ANTWERPEN AUTOMOTIVE 21029 SITE DEWELOPMENT PLANS

12400 CLARKSVILLE PIKE TAX MAP 34, GRID 12, PARCELS A, B-1, C-1 CLARKSVILLE HOWARD COUNTY, MARYLAND, 21029

EXISTING EASEMENT LINE BUILDING/PARKING SETBACK LIN R.O.W. CENTERLINE SANITARY SEWER LATERAL STORM SEWER GAS LINE UG ELECTRIC LINE UG TELEPHONE LINE OH WIRE ----c-----UG CABLE LINE LIGHTING ISOLUX LINE CONCRETE CURB CONCRETE CURB & GUTTER 111111111111 BUILDING LINE STORM/SANITARY SEWER FLOW ARROW SURFACE DRAINAGE FLOW ARROW TC PATH DRAINAGE DIVIDE INDEX CONTOUR LINE /----602----ITERMEDIATE CONTOUR LINE 10 503.7 OR 03.2 FLARED END SECTION FLARED END SECTION HEADWALL OR END WALL IRON ROD / PIPE 0 R.O.W. MONUMENT BENCHMARK MANHOLE YARD INLET CURB INLET GRATE INLET EX-3 22 STORM STRUCTURE NO. LABEL \Diamond \Diamond DECORATIVE AREA LIGHT **=** AREA / YARD LIGHT c/g CLEAN OUT HYDRANT WATER METER WATER VALVE GAS VALVE ~~~ UTILITY POLE TRAFFIC SIGNAL **ABCDEFG** ABCDEFG TYPICAL NOTE TEXT N 27'54'32" N 27°54'32" E TYPICAL METES & BOUNDS DESCRIPTION TEXT

LEGEND

SHEET INDEX

- COVER SHEET
- EXISTING CONDITIONS AND DEMOLITION PLAN
- HOWARD COUNTY ROAD IMPROVEMENT PLAN
- GRADING & UTILITY PLAN
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- EROSION & SEDIMENT CONTROL DETAILS
- EROSION & SEDIMENT CONTROL DETAILS 10. FOREST CONSERVATION & LANDSCAPE PLAN
- 11 FOREST CONSERVATION & LANDSCAPE DETAILS
- 12. SWM DRAINAGE AREA MAPS 13. STORMDRAIN DRAINAGE AREA MAPS
- 14. SWM NOTES AND DETAILS
- 15. SWM NOTES AND DETAILS
- 16. UTILITY PROFILES
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- 21. SITE DISTANCE ANALYSIS PLAN
- 22. MAINTENANCE OF TRAFFIC PLAN

SITE ANALYSIS DATA CHART

PROJECT AREA: PARCEL $\mathbf{A} = 0.735$ ACRES = 32,011 S.F. PARCEL **B-1**' = 0.438 ACRES = 19,100 S.F. PARCEL C-! = 1.987 ACRES = 86,532 S.F. TOTAL AREA = 3.160 AC. OR 137,643 S.F. LIMIT OF DISTURBED AREA: 137,859 S.F. (3.160 AC.)

PRESENT ZONING: B-2 (GENERAL BUSINESS DISTRICT) PROPOSED USE: AUTOMOBILE SALES FACILITY

FLOOR AREA: 535.50 S.F.

MAXIMUM NUMBER OF EMPLOYEES: 6

PARKING SPACES REQUIRED: 84

PARKING SPACES PROVIDED: 260 (INCLUDING 7 HANDICAP SPACES) OPEN SPACE ON-SITE: 1.060 ACRES AND 34% OF GROSS AREA BUILDING COVERAGE OF SITE: 0.011 ACRES (0.3% OF GROSS AREA)

APPLICABLE DPZ FILE REFERENCES: F-76-01, SDP-03-97, F-03-173, SDP-01-040,

GENERAL NOTES:

- . THIS PLAN REFERENCES A SURVEY BY CONTROL POINT ASSOCIATES: GWYNEOD CORPORATE CENTER 1120 WELSH ROAD, SUITE 200
- NORTH WALES, PA 19454 ENTITLED: ALTA/ACSM LAND TITLE SURVEY BP PRODUCTS NORTH AMERICAN, INC. ROUTE 108 AND TEN OAKS ROAD TAX MAP 34 GRID 12 PARCEL 35 CLARKSVILLE, 5TH ELECTION DISTRICT
 - DATED: 1/14/2004 PROJECT NO: S032001.SR
- 2. THE SUBJECT PROPERTY IS ZONED B-2 PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN.
- 3. EXISTING USE: VACANT LOT WITH BUILDING AND PARKING FACILITIES PROPOSED USE: AUTOMOBILE SALES FACILITY
- 4. BUILDING HEIGHT: NOT TO EXCEED 40' (ACTUAL HEIGHT 10'±).

5. PARKING: REQUIRED -

- VEHICLE SALES: TWO SPACES/1,000 SF OF BUILDING SALES AREA
- $2 \times (535.5/1,000) = 1$ SPACE ONE SPACE/1,000 SF OF DISPLAY AREA
- $1 \times (82.817/1,000 \text{ SF}) = 83 \text{ SPACES}$ TOTAL PARKING REQUIRED = 84 SPACES TOTAL PARKING PROVIDED = 260 SPACES (INCLUDING 7 HANDICAP SPACES) CUSTOMER PARKING 11 DISPLAY PARKING 249
- 6. REFUSE SHALL BE DISPOSED OF DAILY IN TRASH RECEPTICALS.
- TRASH REMOVAL WILL BE PRIVATELY CONTRACTED.

7. SETBACKS: TEN OAKS ROAD:

- 30' USE & STRUCTURE SETBACK 10" PARKING SETBACK MD ROUTE 108: 30' USE & STRUCTURE SETBACK
- 10' PARKING SETBACK MD ROUTE 32: 30' USE & STRUCTURE SETBACK
- 10' PARKING SETBACK
- 30' USE & STRUCTURE SETBACK

UTILITY CONTACTS:

HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION (410) 313-2366 HOWARD COUNTY BUREAU OF UTILITIES NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION AT LEAST 48 HOURS PRIOR TO THE START OF WORK (410) 313-1855.

8. THERE SHALL BE NO WASTE MATERIALS STORED ON SITE.

9. LIGHTING SHALL BE SHIELDED AND DIRECTED SO THAT IT DOES NOT SHINE DIRECTLY ONTO ANY ADJACENT PROPERTIES, IT SHALL NOT ILLUMINATE RESIDENTIAL PROPERTIES AND SHALL NOT PRODUCE GLARE WHICH WOULD CAUSE A HAZARD FOR MOTOR VEHICLE OPERATIONS IN THE VICINITY OF THE SITE. LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS.

- WATER, PUBLIC EXISTING 8" WATER LINE (CONTRACT # 44-3483) IS LOCATED ON THE SOUTH SIDE OF TEN OAKS ROAD WITH A PROPOSED 1" CONNECTION
- SEWER, PUBLIC AN 8" SANITARY SEWER LINE (CONTRACT # 30-3770) IS LOCATED IN THE MD 108 RIGHT-OF-WAY. APPLICANT WILL BE REQUIRED TO MAKE CONNECTION. STORM DRAIN - A 12" STORM DRAINAGE LINE IS SITUATED AT THE CORNER OF TEN OAKS ROAD AND MD 108 AND OUTLETS INTO THE MD 32
- 11. HOWARD COUNTY STORM WATER QUANTITY AND QUALITY REQUIREMENTS WILL BE MET. AN UNDER GROUND DETENTION FACILITY WILL BE CONSTRUCTED TO PROVIDE QUANTITY MANAGEMENT FOR CHANNEL PROTECTION (CDY) AND WILL ADEQUATELY CONVEY THE 10-YEAR AND 100-YEAR STORMS. A PERIMETER SAND FILTER WILL BE PROVIDED FOR WATER QUALITY MANAGEMENT. A STONE RECHARGE TRENCH IS PROVIDED FOR RECHARGE VOLUME (REV.) MANAGEMENT. THE MAINTENANCE AND OWNERSHIP OF THE SWM FACILITY SHALL BE OF THE PROPERTY OWNER.

12. ELECTION DISTRICT: 5

13. PLAT REFERENCE:

- PARCEL A : PLAT NO(S). 18588-89 PARCEL B-1: PLAT NO (S) 18588-89 PARCEL C-1: PLAT NO(S) 18588-89
- 14. TAX MAP: 34, GRID: 12, PARCELS: A, B-1, C-1
- 15. PROPERTY IS LOCATED IN THE CLARKSVILLE AREA. 16. PROPERTY IS OUTSIDE THE 100-YEAR FLOOD PLAIN (FEMA FIRM# 240044 0032 B MAP 12/4/86).
- 18. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 19. 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.

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BENCHMARK INFORMATION

NAIL SET AT SOUTHWEST CORNER OF THE INTERSECTION OF MD ROUTE 108 AND TEN OAKS ROAD, ELEVATION 484.16 (REFER TO EXISTING CONDITIONS AND DEMOLITION PLAN FOR LOCATION).

COUNTY CONTROL INFORMATION

STATION 35A1 HOWARD COUNTY ALUMINUM DISK SET ON CONCRETE MONUMENT ON THE EAST SIDE OF MD RTE. 108 .4 MILES SOUTH OF SHEPARD LN. ELEV.-478.97.

CONCRETE MONUMENT ON THE EAST SIDE OF MD RTE. 108 ACROSS FROM THE CLARKSVILLE LEARNING CENTER.

20. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.

- 21. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNAGE 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.
- 22. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 23. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY CONTROL POINT ASSOCIATES DATED 1/14/04.
- 24. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODET CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 35A1 AND 35A2 WERE USED FOR THIS PROJECT.
- 25. THERE ARE NO WETLANDS ON THIS SITE.
- 26. THE TRAFFIC STUDY FOR THIS PROJECT WAS PROVIDED BY THE TRAFFIC GROUP ENTITLED: ADEQUATE ROAD FACILITIES TEST EVALUATION DATED MAY 5, 2006 AND APPROVED ON MAY 25, 2006.
- 27. A PORTION OF THE FOREST CONSERVATION OBLIGATION OF 0.36 ACRES HAS BEEN PREVIOUSLY ADDRESSED UNDER FILE #SDP-03-97 AS A FEE IN LIEU PAYMENT IN THE AMOUNT OF \$7.840.40. THE REMAINDER OF THE FOREST CONSERVATION REQUIREMENT WILL BE PROVIDED BY THIS SDP. 3.16 AC. - 2.42 AC. = 0.74 A.C. @ \$2,395.80 AS A FEE IN LIEU PAYMENT. (REFER TO SHEET 10 FOR ACTUAL COMPUTATION SHEET)
- 28. THIS PLAN IS SUBJECT TO THE AMENDED 5TH EDITION OF THE SUBDIVISION REGULATIONS AND THE 2004 ZONING REGULATIONS.
- 29. RELATED FILE APPLICATIONS: F-76-01, SDP-03-97, F-03-173, SDP-01-040, 30. THERE ARE NO KNOWN BURIAL GROUNDS ON SITE.
- 31. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$30,030 FOR 65 SHADE TREES, 40 EVERGREEN TREES, AND 151 SHRUBS.
- 32. THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND IS ELIGIBLE FOR FOR PUBLIC WATER AND SEWER.

	APPROVED:	DEPARTMENT (F PLANNING AND ZONING		
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	CHIEF-DEVELOP				
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	CHIEF-DIVISION	OF LAND DEVELO	PMENT GRAN BATE		
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	DIRECTOR		DATE		
	APPRO	VED: FOR PUBI	IC WATER AND PUBLIC		
		SEWERAG	E SYSTEMS.		
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	HOWAR	COUNTY HEALTH C D COUNTY HEALTH	OFFICER DATE DEPARTMENT		
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			DEVICION DECODINATION		
	NO.: DATE		REVISION DESCRIPTION		
	OWNERS		DEVELOPER		
	PARCEL	Д	JACOB M. ANTWERPEN		
	ANTOY		6631 BALTIMORE NATIONAL PIKE		
			6631 BALTIMORE NATIONAL PIKE BALTIMORE, MARYLAND 21228		
	ANTOY	UTE 108			

6381 NW TEN OAKS ROAD CLARKSVILLE, MARYLAND 21029 ANTWERPEN AUTOMOTIVE

ANTSTORE, LLC

6389 TEN OAKS ROAD

CLARKSVILLE, MARYLAND 21029

ANTWERPEN JACOB M

PARCEL C-1

12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY, MARYLAND

PARCELS A, B-1 and C-1 Plat No(s). 18588-89
5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

COVER SHEET

PROPESSIONAL ENGINEERING SERVICES
 *810 GLENEAGLES COURT, SUITE 300, TOWSON, MD 21286
 *(410) 821-7900 FAX: (410) 821-7987 | MD@boblereng.com+

DESIGNED BY: J.J.U. **ĨDRAWN BY: J.J.L.** PROJECT NO.: M0032003.1 SCALE: PROFESSIONAL ENGINEER NO. 28567 DRAWING NO. 1 OF 22

07/06/2006

1"=30'

PREPARED BY:

BOHLER ENGINEERING, P.C.

810 GLENEAGLES COURT, SUITE 300 TOWSON, MARYLAND 21286

(410) 821-7900 ATTN: MATTHEW T. ALLEN, P.E.



MISS UTILITY

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT. THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 4

HOURS PRIOR TO ANY CONSTRUCTION,

B-1 12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY 21029 C-1 12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY 21029 PERMIT INFORMATION CHART ECTION/AREA ANTWERPEN AUTOMOTIVE ·A, B-1· ., C-1· ENSUS TRACT AT RECORDATION BLOCK 18588-89 5th 6023.02 6653000

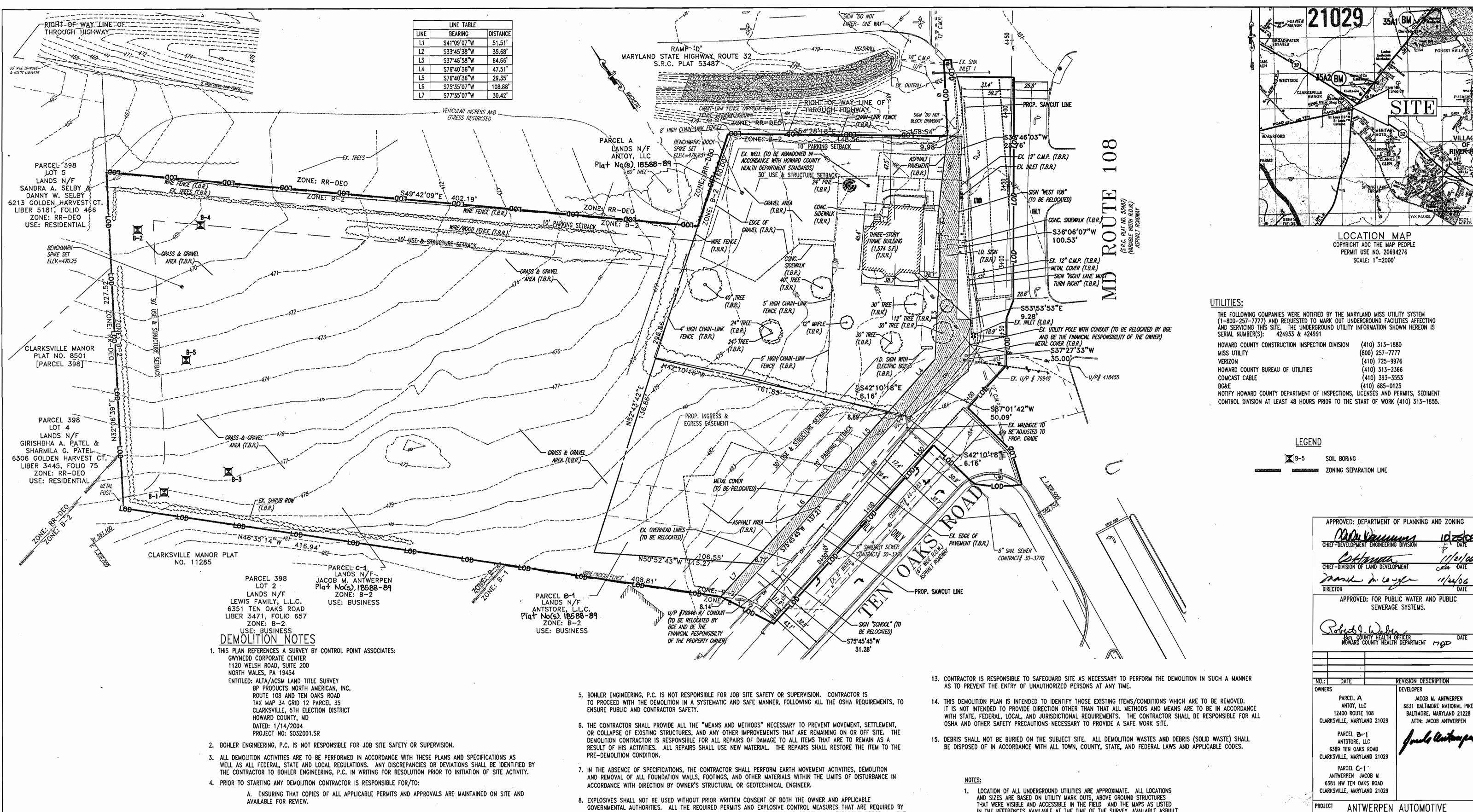
LOT/PARCEL #

ADDRESS CHART

STREET ADDRESS

1240D CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY 21029

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION, SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. ISHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.



B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES

C. LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.

D. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEM THAT ARE NOT BEING REMOVED DURING

ALL DEMOLITION ACTIVITIES.

PRIOR TO SITE DISTURBANCE.

IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND

SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION

F CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS

RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING. P.C. IN WRITING PRIOR TO THE START

F CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C.

RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS

SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO

COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL

CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.

COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.

G. A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.

THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.

9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS - OF - WAY.

10. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.

11. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE APPLICABLE PROPERTY OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.

12. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.

> ABANDONMENT OF ON-SITE WELLS AND SEPTIC SYSTEMS MUST BE APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO COMMENCEMENT ANY ON-SITE DEMOLITION.

IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE ASBUILT PLANS AND UTILITY MARK OUTS DO NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATIONS ARE TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATIONS, SIZE AND TYPE BY THE PROPER UTILITY COMPANY AND OR CONTRACTOR.

2. ELEVATIONS ARE BASED UPON NGVD 1929 DATUM, REF. HOWARD COUNTY CONTROL STATIONS 35A1 & 35A2. MARYLAND STATE PLANE GRID NORTH REFERENCES HOWARD COUNTY SURVEY CONTROL STATIONS 35A1 & 35A2, NAD83.

3. PROPERTY IS LOCATED IN FLOOD HAZARD ZONE 'C' (AREA OF MINIMAL FLOODING PER MAP ENTITLED "NATIONAL FLOODING INSURANCE PROGRAM" FIRM-FLOOD INSURANCE RATE MAP, HOWARD COUNTY, MARYLAND, PANEL 32 OF 45", COMMUNITY-PANEL NUMBER 240044 0032 B, MAP REVISED 12-4-86.

GRAPHIC SCALE

(IN FEET)

1 inch = 30 ft.



BEFORE YOU DIG CALL

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.

PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

HOURS PRIOR TO ANY CONSTRUCTION.

