

ESD NARRATIVE

1. NO DISTURBANCE TO THE ONSITE FLOODPLAIN, STREAMS, WETLANDS, OR THEIR ASSOCIATED BUFFERS IS PROPOSED AS PART OF THIS PROJECT. THE PROPOSED MICRO-BIORETENTION FACILITIES, PERVIOUS SURFACES, AND THE GRAVEL WETLAND WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT, WHICH WILL BE AN IMPROVEMENT OVER EXISTING CONDITIONS.
2. THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
3. THE USE OF NON-STRUCTURAL PRACTICES (ROOFTOP AND NON-ROOFTOP DISCONNECTION) WAS EXPLORED. NON-STRUCTURAL PRACTICES WERE NOT UTILIZED DUE TO THE STEEPNESS OF THE EXISTING TOPOGRAPHY AND ON-SITE ENVIRONMENTAL CONSTRAINTS.
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATED FLOW IS PROPOSED. A SEDIMENT TRAP WILL MOST LIKELY BE PROPOSED AND CONVERTED TO A GRAVEL WETLAND DURING CONSTRUCTION.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING SHARED DRIVEWAY AND MINIMIZING EARTH DISTURBANCE.
6. IN DESIGNING THIS PROJECT, AND AFTER WE PLAN THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
 - A. MICRO-SCALE PRACTICES (A-2, M-2, M-5, AND M-6)

SOILS DESCRIPTION

DESIGNATION	HYDROLOGICAL GROUP	DESCRIPTION
CeB	B	CHILLUM LOAM, 2 TO 5% SLOPE
CeC	B	CHILLUM LOAM, 5 TO 10% SLOPE
Fa	D	FALLSINGTON SANDY LOAM, 0 TO 2% SLOPE
RaB	C	RUSSETT FINE SANDY LOAM, 2 TO 5% SLOPE
RaC	C	RUSSETT FINE SANDY LOAM, 5 TO 10% SLOPE
RaD	C	RUSSETT AND BELTSVILLE SOILS, 5 TO 10% SLOPE

LEGEND

IMPERVIOUS AREA TREATED BY A-2, PERVIOUS PAVEMENT, (ALSO INCLUDES AREAS OF PERVIOUS PAVEMENT). THIS SHADING ALSO DELINEATES THE DRAINAGE AREAS TO THE PERVIOUS PAVEMENT.

IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION

IMPERVIOUS AREA TREATED BY M-2, GRAVEL WETLAND

IMPERVIOUS AREA TREATED BY M-5, MODIFIED DRY WELLS (STORMTECH SC-740 CHAMBERS).

DRAINAGE AREA TO MODIFIED DRY WELLS (M-5)

DRAINAGE AREA TO MICRO-BIORETENTION (M-6)

DRAINAGE AREA TO GRAVEL WETLAND (M-2)

