

NO.	DATE	REVISION
1	8/1/72	Added Profiles 1-110 to D-200 And 1-112 to Vipe Branch

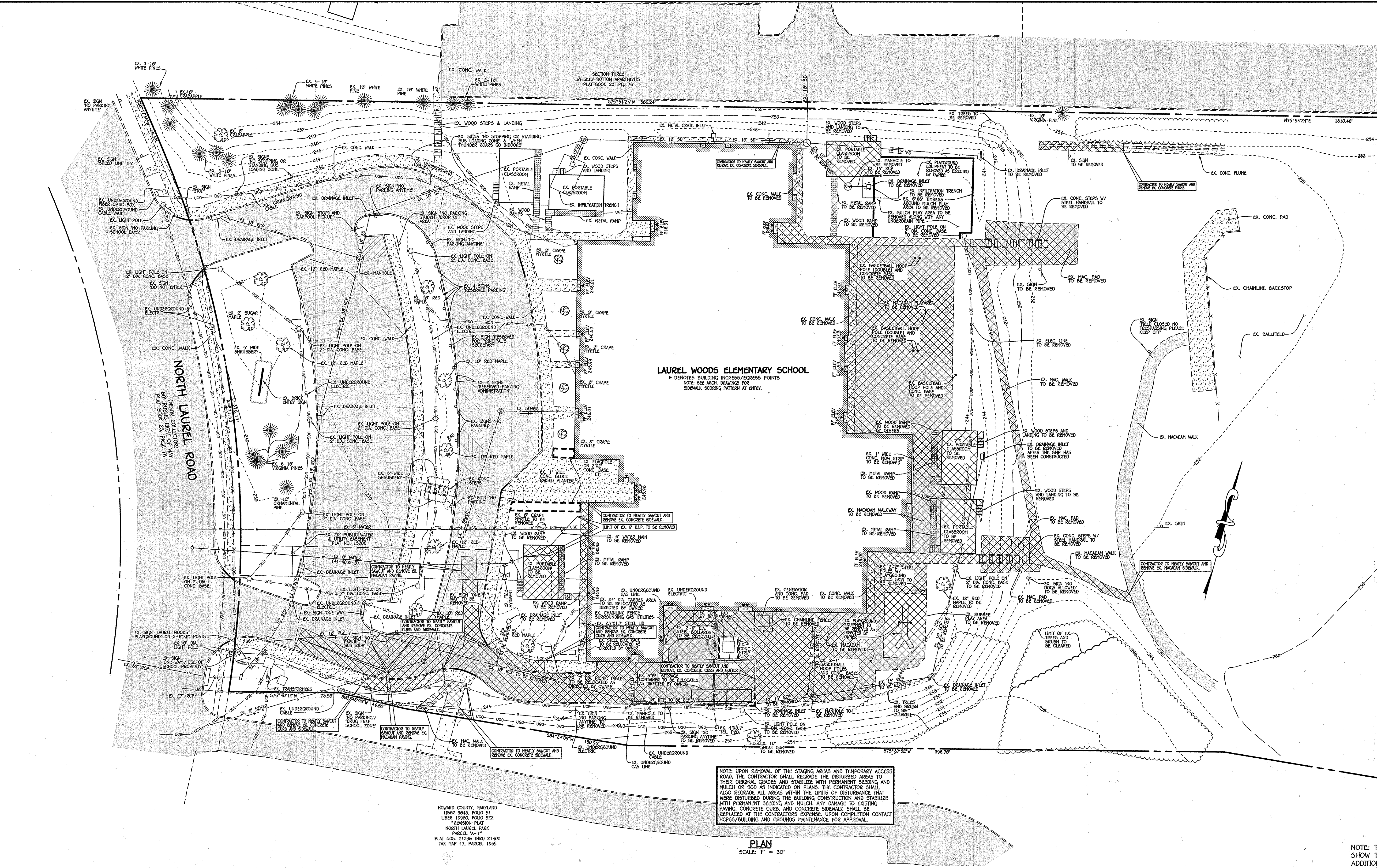
APPROVED
PLANNING BOARD
OF HOWARD COUNTY

DATE 9/16/72

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

DATE MAY, 1972

LEGEND	
SYMBOL	DESCRIPTION
--- 2' ---	EXISTING CONTOUR 2' INTERVAL
--- 10' ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
X	EXISTING FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREENLINE
---	LIMIT OF CLEARING
---	APPROXIMATE DEMOLITION AREA



HOWARD COUNTY, MARYLAND
 LIBER 9843, FOLD 51
 LIBER 10980, FOLD 522
 REVISION PLAN
 NORTH LAUREL PARK
 PARCEL "A-1"
 PLAT NOS. 21598 THRU 21402
 TAX MAP 47, PARCELS 1065

NOTE: UPON REMOVAL OF THE STAGING AREAS AND TEMPORARY ACCESS ROAD, THE CONTRACTOR SHALL REGRADE THE DISTURBED AREAS TO THEIR ORIGINAL GRADES AND STABILIZE WITH PERMANENT SEEDING AND MULCH OR SO2 AS INDICATED ON PLANS. THE CONTRACTOR SHALL ALSO REGRADE ALL AREAS WITHIN THE LIMITS OF DISTURBANCE THAT WERE DISTURBED DURING THE BUILDING CONSTRUCTION AND STABILIZE WITH PERMANENT SEEDING AND MULCH. ANY DAMAGE TO EXISTING PAVING, CONCRETE CURBS, AND CONCRETE SIDEWALK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. UPON COMPLETION CONTACT HCPSS/BUILDING AND GROUNDS MAINTENANCE FOR APPROVAL.

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW THE DEMOLITION AREAS EFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10732 BALTHAZAR NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21104
 (410) 461-2895

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, expiration Date: November 3, 2014."

Charles J. Crovo, Sr., P.E.
 CHARLES J. CROVO, SR., P.E. 2/15/14 DATE

DATE	DESCRIPTION
	REVISION BLOCK
	APPROVED: DEPARTMENT OF PLANNING AND ZONING
	Director - Department of Planning and Zoning
	Chief, Division of Land Development
	Chief, Development Engineering Division

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



ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD
	LAUREL, MARYLAND 20723

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762
PLAT# OR L/F	GRID#	ZONING
391/419	22/3,4	R-SC
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
47/50	SIX	6069.03

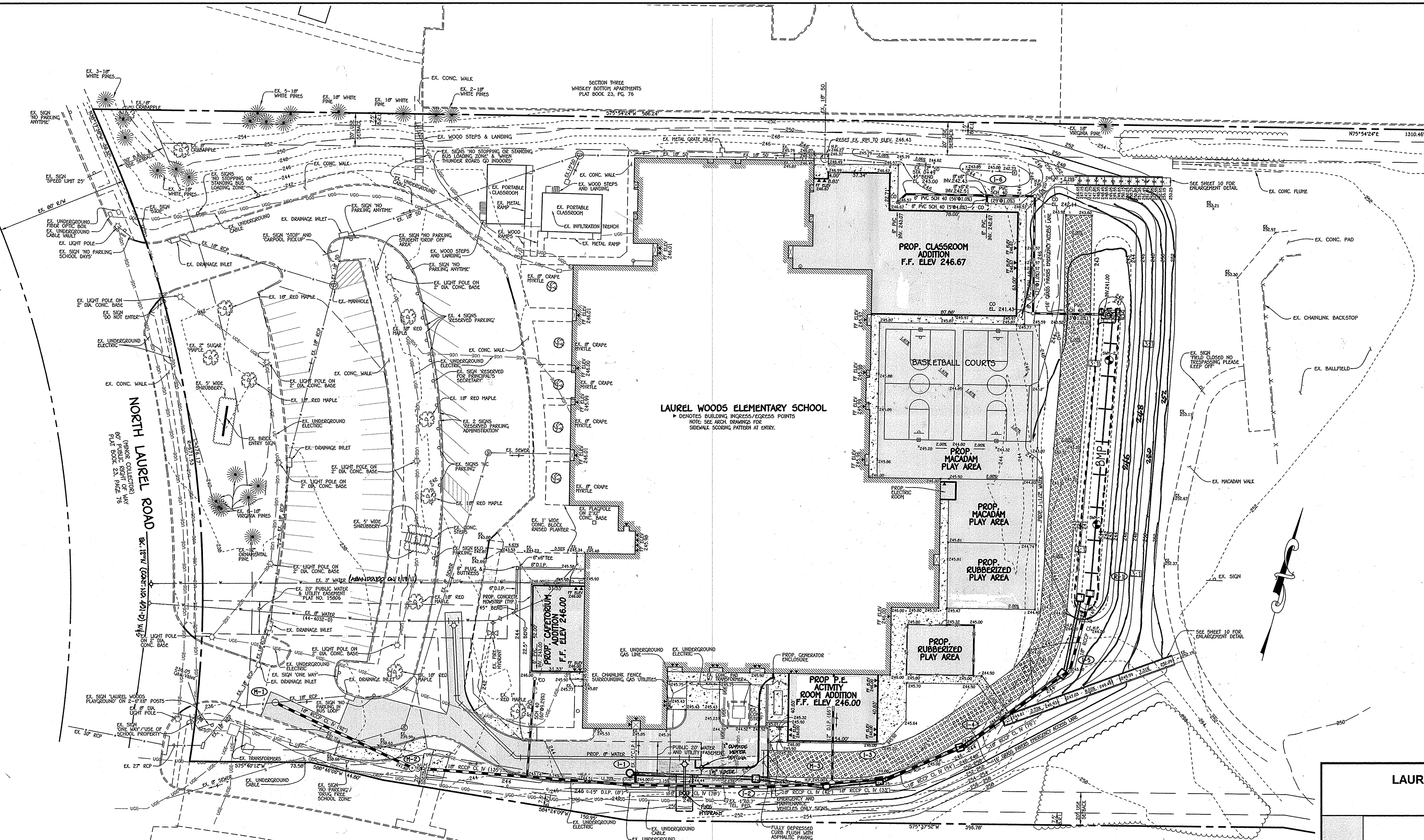
DEMOLITION PLAN

"REVISED SITE DEVELOPMENT PLAN"
 LAUREL WOODS
 ELEMENTARY SCHOOL

ZONED R-SC PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY 20, 2014

I:\2003\09\02\dwg 2012\03\02 SDP DEMO PLAN.dwg, DEMO PLAN, 11

LEGEND	
SYMBOL	DESCRIPTION
--- 248 ---	EXISTING CONTOUR 2' INTERVAL
--- 250 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING GAS LINE
---	EXISTING FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
+	SPOT ELEVATION
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	PROPOSED WATER
---	PROPOSED STORMDRAIN
---	PROPOSED GRASS PAVERS
---	PROPOSED CHAINLINK FENCE



LAUREL WOODS ELEMENTARY SCHOOL
 * DENOTES BUILDING PROGRESS/ACCESS POINTS
 NOTE: SEE ARCH. DRAWINGS FOR SIDEWALK SCORING PATTERN AT ENTRY.

unusual shape

1.22.16

ASBUILT BY:
CORNERSTONE SURVEYING, INC.
 6024 Clarendon Drive
 Owings, Maryland 20726
 Phone: (410) 584-4181
 Fax: (410) 224-1592

LAUREL WOODS ELEMENTARY SCHOOL						
BIORETENTION BMP SUMMARY TABLE						
BMP	ESD _v		Re _v		Peak Qs/WSEs	
	Required ^a	Provided ^b	Required	Provided	Q ₁₀	Q ₁₀₀
BMP	1,727 cf	2,260 cf	57 cf	113 cf	6.8 cfs @ WSE 242.51	10.4 cfs @ WSE 242.61

^aRequired ESD_v is 75% of the calculated ESD_v based on the LOD.
^bProvided ESD_v is the first 1 ft of water depth in the BMP; the BMP's DA is able to "supply" this volume.

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

PLAN
 SCALE: 1" = 30'

HOWARD COUNTY, MARYLAND
 LIBEX 9845, FOLD 51
 LIBEX 10900, FOLD 522
 *CEVISION PLAT
 NORTH LAUREL PARK
 PARCEL 7A-11
 PLAT NOS. 21398 THRU 21402
 TAX MAP 47, PARCEL 1065

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERS, CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2095

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

Charles J. Brovo, Sr., P.E.
 CHARLES J. BROVO, SR., P.E.
 2/25/14 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning
 Chief, Division of Land Development
 Chief, Development Engineering Division

10/7/14
 DATE

3/7/14
 DATE

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



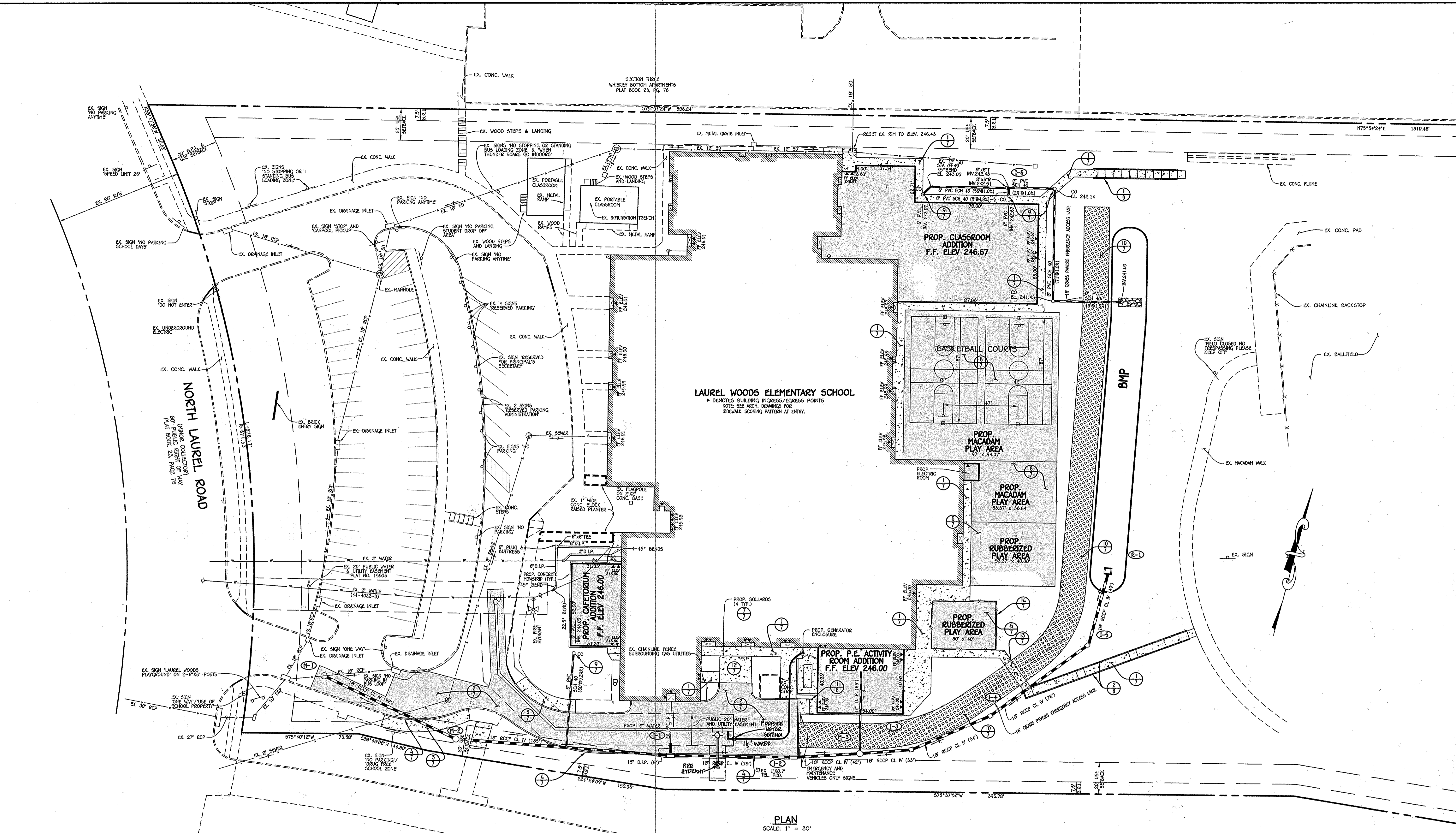
ADDRESS CHART		
LOT/PARCEL#	STREET ADDRESS	
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723	
PERMIT INFORMATION CHART		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762
PLAT# OR L/F	GRID#	ZONING
391/419	22/3,4	R-SC
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
47/50	SIX	6069.03

SITE IMPROVEMENT PLAN
 "REVISED SITE DEVELOPMENT PLAN"
 LAUREL WOODS
 ELEMENTARY SCHOOL

ZONED R-SC PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY 20, 2014

SHEET 4 OF 14

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
X	EXISTING FENCE
▨	PROPOSED CONCRETE WALK
▨	PROPOSED MACADAM PAVING
▨	PROPOSED WATER
▨	PROPOSED STORMDRAIN
▨	PROPOSED GRASS PAVERS
▨	PROPOSED CHAINLINK FENCE



LAUREL WOODS ELEMENTARY SCHOOL
 DENOTES BUILDING INGRESS/EGRESS POINTS
 NOTE: SEE ARCH. DRAWINGS FOR
 SIDEWALK SCHEDING PATTERN AT ENTRY.

