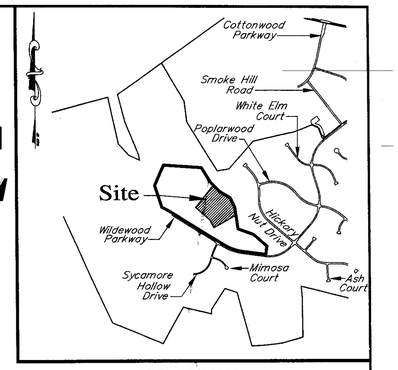
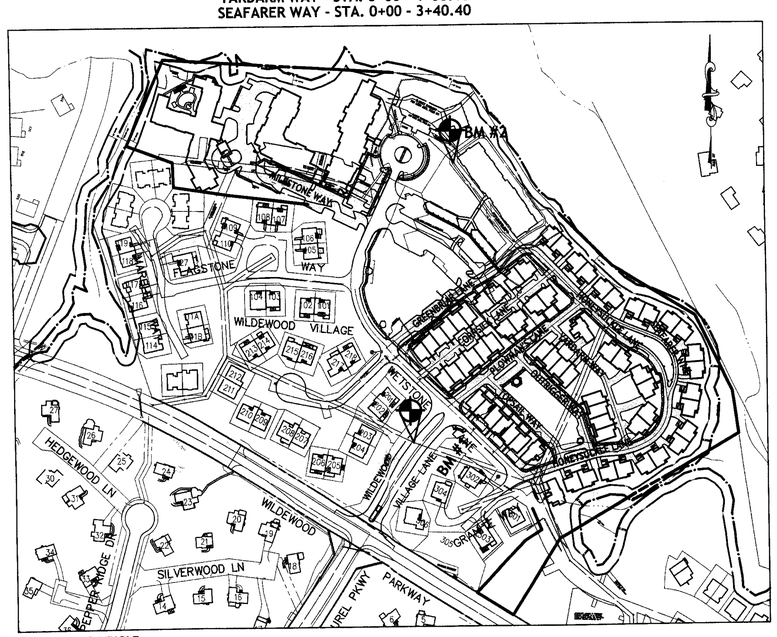
CONSTRUCTION PLANS
REVISIONS FOR
WILDEWOOD RETIREMENT VILLAGE
EIGHTH ELECTION DISTRICT
ST. MARY'S COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

PRIVATE ROADS
GREENBRIAR LANE - STA. 0+00 - 5+64.93
HONEYSUCKLE LANE - STA. 5+64.93 - 15+73.95
CORNSILK LANE - STA. 0+00 - 4+71.59
PLOWMAN'S LANE - STA. 5+00 - 4+68.37
TOPSAIL WAY - STA. 0+00 - 3+16.73
OUTRIGGER WAY - STA. 0+00 - 3+46.47
YARDARM WAY - STA. 0+00 - 4+00.18
SEAFARER WAY - STA. 0+00 - 3+40.40



LOCATION MAP
SCALE: 1" = 200'

ABBREVIATIONS

BRL	BUILDING RESTRICTION LINE
LOD	LIMITS OF DISTURBANCE
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
ELEV	ELEVATION
INV	INVERT
LF	LINEAR FEET
HP	HIGH POINT
LP	LOW POINT
GB	GRADE BREAK
PC	POINT OF HORIZONTAL CURVE
PI	POINT OF HORIZONTAL INTERSECTION
PT	POINT OF HORIZONTAL TANGENT
RCP	REINFORCED CONCRETE PIPE
ED	EARTH DIKE
SF	SQUARE FEET
CF	CUBIC FEET
TYP	TYPICAL
NTS	NOT TO SCALE
YR	YEAR
SHC	SEWER HOUSE CONNECTION
WHC	WATER HOUSE CONNECTION
PIV	POST INDICATOR VALVE

LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- E E EXISTING ELECTRIC LINE
- E E PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
- ABUTTER LOT BOUNDARY
- EXISTING TREE LINE
- SF SF SF SILT FENCE
- LIMITS OF DISTURBANCE
- SOILS TYPE DIVISION LINE
- EARTH DIKE
- SEDIMENT TRAP
- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT

BENCH MARK DATA

Number	Description	Elevation
BM #1	Rim of sewer manhole #214 located in the median of Wildewood Village Lane. N 170844.8377, E 928706.1782	118.61
BM # 2	Rim of SMH #206 located at the front left corner of the existing condo building located at the northeast corner of the site. N 171598.3368, E 928822.5161	105.03'

CONTROL REFERENCES
Vertical: Bench Control based on NGVD-88
Horizontal: Maryland Grid Coordinate System (NAD 83)
Topography by The Tech Group, Inc.

CAUTION:
CONTRACTOR TO CONTACT MISS UTILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND MAY NOT BE LIMITED TO THOSE SHOWN HEREON. (1-800-257-7777)

SITE TABULATION

1. PARKING REQUIRED:
- EXISTING CLUB HOUSE BUILDING:
  40 SPACES PROVIDED PER THE ORIGINAL SITE PLAN APPROVAL AND AS AMENDED ON 9/28/92
- BUILDING ONE-4 STORY CONDOMINIUM APARTMENTS W/GARAGE: (ADDRESS #23161)
  1.0 PS/1 BEDROOM DU. = (20 BR), 20 PS
  1.5 PS/2 BEDROOM DU. = (27 BR), 41 PS
  TOTAL PARKING REQUIRED = 61 PS
- BUILDING TWO-4 STORY CONDOMINIUM APARTMENTS W/GARAGE: (ADDRESS #23175)
  1.0 PS/1 BEDROOM DU. = (20 BR), 20 PS
  1.5 PS/2 BEDROOM DU. = (32 BR), 48 PS
  TOTAL PARKING REQUIRED = 68 PS
- ASSISTED LIVING BUILDING: (ADDRESS #23185)
  1.0 PS FOR 4 BEDS = (80 BEDS), 20 PS
  1.0 PS FOR 4 EMPLOYEES = (23*) 6 PS
  *(1 EMPLOYEE FOR 3.7 BEDS)
  TOTAL PARKING REQUIRED = 26 PS
  TOTAL PARKING REQUIRED FOR DEVELOPMENT SHOWN ON THIS PLAN = 195 PS
  TOTAL HANDICAP SPACES REQUIRED = (2% OF TOTAL) =4 PS

2. PARKING PROVIDED:
- EXISTING CLUB HOUSE BUILDING:
  EXIST. EXTERIOR PARKING = 14 PS
  PROP. EXTERIOR PARKING = 27 PS
  TOTAL EXTERIOR PARKING = 41 PS > 40 PS
- BUILDING ONE-4 STORY CONDOMINIUM APARTMENTS W/GARAGE: (ADDRESS #23161)
  EXTERIOR PARKING = 35 PS
  UNDER BUILDING PARKING = 44 PS
  HANDICAP PARKING = 2 PS
  TOTAL PARKING PROVIDED = 82 PS > 61 PS
- BUILDING TWO-4 STORY CONDOMINIUM APARTMENTS W/GARAGE: (ADDRESS #23175)
  EXTERIOR PARKING = 15 PS
  UNDER BUILDING PARKING PROVIDED = 52 PS
  HANDICAP PARKING = 2 PS
  TOTAL PARKING PROVIDED = 70 PS > 68 PS
- ASSISTED LIVING BUILDING: (ADDRESS #23185)
  EXTERIOR PARKING, STANDARD = 13 PS
  EXTERIOR PARKING, COMPACT = 7 PS
  HANDICAP PARKING = 4 PS
  TOTAL PARKING PROVIDED = 24 PS > 13 PS
  TOTAL PARKING PROVIDED FOR DEVELOPMENT SHOWN ON THIS PLAN =217 PS>195 PS
  TOTAL HANDICAP SPACES PROVIDED = 8 PS > 4 PS

  NOTE:
  * FINAL LAYOUT SUBMITTED WITH ARCHITECTURALS FOR EACH CONDO BUILDING
  ** WILL PROVIDE ADDITIONAL HANDICAP SPACES AS NEEDED BY RESIDENTS.

SHEETS INDEX

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2. OVERALL COMPOSITE PLAN
3. DPW&T DETAILS AND NOTES
4. DPW&T DETAILS AND NOTES
5. SITE AND GRADING PLAN
6. SITE AND GRADING PLAN
7. SITE AND GRADING PLAN
8A. UTILITY PLAN (WATER & SEWER PHASING PLAN)
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30. SUBMERGED GRAVEL WETLAND PROFILE PLAN
31. SUBMERGED GRAVEL WETLAND PROFILE PLAN
32. SUBMERGED GRAVEL WETLAND PROFILE PLAN
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34. SEDIMENT CONTROL NOTES AND DETAILS PLAN
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36. STORM DRAIN DRAINAGE AREA MAP PLAN
37. METCOM DETAILS PLAN

*SEQUENCE OF CONSTRUCTION

SEWER ALLOCATION TABLE

PHASE A	INDIVIDUAL UNITS	USAGE UNITS	TOTAL WATER USAGE
	41 (EDU'S)	250	10,250 GPD
PHASE B	ASSISTED LIVING	USAGE UNITS	TOTAL WATER USAGE
	80 BEDS (EDU'S) (1 EDU PER 2 BEDS)	250	10,000 GPD
PHASE C	BUILDING #1 UNITS	USAGE UNITS	TOTAL WATER USAGE
	47 (EDU'S)	250	11,750 GPD
PHASE D	INDIVIDUAL UNITS	USAGE UNITS	TOTAL WATER USAGE
	24 (EDU'S)	250	6,000 GPD
PHASE E	BUILDING #2 UNITS	USAGE UNITS	TOTAL WATER USAGE
	~~52~~ 52 (EDU'S)	250	13,000 GPD
TOTAL	~~184~~ 205 (EDU'S)		51,000 GPD

10/20/09

WATER ALLOCATION TABLE

PHASE A	INDIVIDUAL UNITS	USAGE UNITS	TOTAL WATER USAGE
	30 (EDU'S)	300	9,000 GPD
PHASE B	ASSISTED LIVING	USAGE UNITS	TOTAL WATER USAGE
	80 BEDS (1 EDU PER 2 BEDS)	300	12,000 GPD
PHASE C	BUILDING #1 UNITS	USAGE UNITS	TOTAL WATER USAGE
	47 (EDU'S)	300	14,100 GPD
PHASE D	INDIVIDUAL UNITS	USAGE UNITS	TOTAL WATER USAGE
	35 (EDU'S)	300	10,500 GPD
PHASE E	BUILDING #2 UNITS	USAGE UNITS	TOTAL WATER USAGE
	~~52~~ 52 (EDU'S)	300	15,600 GPD
TOTAL	~~184~~ 205 (EDU'S)		61,200 GPD

10/20/09

ROAD CONSTRUCTION NOTES
1. THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THOSE OF THE MARYLAND STATE HIGHWAY ADMINISTRATION TITLED "STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS", JANUARY 2001 AS CURRENTLY AMENDED WITH THE FOLLOWING EXCEPTIONS: SIN AND BF PAVEMENT MIX, USE 1982 SPECIFICATIONS; BF, SF AND SC PAVEMENT MIX, USE OCTOBER 1993 SPECIFICATIONS.
2. NO CONSTRUCTION (I.e. GRADING, ETC.) OR THE INSTALLATION OF UTILITIES WILL BE PERMITTED IN THE BED OF ANY PROPOSED STREET UNTIL THE STREET GRADE HAS BEEN OFFICIALLY ESTABLISHED, PLAT OF THE SAME APPROVED BY THE DEPT. OF PUBLIC WORKS AND TRANSPORTATION.
3. TRAFFIC CONTROL SIGNS AND STREET NAME SIGNS MUST BE INSTALLED UPON COMPLETION OF THE BASE ASPHALT COURSE. THE CONTRACTOR/DEVELOPER WILL BE RESPONSIBLE FOR MAINTENANCE SYSTEM. SHEETING SHALL BE "HIGH INTENSITY" UNLESS OTHERWISE NOTED. SIGN CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AS CURRENTLY AMENDED.
4. SAMPLING OF MATERIALS (BANK RUN GRAVEL, ETC.) SHALL BE DONE IN ACCORDANCE WITH THE ST. MARY'S COUNTY SUBDIVISION ROAD CONSTRUCTION AND INSPECTION PROCEDURES AS DIRECTED BY THE DEPT. OF PUBLIC WORKS AND TRANSPORTATION TO INSURE COMPLIANCE WITH THE CURRENT MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS.
5. STABILIZATION OF ALL DRAINAGE CHANNELS, ROAD SHOULDERS, SLOPES AND OTHER DISTURBED AREAS WILL BE COMPLETED PRIOR TO ACCEPTANCE OF THE ROAD INTO THE ST. MARY'S COUNTY HIGHWAY MAINTENANCE SYSTEM.
6. ALL CORRUGATED METAL PIPES WILL BE GALVANIZED, MINIMUM 14 GAUGE (ARCH TYPE RECOMMENDED) WITH STANDARD END SECTIONS (SHA STD. No. 370.01 AND 371.01). ALL REINFORCED CONCRETE PIPE SHALL BE MINIMUM CLASS IV. ALL REINFORCED PIPE END SECTIONS SHALL BE IN ACCORDANCE WITH SHA STD. No. 368.03 AND 368.04.
7. STONE OR RIPRAP SHALL BE CLASS I AS PER MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS, SECTION 901.01 AS CURRENTLY AMENDED.
8. ALL RIPRAP IS TO BE PLACED ON DRY FILTER CLOTH. FILTER CLOTH SHALL MEET THE REQUIREMENTS OF SECTION 921.09 OF THE MARYLAND SHA SPECIFICATIONS AS CURRENTLY AMENDED.
9. SOD OR SEED MIXTURES USED IN LINING DRAINAGE CHANNELS SHALL BE KENTUCKY 31 TALL FESCUE, UNLESS OTHERWISE DIRECTED BY THE DEPT. OF PUBLIC WORKS AND TRANSPORTATION, AND SHALL BE IN ACCORDANCE WITH MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS, SECTION 920.04.
10. GUARDRAIL IS TO BE PROVIDED ALONG ALL FILLS OF 15 FEET IN HEIGHT OR GREATER, WITH SLOPES STEEPER THAN 3:1, AND/OR AS OTHERWISE RECOMMENDED IN THE ROADSIDE DESIGN GUIDE. GUARDRAIL SHALL BE PLACED WHERE NOTED ON PLAN AND CONSTRUCTED IN ACCORDANCE WITH TRAFFIC BARRIER W-BEAM SHA STD. No. 660.01. END SECTIONS SHALL BE TYPE C UNLESS OTHERWISE NOTED. TYPE A AND C END TREATMENTS ARE ALSO PERMISSIBLE.
11. ROADWAY CENTER LINE AND EDGE MARKINGS SHALL BE PLACED ON ALL ROADS CLASSIFIED AS A MAJOR COLLECTOR OR HIGHER. TRANSVERSE MARKINGS, SYMBOLS, AND WORD MARKING SHALL BE THERMOPLASTIC. ALL STRIPING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ALL MATERIALS SHALL MEET THE REQUIREMENTS OF THE MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS.
12. SOILS FOUND TO BE UNSUITABLE FOR CONSTRUCTION SHALL BE EXCAVATED AND REMOVED AS ENCOUNTERED DURING CONSTRUCTION OF ROAD.
13. AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ST. MARY'S COUNTY DEPT. OF PUBLIC WORKS AND TRANSPORTATION AT 301-863-8400.
14. ATTENTION IS CALLED TO PUBLIC SERVICE COMMISSION ORDER No. 60838, CHAPTER 863, EFFECTIVE DATE AUGUST 1, 1974, AND SECTION 28A, ARTICLE 78 OF THE ANNOTATED CODE OF MARYLAND, 1994, REGARDING THE PROTECTION OF UNDERGROUND UTILITIES AND THE RESPONSIBILITY OF THE CONTRACTOR CONTAINED THEREIN. THE CONTRACTOR SHALL CONTACT OTHER UTILITY COMPANIES WHICH OPERATE IN THE AREA AND NOT IN THE "MISS UTILITY" PROGRAM. CONTRACTOR TO ALSO CONTACT THE ENGINEERING DEPARTMENT BEFORE RESTARTING WORK AFTER WORK HAS STOPPED FOR MORE THAN 5 DAYS.

STORMWATER MANAGEMENT NOTES
A.) THE CONTRACTOR MUST NOTIFY THE INSPECTOR AT THE DEPARTMENT OF LAND USE AND GROWTH MANAGEMENT AT LEAST (2) DAYS PRIOR TO THE START OF CONSTRUCTION.

B.) MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITY SHALL BE IN ACCORDANCE WITH THE EXECUTED INSPECTION AND MAINTENANCE AGREEMENT FOR PRIVATE STORMWATER MANAGEMENT FACILITIES AND SHALL BE THE RESPONSIBILITY OF THE OWNER AND THE ASSIGNEES.

GENERAL NOTES
1. This site is located on - Tax Map:34 Grid:20 Parcel:674
   Current Ownership per Liber EWA 2861 at Folio 759
   WRV Holdings has been approved for 314 dwelling units
2. Total Site Area = 695,693 s.f. or 15.97 Ac.
   Revision Site Area = 15.97 Ac
3. Existing zoning: PDR 4.28
4. Proposed Building Height: 58 ft
   Building #1 83,528.00 sf.
   Height= 58'
   Building #2 76,884.00 sf.
   Height= 58'
   Assisted living bldg: 75,000 sf.
   Height= 50'
5. Present Water Category: W-3D
   Present Sewer Category: S-3D
6. Parcels shown are to be served by public water and sewer.
7. This subdivision is in compliance with the St. Mary's County Comprehensive Water and Sewer Plan.
8. Hydric Soil types to be present per the Soil Survey of do not appear St. Mary's County, Maryland, as distributed by the U. S. Department of Agriculture, Soil Conservation Service, as shown herein.
   Wetlands are present on the site and they and their buffers shall be protected during construction.
9. Topographic information was field shot by The Tech Group, Inc.
10. This site is exempt from the Forest Conservation Act under Section IV 44.2.3.h.(1) of St. Mary's County Zoning Ordinance.
11. This site is exempt from any Resource Protection Measures per Article IV, 49.1.3.c of St. Mary's County Zoning Ordinance.
12. All Proposed buildings in Phase II shall have 6" WHC to Condominium building, 1 1/2" WHC will be suppplied to villas for sprinkler systems in accordance with Maryland House Bill No. 658 and NFPA specifications, as applicable. All buildings in Phase I will have a 1 1/2" WHC.
13. The site plan and building shall be in accordance with pertinent regulations for Handicap Access.
14. 15 MPH speed limit signs shall be posted along all private roads as directed by the Engineer for private roads and parking facility.
15. See 1989 amendment to Wildewood P.U.D. as approved on June 25, 1991, for OPZ# 01-130-034 phasing plan of entire P.U.D.
16. Wildewood Village Subdivision has been approved for 314 Dwelling Units, Clubhouse, and Assisted Living Facility on 40.38 Acres.
17. The Village Development Envelope Acreage was decreased to 36.25 Acres with a BLAP in 2004, Recorded in the Land Records for St. Mary's County, EWA 58 @ 46.
18. It is at this time we are proposing a revision to the Unit Mix and Orientation on the site. The density will not increase. 213
19. Although this Site Plan only illustrates 205 Units, we reserve the right to revise this plan to construct up to the originally approved 314 units, with Possible Future Phases
20. Sheet 4 shows the St. Mary's County typical detail for a single lot driveway entrance. Refer to the Site & Grading Plan for actual dimensions of the driveway width and adjust accordingly to match remaining dimensions on details.
21. Access Easement For Stormwater Managements

10/22/09

DEVELOPER'S CERTIFICATION
I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE IN ACCORDANCE WITH THIS PLAN, AND ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A "CERTIFICATE OF TRAINING" FROM A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM BEFORE BEGINNING THE PROJECT.

WRV HOLDINGS, LLC — DATE 6/10/09

ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS ARE CORRECT AND HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ST. MARY'S COUNTY ROAD ORDINANCE AND/OR THE ST. MARY'S COUNTY STORMWATER MANAGEMENT, GRADING, EROSION AND SEDIMENT CONTROL ORDINANCE, ADOPTED ON MAY 13, 2002.

ROBERT A. McCARTHY, P.E. — DATE 6/10/09
MARYLAND LICENSE #200393

SCD INFORMATION BLOCK

Case File No.: Continued Under STSP #91-0233 & 08-132-001

Developer: Compass Pointe, LLC
42120 St. Andrews Church Rd.
P.O. Box 2257
Leonardtown, Md. 20650
Ph. (301) 475-0310

Topography: Field Survey by The Tech Group, Inc.

Limits of Disturbance Area:
- Phase I . . . . . 9.73 Acres±
- Phase II . . . . . 5.57 Acres±
- Total . . . . . 16.44 Acres±

New Impervious Area:
- Total . . . . . 8.30 Acres±

Vegetative Stabilization:
- Total . . . . . 8.14 Acres±

Earth Work:	CUT	FILL
Total	65,333 C.Y.	54,325 C.Y.

TOTAL

* Estimates of earthwork quantities are provided solely for the purpose of determining permitting requirements. Since final earthwork quantities are based on many variable conditions which the Engineer has no control, including variability of soils, allowable survey and construction tolerances, and compaction rates, the Engineer cannot guarantee the accuracy of the estimates for final construction. The Owner/Developer should require the Contractor to provide their own estimates of the quantities in their respective bids.

METROPOLITAN COMMISSION

Site Plan APPROVED in accordance with St. Mary's County Zoning Ordinance
P.C. Approval Date: 12/16/09 (update)
Signature Date: 6/17/09
Revision 10/22/09
Authorized Signature
Revised (4) (7) (9) + EDU's By 20
"Approval of a site plan submitted under the provisions of this ARTICLE shall expire one (1) year after the date of such approval unless building permits have been obtained for construction in accordance therewith." (Section 60.8)

LUGM TRACKING #08-132-001 & STSP #91-0233

Owner:
WRV HOLDINGS, L.L.C.
42120 ST. Andrews Church Road
P. O. Box 2257
Leonardtown, MD 20650
(301) 475-0310

Developer:
Compass Pointe, LLC
42120 ST. Andrews Church Road
P. O. Box 2257
Leonardtown, MD 20650
(301) 475-0310

Engineering Firm:
The Tech Group, Inc.
1111 Benfield Blvd.
Suite 100
Millersville, Maryland 21108
(800) 266-6202

Site Address
WILDEWOOD VILLAGE
California, Maryland 20619
St. Mary's County, Md.

SOIL CONSERVATION DISTRICT	LAND USE/GROWTH MANAGEMENT	HEALTH DEPARTMENT APPROVAL
Director Date	Director Date	Sanitarian Date
	P.C. Chairman Date	Environmental Health Director Date

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
GEOTECHNICAL • ENVIRONMENTAL
MATERIALS CONSULTANTS • FACILITIES
1120 Benfield Blvd
Suite C
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS
P.G.	10/20/09	DECREASE PHASE E BY 20 EDUs & DENSITY UNITS

STATE OF MARYLAND — ROBERT A. McCARTHY — No. 200393 — 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. 200393, EXP. DATE 1-16-2011
6/10/09

COVER SHEET

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

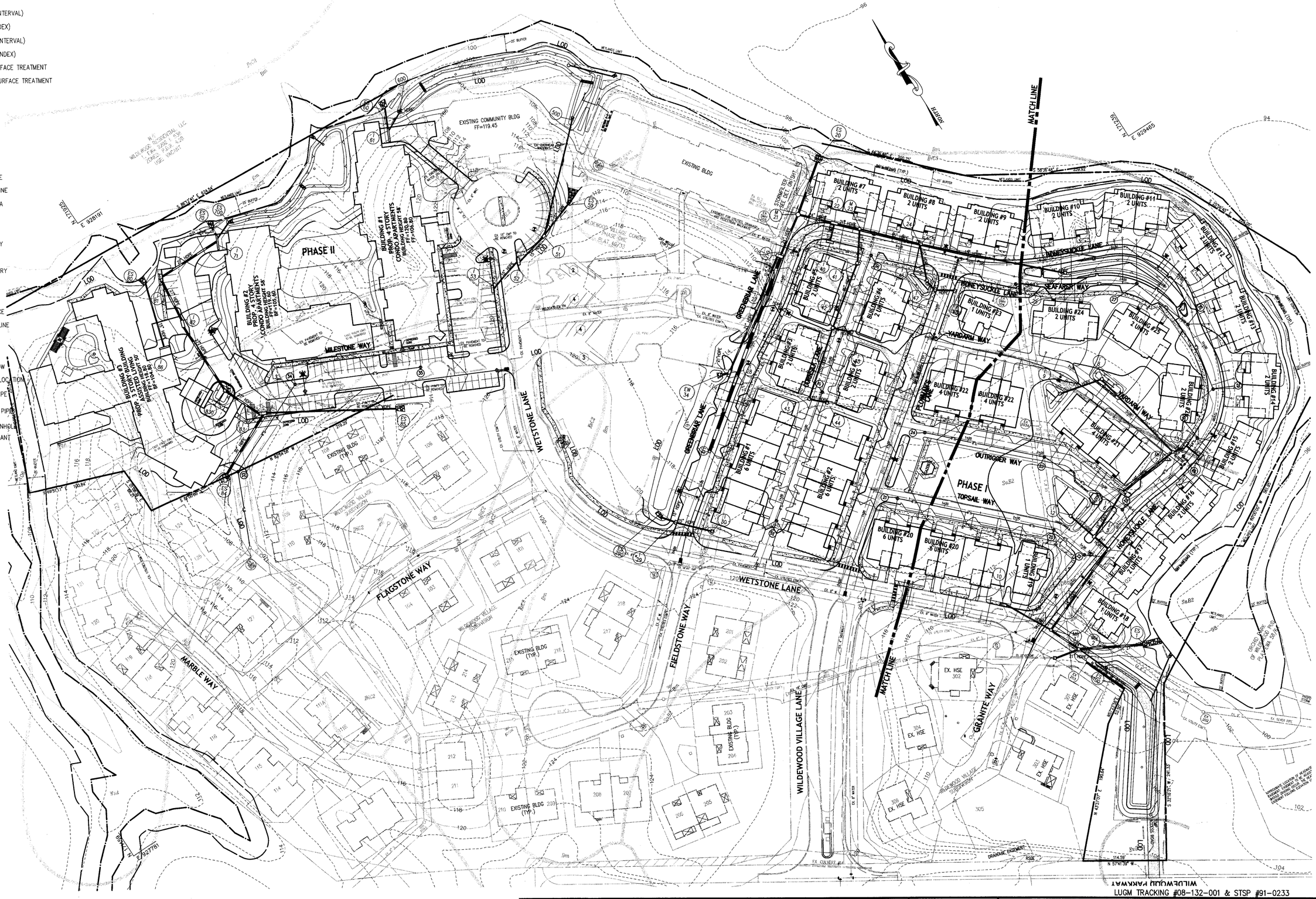
Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	AS SHOWN
SHEET NO.	1 OF 37

LEGEND

- 2 — EXISTING CONTOUR (INTERVAL)
- 10 — EXISTING CONTOUR (INDEX)
- 2 — PROPOSED CONTOUR (INTERVAL)
- 10 — PROPOSED CONTOUR (INDEX)
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- PROPOSED FIRE HYDRANT



LUGM TRACKING #08-132-001 & STSP #91-0233

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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. WOODRUFF — No. 20536 — 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. 20536, EXP. DATE 3-19-2011

8/11/09

OVERALL REVISED SITE PLAN

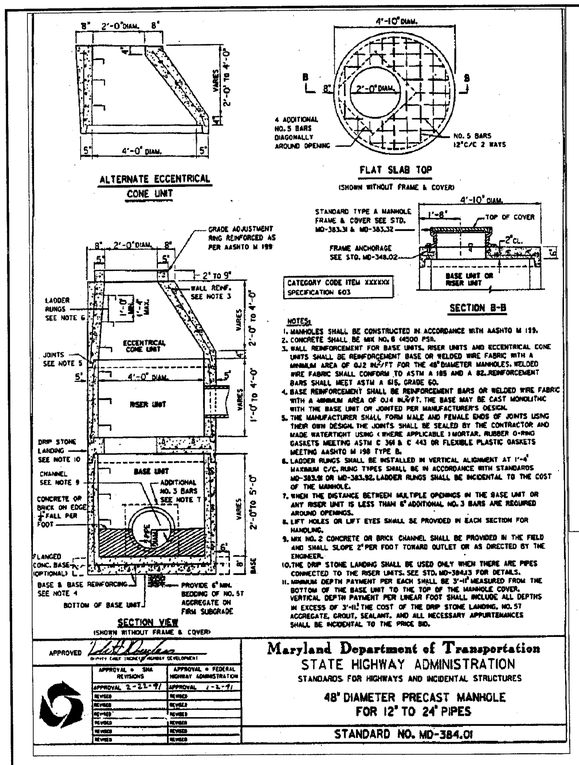
WILDEWOOD RETIREMENT VILLAGE

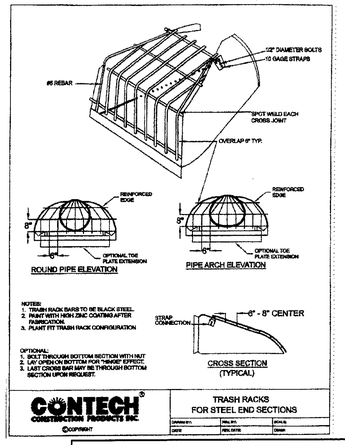
EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

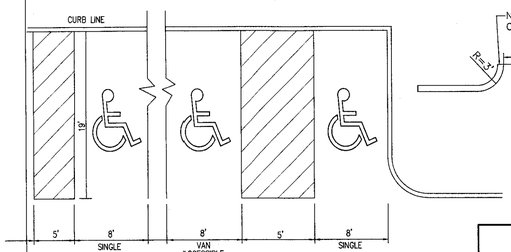
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Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 60'
SHEET NO.	2 OF 37

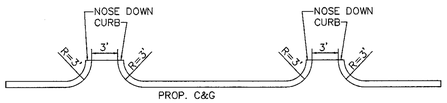




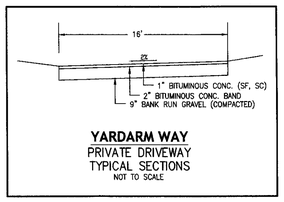


NOTE:
EACH PARKING SPACE RESERVED FOR PERSONS WITH PHYSICAL DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND WHEN IN THE PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND OR SIDEWALK.

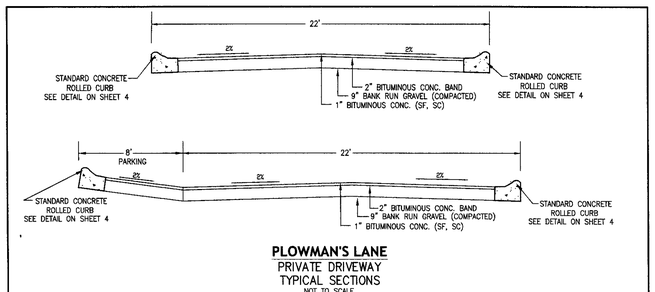
HANDICAPPED PARKING LAYOUT
NOT TO SCALE



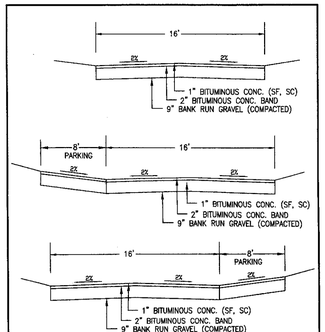
CURB CUT DETAIL
NOT TO SCALE



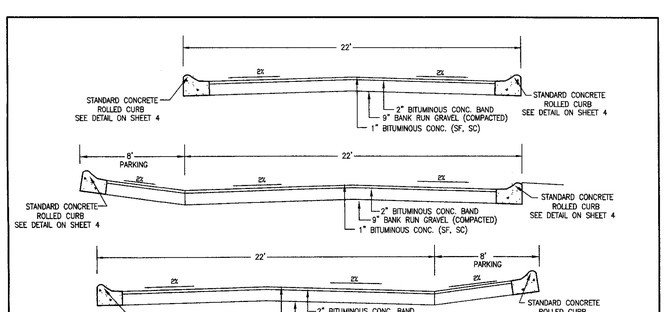
YARDARM WAY
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE



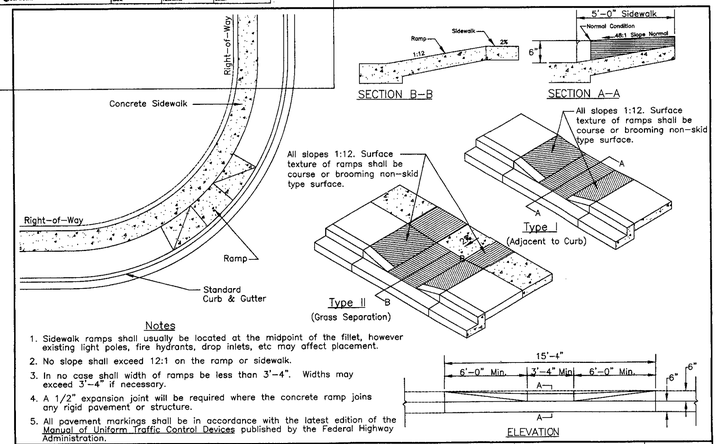
PLOWMAN'S LANE
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE



OUTRIGGER WAY
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE

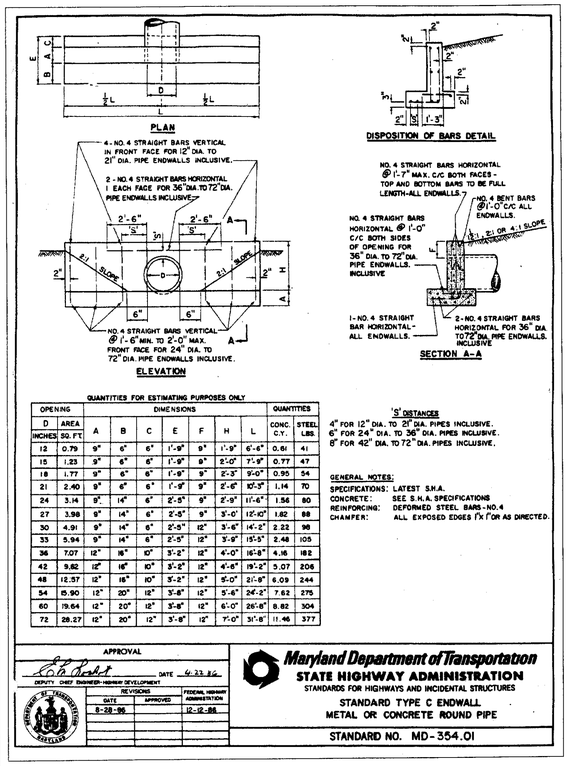


GREENBRIAR LANE
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE



Notes
1. Sidewalk ramps shall usually be located at the midpoint of the fillet, however existing light poles, fire hydrants, drop inlets, etc may affect placement.
2. No slope shall exceed 12:1 on the ramp or sidewalk.
3. In no case shall width of ramps be less than 3'-4". Widths may exceed 3'-4" if necessary.
4. A 1/2" expansion joint will be required where the concrete ramp joins any rigid pavement or structure.
5. All pavement markings shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices published by the Federal Highway Administration.

St. Mary's County Department of Public Works	Approved _____ President, Board County Comm. _____ Director, Public Works	Typical Curb Cut Handicap Ramps	Revised:	R 26



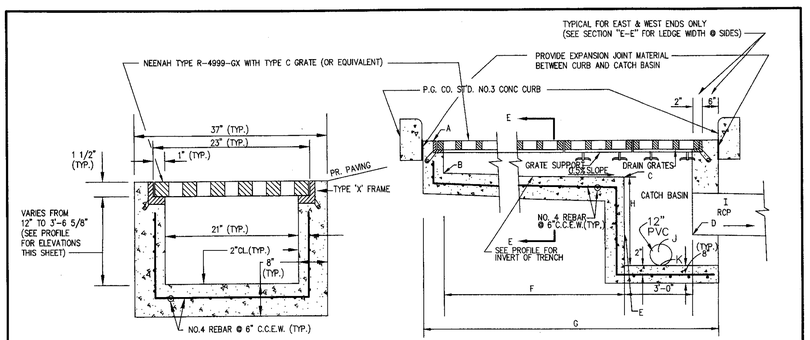
QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS							QUANTITIES	
D INCHES	AREA SQ. FT	A	B	C	E	F	H	L	CONC. C.Y.	STEEL LBS.
12	0.79	9"	6"	6"	1'-9"	9"	1'-9"	6'-6"	0.61	41
15	1.23	9"	6"	6"	1'-9"	9"	2'-0"	7'-9"	0.77	47
18	1.77	9"	6"	6"	1'-9"	9"	2'-3"	9'-0"	0.95	54
21	2.40	9"	6"	6"	1'-9"	9"	2'-6"	10'-3"	1.14	70
24	3.14	9"	14"	6"	2'-5"	9"	2'-9"	11'-6"	1.56	80
27	3.98	9"	14"	6"	2'-5"	9"	3'-0"	12'-10"	1.82	88
30	4.91	9"	14"	6"	2'-5"	12"	3'-6"	14'-2"	2.22	98
33	5.94	9"	14"	6"	2'-5"	12"	3'-9"	15'-5"	2.48	105
36	7.07	12"	16"	10"	3'-2"	12"	4'-0"	16'-8"	4.16	182
42	9.62	12"	18"	10"	3'-2"	12"	4'-6"	19'-2"	5.07	206
48	12.57	12"	18"	10"	3'-2"	12"	5'-0"	21'-8"	6.09	244
54	15.90	12"	20"	12"	3'-8"	12"	5'-6"	24'-2"	7.62	275
60	19.64	12"	20"	12"	3'-8"	12"	6'-0"	26'-8"	8.82	304
72	28.27	12"	20"	12"	3'-8"	12"	7'-0"	31'-8"	11.46	377

'S' DISTANCES
4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

GENERAL NOTES:
SPECIFICATIONS: LATEST S.H.A.
CONCRETE: SEE S.H.A. SPECIFICATIONS
REINFORCING: DEFORMED STEEL BARS - NO.4
CHAMFER: ALL EXPOSED EDGES ½" FOR AS DIRECTED.

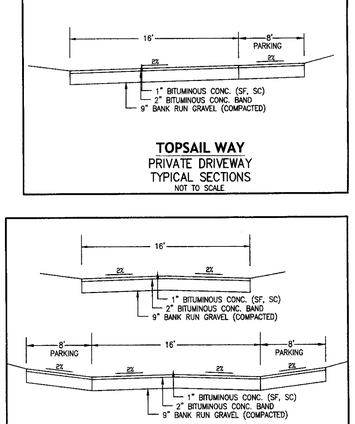
APPROVAL
DEPUTY CHIEF ENGINEER-HIGHWAY DEVELOPMENT
DATE 4-23-86
REVISIONS: DATE 5-28-96; APPROVED 12-12-86
FEDERAL HIGHWAY ADMINISTRATION
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD TYPE C ENDWALL
METAL OR CONCRETE ROUND PIPE
STANDARD NO. MD-354.01



CATCH BASIN NOTES:
1. SEE NEENAH CATALOG "11th EDITION" FOR RECOMMENDED FORMING AND INSTALLATION PROCEDURES FOR CATCH BASIN AND GRATE.
2. ALL CONCRETE SHALL BE M.S.H.A. NO. 2 MIX.
3. REBAR SHALL BE GRADE 60 STEEL PER ASTM-A615.

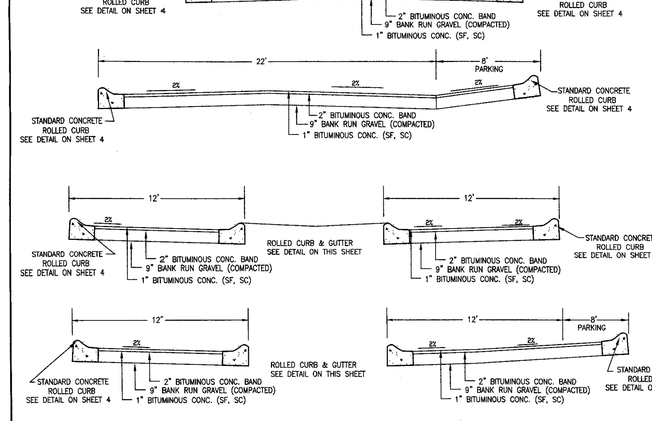
STR.	A	B	C	D	E	F	G	H	I	J	K
61	106.60	106.10	106.03	102.30	102.36	13.66	18.0	4.83	15"	12"	101.20
86	104.70	104.20	104.16	102.20	102.25	8.66	13.0	1.91	15"		

TRENCH DRAINS w/ GRATE (STRUCTURE NO. 61, 71 & 86)
NOT TO SCALE



TOPSAIL WAY
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE

CORNSILK LANE
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE



HONEYSUCKLE LANE & SEAFARER WAY
PRIVATE DRIVEWAY
TYPICAL SECTIONS
NOT TO SCALE

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
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Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. HOUGHTON — No. 20037 — PROFESSIONAL ENGINEER
5/8/09
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. 20037, EXP. DATE: 5-19-2011

DPW&T DETAILS

WILDEWOOD RETIREMENT VILLAGE

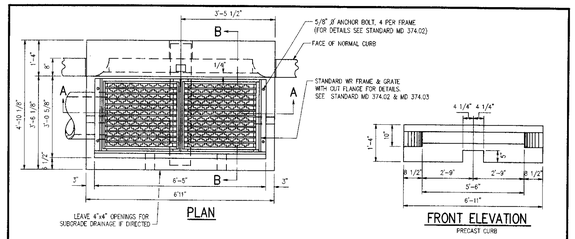
EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	AS SHOWN
SHEET NO.	3 OF 37

Plotted: 01-Oct-09 08:18 | Name: C:\Projects\206042\Plan\Detail\206042-DETAILS.dgn



NOTE

INLET SHALL BE CONSTRUCTED OF REINFORCED CONCRETE MIX NO. 2. SIZE, TYPE & DIRECTION OF INLET CONNECTION WILL VARY TO SUIT CONDITIONS. SEE S.H.A. SPECIFICATIONS FOR INLETS. REINFORCEMENT REQUIRED ON OUTSIDE, AS WELL AS ON INSIDE, OF WALLS BELOW 7'-0" WHEN "A" IS GREATER THAN 7'-0". SPACING, SAME AS FOR INSIDE OF WALL. PLACE 1/4" EXPANSION MATERIAL OF SAME TYPE APPROVED FOR PAVEMENT BETWEEN THE FRAME & ABUTTING RIGID PAVEMENT, & BETWEEN ENDS OF INLET CURB & NORMAL CURB. BRICK FOR MASONRY TO COMPLY WITH THE S.H.A. SPECIFICATIONS. FOR UNDEPRESSED INLETS, USE NORMAL PAVEMENT SLOPE. IF LADDER RUNGS ARE REQUIRED SEE STD. NO. MD 383.91 OR MD 383.92.

SPECIFICATION 305	CATEGORY CODE ITEMS

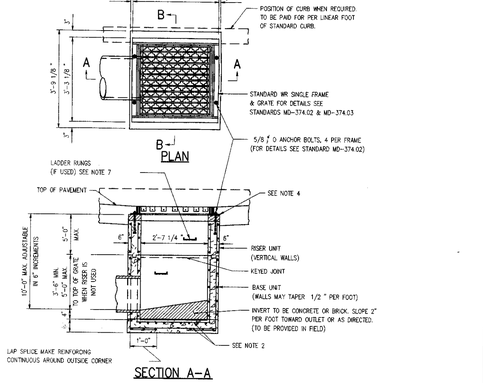
APPROVED
DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-28-75	APPROVAL	5-12-75
REVISED	10-1-01	REVISED	2-24-88
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD WR INLET

STANDARD NO. MD 374.04



NOTES

1. CONCRETE TO BE MIX NO. 6 (4500 PSI).
2. REINFORCING–2 LAYERS OF 4x4–W4.0xW4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED, FOR SIZE, LOCATION, AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD MD 383.91 AND MD 383.92 OR AS DIRECTED BY THE ENGINEER.
8. MINIMUM DEPTH PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 5'-6". VERTICAL DEPTH PAYMENT PER LINEAR FOOT FOR DEPTHS IN EXCESS OF 5'-6".

SPECIFICATION 305	CATEGORY CODE ITEMS

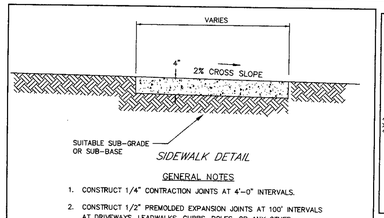
APPROVED
DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	6-4-84	APPROVAL	8-1-84
REVISED	10-1-01	REVISED	3-30-87
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST SINGLE WR INLET

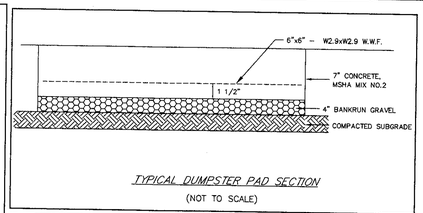
STANDARD NO. MD 374.23



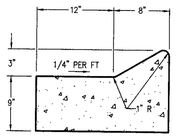
SIDEWALK DETAIL

GENERAL NOTES

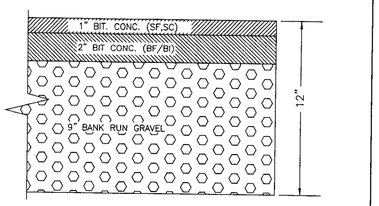
1. CONSTRUCT 1/4" CONTRACTION JOINTS AT 4'-0" INTERVALS.
2. CONSTRUCT 1/2" PREMOLDED EXPANSION JOINTS AT 100' INTERVALS AT DRIVEWAYS, LEADWALKS, CURBS, POLES, OR ANY OTHER PERMANENT STRUCTURE.