LOD LIMIT OF DISTURBANCE

SCE STABILIZED CONSTRUCTION ENTRANCE

SS SUPER SILT FENCE

CD CHECK DAM

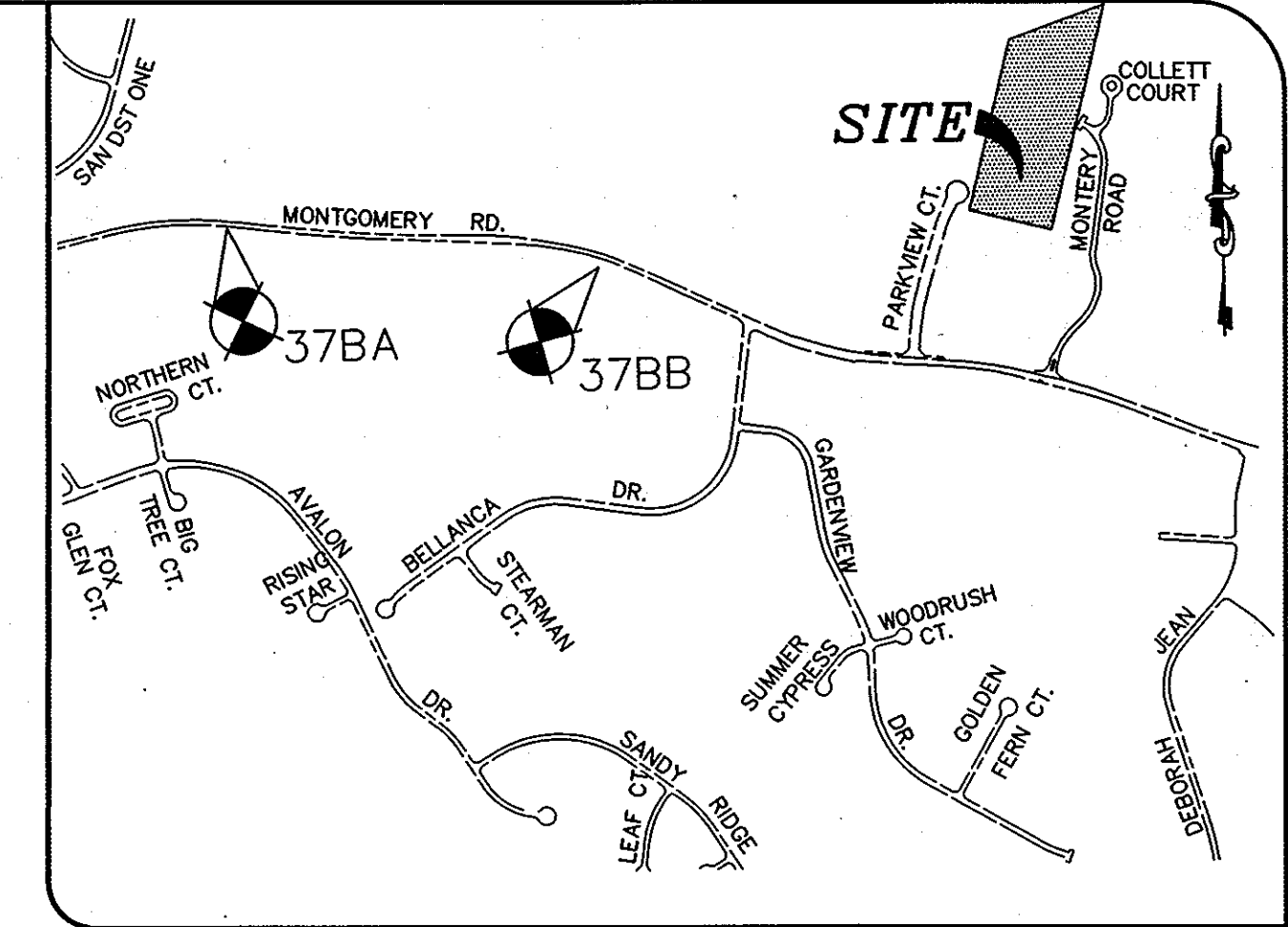
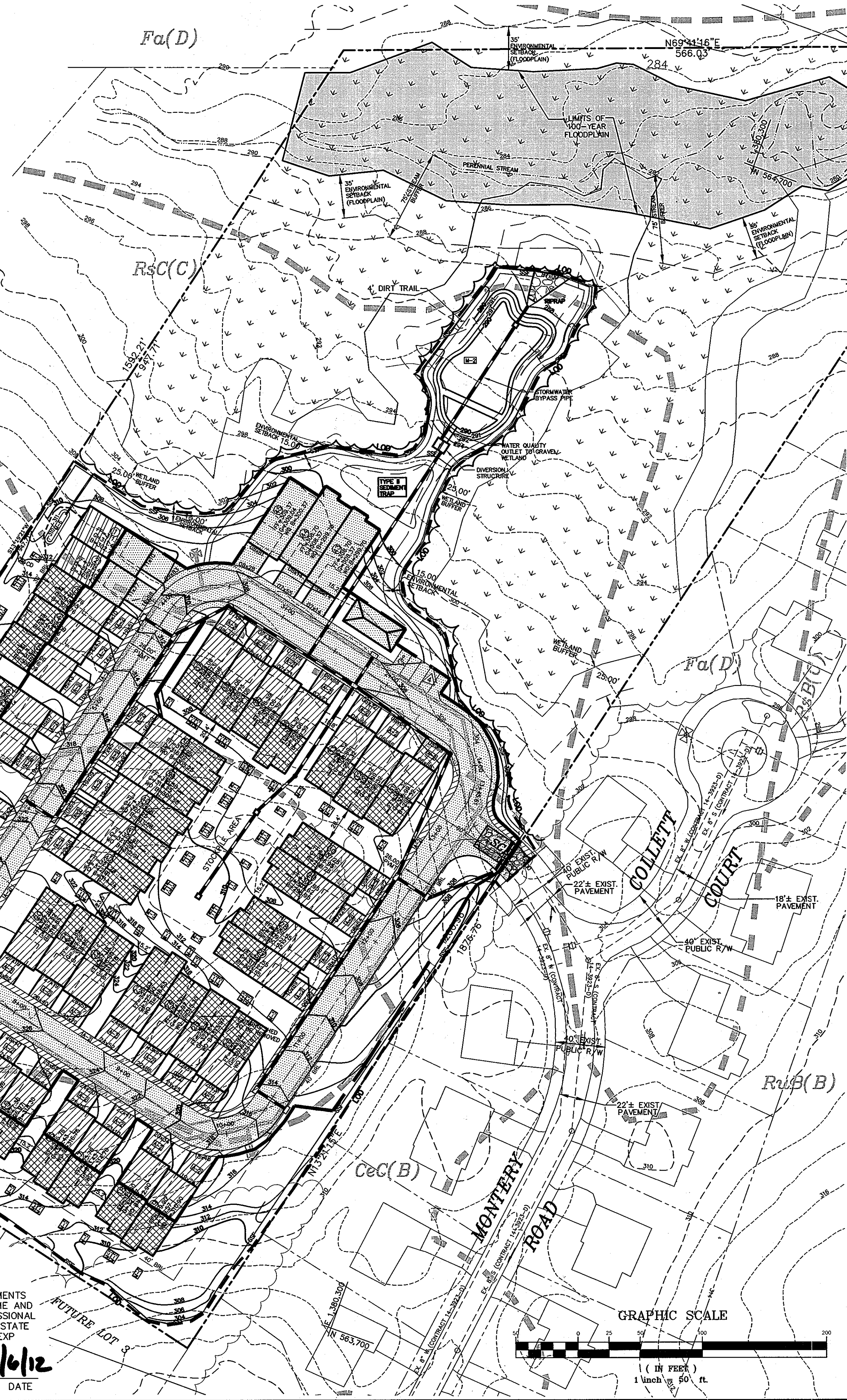
100-yr FLOODPLAIN LIMITS OF 100-YEAR FLOODPLAIN

