

# MONTGOMERY STATION RETAIL/OFFICE BUILDINGS A & B PARCEL A SITE DEVELOPMENT PLAN

### GENERAL NOTES

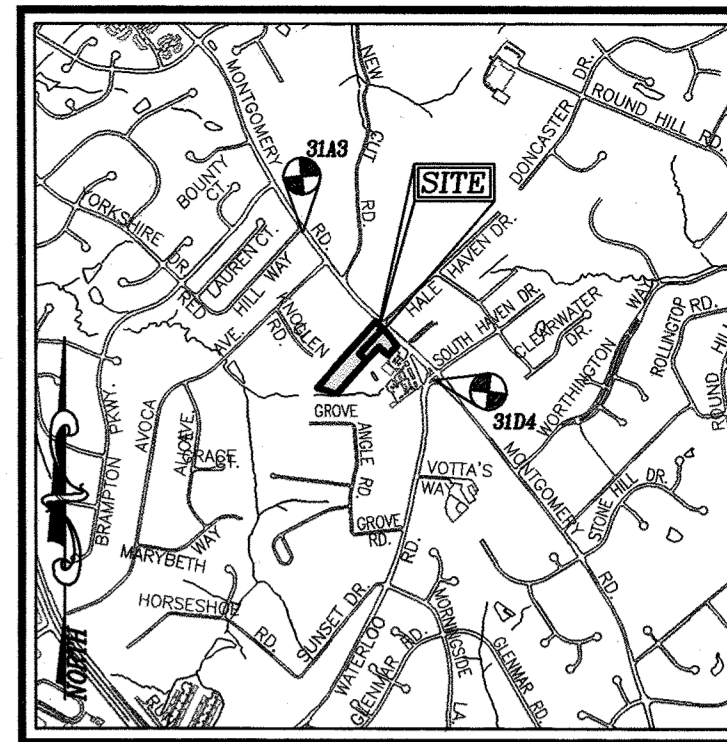
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:  
MISS UTILITY  
VERIZON TELEPHONE COMPANY: 1-800-257-7777  
HOWARD COUNTY BUREAU OF UTILITIES: 1-410-954-6281  
AT&T CABLE LOCATION DIVISION: 1-410-954-6281  
B.G. & C. CONTRACTOR SERVICES: 313-2386  
B.G. & C. UNDERGROUND DAMAGE CONTROL: 953-2553  
STATE HIGHWAY ADMINISTRATION: 850-4620  
787-4620  
531-5533
- SITE ANALYSIS:  
AREA OF PARCEL 17: 0.829 AC.  
AREA OF PARCEL 831: 0.458 AC.  
TOTAL PROJECT AREA: 1.287 AC.  
PRESENT ZONING: B-1  
USE OF STRUCTURE:  
BUILDING A - SHOPPING CENTER  
BUILDING B - ONE STORY OFFICE BUILDING (LOWER LEVEL ELECTRICAL ROOM)  
BUILDING A COVERAGE: 7,800 SF (0.179 AC. OR 13.31% OF GROSS AREA)  
BUILDING B COVERAGE: 3,500 SF (0.080 AC. OR 6.22% OF GROSS AREA)  
TOTAL BUILDING COVERAGE: 11,300 SF (0.259 AC. OR 20.12% OF GROSS AREA)  
PAVED PARKING LOT/AREA ON SITE: 0.54 AC. OR 41.96% OF GROSS AREA  
AREA OF LANDSCAPE ISLAND: 0.02 AC. OR 1.55% OF GROSS AREA  
LIMIT OF DISTURBED AREA: 1.43 AC.  
CLT: 2590 CY FILL: 2590 CY
- PROJECT BACKGROUND:  
LOCATION: ELLICOTT CITY, MD; TAX MAP 31, BLOCK 7, PARCEL 17 & 831  
ZONING: B-1  
SUBDIVISION: N/A  
SECTION/AREA: N/A  
SITE AREA: 1.287 AC.  
DPZ REFERENCES: BA-04-045V; PLAT NO. 07-11
- 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 START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
- THE EXISTING TOPOGRAPHY HEREON IS BASED ON A FIELD TOPOGRAPHICAL SURVEY PERFORMED BY JOHN C. MELLEMA, SR. INC.; DATED DECEMBER 2001, AND ON A FIELD TOPOGRAPHICAL SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC.; DATED MAY 2005 AND AUGUST 2005.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC.; DATED JULY 2005.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION. ALL PAVING TO BE MINIMUM HOWARD COUNTY STANDARD DETAIL P-2 UNLESS OTHERWISE NOTED. (SEE DETAIL SHEET 3)
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL 3.01 UNLESS OTHERWISE NOTED. (SEE DETAIL SHEET 3)
- CONTRACTOR RESPONSIBLE TO CONSTRUCT ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- WHERE DRAINAGE FLOWS AWAY FROM CURBS, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- PUBLIC WATER AVAILABLE THROUGH CONTRACT 14-3342-D.
- PUBLIC SEWER AVAILABLE THROUGH CONTRACT 181-S. THIS PROPERTY IS LOCATED IN THE PATAPSCO DRAINAGE AREA. STORMWATER MANAGEMENT QUANTITY TO BE PROVIDED IN AN UNDERGROUND DETENTION FACILITY WHICH PROVIDES Q<sub>90</sub> STORMWATER MANAGEMENT QUALITY IS PROVIDED BY THE 2-PROPOSED UNDERGROUND SAND/FILTER SYSTEMS, WHICH ALSO PROVIDES THE REV. THE PROPOSED STORMWATER FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED BY TKS, INC.
- ALL EXTERIOR LIGHTING TO CONFORM TO SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAIL ON SHEET 7)
- GEOTECHNICAL REPORT PREPARED BY ENGINEERING CONSULTING SERVICES, L.L.C., DATED JULY 15, 2005.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPERS AGREEMENT UNDER THIS SITE DEVELOPMENT PLAN IN THE AMOUNT OF \$16,020.00 FOR THE REQUIRED 29 SHADE TREES, 39 EVERGREEN TREES AND 40 SHRUBS.
- TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP DATED APRIL 14, 2005.
- ALL STORMWATER PIPE BEDDING IS TO BE CLASS "C".
- BUILDING TO HAVE INSIDE WATER METER SETTING.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- ALL ROOF LEADERS TO DRAIN INTO STORM DRAIN SYSTEM.
- THE SUBJECT PROPERTY IS ZONED B-1 PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN.
- THE FOREST CONSERVATION AFForestation OBLIGATION OF 0.21 ACRES FOR THIS PLAN HAS BEEN FULFILLED THROUGH A FEE-IN-LIEU PAYMENT OF \$4,574.00 (\$147.6 SF x 0.50) TO THE HO. CO. FOREST CONSERVATION FUND UNDER THIS SITE DEVELOPMENT PLAN.
- THIS PLAN IS SUBJECT TO BA-04-45V, A VARIANCE PETITION, APPROVED JUNE 27, 2005, WHICH REDUCED THE REQUIRED 30' STRUCTURE AND USE SETBACK FROM A RESIDENTIAL DISTRICT (1) TO 9 FEET FOR AN ACCESS DRIVE, (2) TO 14 FEET FOR A RETAIL/OFFICE BUILDING, (3) TO 12 FEET FOR PARKING AND A DUMPSTER ENCLOSURE, AND (4) TO 13 FEET FOR AN OFFICE BUILDING, IN A B-1 (BUSINESS LOCAL ZONING DISTRICT). APPROVAL SUBJECT TO THE FOLLOWING CONDITIONS:  
1. THE PETITIONER WILL INSTALL AND MAINTAIN A TYPE "C" LANDSCAPE BUFFER ALONG THE WESTERN LOT LINE ADJOINING PARCEL 294.
- THE EXISTING HOUSE AND ALL STRUCTURES WITHIN PARCELS 17 & 831 SHALL BE REMOVED, IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS, PRIOR TO CONSTRUCTION.
- THERE ARE NO FLOODPLAINS LOCATED ON PARCELS 17 & 831
- WETLAND STUDY FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED JULY 29, 2005.

### LEGEND

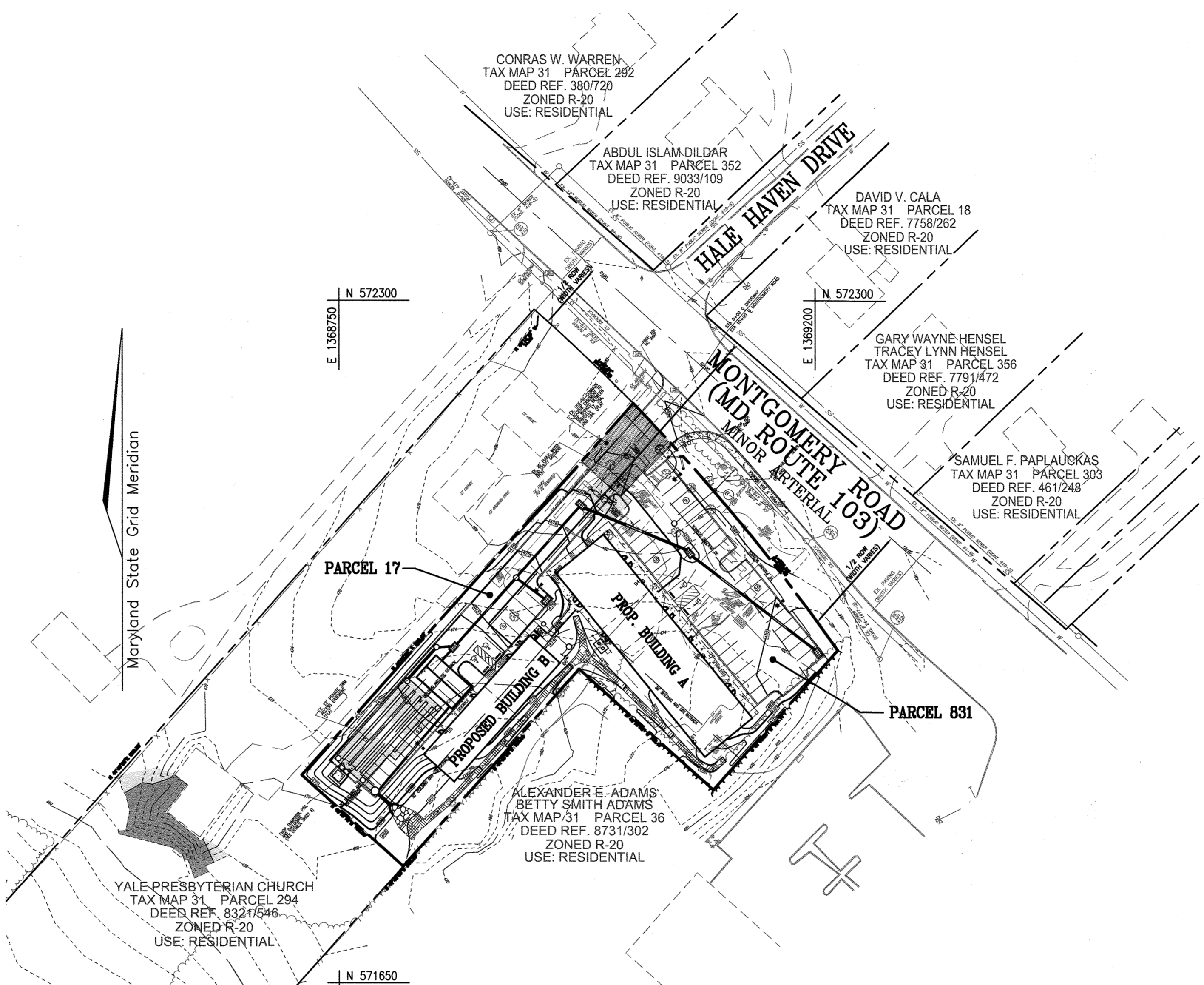
- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Light Poles
- Soil Type
- Concrete

### BENCHMARKS

- HOWARD COUNTY BENCHMARK 31A3 (CONCRETE MONUMENT)  
N 573217.877 E 1368237.622 ELEV. 487.641
- HOWARD COUNTY BENCHMARK 31D4 (CONCRETE MONUMENT)  
N 571700.65 E 1369608.36 ELEV. 495.219

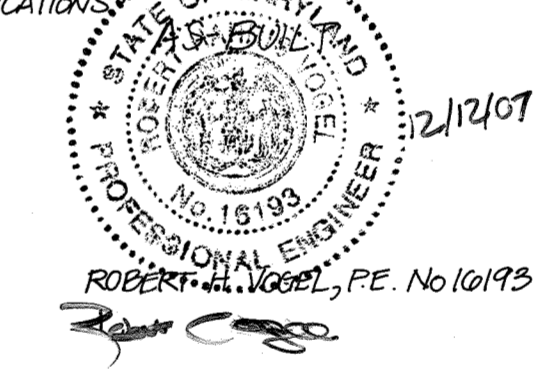


VICINITY MAP  
SCALE: 1"=2000'



SHEET INDEX	
DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 7
SITE LAYOUT PLAN, DEMOLITION PLAN, AND SITE DETAILS	2 OF 7
SITE GRADING, SEDIMENT AND EROSION CONTROL PLAN	3 OF 7
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS	4 OF 7
STORM DRAIN DRAINAGE AREA MAP, WATER AND SEWER PROFILES	5 OF 7
STORMWATER MANAGEMENT NOTES AND DETAILS, STORM DRAIN PROFILES	6 OF 7
SITE LANDSCAPE AND FOREST CONSERVATION PLAN	7 OF 7

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS OF MARYLAND.



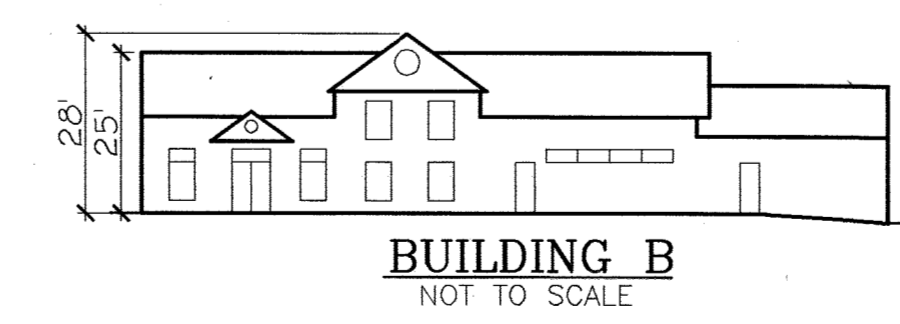
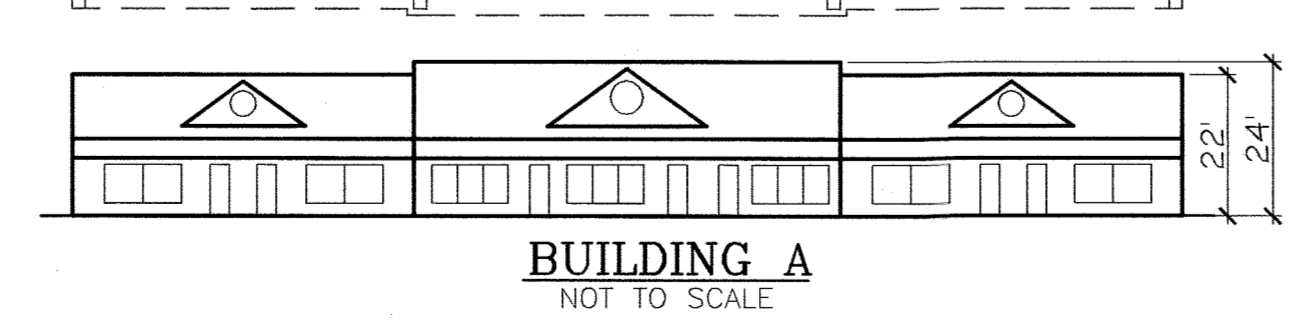
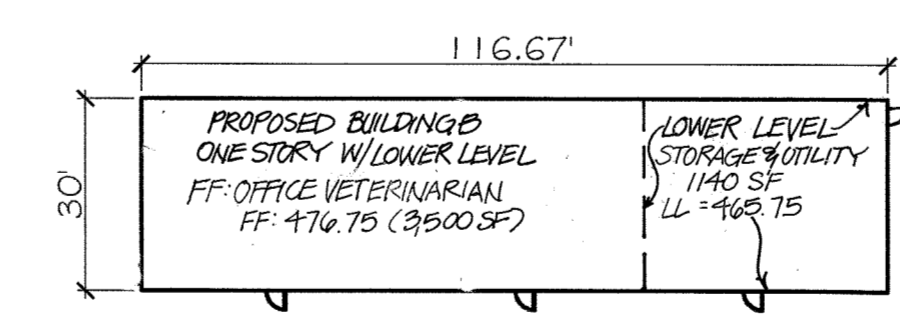
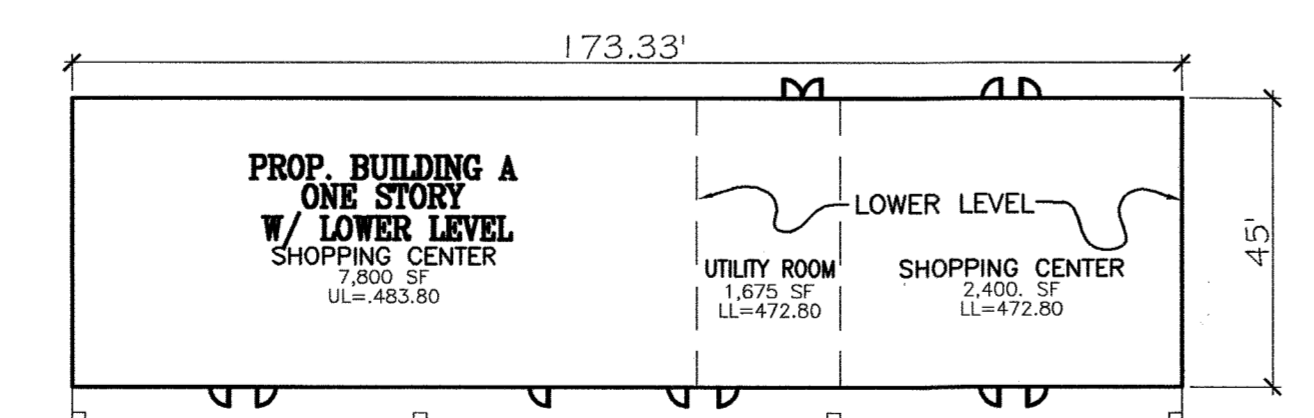
LOCATION MAP  
SCALE: 1"=60'

### PARKING TABULATION

	REQUIRED
BUILDING A: 10,200 SF	51 SPACES
SHOPPING CENTER: 10,200 SF @ 5 SPACE/1000 SF	51 SPACES
BUILDING B: 3,500 SF	12 SPACES
OFFICE: 3,500 SF @ 3.3 SPACE/1000 SF (VETERINARIAN)	12 SPACES
UTILITY: 1,500 SF - NOT REQUIRED	NOT REQUIRED
TOTAL SPACES REQUIRED:	63 SPACES
TOTAL SPACES PROVIDED:	57 SPACES (INCLUDING 3 HANDICAP)

### SHARED PARKING TABULATION

BUILDING USE	WEEKDAY				WEEKEND	
	MORNING	MID-DAY	AFTERNOON	EVENING	DAY	EVENING
OFFICE	20	24	24	3	3	2
RETAIL	10.2	31	31	46	51	36
TOTAL	31	55	55	49	54	38



### OWNER/PETITIONER

TKS, L.L.C.  
C/O KELLY SNOVELL  
1352 CROWS FOOT ROAD  
MARRIOTTSVILLE, MD 21104  
410-442-0275

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
17	4866 MONTGOMERY ROAD - BLDG 'B'
17	4872 MONTGOMERY ROAD - BLDG 'A'

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER		
N/A	N/A	17 & 831		

DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
8107/274	8123/892	7	B-1	31	2nd
18619					6027.00

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/26/06  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/2/06  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 10/10/06  
DIRECTOR DATE

**SITE DEVELOPMENT PLAN**

**COVER SHEET**

**MONTGOMERY STATION, PARCEL A**  
RETAIL/OFFICE BUILDINGS A & B  
PARCEL A

TAX MAP 31 BLOCK 7 2ND ELECTION DISTRICT PARCEL 17 & 831 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHV  
DRAWN BY: DZ  
CHECKED BY: RHV  
DATE: SEPT. 12, 2006  
SCALE: AS SHOWN  
W.O. NO.: 04-36

