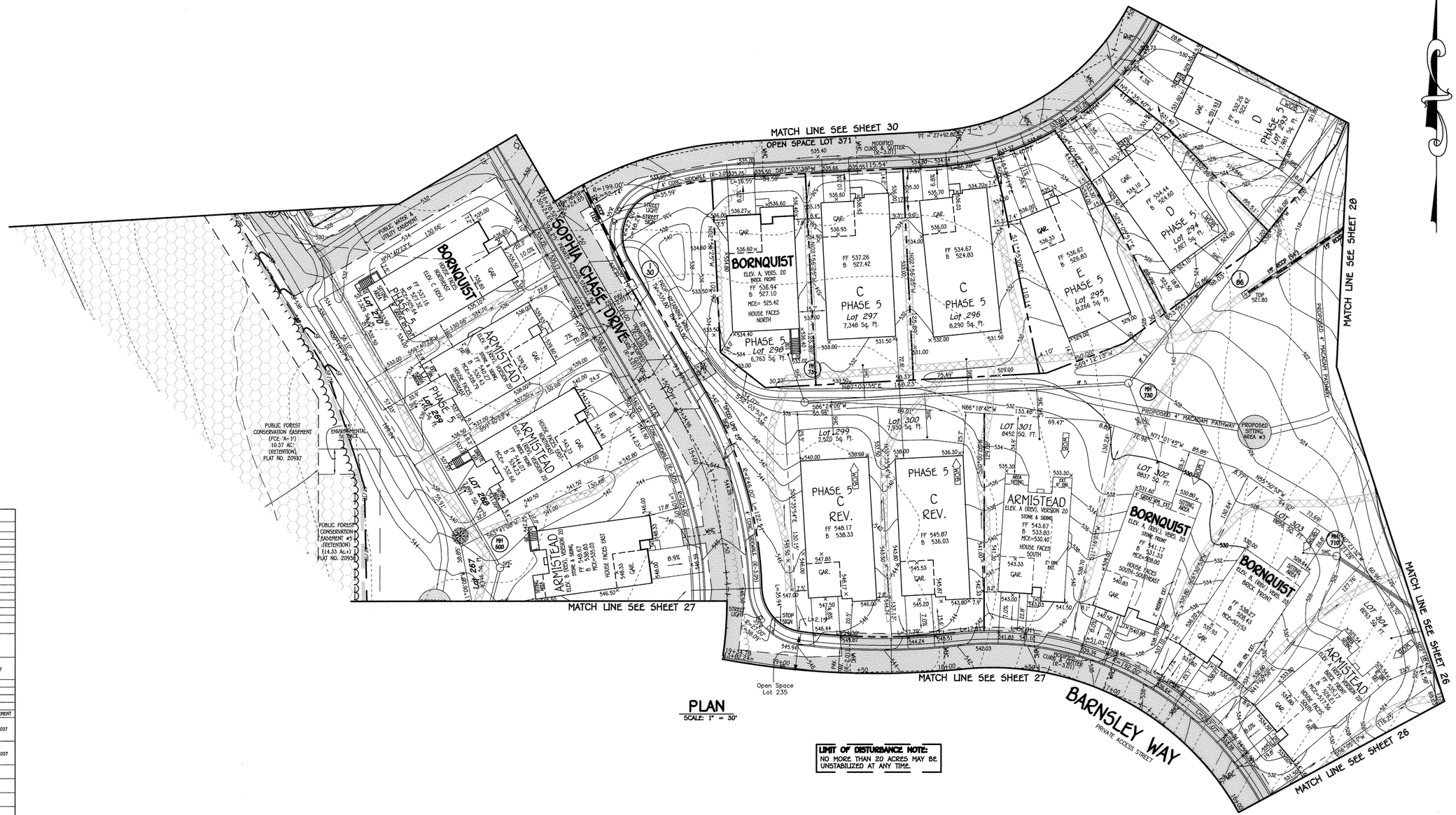

PLAN
SCALE: 1" = 30'

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

REVISED

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
562.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
SF SF	SILT FENCE
SSF SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF SSF	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
2	REV TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — DONALD R. FISHER — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 7-14-15

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"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature of Engineer — Date 7/14/15

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-24-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN
(PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 29 OF 100

SDP-09-039

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T.S.W.M. TRAP NOTE:
GEOTEXTILE SHALL BE PLACED OVER THE UPSTREAM FACE OF TSWM TRAPS

PROVIDE DOUBLE ROW OF SUPER-SILT FENCE

NOTE: SEE SHEET 31 FOR FINAL GRADING

PUBLIC FOREST CONSERVATION EASEMENT #7 (3.68 AC. RETENTION) (2.38 AC. REFORESTATION) (6.06 Ac.±) -TOTAL- PLAT NO. 20936

PUBLIC FOREST CONSERVATION EASEMENT #7 (3.60 AC. RETENTION) (2.38 AC. REFORESTATION) (6.06 Ac.±) TOTAL PLAT NO. 20937

Open Space Lot 2 PLAT NO. 20937

15' ENVIRONMENTAL EASEMENT

PROPOSED 4' MACADAM PATHWAY

TEMPORARY STOCKPILE AREA

TEMPORARY S.O.S.T. No. 4 T.S.W.M. TRAP

PUBLIC WATER & UTILITY EASEMENT PLAT NO. 20936

ARMISTEAD AVENUE

GRIFFEN HALL AVENUE

SOPHIA CHASE DRIVE

OPEN SPACE LOT 370

Public Forest Conservation Easement #5 (Retention) (14.30 Ac.±)

PUBLIC FOREST CONSERVATION EASEMENT (FCE 'D-1') 0.41 AC. (RETENTION) PLAT NO. 20936

PUBLIC FOREST CONSERVATION EASEMENT (FCE 'C-1') 0.12 AC. (RETENTION) PLAT NO. 20936

PUBLIC FOREST CONSERVATION EASEMENT (FCE 'A-1') 10.37 AC. (RETENTION) PLAT NO. 20936

MATCH LINE SEE SHEET 29

MATCH LINE SEE SHEET 28

PLAN
SCALE: 1" = 30'

T.S.W.M. TRAP NOTE:
GEOTEXTILE SHALL BE PLACED OVER THE UPSTREAM FACE OF TSWM TRAPS

TEMPORARY S.O.S.T. (ST. II) No. 4
INITIAL D.A. = 4.9 Ac.±
FINAL D.A. = 2.2 Ac.±
STORAGE REQUIRED
WET = 1800 x 4.9 = 8,820 CuFt.
DRY = 1800 x 4.9 = 8,820 CuFt.
STORAGE PROVIDED
WET = 11,520 CuFt. @ ELEV. 494.00
DRY = 20,060 CuFt. @ ELEV. 497.00
BOTTOM ELEV. = 491.00
STORAGE DEPTH = 3'
TOP OF EMBANKMENT = 498.00
CLEAN OUT ELEV. = 492.50
WEIR CREST ELEV. = 497.00
WEIR LENGTH = 20'
TEMP. SWM FOR 1yr. STORM PROVIDED WITHIN DRY STORAGE VOLUME.

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
562.2	SPOT ELEVATION
OHDC	WALKOUT BASEMENT
SF SF	SILT FENCE
SSF/TP SSF/TP	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
	EROSION CONTROL MATTING
"HVF"	HIGH VISIBILITY FENCING

HIGH VISIBILITY FENCING "HVF" NOTE:
(PROVIDE WITH ALL INTERNAL EARTH DIKES)

REVISED

NO.	REVISION	DATE
4	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
2	REV TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND — ROBERT A. FISHER — No. 21324 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 7-14-15

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Signature Of Engineer — Date 7/14/15

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-24-15

Chief, Development Engineering Division — Date 7-24-15

Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 89 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE ONE)

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 89 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 30 OF 100

SDP-09-039

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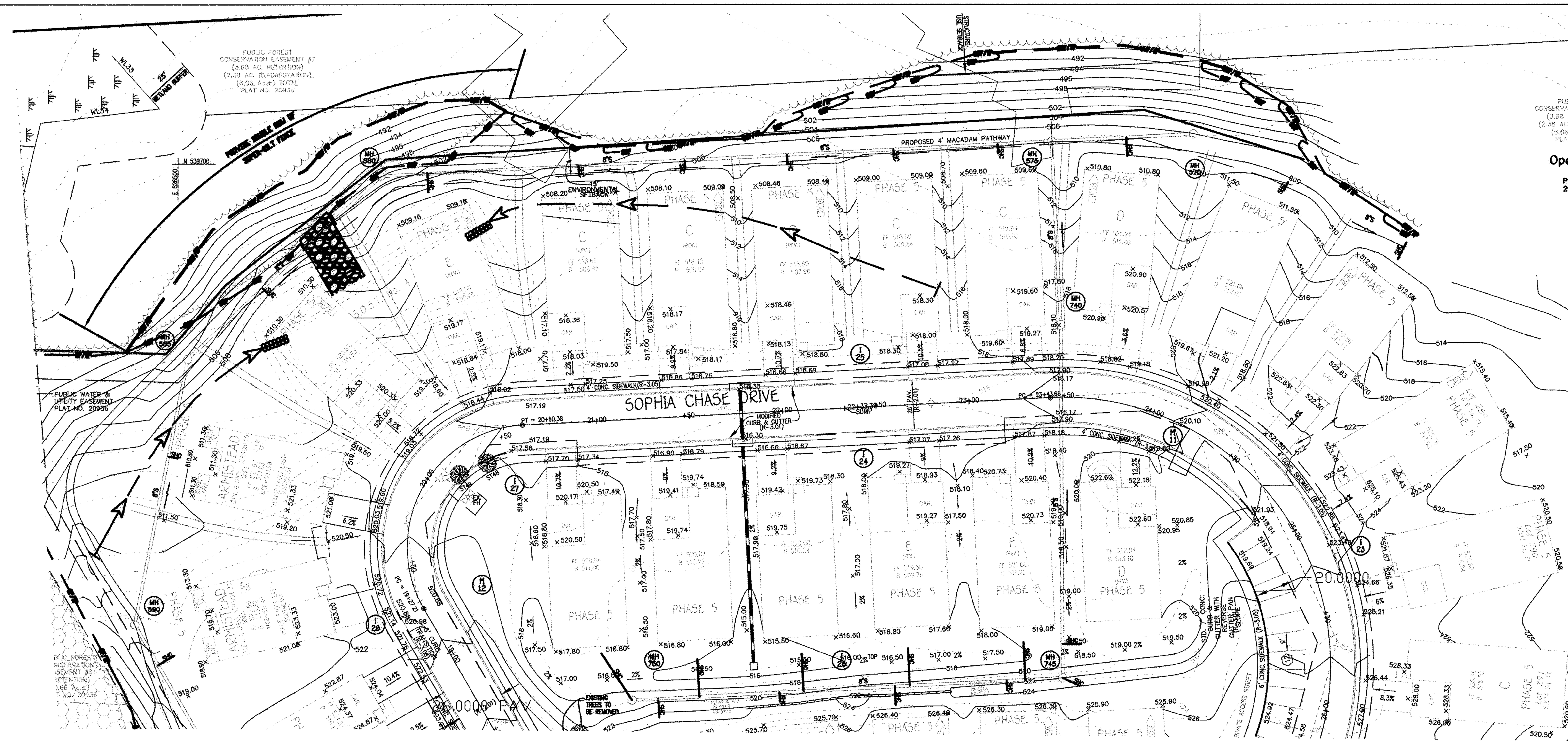
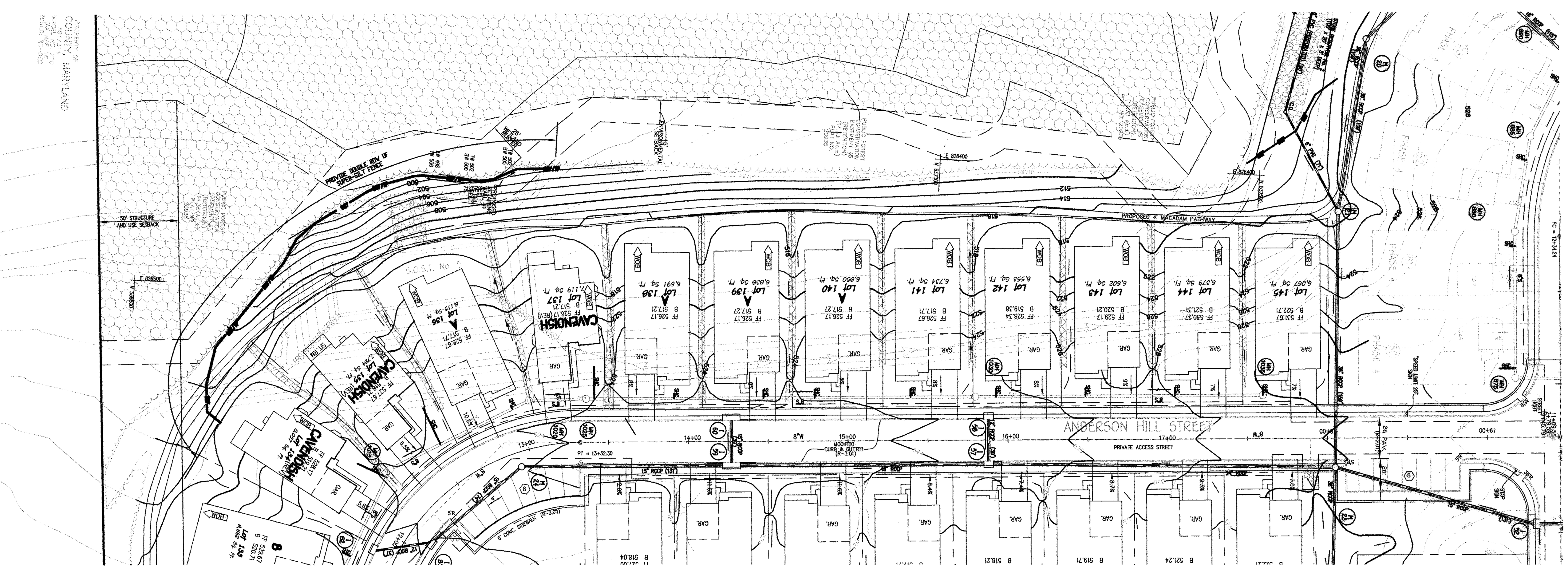


PLAN

SCALE: 1" = 40'



LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
X562.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER F-09-057
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER & SEWER UTILITY EASEMENT
	EXISTING STREET TREES PER SDP-09-037
	EXISTING LANDSCAPING PER SDP-09-037
	FOREST CONSERVATION
	FOREST CONSERVATION PLANTING
SSF/TP	COMBINATION SUPER SILT FENCE AND TREE PROTECTION
SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING

LIMIT OF DISTURBANCE NOTE:

NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.

HIGH VISIBILITY FENCING "HVF" NOTE:

PROVIDE WITH ALL INTERNAL EARTH DIKES.

SILT FENCE NOTE:

CONTRACTOR TO IMBRICATE ALL SF/SSF RUNNING DOWNHILL INTO J-SHAPED SEGMENTS AT 25' AND CURL ENDS UPHILL 2' IN ELEVATION.

CONTRACTOR NOTE:

CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH AND DEBRIS FROM FORESTS, FLOODPLAIN, STREAMS, WETLANDS AND THEIR BUFFERS.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV NEW UTILITIES, AND HOUSE BOXES	5/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 AND PHASE V TO SDP-09-039	10/31/14
2	REV TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — PROFESSIONAL ENGINEER

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Signature Of Engineer — 7/14/15 Date

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Howard SCD — 7/14/15 Date

BUILDERS

NV HOMES	RYAN HOMES
6085 MARSHALEE DRIVE	6085 MARSHALEE DRIVE
SUITE 130	SUITE 140
ELKRIDGE, MD. 21075	ELKRIDGE, MD. 21075
410-379-5956	410-379-5956

DEVELOPER	OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION	WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.	C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102	5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042	ELLICOTT CITY, MARYLAND 21042
443-367-0422	443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date

Chief, Development Engineering Division — 7-24-15 Date

Director - Department of Planning and Zoning — 8-4-15 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEDIMENT/EROSION CONTROL PLAN (PHASE TWO) FINAL GRADING FOR BASIN No. 4 THRU 7

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 31 OF 100

SDP-09-039

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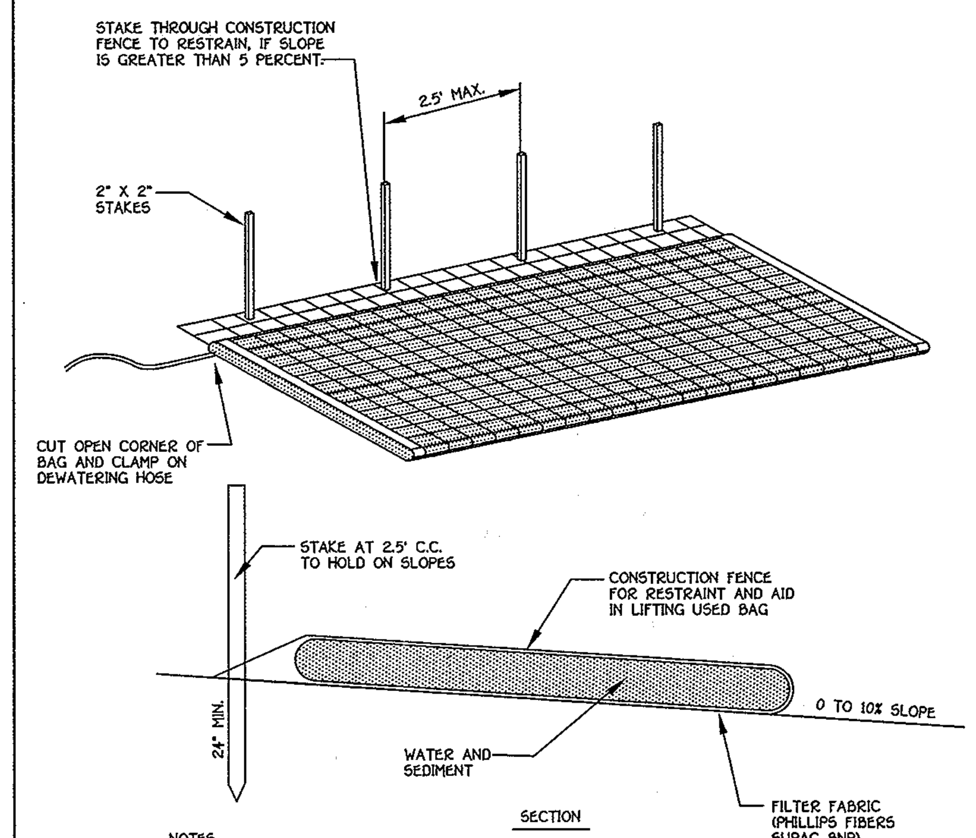


NOTES

1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS.
2. WITDH AND LENTH SHALL BE AS SHOWN IN THE TABLE.
3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISHARGE LINE.
   FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.
4. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT.
5. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.

AVAILABLE FROM:

INDIAN VALLEY INDUSTRIES, INC.
P.O. BOX 810
JOHNSON CITY, NEW YORK 13790
(800) 659-5111

OR

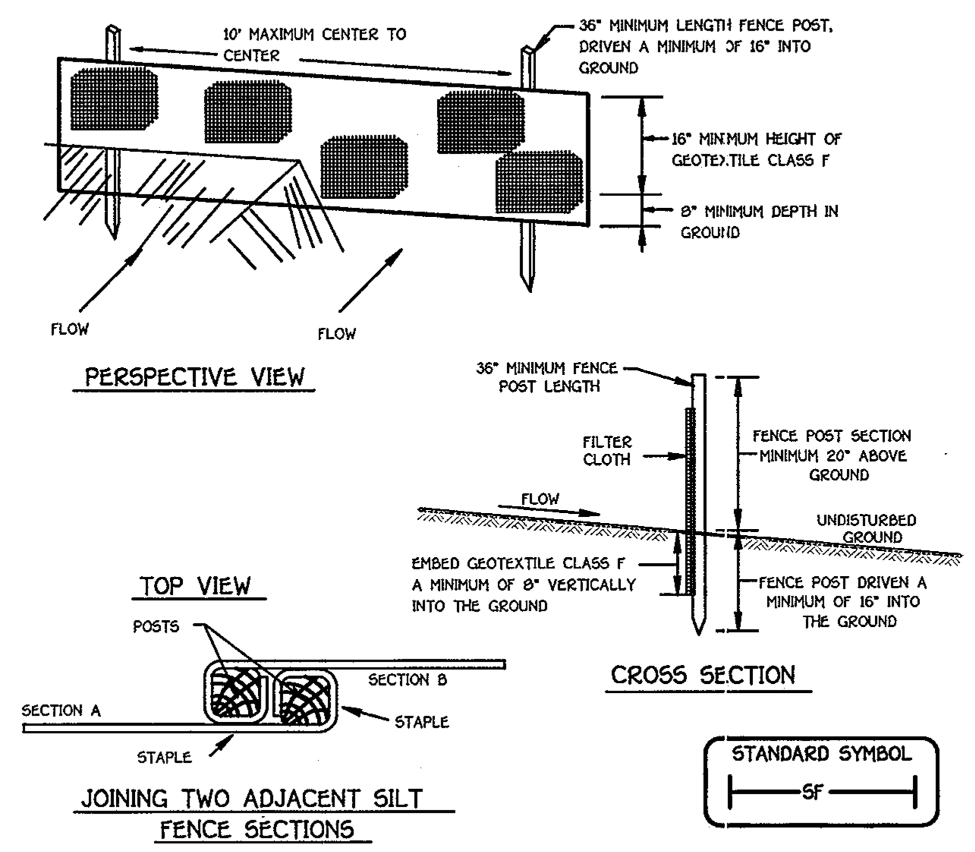
A.C.F. ENVIRONMENTAL
1801-A WILLIS ROAD
RICHMOND, VIRGINIA 23237
TOLL FREE 1-800-448-3636

OR

PRICE AND COMPANY, INC.
425 36TH STREET
WYOMING, MI. 49548
(616) 530-8230

FILTER BAG DETAIL

NOT TO SCALE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

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

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

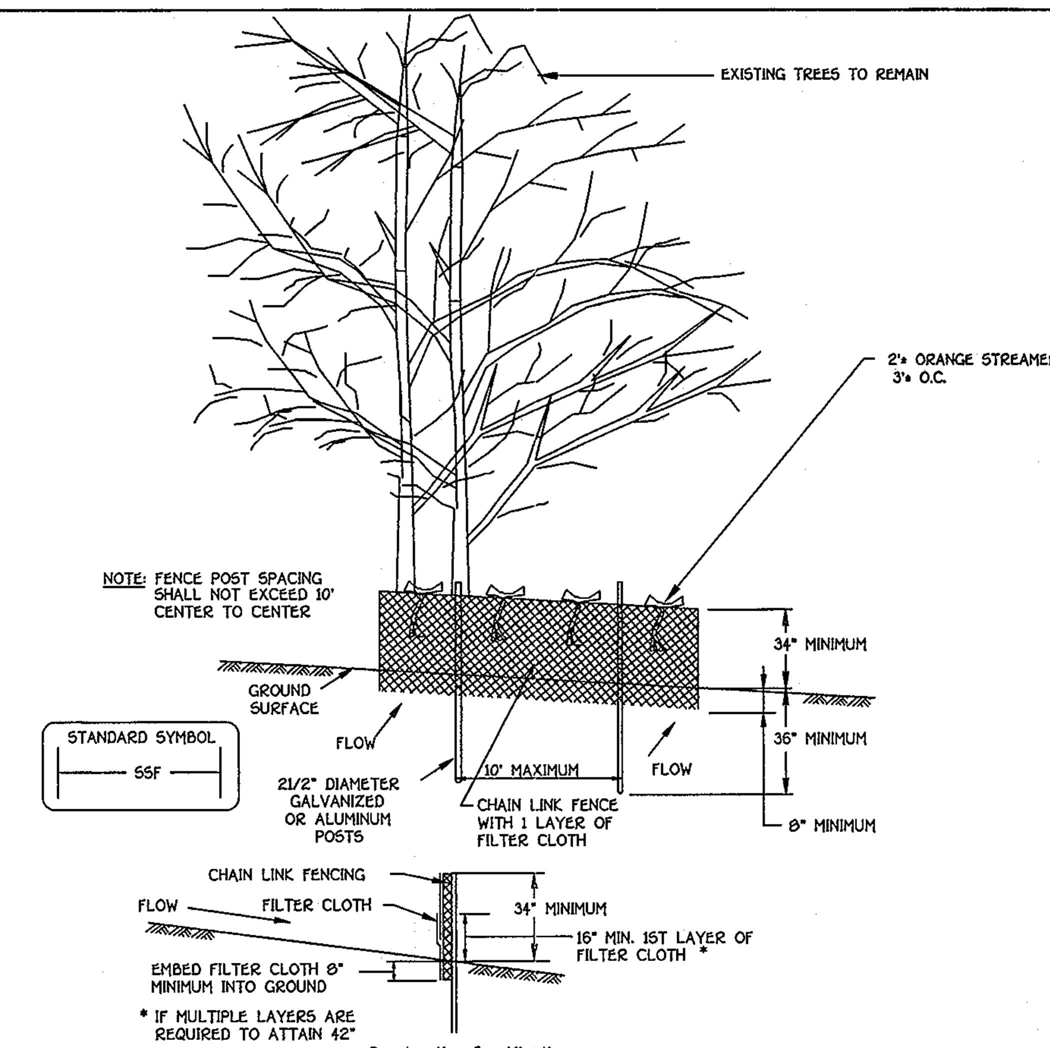
Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 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

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

SILT FENCE

NOT TO SCALE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

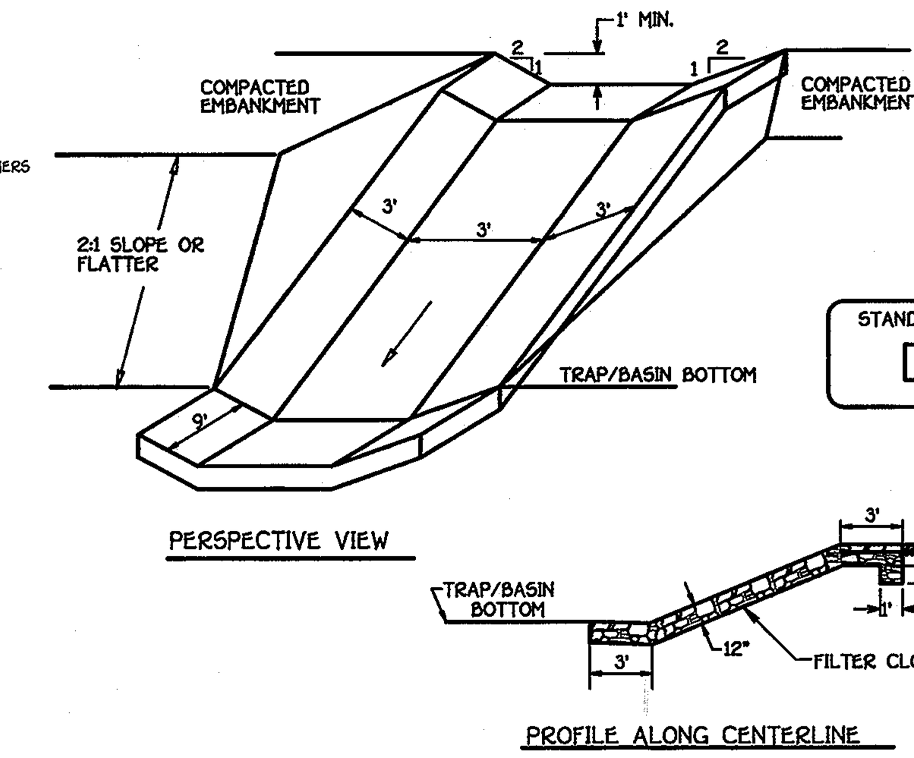
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute^2(max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

SUPER SILT FENCE, TREE PROTECTION FENCE

NOT TO SCALE

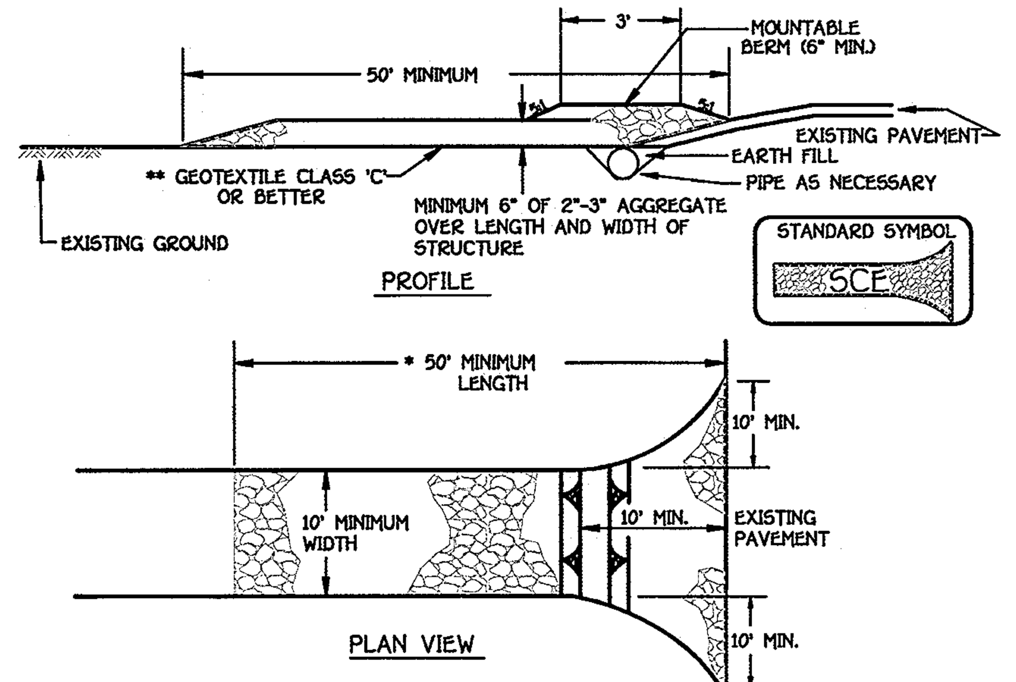


Construction Specifications

1. Gabion inflow protection shall be constructed of 9' x 3' x 9" gabion baskets forming a trapezoidal cross section 1' deep, with 2:1 side slopes, and a 3' bottom width.
2. Geotextile Class C shall be installed under all gabion baskets.
3. The stone used to fill the gabion baskets shall be 4" - 7".
4. Gabions shall be installed in accordance with manufacturers recommendations.
5. Gabion Inflow Protection shall be used where concentrated flow is present on slopes steeper than 4:1.

GABION INFLOW PROTECTION

NOT TO SCALE



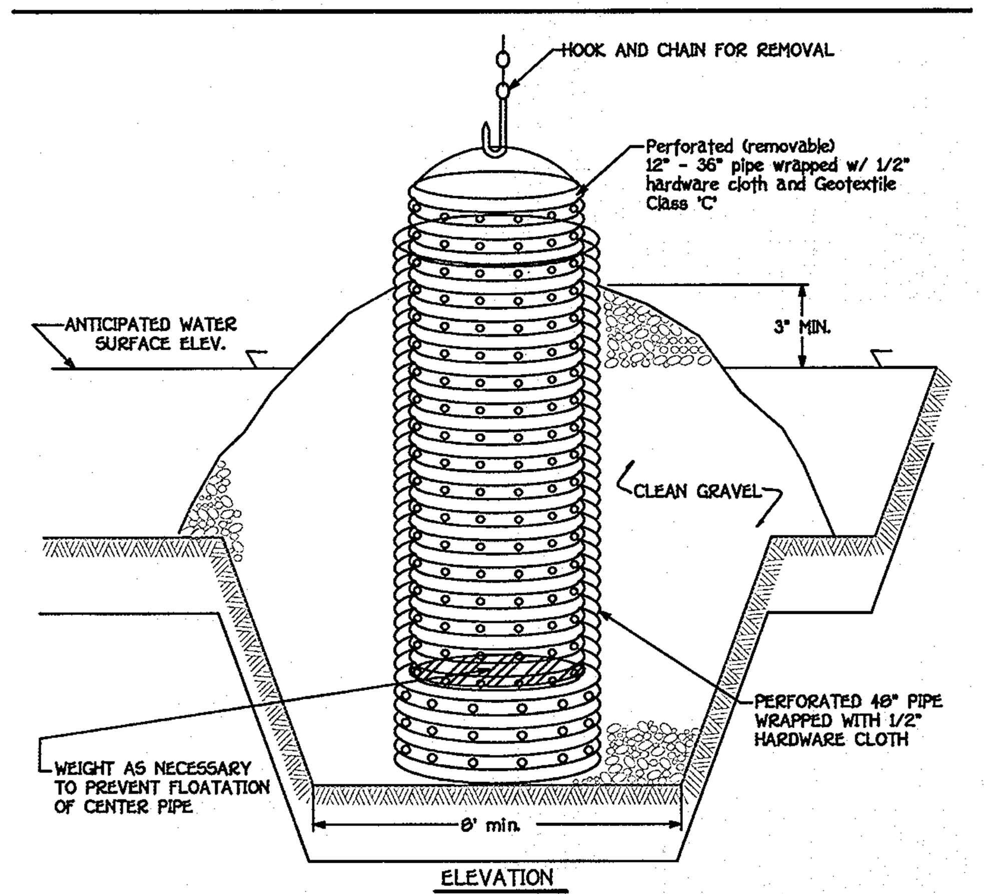
Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STABILIZED CONSTRUCTION ENTRANCE

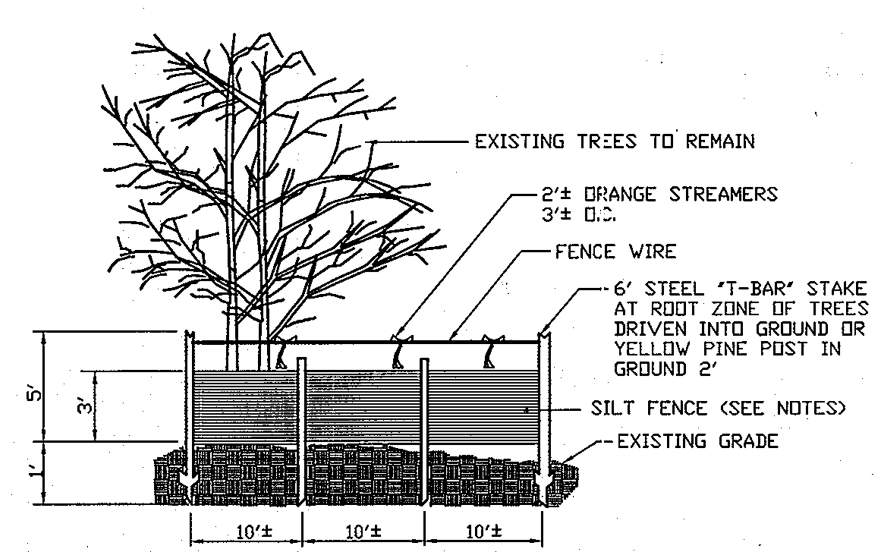
NOT TO SCALE

REMOVABLE PUMPING STATION



Construction Specifications

1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.



1. Silt Fence to be heeled into the soil.
2. Wire, snow fence, etc. for tree protection only.
3. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
4. Boundaries of Retention Area should be staked and flagged prior to installing device.
5. Avoid root damage when placing anchor posts.
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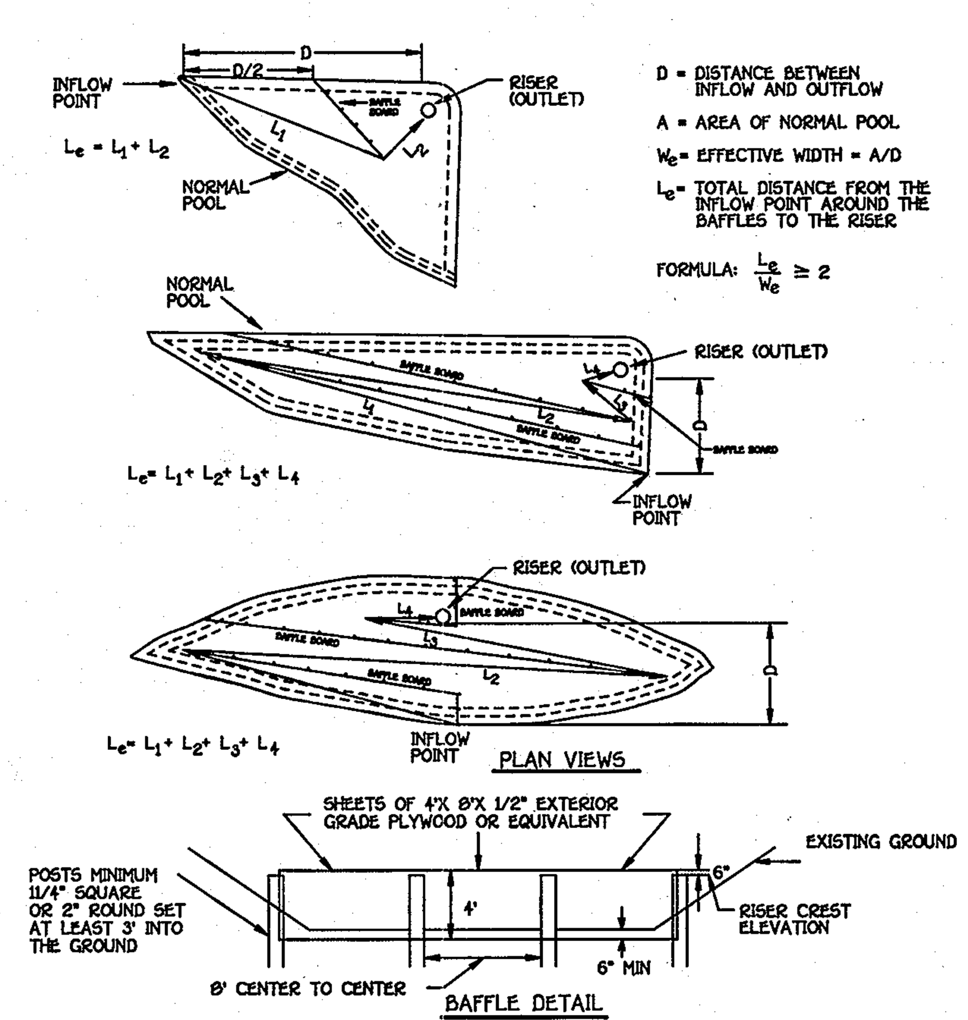
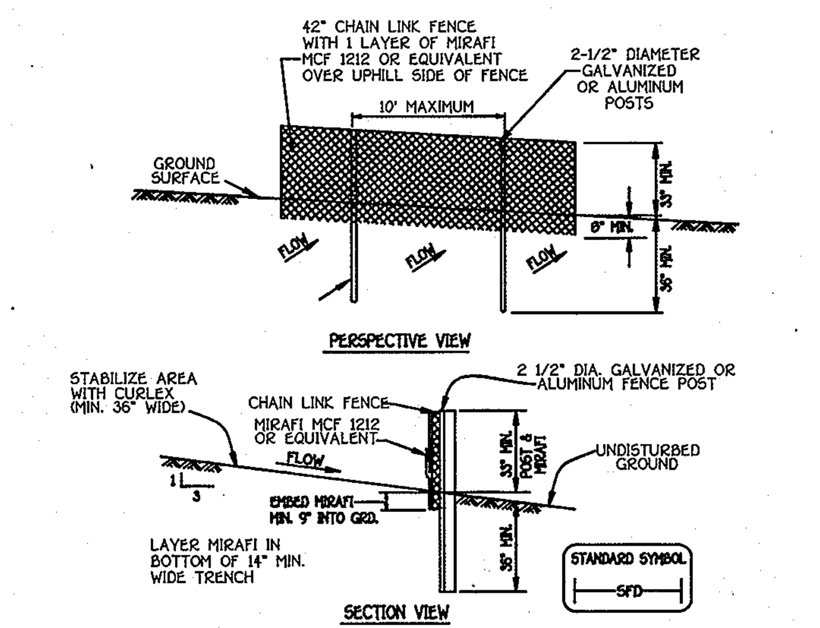
SILT FENCE AND TREE PROTECTION

NOT TO SCALE



SEDIMENT BASIN BAFFLES

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. FENCING SHALL BE 42" HIGH CHAIN CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690.01 AND 690.02 FOR CHAIN U FENCING. THE SPECIFICATIONS FOR A 6'-0" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 8' POSTS. POSTS SHALL BE PLACED WITHOUT CONCRETE EMBEDMENT.
2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
3. FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
4. FILTER CLOTH SHALL BE IMBEDDED A MINIMUM OF 9" INTO THE GROUND.
5. WHEN TWO SECTIONS OF DIVERSION CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED.

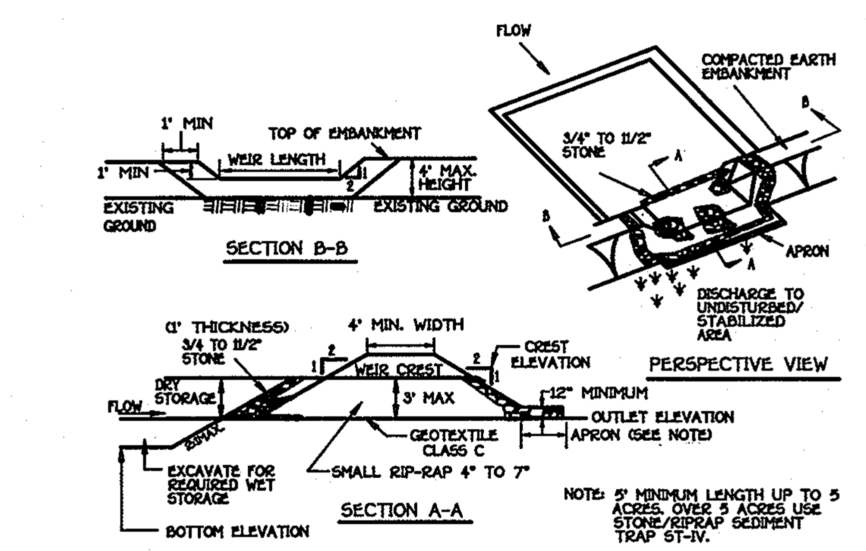
Fabric Properties	Value	Test Method
Grab Tensile Strength (lbs.)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs.)	40	ASTM D751
Slurry Flow Rate (gal/min/sf)	0.3	Virginia DOT VTM-51
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	400 feet	1,500 feet
20 - 33%	5:1 - 3:1	300 feet	1,000 feet
33 - 50%	3:1 - 2:1	200 feet	500 feet
50% +	2:1 +	100 feet	250 feet

SUPER FENCE DIVERSION

NOT TO SCALE



Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
6. The structure shall be inspected periodically and after each rain and repairs made as needed.
7. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
8. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
9. Refer to Section D for specifications concerning trap dewatering.
10. Minimum trap depth shall be measured from the weir elevation.
11. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
13. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

STONE OUTLET SEDIMENT TRAP - ST II

NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND
TERRELL A. FISHER
NO. 8757
REGISTERED
PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practicil And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-165 & 172-231, PHASES IV & V - UNITS 93-119, 153-161, 196-200 & 237-239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

REVISED
SEDIMENT CONTROL NOTES AND DETAILS

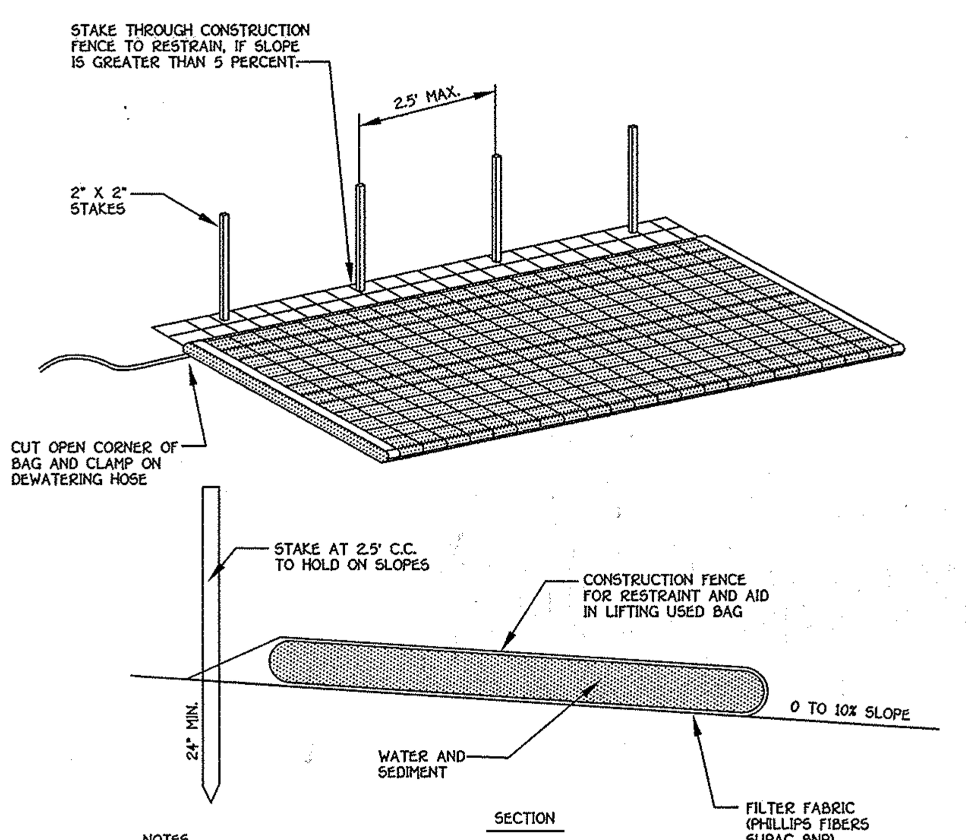
AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 32 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 32-33 SEC Details.dwg, Sheet 32, 11/14/2012 3:36:32 PM, 1:1



NOTES

1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS.
2. WITDH AND LENTH SHALL BE AS SHOWN IN THE TABLE.
3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISHARGE LINE.
FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.
4. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT.
5. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.

AVAILABLE FROM:

INDIAN VALLEY INDUSTRIES, INC.
P.O. BOX 810
JOHNSON CITY, NEW YORK 13790
(800) 659-5111

OR

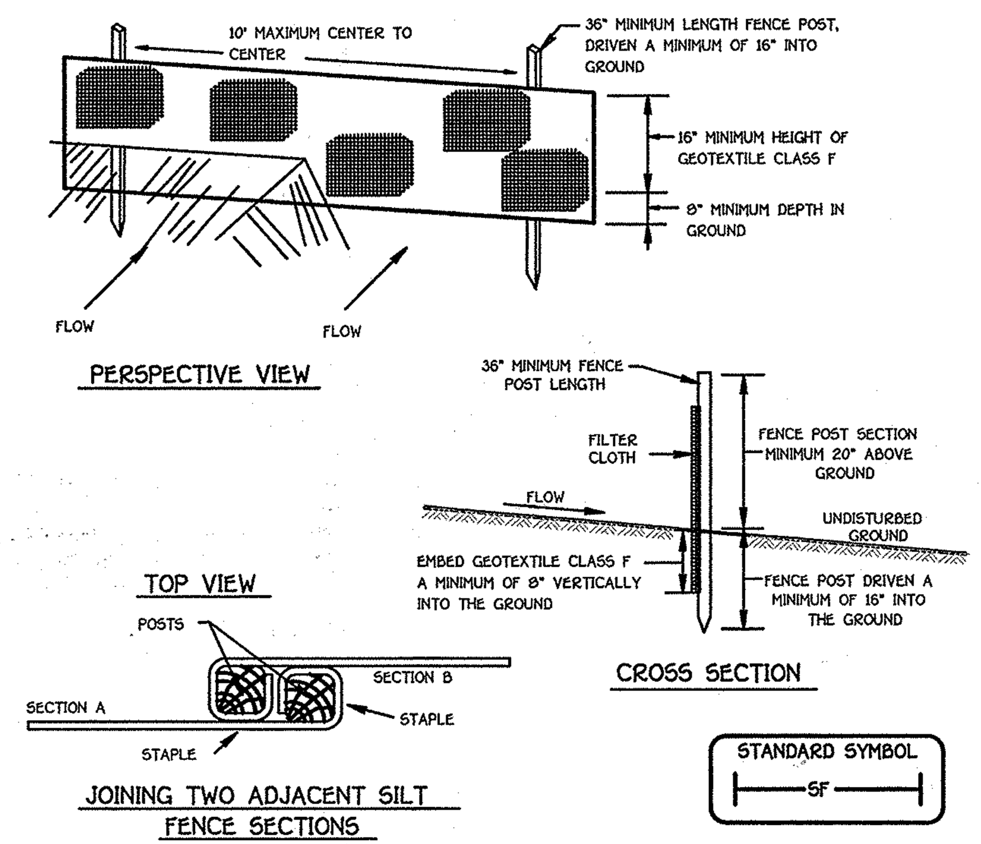
A.C.F. ENVIRONMENTAL
1801-A WILLIS ROAD
RICHMOND, VIRGINIA 23237
TOLL FREE 1-800-448-3636

OR

PRICE AND COMPANY, INC.
425 36TH STREET
WYOMING, MI. 49548
(616) 530-8230

FILTER BAG DETAIL

NOT TO SCALE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

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

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

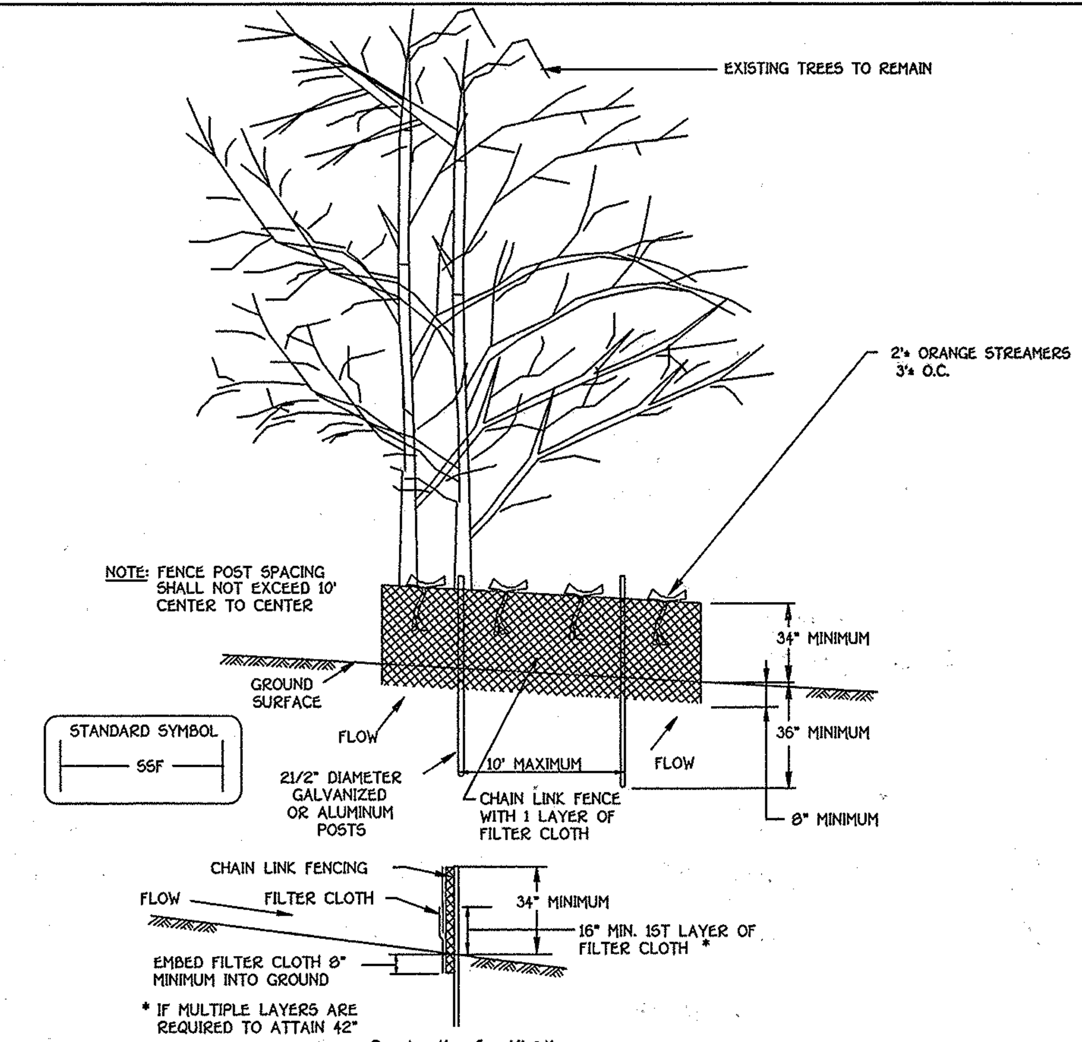
Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 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

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

SILT FENCE

NOT TO SCALE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
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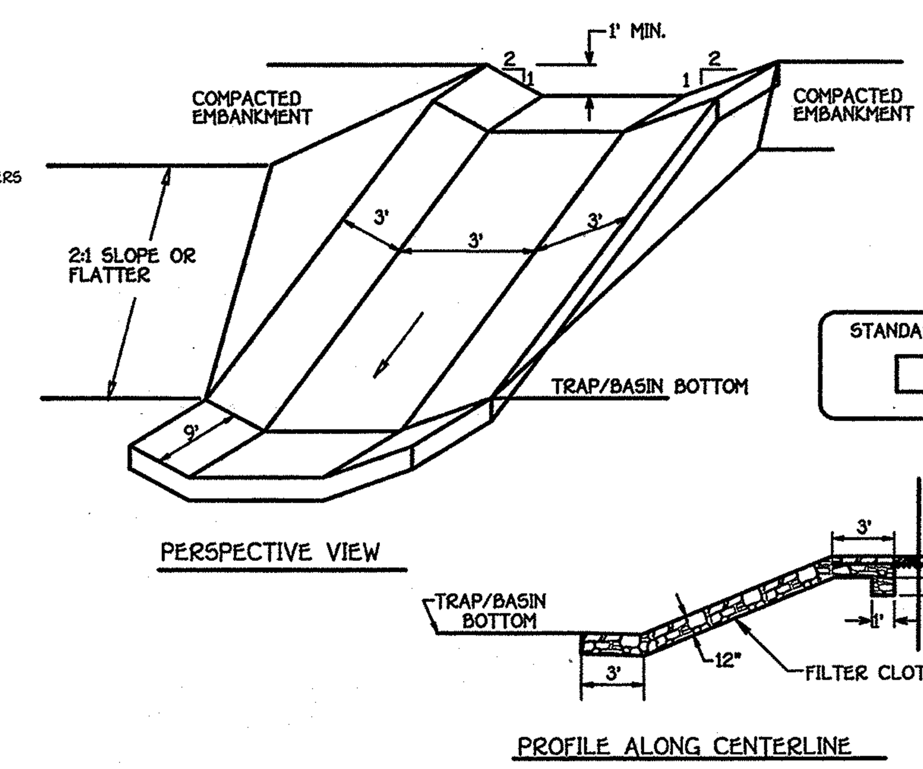
Flow Rate	0.3 gal/ft /minute^2(max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

SUPER SILT FENCE, TREE PROTECTION FENCE

NOT TO SCALE



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GABION INFLOW PROTECTION

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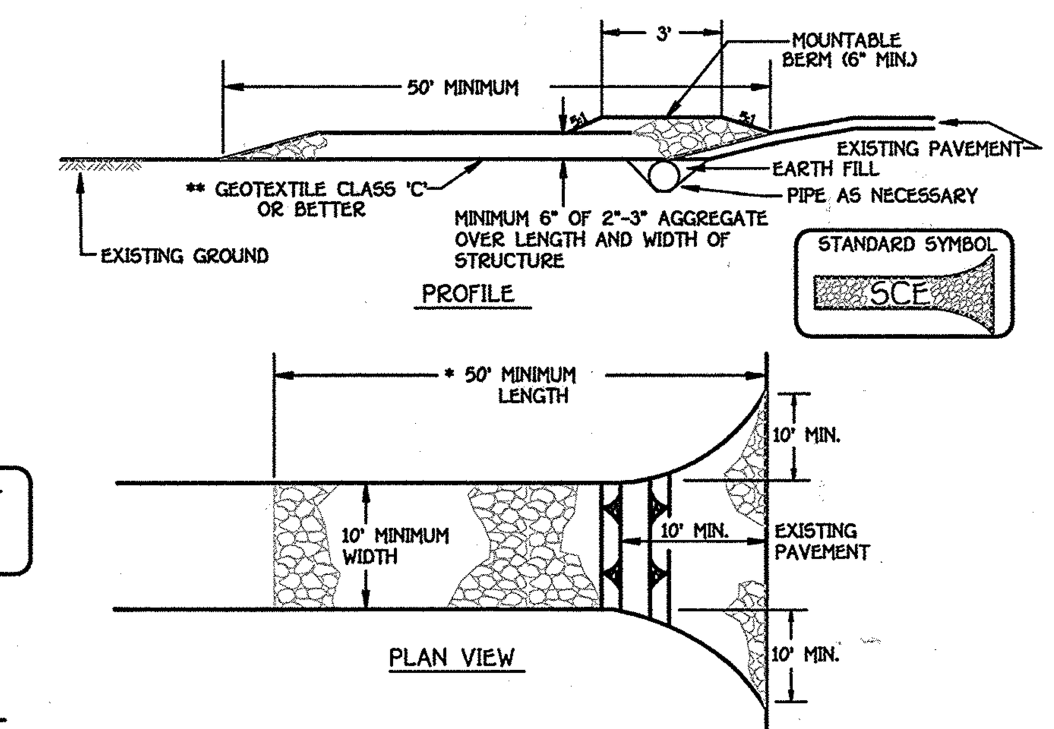

Construction Specification

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2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
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STABILIZED CONSTRUCTION ENTRANCE

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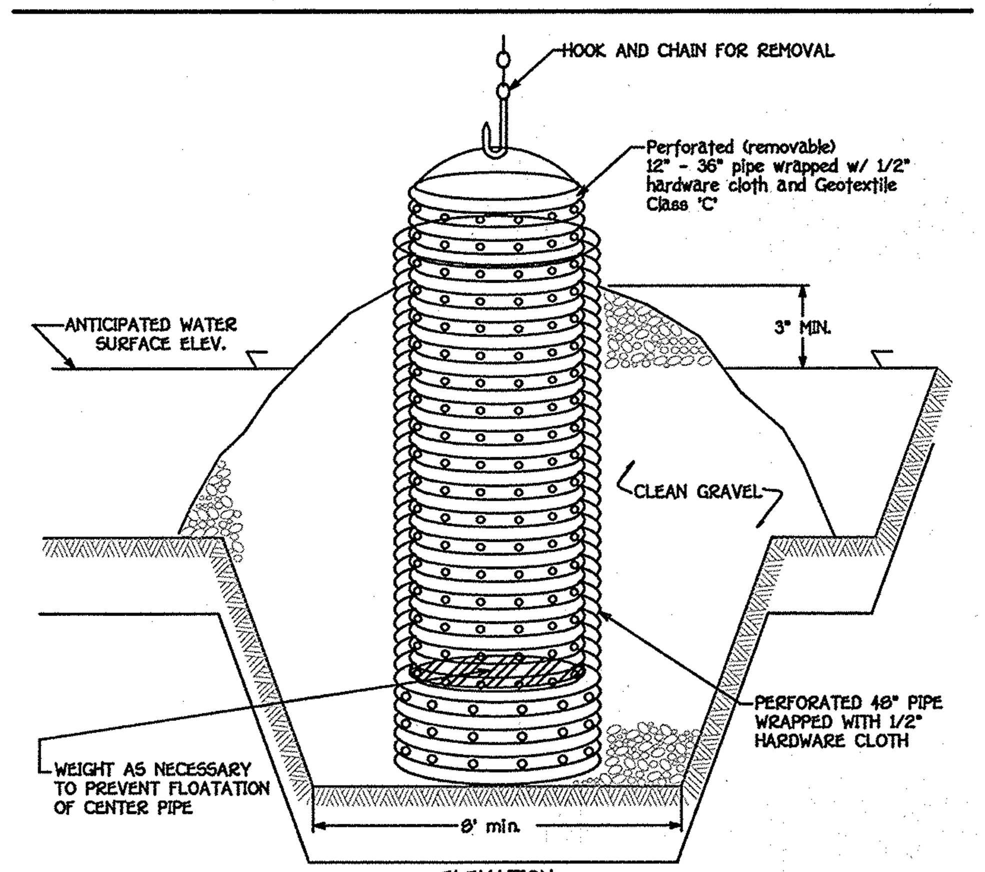
REMOVABLE PUMPING STATION



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1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
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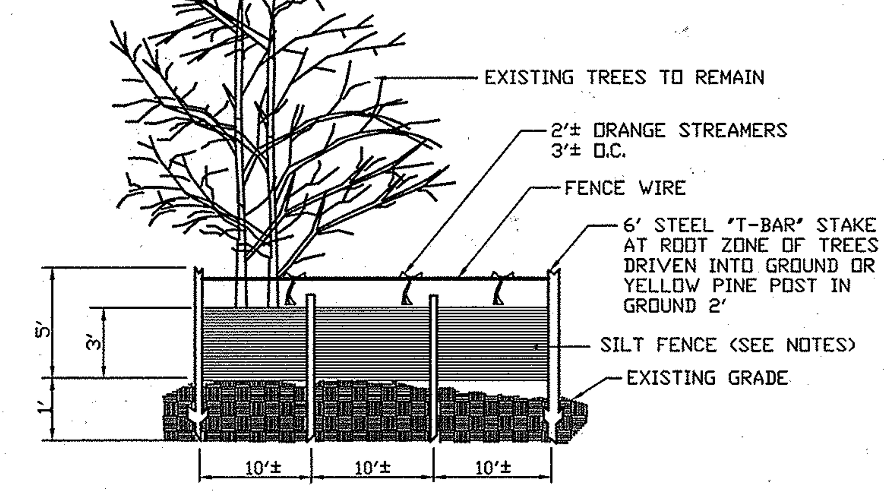

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SILT FENCE AND TREE PROTECTION

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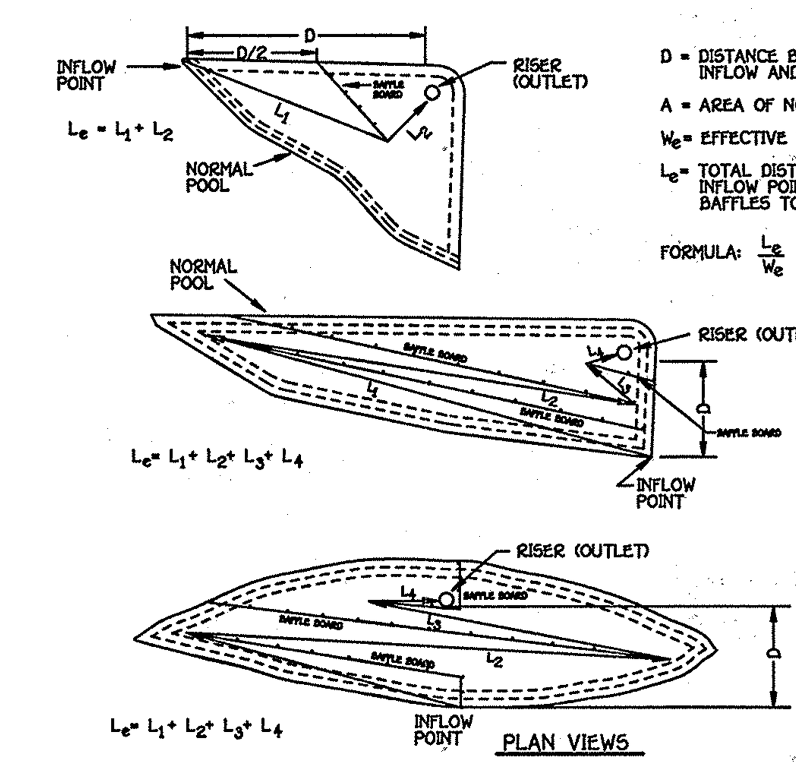


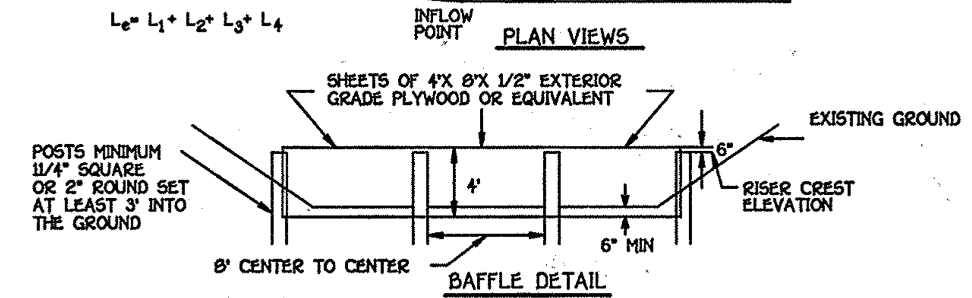
D = DISTANCE BETWEEN INFLOW AND OUTFLOW

A = AREA OF NORMAL POOL

W_e = EFFECTIVE WIDTH = A/D

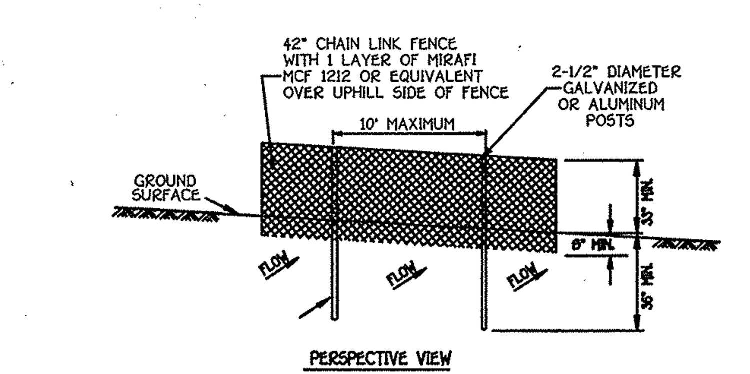
L_e = TOTAL DISTANCE FROM THE INFLOW POINT AROUND THE BAFFLES TO THE RISER

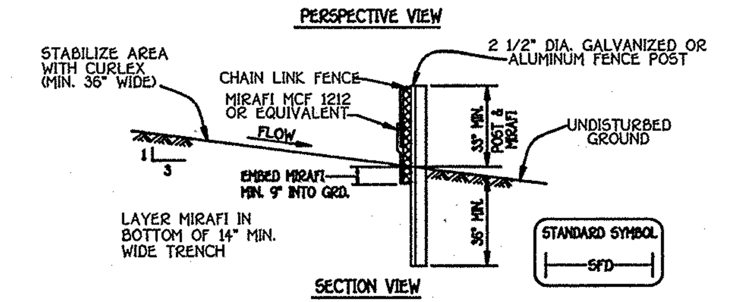
FORMULA: $\frac{L_e}{W_e} \geq 2$



SEDIMENT BASIN BAFFLES

NOT TO SCALE





CONSTRUCTION SPECIFICATIONS

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3. FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
4. FILTER CLOTH SHALL BE IMBEDDED A MINIMUM OF 9" INTO THE GROUND.
5. WHEN TWO SECTIONS OF DIVERSION CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED.

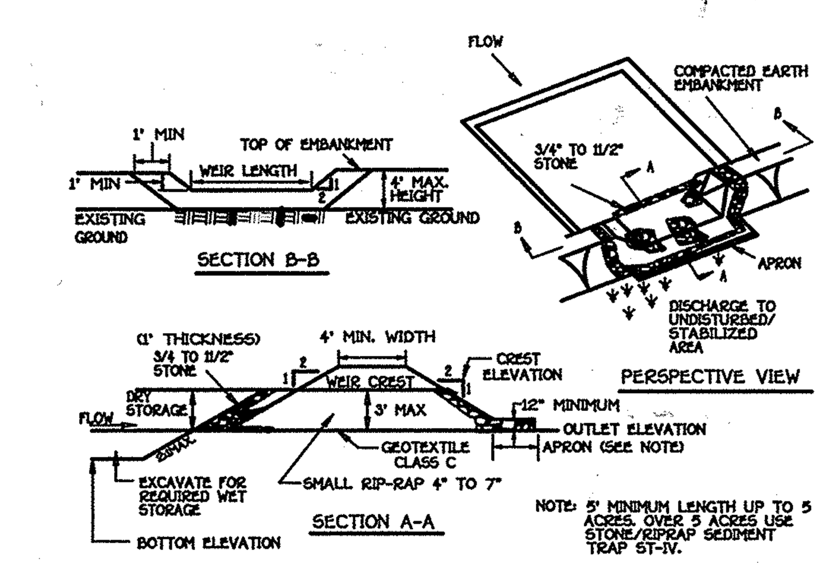
Fabric Properties	Value	Test Method
Grab Tensile Strength (lbs.)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs.)	40	ASTM D751
Slurry Flow Rate (gal/min/sf)	0.3	Virginia DOT VTM-51
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	400 feet	1,500 feet
20 - 33%	5:1 - 3:1	300 feet	1,000 feet
33 - 50%	3:1 - 2:1	200 feet	500 feet
50% +	2:1 +	100 feet	250 feet

SUPER FENCE DIVERSION

NOT TO SCALE



Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
6. The structure shall be inspected periodically and after each rain and repairs made as needed.
7. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
8. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
9. Refer to Section D for specifications concerning trap dewatering.
10. Minimum trap depth shall be measured from the weir elevation.
11. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
13. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

STONE OUTLET SEDIMENT TRAP - ST II

NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 REGISTERED — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION		PARCEL NO. 'E' PHASES II THRU V LOTS 5,12-39,44-86,88-165, 172-231 & 240-369
GTW'S WAVERLY WOODS			14		
PLAT SEE GENERAL NOTE #51	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

REVISED
SEDIMENT CONTROL NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 32 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 32-33 SEC Details.dwg, Sheet 32, 11/14/2012 3:36:32 PM, 1:1

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 run-off 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 stockpile 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 those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed 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

A. Site Preparation
- i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
- ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)
- i. 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 analyses.
- ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall 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 warrantee of the producer.
- iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
- iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

C. Seedbed Preparation
- i. Temporary Seeding
  - a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows 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.
  - b. Apply fertilizer and lime as prescribed on the plans.
  - c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- ii. Permanent Seeding
  - a. Minimum soil conditions required for permanent vegetative establishment:
    1. Soil pH shall be between 6.0 and 7.0.
    2. Soluble salts shall be less than 500 parts per million (ppm).
    3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
    4. Soil shall contain 1.5% minimum organic matter by weight.
    5. Soil must contain sufficient pore space to permit adequate root penetration.
    6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
  - b. 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.
  - c. Apply soil amendments as per soil test or as included on the plans.
  - d. 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 seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications
- i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.

