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2	SITE DEVELOPMENT PLAN
3	GRADING AND SEDIMENT CONTROL PLAN
4	PROFILES AND DETAILS
5	SEDIMENT CONTROL DETAILS
6	LANDSCAPE PLAN
7	SEDIMENT CONTROL NOTES

# SITE DEVELOPMENT PLANS

# MEADOWRIDGE BUSINESS PARK

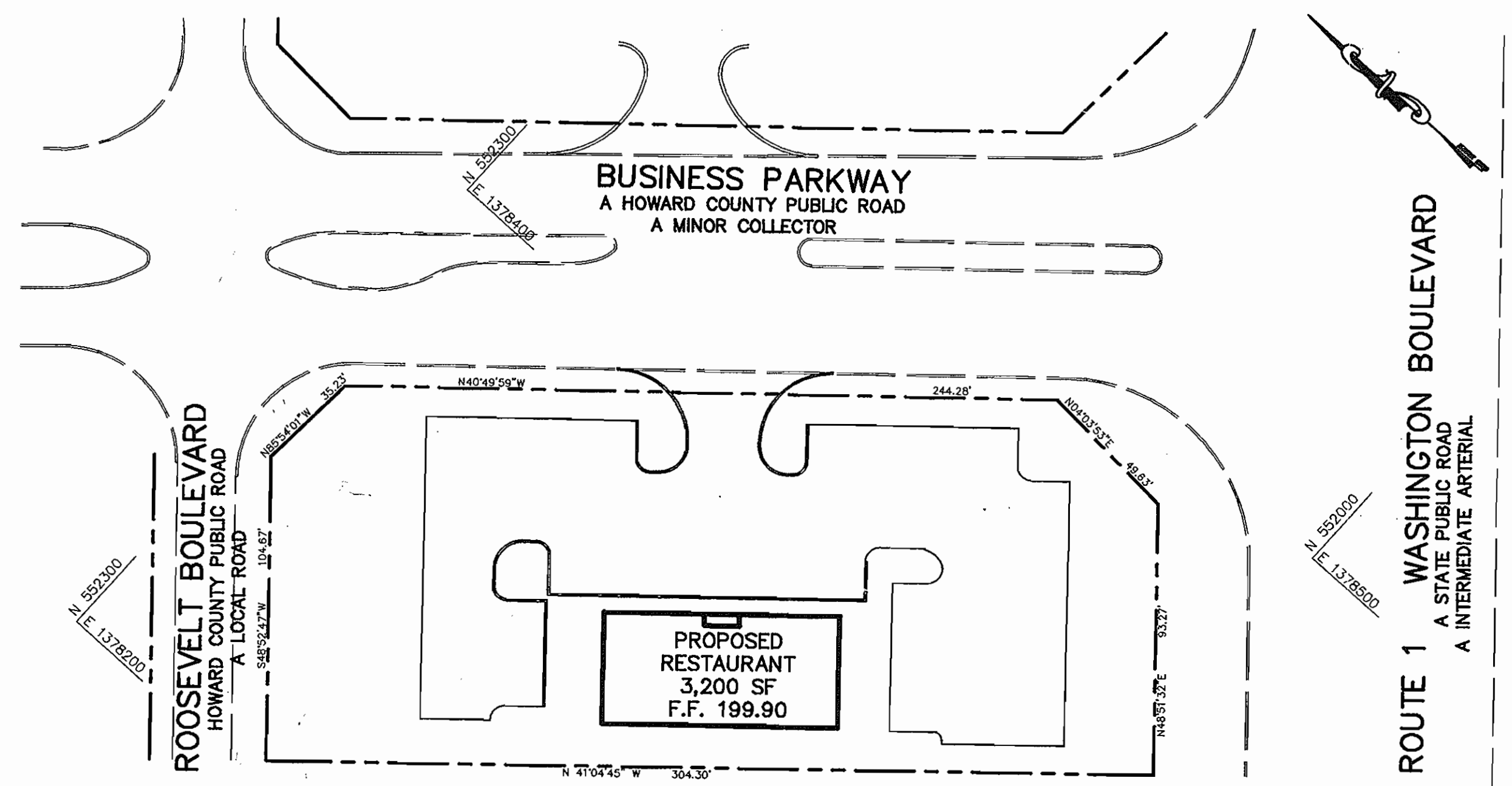
## PARCEL Q

## 1st ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND

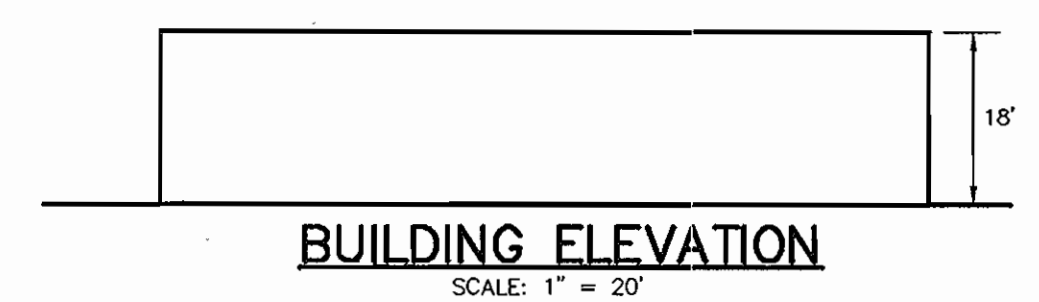
### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM F-89-163 AND FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED (MARCH 2000).
- 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 NOS. 4386 AND 4382 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 14-1946-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATAPSCO CONTRACT NO. 705-S
- THE STORMWATER MANAGEMENT FACILITIES PROPOSED FOR THIS SITE ARE A PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITY.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100- YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THERE ARE NO WETLANDS ON THIS PROJECT BASED ON FIELD WALK BY PATTON HARRIS RUST & ASSOCIATES DATED ON OCTOBER 2003.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP DATED NOVEMBER 2003 AND WAS APPROVED ON FEBRUARY 1, 2004.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT FOR THIS PROJECT WAS PREPARED BY HILLIS CARNES DATED NOVEMBER 2003.
- THE BOUNDARY SURVEY FOR THIS PROJECT IS BASE ON F-89-163 RECORD PLAT BY GREENHORNE AND O'MARA.
- SUBJECT PROPERTY ZONED M-1 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. F-89-163, P-87-44, S-86-11, S-88-03, S-89-04, GP-86-46
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- THIS PROJECT IS PART OF A PLANNED BUSINESS PARK GREATER THAN 75 ACRES THAT WAS RECORDED PRIOR TO DECEMBER 31, 1992 AND IS THEREFORE EXEMPT FROM THE FOREST CONSERVATION ORDINANCE.
- LANDSCAPE SURETY WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$9060.00
- ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.



WASHINGTON MANOR PARK  
SECTION A  
LOT 22  
PLAT BOOK 5 PAGE 13  
ZONING M-1

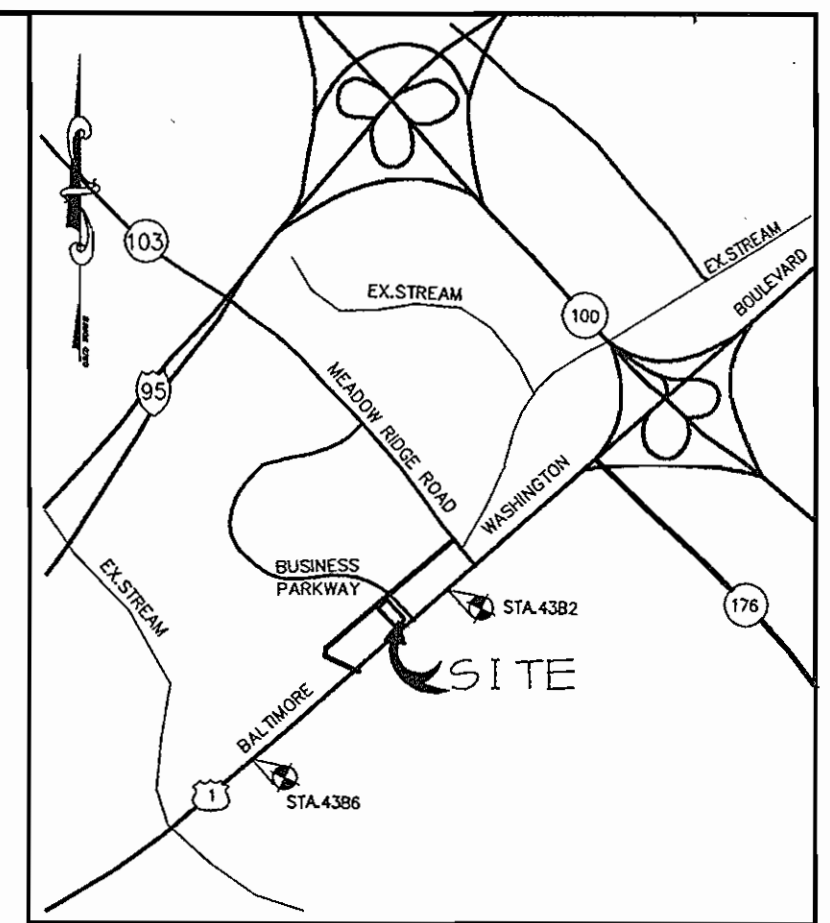
**PLAN**  
SCALE: 1" = 40'



### BENCHMARKS

HO. CO. SURVEY CONTROL STATION 43B6  
N 550,601.59 E 1,376,866.05  
ELEV. 210.61

HO. CO. SURVEY CONTROL STATION 43B2  
N 551,655.01 E 1,378,176.94  
ELEV. 209.67



**VICINITY MAP**  
SCALE: 1" = 2000'

### SITE ANALYSIS

AREA OF PARCEL	0.88 ACRES 38333 SF
DISTURBED AREA	1.01 ACRES (43996) SF
PRESENT ZONING	M-1
PROPOSED USE	RESTAURANT FACILITY (ONE STORY)
BUILDING COVERAGE	3200 SF (8% COVERAGE)
# OF PARKING SPACES REQ'D @ 14 SP/1000 SF	45 SPACES
# OF PARKING PROVIDED	45 SPACES (INCLUDING 2 HC)

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.	
N/A	
COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT	DATE
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
Director (Acting)	7/15/04 DATE
Chief, Development Engineering Division	7/15/04 DATE
Chief, Division of Land Development	7/13/04 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
MEADOWRIDGE PARCEL Q, LLC  
P.O. BOX 417  
ELLCOTT CITY, MARYLAND 21041

PROJECT	MEADOWRIDGE BUSINESS PARK PARCEL Q A RESTAURANT BUILDING
AREA	TAX MAP 43 PARCEL Q ZONED M-1 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### TITLE SHEET

**Patton Harris Rust & Associates, pc**  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

DESIGNED BY : C.J.R.
DRAWN BY: DAM
PROJECT NO : 12513/1-0/ENGR C-000COV.DWG
DATE : JUNE 21, 2004
SCALE : AS SHOWN
DRAWING NO. 1 OF 7