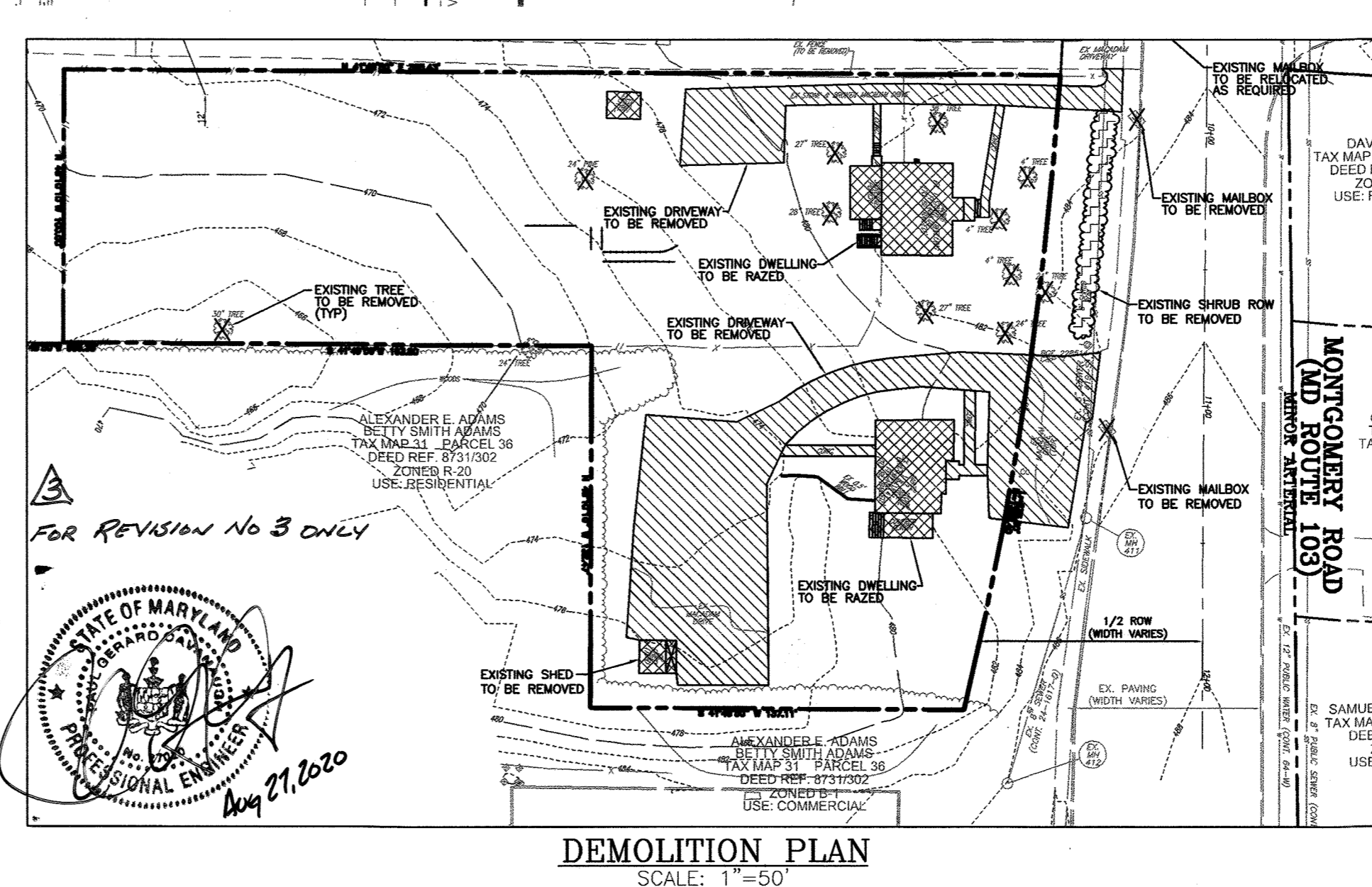
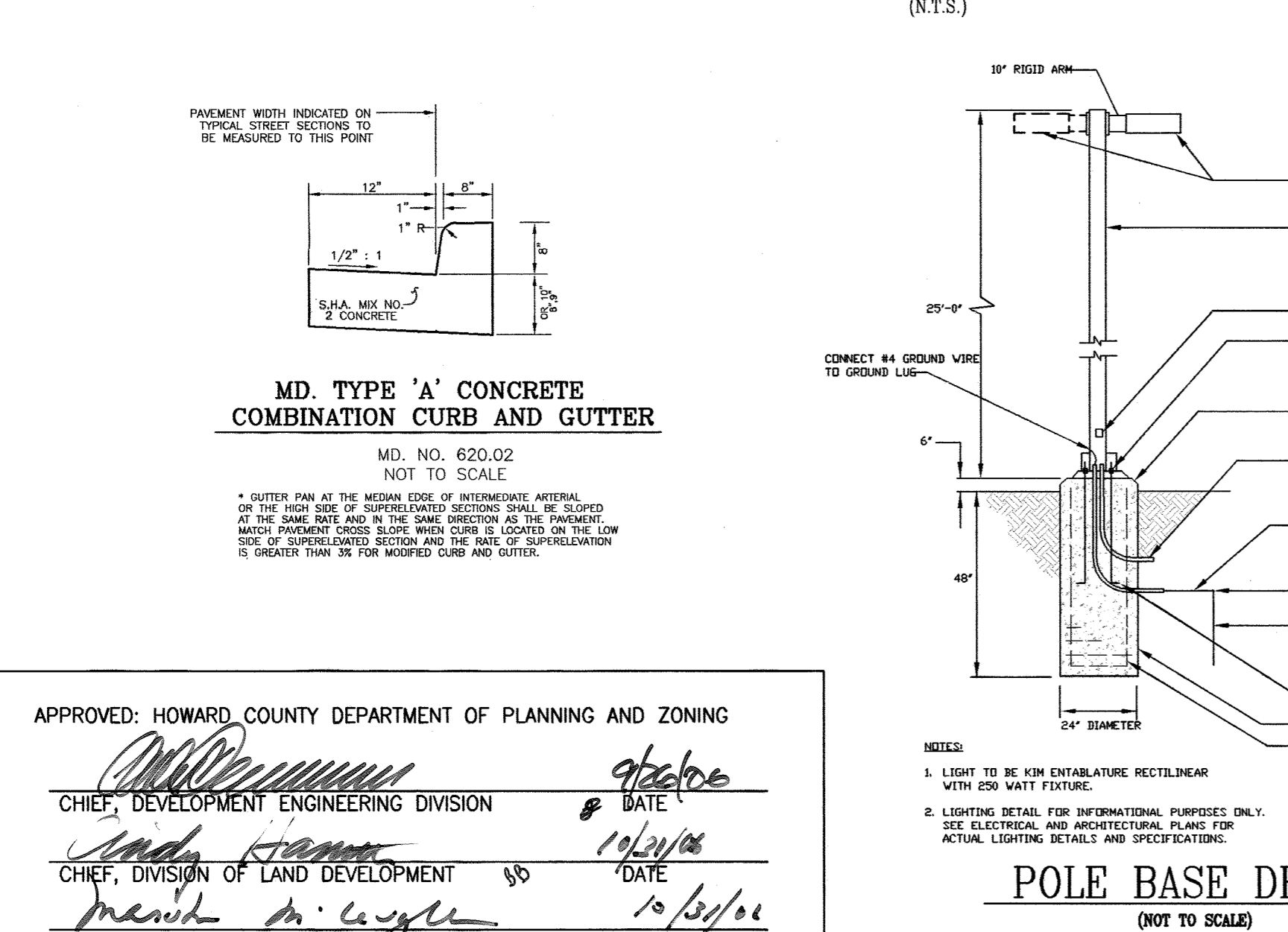
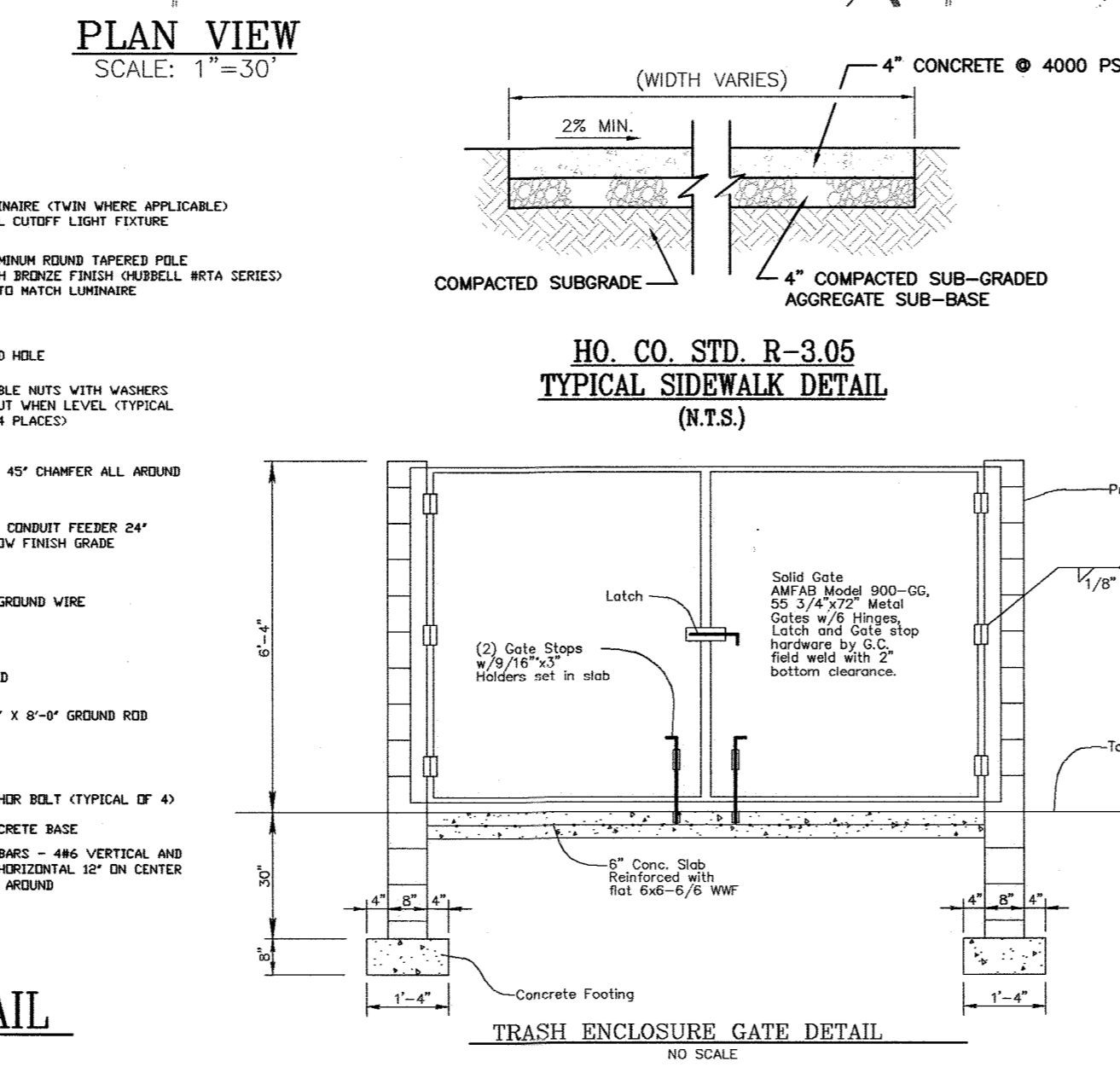
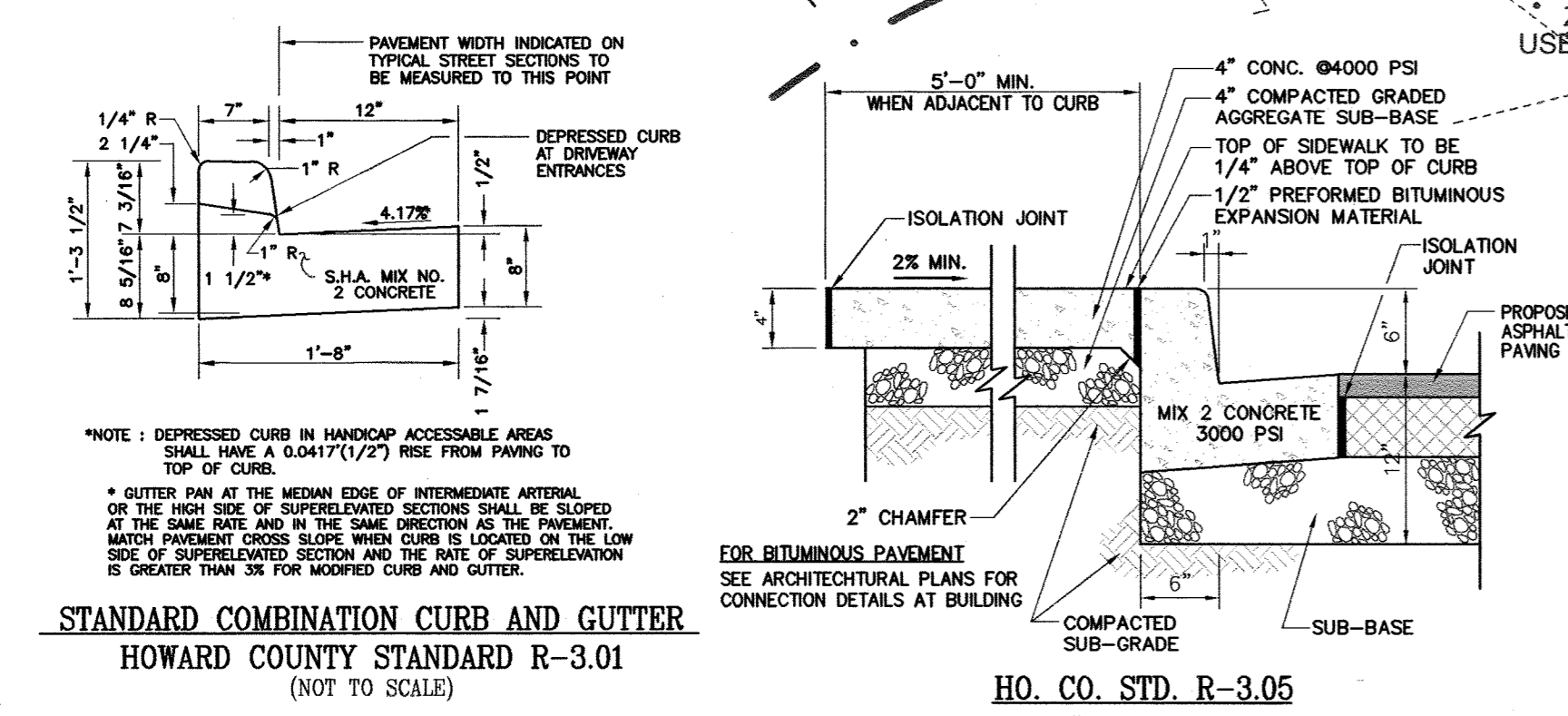
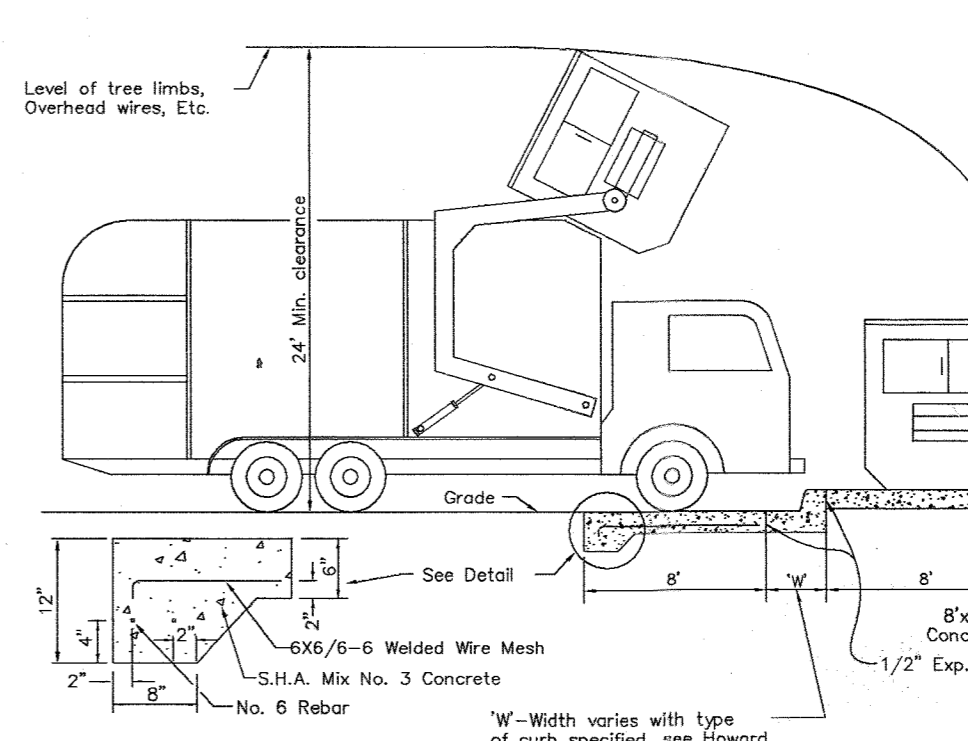
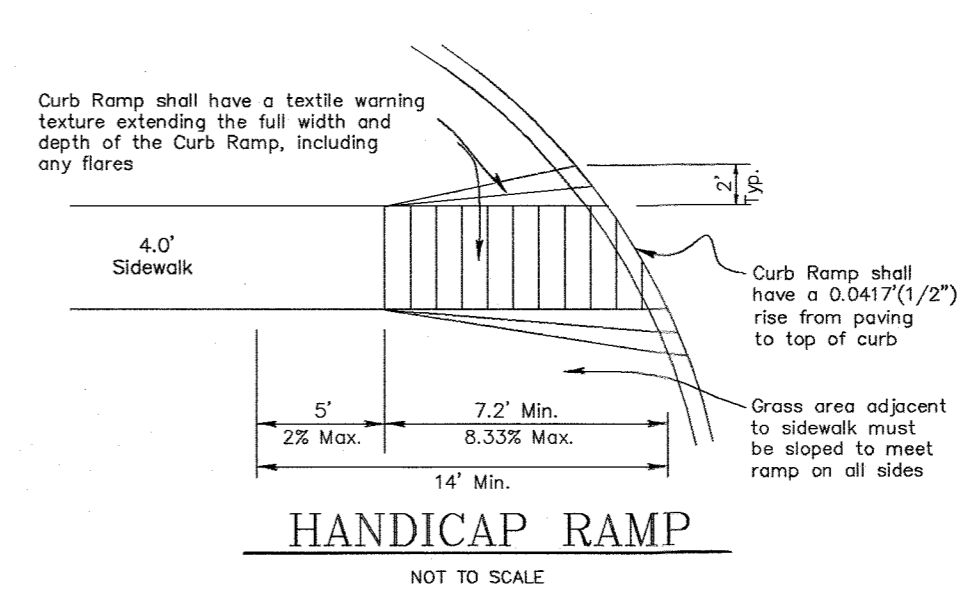
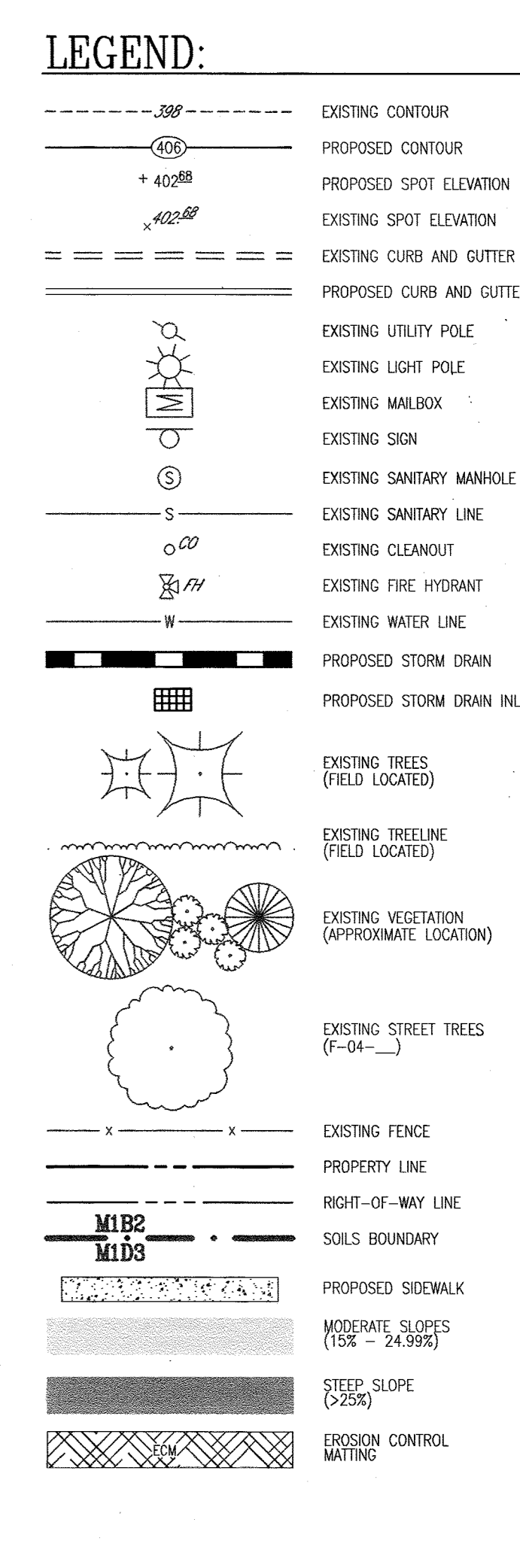
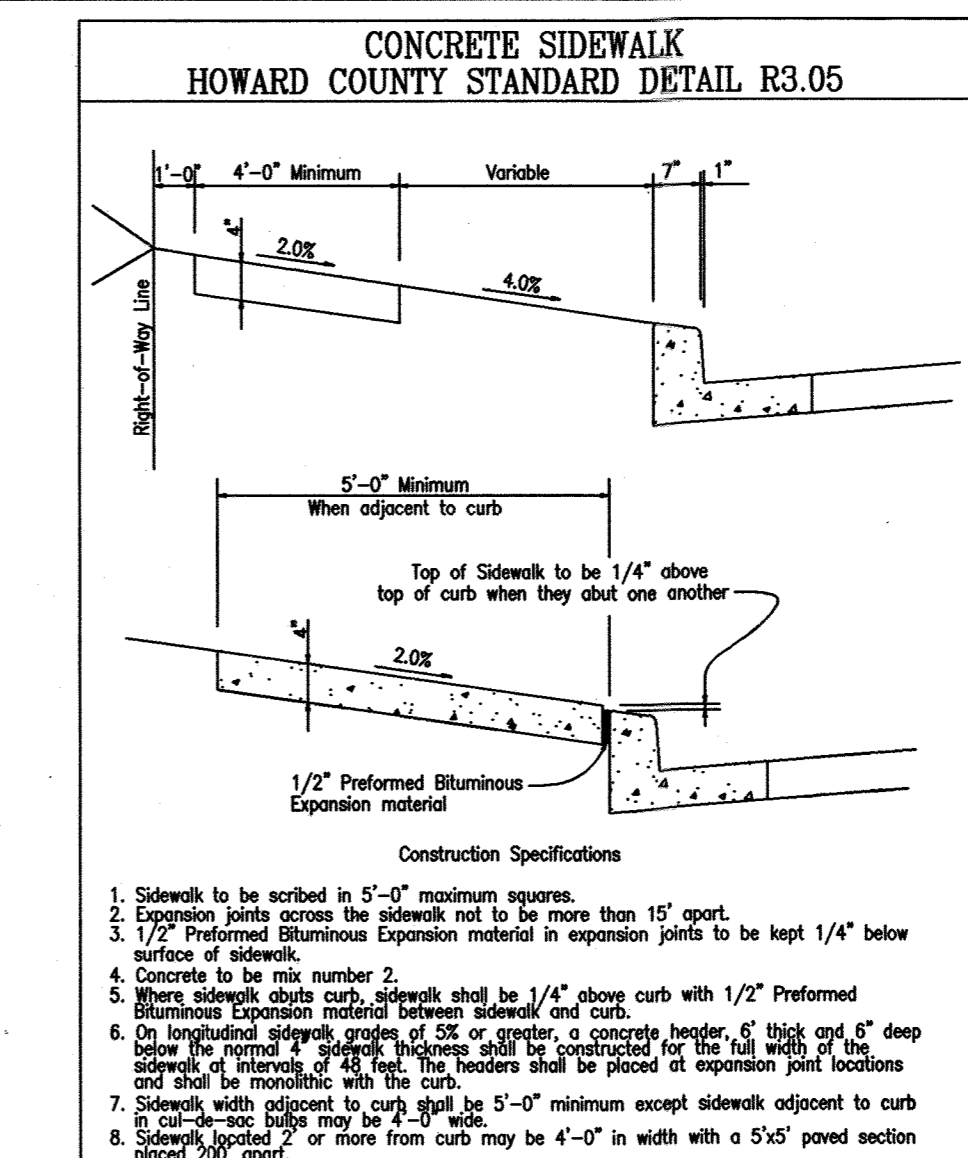
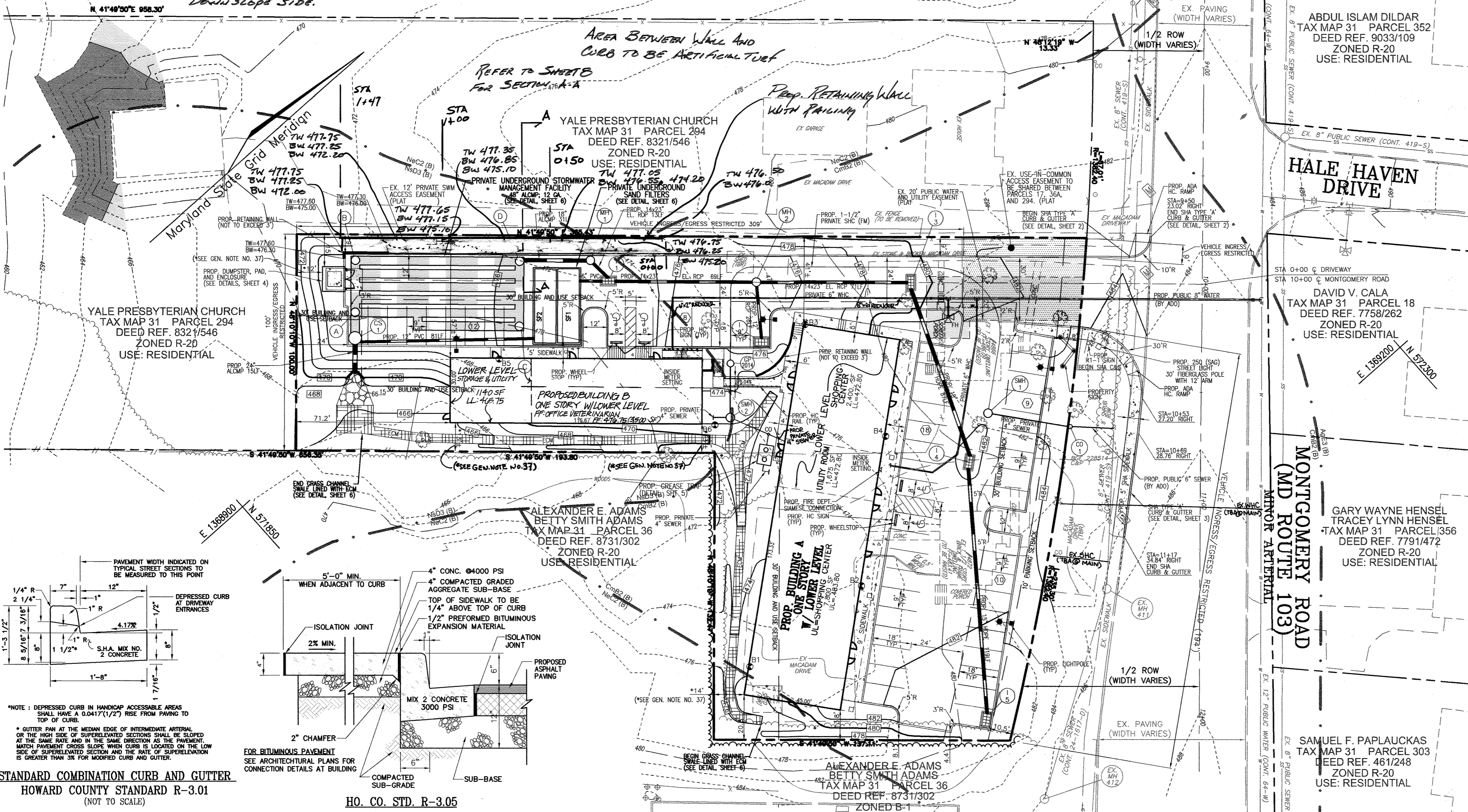
1 SHEET OF 8

**DAILY STABILIZATION NOTE**

THIS NOTE SHOULD BE USED FOR MINIMAL AREAS WITHIN THE LIMIT OF DISTURBANCE THAT DO NOT DESERVE A SEPARATE CONTROL MEASURE AND/OR WHERE THE INSTALLATION OF CONTROLS IS NOT FEASIBLE (BAND WORKING, SIDEWALK INSTALLATION, ETC.) CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:

1. FOR AREAS TO BE PAVED, THE APPLICATION OF STABIL BARS
  2. FOR AREAS TO BE VEGETATIVELY STABILIZED
    - a. PERMANENT SEED AND SOIL STABILIZATION (MIXING OR SOD FOR ALL SLOPED SLOPES, CHANNELS OR SWALES)
    - b. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS
- ANY AREAS WHICH CANNOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SIG FENCE INSTALLED ON THE DOWN SLOPE SIDE.

ESTELLE M. HENNESSEE (TRUSTEE)  
TAX MAP 31 PARCEL 310  
DEED REF. 8797/571  
ZONED R-20  
USE: RESIDENTIAL



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR

DATE: 10/21/08  
 DATE: 10/21/08  
 DATE: 10/21/08

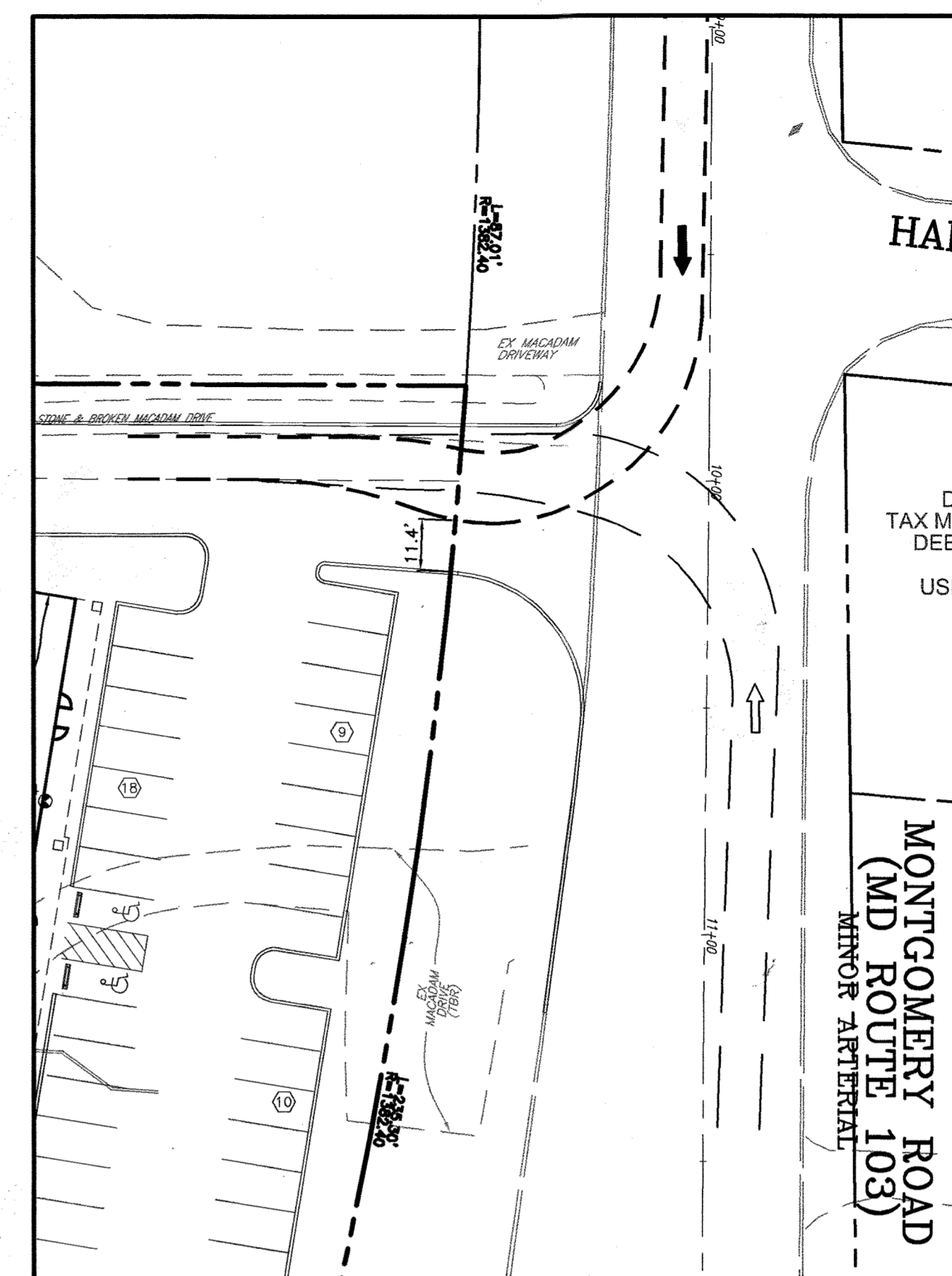
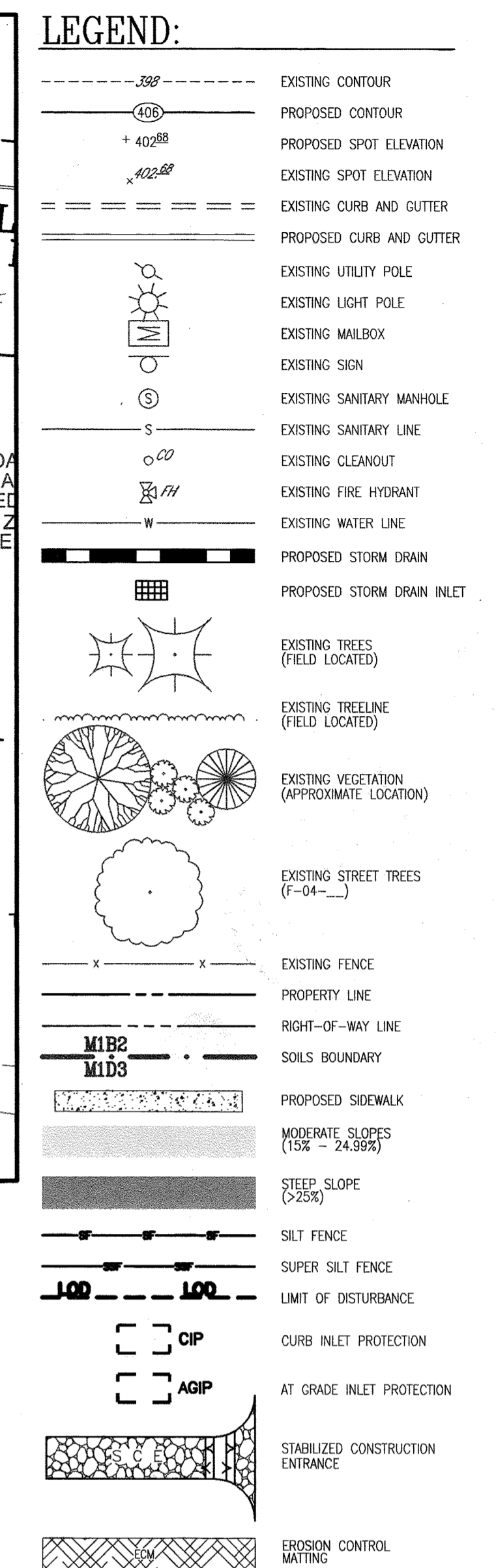
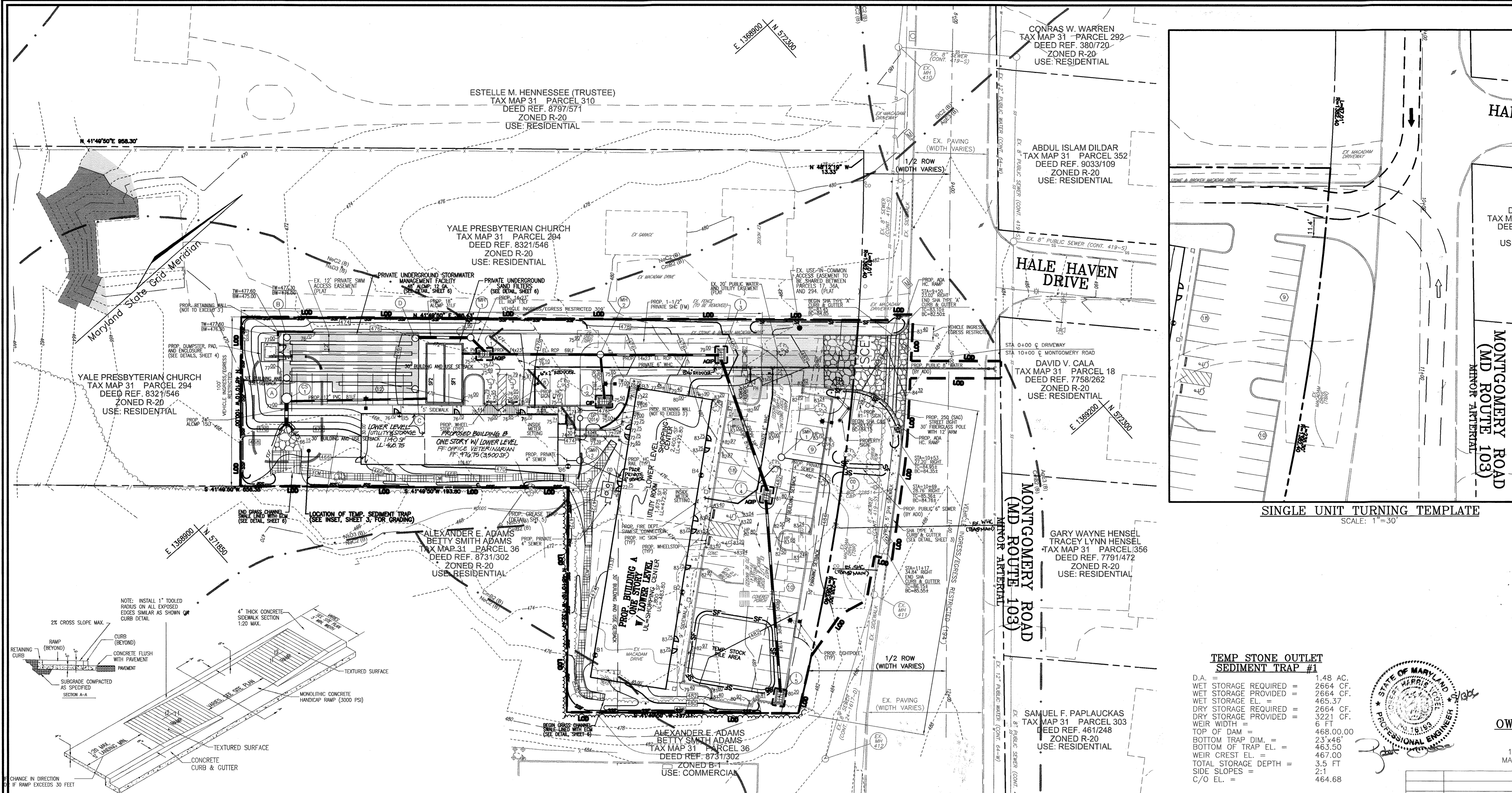
STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 AUG 21, 2020

