

LOCATION MAP  
SCALE: 1" = 2000'

**BENCH MARKS**

48GM3 N 532,637.038 E 1,371,516.381 ELEV. 202.10	48GM4 N 531,893.493 E 1,371,931.042 ELEV. 191.30
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ALL BENCHMARKS CONSIST OF A 3/4" REBAR PIN WITH A RED CAP. DRAWINGS ARE BASED ON MARYLAND COORDINATE SYSTEM (MCS). HORIZONTAL - NAD 83. VERTICAL - NAVD 88.

**GENERAL NOTES**

- BEFORE THE START OF CONSTRUCTION, THE CONTRACTOR IS TO VERIFY THE LOCATION OF EXISTING UTILITIES BY CONTACTING "MISS UTILITY" (1-800-257-7777).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO AND MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.
- WHERE REQUIRED BY ENCOUNTERED SPRINGS OR OTHER SEEPAGE CONDITIONS, UNDERDRAIN LINES SHALL BE INSTALLED USING 6-INCH DIAMETER PERFORATED UNDERDRAIN PIPE MEETING HOWARD COUNTY STANDARD SPECIFICATIONS.
- ALL DISTURBED AREAS AS A RESULT OF ROADWAY AND STORM DRAIN CONSTRUCTION SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS AFTER COMPLETION.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL THAT IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NO. 48GM3 AND 48GM4 WERE USED FOR THIS PROJECT.
- 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.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF 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 THE FACE OF CURB UNLESS OTHERWISE NOTED.
- WATER IS PUBLIC AND WAS CONSTRUCTED PER CONTRACT 24-3417. THE SITE WILL BE SERVED BY A 4" COMBINED FIRE AND DOMESTIC CONNECTION. AN INSIDE METER SETTING WILL BE INSTALLED IN THE PROPOSED BUILDING.
- SEWER IS PUBLIC AND WAS CONSTRUCTED PER CONTRACT 24-3417.
- THE EXISTING WELL ON THE SITE SHALL BE ABANDONED AND SEALED IN ACCORDANCE WITH THE HEALTH DEPARTMENT REGULATIONS. THE WELL SHALL BE ABANDONED WITHIN THIRTY (30) DAYS OF ISSUANCE OF A BUILDING PERMIT.
- THE SEPTIC SYSTEM SHALL BE ABANDONED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS.
- WATER QUALITY AND GROUNDWATER RECHARGE ARE PROVIDED BY OPEN CHANNEL SYSTEMS THAT HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE GRASS CHANNEL CREDIT. THE FACILITIES ARE PRIVATE AND WILL BE MAINTAINED BY THE OWNER.
- THE EXISTING UTILITIES ARE BASED ON FIELD SURVEY TOPOGRAPHY. THE LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE TEST PITTED PRIOR TO CONSTRUCTION.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THERE ARE NO WETLANDS ON THIS SITE.
- ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 13.4.
- THIS PLAN IS SUBJECT TO THE REQUIREMENTS OF THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THERE ARE NO PREVIOUS DEPARTMENT OF PLANNING AND ZONING REFERENCES.
- A LANDSCAPE SURETY IN THE AMOUNT OF \$6,930 HAS BEEN INCLUDED WITH THE DEVELOPER'S AGREEMENT.
- FOREST CONSERVATION OBLIGATION OF 0.16 ACRE OF AFFORESTATION FOR THIS PLAN HAS BEEN MET BY A FEE-IN-LIEU PAYMENT OF \$3,485.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND.
- STORAGE, MAINTENANCE, WORK, ASSEMBLY, REPAIR, LOADING, UNLOADING, MANUFACTURING AND ANY OTHER USES OTHER THAN PARKING AND DRIVEWAY ACCESS ARE NOT PERMITTED WITHIN THE "50' STRUCTURE AND USE SETBACK" REFERENCED FROM HILDER AVENUE.

**SITE ANALYSIS DATA CHART**

- TOTAL AREA: 46,609 S.F. ± or 1.07 AC. ±
- AREA OF PLAN SUBMISSION: 51,567 S.F. OR 1.184 AC.
- DISTURBED AREA: 51,567 S.F. OR 1.184 AC.
- PRESENT ZONING: M-2
- PROPOSED USE: WAREHOUSE W/ SUPPORTING OFFICE.
- BUILDING COVERAGE: 11,420 S.F. OR 0.262 AC. ± (24.38%).
- PARKING SPACES REQUIRED: 0.5 SPACES PER 1000 S.F. OR 6 SPACES
- PARKING SPACES PROVIDED: 7 SPACES, 1 HC VAN ACCESSIBLE
- PREVIOUS DPZ FILE: NONE

**ADDRESS CHART**

Lot/Parcel #	Street Addresses
PARCEL 37	8805 HILDER AVENUE

**PERMIT INFORMATION CHART**

Subdivision Name		Section/Area	Lot/Parcel No.		
WHITEHURST		N.A.	LOTS 5-16 / PARCEL 37		
Plot # or L/F	Grid	Zoning	Tax Map No.	Election District	Census Tract
119/127	# 14	M-2	48	6	8069.01
Water Code		Sewer Code			
802		4020000			

**INDEX OF DRAWINGS**

SHEET NO.	DESCRIPTION
1	SITE PLAN
2	SITE & STORMWATER MANAGEMENT NOTES AND DETAILS
3	STORMWATER MANAGEMENT PLAN & DRAINAGE AREA MAP
4	STORMWATER MANAGEMENT NOTES & DETAILS
5	SEDIMENT & EROSION CONTROL PLAN & DETAILS
6	SEDIMENT AND EROSION CONTROL NOTES
7	FINAL LANDSCAPE PLAN

**NOTE:**

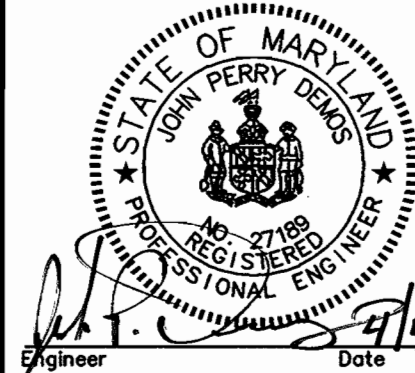
1. THE EXISTING FEATURES WITHIN THE DEVELOPMENT ENVELOPE ON THIS DRAWING WERE GENERATED FROM A FIELD RUN AND MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT NOVEMBER 15th 2004 BY BRIAN R. DIETZ, PROFESSIONAL LAND SURVEYOR #21080.

**SITE PLAN**

SCALE: 1" = 20'  
0' 20' 40' 60'

**Richardson Engineering, LLC**

110 Old Padonia Road, Suite LC  
Cockeysville, Maryland 21030  
Phone: 410-560-1502 Fax: 410-560-0827



**OWNERS/DEVELOPERS**

GUILFORD PARCEL, LLC  
8805 HILDER AVENUE  
ANNAPOLIS JUNCTION, MARYLAND 20701  
ATTN: MIKE WHITE  
PHONE: 301-674-5861

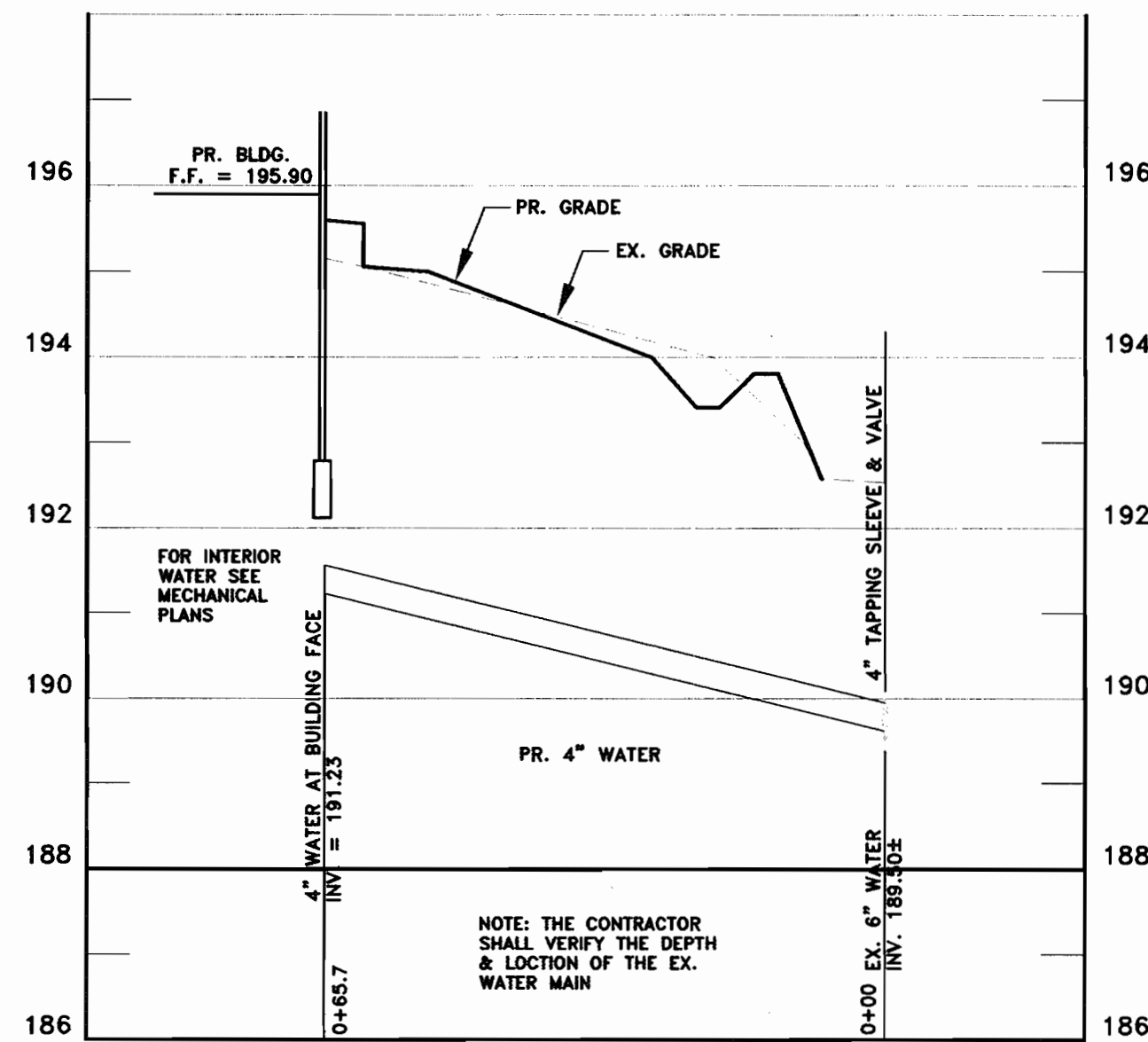
**MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVELIFT SITE PLAN**

DESIGNED BY:	SCALE	TAX MAP	MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVELIFT SITE PLAN
J.P.D.	AS SHOWN	48	
DRAWN BY:	DEED REF.	GRID	A.D.C. MAP 16 GRID F-11
J.P.D.	8142/657	14	
CHECKED BY:	PARCEL	PLAT REF.	JOB # 04099
J.P.D.	37	119/127	

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division  
Chief, Division of Land Development  
Director

