

**SOILS LEGEND**

SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K VALUE	K VALUE	HYDRO
G-2	Clayey Urban land complex, 0 to 8 percent slopes	B	0.28	+	NOT HYDRO

1. SOIL TYPES BASED ON HOWARD COUNTY SOIL SURVEY MAP # 13 OF 20/ ELLICOTT CITY SW, MARYLAND  
2. THERE ARE NO STEEP SLOPES OR ERODIBLE SOILS ON SITE.

**LEGEND-SWM- MDE DESIGNATION**

DRIVE SLOPE N-2 DENOTES NON-ROOFTOP RUNOFF DISCONNECT

RG M-7 DENOTES MICRO- BIO RETENTION FACILITY

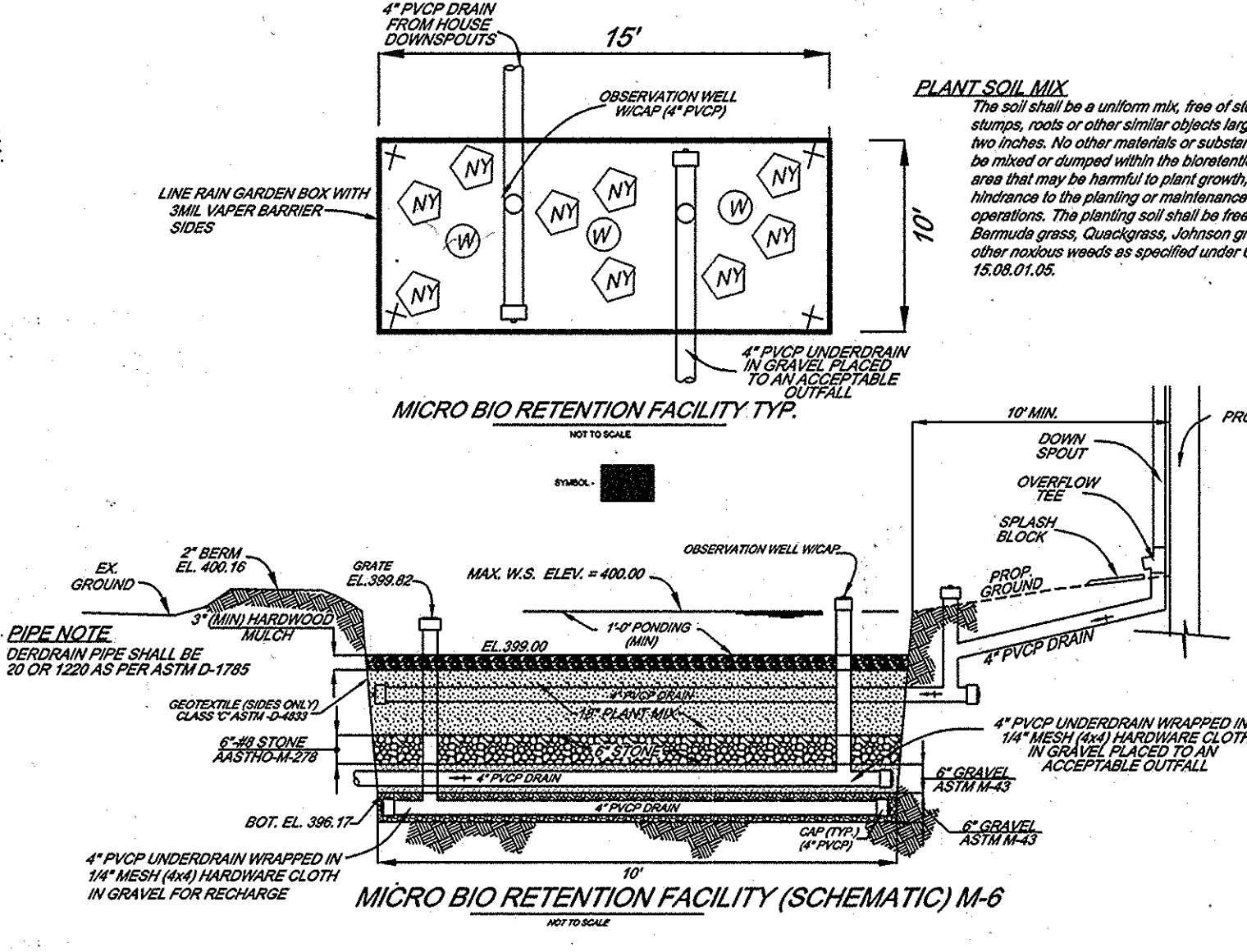
**MICRO BIO RETENTION FACILITY SCHEDULE**