EXISTING TREELINE

PROPOSED TREELINE

SHEET INDEX

SHEET	DESCRIPTION
1	ENVIRONMENTAL CONCEPT PLAN (GRADING AND SEDIMENT CONTROL)
2	ENVIRONMENTAL CONCEPT PLAN (UTILITIES AND DETAILS)



NOTES:

1. SITE ANALYSIS DATA:
 - LOCATION: TAX MAP : 37 PARCELS: 52, 53, 54 GRID 5
 - ELECTION DISTRICT : FIRST
 - ZONING: R-20
 - AREA OF THE SITE = 11.94± Ac
 - LIMIT OF DISTURBANCE = 6.38± Ac
 - TOTAL AREA: 11.94 AC±
 - LIMIT OF DISTURBED AREA: 6.38 AC±
 - PROPOSED USE FOR SITE: RESIDENTIAL
 - TOTAL NUMBER OF UNITS : 45
 - TYPE OF PROPOSED UNIT : SFA
 - DEED REFERENCE: 10457/00001 (PARCEL 52), 10933/00119 (PARCEL 53), 00320/00161 (PARCEL 54)
 - PREVIOUS DPZ FILE NOS. BA Case No. 11-028C
2. HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 378A & 378B
 - STA. No. 378A N 563,785.6421 E 1,376,343.2088 EL. 393.935
 - STA. No. 378B N 563,663.4488 E 1,378,040.5059 EL. 373.014
3. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
4. SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
5. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPERS OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH EXISTING THE NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
6. PROJECT BOUNDARY IS BASED ON HOWARD COUNTY GIS
7. TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS.
8. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY ZONING AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION WILL BE FULFILLED BY ON-SITE FOREST CONSERVATION (RETENTION).
9. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
10. WETLAND DELINEATION AND FOREST STAND DELINEATION WAS PERFORMED BY ECO-SCIENCE, INC. IN FEBRUARY, 2009. A FIELD VISIT WAS MADE IN JULY, 2012 BY MILDBERG, BOENDER AND ASSOC., INC WHICH DETERMINED THAT THERE ARE NO SIGNIFICANT DEVIATIONS FROM PREVIOUSLY DELINEATED WETLANDS AND FOREST STAND.
11. NO FOREST CONSERVATION AREAS EXIST ON SITE.
12. HORIZONTAL GEOMETRY OF THE MICRO-BIORETENTION FACILITIES MAY BE MODIFIED WHILE MAINTAINING SURFACE AREA.
13. APPROVAL OF THIS ESD DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION ON SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS.
14. NO GRADING OR DISTURBANCE IS ALLOWED IN THE STREAM, WETLANDS, OR THEIR BUFFER OR FLOODPLAIN AREA UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.

