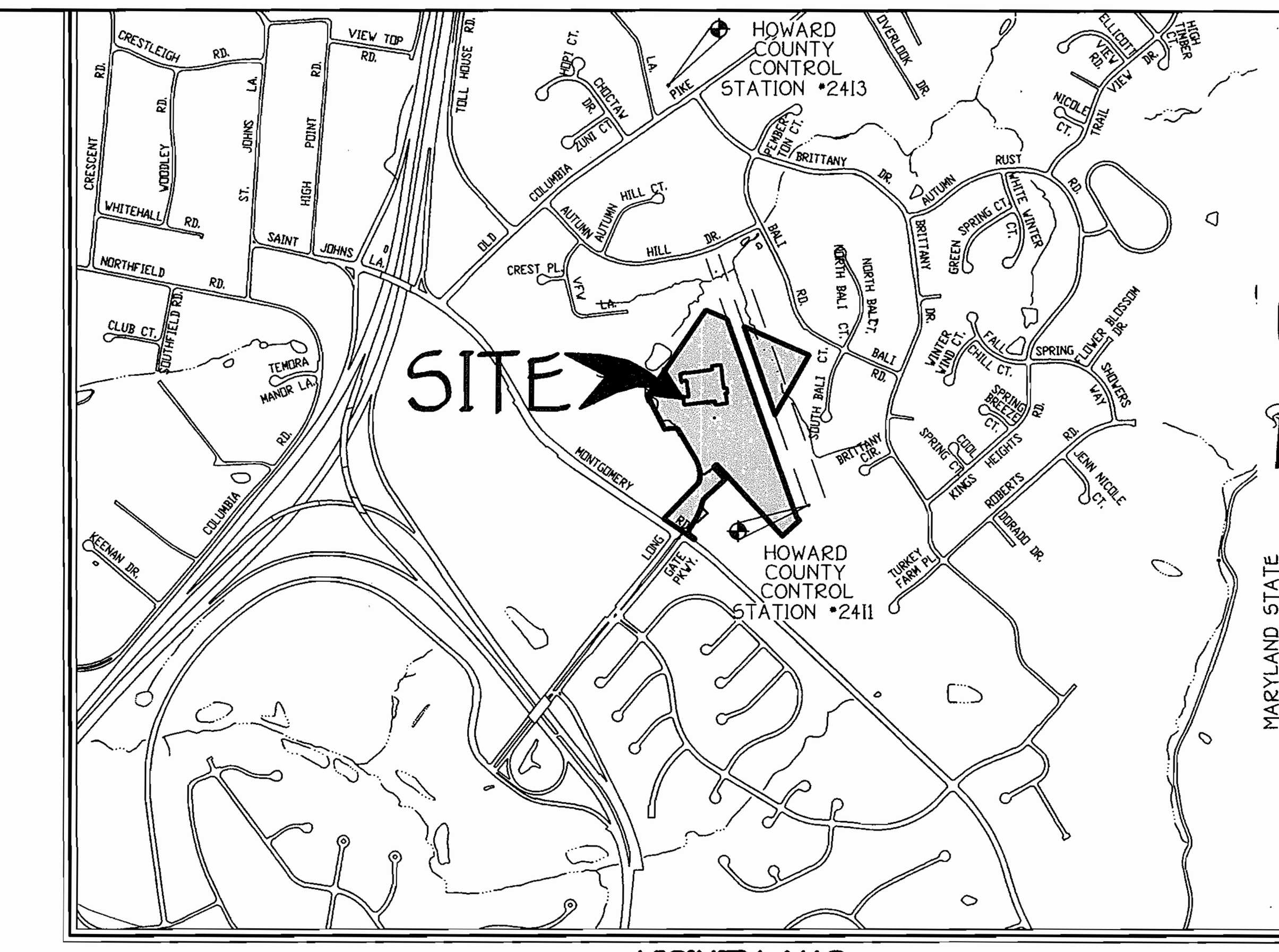
SHEET INDEX

SITE DEVELOPMENT PLAN
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 1200'

SITE ANALYSIS DATA

1. General Site Data:
   A. Present Zoning: R-20, R-SA-8, R-SA-8-1 and R-SC-1
   B. Proposed use of site or structure: Institutional; Public School
   C. Public water and sewer to be utilized.
2. Area Tabulation:
   A. Total project area: 23.66 Ac±
   B. Area of this plan submission: 17.08 Ac.± is the limit of submission and grading disturbance for the construction of the school and associated parking.
   C. Impervious Coverage
   Proposed Paved Areas (Access Road, Parking and Walkways) - 167,213.54 Sq.Ft.
   Building Coverage 73,449.05 SqFt. or 7.13%
3. Open Space Data:
   A. Open Space Required: N/A
4. Parking Space Data:
   A. The Number of parking spaces in accordance with the Public School System's requirements = 185
   B. Total number of parking spaces provided on site: (Including handicap Parking) = 185 and 1 Drop Off Space
   C. Number of Handicaped parking spaces provided: (Including Handicap Van Spaces) = 6.
   D. Total Number of Bus Stacking spaces provided = 18

LEGEND

Description	Symbol
Proposed Street Light	
Existing Contour	400
Proposed Contour	400
Existing Storm Drain Line	Ex. 12" S.D.
Proposed Storm Drain Line	24" HDPE (150')
Existing Tree & Treeline	
New Treeline	
Ex. Tree	
Existing Fence	x x x
Proposed Fence	x x x
Limit of Grading Disturbance (L.O.D.)	
Wetland Buffer	
Stream Buffer	
Wetland Area	
Super Silt Fence	SSF SSF SSF
Silt Fence	SF SF SF
Forest Conservation Easement	
Existing Paving	
Existing Paving To Be Removed	
Proposed Concrete	
Proposed Macadam	
Tree Protection Fence	TP TP
Erosion Control Matting (E.C.M.)	

NOTES: A) In accordance with the Howard County Zoning Regulations adopted April 13, 2004, Section 128 in the Supplementary Zoning District Regulations states in A.10 that setbacks from lot lines internal to a development when two or more contiguous lots or parcels are treated as a single parcel for development purposes, the structure and use setbacks from lot lines internal to the development shall not apply.

B) This plan is subject to Waiver Petition WP-06-48.

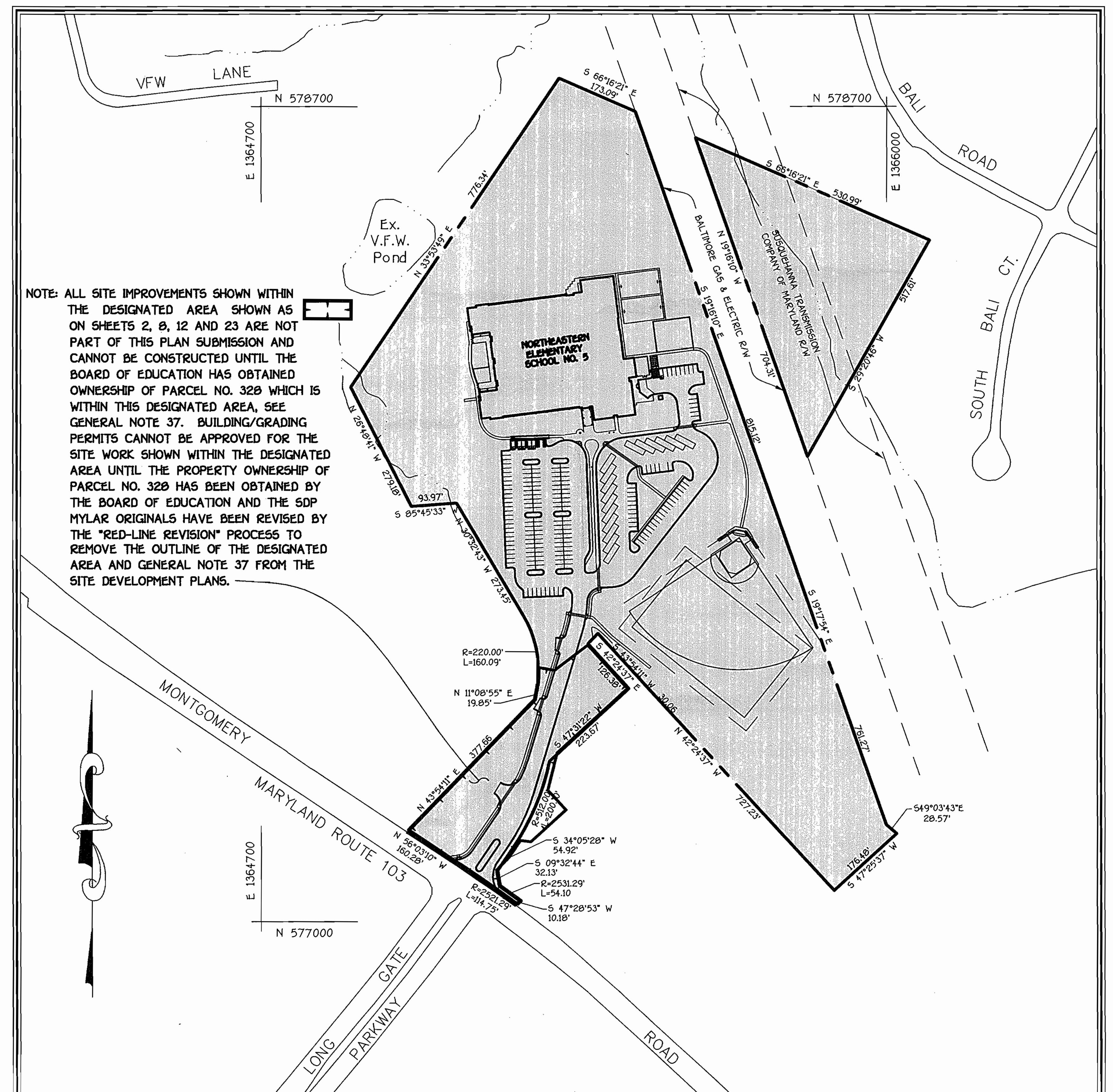
The Planning Director on January 3, 2006 approved the request for a waiver from Section 16.116 (a)(1) and 16.116 (a)(2)(ii) which prohibits grading, removal of vegetative cover and trees, paving and new structures within 25 feet of a wetland and 75 feet of a perennial stream to permit construction and grading for a SWM facility outfall pipe and rip-rap channel for the new elementary school site to be located off-site on a portion of the adjoining VFW site.

Approval is subject to the following conditions:

1. The waiver petition approval pertains to the limit of disturbance within the wetlands and stream buffers as shown on the waiver petition plan exhibit only and SDP-06-40. Best management practices for working within the wetlands and stream buffers shall be used by all contractors when installing the SWM outfall pipe and rip-rap channel.
2. The proposed SWM outfall pipe installation and all grading disturbances located within the wetlands and stream buffers are subject to obtaining all necessary Water Quality Certificates and Permits from the Maryland Department of the Environment, and/or the U.S. Army Corp of Engineers, if applicable.

C) The County Council on January 3, 2006 regarding resolution No. 146-2005 granted a variance from the 10 foot building restriction line requirement along the western edge of the property and the 10 foot building restriction line requirement along the northern edge of the property located in the R-20 district for the construction of an 8 foot high fence to be placed along the property line at the Northeastern Elementary School on Montgomery Road.

NOTE: ALL SITE IMPROVEMENTS SHOWN WITHIN THE DESIGNATED AREA SHOWN AS [symbol] ON SHEETS 2, 8, 12 AND 23 ARE NOT PART OF THIS PLAN SUBMISSION AND CANNOT BE CONSTRUCTED UNTIL THE BOARD OF EDUCATION HAS OBTAINED OWNERSHIP OF PARCEL NO. 328 WHICH IS WITHIN THIS DESIGNATED AREA, SEE GENERAL NOTE 37. BUILDING/GRADING PERMITS CANNOT BE APPROVED FOR THE SITE WORK SHOWN WITHIN THE DESIGNATED AREA UNTIL THE PROPERTY OWNERSHIP OF PARCEL NO. 328 HAS BEEN OBTAINED BY THE BOARD OF EDUCATION AND THE SDP MYLAR ORIGINALS HAVE BEEN REVISED BY THE "RED-LINE REVISION" PROCESS TO REMOVE THE OUTLINE OF THE DESIGNATED AREA AND GENERAL NOTE 37 FROM THE SITE DEVELOPMENT PLANS.



PLAN
SCALE: 1" = 200'

BGE R/W & FOREST CONSERVATION EASEMENT NOTE:

"Based on a determination by DPZ in a letter dated 9/16/05, the Department of Planning and Zoning may authorize the trimming or the removal of trees or vegetation within the forest conservation easements located immediately adjacent to the BGE R/W or Easement, if BGE determines the trees are compromising the safety of a transmission line located within their Utility R/W or Easement. If BGE intends to trim or remove trees within a forest conservation easement, a letter specifying the location and scope of work needs to be sent to DPZ atleast 30 days in advance of undertaking the work. DPZ understands Constellation Energy's need to protect its transmission lines and will not unreasonably withhold permission".

General Notes

1. All construction shall be accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. 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.
3. The contractor shall notify Miss Utility at 1-800-257-7777 at least 48 hours prior to any digging and excavation work.
4. Project Background:
   Location: Tax Map 24, Grid 24, P.O. Parcels 100, 321 & 767 And Parcel Nos.: 328 & 329
   Zoning: This project is zoned R-20, R-SA-8, R-SA-8-1 and R-SC-1 per the 2/2/04 comprehensive zoning plan.
   Election District: SECOND
   Section/Area: N/A
   Site Area: 23.66 Ac.±
5. 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
6. 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.
7. Existing topography and features were derived from a field run survey by Fisher, Collins and Carter Inc. and Harford Aerial Surveys inc. on or about March 22, 2003.
8. Coordinates are based on NAD 83 Maryland Coordinates System as projected by Howard County Geodetic Control Stations. 2411 N 577,298.654 E 1,366,075.133 ELEV. 473.805; 2413 N 580,648.910 E 1,364,974.458 ELEV. 404.518
9. Public water and sewer is to be utilized for this project. The existing water and sewer systems serving this project are Contract No. 12-W and Contract No. 542-S. The water main extension shall be constructed under Contract No. 14-4314-D. See Note No. 37.
10. Stormwater management (SWM) will be provided by a micropool extended-detention BMP (main pond in back of school) and two (2) recharge facilities in the parking lot. Non-rooftop runoff credit is used to address a small sidewalk area west of the school. All SWM facilities will be privately owned and maintained by the Howard County Public School System.
11. All on-site storm drains under this site development plan are private.
12. The existing utilities shown hereon 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.
13. All proposed ramps shall be in accordance with current A.D.A. Standards Accessibility Guidelines. Maximum sidewalk cross slope shall be two percent. Provide a (5'x5') 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.
14. All driveways and parking to be owned and maintained by the Howard County Public School System.
15. Any damage to County and or State owned right-of-way to be corrected at the Contractor's expense.
16. Trench bedding for storm drains structures shall be in accordance with Howard County Standard G2.01 Class C Bedding unless otherwise noted.
17. Gutter pan of curbs shall be pitched to conform to the adjacent drainage patterns of the adjoining paving for vehicular use. See detail 9/6
18. For details of building profile, parking, road section, handicap, curb and gutter see sheets 6 and 7.
19. 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.
20. This Project is recorded among the land records in Howard County, Maryland as Liber/Folio, 9030/201, 9030/437, 9030/445 & 9234/584.
21. Other topics related to this site:
    Soils Analysis prepared by: Penniman and Browne dated April 15, 2005.
22. 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. See detail sheet 28. "Light trespass onto adjoining residential properties shall be limited 0.1 foot candles."
23. The building shall be equipped with an automatic fire prevention sprinkler system.
24. A Wetland delineation report was prepared by Eco-Science Professionals Inc. dated February 21, 2005.
25. Previous DPZ file numbers SDP-05-109, WP-04-127, WP-06-48.
26. 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.
27. No clearing, grading or construction is permitted within the limit of wetlands, streams or their required buffers, except as approved on this plan for necessary utility line disturbances in accordance with Section 16.116(c) of the Subdivision and Land Development Regulations.
28. No landscape surety is required for this plan since it is a Howard County project.
29. A Forest Conservation Report was Provided By Eco-Science Professionals dated February 21. 2005.
30. See recorded plat #18014 thru #18019 for Forest Conservation Easement Area, for bearing and distance information.
31. The Forest Conservation Act requirements for this project will be met through the retention of 3.7 Acres of net tract area forest within the limits of a forest conservation easement and the afforestation/reforestation of 1.6 Acres on site and and 2.8 acres of forest at the Bellows Spring Elementary School property off of Old Stockbridge Lane (SDP-02-36). The total forest conservation obligation for this project is 8.1 Acres. The forest conservation requirements were addressed and provided under SDP-05-109.
32. 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 (14 gauge) inserted into a 2-1/2" galvanized steel, perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
33. Landscaping is in accordance with Section 16.124 of the Howard County Code and the Landscape Manual.
34. WP-04-127 is a waiver approved on June 18, 2004. WP-06-48 is a waiver approved on January 3, 2006. The Planning Director approved the request for a waiver from Section 16.115(c)(2) which prohibits clearing, excavating, filling, altering drainage, impervious paving or placement of structures within 100 year flood plain and from Sections 16.116(a)(1), 16.116(a)(2)(ii) and 16.116(c)(1) which prohibits grading, removal of vegetative cover and trees, paving and new structures within 25 feet of a wetland and 75 feet of a perennial stream to permit construction and grading for a permanent 600' long private access driveway to a proposed elementary school site to be located on a portion of the existing VFW site. The Howard County Public School system is now providing Ingress and Egress from Montgomery Road and is not providing Ingress and Egress from Autum Hill Drive through the B.G.&E. R/W as approved in the waiver petition.
35. Traffic study was provided by the Traffic Group dated Jan. 31, 2005.
36. The existing on-site well (Parcel No. 328) will be properly abandoned/sealed by a licensed well driller and state forms submitted as documentation .
37. Condemnation papers have been filed in the Howard County Circuit Court for the acquisition of Parcel No. 328 James C. Pippen Property Court Case 13-C-05-63599. The 8" water main & private road that are proposed through Parcel No. 328 will not be constructed until the Board of Education has obtained ownership of the property.
38. The S.R.C. Agencies have determined the entrance drive and associated grading in the wetland area adjacent to roadway at station 3+00 to 3+50 as an essential environmental disturbance in accordance with Section 16.116(c) of the Subdivision and Land Development Regulations.
39. A wetland permit application has been submitted to the Maryland Department of the Environment. The Application is for impacts to the wetlands streams and buffers for a Storm Water Management outfall pipe, And roadway grading adjacent to Sta. 3+00 And 3+50. The tracking number is #200660372/05-NT-3247. Use 1 stream closure dates March 1 - June 15.

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584 (18014-18019)	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

TITLE SHEET

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 1 OF 30 SDP-06-040

SDP06-040

MATCH LINE SEE SHEET 3

MATCH LINE SEE SHEET 3

MATCH LINE SEE SHEET 3

NOT PART OF THIS SUBMISSION SEE NOTE ON SHEET 1

NOT PART OF THIS SUBMISSION SEE NOTE ON SHEET 1

CL DRIVEWAY ACCESS "A"
● STA. 1 + 72.04
CL DRIVEWAY ACCESS "B"
● STA. 3 + 75.16
CL DRIVEWAY ACCESS "C"
● STA. 5 + 09.16

EXISTING F.C.E. 1
1.6 ACRES TO BE RETAINED (NTA)
0.5 ACRES TO BE REFORESTED
SDP-05-109
PLAT NO. 18015

PLAN
SCALE: 1" = 40'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/5/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT	SECTION/AREA	P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 5234/563	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

WATER CODE: F04 — SEWER CODE: 5750615

SITE DEVELOPMENT PLAN

NORTHEASTERN ELEMENTARY SCHOOL

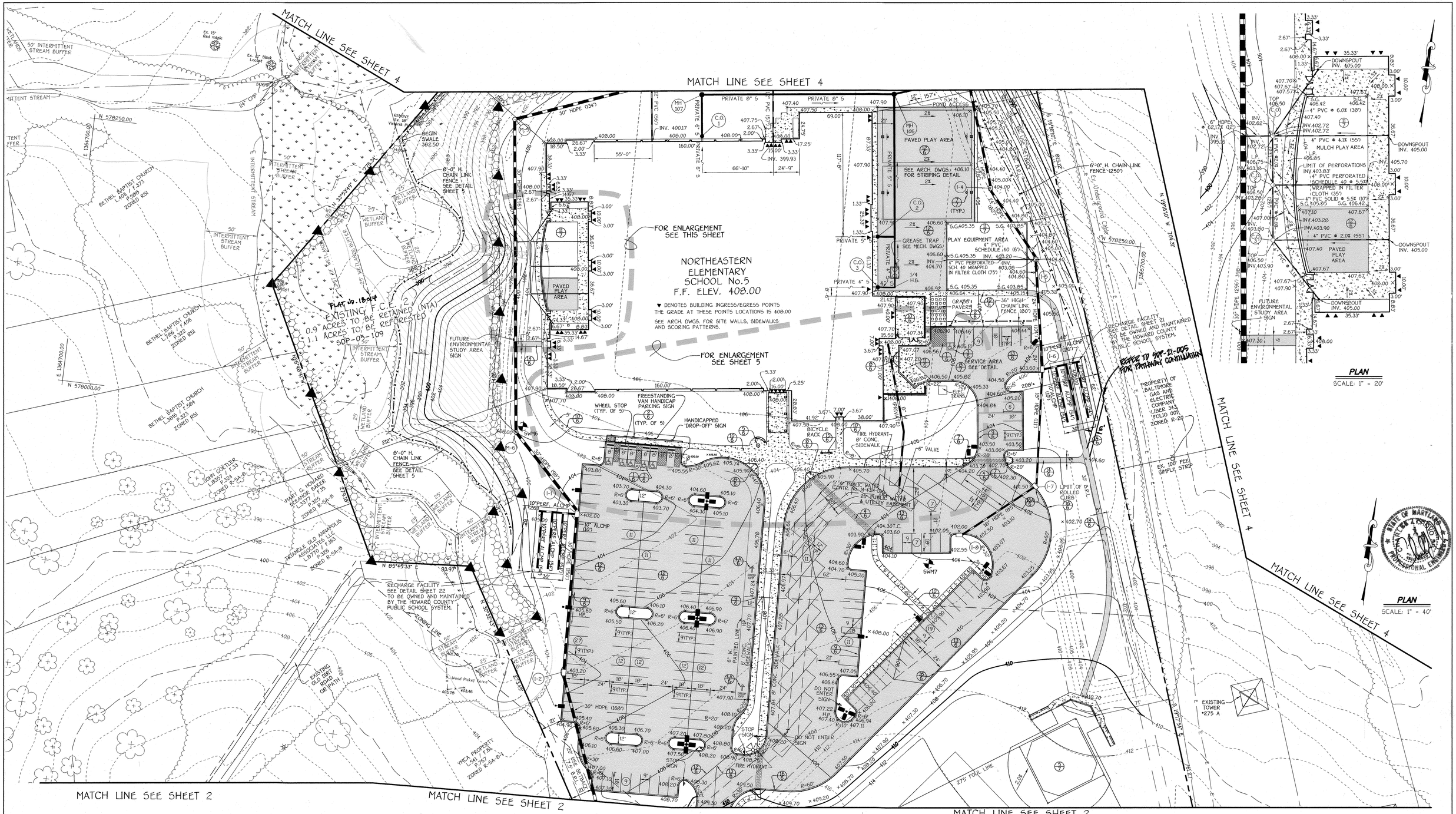
TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 2 OF 30

SDP-06-040

SDP06-040



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PURPOSE NOTE:
REVISION #1 COMPLETES THE OFF-SITE SIX FOOT ASPHALT PEDESTRIAN CONNECTION PROPOSED WITHIN SDP-21-005.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDED PROPOSED PATHWAY	4/26/21

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/3/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SITE DEVELOPMENT PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
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SCALE: AS SHOWN DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 3 OF 30 SDP-06-040

SDP06-040

NORTHEASTERN ELEMENTARY SCHOOL
STORMWATER MANAGEMENT SUMMARY TABLE II

STUDY POINT	EXISTING PEAK DISCHARGES (cfs) 1-yr	10-yr	100-yr	PROPOSED PEAK DISCHARGES* (cfs) 1-yr	10-yr	100-yr
EAST SIDE - E1	0.2	5.1	11.5	0.4	2.2	4.0
EAST SIDE - E2	0.1	4.6	10.9	0.6	7.2	14.9
WEST SIDE - W1	0.1	4.6	10.6	0.6	12.9	38.1
WEST SIDE - W2	6.6	36.1	66.4	4.4	22.2	40.3

* After SWM Routing

NORTHEASTERN ELEMENTARY SCHOOL
STORMWATER MANAGEMENT SUMMARY TABLE

STORAGE VOLUME SUMMARY

	Required (cf)	Provided (cf)	Notes
WQ_v	15,377 [a]	25,537 [b]	Stored in micropool and in ED volume.
Re_v	5,140	5,516	Stored in stone trenches u/s of SWM Facility.
Cp_v	62,019	62,019	Stored "above" the micropool 1-yr WSE = 366.84
Qp_{10}	104,444 (2.4 AF)	104,444 (2.4 AF)	10-yr WSE = 368.16
Qp_{100}	150,630 (3.5 AF)	150,630 (3.5 AF)	100-yr WSE = 369.44
Forebay	2,105	3,196	Storage to gabion crest

PEAK DISCHARGE SUMMARY

DRAINAGE TO EAST TRIBUTARY

	1-yr Peak Q (cfs)	10-year Peak Q (cfs)	100-year Peak Q (cfs)
Existing [c]	0.2	9.5	22.0
Proposed [d]	0.7	8.3	17.4

DRAINAGE TO WEST TRIBUTARY

	1-yr Peak Q (cfs)	10-year Peak Q (cfs)	100-year Peak Q(cfs)
Existing [e]	6.7	40.7	76.9
Proposed [f]	5.0	31.8	74.2

[a] Upstream recharge volume has been subtracted (20,778 cf - 5,401 cf = 14,616 cf).
[b] Combined micropool volume and ED volume (17,400 cf + 8,137 cf = 25,537 cf).
[c] Addhyded DA E/E1 and E/E2.
[d] Addhyded DA P/E1 and P/E2.
[e] Addhyded DA E/W1 and E/W2.
[f] Addhyded DA P/W1s, DA P/W1y, P/W1e, P/W1, P/W2 and P/W2u.

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Signature

P.E. No.

Date:

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

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By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Wm. B. — 2.10.06
Signature Of Developer — Date

Dr. William Brown
Printed Name Of Developer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

2/27/06
USDA-Natural Resources Conservation Service — Date

By The Engineer:

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

2/13/06
Signature Of Engineer — Date

Charles J. Crovo Sr.
Printed Name Of Engineer

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

2/27/06
Howard Soil Conservation District — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/9/06
Director - Department of Planning and Zoning — Date

3/8/06
Chief, Division of Land Development — Date

3/6/06
Chief, Development Engineering Division — Date

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
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Address Chart

Parcel Number	Street Address
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DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

18014-19

SITE DEVELOPMENT PLAN

NORTHEASTERN ELEMENTARY SCHOOL

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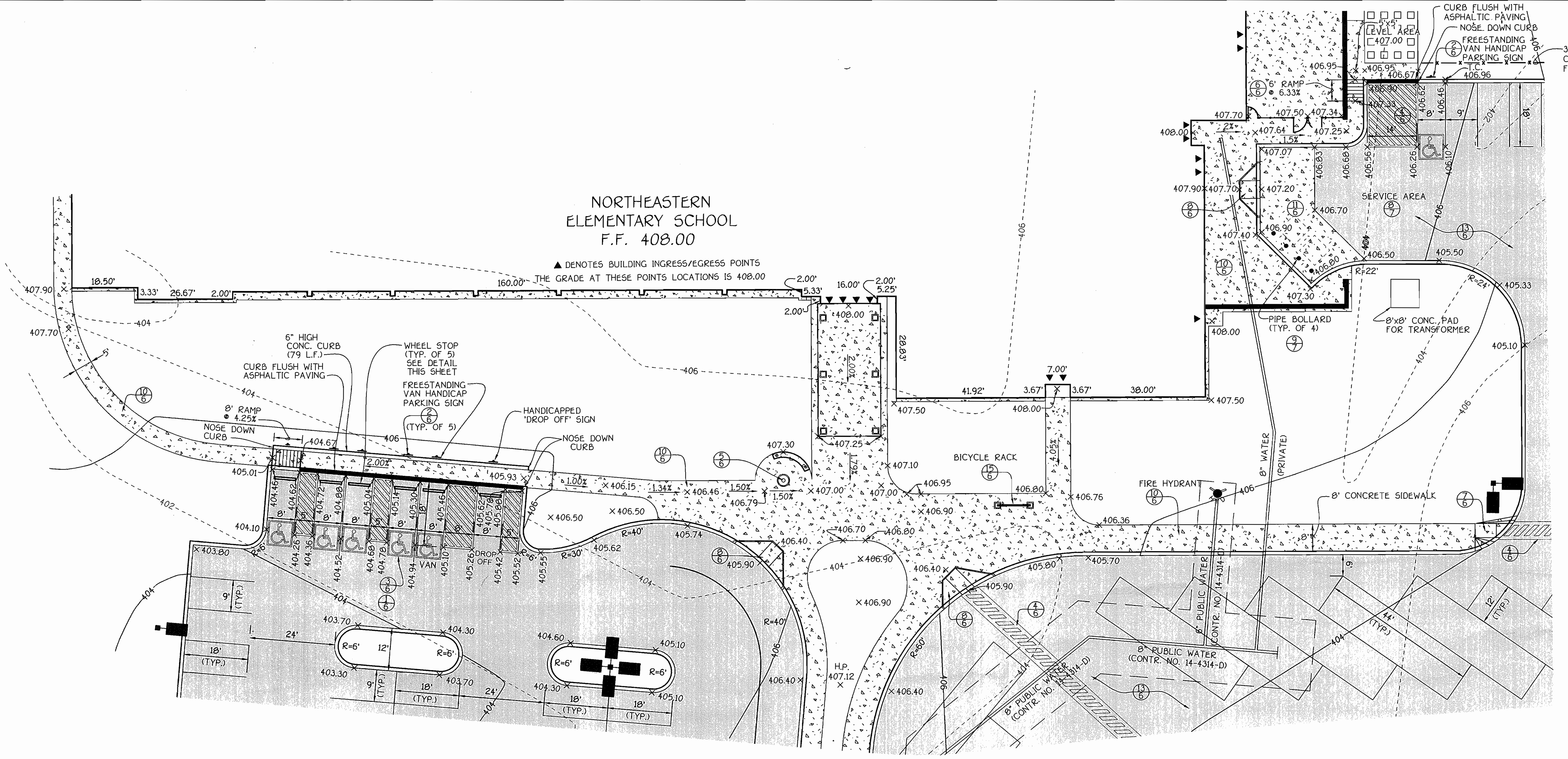
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 4 OF 30
SDP-06-040

SDP06-040

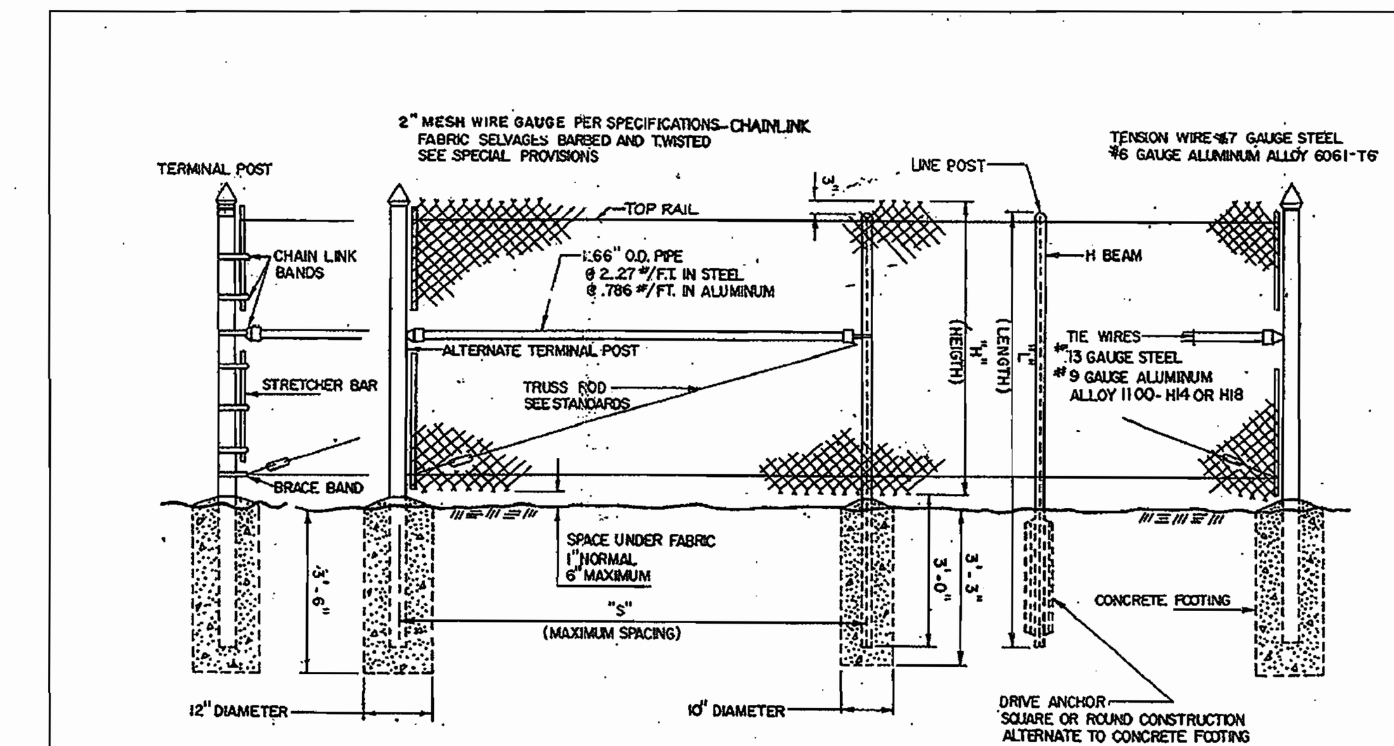
STATE OF MARYLAND CHARLES J. CROVO SR. REGISTERED PROFESSIONAL ENGINEER

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SITE PLAN (SHEETS 2-5).dwg, 2/8/2006 3:37:24 PM, 1:1



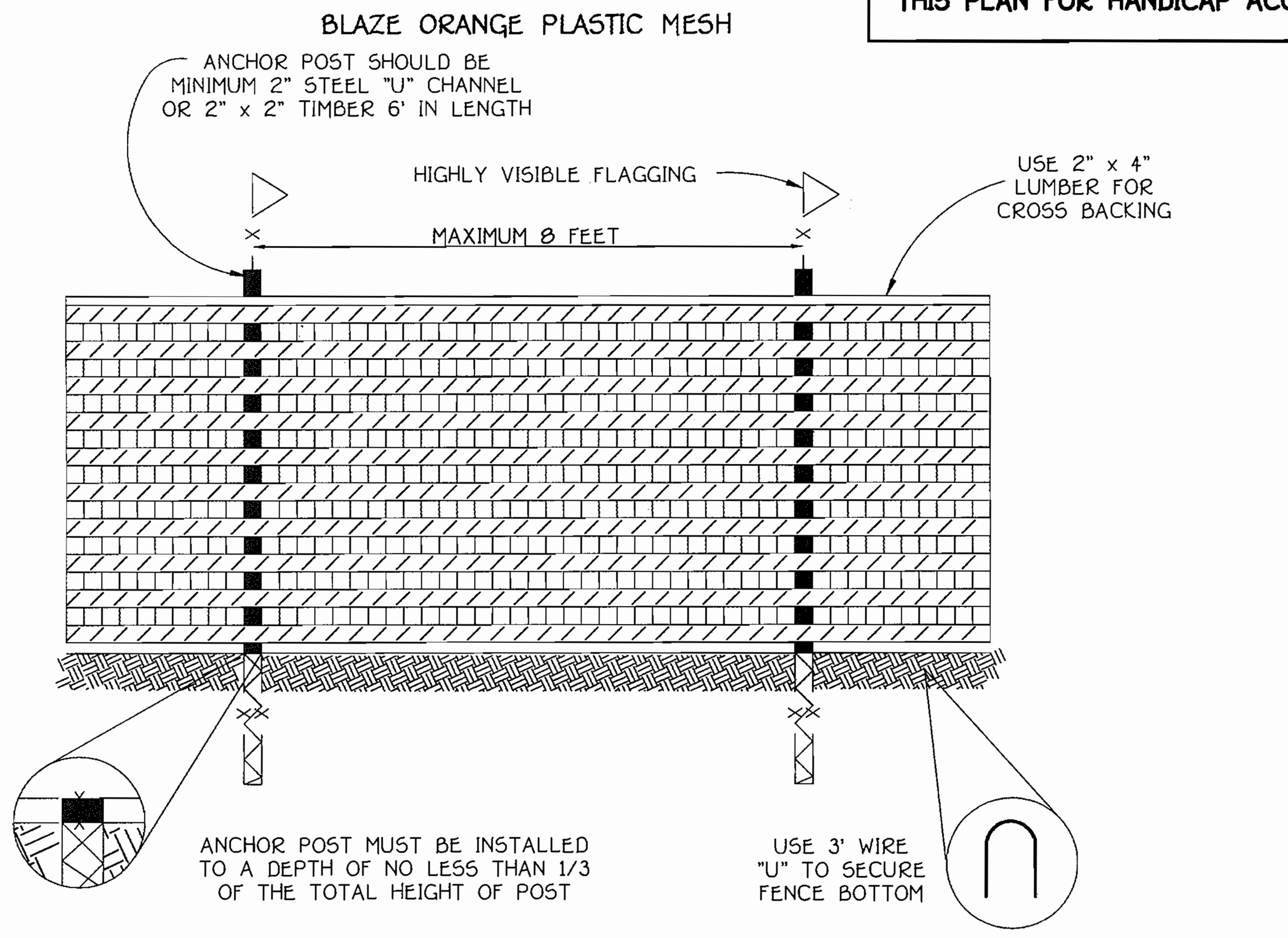
THIS PLAN FOR HANDICAP ACCESS ONLY.

PLAN
SCALE: 1" = 20'



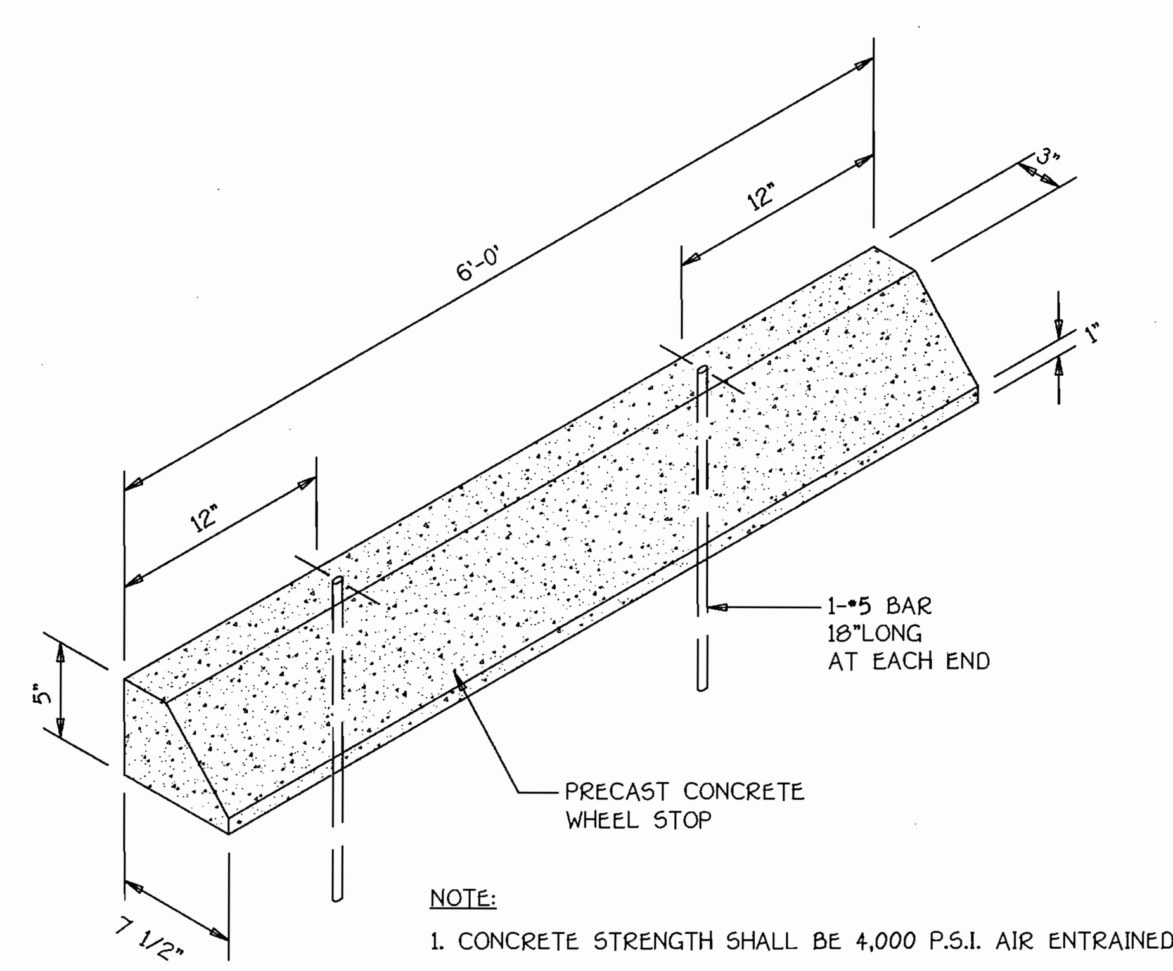
"H" HEIGHT OF FENCE	8'-0"		
"S" POST SPACING-MAX.	10'-0"		
"L" LENGTH OF H BEAM	10'-0"		
"H" BEAM-STEEL	2.25"x1.95"@4.10#/FT.		
"H" BEAM ALLUMINUM	2.25"x1.95"@1.25#/FT.		
TERM. POST STEEL	2.875"O.D.@5.79#/FT.		
TERM. POST ALLUMINUM	2.875"O.D@2.00#/FT.		
ALT. TERM POST STEEL	2.50"SQ.@5.70#/FT.	HOG RING - STEEL	18"±C/C 12.5 GA. GALV. STEEL WIRE
ALT. TERM POST ALLUMINUM	3.00"SQ.@2.00#/FT.	HOG RING - ALUMINUM	18"±C/C .110 O ALUM. WIRE ALLOY 5058 - H38

CHAIN LINK FENCE DETAIL
NOT TO SCALE



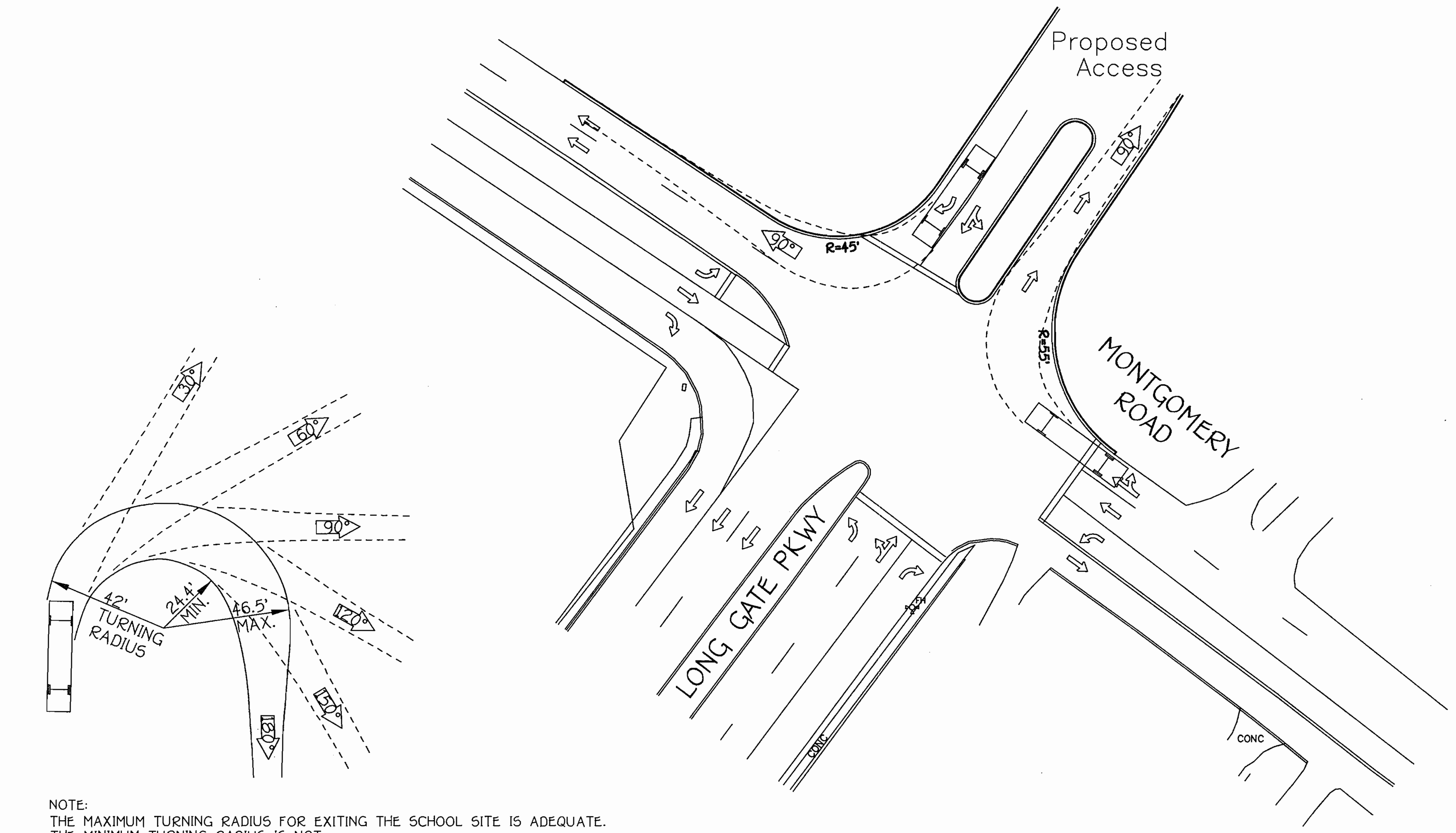
NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT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

TREE PROTECTION DETAIL
NOT TO SCALE



NOTE:
1. CONCRETE STRENGTH SHALL BE 4,000 P.S.I. AIR ENTRAINED

WHEEL STOP DETAIL
NOT TO SCALE



NOTE:
THE MAXIMUM TURNING RADIUS FOR EXITING THE SCHOOL SITE IS ADEQUATE.
THE MINIMUM TURNING RADIUS IS NOT.