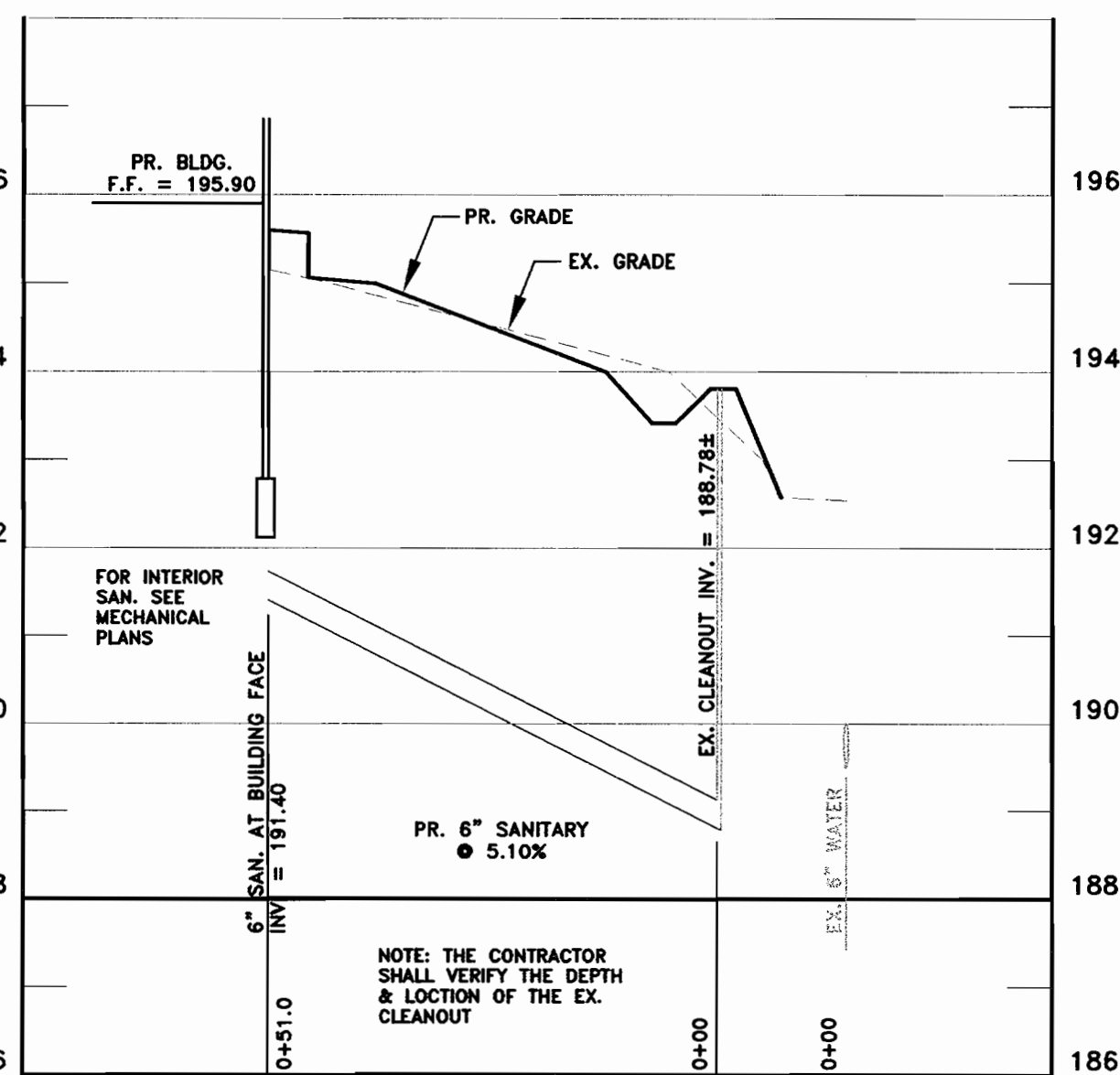
Date: 4/23/06





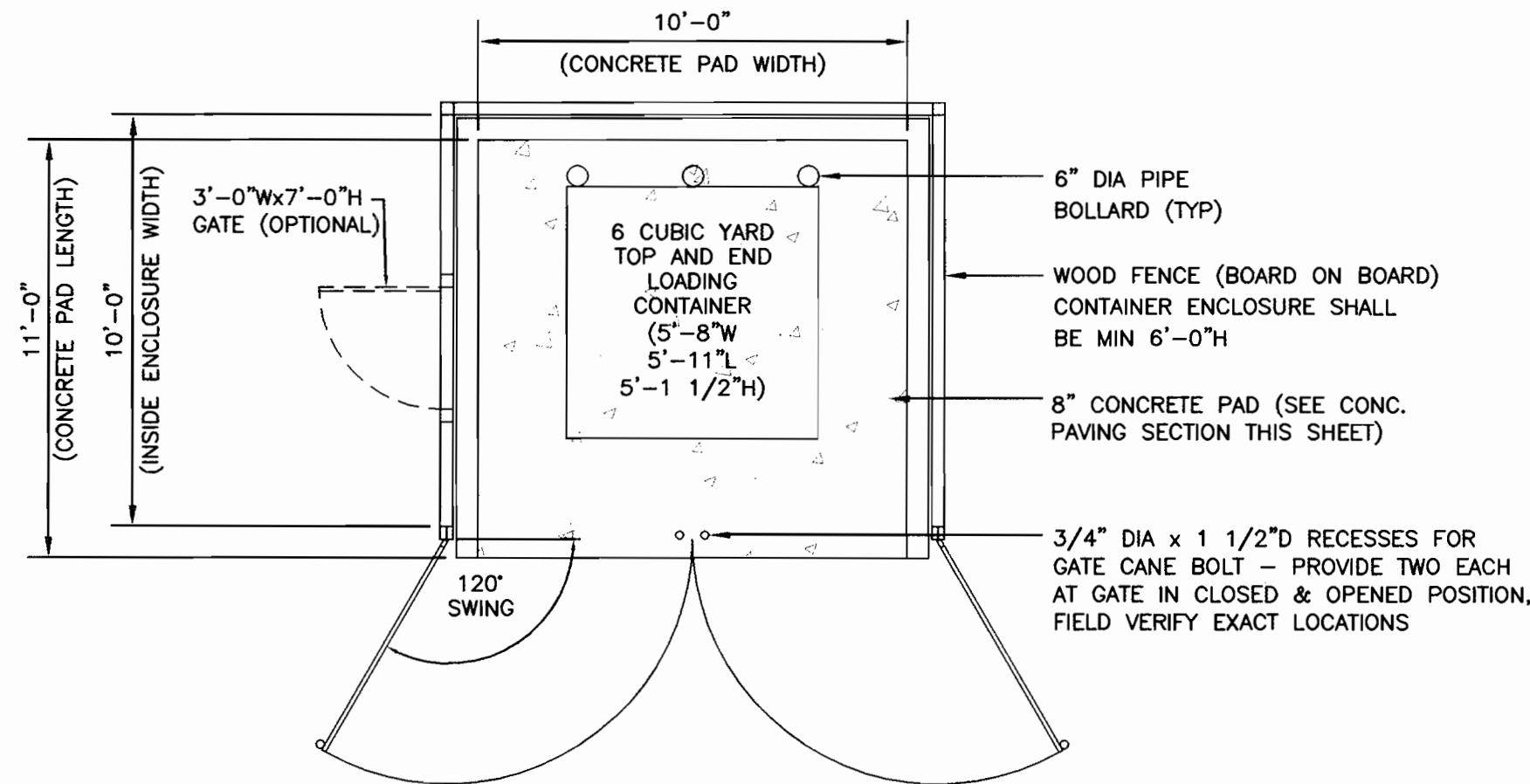
**WATER LINE PROFILE**

SCALE: HORIZ. 1" = 20'  
VERT. 1" = 2'



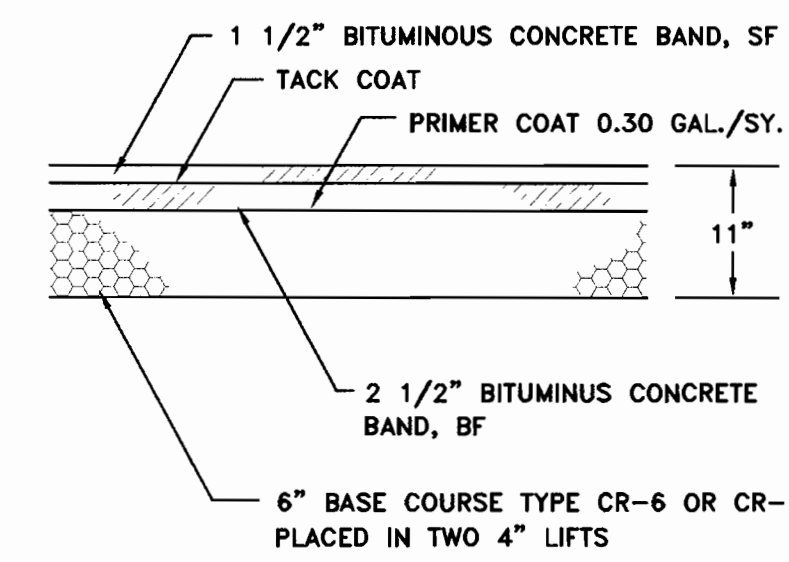
**SANITARY LINE PROFILE**

SCALE: HORIZ. 1" = 20'  
VERT. 1" = 2'



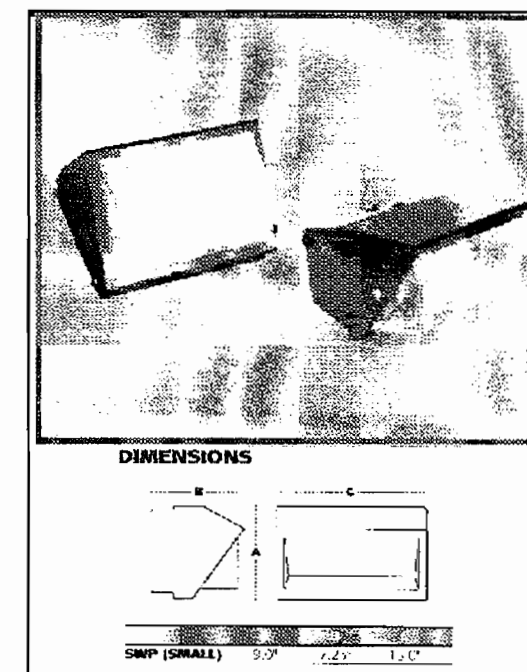
**DUMPSTER PAD w/ENCLOSURE**

NOT TO SCALE



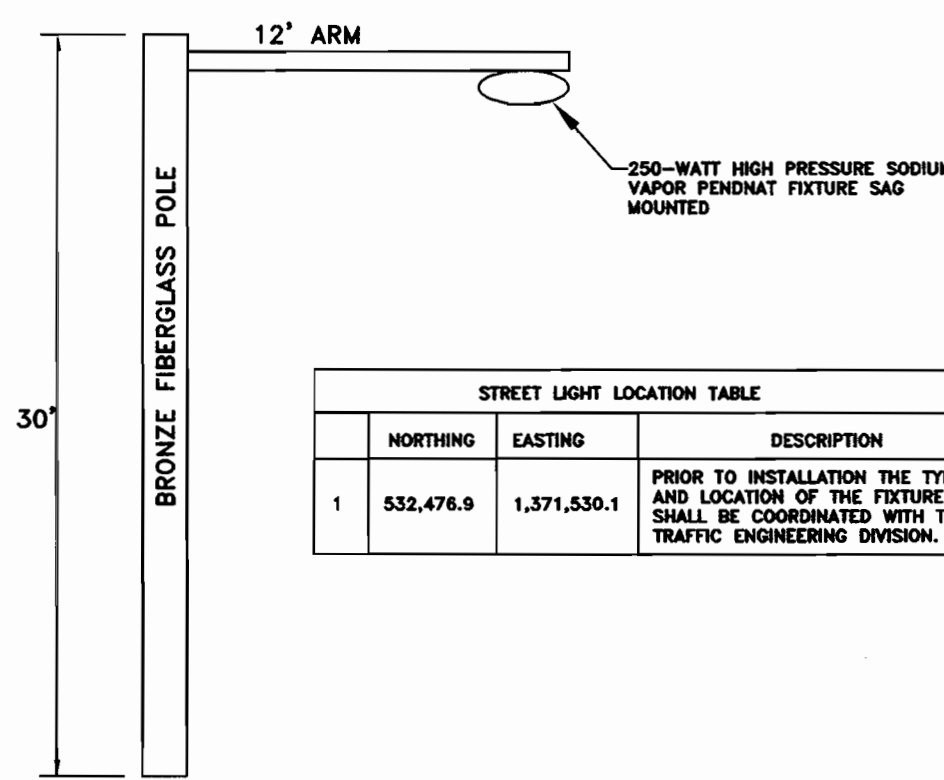
**ON-SITE PAVING SECTION**

NOT TO SCALE



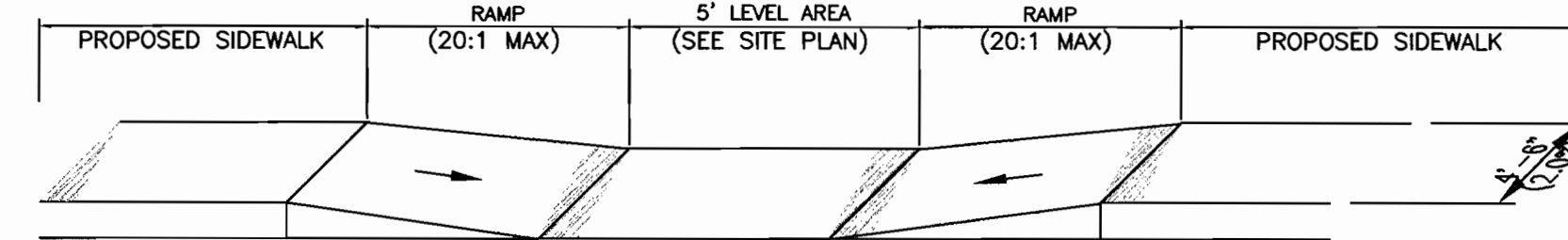
**LIGHTING DETAIL**

NOT TO SCALE



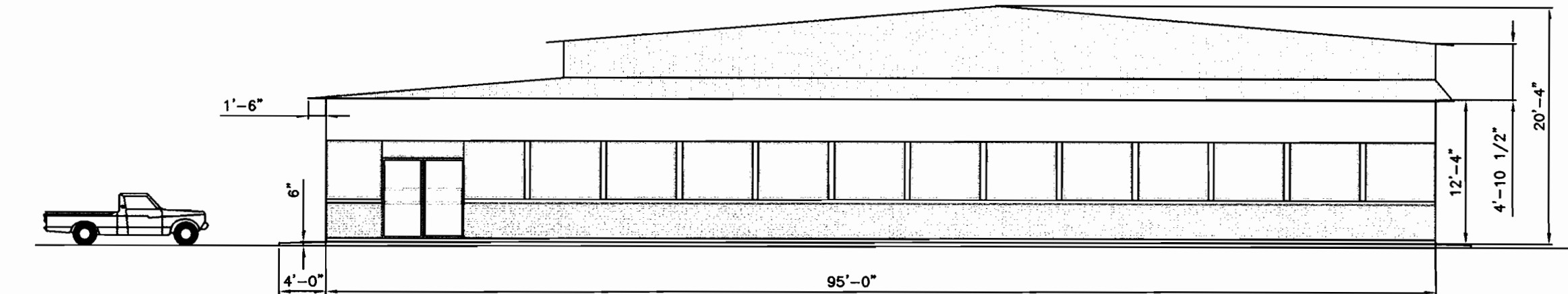
**STREET LIGHT DETAIL**

NOT TO SCALE



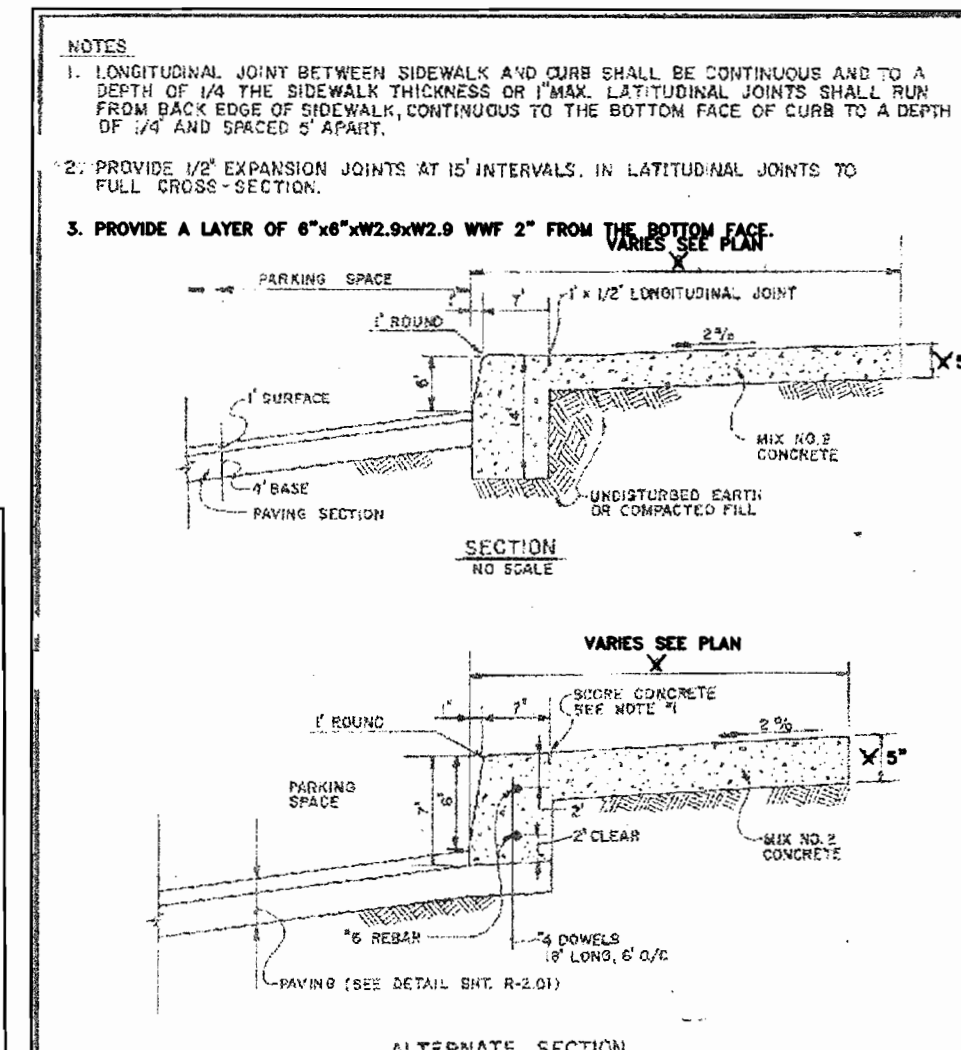
**MONOLITHIC WALK & CURB RAMP**

NOT TO SCALE



**NORTHEAST BUILDING ELEVATION**

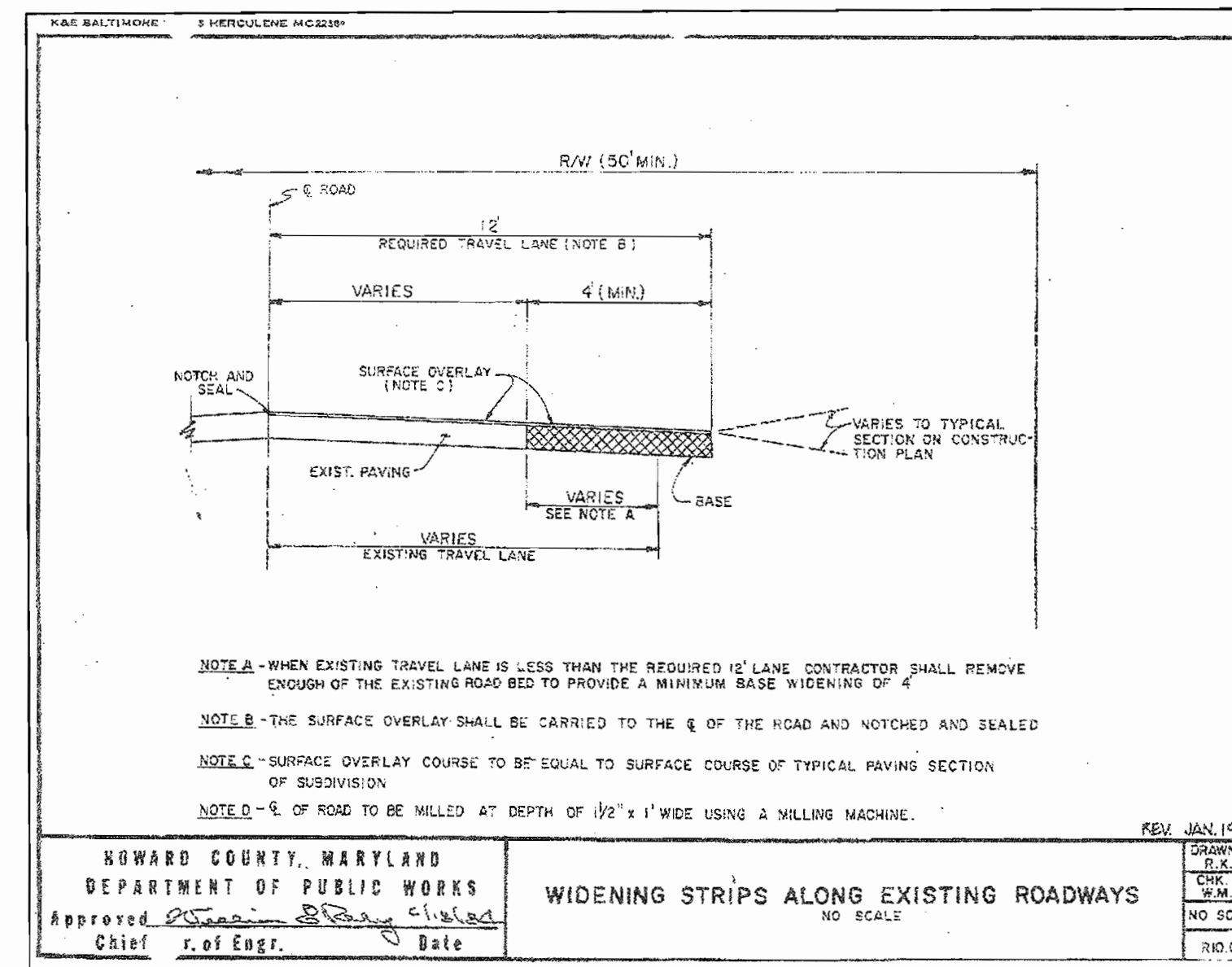
NOT TO SCALE



**MODIFIED DETAIL**

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering

STREET LIGHT LOCATION TABLE		
NORTHING	EASTING	DESCRIPTION
532,476.9	1,571,550.1	PRIOR TO INSTALLATION THE TYPE AND LOCATION OF THE FEATURE SHALL BE COORDINATED WITH THE TRAFFIC ENGINEERING DIVISION.

