#### Sheet Index

	Sheet muex
SHEET	DESCRIPTION
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# SITE DEVELOPMENT PLAN Gateway Commerce Center Columbia Gateway, Parcel Q3

Howard County, Maryland

#### Notes General

- 1. All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable
- 2. Approximate location of existing utilities are based solely on available records. Contractor shall verify the location of any utilities which may be Impacted by the work. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractors operation shall be repaired immediately at the contractor's expense.
- 3. The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- 4. The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- 5. Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- 6. Any damage caused by the Contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be repaired at the Contactors expense.
- 7. The existing topography inside property line per mass grading as shown on GP-99-15
- 8. All hydraulic data is for the 10-year storm unless otherwise noted.
- 9. All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-180.
- 10. All plan dimensions are to face of curb unless otherwise noted. Numerically written dimensions take precedence over scaled dimensions.
- 11. The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State plane coordinate system. Howard County monument no.s 2243003 and 2244002 were used for this project.
- 12. Stormwater management quantity and quality control in a regional facility on Parcei A-77 under contract F-97-98
- 13. Public water (Contract # 44-3877-D) and Private sewer to service the site.
- 14. There are no 100 year floodplain or wetlands on this site.
- 15. There are no known cemeterles or burlal grounds on this elte.
- 16. A traffic report update has been prepared by Welle & Associates, dated May, 2000.
- 17. Exterior Lighting will be in conformance with Section 134. Zoning Regulations
- 18. Electric, gas, cable and telephone lines designed by others.
- 19. This Site is exempt from Forest Conservation Ordinance in accordance with Section 16.1202(b)(1)(v). 20. On July 27,2000 the Howard County Subdivison and Land Development Regulations, approved WP-01-08
- Columbia Gateway Parcel Q-3 Mass Grading, under waive Section 16155 (a)(1), subject to the following condition(s)
  - 1. Obtaining signature approval from the Howard Soil Conservation District on the grading exhibit prior to applying for a grading permit.
  - 2. Grading cannot occur in wetlands or wetland buffers, stream buffers, steep slopes or forest areas.

## Site Analysis Data Chart

#### 1. General Site Data

- a. Present Zoning: ... M-1 & NT-EMPLOYMENT
- b. Applicable DPZ File References: GP-99-15, F-99-34, F-01-02 P-86-22, S-84-44, S-85-28, F-86-127, F-86-182, WP-98-130, WP-01-08
- c. Proposed Use of Site or Structure(s): Office and Office / Warehouse
- e. Water and contract number (44-3846-D)

## 2. Area Tabulation

- (Indicate by Section and Area As Shown on Final Plat or As Shown on Deed)
- b. Net Area of Site: +/- 9.6

  (Indicate by Section and Area As Shown on Final Plat)
- c. Area of This Plan Submission: +1-9.6
- d. Limit of Disturbed Area: +/- 9.8 e. Building Coverage of Site: 2.0 Acres and 2! % of Gross Area (Proposed)
- 3. Open Space Data: N / A

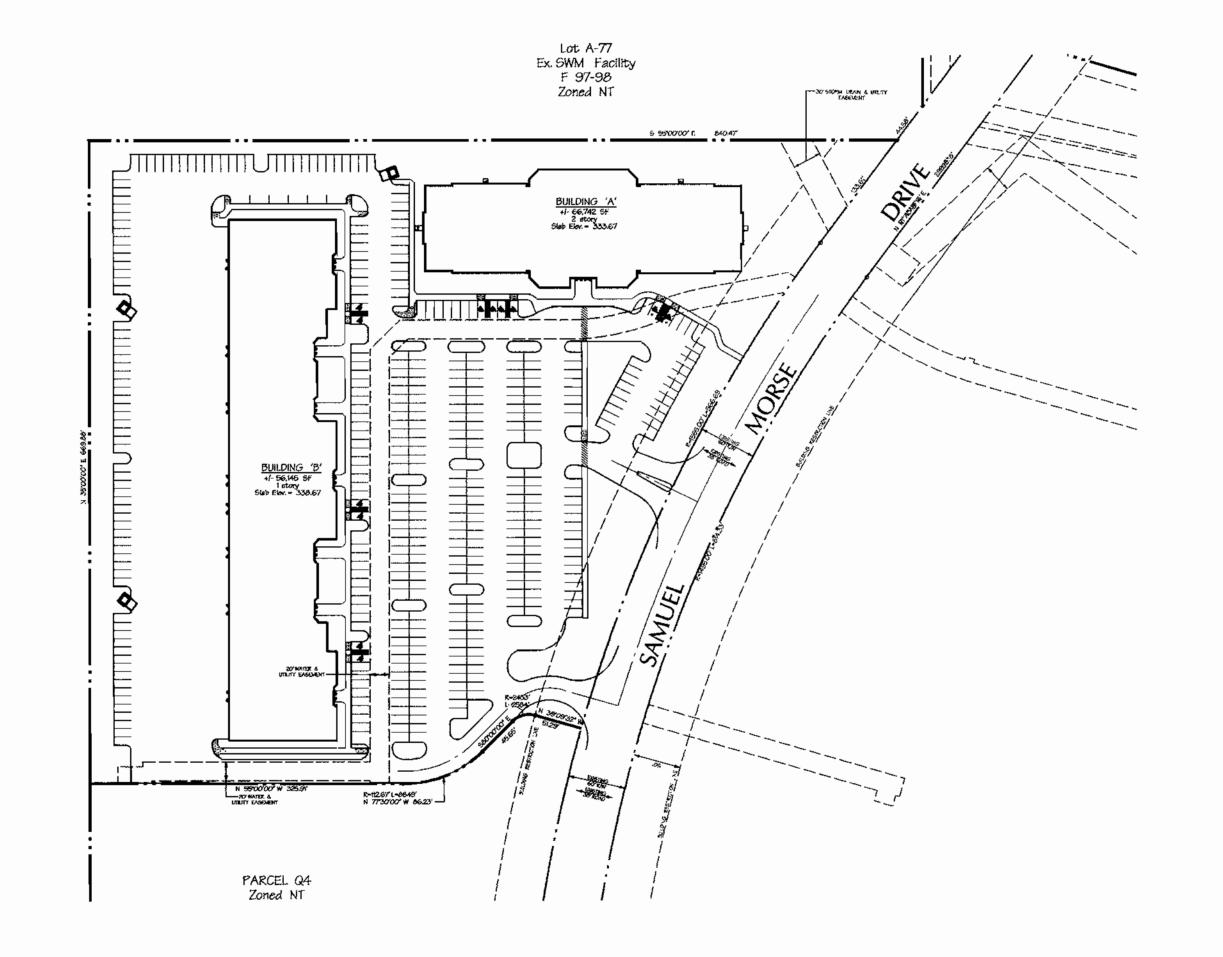
## 4. Parking Space Data

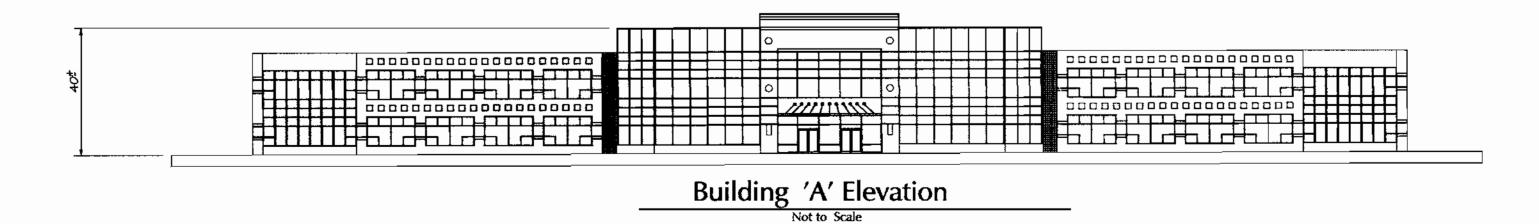
- a. Floor Space per floor of proposed use on site: 66742 6.f. Office (Bldgs. A).
- Building 'A' floor 1: 33,371 s.f. Office, Building 'A' floor 2: 33,371 s.f. Office Building 'B' floor 56,145 s.f. Office/ Warehouse

# 56,145 s.f. Off. Warehouse (Bldgs. B)

b. Number of Parking Spaces Required by Zoning Regulations: 361 (66.742 S.F. Office @ 3.3/1000 ... 56.145 s.f. Office/Warehouse @ 2.5/1000)

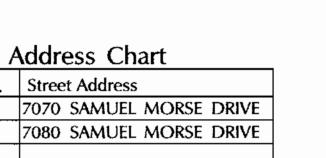
c. Total Number of Parking Spaces Provided On-Site: 444 d. Number of Handlcapped Parking Spaces Provided: 12 (2.7 % of Total)





Overall Property Outline

Building 'B' Elevation



PLANNING BOARD of HOWARD COUNTY

LOCATION MAP

2	F, DEVELO F, DIVISION	DPMENT ENGINEERING DIVISION MK DATE  OF LAND DEVELOPMENT  DATE  OF LAND DEVELOPMENT
Dire	No.	Revision Description

Cotumota Gateway Parcel Q3

OWNER:
The Howard Research and Development Corporation 10275 Little Patuxent Parkwa Columbia, Maryland 21044

