### SHEET INDEX DESCRIPTION DEMOLITION PLAN SITE DEVELOPMENT PLAN SEDIMENT AND EROSION CONTROL PLAN DETAIL SHEET DETAIL SHEET HANDICAP PARKING DETAIL SOIL BORING LOGS AND WQV CHANNEL PROFILE AND CROSS SECTION STORM DRAIN DRAINAGE AREA MAP STORM DRAIN PROFILES AND WATER PROFILE SEDIMENT EROSION CONTROL NOTES AND DETAILS

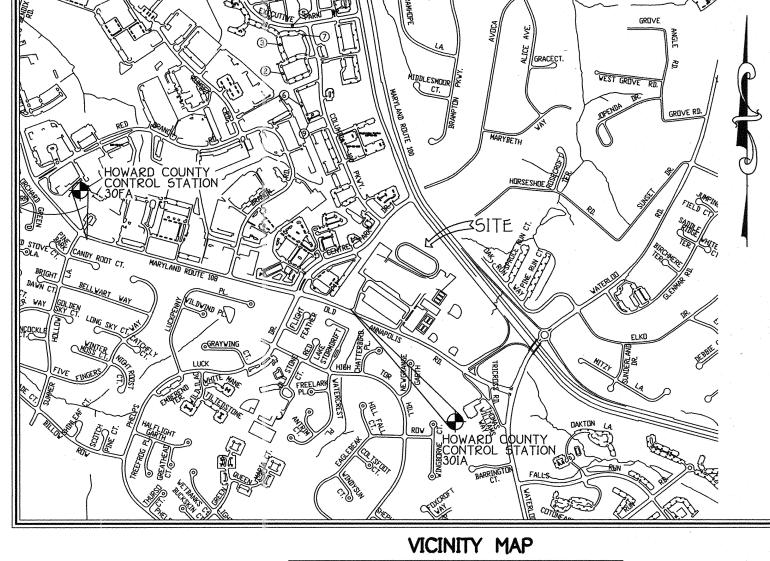
### SITE DEVELOPMENT PLAN HOWARD HIGH SCHOOL

TAX MAP No.: 30

PARCEL No.: 31

SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



1. All construction shall be accordance with the latest standards and specifications of Howard

SCALE: 1" = 1200'

### 1. General Site Data: A. Present Zoning: R-20

B. Proposed use of site or structure: Institutional (Public School)

C. Public water and sewer to be utilized.

2. Area Tabulations:

A. Total project area: 38.409 Ac.+ B. Area of this plan submission: 7.757 Ac.+ is the limit of submission and grading disturbance for the construction of the high school addition and associated parking.

Existing high school 187,643 sq. ft., ROTC Building 8412 sq. ft.

Proposed additions 113,648 sq. ft.

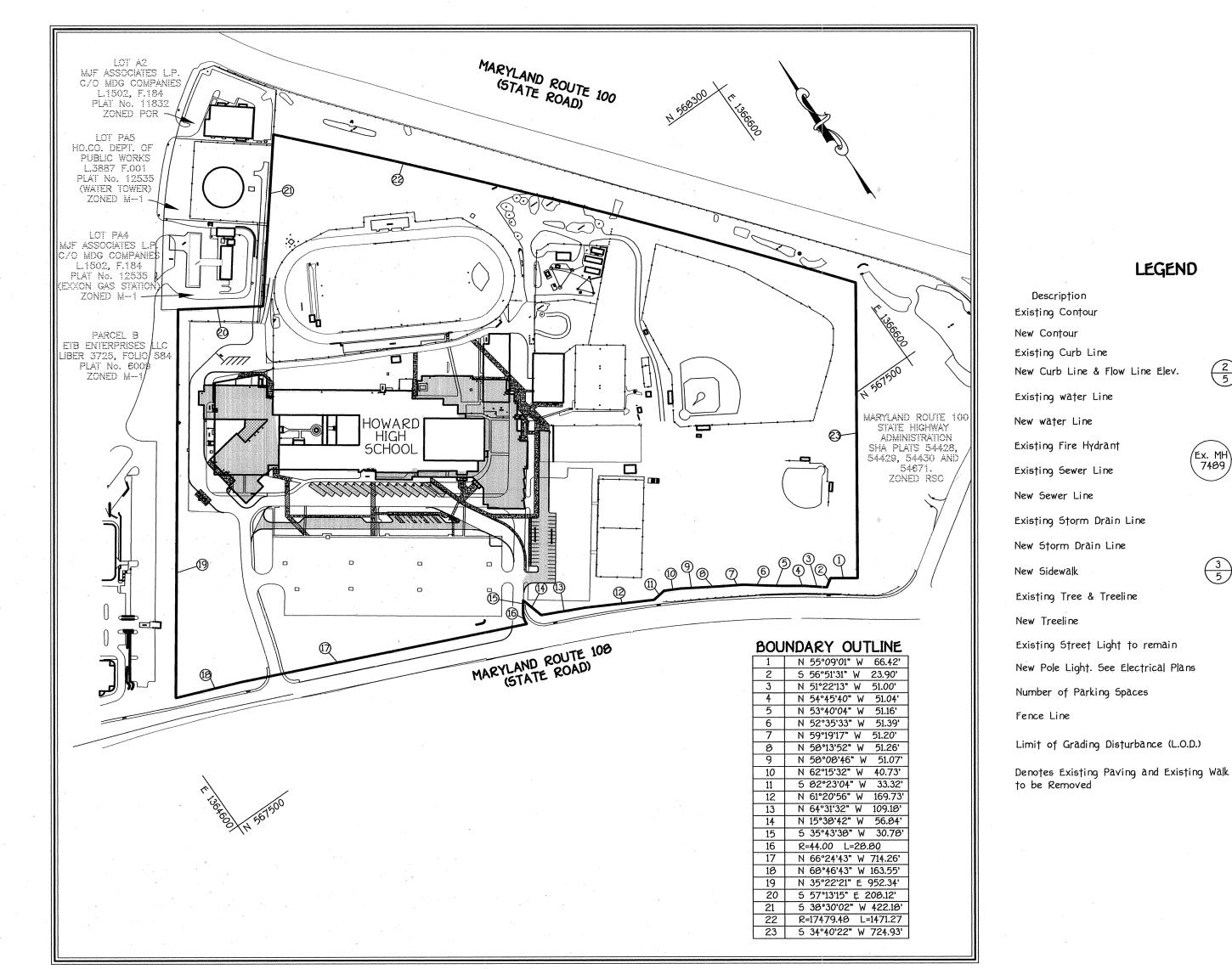
3. Parking Space Data: A. Number of parking space required by zoning regulations: N/A

B. Total number of parking spaces provided on site: 335 (including handicap parking)

per the Public School Systems Parking Requirements C. Number of Handicapped parking spaces required 8 D. Number of Handicapped parking spaces provided 9

### BUILDING COVERAGE

Existing High School, ROTC 309,703 Sq. Ft. = 7.11 Ac. + Building and Additions Bosement Level Area = 3, 500 sq.17.
Percentage of Coverage 7.11 Ac. = 18.5 %
38.409 Ac.



2. The contractor shall notify the Bureau of Engineering/Construction Inspection Division at LEGEND 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. Description 4. Project Background: Existing Contour Location: Tax Map 30, Grid 18, Parcel 31 Zoning: This project is zoned R-20 per the 10/18/93 comprehensive zoning plan. New Contour Election District: SECOND Existing Curb Line 5. Traffic control devices, markings and signing shall be in accordance with the latest edition New Curb Line & Flow Line Elev. of the manual on Uniform Traffic Control Devices (MUTC). All street and regulatory signs shall be in place prior to placement of any asphalt Existing water Line 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. New water Line 7. Existing topography and features were derived from survey by Fisher, Collins and Carter Inc. and Harford Aerial Surveys inc. Dated July 6, 2001. Existing Fire Hydrant 8. Coordinates are based on NAD 83 Maryland Coordinates System as projected by Howard County Geodetic Control Stations. 30FA N 568621.336 30IA N 567750.955 Existing Sewer Line New Sewer Line Ex. 12" 5.D. Existing Storm Drain Line New Storm Drain Line New Sidewalk  $\sim\sim\sim\sim\sim$ New Treeline

9. Public water and sewer is to be utilized for this project. 10. Stormwater management is provided in accordance with the re-developement requirements of

County plus MSHA standards and specifications if applicable.