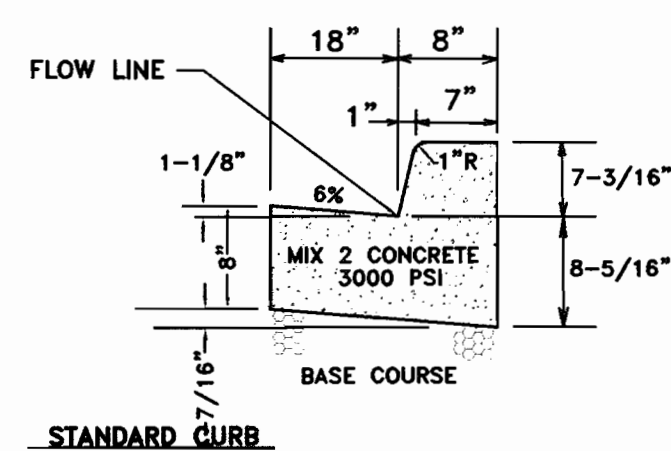


NOTE A - WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING ROAD BED TO PROVIDE A MINIMUM BASE WIDENING OF 4'  
NOTE B - THE SURFACE OVERLAY SHALL BE CARRIED TO THE E OF THE ROAD AND NOTCHED AND SEALED  
NOTE C - SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION OF SUBDIVISION  
NOTE D - E OF ROAD TO BE MILLED AT DEPTH OF 1/2" - 1" WIDE USING A MILLING MACHINE.

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief, Bureau of Engineering

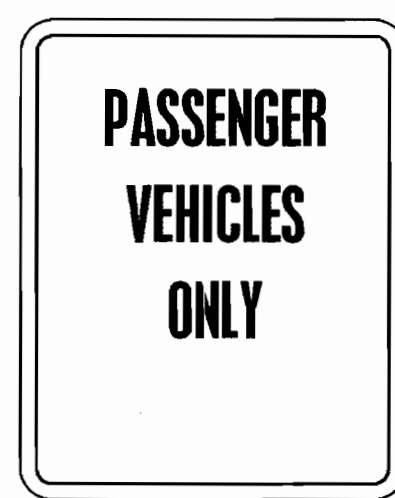
**WIDENING STRIPS ALONG EXISTING ROADWAYS**

DESIGNED BY: J.P.D.  
DRAWN BY: J.P.D.  
CHECKED BY: J.P.D.  
NO SCALE  
RD 01



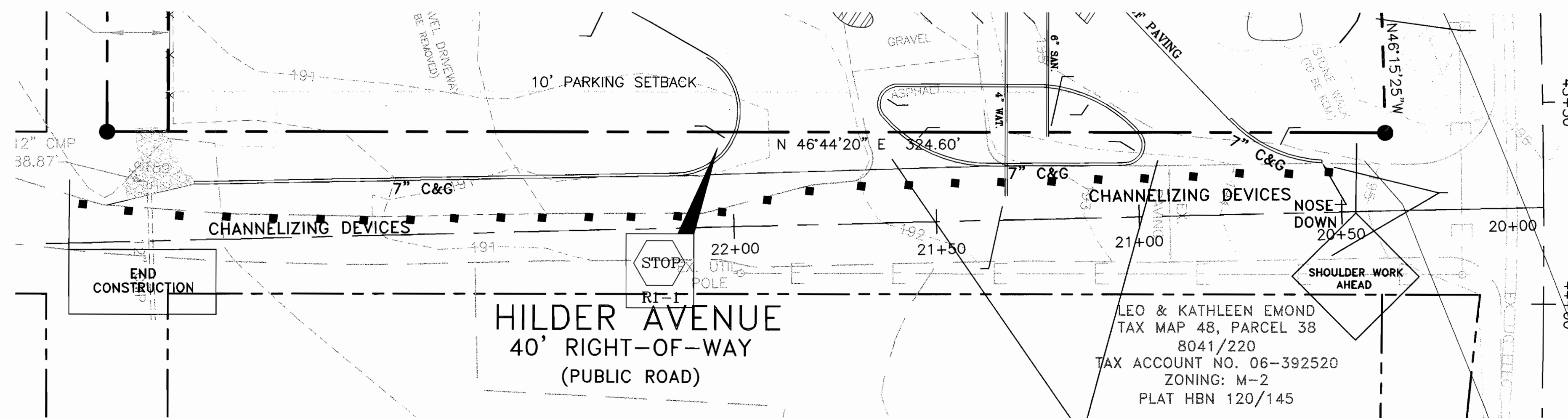
**7\"/>**

NOT TO SCALE



**ENTRY RESTRICTION SIGN**

NOT TO SCALE



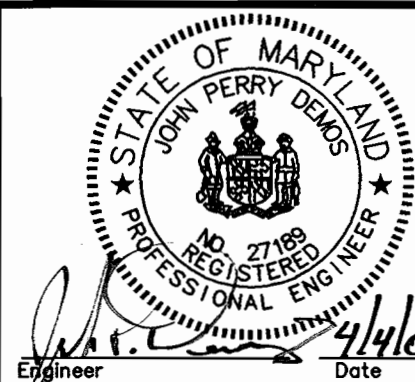
**TRAFFIC CONTROL PLAN**

SCALE: 1" = 20'

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division: [Signature] 4/21/06  
Chief, Division of Land Development: [Signature] 4/27/06  
Director: [Signature] 4/27/06

**Richardson Engineering, LLC**

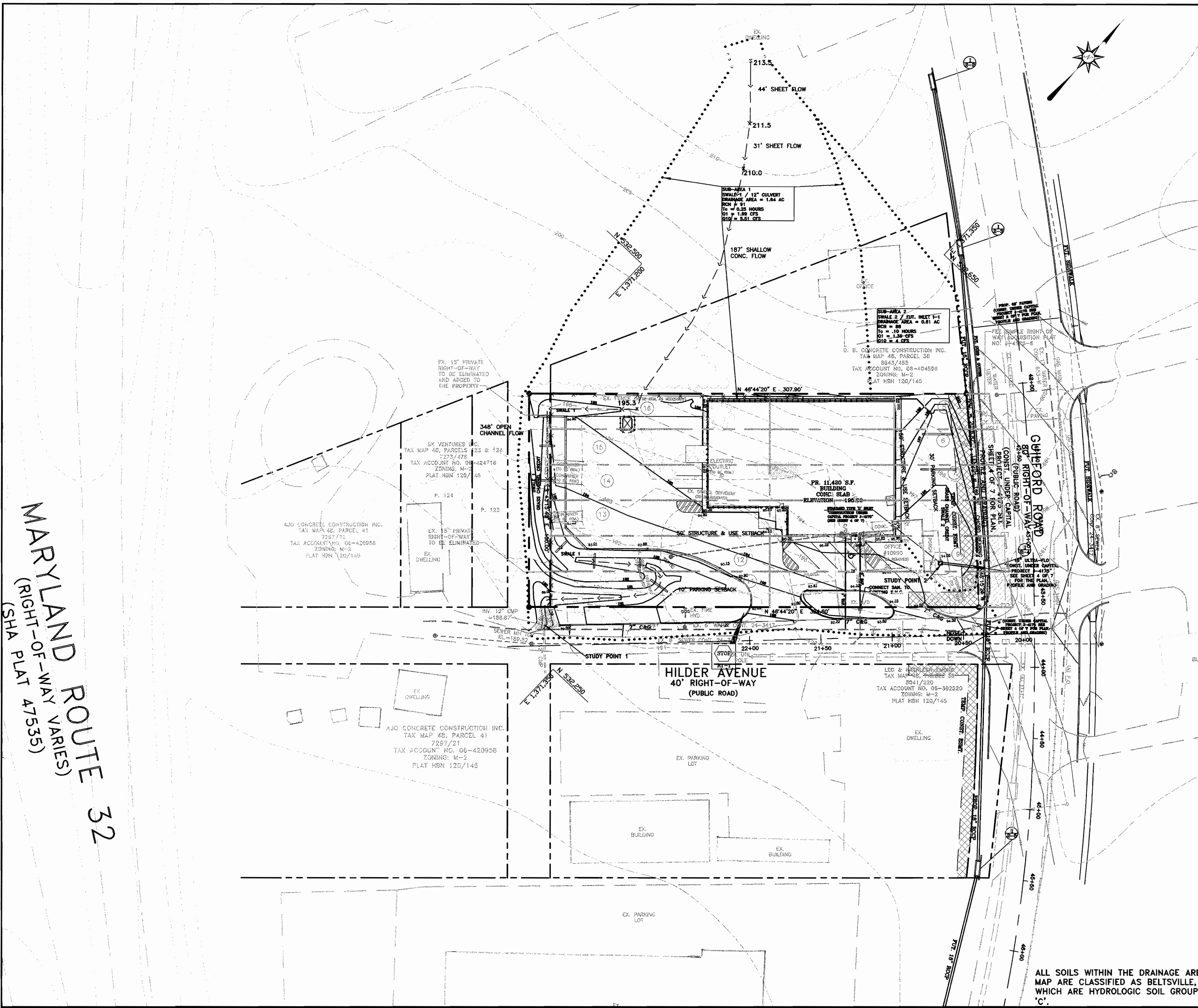
110 Old Padonia Road, Suite LC  
Cockeysville, Maryland 21030  
Phone: 410-560-1502 Fax: 410-560-0827



OWNERS/DEVELOPERS  
GUILFORD PARCEL, LLC  
8805 HILDER AVENUE  
ANNAPOLIS JUNCTION, MARYLAND 20701  
ATTN: MIKE WHITE  
PHONE: 301-674-5861

MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVELIFT		SITE DETAILS	
DESIGNED BY: J.P.D.	SCALE: AS SHOWN	TAX MAP 48	A.D.C. MAP 16
DRAWN BY: J.P.D.	DEED REF. 8142/657	GRID 14	GRID F-11
CHECKED BY: J.P.D.		PARCEL 37	PLAT REF. 119/127
DRAWING COMPLETED: 4-04-06		JOB # 04099	SHEET NO. 2 OF 7



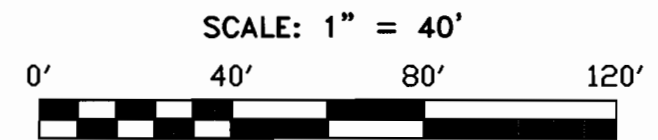


**OVERALL DRAINAGE AREA MAP**

NOTE: THIS SITE IS CONSIDERED A FURTHER DEVELOPMENT OF A PARTIALLY DEVELOPED SITE.

**STORMWATER MANAGEMENT SUMMARY**

	D.A. (ACRES)	Rev (CU FT)	Wov (CU FT)	Cpv (CU FT)	10-YR (CFS)	100-YR (CFS)
SUB-AREA 1 SWALE 1	1.64	GRASS CHANNEL CREDIT	GRASS CHANNEL CREDIT	NOT REQ'D	CONVEYED SAFELY	NOT REQ'D
SUB-AREA 2 SWALE 2	0.61	GRASS CHANNEL CREDIT	GRASS CHANNEL CREDIT	NOT REQ'D	CONVEYED SAFELY	NOT REQ'D

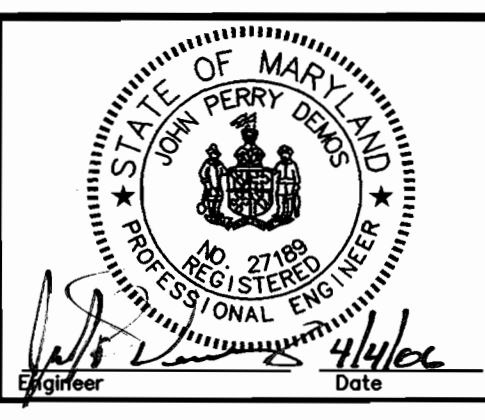


**SWALE SUMMARY**

	ACREAGE (ACRES)	Q-WQ (CFS)	V-WQ (FPS)	Q-10 (CFS)	V-10 (FPS)	COMMENT
SWALE 1	1.64	0.90	0.63	11	2.71	FLOW ARE NON-EROSIVE
SWALE 2	0.61	0.34	0.33	4	0.94	FLOW ARE NON-EROSIVE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Director