DEVELOPER: AAK III , LLC. 8805 COLUMBIA 100 PKWY SUITE 101 COLUMBIA, MD 21045

A Team of Land Planners,



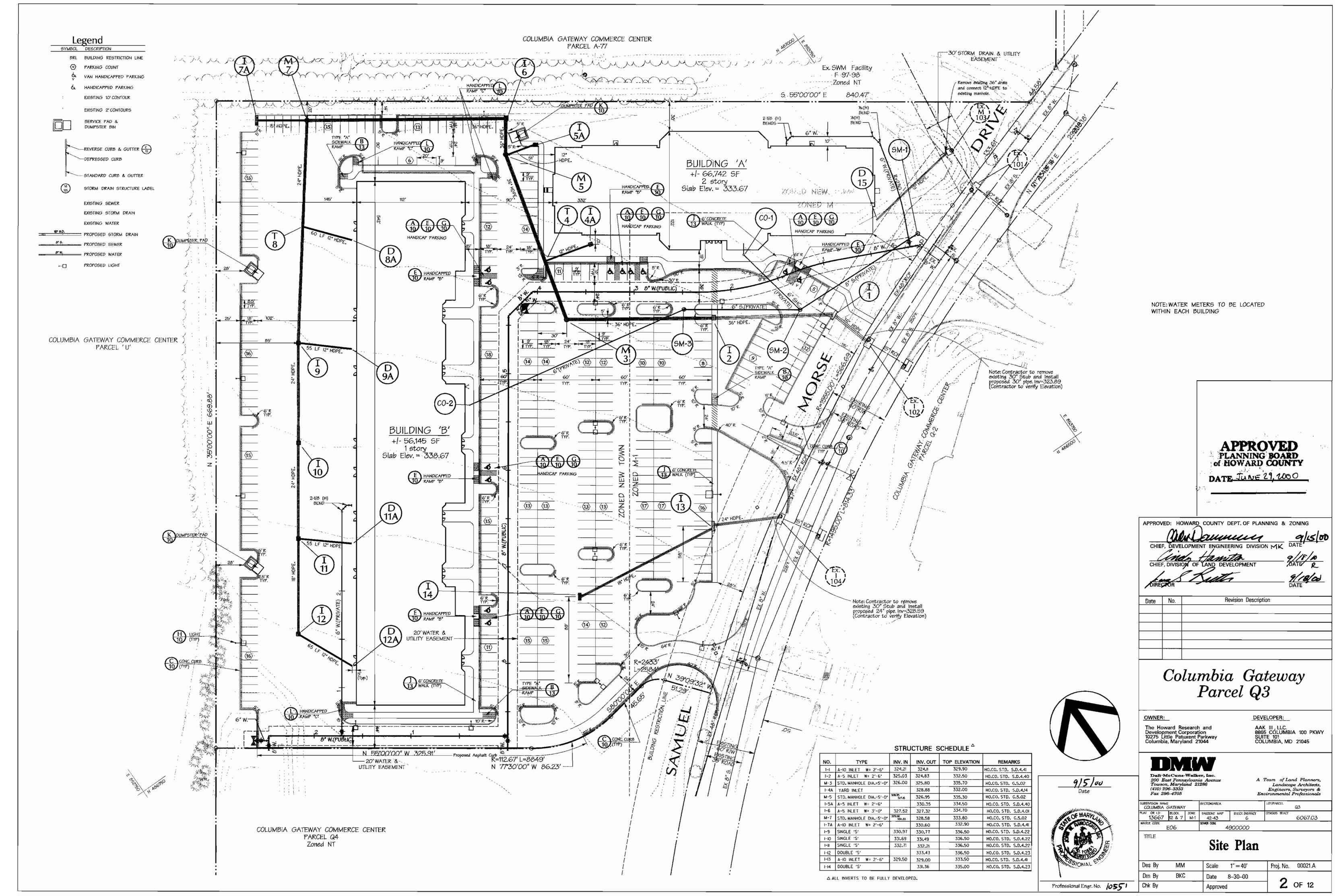
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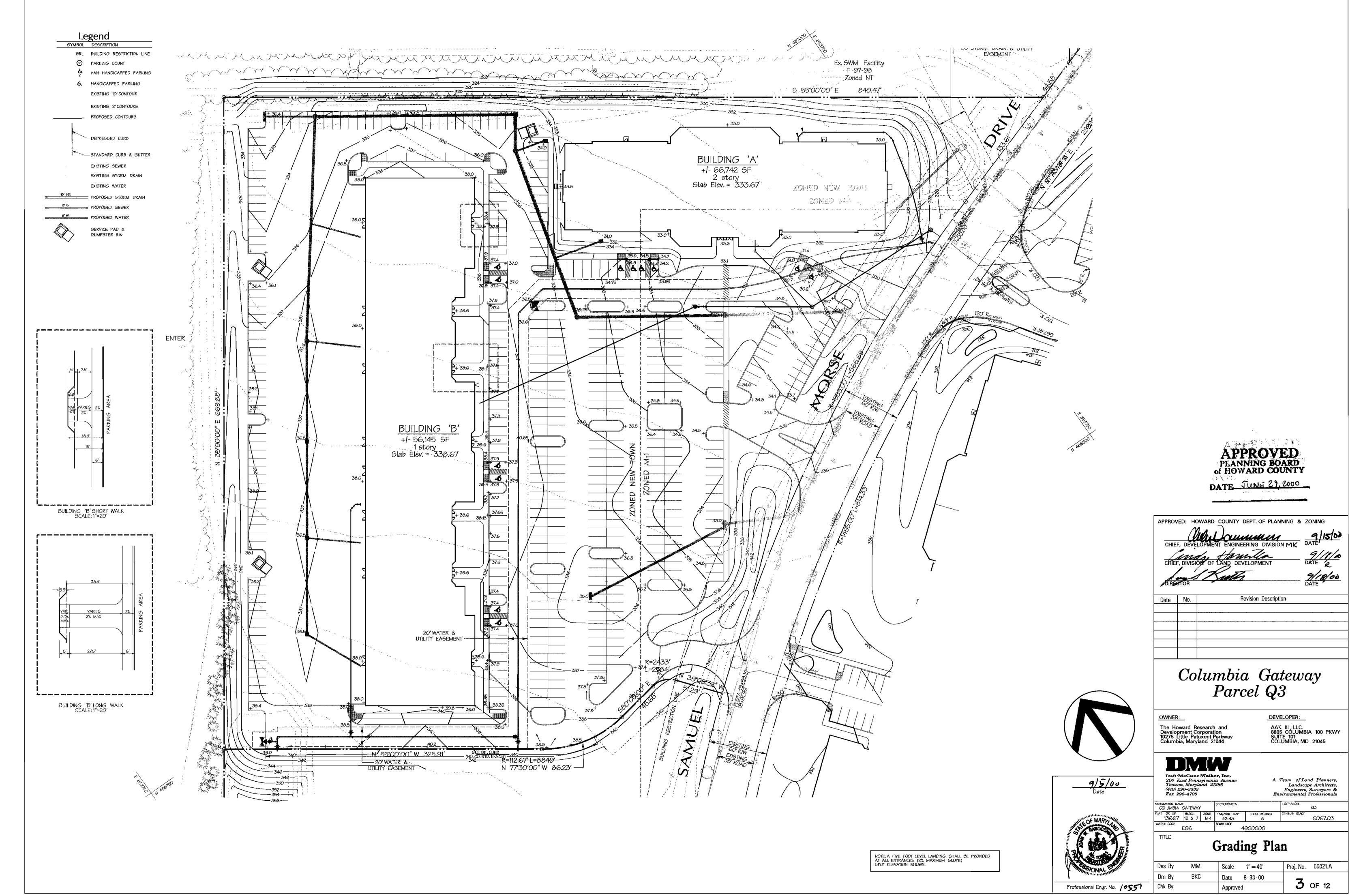
9/5/00

Landscape Architects, Engineers, Surveyors & Environmental Professionals 13667 12 & 7 M-1 42-43 ELECT. DISTRICT