0/17/08= MA THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48

MATTHEW T. ALLEN

12400 CLARKSVILLE PIKE,

PARCELS A, B-1 and C-1

Plat No (s). 18588-89 5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

EXISTING CONDITIONS AND DEMOLITION PLAN

PROFESSIONAL ENGINEERING SERVICES+
+810 GLENEAGLES COURT, SUTTE 300, TOWSON, MD 21286+
+(410) 521-7900 FAX: (410) 521-7887 | MD@bobblereng.com+

Engineering, p.c

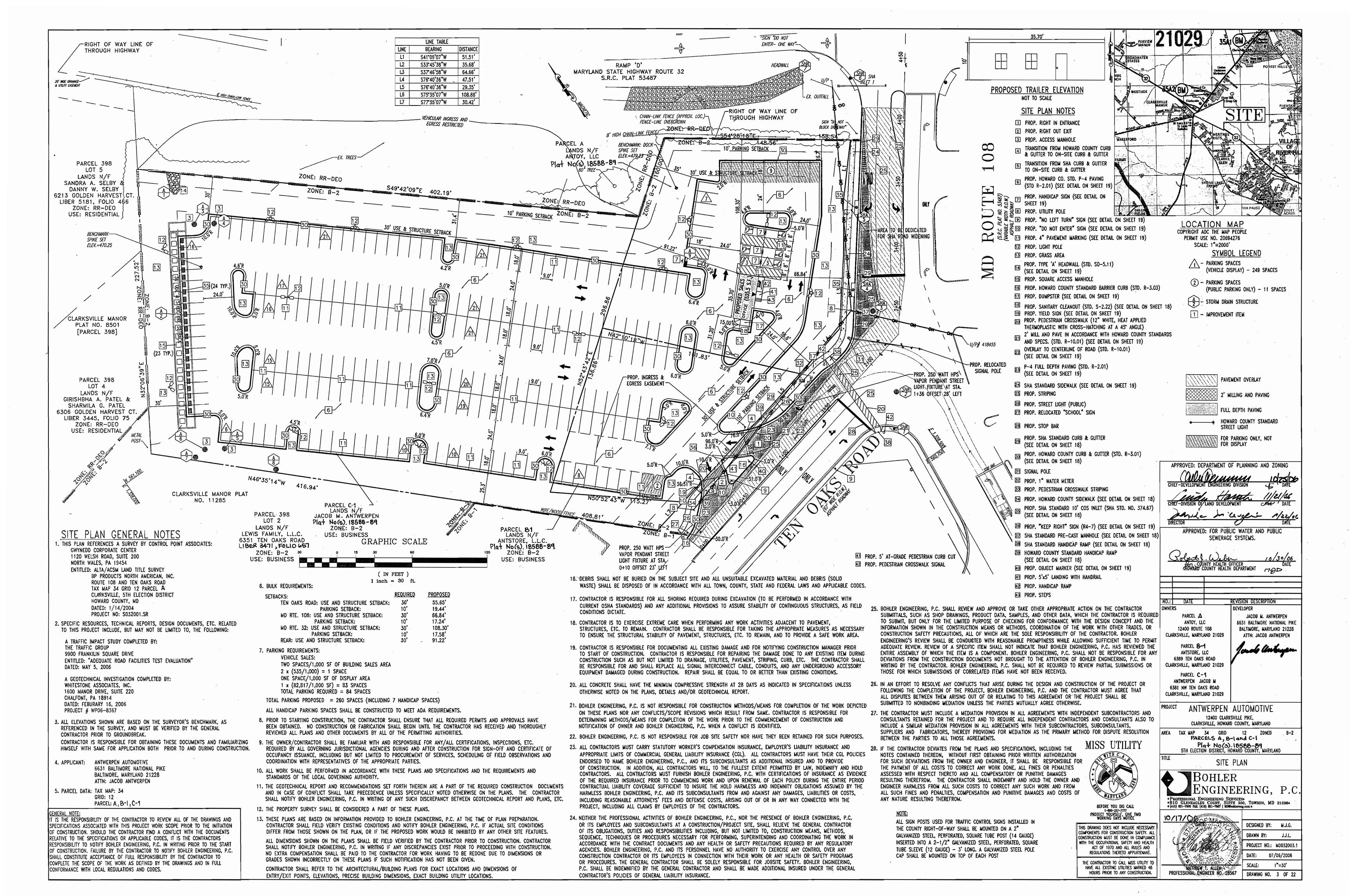
AREA TAX MAP .34 GRID 12 ZONED

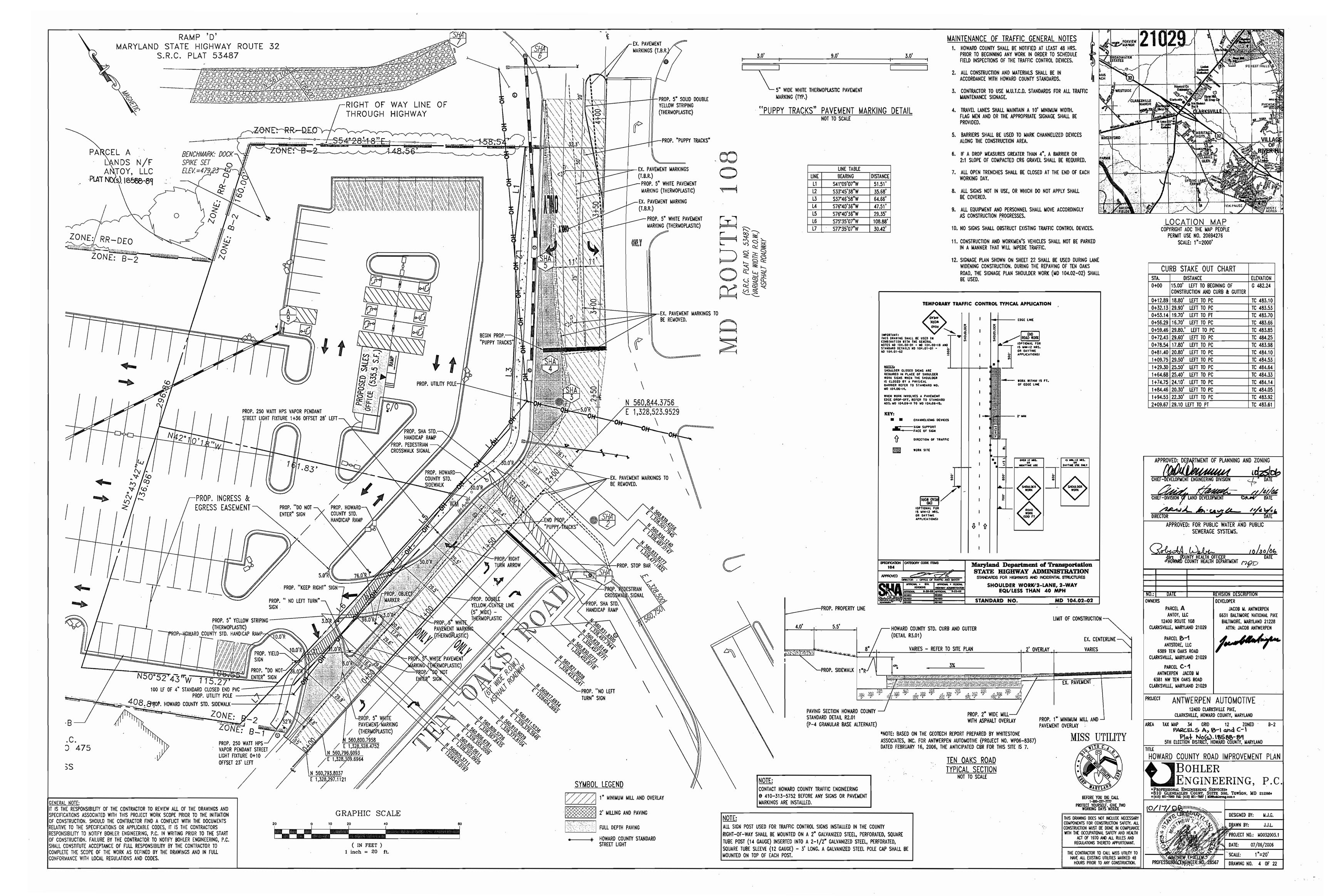
CLARKSVILLE, HOWARD COUNTY, MARYLAND

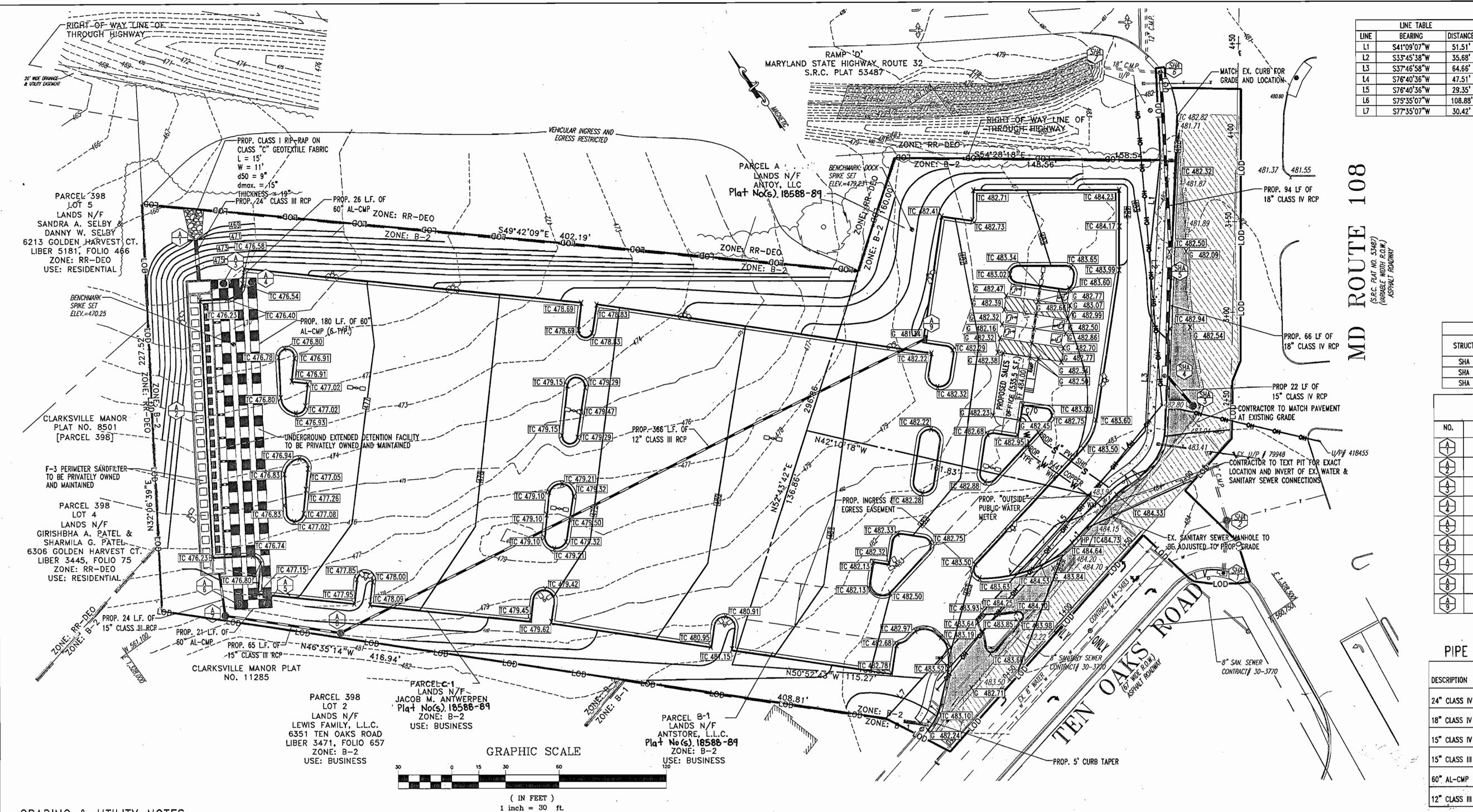
DESIGNED BY: M.J.G. DRAWN BY: J.J.L. PROJECT NO.: MD032003.1 DATE: 07/06/2006 1"=30' SCALE: PROFESSIONAL ENGINEER NO. 28567 DRAWING NO. 2 OF 22

CRES DATE

JACOB M. ANTWERPEN







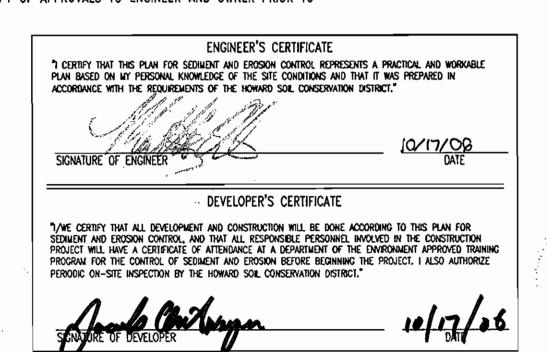
GRADING & UTILITY NOTES

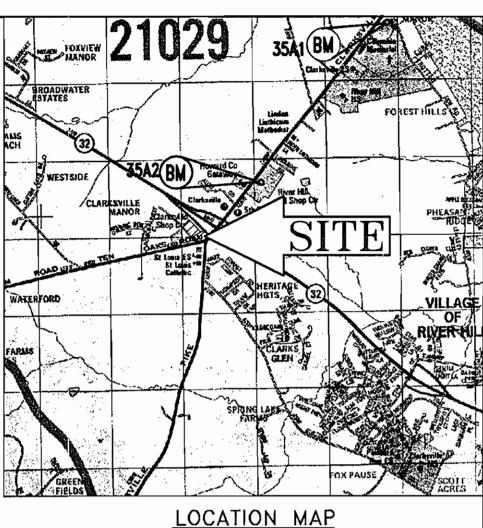
- . LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO BOHLER ENGINEERING, P.C.. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. ALL PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND
- 4. DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- 5. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.

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- 6. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- 7. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
- 8. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- 9. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT COMPLETED BY WHITESTONE ASSOCIATES, DATED NOVEMBER 14, 2001. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- 10. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- 11. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- 12. PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.

- 13. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO BOHLER ENGINEERING, P.C. IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- 15. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- 16. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
- 17. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY BOHLER ENGINEERING, P.C. IN WRITING OF ANY CONFLICTS.
- 18. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL
- SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO





COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NO. 20694276 SCALE: 1"=2000"

SHA STORM DRAIN STRUCTURE SCHEDULE					
STRUCTURE # DESCRIPTION			INVERT OUT	TOP OF CURB/RIM	
SHA 3	PROPOSED SHA STANDARD PRECAST MANHOLE	478.40	478.30	481.70	
SHA 4	PROPOSED SHA STANDARD 10' COS INLET	478.08	477.83	481.80	
SHA 5	PROPOSED SHA STANDARD 10' COS INLET	477.17	477.07	481.80	

	ON SITE STRUCTURE SCHEDULE						
NO.	DESCRIPTION	INVERT IN	INVERT OUT	TOP			
4	PROPOSED TYPE "A" HEADWALL HOWARD CO. STD. SD-5.11	468.64 (24")		471.64			
4	CAST-IN PLACE SAND FILTER	471.75 (15°)	469.06 (60") 469.06 (24")	VARIES			
\bigcirc	PROPOSED ACCESS MANHOLE	469.06 (60")	469.06 (60")	476.20			
4	PROPOSED ACCESS MANHOLE	469.06 (60")	469.06 (60")	476.09			
(\$)	PROPOSED ACCESS MANHOLE	469.06 (60")	469.06 (60")	478.00			
	PROPOSED ACCESS MANHOLE	469.06 (60°)	469.06 (60")	478.50			
(4)	PROPOSED PRECAST MANHOLE HOWARD CO. STD. G-5.12	472.11 (15")	472.11 (15")	479.70			
	PROPOSED PRECAST MANHOLE HOWARD CO. STD. G-5.12	473.08 (12")	473.08 (15")	479.80			
9	PROPOSED DOUBLE 'S' INLET HOWARD CO. STD. SD-4.34		478.57 (12")	481.34			

51.51

47.51

29.35'

PIPE SCHEDU	JLE
DESCRIPTION	LENGT
24" CLASS IV RCP	25 L.
18" CLASS IV RCP	160 L.
15" CLASS IV RCP	22 L.F
15" CLASS III RCP	89 L.F
60" AL-CMP	1133
12" CLASS III RCP	366 L

MISS UTILITY

ATHIS DRAWING DOES NOT INCLUDE NECESSARY

COMPONENTS FOR CONSTRUCTION SAFETY, ALL

CONSTRUCTION WUST BE DONE IN COMPLIANCE

WITH THE OCCUPATIONAL SAFETY AND HEALTH

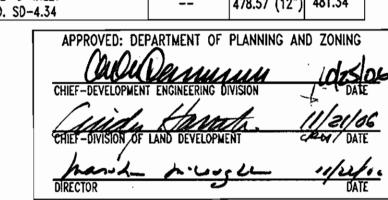
ACT OF 1970 AND ALL RULES AND

RECULATIONS THERETO APPURTENANT.

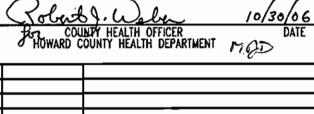
THE CONTRACTOR TO GALL MISS UTILITY TO

HAVE ALL EXISTING UTILITIES MARKED 48

HOURS PRIOR TO ANY CONSTRUCTION.



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.



REVISION DESCRIPTION

JACOB M. ANTWERPEN

PARCEL 🛕 ANTOY, LLC 12400 ROUTE 108

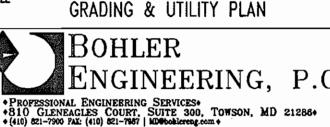
6631 BALTIMORE NATIONAL PIKE BALTIMORE, MARYLAND 21228 CLARKSVILLE, MARYLAND 21029 ATTN: JACOB ANTWERPEN PARCEL 8-1 ANTSTORE, LLC

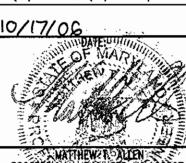
6389 TEN OAKS ROAD CLARKSVILLE, MARYLAND 21029 PARCEL C-1

ANTWERPEN JACOB M 6381 NW TEN OAKS ROAD CLARKSVILLE, MARYLAND 21029

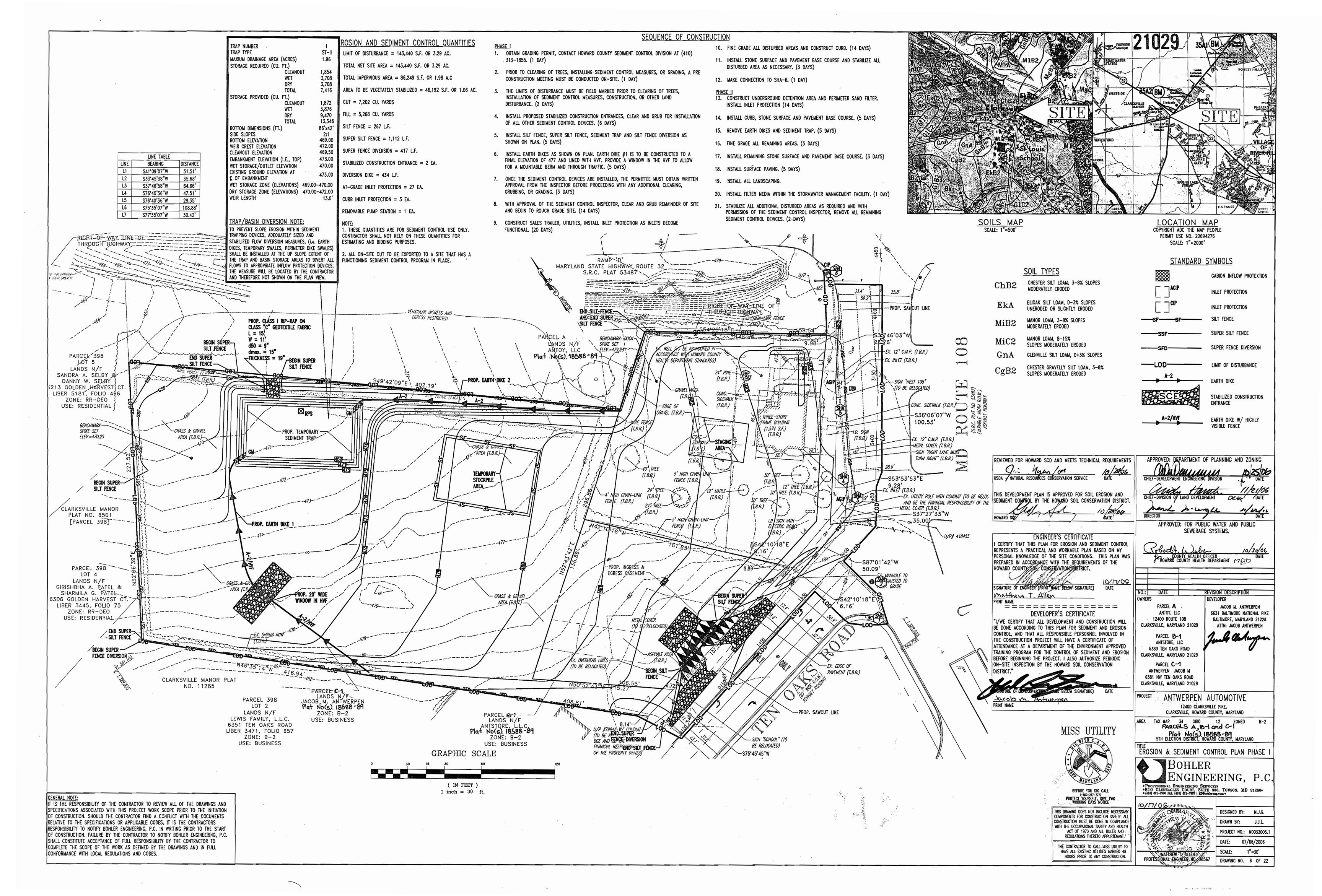
> ANTWERPEN AUTOMOTIVE 12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY, MARYLAND