3	ADD RETAINING WALL WITH PAINTING	Aug 26, 20
1	REVISE BUILDING USE AND PARKING REGULATIONS	7-24-07
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN  
 SITE LAYOUT PLAN;  
 AND DEMOLITION PLAN**  
**MONTGOMERY STATION, PARCEL A**  
 RETAIL/OFFICE BUILDINGS A & B  
 PARCEL A  
 TAX MAP 31 BLOCK 7  
 2ND ELECTION DISTRICT  
 PARCEL 17 & 831  
 HOWARD COUNTY, MARYLAND

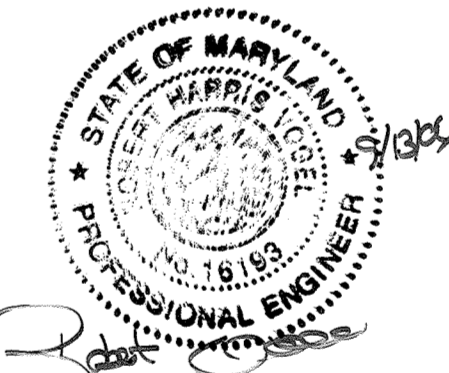
**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 8407 MAIN STREET  
 ELLICOTT CITY, MD 21043  
 TEL: 410.461.7666  
 FAX: 410.461.8961

DESIGN BY: RHY  
 DRAWN BY: DZ  
 CHECKED BY: RHY  
 DATE: SEPT. 12, 2006  
 SCALE: AS SHOWN  
 W.O. NO.: 04-36

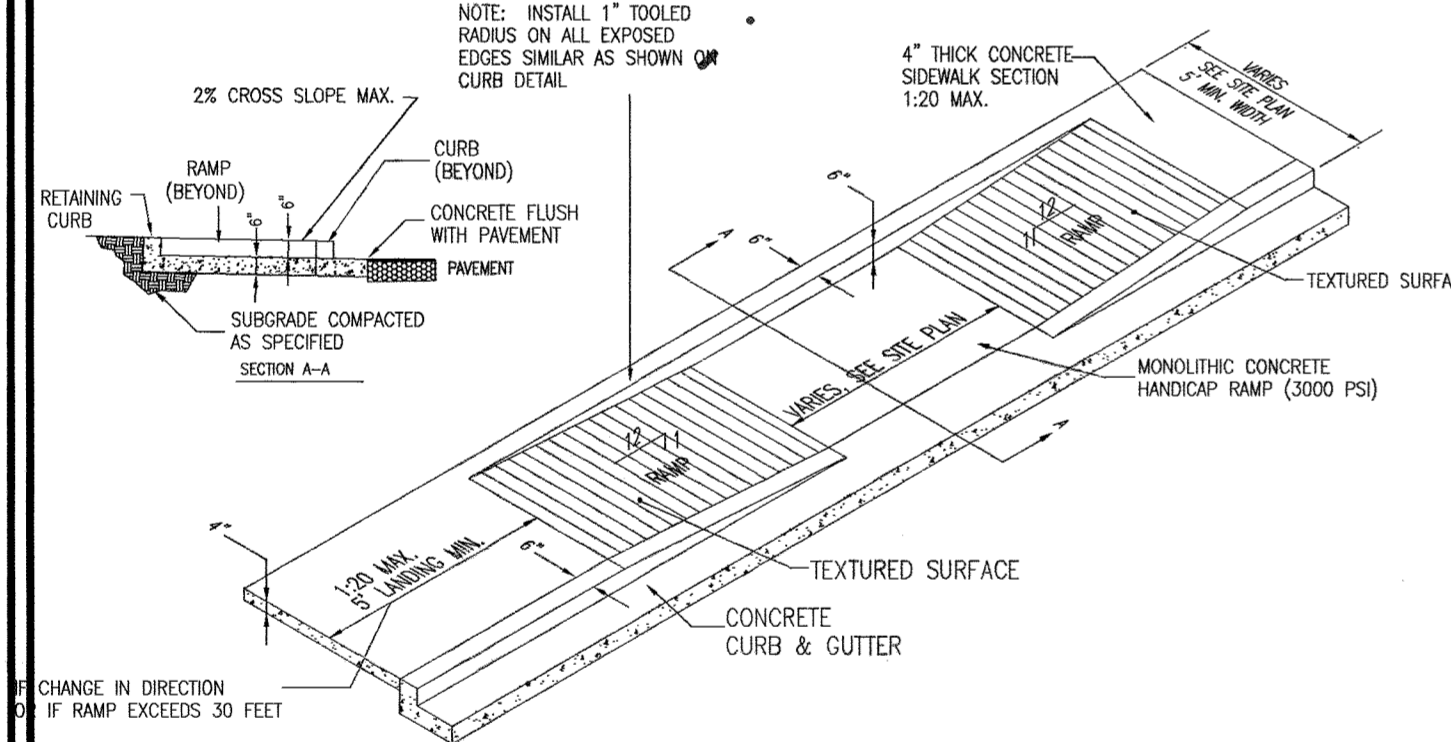


**TEMP STONE OUTLET SEDIMENT TRAP #1**

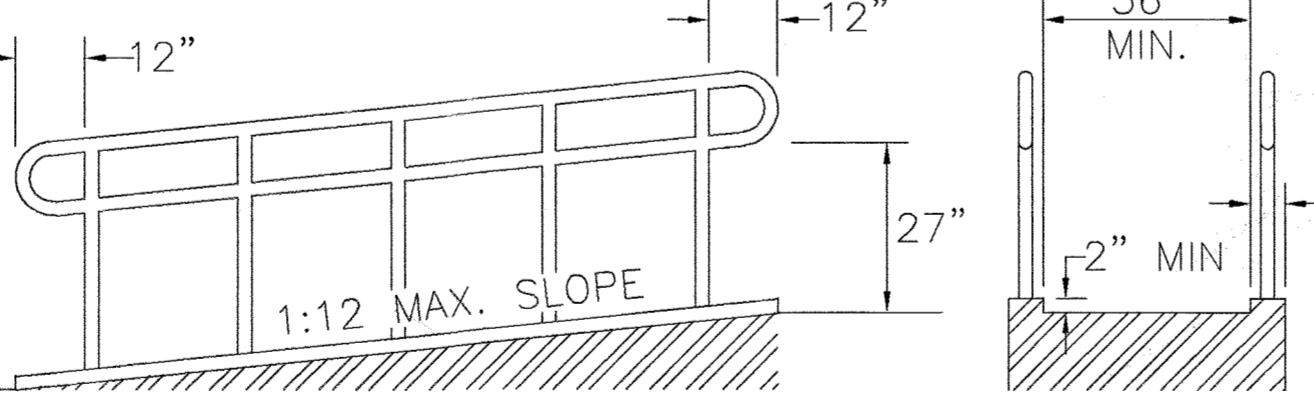
D.A. =	1.48 AC.
WET STORAGE REQUIRED =	2664 CF.
WET STORAGE PROVIDED =	2664 CF.
WET STORAGE EL. =	465.37
DRY STORAGE REQUIRED =	2664 CF.
DRY STORAGE PROVIDED =	3221 CF.
WEIR WIDTH =	6 FT.
TOP OF DAM =	468.00
BOTTOM TRAP DIM. =	23'x46'
BOTTOM OF TRAP EL. =	463.50
WEIR CREST EL. =	467.00
TOTAL STORAGE DEPTH =	3.5 FT.
SIDE SLOPES =	2:1
C/O EL. =	464.68



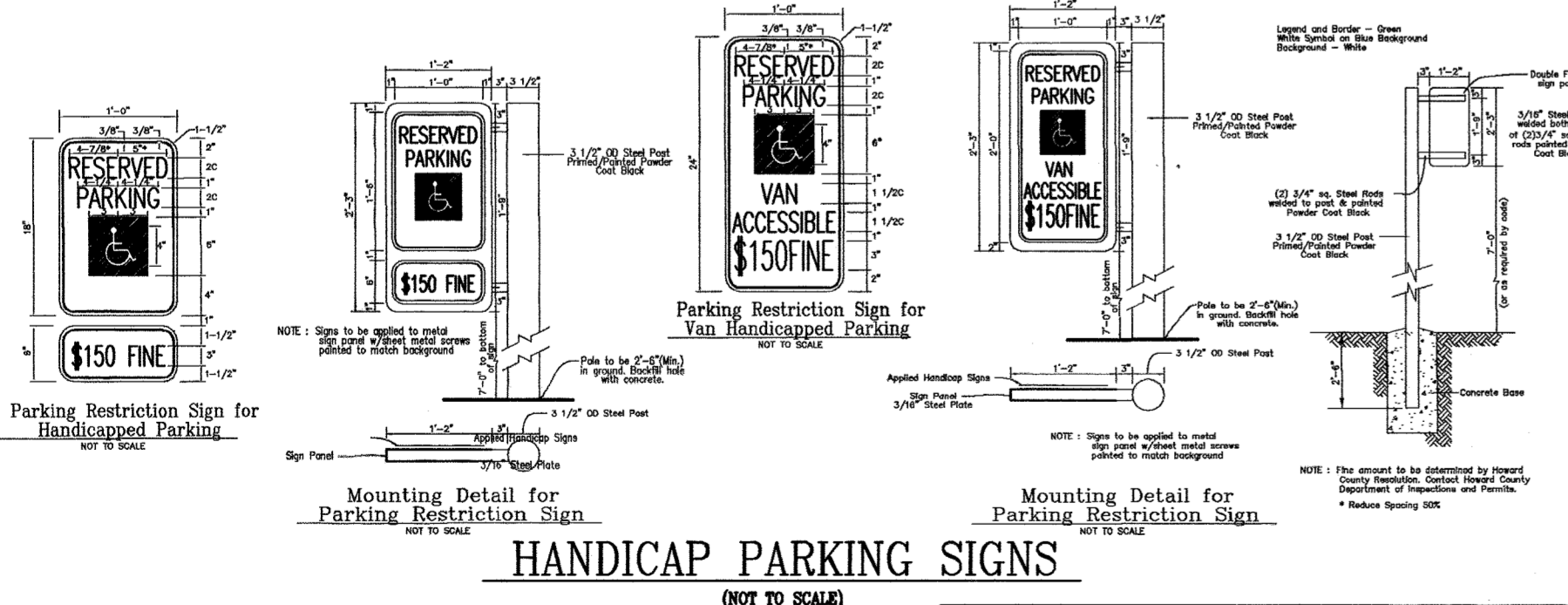
**OWNER/PETITIONER**  
 TKLS, L.L.C.  
 C/O KELLY SNOVELL  
 1352 CROWS FOOT ROAD  
 MARRIOTTSVILLE, MD 21104



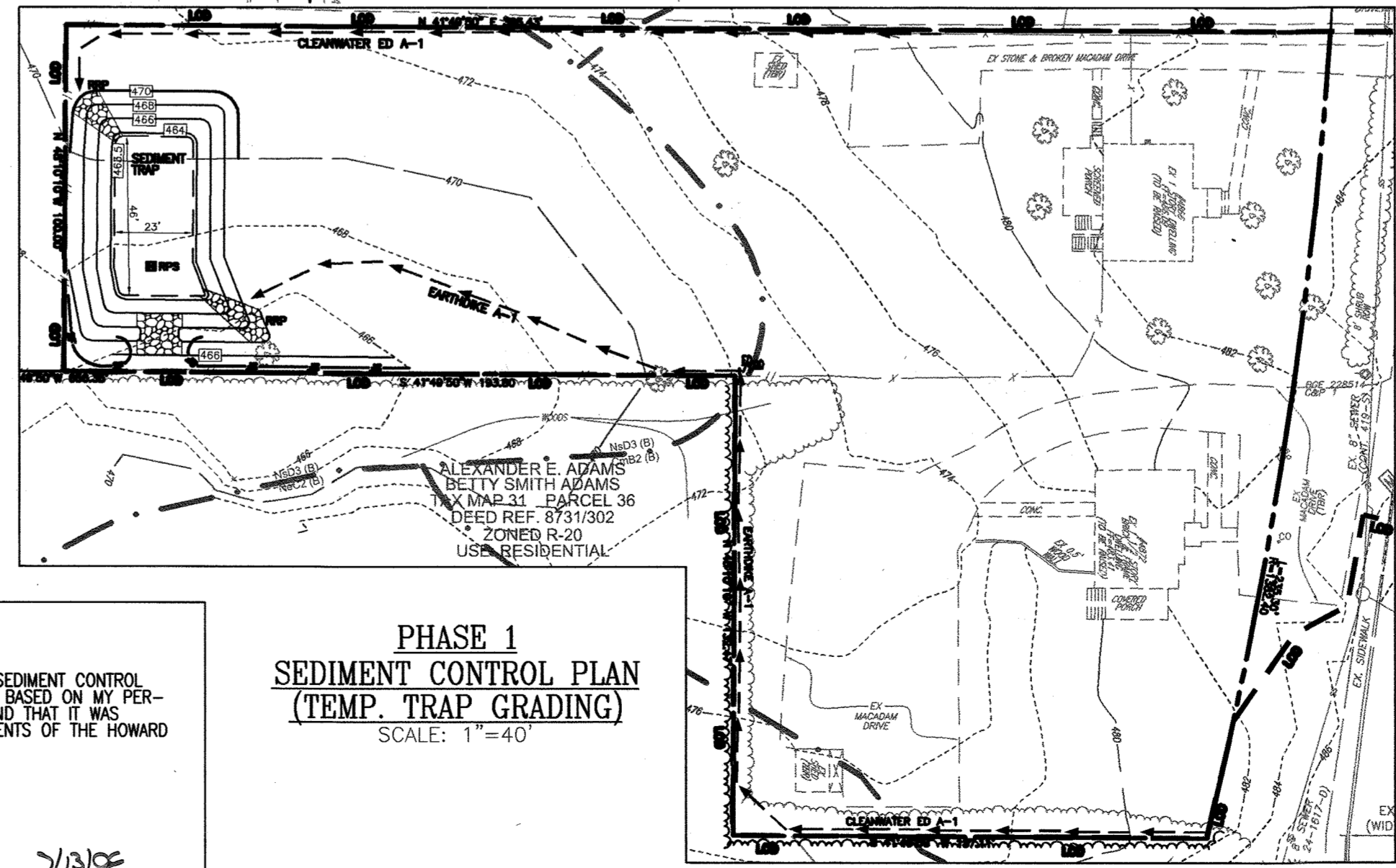
**PHASE 2 SEDIMENT CONTROL PLAN**  
 SCALE: 1"=30'



**HANDICAP RAMP DETAIL**  
 NOT TO SCALE



**HANDICAP PARKING SIGNS**  
 (NOT TO SCALE)



**PHASE 1 SEDIMENT CONTROL PLAN (TEMP. TRAP GRADING)**  
 SCALE: 1"=40'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/26/06  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/10/06  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 10/30/06  
 DIRECTOR DATE

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

*[Signature]* 9/26/06  
 USA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*[Signature]* 9/26/06  
 HOWARD S.C.D. DATE

BY THE DEVELOPER:

*[Signature]* 9/13/06  
 SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

*[Signature]* 9/13/06  
 SIGNATURE OF ENGINEER DATE

1	REVISE BUILDING USE AND PARKING TABULATION	7-24-07
NO.	REVISION	DATE

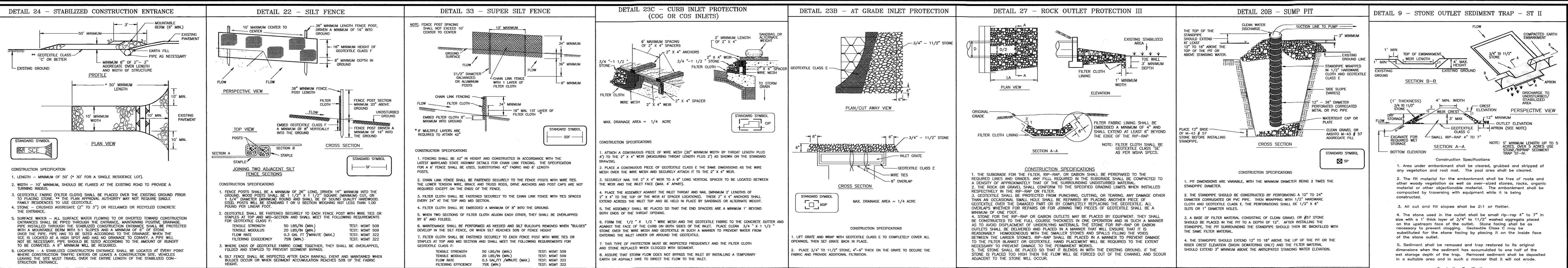
**SITE DEVELOPMENT PLAN**  
**SITE GRADING, SEDIMENT AND EROSION CONTROL PLAN**  
**MONTGOMERY STATION, PARCEL A**  
 RETAIL/OFFICE BUILDINGS A & B  
 PARCEL A

TAX MAP 31 BLOCK 7 2ND ELECTION DISTRICT  
 PARCEL 17 & 31 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 8407 MAIN STREET ELLICOTT CITY, MD 21043  
 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHV  
 DRAWN BY: DZ  
 CHECKED BY: RHV  
 DATE: SEPT. 12, 2006  
 SCALE: AS SHOWN  
 W.O. NO.: 04-36

3 SHEET OF 8



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-1-3 MARYLAND DEPARTMENT OF ENVIRONMENT AND WATER MANAGEMENT ADMINISTRATION

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE SEEDBED PREPARATION: Loosen upper three inches of soil by raking, grading or other acceptable means before seeding, if not previously SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following:

1. Preferred—Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harvest or disc into upper three inches of soil.
2. Acceptable—Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harvest or disc into upper three inches of soil.
3. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 shall require the appropriate consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate consideration and design for adequate stabilization.

**21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL**

Placement of topsoil over a prepared subsoil prior to seeding. To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, material texture to plants, and/or:

**Conditions Where Practice Applies**

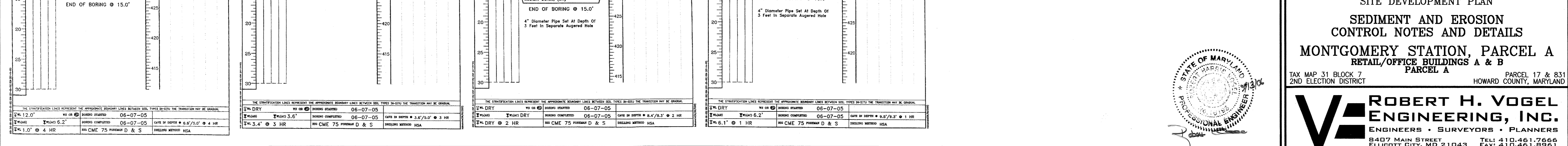
- For sites having disturbed areas over 5 acres:
  - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - a. pH for topsoil shall be between 6.0 and 6.5.
    - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
    - c. Topsoil having soluble salt content greater than 500 ppm by wet weight shall be used.
    - d. No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of the sterilant.
  - 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.
  - Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization—Section 1—Vegetative Stabilization Methods and Materials.
- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" to 8" higher in elevation.
- Topsoil shall be uniformly distributed in a 4" to 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that seeding or sodding is not impeded by 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 water pockets.
- Topsoil shall not be placed while the topsoil or subsoil is in a frozen or highly acidic or highly alkaline condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

**TEMPORARY SEEDING NOTES**

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, grading or other acceptable means before seeding, if not previously SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer. SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 1/2 bushel per acre of annual ryegrass (5.2 lbs./1000 sq.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 1 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch and seed as soon as possible.

**SEQUENCE OF CONSTRUCTION**

1. OBTAIN HOWARD COUNTY GRADING PERMIT. (WEEK 1)
2. NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. (WEEK 1)
3. CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE. (WEEK 1)
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTAIN BERM. (WEEK 2)
5. INSTALL ALL PHASE 1 SILT FENCE, EARTH DIKES AND SEDIMENT TRAPS AS INDICATED ON PLANS. (WEEK 2)
6. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB SITE. (WEEK 3)
7. BEGIN SITE GRADING AND UTILITY CONSTRUCTION. (WEEK 4)
8. BEGIN BUILDING A CONSTRUCTION. (WEEK 7)
9. BEGIN ARCHITECTURAL, REMAINING BASE CONSTRUCTION. (WEEK 20)
10. COMPLETE BUILDING AND UTILITY CONSTRUCTION. (WEEK 21)
11. INSTALLATION ALL ON-SITE CURB AND GUTTER. (WEEK 24)
12. INSTALL ALL PAVING SURFACE COURSE. (WEEK 27)
13. SIDEWALK FOR SITE AND MD ROUTE 103. (WEEK 28)
14. FINE GRADE AND STABILIZE ALL AREAS OF PARCEL INCLUDING ANY EXPOSED EARTH AREAS OUTSIDE THE LOD, REMOVE ALL TRASH JUNK AND DEBRIS. (WEEK 29)
15. REMOVE ALL SEDIMENT CONTROL MEASURES AFTER RECEIVING APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR. (WEEK 30)
16. INSTALL SITE LANDSCAPING. (WEEK 30)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

BY THE DEVELOPER: *Robert H. Vogel Engineering, Inc.* DATE: 9/20/06

BY THE ENGINEER: *Robert H. Vogel Engineering, Inc.* DATE: 9/13/06

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

STATE OF MARYLAND PROFESSIONAL ENGINEER

**OWNER/PETITIONER**  
TKS, L.L.C.  
C/O KELLY SNOWELL  
1350 CROWLES FOOT ROAD  
MARRIOTTSTOWN, MD 21104

**SITE DEVELOPMENT PLAN**  
**SEDIMENT AND EROSION CONTROL NOTES AND DETAILS**  
**MONTGOMERY STATION, PARCEL A**  
**RETAIL/OFFICE BUILDINGS A & B**  
**PARCEL A**

TAX MAP 31 BLOCK 7 2ND ELECTION DISTRICT PARCEL 17 & 831 HOWARD COUNTY, MARYLAND

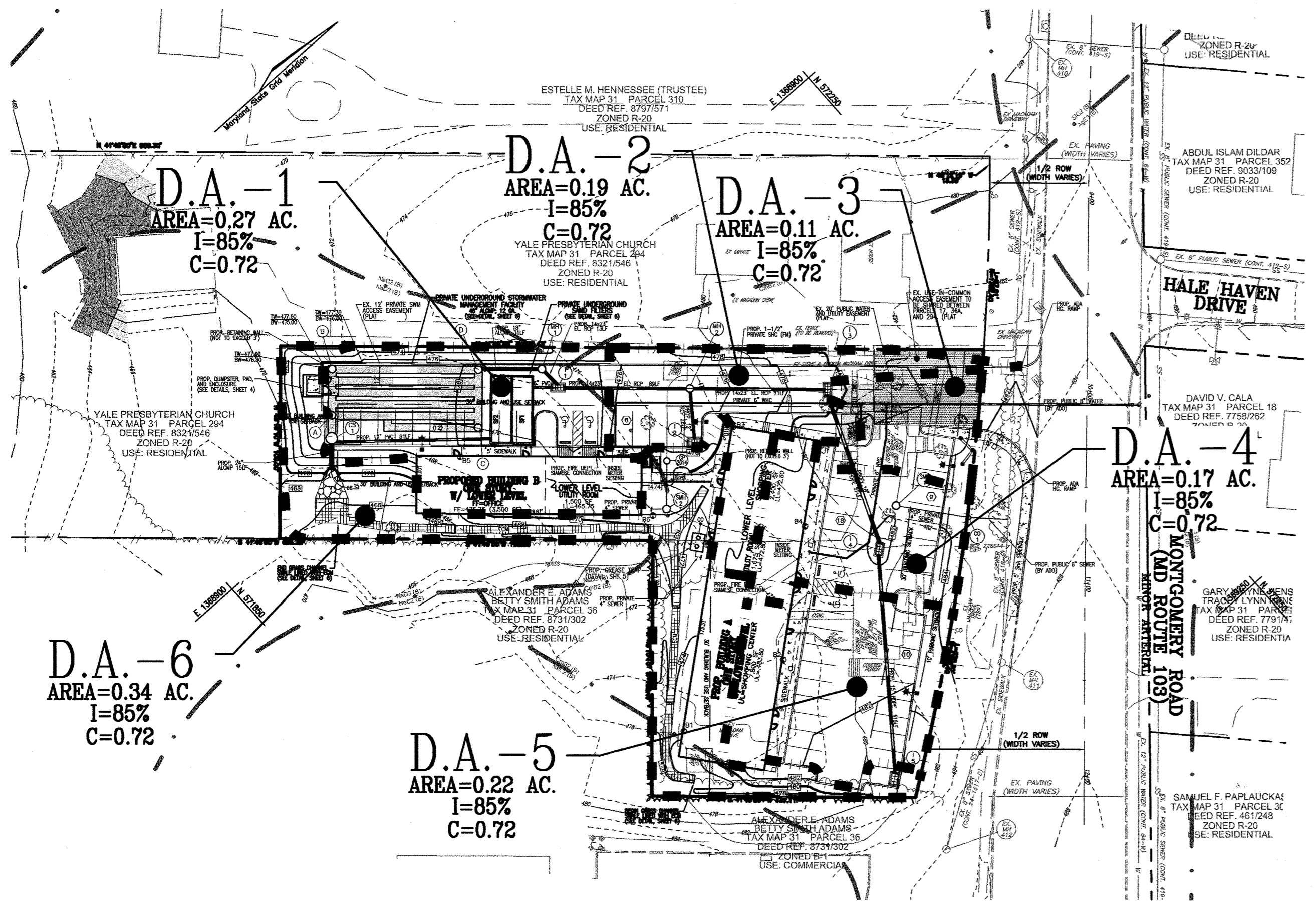
**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET ELICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHV  
DRAWN BY: DZ  
CHECKED BY: BH  
DATE: SEPT. 12, 2006  
SCALE: AS SHOWN  
W.O. NO.: 04-36  
4 SHEET OF 8