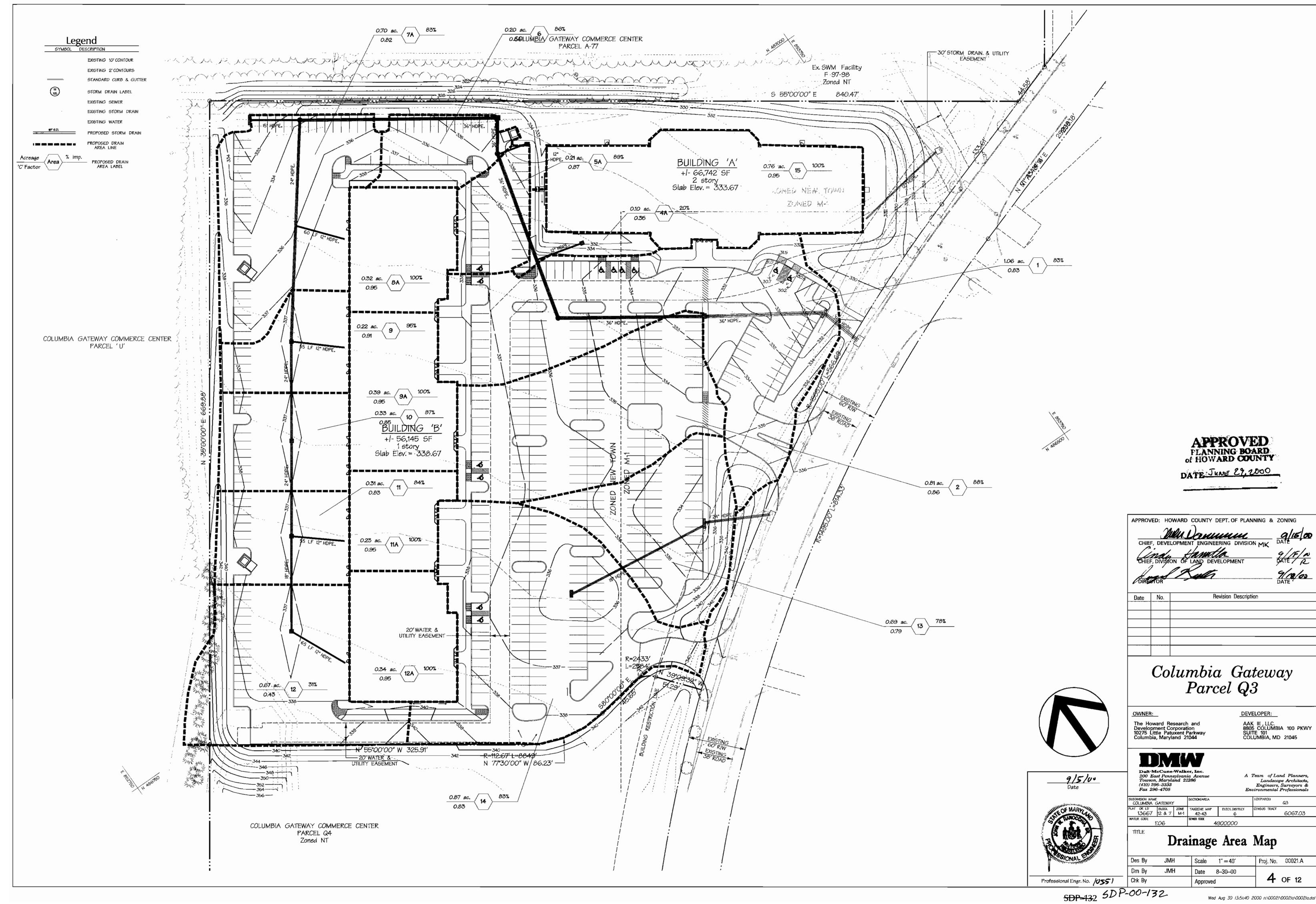
**Cover Sheet** 

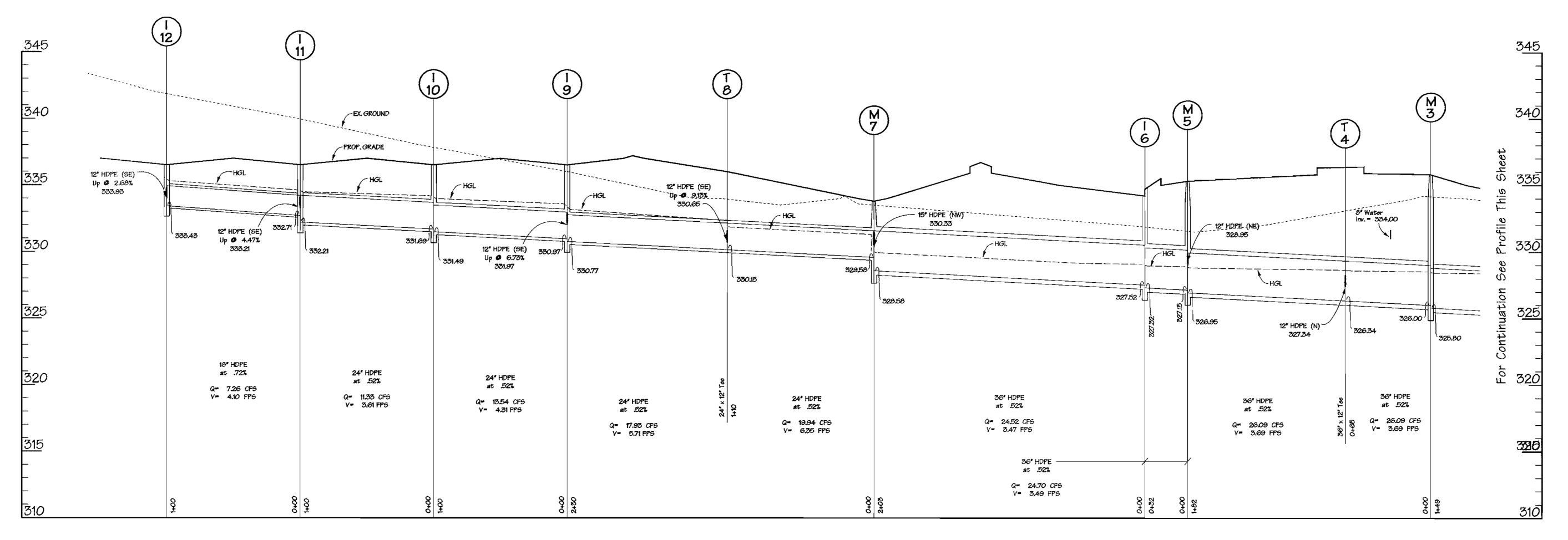
Scale SEE PLAN Proj. No. 00021.A BKC Date 8-30-00 OF 12 Approved

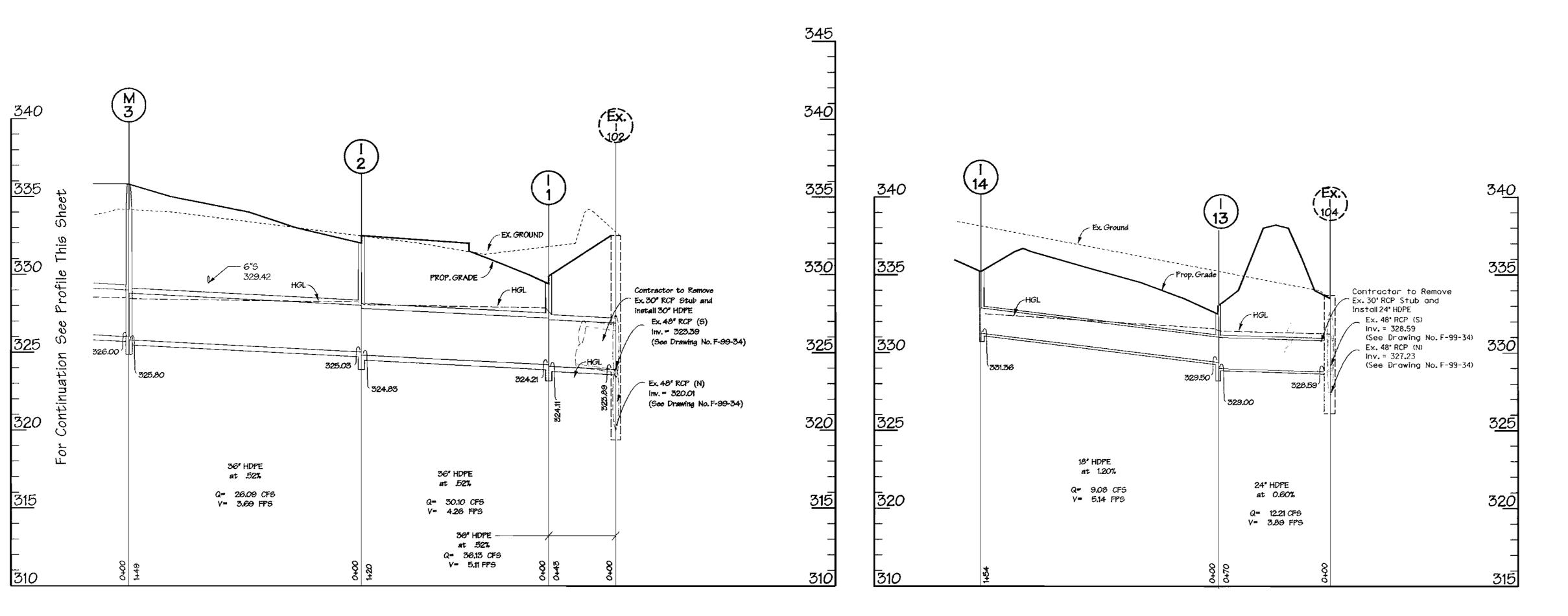




SDP-132 SDP-00-132







Storm Drain Profiles

Scale: 1" =40' (Hor.) 1" = 4' (Vert.)

# APPROVED PLANNING BOARD of HOWARD COUNTY DATE JUNE 29, 2000

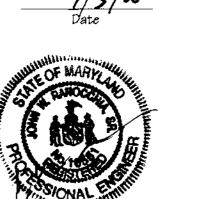
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		Revision Description	DATE
		Revision Description	DATE

# Columbia Gateway Parcel Q3

The Howard Research and Development Corporation 10275 Little Patuxent Parkway Columbia, Maryland 21044

DEVELOPER:

AAK III, LLC. 8805 COLUMBIA 100 PKWY SUITE 101 COLUMBIA, MD 21045



Professional Engr. No. 1055)

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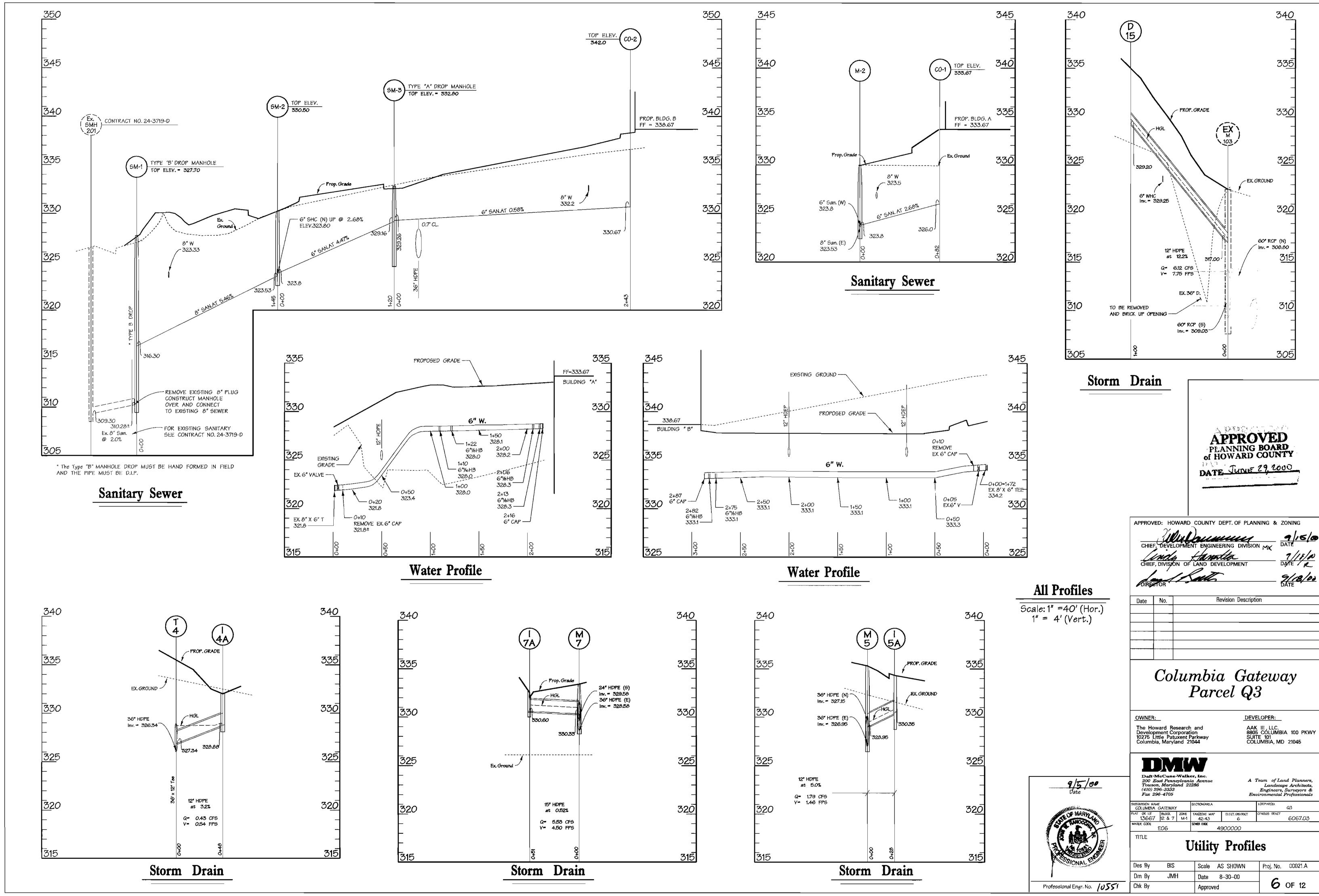
Daft McCunc Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296, 2222 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