E. Methods of Seeding
- i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
  - a. 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 (phosphorous): 200 lbs/ac; K20 (potassium): 200 lbs/ac.
  - b. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
  - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
  - a. 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.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
  - a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (In order of preference)
- i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- ii. Wood Cellulose Fiber Mulch (WCFM)
  - a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
  - c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
  - d. 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.
  - e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
  - f. 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 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
- i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
- i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
- ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

I. Incremental Stabilization - Cut Slopes
- i. 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'.
- ii. Construction sequence (Refer to Figure 3 below):
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
  - b. Perform Phase 1 excavation, dress, and stabilize.
  - c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
  - d. 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 int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.

J. Incremental Stabilization of Embankments - Fill Slopes
- i. Embankments shall be constructed in lifts as prescribed on the plans.
- ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.
- iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
- iv. Construction sequence: Refer to Figure 4 (below).
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
  - b. Place Phase 1 embankment, dress and stabilize.
  - c. Place Phase 2 embankment, dress and stabilize.
  - d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

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

SECTION 2 - TEMPORARY SEEDING

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

A. Seed mixtures - Temporary Seeding

i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary seeding summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.

ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

Seed Mixture (Hardiness Zone 6b) From Table 26					Fertilizer Rate (10-10-10)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
1	BARLEY OATS RYE	122 96 140	3/1 - 5/15, 8/15 - 10/15	1" - 2" 1" - 2" 1" - 2"	600 lb/ac (15 lb/1000sf)	2 tons/ac (100 lb/1000sf)

SECTION 3 - PERMANENT SEEDING

Seeding grass and legumes to establish groung cover for a minimum of one year on disturbed areas generally receiving low maintenance.

A. Seed mixtures - Permanent Seeding

i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Techinical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass.

ii. For sites having disturbed area over 5 areas, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.

iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

Seed Mixture (Hardiness Zone 6b) From Table 25					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
3	TALL FESCUE (85%) PERENNIAL RYE GRASS (10%) KENTUCKY BLUEGRASS (5%)	125 15 10	3/1 - 5/15, 8/15 - 10/15	1" - 2"	90 lb/ac (2.0 lb/ 1000sf)	175 lb/ac (4 lb/ 1000sf)	175 lb/ac (4 lb/ 1000sf)	2 tons/ac (100 lb/ 1000sf)
10	TALL FESCUE (80%) HARD FESCUE (20%)	120 30	3/1 - 5/15, 8/15 - 10/15	1" - 2"				

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:

TOTAL AREA OF SITE	150.329	ACRES
AREA DISTURBED	88.99	ACRES
AREA TO BE ROOFED OR PAVED	17.04	ACRES
AREA TO BE VEGETATIVELY STABILIZED	71.95	ACRES
TOTAL CUT	375,470	CU.YDS.
TOTAL FILL	420,920	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION ON-SITE:	45,450	CU.YDS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

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

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

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

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.

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

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

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

III For sites having disturbed areas over 5 acres:

i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

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

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

V. Topsoil Application

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

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

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

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

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

i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least I percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of I ton/1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

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

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT. (2 WEEKS)
2. NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.
3. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE. INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE PLANS. (1 WEEK).*
   *THE CONTRACTOR SHALL VERIFY THAT BASIN No. 1 AND CONTROLS PER F-09-057 HAVE BEEN COMPLETELY INSTALLED BEFORE PROCEEDING.
4. INSTALL SILT FENCE & SUPER-SILT FENCE. THEN INSTALL STONE OUTLET SEDIMENT TRAPS AND BASINS WITH ASSOCIATED DEWATERING DEVICES IN CONJUNCTION WITH CONSTRUCTION OF THE PROPOSED SEDIMENT BASIN/SWM PONDS AND DAM EMBANKMENT. UPON COMPLETION OF TRAPS AND BASINS, INSTALL EARTH DIKES AS REQUIRED. NOTE THAT NO DISTURBANCE IS ALLOWED UNTIL ALL SWM/BASIN MATERIALS FOR THE PRINCIPAL SPILLWAYS ARE ON SITE AND PERMISSION FROM THE INSPECTOR IS GRANTED IN WRITING TO PROCEED. (8 WEEKS)
   DURING THE INSTALLATION OF EARTH DIKES, GRADING SHALL BE LIMITED TO OCCUR ONLY BETWEEN THE L.O.D. AND EARTH DIKE UNTIL ALL FINAL EARTH DIKE GRADES ARE REACHED, AT WHICH TIME, MASS GRADING MAY OCCUR UPON PERMISSION FROM INSPECTOR.
5. UPON COMPLETION OF THE SWM PONDS/SEDIMENT BASINS CONSTRUCTION RECEIVE PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR PRIOR TO PROCEEDING WITH THE INSTALLATION OF ASSOCIATED EARTH DIKES. (1 WEEK)
6. CLEAR AND GRUB FOR THE INSTALLATION OF THE REMAINING PERIMETER SEDIMENT CONTROL MEASURES. INSTALL TREE PROTECTION FENCE, SILT FENCE, EARTH DIKES AS SHOWN ON THESE PLANS. (3 WEEKS)
   THE ORDER OF INSTALLATION SHALL BE SILT FENCE, TRAPS/BASINS THEN EARTH DIKES.
7. CLEAR AND GRUB FOR THE REMAINDER OF THE SITE. (3 WEEKS)
8. GRADE SITE TO PROPOSED SUBGRADE AND INSTALL THE STORM DRAIN SYSTEMS, WATER AND SEWER LINES. STABILIZE ALL SLOPES IMMEDIATELY UPON COMPLETION OF GRADING. DO NOT BLOCK INLETS AS STORM DRAIN SYSTEM WILL BE USED TO CONVEY SEDIMENT RUNOFF INTO THE BASIN. (9 WEEKS)
9. CONSTRUCT CURB & GUTTER AND INSTALL ROAD BASE COURSE FOR SUBDIVISION ROADS. (3 WEEKS)
10. CONSTRUCT BUILDINGS AND DRIVEWAYS. (SEE NOTE *3 BELOW)
11. INSTALL FINISHED SURFACE COURSE, SIDEWALKS AND STREET TREES. (3 WEEKS)
12. CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH, AND DEBRIS FROM FORESTS, FLOODPLAIN, STREAMS, WETLANDS AND THEIR BUFFERS.
13. ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS.
    WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES AND PONDS HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED AND/OR BACKFILLED AND THE REMAINING AREAS BROUGHT TO FINAL GRADE, STABILIZE ALL AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. SEDIMENT BASIN No. 1 SHALL BE CONVERTED AND STABILIZED TO THE PERMANENT DESIGN OF THE F-09-057 PLAN. (3 WEEKS)
14. NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT. AN "AS-BUILT" APPROVAL LETTER FOR EACH POND IS TO BE SUBMITTED TO THE COUNTY INSPECTOR BEFORE THE CLOSE OF THE PROJECT. (1 WEEK)

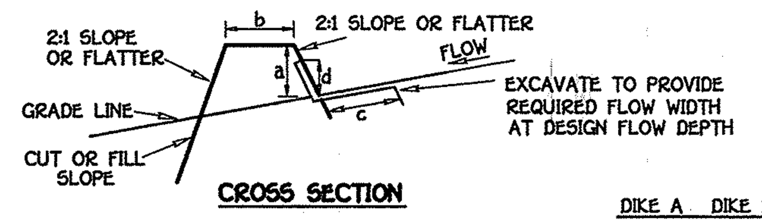
NOTE: *1 THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS. REMOVE SEDIMENT FROM THE POND/BASIN ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON. AFTER

WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED. ALL SEDIMENT MUST BE PLACED UPSTREAM OF THE APPROVED TRAPPING DEVICE.

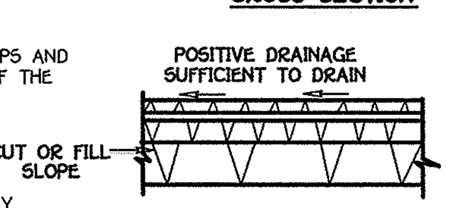
NOTE: *2 ALL DAM EMBANKMENT AND CORE TRENCH CONSTRUCTION SHALL BE COORDINATED WITH A PROFESSIONAL GEOTECHNICAL ENGINEER IN ACCORDANCE WITH THE RECOMMENDATIONS SHOWN ON THESE PLANS. NO BLASTING WILL BE PERMITTED FOR THE EXCAVATION OF SEDIMENT BASIN/SWM POND EMBANKMENT. WHERE NECESSARY, RIPPING AND JACK HAMMERING SHOULD BE UTILIZED IN THE EXCAVATION OF THE FACILITY.

NOTE: *3 WHEN THE MAJORITY OF CONTRIBUTING AREA TO ANY TRAP OR BASIN HAS BEEN REDUCED DUE TO ROAD AND STORM DRAIN CONSTRUCTION, THE FACILITY MAY BE REMOVED AND BACKFILLED TO PAD GRADE ELEVATIONS. THIS WILL ENABLE CONSTRUCTION OF HOMES AND DRIVEWAYS IN THESE LOCATIONS PROVIDED INDIVIDUAL LOT SEDIMENT CONTROL MEASURES ARE PROVIDED.

LIMIT OF DISTURBANCE NOTE:
NO MORE THAN 20 ACRES MAY BE UNSTABILIZED AT ANY TIME.



CROSS SECTION



PLAN VIEW

	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

STANDARD SYMBOL
A-2 B-3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

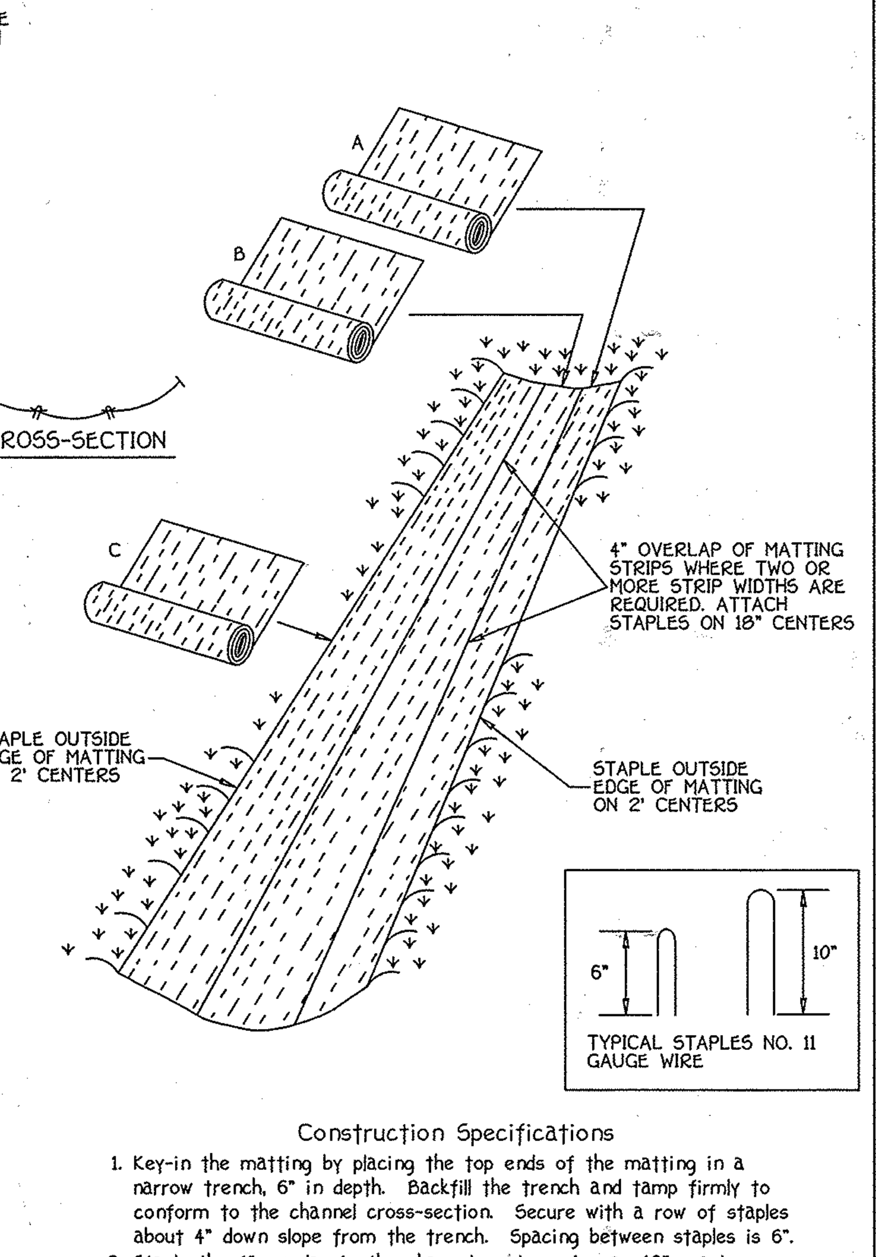
1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

EARTH DIKE

NOT TO SCALE



Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

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

EROSION CONTROL MATTING

NOT TO SCALE

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 32-33 SEC Details.dwg, SHEET 33, 11/14/2012 3:37:17 PM, 1:1

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND · TERRELL A. FISHER · NO. 9757 · REGISTERED · PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS

NV HOMES	RYAN HOMES
6085 MARSHALEE DRIVE	6085 MARSHALEE DRIVE
SUITE 130	SUITE 140
ELKRIDGE, MD. 21075	ELKRIDGE, MD. 21075
410-379-5956	410-379-5956

DEVELOPER	OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION	WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.	C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102	5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042	ELLICOTT CITY, MARYLAND 21042
443-367-0422	443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

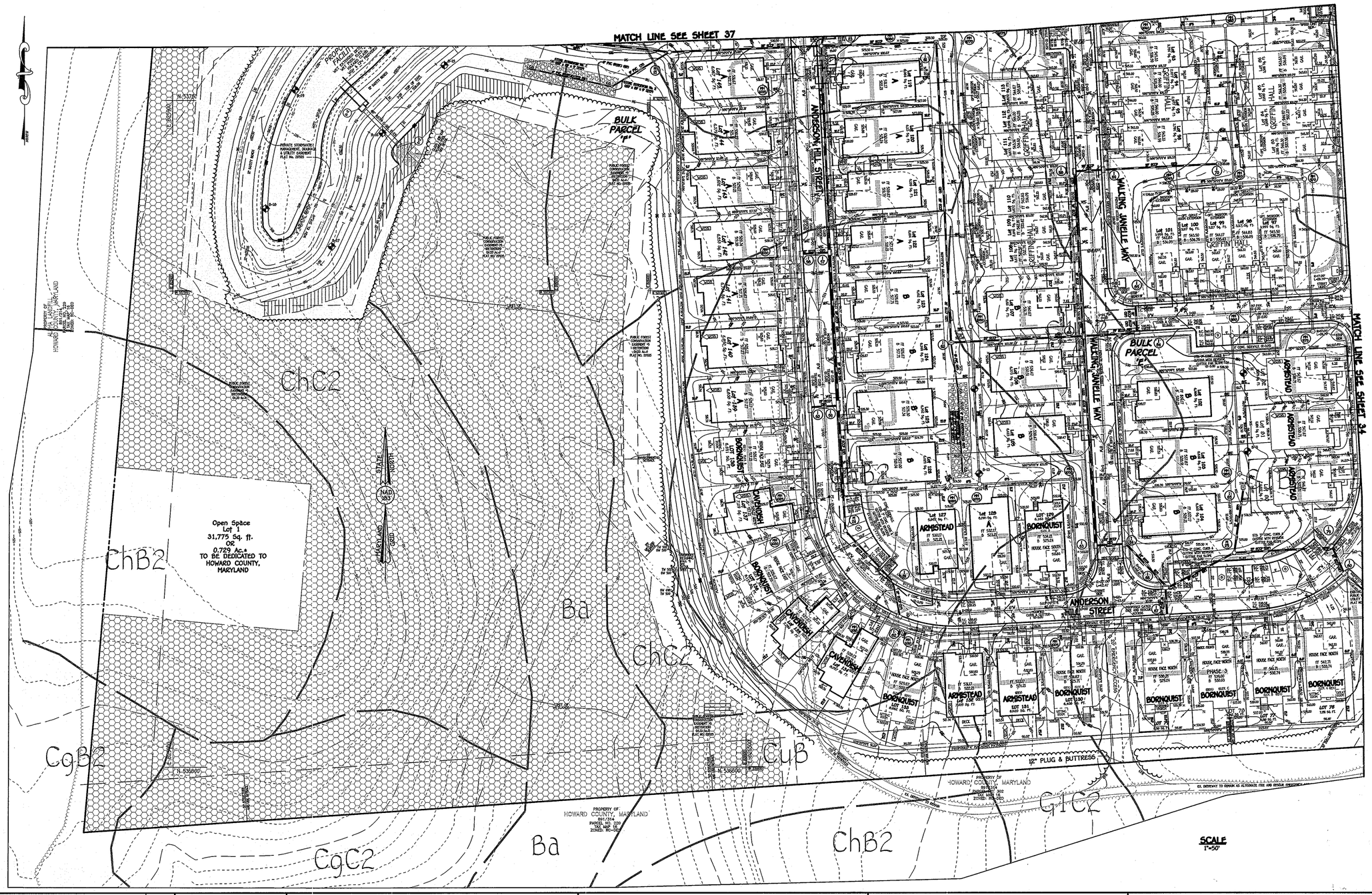
PROJECT			SECTION		PARCEL NO. 'E' PHASES II THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309
GTW'S WAVERLY WOODS			14		
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #5	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

REVISED
SEDIMENT CONTROL NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 33 OF 100

SDP-09-039



SCALE
1"=50'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×662.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" RCP	PROPOSED STORM DRAIN PIPE
PVC	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

FISHER, COLLINS & CARTER, INC.
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CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDGS & S-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDGS & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND
RUSSELL A. FISHER
No. 9757
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

RUSSELL A. FISHER, PROFESSIONAL ENGINEER — 11/19/12 DATE

BUILDERS

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ELKRIDGE, MD. 21075
410-379-5956

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

| PROJECT | | | SECTION | | PARCEL NO. 'E' PARCEL H III & IV LOTS 5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,342,343,344,345,346,347,348,349,350,351,352,353,354,355,356,357,358,359,360,361,362,363,364,365,366,367,368,369,370,371,372,373,374,375,376,377,378,379,380,381,382,383,384,385,386,387,388,389,390,391,392,393,394,395,396,397,398,399,400,401,402,403,404,405,406,407,408,409,410,411,412,413,414,415,416,417,418,419,420,421,422,423,424,425,426,427,428,429,430,431,432,433,434,435,436,437,438,439,440,441,442,443,444,445,446,447,448,449,450,451,452,453,454,455,456,457,458,459,460,461,462,463,464,465,466,467,468,469,470,471,472,473,474,475,476,477,478,479,480,481,482,483,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,532,533,534,535,536,537,538,539,540,541,542,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,577,578,579,580,581,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,609,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,625,626,627,628,629,630,631,632,633,634,635,636,637,638,639,640,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,657,658,659,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,678,679,680,681,682,683,684,685,686,687,688,689,690,691,692,693,694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,786,787,788,789,790,791,792,793,794,795,796,797,798,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,823,824,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,887,888,889,890,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,908,909,910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,957,958,959,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,981,982,983,984,985,986,987,988,989,990,991,992,993,994,995,996,997,998,999,1000,1001,1002,1003,1004,1005,1006,1007,1008,1009,1010,1011,1012,1013,1014,1015,1016,1017,1018,1019,1020,1021,1022,1023,1024,1025,1026,1027,1028,1029,1030,1031,1032,1033,1034,1035,1036,1037,1038,1039,1040,1041,1042,1043,1044,1045,1046,1047,1048,1049,1050,1051,1052,1053,1054,1055,1056,1057,1058,1059,1060,1061,1062,1063,1064,1065,1066,1067,1068,1069,1070,1071,1072,1073,1074,1075,1076,1077,1078,1079,1080,1081,1082,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1109,1110,1111,1112,1113,1114,1115,1116,1117,1118,1119,1120,1121,1122,1123,1124,1125,1126,1127,1128,1129,1130,1131,1132,1133,1134,1135,1136,1137,1138,1139,1140,1141,1142,1143,1144,1145,1146,1147,1148,1149,1150,1151,1152,1153,1154,1155,1156,1157,1158,1159,1160,1161,1162,1163,1164,1165,1166,1167,1168,1169,1170,1171,1172,1173,1174,1175,1176,1177,1178,1179,1180,1181,1182,1183,1184,1185,1186,1187,1188,1189,1190,1191,1192,1193,1194,1195,1196,1197,1198,1199,1200,1201,1202,1203,1204,1205,1206,1207,1208,1209,1210,1211,1212,1213,1214,1215,1216,1217,1218,1219,1220,1221,1222,1223,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3224,3225,3226,3227,3228,3229,3230,3231,3232,3233,3234,3235,3236,3237,3238,3239,3240,3241,3242,3243,3244,3245,3246,3247,3248,3249,3250,3251,3252,3253,3254,3255,3256,3257,3258,3259,3260,3261,3262,3263,3264,3265,3266,3267,3268,3269,3270,3271,3272,3273,3274,3275,3276,3277,3278,3279,3280,3281,3282,3283,3284,3285,3286,3287,3288,3289,3290,3291,3292,3293,3294,3295,3296,3297,3298,3299,3300,3301,3302,3303,3304,3305,3306,3307,3308,3309,3310,3311,3312,3313,3314,3315,3316,3317,3318,3319,3320,3321,3322,3323,3324,3325,3326,3327,3328,3329,3330,3331,3332,3333,3334,3335,3336,3337,3338,3339,3340,3341,3342,3343,3344,3345,3346,3347,3348,3349,3350,3351,3352,3353,3354,3355,3356,3357,3358,3359,3360,3361,3362,3363,3364,3365,3366,3367,3368,3369,3370,3371,3372,3373,3374,3375,3376,3377,3378,3379,3380,3381,3382,3383,3384,3385,3386,3387,3388,3389,3390,3391,3392,3393,3394,3395,3396,3397,3398,3399,3400,3401,3402,3403,3404,3405,3406,3407,3408,3409,3410,3411,3412,3413,3414,3415,3416,3417,3418,3419,3420,3421,3422,3423,3424,3425,3426,3427,3428,3429,3430,3431,3432,3433,3434,3435,3436,3437,3438,3439,3440,3441,3442,3443,3444,3445,3446,3447,3448,3449,3450,3451,3452,3453,3454,3455,3456,3457,3458,3459,3460,3461,3462,3463,3464,3465,3466,3467,3468,3469,3470,3471,3472,3473,3474,3475,3476,3477,3478,3479,3480,3481,3482,3483,3484,3485,3486,3487,3488,3489,3490,3491,3492,3493,3494,3495,3496,3497,3498,3499,3500,3501,3502,3503,3504,3505,3506,3507,3508,3509,3510,3511,3512,3513,3514,3515,3516,3517,3518,3519,3520,3521,3522,3523,3524,3525,3526,3527,3528,3529,3530,3531,3532,3533,3534,3535,3536,3537,3538,3539,3540,3541,3542,3543,3544,3545,3546,3547,3548,3549,3550,3551,3552,3553,3554,3555,3556,3557,3558,3559,3560,3561,3562,3563,3564,3565,3566,3567,3568,3569,3570,3571,3572,3573,3574,3575,3576,3577,3578,3579,3580,3581,3582,3583,3584,3585,3586,3587,3588,3589,3590,3591,3592,3593,3594,3595,3596,3597,3598,3599,3600,3601,3602,3603,3604,3605,3606,3607,3608,3609,3610,3611,3612,3613,3614,3615,3616,3617,3618,3619,3620,3621,3622,3623,3624,3625,3626,3627,3628,3629,3630,3631,3632,3633,3634,3635,3636,3637,3638,3639,3640,3641,3642,3643,3644,3645,3646,3647,3648,3649,3650,3651,3652,3653,3654,3655,3656,3657,3658,3659,3660,3661,3662,3663,3664,3665,3666,3667,3668,3669,3670,3671,3672,3673,3674,3675,3676,3677,3678,3679,3680,3681,3682,3683,3684,3685,3686,3687,3688,3689,3690,3691,3692,3693,3694,3695,3696,3697,3698,3699,3700,3701,3702,3703,3704,3705,3706,3707,3708,3709,3710,3711,3712,3713,3714,3715,3716,3717,3718,3719,3720,3721,3722,3723,3724,3725,3726,3727,3728,3729,3730,3731,3732,3733,3734,3735,3736,3737,3738,3739,3740,3741,3742,3743,3744,3745,3746,3747,3748,3749,3750,3751,3752,3753,3754,3755,3756,3757,3758,3759,3760,3761,3762,3763,3764,3765,3766,3767,3768,3769,3770,3771,3772,3773,3774,3775,3776,3777,3778,3779,3780,3781,3782,3783,3784,3785,3786,3787,3788,3789,3790,3791,3792,3793,3794,3795,3796,3797,3798,3799,3800,3801,3802,3803,3804,3805,3806,3807,3808,3809,3810,3811,3812,3813,3814,3815,3816,3817,3818,3819,3820,3821,3822,3823,3824,3825,3826,3827,3828,3829,3830,3831,3832,3833,3834,3835,3836,3837,3838,3839,3840,3841,3842,3843,3844,3845,3846,3847,3848,3849,3850,3851,3852,3853,3854,3855,3856,3857,3858,3859,3860,3861,3862,3863,3864,3865,3866,3867,3868,3869,3870,3871,3872,3873,3874,3875,3876,3877,3878,3879,3880,3881,3882,3883,3884,3885,3886,3887,3888,3889,3890,3891,3892,3893,3894,3895,3896,3897,3898,3899,3900,3901,3902,3903,3904,3905,3906,3907,3908,3909,3910,3911,3912,3913,3914,3915,3916,3917,3918,3919,3920,3921,3922,3923,3924,3925,3926,3927,3928,3929,3930,3931,3932,3933,3934,3935,3936,3937,3938,3939,3940,3941,3942,3943,3944,3945,3946,3947,3948,3949,3950,3951,3952,3953,3954,3955,3956,3957,3958,3959,3960,3961,3962,3963,3964,3965,3966,3967,3968,3969,3970,3971,3972,3973,3974,3975,3976,3977,3978,3979,3980,3981,3982,3983,3984,3985,3986,3987,3988,3989,3990,3991,3992,3993,3994,3995,3996,3997,3998,3999,4000,4001,4002,4003,4004,4005,4006,4007,4008,4009,4010,4011,4012,4013,4014,4015,4016,4017,4018,4019,4020,4021,4022,4023,4024,4025,4026,4027,4028,4029,4030,4031,4032,4033,4034,4035,4036,4037,4038,4039,4040,4041,4042,4043,4044,4045,4046,4047,4048,4049,4050,4051,4052,4053,4054,4055,4056,4057,4058,4059,4060,4061,4062,4063,4064,4065,4066,4067,4068,4069,4070,4071,4072,4073,4074,4075,4076,4077,4078,4079,4080,4081,4082,4083,4084,4085,4086,4087,4088,4089,4090,4091,4092,4093,4094,4095,4096,4097,4098,4099,4100,4101,4102,4103,4104,4105,4106,4107,4108,4109,4110,4111,4112,4113,4114,4115,4116,4117,4118,4119,4120,4121,4122,4123,4124,4125,4126,4127,4128,4129,4130,4131,4132,4133,4134,4135,4136,4137,4138,4139,4140,4141,4142,4143,4144,4145,4146,4147,4148,4149,4150,4151,4152,4153,4154,4155,4156,4157,4158,4159,4160,4161,4162,4163,4164,4165,4166,4167,4168,4169,4170,4171,4172,4173,4174,4175,4176,4177,4178,4179,4180,4181,4182,4183,4184,4185,4186,4187,4188,4189,4190,4191,4192,4193,4194,4195,4196,4197,4198,4199,4200,4201,4202,4203,4204,4205,4206,4207,4208,4209,4210,4211,4212,4213,4214,4215,4216,4217,4218,4219,4220,4221,4222,4223,4224,4225,4226,4227,4228,4229,4230,4231,4232,4233,4234,4235,4236,4237,4238,4239,4240,4241,4242,4243,4244,4245,4246,4247,4248,4249,4250,4251,4252,4253,4254,4255,4256,4257,4258,4259,4260,4261,4262,4263,4264,4265,4266,4267,4268,4269,4270,4271,4272,4273,4274,4275,4276,4277,4278,4279,4280,4281,4282,4283,4284,4285,4286,4287,4288,4289,4290,4291,4292,4293,4294,4295,4296,4297,4298,4299,4300,4301,4302,4303,4304,4305,4306,4307,4308,4309,4310,4311,4312,4313,4314,4315,4316,4317,4318,4319,4320,4321,4322,4323,4324,4325,4326,4327,4328,4329,4330,4331,4332,4333,4334,4335,4336,4337,4338,4339,4340,4341,4342,4343,4344,4345,4346,4347,4348,4349,4350,4351,4352,4353,4354,4355,4356,4357,4358,4359,4360,4361,4362,4363,4364,4365,4366,4367,4368,4369,4370,4371,4372,4373,4374,4375,4376,4377,4378,4379,4380,4381,4382,4383,4384,4385,4386,4387,4388,4389,4390,4391,4392,4393,4394,4395,4396,4397,4398,4399,4400,4401,4402,4403,4404,4405,4406,4407,4408,4409,4410,4411,4412,4413,4414,4415,4416,4417,4418,4419,4420,4421,4422,4423,4424,4425,4426,4427,4428,4429,4430,4431,4432,4433,4434,4435,4436,4437,4438,4439,4440,4441,4442,4443,4444,4445,4446,4447,4448,4449,4450,4451,4452,4453,4454,4455,4456,4457,4458,4459,4460,4461,4462,4463,4464,4465,4466,4467,4468,4469,4470,4471,4472,4473,4474,4475,4476,4477,4478,4479,4480,4481,4482,4483,4484,4485,4486,4487,4488,4489,4490,4491,4492,4493,4494,4495,4496,4497,4498,4499,4500,4501,4502,4503,4504,4505,4506,4507,4508,4509,4510,4511,4512,4513,4514,4515,4516,4517,4518,4519,4520,4521,4522,4523,4524,4525,4526,4527,4528,4529,4530,4531,4532,4533,4534,4535,4536,4537,4538,4539,4540,4541,4542,4543,4544,4545,4546,4547,4548,4549,4550,4551,4552,4553,4554,4555,4556,4557,4558,4559,4560,4561,4562,4563,4564,4565,4566,4567,4568,4569,4570,4571,4572,4573,4574,4575,4576,4577,4578,4579,4580,4581,4582,4583,4584,4585,4586,4587,4588,4589,4590,4591,4592,4593,4594,4595,4596,4597,4598,4599,4600,4601,4602,4603,4604,4605,4606,4607,4608,4609,4610,4611,4612,4613,4614,4615,4616,4617,4618,4619,4620,4621,4622,4623,4624,4625,4626,4627,4628,4629,4630,4631,4632,4633,4634,4635,4636,4637,4638,4639,4640,4641,4642,4643,4644,4645,4646,4647,4648,4649,4650,4651,4652,4653,4654,4655,4656,4657,4658,4659,4660,4661,4662,4663,4664,4665,4666,4667,4668,4669,4670,4671,4672,4673,4674,4675,4676,4677,4678,4679,4680,4681,4682,4683,4684,4685,4686,4687,4688,4689,4690,4691,4692,4693,4694,4695,4696,4697,4698,4699,4700,4701,4702,4703,4704,4705,4706,4707,4708,4709,4710,4711,4712,4713,4714,4715,4716,4717,4718,4719,4720,4721,4722,4723,4724,4725,4726,4727,4728,4729,4730,4731,4732,4733,4734,4735,4736,4737,4738,4739,4740,4741,4742,4743,4744,4745,4746,4747,4748,4749,4750,4751,4752,4753,4754,4755,4756,4757,4758,4759,4760,4761,4762,4763,4764,4765,4766,4767,4768,4769,4770,4771,4772,4773,4774,4775,4776,4777,4778,4779,4780,4781,4782,4783,4784,4785,4786,4787,4788,4789,4790,4791,4792,4793,4794,4795,4796,4797,4798,4799,4800,4801,4802,4803,4804,4805,4806,4807,4808,4809,4810,4811,4812,4813,4814,4815,4816,4817,4818,4819,4820,4821,4822,4823,4824,4825,4826,4827,4828,4829,4830,4831,4832,4833,4834,4835,4836,4837,4838,4839,4840,4841,4842,4843,4844,4845,4846,4847,4848,4849,4850,4851,4852,4853,4854,4855,4856,4857,4858,4859,4860,4861,4862,4863,4864,4865,4866,4867,4868,4869,4870,4871,4872,4873,4874,4875,4876,4877,4878,4879,4880,4881,4882,4883,4884,4885,4886,4887,4888,4889,4890,4891,4892,4893,4894,4895,4896,4897,4898,4899,4900,4901,4902,4903,4904,4905,4906,4907,4908,4909,4910,4911,4912,4913,4914,4915,4916,4917,4918,4919,4920,4921,4922,4923,4924,4925,4926,4927,4928,4929,4930,4931,4932,4933,4934,4935,4936,4937,4938,4939,4940,4941,4942,4943,4944,4945,4946,4947,4948,4949,4950,4951,4952,4953,4954,4955,4956,4957,4958,4959,4960,4961,4962,4963,4964,4965,4966,4967,4968,4969,4970,4971,4972,4973,4974,4975,4976,4977,4978,4979,4980,4981,4982,4983,4984,4985,4986,4987,4988,4989,4990,4991

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
WO	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
12" SD	PROPOSED STORM DRAIN PIPE
8" S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113	1/12/11

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 1/9/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14
Chief, Development Engineering Division — Date 2.10.14
Director - Department of Planning and Zoning — Date 2/14/14

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, III & IV LOTS 5,12-39,44-86,88-165 & 172-228 PHASES IV & V UNITS 93-119,153-161,196-200 & 237-239

PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 36 OF 100

SDP-09-039

C:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sheet 34-41 Sd Da Map.dwg, Sheet 36, 1/9/2014 4:18:27 PM, 1:1

SOIL CLASSIFICATION

Soil Sym.	Name	HYDROLOGIC GROUP
* Ba	Baile silt loam	D
BrB2	Beltsville silt loam	C
BrC2	Beltsville silt loam	C
BrC3	Beltsville silt loam	C
BrD2	Beltsville silt loam	C
BrF	Brandywine loam	C
ChA	Chester silt loam	B
ChB2	Chester silt loam	B
ChC2	Chester silt loam	B
ChC3	Chester silt loam	B
CgC2	Chester silt loam	B
** Co	Codorus silt loam	C
** CuB	Comus silt loam	B
** DeA	Delanco silt loam	C
** DeB2	Delanco silt loam	C
EkB2	Elioak silt loam	B
E1C3	Elioak silty clay loam	B
E1D3	Elioak silty clay loam	B
EnB2	Elsinboro loam	B
EnC2	Elsinboro loam	B
GlA	Glenelg loam	B
GlB2	Glenelg loam	B
GlC2	Glenelg loam	B
GlC3	Glenelg loam	B
GlD2	Glenelg loam	B
GlD3	Glenelg loam	B
** GnA	Glenville silt loam	C
** GnB2	Glenville silt loam	C
* Ha	Hatboro silt loam	D
* Kn	Kinkora silt loam	D
MgB2	Manor gravelly loam	B
MgC2	Manor gravelly loam	B
MlA	Manor loam	B
MlB2	Manor loam	B
MlC2	Manor loam	B
MlC3	Manor loam	B
MlD2	Manor loam	B
MlD3	Manor loam	B
MlE	Manor loam	B

* HYDRIC SOILS
** SOILS SUBJECT TO HYDRIC CONDITIONS

SOILS MAP - Pg 8 & Pg 9

MATCH LINE SEE SHEET 39

MATCH LINE SEE SHEET 36

MATCH LINE SEE SHEET 35

LEGEND

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	PROPOSED CONTOUR 2' INTERVAL
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	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8" S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

SCALE
1"=50'

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

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Director - Department of Planning and Zoning — Date 2/14/14

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCELS D, PARCEL V LOTS 5, 12 THRU 20, 44 THRU 60, 80 THRU 102, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE HEREON NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

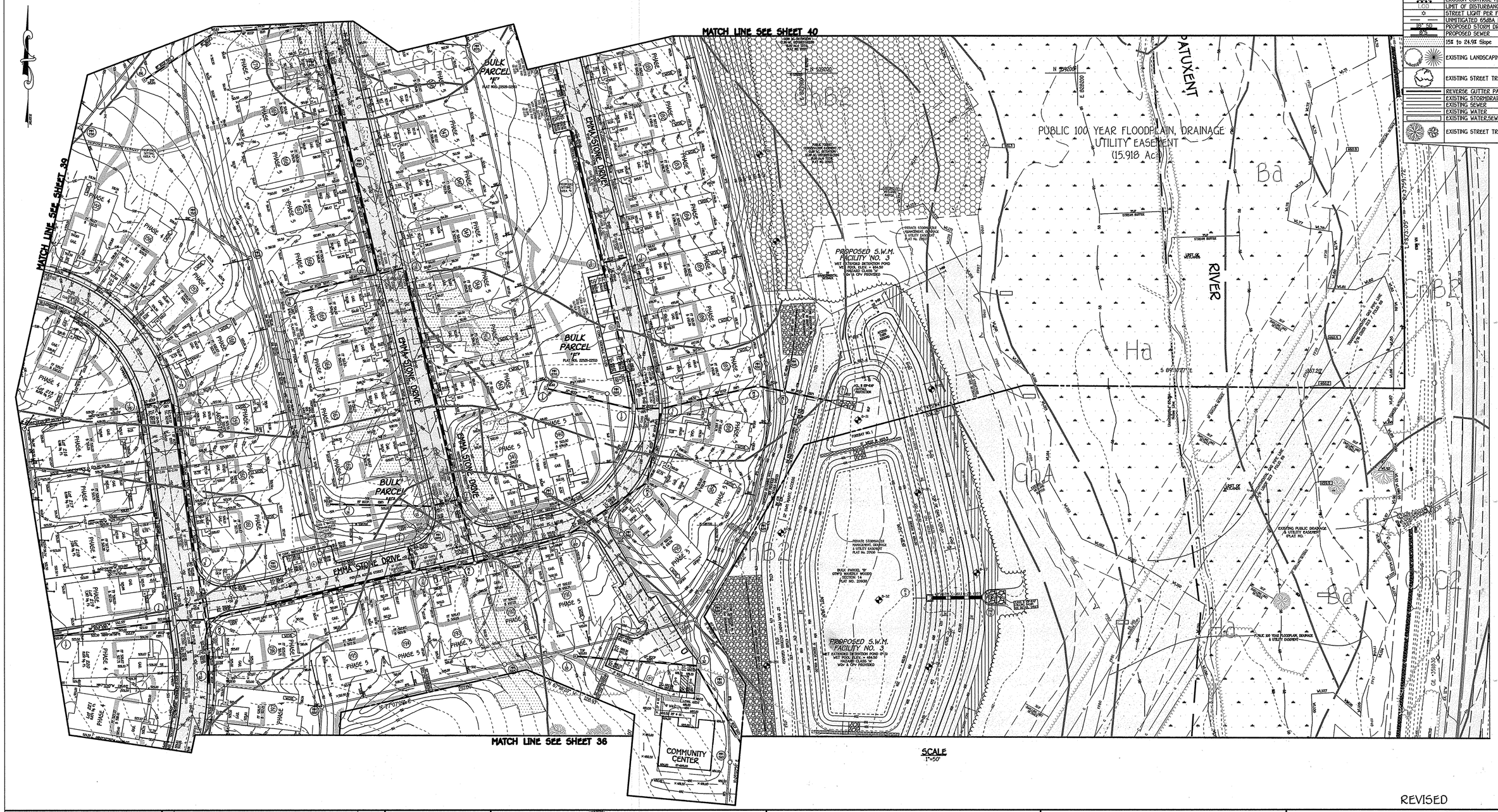
PHASES II, THRU V LOTS 5, 12 THRU 20, 44 THRU 60, 80 THRU 102, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 37 OF 100

SDP-09-039

J:\SDSKPROJ\13070 GTW WEST\dwg\Construction Documents\Redline Phase 1 Fee Simple 60 Lots\Construction Document - 30770 Sheet 34-41 Sd Da Map.dwg, Sheet 37, 1/9/2014 4:16:08 PM, 1:1



LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
10" SD	PROPOSED STORM DRAIN PIPE
8" S	PROPOSED SEWER
	15± to 24.9± Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REVISED TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V-TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 1/9/14 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14

Chief, Development Engineering Division — Date 2.10.14

Director - Department of Planning and Zoning — Date 2/11/14

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 5, 12 THRU 33, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 389

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

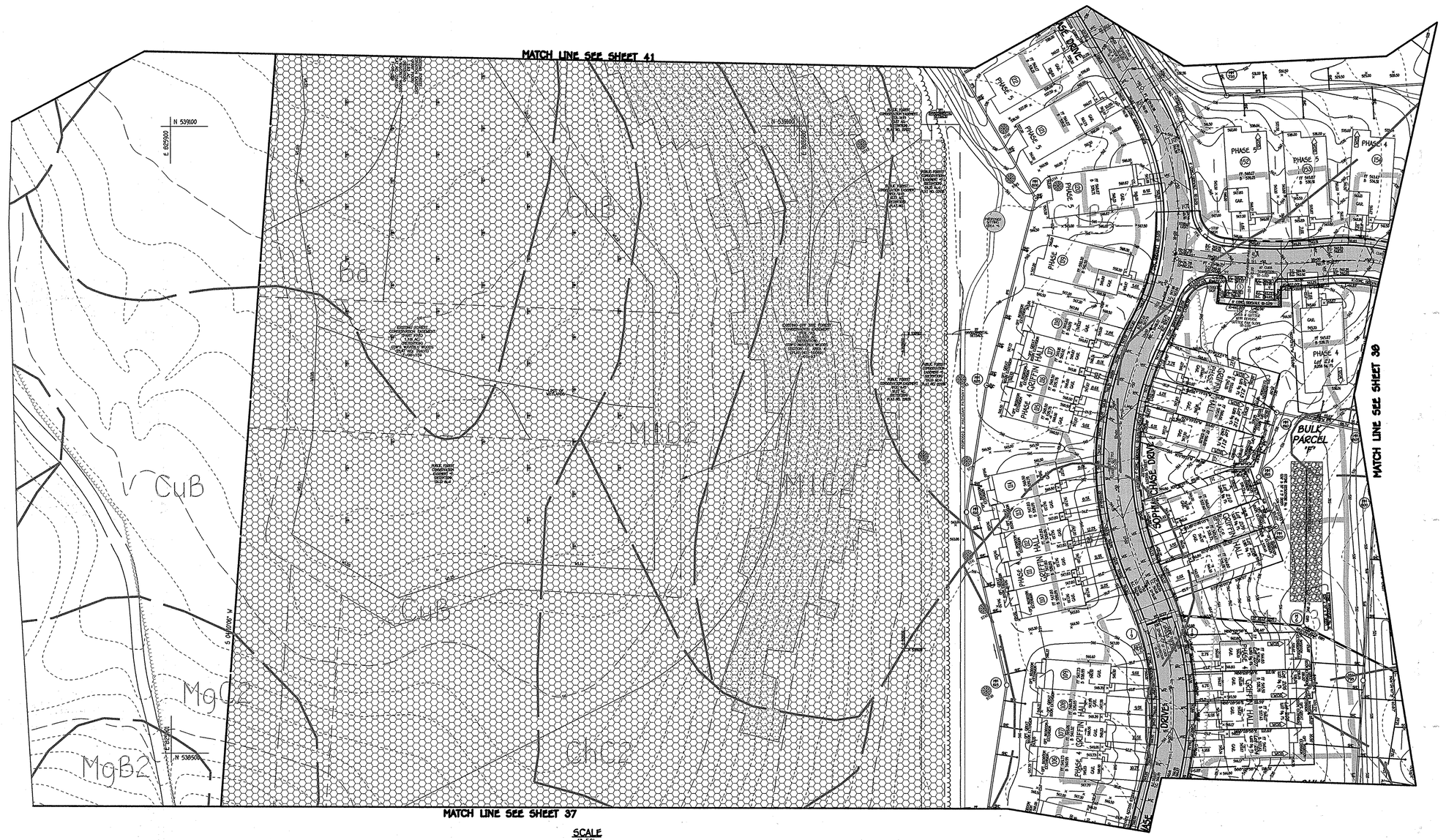
PHASE II, THRU V LOTS 5, 12 THRU 33, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 389

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 38 OF 100

SDP-09-039

I:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sheet 34-41 Sd Da Map.dwg, Sheet 38, 1/9/2014 4:22:17 PM, 1:1



SCALE
1"=50'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOD	WALKOUT BASEMENT
-SF- SF-	SILT FENCE
-SSF- SSF-	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 11/9/14

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 2/18/14
Chief, Development Engineering Division — Date 2.10.14
Director - Department of Planning and Zoning — Date 2/18/14

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PARCEL "E" ON PLAT 15015 & 15016

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE REVISION NOTE #19	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II THRU V LOTS 9, 12 THRU 30, 44 THRU 86, 88 THRU 168, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 39 OF 100

SDP-09-039

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LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
WO	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
ESC	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
70 dBA	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8" S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

MATCH LINE SEE SHEET 41

MATCH LINE SEE SHEET 30

SCALE
1"=50'

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/19/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/20/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCELS 'I', 'J' & 'K' LOTS 1, 12 THRU 39, 44 THRU 86, 88 THRU 169, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #191	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED
DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCELS 'I', 'J' & 'K' LOTS 1, 12 THRU 39, 44 THRU 86, 88 THRU 169, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 40 OF 100

SDP-09-039

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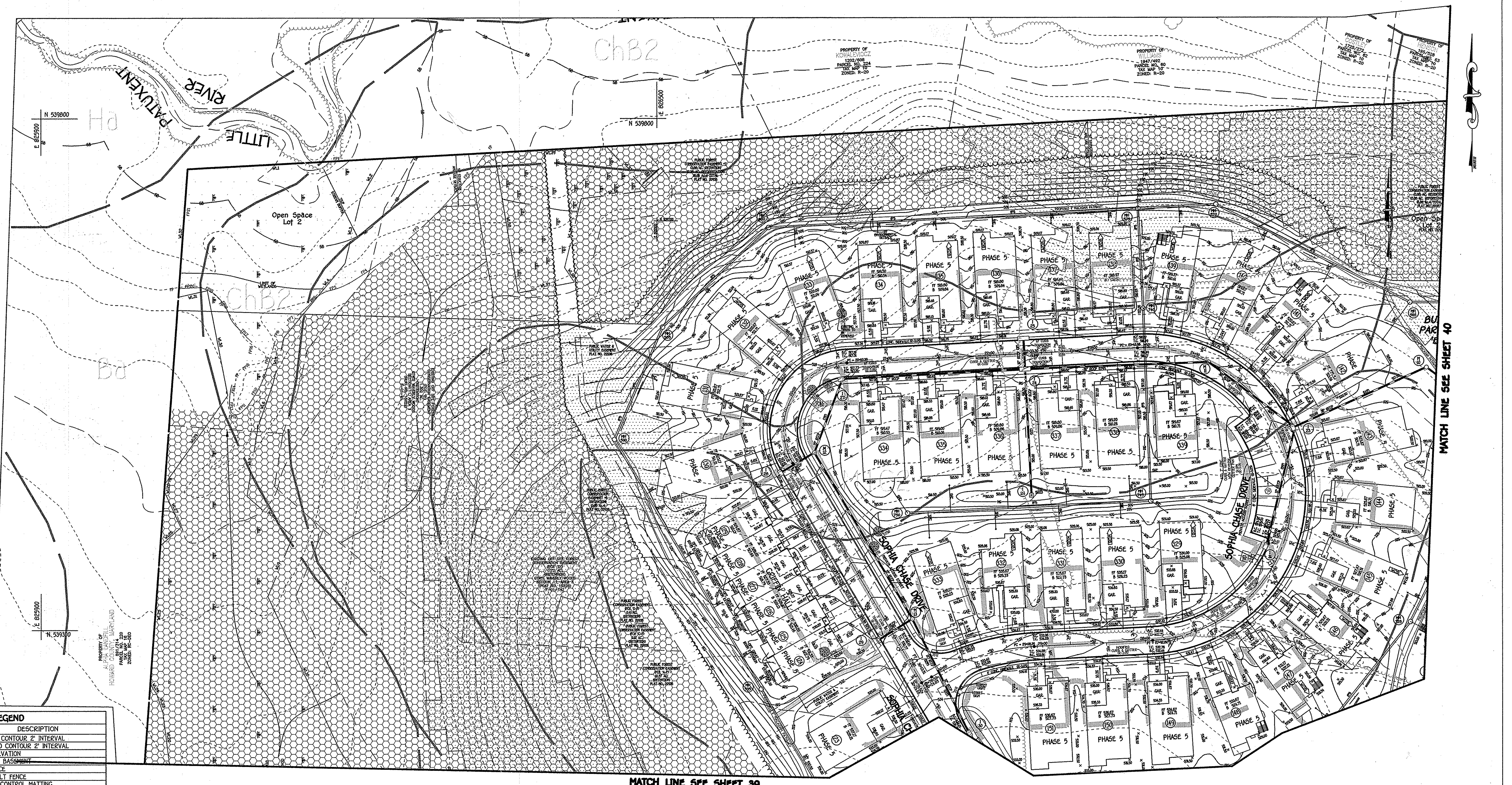
STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE NUMBER	AREA	'C'	ZONED	% IMP.
I-1	0.75 AC.	0.71	PSC	65%
I-2	0.72 AC.	0.57	PSC	45%
I-3	0.78 AC.	0.57	PSC	45%
I-4	0.25 AC.	0.71	PSC	65%
I-5	0.31 AC.	0.71	PSC	65%
I-6	1.43 AC.	0.71	PSC	65%
I-7	4.60 AC.	0.46	PSC	30%
I-8	1.09 AC.	0.71	PSC	65%
I-9	1.38 AC.	0.71	PSC	65%
I-10	0.55 AC.	0.71	PSC	65%
I-11	0.89 AC.	0.71	PSC	65%
I-12	0.29 AC.	0.71	PSC	65%
I-13	0.35 AC.	0.71	PSC	65%
I-14	1.22 AC.	0.45	PSC	28%
I-15	0.78 AC.	0.40	PSC	22%
I-16	2.25 AC.	0.40	PSC	21%
I-17	1.19 AC.	0.44	PSC	27%
I-18	0.41 AC.	0.71	PSC	65%
I-19	0.38 AC.	0.71	PSC	65%
I-20	0.67 AC.	0.71	PSC	65%
I-21	0.36 AC.	0.71	PSC	65%
I-22	0.48 AC.	0.71	PSC	65%
I-23	0.71 AC.	0.71	PSC	65%
I-24	0.70 AC.	0.71	PSC	65%
I-25	1.10 AC.	0.71	PSC	65%
I-26	1.39 AC.	0.71	PSC	65%
I-27	0.54 AC.	0.44	PSC	27%
I-28	0.33 AC.	0.71	PSC	65%
I-29	0.51 AC.	0.71	PSC	65%
I-30	0.15 AC.	0.94	PSC	98%
I-31	0.29 AC.	0.71	PSC	65%
I-32	0.44 AC.	0.71	PSC	65%
I-33	0.73 AC.	0.71	PSC	65%
I-34	0.22 AC.	0.71	PSC	65%
I-35	0.20 AC.	0.71	PSC	65%
I-36	0.69 AC.	0.71	PSC	65%
I-37	0.55 AC.	0.71	PSC	65%
I-38	0.69 AC.	0.71	PSC	65%
I-39	0.53 AC.	0.71	PSC	65%
I-40	0.38 AC.	0.81	PSC	80%
I-41	0.49 AC.	0.71	PSC	65%
I-42	0.51 AC.	0.71	PSC	65%
I-43	0.56 AC.	0.71	PSC	65%
I-44	0.92 AC.	0.51	PSC	37%
I-45	0.71 AC.	0.71	PSC	65%
I-46	0.69 AC.	0.71	PSC	65%
I-47	0.86 AC.	0.71	PSC	65%
I-48	1.01 AC.	0.52	PSC	38%
I-49	1.47 AC.	0.71	PSC	65%
I-50	1.04 AC.	0.60	PSC	50%
I-51	0.47 AC.	0.46	PSC	30%
I-52	0.33 AC.	0.71	PSC	65%
I-53	0.34 AC.	0.71	PSC	65%
I-54	0.42 AC.	0.71	PSC	65%
I-55	0.10 AC.	0.94	PSC	98%
I-56	0.82 AC.	0.46	PSC	30%
I-57	0.43 AC.	0.71	PSC	65%
I-58	0.42 AC.	0.71	PSC	65%
I-59	0.86 AC.	0.71	PSC	65%
I-60	1.17 AC.	0.71	PSC	65%
I-61	0.53 AC.	0.46	PSC	30%
I-62	1.96 AC.	0.50	PSC	35%
I-63	0.39 AC.	0.71	PSC	65%
I-64	0.88 AC.	0.71	PSC	65%
I-65	0.83 AC.	0.43	PSC	25%
I-66	0.48 AC.	0.71	PSC	65%
I-67	0.63 AC.	0.71	PSC	65%
I-68	0.43 AC.	0.71	PSC	65%
I-69	0.38 AC.	0.71	PSC	65%
I-70	1.27 AC.	0.59	PSC	49%
I-71	0.08 AC.	0.87	PSC	88%
I-72	0.08 AC.	0.87	PSC	88%
I-73	0.10 AC.	0.25	PSC	0%
I-74	2.27 AC.	0.38	PSC	19%
I-75	0.65 AC.	0.80	PSC	78%
I-76	0.39 AC.	0.80	PSC	79%
I-77	0.19 AC.	0.73	PSC	68%
I-78	0.57 AC.	0.75	PSC	72%
I-79	0.30 AC.	0.79	PSC	77%
I-80	0.34 AC.	0.87	PSC	88%
I-81	0.34 AC.	0.66	PSC	59%
I-82	0.45 AC.	0.82	PSC	82%
I-83	0.27 AC.	0.80	PSC	78%
I-84	0.18 AC.	0.87	PSC	89%
I-85	0.33 AC.	0.85	PSC	85%
I-86	1.28 AC.	0.80	PSC	21%
S-4	3.77 AC.	0.85	PSC	85%



MATCH LINE SEE SHEET 40

MATCH LINE SEE SHEET 39

LEGEND

SYMBOL	DESCRIPTION
- - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☆	STREET LIGHT PER F-09-057
— —	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

SCALE
1"=50'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PHASES II, THRU V LOTS 5, 12-39, 44-86, 88-105, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

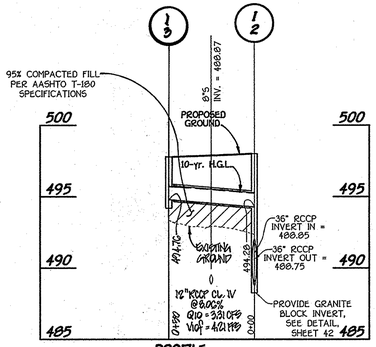
DRAINAGE AREA MAP/SOILS MAP

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

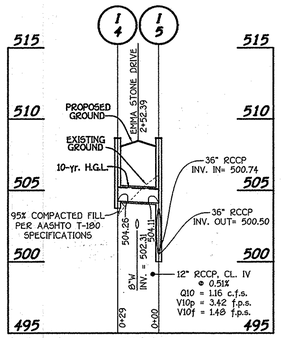
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 41 OF 100

SDP-09-039

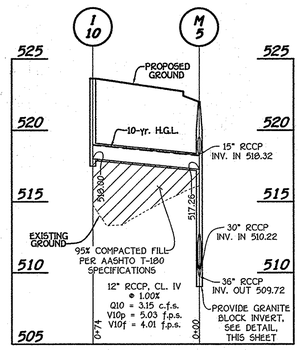
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 34-41 Sd Da Map.dwg, Sheet 41, 11/14/2012 8:56:44 AM, 1:1



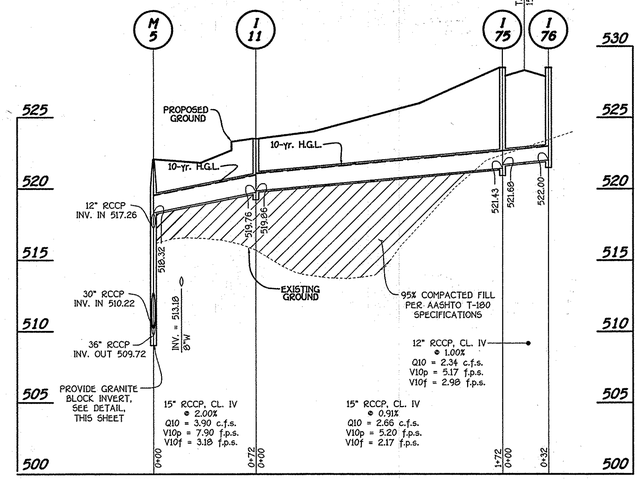
PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



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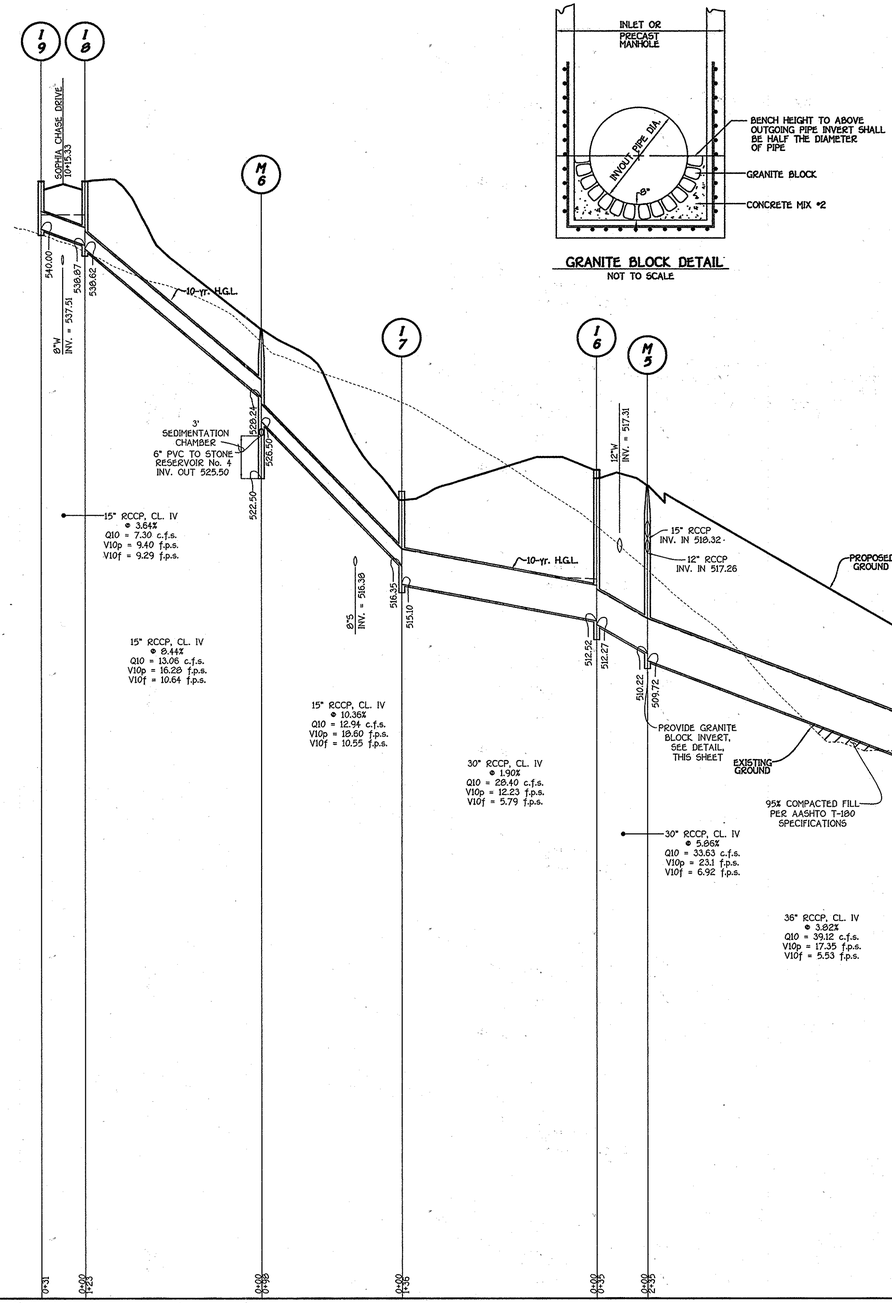

PROFILE
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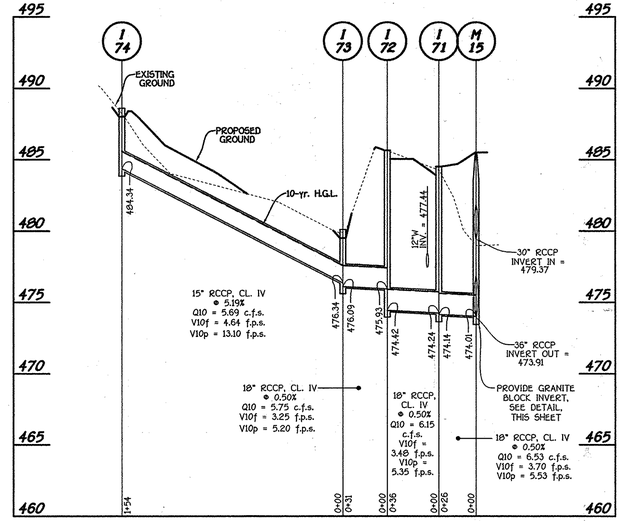


PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

GRANITE BLOCK DETAIL
NOT TO SCALE

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	UPDATE STORM DRAINS	9/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SHEETS 039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — 9757 — REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/10/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT		SECTION		PARCEL NO. 'E' PHASES II, III & V
GTW'S WAVERLY WOODS		14		LOTS 1 TO 22, 44 TO 86, 88 TO 103, 176 TO 201 & 240 TO 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

STORM DRAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 1, 12 THRU 22, 44 THRU 86, 88 THRU 103, 176 THRU 201 & 240 THRU 309

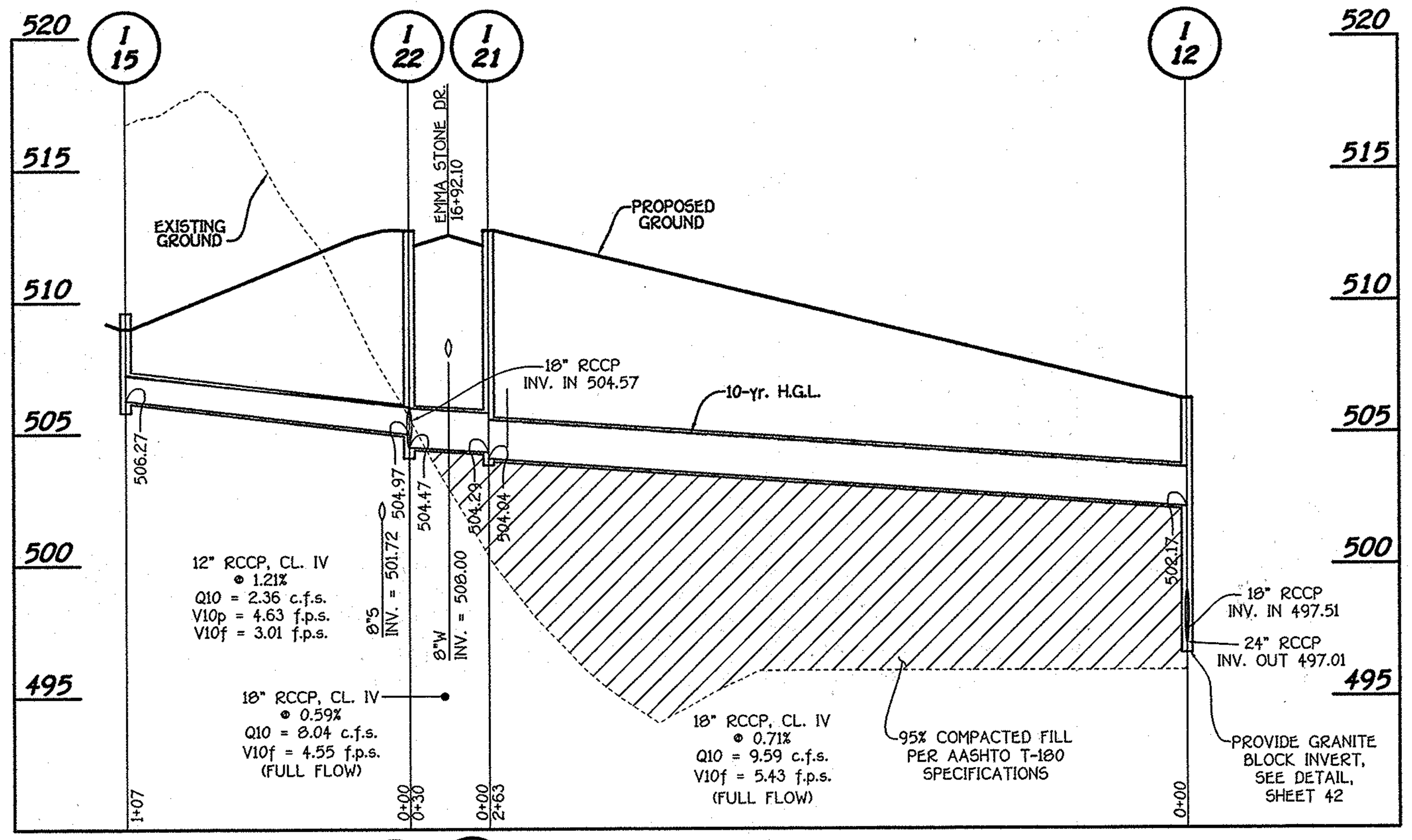
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 42 OF 100

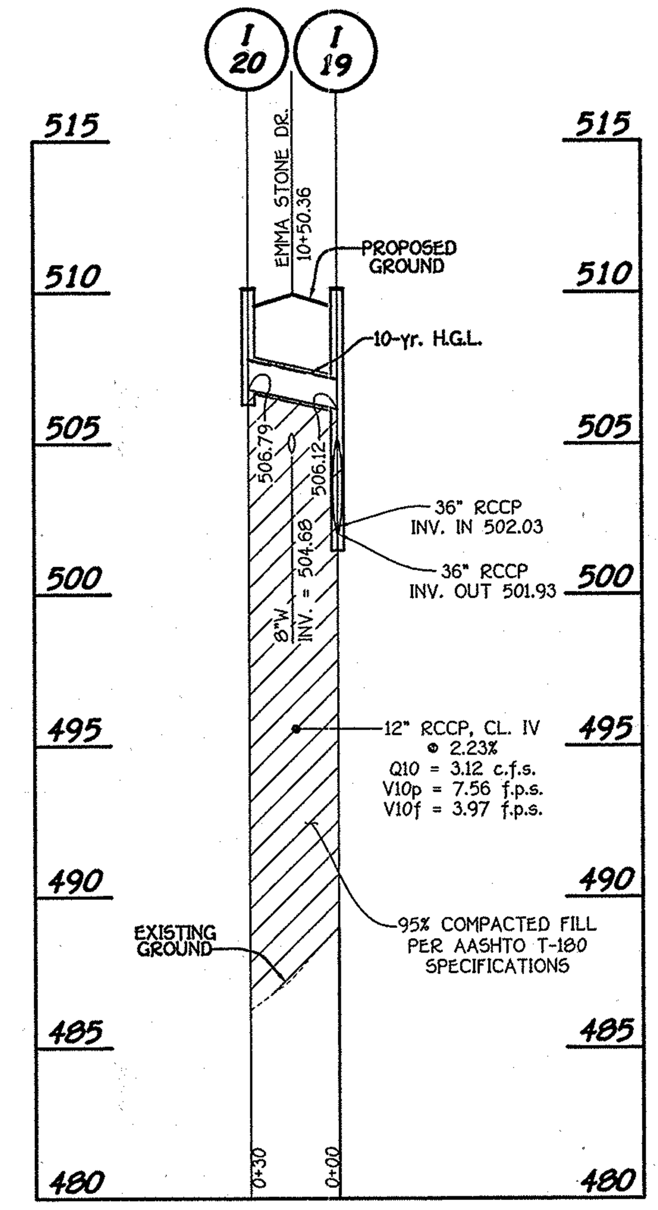
SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 42, 11/14/2012 11:57:25 AM, 1:1

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 43, 11/14/2012 11:57:58 AM, 1:1



PROFILE
SCALE: HORZ. 1" = 50' VERT. 1" = 5'



PROFILE
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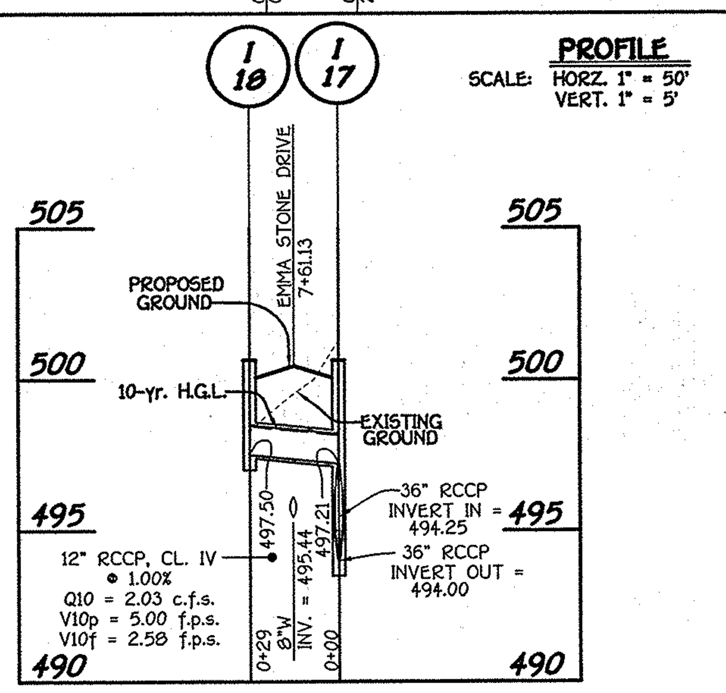


PROFILE
SCALE: HORZ. 1" = 50' VERT. 1" = 5'

PIPE SCHEDULE (PRIVATE)

SIZE	CLASS	LENGTH
12"	RCCP, CL. IV.	1519
15"	RCCP, CL. IV.	2568
18"	RCCP, CL. IV.	2234'
24"	RCCP, CL. IV.	1057'
30"	RCCP, CL. IV.	414'
36"	RCCP, CL. IV.	3567

NOTE: RCCP, CL. IV MAY BE SUBSTITUTED WITH HDPE PIPE MATERIAL.