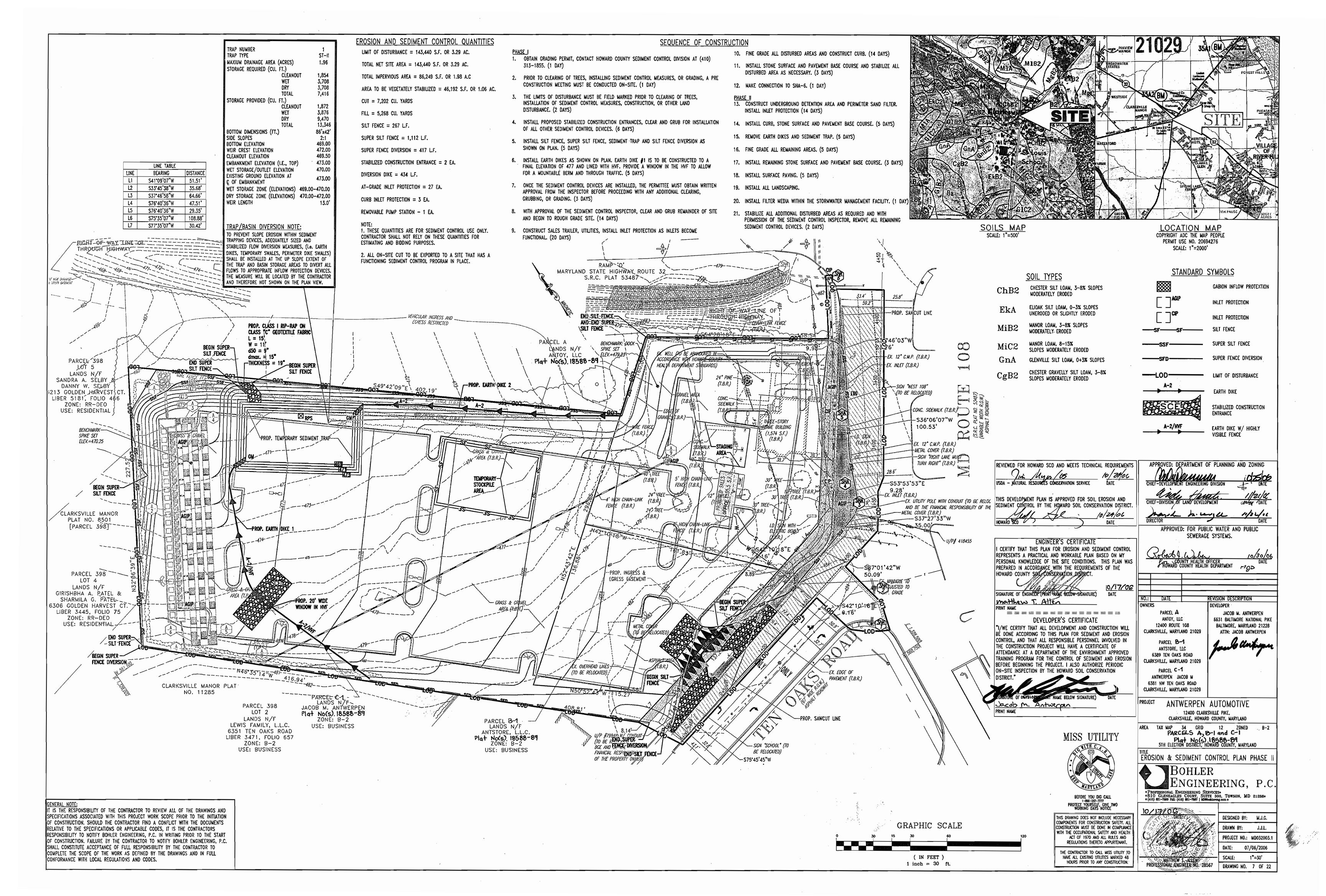
PARCELS A, B-1 and C-1 Plat No(5). 18588-89 5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

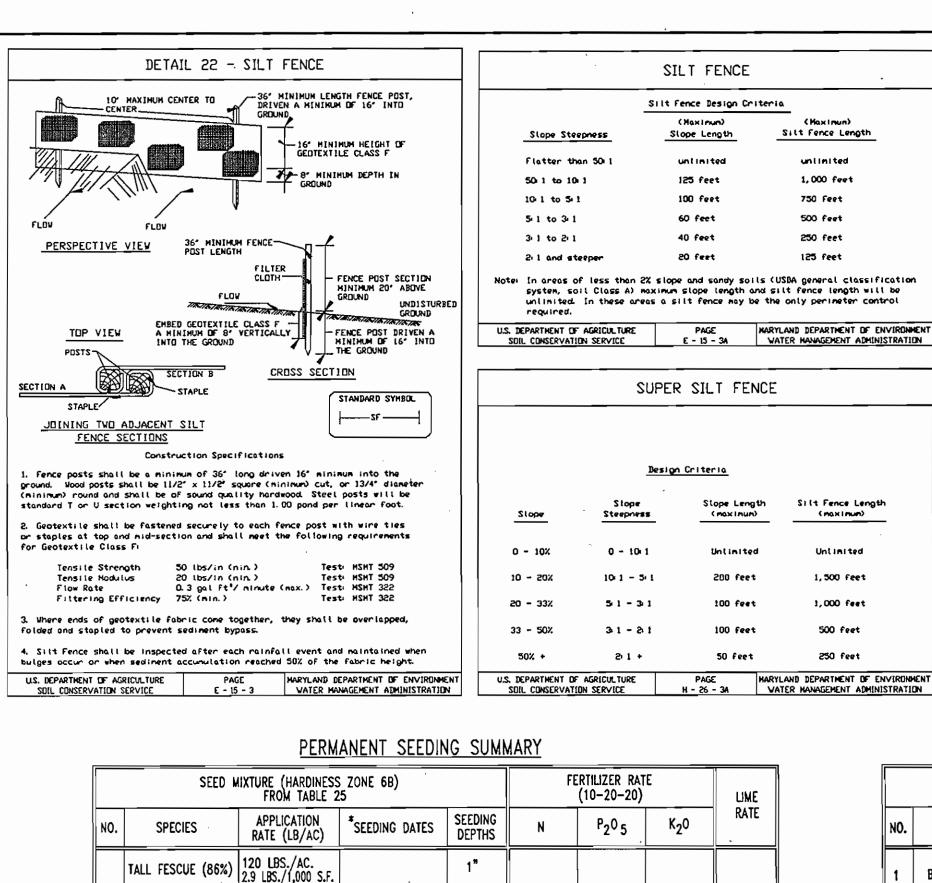




DESIGNED BY: M.J.G. DRAWN BY: J.J.L. PROJECT NO.: MD032003.1 07/06/2006 1"=30' SCALE: PROFESSIONAL ENGINEER NO 28567 DRAWING NO. 5 OF 22

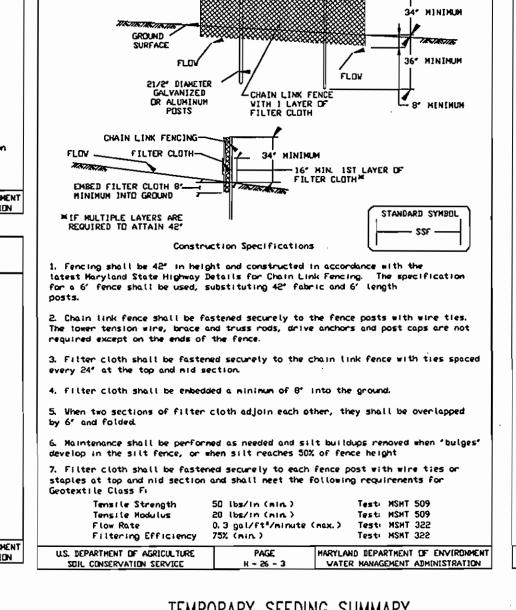






9 PGA TRIVIALIS (7%) 10 LBS./AC. 3/1 - 5/15 .23 LBS./1,000 S.F. 8/15 - 10/15

BIRDSFOOT TREEFOIL (7%) 10 LBS./AC.



DETAIL 33 - SUPER SILT FENCE

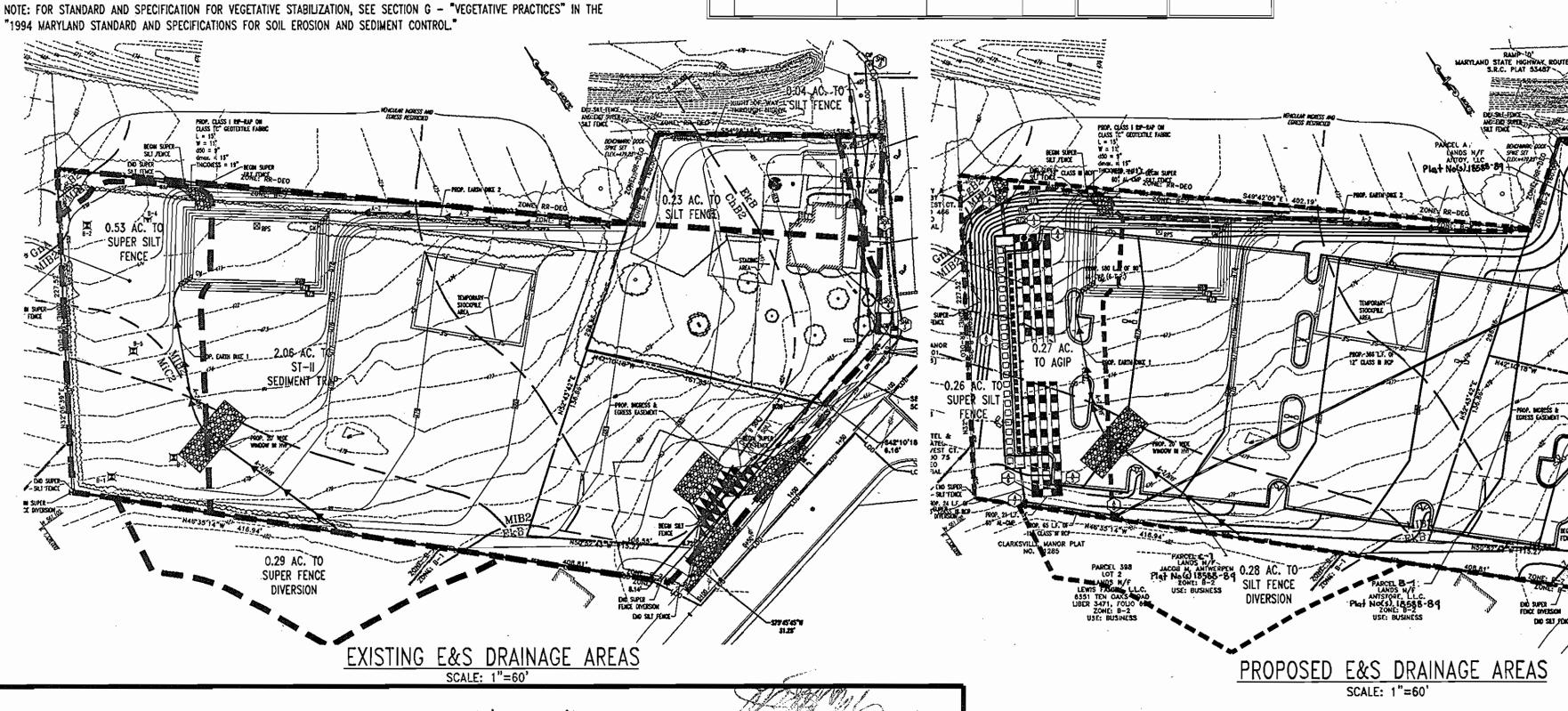
- 10° MAXIMUM

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE EXISTING PAVEMENT— EARTH FILL PIPE AS NECESSARY DR SETTER H MINIMUM 6' OF 2'-3' AGGREGATE OVER LENGTH AND VIDTH OF STRUCTURE PROFILE PLAN VIEW JOSHY2 GRADNATZ SCE . Length - minimum of 50" (*30" for single residence lot). 2. Vidth - 10' minimum, should be flared at the existing road to provide a turning 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. MAThe plan approval authority may not require single family residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or rectained or recycled concrete

5. Surface Vater - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable bern with 5-1 slopes and a minimum of 6' of stone over the pipe. Pipe ha to be sized according to the drainage. When the SDE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6' minimum will be required. 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SUBL CONSERVATION SERVICE F-17-3 VATER MANAGEMENT ADMINISTRATION

EMPORARY	SEEDING	SUMMARY	

	SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE 26				FERTILIZER	LIME RATE	
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	RATE (10-10-10)	EIME RATE	
1	BARLEY	122 LBS./AC. 2.5 BU./1,000 S.F.	3/1 - 4/30 8/15 - 10/15	1"-2"	600 LB/AC (15 LB/ 1000 SF)		
2	ANNUAL RYEGRASS	50 LBS./AC. 1.15 BU./1,000 S.F.	3/1 - 4/30 8/15 - 11/1	1/4"-1/2"		2 TONS/AC (100 LB/	
3	TALL FESCUE	120 LBS./AC.	3/1 - 5/15	1"		1000 SF)	



matthew T. Allen CONSULTANT'S CERTIFICATION I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND MD LICENSE NO. 28567 WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER. BOHLER ENGINEERING, P.C. 810 GLENEAGLES COURT, SUITE 300 (410) 821-7900 TOWSON, MD 21286 ADDRESS TELEPHONE # Jacob M. Antwerper EQUITABLE OWNER'S/DEVELOPER'S CERTIFICATION I/WE HEREBY CERTIFY THAT I/WE HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN AND THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT THE DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT GG31 Baltimore National Pike ADDRESS Baltimore, MD 21228

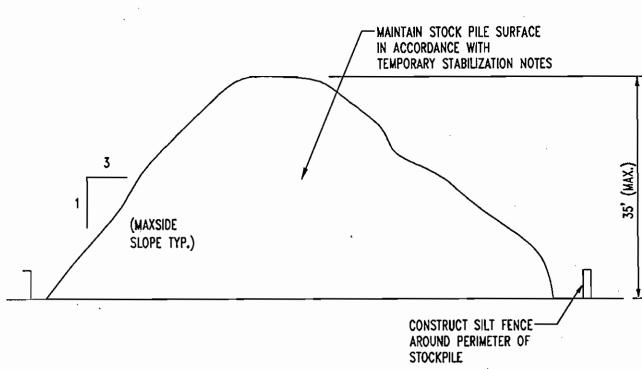
00 LB/AC | 175 LB/AC | 175 LB/AC | 2 TONS/AC

1000 SF) | 1000 SF) | 1000 SF) | 1000 SF)

. (4 LB/ | (4 LB/ || (100LB/

(2.0 LB/

T IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION F CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. IN WRITING PRIOR TO THE START CONSTRUCTION, FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.



TEMPORARY STOCKPILE DETAIL NOT TO SCALE

STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

To provide a suitable soil medium for vegetation 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

- 1. This practice is limited to areas having 2:1 or flatter slopes where:
- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
- c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.
- 2. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

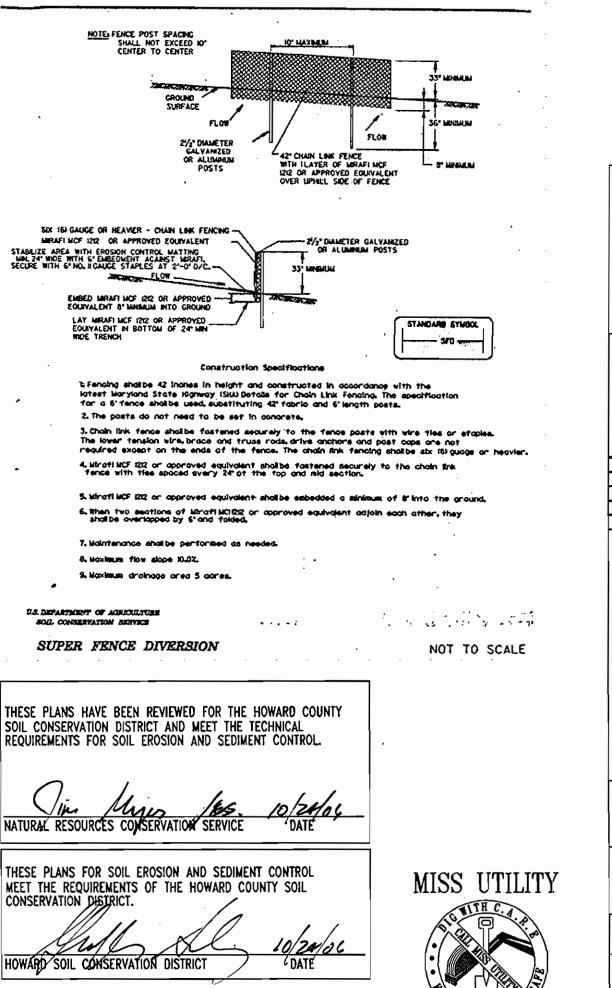
- 1. Topsoil salvaged from the existing site may be used provided that it meets the standards as specified. Typically, the depth of topsoil to be salvaged for a given set forth in the representative soil profile section in the Soil Survey published by USDA-SCS In cooperation with Maryland Agricultural Experimental Station.
- 2. Topsoil Specifications— Soil to be used as topsoil must meet the following:
- a. Tapsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agranomist or soil scientist and approved by the appropriate approval authority. Regardless, tapsoil shall not be a mixture of contrasting textured subsoil's 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
- b. Topsoil must be free of plants or plant parts such as bermuda grass, Johnson grass, nut sedge, 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 per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- 3. For sites having disturbed areas under 5 acres.
- a. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization Section I-Vegeative Stabilization Methods and Materials.

4. For sites having disturbed areas over 5 acres:

- a. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
- a.1. pH for topsoil shall be between 6.0 than 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to
- a.2. Organic content of topsoil shall be not less than 1.5 percent by weight.
- a.3. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
- a.4. No sod 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 phyto-toxic materials.
- Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural
- b. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

5. Topsoil Application

- a. When top soiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- b. Grades on the areas to be top soiled, which have been previously established, shall
- be maintained, albeit 4" 8" higher in elevation. c. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum
- thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the resulting from surface top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
- d. 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.
- 6. Alternative for Permanent Seeding Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments commercial below:
- a. Composted Sludge Material for use as a soil canditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements: a.1. Composted sludge shall be supplied by, or originate fram, a person or persons that are
- permitted (at the time of acquisition of the campost) by the Maryland Department of the Environment under COMAR 26.04.06.
- a.2. Camposted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent patassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements
- a.3. Composted studge shall be applied at a rate of 1 ton/1,000 square feet.
- b. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 41b/1,000 square feet, and 1/3 the normal lime application rate.
- References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute. Revised 1973.



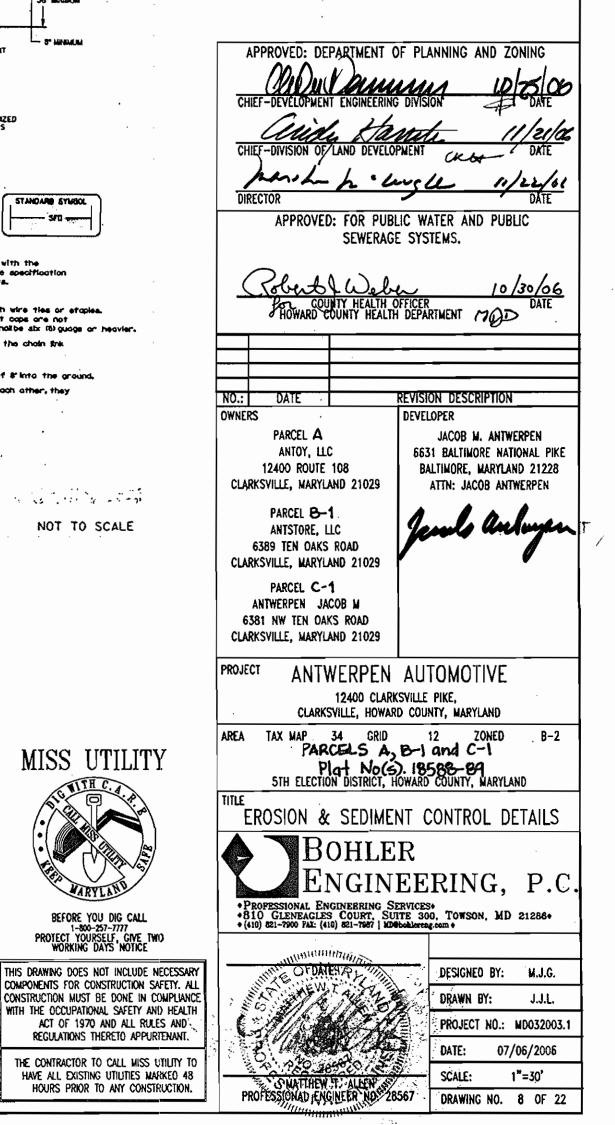
BEFORE YOU DIG CALL

ACT OF 1970 AND ALL RULES AND

REGULATIONS THERETO APPURIENANT

THE CONTRACTOR TO CALL MISS UTILITY TO

HAVE ALL EXISTING UTILITIES MARKED 48



STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS:

- 1. CLASS OF TURFGRASS SOD SHALL BE MARYLAND STATE CERTIFIED, OR MARYLAND STATE APPROVED SOD.
- 2. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND
- 3. STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE
- 4. INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIERS WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT, BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- 5. SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
- 6. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS, SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.