General Notes

The Howard County Design Manual Vol. I. Water quality for this site is provided by a combination of a newly design dry swale in conjunction with the existing underground swim facility constructed under SDP-76-58. Both facilities will be Privately Owed and Maintained by The Howard County 11. All on-site storm drains under this site development plan are private.

E 1361563.983

ELEV. 441.62

ELEV. 499.82

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 and elevation. 13. All proposed ramps shall be in accordance with current A.D.A. Standards. 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. 14. All driveways and parking to be owned and maintained by the Howard County Public School

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  $(\frac{2}{5})$ 18. All curb fillets are 5' radius unless noted otherwise. Curb spot elevations along curb line are

at the flow line unless noted otherwise. 19. For details of building profile, parking, road section, handicap, curb and gutter see sheets 5 and 6. 20. There are no known grave sites or cemeteries on this site. 21. Other topics related to this site:

Soils Analysis prepared by: Penniman and Browne Inc Dated MAY 13, 2003. 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.

23. The existing water mains are being replaced with public water mains Contract 44-4147-D. The building shall be equipped with an automatic fire prevention sprinkler system. 24. There are no wetlands within the limits of disturbance "per a signed and sealed wetlands

certification prepared by Fisher, Collins, and Carter Inc. dated March, 2003". 25. Previous DPZ file numbers VP01-66, VP06-03, SDP75-27, SDP76-50, SDP79-30, BA93-09, WP93-106, WP95-93, WP88-150, WP96-100, WP01-30, WP03-70, WP03-90.

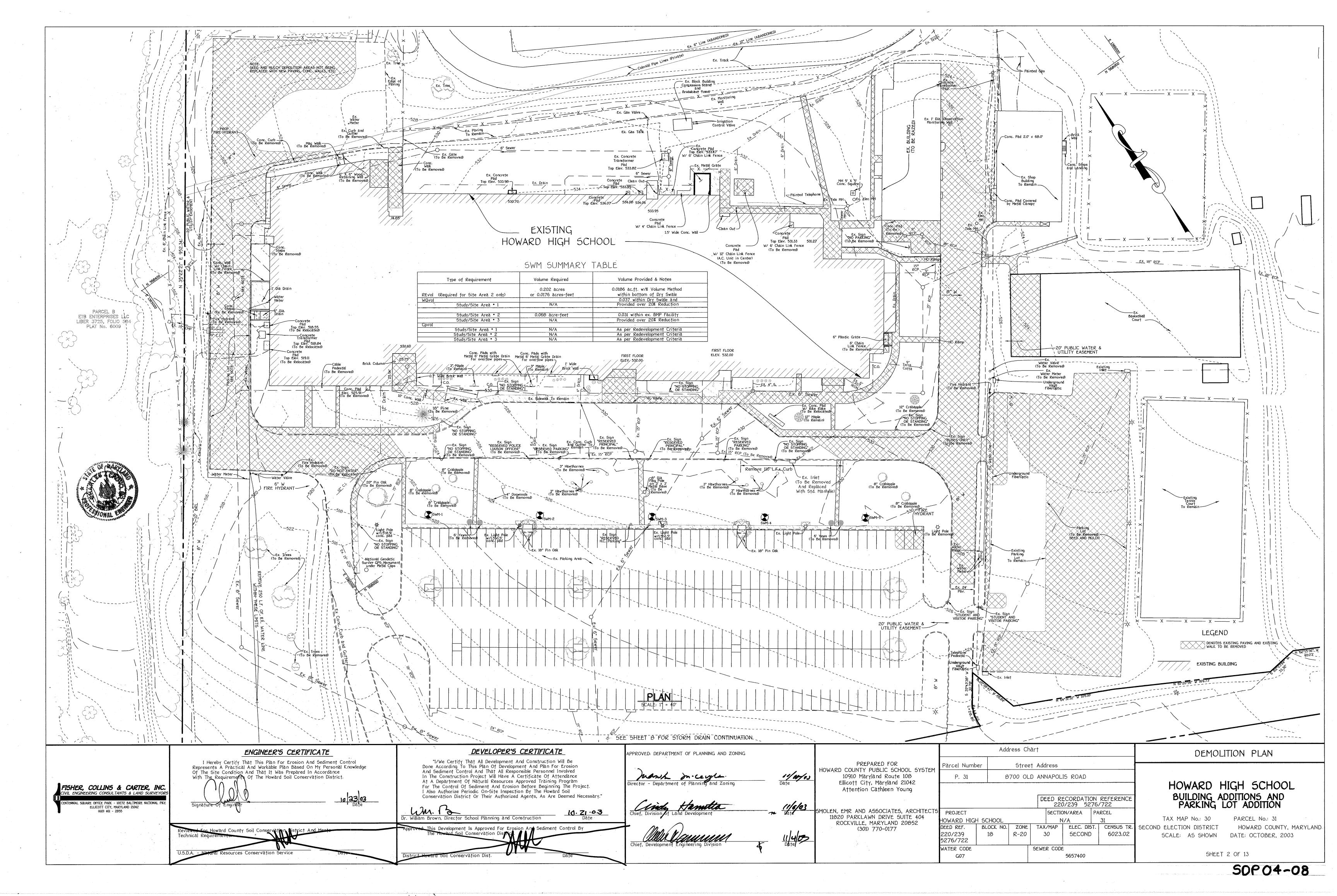
26. "This project is exempt from the requirements of Section 16.1200 of the Howard County Code for Forest Conservation because this site was developed per a Site Development Plan which received approved prior to 12/31/92". [Subdivision Section 16.1202(b)(1)(iii)] 27. This plan is subject to the Fifth Edition of the Subdivision Regulations.