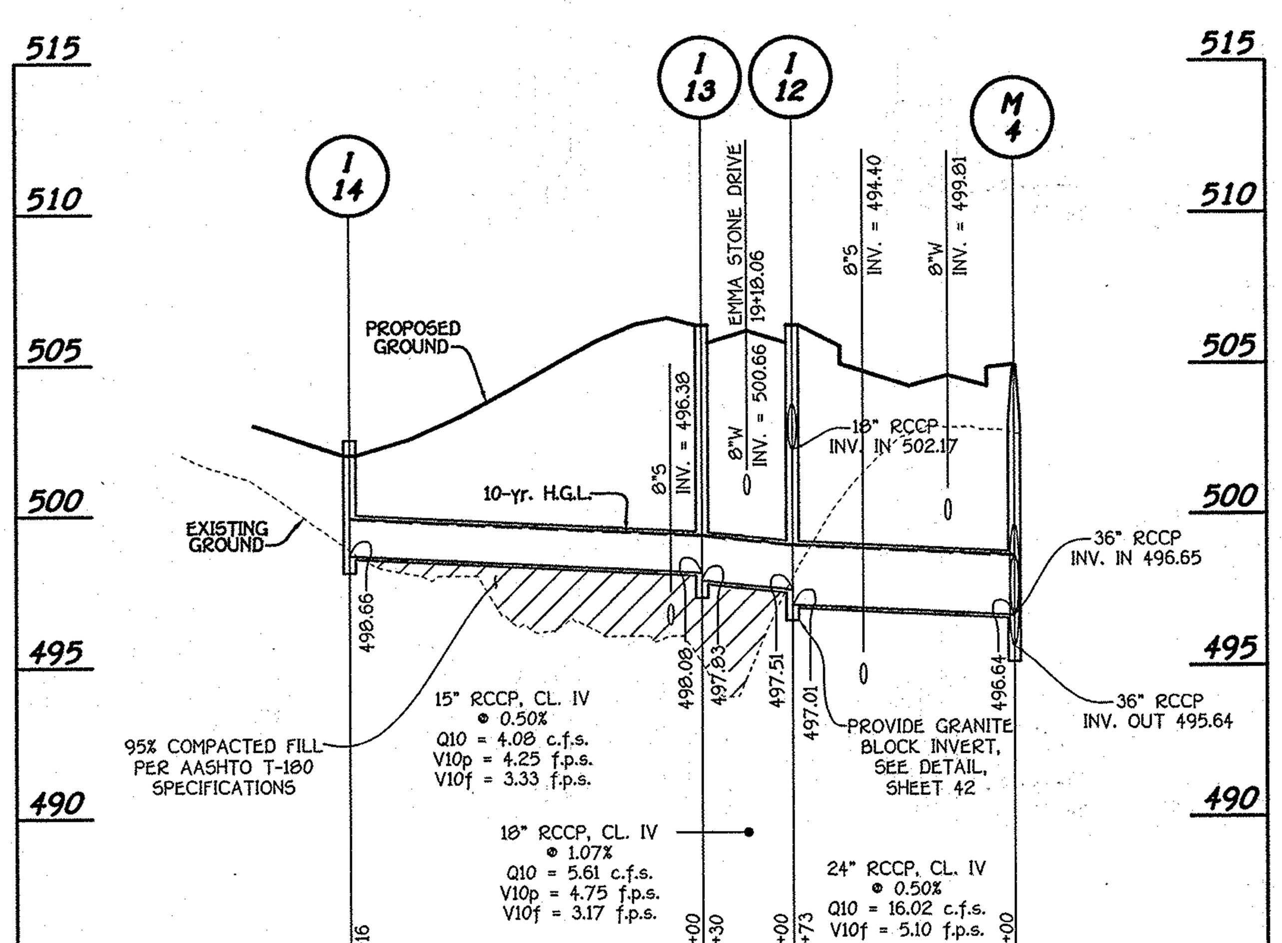
STRUCTURE SCHEDULE (PRIVATE)

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	ROAD STA./ COORDINATE	OFFSET	TYPE & WIDTH	REMARKS
I-1	498.04	488.60 (36"), 491.30 (36")	488.50 (36")	EMMA STONE DRIVE	5+92.81	13.0' R	A-10 W = 4.0'	D - 4.03
I-2	498.04	488.85 (36"), 494.28 (12")	488.75 (36")	EMMA STONE DRIVE	5+92.81	13.0' L	A-10 W = 4.0'	D - 4.03
I-3	* 497.46	----	494.76 (12")	N 538841.77 E 827683.02	----	----	'D' INLET W = 2.5'	D - 4.10
I-4	508.65	----	504.26 (12")	EMMA STONE DRIVE	2+52.39	13.0' L	A-5 W = 2.5'	D - 4.01
I-5	508.65	504.11 (12"), 500.74 (36")	500.50 (36")	EMMA STONE DRIVE	2+52.39	13.0' R	A-5 W = 4.0'	D - 4.01
I-6	522.89	512.52 (30")	512.27 (30")	TALL TANNER WAY	13+00.54	14.0' L	A-10 W = 2.5'	D - 4.03
I-7	* 521.00	516.35 (15")	515.10 (30")	N 538577.84 E 827068.43	----	----	'D' INLET W = 4.0'	D - 4.10
I-8	543.01	538.87 (15")	538.62 (15")	SOPHIA CHASE DRIVE	10+15.33	13.0' R	A-10 W = 2.5'	D - 4.03
I-9	543.01	----	540.00 (15")	SOPHIA CHASE DRIVE	10+15.33	13.0' L	A-10 W = 2.5'	D - 4.03
I-10	523.62	----	518.00 (12")	TALL TANNER WAY	12+22.28	14.0' R	A-10 W = 2.5'	D - 4.03
I-11	523.51	519.86 (15")	519.76 (15")	TALL TANNER WAY	13+68.41	14.0' R	A-10 W = 2.5'	D - 4.03
I-12	506.28	502.17 (18"), 497.51 (18")	497.01 (24")	EMMA STONE DRIVE	19+55.22	13.0' L	A-5 W = 3.0'	D - 4.01
I-13	506.28	498.08 (15")	497.83 (18")	EMMA STONE DRIVE	19+55.22	13.0' R	A-5 W = 2.5'	D - 4.01
I-14	* 502.00	----	498.66 (15")	N 538732.55 E 827370.98	----	----	'D' INLET W = 2.5'	D - 4.10
I-15	* 509.00	----	506.27 (12")	N 538953.74 E 827324.51	----	----	'D' INLET W = 2.5'	D - 4.10
I-16	* 512.00	508.59 (15")	508.38 (18")	N 539244.72 E 827249.59	----	----	'D' INLET W = 2.5'	D - 4.10
I-17	500.67	497.21 (12"), 494.25 (36")	494.00 (36")	EMMA STONE DRIVE	7+61.13	13.0' L	A-5 W = 4.0'	D - 4.01
I-18	500.67	----	497.50 (12")	EMMA STONE DRIVE	7+61.13	13.0' R	A-5 W = 2.5'	D - 4.01
I-19	510.12	502.03 (36"), 506.12 (12")	501.93 (36")	EMMA STONE DRIVE	10+50.36	13.0' L	A-5 W = 4.0'	D - 4.01
I-20	510.12	----	506.79 (12")	EMMA STONE DRIVE	10+50.36	13.0' R	A-5 W = 2.5'	D - 4.01
I-21	512.71	504.29 (18")	504.04 (18")	EMMA STONE DRIVE	16+92.10	13.0' L	A-5 W = 2.5'	D - 4.01
I-22	512.71	504.57 (18"), 504.97 (12")	504.47 (18")	EMMA STONE DRIVE	16+92.10	13.0' R	A-5 W = 2.5'	D - 4.01
I-23	523.70	508.05 (36"), 519.85 (12")	507.95 (36")	SOPHIA CHASE DRIVE	25+14.96	13.0' L	A-5 W = 4.0'	D - 4.01
I-24	516.62	511.82 (12"), 511.02 (15"), 511.35 (18")	509.85 (36")	SOPHIA CHASE DRIVE	21+75.52	13.0' R	A-10 W = 4.0'	D - 4.03
I-25	516.62	----	512.16 (12")	SOPHIA CHASE DRIVE	21+75.52	13.0' L	A-10 W = 2.5'	D - 4.03
I-26	* 515.04	----	511.96 (18")	N 539437.39 E 826806.82	----	----	'D' INLET W = 2.5'	D - 4.10
I-27	517.94	514.21 (15")	513.96 (15")	SOPHIA CHASE DRIVE	20+52.11	13.0' R	A-5 W = 2.5'	D - 4.01
I-28	521.52	----	518.41 (12")	SOPHIA CHASE DRIVE	19+24.67	13.0' L	A-5 W = 2.5'	D - 4.01
I-29	530.31	----	527.10 (12")	SOPHIA CHASE DRIVE	17+35.94	13.0' L	A-5 W = 2.5'	D - 4.01
I-30	537.64	----	532.96 (12")	SOPHIA CHASE DRIVE	16+12.29	13.0' R	A-5 W = 2.5'	D - 4.01
I-31	528.17	----	521.28 (12")	SOPHIA CHASE DRIVE	26+34.14	13.0' R	A-5 W = 2.5'	D - 4.01
I-32	481.51	478.00 (12")	477.75 (15")	N 538544.37 E 827779.12	----	----	A-5 W = 2.5'	D - 4.01
I-33	* 493.00	----	483.49 (12")	N 538555.01 E 827645.69	----	----	'D' INLET W = 2.5'	D - 4.10
I-34	495.49	489.25 (30")	487.56 (30")	TALL TANNER WAY	3+45.65	14.0' R	A-5 W = 3.5'	D - 4.01
I-35	495.49	490.55 (24")	490.05 (30")	TALL TANNER WAY	3+45.65	14.0' L	A-5 W = 3.5'	D - 4.01
I-36	503.35	498.75 (24"), 499.15 (18")	497.15 (24")	GENTLE ROLLING DR.	0+56.33	13.0' L	A-5 W = 2.5'	D - 4.01
I-37	530.91	526.64 (15"), 526.98 (12")	526.39 (15")	GENTLE ROLLING DR.	4+53.06	13.0' L	A-10 W = 2.5'	D - 4.03
I-38	530.91	----	527.50 (12")	GENTLE ROLLING DR.	4+53.06	13.0' R	A-10 W = 2.5'	D - 4.03
I-39	538.51	534.00 (12")	533.75 (15")	ANDERSON HILL ST.	0+54.46	13.0' L	A-5 W = 2.5'	D - 4.01
I-40	538.51	------	534.71 (12")	ANDERSON HILL ST.	0+54.46	13.0' R	A-5 W = 2.5'	D - 4.01
I-41	504.05	499.55 (24")	499.45 (24")	GENTLE ROLLING DR.	0+71.65	13.0' R	A-5 W = 2.5'	D - 4.01
I-42	515.38	----	512.00 (12")	TALL TANNER WAY	5+74.01	14.0' R	A-5 W = 2.5'	D - 4.01
I-43	515.38	511.84 (12"), 511.11 (18")	510.61 (24")	TALL TANNER WAY	5+74.01	14.0' R	A-5 W = 3.0'	D - 4.01
I-44	* 508.54	504.54 (24")	504.44 (24")	TALL TANNER WAY	4+99.39	30.6' L	'D' INLET W = 2.5'	D - 4.10
I-45	528.89	525.20 (12"), 524.84 (18")	524.70 (18")	SOPHIA CHASE DRIVE	0+54.25	13.0' L	A-5 W = 2.5'	D - 4.01
I-46	528.89	----	525.50 (12")	SOPHIA CHASE DRIVE	0+54.25	13.0' R	A-5 W = 2.5'	D - 4.01
I-47	542.62	533.69 (12")	533.19 (18")	SOPHIA CHASE DRIVE	3+11.85	13.0' L	A-10 W = 2.5'	D - 4.03
I-48	* 538.00	----	535.26 (12")	N 537881.15 E 826973.92	----	----	'D' INLET W = 2.5'	D - 4.10
I-49	529.04	523.85 (18")	519.92 (18")	GENTLE ROLLING DR.	13+30.62	13.0' L	A-10 W = 2.5'	D - 4.03
I-50	529.04	524.20 (18")	524.10 (18")	GENTLE ROLLING DR.	13+30.62	13.0' R	A-10 W = 2.5'	D - 4.03
I-51	* 529.00	----	525.50 (12")	N 537823.38 E 826449.33	----	----	'D' INLET W = 2.5'	D - 4.10
I-52	536.45	529.93 (15")	529.68 (15")	GENTLE ROLLING DR.	10+55.56	13.0' L	A-5 W = 2.5'	D - 4.01
I-53	536.45	530.64 (12"), 531.04 (15")	530.39 (15")	GENTLE ROLLING DR.	10+55.56	13.0' R	A-5 W = 2.5'	D - 4.01
I-54	535.58	531.71 (12")	531.46 (15")	NOAH FINN ROAD	2+23.84	13.0' L	A-5 W = 2.5'	D - 4.01
I-55	535.58	----	531.86 (12")	NOAH FINN ROAD	2+23.84	13.0' R	A-5 W = 2.5'	D - 4.01
I-56	* 535.00	----	531.40 (12")	N 537759.51 E 826670.25	----	----	'D' INLET W = 2.5'	D - 4.10
I-57	525.06	517.73 (18"), 521.19 (12")	517.23 (24")	ANDERSON HILL ST.	15+87.91	13.0' R	A-5 W = 3.0'	D - 4.01
I-58	525.06	----	521.34 (12")	ANDERSON HILL ST.	15+87.91	13.0' L	A-5 W = 2.5'	D - 4.01

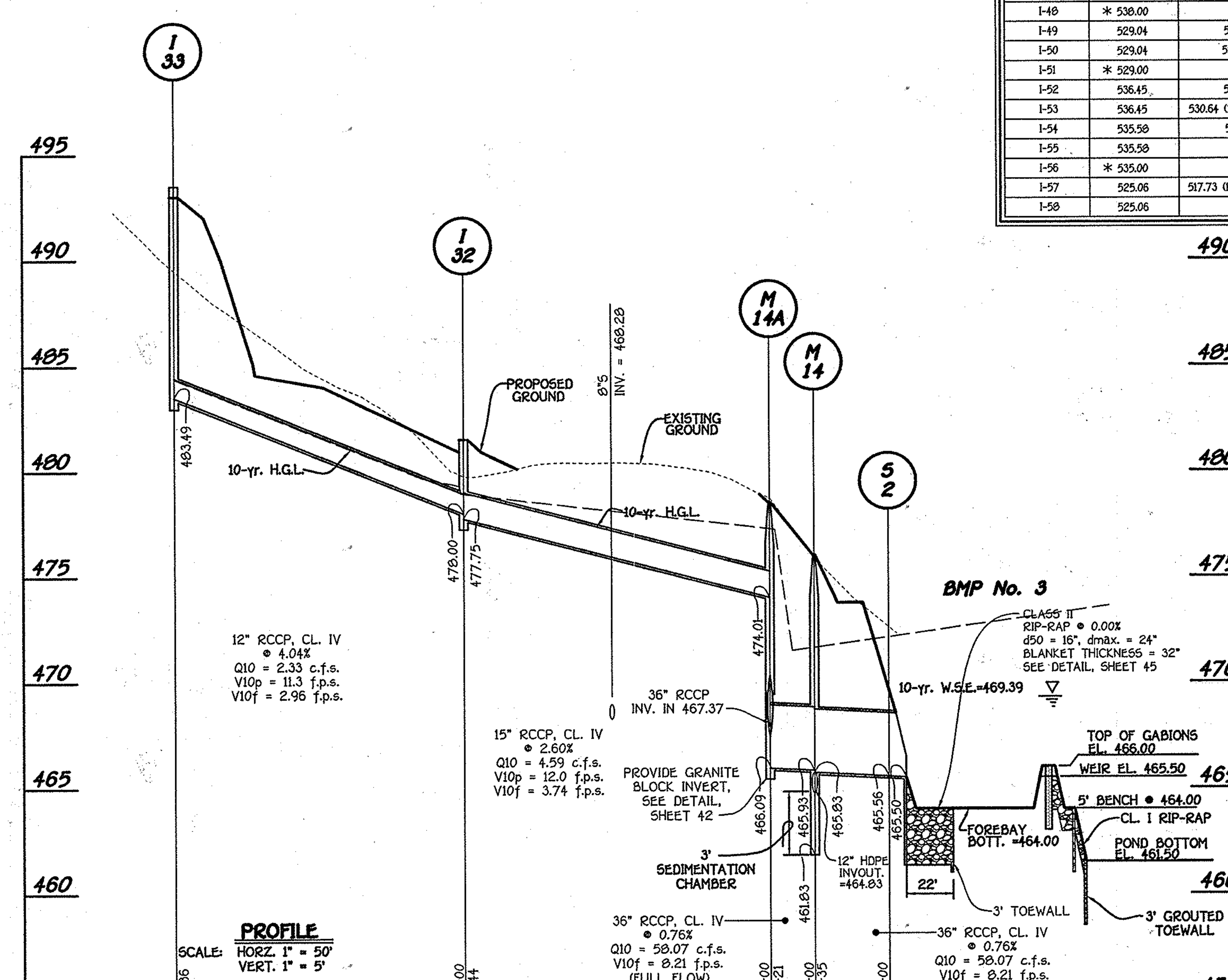
STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	ROAD STA./ COORDINATE	OFFSET	TYPE & WIDTH	REMARKS
I-59	523.17	519.56 (15"), 519.56 (15")	519.31 (18")	ANDERSON HILL ST.	14+26.16	13.0' R	A-10 W = 2.5'	D - 4.03
I-60	523.17	----	519.71 (15")	ANDERSON HILL ST.	14+26.16	13.0' L	A-10 W = 2.5'	D - 4.03
I-61	* 527.50	514.74 (36")	514.64 (36")	N 537560.40 E 826699.27	----	----	'D' INLET W = 4.0'	D - 4.10
I-62	* 521.25	517.32 (24")	515.25 (6") 516.29 (36")	N 537245.41 E 826714.81	----	----	'D' INLET W = 4.0'	D - 4.10
I-63	534.38	528.17 (24")	528.07 (24")	WALKING JANELLE WAY	6+80.49	13.0' R	A-5 W = 3.0'	D - 4.01
I-64	534.38	528.42 (24")	528.32 (24")	WALKING JANELLE WAY	6+80.49	13.0' L	A-5 W = 2.5'	D - 4.01
I-65	* 533.33	----	530.53 (12")	N 537093.31 E 827020.20	----	----	'D' INLET W = 2.5'	D - 4.10
I-66	535.73	531.70 (12"), 529.24 (18")	528.74 (24")	ANDERSON HILL ST.	9+12.21	13.0' R	A-5 W = 2.5'	D - 4.01
I-67	535.73	----	532.00 (12")	ANDERSON HILL ST.	9+12.21	13.0' L	A-5 W = 2.5'	D - 4.01
I-68	541.13	533.14 (18")	533.04 (18")	WALKING JANELLE WAY	2+87.11	13.0' R	A-5 W = 2.5'	D - 4.01
I-69	541.13	533.39 (18")	533.29 (18")	WALKING JANELLE WAY	2+87.11	13.0' L	A-5 W = 2.5'	D - 4.01
I-70	* 537.25	-----	534.00 (18")	N 537433.32 E 826994.84	----	----	'D' INLET W = 2.5'	D - 4.10
I-71	484.50	474.24 (18")	474.14 (18")	TALL TANNER WAY	1+85.65	14.0' R	A-5 W = 2.5'	D - 4.01
I-72	485.64	475.93 (18")	474.42 (18")	TALL TANNER WAY	2+02.60	14.0' L	A-5 W = 2.5'	D - 4.01
I-73	* 479.50	476.34 (15")	476.09 (18")	N 537871.96 E 827773.38	----	----	'D' INLET W = 2.5'	D - 4.10
I-74	* 488.00	-----	484.34 (15")	N 537741.80 E 827691.30	----	----	'D' INLET W = 2.5'	D - 4.10
I-75	528.50	521.68 (12")	521.43 (15")	TALL TANNER WAY	15+41.62	14.0' R	A-10 W = 2.5'	D - 4.03
I-76	528.50	-----	522.00 (12")	TALL TANNER WAY	15+41.62	14.0' L	A-10 W = 2.5'	D - 4.03
I-77	537.30	533.55 (12")	533.30 (15")	GENTLE ROLLING DR.	16+22.35	13.0' R	A-5 W = 2.5'	D - 4.01
I-78	537.30	-----	533.73 (12")	GENTLE ROLLING DR.	16+22.35	13.0' L	A-10 W = 2.5'	D - 4.03
I-79	542.13	537.85 (12")	537.60 (15")	ANDERSON HILL ST.	7+15.82	13.0' R	A-5 W = 2.5'	D - 4.01
I-80	541.77	-----	538.17 (12")	ANDERSON HILL ST.	7+26.62	13.0' L	A-5 W = 2.5'	D - 4.01
I-81	526.30	523.21 (12")	522.96 (15")	ANDERSON HILL ST.	12+09.43	13.0' R	A-5' W = 2.5'	D - 4.01
I-82	526.87	-----	523.40 (12")	ANDERSON HILL ST.	11+87.74	13.0' L	A-5' W = 2.5'	D - 4.01
I-83	538.17	531.72(18"), 534.14(15"), 526.97(24")	526.71 (24")	WALKING JANELLE WAY	4+60.13	13.0' R	A-5 W = 3.0'	D - 4.01
I-84	538.93	534.95 (12")	534.70 (15")	IRVING GAMBLE ROAD	0+41.00	13.0' R	A-5 W = 2.5'	D - 4.01
I-85	538.93	-----	535.25 (12")	IRVING GAMBLE ROAD	0+41.00	13.0' L	A-5 W = 2.5'	D - 4.01
I-86	* 521.00	-----	515.79 (15")	N 539193.03 E 827170.97	----	----	'D' INLET W = 2.5'	D - 4.10
I-87	500.50	493.58 (36")	493.06 (36")	EMMA STONE DRIVE	4+25.23	13.0' R	A-5' W = 2.5'	D - 4.01
M-1	480.00	471.00 (36")	468.50 (12") 468.00 (36")	N 538847.84 E 827876.56	----	----	5' MANHOLE	G - 5.13
M-2	489.00	480.00 (36")	473.00 (36")	N 538853.99 E 827847.20			5' MANHOLE	G - 5.13
M-3	498.50	492.16 (36")	491.91 (36")	EMMA STONE DRIVE	5+19.24	22.9' R	5' MANHOLE	G - 5.13
M-4	504.96	496.65 (36"), 496.64 (24")	495.64 (36")	EMMA STONE DRIVE	3+19.87	21.7' R	5' MANHOLE	G - 5.13
M-4A	515.62	507.30 (18")	507.20 (18")	EMMA STONE DRIVE	14+12.57	18.4' R	STD. 4' MANHOLE	G - 5.12
M-5	522.06	518.32(15"), 517.26(12"), 510.22(30")	509.72 (36")	EMMA STONE DRIVE TALL TANNER WAY	0+19.23 12+96.15	19.0' R 19.3' R	5' MANHOLE	G - 5.13
M-6	533.00	528.24 (15")	525.50 (6") 528.50 (15")	N 538621.16 E 826979.89	----	----	STD. 4' MANHOLE	G - 5.12
M-7	512.78	502.67 (36")	502.57 (36")	EMMA STONE DRIVE	11+74.94	10.0' R	5' MANHOLE	G - 5.13
M-8	515.50	503.43 (36")	503.33 (36")	EMMA STONE DRIVE	12+94.92	33.0' R	5' MANHOLE	G - 5.13
M-9	515.00	504.18 (36")	503.58 (6") 504.08 (36")	N 539488.28 E 827341.33	----	----	5' MANHOLE	G - 5.13
M-10	515.80	504.85 (36")	504.75 (36")	N 539556.31 E 827249.35	----	----	5' MANHOLE	G - 5.13
M-11	520.10	508.67 (36")	508.57 (36")	SOPHIA CHASE DRIVE	24+15.03	● C.L.	5' MANHOLE	G - 5.13
M-12	521.00	516.83 (15"), 518.22 (12")	516.73 (15")	SOPHIA CHASE DRIVE	19+25.55	23.5' R	STD. 4' MANHOLE	G - 5.12
M-13	530.50	527.27 (12"), 526.52 (12")	523.84 (15")	SOPHIA CHASE DRIVE	17+37.01	23.7' R	STD. 4' MANHOLE	G - 5.12
M-14	476.00	465.93 (36")	464.83 (12") 465.83 (36")	N 538421.72 E 827871.88	----	----	5' MANHOLE	G - 5.13
M-14A	478.50	474.01 (15"), 467.37 (36")	466.09 (36")	N 538418.30 E 827851.27	----	----	5' MANHOLE	G - 5.13
M-14B	480.50	468.76 (36")	468.66 (36")	N 538311.97 E 827779.04	----	----	5' MANHOLE	G - 5.13
M-14C	477.90	472.97 (24"), 469.97 (36")	469.87 (36")	N 538201.08 E 827776.86	----	----	5' MANHOLE	G - 5.13
M-15	485.50	479.37 (30"), 474.01 (18")	473.91 (36")	TALL TANNER WAY	1+97.29	39.0' R	5' MANHOLE	G - 5.13
M-16	507.00	501.02 (15")	500.77 (18")	GENTLE ROLLING DR.	1+28.84	22.9' L	STD. 4' MANHOLE	G - 5.12
M-17	511.50	505.60 (15")	505.35 (15")	GENTLE ROLLING DR.	1+89.83	22.9' L	STD. 4' MANHOLE	G - 5.12
M-18	535.18	531.32 (15")	531.07 (15")	GENTLE ROLLING DR. ANDERSON HILL ST.	5+14.87 0+14.92	14.9' L 24.3' L	STD. 4' MANHOLE	G - 5.12
M-19	535.56	531.83 (18")	531.73 (18")	SOPHIA CHASE DRIVE GREAT ALEXANDER ST.	1+84.25 0+26.13	28.3' L 37.8' L	STD. 4' MANHOLE	G - 5.12
M-20	520.50	512.45 (36")	512.35 (36")	N 537562.19 E 826312.03	----	----	5' MANHOLE	G - 5.13
M-21	519.00	513.12 (36")	511.91 (6") 513.02 (36")	N 537550.29 E 826420.28	----	----	5' MANHOLE	G - 5.13
M-23	530.27	526.79(15"), 515.06(24"), 514.06(36")	513.96 (36")	ANDERSON HILL ST.	18+04.78	18.1' R	5' MANHOLE	G - 5.13
M-24	524.17	520.32 (15")	520.22 (15")	ANDERSON HILL ST.	12+92.04	9.17' R	STD. 4' MANHOLE	G - 5.12
M-25	537.80	533.52 (15"), 530.15 (12")	529.65 (18")	ANDERSON HILL ST.	8+38.36	47.4' R	STD. 4' MANHOLE	G - 5.12
M-26	520.50	511.95 (36"), 515.32 (18")	511.85 (36")	N 537615.59 E 826256.43	----	----	5' MANHOLE	G - 5.13
M-27	530.24	525.20 (12"), 524.95 (15")	524.70 (18")	N 537819.11 E 826387.52	----	----	STD. 4' MANHOLE	G - 5.12
S-1 **	468.84	465.84 (36")	----	N 538837.14 E 827927.55	----	----	CONC. END SECTION	D - 5.51
S-2 **	468.56	465.56 (36")	----	N 538427.52 E 827906.73	----	----	CONC. END SECTION	D - 5.51
S-3 **	514.55	511.55 (36")	----	N 537610.96 E 826204.62	----	----	CONC. END SECTION	D - 5.51
R-2	514.25	509.00 (48")	509.25 (8")	N 537492.02 E 826088.68	----	----	SEE SHEET 60	
R-3	472.00	462.30 (42")	462.50 (6")	N 538619.15 E 828036.34	----	----	SEE SHEET 62	
E-2	512.50	508.50 (48")	----	N 537456.15 E 826134.11	----	----	CONC. END SECTION	D - 5.51
HW-3	466.50	461.50 (42")	----	N 538619.85 E 828094.33	----	----	TYPE 'A' HEADWALL	D - 5.11
S-4 **	479.00	477.00 (24")	----	N 538198.68 E 827748.96	----	----	CONC. END SECTION	D - 5.51

* DENOTES THROAT OPENING
** PROVIDE OPTIONAL CONCRETE FOOTER PER DETAIL D-5.51

NOTE: ALL 'D' INLETS TO BE OPEN ON ALL FOUR (4) SIDES



PROFILE
SCALE: HORZ. 1" = 50' VERT. 1" = 5'



PROFILE
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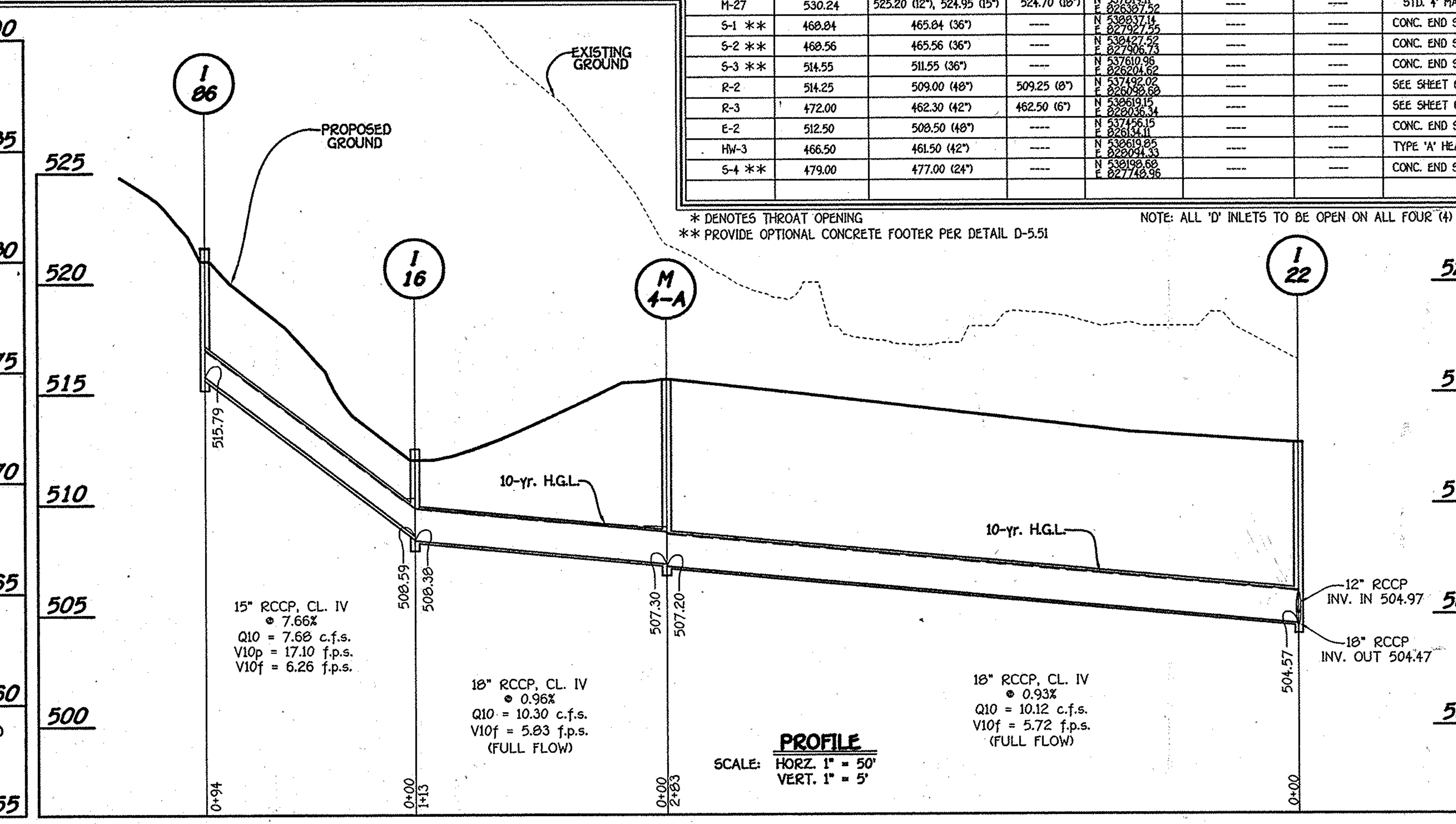

PROFILE
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FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	UPDATE STORM DRAINS	5/1/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND
TERRELL A. FISHER
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/18/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309

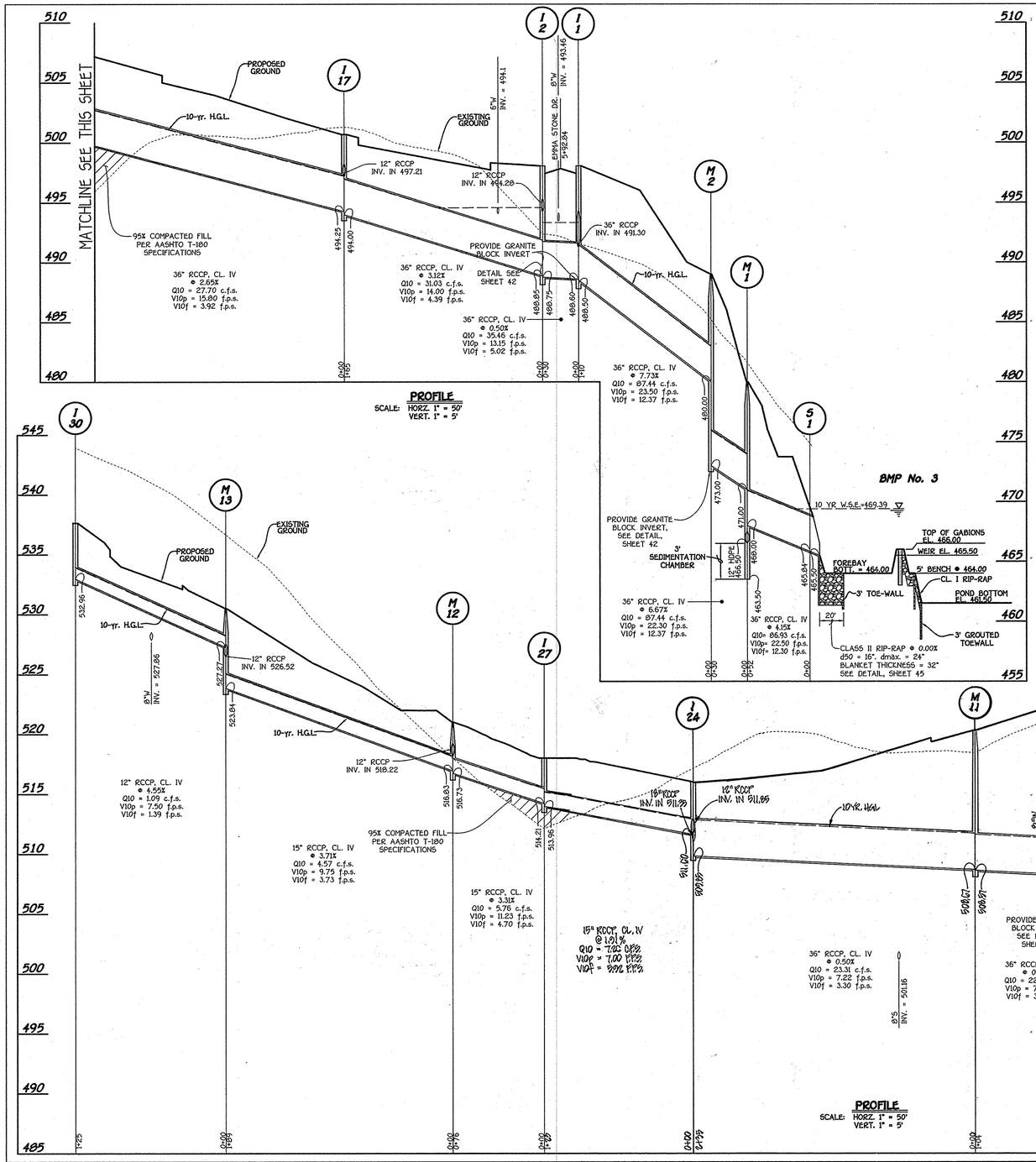
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED STORM DRAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES
TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 43 OF 100

SDP-09-039



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	UPDATE STORM DRAINS	9/1/13
3	REVISED TO ADD FEE SIMPLE LOTS PER F-11-111 & ADD PHASE V TO SDP-09-039	10/31/13
2	REVISED TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REVISED TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — No. 9787 — REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9787 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 160
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/19/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES IT, THRU V LOTS 9, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 251 & 260 THRU 309 TH. 55 & 282-309

PLAT (SEE GENERAL NOTE #21)	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED
STORM DRAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES IT, THRU V LOTS 9, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 251 & 260 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

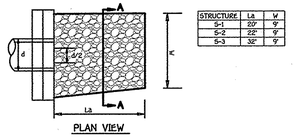
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 44 OF 100

SDP-09-039

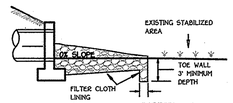
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 44, 11/14/2012 10:07:41 AM, 1:1

ROCK OUTLET PROTECTION III

STRUCTURE	La	W
S-1	20'	9'
S-2	22'	9'
S-3	32'	9'

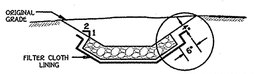


PLAN VIEW



ELEVATION

NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C



SECTION A-A

FILTER FABRIC LINING SHALL BE EMBEDDED A MINIMUM OF 4" AND SHALL EXTEND AT LEAST 6' BEYOND THE EDGE OF THE RIP-RAP

Construction Specifications

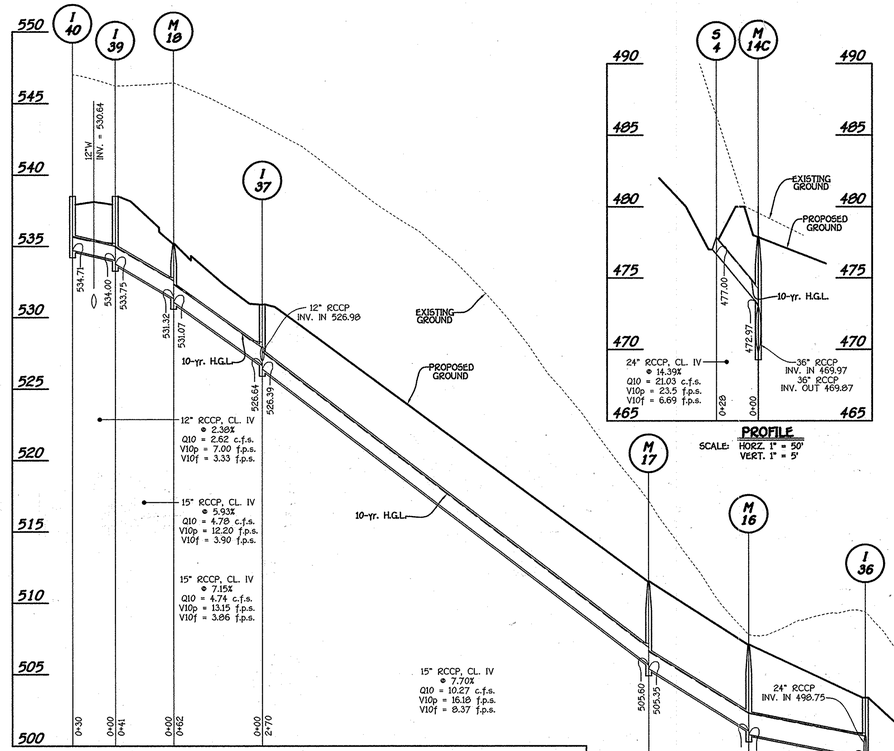
1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.

3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.

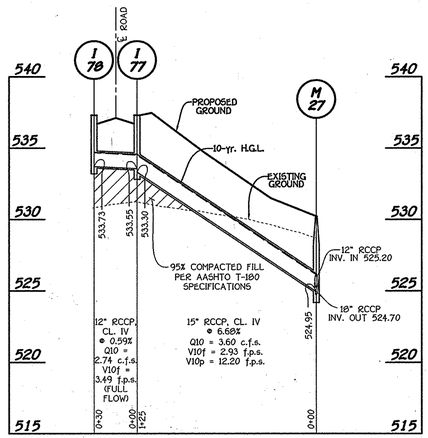
4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



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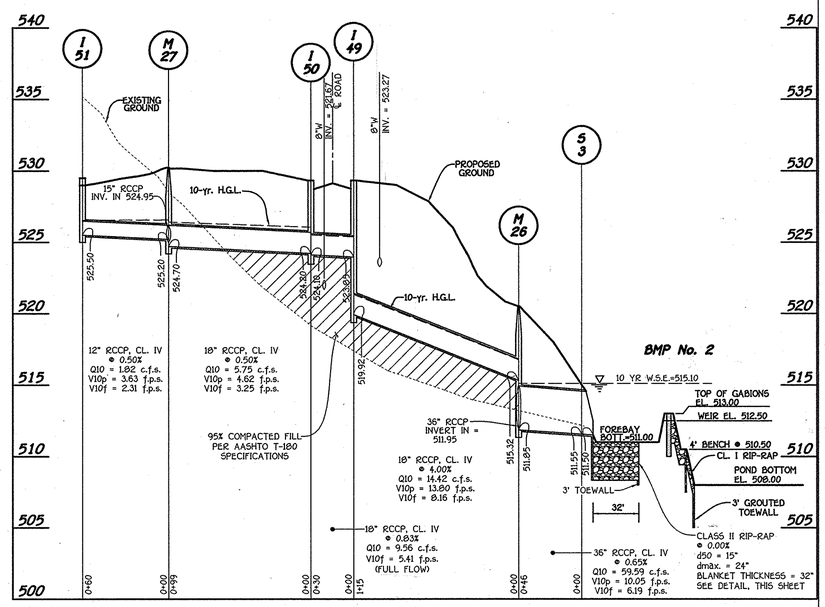

PROFILE
SCALE: HORZ. 1" = 50'
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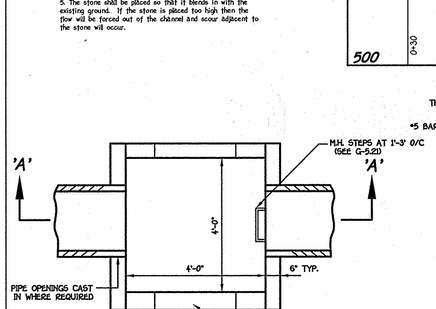
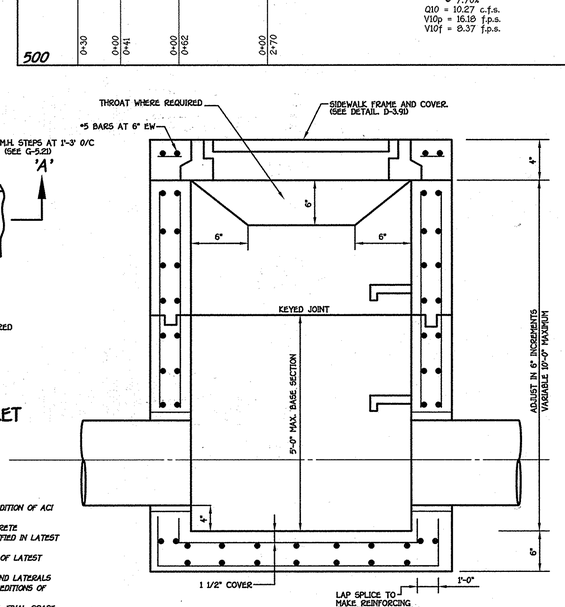


PLAN



SECTION 'A-A'
(TYPICAL)

(INLETS 1-7, 1-61 & 1-62)

MODIFIED TYPE 'D' PRECAST INLET

NOT TO SCALE

NOTES

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITION OF ACI 301 AND ACI 318.
2. PRECAST STRUCTURES SHALL BE DESIGNED BY A PRECAST CONCRETE STRUCTURES MANUFACTURER IN ACCORDANCE TO LOADING SPECIFIED IN LATEST EDITIONS OF ASTM C857 ASTM C890.
3. PRECAST STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C858.
4. RESILIENT CONNECTORS BETWEEN MANHOLE STUCTURES, PIPES AND LATERALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C923.
5. OVERALL HEIGHT OF PRECAST IS ADJUSTABLE IN 6" INCREMENTS. FINAL GRADE ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR WITH BRICK AND MORTAR.
6. INVERT SHALL BE APPROVED PRECAST, PLAIN MIX NO.3 CONCRETE OR BRICK LAID ON EDGE. INVERT TO SLOPE DOWN TOWARD OUTLET AT THE RATE OF 0" PER FOOT, OR AS SHOWN ON PLAN OR AS DIRECTED. INVERT BRICK SHALL BE ASTM C32-91 GRADE SS.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS FOR P-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS FOR P-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-029 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

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443-367-0422

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & V LOTS 9, 12 THRU 22, 44 THRU 62, 88 THRU 103, 172 THRU 231 & 240 THRU 309
PLAT # (SEE GENERAL NOTE #9)	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

STORM DRAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & V LOTS 9, 12 THRU 22, 44 THRU 62, 88 THRU 103, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

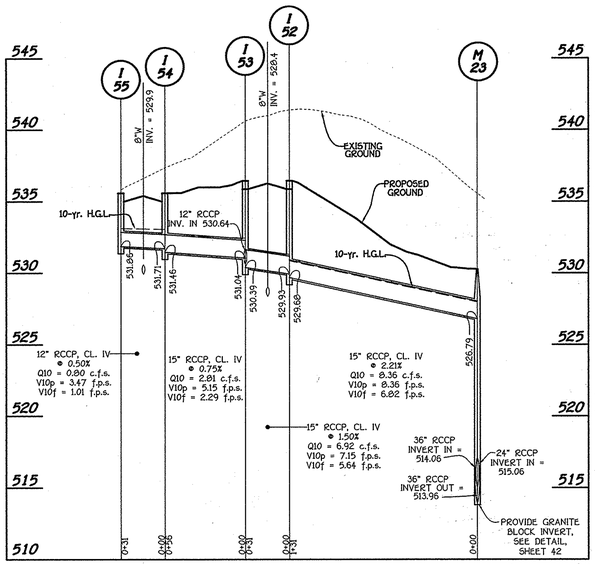
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: DECEMBER, 2012

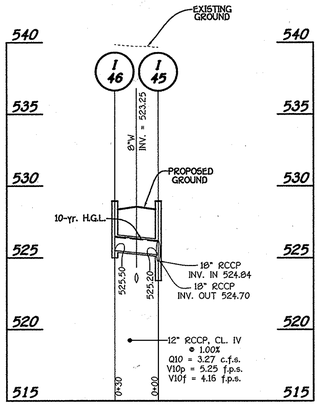
SHEET 45 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\Dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 45, 11/14/2012 10:09:15 AM, 1:1



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



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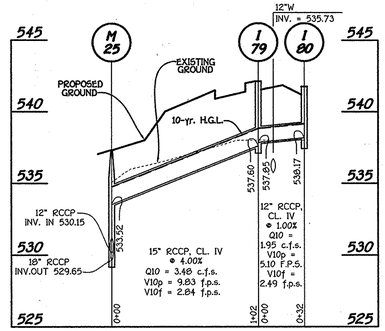

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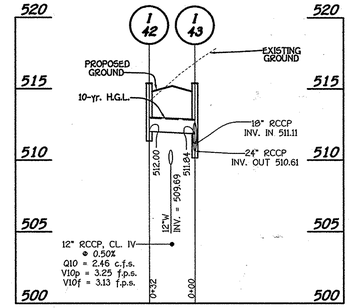

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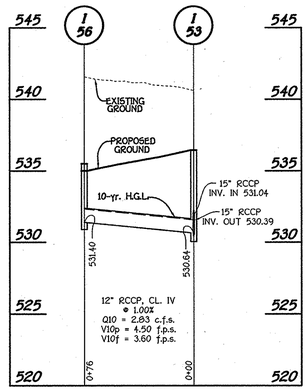

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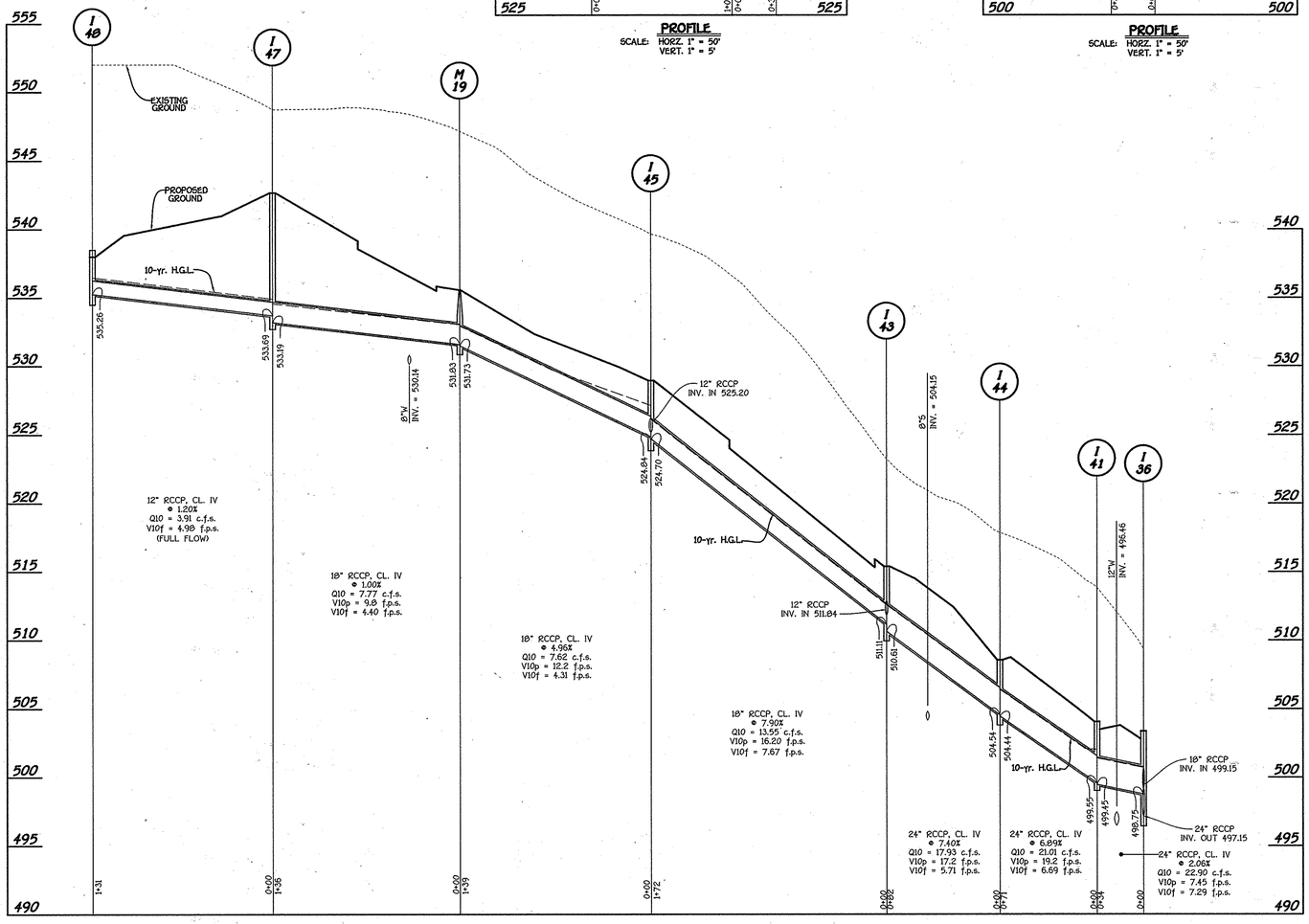

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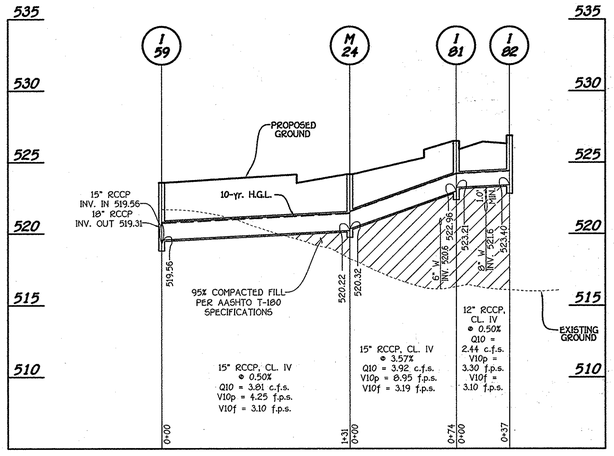
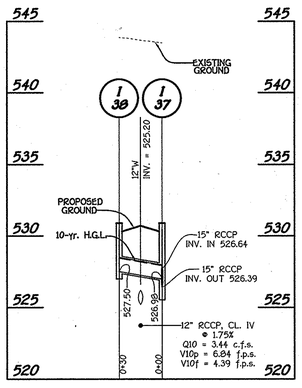
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/19/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 3, 12 THRU 20, 44 THRU 66, 68 THRU 102, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

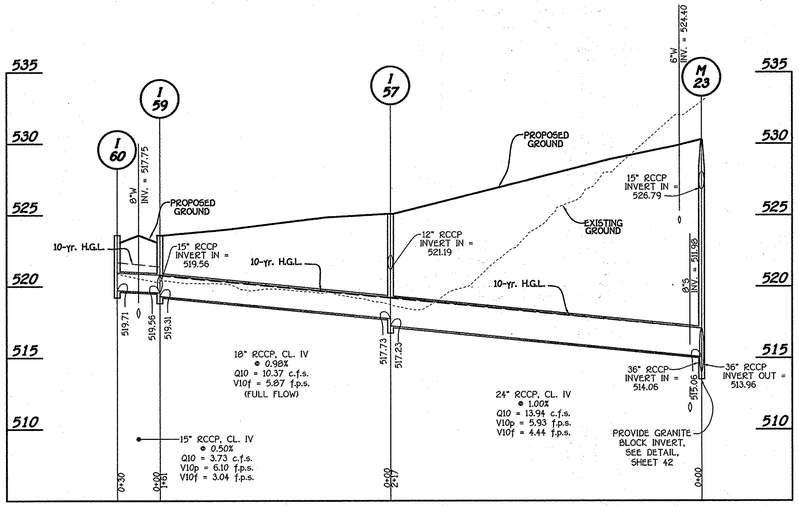
STORM DRAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 3, 12 THRU 20, 44 THRU 66, 68 THRU 102, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

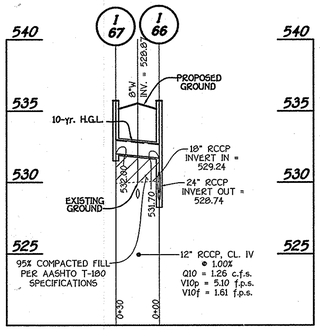
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 46 OF 100

SDP-09-039

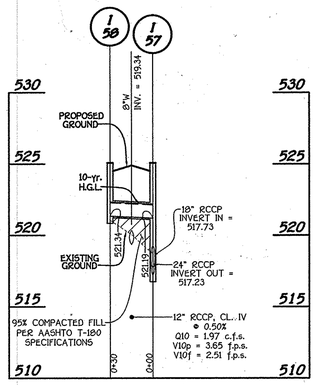
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 46, 11/14/2012 10:12:17 AM, 1:1



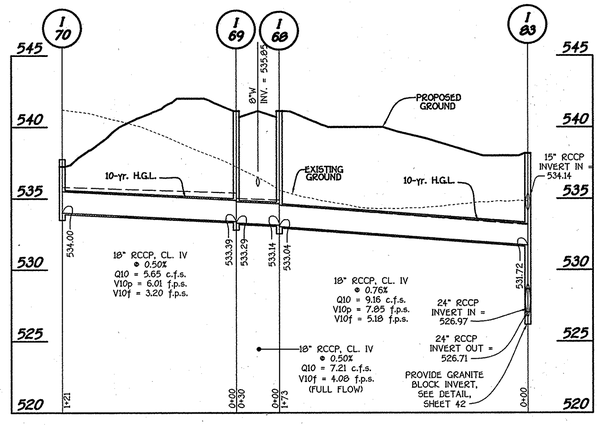
PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



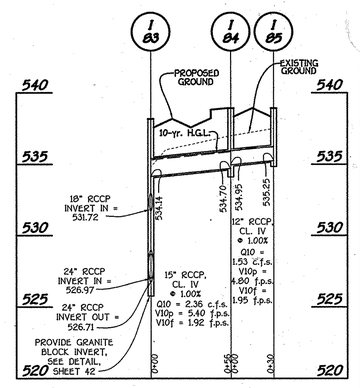
PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



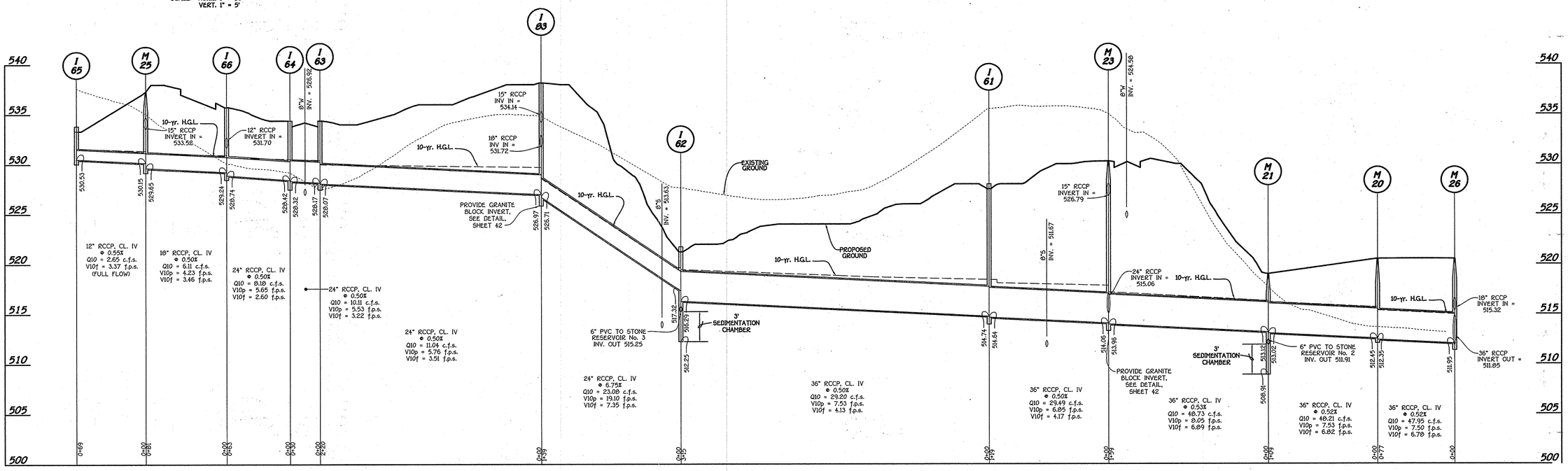
PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REVI. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD FIREFLY TO SHEET 47	10/31/14
2	REVI. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/19/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	(PHASE II, PART V) LOTS 5, 12 THRU 22, 44 THRU 60, 88 THRU 103, 172-224 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE SHEET NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

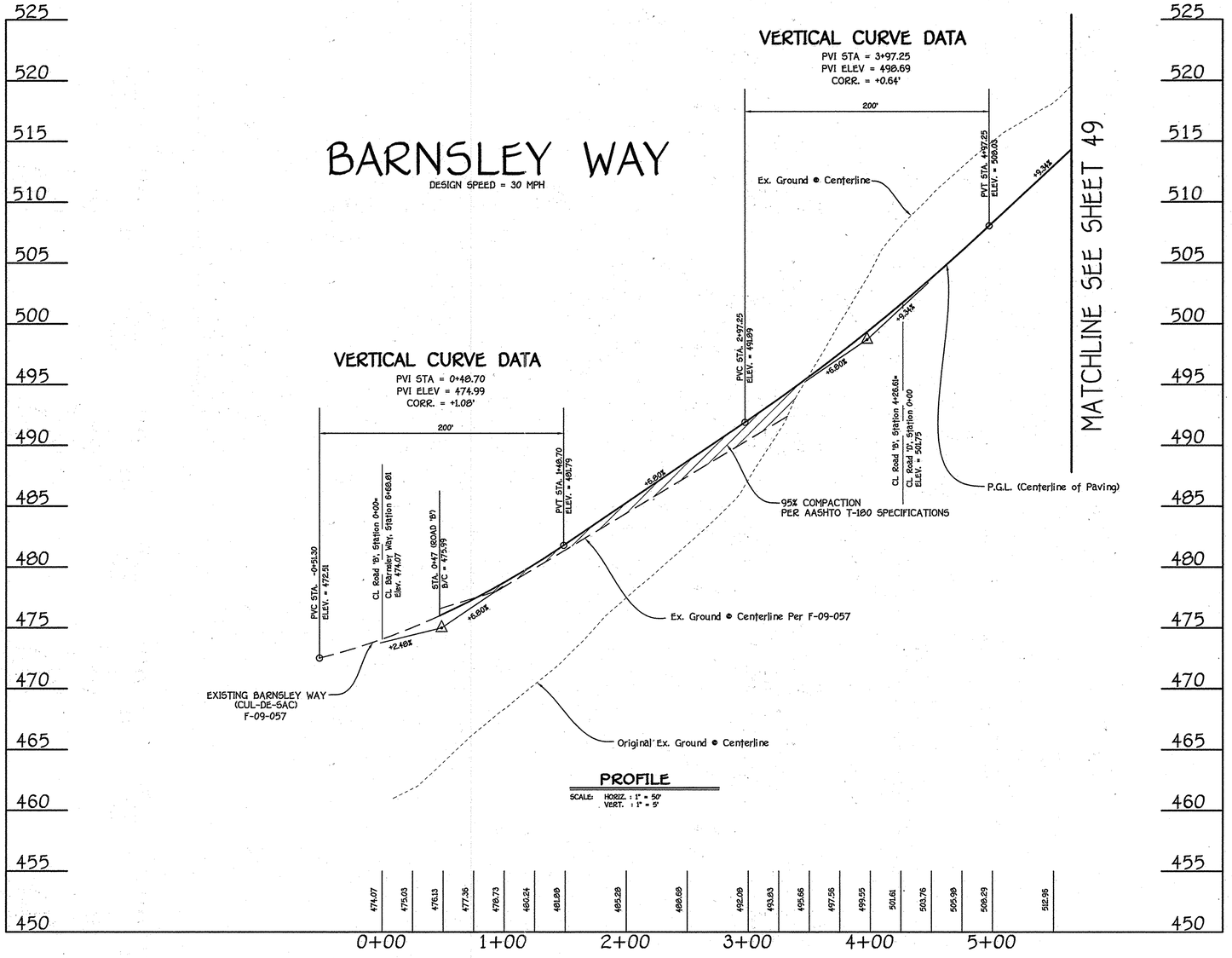
(PHASE II, PART V) LOTS 5, 12 THRU 22, 44 THRU 60, 88 THRU 103, 172-224 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 47 OF 100

SDP-09-039

K:\SDP\PRO\13070 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 13070 Sheet 42-47 Storm Drain Profiles.dwg, Sheet 47, 11/14/2012 10:14:13 AM, 1:1



REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/3/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	6/28/12

STATE OF MARYLAND — DONALD H. FISHER — No. 14868 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, THRU V LOTS 2, 12 THRU 32, 44 THRU 60, 88 THRU 105, 172 THRU 231 & 240 THRU 300 TOWNHOUSE & SINGLE FAMILY HOMES

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #19	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

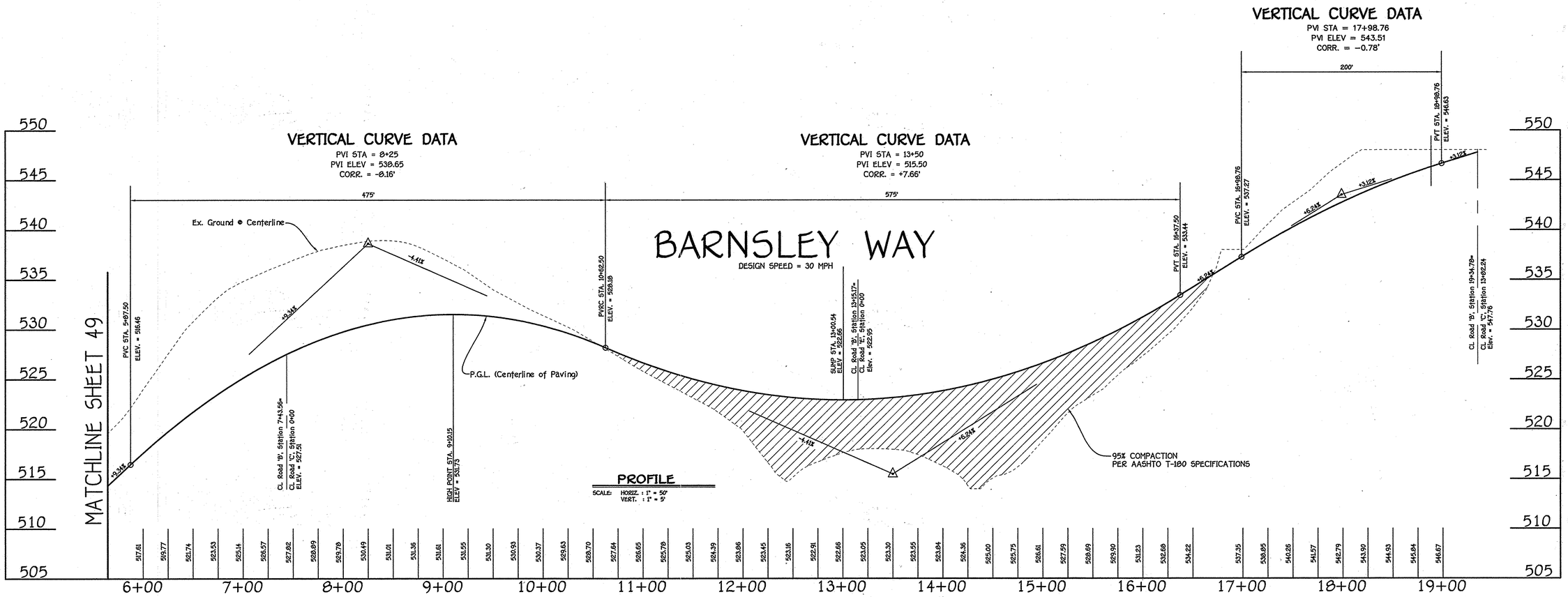
ROAD PROFILE

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 48 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 48, 11/15/2012 11:46:06 AM, 1:1



REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/21/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND
TERRELL A. FISHER
No. 21436
REGISTERED
PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 160
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II: PARCEL V LOTS 5, 12-THRU 32, 44-THRU 86, 88-THRU 103, 172-THRU 231 & 240-THRU 307

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #19	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12-THRU 32, 44-THRU 86, 88-THRU 103, 172-THRU 231 & 240-THRU 307
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 49 OF 100

SDP-09-039

K:\SDSKPROJ\13070 GTW WEST\dwg\Construction Documents\Roadline Phase 4 Fee Simple 78 Lots\Construction Document - 13070 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 49, 11/15/2012 11:46:29 AM, 1:1

SOPHIA CHASE DRIVE

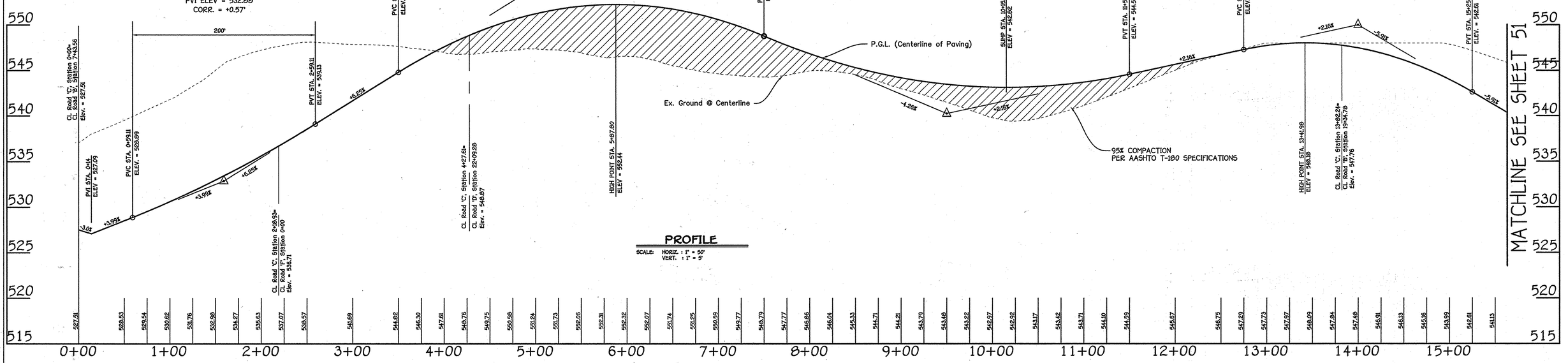
DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA
PVI STA = 1+59.11
PVI ELEV = 532.88
CORR. = +0.57'

VERTICAL CURVE DATA
PVI STA = 5+50
PVI ELEV = 557.31
CORR. = -5.26'

VERTICAL CURVE DATA
PVI STA = 9+50
PVI ELEV = 540.27
CORR. = +3.21'

VERTICAL CURVE DATA
PVI STA = 14+00
PVI ELEV = 550.00
CORR. = -2.52'



PROFILE
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-111 & ADD FENCE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — RUSSELL A. FISHER — PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/18/12

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, THRU V LOTS 5, 12 THRU 17, 44 THRU 66, 88 THRU 105, 172 THRU 181 & 240 THRU 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #11	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 17; 44 THRU 66, 88 THRU 105, 172 THRU 181 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 50 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\Dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 50, 11/14/2012 10:32:39 AM, 1:1