### AS BUILT CERTIFICATION

STATE OF MARYLAND  
DOMENICK W. COLANGELO  
PROFESSIONAL ENGINEER

11/10/06  
DATE

### ADDRESS CHART

PARCEL	STREET ADDRESS
Q	6790 BUSINESS PARKWAY

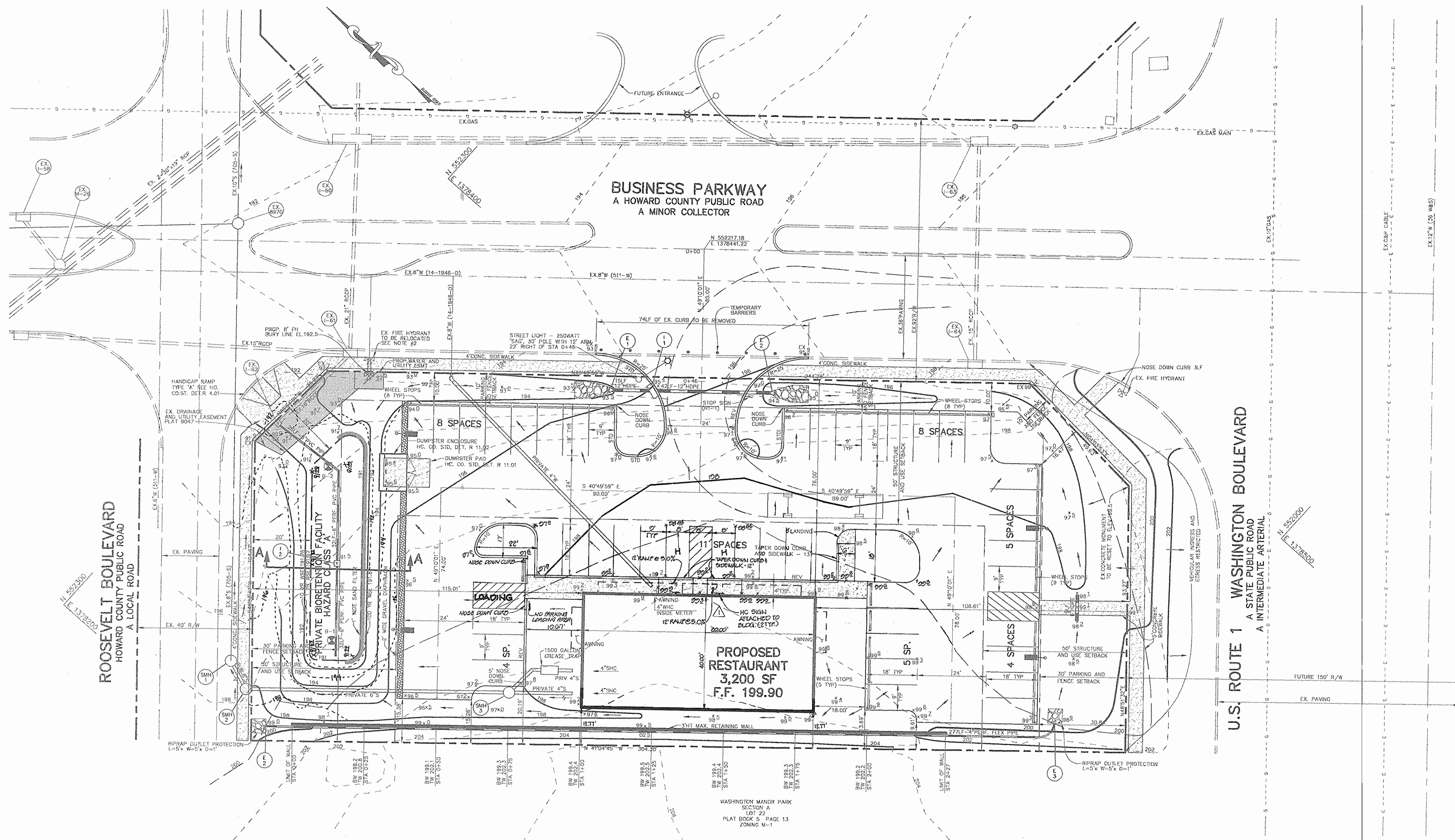
SUBDIVISION NAME	SECT./AREA	PARCEL
MEADOWRIDGE BUSINESS PARK	-	Q
PLAT # 9047	BLOCK # 4 & 5 ZONING M-1	TAX MAP NO. 43 ELECT. DIST. 1st CENSUS TRACT 6012
WATER CODE B01	SEWER CODE 2153000	

CHRISTOPHER J. REID #19949  
SDP-04-73

- NOTES:**
1. ALL RADI ARE 5' UNLESS OTHERWISE NOTED.
  2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
  3. ALL ON-SITE ROADS ARE PRIVATE.
  4. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
  5. \* STD/REV - STANDARD TO REVERSE CURB TRANSITION.

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
STORM DRAIN	---	15'D
PROP. SPOT ELEVATION	X	2
SETBACK LINES	---	
P-2 PAVING	---	
CONCRETE SIDEWALK	---	
PROPOSED LIGHTS	---	



**ADVANCED DEPOSIT ORDER AGREEMENT SUMMARY:**

1. PROPOSED 8" SANITARY SEWER, SMH-1 AND SMH-2, CONSTRUCTION IN ROOSEVELT BOULEVARD TO BE CONSTRUCTED BY HOWARD COUNTY UNDER ADVANCED DEPOSIT ORDER AGREEMENT.
2. EXISTING FIRE HYDRANT TO BE RETURNED TO HOWARD COUNTY BUREAU OF UTILITIES. PROPOSED FIRE HYDRANT TO BE CONSTRUCTED BY HOWARD COUNTY UNDER ADVANCED DEPOSIT AGREEMENT.

**STORMWATER MANAGEMENT FACILITY SUMMARY**

DRAINAGE AREA	Rev REQUIRED	Wqv REQUIRED	Cpv REQUIRED	Qp10	Qp100
0.88 AC.	233 CF OR 28.31 SF	1560 CF	N/A Q1<2 CFS		N/A

Rev IS PROVIDED THROUGH THE USE OF GRASS SWALES TO ADDRESS THE PERCENT AREA METHOD. THE Wqv IS REDUCED FROM 1663 TO 1793-233=1560 CF DUE TO THE Rev BEING PROVIDED ELSEWHERE. A PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITY IS PROVIDED TO MEET THE Wqv VOLUME REQUIREMENT.

NOTE: VOLUME REQUIREMENTS ARE BASED ON ACTUAL IMPERVIOUS AREA PROVIDED, NOT ZONING REQUIREMENTS. ANY INCREASE IN IMPERVIOUS AREA OVER 0.50 ACRE ON-SITE IMPERVIOUS WILL RESULT IN THE NECESSITY OF RE-EVALUATING THE STORMWATER MANAGEMENT PROVISIONS.

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.	
N/A	
COUNTY HEALTH OFFICER	DATE
HOWARD COUNTY HEALTH DEPARTMENT	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Brad LaFollette</i>	7/15/04
DIRECTOR	DATE
<i>William R. ...</i>	6/21/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Christopher J. Reid</i>	7/13/04
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

OWNER / DEVELOPER	
MEADOWRIDGE PARCEL Q, LLC	
P.O. BOX 417	
ELLICOTT CITY, MARYLAND 21041	

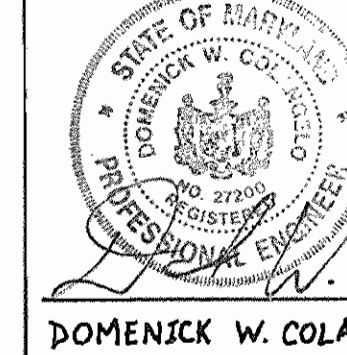
PROJECT	MEADOWRIDGE BUSINESS PARK PARCEL Q A RESTAURANT BUILDING
AREA TAX MAP 43	PARCEL Q ZONED M-1
1st ELECTION DISTRICT	HOWARD COUNTY, MARYLAND

TITLE	SITE DEVELOPMENT PLAN
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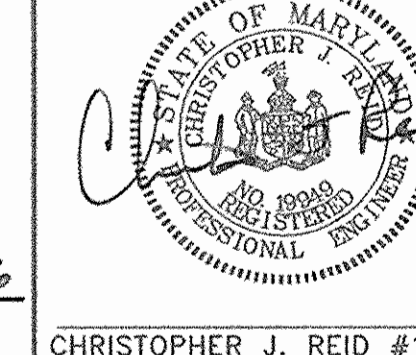
Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

DATE	6-21-04
DESIGNED BY :	C.J.R.
DRAWN BY :	DAM
PROJECT NO :	12513/1-0/ENGR C400SIT.DWG
DATE :	JUNE 21, 2004
SCALE :	1" = 20'
DRAWING NO. :	2 OF 7

**AS BUILT CERTIFICATION**



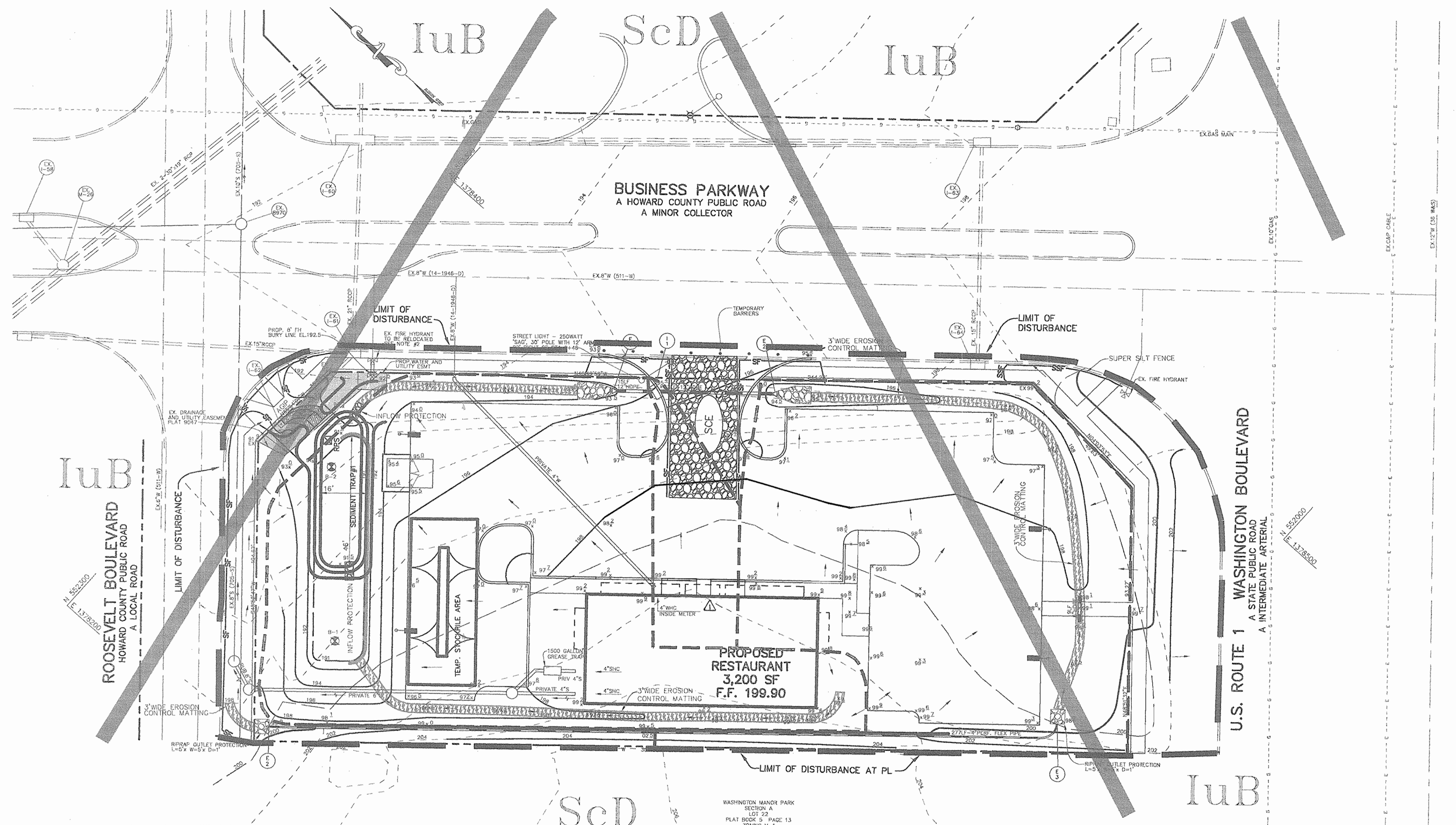
DOMENJCK W. COLANGELO #217200 DATE 11/10/06



CHRISTOPHER J. REID #19949

**LEGEND**

TEMPORARY BARRIERS	•••••
SOIL LINES	—
BORING LOCATION	⊕
DRAINAGE AREA LINES	—
LIMIT OF DISTURBANCE	— L.O.D.
SUPER SILT FENCE	— SSF
EROSION CONTROL MATTING	▨
STABILIZED CONSTRUCTION ENTRANCE	▨



BY THE DEVELOPER :  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Shirley Yong* 6-21-04  
 DEVELOPER DATE

BY THE ENGINEER :  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Chris J Reid* 6.21.04  
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jacques* 6/21/04  
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John* 6/21/04  
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

N/A  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Debra* 7/15/04  
 DIRECTOR (Acting) DATE

*Chris* 6/21/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Chris* 7/15/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

3-17-05  
 DATE NO. LOCKED ENTRY POINTS

OWNER / DEVELOPER  
 MEADOWRIDGE PARCEL Q, LLC  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041

PROJECT MEADOWRIDGE BUSINESS PARK  
 PARCEL Q  
 A RESTAURANT BUILDING  
 AREA TAX MAP 43 PARCEL Q ZONED M-1  
 1st ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP**  
 Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

DATE 6.21.04  
 DESIGNED BY : C.J.R.  
 DRAWN BY : DAM  
 PROJECT NO : 12513/1-0/ENGR  
 C600GRA.DWG  
 DATE : JUNE 21, 2004  
 SCALE : 1" = 20'  
 DRAWING NO. 3 OF 7

**STONE OUTLET SEDIMENT TRAP #1**

DRAINAGE AREA	0.81 ACRES
STOR. REQ'D (WET STOR.)	1458 CF
STOR. REQ'D (DRY STOR.)	1458 CF
STOR. PROV. (WET STOR.)	1575 CF @ 190.5
STOR. PROV. (DRY STOR.)	1575 CF @ 191.0
CREST ELEVATION	191.0
BASEIN CLEANOUT ELEVATION	190.25
TOP OF DAM	192.0
BOTTOM EL.	190.0
SIDE SLOPES	2:1