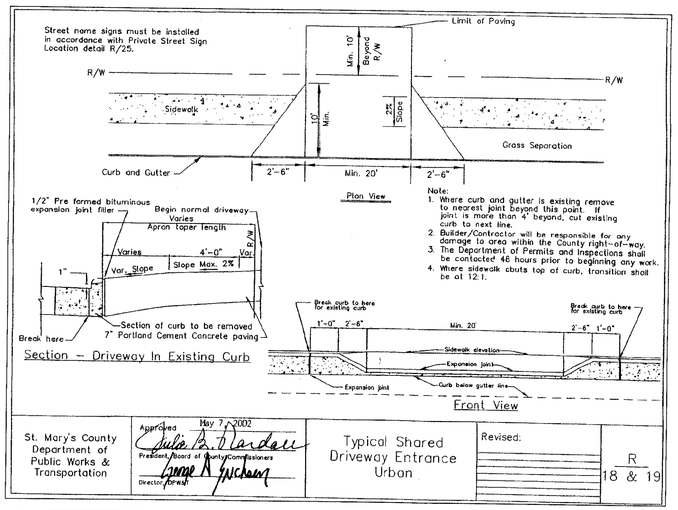
TYPICAL DUMPSTER PAD SECTION
(NOT TO SCALE)



STANDARD MOUNTABLE CURB
NOT TO SCALE

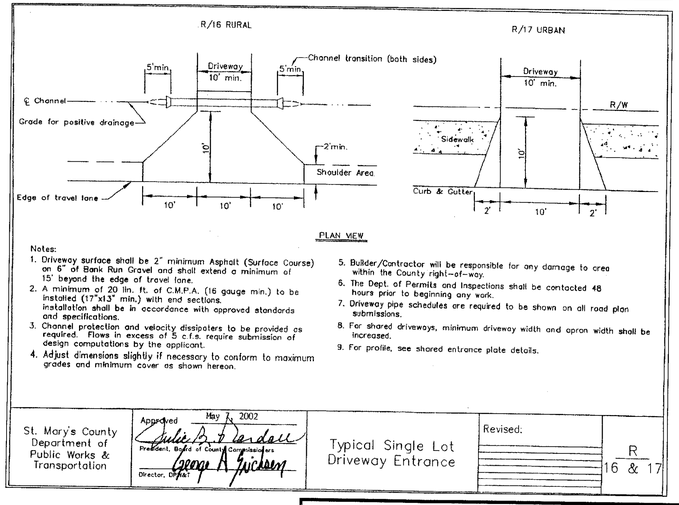


TYPICAL DRIVE AISLE PAVING SECTION
(NOT TO SCALE)



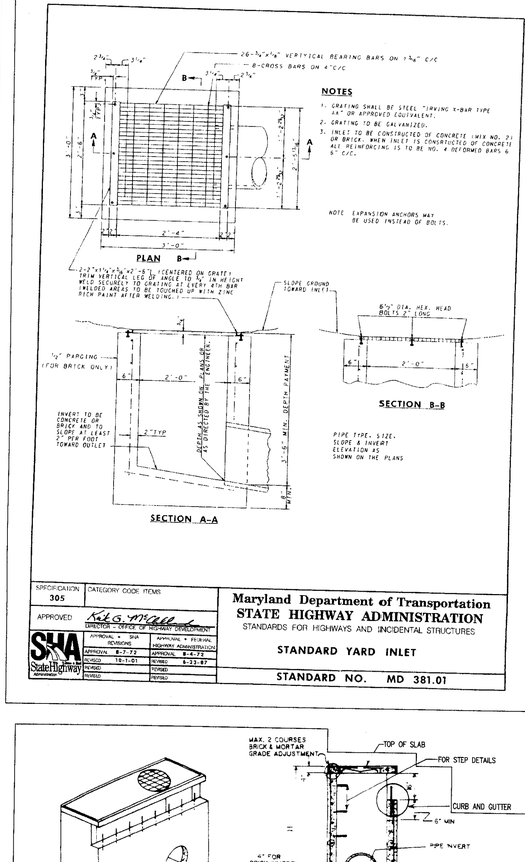
Note:
1. Where curb and gutter is existing remove to nearest joint beyond this point. If joint is more than 4" beyond, cut existing curb to next line.
2. Builder/Contractor will be responsible for any damage to area within the County right-of-way.
3. The Department of Permits and Inspections shall be contacted 48 hours prior to beginning any work.
4. Where sidewalk abuts top of curb, transition shall be at 12:1.

St. Mary's County Department of Public Works & Transportation	Approved May 7, 2002 President, Board of County Commissioners; Director, DPW&T	Typical Shared Driveway Entrance Urban	Revised:	R 18 & 19



Notes:
1. Driveway surface shall be 2" minimum Asphalt (Surface Course) on 6" of Bank Run Gravel and shall extend a minimum of 15' beyond the edge of travel lane.
2. A minimum of 20 lin. ft. of C.M.P.A. (16 gauge min.) to be installed (17"x13" min.) with end sections. Installation shall be in accordance with approved standards and specifications.
3. Channel protection and velocity dissipaters to be provided as required. Flows in excess of 5 c.f.s. require submission of design computations by the applicant.
4. Adjust dimensions slightly if necessary to conform to maximum grades and minimum cover as shown hereon.
5. Builder/Contractor will be responsible for any damage to crea within the County right-of-way.
6. The Dept. of Permits and Inspections shall be contacted 48 hours prior to beginning any work.
7. Driveway pipe schedules are required to be shown on all road plan submissions.
8. For shared driveways, minimum driveway width and apron width shall be increased.
9. For profile, see shared entrance plate details.

St. Mary's County Department of Public Works & Transportation	Approved May 7, 2002 President, Board of County Commissioners; Director, DPW&T	Typical Single Lot Driveway Entrance	Revised:	R 16 & 17



NOTES

1. GRATING SHALL BE STEEL "IRVING Y-BAR TYPE 44" OR APPROVED EQUIVALENT.
2. GRATING TO BE GALVANIZED.
3. INLET TO BE CONSTRUCTED OF CONCRETE (MIX NO. 2) OR BRICK. WHEN INLET IS CONSTRUCTED OF CONCRETE ALL REINFORCING IS TO BE NO. 4 DEFORMED BARS 6" C/C.

SPECIFICATION 305	CATEGORY CODE ITEMS

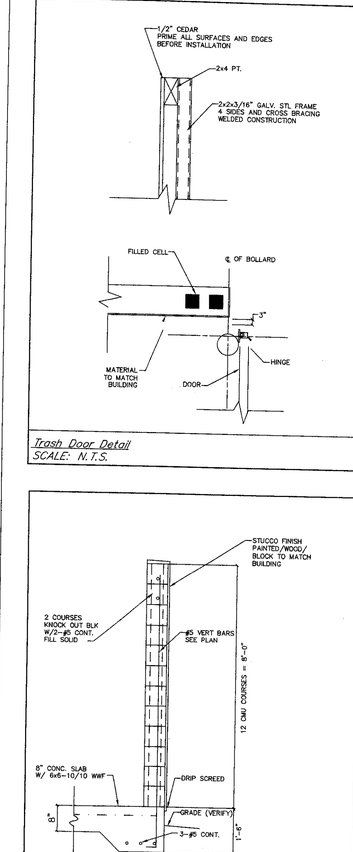
APPROVED
DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-7-72	APPROVAL	8-7-72
REVISED	10-1-01	REVISED	6-23-87
REVISED		REVISED	
REVISED		REVISED	

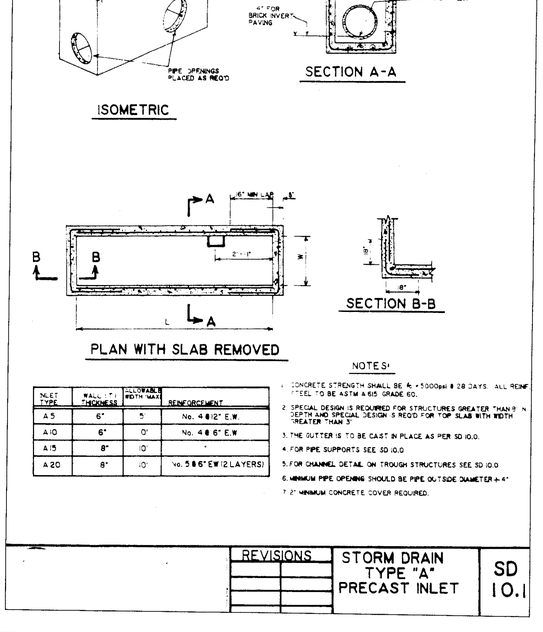
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD YARD INLET

STANDARD NO. MD 381.01



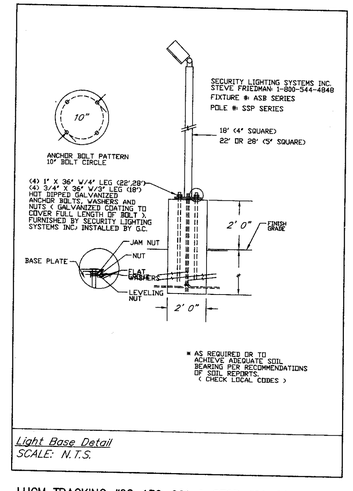
Trash Door Detail
SCALE: N.T.S.



INLET TYPE	WALL "T" THICKNESS	ALLOWABLE WIDTH "MAX"	REINFORCEMENT
A-5	6"	5'	No. 4 @ 12" E.W.
A-10	6"	10'	No. 4 @ 6" E.W.
A-15	8"	10'	
A-20	8"	10'	No. 5 @ 6" E.W. (2 LAYERS)

NOTES:
1. CONCRETE STRENGTH SHALL BE 4,500psi @ 28 DAYS. ALL REINFORCEMENT STEEL TO BE ASTM A 615 GRADE 60.
2. SPECIAL DESIGN IS REQUIRED FOR STRUCTURES GREATER THAN 9' IN DEPTH AND SPECIAL DESIGN IS NEED FOR TOP SLAB WITH WIDTH GREATER THAN 3'
3. THE GUTTER IS TO BE CAST IN PLACE AS PER SD 10.0.
4. FOR PIPE SUPPORTS SEE SD 10.0
5. FOR CHANNEL DETAIL ON TROUGH STRUCTURES SEE SD 10.0
6. MINIMUM PIPE OPENING SHOULD BE PIPE OUTSIDE DIAMETER + 4"
7. 2" MINIMUM CONCRETE COVER REQUIRED.

REVISIONS	STORM DRAIN TYPE "A" PRECAST INLET	SD 10.1



TRASH SECTION
SCALE: N.T.S.

Light Base Detail
SCALE: N.T.S.

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS●PLANNERS●SURVEYORS
GEOTECHNICAL● ENVIRONMENTAL
MATERIALS CONSULTANTS●FACILITIES

1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND
ROBERT S. BROADWAY
No. 21708
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. 21708, EXP. DATE 3-19-2011

DPW&T DETAILS

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	AS SHOWN
SHEET NO.	4 OF 37

LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
- ABUTTER LOT BOUNDARY
- EXISTING TREE LINE
- SILT FENCE
- LIMITS OF DISTURBANCE
- SOILS TYPE DIVISION LINE
- EARTH DIKE
- SEDIMENT TRAP
- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- WP=PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT

NORTH

N 172000
E 928250

N/F
WILDEWOOD RESIDENTIAL, LLC.
L. EWA 2202 f. 538
ZONED: P.D.R. 4.28
USE: VACANT

S 86°12'41" E 624.54'

SUBMERGED GRAVEL WETLAND #3
SEE DETAILS ON SHEET 30

WETLANDS LIMIT

25' BUFFER

TOP OF WEIR ELEV. = 101.50

OBSERVATION WELL

STONE CHECK DAM (TYP) SEE DETAIL ON SHT. 31

10' PVC OUTFALL PIPE AND STANDPIPE

5'x105' PRETREATMENT

10'x12' PRETREATMENT

LOD

WILDEWOOD VILLAGE SUBDIVISION
PLAT E.W.A. 38/120

SUBMERGED GRAVEL WETLAND #2
SEE DETAILS ON SHT. 31

BLANKET EASEMENT
PER LIBER 2201, FOLIO 511

EXISTING COMMUNITY BLDG
FF=119.45

BLANKET EASEMENT
PER LIBER 2201, FOLIO 511

EX. OVERHEAD WALKWAY

EX. EMERGENCY WATER VALVE

EX. 6" WHC

EX. 15" CMP TO BE REMOVED

EXISTING ELEV'S
RIM=107.08
INV OUT= 101.58

SECTION 4-4
SEE DETAIL SHT. 31

BUILDING #1
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=120.80
FF=106.80

BUILDING #2
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=119.60
BF=105.60

BUILDING #3
PROP. 3 STORY BUILDING
ASSISTED LIVING
BUILDING HEIGHT 50'
FF=118.80
BF=104.80

BIORETENTION #6

MILESTONE WAY

WETSTONE LANE

WATER PROFILE #4

EX. 8" WATER

EX. PAVEMENT TO BE REMOVED

EXIST. UTILITY ESMT. TO BE ABANDONED

EX. UTILITY, DRAINAGE, & ACCESS ESMT

RELOCATE EX. FH

EX. PVMT.

SIAMESE CONNECTION

DEPRESSED CURB

RAMP

N 171550
E 928750

WILDEWOOD VILLAGE CONDOS
PHASE ONE
PLAT 40/33

25' PLANTING BUFFER

N82°54'58"W 219.29'

S69°51'11"E 100.84'

S 01°08'50" E 66.01'

S81°00'00"E 47.35'

N 171600
E 927900

EXISTING BLDG (TYP.)

123 122 124 109 108 107 106 105

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

NOTE: SWALE IS TO BE GRADED TO DRAIN EVENLY TO INLETS WITH NO LOW SPOTS

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
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1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MARTENIS — No. 20039 — 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. 20039, EXP. DATE 3-18-2011

PHASE II-SITE AND GRADING PLAN

WILDEWOOD RETIREMENT VILLAGE

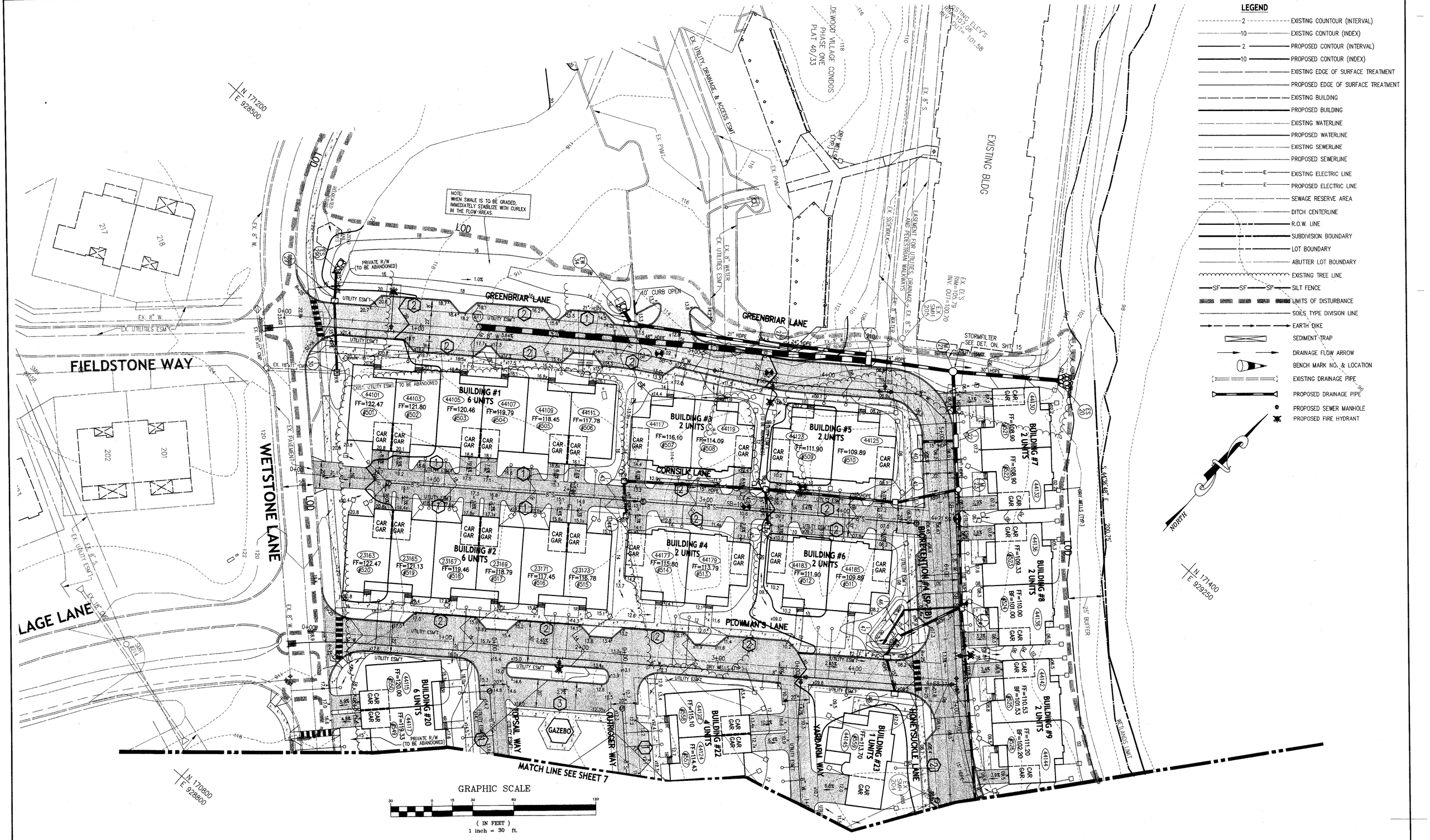
EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	5 OF 37

M:\projects\12DC. @\SHEETS\SITE\Sp-5 Site plan.dwg Tue May 26 14:16:55 2009



LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
- ABUTTER LOT BOUNDARY
- EXISTING TREE LINE
- SILT FENCE
- LIMITS OF DISTURBANCE
- SOILS TYPE DIVISION LINE
- EARTH DIKE
- SEDIMENT TRAP
- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT

*MODIFIED SHARED DRIVEWAY ENTRANCE (R-18 & 19) SEE DETAIL ON SHEET #4

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
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Millersville, MD 21108
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(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTHY

ROBERT T. MCCARTHY, CHIEF, DIVISION OF PLANNING, 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. 20536 3 EXP. DATE 5-19-2011

PHASE I - SITE AND GRADING PLAN

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	6 OF 37

LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
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- SOILS TYPE DIVISION LINE
- EARTH DIKE
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- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT

GRANITE WAY
WESTSTONE LANE
TOPSAIL WAY
OUTRIGGER WAY
SEAFARER WAY
HONEYSUCKLE LANE
HOWDAHM WAY
WILDEWOOD PARKWAY
MATCH LINE SEE SHEET 6
BUILDING #20 6 UNITS
BUILDING #19 1 UNITS
BUILDING #22 4 UNITS
BUILDING #24 2 UNITS
BUILDING #10 2 UNITS
BUILDING #11 2 UNITS
BUILDING #21 4 UNITS
BUILDING #25 2 UNITS
BUILDING #26 2 UNITS
BUILDING #18 1 UNITS
BUILDING #17 2 UNITS
BUILDING #16 2 UNITS
BUILDING #15 2 UNITS
BUILDING #12 2 UNITS
BUILDING #13 2 UNITS
BUILDING #14 2 UNITS
BIORETENTION #1
BIORETENTION #2
BIORETENTION #3
BIORETENTION #5
GAZEBO
SUBMERGED GRAVEL WETLAND #1
SEE DETAIL ON SHT. 30
ORCHID PARK OF WILDEWOOD PUD PLAT EWA 58/64
WETLANDS LIMIT
25' BUFFER
LOD
EX. HSE 304
EX. HSE 302
EX. HSE 303
EX. HSE 301
EX 203
EX 202
EX 203A
N 43°37'07" E 190.64'
N57°23'58"E 53.50'
N57°23'58"E 114.59'
S32°18'21"W 241.33'
S 60°00'00" W 561.95'
S58°36'48"E 224.00'
N 171250 E 929400
N 170900 E 929650
N 170400 E 929100
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.
NORTH

*MODIFIED SHARED DRIVEWAY ENTRANCE (R-18 & 19) SEE DETAIL ON SHEET #4

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
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Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTHY — 21901

ROBERT T. MCCARTHY, CHIEF, PROFESSIONAL CERTIFICATION. 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. 20093 EXP. DATE 5-19-2011

PHASE I - SITE AND GRADING PLAN

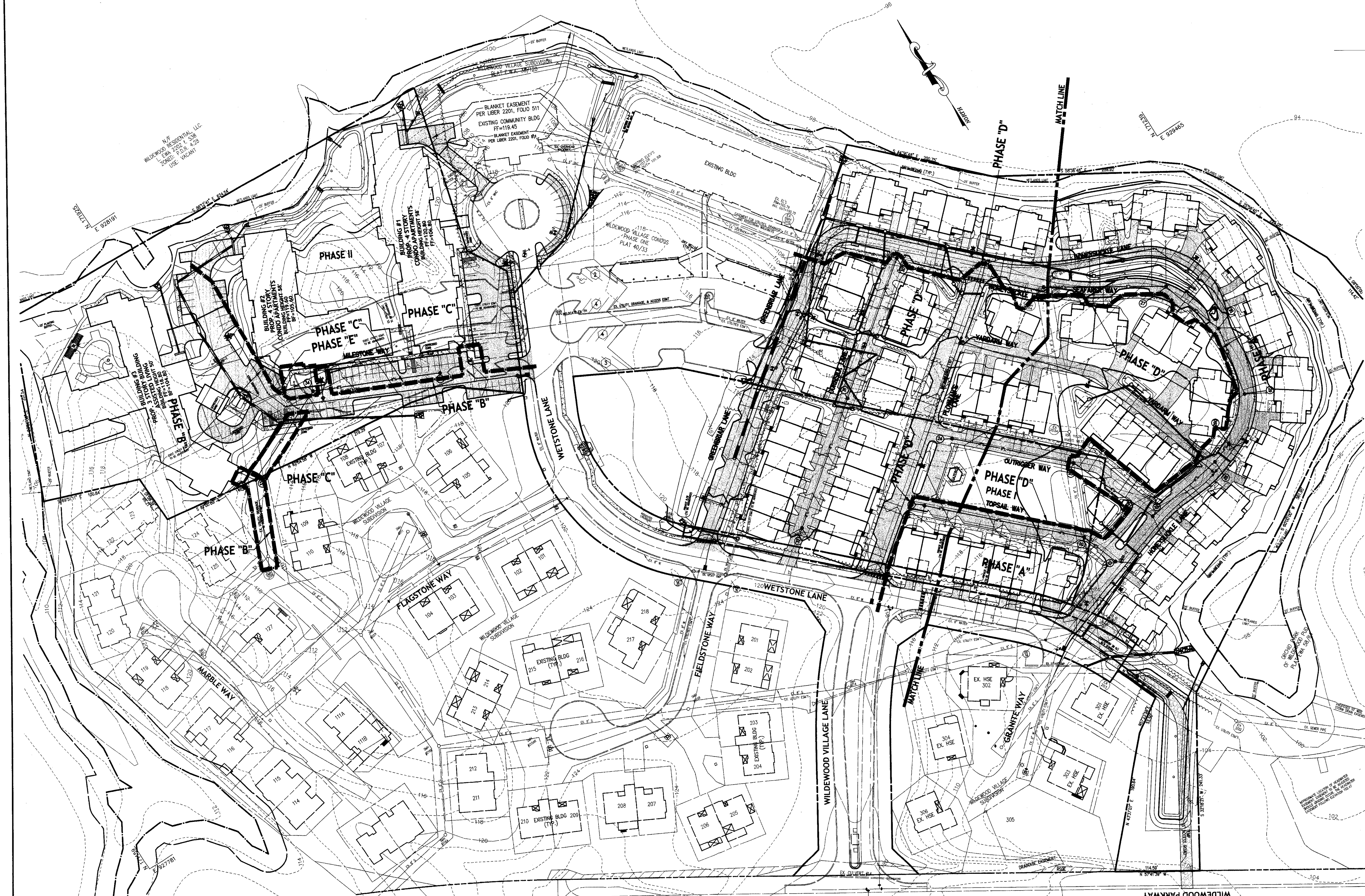
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	7 OF 37



LUGM TRACKING #08-132-001 & STSP #91-0233

———— PHASE LINE

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
GEOTECHNICAL • ENVIRONMENTAL
MATERIALS CONSULTANTS • FACILITIES

1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. McCARTHY

ROBERT T. McCARTHY, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION. 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. 200393 EXP. DATE 3-19-2011

WATER AND SEWER PHASING PLAN

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 60'
SHEET NO.	8A OF 37

M:\projects\2… .dwg\SHEETS\SITE\Sp-8A Utility plan.dwg Tue May 26 14:19:34 2009

LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
- ABUTTER LOT BOUNDARY
- EXISTING TREE LINE
- SILT FENCE
- LIMITS OF DISTURBANCE
- SOILS TYPE DIVISION LINE
- EARTH DIKE
- SEDIMENT TRAP
- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT

N 172000
E 928100

N/F
WILDEWOOD RESIDENTIAL, LLC.
L. EWA 2202 f. 538
ZONED: P.D.R. 4.28
USE: VACANT

NORTH

10' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.00
Q10 = 2.00 CFS
V10 = 1.70 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 100.5
Q-PEAK = 0.46 CFS
V-PEAK = 1.32 FPS

12' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.80
Q10 = 22.68 CFS
V10 = 5.71 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.30
Q-PEAK = 1.69 CFS
V-PEAK = 2.50 FPS
SWW = 0.13%

12' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.50
Q10 = 0.47 CFS
V10 = 0.38 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 102.0
Q-PEAK = 0.46 CFS
V-PEAK = 1.32 FPS

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 100.0
Q-PEAK = 0.39 CFS
V-PEAK = 3.98 FPS

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 100.0

24' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 116.0
Q10 = 4.20 CFS
(PERMANENT STABILIZED OUTFALL CHANNEL)

15' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 114.90
Q10 = 1.90 CFS

5' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 105.80
Q10 = 14.6 CFS

SUBMERGED GRAVEL WETLAND #3
SEE DETAILS ON SHEET 32

SUBMERGED GRAVEL WETLAND #2
SEE DETAILS ON SHT. 31

BLANKET EASEMENT
PER LIBER 2201, FOLIO 511

EXISTING COMMUNITY BLDG
FF=119.45

BLANKET EASEMENT
PER LIBER 2201, FOLIO 511

BUILDING #1
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=120.80
BF=106.80

BUILDING #2
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=119.60
BF=105.60

BUILDING #3
PROP. 3 STORY BUILDING
ASSISTED LIVING
BUILDING HEIGHT 50'
FF=118.80
BF=104.80

BIO-RETENTION #5

MILESTONE WAY

WETSTONE LANE

WILDEWOOD VILLAGE SUBDIVISION
PLAT E.W.A. 38/120

WILDEWOOD VILLAGE CONDOS
PHASE ONE
PLAT 16/73

EXISTING ELEV'S
RIM=107.08
INV. OUT= 101.58

EXISTING BLDG (TYP.)

EX. UTILITY, DRAINAGE, & ACCESS ESMT

EX. PAVEMENT

EX. 8" WATER

EX. 6" WHC

EX. 15" CMP TO BE REMOVED

EX. PAVEMENT TO BE REMOVED

EX. UTILITY ESMT. TO BE ABANDONED

RELOCATE EX. FH

PROP. 8" CAP
PROP. F.H.

SIAMESE CONNECTION

OBSERVATION WELL

TOP OF WEIR ELEV. = 101.50

STONE CHECK DAM (TYP)
SEE DETAIL ON SHT. 31

SECTION 1-1
SEE DETAIL ON SHT. 31

SECTION 2-2
SEE DETAIL ON SHT. 31

WATER PROFILE #4

10YR. HWEL = 115.70

10YR. HWEL = 107.70

25' BUFFER

25' PLANTING BUFFER

WETLANDS LIMIT

LOD

N 171600
E 927900

N 171500
E 928800

NOTE:
PROPOSED BUILDINGS LOCATED IN PHASE I HAS 1 1/2" WHC'S AND PHASE II HAS 6" WHC'S.
PROPOSED BUILDINGS LOCATED IN PHASE I HAS 4" SHC'S AND PHASE II HAS 6" SHC'S.

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
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(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTY — No. 20393 — 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. 20393 EXP. DATE 5-19-2011

UTILITY PLAN

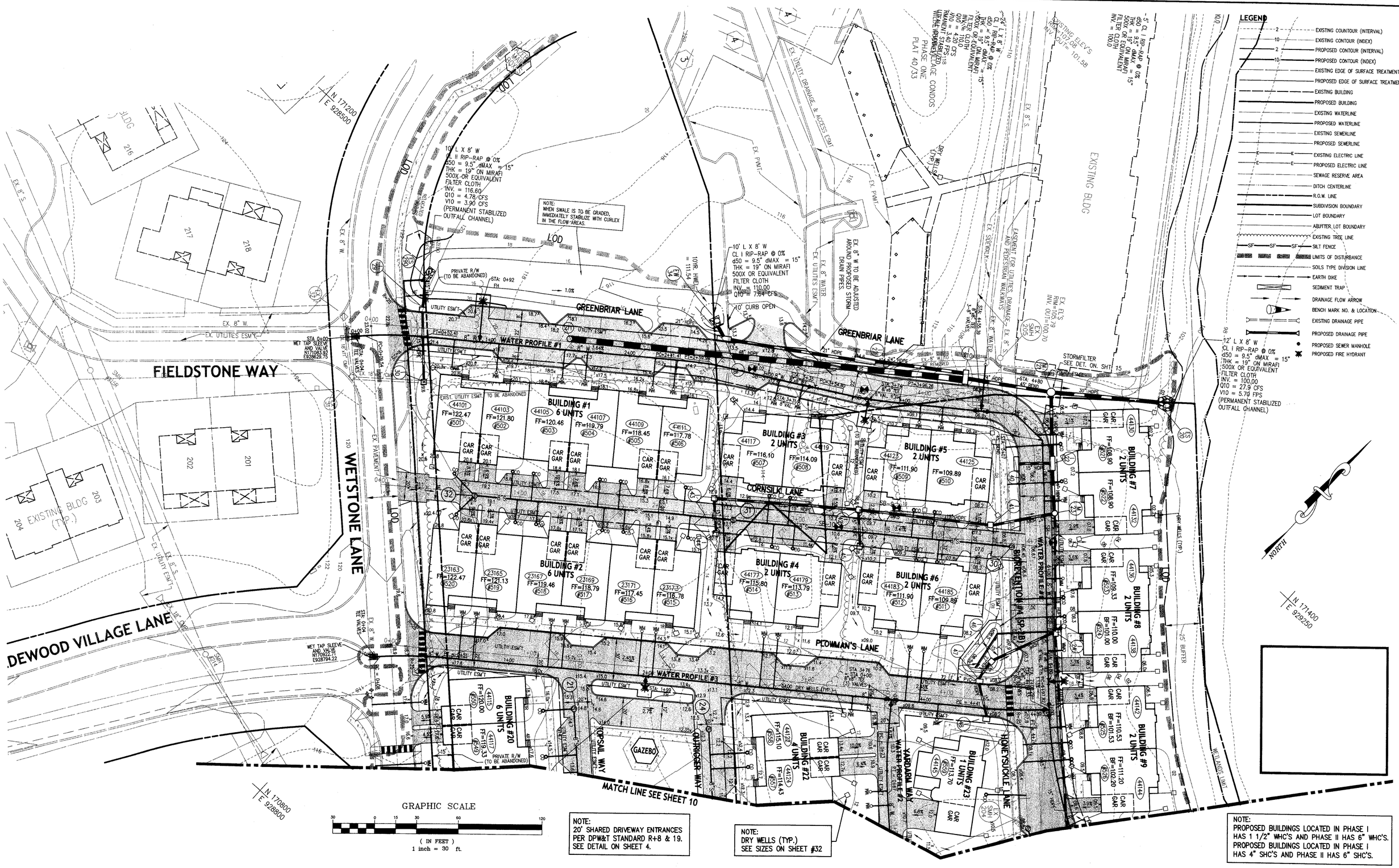
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	8B OF 37



THE TECH GROUP, INC.
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REVISIONS		
MARK	DATE	DESCRIPTION
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TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. GRIFFITH — No. 20039 — REGISTERED PROFESSIONAL ENGINEER — I HEREBY CERTIFY THAT THE ATTACHED PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 20039 EXP. DATE 3-19-2011

LUGM TRACKING #08-132-001 & STSP #91-0233

UTILITY PLAN

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

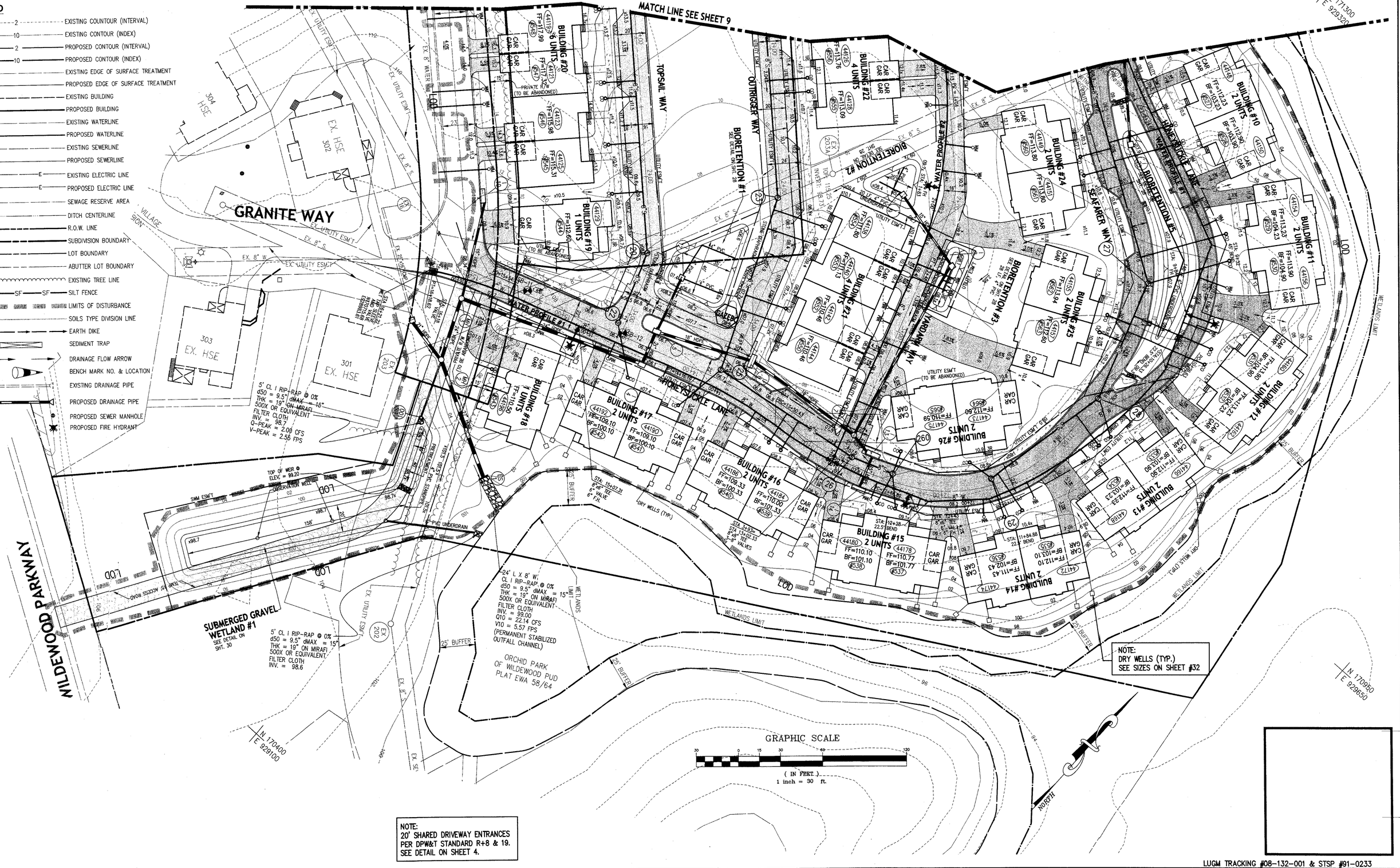
Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	9 OF 37

LEGEND

- EXISTING COUNTOUR (INTERVAL)
- EXISTING CONTOUR (INDEX)
- PROPOSED CONTOUR (INTERVAL)
- PROPOSED CONTOUR (INDEX)
- EXISTING EDGE OF SURFACE TREATMENT
- PROPOSED EDGE OF SURFACE TREATMENT
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING WATERLINE
- PROPOSED WATERLINE
- EXISTING SEWERLINE
- PROPOSED SEWERLINE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- SEWAGE RESERVE AREA
- DITCH CENTERLINE
- R.O.W. LINE
- SUBDIVISION BOUNDARY
- LOT BOUNDARY
- ABUTTER LOT BOUNDARY
- EXISTING TREE LINE
- SILT FENCE
- LIMITS OF DISTURBANCE
- SOILS TYPE DIVISION LINE
- EARTH DIKE
- SEDIMENT TRAP
- DRAINAGE FLOW ARROW
- BENCH MARK NO. & LOCATION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED FIRE HYDRANT



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

NOTE:
20' SHARED DRIVEWAY ENTRANCES PER DPW&T STANDARD R+8 & 19. SEE DETAIL ON SHEET 4.

NOTE:
PROPOSED BUILDING LOCATED IN PHASE I HAS 1 1/2" WHC'S AND PHASE II HAS 6" WHC'S.
PROPOSED BUILDING LOCATED IN PHASE I HAS 4" SHC'S AND PHASE II HAS 6" SHC'S.

LUGM TRACKING #08-132-001 & STSP #91-0233

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(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MARTIN — No. 21393 — 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. 200393 EXP. DATE 3-19-2011

UTILITY PLAN

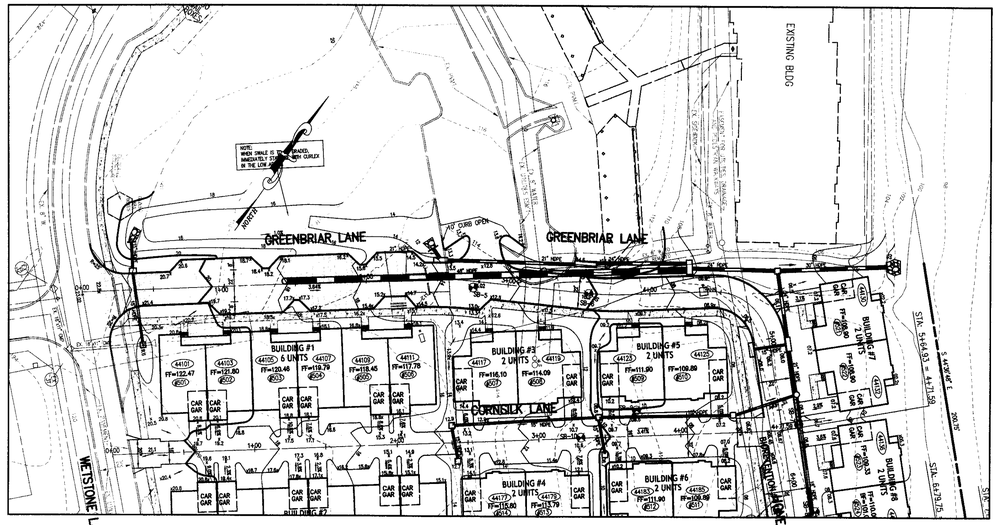
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

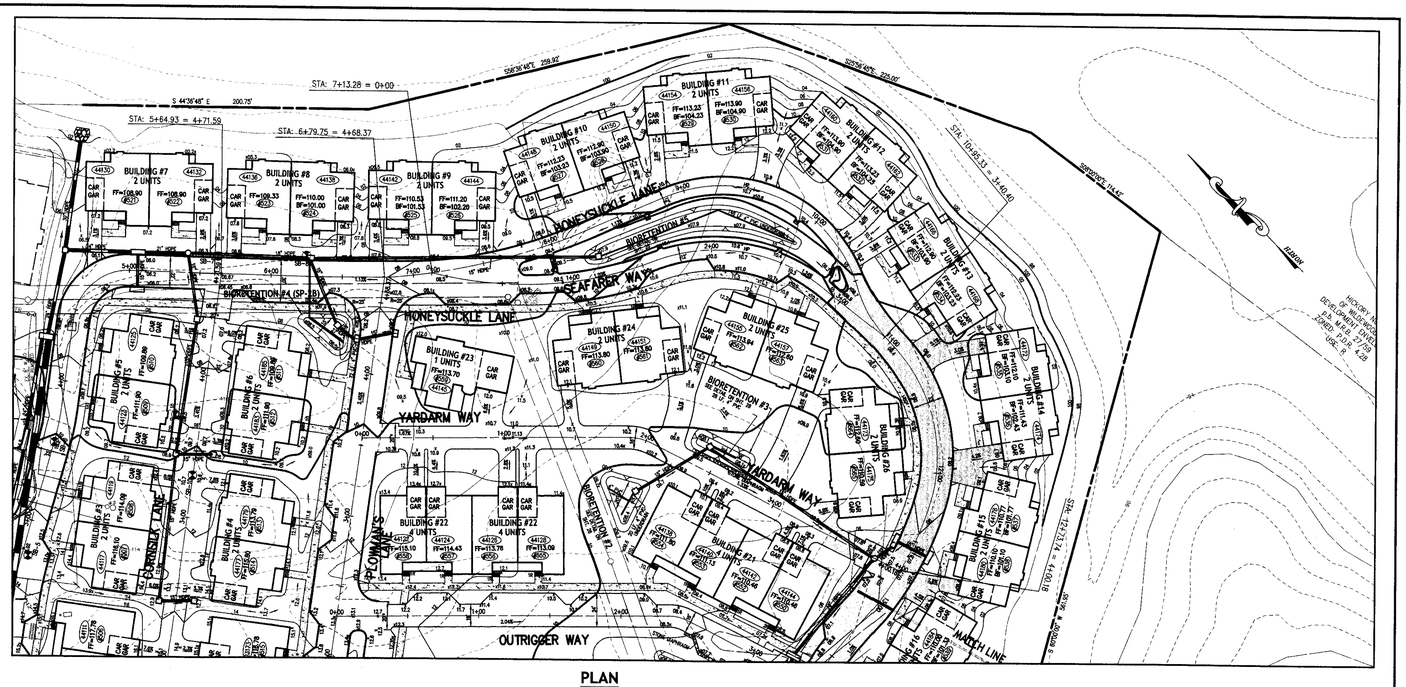
Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

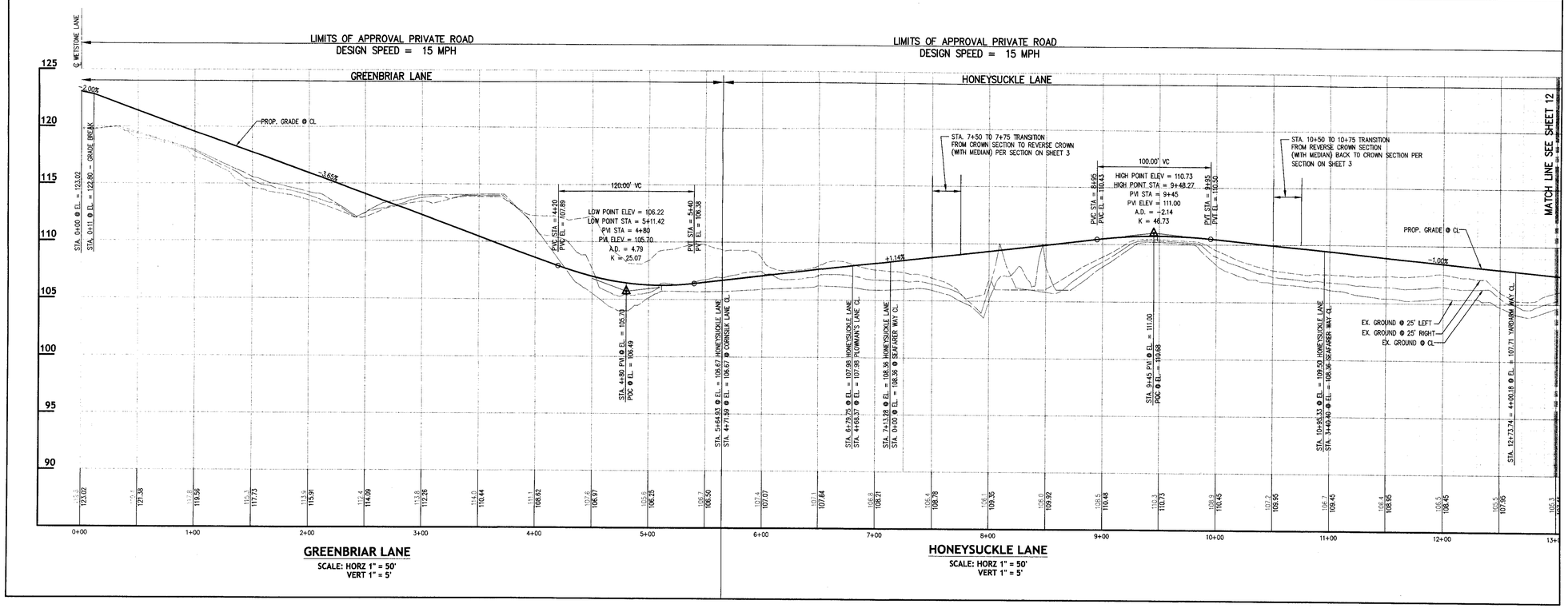
DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 30'
SHEET NO.	10 OF 37



PLAN
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'



GREENBRIAR LANE
SCALE: HORZ 1" = 50'
VERT 1" = 5'

HONEYSUCKLE LANE
SCALE: HORZ 1" = 50'
VERT 1" = 5'

LUGM TRACKING #08-132-001 & STSP #91-0233

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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. 20593, EXP. DATE 5-19-2011
5/1/09