SCHOOL BUS TURNING MOVEMENT
SCALE: 1" = 40'

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/5/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT				SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.				N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE	F04		SEWER CODE	5750615	

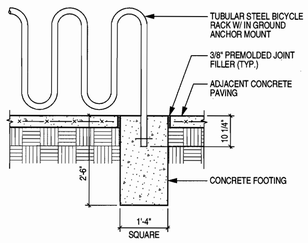
HANDICAP ACCESS PLAN AND DETAILS

NORTHEASTERN ELEMENTARY SCHOOL

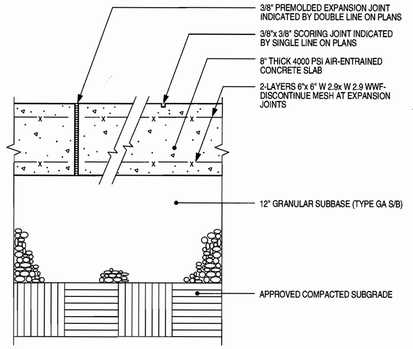
TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 5 OF 30
SDP-06-040

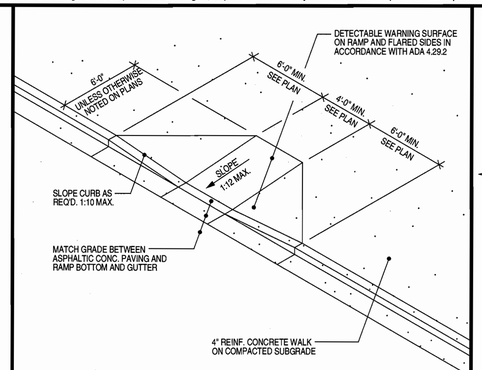
SDP06-040



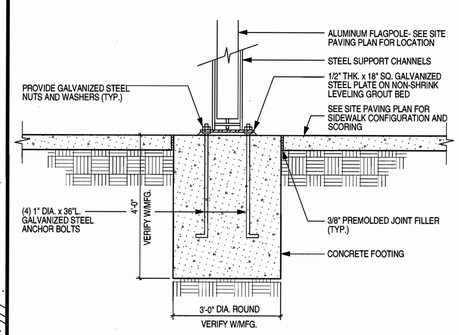
15/6 **BICYCLE RACK DETAIL** 1" = 1/2"



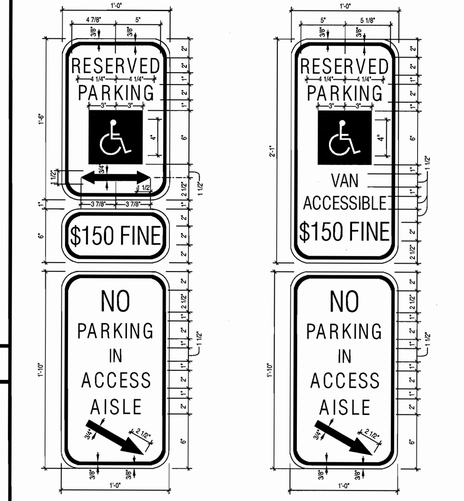
11/6 **HEAVY DUTY CONCRETE PAVING DETAIL** 1 1/2"

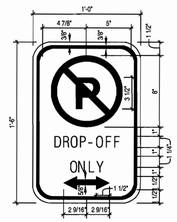


8/6 **TYPE A CURB RAMP DETAIL** HO.CO. DETAIL R4.01 NO SCALE
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



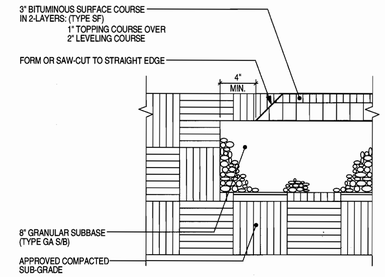
5/6 **TILT FLAGPOLE DETAIL** 1" = 1/2"



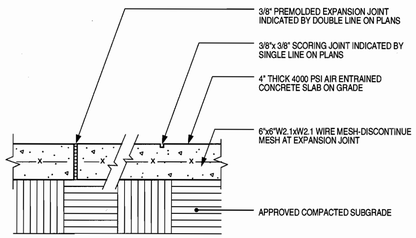


GENERAL NOTES:

1. SIGNS SHALL MEET DESIGN STANDARDS OF THE FEDERAL HIGHWAY ADMINISTRATION AND CONFORM TO THE STATE OF MARYLAND STANDARD HIGHWAY SIGN BOOKLET DETAIL R7-8. [DROP-OFF SIGN SHALL BE SIM. TO DETAIL R7-3(1)]
2. ONE SIGN IS REQUIRED PER SPACE. PLACE AS SHOWN ON SITE DEVELOPMENT PLAN.
3. SPACES INDICATED ON SITE DEVELOPMENT PLAN AS "VAN" ACCESSIBLE SHALL BE SIGNED ACCORDINGLY.
4. SIGNS SHALL BE POLE MOUNTED WITH COUNTY APPROVED HOT DIPPED GALVANIZED COUNTY APPROVED PERFORATED CHANNEL POSTS W/TOP OF SIGNS 9'-1" ABOVE FINISHED GRADE OR AS INDICATED ON SITE DRAWINGS.
5. SIGN SHALL BE ATTACHED TO FLANGED SIDE OF POST. POST SHALL EXTEND INTO GROUND 2'-6" MIN.
6. COLORS: LEGEND AND BORDER-GREEN SYMBOL-WHITE ON BLUE BACKGROUND BACKGROUND-WHITE
7. CONTRACTOR SHALL COORDINATE ARROW DIRECTION WITH LOCATION OF ADJACENT AISLE.



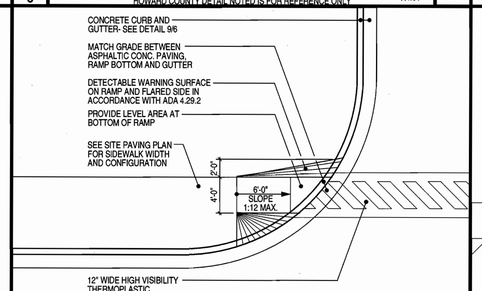
14/6 **ASPHALTIC WALK PAVING DETAIL** 1 1/2"



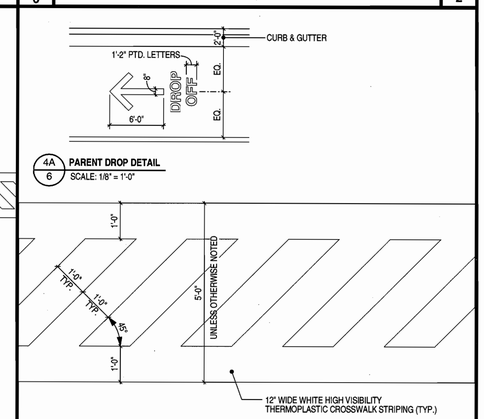
NOTE: REFER TO SITE PAVING PLAN AND FLOOR PLANS FOR LOCATIONS OF EXPANSION JOINTS AND SCORING JOINTS. WHERE NOT INDICATED, INSTALL EXPANSION JOINTS AT MAX. 15'-0" O.C. AND INSTALL SCORING JOINTS AT MAX. 5'-0" O.C.

SLOPE ACROSS SIDEWALK SHALL BE MIN. 1/8"/FT.

10/6 **CONCRETE WALK DETAIL** HO.CO. DETAIL R3.05 1 1/2"
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



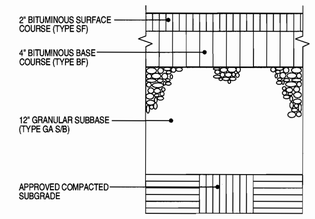
7/6 FOR USE AT RADIUS CURB **TYPE B CURB RAMP DETAIL** HO.CO. DETAIL R4.02 1" = 1/8"
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



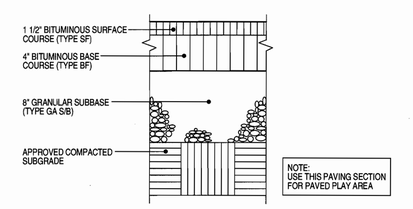
4A/6 **PARENT DROP DETAIL** SCALE: 1/8" = 1'-0"

4/6 **CROSSWALK DETAIL** 1" = 1/2"

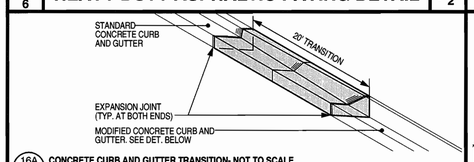
2/6 **HANDICAP PARKING SIGNS DETAIL** NO SCALE



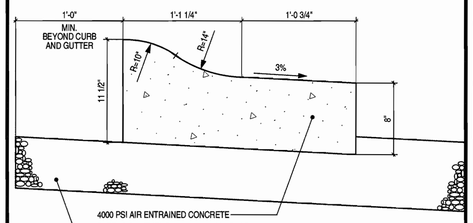
13/6 **HEAVY DUTY ASPHALTIC PAVING DETAIL** 1 1/2"



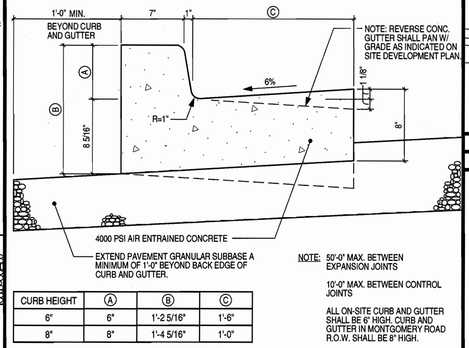
12/6 **LIGHT DUTY ASPHALTIC PAVING DETAIL** 1 1/2"



16A/6 **CONCRETE CURB AND GUTTER TRANSITION- NOT TO SCALE**
HOWARD COUNTY DETAIL R3.02 (FOR REFERENCE ONLY)



16/6 **MODIFIED CONCRETE CURB AND GUTTER DET.** HO.CO. DETAIL R3.01 1 1/2"
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



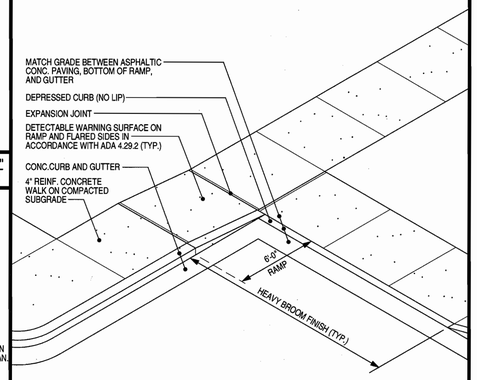
CURB HEIGHT	Ⓐ	Ⓑ	Ⓒ
6"	6"	1'-2 5/16"	1'-6"
8"	8"	1'-4 5/16"	1'-0"

NOTE: 50'-0" MAX. BETWEEN EXPANSION JOINTS

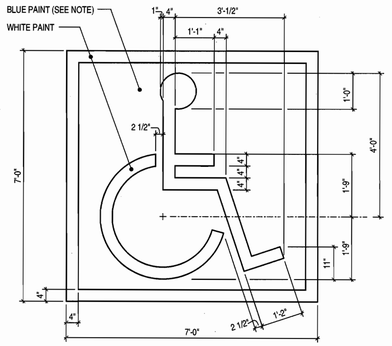
10'-0" MAX. BETWEEN CONTROL JOINTS

ALL ON-SITE CURB AND GUTTER SHALL BE 6" HIGH. CURB AND GUTTER IN MONTGOMERY ROAD R.O.W. SHALL BE 8" HIGH.

9/6 **CONCRETE CURB AND GUTTER DET.** HO.CO. DETAIL R3.01/R3.07 1 1/2"
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



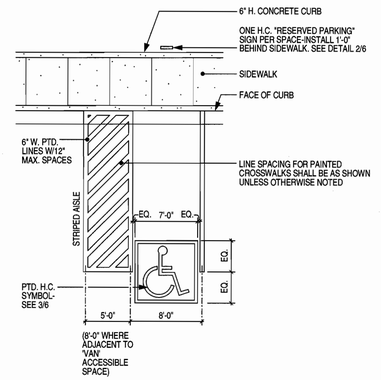
6/6 **TYPE C CURB RAMP DETAIL** HO.CO. DETAIL R4.03 NO SCALE
HOWARD COUNTY DETAIL NOTED IS FOR REFERENCE ONLY



NOTE:

SYMBOL IS REQUIRED TO CONTRAST WITH BACKGROUND (WHITE ON BLUE: COLOR NO.105090 IN FED. STANDARD 5952-DOUBLE COAT TYP.)

3/6 **ACCESSIBLE SPACE STENCIL LAYOUT** 1" = 1/2"



1/6 **ACCESSIBLE SPACE LAYOUT** 1" = 1/8"

tca architects
2661 RIVA ROAD SUITE 120
ANNAPOLIS, MARYLAND
21401
410-841-6205

OWNER

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLICOTT CITY, MARYLAND 21043

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DIRECTOR — DATE 3/3/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/8/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/6/06

SITE DETAILS

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP: 24 GRID: 24 PARCEL: 321 & 767

2nd ELECTION DISTRICT: HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN

NORTHEASTERN ELEMENTARY SCHOOL
Howard County, Maryland
Howard County Public School System

BOARD OF ARCHITECTS 6149 MICHAEL REED BOWEN STATE OF MARYLAND

tca | architects
Annapolis, Maryland

revisions

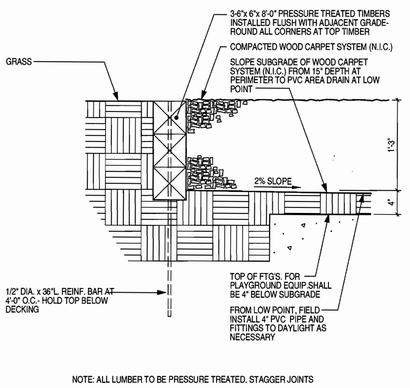
BUILDING PERMIT/ CD REVIEW 14 OCTOBER 05

BID & CONSTRUCTION 15 NOVEMBER 05

6 of 30

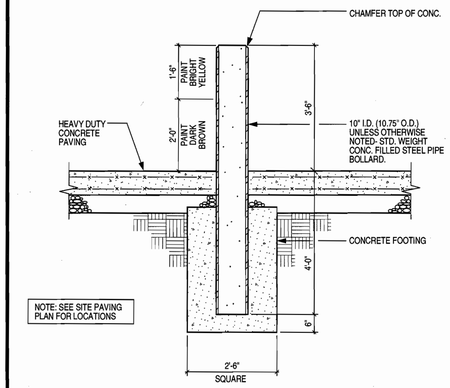
project no. 0405

SDP06-040

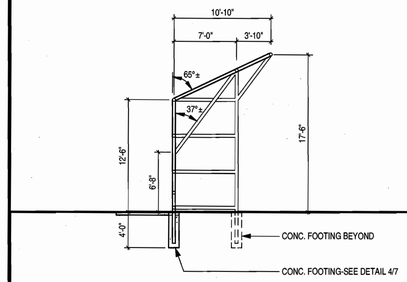


NOTE: ALL LUMBER TO BE PRESSURE TREATED. STAGGER JOINTS

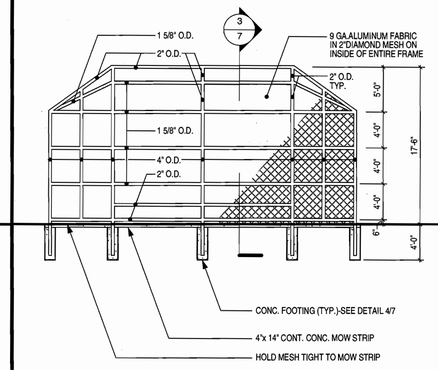
11/7 **PLAY AREA SURFACE / DRAINAGE DETAIL** 1"



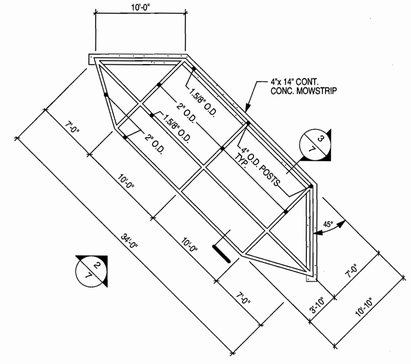
9/7 **PIPE BOLLARD DETAIL** 1"/2



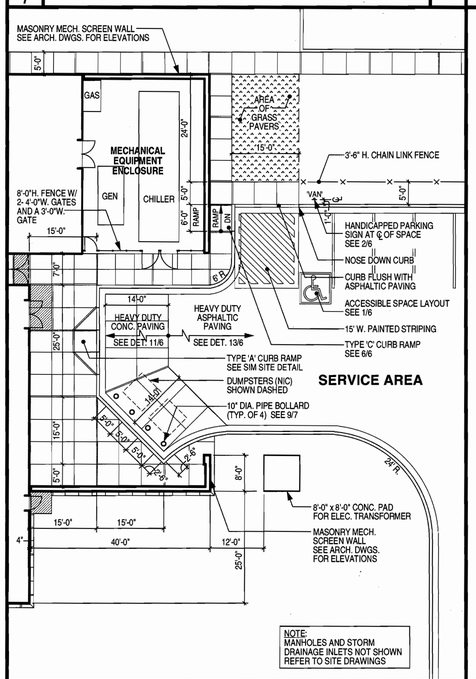
3/7 **SOFTBALL BACKSTOP SECTION** 1"/8



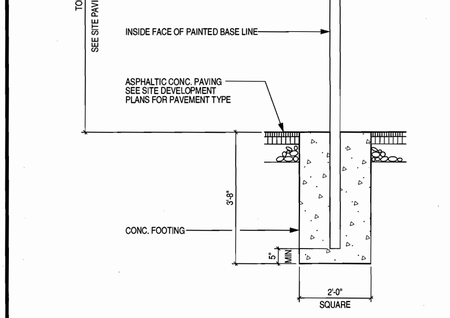
2/7 **SOFTBALL BACKSTOP ELEVATION** 1"/8



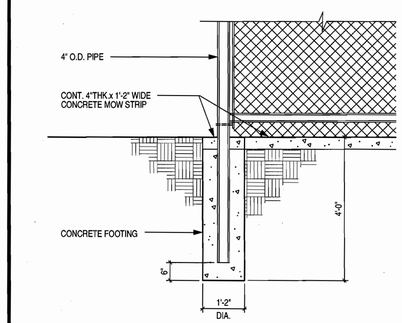
1/7 **SOFTBALL BACKSTOP PLAN** 1"/8



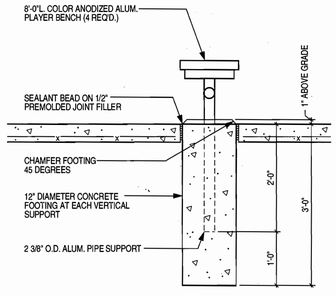
8/7 **SERVICE AREA DETAIL** 1"/16



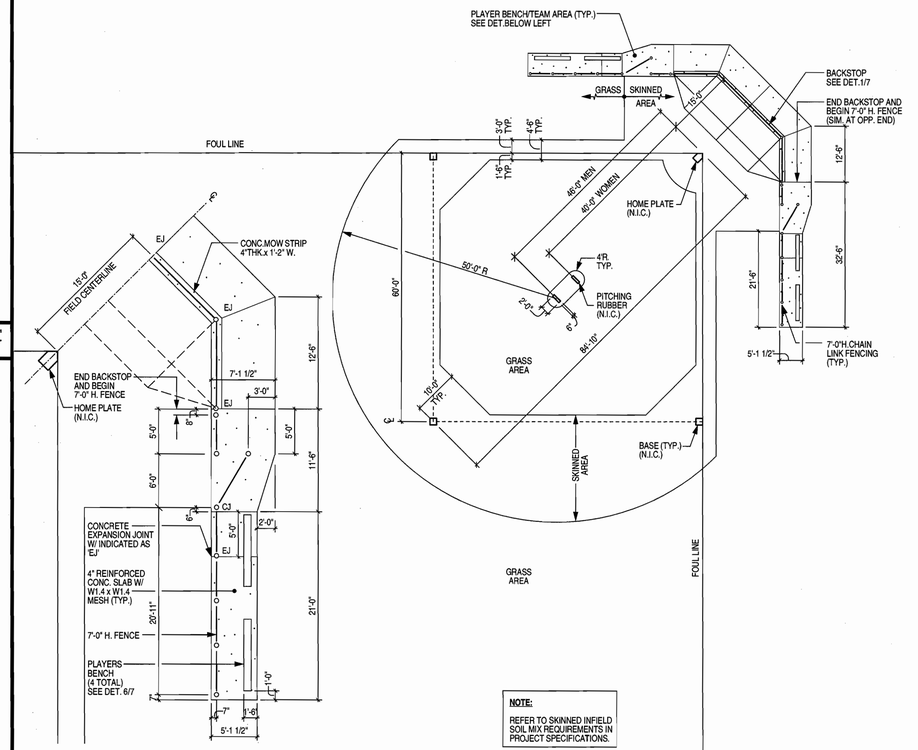
7/7 **BACKBOARD DETAIL** 1"/2



4/7 **BACKSTOP FOOTING DETAIL** 1"/2



6/7 **BENCH DETAIL** 3"/4



PLAYER BENCH/TEAM AREA DETAIL
SCALE: 1/8" = 1'-0"

5/7 **SOFTBALL FIELD DETAIL** 1"/16

10/7 **FRONT ELEVATION** 1"/32

NORTHEASTERN ELEMENTARY SCHOOL
Howard County, Maryland
Howard County Public School System

BOARD OF ARCHITECTS 6149 MICHAEL REED BOOTH STATE OF MARYLAND

tca | architects
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revisions

BUILDING PERMIT/ CD REVIEW 14 OCTOBER 05

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7 of 30

project no. 0405

tca architects
2661 RIVA ROAD SUITE 120
ANNAPOLIS, MARYLAND
21401
410-841-6205

OWNER

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLICOTT CITY, MARYLAND 21043

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DIRECTOR — DATE 3/5/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/15/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/06

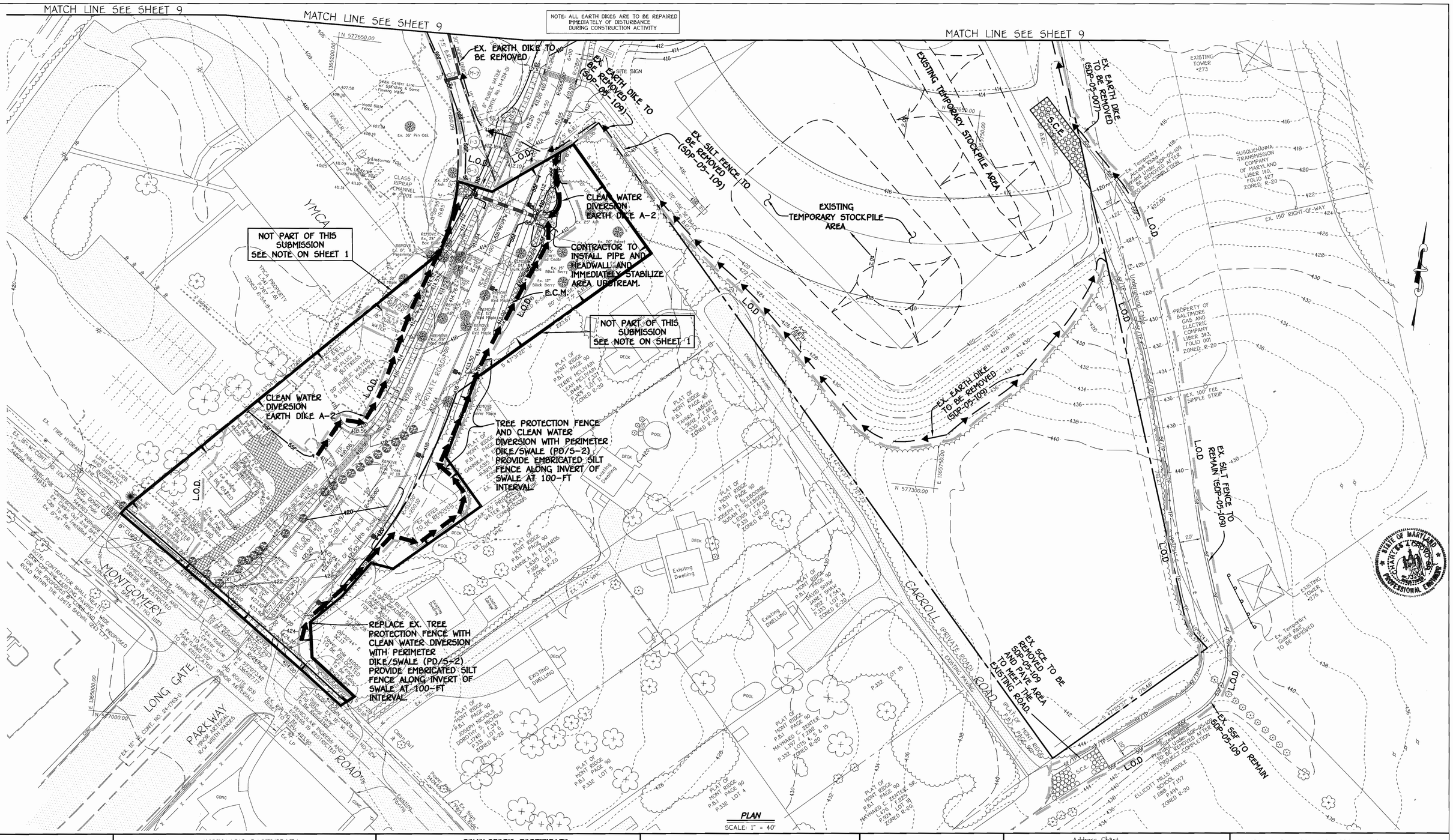
SITE DETAILS

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP: 24 GRID: 24 PARCEL: 321 & 767

2nd ELECTION DISTRICT: HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN

SDPOG-040



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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements.

U.S.D.A. - Natural Resources Conservation Service — Date 2/27/06

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2:10.06

Approved: This Development Is Approved For Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date 2/27/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/6/06

Chief, Division of Land Development — Date 3/6/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18019-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/384	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SEDIMENT AND EROSION CONTROL PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

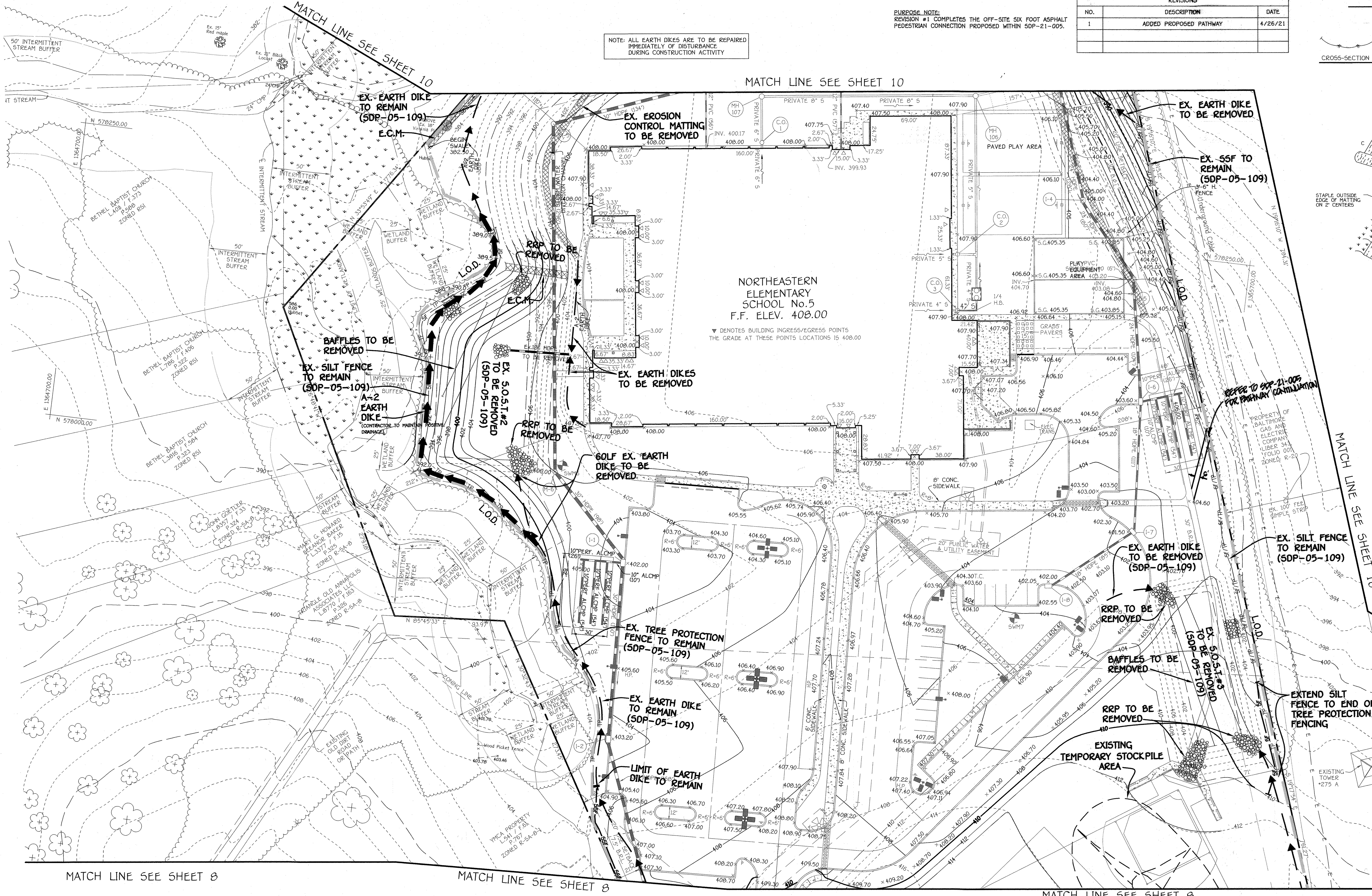
SHEET 8 OF 30 SDP-06-040

SDP06-040

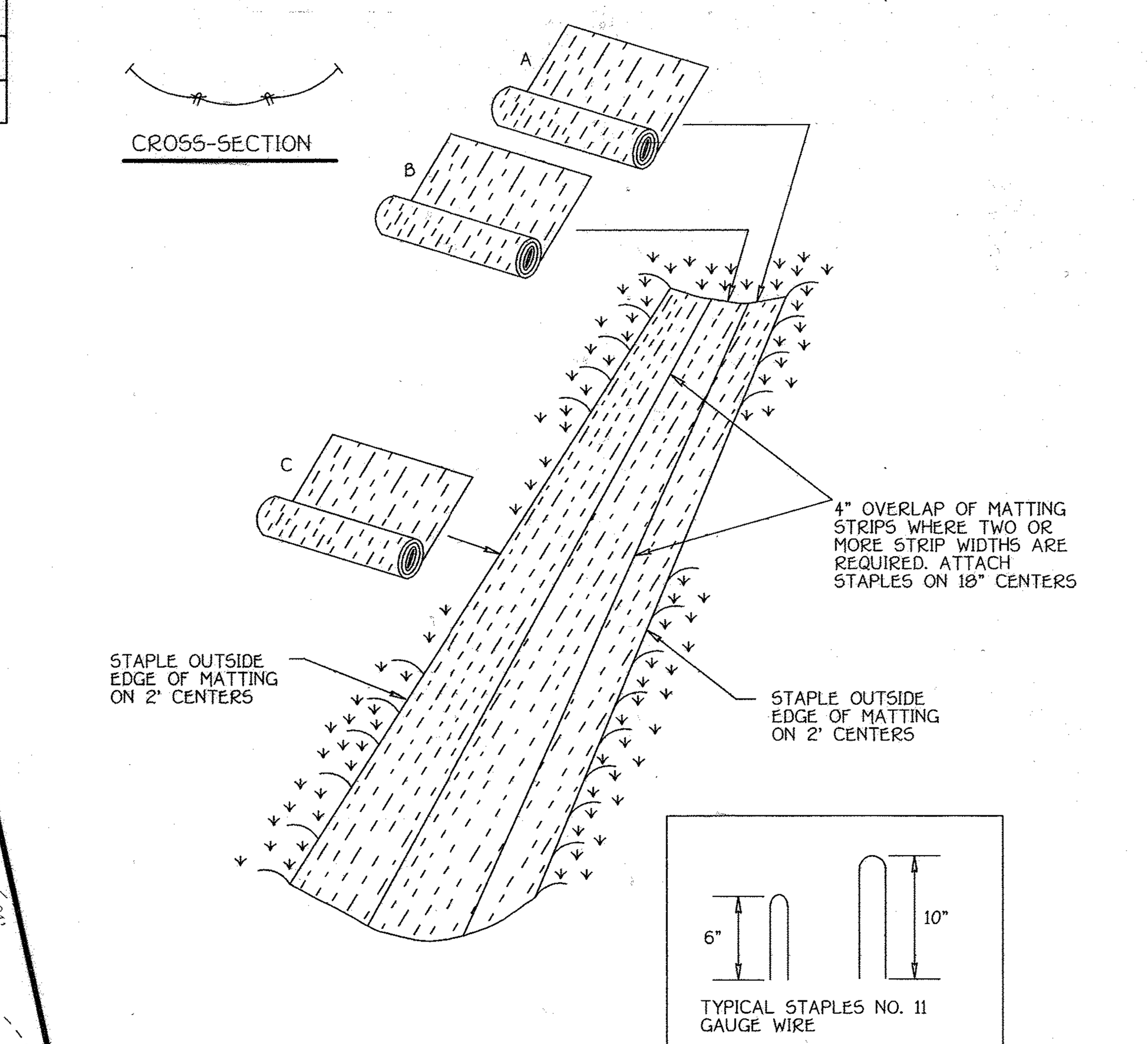
PURPOSE NOTE:
REVISION #1 COMPLETES THE OFF-SITE SIX FOOT ASPHALT PEDESTRIAN CONNECTION PROPOSED WITHIN SDP-21-005.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDED PROPOSED PATHWAY	4/26/21

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY



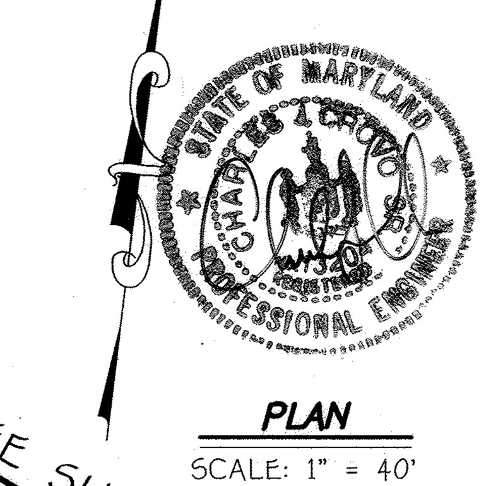
EROSION CONTROL MATTING



Construction Specifications

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

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



PLAN
SCALE: 1" = 40'

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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — 2/13/06 Date

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements.

U.S.D.A. - Natural Resources Conservation Service — 2/27/06 Date

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — 2.10.06 Date

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — 2/27/06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/9/06 Date

Chief, Division of Land Development — 3/8/06 Date

Chief, Development Engineering Division — 3/6/06 Date

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00
WATER CODE			SEWER CODE		
F04			5750615		

SEDIMENT AND EROSION CONTROL PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 9 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SEC PLAN (SHEETS 8, 9 & 10).dwg, 2/13/2006 1:21:28 PM, 1:1

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY IF DISTURBANCE OCCURS DURING CONSTRUCTION ACTIVITY

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. (1 DAY)
   M.D.E. PERMIT/TRACING NUMBER FOR WETLAND/STREAM BUFFER DISTURBANCES IS •200660372/05-NT-3247
   USE 1 CLOSURE DATES MARCH 1-JUNE 15.
2. NOTIFY MISS UTILITY (1-800-257-7777) 48 HOURS BEFORE STARTING WORK. NOTIFY THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION (410-313-1855) 24 HOURS BEFORE STARTING WORK, AND NOTIFY THE BALTIMORE GAS & ELECTRIC CO. (410-291-5739) FIVE (5) WORKING DAYS PRIOR TO STARTING WORK. (1 WEEK)
3. INSTALL PERIMETER CONTROLS (S.C.E., SUPER SILT FENCE, SILT FENCE) NEEDED FOR THE SEDIMENT BASIN AND INSTALL THE SEDIMENT BASIN AND CONCRETE CONTROL STRUCTURE/OUTFALL BARREL. CONSTRUCT STORM DRAIM PIPE FROM S-3 TO S-4 (2 WEEKS).
4. WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE EXISTING SEDIMENT TRAPS No.s 1, 2, & 3 (SDP-05-109). INSTALL SEDIMENT CONTROL DEVICES (EARTH DIKES, SUPER SILT FENCE, ETC.). EXISTING SEDIMENT CONTROL DEVICES SHALL BE CHECKED AND REPAIRED AS NECESSARY. (1 WEEK)
5. GRADE SITE TO THE PROPOSED GRADES AND IMMEDIATELY STABILIZE ALL SLOPES UPON COMPLETION OF GRADING WITH TEMPORARY SEEDING. (2 WEEKS)
6. BEGIN CONSTRUCTION OF SCHOOL BUILDING. (12 MONTHS)
7. INSTALL WATER, SEWER, AND STORM DRAINS. THE PIPE ENTRANCES TO THE RECHARGE STONE TRENCHES (AT INLETS I-1 AND I-6) SHALL BE BLOCKED SO THEY ARE WATERTIGHT. (4 WEEKS)
8. INSTALL CURB AND GUTTER AND PAVING. (2 WEEKS)
9. INSTALL SIDEWALKS, LIGHTING AND LANDSCAPING. (2 WEEKS)
10. STABILIZE WITH SEED & MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS. (1 WEEK)
11. COMPLETE SCHOOL CONSTRUCTION. (1 MONTH)
12. THOROUGHLY CLEAN (FLUSH) THE STORM DRAIN SYSTEM. (1 DAY)
13. WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, CONVERT THE SEDIMENT BASIN INTO THE PERMANENT SWM FACILITY. THIS WORK INCLUDES, REMOVING SEDIMENT, RE-GRADING TO DESIGN ELEVATIONS, REPLACING DEWATERING DEVICE WITH PERMANENT LOW FLOW OUTFALL, INSTALL FOREBAY, STABILIZE POND WITH PERMANENT SEEDING AND INSTALLING POND LANDSCAPING. (2 WEEKS)
14. THE OWNER SHALL SUBMIT A POND AS-BUILT PLAN TO THE HOWARD SOIL CONSERVATION DISTRICT. IN ADDITION, HSCD REQUIRES A POND AS-BUILT PLAN SUBMITTAL FOR THE NEIGHBORING VFW POND (GP-05-74) PRIOR TO, OR CONCURRENTLY WITH, THE POND AS-BUILT PLAN FOR THE STORMWATER MANAGEMENT FACILITY SHOWN ON THIS PLAN.

FOLLOWING SUCCESSFUL STABILIZATION (i.e., FULLY-ESTABLISHED VEGETATION OR PAVING) OF ALL DISTURBED AREAS, OBTAIN PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR TO REMOVE ALL REMAINING SEDIMENT & EROSION CONTROL DEVICES AND THEN STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS WITH PERMANENT SEEDING. THIS TASK INCLUDES REMOVING THE BLOCKED ENTRANCES TO THE RECHARGE TRENCHES AT I-1 AND I-6. (1 WEEK)

NORTHEASTERN ELEMENTARY SCHOOL TEMPORARY SEDIMENT BASIN

INITIAL D.A. = 10.0 Ac.
FINAL D.A. = 10.0 Ac

STORAGE REQUIRED:
WET = 1800 cf/ac. x 10 = 18,000 Cuft.
DRY = 1800 cf/ac. x 10 = 18,000 Cuft.

STORAGE PROVIDED:
WET = 17,900 Cuft. @ ELEV. 364.0
DRY = 68,639 Cuft. @ ELEV. 367.0

BOTTOM ELEV. = 359.75

STORAGE DEPTH = 7.25'

TOP OF EMBANKMENT = 372.0

SIDE SLOPES: 3:1

CLEAN OUT ELEV. = 362.0

RISER CREST ELEV. = 367.0

SEC BASIN 1-YR. ORIFICE: 2.5" ø @ INV. 364.0

Q1 exist. = 0.2 c.f.s. (TO EAST SIDE TRIB.)
Q1 prop. = 2.5 c.f.s. (TO EAST SIDE TRIB.)
Q1 exist. = 6.7 c.f.s. (TO WEST SIDE TRIB.)
Q1 prop. = 7.2 c.f.s. (TO WEST SIDE TRIB.)