**SOIL CHART**

SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP
IuB	HUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES	C
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING	C

**DRAINAGE DATA**

INLET NOS.	AREA IN ACRES	C FACTOR	SOIL TYPE	PERCENT IMPERVIOUS
I-1	0.05	0.37	C	20
E-2	0.81	0.60	C	57

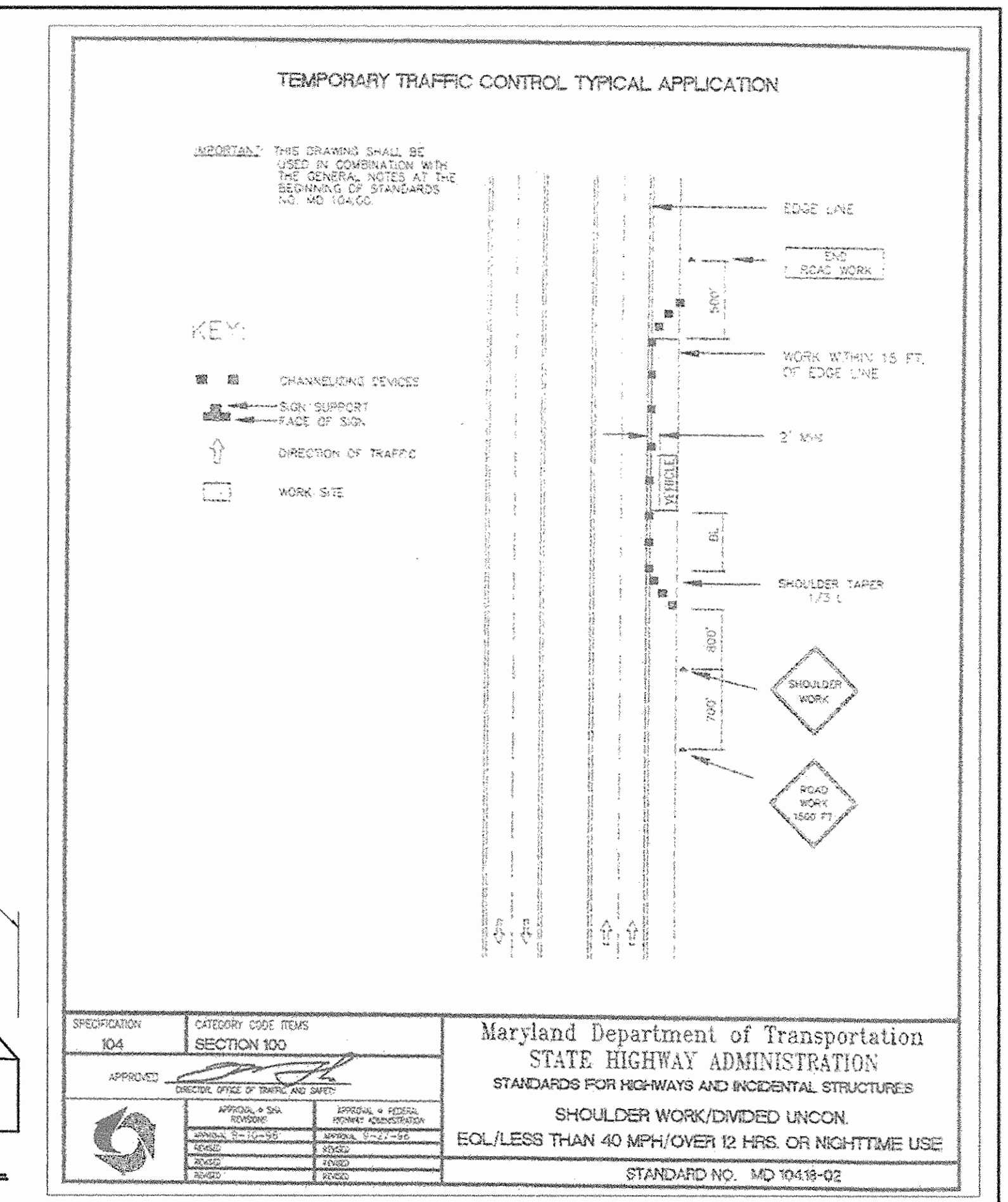
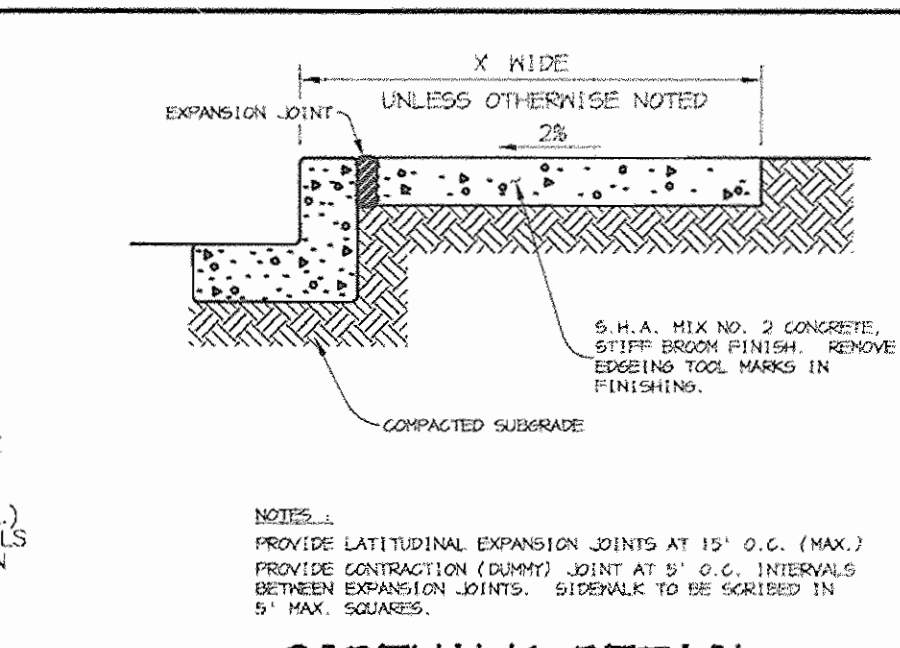
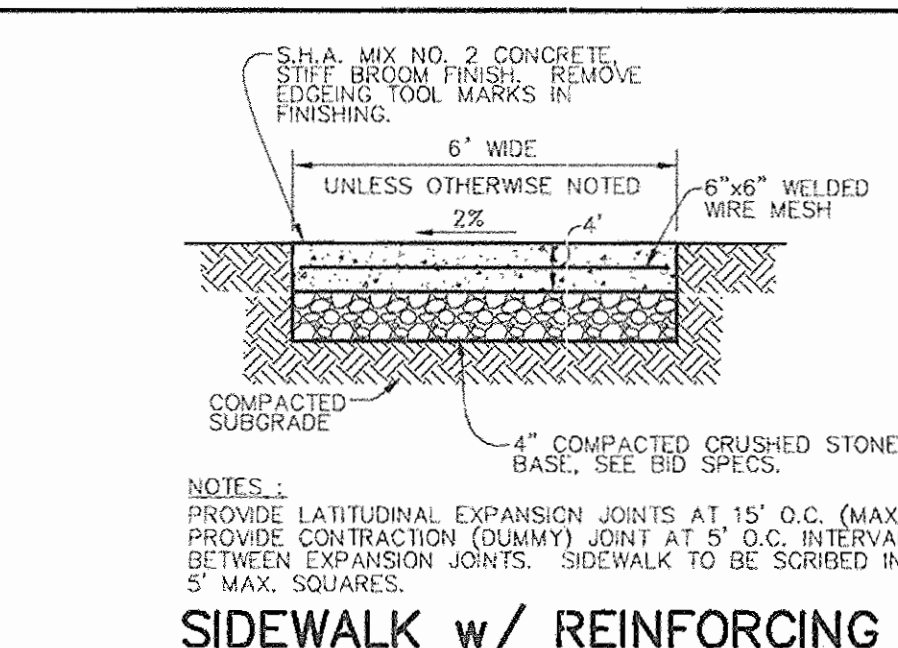
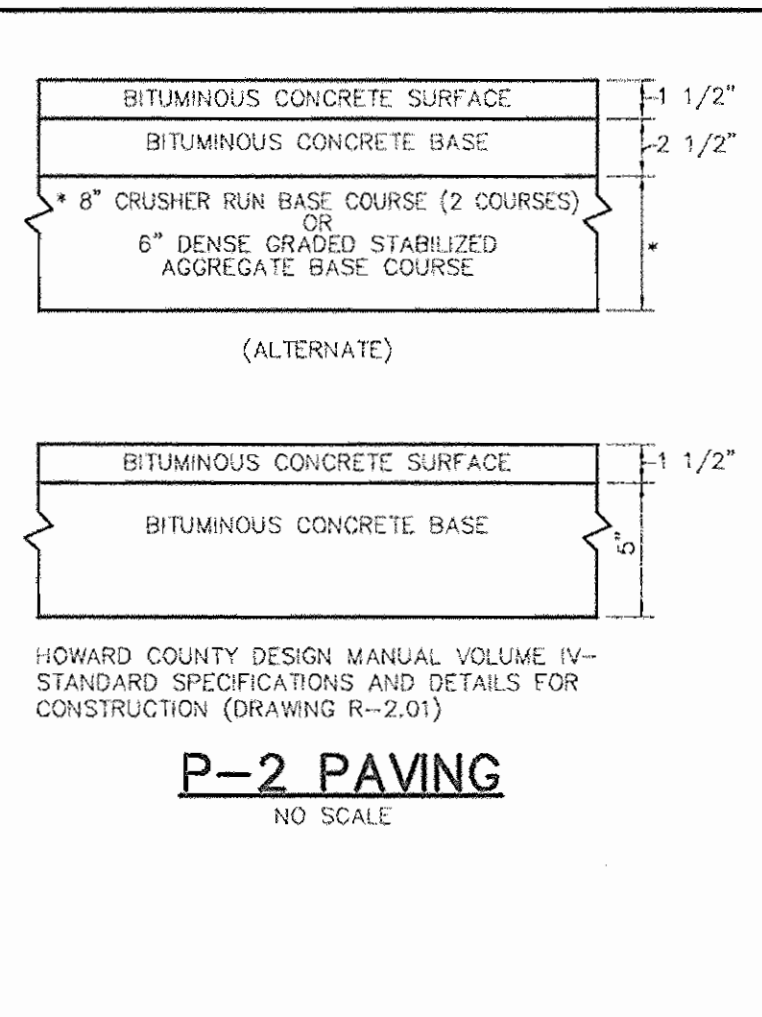
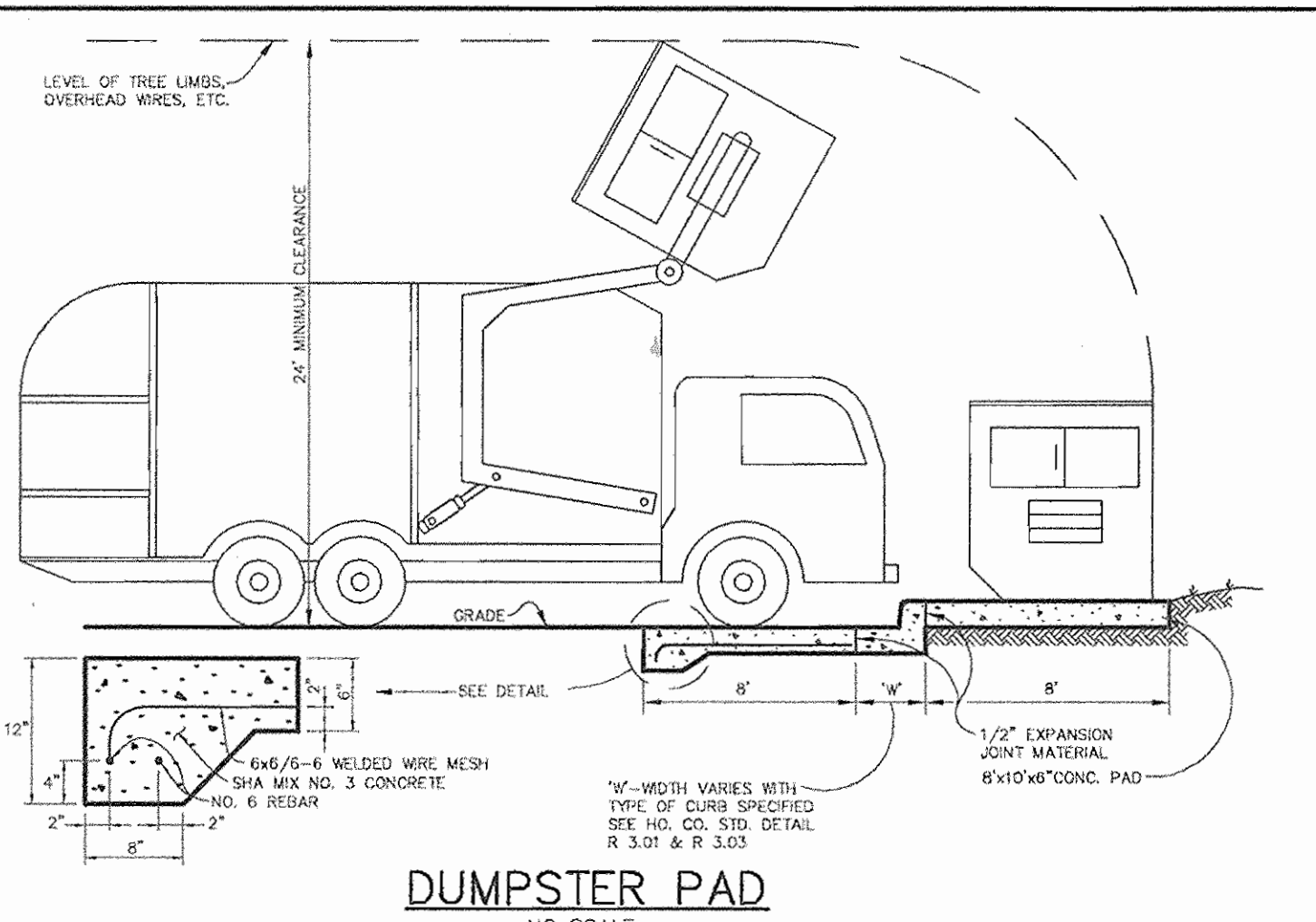
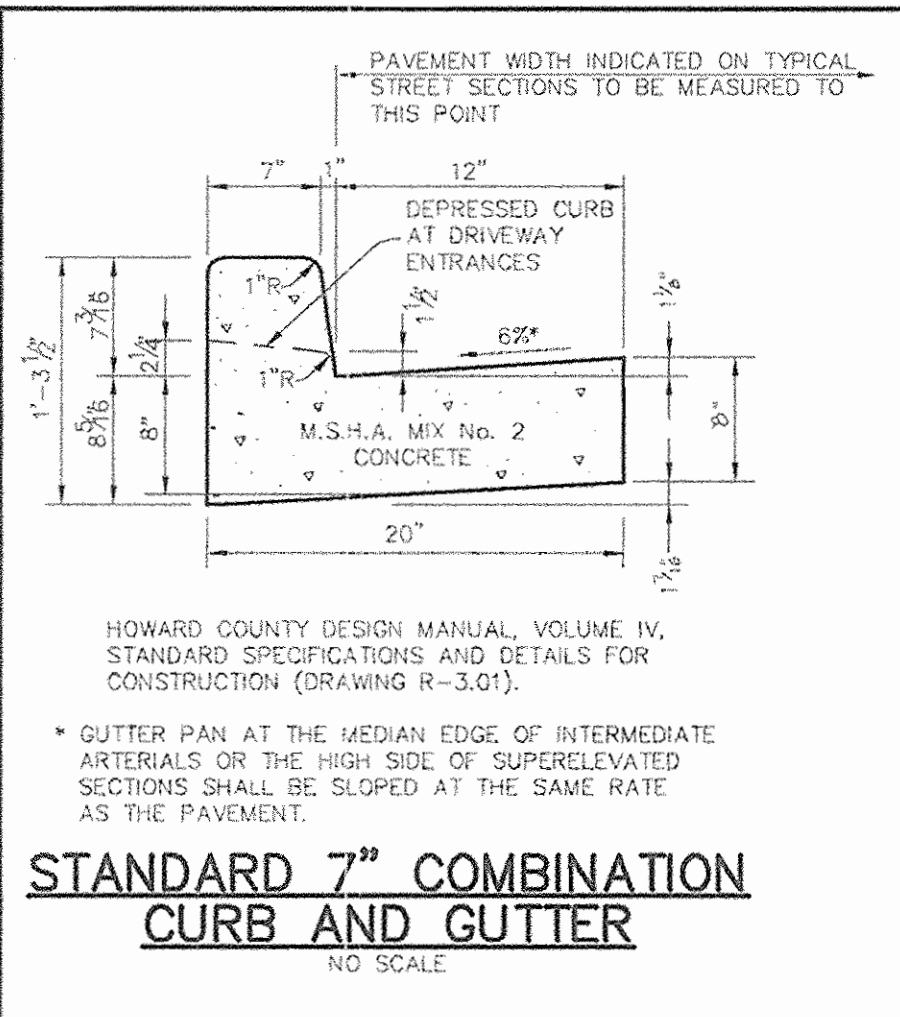
**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE, INLET PROTECTION AT EX. 1-82 AND STONE OUTLET SEDIMENT TRAP. (2 DAYS)
- BEGIN ROUGH GRADING AND BUILDING CONSTRUCTION.
- AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL STORM DRAIN (EXCLUDING UNDERDRAIN FOR BIORETENTION FACILITY) AND WATER AND SEWER. (2 WEEKS)
- INSTALL CURB AND GUTTER AND PAVE. (2 WEEKS)
- PERFORM FINE GRADING, LANDSCAPING AND SIDEWALKS. (1 WEEK)
- APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)
- COMPLETE BUILDING CONSTRUCTION. (6 MONTHS)
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAP AND INSTALL BIORETENTION FACILITY AND UNDERDRAIN.
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 DAY)