PLAN
 SCALE: 1" = 30'

HOWARD COUNTY, MARYLAND
 LEGAL 9843, FOLIO 51
 LEGAL 10950, FOLIO 222
 *REVISION PLAT
 NORTH LAUREL PARK
 PARCEL "A-1"
 PLAT NO. 21598 THRU 21402
 TAX 990 42, PARCEL 1095

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10022 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461 - 2295

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

Charles J. Gagnio, Sr., P.E.
 CHARLES J. GAGNIO, SR., P.E. 2/25/14 DATE

DATE	DESCRIPTION	REVISION BLOCK
10/01/14	REVISE THE LOCATION OF THE 18" WATER LINE, THE LOCATION OF THE 18" HYDRANT AND RELOCATE ALL UTILITIES TO THE 0' WATER LINE	
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>Mark A. Lovell</i>	Director - Department of Planning and Zoning	4/8/14 Date
<i>W. J. Schuler</i>	Chief, Division of Land Development	4/8/14 Date
<i>Paul Adams</i>	Chief, Development Engineering Division	3-7-14 Date

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 Clarksville Pike
 Ellicott City, Maryland 21042
 Attention: Bruce Gist
 410-313-6799



ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
391/419	22/3,4	R-5C	47/50	SIX	6069.03

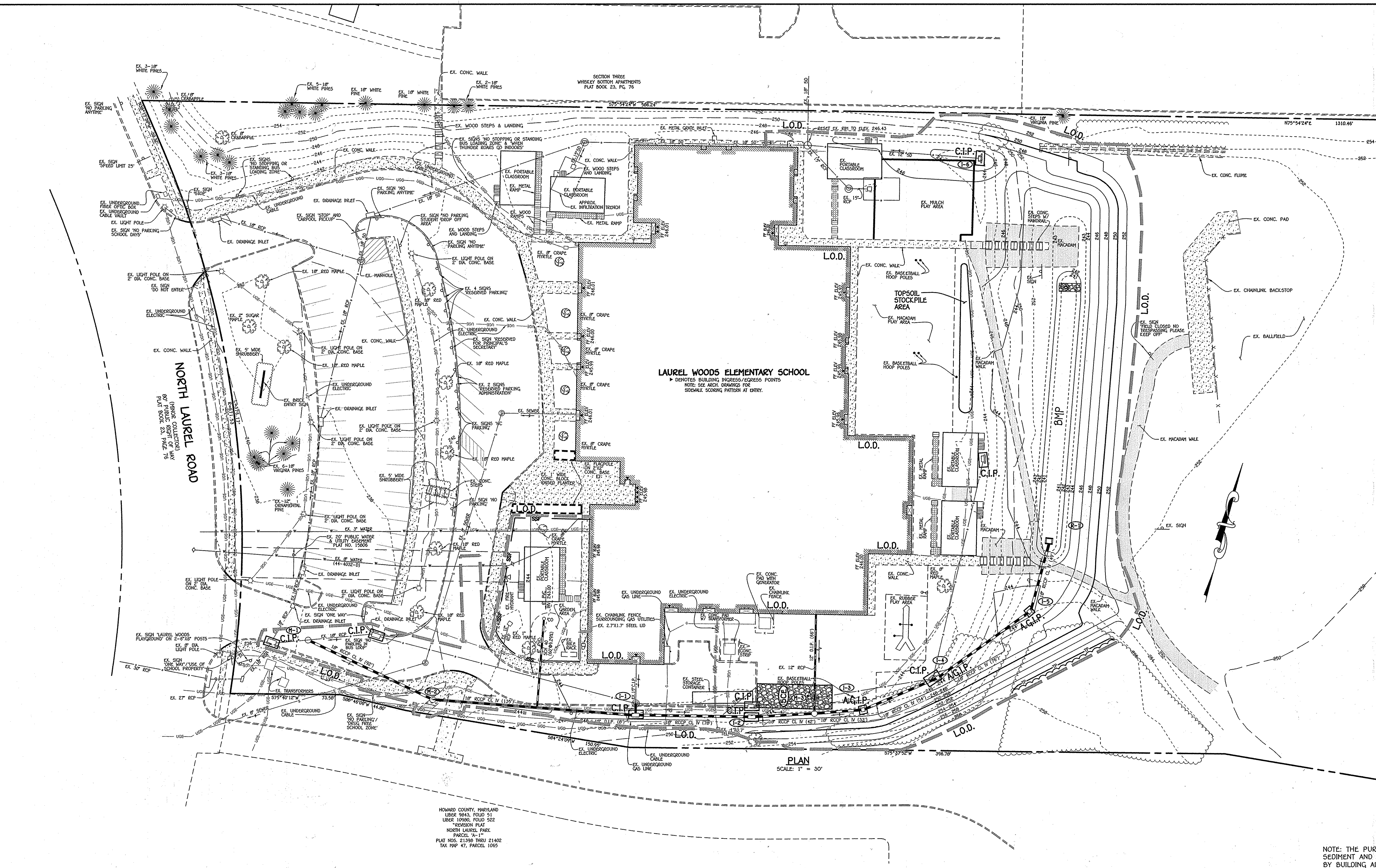
GEOMETRY PLAN

"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS
ELEMENTARY SCHOOL

ZONED R-5C PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY 20, 2014

SHEET 5 OF 14

LEGEND	
SYMBOL	DESCRIPTION
--- 2' ---	EXISTING CONTOUR 2' INTERVAL
--- 10' ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
X	EXISTING FENCE
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
○	EXISTING TREES
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	LIMIT OF DISTURBANCE
---	SUPER SILT FENCE
---	TREE PROTECTION FENCE
---	STABILIZED CONSTRUCTION ENTRANCE



LAUREL WOODS ELEMENTARY SCHOOL
 DENOTES BUILDING INGRESS/EGRESS POINTS
 NOTE: SEE ARCH. DRAWINGS FOR SIDEWALK SCORING PATTERN AT ENTRY.

PLAN
 SCALE: 1" = 30'

HOWARD COUNTY, MARYLAND
 LIBER 9843, FOLIO 51
 LIBER 10950, FOLIO 522
 REVISION PLAT
 NORTH LAUREL PARK
 PARCELS 4A-17
 PLAT NOS. 21398 THRU 21402
 TAX MAP 47, PARCEL 1095

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW THE SEDIMENT AND EROSION CONTROL IN AREAS AFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21106
 (410) 461-2095

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *Charles J. Brown* Date: *2/25/14*

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."
 Signature: *Charles J. Brown* Date: *2/25/14*
 CHARLES J. BROWN, SR., P.E.

DEVELOPER'S CERTIFICATE
 "I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *Bruce Gist* Date: *2/25/14*

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John R. Robertson* Date: *2/25/14*
 Howard SCD

DATE	DESCRIPTION	REVISION BLOCK

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning: *James P. Coyne* Date: *4/13/14*
 Chief, Division of Land Development: *Kate Schumacher* Date: *4/23/14*
 Chief, Development Engineering Division: *Paul Chubb* Date: *3-7-14*

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

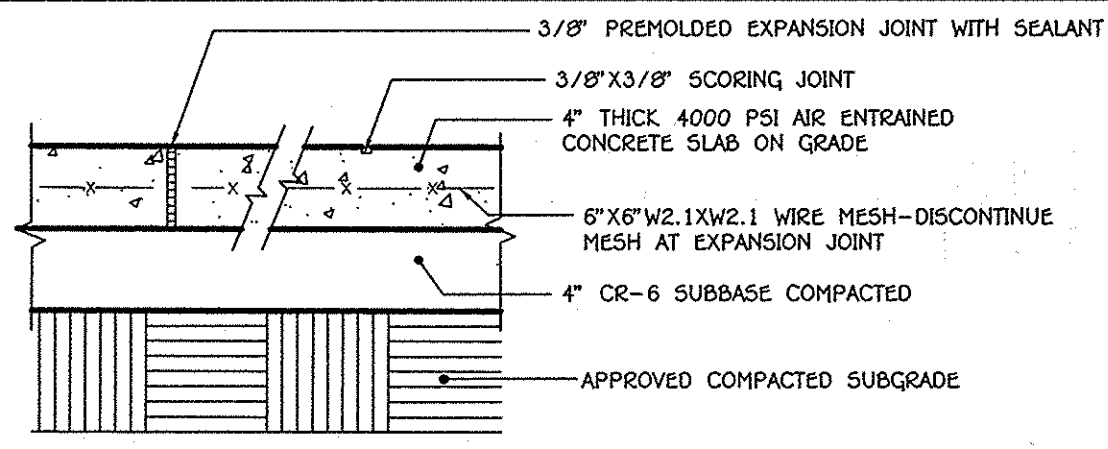


ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD
	LAUREL, MARYLAND 20723

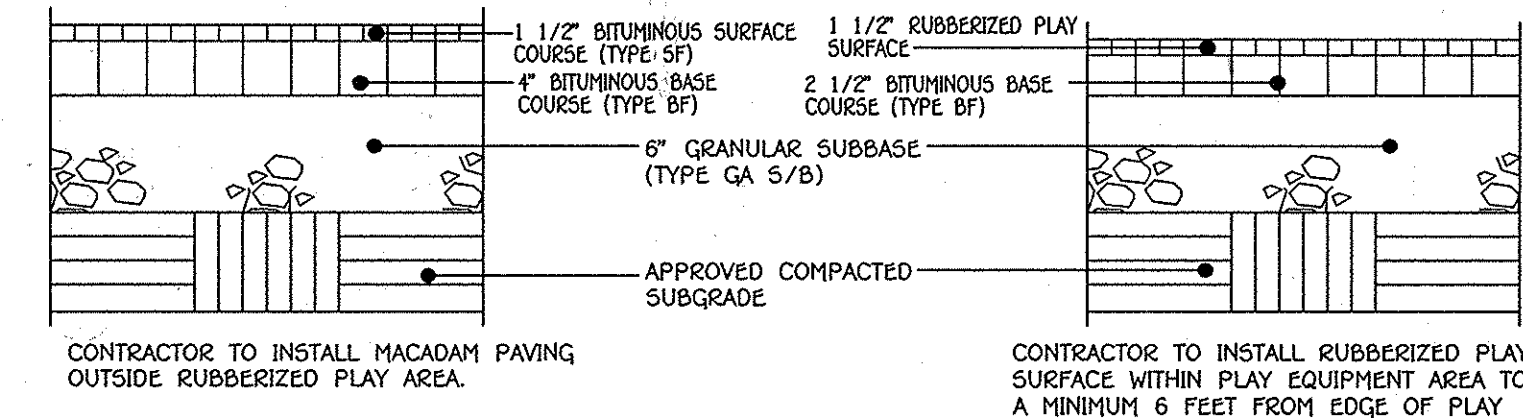
PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
391/419	22/3,4	R-5C	47/50	SIX
				CENSUS TRACT
				6069.03

SEDIMENT AND EROSION CONTROL PLAN
"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS ELEMENTARY SCHOOL
 ZONED R-5C PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY 20, 2014
 SHEET 6 OF 14

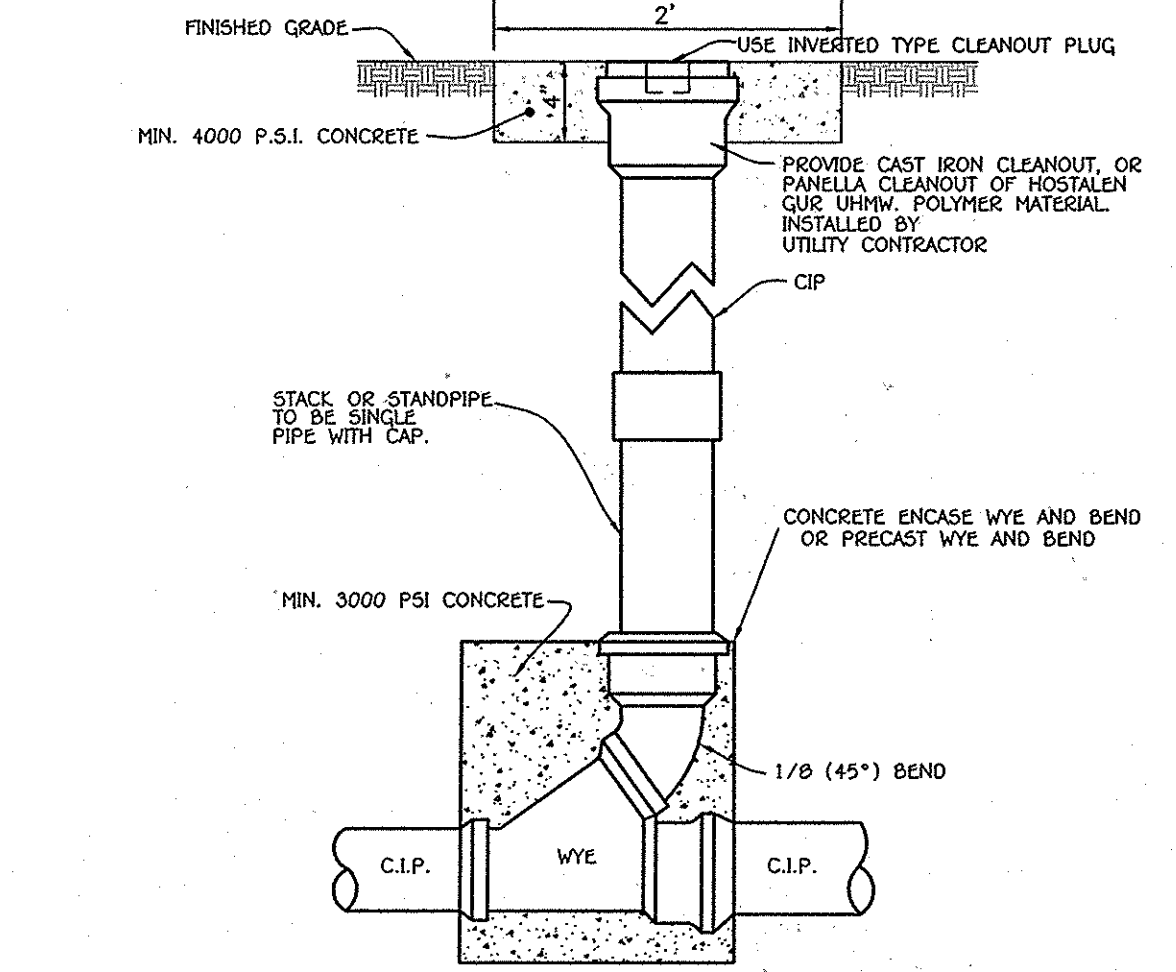
1:2009\0302\dwg 2012\03002 SDF SED CONT PLAN.dwg SED CONT PLAN 1:1



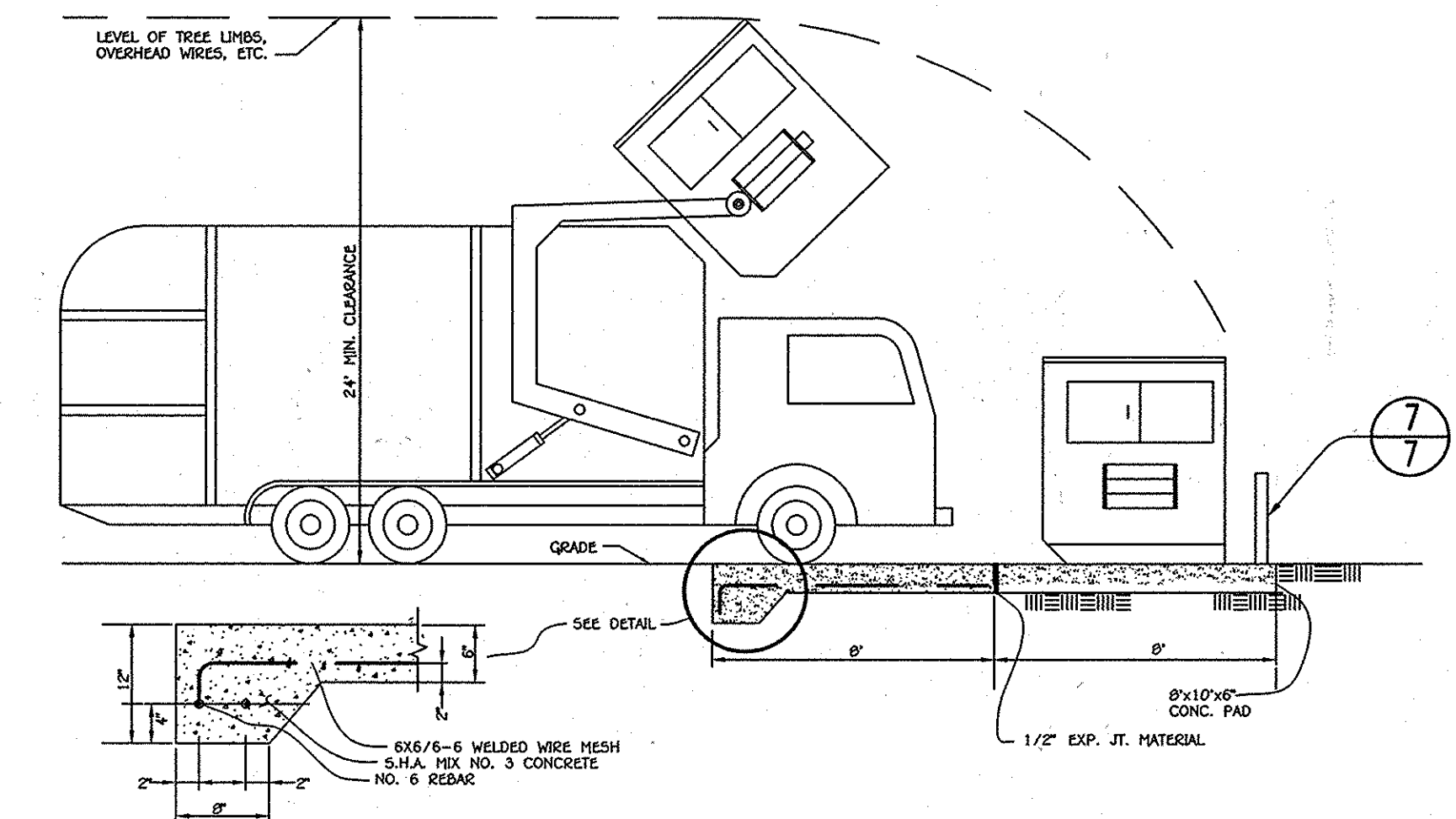
NOTE: INSTALL EXPANSION JOINTS AT MAX. 15'-0" O.C. AND INSTALL SCORING JOINTS AT MAX. 5'-0" O.C.
SLOPE ACROSS SIDEWALK SHALL BE MIN. 1/8" / FT.



CONTRACTOR TO INSTALL MACADAM PAVING OUTSIDE RUBBERIZED PLAY AREA.
CONTRACTOR TO INSTALL RUBBERIZED PLAY SURFACE WITHIN PLAY EQUIPMENT AREA TO A MINIMUM 6 FEET FROM EDGE OF PLAY EQUIPMENT.