ZONE TAXIZONE MAP ELECT. DISTRICT
M-1 42-43 6
SEWER CODE
490000 Storm Drain Profiles

Scale AS SHOWN Proj. No. 00021.A JMH Date 8-30-00 **5** OF 12

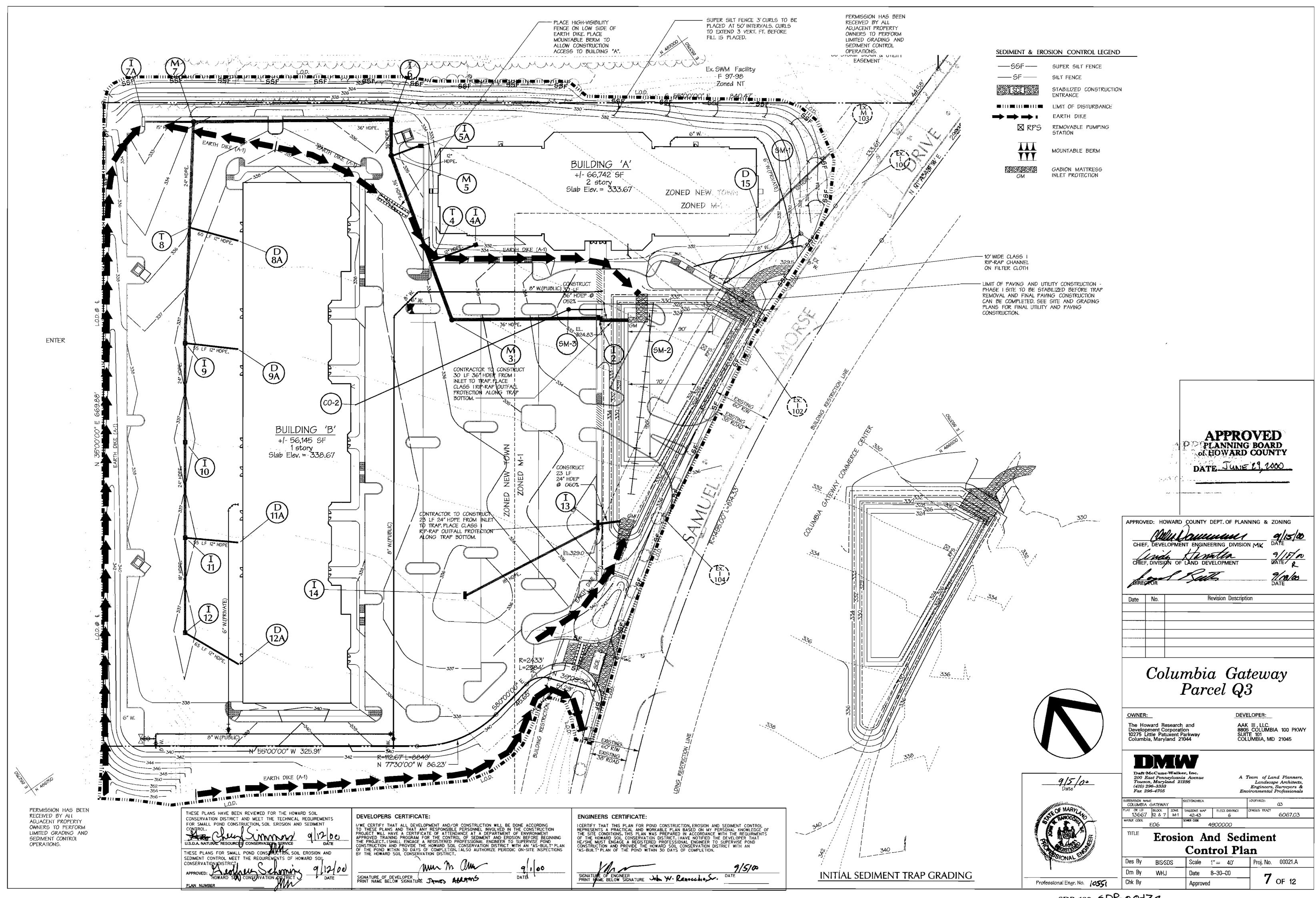
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## 21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL Definition Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation. Purpose To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies I. This practice is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients. c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible. il. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown Construction and Material Specifications

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

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be mixture of contrasting textured eubeoile and shall contain less than 5% by volume of cinders, stones, slags, coarse fragments, gravel sticks, roots, trash, and other materials larger 1 1/2 inch in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoli (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and

III. For sites having disturbed areas over 5 acres:

I. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic contents of topsoil shall be not less than 1.5 percent by weight. c. Topsoll having soluble sait content greater than 500 parts per million shall not be

or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization- Section i- Vegetative Stabilization Methods and

#### V. Topsoil Application

i. When topsolling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slop Silt Fence and

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4\* - 8\* higher in elevation.

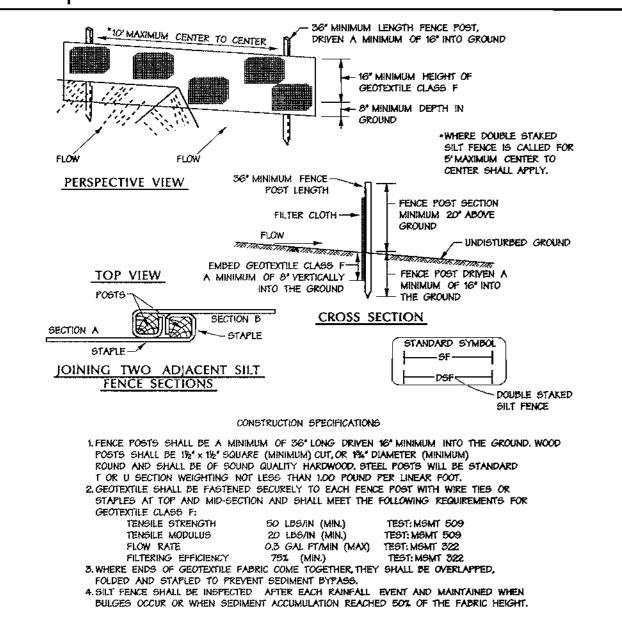
iii. Topsoil shall be uniformly distributed in a 4\* - 8\* layer and lightly compacted to a minimum thickness of 4\*. Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

#### **Topsoil Specifications**

U.S. DEPARTMENT OF ASSIGNATION SERVICE

Silt Fence



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MAKYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

Not To Scale

1.A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT INSPECTIONS, LICENSES 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 \*1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL'S.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY

A SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES,

B. FOURTEEN DAYS AS TO ALL OTHER DISTURBED OF GRADED AREAS ON THE PROJECT SITE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN

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

ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS, SODS, TEMPORARY

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR

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

9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE

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

THAT WHICH SHALL DE BACK-FILLED AND STABILIZED WITHIN ONE DAY, WHICHEVER IS SHORTER.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR

OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED

4. ALL SEDIMENT TRAPS/BASING SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND

THEIR PERIMETER IN ACCORDANCE WITH YOL.1, CHAPTER 12, OF THE "HOWARD COUNTY MANUAL,"

SEEDING, AND MULCHING (SECTION G), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY

BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND

ACRES

ACRES

ACRES

CUBIC YARDS

CUBIC YARDS

STABILIZATION SHALL BE COMPLETED WITHIN:

PERIMETER SLOPES AND ALL SLOPES GREATER THAN 311.

THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

AREA TO BE VEGETATIVELY STABILIZED

HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.

OFF-SITE WASTE/BORROW AREA LOCATION WASTE .

UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

AREA TO BE ROOFED OR PAVED

TOTAL AREA OR SITE

AREA DISTURBED

TOTAL CUI

TOTAL FILL

7. SITE ANALYSIS:

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

<u>5011. AMENDMENTS:</u> IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES: 1. PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.) 2 ACCEPTABLE - APPLY 2 TONG PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 1000 LBS, PER ACRE 10-10-10 FERTILIZER (23 LBS, 1000 SQ, FT.) BEFORE SEEDING, HARROW OF DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31 SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBs./1000 SQ.FT.) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28 PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OPTION (2) - USE SOO. (3) -SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WEL

MULCHING - APPLY 11/2 TO 2 TONS PER ACRE (70 - 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (B GALACOO SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

#### APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED

<u>seedbed preparation - loosen upper three inches of soil by raking disking or other</u>

ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED. SOIL AMENDMENTS - APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING - FOR THE PERVICE MARCH 1 THRU APRIL 30 AND AUGUST 15 THRU OCTOBER 15 SEED WITH 2% BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 90.FT.), FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACKE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MALICHING - APPLY 1% TO 2 TONS PER ACRE (70 - 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING, ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLPER ACRE ( 5 GALL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES & FT. OR HIGHER, USE 348 GAL.PER ACRE

10' MAXIMUM

∠chain link fenc

WITH 1 LAYER OF

33" MINIMUM

16" MIN. 15T LAYER OF

FILTER CLOTH

FLOW

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

#### 2:1 SLOPE OR FLATTER EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH GRADE LINE AT DESIGN FLOW DEPTH CUT OR FRIL! SLOPE CROSS SECTION DIKE A DIKE B POSITIVE DRAINAGE a-DIKE HEIGHT 30° SUFFICIENT TO DRAIN 36" **b-DIKE WIDTH** c-FLOW WIDTH

- 2:1 SLOPE OR FLATTER

a-FLOW DEPTH

STANDARD SYMBOL FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX.