SITE ANALYSIS DATA:

1. AREA OF THE SITE = 11.94± Ac
2. LIMIT OF DISTURBANCE = 6.29± Ac
3. AREA OF WETLANDS AND ITS BUFFERS = 4.53± Ac
4. AREA OF FLOODPLAIN = 1.17 Ac
5. AREA OF 35' ENVIRONMENTAL SETBACK (FLOODPLAIN) = 0.76 Ac
6. AREA OF STREAM BUFFER = 2.69 Ac
7. AREA OF STEEP SLOPES (15% OR GREATER) = 0
8. AREA OF FOREST = 8.51 Ac
9. TOTAL ENVIRONMENTAL SENSITIVE AREA = 5.45± Ac
10. DEVELOPABLE AREA = 7.31± Ac
11. NEW IMPERVIOUS AREA:
 - 1.89 Ac (BUILDINGS)
 - 0.47 Ac (PERMEABLE CONCRETE DRIVEWAYS)
 - 0.81 Ac (ROADWAYS)
 - 0.26 Ac (PERMEABLE CONCRETE SIDEWALKS)
 - PERVIOUS/GREEN AREA: 8.51 Ac
12. CHILLUM LOAM (CeB & CeC) IS CONSIDERED A HIGHLY ERODIBLE SOIL WHEN THE SLOPE IS 5% OR GREATER. RUSSETT FINE SANDY LOAM AND RUSSETT-BELTSVILLE (RaB, RaC, RuB) ARE CONSIDERED HIGH ERODIBLE SOILS WHERE EXCAVATION OCCURS
13. FORTY-FIVE (45) ATTACHED RESIDENTIAL CONDOMINIUM UNITS ARE PROPOSED

SWM PRACTICES SCHEDULE (STUDY POINT 1)

PROPOSED PRACTICES	TREATED AREA TYPE	REQUIRED ESDv	PROVIDED ESDv
M-5, MODIFIED DRY WELLS (SC-740 CHAMBERS)	BUILDINGS (REAR)		1,498 CF
TOTAL		1,469 CF	1,498 CF

SWM PRACTICES SCHEDULE (STUDY POINT 2)

PROPOSED PRACTICES	TREATED AREA TYPE	REQUIRED ESDv	PROVIDED ESDv
A-2, PERVIOUS PAVEMENT	BUILDINGS (FRONT) DRIVEWAYS (PERMEABLE CONC.) SIDEWALK (PERMEABLE CONC.)		12,776 CF
M-2, GRAVEL WETLAND	BUILDINGS (FRONT) ROADWAY (ASPHALT) SIDEWALK (REGULAR CONC.)		4,485 CF
M-5, MODIFIED DRY WELLS (SC-740 CHAMBERS)	BUILDINGS (REAR)		4,494 CF
M-6, MICRO-BIORETENTION	BUILDINGS (REAR)		
TOTAL		20,828 CF	21,755 CF

OWNERS
ROCK BURN LLC (PARCEL 53)
6800 DEERPATH ROAD
SUITE 100
ELKBRIDGE, MD 21075
(410)526-4030

DEVELOPER
ROCK BURN LLC
6800 DEERPATH ROAD
SUITE 100
ELKBRIDGE, MD 21075
(410)526-4030

PAULINE ANN THORNTON (PARCEL 52)
5311 MONTGOMERY ROAD
ELKBRIDGE, MD 21075
(410)526-4030 (C/O ROCK BURN, LLC)

JOSEPH C. THORNTON & WIFE (PARCEL 54)
6343 MONTGOMERY ROAD
ELKBRIDGE, MD 21075
(410)526-4030 (C/O ROCK BURN, LLC)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