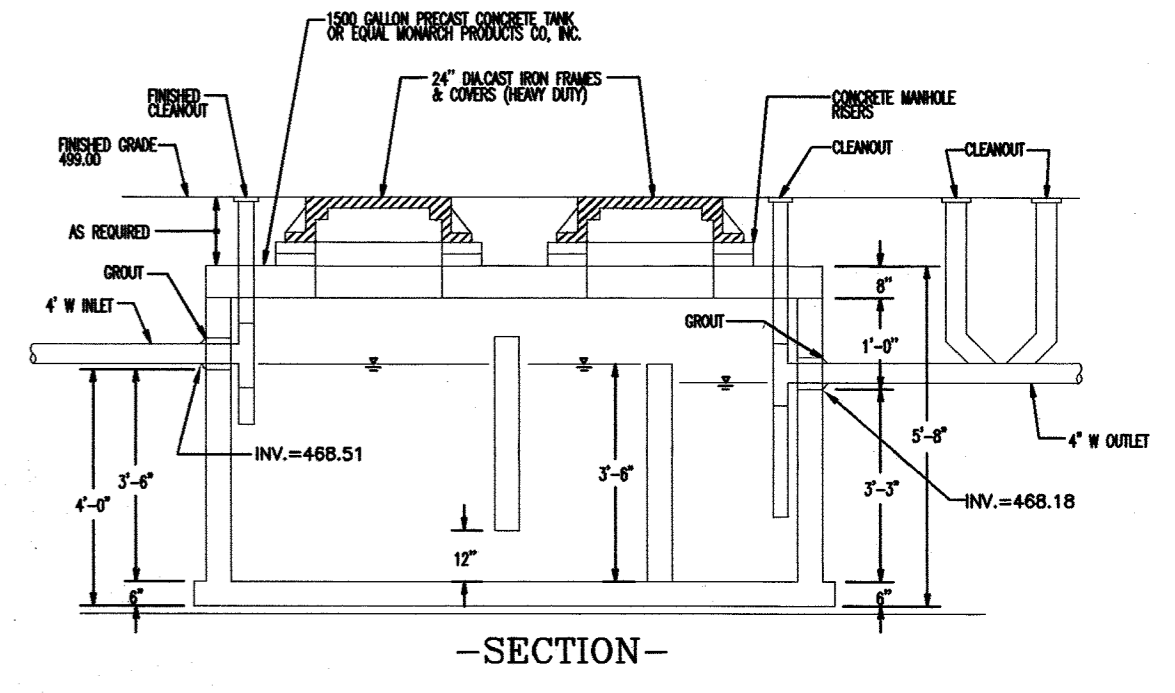
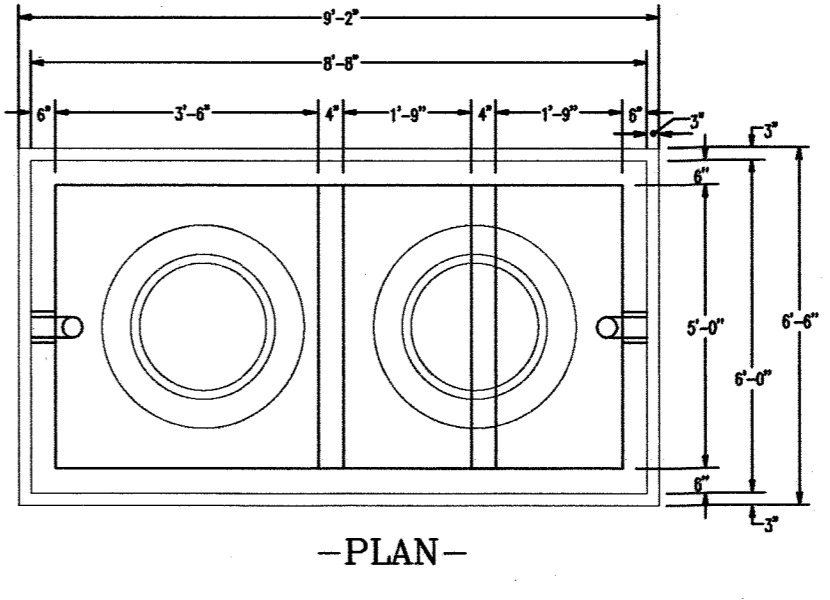
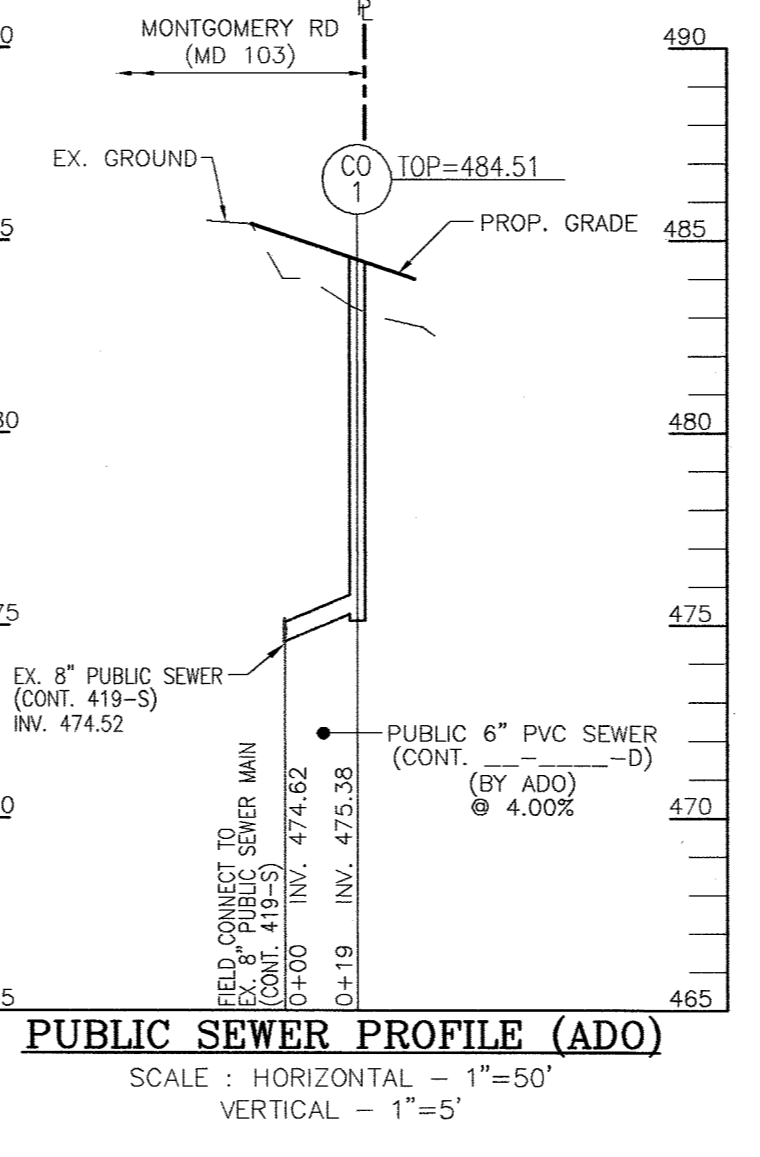
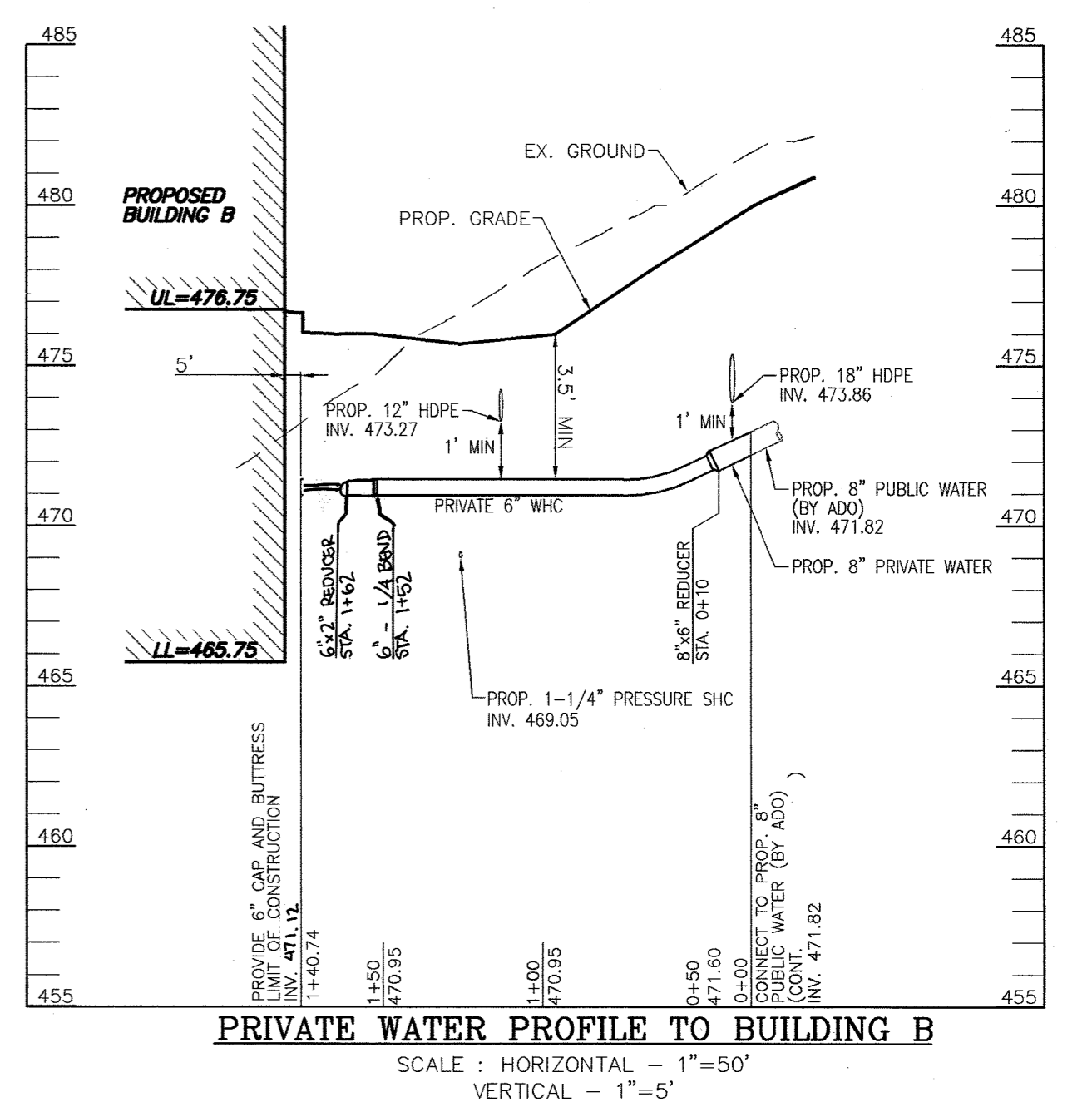
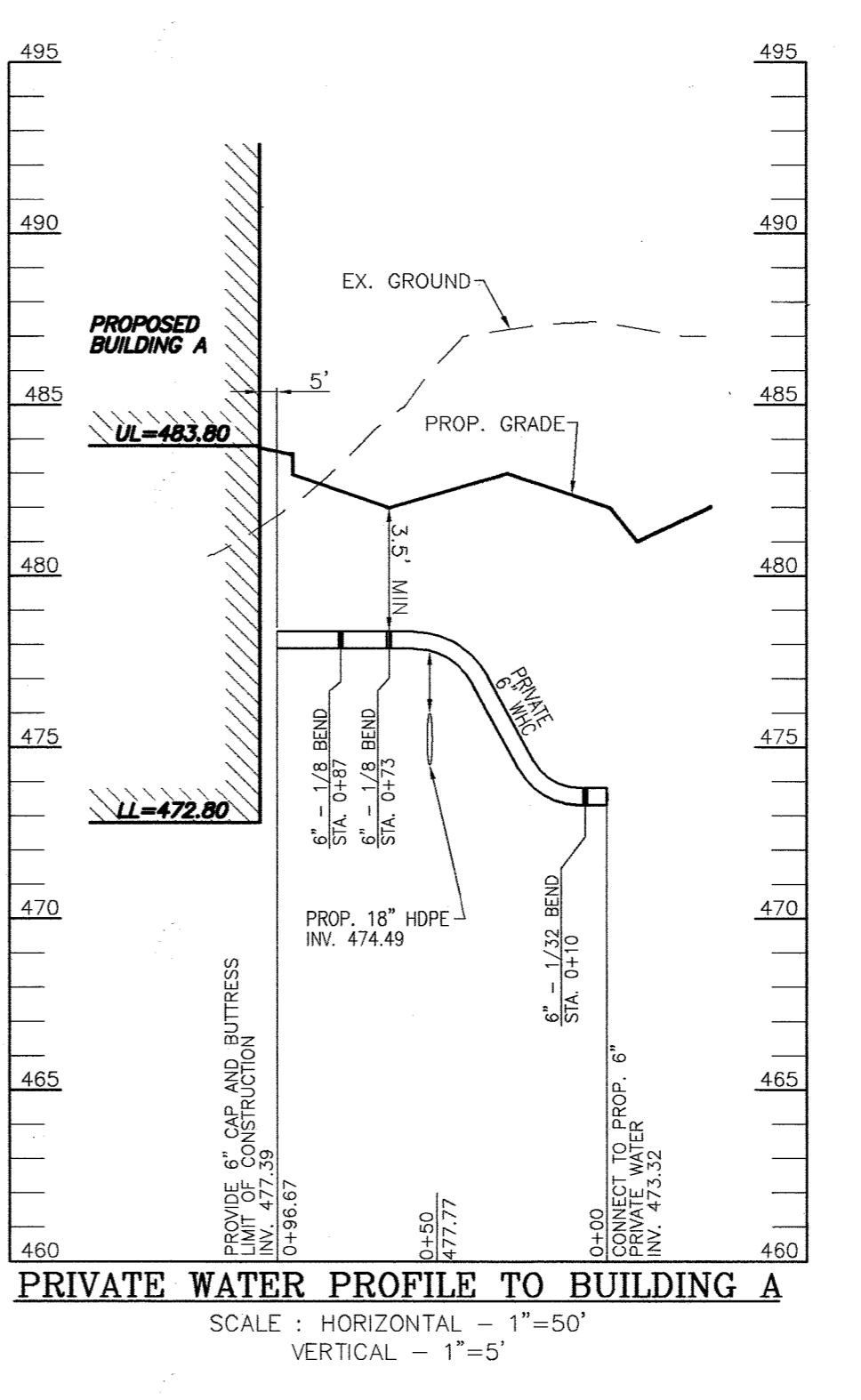
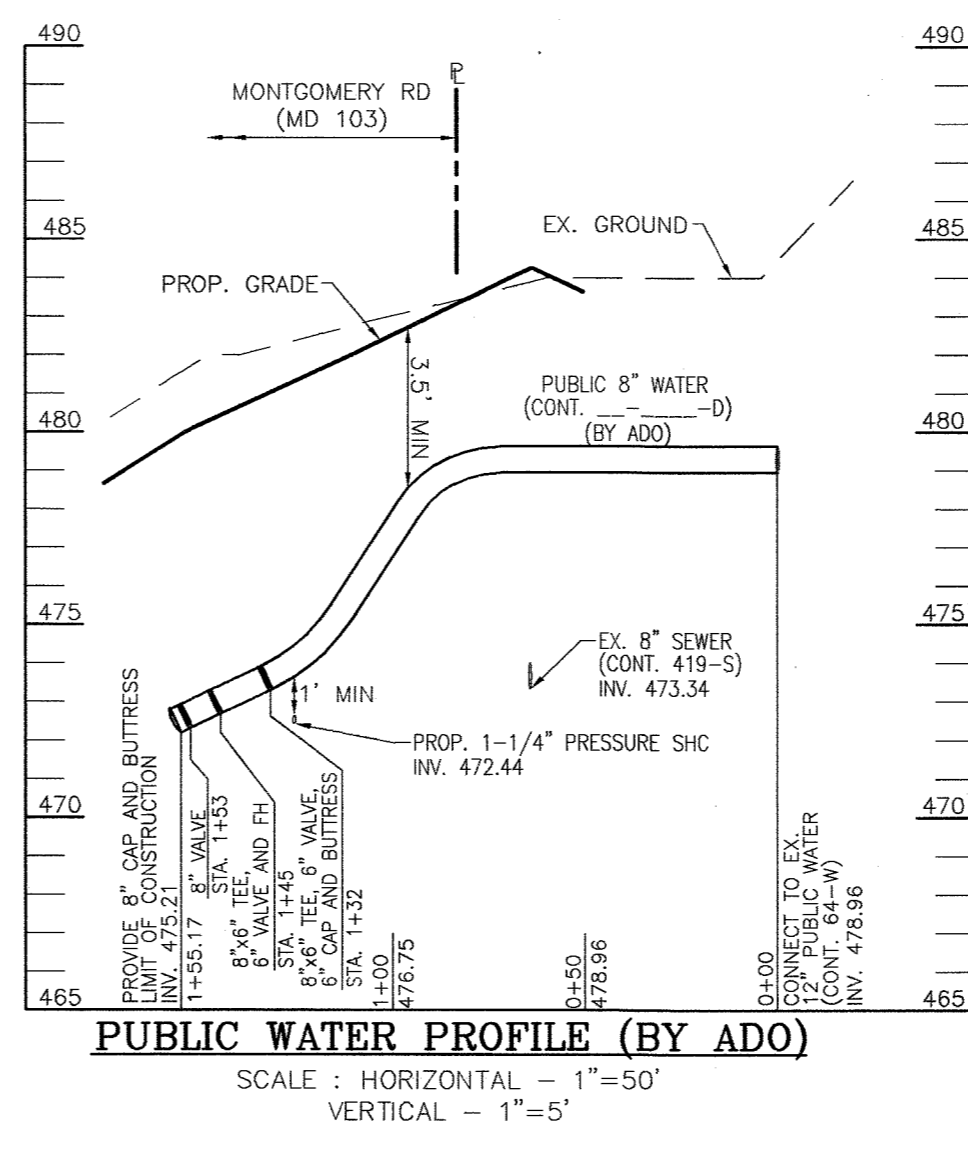
**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP
Ab3	AURA GRAVELLY LOAM 10 TO 30 % SLOPES, SEVERELY ERODED	B
Bd3	BRANDYBINE LOAM, 15 TO 25 % SLOPES, SEVERELY ERODED	C
Cm2	CHILLUM SILT LOAM, 1 TO 5 % SLOPES, MODERATELY ERODED	C
CmC2	CHILLUM SILT LOAM, 5 TO 10 % SLOPES, MODERATELY ERODED	C
GnA	GLENVILLE SILT LOAM, 0 TO 3 % SLOPES	B
NeB2	NESHAMINY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED	B
NeC2	NESHAMINY SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED	B
Nd3	NESHAMINY SILTY CLAY LOAM, 15 TO 15 % SLOPES, SEVERELY ERODED	B
StC2	SASSAFRAS GRAVELLY SANDY LOAM, 5-10 % SLOPES, MODERATELY ERODED	B