- SITE PREPARATION: FERTILIZER AND LIME APPLICATION RATES SHALL BE DETERMINED BY SOIL TEST. UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, FERTILIZER AND LIME MATERIALS MAY BE
- A. PRIOR TO SODDING, THE SURFACE SHALLBE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

APPLIED IN AMOUNTS SHOWN UNDER B, BELOW.

- B. WHERE THE SOIL IS ACID OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 2 TONS PER ACRE (100 LBS./1000 SQ. FT.) IN ALL SOILS 1,000 POUNDS PER ACRE OR 25 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 FERTILIZER OR EQUIVALENT SHALL BE UNIFORMLY APPLIED AND MIXED INTO THE TOP 3 INCHES OF SOIL WITH THE REQUIRED LIME.
- C. ALL AREAS RECEIVING SOD SHALL BE UNIFORMLY FINE GRADED. HARD PACKED EARTH SHALL BE SCARIFIED PRIOR TO PLACEMENT OF SOD. SOD INSTALLATION:
- A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING
- B. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH, INSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED ANT THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH COULD CAUSE AIR DRYING OF
- C. ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. SECURE THE SOD BY TAMPING AND PEGGING OR OTHER APPROVED METHODS.
- D. AS SODDING IS COMPLETED IN ANY ONE SECTION, THE ENTIRE AREA SHALL BE ROLLED OR TAMPED TO INSURE SOLID CONTACT OF ROOTS WITH THE SOIL SURFACE, SOD SHALL BE WATERED IMMEDIATELY AFTER ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD AREA THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.

SOD MAINTENANCE:

OTHERWISE SPECIFIED.

- A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- B. AFTER THE FIRST WEEK, SOD SHALL BE WATERED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND INSURE ESTABLISHMENT. C. FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS, GRASS HEIGHT

SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS

HOWARD SOIL CONSERVATION DISTRICT STANDARD 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. (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 STEEPER THAN 3:1. B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1. CHAPTER 7 OF "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 SHALL 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 SITE AREA - 3.16 A.C. AREA DISTURBED - 3.33 A.C. IMPERVIOUS AREA - 2.33 A.C. PERVIOUS AREA - 0.83 A.C. TOTAL CUT - 7,202 CU. YDS. TOTAL FILL - 5,268 CU. YDS. OFFSITE WASTE/BORROW LOCATION - TO BE RELOCATED BY THE DEVELOPER TO AN APPROVED LOCATION WITH AN APPROVED PERMIT AND SEDIMENT CONTROL PLAN

- 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 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 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.

PERMANENT SEEDING NOTES APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER

DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED. SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR

OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED). SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE

FOLLOWING SCHEDULES: 1. PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL, AT TIME OF SEEDING,

APPLY 400 LBS. PER ACRE 30-0-0 AREAFORM FERTILIZER (9

LBS./1000 SQ. FT.)

2. ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOILS.

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

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FALT AREA. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

- i. TOPSOIL SHALL BE 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.
- ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, OUACKGRASS, JOHNSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED, IN THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION & SEDIMENTION CONTROL.
- iii. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS PER ACRE (200-400 LBS./1000 SO. FT.) PRIOR TO PLACEMENT OF TOPSOIL, LIME SHALL BE DISTURBED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I -VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. 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 AND BASINS.
- ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
- iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- V. THESE TOPSOIL SPECIFICATIONS HAVE BEEN EDITED FROM THE 1994 EROSION AND SEDIMENT CONTROL STANDARDS TO FIT THIS PROJECT. IT IS STILL THE INTENTION TO FOLLOW THE REFERENCED 1994 EROSION AND SEDIMENT CONTROLS STANDARDS IN THEIR ENTIRETY.

TEMPORARY SEEDING NOTES APPLY TO GRADED OR CLEARED AREA LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

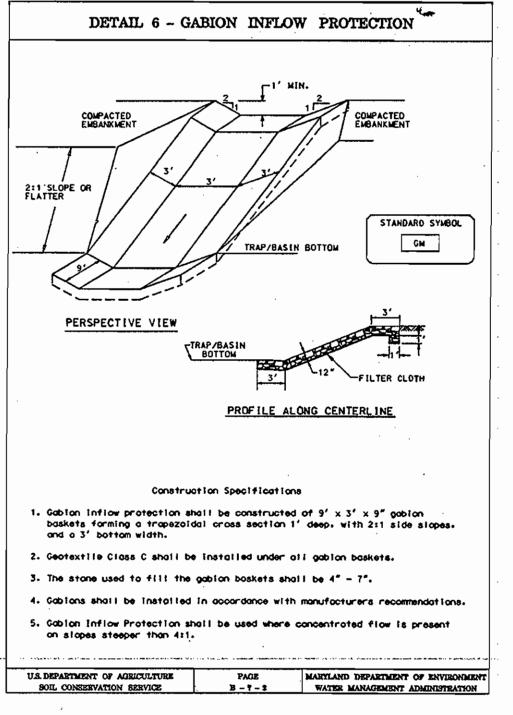
SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

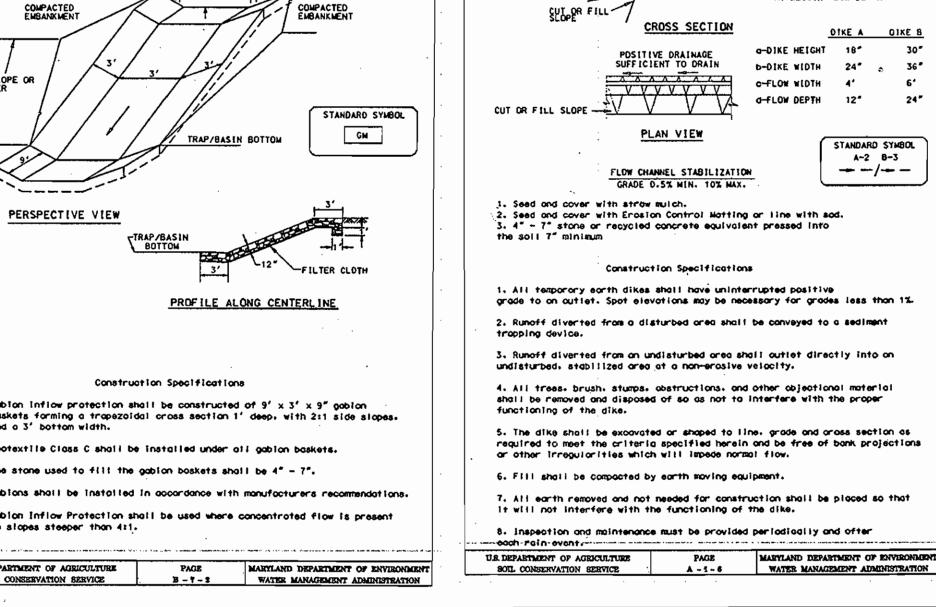
SOILS AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.)

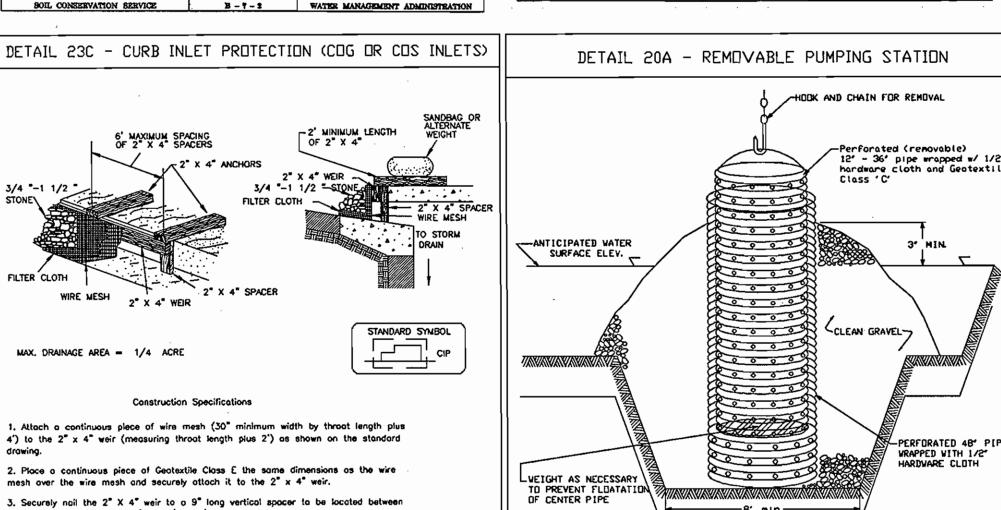
SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 3D AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2 1/3 BU, PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ. FT.). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ. FT.), FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70-90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ. FT.) FOR ANCHORING.

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II STONE OUTLET SEDIMENT TRAP - ST II COMPACTED EARTH TOP OF EMBANKMENT . The structure shall be inspected periodically and after each roln and WE IR LENGTH 11 4' MA) · MIN-. Construction of traps shall be carried out in such a manner that sediment EXISTING PROBLEMENTED EXISTING CROWN pollution is aboted. Once constructed, the top and outside face of the erbankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure SECTION B-B criteria. The remainder of the interior slopes should be etablized (one time) with seed and muich upon trap completion and manitored and maintained erosion 8. The structure shall be dewatered by approved methods, removed and the area stablilized when the drainage area has been properly stabilized. PERSPECTIVE VIEW 9. Refer to Section D for specifications concerning trap devatering. OUTLET ELEVATION 10. Minimum trop depth shall be measured from the weir elevation CLASS C APRON (SEE NOTE) 11. The elevation of the top of any dike directing water into the trop must equal or exceed the elevation of the trop embankment --- SMALL RIP-RAP 4" TO 7 12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of etone. Sections of filter cloth must overlap at least I' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance Construction Specification 13. Dutlet - An outlet shall be provided, including a means of conveying the 1. Area under empaniment shall be cleared, arubbed and stripped of discharge in on erosion free manner to on existing stable channel ony vegetation and root mat. The pool area shall be cleared 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized etanes, rocks, arganic moterial or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being 3. All cut and fill slopes shall be 2:1 or flatter. 4. The stone used in the outlet shall be small rip-rop 4" to 7" in size with a 1' thick layer of 34" to 11/2" washed aggregate placed on the upstream face of the autiet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet. 5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trop. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erade MARYLAND DEPARTMENT OF ENVIRONDE PAGE / MAEYLAND DEPARTMENT OF ENVIRONMENT C - 9 - 10 WATER MANAGEMENT ADMINISTRATION WATER MANAGEMENT ADMINISTRATION 4







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

mesh over the wire mesh and securely ottoch it to the 2" x 4" weir. 3. Securely noil the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart)

4. Place the assembly against the inlet throat and noil (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend ocrass the inlet top and be held in place by sondbags ar alternate weight. 5. The assembly shall be placed so that the end spacers are a minimum 1' beyond

both ends of the throat apening.

6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fobric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2" stone over the wire mesh and geatextile in such a manner to prevent water from entering the inlet under or around the geotextile.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clagged with sediment. 8. Assure that storm flow does not bypass the inlat by installing a temporary earth or asphalt dike to direct the flow to the inlet.

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

12" - 36" pipe wrapped w/ 1/2" -PERFORATED 48' PIPE

DETAIL 1 - EARTH DIKE

L.D. 2:1 SLOPE OR FLATTER

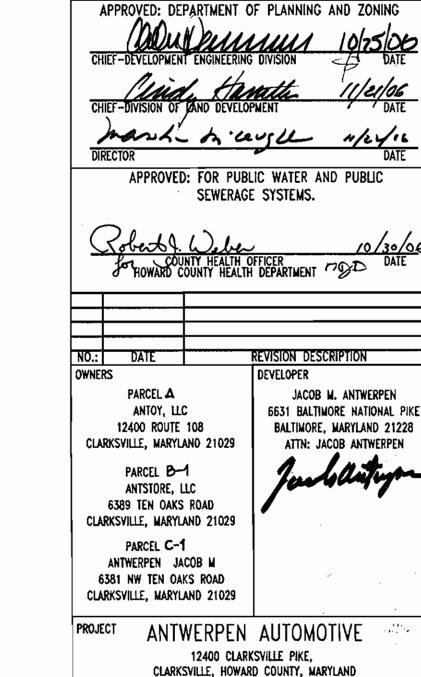
FEXCAVATE TO PROVIDE

Construction Specifications 1. The outer pipe should be 48° dia. or shall, in any case, be at least 4° greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2° hardward cloth to prevent backfill material from entering the perforations. 2. After installing the outer pipe, backfill around outer pipe with 2' aggregate

4. The center pipe should extend 12° to 18° above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

DETAIL 23B - AT GRADE INLET PROTECTION GEDTEXTILE CLASS E PLAN/CUT AWAY VIEW -3/4" - 11/2" STONE -GEOTEXTILE CLASS E -wire Ties -6° OVERLAP CROSS SECTION STANDARD SYMBOL MAX. DRAINAGE AREA = 1/4 ACRE Construction Specifications 1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place. 2. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration. MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY

SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL. THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT. HOWARD SOIL CONSERVATION



PARCELS A, B-1 and C-1 MISS UTILITY EROSION & SEDIMENT CONTROL DETAILS

1-800-257-7777
PROTECT YOURSELF, GIVE TWO
WORKING DAYS NOTICE

HIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, AL Construction must be done in compliand 11TH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48

HOURS PRIOR TO ANY CONSTRUCTION.

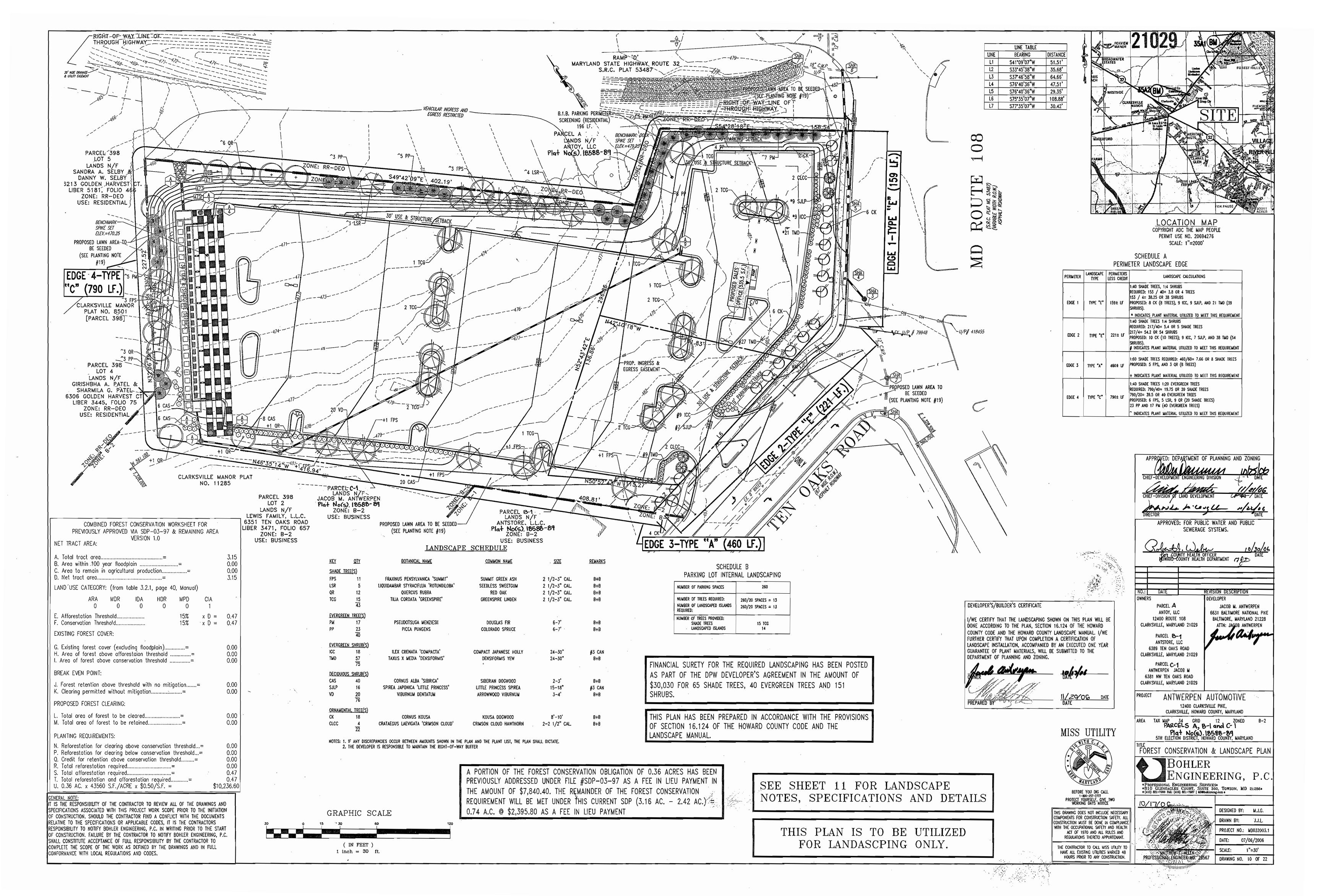
PROFESSIONAL/ENGINEER NO. 28567

PROFESSIONAL ENGINEERING SERVICES

8810 GLENEAGLES COURT, SUITE 300, TOWSON, MD 21286

(410) 821-7900 PAX: (410) 821-7907 | MOWboblereg.com + DESIGNED BY: M.J.G. DRAWN BY: J.J.L. PROJECT NO.: MD032003.1 07/06/2006 DATE: SCALE: 1"=30' DRAWING NO. 9 OF 22

I IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.



PLANTING NOTES:

- PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN-UP.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.
- 3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
- 4. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
- 5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
- 6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE. THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.
- 7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION OR THE HOWARD COUNTY LANDSCAPE MANUAL, WHICHEVER IS STRICTER OF THE TWO WILL APPLY TO THIS SITE.
- 8. ALL PLANTS SHALL BE PLANTED IN AMENDED TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.
- 9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SD AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
- 1D. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH 'WILT-PRUF' OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
- 11. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
- 12. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
- 13. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
- 14. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
- 15. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5-10-5) UPON COMPLETION OF WORK. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL COMPLETELY SATURATE THESE AREAS WITH WATER, ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO COMPACTION OF THE ROOT MASS.
- 16. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
- 17. NEW PLANTING AREAS AND SOD SHALL BE ADEQUATELY IRRIGATED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
- 18. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL LANDSCAPE ARCHITECT. THE MUNICIPAL ENGINEER AND LANDSCAPE ARCHITECT SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

PLANTS 3/15 TO 12/15

9/15 TO 12/1 FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH PLANTING THESE TREES IN THIS

> ACER RUBRUM BETULA VARIETIES CARPINUS VARIETIES CRATEGUS VARIETIES KOELREUTERIA LIQUID AMBER STYRACIFLUA LIRODENDRON TULIPIFERA PLATANUS ACERFOLIA

POPULUS VARIETIES PRUNUS VARIETIES PYRUS VARIETIES QUERCUS VARIETIES SALIX WEEPING VARIETIES TILIA TOMENTOSA ZELKOVA VARIETIES

3/15 TO 6/15

ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE THE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.

19. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL_SEED_SOD STABLIZATION_METHOD

PLANTING SPECIFICATIONS:

- SCOPE OF WORK
- A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.

MATERIALS

- A. GENERAL ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
- B. PLANTS ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
- C. TOPSOIL -- LOAMY SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 - 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VEGETABLE MATTER
- D. MULCH DOUBLE SHREDDED HARDWOOD BARK MULCH.
- FERTILIZER AND SOIL CONDITIONER PLANTED AREAS
- A. ORGANIC FERTILIZER SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO 'NITROHUMIS'.
- B. ORGANIC FERTILIZER AND SOIL CONDITIONER SHALL BE 'GRO-POWER' AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (5-3-1): NITROGEN 5%. PHOSPHATE 3%, POTASH 1%. 50% HUMUS AND 15% HUMIC ACIDS.
- 4. GENERAL WORK PROCEDURES
- A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAY'S WORK.

A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

TOPSOILING

A. CONTRACTOR TO PROVIDE A FOUR INCH (4") MINIMUM THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE A FOUR INCH (4") COMPACTED THICKNESS. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST OH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.

7. SOIL CONDITIONING

- A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
 - 20 POUNDS 'GRO-POWER' 100 POUNDS AGRICULTURAL GYPSUM 20 POUNDS NITROFORM (COURSE) 38-0-0 BLUE CHIP

SOIL MODIFICATIONS:

THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS, ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.5.

MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM, COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.

MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

8. PLANTING

POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

A. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACK FILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:

1 PART PEAT MOSS

1 PART COW MANURE BY VOLUME 3 PARTS TOPSOIL BY VOLUME

21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:

2 TABLETS PER 1 GAL, PLANT 3 TABLETS PER 5 GAL. PLANT

4 TABLETS PER 15 GAL. PLANT

LARGER PLANTS (2) TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER

- B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
- C. ALL PLANTS SHALL BE SET SO THAT THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
- D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
- E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MIN, OF 7' BRANCHING HEIGHT.