**AS BUILT CERTIFICATION**

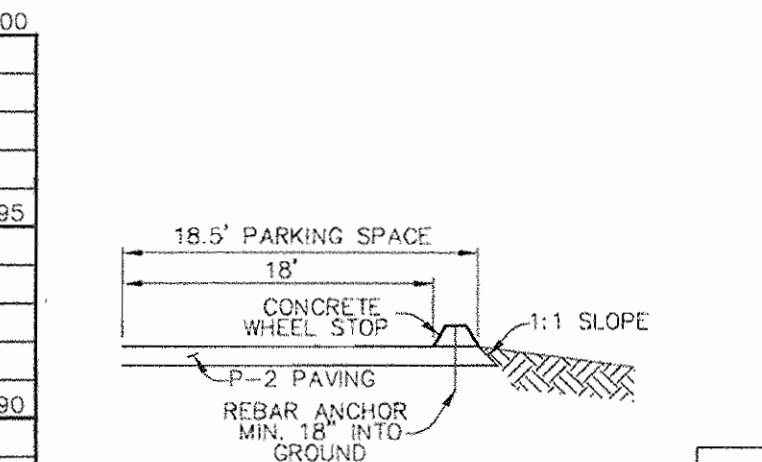
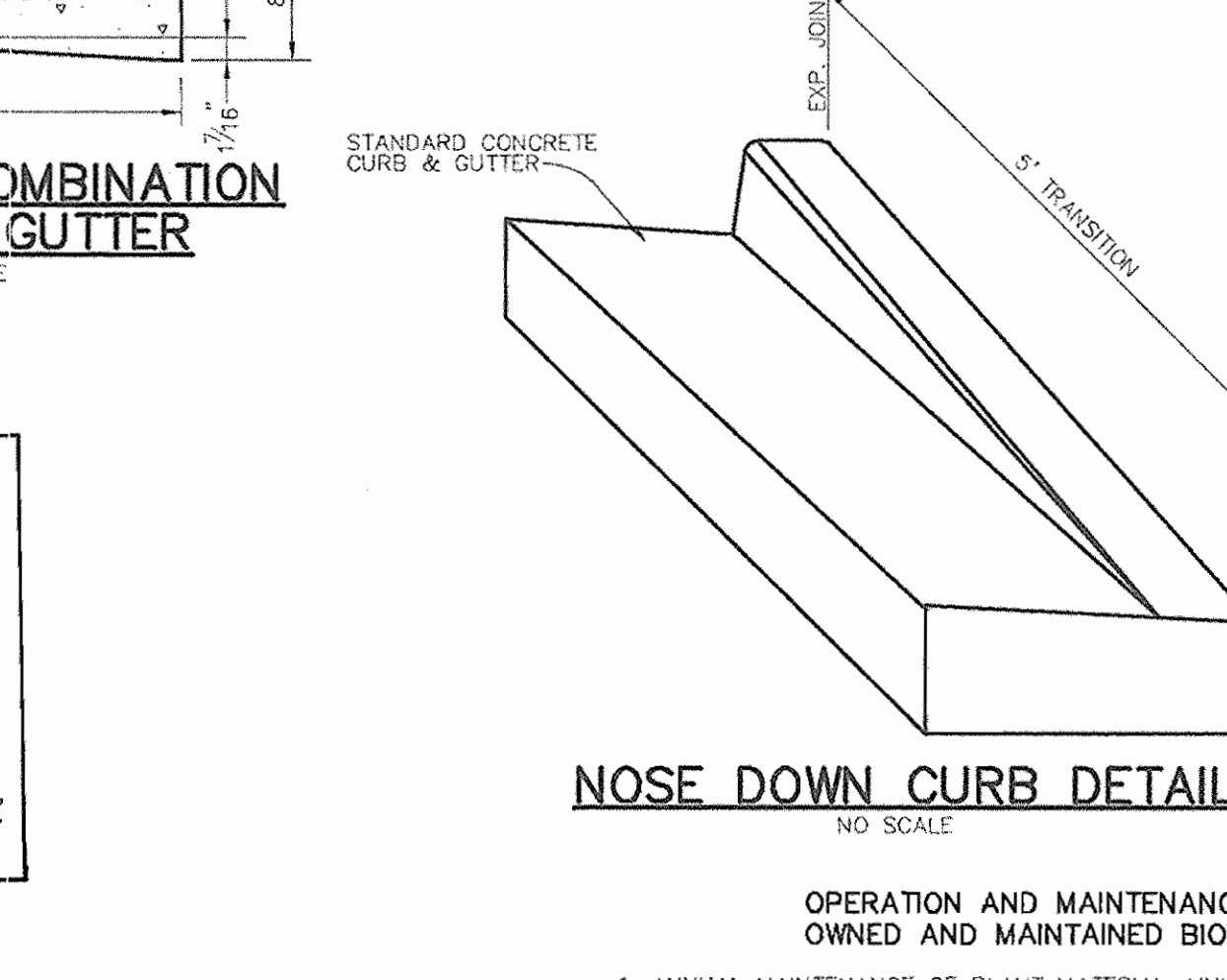
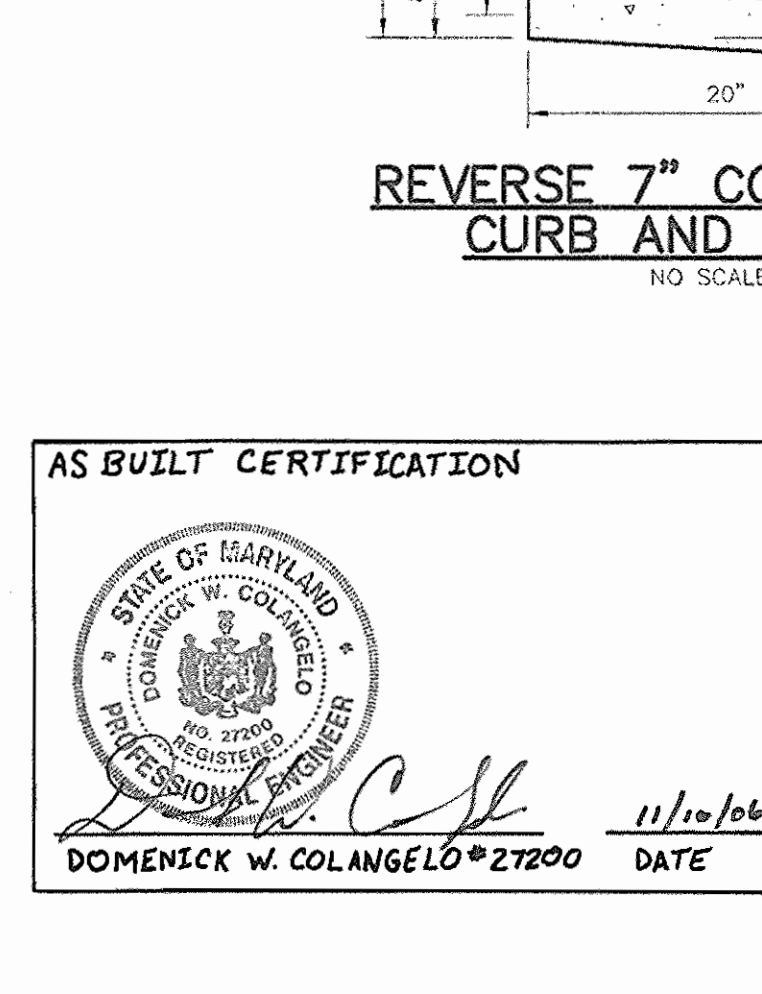
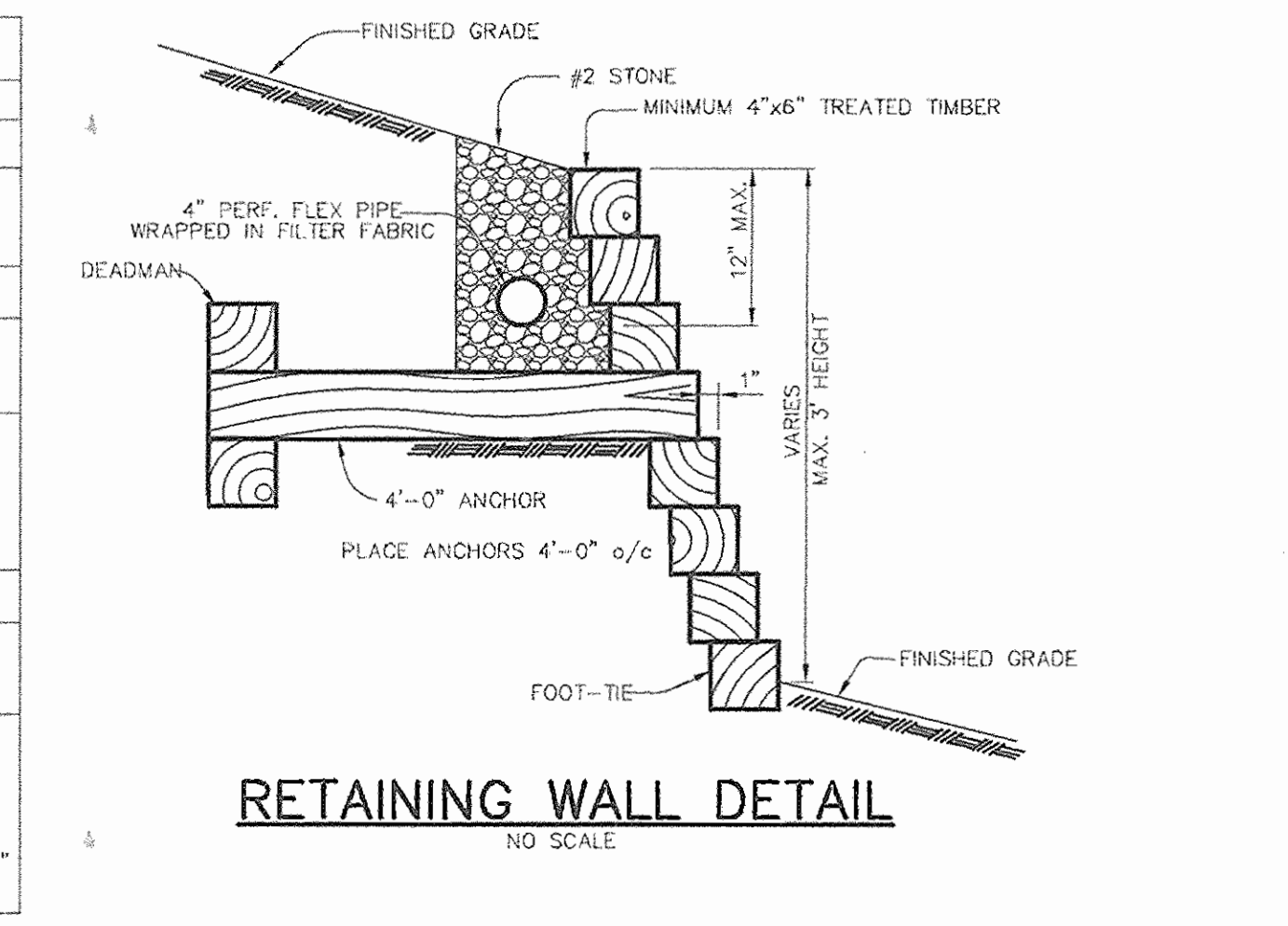
*Domencik W. Colangelo*  
 DOMENICK W. COLANGELO #27200  
 PROFESSIONAL ENGINEER  
 DATE 11/10/06