STATE OF MARYLAND
JEROME L. SILVERMAN
No. 40091
PROFESSIONAL ENGINEER

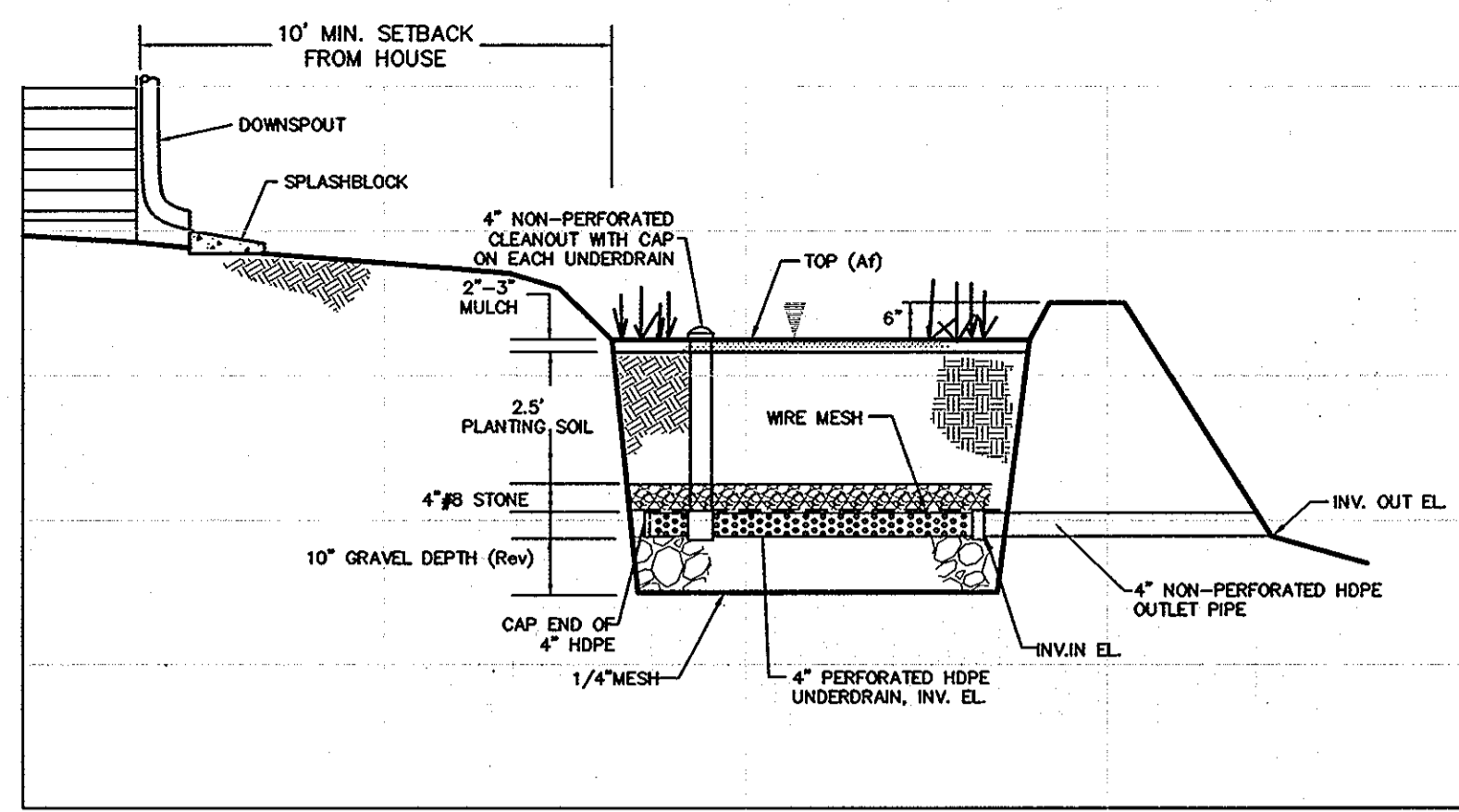
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40091, EXP. DATE 2/13/13.

JEFF M. MANN, P.E. DATE 11/6/12

Project	07-022	date	OCT 2012
Illustration	JLS	engineering	JLS
scale	1"=50'	approval	RH
revisions			

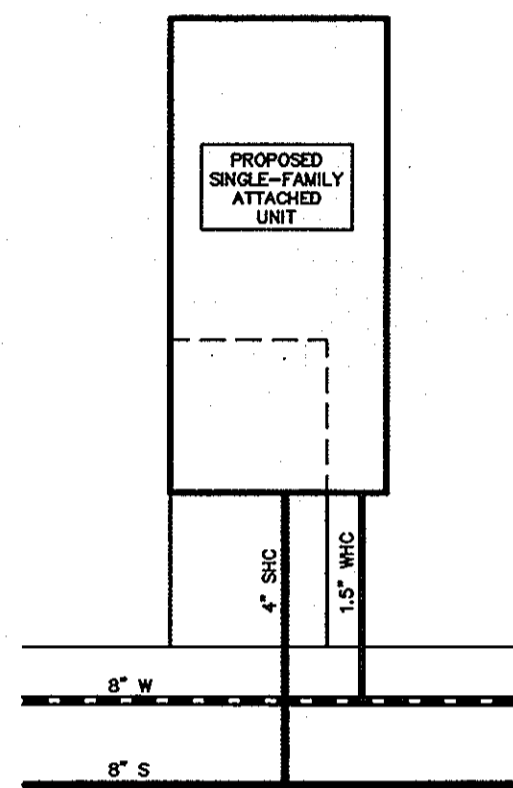
THE ENCLAVE AT PARK FOREST
TAX MAP 37, PARCELS 52, 53 AND 54 BLOCK 5
FIRST ELECTION DISTRICT HOWARD COUNTY
ENVIRONMENTAL CONCEPT PLAN (GRADING, SWM, AND SEDIMENT CONTROL)

MILDBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
(410) 997-0296 Fax (410) 997-0296 Bldg.



