

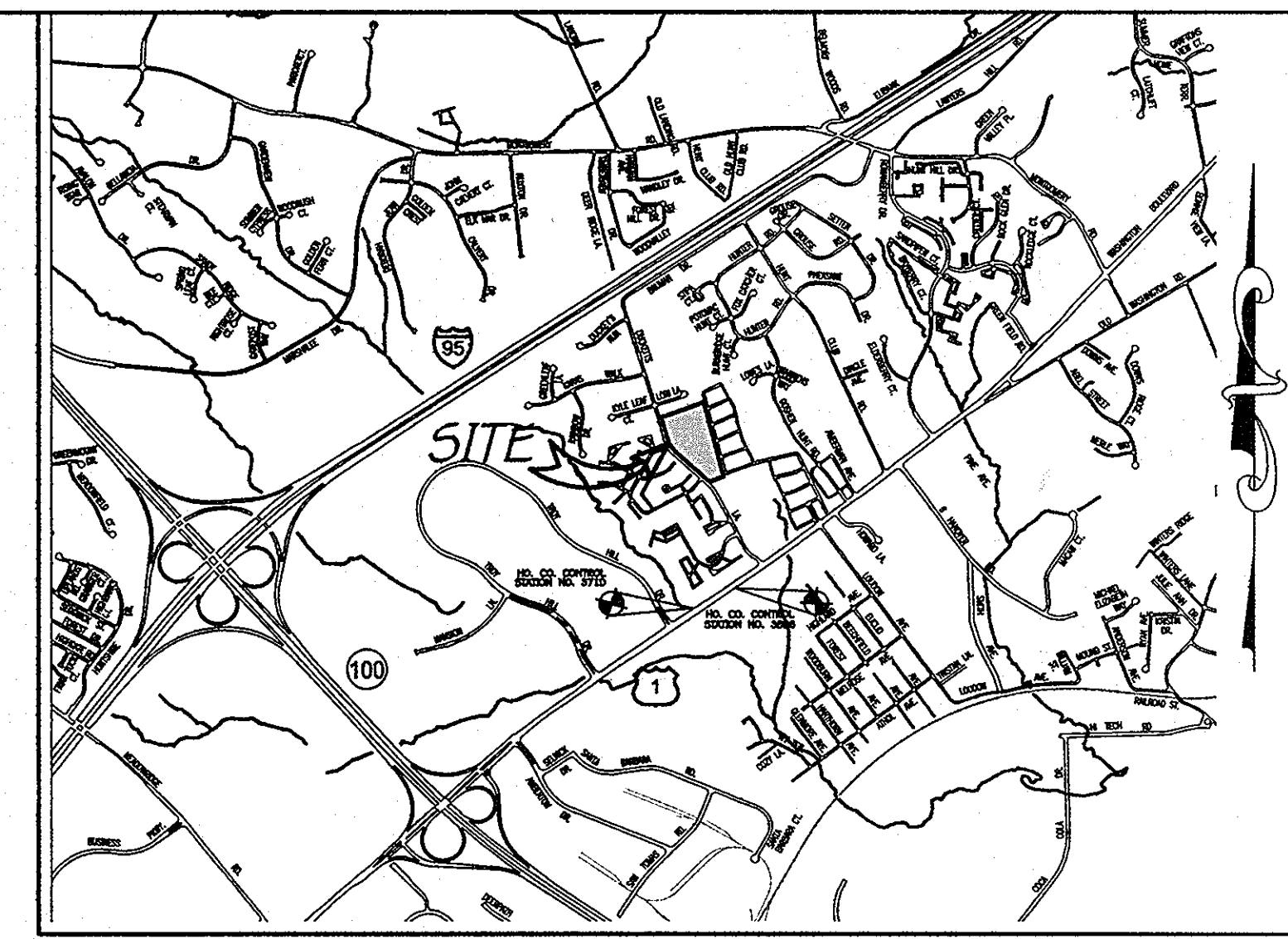
SHEET INDEX	
SHEET NUMBER	DESCRIPTION
1	ECP TITLE SHEET
2	ENVIRONMENTAL CONCEPT PLAN
3	ECP SEDIMENT AND EROSION CONTROL PLAN

ENVIRONMENTAL CONCEPT PLAN ELEMENTARY SCHOOL #41

TAX MAP No.: 37 GRID No: 12

PARCEL No.: 0569

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 200'
REFERENCED ADC MAP 4637 (A8)