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Signature ______ P.E. No. ______

Date: ______

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

FISHER, COLLINS & CARTER, INC.
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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Wm. B. — 2.10.06
Signature Of Developer — Date

Dr. William Brown
Printed Name Of Developer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

Jim Myers /cs. — 2/27/06
USDA-Natural Resources Conservation Service — Date

By The Engineer:

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

2/13/06
Signature Of Engineer — Date

CHARLES J. CROVO SR.
Printed Name Of Engineer

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

2/27/06
Howard Soil Conservation District — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/9/06
Director - Department of Planning and Zoning — Date

3/8/06
Chief, Division of Land Development — Date

3/6/06
Chief, Development Engineering Division — Date

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
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Attention Bruce Gist
410-313-6798

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
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18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT				SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.				N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

SEDIMENT AND EROSION CONTROL PLAN AND SEQUENCE OF CONSTRUCTION

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

STATE OF MARYLAND CHARLES J. CROVO SR. REGISTERED PROFESSIONAL ENGINEER

SDP-06-040

SDP06-040

20.0 STANDARDS AND SPECIFICATIONS
FOR
VEGETATIVE STABILIZATION

DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.
Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.
Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
  i. Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
B. Soil Amendments (Fertilizer and Lime Specifications)
  i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
  ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
  iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
  iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
C. Seedbed Preparation
  i. Temporary Seeding
    a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    b. Apply fertilizer and lime as prescribed on the plans.
    c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
  ii. Permanent Seeding
    a. Minimum soil conditions required for permanent vegetative establishment:
      1. Soil pH shall be between 6.0 and 7.0.
      2. Soluble salts shall be less than 500 parts per million (ppm).
      3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
      4. Soil shall contain 1.5% minimum organic matter by weight.
      5. Soil must contain sufficient pore space to permit adequate root penetration.
      6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
    b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    c. Apply soil amendments as per soil test or as included on the plans.
    d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.
D. Seed Specifications
  i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
  Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
  ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.
E. Methods of Seeding
  i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
    a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen: maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous): 200 lbs/ac; K20 (potassium): 200 lbs/ac.
    b. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
  ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
    a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
    b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
    a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
    b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
F. Mulch Specifications (In order of preference)
  i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
  ii. Wood Cellulose Fiber Mulch (WCFM)
    a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
    b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
    c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
    d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
    e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
    f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
  Note: Only sterile straw mulch should be used in areas where one species of grass is desired.
G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
  i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
  ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
  iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
  i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
  ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
  iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
  iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.
I Incremental Stabilization - Cut Slopes
  i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
  ii. Construction sequence (Refer to Figure 3 below):
    a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
    b. Perform Phase 1 excavation, dress, and stabilize.
    c. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary.
    d. Perform final phase excavation, dress and stabilize. Overseed previously seeded areas as necessary.
Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation out of the seeding season will necessitate the application of temporary stabilization.
J. Incremental Stabilization of Embankments - Fill Slopes
  i. Embankments shall be constructed in lifts as prescribed on the plans.
  ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15", or when the grading operation ceases as prescribed in the plans.
  iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
  iv. Construction sequence: Refer to Figure 4 (below).
    a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
    b. Place Phase 1 embankment, dress and stabilize.
    c. Place Phase 2 embankment, dress and stabilize.
    d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.
Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

SECTION 2 - TEMPORARY SEEDING

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

A. Seed mixtures - Temporary Seeding

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

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

Seed Mixture (Hardiness Zone ___6b___) From Table 26					Fertilizer Rate (10-10-10)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
1	BARLEY OATS RYE	122 96 140	3/1 - 5/15, 8/15 - 10/15	1" - 2" 1" - 2" 1" - 2"	600 lb/ac (15 lb/1000sf)	2 tons/ac (100 lb/1000sf)

SECTION 3 - PERMANENT SEEDING

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

A. Seed mixtures - Permanent Seeding

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

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

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

Seed Mixture (Hardiness Zone ___6b___) From Table 25					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
3	TALL FESCUE (85%) PERENNIAL RYE GRASS (10%) KENTUCKY BLUEGRASS (5%)	125 15 10	3/1 - 5/15, 8/15 - 10/15	1" - 2"	90 lb/ac (2.0 lb/ 1000sf)	175 lb/ac (4 lb/ 1000sf)	175 lb/ac (4 lb/ 1000sf)	2 tons/ac (100 lb/ 1000sf)
10	TALL FESCUE (80%) HARD FESCUE (20%)	120 30	3/1 - 5/15, 8/15 - 10/15	1" - 2"				

NOTE: THESE SEEDING SPECIFICATIONS ARE THE MINIMUM REQUIRED FOR SEDIMENT CONTROL. REFER TO PROJECT SPECIFICATIONS FOR SEEDING REQUIREMENTS FOR OTHER AREAS OF THE SITE.

SEDIMENT CONTROL NOTES

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

TOTAL AREA OF SITE	23.6 ACRES
AREA DISTURBED	17.1 ACRES
AREA TO BE ROOFED OR PAVED	5.5 ACRES
AREA TO BE VEGETATIVELY STABILIZED	11.6 ACRES
TOTAL CUT	32,773 CU.YDS.
TOTAL FILL	32,669 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A

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

LEGEND

— TP— TP— TP—	TREE PROTECTION FENCE
—SSF—SSF—SSF—	SUPER-SILT FENCE
— SF — SF — SF —	SILT FENCE
S.C.E.	STABILIZED CONSTRUCTION ENTRANCE
L.O.D.	LIMIT OF DISTURBANCE
(crosshatch)	EROSION CONTROL MATTING

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

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

Conditions Where Practice Applies

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

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

Construction and Material Specifications

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

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
  i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2" in diameter.
  ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnson grass, nutsedge, poison ivy, thistle, or others as specified.
  iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

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

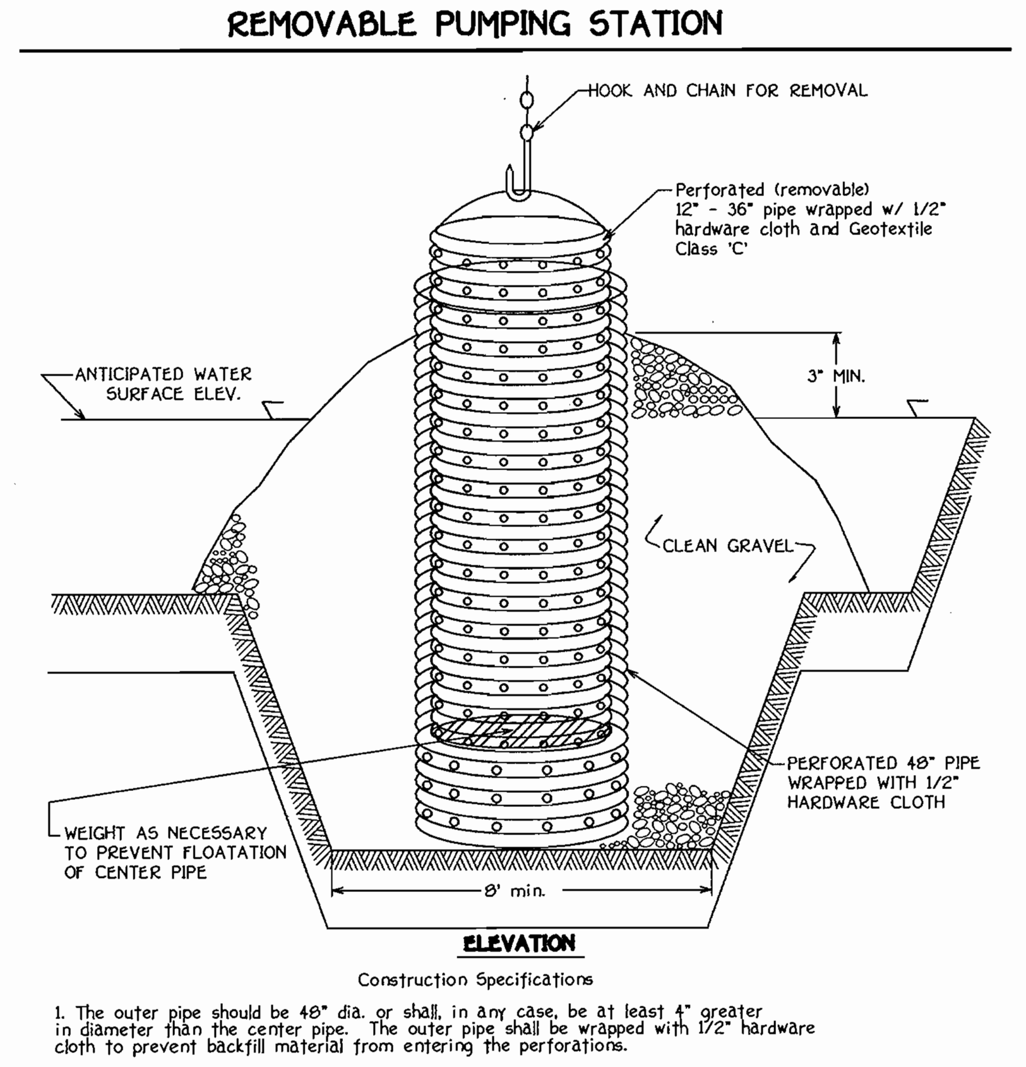
III For sites having disturbed areas over 5 acres:
  i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
    b. Organic content of topsoil shall be not less than 1.5 percent by weight.
    c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.
  Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
  ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application
  i. When top soiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
  ii. Grades on the areas to be top soiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
  iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
  iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
    a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
    b. Composted sludge shall contain at least I percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
    c. Composted sludge shall be applied at a rate of I ton/1,000 square feet.
  iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding,. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

REMOVABLE PUMPING STATION

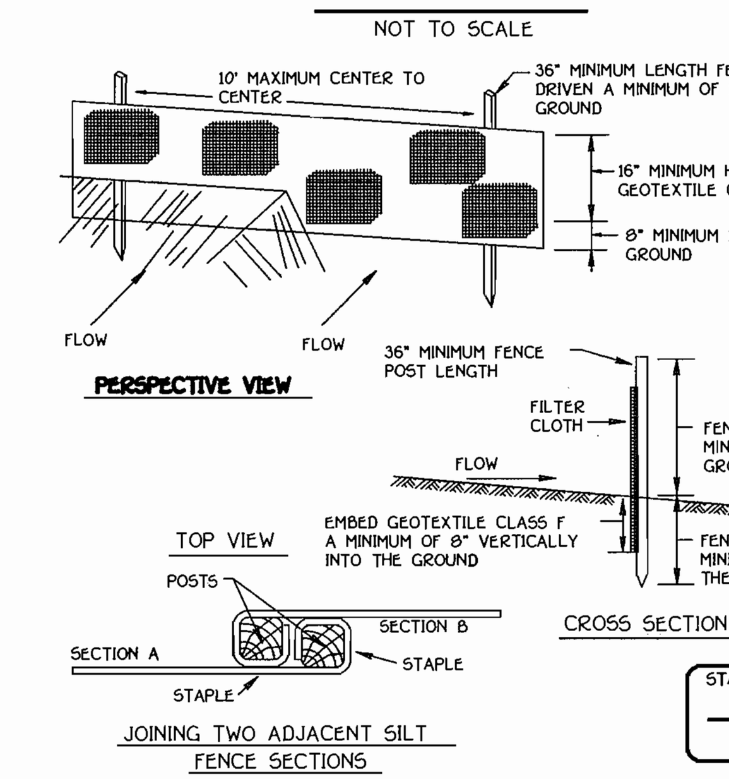


Construction Specifications

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

SILT FENCE

NOT TO SCALE



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.

Construction Specifications

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

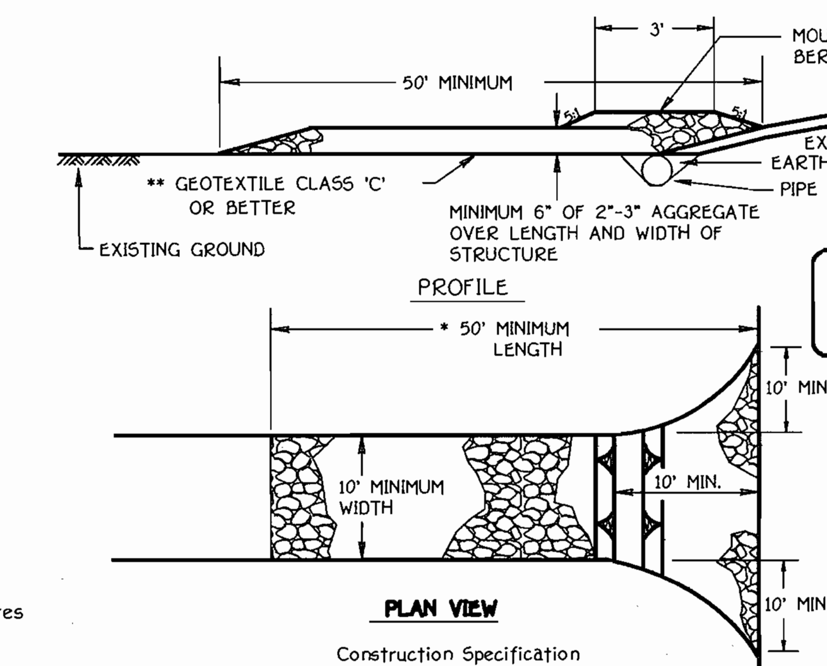
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

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

STABILIZED CONSTRUCTION ENTRANCE

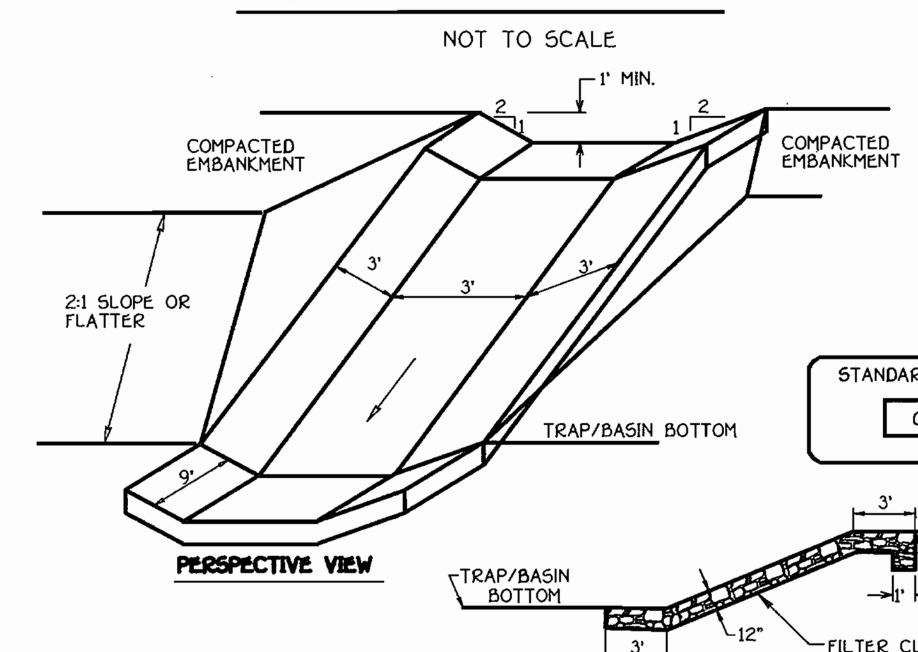


Construction Specification

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.

GABION INFLOW PROTECTION

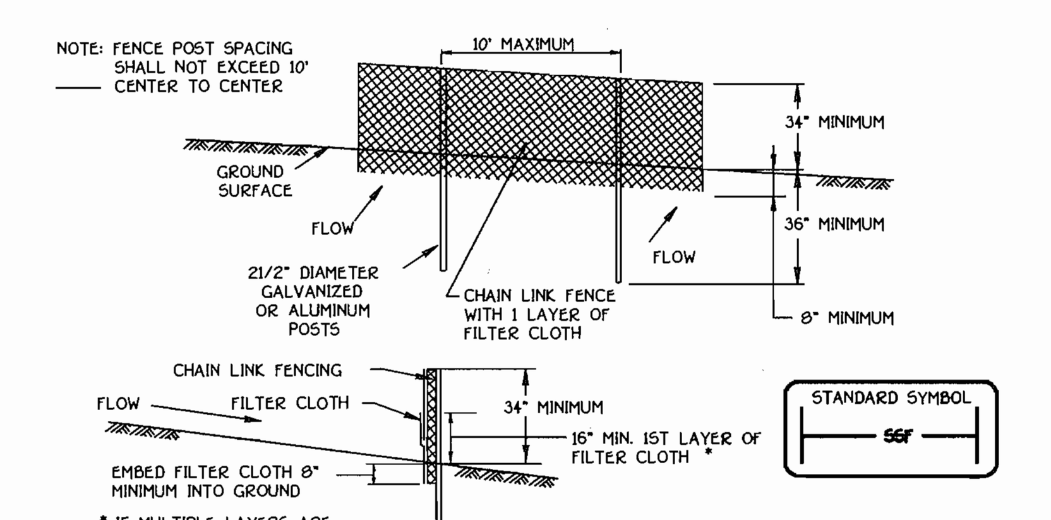
NOT TO SCALE



Construction Specifications

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

SUPER SILT FENCE



Construction Specifications

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

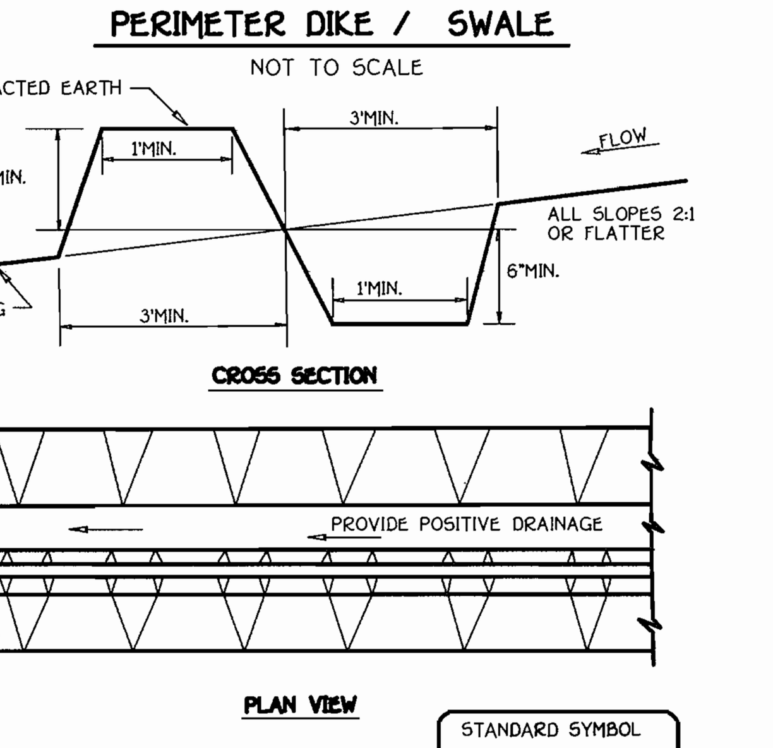
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

Design Criteria

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

PERIMETER DIKE / SWALE

NOT TO SCALE



STABILIZATION

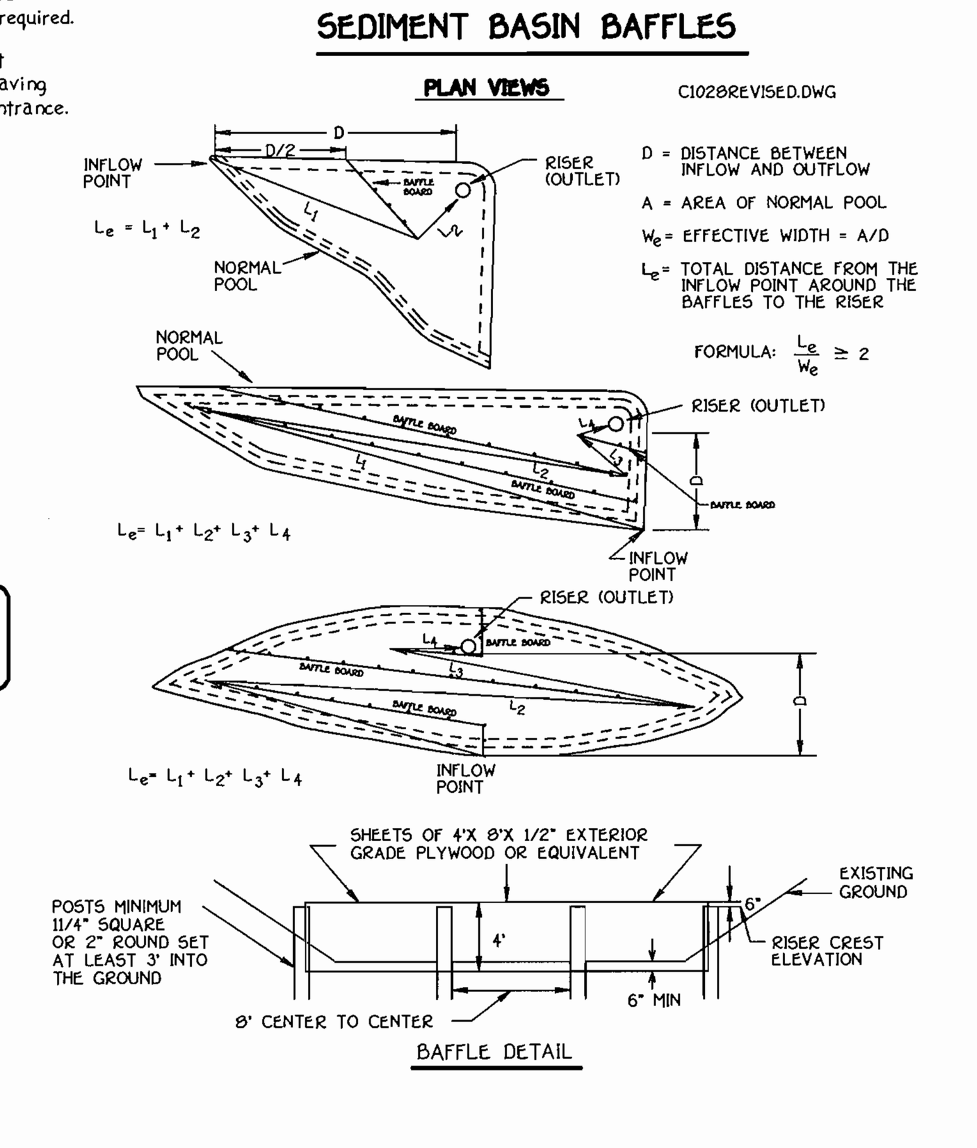
PD/S-1 SEED AND MULCH (DRAINING ≤ 1 ACRE)
PD/S-2 SEED AND COVER WITH SOIL STABILIZATION MATTING OR LINE WITH SOD (DRAINING BETWEEN 1 AND 2 ACRES)

Construction Specifications

1. All perimeter dike/swales shall have an uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet into an undisturbed stabilized area at a non-erosive velocity.
4. The swale shall be excavated or shaped to line, grade, and cross-section as required to meet the criteria specified in the standard.
5. Fill shall be compacted by earth moving equipment.
6. Stabilization with seed and mulch or as specified of the area disturbed by the dike and swale shall be completed within 7 days upon removal.
7. Inspection and required maintenance shall be provided after each rain event.

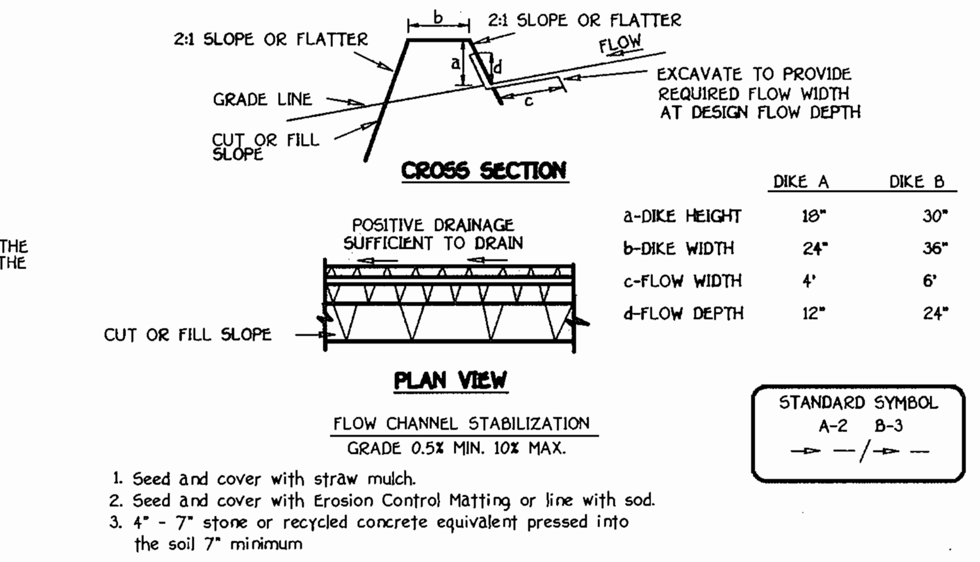
Note: The maximum drainage area for this practice is 2 acres.

SEDIMENT BASIN BAFFLES



EARTH DIKE

NOT TO SCALE



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

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

Construction Specifications

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

STATE OF MARYLAND — CHARLES J. CROSOSR — PROFESSIONAL ENGINEER

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

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Wm. B. — 2·10·06
Signature Of Developer — Date
Dr. William Brown
Printed Name Of Developer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

Jim Myers /CS — 2/27/06
USDA-Natural Resources Conservation Service — Date

By The Engineer:

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

2/13/06
Signature Of Engineer — Date
CHARLES J. CRONOSR,
Printed Name Of Engineer

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

2/22/06
Howard Soil Conservation District — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/9/06
Director - Department of Planning and Zoning — Date

3/8/06
Chief, Division of Land Development — Date

3/6/06
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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

SEDIMENT AND EROSION
CONTROL NOTES & DETAILS

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 11 OF 30
SDP-06-040

SDP06-040

PLANTING NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND IS TO BE USED FOR PLANTING ONLY.
2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK . ALL GENERAL NOTES FROM SHEET 1, SHALL APPLY.
3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK, EVEN WHERE PLANT LOCATIONS ARE DIMENSIONED . CONTACT CONSTRUCTION MANAGER IF ANY RELOCATION ARE REQUIRED.
4. PLANT QUANTITIES SHOWN ON PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PERCEDENCE.
5. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY , BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE A.A.N. SPECIFICATIONS, AND BE INSTALLED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SEEDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
7. ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER PLANTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF SOIL OR DRAINAGE CONDITIONS ARE ENCOUNTERED WHICH MAY BE DETRIMENTAL TO THE GROWTH OF PLANTS.
9. NO SUBSTITUTION SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR HIS REPRESENTATIVE.
10. REFER TO OTHER SITE DWGS. FOR ADDITIONAL SEEDING REQUIREMENTS.
11. NO LANDSCAPE SURETY IS REQUIRED FOR THIS PLAN (HOWARD COUNTY PROJECT).

Note: THERE IS NO LANDSCAPING SURETY FOR THIS PLAN.

Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

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

LANDSCAPE CERTIFICATION

I/We certify that the landscaping shown on this plan will be done according to the approved plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

WILLIAM BROWN, PhD. — 2.10.06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/5/06 Date

Chief, Division of Land Development — 3/6/06 Date

Chief, Development Engineering Division — 3/6/06 Date

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00
WATER CODE	F04		SEWER CODE	5750615	

LANDSCAPE PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' — DATE: DEC. 16, 2005

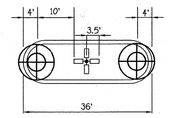
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 12 OF 30 SDP-06-040

SDP06-040

Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

NOTE:
LIGHT FIXTURE HEIGHT IS 20' - 30'.



TYPICAL LANDSCAPED ISLAND WITH LIGHTING FIXTURE
SCALE: 1" = 20'

PLAN
SCALE: 1" = 40'

STATE OF MARYLAND
CHRISTOPHER T. PHILLIPS
No. 21431
PROFESSIONAL ENGINEER

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

PURPOSE NOTE:
REVISION #1 COMPLETES THE OFF-SITE SIX FOOT ASPHALT PEDESTRIAN CONNECTION PROPOSED WITHIN SDP-21-005.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDED PROPOSED PATHWAY	4/26/21

LANDSCAPE CERTIFICATION

I/We certify that the landscaping shown on this plan will be done according to the approved plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

WILLIAM BROWN, PhD. — Date: 2.10.06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date: 3/3/06

Chief, Division of Land Development — Date: 3/3/06

Chief, Development Engineering Division — Date: 3/16/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-14

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DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/291, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-L, R-SA-8-L, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

LANDSCAPE PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
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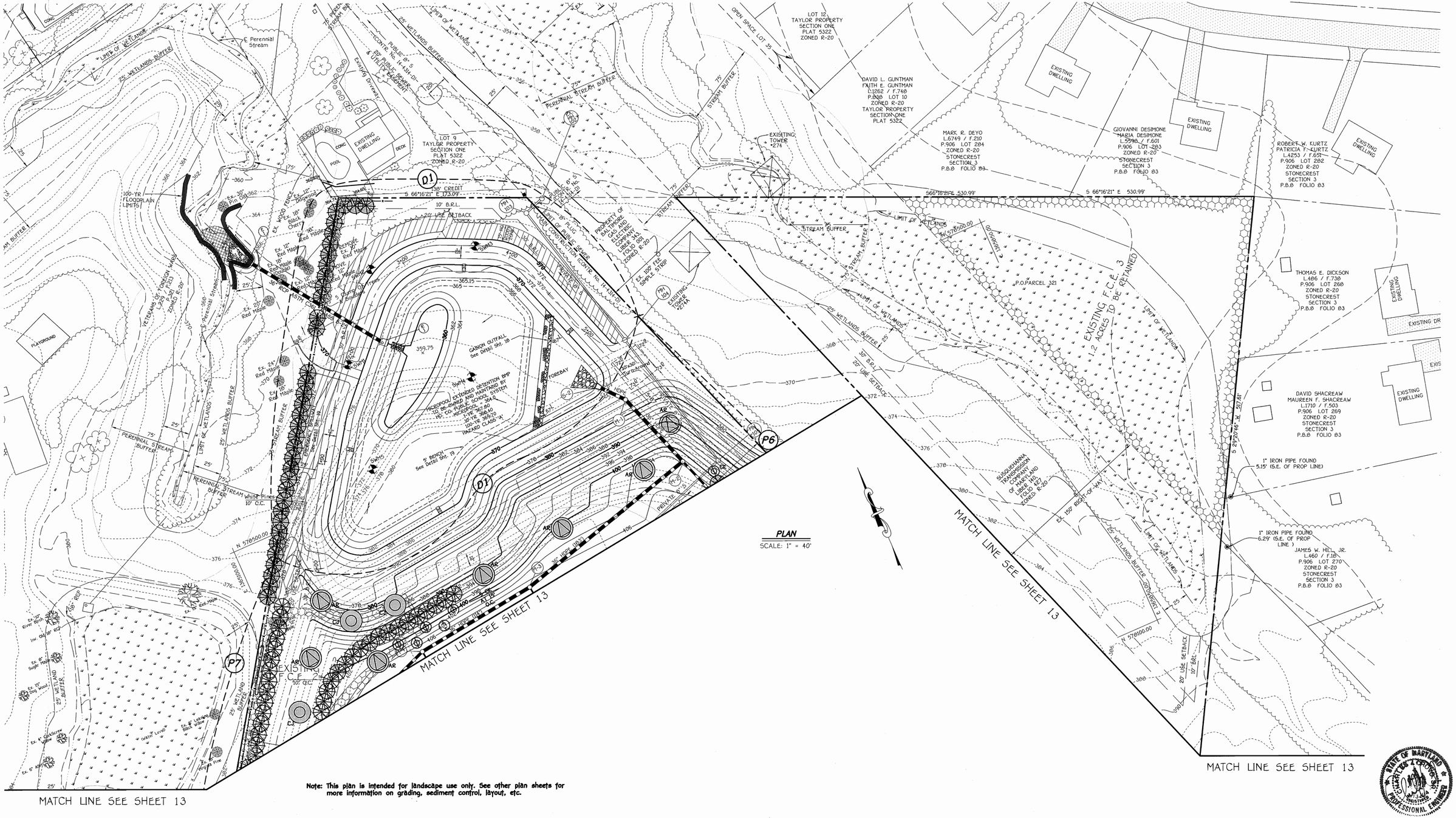
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 13 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\4038\SDPNEW\-10-03-05\4038S LANDSCAPING PLAN (SHEETS 12-15).dwg, 2/8/2006 4:18:29 PM, 1:1



Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

FISHER, COLLINS & CARTER, INC.
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Wm. B — 2.10.06
WILLIAM BROWN, PHD. — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/3/06 Date

Chief, Division of Land Development — 3/5/06 Date

Chief, Development Engineering Division — 3/6/06 Date

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9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
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LANDSCAPE PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
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SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 14 OF 30

SDP-06-040

SDPOG-040

SCHEDULE A PERIMETER LANDSCAPE EDGE

PERIMETER	CATEGORY (PROPERTIES/ ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	REMAINING PERIMETER	NUMBER OF PLANTS REQUIRED			NUMBER OF PLANTS PROVIDED			
							SHADE TREES	EVERGREEN TREES	SHRUBS	SHADE TREES	EVERGREEN TREES	FLOWERING/ ORNAMENTAL TREES	SHRUBS
P-1	NON-RESIDENTIAL FRONT TO ROAD	B	200.71'	NO	NO	200.71'	4	5	-	0	2	6	40
P-2	NON-RESIDENTIAL TO RESIDENTIAL	C	311.52'	YES (85')	NO	226.52'	6	11	-	3	17	-	-
P-3	NON-RESIDENTIAL TO RESIDENTIAL	C	200.03'	NO	NO	200.03'	5	10	-	3	14	-	-
P-4	NON-RESIDENTIAL TO RESIDENTIAL	C	803.68'	YES (484') F.C.E.	NO	399.68'	10	20	-	10	14	12	-
P-5	NON-RESIDENTIAL TO NON-RESIDENTIAL	A	176.48'	YES (176.48') F.C.E.	NO	0	0	-	-	0	-	-	-
P-6	NON-RESIDENTIAL TO NON-RESIDENTIAL	A	1455.64'	YES (526') F.C.E.	NO	929.64'	15	-	-	10	6	4	-
P-7	NON-RESIDENTIAL TO NON-RESIDENTIAL	A	440.61'	YES (440.61') F.C.E.	NO	0	0	-	-	0	-	-	-
P-8	NON-RESIDENTIAL TO RESIDENTIAL	C	279.18'	YES (279.18') F.C.E.	NO	0	0	0	-	0	0	-	-
P-9	NON-RESIDENTIAL TO NON-RESIDENTIAL	A	924.17'	YES (163') F.C.E.	NO	761.17'	13	-	-	6	14	-	-

P-1 30 SHRUBS HAVE SUBSTITUTED FOR 3 EVERGREEN TREES
6 FLOWERING/ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 3 SHADE TREES
10 SHRUBS HAVE BEEN SUBSTITUTED FOR 1 SHADE TREE

P-2 6 EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR 3 SHADE TREES

P-3 4 EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR 2 SHADE TREES

P-4 12 FLOWERING/ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 6 EVERGREEN TREES

P-6 6 EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR 3 SHADE TREES
4 FLOWERING/ORNAMENTAL TREES HAVE BEEN SUBSTITUTED FOR 2 SHADE TREES

P-9 14 EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR 7 SHADE TREES

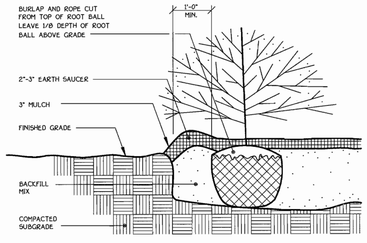
SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	D-1 : 1135'
NUMBER OF TREES REQUIRED : SHADE TREES EVERGREEN TREES	 23 23
CREDIT FOR EXISTING VEGETATION (NO, YES AND #)	YES (138')
CREDIT FOR OTHER LANDSCAPING (NO, YES AND #)	NO
NUMBER OF TREES REQUIRED & PROVIDED: SHADE TREES EVERGREEN TREES	 10 54

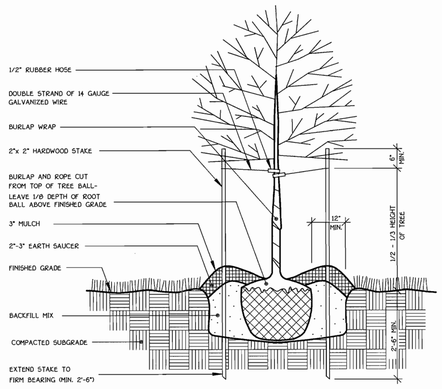
26 EVERGREEN TREES HAVE BEEN SUBSTITUTED FOR 13 SHADE TREES

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	185
NUMBER OF LANDSCAPED ISLANDS & TREES REQUIRED (1:20)	10
NUMBER OF LANDSCAPED ISLANDS/TREES PROVIDED ISLANDS SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	 10 10 -



SHRUB PLANTING DETAIL



TREE PLANTING DETAIL

Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

REQUIRED LANDSCAPING PLANT LIST

KEY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE & CONDITION	REMARKS	QUANTITY
		DECIDUOUS TREES				
AR		ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	3" - 3 1/2" CAL., B & B	30' O.C. U.O.N.	39
QPH		QUERCUS PHELLOS	WILLOW OAK	3 1/2" - 4" CAL., B & B	25' O.C. U.O.N.	12
CJ		CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	3" - 3 1/2" CAL., B & B	30' O.C. U.O.N.	3
CK		CORNUS FLORIDA	FLOWERING DOGWOOD	8'-10' H., B & B	20' O.C. U.O.N.	16
PY		PRUNUS YEDOENSIS	YOSHINO CHERRY	1 1/2"- 2" CAL., 10'-14' H., B & B	25' O.C.	6
		EVERGREEN TREES				
TC		TSUGA CANADENSIS	CANADIAN HEMLOCK	6' - 8' H., B & B	30' O.C. U.O.N.	21
PS		PINUS STROBUS	EASTERN WHITE PINE	8'-10' H., B & B	CENTRAL LEADER SHALL BE INTACT	33
		PINUS STROBUS	EASTERN WHITE PINE	8'-10' H., B & B	10' O.C.	36
		SHRUBS				
FR		FORSYTHIA INTERMEDIA	BORDER FORSYTHIA	36" - 48" H., CONT.	4' O.C. U.O.N.	26
JS		JUNIPERUS CHINENSIS 'SARGENTII'	SARGENTS JUNIPER	18"- 24" H., CONT.	4' O.C. U.O.N.	14

ADDITIONAL LANDSCAPING PLANT LIST

KEY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE & CONDITION	REMARKS	QUANTITY
		DECIDUOUS TREES				
AR		ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	3" - 3 1/2" CAL., B & B	30' O.C.	3
CJ		CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	3" - 3 1/2" CAL., B & B	30' O.C.	2
PA		PLATANUS ACERIFOLIA LIBERTY	LONDON PLANE TREE	3"-3 1/2" CAL., 14'-16' H., B & B	30' O.C. U.O.N.	22
QPH		QUERCUS PHELLOS	WILLOW OAK	3 1/2" - 4" CAL., B & B	25' O.C.	2
CK		CORNUS FLORIDA	FLOWERING DOGWOOD	8'-10' H., B & B	20' O.C.	33
PC		PRUNUS CERASIFERA 'THUNDERCLOUD'	PURPLELEAF FLOWERING PLUM	1 1/2"- 2" CAL., 10'-14' H., B & B	15' O.C.	9
PY		PRUNUS YEDOENSIS	YOSHINO CHERRY	1 1/2"- 2" CAL., 10'-14' H., B & B	25' O.C.	12
		EVERGREEN TREES				
PS		PINUS STROBUS	EASTERN WHITE PINE	8'-10' H., B & B	CENTRAL LEADER SHALL BE INTACT, 10' O.C. (U.O.N.)	13
		PINUS STROBUS	EASTERN WHITE PINE	8'-10' H., B & B	10' O.C.	105
		SHRUBS				
JA		JUNIPERUS ANDORRA	ANDORRA JUNIPER	18" - 24" H., CONT.	4' O.C.	11
PL		PRUNUS LAUROCERASUS 'OTTO LUYKEN'	CHERRY LAUREL	24" - 30" H., CONT.	4' O.C.	27
SB		SPIRAEA BUMALDA ' GOLDFLAME '	GOLD FLAME SPIRAEA	30" -36" H., B & B	3' O.C.	23

NOTES
U.O.N. = UNLESS OTHERWISE NOTED

* INDICATES LOCATIONS WHERE CONTRACTOR MUST HAND DIG FOR NEW TREES AND SHRUBS AFTER VERIFYING LOCATIONS OF UTILITIES.

SCOPE INCLUDES REMOVAL TO GROUND LEVEL OR PRUNING OF UP TO 30 EXISTING TREES THAT ARE INDICATED TO REMAIN. TREES AND BRANCHES RESULTING FROM THIS OPERATION SHALL BE REMOVED FROM THE SITE.

PLANTING NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND IS TO BE USED FOR PLANTING ONLY.
2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK. ALL GENERAL NOTES FROM SHEET 1, SHALL APPLY.
3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK,EVEN WHERE PLANT LOCATIONS ARE DIMENSIONED. CONTACT CONSTRUCTION MANAGER IF ANY RELOCATIONS ARE REQUIRED.
4. PLANT QUANTITIES SHOWN ON PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
5. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE A.A.N. SPECIFICATIONS, AND BE INSTALLED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SEEDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
7. ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER PLANTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF SOIL OR DRAINAGE CONDITIONS ARE ENCOUNTERED WHICH MAY BE DETRIMENTAL TO THE GROWTH OF PLANTS.
9. NO SUBSTITUTION SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR HIS REPRESENTATIVE.
10. REFER TO OTHER SITE DWGS. FOR ADDITIONAL SEEDING REQUIREMENTS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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LANDSCAPE CERTIFICATION

I/We certify that the landscaping shown on this plan will be done according to the approved plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

WILLIAM BROWN, PhD. — 2.10.06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/3/06 Date

Chief, Division of Land Development — 3/8/06 Date

Chief, Development Engineering Division — 3/6/06 Date

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10910 Maryland Route 108
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DEED REF. 9030/201, 9030/437, 9030/445 & 9234/594	BLOCK NO. 24	ZONE R-20, R-SC-I, R-SA-8-I, R-SA-8	TAX/ZONE 24	ELEC. DIST. SECOND	CENSUS TR. 6028.00
WATER CODE F04		SEWER CODE 5750615			

LANDSCAPING NOTES, SPECIFICATIONS AND DETAILS

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 15 OF 30

SDP-06-040

SDPOG-040

CORE TRENCH NOTE
IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED GREATER THAN 4 FT, THE CUT-OFF TRENCH SHALL BE EXTENDED UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. CUT-OFF TRENCH FILL MATERIAL SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC,SC,CH, or CL. OTHER SOILS TYPES MAY BE USED IF APPROVED BY THE GEOTECHNICAL ENGINEER AND CONSTRUCTION IS SUPERVISED BY THE GEOTECHNICAL ENGINEER.

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

DONALD E. HICKS, P.E. MD No. 8676
Signature P.E. No.
DONALD. E. HICKS, P.E. 12/04/08
Date:

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001
AS BUILTS

STATE OF MARYLAND DONALD EDWIN HICKS No. 8676 REGISTERED PROFESSIONAL ENGINEER

SWM POND EMBANKMENT PROFILE

SCALE: HOR: 1" = 20'
VERT: 1" = 2'

STATE OF MARYLAND CHARLES J. CROVO SR. REGISTERED PROFESSIONAL ENGINEER

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

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Wm. B. 2.10.06
Signature Of Developer Date
Dr William Brown
Printed Name Of Developer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

2/27/06
USDA Natural Resources Conservation Service Date

By The Engineer:

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

2/13/06
Signature Of Engineer Date
CHARLES J. CROVO SR.
Printed Name Of Engineer

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

2/27/06
Howard Soil Conservation District Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/9/06
Director - Department of Planning and Zoning Date

3/8/06
Chief, Division of Land Development Date

3/6/06
Chief, Development Engineering Division Date

PREPARED FOR
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10910 Maryland Route 108
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WATER CODE F04			SEWER CODE 5750615		

STORMWATER MANAGEMENT
EMBANKMENT PROFILE

NORTHEASTERN ELEMENTARY SCHOOL

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BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 16 OF 30 SDP-06-040

SDP06-040

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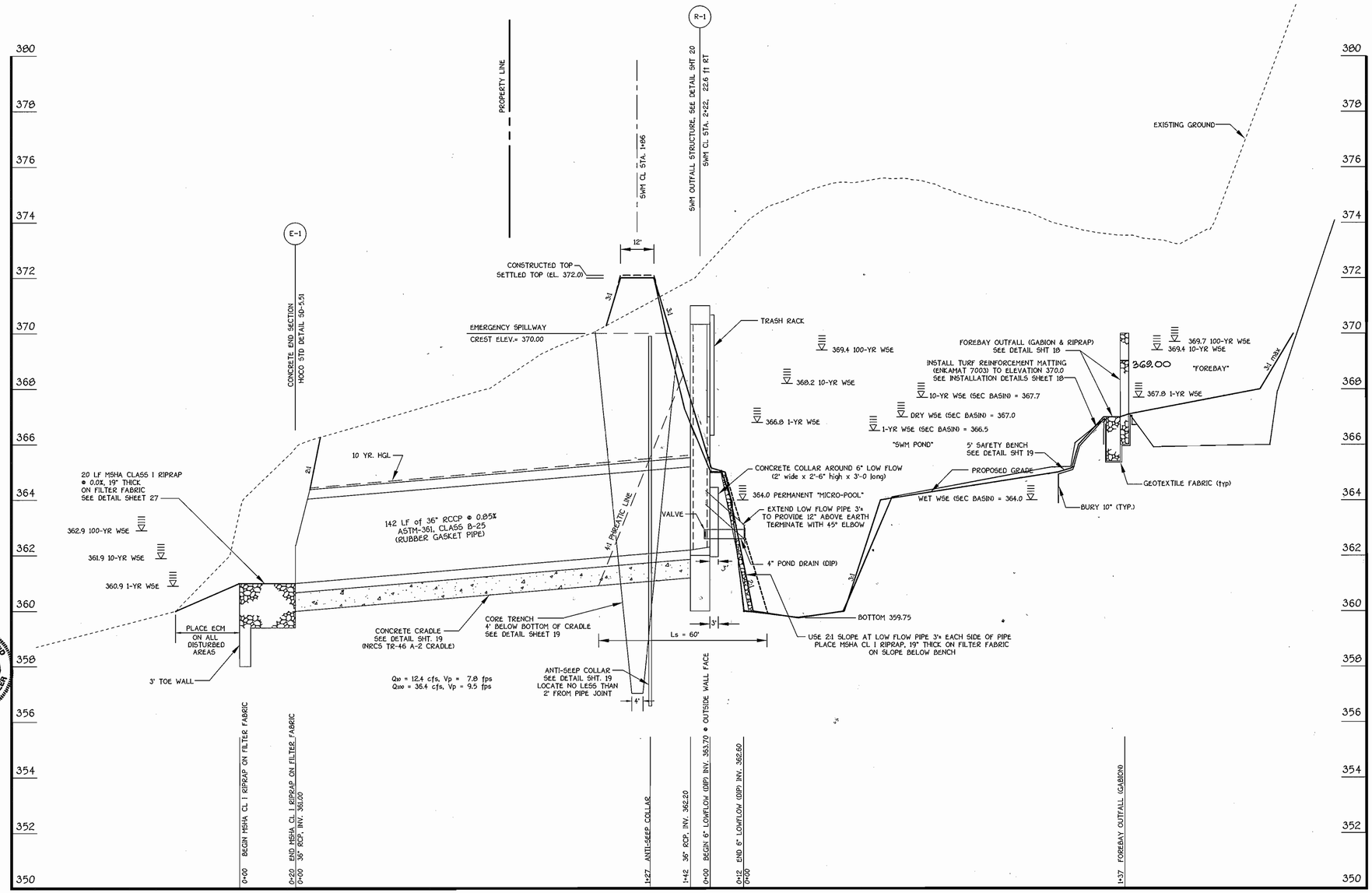


SWM FACILITY PRINCIPAL SPILLWAY PROFILE
SCALE:
HORZ: 1" = 20'
VERT: 1" = 2'

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001

AS BUILTS

STATE OF MARYLAND — DONALD EDWIN HICKS — No. 8815 — REGISTERED PROFESSIONAL ENGINEER

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Signature — P.E. No. 8815 — Date 12/04/08

DONALD E. HICKS, P.E.