GREENBRIAR LA. & HONEYSUCKLE LA. PLAN & PROFILE
WILDEWOOD RETIREMENT VILLAGE

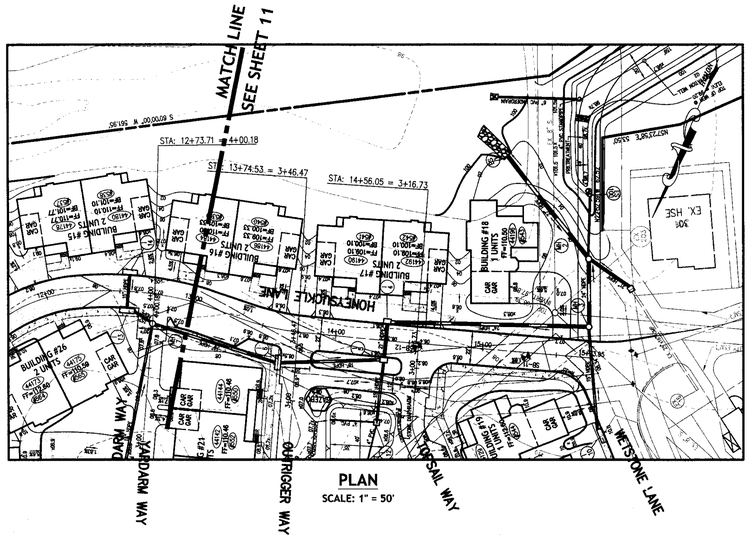
EIGHTH ELECTION DISTRICT
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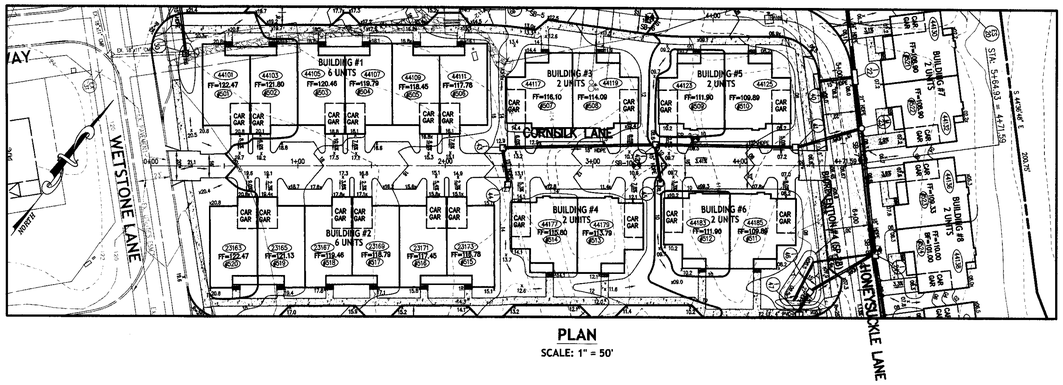
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	11 OF 37

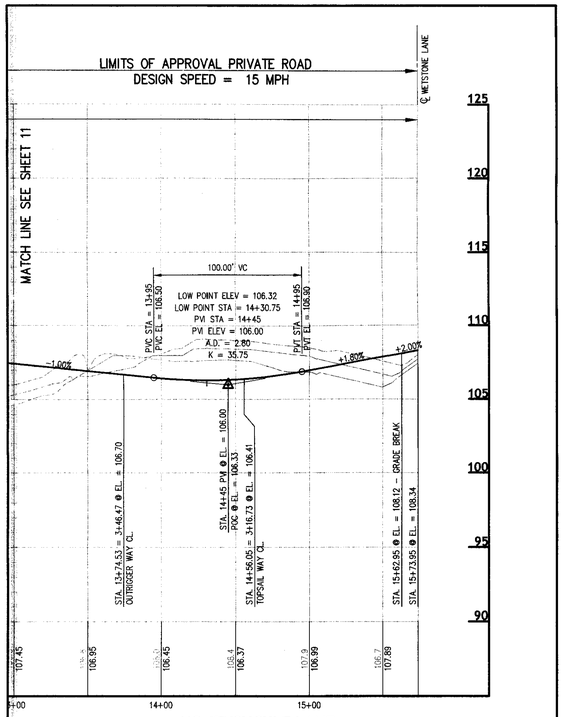
M:\projects\2060421\dwg\SHEETS\STETS\p-11 Road profile.dwg Thu May 07 14:38:38 2009 FAMOS



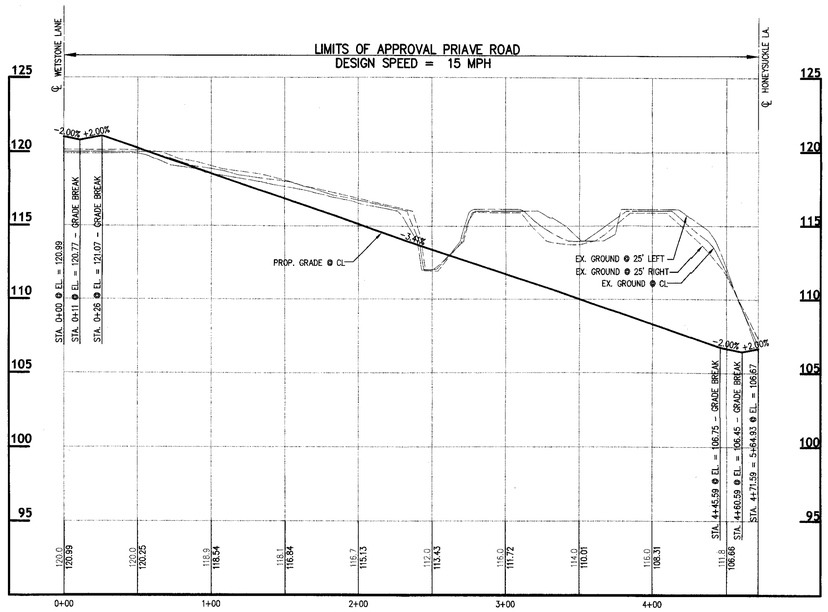
PLAN
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'



HONEYSUCKLE LANE
SCALE: HORZ 1" = 50'
VERT 1" = 5'



CORNSILK LANE
SCALE: HORZ 1" = 50'
VERT 1" = 5'

LUGM TRACKING #08-132-001 & STSP #91-0233

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STATE OF MARYLAND
ROBERT L. LICHTER, JR. #21406
5/11/09
ROBERT L. LICHTER, JR. CERTIFIES 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. 20593 EXP. DATE 3-19-2011

CORNSILK LA. & HONEYSUCKLE LA. PLAN & PROFILE

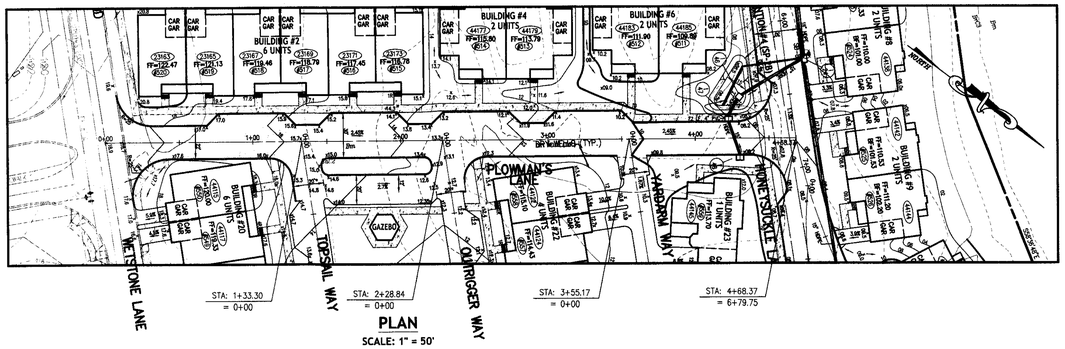
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

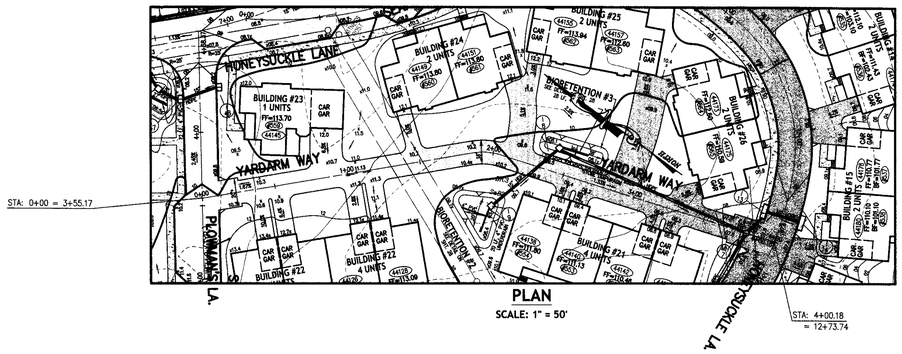
Compass Pointe, LLC
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TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
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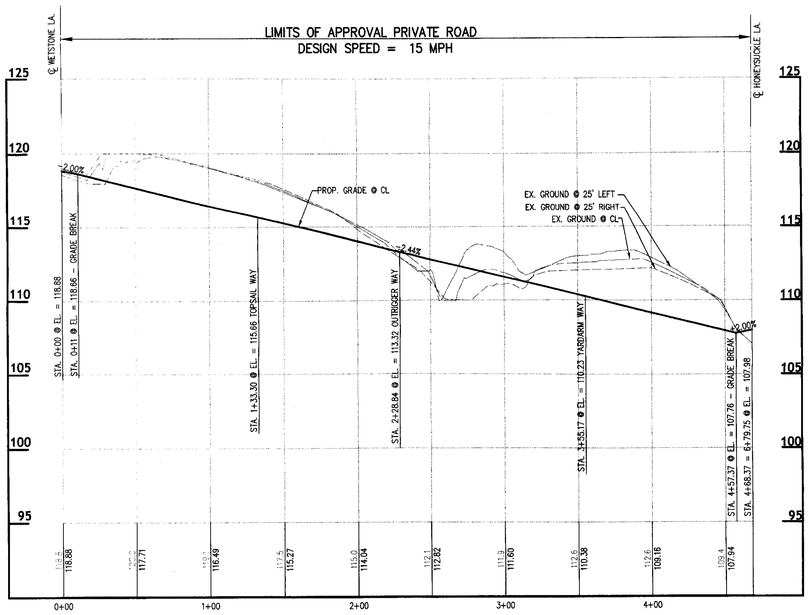
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DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	12 OF 37



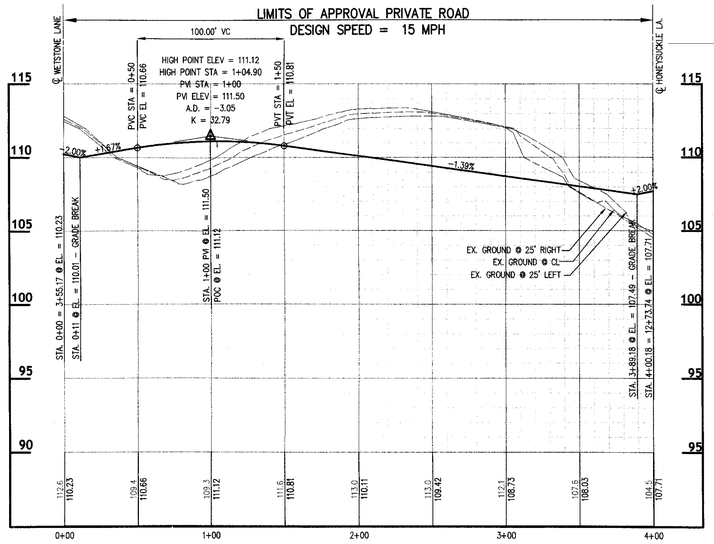
PLAN
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'



PLOWMAN'S LANE
SCALE: HORZ 1" = 50'
VERT 1" = 5'



YARDARM WAY
SCALE: HORZ 1" = 50'
VERT 1" = 5'

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STATE OF MARYLAND — ROBERT T. MADDOX — 21708 — 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. 20038 EXP. DATE 3-19-2011
5/19/09

PLOWMAN'S LA. & YARDARM WAY. PLAN & PROFILE

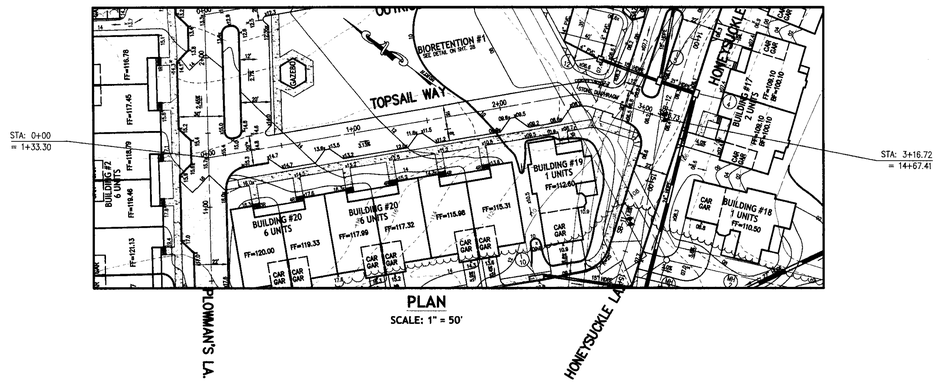
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

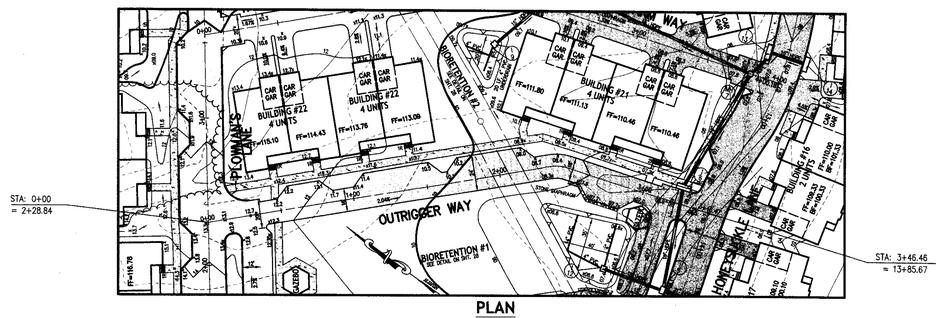
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TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
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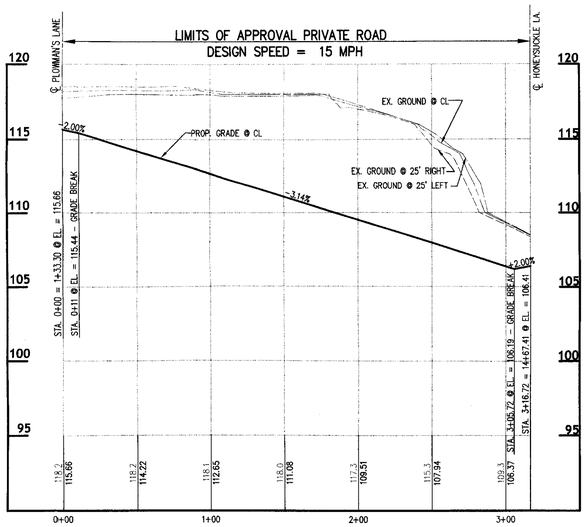
DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	13 OF 37



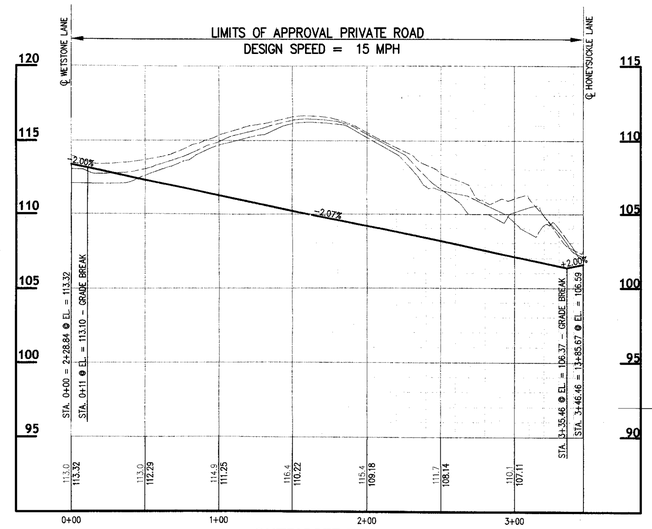
PLAN
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'



TOPSAIL WAY
SCALE: HORZ 1" = 50'
VERT 1" = 5'



OUTRIGGER WAY
SCALE: HORZ 1" = 50'
VERT 1" = 5'

LUGM TRACKING #08-132-001 & STSP #91-0233

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STATE OF MARYLAND
ROBERT T. MORONEY
5/11/09

ROBERT T. MORONEY, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION. 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. 20033 EXP. DATE: 3-19-2011

TOPSAIL WAY & OUTRIGGER WAY PLAN & PROFILE
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	14 OF 37

StormFilter Sizing Based on the MDE Design Methodology

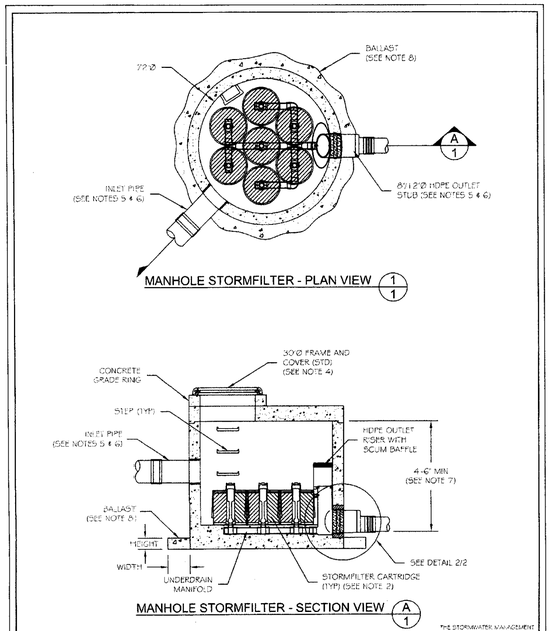
VOLUME BASED SIZING

Project Name:	Wildewood	State:	MD
County:	Anne Arundel	Date:	4/21/2009

SITE CHARACTERISTIC INPUT		SYSTEM DESIGN	
Design Storm, P (inches)	1.0		
Total Area, A_T (acres)	2.24	Water Surface Elevation (ft.)	5.00
Impervious Area, A_I (acres)	1.26		
Percent of WQv to be temporarily stored in system	75%	VOLUME STORMFILTER	
		Vault Size	MH-2
WQv CALCULATIONS		Live Storage Volume Provided (cu ft)	726
Percent Impervious Cover, I	56%		
Volumetric Runoff Coefficient, Rv	0.56	STORAGE SUMMARY	
Water Quality Volume, WQv (ac-ft)	0.104	Total Live Storage Provided in System (cu ft)	1,452
Water Quality Volume, WQv (cu ft)	4,523	Additional Live Storage Required (cu ft)	3,797
Required Live Storage Volume (75% of WQv) (cu ft)	3,392	Diameter of Storage Pipe (in)	72
		Length of Storage Pipe Required (ft)	179
STORMFILTER DESIGN CONSTANTS (PER MDE MANUAL)		PRETREATMENT UNIT	HDS
Cartridge Height	27		
Filter Bed Depth, D_f (ft)	0.58	HDS PRETREATMENT UNIT	
Coeff. of Perm. of Filter Media, k (ft/day)	8.7	Maximum Pretreatment Rate for 1" Storm (cfs)	4.45
Avg. Height of Water above Filter Bed, H_f (ft)	2.250	Recommended Pretreatment Product	CDS2044
Design Filter Bed Drain Time, T_f (days)	1.67		
Surface Area of StormFilter Cartridge (sq ft)	11.25		
Surface Area of Equivalent Filter Bed (sq ft)	63.8	**All volumes are based upon 5' water surface elevation	
STORMFILTER MASS LOAD DESIGN INPUTS		STORMFILTER MASS LOAD DESIGN	
Pre-treatment Efficiency	50%	VOLUME STORMFILTER	
EMC of TSS (mg/L)	80	Vault Size	MH-2
SIZING CALCULATIONS			
Number of Filter Cartridges Required	63		
Maximum Filtration Rate (cfs)	4.45	Governing Design Method	
1-yr POLLUTANT ANALYSIS CHECK (Mass Load)		Darcy's Law	
Min Number of Cartridges to meet 1yr Est. Pollutant load		6	

CONTECH STORMWATER SOLUTIONS

TI: 8047



THE STORMWATER MANAGEMENT StormFilter® U.S. PATENT No. 5,322,629, No. 5,707,527, No. 6,027,639 No. 6,649,048, No. 6,824,676, AND OTHER U.S. AND FOREIGN PATENTS PENDING

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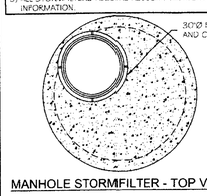
PRECAST 72" MANHOLE STORMFILTER
PLAN AND SECTION VIEWS
STANDARD DETAIL

DRAWING 1 1/2

DATE: 09/26/05 | SCALE: NONE | FILE NAME: MHSF7-72PD-DTL | DRAWN: MJW | CHECKED: ARG

GENERAL NOTES

1) STORMFILTER BY CONTECH STORMWATER SOLUTIONS: PORTLAND, OR (800) 548 4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3316.
2) FILTER CARTRIDGE(S) TO BE SIPHON ACTUATED AND SELF-CLEANING. STANDARD DETAIL SHOWS MAXIMUM NUMBER OF CARTRIDGES. ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
3) PRECAST MANHOLE STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT CONTECH STORMWATER SOLUTIONS. MINIMUM ANGLE BETWEEN INLET AND OUTLET IS 45°.
6) INLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST MANHOLE STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. EIGHT INCH DIAMETER OUTLET SECTION MAY BE SEPARATED FROM OUTLET STUB AT MOLDED-IN CUT LINE TO ACCOMMODATE A 12 INCH OUTLET PIPE. CONNECTION TO DOWNSTREAM PIPING TO BE MADE USING A FLEXIBLE COUPLING OR ECCENTRIC REDUCER, AS REQUIRED. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT CONTECH STORMWATER SOLUTIONS FOR OTHER OPTIONS.
8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET AROUND THE PERIMETER OF THE STRUCTURE.
9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



MANHOLE STORMFILTER - TOP VIEW 1 2

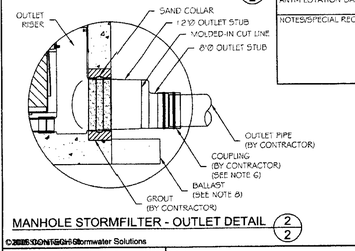
PRECAST MANHOLE STORMFILTER DATA	
STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (cfs)	X.XX
PEAK FLOW RATE (< 1.8 cfs)	X.XX
RETURN PERIOD OF PEAK FLOW (yrs)	XXX
# OF CARTRIDGES REQUIRED	XX
CARTRIDGE FLOW RATE (4.5 or 7.5 gpm)	XX
MEDIA TYPE (CSF, PERLITE, ZPG)	XXXXX
RIM ELEVATION	XXX.XX

PIPE DATA:	I.E.	ORIENTATION	MATERIAL	DIAMETER
INLET PIPE #1	XXX.XX'	XX°	XXX	XX"
INLET PIPE #2	XXX.XX'	XX°	XXX	XX"
OUTLET STUB	XXX.XX'	0°	XXX	6"/12"

	VERTNO	SIZE
ECCENTRIC REDUCER (BY CONTRACTOR)	XXX	XX" x XX"
	WIDTH	HEIGHT
ANTI-FLOTATION BALLAST	XX"	XX"

NOTES/SPECIAL REQUIREMENTS:

PIPE ORIENTATION KEY: 90° / 180° / 0° / 270°



MANHOLE STORMFILTER - OUTLET DETAIL 2 2

THE STORMWATER MANAGEMENT StormFilter® U.S. PATENT No. 5,322,629, No. 5,707,527, No. 6,027,639 No. 6,649,048, No. 6,824,676, AND OTHER U.S. AND FOREIGN PATENTS PENDING

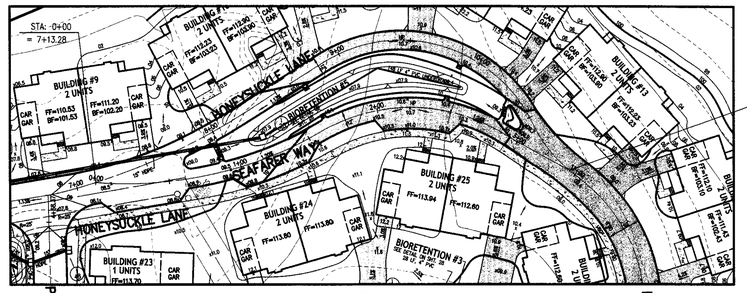
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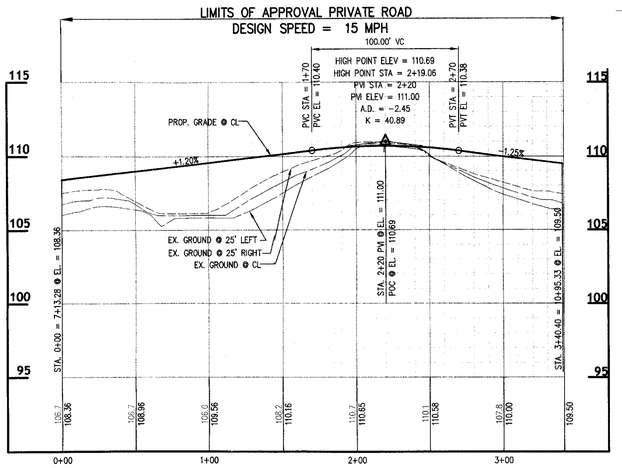
PRECAST 72" MANHOLE STORMFILTER
TOP AND SECTION VIEWS, NOTES AND DATA
STANDARD DETAIL

DRAWING 2 2/2

DATE: 09/26/05 | SCALE: NONE | FILE NAME: MHSF7-72PD-DTL | DRAWN: MJW | CHECKED: ARG



PLAN
SCALE: 1" = 50'



SEAFARER WAY
SCALE: HORZ 1" = 50'
VERT 1" = 5'

LUGM TRACKING #08-132-001 & STSP #91-0233

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STATE OF MARYLAND — ROBERT T. McCARTHY

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. 20003 EXP. DATE 3-19-2011

ROBERT T. McCARTHY, THREE ENGINEER
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT

SEAFARER WAY PLAN & PROFILE

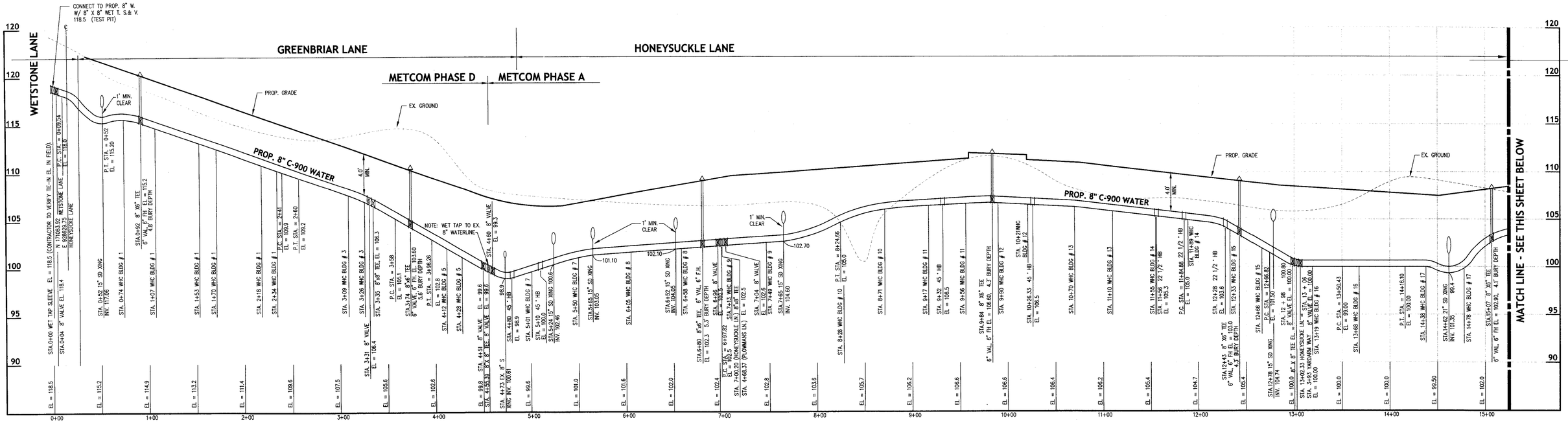
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

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Leonardtown, Maryland 20650
(301) 475-0310

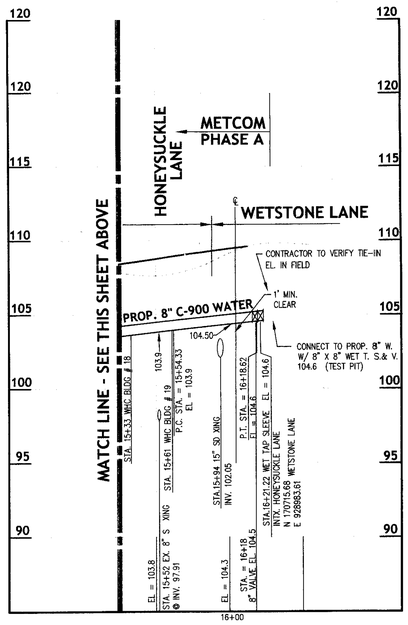
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	15 OF 37



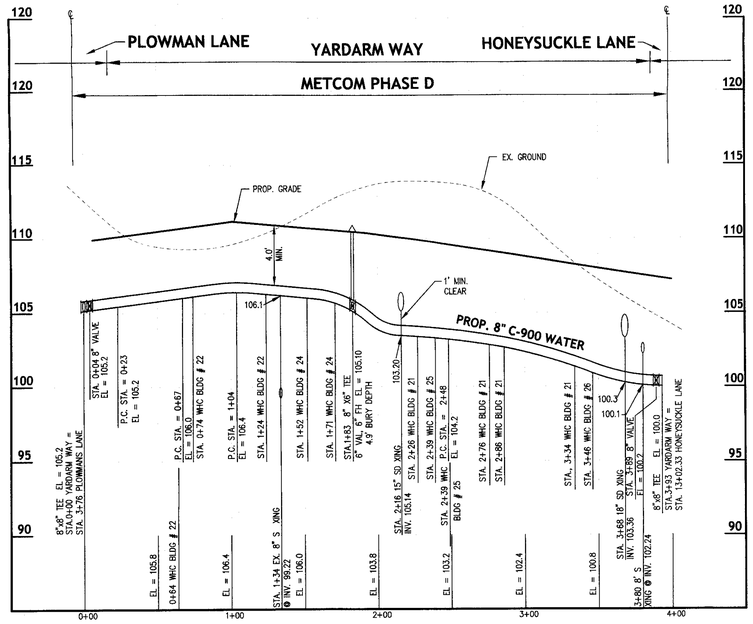
PHASE I, WATER PROFILE #1

SCALE: HORZ. 1"=50'
VERT. 1"=5'



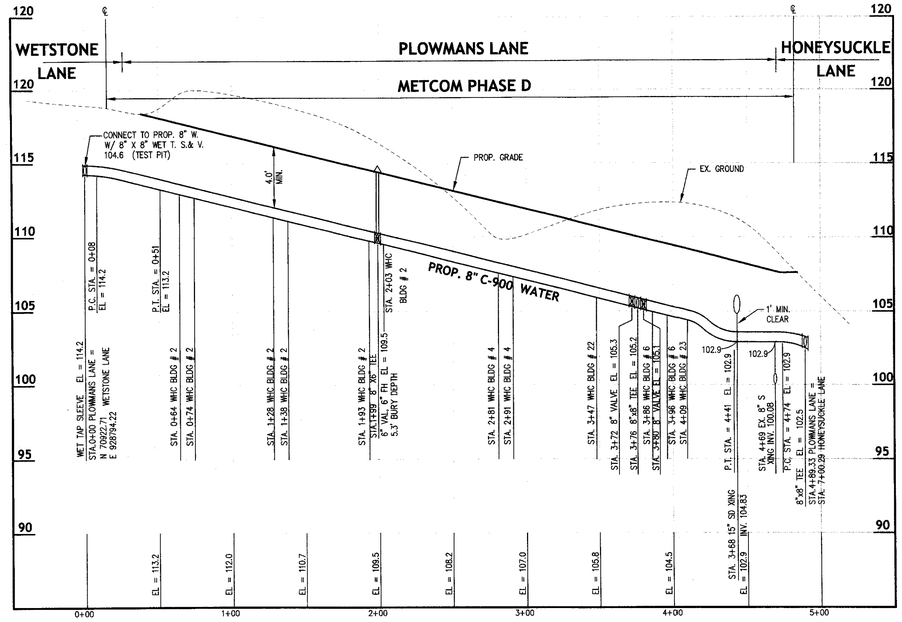
PHASE I, WATER PROFILE #1

SCALE: HORZ. 1"=50'
VERT. 1"=5'



PHASE I, WATER PROFILE #2

SCALE: HORZ. 1"=50'
VERT. 1"=5'



PHASE I, WATER PROFILE #3

SCALE: HORZ. 1"=50'
VERT. 1"=5'

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
GEOTECHNICAL • ENVIRONMENTAL
MATERIALS CONSULTANTS • FACILITIES

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Fax (410) 987-3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. KNOTTS, JR. — 18769

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. 200393 EXP. DATE 3-19-2011

WATER PROFILES

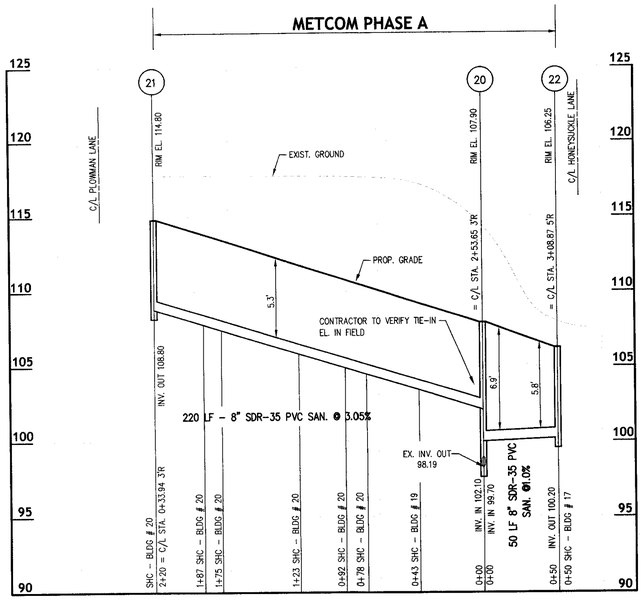
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

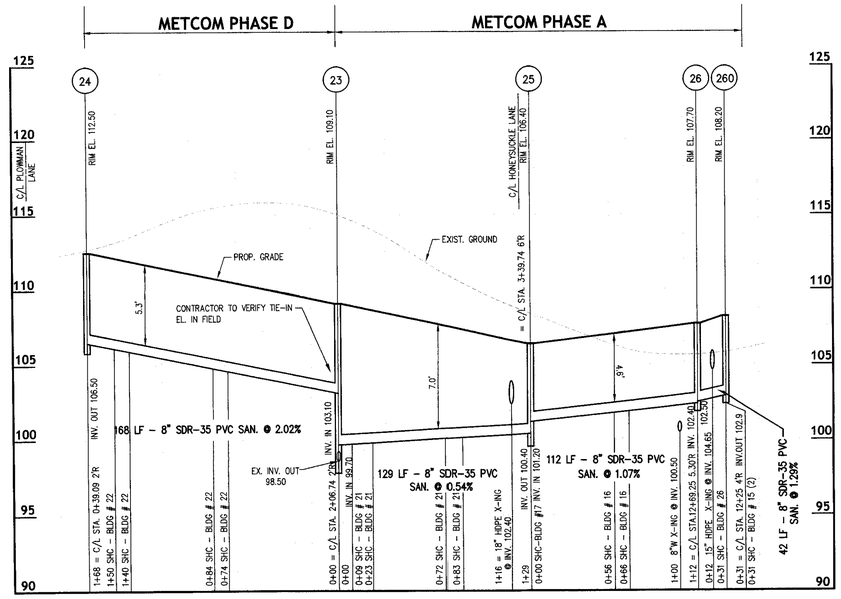
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
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CHECKED	RTM
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SCALE	1"= 50'
SHEET NO.	16 OF 37



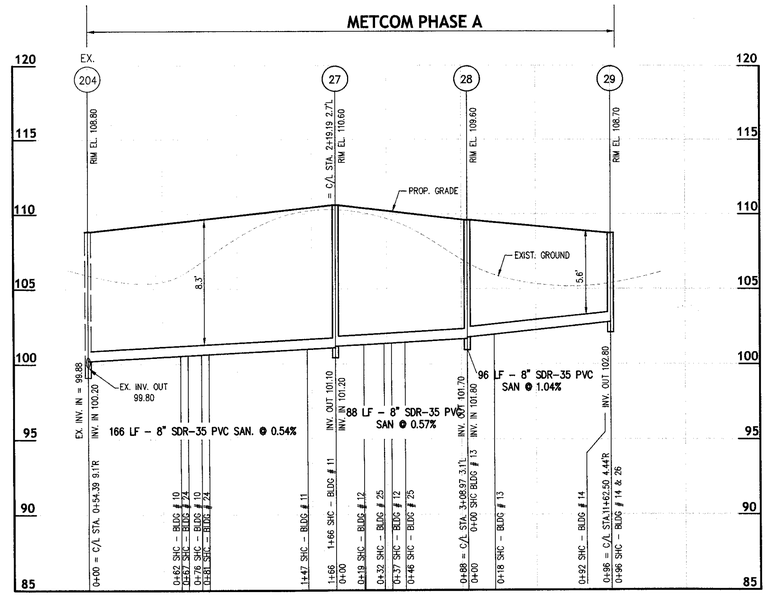
PHASE I TOPSAIL WAY SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT



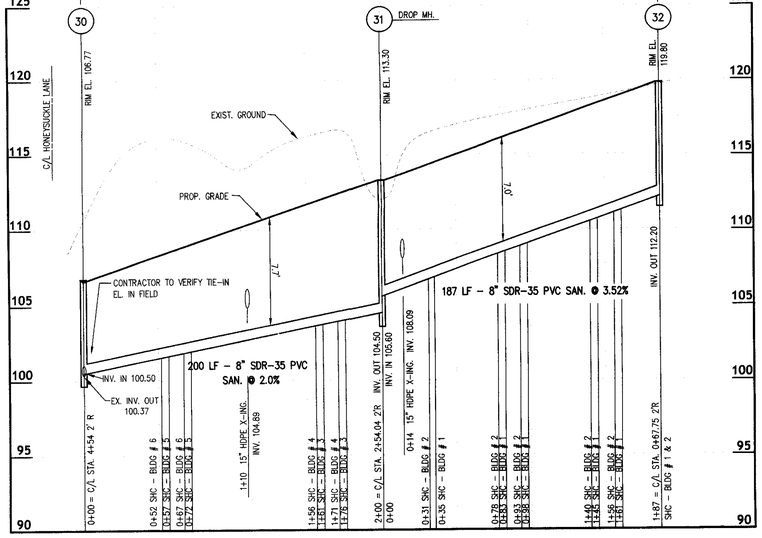
PHASE I OUTRIGGER WAY SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT



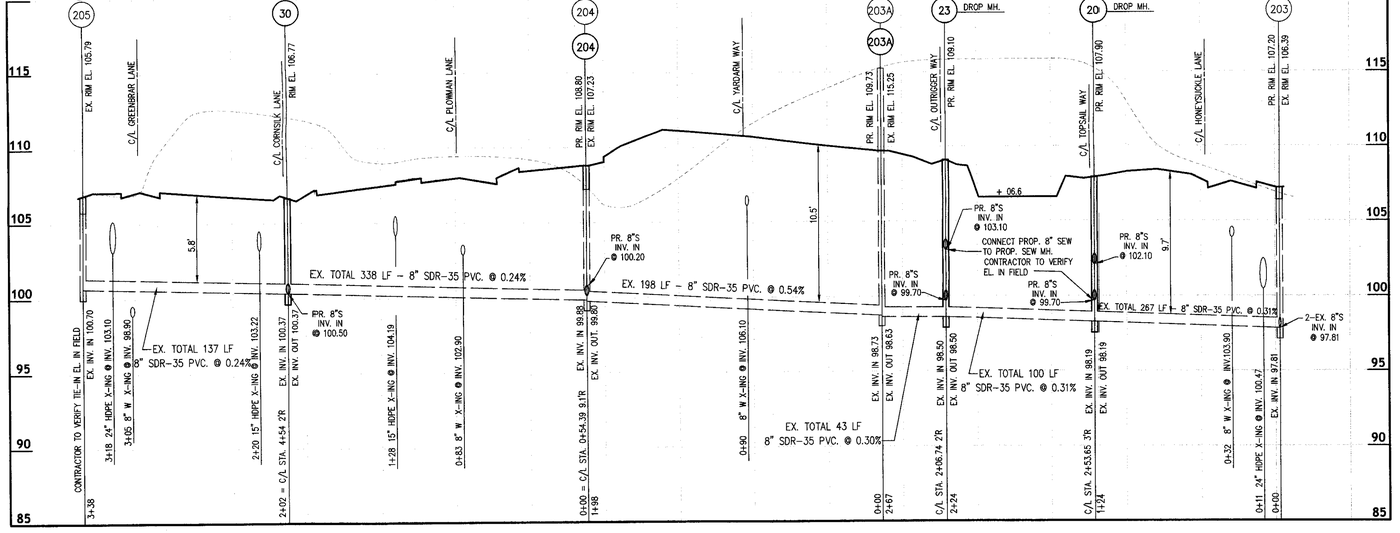
PHASE I SEAFARER WAY SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT



PHASE I CORNSILK LANE SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT



EXISTING SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT

LUGM TRACKING #08-132-001 & STSP #91-0233

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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. McCARTHY

ROBERT T. McCARTHY, CHIEF ENGINEER OF THE TECH GROUP, INC. A PROFESSIONAL ENGINEER DULY LICENSED IN MARYLAND, 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. 20030 EXP. DATE 3-19-2011

SEWER PROFILES

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
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TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
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DATE	FEB, 2009
SCALE	1"= 50'
SHEET NO.	17 OF 37

SANITARY LATERAL SCHEDULE

LOT NO.	LENGTH, TYPE & SLOPE OF PIPE	INVERT @ MAIN	LATERAL INVERT @ MAIN	LATERAL LENGTH	LATERAL INVERT @ C/O	LENGTH OF SHC TO BLDG	MIN. CELLAR ELEV. (2% + 2')	FIRST FLOOR ELEV.
EX MH 202 - EX MH 202	225' - 8" SAN. @ 0.25%	97.24						INV. OUT= 97.81
BULDING 18	01+94	97.73	98.07	13	98.33	65	101.63	110.50
EX MH 203 - MH 20	124' - 8" SAN. @ 0.31%	97.81						INV. OUT= 98.19
MH 20 TO MH 21	220' - 8" SAN. @ 3.05%	102.10						INV. OUT= 108.80
BULDING 20	0+43	103.41	103.75	22	104.19	60	107.39	112.60
	0+78	104.48	104.82	22	105.26	70	108.66	115.31
	0+92	104.90	105.24	22	105.68	70	109.08	115.98
	01+23	105.85	106.19	22	106.63	70	110.03	117.32
	01+75	107.43	107.77	22	108.21	70	111.61	117.99
	01+87	107.79	108.13	22	108.57	70	111.97	119.33
	02+20	108.80	109.14	22	109.58	70	112.98	120.00
MH 20 TO MH 22	50' - 8" SAN. @ 1.00%	99.70						INV. OUT= 100.20
BULDING 17	0+50	100.20	100.54	40	101.34	58	104.50	109.10
MH 23 TO MH 24	168' - 8" SAN. @ 2.02%	103.10						INV. OUT= 106.50
BULDING 22	0+74	104.60	104.94	26	105.46	65	108.76	113.09
	0+84	104.80	105.14	26	105.66	65	108.96	113.76
	01+40	105.93	106.27	26	106.79	65	110.09	114.43
	01+50	106.14	106.48	26	107.00	65	110.30	115.10
MH 23 TO MH 25	129' - 8" SAN. @ 0.54%	99.70						INV. OUT= 100.40
BULDING 21	0+09	99.75	100.09	36	100.81	65	104.11	111.80
	0+23	99.82	100.16	35	100.86	65	104.16	111.13
	0+72	100.09	100.43	30	101.03	65	104.33	110.46
	0+83	100.15	100.49	30	101.09	65	104.39	110.46
MH 25 TO MH 26	112' - 8" SAN. @ 1.07%	101.20						INV. OUT= 102.40
BULDING 17	0+00	101.20	101.54	40	102.34	60	105.54	109.10
BULDING 16	0+56	101.80	102.14	25	102.64	65	105.94	109.33
BULDING 16	0+66	101.91	102.25	25	102.75	65	106.05	110.00
MH 26 TO MH 260	31' - 8" SAN. @ 1.29%	102.50						INV. OUT= 102.90
BULDING 26	0+31	102.90	103.24	16	103.56	60	106.76	110.59
BULDING 15	0+31	102.90	103.24	25	103.74	60	106.94	110.10
BULDING 26	0+31	102.90	103.24	25	103.74	60	106.94	110.77
MH 23 - EX MH 203A	43' - 8" SAN. @ 0.31%	98.50						INV. OUT= 98.63
EX MH 203A - EX MH 204	198' - 8" SAN. @ 0.54%	98.73						INV. OUT= 99.80
EX MH 204 TO MH 27	166' - 8" SAN. @ 0.54%	100.20						INV. OUT= 101.10
BULDING 10	0+62	100.53	100.87	46	101.79	68	105.15	112.23
BULDING 24	0+67	100.56	100.90	22	101.34	58	104.50	113.80
BULDING 10	0+76	100.61	100.95	48	101.91	70	105.31	112.90
BULDING 24	0+81	100.64	100.98	22	101.42	60	104.62	113.80
BULDING 11	01+47	100.99	101.33	63	102.59	67	105.93	113.23
BULDING 11	01+66	101.10	101.44	60	102.64	70	106.04	113.90
MH 27 TO MH 28	88' - 8" SAN. @ 0.57%	101.20						INV. OUT= 101.70
BULDING 12	0+19	101.30	101.64	60	102.84	65	106.14	113.90
BULDING 25	0+32	101.38	101.72	18	102.08	65	105.38	113.94
BULDING 12	0+37	101.41	101.75	60	102.95	65	106.25	113.23
BULDING 25	0+46	101.46	101.80	18	102.16	65	105.46	112.60
MH 28 TO MH 29	96' - 8" SAN. @ 1.04%	101.80						INV. OUT= 102.80
BULDING 13	0+00	101.80	102.14	30	102.74	65	106.04	112.90
BULDING 13	0+22	102.03	102.37	27	102.91	65	106.21	112.23
BULDING 14	0+92	102.75	103.09	30	103.69	68	107.05	112.10
BULDING 24	0+98	102.80	103.14	28	103.70	65	107.00	111.43
BULDING 26	0+96	102.42	102.76	17	103.10	53	106.16	112.60
EX MH 204 TO MH 30	202' - 8" SAN. @ 0.25%	99.88						INV. OUT= 100.37
MH 30 TO MH 31	200' - 8" SAN. @ 2.00%	100.50						INV. OUT= 104.50
BULDING 6	0+52	101.54	101.88	17	102.22	53	105.28	109.89
BULDING 5	0+57	101.64	101.98	20	102.38	63	105.64	111.90
BULDING 6	0+67	101.84	102.18	17	102.52	63	105.78	111.90
BULDING 5	0+72	101.94	102.28	20	102.68	63	105.94	111.90
BULDING 4	01+56	103.62	103.96	17	104.30	57	107.44	113.79
BULDING 3	01+61	103.72	104.06	20	104.46	60	107.66	114.09
BULDING 4	01+71	103.92	104.26	17	104.60	55	107.70	115.80
BULDING 3	01+76	104.02	104.36	20	104.76	60	107.96	116.10
MH 31 TO MH 32	187' - 8" SAN. @ 3.53%	105.60						INV. OUT= 112.20
BULDING 2	0+31	106.69	107.03	16	107.35	65	110.65	116.78
BULDING 1	0+35	106.84	107.18	20	107.58	65	110.88	117.78
BULDING 2	0+78	108.35	108.69	16	109.01	65	112.31	117.45
BULDING 1	0+83	108.53	108.87	20	109.27	65	112.57	118.45
BULDING 4	0+93	108.88	109.22	16	109.54	65	112.84	118.79
BULDING 1	0+98	109.06	109.40	20	109.80	65	113.10	119.79
BULDING 2	01+40	110.54	110.88	16	111.20	65	114.50	119.46
BULDING 1	01+45	110.72	111.06	20	111.46	65	114.76	120.46
BULDING 2	01+56	111.11	111.45	16	111.77	65	115.07	121.13
BULDING 1	01+61	111.28	111.62	20	112.02	65	115.32	121.80
BULDING 2	02+00	112.66	113.00	20	113.40	65	116.70	122.47
BULDING 1	02+00	112.66	113.00	20	113.40	65	116.70	122.47
EX MH 208 - MH 33	104' - 8" SAN. @ 0.56%	102.62						INV. OUT= 103.20
MH 33 - MH 34	143' 8" SAN. @ 0.55%	103.30						INV. OUT= 104.10
BULDING 3	0+00	103.30	103.54	20	103.94			104.80
MH 34 - MH 35	174' 8" SAN. @ 1.04%	104.20						INV. OUT= 106.00
BULDING 2	0+00	104.20	104.54	30	105.14			105.60
BULDING 3	01+74	106.00	106.34	28	106.90			106.80

* FIRST FLOOR SERVICE ONLY, BASEMENTS NEED EJECTOR PUMPS.