GROUND COVER

- A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
- B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON
- C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GRDUND COVER.
- D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-MANUFACTURER'S RECOMMENDATION.

10. FINISH GRADING

- A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS .1 FOOT OF FINISH GRADE.
- B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY.
- C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.

11. GUARANTEE

A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.

12. CLEANUP

A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.

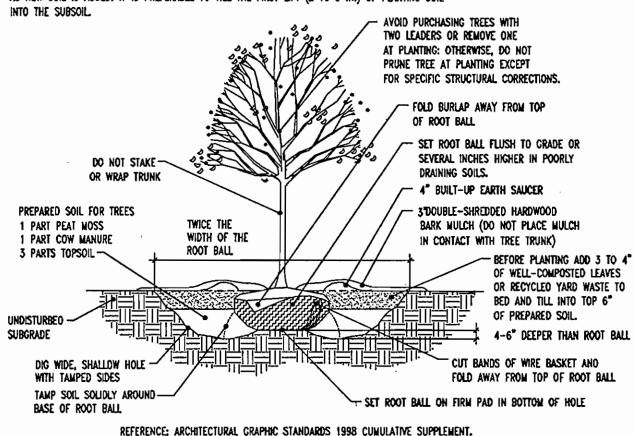
MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF

13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90-DAY MAINTENANCE PERIOD.

ERODED OR BARE AREAS.

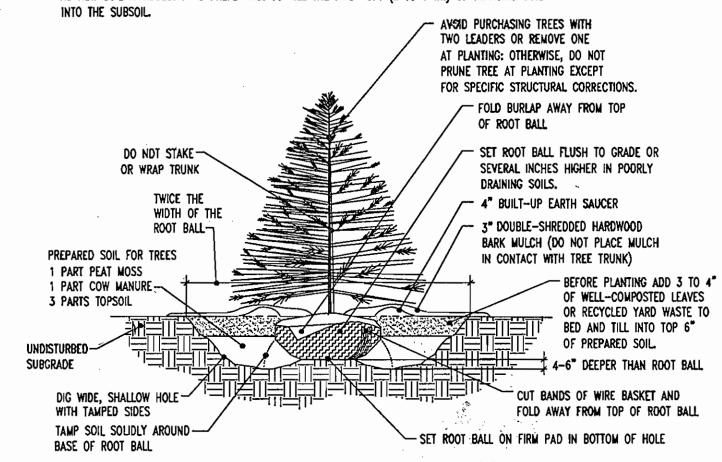
1. NO SOIL OR WULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.

- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL
- 3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
- 4. THOUROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- 5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL

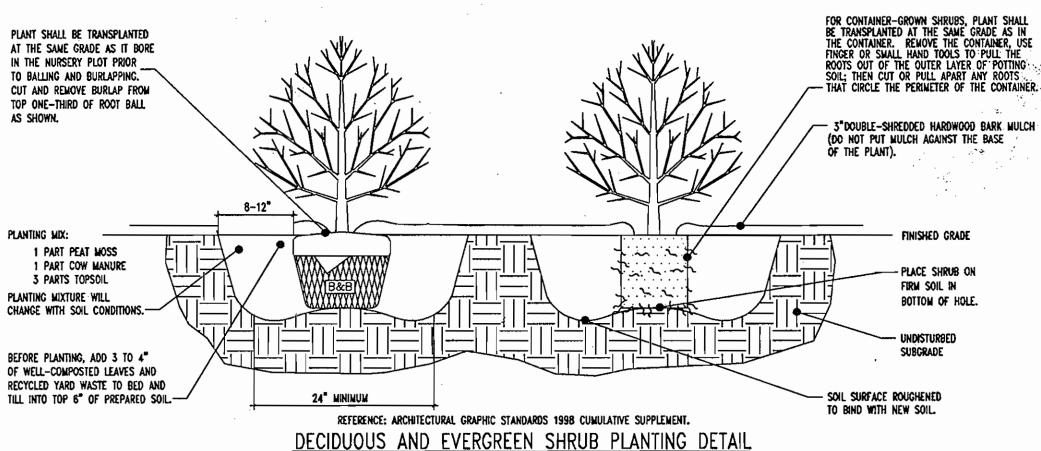


DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

- 1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
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REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT. EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



NOT TO SCALE

POLEMONIUM REPTANS

SEEDING SPECIFICATIONS

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. 3. SEEDING, RATES:

> 1/2 LB/1,000 SQ FT PERENNIAL RYEGRASS 1 LB/1,000 SQ FT KENTUCKY BLUEGRASS 1 1/2 LBS/1,000 SQ FT REO FESCUE SPREADING FESCUE 1 1/2 LBS/1,000 SQ FT 14 LBS/1,000 SQ FT FERTILIZER (20:10:10) 90 LBS/1,000 SQ FT

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

ERNST SEED CO. SHADED ROADSIDE SEEDING SPECIFICATIONS (ERNMX-140):

ELYMUS VIRGINICUS VIRGINIA WILD RYE ROUGH AVENS FALSE SOLOMON'S SEAL GEUM LACINIATUM SMILACINA RACEMOSA ASTER PILOSUS ELYMUS RIPARIUS HEATH ASTER RIVERBANK WILD RYE THIMBLEWEED ANEMONE VIRGINIANA OX-EYE SUNFLOWER HELIOPSIS HELIANTHOIDES ZIG ZAG ASTER BLUE COHOSH ASTER PRENANTHOIDES CAULOPHYLLUM THALICTOIDES BLACK COHOSH CINICIFUGA RACEMOSA BIG LEAF ASTER aster macrophyllus OSMORHIZA CLAYTON! HAIRY SWEET CICELY RUBUS ALLEGHENIENSIS COMMON BLACKBERRY EASTERN COLUMBINE AOUILEGIA CANDENSIS JACK-IN-THE-PULPI WHITE WOOD ASTER arisaema triphyllum ASTER DIVARICATUS

> SEED AT 15 BULK POUNDS PER ACRE MAINTENANCE

> > DO NOT SEED OR MOW.

GREEK VALERIAN

ANTWERPEN JACOB M 6381 NW TEN OAKS ROAD CLARKSVILLE, MARYLAND 21029 ANTWERPEN AUTOMOTIVE CLARKSVILLE, HOWARD COUNTY, MARYLAND AREA TAX MAP 34 GRID PARCELS A, B-1 and C-1 MISS UTILITY Plat No (S) 18588-89
5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND FOREST CONSERVATION & PROFESSIONAL ENGINEERING SERVICES
 810 GLENEAGLES COURT, SUITE 300, TOWSON, MD 21286
 (410) 821-7900 FAX: (410) 821-7987 | MD@bablereng.com + BEFORE YOU DIG CALL 1-800-257-7777 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL Construction must be done in compliance WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURIENANT.

HOURS PRIOR TO ANY CONSTITUCTION.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48

DESIGNED BY: M.J.G. DRAWN BY: J.J.L. PROJECT NO.: MD032003.1 DATE: 07/06/2006 SCALE: 1"=30"

DRAWING NO. 11 OF 22

— AREA OF SITE CONSTRUCTION

- TREE PROTECTION FENCE SHALL BE

INSTALLED TO FOLLOW TREE CANOPY

· 4' wood & wire snow fence w/steel

DRIP LINE OR PROPOSED LIMITS OF

- WOOD & WIRE SNOW FENCE USEO

FROM CONST. EQUIP.

CONSTRUCTION

STAKES 10' O.C.

TREE PROTECTION DURING SITE CONSTRUCTION

NOT TO SCALE

ELEVATION

AS TREE GUARD TO PREVENT DAMAGE

- Tree orip line/tree protection zone

- AREA WITHIN TREE PROTECTION ZONE TO

-- 4' wood & wire snow fence w/steel

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: FOR PUBLIC WATER AND PUBLIC

SEWERAGE SYSTEMS.

HOWARD COUNTY HEALTH DEPARTMENT MOD

1240D CLARKSVILLE PIKE,

LANDSCAPE DETAILS

REVISION DESCRIPTION

JACOB M. ANTWERPEN

6631 BALTIMORE NATIONAL PIKE

BALTIMORE, MARYLAND 21228

ATTN: JACOB ANTWERPEN

NO.: DATE

PARCEL A

ANTOY, LLC

12400 ROUTE 108

CLARKSVILLE, MARYLAND 21029

PARCEL 8-1

ANTSTORE, LLC

6389 TEN OAKS ROAD

CLARKSVILLE, MARYLAND 21029

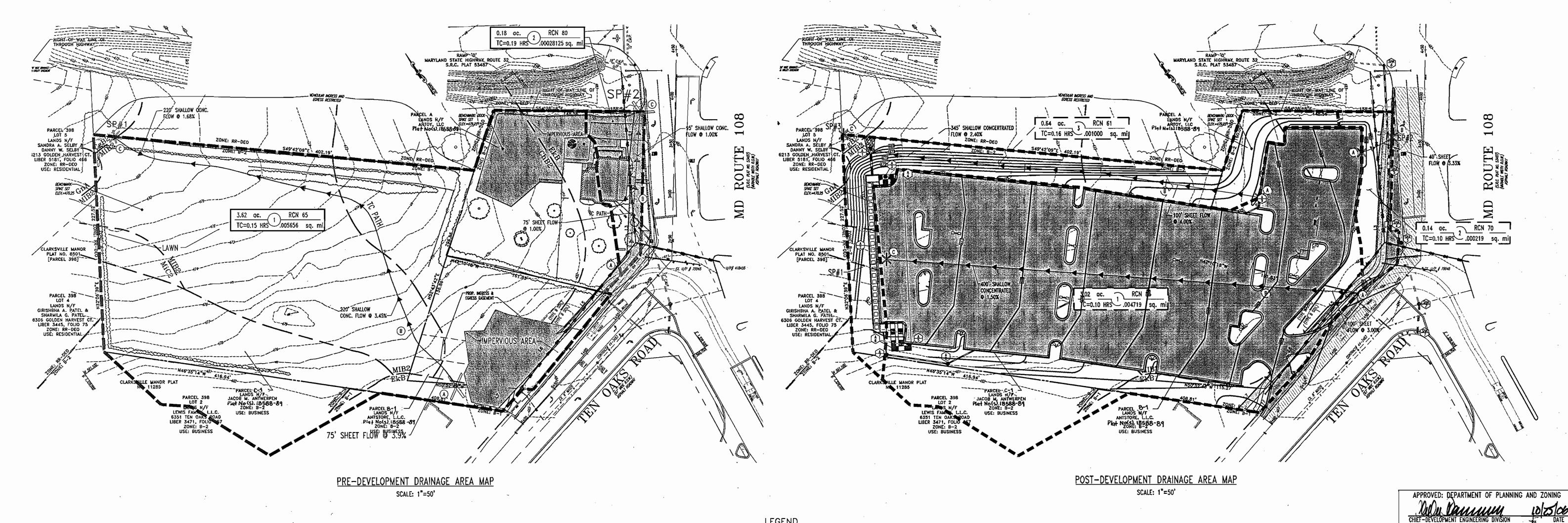
PARCEL C-1

REMAIN UNDISTURBED DURING

DISTURBANCE.

STAKES 18° O.C.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION, SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. IN WRITING PRIOR TO THE START OF CONSTRUCTION, FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.



TOTAL AREA: 157,687 S.F. OR 3.62 AC. IMPERVIOUS AREA: 20,473 S.F. OR 0.47 A.C. PERVIOUS AREA: 137,214 S.F. OR 3.15 AC.

TOTAL AREA: 7,656 S.F. OR 0.18 AC. IMPERVIOUS AREA: 4,792 S.F. OR 0.11 A.C. PERVIOUS AREA: 2,864 S.F. OR 0.07 AC.

IMPERVIOUS AREA

SWM SUMMARY TABLE REQUIRED PROVIDED 9,409 CF 7,068 CF (75% = 7,057)2,614 CF 2,614 CF 8,978 CF 11,430 CF N/A N/A

"SITE AREA" = 2.69 AC.

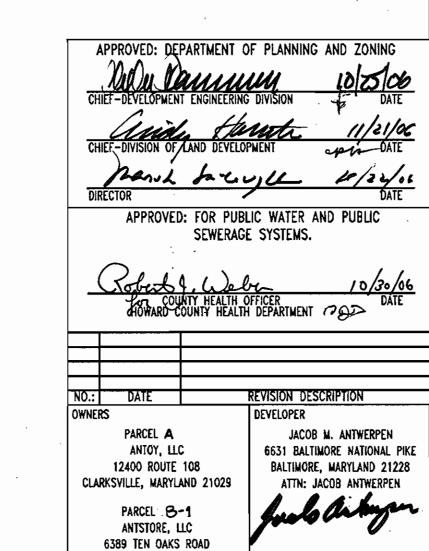
1. STORMWATER MANAGEMENT COMPUTATIONS FOR WQV, REV, & CPV ARE BASED ON THE TOTAL ON-SITE AREA AS 85% IMPERVIOUS COVER. 3.16 AC. \times 0.85 = 2.69 AC. TOTAL IMPERVIOUS.

2. WATER QUALITY AND QUANTITY REQUIREMENTS FOR THE PROPOSED SITE WILL BE HANDLED BY A PRIVATE UNDERGROUND SANDFILTER AND DETENTION FACILITY WITH A HAZARD CLASSIFICATION OF 'A'.

TOTAL AREA: 131,551 S.F. OR 3.02 AC. 1 IMPERVIOUS AREA: 99,752 S.F. OR 2.29 A.C. PERVIOUS AREA: 31,799 S.F. OR 0.73 AC.

TOTAL AREA: 6,098 S.F. OR 0.14 AC. MPERVIOUS AREA: 1,742 S.F. OR 0.04 A.C. PERVIOUS AREA: 4,356 S.F. OR 0.10 AC.

TOTAL AREA: 27,878 S.F. OR 0.64 AC. IMPERVIOUS AREA: 0 S.F. OR 0.00 A.C. PERVIOUS AREA: 27,878 S.F. OR 0.64 AC.



1-800-237-7777
PROTECT YOURSELF, CIVE TWO
WORKING DAYS NOTICE

THIS ORAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE
WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURIENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

SWM DRAINAGE AREA MAPS

CLARKSVILLE, MARYLAND 21029

PARCEL C-1

ANTWERPEN JACOB M 6381 NW TEN OAKS ROAD

CLARKSVILLE, MARYLAND 21029

DESIGNED BY: M.J.G. DRAWN BY: J.J.L. PROJECT NO.: MD032003.1 07/06/2006 SCALE: PROFESSIONAL ENGINEER NO. 28567 DRAWING NO. 12 OF 22

ANTWERPEN AUTOMOTIVE

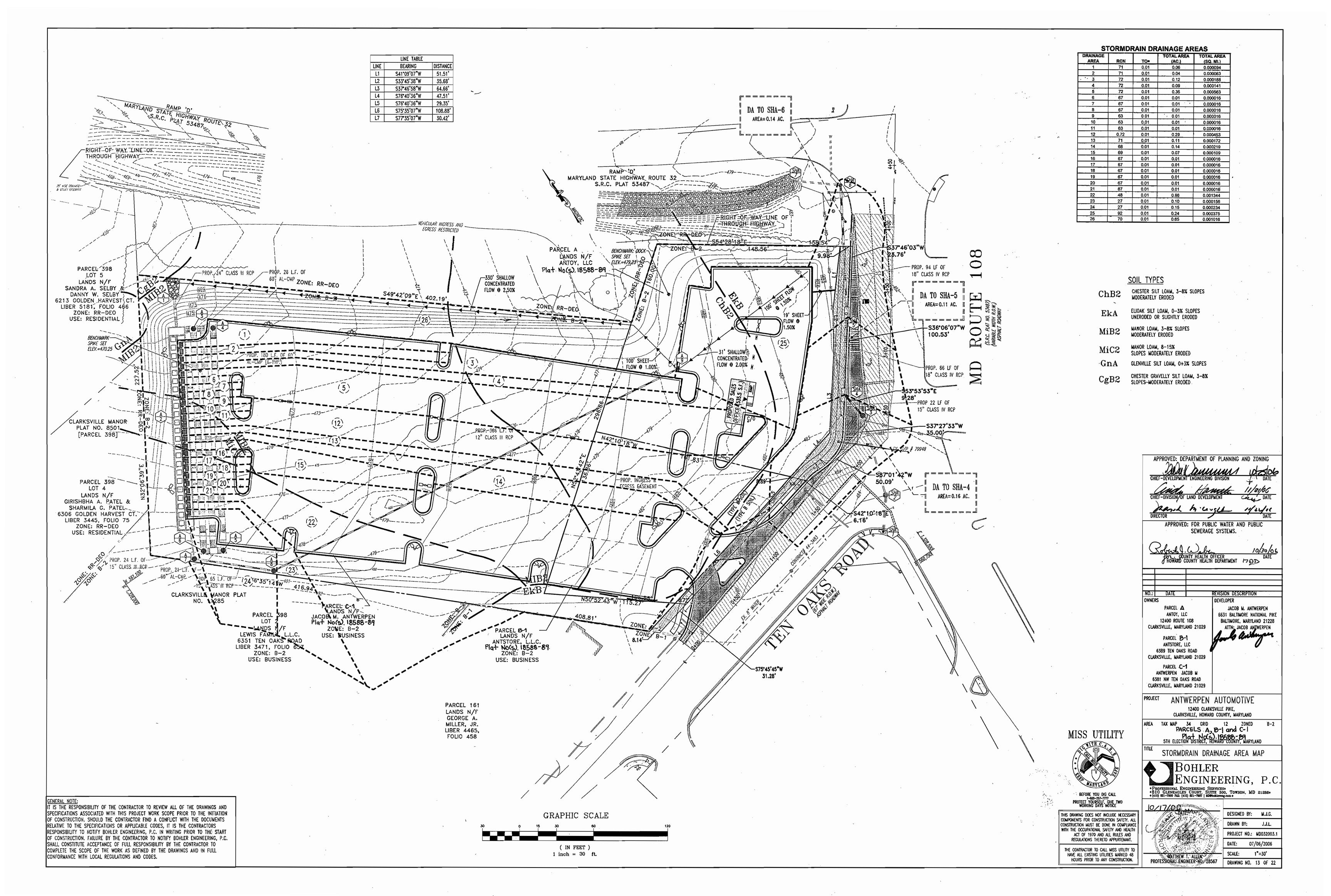
TAX MAP 34 GRID 12 ZONED
PARCELS A, B-1 and C-1
Plat No(s) 18588-89
STH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

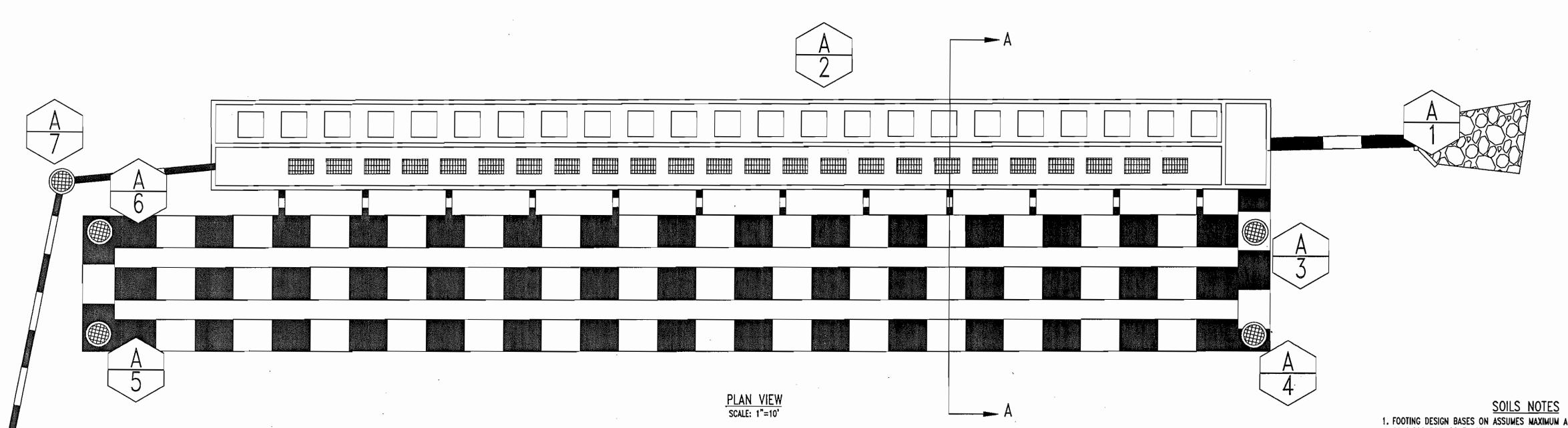
12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY, MARYLAND