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

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

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — 2-10-06 Date

Dr. William Brown
Printed Name Of Developer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

USDA-Natural Resources Conservation Service — 2/27/06 Date

By The Engineer:

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

Signature Of Engineer — 2/13/06 Date

CHARLES J. CROSS
Printed Name Of Engineer

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

Howard Soil Conservation District — 2/27/06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 2/9/06 Date

Chief, Division of Land Development — 3/15/06 Date VB

Chief, Development Engineering Division — 3/16/06 Date

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
Ellicott City, Maryland 21042
Attention Bruce Gist
410-313-6790

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT	SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

STORMWATER MANAGEMENT
PRINCIPAL SPILLWAY PROFILE

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005

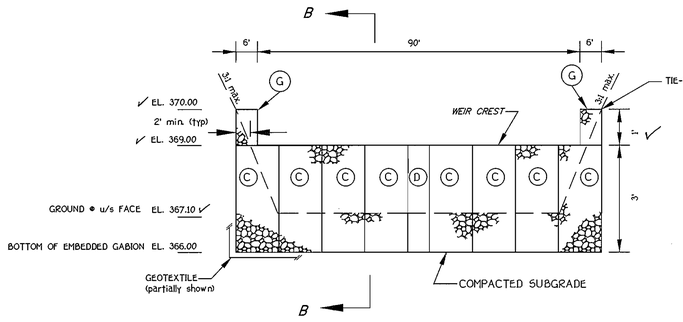
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 17 OF 30 SDP-06-040

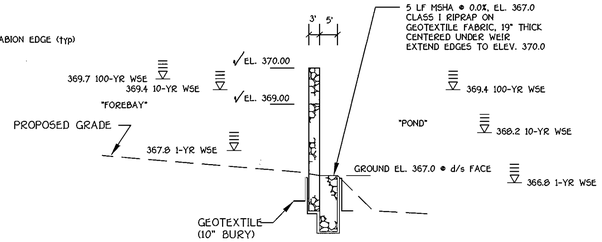
SDPOG-040

STATE OF MARYLAND — CHARLES J. CROSS — No. 15782 — PROFESSIONAL ENGINEER

K:\SDS\KPROJ\4035\SDP\NEW-10-03-05\4035 POND DETAILS (SHEETS 16-20).dwg, 29/2008 4:08:30 PM, 1:20



PROFILE



SECTION B-B

FOREBAY OUTFALL (GABION) OUTFALL NOTES

1. Gabions shall be manufactured by Maccaferri Gabions Inc. or approved equal. The installation shall follow the manufacturer's specifications.

2. The gabion baskets shall be PVC coated and filled with clean 4" - 7" stone. Gabion stone shall be carefully placed as to create a tight interlocking stone wall with minimal voids.

3. One sheet of 8 mil or greater vinyl/plastic sheeting shall be placed on the buried upstream (forebay side) face of the baskets next to the filter fabric. Use 2 ft overlap where applicabe.

4. Gabions shall be placed on geotextile fabric (Mirafi 600x or approved equal) at all soil/gabion interfaces.

5. Gabions shall be carefully placed with no damaged wire. Earth foundation shall be firm. Fill soil around gabions shall be well-compacted.

6. Gabions shall be fastened together with appropriate wiring.

FOREBAY GABION SCHEDULE

MANUF. LETTER CODE	QUANTITY	DIMENSIONS
C	8	12'x3'x3'
D	1	6'x3'x3'
G	2	6'x3'x1'

FOREBAY OUTFALL (GABION) DETAIL

SCALE:
HORZ: 1" = 20'
VERT: 1" = 2'

ENKAMAT INSTALLATION NOTES

The following notes outline the basic installation procedures for Enkamat (Turf Reinforcement Matting or TRM). The contractor shall contact Colbond, Inc. (800-365-7391) to obtain a detailed installation guide, specifications, and notes.

SITE PREPARATION: The area shall be uniformly graded and free of soil clumps, stones, debris, vehicle imprints, or anything that would prevent the Enkamat from lying flush to the ground surface. For this application, it is especially important that the TRM maintain an intimate contact with the ground due to the expected water flow from the forebay.

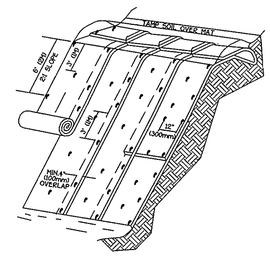
ANCHOR TRENCH: Anchor trenches are required to securely fasten the Enkamat to the ground surface. The anchor trench/intermediate check slots are then backfilled and compacted in a manner as to not damage the Enkamat.

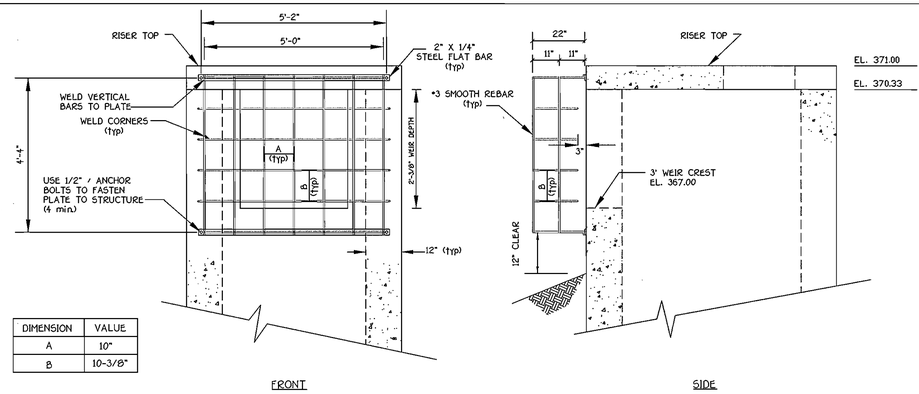
ENKAMANT INSTALLATION: Roll the Enkamat down the slope. The overlap between rolls is 4 inches. The splice between rolls is 2 and 3 feet. Shingle the roll in the direction of water flow. Install pins down the center of each mat (mat is 3.25 feet wide) staggering them between the outside pins with a spacing interval of 3 to 5 feet. Pin patterns will vary depending upon application, soil type, slope or channel/slope, geometry, etc. A rule of thumb for estimating the required number of pins for a project is 2-3 pins per sq. yd. (for 3:1 and lesser slopes).

ANCHORING/FASTENING DEVICES: Wire (sod) staples (U-shaped), geotextile pins or (triangular) wooden stakes can be used as fasteners. Staples should be made from a minimum 11 gauge metal wire and metal pins should have a minimum diameter of 3/16" with a 1.5" steel washer at one end to form a head. Staple/pin length will vary (6"-18") according to soil conditions but should be a minimum 6" and have a ground penetration sufficient to resist pulling out once installed. Staples/pins should be installed flush with the soil surface. If wooden stakes are used, approximately 2" of the stake should remain above ground to secure the Enkamat. In some cases 12"-30" J-shaped pins are used that are made from re-bar with a minimum diameter of 1/4".

SEEDING AND SOIL FILLING: Prior to seeding, place 1/2" to 3/4" of fine soil and work into the open structure of the Enkamat. You may also seed before and after soil filling to create a better established root structure and increase vegetation strength. Check with your local seeding consultant to verify appropriate seed and fertilizer mixture.

SOD INSTALLATION: If covering Enkamat with sod, soil filling is required. Place sod in the direction of water flow. Periodically install a row or two perpendicular to the flow to reduce the possibility of water flowing along the seams of the sod. In most cases, you should pin the sod down to prevent movement.

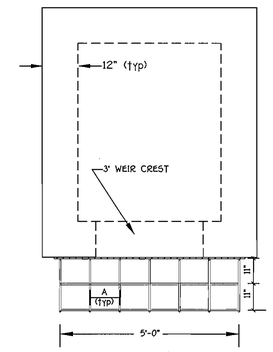




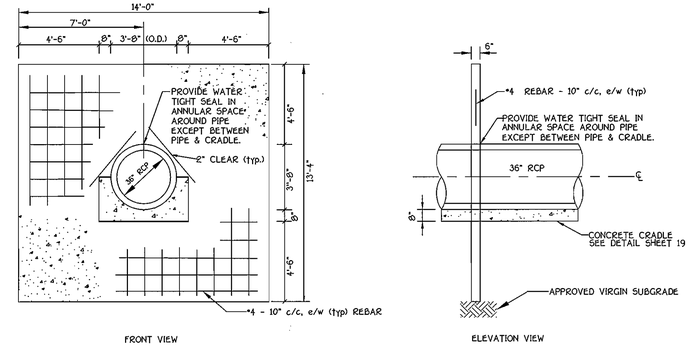
DIMENSION	VALUE
A	10"
B	10-3/8"

TRASH RACK NOTES

1. The trash rack shall be galvanized after fabrication and painted "battleship gray" and conform to Howard County Specifications.
2. Rebar shall be #3 smooth steel bars.
3. The dimensions are approximate (1/2"ø). The fabricator may adjust the number of horizontal and vertical bars to provide the overall dimensions above with 6" spacing minimum. Trach rack design shall meet MD small pond specifications MD 378.
4. The trash rack shall be installed so as to extend 8" min. below the weir crest with 12" min. clearance above the ground.
5. The concrete riser shall be field measured prior to the trash rack fabrication to ensure an exact trash rack fit.
6. Calculations: Clogged 100-yr depth (max.) = use 3.0'; weir width = 3' ⇒ Flow Area = 9.0 sf. Area under trash rack= 5' x 1.83' = 9.2 sf. Area Under Trashrack =9.2 sf > Flow Area 9.0 sf.



TRASH RACK DETAIL
SCALE: 1" = 2'



ANTI-SEEP COLLAR NOTES

1. LOWER HALF OF COLLAR SHALL BE POURED CONCURRENTLY WITH THE CRADLE POUR.
2. REBAR IS SHOWN SCHEMATICALLY AND SHALL BE PLACED THROUGHOUT THE ENTIRE COLLAR.
3. PROVIDE A WATER TIGHT SEAL IN ANNULAR SPACE BETWEEN PIPE AND COLLAR USING MASTIC SEALOR OR USE AN "A-LOK" JOINT SEAL PRODUCT.
4. LOCATE COLLAR 2' MINIMUM FROM JOINT AND MAINTAIN 10' MINIMUM SEPARATION FROM COLLAR TO COLLAR OR COLLAR TO RISER.
5. PLACE TWO (2) ADDITIONAL REBARS (4' MIN. LONG) AT RIGHT ANGLES TO REBAR GRID 2" FROM PIPE O.D.
6. COLLAR MATERIAL SPECIFICATIONS SHALL MEET THE SAME AS THAT FOR THE CONCRETE RISER (SWM OUTFALL) STRUCTURE.

ANTI-SEEP CONCRETE COLLAR DETAIL
SCALE: 1" = 4'

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001

AS BUILTS

STATE OF MARYLAND — DONALD EDWIN HICKS — No. 6676 — REGISTERED PROFESSIONAL ENGINEER

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Signature — P.E. No. MD NO. 6676 — Date 11/30/05

DONALD E. HICKS, P.E.

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Signature of Developer — Date 2.10.06

Dal William Brown
Printed Name Of Developer

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Signature of Engineer — Date 2/13/06

CHARLES J. CARLSON, JR.
Printed Name Of Engineer

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

Howard Soil Conservation District — Date 2/27/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/3/06

Chief, Division of Land Development — Date 3/5/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
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13014-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/442 & 9231/304	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE			SEWER CODE	
F04			5750615	

STORMWATER MANAGEMENT NOTES & DETAILS (1)

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 18 OF 30 SDP-06-040

SDP06-040

K:\SDS\CPROJ\40385\SDP\NEW-10-03-05\40385SDPNEW-10-03-05\40385 POND DETAILS (SHEETS 16-20).dwg, 2/8/2006 1:42:38 PM, 1:20

Pond MD-378: N.R.C.S. - JANUARY 2000 CONSTRUCTION SPECIFICATIONS FOR SMALL EARTHEN DAMS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

The minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core -The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day un-confined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.
2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its out-side diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.
4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.
2. Joints and connections to anti-seep collars shall be completely watertight.
3. Bedding -The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water During Construction

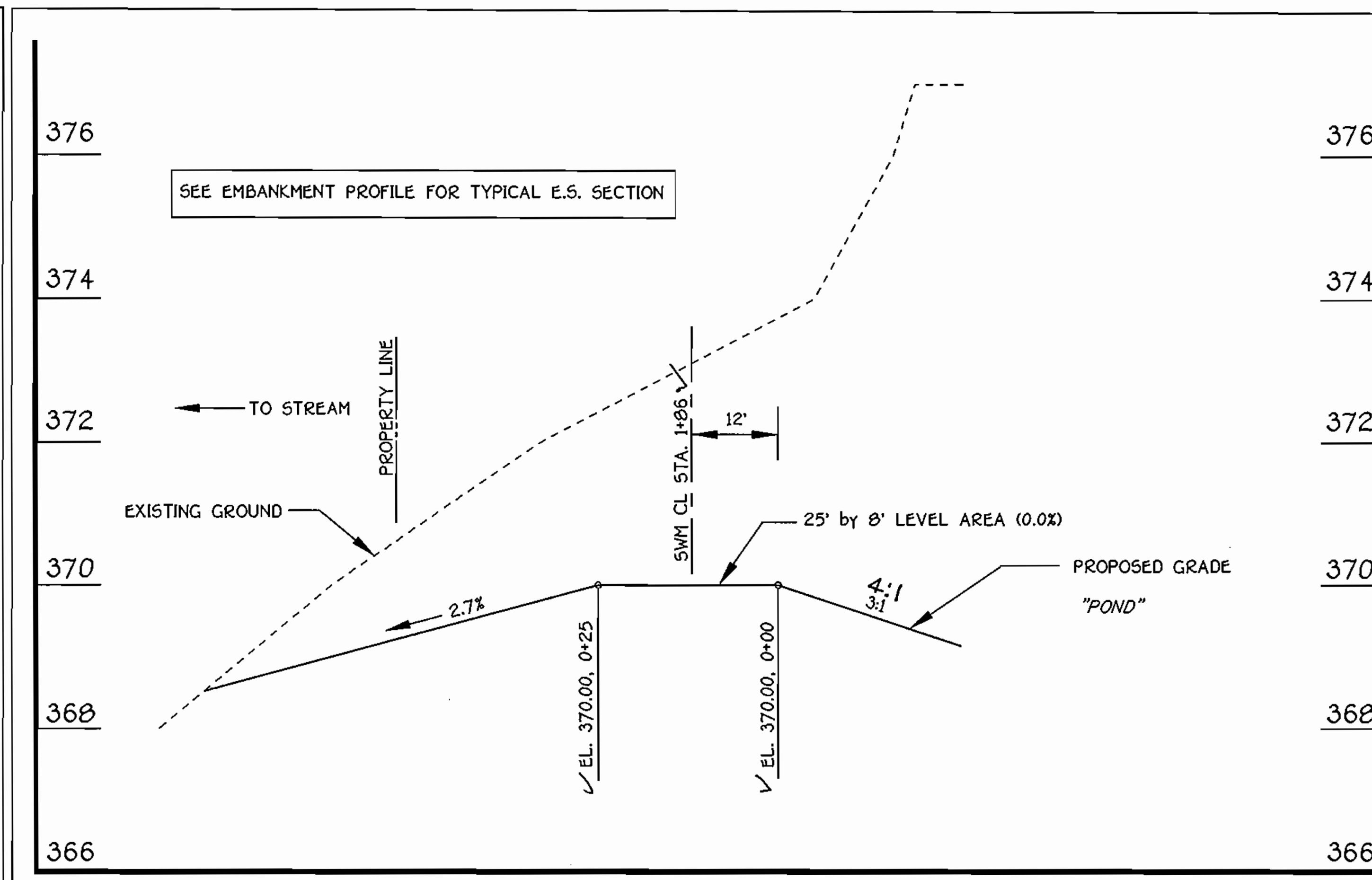
All work on permanent structures shall be carried out in areas free from water. The Con-tractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, in-stall, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained be-low the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the ac-companying drawings.

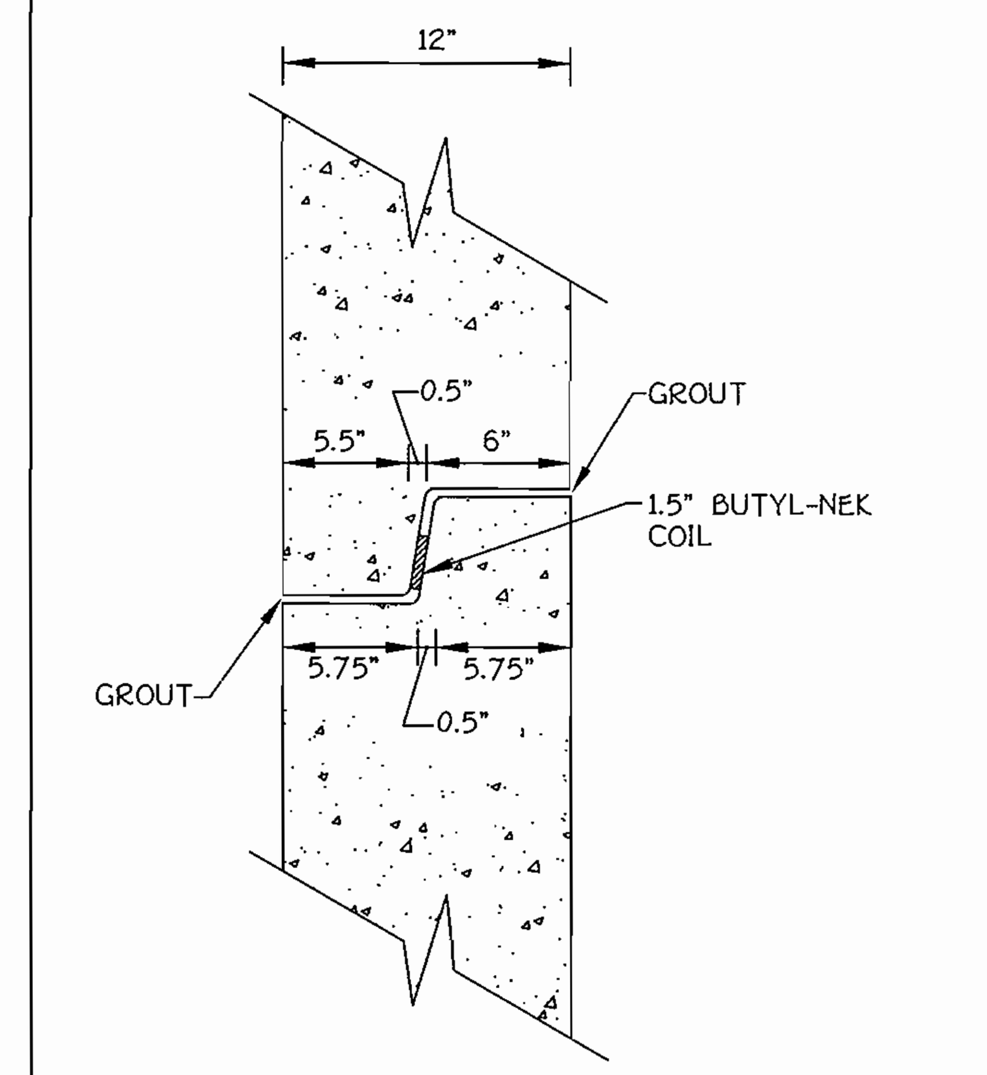
Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.



EMERGENCY SPILLWAY CENTERLINE PROFILE

SCALE:
HORZ: 1" = 20'
VERT: 1" = 2'

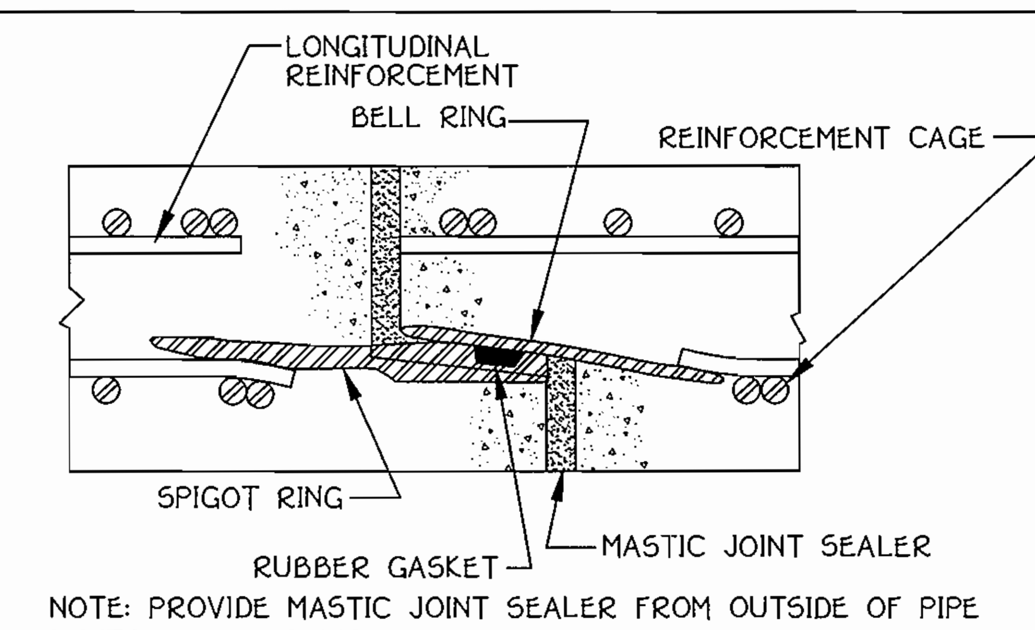


RISER JOINT DETAIL

NTS

NOTES:

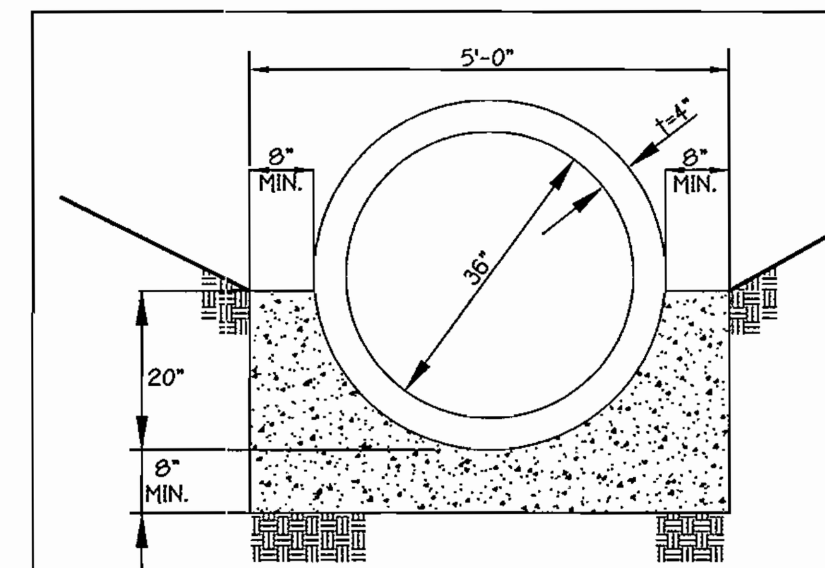
1. Riser joints shall join evenly and be watertight. Parge joints after installation.
2. The referenced joint and joint sealant material is used by Frederick Precast, Inc. Similar joints may be used with shop drawing approval by the engineer.



NOTE: PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL.
SPECIFICATION: ASTM C-361

CONCRETE PIPE JOINT DETAIL

NOT TO SCALE



CRADLE NOTES:

1. SEE RISER (R-1) FOR MATERIAL SPECIFICATIONS.
2. POUR CRADLE TO TRENCH WALLS OR USE SLOPING SIDES AND MAINTAIN 8" MINIMUM DIMENSION.
3. SUBGRADE SHALL BE COMPACTED TO 95% @OMC AND BE APPROVED BY THE GEOTECHNICAL ENGINEER.
4. CRADLE SHALL CONFORM TO NRCS TR-46 A-2 CONCRETE CRADLE.

CONCRETE CRADLE

SCALE: 1"= 2'

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Donald E. Hicks, P.E. — MD NO. 8676
Signature — P.E. No.

DONALD E. HICKS, P.E. — 12/04/08
Date:

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001

AS BUILTS

STATE OF MARYLAND — DONALD EDWIN HICKS — No. 8676 REGISTERED — PROFESSIONAL ENGINEER

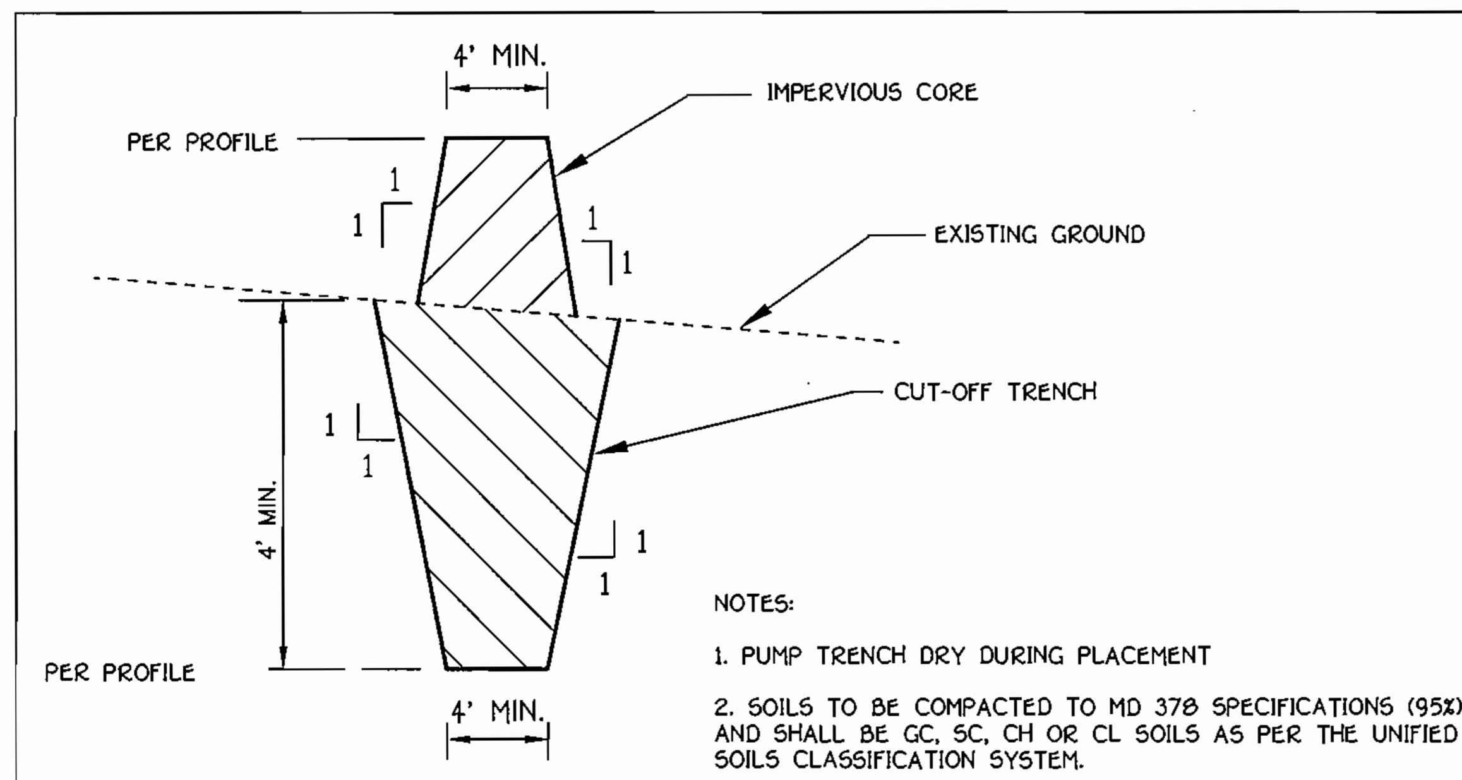
Embankment and Cut-off Trench Construction

THE AREA OF THE PROPOSED SWM POND SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROOF-ROLLED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR REPRESENTATIVE USING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROOFROLLING OR PENETROMETER TESTING SHOULD BE EXCAVATED TO SUITABLE FIRM SOIL, AND THEN GRADES RE-ESTABLISHED BY BACKFILLING WITH SUITABLE SOIL.

A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO MONITOR PLACEMENT AND COMPACTION OF FILL FOR THE EMBANKMENT AND CUT-OFF TRENCH. IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SPECIFICATION 378 SOILS CONSIDERED SUITABLE FOR THE CENTER OF EMBANKMENT AND CUT-OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL.

STORMWATER MANAGEMENT POND NOTES

1. The stormwater management pond shall be constructed to the latest edition of NRCS's Pond Standard MD-378.
2. The stormwater management pond shall be constructed/converted after ALL upstream areas have been stabilized (i.e., established vegetation or paved) including the pond slopes.



NOTES:

1. PUMP TRENCH DRY DURING PLACEMENT
2. SOILS TO BE COMPACTED TO MD 378 SPECIFICATIONS (95%) AND SHALL BE GC, SC, CH OR CL SOILS AS PER THE UNIFIED SOILS CLASSIFICATION SYSTEM.

CUT-OFF TRENCH & IMPERVIOUS CORE DETAIL

NOT TO SCALE

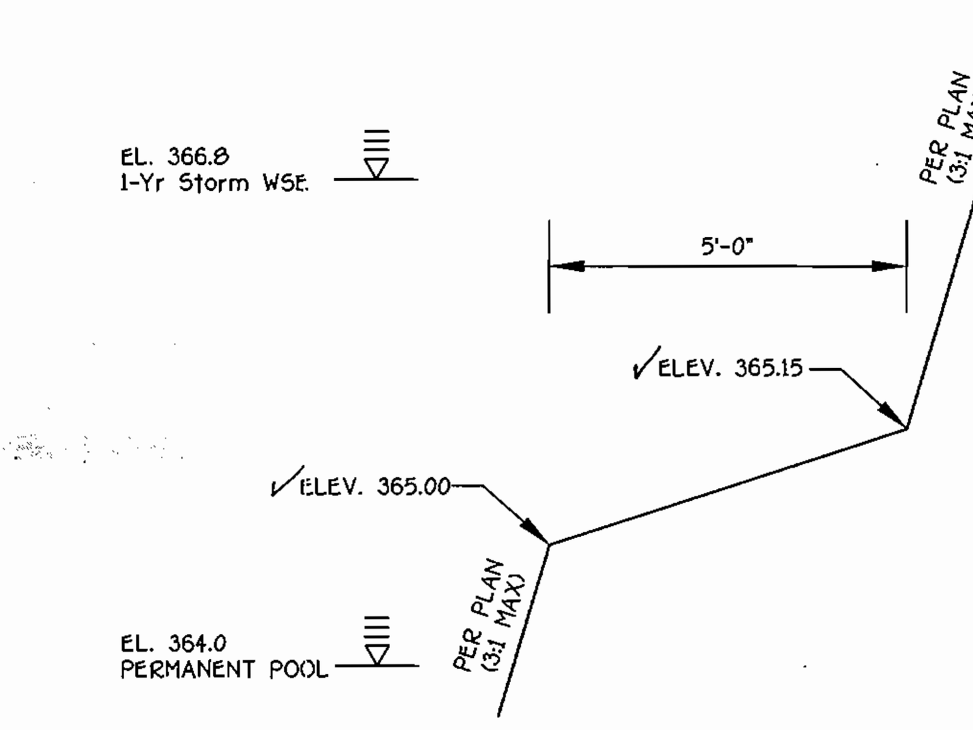
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT PONDS

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond embankment as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired immediately upon the detection of any damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the micro-pool and forebay when either one is half full of sediment, or when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.



TYPICAL SECTION THRU SAFETY BENCH

SCALE: NTS

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

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date: 2.10.06
Printed Name Of Developer: Dr. William Brown

By The Engineer:

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

Signature Of Engineer — Date: 2/13/06
Printed Name Of Engineer: CHARLES J. CROVO SR.

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

USDA-Natural Resources Conservation Service — Date: 2/27/06

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

Howard Soil Conservation District — Date: 2/27/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date: 3/9/06

Chief, Division of Land Development — Date: 3/8/06

Chief, Development Engineering Division — Date: 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

STORMWATER MANAGEMENT NOTES & DETAILS (2)

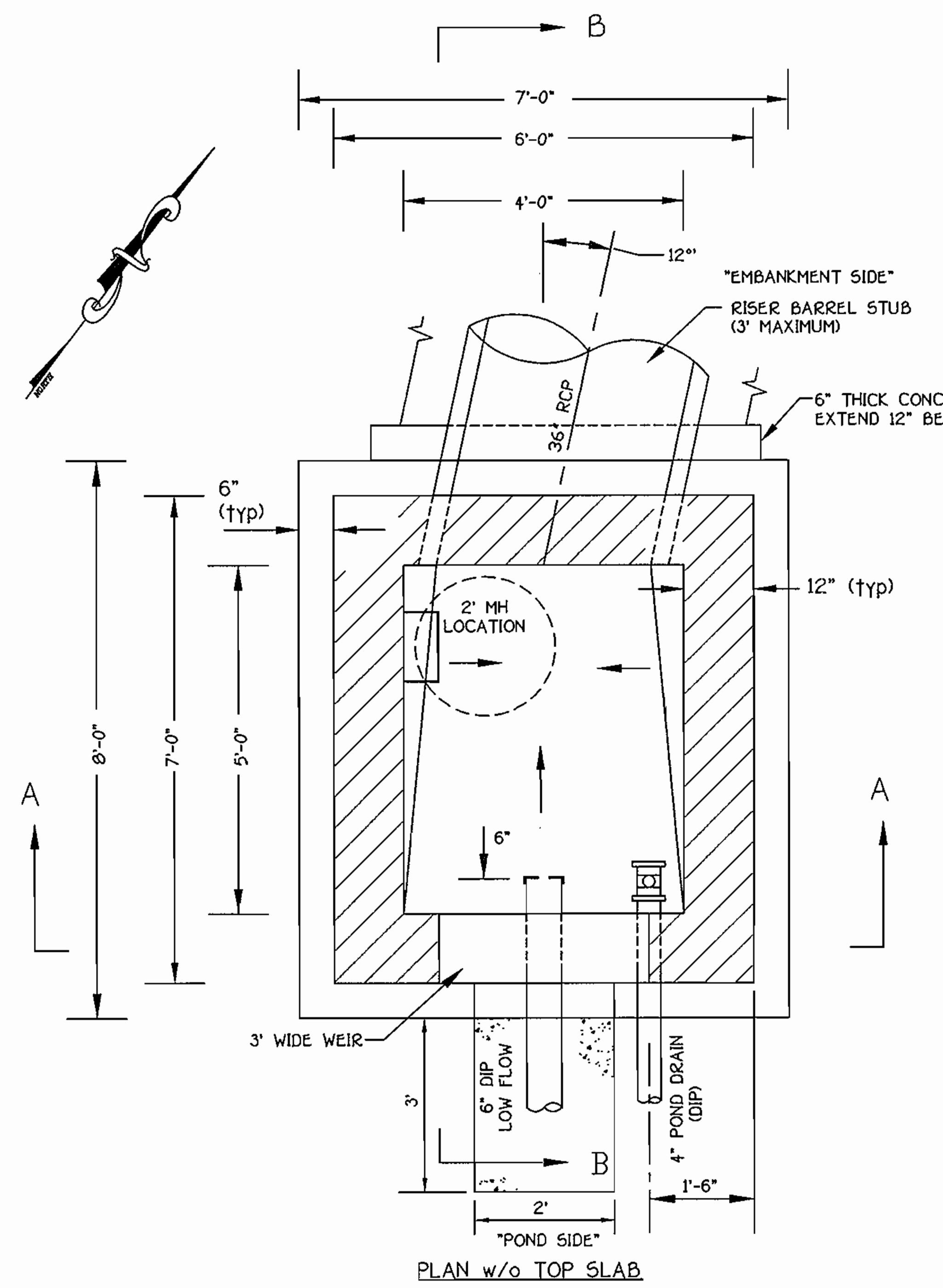
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 19 OF 30 SDP-06-040

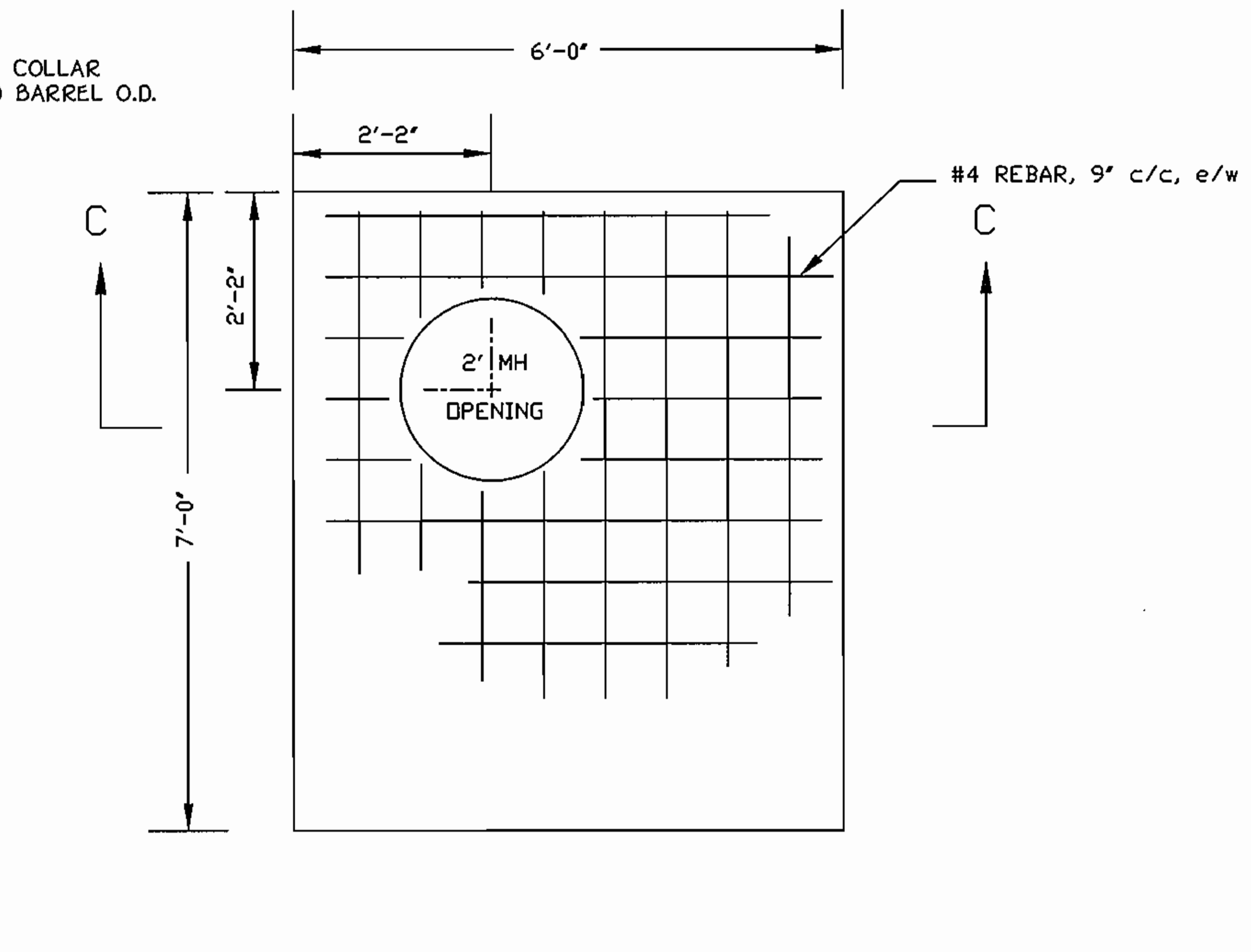
SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 POND DETAILS (SHEETS 16-20).dwg

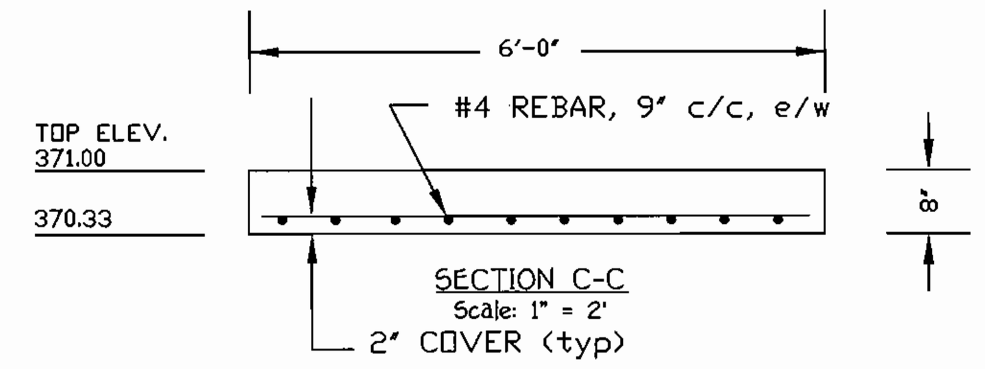


PLAN w/o TOP SLAB

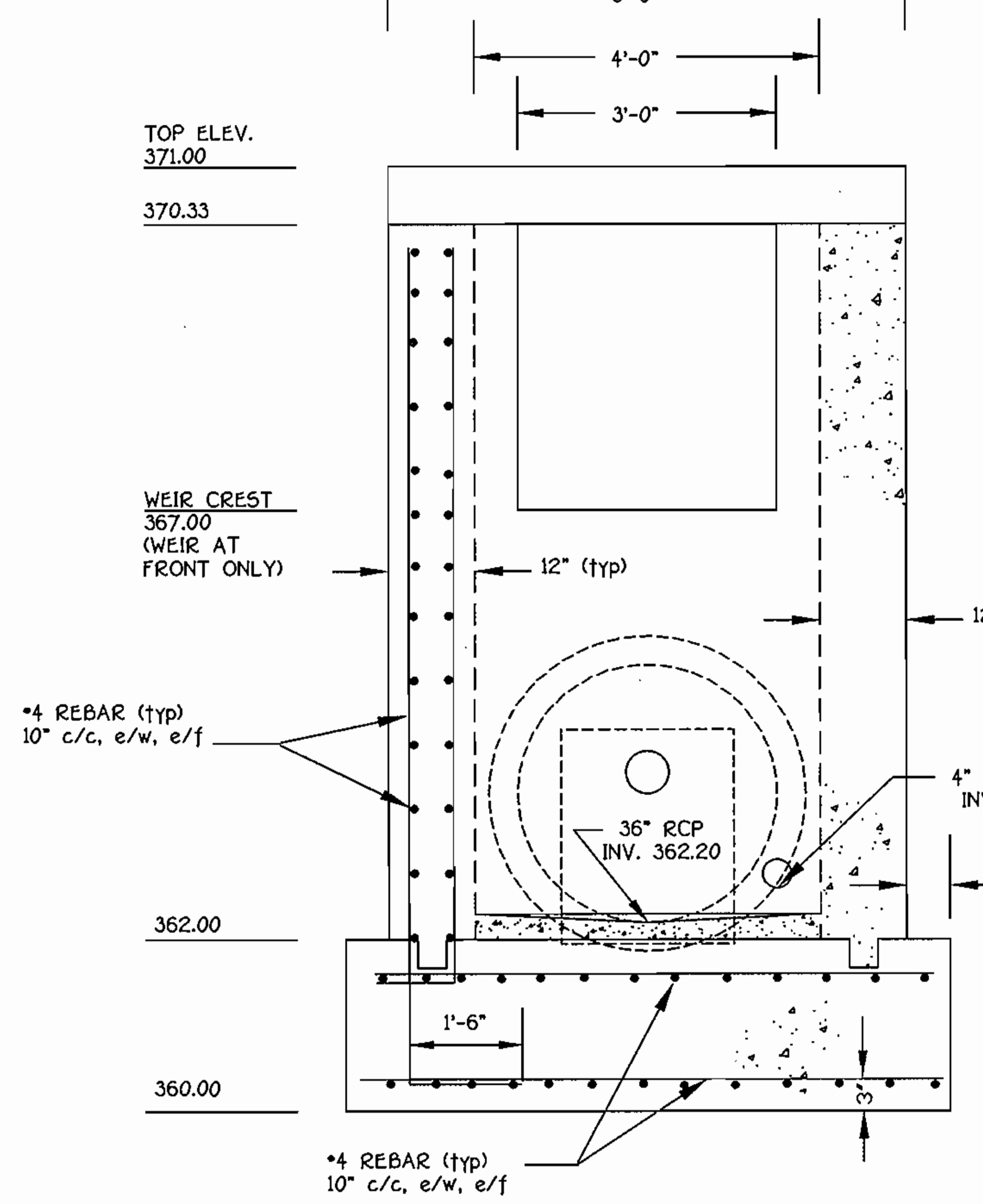
NOTE: The drawing is shown w/o the trash rack for clarity; Please refer to sheet 18 for a scaled, trash rack/riser detail