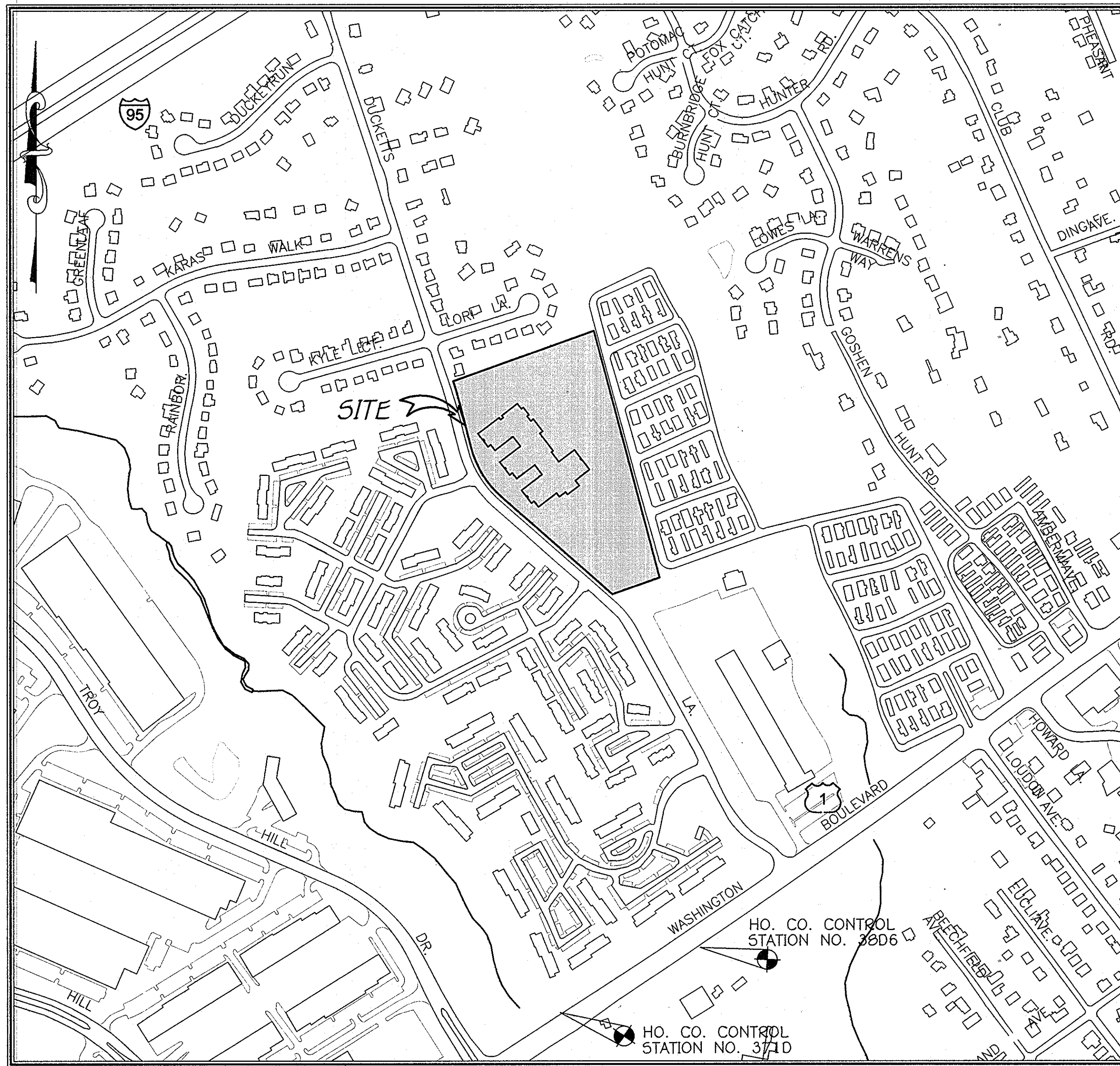
SITE ANALYSIS DATA

- Area Tabulation:
 - Total project area: 10.029 Ac±
 - Total area of wetlands: 0.50 Ac±
 - Total area of wetlands buffer: 0.44 Ac±
 - There is no floodplain on this site.
 - There are no floodplain buffers on this site.
 - Total area of forest: 9.917 Ac±
 - Total area of slopes 15%-25%: 0.240 Ac±
 - There are no erodible soils on this site.
 - Limit of disturbance: 11.004 Ac±
 - Proposed use of site or structure: Institutional; Public School (Elementary): 10.029 Ac±
 - Total area of green open space: 4.040 Ac±
 - Total area of impervious area: 6.164 Ac±
- Parking Space Data:
 - The Number of parking spaces in accordance with the Public School System's requirements = 114
 - Number of spaces proposed under this site plan = 115 (Including 5 handicapped spaces)
 - Total number of bus stacking spaces provided = 16

LEGEND	
SYMBOL	DESCRIPTION
----- 178 -----	EXISTING CONTOUR 2' INTERVAL
----- 180 -----	EXISTING CONTOUR 10' INTERVAL
-----	EXISTING SAN SEWER LINE
-----	EXISTING STORM DRAIN LINE
-----	EXISTING WATER LINE
-----	EXISTING ELECTRIC LINE
-----	EXISTING CABLE LINE
-----	EXISTING GAS LINE
-----	EXISTING FENCE
----- 178 -----	PROPOSED CONTOUR 2' INTERVAL
----- 180 -----	PROPOSED CONTOUR 10' INTERVAL
+ 180.30	SPOT ELEVATION
-----	PROPOSED CONCRETE WALK
-----	PROPOSED MACADAM PAVING
-----	EXISTING TREES
-----	EXISTING TREELINE
-----	PROPOSED TREELINE
-----	LIMIT OF DISTURBANCE
-----	SOILS DELINEATION
-----	PROPOSED GRASS PAVERS
-----	PROPOSED SURFACE OVERLAY