*Christopher J. Reid*  
 CHRISTOPHER J. REID #19949  
 PROFESSIONAL ENGINEER  
 DATE 11/10/06



**Table: Materials Specifications for Bioretention**

MATERIAL	SPECIFICATIONS	SIZE	NOTES
PLANTINGS	SEE LANDSCAPE PLAN SHEET	N/A	
PLANTING SOIL (2.5' TO 4' DEEP)	SAND 35 - 60 % SILT 30 - 55 % CLAY 10 - 25 %	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM, OR LOAM
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM
STONE DIAPHRAM AND CURTAIN DRAIN	PEA GRAVEL ASTM-D-448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: No. 6 STONE: 2" to 5"	
GEOTEXTILE	CLASS "C" - APPARENT OPENING SIZE (ASTM-D-475), GRAB TENSILE STRENGTH (ASTM-D-4832), PUNCTURE RESISTANCE (ASTM-D-4822)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY.
UNDERDRAIN GRAVEL	ASHTO M-43	0.375" to 0.75"	
UNDERDRAIN PIPE	F 758, TYPE PS 28 OR ASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW.
SAND	ASHTO M-6 or ASTM C-33	0.02" to 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRANSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITE SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.



**PIPE SCHEDULE**

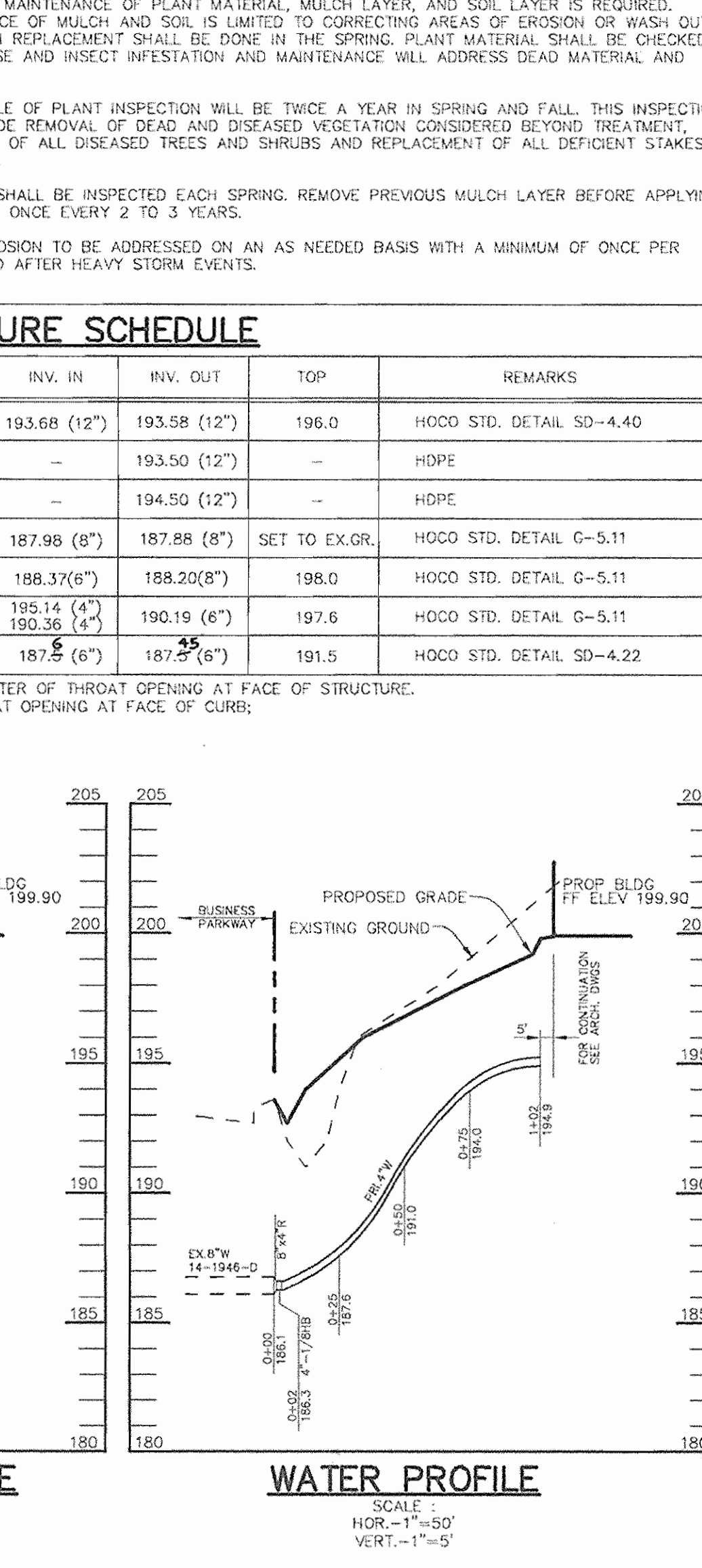
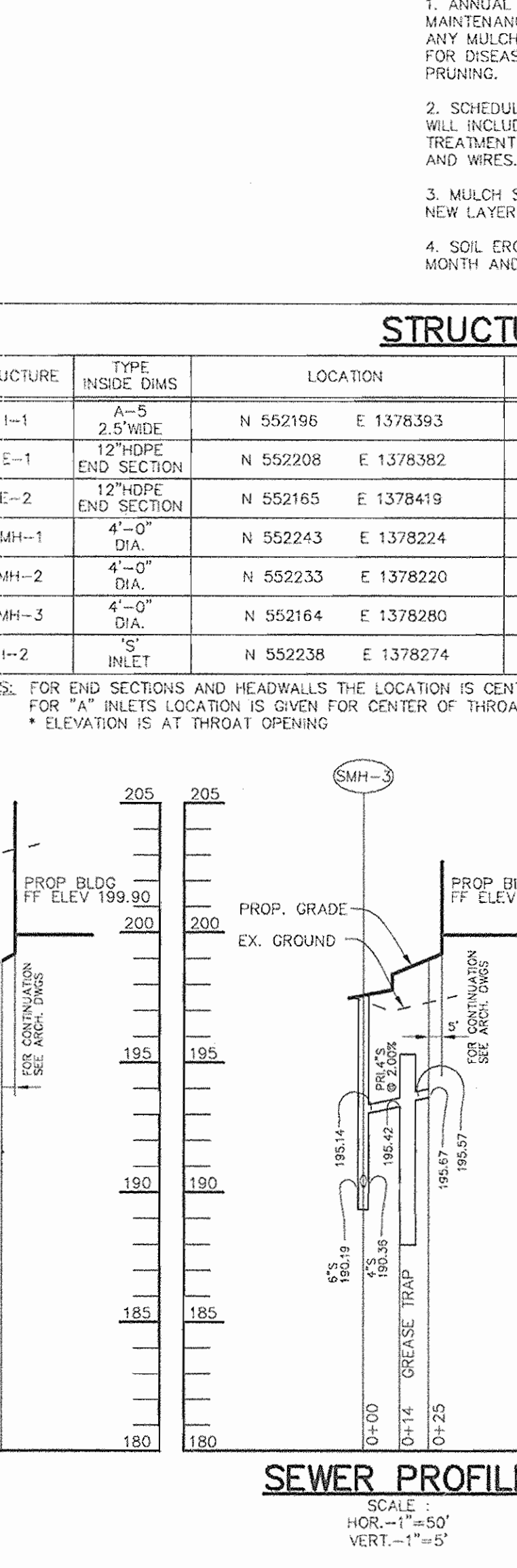
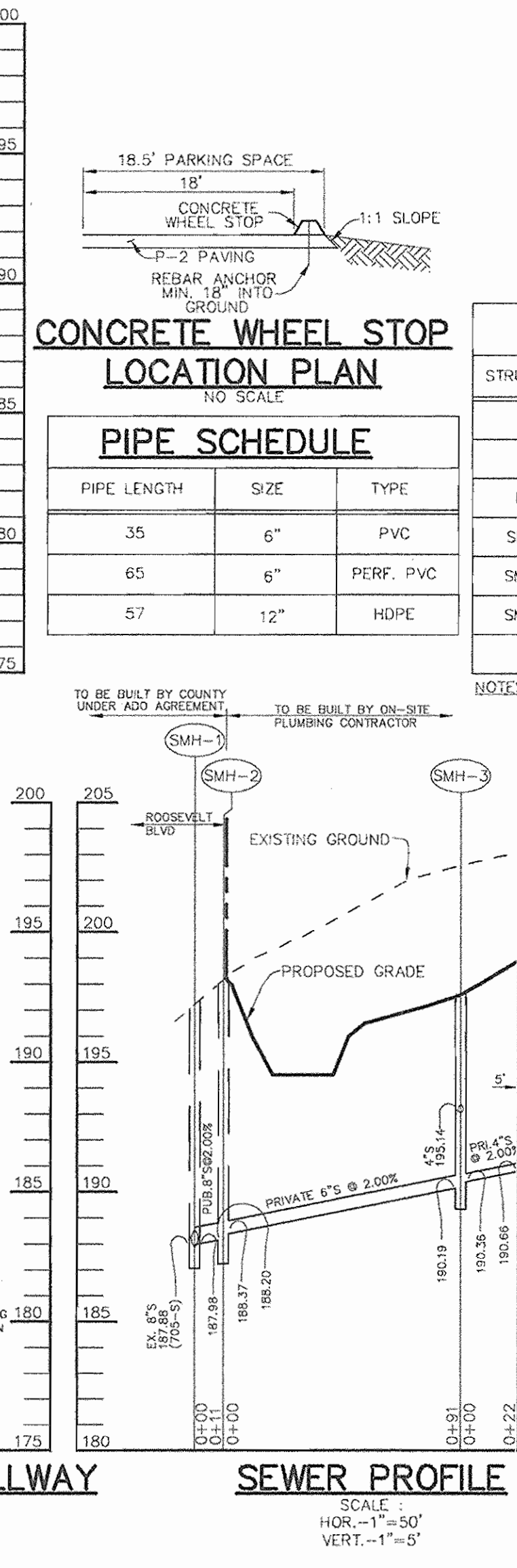
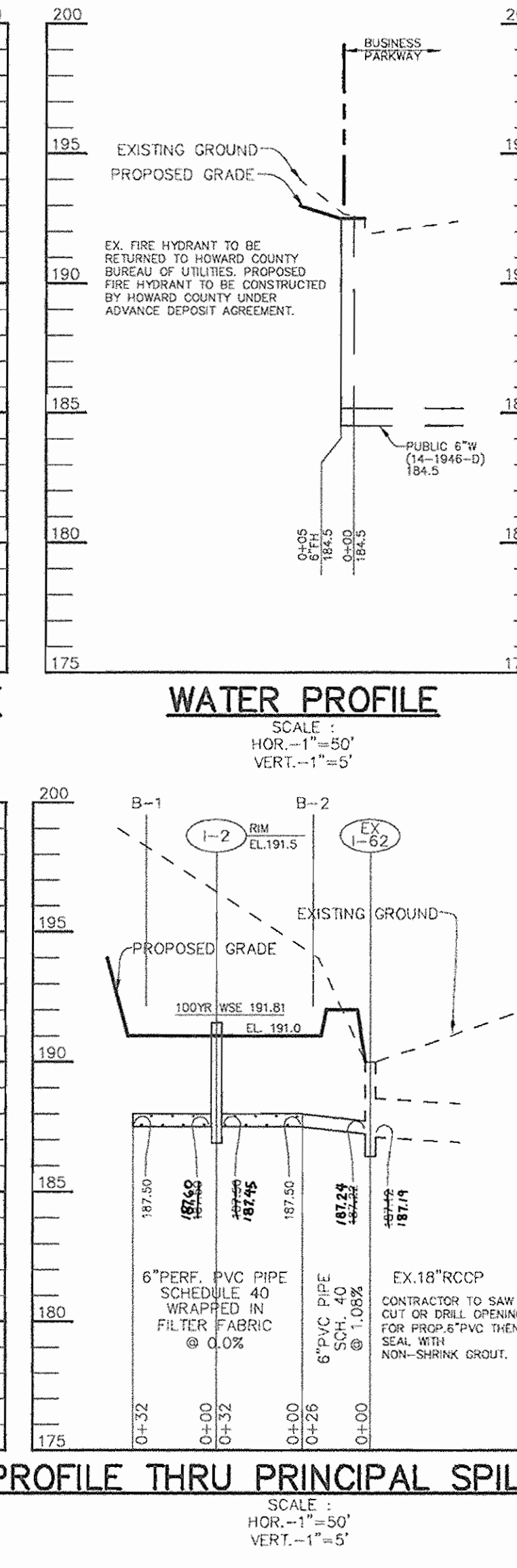
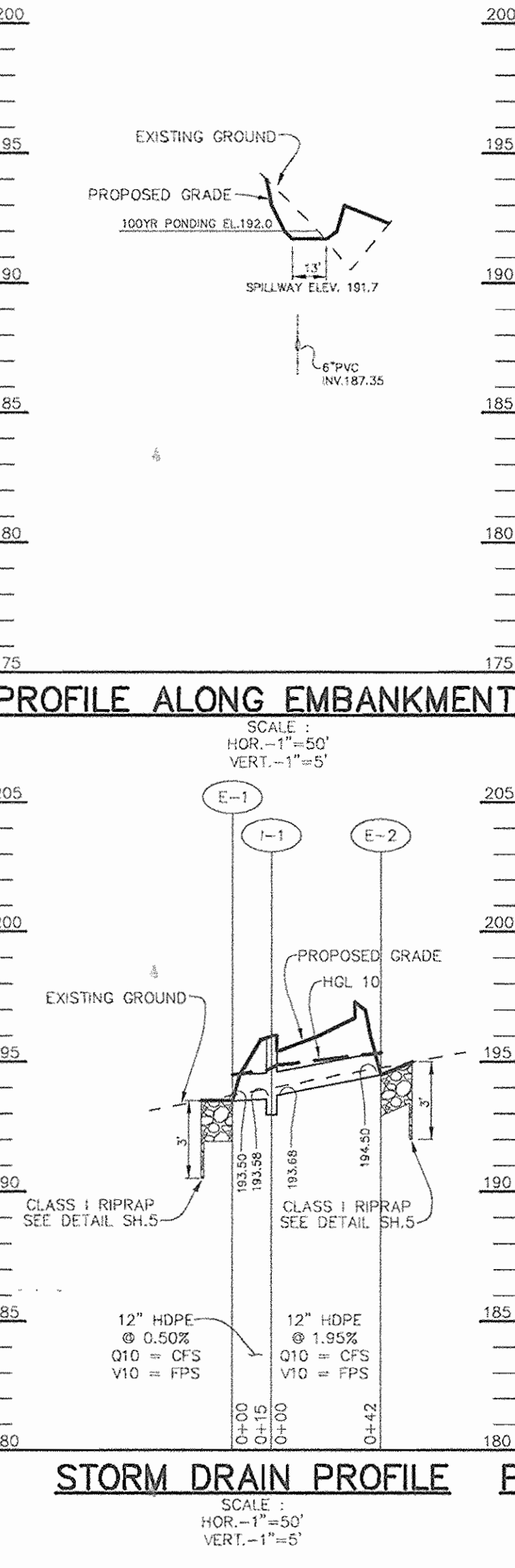
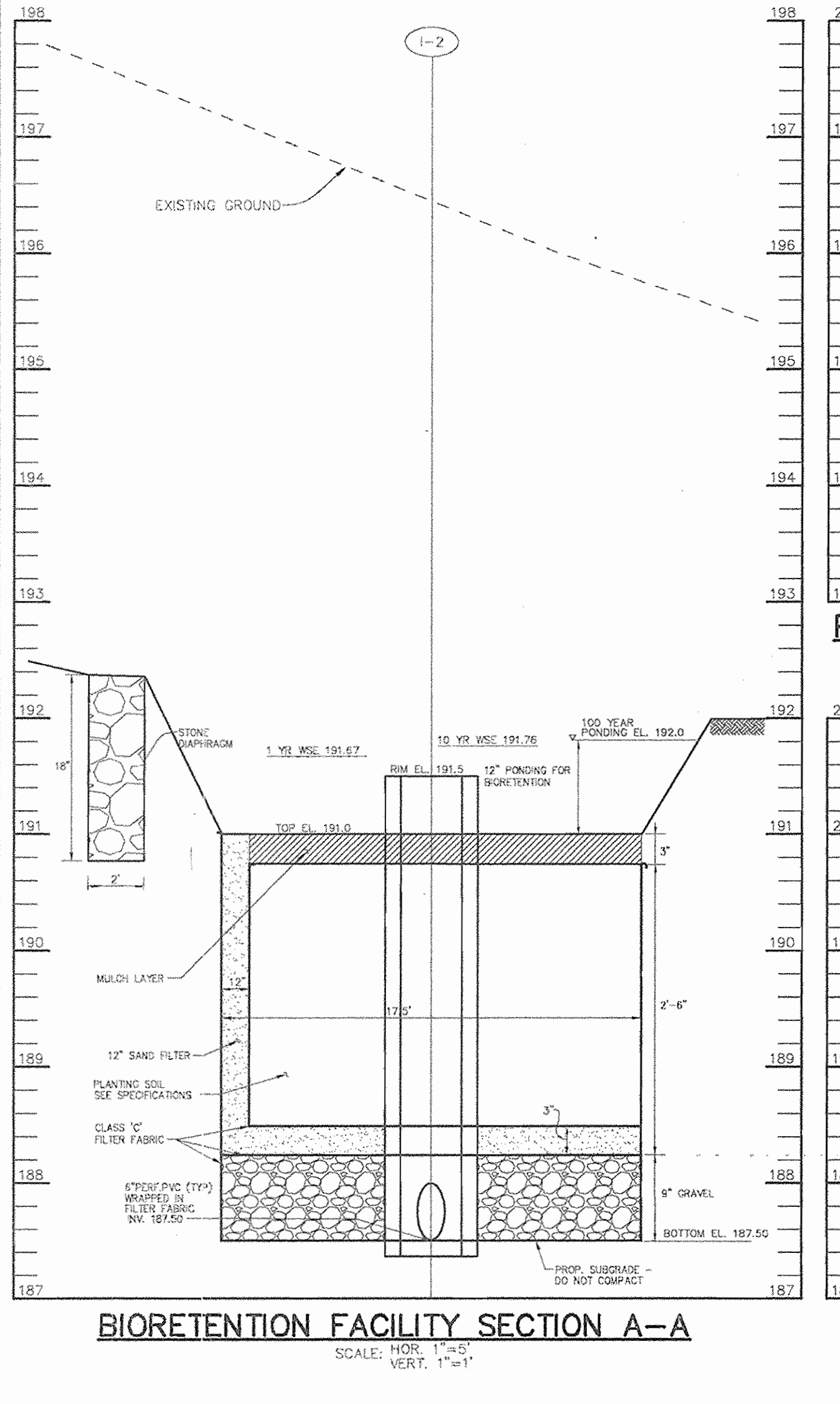
PIPE LENGTH	SIZE	TYPE
35	6"	PVC
65	6"	PERF. PVC
57	12"	HDPE

**STRUCTURE SCHEDULE**

STRUCTURE	TYPE	INSIDE DIMS	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-5	2.5' WIDE	N 552196 E 1378393	193.68 (12")	193.58 (12")	196.0	HOCO STD. DETAIL SD-4.40
E-1	12" HDPE	END SECTION	N 552208 E 1378382	-	193.50 (12")	-	HDPE
E-2	12" HDPE	END SECTION	N 552165 E 1378419	-	194.50 (12")	-	HDPE
SMH-1	4'-0" DIA.	N 552243 E 1378224	187.98 (8')	187.88 (8')	198.0	HOCO STD. DETAIL G-5.11	
SMH-2	4'-0" DIA.	N 552233 E 1378220	188.37 (6')	188.20 (8')	198.0	HOCO STD. DETAIL G-5.11	
SMH-3	4'-0" DIA.	N 552164 E 1378280	195.14 (4')	190.36 (4')	197.6	HOCO STD. DETAIL G-5.11	