SOPHIA CHASE DRIVE

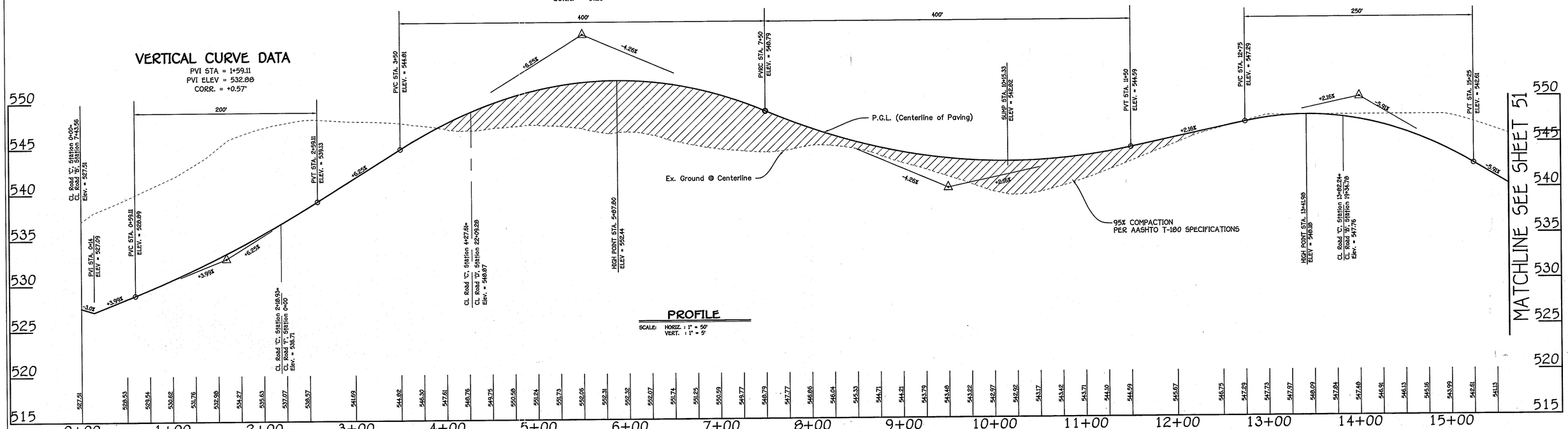
DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA
PVI STA = 1+59.11
PVI ELEV = 532.88
CORR. = +0.57'

VERTICAL CURVE DATA
PVI STA = 5+50
PVI ELEV = 557.31
CORR. = -5.26'

VERTICAL CURVE DATA
PVI STA = 9+50
PVI ELEV = 540.27
CORR. = +3.21'

VERTICAL CURVE DATA
PVI STA = 14+00
PVI ELEV = 550.00
CORR. = -2.52'



PROFILE
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

MATCHLINE SEE SHEET 51

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-101	12/7/12
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/20/12

STATE OF MARYLAND · RUSSELL A. FISHER · No. 21427 · PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/10/12

Chief, Development Engineering Division — Date 12/10/12

Director - Department of Planning and Zoning — Date 12/10/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, III & IV LOTS 5, 12-99, 44-86, 88-109 & 172-231 PHASES IV & V - UNITS 93-112, 193-196, 198-222 & 237-239

PLAT 21427 - 21435 AND 22089 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 99, 44 THRU 86, 88 THRU 109 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 112, 193 THRU 196, 198 THRU 200 & 237 THRU 239

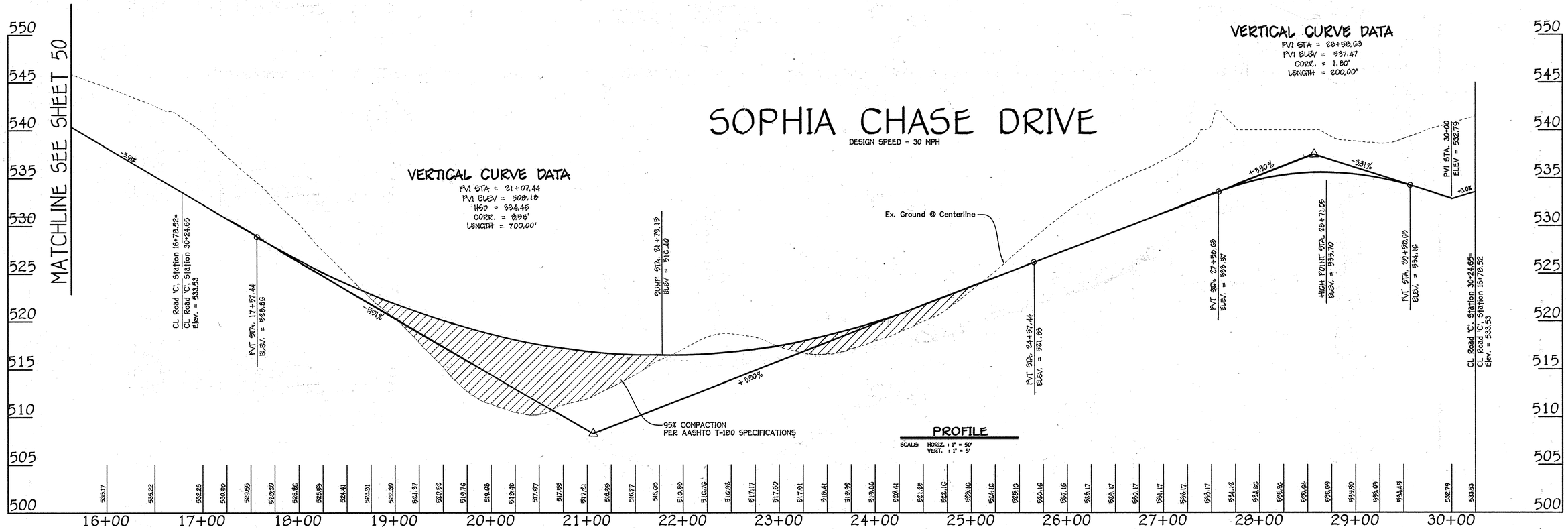
TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 50 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Feet Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 50, 11/14/2012 10:32:39 AM, 1:1

SOPHIA CHASE DRIVE

DESIGN SPEED = 30 MPH



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

VERTICAL CURVE DATA

PVI STA = 21+07.44
PVI ELEV = 508.18
HSD = 334.45
CORR. = 0.96'
LENGTH = 700.00'

VERTICAL CURVE DATA

PVI STA = 28+58.03
PVI ELEV = 537.47
CORR. = 1.80'
LENGTH = 200.00'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. ROAD GRADE	5/7/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-111 & ADD FRIARS V TO SHT-01-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — JAMES W. SCHNEIDER — No. 21431 — PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-357-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/11/12
Chief, Development Engineering Division — Date 12/10/12
Director - Department of Planning and Zoning — Date 12/10/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 5,12-29,44-59,88-105, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12-THRU 29, 44-THRU 59, 88-THRU 105, 172-THRU 231 & 240-THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

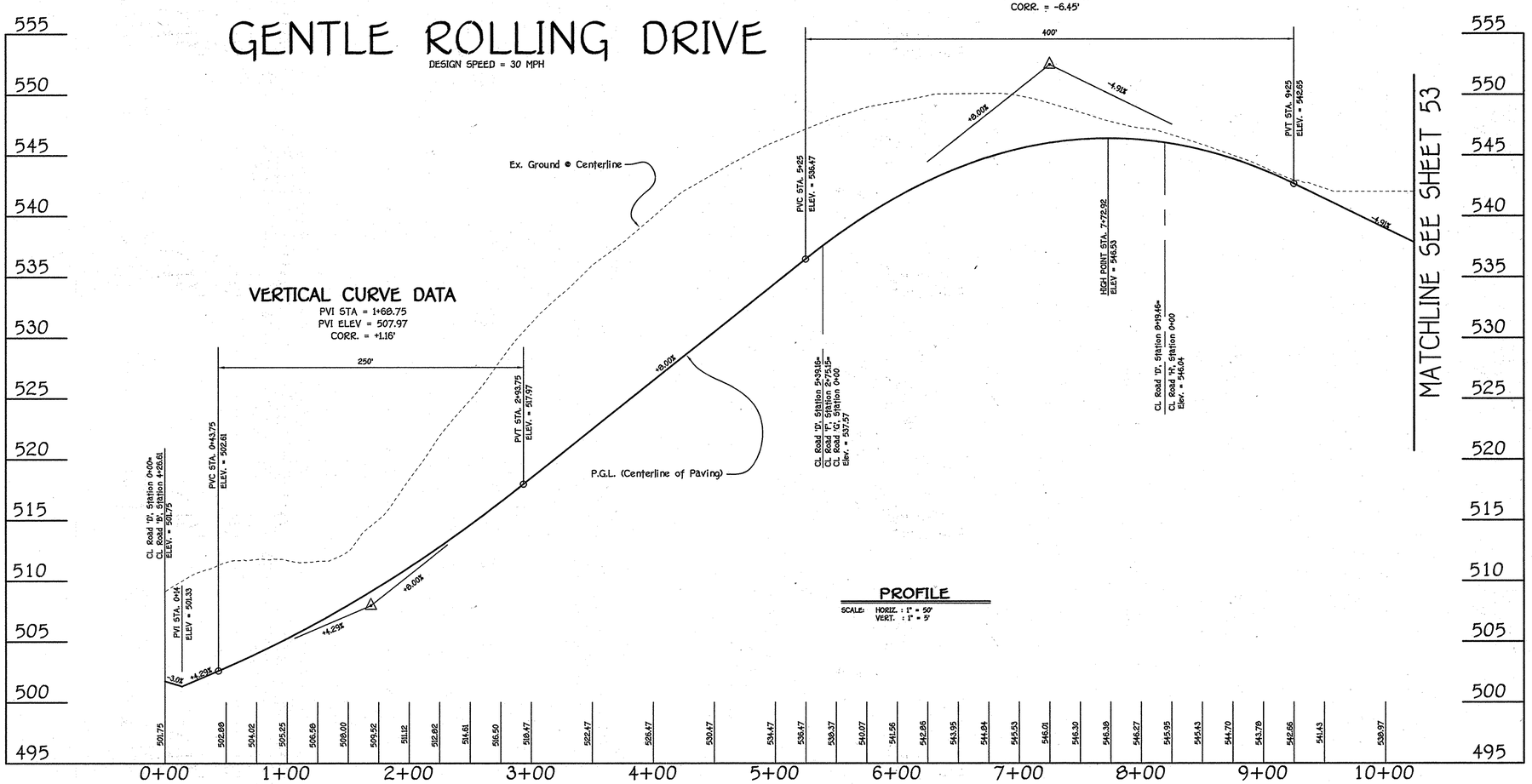
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 51 OF 100

SDP-09-039

K:\SDSKPROJ\13070 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 13070 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 51, 11/14/2012 10:33:30 AM, 1:1

GENTLE ROLLING DRIVE

DESIGN SPEED = 30 MPH



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-11-11 & ADD PHASE V TO SDP-09-039	10/31/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/20/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/19/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 5, 12 THRU 32, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 307 / 172-231 & 240-307

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
PER GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 32, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 307

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 52 OF 100

SDP-09-039

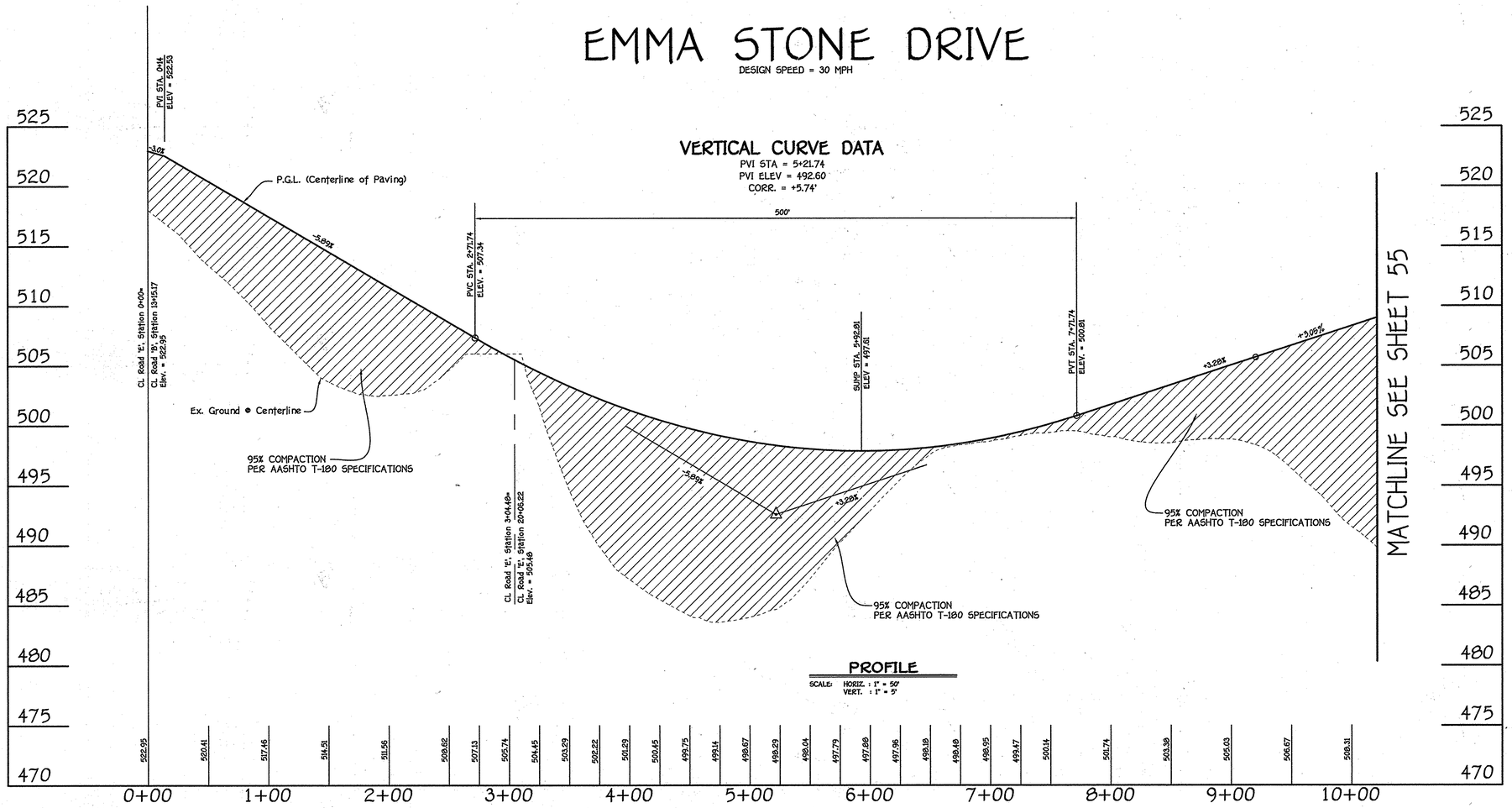
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 52, 11/14/2012 10:34:41 AM, 1:1

EMMA STONE DRIVE

DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA

PVI STA = 5+21.74
PVI ELEV = 492.60
CORR. = +5.74'



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REVISED LAYOUT	5/1/13
3	REVISED TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO 89-09-039	10/31/14
2	REVISED TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-099 AND ADD GRIFFIN HALL	9/28/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASE 2: PARCEL V LOTS 1, 12-21, 44-86, 88-102, 172-221 & 240-309

PLAT : SEE LEGEND NOTE #21	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PARCEL II, THRU V LOTS 1, 12-THRU 22, 44 THRU 86, 88 THRU 102, 172-THRU 221 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

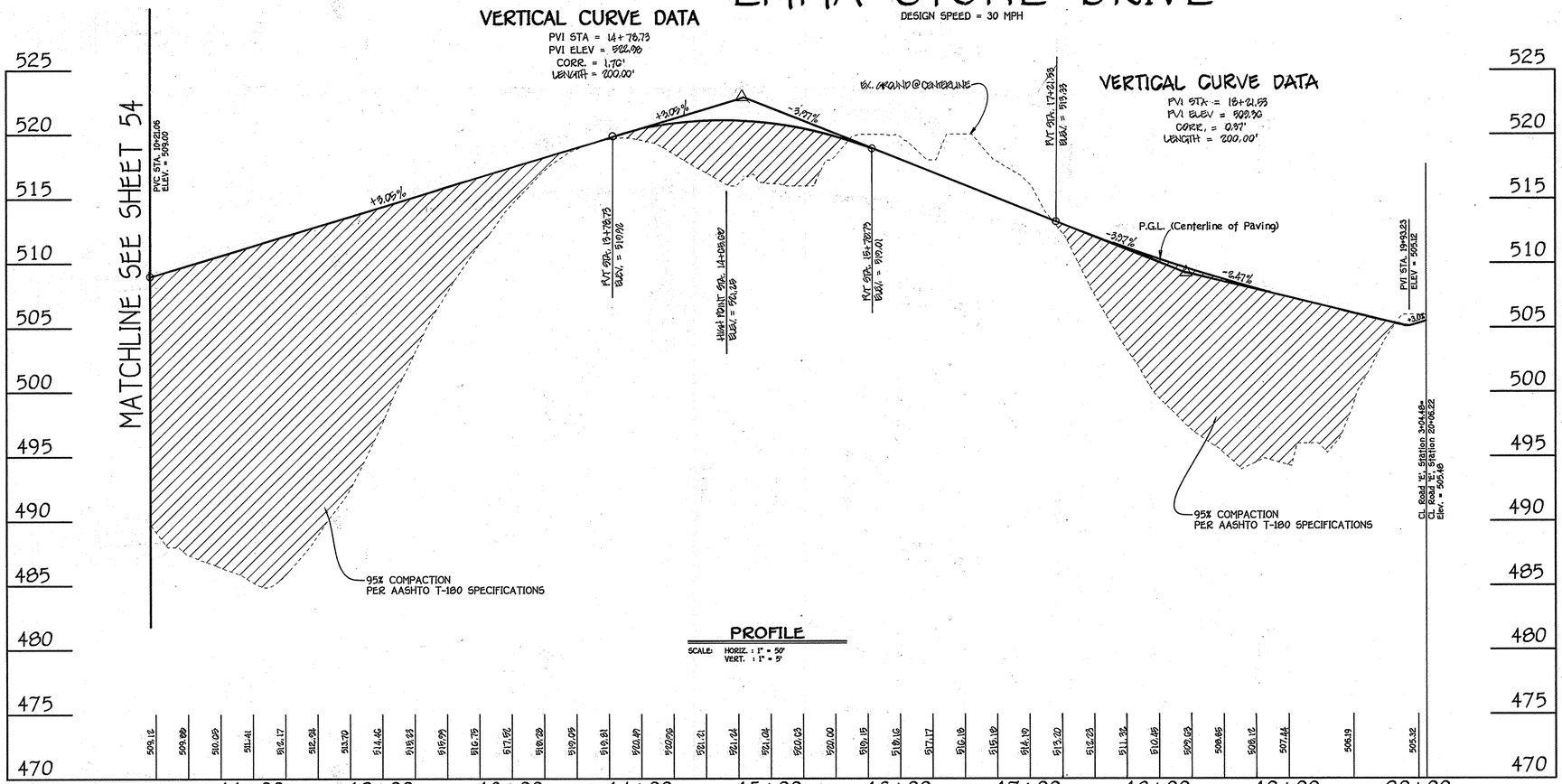
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 54 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 49-57 Road Profiles Roads B thru J.dwg, Sheet 54, 11/14/2012 10:37:03 AM, 1:1

EMMA STONE DRIVE

DESIGN SPEED = 30 MPH



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

NO.	REVISION	DATE
4	REV. ROAD LABELS	9/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-111 & ADD PHASE V TO SDP-09-039	10/31/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND — DONALD A. PRUSH — No. 21431 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II, PHASE V LOTS 5, 12 THRU 22, 44 THRU 80, 88 THRU 102, 172 THRU 231 & 240 THRU 249 PHASES II, THRU V LOT 5, 12 THRU 22, 44 THRU 80, 88 THRU 102, 172 THRU 231 & 240 THRU 249

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 17, 2013
SHEET 55 OF 100

SDP-09-039

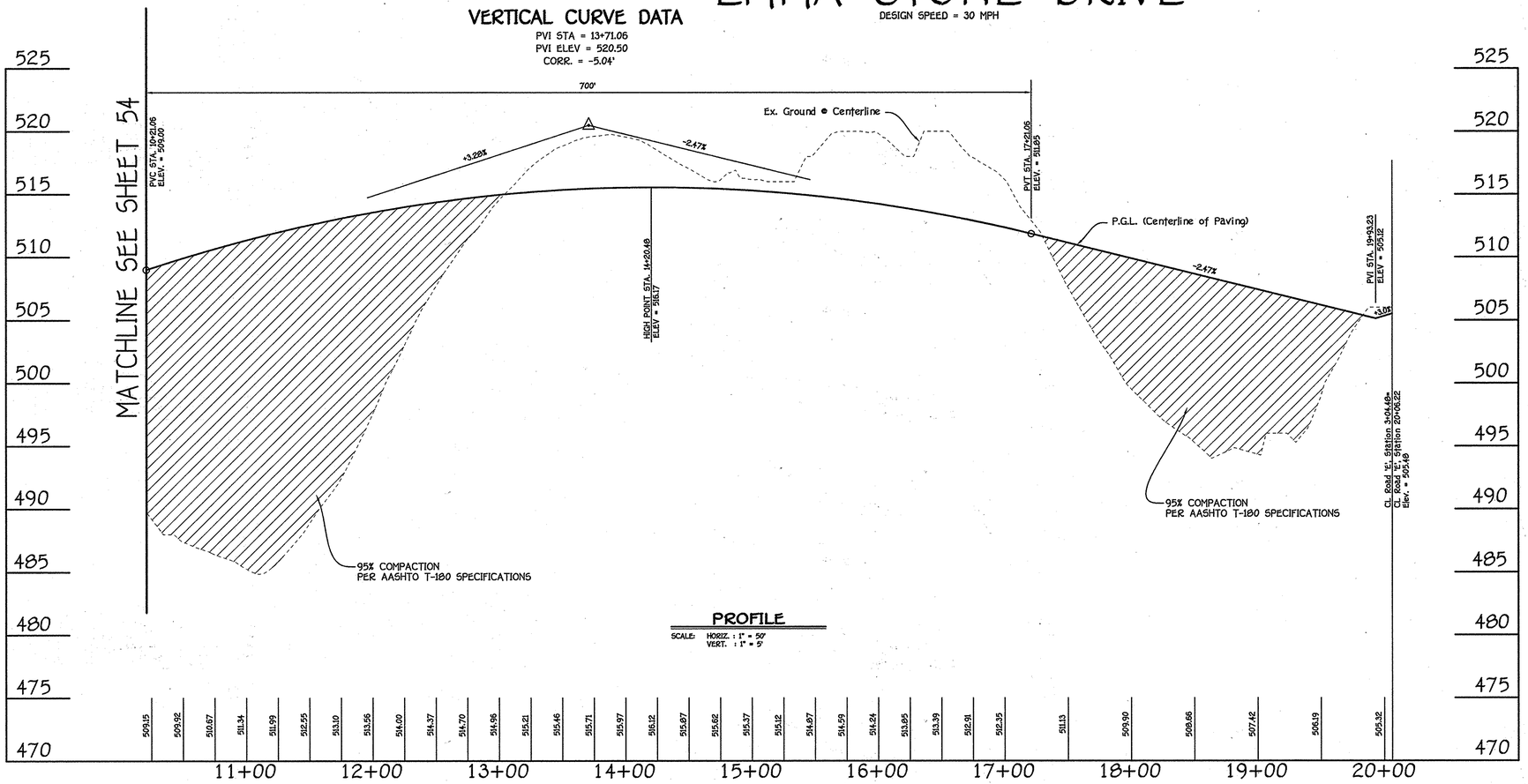
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 55, 11/14/2012 10:37:50 AM, 1:1

EMMA STONE DRIVE

DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA

PVI STA = 13+71.06
PVI ELEV = 520.50
CORR. = -5.04'



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-11-111 & ADD PHASE V TO SDP-09-039	10/31/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-101	10/17/12
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — JEWELL A. FISHER — No. 10968 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/10/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCEL 'B', PARCEL 'V', LOTS 5, 12-22, 44-70, 88-108, 172-231 & 240-303

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 22, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 303
TOWNHOUSE & SINGLE FAMILY HOMES

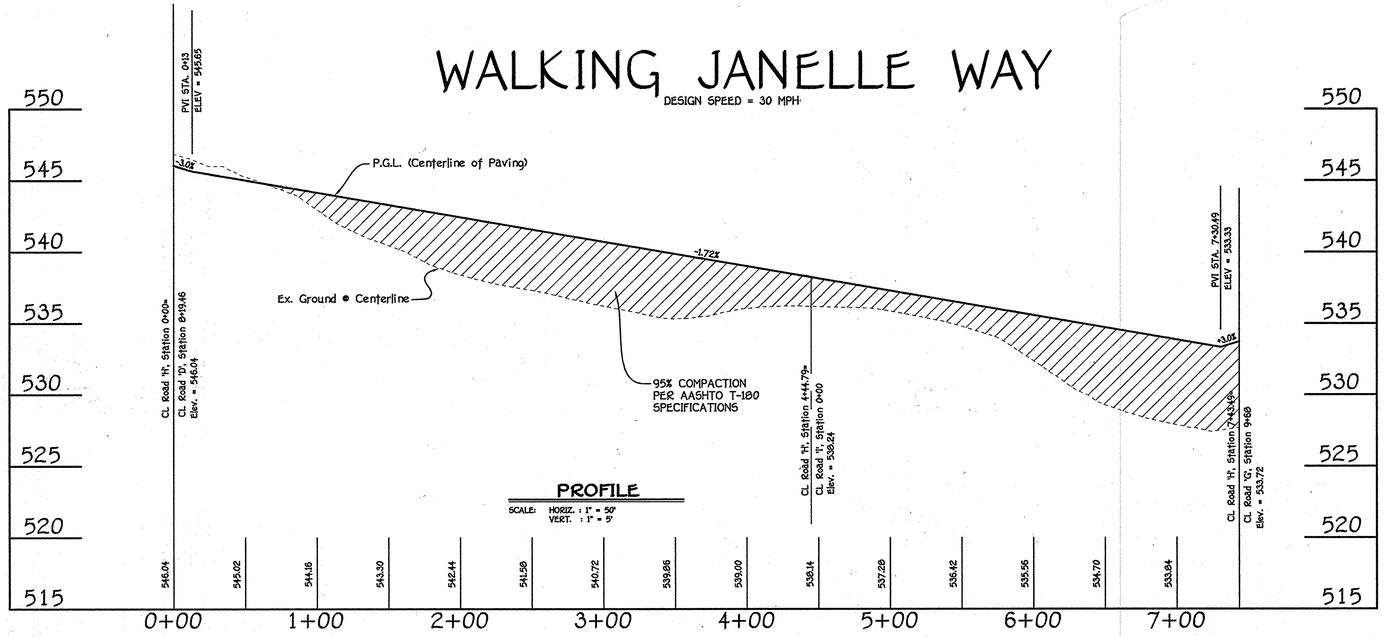
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 55 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 55, 11/14/2012 10:37:59 AM, 1:1

WALKING JANELLE WAY

DESIGN SPEED = 30 MPH



PROFILE

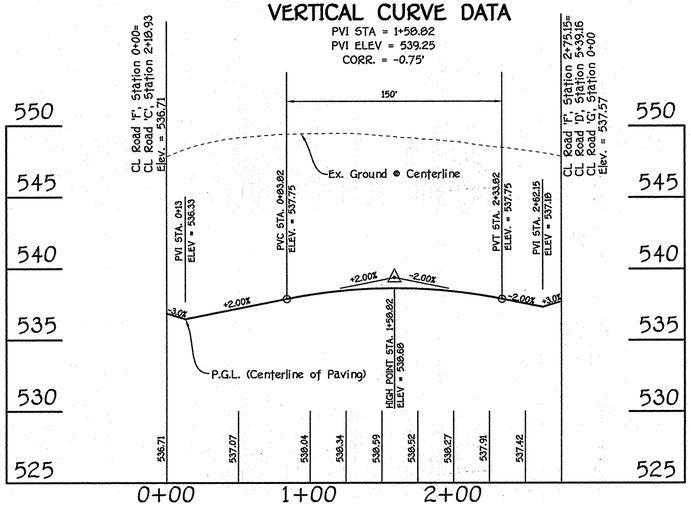
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

GREAT ALEXANDER STREET

DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA

PVI STA = 1+58.82
PVI ELEV = 539.25
CORR. = -0.75'

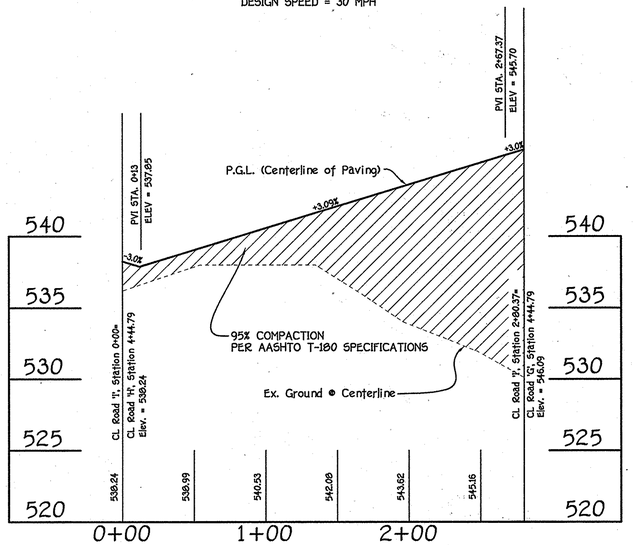


PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

IRVING GAMBLE ROAD

DESIGN SPEED = 30 MPH

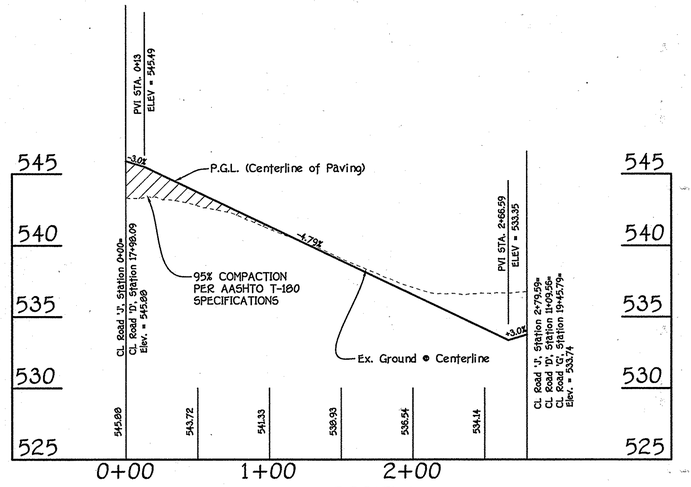


PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

NOAH FINN ROAD

DESIGN SPEED = 30 MPH



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — JEFFREY A. FISHER — No. 22406 — PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 9, 12 THRU 29, 44 THRU 86, 88 THRU 108, 168 THRU 171, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOT 9, 12 THRU 29, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 56 OF 100

SDP-09-039

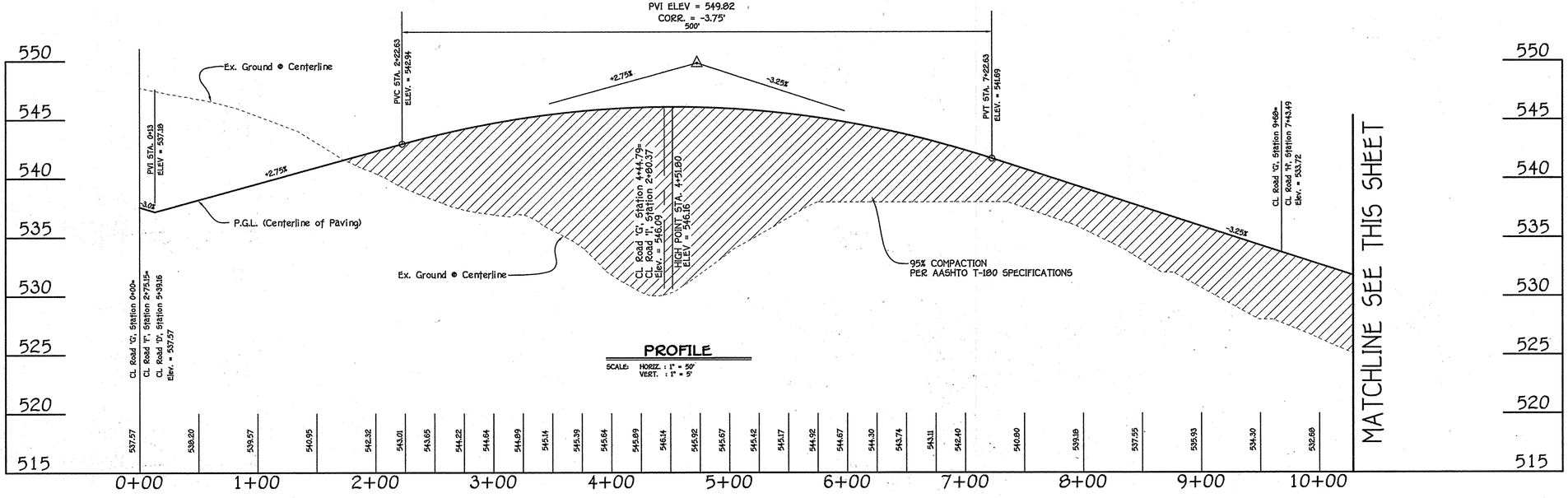
K:\2012\2012001\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 56, 11/14/2012 10:38:44 AM, 1:1

ANDERSON HILL STREET

DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA

PVI STA = 4+72.63
PVI ELEV = 549.82
CORR. = -3.75'



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

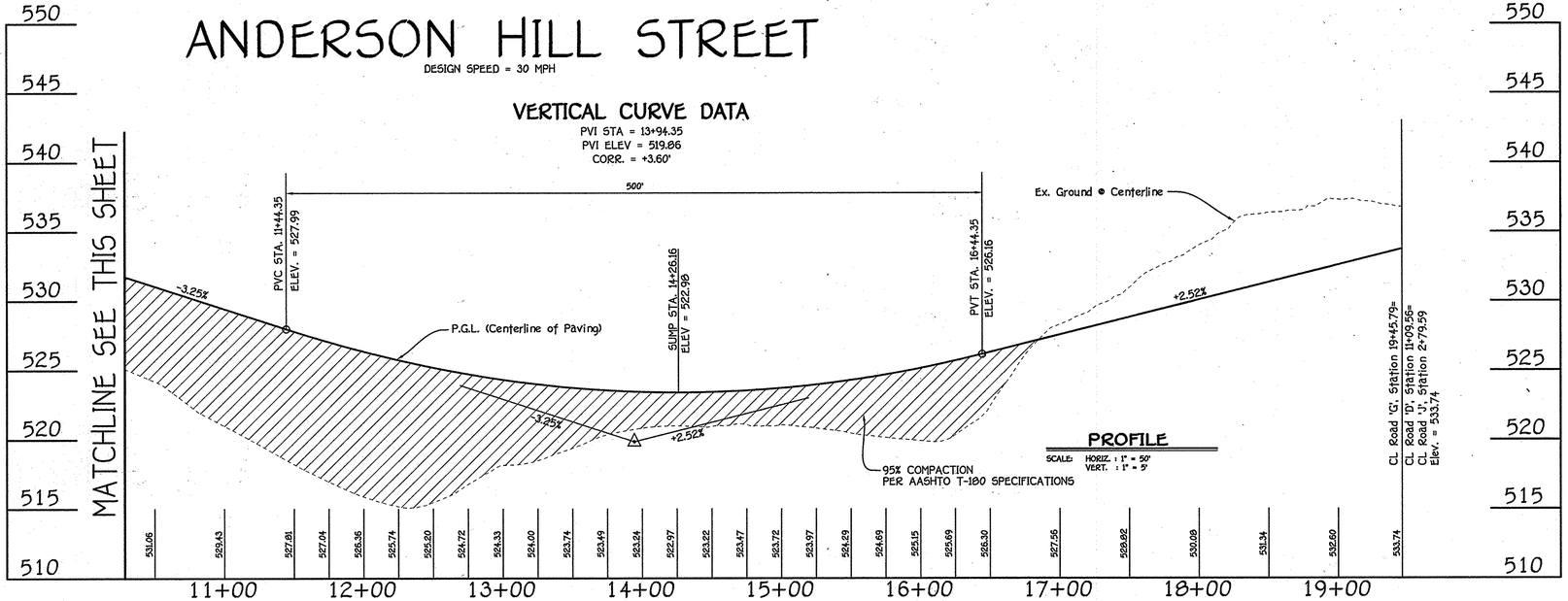
MATCHLINE SEE THIS SHEET

ANDERSON HILL STREET

DESIGN SPEED = 30 MPH

VERTICAL CURVE DATA

PVI STA = 13+94.35
PVI ELEV = 519.86
CORR. = +3.60'



PROFILE

SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVISED

NO.	REVISION	DATE
3	REVISED TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REVISED TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND — TERRELL L. FISHER — REG. NO. 21402 — EXPIRATION DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 150
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/18/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, III, IV, V, LOTS 3, 12-20, 44-60, 86-102, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

ROAD PROFILE

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III, IV, V, LOTS 3, 12 THRU 20, 44 THRU 60, 86 THRU 102, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 57 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 48-57 Road Profiles Roads B thru J.dwg, Sheet 57, 11/14/2012 10:41:16 AM, 1:1

STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment. Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface.

For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared. All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30 % passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick before compaction6 layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out. When required by the reviewing agency the minimum required density shall be not less than 95 % of maximum dry density with a moisture content within +2 optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill zone shall be of the type and quality conforming to the specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling banks or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections- All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24-inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2-inch greater than the corrugation depth. Pipes 24-inches in diameter and larger shall be connected by a 24-inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12-inches on the end of each pipe. Flanged joints with 3/8-inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high X of slump concrete placed under the pipe and up the sides of the pipe at least 90 its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Stucture Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (Anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe

The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirement of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirement of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings. Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for construction each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

OPERATION AND MAINTENANCE

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED S.W.M. PONDS No. 1, 2 & 3

1. THE FACILITY SHALL BE INSPECTED TWICE ANNUALLY - SPRING AND FALL. (INSPECTION TO BE PERFORMED BY THE OWNER.) VISUAL INSPECTION OF ALL COMPONENTS. PHYSICAL INSPECTION OF ANY MOVABLE PARTS, DRAIN, VALVES, ETC.

2. VEGETATED COVER SHALL BE MAINTAINED BY MOWING : LIMING AND FERTILIZING. AS A MINIMUM REQUIREMENT THE LIME AND FERTILIZER SHALL BE APPLIED ONE(1) TIME EVERY TWO(2) YEARS. NOTE: SPECIAL CARE SHALL BE TAKEN IN THE VICINITY OF STRUCTURES SO AS TO NOT DAMAGE THESE COMPONENTS WITH HEAVY EQUIPMENT.

3. RILLS ON THE SLOPES OF THE BASIN AND WASHES IN THE EARTH SPILLWAY SHALL BE FILLED WITH SUITABLE MATERIAL AND THOROUGHLY COMPACTED. THESE AREAS SHALL BE RESEEDED OR RESODDED, LIMED AND FERTILIZED AS NEEDED.

4. ALL APPURTENANCES SHALL BE KEPT FREE OF TRASH.

5. SEDIMENT REMOVAL IN THE FOREBAY SHALL OCCUR WHEN 50% OF THE TOTAL CAPACITY HAS BEEN LOST.

6. SEDIMENT REMOVED FROM THE FACILITY SHALL BE DISPOSED OF BASED ON CURRENT EROSION AND SEDIMENT CONTROL REGULATIONS.

7. CONTACT HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY REPAIR OF THE STRUCTURE, PIPE, OR DAM.

8. ALL REQUIRED MAINTENANCE SHALL BE PERFORMED BY THE OWNER OR OWNER'S REPRESENTATIVE AT THE OWNER'S USERS EXPENSE.

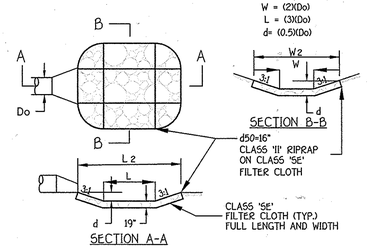
FACILITY SUMMARY

	WQv	CPv	1 YEAR	10 YEAR	100 YEAR
Developed Outflow (cfs)	N/A	0.8	0.6	50.4	112.5
Water Surface Elevation	512.00	514.25	514.19	515.18	515.87
Storage Required (ac. ft.)	0.9655	1.3748	1.3748	NA	NA
Storage Provided (ac. ft.)	1.6599	1.7799	1.7248	0.9157	1.5539
Watershed				Little Patuxent River	
Structure Type			"MICRO-POOL" EXTENDED DETENTION POND (P-1)		

Structure Classification	LOW HAZARD A - 378
Structure Location	Urban
Storage Height Product	55.843ac/ft^2
Watershed Area to Facility	26.81 acres
Minimum Top Width Provided	12 feet
Maximum Height of Fill	8.0 feet
Maximum 100-Year Impoundment Depth	9.87 feet
Freeboard Provided Above 100 Year	2.13 feet

FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED.
MANAGEMENT PROVIDED: Rev WQv Cpv 1-Year

LOC	Do	d	W	L	W2	L2
E-2	4.00'	2.00'	8.0'	12.0'	10.0'	12.0'



W = (2)(Do)
L = (3)(Do)
d= (0.5)(Do)

SECTION B-B

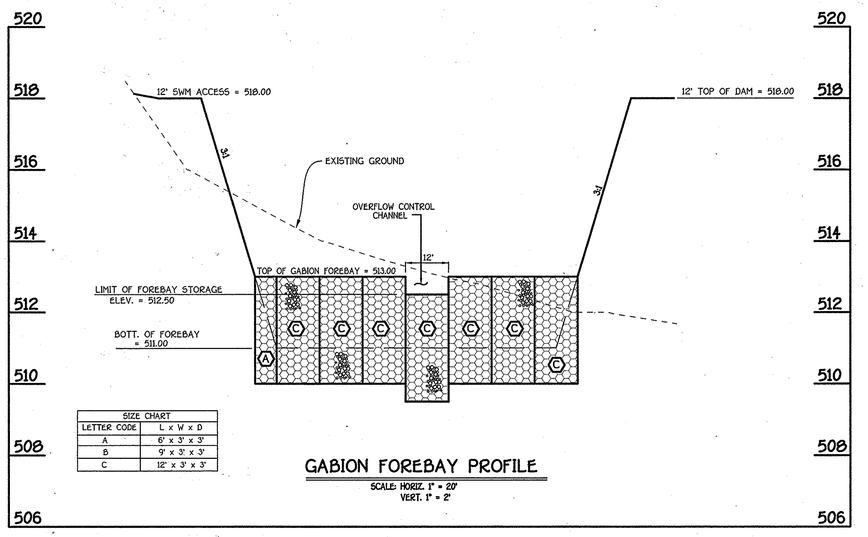
d=50-16" CLASS 'I' RIPRAP ON CLASS 'SE' FILTER CLOTH

CLASS 'SE' FILTER CLOTH (TYP.) FULL LENGTH AND WIDTH

SECTION A-A

RIP RAP PLUNGE POOL

NOT TO SCALE



SIZE CHART	
LETTER CODE	L x W x D
A	6' x 3' x 3'
B	9' x 3' x 3'
C	12' x 3' x 3'

GABION FOREBAY PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

2. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.

3. GEOTEXTILE SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE SHALL BE A MINIMUM OF ONE FOOT.

4. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.

5. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

REVISED

T.E.SCOTT+ASSOCIATES
LANDSCAPE STORMWATER ENVIRONMENT
128 Cockeysville Road phone: 410.458.2651
Hunt Valley, MD 21030 fax: 443.269.0216
tes@mdswm.com www.mdswm.com

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND - TERRELL A. FISHER - NO. 9757 - REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 11/15/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/20/12

Director - Department of Planning and Zoning — Date 12/20/12

PROJECT		SECTION		PARCEL NO. 'E' PHASES II, THRU V LOTS 5, 12 THRU 32, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 309
GTW'S WAVERLY WOODS		14		
PLAT (SEE GENERAL NOTE #31)	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

B.M.P. No. 2 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 32, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 309

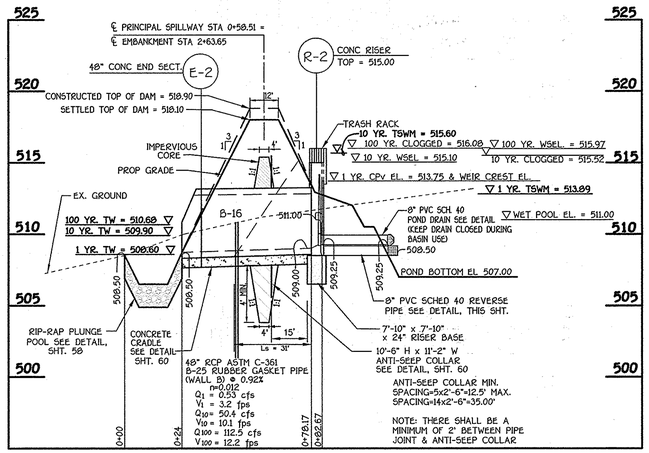
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 2013
SHEET 58 OF 100

SDP-09-039

K:\SDSKPROJ\10770 GTW WEST\dwg\Construction Document\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 10770 Sheet 58-69 Bmp No 2 Swm Details.dwg, Sheet 58, 11/14/2012 10:43:44 AM, 1:1

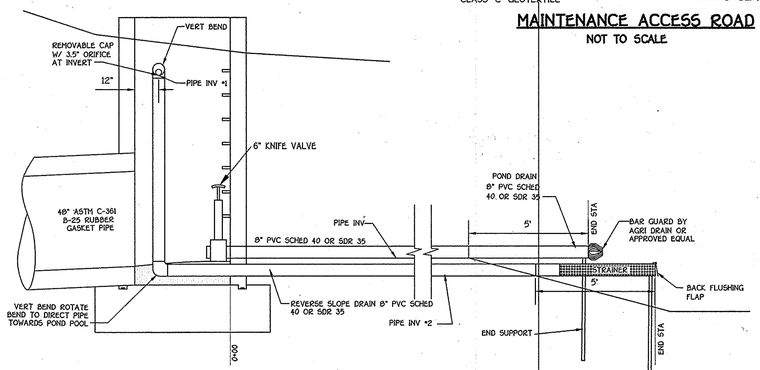


SWM FACILITY #2 - PROFILE ALONG ℄ PRINCIPAL SPILLWAY

SCALE: HORZ.:1"=30'
VERT.:1"=5'

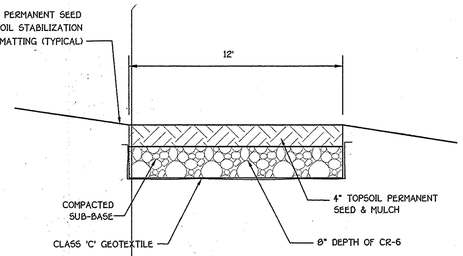
REVERSE SLOPE DRAIN DIMENSIONS / ELEVATIONS					
FAC	PIPE INV #1	VERT BEND STA	PIPE INV #2	VERT BEND STA	END STA
1	511.83	0+05	508.50	0+05	0+43

POND DRAIN DIMENSIONS / ELEVATIONS			
FAC	POND BOTT	PIPE INV	END STA
1	507.00	509.25	0+30



REVERSE SLOPE AND POND DRAIN DETAIL

NOT TO SCALE



MAINTENANCE ACCESS ROAD

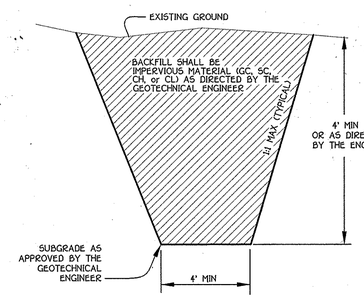
NOT TO SCALE

Embankment and Cut-off Trench Construction

THE AREA OF THE PROPOSED SWM POND SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROOFROLLED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE UTILIZING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROOFOLLING OR PENETROMETER TESTING SHOULD BE EXCAVATED TO SUITABLE FIRM SOIL, AND THEN GRADED RE-ESTABLISHED BY BACKFILLING WITH SUITABLE SOIL.

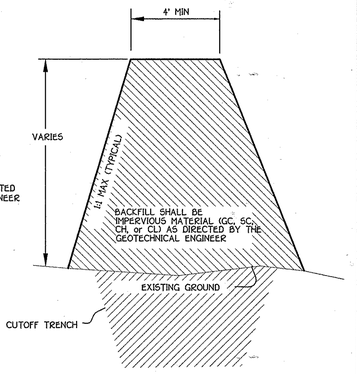
A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO MONITOR PLACEMENT AND COMPACTION OF FILL FOR THE EMBANKMENT AND CUT-OFF TRENCH. IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SPECIFICATION 370 SOILS CONSIDERED SUITABLE FOR THE CENTER OF EMBANKMENT AND CUT-OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL.

IT IS OUR PROFESSIONAL OPINION THAT IN ADDITION TO THE SOIL MATERIALS DESCRIBED ABOVE A FINE GRAINED SOIL, INCLUDING SILT (ML) WITH A PLASTICITY INDEX OF 10 OR MORE CAN BE UTILIZED FOR THE CENTER OF THE EMBANKMENT AND CORE TRENCH. BASED ON OUR VISUAL CLASSIFICATIONS IT APPEARS THAT SOME OF THE ON-SITE SOILS, ESPECIALLY THE NEAR SURFACE SOILS, WILL BE SUITABLE FOR USE AS CORE TRENCH MATERIAL. IT IS RECOMMENDED THAT ADDITIONAL EXPLORATION AND LABORATORY TESTING BE PERFORMED PRIOR TO POND CONSTRUCTION TO IDENTIFY AND QUANTIFY POTENTIAL BORROW AREAS FOR CORE TRENCH MATERIAL. ALL FILL MATERIALS MUST BE PLACED AND COMPACTED WITH MD SCS 370 SPECIFICATIONS.



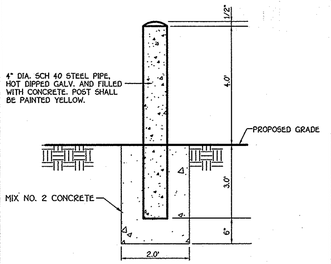
CUTOFF TRENCH DETAIL

NOT TO SCALE



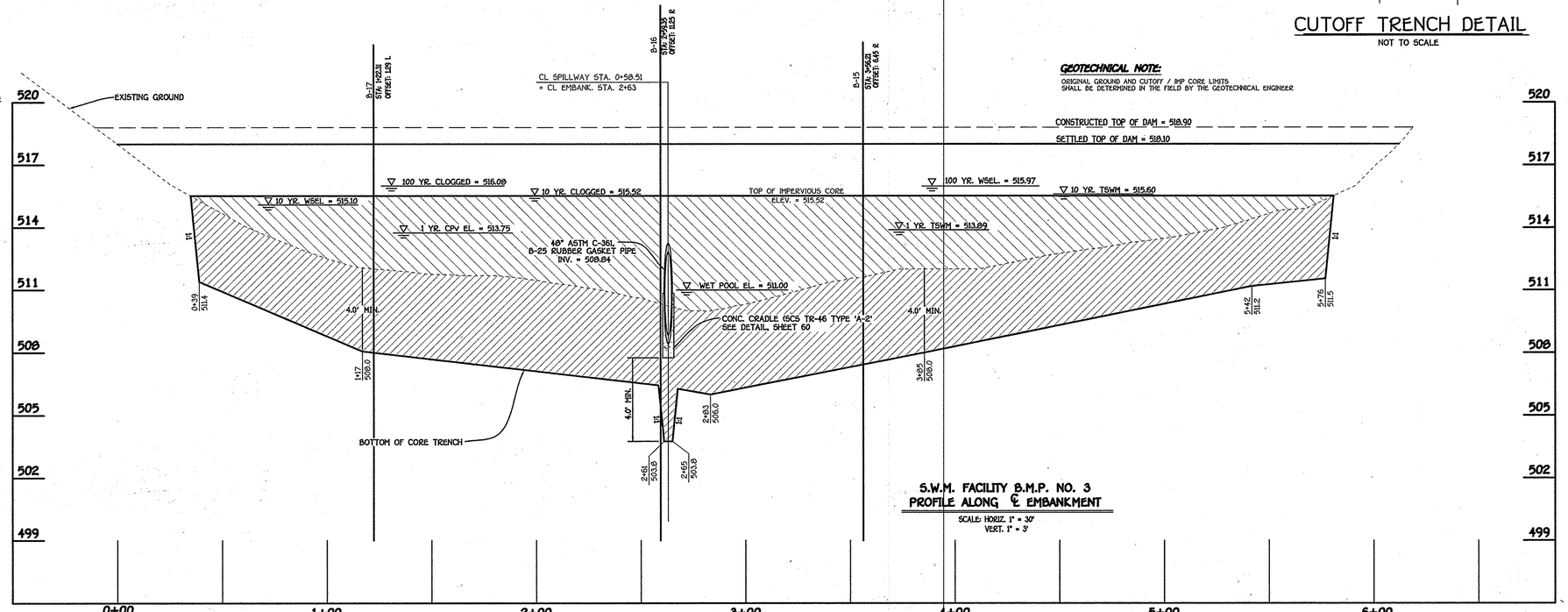
IMPERVIOUS CORE DETAIL

NOT TO SCALE



TYPICAL METAL BOLLARD DETAIL

NOT TO SCALE (STD. G-7.42)

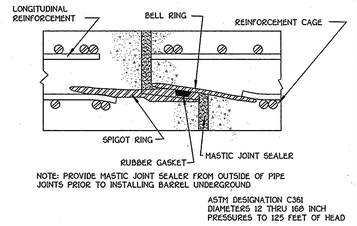


S.W.M. FACILITY B.M.P. NO. 3 PROFILE ALONG ℄ EMBANKMENT

SCALE: HORIZ. 1" = 30'
VERT. 1" = 3'

GEOTECHNICAL NOTE:

ORIGINAL GROUND AND CUTOFF / IMP CORE LIMITS SHALL BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER



NOTE: PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL UNDERGROUND

ASTM DESIGNATION C361
DIAMETERS 12 THRU 150 INCH
PRESSURES TO 125 FEET OF HEAD

CONCRETE PIPE JOINT DETAIL

NO SCALE

REVISED

T.E.SCOTT+ASSOCIATES
LANDSCAPE STORMWATER ENVIRONMENT
128 Cockeysville Road phone: 410.458.2651
Hunt Valley, MD 21030 fax: 443.269.0216
tes@mdswm.com www.mdswm.com

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 11/14/12 Date

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — 11/14/12 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — 11/15/12 Date

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 5, 17-29, 44-56, 88-105, 172-231 & 240-309

PLAT # SEE GENERAL NOTE #21	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

B.M.P. No. 2 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 17 THRU 29, 44 THRU 56, 88 THRU 105, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 59 OF 100

SDP-09-039

K:\SDS\PROJ\13070 GTW WEST\dwg\Construction Documents\Realline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 58-60 Bmp No 2 Swm Details.dwg, Sheet 59, 11/14/2013 10:46:40 AM, 1:1

CAST-IN-PLACE CONCRETE SPECIFICATIONS

1. Specifications: Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, latest edition.

   AASHTO Standard Specifications for Highway Bridges, latest edition, for design. Concrete design by the "Service Load Design Method".

2. Concrete: shall meet the requirements of the Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414 and 902, Mix No. 3.

3. Contractor may add color mix at plant in accordance with manufactures recommendation "C-12 mesa beige" as manufactured by L. M. Scofield Company, (213) 723-5285.

   Contractor shall supply mix design for approval prior to application. Load and mix tickets shall be supplied for each truck delivery. No partial field mixes shall be allowed.

   All concrete shall attain a minimum compressive strength of 3,500 psi at 28 days. Design fc=1,200 psi.

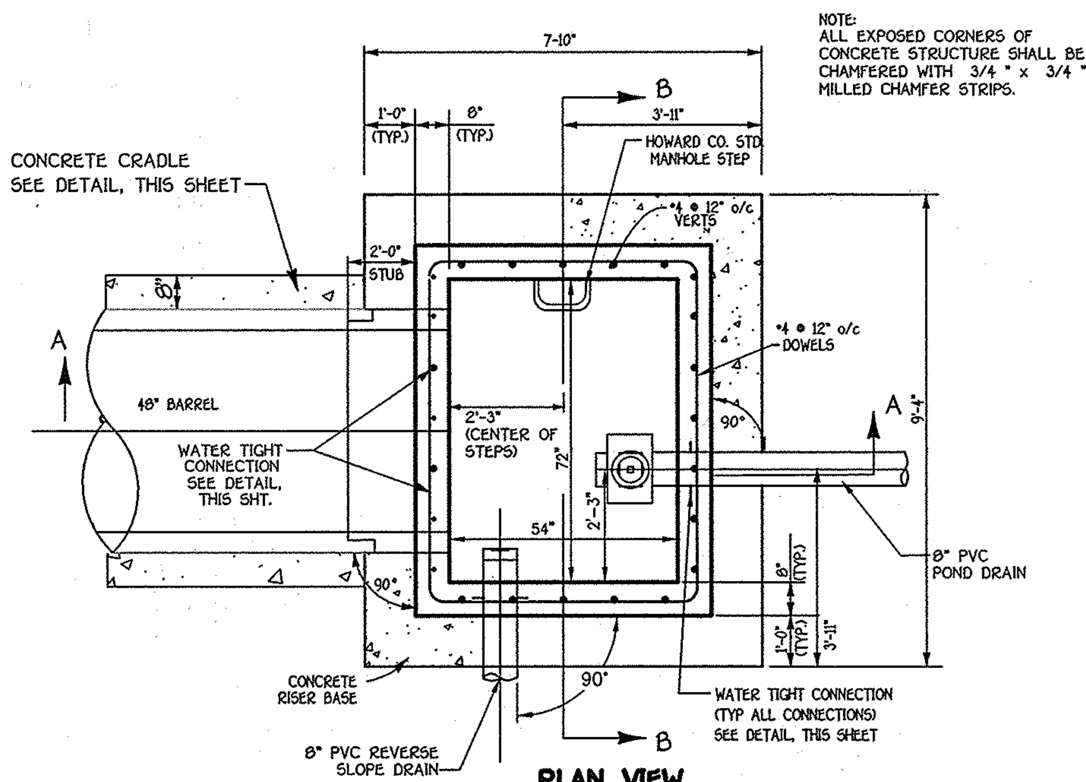
   All exposed edges shall be chamfered 3/4 " x 3/4 ". All construction keys are shown nominal size.

4. Reinforcing Steel: Reinforcing steel shall conform to ASTM A-615, Grade 60. Where not indicated, bar lap splices shall be in accordance with AASHTO specifications. The minimum concrete cover shall be 2 inches unless otherwise noted. Design fs = 24,000 psi.

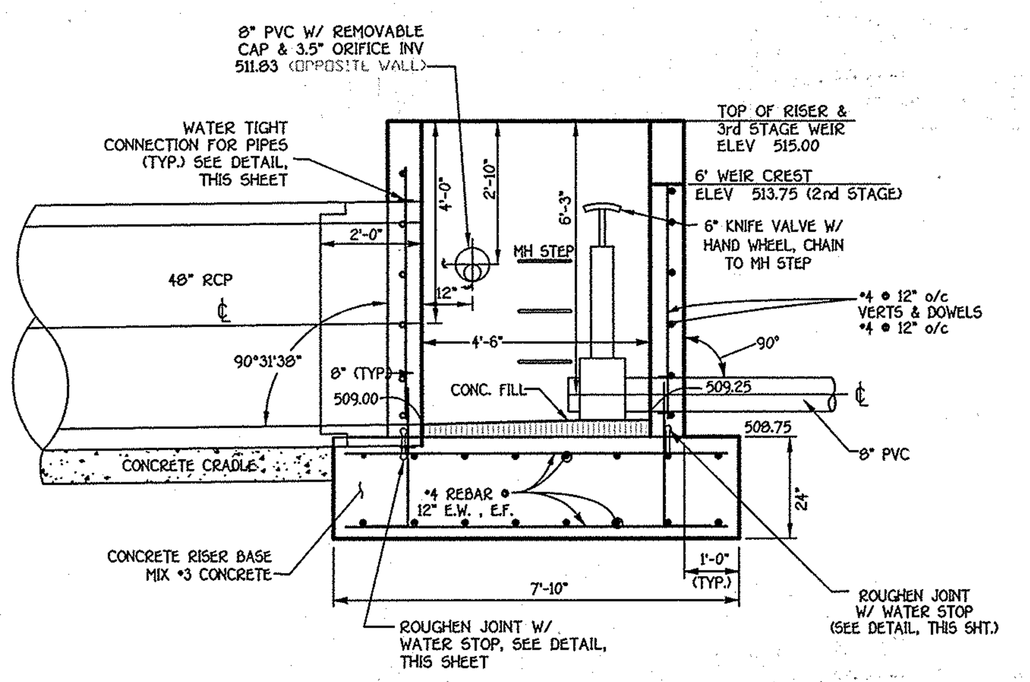
5. Foundation: Presumed soil bearing capacity = 2,500 psf. The engineer must approve all foundations prior to concrete placement. If unsuitable material is encountered, the material shall be undercut and backfilled with structural backfill.

6. Structural Backfill: Cast-in-place concrete structures and pipe shall be backfilled with select granular backfill meeting the requirements of SHA graded aggregate-subbase. Structural fill shall be placed in loose lifts of approximately 6 inches, and compacted to 95% of the standard proctor maximum dry density in accordance with AASHTO T-180. The static weight of equipment used adjacent to walls shall not exceed 3,000 pounds. No backfill shall be placed against the cast-in-place walls until the concrete has attained the specified 28 day strength.

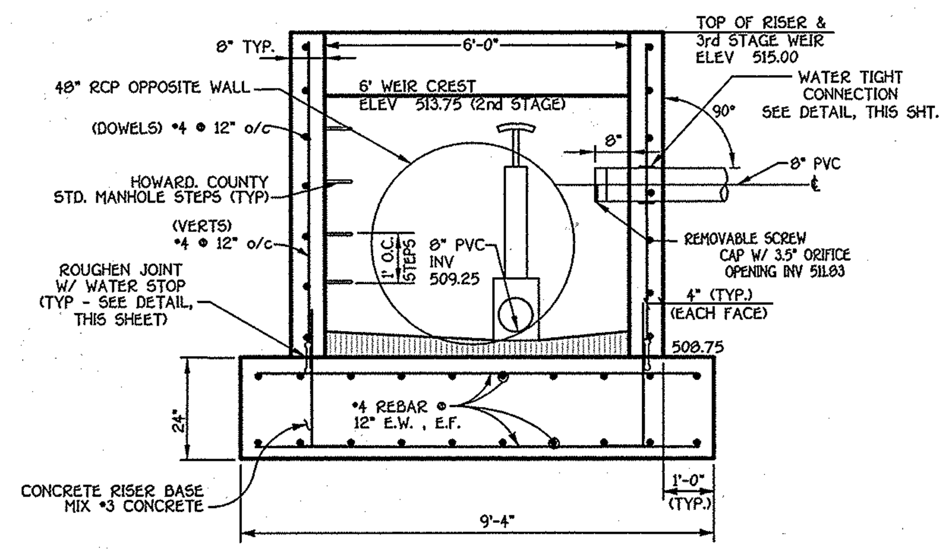
NOTE:
ALL EXPOSED CORNERS OF CONCRETE STRUCTURE SHALL BE CHAMFERED WITH 3/4 " x 3/4 " MILLED CHAMFER STRIPS.



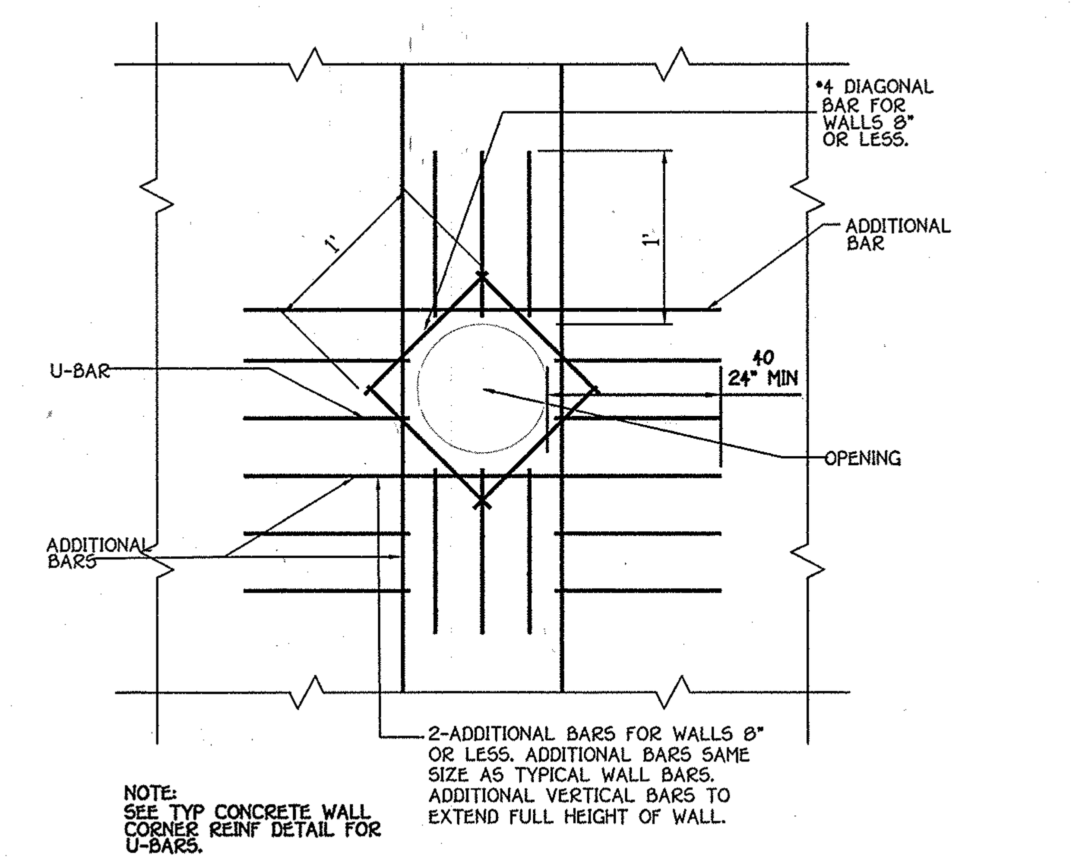
PLAN VIEW (SLAB REMOVED)
SCALE: 1" = 2'



SECTION A-A
SCALE: 1" = 2'



SECTION B-B
SCALE: 1" = 2'

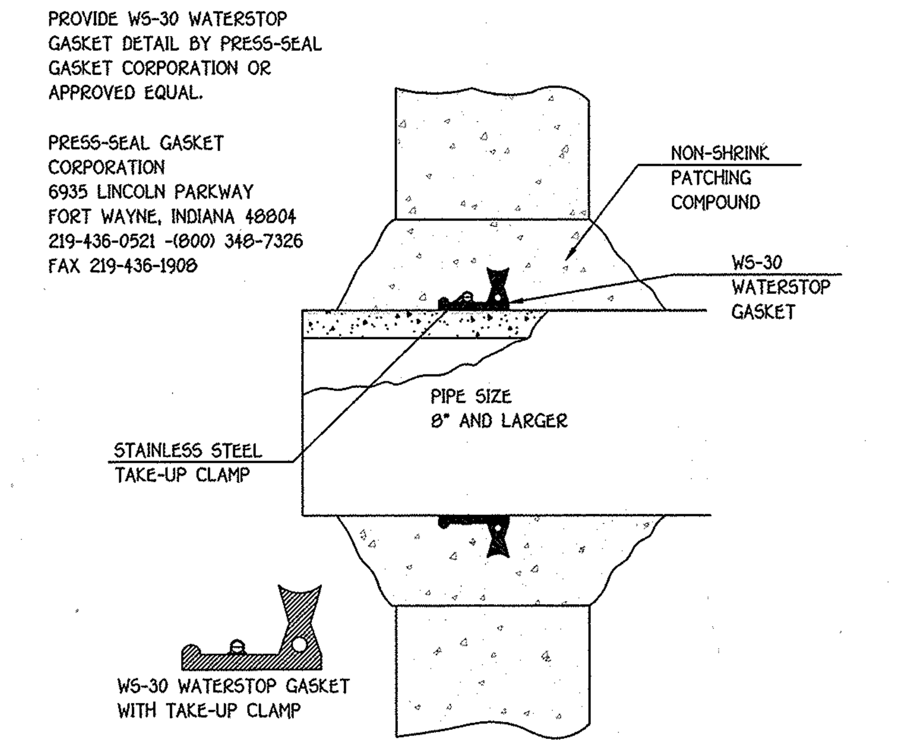


NOTE:
SEE TYP CONCRETE WALL CORNER REINF DETAIL FOR U-BARS.

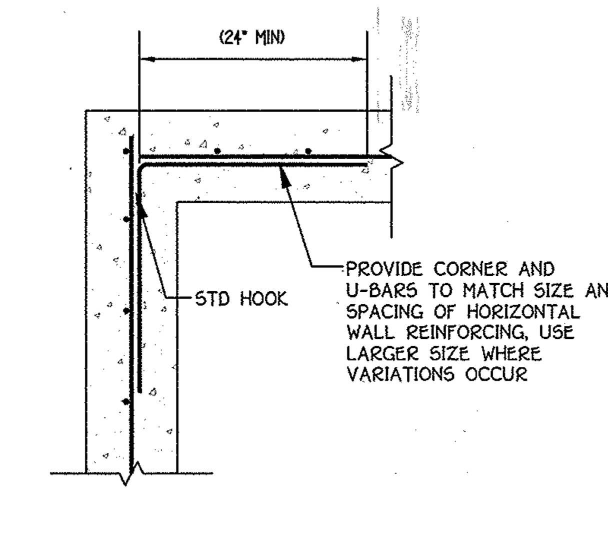
ADDITIONAL BARS AROUND OPENING IN CONCRETE WALL
NOT TO SCALE

PROVIDE WS-30 WATERSTOP GASKET DETAIL BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL.