NOTE: ALL LATERALS TO BE 4" PVC AT 1/4" : 1' SLOPE UNLESS OTHERWISE NOTED

SEWER PIPE SCHEDULE

MANHOLE NUMBER	SIZE	TYPE	LENGTH (FT.)
MH 22 TO MH 20	8"	SDR-35 PVC	50'
MH 20 TO MH 21	8"	SDR-35 PVC	220'
MH 23 TO MH 24	8"	SDR-35 PVC	168'
MH 23 TO MH 25	8"	SDR-35 PVC	129'
MH 25 TO MH 26	8"	SDR-35 PVC	112'
MH 26 TO MH 260	8"	SDR-35 PVC	31'
EX. MH 204 TO MH 27	8"	SDR-35 PVC	166'
MH 27 TO MH 28	8"	SDR-35 PVC	88'
MH 28 TO MH 29	8"	SDR-35 PVC	96'
MH 30 TO MH 31	8"	SDR-35 PVC	200'
MH 31 TO MH 32	8"	SDR-35 PVC	187'
EX. MH 208 TO MH 33	8"	SDR-35 PVC	104'
MH 33 TO MH 34	8"	SDR-35 PVC	143'
MH 34 TO MH 35	8"	SDR-35 PVC	174'
		TOTAL	1,868'

SEWER MANHOLE SCHEDULE

STRUCT. NUMBER	TYPE	STANDARD	LOCATION	RIM ELEV.	PIPE SIZE	INVERT OUT	INVERT IN
MH 20	DROP MH. OVER EX. SEWER	METCOM S-5 AND S-6	N 170840.4745 E 929084.4259	107.90	8"	98.19	99.70 102.10
MH 21	STANDARD MANHOLE	METCOM S-3	N 170994.2030 E 928927.5248	114.80	8"	108.80	-----
MH 22	STANDARD MANHOLE	METCOM S-3	N 170789.7350 E 929101.3578	106.25	8"	100.20	-----
MH 23	DROP MH. OVER EX. SEWER	METCOM S-5 AND S-6	N 170931.7980 E 929127.7159	109.10	8"	98.50	103.10 99.70
MH 24	STANDARD MANHOLE	METCOM S-3	N 171049.1314 E 929007.9678	112.50	8"	106.50	-----
MH 25	STANDARD MANHOLE	METCOM S-3	N 170813.2306 E 929178.5624	106.40	8"	100.40	101.20
MH 26	STANDARD MANHOLE	METCOM S-3	N 170829.2577 E 929289.0475	107.70	8"	102.40	102.50
MH 27	STANDARD MANHOLE	METCOM S-3	N 171062.9398 E 929364.4182	110.60	8"	101.10	101.20
MH 28	STANDARD MANHOLE	METCOM S-3	N 170977.6604 E 929392.5655	109.60	8"	101.70	101.80
MH 29	STANDARD MANHOLE	METCOM S-3	N 170884.2141 E 929373.1890	108.70	8"	102.80	-----
MH 30	STANDARD MANHOLE	METCOM S-3	N 171292.9821 E 929079.3155	106.77	8"	100.37	100.50
MH 31	DROP MH. OVER EX. SEWER	METCOM S-5 AND S-6	N 171171.9809 E 928920.1214	113.30	8"	104.50	105.60
MH 32	STANDARD MANHOLE	METCOM S-3	N 171059.2263 E 928771.8304	119.80	8"	112.20	-----
MH 33	STANDARD MANHOLE	METCOM S-3	N 171520.1943 E 928189.3085	109.00	8"	103.20	103.30
MH 34	STANDARD MANHOLE	METCOM S-3	N 171577.1098 E 928319.8180	114.10	8"	104.10	104.20
MH 35	STANDARD MANHOLE	METCOM S-3	N 171502.2622 E 928476.8486	117.10	8"	106.00	-----
MH 204	STANDARD MANHOLE	METCOM S-3	N 171152.2034 E 929224.2306	108.80	8"	99.80	99.88
MH 203A	STANDARD MANHOLE	METCOM S-3	N 170970.2339 E 929145.9350	109.73	8"	98.63	98.73
MH 260	STANDARD MANHOLE	METCOM S-3	N 170843.8542 E 929329.6499	108.20	8"	103.0	-----

METCOM GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND THE ST. MARY'S COUNTY STANDARD SPECIFICATIONS FOR WATER AND SEWERAGE CONSTRUCTION.
2. PVC SMOOTH WALLED SEWER PIPE AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D1784 AND ASTM D3034.
3. PVC WATER MAIN PRESSURE PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-900, CLASS 150 MINIMUM.
4. DUCTILE IRON PRESSURE PIPE (D.I.P.) AND FITTINGS SHALL EQUAL OR EXCEED AWWA SPECIFICATIONS C-151 OR C-110, AS APPLICABLE.
5. BEFORE JOINTS ARE MADE, EACH PIPE LENGTH SHALL BE WELL BEDDED ON A SOLID FOUNDATION. NO PIPE LENGTH SHALL BE BROUGHT INTO POSITION UNTIL THE PRECEDING PIPE LENGTH HAS BEEN PROPERLY EMBEDDED BY BOTH HAUNCHING AND INITIAL BACKFILL.
6. ALL PIPES SHALL BE CLEANED BEFORE THEY ARE LAID AND SHALL BE KEPT CLEAN UNTIL ACCEPTANCE OF THE COMPLETED WORK BY METCOM. OPEN ENDS OF PIPE SHALL BE FITTED WITH WATER TIGHT STOPPERS TO PREVENT ENTRANCE OF FOREIGN MATTER WHEN PIPE-LAYING OPERATIONS ARE INTERRUPTED.
7. PIPE JOINTS SHALL BE BELL/RING WITH INTEGRALLY MOLDED BELL. ASSEMBLY SHALL BE IN ACCORDANCE TO PIPE MANUFACTURES RECOMMENDATIONS. PIPE JOINTS SHALL NOT BE MADE UNDER WATER AND SHALL BE CAREFULLY CONSTRUCTED TO INSURE WATER-TIGHTNESS.
8. TRENCH BACKFILLING SHALL BE DONE WITH SELECT BACKFILL MATERIAL DEFINED AS GRAVEL OR BANK-RUN GRAVEL THAT WILL PASS THROUGH A ONE (1") INCH SIEVE. THE BACKFILL MATERIAL SHALL BE CAREFULLY DEPOSITED IN THE TRENCH IN SIX (6") INCH COMPACTED FILL LIFTS, TO A HEIGHT OF ONE (1') FOOT ABOVE THE TOP OF THE PIPE.
9. GRAVITY SEWERS SHALL BE TESTED WITH AIR PRESSURE AT 5 PSI FOR A PERIOD OF THIRTY (30) MINUTES WITH A (0) PRESSURE DECREASE.
10. AUTOMATIC AIR RELIEF VALVES SHALL BE PROVIDED AT HIGH POINTS IN THE DISTRIBUTION SYSTEM, WHERE APPLICABLE, AS DIRECTED BY THE ENGINEER.
11. ALL FIRE HYDRANTS THAT ARE SET IN THE GROUND, THAT ARE NOT YET OPERATIONAL, SHALL HAVE AN "OUT OF SERVICE" DISK PLACED ON THE 4-1/2" DISCHARGE OUTLET. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE "OUT OF SERVICE" DISKS.
12. PROPOSED BUILDINGS LOCATED IN PHASE #1 HAVE 1 1/2" WHC'S & PHASE #2 HAVE 6" WHC. PROPOSED BUILDINGS LOCATED IN PHASE 1 HAVE 4" SHC'S AND BUILDINGS LOCATED IN PHASE 2 SHALL HAVE 6" SHC'S.

NOTE:

A. CONTRACTOR TO CONTACT THE ENGINEERING DEPARTMENT, ST. MARYS COUNTY METROPOLITAN COMMISSION, FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION.
PHONE NUMBER 301-373-4733. CONTRACTOR TO ALSO CONTACT THE ENGINEERING DEPARTMENT BEFORE RESTARTING WORK AFTER WORK HAS STOPPED FOR MORE THAN FIVE DAYS.

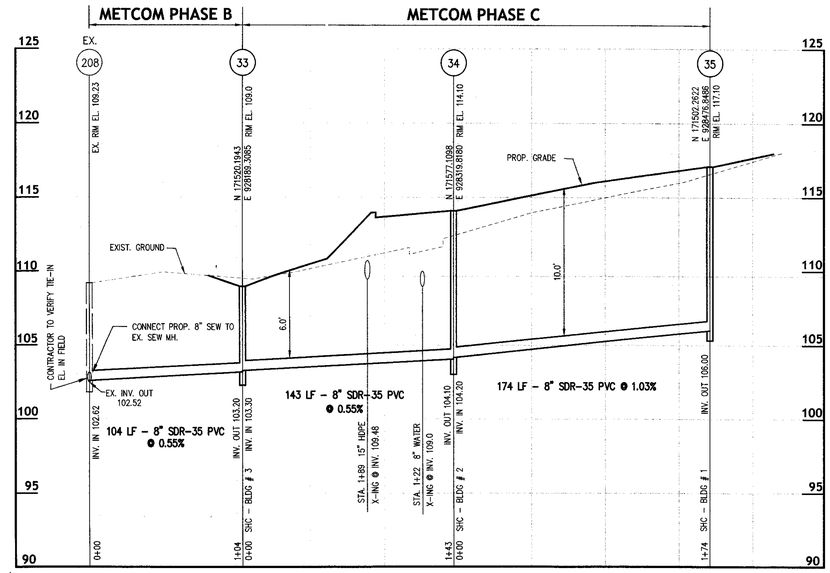
B. CONTRACTOR SHALL NOT TAP OR OTHERWISE PENETRATE EXISTING WATER OR SEWER MAIN LINES WITHOUT PRIOR APPROVAL FROM METCOM. CONTRACTOR IR RESPONSIBLE TO AVOID SPILLAGE OF RAW SEWAGE. CONTRACTOR SHALL PROVIDE ALL SEWER PLUGGING AND PUMPING EQUIPMENT NECESSARY TO AVOID SPILLAGE. VIOLATIONS ARE SUBJECT TO FINES AND PENALTIES AND WILL BE ENFORCED TO THE FULL EXTENT OF THE LAW.

C. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH ST. MARY'S COUNTY AND SHA STANDARD SPECIFICATIONS LATEST EDITION.

D. WATER AND SEWER MAIN CONSTRUCTION SHALL NOT COMMENCE UNTIL INVOLVED ROADWAYS, STORM DRAINS, AND UTILITY EASEMENTS HAVE BEEN GRADED AND CONTOURED TO APPROXIMATELY FINAL GRADE. PROPERTY CORNERS OF ALL LOTS ARE REQUIRED TO BE STAKED BY A LICENSED SURVEOR PRIOR TO INSTALLING WATER AND SEWERSERVICE CONNECTIONS.

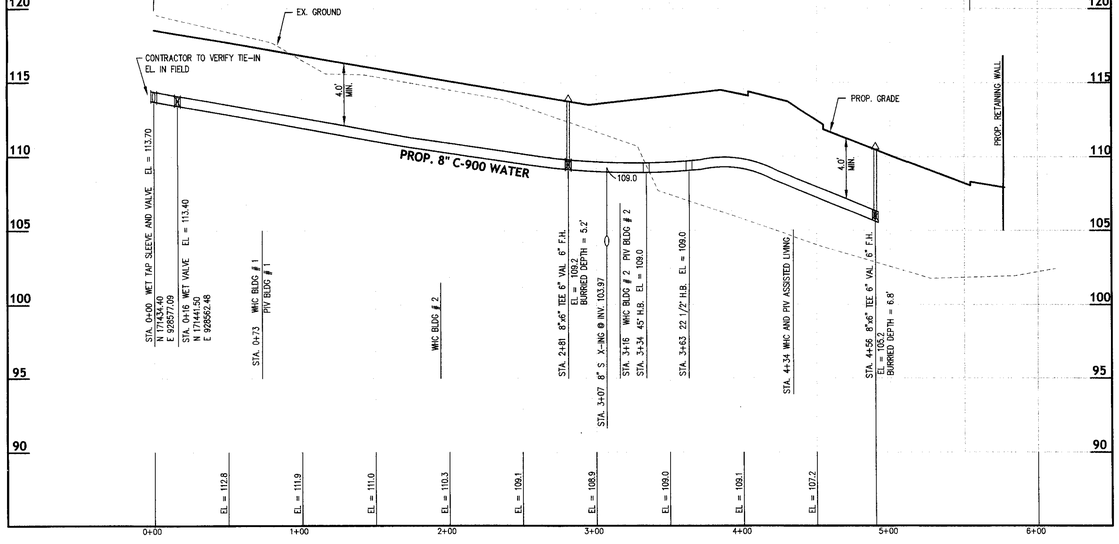
E. ONLY THE AMOUNT OF TRENCH THAT CAN BE OPENED, WORKED IN AND THEN STABILIZED IN A WORK DAY SHALL BE DONE SO. IF STABILIZATION DOSE NOT OCCUR AT THE END OF THE WORK DAY, THEN APPROPRIATE EROSIONCONTROLS, SEDIMENT CONTROL AND SAFETY CONTROLS SHALL BE INSTALLED.

F. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO START OF CONSTRUCTION. MATERIALS DELIVERED TO SITE FOR WATER AND SEWER CONSTRUCTION MUST BE INSPECTED PRIOR TO START OF WORK.



PHASE II MILESTONE WAY SEWER PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT



PHASE II, WATER PROFILE #4

SCALE: HORZ. 1"=50'
VERT. 1"=5'

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
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1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTHY — No. 20033 — 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. 20033, EXP. DATE 3-19-2011

5/11/09

SEWER PROFILES

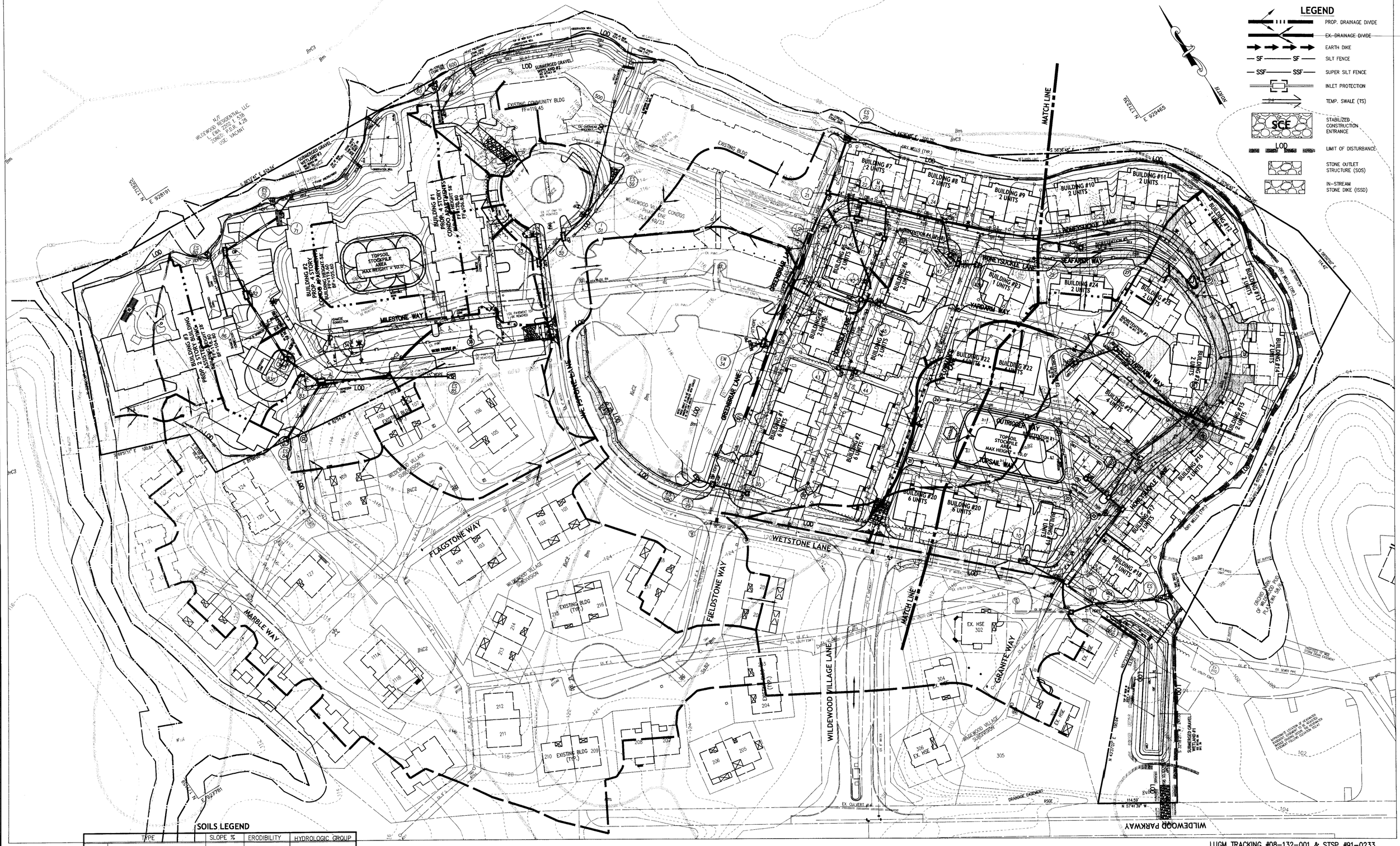
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 50'
SHEET NO.	18 OF 37



SOILS LEGEND

	TYPE	SLOPE %	ERODIBILITY	HYDROLOGIC GROUP
BiB2	BELTSVILLE SILT LOAM	2 TO 5	MODERATELY	C
BiC2	BELTSVILLE SILT LOAM	5 TO 10	MODERATELY	C
BiC3	BELTSVILLE SILT LOAM	5 TO 10	SEVERELY	C
Brn	BIBB SILT LOAM	N/A	N/A	C
BrC3	BOURNE FINE SANDY LOAM	5 TO 10	SEVERELY	C
EvB	EVESBORO LOAMY SAND	0 TO 8	N/A	A
KeC2	KEMPSVILLE FINE SANDY LOAM	5 TO 10	MODERATELY	B
SaB2	SASSAFRAS SANDY LOAM	2 TO 5	MODERATELY	B
SaC2	SASSAFRAS SANDY LOAM	5 TO 10	SEVERLY	B
SaC3	SASSAFRAS SANDY LOAM	5 TO 10	SEVERELY	B
WsA	WOODSTOWN SANDY LOAM	0 TO 2	N/A	C

LUGM TRACKING #08-132-001 & STSP #91-0233

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STATE OF MARYLAND — ROBERT T. MCCARTHY — No. 20033 — PROFESSIONAL ENGINEER

ROBERT T. MCCARTHY, CHIEF ENGINEER, PROFESSIONAL CERTIFICATION. 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. 20033 EXP. DATE 3-19-2011

OVERALL SEDIMENT CONTROL PLAN

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

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42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 60'
SHEET NO.	19 OF 37

LEGEND

- PROP. DRAINAGE DIVIDE
- EX. DRAINAGE DIVIDE
- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- INLET PROTECTION
- TEMP. SWALE (TS)
- STABILIZED CONSTRUCTION ENTRANCE (SCE)
- LIMIT OF DISTURBANCE (LOD)
- STONE OUTLET STRUCTURE (SOS)
- IN-STREAM STONE DIKE (ISSD)

N 172000
E 928100

N 171600
E 927900

N 171500
E 928800

NORTH

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

N/F WILDEWOOD RESIDENTIAL, LLC.
L. EWA 2202 f. 538
ZONED: P.D.R. 4.28
USE: VACANT

WILDEWOOD VILLAGE SUBDIVISION
PLAT E.W.A. 30/220

WETLANDS LIMIT

LOD

25' BUFFER

25' PLANTING BUFFER

EXISTING COMMUNITY BLDG
FF=119.45

SUBMERGED GRAVEL WETLAND #2
SEE DETAILS ON SHT. 31

SUBMERGED GRAVEL WETLAND #3
SEE DETAILS ON SHEET 32

BUILDING #1
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=120.80
BF=106.80

BUILDING #2
PROP. 4 STORY
CONDO APARTMENTS
BUILDING HEIGHT 58'
FF=119.60
BF=105.60

BUILDING #3
PROP. 3 STORY BUILDING
ASSISTED LIVING
BUILDING HEIGHT 50'
FF=118.80
BF=104.80

TOPSOIL STOCKPILE AREA
MAX HEIGHT = 10.0'

MILESTONE WAY

WETLANDS LANE

EXISTING BLDG

PHASE ONE CONDOS
PLAT 40/33

EX. 15" CMP TO BE REMOVED

EX. OVERHEAD WALKWAY

EX. EMERGENCY WATER TANK

EX. 6" WATER

EX. 8" WATER

EX. PAVEMENT

EX. PVMT.

RELOCATE EX. FH

EX. PAVEMENT TO BE REMOVED

EXIST. UTILITY ESMT. TO BE ABANDONED

UTILITY ESM'T

STONE CHECK DAM (TYP) SEE DETAIL ON SHT. 31

TOP OF WEIR ELEV. = 101.50

OBSERVATION WELL

10' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.00
Q10 = 2.00 CFS
V10 = 1.70 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 100.5
Q-PEAK = 0.46 CFS
V-PEAK = 1.32 FPS

12' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.80
Q10 = 22.68 CFS
V10 = 5.71 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.30
Q-PEAK = 1.69 CFS
V-PEAK = 2.50 FPS
SMW = 0.13%

12' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 101.50
Q10 = 0.47 CFS
V10 = 0.38 FPS
(PERMANENT STABILIZED OUTFALL CHANNEL)

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 102.0
Q-PEAK = 0.47 CFS
V-PEAK = 1.31 FPS

5' CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 103.0
Q-PEAK = 1.39 CFS
V-PEAK = 3.98 FPS

24' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 110.0
V10 = 4.20 CFS
(PERMANENT STABILIZED OUTFALL CHANNEL)

15' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 114.90
Q10 = 1.90 CFS

5' L X 8' W
CL I RIP-RAP @ 0%
d50 = 9.5" dMAX = 15"
THK = 19" ON MIRAFI
500X OR EQUIVALENT
FILTER CLOTH
INV. = 105.80
Q10 = 14.6 CFS

WATER PROFILE #4

SECTION L-L
SEE DETAIL SHT. 31

LUGM TRACKING #08-132-001 & STSP #91-0233

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REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND
ROBERT T. MCCARTHY
No. 20053
PROFESSIONAL CERTIFICATION. 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. 20053 EXP. DATE 3-19-2011

PHASE II - EROSION AND SEDIMENT CONTROL PLAN

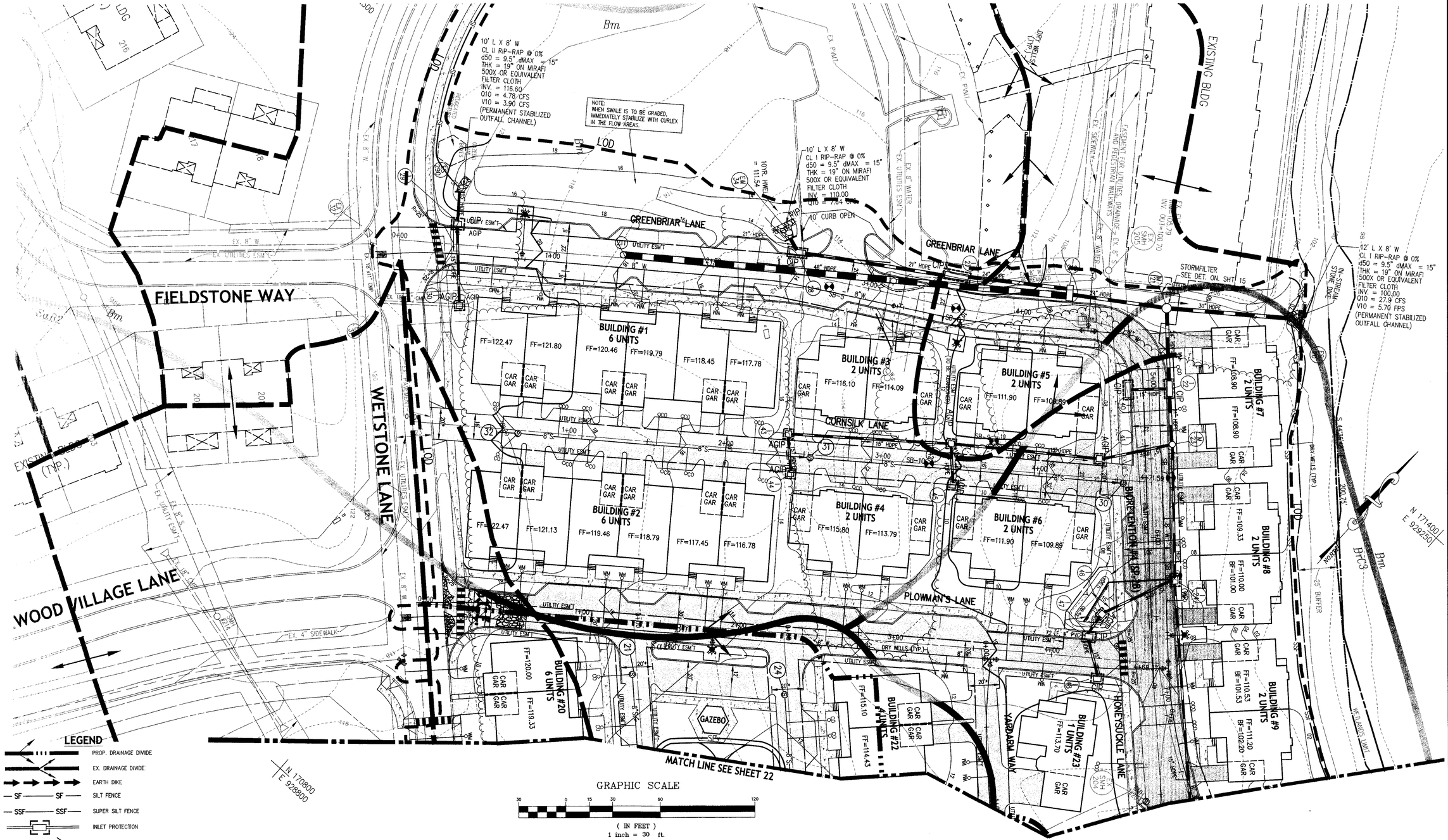
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 30'
SHEET NO.	20 OF 37



LEGEND

- PROP. DRAINAGE DIVIDE
- EX. DRAINAGE DIVIDE
- EARTH DIKE
- SF — SF — SILT FENCE
- SSF — SSF — SUPER SILT FENCE
- INLET PROTECTION
- TEMP. SWALE (TS)
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- LOD — LIMIT OF DISTURBANCE
- STONE OUTLET STRUCTURE (SOS)
- IN-STREAM STONE DIKE (ISSD)

LUGM TRACKING #08-132-001 & STSP #91-0233

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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. KENNEDY — No. 20353 — PROFESSIONAL ENGINEER

ROBERT T. KENNEDY, CHIEF, ENGINEERING PROFESSIONAL CERTIFICATION, 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. 20353, EXP. DATE 3-19-2011

PHASE I - EROSION AND SEDIMENT CONTROL PLAN

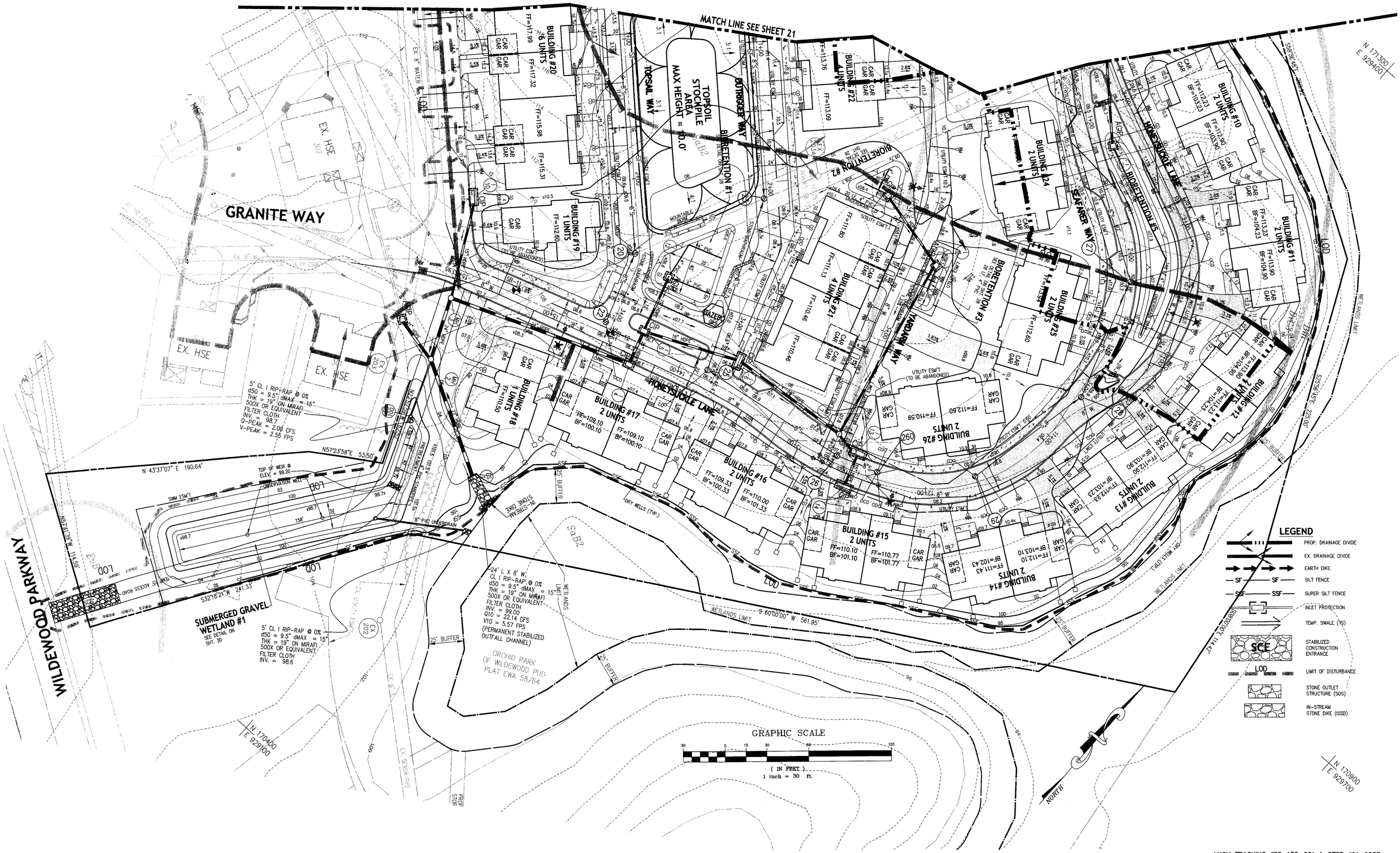
WILDEWOOD RETIREMENT VILLAGE

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SAINT MARY'S COUNTY, MARYLAND

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42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 30'
SHEET NO.	21 OF 37



LEGEND

- PROP. DRAINAGE DIVIDE
- EX. DRAINAGE DIVIDE
- EARTH DIKE
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- INLET PROTECTION
- TEMP. SWALE (TS)
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- LOD — LIMIT OF DISTURBANCE
- STONE OUTLET STRUCTURE (SOS)
- IN-STREAM STONE DIKE (ISSD)

LUGM TRACKING #08-132-001 & STSP #91-0233

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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTHY — No. 20039

ROBERT T. McCARTHY, CHIEF 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. 20039, EXP. DATE 5-19-2011" — 5/19/09

PHASE I - EROSION AND SEDIMENT CONTROL PLAN

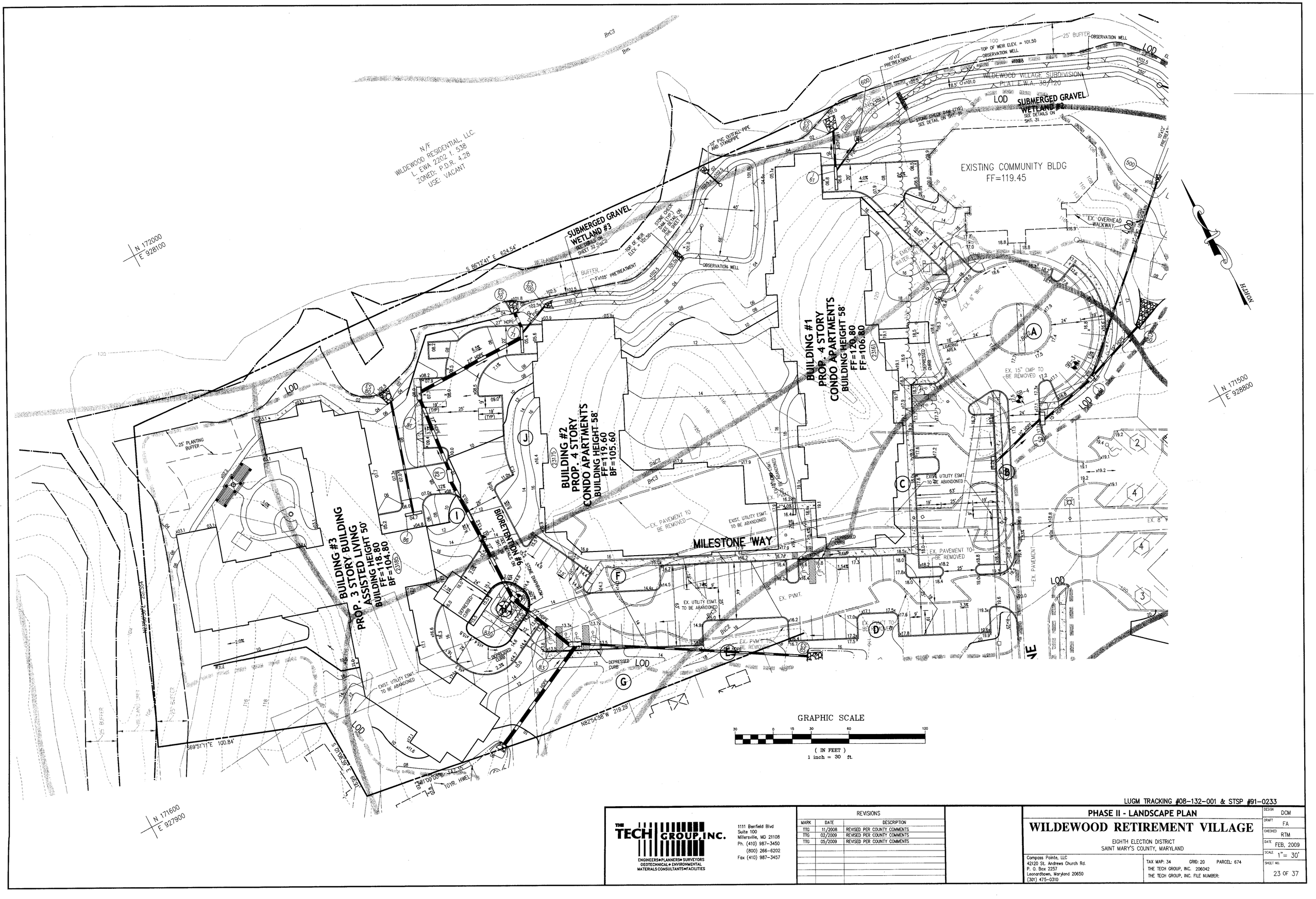
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	22 OF 37



LUGM TRACKING #08-132-001 & STSP #91-0233

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PHASE II - LANDSCAPE PLAN

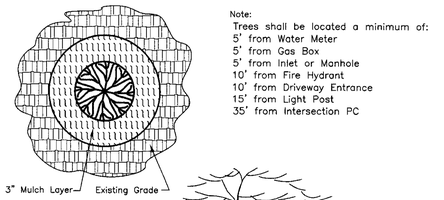
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

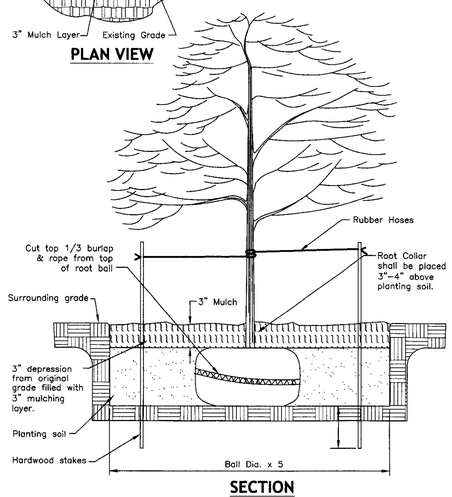
Compass Pointe, LLC
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THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

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DRAFT	FA
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DATE	FEB, 2009
SCALE	1"= 30'
SHEET NO.	23 OF 37



PLAN VIEW



SECTION

PLANTING DEPRESSION

A or B soil, depress by 3"
C or D soil, depress by 1" to 2"

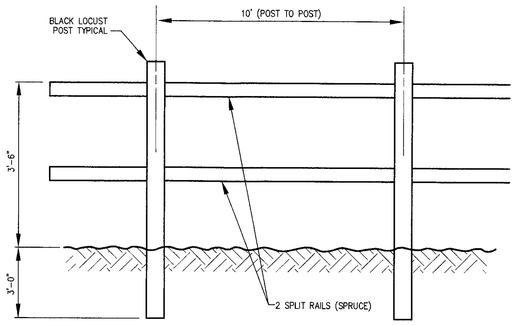
L 1

Revised:

Street Tree Planting Detail

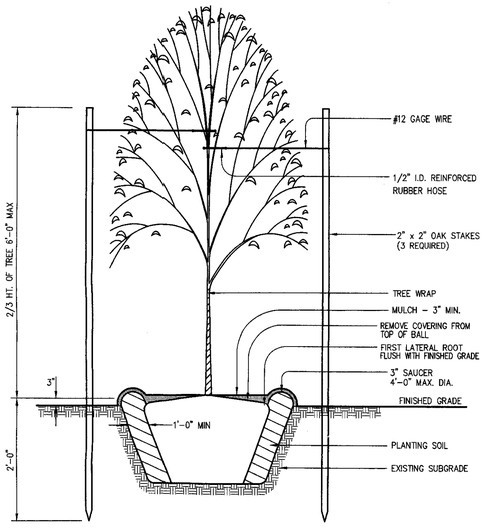
Approved
President, Board County Comm.
Director, Public Works

St. Mary's County Department of Public Works



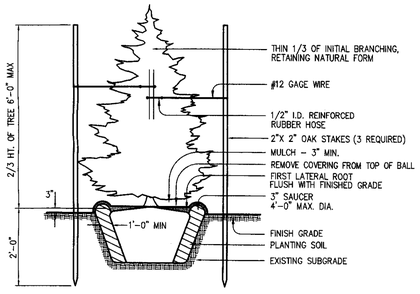
2 SPLIT RAIL (WOOD) FENCE / TCP TYPE II

NO SCALE



TREE PLANTING DETAIL - 2 1/2" - 3" CAL.

NOT TO SCALE



EVERGREEN PLANTING DETAIL

NOT TO SCALE

STANDARD TYPE II TREE CONSERVATION PLAN NOTES

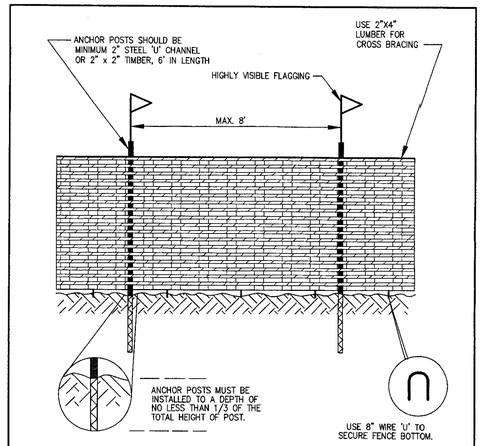
NOTES TO INCLUDE WITH ALL PLANS:

1. CUTTING OR CLEARING OF WOODLAND NOT IN CONFORMANCE WITH THIS PLAN OR WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE PLANNING DIRECTOR OR DESIGNEE SHALL BE SUBJECT TO A $1.50 PER SQUARE FOOT MITIGATION FEE.
2. THE DEPARTMENT OF ENVIRONMENTAL RESOURCES (DER) MUST BE CONTACTED PRIOR TO THE START OF ANY WORK ON THE SITE TO ADDRESS IMPLEMENTATION OF TREE CONSERVATION MEASURES SHOWN ON THIS PLAN.
3. PROPERTY OWNERS SHALL BE NOTIFIED BY THE DEVELOPER OR CONTRACTOR OF ANY WOODLAND CONSERVATION AREAS (TREE SAVE AREAS, REFORESTATION AREAS, AFFORESTATION AREAS, OR SELECTIVE CLEARING AREAS) LOCATED ON THEIR LOT OR PARCEL OF LAND AND THE ASSOCIATED FINES FOR UNAUTHORIZED DISTURBANCES TO THESE AREAS. UPON THE SALE OF THE PROPERTY THE OWNER / DEVELOPER OR OWNERS REPRESENTATIVES SHALL NOTIFY THE PURCHASER OF THE PROPERTY OF ANY WOODLAND CONSERVATION AREAS.
4. ALL APPROPRIATE BONDS AND/OR FEES SHALL BE POSTED WITH THE BUILDING OFFICIAL PRIOR TO THE ISSUANCE OF ANY PERMITS. THESE BONDS WILL BE RETAINED AS SURETY BY THE BUILDING OFFICIAL UNTIL ALL REQUIRED ACTIVITIES HAVE BEEN SATISFIED.

NOTES TO INCLUDE ON PLANS WHEN APPROPRIATE:

5. THE LOCATION OF ALL TREE PROTECTIVE DEVICES (TPD'S) SHOWN ON THIS PLAN SHALL BE FLAGGED OR STAKED IN THE FIELD PRIOR TO THE PRE–CONSTRUCTION MEETING WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR FROM DER. UPON APPROVAL OF THE FLAGGED OR STAKED TPD LOCATIONS BY THE INSPECTOR, INSTALLATION OF THE TPD'S MAY BEGIN. TPD INSTALLATION SHALL BE COMPLETED PRIOR TO INSTALLATION OF INITIAL SEDIMENT CONTROLS. NO CUTTING OR CLEARING OF TREES MAY BEGIN BEFORE FINAL APPROVAL OF TPD INSTALLATION.
6. TREE PROTECTION DEVICES ARE NOT REQUIRED FOR THIS PLAN SINCE AN UNDISTURBED 100 FOOT BUFFER OF OPEN LAND OR A 50 FOOT FORESTED BUFFER IS BEING MAINTAINED BETWEEN THE LIMIT OF DISTURBANCE (LOD) AND THE TREE SAVE AREA. IF CHANGES TO THE LOD IMPACT THE UNDISTURBED BUFFERS THE DER INSPECTOR SHALL BE CONTACTED TO EVALUATE THE CHANGE TO DETERMINE IF REVISIONS TO THE TREE CONSERVATION PLAN ARE NECESSARY OR IF INSTALLATION OF TPD'S WILL BE REQUIRED.
7. SINCE WORK ON THIS PROJECT WILL BE INITIATED IN SEVERAL PHASES ALL TPD'S REQUIRED FOR A GIVEN PHASE SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE WITHIN THAT PHASE OF WORK.
8. WOODLAND CONSERVATION – TREE SAVE AREAS AND/OR REFORESTATION AREAS SHALL BE POSTED AS SHOWN AT THE SAME TIME AS TREE PROTECTIVE DEVICE INSTALLATION AND/OR START OF REFORESTATION ACTIVITIES. THESE SIGNS SHALL REMAIN IN PLACE IN PERPETUITY.
9. ALL TREE PLANTING FOR WOODLAND REPLACEMENT, REFORESTATION OR AFFORESTATION WILL BE COMPLETED PRIOR TO RELEASE OF GRADING BOND. FAILURE TO ESTABLISH THE WOODLAND REPLACEMENT, REFORESTATION OR AFFORESTATION WITHIN THE PRESCRIBED TIME FRAME WILL RESULT IN THE FORFEITURE OF THE REFORESTATION BOND AND/OR A VIOLATION OF THIS PLAN INCLUDING THE ASSOCIATED $1.50 PER SQUARE FOOT PENALTY UNLESS A WRITTEN EXTENSION IS APPROVED BY THE DER INSPECTOR.
10. THE DER INSPECTOR SHALL BE NOTIFIED PRIOR TO SOIL PREPARATION OR INITIATION OF ANY TREE PLANTING ON THIS SITE.
11. RESULTS OF SURVIVAL CHECKS FOR ALL TREE PLANTINGS SHALL BE REPORTED TO THE DER INSPECTOR FOR THAT SITE.
12. PRIOR TO THE ISSUANCE ON ANY PERMITS THE CONTRACTOR RESPONSIBLE FOR SOIL PREPARATION, SITE PREPARATION, TREE PLANTING AND TREE MAINTENANCE MUST BE IDENTIFIED.