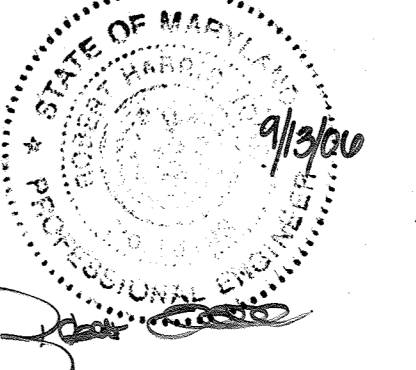
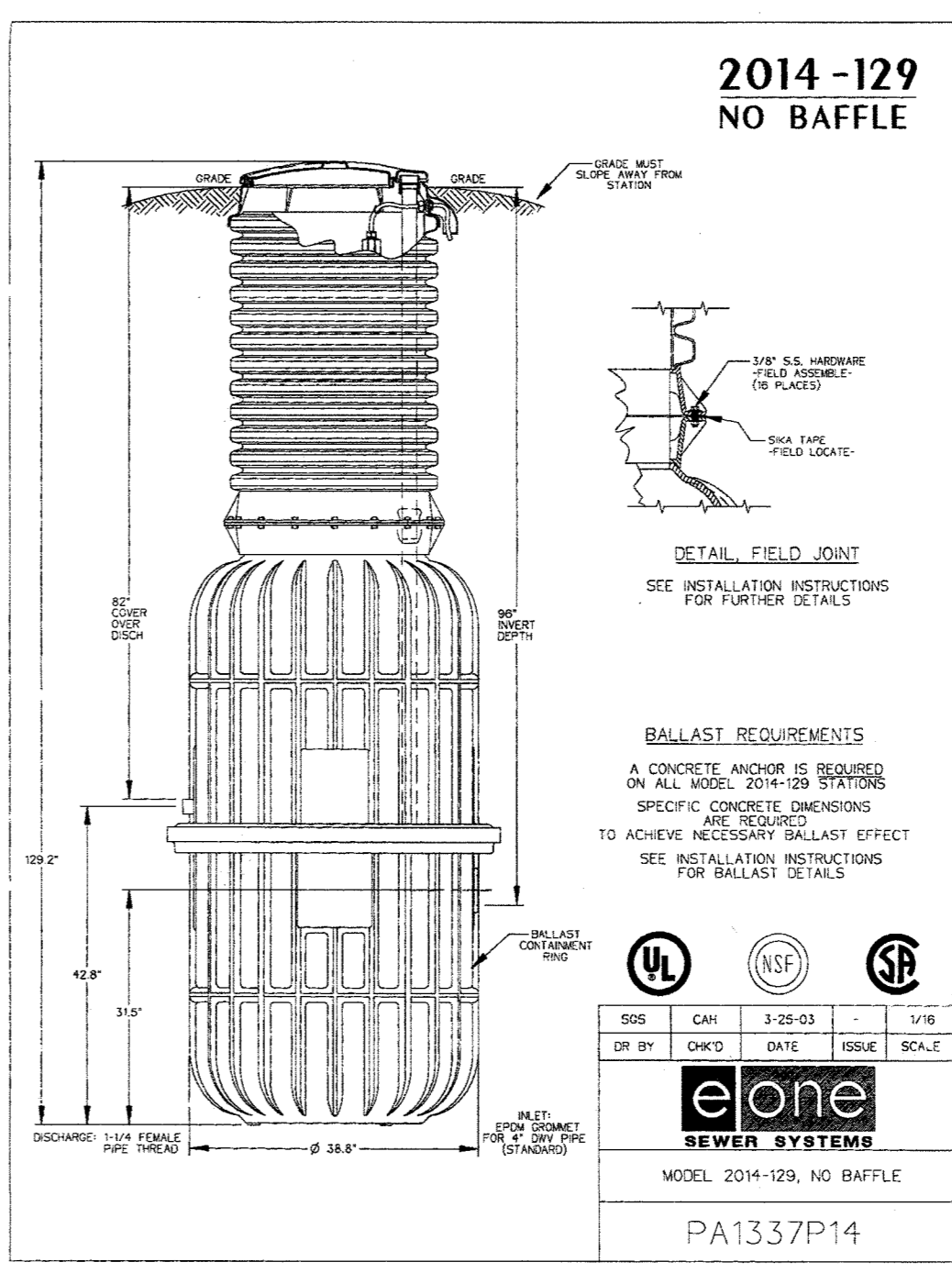
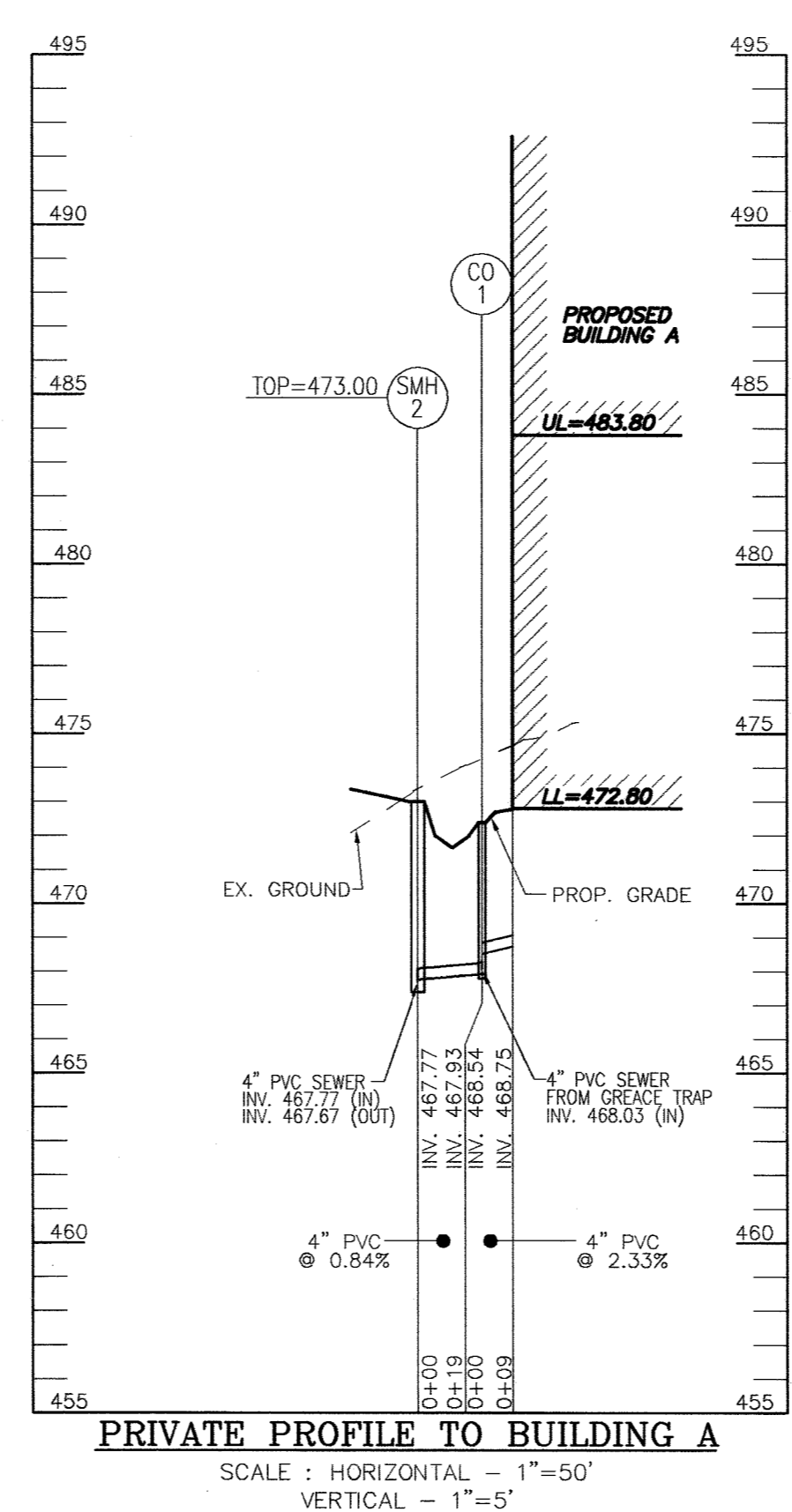
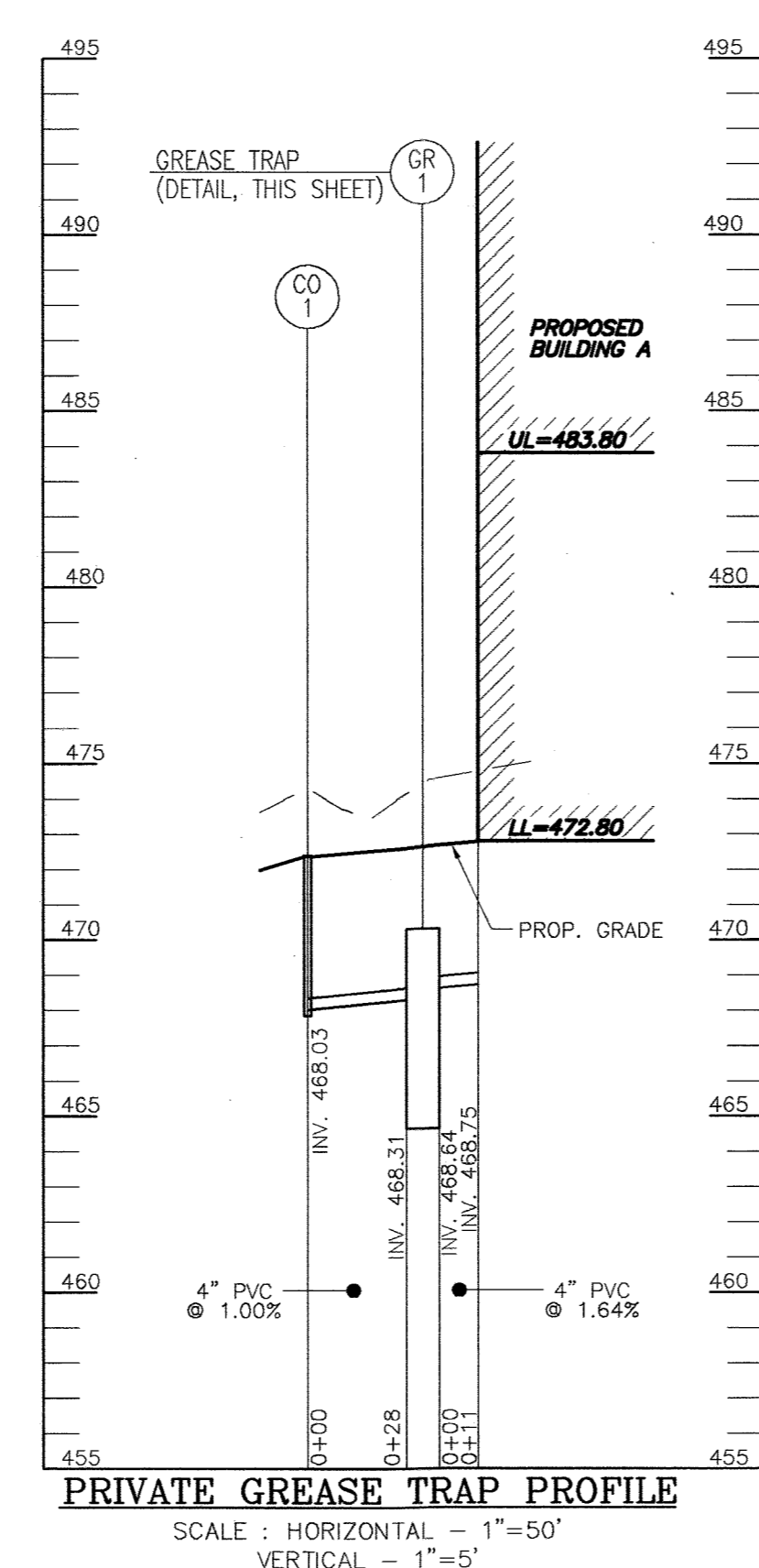
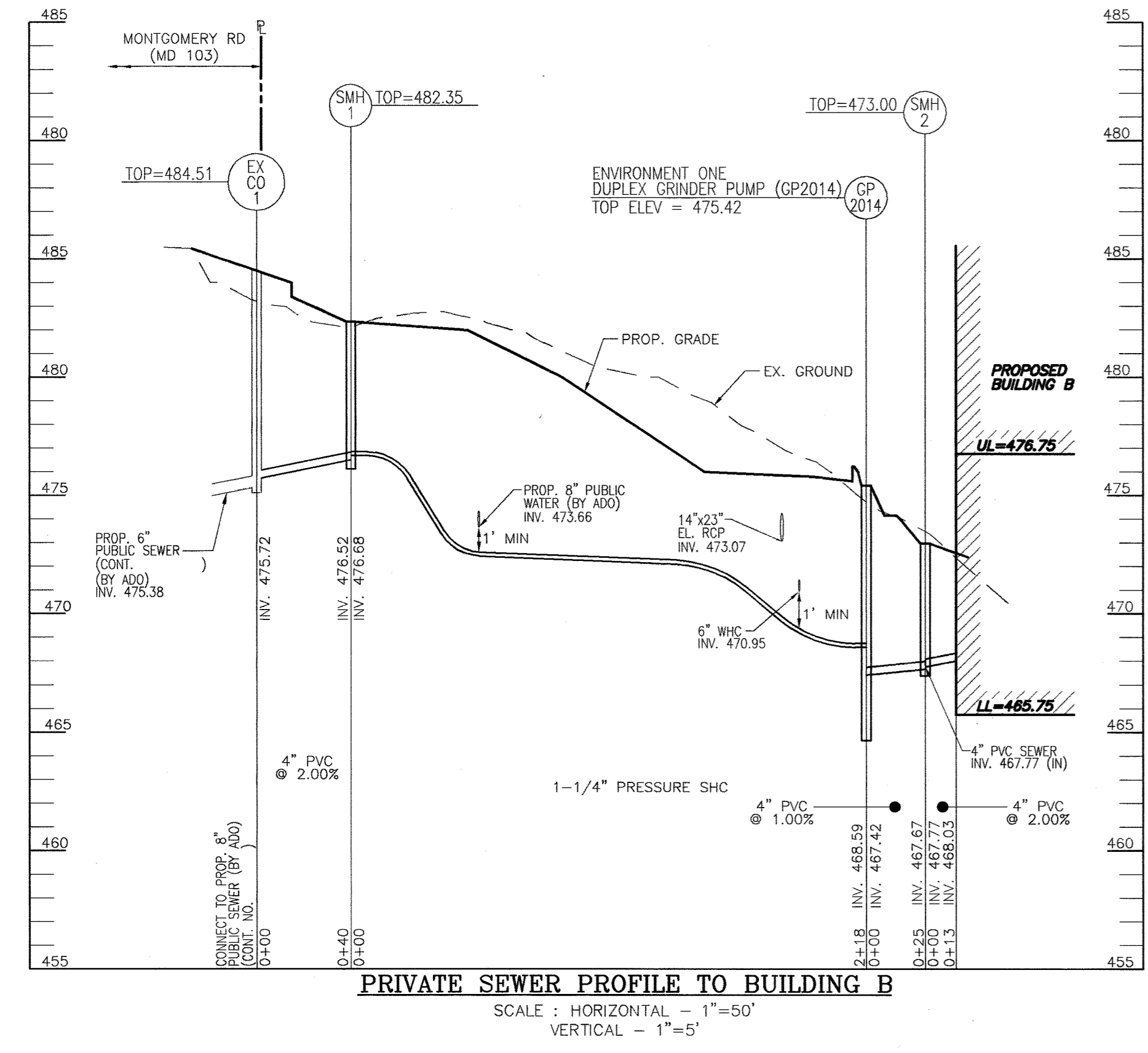
NOTE: BASED ON HOWARD SOIL SURVEY



**STORM DRAIN DRAINAGE AREA MAP**  
SCALE: 1"=50'



**GREASE TRAP DETAIL**  
NOT TO SCALE



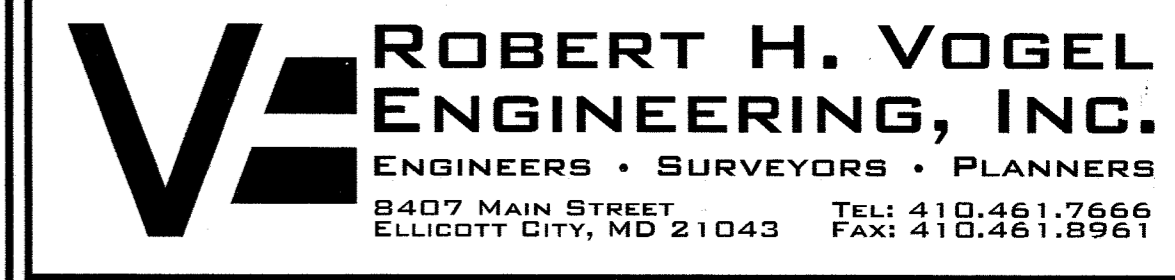
**OWNER/PETITIONER**  
TKS, L.L.C.  
C/O KELLY SNÖVELL  
1352 CROWS FOOT ROAD  
MARRIOTTSVILLE, MD 21104

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN**  
**STORM DRAIN DRAINAGE AREA MAP,**  
**WATER AND SEWER PROFILES**  
**MONTGOMERY STATION, PARCEL A**  
**RETAIL/OFFICE BUILDINGS A & B**  
**PARCEL A**

TAX MAP 31 BLOCK 7  
2ND ELECTION DISTRICT

PARCEL 17 & 31  
HOWARD COUNTY, MARYLAND



DESIGN BY: RHV  
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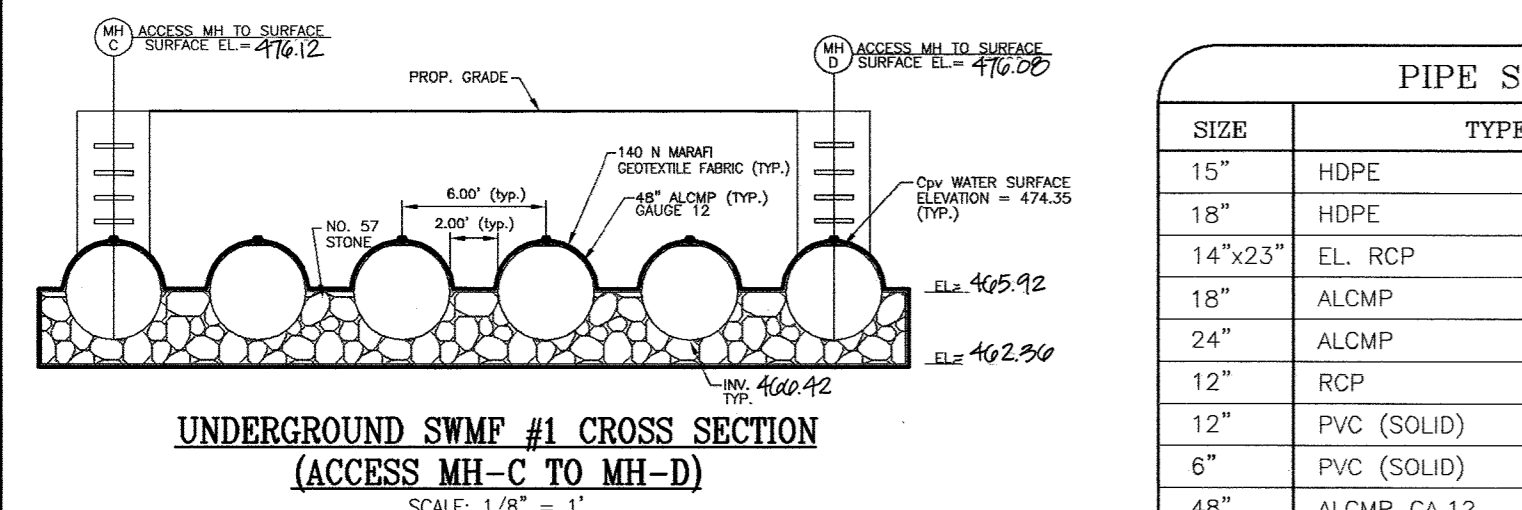
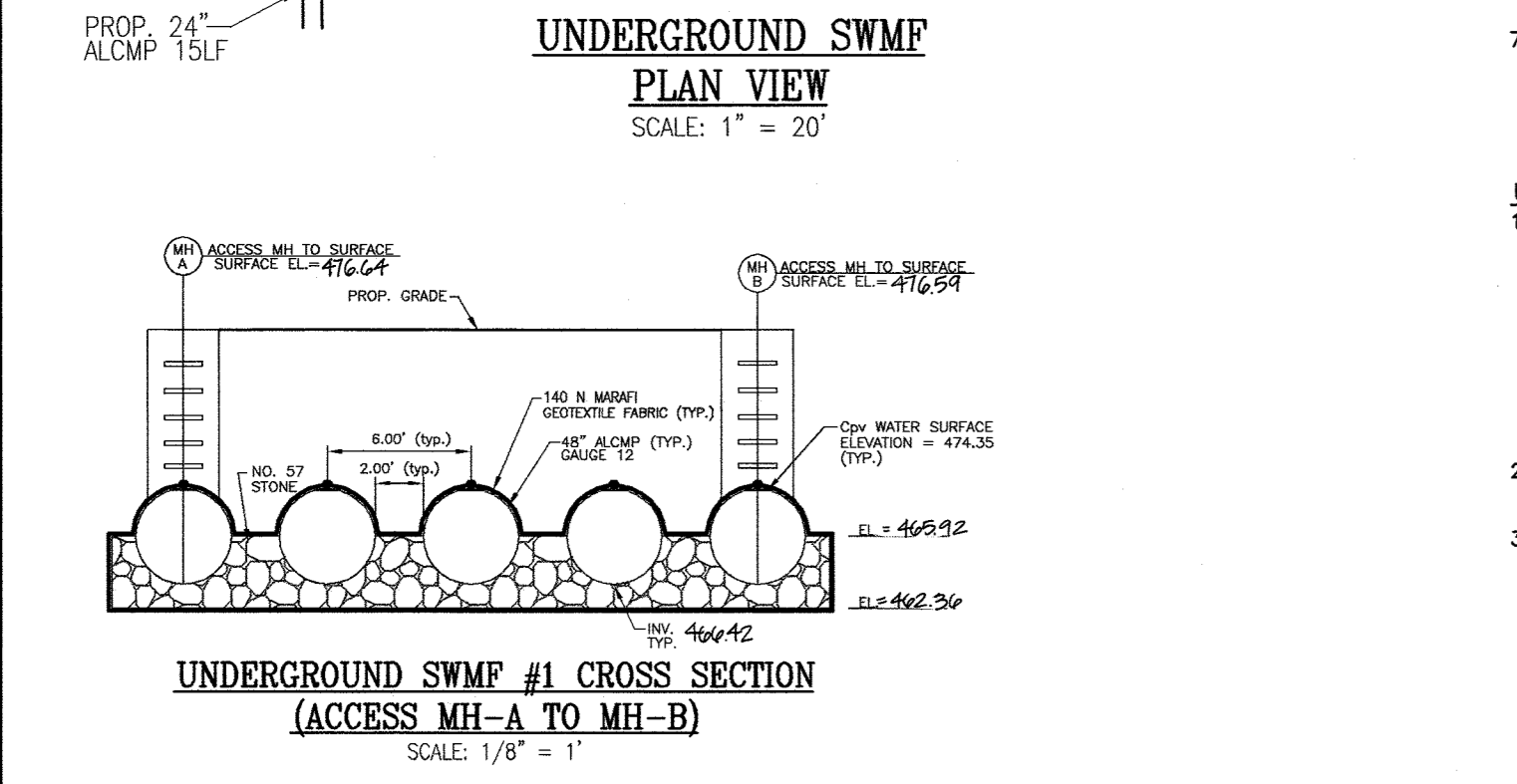
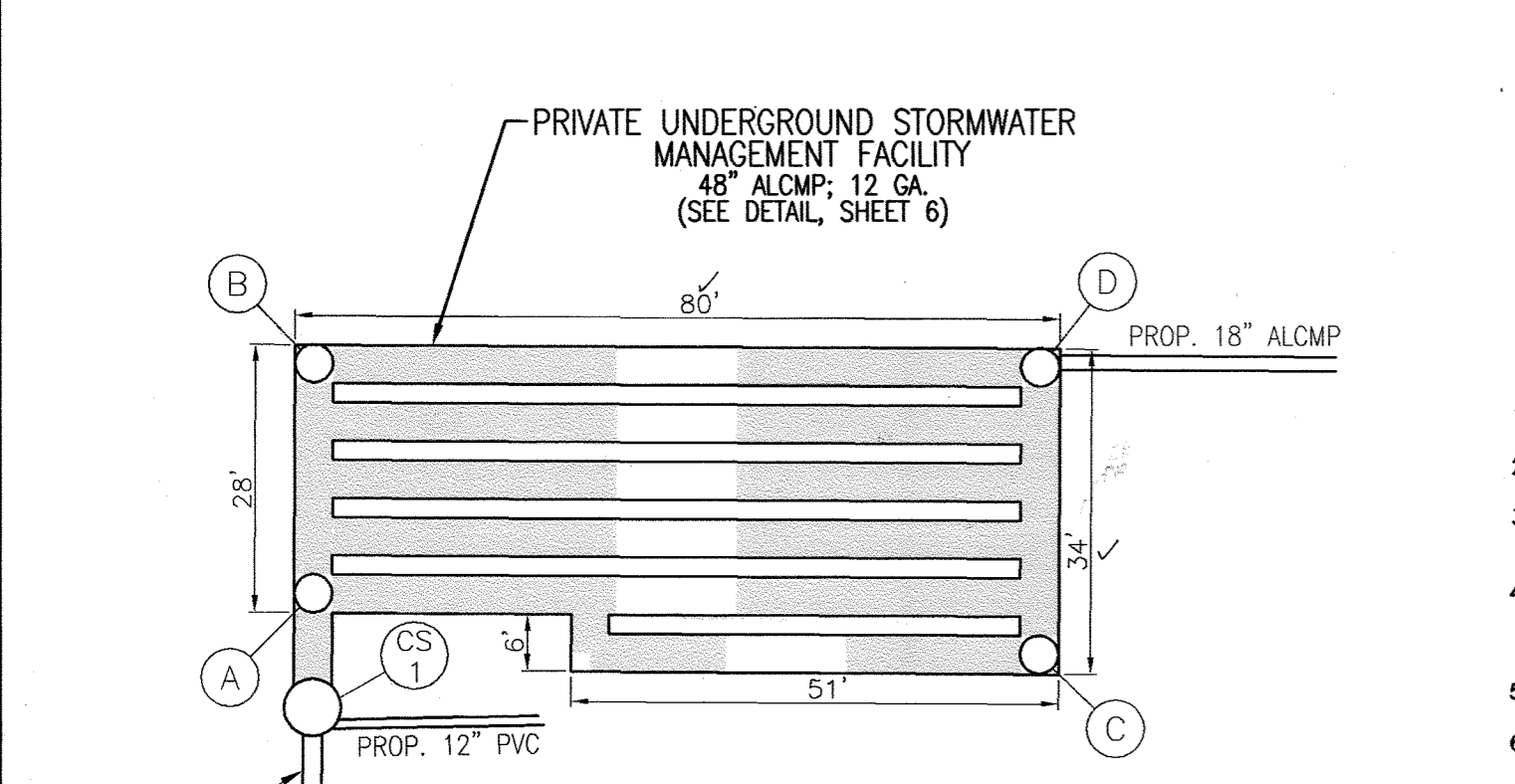
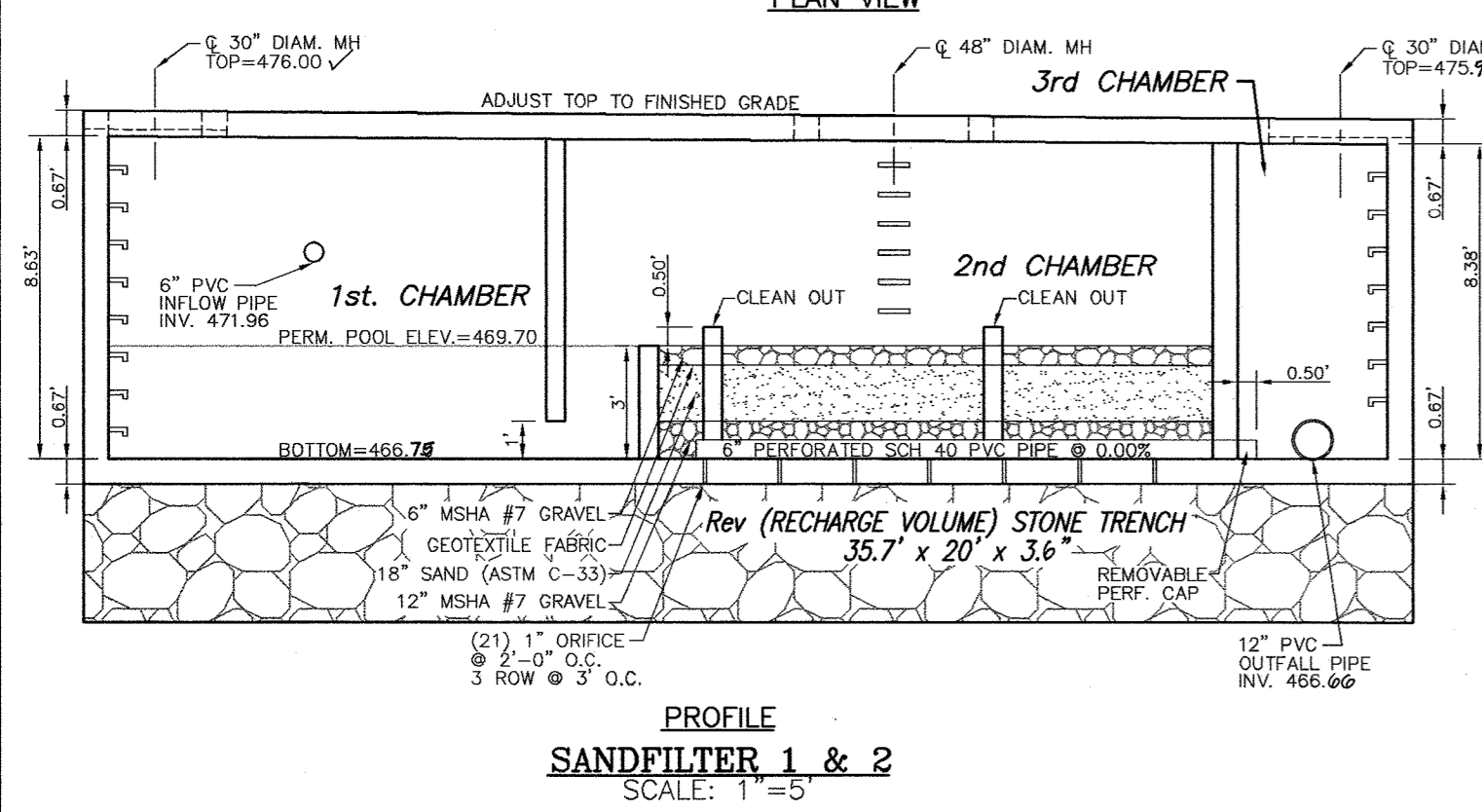
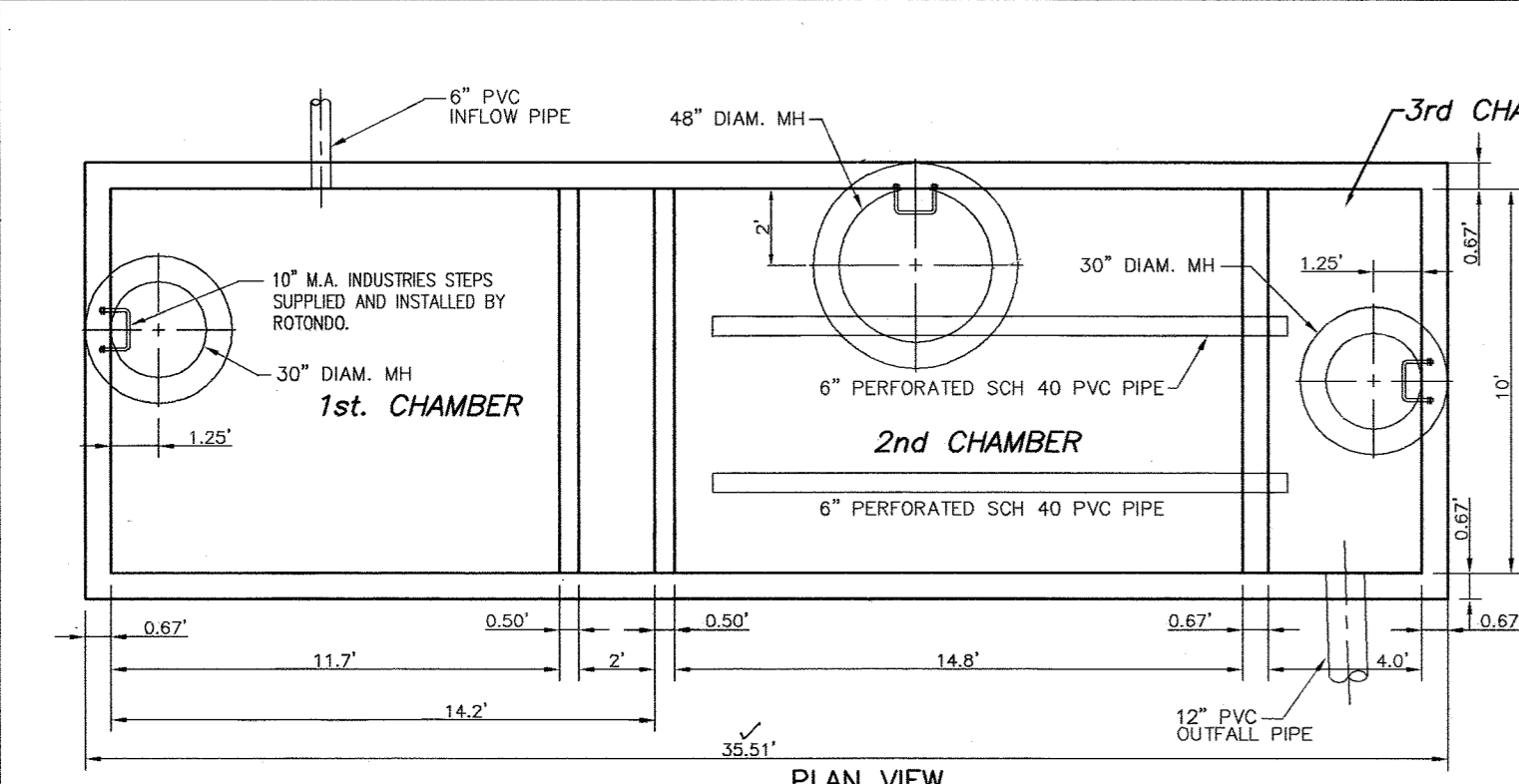
5 SHEET OF 8