NO.	DIAMETER (IN)	TOP ELEV.	BOT. ELEV.	INLET	OUTLET
LOT 2	10" x 15"	400.00	398.17	398.25	398.75

**MICRO BIO RETENTION FACILITY PLANT LIST**

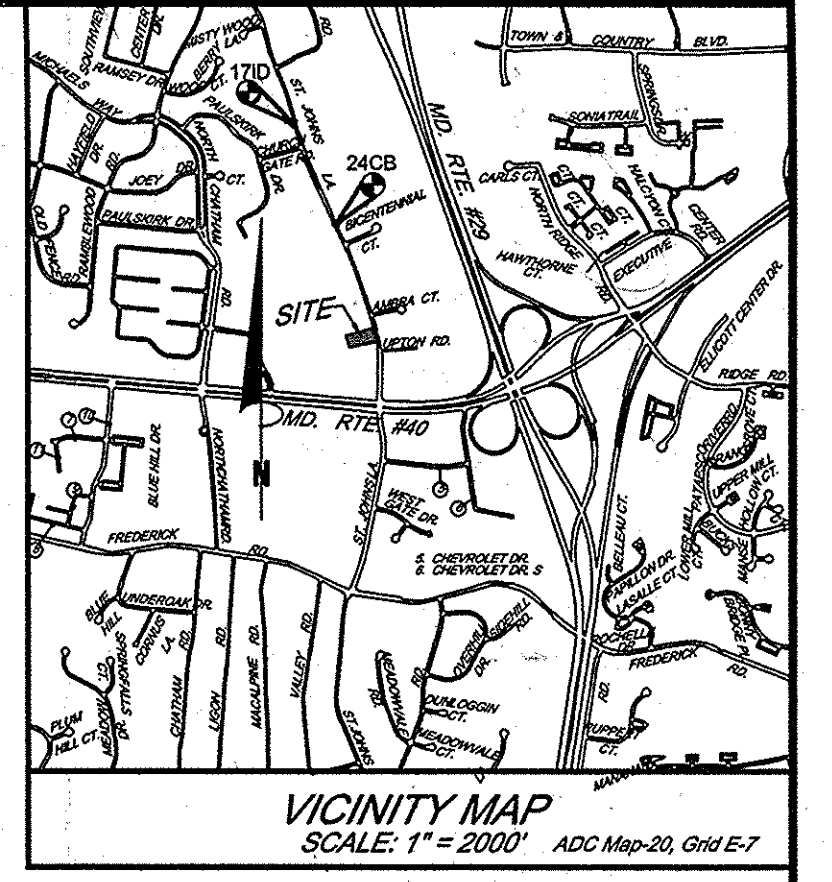
SYMBOL	QUANTITY	BOTANICAL/COMMON NAME	SIZE
NY	61 EA	NEW YORK IRONWOOD	1.5 GAL CONTAINER
NY	10 EA	NEW YORK IRONWOOD	1.5 GAL CONTAINER

NOTE: EXACT LOCATION SEE 20 SCALE DWG THIS SHEET  
AREA = 20 SQ. FT PER 1000 SQ. FT. OF FLOOR



**STORMWATER MANAGEMENT PRACTICE CHART-ESD (SEE NOTES)**

LOT NO.	HSE. NO.	AREA	IMPERV. AREA	IMPERV. %	R <sub>v</sub>	FE INCHES	ESD COL. COLLECT.	SWM PRACTICE (E.D.)
#1	3350	20,182	4098	20%	0.23	1.2"	302	M-2 = 2,228 SF
#2	3352	20,714	3020	15%	0.165	1.0"	310	M-6 = 2,420 SF, N-2 = 550 SF