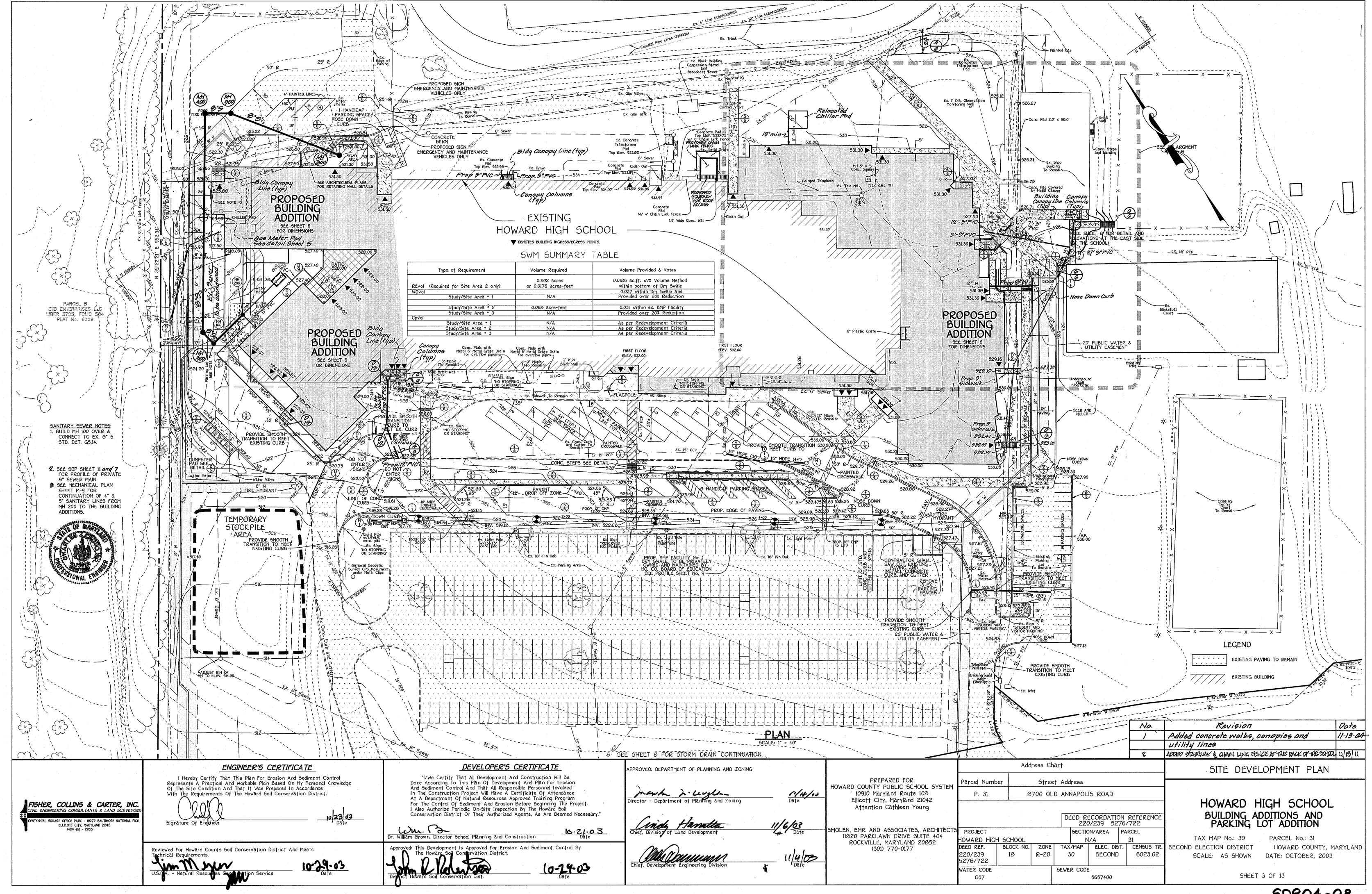


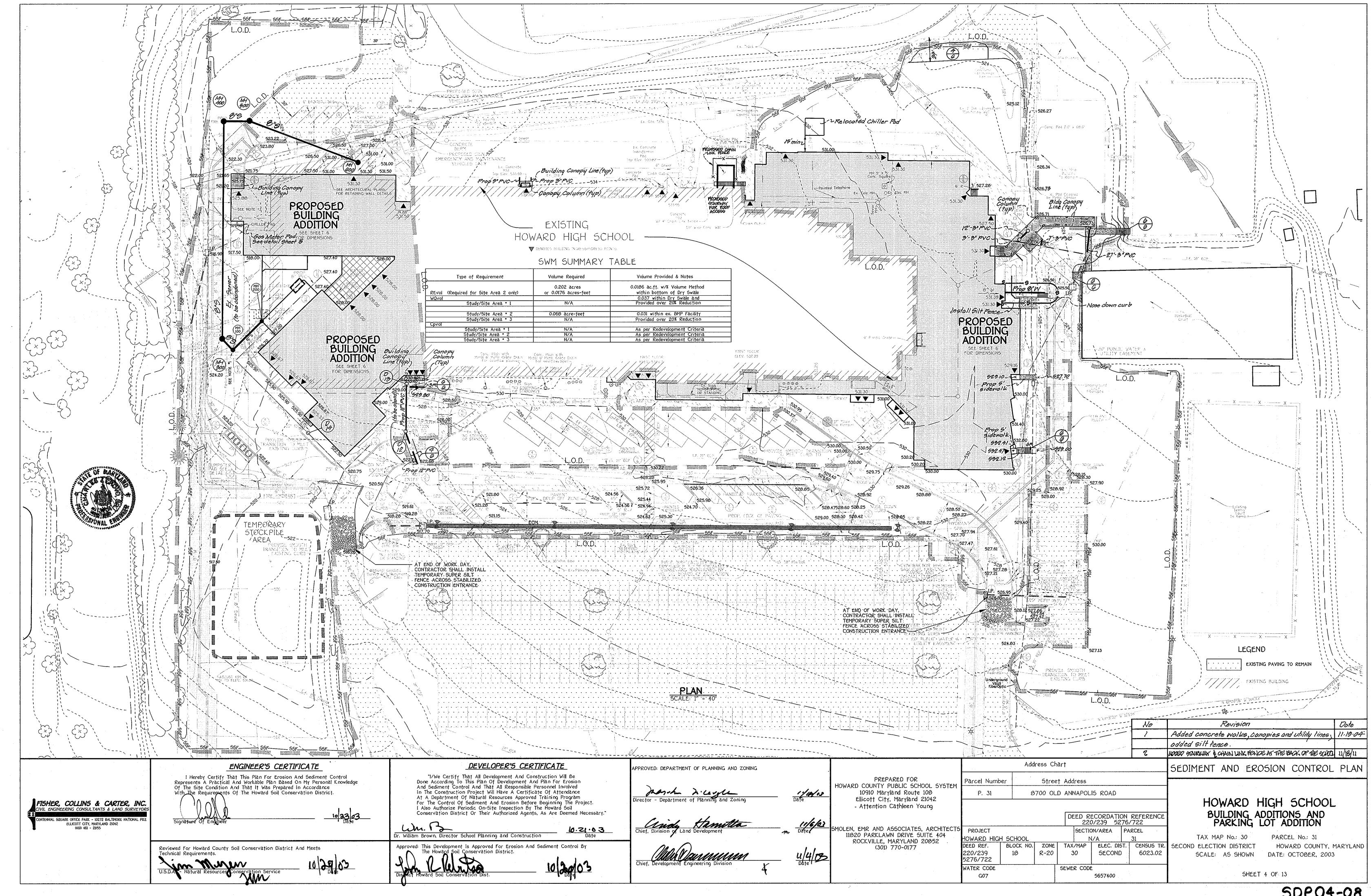
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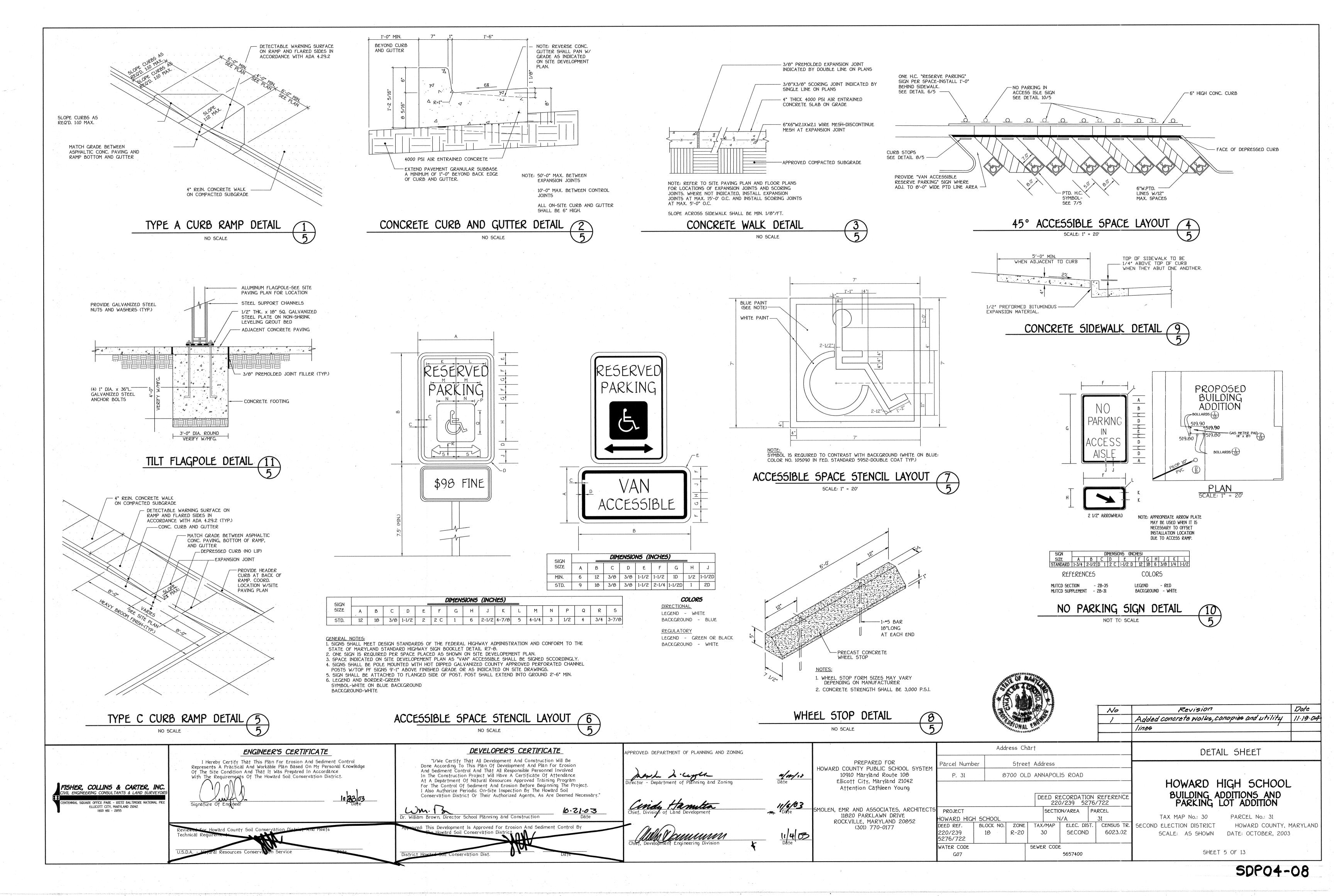
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	utility lines	
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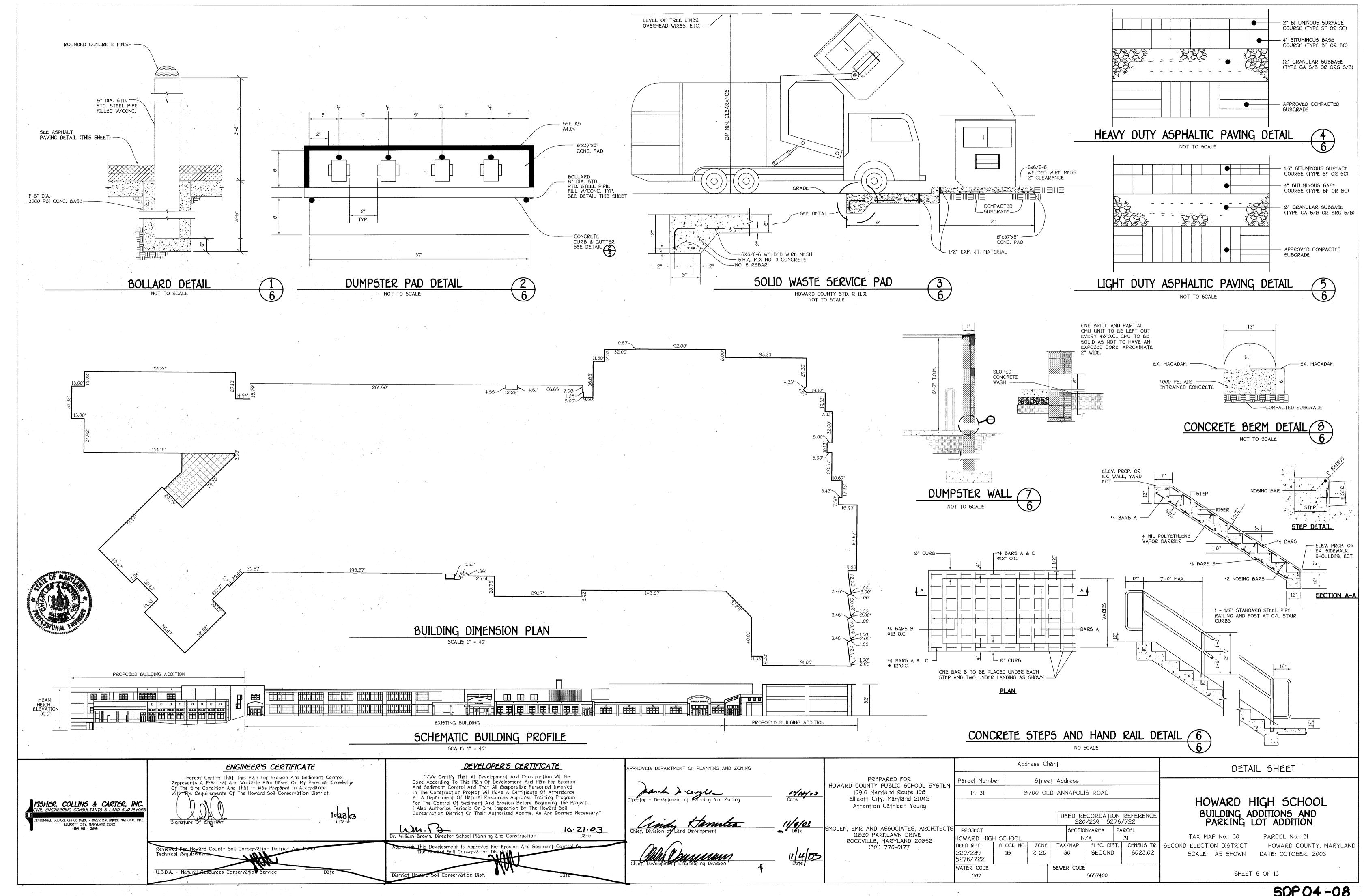
Address Chart DEVELOPER'S CERTIFICATE ENGINEER'S CERTIFICATE TITLE SHEET PPROVED: DEPARTMENT OF PLANNING AND ZONING "I/We Certify That All Development And Construction Will Be I Hereby Certify That This Plan For Erosion And Sediment Control PREPARED FOR Parcel Number Street Address Represents A Practical And Workable Plan Based On My Personal Knowledge Done According To This Plan Of Development And Plan For Erosion HOWARD COUNTY PUBLIC SCHOOL SYSTEM And Sediment Control And That All Responsible Personnel Involved Of The Site Condition And That It Was Prepared In Accordance manh & levels 8700 OLD ANNAPOLIS ROAD In The Construction Project Will Have A Certificate Of Attendance 10910 Maryland Route 108 With The Requirements Of