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 9/20/06

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 10/24/06

*[Signature]*  
DIRECTOR  
DATE: 10/24/06



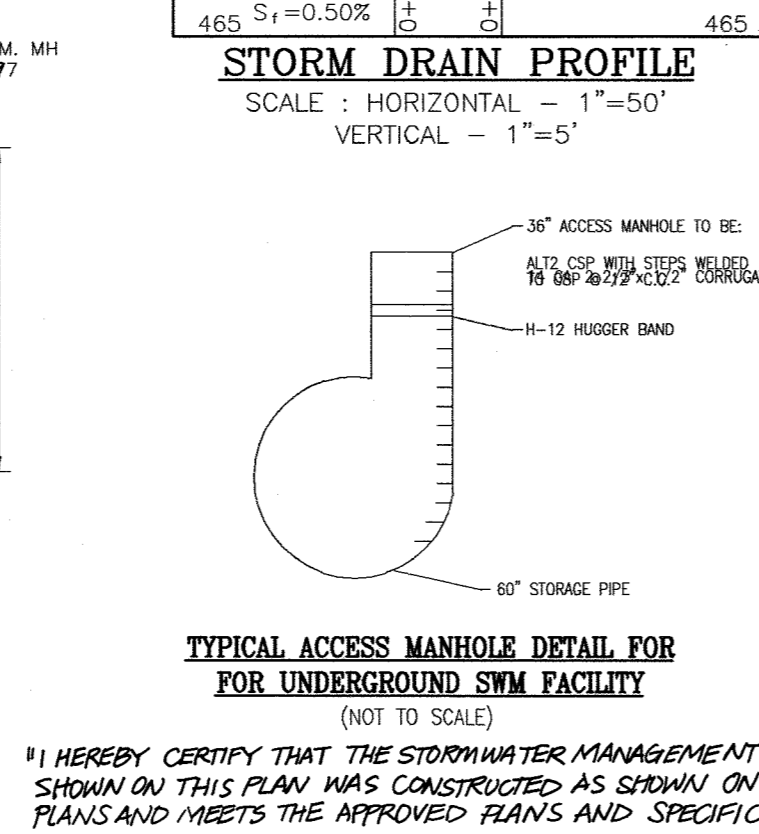
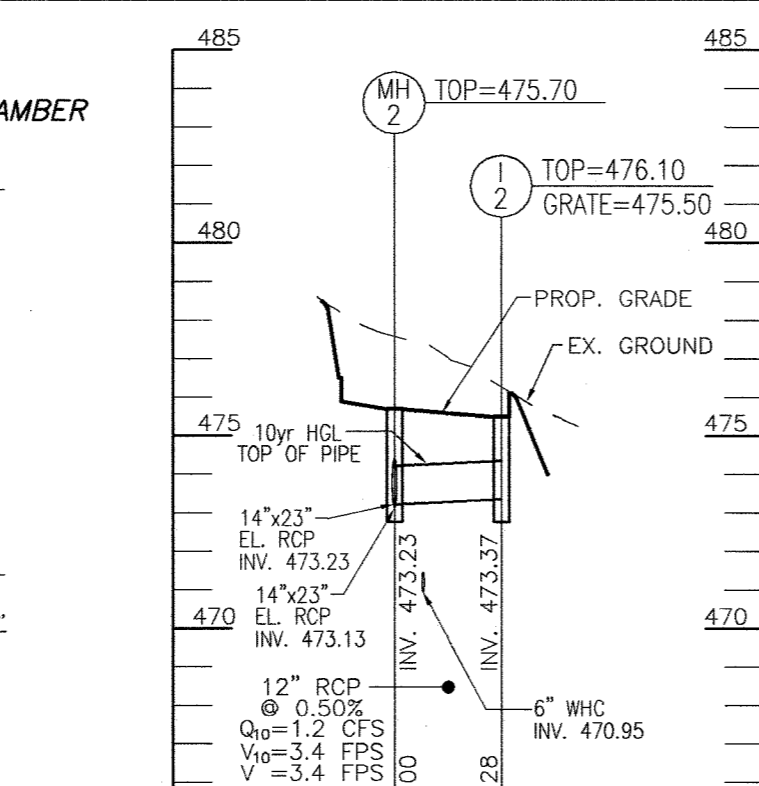
NOTE: DEBRIS IS TO BE KEPT OUT OF STORMWATER MANAGEMENT FACILITIES DURING AND AFTER CONSTRUCTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR



I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

STATE OF MARYLAND PROFESSIONAL ENGINEER

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER FILTRATION SYSTEM (F-2)

- THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED AND/OR REPAIRED WHEN DRAW-DOWN TIMES WITHIN THE CHAMBER EXCEED 36 HOURS.
- DEBRIS AND LITTER SHALL BE REMOVED AS NECESSARY TO ENSURE PROPER OPERATION OF THE SYSTEM.
- SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT ACCUMULATES TO A DEPTH OF 6 INCHES. VEGETATION WITHIN THE SEDIMENT CHAMBER SHALL BE LIMITED TO A HEIGHT OF 18 INCHES.
- WHEN WATER PONDING ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
- A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO ENSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

UNDERGROUND SAND FILTER CONSTRUCTION SPECIFICATIONS

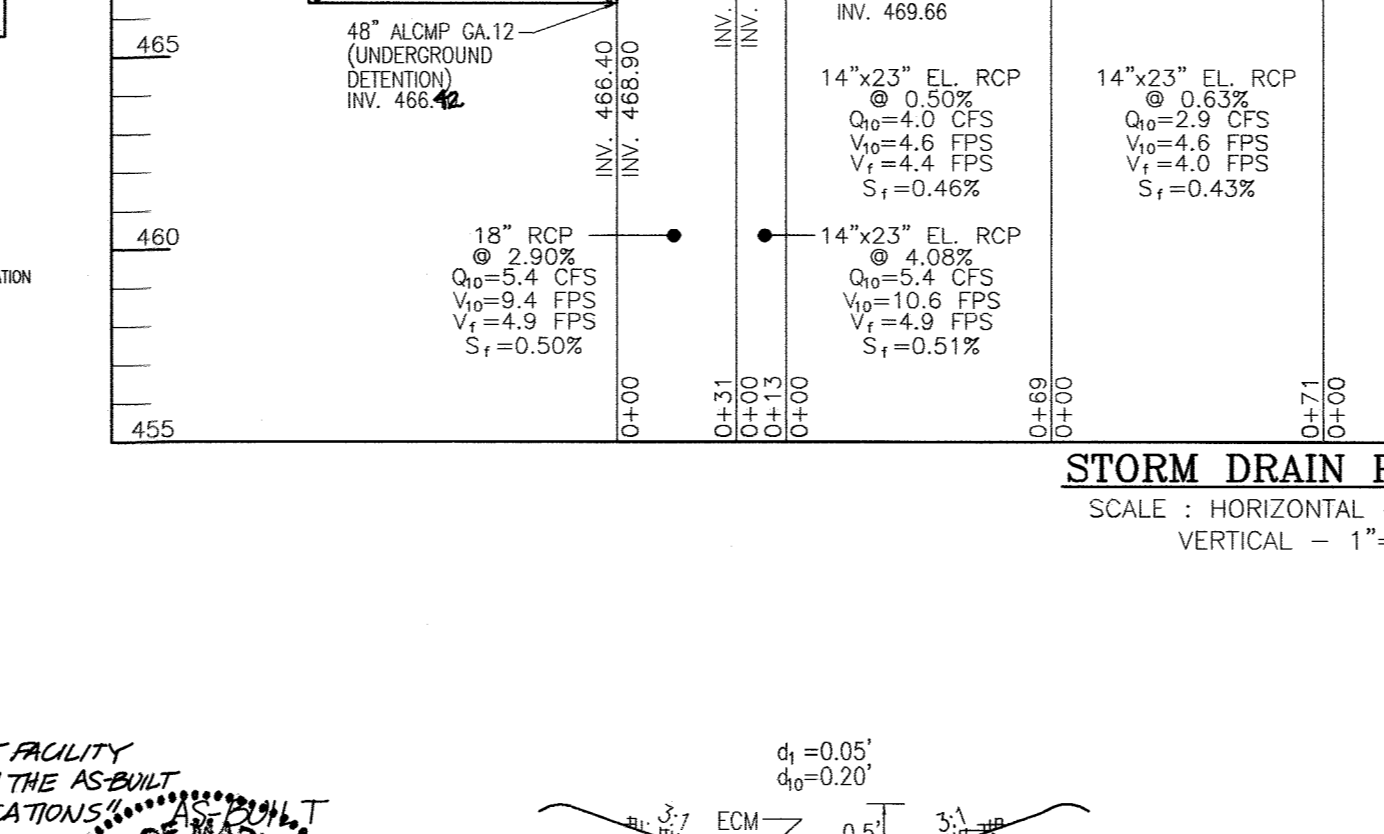
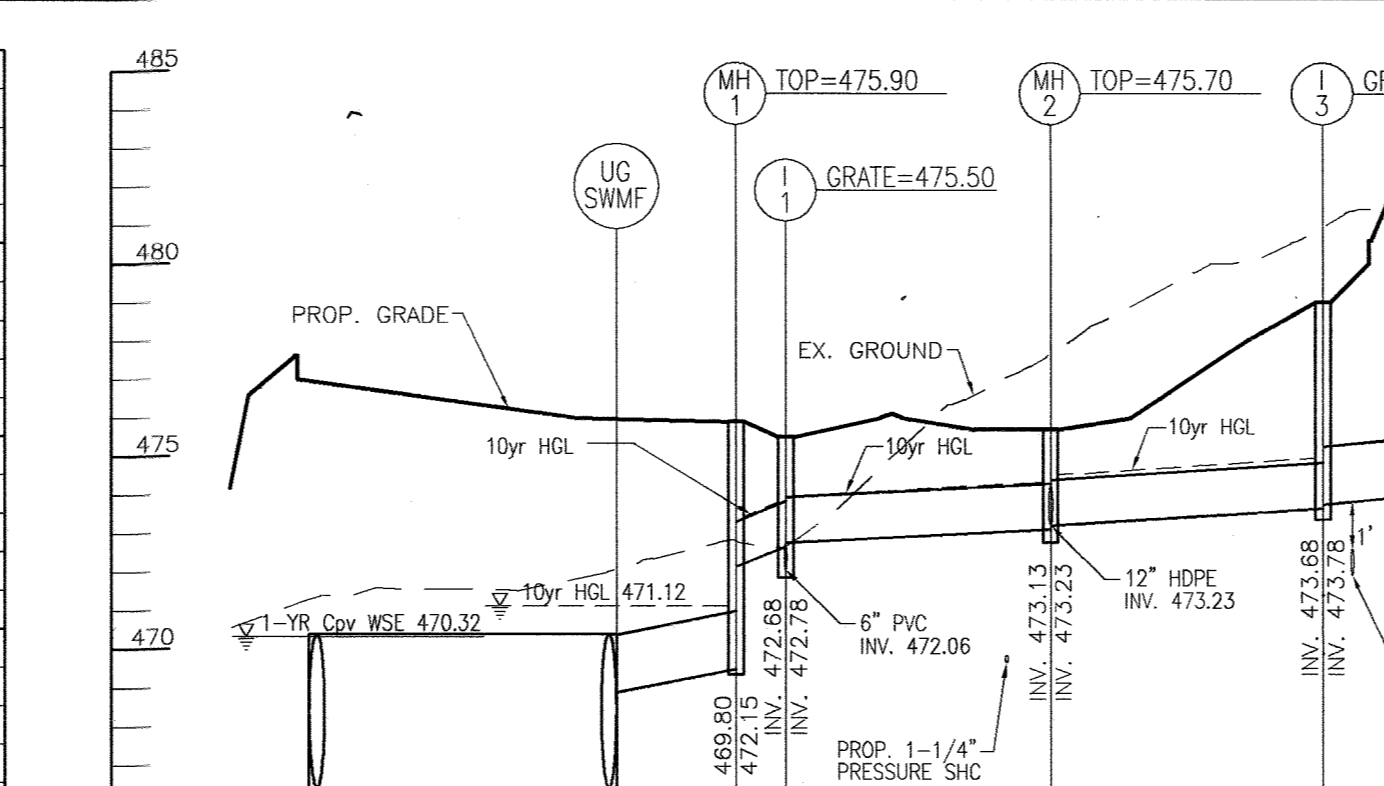
- PROVIDE MANHOLE AND/OR GRATES TO ALL UNDERGROUND AND BELOW GRADE STRUCTURES. MANHOLES SHALL BE IN COMPLIANCE WITH STANDARD SPECIFICATIONS FOR EACH COUNTY, BUT DIAMETERS SHOULD BE 30" MINIMUM TO COMPLY WITH OSHA CONFINED SPACE REQUIREMENTS. ALUMINUM AND STEEL LOUVERED DOORS ARE ALSO ACCEPTABLE. TEN INCH WIDE (MINIMUM) MANHOLE SLABS (12" O.C.) SHALL BE CAST IN PLACE OR DRILLED AND MORTARED INTO THE WALL BELOW EACH MANHOLE. A 5" MINIMUM HEIGHT CLEARANCE (FROM THE TOP OF THE SAND LAYER TO THE BOTTOM OF THE UPPER/SURFACE SLAB) IS REQUIRED FOR ALL PERMANENT UNDERGROUND STRUCTURES. LIFT RINGS ARE TO BE SUPPLIED TO REMOVE/REPLACE TOP SLABS ON PRE-FABRICATED STRUCTURES. MANHOLE COVERS SHOULD ALLOW FOR PROPER VENTILATION.
- UNDERGROUND SANDFILTERS SHOULD BE CONSTRUCTED WITH A GATE VALVE LOCATED JUST ABOVE THE TOP OF THE FILTER BED FOR Dewatering IN THE EVENT THAT CLOGGING OCCURS.
- UNDERGROUND SAND BEDS SHALL BE PROTECTED FROM TRASH ACCUMULATION BY A WIDE MESH GEOTEXTILE SCREEN TO BE PLACED ON THE SURFACE OF THE SAND BED; SCREEN IS TO BE ROLLED UP, REMOVED, CLEANED AND RE-INSTALLED DURING MAINTENANCE OPERATIONS.

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

BY THE DEVELOPER:

BY THE ENGINEER:

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



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS (O1 AND O-2)

- THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
- DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL WOV.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES

- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
- WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED, OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
- THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL NOTIFY THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.
- THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED SEDIMENT AND LIQUID.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	HDPE	119 LF
18"	HDPE	87 LF
14"x23"	EL. RCP	153 LF
18"	ALCMP	31 LF
24"	ALCMP	13 LF
12"	RCP	28 LF
12"	PVC (SOLID)	81 LF
6"	PVC (SOLID)	13 LF
48"	ALCMP GA.12	478 LF

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	COMMENTS
I-1	DOUBLE TYPE 'S' INLET	N 572045 E 1368934	475.50	472.78	472.78	HO. CO. STD SD-4.39
I-2	DOUBLE TYPE 'S' COMB. INLET (PARALLEL)	N 572080 E 1369002	475.50	473.37	473.37	HO. CO. STD SD-4.34
I-3	DOUBLE TYPE 'S' INLET	N 572150 E 1369028	479.00	473.78	473.68	HO. CO. STD SD-4.23
I-4	DOUBLE TYPE 'S' INLET	N 572115 E 1369108	481.80	474.90	474.65	HO. CO. STD SD-4.23
I-5	DOUBLE TYPE 'S' COMB. INLET (PARALLEL)	N 572042 E 1369201	480.80	476.00	476.00	HO. CO. STD SD-4.34
MH-1	4'-0" STANDARD PRECAST MANHOLE	N 572046 E 1368922	475.90	472.15	469.80	HO. CO. STD. G-5.13
MH-2	4'-0" STANDARD PRECAST MANHOLE	N 572097 E 1368980	475.70	473.23	473.13	HO. CO. STD. G-5.13
IW-1	TYPE 'A' HEADWALL	N 571930 E 1368888	469.56	466.06	466.06	HO. CO. STD. G-5.11
CS-1	CAST-IN-PLACE CONTROL STRUCTURE	N 571941 E 1368876	(SEE DETAIL, THIS SHEET)			MD 385.05

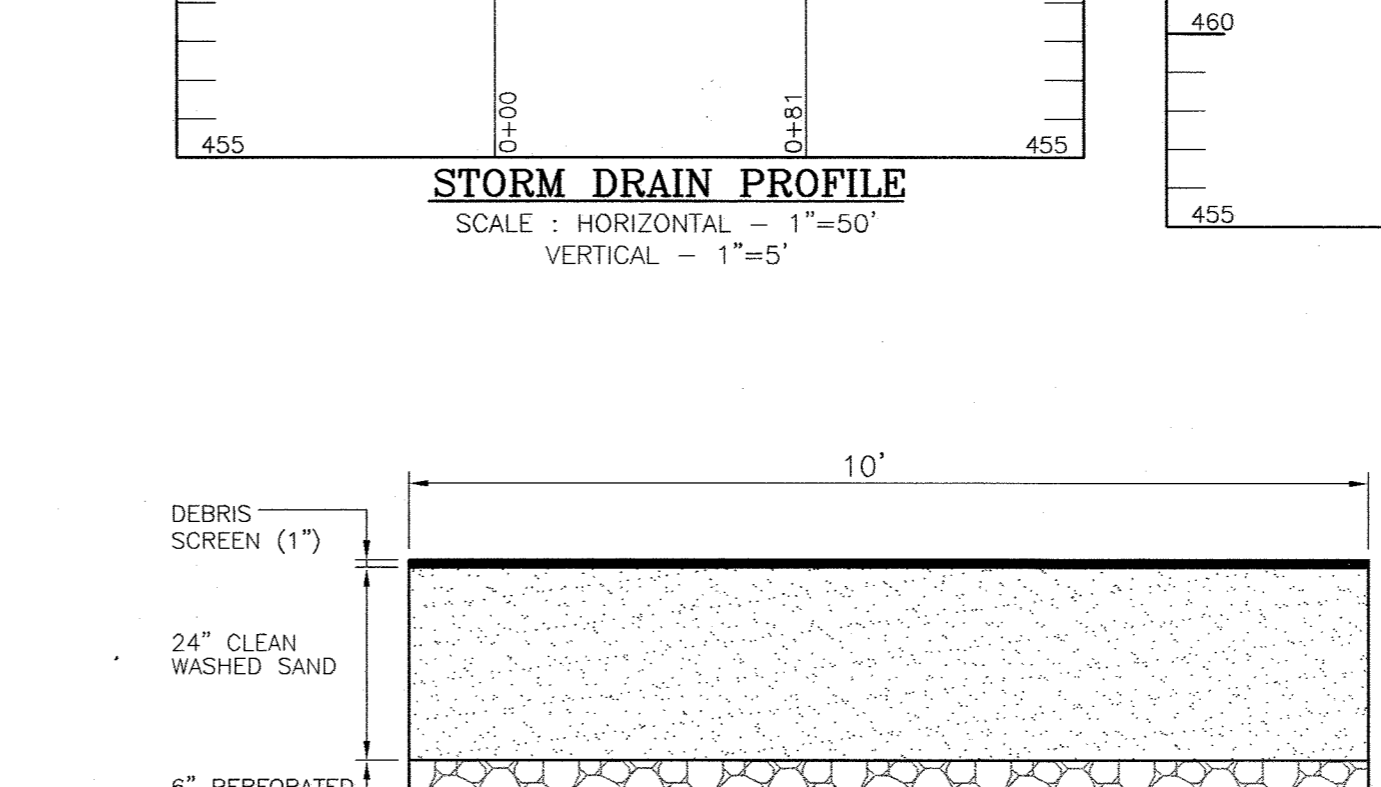
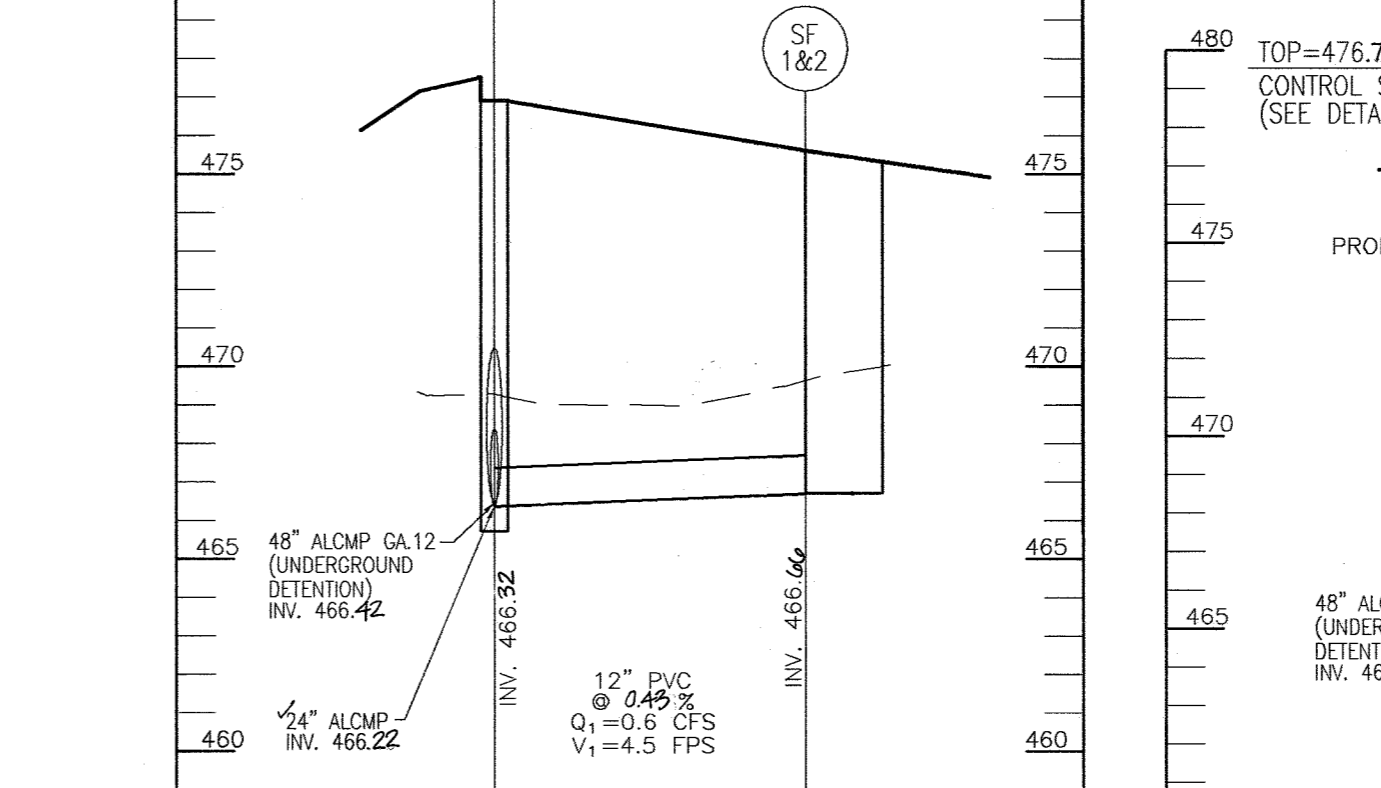
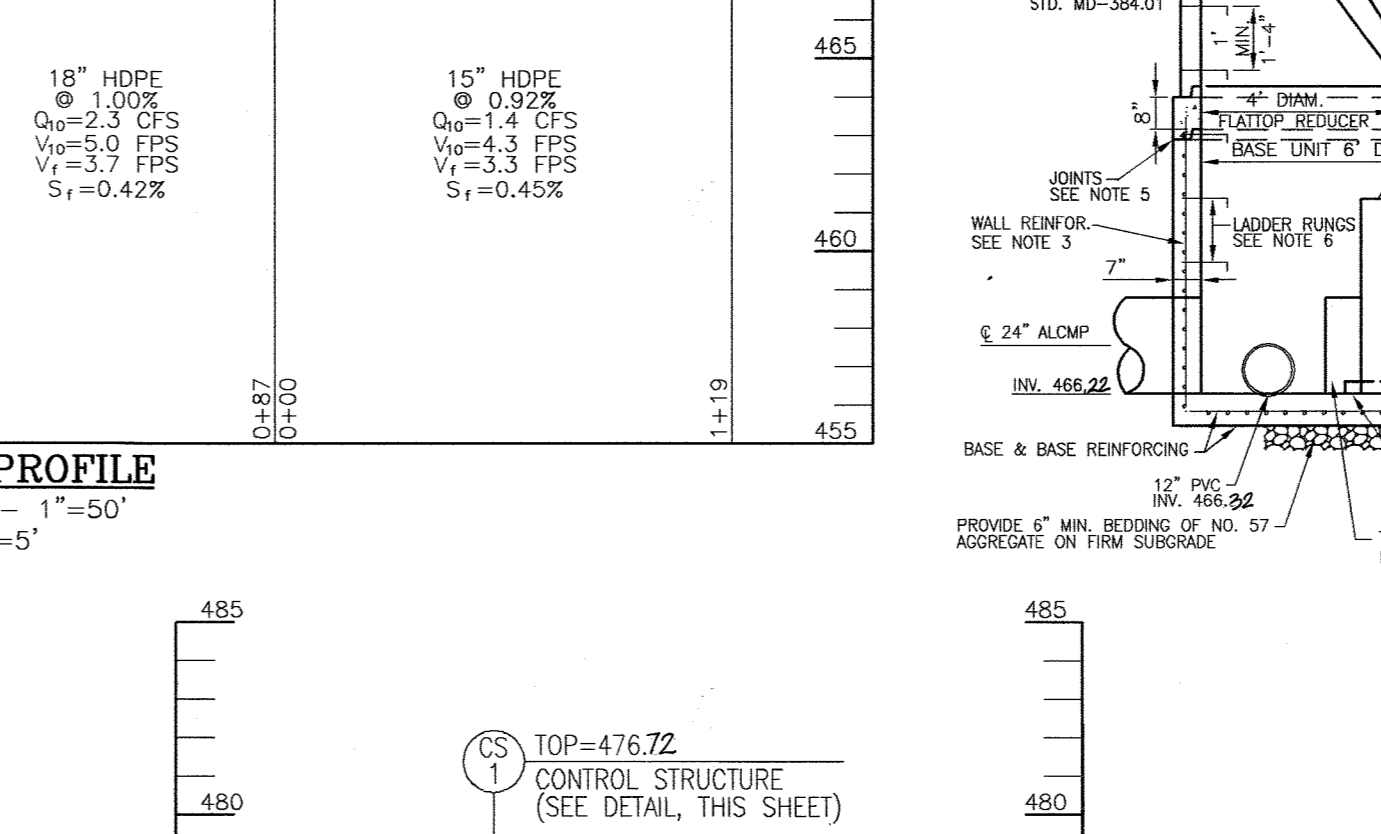
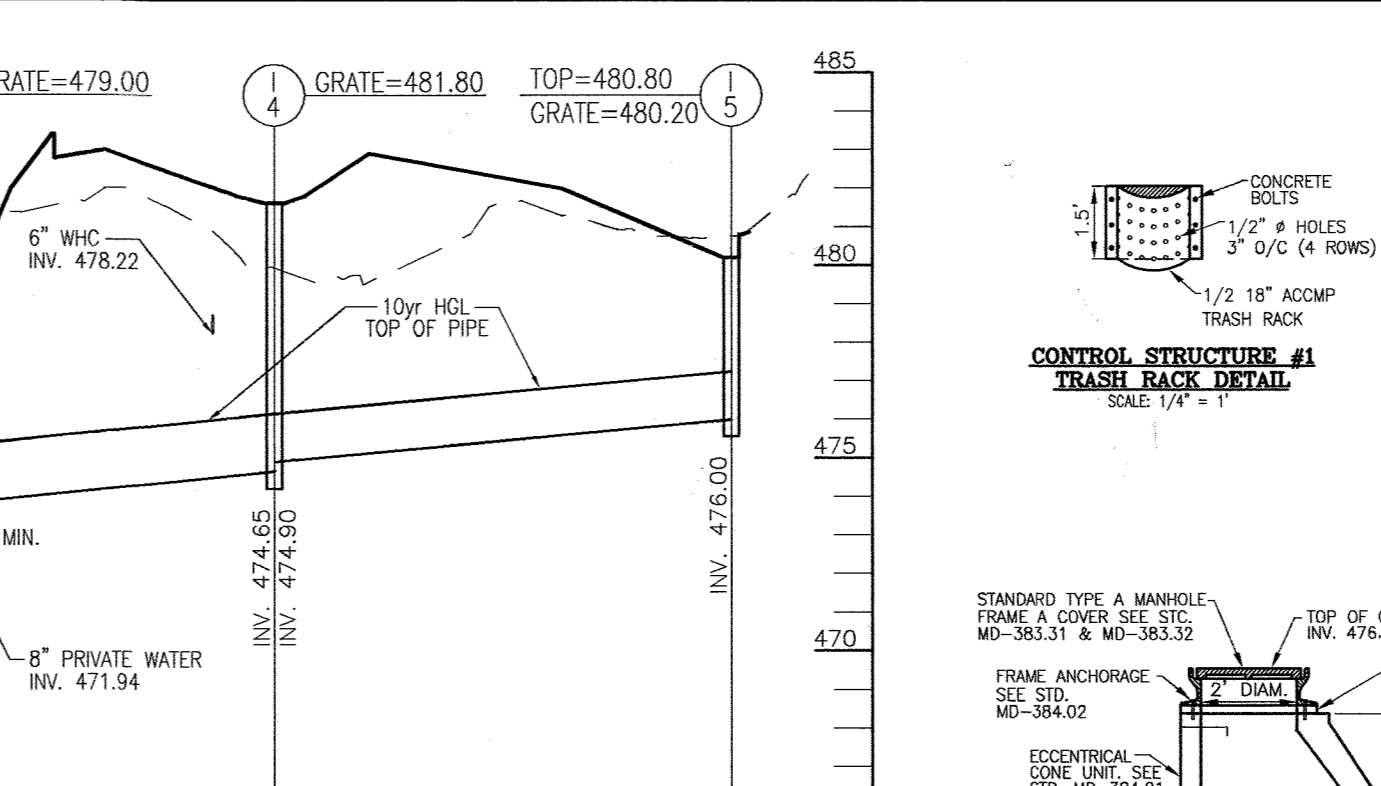
NOTE: 1. For Double Type 'S' Inlets, top elevation are at center top of grate. For all manholes, top elevation are at center top of manhole cover. Top elevations are at top of curb for Type 'A-10' and Double Type 'S' Comb. Inlets.  
2. For top slab slopes see grading plan.  
3. See Architectural plans for roof drain details.