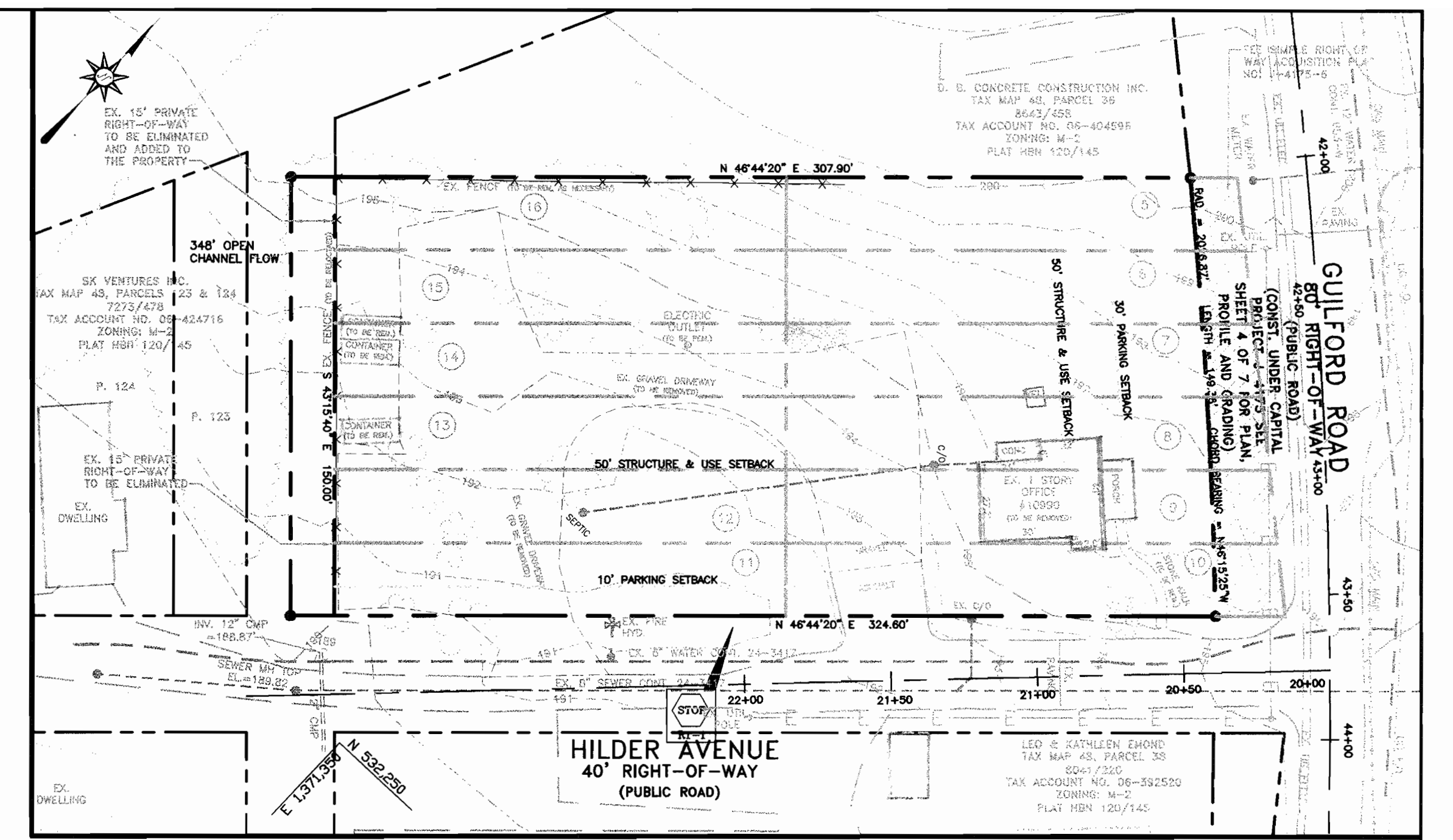
**Richardson Engineering, LLC**  
 110 Old Padonia Road, Suite LC  
 Cockeysville, Maryland 21030  
 Phone: 410-560-1502 Fax: 410-560-0827



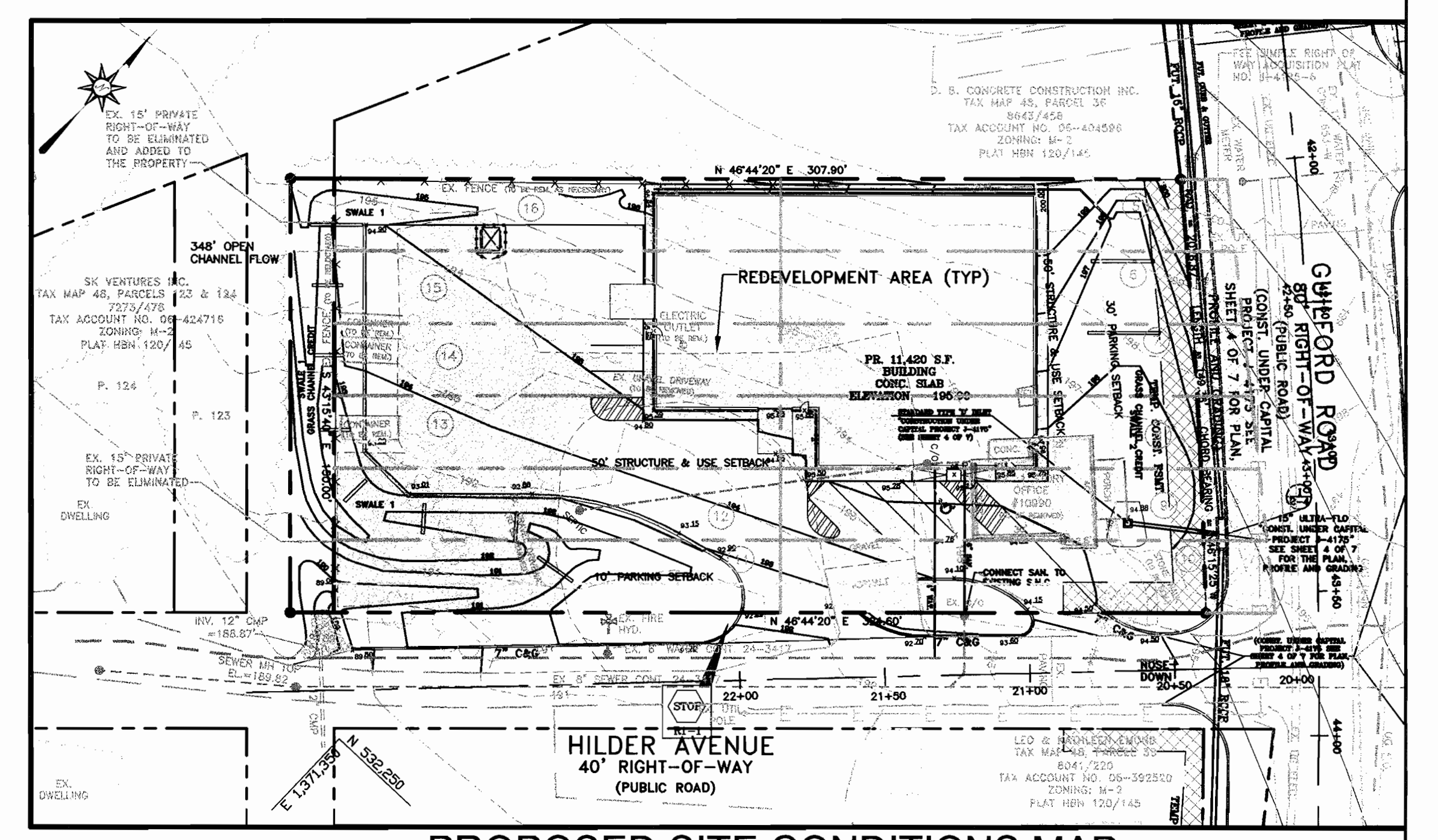
**OWNERS/DEVELOPERS**  
 GUILFORD PARCEL, LLC  
 8805 HILDER AVENUE  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 ATTN: MIKE WHITE  
 PHONE: 301-674-5861

**MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVELIFT STORMWATER MANAGEMENT DRAINAGE AREA MAPS**

DESIGNED BY:	SCALE:	TAX MAP:	A.D.C. MAP 16:	DATE:	REVISION:	BY:
J.P.D.	AS SHOWN	48	JOB # 04099	4-04-06		
J.P.D.	DEED REF.	GRID 14	DRID F-11			
J.P.D.	8142/657	PARCEL 37	PLAT REF.	FILES DA\JOBS\2004\04099\		



**EXISTING SITE CONDITIONS MAP**  
 1. TOTAL SITE AREA = 1.07 ACRES  
 2. EXISTING IMPERVIOUS = 0.37 ACRES  
 3. ZONING = M-2  
 SCALE: 1" = 40'



**PROPOSED SITE CONDITIONS MAP**  
 1. TOTAL SITE AREA = 1.07 ACRES  
 2. PROPOSED IMPERVIOUS = 0.70 ACRES  
 3. ZONING = M-2  
 SCALE: 1" = 40'



# MD-378 SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

## Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15' of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise specified on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

## Earth Fill (See special considerations this sheet)

**Material** - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #20 sieve. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

**Placement** - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portion of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

**Compaction** - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire, or vibratory roller. The fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not so wet that water can be squeezed out.

The minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor)

**Cut Off Trench** - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

**Embankment Core** - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

## Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be over (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

## Pipe Conduits

All pipes shall be circular in cross section.

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:

- Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.
- Bedding** - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.
- Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.
- Backfilling** shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**CORRUGATED METAL PIPES** - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

1. **MATERIALS** - (POLYMER COATED STEEL PIPE) - STEEL PIPES WITH POLYMERIC COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10 MIL) ON BOTH SIDES OF THE PIPE. THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-245 & M-246 WITH WATERTIGHT COUPLING BANDS OR FLANGES.

**MATERIALS** - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATERTIGHT COUPLING BANDS OR FLANGES. ALUMINUM COATED STEEL PIPE, WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT THE NEED FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH GOLD APPLIED BITUMINOUS COATING COMPOUND. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER OR TWO COATS OF ASPHALT.

**MATERIALS** - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-211 WITH WATERTIGHT COUPLING BANDS OR FLANGES. ALUMINUM PIPE, WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER OR TWO COATS OF ASPHALT. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

2. **COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC.** - MUST BE COMPOSED OF THE SAME MATERIAL AND COATINGS AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE OF RUBBER OR PLASTIC INSULATING MATERIALS AT LEAST 24 MILS IN THICKNESS.

3. **CONNECTIONS** - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT. DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT.

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE RE-ROLLED AN APPROPRIATE NUMBER OF CONNECTIONS TO THE BANDWIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPES LESS THAN 24 INCHES IN DIAMETER: FLANGES ON BOTH ENDS OF THE PIPE WITH A CIRCULAR 3/8 INCH CLOSED CELL NEOPRENE GASKET, PRE-PUNCHED TO THE FLANGE BOLT CIRCLE, SANDWICHED BETWEEN ADJACENT FLANGES; A 1/2-INCH WIDE STANDARD LAP TYPE BAND WITH 12-INCH WIDE BY 3/8 INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET AND A 12-INCH WIDE HUGGER TYPE BAND WITH O-RING GASKETS HAVING A MINIMUM DIAMETER OF 1/2 INCH GREATER THAN THE PIPE DIAMETER. PIPES 24 INCH IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24 INCH LONG ANNUAL CORRUGATED BAND USING A MINIMUM OF 4 (FOUR) RODS AND, LUGS, 2 ON EACH CONNECTING PIPE END. A 24-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED WITH 12 INCHES ON THE END OF EACH PIPE. FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKETS THE FULL WIDTH OF THE FLANGE IS ALSO ACCEPTABLE.

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

4. **BEDDING** - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

5. **BACKFILLING** SHALL CONFORM TO "STRUCTURE BACKFILL".