The Howard Soil Conservation District. At A Department Of Natural Resources Approved Training Program Ellicott City, Maryland 21042 HOWARD HIGH SCHOOL For The Control Of Sediment And Erosion Before Beginning The Project. FISHER, COLLINS & CARTER, INC Attention Cathleen Young I Also Authorize Periodic On-Site Inspection By The Howard Soil BUILDING ADDITIONS AND PARKING LOT ADDITION Conservation District Or Their Authorized Agents, As Are Deemed Necessary." DEED RECORDATION REFERENCE 220/239 5276/722 ELLICOTT CITY, MARYLAND 21042 10.21.03 MOLEN, EMR AND ASSOCIATES, ARCHITECTS SECTION/AREA 11820 PARKLAWN DRIVE SUITE 404 William Brown, Director School Planning and Construction TAX MAP No.: 30 N/A ROCKVILLE, MARYLAND 20852 BLOCK NO. ZONE CENSUS TI HOWARD COUNTY, MARYLAND DEED REF. TAX/MAP ELEC. DIST. SECOND ELECTION DISTRICT This Development Is Approved For Erosion And Sediment Cor (301) 770-0177 Reviewed For Howard County Soil Conservation 20/239 18 R-20 30 SECOND 6023.02 SCALE: AS SHOWN DATE: OCTOBER, 2003 5276/722 VATER CODE SEWER CODE. SHEET 1 OF 13 G07 5657400