1. SEED AND COVER WITH STRAW MULCH. 2. SEED AND COVER WITH EROSION CONTROL MATTING OR LINE WITH SOD. 3.4" - 7" STONE OR RECYCLED CONCRETE EQUIVALENT PRESSED INTO THE SOIL 7" MINIMUM.

PLAN VIEW

#### CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY EARTH DIKES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET, SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%. 2. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.

3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY.

4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONAL MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE.

5. THE DIKE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW,

5. FILL SHALL BE CONPACTED BY EARTH MOVING EQUIPMENT. 7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIKE.

8. INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER EACH RAIN EVENT.

U.S. DEPARTMENT OF AGRICULTURE BOIL CONSERVATION SERVICE

CUT OR FILL SLOPE-

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

— EARTH FILL PIPE AS NECESSARY \*\* GEOTEXTILE CLASS 'C'-OR BETTER MINIMUM 6" OF 2"-3" AGGREGATE OVER LENGTH AND WIDTH OF - EXISTING GROUND STRUCTURE PROFILE \* 50' MINIMUN LENGTH PLAN VIEW STANDARD SYMBOL SCER

CONSTRUCTION SPECIFICATIONS 1. LENGTH - MINIMUM OF 50' ("30" FOR SINGLE RESIDENCE LOT).

2 WIDTH - TO MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING 3. GEOTEXTILE FABRIC CLASS C (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. "THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE

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

5.9URFACE 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 54 SLOPES AND A MINIMUM OF 6' OF STONE OVER THE PIPE PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE, WHEN THE SCE IS LOCATED AT A HIGH

SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY, PIPE SHOULD BE SIZED

THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

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

U.S. DEPARTMENT OF AGRICULTURE F - 17 - 5

FAMILY RESIDENCES TO USE GEOTEXTILE.

MARYLAND DEPARTMENT OF ENVIRONMENT

--- MOUNTABLE

BERM (SEE DETAIL)

### Sediment Control General Notes

### Permanent/Temporary Seeding Notes

#### Earth Dike

NOTE: FENCE POST SPACING

SHALL NOT EXCEED 10'

TINTE TINTE

SURFACE

2% DIAMETER GALVANIZED -

embed filter gloth 8°——[

MINIMUM INTO GROUND

\* IF MULTIPLE LAYERS ARE

REQUIRED TO ATTAIN 42°

BE SIX (6) GAUGE OR HEAVIER.

OR ALUMINUM POSTS

chain link fencing ----

FILTER CLOTH-

2. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.

CENTER TO CENTER

33° MINIMUM

36" MINIMUN

STANDARD SYMBOL

----- 56F -----

B-3

A-2

Stabilized Construction Entrance

Not To Scale

-21 OK FLATTER

— EXISTING GROUND

SWALE A SWALE B

D 4'MIN. O'MIN.

OUTLET AS REQUIRED

f MIN

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEVELOPERS CERTIFICATE:

SIGNATURE OF DEVELOPER PRINT NAME BELOW SIGNATUR

JAMES M. ABRAMS

Not To Scale | Super Silt Fence

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ISHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

C 1'MIN.

**CROSS SECTION** 

- 0.5% SLOPE MINIMUM FLOW DRAINAGE AREA = 10 ac (MAX) PLAN VIEW SLOPE - 10% (MAX) STANDARD SYMBOL

1. SEED AND COVER WITH STRAW MULCH. 2. SEED AND COVER WITH EROSION CONTROL MATTING OR LINE WITH SOD.

FLOW CHANNEL STABILIZATION

GRADE 0.5% MIN. 10% MAX.

#### CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET, SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS 2 RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT

TRAPPING DEVICE. 3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE YELOCITY.

4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONAL MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE

PROPER FUNCTIONING OF THE SWALE.

5. THE SWALE SHALL BE EXCAYATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.

6. FILL, IF NECESSARY, SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT. 7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE. 8. INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

Temporary Swale

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

PPROVED: HOWARD SON CONSERVATION DISTRICT

PLAN NUMBER

CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL

FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT

9 1 00 DATE

EVERY 24" AT THE TOP AND MID SECTION. 5. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND. 6. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN

CONSTRUCTION SPECIFICATIONS

LATEST WARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE

1. FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE

3. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES

4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED

SPECIFICATION FOR A G'FENCE SHALL BE USED, SUBSTITUTING 42' FABRIC AND G'LENGTH POSTS.

OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST

CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE THE CHAIN LINK FENCING SHALL

"BULGES" DEVELOP IN THE SILT FENCE OR WHEN SILT REACHES 50% OF FENCE HEIGHT

U.S. DEPARTMENT OF AGRICULTURE

Not To Scale

MARYLAND DEPARTMENT OF ENVIRONMEN

TRAP #1 TABLE TRAP NUMBER ST-IV EXISTING DRAINAGE AREA AC. 7.97 829 iterim dirainage area ac. PROPOSED DRAINAGE AREA AC. n/a STORAGE REQUIRED C.F. WET 25.522 DRY 25,522 TOTAL 47,044 STORAGE PROVIDED CF. WET 81,876 DRY 39,721 TOTAL 121,597 EXISTING GROUND ELEV. 354.00 TOP EMBANKMENT ELEV. 333.00 WEIR CREST ELEV. 352.00 WET STORAGE / OUTLET ELEY. 330.00 CLEANOUT ELEV. 527.0 BOTTOM ELEV. 324,00 DEPTH OF CHANNEL (A) 10' OUTLET WIDTH (B) 34,0' MIN, WET 60 DRY 20

TRAP DEPTH 80 TOTAL TRAP SIDE SLOPES 2 :1 BARREL DIAMETER N/A N/A RISER DIAMETER WET STORAGE ZONE ELEV. 524.00-550.00

**Sediment Control** 

DRY STORAGE ZONE ELEY

BOTTOM DIMENSION

### SEQUENCE OF CONSTRUCTION

NUMBE OF DAYS SEQUENCE 1. Obtain a grading permit\_\_\_\_\_ 2. Clear and grub for and install all perimeter and interior sediment control devices, including

sediment trap. 3. With permission to proceed from the Sediment Control inspector, clear, grub and grade site. (Provide dust control per specifications this

sheet)\_ 4. Construct all utilities except in the area of sediment trap. Bulkhead where necessary. \_\_\_

5. Fine grade site and construct buildings "A" and "B" and as much paving as possible up to area of sediment trap. Stabilize all disturbed areas excluding sediment trap.

6. With the permission of the Sediment Control Inspector, remove sediment trap and construct remainder of utilities and parking.... 7. Construct sidewalks and install surface paving

8. Fine grade and stabilize disturbed areas onsite In accordance with current standards and specifications.

9. With the permission of the Sediment Control Inspector, remove all sediment control measures and stabilize any remaining disturbed areas

# PLANNING BOARD of HOWARD COUNTY

DATE JUNE 29, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING Mu Danumun CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

CHIEF, DIVISION OF LAND DEVELOPMENT

2/12/00 DATE Revision Description Date

# Columbia Gateway Parcel Q3

The Howard Research and Development Corporation 10275 Little Patuxent Parkway Columbia, Maryland 21044 DEVELOPER: AAK III, LLC. 8805 COLUMBIA 100 PKWY SUITE 101 COLUMBIA, MD 21045

DMW

Daft·McCune Walker, Inc. 200 East Pennsylvania Avenu Towson, Maryland 21286 (410) 296-3333

A Team of Land Planners,

UBOMSION NAME COLUMBIA GATEWAY PLAT OR LIF BLOCK ZONE 1 13667 12 & 7 M-1 TITLE

**Erosion And Sediment Control Details** 

Scale 1" = 40' Proj. No. 00021.A BIS /SDS Date 8-30-00 8 OF 12 Approved

42-43

**ENGINEERS CERTIFICATE:** ICERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIRMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT, HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. SIGNATURE OF ENGINEER PRINT MAME BELOW SIGNATURE JULIA W Ranocchia, ST DATE

330.00-332.00

150' X 70'

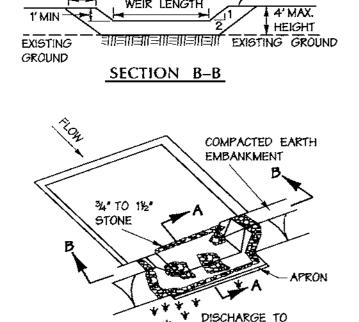
9/5/00 Date

Professional Engr. No. 10551

Wed Aug 30 15:4848 2000 n:\0002\0002id\0002id\0002iaes2

SDP-132 SDP-00-132

Landscape Architects, Engineers, Surveyors &

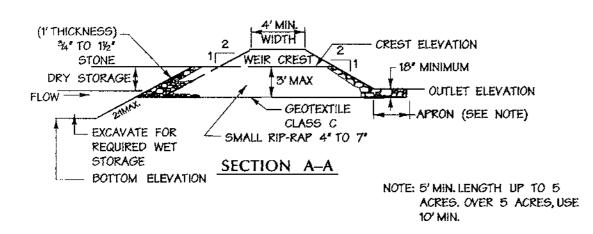


### PERSPECTIVE VIEW

UNDISTURBED/

STABILIZED AREA

TOP OF EMBANKMENT



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

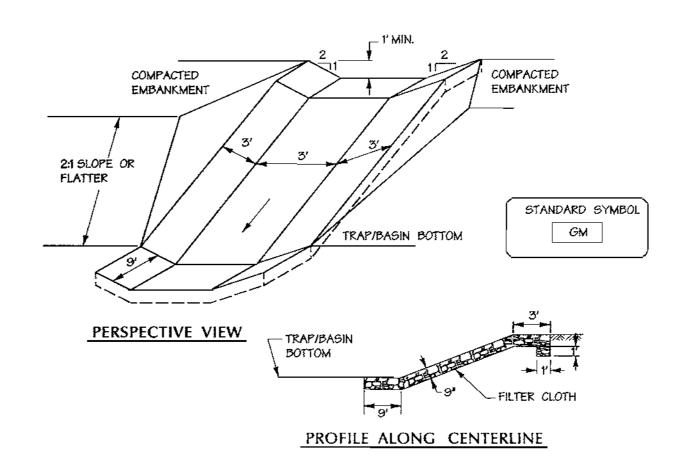
Stone / Rip-Rap Outlet Sediment Trap - ST IV