9 TYPICAL ROOF LEADER CLEAN-OUT
NO SCALE



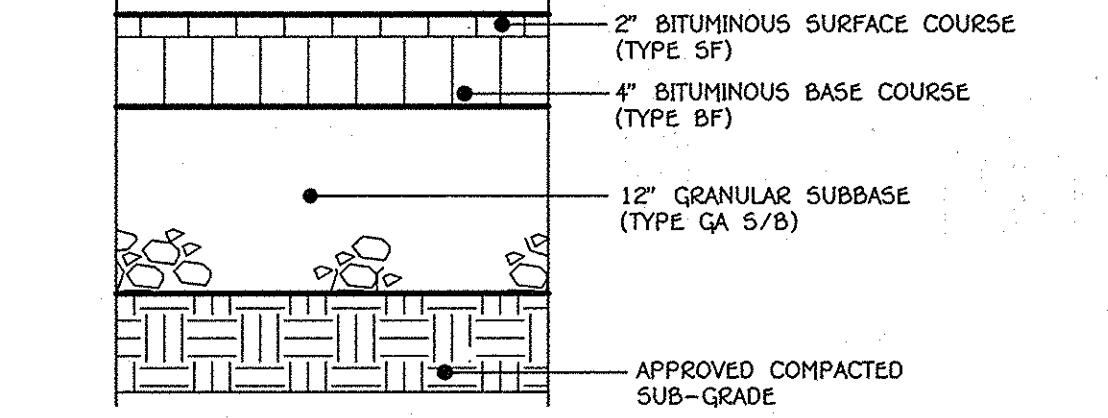
12 SOLID WASTE SERVICE DETAIL
HOWARD COUNTY STANDARD DETAIL R-8.03

1 CONCRETE WALK DETAIL
NO SCALE

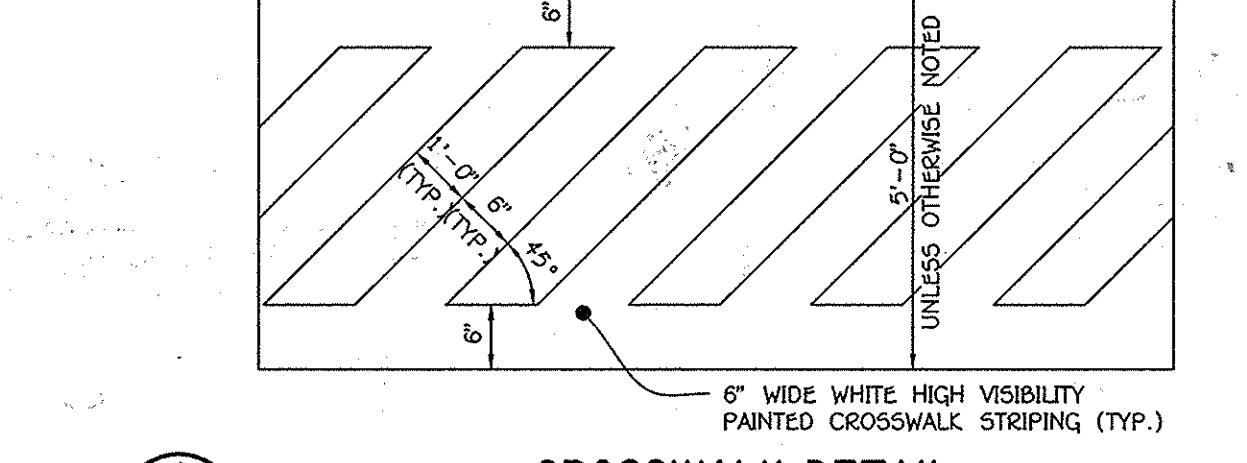
5 RUBBERIZED PLAY SURFACE DETAIL
NO SCALE

9 TYPICAL ROOF LEADER CLEAN-OUT
NO SCALE

12 SOLID WASTE SERVICE DETAIL
HOWARD COUNTY STANDARD DETAIL R-8.03

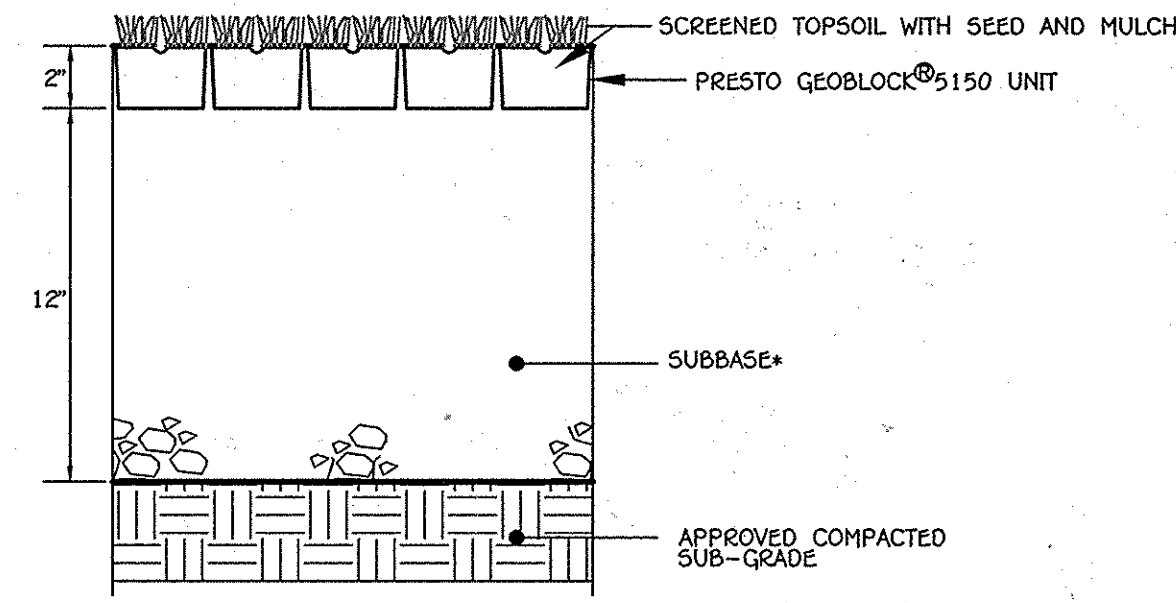


2 HEAVY DUTY ASPHALTIC PAVING DETAIL
NO SCALE

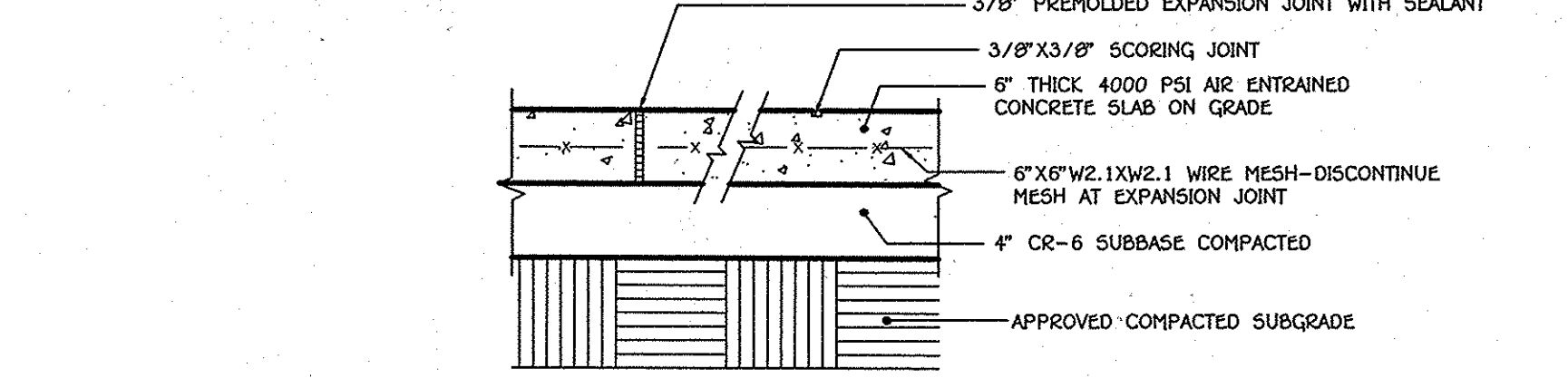


6 CROSSWALK DETAIL
NO SCALE

*THE SUBBASE IS A HOMOGENOUS MIXTURE CONSISTING OF 1) A CLEAR-STONE/CRUSHED ROCK HAVING AN AASHTO#5 OR SIMILAR DESIGNATION BLENDED WITH 2) PULVERIZED TOPSOIL AND 3) A VOID COMPONENT GENERALLY CONTAINING AIR AND/OR WATER. THE AGGREGATE PORTION SHALL HAVE A PARTICLE RANGE FROM 9.5 MM TO 25 MM (0.375 TO 1.0 IN) WITH A D50 OF 13 MM (0.5 IN). THE PERCENTAGE VOID-SPACE OF THE AGGREGATE PORTION WHEN COMPACTED SHALL BE AT LEAST 30%. THE PULVERIZED TOPSOIL PORTION SHALL EQUAL 25% OF THE TOTAL VOLUME AND BE ADDED AND BLENDED TO PRODUCE A HOMOGENOUS MIXTURE PRIOR TO PLACEMENT OR WASHED INTO THE IN-PLACE COMPACTED AGGREGATE. ONCE PLACED, THE MIXTURE SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.

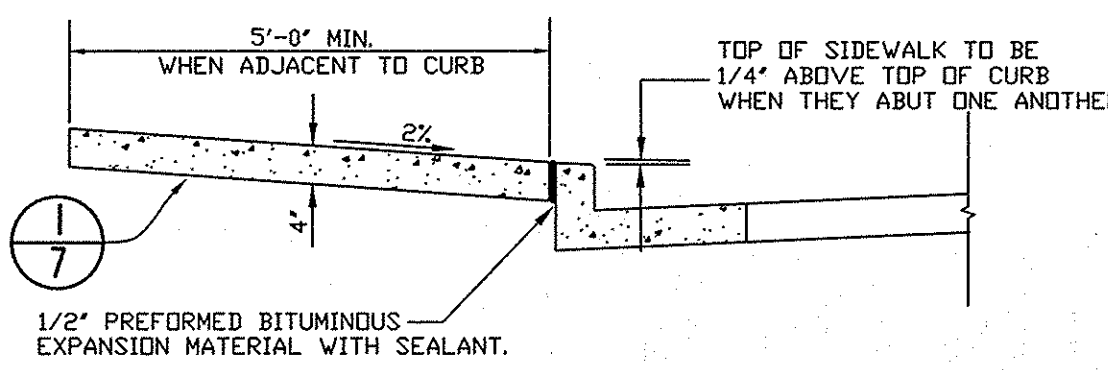


10 GRASS PAVER SYSTEM
PRESTO GEOSYSTEMS - GEOBLOCK® 5150
NO SCALE



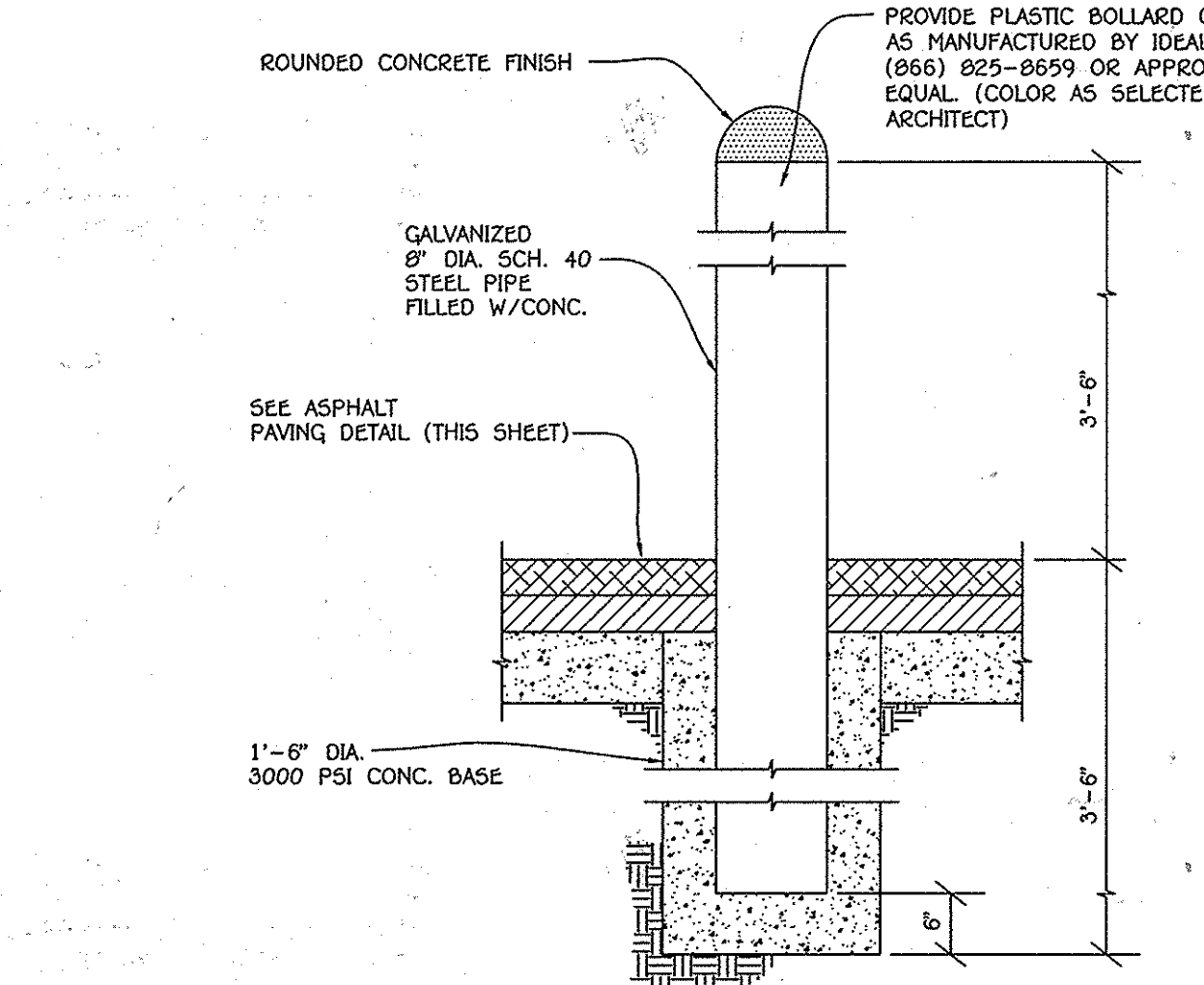
NOTE: INSTALL EXPANSION JOINTS AT MAX. 15'-0" O.C. AND INSTALL SCORING JOINTS AT MAX. 5'-0" O.C.
SLOPE ACROSS SIDEWALK SHALL BE MIN. 1/8" / FT.

13 CONCRETE WALK DETAIL
ADJACENT TO GRASS PAVERS
NO SCALE

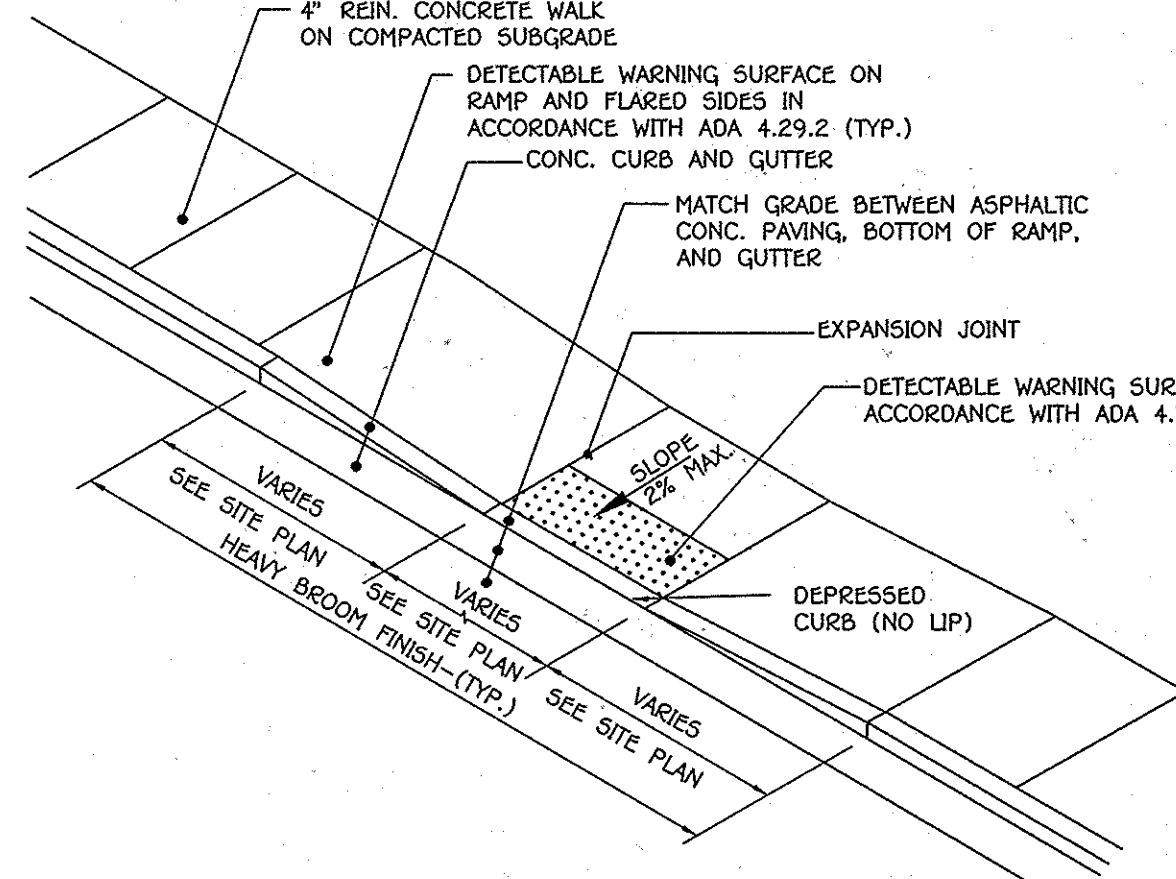


NOTES:
1. SIDEWALK TO BE SCRIBED IN EQUALLY 5'-0" MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO MORE THAN 15' APART.
3. 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK. FILL WITH SEALANT.
4. 4000 PSI AIR ENTRAINED CONCRETE SHALL BE USED.
5. WHEN SIDEWALK ABUTS CURB, WALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB.
6. ON LONGITUDINAL SIDEWALK GRADES OF 5% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 48 FEET. THE HEADERS SHALL BE PLACED AT EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.
7. SIDEWALK WIDTH ADJACENT TO CURB SHALL BE 5'-0" MIN.
8. SIDEWALK LOCATED 2' OR MORE FROM CURB MAY BE 4'-0" IN WIDTH WITH A 5' X 5' PAVED SECTION PLACED 200' APART.
9. PROVIDE 1/2" EXPANSION JOINT WHERE WALKS ABUT EXISTING CONCRETE SURFACES TO REMAIN.