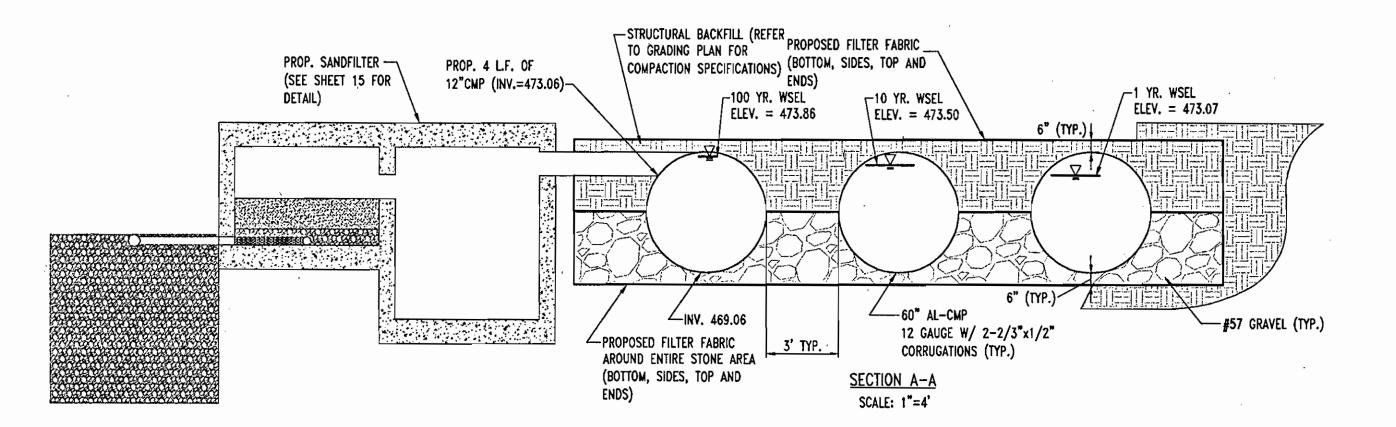
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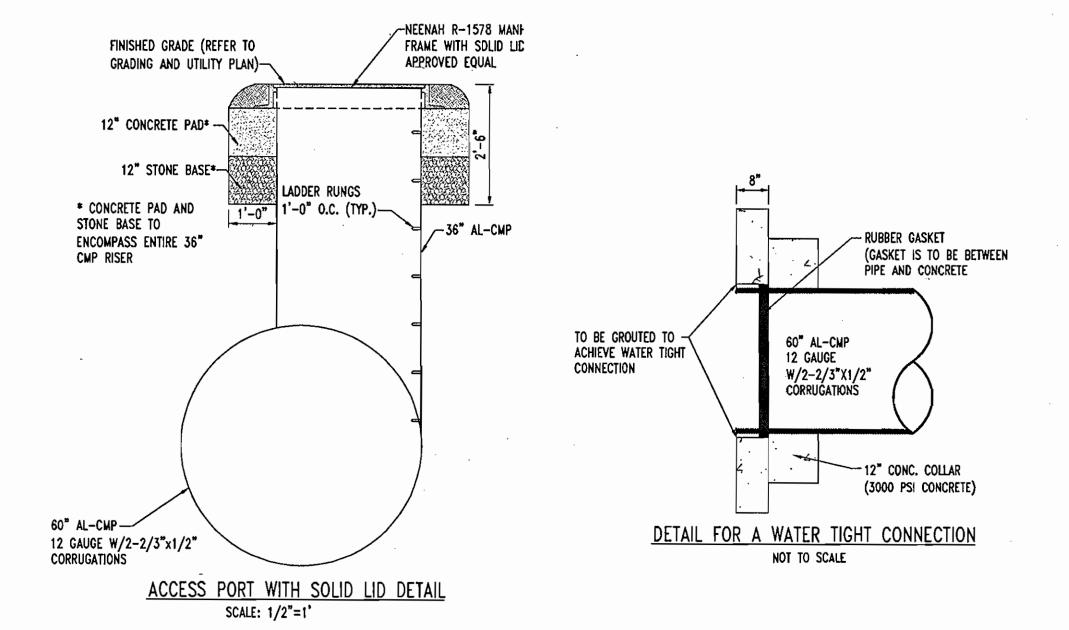
COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL

CONFORMANCE WITH LOCAL REGULATIONS AND CODES.









- 1. FOOTING DESIGN BASES ON ASSUMES MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.
- 2. SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE, COMPACTED MATERIAL.
- 3. BACKFILL SHALL BE PERFORMED IN 6" LIFTS COMPACTED TO 95% OPTIMUM PROCTOR DRY DENSITY.

REQUIRED PROCEDURES AND INSPECTIONS FOR UNDERGROUND SWM/WATER QUALITY FACILITY THE FOLLOWING INSPECTIONS ARE REQUIRED DURING CONSTRUCTION: ADDITIONAL INSPECTIONS MAY BE REQUIRED AND NOTED BY THE INSPECTOR.

- 1. PRE-CONSTRUCTION MEETING: AN OPPORTUNITY TO REVIEW SITE PLANS. DISCUSS THE PURPOSE OF THE FACILITY AND TO ANSWER QUESTIONS REGARDING CONSTRUCTION AND/OR INSPECTION PROCEDURES.
- 2. CONSTRUCTION: INSPECTION(S) WILL BE MADE DURING THE CONSTRUCTION OF THE FACILITY TO ENSURE ACCORDANCE WITH THE PLANS. SPECIFIC INSPECTION REQUIREMENTS WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
- 3. FINAL INSPECTION: A FINAL CHECK WILL BE MADE TO CHECK DESIGN DIMENSIONS. IF CONSTRUCTION IS SATISFACTORY, A FINAL INSPECTION REPORT WILL BE ISSUED AND A JOB CARD WILL BE INITIALED BY THE HOWARD COUNTY INSPECTOR. A CERTIFICATION LETTER TO BE SUBMITTED PRIOR TO ISSUANCE OF THE USE AND OCCUPANCY CERTIFICATE. HOWARD COUNTY DPW WILL REQUIRE A CERTIFIED AS-BUILT PLAN.

OPERATION AND MAINTENANCE SCHEDULE FOR UNDERGROUND FACILITIES

- 1. THE UNDERGROUND STORM WATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN
- 2. THE UNDERGROUND STORM WATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM
- 5. THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORM WATER MANAGEMENT FACILITY
- 6. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS.

DEBRIS IS TO BE KEPT OUT OF THE FACILITY DURING AND AFTER COMPLETION



THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND regulations thereto appuirtenan THE CONTRACTOR TO CALL MISS UTILITY TO

HOURS PRIOR TO ANY CONSTRUCTION.

DESIGNED BY: J.J.U. DRAWN BY:

ANTWERPEN AUTOMOTIVE

12400 CLARKSVILLE PIKE, CLARKSVILLE, HOWARD COUNTY, MARYLAND

Plat No(s). 18588-89 5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SWM NOTES AND DETAILS

TAX MAP 34 GRID 12 ZONED PARCELS A, B-1 and C-1

INSTALLATION SPECIFICATIONS

AREAS UNDER THE CULVERTS, STRUCTURAL WORKS, AND STREAM DIVERSION SHALL BE CLEARED, GRUBBED, AND THE TOPSOIL STRIPPED TO REMOVE ALL TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE

1. DESCRIPTION: THE ALUMINIZED TYPE II CORRUGATED STEEL SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO DESIGNATION M-274 FROM A BASE METAL MANUFACTURED IN ACCORDANCE WITH A-525 COATED

2. MATERIAL: THE CORRUGATED METAL SHALL BE MANUFACTURED WITH CONTINUOUS LOCKSEAM OR BUTT WELDED HELICAL CORRUGATIONS AND HAVING NO LESS THAN TWO ANNULAR CORRUGATIONS REPOLLED AND BOTH ENDS OF ANY LENGTH OF PIPE. COUPLING BANDS SHALL BE FORMED WITH TWO CORRUGATIONS THAT ARE SPACED TO PROVIDE SEATING IN THE SECOND REPOLLED CORRUGATION ON EACH PIPE END. COUPLING BANDS SHALL BE DRAWN TOGETHER BY TWO 1/2" GALVANIZED BOLTS THROUGH THE USE OF A BAR AND STRAP SUITABLY WELDED TO THE BAND, RUBBER "O" RING TYPE GASKETS, CONFORMING TO THE REQUIREMENTS OF SECTION 5.9 IN ASTM C-361. SHALL BE PLACED IN THE FIRST CORRUGATION OF EACH PIPE END AND SHALL BE COMPRESSED BY TIGHTENING THE COUPLING BAND. ALL ALUMINIZED SURFACES THAT

3. INSTALLATION: THE CORRUGATED METAL PIPE SHALL BE HANDLED IN A

OF ROCKS AND HAND CLODS LARGER THAN 3 INCHES IN SIZE. THE

BEDDING AND BACK FILL MATERIAL SHALL BE CAREFULLY PLACED AND CONSOLIDATED EVENLY ON BOTH SIDES OF THE PIPE IN MAXIMUM 8"

LOOSE LIFTS. THE PH OF THE SURROUNDING SOILS SHALL BE LESS THAN NINE (9) AND GREATER THAN FOUR (4). THE MATERIAL MUST COMPLETELY

FILL ALL SPACES UNDER AND ADJACENT TO THE STRUCTURE OR PIPE. AT

NO TIME DURING THE BACK FILLING OPERATION SHALL DRIVEN EQUIPMENT

BE ALLOWED TO OPERATE CLOSER THAN FOUR (4) FEET, MEASURED

CIRCUMSTANCES SHALL THE CONTRACTOR DRIVE EQUIPMENT OVER ANY

COMPACTED FILL OF TWENTY-FOUR (24) INCHES OR GREATER OVER THE

PART OF A CONCRETE STRUCTURE OR PIPE UNLESS THERE IS A

4. CONNECTIONS: ALL CONNECTIONS SHALL BE COMPLETELY WATERTIGHT.

THIS INCLUDES ALL ENDCAPS, PIPES, CONNECTIONS TO AND FROM

DRAINAGE SYSTEMS. SEE MATERIAL SPECIFICATION ABOVE.

AND ANCHOR BARS MUST BE ASTM A36.

CONCRETE CONTROL STRUCTURE AND ALL CONNECTIONS FROM STORM

5. CONCRETE: CONCRETE MUST MEET THE REQUIREMENTS OF MARYLAND

DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

PARCEL 🗚

ANTOY, LLC

12400 ROUTE 108

CLARKSVILLE, MARYLAND 21029

PARCEL B-1

ANTSTORE, LLC

6389 TEN DAKS ROAD CLARKSVILLE, MARYLAND 21029 PARCEL C-1 ANTWERPEN JACOB M

6381 NW TEN OAKS ROAD

CLARKSVILLE, MARYLAND 21029

STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, MIX NO.

3. REINFORCING STEEL MUST BE ASTM A615, GRADE 60. STEEL ANGLES

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: FOR PUBLIC WATER AND PUBLIC

JUNTY HEALTH OFFICER
COUNTY HEALTH DEPARTMENT (1997)

DEVELOPER

REVISION DESCRIPTION

JACOB M. ANTWERPEN

6631 BALTIMORE NATIONAL PIKE

BALTIMORE, MARYLAND 21228

6/30/06

N.T.S.

SEWERAGE SYSTEMS.

HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO

STRUCTURE OR PIPE.

MANNER NOT TO DAMAGE THE PIPE OR COATING . BEDDING AND BACK FILL

MATERIAL SHALL BE SELECTED, GRANULAR MATERIAL, AND SHALL BE FREE

UNIFORMLY ON BOTH SIDES WITH 1.00 OZ/SQ FT. OF PURE

WILL BE IN COAT OF ZINC CHROMATE PRIMER.

B. SPECIFICATION FOR CORRUGATED STEEL PIPE

A. SITE PREPARATION:

MATERIAL.

ALUMINUM.

PROJECT NO.: MD032003.1 DATE: SCALE: PROFESSIONAL ENGINEER, NO. 28567 DRAWING NO. 14 OF 22

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION, SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION, FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

IT'S OPERATION AND FUNCTION.

AND AFTER ESPECIALLY SEVERE STORM EVENTS.

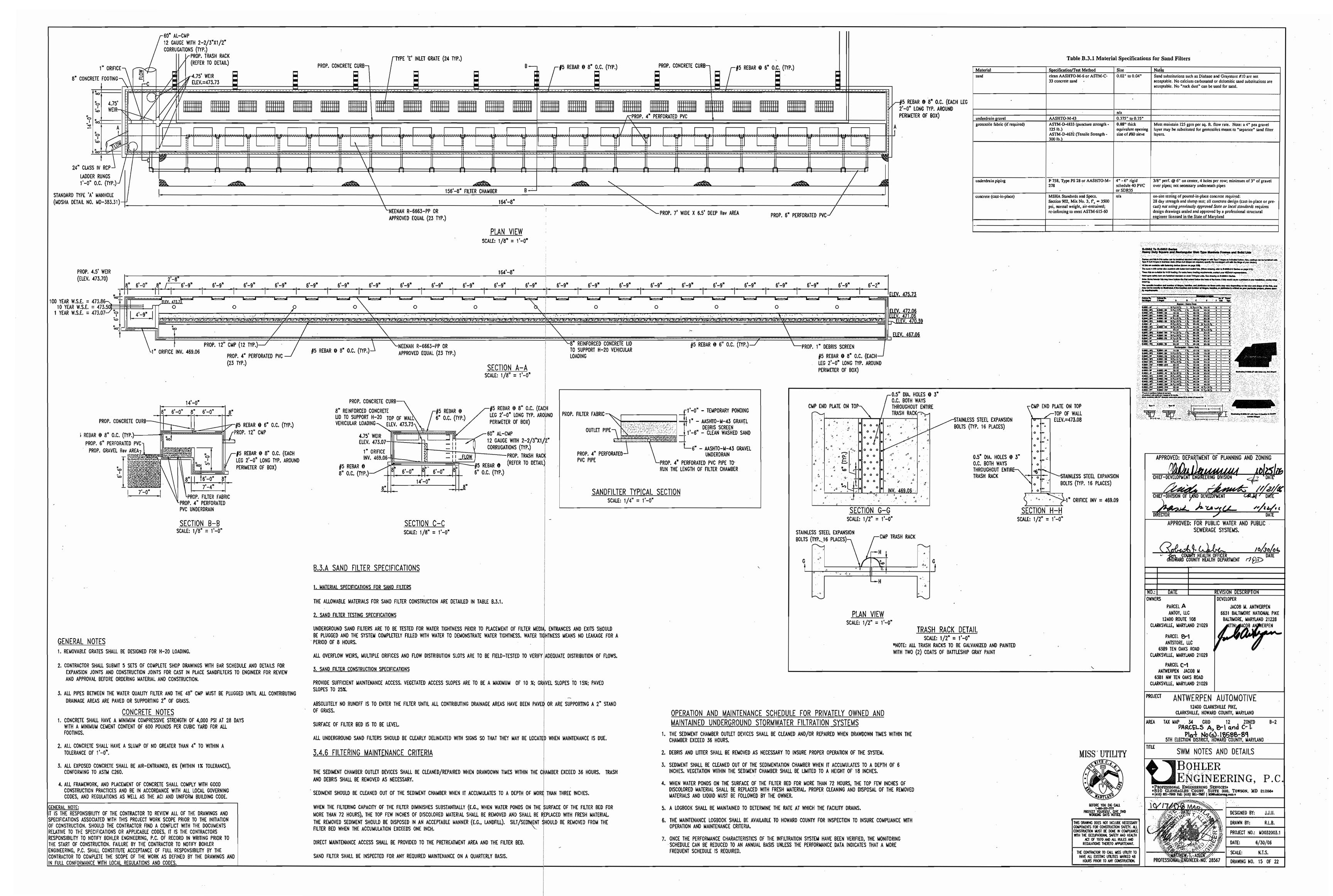
3. WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUT FALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.

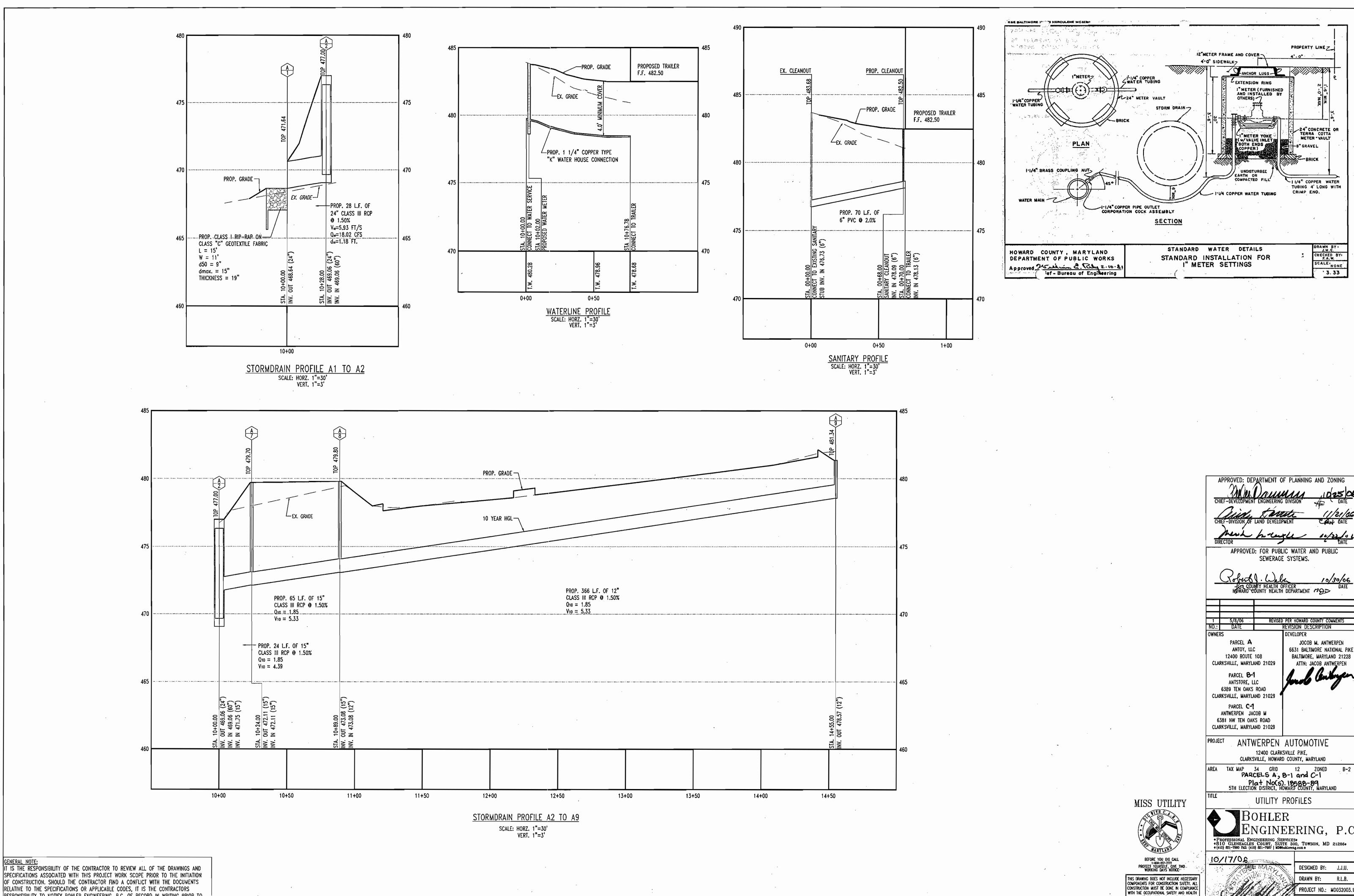
4. THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER*SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.

BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID.

IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.

ALL METAL SURFACES SHALL BE GALVANIZED AND PAINTED WITH TWO COATS OF BATTLESHIP GRAY PAINT.





SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SYFETY, ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.

• PROFESSIONAL ENGINEERING SERVICES• •810 GLENEAGLES COURT, SUITE 300, TOWSON, MD 21286• •(410) 821-7900 PAX: (410) 821-7987 | MD@bohlereng.com • DESIGNED BY: J.J.U.

