SHEET INDEX DESCRIPTION TITLE SHEET SITE DEVELOPMENT PLAN SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP SEDIMENT & EROSION CONTROL DETAILS SEDIMENT & EROSION CONTROL NOTES LANDSCAPE PLAN LANDSCAPE NOTES AND DETAILS UTILITY PROFILES STORMCEPTOR DETAILS STORMCEPTOR NOTES SITE DETAILS SOILS MAP HANDICAP ACCESSIBILITY PLAN RETAINING WALL DETAILS AND COMPUTATIONS

SITE DEVELOPMENT PLAN WHISKEY BOTTOM TRADE CENTER

PARCEL C 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HOWARD COUNTY -CONTROL STATION NO. 1742016 HOWARD COUNTY CONTROL STATION WHISKEY BOTTOM NO. 1742015 INDUSTRIAL PARK VICINITY MAP SCALE : 1" = 2000'

3.07 AC.

(PER APPROVED SDP #87-140)

BENCHMARKS

BM #1-VIKA TRAV. # TRAV 2011 - ELEV.=225.36 BM #2-VIKA TRAV. # TRAV 2004 - ELEV.=227.59

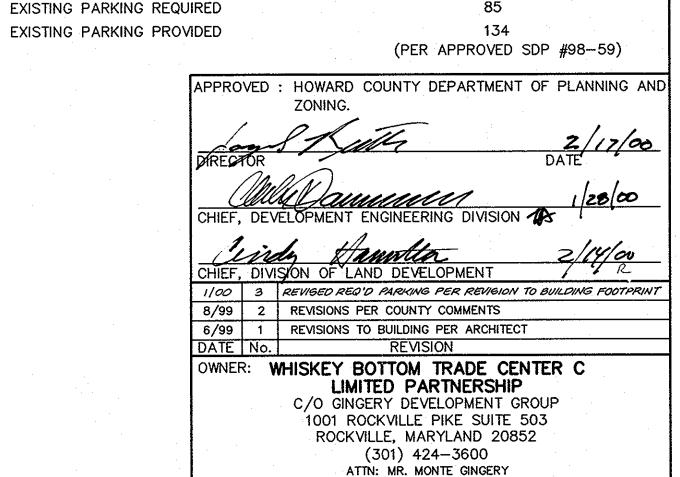
SITE ANALYSIS

AREA OF PARCEL

EXISTING PARKING PROVIDED

EXISTING BUILDING 'B'

M-2PRESENT ZONING **WAREHOUSE** PROPOSED USE BUILDING COVERAGE WAREHOUSE FLOOR SPACE BUILDING 'C' 43,802 SQ. FT. WAREHOUSE 9,481 SQ. FT. OFFICE 53,263 SQ. FT. TOTAL BUILDING 'C' # OF OFFICE PARKING SPACES REQ'D @ 3.3 SP/1000SF 31.3 PER SEC. 133-D-3.a # OF WAREHOUSE PARKING SPACES REQ'D @ 2.5 SP/1000SF 100.5 PER SEC. 133-D-5.b TOTAL # OF PARKING SPACES REQ'D 150 # OF PARKING SPACES PROVIDED HANDICAP SPACES REQUIRED HANDICAP SPACES PROVIDED 51,123 SQ. FT. PAVED AREA EXISTING BUILDING 'A' EXISTING PARKING REQUIRED



WHISKEY BOTTOM TRADE CENTER SITE PLAN PHASE III PARCEL "C"

AREA TAX MAP No. 50 PARCEL C

SIXTH (6) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE

TITLE SHEET

INGINEERS PLANNERS LANDSCAPE ARCHITECTS SURVEYORS CONSTRUCTION INSPECTORS VIKA INCORPORATED
4845 GOVERNORS WAY SUITE L ■ FREDERICK, MARYLAND 21704
(301)662-5034 ■ FAX (301)620-7699 SDP-99-169

DESIGNED BY: CLM DRAWING BY: RND PROJECT/FILE NO. 5457 DATE: AUG. 1999

SCALE: 1" = 100'

DRAWING No. 1 OF 14

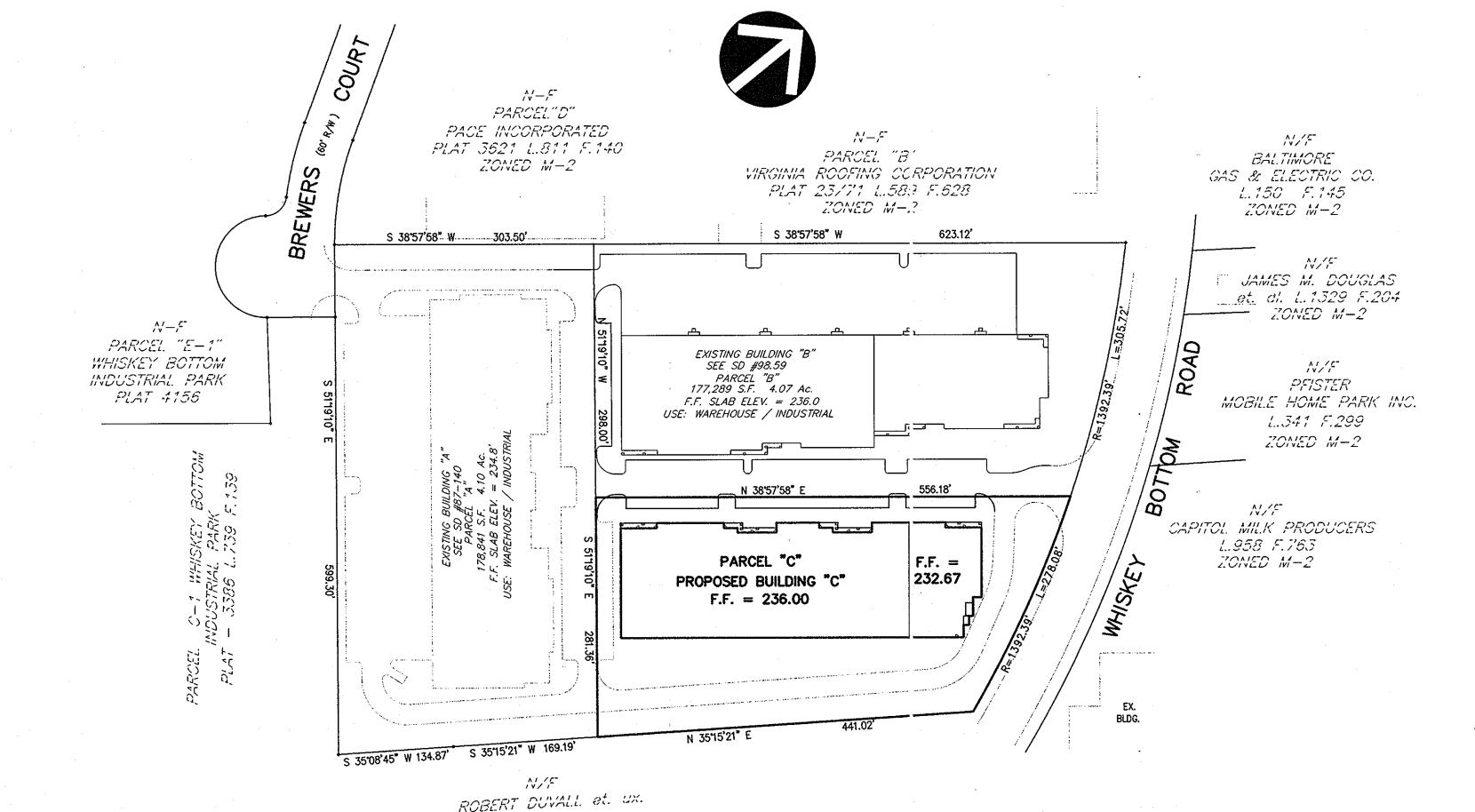
SDP-99-169

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE,
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS
- TOPOGRAPHY IS TAKEN FROM A FIELD SURVEY PREPARED BY VIKA, INC. DATED
- 7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM.
- 8. WATER IS PUBLIC. CONTRACT NO. 41-W.
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: LITTLE PATUXENT CONTRACT NO. 24-1625D.
- 10. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- 11. A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- 12. A WETLANDS DELINEATION FOR THIS PROJECT IS NOT REQUIRED.
- 13. A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY SABRA, WANG & ASSOC. DATED JUNE 4, 1999.
- 14. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- 15. THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PREPARED BY HERBST & ASSOC. DATED FEBRUARY 28, 1989 AND UPDATED OCT. 19,1999.
- 16. THE BOUNDARY SURVEY FOR THIS PROJECT IS BASED ON PREVIOUSLY RECORDED PLAT NO. 10177.
- 17. SUBJECT PROPERTY ZONED M-2 PER COMPREHENSIVE ZONING PLAN.
- 18. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL
- 19. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO. SDP 87-140 FOR BUILDING "A" AND FILE NO. SDP 98-59 FOR BUILDING "B".
- 20. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 21. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND
- 22. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- WITHIN 6" OF FINISHED GRADE. 24. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.

23. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT.

- 25. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS
- 26. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS
- 27. STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY, WHERE APPLICABLE, SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- 28. PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- 29. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- 30. THIS SITE IS EXEMPT FROM FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 (b)(1)(iii).
- 31. SUM IS PROVIDED UNDER SPP-89-260 and SDP-98-89 WATER QUALITY IS PROVIDED BY STORPICEPTOR ON SITE.



SITE

SCALE: 1" = 100'

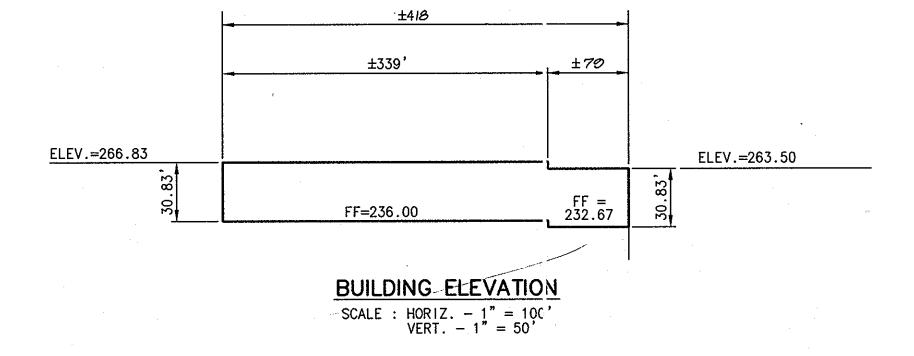
L.170 F.169

ZONED M-2

COORDINATION NOTES

- CONTRACTOR TO VERIFY ALL REQUIRED EASEMENTS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION.
- IF VIKA IS NOT PROVIDING STAKEOUT SERVICE, THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS.
- ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.
- THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.