NAME
BUSINESS NAME
ADDRESS
PHONE NUMBER



NOTES
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLED DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

BLAZE ORANGE PLASTIC MESH FENCING

PLANTING PLAN NOTES

I. GENERAL NOTES:

A. SCOPE: THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES OF PLANT MATERIAL SHOWN ON THE PLAN IN THE PLANT LIST, AND SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.

B. UTILITIES: THE LANDSCAPE CONTRACTOR SHALL NOTIFY MISS UTILITY (1–800–0257–7777) TO VERIFY THE LOCATION OF ALL MAIN UTILITIES AND SHALL ASK THE GENERAL CONTRACTOR TO LOCATE LIGHTING AND OTHER ON–SITE UTILITIES IN THE FIELD BEFORE PROCEEDING WITH THE INSTALLATION OF ANY PLANTING. IF CONDITIONS ARISE IN THE FIELD WHICH NECESSITATES THE SHIFTING OF A PLANT LOCATION MORE THAN 15', THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED PRIOR TO INSTALLATION.

C. SUBSTITUTIONS: ANY CHANGE IN THE TYPE, SIZE AND QUANTITY OF PLANT MATERIAL BY THE LANDSCAPE CONTRACTOR MUST BE APPROVED BY THE LANDSCAPE / AND THE MNCP&PC URBAN DESIGN SECTION PRIOR TO INSTALLATION.

D. STANDARDS: ALL PLANT MATERIAL MUST BE NURSERY GROWN AND MEET ALL OF THE QUALITATIVE CRITERIA ESTABLISHED BY THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

E. DUG MATERIAL: ALL DUG PLANT MATERIAL SHALL HAVE BEEN DUG BEFORE BUD BREAK OR AFTER LEAF MATURATION. ANY PLANT MATERIAL EXHIBITING DROOPING NEW GROWTH WITHIN TWO (2) WEEKS OF BEING PLANTED WILL BE REJECTED AND MUST BE REMOVED FROM THE JOB.

F. POOR DRAINAGE: NO PLANTS SHALL BE PLANTED IN SITUATIONS THAT SHOW OBVIOUS POOR DRAINAGE. SUCH SITUATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND OWNER, AND IF THEY DEEM NECESSARY, THE PLANTS SHALL BE RELOCATED OR THE CONTRACT SHALL BE ADJUSTED TO ALLOW FOR DRAINAGE CORRECTION AT A NEGOTIATED COST. THIS NOTE DOES NOT APPLY TO THOSE PLANTS SPECIFIED AS WET CULTURE OR THOSE PLANTS INDICATED FOR WETLAND MITIGATION OR STORMWATER MANAGEMENT FACILITY PLANTINGS AND INDICATED AS SUCH ON THE LANDSCAPE PLAN.

G. SITE PREPARATION: IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO PRESENT "CLEAN" SOIL CONDITIONS TO THE LANDSCAPE CONTRACTOR PRIOR TO ANY LANDSCAPE INSTALLATION. "CLEAN" SOIL MAY INCLUDE ON–SITE SOIL BUT MUST BE FREE OF PAVEMENT MATERIALS, MUCK, ROOT SYSTEMS, PETROLEUM OR OTHER CHEMICAL SUBSTANCES, BLUE STONE, CONSTRUCTION DEBRIS AND OTHER MATERIALS LARGER THAN 4" IN DIAMETER. THE "CLEAN" SOIL SHALL EXTEND TO THE FOLLOWING MINIMUM DEPTHS: 18" WHERE TREES ARE PROPOSED, 12" WHERE SHRUBS ARE PROPOSED AND 4" WHERE LAWN IS PROPOSED. IF THE LANDSCAPE CONTRACTOR ENCOUNTERS ANY AREAS TO BE DEFICIENT REGARDING THESE "CLEAN" SOIL SPECIFICATIONS, HE SHALL REPORT THIS CONDITION TO THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO PLANTING IN THOSE AREAS.

H. WORKMANSHIP: DURING PLANTING, ALL AREAS SHALL BE KEPT NEAT AND CLEAN, AND ALL REASONABLE PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING PLANTS, TURF AND STRUCTURES. UPON COMPLETION, ALL DEBRIS AND WASTER MATERIAL RESULTING FROM PLANTING OPERATIONS SHALL BE REMOVED FROM THE PROJECT AND THE AREA CLEANED UP. ANY DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.

I. WATER: IF AVAILABLE ON–SITE, THE OWNER SHALL SUPPLY WATER AT NO COST. IT WILL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO SUPPLY WATER IF THERE IS NONE ON THE SITE.

II. PLANTING PROCEDURES:

A. PLANTING BEDS: WITH THE EXCEPTION OF THOSE TREES SHOWN ON THE PLAN AS INDIVIDUALS, ALL PLANTS ARE TO BE PLANTED INTO PREPARED PLANTING BEDS. THE OUTLINE OF EACH BED SHALL BE SPADE DUG TO BE A SMOOTH, CONTINUOUS SHARP–CUT EDGE. THE ENTIRE AREA WITHIN THE OUTLINE OF THE BED SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF 6–8" BY PICKING OR OTHER MEANS AND ALL MATERIALS UNSUITABLE FOR PLANT GROWTH AND ALL ROCKS AND DEBRIS GREATER THAN 4" DIAMETER AREA ARE TO BE REMOVED. TOPSOIL (THAT MEETS THE QUALITATIVE DESCRIPTION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION'S MATERIALS SPECIFICATION 920.01.02 NATURAL TOPSOIL) SHALL BE APPLIED OVER THE ENTIRE BED AREA IN SUFFICIENT QUANTITY SO THAT THE ELEVATION OF THE PLANTING BED, AFTER LIGHT TAMPING, IS 6" ABOVE THE FINISHED GRADE OF THE AREA ADJACENT TO THE BED. (SEE PREPARED PLANTING BED DETAIL ON PLAN FOR AN ILLUSTRATION).

B. TREE PLANTING:

1. PREPARING TREE PIT: THE WALLS OF THE TREE PIT SHALL BE DUG SO THAT THEY ARE VERTICAL AND SCARIFIED. THE DIAMETER OF THE PIT SHALL BE A TOTAL OF 24" WIDER THAN THE BALL DIAMETER. CARE SHOULD BE TAKEN TO TO EXCAVATE THE TREE PIT BELOW A DEPTH THAT ALLOWS 1/8 OF THE BALL TO BE ABOVE THE FINISHED GRADE. IF THE PIT IS DUG TOO DEEP, THEN THE BOTTOM OF THE PIT MUST BE BACKFILLED AND FIRMLY TAMPED TO PREVENT SETTLEMENT.
2. PLACING TREE IN PIT: PLACE THE TREE IN THE PIT EITHER BY LIFTING AND CARRYING THE TREE BY ITS BALL (NEVER LIFT BY BRANCHES OR TRUNK) AND THEN LOWERING IT INTO THE PIT. SET THE TREES STRAIGHT AND IN THE CENTER OF THE PIT WITH THE MOST DESIRABLE SIDE OF THE TREE FACING TOWARD THE PROMINENT VIEW (SIDEWALK, BUILDING, STREET, ETC.).
3. BACKFILLING TREE PIT: BACKFILL THE TREE PIT WITH A MIXTURE OF 2/3 ORIGINAL EXCAVATED MATERIAL AMENDED WITH 1/3 TOPSOIL (AS SPECIFIED IN II–A ABOVE). THIS STEP WILL HAVE BEEN PARTIALLY COMPLETED IF THE TREE IS PLANTED INTO A PREPARED BED AS DESCRIBED ABOVE.

   BACKFILL SIDES OF TREE PIT HALFWAY WITH SOIL MIXTURE AND TAMP BEFORE ADDING MORE BACKFILL. CUT ROPE OR WIRE ON BALL OF TREE AND PULL BURLAP BACK TO THE EDGE OF THE TREE BALL. REMOVE ALL PLASTIC WRAPS AND TWINNING.

   FINISH BACKFILLING SIDES OF TREE PIT AND TAMP FIRMLY. NEVER COVER TOP OF ROOT BALL WITH SOIL. FORM A SAUCER ABOVE EXISTING GRADE AND AROUND THE OUTER RIM OF THE PIT. MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A DEPTH OF 2" TO 3".

   WATER THOROUGHLY ON THE INTERIOR OF THE TREE SAUCER UNTIL IT IS FILLED EVEN IF IT IS RAINING. A SECOND WATERING MAY BE NECESSARY TO INSURE SATURATION OF THE ROOT BALL. PRUNE OUT ANY DEAD OR BROKEN BRANCHES.
4. TREE BRACING: UNLESS OTHERWISE NOTED ON THE PLAN, ALL TREES MORE THAN 12' IN HEIGHT (GREATER THAN 2 1/2" CAL.) ARE TO BE BRACED WITH THREE (3) GUY WIRES AND GROUND STAKES SPACED AS EVENLY APART (120 APART) IN A CIRCLE AS POSSIBLE. TREES LESS THAN 12' HIGH ARE TO BE STAKED WITH TWO UPRIGHT HARDWOOD STAKES. GUYING SHALL BE COMPLETED WITHIN 48 HOURS OF PLANTING THE TREE.

C. SHRUB PLANTING:

1. PREPARING SHRUB PIT: THE WALLS OF THE SHRUB PIT SHALL BE DUG SO ARE THAT THEY ARE VERTICAL AND SCARIFIED. THE DIAMETER OF THE PIT SHALL BE A TOTAL OF 12" WIDER THAN THE BALL DIAMETER. THE DEPTH OF THE PIT SHALL BE AT AN ELEVATION THAT ALLOWS 1/8 OF THE BALL TO BE ABOVE THE FINISHED GRADE, AFTER THE BOTTOM OF THE PIT HAS BEEN FIRMLY TAMPED (TO PREVENT SETTLEMENT).
2. PLACING SHRUB IN PIT: PLACE THE SHRUB IN THE PIT EITHER BY LIFTING OR CARRYING THE SHRUB BY ITS BALL (NEVER LIFT BY BRANCHES) AND THEN LOWERING IT INTO THE PIT.
3. BACKFILLING SHRUB PIT: BACKFILL THE SHRUB PIT HALFWAY WITH SOIL MIXTURE AND TAMP BEFORE ADDING MORE BACKFILL. CUT ROPE OR WIRE ON BALL OF SHRUB AND PULL BURLAP BACK TO EDGE OF THE ROOT BALL. REMOVE ALL PLASTIC WRAPS AND TWINNING.

   FINISH BACKFILLING SIDES OF PIT AND TAMP FIRMLY. NEVER COVER TOP OF ROOT BALL WITH SOIL. FORM A SAUCER ABOVE EXISTING GRADE AND AROUND THE OUTER RIM OF THE SHRUB PIT. MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A DEPTH OF 2" TO 3".

   WATER THOROUGHLY ON THE INTERIOR OF THE SHRUB SAUCER UNTIL IT IS FILLED EVEN IT IS RAINING. A SECOND WATERING MAY BE NECESSARY TO INSURE SATURATION OF ROOT BALL. PRUNE OUT ANY DEAD BRANCHES.

D. GROUND COVER PLANTING:

1. GROUND COVER BED: GROUND COVER SHALL BE PLANTED INTO PREPARED AND EDGED BEDS AS DESCRIBED IN II.A ABOVE. MULCH THE ENTIRE GROUND COVER BED TO A DEPTH OF 1" TO 2" PRIOR TO PLANTING THE GROUND COVER PLANTS.
2. PLANTING GROUND COVER: THE GROUND COVER PLANTING HOLES SHALL BE DUG THROUGH THE MULCH AND THE GROUND COVER (EITHER POTTED OR BARE ROOT) SHALL BE PLANTED SO THAT THE ROOTS OF THE PLANT ARE SURROUNDED BY SOIL BELOW THE MULCH. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH THE EXISTING GRADE. BARE ROOT PLANTS SHALL BE COVERED UP TO THE CROWN OF THE PLANT OR THE SOIL LEVEL. THE ENTIRE GROUND COVER BED SHALL BE THOROUGHLY WATERED.

E. PREPARATION OF FLOWER BED:

1. PREPARING BED: FLOWER BEDS SHALL BE PREPARED AND EDGED AS DESCRIBED IN II.A ABOVE. BROADCAST 10–10–10 FERTILIZER AT A RATE OF TEN (10) POUNDS PER 1,000 SQUARE FEET EVENLY OVER THE BED; THEN INCORPORATE INTO THE SOIL.
2. PROCEDURE FOR PLANTING ANNUALS: ANNUALS PITS SHOULD BE DUG THROUGH THE MULCH INTO THE SOIL WITH ONE OF THE FOLLOWING: HAND TROWEL, SHOVEL, BULB PLANTER, OR HOE.

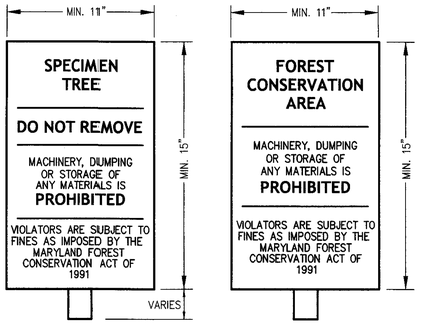
   PLANTING OF ANNUALS SHOULD OCCUR AROUND MAY 1ST UNLESS FREEZING WEATHER IS IN THE FORECAST.

   THE ANNUALS SHOULD BE PLANTED SO THAT THE ROOTS OF THE PLANTS ARE SURROUNDED BY SOIL BELOW THE MULCH.
3. MAINTENANCE OF ANNUALS PLANTING: ANNUAL BEDS SHOULD BE WEEDED ONCE EVERY TWO WEEKS. WATERING TO BE BY OWNER (UNLESS DIFFERENT ARRANGEMENTS ARE MADE) AND SHOULD OCCUR TWICE PER WEEK DURING DRY WEATHER CONDITIONS. PLANTS SHOULD BE THOROUGHLY SOAKED, PREFERABLY BY A SHOWER–HEAD TYPE HAND–HELD WATERING WAND.

   SPRAY FOR INSECTS AND DISEASE AS NECESSARY.

III. SEEDING AND SODDING:

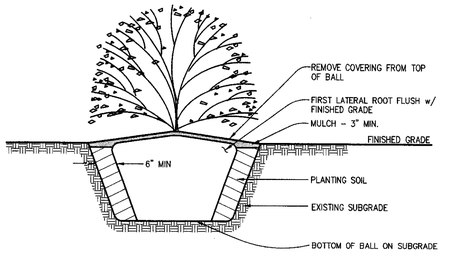
ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVEMENTS AND PLANTING BEDS ARE TO BE ESTABLISHED IN A LAWN OF KENTUCKY–31 TALL FESCUE EITHER BY SEED OR SOD, OR COMBINATION, DEPENDING ON THE TIME OF YEAR, AVAILABILITY OF MATERIALS AND OWNER'S PREFERENCE.



NOTES:
1. BOTTOM IOF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
2. SIGNS TO BE PLACED APPROX. 50' APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

SIGNAGE DETAIL

NOT TO SCALE



SHRUB PLANTING DETAIL

NOT TO SCALE

Wildewood Village Landscaping Schedule / Notes

LANDSCAPING REQUIREMENTS / SCHEDULE

PARKING SPACES PROVIDED ABOVE GRADE			TREES REQUIRED	TREES PROVIDED	EXCESS PROVIDED
Area	Location	Spaces	One (1) Tree Per Five (5) Parking Spaces	Per Landscaping Schedule Below	
A	Clubhouse	40	8	10	2
B	Condo Building #1	36	7	11	4
C	Condo Building #2	15	3	27	24
D	Assisted Living	13	3	7	4
		104	21	55	9

PRIVATE PARKING FACILTY AREA	LANDSCAPING REQUIRED	PROVIDED	EXCESS PROVIDED
Net Parking Facility Areas Above (A-D)	Minimum of 10% of Net Parking Facility	Per Landscaping Schedule Below	
46,749 Sq Ft	4,675 Sq Ft		

ITEM / TYPE	SIZE	LANDSCAPING ISLAND									
		A	B	C	D	E	F	G	H	I	J
Red Maple / Acre Rubrum	5'-6'		3	6		3	3	3	1	3	6
Hawthorn / Winter King	5'-6'		2	3		2	2				3
Japanese Zelkova	5'-6'	2	3	1	1			5		3	
Crape Myrtle - Tuscarora	5 GAL	6	9	3	3	3	3	6	6		9
Nandina Domestica	3 GAL	existing							6		12
Procumbent Juniper	3 GAL	existing		12		6	9	9	6		12
Daylily - Perennial	1 GAL	existing	21	9	3	9	12	12	12		21
TOTAL TREES PROVIDED	**55**	2	8	10	1	5	5	8	1	6	9

LANDSCAPING NOTES:

1	All interior roads and parking facility areas within the Wildewood Retirement Village Development Envelope are private - for the use of the residents, employees, or guests of the Village only.
2	Interior landscaping and trees will be provided by the preservation of existing vegetation whenever possible in the interior and along ther perimeter of the parking facility areas. Preserved trees will supplant the requirement for created landscaping as required.
3	The interior landscaping requirements for Wildewood are found in the 1991 Amendment to the Wildewood PUD Development Standards (Section 5.3.E.6.o). The standards require one (1) tree per five (5) parking spaces This plan exceed such requirement
4	The interior landscaping requirements for Wildewood are found in the 1991 Amendment to the Wildewood PUD Development Standards (Section 5.3.E.6.o). The standards require a minimum of 10% of the net parking facility shall be landscaped. This plan exceed such requirement.
5	All plantings may be field adjusted by a landscape professional to meet or exceed the above requirements. Landscape designer reserves the ability substitute plant material that meets or exceeds requirements.

OTHER GENERAL NOTES FOR SITE PLAN:

1 Wildewood has the ability to create zero (0) lot lines, therefore, mminimum setbacks are zero (0).
2 15 MPH speed limits signs shall be posted along all interior roads as directed by the engineer.

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Fax (410) 987–3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
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LANDSCAPE DETAILS AND NOTES PLAN

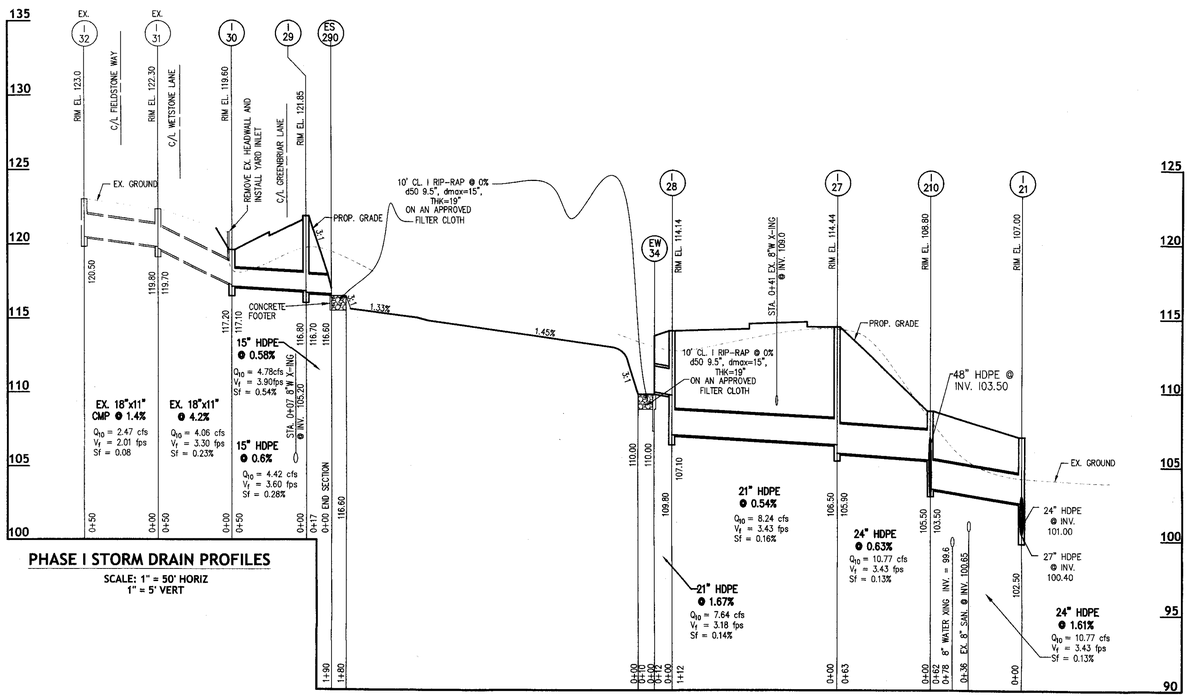
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475–0310

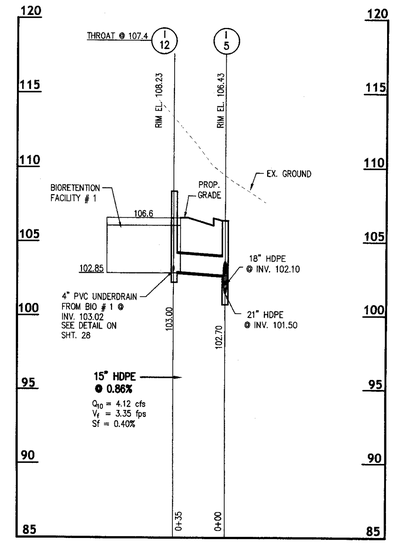
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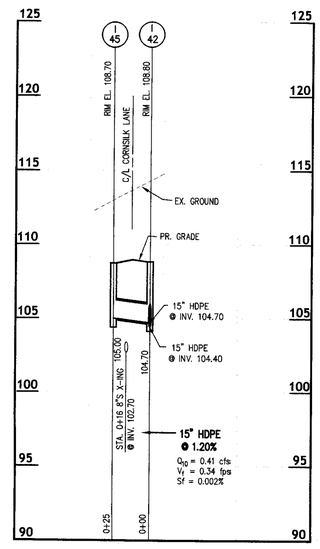
PHASE I STORM DRAIN PROFILES

SCALE: 1" = 50' HORIZ
1" = 5' VERT



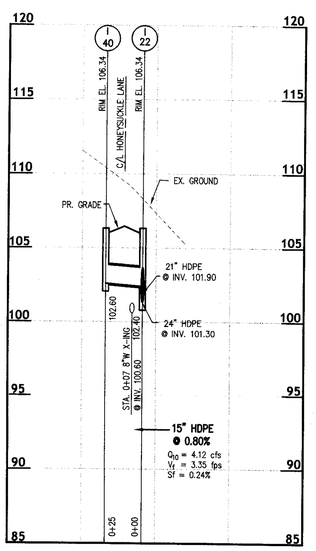
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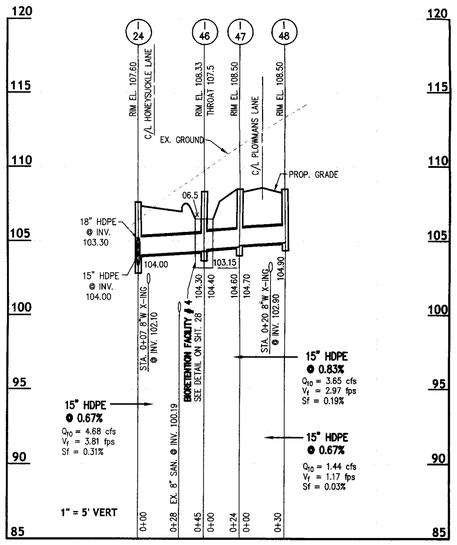
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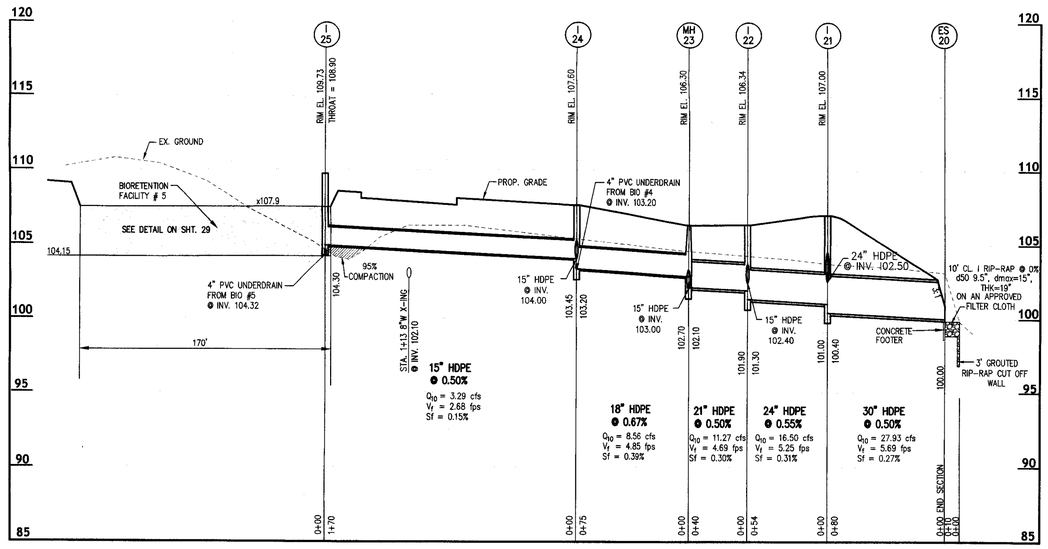
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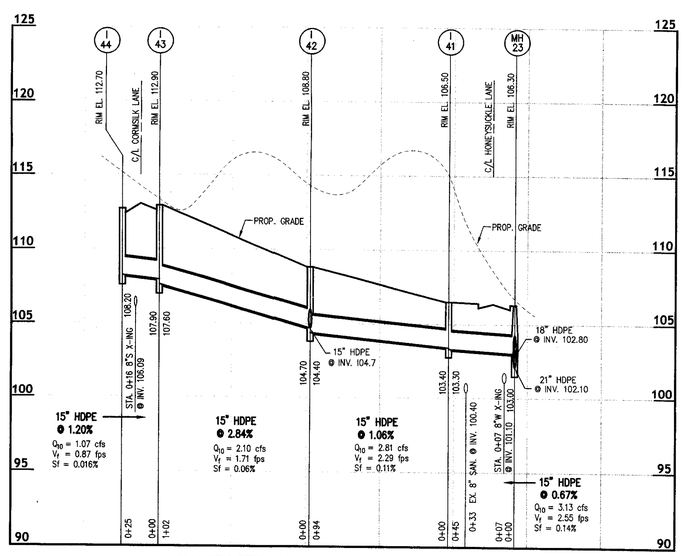
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STATE OF MARYLAND — ROBERT T. MOORE — 5/08/09
ROBERT T. MOORE, JR. PE 21625
PROFESSIONAL ENGINEER I HEREBY CERTIFY THAT THE ATTACHED DOCUMENT WAS PREPARED BY ME, AND ACCEPT FULL RESPONSIBILITY AS A PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NO. 20625 EXP. DATE 5-19-2011

PHASE I – STORM DRAIN PROFILES

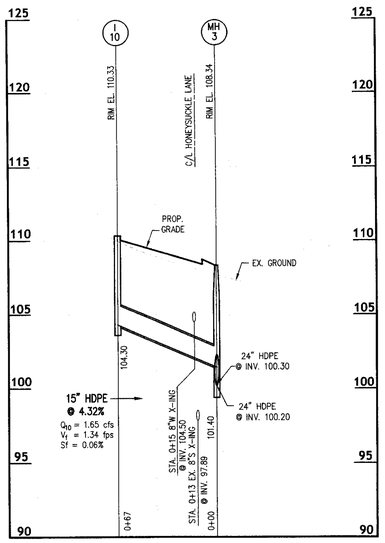
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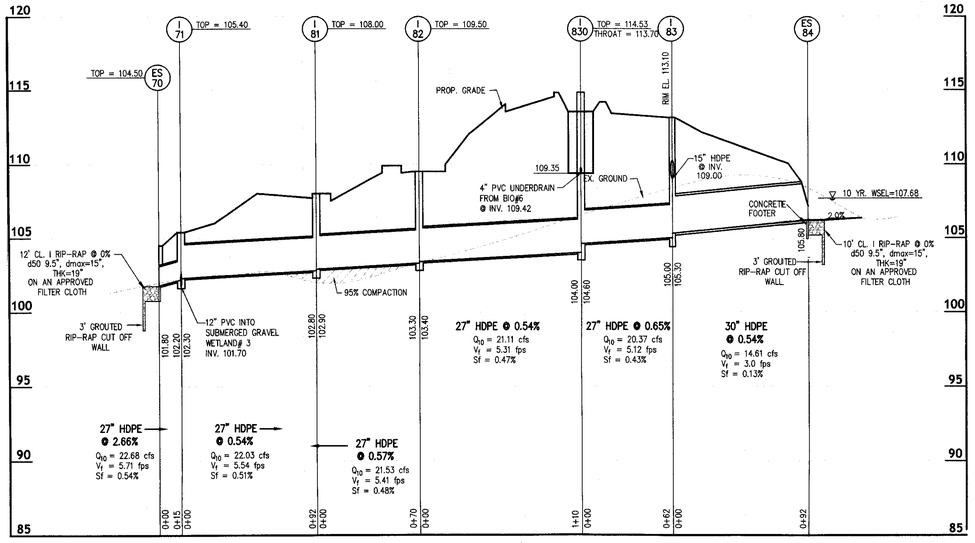
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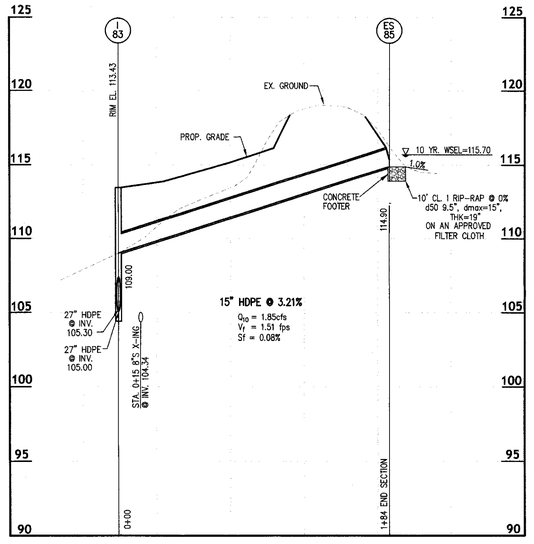
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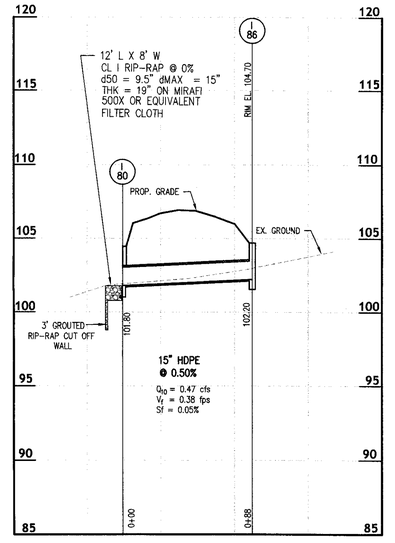
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1" = 5' VERT



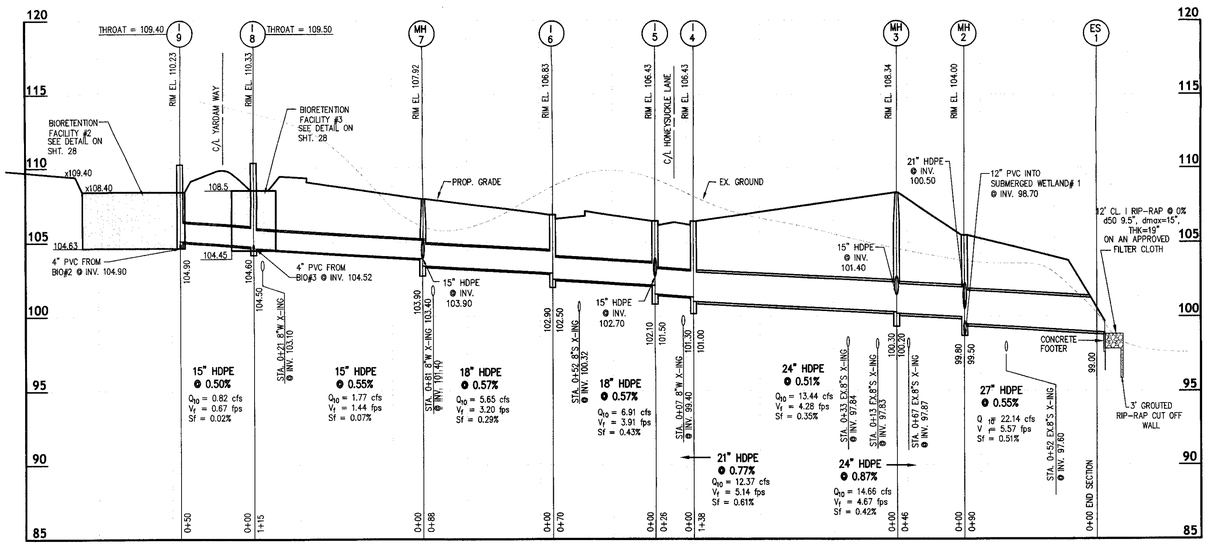
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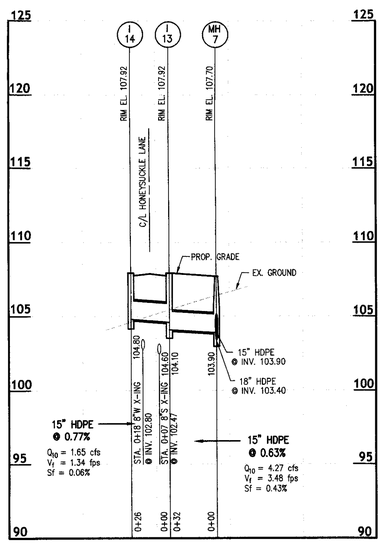
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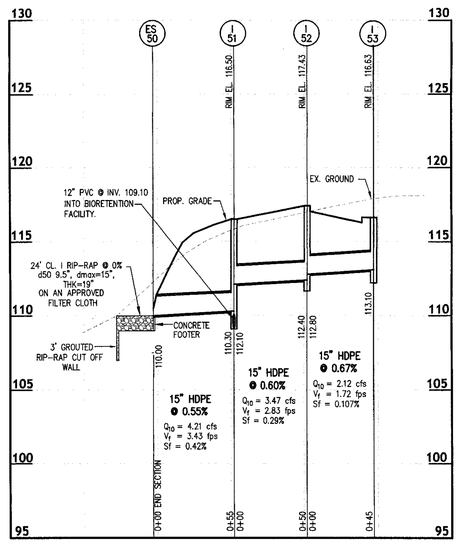
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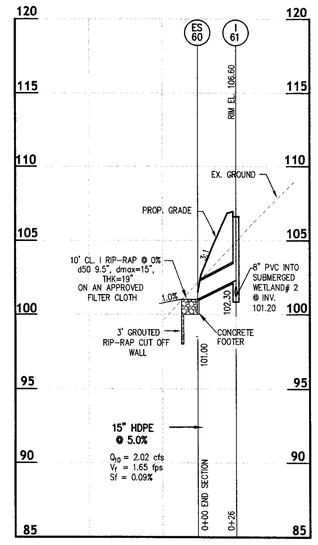
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STATE OF MARYLAND — ROBERT T. MCKINTYRE — No. 21193 — PROFESSIONAL ENGINEER

ROBERT T. MCKINTYRE, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION. 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. 20003 — EXP. DATE: 5-19-2011

STORM DRAIN PROFILE

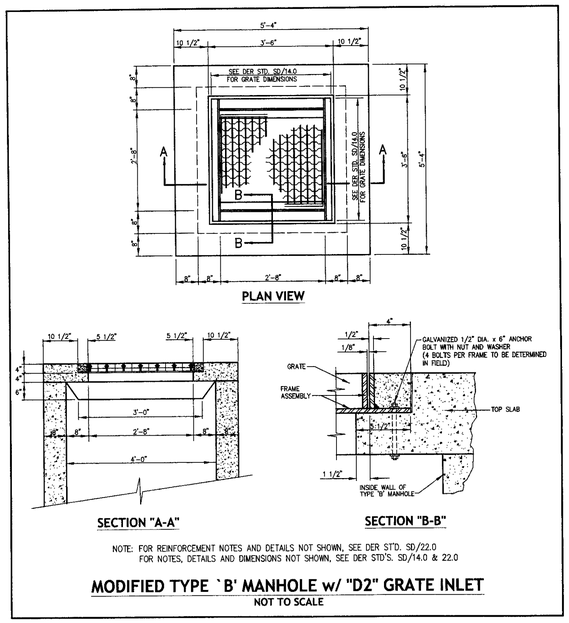
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

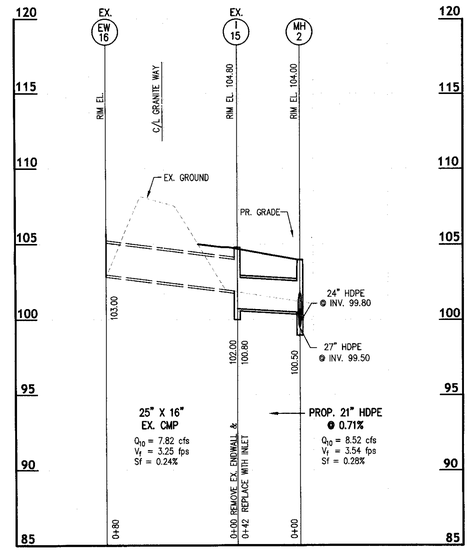
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	26 OF 37



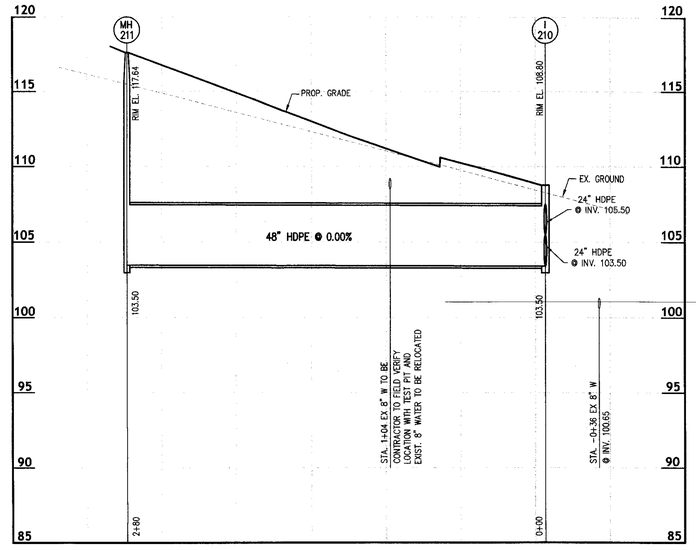
MODIFIED TYPE `B' MANHOLE w/ "D2" GRATE INLET

NOT TO SCALE



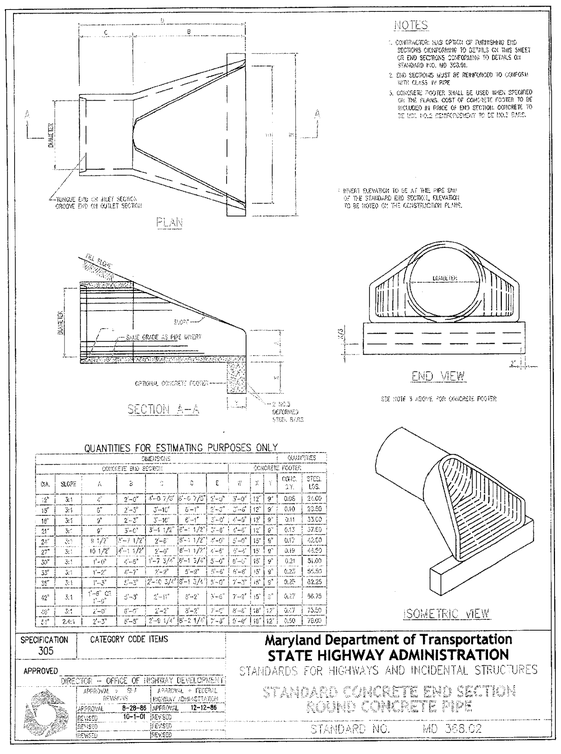
PHASE I STORM DRAIN PROFILES

SCALE: 1" = 50' HORIZ
1" = 5' VERT



PHASE I STORM DRAIN PROFILES

SCALE: 1" = 50' HORIZ
1" = 5' VERT

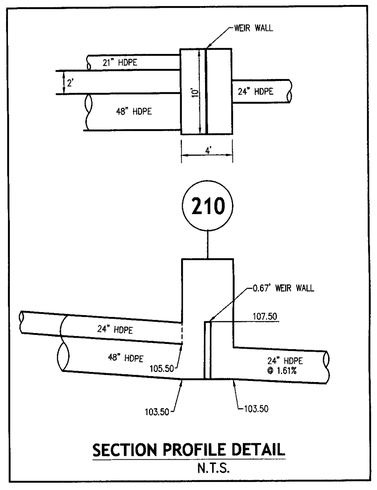


SPECIFICATION 305	CATEGORY CODE ITEMS

APPROVED
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

ASSIGNED TO	APPROVAL + RECEIVED
HIGHWAY	HIGHWAY ADMINISTRATION
APPROVED 8-28-85	APPROVED 12-12-86
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE
STANDARD NO. MD 368.02



SECTION PROFILE DETAIL

N.T.S.