ECP NARRATIVE

- THE PROPOSED SWM DESIGN WILL ACHIEVE NATURAL RESOURCE PROTECTION AND ENHANCEMENT THROUGH THE PROPOSED FOUR (4) BIORETENTION (F-6) FACILITIES AND ONE (1) SHALLOW WETLANDS (W-1) SWM POND. THE PROVIDED WQV, REV, CPV, AND QUANTITY MANAGEMENT OF THE 1, 10, AND 100-YR STORMS WILL PROTECT AND ENHANCE THE NATURAL RESOURCES INCLUDING THE GROUND WATER, DOWNSTREAM STREAM CHANNEL, AND WATER QUALITY OF THE PUBLIC SCHOOL SITE DISCHARGES. THE F-6 BIORETENTION FACILITIES ARE LOCATED "UP IN THE SITE" NEAR THE IMPERVIOUS AREAS, AND ALONG WITH NON-ROOFTOP CREDITS, WILL TREAT MORE THAN 80% OF THE REQUIRED IMPERVIOUS AREA. THE W-1 SHALLOW WETLAND POND IS DESIGNED TO HOLD THE REMAINING ESOV (MINUS THE ASSOCIATED REV) AND PROVIDE QUANTITY MANAGEMENT THAT ATTENUATES THE PROPOSED PEAK DISCHARGES TO THE PREDEVELOPED 1, 10, AND 100-YEAR PEAK DISCHARGES. THE F-6 AND W-1 FACILITIES WILL BE PLANTED WITH LUSH, WETLAND VEGETATION. SWM NON-ROOFTOP DISCONNECTION CREDITS WILL CONTRIBUTE TO ACHIEVE NATURAL RESOURCE PROTECTION AND ENHANCEMENT AS MUCH AS PRACTICABLE.
- THE DESIGN WILL ACHIEVE MAINTENANCE OF NATURAL FLOW PATTERNS BY MAINTAINING THE SAME STUDY POINT IN THE PROPOSED CONDITIONS AS IN THE EXISTING CONDITIONS (I.E., THE BEGINNING OF THE RECEIVING STORM DRAIN SYSTEM). IN ADDITION, THE DRAINAGE AREA WILL REMAIN PRACTICALLY THE SAME. ONSITE DRAINAGE PATTERNS HAVE BEEN MAINTAINED AS MUCH AS PRACTICAL BY ALLOWING WATER TO LEAVE THE SITE AT ITS CURRENT LOCATIONS. OFFSITE DRAINAGE NEEDS TO BE TRANSPORTED THROUGH STORM DRAIN SYSTEM (AS OPPOSED TO THE CURRENT DRAINAGE DITCH) AND IS DEEMED NECESSARY TO ACHIEVE SITE DESIGN GOALS (E.G., CONSTRUCTING PARKING LOT). THE ONSITE DRAINAGE DITCH WAS PARTIALLY REPLACED BY A SHALLOW WETLAND POND WITH LUSH VEGETATION AND INCREASES WATER QUALITY AND QUANTITY MANAGEMENT FROM THE PROPOSED SCHOOL SITE. STREAM FLOW PATTERNS LEAVING THE SITE WILL REMAIN UNCHANGED.
- THE DESIGN WILL ACHIEVE REDUCTION OF IMPERVIOUS AREAS THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES AND NON-STRUCTURAL PRACTICES TO THE MAXIMUM EXTENT PRACTICABLE. THE IMPERVIOUS AREA WAS LIMITED DUE TO THE PUBLIC SCHOOL SYSTEMS SITE DESIGN REQUIREMENTS. DUE TO THE RELATIVELY SMALL PROPERTY AREA AND THE NECESSARY AREA OF PLAYGROUNDS, BALL FIELDS, SCHOOL BUILDING SIZE, PARKING, BUS LOOP AND SIDEWALKS, THE PERCENT COVERAGE APPEARS HIGH BUT IN REALITY THE SMALL PROPERTY AREA HAS LIMITED THE IMPERVIOUS AREA NORMALLY USED FOR AN ELEMENTARY SCHOOL. ALTERNATIVE SURFACES WERE PRECLUDED BY THE ONSITE HSG D SOILS. NON-STRUCTURAL PRACTICES WERE PREFERRED. HOWEVER, DUE TO THE "TIGHT SITE DESIGN" THE LARGER-THAN-PERMITTED DRAINAGE AREAS PRECLUDED THE LIMIT OF NON-STRUCTURAL PRACTICES. NON-ROOFTOP DISCONNECTION CREDITS WERE USED WHERE PRACTICABLE.