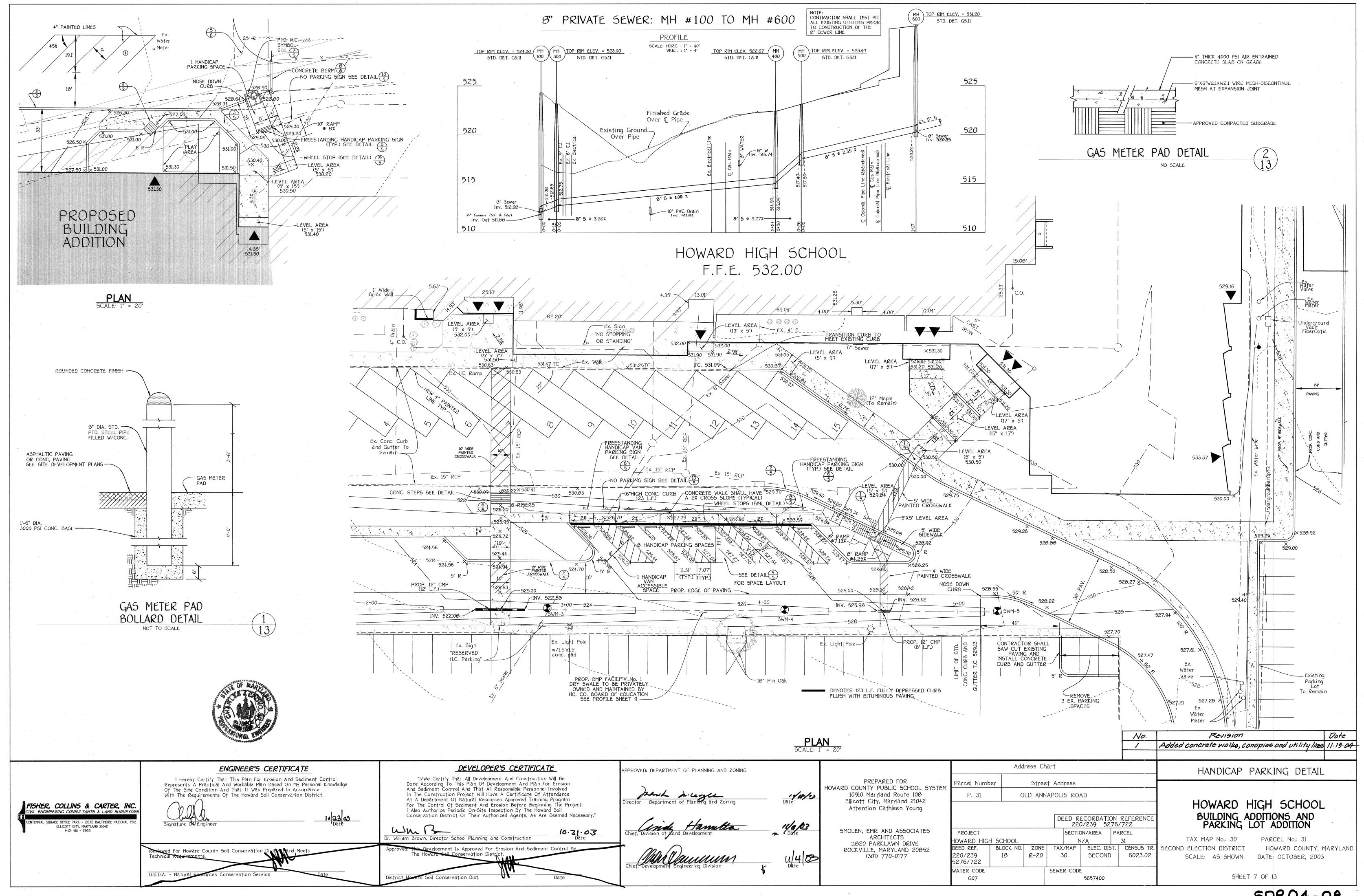


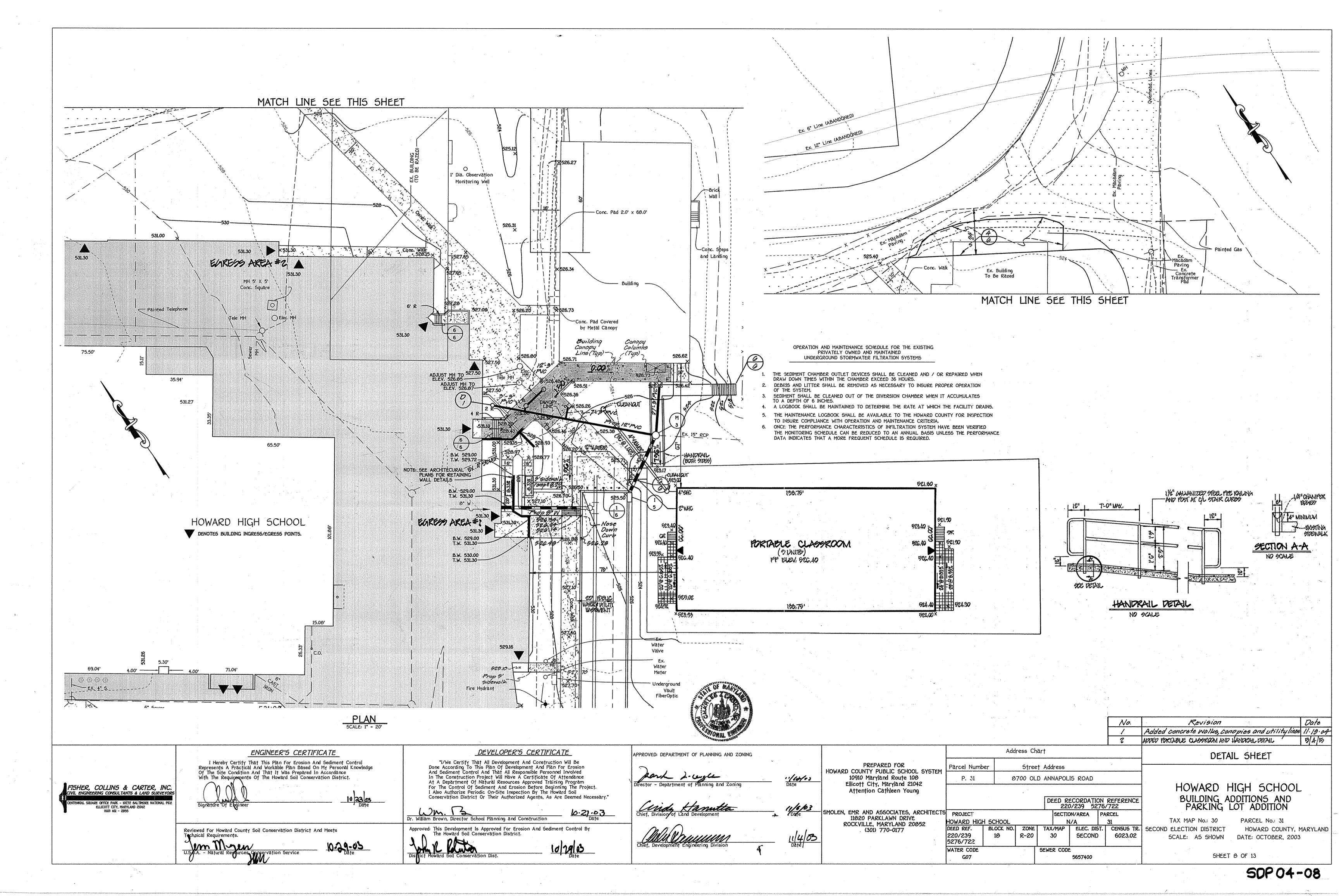


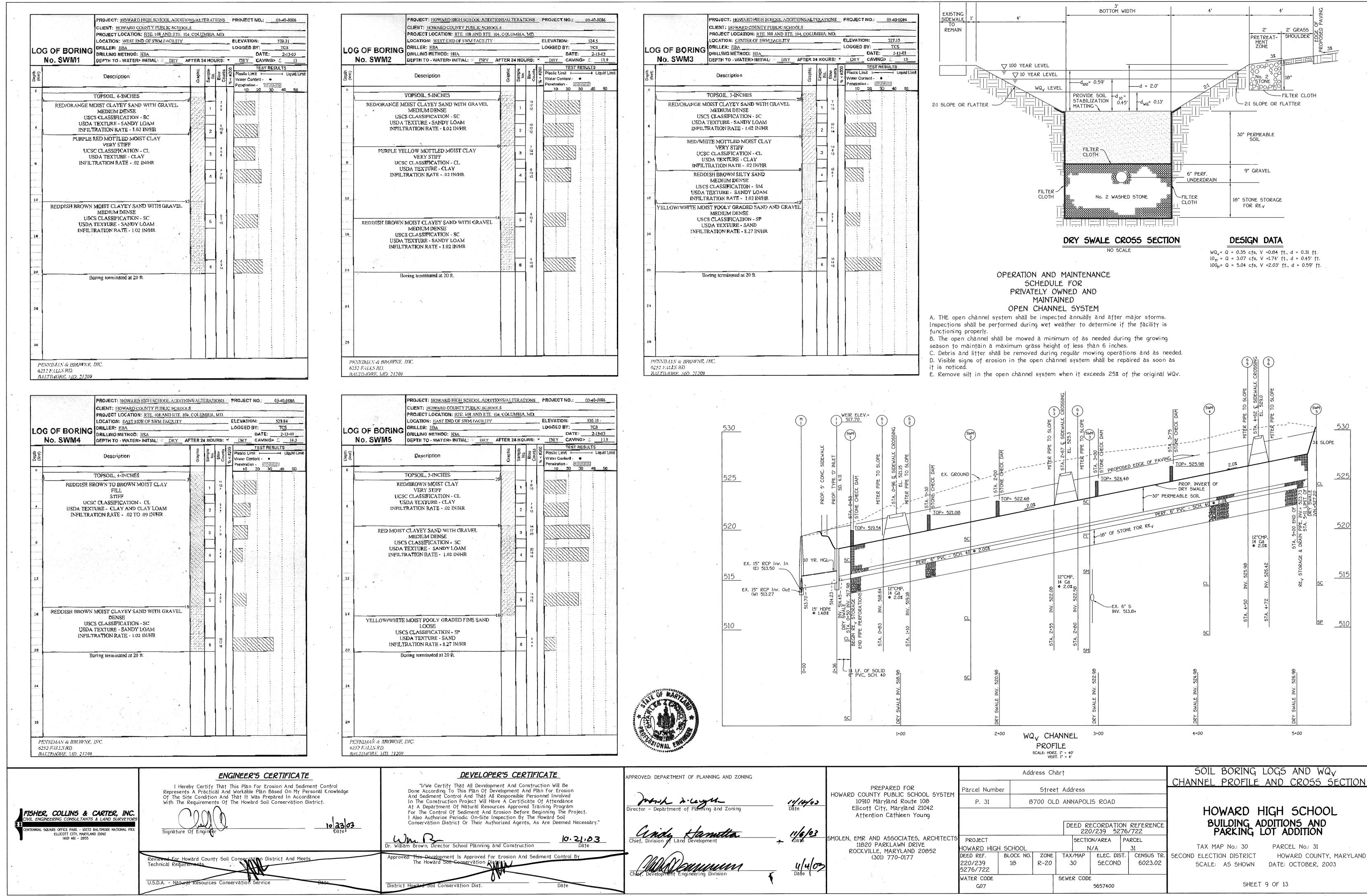


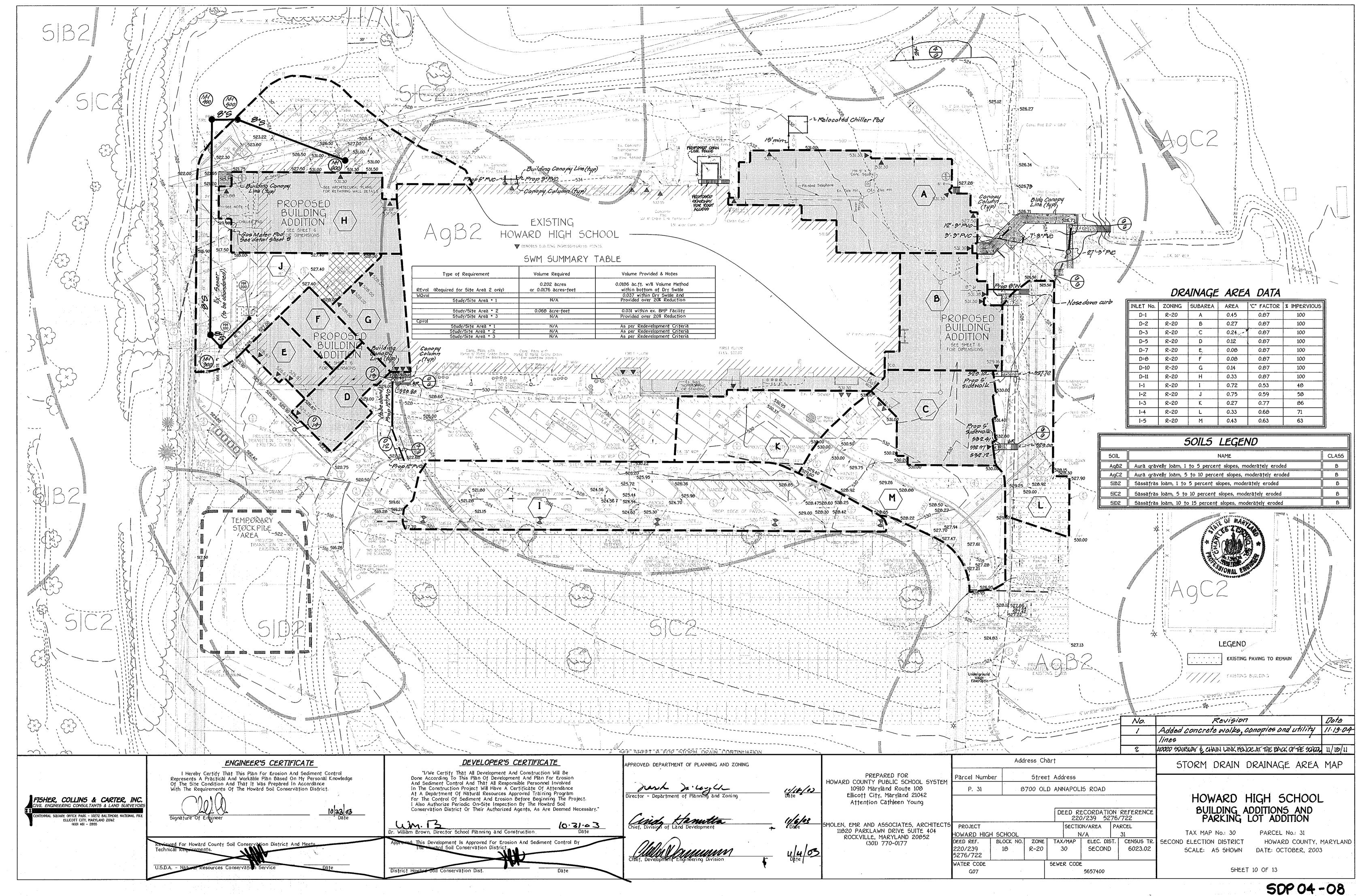


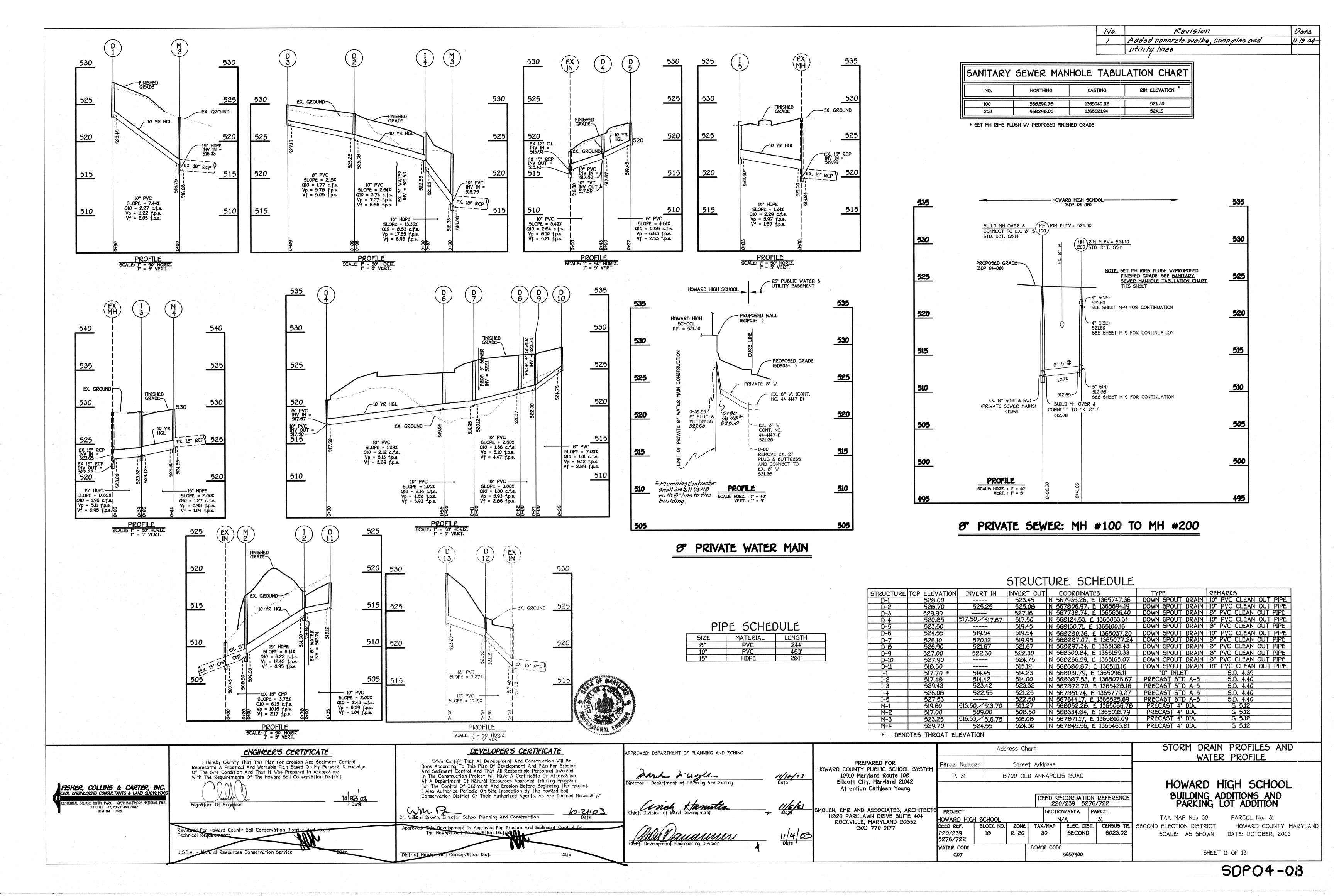












### 20.0 STANDARDS AND SPECIFICATIONS VEGETATIVE STABILIZATION Using vegetation as cover for barren soil to protect it from forces that cause erosion PURPOSE Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, 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 O(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 Install erosion and sediment control structures (either temporary of permanent) such as diversions, arade 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)
- 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 appropriate 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 90-100% 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.
- 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 ridge running parallel to the contour of the slope. 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
- 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. Soil shall contain 1.5% minimum organic matter by weight. Soil must contain sufficient pore space to permit adequate root penetration. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil. 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 o the surface area and to create horizontal erosion check slots to prevent topsoil from
- sliding down a slope.

  Apply soil amendments as per soil test or as included on the plans.

  Apply 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 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. 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 that the date indicated on the container. Add fresh inoculant as directed on package. Use four times th recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possibl until used. Temperatures above 75°-80° f. can weaken bacteria and make the inoculant less effectiv
- until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effe 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. 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 confact.

  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.
- 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.

  - d Cellulose Fiber Mulch (WCFM)
     WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
     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.
     WCFM, including dye, shall contain no germination or growth inhibiting factors.
     WCFM materials shall be manufactured and processed in such a manner that the visual 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
- 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 5.5, 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.