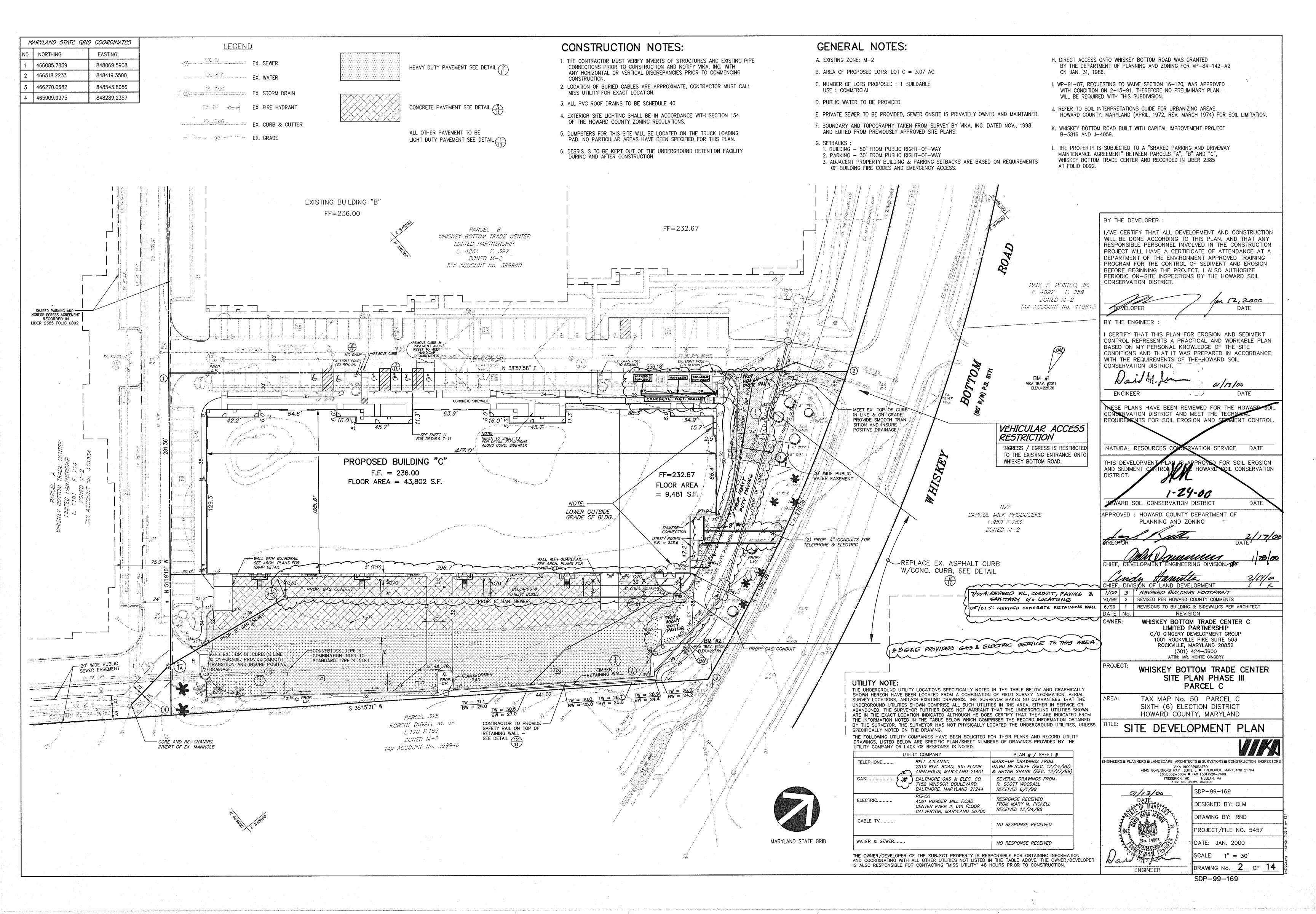
ARCHITECTURAL\MEP	COORDINATION
THE BUILDING INFORMATION (DI CONNECTIONS, ETC.) SHOWN ON FROM PLANS PREPARED BY:	MENSIONS, UTILITY THIS PLAN WAS TAKEN
SMOLEN-EMR & ASSOC. ARCH. ARCHITECT	AUG. 1999 DATED
SCHEMATIC LAYOUT	N/A
MEP	DATED
IT IS THE CONTRACTOR'S RESPO THE MOST CURRENT APPROVED AR PLANS AND COORDINATE SAME WI PRIOR TO BEGINNING CONSTRUCT	ONSIBILITY TO OBTAIN RCHITECTURAL/M.E.P. TH THE SITE PLAN, TION OPERATIONS.

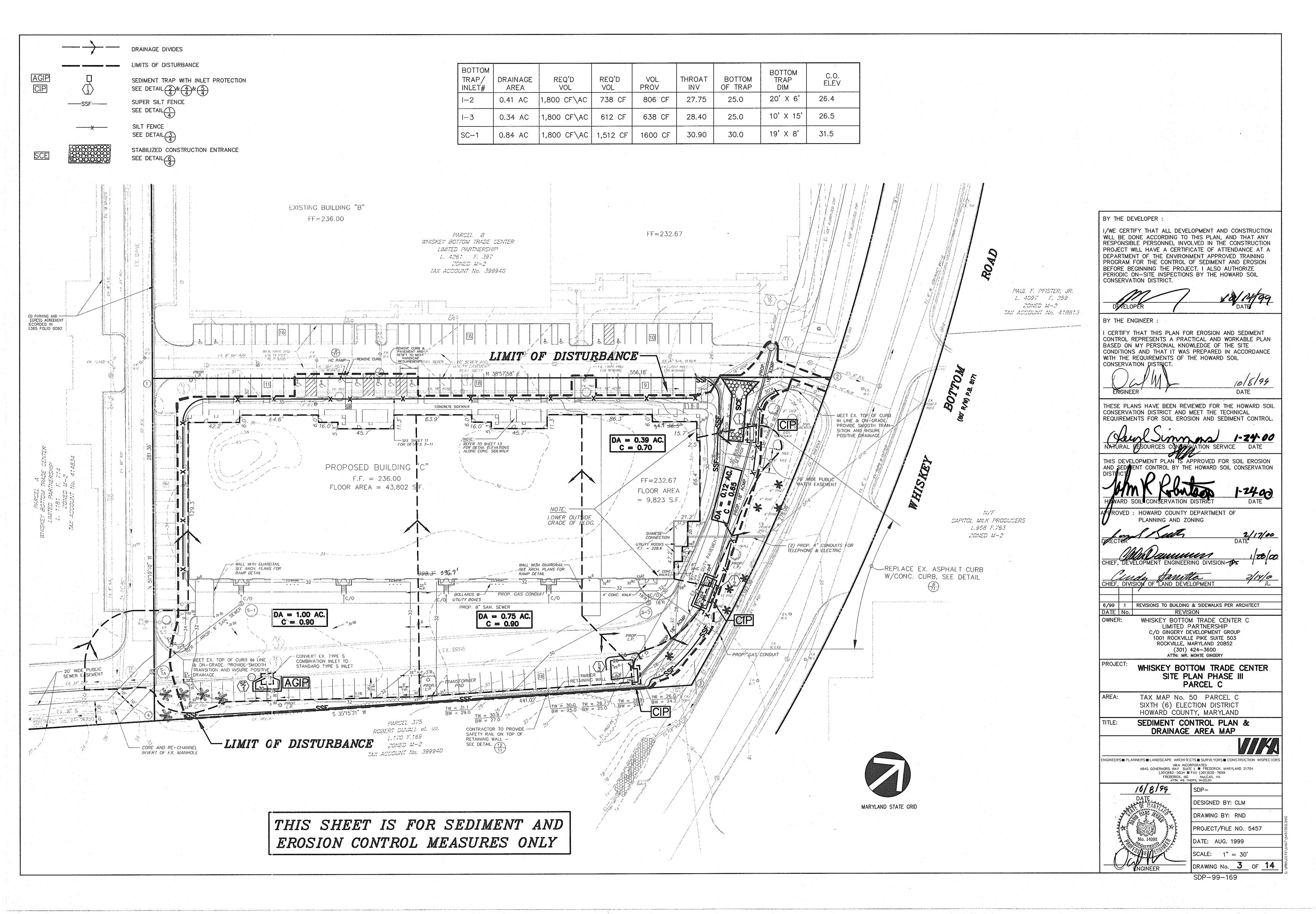


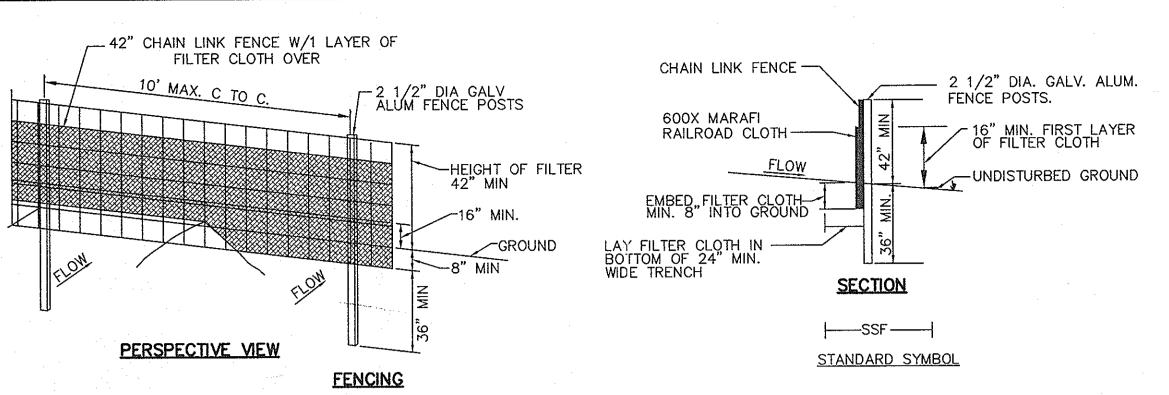
ADDRESS CHART STREET ADDRESS PARCEL 9105 WHISKEY BOTTOM ROAD WHISKEY BOTTOM TRADE CENTER 3.07 Ac.

CENSUS TRACT 50 6th 6063 5 M-224-1639 24-1625D

CHARLES A IRISH JR. #11217



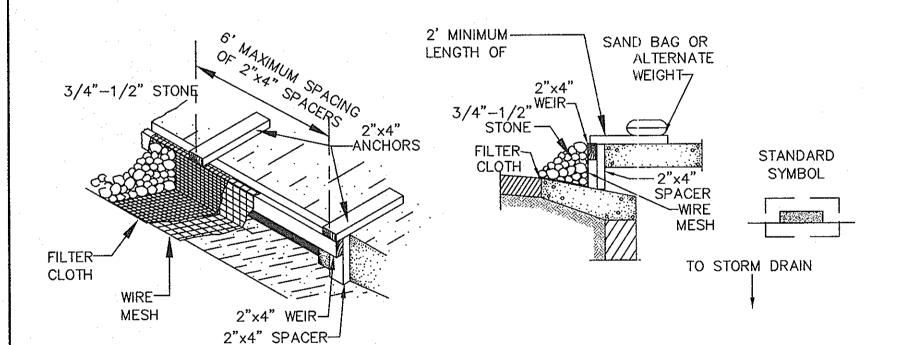




FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6 FOOT FENCE SHALL BE USED, SUBSTITUTING 42 INCH FABRIC AND 6 FOOT LENGTH POSTS.

- 1. THE POLES DO NOT NEED TO SET IN CONCRETE.
- 2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE CHAIN LINK
- FENCE WITH WIRE TIES OR STAPLES.
- 3. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
- 4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 6" INTO THE GROUND.
- 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SUILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.





CONSTRUCTION SPECIFICATIONS

A. MATERIALS

- WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LUMBER.
- WIRE MESH SIZE MUST BE OF SUFFICIENT STRENGTH OF SUPPORT FILTER FABRIC AND STONE FOR CURB INLETS WITH WATER FULLY IMPOUNDED AGAINST IT.
- 3. FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE: RESISTANT TO ULTRAVIOLET LIGHT WITH AN EQUIVALENT OPENING SIZE 40 -- 80 SIEVE TO ALLOW
- SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT. 4. WASHED STONE 3/4" TO 1-1/2" IN SIZE IS TO BE USED.

B. CURB INLET PROTECTION

- 1. ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH, PLUS 4') TO THE 2" X 4" WEIR (MEASURING THROAT LENGTH, PLUS 2') AS SHOWN ON THE STANDARD DRAWING.
- 2. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2" X 4" WEIR.
- 3. SECURELY NAIL THE 2" X 4" WEIR TO A 9" LONG VERTICAL SPACER TO BE LOCATED
- BETWEEN THE WEIR AND THE INLET FACE (MAX. 4' APART). 4. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2' LENGTHS OF 2" X 4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS). THESE 2" X 4"
- SANDBAGS OR ALTERNATE WEIGHT.