- THE DESIGN WILL ACHIEVE INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO SWM STRATEGY BY PROVIDING A SEDIMENT AND EROSION CONTROL BASIN AND TEMPORARY SWM FOR THE DURING-CONSTRUCTION 1-YR STORM IN THE PROPOSED W-1 POND FACILITY. INFILTRATION IS NOT PART OF THE SWM POND DESIGN AND THEREFORE, THE SEDIMENT WILL NOT AFFECT INFILTRATION RATES. THE DURING-CONSTRUCTION 1-YEAR STORM WILL BE ATTENUATED TO THE PREDEVELOPED CONDITION LEVELS. IMPACTS TO THE DOWNSTREAM STORM DRAIN SYSTEM AND STREAM CHANNEL WILL BE MINIMIZED. PER HSGD REGULATIONS, THE CONTRACTOR SHALL MINIMIZE LARGE DISTURBED AREAS DURING CONSTRUCTION. UNDISTURBED AREAS WILL NOT REMAIN BARE FOR MORE THAN 7 OR 14 DAYS DEPENDING ON THE GROUND SLOPE.
- THE DESIGN WILL ACHIEVE IMPLEMENTATION OF ESO PLANNING TECHNIQUES AND PRACTICES BY PROVIDING ESO TECHNIQUES AND PRACTICES WHERE PRACTICABLE DUE TO THE RELATIVELY SMALL PROPERTY AREA CHOSEN BY THE PUBLIC SCHOOL SYSTEM FOR THIS PROPOSED ELEMENTARY SCHOOL. THE USE OF ESO TECHNIQUES AND PRACTICES ARE LIMITED. NON-ROOFTOP DISCONNECTION CREDITS ARE USED AS ESO TECHNIQUES AND PRACTICES. WHERE ESO PRACTICES ARE PRECLUDED DUE TO LARGE DRAINAGE AREAS, INSUFFICIENT FLAT GRASSED AREAS FOR OVERLAND FILTERING, OR JUST UNAVAILABLE ROOM (BECAUSE OF THE PUBLIC SCHOOL SYSTEMS REQUIRED USES), STRUCTURAL PRACTICES FROM CHAPTER 3 WERE IMPLEMENTED.
- THE DESIGN WILL ACHIEVE A REQUEST FOR DESIGN MANUAL AND WAIVER PETITION FOR ENVIRONMENTAL AND STORMWATER DESIGN BY SUBMITTING DESIGN MANUAL WAIVERS LISTED BELOW WITH THE SDP. THE WAIVER REQUESTS WILL INCLUDE JUSTIFICATION AND HOW THEY SUPPORT THE PROPOSED SWM CONCEPT.
 - WAIVER TO DESIGN MANUAL VOLUME 1, GENERAL DESIGN REQUIREMENT THAT A 25 FT BUFFER SHALL BE MAINTAINED FOR A SWM FACILITY (CHAPTER 5, SECTION 5.2.5.A.2, PG. 5-9).
 - WAIVER TO DESIGN MANUAL VOLUME 1, MAINTENANCE REQUIREMENT OF EITHER A12 FT LEVEL AREA SURROUNDING THE FACILITY OR A TEE-TURN-AROUND (CHAPTER 5, SECTION 5.2.5.A.10(A) PG. 5-10).
 - WAIVER TO DESIGN MANUAL VOLUME 1, REQUIREMENT THAT BIORETENTION FACILITIES (F-6) SHALL BE DESIGNED WITH PRETREATMENT (REQUIREMENT BY INCORPORATION OF MDCS 2000 SWM DESIGN MANUAL, CHAPTER 3, SECTION, 3.4.3, PG. 3.38).
- DISTURBANCES PER SECTION 16.116(C) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS ARE JUSTIFIED BECAUSE GRADING AND VEGETATION REMOVAL IN WETLANDS AND ITS BUFFERS ARE NECESSARY TO CONSTRUCT A REQUIRED STORMWATER MANAGEMENT (SWM) FACILITY. THE SWM POND IS NEEDED BECAUSE HOWARD COUNTY REGULATIONS REQUIRES THE 1, 10 AND 100 YEAR STORM PEAK DISCHARGES TO BE MITIGATED TO THE PREDEVELOPED CONDITION LEVELS. THE SWM POND IS LOCATED AT THE ONLY PRACTICAL LOCATION (LOW POINT OF THE SITE). THIS DISTURBANCE IS EXPECTED TO RECEIVE APPROVAL FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT. THERE ARE NO STEEP SLOPES ON SITE. THE SITE DESIGN IS VERY TIGHT DUE TO THE PROPOSED ELEMENTARY SCHOOL PROGRAM AND THE LIMIT OF DISTURBANCE HAS BEEN MINIMIZED AS MUCH AS PRACTICABLE. THERE IS NO REASONABLE ALTERNATIVE BECAUSE OF THE SMALL AREA OF THE PROPERTY AND THE REQUIRED USES OF AN ELEMENTARY SCHOOL (E.G., SCHOOL BUILDING, BUS LOOP, STAFF PARKING, BALL FIELDS, PLAYGROUNDS, AND SIDEWALKS). COSTS OF ALTERNATIVE IMPROVEMENTS WERE NOT A FACTOR IN ANY DECISIONS.