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

BY THE DEVELOPER:

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.



SUMMARY TABLE AREA A (SITE)

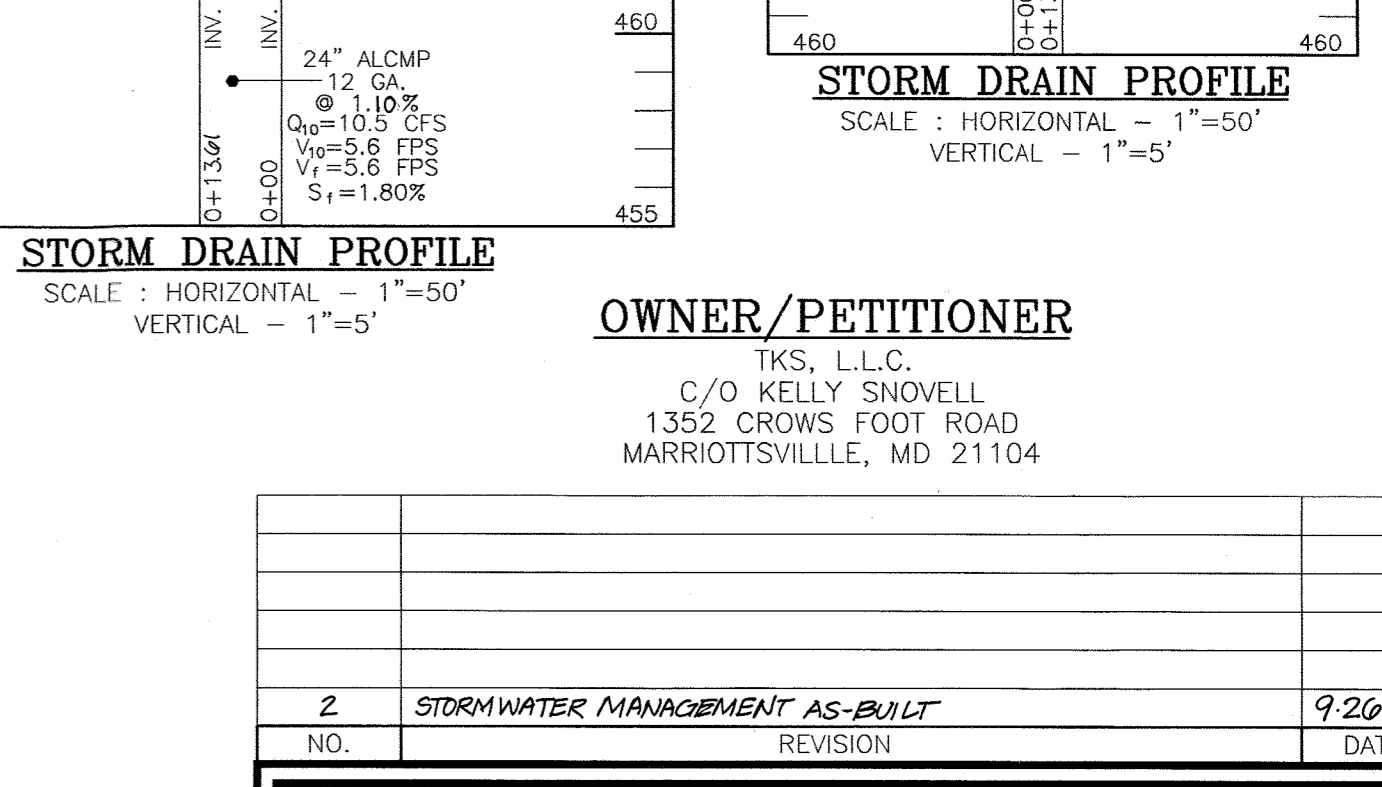
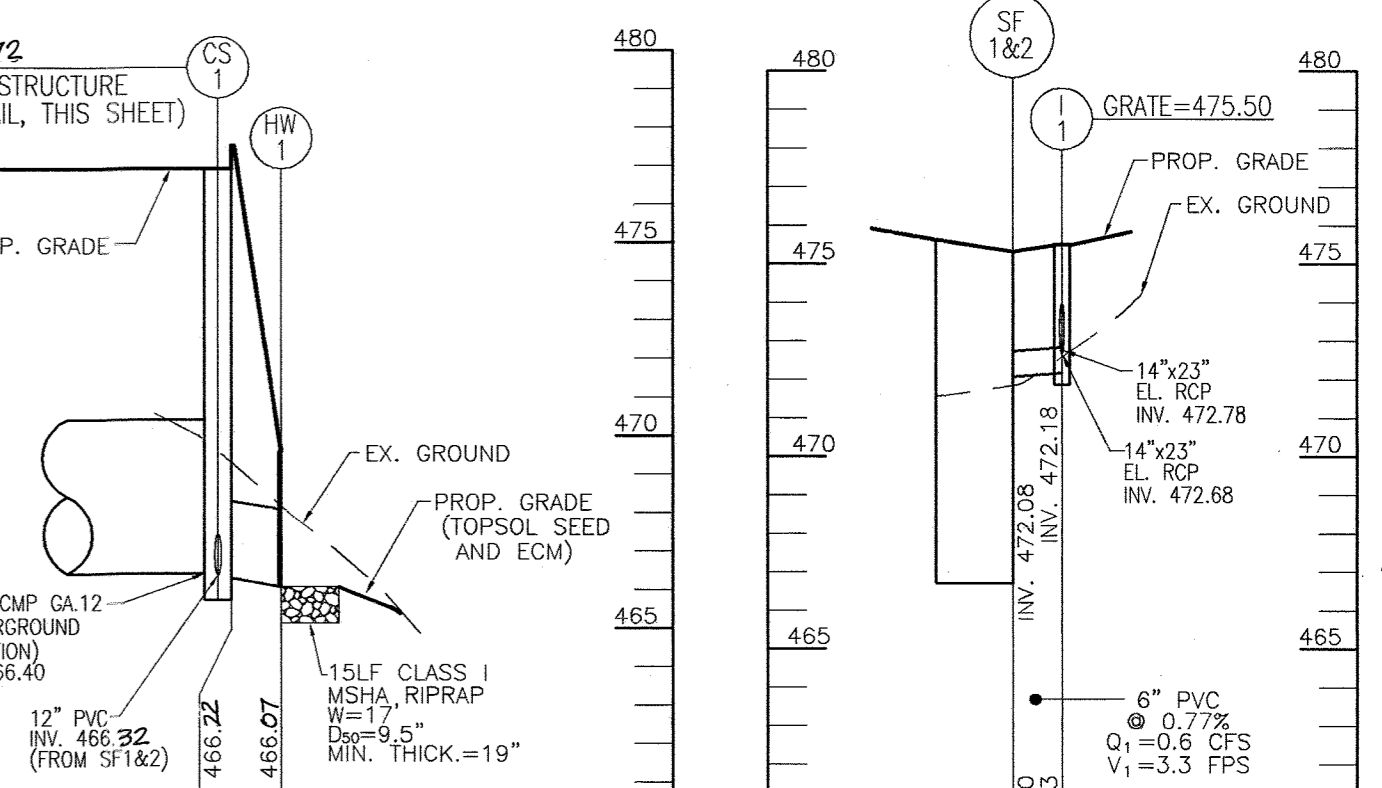
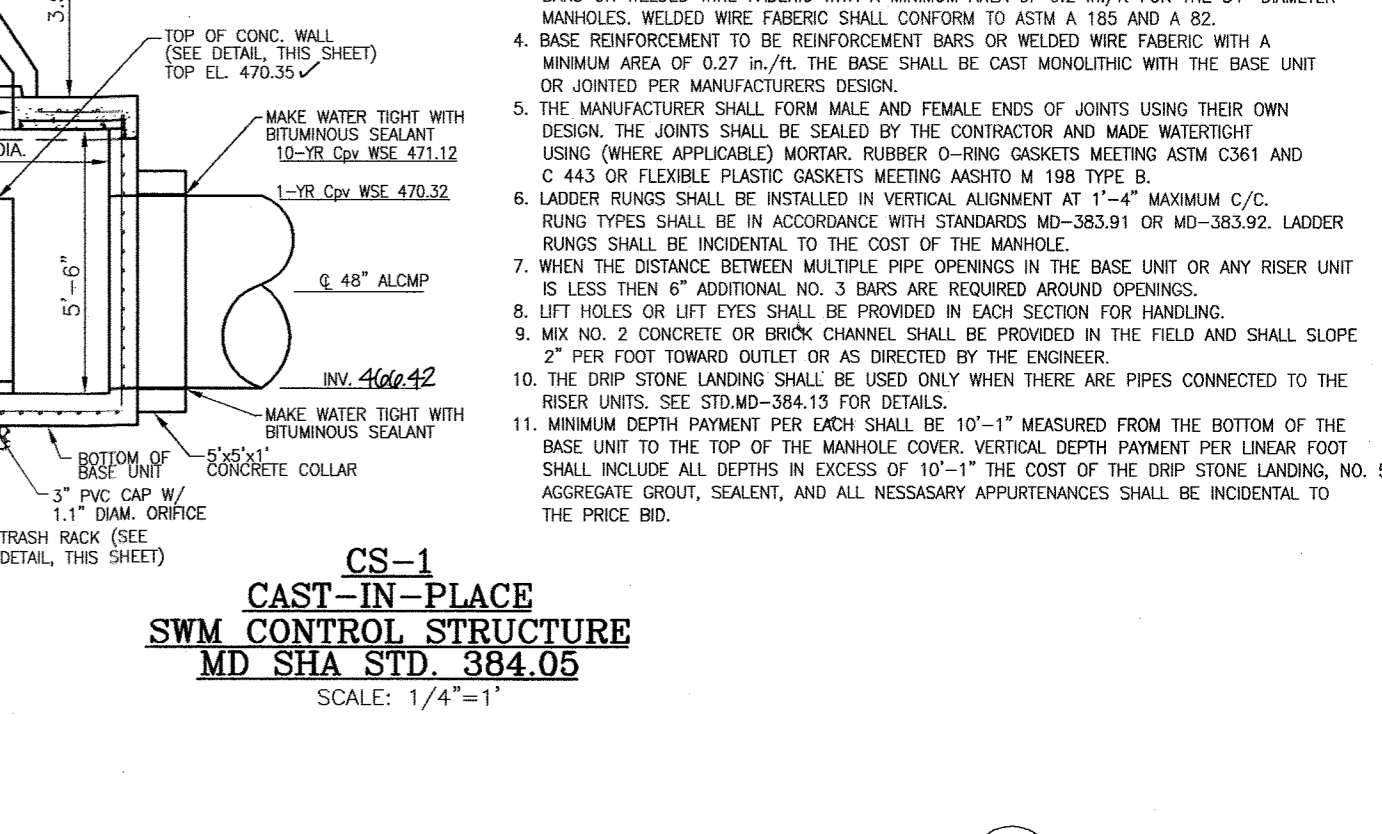
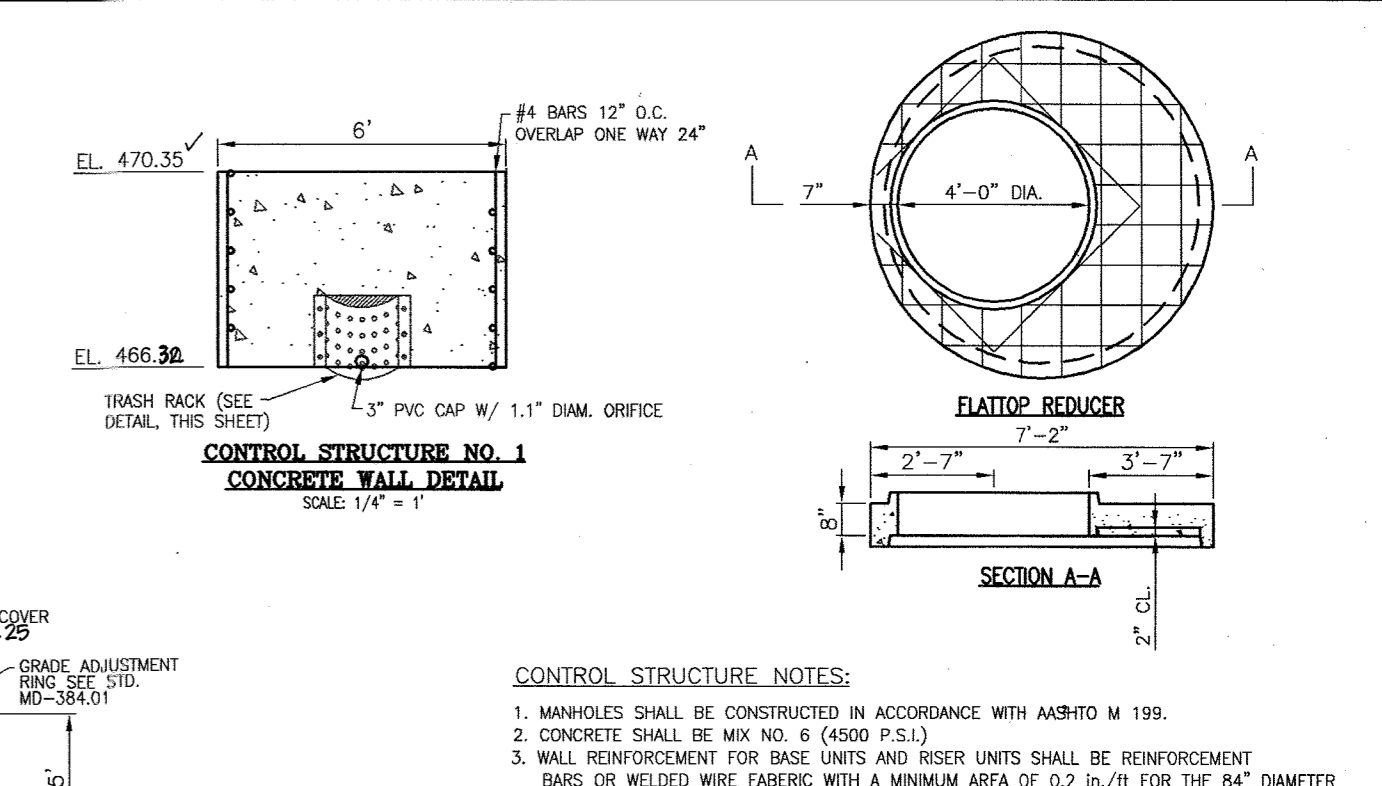
AREA A 3.57 AC.	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	WATER QUALITY VOLUME WOV	4083 CF	0.21 AC TO GRASS CHANNEL	3461 CF	SANDFILTER
2	RECHARGE VOLUME REV	1062 CF OR 0.3050 AC.	NONE	1062 CF	PROVIDED IN GRAVEL UNDER SANDFILTER
3	CHANNEL PROTECTION VOLUME CPV	5603 CF	N/A	5603 CF	PIPE STORAGE
4	OVERHEAD FLOOD PROTECTION, G10P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, G100P	N/A	N/A	N/A	

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

BY THE DEVELOPER:

BY THE ENGINEER:

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OWNER/PETITIONER

TKS, L.L.C.

C/O KELLY SNOVELL

1352 ROWS FOOT ROAD

MARRIOTTSVILLE, MD 21104

2 STORMWATER MANAGEMENT AS-BUILT REVISION 9/26/07 DATE

SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT DETAILS, AND STORM DRAIN PROFILES

MONTGOMERY STATION, PARCEL A

RETAIL/OFFICE BUILDINGS A & B

PARCEL A

TAX MAP 31 BLOCK 7 2ND ELECTION DISTRICT

PARCEL 17 & 831 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RHV

DRAWN BY: DZ

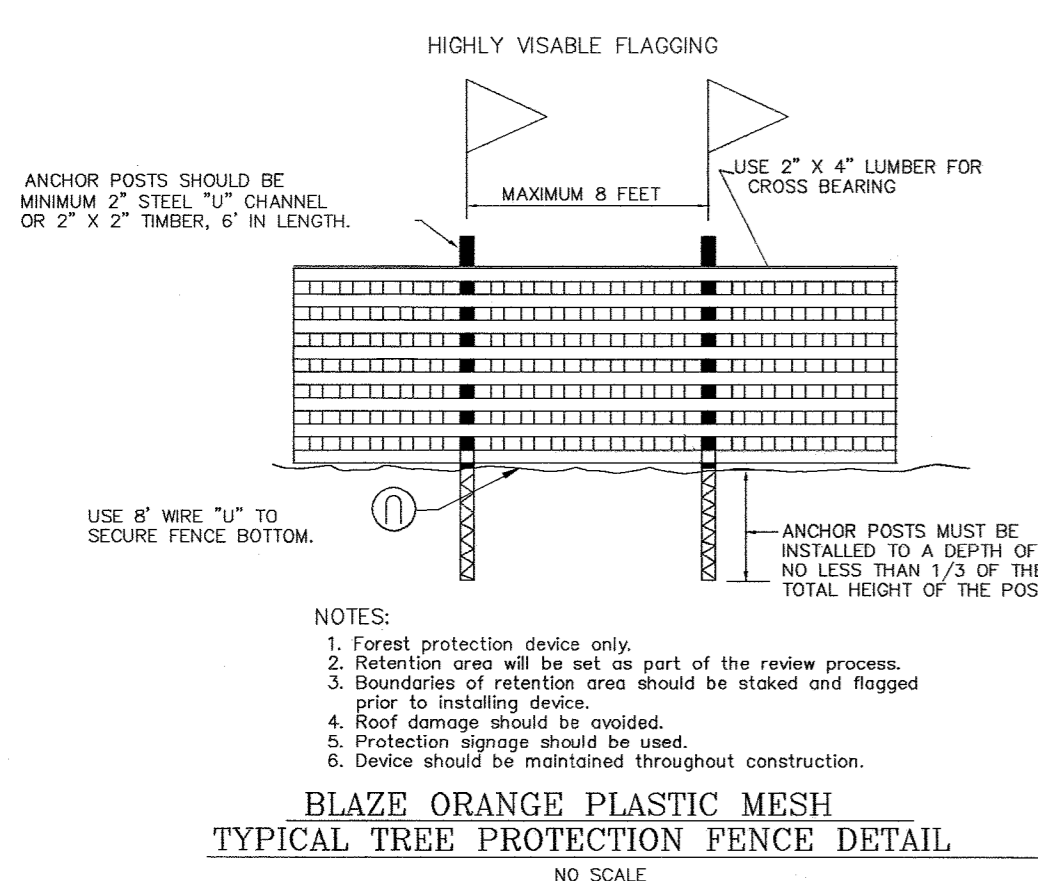
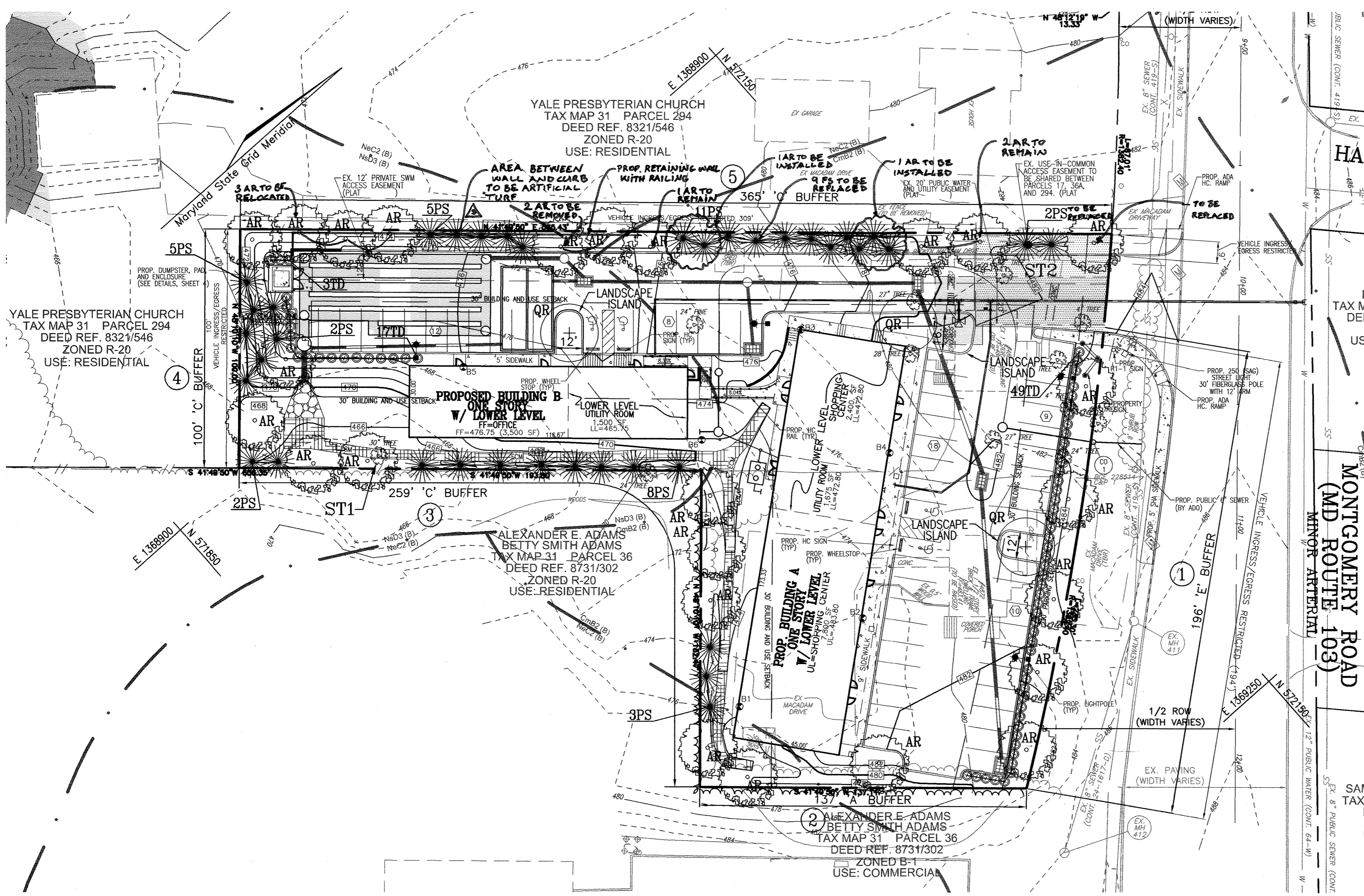
CHECKED BY: RHV

DATE: SEPT. 12, 2006

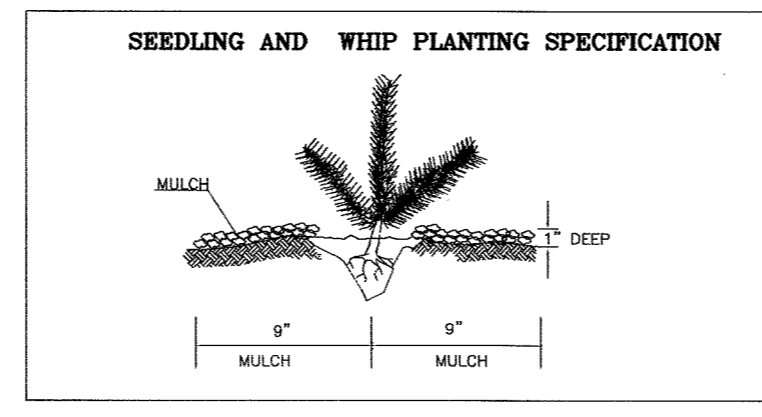
SCALE: AS SHOWN

W.O. NO.: 04-36

6 SHEET OF 8



**NOTE: WITHIN REVISION #3, THREE EXISTING RED MAPLES SHALL REMAIN AND THREE RED MAPLES SHALL BE RELOCATED OR INSTALLED NEW. ELEVEN WHITE PINES SHALL BE INSTALLED NEW. ELEVEN WHITE PINES SHALL BE INSTALLED TO REPLACE NEW. ELEVEN WHITE PINES SHALL BE INSTALLED TO REPLACE EVERGREENS THAT HAVE NOT SURVIVED. CRYPTOMERIA JAPONICA RADICANS SHALL BE AN EQUAL SUBSTITUTION FOR WHITE PINES.**



NO.	COMMON NAME / SCIENTIFIC NAME	CONDITION
ST-1	SILVER MAPLE / ACER SACCHARINUM	FAIR
ST-2	BOXELDER / ACER NEGUNDO	POOR

FOR REVISION NO. 3 ONLY



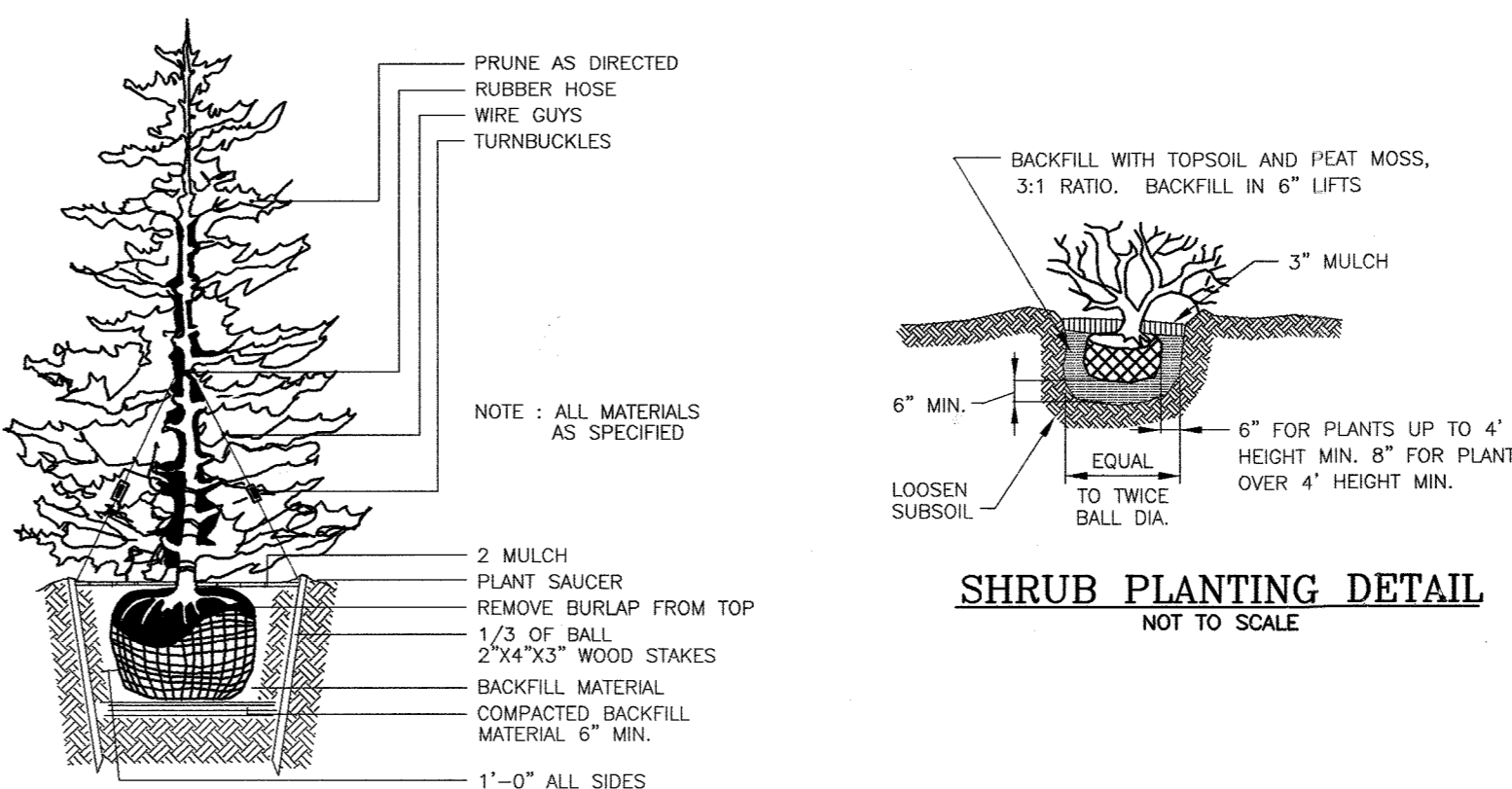
**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 01/25/2022