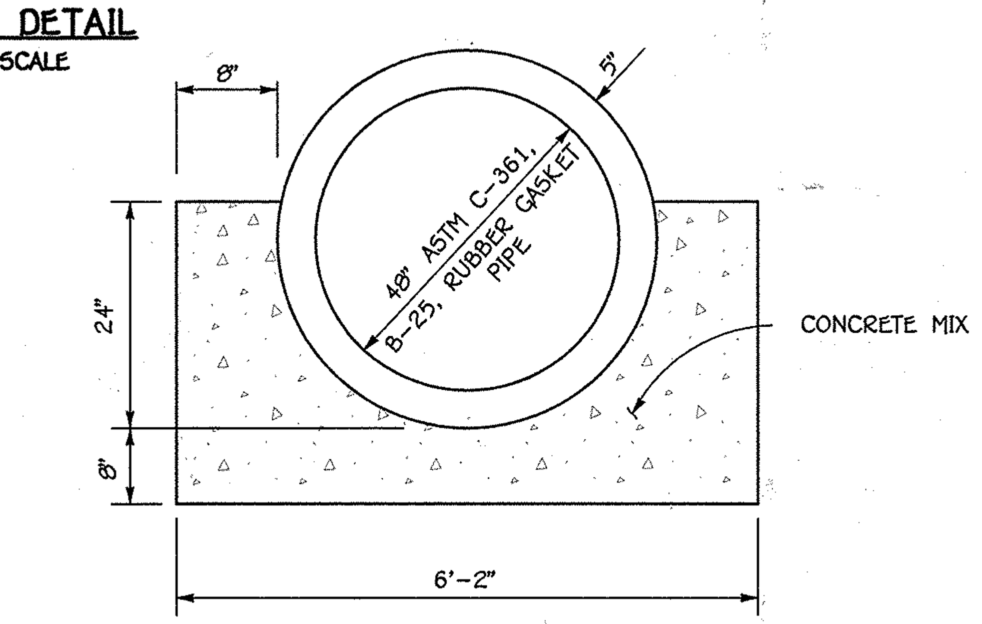
PRESS-SEAL GASKET CORPORATION
6935 LINCOLN PARKWAY
FORT WAYNE, INDIANA 48804
219-436-0521 -(800) 348-7326
FAX 219-436-1908



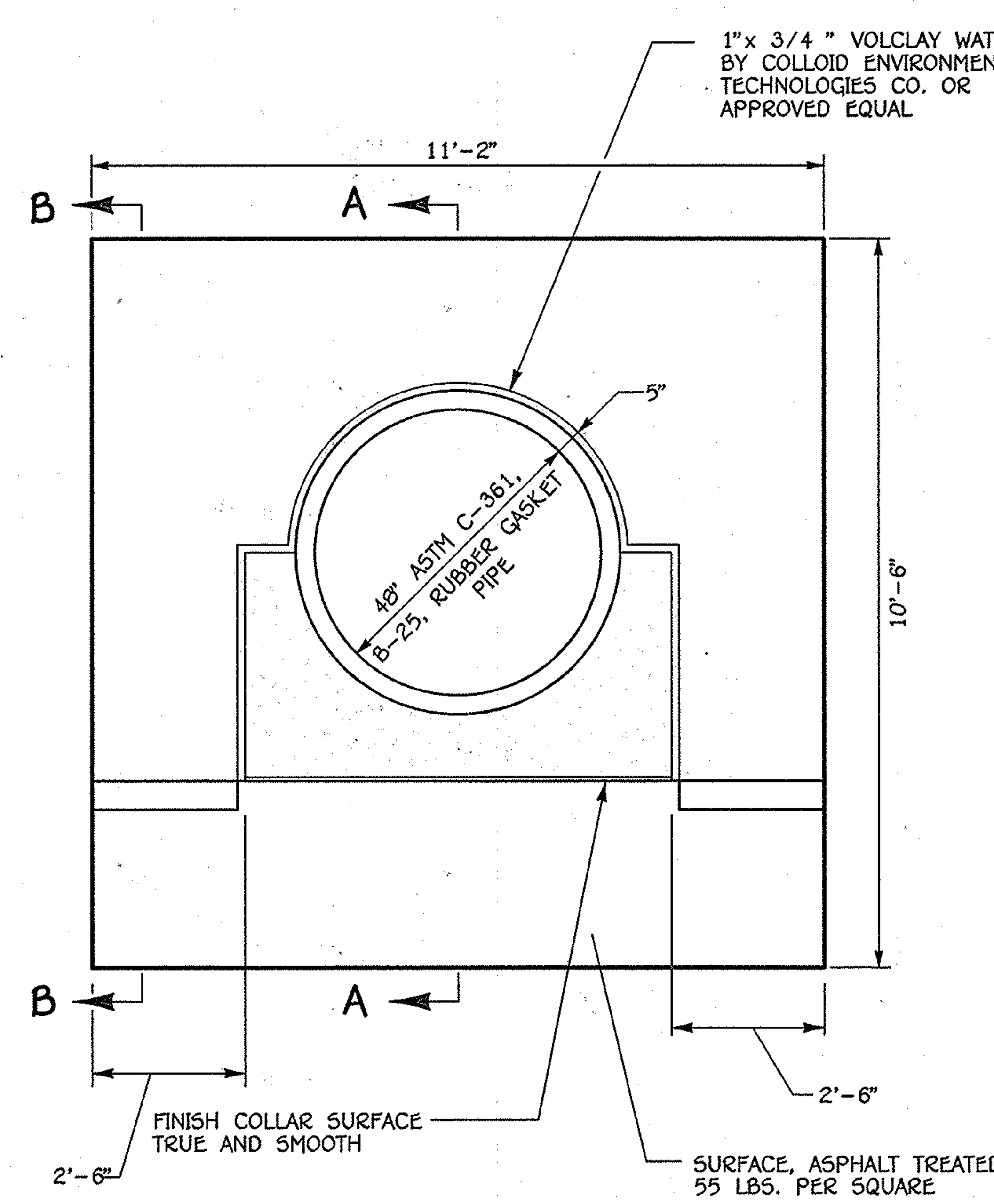
WATERTIGHT CONNECTION DETAIL
NOT TO SCALE



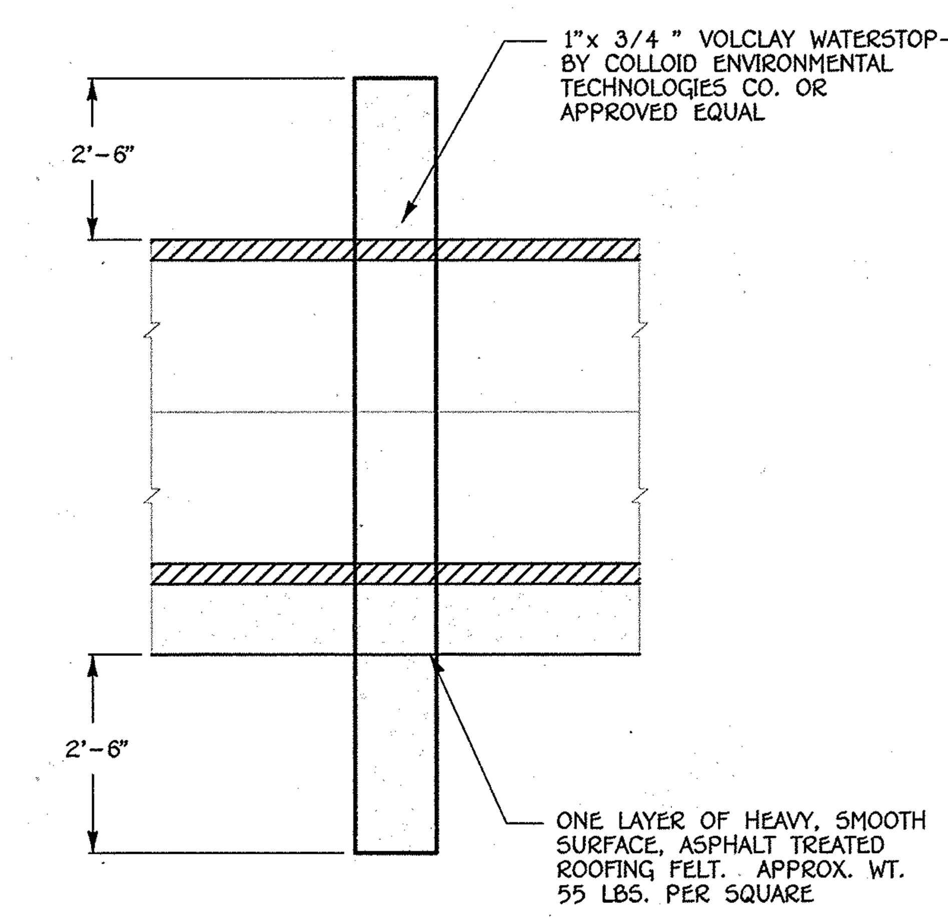
CONCRETE WALL CORNER REINFORCING
NOT TO SCALE



SCS TR-46 TYPE 'A-2'



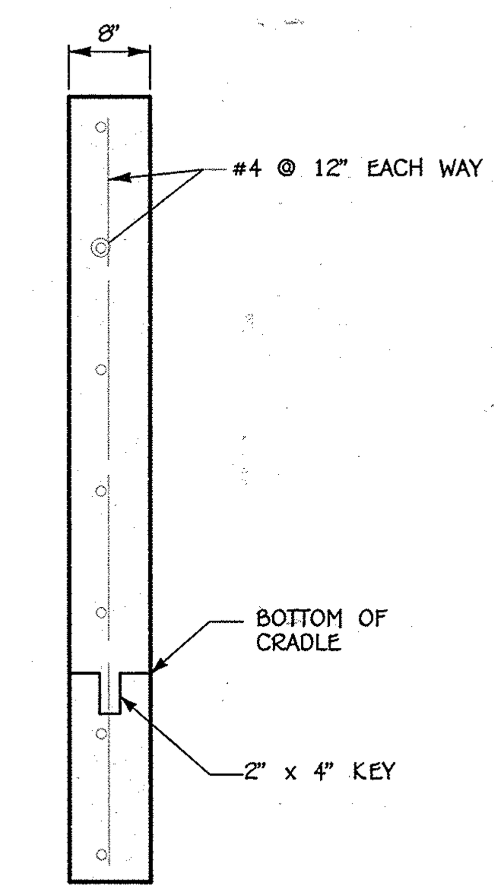
DETAIL SHOWN FOR EARTH FOUNDATION. FOR ROCK FOUNDATION, FOUND BOTTOM OF CRADLE ON ROCK LINE AND KEY COLLAR 6" INTO ROCK.



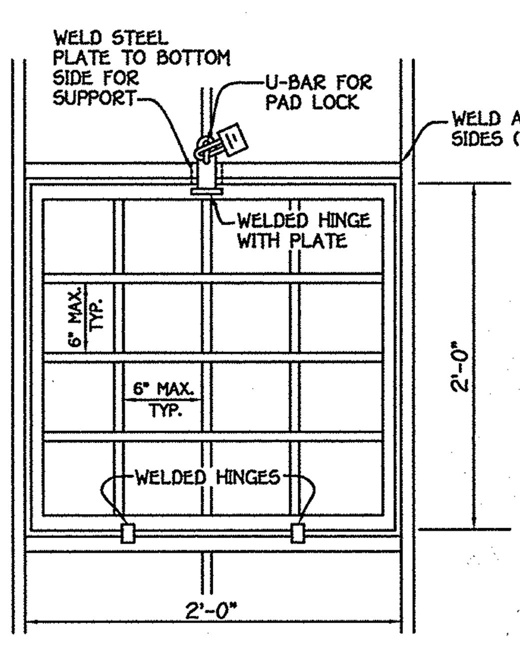
SECTION A-A

NOTE: ANTI-SEEP COLLAR TO BE FIELD ADJUSTED TO BE A MIN. 2' FROM ANY PIPE JOINT.

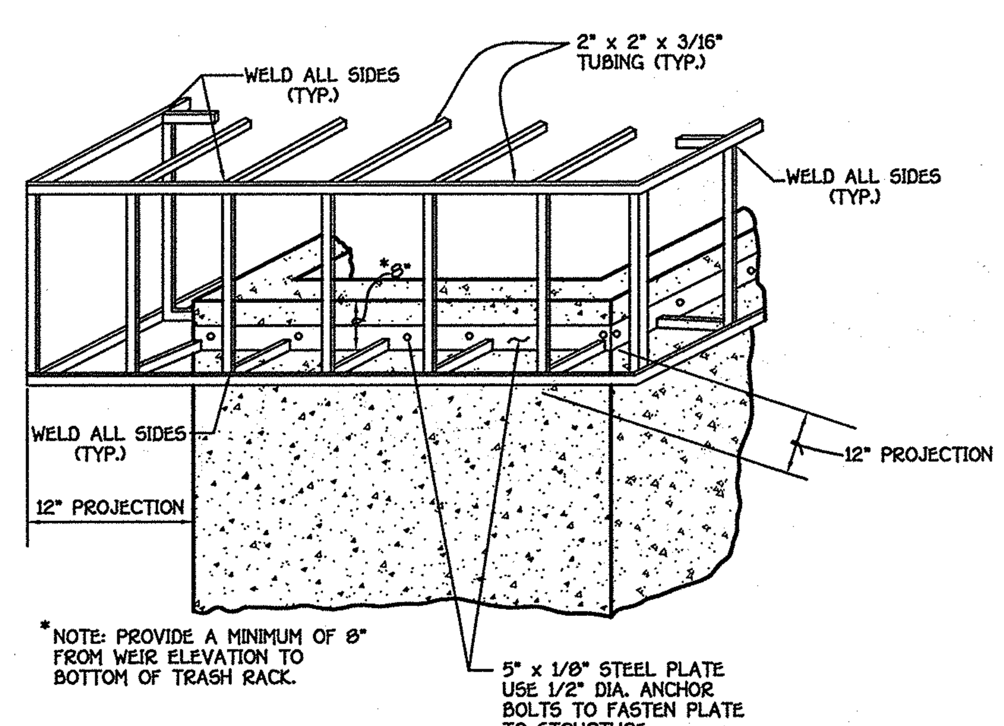
NOTE: PROVIDE ASPHALT JOINT FILLER MATERIAL BETWEEN ALL CONCRETE SURFACES EXCEPT BETWEEN THE PIPE AND CONC. CRADLE.



SECTION B-B
(SHOWING STEEL)



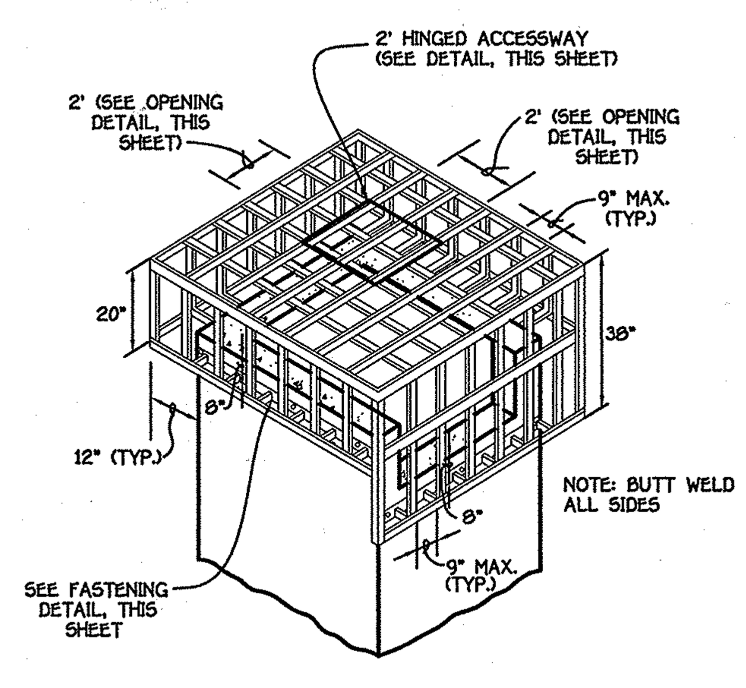
OPENING DETAIL
NO SCALE



*NOTE: PROVIDE A MINIMUM OF 8" FROM WEIR ELEVATION TO BOTTOM OF TRASH RACK.

5" x 1/8" STEEL PLATE USE 1/2" DIA. ANCHOR BOLTS TO FASTEN PLATE TO STRUCTURE

FASTENING DETAIL
NO SCALE



TRASH RACK DETAIL
NO SCALE

NOTE: CONTRACTOR SHALL
1. FIELD MEASURE THE STRUCTURE DIMENSIONS FOR EXACT FITTING OF TRASH RACK.
2. GALVANIZE ENTIRE TRASH RACK.
3. ALL NUTS AND BOLTS SHALL BE GALVANIZED.

T.E.SCOTT+ASSOCIATES
LANDSCAPE STORMWATER ENVIRONMENT
128 Cockeysville Road phone: 410.458.2651
Hunt Valley, MD 21030 fax: 443.269.0216
tes@mdswm.com www.mdswm.com

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 8757 REGISTERED — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 11/15/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/18/12

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PHASES II, THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

B.M.P. No. 2 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 60 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 58-60 Bmp No 2 Swm Details.dwg, Sheet 60, 11/14/2012 10:48:26 AM, 1:1

STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick before compacted layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within +2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal lifters not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill zone shall be of the type and quality conforming to the specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe

1. Materials - Galvanized Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling banks or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections- All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24-inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2-inch greater than the corrugation depth. Pipes 24-inches in diameter and larger shall be connected by a 24-inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12-inches on the end of each pipe. Flanged joints with 3/8-inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe

The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1220 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirement of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirement of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

OPERATION AND MAINTENANCE

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

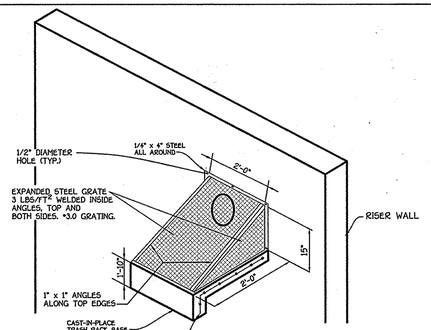
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND JOINTLY MAINTAINED STORMWATER MANAGEMENT FACILITIES

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections shall be preformed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repairer as soon as it is noticed.

NON-ROUTINE MAINTENANCE

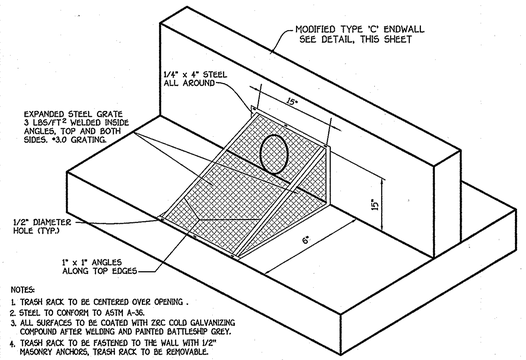
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond or forebay, is half full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.



NOTES:
1. TRASH RACK TO BE CENTERED OVER OPENING .
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING AND PAINTED BATTLESHIP GREY.
4. TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS, TRASH RACK TO BE REMOVABLE.

EXPANDED METAL TRASH RACK FOR LOW FLOW ORIFICE

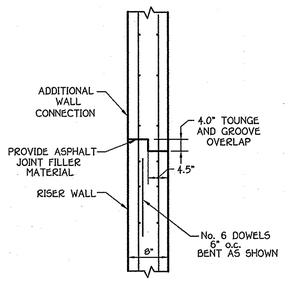
NOT TO SCALE



NOTES:
1. TRASH RACK TO BE CENTERED OVER OPENING .
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING AND PAINTED BATTLESHIP GREY.
4. TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS, TRASH RACK TO BE REMOVABLE.

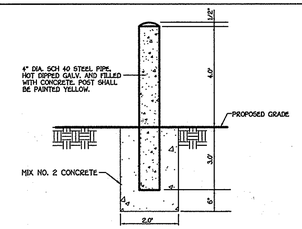
EXPANDED METAL TRASH RACK FOR DRAIN PIPE

NOT TO SCALE



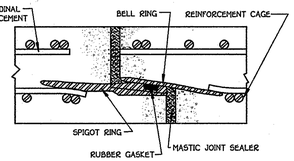
KEYED JOINT DETAIL WALL SECTION TO WALL SECTION

NOT TO SCALE



TYPICAL METAL BOLLARD DETAIL

NOT TO SCALE (STD. G-7.42)

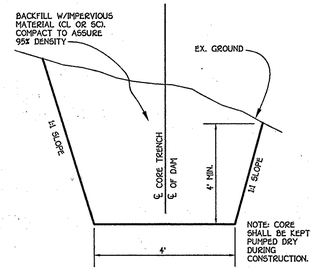


NOTE: PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL UNDERGROUND

ASTM DESIGNATION C361 DIAMETERS 12 THRU 168 INCH PRESSURES TO 125 FEET OF HEAD

CONCRETE PIPE JOINT DETAIL

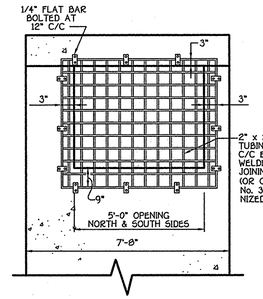
NOT TO SCALE



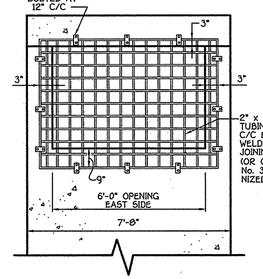
NOTE: CORE SHALL BE KEPT PUMPED DRY DURING CONSTRUCTION.

CORE TRENCH DETAIL

NOT TO SCALE

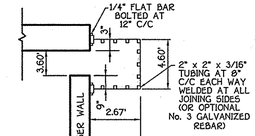


TRASH RACK 'B'



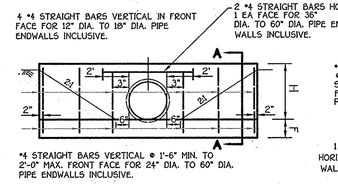
TRASH RACK 'A'

NOTES:
1. FIELD MEASURE THE STRUCTURE DIMENSIONS TO INSURE EXACT FIT OF TRASH RACK.
2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
3. PAINT BATTLESHIP GRAY.
4. AB = 46.7 SQ.FT.
   AW = 45.9 SQ.FT. @ 100yr. CLOGGED
   AB > AW



TRASH RACK DETAIL

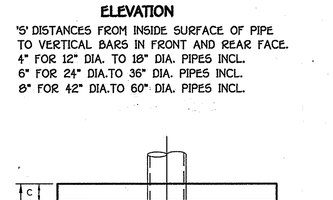
NOT TO SCALE



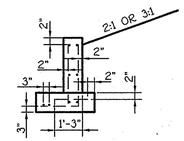
ELEVATION

'S' DISTANCES FROM INSIDE SURFACE OF PIPE TO VERTICAL BARS IN FRONT AND REAR FACE.
4" FOR 12" DIA. TO 18" DIA. PIPES INCL.
6" FOR 24" DIA.TO 36" DIA. PIPES INCL.
8" FOR 42" DIA.TO 60" DIA. PIPES INCL.

SECTION A-A



PLAN



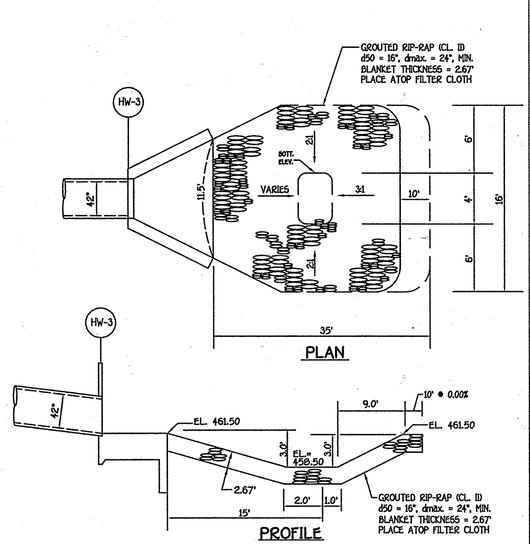
DISPOSITION OF BARS - DETAIL

REINFORCING: DEFORMED STEEL BARS (1/2" DIA.)
CHAMFER: ALL EXPOSED EDGES 1"x 1" OR AS DIRECTED.
CONC. SHALL BE S.H.A. A. MIX No. 2.

OPENINGS		DIMENSIONS							VOLUME	STEEL
D IN.	AREA SQ.FT	A	B	C	E	F	H	L	CONC. C.Y.	LBS.
6"	0.79	9"	6"	6"	1'-9"	9"	1'-6"	5'-5"	0.61	38

MODIFIED TYPE 'C' ENDWALL

NO SCALE



STILLING BASIN OUTFALL @ POND NO. 3

NO SCALE

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER P-13-111 & ADD PHASE V TO SDP-09-039	10/31/12
2	REV. TO ADD FEE SIMPLE LOTS PER P-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER P-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

STATE OF MARYLAND — TERRENCE A. FISHER — NO. 9162 — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 11/16/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/10/12

Chief, Development Engineering Division — Date 12/10/12

Director - Department of Planning and Zoning — Date 12/10/12

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, THRU V LOTS 2, 12 THRU 39, 44 THRU 62, 88 THRU 105, 172 THRU 231 & 240 THRU 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE	
K-02		5992000	

B.M.P. No. 3 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

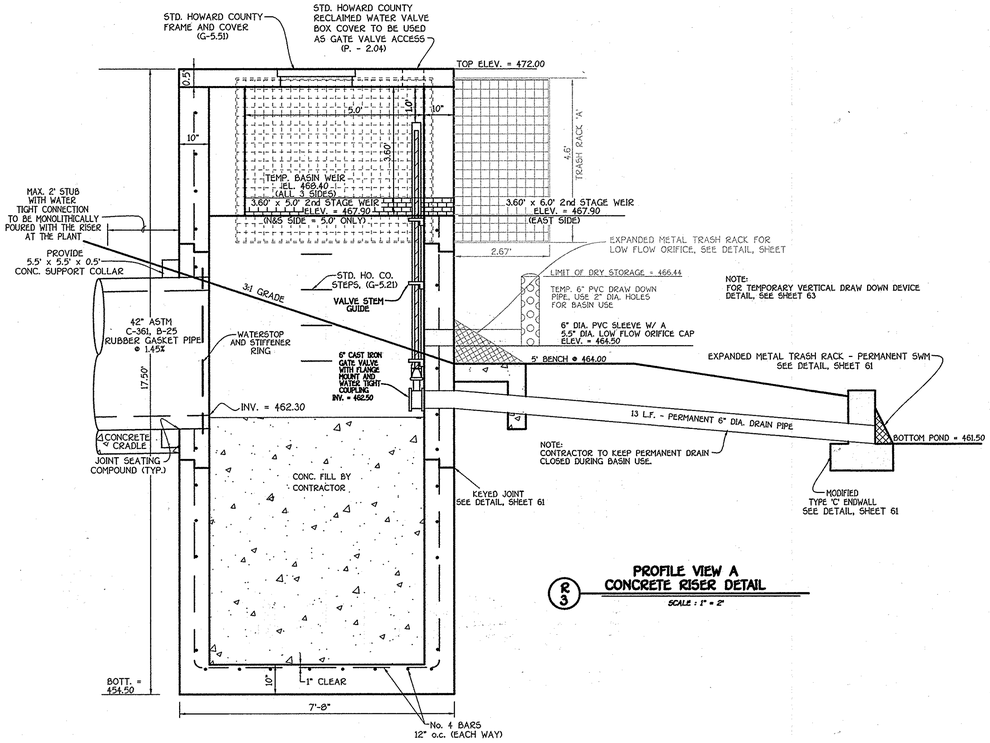
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: DECEMBER, 2012

SHEET 61 OF 100

SDP-09-039

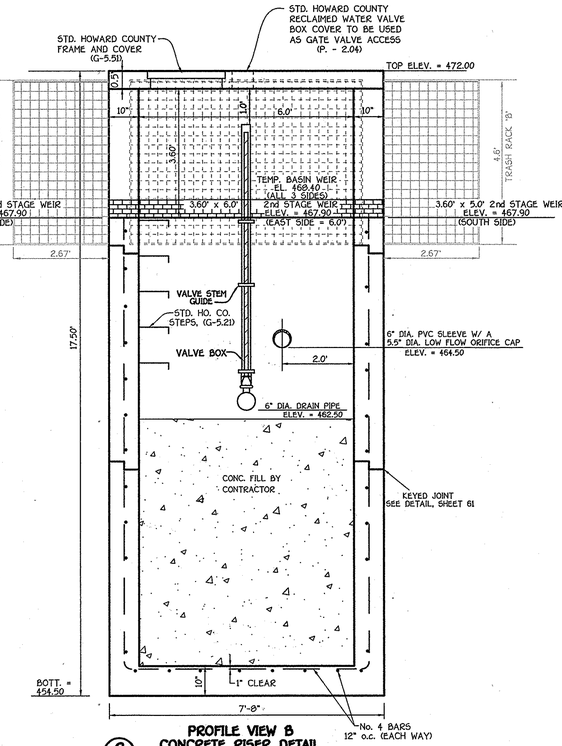
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 61-63 Bmp No 3 Swm Details.dwg, Sheet 61, 11/14/2012 10:51:50 AM, 1:1



R 3

PROFILE VIEW A CONCRETE RISER DETAIL

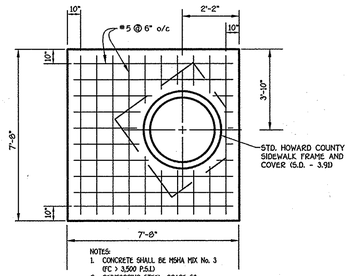
SCALE : 1" = 2'



R 3

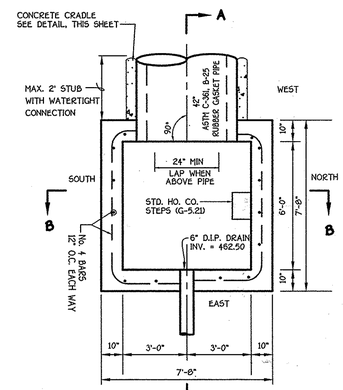
PROFILE VIEW B CONCRETE RISER DETAIL

SCALE : 1" = 2'



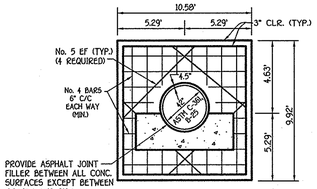
TOP SLAB DETAIL

NO SCALE



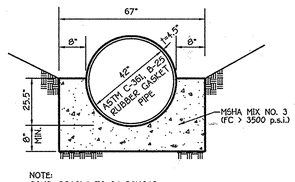
RISER PLAN VIEW

NO SCALE



ANTI-SEEP COLLAR

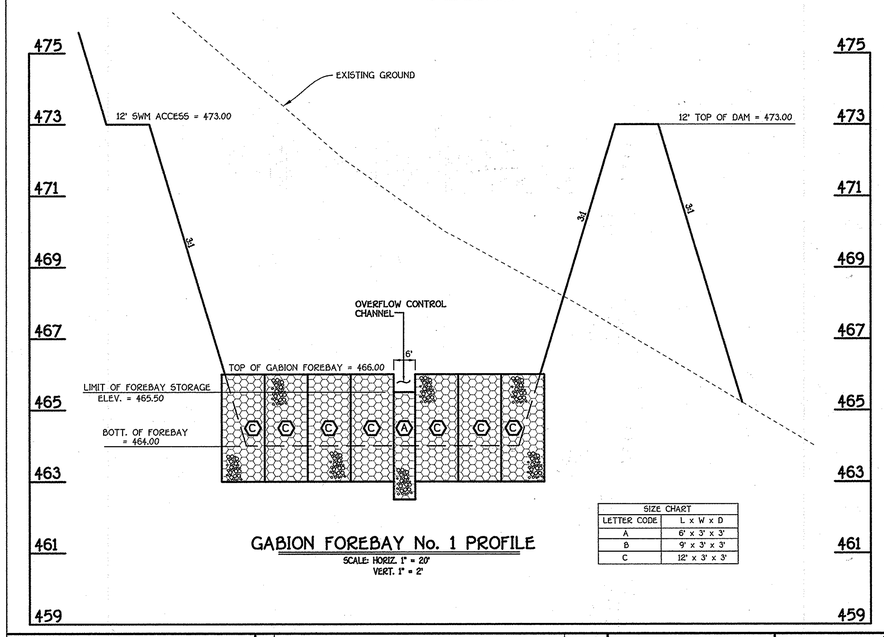
NO SCALE



NOTE:
CONC. CRADLE TO BE POURED DIRECTLY AGAINST EARTH BANKS. IF BOTTOM OF TRENCH IS WIDER THAN THE CRADLE, SLOPING SIDES (FRAMED) SHALL BE USED.

SCS TR-46 A2 CONCRETE CRADLE

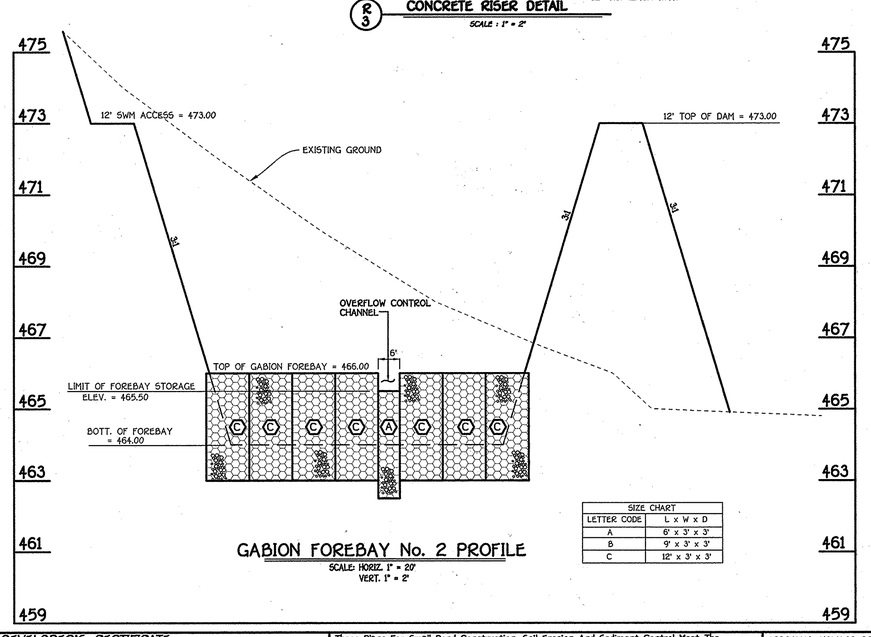
NO SCALE



GABION FOREBAY No. 1 PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'

SIZE CHART	
LETTER CODE	L x W x D
A	6' x 3' x 3'
B	9' x 3' x 3'
C	12' x 3' x 3'



GABION FOREBAY No. 2 PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'

SIZE CHART	
LETTER CODE	L x W x D
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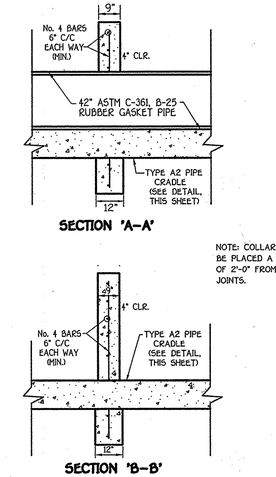
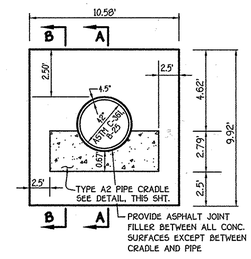
B	9' x 3' x 3'
C	12' x 3' x 3'





TYPICAL SECTION THROUGH BARREL, CRADLE AND ANTI-SEEP COLLAR

NO SCALE

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PRIVATE TO PARCEL-039	10/21/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9780 — PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer, To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 11/15/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/18/12

PROJECT		SECTION	PARCEL NO. 'E' (PARCELS 'A' THRU 'V', LOTS 5,12,22,44,56,68-108, 172-231 & 240-309)
GTW'S WAVERLY WOODS		14	
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #1	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE	
K-02		5992000	

B.M.P. No. 3 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

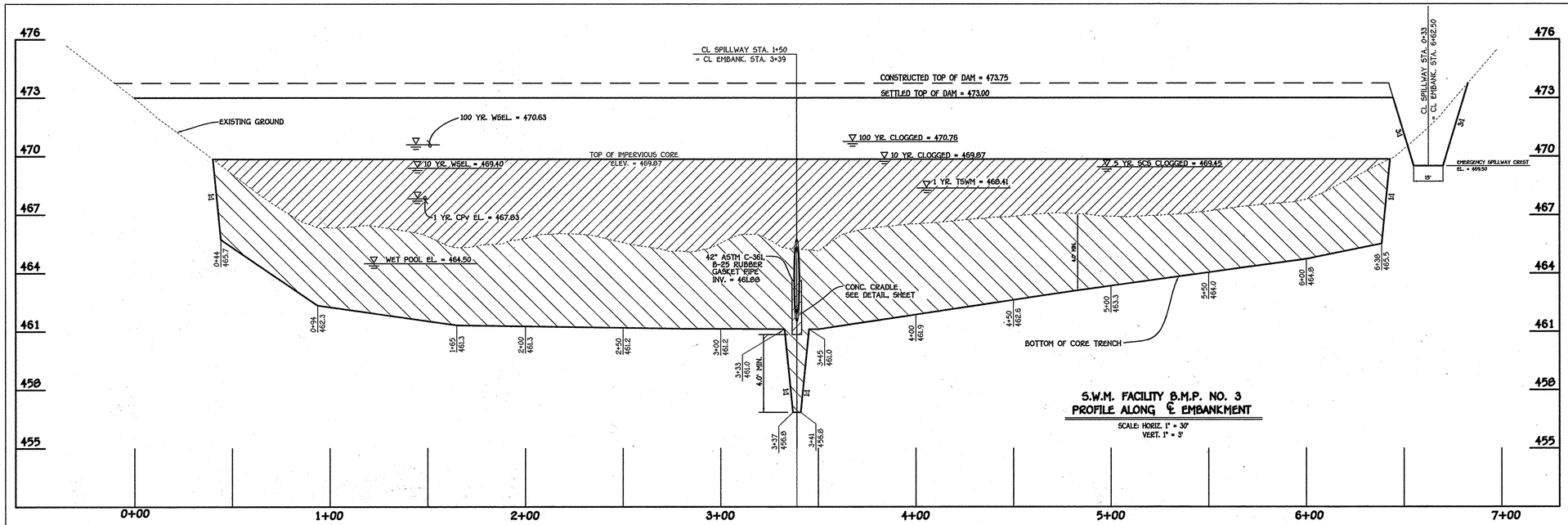
PARCELS 'T' THRU 'V', LOTS 5, 12 THRU 22; 44 THRU 56, 68 THRU 108, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 62 OF 100

SDP-09-039

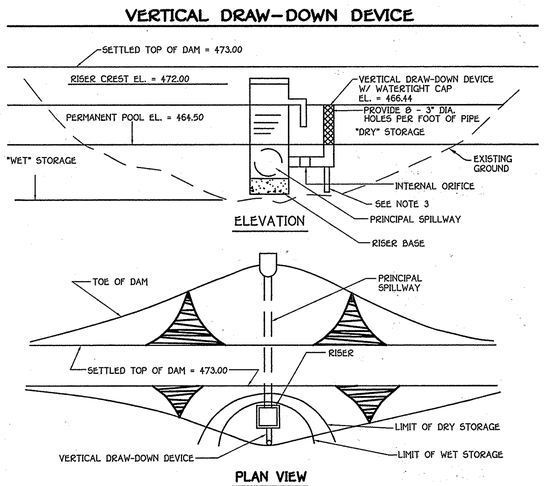
K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 61-63 Bmp No 3 Swm Details.dwg, Sheet 62, 11/14/2012 10:50:59 AM, 1:1



S.W.M. FACILITY B.M.P. NO. 3
PROFILE ALONG ℄ EMBANKMENT

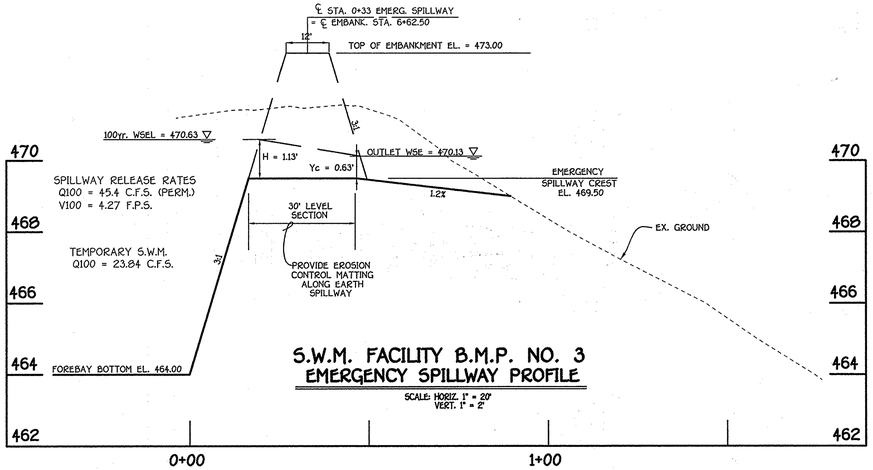
SCALE: HORIZ. 1" = 30'
VERT. 1" = 3'

VERTICAL DRAW-DOWN DEVICE



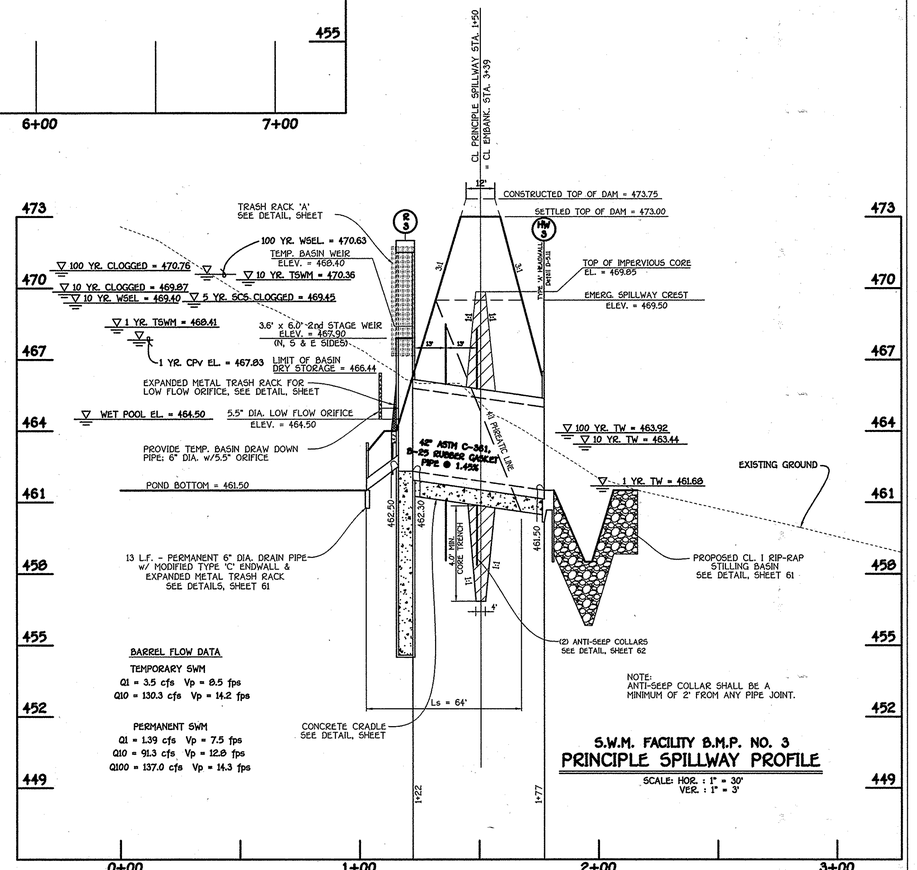
CONSTRUCTION SPECIFICATIONS

1. PERFORATIONS IN THE DRAW-DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE.
2. THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 2 TIMES THE AREA OF THE INTERNAL ORIFICE.
3. THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
4. PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE, OR 1" BY 4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.



S.W.M. FACILITY B.M.P. NO. 3
EMERGENCY SPILLWAY PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



S.W.M. FACILITY B.M.P. NO. 3
PRINCIPLE SPILLWAY PROFILE

SCALE: HOR. : 1" = 30'
VER. : 1" = 3'

REVISED

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date 11/14/12

ENGINEER'S CERTIFICATE

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer — Date 11/14/12

REVISED

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard SCD — Date 11/15/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/19/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT		SECTION		PARCEL NO. 'E' (PHASES II, III & V)
GTW'S WAVERLY WOODS		14		109 & 117-120, 44-46, 88-105, 172-183 & 231 (PHASE IV) & 240-269
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

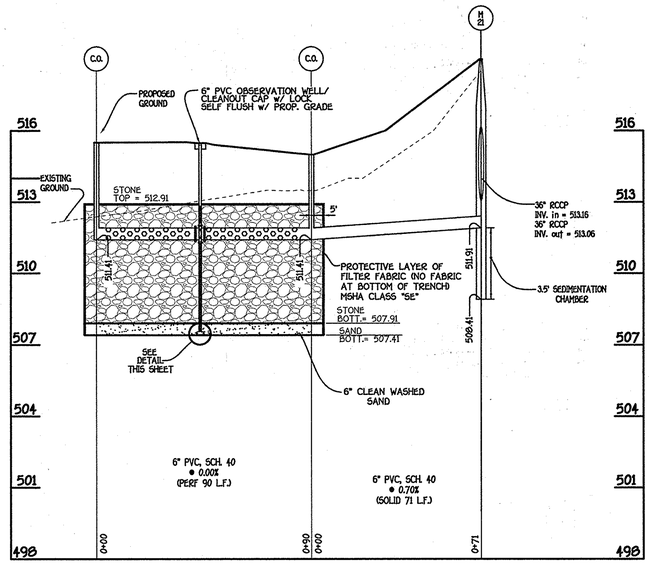
REVISED
B.M.P. No. 3 - STORMWATER MANAGEMENT NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & V LOTS 5, 12 THRU 29, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 269
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 63 OF 100

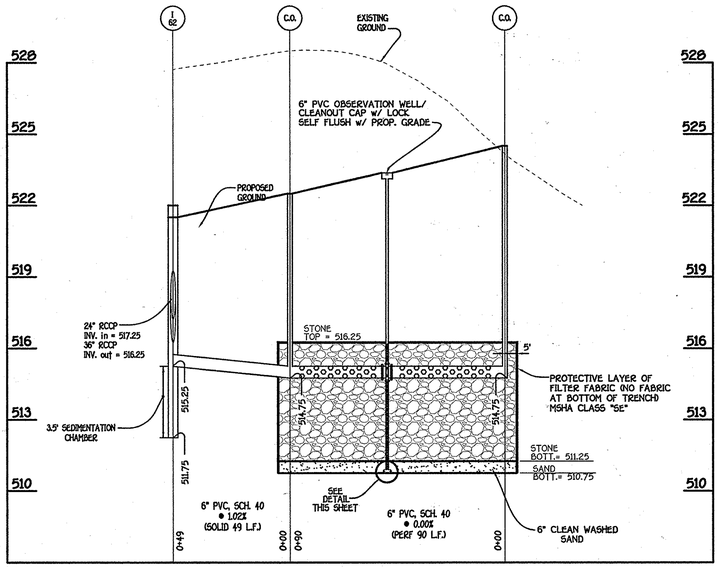
SDP-09-039

K:\SDSPROJ\13070 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 13070 Sheet 61-63 Bmp No 3 Swm Details.dwg, Sheet 63, 11/14/2012 10:59:17 AM, 1:1



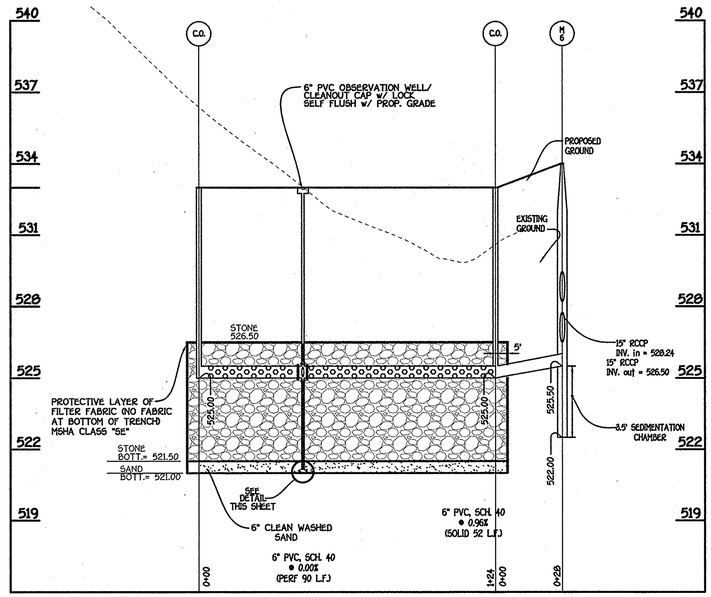
STONE RESERVOIR No. 2

SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'



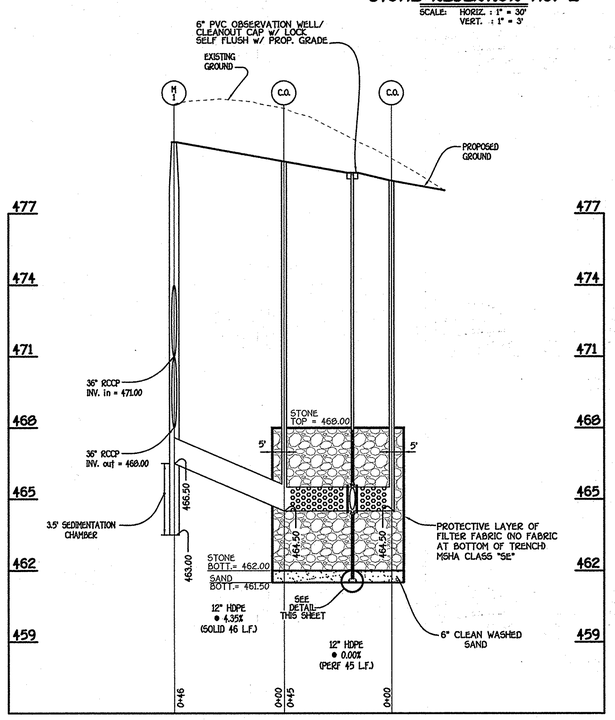
STONE RESERVOIR No. 3

SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'



STONE RESERVOIR No. 4

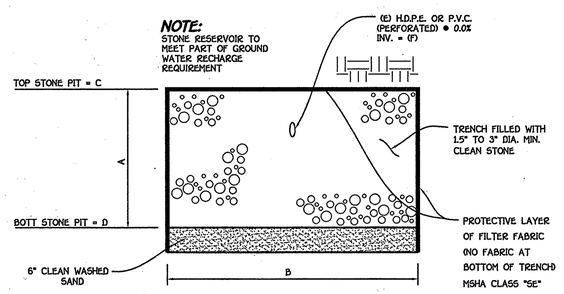
SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'



STONE RESERVOIR No. 5

SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'

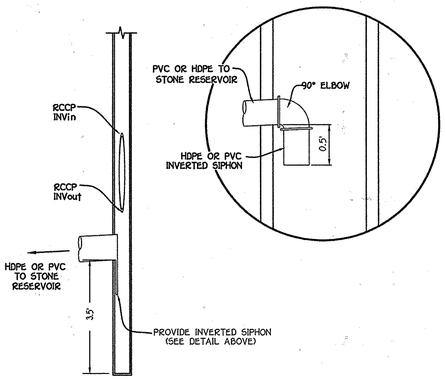
NOTE:
STONE RESERVOIR TO MEET PART OF GROUND WATER RECHARGE REQUIREMENT



STONE RESERVOIR No.	A	B	C	D	E	F
2	5.0'	20.0'	512.91	507.91	6" PVC, SCH. 40	511.41
3	5.0'	20.0'	517.00	512.00	6" PVC, SCH. 40	515.50
4	5.0'	40.0'	526.50	521.50	6" PVC, SCH. 40	525.00
5	6.0'	VARIES	468.00	462.00	12" HDPE	464.50
6	6.0'	VARIES	468.00	462.00	12" HDPE	464.50
7	5.0'	30.0'	505.83	500.83	6" PVC, SCH. 40	504.33

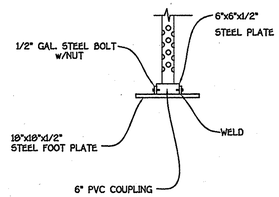
OFF-LINE STONE RESERVOIR SECTION FOR Rev

NO SCALE



DIVERSION MANHOLE OR INLET

NO SCALE



DETAIL

NO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/19/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 3, 12 THRU 32, 44 THRU 82, 88 THRU 105, 172 THRU 221 & 240 THRU 307

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

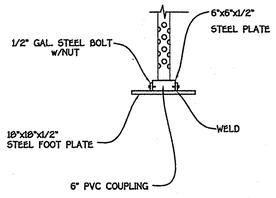
REVISED
STONE RESERVOIR PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 3, 12 THRU 32, 44 THRU 82, 88 THRU 105, 172 THRU 221 & 240 THRU 307
TOWNHOUSE & SINGLE FAMILY HOMES

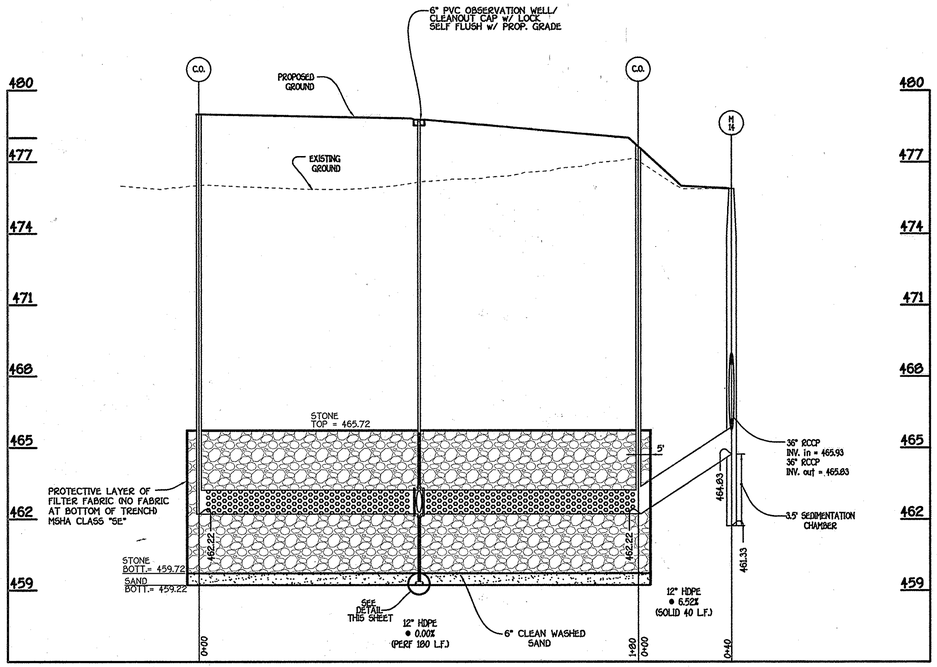
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 64 OF 100

5DP-09-039

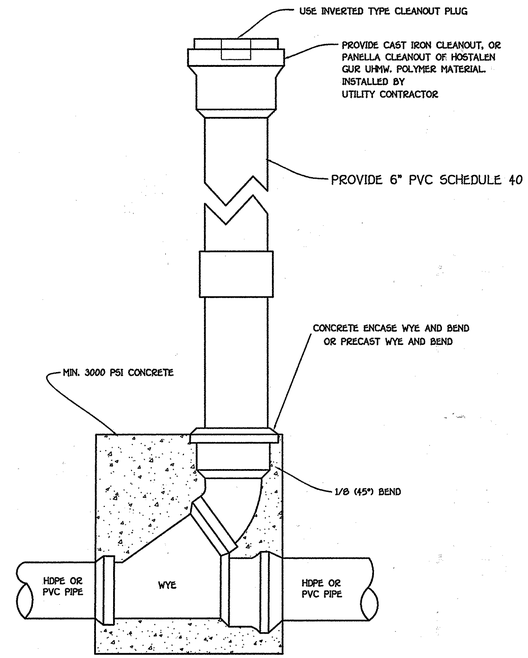
K:\SDSKPROJ\13770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 64-65 Bmp Stone Rev Profiles.dwg, Model, 11/14/2012 10:54:05 AM, 1:30



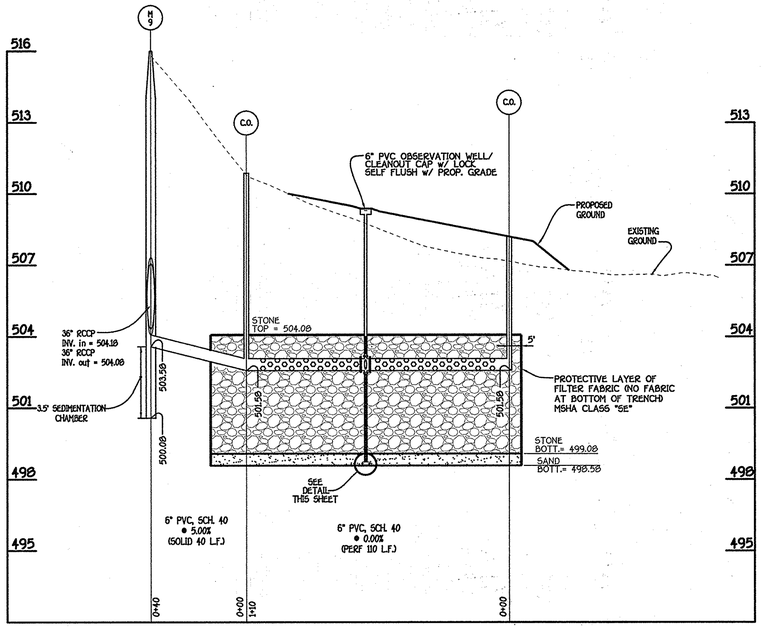
DETAIL
NO SCALE



STONE RESERVIOR No. 6
SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'



CLEAN-OUT DETAIL
NO SCALE



STONE RESERVIOR No. 7
SCALE: HORIZ. : 1" = 30'
VERT. : 1" = 3'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER INFILTRATION TRENCHES FOR Rev (I-1)

1. The monitoring wells and structures shall be inspected on a quarterly basis and after every large stone event.
2. Water levels and sediment build up in the monitoring wells shall be recorded over a period of several days to insure trench drainage.
3. A logbook shall be maintained to determine the rate at which the facility drains.
4. When the facility becomes clogged so that it does not drain down within the 72 hour time period, corrective action shall be taken.
5. The maintenance logbook shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
6. Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITIES No. 2 & 3

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections shall be preformed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repairer as soon as it is noticed.
5. The off-line storm drains and underground reservoirs shall be inspected annually and after major storms.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond or forebay, is half full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
9	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
8	REV. TO ADD FEE SIMPLE LOTS PER F-19-101	8/17/19
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 9/31/19.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 11/01/12

BUILDERS

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SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/9/12
Chief, Development Engineering Division — Date 12/10/12
Director - Department of Planning and Zoning — Date 12/10/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II, THRU V LOTS 9, 12 THRU 29, 44 THRU 85, 88 THRU 108, 172 THRU 221 & 240 THRU 269

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED
STONE RESERVIOR PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 9, 12 THRU 29, 44 THRU 85, 88 THRU 108, 172 THRU 221 & 240 THRU 269
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 65 OF 100

SDP-09-039

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K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 66-74 Landscape Plans.dwg, Sheet 66, 11/13/2012 9:49:29 AM, 1:1

SCHEDULE A
PERIMETER LANDSCAPE EDGE

PHASE	PHASE ONE	PHASE ONE	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO	PHASE TWO
PERIMETER	P-1	P-2	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11
CATEGORY	NON-RES. TO ROAD	SFA TO NON-RES.	SFD REAR TO NON-RES.	NON-RES. TO NON-RES.	SFD REAR TO RES.	NON-RES. TO NON-RES.	NON-RES. TO ROAD	NON-RES. TO NON-RES.	SFD REAR TO NON-RES.	NON-RES. TO ROAD	SFA TO ROAD	SFD TO ROAD	SFD TO ROAD
LANDSCAPE TYPE	B	A	A	A	A	A	B	A	A	B	B	B	B
LINEAR FEET OR ROADWAY FRONTAGE/PERIMETER	811'	952'	1459'	3598'	1221'	869'	734'	440'	1308'	1002'	60'	79'	66'
CREDIT FOR EXISTING VEGETATION (YES, NO LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	100%	100%	100%	100%	100%	100%	100%	100'	0	100%	0	0	0
CREDIT FOR WALL, FENCE OR BERM (YES, NO LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	0 0 —	0 0 —	0 0 —	0 0 —	0 0 —	0 0 —	0 0 —	0 0 —	22 0 —	0 0 —	1 2 —	2 2 —	1 2 —

SCHEDULE B
RESIDENTIAL PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	EXISTING PHASE ONE	EXISTING PHASE TWO	EXISTING PHASE THREE	PROPOSED PHASE FOUR	FUTURE PHASE FIVE
	24	12	81	19	57
NUMBER OF TREES REQUIRED (1:10)	2	1	8	2	6
NUMBER OF TREES PROVIDED	SDP-09-037 2	2	8	FUTURE —	FUTURE ---

SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	EXISTING PHASE ONE	EXISTING PHASE TWO	EXISTING PHASE THREE	PROPOSED PHASE FOUR	FUTURE PHASE FIVE
SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED TOTAL	8 2 10	28 22 50	49 51 100	50 50 100	6 84 100
NUMBER OF TREES REQUIRED (1:DU SFA) (1:3 DU APTS)	8 —	28 —	49 —	50 —	6 ---
NUMBER OF TREES PROVIDED (1:DU SFA) (1:3 DU APTS)	SDP-09-037 8 —	28 —	49 —	— —	--- ---

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF TYPE 'B' PERIMETER	D-1 : 1737'	D-2 : 1331'
NUMBER OF TREES REQUIRED & PROVIDED: SHADE TREES EVERGREEN TREES	1737' - 948' = 789' 16 20	1331' - 1067' = 264' 5 7
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	948'	1067'
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO

LEGEND

SYMBOL	DESCRIPTION
- - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
— —	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER, SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

STREET TREE SCHEDULE

PHASE	QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
EXISTING PHASE I SDP-09-037	1131.06 x 2 = 2262.12 2262.12 / 40 = 56.55 57 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	40' APART ALONG ADAM DAVID WAY
PHASE II	950 x 2 = 1900.00 1900.00 / 40 = 47.50 48 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG BARNSLEY WAY
PHASE IV	984.78 x 2 = 1969.56 1969.56 / 40 = 49.23 49 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG BARNSLEY WAY
PHASE III	400 x 2 = 800 800 / 40 = 20 20 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG SOPHIA CHASE DRIVE
PHASE IV	982 x 2 = 1964 1964 / 40 = 49 49 trees	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG SOPHIA CHASE DRIVE
PHASE II	500 x 2 = 1000.00 1000.00 / 40 = 25 25 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG GENTLE ROLLING DRIVE
PHASE III	600 x 2 = 1200 1200 / 40 = 30 30 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG GENTLE ROLLING DRIVE
PHASE IV	907.15 x 2 = 1814.30 1814.30 / 40 = 45.35 45 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG GENTLE ROLLING DRIVE
PHASE III	200 x 2 = 400 400 / 40 = 10 10 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG GENTLE ROLLING DRIVE
PHASE V ALONG FUTURE UNITS	2006.22 x 2 = 4012.44 4012.44 / 40 = 100.31 101 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG EMMA STONE DRIVE
PHASE III	275.15 x 2 = 550.30 550.30 / 40 = 13.76 14 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG GREAT ALEXANDER STREET
PHASE III	1945.79 x 2 = 3891.58 3891.58 / 40 = 97.29 98 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG ANDERSON HILL STREET
PHASE III	743.49 x 2 = 1486.98 1486.98 / 40 = 37.17 37 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG WALKING JANELLE WAY
PHASE III	280.37 x 2 = 560.74 560.74 / 40 = 14.02 14 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG IRVING GAMBLE ROAD
PHASE IV	279.59 x 2 = 559.18 559.18 / 40 = 13.97 14 TREES	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG NOAH FINN ROAD
PHASE V ALONG FUTURE UNITS	1631.51 x 2 = 3263.02 3263.02 / 40 = 81.57 82 trees	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CALIBER	30' APART ALONG SOPHIA CHASE DRIVE

REVISED SUBMITTAL

LANDSCAPING PLANT LIST (SCHEDULE A, B & C)

SYMBOL	QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	232	ACER RUBRUM 'OCTOBER GLORY' RED MAPLE	2 1/2-3" CAL.	40'± APART ALONG ROADS
	314	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2-3" CAL.	40'± APART ALONG ROADS
	51	ACER RUBRUM 'RED SUNSET' RED MAPLE	2 1/2-3" CAL.	40'± APART ALONG PERIMETER 5
	33	PICEA ABIES (NORWAY SPRUCE)	6'-8' HGT.	20'± APART ALONG PERIMETER 5
	42	ACER RUBRUM 'ARMSTRONG' ARMSTRONG COLUMNAR RED MAPLE	2 1/2-3" CAL.	NEAR PROPOSED UNITS AND PARKING AREAS

NOTE: APFO PHASE II

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 RELATED TO APFO PHASE II FOR THE 28 REQUIRED INTERNAL LANDSCAPE TREES, 2 REQUIRED PARKING LANDSCAPE TREES, 32 REQUIRED PERIMETER LANDSCAPE TREES, 48 REQUIRED SWM LANDSCAPE TREES AND THE REQUIRED 73 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $49,950.00.

NOTE: APFO PHASE III

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 RELATED TO APFO PHASE III FOR THE 49 REQUIRED INTERNAL LANDSCAPE TREES, 8 REQUIRED PARKING LANDSCAPE TREES, AND THE REQUIRED 223 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $84,000.00.

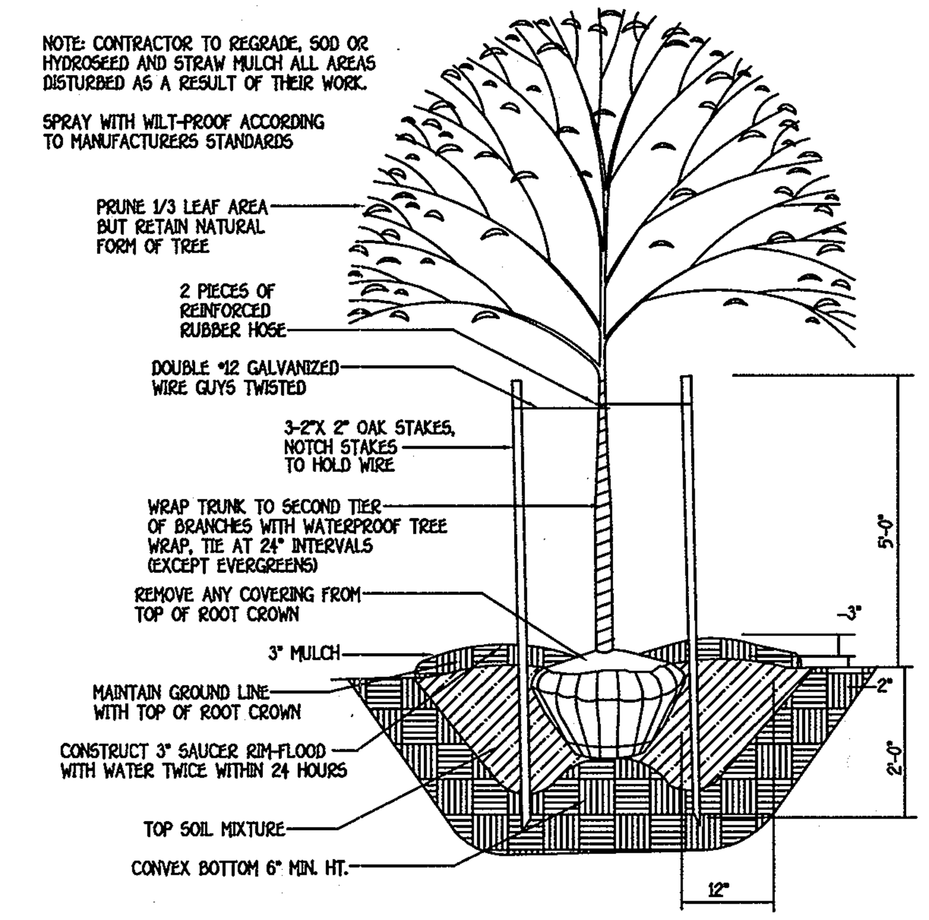
NOTE: APFO PHASE IV

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 RELATED TO APFO PHASE IV FOR THE 50 REQUIRED INTERNAL LANDSCAPE TREES, 2 REQUIRED PARKING LANDSCAPE TREES, AND THE REQUIRED 157 PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $62,700.00.

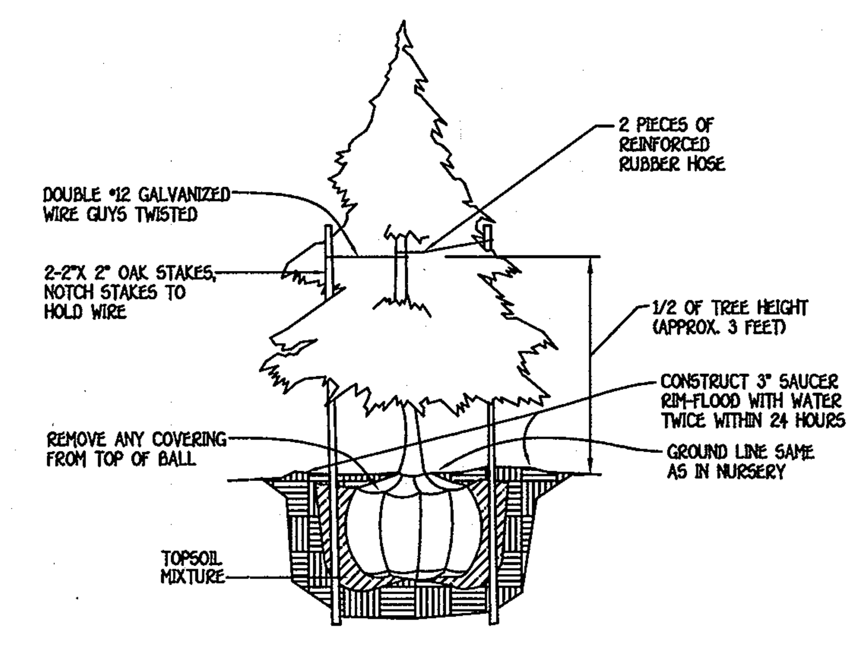
DEVELOPER'S / BUILDER'S CERTIFICATE

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

NAME DATE 11/14/12



TREE PLANTING DETAIL
NOT TO SCALE



EVERGREEN 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.