- GENERAL NOTES:**
- OWNERS: AHMAD TAJOUR  
3350 SAINT JOHNS LN.  
ELICOTT CITY, MD 21042  
DEED REFERENCE: LIBER 15929, FOLIO 0343  
DATE: NOVEMBER 25, 2014  
GRANTOR: FANNIE MAE
  - TAX MAP 024, GRID 05, PARCEL 36
  - THE BOUNDARY SHOWN HEREON IS BASED UPON FIELD RUN SURVEY BY CRC & ASSOC. CONDUCTED MARCH 31, 2015.
  - THE PROPERTY IS LOCATED IN THE METROPOLITAN DISTRICT, WHERE IT IS SERVED BY PUBLIC WATER AND SEWER.
  - THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #2600440023B
  - TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA NAV88, CONTOUR INTERVAL = 2 FT. PREPARED BY CRC & ASSOC.
  - THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100 FT OF THE SUBJECT PROPERTY UNLESS OTHERWISE SHOWN HEREON.
  - SUBJECT PROPERTY IS ZONED R-20 PER THE 10-06-2013 COMPREHENSIVE ZONING REGULATIONS.
  - THE SUBJECT PROPERTY SHOWN HEREON IS NOT SUBJECT TO ANY PRIOR ZONING CASES VARIANCES OR SPECIAL EXCEPTIONS.
  - THERE ARE NO WETLANDS, FOREST, WETLAND BUFFERS, AND STEEP SLOPES LOCATED ON SITE.
  - WIDTH OF PAVEMENTS FOR LOT 2 IS 5.00'
  - IN ACCORDANCE WITH SECTION 16.12(C)(2)(III) OF THE SUBDIVISION REGULATIONS REGARDING MINIMUM PUBLIC ROAD FRONTAGES, THE 24 FOOT WIDE USE-IN-COMMON DRIVEWAY EASEMENT WITH A 16 FOOT PAVING WIDTH PROVIDES SHARED ACCESS FOR LOTS 1 AND 2 HAVING SUFFICIENT PUBLIC ROAD FRONTAGE COLLECTIVELY TO MEET THE DRIVEWAY EASEMENT REQUIREMENTS IN THE DESIGN MANUAL.
  - APPROVAL OF THIS ECD DOES NOT CONSTITUTE APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN AND SITE DEVELOPMENT. ALL REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN AND SITE DEVELOPMENT PLAN STAGES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
  - STORMWATER MANAGEMENT FOR THE SUBJECT PROPERTY SHOWN HEREON HAS BEEN SATISFIED BY TAKING MEASURES FOR CAPTURED ROOF TOP AND NON-ROOF TOP RUNOFF IN ACCORDANCE WITH MDE STORM WATER DESIGN MANUAL VOL. 1, SEC. 5.1 AND MDE ENVIRONMENTAL SITE DESIGN (ESD), THE HOWARD CO. DESIGN MANUAL VOL. 3, CHAPTER 3 REVISED AND THE HOWARD CO. DESIGN ESD ON SMALL PROJECTS.
  - COORDINATES BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 2402B AND NO. 171D  
GEODETIC CONTROL STATION: NO. 2402B N888396.130 E1361228.288 ELEV. 415.38  
GEODETIC CONTROL STATION: NO. 171D N889465.893 E1360778.422 ELEV. 421.154
  - COMPLIANCE WITH THE REQUIREMENTS OF SECTION 16.12(B) OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION TO BE SATISFIED BY A PAYMENT OF A FEE IN LIEU OF A FEE IN KIND OF \$6207.30 FOR THE 0.19 ACRE OBLIGATION (0.19 ACRES x \$32650 SF/0.75).

**SITE ANALYSIS**

DESCRIPTION	AREA (SQ. FT.)	ACRES
TOTAL AREA SITE	40896	0.9364
AREA OF WETLANDS AND THEIR BUFFERS	0.0	0.0 ACRES (0.0 SF)
AREA OF STREAMS AND THEIR BUFFERS	0.0	0.0 ACRES (0.0 SF)
AREA OF FLOODPLAIN AND THEIR BUFFERS	0.0	0.0 ACRES (0.0 SF)
AREA OF MODERATE STEEP SLOPES 15% - 24.9%	0.0	0.0 ACRES
AREA OF STEEP SLOPES 25% OR GREATER	0.0	0.0 ACRES
AREA OF FOREST	0.0	0.0 ACRES (0.0 SF)
AREA OF ERODIBLE SOILS	0.0	0.0 ACRES (0.0 SF)
AREA DISTURBED	25544	0.5664 ACRES (25544 SF)
AREA TO BE RECOVERED	11221	0.2465 ACRES (11221 SF) - LOT 2
AREA TO BE PAID	14554	0.3218 ACRES (14554 SF) - LOT 1 & 2
TOTAL IMPERVIOUS AREA	8275	0.1840 ACRES (8275 SF) - EXCLUDES EX. HOUSE
AREA TO BE VEGETATIVELY STABILIZED	11642	0.2576 ACRES (11642 SF)
TOTAL VOLUME CUT	425 CY	
TOTAL VOLUME FILL	425 CY	