  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 grate of 2 tons/acre. Mulch straw mulch is used, it shall be spread over all seeded areas at the grate of 2 tons/acre.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch when straw muich is used, it shall be spread over all seeded areas at the state of 2 tons/acre. Fluich 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.
- of wood cellulose fliber 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
- application to minimize loss by wind or water. This may be done by one of the following methods (lisp reference), 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. It 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 Analisation of liquid binders should be passion at the edges where wind catches mulch such as

- ot 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.
- Lightweight plastic netting may be stapled over the mulch according to manufacturer's recom-mendations. 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 I excavation, dress, and stabilize.
- Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as necessary. Perform final phase excavation dress and stabilize. Overseed previously seeded
- 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. Incremental Stabilization of Embankments - Fill Slopes
- Embarkments shall be constructed in lifts as prescribed on the plans.
   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.
   At the end of each day, femporary berms and pipe slope drains should be constructed along the top edge of the embarkment to intercept surface runoff and convey it down the slope in a non-érosive manner to a sediment trapping device.
   Construction sequence: Refer to Figure 4 (below).
   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.
   Place Phase 1 embarkment, dress and stabilize.
   Place Phase 2 embarkment, dress and stabilize.
   A Place final phase embarkment in these and stabilize.

Embankments shall be constructed in lifts as prescribed on the plans.

- Place final phase embankment, dress and stabilize. Overseed previously seeded areas as precessary.
- 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.

### EDGE OF ROADWAY OR TOP OF EARTH DIKE 2" X 4" FRAMING " MINIMUM TOP ELEVATION NOTCH ELEVATION \* X 3 STANDARD SYMBO WIRE MESH

MAX. DRAINAGE AREA = 1/4 ACRE

GEOTEXTILE CLASS E

### Construction Specifications 1. Excavate completely around the inlet to a depth of 18" below the

- notch elevation. 2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adiacent roadways where
- flooding and safety issues may arise. 3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post. 4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the
- inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down. 5. Backfill around the inlet in compacted 6" layers until the

layer of earth is level with the notch elevation on the ends and