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 PLANT LIST 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 DISFIGUREMENTS. 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 HEALED-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 AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

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 BASE 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 PLAN 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 RECOMMENDED RATES 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.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND TERRELL A. FISHER NO. 9757 REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE 15-3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 11/14/12

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/18/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-165 & 172-231 PHASES IV & V - UNITS 93-119, 153-161, 196-200 & 237-239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED STREET TREE AND LANDSCAPE NOTES AND DETAILS

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 66 OF 100

SDP-09-039

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
x362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

SCALE
1"=50'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/8/12 Date
Director - Department of Planning and Zoning — 12/10/12 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-105 & 172-231 PHASES IV & V - UNITS 93-119 153-161, 196-200 & 237-239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

REVISED STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS – WEST"

PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 67 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 66-74 Landscape Plans.dwg, Sheet 67, 11/14/2012 11:11:06 AM, 1:1

MATCH LINE SEE SHEET 70

MATCH LINE SEE SHEET 67

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOE	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
ESC	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

Open Space Lot 1
31,775 Sq. ft.
OR
0.729 Ac.±
TO BE DEDICATED TO HOWARD COUNTY, MARYLAND

BULK PARCEL 'F1'

PART OF BULK PARCEL 'F1' 12,904± AC.

OPEN LOT 'OPEN SPACE LOT 1' 31,775 SQ. FT. 0.729 AC.±

PROPOSED PUBLIC ACCESS PLACE

PRIVATE STORMWATER MANAGEMENT, GRADING & UTILITY EASEMENT PLAT NO. 20505

PUBLIC FOREST CONSERVATION EASEMENT NO. 1 RETENTION/ AFFORESTATION GOLF ALA PLAT NO. 20505

PUBLIC FOREST CONSERVATION EASEMENT NO. 2 RETENTION GOLF ALA PLAT NO. 20505

PUBLIC FOREST CONSERVATION EASEMENT NO. 3 RETENTION/ AFFORESTATION GOLF ALA PLAT NO. 20505

PUBLIC FOREST CONSERVATION EASEMENT NO. 4 RETENTION GOLF ALA PLAT NO. 20505

PROPERTY OF ALPHA LAND & HOWARD COUNTY, MARYLAND 931/314 PARCEL NO. 220 ZONED: RC-DEO

PART OF P2

PART OF P1

PROPERTY OF HOWARD COUNTY, MARYLAND 931/314 PARCEL NO. 220 ZONED: RC-DEO

PROPERTY OF HOWARD COUNTY, MARYLAND 931/314 PARCEL NO. 302 ZONED: RC-DEO

ANDERSON HILL STREET

WALKING JANELLE WAY

BULK PARCEL 'F1'

ARMSTEAD

BORNQUIST

CAVANAUGH

GRIFFIN HALL

PHASE 3

LOT 78

LOT 79

12" PLUG & BUTTRESS

EX. DRIVEWAY TO REMAIN AS ALTERNATE FIRE AND RESCUE ACCESS

EX. DRIVEWAY TO REMAIN

SCALE
1"=50'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-12-101	12/7/12
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/10/12 Date

Director - Department of Planning and Zoning — 12/10/12 Date

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV LOTS 5, 12-30, 44-88, 89-165 & 172-231 PHASES IV & V - UNITS 93-119, 193-195, 196-200 & 237-239
PLAT 21427 - 21435 AND 22083 - 22089	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

REVISED
STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, III & IV LOTS 5, 12 THRU 30, 44 THRU 88, 89 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 193 THRU 195, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 68 OF 100

SDP-09-039

K:\SDSKPROJ\10770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 10770 Sheet 66-74 Landscape Plans.dwg, Sheet 68, 11/14/2012 11:13:37 AM, 1:1

:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 60 Lots\Construction Document - 30770 Sheet 66-74 Landscape Plans.dwg, Sheet 69, 1/10/2014 9:04:01 AM, 1:1

SCALE
1"=50'

REVISED

LEGEND	
SYMBOL	DESCRIPTION
- - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF—	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
— —	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS REV EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. [illegible] EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 1/9/14 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 2/10/14 Date
Chief, Development Engineering Division — 2.10.14 Date
Director - Department of Planning and Zoning — 2/18/14 Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASE II, III & IV LOTS 5, 12 - 39, 44 - 86, 88 - 165 & 172 - 231 PHASES IV & V UNITS 93 - 119, 153 - 161, 196 - 200 & 237 - 239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

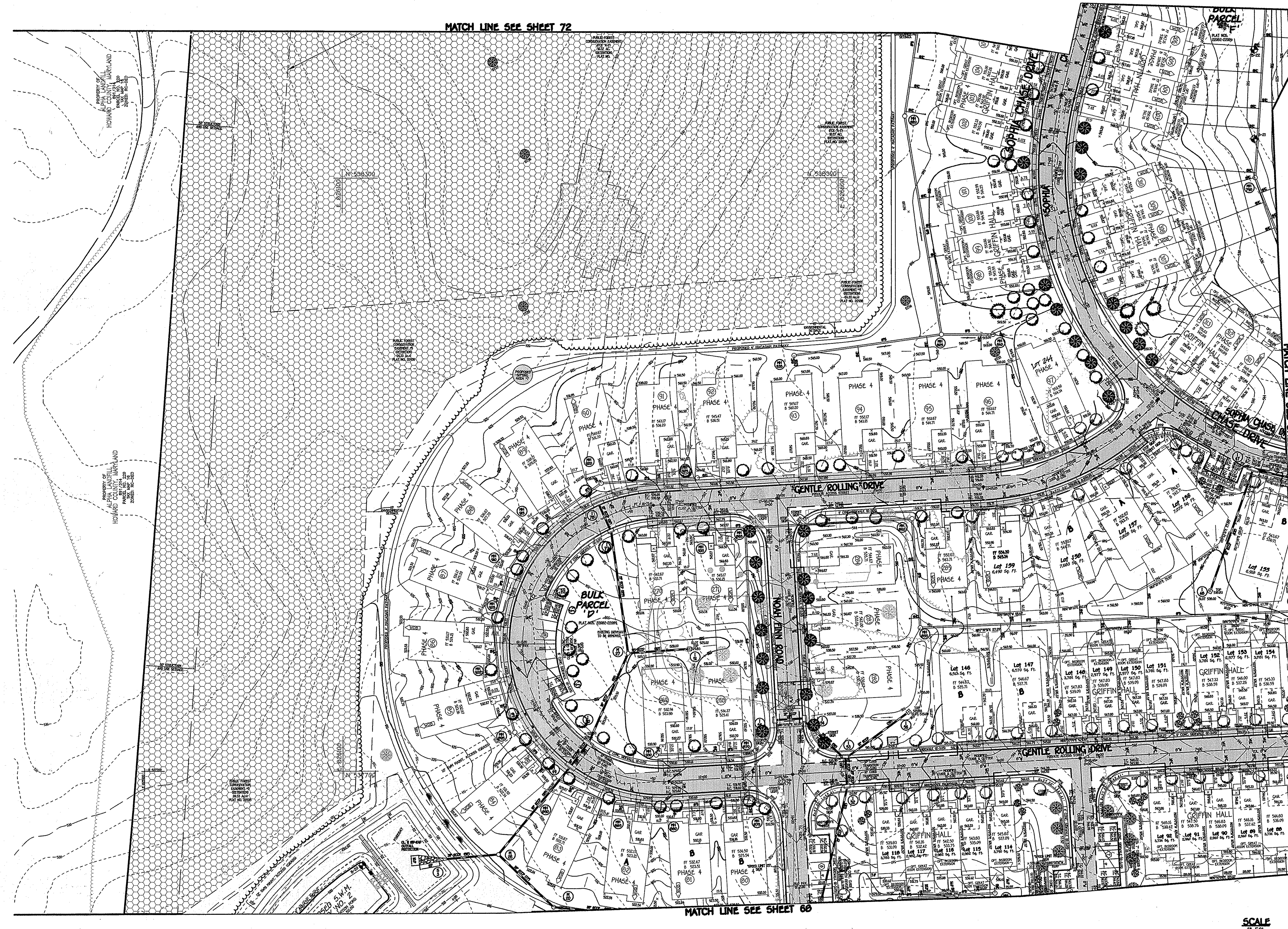
WATER CODE	SEWER CODE
K-02	5992000

STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239
TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 69 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 66-74 Landscape Plans.dwg, Sheet 70, 11/14/2012 11:21:33 AM, 1:1



SCALE
1"=50'

LEGEND

SYMBOL	DESCRIPTION
- - - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
— —	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
7	REV. TO RELOCATE 4 RED MAPLE TREES FROM LOT 240 AS SHOWN	1/29/16
6	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & 5-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & 5-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/5/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/18/12 Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED
STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 70 OF 100

SDP-09-039

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
WOC	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF-	SUPER SILT FENCE
	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
	PROPOSED STORM DRAIN PIPE
	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
6	REV. STREET TREES FOR PHASE 5 TO SDP-09-039	5/01/15
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-099 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION OF APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS JULY 16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-21-15

Chief, Development Engineering Division — Date 7.24.15

Director - Department of Planning and Zoning — Date 8-4-15

PROJECT		SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS		14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 71 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 5 Raised Road 12-22-14\Construction Document - 30770 Sheet 66-74 Landscape Plans.dwg 7/13/2015 11:47:01 AM 11

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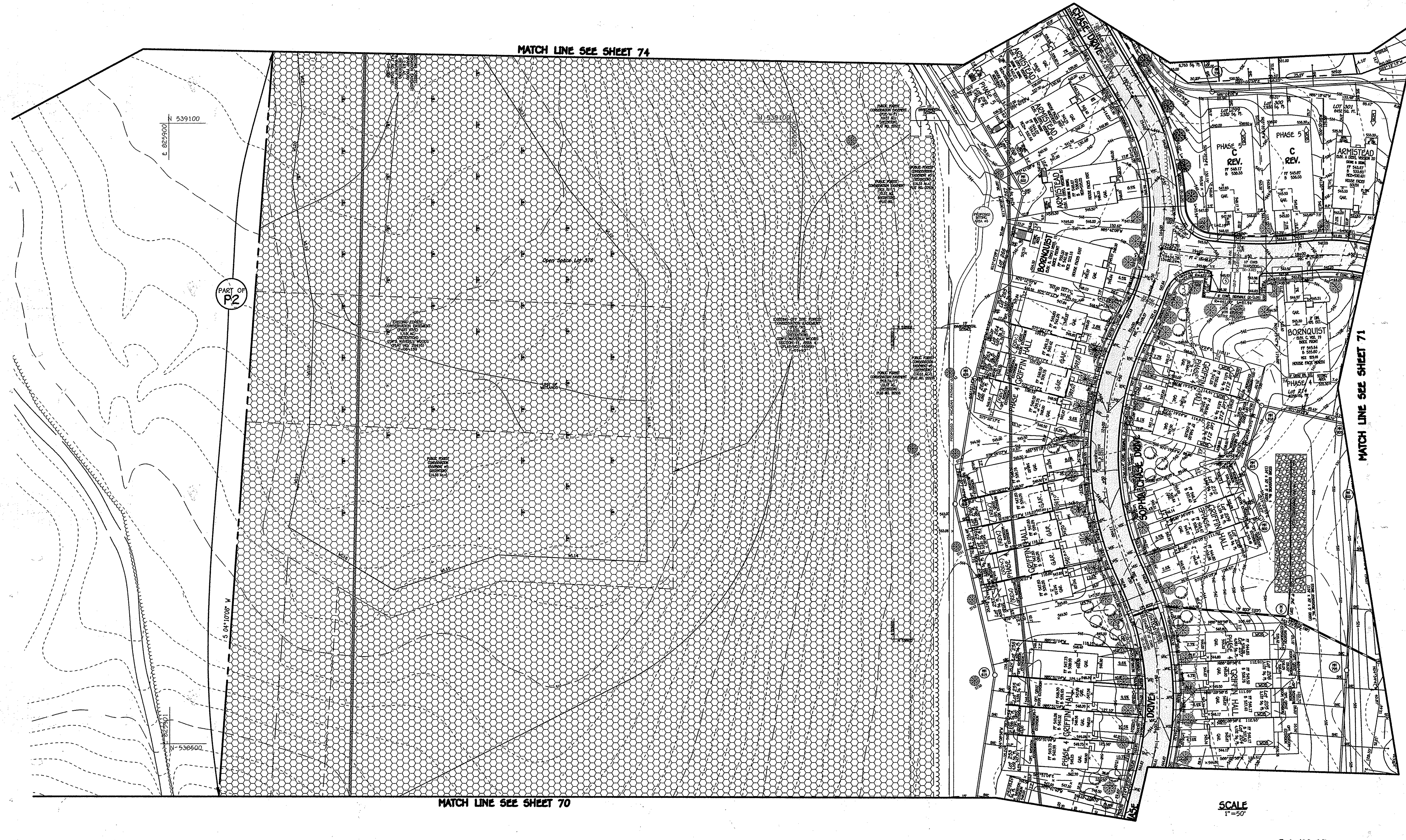

LEGEND

SYMBOL	DESCRIPTION
- - - - -	EXISTING CONTOUR 2' INTERVAL
———	PROPOSED CONTOUR 2' INTERVAL
×562.2	SPOT ELEVATION
	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
☼	STREET LIGHT PER F-09-057
— —	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

SCALE
1"=50'

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
7	REV. LOTS 258-260 & 263-264 TO REVERSE UNITS; REV. ASSOC. STREET TREES	9/16/15
6	REV. STREET TREES FOR PHASE 5 TO SDP-09-039	5/01/15
5	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
3	REV. PER ADDITION APFO PHASE 4 BLDG'S & S-06-13 PHASING TAB AND ADJUSTMENTS ASSOCIATED WITH INTERIOR TOWNHOUSE UNIT.	12/19/11
2	REV. TO ADD FEE SIMPLE LOTS PER F-10-113	1/12/11
1	REV. PER ADDITION OF APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND · TERRELL A. FISHER · No. 9757 · PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 2/28/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date
Chief, Development Engineering Division — 7-24-15 Date
Director - Department of Planning and Zoning — 8-4-15 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 72 OF 100

SDP-09-039

SCALE
1"=50'

LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
462.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
—SF—SF—	SILT FENCE
—SSF—SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND TERRELL A. FISHER No. 9757 PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
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DEVELOPER

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OWNERS

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-24-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT SEE GENERAL NOTE # 51	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02			SEWER CODE 5992000		

REVISED

STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 73 OF 100

SDP-09-039

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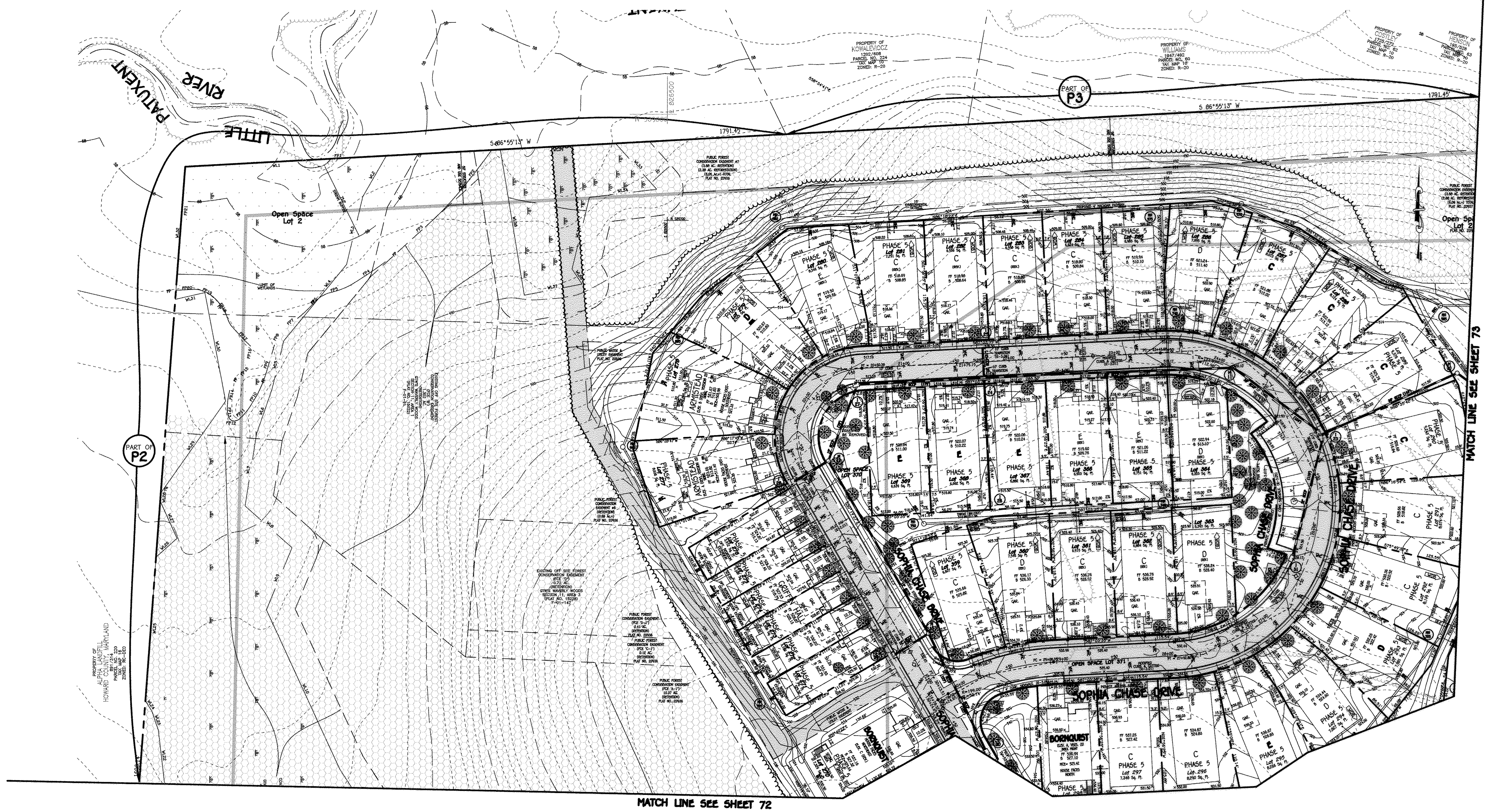


SCALE
1"=50'

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	PROPOSED CONTOUR 2' INTERVAL
X362.2	SPOT ELEVATION
WOB	WALKOUT BASEMENT
-SF-SF-	SILT FENCE
-SSF-SSF	SUPER SILT FENCE
ECM	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
	STREET LIGHT PER F-09-057
	UNMITIGATED 65dBA NOISE LINE
18" SD	PROPOSED STORM DRAIN PIPE
8"S	PROPOSED SEWER
	15% to 24.9% Slope
	EXISTING LANDSCAPING PER SDP-09-037
	EXISTING STREET TREES PER F-09-057
	REVERSE GUTTER PAN SLOPE
	EXISTING STORMDRAIN
	EXISTING SEWER
	EXISTING WATER
	EXISTING WATER,SEWER & UTILITY EASEMENT
	EXISTING STREET TREES

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. STREET TREES FOR PHASE 5 TO SDP-09-039	5/01/15
3	REV. TO ADD FEE SIMPLE LOTS PER F-11-111 AND PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND TERRELL A. FISHER No. 9757 PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7-24-15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

STREET TREE AND LANDSCAPE PLAN

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY, 2015
SHEET 74 OF 100

SDP-09-039

SPECIFICATIONS

KEYSTONE MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 Description

A. Work shall consist of furnishing and construction of a KEYSTONE Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.

B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.

C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

1.02 Delivery, Storage and Handling

A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.

B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units

A. Modular concrete units shall conform to the following architectural requirements:
face color - concrete gray - standard manufacturers' color may be specified by the Owner.
face finish - sculptured rock face in angular tri-planar configuration. Other face finishes will not be allowed without written approval of Owner.
bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.

B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.

C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
compressive strength = 3000 psi minimum;
absorption = 8 % maximum (6% in northern states) for standard weight aggregates;
dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough split face, ±1/16" unit height - top and bottom planes;
unit size - 8" (H) x 18" (W) x 18" (D) minimum;
unit weight - 100 lbs/unit minimum for standard weight aggregates;
inter-unit shear strength - 1000 plf minimum at 2 psi normal pressure;
geogrid/unit peak connection strength - 1000 plf minimum at 2 psi normal force.

D. Modular concrete units shall conform to the following constructability requirements:
vertical setback = 1/8"± per course (near vertical) or 1"+ per course per the design;
alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
maximum horizontal gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors

A. Shear connectors shall be 1/2 inch diameter thermoset isopthalic polyester resin-pultruded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F.

B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

A. Unit drainage fill shall consist of #57 crushed stone

2.05 Reinforced Backfill

A. Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

Sieve Size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-60
No. 200	0-40

Plasticity index (PI) <10 and Liquid Limit <40 per ASTM D-4318.

B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 Excavation

A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.

B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.

B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.

C. Install shear/connecting devices per manufacturer's recommendations.

D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.

E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

3.04 Structural Geogrid Installation

A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.

B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.

C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.

D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.

B. Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.

C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be + 3% to - 3% of optimum.

D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.

E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.

F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.

G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

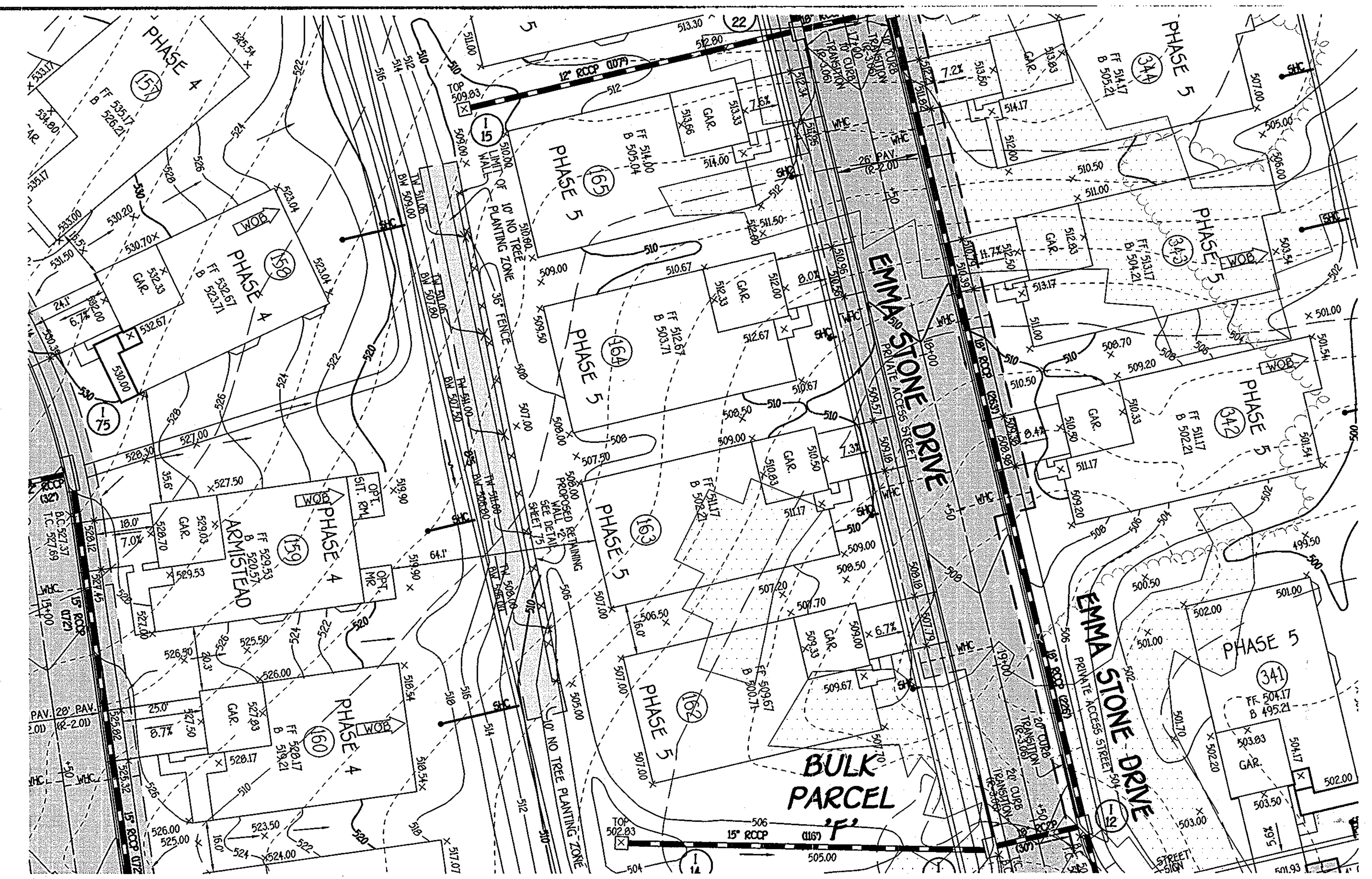
3.06 Cap Installation

A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

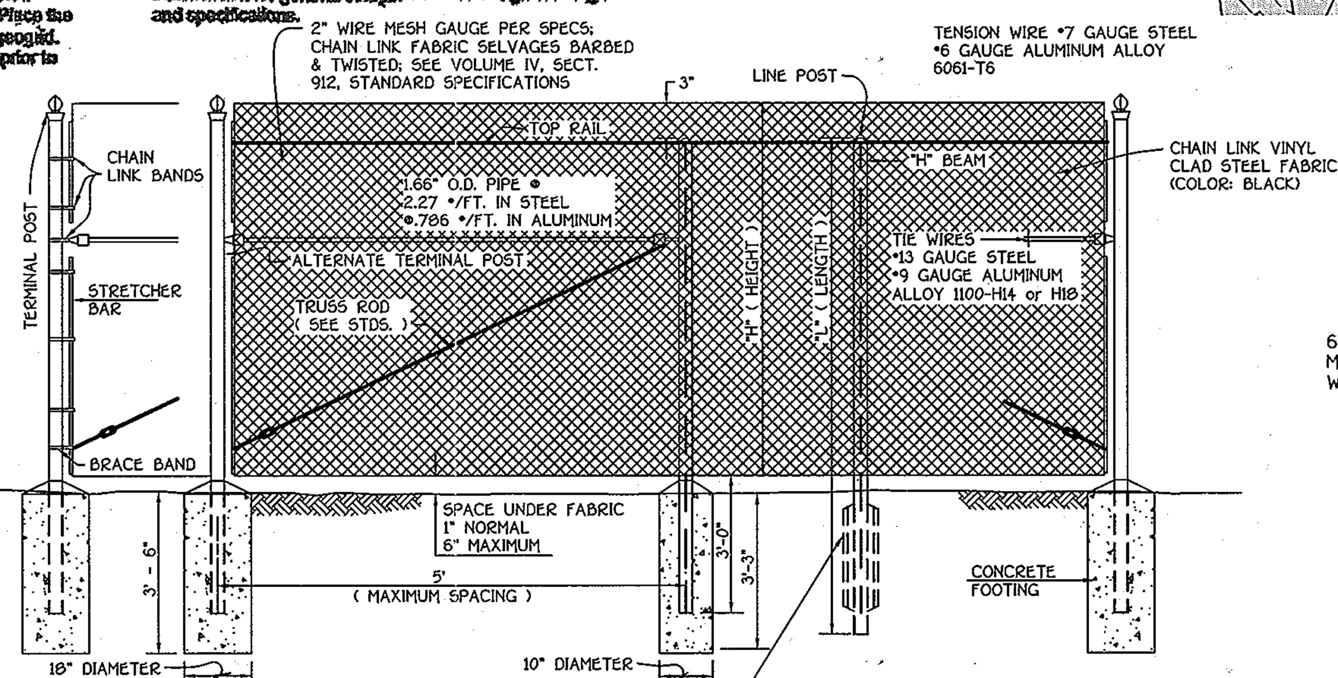
A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.

B. As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.

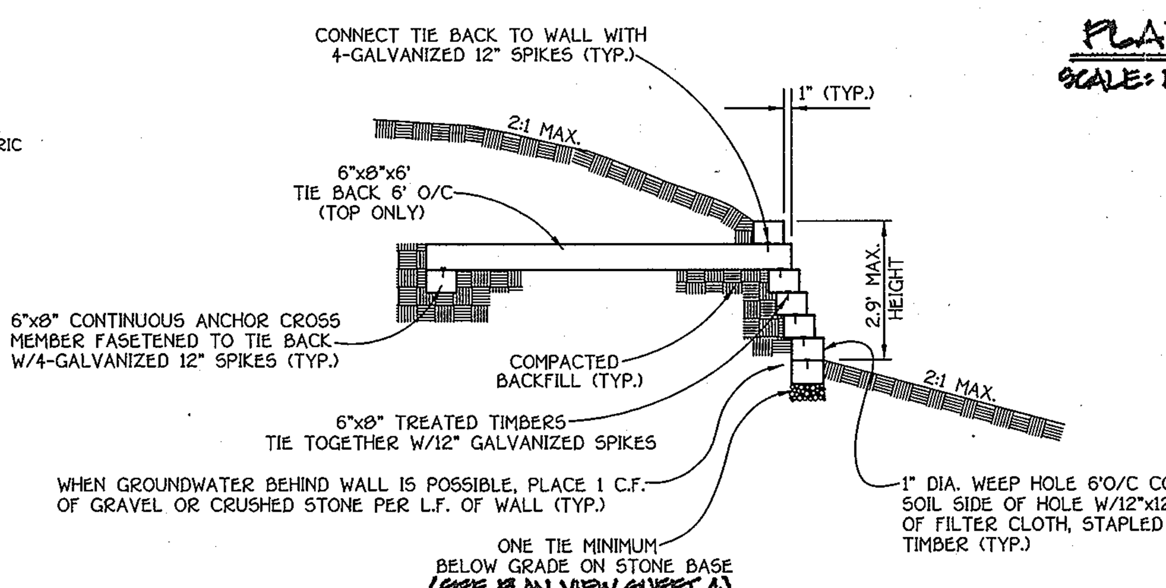


PLAN
SCALE: 1" = 30'

"H" HEIGHT OF FENCE	7'-0"
"S" POST SPACING MAX.	10'-0"
"L" LENGTH OF H BEAM	8'-8" MIN.
H BEAM STEEL	2.25 x 1.95" @ 4.10 #/FT.
H BEAM ALUMINUM	2.25 x 1.95" @ 1.25 #/FT.
TERM. POST STEEL	2.875" O.D. @ 5.79 #/FT.
TERM. POST ALUMINUM	2.875" O.D. @ 2.00 #/FT.
ALT. TERM POST STEEL	2.50" SQ. @ 5.70 #/FT.
ALT. TERM POST ALUMINUM	300" SQ. @ 2.00 #/FT.



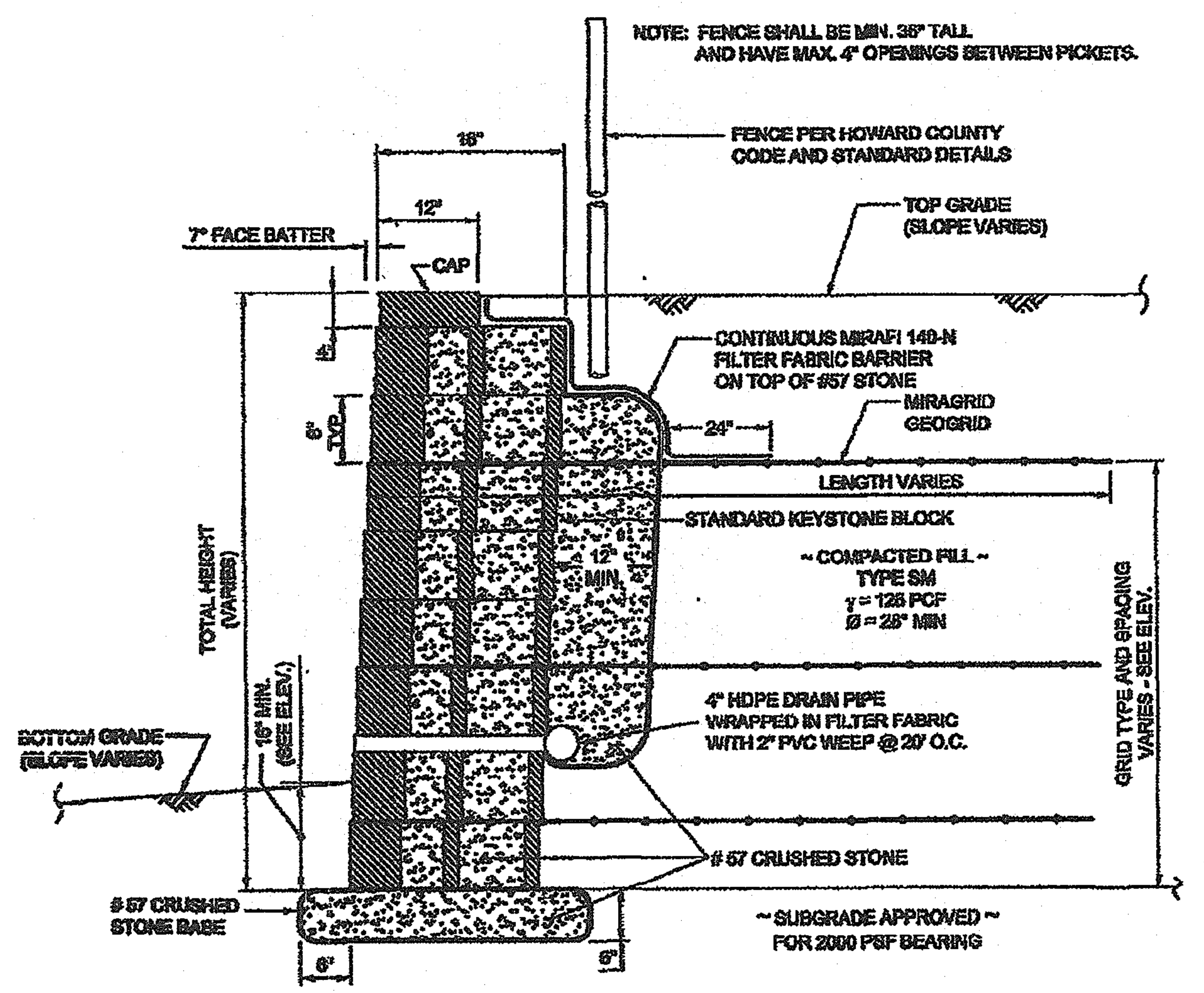
DETAIL
CHAIN LINK FENCE
NO SCALE



RETAINING WALL DETAIL
WALL #1 SINGLE TIER
NOT TO SCALE

NOTES:
1. TIMBER SHALL BE EITHER:
   A.) CREOSOTE TREATED RAILROAD TIES.
   B.) CCA TREATED LANDSCAPING TIMBERS (.40 lbs./CF RETENTION)
2. HARDWARE SHALL BE HOT DIPPED GALVANIZED.
3. WEEP HOLES WITH OR WITHOUT GRAVEL DRAIN ARE MINIMUM MEASURES FOR GROUNDWATER. FOR ANY SUBSTANTIAL AMOUNT OF GROUNDWATER, A DRAIN SYSTEM SHOULD BE DESIGNED AND UTILIZED.
4. DESIGN SHALL BE VERIFIED FOR SITE SPECIFIC SOIL CONDITION BY A PROFESSIONAL GEOTECHNICAL ENGINEER.

NOTE: FENCE SHALL BE MIN. 36" TALL AND HAVE MAX. 4" OPENINGS BETWEEN PICKETS.



TYPICAL WALL SETION
WALL #2
NOT TO SCALE

GENERAL NOTES:

1.) No trees shall be planted within 10 feet of the top of the retaining wall.

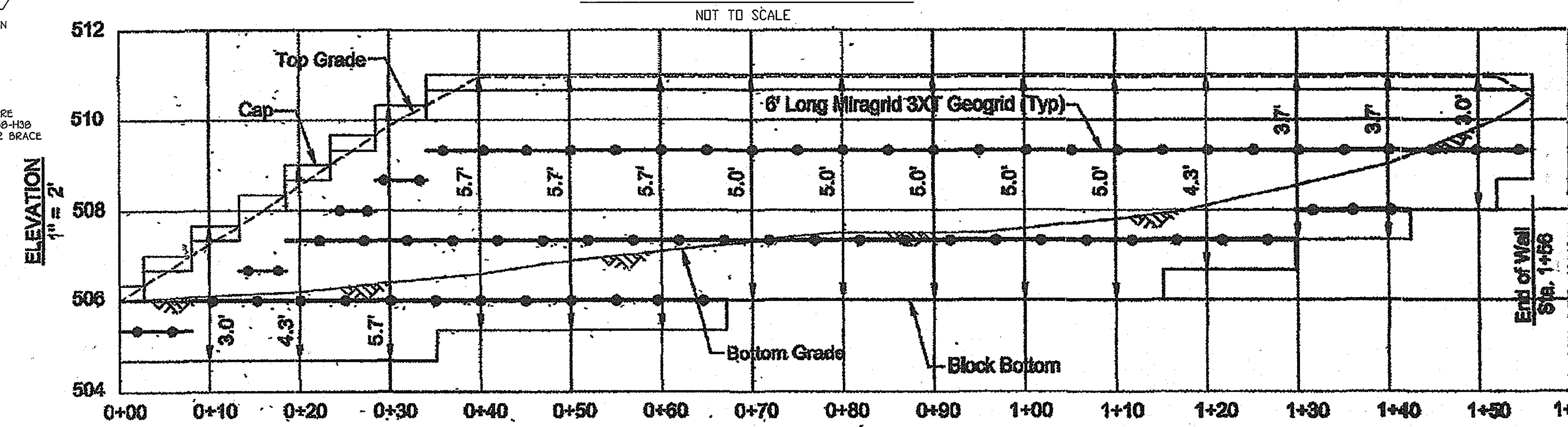
2.) Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.

3.) The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.

4.) The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.

5.) Walls shall not be constructed on uncertified fill materials.

6.) Walls shall not be constructed within a Howard Co. right-of-way or easement.



WALL #2 STATION
1" = 10'

WALL #2 ELEVATION
(SEE DETAIL ABOVE)

REVISED

CONSTRUCTION DOCUMENTS
RETAINING WALL # 2 PLAN & CONST. DETAILS

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239
TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 75 OF 100
SDP-09-039

HILLIS-CARNES ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, MD
(410) 880-4788 Fax: (410)880-4098

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division — 12/8/12 Date
Chief, Division of Land Development — 12/19/12 Date
Director — 12/18/12 Date

OWNER
GTW JOINT VENTURE
14401 TRIADELPHIA ROAD
GLENELG, MARYLAND 21737-0030
(410) 442-2337

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORP.
SUITE 102, 5300 DORSEY HALL DRIVE
ELLICOTT CITY, MARYLAND 21042.
(443) 367-0422

REVISIONS:		
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	ADD RECORDED LOTS AND REVISE EASEMENT PER F-10-113 AND RELOCATE PUBLIC SEWER	12/6/10
1	REV. PER ADDITION OF APPD PHASE 3 BLDG'S & S-06-13 PHASING TAB.	3/24/10

JOB NUMBER:	07390-B
DESIGNED BY:	AM
DRAWN BY:	AM
APPROVED BY:	RWS

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14434, EXPIRATION DATE: 06/13/09.

STATE OF MARYLAND RICHARD W. STURTEVANT No. 14434 PROFESSIONAL ENGINEER

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 75 Retaining wall Details.dwg, Layout1, 11/27/2012 8:40:26 AM, 1:1

Maximum Limitations	SFD	SFA
Units per structure	N/A	8
Building length	N/A	210 FEET

However, The Director of the Department of Planning and Zoning may approve a greater length, up to a maximum of 250 feet based on a determination that the design of the building will mitigate the visual impact of the increased length.

Parking Requirements

Parking Spaces Per Unit	2 Spaces	2 Spaces
Community Building (3.3 Spaces/1,000 sq. ft.)	N/A	N/A

Additional, overflow/guest parking is required in accordance with Table 2.11 pf the Design Manual, Volume III, page 2-42.

SEE SHEET 1 FOR THE BEGINNING OF THE DEVELOPMENT CRITERIA.

THE COURTYARDS @ WAVERLY WOODS – WEST
(S-06-013)
AMENDED DEVELOPMENT CRITERIA
PARKING COMPARISON CHART

SINGLE FAMILY ATTACHED AND DETACHED UNITS		
	Proposed on S-06-013	**Ho. Co. Zoning Regulations**
Parking Spaces	2 Spaces/D.U.	2 Spaces/D.U.

COMMUNITY BUILDING		
	Proposed on S-06-013	**Ho. Co. Zoning Regulations**
Parking Spaces	✳ 3.3 Spaces/1,000 Sq. Ft.	10 Spaces/1,000 Sq. Ft.

✳ PROVIDED 3.3 SPACES/1000 SQ.FT. FLOOR AREA FOR THE 4,490 SQ.FT. COMMUNITY BUILDING OR 15 PARKING SPACES IMMEDIATELY ADJACENT TO THE FACILITY WITH 35 OFF-STREET PARKING SPACES ALONG PROPOSED ROAD 'E' TO COMPLIMENT AN ULTIMATE AVAILABILITY OF 50 PARKING SPACES, IF NEEDED, 10 PARKING SPACES/1000 SQ.FT. FLOOR AREA FOR THE 4,490 SQ.FT. COMMUNITY BUILDING.

THE COURTYARDS @ WAVERLY WOODS – WEST

AMENDED DEVELOPMENT CRITERIA CHART

SINGLE FAMILY DETACHED AND ATTACHED UNITS	
Bulk Regulations	**Proposed 'PDP' on S-06-013**
1. Maximum Density	8 D.U. per Net Acre
2. Minimum Structure & Use Setbacks	
a). From Arterial or Collector Public Street R/W	
(1) Structures	
(a) Front or Side	400'
(b) Rear	400'
(2) Uses	200'
b). From Other Public Street R/W	
(1) Structures	
(a) Front or Side	40'
(b) Rear	40'
(2) Uses	20'
3. Maximum Units per Structure	
a. SFA Villas	8-units
b. Building Length	210' (with max. of 250')
4. Maximum Height Shall Not Exceed	
a. SFA Villas, Detached Dwellings	40'
b. Pool House and Community Bldg.	34' (per PSC Zoning Regs.)
c. Accessory Structure	15'*
5. Minimum Distance between attached dwelling Villas or between Single Family Attached and Detached Dwelling Villas	
a. Face to Face	50'
b. Face to Side or Rear to Side	30'
c. Side to Side	15'
d. Rear to Rear	60'
e. Rear to face	100'*
6. Minimum Distance between both SFA Villas and Single Family Detached and edge of Private Roadway & Parking	
a. Front	20'
b. Side	15'
c. Rear	40'
d. Accessory Structure	30'**
7. Minimum Distance between Single Family Detached Dwellings	
a. Face to Face	50'
b. Face to Side or Rear to Side	30'
c. Side to Side	15'
d. Rear to Rear	40'
e. Rear to Face	75'*

⚠3

* Excluding any Pool House and Community Building
** Including recreational amenities (gazebo, pool, pool house, community building)

THE COURTYARDS @ WAVERLY WOODS – WEST
(S-06-013)
AMENDED DEVELOPMENT CRITERIA
LANDSCAPING/SCREENING COMPARISON CHART
LANDSCAPE EDGE TYPES

SCHEDULE 'B'		
Type	**Proposed on S-06-013**	**Ho. Co. Landscape Manual**
Parking Lot Internal Landscaping	1 Tree per 10 spaces	1 Tree per 10 spaces

SCHEDULE 'C'		
Residential Development Internal Landscaping	**Proposed on S-06-013**	**Ho. Co. Landscape Manual**
For SFA Villas Units	1 Tree per 1 dwelling unit	1 Tree per 1 dwelling unit

THE COURTYARDS @ WAVERLY WOODS – WEST
S-06-013
AMENDED DEVELOPMENT CRITERIA
LANDSCAPING/SCREENING COMPARISON CHART
PERIMETER LANDSCAPE TYPES – BASED ON ADJACENT LAND USE

TABLE NO. 1			
Landscape Edge Type "A" (Light Buffer)	**As Proposed On**	**Ho. Co. Landscape Manual**	**Comments**
Shade Trees per L.F.	1:60	1:60	
Evergreen Trees per L.F.	0	0	
Shrubs per L.F.	0	0	
Landscape Edge Type "B" (Moderate Buffer)	**As Proposed on S-06-013**	**Ho. Co. Landscape Manual**	**Comments**
Shade Trees per L.F.	1:50	1:50	
Evergreen Trees per L.F.	1:40	1:40	
Shrubs per L.F.	0	0	
Landscape Edge Type "C" (Heavy Buffer)	**As Proposed On S-06-013**	**Ho. Co. Landscape Manual**	
Shade Trees per L.F.	1:40	1:40	
Evergreen Trees per L.F.	1:20	1:20	
Shrubs per L.F.	0	0	
Landscape Edge Type "D" (Screen)	**As Proposed on S-06-013**	**Ho. Co. Landscape Manual**	**Comments**
Shade Trees per L.F.	1:60	1:60	
Evergreen Trees per L.F.	1:10	1:10	
Shrubs per L.F.	0	0	
Landscape Edge Type "E" (Parking Adj. to Road)	**As Proposed On S-06-013**	**Ho. Co. Landscape Manual**	**Comments**
Shade Trees per L.F.	1:40	1:40	
Evergreen Trees per L.F.	0	0	
Shrubs per L.F.	1:4	1:4	

THE COURTYARDS @ WAVERLY WOODS – WEST
(S-06-013)
AMENDED DEVELOPMENT CRITERIA
LANDSCAPING/SCREENING COMPARISON CHART
LANDSCAPING EDGES ADJACENT TO ROADWAYS

TABLE NO. 2				
Land Use	**Orientation of Structure to Roadway**	**Landscape Edge Type (Proposed on S-06-013)**	**Landscape Edge Type (Per Ho. Co. Manual)**	**Comments**
Single Family Attached Villas	Front	None	None	
Single Family Attached Villas	Side/Rear	C	C	
Single Family Detached	Front	None	None	
Single Family Detached	Side/Rear	B	B	
Non-Residential	Front/Side	B	B	
Non-Residential	Rear-if loading	D	D	
Non-Residential	Rear	C	C	
Parking	N/A	E	E	

THE COURTYARDS @ WAVERLY WOODS – WEST
(S-06-013)
AMENDED DEVELOPMENT CRITERIA
LANDSCAPING/SCREENING COMPARISON CHART
LANDSCAPE EDGES ADJACENT TO PERIMETER PROPERTIES

TABLE NO. 3				
Land Use	**Orientation of Structure to Structure**	**Landscape Edge Type (Proposed on S-06-013)**	**Landscape Edge Type (Per Ho. Co. Manual)**	**Comments**
Single Family Detached	All Uses	A	A	
Single Family Attached Villas	SFA	B	B	
Single Family Attached Villas	All Other Uses	A	A	
Non-Residential	Residential	C	C	
Non-Residential	All Other Uses	A	A	

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	COMBINING 2 DEVELOPMENT CRITERIA CHARTS INTO 1 CHART	7/11/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/6/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/6/12

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV, LOTS 5,12,32, 44 THRU 80, 82 THRU 165 & 172 THRU 231 & PARCEL 249 & V-UNITS 98-119, 193-196, 199-200 & 237-239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

DEVELOPMENT CRITERIA

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS – WEST"

PHASES II, III & IV LOTS 5, 12 THRU 32, 44 THRU 80, 82 THRU 165 & 172 THRU 231
PHASES IV & V – UNITS 98 THRU 119, 193 THRU 196, 199 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 76 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 76 Lots\Construction Document - 30770 Sheet 76 Dev Criteria Sheet.dwg, SHEET 76, 11/14/2012 2:46:06 PM, 1:1

B-1 5000

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-1
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 460.66 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-6"	6"		1-2-2	4
	No groundwater encountered while drilling.	18"		3-4-5	9
		17"		4-5-5	10
Brown, moist, medium dense, SAND and GRAVEL (GP-SP)		10"		12-9-7	16
Brown, moist, soft, micaceous sandy SILT (ML)		18"		2-2-3-3	5
Bottom of Boring at 12.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.0 ft.; AFTER 24 HRS. Dry ft. 4.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-2 5001

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-2
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 461.80 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, very loose to medium dense, micaceous silty SAND, trace rock fragments (SM)	Topsoil-6"	10"		1-2-3	5
	No groundwater encountered while drilling.	18"		2-3-3	6
		12"		4-4-8	12
		9"		3-2-2	4
		18"		1-2-2-3	4
Bottom of Boring at 12.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.0 ft.; AFTER 24 HRS. Dry ft. 5.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-3 5002

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-3
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 485.49 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/24/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/24/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, very soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-5"	12"		1-1-2	3
		18"		1-3-3	6
Brown, moist, loose, micaceous silty SAND to sandy SILT (SM-ML)		18"		3-2-3	5
		13"		2-3-4	7
	Groundwater encountered at 9.0' while drilling.	16"		2-3-3-4	6
Bottom of Boring at 12.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.0 ft.; AFTER 24 HRS. Dry ft. 4.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-4 5003

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-4
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 462.74 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/24/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/24/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown to tan, moist, soft to medium stiff, micaceous SILT, trace to some sand (ML)	Topsoil-7"	14"		1-1-3	4
	No groundwater encountered while drilling.	18"		3-4-6	10
		18"		5-5-3	8
		8"		1-2-2	4
		18"		1-2-2-2	4
Bottom of Boring at 12.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 4.5 ft.; AFTER 24 HRS. Dry ft. 5.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-5 5004

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-5
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 460.88 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/24/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/24/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown to light brown, moist, soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-6"	18"		2-3-2	5
	No groundwater encountered while drilling.	13"		1-3-4	7
Brown, moist, loose to medium dense, micaceous silty SAND, trace rock fragments (SM)		18"		10-8-5	13
		12"		3-3-3	6
Light brown, moist, soft, micaceous sandy SILT (ML)		18"		2-2-3-4	5
Bottom of Boring at 12.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 6.0 ft.; AFTER 24 HRS. Dry ft. 6.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-6 5005

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-6
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 513.93 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, very soft, micaceous sandy SILT (ML)	Topsoil-6"	14"		2-1-2	3
Brown, moist, loose to very dense, micaceous silty SAND to sandy SILT (SM-ML)	No groundwater encountered while drilling.	18"		5-5-4	9
		18"		3-4-3	7
		14"		6-6-7	13
		18"		10-11-15	26
		13"		12-25-36	61
Bottom of Boring at 15.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 6.0 ft.; AFTER 24 HRS. Dry ft. 5.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-7 5006

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-7
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 513.24 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft, micaceous sandy SILT (ML)	Topsoil-5"	6"		3-2-3	5
	No groundwater encountered while drilling.	18"		2-2-3	5
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT, trace to no rock fragments (SM-ML)		18"		3-2-5	7
		13"		3-5-8	13
		11"		11-10-11	21
		17"		12-16-12	28
Bottom of Boring at 15.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 6.0 ft.; AFTER 24 HRS. Dry ft. 6.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-8 5007

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-8
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 490.86 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft, micaceous sandy SILT (ML)	Topsoil-6"	6"		1-2-2	4
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)	No groundwater encountered while drilling.	17"		3-4-5	9
		18"		2-5-4	9
		14"		2-3-4	7
		13"		9-17-13	30
		12"		5-7-8	15
Bottom of Boring at 15.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 6.0 ft.; AFTER 24 HRS. Dry ft. 6.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-9 5008

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-9
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 492.67 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff to stiff, micaceous sandy SILT (ML)	Topsoil-5"	10"		2-3-5	8
	No groundwater encountered while drilling.	18"		4-5-7	12
Brown, moist, medium dense, micaceous silty SAND to sandy SILT (SM-ML)		18"		9-8-12	20
		10"		8-10-12	22
		9"		12-12-14	26
		14"		6-9-16	25
Bottom of Boring at 15.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 6.5 ft.; AFTER 24 HRS. Dry ft. 6.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

B-10 5009

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-10
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt. 140 lbs. Hole Diameter 6" Foreman L. Smith
Surf. Elev. 484.26 Ft. Hammer Drop 30 in. Rock Core Diameter ___ Inspector ___
Date Started 11/23/07 Pipe Size 2 in. Boring Method HSA Date Completed 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff, micaceous sandy SILT (ML)	Topsoil-7"	10"		2-3-3	6
	No groundwater encountered while drilling.	18"		3-4-4	8
Brown, moist, medium dense, micaceous silty SAND to sandy SILT (SM-ML)		18"		4-6-9	15
		14"		6-7-4	11
		15"		9-7-8	15
		15"		7-8-12	20
Bottom of Boring at 15.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.5 ft.; AFTER 24 HRS. Dry ft. 5.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/18/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SOIL BORING SHEET

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 77 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 77-80 Soil Boring Spec.dwg, Sheet 77, 11/14/2012 11:43:01 AM, 1:1

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 77-80 Soil Boring Spec.dwg, Sheet 78, 11/14/2012 11:43:46 AM, 1:1

B-11 5010

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-11
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ____ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 539.15 Ft. Hammer Drop: 30 in. Rock Core Diameter: ____ Inspector: ____
Date Started: 11/24/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/24/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff to stiff, micaceous sandy SILT (ML)	Topsoil-7"	I	12"		2-3-3	6
	No groundwater encountered while drilling.	I	18"		3-5-6	11
		I	15"		7-8-8	16
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		D	12"		4-4-6	10
		D	18"		5-7-7-10	14
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	8.0 ft.
After 24 Hrs.	Dry ft.	4.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-12 5011

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-12
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 538.85 Ft. Hammer Drop: 30 in.
Date Started: 11/24/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/24/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-6"	I	14"		1-2-3	5
	No groundwater encountered while drilling.	I	18"		6-6-7	13
		D	18"		4-5-5	10
Brown, moist, loose to dense, micaceous silty SAND to sandy SILT (SM-ML)		D	12"		9-13-19	32
		D	18"		5-5-7-10	12
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.0 ft.
After 24 Hrs.	Dry ft.	4.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-13 5012

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-13
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 524.45 Ft. Hammer Drop: 30 in.
Date Started: 11/24/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/24/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, very soft to stiff, micaceous sandy SILT (ML)	Topsoil-6"	D	12"		1-1-2	3
	No groundwater encountered while drilling.	I	18"		6-12-14	26
Brown, moist, medium dense to dense, micaceous silty SAND to sandy SILT (SM-ML)		D	18"		12-13-18	31
		D	13"		9-7-7	14
		D	18"		5-7-10-13	17
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	3.5 ft.
After 24 Hrs.	Dry ft.	3.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-14 5013

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-14
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 528.59 Ft. Hammer Drop: 30 in.
Date Started: 11/24/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/24/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, soft, micaceous sandy SILT (ML)	Topsoil-5"	I	12"		1-2-3	5
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT, trace to no rock fragments (SM-ML)	No groundwater encountered while drilling.	D	18"		8-8-13	21
		D	12"		8-12-17	29
		D	18"		4-4-5	9
		D	17"		4-7-8-10	15
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.0 ft.
After 24 Hrs.	Dry ft.	3.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-15 5014

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-15
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: ____ Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, very soft, SILT, trace sand (ML)	Topsoil-9"	D	9"		1-1-2	3
Brown, moist, soft to stiff, micaceous sandy SILT, trace to no rock fragments (ML)	No groundwater encountered while drilling.	I	17"		5-9-13	22
		I	18"		7-8-8	16
		D	18"		2-3-3	6
		D	6"		2-3-2-3	5
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	3.5 ft.
After 24 Hrs.	Dry ft.	3.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-16 5015

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-16
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 510.44 Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, soft, sandy SILT (ML)	Topsoil-8"	D	15"		1-2-2	4
Gray, dry, medium dense, clayey SAND and GRAVEL (GC-SC)	No groundwater encountered while drilling.	D	18"		7-10-14	24
Tan to light brown, moist, soft to stiff, micaceous sandy SILT (ML)		I	12"		4-5-6	11
		D	18"		5-7-8	15
		D	17"		1-2-3-4	5
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.5 ft.
After 24 Hrs.	Dry ft.	4.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-17 5016

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-17
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 509.98 Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown to gray to tan, moist to damp, soft to stiff, micaceous sandy SILT (ML)	Topsoil-11"	I	18"		1-2-2	4
	No groundwater encountered while drilling.	D	18"		5-6-8	14
		D	16"		9-9-17	26
		I	18"		3-4-4	8
		D	18"		2-3-4-7	7
Bottom of Boring at 12.0'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.0 ft.
After 24 Hrs.	Dry ft.	3.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-18 5017

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-18
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 513.24 Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff to hard, micaceous sandy SILT (ML)	Topsoil-10"	D	16"		3-3-5	8
Brown to tan, moist to damp, very loose to medium dense, micacous silty SAND to sandy SILT, trace rock fragments (SM-ML)	No groundwater encountered while drilling.	I	18"		9-14-21	35
		D	18"		11-14-13	27
		D	12"		4-5-6	11
		D	18"		3-3-5	8
		D	13"		1-2-2	4
Bottom of Boring at 16.5'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	6.5 ft.
After 24 Hrs.	Dry ft.	6.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-19 5018

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-19
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 512.51 Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown to gray, moist, very soft to stiff, micaceous sandy SILT, trace rock fragments (ML)	Topsoil-5"	D	12"		1-1-2	3
		I	16"		6-7-8	15
		I	18"		6-9-10	19
Brown, moist to damp, loose, micaceous silty SAND to sandy SILT (SM-ML)		D	17"		4-5-5	10
		D	18"		3-3-4	7
	Groundwater encountered at 15.0' while drilling.	D	9"		3-3-3	6
Bottom of Boring at 16.5'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	6.5 ft.
After 24 Hrs.	Dry ft.	7.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-20 5019

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-20
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 512.48 Ft. Hammer Drop: 30 in.
Date Started: 11/25/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/25/07

Description	Boring and Sampling Notes	Soil Symbols/Sample Conditions	Rec.	NM	SPT Blows	N
Brown to light brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-6"	I	13"		1-1-3	4
	No groundwater encountered while drilling.	I	18"		7-8-12	20
		I	18"		7-6-8	14
		D	18"		4-5-5	10
		D	18"		3-4-4	8
		D	18"		2-2-3	5
Bottom of Boring at 16.5'						

	Ground Water	Cave in Depth
At Completion	Dry ft.	6.0 ft.
After 24 Hrs.	Dry ft.	5.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS
NV HOMES, 6085 MARSHALEE DRIVE, SUITE 130, ELKRIDGE, MD. 21075, 410-379-5956
RYAN HOMES, 6085 MARSHALEE DRIVE, SUITE 140, ELKRIDGE, MD. 21075, 410-379-5956

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/14/12

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PHASES II, III & IV LOTS 5, 12-39, 44-86, 88-165 & 172-231; PHASES IV & V - UNITS 93-119, 153-161, 196-200 & 237-239

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21427 - 21435 AND 22082 - 22089	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SOIL BORING SHEET

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 93 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES
ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 78 OF 100

SDP-09-039

B-21 (5020)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-21
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 531.81 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/26/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/26/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, very soft, micaceous sandy SILT (ML)	Topsoil-6"	14"		2-1-2	3
Brown, moist, loose, micaceous silty SAND to sandy SILT (SM-ML)	No groundwater encountered while drilling.	17"		3-3-5	8
		18"		3-4-5	9
		16"		2-3-4-5	7
Bottom of Boring at 10.0'					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 3.5 ft.; AFTER 24 HRS. Dry ft. 3.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-22 (5021)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-22
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 531.92 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/26/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/26/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-5"	17"		1-2-3	5
	No groundwater encountered while drilling.	16"		2-4-6	10
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		18"		5-5-7	12
		18"		4-4-6-8	10
Bottom of Boring at 10.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 4.0 ft.; AFTER 24 HRS. Dry ft. 4.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-23 (5022)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-23
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 509.50 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/26/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/26/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft, micaceous sandy SILT (ML)	Topsoil-4"	15"		2-2-2	4
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)	No groundwater encountered while drilling.	16"		2-3-3	6
		18"		3-3-4	7
		16"		6-9-11-13	20
Bottom of Boring at 10.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 3.0 ft.; AFTER 24 HRS. ___ ft. ___ ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-24 (5023)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-24
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 477.21 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/23/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/23/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-7"	11"		1-2-2	4
	No groundwater encountered while drilling.	12"		7-8-12	20
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		13"		5-6-7	13
		10"		3-4-6	10
		10"		5-5-5	10
		16"		9-10-11	21
		17"		3-7-9	16
Bottom of Boring at 20.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 8.5 ft.; AFTER 24 HRS. Dry ft. 8.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-25 (5024)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-25
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 477.30 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/21/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/21/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-3"	10"		1-2-2	4
	No groundwater encountered while drilling.	12"		8-8-9	17
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		13"		3-4-5	9
		15"		4-4-5	9
		16"		3-4-7	11
		14"		3-2-3	5
		18"		2-6-7	13
Bottom of Boring at 20.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 8.5 ft.; AFTER 24 HRS. Dry ft. 8.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-26 (5025)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-26
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 465.76 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/21/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/21/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist to damp, very soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-3"	12"		2-4-4	8
	No groundwater encountered while drilling.	15"		4-4-6	10
		18"		2-2-5	7
		18"		1-1-2	3
Brown, moist, loose, micaceous silty SAND to sandy SILT (SM-ML)		17"		2-3-2-5	5
Bottom of Boring at 12					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.5 ft.; AFTER 24 HRS. Dry ft. 5.5 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-27 (5026)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-27
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 461.60 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/20/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/20/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff, micaceous sandy SILT (ML)	Topsoil-5"	14"		1-3-4	7
Brown, moist, dense, micaceous silty SAND to sandy SILT, trace to some rock fragments (SM-ML)		10"		15-16-15	31
		12"		15-16-17	33
Brown, moist, medium stiff to stiff, micaceous sandy SILT (ML)		16"		4-6-10	16
	Groundwater encountered at 10.0' while drilling.	13"		3-3-4-4	7
Bottom of Boring at 12.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.0 ft.; AFTER 24 HRS. Dry ft. 5.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-28 (5027)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-28
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 463.00 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/19/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/19/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist to damp, medium stiff, micaceous sandy SILT (ML)	Topsoil-5"	10"		1-2-4	6
	No groundwater encountered while drilling.	12"		2-3-4	7
		12"		3-3-3	6
Brown, damp, loose, micaceous silty SAND to sandy SILT (SM-ML)		13"		2-3-4	7
		17"		2-3-3-3	6
Bottom of Boring at 12.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.5 ft.; AFTER 24 HRS. 5.0 ft. 6.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-29 (5028)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-29
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 466.43 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/19/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/19/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, stiff, micaceous sandy SILT (ML)	Topsoil-6"	6"		1-5-10	15
	No groundwater encountered while drilling.	10"		5-6-8	14
		5"		5-6-9	15
Gray, moist, loose, micaceous clayey SAND (SC)		16"		3-4-4	8
Tan, damp, very loose, micaceous silty SAND (SM)		18"		1-2-2-2	4
Bottom of Boring at 12.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 5.5 ft.; AFTER 24 HRS. Dry ft. 5.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.

B-30 (5029)

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-30
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: — Hammer Wt.: 140 lbs. — Hole Diameter: 6" — Foreman: L. Smith
Surf. Elev.: 467.91 Ft. — Hammer Drop: 30 in. — Rock Core Diameter: — Inspector:
Date Started: 11/20/07 — Pipe Size: 2 in. — Boring Method: HSA — Date Completed: 11/20/07

Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
Brown, moist, medium stiff to stiff, micaceous sandy SILT (ML)	Topsoil-6"	18"		1-3-3	6
	No groundwater encountered while drilling.	16"		6-8-13	21
Brown, moist, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		8"		4-4-5	9
Brown, damp, very soft to soft, micaceous sandy SILT (ML)		24"		1-1-2	3
		18"		1-2-2-2	4
Bottom of Boring at 12.0'					

GROUND WATER / CAVE IN DEPTH: AT COMPLETION Dry ft. 4.5 ft.; AFTER 24 HRS. Dry ft. 5.0 ft.; AFTER ___ HRS. ___ ft. ___ ft.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS
NV HOMES, 6085 MARSHALEE DRIVE, SUITE 130, ELKRIDGE, MD. 21075, 410-379-5956
RYAN HOMES, 6085 MARSHALEE DRIVE, SUITE 140, ELKRIDGE, MD. 21075, 410-379-5956

DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

OWNERS
WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/21/12 Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SOIL BORING SHEET

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 79 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 77-80 Soil Boring Spec.dwg, Sheet 79, 11/14/2012 11:44:33 AM, 1:1

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30770 Sheet 77-80 Soil Boring Spec.dwg, Sheet 80, 11/14/2012 11:45:33 AM, 1:1

B-31 5030

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-31
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 470.95 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/21/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/21/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
I	Brown, moist, soft to stiff, micaceous sandy SILT, trace rock fragments (ML)	Topsoil-3"	9"		2-1-3	4
D			10"		17-15-14	29
D	Brown, moist to wet, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		11"		7-7-9	16
D			12"		4-4-5	9
D		Groundwater encountered at 10.0' while drilling.	12"		4-6-7	13
D			13"		6-7-6	13
	Bottom of Boring at 16.5'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	7.5 ft.
After 24 Hrs.	Dry ft.	7.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-32 5031

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-32
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 468.95 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/19/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/19/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
D	Brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-6"	10"		1-2-2	4
D		No groundwater encountered while drilling.	12"		4-4-7	11
D	Brown, moist to damp, loose to medium dense, micaceous silty SAND to sandy SILT (SM-ML)		12"		5-6-5	11
D			14"		3-4-4	8
L			0"		3-3-4	7
L			0"		3-4-4	8
	Bottom of Boring at 15.0'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	8.5 ft.
After 24 Hrs.	8.0 ft.	8.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-33 5032

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-33
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 470.30 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/19/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/19/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
I	Brown, moist to damp, soft to stiff, micaceous sandy SILT (ML)	Topsoil-6"	12"		1-1-3	4
I			7"		3-4-3	7
D			16"		3-4-4	8
D			10"		3-2-3	5
D		Groundwater encountered at 10.0' while drilling.	17"		2-3-4	7
D			13"		4-7-10	17
	Bottom of Boring at 15.0'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	5.5 ft.
After 24 Hrs.	Dry ft.	5.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-34 5033

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-34
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 471.50 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/19/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/19/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
D	Brown, moist, soft to medium stiff, micaceous sandy SILT (ML)	Topsoil-5"	11"		1-2-3	5
I		No groundwater encountered while drilling.	10"		3-2-4	6
D	Brown, moist, medium dense, micaceous silty SAND to sandy SILT (SM-ML)		16"		4-6-10	16
D			14"		8-10-8-9	18
	Bottom of Boring at 10.0'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.0 ft.
After 24 Hrs.	Dry ft.	4.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-35 5034

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-35
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 475.11 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/21/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/21/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
D	Brown, moist, soft, micaceous sandy SILT (ML)	Topsoil-5"	10"		2-1-3	4
D	Brown, moist, medium dense, micaceous silty SAND to sandy SILT (SM-ML)	No groundwater encountered while drilling.	11"		6-8-8	14
D			12"		5-7-11	18
D			11"		13-14-13	27
D			11"		4-4-11-15	15
	Bottom of Boring at 12.0'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.5 ft.
After 24 Hrs.	Dry ft.	4.0 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

B-36 5035

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Waverly Woods West Crossing — Boring No.: B-36
Location: Howard County, Maryland — Job #: 07390A

SAMPLER
Datum: ___ Hammer Wt.: 140 lbs. Hole Diameter: 6" Foreman: L. Smith
Surf. Elev.: 474.55 Ft. Hammer Drop: 30 in. Rock Core Diameter: ___ Inspector: ___
Date Started: 11/20/07 Pipe Size: 2 in. Boring Method: HSA Date Completed: 11/20/07

Sample Conditions	Description	Boring and Sampling Notes	Rec.	NM	SPT Blows	N
D	Brown, moist, soft to stiff, micaceous sandy SILT (ML)	Topsoil-5"	10"		1-2-3	5
I		No groundwater encountered while drilling.	15"		9-12-17	29
D	Brown, moist, medium dense, micaceous silty SAND to sandy SILT, trace to no rock fragments (SM-ML)		12"		7-7-8	15
D			15"		7-7-8	15
D			14"		3-5-16-17	21
	Bottom of Boring at 12.0'					

	Ground Water	Cave in Depth
At Completion	Dry ft.	4.5 ft.
After 24 Hrs.	Dry ft.	5.5 ft.
After ___ Hrs.	___ ft.	___ ft.