6. **OTHER DETAILS** (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

**CONCRETE** SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 902 MIX NO. 3.

**ROCK RIPRAP** SHALL MEET THE REQUIREMENTS OF MARYLAND, DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

**GEOTEXTILE** SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS; SECTION 921.09, CLASS SE NONWOVEN.

## CARE OF WATER DURING CONSTRUCTION

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

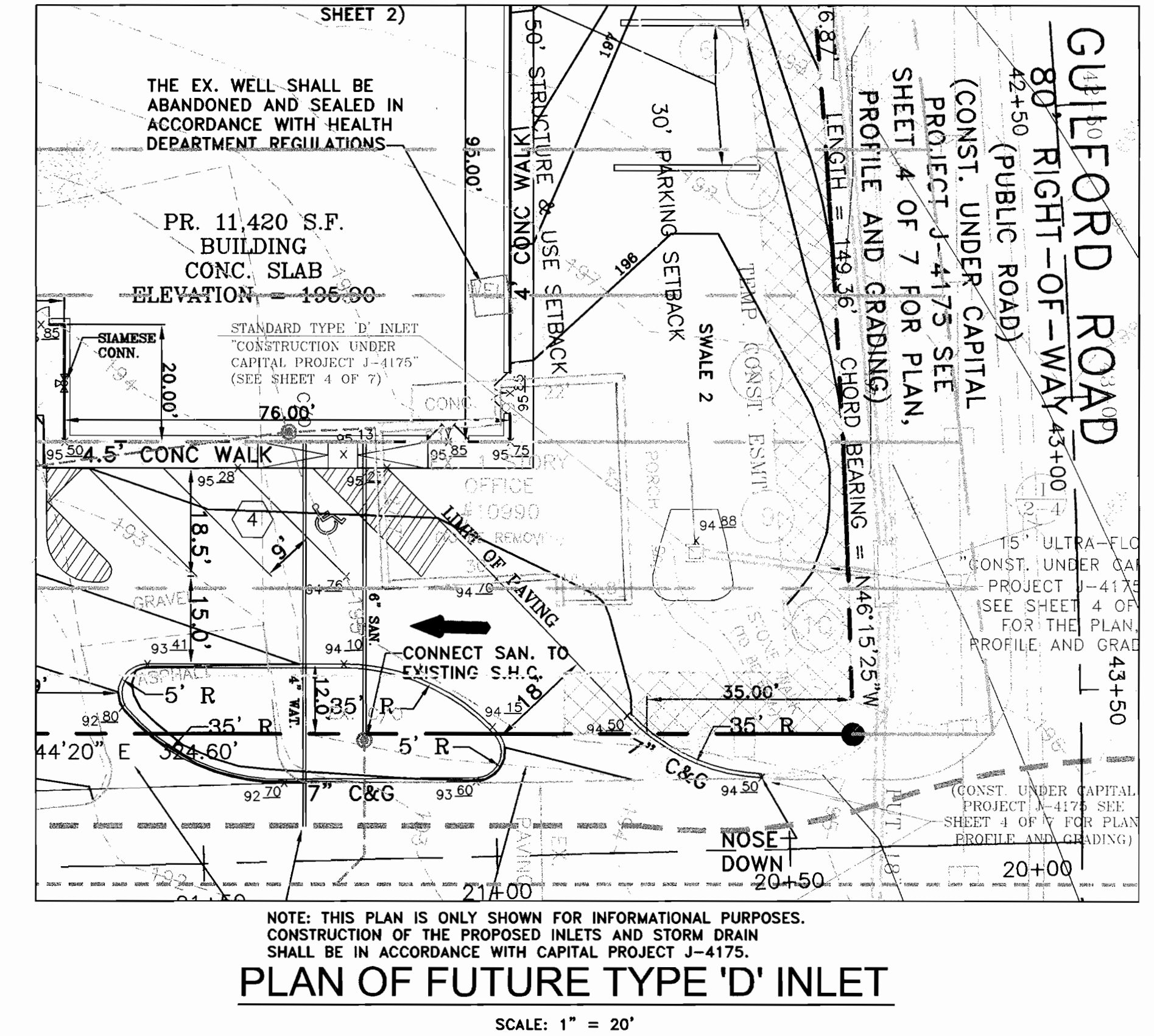
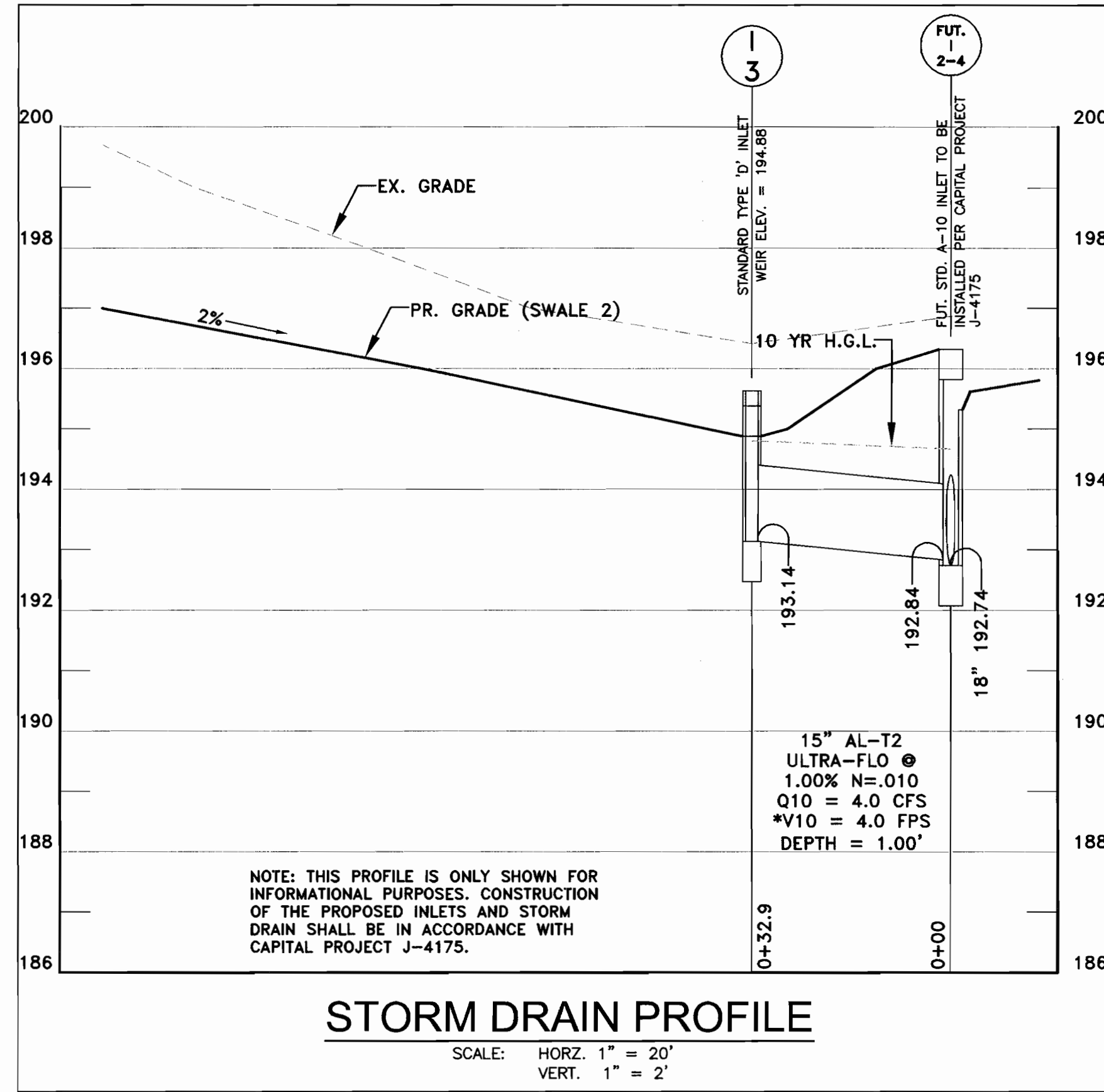
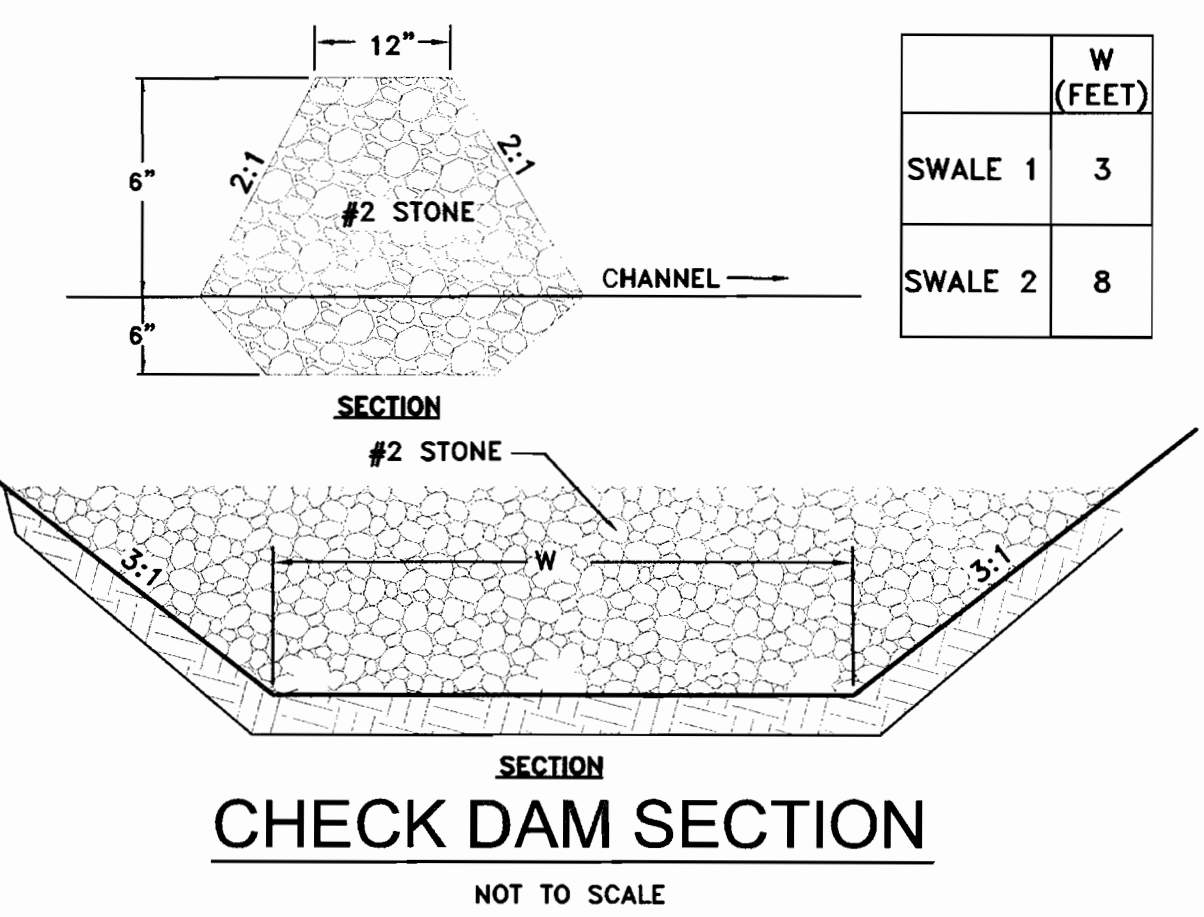
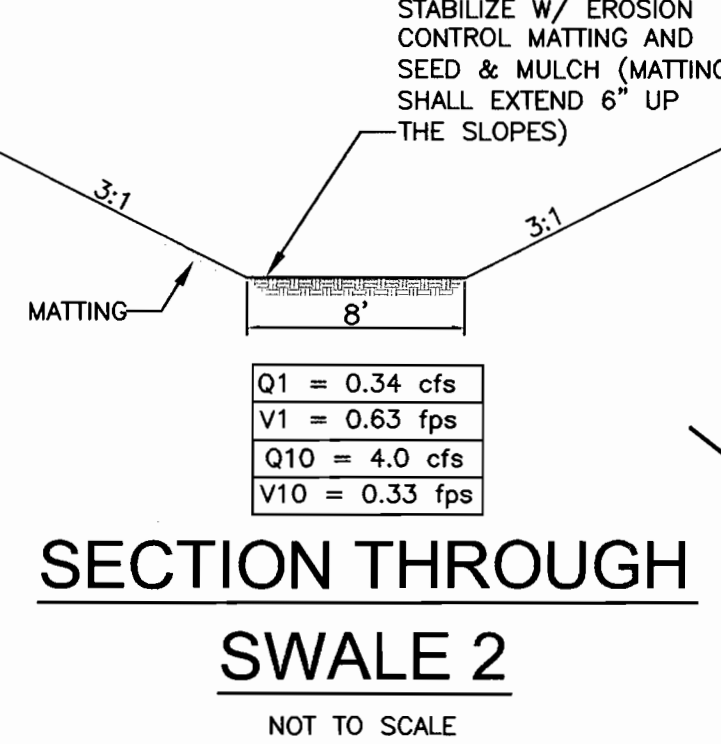
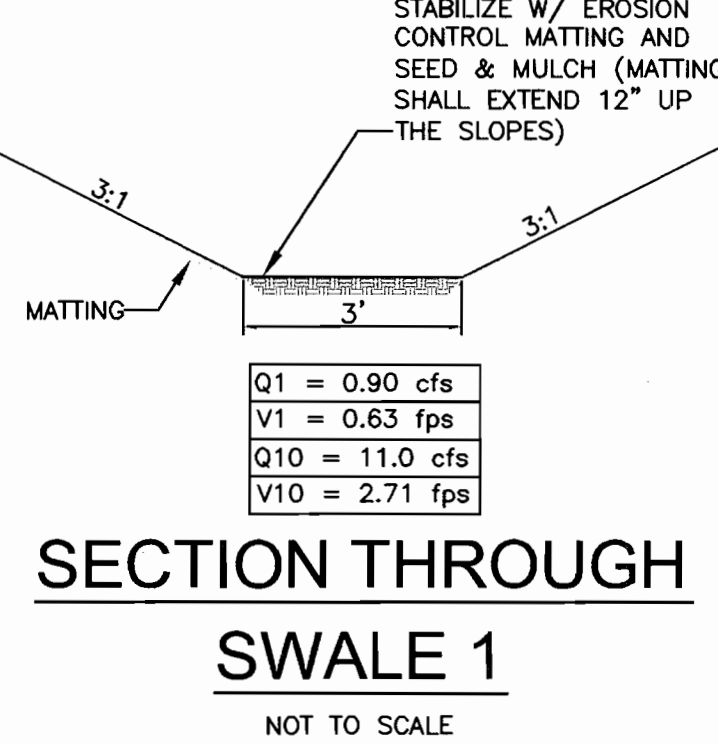
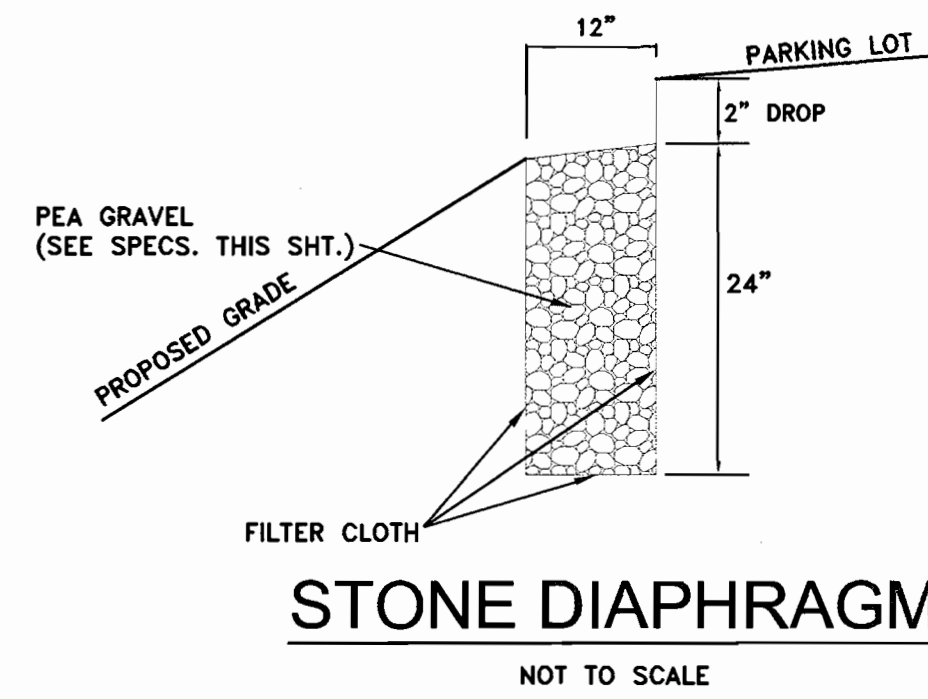
## STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE UNSTEADY DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE NATURAL RESOURCES CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE AC-COMPANYING DRAWINGS.

**EROSION AND SEDIMENT CONTROL** CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES.

## FENCING

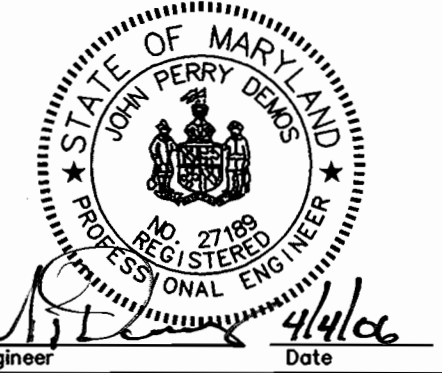
A 42" HIGH CHAIN LINK FENCE SHALL BE CONSTRUCTED IN THE LOCATION SPECIFIED ON THE PLAN. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690.01 AND 690.02 SUBSTITUTING 42" FOR HEIGHT.



APPROVED:	DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division	4/21/06
Chief, Division of Land Development	4/27/06
Director	4/27/06