- top elevation on the sides. 6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike
- should be at least 6" higher than the top of the frame. 7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

### STANDARD INLET PROTECTION

6' MAXIMUM SPACING OF 2" X 4" SPACERS

2" X 4" WEIR

the weir and the inlet face (max. 4' apart).

entering the inlet under or around the geotextile.

earth or asphalt dike to direct the flow to the inlet.

and stone replaced when clogged with sediment.

both ends of the throat opening.

MAX. DRAINAGE AREA = 1/4 ACRE

3/4 "-1 1/2 "

- 2" X 4" ANCHORS

Construction Specifications

4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus

2. Place a continuous piece of Geotextile Class E the same dimensions as the wire

3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between

4. Place the assembly against the inlet throat and nail (minimum 2' lengths of

2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond

7. This type of protection must be inspected frequently and the filter cloth

8. Assure that storm flow does not bypass the inlet by installing a temporary

extend across the inlet top and be held in place by sandbags or alternate weight.

6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and

against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 "

stone over the wire mesh and geotextile in such a manner to prevent water from

CURB INLET PROTECTION (COG OR COS INLETS)

NOTE: THESE SEEDING SPECIFICATIONS ARE THE MINIMUM REQUIRED FOR SEDIMENT CONTROL.

REFER TO PROJECT SPECIFICATIONS FOR SEEDING REQUIREMENTS FOR OTHER AREAS OF

mesh over the wire mesh and securely attach it to the 2" x 4" weir.

### NOTE: FENCE POST SPACING 10' MAXIMUM 118/18/18/18 GROUND 1 SURFACE 6" MINIMUM FLOW 21/2" DIAMETER GALVANIZED ∠CHAIN LINK FENCE OR ALUMINUM WITH 1 LAYER OF FILTER CLOTH CHAIN LINK FENCING FILTER CLOTH -EMBED FILTER CLOTH 8" \* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42" Construction Specifications 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length

SUPER SILT FENCE

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 heigh 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

Tensile Strength	50 lbs/in (min.)	Test: MSMT 50	
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509	
Flow Rate	0.3 gal/ft /minuté (max.)	Test: MSMT 32	
Filtering Efficiency	75% (min.)	Test: MSMT 322	

Design Criteria					
Slope	Slope Steepness	Slope Length (māximum)	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		

### ISTING PAVEMEN - EARTH FILL \*\* GEOTEXTILE CLASS 'C' - PIPE AS NECESSARY OR BETTER MINIMUM 6" OF 2"-3" AGGREGATE OVER LENGTH AND WIDTH OF EXISTING GROUND STRUCTURE STANDARD SYMBO PROFILE ##SCE 50' MINIMUM LENGTH PLAN VIEW Construction Specification 1. Length - minimum of 50' (\*30' for single residence lot).