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES, 6085 MARSHALEE DRIVE, SUITE 130, ELKRIDGE, MD. 21075, 410-379-5956

RYAN HOMES, 6085 MARSHALEE DRIVE, SUITE 140, ELKRIDGE, MD. 21075, 410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION, C/O LAND DESIGN AND DEVELOPMENT, INC., 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042, 443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date
Chief, Development Engineering Division — 12/18/12 Date
Director - Department of Planning and Zoning — 12/19/12 Date

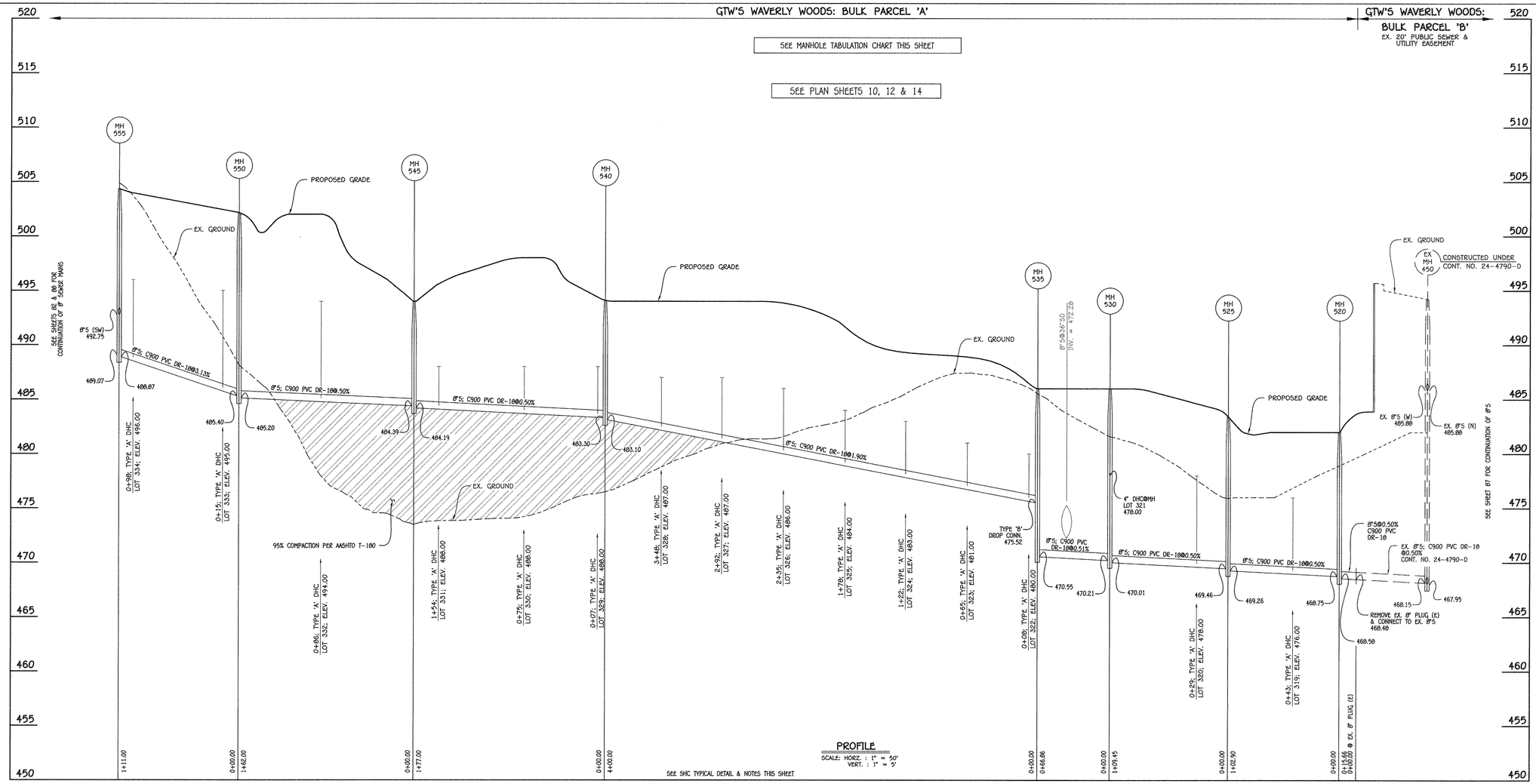
PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II THRU V LOTS 5, 12-39, 44-86, 88-165, 172-231 & 240-309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #51	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

REVISED SOIL BORING SHEET

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 80 OF 100

SDP-09-039



8" SEWER MAIN: EX. 8" PLUG TO MH 555

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 540 TO MH 545		
0+07 LT.	329 (DHC)	488.20
0+75 LT.	330 (DHC)	488.10
1+54 LT.	331 (DHC)	488.40
MH 545 TO MH 550		
0+86 LT.	332 (DHC)	494.20
MH 550 TO MH 555		
0+15 LT.	333 (DHC)	496.20
0+98 LT.	334 (DHC)	495.20

SHC INVERT@BUILDING

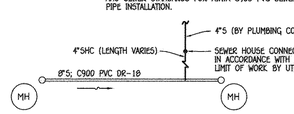
STATION	LOT	ELEVATION
MH 520 TO MH 525		
0+43 LT.	319 (DHC)	476.40
MH 525 TO MH 530		
0+29 LT.	320 (DHC)	478.20
@MH 530 LT.	321 (DHC@MH)	478.20
MH 535 TO MH 540		
0+08 LT.	322 (DHC)	480.10
0+65 LT.	323 (DHC)	481.20
1+22 LT.	324 (DHC)	483.20
1+78 LT.	325 (DHC)	484.10
2+35 LT.	326 (DHC)	486.10
2+92 LT.	327 (DHC)	487.10
3+48 LT.	328 (DHC)	487.20

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
520	538614.28	827788.51	482.00
525	538704.67	827837.69	483.40
530	538811.93	827859.46	486.00
535	538878.73	827856.59	486.00
540	539268.19	827765.38	494.00
545	539435.84	827708.63	499.50
550	539511.33	827565.30	502.15
555	539526.84	827455.38	504.35

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SEWER MAIN NOTES:
1. ALL SEWER MAINS SHALL BE AWWA C900 PVC DR-18 PIPE.
2. ALL PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II - WATER AND SEWER STANDARDS FOR AWWA C900 PVC SEWER PIPE INSTALLATION.



TYPICAL SHC DETAIL

NO SCALE

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 8/3/16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15

Chief, Development Engineering Division — Date 7-24-15

Director - Department of Planning and Zoning — Date 8-4-15

PROJECT	SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS	14	PHASE II THRU V LOTS 1, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 81 OF 100

SDP-09-039

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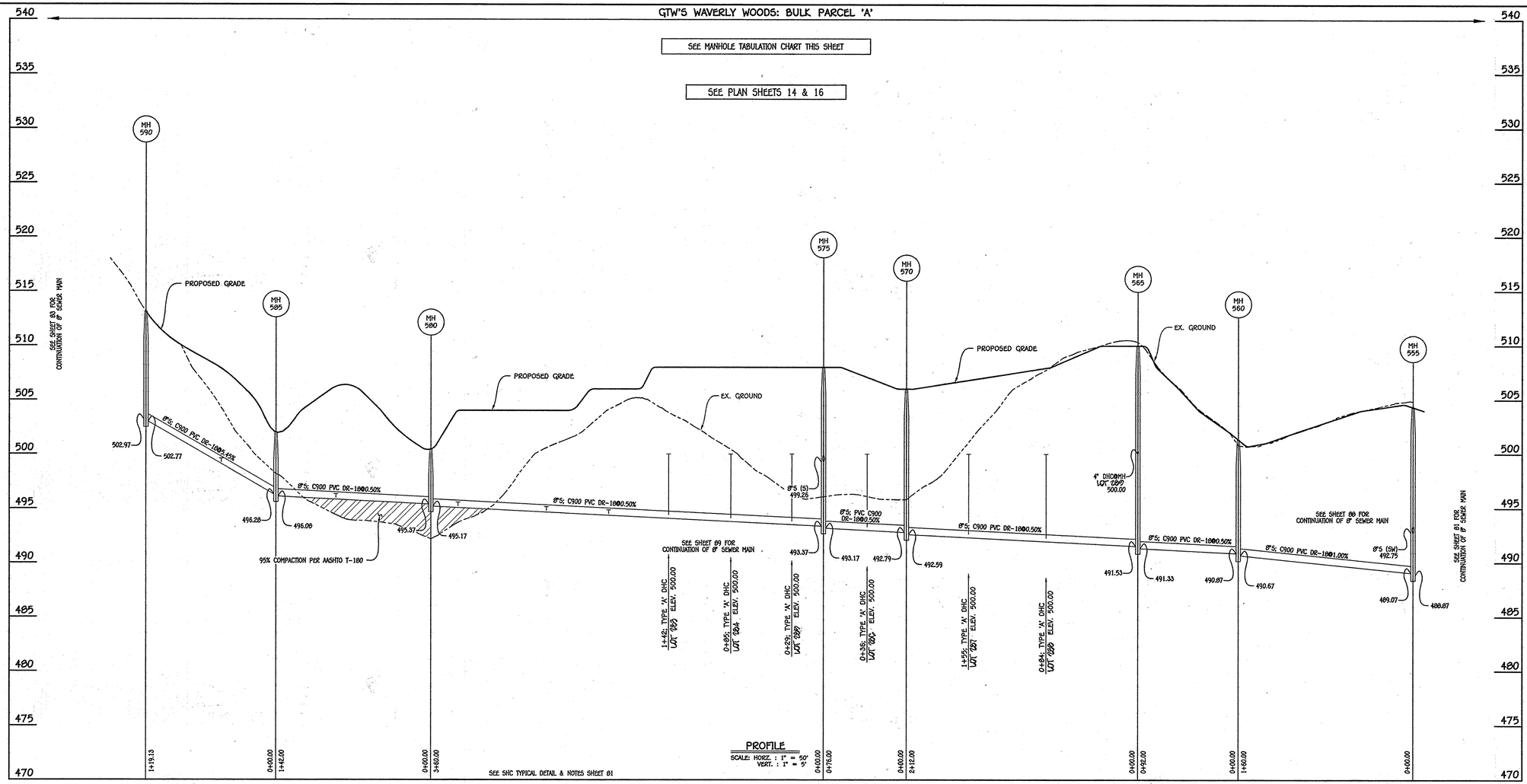

8" SEWER MAIN: MH 555 TO MH 590

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 575 TO MH 580		
0+29 LT.	285 (DHC)	500.20
0+85 LT.	284 (DHC)	500.20
1+42 LT.	283 (DHC)	500.20
1+97 LT.	282	494.73
2+54 LT.	281	495.01
3+35 LT.	280	495.62
MH 580 TO MH 585		
0+87 LT.	279	496.08
MH 585 TO MH 590		
0+50 LT.	276	499.28

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 560 TO MH 565		
@MH 565 LT.	289 (DHC@MH)	500.90
MH 565 TO MH 570		
0+84 LT.	288 (DHC)	500.40
1+55 LT.	287 (DHC)	500.20
MH 570 TO MH 575		
0+36 LT.	286 (DHC)	500.20

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
555	539526.84	827455.38	504.35
560	539619.86	827325.20	501.35
565	539619.85	827233.19	510.00
570	539715.77	827044.13	506.00
575	539711.87	826960.23	508.00
580	539693.40	826808.71	500.50
585	539595.99	826505.39	502.00
590	539486.52	826458.39	513.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. SEWER PROFILE & SHC CHARTS TO REFLECT NEW LOT NUMBERS	5/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
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443-367-0422

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/10/12 Date

Chief, Development Engineering Division — 12/10/12 Date

Director - Department of Planning and Zoning — 12/11/12 Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 309
PLAT (SEE FEDERAL NOTE #21)	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16
	ELEC. DIST. THIRD	CENSUS TR. 60300	
WATER CODE K-02	SEWER CODE 5992000		

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2013
SHEET 82 OF 100

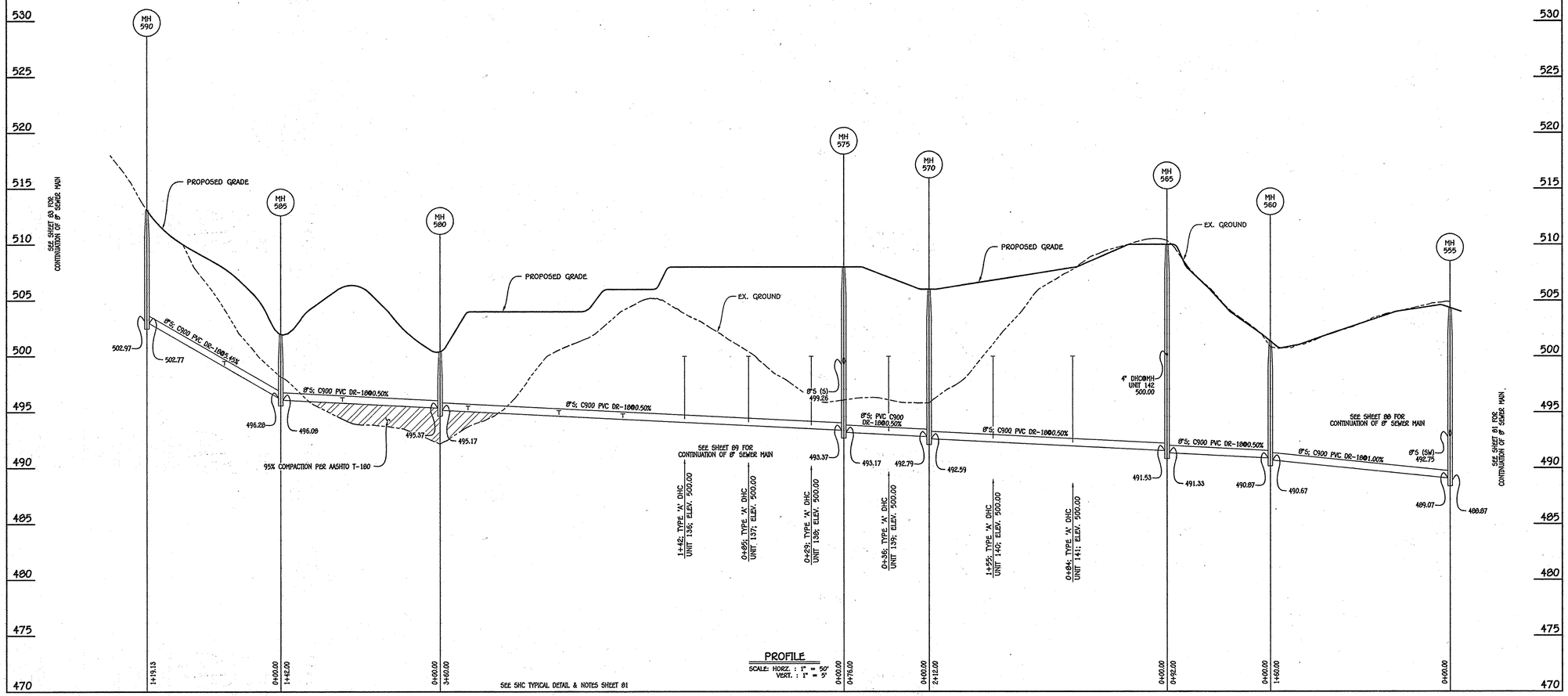
SDP-09-039

K:\SDSKPROJ\10770 GTW WEST\dwg\Construction Documents\Construction Document - 10770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 82, 11/15/2012 8:21:46 AM, 111

GTW'S WAVERLY WOODS: BULK PARCEL 'A'

SEE MANHOLE TABULATION CHART THIS SHEET

SEE PLAN SHEETS 14 & 16



8" SEWER MAIN: MH 555 TO MH 590

SHC INVERT@BUILDING

STATION	UNIT	ELEVATION
MH 575 TO MH 580		
0+29 LT.	138 (DHC)	500.20
0+85 LT.	137 (DHC)	500.20
1+42 LT.	136 (DHC)	500.20
1+97 LT.	135	494.73
2+54 LT.	134	495.01
3+35 LT.	133	495.62
MH 580 TO MH 585		
0+87 LT.	132	496.08
MH 585 TO MH 590		
0+50 LT.	131	499.28

SHC INVERT@BUILDING

STATION	UNIT	ELEVATION
MH 560 TO MH 565		
@MH 565 LT.	142 (DHC@MH)	500.90
MH 565 TO MH 570		
0+84 LT.	141 (DHC)	500.40
1+55 LT.	140 (DHC)	500.20
MH 570 TO MH 575		
0+36 LT.	139 (DHC)	500.20

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
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575	539711.87	826968.23	508.00
580	539693.40	826808.71	500.50
585	539595.99	826505.39	502.00
590	539486.52	826458.39	513.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE-IN TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/19/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCEL I, PARCEL V, LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCEL I, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 82 OF 100

SDP-09-039

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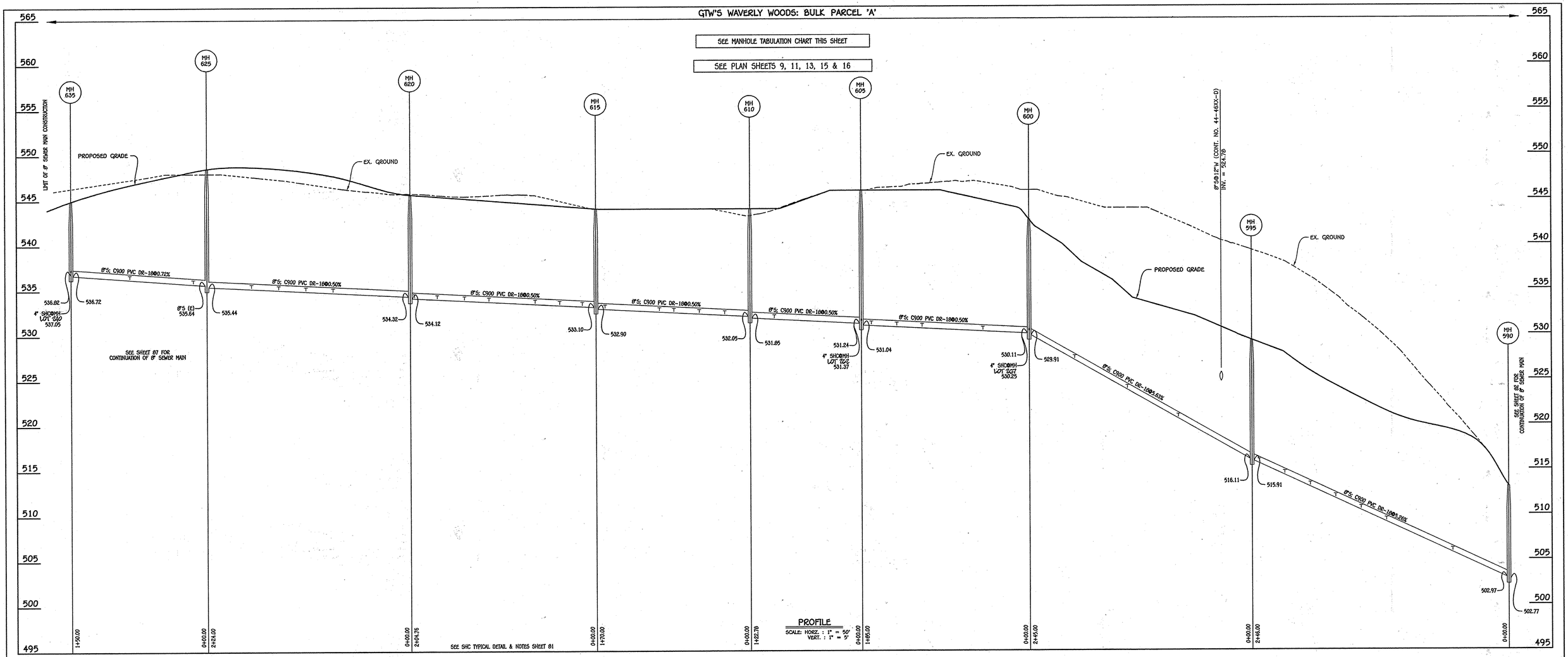
GTW'S WAVERLY WOODS: BULK PARCEL 'A'

SEE MANHOLE TABULATION CHART THIS SHEET

SEE PLAN SHEETS 9, 11, 13, 15 & 16



PROFILE
SCALE: HORZ. : 1" = 50'
VERT. : 1" = 5'

8" SEWER MAIN: MH 590 TO MH 635

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 625 TO MH 635		
0+15 LT.	242	536.42
0+85 LT.	241	536.72
@MH 635 LT.	240	537.15

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 615 TO MH 620		
0+15 LT.	255	533.75
0+40 LT.	254	533.87
0+67 LT.	253	537.01
1+18 LT.	252	534.26
1+45 LT.	251	534.40
1+75 LT.	250	534.55
2+00 LT.	249	534.67
MH 620 TO MH 625		
0+85 LT.	248	535.22
1+15 LT.	247	535.37
1+45 LT.	246	535.52
1+75 LT.	245	535.67

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 600 TO MH 605		
0+51 LT.	226	530.64
1+18 LT.	225	530.97
1+46 LT.	224	531.11
1+74 LT.	223	531.25
@MH 605 LT.	222	531.47
MH 605 TO MH 610		
0+96 LT.	221	532.09
MH 610 TO MH 615		
0+28 LT.	260	532.56
0+56 LT.	259	532.70
0+84 LT.	258	532.84
1+00 LT.	257	532.92
1+60 LT.	256	533.42

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 590 TO MH 595		
0+62 LT.	277	506.60
1+35 LT.	276	510.44
1+63 LT.	275	511.91
1+91 LT.	274	513.39
2+19 LT.	273	514.86
2+47 LT.	272	516.33
2+75 LT.	271	517.81
MH 595 TO MH 600		
0+81 LT.	270	520.94
1+37 LT.	269	524.09
1+95 LT.	268	527.36
@MH 600 LT.	267	530.33

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
590	539486.52	826458.39	513.00
595	539242.17	826601.33	529.35
600	539030.70	826725.04	542.75
605	538851.70	826678.31	546.00
610	538730.45	826658.96	544.00
615	538564.85	826697.37	544.00
620	538362.33	826667.10	545.60
625	538141.35	826703.76	548.50
635	538120.25	826555.25	545.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. SEWER PROFILE & SHC CHANGES TO REFLECT NEW LOT NUMBERS	9/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

STATE OF MARYLAND — TERRELL A. FISHER — NO. 9757 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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410-379-5956

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443-367-0422

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/6/12 Date

Chief, Development Engineering Division — 12/20/12 Date

Director - Department of Planning and Zoning — 12/20/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V: LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE SHEET 2 NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

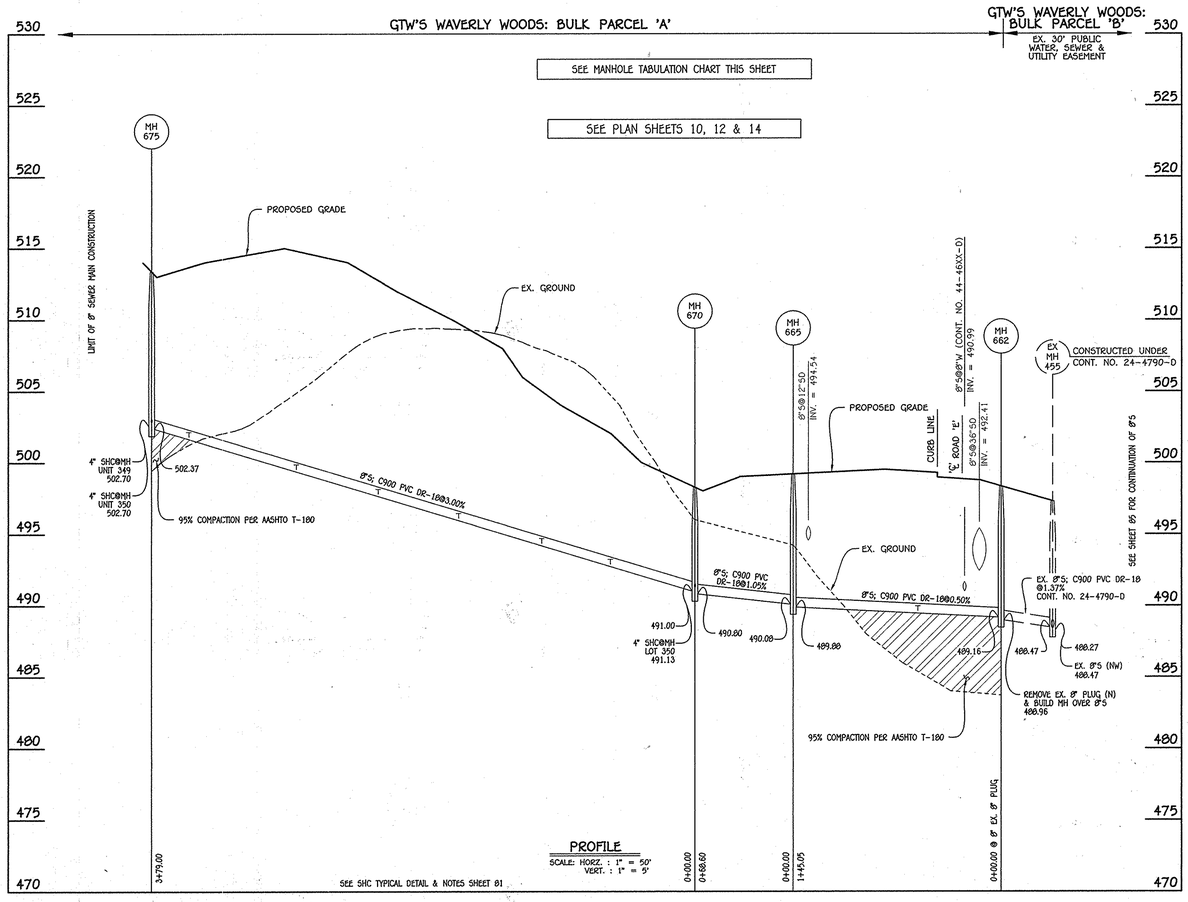
PHASES II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 83 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 83, 11/15/2012 8:22:03 AM, 1:1



PROFILE
SCALE: HORZ. : 1" = 50'
VERT. : 1" = 5'

SEE SHC TYPICAL DETAIL & NOTES SHEET 81

8" SEWER MAIN: EX. 8" PLUG (N) TO MH 675

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
662	538700.71	827676.34	498.33
665	538845.69	827680.93	499.18
670	538861.61	827614.20	498.25
675	539230.62	827527.78	513.36

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 662 TO MH 665		
0+58 LT.	349	489.78
MH 665 TO MH 670		
@MH 670 LT.	350	491.43
MH 670 TO MH 675		
0+59 LT.	351	493.24
1+07 LT.	352	494.58
1+65 LT.	353	496.32
2+21 LT.	354	498.00
2+78 LT.	355	499.71
3+53 LT.	356	501.96
@MH 675 LT.	357	503.40
@MH 675 CEN.	358	502.90

REVISED

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 84 OF 100

SDP-09-039

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

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SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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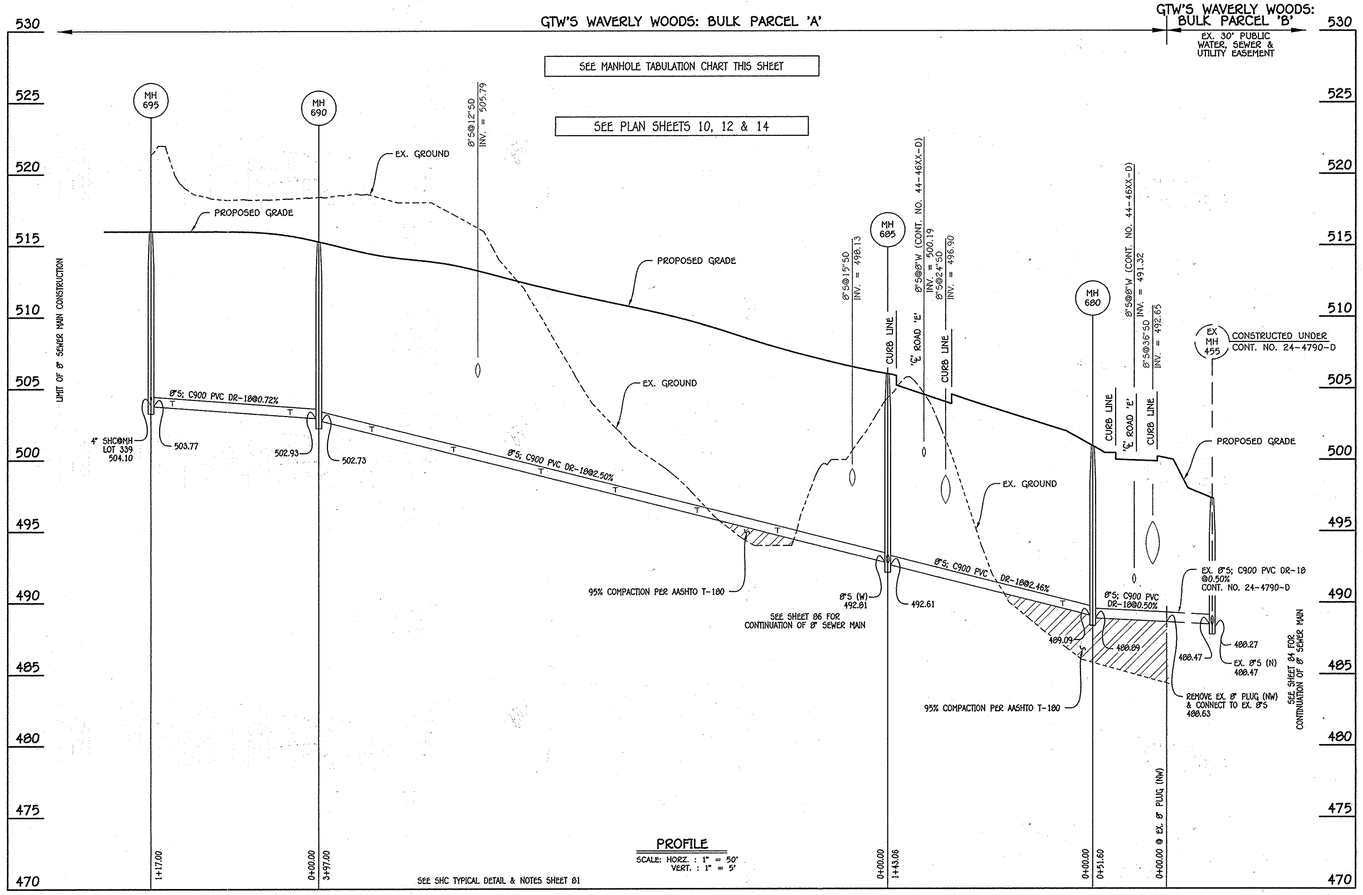
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7.31.15
Chief, Development Engineering Division — Date 7.24.15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT			SECTION		PARCEL NO. "E"
GTW'S WAVERLY WOODS			14		PHASE II THRU V - LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE			SEWER CODE		
K-02			5992000		

K:\SDSK\PROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 5 - July - 2014.dwg, 7/14/2015 8:53:20 AM



PROFILE
SCALE: HORZ. : 1" = 50'
VERT. : 1" = 5'

8" SEWER MAIN: EX. 8" PLUG TO MH 695

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
680	538729.79	827623.06	500.95
685	538697.17	827483.76	506.00
690	539083.71	827393.24	515.25
695	539197.63	827366.57	516.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 680 TO MH 685		
0+21 RT.	348	489.88
MH 685 TO MH 690		
0+77 LT.	347	494.95
1+33 LT.	346	496.35
1+90 LT.	345	497.77
2+42 LT.	344	499.07
3+03 LT.	343	500.60
3+60 LT.	342	502.02
MH 690 TO MH 695		
0+20 LT.	341	503.28
1+02 LT.	340	503.87
@MH 695 LT.	339	504.18

REVISED

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 85 OF 100 SDP-09-039

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/17.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — DATE 7/14/15

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

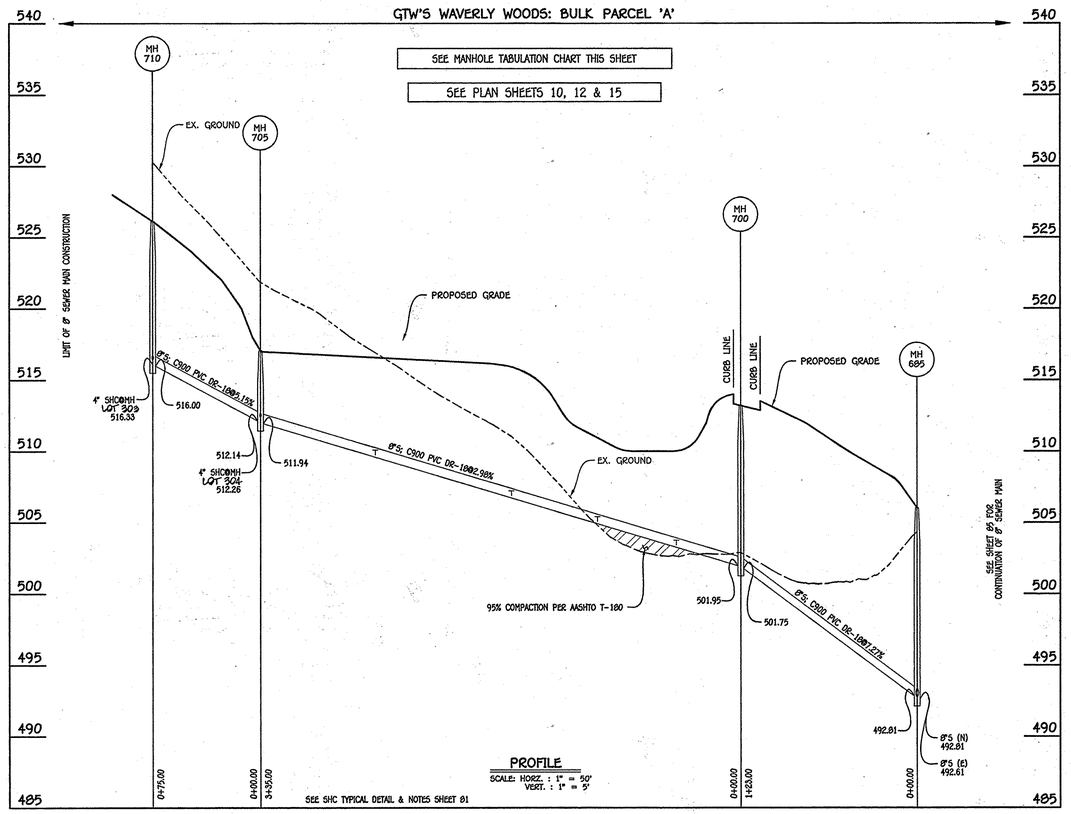
WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7-31-15
Chief, Development Engineering Division — Date 7.24.15
Director - Department of Planning and Zoning — Date 8-4-15

PROJECT			SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS			14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 5 - July - 2014.dwg, 7/14/2015 8:54:17 AM



PROFILE
SCALE: HORZ. : 1" = 50'
VERT. : 1" = 5'

SEE SHC TYPICAL DETAIL & NOTES SHEET 81

8" SEWER MAIN: MH 685 TO MH 710

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
685	538697.17	827483.76	506.00
700	538669.12	827364.01	513.20
705	538995.30	827287.62	517.00
710	539037.40	827225.55	526.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 700 TO MH 705		
0+45 LT.	306	503.86
1+00 LT.	307	505.60
1+60 LT.	306	507.19
2+55 LT.	305	510.12
@MH 705 LT.	304	512.86
MH 705 TO MH 710		
@MH 710 LT.	303	516.73

REVISED

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 51, 52 THRU 57, 141 THRU 162, 166 THRU 185, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 86 OF 100

SDP-09-039

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. SEWER PROFILE & SHC CHART TO REFLECT NEW LOT NUMBERS	8/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP 09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND · TERRELL A. FISHER · 10,794 · REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

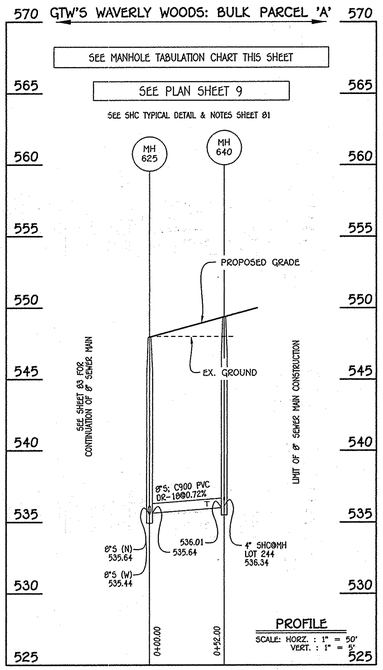
Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/18/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES II, THRU V LOTS 51-57, 141-162, 166-185, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

K:\SDSKPROJ\10770 GTW WEST\dwg\Construction Documents\Construction Document - 10770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 86, 11/15/2012 8:22:48 AM, 1:1

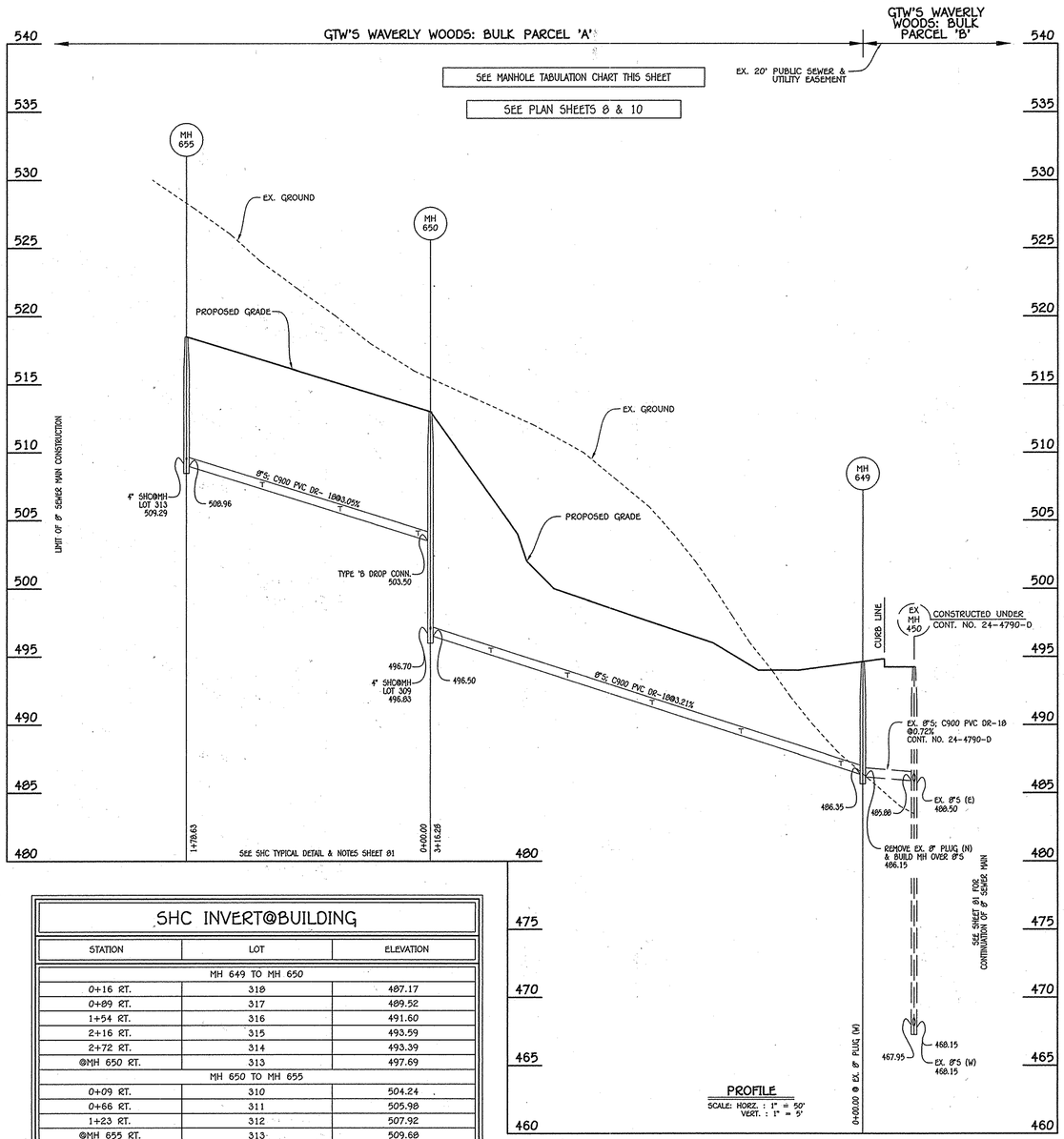


8" SEWER MAIN: MH 625 TO MH 640

SHC INVERT@BUILDING		
STATION	LOT	ELEVATION
MH 625 TO MH 640		
0+40 RT	243	536.40
@MH 640 CEN.	244	536.74

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
625	538141.35	826703.76	547.85
640	538141.35	826755.76	499.50
649	538581.31	827674.64	494.62
650	538509.19	827366.69	513.00
655	538331.04	827353.67	518.50

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.



SHC INVERT@BUILDING		
STATION	LOT	ELEVATION
MH 649 TO MH 650		
0+16 RT.	318	487.17
0+89 RT.	317	489.52
1+54 RT.	316	491.60
2+16 RT.	315	493.59
2+72 RT.	314	493.39
@MH 650 RT.	313	497.69
MH 650 TO MH 655		
0+09 RT.	310	504.24
0+66 RT.	311	505.98
1+23 RT.	312	507.92
@MH 655 RT.	313	509.68

8" SEWER MAIN: EX. 8" PLUG (W) TO MH 655

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3.4.16.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 7/14/15 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 7-31-15 Date

Chief, Development Engineering Division — 7-24-15 Date

Director - Department of Planning and Zoning — 8-4-16 Date

PROJECT			SECTION	PARCEL NO. "E"
GTW'S WAVERLY WOODS			14	PHASE II THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE # 51	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165, 172 THRU 231 & 240 THRU 369
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 87 OF 100

SDP-09-039

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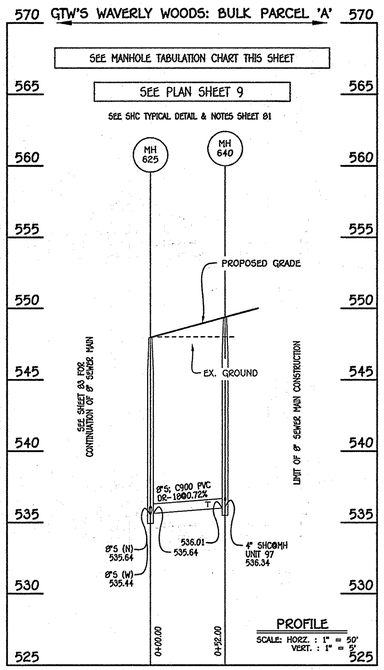
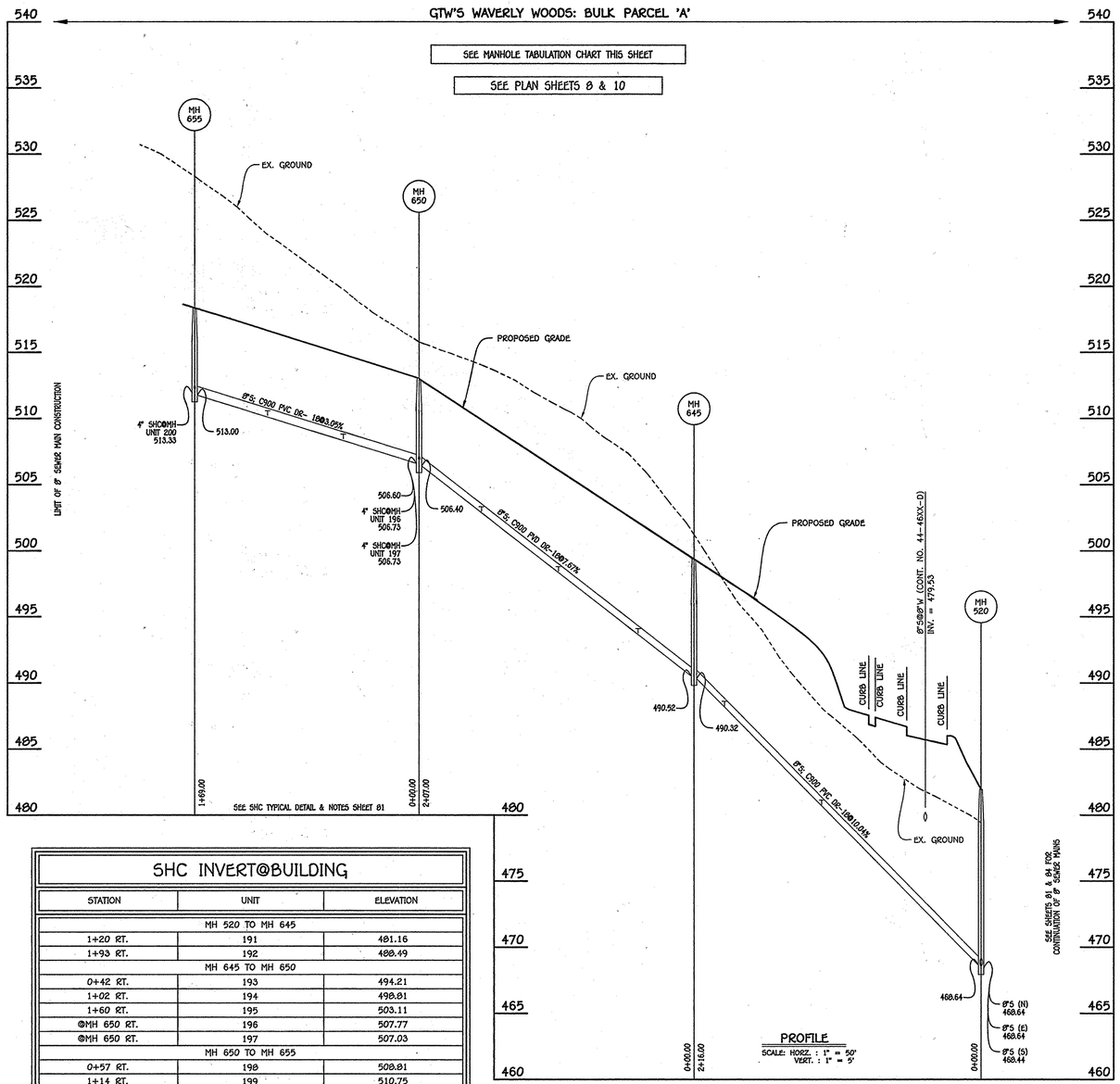


8" SEWER MAIN: MH 625 TO MH 640

SHC INVERT@BUILDING		
STATION	UNIT	ELEVATION
MH 625 TO MH 640		
0+40 RT	96	536.40
@MH 640 CEN.	97	536.74

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
520	538995.09	827778.07	482.00
625	538141.35	826703.76	547.85
640	538141.35	826755.76	548.00
645	538546.32	827567.65	499.50
650	538499.59	827366.00	512.00
655	538331.04	827353.67	515.50

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.



SHC INVERT@BUILDING		
STATION	UNIT	ELEVATION
MH 520 TO MH 645		
1+20 RT.	191	481.16
1+93 RT.	192	480.49
MH 645 TO MH 650		
0+42 RT.	193	494.21
1+02 RT.	194	498.81
1+60 RT.	195	503.11
@MH 650 RT.	196	507.77
@MH 650 RT.	197	507.03
MH 650 TO MH 655		
0+57 RT.	198	508.81
1+14 RT.	199	510.75
@MH 655 RT.	200	512.48

8" SEWER MAIN: MH 520 TO MH 655

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE 15-07-3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/20/12 Date

Director - Department of Planning and Zoning — 12/20/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCELS V, THRU V LOTS 9, 12 THRU 20, 44 THRU 62, 88 THRU 108, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE SHEET 2 NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

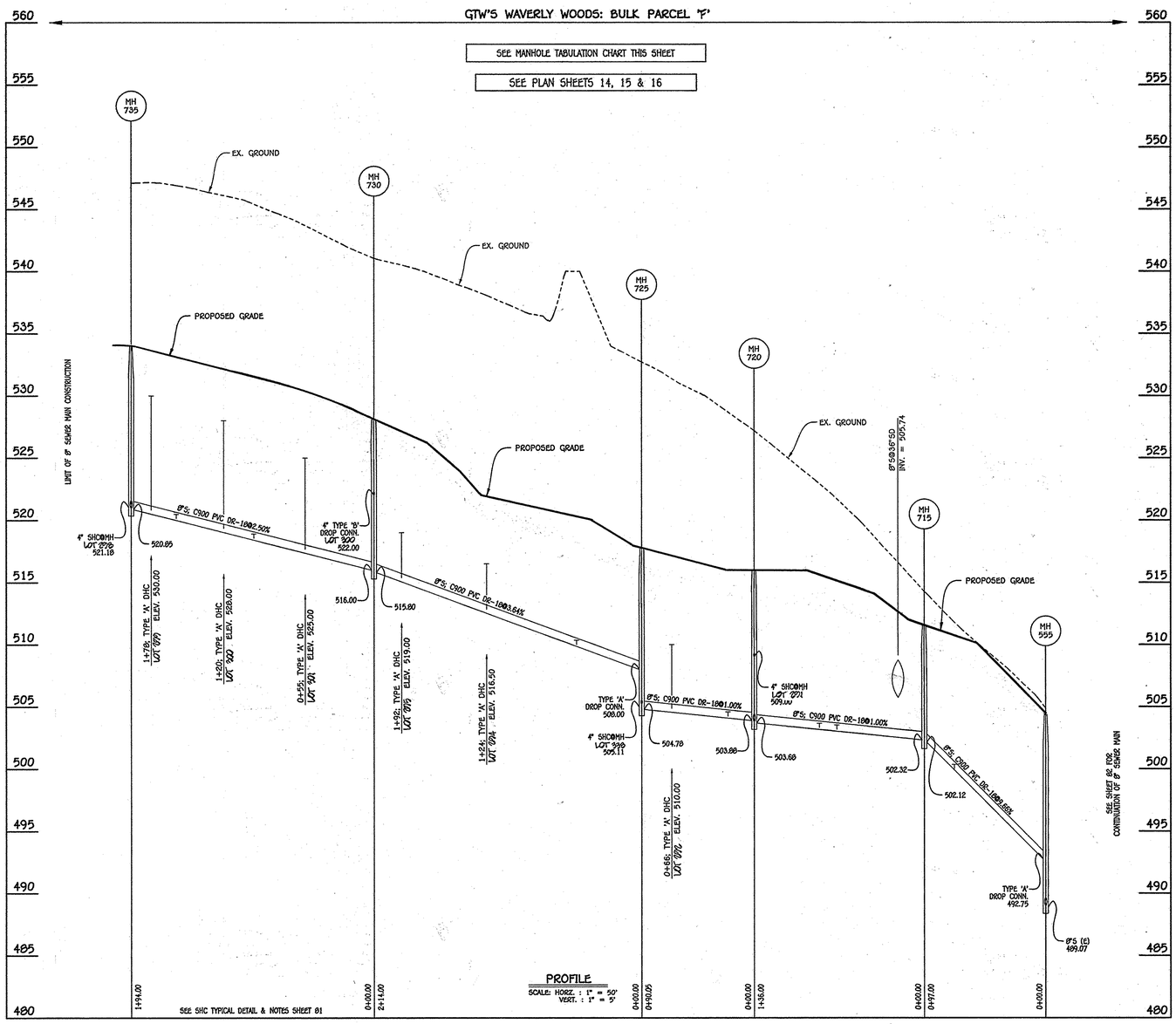
REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES II, THRU V LOTS 9, 12 THRU 20, 44 THRU 62, 88 THRU 108, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 87 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 87, 11/15/2012 8:23:02 AM, 1:1



8" SEWER MAIN: MH 555 TO MH 735

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
555	539526.84	827455.38	504.35
715	539480.47	827366.29	511.54
720	539380.48	827274.11	516.00
725	539308.02	827233.65	517.79
730	539140.16	827100.93	523.16
735	539128.89	826907.25	534.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 555 TO MH 715		
0+73 LT.	335	500.17
MH 715 TO MH 720		
0+70 LT.	920	503.29
0+84 RT.	990	504.83
@MH 720 LT.	971 (DHC@MH)	509.60
MH 720 TO MH 725		
0+21 LT.	957	504.76
0+66 RT.	998 (DHC)	510.30
@MH 725 LT.	930	505.41
MH 725 TO MH 730		
0+52 RT.	993	510.36
1+24 RT.	994 (DHC)	516.90
1+92 RT.	996 (DHC)	519.80
@MH 730 LT.	902 (DHC@MH)	523.00
MH 730 TO MH 735		
0+55 LT.	901 (DHC)	525.60
0+96 RT.	996	519.17
1+20 LT.	900 (DHC)	528.50
1+58 RT.	977	520.52
1+78 LT.	999 (DHC)	530.40
@MH 735 LT.	976	521.78

REVISED

NO.	REVISION	DATE
4	REV. SEWER RECALC & SHC CHNG. TO REFLECT NEW HOUSE NUMBERS	5/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-116 AND PHASE V TO SDP-09-039	12/21/12
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE OF 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

STATE OF MARYLAND — TERRELL ALLEN FISHER — 9757 — REGISTERED PROFESSIONAL ENGINEER

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/10/12 Date

Chief, Development Engineering Division — 12/10/12 Date

Director - Department of Planning and Zoning — 12/11/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCEL E, PARCEL V LOTS 5, 12 THRU 30, 44 THRU 82, 85 THRU 103, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

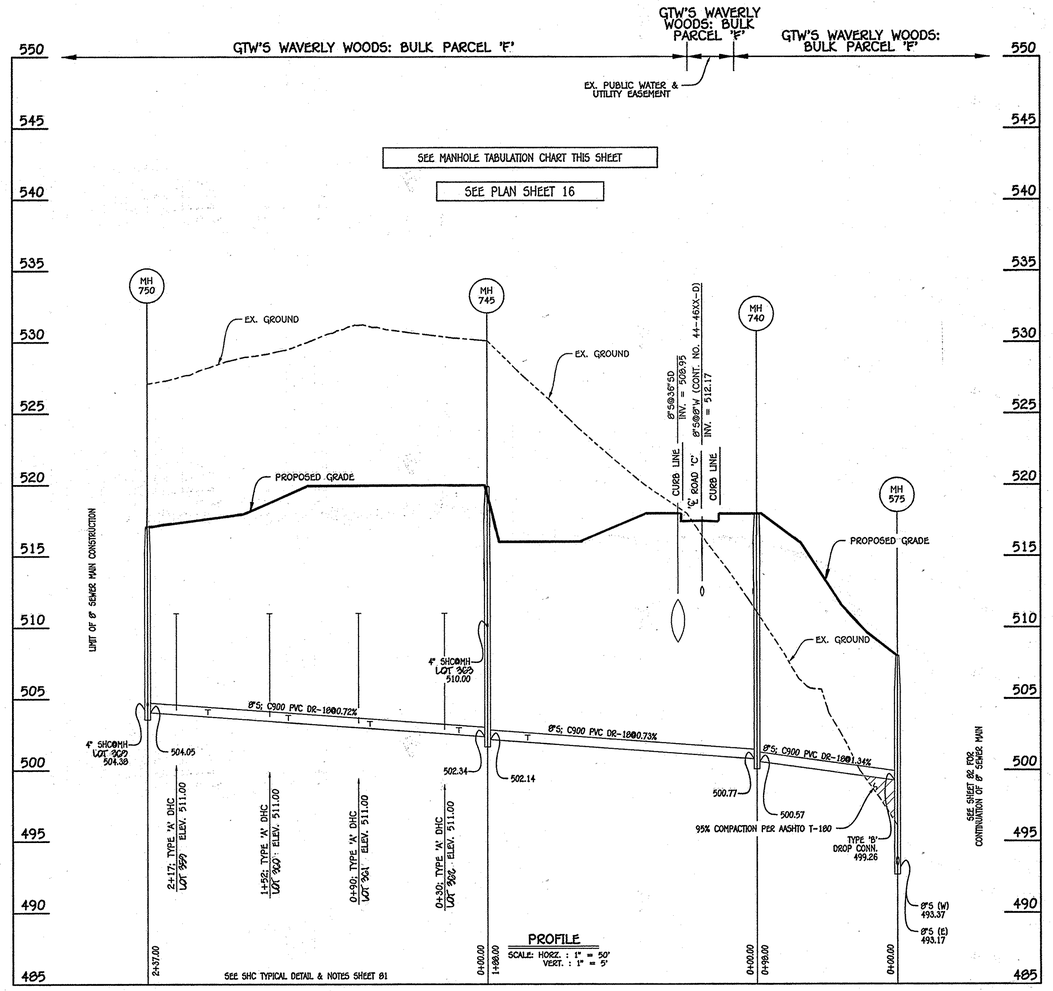
SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCELS II, THRU V LOTS 5, 12 THRU 30, 44 THRU 82, 85 THRU 103, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2012
SHEET 80 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 80, 11/15/2012 8:23:16 AM, 1:1



SEE SHC TYPICAL DETAIL & NOTES SHEET 81

PROFILE

SCALE: HORZ. : 1" = 50'
VERT. : 1" = 5'

8" SEWER MAIN: MH 575 TO MH 750

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
575	539711.87	826968.23	508.00
740	539614.00	826973.26	512.00
745	539426.14	826980.59	520.00
750	539414.15	826743.89	517.04

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 740 TO MH 745		
1+60 RT.	304	502.51
@MH 745 RT.	303	510.40
MH 745 TO MH 750		
0+20 RT.	305	503.15
0+30 LT.	302 (DHC)	511.30
0+82 RT.	306	503.60
0+90 LT.	301 (DHC)	511.30
1+39 RT.	307	504.01
1+52 LT.	300 (DHC)	511.40
1+95 RT.	308	504.41
2+17 LT.	999 (DHC)	511.50
@MH 750 RT.	309	504.93

REVISED

NO.	REVISION	DATE
A	REV. SEWER PROFILE & SHC DATA, TO REFLECT NEW LOT NUMBERS	9/2/13
2	REV. TO ADD FEE SIMPLE LOTS FOR F-14-111 & ADD PHASE V TO SDP-09-039	10/3/14
C	REV. TO ADD FEE SIMPLE LOTS FOR F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/10/12 Date
Chief, Development Engineering Division — 12/10/12 Date
Director - Department of Planning and Zoning — 12/10/12 Date

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PARCEL E, PARCEL V, LOTS 2, 12 THRU 32, 44 THRU 80, 88 THRU 105, 172 THRU 231 & 240 THRU 309
PLAT (SEE INDEX #81)	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCEL E, PARCEL V, LOTS 2, 12 THRU 32, 44 THRU 80, 88 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2013
SHEET 83 OF 100

SDP-09-039

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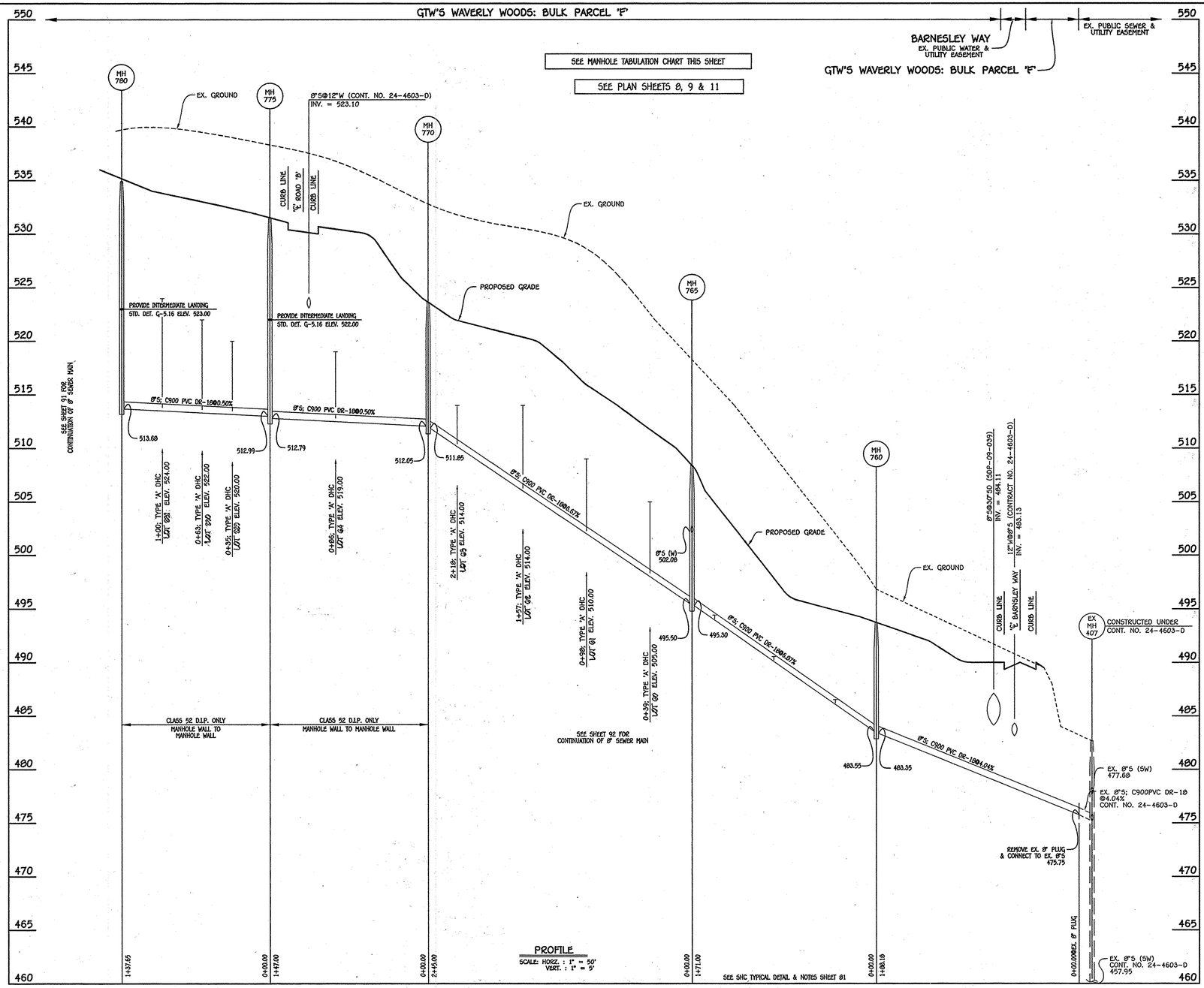
MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
760	538036.95	827669.11	493.70
765	538051.86	827498.76	508.38
770	538242.56	827344.94	523.65
775	538169.86	827217.17	531.50
780	538137.18	827083.46	535.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 760 TO MH 765		
0+38 LT.	57	486.43
0+95 LT.	58	490.55
1+50 LT.	59	494.23
MH 765 TO MH 770		
0+39 LT.	60 (DHC)	505.40
0+98 LT.	61 (DHC)	510.20
1+57 LT.	62 (DHC)	514.20
2+18 LT.	63 (DHC)	514.20
MH 770 TO MH 775		
0+86 RT.	64 (DHC)	519.32
LOT		
MH 775 TO MH 780		
0+35 LT.	220 (DHC)	520.40
0+63 LT.	220 (DHC)	522.40
1+00 LT.	221 (DHC)	524.40



8" SEWER MAIN: EX. MH 755 TO MH 780

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/30/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
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SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/12/12 Date

Chief, Development Engineering Division — 12/10/12 Date

Director - Department of Planning and Zoning — 12/10/12 Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PHASES I, THRU V LOTS 9,10-33,44-56,60-103, 172 THRU 231 & 240 THRU 309
PLAT (SEE GENERAL NOTE #19)	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16
	ELEC. DIST. THIRD	CENSUS TR. 60300	
WATER CODE K-02	SEWER CODE 5992000		

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES I, THRU V LOTS 9, 10 THRU 33, 44 THRU 56, 60 THRU 103, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 90 OF 100

SDP-09-039

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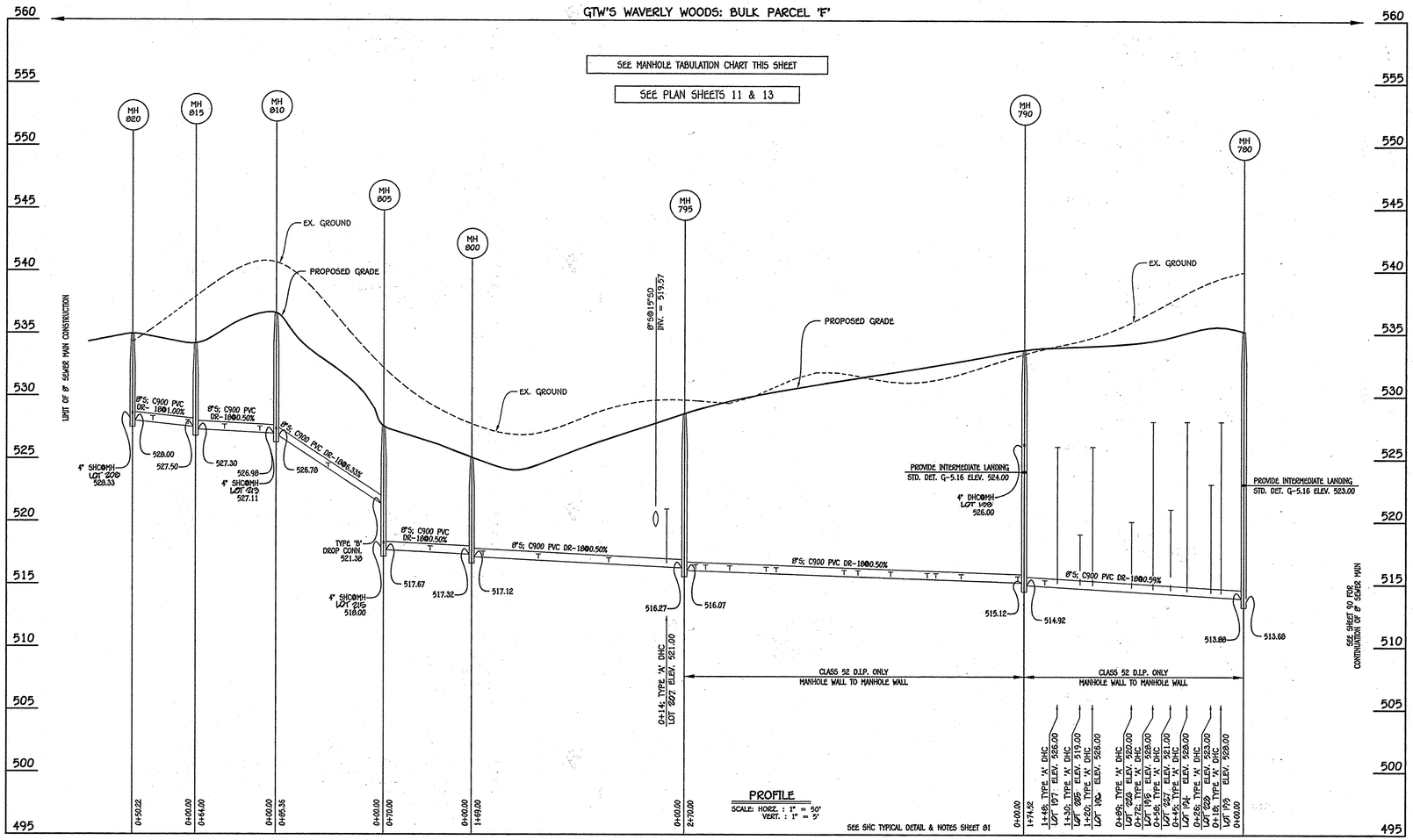

8" SEWER MAIN: MH 780 TO MH 820

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
780	538137.18	827083.46	535.00
790	538299.73	827019.93	533.70
795	538569.19	827037.07	528.50
800	538737.85	827047.80	525.00
805	538807.18	827038.14	527.50
810	538825.42	826954.75	536.50
815	538763.80	826937.46	534.15
820	538716.43	826954.14	535.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 780 TO MH 790		
0+18 LT.	192 (DHC)	528.80
0+26 RT.	228 (DHC)	523.60
0+45 LT.	194 (DHC)	529.10
0+58 RT.	227 (DHC)	521.40
0+72 LT.	195 (DHC)	529.70
0+89 RT.	226 (DHC)	520.70
1+20 LT.	193 (DHC)	527.80
1+30 RT.	225 (DHC)	519.56
1+48 LT.	197 (DHC)	527.70
1+58 RT.	224	515.98
@MH 790 LT.	192 (DHC@MH)	527.50
MH 790 TO MH 795		
0+05 LT.	199	517.12
0+50 LT.	200	517.04
0+70 LT.	201	517.24
0+77 RT.	223	516.48
1+06 LT.	202	517.12
1+32 LT.	209	517.15
1+43 RT.	222 (FF)	516.81
1+97 RT	221 (FF)	517.18
2+05 LT.	204	517.32
2+34 LT.	205	517.46
2+53 RT.	220 (FF)	517.56
2+61 LT.	206	517.70
MH 795 TO MH 800		
0+14 LT.	207 (DHC)	522.00
0+60 RT.	219 (FF)	517.34
1+16 RT.	218 (FF)	517.42
1+60 RT.	217 (FF)	517.44
MH 800 TO MH 805		
0+43 RT.	216 (FF)	517.81
@MH 805 RT.	215	518.36
MH 805 TO MH 810		
0+44 RT.	214	524.74
@MH 810 RT.	213	527.41
MH 810 TO MH 815		
0+13 RT.	212	527.40
0+41 RT.	211	527.66
MH 815 TO MH 820		
0+06 RT.	210	527.93
0+34 RT.	209	528.11
@MH 820 RT.	208	528.49

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. SEWER PROFILE TO REFLECT NEW LOT NUMBERS	9/1/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/7/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE 5/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/9/12
Chief, Development Engineering Division — Date 12/6/12
Director - Department of Planning and Zoning — Date 12/10/12

PROJECT			SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14	PARCELS II, THRU V LOTS 9, 12 THRU 30, 44 THRU 82, 88 THRU 105, 172 THRU 231 & 240 THRU 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #31	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCELS II, THRU V LOTS 9, 12 THRU 30, 44 THRU 82, 88 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2013
SHEET 91 OF 100