PIPE SCHEDULE SUMMARY

BONDED & INSPECTED BY	SIZE	TYPE	CLASS	LENGTH (FEET)	AS-BUILT LENGTH
PRIVATE PHASE II					
	12"	PVC	SCH 40	220'	
	15"	HDPE		455'	
	27"	HDPE		334'	
	30"	HDPE		92'	
			TOTAL	1,101'	

PIPE SCHEDULE SUMMARY

BONDED & INSPECTED BY	SIZE	TYPE	CLASS	LENGTH (FEET)	AS-BUILT LENGTH
PRIVATE PHASE I					
	12"	PVC	SCH 40	34'	
	15"	HDPE		969'	
	18"	HDPE		233'	
	21"	HDPE		240'	
	24"	HDPE		363'	
	27"	HDPE		90'	
	30"	HDPE		80'	
	48"	HDPE		280'	
			TOTAL	2,289'	

PHASE I & PHASE II TOTAL = 3,310'

STORM DRAIN PIPE SCHEDULE

BONDED & INSPECTED BY	FROM	TO	SIZE	TYPE	LENGTH (FEET)	AS-BUILT LENGTH
PRIVATE PHASE I	48	47	15"	HDPE	30'	
	47	46	15"	HDPE	24'	
	46	24	15"	HDPE	45'	
	44	43	15"	HDPE	25'	
	43	42	15"	HDPE	102'	
	42	41	15"	HDPE	94'	
	41	23	15"	HDPE	45'	
	45	42	15"	HDPE	25'	
	40	22	15"	HDPE	25'	
	34	28	21"	HDPE	12'	
	28	27	21"	HDPE	112'	
	27	210	24"	HDPE	63'	
	210	21	24"	HDPE	62'	
	30	29	15"	HDPE	50'	
	29	290	15"	HDPE	17'	
	25	24	15"	HDPE	170'	
	24	23	18"	HDPE	75'	
	23	22	21"	HDPE	40'	
	22	21	24"	HDPE	54'	
	21	20	30"	HDPE	80'	
	15	2	21"	HDPE	42'	
	14	13	15"	HDPE	26'	
	13	7	15"	HDPE	32'	
	12	5	15"	HDPE	35'	
	10	3	15"	HDPE	67'	
	9	8	15"	HDPE	50'	
	8	7	15"	HDPE	115'	
	7	6	18"	HDPE	88'	
	6	5	18"	HDPE	70'	
	5	4	21"	HDPE	26'	
	4	3	24"	HDPE	138'	
	3	2	24"	HDPE	46'	
	2	1	27"	HDPE	90'	
	210	211	48"	HDPE	280'	
	2	100	12"	PVC, SCH 40	34'	
				TOTAL	2,289'	
PRIVATE PHASE II	85	83	15"	HDPE	184'	
	84	83	30"	HDPE	92'	
	83	830	27"	HDPE	62'	
	830	82	27"	HDPE	110'	
	82	81	27"	HDPE	70'	
	86	80	15"	HDPE	80'	
	81	71	27"	HDPE	92'	
	71	70	15"	HDPE	15'	
	61	60	15"	HDPE	26'	
	53	52	15"	HDPE	45'	
	52	51	15"	HDPE	50'	
	51	50	15"	HDPE	55'	
	51	500	12"	PVC, SCH 40	158'	
	61	600	12"	PVC, SCH 40	32'	
	71	700	12"	PVC, SCH 40	30'	
				TOTAL	1,101'	

STORM DRAIN STRUCTURE SCHEDULE

BONDED & INSPECTED BY	STR. #	TYPE	WIDTH OR DIAMETER	TOP OF STRUCTURE	INV. EL. (OUT)	STANDARD	LOCATION	REMARKS	ASBUILTS TOP OF STR. ELEV.	ASBUILTS INV. ELEV.
PRIVATE PHASE I	1	END SECTION	27"ø	——	99.00	MD STD 368.02	N 170637.5604 E 929114.5140			
	2	MANHOLE	5'ø	104.00	99.50	MSHA MD 384.01	N 170660.0476 E 929035.8316	12" PVC INTO WETLAND # 1 @ 98.7		
	3	MANHOLE	4'ø	108.34	100.20	MSHA MD 384.03	N 170733.8976 E 929003.9151			
	4	COS 5 INLET	4'ø	106.43	101.00	MSHA MD 374.61	N 170778.9004 E 929133.6740			
	5	COS 5 INLET	3.0'	106.43	101.50	MD STD SD/10.1	N 170803.2904 E 929126.0740			
	6	COG 10 INLET	3.0'	106.83	102.50	MD STD SD/10.1	N 170832.6504 E 929190.4640			
	7	MANHOLE	4'ø	107.70	103.40	MSHA MD 384.01	N 170841.8721 E 929279.8315			
	8	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	109.53	104.50	**	N 170980.3804 E 929244.1340	THROAT = 108.70 (SEE DETAIL THIS SHT.)		
	9	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	110.23	104.90	**	N 170994.5504 E 929184.8740	THROAT = 109.40 (SEE DETAIL THIS SHT.)		
	10	COG 10 INLET	4'ø	110.33	104.30	MSHA MD 374.51	N 170793.7004 E 928970.5740			
	12	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	108.23	103.00	**	N 170843.6804 E 929113.9840	THROAT = 107.40 (SEE DETAIL THIS SHT.)		
	13	COG 10 INLET	3.0'	107.92	104.10	MD STD SD/10.1	N 170839.3804 E 929296.4740			
	14	COG 10 INLET	3.0'	107.92	104.80	MD STD SD/10.1	N 170815.3304 E 929304.1940			
	15	SINGLE WR INLET	2.75'	104.80	100.80	MSHA MD 374.23	N 170694.7630 E 928988.7052			
	20	END SECTION	30"ø	——	100.00	MD STD 368.02	N 171440.6264 E 929086.7443			
	21	MANHOLE	5'ø	106.00	100.40	MSHA MD 384.01	N 171394.0277 E 929025.4253			
	22	COS 10 INLET	3.5'	106.34	101.30	MD STD SD/10.1	N 171356.6104 E 929060.2840			
	23	MANHOLE	4'ø	106.30	102.10	MSHA MD 384.01	N 171323.7730 E 929093.2995			
	24	COG 5 INLET	3.5'	107.60	103.20	MD STD SD/10.1	N 171269.2004 E 929143.9340			
	25	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	109.73	104.30	**	N 171145.4904 E 929263.8140	THROAT = 108.9 (SEE DETAIL THIS SHT.)		
	210	JUNCTION BOX	4'x10'	108.80	103.50	**	N 171360.4588 E 928972.9846			
	27	COS 15 INLET	4'ø	114.44	105.90	MSHA MD 374.61	N 171321.7804 E 928921.4840			
	28	COG 5 INLET	3.0'	114.14	107.10	MD STD SD/10.1	N 171263.0404 E 928827.6440			
	29	COG 5 INLET	3.0'	121.85	116.70	MD STD SD/10.1	N 171132.1704 E 928654.5340			
	30	SINGLE WR INLET	2.75'	119.60	117.10	MSHA MD 374.23	N 171097.1104 E 928693.0340			
	34	HEADWALL	21"ø	——	111.00	MSHA MD 352.01	N 171270.6604 E 928808.2440			
	40	COS 10 INLET	3.0'	106.34	102.60	MD STD SD/10.1	N 171339.5604 E 929041.9840			
	41	SINGLE WR INLET	2.75'	106.50	103.30	MSHA MD 374.23	N 171294.4204 E 929057.7140			
	42	SINGLE WR INLET	2.75'	108.80	104.40	MSHA MD 374.23	N 171238.4304 E 928981.2140			
	43	SINGLE WR INLET	2.75'	112.90	107.60	MSHA MD 374.23	N 171174.0404 E 928899.5840			
	44	SINGLE WR INLET	2.75'	112.70	108.20	MSHA MD 374.23	N 171156.1104 E 928917.8440			
	45	SINGLE WR INLET	2.75'	108.70	105.00	MSHA MD 374.23	N 171218.8104 E 928999.1440			
	46	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	108.33	104.30	**	N 171226.3904 E 929126.5840	THROAT = 107.5 (SEE DETAIL THIS SHT.)		
	47	COG 10 INLET	3.0'	108.50	104.60	MD STD SD/10.1	N 171205.1104 E 929128.1540			
	48	COG 10 INLET	3.0'	108.50	104.90	MD STD SD/10.1	N 171190.2404 E 929149.6040			
	211	MANHOLE	5'ø	117.64	384.01	MSHA MD 384.01	N 171188.3676 E 928746.2906			
PRIVATE PHASE II	290	END SECTION	15"ø	——	116.60	MD STD 368.02	N 171151.7213 E 928655.9557			
	50	END SECTION	15"ø	——	110.00	MD STD 368.02	N 171578.1024 E 928768.4312			
	51	COS 5 INLET	3.0'	116.50	111.70	MD STD SD/10.1	N 171559.52 E 928717.1156	12" PVC INTO WETLAND # 2 @ 109.10		
	52	COS 10 INLET	3.0'	117.43	112.40	MD STD SD/10.1	N 171549.2535 E 928669.5760			
	53	TRIPLE WR INLET	3.0'	116.63	113.10	MD STD 374.26	N 171537.5251 E 928624.3980			
	60	END SECTION	15"ø	——	101.00	MD STD 368.02	N 171825.7023 E 928630.0729			
	61	TRENCH DRAIN	*	106.60	102.30	* SEE DETAIL	N 171800.9080 E 928618.5567	12" PVC INTO WETLAND # 2 @ 101.20		
	70	END SECTION	27"ø	——	101.80	MD STD 368.02	N 171818.2632 E 928342.2245			
	71	TRENCH DRAIN	*	105.40	102.20	* SEE DETAIL	N 171806.8097 E 928341.7256	12" PVC INTO WETLAND # 3 @ 101.15		
	80	END SECTION	15"ø	——	101.50	MD STD 368.02	N 171804.2546 E 928222.8345			
	81	COS 5 INLET	4'ø	108.0	102.80	MD STD 374.61	N 171795.9865 E 928222.2767			
	82	PRECAST TRIPLE WR INLET	3.5'	103.3	109.50	MD STD 374.26	N 171799.2725 E 928248.1201			
	83	PRECAST TRIPLE WR INLET	3.5'	113.10	105.00	MD STD 374.26	N 171565.3652 E 928256.5121			
	84	END SECTION	30"ø	——	105.80	MD STD 368.02	N 171525.9059 E 928174.5811			
	85	END SECTION	15"ø	——	114.90	MD STD 368.02	N 171473.5241 E 928256.5121			
	86	TRENCH DRAIN	*	104.70	102.20	*	N 171718.0759 E 928197.0911			
	830	MOD.TYPE B 48" MH W/D2 GRATE INLET	4'ø	114.53	104.00	**	N 171622.8741 E 928234.7921	THROAT = 113.70 (SEE DETAIL THIS SHT.)		

* SEE DETAIL ON SHEET #4

** SEE DETAIL ON THIS SHEET

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
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MATERIALS CONSULTANTS • FACILITIES

1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT J. ANTHONY — No. 21593 — REGISTERED PROFESSIONAL ENGINEER

ROBERT J. ANTHONY, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION. 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. 20593 EXP. DATE 9-19-2011

STORM DRAIN PROFILE

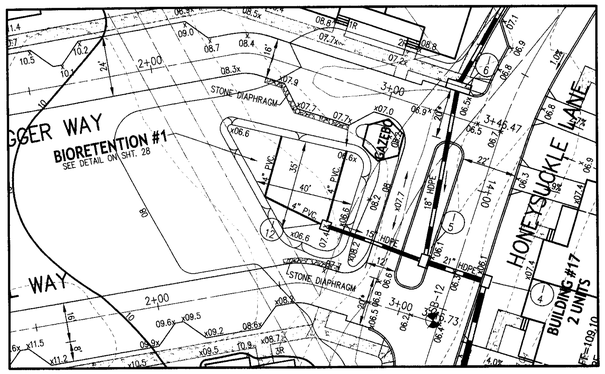
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

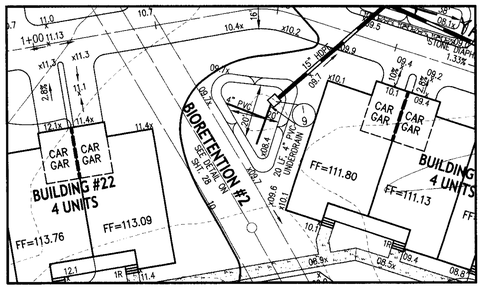
Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

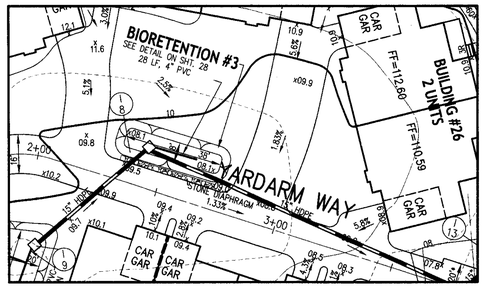
DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 50'
SHEET NO.	27 OF 37



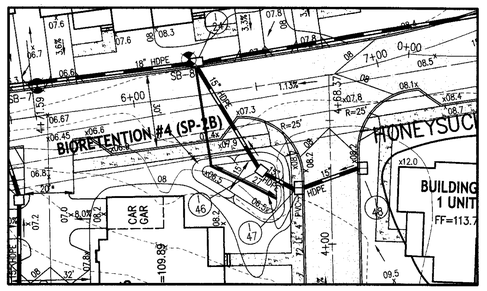
BIORETENTION #1 PLAN
SCALE: 1" = 30'



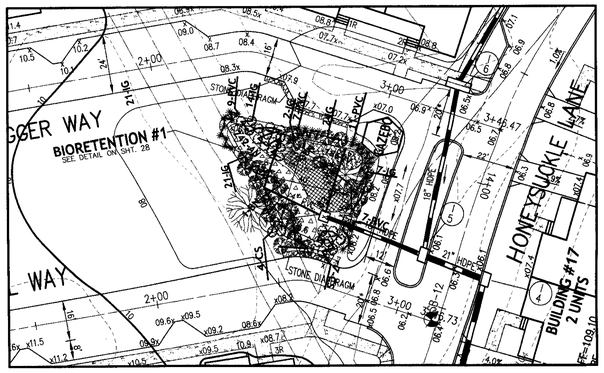
BIORETENTION #2 PLAN
SCALE: 1" = 30'



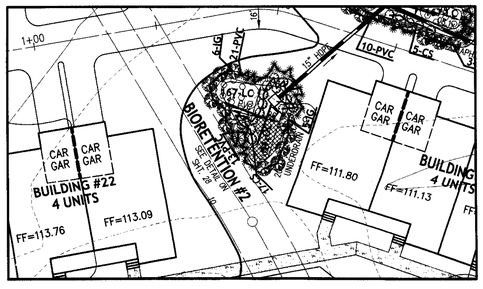
BIORETENTION #3 PLAN
SCALE: 1" = 30'



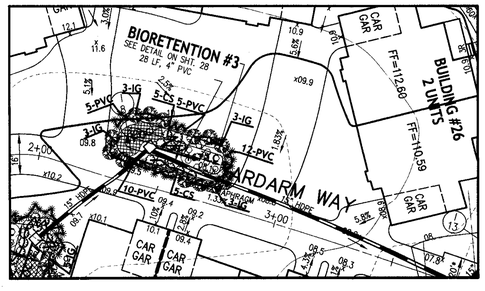
BIORETENTION #4 PLAN
SCALE: 1" = 30'



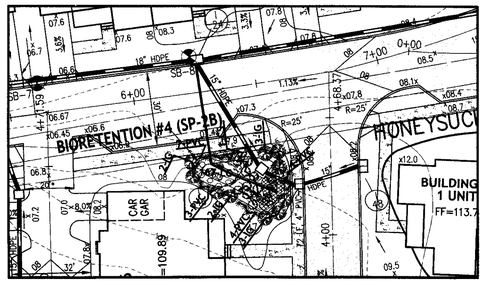
BIORETENTION #1 LANDSCAPE PLAN
SCALE: 1" = 30'



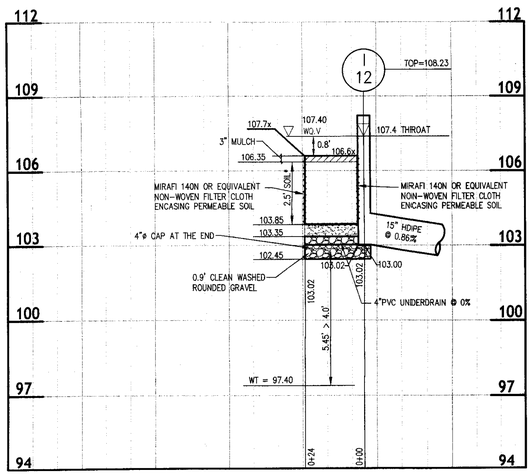
BIORETENTION #2 LANDSCAPE PLAN
SCALE: 1" = 30'



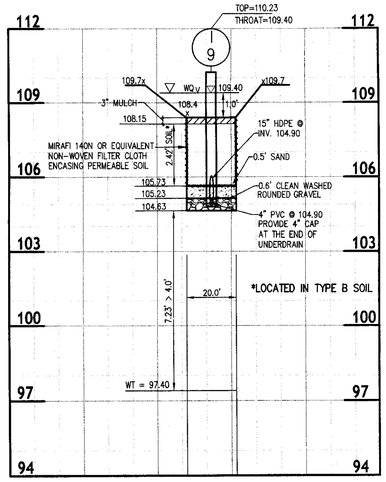
BIORETENTION #3 LANDSCAPE PLAN
SCALE: 1" = 30'



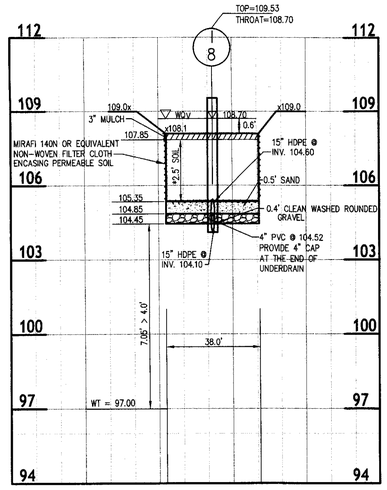
BIORETENTION #4 LANDSCAPE PLAN
SCALE: 1" = 30'



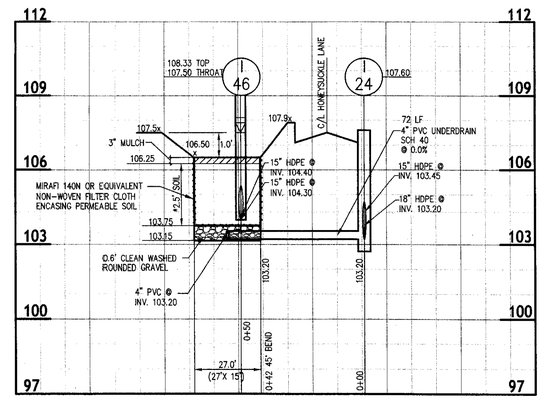
***BIORETENTION FACILITY #1 (FOR STUDY POINT #1B)**
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



BIORETENTION FACILITY #2 (FOR STUDY POINT #1C)
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



***BIORETENTION FACILITY #3 (FOR STUDY POINT #1D)**
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



***BIORETENTION FACILITY #4 (FOR STUDY POINT #2B)**
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

*** SEE BIORETENTION MATERIAL SPECIFICATIONS ON SHEET 29.**

LUGM TRACKING #08-132-001 & STSP #91-0233

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CONTINGENT ON L.A. ESIGNATURE

STATE OF MARYLAND — DOROTHY E. MOWATT

DOROTHY E. MOWATT, CHIEF ENGINEER
PROFESSIONAL ENGINEER-STATE OF MARYLAND 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. 20035 EXP. DATE 3-19-2011

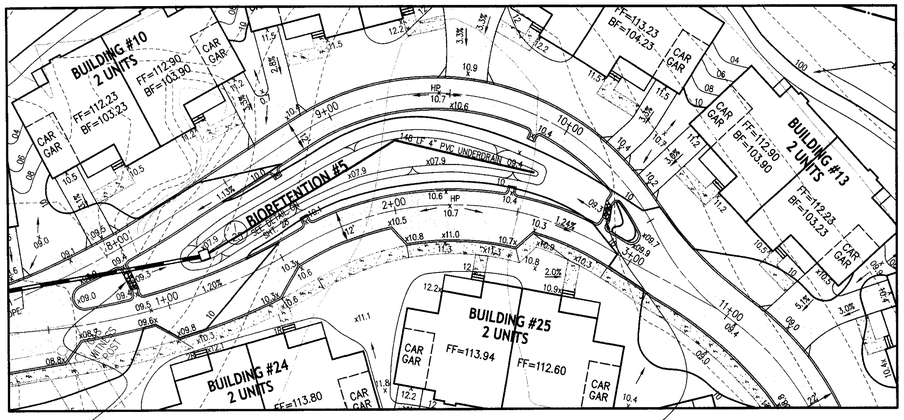
SWM BIORETENTION# 1-4 PLAN VIEW & PROFILE
WILDEWOOD RETIREMENT VILLAGE

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TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

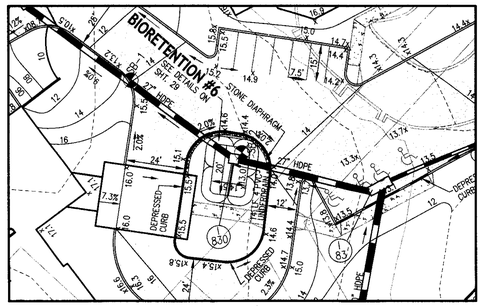
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DATE	FEB, 2009
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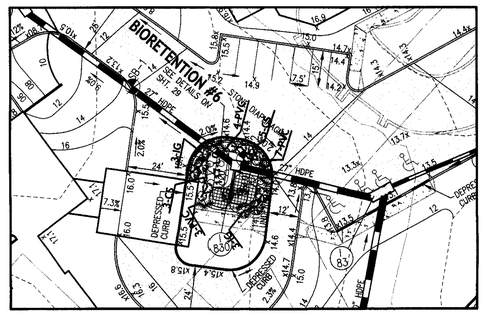
CL I RIP-RAP @ 0%
d50 = 9.0" dMAX = 15"
THK = 18" ON MIRAFI 500X OR EQUIVALENT FILTER CLOTH

CL I RIP-RAP @ 0%
d50 = 9.0" dMAX = 15"
THK = 18" ON MIRAFI 500X OR EQUIVALENT FILTER CLOTH

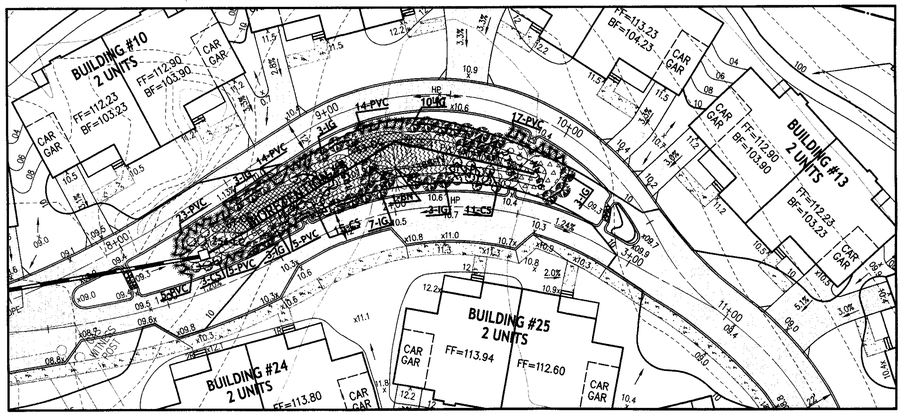
BIORETENTION #5 PLAN
SCALE: 1" = 30'



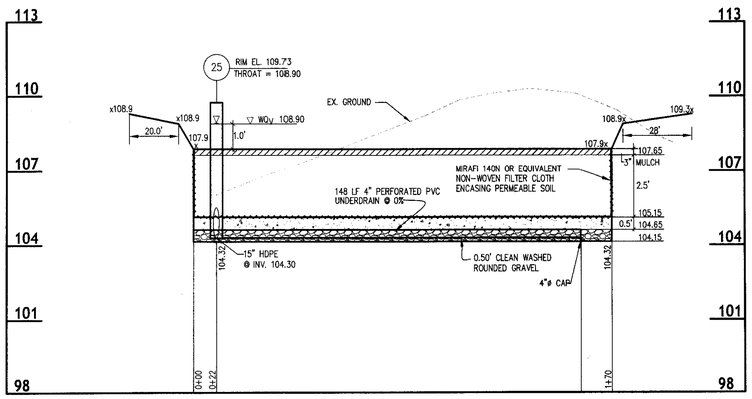
BIORETENTION #6 PLAN
SCALE: 1" = 30'



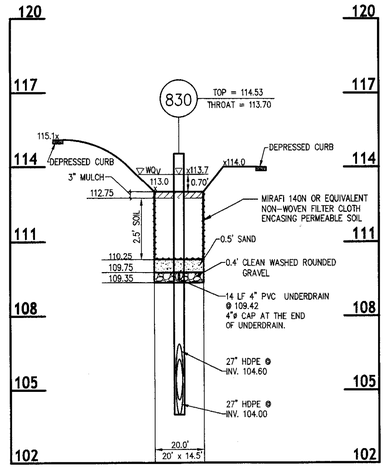
BIORETENTION #6 LANDSCAPE PLAN
SCALE: 1" = 30'



BIORETENTION #5 LANDSCAPE PLAN
SCALE: 1" = 30'



BIORETENTION FACILITY #5 (FOR STUDY POINT 2C)
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



BIORETENTION FACILITY #6 (FOR STUDY POINT 4A)
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

BIORETENTION FACILITIES INSPECTION & MAINTENANCE NOTES.

B. SURFACE FILTERING SYSTEMS:

1. FILTERING SYSTEMS MUST BE INSPECTED REGULARLY. WHEN PONDING IS EVIDENT ON THE SURFACE OF THE FILTER BED FROM MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND REPLACED WITH FRESH MATERIAL AND DISPOSED OF PROPERLY.
2. SILT/SEDIMENT REMOVAL SHALL BE PERFORMED WHEN SEDIMENT ACCUMULATES A DEPTH THAT EXCEEDS ONE INCH.
3. FILTERS WITH A GRASS COVER SHALL BE MOWED A MINIMUM OF THREE TIMES PER GROWING SEASON TO MAINTAIN GRASS HEIGHTS THAT DO NOT EXCEED 12 INCHES.
4. DEAD OR DISEASED PLANT MATERIAL SHALL BE REPLACED. AREAS DEVOID OF MULCH SHOULD BE RE-MULCHED ON AN ANNUAL BASIS.
5. DIRECT MAINTENANCE ACCESS TO THE PRE-TREATMENT AREA AND FILTER BED SHALL BE MAINTAINED.
6. VIGOROUS AND DENSE GROWTH SHOULD BE MAINTAINED. ANY BARE SPOTS, BURNED OUT AREAS, OR ERODED AREAS MUST BE RE-SEEDED OR RE-SODDED IMMEDIATELY. WATERING AND/OR FERTILIZATION SHOULD BE PROVIDED DURING THE FIRST FEW MONTHS AFTER STRIP IS ESTABLISHED AND MAY PERIODICALLY BE NEEDED DURING PERIODS OF DROUGHT.
7. THE LOW FLOW PIPES IN THE DROP STRUCTURES SHALL BE PROTECTED FROM TRASH ACCUMULATION BY A WIDE MESH GEOTEXTILE SCREEN TO BE PLACED IN STRUCTURE. THE SCREEN IS TO BE CLEANED DURING MAINTENANCE OPERATIONS.

BIORETENTIONS NOTES

INSPECTION:
REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- -DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
- -DURING PLACEMENT FILTER MEDIA.
- -DURING CONSTRUCTION OF APPURTENANT CONVEYANCE.
- -UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

MAINTENANCE CRITERIA
THE FOLLOWING ITEMS SHOULD BE ADDRESSED TO ENSURE PROPER MAINTENANCE AND LONG-TERM PERFORMANCE OF MICRO-BIORETENTION PARTICLES:
- -THE TOP FEW INCHES OF FILTER MEDIA SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE FILTER BED WHEN ACCUMULATION EXCEEDS ONE INCH.
- -WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (E.G., PARKING LOTS, ROADS), MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP TWO TO THREE INCHES SHOULD BE REPLACED AS NECESSARY.
- -OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.

TABLE B.3.2 MATERIAL SPECIFICATIONS FOR BIORETENTION

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE SPECIFIC
PLANTING SOIL (2.5' TO 4' DEEP)	SAND 35–60% SILT 30–55% CLAY 10–25%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM, OR LOAM
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN	PEA GRAVEL: ASTM-D-448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: NO.6 STONE: 2" TO 5"	
GEOTEXTILE	CLASS "C"–APPARENT OPENING SIZE (ASTM-D-4751), GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M-43	0.375" TO 0.75"	
UNDERDRAIN PIPING	F 758 TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF.@ 6" ON CENTER, 4 HOLES PER ROW, MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES
POURED IN PLACE CONCRETE (IF NECESSARY)	MSHA MIX NO. 3; f'c=3500 PSI @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND–DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL LOADING (H-10 OR H-20); ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
SAND (1' DEEP)	AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.

SPECIFICATIONS FOR BIORETENTION FACILITIES

1. MATERIAL SPECIFICATIONS FROM MDE 2000 SWM DESIGN MANUAL
THE ALLOWABLE MATERIALS TO BE USED IN BIORETENTION AREA ARE DETAILED IN TABLE B.3.2.

2. PLANTING SOIL
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
pH RANGE: 5.2–7.0
ORGANIC MATTER: 1.5–4% (BY WEIGHT)
MAGNESIUM: 35 lb/oc
PHOSPHORUS (PHOSPHATE – P_2O_5): 75 lb/oc
POTASSIUM (POTASH – K_2O): 85 lb/oc
SOLUBLE SALTS: NOT TO EXCEED 500 ppm

ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR pH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE TOPSOIL WAS EXCAVATED.

SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.

SHOULD THE pH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BACKFILLING THE OPTIONAL SAND FILTER LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR BIORETENTION AREAS CAN BE FOUND IN APPENDIX 1, SECTION A.2.3.

5. PLANT INSTALLATION
MULCH SHOULD BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. FINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8" OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS ARE TO BE PLACED ON A 3'–0" WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5% OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS
THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

B.3.7

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REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

COMPLIANCE WITH C.A.D. STANDARDS

STATE OF MARYLAND
ROBERT J. MCCARTHY, JR.
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. 20039 EXP. DATE 3-19-2011

SWM BIORETENTIONS # 5 & 6 PLAN VIEW & PROFILE

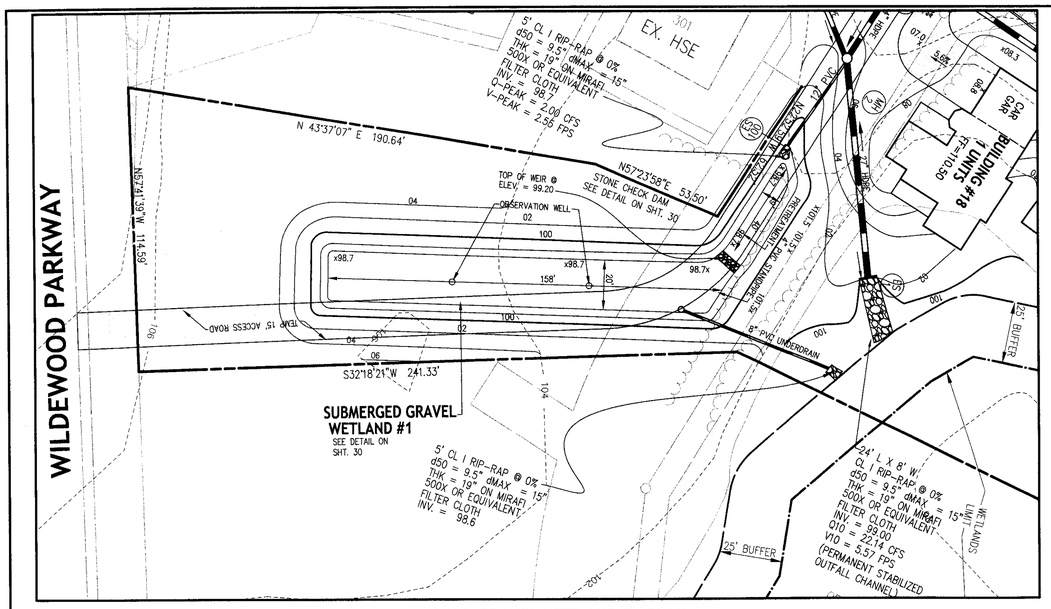
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

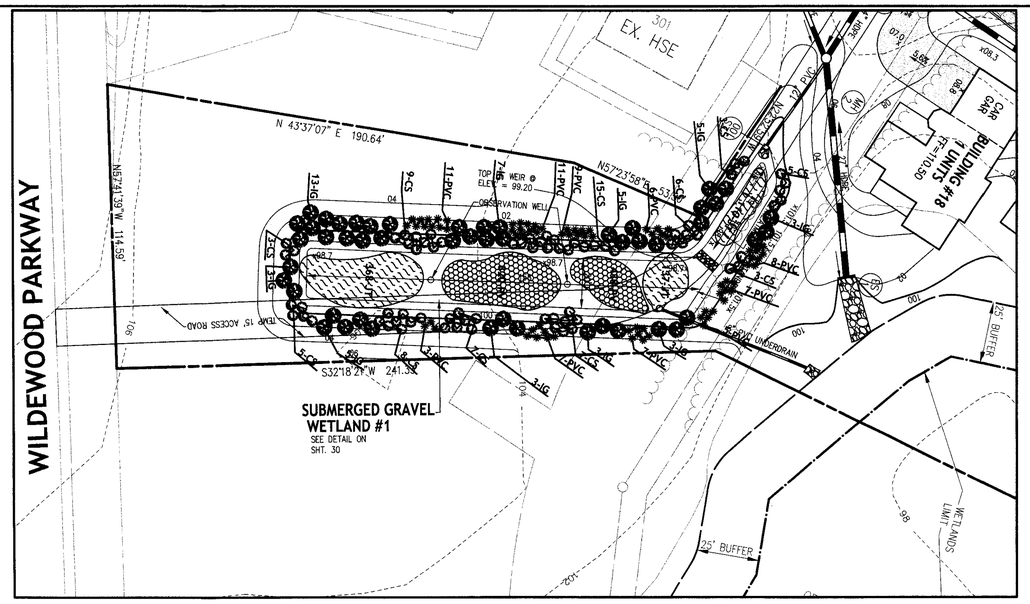
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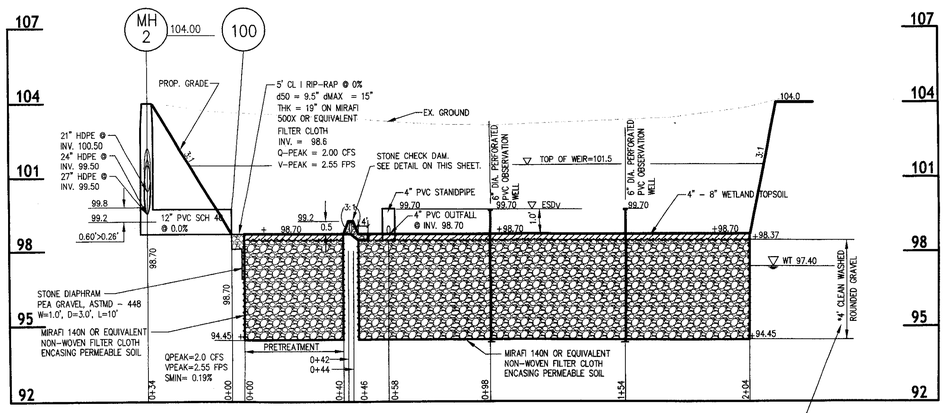
SUBMERGED GRAVEL WETLAND #1 PLAN

SCALE: 1" = 30'



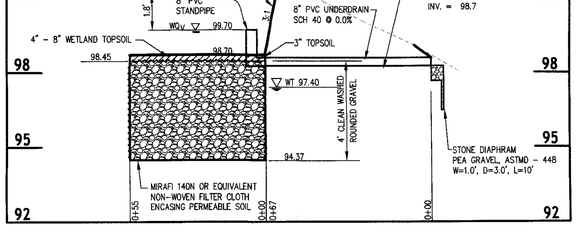
SUBMERGED GRAVEL WETLAND #1 LANDSCAPE PLAN

SCALE: 1" = 30'



SUBMERGED GRAVEL WETLAND # 1

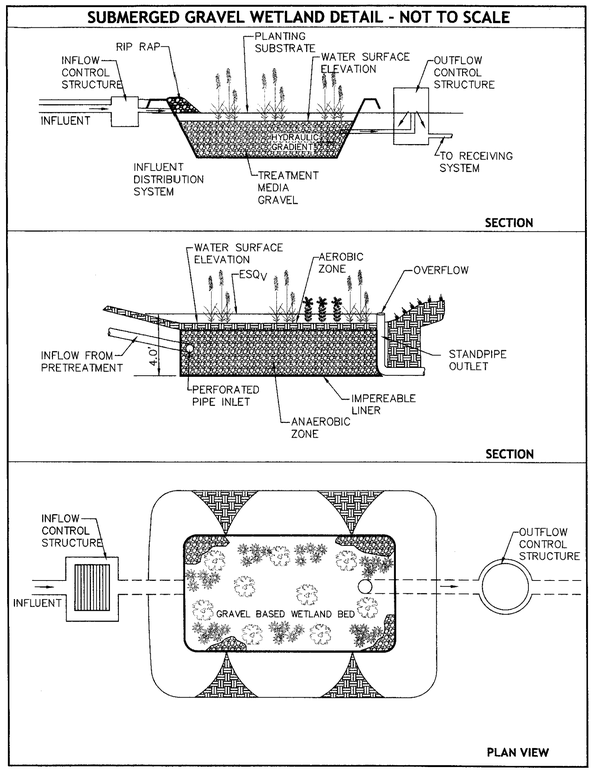
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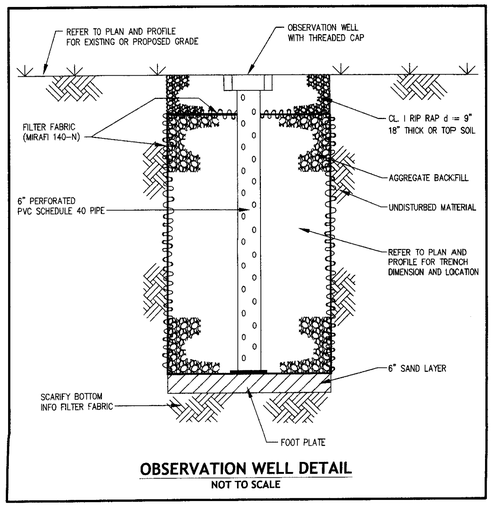


SUBMERGED GRAVEL WETLAND # 1

SCALE: HORIZ. 1"=30'
VERT. 1"=3'

SUBMERGED GRAVEL WETLAND DETAIL - NOT TO SCALE

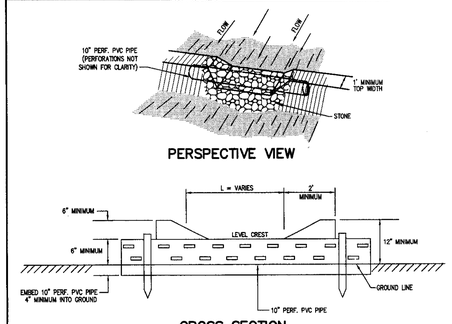




OBSERVATION WELL DETAIL

NOT TO SCALE

STONE CHECK DAM w/ 10" PERF. PVC PIPE



Construction Specifications

1. Crushed stone shall be used. Gravel may be used if crushed stone is not available. The stone shall be 2" – 3" in size.
2. The crest of the stone dike shall be at least 6" lower than the lowest elevation of the top of the earth dike and shall be level.
3. The structure shall be embedded into the soil a minimum of 4".
4. The structure shall be inspected after each rain. Stone shall be replaced when the structure ceases to function and ponding results.
5. The 10" perforated PVC pipe shall be extended one foot into the dike, staked and embedded 4" into the existing ground.

SUBMERGED GRAVEL WETLAND NOTES

INSPECTION:

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- –DURING EXCAVATION TO SUBGRADE.
- –DURING PLACEMENT OF BACKFILL OF PERFORATED INLET PIPE AND OBSERVATION WELLS.
- –DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MATERIALS.
- –DURING CONSTRUCTION OF ANY APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, INLETS, OUTLETS, AND FLOW DISTRIBUTION STRUCTURES.
- –UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION, AND BEFORE ALLOWING RUNOFF TO ENTER THE WETLAND.

MAINTENANCE CRITERIA

THE FOLLOWING ITEMS SHOULD BE ADDRESSED TO ENSURE PROPER MAINTENANCE AND LONG–TERM PERFORMANCE OF SUBMERGED GRAVEL WETLANDS:
- –DURING THE FIRST YEAR OF OPERATION, INSPECTIONS SHOULD BE CONDUCTED AFTER EVERY MAJOR STORM AND POORLY ESTABLISHED AREAS REVEGETATED.
- –SEDIMENT ACCUMULATION IN THE PRETREATMENT AREAS SHOULD BE REMOVED AS NECESSARY.
- –SIGNS OF UNEVEN FLOW DISTRIBUTION WITHIN THE WETLAND MAY MEAN THAT THE GRAVEL OR UNDERDRAIN IS CLOGGED. THE GRAVEL AND/OR UNDERDRAIN MAY NEED TO BE REMOVED, CLEANED, AND REPLACED.
- –A DENSE STAND OF WETLAND VEGETATION SHOULD BE MAINTAINED THROUGH THE LIFE OF THE FACILITY WITH PLANTINGS REPLACED AS NEEDED.
- –INLETS AND OUTLETS TO EACH SUBMERGED GRAVEL WETLAND CELL SHOULD BE FREE FROM DEBRIS TO PREVENT CLOGGING.
- –EROSION AT INFLOW POINTS SHOULD BE REPAIRED. FLOW SPLITTERS SHOULD BE FUNCTIONAL TO PREVENT THE BYPASSING OF THE FACILITY.

NOTE:

AGGREGATE SHALL BE COMPOSED OF AN 18" TO 48" LAYER OF CLEAN WASHED UNIFORMLY GRADED MATERIAL WITH A POROSITY OF 40% FOUNDED BANK RUN GRAVEL IS RECOMMENDED.

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CONTINGENT ON L.A. OBSERVANCE

STATE OF MARYLAND — ROBERT T. MCDANIEL — NO. 9147 — REGISTERED PROFESSIONAL ENGINEER

ROBERT T. MCDANIEL 9147 ENGINEER
PROFESSIONAL CERTIFICATION. 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. 20039 EXP. DATE 3–19–2011

SUBMERGED GRAVEL WETLAND PLAN VIEW & PROFILE

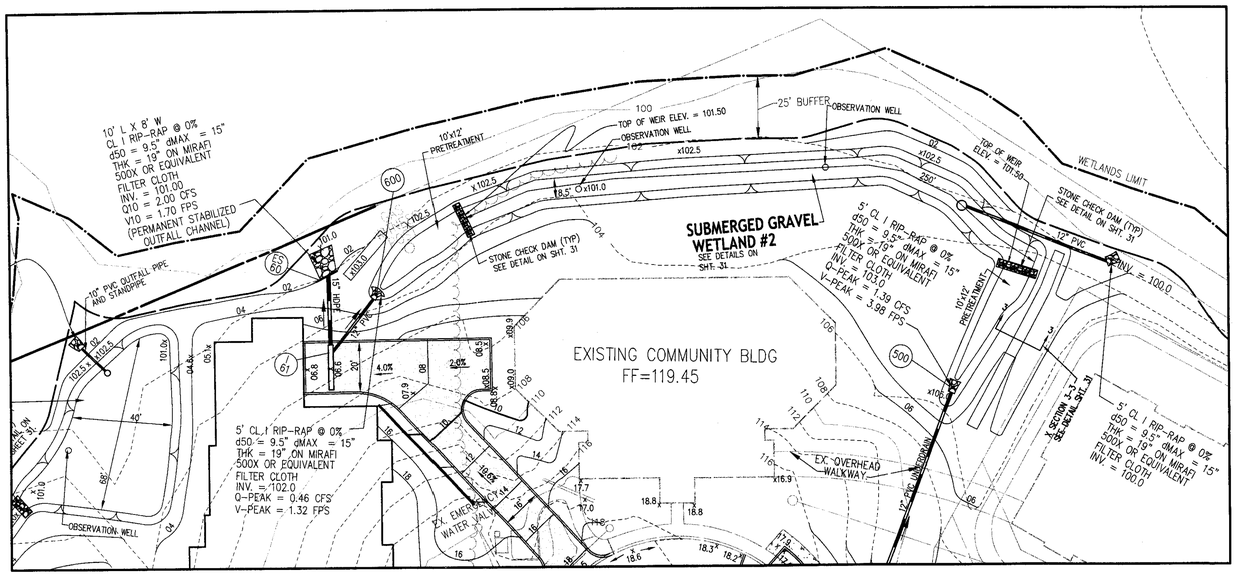
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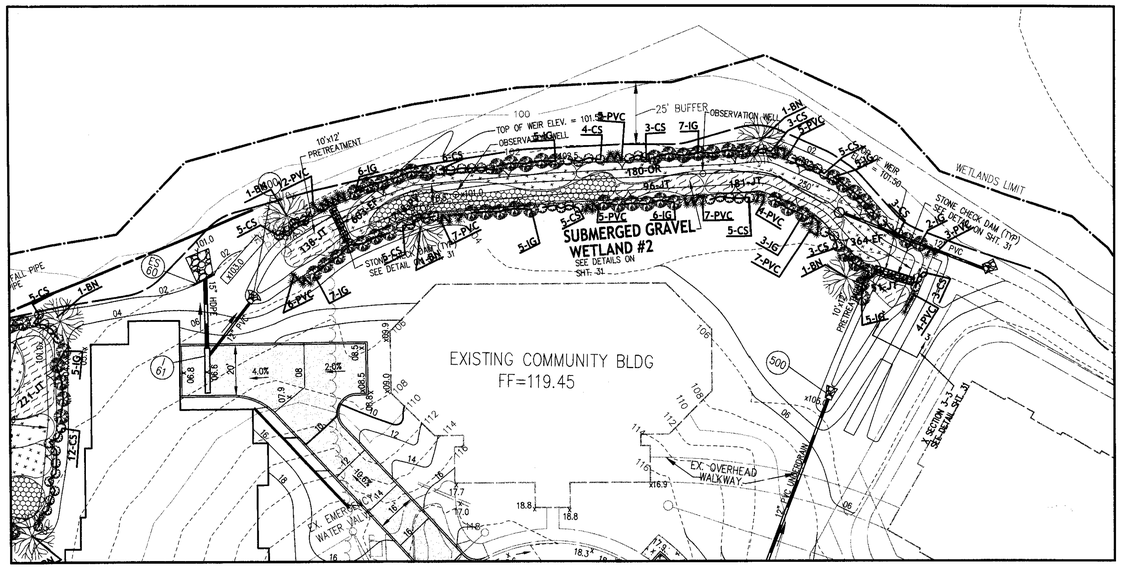
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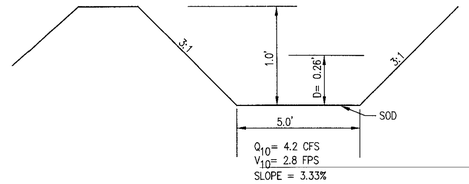
SUBMERGED GRAVEL WETLAND #2 PLAN

SCALE: 1" = 30'



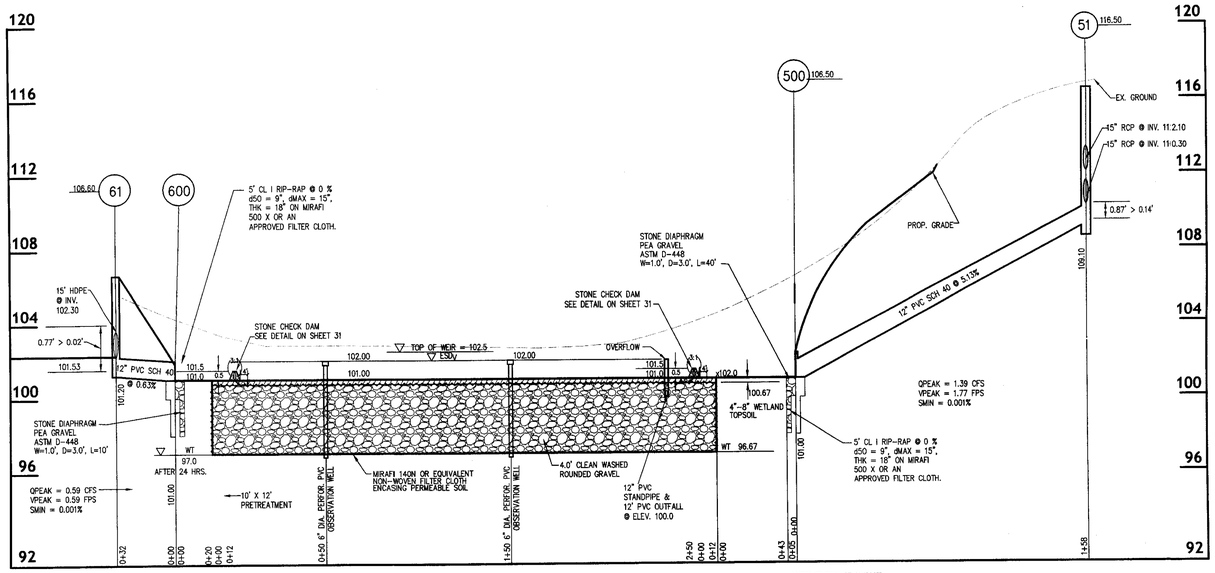
SUBMERGED GRAVEL WETLAND #2 LANDSCAPE PLAN

SCALE: 1" = 30'



SECTION 3-3

N.T.S.



SUBMERGED GRAVEL WETLAND # 2

SCALE: HORZ 1" = 40'
VERT 1" = 4'

AGGREGATE SHALL BE COMPOSED OF AN 18" TO 48" LAYER OF CLEAN WASHED UNIFORMLY GRADED MATERIAL WITH A POROSITY OF 40% FOUNDED BANK RUN GRAVEL IS RECOMMENDED.