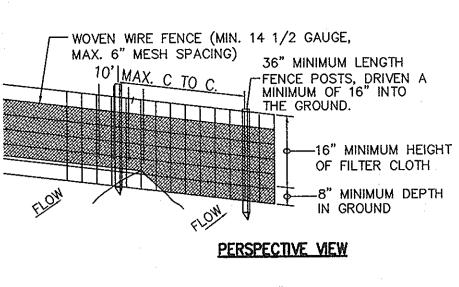
ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY

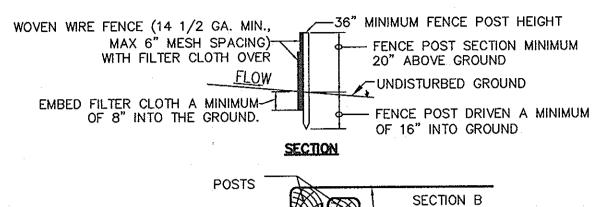
- 5. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING. 6. FORM THE 1/2" X 1/2" WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4"X 1 1/2"
- WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE. 7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE GEOTEXTILE FABRIC

STONE OVER THE WIRE MESH AND GEOTEXTILE FABRIC IN SUCH A MANNER TO PREVENT

AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT. 8. ASSURE THAT STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT THE FLOW TO THE INLET.







JOINING TWO ADJACENT SILT FENCE SECTIONS

CONSTRUCTION SPECIFICATIONS:

TOP OF SLAB=

215.20

STANDARD SYMBOL

- 1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MIN. INTO THE GROUND. WOOD POSTS SHALL BE 1-1/2" X 1-1/2" SQUARE (MIN.) CUT, OR 1-3/4" DIA. (MIN.) ROUND AND SHALL BE OF SOUND QUALITY HARD WOOD STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHTING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
- 2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

75% (MIN.)

TENSILE STRENGTH TENSILE MODULUS

FLOW RATE

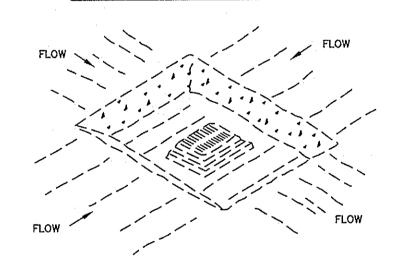
50 LBS./IN.(MIN.)

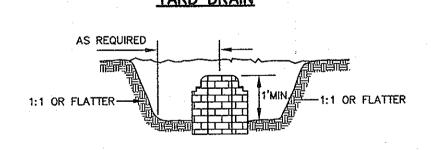
20 LBS./IN. (MIN.) 0.3 GAL FT /MINUTE (MAX.)

- FILTERING EFFICIENCY 3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER. THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
- 4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDI,EMT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.



STORM INLET SEDIMENT TRAP ST-III



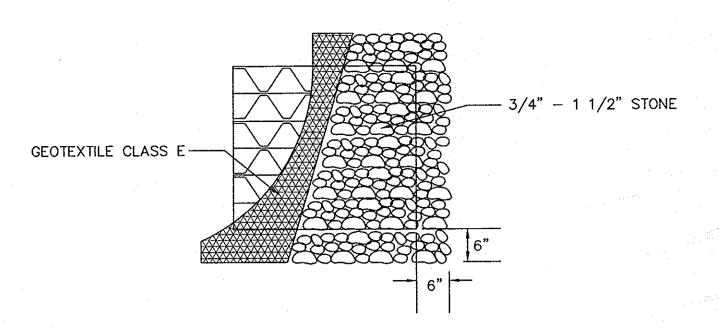


<u>CROSS SECTION</u>

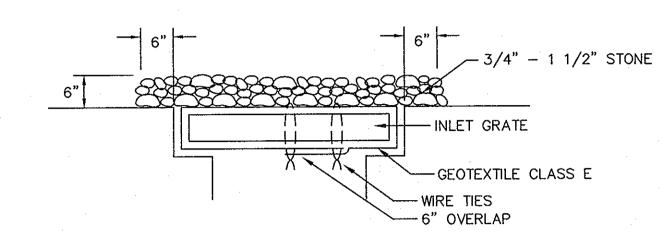
CONSTRUCTION SPECIFICATIONS FOR ST-III

- SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
- 3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
- 5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.





<u>PLAN/CUT AWAY VIEW</u>



CROSS SECTION

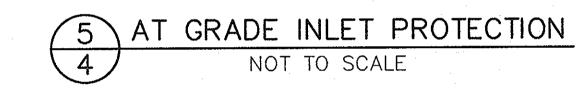
STANDARD DETAIL

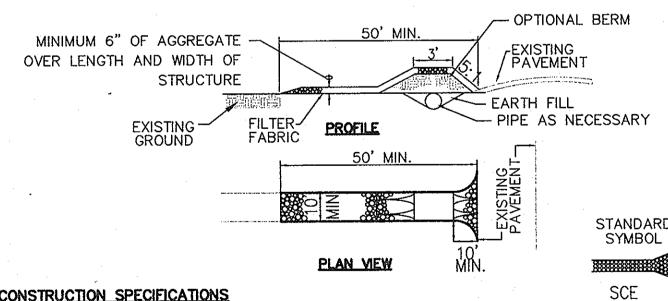
AGIP

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 1 1/2" STONE, 4'-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILTRATION.





CONSTRUCTION SPECIFICATIONS

- 1. LENGTH MINIMUM OF 50' (30' FOR A SINGLE RESIDENCE LOT).
- 2. WIDTH 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. THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCE TO USE GEOTEXTILE.
- 4. STONE CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- 5. SURFACE WATER ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE PROVIDED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
- LOCATION A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.



BY THE DEVELOPER

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

BY THE ENGINEER

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

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

16/8/99

2/14/00

THIS DEVELOPMENT PLANTS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND

CHIEF, DIVISION OF LAND DEVELOPMENT

REVISION OWNER: WHISKEY BOTTOM TRADE CENTER C LIMITED PARTNERSHIP C/O GINGERY DEVELOPMENT GROUP 1001 ROCKVILLE PIKE SUITE 503 ROCKVILLE, MARYLAND 20852

(301) 424-3600

ATTN: MR. MONTE GINGERY

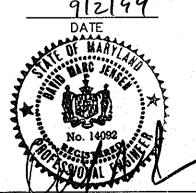
WHISKEY BOTTOM TRADE CENTER SITE PLAN PHASE III PARCEL "C"

TAX MAP No. 50 PARCEL C SIXTH (6) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL DETAILS



VIKA INCORPORATED
4845 GOVERNORS WAY SUITE L M FREDERICK, MARYLAND 21704
(301)662-5034 M FAX (301)620-7699 FREDERICK, MD MCLEAN, VA ATTN: MS. CHERYL MAZELON SDP-99-169



DESIGNED BY: CLM DRAWING BY: RND

PROJECT/FILE NO. 5457 DATE: AUG. 1999

SCALE: NO SCALE

DRAWING No. 4 OF 14

SDP-99-169

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).
- 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.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1 CHAPTER 7, OF THE "HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE".
- 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.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7. SITE ANALYSIS:

TOTAL AREA OF SITE: 3.07 ACRES AREA DISTURBED: 2.96 ACRES - 129,291 S.F. AREA TO BE ROOFED OR PAVED: 2.40 ACRES - 104.680 S.F. AREA TO BE VEGETATIVELY STABILIZED: 0.56 ACRES - 24,611 S.F. TOTAL CUT: 1,693 C.Y. TOTAL FILL: 2,127 C.Y.

OFFSITE WASTE/BORROW AREA LOCATION: EXCESS CUT SHALL BE TAKEN TO A SITE WITH AN APPROVED GRADING PERMIT.

- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- NO STABILIZED CONSTRUCTION ENTRANCE IS PROPOSED DUE TO EXISTING PAVED CONDITIONS AT ENTRANCE. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED. IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

SEQUENCE OF OPERATIONS

- OBTAIN GRADING PERMIT
- 2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES INSPECTOR 48 HOURS BEFORE BEGINNING WORK.
- 3. INSTALL ALL SILT FENCE. (1 DAY)
- 4. CLEAR AND GRUB FOR SEDIMENT CONTROL MEASURES AND DEVICES. (1 DAY)
- 5. INSTALL ALL SEDIMENT CONTROL MEASURES AND DEVICES. (1 DAY)
- AFTER NOTIFYING AND OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, BEGIN ROUGH GRADING. MAINTAIN POSITIVE DRAINAGE TO SEDIMENT CONTROL MEASURES AND DEVICES. (2 DAYS)
- 7. INSTALL ALL UTILITIES INCLUDING STORM DRAIN STRUCTURES AND INLET TRAPS. BACKFILL UTILITIES AT ENTRANCE AND STABILIZE ON THE SAME DAY OF DISTURBANCE. (3 DAYS)
- 8. INSTALL FOOTINGS AND FOUNDATION WALL. CONTINUE BUILDING CONSTRUCTION. (14 DAYS)
- 9. FINE GRADE THE ENTIRE SITE. MAINTAIN POSITIVE DRAINAGE TO SEDIMENT CONTROL MEASURES AND DEVICES. (3 DAYS)
- 10. INSTALL STONE SUBBASE AND CURB AND GUTTER. STABILIZE ALL REMAINING AREAS. (3 DAYS)
- 11. AFTER NOTIFYING AND OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND DEVICES. (3 DAYS)
- 12. PROCEED WITH PAVING OPERATIONS. (7 DAYS)

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH TH EXCEPTION OF THE FOLLOWING:

- 1.* ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
- 2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND CONTROL, PAGE 3-16-1 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL

UTILITY CONSTRUCTION NOTES

- OPEN ONLY THAT PORTION OF THE TRENCH WHICH CAN BE BACKFILLED AND STABILIZED EACH DAY.
- 2. PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF THE TRENCH.
- ALL SEDIMENT CONTROL MEASURES DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY BEFORE LEAVING THE WORK SITE AT THE END OF EACH DAY.
- 4. IF THE TRENCH MUST REMAIN OPEN LONGER THAN THE ONE DAY, SILT FENCE SHALL BE PLACED DOWN HILL FROM THE TRENCH

THIS PLAN IS TO BE USED FOR THE INSTALLATION AND MAINTENANCE OF THE SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES ONLY. SEE SITE PLAN FOR MORE SPECIFIC INFORMATION.

TEMPORARY SEEDING NOTES

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

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

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ, FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU 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 TO 90 LBS. PER 1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL, PER 1000 SQ, FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL, PER ACRE (8, GAL, PER 1000 SQ, FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

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

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

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED: APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ. FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 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 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ. FT.).
- ACCEPTABLE: APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL

SEEDING: FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 91.4 LBS. PER 1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

- 1. 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ. FT.) FOR ANCHORING.

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

TOPSOIL SPECIFICATIONS

NEW TOPSOIL

- A. Fertile, friable, naturally loamy, surface soil; reasonably free of subsoil, clay lumps. brush, weeds, and other litter; and free of roots, stumps, and other extraneous or toxic matter harmful to plant growth. New topsoil shall be shredded and screened to remove all stone in excess of 1" in size.
- Provide topsoil with a pH range of approximately 5.5 pH to 7.6 pH, when tested in accordance with the methods of testing as recommended by the Association of Official Agricultural Chemists. Organic content shall not be less than 3 percent nor more than 20 percent as determined by the wet-combustion method (chromic acid reduction). Not less than 20 percent nor more than 80 percent of the topsoil material shall pass the 200 mesh (0.075 mm) sieve, as determined by the wash test in accordance with ASTM C 117.
 - 1. Natural topsoil may be amended by the Contractor with approved materials and methods to meet above requirements.
- C. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at site of work. Obtain topsoil from naturally well-drained sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.

STOCKPILED TOPSOIL

- A. The stockpiled topsoil shall be shredded and screened to remove all stone in excess of 1" in size
- Topsoil shall not be shredded and screened when in an excessively wet and/or frozen condition.
- C. The Contractor shall obtain approval of the shredded and screened topsoil by the Owner or Owner's Representative before proceeding with placement.