SDP-09-039

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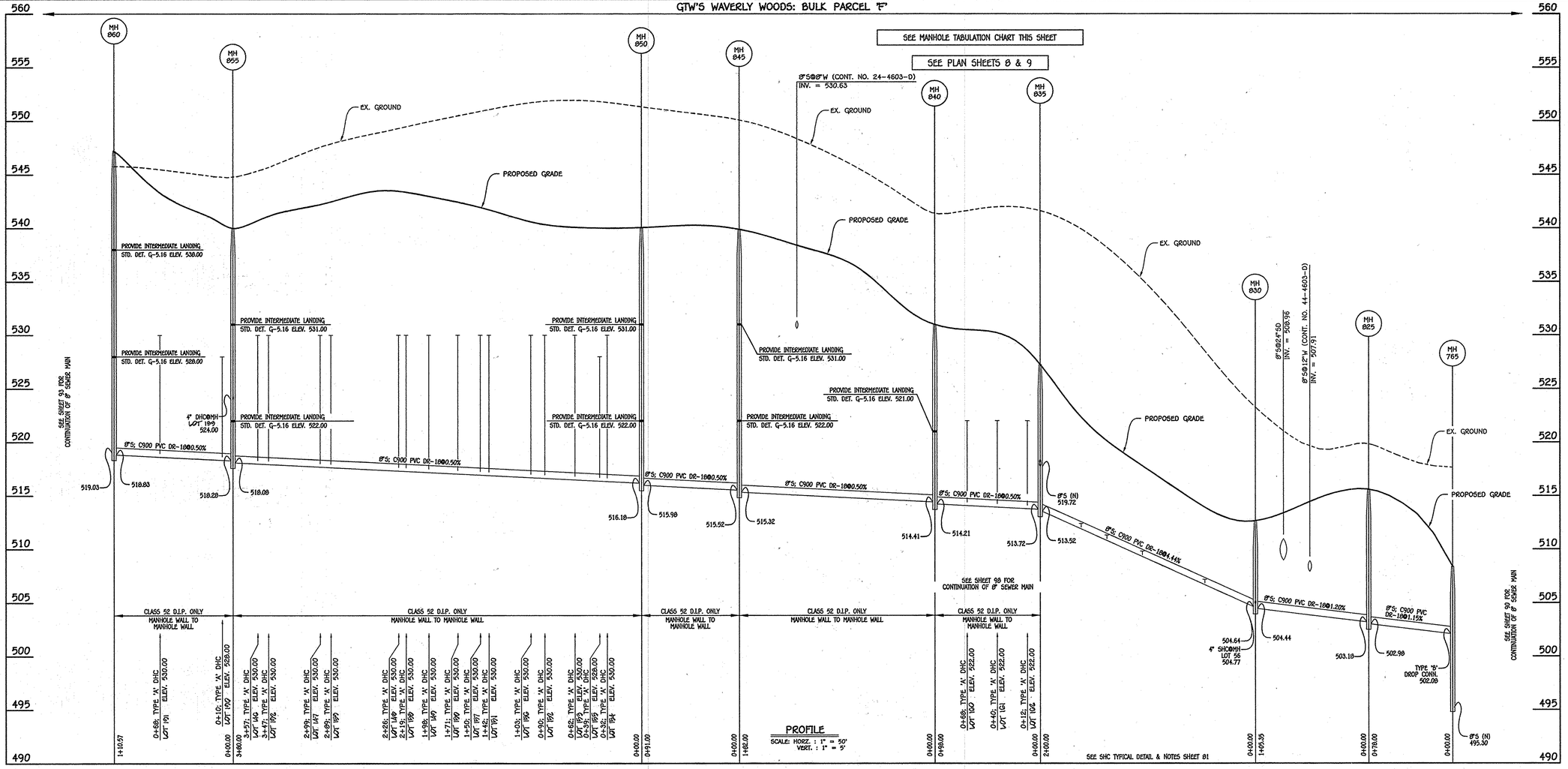

8" SEWER MAIN: MH 765 TO MH 860

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 850 TO MH 855		
2+89 RT.	189 (DHC)	530.50
2+99 LT.	147 (DHC)	530.30
3+47 RT.	192 (DHC)	530.60
3+57 LT.	146 (DHC)	530.30
@MH 855 LT.	189 (DHC)	524.60
MH 855 TO MH 860		
0+10 LT.	190 (DHC)	528.20
0+68 LT.	191 (DHC)	530.20

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 850 TO MH 855		
0+32 LT.	154 (DHC)	530.50
0+39 RT.	155 (DHC)	528.50
0+62 LT.	153 (DHC)	530.30
0+90 LT.	152 (DHC)	530.30
1+03 RT.	156 (DHC)	531.40
1+42 LT.	151 (DHC)	530.40
1+50 RT.	157 (DHC)	530.90
1+71 LT.	150 (DHC)	530.30
1+98 LT.	149 (DHC)	530.40
2+19 RT.	158 (DHC)	530.40
2+26 LT.	148 (DHC)	530.30

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 825 TO MH 830		
@MH 830 LT.	56(FF)	505.17
MH 830 TO MH 835		
0+47 LT.	55(FF)	507.20
1+05 LT.	54	509.67
1+38 RT.	105	511.54
1+62 LT.	53	512.30
MH 835 TO MH 840		
0+12 RT.	102 (DHC)	522.20
0+40 RT.	101 (DHC)	522.12
0+68 RT.	100 (DHC)	522.16

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
765	538051.86	827490.76	508.38
825	537994.46	827445.94	515.50
830	537889.16	827442.66	512.65
835	537878.08	827242.97	527.25
840	537780.23	827248.40	531.00
845	537770.18	827066.68	540.00
850	537861.04	827061.66	540.00
855	537844.67	826682.01	540.00
860	537954.95	826673.95	547.20

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
2	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD VILLAGE V TO SDP-09-039	10/31/14
1	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/7/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/14/12 Date
Chief, Development Engineering Division — 12/10/12 Date
Director - Department of Planning and Zoning — 12/10/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCEL 'E', THRU V LOTS 9, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #19	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCEL 'E', THRU V LOTS 9, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 92 OF 100

SDP-09-039

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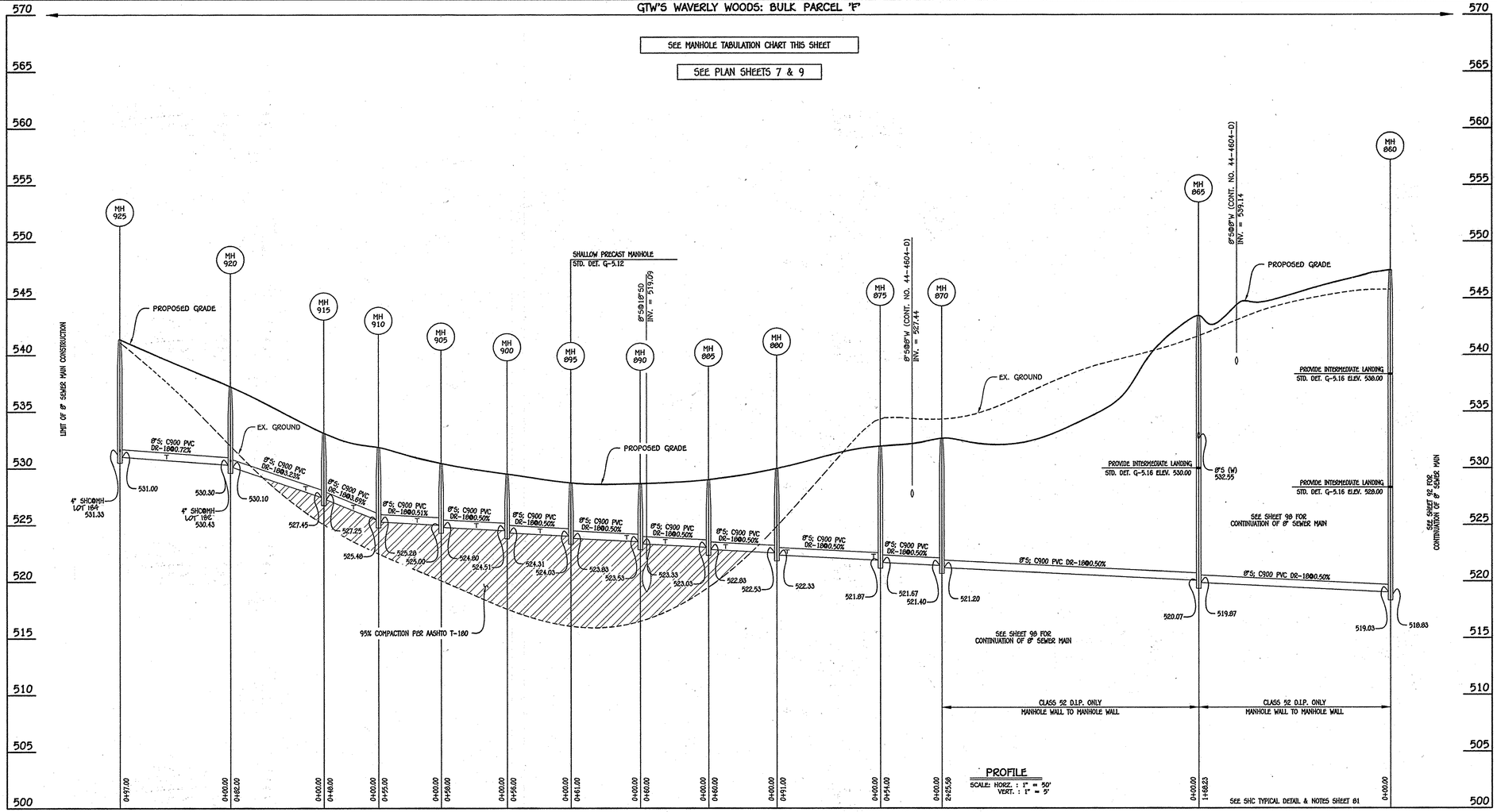

8" SEWER MAIN: MH 860 TO MH 925

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 900 TO MH 905		
0+27 LT.	178 (FF)	524.80
MH 905 TO MH 910		
0+21 LT.	179 (FF)	525.34
MH 910 TO MH 915		
0+22 LT.	180 (FF)	526.50
MH 915 TO MH 920		
0+16 LT.	181 (FF)	528.18
@MH 920 LT.	182 (FF)	530.49
MH 920 TO MH 925		
0+56 LT.	183 (FF)	530.91
@MH 925 LT.	184	531.63

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 875 TO MH 880		
0+06 LT.	172 (FF)	522.27
0+82 LT.	175 (FF)	522.51
MH 880 TO MH 885		
0+45 LT.	174 (FF)	522.99
MH 885 TO MH 890		
0+38 LT.	178 (FF)	523.43
MH 890 TO MH 895		
0+12 LT.	176 (FF)	523.86
MH 895 TO MH 900		
0+27 LT.	177 (FF)	524.40

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
860	537954.95	826673.95	547.20
865	537945.76	826505.98	543.50
870	537720.39	826515.67	532.65
875	537666.44	826518.00	532.00
880	537661.41	826427.13	530.00
885	537668.00	826367.50	529.00
890	537692.86	826312.89	528.65
895	537739.16	826273.18	528.75
900	537792.89	826257.37	529.50
905	537850.67	826252.21	530.45
910	537903.67	826267.10	531.85
915	537943.35	826294.12	533.10
920	537991.17	826360.73	537.25
925	537996.53	826457.58	541.40

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD ROADS V-10 SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-069 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE 9/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

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410-379-5956

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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/5/12 Date

Chief, Development Engineering Division — 12/10/12 Date

Director - Department of Planning and Zoning — Date

PROJECT		SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14	PARCEL E, THRU V LOTS 1, 12 THRU 30, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 309
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE ABOVE/ NOTE #91	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE	
K-02		5992000	

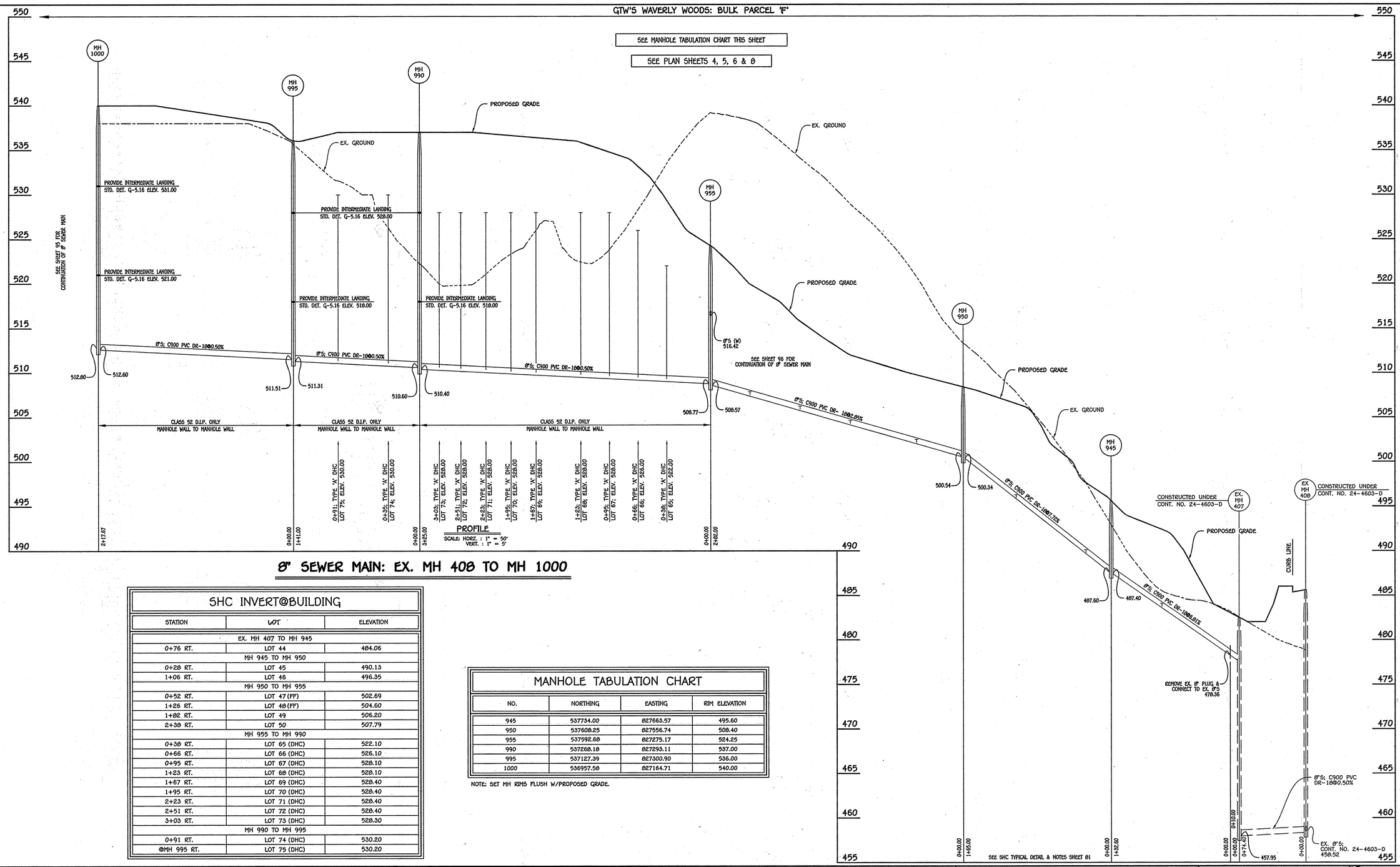
SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCEL E, THRU V LOTS 1, 12 THRU 30, 44 THRU 86, 88 THRU 108, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 93 OF 100

SDP-09-039

K:\SDSKPROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 93, 11/15/2012 8:24:41 AM, 1:1



8" SEWER MAIN: EX. MH 408 TO MH 1000

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
EX. MH 407 TO MH 945		
0+76 RT.	LOT 44	484.06
MH 945 TO MH 950		
0+28 RT.	LOT 45	490.13
1+06 RT.	LOT 46	496.35
MH 950 TO MH 955		
0+52 RT.	LOT 47 (FF)	502.69
1+26 RT.	LOT 48 (FF)	504.60
1+82 RT.	LOT 49	506.20
2+38 RT.	LOT 50	507.79
MH 950 TO MH 990		
0+38 RT.	LOT 65 (DHC)	522.10
0+66 RT.	LOT 66 (DHC)	526.10
0+95 RT.	LOT 67 (DHC)	528.10
1+23 RT.	LOT 68 (DHC)	528.10
1+67 RT.	LOT 69 (DHC)	528.40
1+95 RT.	LOT 70 (DHC)	528.40
2+23 RT.	LOT 71 (DHC)	528.40
2+51 RT.	LOT 72 (DHC)	528.40
3+03 RT.	LOT 73 (DHC)	528.30
MH 990 TO MH 995		
0+91 RT.	LOT 74 (DHC)	530.20
@MH 995 RT.	LOT 75 (DHC)	530.20

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
945	537734.00	827663.57	495.60
950	537608.25	827556.74	508.40
955	537592.68	827275.17	524.25
990	537268.18	827293.11	537.00
995	537127.39	827300.90	536.00
1000	536957.58	827164.71	540.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
A	REV. REVISED PROFILE & SHC CHART TO REFLECT NEW LOT NUMBERS	5/1/15
9	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD VILLAGE V TO GDP-09-039	10/31/14
8	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/29/12

Chief, Development Engineering Division — Date 12/28/12

Director - Department of Planning and Zoning — Date 12/14/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	HOWARD CO. TAX MAP 16 PARCEL 249 LOTS 1, 2, THRU 9, 11, THRU 30, 44 THRU 85, 88 THRU 108, 172 THRU 231 & 240 THRU 307

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE SHEET 3 NOTE #51	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

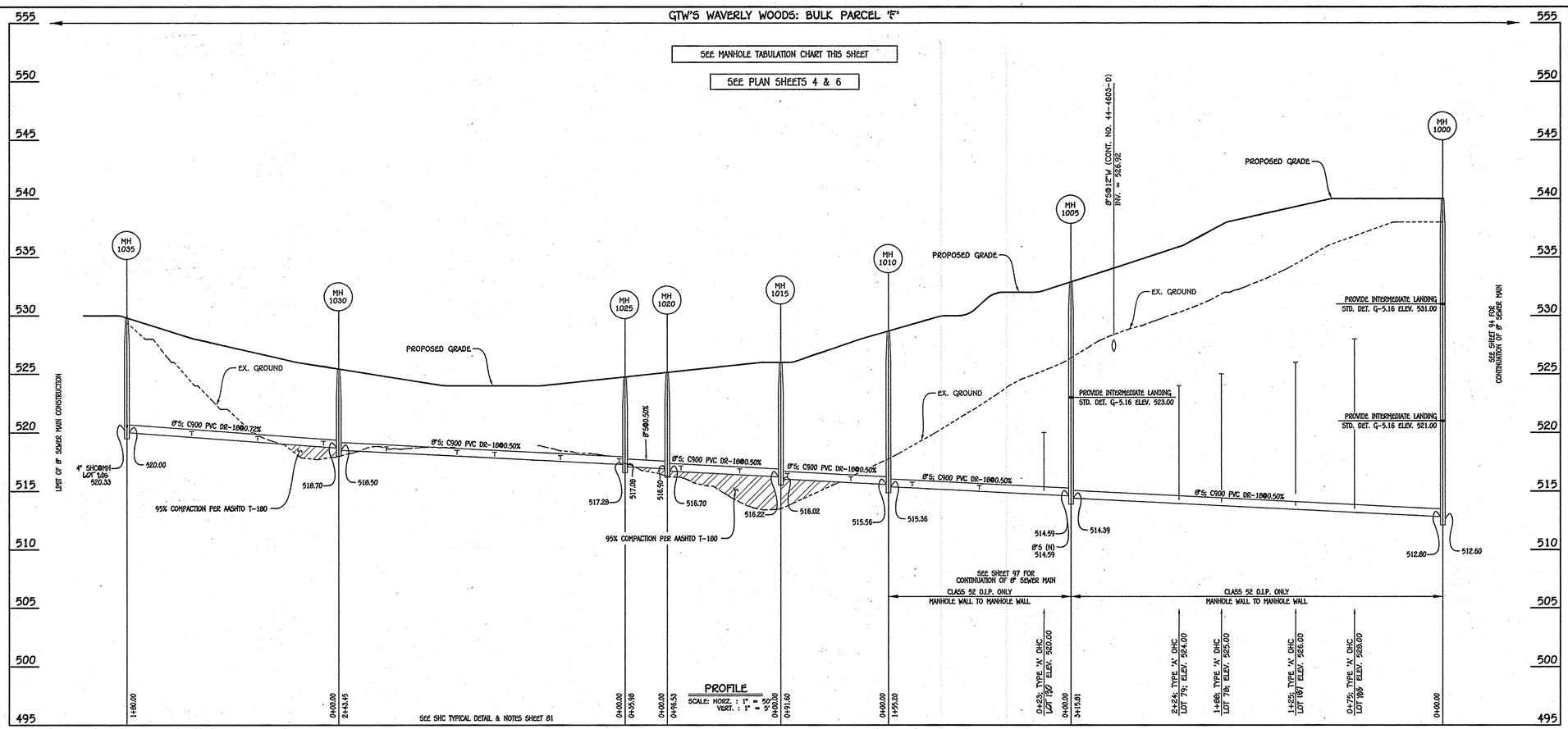
PARCEL F, THRU V LOTS 1, 12 THRU 30, 44 THRU 85, 88 THRU 108, 172 THRU 231 & 240 THRU 307

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 1, 2015
SHEET 94 OF 100

SDP-09-039

K:\SDP\PROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 94, 11/15/2012 8:24:57 AM, 1:1



8" SEWER MAIN: MH 1000 TO MH 1035

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 1025 TO MH 1030		
0+05 LT.	197 (FF)	517.00
0+55 LT.	198 (FF)	517.79
1+11 LT.	199 (FF)	518.11
1+43 LT.	140 (FF)	518.27
2+03 LT.	141 (FF)	518.57
MH 1030 TO MH 1035		
0+13 LT.	142 (FF)	519.06
0+69 LT.	143 (FF)	519.47
1+25 LT.	144 (FF)	519.87
1+80 LT.	145 (FF)	520.43

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 1000 TO MH 1005		
0+75 LT.	188 (DHC)	528.10
1+25 LT.	187 (DHC)	526.10
1+80 LT.	78 (DHC)	525.10
2+24 LT.	79 (DHC)	524.10
MH 1005 TO MH 1010		
0+23 LT.	190 (DHC)	520.06
0+78 LT.	191	515.25
0+135 LT.	192	515.54
MH 1010 TO MH 1015		
0+32 LT.	193	515.94
0+86 LT.	194 (FF)	516.56
MH 1015 TO MH 1020		
0+35 LT.	195 (FF)	517.07
0+85 LT.	196 (FF)	516.86

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
1000	536957.58	827164.71	540.00
1005	536940.15	826849.39	532.85
1010	536931.58	826694.43	528.65
1015	536965.97	826609.53	526.00
1020	537050.39	826562.71	525.00
1025	537086.26	826559.92	524.75
1030	537329.34	826546.48	525.50
1035	537509.06	826536.55	529.85

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 7/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
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443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/19/12 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCEL E, THRU V LOTS 5,16,17,43-58,80-109, 172-231 & 240-309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCEL E, THRU V LOTS 5, 16, 17, 43 THRU 58, 80 THRU 109, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 95 OF 100

SDP-09-039

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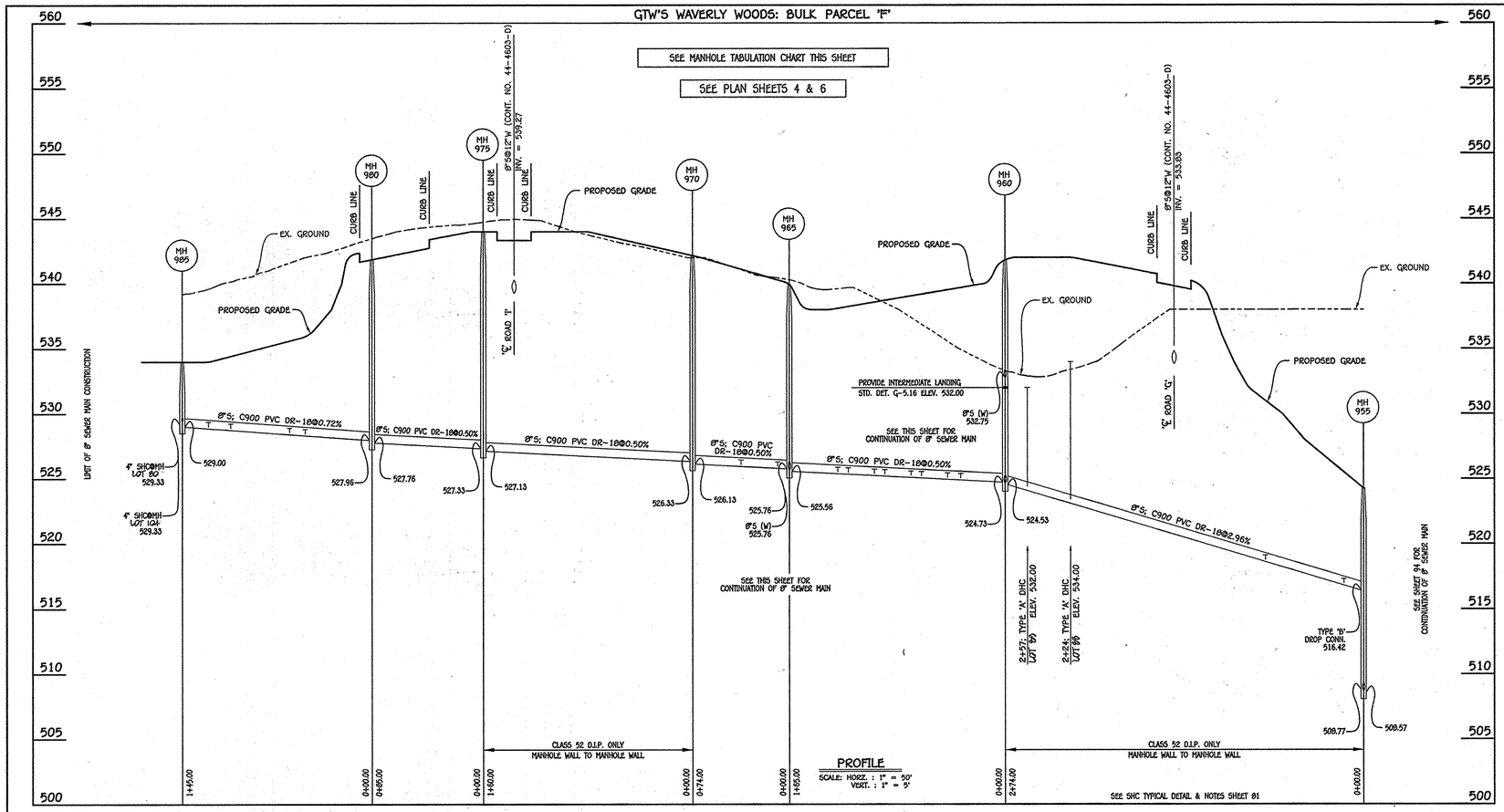
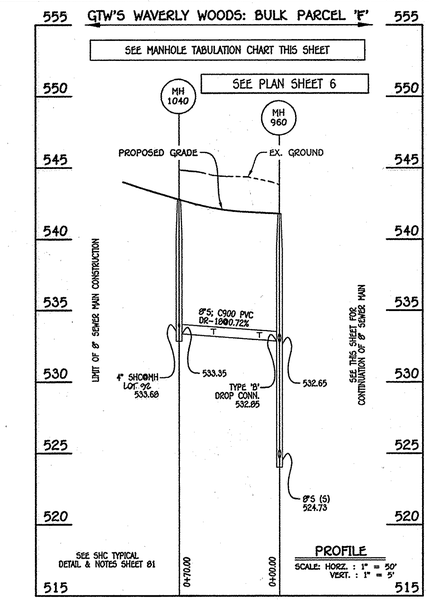
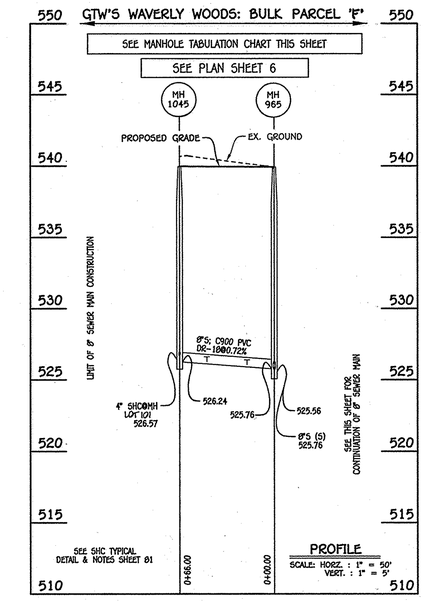


8" SEWER MAIN: MH 955 TO MH 985



8" SEWER MAIN: MH 960 TO MH 1040



8" SEWER MAIN: MH 965 TO MH 1045

REVISED

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 955 TO MH 960		
0+15 RT.	91	517.18
0+75 RT.	90	519.21
2+24 RT.	98 (DHC)	534.70
2+57 RT.	99 (DHC)	532.50
MH 960 TO MH 965		
0+34 RT.	93	525.57
0+44 LT.	86	525.32
0+64 RT.	94	525.72
0+72 LT.	85	525.46
0+92 RT.	95	525.86
1+00 LT.	84	252.60
1+20 RT.	96	526.00
1+28 LT.	83	525.74
MH 965 TO MH 970		
0+09 RT.	98	526.08
0+37 RT.	97	526.22
MH 980 TO MH 985		
0+51 RT.	82	528.80
0+63 RT.	102 (FF)	528.80
1+08 RT.	81	529.21
1+25 RT.	103 (FF)	529.33
@MH 985 RT.	104 (FF)	529.83
@MH 985 RT.	80	529.83

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
955	537592.68	827275.17	524.25
960	537577.56	827001.59	541.80
965	537412.81	827010.70	540.00
970	537416.89	827084.58	542.15
975	537257.14	827093.42	544.00
980	537252.44	827008.55	541.85
985	537107.67	827016.55	534.00
1040	537573.69	826931.70	542.80
1045	537409.16	826944.80	540.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 965 TO MH 1045		
0+19 LT.	99	526.17
0+47 LT.	100	526.37
@MH 1085 LT.	101	526.67

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 960 TO MH 1040		
0+14 RT.	90	525.50
0+46 RT.	91	525.73
@MH 1040 LT.	92	526.06

FISHER, COLLINS & CARTER, INC.
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(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-14-111 & ADD PHASE V TO SDP-09-039	10/31/14
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-101	12/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

STATE OF MARYLAND — TERRELL A. FISHER — PROFESSIONAL ENGINEER

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TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

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C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12
Chief, Development Engineering Division — Date 12/19/12
Director - Department of Planning and Zoning — Date 12/19/12

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PHASES I, THRU V LOTS 1, 12 THRU 39, 44 THRU 86, 88 THRU 103, 172 THRU 231 & 240 THRU 309

PLAT # (SEE REVISION NOTE #3)	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PHASES I, THRU V LOTS 1, 12 THRU 39, 44 THRU 86, 88 THRU 103, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 96 OF 100

SDP-09-039

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M.C.E. CHART	
LOT	M.C.E.
LOT 44	498.77
LOT 45	494.73
LOT 42	501.05
LOT 47	507.29
LOT 48	509.20
LOT 49	510.80
LOT 50	512.39
LOT 51	520.73
LOT 52	523.61
LOT 65	526.50
LOT 66	530.50
LOT 67	532.50
LOT 68	532.50
LOT 69	532.80
LOT 70	532.80
LOT 71	532.80
LOT 72	532.80
LOT 73	532.90
LOT 74	535.00
LOT 75	535.00
LOT 76	532.80
LOT 77	530.80
LOT 78	529.80
LOT 79	528.80
LOT 130	524.66
LOT 131	519.85
LOT 132	520.14
LOT 133	519.69
* LOT 134	520.96
* LOT 135	521.37
* LOT 136	521.86
* LOT 137	522.38
* LOT 138	522.69
* LOT 139	522.81
* LOT 140	522.97
* LOT 141	523.27
* LOT 142	523.76
* LOT 143	524.17
* LOT 144	524.57
* LOT 145	525.13
* LOT 172	527.17
* LOT 173	527.31
* LOT 174	527.89
* LOT 175	528.33
* LOT 176	528.66
* LOT 177	529.11
* LOT 178	529.59
* LOT 179	530.16
* LOT 180	530.67
* LOT 181	533.10
* LOT 182	535.29
* LOT 183	535.81
LOT 184	536.53
LOT 240	540.70
LOT 241	541.52
LOT 242	541.22
LOT 243	540.90
LOT 244	541.24
LOT 245	540.47
LOT 246	540.32
LOT 247	540.17
LOT 248	540.02
LOT 249	539.47
LOT 250	539.35
LOT 251	539.20
LOT 252	539.06
LOT 253	538.81
LOT 254	538.67
LOT 255	538.55
LOT 256	537.82
LOT 257	537.32
LOT 258	537.24
LOT 259	537.10
LOT 260	536.96
LOT 261	536.59
LOT 262	536.07
LOT 263	535.85
LOT 264	535.61
LOT 265	535.57
LOT 266	535.44
LOT 267	535.03
LOT 268	532.06
LOT 269	528.79
LOT 270	525.64
LOT 271	522.21

M.C.E. CHART	
LOT	M.C.E.
LOT 272	520.73
LOT 273	519.26
LOT 274	517.79
LOT 275	516.31
LOT 276	514.84
LOT 277	511.40
LOT 278	503.98
LOT 279	500.68
LOT 280	500.12
LOT 281	499.61
LOT 282	499.33
LOT 283	504.80
LOT 284	504.80
LOT 285	504.90
LOT 286	504.30
LOT 287	504.80
LOT 288	504.50
LOT 289	505.70
LOT 290	509.93
LOT 291	514.50
LOT 292	514.90
LOT 293	514.46
LOT 294	521.00
LOT 295	524.00
LOT 296	524.05
LOT 297	525.42
LOT 298	526.78
LOT 299	535.18
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LOT 302	528.00
LOT 303	521.53
LOT 304	517.56
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LOT 306	511.79
LOT 307	510.00
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LOT 248	501.15
LOT 315	502.57
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LOT 324	487.90
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LOT 315	503.41
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LOT 309	512.37
LOT 310	511.63
LOT 311	513.51
LOT 312	515.45
LOT 313	517.18
LOT 64	524.42
LOT 63	518.50
LOT 62	518.60
LOT 61	514.80
LOT 60	509.70
LOT 59	498.83
LOT 58	495.15
LOT 57	489.98
LOT 56	509.47

M.C.E. CHART	
LOT	M.C.E.
LOT 55	511.70
LOT 54	514.27
LOT 53	516.90
LOT 160	526.50
LOT 161	526.42
LOT 162	526.46
LOT 163	522.67
LOT 164	523.07
LOT 165	516.34
LOT 86	529.72
LOT 85	529.86
LOT 84	530.00
LOT 83	530.14
LOT 97	530.52
LOT 98	530.38
LOT 99	530.67
LOT 100	530.87
LOT 101	531.27
LOT 96	530.50
LOT 95	530.36
LOT 94	530.22
LOT 93	530.07
LOT 92	530.36
LOT 91	530.03
LOT 90	529.80
LOT 89	536.80
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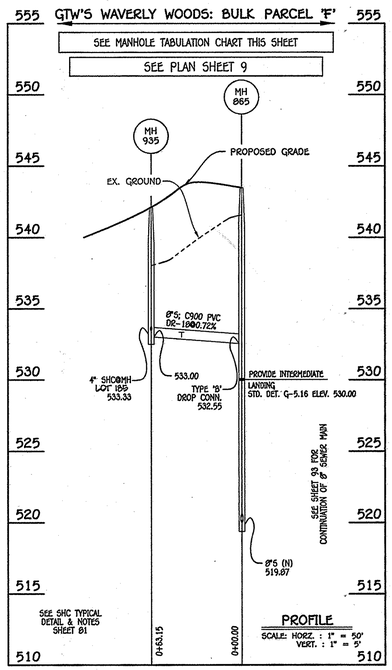
LOT 82	533.40
LOT 81	533.81
LOT 80	534.43
* LOT 104	534.43
* LOT 103	533.93
* LOT 102	533.48
LOT 113	523.29
LOT 112	523.15
LOT 111	523.01
LOT 110	523.13
LOT 109	523.01
LOT 108	522.44
LOT 107	522.56
LOT 106	521.96
LOT 105	521.39
LOT 129	520.82
LOT 128	521.23
LOT 127	520.58
* LOT 126	522.05
* LOT 125	522.81
* LOT 124	522.76
* LOT 123	522.86
* LOT 122	523.26
* LOT 121	523.54
* LOT 120	523.90
* LOT 119	524.07
LOT 118	524.41
LOT 117	524.11
LOT 116	523.88
LOT 115	530.60
LOT 114	530.20
LOT 188	525.39
* LOT 187	527.11
* LOT 186	537.99
* LOT 189	537.58
LOT 155	533.10
LOT 154	534.70
LOT 153	534.70
LOT 152	534.70
LOT 151	534.70
LOT 150	534.70
LOT 149	534.70
LOT 148	534.70
LOT 147	535.30
LOT 146	535.20
LOT 189	529.50
LOT 190	532.90
LOT 191	534.90
LOT 192	534.80
LOT 159	535.00
LOT 158	535.20
LOT 157	535.80
LOT 156	536.50
LOT 229	524.40
LOT 230	526.40
LOT 231	528.40
LOT 211	531.96
LOT 212	531.78

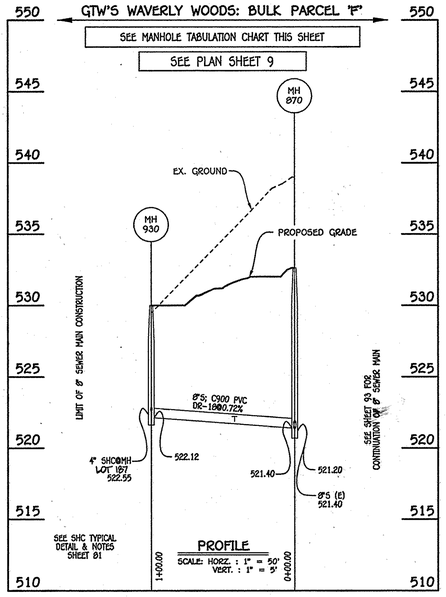
M.C.E. CHART	
LOT	M.C.E.
LOT 213	531.91
LOT 208	532.33
LOT 209	532.51
LOT 210	532.99
LOT 224	521.62
LOT 225	521.86
LOT 226	522.00
LOT 227	526.60
LOT 220	521.54
LOT 221	521.74
LOT 222	521.62
LOT 223	521.45
LOT 196	532.10
LOT 197	532.00
LOT 198	531.80
LOT 199	521.82
LOT 193	533.20
LOT 194	533.40
LOT 195	533.90
LOT 218	529.44
LOT 219	523.16
* LOT 216	521.31
* LOT 217	522.24
* LOT 215	522.42
* LOT 214	522.34
* LOT 200	522.16
* LOT 201	521.98
* LOT 202	519.71
LOT 203	521.18
LOT 204	520.28
LOT 205	524.16
LOT 206	524.90
LOT 207	526.00
LOT 228	527.90
LOT 303	514.90
LOT 302	516.00
LOT 301	516.00
LOT 300	516.10
LOT 299	516.20
LOT 309	509.63
LOT 308	508.91
LOT 307	508.71
LOT 306	508.30
LOT 305	507.85
LOT 304	507.01
LOT 247	490.53
LOT 248	494.98
LOT 250	496.13
LOT 251	497.94
LOT 252	499.48
LOT 253	501.22
LOT 254	502.90
LOT 233	504.61
LOT 236	506.66
LOT 237	508.30
LOT 270	507.70

* Gravity Sewer Service. First Floor Only. Basement Sewer Service To Be Provided By On-Site Pump.



8" SEWER MAIN: MH 865 TO MH 935

SHC INVERT@BUILDING		
STATION	LOT	ELEVATION
MH 865 TO MH 935		
0+42 LT.	186 (FF)	533.08
@MH 935 LT.	185 (FF)	533.49

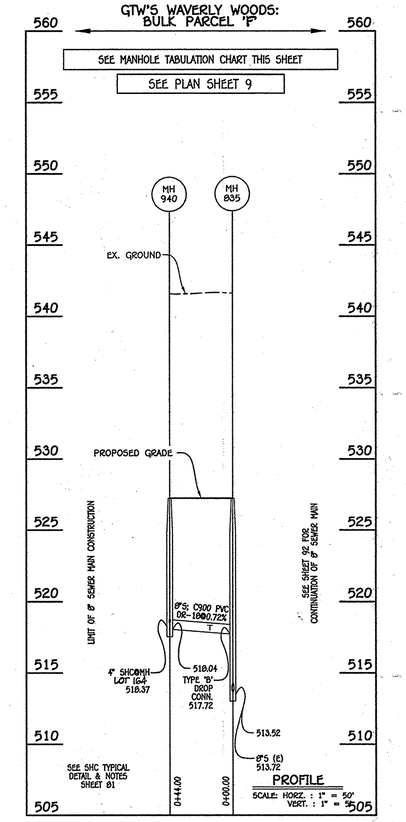


8" SEWER MAIN: MH 870 TO MH 930

SHC INVERT@BUILDING		
STATION	LOT	ELEVATION
MH 870 TO MH 930		
0+42 RT.	188	521.89
@MH 930 RT.	187 (FF)	522.51

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
835	537878.08	827242.97	527.25
865	537945.13	826505.98	543.50
870	537720.39	826515.67	532.65
930	537716.09	826415.77	530.00
935	537942.30	826442.92	542.10
940	537922.01	827240.53	527.25

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.



8" SEWER MAIN: MH 835 TO MH 940

SHC INVERT@BUILDING		
STATION	LOT	ELEVATION
MH 835 TO MH 940		
0+16 LT.	169	518.07
@MH 940 LT.	164	518.47

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
5	REV. NOTE CHANGES TO REFLECT NEW LOT NUMBERS	5/1/13
A	REV. TO ADD FEE SIMPLE LOTS FOR P-14-111 & LAND TRANSFER TO SDP-09-039	10/8/14
3	REV. TO ADD FEE SIMPLE LOTS FOR F-12-101	12/17/12
2	Add Basement Sewer Service Info.	7-2-13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-099 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/19/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 1/4/13

PROJECT		SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS		14		PARCELS D, FIRST V LOTS 5,12-39,44-86,88-105, 172-231 & 240-300
PLAT NO. SEE SHEET 2 NOTE #91	BLOCK NO. 3 & 4	ZONE PSC	TAX/ZONE 16	ELEC. DIST. THIRD	CENSUS TR. 60300
WATER CODE K-02		SEWER CODE 5992000			

REVISED SEWER MAINS PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

PHASES II, THRU V LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 105, 172 THRU 231 & 240 THRU 300

TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

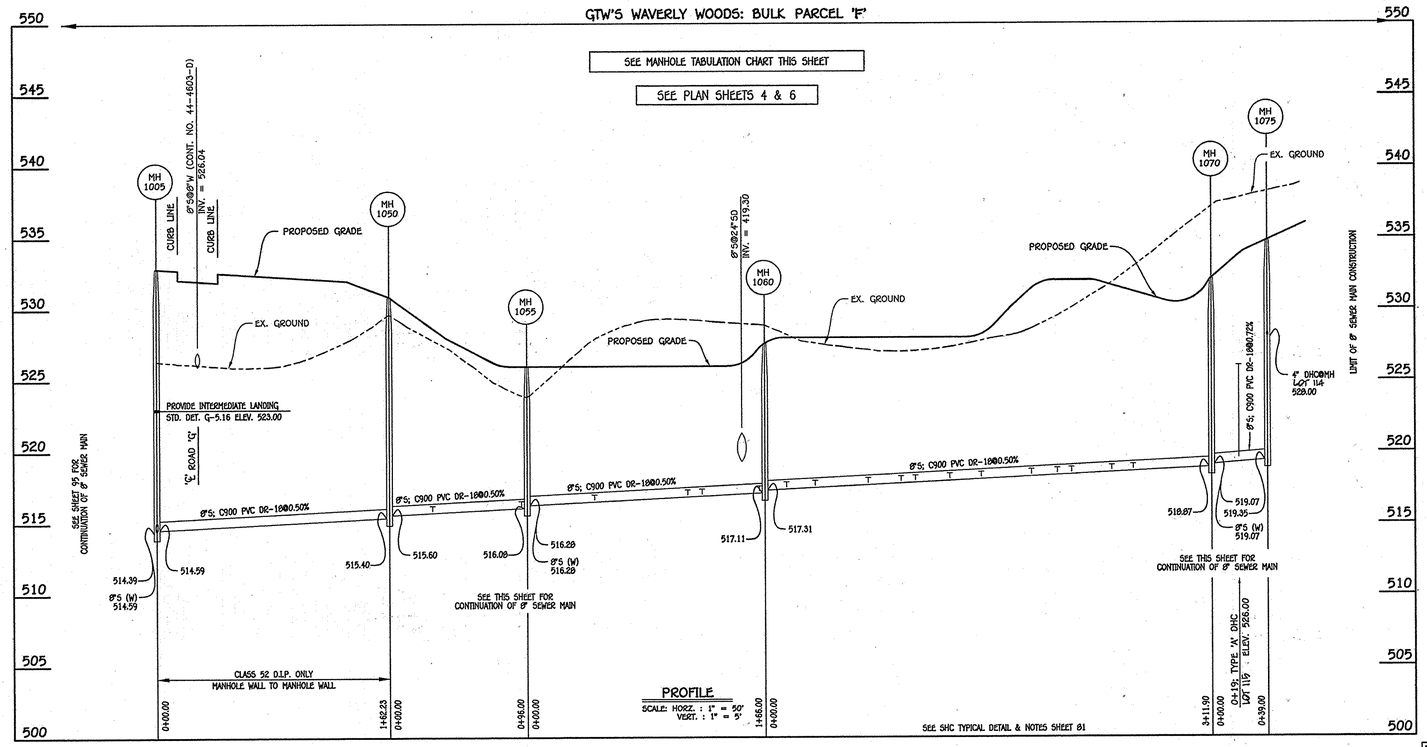
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: MAY 1, 2013

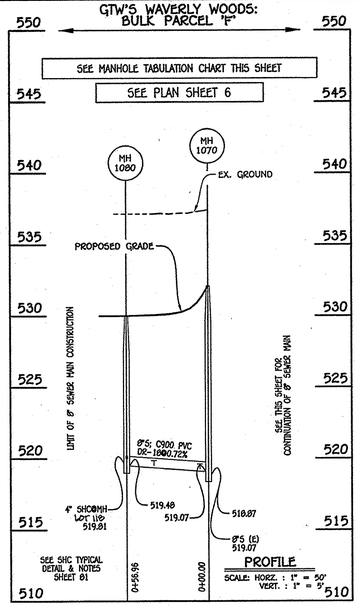
SHEET 98 OF 100

SDP-09-039

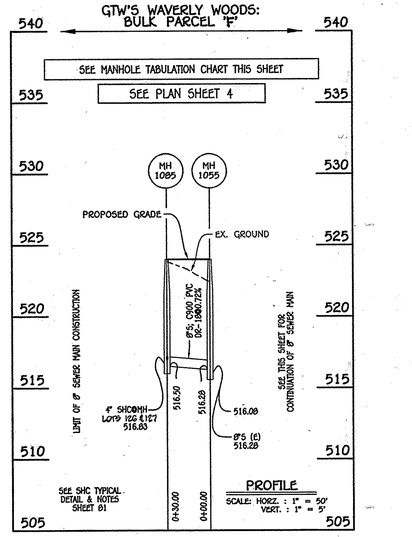
K:\SDSKPROJ\30770 GTW WEST\Dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan For Sdp Redline 4 - June 2012.dwg, SHEET 98, 11/15/2012 8:25:47 AM, 1:1



8" SEWER MAIN: MH 1005 & MH 1050 TO MH 1075



8" SEWER MAIN: MH 1070 TO MH 1080



8" SEWER MAIN: MH 1055 TO MH 1085

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 1050 TO MH 1055		
0+30 LT.	129	516.02
0+92 LT.	128	516.33
MH 1055 TO MH 1060		
0+47 RT.	109	516.89
1+12 LT.	125	517.61
1+22 RT.	106	517.26
1+62 LT.	124 (FF)	517.86
MH 1060 TO MH 1070		
0+15 RT.	107	517.76
0+35 LT.	123 (FF)	518.26
0+72 RT.	108	518.14
0+95 LT.	122 (FF)	518.56
1+05 RT.	109	518.31
1+29 RT.	110	518.43
1+51 LT.	121 (FF)	518.84
1+86 RT.	111	518.71
2+04 LT.	120 (FF)	519.10
2+14 RT.	112	518.85
2+42 RT.	113	518.99
2+57 LT.	119 (FF)	519.37
MH 1070 TO MH 1075		
0+19 LT.	115 (DHC)	526.10
@MH 1075 LT.	114 (DHC@MH)	528.10

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
1005	536940.15	826849.39	532.85
1050	537102.14	826840.43	530.90
1055	537096.71	826744.58	526.00
1060	537262.45	826735.34	527.50
1070	537573.87	826717.98	532.00
1075	537576.04	826756.92	534.75
1080	537570.70	826661.11	530.00
1085	537095.02	826714.63	524.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 1070 TO MH 1080		
0+06 RT.	116	519.38
0+38 RT.	117	519.61
@MH 1080 RT.	118	519.91

SHC INVERT@BUILDING

STATION	LOT	ELEVATION
MH 1055 TO MH 1085		
@MH 1085 LT.	126	516.88
@MH 1085 RT.	127 (FF)	517.15

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-111 & ADD PHASE V TO SDP-09-039	10/31/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	10/17/13
1	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 9/9/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

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SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
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5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/15/12 Date

Chief, Development Engineering Division — 12/20/12 Date

Director - Department of Planning and Zoning — 1/4/13 Date

PROJECT	SECTION	PARCEL NO. 'E'
GTW'S WAVERLY WOODS	14	PARCELS 'E' THRU I, LOTS 5, 117-120, 44-50, 88-108, 172-231 & 240 THRU 309

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
SEE GENERAL NOTE #21	3 & 4	PSC	16	THIRD	60300

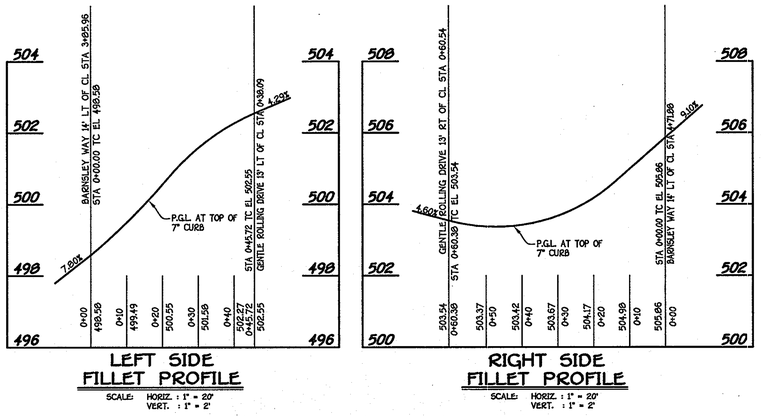
WATER CODE	SEWER CODE
K-02	5992000

REVISED SEWER MAIN PROFILES

AGE RESTRICTED ADULT HOUSING
GTW'S WAVERLY WOODS
SECTION 14
"THE COURTYARDS AT WAVERLY WOODS - WEST"
PARCELS 'E' THRU V, LOTS 5, 12 THRU 29, 44 THRU 80, 88 THRU 108, 172 THRU 231 & 240 THRU 309
TOWNHOUSE & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2013
SHEET 97 OF 100 SDP-09-039

K:\SDSI\PROJ\30770 GTW WEST\dwg\Construction Documents\Construction Document - 30770 Sewer Base Plan for Sdp Redline 4 - June 2012.dwg, SHEET 97, 11/15/2012 8:25:34 AM, 1:1



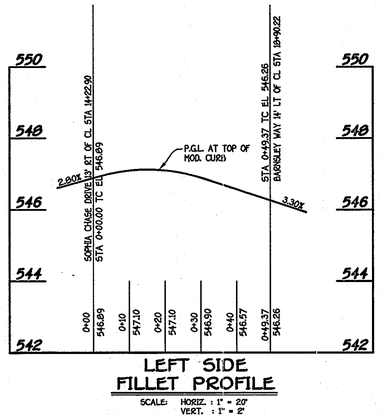
LEFT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

BARNSLEY WAY - GENTLE ROLLING DRIVE INTERSECTION



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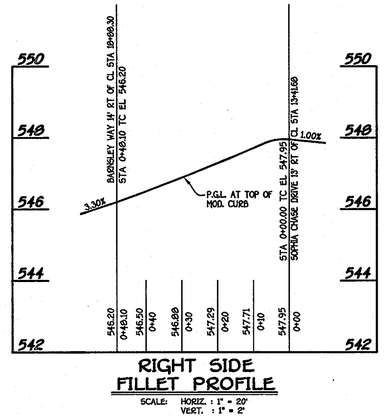
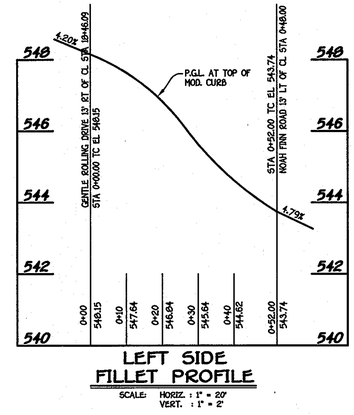


RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

BARNSLEY WAY - SOPHIA CHASE DRIVE INTERSECTION



LEFT SIDE FILLET PROFILE

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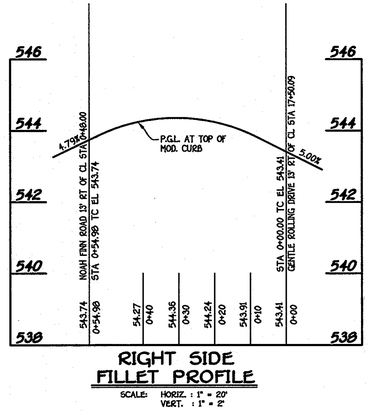
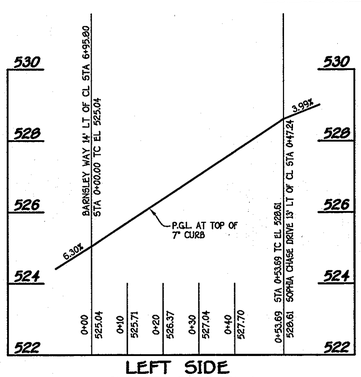


RIGHT SIDE FILLET PROFILE

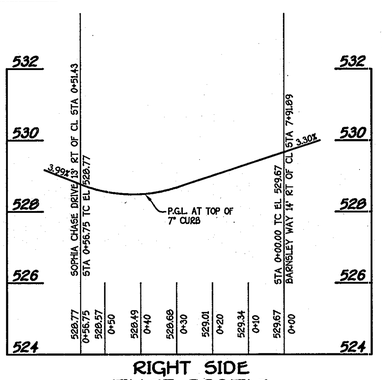
SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

GENTLE ROLLING DRIVE - NOAH FINN ROAD INTERSECTION



LEFT SIDE FILLET PROFILE

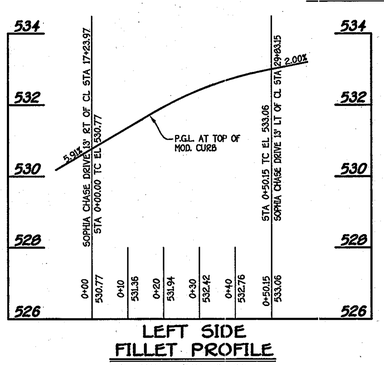
SCALE: HORIZ. : 1" = 20'



RIGHT SIDE FILLET PROFILE

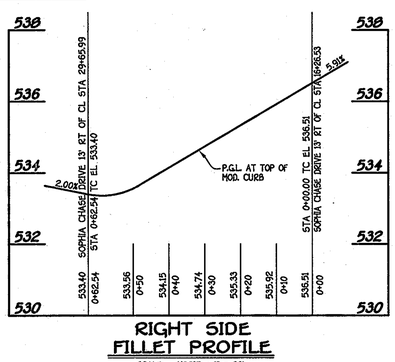
SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

BARNSLEY WAY - SOPHIA CHASE DRIVE INTERSECTION
VERT. : 1" = 2'



LEFT SIDE FILLET PROFILE

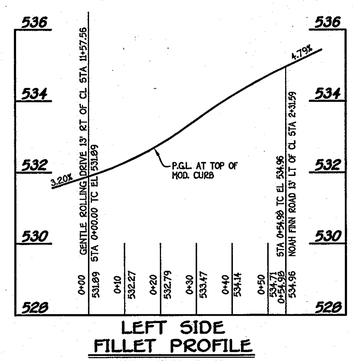
SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'



RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

SOPHIA CHASE DRIVE - SOPHIA CHASE DRIVE INTERSECTION



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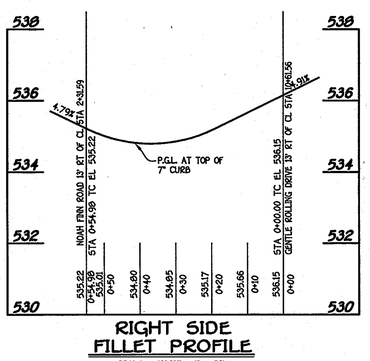

RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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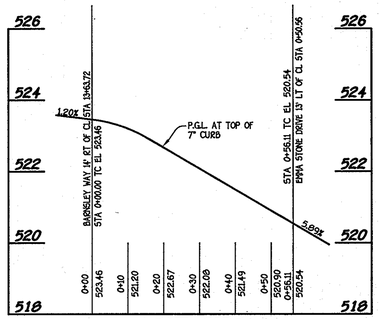
GENTLE ROLLING DRIVE - NOAH FINN ROAD INTERSECTION



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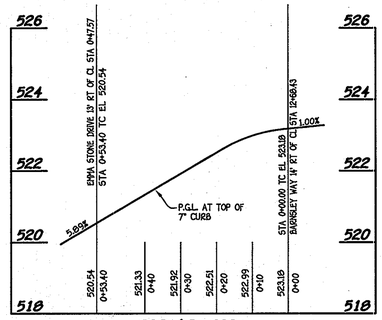
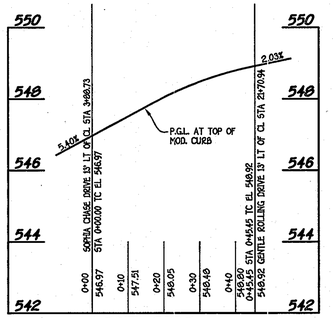


RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

BARNSLEY WAY - EMMA STONE DRIVE INTERSECTION



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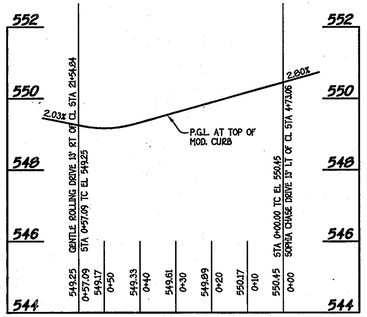
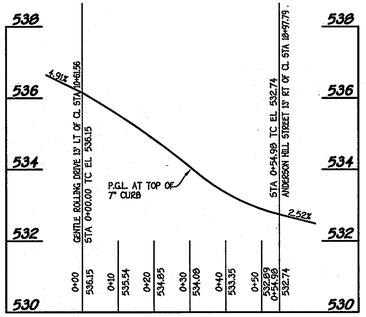


RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

SOPHIA CHASE DRIVE - GENTLE ROLLING DRIVE INTERSECTION



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SCALE: HORIZ. : 1" = 20'
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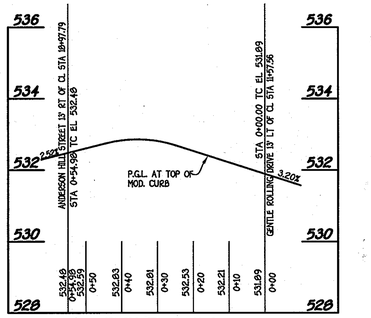

RIGHT SIDE FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

GENTLE ROLLING DRIVE - ANDERSON HILL STREET INTERSECTION

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
4	REV. TO ADD FEE SIMPLE LOTS PER F-12-089	10/17/13
3	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
2	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

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6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

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ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 12/18/12

Chief, Development Engineering Division — Date 12/18/12

Director - Department of Planning and Zoning — Date 12/19/12

PROJECT			SECTION		PARCEL NO. 'E'
GTW'S WAVERLY WOODS			14		PHASES II, III & IV LOTS 9, 10 & 11 THRU 32-39, 44-46, 48-123 & 176-201; PHASES II & V - LOTS 124-175, 193-196, 198-202 & 237-239
PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300
WATER CODE		SEWER CODE			
K-02		5992000			

CURB RETURN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS - WEST"

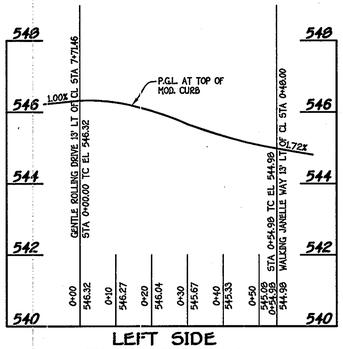
PHASES II, III & IV LOTS 5, 12 THRU 39, 44 THRU 86, 88 THRU 165 & 172 THRU 231
PHASES IV & V - UNITS 99 THRU 119, 153 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC
TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER, 2012
SHEET 99 OF 100

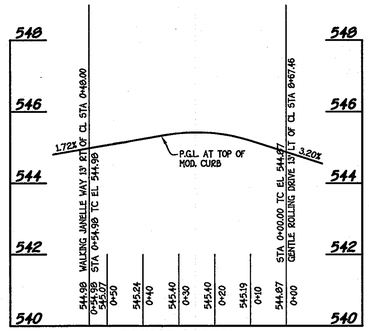
SDP-09-039

K:\SDSKPROJ\30720 GTW WEST\dwg\Construction Documents\Redline Phase 4 Fee Simple 78 Lots\Construction Document - 30720 Sheet 100 Tables.dwg, SHEET 99, 11/14/2012 3:26:51 PM, 1:1



LEFT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'



RIGHT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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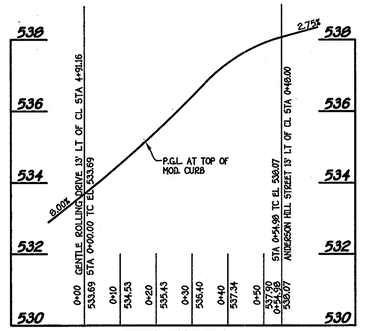
GENTLE ROLLING DRIVE – WALKING JANELLE WAY
INTERSECTION



LEFT SIDE
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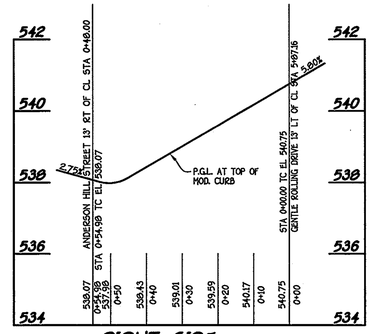

RIGHT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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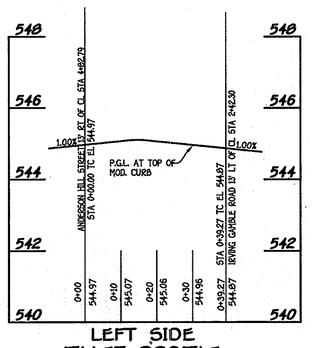
GENTLE ROLLING DRIVE – ANDERSON HILL STREET
INTERSECTION



LEFT SIDE
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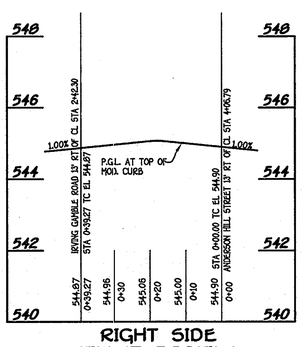

RIGHT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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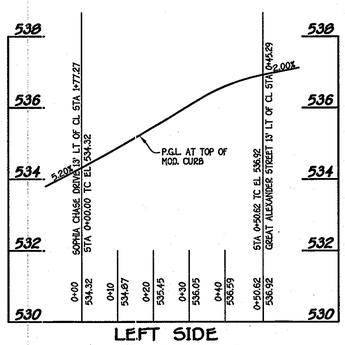
ANDERSON HILL STREET – IRVING GAMBLE ROAD
INTERSECTION



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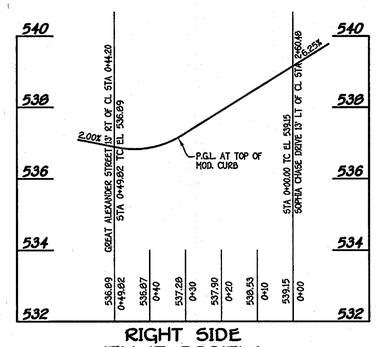
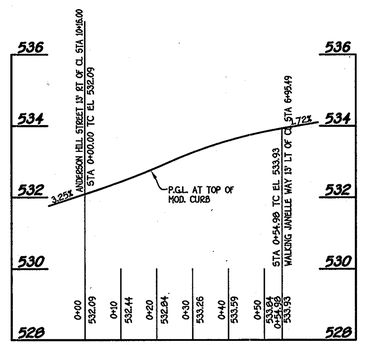


RIGHT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'

SOPHIA CHASE DRIVE – GREAT ALEXANDER STREET
INTERSECTION



LEFT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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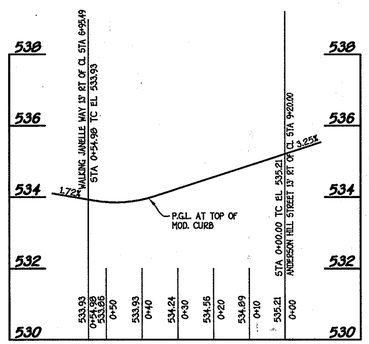

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FILLET PROFILE

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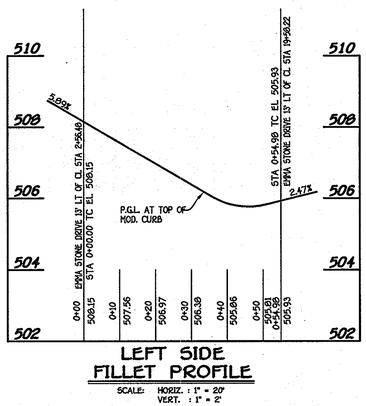
ANDERSON HILL STREET – WALKING JANELLE WAY
INTERSECTION



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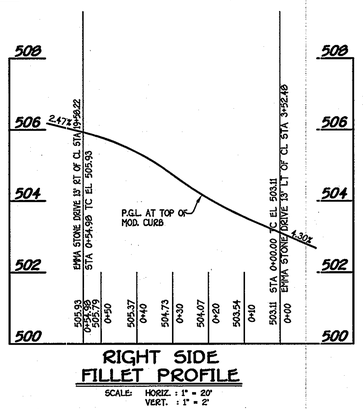

RIGHT SIDE
FILLET PROFILE

SCALE: HORIZ. : 1" = 20'
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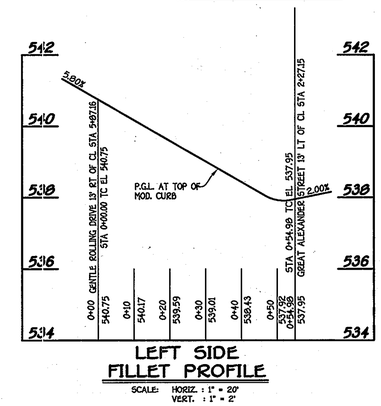
EMMA STONE DRIVE – EMMA STONE DRIVE
INTERSECTION



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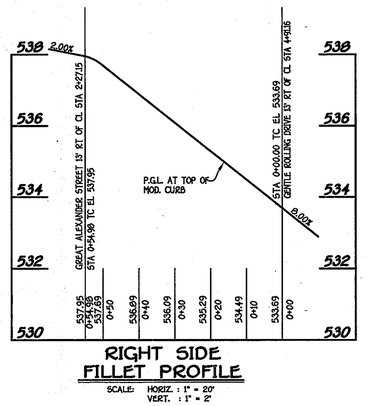

RIGHT SIDE
FILLET PROFILE

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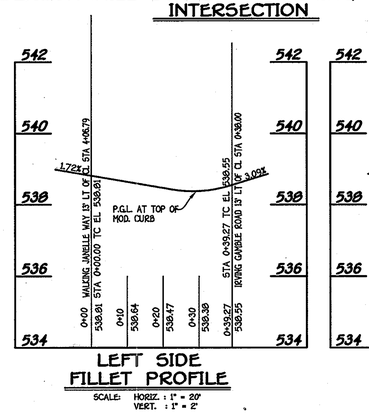
GENTLE ROLLING DRIVE – GREAT ALEXANDER STREET
INTERSECTION



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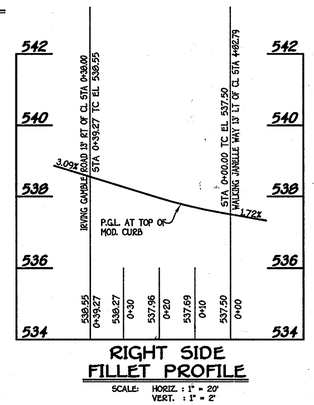

RIGHT SIDE
FILLET PROFILE

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WALKING JANELLE WAY – IRVING GAMBLE ROAD
INTERSECTION

REVISED

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISION	DATE
3	REV. TO ADD FEE SIMPLE LOTS PER F-13-101	12/17/13
2	REV. TO ADD FEE SIMPLE LOTS PER F-12-089 AND ADD GRIFFIN HALL	9/28/12
1	REV. PER ADDITION APFO PHASE 3 BLDG'S & S-06-13 PHASING TAB	3/24/10

STATE OF MARYLAND — TERRELL A. FISHER — No. 9757 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 9757 EXPIRATION DATE IS 3/3/14.

TERRELL A. FISHER, PROFESSIONAL ENGINEER — 11/14/12 DATE

BUILDERS

NV HOMES
6085 MARSHALEE DRIVE
SUITE 130
ELKRIDGE, MD. 21075
410-379-5956

RYAN HOMES
6085 MARSHALEE DRIVE
SUITE 140
ELKRIDGE, MD. 21075
410-379-5956

DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

OWNERS

WAVERLY WOODS DEVELOPMENT CORPORATION,
C/O LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 12/19/12 Date

Chief, Development Engineering Division — 12/18/12 Date

Director - Department of Planning and Zoning — 12/19/12 Date

PROJECT	SECTION	PARCEL NO. 'A'
GTW'S WAVERLY WOODS	14	PARCELS 11,114 & 'A' LOTS 5, 12-29, 44-80, 88-165 & 172-231, PARCEL 'B' & 'V' - LOTS 93-112, 166-200 & 237-239

PLAT 21427 - 21435 AND 22082 - 22089	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
	3 & 4	PSC	16	THIRD	60300

WATER CODE	SEWER CODE
K-02	5992000

WETLAND AND FLOODPLAIN TABLES
AND CURB RETURN PROFILES

AGE RESTRICTED ADULT HOUSING

GTW'S WAVERLY WOODS

SECTION 14

"THE COURTYARDS AT WAVERLY WOODS – WEST"

PHASES II, III & IV LOTS 5, 12 THRU 29, 44 THRU 80, 88 THRU 165 & 172 THRU 231
PHASES IV & V – UNITS 93 THRU 119, 193 THRU 161, 196 THRU 200 & 237 THRU 239

TOWNHOUSE CONDOMINIUMS & SINGLE FAMILY HOMES

ZONING: PSC

TAX MAP NO.: 16 GRID NO.: 3 & 4 PARCEL NO.: PART OF 249

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: DECEMBER, 2012

SHEET 100 OF 100

SDP-09-039

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