**Richardson Engineering, LLC**

110 Old Padonia Road, Suite LC  
Cockeysville, Maryland 21030  
Phone: 410-560-1502 Fax: 410-560-0827



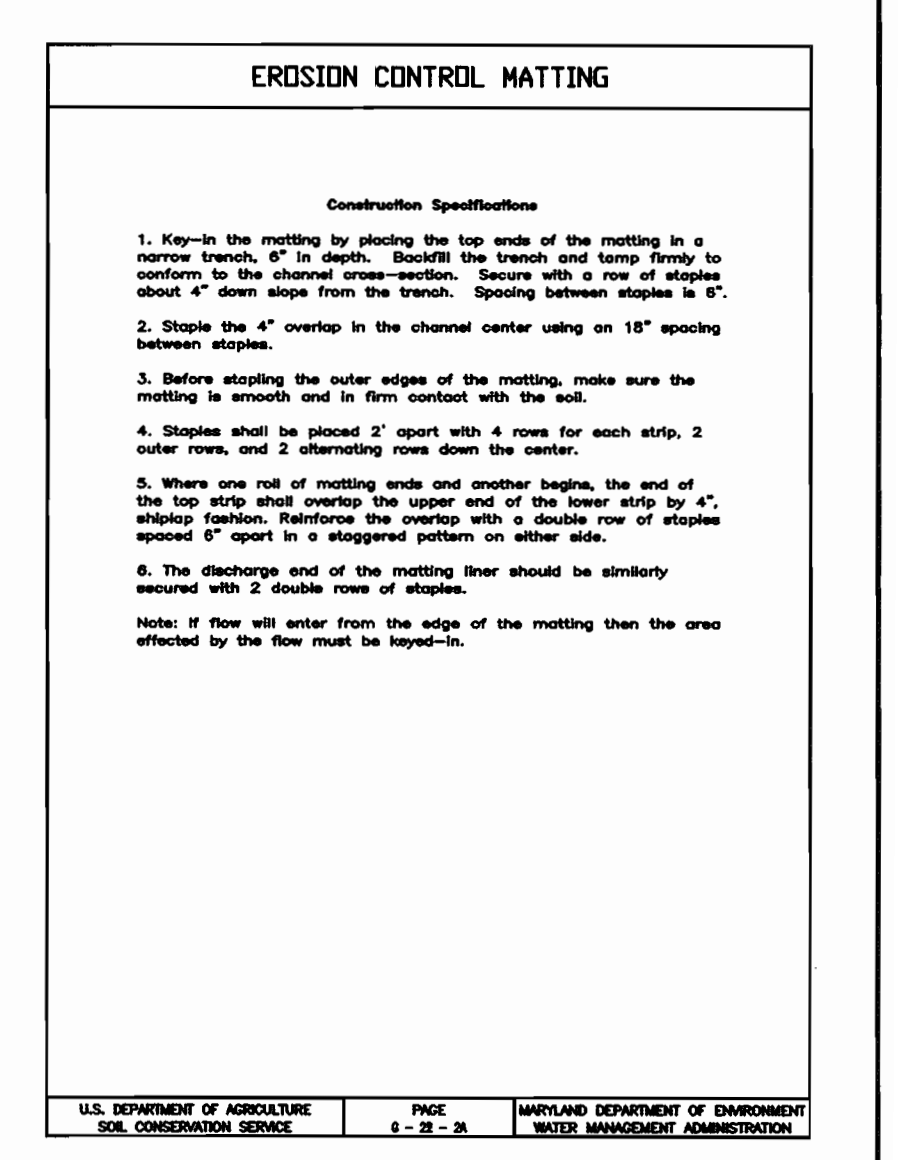
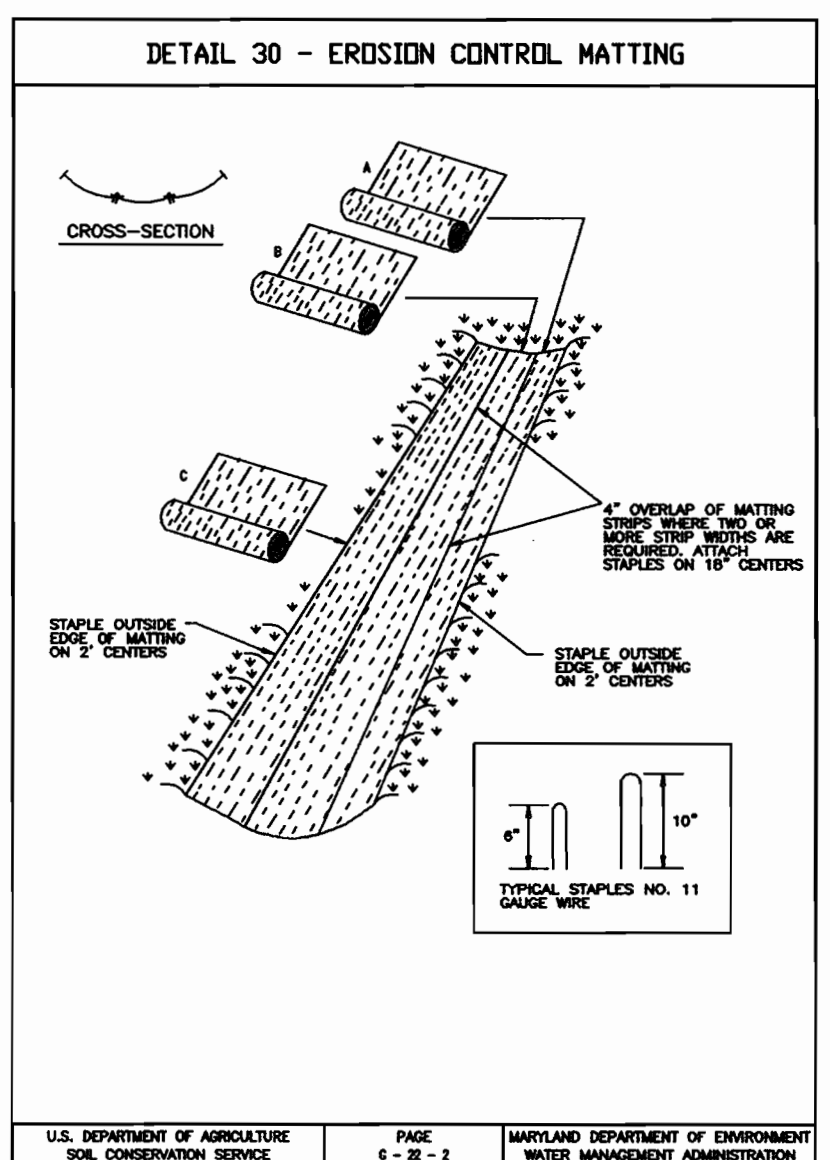
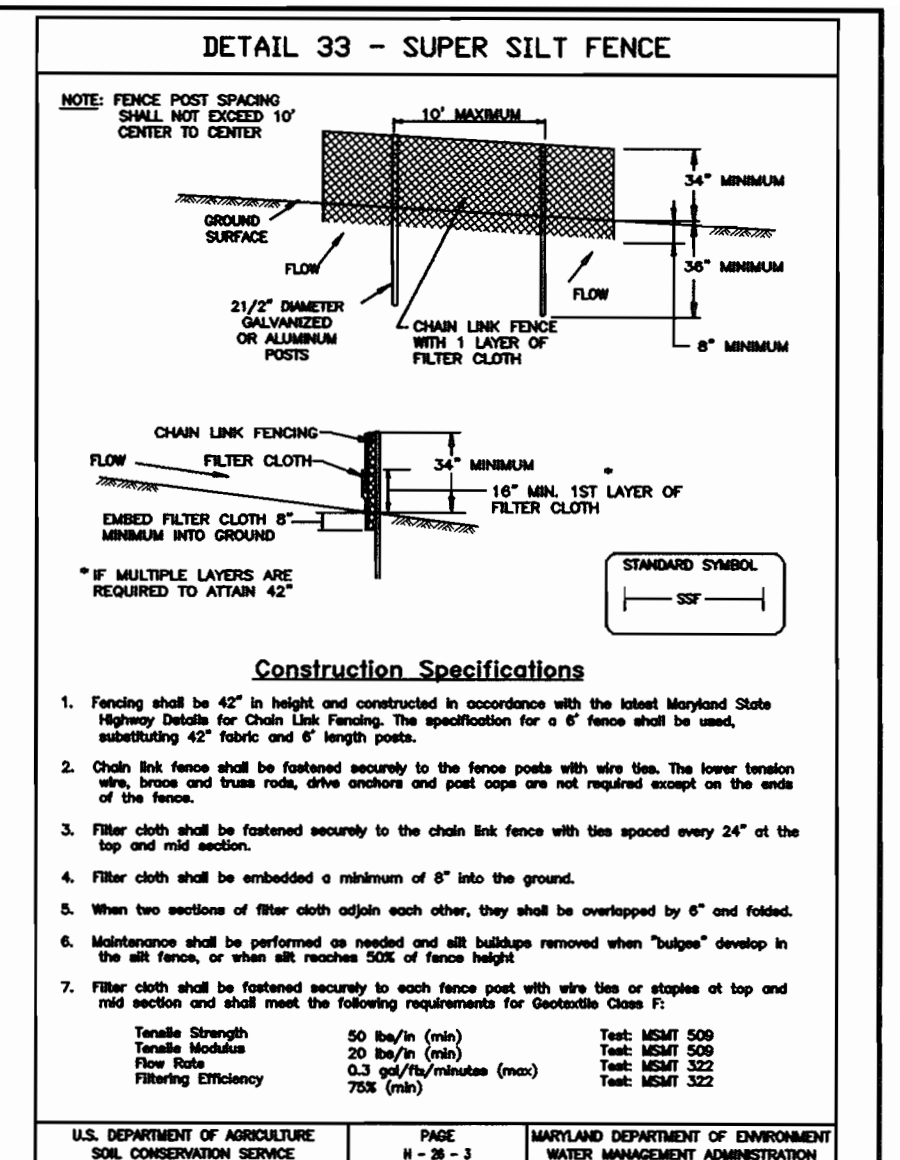
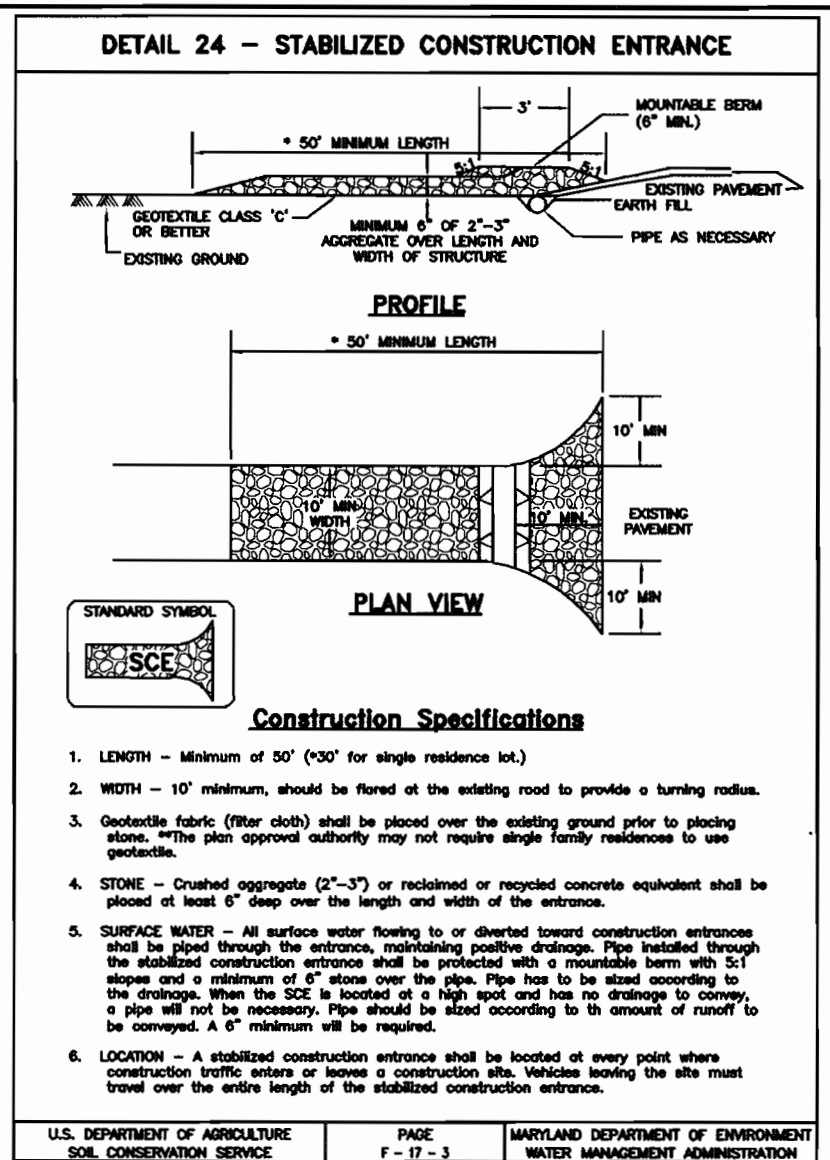
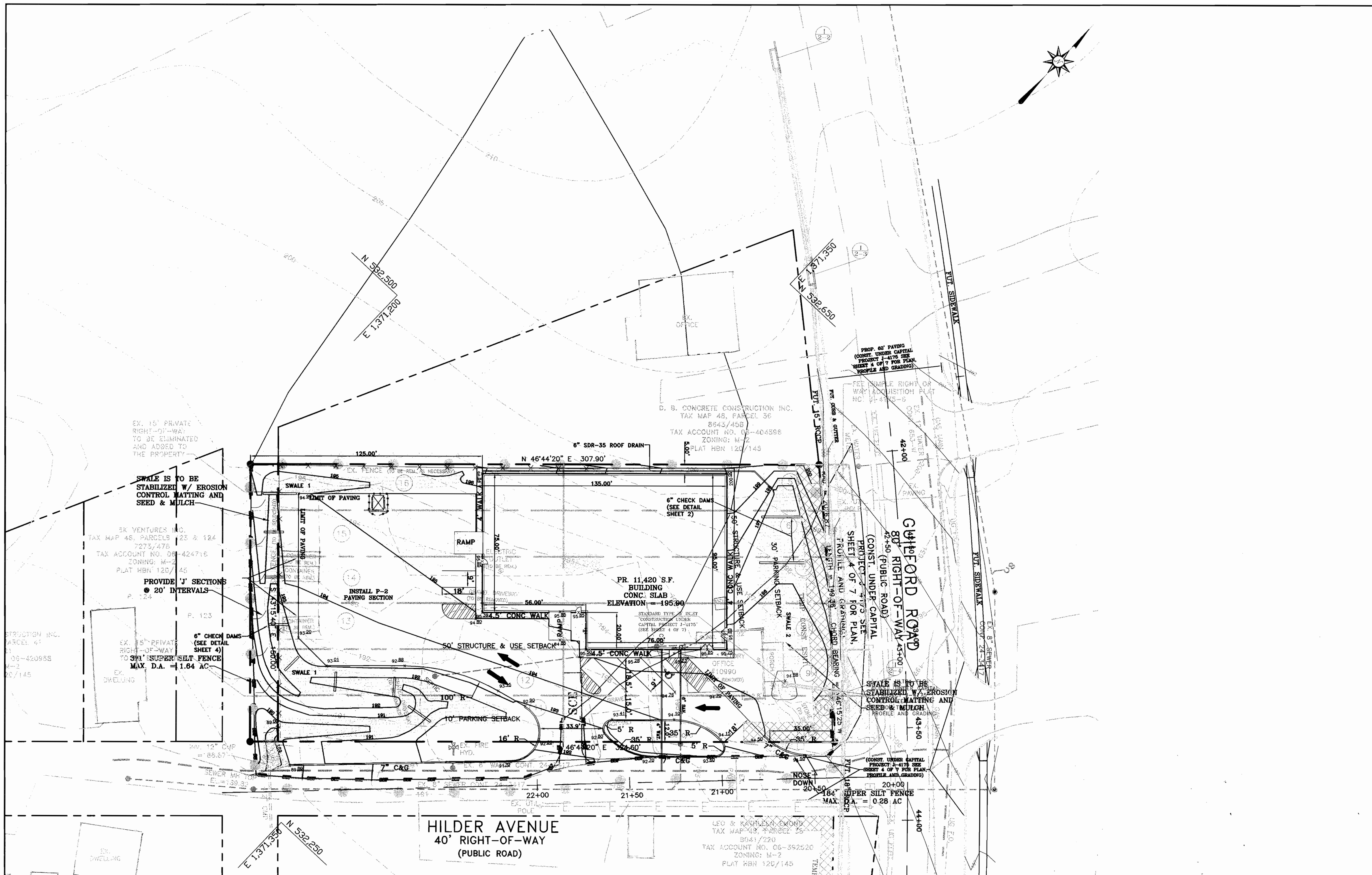
**OWNERS/DEVELOPERS**

GUILFORD PARCEL, LLC  
8805 HILDER AVENUE  
ANNAPOLIS JUNCTION, MARYLAND 20701  
ATTN: MIKE WHITE  
PHONE: 301-674-5861

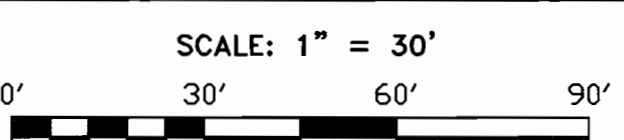
MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVELIFT		DATE		REVISION		BY	
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		DRAWING COMPLETED		4-04-06			
DESIGNED BY: J.P.D.	SCALE AS SHOWN	TAX MAP 48	A.D.C. MAP 16	JOB # 04099	SHEET		
DRAWN BY: J.P.D.	DEED REF. 8142/657	GRID 14	PLAT REF. 119/127	FILES 04JOBS\2004\04099\	NO. 4		
CHECKED BY: J.P.D.	PARCEL 37			DRAWINGS SHEET.dwg	OF 7		

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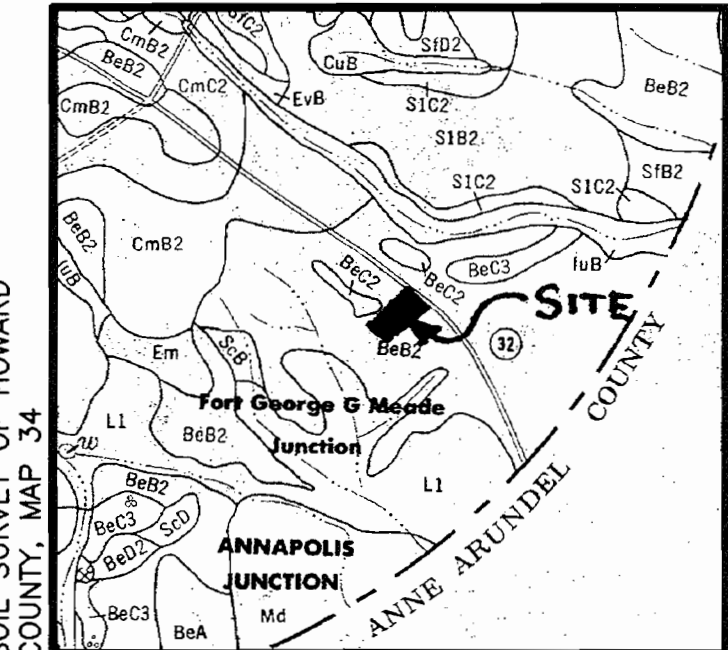


**SEDIMENT & EROSION CONTROL PLAN**



**LEGEND**

- - - - - 100 - - - - - EXISTING CONTOUR
- - - - - EXISTING PAVED AREAS
- - - - - EXISTING BUILDING
- - - - - PROPOSED PAVING
- - - - - 100 - - - - - PROPOSED CONTOUR
- - - - - SF - - - - - SILT FENCE
- - - - - SSF - - - - - SUPER SILT FENCE
- - - - - LIMIT OF DISTURBANCE
- - - - - EROSION CONTROL MATTING