I-2	5" INLET	N 552238 E 1378274	187.5 (6')	187.5 (6')	191.5	HOCO STD. DETAIL SD-4.22	

NOTES: FOR END SECTIONS AND HEADWALLS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.  
FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT OPENING AT FACE OF CURB.  
\* ELEVATION IS AT THROAT OPENING

- OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED BIORETENTION FACILITY**
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
  - SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
  - MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
  - SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

N/A

COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *Douglas Cafferty* 7/15/04 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John DeWitt* 6/20/04 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT: *Chris...* 7/13/04 DATE

DATE NO. REVISION

OWNER / DEVELOPER  
MEADOWRIDGE PARCEL Q, LLC  
P.O. BOX 417  
ELLCOTT CITY, MARYLAND 21041

PROJECT: MEADOWRIDGE BUSINESS PARK  
PARCEL Q  
A RESTAURANT BUILDING

AREA TAX MAP 43 PARCEL Q ZONED M-1  
1st ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: PROFILES AND DETAILS

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

DATE: 6.21.04

DESIGNED BY: C.J.R.

DRAWN BY: DAM

PROJECT NO.: 125131-0/ENGR  
PROFILE1.DWG

DATE: JUNE 21, 2004

SCALE: AS SHOWN

DRAWING NO.: 4 OF 7

SDP-04-73

### 30.0 - DUST CONTROL

**DEFINITION**  
CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

**PURPOSE**  
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

**CONDITIONS WHERE PRACTICE APPLIES**  
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

**SPECIFICATIONS**

**TEMPORARY METHODS**

- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRUMPED OR TACKED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN FLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12' APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
- BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED TREATMENT.