STABILIZED CONSTRUCTION ENTRANCE

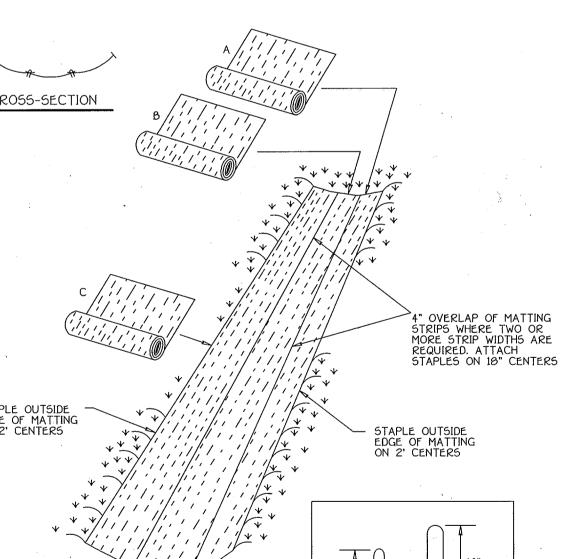
- 2. Width 10' minimum, should be flared at the existing road to provide a turning
- 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete
- equivalent shall be placed at least 6" deep over the length and width of the 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
- 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.

has no drainage to convey a pipe will not be necessary. Pipe should be sized

### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS

A. The open channel system shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly. B. The open channel shall be moved a minimum of as needed during the growing season to maintain a maximum grass height of less than 6 inches. C. Debris and litter shall be removed during regular moving operations and as needed. D. Visible signs of erosion in the open channel system shall be repaired as soon as it is noticed. E. Remove silt in the open channel system when it exceeds 25% of the original WQV.

# EROSION CONTROL MATTING CROSS-SECTION



STAPLE OUTSIDE EDGE OF MATTING ON 2' CENTERS

NOTE: ALL SWALES SHALL BE STABILIZED WITH

EROSION CONTROL MATTING

## TYPICAL STAPLES NO. 11 GAUGE WIRE

### Construction Specifications

- 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.
- 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.

### **LEGEND**

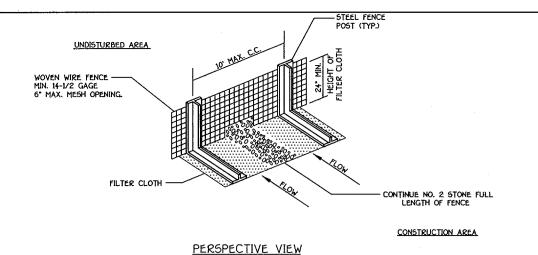
——55F—55F—55F— —MSF—MSF—MSF— SUPER-SILT FENCE MODIFIED SILT FENCE

ENTRANCE

LIMIT OF DISTURBANCE

EROSION CONTROL MATTING

STABILIZED CONSTRUCTION



NO. 2 STONE.

SECTION VIEW

CONSTRUCTION NOTES: 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES. STANDARD SYMBOL 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE

POSTS: STEEL EITHER T OR D TYPE FENCE: WOVEN WIRE, 14-1/2 GAGE FILTER CLOTH: 600 X MIRAFI RAILROA CLOTH OR EQUIVALENT

### MODIFIED SILT FENCE DETAIL - PAVED AREAS

### SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT.

WITH WIRE TIES SPACED EVERY

24" AT TOP AND MID SECTION.

2. NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 24 HOURS BEFORE STARTING WORK

3. INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE

PLANS (I DAY). INSTALL STABILIZED CONSTRUCTION ENTRANCE. (I DAY) 4. INSTALL SILT FENCE AND SUPER SILT FENCE (3 DAYS). THE 5 MEMORIAL TREES SHALL BE RELOCATED AS SHOWN ON THE LANDSCAPE PLAN. TREE PROTECTION FENCE SHALL BE INSTALLED AROUND THE MEMORIAL TREES AND ALL OTHERS THAT ARE SHOWN WITH THE SYMBOL. E

5. GRADE SITE TO SUBGRADE (2 WEEKS). STABILIZE ALL SLOPES IMMEDIATELY UPON COMPLETION OF GRADING. 6. INSTALL STORM DRAIN SYSTEM FROM I-4 TO I-6 INSTALL INLET PROTECTION AT I-6 (2 DAYS). CONSTRUCT INLET SEDIMENT TRAP AND STABILIZE WITH TEMPORARY SEEDING. AFTER EACH

RAINFALL REMOVE SEDIMENT FROM THE TRAP 7. CONSTRUCT THE SCHOOL BUILDING, SITE UTILITIES, CONCRETE CURB, BASE PAVING AND SIDEWALKS. (12 MONTHS)

8. THE PROPOSED BMP FACILITY OR DRY SWALE SHALL BE CONSTRUCTED IN CONJUNCTION WITH THE PARKING LOT EXPANSION. HOWEVER, SILT FENCE SHALL BE PROVIDED ALONG TOP OF BANK FOR THE SWALE UNTIL SUCH TIME AS THE SITE IS FULLY STABILIZED AND GRASS HAS TAKEN

9. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.

10. STABILIZE ALL DISTURBED AREAS AND OBTAIN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED.

11. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE DEVICES MAY BE REMOVED AND/OR BACKFILLED AND THE REMAINING AREAS BROUGHT TO FINAL DESIGN GRADE. STABILIZE ALL REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 WEEKS)

12. NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE

### 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. AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER
- 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 AREA DISTURBED AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED

GERMINATION AND ESTABLISHMENT OF GRASSES.

4.294 ACRES OFFSITE WASTE/BORROW AREA LOCATION 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING

7.757 ACRES

3.463 ACRES

ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 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.

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYOR

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. 10 23 63

DEVELOPER'S CERTIFICATE "I/We Certify That All Development And Construction Will Be Conservation District Or Their Authorized Agents, As Are Deemed Necessary.

Wm B William Brown, Director School Planning and Construction

The Howard. Soil Conservation District.

PPROVED: DEPARTMENT OF PLANNING AND ZONING Rende 2 'ayll-ector - Department of Planning and 1/14/03

PREPARED FOR HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 Maryland Route 108 Ellicott City, Maryland 21042 Attention Cathleen Young 11820 PARKLAWN DRIVE

ROCKVILLE, MARYLAND 20852 (301) 770-0177

Parcel Number Street Address 8700 OLD ANNAPOLIS ROAD DEED RECORDATION REFERENCE 220/239 5276/722 SECTION/AREA PROJECT N/A IOWARD HIGH SCHOO DEED REF. BLOCK NO. ZONE TAX/MAP ELEC. DIST. CENSUS T 220/239 18 R-20 30 SECOND 6023.02 5276/722 WATER CODE SEWER CODE G07 5657400

Address Chart

SEDIMENT EROSION CONTROL NOTES AND DETAILS

### HOWARD HIGH SCHOOL BUILDING ADDITIONS AND PARKING LOT ADDITION

TAX MAP No.: 30 SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SHEET 12 OF 13

SOP 04-08

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

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

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

-2' MINIMUM LENGTH

CIP

OF 2" X 4"

2" X 4" WEIR

3/4 "-1 1/2 " STONE

10.21.03 Approved: This Development Is Approved For Erosion And Sediment Control By

MOLEN, EMR AND ASSOCIATES, ARCHITECTS

PARCEL No.: 31

SCALE: AS SHOWN DATE: OCTOBER, 2003