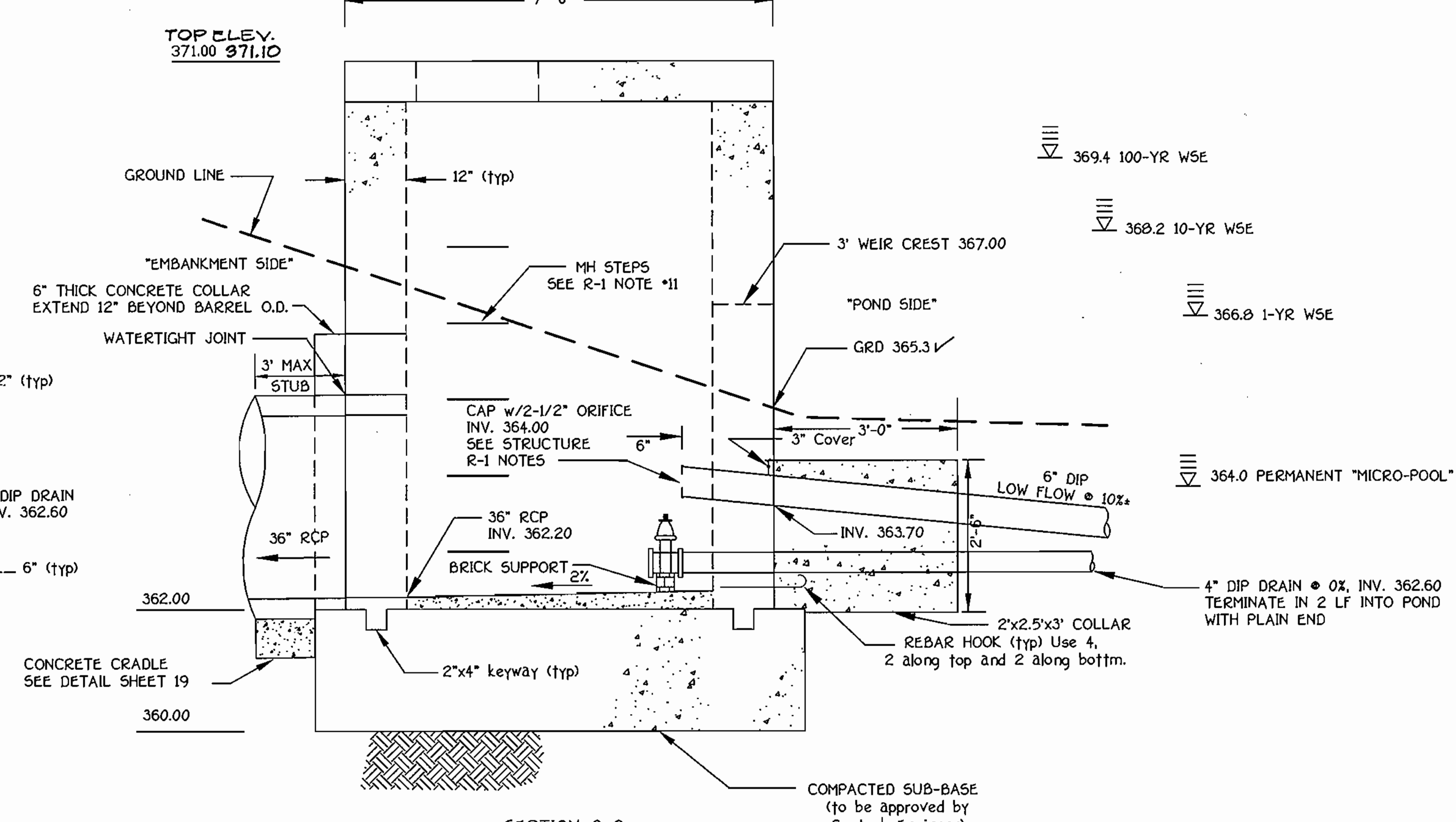
PLAN - TOP SLAB



SECTION C-C
Scale: 1" = 2'

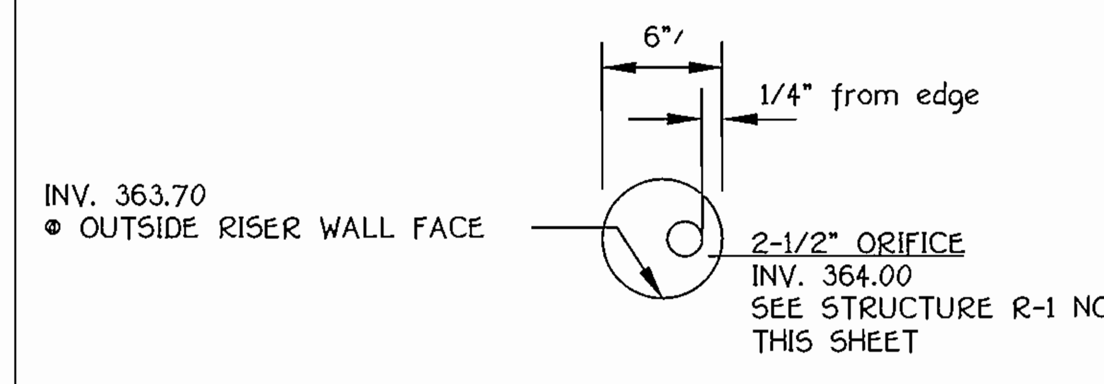


SECTION A-A

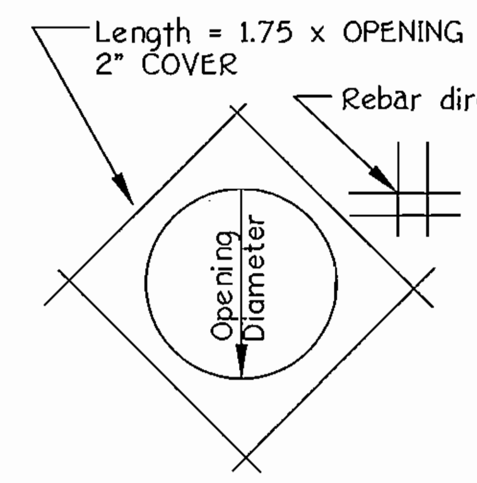


SECTION B-B

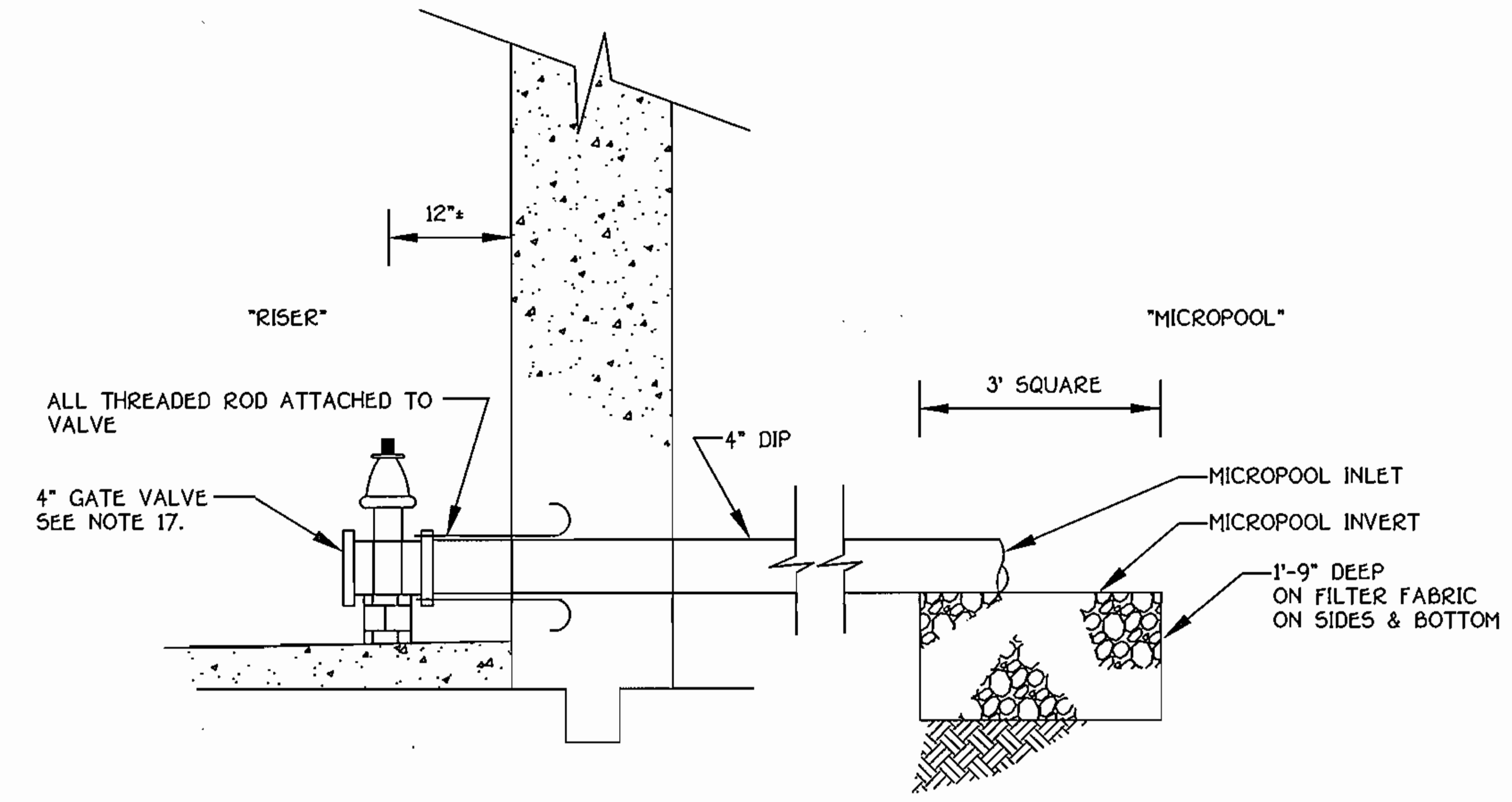
SWM RISER OUTFALL STRUCTURE (R-1) DETAIL
SCALE: 1" = 2'



6" LOW-FLOW CAP (DIP) DETAIL
NOT TO SCALE



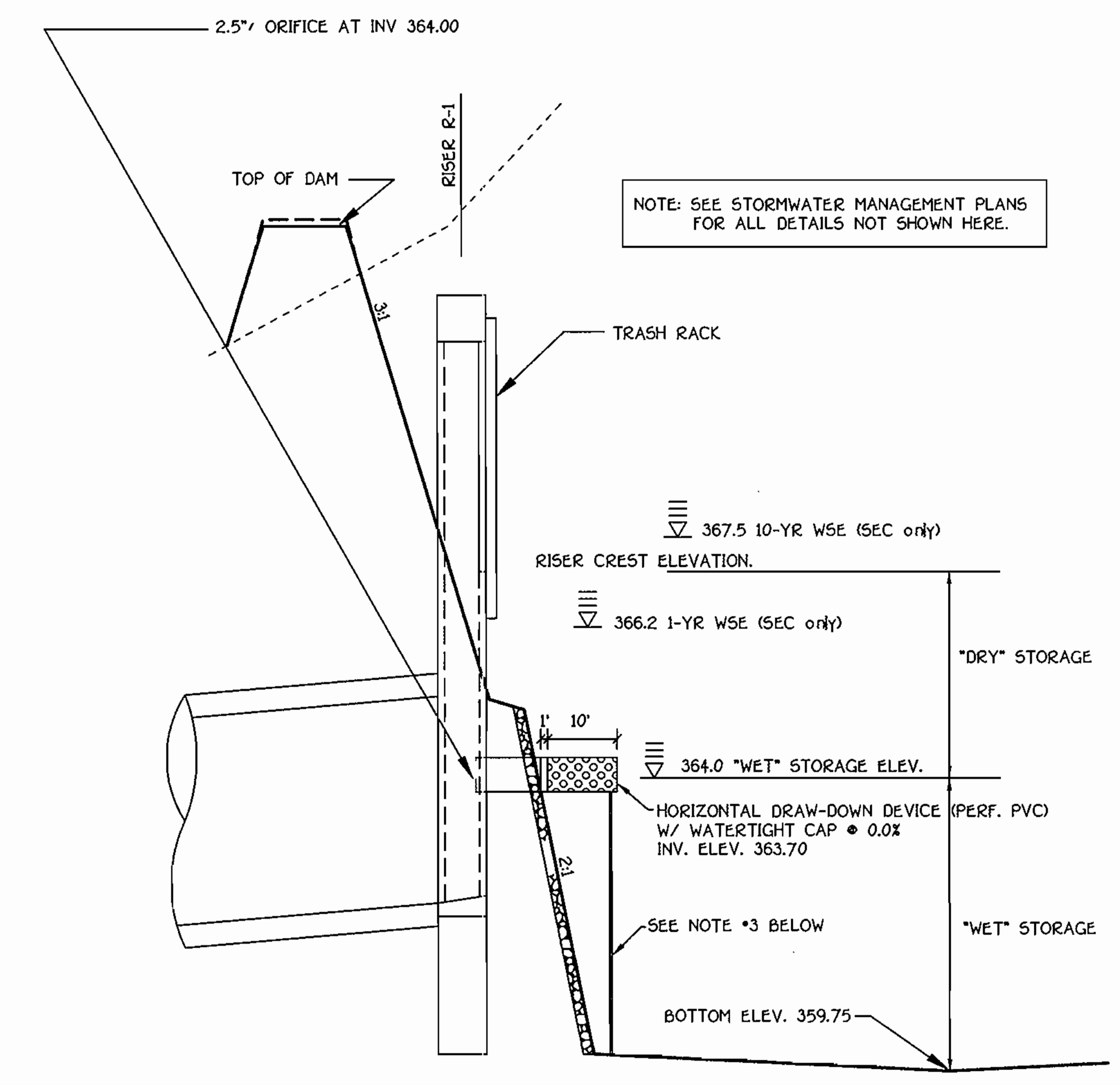
ADDITIONAL REBAR AROUND OPENINGS DETAIL
NOT TO SCALE



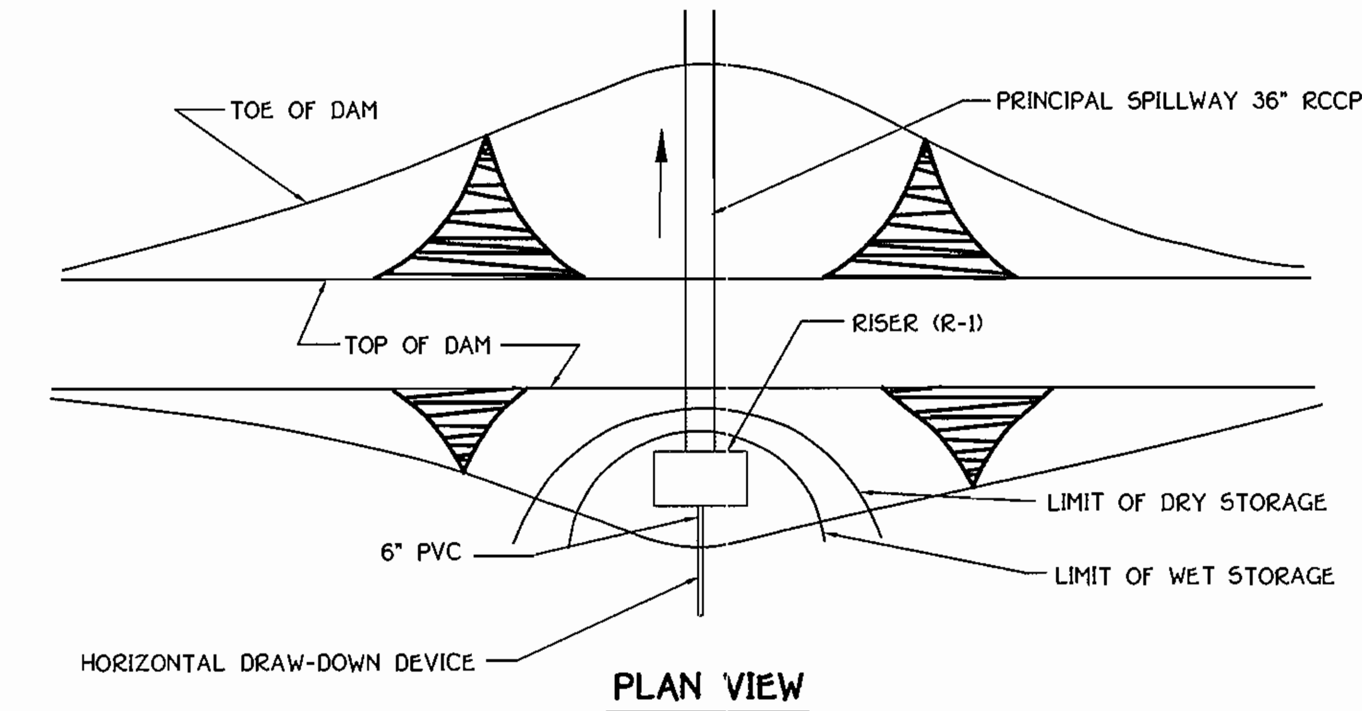
POND DRAIN DETAIL
NOT TO SCALE

STRUCTURE R-1 NOTES

1. Structure material for all walls and base shall be reinforced concrete MSHA mix No. 3.
2. Reinforcement shall shall be deformed steel and be free of rust and meet ASTM A615, grade 60, with 2" cover except as shown.
3. Reinforcement is partially shown, however, it is typical for each wall, base, and top slab.
4. Horizontal rebar shall extend into the adjacent wall with a 1'-6" L-shaped overlap.
5. Vertical rebar shall extend into base with a 1'-6" L-shape overlap. Extend rebar (2 min.) into "posts" supporting top slab on each side of front weir.
6. Place four (4) additional rebars at a 45 degree angle around all openings as shown on detail this sheet.
7. Chamfer exposed edges 1/2" x 1/2".
8. The weir shall have a removable, galvanized and painted, trash rack per detail. Measure riser prior to trash rack fabrication. Provide 12" min. clearance from bottom of trash rack to ground.
9. Slope riser bottom 2% min. towards outfall.
10. All connections must be watertight especially the 36" barrel outfall. Reinforced concrete collar with 6 x 6 WWF.
11. Provide steps per MSHA Std. Detail MD-383.92 or approved equal.
12. Place a standard 2 ft / Howard Co. sidewalk storm drain F&C in top slab.
13. The 6" low flow pipe shall be capped inside the SWM riser (R-1). A 2.5" / orifice shall be eccentrically located in the cap (see detail this sheet). The orifice is off-center so the cap can be rotated to achieve the exact designed invert elevation.
14. Apply non-shrink grout to seal collar(s) to riser.
15. If riser is supplied in sections, the joints shall be watertight per riser joint detail shown on this sheet). Bolt sections together at each joint with three (3) rustproof, 2" x 6" (1/4" thick) flat bar connections with 1/2" bolts embedded in to riser.
16. Use provided dimensions, do not scale drawings.
17. Install a 4" pond drain. The drain shall consist of a flanged 4" iron gate valve (HoCo. specification 909.15.01) and 12'± of 4" DIP with flanged ends. Securely attach valve to riser wall with three (3) stainless steel anchor bolts or all-threaded rod and duc-lugs uniformly spaced around the flange. The drain inlet in the pond bottom shall rest on a riprap pad 3' square x 1'-9" deep with filter fabric at all soil/riprap interfaces.
18. The low flow pipe shall be 6" DIP and terminate in the pond with a downward 45° VB (flanged or permanently connected to the pipe). Use stainless bolts. The 6" low flow pipe shall extend 6" into the riser and be securely capped. The cap shall have the design orifice at the design elevation (see riser detail).
19. Place a 2'-0" wide x 2'-6" high x 3'-0 collar around the low flow pipe adjacent to the riser. The riser shall be installed with 4 rebar "hooks" to help attached collar to riser, keeping it stable.



PROFILE VIEW



PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAT 4 TIMES THE AREA OF THE INTERNAL ORIFICE. THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. COTRACTOR SHALL PROVIDE MORE THAN 10 LF OF PERFORATED PIPE AS SHOWN ABOVE IF NEEDED TO MEET THIS AREA REQUIREMENT.

2. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.

3. PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE, OR 1' BY 4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.

SEC BASIN HORIZONTAL DRAW DOWN DEVICE DETAIL
NOT TO SCALE

STATE OF MARYLAND — DONALD EDWIN HICKS — No. 8676 REGISTERED — PROFESSIONAL ENGINEER

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001
AS BUILTS

STATE OF MARYLAND — CHARLES J. CROVO SR. — No. 12046 REGISTERED — PROFESSIONAL ENGINEER

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

Donald E. Hicks, P.E. — Signature — MD NO. 8676 — P.E. No.
DONALD E. HICKS, P.E. — 12/04/08 — Date:

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

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CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Wm. B — Signature Of Developer — 2.10.06 — Date
Dr. William Brown — Printed Name Of Developer

By The Engineer:

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

Signature Of Engineer — 2/13/06 — Date
CHARLES J. CROVO SR. — Printed Name Of Engineer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

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Howard Soil Conservation District — 2/27/06 — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/9/06 — Date
Chief, Division of Land Development — 3/8/06 — Date
Chief, Development Engineering Division — 3/6/06 — Date

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00
WATER CODE	F04		SEWER CODE	5750615	

STORMWATER MANAGMENT
RISER STRUCTURE (R-1) DETAIL

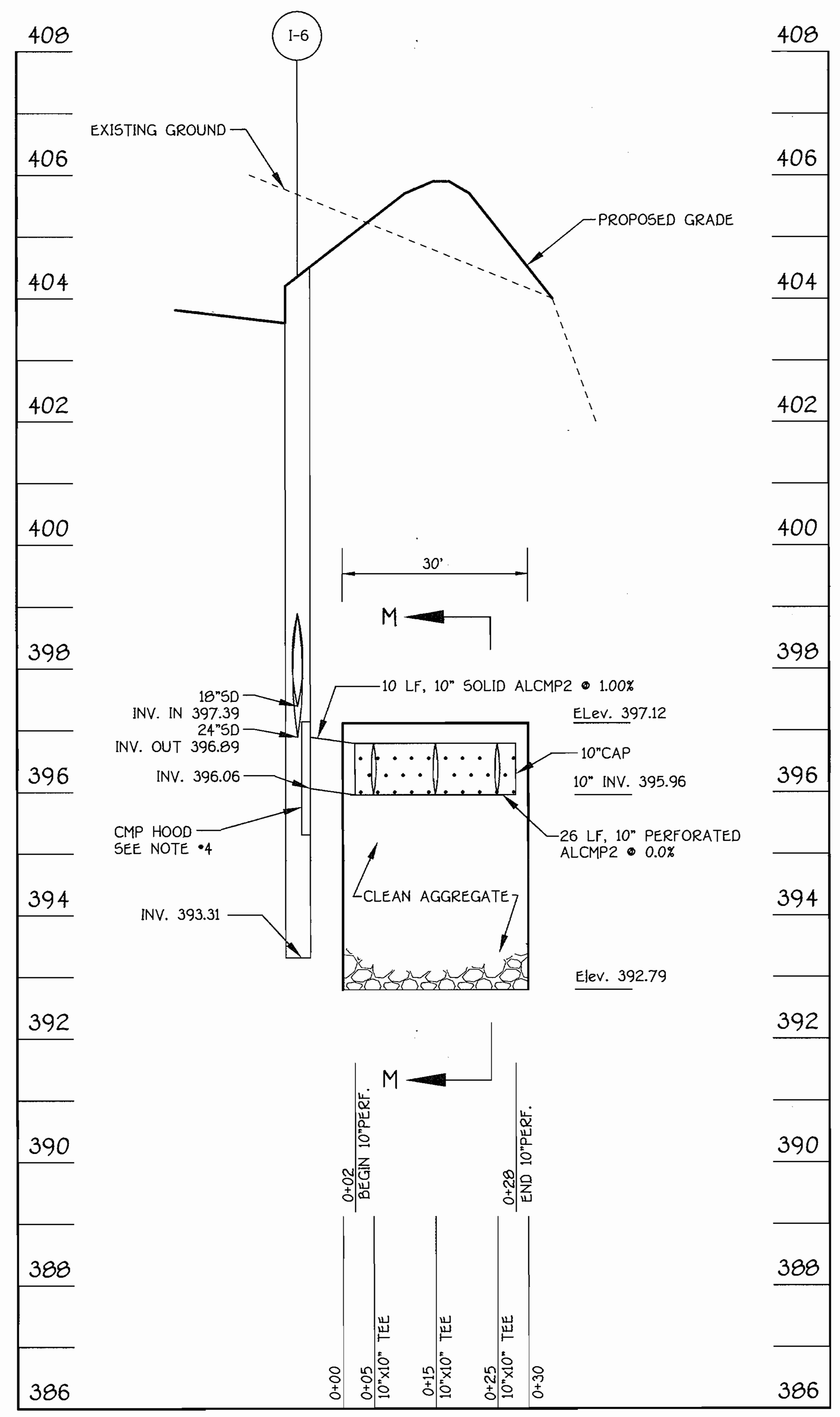
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 20 OF 30

SDP-06-040

SDP06-040

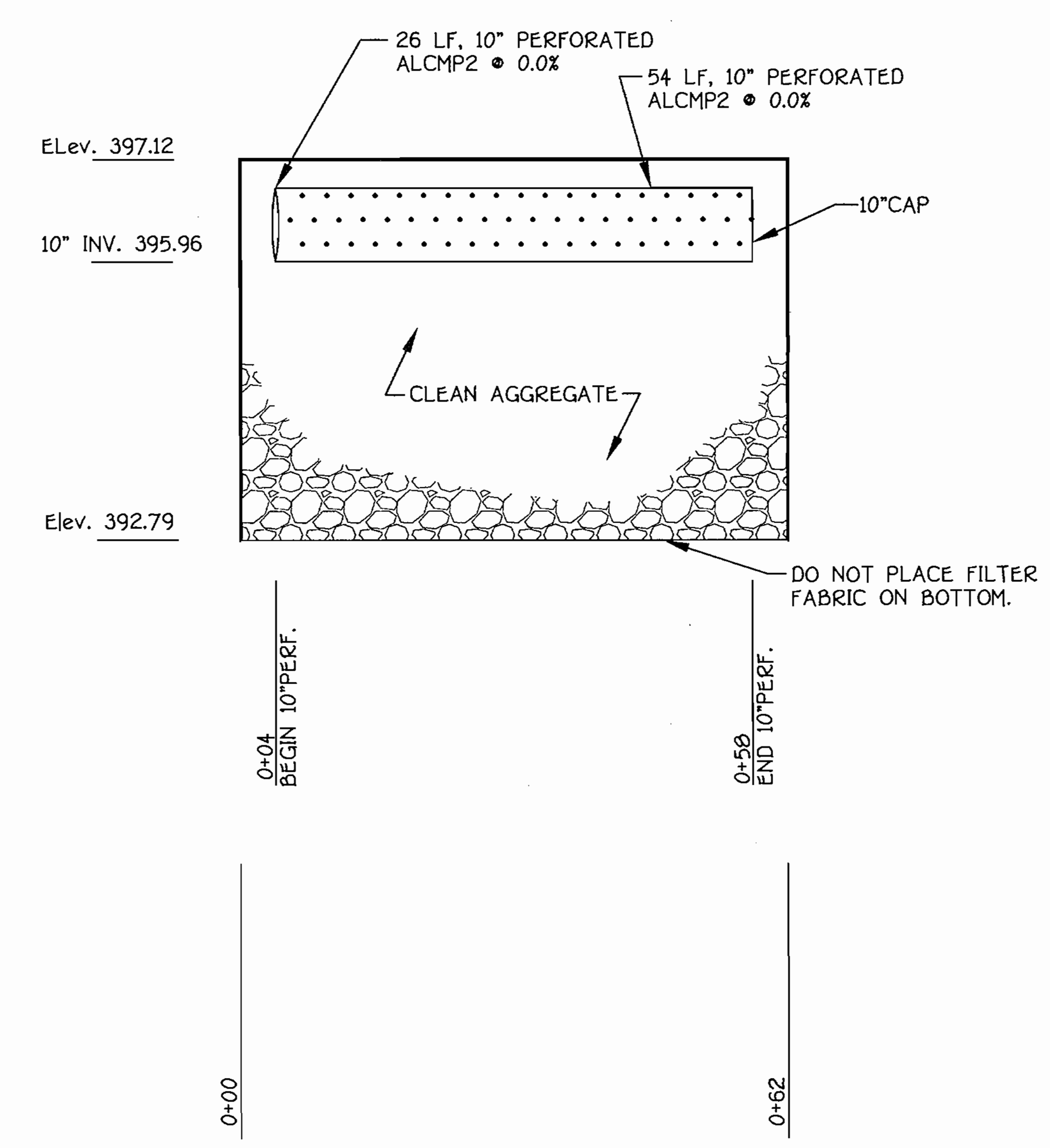


RECHARGE VOLUME PROFILE

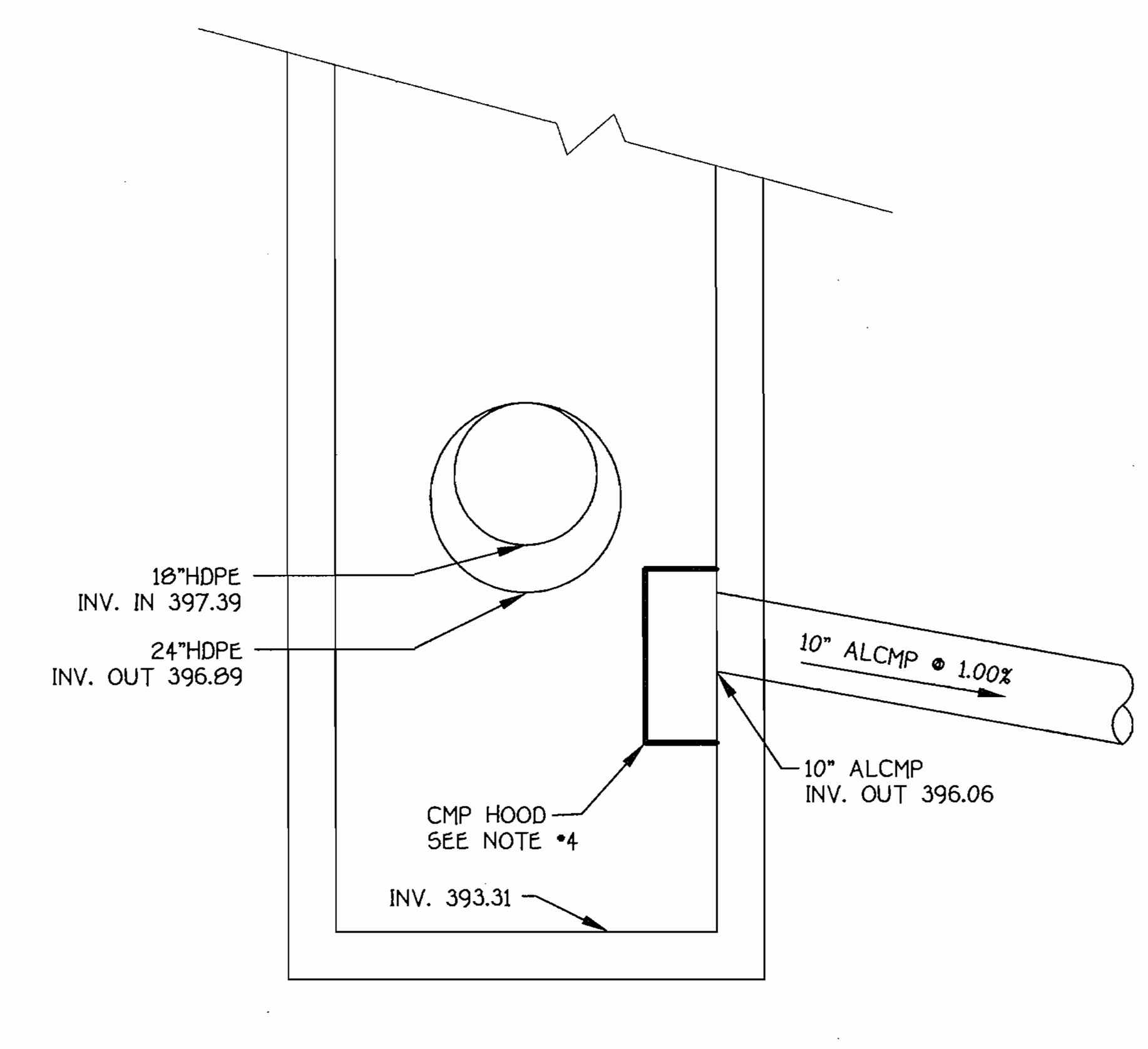
SCALE: HOR: 1" = 20'
VERT: 1" = 2'

RECHARGE TRENCH NOTES

1. Stone shall be clean, MD #2 stone and surrounded on top and sides only by filter fabric (Mirafi 140N or equal).
2. Prior to allowing water to enter the recharge trench, all upstream areas shall be stabilized (established grass or paved). In addition, the storm drain system shall be flushed clean prior to connecting to the recharge system.
3. Place an 18" half round pipe at the entrance to the recharge distribution pipe in storm drain I-1 and I-6. The half pipe shall extend 9" below the invert and 3" above the crown.
4. Pipe shall be 16 gauge aluminized CMP (ALCMP2) type 2 . The pipe shall be perforated inside the trench and solid outside the trench. Cap ends.
5. All perforated pipe to be wrapped in ½" hardware cloth.

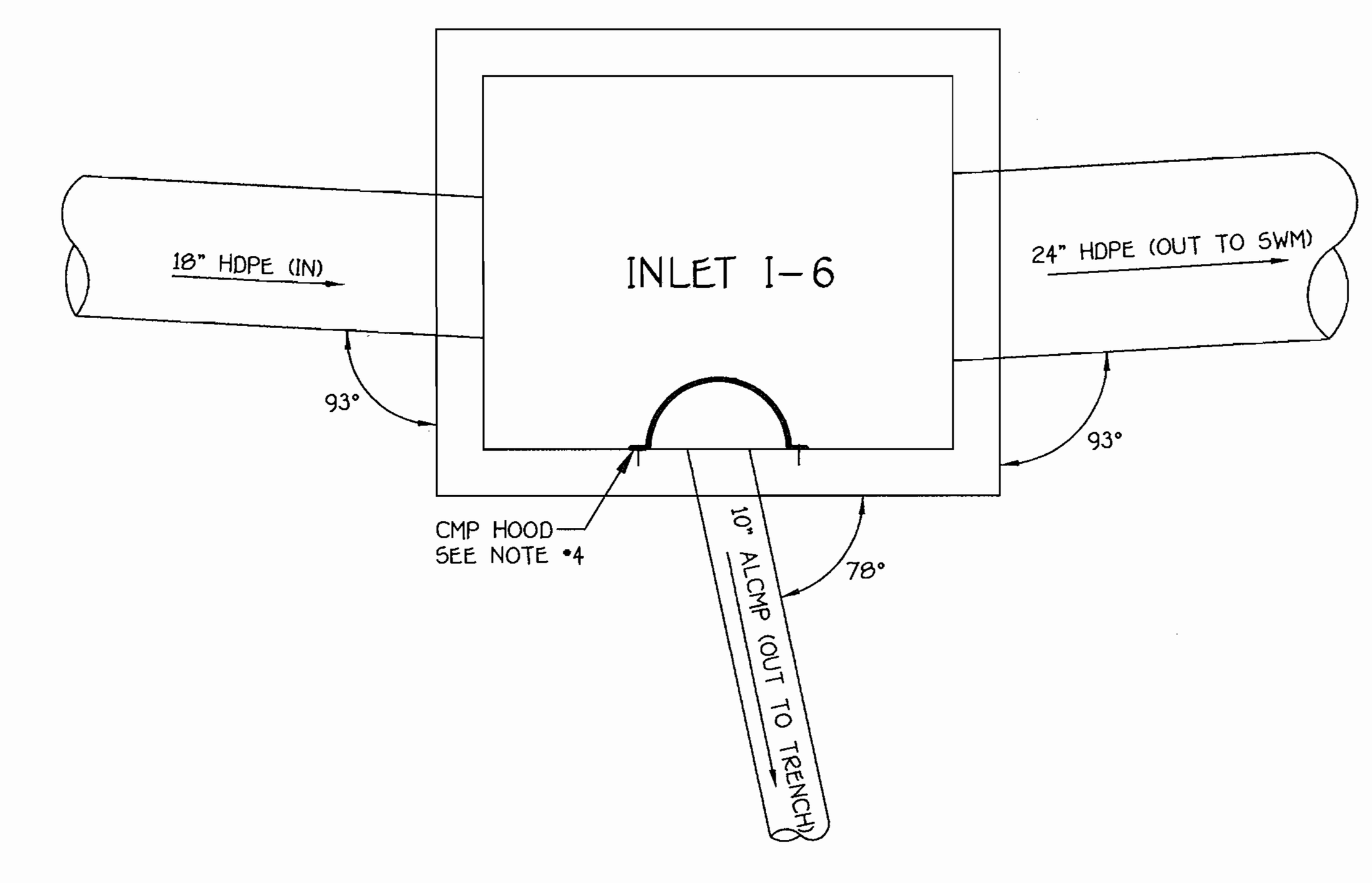


SECTION M-M



ELEVATION

SCALE: 1" = 2'



PLAN

SCALE: 1" = 2'

I-6 DETAIL

NOTES:
1. Contractor to submit Shop Drawings to Engineer prior to contruction.
2. Coat end of outside of ALCMP2 with 2 coats of zinc chromate prior to grouting annular space between pipe and manhole.
3. Inlet shall have a "catch basin" i.e., flat invert 2" below lowest outfall; no benching shall be installed.
4. Secure (bolt) a half round 18" ALCMP2 to the 18" entrance to the recharge pipe draining to the stone storage. The half pipe shall extend 3" above inlet crown and 9" below inlet invert. Place appropriate gasket between half pipe and wall (neoprene, cork, or approved equal). See detail this sheet.