**PERMANENT METHODS**

- PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOIL. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
- TOPSOILING - COVERING WITH LESS ERODIBLE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

**REFERENCES**

- AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.
- AGRICULTURE INFORMATION BULLETIN 254. HOW TO CONTROL WIND EROSION. USDA-ARS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-30-1 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

**CONSTRUCTION SPECIFICATIONS**

- Length - minimum of 50' (\*30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- 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.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- 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 slope over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 30 - EROSION CONTROL MATTING

**CONSTRUCTION SPECIFICATIONS**

- Length - minimum of 50' (\*30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- 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.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- 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 slope over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE G-22-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 33 - SUPER SILT FENCE

**CONSTRUCTION SPECIFICATIONS**

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, braced and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and all buildings removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-28-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II

**CONSTRUCTION SPECIFICATIONS**

- Area under construction shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots and 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.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1" thick layer of 3/4" to 1 1/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 23A - STANDARD INLET PROTECTION

**CONSTRUCTION SPECIFICATIONS**

- Excavate completely around the inlet to a depth of 18" below the notch elevation.
- 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 adjacent roadways where flooding and safety issues may arise.
- 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.
- Stretch the Geotextile Class E tightly over the wire mesh with the geotextile 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.
- Backfill around the inlet in compacted 6" layers until the top of earth is level with the notch elevation on the ends and top elevation on the sides.
- 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.
- The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-5 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 22 - SILT FENCE

**CONSTRUCTION SPECIFICATIONS**

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

Tensile Strength 50 lbs/in (min.) Test: MSMT 509  
Tensile Modulus 20 lbs/in (min.) Test: MSMT 509  
Flow Rate 0.3 gal ft<sup>2</sup> / minute (max.) Test: MSMT 322  
Filtering Efficiency 75% (min.) Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 20A - REMOVABLE PUMPING STATION

**CONSTRUCTION SPECIFICATIONS**

- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated PVC pipe between 1/2" and 3/8" in diameter. The perforations shall be 1/2" x 1/2" with 6" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE D-12-4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 5 - RIP-RAP INFLOW PROTECTION

**CONSTRUCTION SPECIFICATIONS**

- Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3" (min.) bottom width. The channel shall be lined with 4" to 12" rip-rap to a depth of 18".
- Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
- Entrance and exit sections shall be installed as shown on the detail section.
- Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
- Gabion inflow Protection may be used in lieu of Rip-rap inflow Protection.
- Rip-rap should blend into existing ground.
- Rip-rap inflow Protection shall be used where the slope is between 4:1 and 10:1, or slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE B-6-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### BORING B-1 and BORING B-2

**BORING B-1**  
NO SCALE

**BORING B-2**  
NO SCALE

0' BROWN, MOIST, SOFT SILT, TRACE FINE SAND, TRACE ROOTS (ML)  
2' ORANGE-BROWN, MOIST, STIFF TO VERY STIFF SILT, CLAYEY SILT (ML-CL)  
8' TAN, MOIST, STIFF SILT, TRACE FINE SAND (ML)  
12' BOTTOM OF HOLE

0' BROWN, MOIST, MEDIUM STIFF SILT, LITTLE FINE SAND (ML)  
2' ORANGE-BROWN, MOIST, STIFF SILT, LITTLE TO TRACE FINE SAND, TRACE TO NO CLAY (ML)  
8' TAN, MOIST, STIFF SILT, TRACE FINE SAND (ML)  
12' BOTTOM OF HOLE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 23B - STANDARD INLET PROTECTION

**CONSTRUCTION SPECIFICATIONS**

- Excavate completely around the inlet to a depth of 18" below the notch elevation.
- 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 adjacent roadways where flooding and safety issues may arise.
- 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.
- Stretch the Geotextile Class E tightly over the wire mesh with the geotextile 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.
- Backfill around the inlet in compacted 6" layers until the top of earth is level with the notch elevation on the ends and top elevation on the sides.
- 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.
- The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-5 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 22 - SILT FENCE

**CONSTRUCTION SPECIFICATIONS**

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

Tensile Strength 50 lbs/in (min.) Test: MSMT 509  
Tensile Modulus 20 lbs/in (min.) Test: MSMT 509  
Flow Rate 0.3 gal ft<sup>2</sup> / minute (max.) Test: MSMT 322  
Filtering Efficiency 75% (min.) Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### DETAIL 20A - REMOVABLE PUMPING STATION

**CONSTRUCTION SPECIFICATIONS**

- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated PVC pipe between 1/2" and 3/8" in diameter. The perforations shall be 1/2" x 1/2" with 6" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE D-12-4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### RIPRAP OUTLET PROTECTION DETAIL

**CONSTRUCTION SPECIFICATIONS**

- THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
- "SE" GEOTEXTILE OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED SECTION. WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC, IT SHALL BE A MINIMUM OF ONE FOOT.
- STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE Voids BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
- THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

NOTE: Q<sub>10</sub>, V & DEPTH CALCULATED AT END OF RIPRAP OUTLET CHANNEL.

STRUCTURE	MEDIAN STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)	Q <sub>10</sub>	Vp	DEPTH
E-1	9.5" CL I	12'	6'	19"	-	-	-
E-2	9.5" CL I	12'	6'	19"	-	-	-

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE B-6-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### AS BUILT CERTIFICATION

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
DOMENICK W. COLANGELO #27200

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 6-21-04

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### MEADOWRIDGE BUSINESS PARK PARCEL Q A RESTAURANT BUILDING

AREA TAX MAP 43 PARCEL Q ZONED M-1  
1st ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

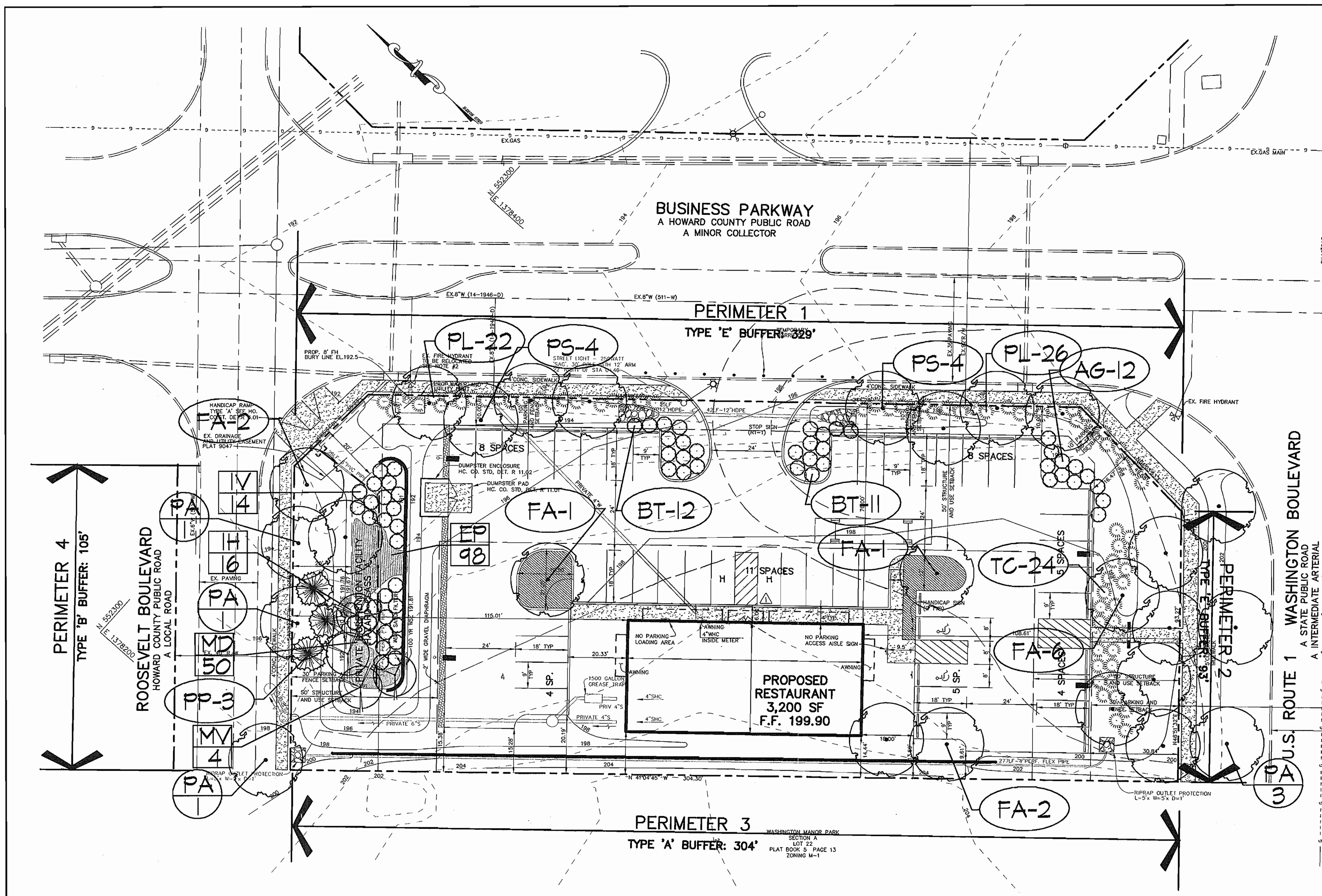
### SEDIMENT CONTROL NOTES AND DETAILS

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO. 125131-0/ENR  
"CAODDET.DWG"  
DATE: JUNE 21, 2004  
SCALE: AS SHOWN  
DRAWING NO. 5 OF 7

DATE: 6-21-04

CHISTOPHER J. REID #19949  
SDP-04-73



**LEGEND**

EX. TREE LINE	[Symbol]
PROP. TREE LINE	[Symbol]
PROPERTY LINE	[Symbol]
CONTOUR LINES	[Symbol]
EX. BUILDING	[Symbol]
PROP. SHADE TREE	[Symbol]
PROP. EVERGREEN TREE	[Symbol]
PROP. ORNAMENTAL TREE	[Symbol]
PROP. SHRUBS	[Symbol]
PERIMETER LANDSCAPE REQUIREMENT	[Symbol]
BIORETENTION PLANTING	[Symbol]
STREET TREE LANDSCAPE REQUIREMENT	[Symbol]
PERIMETER LANDSCAPE ELEV. LIMITS	[Symbol]
CREATED LANDSCAPE	[Symbol]

- PLANTING SPECIFICATIONS**
- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between standards & guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
  - All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or other damage will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specific requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no heeled-in plants or plants from cold storage will be accepted.
  - Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specifications Guidelines" by the Landscape Contractors Association of MD, DC, & VA, (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
  - Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specific conditions and replacement of specified plant material.
  - Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utility lines. Changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the contractor.
  - Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4-foot high arm fence at the drip line, see detail.
  - Contractor is responsible for installing all material in the proper planting season for each plant type. All plants shall be planted within growing season of completion of site construction. Do not plant Pinus strobus or Xympasacyparis (Loblolly) between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
  - Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
  - Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
  - Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
  - All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
  - Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
  - Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 1/2 inch of standard 3-10-5 fertilizer per cubic yard of planting mix and till. Biaceous plants (Azaleas, Rhododendrons, etc.), top dress after planting with iron sulfate or comparable product according to package directions. Toxic baccata 'Repandens' (English weeping yew), top dress after planting with 1/4 to 1/2 cup lime each.
  - Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
  - Need insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure carefully check the chemical used to ensure its adaptability to the specific groundcover to be treated. Maintain the mulch free for the extent of the warranty period. Under no circumstances is a pesticide containing diazinon to be used as a means of pest control.
  - Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unrooted plant material daily and as necessary to avoid desiccation.
  - Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
  - All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

**AS BUILT CERTIFICATION**

STATE OF MARYLAND  
DOMINICK W. COLANGELO #27200  
DATE 11/10/04

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
N/A  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
7/15/04  
DATE  
7/15/04  
DATE

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT  
7/15/04  
DATE

- GENERAL NOTES**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
  - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$3,000.  
10 SHADE TREES @ \$200 = \$2,000  
0 ORNAMENTAL TREES @ \$150 = \$0  
10 EVERGREEN TREES @ \$150 = \$1,500  
107 SHRUBS @ \$30 = \$3,210
  - THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
  - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
  - ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK" LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
  - ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
  - AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
  - NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF THE LANDSCAPE SURETY.