#### CONSTRUCTION SPECIFICATIONS

- 1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY
- VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. MAXIMUM HEIGHT OF EMBANKMENT SHALL
- BE 4', MEASURED AT CENTERLINE OF EMBANKMENT. 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- 4. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF TRAP EMBANKMENT.
- 5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME MEASURED FROM TOP OF EXCAVATION. (FOR STORAGE REQUIREMENTS SEE TABLE 9.)
- 6. GEOTEXTILE CLASS C SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE, SECTION OF FABRIC MUST OVERLAP AT LEAST 1' WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT
- LEAST 6" INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL. 7. 4" - 7" STONE SHALL BE USED TO CONSTRUCT THE WEIR AND 4" - 12" OR CLASS
- RIP-RAP SHALL BE USED TO CONSTRUCT THE OUTLET CHANNEL. 8. OUTLET - AN OUTLET SHALL INCLUDE A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL PROTECTION AGAINST SCOUR AT THE DISCHARGE POINT SHALL BE PROVIDED AS NECESSARY.
- 9. OUTLET CHANNEL MUST HAVE POSITIVE DRAINAGE FORM THE TRAP. 10. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS
- WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 OF THE WET STORAGE DEPTH OF THE TRAP (900 CF/AC). REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IN WILL NOT ERODE.
- 11. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AFTER EACH RAIN AND REPAIRED AS NEEDED.
- 12. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
- 13. THE STRUCTURE SHALL BE DEWATERED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE

Stone /Rip-Rap Outlet Sediment Trap - ST IV



#### CONSTRUCTION SPECIFICATIONS

- 1. GABION INFLOW PROTECTION SHALL BE CONSTRUCTED OF 9'X 3'X 9" GABION BASKETS FORMING A TRAPEZOIDAL CROSS SECTION 1'DEEP, WITH 21 SIDE SLOPES, AND A 3'BOTTOM WIDTH.
- 2. GEOTEXTILE CLASS C SHALL BE INSTALLED UNDER ALL GABION BASKETS. 3. THE STONE USED TO FILL THE GABION BASKETS SHALL BE 4" - 7". 4. GABIONS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. 5. GABION INFLOW PROTECTION SHALL BE USED WHERE CONCENTRATED FLOW IS PRESENT ON SLOPES STEEPER THAN 4:1.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

4" - 7"

300

460

910

NOTE: RECYCLED CONCRETE EQUIYALENT MAY BE SUBSTITUTED FOR ALL STONE

TABLE 28 STONE SIZE

9.5°

23"

\*THIS CLASSIFICATION IS TO BE USED ON THE INSIDE FACE OF STONE OUTLETS AND

\*\*THIS CLASSIFICATION IS TO BE USED WHEN EVER SMALL RIP-RAP IS REQUIRED. THE STATE

STONE FOR GABION BASKETS

HIGHWAY ADMINISTRATION DESIGNATION FOR THIS STONE IS STONE FOR GABIONS (905.01.04).

SIZE RANGE D 50 D 100 AASHTO

2" - 3" 2½" 3" M-43

11/2\*

15\*

24\*

34\*

INCHES

3 - 5

4 - 7

4 - 7

4 - 7

4 - 12

CLASSIFICATIONS, RECYCLED CONCRETE EQUIVALENT SHALL BE CONCRETE BROKEN INTO

THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, SHALL CONTAIN NO STEEL

REINFORCEMENT, AND SHALL HAVE A DENSITY OF 150 POUNDS PER CUBIC FOOT.

N/A

N/A

N/A

SIZE OF INDIVIDUAL STONES

5-7-2

Gabion Inflow Protection

N/A

150LB MAX.

700LB MAX.

2000LB MAX.

75 - 125

100 - 175

100 - 175

100 - 175

100 - 300

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Not To Scale

#### 2' MIN. LENGTH - SANDBAG OR -6' MAXIMUM SPACING OF 2" x 4" OF 2" x 4" SPACERS ALTERNATE **WEIGHT** 2" x 4" WEIR ANCHORS 弘 - 1½ STONE TO STORM - 2" x 4" SPACER 2" x 4" WEIR

MAX. DRAINAGE AREA = 1/4 ACRE

THE WEIR AND THE INLET FACE (MAX. 4' APART),

STANDARD SYMBOL

#### CONSTRUCTION SPECIFICATIONS

- 1. ATTACH A CONTINUOUS PIECE OF 1/2" x 1/2" WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4') TO THE 2" x 4" WEIR (MEASURING THROAT LENGTH PLUS 2') AS SHOWN ON THE STANDARD DRAWING.
- 2. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2" x 4" WEIR. 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 EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
- 5. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1'BEYOND BOTH ENDS OF THE THROAT OPENING. 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 34" X 11/2" STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
- 7.THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH
- AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
- 8. ASSURE THAT STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT THE FLOW OF THE INLET.

U.S. DEPARTMENT OF AGRICULTURE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Curb Inlet Protection (COG or COS Inlets) Not To Scale

#### TABLE 27 GEOTEXTILE FABRICS

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB.MIN.	BURST STRENGTH PSI. MIN.
Α	0.30**	250	500
В	0,60	200	320
С	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

\*US STD. SIEVE CW-02215 \*\* .50 MM MAX. FOR SUPER SILT FENCE

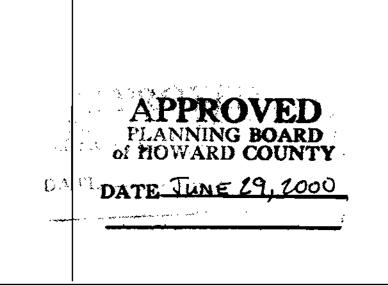
- THE PROPERTIES SHALL BE DETERMINED IN ACCORDANCE WITH THE FOLLOWING PROCEDURES: - APPARENT OPENING SIZE MSMT 323 - GRAB TENSILE STRENGTH ASTMD 1682: 4 x 8° SPECIMEN,1 x 2° CLAMPS,12°/MIN. STRAIN RATE IN BOTH PRINCIPAL DIRECTIONS OF GEOTEXTILE FABRIC.
- BURST STRENGTH ASTMD D 3786 THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, AND WILL BE ROT AND MILDEW RESISTANT. IT SHALL BE MANUFACTURED FROM FIBERS

CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS, AND COMPOSED OF A MINIMUM OF 85% BY WEIGHT OF POLYOLEPHINS, POLYESTERS, OR POLYAMIDES. THE GEOTEXTILE FABRIC SHALL RESIST DETERIORATION FROM ULTRA VIOLENT EXPOSURE.

IN ADDITION, CLASSES A THROUGH E SHALL HAVE A O.OI CM./SEC. MINIMUM PERMEABILITY WHEN TEATED IN ACCORDANCE WITH MSMT 507, AND AN APPARENT MINIMUM ELONGATION OF 20 PERCENT (20%) WHEN TESTED IN ACCORDANCE WITH THE GRAB TENSILE STRENGTH REQUIREMENTS

SILT FENCE

CLASS F GEOTEXTILE FABRICS FOR SILT FENCE SHALL HAVE A 50 LB./IN. MINIMUM TENSILE STRENGTH AND A 20 LBJIN MINIMUM TENSILE MODULES WHEN TESTED IN ACCORDANCE WITH MSMT 509. THE MATERIAL SHALL ALSO HAVE A 0.3 GAL/FT/MIN.FLOW RATE AND SEVENTY-FIVE PERCENT (75%) MINIMUM FILTERING EFFICIENCY WHEN TESTED IN ACCORDANCE WITH MSMT 322. GEOTEXTILE FABRICS USED IN THE CONSTRUCTION OF SILT FENCE SHALL RESIST DETERIORATION FROM ULTRA VIOLENT EXPOSURE. THE FABRIC SHALL CONTAIN SUFFICIENT AMOUNTS OF ULTRA VIOLENT RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 12 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF O TO 120 DEGREES FAHRENHEIT.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING EVELOPMENT ENGINEERING DIVISION MK chief, divisi**on** of Land Development

Date	I¥Ð.	Healgion Describtion

# Columbia Gateway Parcel Q3

OWNER:

The Howard Research and Development Corporation 10275 Little Patuxent Parkway Columbia, Maryland 21044

AAK III, LLC. 8805 COLUMBIA 100 PKWY SUITE 101 COLUMBIA, MD 21045

DEVELOPER:

DMW Fax 296-4705

Daft-McCune-Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296–3333

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

LOT/PARCEL \* QI - A SUBDIVISION NAME COLUMBIA GATEWAY PLAT\* OR L/F BLOCK \* ZONE TAX/ZONE MAP ELECT. DISTRICT CENSUS TRACE ~ 4900000

TITLE **Erosion And Sediment Control Details** 

Des By BIS Scale 1'' = 40'Proj. No. 00021.A Dm By WHJ Date 7-25-00 9 OF 12 Approved

H - 24 - 1

**Materials Specifications** 

RIP-RAP\*\*

CLASS I

CLASS II

CLASS III

CHECK DAMS.