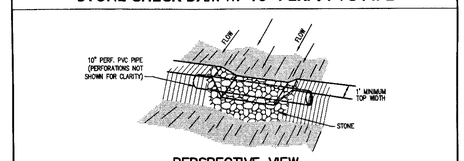
Worksheet
Worksheet for Trapezoidal Channel

Project Description	
Worksheet	WQDITCH-SPS
Flow Element	Trapezoidal Cha
Method	Manning's Formv
Solve For	Channel Depth

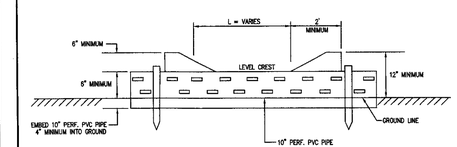
Input Data	
Mannings Coeffic	0.035
Slope	033000 ft/ft
Left Side Slope	3.00 H : V
Right Side Slope	3.00 H : V
Bottom Width	5.00 ft
Discharge	4.20 cfs

Results	
Depth	0.26 ft
Flow Area	1.5 ft²
Wetted Perim	6.82 ft
Top Width	6.54 ft
Critical Depth	0.26 ft
Critical Slope	0.029520 ft/ft
Velocity	2.84 ft/s
Velocity Head	0.13 ft
Specific Energ	0.38 ft
Froude Numb	1.05
Flow Type	Supercritical

STONE CHECK DAM w/ 10" PERF. PVC PIPE



PERSPECTIVE VIEW



CROSS SECTION

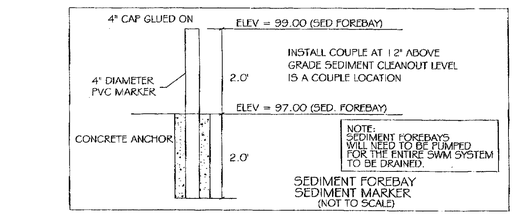
Construction Specifications

1. Crushed stone shall be used. Gravel may be used if crushed stone is not available. The stone shall be 2" – 3" in size.
2. The crest of the stone dike shall be at least 6" lower than the lowest elevation of the top of the earth dike and shall be level.
3. The structure shall be embedded into the soil a minimum of 4".
4. The structure shall be inspected after each rain. Stone shall be replaced when the structure ceases to function and ponding results.
5. The 10" perforated PVC pipe shall be extended one foot into the dike, staked and embedded 4" into the existing ground.

qualifications for all material certifications and required reports.

SCHEDULE - OBW

#	TOP	BOTTOM
	98.00	90.17
	98.00	90.17



CONCRETE WALL
TOP = 98.50
BOTTOM = 95.00
1' WIDE BY 8' LONG
WALL TO BE BURIED IN OUTLE
FOR PROTECTION OF RIP RAP

TOP = 98.50

TOP

REINFO
WIRE
4.0

LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS
GEOTECHNICAL • ENVIRONMENTAL
MATERIALS CONSULTANTS • FACILITIES

1111 Benfield Blvd
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Millersville, MD 21108
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(800) 266-6202
Fax (410) 987-3457

REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

CONTINGENT ON L.A. SIGNATURE

STATE OF MARYLAND
ROBERT M. SNYDER
No. 20583
REGISTERED PROFESSIONAL ENGINEER

5/11/09

ROBERT M. SNYDER, PE
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. 20583 EXP. DATE 3-19-2011

SUBMERGED GRAVEL WETLAND#2 PLAN VIEW & PROFILE

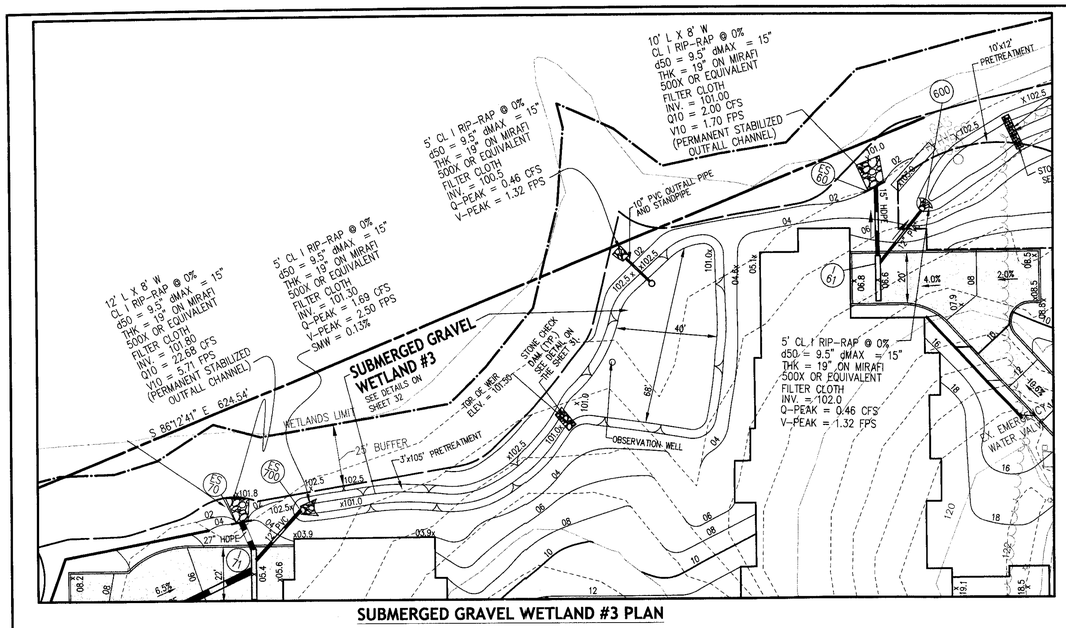
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

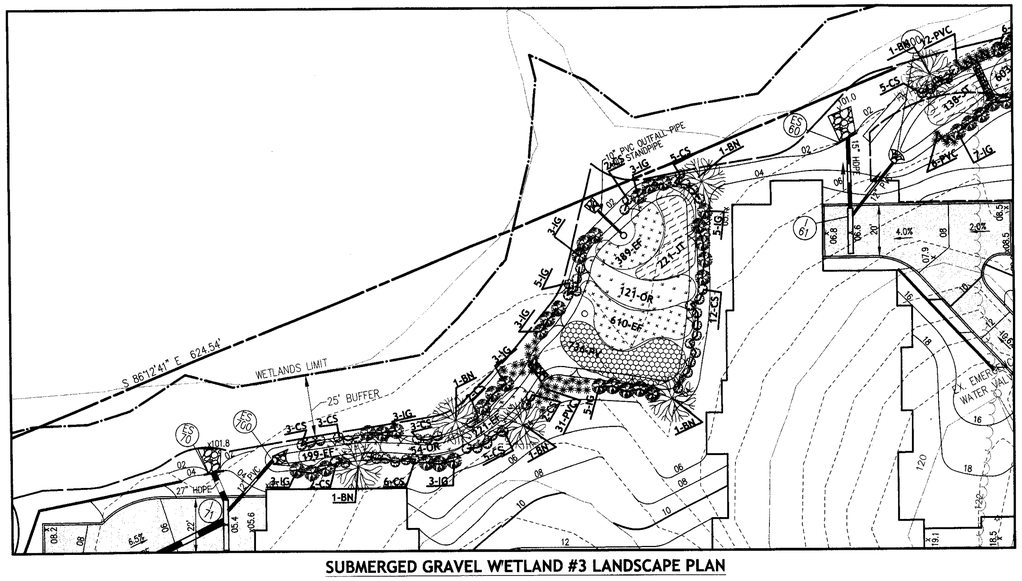
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB. 2009
SCALE	1 = 30'
SHEET NO.	31 OF 37



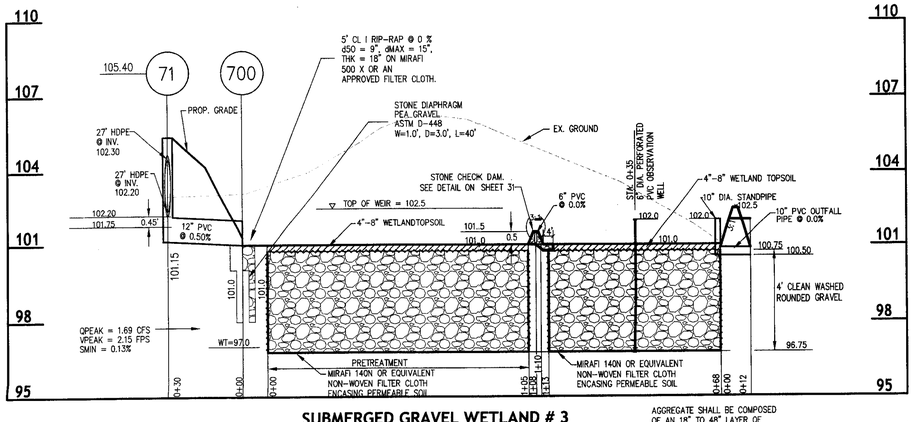
SUBMERGED GRAVEL WETLAND #3 PLAN

SCALE: 1" = 30'



SUBMERGED GRAVEL WETLAND #3 LANDSCAPE PLAN

SCALE: 1" = 30'



SUBMERGED GRAVEL WETLAND # 3

SCALE: HORIZ. 1"=30'
VERT. 1"=3'

AGGREGATE SHALL BE COMPOSED OF AN 18" TO 48" LAYER OF CLEAN WASHED UNIFORMLY GRADED MATERIAL WITH A POROSITY OF 40% FOUNDED BANK RUN GRAVEL IS RECOMMENDED.

STORMWATER MANAGEMENT CHART

	Step	Requirement/ Category	Total Site Area (Acres)	Total Impervious Area (Acres)	Volume Required (AC/FT)	Volume Provided (AC/FT)	Remarks
STUDY POINT 1	1	Water Quality Volume (WQV)	5.70 TOTAL 3.60 ONSITE	2.73 TOTAL 1.93 ONSITE	SP #1A 0.101 SP #1B 0.043 SP #1C 0.008 SP #1D 0.009	SP #1A – SGW 1 0.202* SP #1B – BIO 1 0.065 SP #1C – BIO 2 0.011 SP #1D – BIO 3 0.014	Volume is in the proposed 3 Bioretention facilities and in a Submerged Gravel Wetland.
	2	Recharge Volume (REV)			N/A	N/A	Recharge Volume is not required according to the Wildewood Planned Unit Development Standards adopted in June 1991.
	3	Channel Protection Volume (CPV)			N/A	N/A	The 1 year is safely attenuated within and existing regional stormwater management pond in the Wildewood Development.
	4	Overbank Flood Protection Volume (QP)			N/A	N/A	The 10 year is safely conveyed thru the storm drain system, bypassing the proposed water quality devices and into the swm pond located on the Wildewood property.
	5	Extreme Flood Volume (QF)			N/A	N/A	The 100 year is safely conveyed into the swm pond located on the Wildewood property.
STUDY POINT 2	1	Water Quality Volume (WQV)	7.56 TOTAL 4.26 ONSITE	4.54 TOTAL 2.92 ONSITE	SP #2A 0.181 with credit 0.11 SP #2B 0.013 SP #2C 0.043	SP #2A – BAY FILTER 0.11 SP #2B – BIO 4 0.019 SP #2C – BIO 5 0.061	Volume is in the proposed 2 Bioretention facilities and in a Bayfilter Device with a 48" hdpe pipe for the 75% req'd storage. Dry Wells / Rooftop Disconnection credit has been used to reduce the WQv located at Study Point #2A.
	2	Recharge Volume (REV)			N/A	N/A	Recharge Volume is not required according to the Wildewood Planned Unit Development Standards adopted in June 1991.
	3	Channel Protection Volume (CPV)			N/A	N/A	The 1 year is safely attenuated within and existing regional stormwater management pond in the Wildewood Development.
	4	Overbank Flood Protection Volume (QP)			N/A	N/A	The 10 year is safely conveyed thru the storm drain system, bypassing the proposed water quality devices and into the swm pond located on the Wildewood property.
	5	Extreme Flood Volume (QF)			N/A	N/A	The 100 year is safely conveyed into the swm pond located on the Wildewood property.
STUDY POINT 3		Water Quality Volume (WQV)	1.95	1.20	SP #3 0.098 with redevelopment 0.068	SP #3 – SWG 2 0.141*	Volume is provided in a Submerged Gravel Wetland. The WQv has been reduced based on the redevelopement criteria.
	2	Recharge Volume (REV)			N/A	N/A	Recharge Volume is not required according to the Wildewood Planned Unit Development Standards adopted in June 1991.
	3	Channel Protection Volume (CPV)			N/A	N/A	The 1 year is safely attenuated within and existing regional stormwater management pond in the Wildewood Development.
	4	Overbank Flood Protection Volume (QP)			N/A	N/A	The 10 year is safely conveyed thru the storm drain system, bypassing the proposed water quality devices and into the swm pond located on the Wildewood property.
	5	Extreme Flood Volume (QF)			N/A	N/A	The 100 year is safely conveyed into the swm pond located on the Wildewood property.
STUDY POINT 4		Water Quality Volume (WQV)	10.80 TOTAL 2.80 ONSITE	4.62 TOTAL 1.80 ONSITE	SP #4A 0.008 SP #4B 0.139 with credit & redevelopment 0.090	SP #4A – BIO 6 0.013 SP #4B – SGW 3 0.181*	Volume is in the proposed 1 Bioretention facility and in a Submerged Gravel Wetland. The WQv has been reduced based on the redevelopment criteria and the use of Rooftop Disconnection Credit.
	2	Recharge Volume (REV)			N/A	N/A	Recharge Volume is not required according to the Wildewood Planned Unit Development Standards adopted in June 1991.
	3	Channel Protection Volume (CPV)			N/A	N/A	The 1 year is safely attenuated within and existing regional stormwater management pond in the Wildewood Development.
	4	Overbank Flood Protection Volume (QP)			N/A	N/A	The 10 year is safely conveyed thru the storm drain system, bypassing the proposed water quality devices and into the swm pond located on the Wildewood property.
	5	Extreme Flood Volume (QF)			N/A	N/A	The 100 year is safely conveyed into the swm pond

STORMWATER MANAGEMENT NOTE:
* 1. The Water Quality Volume (WQv) is provided in Bioretention facilities, Submerged Gravel Wetlands, a Stormfilter Device with the required 75% storage within a 48" dia. pipe. The Water Quality Volume has been reduced using the Rooftop Disconnection Credit and the Redevelopment criteria. The Submerged Gravel Wetlands have been designed designed based on the ESDv volume required by Chapter 5 of the 2000 MDE Stormwater Manual.

DRYWELL CHART

BLDG. NO.	SIZE REQUIRED	SIZE PROVIDED	QUANTITY
1	40 CF 80 CF	5.0'x5.0'x4.0'x0.4' = 40 CF 7.0'x7.0'x4.1'x0.4' = 80 CF	12 4
2	40 CF 80 CF	5.0'x5.0'x4.0'x0.4' = 40 CF 7.0'x7.0'x4.1'x0.4' = 80 CF	12 4
3	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	8
4	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
5	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	8
6	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
7	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	8
8	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	8
9	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	8
13	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
14	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
15	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
16	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
17	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
18	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	5
22	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	4
23	40 CF	5.0'x5.0'x4.0'x0.4' = 40 CF	5

LEGEND

SHADE TREE
SHRUB
GRASSES
EMERGENTS/HERBACIOUS



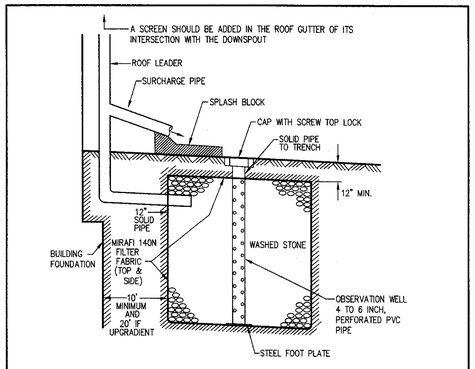


TABLE 5.2 ROOFTOP DISCONNECTION COMPENSATION STORAGE VOLUME REQUIREMENTS.
(PER DISCONNECTION USING DRYWELLS, RAINGARDENS, etc)

DISCONNECTION LENGTH PROVIDED	0 – 14 FT.	15 – 29 FT.	30 – 44 FT.	45 – 59 FT.	60 – 74 FT.	≤ 75 FT.
% WQv TREATED BY DISCONNECTION	0%	20%	40%	60%	80%	100%
% WQv TREATED BY STORAGE	100%	80%	60%	40%	20%	0%
MAX. STORAGE VOLUME* (EASTERN RAINFALL ZONE)	40 CU-FT.	32 CU-FT.	24 CU-FT.	16 CU-FT.	8 CU-FT.	0 CU-FT.
MAX. STORAGE VOLUME* (WESTERN RAINFALL ZONE)	36 CU-FT.	28.8 CU-FT.	21.6 CU-FT.	14.4 CU-FT.	7.2 CU-FT.	0 CU-FT.

*ASSUMING 500 SQUARE FEET ROOF AREA TO EACH DOWNSPOUT.
*1,000 SQUARE FEET OF ROOFTOP RUNOFF SHALL BE ROUTED TO A DRYWELL.

TYPICAL DRYWELL FOR WATER QUALITY

NOT TO SCALE

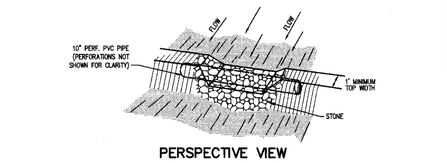
EMERGENT PLANTING DETAIL

NOT TO SCALE

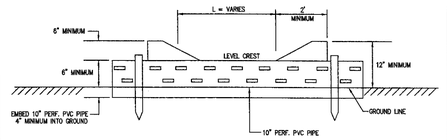
Landscape Plant List - Bio-Retention Area

KEY	QUA	BOTANICAL \ COMMON NAME	ZONE	SIZE	SPACING	ROOT	UNIT COST	TOTAL COST
		ORNAMENTAL TREES						
BN	13	Betula nigra 'Heritage' \ "Heritage" River Birch	(2,3), 4	6–8' HT	AS SHOWN	B&B	$100.00	$1,300.00
		SHRUBS						
CS	250	Cornus sericea f. baileyi \ Bailey's Red–twig Dogwood	(2,3)	4–6' HT	AS SHOWN	#3	$30.00	$7,500.00
IG	235	Ilex glabra \ Inkberry	(2,3), 4	4–6' HT	AS SHOWN	#3	$30.00	$7,050.00
		GRASSES						
PVC	376	Panicum virgatum 'Cloud Nine' \ "Cloud Nine" Switch Grass	2, (3,4), 5	18–24" HT	AS SHOWN	#1	$5.00	$1,880.00
		HERBACIOUS						
JT	1302	Juncus torreyi \ Torrey's Rush	(1,2)	12–18" HT	18" o.c.	#1	$5.00	$6,510.00
IV	769	Iris versicolor \ Blue Flag	1, (2), 3	12–18" HT	12" o.c.	#1	$5.00	$3,845.00
PV	2712	Peltandra virginica \ Arrow Arum	(1,2), 3	12–18" HT	12" o.c.	#1	$5.00	$13,560.00
LC	1032	Lobelia cardinalis \ Cardinal Flower	1, (2,3), 4	12–18" HT	12" o.c	#1	$5.00	$5,160.00
EF	2386	Eupatorium fistulosum \ Joe Pye Weed or Trumpetweed	(1,2), 3	12–18" HT	12" o.c	#1	$5.00	$11,930.00
OC	359	Osmunda cinnamomea \ Cinnamon Fern	(2,3), 4	12–18" HT	24" o.c.	#1	$5.00	$1,795.00
OR	355	Osmunda regalis \ Royal Fern	(1,2), 3	12–18" HT	24" o.c.	#1	$5.00	$1,775.00
AN	337	Aster novae–angliae \ New England Aster	(2,3), 4	12–18" HT	18" o.c.	#1	$5.00	$1,685.00
TOTAL	11047							$62,990.00

STONE CHECK DAM w/ 10" PERF. PVC PIPE



PERSPECTIVE VIEW



CROSS SECTION

Construction Specifications

1. Crushed stone shall be used. Gravel may be used if crushed stone is not available. The stone shall be 2" – 3" in size.
2. The crest of the stone dike shall be at least 6" lower than the lowest elevation of the top of the earth dike and shall be level.
3. The structure shall be embedded into the soil a minimum of 4".
4. The structure shall be inspected after each rain. Stone shall be replaced when the structure ceases to function and ponding results.
5. The 10" perforated PVC pipe shall be extended one foot into the dike, staked and embedded 4" into the existing ground.

LUGM TRACKING #08–132–001 & STSP #91–0233

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ENGINEERS ● PLANNERS ● SURVEYORS
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REVISIONS		
MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

CERTIFICATION OF PROFESSIONAL RESPONSIBLE

STATE OF MARYLAND — ROBERT T. SHANNON — 21109

ROBERT SHANNON, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION. 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. 20039 EXP. DATE: 5-19-2011

SUBMERGED GRAVEL WETLAND#3 PLAN VIEW & PROFILE
WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475–0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 208042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1 = 30'
SHEET NO.	32 OF 37

VEGETATIVE STABILIZATION

PERMANENT AND TEMPORARY SEEDING, SODDING AND MULCHING

I. SITE PREPARATION

PERMANENT OR TEMPORARY VEGETATION SHALL BE ESTABLISHED WITHIN SEVEN (7) DAYS ON THE SURFACE OF ALL SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, SEDIMENT CONTROL BASINS, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND WITHIN 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. MULCHING MAY ONLY BE USED ON DISTURBED AREAS AS TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING CANNOT BE COMPLETED BECAUSE OF WEATHER.

II. SEEDBED PREPARATION AND SEEDING APPLICATION

LOOSEN THE TOP LAYER OF THE SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT SUCH AS DISC HARROWS, CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. INCORPORATE THE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF THE SOIL BY DISCING OR BY OTHER SUITABLE MEANS. ROUGH AREAS SHOULD NOT BE ROLLED OR DRAGGED SMOOTH, BUT LEFT IN A ROUGHENED CONDITION. STEEP SLOPES GREATER THAN 3:1 SHOULD BE TRACKED BY A DOZER, LEAVING THE SOIL IN AN IRREGULAR CODITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP 1 TO 3 INCHES OF SOIL SHOULD BE LOOSE AND FRIABLE. PERMANENT COVER MAY REQUIRE AN APPLICATION OF TOPSOIL. IF SO, IT MUST MEET THE REQUIREMENTS SET FORTH IN SECTION 21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL FROM THE 1994 STANDARDS AND SPECIFICATIONS.

III. SOIL AMENDMENTS

SOIL TESTS SHALL BE MADE ON SITES OVER FIVE ACRES TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LIME AND FERTILIZER. FOR SITES UNDER 5 ACRES, IN LIEU OF A SOIL TEST, APPLY THE FOLLOWING:

FERTILIZER NITROGEN 1.5 LBS./SF (65 LBS./AC.)
P_2O_3 3 LBS./SF (130 LBS./AC.)
K_3O 100LBS./1000 SF (2 TONS/AC.)

FOR LOW MAINTENANCE AREAS APPLY 150 LBS./AC.
UREAFORM FERTILIZER (38-0-0) AT 3.5 LBS./1000 SF
IN ADDITION TO THE ABOVE FERTILIZER AT THE TIME OF SEEDING.

GROUND LIMESTONE 2 TON/AC

IV. SEDIMENT CONTROL PRACTICE SEEDING

SELECT A SEEDING MIXTURE FROM TABLES 25 OR 26 IN SECTION C OF THE 1994 STANDARDS AND SPECIFICATIONS. DOCUMENT SEEDING ON THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW.
NOTE: IF SEDIMENT CONTROL PRACTICES ARE IN FOR LONGER THAN 12 MONTHS, PERMANENT SEEDING IS REQUIRED.

V. TEMPORARY/PERMANENT SEEDING MIXTURE AND RATES

SELECT A SEEDING MIXTURE FROM APPROPRIATE TABLE 25 OR 26 IN SECTION C OF THE 1994 STANDARDS AND SPECIFICATIONS. DOCUMENT SEEDING ON THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW.

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 7A) FROM TABLE 26					FERTILIZER RATE (10-10-10)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SPECIES DEPTHS		
1	BARLEY	150	3/1 – 10/15	1/4"-1/2"	600 LB/AC (15 LB/1000 SF)	FERTILIZER RATE
2	RYE PLUS FOXTAIL MILLET	150	3/1 – 11/15	1/4"-1/2"		

PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 7A) FROM TABLE 25					FERTILIZER RATE (10-20-20)			
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SPECIES DEPTHS	N	P205	K20	LIME RATE
1	TALL FESCUE 85% PERENNIAL RYE GRASS 10% KENTUCKEY BLUEGRASS 5%	125 15 10	3/1-5/15 8/15-10/15	1/4" To 1/2"	90 LB/AC (2.0 LB/ 1000 SF)	175 LB/AC (4 LB/ 1000 SF)	175 LB/AC (4 LB/ 1000 SF)	2 TONS/AC (100 LB/ 1000 SF)
2	TALL FESCUE 83% WEEPING LOVEGRASS 2% SERECIA LESPEDEZA	110 3 20	3/1-5/15 5/16-8/14 8/15-10/15	1/4" To 1/2"				

VI. TURFGRASS ESTABLISHMENTS

THIS INCLUDES LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE TILLED BY DISCING OR BY OTHER APPROVED METHODS TO A DEPTH OF 3 TO 5 INCHES, LEVELED AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1« INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY. USE CERTIFIED MATERIAL AND CHOOSE A TURFGRASS MIXTURE FROM PAGE C-20 OF THE 1994 STANDARDS AND SPECIFICATIONS OR SELECT FROM THE LIST IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION. AGRONOMY MIMEO #77, TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND. SEE MIMEO AT END OF THIS SECTION.

VII. MULCHING

ALL SEEDINGS REQUIRE MULCHING. ALSO MULCH DURING NON-SEEDING DATES UNTIL SEEDING CAN BE DONE.

MULCH SHALL BE UNROTTED, UNCHOPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS/ACRE OR 90 LBS/1000 SF (2 BALES). IF A MULCH ANCHORING TOOL IS USED, APPLY 2.5 TONS/ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES. MULCH ANCHORING SHALL BE ACCOMPANIED IMMEDIATELY AFTER MULCH PLACEMENT TO MIMIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY MULCH NETTINGS, MULCH ANCHORING TOOL, WOOD CELLULOSE FIBER OR LIQUID MULCH BINDERS.

APPLY WOOD CELLULOSE FIBER AT A DRY WEIGHT OF 1,500 LBS/ACRE. IF MIXED WITH WATER, USE 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

LIQUID BINDER SHOULD BE APPLIED HEAVIER AT THE EDGE WHERE WIND CATCHES MULCH IN VALLEYS, AND ON CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. APPLY RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR AND MULCH. STAPLE LIGHT WEIGHT, PLASTIC NETTING OVER THE MULCH ACCORDING TO MANUFACTURERþS RECOMMENDATIONS.

VIII. SODDING

CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD IS TO BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR USING STAGGERED JOINTS WITH ALL ENDS TIGHTLY ABUTTED AND NOT OVER LAPPING. SOD SHALL BE ROLLED AND THOROUGHLY WATERED AFTER INSTALLATION. DAILY WATERING TO MAINTAIN 4 INCH DEPTH OF MOISTURE FOR THE FIRST WEEK IS REQUIRED IN THE ABSENCE OF RAINFALL. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

IX. MAINTENANCE

A. IRRIGATE – APPLY MINIMUM 1" OF WATER EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE, WHEN SOIL MOISTURE BECOMES DEFICIENT TO PREVENT LOSS OF STAND OF PROTECTIVE VEGETATION.

B. REPAIRS – IF STAND PROVIDES BETWEEN 40% AND 94% GROUND COVERAGE, OVERSEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY APPLIED. IF STAND PROVIDES LESS THAN 40% COVERAGE, REESTABLISH STAND FOLLOWING ORIGINAL RATES AND PROCEDURES.

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL VEGETATIVE PRACTICES.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. THIS TEXTURE IS LIMITED TO AREA 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 SECTION IN THE SOIL SURVEY BY USDA-SCA 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, 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 1' IN DIAMETER.
   II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
   III. WHERE THE TOPSOIL 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.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
   I. PLACE TOPSOIL (IF REQUIRED) AND APPLY TO SOIL AMENDMENTS AS SPECIFIED IN 20.1 VEGETATIVE STABILIZATION – SECTION 1 – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. 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 LAPSED (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 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 TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURE, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
   II. GRADE ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
   III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"- 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING O SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
   IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDED 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 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
      C. COMPOSTED SLUDGE SHALL BE APPLIED AT THE RATE OF 1 TON/1,000 SQUARE FEET.
   II. 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 APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-V, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973

INSPECTION PROCEDURES

The developer shall request that the inspection agency for sediment and erosion control approve work completed at the stages of construction specified below in accordance with the approved sediment and erosion control plan, and the grading or building permit:

(i) On all sites, approval of the inspection agency shall be requested upon completion of the installation of perimeter sediment and erosion 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; and,

(ii) Approval shall be requested upon final stabilization of all sites before removal of sediment and erosion controls.

(iii) Contractor shall notify M.D.E., Enforcement Division, at least 48 hours prior to commencing clearing or grading at (410) 537-3510 or M.D.E., Sediment and Stormwater Administration, 1800 Washington Blvd., 4th Floor, Suite 440, Baltimore, Maryland 21230-1708.

SEDIMENT AND EROSION CONTROL NOTES

1. Prior to any excavation or placement of embankment, all control devices shall be in place.
2. All construction shall be in accordance with the "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control", as prepared by Maryland Dept. of the Environment in association with Soil Conservation Service. – SEE THIS SHEET FOR TYPICAL DETAILS –
3. Silt Fence shall be constructed per S.C.S. Std. Detail #22.
4. Curb Inlet Protection shall be installed per S.C.S. Std Detail #23C.
5. Stabilized Construction Entrance shall be constructed per S.C.S. Std. Detail #24.
6. Upon completion of all excavation the area shall be sloped and graded as shown. All disturbed areas not otherwise paved, graveled or sodded shall be topsoiled, limed, fertilized, seeded and mulched in accordance with S.C.S. Standard Section III.
   This includes both temporary and permanent stabilization seeding.
   A. Lime: Two ton Dolomitic Limestone per acre
   B. Fertilizer: 600lbs 0-20-20 per acre
      400lbs 38-0-0 per acre
      500lbs 10-20-20 per acre
   C. Seed; 100lbs Kentucky 31 Fescue per acre.
      5lbs Red Top Clover per acre.
      40lbs 10-20-20 per acre.
   Disk lime and fertilizer uniformly into soil
   D. Mulch: One and one-half (1 1/2) to two (2) tons of straw per acre.
   E. Binder: 348 gallons of RS-1 per acre.
7. No slope shall be greater than 2:1 unless otherwise approved.
8. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within:
   A. Seven days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1
   B. Fourteen days as to all other disturbed or graded areas on the project site.
9. On site approval by the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls and before proceeding with any other earth disturbance or grading.
10. Approval shall be requested upon final stabilization of all sites prior to removal of sediment controls.
11. The sediment control devices will be removed by backfilling with clean fill, compacting, seeding and mulch.
12. All excess dirt to be removed to a dump site with an approved SCD plan.
13. Sediment control for utility construction for areas outside of design controls:
   a. Call "Miss Utility" at 1-800-257-7777 48 hours prior to start of work.
   b. Excavated trench material shall be placed on high side of the trench.
   c. Trenches for utility installation shall be backfilled, compacted, and stabilized at the end of the work day. No more trench shall be opened than can be completed the same day, unless;
   d. Temporary silt fence shall be placed immediately downstream of any disturbed area intended to remain disturbed for more than one day.

SEQUENCE OF CONSTRUCTION

1. THE OWNER/DEVELOPER SHALL ARRANGE FOR A PRE CONSTRUCTION MEETING WITH THE ST. MARY'S COUNTY INSPECTOR. — 1 DAY
2. A PRE-CONSTRUCTION MEETING SHOULD BE SCHEDULED WITH THE ST. MARY'S SOIL CONSERVATION DISTRICT AT 301-475-8402, X3 AT LEAST 5 DAYS IN ADVANCE BEFORE ANY CONSTRUCTION ACTIVITY BEGINS.

PHASE 1

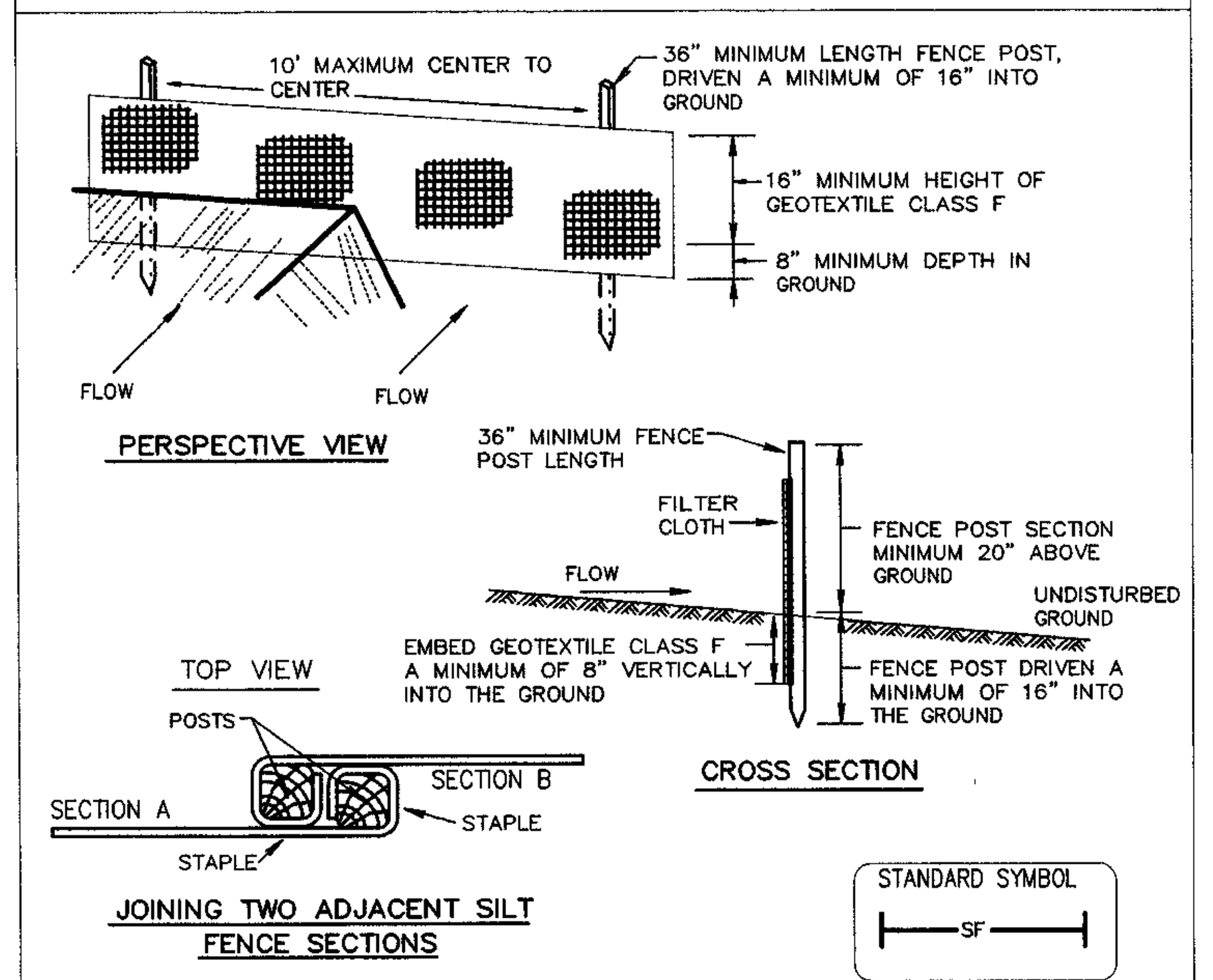
3. CLEAR AND GRUB ONLY TO INSTALL SEDIMENT CONTROL MEASURES, THEN INSTALL SEDIMENT CONTROL MEASURES. CONTACT THE MDE INSPECTOR AT 410-537-3510 ONCE THE SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. — 14 DAYS
4. UPON INSPECTORS APPROVAL, AND ONCE THE SEDIMENT DEVICES ARE BUILT AND FUNCTIONING. BEGINNING AT DOWNSTREAM END AND WORKING UPSTREAM, INSTALL STORM DRAIN STRUCTURES 20-21, 21-34, 290-30, 1-2 AND 2-15. NEED TO INSTALL INLET PROTECTION IMMEDIATELY AFTER INLETS ARE INSTALLED. INSTALL A PIP ON EW34 AND BLOCK SHUT 29 AT THE THROAT. CLEAR AND ROUGH GRADE SITE. INSTALL A TEMPORARY SWALES DRAINING LOW POINTS. IMMEDIATELY STABILIZE THE SWALES WITH CUIRLEX IN THE FLOW PATH, SEED, AND MULCH. — 3 WEEKS
5. INSTALL WATER, SEWER. BEGINNING DOWNSTREAM END AND WORKING UPSTREAM, INSTALL STORM DRAIN SYSTEM FROM STRUCTURES 2-9, 3-10, 5-12, 7-14, 21-26, 22-40, 23-44, 42-45, AND 24-48 WITH THE EXCEPTION OF THE PVC BYPASS PIPE FROM FLOW SPLITTER STR.#2, BAYSAVER, BIORETENTION FACILITIES #1-5 & SUBMERGED WETLAND FACILITY#1. INSTALL INLET PROTECTION AT INLETS. — 1 MONTH
6. BEGIN BUILDING CONSTRUCTION. INSTALL CURB, GUTTER AND BASE COURSE PAVING. — 1 MONTH
   NOTE: ONCE THE THE PROPOSED GRADING BECOMES STABILIZED ACROSS THE SITE, SILT FENCE SHOULD BE INSTALLED FOR BUILDING CONSTRUCTION WITH THE APPROVAL OF THE INSPECTOR.
7. ALL DISTURBED AREAS SHOULD BE STABILIZED WITH PERMANENT SEED WITH A MINIMUM 2INCHES TOPSOIL AND MULCH OR SOD. — 2 WEEKS
8. UPON INSPECTOR'S APPROVAL — 3 DAYS
   A. FLUSH THE STORM DRAIN SYSTEM TO REMOVE ANY ACCUMULATED SEDIMENT. UNBLOCK ALL STORM DRAIN STRUCTURES THAT HAVE BECOME BLOCKED DURING THE COURSE OF CONSTRUCTION. INSTALL BAYSAVER STRUCTURE, SUBMERGED WETLAND FACILITY # 1 & BIORETENTION FACILITIES 1-5.
   B. ESTABLISH A PERMANENT STABILIZED OUTFALL CHANNEL AS NOTED ON THE PLANS.

PHASE 2

CONTACT ST. MARY'S COUNTY SCD BEFORE THE START OF PHASE 2 TO HOLD A PRE-CONSTRUCTIOIN MEETING BEFORE WORK IN THIS PHASE BEGINS.

9. CLEAR AND GRUB ONLY TO INSTALL SEDIMENT CONTROL MEASURES, THEN INSTALL SEDIMENT CONTROL MEASURES. CONTACT THE MDE INSPECTOR AT 410-537-3510 ONCE THE SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. — 14 DAYS
10. UPON INSPECTORS APPROVAL, AND ONCE THE SEDIMENT DEVICES ARE BUILT AND FUNCTIONING. BEGINNING DOWNSTREAM END AND WORKING UPSTREAM INSTALL STORM DRAIN STRUCTURES 70-84, 84-85, 50-53 WITH THE EXCEPTION OF THE PVC BYPASS PIPES FROM FLOW SPLITTER STRS. #61 & 71, BIORETENTION FACILITY#6 & SUBMERGED WETLAND FACILITIES #2&3. NEED TO INSTALL INLET PROTECTION IMMEDIATELY AFTER INLETS ARE INSTALLED. INSTALL INLET PROTECTION AT INLETS 81, 830, 82, 83, 51, 52 & 53. CLEAR AND ROUGH GRADE SITE. INSTALL TEMPORARY SWALES DRAINING LOW POINTS. — 3 WEEKS
11. INSTALL WATER, SEWER. BEGINNING DOWNSTREAM END AND WORKING UPSTREAM INSTALL STORM DRAIN SYSTEM FROM 60-61, & 80-86. INSTALL INLET PROTECTION AT INLETS. — 1 MONTH
12. BEGIN BUILDING CONSTRUCTION. INSTALL CURB, GUTTER AND BASE COURSE PAVING. — 1 MONTH
13. ALL DISTURBED AREAS SHOULD BE STABILIZED WITH PERMANENT SEED WITH A MINIMUM OF 2 INCHES TOPSOIL AND MULCH OR SOD. — 2 WEEKS
14. UPON INSPECTOR'S APPROVAL — 3 DAYS
   A. FLUSH THE STORM DRAIN SYSTEM TO REMOVE ANY ACCUMULATED SEDIMENT. UNBLOCK ALL STORM DRAIN STRUCTURES THAT HAVE BECOME BLOCKED DURING THE COURSE OF CONSTRUCTION. INSTALL SUBMERGED WETLAND FACILITIES # 2 & 3.. & BIORETENTION FACILITY.
   B. ESTABLISH A PERMANENT STABILIZED OUTFALL CHANNEL AS NOTED ON THE PLANS.

DETAIL 22 - SILT FENCE



Construction Specifications

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

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

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ²/ 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.

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SILT FENCE SPECIFICATIONS

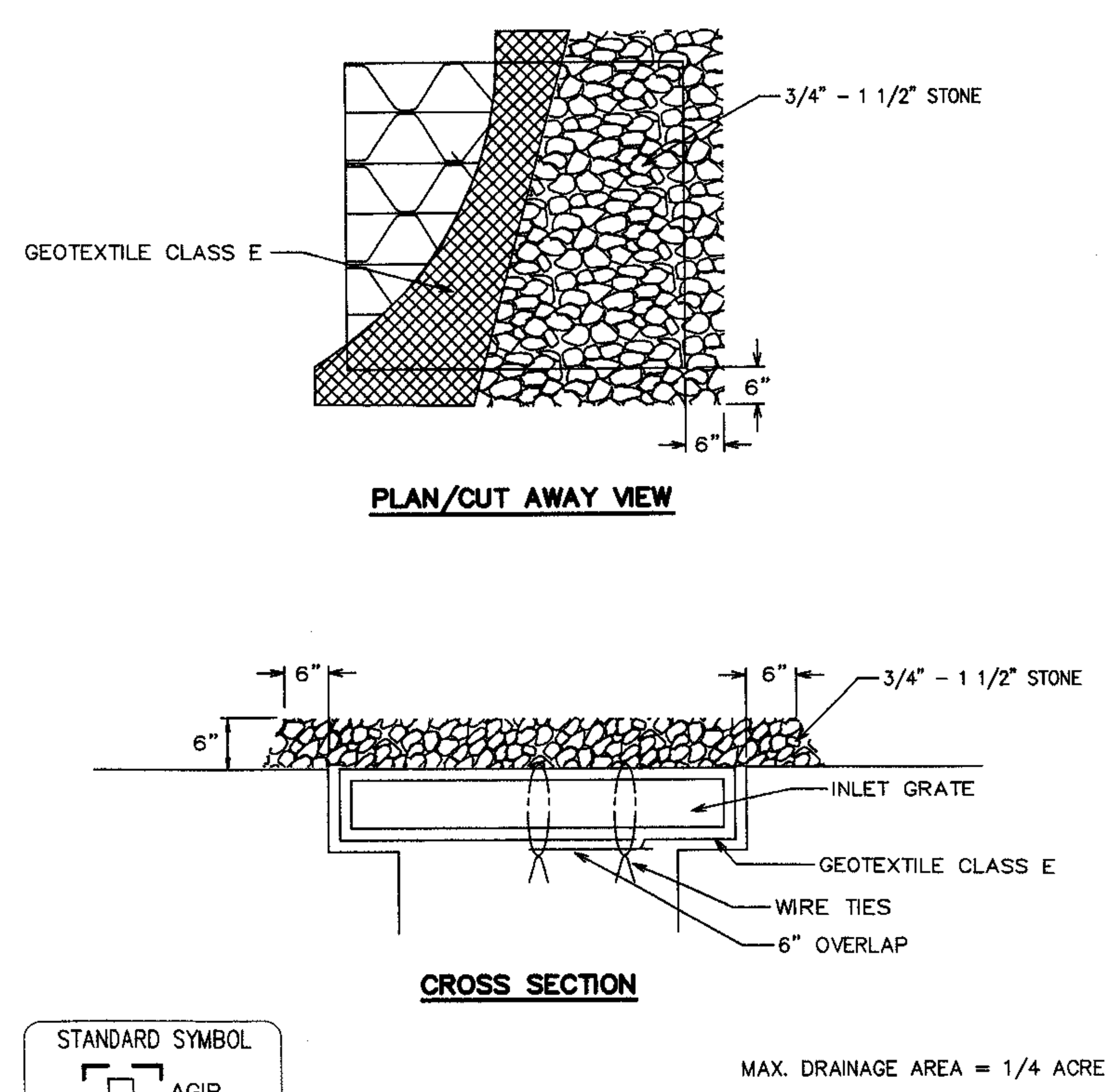
Silt Fence Design Criteria

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.