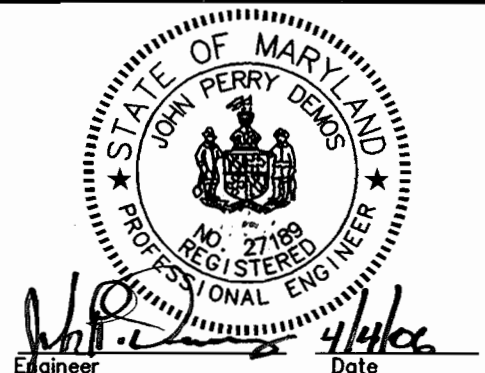
Reviewed for Howard SCD and meets Technical Requirements  
*Jim Meyer* 4/12/06  
 USA - Natural Resources Conservation Service Date  
 This development plan is approved for soil erosion and sediment control by the  
 Howard Soil Conservation District  
*John K. Roberts* 4/12/06  
 USDA - Natural Resources Conservation Service Date

**ENGINEER'S CERTIFICATE**  
 "I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
*Michael H. White* 4/1/06  
 SIGNATURE OF ENGINEER (Print name below signature) DATE

**DEVELOPER'S CERTIFICATE**  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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."  
*Michael H. White* 4-4-06  
 SIGNATURE OF DEVELOPER (Print name below signature) DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*John J. ...* 4/12/06  
 Chief, Development Engineering Division Date  
*Conrad Hamant* 4/12/06  
 Chief, Division of Land Development Date  
*...* 4/23/06  
 Director Date

**Richardson Engineering, LLC**  
 110 Old Padonia Road, Suite LC  
 Cockeysville, Maryland 21030  
 Phone: 410-560-1502 Fax: 410-560-0827



**OWNERS/DEVELOPERS**  
 GUILFORD PARCEL, LLC  
 8805 HILDER AVENUE  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 ATTN: MIKE WHITE  
 PHONE: 301-674-5861

MAP OF WHITEHURST, PARCEL #48, LOTS 5-16		LEVELIFT		BY	
SEDIMENT AND EROSION CONTROL NOTES & DETAILS		SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		DRAWING COMPLETED 4-04-06	
DESIGNED BY: J.P.D.	SCALE: AS SHOWN	TAX MAP: 48	A.D.C. MAP 16: GRID F-11	JOB # 04099	SHEET NO. 5
DRAWN BY: J.P.D.	DEED REF. 8142/657	GRID: 14	PLAT REF. 119/127	FILES: 04JOBS\200A\04099\DRAWINGS\SHEETS.DWG	OF 7
CHECKED BY: J.P.D.		PARCEL: 37			



**SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT**

**SITE PREPARATION**  
 1. STABILIZE AS PER STANDARD RESPONSIBILITY NOTE #3.  
 2. TEMPORARY PERIMETER DIKES AND SILT TRAPS; ETC., ARE TO BE PROVIDED AS PER THIS PLAN PRIOR TO GRADING OPERATIONS WITH LOCATION ADJUSTMENTS TO BE MADE IN THE FIELD AS NECESSARY AND TO BE MAINTAINED AT THE END OF THE WORKING DAY. THE MINIMUM AREA PRACTICAL SHALL BE DISTURBED FOR THE MINIMUM AMOUNT OF TIME POSSIBLE.  
 3. PERMANENT SEEDING:  
 A. SEEDBED PREPARATION: AREA TO BE SEEDBED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 INCHES. THE TOP LAYER SHALL BE LOOSENEED BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING OCCURS. APPLY 2 TONS OF DOLOMITIC LIMESTONE AND 1,000 POUNDS OF 10-20-20 FERTILIZER PER ACRE. HARROW OR DISK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF AT LEAST 3 INCHES ON SLOPES FLATTER THAN 3:1. NO ATTEMPT SHOULD BE MADE TO DRAG ANY DISKED AREA TO MAKE THE SOIL SURFACE SMOOTH AFTER DISKING.  
 B. SEEDING: APPLY THE FOLLOWING SEED MIXTURES BETWEEN 1 FEBRUARY AND 31 OCTOBER: KENTUCKY 31 TALL FESCUE 100 POUNDS PER ACRE RED TOP 15 POUNDS PER ACRE SERICA LESPEDEZA 30 POUNDS PER ACRE ANNUAL RYE GRASS 25 POUNDS PER ACRE OR GERMAN MILLET 20 POUNDS PER ACRE TOTAL 165 TO 175 POUNDS PER ACRE USE GERMAN MILLET BETWEEN 1 JUNE AND 15 AUGUST. APPLY SEED UNIFORMLY ON A MOIST, FIRM SEEDBED WITH A CYCLONE SEED DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD BE 1/4" IN CLAYEY SOILS AND 1/2" IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE IF SOIL MOISTURE IS DEFICIENT TO SUPPORT ADEQUATE GROWTH, UNTIL VEGETATION IS FIRMLY ESTABLISHED.  
 C. MULCHING: MULCH SHALL BE UNCHOPPED, UNROTTED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS.  
 D. GUARANTEED PERMANENT VEGETATIVE STABILIZATION OF ALL AREAS AFFECTED BY THE EXECUTION OF THIS CONTRACT IS REQUIRED. AREAS NOT STABILIZED WITH A VIABLE STAND OF PERMANENT VEGETATIVE COVER MUST BE OVERSEEDDED, LIMED AND FERTILIZED AND, IF NECESSARY, STRAW MULCHED AND TACKED BY NO LATER THAN THE FOLLOWING GROWING SEASON FOLLOWING INITIAL STABILIZATION EFFORTS.  
 4. TEMPORARY SEEDING:  
 LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET  
 FERTILIZER: 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET  
 SEED: PERENNIAL RYE, ITALIAN RYE - 0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER 1)  
 MILLET - 0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15)  
 5. NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN 8". ALL FILL IN ROADWAYS AND PARKING AREAS IS TO BE COMPACTED TO 90% DENSITY; COMPACTION TO BE DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR). ANY FILL WITHIN BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95% AS DETERMINED BY METHODS PREVIOUSLY MENTIONED. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.  
 6. PERMANENT SOD:  
 PERMANENT SOD IS TO BE KENTUCKY 31 TALL FESCUE, STATE APPROVED SOD; LIME AND FERTILIZE PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY SHUTTING. JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

**Permanent Seeding Summary      Temporary Seeding Summary**

Seed Mixture (For Hardness Zone 6_B)				Fertilizer Rate (10-20-20)				Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	N	P205	K20		
1	PERENNIAL RYE ITALIAN RYE MILLET	150	3/1 - 4/15 4/15 - 10/1	80 lb/ac (200 lb/1000 sq)	175 lb/ac (438 lb/1000 sq)	175 lb/ac (438 lb/1000 sq)	2 lbs/ac (500 lb/1000 sq)	
2	PERENNIAL RYE ITALIAN RYE MILLET	110	3/1 - 4/15	80 lb/ac (200 lb/1000 sq)	175 lb/ac (438 lb/1000 sq)	175 lb/ac (438 lb/1000 sq)	2 lbs/ac (500 lb/1000 sq)	

\* FOR HYDROSEEDING OR DRY SEEDING, APPLY AT SURFACE FOR DRILL OR CULTIPACKER SEEDING DEPTH = 1/4" MIN.

**SEDIMENT CONTROL NOTES**

1. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. NO FURTHER CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.  
 2. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ANY WORK BEYOND LIMITS OF DISTURBANCE IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.  
 3. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES, THE SITE MUST BE INSPECTED BY DPW. NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL OF DPW.  
 4. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY, A WASH RACK MAY NEED TO BE ESTABLISHED.  
 5. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. ALL SUCH CHANGES MUST BE APPROVED BY THE SITE INSPECTOR PRIOR TO INSTALLATION. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE REAPPROVAL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 6. FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:  
 A. SEVEN CALENDAR DAYS ON SLOPES GREATER THAN 3:1 AND ALL WATERWAYS, AND TO THE SURFACE OF ALL PERIMETER CONTROLS.  
 B. FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.  
 7. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN. IF THE BASIN IS TO BE USED AS A FUTURE SWM POND, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 8. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.  
 9. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPOES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.  
 10. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 1994 EROSION AND SEDIMENT CONTROL STANDARD AND SPECIFICATIONS FOR LAND GRADING.  
 11. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.  
 12. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO THE PROJECT SITE.  
 13. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.  
 14. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 1994 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.  
 15. TOPSOILING, LIMING, FERTILIZING, SEEDING, MULCHING, SADDLING, ETC. ARE ALL ESSENTIAL PARTS OF SEDIMENT CONTROL AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.  
 16. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 1994 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.  
 17. PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED.  
 18. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF DPW. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR APPROVAL CONSTITUTES A VIOLATION.

**TOPSOIL SPECIFICATIONS**

**DEFINITION**  
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.  
**PURPOSE**  
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.  
**CONDITIONS WHERE PRACTICE APPLIES**  
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:  
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.  
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.  
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.  
 D. THE SOIL IS SO ACID/F6:1HAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.  
 II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.  
**CONSTRUCTION AND MATERIAL SPECIFICATIONS**  
 I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.  
 II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:  
 A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.  
 B. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDEGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.  
 C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS/1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.  
 III. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS & MATERIALS.  
**TOPSOIL APPLICATION**  
 I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS & BASINS.  
 II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" OR 8" HIGHER IN ELEVATION.  
 III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND SLIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.  
 IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

**SEDIMENT CONTROL NOTES**

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION AT 410-313-1855.  
 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.  
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.  
 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.  
 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING SEC. G. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.  
 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.  
 7. SITE ANALYSIS:  
 TOTAL AREA OF SITE 574,556 SF / 1.07 AC.  
 AREA DISTURBED 51,191SF / 1.18 AC.  
 AREA TO BE:  
 ROOFED OR PAVED 35,284 SF / 0.81 AC.  
 VEGETATIVELY STABILIZED 16,117 SF / 0.37 AC.  
 TOTAL CUT 1,000 CU. YDS  
 TOTAL FILL 700 CU. YDS  
 OFFSITE WASTE/BORROW AREA LOCATION- A SITE WITH A CURRENTLY ACTIVE GRADING PERMIT.  
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.  
 9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.  
 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.  
 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

**SEQUENCE OF OPERATIONS**

1. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE @ 410-313-2455.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE AT LOCATIONS SHOWN ON PLAN. (2 DAYS)
3. UPON RECEIVING NOTIFICATION TO PROCEED FROM THE INSPECTOR, BEGIN SITE GRADING. (15 DAYS)
4. BEGIN BUILDING CONSTRUCTION. (90 DAYS)
5. INSTALL STONE BASE IN AREAS TO BE PAVED. (3 DAYS)
6. CONSTRUCT HILDER AVENUE WIDENING AND INSTALL CURB & GUTTER. (5 DAYS)
7. CONSTRUCT SWALES AND STABILIZE WITH EROSION CONTROL MATTING. (5 DAYS)
8. INSTALL SITE PAVING. (3 DAYS)
9. FINE GRADE REMAINING AREAS AND PROVIDE PERMANENT STABILIZATION. (2 DAYS)
10. UPON STABILIZATION OF CONTRIBUTORY DRAINAGE AREAS TO THE SWALES, INSTALL THE CHECK DAMS AND STABILIZE DISTURBED AREAS. (2 DAYS)
11. REMOVE SEDIMENT CONTROL MEASURES WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR.
12. STABILIZE AREAS DISTURBED AS A RESULT OF SEDIMENT CONTROL MEASURE REMOVAL.

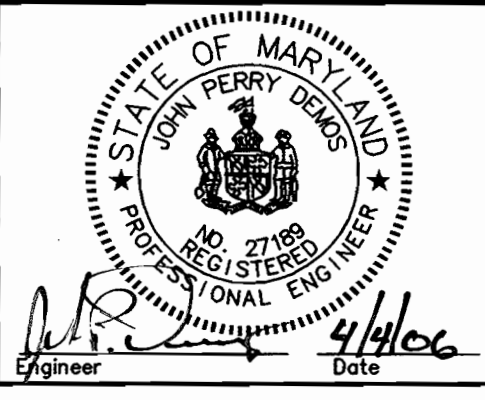
Reviewed for Howard SCD and meets Technical Requirements  
 USA - Natural Resources Conservation Service  
 Signature: *John R. Blumenthal* Date: 4/12/06  
 This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.  
 Signature: *John R. Blumenthal* Date: 4/12/06  
 USDA - Natural Resources Conservation Service

**ENGINEER'S CERTIFICATE**  
 "I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
 Signature: *John R. Blumenthal* Date: 4/12/06  
 SIGNATURE OF ENGINEER (Print name below signature) DATE

**DEVELOPER'S CERTIFICATE**  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."  
 Signature: *Michael H. White* Date: 4-4-06  
 SIGNATURE OF DEVELOPER (Print name below signature) DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief Development Engineering Division  
 Chief, Division of Land Development  
 Director  
 Date: 4/21/06  
 Date: 4/27/06  
 Date: 4/23/06

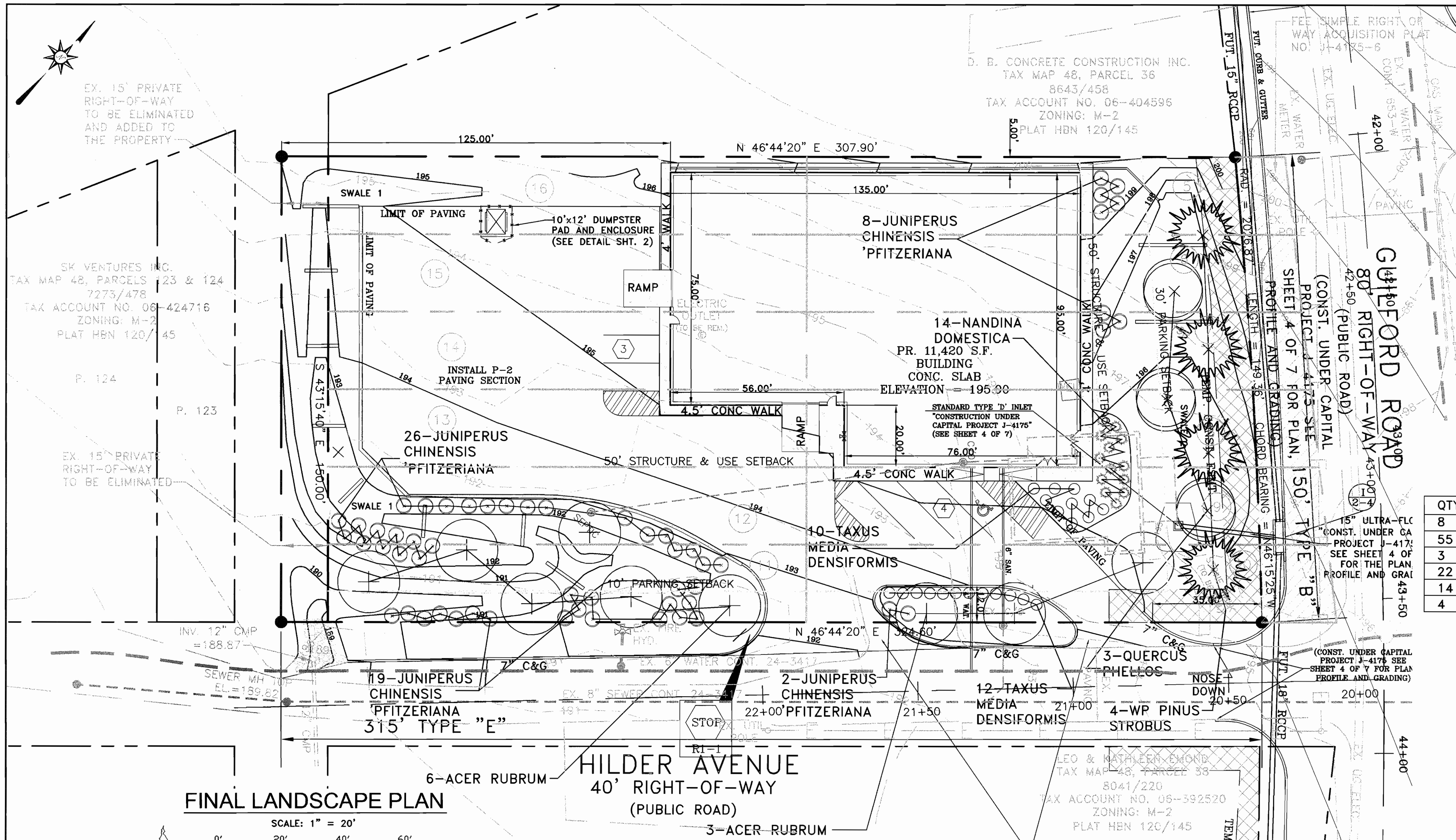
**Richardson Engineering, LLC**  
 110 Old Padonia Road, Suite LC  
 Cockeysville, Maryland 21030  
 Phone: 410-560-1502 Fax: 410-560-0827