LOCATION MAP
SCALE: 1" = 200'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY DIGGING AND EXCAVATION WORK.
- PROJECT BACKGROUND:
TAX MAP 37, GRID 12
PARCEL NOS. 569
ZONING: THIS PROJECT IS ZONED R-12 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND TO THE COMP-LITE ZONING AMENDMENTS DATED 7/28/06.
ELECTION DISTRICT: FIRST
SECTION/AREA: N/A
SITE AREA: 10.029 AC±
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIAL BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS AND CARTER INC. DATED JUNE 2011.
- COORDINATES ARE BASED ON NAD 83 MARYLAND COORDINATES SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
3710 N 956,907.418 E 1,384,460.988
3806 N 957,155.445 E 1,384,992.228
- PUBLIC WATER AND SEWER IS TO BE UTILIZED FOR THIS PROJECT. THE EXISTING WATER AND SEWER SYSTEMS SERVING THIS PROJECT ARE CONTRACT NO. 768-D-W&S.
- ALL ON-SITE STORM DRAINS UNDER THIS SITE DEVELOPMENT PLAN ARE PRIVATE.
- THE EXISTING UTILITIES SHOWN HEREIN WERE DERIVED FROM AVAILABLE PUBLIC RECORDS. THE CONTRACTOR MUST DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY THE EXACT LOCATION.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS ACCESSIBILITY GUIDELINES. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE TWO PERCENT. RAMPS SHALL BE FIVE FOOT BY FIVE FOOT LEVEL LANDING (MAX. SLOPE 2%) AT THE TOP AND BOTTOM OF ALL RAMPS AND BUILDING ENTRANCES AND EXITS. HANDRAILS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE WITH SECTION 4.8.5 OF THE A.D.A. STANDARDS ACCESSIBILITY GUIDELINES.
- ALL DRIVEWAYS AND PARKING TO BE OWNED AND MAINTAINED BY THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM.
- ANY DAMAGE TO COUNTY AND OR STATE OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BEDDING FOR STORM DRAIN STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01 CLASS C BEDDING UNLESS OTHERWISE NOTED.
- GUTTER PAN OF CURBS SHALL BE FITTED TO CONFORM TO THE ADJACENT DRAINAGE PATTERNS OF THE ADJOINING PAVING FOR VEHICULAR USE.
- FOR DETAILS OF PARKING, ROAD SECTION, HANDICAP, CURB AND GUTTER SEE DETAIL SHEET.
- THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE BASED ON A VISUAL SITE VISIT AND BASED ON AN EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MRP.
- THE CURRENT PLAT FOR THIS PROJECT, F-07-048, IS RECORDED AMONG THE LAND RECORDS IN HOWARD COUNTY, MARYLAND AS PLAT NOS. 20103 THRU 20105.
- ALL OUTSIDE LIGHTING SHALL COMPLY WITH ZONING REGULATIONS SECTION 134 WHICH REQUIRES LIGHTS TO BE INSTALLED TO DIRECT/REFLECT LIGHT DOWNWARDS AND INWARDS ON THE SITE AND AWAY FROM ALL PUBLIC STREETS AND RESIDENTIAL AREAS. "LIGHT TRESPASS ONTO ADJOINING RESIDENTIAL PROPERTIES SHALL BE LIMITED 0.1 FOOT CANDLES."
- PREVIOUS DPZ FILE NUMBERS: BA-04-30C, SDP-06-07D, WP-06-055, F-08-007, F-07-048, WP-12-069
- THIS SDP IS SUBJECT TO THE FIRST AMENDMENT TO THE FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS DATED OCTOBER 2, 2003 AND THE AMENDED ZONING REGULATIONS, PER COUNCIL BILL 75-2003.
- THIS SDP IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE AMENDED ZONING REGULATIONS PER COUNCIL BILL NO. 75-2003. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED, SQUARE TUBE POST (1 1/4 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THE REQUIRED LANDSCAPING WILL BE PROVIDED ON THE FUTURE SITE DEVELOPMENT PLAN FOR THIS PROJECT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THE SPREAD STUDY WAS PREPARED BY HAZES GROUP DATED JULY 2011.
- WETLANDS STUDY AND FOREST STAND DELINEATION INFORMATION SHOWN FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONAL, INC. DATE OCTOBER 2011.
- WATER QUALITY WILL CONSIST OF 4 BIORETENTION FACILITIES TO CAPTURE AS MUCH IMPERVIOUS AREAS AS PRACTICABLE WHILE THE REMAINING IMPERVIOUS AREAS WILL BE TREATED IN A SHALLOW WETLAND SWM POND. THE SWM POND WILL PROVIDE 1, 10 AND 100 YEAR QUANTITY MANAGEMENT.
- THE APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE ANY APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAT/PLAN AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. 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 PLAT/PLAN AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PLAN PROCESS. THEREFORE, THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THE PLANNING DIRECTOR, ON NOVEMBER 3, 2011, APPROVED WAIVER PETITION (WP-12-069) FOR A WAIVER OF SECTION 16.116(a)(1) TO GRANT PERMISSION TO REMOVE VEGETATIVE COVER AND TREES, GRADE, FILL, PAVE AND DEVELOP WITHIN 25 FEET OF A WETLAND ON PARCEL A, THE LEGACY AT DUCKETTS RIDGE. THE APPROVAL OF THIS WAIVER PETITION IS SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS OF APPROVAL:
 - THE PETITIONER/DEVELOPER SHALL APPLY FOR AND OBTAIN ANY REQUIRED 404/401 PERMITS/CERTIFICATES.
 - THE WETLAND MITIGATION AS PROFFERED UNDER THIS WAIVER PETITION APPLICATION SHALL BE PROVIDED AS PART OF A LARGER STREAM/WETLAND COMPLEX ELSEWHERE IN THE COUNTY THAT WILL PROVIDE GREATER HABITAT DIVERSITY AND POTENTIAL, AS APPROVED BY THE MDE.
 - THE FOREST OBLIGATION FOR THIS PROJECT IS 6.0 ACRES OF REFORESTATION. A FEE-IN-LIEU WAS PAID FOR 1.0 ACRE TO THE HOWARD COUNTY FOREST CONSERVATION FUND FOR THE RECORDED SUBDIVISION OF THE LEGACY AT DUCKETTS RIDGE. THE REMAINING OBLIGATION OF 5.0 ACRES OF REFORESTATION WILL BE MET BY RETENTION OF 10.0 ACRES OF EXISTING FOREST AT THE BOLLMAN BRIDGE ELEMENTARY SCHOOL (SDP-07-96).