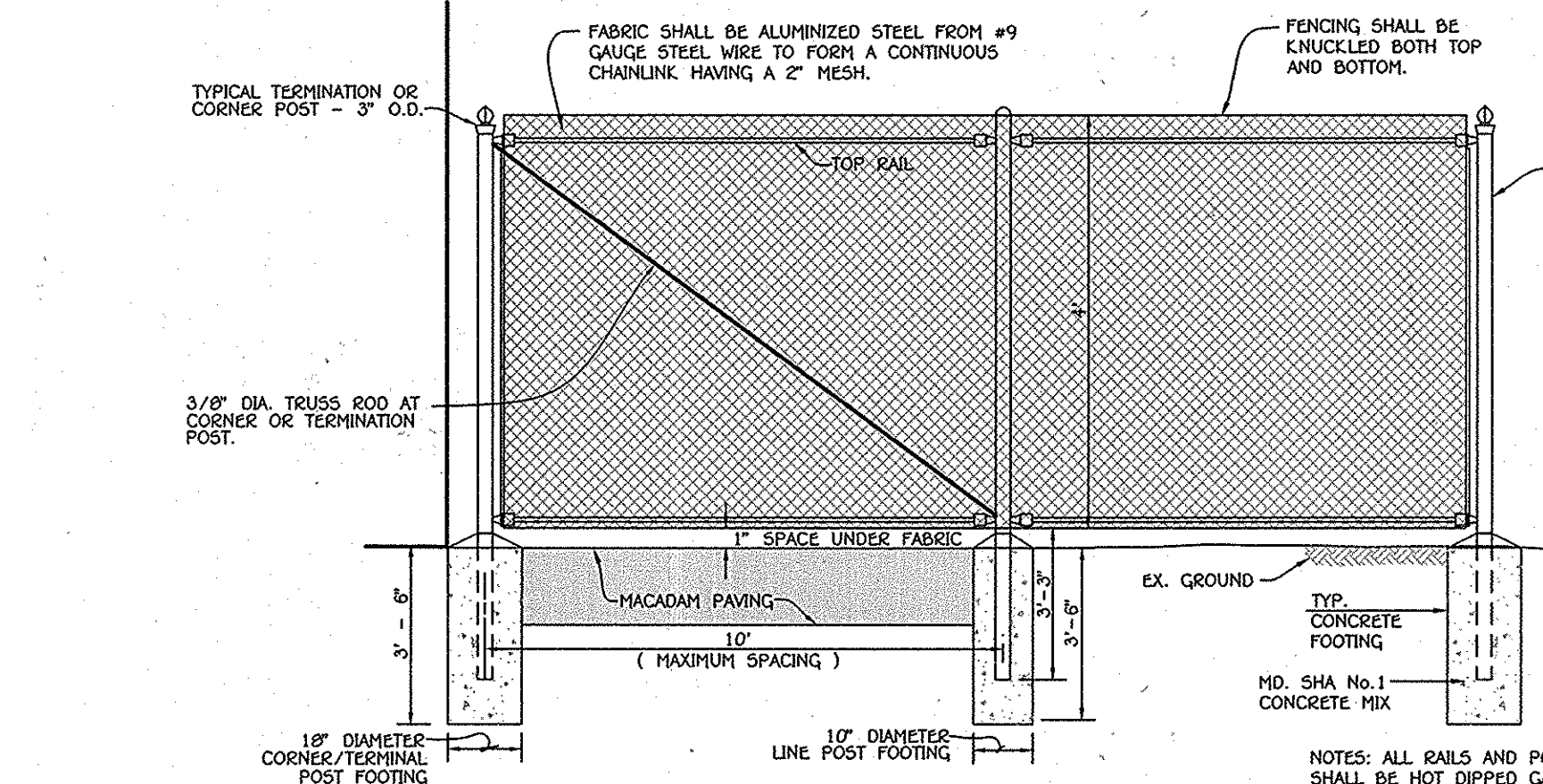
3 CONCRETE SIDEWALK DETAIL
NO SCALE



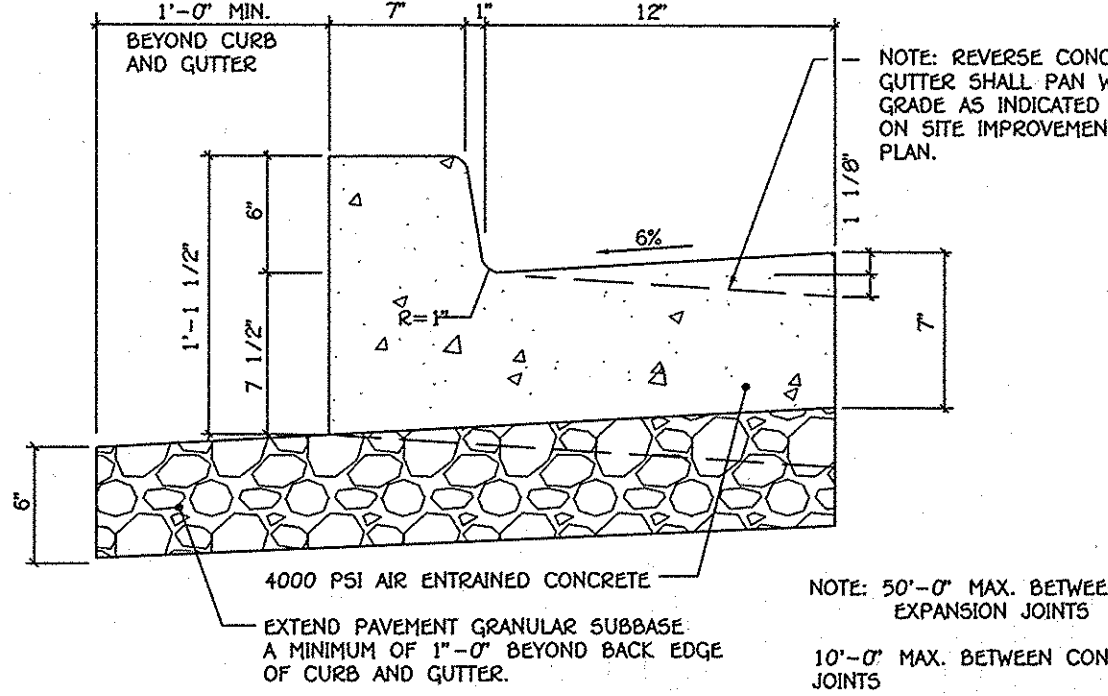
7 BOLLARD DETAIL
NO SCALE



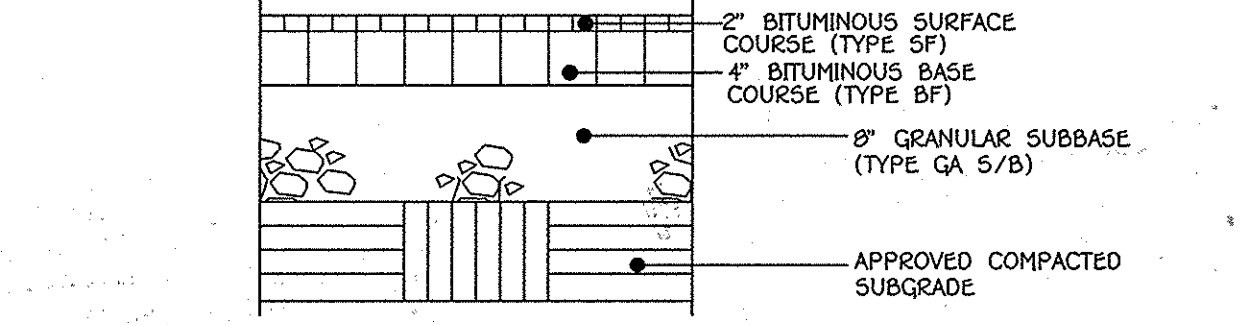
11 SIDEWALK RAMP DETAIL
NO SCALE



14 CHAIN LINK FENCE DETAIL
HOWARD COUNTY STANDARD DETAIL G-7.21
NO SCALE



4 STANDARD 6" COMB. CONC. CURB AND GUTTER
NO SCALE



8 MACADAM PLAY SURFACE DETAIL
NO SCALE

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW DETAILS FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

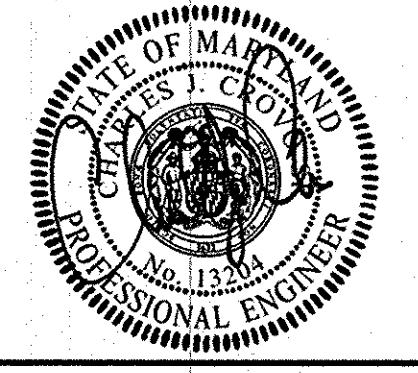
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21114
(410) 461-2899

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

CHARLES J. BRIDVO, SR., P.E. DATE 2/25/14

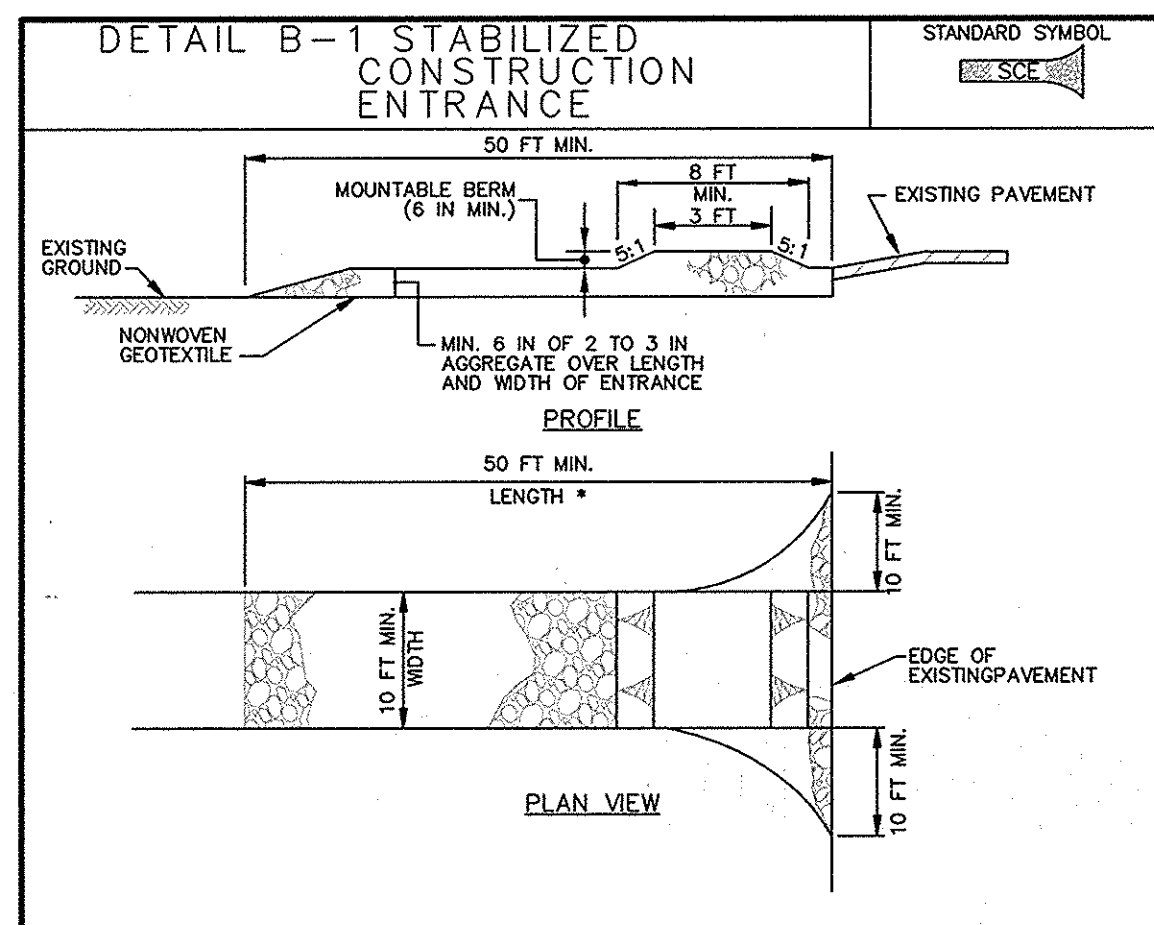
DATE	DESCRIPTION
	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Handwritten Signature</i>	9/6/14 Date
Director - Department of Planning and Zoning	
<i>Handwritten Signature</i>	4/22/14 Date
Chief, Division of Land Development	
<i>Handwritten Signature</i>	3-7-14 Date
Chief, Development Engineering Division	

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



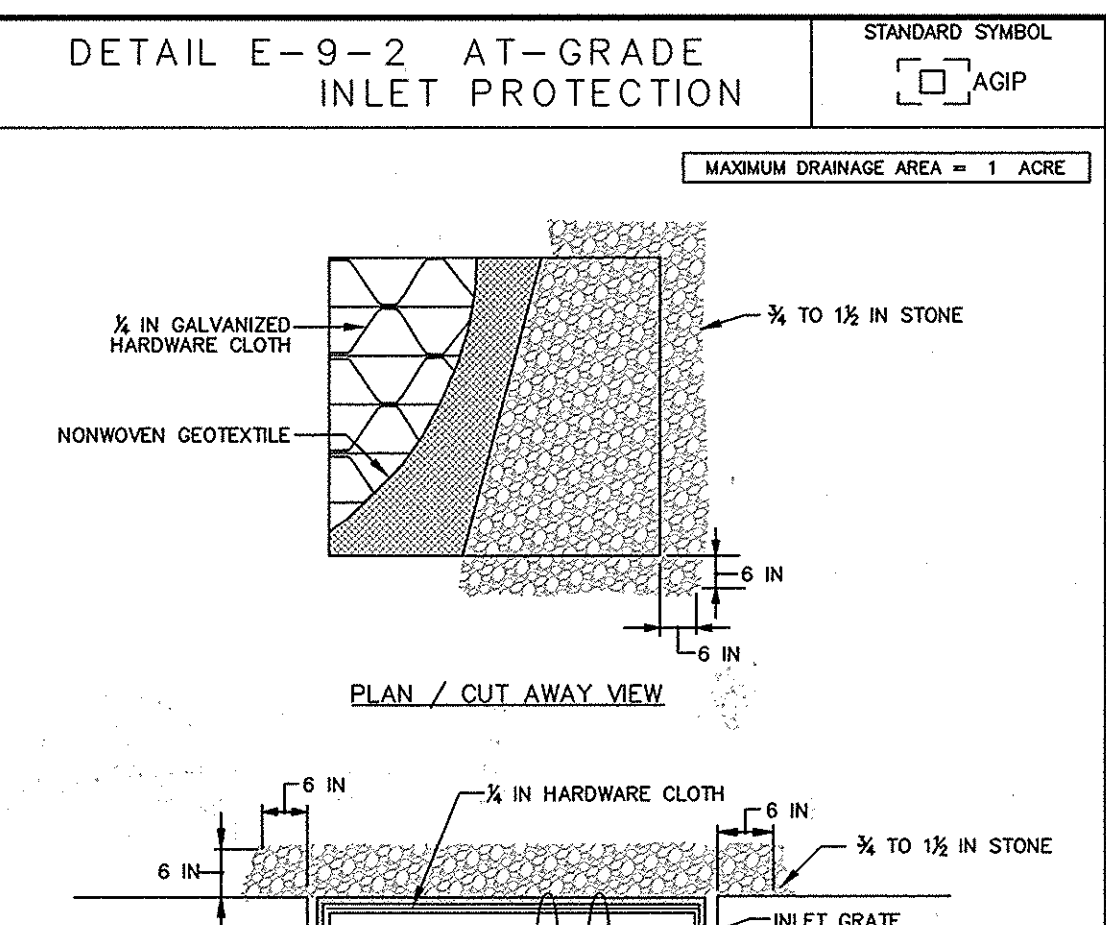
ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
391/419	22/3,4	R-SC	47/50	SIX	6069.03

DETAIL SHEET
"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS
ELEMENTARY SCHOOL
ZONED R-SC PARCEL 762
TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY 20, 2014
SHEET 7 OF 14



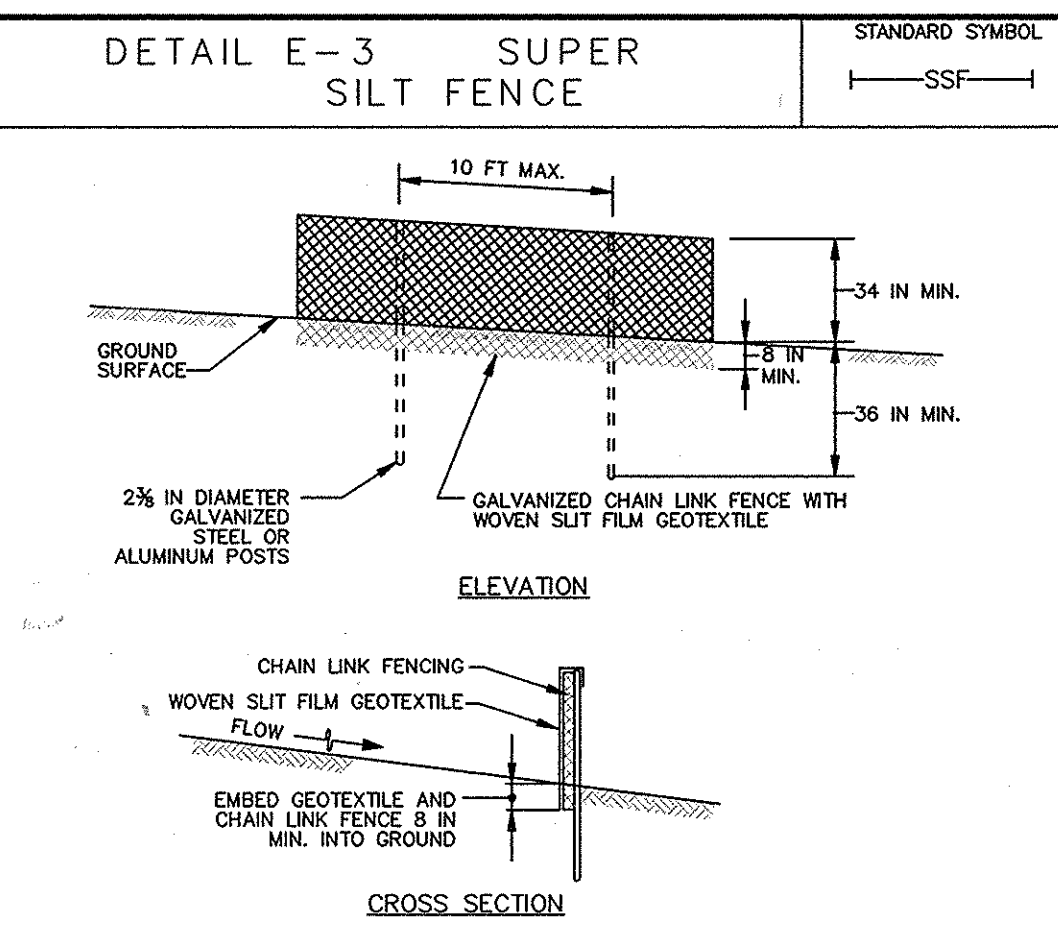
CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (430 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE TO FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.



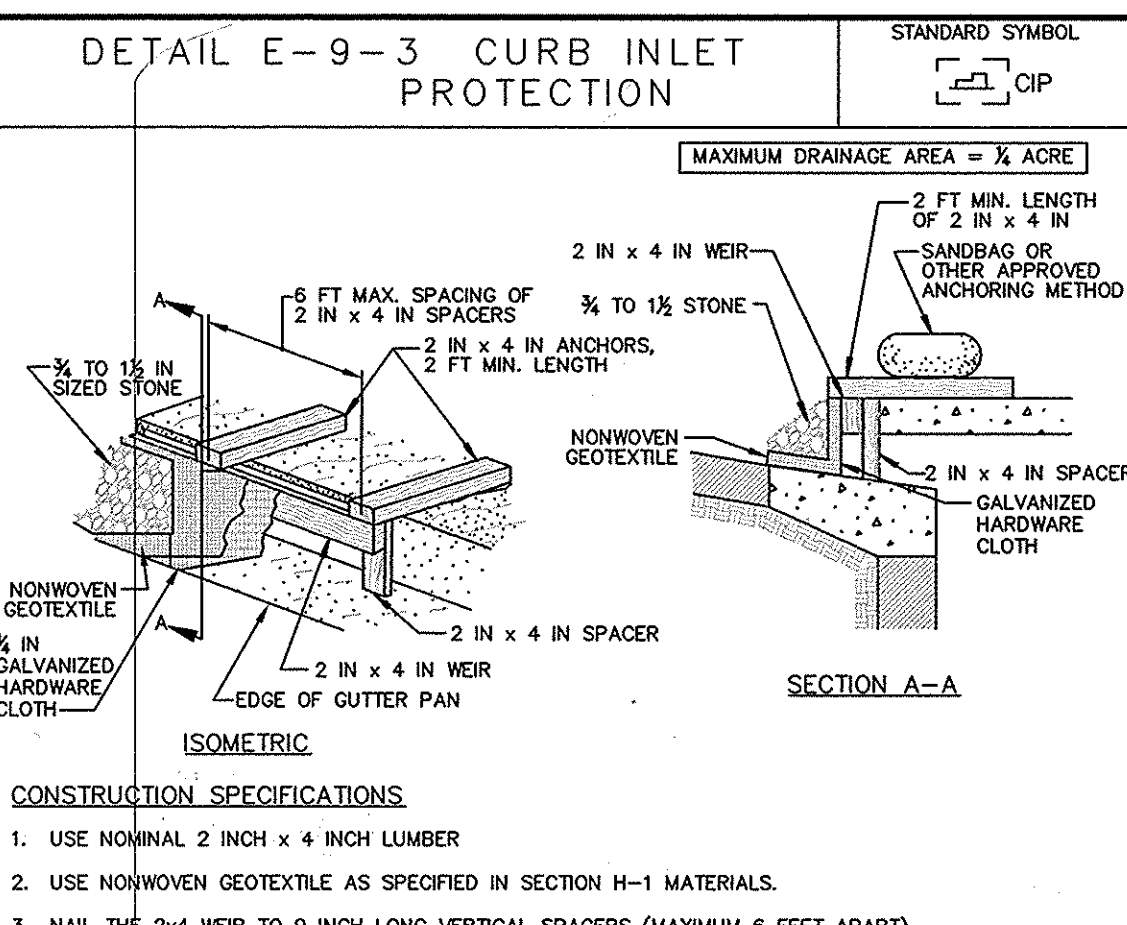
CONSTRUCTION SPECIFICATIONS

- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
- PLACE CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.