SOIL AMENDMENTS

- A. Lime: Natural limestone, conforming with requirements of ASTM C 602, and containing at least 85 percent of total carbonates ground to such fineness that at least 90 percent passes a 10-mesh sieve and at least 50 percent passes a 100mesh sieve.
- 1. Provide lime in form of dolomitic limestone.
- Peat Humus: Finely divided or granular texture and with pH of 6.0 to 7.5 composes of moss peat (other than sphagnum), peat humus, or reed-sedge peat.

FERTILIZER

A. Complete, 10-20-10 commercial fertilizer of neutral character, with some elements derived from organic sources, conforming to requirements of Federal Specification 0-F-241d and applicable laws of the State of Maryland. Fertilizer to provide nitrogen in a form that will be available during initial period of turf growth.

BY THE DEVELOPER :

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

DEVELOPER

BY THE ENGINEER

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

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

1-24-00 Chun Simmons NATURAL RESOURCES CONSERVATION SERVICE DATE THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION

AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND

1-24-00

DATE No. REVISION

HIEF. DIVISION OF LAND DEVELOPMENT

OWNER: WHISKEY BOTTOM TRADE CENTER C LIMITED PARTNERSHIP C/O GINGERY DEVELOPMENT GROUP 1001 ROCKVILLE PIKE SUITE 503 ROCKVILLE, MARYLAND 20852 (301) 424-3600

ATTN: MR. MONTE GINGERY

WHISKEY BOTTOM TRADE CENTER SITE PLAN PHASE III PARCEL "C'

AREA TAX MAP No. 50 PARCEL C SIXTH (6) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL NOTES

ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ CONSTRUCTION INSPECTO VIKA INCORPORATED
4845 GOVERNORS WAY SUITE L ■ FREDERICK, MARYLAND 21704 (301)662-5034 ■ FAX (301)620-7699



SDP-99-169 DESIGNED BY: CLM

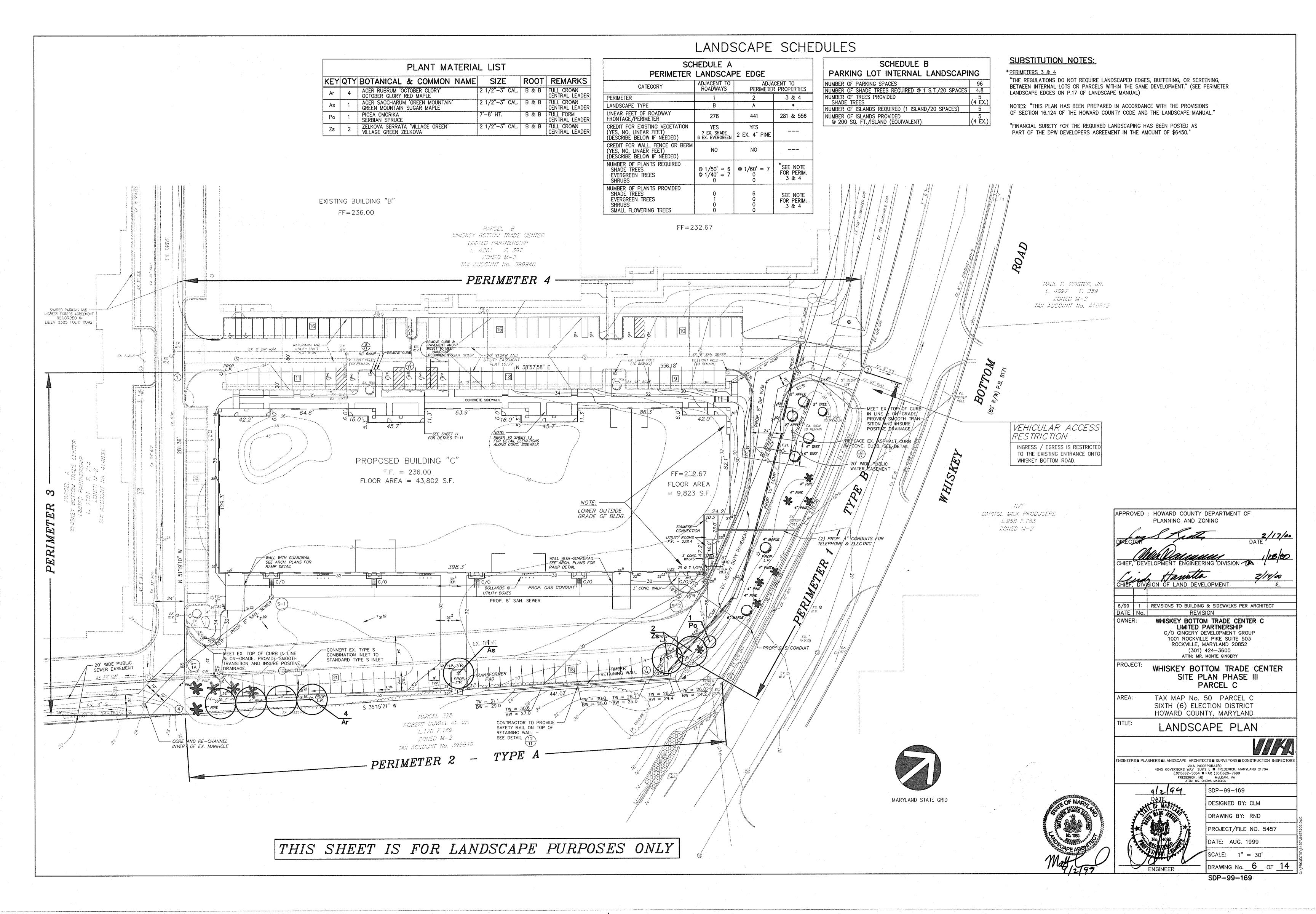
> DRAWING BY: RND PROJECT/FILE NO. 5457

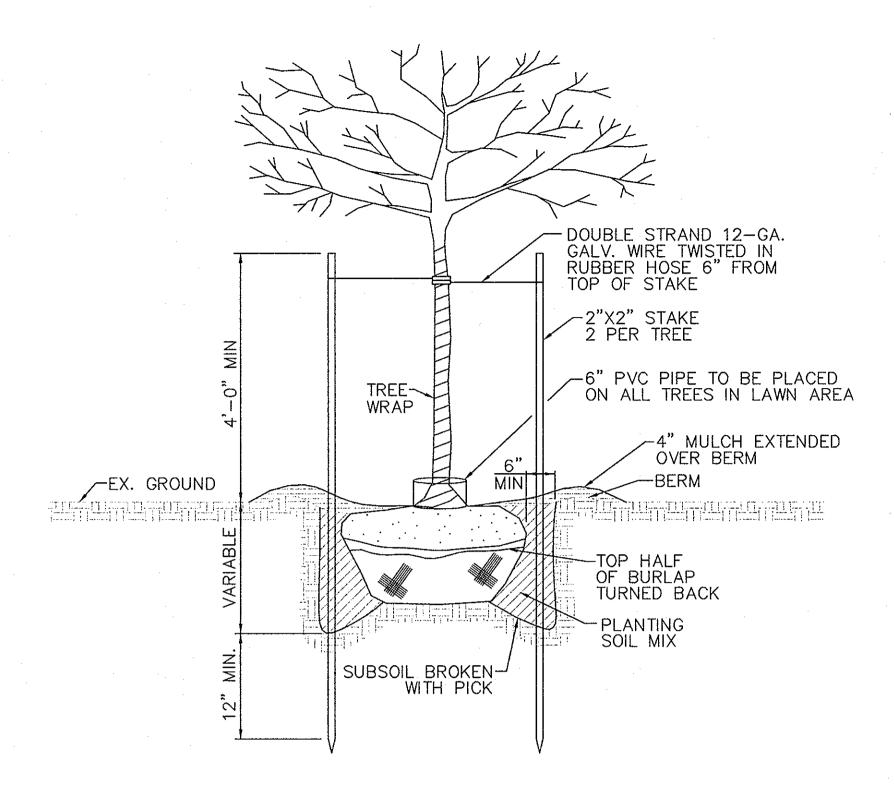
DATE: AUG. 1999

SCALE: NO SCALE

DRAWING No. <u>5</u> OF <u>14</u>

SDP-99-169





NOTE:
THIS DETAIL FOR DECIDUOUS AND EVERGREEEN TREES
UNDER 4" CALIPER AND 6' OR MORE IN HEIGHT.

1 PLANTING AND STAKING DETAIL
NOT TO SCALE

PLANTING NOTES

PLANT LOCATIONS SHALL BE FIELD ADJUSTED TO AVOID UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO START OF WORK. ALL TREES SHALL BE MULCHED TO A MINIMUM OF 18" BEYOND THE EDGE OF THE ROOT BALL. ALL WIRE, PLASTIC AND TWINE TIES SHALL BE REMOVED FROM TOP HALF OF THE ROOT BALL.

PLANT STANDARDS

ALL NURSERY STOCK SHALL BE TOP QUALITY AND IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION. INFERIOR NURSERY STOCK WILL BE SUBJECT TO REJECTION BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. BARE—ROOT SHALL NOT BE ALLOWED FOR ANY TREE DEFINED AS MAJOR DECIDUOUS, MINOR DECIDUOUS OR EVERGREEN.

CHANGES MAY IMPACT REQUIRED CERTIFICATION

PLANT TYPES (DECIDUOUS TREES, EVERGREEN ETC.), QUANTITIES, SPACING, LOCATION, AND SPECIES SHOWN ON THE APPROVED LANDSCAPE PLAN ARE BASED ON REQUIREMENTS STATED IN THE LATEST HOWARD COUNTY LANDSCAPE MANUAL. ANY CHANGE IN THESE ITEMS MAY AFFECT THE REQUIRED APPROVAL AND CERTIFICATION OF THE INSTALLED PLANTING. OWNER IS REQUIRED TO ARRANGE AND PAY FOR CERTIFICATION BY LANDSCAPE ARCHITECT.

LANDSCAPE SPECIFICATIONS

LANDSCAPE SPECIFICATION SHALL CONFORM TO LCA LANDSCAPE SPECIFICATION GUIDELINES FOR HOWARD—WASHINGTON METROPOLITAN AREA, INCLUDING PLANTING PROCEDURES AND SOIL PREPARATION FOR SHRUBS AND PERENNIAL BEDS. A ONE—YEAR WARRANTY PERIOD SHALL BE REQUIRED. MAINTENANCE REQUIRED TO HONOR THE ONE YEAR WARRANTY SHALL BE PERFORMED AS PART OF THIS CONTRACT.

SPECIAL PROVISIONS TO LCA STANDARD SPECIFICATIONS

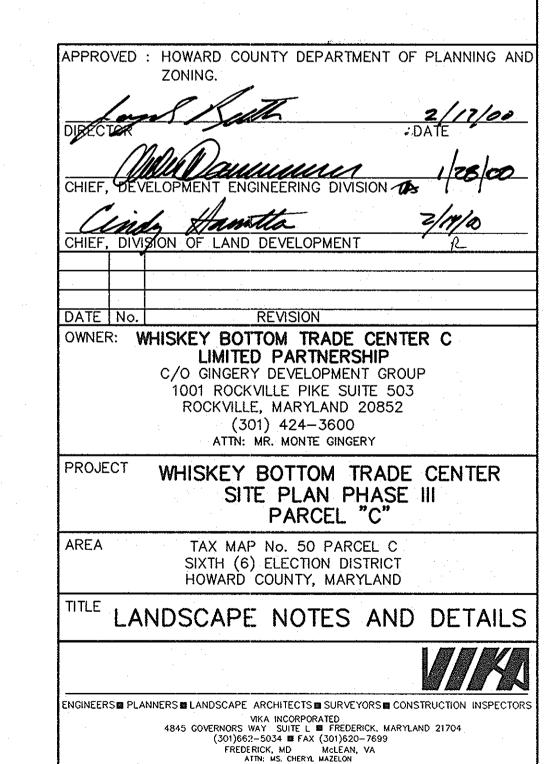
CONTRACTOR IS ENCOURAGED TO PERFORM SOIL TESTING. TEST RESULTS SHALL BE SUBMITTED 30 DAYS BEFORE PLANTING. FAILURE TO PERFORM TESTING WILL NOT VOID GUARANTEE PROVISIONS.