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CORPORATE OFFICE: 10722 BALDWIN ROAD, SUITE 200, ELICOTT CITY, MARYLAND 21042
(410) 461-2299

"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. 13204, Expiration Date: November 3, 2012."

CHARLES J. BRODO, SR., P.E.
DATE: 12/14/11

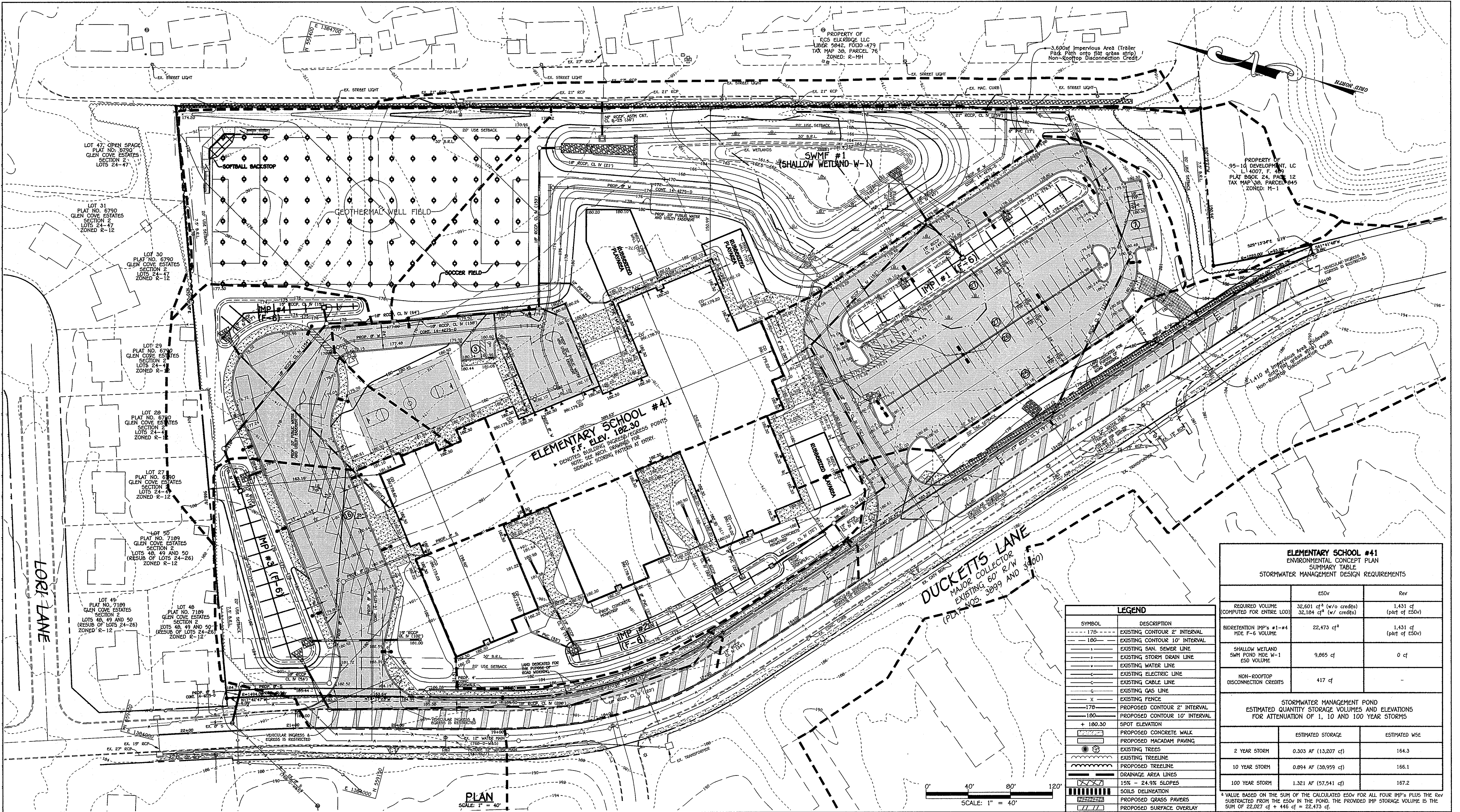
DATE	DESCRIPTION
	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
12/14/11	DATE
12/20/11	DATE

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
Ellicott City, Maryland 21042
Attention: Bruce Gist
410-313-6798

Address Chart					
Parcel Number	Street Address				
0569	DUCKETTS LANE ELKRIDGE, MD 21075-0000				
PROJECT	SECTION/AREA				
ELEMENTARY SCHOOL #41	N/A				
DEED REF.	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
06739/00699	-	R-12	37	FIRST	6012.01
WATER CODE	SEWER CODE				
----	----				

ECP TITLE SHEET
ELEMENTARY SCHOOL #41
THE LEGACY AT DUCKETTS RIDGE
PARCEL A
P.N. 20103-20105
ZONED R-12 TAX MAP No.: 37 GRID No.: 12 PARCEL No.: 569
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: NOVEMBER 23, 2011

SHEET 1 OF 3
ECP-12-025



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
---	EXISTING FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	DRAINAGE AREA LINES
---	15% - 24.9% SLOPES
---	SOILS DELINEATION
---	PROPOSED GRASS PAVERS
---	PROPOSED SURFACE OVERLAY