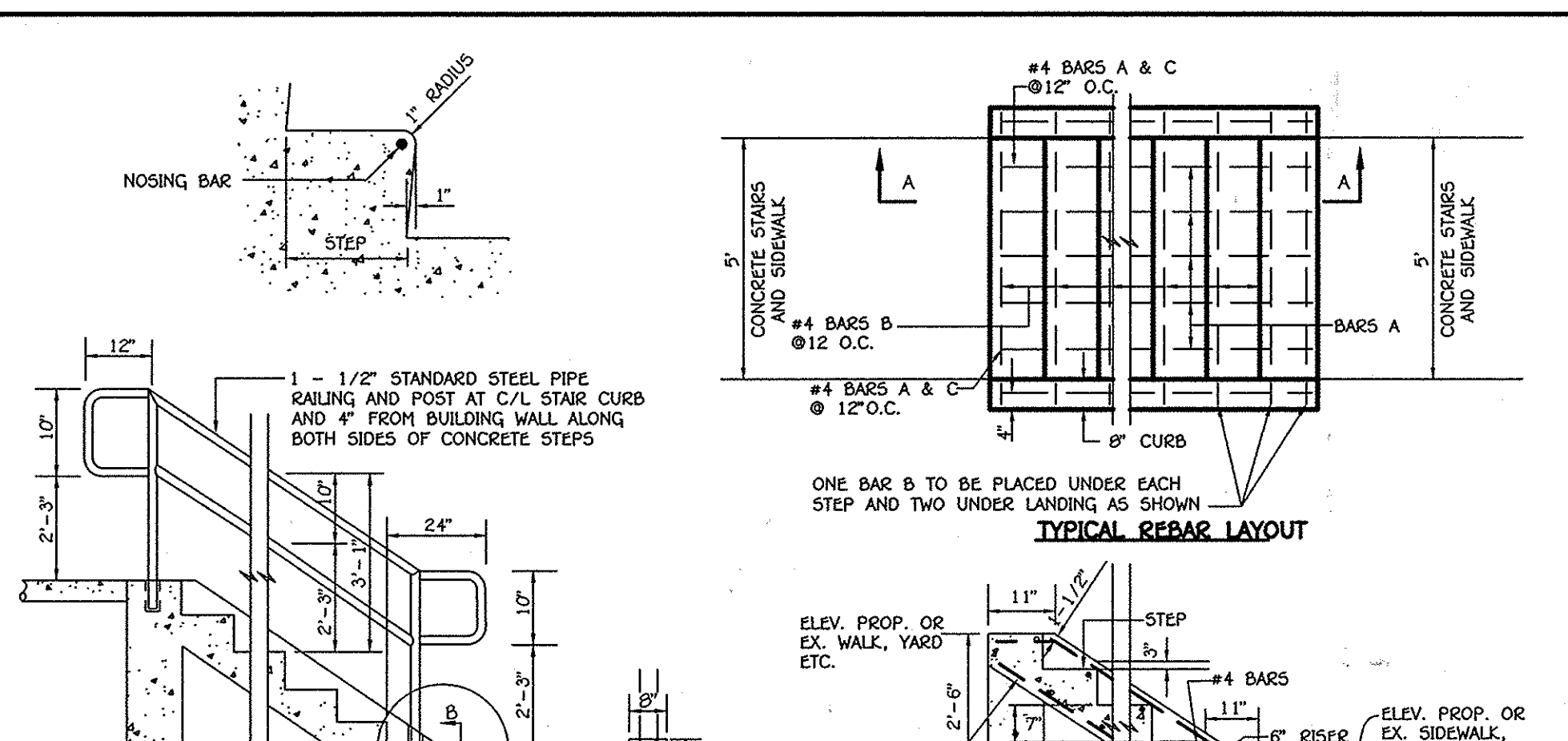
CONSTRUCTION SPECIFICATIONS

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.



CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
- ATTACH A CONTINUOUS PIECE OF 3/4 INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
- PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
- PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH) EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
- INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
- FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
- AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

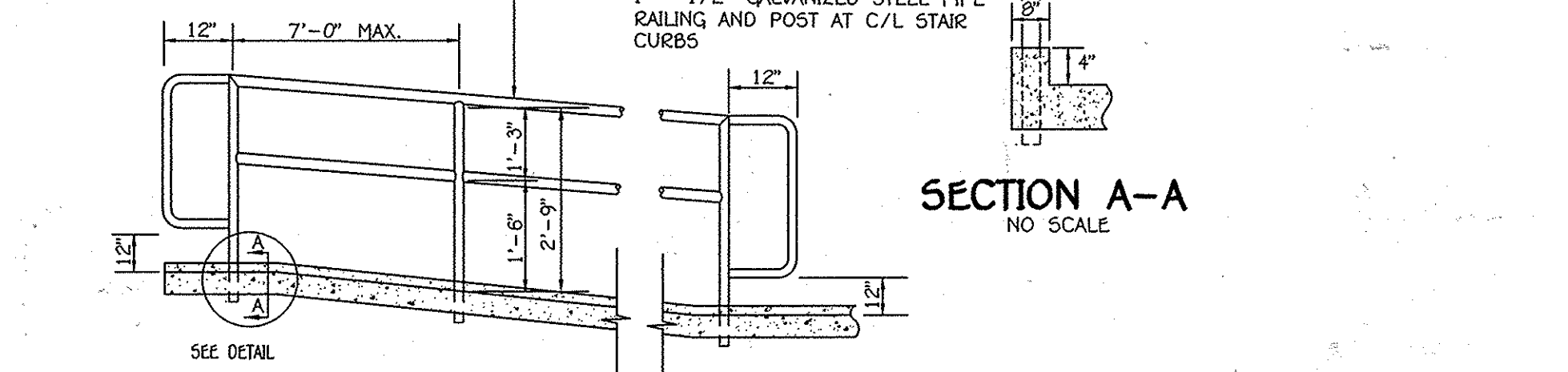


CONCRETE STEPS AND HANDRAIL DETAIL

SECTION B-B
NO SCALE

SECTION A-A
NO SCALE

1
8



HANDRAIL DETAIL

SECTION A-A
NO SCALE

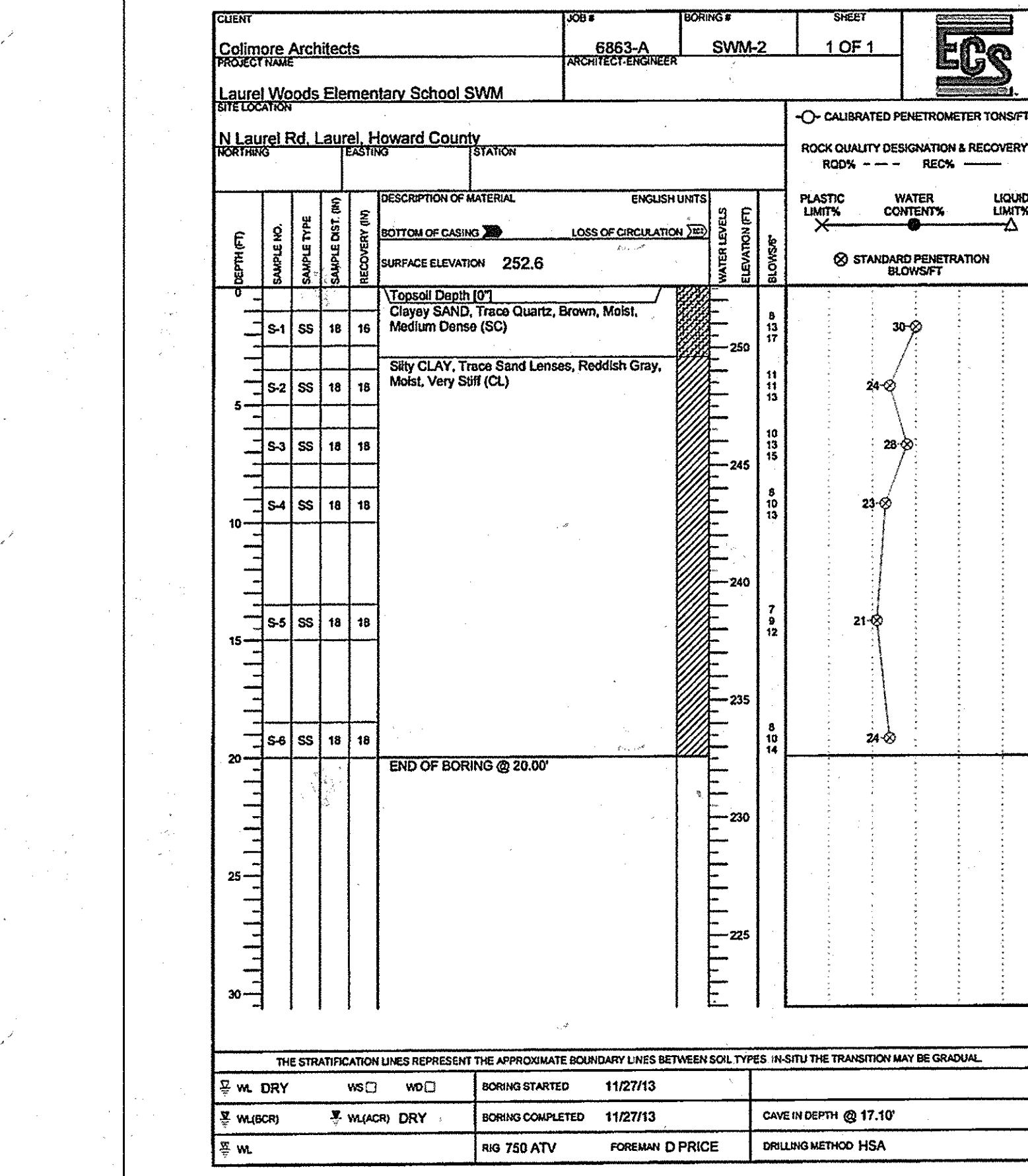
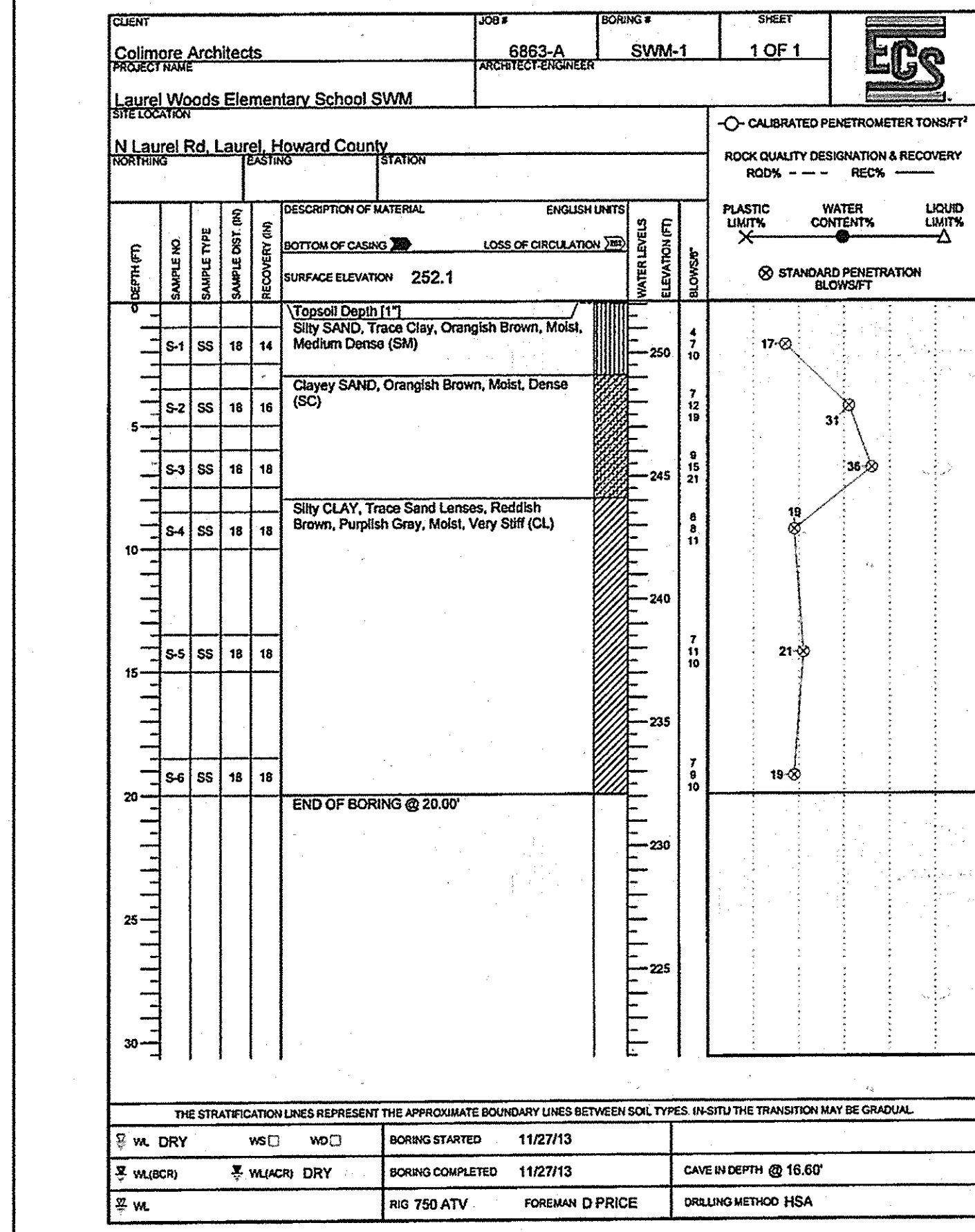
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2095

ENGINEER'S CERTIFICATE
"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
Signature of Engineer: Charles J. Caswo, Sr., P.E. Date: 2/25/14

DEVELOPER'S CERTIFICATE
"I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."
Signature of Developer: John R. Robertson Date: 2/25/14

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, expiration Date: November 3, 2014."
Signature: Charles J. Caswo, Sr., P.E. Date: 2/25/14

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
Signature: John R. Robertson Date: 2/25/14

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning: Marshall H. Cogle Date: 4/9/14
Chief, Division of Land Development: Victor S. Williams Date: 4/23/14
Chief, Development Engineering Division: David Lambert Date: 3-7-14

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Clarksville Pike
Elicott City, Maryland 21042
Attention: Bruce Gist
410-313-6798

STATE OF MARYLAND
JAMES J. CHRYSLER
PROFESSIONAL ENGINEER
No. 13204

ADDRESS - CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723
PERMIT INFORMATION CHART	
SUBDIVISION NAME	SECTION/AREA
LAUREL WOODS ELEM. SCHOOL	N/A
LOT/PARCEL NO.	PAGE NO.
391/419	762
PLAT# OR L/F	GRID#
22/3,4	R-SC
TAX MAP#	ELECT. DISTR.
47/50	SIX
CENSUS TRACT	
6069.03	

SEDIMENT CONTROL DETAILS AND BORING LOGS

"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS ELEMENTARY SCHOOL

ZONED R-SC PARCEL 762
TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY 20, 2014

SHEET 8 OF 14

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- Temporary Stabilization
 - Seeded preparation consists of loosening soil to a depth of 3 to 5 inches 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 must be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable method.
 - A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loesslike silt plus clay is present, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is 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.
- Topsoil salvaged from an existing site may be used provided 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-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Topsoil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - 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.

- Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to 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 topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- Soil Amendments (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
 - Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
 - Lime materials must be ground limestone (hydrated or burnt lime) may be substituted except when hydroseeding which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
 - Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
 - Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

STANDARD STABILIZATION NOTE

- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
 - SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

PERMANENT SEEDING NOTES (B-4-5)

A. Seed Mixtures

- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
 - For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
- Turfgrass Mixtures
 - Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Kentucky Bluegrass/Perennial Ryegrass: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet; Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Kentucky Bluegrass/Perennial Ryegrass: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Notes:
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland".