CONTRACTOR SHALL REVIEW AND TEST SUBSOIL DRAINAGE CHARACTERISTICS 30 DAYS PRIOR TO PLANTING AND NOTIFY OWNER OF UNACCEPTABLE CONDITIONS.

NO EXCEPTIONS TO THE GUARANTEE PROVISIONS ARE ALLOWED UNLESS

PLANTING SPECIFICATIONS

- 1. PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
- 2. ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OF OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED—IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- 3. UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO LANDSCAPE SPECIFICATION GUIDELINES FOR "BALTIMORE—WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, LATEST EDITION, INCLUDING ALL AGENDA.
- 4. CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS, INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES. DAMAGE TO EXISTING STRUCTURE AND UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- 6. PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED BY THE TEMPORARY INSTALLATION OF A 4 FOOT HIGH SNOW FENCE AT THE DRIP LINE.
- 7. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. ALL PLANTING IS TO BE COMPLETED WITHIN GROWING SEASON OF COMPLETION OF SITE CONSTRUCTION.
- 8. BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE
- CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.
- 9. PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN TAKE PRECEDENCE.
- 10. POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS (MINIMUM 2 PERCENT SLOPE).
- 11. PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS TWO PARTS TOPSOIL, ONE PART WELL—ROTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.
- 12. WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUNDCOVER TO BE TREATED.
- 13. ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.
- 14. THIS PLAN IS INTENDED FOR LANDSCAPE USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, LAYOUT, ETC.





DATE

OF MAN

No. 14092

SONAL TANSCHER #1904

SDP-99-169
DESIGNED BY: CLM
DRAWING BY: RND

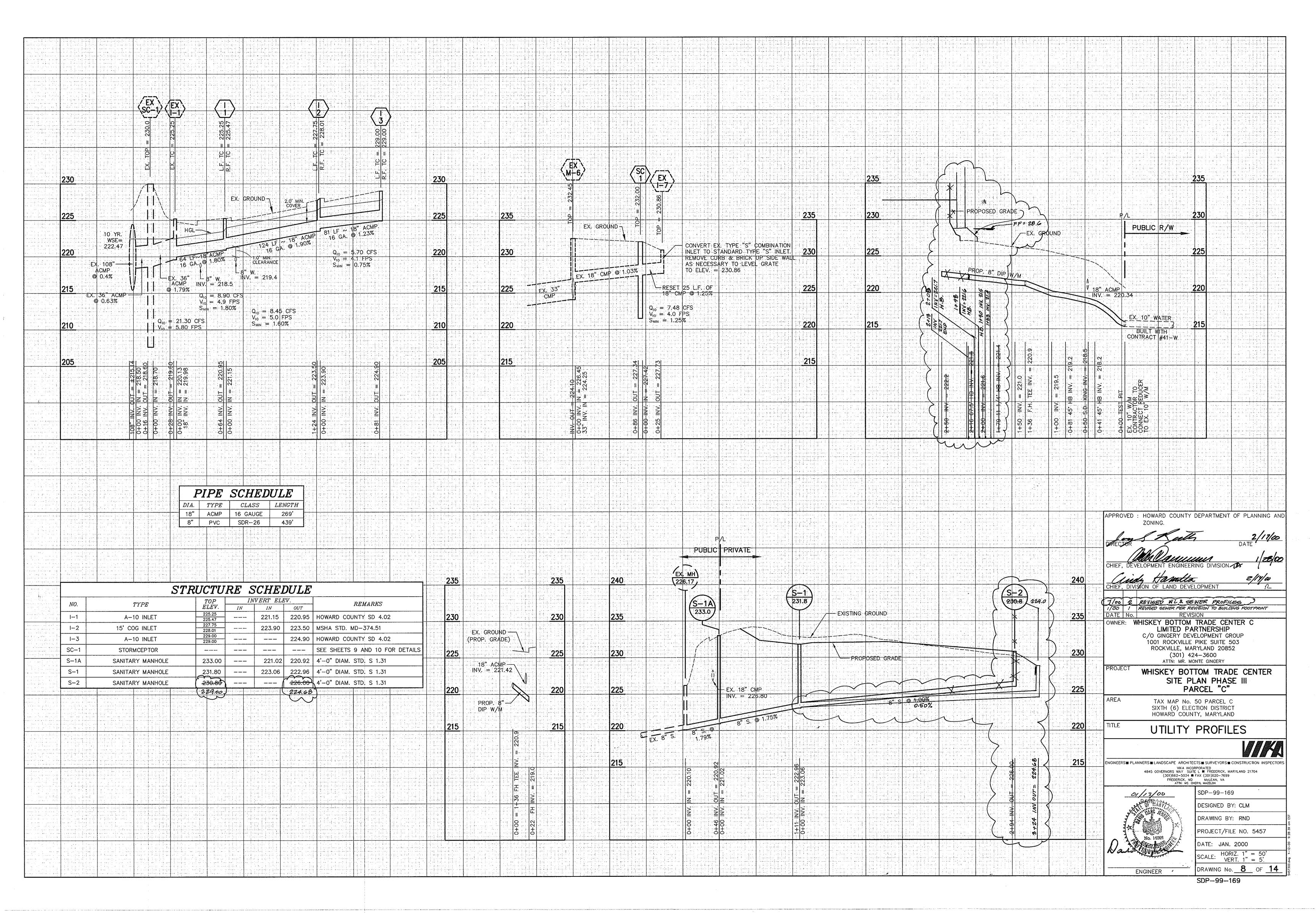
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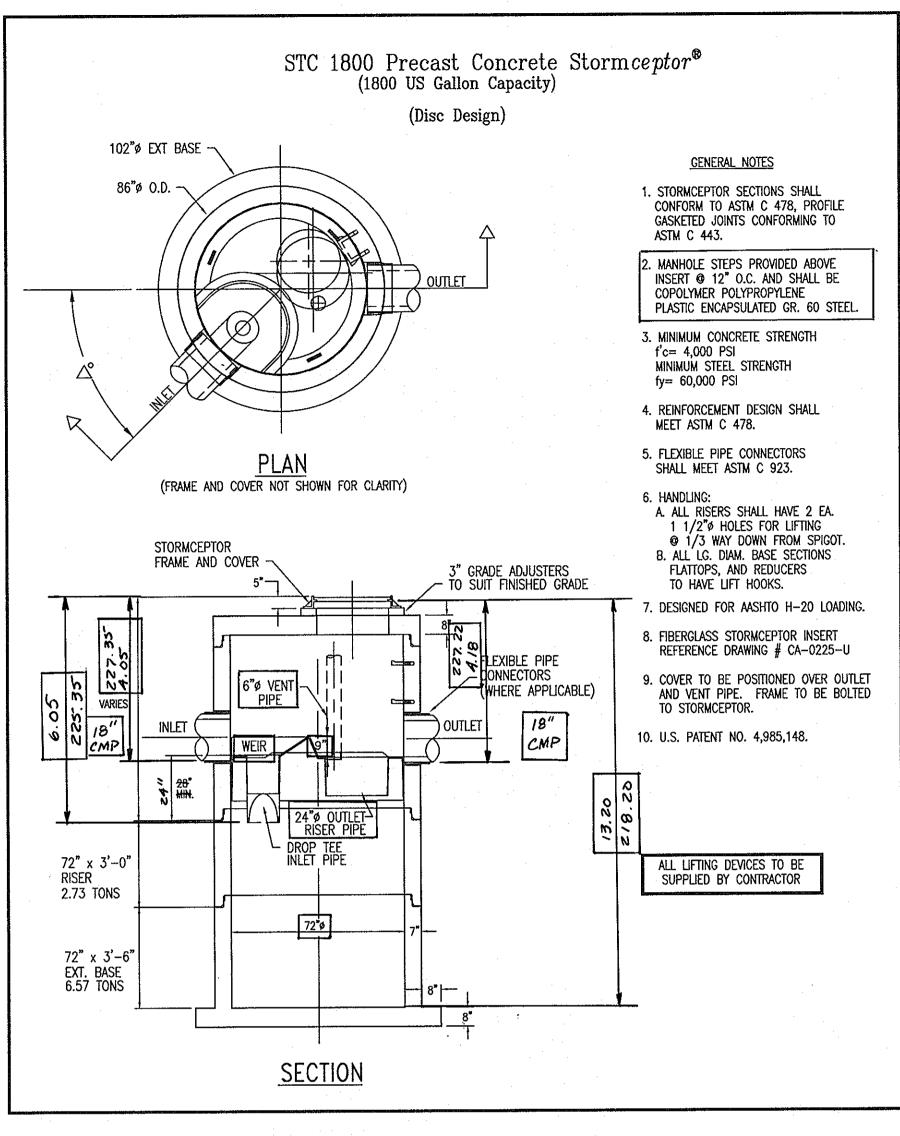
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DRAWING No. 7 OF 14

SDP-99-169

DATE: AUG. 1999





SC-1

STORMCEPTOR DESIGN

STRUCTURE NO.	IMPERVIOUS AREA (AC.)	PIPE DIA. (IN.)	ACTUAL FLOWRATE (C.F.S.)	STORMCEPTOR MODEL	MIN OPENING ABOVE WEIR (IN.)
SC-1	0.97 AC.	18" CMP	7.48	STC 1800	8"

NOTES:

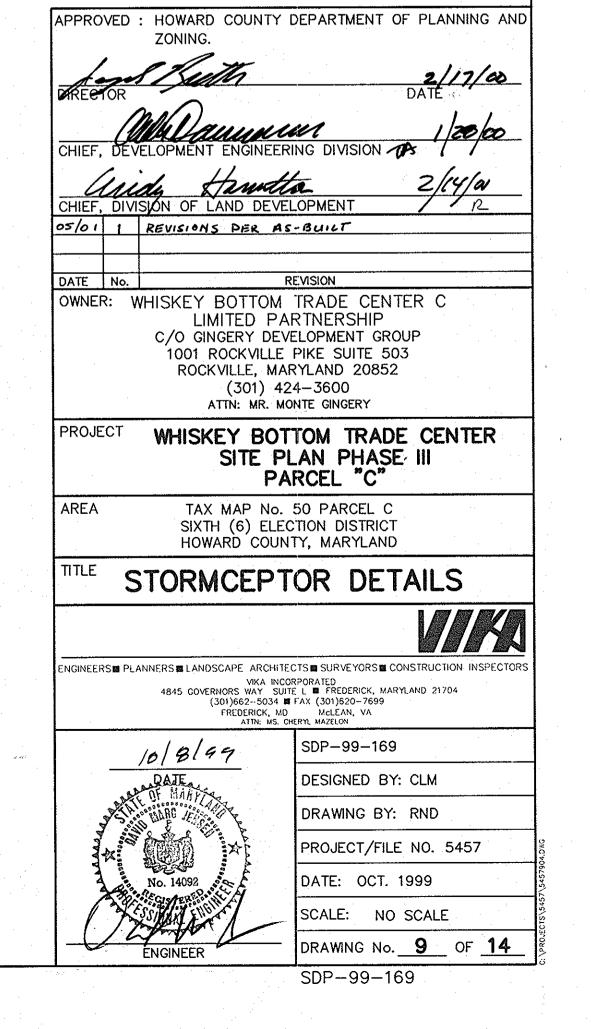
1. BASED ON TABLE 7 OF THE STORMCEPTOR

TECHNICAL MANUAL, JUNE 1996 USING

STANDARD AREA.