ELEMENTARY SCHOOL #41 ENVIRONMENTAL CONCEPT PLAN SUMMARY TABLE STORMWATER MANAGEMENT DESIGN REQUIREMENTS		
	ESDv	Rev
REQUIRED VOLUME (COMPUTED FOR ENTIRE LOD)	32,601 cf ^a (w/o credits) 32,184 cf ^a (w/ credits)	1,431 cf (part of ESDv)
BIORETENTION IMP'S #1-#4 MDE F-6 VOLUME	22,473 cf ^a	1,431 cf (part of ESDv)
SHALLOW WETLAND SWM POND MDE W-1 ESD VOLUME	9,865 cf	0 cf
NON-ROOFTOP DISCONNECTION CREDITS	417 cf	
STORMWATER MANAGEMENT POND ESTIMATED QUANTITY STORAGE VOLUMES AND ELEVATIONS FOR ATTENUATION OF 1, 10 AND 100 YEAR STORMS		
	ESTIMATED STORAGE	ESTIMATED WSE
2 YEAR STORM	0.303 AF (13,207 cf)	164.3
10 YEAR STORM	0.894 AF (38,959 cf)	166.1
100 YEAR STORM	1.321 AF (57,541 cf)	167.2

^a VALUE BASED ON THE SUM OF THE CALCULATED ESDV FOR ALL FOUR IMP'S PLUS THE REV SUBTRACTED FROM THE ESDV IN THE POND. THE PROVIDED IMP STORAGE VOLUME IS THE SUM OF 22,027 cf + 446 cf = 22,473 cf.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10732 DORTCHER NATIONAL FEE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2999

"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. 13204, Expiration Date: November 3, 2012."

Charles J. Provo
 CHARLES J. PROVO, SR., P.E.
 12/19/11 DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 Maryland Route 108
 Ellicott City, Maryland 21042
 Attention: Bruce Gist
 410-313-6798

DATE: _____ DESCRIPTION: _____ REVISION BLOCK: _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Keith Steinhorn
 Chief, Division of Land Development
 12/19/11 DATE

William D. ...
 Chief, Development Engineering Division
 12/20/11 DATE

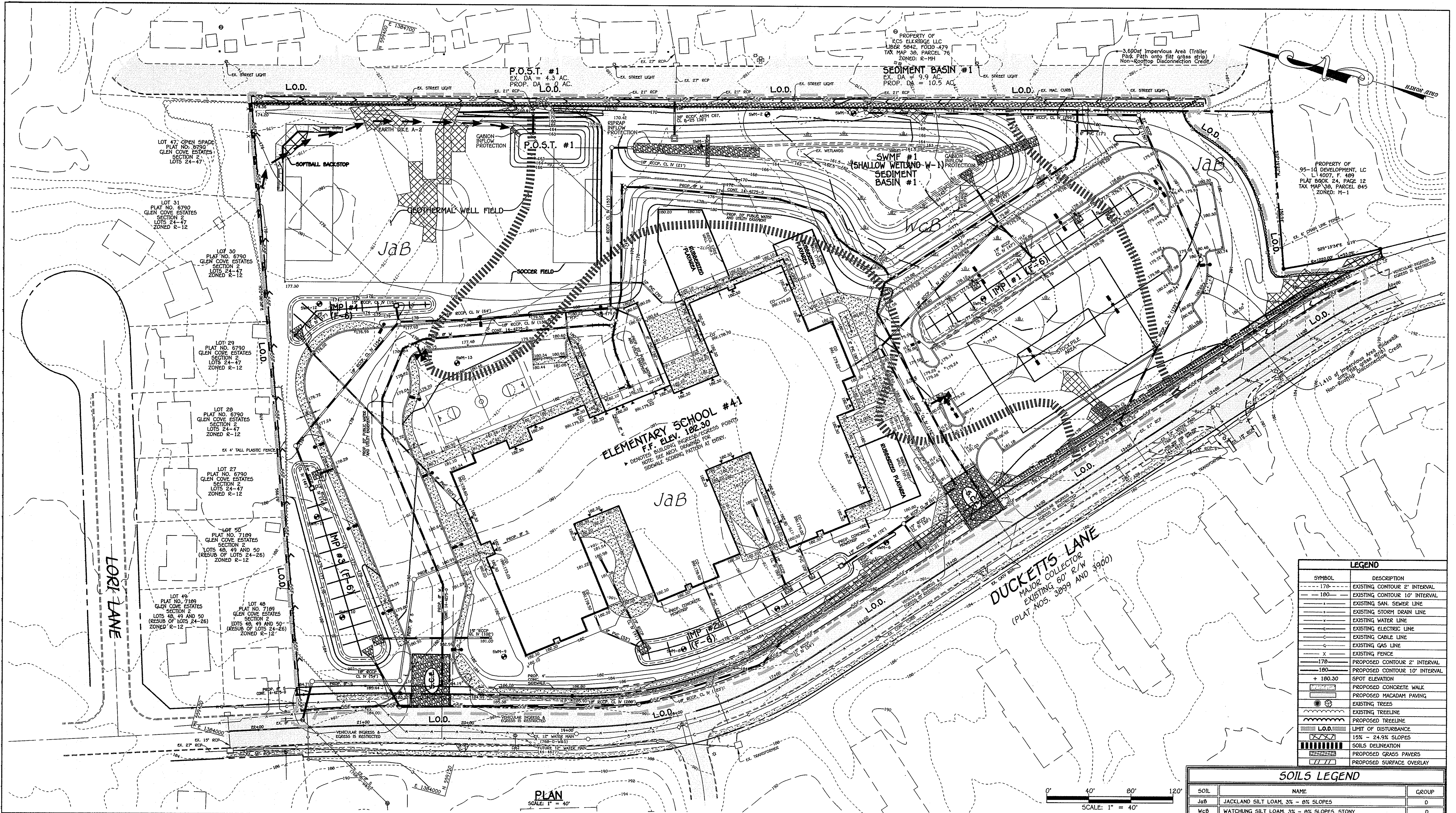
Address Chart	
Parcel Number	Street Address
0569	DUCKETTS LANE ELK RIDGE, MD 21075-0000