**LOT INFORMATION CHART**

LOT #	GROSS AREA SQ. FT.	PIPESTEM AREA	REMAINING LOT AREA SQ. FT.
1	20182 sq. ft.	N/A	N/A
2	20714 sq. ft.	712 sq. ft.	20002 sq. ft.

**NARRATIVE / ENVIRONMENTAL SITE DESIGN**

- THERE IS NO WETLAND, FLOOD PLAIN OR FORESTED AREA LOCATED ON THE SUBJECT PROPERTY BASED UPON A FIELD INVESTIGATION CONDUCTED BY MATTHEW WRIGHT ENVIRONMENTAL LLC. THERE ARE NO SPECIMEN TREES LOCATED ON PROPERTY. THE PROPOSED DWELLING IS TO BE SERVED BY PUBLIC WATER AND SEWER. THE PROJECT IS DESIGNED TO BE A LOW IMPACT DEVELOPMENT. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES, NAMELY 1" WIDE GRASS SHOULDER AND MICRO-BIORETENTION FACILITY TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND ADJOINING PROPERTIES.
- GRADING ON SITE IS LIMITED TO ONLY THAT REQUIRED TO ACCOMPLISH CONSTRUCTION OF THE PROPOSED DWELLING, DRIVEWAY AND SWM FACILITY TO MANAGE RUNOFF WHILE MAINTAINING EXISTING FLOW PATTERNS.
- IMPERVIOUS AREA WAS HELD TO THE MINIMUM REQUIRED TO ACCOMPLISH THE WORK BY USING A USE-IN-COMMON DRIVEWAY FOR INGRESS AND EGRESS AND REMOVING EXISTING IMPERVIOUS PAVEMENT WHERE POSSIBLE. RUNOFF FROM IMPERVIOUS PAVEMENT IS DIRECTED TO A GRASS SHOULDER AND THENCE TO THE REAR OF THE PROPERTY AND ULTIMATELY TO AN ADJOINING OPEN SPACE PARCEL TO ENHANCE WATER QUALITY. A MICRO-BIORETENTION FACILITY IS PROPOSED TO MANAGE ROOFTOP RUNOFF FROM THE PROPOSED DWELLINGS AS WELL AS RUNOFF FROM IMPERVIOUS PAVEMENT AT THE GARAGE. DOWNSPOUT DISCONNECTS ARE NOT PRACTICAL DUE TO LIMITED SPACE AND SLOPES GREATER THAN FIVE PERCENT.
- TEMPORARY PERIMETER SEDIMENT CONTROL IN THE FORM OF SUPER SILT FENCE IS PROPOSED IN ORDER TO PROVIDE SWM BY RUNOFF REDUCTION DURING CONSTRUCTION. RUNOFF IS DIRECTED TO LOW LYING LOCATIONS TO AFFORD TEMPORARY RETENTION.
- ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT PRACTICAL. RUNOFF FROM THE DRIVEWAY IS MANAGED BY 16" WIDE GRASS SHOULDER. STORM WATER MANAGEMENT OF ROOFTOP RUNOFF AND THE PAVEMENT AT THE GARAGE IS ACCOMPLISHED BY CONSTRUCTION OF THE RUNOFF REDUCING MICRO-BIORETENTION FACILITY.
- NO WAIVERS FROM THE SUBDIVISION REGULATIONS AND OR DESIGN MANUAL VOLUME 1 ARE REQUIRED TO SATISFY ESD FOR THE PROJECT AS SHOWN HEREON.