**OWNERS/DEVELOPERS**  
 GUILFORD PARCEL, LLC  
 8805 HILDER AVENUE  
 ANNAPOLIS, MARYLAND 20701  
 ATTN: MIKE WHITE  
 PHONE: 301-674-5861

MAP OF WHITEHURST, PARCEL #48, LOTS 5-16 LEVEL 1F			
DESIGNED BY:	SCALE AS SHOWN	TAX MAP 48	A.D.C. MAP 16
J.P.D.	8142/657	GRID 14	GRID F-11
DRAWN BY:	DEED REF.	PARCEL 37	PLAT REF.
J.P.D.			
CHECKED BY:			
J.P.D.			
DRAWING COMPLETED 4-04-06		JOB # 04099	
DRAWINGS: SHEETS.DWG		NO. 6	
		OF 7	





**PLANTING NOTES**

- PLANTS, RELATED MATERIALS, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
- ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BOXERS AND ALL FORMS OF INFESTATION OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEELED-IN TREES OR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- UNLESS OTHERWISE SPECIFIED, ALL PLANT MATERIAL SHALL CONFORM TO "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1-1986, PUBLISHED BY AMERICAN ASSOCIATION OF NURSERMAN, INCLUDING ALL ADDENDA.
- UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES" APPROVED BY BALTIMORE-WASHINGTON METROPOLITAN AREAS, (HEREINAFTER "LANDSCAPE GUIDELINES") AND BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, SEPTEMBER, 1981, INCLUDING ALL ADDENDA.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UTILITIES AND MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANTING MATERIALS TO AVOID CONFLICTS WITH UTILITIES.
- PLANTING BED SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD BARK MULCH. GROUND COVER BEDS SHALL BE MULCHED TO A DEPTH OF 2".
- ALL AREAS WITHIN THE CONTRACT LIMIT NOT COVERED BY BUILDING, PAVING, PLANTING BEDS OR OTHERWISE DESIGNATED ON THE PLANS SHALL BE SEEDED AND MULCHED OR SODDED IN ACCORDANCE WITH "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PERMANENT SEEDING SPECIFICATIONS (SEE SHEET 6), INCLUDING ALL ADDENDA AS DIRECTED BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIALS IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. PLANTING MIX SHALL BE DONE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOP SOIL, ONE PART WELL-ROTTED COW OR HORSE MANURE ADD 3 LBS. OF STANDARD 10-10-10 FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. 9. TOPSOIL SHALL CONFORM TO LANDSCAPE GUIDELINES.
- THIS PLAN IS INTENDED FOR LANDSCAPE PLAN ONLY. SEE OTHER PLAN SHEETS FOR INFORMATION ON GRADING, SEDIMENT CONTROL, LAYOUT, ETC.
- CONTRACTOR TO ADJUST PLANTINGS AS REQUIRED WITH PRIOR APPROVAL OF THE ENGINEER.
- ANY CHANGES TO THE SITE LAYOUT SHALL REQUIRE THE REDESIGN OF THE PLANTING BY THE ENGINEER.

**PLANT LIST**

QTY.	BOTANICAL NAME	COMMON NAME	REMARKS
8	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2" - 3" CAL.
55	JUNIPERUS CHINENSIS 'PFITZERIANA'	COMPACT PFITZER JUNIPER	2' - 2 1/2' HT.
3	QUERCUS PHELLOS	WILLOW OAK	2 1/2" - 3" CAL.
22	TAXUS MEDIA DENSIFORMIS	DENSIFORMIS YEW	24" - 30"
14	NANDINA DOMESTICA	NANDINA HEAVENLY BAMBOO	24" - 30"
4	WP PINUS STROBUS	WHITE PINE	6' - 8' HT.

AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.

**DEVELOPER'S/BUILDERS 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 INSTALLATION, ACCOMPANIED BY AND EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: *Michael H. White* DATE: 4.4.06

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 HAS BEEN POSTED AS PART OF THE DEV. AGREEMENT IN THE AMOUNT OF \$6,930. THIS SURETY IS BASED ON 11 SHADE TREES AT \$300.00 EACH, 4 EVERGREEN TREES AT \$150.00 EACH AND 101 SHRUBS @ \$30.00 EACH.

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

**FOREST CONSERVATION WORKSHEET**

NET TRACT AREA:

A. TOTAL TRACT AREA..... = 1.07

B. AREA WITHIN 100 YEAR FLOODPLAIN..... = 0.00

C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION..... = 0.00

D. NET TRACT AREA..... = 1.07

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	MDR	IDA	HDR	MPD	CIA
0	0	0	0	0	1

E. AFFORESTATION THRESHOLD..... 15% x D = 0.16

F. CONSERVATION THRESHOLD..... 20% x D = 0.21

EXISTING FOREST COVER:

G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)..... = 0.00

H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD..... = 0.00

I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD..... = 0.00

BREAK EVEN POINT:

J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION..... = 0.00

K. CLEARING PERMITTED WITHOUT MITIGATION..... = 0.00

PROPOSED FOREST CLEARING:

L. TOTAL AREA OF FOREST TO BE CLEARED..... = 0.00

M. TOTAL AREA OF FOREST TO BE RETAINED..... = 0.00

PLANTING REQUIREMENTS:

N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD..... = 0.00

O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD..... = 0.00

1.0

Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD..... = 0.00

R. TOTAL REFORESTATION REQUIRED..... = 0.00

1.0

S. TOTAL AFFORESTATION REQUIRED..... = 0.16

T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED..... = 0.16

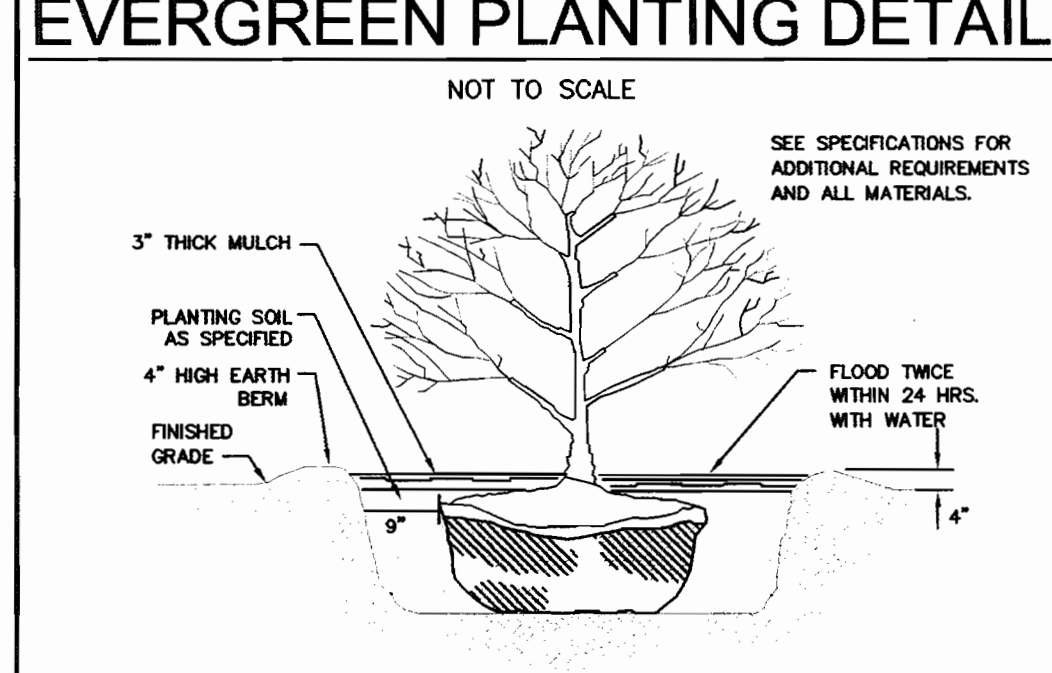
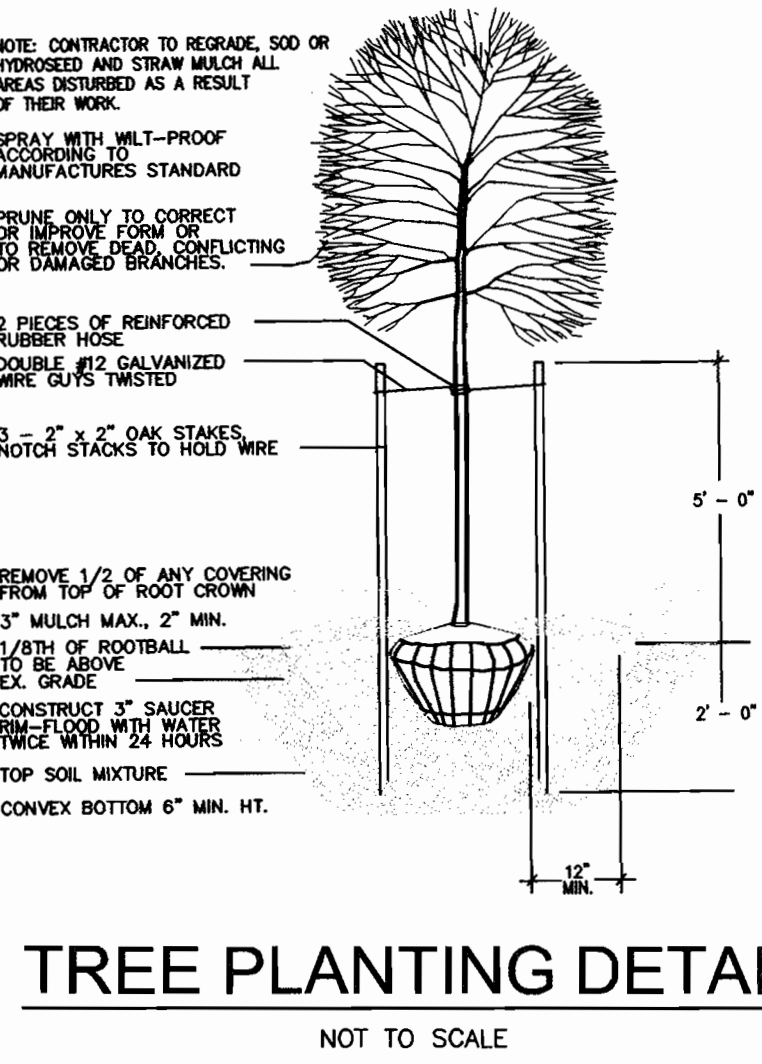
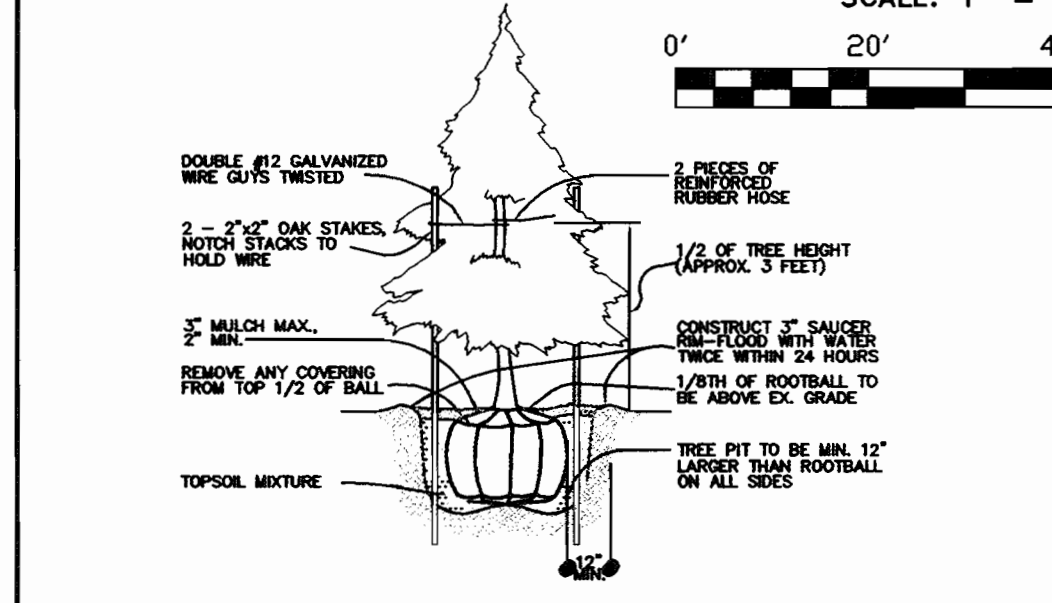
FOREST CONSERVATION OBLIGATION OF 0.16 ACRE OF AFFORESTATION FOR THIS PLAN HAS BEEN MET BY A FEE-IN-LIEU PAYMENT OF \$3,485.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND.

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO PUBLIC ROADS	PARKING IS ADJACENT TO PUBLIC ROAD
LANDSCAPE TYPE	B	E
LINEAR FEET OF ROADWAY/FRONTAGE/PERIMETER	150	315
CREDIT FOR EXISTING VEGETATION (YES NO. LINEAR FEET)	0	0
CREDIT FOR WALL FENCE OR BERM (YES NO. LINEAR FEET)	0	0
NUMBER OF PLANTS REQUIRED		
SHADE TREES	1/50' = 3	1/40' = 8
EVERGREEN TREES	1/40' = 4	0
SHRUBS	0	1/4' = 79
NUMBER OF PLANTS PROVIDED		
SHADE TREES	3	9
EVERGREEN TREES	4	0
OTHER TREES (2:1 SUBSTITUTION)	0	0
SHRUBS (10:1 SUBSTITUTION)	22	69

**SCHEDULE B PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	7
NUMBER OF TREES REQUIRED	0
NUMBER OF REQUIRED ISLANDS	0
NUMBER OF PROVIDED ISLANDS	0
NUMBER OF TREES PROVIDED	
SHADE TREES	0
OTHER TREES (2:1 SUBSTITUTION)	0



**APPROVED:** DEPARTMENT OF PLANNING AND ZONING

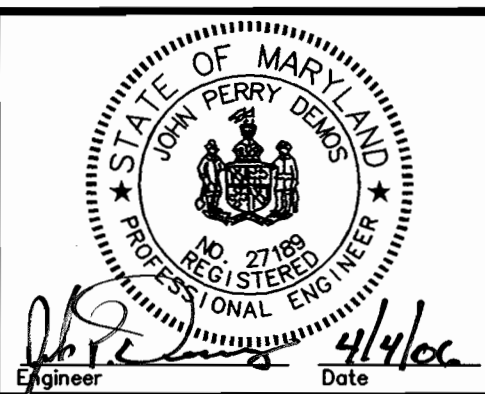
Chief, Development Engineering Division: *4/21/06*

Chief, Division of Land Development: *4/22/06*

Director: *4/22/06*

**Richardson Engineering, LLC**

110 Old Padonia Road, Suite LC  
Cockeysville, Maryland 21030  
Phone: 410-560-1502 Fax: 410-560-0827



**OWNERS/DEVELOPERS**

GUILFORD PARCEL, LLC  
8805 HILDER AVENUE  
ANNAPOLIS JUNCTION, MARYLAND 20701  
ATTN: MIKE WHITE  
PHONE: 301-674-5861

MAP OF WHITEHURST, PARCEL #48, LOTS 5-16

**FINAL LANDSCAPE PLAN**

SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGNED BY: P.W. SCALE: AS SHOWN

DRAWN BY: P.W. DEED REF.: GRID 14

CHECKED BY: J.P.D. PARCEL: 37

TAX MAP 48 GRID 14 PARCEL 37

A.D.C. MAP 18 GRID F-11

PLAT REF.: 119/127

DATE: 4-04-06

REVISION: BY

DRAWING COMPLETED: 4-04-06

JOB #: 04099 SHEET NO. 7 OF 7

FILES: D:\JOBS\2004\04099\DRAWINGS\SHEET7.DWG