PROJECT	SECTION/AREA	PARCEL
ELEMENTARY SCHOOL #41	N/A	0569

DEED REF.	BLOCK NO.	ZONE	TAX MAP	ELEC. DIST.	CENSUS TR.
06739/00699	-	R-12	37	FIRST	6012.01

WATER CODE	SEWER CODE
---	---

ENVIRONMENTAL CONCEPT PLAN	
ELEMENTARY SCHOOL #41	
THE LEGACY AT DUCKETTS RIDGE	
PARCEL A	
P.N. 20103-20105	
ZONED R-12	TAX MAP No.: 37 GRID No.: 12 PARCEL No.: 569
FIRST ELECTION DISTRICT	HOWARD COUNTY, MARYLAND
SCALE: 1" = 40'	DATE: NOVEMBER 23, 2011



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 100 NATIONAL SQUARE, OFFICE PARK - 10072 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2899

LOT 47: OPEN SPACE
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 31
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 30
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 29
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 28
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 27
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 26
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 25
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 24
 PLAT NO. 6790
 GLEN COVE ESTATES
 SECTION 2
 LOTS 24-47
 ZONED R-12

LOT 50
 PLAT NO. 7189
 GLEN COVE ESTATES
 SECTION 2
 LOTS 48, 49 AND 50
 (RESUB OF LOTS 24-26)
 ZONED R-12

LOT 49
 PLAT NO. 7189
 GLEN COVE ESTATES
 SECTION 2
 LOTS 48, 49 AND 50
 (RESUB OF LOTS 24-26)
 ZONED R-12

LOT 48
 PLAT NO. 7189
 GLEN COVE ESTATES
 SECTION 2
 LOTS 48, 49 AND 50
 (RESUB OF LOTS 24-26)
 ZONED R-12

"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. 13204. Expiration Date: November 3, 2012."

Charles J. Crovo, Sr., P.E.
 CHARLES J. CROVO, SR., P.E. DATE: 12/19/11

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Keith Sheehan 12/19/11
 Chief, Division of Land Development Date

Michael P. ... 12/20/11
 Chief, Development Engineering Division Date

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 Maryland Route 108
 Ellicott City, Maryland 21042
 Attention: Bruce Gist
 410-313-6798

Address Chart
 Parcel Number: 0569
 Street Address: DUCKETTS LANE
 ELK RIDGE, MD 21075-0000

PROJECT: ELEMENTARY SCHOOL #41
 SECTION/AREA: N/A
 PARCEL: 0569

DEED REF. BLOCK NO. ZONE TAX MAP ELEC. DIST. CENSUS TR.
 06739/00699 - R-12 37 FIRST 6012.01

WATER CODE: - SEWER CODE: -

SOIL	NAME	GROUP
JaB	JACKLAND SILT LOAM, 3% - 8% SLOPES	0
WcB	WATCHUNG SILT LOAM, 3% - 8% SLOPES, STONY	0

ECP SEDIMENT AND EROSION CONTROL PLAN

ELEMENTARY SCHOOL #41

THE LEGACY AT DUCKETTS RIDGE

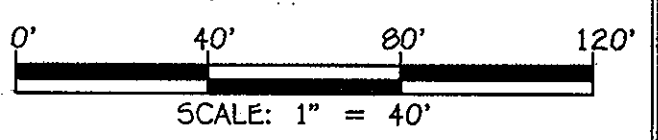
PARCEL A
 P.N. 20103-20105

ZONED R-12 TAX MAP No.: 37 GRID No.: 12 PARCEL No.: 569
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 40' DATE: NOVEMBER 23, 2011

SHEET 3 OF 3 ECP-12-025

LEGEND

SYMBOL	DESCRIPTION
- - - 178 - - -	EXISTING CONTOUR 2' INTERVAL
- - - 180 - - -	EXISTING CONTOUR 10' INTERVAL
- - - - -	EXISTING SAN. SEWER LINE
- - - - -	EXISTING STORM DRAIN LINE
- - - - -	EXISTING WATER LINE
- - - - -	EXISTING ELECTRIC LINE
- - - - -	EXISTING CABLE LINE
- - - - -	EXISTING GAS LINE
- - - - -	EXISTING FENCE
- - - 178 - - -	PROPOSED CONTOUR 2' INTERVAL
- - - 180 - - -	PROPOSED CONTOUR 10' INTERVAL
+ 180.30	SPOT ELEVATION
- - - - -	PROPOSED CONCRETE WALK
- - - - -	PROPOSED MACADAM PAVING
- - - - -	EXISTING TREES
- - - - -	EXISTING TREELINE
- - - - -	PROPOSED TREELINE
- - - - -	LIMIT OF DISTURBANCE
- - - - -	15% - 24.9% SLOPES
- - - - -	SOILS DELINEATION
- - - - -	PROPOSED GRASS PAVERS
- - - - -	PROPOSED SURFACE OVERLAY



PLAN
 SCALE 1" = 40'