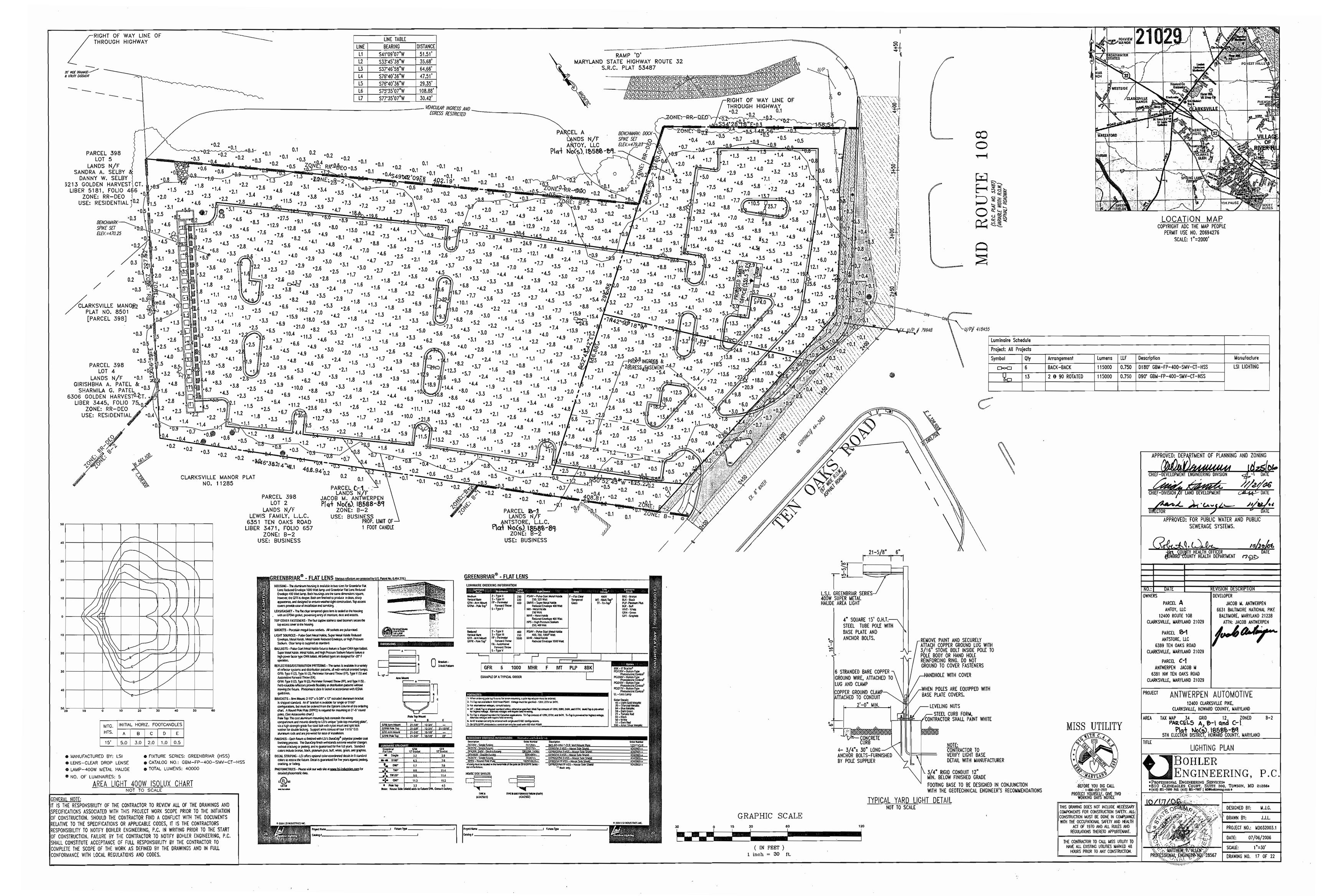
DRAWN BY:
J.M.C.
CHECKED BY:
F.A.W.
SCALE:
NONE

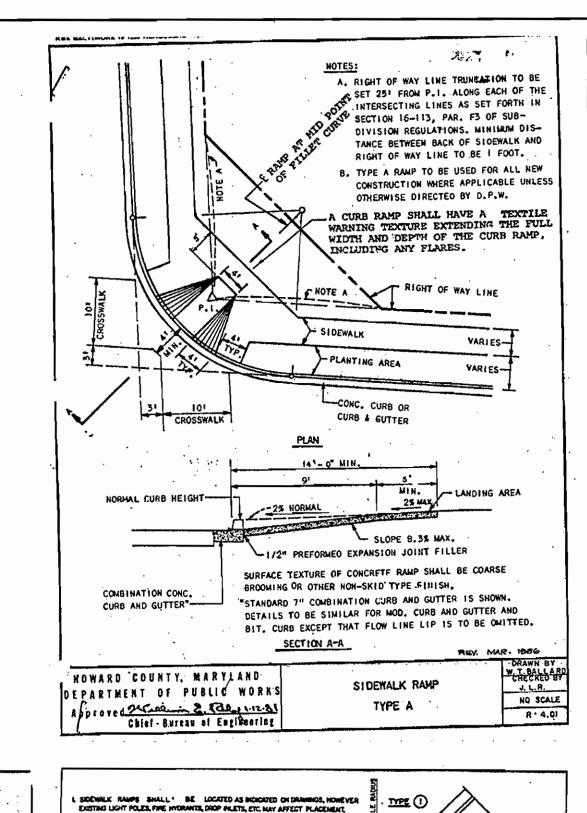
' 3. 33

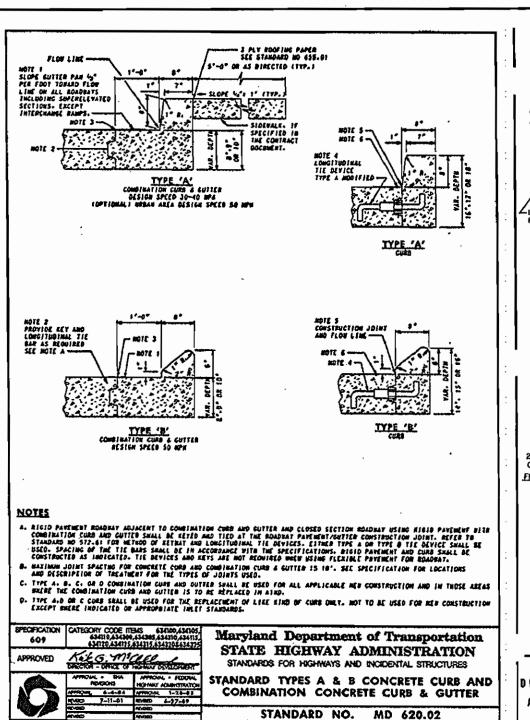
JOCOB M. ANTWERPEN

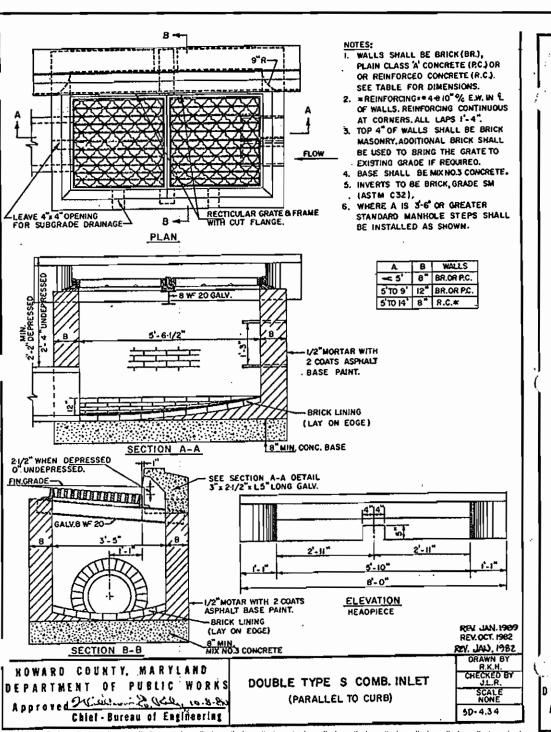
ATTN: JACOB ANTWERPEN

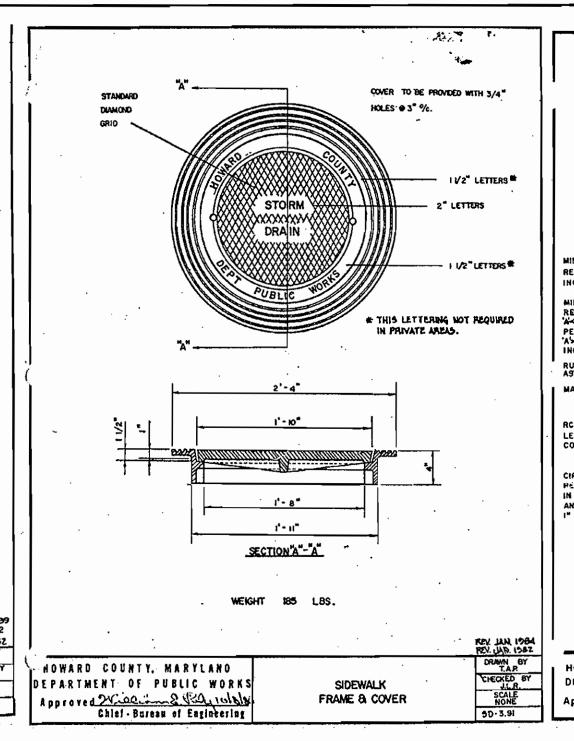
THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILMES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION. PROFESSIONAL ENGINEER NO. 28567 DRAWING NO. 16 OF 22

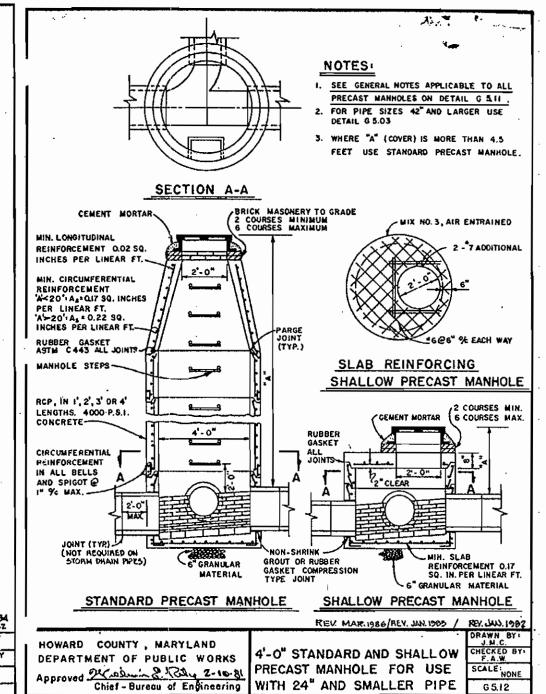


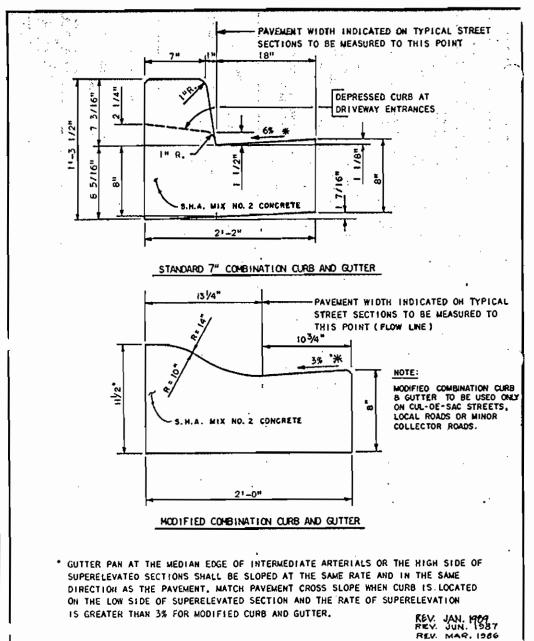












COMBINATION CURB

AND GUTTER

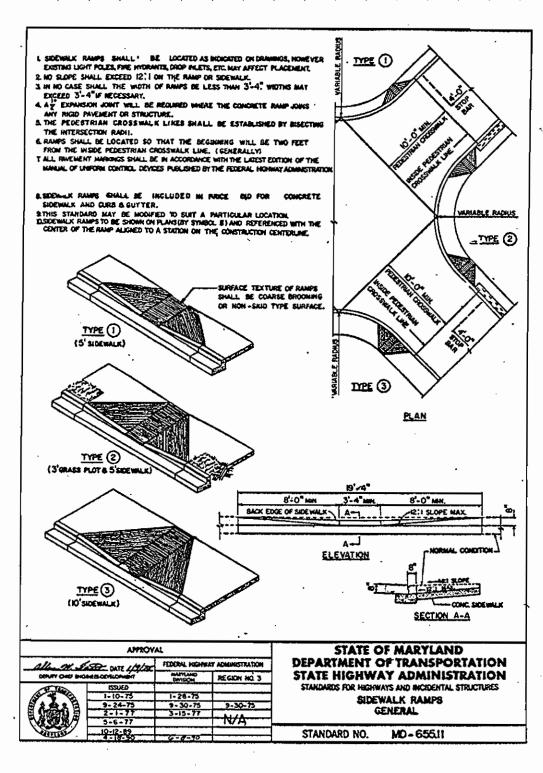
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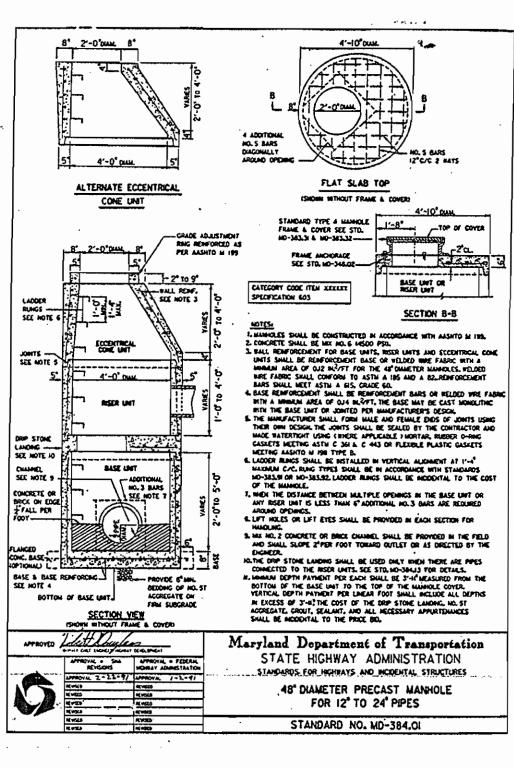
R - 3.01

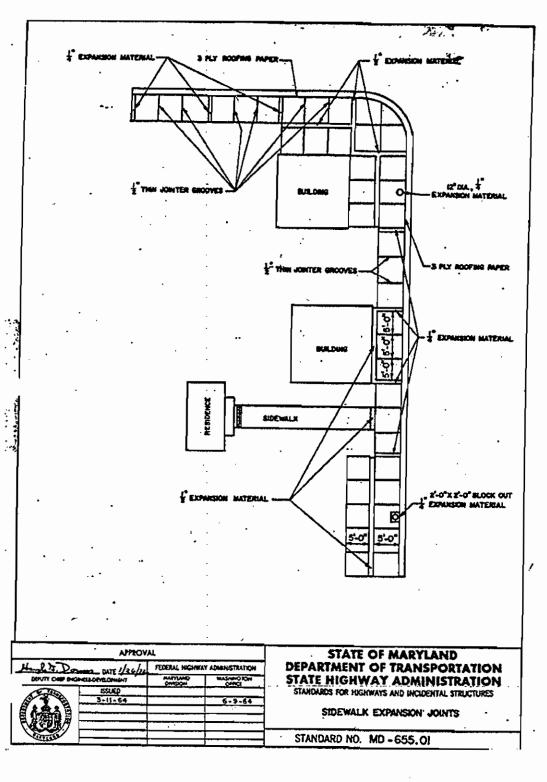
HOWARD COUNTY, MARYLAND

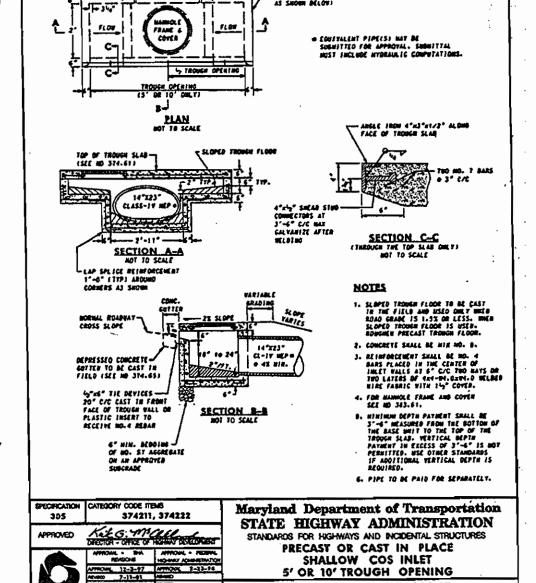
DEPARTMENT OF PUBLIC WORKS

Approved 25 De 1-12 81
Chief Bureau of Engineering

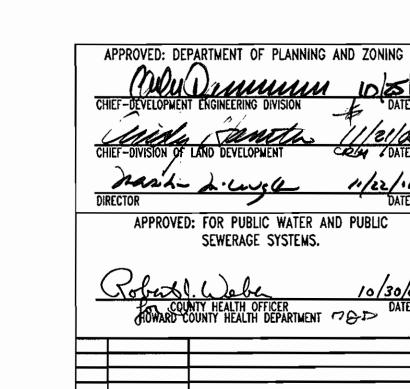








STANDARD NO. MD 374.67



PARCEL A

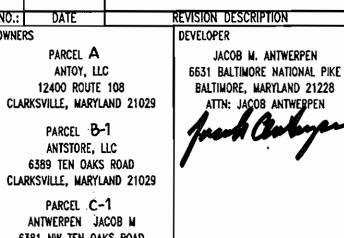
ANTOY, LLC

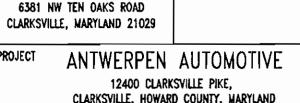
12400 ROUTE 108

PARCEL B-1 ANTSTORE, LLC 6389 TEN OAKS ROAD

PARCEL C-1 ANTWERPEN JACOB M



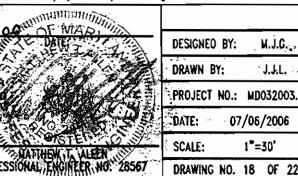


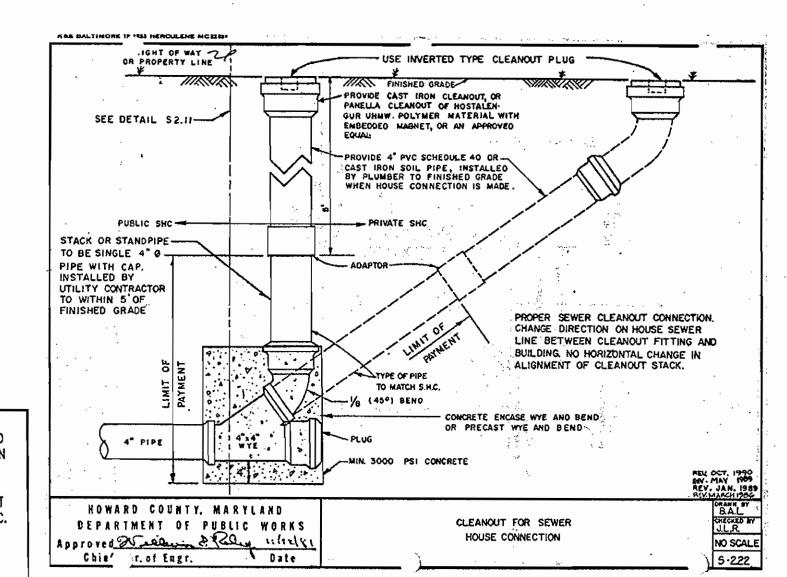


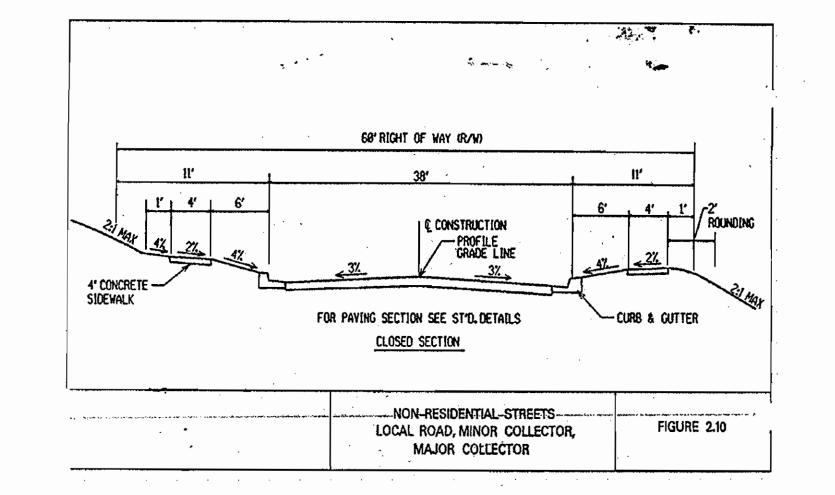
CLARKSVILLE, HOWARD COUNTY, MARYLAND

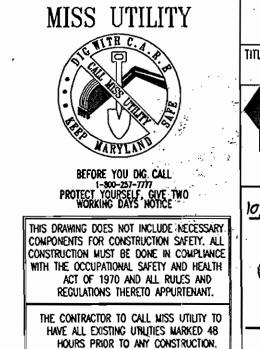
TAX MAP 34 GRID 12 ZONED PARCELS A, B-1 and C-1 Plat No(s). 18588-89
5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