INCHES

6

9

12

36

BASKET THICKNESS

### THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT

Chent Summer J.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL

PLAN NUMBER

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND

## **DEVELOPERS CERTIFICATE:**

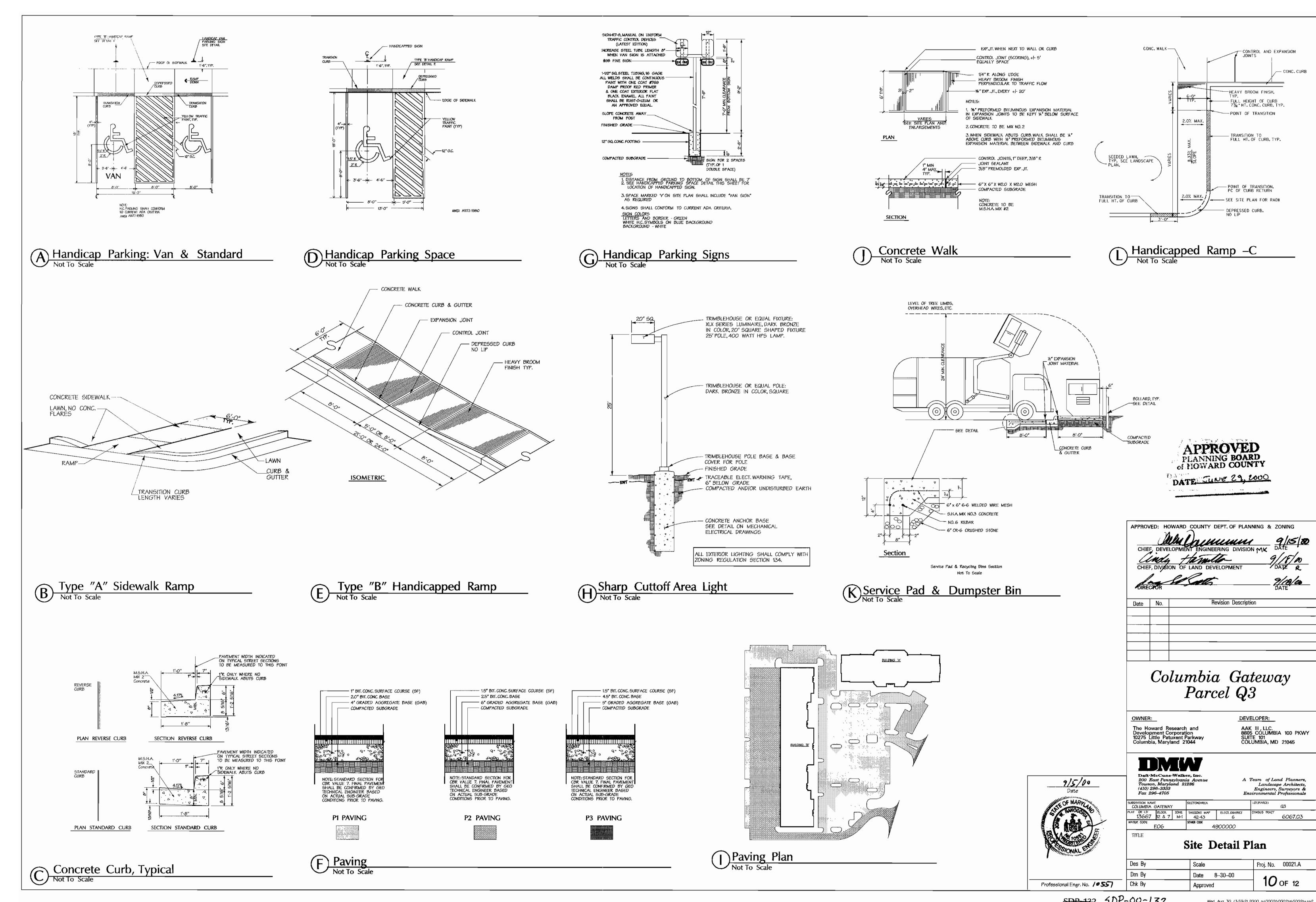
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION, LALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

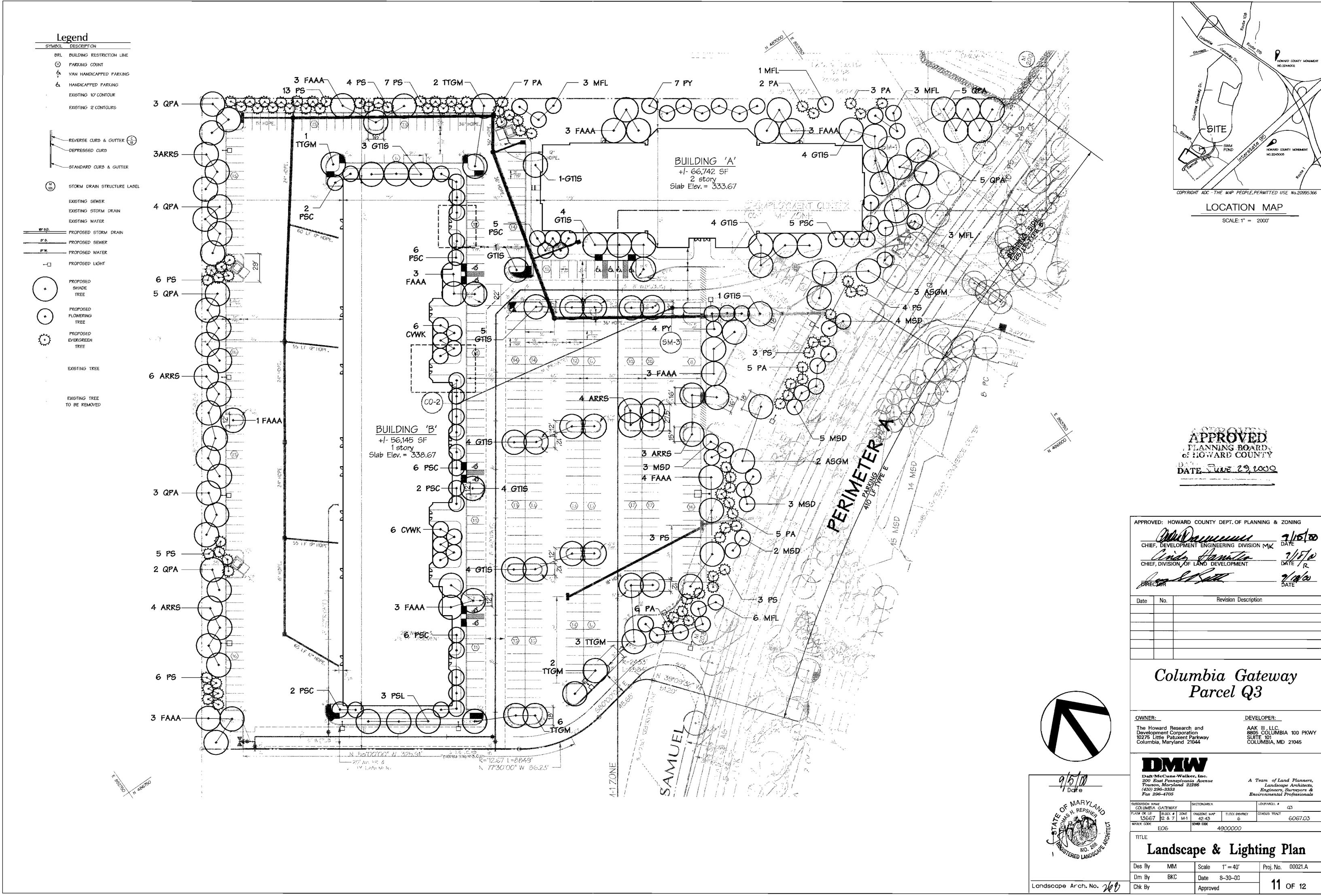
91.00 SIGNATURE OF DEVELOPER PRINT NAME BELOW SIGNATURE DATE DAMES M. 4BRAMS

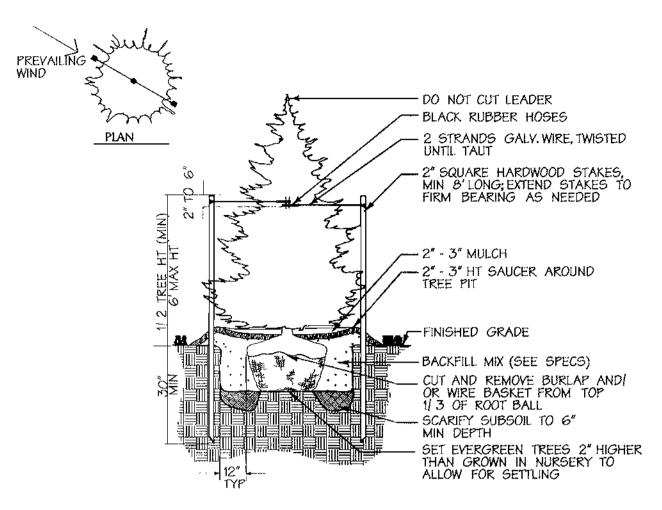
### **ENGINEERS CERTIFICATE:**

ICERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIRMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT, I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

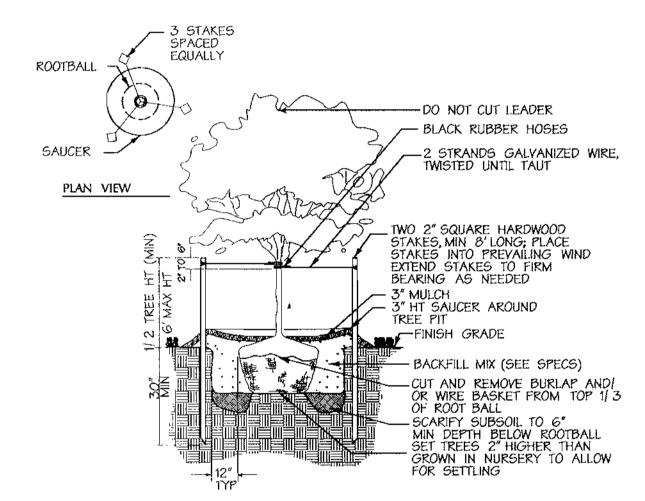
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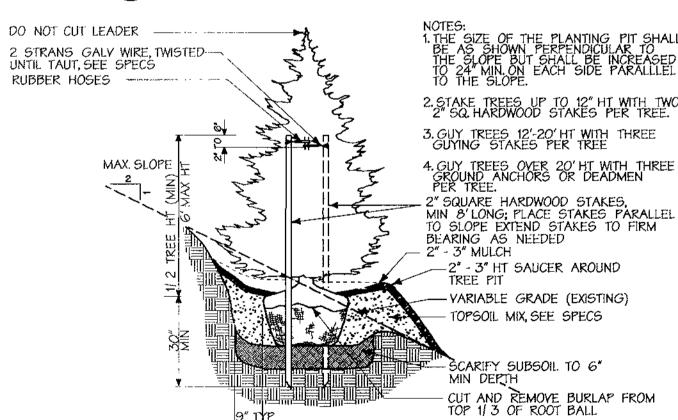




# A Evergreen Tree Planting Not To Scale



# B Less Than 3" Cal. Tree Planting Not To Scale



Evergreen Tree Planting on Slope
Not To Scale

#### Landscape Notes

1. The contractor shall review architecturallengineering plans to become thoroughly familiar with grading and surface utilities.