**SCHEDULE A - PERIMETER LANDSCAPE EDGE**

PERIMETER	ADJACENT TO PERIMETER PROPERTIES				ADJACENT TO ROADWAYS			
	1	2	3	4	1	2	3	4
LANDSCAPE TYPE	A	E	E	B	A	E	E	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±304'	±324'	±193'	±105'				
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO				
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	NO				
LINEAR FEET REMAINING	±304'	±324'	±193'	±105'				
NUMBER OF PLANTS REQUIRED								
SHADE TREES	0	0	0	0				
EVERGREEN TREES	0	0	0	0				
SHRUBS	0	0	0	0				
NUMBER OF PLANTS PROVIDED								
SHADE TREES	0	0	0	0				
EVERGREEN TREES	0	0	0	0				
SHRUBS	0	0	0	0				

**SCHEDULE 'A' NOTES**

- REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERINGS, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO. CO. LANDSCAPE MANUAL)
- EXPANSION TO EXISTING DEVELOPMENT OF LESS THAN 50% SHALL BE REQUIRED TO PROVIDE LANDSCAPING FOR THE ADDITIONAL DEVELOPMENT ONLY. (PAGE 3 OF THE HO. CO. LANDSCAPE MANUAL)

**PARKING LOT AND PERIMETER PLANT LIST**

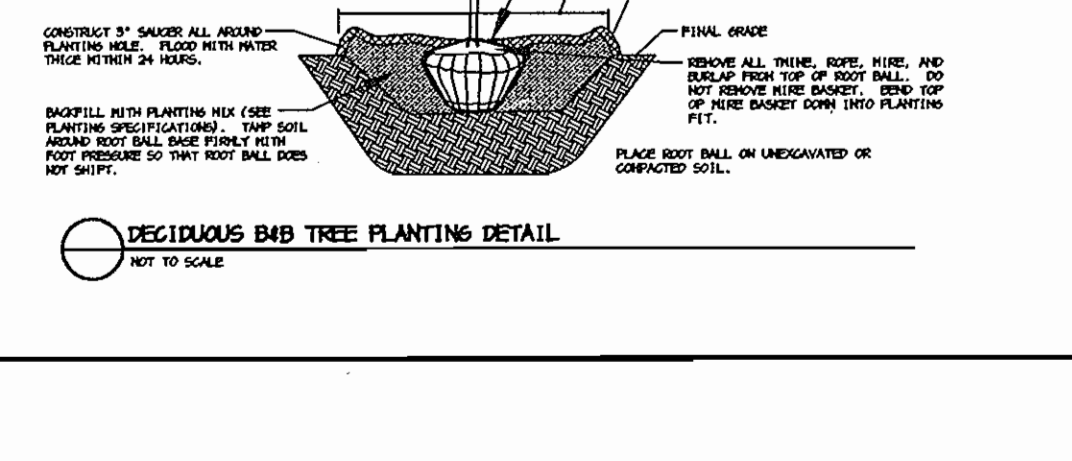
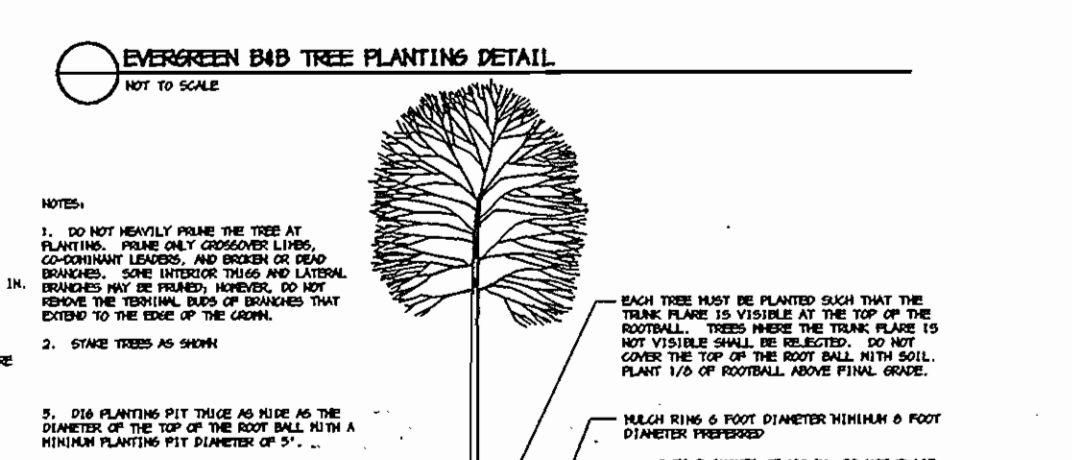
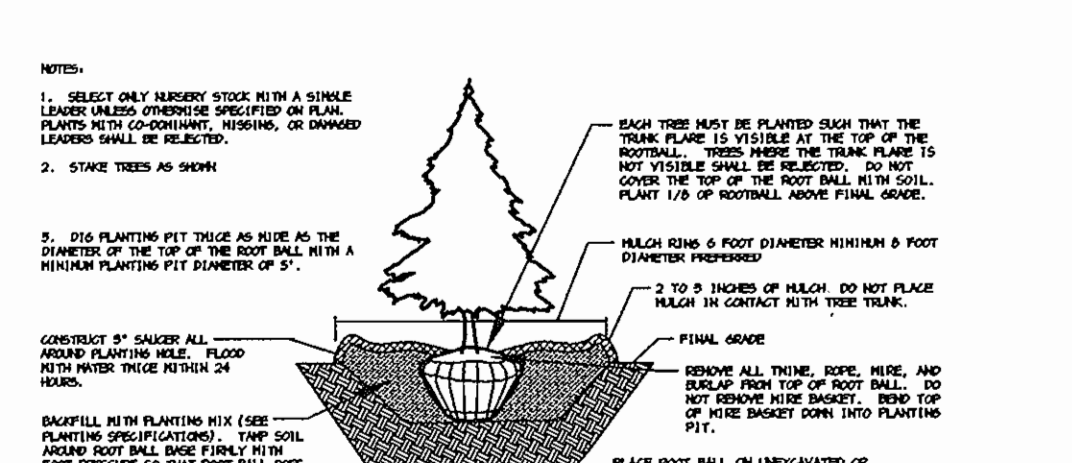
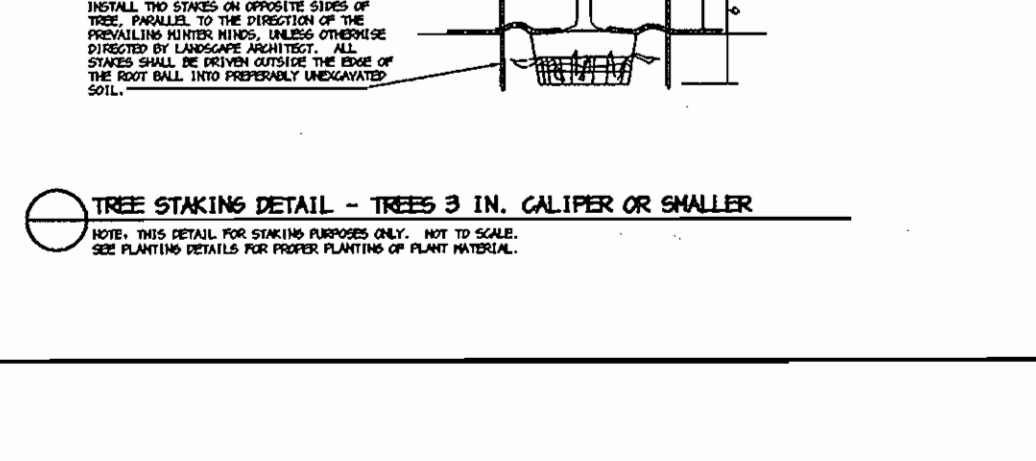
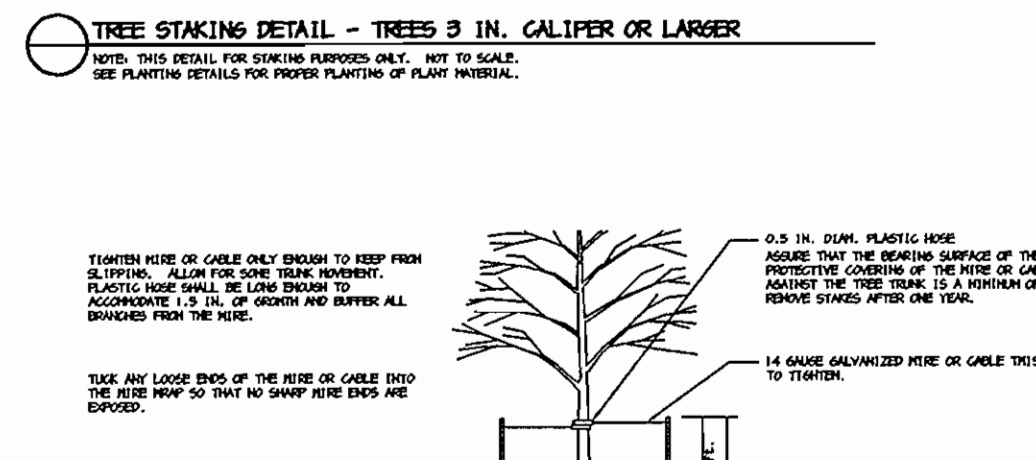
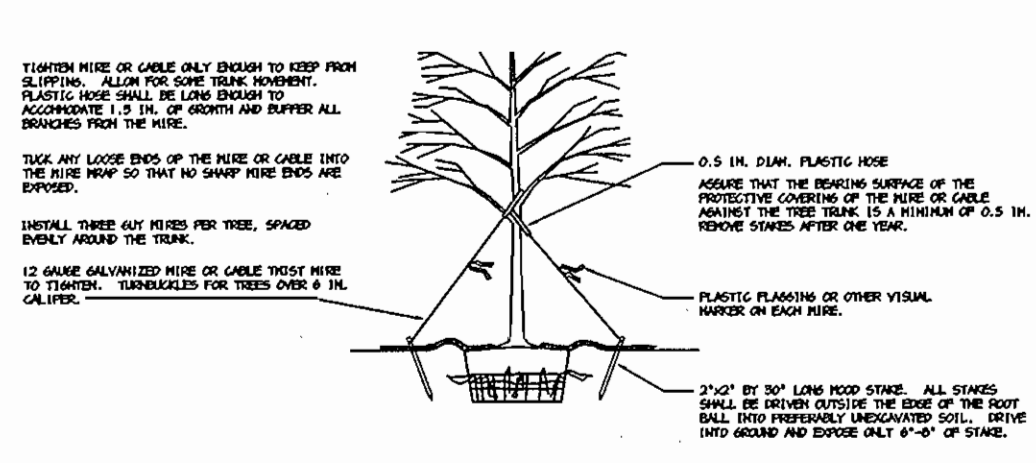
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
FA	12	Fraxinus americana 'Autumn Purple'	2.5'-3' cal.	B4B	Plant as shown
PS	8	Autumn Purple White Ash	2.5'-3' cal.	B4B	Plant as shown
PP	3	Prunus serotina 'Sargent Cherry'	6'-8' ht.	B4B	Plant as shown
A6	12	Abelia grandiflora 'Glossy Abelia'	6'-8' ht.	B4B	Plant as shown
BT	29	Berberis thunbergii 'atropurpurea 'Grinon Pigmy''	6'-8' ht.	B4B	Plant as shown
FL	48	Prunus laurocerasus 'Obo Luiken'	6'-8' ht.	B4B	Plant as shown
TC	24	Tokus subcordata 'Nana'	6'-8' ht.	B4B	Plant as shown

**BIORETENTION PLANT LIST**

KEY	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING	ZONE*
HV	4	MAGNOLIA VIRGINIANA 'SNOW MAGNOLIA'	6'-8' HT.	B4B	PLANT AS SHOWN	***
IV	14	ILEX VERTICILLATA 'RED SPIRIT'	2.5'-3' HT.	B4B	PLANT AS SHOWN	1,(2,3)
IH	10	ITEA VIRGINICA 'HERBY'S GARNET'	2.5'-3' HT.	B4B	PLANT AS SHOWN	***
EP	48	EUPATORIUM PURPUREA 'MIDWEST BEA'	1 GAL.	CORT.	PLANT 24" O.C.	**
ND	50	NONAURA DIFFORMIS 'DEE BALM'	1 GAL.	CORT.	PLANT 24" O.C.	---

**STREET TREE PLANT LIST**

KEY	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
PA	6	PLATANUS XACERIFOLIA 'LONDON PLANE TREE'	2.5'-3' CAL.	B4B	PLANT AS SHOWN



**DEVELOPER'S/BUILDER'S CERTIFICATION**

I/WE 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 LANDSCAPE MANUAL. 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.

DATE 6/21/04

**SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING**

PARKING LOT	NUMBER OF PARKING SPACES	NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	NUMBER OF TREES PROVIDED	OTHER TREES (2:1 SUBSTITUTION)	NUMBER OF ISLANDS PROVIDED
	49	2	2	2	3

3-17-09 REVISED HANDICAP PARKING

DATE NO. REVISION

OWNER / DEVELOPER  
MEADOWRIDGE PARCEL Q, LLC  
P.O. BOX 417  
ELICOTT CITY, MARYLAND 21041

PROJECT MEADOWRIDGE BUSINESS PARK  
PARCEL Q  
A RESTAURANT BUILDING

AREA TAX MAP 43 PARCEL Q ZONED M-1  
1st ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**LANDSCAPE PLAN**

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.  
8318 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

6-21-04 DATE

DESIGNED BY: K.L.M.

DRAWN BY: K.L.M.

PROJECT NO 125131-01-ENGR  
L200LND.DWG

DATE: JUNE 21, 2004

SCALE: 1" = 20'

DRAWING NO. 6 OF 7

SCOTT R. WOLFORD #797