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

- Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)

- Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

- If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)			Lime Rate
					N	P ₂ O ₅	K ₂ O	
B	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1 1/4-1/2 in.	45 lbs. per acre (10 lb/1000 sf)	90 lb/8ac (2 lb/1000 sf)	90 lb/8ac (2 lb/1000 sf)	2 tons/ac (50 lb/1000 sf)

TEMPORARY SEEDING NOTES (B-4-4)

- Definition
To stabilize disturbed soils with vegetation for up to 6 months.
- Purpose
To use fast growing vegetation that provides cover on disturbed soils.
- Conditions Where Practice Applies
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
- Criteria
- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not approved on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
 - For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
 - When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)			Lime Rate
				N	P ₂ O ₅	K ₂ O	
BARLEY	96	3/1 - 5/15	1"	436 lb/3ac (110 lb/1000 sf)	2 tons/3ac (50 lb/1000 sf)		
OATS	72	8/15 - 10/15	1"				
RYE	112		1"				

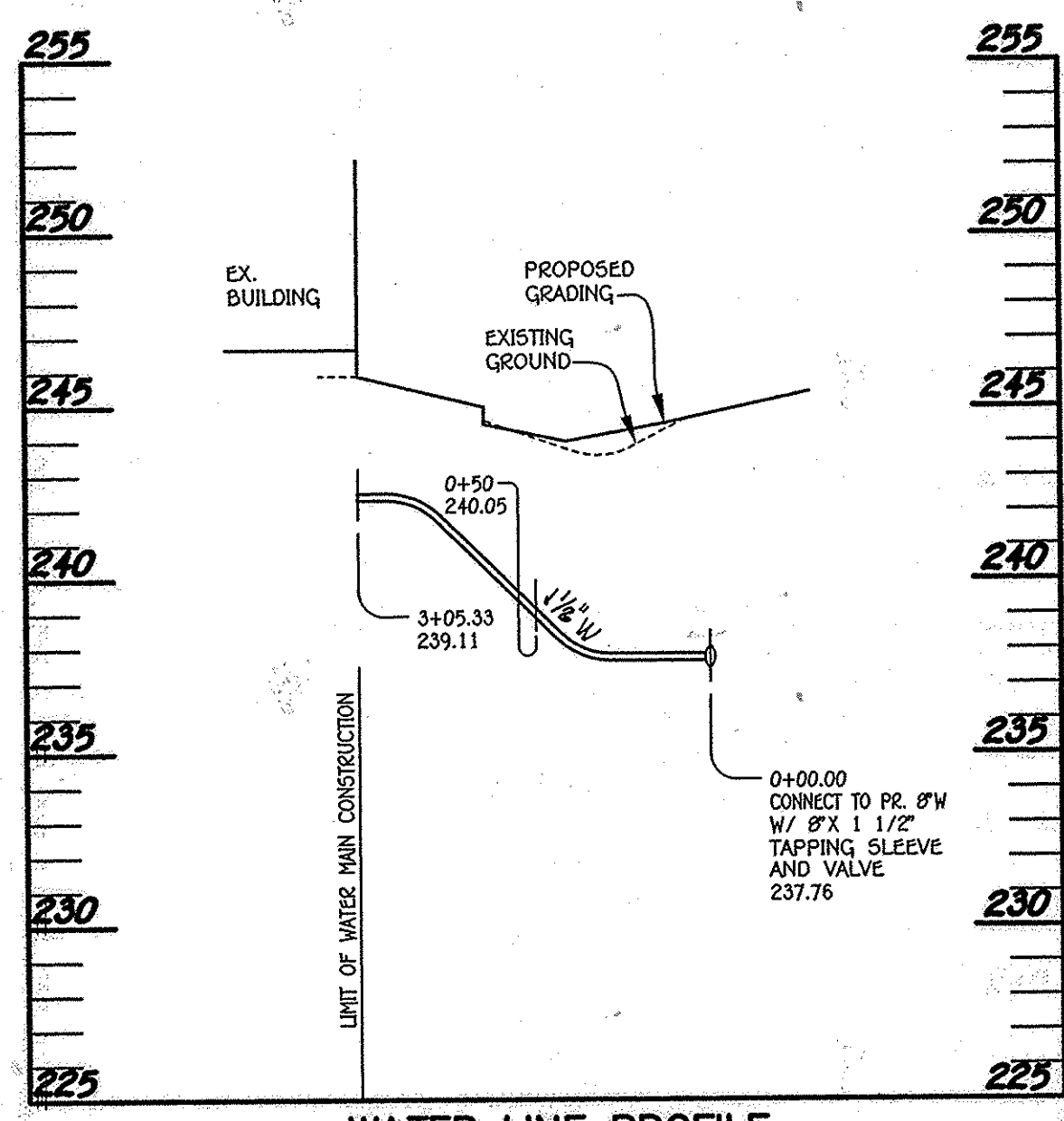
HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1895).
- 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 THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; b) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

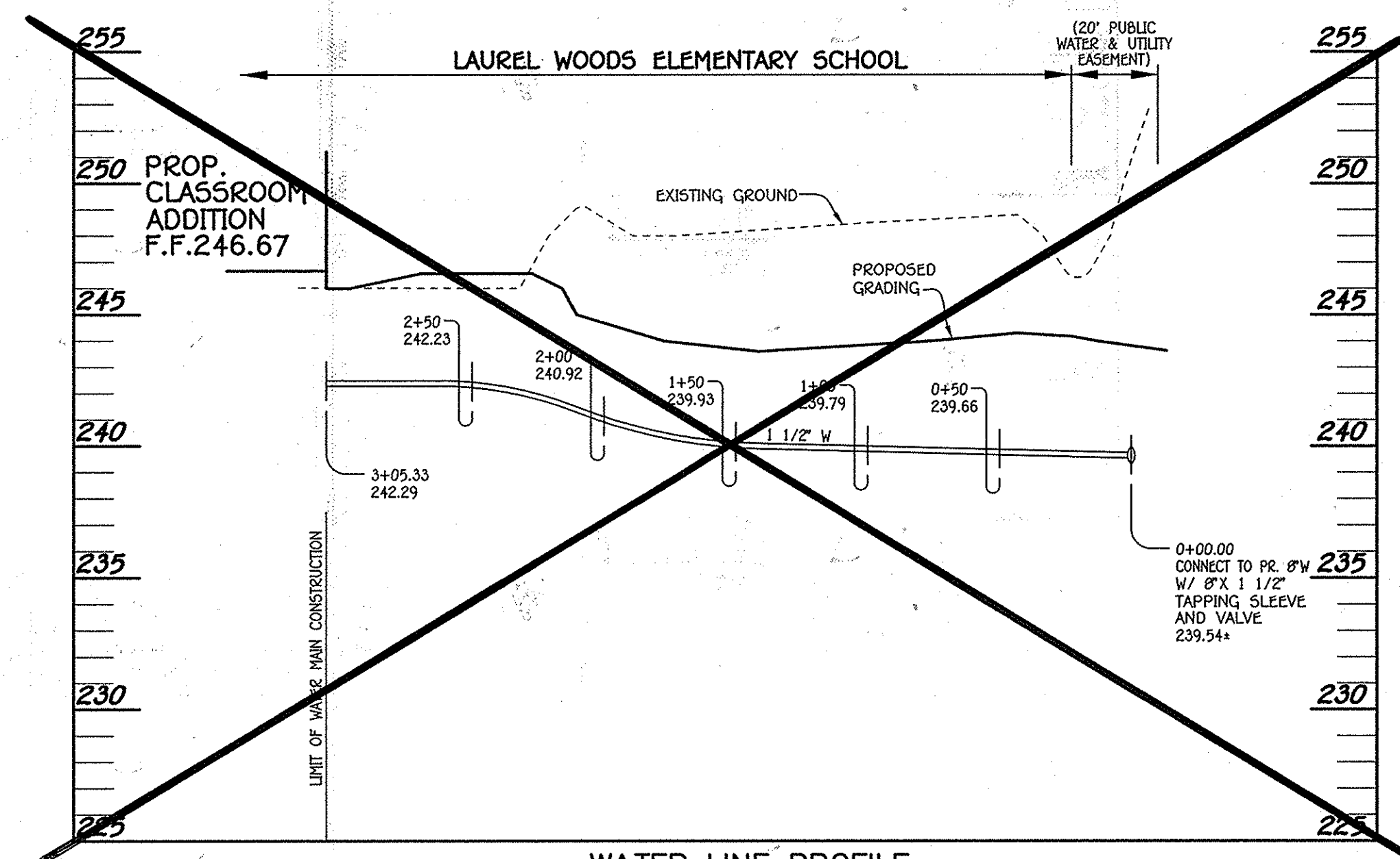
TOTAL AREA OF SITE	11.5 ACRES
AREA DISTURBED	2.234 ACRES
AREA TO BE ROOFED OR PAVED	1.1 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.3 ACRES
TOTAL CUT	7060 CU.YDS.
TOTAL FILL	495 CU.YDS.
- OFFSITE WASTE/BORROW AREA LOCATION: N/A
- ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
- NOTIFY "HIS UTILITY" AT 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 48 HOURS BEFORE STARTING WORK.
- INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE PLANS (1 DAY). INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
- INSTALL SEDIMENT CONTROL MEASURES SHOWN ON SHEET #1. (1 WEEK)
- INSTALL TEMPORARY ACCESS ROAD. (1 WEEK)
- BEGIN BUILDING CONSTRUCTION. (10 MONTHS)
- DISK AND GRADATION WORK SHOWN ON SHEET #3 (3 WEEKS)
- WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, BEGIN ONE GRADING AND BUILDING CONSTRUCTION. (10 MONTHS)
- STABILIZATION OF HEAVY GRADED AREAS SHALL BE IN ACCORDANCE WITH THE GRADING REGULATION NOTE SHOWN ON SHEET #3.
- INSTALL MULCH MATS WHERE NECESSARY TO PREVENT EROSION AND WEAR. MULCH MATS SHALL BE INSTALLED AT THE RATE OF 2.5 TONS PER ACRE. MULCH MATS SHALL BE INSTALLED AT THE RATE OF 2.5 TONS PER ACRE. MULCH MATS SHALL BE INSTALLED AT THE RATE OF 2.5 TONS PER ACRE. MULCH MATS SHALL BE INSTALLED AT THE RATE OF 2.5 TONS PER ACRE.
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WATER LINE PROFILE
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

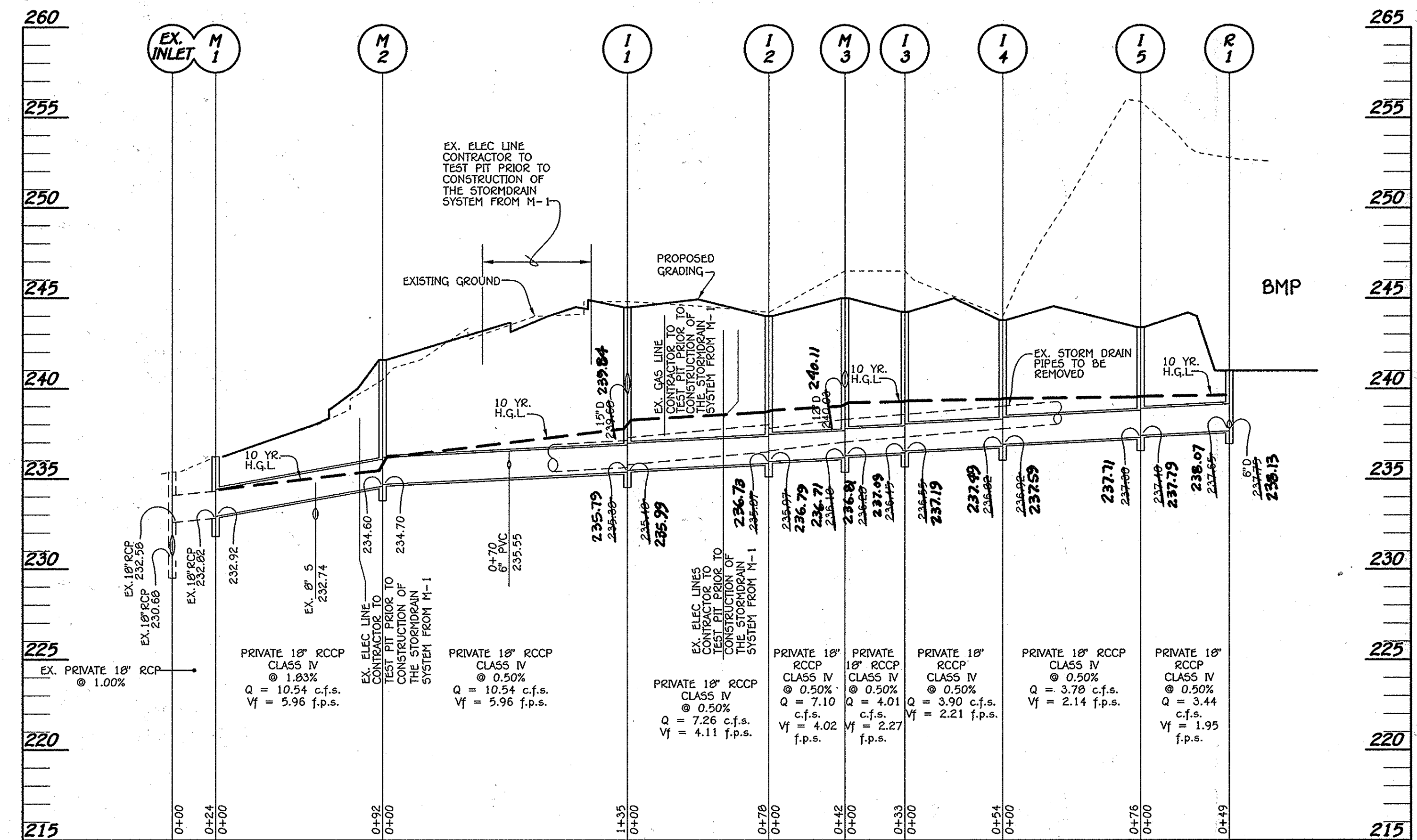


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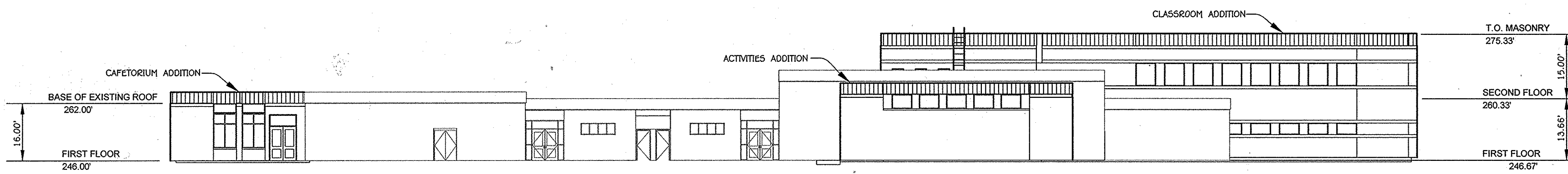
SIZE	CLASS	LENGTH
6"	PERF PVC	138 L.F.
6"	PVC SCH. 40	263 L.F.
8"	PVC SCH. 40	143 L.F.
12"	RCCP, CLASS IV	21 L.F.
15"	D.I.P.	0 L.F.
18"	RCCP, CLASS IV	559 L.F.

STRUCTURE SCHEDULE									
STRUCTURE NO.	OWNERSHIP AND MAINTENANCE	TOP ELEVATION	INV. IN	INV. OUT	COORDINATES	WIDTH	TYPE	REMARKS	
I-1	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528249.74 E 1357140.14	2.5'	A-5 INLET	D - 4.01	
I-2	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528266.61 E 1357223.25	2.5'	A-5 INLET	D - 4.01	
I-3	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528291.09 E 1357294.03	2.50'	5 INLET	D - 4.22 & D-4.93	
I-4	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528324.69 E 1357336.65	2.50'	5 INLET	D - 4.22 & D-4.93	
I-5	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528383.28 E 1357384.12	2.50'	5 INLET	D - 4.22 & D-4.93	
I-6	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528467.20 E 1357274.13	2.50'	5 INLET	D - 4.22 & D-4.93	
M-1	PRIVATE	236.23	232.92 (10')	232.92 (10')	N 528240.68 E 1356924.71	4'	STD. MANHOLE	G - 5.12	
M-2	PRIVATE	241.60	234.70 (10')	234.70 (10')	N 528230.17 E 1357014.15	4'	STD. MANHOLE	G - 5.12	
M-3	PRIVATE	243.53	240.05 (12')	236.68 (10')	N 528280.37 E 1357263.37	4'	STD. MANHOLE	G - 5.12	
R-1	PRIVATE	236.99	236.99 (10')	236.99 (10')	N 528432.10 E 1357384.56	3'	MOD. K INLET	SEE SHEET 12	

** DENOTES TOP OF CURB ELEVATION AT CENTERLINE OF INLET
*** DENOTES GRADE ELEVATION
* INLET COORDINATES ARE AT CENTERLINE OF INLET AT FACE OF CURB.
* INLET COORDINATES ARE AT CENTERLINE OF INLET.
* INLETS SHALL HAVE RETICULAR GRATES.



STORM DRAIN PROFILE
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'



BUILDING ELEVATION
SCALE: 1" = 20'

ASBUILT BY:
CORNERSTONE SURVEYING, INC.
6004 Clairmont Drive
Owings, Maryland 20726
Phone: (410) 594-4181
Fax: (410) 224-7592

Michael Edward
STATE OF MARYLAND
PROFESSIONAL LAND SURVEYOR
27171
1-22-16

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW WATER LINE AND STORM DRAIN PROFILES, BUILDING ELEVATION AND STRUCTURE SCHEDULE FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10232 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21142
(410) 461-2555

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."
Charles J. Grovo
CHARLES J. GROVO, SR., P.E.
DATE

DATE	DESCRIPTION	REVISION BLOCK
10/10/14	REMOVE THE 1 1/2" WATER LINE PROFILE	

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning
Mark A. LeVelle 4/2/14
Chief, Division of Land Development
Walt Shaul 4/2/14
Chief, Development Engineering Division
Chad 3-7-14

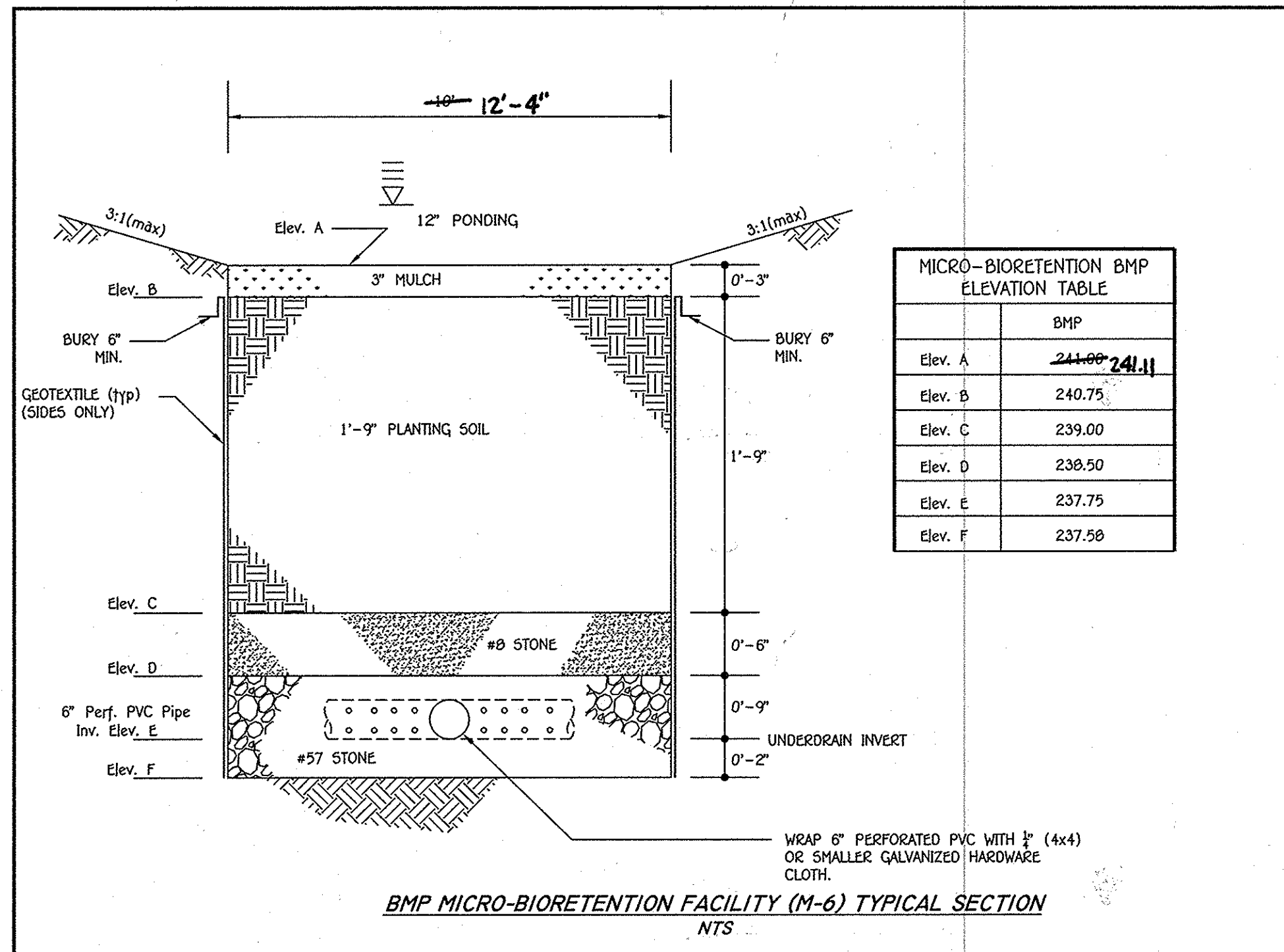
PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Clarksville Pike
Ellicott City, Maryland 21042
Attention: Bruce Gist
410-313-6798