- 2. FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703.
- 3. TO ORDER AND FOR DELIVERY CONTACT CSR-HYDRO CONDUIT, VIRGINIA PRECAST AT 1-800-999-2278 AT LEAST 4 WEEKS PRIOR TO NEEDED DELIVERY.

			90.		
CONTRACTOR INF	ORMATION				
Name Address City State Zip Code Contact Phone Fax		18" CMP INLET 180° INV. = 227.42		18" CM OUTLET	0° = 227.
Name Phone Fox GINGERY DEVELOR (301) 424-3600 (301) 294-7910	PMENT	l on diag and inv an "1" o inlet/ou	270° draw orientation of inform along with the pert elevation (ft). Cleand oulet pipes with attemption of the pipe angle in degree of the contract of the cont	ipe inside diameter (Irly mark inlet pipes In "O". Please provid	(in). with le the
Stormceptor Mode		Manh Top I Inlet Outle Pipe Inlet Inlet Outle Outle	ole Number Elevation (ft) Pipe Invert (ft) t Pipe Invert (ft) Type Pipe Inside Diameter Pipe Outside Diameter t Pipe Outside Diameter	SC-1 232.00 227.42 227.34 CMP (ID) 18" (OD) 19"	231 227 227
Project Name WHISKEY BO	TTOM TRADE CENTER PHAS	SE III			
Approximate time frame of o	delivery (weeks)				
		MARYLAND	Zip Code <u>207</u> 2	23	
Designer Company VIKA, IN C. MAZ		ne <u>301-916-410</u>	0 Fax 301-91	6-2262	
	COMPLETELY			 	



CONTRACTOR INSTALLATION INSTRUCTIONS: PRECAST CONCRETE STORMCEPTOR

- PRECONSTRUCTION MEETING.
- STAKEOUT THE LOCATION OF THE STORMCEPTOR AND EXCAVATE HOLE. EXCAVATE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO UNIT. SECURE INSPECTOR APPROVAL OF SUBGRADE. INSTALL A 12" DEEP (OR AS REQUIRED) LAYER OF COMPACTED AGGREGATE SUBBASE AT BOTTOM OF EXCAVATION. INSTALL TRENCHBOX OR SHORING, AS NEEDED.
- CHECK ELEVATION OF UNIT BY MEASURING ITS SECTIONS FROM BASE OF THE STORAGE CHAMBER (BOTTOM OF UNIT'S SLAB) TO THE INVERT OF STORMCEPTOR BYPASS CHAMBER INLET ELEVATION (FIBERGLASS INSERT). SUBTRACT THIS DISTANCE FROM DESIGN INVERT ELEVATION TO DETERMINE TOP OF SUBBASE ELEVATION. CHECK ELEVATION OF INSTALLED SUBBASE AND ADJUST AS NEEDED.
- SECURE INSPECTOR APPROVAL OF SUBBASE. ALL LIFTING APARATUS IS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR.
- 5. INSTALL STORAGE CHAMBER. (INSTALL SCREW INSERTS INTO BASE OF STORAGE CHAMBER.) ATTACH CABLES OR CHAINS TO ALL 3 LIFTING LUGS ON THE BASE SLAB. USING LARGE EQUIPMENT OR CRANE, LIFT AND PLACE THE BASE SECTION OF THE STORAGE CHAMBER IN THE EXCAVATED HOLE ON THE SUBBASE. MAKE SURE THAT THE BASE IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS NOT REQUIRED. INSTALL RUBBER GASKET ON BASE UNIT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT), IF NOT PRELUBRICATED. INSTALL ADDITIONAL STORAGE CHAMBER SECTIONS, AS REQUIRED (PROCEDURE IS SAME AS STEP 9.)

(FOR STORMCEPTOR MODELS STS-900, STC-1200 AND STC-1800, SKIP STEP 6 AND GO TO STEP 7.)

- 6. INSTALL REDUCING SLAB. (STORMCEPTOR MODELS STC-2400, STC-3600, STC-4800, STC-6000 AND STC-7200). CHECK THAT SECTION IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. INSTALL RUBBER GASKET ON THE TRANSITION SLAB SPIGOT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT).
- INSTALL BYPASS CHAMBER OF STORMCEPTOR WITH FACTORY INSTALLED STORMCEPTOR INSERT. LIFT BYPASS SECTION AND INSTALL, WHILE CHECKING ALIGNMENT AND GRADE OF INLET AND OUTLET DRAINAGE PIPES. CHECK TO MAKE SURE THE BYPASS CHAMBER IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. THE BYPASS SECTION MUST BE ORIENTED SUCH THAT INLET PIPE DISCHARGES INTO THE V-SHAPED FIBERGLASS WEIRS (INSIDE INSERT). INSTALL RUBBER GASKET ON TOP OF BYPASS SECTION AND COAT WITH LUBRICATING GREASE, IF NOT PRELUBRICATED.
- 8. INSTALL STORMCEPTOR DROP PIPES ACCORDING TO STC PIPE INSTALLATION PROCEDURE, SEE NOTES THIS SHEET.
- INSTALL RISER SECTION. LIFT RISER SECTION AND INSTALL, WHILE CHECKING THAT SECTION IS SET FLUSH AND IS AT PROPER ELEVATION AND THAT UNIT IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS REQUIRED IF STEP(S) ARE INCLUDED. ALIGN STEPS ABOVE OUTLET INSPECTION PORT. NOTE: FOR SHALLOW INSTALLATIONS, THIS SECTION MAY NOT BE REQUIRED.
- 10. INSTALL TOP SLAB WITH OPENING FOR STORMCEPTOR FRAME & COVER. IF OPENING IS OFFSET (NOT CENTERED), THE TOP CAP OPENING SHOULD BE ORIENTED ABOVE THE STORMCEPTOR OUTLET INSPECTION PORT (PLUG).
- 11. BACKFILL STORMCEPTOR WITH APPROVED BACKFILL MATERIAL (NO ORGANIC OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL SHOULD BE COMPACTED TO MEET LOCAL/STATE REQUIREMENTS.
- 12. INSTALL AND SET GRADE ADJUSTING RINGS, AS NEEDED. PLUG ALL LIFT HOLES WITH TAPERED FLEXIBLE PLUG AND KNOCK INTO PLACE. PLUGS IN STORAGE CHAMBER MUST BE GROUTED INSIDE AND OUTSIDE WITH GROUT.
- 13. INSTALL AND SET STORMCEPTOR FRAME AND COVER.
- 14. INSTALL INLET AND OUTLET STORM DRAIN PIPES. CONNECT INLET AND OUTLET STORM DRAIN PIPES WITH FLEXIBLE BOOTS (WHEN PROVIDED) AND WITH NON-SHRINK GROUT WHEN NO FLEXIBLE BOOTS ARE PROVIDED. THE INVERT OF THE INLET AND OUTLET PIPE IS TO MATCH WITH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT INSTALLATION PROCEDURES: CENTER THE PIPE IN THE BOOT OPENING. LUBRICATE THE OUTSIDE OF THE PIPE AND/OR THE INSIDE OF THE BOOT, IF THE PIPE OUTSIDE DIAMETER IS THE SAME AS THE INSIDE DIAMETER OF THE BOOT. POSITION THE PIPE CLAMP IN THE GROOVE OF THE BOOT WITH THE SCREW AT THE TOP. TIGHTEN THE PIPE CLAMP SCREW TO 60 INCH POUNDS. IF THE PIPE IS MUCH SMALLER THAN THE BOOT, LIFT THE BOOT SUCH THAT IT CONTACTS THE BOTTOM OF THE PIPE WHILE TIGHTENING THE CLAMP TO ENSURE EVEN CONTRACTION OF THE RUBBER. MOVE THE PIPE HORIZONTALLY AND/OR VERTICALLY TO BRING IT TO GRADE.
- 15. THE STORMCEPTOR SHOULD BE PUMPED OUT WHEN THE SEDIMENT CONTROL MEASURES ARE REMOVED (SITE PERMANENTLY STABILIZED). SEDIMENT AND DEBRIS TO BE DISPOSED OF PROPERLY.
- 16. FINAL INSPECTION

MAINTENANCE NOTES (WATER QUALITY STRUCTURE WASTE)

WATER QUALITY STRUCTURES WILL REQUIRE PERIODICAL

- CLEANING, OWNERS OF THESE FACILITIES WILL HAVE TO CLEAN THEM AS NEEDED. 2. MAINTENANCE OF THESE FACILITIES WILL CONSIST OF CLEANING OUT THE STORMCEPTOR AND DISPOSAL
- OF THE WASTE AND THE REPAIR OF THE FACILITY AS NEEDED. PERIODIC INSPECTIONS OF THESE FACILITIES WILL BE MADE BY THE OWNER.
- 3. THE DISPOSAL OF THE LIQUID AND SOLID MATTER SHALL BE AS FOLLOWS: A. ALL LIQUID MATERIAL IN THE STORMCEPTOR SHALL BE PUMPED INTO A SUITABLE TANK TRUCK AND DISPOSED OF AT AN APPROVED SANITARY DISTRICT DISCHARGE MANHOLE OR BE TAKEN TO AN APPROVED SEWAGE TREATMENT PLANT FOR DISCHARGE.
- B. THE SOLID MATERIAL SHALL BE LANDFILLED IN AN APPROVED SANITARY LANDFILL.
- 4. THE INLET PIPES, AND STRUCTURAL PARTS SHALL BE REPAIRED AS NEEDED.
- 5. STORMCEPTOR (B)INLET AND OUTLET ASSEMBLY SHALL BE PERIODICALLY INSPECTED. BLOCKAGES SHALL BE REMOVED AND DISPOSED OF AS REQUIRED IN 3B ABOVE.

STC PIPE INSTALLATION PROCEDURE:

- 1. DROP PIPES ARE TO BE INSTALLED ONCE THE RISER SECTION CONTAINING THE INSERT HAS BEEN INSTALLED ON THE STORAGE CHAMBER.
- 2. ENTER THE STORAGE CHAMBER AND INSTALL THE INLET DROP PIPE FROM UNDERNEATH THE INSERT. THE INLET DROP PIPE IS EASILY IDENTIFIABLE BY THE T-SECTION FITTING. THE TEE IS ORIENTED SUCH THAT IT IS PERPENDICULAR TO THE DIRECTION OF FLOW IN THE UPSTREAM STORM SEWER. FOR THE SMALLER MODELS(<2000)THE INLET DROP PIPE IS CEMENTED INTO THE COUPLING THAT IS PROVIDED USING THE SUPPLIED PVC CEMENT. FOR THE LARGER MODELS(>=2000)THE INLET DROP PIPE IS CONNECTED INTO A GASKETED COUPLING USING THE SUPPLIED PIPE LUBRICANT. ONCE THE INLET DROP PIPE HAS BEEN INSTALLED, THE CONNECTION SHOULD ALSO BE CAULKED USING THE SUPPLIED (CHEMREX 948 OR BULLDOG PREMIUM PL)SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.
- 3. THE LARGE 24"(610mm)RISER PIPE IS INSERTED INTO THE PROVIDED OUTLET SLEEVE FROM ABOVE WHILE STANDING ON THE INSERT. A FLANGE IS PROVIDED ON THE OUTLET RISER PIPE TO PREVENT IT FROM FALLING INTO THE STORAGE CHAMBER. THE UNDERSIDE OF THE FLANGE MUST BE CAULKED WITH THE PROVIDED CHEMREX 948 SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.
- 4. A 6"(150mm)COUPLING IS PROVIDED ON THE INSERT FOR THE 6"(150mm)SUPPLIED PVC VENT PIPE. THE VENT PIPE SHOULD BE ATTACHED TO THE COUPLING USING THE SUPPLIED PVC CEMENT. ONCE THE CEMENT HAS SET, THE CONNECTION SHOULD ALSO BE CAILKED USING THE SUPPLIED CHEMREX 948 SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.