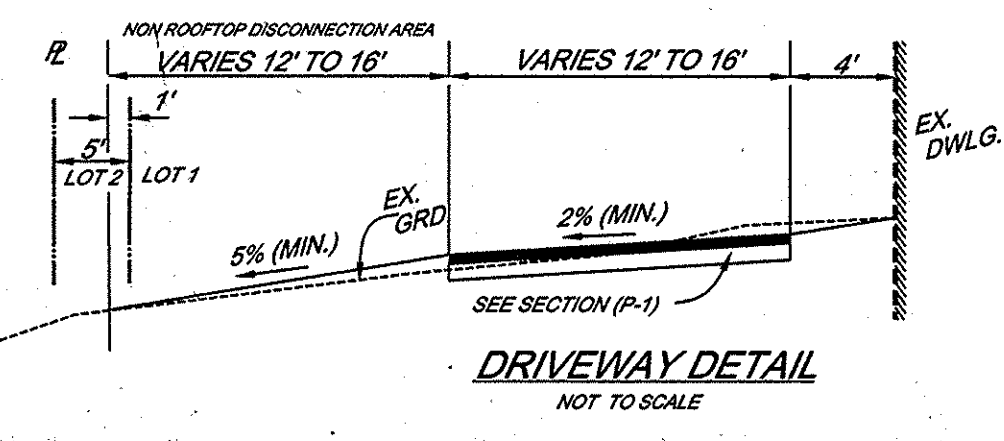
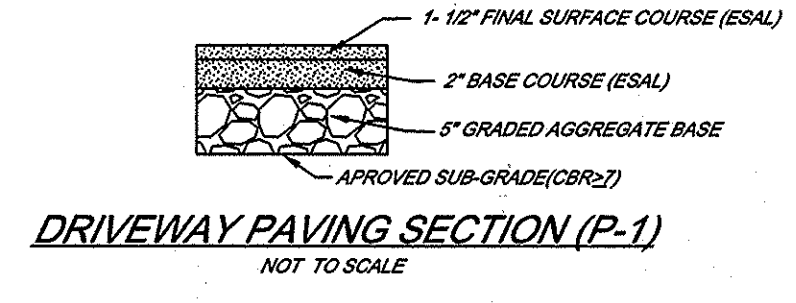
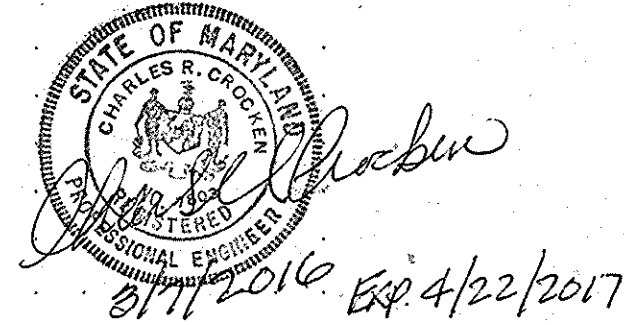
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

*Charles R. Crocken*  
CHIEF, DIVISION LAND DEVELOPMENT  
3-14-16  
DATE

*Charles R. Crocken*  
CHIEF, DEVELOPMENT ENGINEERING  
3-22-16  
DATE

**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. 7803 EXPIRATION DATE 4-22-2018

*Charles R. Crocken*  
8/17/2016 Exp. 4/22/2017



- LEGEND**
- EX PROPERTY LINE
  - EX RIGHT-OF-WAY
  - PROP. LOT LINES
  - EX EASEMENTS
  - EX CONTOURS
  - PROP. CONTOURS
  - EX TREEWOODS LINE
  - SOILS LINE
  - LIMIT OF DISTURBANCE
  - DENOTES SLOPES 25% OR GREATER
  - DENOTES SLOPES 15% - 25%
  - MICRO BIO RETENTION FACILITY
  - TEST PIT
  - TEST BORING
  - DENOTES GRASS SHOULDER
  - STABILIZED CONSTRUCTION ENTRANCE
  - SUPER SILT FENCE
  - SILT FENCE
  - TREE PROTECTION FENCE

**ENVIRONMENTAL CONCEPT PLAN**  
FOR  
**THE AHMAD PROPERTY**  
3350 ST. JOHNS LANE

SINGLE FAMILY DETACHED  
LIBER 118311 FOLIO 044  
ZONED R-20  
SECOND ELECTION DISTRICT TAX MAP #24, GRID 17, PARCEL 370  
HOWARD COUNTY, MARYLAND

Prepared by:  
**CHARLES R. CROCKEN AND ASSOCIATES, INC.**  
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SYKESVILLE, MARYLAND 21157  
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Fax: (410) 549-9053

SCALE: 1" = 30'  
DATE: 07/15/15  
SHEET 1 OF 1  
ECP-16-006