STATE OF MARYLAND CHARLES E. CROVO SR. 13204 REGISTERED PROFESSIONAL ENGINEER

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] 3/5/06
Director - Department of Planning and Zoning — Date

[signature] 3/8/06
Chief, Division of Land Development — Date

[signature] 3/6/06
Chief, Development Engineering Division — Date

PREPARED FOR
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DEED REF. 9030/201, 9030/437, 9030/445 & 9234/584	BLOCK NO. 24	ZONE R-20, R-SC-I, R-SA-8-I, R-SA-8	TAX/ZONE 24	ELEC. DIST. SECOND	CENSUS TR. 6028.00
WATER CODE F04			SEWER CODE 5750615		

RECHARGE FACILITY AT I-6

NORTHEASTERN
ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
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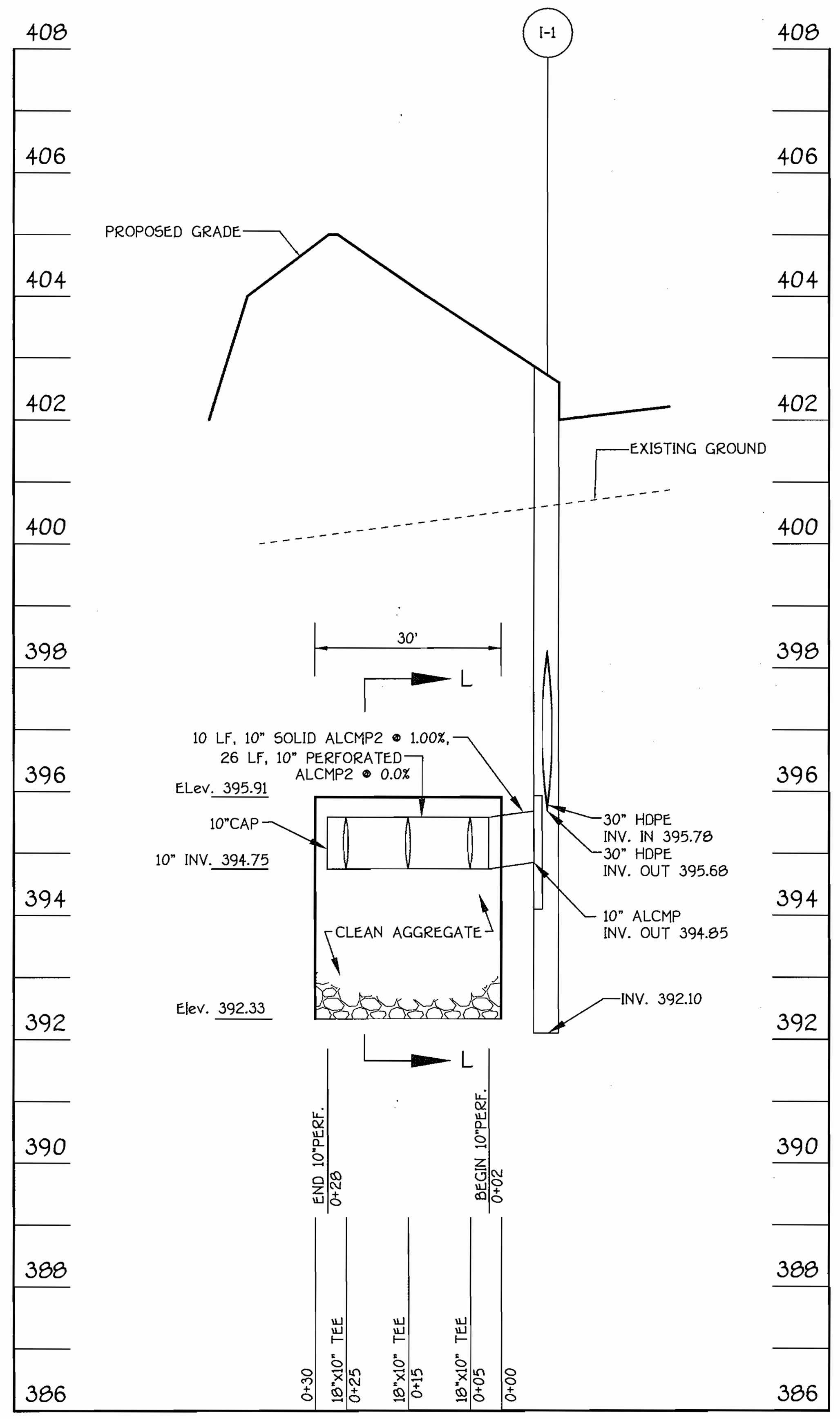
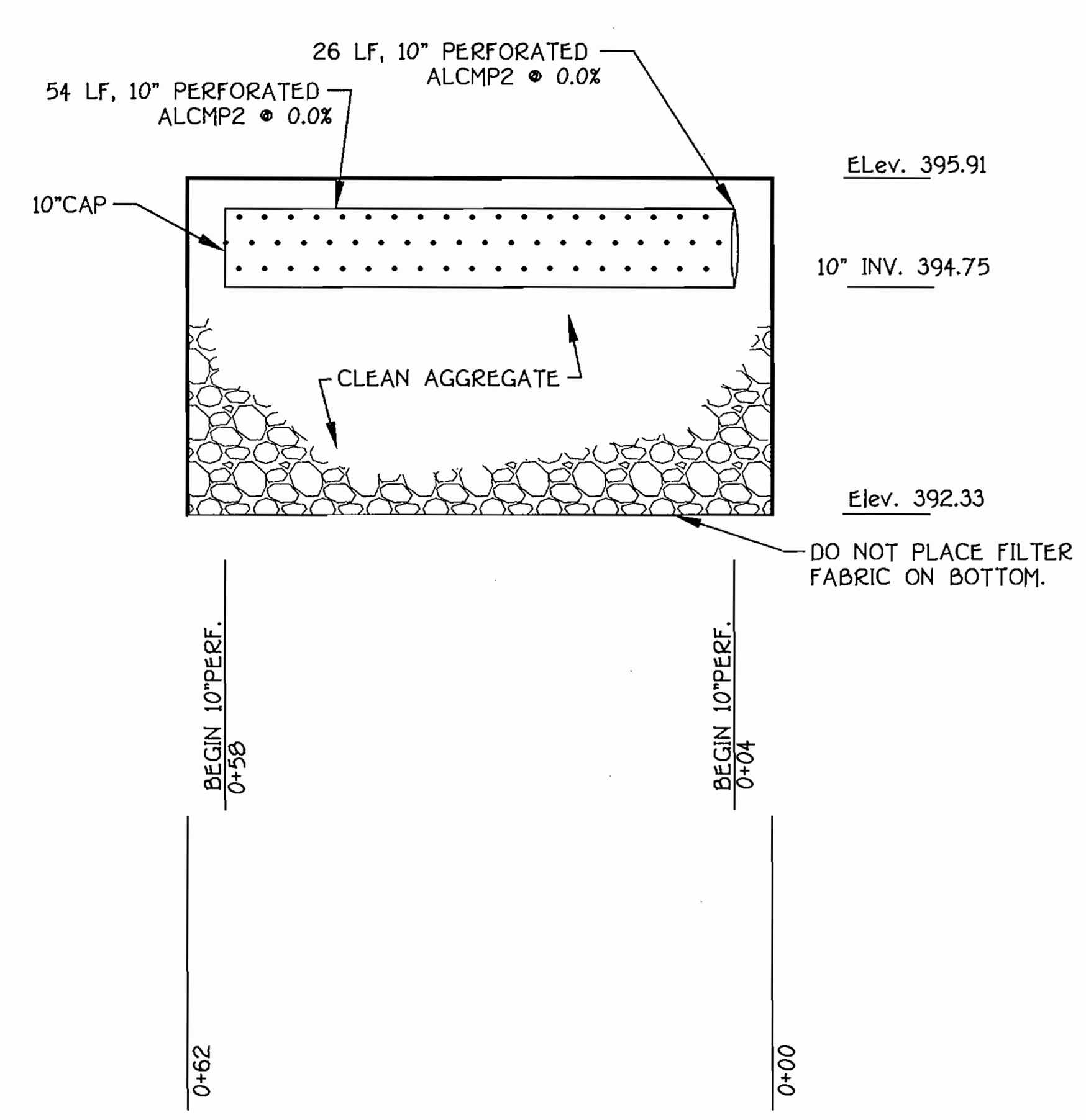
SHEET 21 OF 30 SDP-06-040

SDP06-040



RECHARGE VOLUME PROFILE

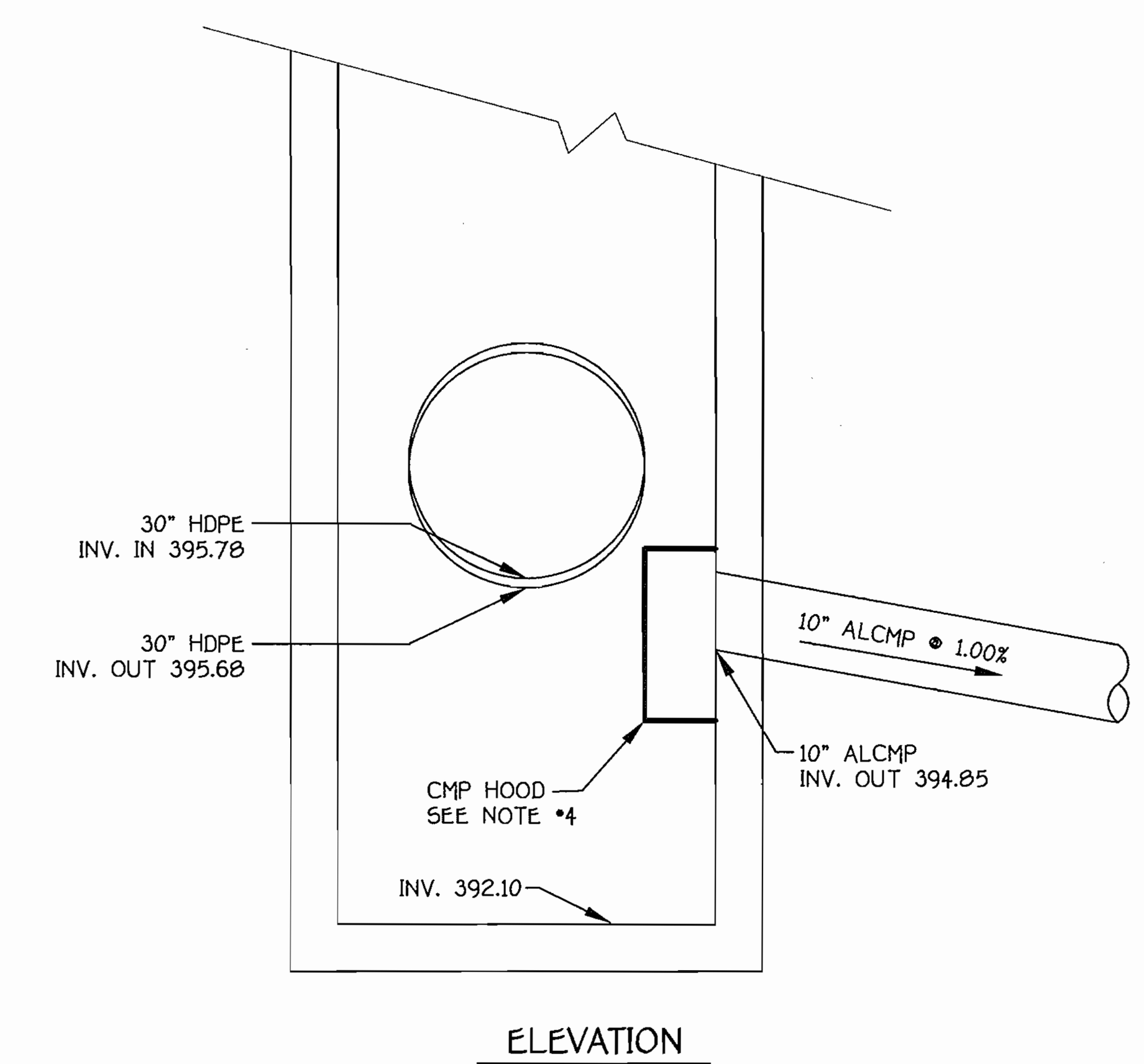
SCALE: HOR: 1" = 20'
VERT: 1" = 2'



SECTION L-L

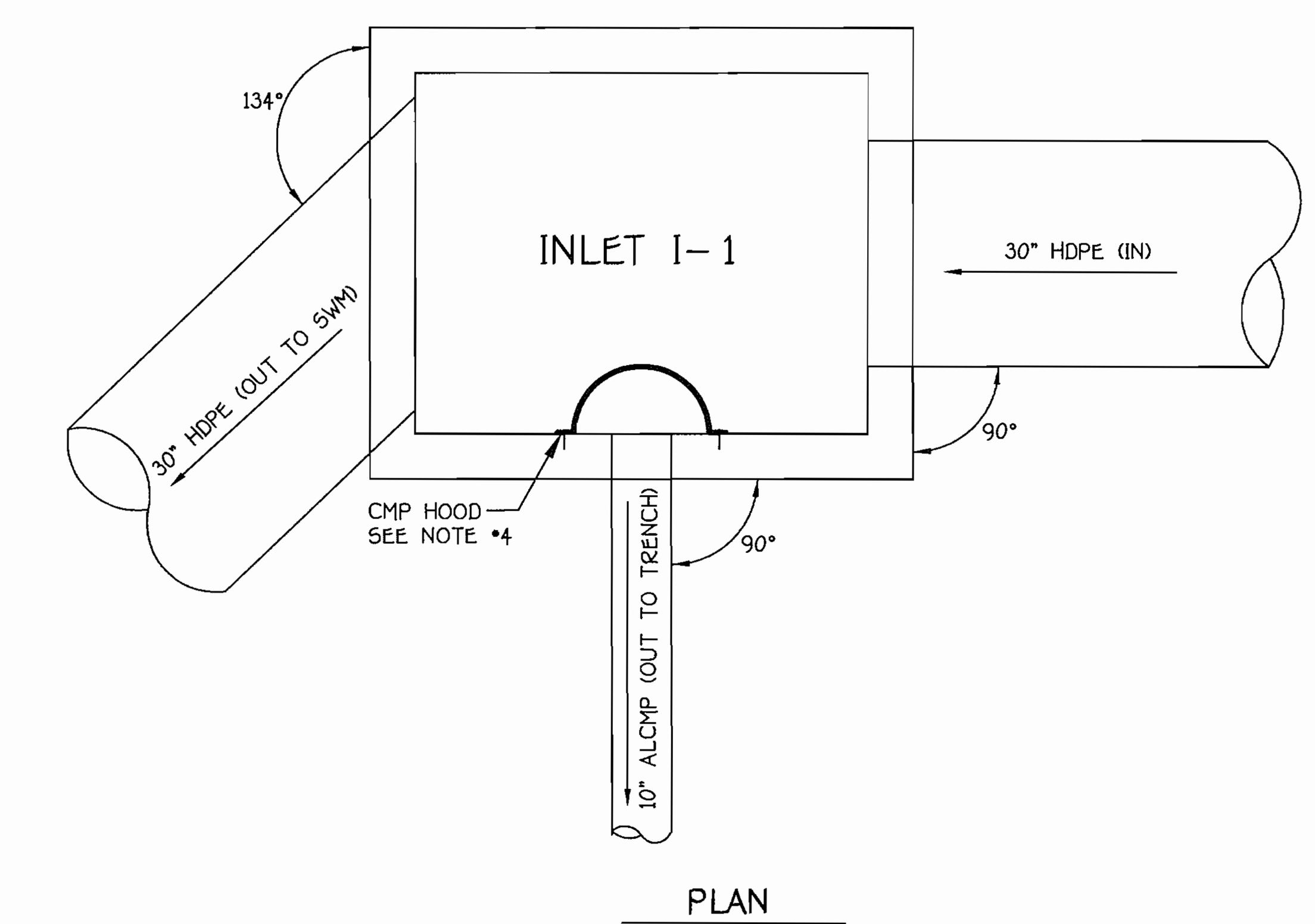
RECHARGE TRENCH NOTES

1. Stone shall be clean, MD •2 stone and surrounded on top and sides only by filter fabric (Mirafi 140N or equal).
2. Prior to allowing water to enter the recharge trench, all upstream areas shall be stabilized (established grass or paved). In addition, the storm drain system shall be flushed clean prior to connecting to the recharge system.
3. Place an 18" half round pipe at the entrance to the recharge distribution pipe in storm drain I-1 and I-6. The half pipe shall extend 9" below the invert and 3" above the crown.
4. Pipe shall be 16 gauge aluminized CMP (ALCMP2) type 2 . The pipe shall be perforated inside the trench and solid outside the trench. Cap ends.
5. All perforated pipe to be wrapped in ½" hardware cloth.



ELEVATION

SCALE: 1" = 2'



PLAN

SCALE: 1" = 2'

I-1 DETAIL

NOTES:
1. Contractor to submit Shop Drawings to Engineer prior to construction.
2. Coat end of outside of ALCMP2 with 2 coats of zinc chromate prior to grouting annular space between pipe and manhole.
3. Inlet shall have a "catch basin" i.e., flat invert 2' below lowest outfall; no benching shall be installed.
4. Secure (bolt) a half round 18" ALCMP2 to the 18" entrance to the recharge pipe draining to the stone storage. The half pipe shall extend 3" above inlet crown and 9" below inlet invert. Place appropriate gasket between half pipe and wall (neoprene, cork, or approved equal). See detail this sheet.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED RECHARGE FACILITIES

1. The recharge diversion inlets (I-1 and I-6) shall be inspected at a minimum of three times (3x) annually. The hood shall be inspected for damage and corrosion.
2. THe Owner shall remove all trash and debris during the inpections.
3. Sediment depth 6" or greater shall be promptly removed and disposed of properly (i.e., taken to the land fill).
4. Damage to the hood shall be promptly repaired.

STATE OF MARYLAND — PROFESSIONAL ENGINEER

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/7/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF. 9030/201, 9030/437, 9030/445 & 9234/584	BLOCK NO. 24	ZONE R-20, R-SC-I, R-SA-8-I, R-SA-8	TAX/ZONE 24	ELEC. DIST. SECOND	CENSUS TR. 6028.00
WATER CODE F04			SEWER CODE 5750615		

RECHARGE FACILITY AT I-1

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SDP-06-040

SDP06-040

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

SOILS LEGEND

SOIL	NAME	CLASS
* KeB2	Kelly silt loam, 3 to 8 percent slopes, moderately eroded	D
LeB2	Legore silt loam, 3 to 8 percent slopes, moderately eroded	B
LgC3	Legore silty clay loam, 8 to 15 percent slopes, severely eroded	B
MfE	Manor loam, 25 to 45 percent slopes	B
NeB2	Neshaminy silt loam, 3 to 8 percent slopes, moderately eroded	B
NeC2	Neshaminy silt loam, 8 to 15 percent slopes, moderately eroded	B
** WaB	Watchung silt loam, 3 to 8 percent slopes	D

NOTES:
* Hydric soils and/or contains hydric inclusions
** May contain hydric inclusions

SOILS MAP NO.20

NOT PART OF THIS SUBMISSION SEE NOTE ON SHEET 1

NOT PART OF THIS SUBMISSION SEE NOTE ON SHEET 1

PLAN
SCALE: 1" = 40'

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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — 2/13/06 Date

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements

U.S.D.A. - Natural Resources Conservation Service — Date

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — 2.10.06 Date

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — 3/5/06 Date

Chief, Division of Land Development — 3/8/06 Date

Chief, Development Engineering Division — 3/10/06 Date

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
Ellicott City, Maryland 21042
Attention Bruce Gist
410-313-6790

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

15015-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SOILS MAP AND STORM DRAIN DRAINAGE AREA MAP

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 23 OF 30

SDP-06-040

6DP06-040

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

SOILS LEGEND

SOIL	NAME	CLASS
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LeB2	Legore silt loam, 3 to 8 percent slopes, moderately eroded	B
LgC3	Legore silty clay loam, 8 to 15 percent slopes, severely eroded	B
MlE	Manor loam, 25 to 45 percent slopes	B
NeB2	Neshaminy silt loam, 3 to 8 percent slopes, moderately eroded	B
NeC2	Neshaminy silt loam, 8 to 15 percent slopes, moderately eroded	B
** WaB	Watchung silt loam, 3 to 8 percent slopes	D

NOTES:
SOILS MAP NO.20
* Hydric soils and/or contains hydric inclusions
** May contain hydric inclusions

DRAINAGE AREA DATA

STRUCTURE NO.	DRAINAGE AREA	AREA	'C'	% IMP.
I-1	A	1.08 Ac.	0.60	63%
I-2	B	0.85 Ac.	0.78	88%
I-3	C	0.52 AC.	0.69	75%
I-4	D	0.32 AC.	0.71	78%
I-5	E	0.24 AC.	0.74	83%
I-6	F	0.34 AC.	0.59	62%
I-7	G	1.68 AC.	0.23	10%
I-8	H	1.78 AC.	0.54	51%
YMCA	I	5.60 AC.	0.60	-
Roof Drain to M-4	J	0.84 AC.	0.95	100%
Roof Drain to M-3	K	0.95 AC.	0.95	100%

PLAN
SCALE: 1" = 40'

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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements.

U.S.D.A. Natural Resources Conservation Service — Date

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2.10.06

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/7/06

Chief, Division of Land Development — Date 3/5/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18044-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9231/384	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE			SEWER CODE		
F04			5750615		

SOILS MAP AND STORM DRAIN DRAINAGE AREA MAP

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 24 OF 30

SDP-06-040

SDPOG-040

MATCH LINE SEE SHEET 24

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

MATCH LINE SEE SHEET 24

AS-BUILT CERTIFICATION

I Hereby Certify That The Facility Shown On This Plan Was Constructed As Shown On The " As-Built" Plans And Meets The Approved Plans And Specifications.

DONALD E. HICKS, P.E. (Signature) — MD NO. 8676 (P.E. No.) — 12/04/08 (Date)

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

STATE OF MARYLAND — DONALD EDWIN HICKS — No. 8676 REGISTERED — PROFESSIONAL ENGINEER

HICKS ENGINEERING ASSOCIATES, INC.
Engineers • Surveyors • Planners
200 East Joppa Road • Suite 402
Towson, Maryland 21286 (410) 494-0001

SOILS LEGEND

SOIL	NAME	CLASS
* KeB2	Kelly silt loam, 3 to 8 percent slopes, moderately eroded	D
LeB2	Legore silt loam, 3 to 8 percent slopes, moderately eroded	B
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** WaB	Watchung silt loam, 3 to 8 percent slopes	D

NOTES: SOILS MAP NO.20
* Hydric soils and/or contains hydric inclusions
** May contain hydric inclusions

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

By The Developer:

"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer — Date: 2.10.06

DR. WILLIAM BROWN
Printed Name Of Developer

~~These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.~~

~~USDA-Natural Resources Conservation Service — Date~~

By The Engineer:

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

Signature Of Engineer — Date: 2/13/06

CHARLES J. CROVO SR.
Printed Name Of Engineer

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

~~Howard Soil Conservation District — Date~~

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date: 3/5/06

Chief, Division of Land Development — Date: 3/8/06

Chief, Development Engineering Division — Date: 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
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Address Chart

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NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

SOILS MAP AND STORM DRAIN DRAINAGE AREA MAP

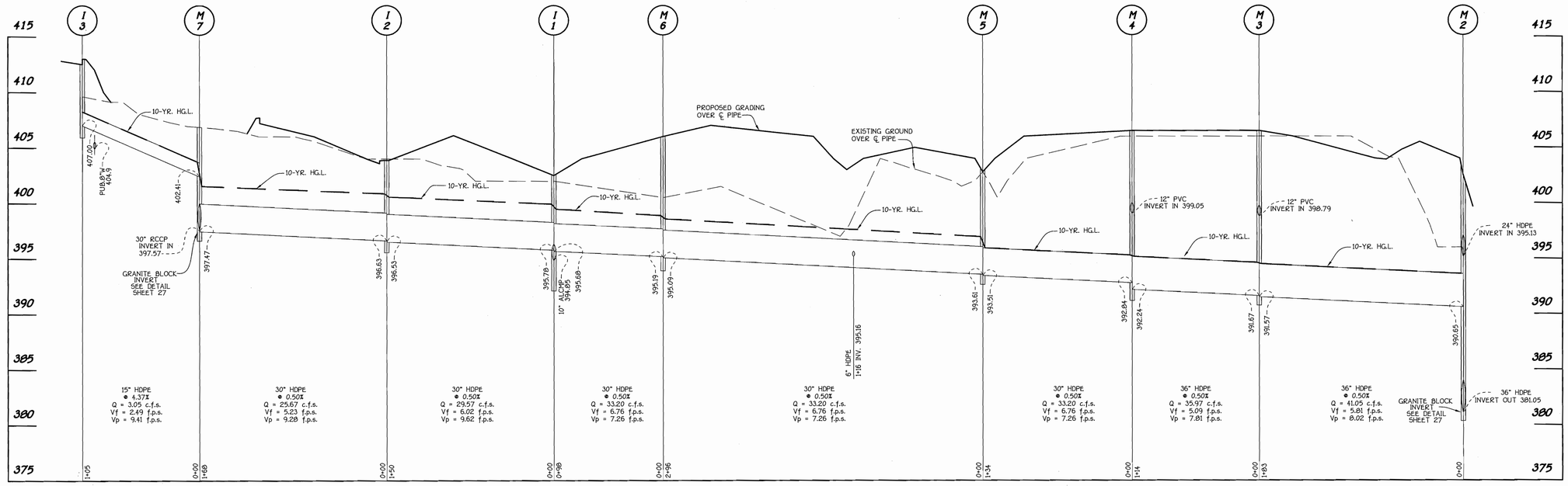
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 25 OF 30 SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SD DRAINAGE AREA MAP (SHEETS 23-25).dwg, 2/8/2006 4:47:59 PM, 1:1



PROFILE

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

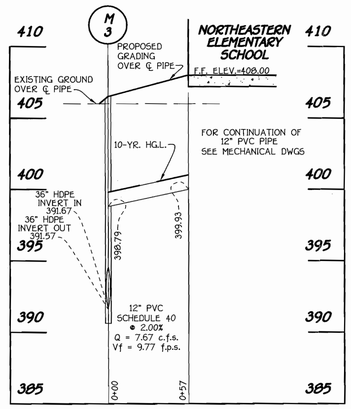
PIPE SCHEDULE		
SIZE	CLASS	LENGTH
4"	PVC SCHEDULE 40	317'
4"	PERF. PVC SCHEDULE 40	35'
6"	HDPE	14'
10"	ALCMP2	20'
10"	PERF. ALCMP2	376'
12"	PVC SCHEDULE 40	113'
15"	HDPE	105'
18"	HDPE	196'
24"	HDPE	312'
30"	HDPE	846'
30"	RCCP	85'
36"	HDPE	418'
36"	RCP	142'

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	LOCATION NORTH	LOCATION EAST	W	TYPE	REMARKS
I-1	402.50	395.78 (30")	395.68 (30") 394.85 (10")	✳ 577,934.05	1,365,202.21	4'	A-5	S.D. 4.01
I-2	403.70	396.63 (30")	396.53 (30")	✳ 577,783.57	1,365,208.02	4'	A-5	S.D. 4.40
I-3	413.00	-	407.00 (15")	✳ 577,533.77	1,365,314.12	2.5'	A-10	S.D. 4.41
I-4	404.00	395.87 (24")	395.77 (24")	578,200.02	1,365,552.03	-	MODIFIED SINGLE WR INLET	SEE DETAIL SHEET 27
I-5	404.40	396.37 (24")	396.27 (24")	578,226.21	1,365,603.07	-	MODIFIED SINGLE WR INLET	SEE DETAIL SHEET 27
I-6	404.10	397.39 (18")	396.89 (24") 396.06 (10")	✳ 578,123.57	1,365,320.01	4'	A-5	S.D. 4.01
I-7	402.00	398.04 (18")	397.94 (18")	✳ 578,011.53	1,365,627.44	2.5'	A-5	S.D. 4.40
I-8	402.50	-	398.50 (18")	✳ 577,960.03	1,365,562.33	2.5'	A-5	S.D. 4.40
M-1	375.00	369.50 (36")	366.44 (36")	578,482.99	1,365,485.51	5'	PRECAST MANHOLE	G. - 5.13
M-2	403.00	395.13 (24") 390.65 (36")	381.05 (36")	578,409.69	1,365,510.63	5'	PRECAST MANHOLE	G. - 5.13
M-3	406.20	391.67 (36") 398.79 (12")	391.57 (36")	578,360.61	1,365,334.58	5'	PRECAST MANHOLE	G. - 5.13
M-4	406.20	392.84 (30") 399.05 (12")	392.24 (36")	578,346.23	1,365,220.90	5'	PRECAST MANHOLE	G. - 5.13
M-5	403.00	393.61 (30")	393.51 (30")	578,297.90	1,365,095.97	5'	PRECAST MANHOLE	G. - 5.13
M-6	406.00	395.19 (30")	395.09 (30")	578,004.05	1,365,133.30	5'	PRECAST MANHOLE	G. - 5.13
M-7	406.70	402.41 (15") 397.57 (30")	397.47 (30")	577,627.01	1,365,226.24	5'	PRECAST MANHOLE	G. - 5.13
E-1	-	-	361.00 (36")	578,739.75	1,365,219.65	N/A	36" HDPE END SECTION	S.D. 5.51
S-2	-	-	366.00 (36")	578,505.87	1,365,465.72	N/A	36" HDPE END SECTION	**-SEE ADS INFO BELOW
S-3	-	-	408.04 (30")	577,521.66	1,365,285.73	N/A	30" HDPE END SECTION	S.D. 5.51
S-4	-	-	409.50 (30")	577,505.73	1,365,355.30	N/A	30" HDPE END SECTION	S.D. 5.51
R-1	371.00	364.00 (6") 362.60 (4")	362.00 (36")	578,620.83	1,365,304.03	N/A	-	SEE SHEET 20

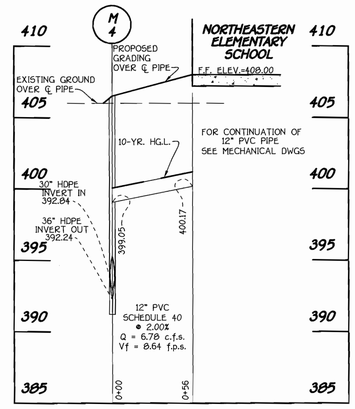
✳ - DENOTES CENTER OF INLET AT FACE OF CURB

✳✳ - CONTACT ADS DRAINAGE SYSTEMS LONDON, OHIO 1-800-733-9554



PROFILE

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



PROFILE

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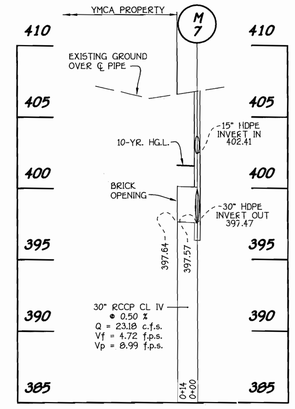
VERT. : 1" = 5'



PROFILE

SCALE: HORIZ. : 1" = 50'
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FISHER, COLLINS & CARTER, INC.
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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 4/5/06

Chief, Division of Land Development — Date 3/5/06

Chief, Development Engineering Division — Date 3/6/06

PREPARED FOR
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Ellicott City, Maryland 21042
Attention Bruce Gist
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Address Chart

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NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/384	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

STORM DRAIN PROFILES, SCHEDULES & DETAILS

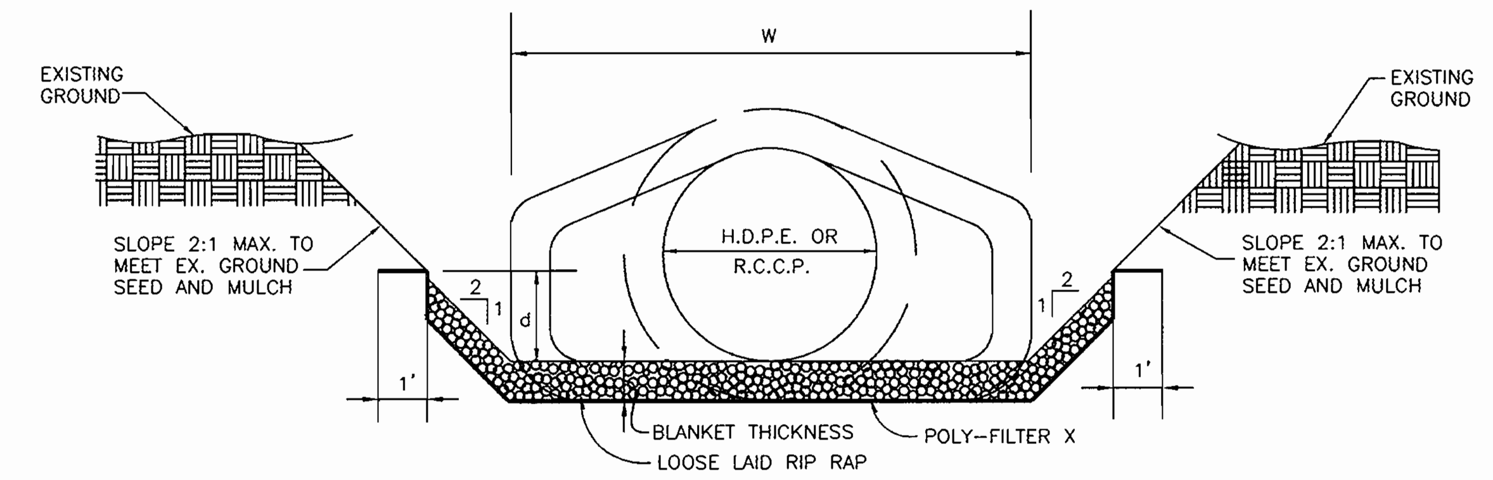
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 26 OF 30

SDP-06-040

SDPOG-040

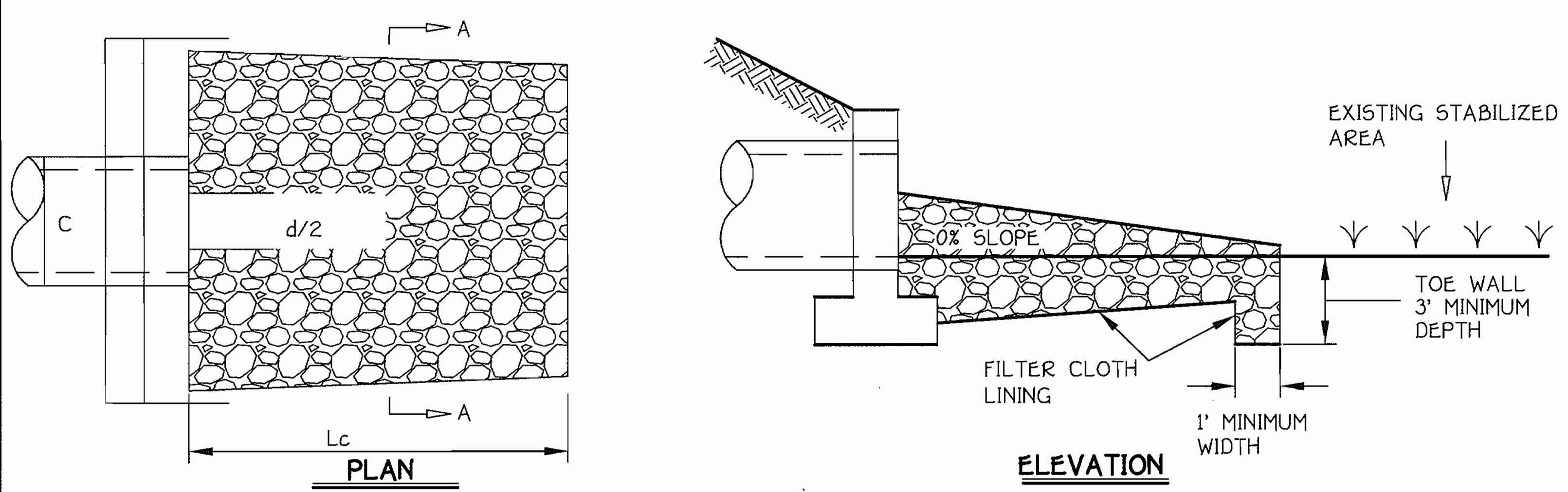


RIP RAP CHANNEL DETAIL

NO SCALE

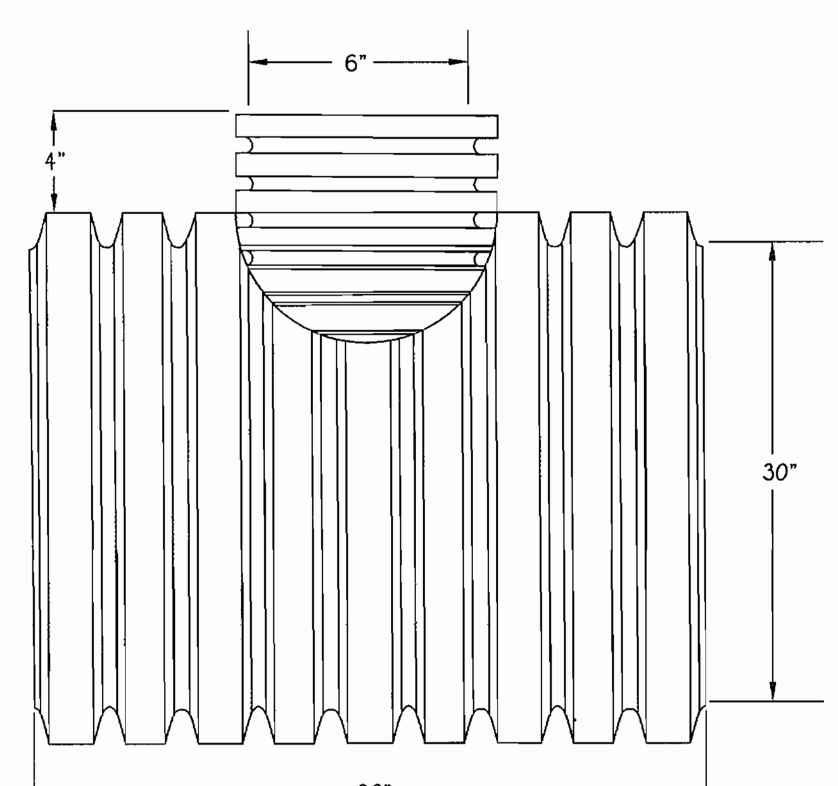
RIP-RAP CHANNEL DESIGN DATA

STRUCTURE	AREA	WETTED PERIMETER	R	R 2/3	S	S 1/2	W	d	N	V (F.P.S.)	Q (C.F.S.)	RIP-RAP SIZE d_{50}	RIP-RAP SIZE d_{MAX}	BLANKET THICKNESS	DIA.
S-1	SF	–	–	–	0.0050	0.0707	20'	–	0.04	–	–	9.5"	15"	19"	–
S-2	22.11 SF	26.99'	0.8191	0.8766	0.0050	0.0707	23'	0.89'	0.04	2.30	50.84	9.5"	15"	19"	36"
S-3	7.69 SF	13.03'	0.5906	0.7027	0.0050	0.0707	10'	0.68'	0.04	1.85	14.23	9.5"	15"	19"	30"
S-4	–	–	–	–	0.0050	0.0707	10'	–	0.04	–	14.23	9.5"	15"	19"	30"



CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

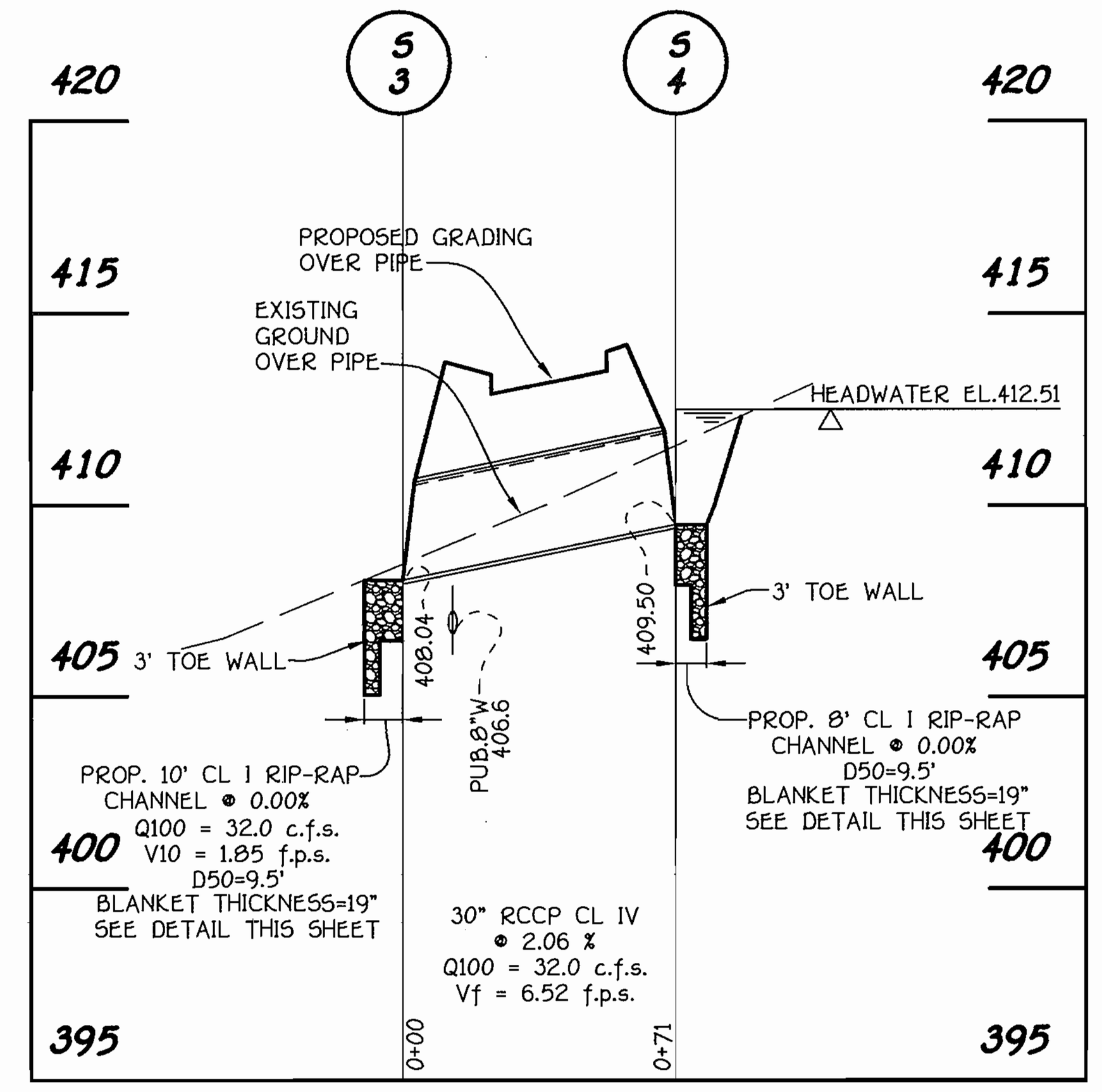
1. The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occassional hole, shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
4. Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogenous with the smaller stones and spalls filling the voids between larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



HDPE PIPE CONFORMS WITH AASHTO M252 & M294.
HANCOR SURE-LOK REDUCING TEE

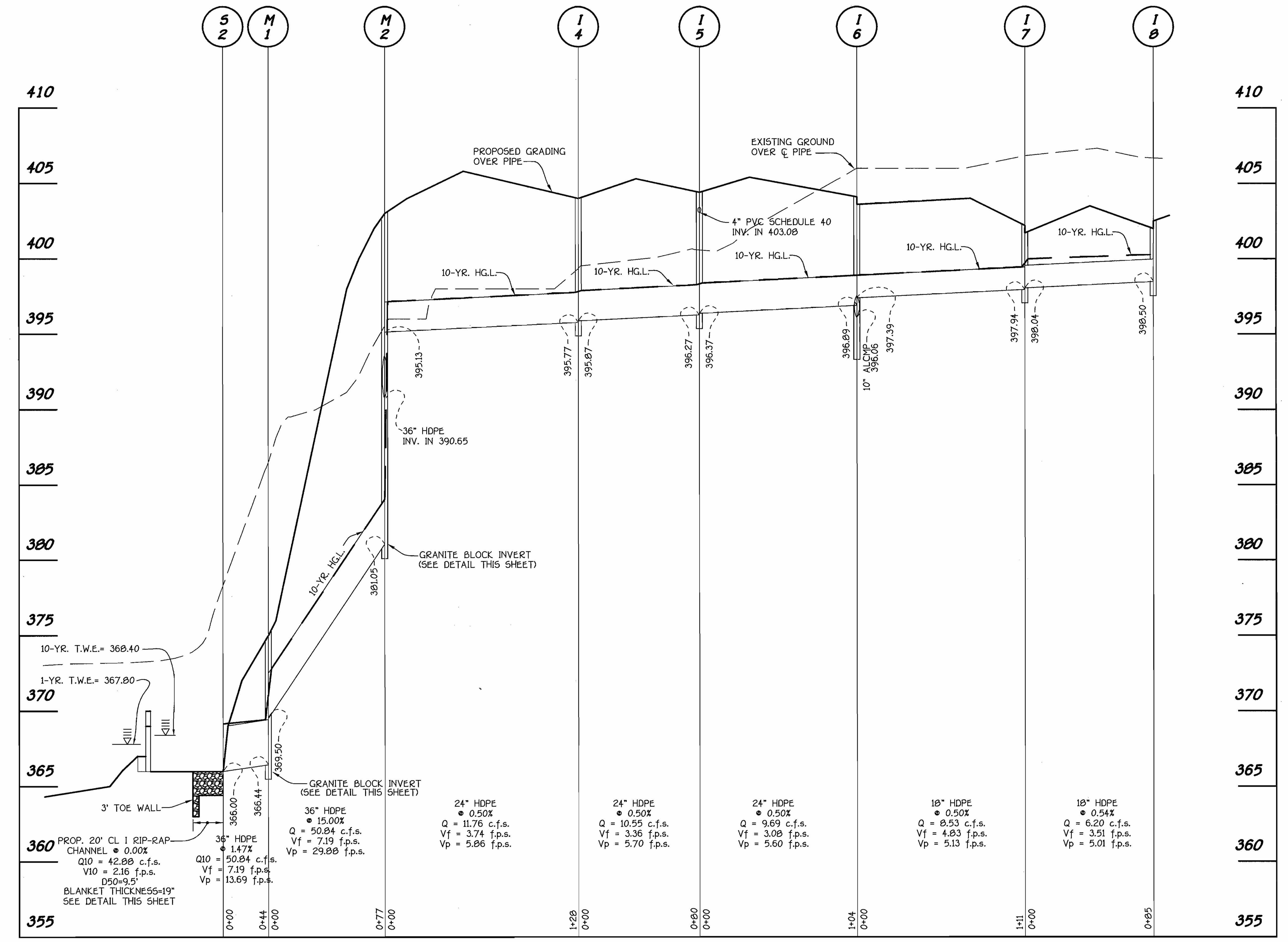
6"X30" REDUCER TEE DETAIL

NOT TO SCALE



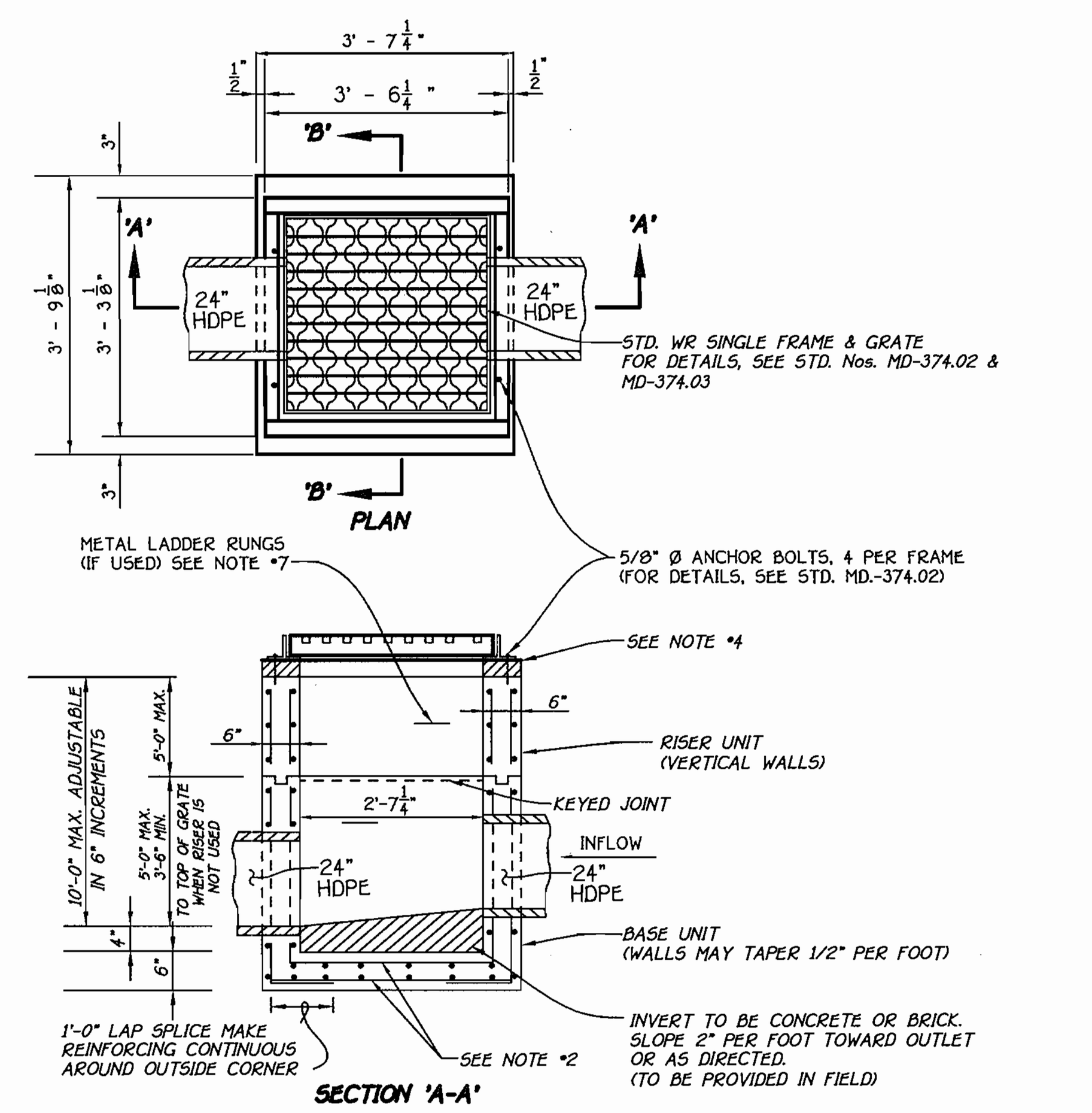
PROFILE

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



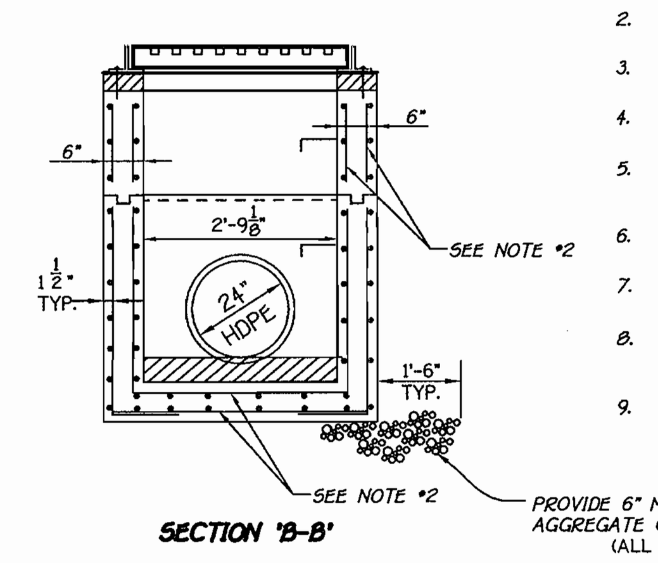
PROFILE

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



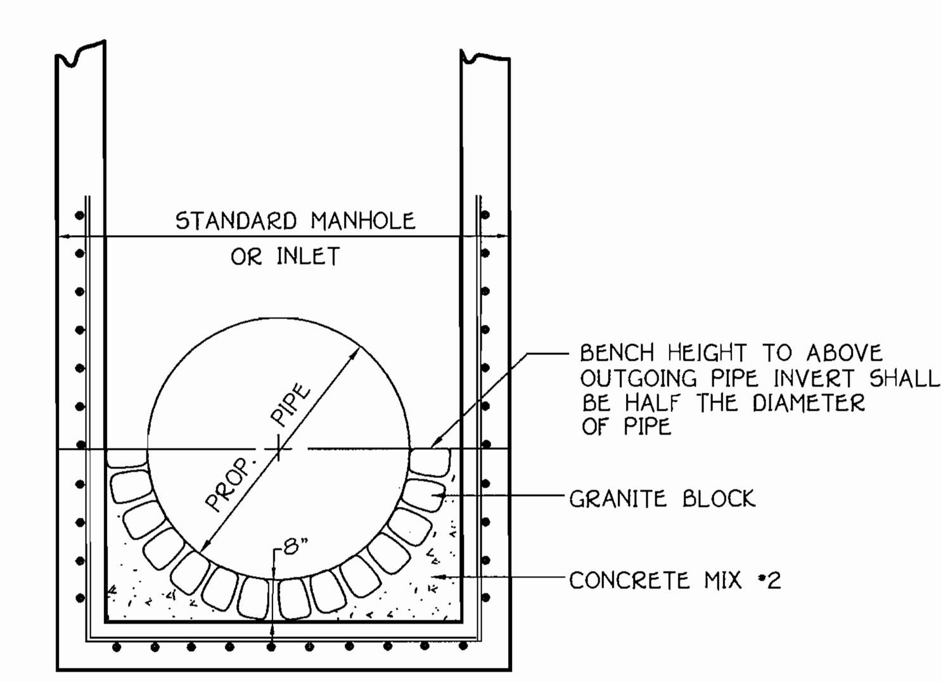
GENERAL NOTES:

1. CONCRETE TO BE MIX NO. 6 (4500 PSI).
2. REINFORCING - 2 LAYERS OF 4 x 4 - W 4.0 x W 4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN FIELD USING CONCRETE MIX NO. 6 OR BRICK AND MORTAR.
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, AS SHOWN OR AS DIRECTED BY THE ENGINEER.
8. MINIMUM DEPTH PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 3'-6". VERTICAL DEPTH PAYMENT PER LINEAR FOOT INCLUDES DEPTHS IN EXCESS OF 3'-6".
9. A 6" PERFORATED CIRCULAR PIPE, FOR EROSION AND SEDIMENT CONTROL, SHALL BE PLACED IN THE INLET WALL AT ALL INLET SEDIMENT TRAPS AS SHOWN ON THE PLANS.