STORMCEPTOR NOTES AND SPECIFICATIONS

- 1. THE STORMCEPTOR S PROTECTED BY U.S. PATENT NO. 4,985,148.
- 2. CAST IRON FRAME & COVER TO BE APPROVED BY STORMCEPTOR CORPORATION " STORMCEPTOR" TO BE EMBOSSED ON COVER.
- 3. BEDDING, BACKFILL AND GENERAL INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER AND A PROFESSIONAL ENGINEER BASED ON SITE SPECIFIC SOIL CONDITIONS, SUBJECT TO THE APPROVAL OF THE REGULATORY AGENCIES.
- 4. SIZING OF THE STORMCEPTOR SHALL BE IN ACCORDANCE WITH THE GUIDELINES PROVIDED BY STORMCEPTOR CORPORATION, SUBJECT TO THE APPROVAL OF THE REGULATORY AGENCIES.
- 5. THE STORMCEPTOR SHOULD BE MAINTAINED ANNUALY AND/OR IMMEDIATELY FOLLOWING ANY KNOWN SPILLS.
- 6. THE STORMCEPTOR (R) CONFORMS TO ASTM C 478 DESIGN SPECIFICATIONS/STANDARDS.
- 7. MINIMUM NUMBER OF STEPS IS TO BE USED IN THE ACCESS WAY. DEPENDS UPON LOCAL REQUIREMENTS.
- 8. COVER TO BE OFFSET 9" FROM ACCESS WALL ADJACENT TO 24" Ø OUTLET RISER PIPE AND 6" Ø VENT PIPE.
- 9. NON-SMOOTH WALL O.D. PIPE TO BE GROUTED IN PLACE.
- 10. MINIMUM OF 1" FALL FROM INLET TO OUTLET.
- 11. FURTHER TECHNICAL INFORMATION IS AVAILABLE FROM STORMCEPTOR CORPORATION 1 (800) 762-4703.

INSPECTION NOTES:

- 1. PRIOR TO START OF INSTALLING THE STORMCEPTOR, THE MCDPS INSPECTOR MUST BE CALLED 48 HOURS IN ADVANCE AT 217-6301 (PRE-CONSTRUCTION MEETING.)
- 2. THE MCDPS INSPECTOR MUST BE NOTIFIED (217-6301) AT EACH OF THE FOLLOWING STAGES:
 - A. APPROVAL OF SUBGRADE: PREPARE A COMPACTED GRAVEL BED AT THE BOTTOM OF THE EXCAVATION (TYP. 6" DEEP). COMPACT GRANULAR MATERIAL.
 - B. PLACE STORMCEPTOR IN EXCAVATION AT CORRECT ELEVATION AND AT CORRECT ALIGNMENT AND GRADE FOR INLET/OUTLET STORMDRAINS. LEVEL UNIT, INSTALL BASE AND LOWER TANK, MIDDLE SECTION WITH STORMCEPTOR INSERT, RISER SECTION TOP SLAB WITH PERSONWAY, LEVELING RINGS AND MANHOLE FRAME AND COVER.
 - C. BACKFILL STORMCEPTOR WITH SUITABLE NATIVE SOIL (NO ORGANIC OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8" LIFTS, BACKFILL SHOULD RECEIVE COMPACTIVE EFFORT.
 - WHEN SITE IS PERMANENTLY STABILIZED AND SEDIMENT CONTROL MEASURES HAVE BEEN REMOVED & STABILIZED, THEN THE STORMCEPTOR WILL BE PUMPED OUT AND CLEANED AND PLACED IN STORMWATER OPERATION.
 - E. FINAL INSPECTION.

CONSTRUCTION NOTES:

- SILT AND DEBRIS SHALL NOT BE ALLOWED TO ENTER THE STORMCEPTOR® UNTIL CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED. SILT MAY BE ALLOWED TO ENTER STORMCEPTOR IF IT IS BEING USED AS A FINAL SEDIMENT CONTROL FILTERING DEVICE.
- 2. ALL OPENINGS TO STRUCTURES SHALL BE PROTECTED WITH THE APPROPRIATE SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- 3. THE STORMCEPTOR MUST BE PUMPED OUT AND CLEANED AT THE END OF THE CONSTRUCTION OF THE PROJECT.
- 4. AT THE CONTRACTOR'S OPTION THE STORMCEPTOR® MAY BE INSTALLED DURING PHASE I INSTALLATION OF STORM DRAINS OR MAYBE INSTALLED UPON STABILIZATION OF THE UPSTREAM CONTRIBUTORY DRAINAGE AREA. IF THE CONTRACTOR ELECTS THE FORMER IT SHALL BE HIS RESPONSIBILITY TO REPAIR / REPLACE STORMCEPTOR® STRUCTURE / APPURTANCES OF ANY DAMAGE DUE TO ITS USE DURING CONSTRUCTION AND SHALL BE RENDERED FULLY FUNCTIONAL AT NO ADDITIONAL COST TO OWNER. IF THE LATER OPTION IS CHOSEN CONTRACTOR SHALL INSTALL TEMPORARY CMP AT STORMCEPTOR® LOCATION IN LINE AND ON GRADE, TEMPORARY CMP TO BE REMOVED UPON INSTALLTION OF STORMCEPTOR.®

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

- STORMCEPTOR WATER QUALITY STRUCTURES WILL REQUIRE PERIODIC INSPECTION AND CLEANING TO MAINTAIN OPERATION AND FUNCTION. OWNERS WILL HAVE THE STORMCEPTOR UNIT INSPECTED YEARLY OR AS REQUIRED BY HOWARD COUNTY, UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS CAN BE DONE BY USING A CLEAR PLEXIGLAS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN SEDIMENT DEPTHS EXCEED THE SPECIFIED LEVEL (TABLE 6 OF TECHNICAL MANUAL) THEN CLEANING OF THE UNIT IS REQUIRED.
- STORMCEPTOR WATER QUALITY STRUCTURES MUST BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS, CONTACT APPROPRIATE REGULATORY AGENCIES.
- MAINTENANCE OF STORMCEPTOR UNITS SHOULD BE DONE BY A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN UNIT. THE PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED.
- INLET AND OUTLET PIPES MUST BE CHECKED FOR ANY OBSTRUCTIONS AND IF ANY OBSTRUCTIONS ARE FOUND THEY MUST BE REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR WILL BE REPAIRED AS NEEDED.
- 5. OWNER SHALL RETAIN AND MAKE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

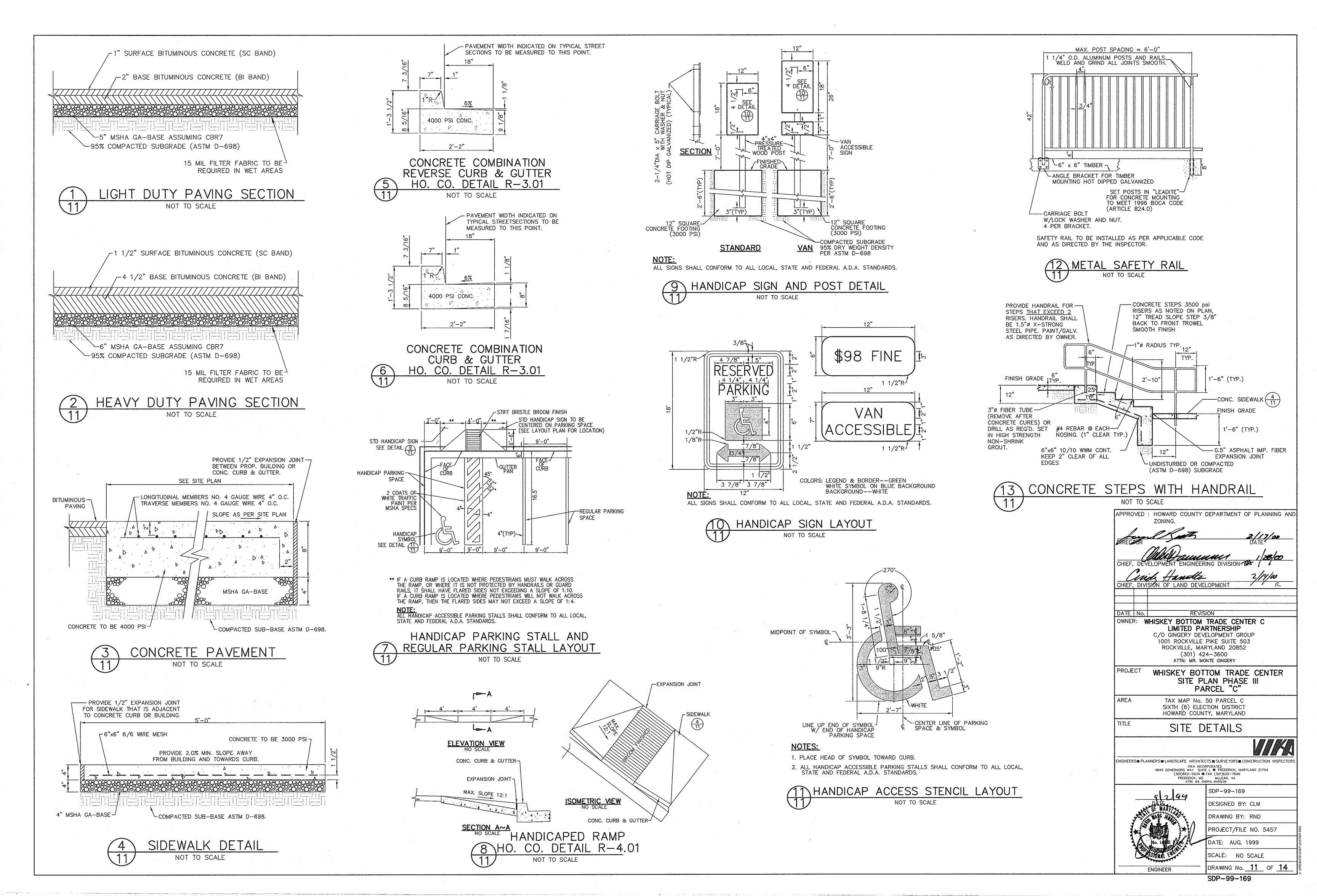
FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703. TO ORDER AND FOR DELIVERY CONTACT CSR-HYDRO CONDUIT. VIRGINIA PRECAST AT 1-800-999-2278 AT LEAST 4 WEEKS PRIOR TO NEEDED DELIVERY.