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DETAIL 23B - AT GRADE INLET PROTECTION



MAX. DRAINAGE AREA = 1/4 ACRE

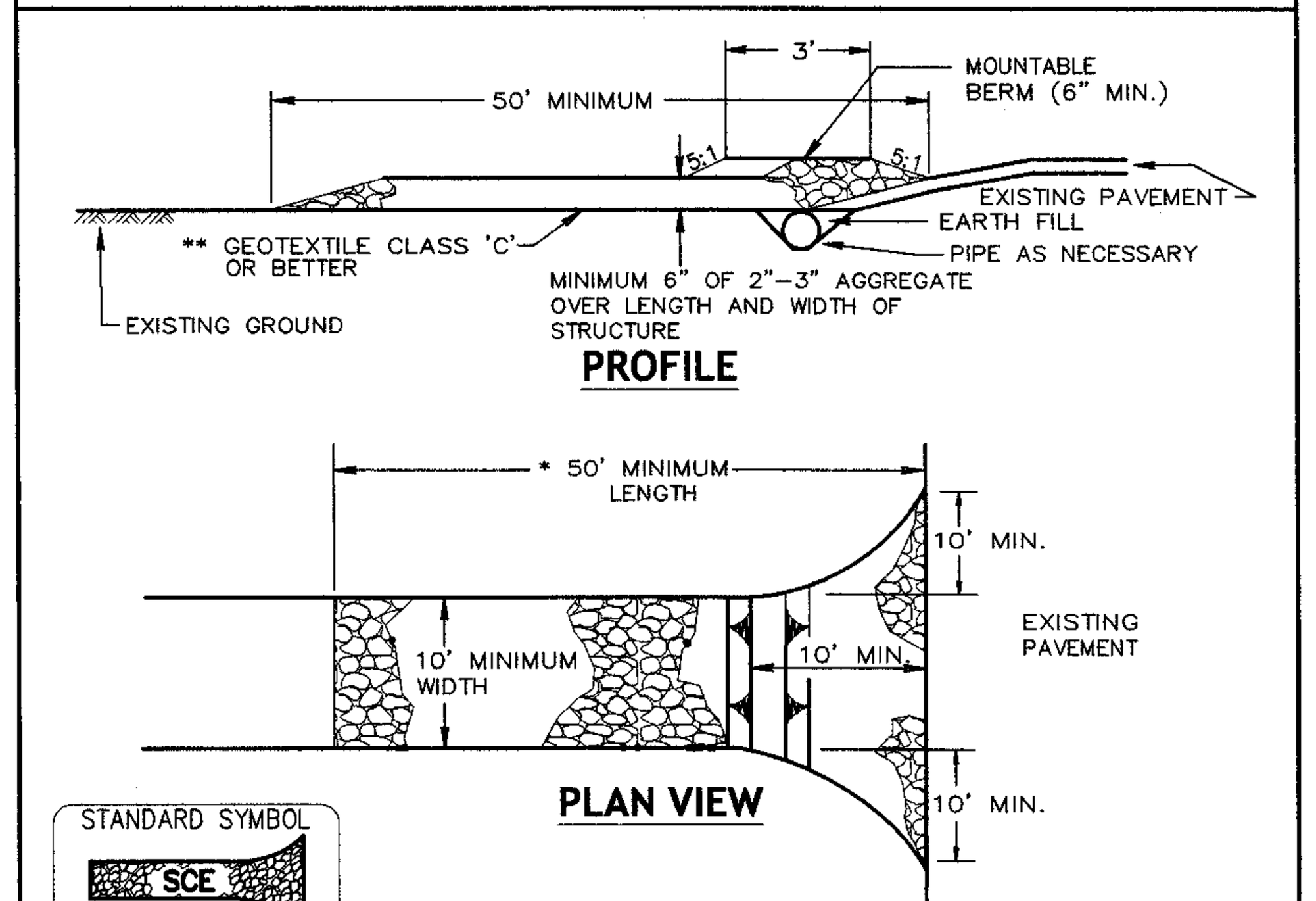
Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.

2. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

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DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

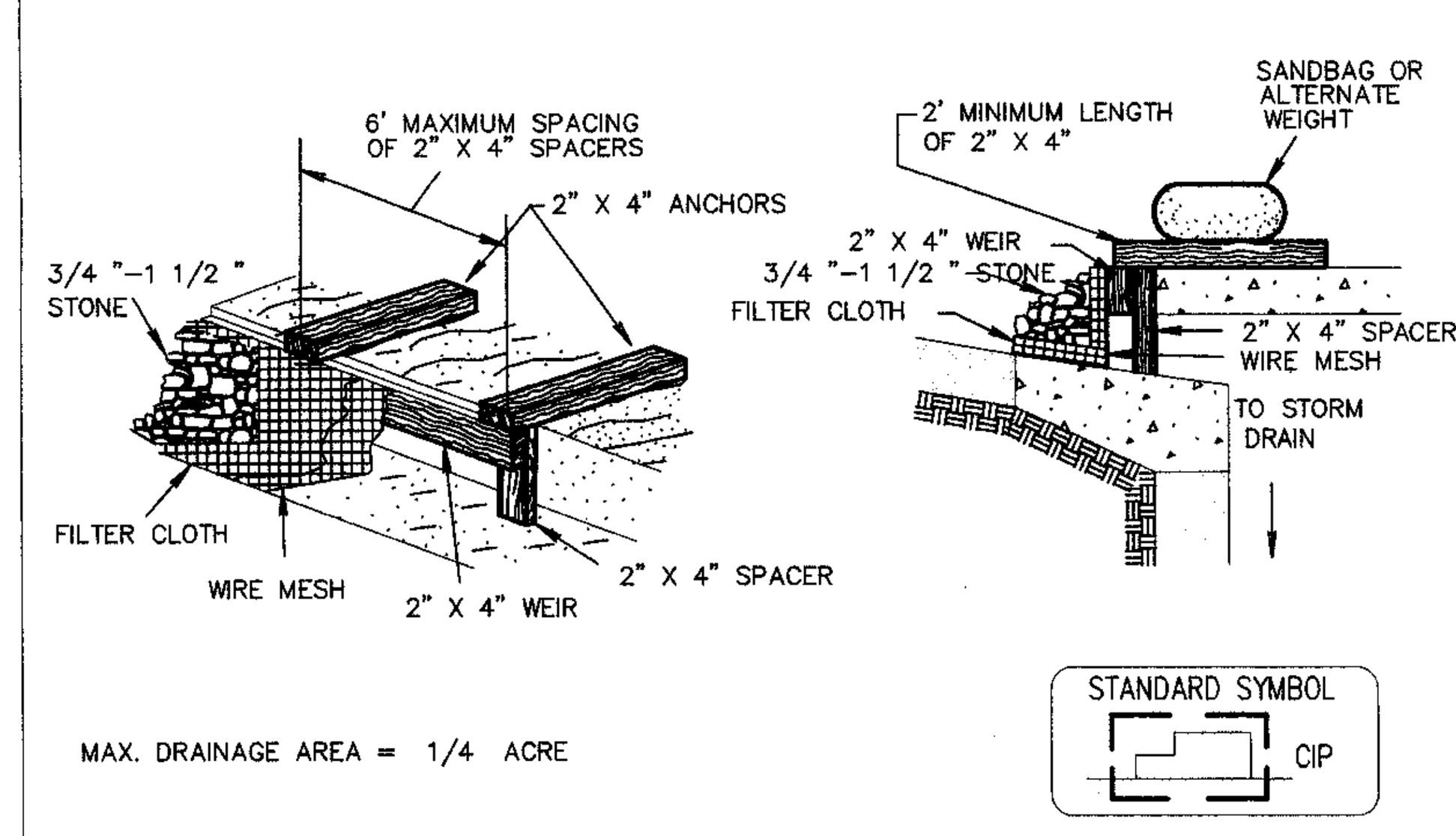


CONSTRUCTION SPECIFICATION

1. LENGTH – MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
2. WIDTH – 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE – CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
6. LOCATION – A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

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DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 " stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

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LUGM TRACKING #08-132-001 & STSP #91-0233

THE TECH GROUP, INC.
ENGINEERS• PLANNERS• SURVEYORS
GEOTECHNICAL• ENVIRONMENTAL
MATERIALS CONSULTANTS• FACILITIES

1111 Benfield Blvd
Suite 100
Millersville, MD 21108
Ph. (410) 987-3450
(800) 266-6202
Fax (410) 987-3457

REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. McCARTHY
ROBERT T. McCARTHY, CHIEF ENGINEER
PROFESSIONAL CERTIFICATION: 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. 200393 EXP. DATE 3-19-2011
5/11/09

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

WILDEWOOD RETIREMENT VILLAGE

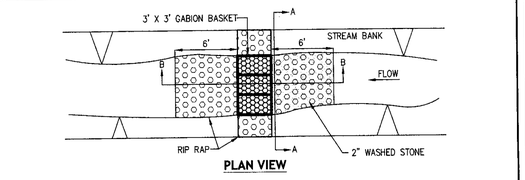
EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
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(301) 475-0310

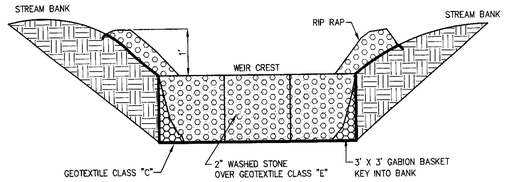
TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	AS SHOWN
SHEET NO.	33 OF 37

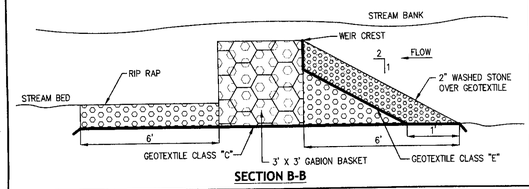
IN-STREAM STONE DIKE



PLAN VIEW



SECTION A-A



SECTION B-B

TEMPORARY IN-STREAM CONSTRUCTION MEASURES	PAGE III-8	

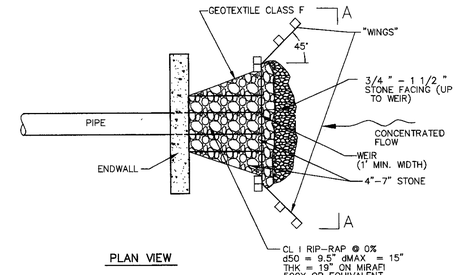
IN-STREAM STONE DIKE

CONSTRUCTION SPECIFICATIONS

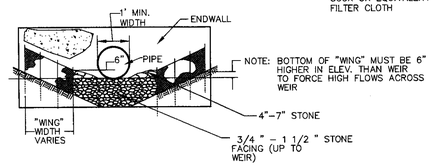
1. IN-STREAM STONE DIKE IS A SEDIMENT FILTERING DEVICE FOR USE IN STREAMS THAT CARRY WET WEATHER FLOW ONLY. THIS DEVICE IS NOT FOR USE WHERE BASE FLOW CONDITIONS EXIST.
2. THE STREAM SUBGRADE SHALL BE SMOOTH, FIRM, AND FREE FROM PROTRUDING OBJECTS OR VOIDS THAT WOULD EFFECT THE PROPER POSITIONING OF THE WIRE BASKETS OR DAMAGE THE FILTER CLOTH.
3. MATERIAL SPECIFICATIONS--FILTER FABRIC: USE GEOTEXTILE CLASS C AND E, STONES: USE 2 INCH WASHED STONE FOR FILTER AND 4-12 INCH STONE FOR GABIONS AND OUTLET, GABION BASKETS: 3 FOOT BY 3 FOOT.
4. GEOTEXTILE CLASS C SHALL BE CAREFULLY AND LOOSELY PLACED ON THE PREPARED SUBGRADE AND SECURED. ADJACENT STRIPS SHALL OVERLAP A MINIMUM OF 12 INCHES. IF THE FILTER FABRIC IS TORN OR DAMAGED, IT WILL NEED TO BE REPAIRED OR REPLACED.
5. THE EMPTY WIRE BASKETS UNIT SHALL BE SET ON THE PREPARED SUBGRADE AND THE VERTICAL ENDS BOUND TOGETHER WITH WIRE TIES AT SPACINGS THAT ARE ADEQUATE TO PERMIT STRETCHING OF THE UNITS TO REMOVE KINKS. THE USE OF STAKES, PINS, OR OTHER ACCEPTABLE METHODS SHALL BE USED TO INSURE A GOOD ALIGNMENT OF THE EMPTY WIRE BASKET UNITS.
6. THE EMPTY BASKET UNITS SHALL BE FILLED CAREFULLY WITH 4-12 INCH STONE PLACED BY HAND OR MACHINE TO ASSURE GOOD ALIGNMENT WITH A MINIMUM OF VOIDS BETWEEN STONES AND TO AVOID BULGING OF MESH. CARE SHALL BE TAKEN IN PLACING THE TOP LAYER OF STONE TO ASSURE A UNIFORM SURFACE THUS AVOIDING ANY BULGING OF THE LID MESH. THE LID SHALL BE SECURED TO THE SIDES AND ENDS WITH WIRE TIES.
7. A ONE FOOT LAYER OF 2 INCH WASHED STONE OVER GEOTEXTILE CLASS E SHALL BE PLACED ON THE UPSTREAM SIDE FOR SEDIMENT FILTERING.
8. THE OUTLET SHALL CONVEY THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL. 4-12 INCH STONE UNDERLAIN WITH GEOTEXTILE CLASS C SHALL BE EMPLOYED AS NECESSARY.
9. INSPECTION AND ANY REQUIRED MAINTENANCE SHALL BE PERFORMED PERIODICALLY AND AFTER EACH RAIN EVENT. ENTRAPPED SEDIMENT IS TO BE EXCAVATED AND DISPOSED OF IN AN APPROVED DISPOSAL AREA OUTSIDE THE 100 YEAR FLOOD PLAIN.

TEMPORARY IN-STREAM CONSTRUCTION MEASURES	PAGE III-9	

PIPE INLET PROTECTION



PLAN VIEW



SECTION A-A

Construction Specifications

1. Fence posts shall be 36" (min.) long, driven 16" into the ground and spaced 5' (max.) apart. Wood posts shall be 1 1/2 " x 1 1/2 " (min.) square cut or 1 3/4 " (min.) diameter round and shall be of sound quality hardwood. Steel posts shall be standard T or U section weighing not less than 1.0 #/linear foot.
2. Geotextile Class F shall be fastened securely to each post with wire ties or staples at top and mid-section.
3. Where ends of geotextile fabric come together they shall be overlapped, folded and stapled.
4. Pipe Inlet Protection shall be inspected after each rain and maintained when bulges occur in the fabric or when the stone gets clogged.
5. Stone used to construct the weir shall be 4" - 7" with a 1' thick layer of 3/4 " - 1 1/2 " stone on the upstream face.

MATERIALS SPECIFICATIONS

TABLE 27 GEOTEXILE FABRICS

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
A	0.30	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

* US STD SIEVE CW-02215

TABLE 28 STONE SIZE

	SIZE RANGE	D50	D100	AASHTO	WEIGHT
NUMBER 57*	3/8"-1 1/2"	1/2"	1 1/2"	M-43	N/A
NUMBER 1	2"-3"	2 1/2"	3"	M-43	N/A
RIP-RAP**	4"-7"	5 1/2"	7"	N/A	N/A
CLASS I	N/A	9.5"	15"	N/A	150 lb MAX
CLASS II	N/A	16"	24"	N/A	700 lb MAX
CLASS III	N/A	23"	34"	N/A	2000 lb MAX

* THIS CLASSIFICATION IS TO BE USED ON THE INSIDE FACE OF STONE OUTLETS AND CHECK DAMS.
** THIS CLASIFICATION IS TO BE USED WHEN EVER SMALL RIP-RAP IS REQUIRED. THE STATE HIGHWAY ADMINISTRATION DESIGNATION FOR THIS STONE IS STONE FOR GABIONS (905.01.04).

STONE FOR GABION BASKETS

BASKET THICKNESS		SIZE OF INDIVIDUAL STONES	
INCHES	MM	INCHES	MM
6	150	3 - 5	75 - 125
9	225	4 - 7	100 - 175
12	300	4 - 7	100 - 175
18	460	4 - 7	100 - 175
36	910	4 - 12	100 - 300

NOTE: RECYCLED CONCRETE EQUIVALENT MAY BE SUBSTITUTED FOR ALL STONE CLASSIFICATIONS. RECYCLED CONCRETE EQUIVALENT SHALL BE CONCRETE BROKEN INTO THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, SHALL CONTAIN NO STEEL REINFORCEMENT, AND SHALL HAVE A DENSITY OF 150 POUNDS PER CUBIC FOOT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 24 - 1, 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE DESIGN CRITERIA

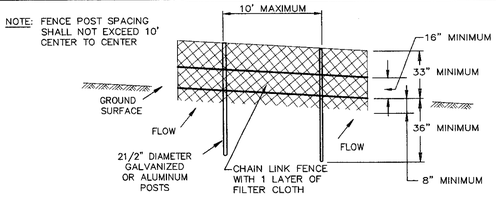
Design Criteria

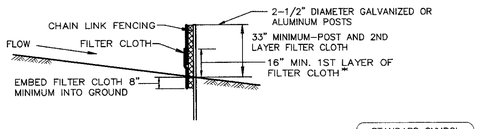
Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER





STANDARD SYMBOL
——— SSF ———

Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.
2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
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 6" 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

LUGM TRACKING #08-132-001 & STSP #91-0233

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TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MCCARTHY — 21565 — 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. 20593, EXP. DATE 3-19-2011

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	
SHEET NO.	34 OF 37

SOILS LEGEND

TYPE		SLOPE %	ERODIBILITY	HYDROLOGIC GROUP
BIB2	BELTSVILLE SILT LOAM	2 TO 5	MODERATELY	C
BIC2	BELTSVILLE SILT LOAM	5 TO 10	MODERATELY	C
BIC3	BELTSVILLE SILT LOAM	5 TO 10	SEVERELY	C
Bm	BIBB SILT LOAM	N/A	N/A	C
BrC3	BOURNE FINE SANDY LOAM	5 TO 10	SEVERELY	C
EvB	EVESBORO LOAMY SAND	0 TO 8	N/A	A
KeC2	KEMPSVILLE FINE SANDY LOAM	5 TO 10	MODERATELY	B
SaB2	SASSAFRAS SANDY LOAM	2 TO 5	MODERATELY	B
SaC2	SASSAFRAS SANDY LOAM	5 TO 10	SEVERLY	B
SaC3	SASSAFRAS SANDY LOAM	5 TO 10	SEVERELY	B
WsA	WOODSTOWN SANDY LOAM	0 TO 2	N/A	C

STUDY POINT #4B
SUBMERGED WETLAND #3
D.A. = 2.60 AC.
IMPERVIOUS AREA = 1.70 AC.
ADJUSTED IMPERVIOUS = 1.40 AC.
ROOFTOP DISCONNECTION
AREA = 0.70 AC.

STUDY POINT 3
SUBMERGED WETLAND #2
D.A. = 1.95 AC.
IMPERVIOUS AREA
1.20 AC.
ADJUSTED IMPERV.
AREA = 0.80 AC.

TOTAL SP #2
D.A. = 7.56 AC.
IMPERVIOUS AREA
4.54 AC.

SP #2A
STORMFILTER
D.A. = 3.20 AC.
IMPERVIOUS AREA
2.24 AC.

SP #2B, BIO #4
D.A. = 0.26 AC.
IMPERVIOUS AREA
0.16 AC.

SP #2C, BIO #5
D.A. = 0.80 AC.
IMPERVIOUS AREA
0.52 AC.

TOTAL STUDY POINT #4
D.A. = 10.80 AC.
IMPERVIOUS AREA
4.62 AC.

ROOFTOP DISCONNECTION
CREDIT

SP #1D, BIO #3
D.A. = 0.25 AC.
IMPERVIOUS AREA
0.10 AC.

STUDY POINT #4A
BIORETENTION #6
D.A. = 0.20 AC.
IMPERVIOUS AREA
0.10 AC.

SP #1C, BIO #2
D.A. = 0.20 AC.
IMPERVIOUS AREA
0.09 AC.

SP #1B, BIO #1
D.A. = 1.20 AC.
IMPERVIOUS AREA
0.50 AC.

STUDY POINT #1
TOTAL D.A. = 5.70 AC.
IMPERVIOUS AREA
2.73 AC.

STUDY POINT #1
OFFSITE AREA
D.A. = 2.10 AC.
IMPERVIOUS AREA
0.80 AC.

OFFSITE AREA
D.A. = 8.0 AC.
INTO AN EXISTING
INFILTRATION
TRENCH

STUDY POINT #1A
SUBMERGED WETLAND #1
D.A. = 1.95 AC.
IMPERVIOUS AREA
1.24 AC.

MILESTONE WAY
WESTSTONE BANK
GREENBRIAR LANE
HONEYSUCKLE LANE
BEARBERRY WAY
YARDARM WAY
OUTRIGGER WAY
TOPSAIL WAY
WETSTONE LANE
FLAGSTONE WAY
MARBLE WAY
FIELDSTONE WAY
WILDEWOOD VILLAGE LANE
GRANITE WAY
WILDEWOOD PARKWAY
EXISTING COMMUNITY BLDG FF=119.45
EXISTING POND
WILDEWOOD VILLAGE SUBDIVISION
DRY WELLS (TYP.)
SUBMERGED GRAVEL WETLAND #1
SUBMERGED GRAVEL WETLAND #3
DRAINAGE EASEMENT
EX. CULVERT #14
N 179925 E 928191
N 179765 E 927781
N 177475 E 928465

STORMWATER MANAGEMENT REPORT
WILDEWOOD RETIREMENT VILLAGE

OWNER / DEVELOPER
COMPASS POINTE, LLC
42120 ST. ANDREWS CHURCH RD
LEONARDTOWN, MARYLAND 20650

Location: SAINT MARY'S COUNTY, MD
Zone: RESIDENTIAL
Rainfall Zone: Eastern Rainfall Zone
Overbank Flood Protection: Western Shore
Stream Designation: (P) = 1.0
10 Year

	TOTAL		OFFSITE								TOTAL	TOTAL	OFFSITE							
		(wet 1)		(bio 1)	(bio 2)	(bio 3)	TOTAL		(bayfilter)	(bio 4)	(bio 5)		(wet 2)			(bio 6)			(wet 3)	
Soil Types:	PR. SP 1	SP 1A	STR 15	SP 1B	SP 1C	SP 1D	PR. SP 2	AREA	SP 2A	SP 2B	SP 2C	PR. SP 3	PR. SP 4	SP 4A	AREA	SP 4B				
soil : A	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.				
soil : B	4.66 Ac.	1.39 Ac.	1.90 Ac.	1.20 Ac.	0.19 Ac.	0.00 Ac.	0.50 Ac.	0.30 Ac.	0.20 Ac.	0.00 Ac.	0.00 Ac.	1.00 Ac.	1.45 Ac.	0.00 Ac.	0.09 Ac.	1.40 Ac.				
soil : C	1.04 Ac.	0.57 Ac.	0.20 Ac.	0.00 Ac.	0.02 Ac.	0.25 Ac.	7.06 Ac.	3.00 Ac.	3.00 Ac.	0.26 Ac.	0.80 Ac.	0.95 Ac.	9.35 Ac.	0.20 Ac.	7.95 Ac.	1.20 Ac.				
soil : D	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.				
Total DA:	5.70 Ac.	1.95 Ac.	2.10 Ac.	1.20 Ac.	0.20 Ac.	0.25 Ac.	7.56 Ac.	3.30 Ac.	3.20 Ac.	0.26 Ac.	0.80 Ac.	1.95 Ac.	10.80 Ac.	0.20 Ac.	8.00 Ac.	2.60 Ac.				
Impervious Area:	PR. SP 1						PR. SP 2					PR. SP 3	PR. SP 4							
soil : A	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.				
soil : B	2.09 Ac.	0.83 Ac.	0.67 Ac.	0.50 Ac.	0.09 Ac.	0.00 Ac.	0.24 Ac.	0.12 Ac.	0.12 Ac.	0.00 Ac.	0.00 Ac.	0.60 Ac.	0.92 Ac.	0.00 Ac.	0.02 Ac.	0.90 Ac.				
soil : C	0.64 Ac.	0.41 Ac.	0.13 Ac.	0.00 Ac.	0.00 Ac.	0.10 Ac.	4.30 Ac.	1.50 Ac.	2.12 Ac.	0.16 Ac.	0.52 Ac.	0.80 Ac.	3.70 Ac.	0.10 Ac.	2.80 Ac.	0.80 Ac.				
soil : D	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.	0.00 Ac.				
Total DA:	2.73 Ac.	1.24 Ac.	0.80 Ac.	0.50 Ac.	0.09 Ac.	0.10 Ac.	4.54 Ac.	1.62 Ac.	2.24 Ac.	0.16 Ac.	0.52 Ac.	1.20 Ac.	4.62 Ac.	0.10 Ac.	2.82 Ac.	1.70 Ac.				

Soil Recharge Factors:
type : A soil 0.38
type : B soil 0.26
type : C soil 0.13
type : D soil 0.07

ROOFTOP DISCONNECTION CREDIT

LUGM TRACKING #08-132-001 & STSP #91-0233

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STATE OF MARYLAND — ROBERT T. MCDERMOTT — No. 20003 — REGISTERED PROFESSIONAL ENGINEER


ROBERT T. MCDERMOTT, CHIEF, ENGINEERING PROFESSIONAL CERTIFICATION. 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. 20003 EXP. DATE 3-19-2011

STORMWATER MANAGEMENT DRAINAGE AREA MAP
WILDEWOOD RETIREMENT VILLAGE
EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
THE TECH GROUP, INC. FILE NUMBER:

DESIGN	DCM
DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1" = 50'
SHEET NO.	35 OF 37



LUGM TRACKING #08-132-001 & STSP #91-0233

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STORM DRAIN DRAINAGE AREA MAP

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

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DRAFT	FA
CHECKED	RTM
DATE	FEB, 2009
SCALE	1"= 50'
SHEET NO.	36 OF 37

METCOM GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND THE ST. MARY'S COUNTY STANDARD SPECIFICATIONS FOR WATER AND SEWERAGE CONSTRUCTION.
2. PVC SMOOTH WALLED SEWER PIPE AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D1784 AND ASTM D3034.
3. PVC WATER MAIN PRESSURE PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-900, CLASS 150 MINIMUM.
4. DUCTILE IRON PRESSURE PIPE (D.I.P.) AND FITTINGS SHALL EQUAL OR EXCEED AWWA SPECIFICATIONS C-151 OR C-110, AS APPLICABLE.
5. BEFORE JOINTS ARE MADE, EACH PIPE LENGTH SHALL BE WELL BEDDED ON A SOLID FOUNDATION. NO PIPE LENGTH SHALL BE BROUGHT INTO POSITION UNTIL THE PRECEDING PIPE LENGTH HAS BEEN PROPERLY EMBEDDED BY BOTH HAUNCHING AND INITIAL BACKFILL.
6. ALL PIPES SHALL BE CLEANED BEFORE THEY ARE LAID AND SHALL BE KEPT CLEAN UNTIL ACCEPTANCE OF THE COMPLETED WORK BY METCOM. OPEN ENDS OF PIPE SHALL BE FITTED WITH WATER TIGHT STOPPERS TO PREVENT ENTRANCE OF FOREIGN MATTER WHEN PIPE-LAYING OPERATIONS ARE INTERRUPTED.
7. PIPE JOINTS SHALL BE BELL/RING WITH INTEGRALLY MOLDED BELL. ASSEMBLY SHALL BE IN ACCORDANCE TO PIPE MANUFACTURES RECOMMENDATIONS. PIPE JOINTS SHALL NOT BE MADE UNDER WATER AND SHALL BE CAREFULLY CONSTRUCTED TO INSURE WATER-TIGHTNESS.
8. TRENCH BACKFILLING SHALL BE DONE WITH SELECT BACKFILL MATERIAL DEFINED AS GRAVEL OR BANK-RUN GRAVEL THAT WILL PASS THROUGH A ONE (1") INCH SIEVE. THE BACKFILL MATERIAL SHALL BE CAREFULLY DEPOSITED IN THE TRENCH IN SIX (6") INCH COMPACTED FILL LIFTS, TO A HEIGHT OF ONE (1') FOOT ABOVE THE TOP OF THE PIPE.
9. GRAVITY SEWERS SHALL BE TESTED WITH AIR PRESSURE AT 5 PSI FOR A PERIOD OF THIRTY (30) MINUTES WITH A (0) PRESSURE DECREASE.
10. AUTOMATIC AIR RELIEF VALVES SHALL BE PROVIDED AT HIGH POINTS IN THE DISTRIBUTION SYSTEM, WHERE APPLICABLE, AS DIRECTED BY THE ENGINEER.
11. ALL FIRE HYDRANTS THAT ARE SET IN THE GROUND, THAT ARE NOT YET OPERATIONAL, SHALL HAVE AN "OUT OF SERVICE" DISK PLACED ON THE 4-1/2" DISCHARGE OUTLET. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE "OUT OF SERVICE" DISKS.
12. PROPOSED BUILDINGS LOCATED IN PHASE #1 HAVE 1 1/2" WHC'S & PHASE #2 HAVE 6" WHC. PROPOSED BUILDINGS LOCATED IN PHASE 1 HAVE 4" SHC'S AND BUILDINGS LOCATED IN PHASE 2 SHALL HAVE 6" SHC'S.

NOTE:

A. CONTRACTOR TO CONTACT THE ENGINEERING DEPARTMENT, ST. MARYS COUNTY METROPOLITAN COMMISSION, FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION.
PHONE NUMBER 301-373-4733. CONTRACTOR TO ALSO CONTACT THE ENGINEERING DEPARTMENT BEFORE RESTARTING WORK AFTER WORK HAS STOPPED FOR MORE THAN FIVE DAYS.

B. CONTRACTOR SHALL NOT TAP OR OTHERWISE PENETRATE EXISTING WATER OR SEWER MAIN LINES WITHOUT PRIOR APPROVAL FROM METCOM. CONTRACTOR IR RESPONSIBLE TO AVOID SPILLAGE OF RAW SEWAGE. CONTRACTOR SHALL PROVIDE ALL SEWER PLUGGING AND PUMPING EQUIPMENT NECESSARY TO AVOID SPILLAGE. VIOLATIONS ARE SUBJECT TO FINES AND PENALTIES AND WILL BE ENFORCED TO THE FULL EXTENT OF THE LAW.

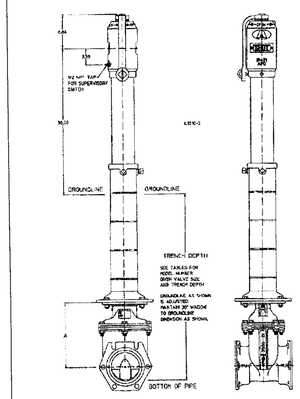
C. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH ST. MARY'S COUNTY AND SHA STANDARD SPECIFICATIONS LATEST EDITION.

D. WATER AND SEWER MAIN CONSTRUCTION SHALL NOT COMMENCE UNTIL INVOLVED ROADWAYS, STORM DRAINS, AND UTILITY EASEMENTS HAVE BEEN GRADED AND CONTOURED TO APPROXIMATELY FINAL GRADE. PROPERTY CORNERS OF ALL LOTS ARE REQUIRED TO BE STAKED BY A LICENSED SURVEOR PRIOR TO INSTALLING WATER AND SEWERSERVICE CONNECTIONS.

E. ONLY THE AMOUNT OF TRENCH THAT CAN BE OPENED, WORKED IN AND THEN STABILIZED IN A WORK DAY SHALL BE DONE SO. IF STABILIZATION DOSE NOT OCCUR AT THE END OF THE WORK DAY, THEN APPROPRIATE EROSIONCONTROLS, SEDIMENT CONTROL AND SAFETY CONTROLS SHALL BE INSTALLED.

F. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO START OF CONSTRUCTION. MATERIALS DELIVERED TO SITE FOR WATER AND SEWER CONSTRUCTION MUST BE INSPECTED PRIOR TO START OF WORK.

IP-71 Indicator Post Dimensions and Weights - ACIPCO



AFC IP-71 Dimensions 1

Model Number	Valve Size 4" Trench Depth	6" Trench Depth	8" Trench Depth
1A	4'0" - 5'0"	4'0" - 5'6"	4'6" - 6'0"
2A	5'6" - 7'0"	6'0" - 7'6"	6'6" - 8'0"
3A	7'6" - 9'0"	8'0" - 9'6"	8'6" - 10'0"
4A	9'6" - 11'0"	10'0" - 11'6"	10'6" - 12'0"
5A	11'6" - 13'0"	12'0" - 13'6"	12'6" - 14'0"
7A	13'6" - 15'0"	14'0" - 15'6"	14'6" - 16'0"
8A	15'6" - 17'0"	16'0" - 17'6"	16'6" - 18'0"

AFC IP-71 Dimensions 2

Model Number	Valve Size 10" Trench Depth	12" Trench Depth	14" Trench Depth	16" Trench Depth
1B	3'0" - 4'6"	3'6" - 4'6"	4'0" - 5'0"	4'6" - 5'6"
2B	5'0" - 6'0"	5'0" - 6'6"	5'6" - 7'0"	6'0" - 7'6"
3B	7'0" - 8'6"	7'0" - 8'6"	7'6" - 9'0"	8'0" - 9'6"
4B	9'0" - 10'6"	9'0" - 10'6"	9'6" - 11'0"	10'0" - 11'6"
5B	11'0" - 12'6"	11'0" - 12'6"	11'6" - 13'0"	12'0" - 13'6"
6B	13'0" - 14'6"	13'0" - 14'6"	13'6" - 15'0"	14'0" - 15'6"
7B	15'0" - 16'6"	15'0" - 16'6"	15'6" - 17'0"	16'0" - 17'6"
8B	17'0" - 18'6"	17'0" - 18'6"	17'6" - 19'0"	18'0" - 19'6"

AFC IP-71 Dimensions 3

Dimension	Valve Size 4"	6"	8"	10"	12"	14"	16"
A	10.18	13.25	16.69	20.50	23.88	29.23	32.75

IP-71 DIMENSIONS

IP-71 Indicator Post Operation and Maintenance

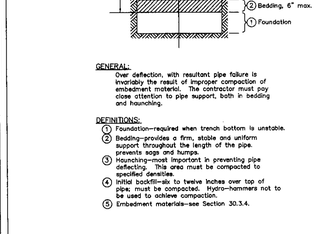
Operation

1. Direction of opening is indicated by an arrow cast on to part of the indicator post body.
2. Fully open and close valve before applying pressure, using the wrench supplied as part of the indicator post. Longer wrenches or "cheaters" should not be used as excessive leverage may damage the indicator post or the gate valve to which it is connected.

Maintenance

1. Place three or four drops of lubricating oil about four times a year in hole located on top of operating stem nut and turn operating stem nut to distribute the oil.
2. If for any reason it becomes necessary to replace the operating stem nut, proceed in the following manner:
   a. Remove eye bolt IP-3 and hex head bolt IP-9 and lift off entire indicator post head.
   b. Turn operating stem nut in closing direction until target carrier becomes disengaged.
   c. Remove TRUARC retaining ring IP-4, using a pair of TRUARC field pliers, number 2600, external type.
   d. Lift operating stem nut out of body.
   e. To install operating stem nut, reverse above procedure.

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Customer Service: 1-800-326-8051 (Birmingham) 1-888-266-3686 (Waterous)
Contact Us

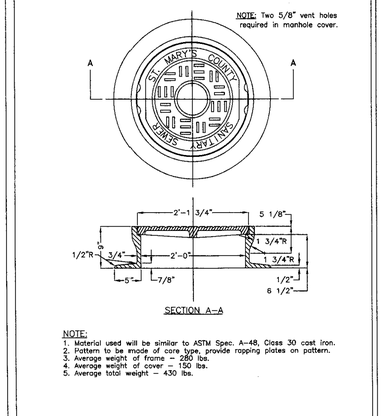


GENERAL:
Over deflection, with resultant pipe failure is invariably the result of improper compaction of embedment material. The contractor must pay close attention to pipe support, both in bedding and haunching.

DEFINITIONS:
1. Foundation—required when trench bottom is unstable.
2. Bedding—provides a firm, stable and uniform support throughout the length of the pipe, prevents sags and humps.
3. Haunching—most important in preventing pipe deflection. This area must be compacted to specified densities.
4. Initial backfill—six to twelve inches over top of pipe; must be compacted. Hydro-hammers not to be used to achieve compaction.
5. Embedment materials—see Section 30.3.4.

REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
BEDDING AND BACKFILL FOR GRAVITY SEWER
STANDARD NO. S-10

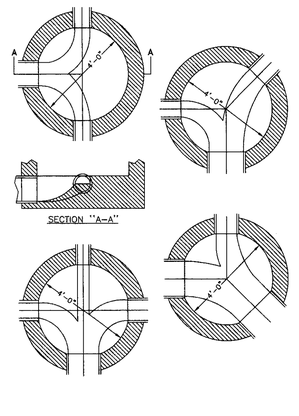


SECTION A-A

NOTE:
1. Material used will be similar to ASTM Spec. A-48, Class 30 cast iron.
2. Patterns to be made of core type, provide rapping plates on pattern.
3. Average weight of frame — 280 lbs.
4. Average weight of cover — 150 lbs.
5. Average total weight — 430 lbs.

REVISIONS COMMENTS

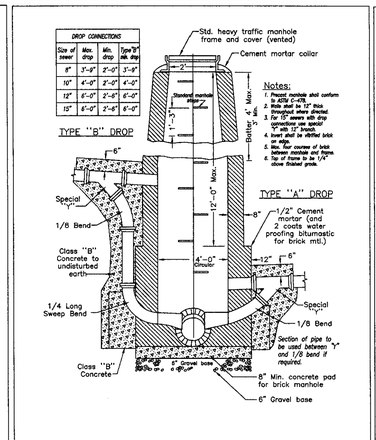
St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER
STANDARD NO. S-8



SECTION "A-A"

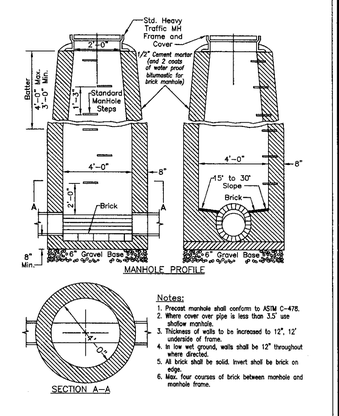
REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
MANHOLE CHANNELS
STANDARD NO. S-7



REVISIONS COMMENTS

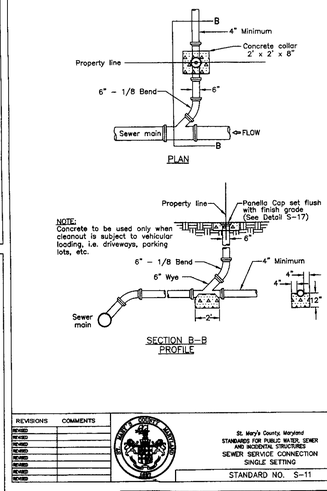
St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
DROP MANHOLE FOR NEW CONSTRUCTION
STANDARD NO. S-5



Notes:
1. Precast manhole shall conform to ASTM C-478.
2. Where cover over pipe is less than 3.5' use shallow manhole.
3. Thickness of walls to be increased to 12", 12' underside of frame.
4. In low wet ground, walls shall be 12" throughout where directed.
5. All brick shall be solid. Invert shall be brick on edge.
6. Max. four courses of brick between manhole and manhole frame.

REVISIONS COMMENTS

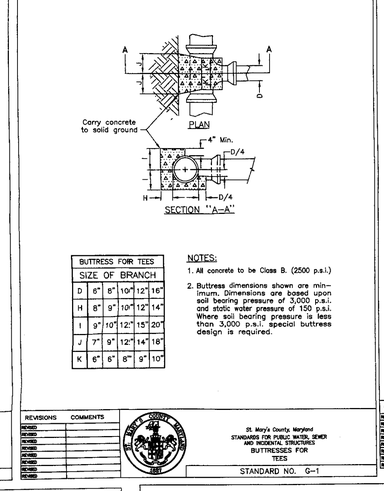
St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
STANDARD LINE MANHOLE
STANDARD NO. S-2



NOTE:
Concrete to be used only when cleanout is subject to vehicular loading, i.e. driveways, parking lots, etc.

REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
SEWER SERVICE CONNECTION SINGLE SETTING
STANDARD NO. S-11

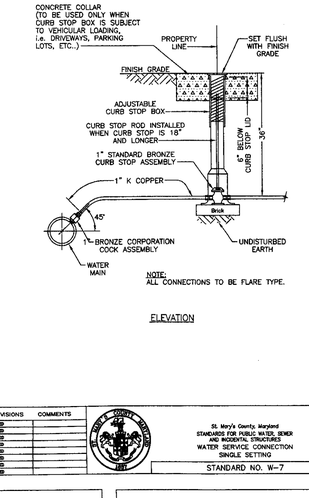


BUTTRESS FOR TEES					
SIZE OF BRANCH					
D	6"	8"	10"	12"	16"
H	8"	9"	10"	12"	14"
I	9"	10"	12"	15"	20"
J	7"	9"	12"	14"	18"
K	6"	6"	8"	9"	10"

NOTES:
1. All concrete to be Class B. (2500 p.s.i.)
2. Buttress dimensions shown are minimum. Dimensions are based upon soil bearing pressure of 3,000 p.s.i. and static water pressure of 150 p.s.i. Where soil bearing pressure is less than 3,000 p.s.i. special buttress design is required.

REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
BUTTRESSES FOR TEES
STANDARD NO. G-1

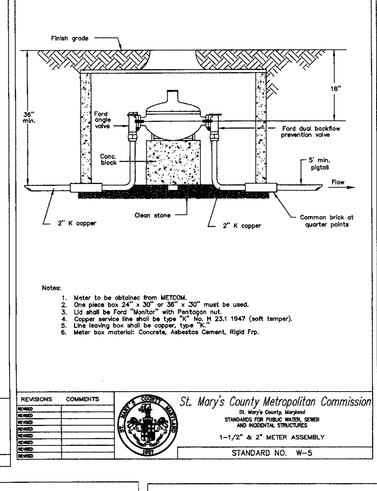


NOTE:
ALL CONNECTIONS TO BE FLARE TYPE.

ELEVATION

REVISIONS COMMENTS

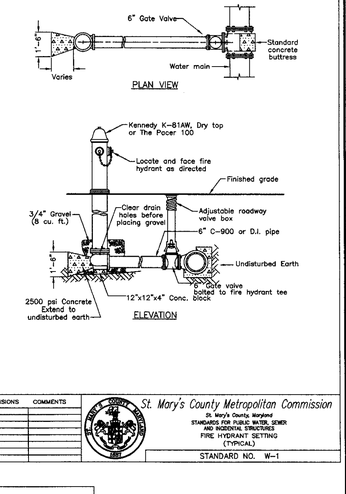
St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
WATER SERVICE CONNECTION SINGLE SETTING
STANDARD NO. W-7



Notes:
1. Meter to be obtained from METCOM.
2. One place box 24" x 30" or 36" x 30" must be used.
3. Lid shall be Ford "Monitor" with Pentagon nut.
4. Copper service line shall be type "K" No. H 23.1 1947 (soft temper).
5. Line leaving box shall be copper, type "K."
6. Meter box material: Concrete, Asbestos Cement, Rigid Frp.

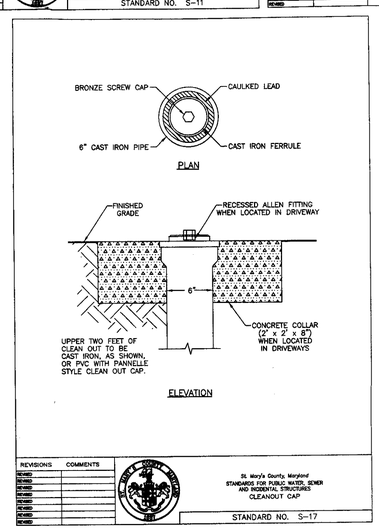
REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
1-1/2" & 2" METER ASSEMBLY
STANDARD NO. W-5



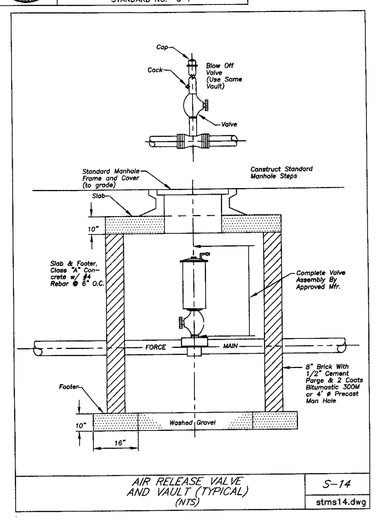
REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
FIRE HYDRANT SETTING (TYPICAL)
STANDARD NO. W-1



REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
CLEANOUT CAP
STANDARD NO. S-17

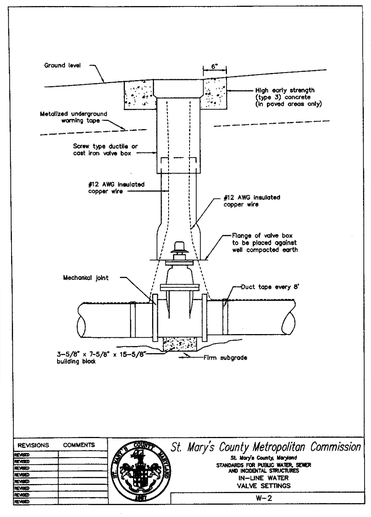


AIR RELEASE VALVE AND VAULT (TYPICAL) (NTS)

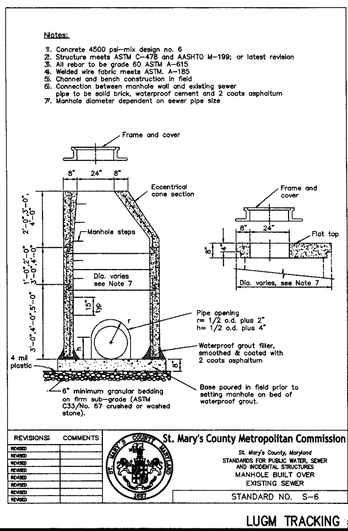
S-14
stms14.dwg

REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
IN-LINE WATER VALVE SETTINGS
W-2



Notes:
1. Concrete 4500 psi-mix design no. 6
2. Structure meets ASTM C-478 and AASHTO M-199; or latest revision
3. All rebar to be grade 60 ASTM A-615
4. Welded wire fabric meets ASTM. A-185
5. Channel and bench construction in field
6. Connection between manhole wall and existing sewer pipe to be solid brick, waterproof cement and 2 coats asphaltum
7. Manhole diameter dependent on sewer pipe size



REVISIONS COMMENTS

St. Mary's County Metropolitan Commission
St. Mary's County, Maryland
STANDARDS FOR PUBLIC WATER, SEWER AND INCIDENTAL STRUCTURES
MANHOLE BUILT OVER EXISTING SEWER
STANDARD NO. S-6

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REVISIONS

MARK	DATE	DESCRIPTION
TTG	11/2008	REVISED PER COUNTY COMMENTS
TTG	02/2009	REVISED PER COUNTY COMMENTS
TTG	05/2009	REVISED PER COUNTY COMMENTS

STATE OF MARYLAND — ROBERT T. MONTGOMERY — No. 20039 — 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. 20039, EXP. DATE 3-19-2011

METCOM NOTES AND DETAILS

WILDEWOOD RETIREMENT VILLAGE

EIGHTH ELECTION DISTRICT
SAINT MARY'S COUNTY, MARYLAND

Compass Pointe, LLC
42120 St. Andrews Church Rd.
P. O. Box 2257
Leonardtown, Maryland 20650
(301) 475-0310

TAX MAP: 34 GRID: 20 PARCEL: 674
THE TECH GROUP, INC. 206042
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SHEET NO.	37 OF 37