2. All equipment and tools shall be placed so as not to Interfere or hinder the pedestrian and vehicular traffic flow. See Seasonal Plant List for planting times of bulbs and seasonal

3. The contractor shall coordinate with lighting and irrigation contractors regarding timing of installation of plant material. 4. The contractor shall insure that his work does not interrupt established or projected drainage

5. During planting operations, excess waste materials shall be promptly and frequently removed from the site.

6. The contractor is advised of the existence of underground utilities on the site. Their exact location shall be verified in the field with the owner or general contractor prior to the commencement of any digging operations. In the event they are uncovered, the contractor shall be held responsible for all damage to utilities and such damage shall not result in any additional expenses to the owner.

7. If utility lines are encountered in excavation of tree pits, other locations for trees shall be made by the contractor without additional compensation. No changes of location shall be made without approval of the landscape architect.

8. Maintain positive drainage out of planting beds at a minimum 2% slope. All grades, dimensions, and existing conditions shall be verified by the contractor on site before construction begins. Any discrepancies shall be brought to the attention of the landscape

9. Every possible safeguard shall be taken to protect building surfaces, equipment, and furnishing. The contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of the work.

10. In the event of variation between quantities shown on the plant list and the plans, the plans shall control. The contractor is responsible for verifying all plant quantities prior to the commencement of work. All discrepancies shall be reported to the landscape architect for clarification prior to bidding. The contractor shall furnish plant material in sizes as specified In plant list.

11. The contractor shall stake all material located on the site for review and/or adjustment by the landscape architect prior to planting. All locations are to be approved by the landscape architect before excavation.

12. Plants shall conform to current "American Standards for Nursery Stock" by American Association of Nurserymen (AAN), particularly with regard to size, growth, size of ball, and density of branch structure. Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically walved.

13. All plants (B&B or container) shall be properly Identified by weather-proof labels securely attached thereto before delivery to project site. Labels shall Identify plants by name, species, and size. Labels shall not be removed until the final inspection by the landscape

14. Any material and/or work may be rejected by the landscape architect if it does not meet the requirements of the specifications. All rejected materials shall be removed from the site by the contractor.

15. No substitutions shall be made without written consent of the owner or landscape architect. 16. The landscape architect or owner shall have the right, at any stage of the operations, to reject any and all work and material which, in his opinion, does not meet the requirements of these plans and specifications.

17. The contractor shall be wholly responsible for stability and conditions of all trees and shrubs and shall be legally liable for any damage caused by instability of any plant materials.

18. All proposed trees to be installed either entirely in or entirely out of planting beds. Planting bed lines are not to be obstructed. Mulch shall have been shredded within the last six months.

19. All planting beds adjacent to lawn, sod, or seeded areas shall be spade edged.

20. Maintenance shall begin after each plant has been installed and shall continue until 90 days after final acceptance by the architect or owner representative. Maintenance includes moving of turf, watering, pruning, weeding, fertilizing, mulching, replacement of sick or dead plants, and any other care necessary for the proper growth of the plant material. The contractor must be able to provide continued maintenance if requested by the owner.

21. Upon completion of all landscaping, an acceptance of the work shall be held. The contractor shall notify the landscape architect or owner for scheduling the inspection at least seven (7) days prior to the anticipated inspection date.

22. All trees shall be guaranteed for 12 months from the date of acceptance.

23. The contractor is responsible for testing project soils. The contractor is to provide a certified soils report to the owner. The contractor shall verify that the soils on site are acceptable for the proper growth of the proposed plant material. Should the contractor find poor soil conditions, the contractor shall be required to provide soil amendments as necessary. These amendments shall include, but not be limited to, fertilizers, lime, and topsoil. Proper planting soils must be verified prior to planting of materials.

24. PLANTING MIX:

a. Planting mix shall be prepared at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic

b. Thoroughly mixed in the following proportions for tree and shrub planting mix: .5 cy existing soil

.2 cy sharp sand .3 cy wood residuals

4.5 lbs treble superphosphate 5 lbs dolmonite limestone (eliminate for acid loving plants)

c. For bed planting, shrubs and groundcover spaces 24 inches or closer, incorporate the following Ingredients per 20 sf and incorporate into top 8 inches of existing soils by rototilling or similar method of Incorporation.

.2 cy sharp sand .3 cy orgnaic material

4.5 lbs treble superphosphate 5 lbs dolmonite limestone (eliminate for acid loving plants)

25. The contractor shall dispose of stumps and major roots of all plants to be removed. Any depressions caused by removal operations shall be refilled with fertile, friable soil placed and compacted so as to reestablish proper grade for new planting and/or lawn areas.

26. The contractor shall insure adequate vertical drainage in all plant beds and planters.

#### SCHEDULE A PERIMETER LANDSCAPE EDGE

Catagory	andscape Type	Adjacent to Roadwaye	Formula
Parking	E	410 LF	1 shade/40' + 1 shrub/4'
Building Side	В	125 LF	1 shade/50' + 1 evergreen/40
Credit for Existing Vegetation (yee, No, Linear Feet ) (Described below if needed )		NO	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) Describe below if nedded)		ю	
Number of Plante Required Shade Trees Evergreen Trees Shrube		11 + 3 = 14 e 4 evergreen to 103 shrubs	
Number of Plante Provided Shade Trees Evergreen Trees Other Trees ( 21 substi Shrubs ( 10:1 Substitution ( Describe plant substitution ( Below if needed )	ion )	14 4 52 0	

Substitutions: 11 Flowering Trees have been substituted for 103 shrubs

#### SCHEDULE B DADVING LOT INTERNAL LANDSCADING

Number of Parking Spaces	<del>46</del> 2
Number of Trees Required	● 1/20 sp. = 23
Number of Trees Provided Shade Trees Other Trees (21 substitution)	23
Number of Islands Required 6 1/20 sp.	23

This project will be constructed under alternate compliance - HRD standards. The Landscape calculations shown have been prepared in accordance with the provisions in section 16.124 of the Howard County Landscape Manual for bonding purposes only.

Bonding Amount: 37 shade trees @ \$300 4 evergreen trees 9 \$150 103 shrubs 0 \$30 Total: \$14,790

#### Plant List

QTY	SYM	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
SHADE	TREES			
20	ARRS	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE	2 1/2" - 3" CAL. 12'-14' HT	B & B FULL HEAD
5	ASGM	ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN MAPLE	2 1/2" - 3" CAL. 12'-14' HT	B & B FULL HEAD
35	GTIS	GLEDITSIA TRIA. VAR. INERMIS 'SHADEMASTER' SHADEMASTER HONEY LOCUST	2 1/2" - 3" CAL. 12'-14' HT	B & B FULL HEAD
27	QPA	QUERCUS PALUSTRIS PIN OAK	2 1/2" - 3" CAL. 12'-14' HT	B & B FULL HEAD
26	FAAA	FRAXINUS AMERICANA 'AUTUMN APPLAUSE' AUTUMN APPLAUSE WHITE ASH	2 1/2" - 3" CAL. 12'-14' HT	B & B FULL HEAD
14	TTGM	TILIA TOMENTOSA 'GREEN MOUNTAIN' GREEN MOUNTAIN LINDEN	2 1/2" - 3" CAL. 12'-14' HT	8 & B FULL HEAD
FLOWER	ING TRE	ES		
12	CVWK	CRATAEGUS VIRIDIS 'WINTER KING' WINTER KING HAWTHORN	8'-10' HT.	B & B MATCHED GROUPS
16	MFL	MALUS FLORIBUNDA JAPANESE FLOWERING CRAB	8'-10' HT.	B & B FULL HEAD
17	MSD	MALUS 'SNOW DRIFT' SNOW DRIFT CRAB	8'-10' HT.	B & B FULL HEAD
34	PSC	Prunus Sargentii 'Columnaris' Columnar Sargent Cherry	8'-10' HT.	B & B FULL HEAD
11	PY	PRUNUS YEDOENSIS YOSHINO CHERRY	8'-10' HT.	B & B FULL HEAD
EVERGR	EEN TRE	ES		
28	PA	PICEA ABIES NORWAY SPRUCE	6'-8' HT.	B & B HEAVY/UN\$HEAREI
54	PS	PINUS STROBUS WHITE PINE	6'-8' HT.	B & B HEAVY /UNSHEAREI

NOTE: FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$12,600

#### DEVELOPER'S BUILDER'S CERTIFICATE

IJWE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.



"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL." PROVIDE THE FOLLWING NOTE ON THE LANDSCAPE PLAN:

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS.
ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS.
ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

## APPROVED FLANNING BOARD of HOWARD COUNTY DATE JUNE 29, 2000

		ARD COUNTY DEPT. OF PLANNING 8  WHENT ENGINEERING DIVISION MK	
	F, DEVELOP	MENT ENGINEERING DIVISION MK	DATE DATE
DIRE	OR		DATE
Date	No.	Revision Description	DATE

# Columbia Gateway Parcel Q3

OWNER: The Howard Research and Development Corporation 10275 Little Patuxent Parkway Columbia, Maryland 21044 DEVELOPER: AAK III, LLC. 8805 COLUMBIA 100 PKWY SUITE 101 COLUMBIA, MD 21045

Q3

DMW Daft McCune Walker, Inc.

200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3333 Fax 296-4706

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

COLUMBIA GATEWAY

OF MARY

Landscape Arch. No. 26

SDP-132

AT OR LHT BLOCK ZONE TAXIZONE MAP 13667 12 & 7 M-1 42-43 E06

Landscape Notes & Details

Proj. No. 00021.A Des By Scale 1" = 40' BKC Date 8-30-00 **12** OF 12 Approved

3DP-00-132

Wed Aug 30 14:01:33 2000 n:\000021\00002Ia\00021a3a2