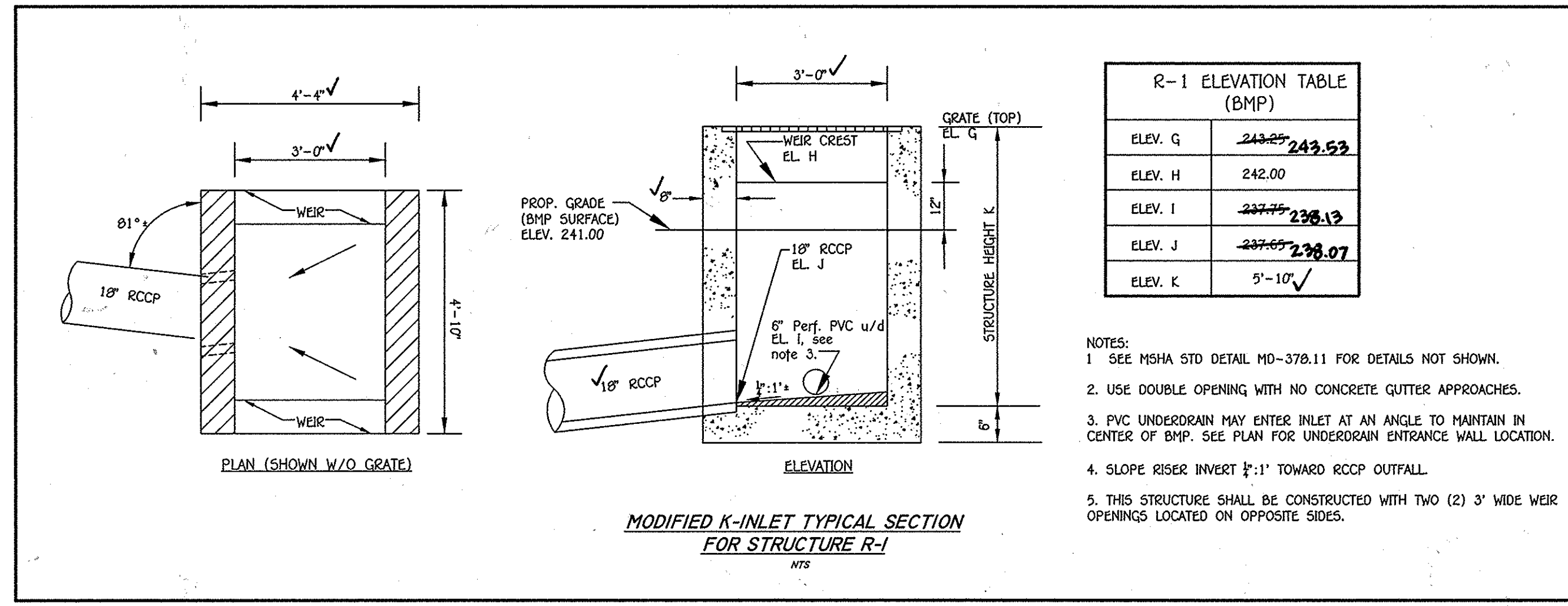
ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD
	LAUREL, MARYLAND 20723

PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762	
PLAT# OR L/F	GRID#	ZONING	TAX MAP#
391/419	22/3.4	R-SC	47/50
		ELECT. DISTR.	CENSUS TRACT
		SIX	6069.03

PROFILES
"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS ELEMENTARY SCHOOL
ZONED R-SC PARCEL 762 -
TAX MAP No.: 47 & 50 GRID No.: 22 & 3.4
SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY 20, 2014
SHEET 11 OF 14

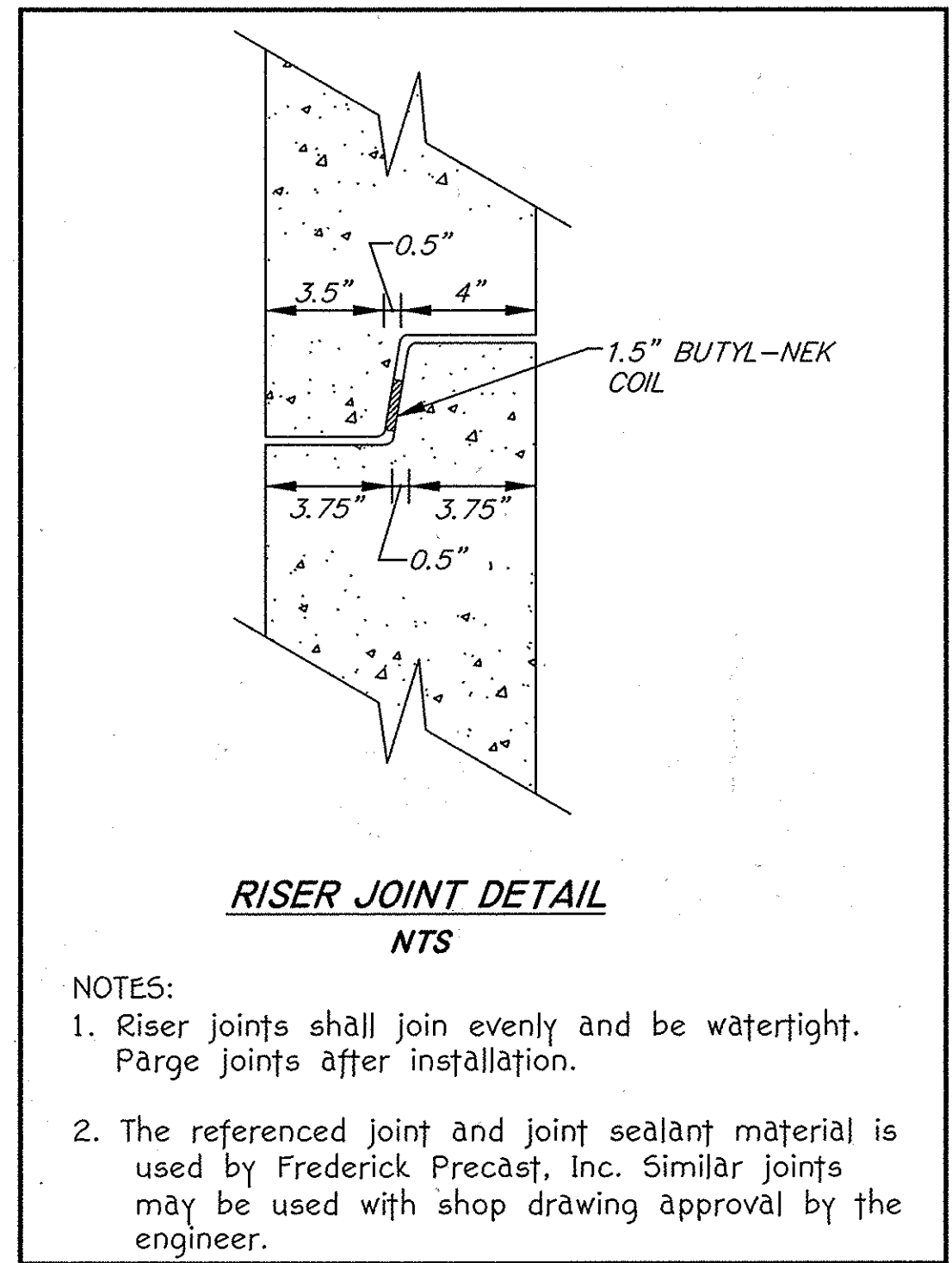


MICRO-BIORETENTION BMP ELEVATION TABLE	
	BMP
Elev. A	244.00 241.11
Elev. B	240.75
Elev. C	239.00
Elev. D	238.50
Elev. E	237.75
Elev. F	237.58

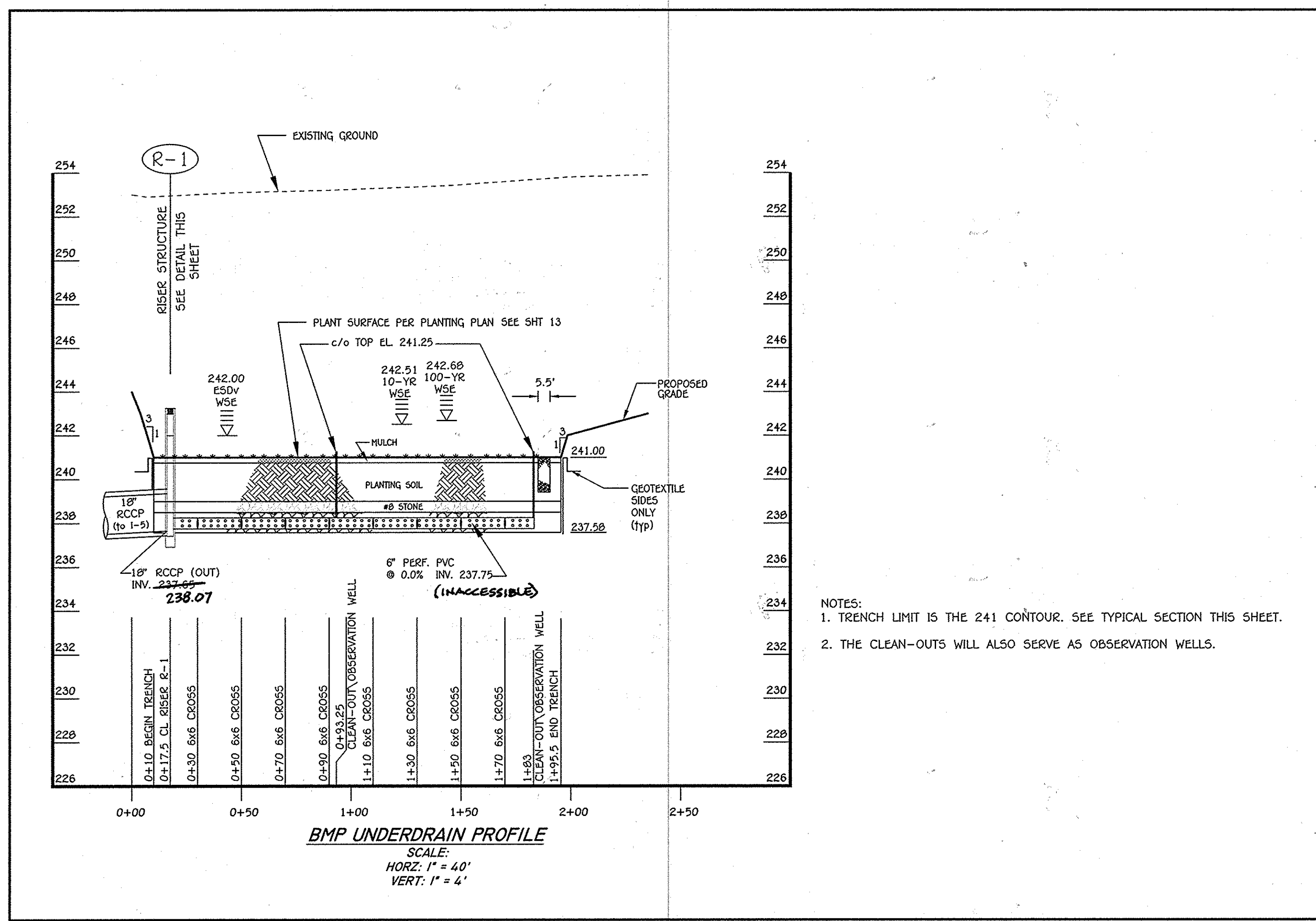


R-1 ELEVATION TABLE (BMP)	
ELEV. G	243.00 243.53
ELEV. H	242.00
ELEV. I	237.75 238.12
ELEV. J	237.00 238.07
ELEV. K	5'-10"

- NOTES:
- SEE MSHA STD DETAIL MD-378.11 FOR DETAILS NOT SHOWN.
 - USE DOUBLE OPENING WITH NO CONCRETE GUTTER APPROACHES.
 - PVC UNDERDRAIN MAY ENTER INLET AT AN ANGLE TO MAINTAIN IN CENTER OF BMP. SEE PLAN FOR UNDERDRAIN ENTRANCE WALL LOCATION.
 - SLOPE RISER INVERT 1/2":1' TOWARD RCCP OUTFALL.
 - THIS STRUCTURE SHALL BE CONSTRUCTED WITH TWO (2) 3" WIDE WEIR OPENINGS LOCATED ON OPPOSITE SIDES.



- NOTES:
- Riser joints shall join evenly and be watertight. Parge joints after installation.
 - 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.



- NOTES:
- TRENCH LIMIT IS THE 241 CONTOUR. SEE TYPICAL SECTION THIS SHEET.
 - THE CLEAN-OUTS WILL ALSO SERVE AS OBSERVATION WELLS.

mill end

1-22-16
ASBULTS

ASBULT BY:
CORNERSTONE SURVEYING, INC.
 6024 Clarendon Drive
 Owings, Maryland 20726
 Phone: (410) 584-4181
 Fax: (410) 224-7582



NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW SWM FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, expiration Date: November 3, 2014."

Charles J. Cravo, Sr.
 CHARLES J. CRAVO, SR., P.E. 3/25/14 DATE

DATE	DESCRIPTION
	REVISION BLOCK

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Mark J. Leight 4/4/14
 Director, Department of Planning and Zoning, Date

Charles J. Cravo, Sr. 3/7/14
 Chief, Development Engineering Division, Date

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



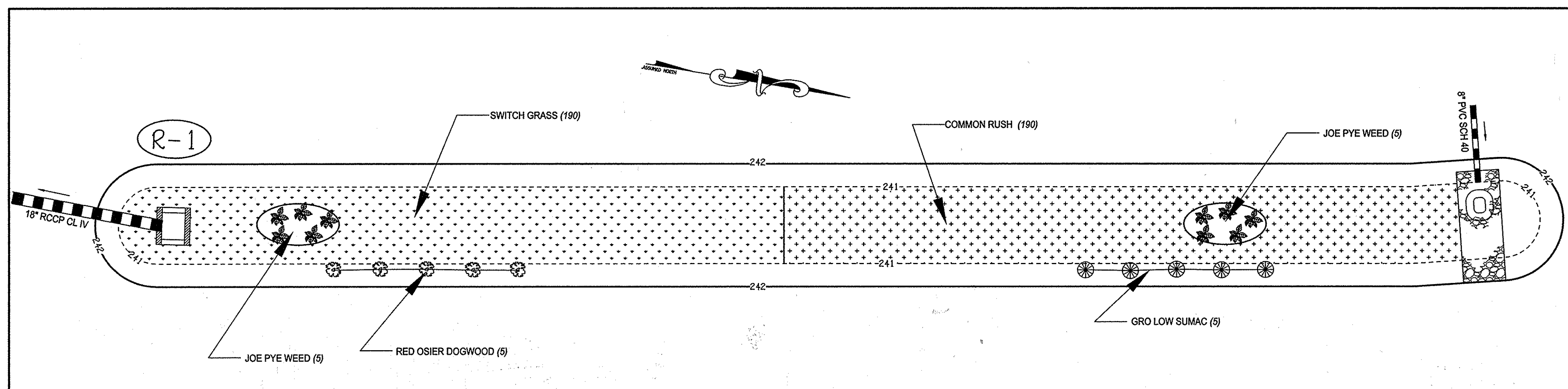
ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
LAUREL WOODS ELEM. SCHOOL	N/A	P. 762		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
391/419	22/3,4	R-SC	47/50	SIX
		CENSUS TRACT		
		6069.03		

STORMWATER MANAGEMENT
 PROFILES & DETAILS
 "REVISED SITE DEVELOPMENT PLAN"
 LAUREL WOODS
 ELEMENTARY SCHOOL

ZONED R-SC PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: FEBRUARY 20, 2014

SHEET 12 OF 14



BIORETENTION FACILITY PLANTING SCHEDULE

KEY	PLANT NAME	SIZE	QUANTITY	SPACING	FORM	SYMBOL
SG	SWITCH GRASS (<i>Panicum virgatum</i> 'Hot Rod')	1 gal	190	2' o/c *	Grass	[Symbol]
CR	COMMON RUSH (<i>Juncus effusus</i>)	1 qt	190	2' o/c *	Grass	[Symbol]
GL	GRO LOW SUMAC (<i>Rhus aromatica</i> 'Gro Low')	2 gal	5	6' o/c *	Shrub	[Symbol]
ROD	RED OSIER DOGWOOD (<i>Cornus sericea</i>)	2 gal	5	6' o/c *	Shrub	[Symbol]
JP	JOE PYE WEED (<i>Eupatorium maculatum</i> 'Gateway')	1 gal	10	3' o/c *	Perennial	[Symbol]