INLET I-4 and I-5
MODIFIED PRECAST SINGLE WR INLET

NOT TO SCALE



GRANITE BLOCK DETAIL

NOT TO SCALE

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/5/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

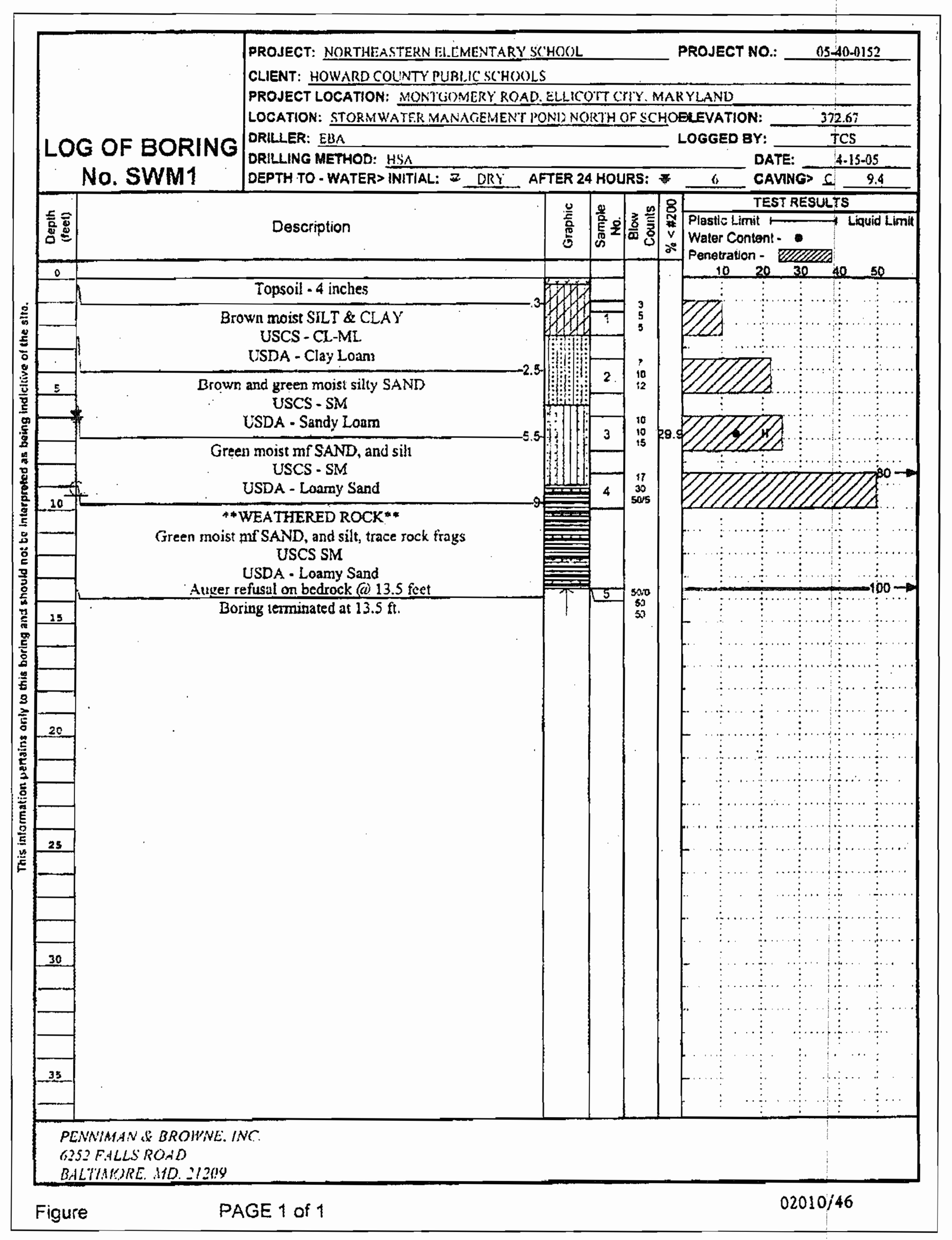
STORM DRAIN PROFILE AND DETAILS

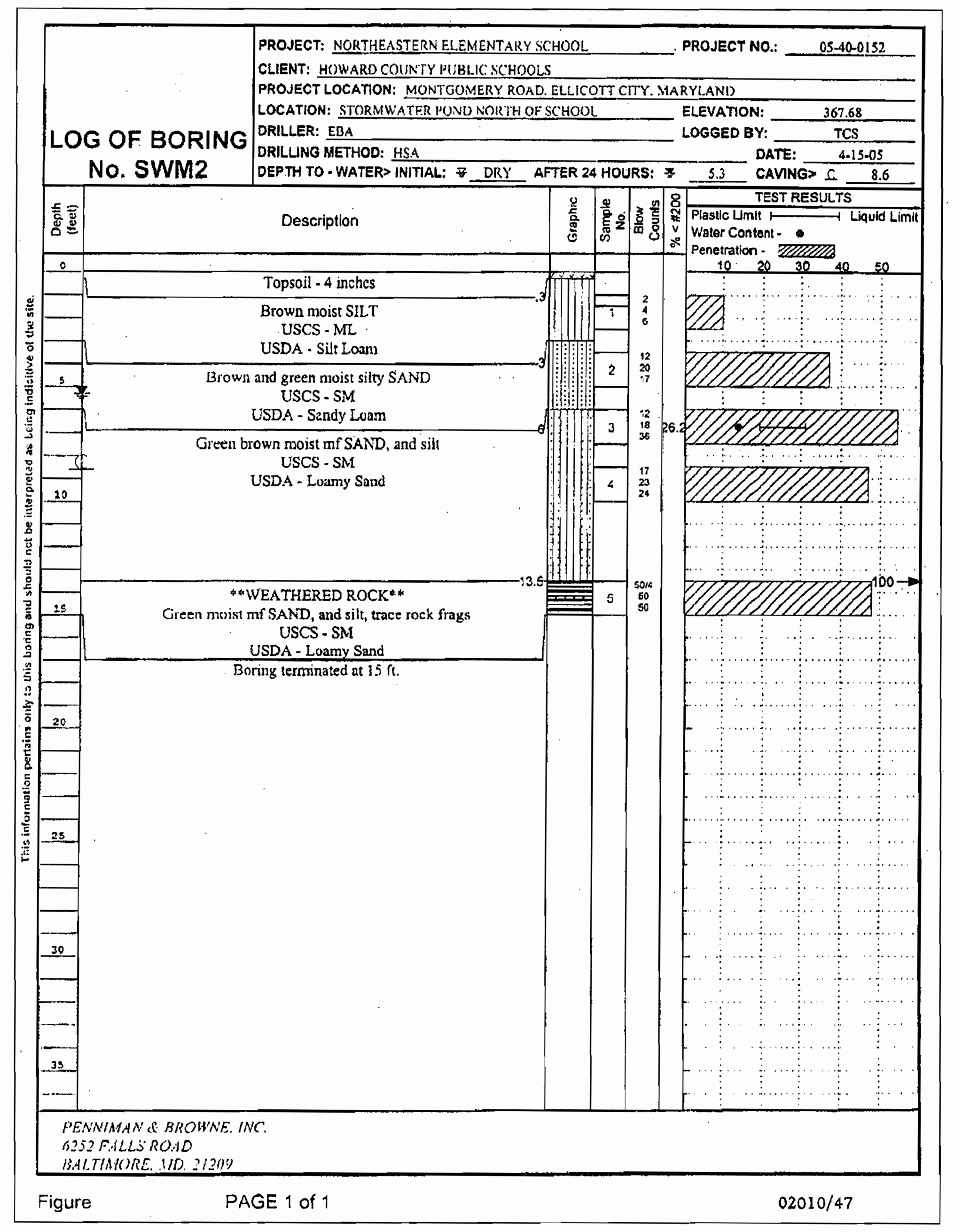
NORTHEASTERN ELEMENTARY SCHOOL

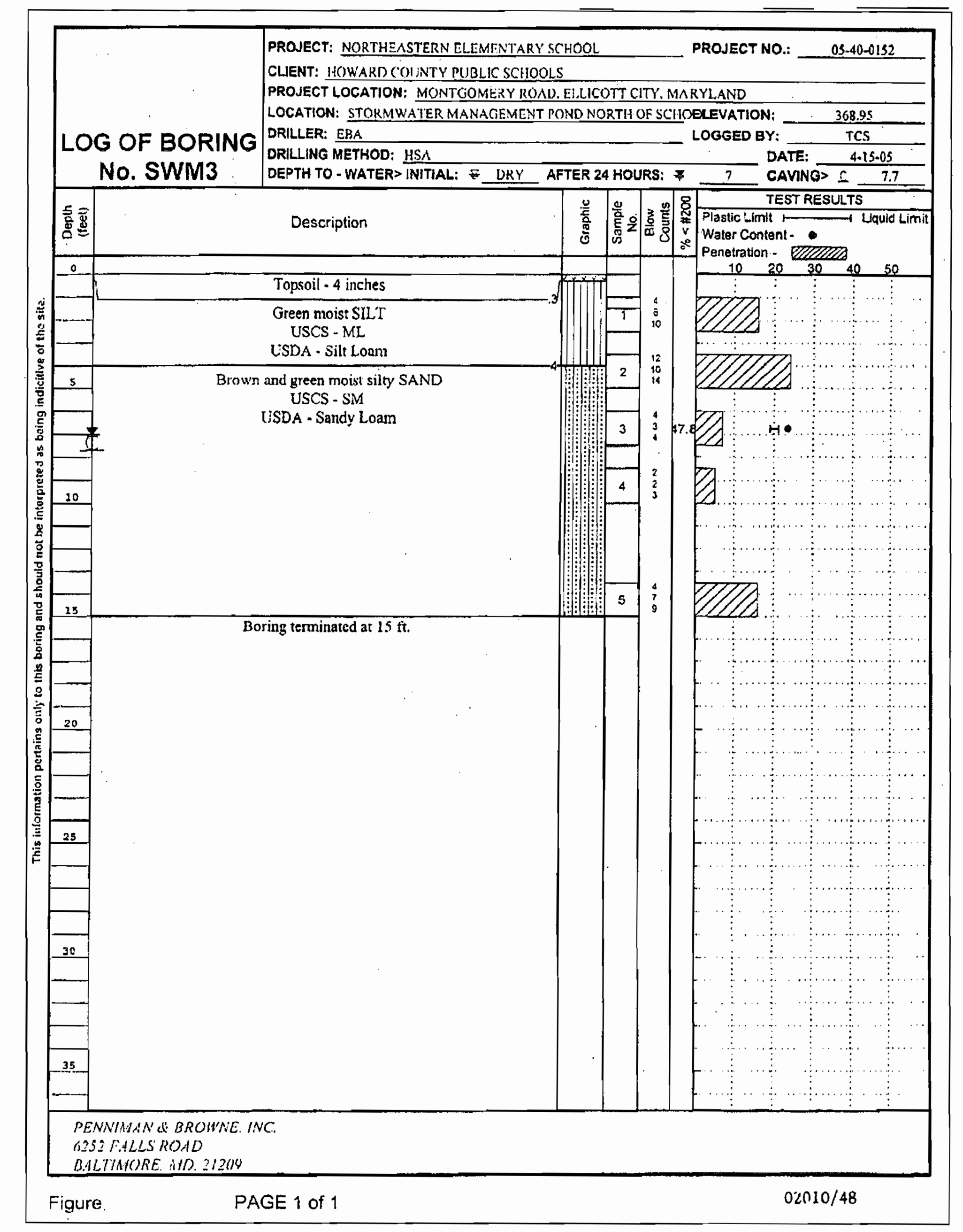
TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

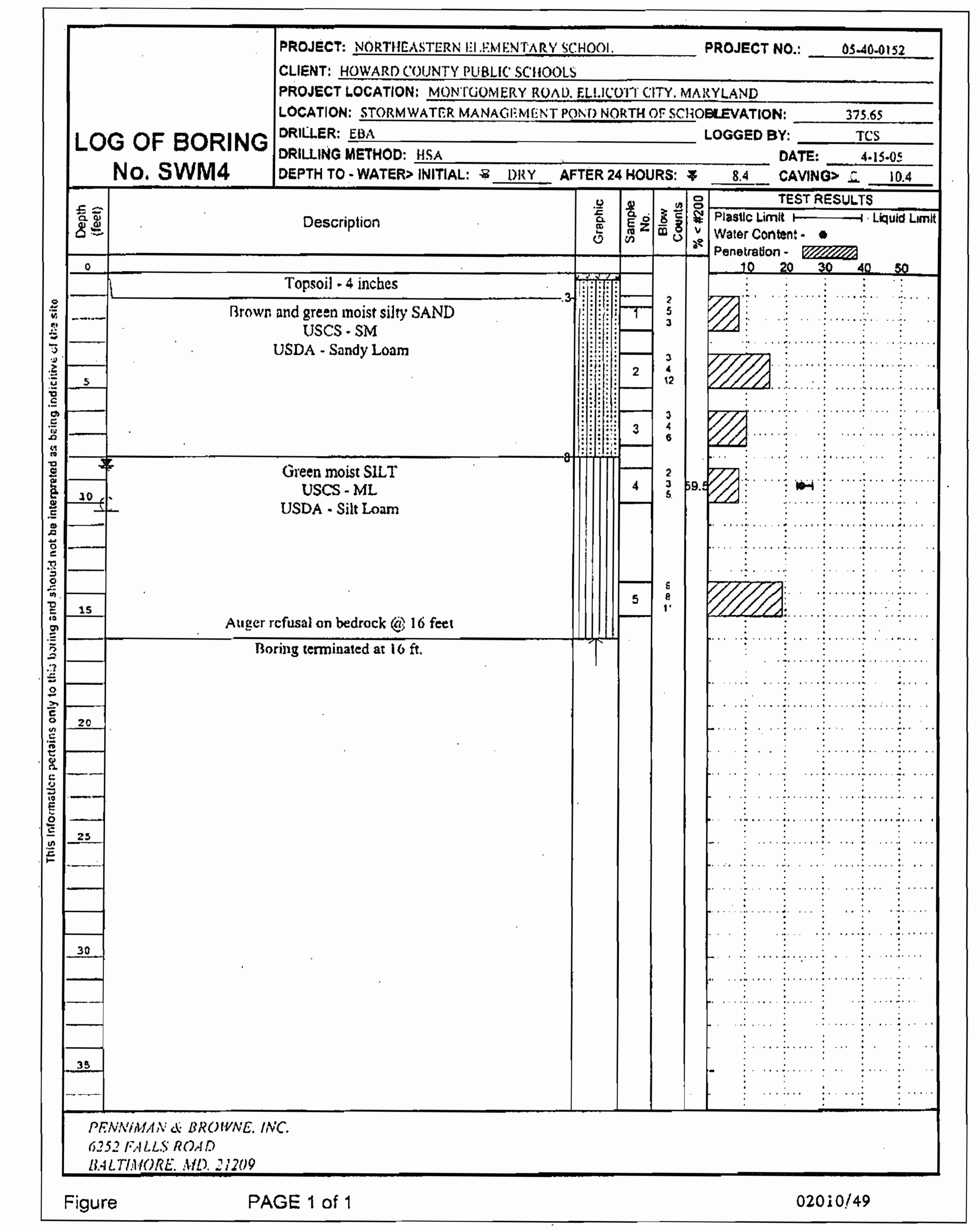
SHEET 27 OF 30 SDP-06-040

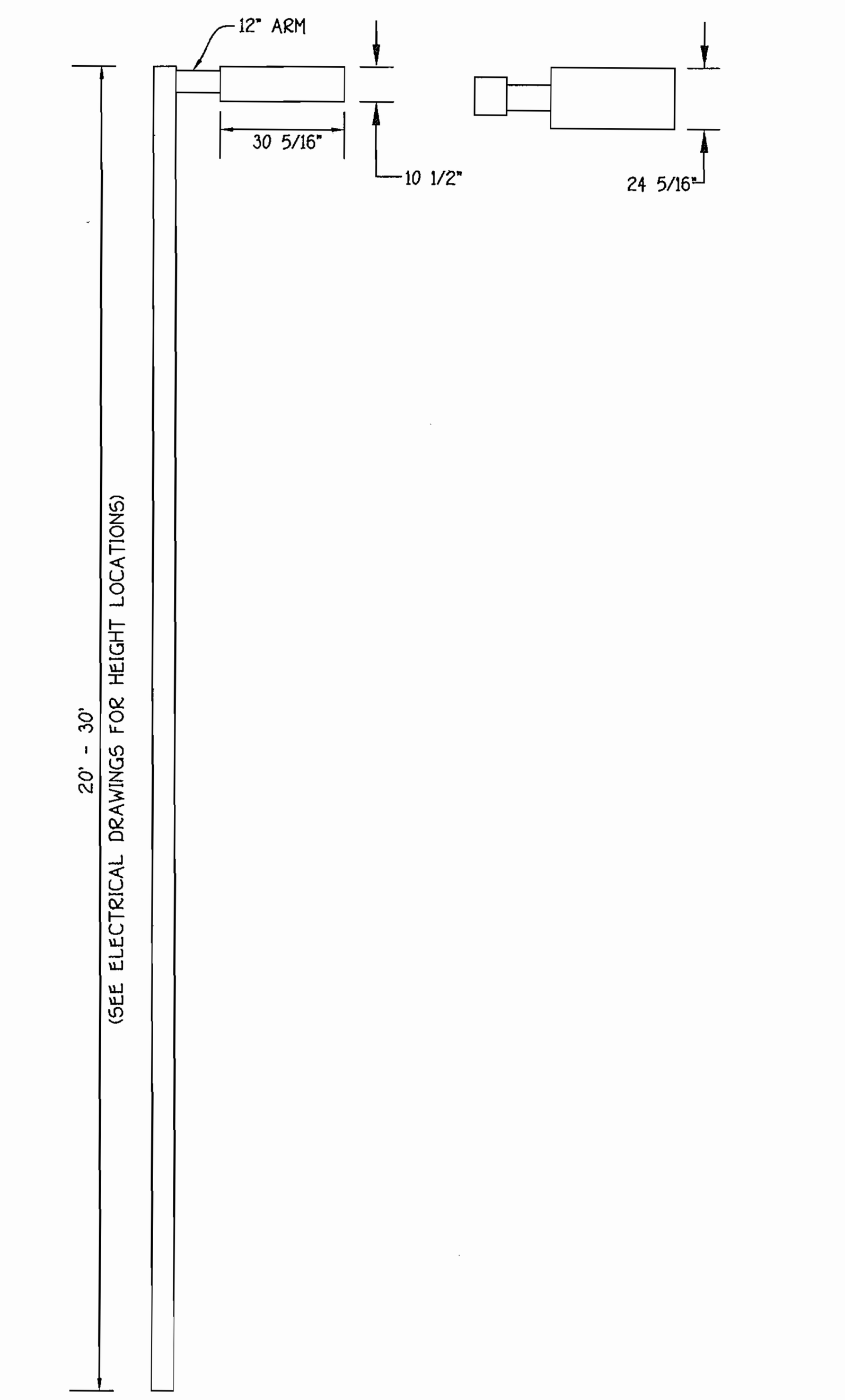
SDP06-040


LOG OF BORING No. SWM1
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: STORMWATER MANAGEMENT POND NORTH OF SCHOOL
ELEVATION: 372.67
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 6
CAVING> 9.4
Depth (feet)
Description
Graphic
Sample No.
Blow Counts
% < #200
TEST RESULTS
Plastic Limit
Liquid Limit
Water Content -
Penetration -
Topsoil - 4 inches
Brown moist SILT & CLAY
USCS - CL-ML
USDA - Clay Loam
Brown and green moist silty SAND
USCS - SM
USDA - Sandy Loam
Green moist mf SAND, and silt
USCS - SM
USDA - Loamy Sand
WEATHERED ROCK
Green moist mf SAND, and silt, trace rock frags
USCS SM
USDA - Loamy Sand
Auger refusal on bedrock @ 13.5 feet
Boring terminated at 13.5 ft.
This information pertains only to this boring and should not be interpreted as being indicitive of the site.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/46


LOG OF BORING No. SWM2
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: STORMWATER POND NORTH OF SCHOOL
ELEVATION: 367.68
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 5.3
CAVING> 8.6
Topsoil - 4 inches
Brown moist SILT
USCS - ML
USDA - Silt Loam
Brown and green moist silty SAND
USCS - SM
USDA - Sandy Loam
Green brown moist mf SAND, and silt
USCS - SM
USDA - Loamy Sand
WEATHERED ROCK
Green moist mf SAND, and silt, trace rock frags
USCS - SM
USDA - Loamy Sand
Boring terminated at 15 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/47

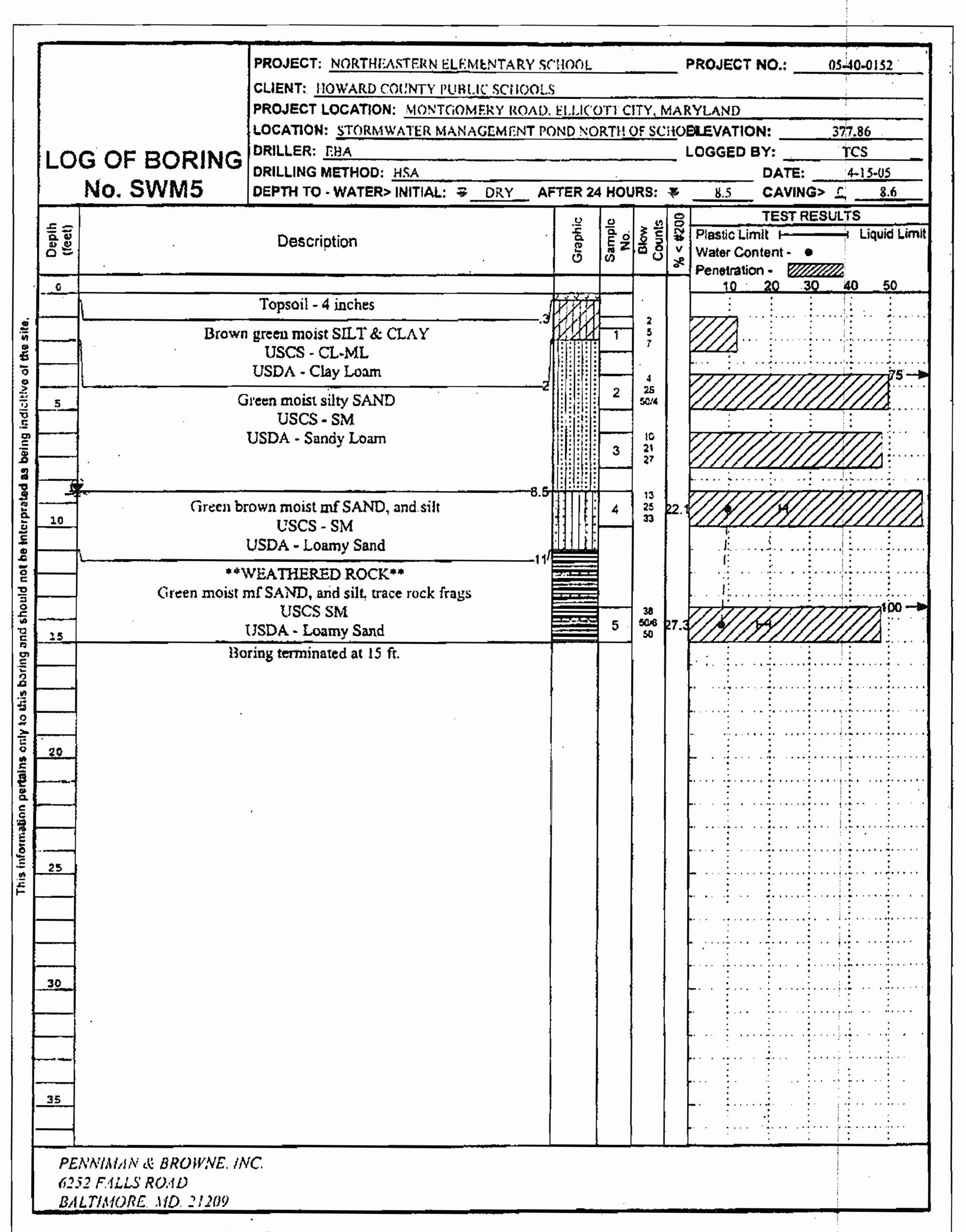

LOG OF BORING No. SWM3
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: STORMWATER MANAGEMENT POND NORTH OF SCHOOL
ELEVATION: 368.95
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 7
CAVING> 7.7
Topsoil - 4 inches
Green moist SILT
USCS - ML
USDA - Silt Loam
Brown and green moist silty SAND
USCS - SM
USDA - Sandy Loam
Boring terminated at 15 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/48

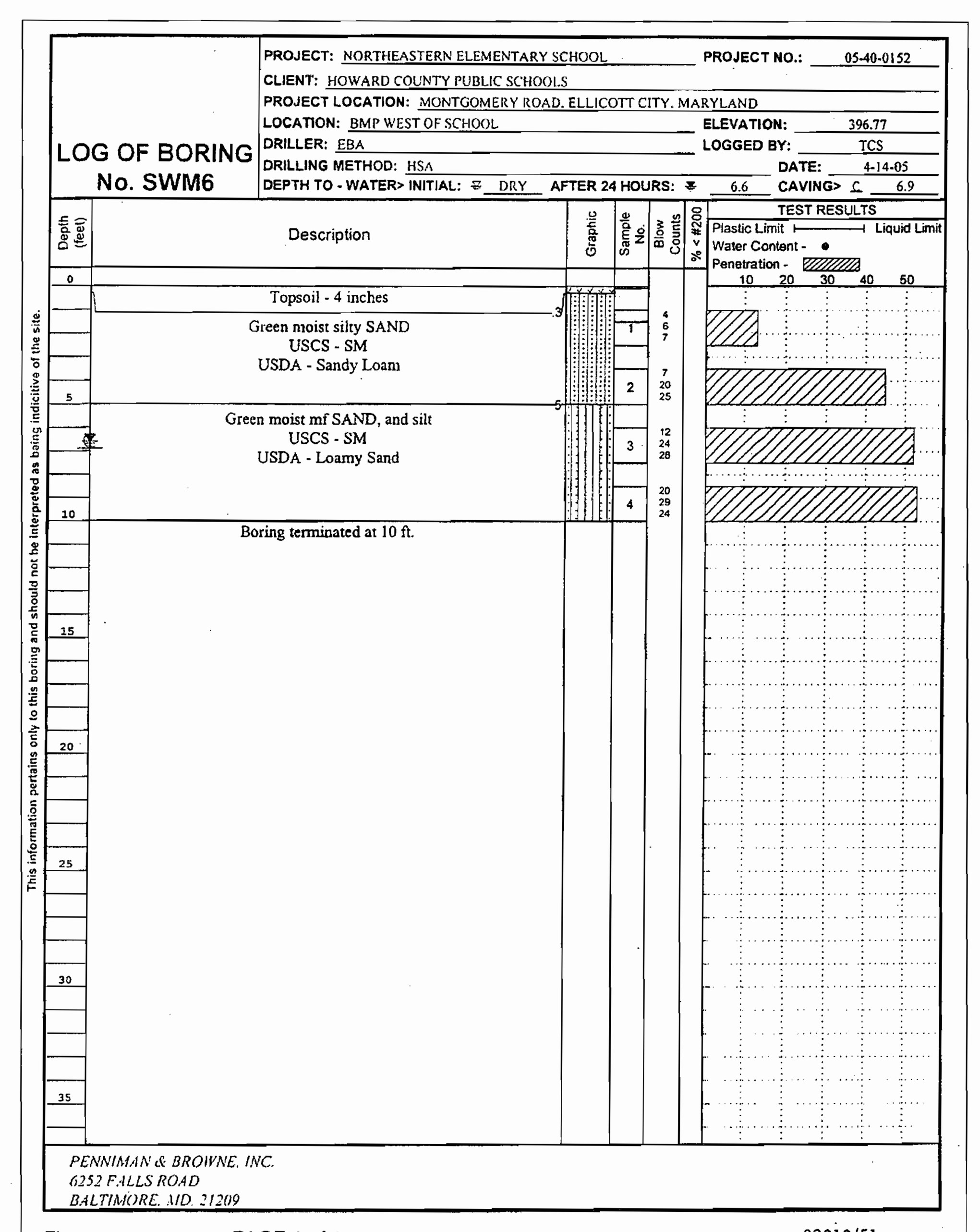

LOG OF BORING No. SWM4
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: STORMWATER MANAGEMENT POND NORTH OF SCHOOL
ELEVATION: 375.65
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 8.4
CAVING> 10.4
Topsoil - 4 inches
Brown and green moist silty SAND
USCS - SM
USDA - Sandy Loam
Green moist SILT
USCS - ML
USDA - Silt Loam
Auger refusal on bedrock @ 16 feet
Boring terminated at 16 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/49

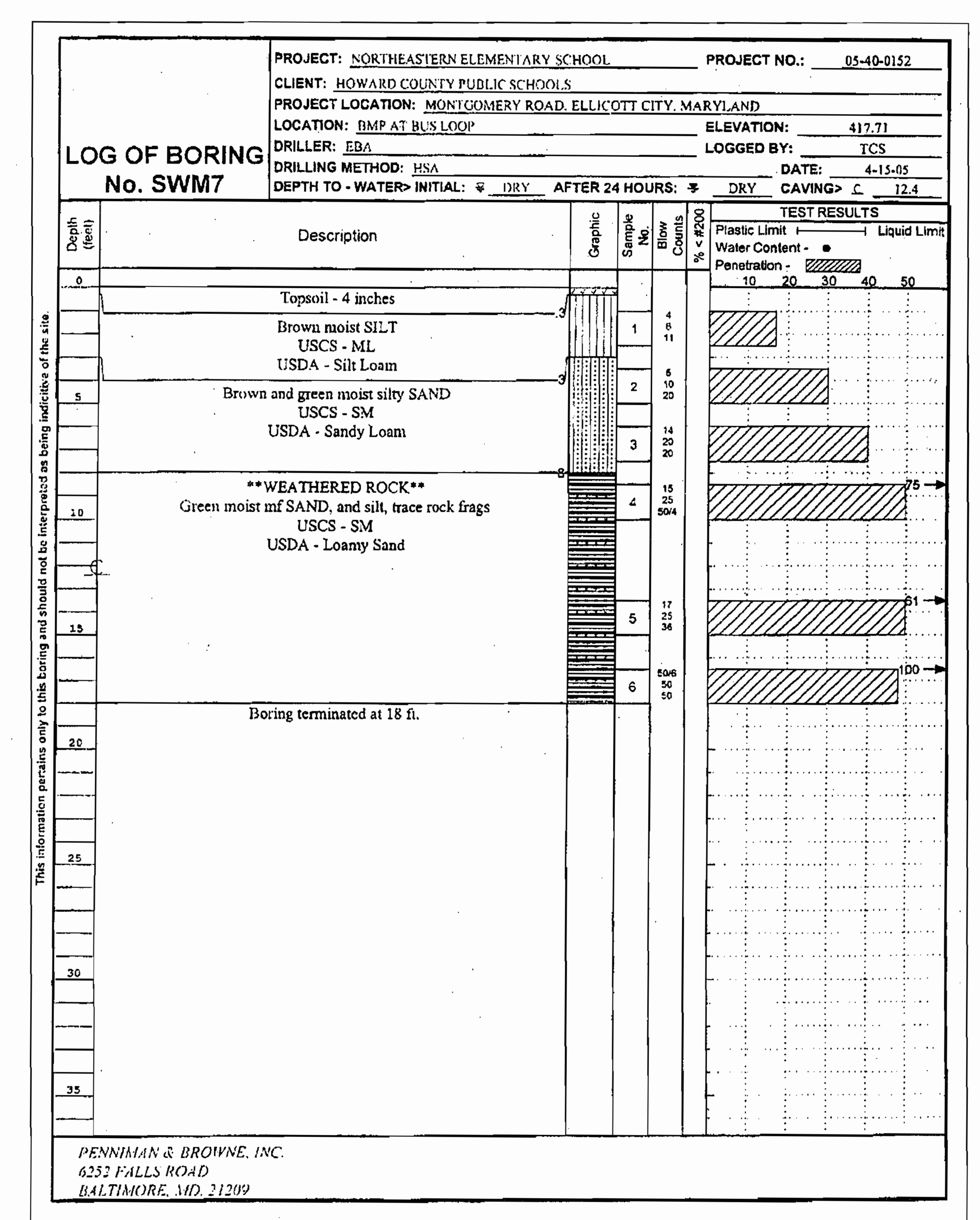


ARM MOUNTED RECTILINEAR CUTOFF LIGHTING (1000 WATT) KSF3 METAL HALIDE

NOT TO SCALE


LOG OF BORING No. SWM5
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: STORMWATER MANAGEMENT POND NORTH OF SCHOOL
ELEVATION: 377.86
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 8.5
CAVING> 8.6
Topsoil - 4 inches
Brown green moist SILT & CLAY
USCS - CL-ML
USDA - Clay Loam
Green moist silty SAND
USCS - SM
USDA - Sandy Loam
Green brown moist mf SAND, and silt
USCS - SM
USDA - Loamy Sand
WEATHERED ROCK
Green moist mf SAND, and silt, trace rock frags
USCS SM
USDA - Loamy Sand
Boring terminated at 15 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/50


LOG OF BORING No. SWM6
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: BMP WEST OF SCHOOL
ELEVATION: 396.77
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-14-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: 6.6
CAVING> 6.9
Topsoil - 4 inches
Green moist silty SAND
USCS - SM
USDA - Sandy Loam
Green moist mf SAND, and silt
USCS - SM
USDA - Loamy Sand
Boring terminated at 10 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/51


LOG OF BORING No. SWM7
PROJECT: NORTHEASTERN ELEMENTARY SCHOOL
PROJECT NO.: 05-40-0152
CLIENT: HOWARD COUNTY PUBLIC SCHOOLS
PROJECT LOCATION: MONTGOMERY ROAD, ELLICOTT CITY, MARYLAND
LOCATION: BMP AT BUS LOOP
ELEVATION: 417.71
DRILLER: EBA
LOGGED BY: TCS
DRILLING METHOD: HSA
DATE: 4-15-05
DEPTH TO - WATER> INITIAL: DRY
AFTER 24 HOURS: DRY
CAVING> 12.4
Topsoil - 4 inches
Brown moist SILT
USCS - ML
USDA - Silt Loam
Brown and green moist silty SAND
USCS - SM
USDA - Sandy Loam
WEATHERED ROCK
Green moist mf SAND, and silt, trace rock frags
USCS - SM
USDA - Loamy Sand
Boring terminated at 18 ft.
PENNIMAN & BROWNE, INC.
6252 FALLS ROAD
BALTIMORE, MD 21209
Figure
PAGE 1 of 1
02010/52

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

SOIL BORING PROFILES & DETAILS

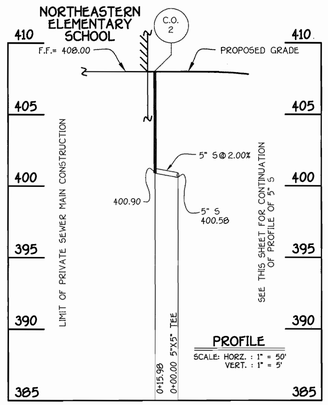
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

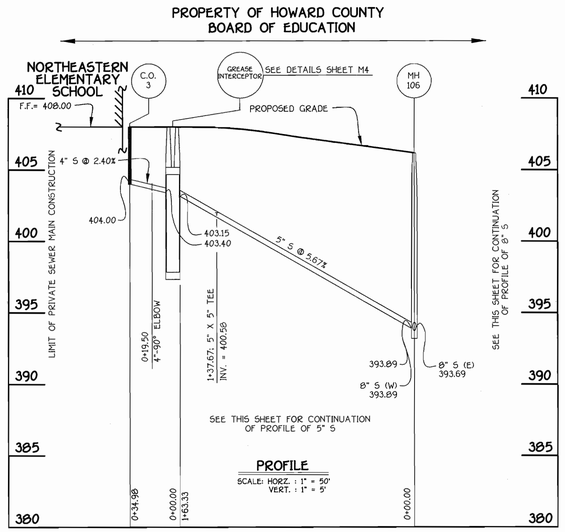
SHEET 28 OF 30

SDP-06-040

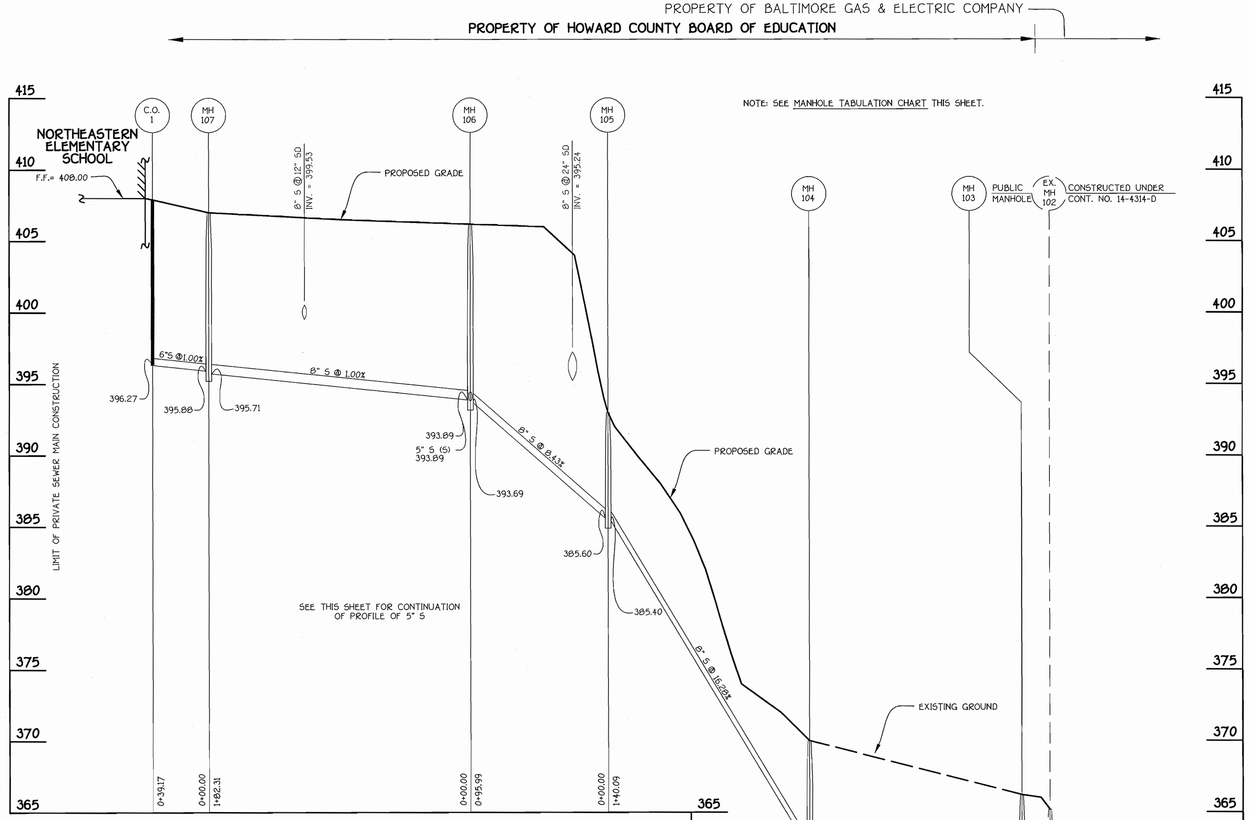
SDP06-040



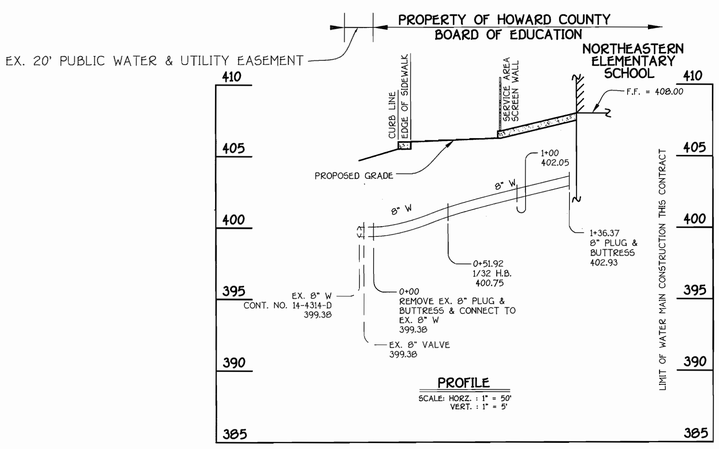
5" SEWER MAIN TO C.O. #2



4" & 5" SEWER MAIN TO C.O. #3



8" & 6" SEWER MAIN TO C.O. #1



PRIVATE 8" WATER MAIN

WATER MAIN TABULATION CHART

W.M. STA.	APPURTENANCE	NORTHING	EASTING
	8" WATER MAIN		
0+00.00	EX. 8" PLUG & BUTTRESS	577997.38	1365500.43
0+51.92	1/32 H.B.	578049.26	1365498.42
1+36.37	8" PLUG & BUTTRESS	578129.93	1365473.43

MANHOLE TABULATION CHART

NO.	NORTHING	EASTING	RIM ELEVATION
103	578676.81	1365471.58	367.00*
104	578533.60	1365507.14	370.00**
105	578397.33	1365540.84	393.00**
106	578365.18	1365450.40	406.70**
107	578342.30	1365269.53	407.00**
C.O. 1	578303.44	1365274.46	407.90**
C.O. 2	578226.60	1365451.83	407.90**
C.O. 3	578181.79	1365457.48	407.90**

NOTE: *SET RIMS FLUSH W/ EXISTING GROUND
**SET RIMS FLUSH W/ PROPOSED FINISHED GRADE
SEE PRIVATE SEWER MAIN PROFILES THIS SHEET

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 10/5/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

PRIVATE WATER AND SEWER MAINS
PROFILES & CHARTS

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 29 OF 30 SDP-06-040

SDP06-040

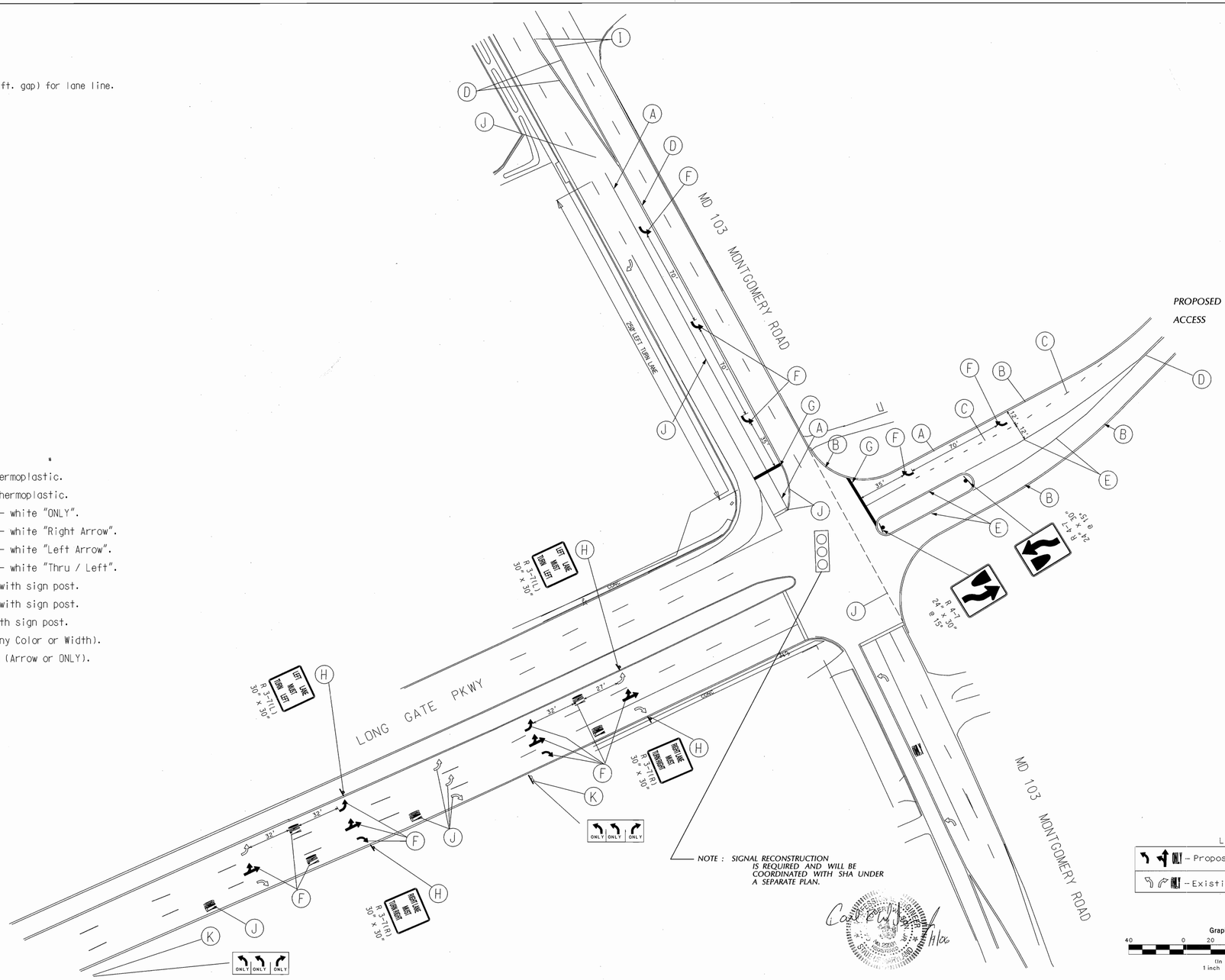
SIGNING AND PAVEMENT MARKING DETAILS

A. Install 5 in. wide solid white pavement marking for lane line.
B. Install 5 in. wide solid white pavement marking for edge line.
C. Install 5 in. wide solid white and dotted white pavement marking (3 ft. segment - 9 ft. gap) for lane line.
D. Install 5 in. wide solid double yellow pavement marking for center line.
E. Install 5 in. wide solid yellow pavement marking for edge line.
F. Install pavement marking symbol as shown.
G. Stop Bar to be installed under Traffic Signal Plans.
H. Install ground mounted sign as shown.
I. Tie to existing pavement markings.
J. Remove existing pavement markings by grinding method.
K. Remove existing ground mounted sign.