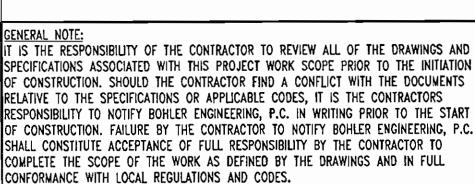
CONSTRUCTION DETAILS

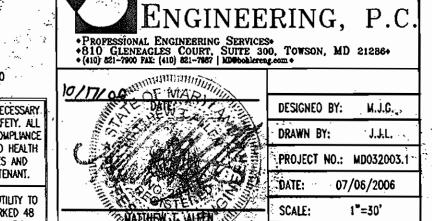


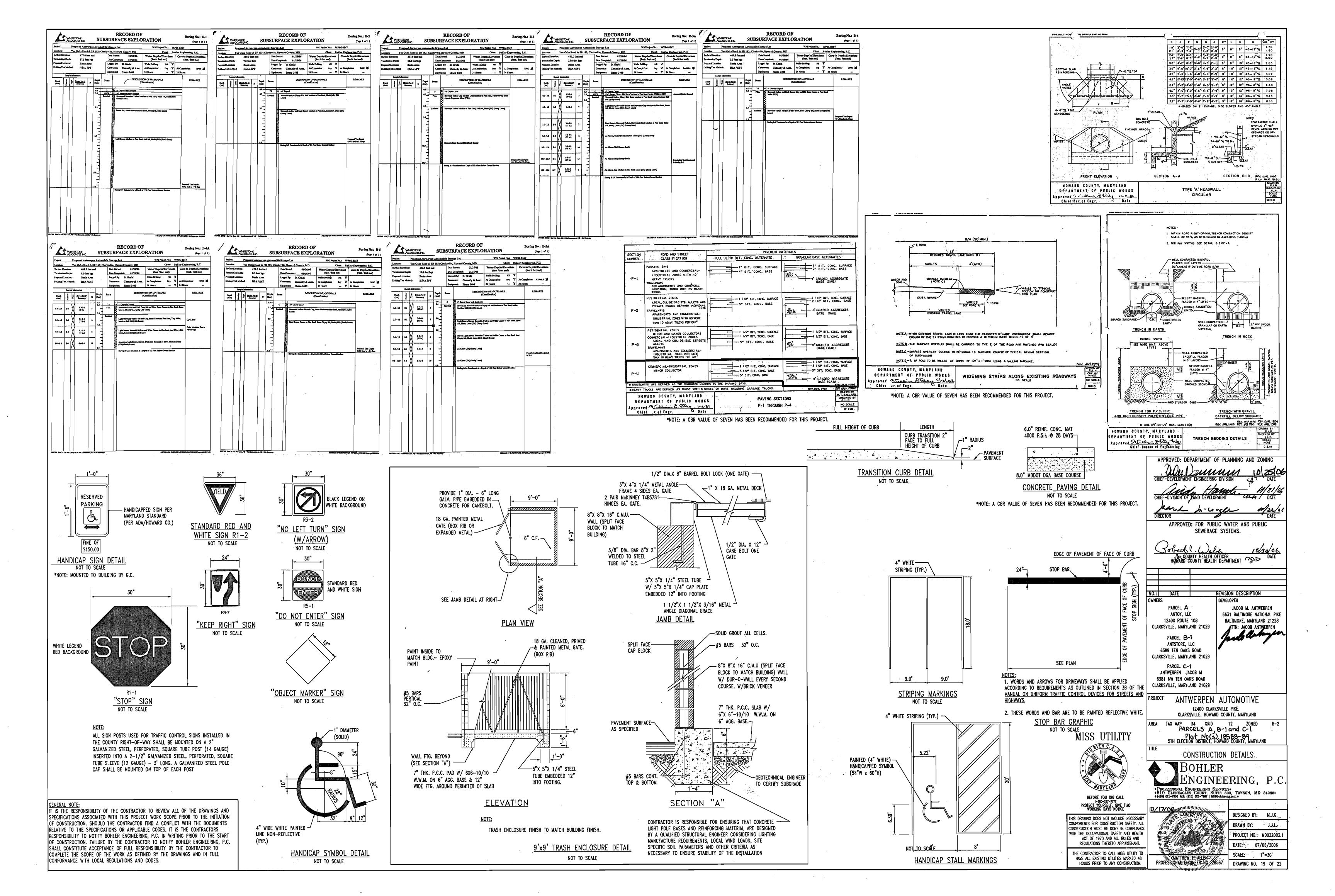


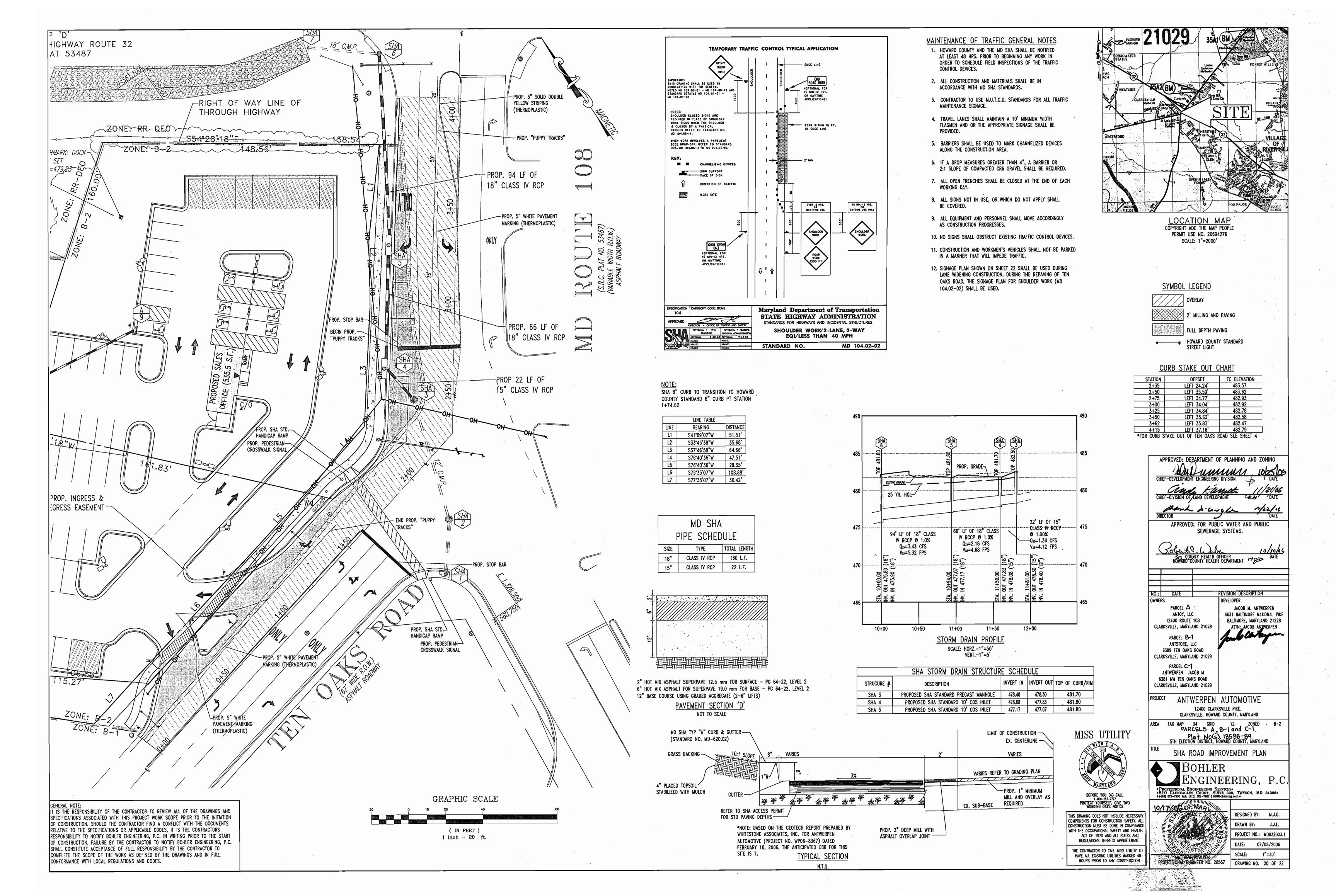


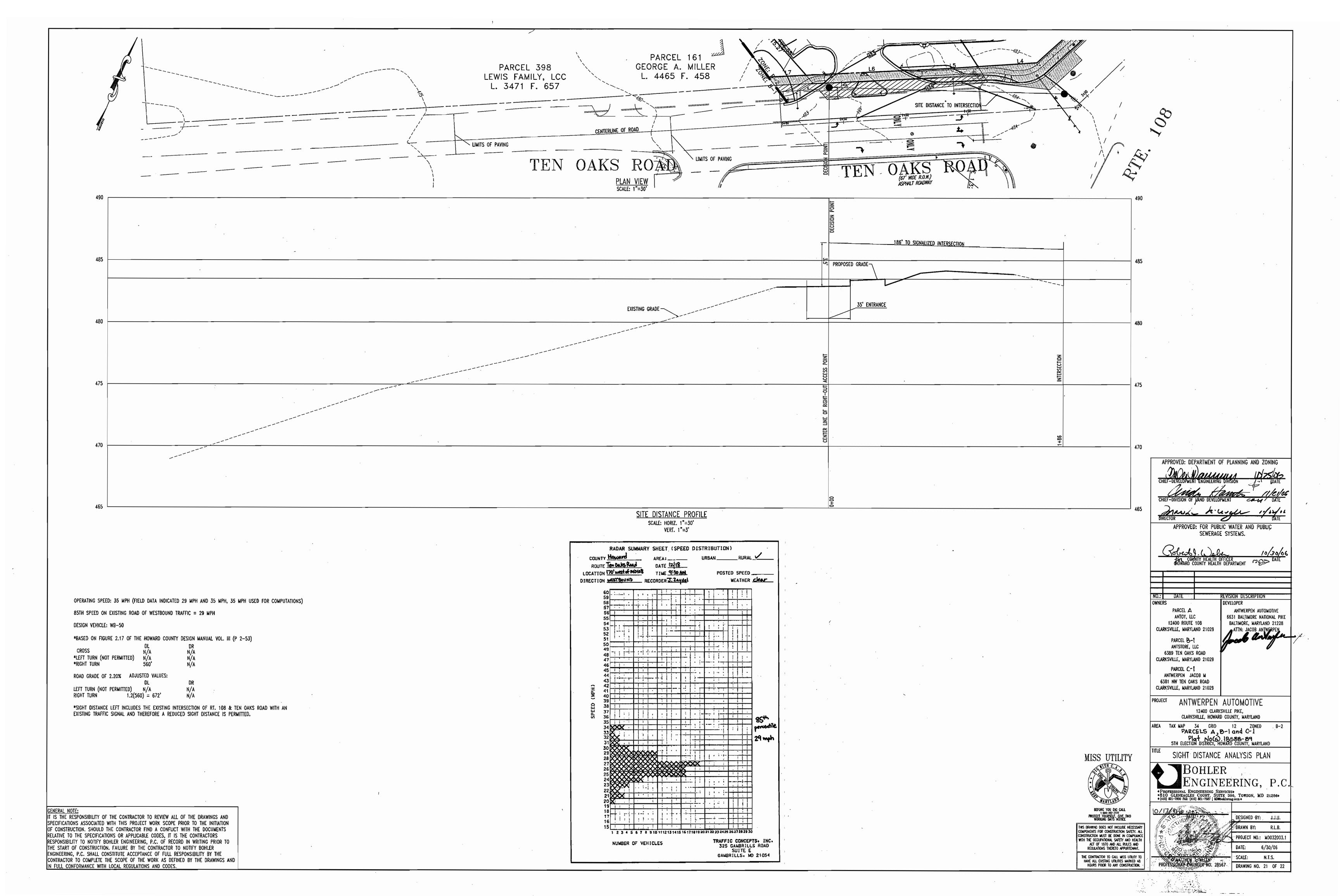


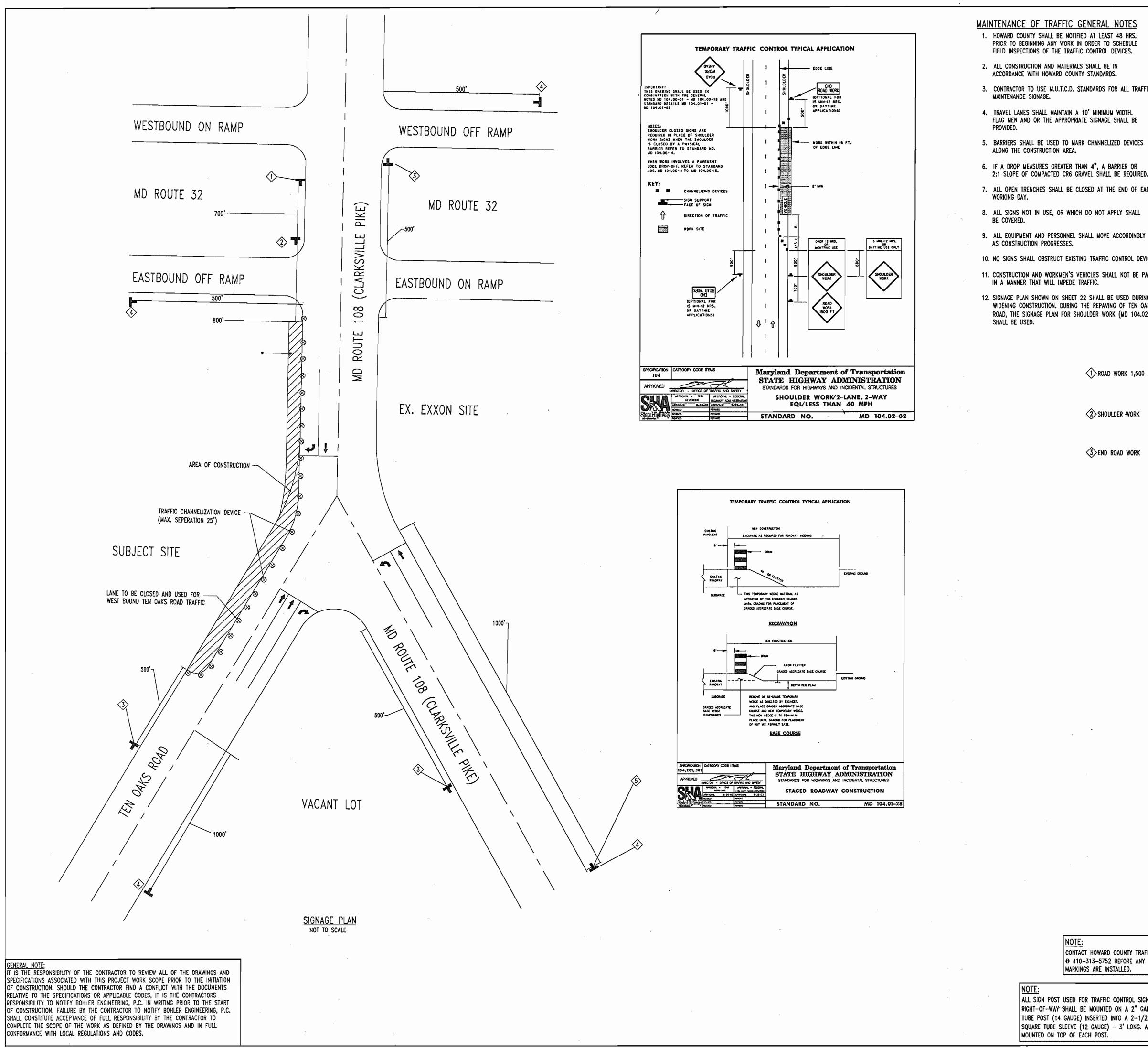












MAINTENANCE OF TRAFFIC GENERAL NOTES

- 1. HOWARD COUNTY SHALL BE NOTIFIED AT LEAST 48 HRS. PRIOR TO BEGINNING ANY WORK IN ORDER TO SCHEDULE FIELD INSPECTIONS OF THE TRAFFIC CONTROL DEVICES.
- 2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 3. CONTRACTOR TO USE M.U.T.C.D. STANDARDS FOR ALL TRAFFIC MAINTENANCE SIGNAGE.
- 4. TRAVEL LANES SHALL MAINTAIN A 10' MINIMUM WIDTH. FLAG MEN AND OR THE APPROPRIATE SIGNAGE SHALL BE
- 5. BARRIERS SHALL BE USED TO MARK CHANNELIZED DEVICES ALONG THE CONSTRUCTION AREA.
- 6. IF A DROP MEASURES GREATER THAN 4", A BARRIER OR 2:1 SLOPE OF COMPACTED CR6 GRAVEL SHALL BE REQUIRED.
- 7. ALL OPEN TRENCHES SHALL BE CLOSED AT THE END OF EACH WORKING DAY.
- 8. ALL SIGNS NOT IN USE, OR WHICH DO NOT APPLY SHALL BE COVERED.
- AS CONSTRUCTION PROGRESSES.
- 10. NO SIGNS SHALL OBSTRUCT EXISTING TRAFFIC CONTROL DEVICES.
- 11. CONSTRUCTION AND WORKMEN'S VEHICLES SHALL NOT BE PARKED IN A MANNER THAT WILL IMPEDE TRAFFIC.
- 12. SIGNAGE PLAN SHOWN ON SHEET 22 SHALL BE USED DURING LANE WIDENING CONSTRUCTION. DURING THE REPAYING OF TEN OAKS ROAD, THE SIGNAGE PLAN FOR SHOULDER WORK (MD 104.02-02) SHALL BE USED.

<1>ROAD WORK 1,500 FT

2>SHOULDER WORK

3>END ROAD WORK

CONTACT HOWARD COUNTY TRAFFIC ENGINEERING

ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY

MARKINGS ARE INSTALLED.

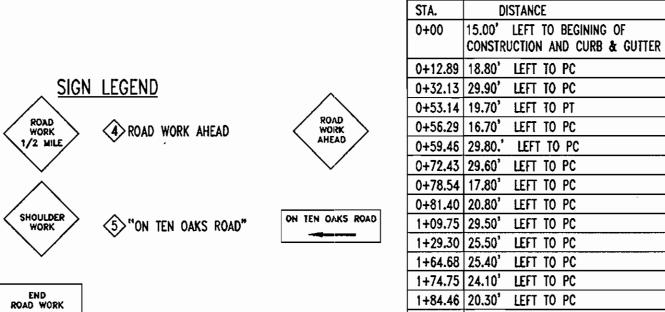
MOUNTED ON TOP OF EACH POST.

♥ 410-313-5752 BEFORE ANY SIGNS OR PAVEMENT

RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE

SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE

TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED,



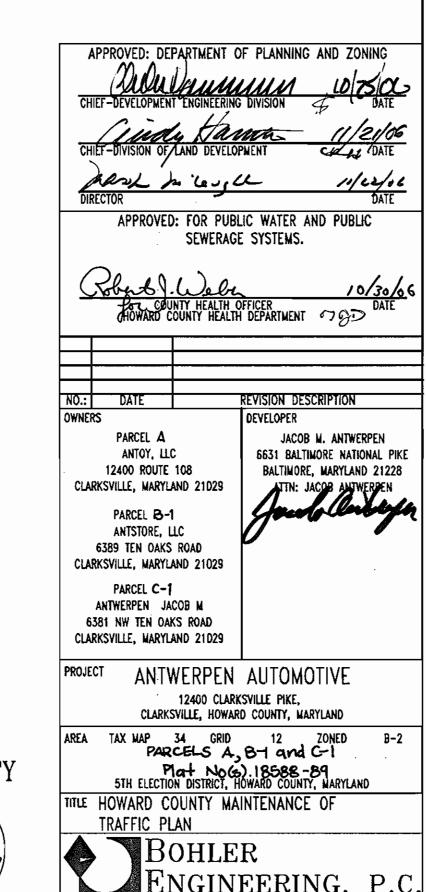
SYMBOL LEGEND

2' MILLING AND PAVING

* HOWARD COUNTY STANDARD STREET LIGHT

FULL DEPTH PAVING

" MINIMUM MILLING AND OVERLAY



DESIGNED BY: M.J.G.

DRAWN BY: J.J.L.

PROJECT NO.: MD032003.1

SCALE: AS SHOWN

DRAWING NO. 22 OF 22

07/06/2006

LOCATION MAP

COPYRIGHT ADC THE MAP PEOPLE

PERMIT USE NO. 20694276 SCALE: 1"=2000'

CURB STAKE OUT CHART

1+94.53 22.30' LEFT TO PC

2+09.67 29.10 LEFT TO PT

ELEVATION

TC 483.10

TC 483.53

TC 483.70

TC 483.66

TC 483.85

TC 484.25

TC 483.98

TC 484.10

TC 484.53

TC 484.64

TC 484.33

TC 484.14

TC 484.05

TC 483.92

TC 483.61

G 482.24

MISS UTILITY BEFORE YOU DIG CALL 1-800-257-7777 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

This drawing does not include necessary COMPONENTS FOR CONSTRUCTION SAFETY, ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH act of 1970 and all rules and RECULATIONS THERETO APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES WARKED 48 HOURS PRIOR TO ANY CONSTRUCTION. PROFESSIONAL ENGINEER NO. 28567