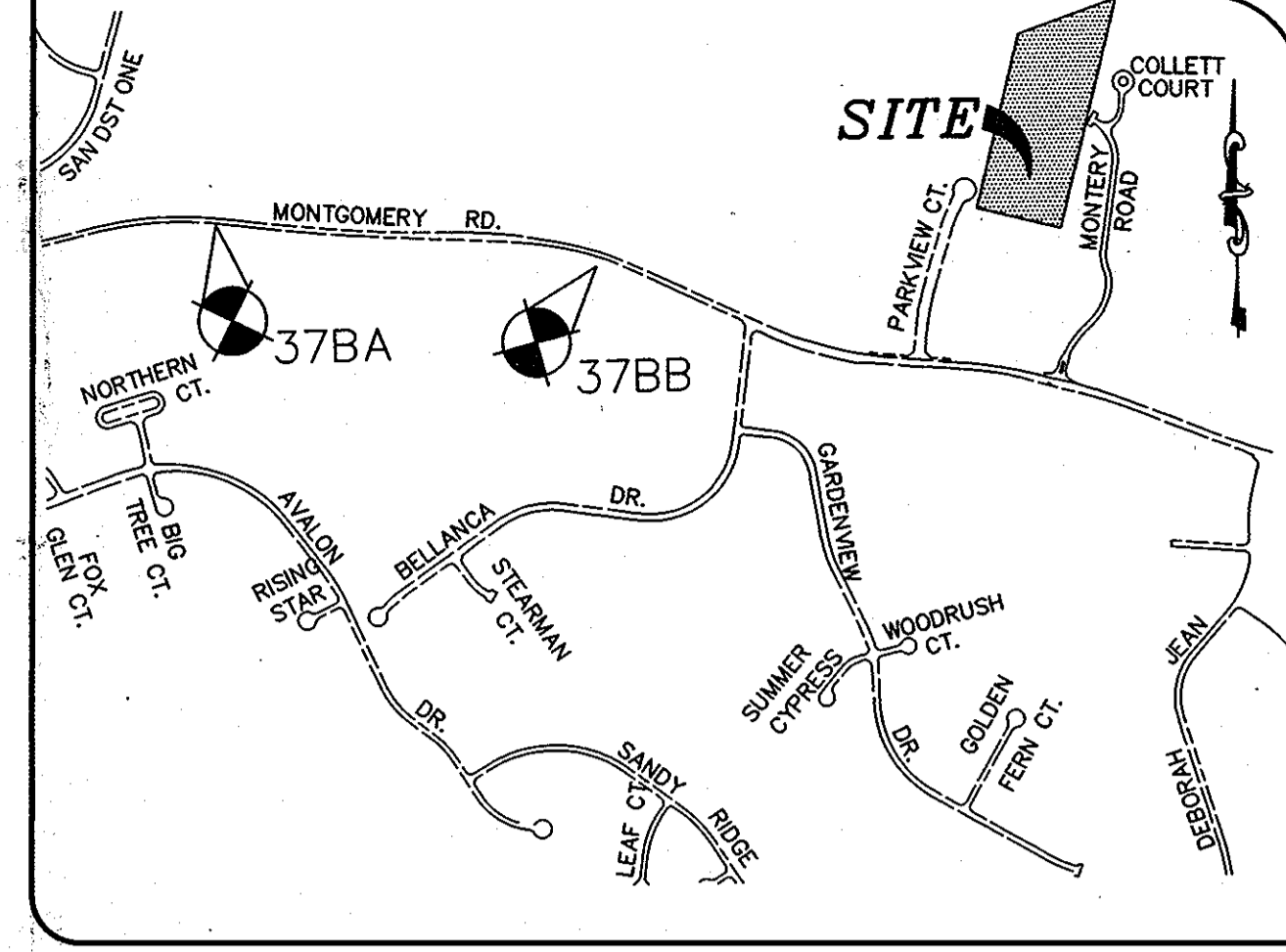
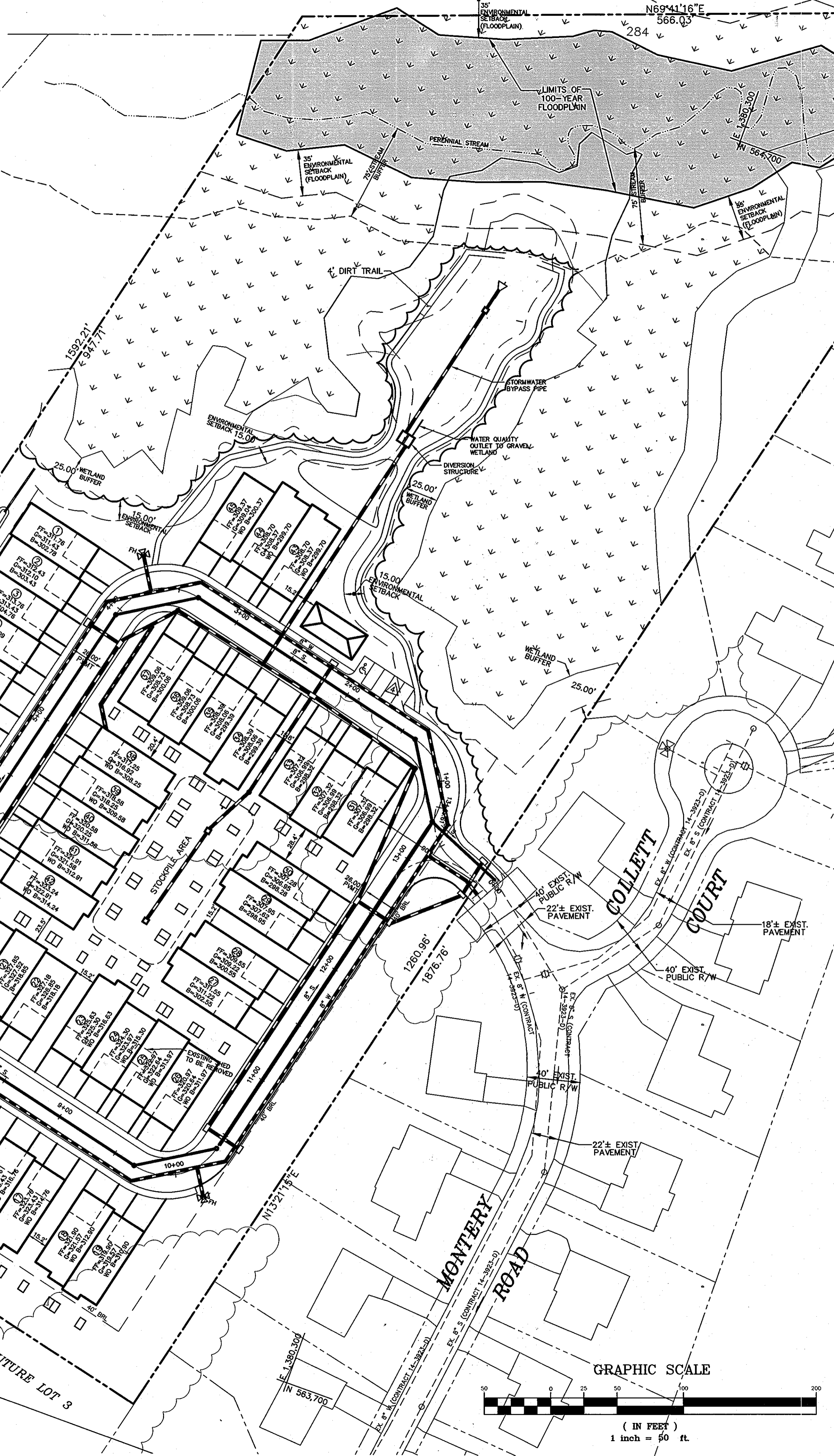
MICRO-BIORETENTION (M-6) DETAIL