MATERIAL LIST

Material to be furnished and/or installed by the Contractor.
All material in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	MD-SHA Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of Traffic.
1,285	LF	539	5 in. wide white Pavement Marking (Lead Free)- Thermoplastic.
1,350	LF	556	5 in. wide yellow Pavement Marking (Lead Free)- Thermoplastic.
3	EA	556	Heat Apply Thermoplastic Pavement Marking Symbol - white "ONLY".
4	EA	556	Heat Apply Thermoplastic Pavement Marking Symbol - white "Right Arrow".
5	EA	556	Heat Apply Thermoplastic Pavement Marking Symbol - white "Left Arrow".
4	EA	556	Heat Apply Thermoplastic Pavement Marking Symbol - white "Thru / Left".
2	EA	813	30 in. x 30 in. R3-7(L) Sign for ground mounting with sign post.
2	EA	813	30 in. x 30 in. R3-7(R) Sign for ground mounting with sign post.
2	EA	813	24 in. x 36 in. R 4-7 Sign for ground mounting with sign post.
700	LF	---	Removal of existing pavement lines by grinding (Any Color or Width).
5	EA	---	Removal of existing pavement markings by grinding (Arrow or ONLY).
2	EA	---	Removal of existing sign and post.



REVISED November 7, 2005

2004-0236

The Traffic Group

The Traffic Group, Inc.
Suite H
9900 Franklin Square Drive
Baltimore, Maryland 21236
410-931-6600
1-800-583-8411
Fax 410-931-6601

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

1804-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 3234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

PAVEMENT MARKING & SIGNING PLAN @ MONTGOMERY RD. & LONG GATE PKWY.

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 30 OF 30 SDP-06-040

SDPOG-040

f:\2004\2004-0236\Dwg\Northeastern Elem. School\PM_LongGate&Montgomery-V7-rev-dgn

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

SOILS LEGEND

SOIL	NAME	CLASS
* KeB2	Kelly silt loam, 3 to 8 percent slopes, moderately eroded	D
LeB2	Legore silt loam, 3 to 8 percent slopes, moderately eroded	B
LgC3	Legore silty clay loam, 8 to 15 percent slopes, severely eroded	B
MlE	Manor loam, 25 to 45 percent slopes	B
NeB2	Neshaminy silt loam, 3 to 8 percent slopes, moderately eroded	B
NeC2	Neshaminy silt loam, 8 to 15 percent slopes, moderately eroded	B
** WAB	Watchung silt loam, 3 to 8 percent slopes	D

NOTES:
* Hydric soils and/or contains hydric inclusions
** May contain hydric inclusions

SOILS MAP NO.20

PLAN
SCALE: 1" = 40'

NO.	REVISION	DATE
1.	REVISIONS PER APPROVING THE ENTRANCE ROADS, GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/05/06

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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements

U.S.D.A. - Natural Resources Conservation Service — Date

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2.10.06

Approved: This Development is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/5/06

Chief, Division of Land Development — Date 3/5/06

Chief, Development Engineering Division — Date 3/6/06

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
Ellicott City, Maryland 21042
Attention Bruce Gist
410-313-6790

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

13016-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT				SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.				N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9233/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SOILS MAP AND STORM DRAIN DRAINAGE AREA MAP

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005

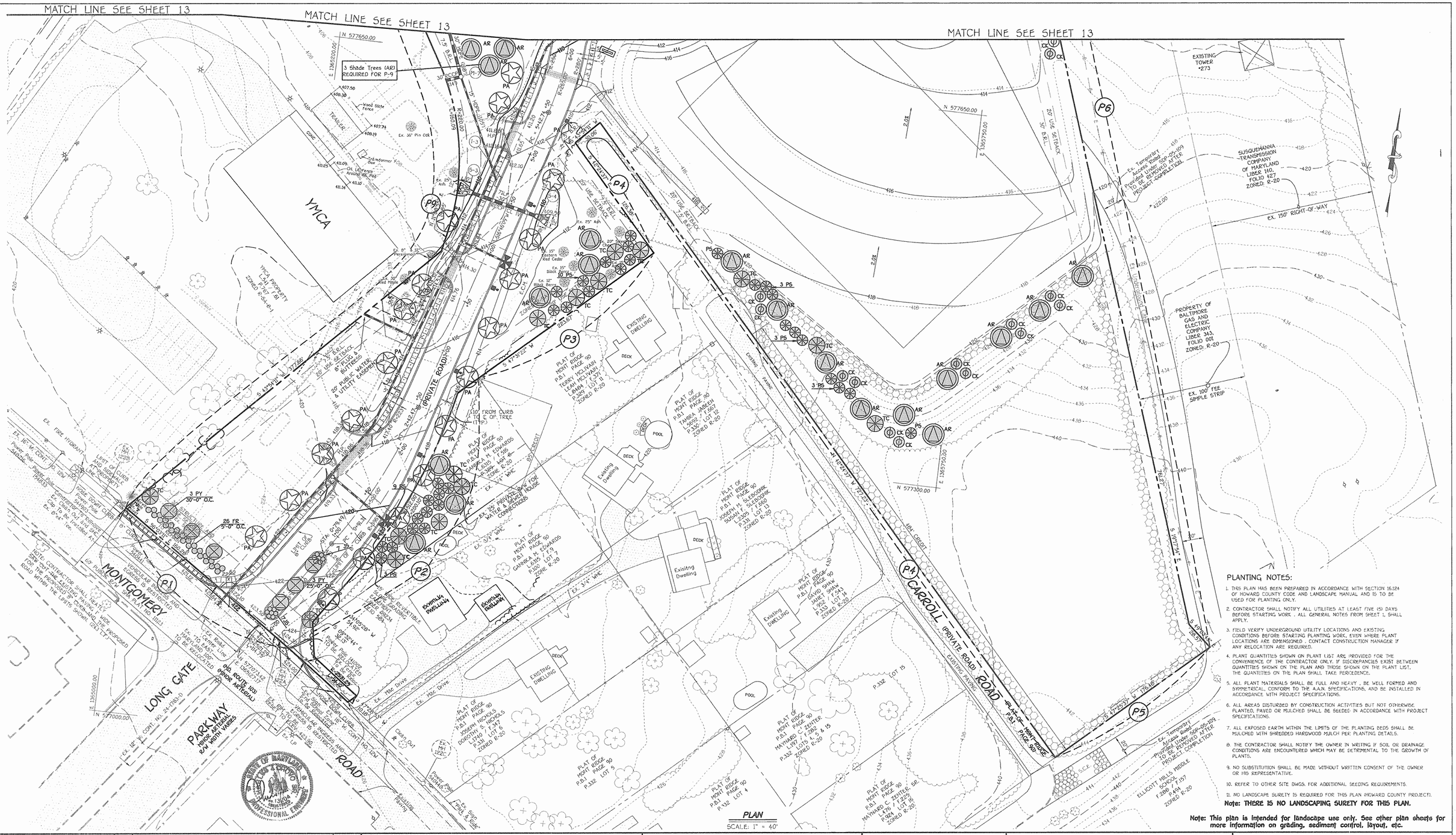
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 23 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\03035\SDPVIEW-10-03-05\03035 SD DRAINAGE AREA MAP (SHEETS 23-25).dwg, 2/8/2006 4:29:29 PM, 1:1



PLANTING NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND IS TO BE USED FOR PLANTING ONLY.
2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK. ALL GENERAL NOTES FROM SHEET 1, SHALL APPLY.
3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK, EVEN WHERE PLANT LOCATIONS ARE DIMENSIONED. CONTACT CONSTRUCTION MANAGER IF ANY RELOCATION ARE REQUIRED.
4. PLANT QUANTITIES SHOWN ON PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PERCEDENCE.
5. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE A.A.N. SPECIFICATIONS, AND BE INSTALLED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SEEDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
7. ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER PLANTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF SOIL OR DRAINAGE CONDITIONS ARE ENCOUNTERED WHICH MAY BE DETRIMENTAL TO THE GROWTH OF PLANTS.
9. NO SUBSTITUTION SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR HIS REPRESENTATIVE.
10. REFER TO OTHER SITE DWGS. FOR ADDITIONAL SEEDING REQUIREMENTS.
11. NO LANDSCAPE SURETY IS REQUIRED FOR THIS PLAN (HOWARD COUNTY PROJECT).

Note: THERE IS NO LANDSCAPING SURETY FOR THIS PLAN.

Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

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

NO.	REVISION	DATE
1	REVISIONS PER APPROVED THE ENTRANCE ROADS, GRADING, IMPROVEMENTS AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/05/06

LANDSCAPE CERTIFICATION

I/We certify that the landscaping shown on this plan will be done according to the approved plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

WILLIAM BROWN, PhD. — 2.10.06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 9/5/06

Chief, Division of Land Development — Date 3/15/06

Chief, Development Engineering Division — Date 3/16/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF. 9030/201, 9030/437, 9030/445 & 9234/364	BLOCK NO. 24	ZONE R-20, R-SC-1, R-SA-8-1, R-SA-8	TAX/ZONE 24	ELEC. DIST. SECOND	CENSUS TR. 6028.00
WATER CODE F04			SEWER CODE 5750615		

LANDSCAPE PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 12 OF 30 SDP-06-040

SDP06-040

K:\SDSKPROJ\4038\SDP\NEW-10-03-05\4038SDPNEW-10-03-05\4038 LANDSCAPING PLAN (SHEETS 12-15).dwg, 2/8/2006 4:16:08 PM, 1:1

MATCH LINE SEE SHEET 9

MATCH LINE SEE SHEET 9

MATCH LINE SEE SHEET 9

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

EX. EARTH DIKE TO BE REMOVED

EX. EARTH DIKE TO BE REMOVED (SDP-05-109)

EX. SILT FENCE TO BE REMOVED (SDP-05-109)

EX. EARTH DIKE TO BE REMOVED (SDP-05-007)

EXISTING TEMPORARY STOCKPILE AREA

EXISTING TEMPORARY STOCKPILE AREA

CLEAN WATER DIVERSION EARTH DIKE A-2

CONTRACTOR TO INSTALL PIPE AND HEADWALL AND IMMEDIATELY STABILIZE AREA UPSTREAM.

E.C.M.

CLEAN WATER DIVERSION EARTH DIKE A-2

TREE PROTECTION FENCE AND CLEAN WATER DIVERSION WITH PERIMETER DIKE/SWALE (PD/S-2) PROVIDE EMBRICATED SILT FENCE ALONG INVERT OF SWALE AT 100-FT INTERVAL.

REPLACE EX. TREE PROTECTION FENCE WITH CLEAN WATER DIVERSION WITH PERIMETER DIKE/SWALE (PD/S-2) PROVIDE EMBRICATED SILT FENCE ALONG INVERT OF SWALE AT 100-FT INTERVAL.

EX. 5CE TO BE REMOVED SDP-05-109 AND PAVE AREA TO MEET THE EXISTING ROAD.

EX. 55F TO REMAIN (SDP-05-109)

EX. SILT FENCE TO REMAIN (SDP-05-109)

L.O.D

YMCA

CARROLL (PRIVATE) ROAD

MONTGOMERY ROAD

LONG GATE PARKWAY

PLAN

SCALE: 1" = 40'

NO.	REVISION	DATE
1	REVISIONS PER APPROVING THE ENTRANCE ROADS, GRADING, INFRASTRUCTURES AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	2/23/06

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

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements

U.S.D.A. Natural Resources Conservation Service — Date 2/27/06

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2-10-06

Approved: This Development Is Approved For Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date 2/27/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/3/06

Chief, Division of Land Development — Date 3/6/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

18014-19

Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT		SECTION/AREA	P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.		N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 4234/582	24	R-20, R-SC-1, R-SA-8, R-SA-8	24	SECOND	6028.00
WATER CODE	F04	SEWER CODE	5750615		

SEDIMENT AND EROSION CONTROL PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 8 OF 30 SDP-06-040

SDP06-040

K:\SDSKPROJ\4038\SDP\NEW-10-03-05\4038S SEC PLAN (SHEETS 8, 9 & 10).dwg, 2/13/2006 3:12:06 PM, 1:1

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

NO.	REVISION	DATE
1	REVISIONS FOR APPROVING THE ENTRANCE ROADS, GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/25/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Maryland Route 108
Ellicott City, Maryland 21042
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18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-I, R-SA-8-I, R-SA-8	24	SECOND	6028.00

WATER CODE F04 — SEWER CODE 5750615

SITE DEVELOPMENT PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 2 OF 30

SDP-06-040

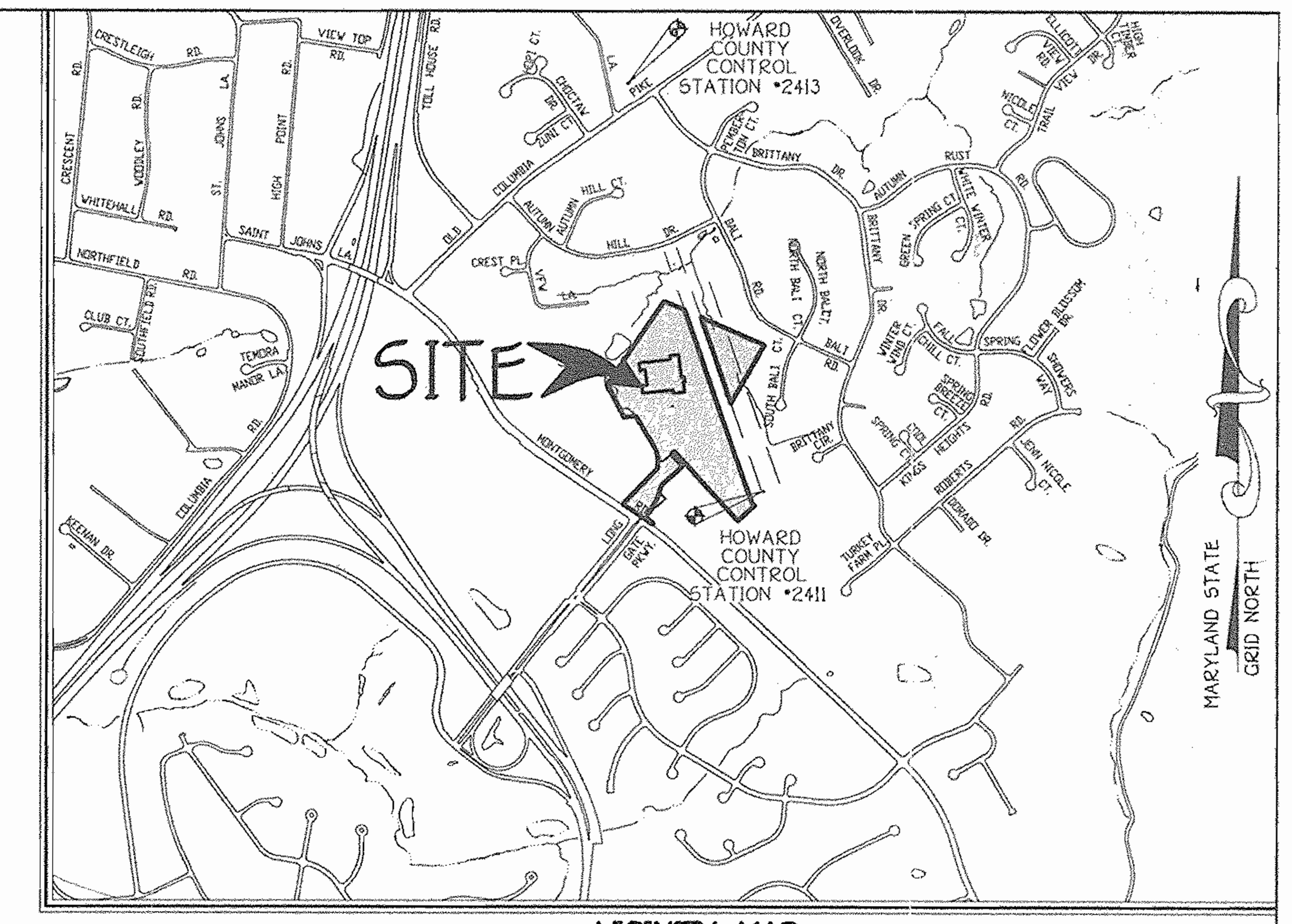
SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SITE PLAN (SHEETS 2-5).dwg, 2/13/2006 11:23:42 AM, 1:1

SITE DEVELOPMENT PLAN
NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

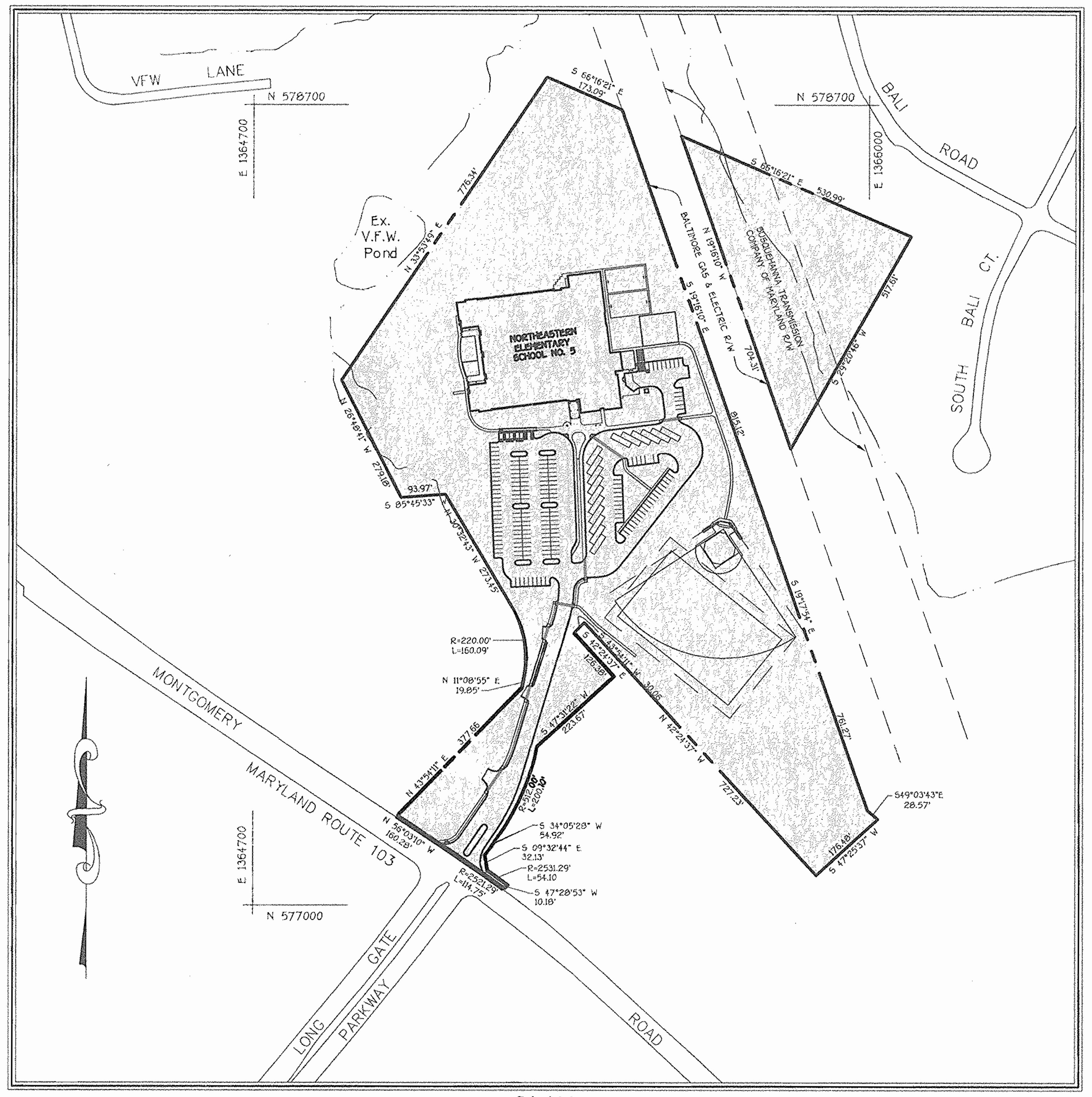
SHEET INDEX



VICINITY MAP
SCALE: 1" = 1200'

SITE ANALYSIS DATA

1. General Site Data:
   - A. Present Zoning: R-20, R-SA-8, R-SA-8-1 and R-SC-1
   - B. Proposed use of site or structure: Institutional; Public School
   - C. Public water and sewer to be utilized.
2. Area Tabulation:
   - A. Total project area: 23.66 Ac±
   - B. Area of this plan submission: 17.08 Ac.± is the limit of submission and grading disturbance for the construction of the school and associated parking.
   - C. Impervious Coverage
     Proposed Paved Areas (Access Road, Parking and Walkways) - 167,213.54 Sq.Ft.
     Building Coverage 73,449.05 SqFt. or 7.13%
3. Open Space Data:
   - A. Open Space Required: N/A
4. Parking Space Data:
   - A. The Number of parking spaces in accordance with the Public School System's requirements = 185
   - B. Total number of parking spaces provided on site: (Including handicap Parking) = 185 and 1 Drop Off Space .
   - C. Number of Handicaped parking spaces provided: (Including Handicap Van Spaces) = 6.
   - D. Total Number of Bus Stacking spaces provided = 18



PLAN
SCALE: 1" = 200'

LEGEND

Description	Symbol
Proposed Street Light	
Existing Contour	--400-----
Proposed Contour	—400—
Existing Storm Drain Line	Ex. 12" S.D.
Proposed Storm Drain Line	24" HDPE (150')
Existing Tree & Treeline	
New Treeline	
Ex. Tree	
Existing Fence	x——x——x——x
Proposed Fence	X——X——X——X
Limit of Grading Disturbance (L.O.D.)	
Wetland Buffer	
Stream Buffer	
Wetland Area	
Super Silt Fence	SSF——SSF——SSF
Silt Fence	SF——SF——SF
Forest Conservation Easement	
Existing Paving	
Existing Paving To Be Removed	
Proposed Concrete	
Proposed Macadam	
Tree Protection Fence	TP
Erosion Control Matting (E.C.M.)	

NOTES:

A) In accordance with the Howard County Zoning Regulations adopted April 13, 2004, Section 128 in the Supplementary Zoning District Regulations states in A.10 that setbacks from lot lines internal to a development when two or more contiguous lots or parcels are treated as a single parcel for development purposes, the structure and use setbacks from lot lines internal to the development shall not apply.

B) This plan is subject to Waiver Petition WP-06-48.

The Planning Director on January 3, 2006 approved the request for a waiver from Section 16.116 (a)(1) and 16.116 (a)(2)(ii) which prohibits grading, removal of vegetative cover and trees, paving and new structures within 25 feet of a wetland and 75 feet of a perennial stream to permit construction and grading for a SWM facility outfall pipe and rip-rap channel for the new elementary school site to be located off-site on a portion of the adjoining VFW site.

Approval is subject to the following conditions:

1. The waiver petition approval pertains to the limit of disturbance within the wetlands and stream buffers as shown on the waiver petition plan exhibit only and SDP-06-40. Best management practices for working within the wetlands and stream buffers shall be used by all contractors when installing the SWM outfall pipe and rip-rap channel.
2. The proposed SWM outfall pipe installation and all grading disturbances located within the wetlands and stream buffers are subject to obtaining all necessary Water Quality Certificates and Permits from the Maryland Department of the Environment, and/or the U.S. Army Corp of Engineers, if applicable.

C) The County Council on January 3, 2006 regarding resolution No. 146-2005 granted a variance from the 10 foot building restriction line requirement along the western edge of the property and the 10 foot building restriction line requirement along the northern edge of the property located in the R-20 district for the construction of an 8 foot high fence to be placed along the property line at the Northeastern Elementary School on Montgomery Road.

BGE R/W & FOREST CONSERVATION EASEMENT NOTE:

"Based on a determination by DPZ in a letter dated 9/16/05, the Department of Planning and Zoning may authorize the trimming or the removal of trees or vegetation within the forest conservation easements located immediately adjacent to the BGE R/W or Easement, if BGE determines the trees are compromising the safety of a transmission line located within their Utility R/W or Easement. If BGE intends to trim or remove trees within a forest conservation easement, a letter specifying the location and scope of work needs to be sent to DPZ atleast 30 days in advance of undertaking the work. DPZ understands Constellation Energy's need to protect its transmission lines and will not unreasonably withhold permission".

General Notes

1. All construction shall be accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. 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.
3. The contractor shall notify Miss Utility at 1-800-257-7777 at least 48 hours prior to any digging and excavation work.
4. Project Background:
   Location: Tax Map 24, Grid 24, P.O. Parcels 100, 321 & 767 And Parcel Nos.: 328 & 329
   Zoning: This project is zoned R-20, R-SA-8, R-SA-8-1 and R-SC-1 per the 2/2/04 comprehensive zoning plan.
   Election District: SECOND
   Section/Area: N/A
   Site Area: 23.66 Ac.±
5. 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
6. 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.
7. Existing topography and features were derived from a field run survey by Fisher, Collins and Carter Inc. and Harford Aerial Surveys inc. on or about March 22, 2003.
8. Coordinates are based on NAD 83 Maryland Coordinates System as projected by Howard County Geodetic Control Stations. 2411 N 577,298.654 E 1,366,075.133 ELEV. 473.805; 2413 N 580,648.910 E 1,364,974.458 ELEV. 404.518
9. Public water and sewer is to be utilized for this project. The existing water and sewer systems serving this project are Contract No. 12-W and Contract No. 542-S. The water main extension shall be constructed under Contract No. 14-4314-D. See Note No. 37.
10. Stormwater management (SWM) will be provided by a micropool extended-detention BMP (main pond in back of school) and two (2) recharge facilities in the parking lot. Non-rooftop runoff credit is used to address a small sidewalk area west of the school. All SWM facilities will be privately owned and maintained by the Howard County Public School System.
11. All on-site storm drains under this site development plan are private.
12. The existing utilities shown hereon 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.
13. All proposed ramps shall be in accordance with current A.D.A. Standards Accessibility Guidelines. Maximum sidewalk cross slope shall be two percent. Provide a (5'x5') 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.
14. All driveways and parking to be owned and maintained by the Howard County Public School System.
15. Any damage to County and or State owned right-of-way to be corrected at the Contractor's expense.
16. Trench bedding for storm drains structures shall be in accordance with Howard County Standard G2.01 Class C Bedding unless otherwise noted.
17. Gutter pan of curbs shall be pitched to conform to the adjacent drainage patterns of the adjoining paving for vehicular use. See detail 9/6
18. For details of building profile, parking, road section, handicap, curb and gutter see sheets 6 and 7.
19. 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.
20. This Project is recorded among the land records in Howard County, Maryland as Liber/Folio, 9030/201, 9030/437, 9030/445 & 9234/584.
21. Other topics related to this site:
    Soils Analysis prepared by: Penniman and Browne dated April 15, 2005.
22. 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. See detail sheet 28. "Light trespass onto adjoining residential properties shall be limited 0.1 foot candles."
23. The building shall be equipped with an automatic fire prevention sprinkler system.
24. A Wetland delineation report was prepared by Eco-Science Professionals Inc. dated February 21, 2005.
25. Previous DPZ file numbers SDP-05-109, WP-04-127, WP-06-48.
26. 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.
27. No clearing, grading or construction is permitted within the limit of wetlands, streams or their required buffers, except as approved on this plan for necessary utility line disturbances in accordance with Section 16.116(c) of the Subdivision and Land Development Regulations.
28. No landscape surety is required for this plan since it is a Howard County project.
29. A Forest Conservation Report was Provided By Eco-Science Professionals dated February 21, 2005.
30. See recorded plat #18014 thru #18019 for Forest Conservation Easement Area, for bearing and distance information.
31. The Forest Conservation Act requirements for this project will be met through the retention of 3.7 Acres of net tract area forest within the limits of a forest conservation easement and the afforestation/reforestation of 1.6 Acres on site and and 2.8 acres of forest at the Bellows Spring Elementary School property off of Old Stockbridge Lane (SDP-02-36). The total forest conservation obligation for this project is 8.1 Acres. The forest conservation requirements were addressed and provided under SDP-05-109.
32. 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 (14 gauge) inserted into a 2-1/2" galvanized steel, perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
33. Landscaping is in accordance with Section 16.124 of the Howard County Code and the Landscape Manual.
34. WP-04-127 is a waiver approved on June 18, 2004. WP-06-48 is a waiver approved on January 3, 2006. The Planning Director approved the request for a waiver from Section 16.115(c)(2) which prohibits clearing, excavating, filling, altering drainage, impervious paving or placement of structures within 100 year flood plain and from Sections 16.116(a)(1), 16.116(a)(2)(ii) and 16.116(c)(1) which prohibits grading, removal of vegetative cover and trees, paving and new structures within 25 feet of a wetland and 75 feet of a perennial stream to permit construction and grading for a permanent 600' long private access driveway to a proposed elementary school site to be located on a portion of the existing VFW site. The Howard County Public School system is now providing Ingress and Egress from Montgomery Road and is not providing Ingress and Egress from Autum Hill Drive through the B.G.&E. R/W as approved in the waiver petition.
35. Traffic study was provided by the Traffic Group dated Jan. 31, 2005.
36. The existing on-site well (Parcel No. 328) will be properly abandoned/sealed by a licensed well driller and state forms submitted as documentation .
37. Condemnation papers have been filed in the Howard County Circuit Court for the acquisition of Parcel No. 328 James C. Pippen Property Court Case 13-C-05-63599. The Board Of Education Of Howard County Has Acquired Fee Simple Title To The Pippen Property Recorded In Liber 10203 Folio 009.
38. The S.R.C. Agencies have determined the entrance drive and associated grading in the wetland area adjacent to roadway at station 3+00 to 3+50 as an essential environmental disturbance in accordance with Section 16.116(c) of the Subdivision and Land Development Regulations.
39. A wetland permit application has been submitted to the Maryland Department of the Environment. The Application is for impacts to the wetlands streams and buffers for a Storm Water Management outfall pipe, And roadway grading adjacent to Sta. 3+00 And 3+50. The tracking number is #200660372/05-NT-3247. Use 1 stream closure dates March 1 - June 15.

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

NO.	REVISION	DATE
1	REVISIONS FOR APPROVING THE ENTRANCE ROADS GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/25/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06
Chief, Division of Land Development — Date 3/8/06
Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

18014-18019 →

WATER CODE	SEWER CODE
F04	5750615

TITLE SHEET

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 1 OF 30
SDP-06-040

SDP06-040

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

MATCH LINE SEE SHEET 24

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

SOILS LEGEND

SOIL	NAME	CLASS
* KeB2	Kelly silt loam, 3 to 8 percent slopes, moderately eroded	D
LeB2	Legore silt loam, 3 to 8 percent slopes, moderately eroded	B
LgC3	Legore silty clay loam, 8 to 15 percent slopes, severely eroded	B
MlE	Manor loam, 25 to 45 percent slopes	B
NeB2	Neshaminy silt loam, 3 to 8 percent slopes, moderately eroded	B
NeC2	Neshaminy silt loam, 8 to 15 percent slopes, moderately eroded	B
** WaB	Watchung silt loam, 3 to 8 percent slopes	D

NOTES:

SOILS MAP NO.20

* Hydric soils and/or contains hydric inclusions

** May contain hydric inclusions

PLAN

SCALE: 1" = 40'

NO.	REVISION	DATE
2	Revised width and alignment of Carroll Road.	6/11/07
1	REVISIONS PER APPROVING THE ENTRANCE ROAD, GRADING, INFRASTRUCTURE AND AMENITIES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/25/06

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2.6.06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/6/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements

U.S.D.A. - Natural Resources Conservation Service — Date

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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Address Chart	
Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA	P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.			N/A	100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 4234/564	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SOILS MAP AND STORM DRAIN DRAINAGE AREA MAP

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24

P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 23 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SD DRAINAGE AREA MAP (SHEETS 23-25).dwg, 2/8/2006 4:29:29 PM, 1:1

PLANTING NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND IS TO BE USED FOR PLANTING ONLY.
2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK . ALL GENERAL NOTES FROM SHEET 1, SHALL APPLY.
3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK, EVEN WHERE PLANT LOCATIONS ARE DIMENSIONED . CONTACT CONSTRUCTION MANAGER IF ANY RELOCATION ARE REQUIRED.
4. PLANT QUANTITIES SHOWN ON PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PERCEDENCE.
5. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY , BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE A.A.N. SPECIFICATIONS, AND BE INSTALLED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SEEDED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
7. ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER PLANTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF SOIL OR DRAINAGE CONDITIONS ARE ENCOUNTERED WHICH MAY BE DETRIMENTAL TO THE GROWTH OF PLANTS.
9. NO SUBSTITUTION SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR HIS REPRESENTATIVE.
10. REFER TO OTHER SITE DWGS. FOR ADDITIONAL SEEDING REQUIREMENTS.
11. NO LANDSCAPE SURETY IS REQUIRED FOR THIS PLAN (HOWARD COUNTY PROJECT).

Note: THERE IS NO LANDSCAPING SURETY FOR THIS PLAN.

Note: This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

FISHER, COLLINS & CARTER, INC.
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(410) 461 - 2855

NO.	REVISION	DATE
2	Revised width and alignment of Carroll Road.	6/11/07
1	REVISIONS FOR APPROVING THE ENTRANCE ROADS, GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/25/06

LANDSCAPE CERTIFICATION

I/We certify that the landscaping shown on this plan will be done according to the approved plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

WILLIAM BROWN, PhD. — 2.10.06 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/5/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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

TCA ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MARYLAND 21401
(410) 841-6205

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT	SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

LANDSCAPE PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 12 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 LANDSCAPING PLAN (SHEETS 12-15).dwg, 2/8/2006 4:16:08 PM, 1:1

MATCH LINE SEE SHEET 9

MATCH LINE SEE SHEET 9

MATCH LINE SEE SHEET 9

NOTE: ALL EARTH DIKES ARE TO BE REPAIRED IMMEDIATELY OF DISTURBANCE DURING CONSTRUCTION ACTIVITY

EX. EARTH DIKE TO BE REMOVED

EX. EARTH DIKE TO BE REMOVED (SDP-05-109)

EX. SILT FENCE TO BE REMOVED (SDP-05-109)

EX. EARTH DIKE TO BE REMOVED (SDP-05-0077)

EXISTING TEMPORARY STOCKPILE AREA

EXISTING TEMPORARY STOCKPILE AREA

CLEAN WATER DIVERSION EARTH DIKE A-2

CONTRACTOR TO INSTALL PIPE AND HEADWALL AND IMMEDIATELY STABILIZE AREA UPSTREAM

E.C.M.

CLEAN WATER DIVERSION EARTH DIKE A-2

TREE PROTECTION FENCE AND CLEAN WATER DIVERSION WITH PERIMETER DIKE/SWALE (PD/S-2) PROVIDE EMBRICATED SILT FENCE ALONG INVERT OF SWALE AT 100-FT INTERVAL

REPLACE EX. TREE PROTECTION FENCE WITH CLEAN WATER DIVERSION WITH PERIMETER DIKE/SWALE (PD/S-2) PROVIDE EMBRICATED SILT FENCE ALONG INVERT OF SWALE AT 100-FT INTERVAL

Proposed 16' wide driveway

Proposed 16' wide driveway

EX SCE TO BE REMOVED SDP-05-109 AND PAVE AREA TO MEET THE EXISTING ROAD.

Taper proposed driveway to align with existing paving

EX. SILT FENCE TO REMAIN (SDP-05-109)

EX. EARTH DIKE TO BE REMOVED (SDP-05-109)

L.O.D

YNCA

MONTGOMERY ROAD

LONG GATE PARKWAY

CARROLL PRIVATE ROAD

PLAN

SCALE: 1" = 40'

NO.	REVISION	DATE
2	Revised width & alignment of Carroll Road; Added Silt Fence, LOD	6/1/07
1	REVISIONS PER APPROVING THE ENTRANCE ROAD, GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD	2/23/06

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(410) 461 - 2855

ENGINEER'S CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Condition And That It Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District.

Signature Of Engineer — Date 2/13/06

Reviewed For Howard County Soil Conservation District And Meets Technical Requirements

U.S.D.A. - Natural Resources Conservation Service — Date 2/27/06

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature Of Developer — Date 2.10.06

Approved: This Development Is Approved The Howard Soil Conservation District.

District Howard Soil Conservation Dist. — Date 2/27/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning And Zoning — Date 2/3/06

Chief, Division of Land Development — Date 3/6/06

Chief, Development Engineering Division — Date 3/6/06

PREPARED FOR
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10910 Maryland Route 108
Ellicott City, Maryland 21042
Attention Bruce Gist
410-313-6798

TCA ARCHITECTS
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(410) 841-6205

18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT			SECTION/AREA		P.O. PARCEL Nos.
NORTHEASTERN ELEMENTARY SCH.			N/A		100, 321, 767 328 & 329
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9233/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00
WATER CODE		SEWER CODE			
F04		5750615			

SEDIMENT AND EROSION CONTROL PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24

P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 40' DATE: DEC. 16, 2005

BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 8 OF 30 SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDPNEW-10-03-05\40385 SEC PLAN (SHEETS 8, 9 & 10).dwg, 2/13/2006 3:12:06 PM, 1:1

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

NO.	REVISION	DATE
2	Revised width and alignment of Carroll Road & added Const./Maint. note.	6/11/07
1	REVISIONS PER APPROVING THE ENTRANCE ROADS, GRADING, INFRASTRUCTURE AND APPURTENANCES TO BE CONSTRUCTED TO MONTGOMERY ROAD.	9/25/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning — Date 3/9/06

Chief, Division of Land Development — Date 3/8/06

Chief, Development Engineering Division — Date 3/6/06

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18014-19

Address Chart

Parcel Number	Street Address
100, 321, 767 328 & 329	4355 MONTGOMERY ROAD

PROJECT	SECTION/AREA	P.O. PARCEL Nos
NORTHEASTERN ELEMENTARY SCH.	N/A	100, 321, 767 328 & 329

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
9030/201, 9030/437, 9030/445 & 9234/584	24	R-20, R-SC-1, R-SA-8-1, R-SA-8	24	SECOND	6028.00

WATER CODE	SEWER CODE
F04	5750615

SITE DEVELOPMENT PLAN

NORTHEASTERN ELEMENTARY SCHOOL

TAX MAP No.: 24 GRID No: 24
P.O. PARCEL Nos.: 100, 321 & 767 AND PARCEL Nos.: 328 & 329
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 40' DATE: DEC. 16, 2005
BUILDING PERMIT/CD REVIEW 14 OCTOBER 05

SHEET 2 OF 30

SDP-06-040

SDP06-040

K:\SDSKPROJ\40385\SDP\NEW-10-03-05\40385 SITE PLAN (SHEETS 2-5).dwg, 2/13/2006 11:23:42 AM, 1:1