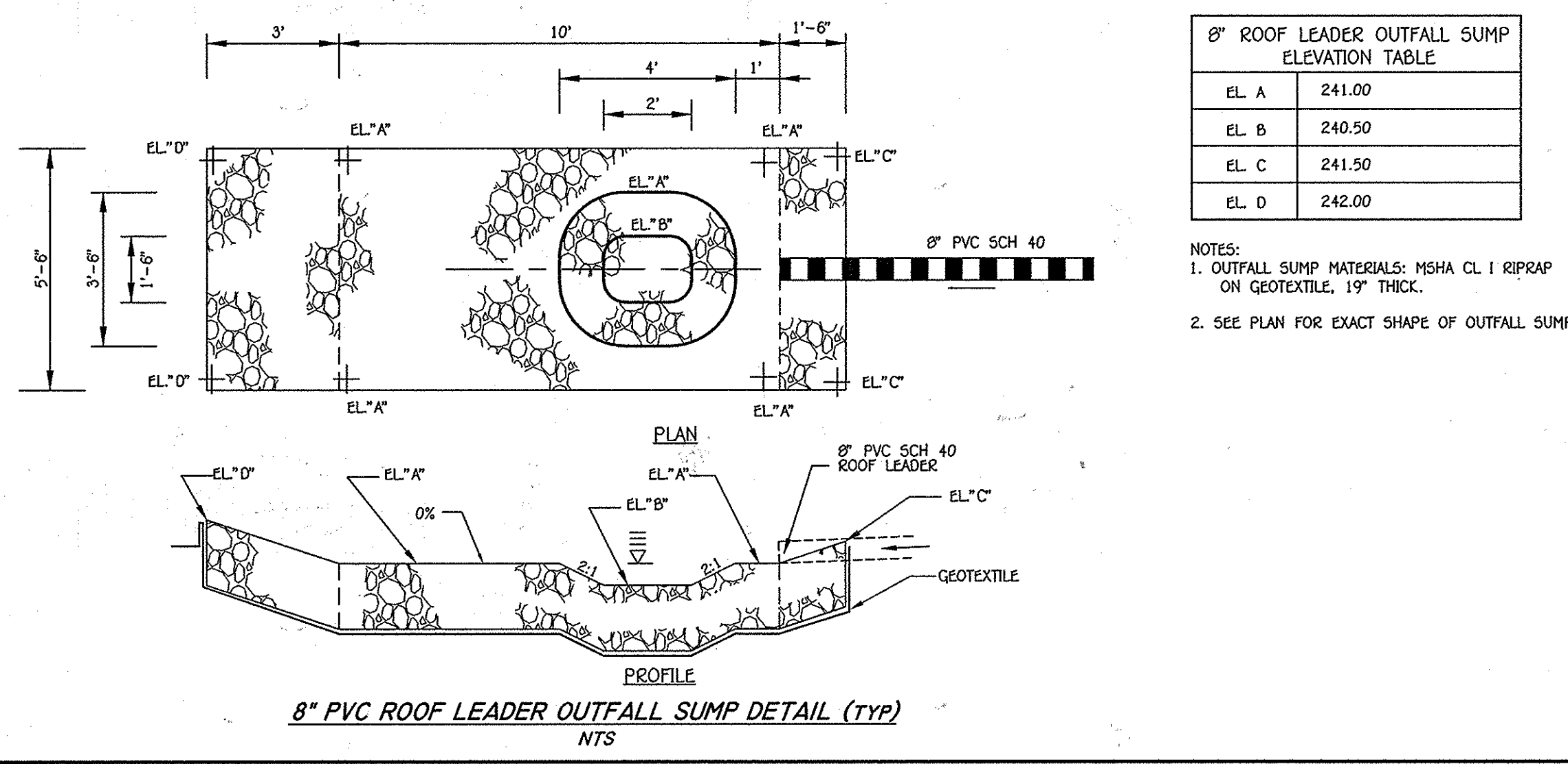
- PLANTING SPECIFICATIONS:**
- PLANT INSTALLATION SHALL BE PER THE MDE SPECIFICATIONS IN THE CURRENT STORMWATER DESIGN MANUAL.
- ADDITIONAL SPECIFICATIONS:**
- PLANT BMP LEVEL SURFACE AS SHOWN WITH AN EVEN DISTRIBUTION DENSITY. STABILIZE SIDE SLOPES WITH 500 UP TO 4 VERTICAL FEET OR TOP OF SLOPE, WHICHEVER IS LESS. ALL REMAINING SLOPES SHALL BE STABILIZED WITH PERMANENT GRASS SEED PER NRCS SPECIFICATIONS. SIDE SLOPES SHALL HAVE 4" OF CLEAN TOPSOIL ON TILLED SUB-SOIL.
 - THE CONTRACTOR SHALL PROVIDE AN UNCONDITIONAL ONE (1) YEAR GUARANTEE FROM THE DATE OF ACCEPTANCE FOR ALL PLANT MATERIALS.
 - PLANT MATERIAL SHALL CONFORM TO THE U.S. STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - PLANTING PERENNIALS & GRASSES: ROOT SYSTEMS SHALL BE SPLIT OR CRUMBLED. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH EXISTING GRADE. TREAT THE MULCHED AND PLANTED AREA WITH A PRE-EMERGENT HERBICIDE.
 - ALL PLANTS MUST BE THOROUGHLY WATERED PRIOR TO ACCEPTANCE.
 - SHRUBS SHALL BE PLANTED ON THE SIDE SLOPES 4'-6" VERTICALLY ABOVE THE BMP (LEVEL) SURFACE.

BMP PLANTING PLAN
SCALE:
1" = 10'

- GENERAL STORMWATER MANAGEMENT NOTES**
- STORMWATER MANAGEMENT HAS BEEN PROVIDED WITH ONE (1) MICRO-BIORETENTION (M-6) BMP (BEST MANAGEMENT PRACTICES).
 - ALL CONSTRUCTION SHALL MEET THE LATEST EDITION OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS, SMALL EARTHEN DAM SPECIFICATION MD-378, AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S CURRENT STORMWATER DESIGN MANUAL, OR AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONSULT THE ENGINEER SHOULD THERE BE ANY DISCREPANCIES. SEE MICRO-BIORETENTION FACILITY SPECIFICATIONS ON THIS SHEET.
 - THE UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL TEST PIT ALL KNOWN EXISTING UTILITIES TO VERIFY, SIZE, SHAPE, LOCATION, AND TYPE PRIOR TO PERFORMING CONSTRUCTION. ANY UTILITY DAMAGED DUE TO CONSTRUCTION MUST BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
 - SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. IF THE CONTRACTOR MAKES FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
 - CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-257-7777 AND THE HOWARD COUNTY DEPARTMENT OF INSPECTION LICENSES & PERMITS THREE (3) WORKING DAYS BEFORE BEGINNING CONSTRUCTION.
 - FISHER, COLLINS & CARTER, INC. IS NOT RESPONSIBLE FOR THE CONTRACTOR'S UTILIZATION OF MEN, MATERIALS, EQUIPMENT, OR SAFETY MEASURES IN THE PERFORMANCE OF ANY WORK FOR THIS PROJECT. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR PERFORMING THE WORK CORRECTLY AND IN CONFORMANCE WITH CODE/SPECIFICATION REQUIREMENTS.
 - THE BMP MAY BE GRADED, HOWEVER, THE PLANTING SOIL SHALL NOT BE INSTALLED IN THE BMP UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (I.E., THICK GRASS COVER, OR PAVED).
 - THE STORMWATER MANAGEMENT MICRO-BIORETENTION BMP FOR THIS PROJECT WILL BE PRIVATELY OWNED AND MAINTAINED.

- OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION FACILITIES**
- ALL MICRO-BIORETENTION FACILITIES SHALL BE INSPECTED AT LEAST TWICE PER YEAR, ONCE EACH IN THE SPRING AND FALL, AND AFTER LARGE STORMS. THE MICRO-BIORETENTION FACILITY COMPONENTS TO BE INSPECTED AND MAINTAINED INCLUDE THE ITEMS AS FOLLOWS:
- PLANT MATERIAL: PLANTS SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION. REMOVE AND REPLACE DEAD OR DYING VEGETATION CONSIDERED BEYOND TREATMENT (SEE NOTE #1 BELOW). MAINTENANCE INCLUDES PRUNING, AND REPLACEMENT OF DEFICIENT STAKES AND WIRE.
 - MULCH LAYER: SHALL BE REPLACED EVERY 3 YEARS (IN THE SPRING) DUE TO THE ACCUMULATION OF HEAVY METALS. THE OWNER SHALL PROPERLY DISPOSE THE OLD MULCH SO AS NOT TO CAUSE STORMWATER CONTAMINATION ELSEWHERE. WASHED OUT AREAS SHALL BE REPAIRED.
 - SOIL LAYER: SHOULD STORMWATER POND WATER FOR MORE THAN 48 HOURS, THE TOP 6 INCHES (MINIMUM) OF THE PLANTING SOIL LAYER SHALL BE REPLACED. THE OLD SOIL SHALL BE PROPERLY DISPOSED OF.
 - SPILLWAY OUTFALL, INTERIOR SLOPES: ERODED AREAS SHALL BE REPAIRED (FILLED IN AND SEEDED). BARE AREAS SHALL BE TREATED AND RE-SEEDED.
 - INLET: REPAIR CRACKS, DAMAGED CONCRETE, ETC. AS NECESSARY.
 - REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SEDIMENT GREATER THAN ONE (1) INCH.
- NOTES:**
- IF SPECIFIC PLANTS ARE NOT SURVIVING; THE PLANT TYPE SHALL BE CHANGED TO BETTER SUITED SPECIES.
 - PLANT WATERING MAY BE NEEDED DURING PROLONGED DRY PERIODS.

- BMP BIORETENTION FACILITY NOTES AND SPECIFICATIONS**
- REFER TO THE LATEST MARYLAND SWM DESIGN MANUAL FOR BIORETENTION SPECIFICATIONS FOR INFORMATION NOT LISTED HEREIN AND FOR ADDITIONAL INFORMATION.
 - THE BIORETENTION BMP MATERIALS ARE AS FOLLOWS:
 - PLANTING SOIL: PER PLANTING SOIL SPECIFICATIONS OUTLINED IN MDE'S 2000 SWM MANUAL.
 - PVC PIPE: SCHEDULE 40. PERFORATED PIPE SHALL HAVE NO SLOPE (0.0%).
 - STONE AGGREGATE: MSHA SPECIFICATIONS AS SHOWN ON TYPICAL SECTION; AGGREGATE MUST BE FREE OF FINES, DIRT & DEBRIS.
 - GEOTEXTILE: PER MDE SWM MANUAL, OR MIRAFI 140N.
 - MULCH: SHREDDDED, WELL-AGED (6-12 MONTHS) HARDWOOD MULCH; NO WOOD CHIPS OR PINE MULCH.
 - GEOTEXTILE (FILTER FABRIC) SHALL BE PLACED AGAINST EXCAVATED VERTICAL SURFACES. SCARIFY EARTH PRIOR TO GEOTEXTILE PLACEMENT. INSTALL GEOTEXTILE PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS AND USE A 2 FT MINIMUM OVERLAP AND NOTCH ENDS WITH A 6" MINIMUM BURY OR EQUIVALENT ANCHORING METHOD.
 - THE CONTRACTOR SHALL PROVIDE TO THE OWNER INDEPENDENT CERTIFICATION THAT THE PLANTING SOILS AND OTHER MICRO-BIORETENTION MATERIALS MEET THE SPECIFICATIONS.
 - THE BIORETENTION FACILITY SHALL BE VEGETATED (TOP LEVEL SURFACE ONLY) IN ACCORDANCE WITH THE PLANTING PLAN AND THE BMP M-6 SPECIFICATIONS IN MDE'S CURRENT STORMWATER MANAGEMENT DESIGN MANUAL.
 - FOR UNDERDRAINS, USE PERFORATED PVC PIPE INSIDE THE BIORETENTION FACILITIES AND WRAP PERFORATED PIPE WITH 1/4" HARDWARE CLOTH TO PREVENT AGGREGATE FROM ENTERING THE PERFORATIONS.
 - INSTALL CLEANOUTS (SOLID PVC PIPE) AS SHOWN. THE CLEANOUT TOP SHALL EXTEND 3" ABOVE TOP OF MULCH.
 - THE LIMIT OF THE TYPICAL SECTION (I.E., PLANTING SOIL, SAND ETC.) IS THE ENTIRE LEVEL SURFACE OF THE MICRO-BIORETENTION FACILITY EXCLUDING FOREBAY AREA(S) AND RIPRAP/GABION APRONS, IF PROPOSED.



8" ROOF LEADER OUTFALL SUMP ELEVATION TABLE

EL. A	241.00
EL. B	240.50
EL. C	241.50
EL. D	242.00

- NOTES:**
- OUTFALL SUMP MATERIALS: MSHA CL 1 RIPRAP ON GEOTEXTILE, 19" THICK.
 - SEE PLAN FOR EXACT SHAPE OF OUTFALL SUMP.

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW SWM FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

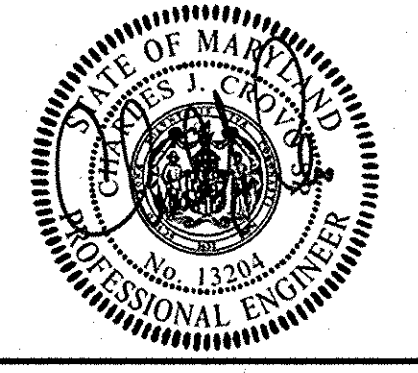
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2095

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

Charles J. Grovo, Sr., P.E.
CHARLES J. GROVO, SR., P.E.
DATE: 2/26/14

DATE	DESCRIPTION
	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Paula A. Lynch</i>	4/10/14
Director - Department of Planning and Zoning	Date
<i>W. J. Schuler</i>	4/22/14
Chief, Division of Land Development	Date
<i>Paul Schuler</i>	3-7-14
Chief, Development Engineering Division	Date

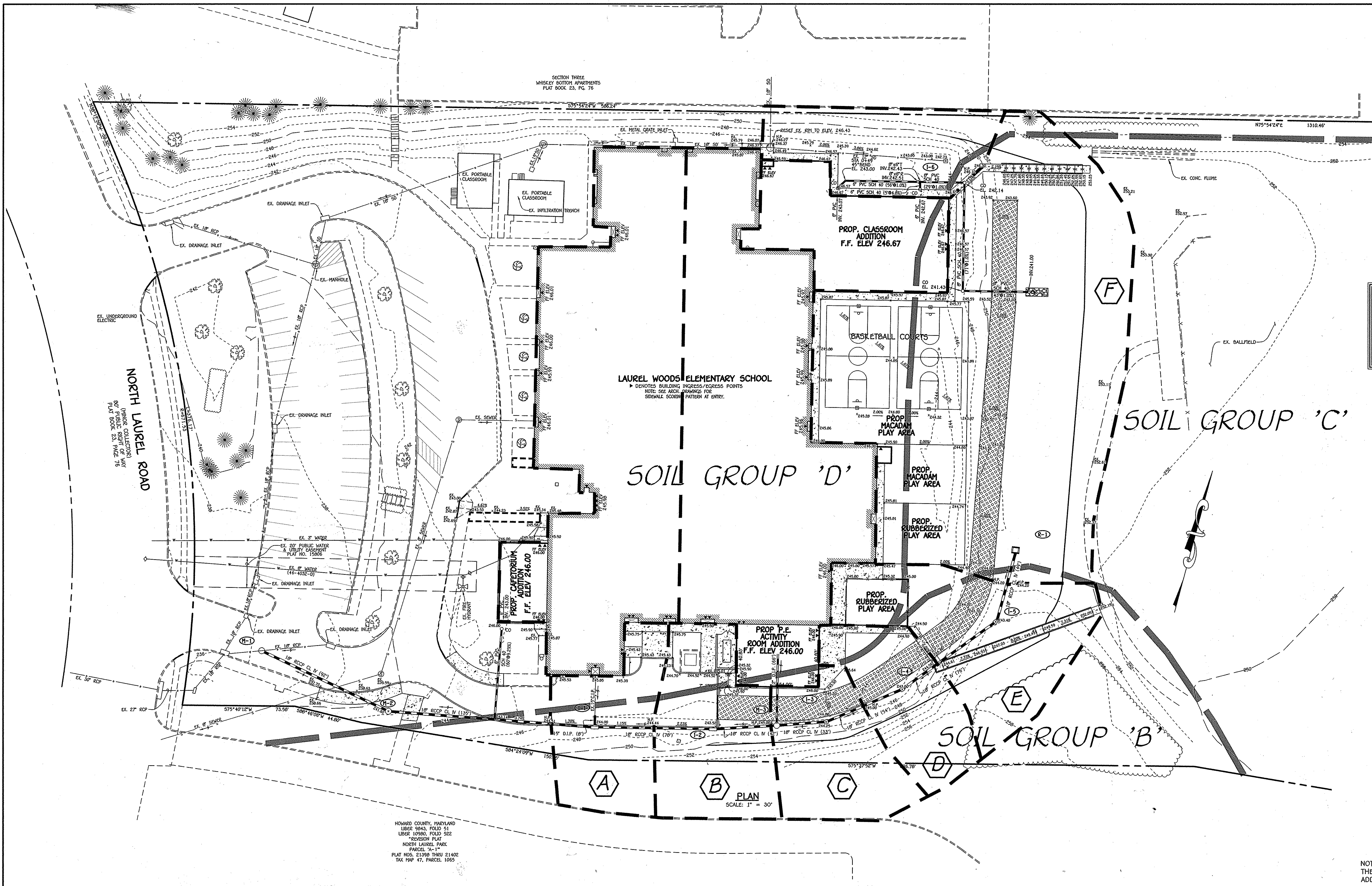
PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 Clarksville Pike
Ellicott City, Maryland 21042
Attention Bruce Gist
410-313-6798



ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723
PERMIT INFORMATION CHART	
SUBDIVISION NAME	SECTION/AREA
LAUREL WOODS ELEM. SCHOOL	N/A
LOT/PARCEL NO.	
	P. 762
PLAT# OR L/F	GRID#
391/419	22/3,4
ZONING	TAX MAP#
R-SC	47/50
ELECT. DIST.	CENSUS TRACT
SIX	6069.03

STORMWATER MANAGEMENT NOTES AND PLANTING PLAN
"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS
ELEMENTARY SCHOOL

ZONED R-SC PARCEL 762
TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: FEBRUARY 20, 2014



LEGEND

SYMBOL	DESCRIPTION
--- 2'48 ---	EXISTING CONTOUR 2' INTERVAL
--- 10' ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING FENCE
-248-	PROPOSED CONTOUR 2' INTERVAL
-250-	PROPOSED CONTOUR 10' INTERVAL
+ 246.00	SPOT ELEVATION
[Symbol]	PROPOSED CONCRETE WALK
[Symbol]	PROPOSED MACADAM PAVING
[Symbol]	EXISTING TREES
[Symbol]	EXISTING TREELINE
[Symbol]	PROPOSED TREELINE
[Symbol]	PROPOSED WATER
[Symbol]	PROPOSED STORMDRAIN
[Symbol]	PROPOSED GRASS PAVERS
[Symbol]	PROPOSED CHAINLINK FENCE

DRAINAGE AREA DATA

DRAINAGE AREA	STRUCTURE NO.	AREA (AC.)	'C'	% IMP.
A	I-1	0.79	0.76	86
B	I-2	0.20	0.19	10
C	I-3	0.85	0.73	82
D	I-4	0.15	0.21	7
E	I-5	0.26	0.28	17
F	R-1	1.19	0.73	47

LAUREL WOODS ELEMENTARY SCHOOL
 * DENOTES BUILDING INGRESS/EGRESS POINTS
 NOTE: SEE ARCH. DRAWINGS FOR SIDEWALK CROSSING PATTERN AT ENTRY.

SOIL GROUP 'D'

SOIL GROUP 'C'

SOIL GROUP 'B'

PLAN
SCALE: 1" = 30'

HOWARD COUNTY, MARYLAND
 LIBER 9843, FOLIO 51
 LIBER 10990, FOLIO 922
 * REVISION PLAT
 NORTH LAUREL PARK
 PARCEL 7A-11
 PLAT NOS. 21389 THRU 21402
 TAX MAP 47, PARCEL 1065

NOTE: THE PURPOSE OF THIS PLAN SHEET IS TO SHOW THE DRAINAGE AREAS EFFECTED BY THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21114
 (410) 461-2295

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."

Charles J. Grovo, Sr., P.E.
 CHARLES J. GROVO, SR., P.E. 2/25/14 DATE

DATE	DESCRIPTION
	REVISION BLOCK
	APPROVED: DEPARTMENT OF PLANNING AND ZONING
	Director - Department of Planning and Zoning
	Chief, Division of Land Development
	Chief, Development Engineering Division

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



ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
	9250 NORTH LAUREL ROAD LAUREL, MARYLAND 20723
PERMIT INFORMATION CHART	
SUBDIVISION NAME	SECTION/AREA
LAUREL WOODS ELEM. SCHOOL	N/A
LOT/PARCEL NO.	P. 762
PLAT# OR L/F	GRID#
391/419	22/3,4
ZONING	TAX MAP#
R-SC	47/50
ELECT. DISTR.	CENSUS TRACT
SIX	6069.03

DRAINAGE AREA MAP
"REVISED SITE DEVELOPMENT PLAN"
LAUREL WOODS ELEMENTARY SCHOOL
 ZONED R-SC PARCEL 762
 TAX MAP No.: 47 & 50 GRID No.: 22 & 3,4
 SIX ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEBRUARY 20, 2014
 SHEET 14 OF 14