**FOREST CONSERVATION WORKSHEET**

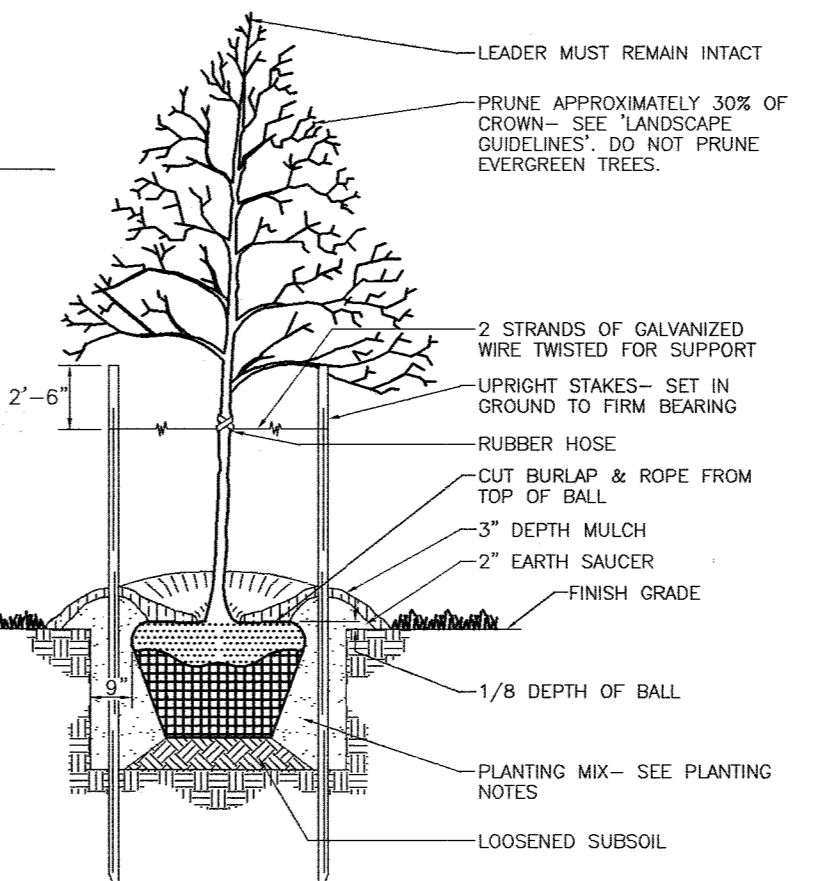
NET TRACT AREA:	1.38 AC
A. TOTAL TRACT AREA	0.00 AC
B. DEDUCTIONS	1.38 AC
C. NET TRACT AREA	
LAND USE CATEGORY (FROM TABLE 3.2.1, PAGE 40, MANUAL)	
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY.	
ARA	0
MDR	0
IDA	0
HDR	0
MPD	0
CIA	1
E. AFFOREST THRESHOLD	15% X D = 0.21 AC
F. CONSERVATION THRESHOLD	15% X D = 0.21 AC
EXISTING FOREST COVER:	
G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN) =	0.00 AC
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD =	0.00 AC
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD =	0.00 AC
BREAK EVEN POINT: (143)	
J. FOREST RETENTION WITH NO MITIGATION REQUIRED =	0.00 AC
K. CLEARING PERMITTED WITHOUT MITIGATION =	0.00 AC
PROPOSED FOREST CLEARING:	
L. TOTAL AREA OF FOREST TO BE CLEARED =	0.00 AC
M. TOTAL AREA OF FOREST TO BE RETAINED =	0.00 AC
PLANTING REQUIREMENTS:	
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD =	0.00 AC
O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD =	0.00 AC
P. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD =	0.00 AC
Q. CREDIT FOR RETENTION BELOW CONSERVATION THRESHOLD =	0.00 AC
R. TOTAL REFORESTATION REQUIRED =	0.00 AC
S. TOTAL AFFORESTATION REQUIRED =	0.21 AC
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED =	0.21 AC
THE FOREST CONSERVATION AFFORESTATION OBLIGATION OF 0.21 ACRES FOR THIS PLAN HAS BEEN FULFILLED THROUGH A FEE-IN-LIEU PAYMENT OF \$4,574.00 (\$147.6 SF x 0.50) TO THE HO. CO. FOREST CONSERVATION FUND.	

**LEGEND:**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED LIGHT POLE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUBS
- LANDSCAPE PERIMETER



- NOTES:**
- SEE "LANDSCAPE SPECIFICATION GUIDELINES" FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
  - SEE "LANDSCAPE GUIDELINES" FOR ADDITIONAL PLANTINGS FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
  - PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
  - KEEP MULCH 1" FROM TRUNK
  - SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
  - TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



**TREE PLANTING AND STAKING**  
DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

**LANDSCAPE SCHEDULE NOTE:**

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

**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. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$16,020.00 FOR THE REQUIRED 29 SHADE TREES, 39 EVERGREEN TREES AND 49 SHRUBS.

**OWNER/PETITIONER**

TKS, L.L.C.  
C/O KELLY SNOVELL  
1352 CROWS FOOT ROAD  
MARRIOTTSVILLE, MD 21104

NO.	REVISE PLANS WITH RETAINING WALL	02/12/20
	REVISION	DATE

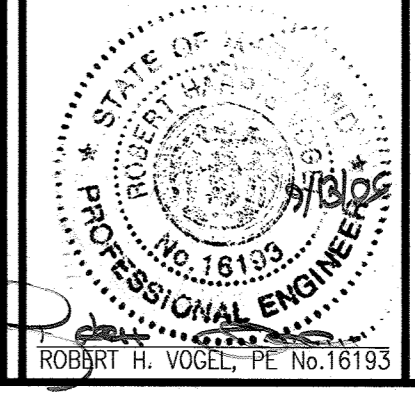
**SITE DEVELOPMENT PLAN**  
**SITE LANDSCAPE AND FOREST CONSERVATION PLAN**  
**MONTGOMERY STATION, PARCEL A**  
**RETAIL/OFFICE BUILDINGS A & B**  
**PARCEL A**

TAX MAP 31 BLOCK 7  
2ND ELECTION DISTRICT

PARCEL 17 & 831  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELICOTT CITY, MD 21143  
TEL: 410.461.7666  
FAX: 410.461.8961

DESIGN BY:	RHV
DRAWN BY:	DZ
CHECKED BY:	RHV
DATE:	SEPT. 12, 2006
SCALE:	AS SHOWN
W.O. NO.:	04-36



**SCHEDULE B PARKING LOT INTERNAL LANDSCAPING**

Number of parking spaces	57
Number of trees required	3
Number of plants provided	3
Shade Trees	3
Other Trees (2:1 Substitution)	-

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	1	2	3	4	5	6	ADJACENT TO DUMPISTER
Perimeter/Frontage Designation	E	A	C	C	C	D	
Linear Feet of Roadway	196	137	259	100	365	34	
Frontage/Perimeter							
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No	No	No	No	No	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	No	YES (157)	No	
Number of Plants Required	1:40	5	1:40	5	1:40	5	1:60
Shade Trees	1:40	5	1:40	5	1:40	5	1:60
Evergreen Trees	1:40	5	1:40	5	1:40	5	1:10
Shrubs							
Number of Plants Provided	5	2	6	3	5	2	0*
Evergreen Trees							2*
Other Trees (2:1 Substitution)							6
Shrubs (10:1 Substitution)	49		13				20*
Describe Plant Substitution Credits (Below if needed)							

**LANDSCAPE SCHEDULE**

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
AR	25	ACER RUBRUM	2 1/2"-3" CAL.	B & B
GR	3	QUERCUS PHELLOS	2 1/2"-3" CAL.	B & B
PS	38	PRUNUS STROBUS	6"-8" HT.	B & B
TD	69	TAXUS MEDIA 'DENSIFORMIS' DENSIFORMIS YEW	2 1/2" -3" HT.	B & B

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP
AgE3	AURA GRAVELLY LOAM 10 TO 30 % SLOPES, SEVERELY ERODED	B
BdD3	BRANDYWINE LOAM, 15 TO 25 % SLOPES, SEVERELY ERODED	C
CmB2	CHILLUM SILT LOAM, 1 TO 5 % SLOPES, MODERATELY ERODED	C
CmC2	CHILLUM SILT LOAM, 5 TO 10 % SLOPES, MODERATELY ERODED	C
GmA	GLENVILLE SILT LOAM, 0 TO 3 % SLOPES	C
NeB2	NESHAMINY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED	B
NmC2	NESHAMINY SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED	B
NmD3	NESHAMINY SILTY CLAY LOAM, 15 TO 15 % SLOPES, SEVERELY ERODED	B
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5-10 % SLOPES, MODERATELY ERODED	B

NOTE: BASED ON HOWARD SOIL SURVEY

**DEVELOPER'S/BUILDER'S CERTIFICATE**

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 (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Signature of Developer: Kelly Snovell  
Date: 9/13/06

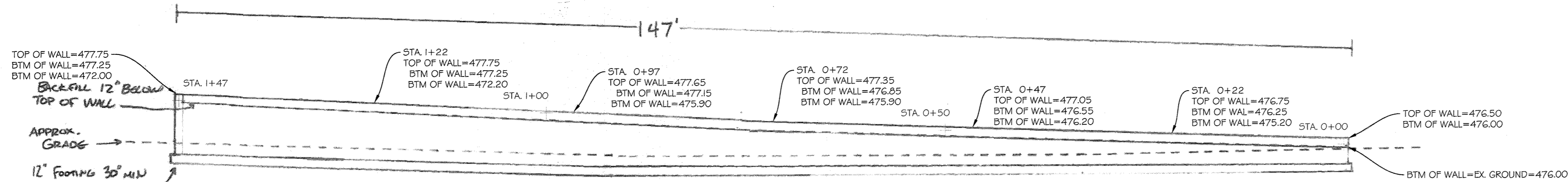
Signature of Kelly Snovell: Kelly Snovell  
Date: 9/13/06

Signature of Kelly Snovell: Kelly Snovell  
Date: 10/31/06

Signature of Kelly Snovell: Kelly Snovell  
Date: 10/31/06

Signature of Kelly Snovell: Kelly Snovell  
Date: 10/31/06

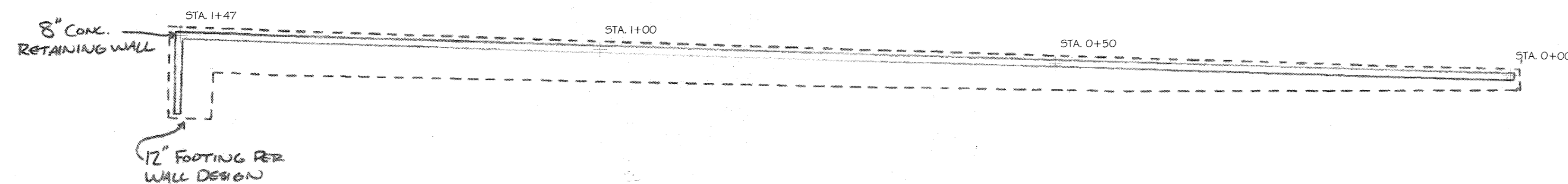
Signature of Kelly Snovell: Kelly Snovell  
Date: 10/31/06



- NOTES:
- 1) WALL FORMWORK SHALL INCLUDE BRICK PATTERN.
  - 2) WALL SHALL BE PAINTED TAN (ANTIQUÉ WHITE) WITH ACCENT COLOR ENTICING RED, OR APPROVED EQUAL AS DETERMINED BY OWNER.
  - 3) CONTRACTOR SHALL PROVIDE RANDOM BRICKS WITH ACCENT COLOR (6 SF OF ACCENT FOR EVERY 60 SF OF WALL).
  - 4) PAINT SHALL BE SUITABLE FOR THE APPLICATION.
  - 5) CONSTRUCTION OF WALL SHALL NOT IMPEDE ADJACENT PROPERTY.

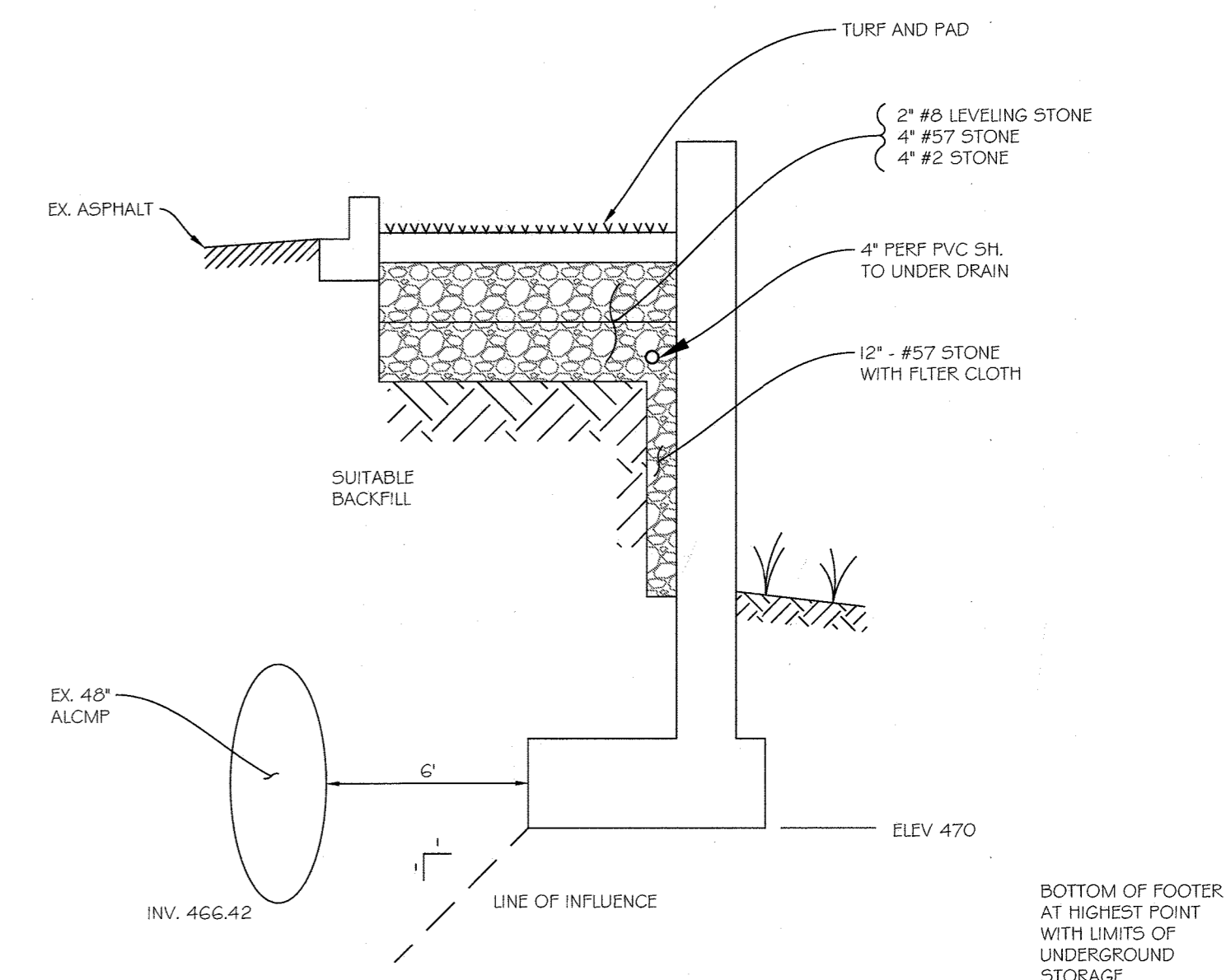
**ELEVATION**

SCALE: 1" = 10'



**PLAN**

SCALE: 1" = 10'



**TYPICAL CROSS-SECTION NTS SECTION A-A**

QuikWall 5.8 - RETAINING WALL ANALYSIS AND DESIGN

Project: SIX FOOT CRETE RETAINING WALL (6' MAX)

Location: 4866 Montgomery Road, Ellicott City

By: jlschneider pe

Page 1

TIME: 10:36 AM

DATE: 02-08-2020

ANALYSIS RESULTS:

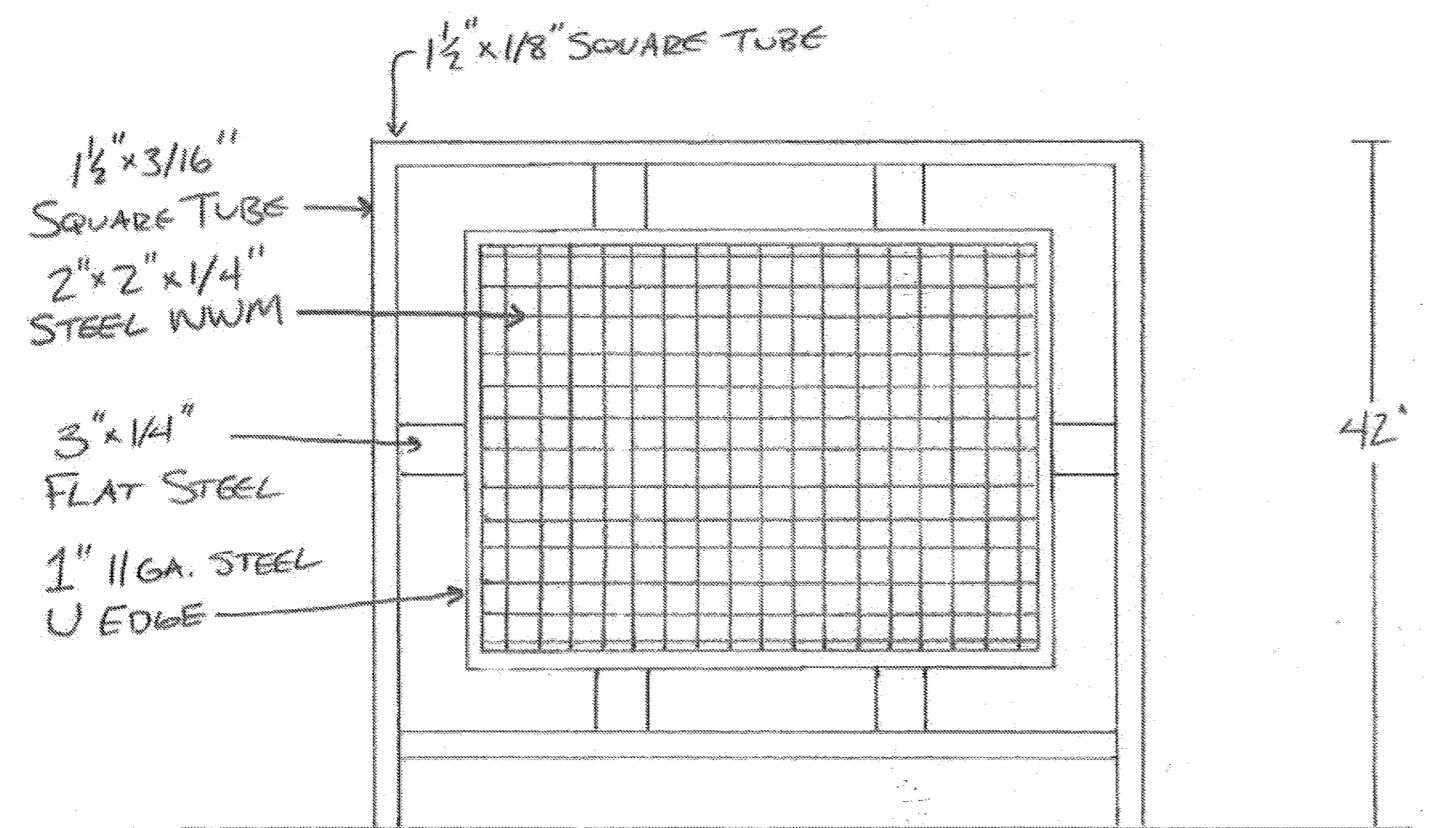
Sliding Force = 1,266 Lb	Overturn. Moment = 3,164 ft-lb
Resisting Force = 2,538 Lb	Resisting Moment = 9,197 ft-lb
F.O.S. = 2.01 O.K.	F.O.S. = 2.91 O.K.

DESIGN RESULTS:

Stem Req'd Area Stl. = 0.194 in<sup>2</sup>

Toe Req'd Area Stl. = 0.259 in<sup>2</sup>

Heel Req'd Area Stl. = 0.259 in<sup>2</sup>

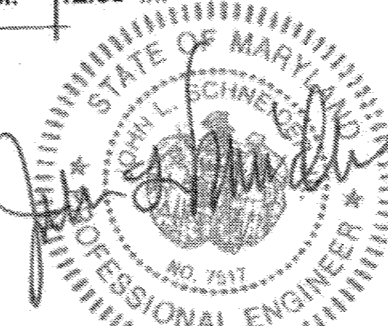
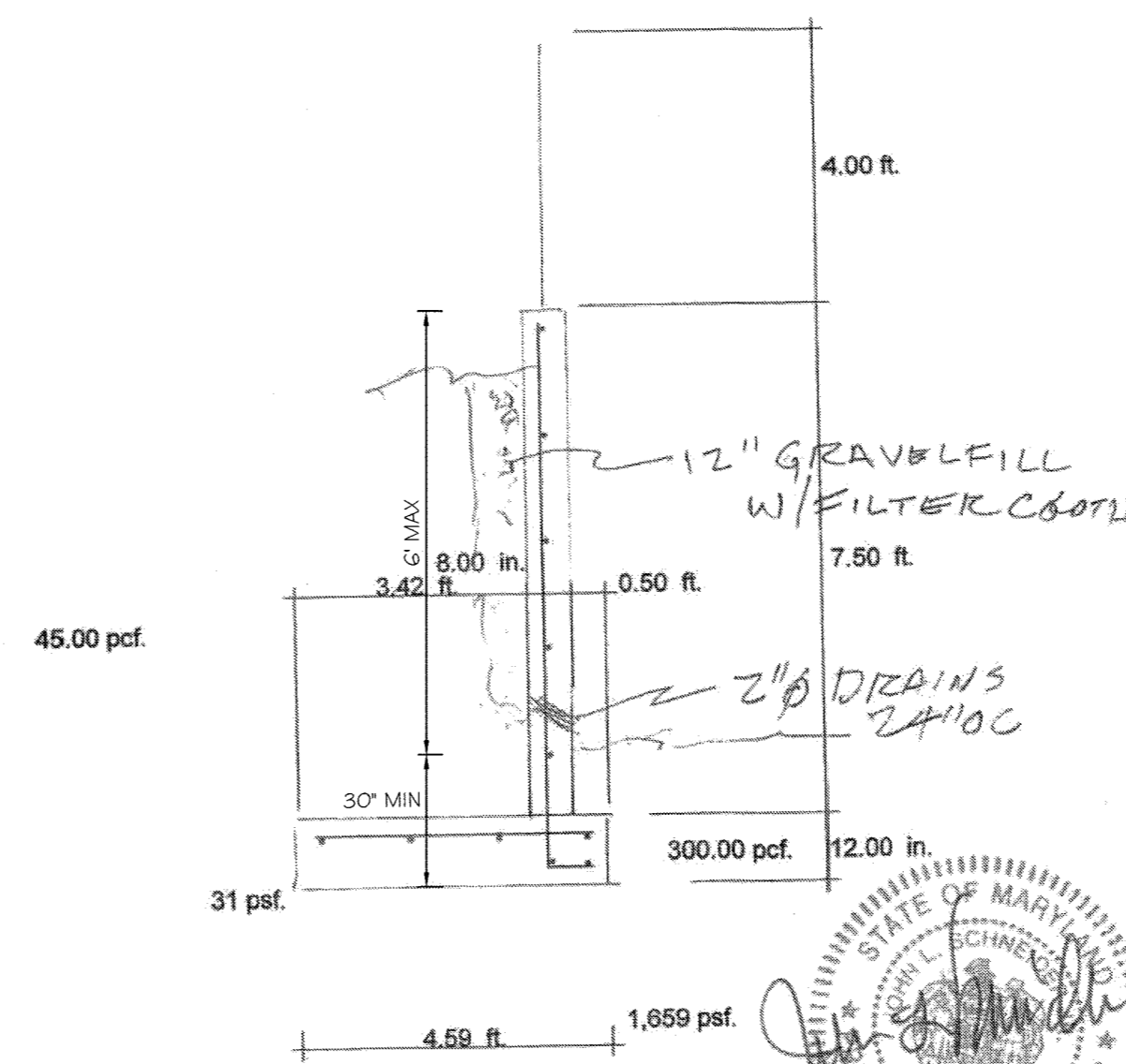


RAILING SHALL BE PAINTED TRICORN BLACK OR APPROVED EQUAL

RAILING TO BE INSTALLED ON INSIDE SIDE OF WALL

**RAILING DETAIL**

SCALE: 1" = 1'



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 7517, EXPIRATION DATE: 12/03/2020.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION


DATE: 9/9/20

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 9/16/2020

DIRECTOR

DATE: 9/21/20



DAFT McCUNE WALKER INC

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286  
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

**SITE DEVELOPMENT PLAN**

**RETAINING WALL DETAIL**

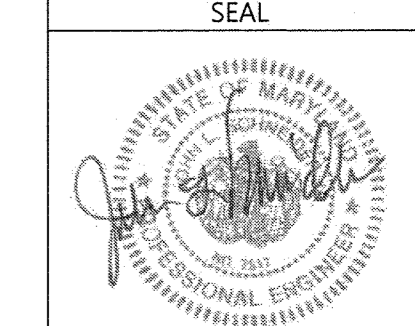
**MONTGOMERY STATION, PARCEL A**

RETAIL/OFFICE BUILDINGS A & B

Parcels 17 & 831  
Tax Map 33, Block 07

2ND ELECTION DISTRICT  
2ND COUNCILMANIC DISTRICT

HOWARD COUNTY, MARYLAND

SEAL		ISSUE DATES
		REVIEW: 03/12/2020
		BID: _____
PERMIT: _____		CONSTRUCTION: _____
BASE: _____		DRAWN: JLS
DATE: 03/12/20		DESIGNED: JLS
BY: DMW		CHECKED BY: JLS
REVISIONS		DATE CHECKED: _____
ADDED RETAINING WALL		SCALE: AS SHOWN
		PROJECT NO: 20007.00
		DRAWING: _____

8 of 8