NOT TO SCALE

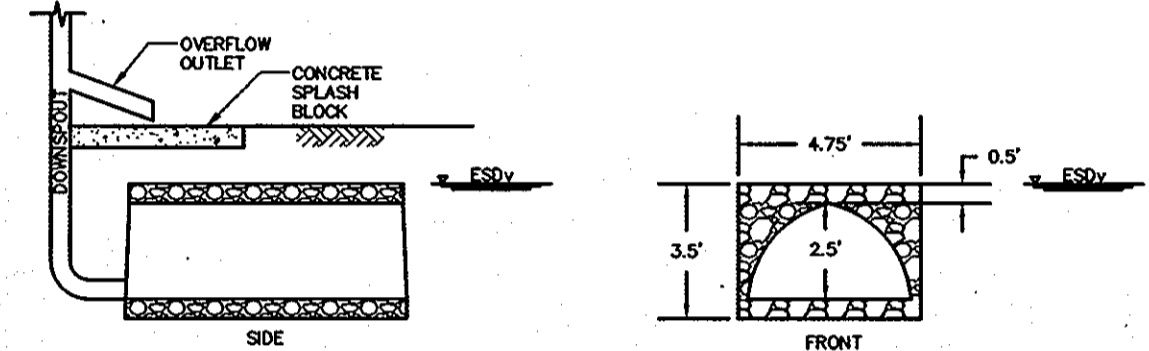


SCHEMATIC WATER AND SEWER CONNECTION DETAIL

NOT TO SCALE

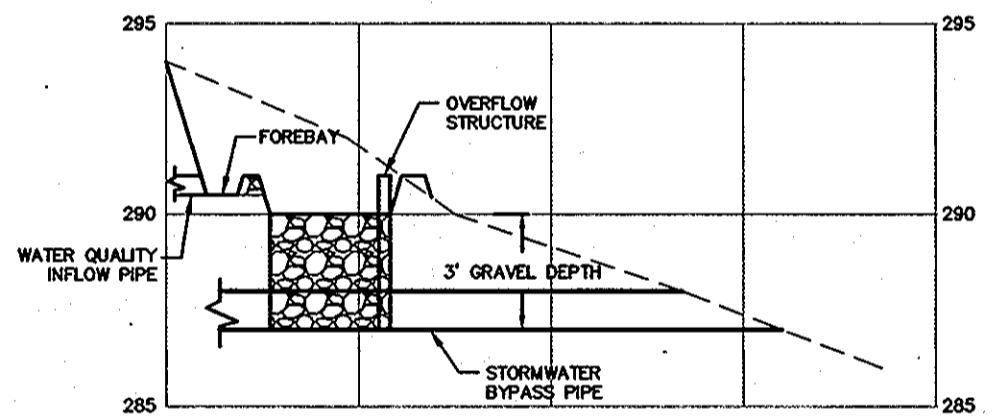


VICINITY MAP
SCALE: 1"=1000'
ADC: 4936 J-6



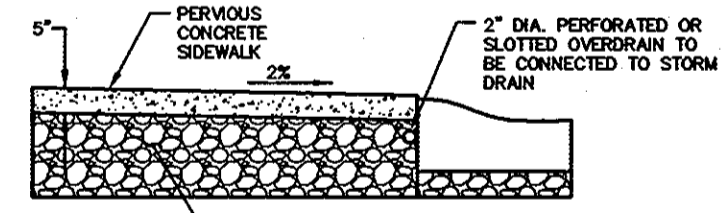
MODIFIED DRY WELL (M-5) DETAIL

SC-740 STORMTECH CHAMBER (MOD. DRY WELL)
STORAGE DEPTH: 3.5' (42")
CHAMBER STORAGE: 45.0
STONE STORAGE: 25.0
TOTAL STORAGE: 70.0



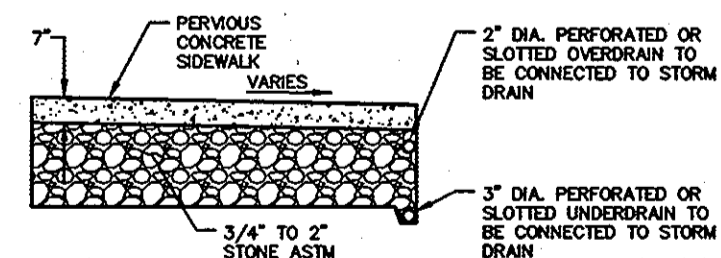
SUBMERGED GRAVEL WETLAND (M-2) DETAIL

NOT TO SCALE



PERVIOUS CONCRETE SIDEWALK (A-2) DETAIL

NOT TO SCALE



PERVIOUS CONCRETE DRIVEWAY (A-2) DETAIL

NOT TO SCALE

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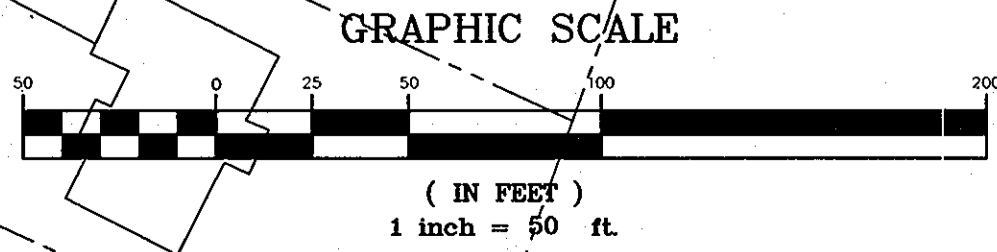
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W. L. SLOMAN 1/6/12
SLOMAN, P.E. DATE



Project	07-022	date	JUL 2012
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scale	1"=50'	approval	RJH
description	revisions	no.	

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