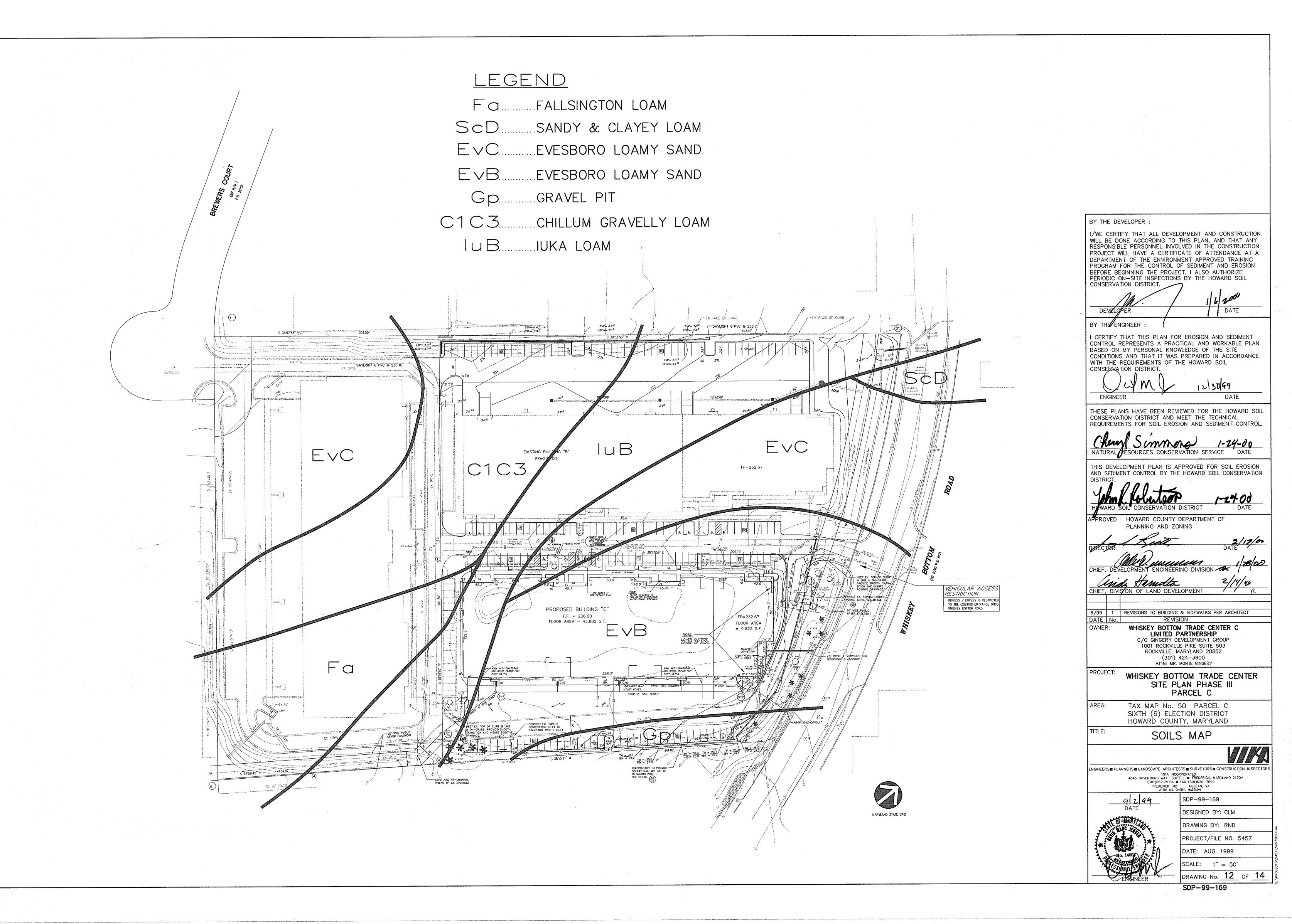
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. MARINIMIN CHIEF, DIVISION OF LAND DEVELOPMENT REVISION OWNER: WHISKEY BOTTOM TRADE CENTER C LIMITED PARTNERSHIP C/O GINGERY DEVELOPMENT GROUP 1001 ROCKVILLE PIKE SUITE 503 ROCKVILLE, MARYLAND 20852 (301) 424-3600 ATTN: MR. MONTE GINGERY WHISKEY BOTTOM TRADE CENTER SITE PLAN PHASE III PARCEL "C" TAX MAP No. 50 PARCEL C SIXTH (6) ELECTION DISTRICT HOWARD COUNTY, MARYLAND STORMCEPTOR NOTES NGINEERS® PLANNERS™ LANDSCAPE ARCHITECTS™ SURVEYORS™ CONSTRUCTION INSPECTORS VIKA INCORPORATED 4845 COVERNORS WAY SUITE L M FREDERICK, MARYLAND 21704 (301)662-5034 M FAX (301)620-7699 FREDERICK, MD McLEAN, VA SDP-99-169 DESIGNED BY: CLM

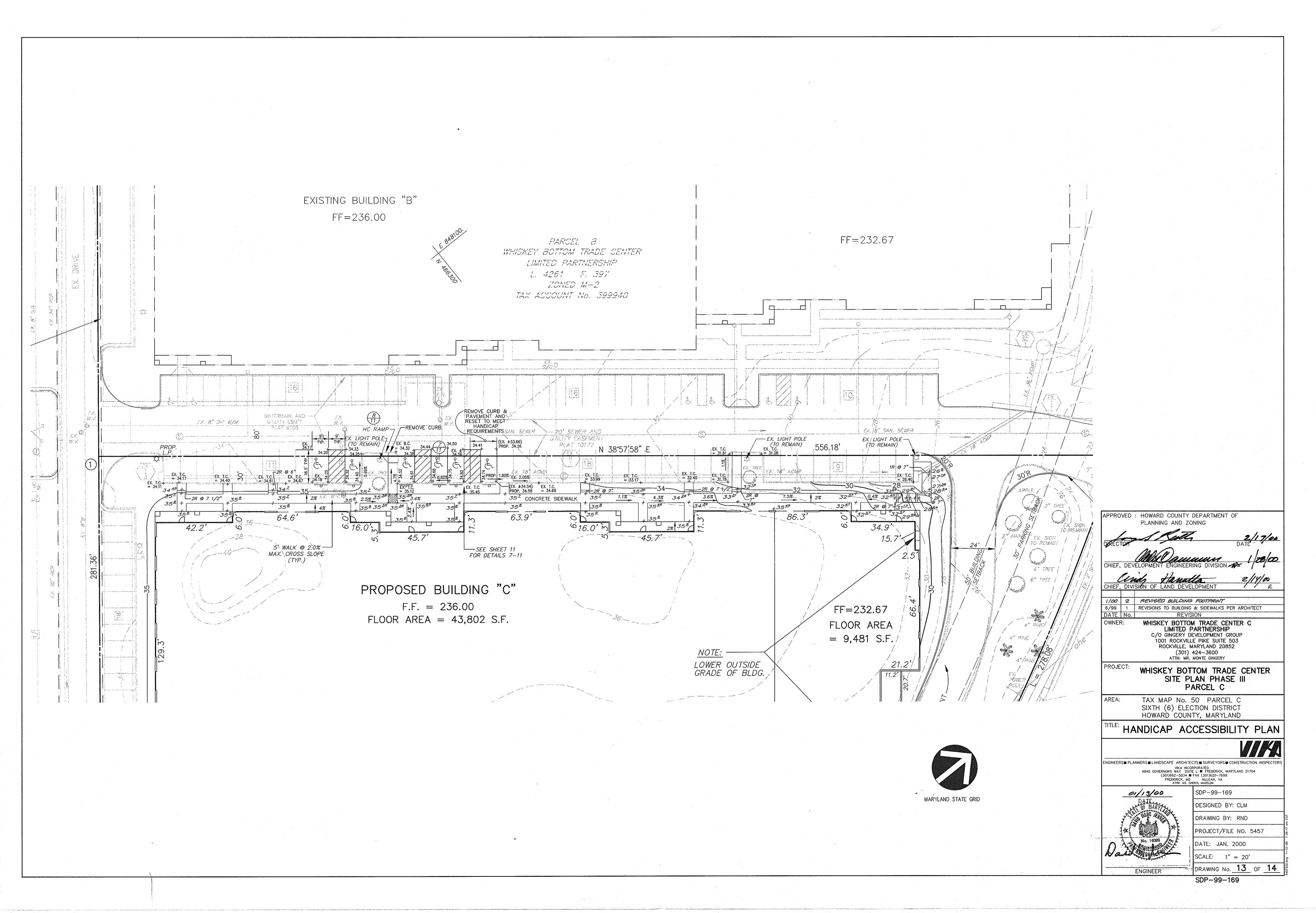
DRAWING BY: RND PROJECT/FILE NO. 5457 DATE: OCT. 1999 SCALE: NO SCALE DRAWING No. 10 OF 14 **ENGINEER**

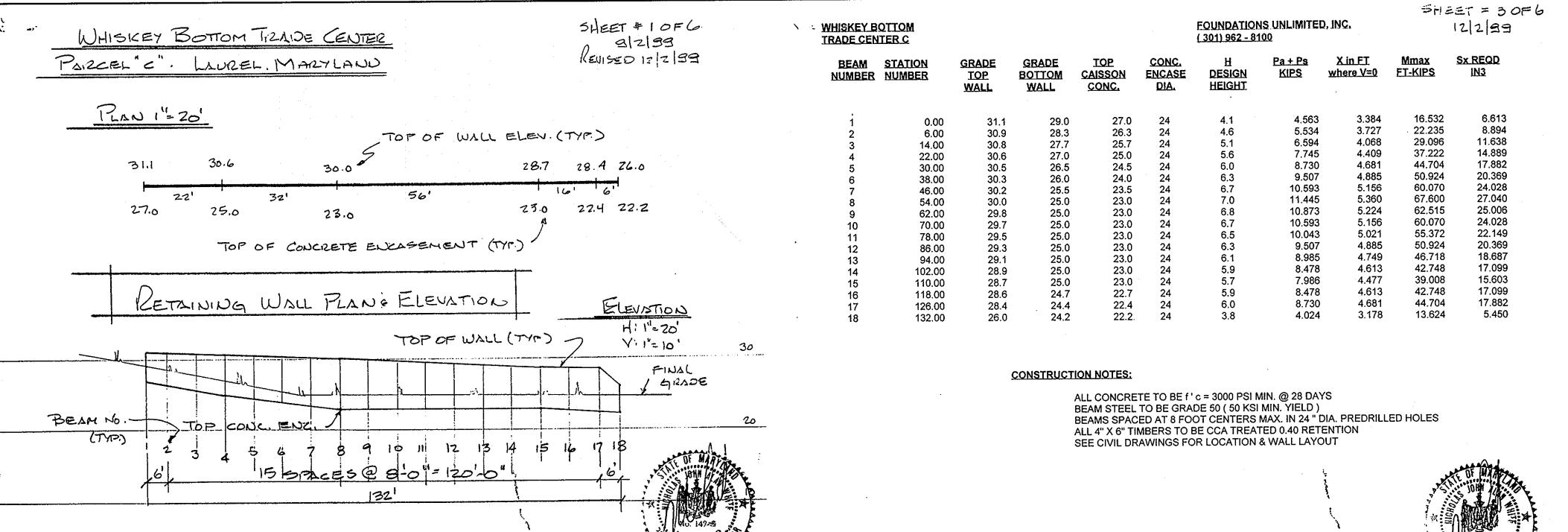
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SDP-99-169











ENSHED GRADE 2×6 TREATED CAP YCEUISED 12 2 99 / ELISEE PLAN RAIL, FENCE, -ETC. (BY OTHERS) COPE TOP BEAM 4x6 TREATED (CCATIMBERS) 0,40. 3" UNTREATED BEAM PLINTED FILTER CL071 (DRAINAGE (MAX.) FINISHED (#57 or Eo.) 2'MIN. EL. (SEEPLAN) CONCRETE ENCAGE STEEL BEAMS IN prilled BIC.C.TYP HOLE TYP. 24" DIA. fc=3000

FOUNDATIONS UNLIMITED, INC. (301) 962 8100

- me				
NICHOL	ME TIMBER WALL	TURICAL	SECTION N.T	75.
	me limbre war	1.11.00.0		
	ee attached shee	TE FOR ADD	TIONAL PETAIL	9.
A INTERNAL TO		12 100 100		

WHISKEY B						
BEAM NUMBER	STATION NUMBER	BEAM TYPE	D in FT EM=0	CALC	<u>D used</u> in FT	BEAM L in FI
	•		•	•		
1	0.00	W12X26	6,5	-0.57	7.8	11.9
	6.00	W12X26	7.કો	0.24	8.5	13.1
2 3	14.00	W12X26	7.8	-0.37	9.4	14.5
4	22.00	W12X26	8.4	0.80	10.1	15.7
4 5 6 7	30.00	W12X26	9.0	-0.78	10.8	16.8
6	38.00	W12X26	9.4	-0.97	11.3	17.6
7	46.00	W12X26	9.9	-0.33	11.9	18.6
	54.00	W12X26	10.3	-0.53	12.4	19.4
8 9	62.00	W12X26	10.0	0.58	12.0	18.8
10	70.00	W12X26	9.9	-0.33	11.9	18.6
11	78.00	W12X26	9.6	0.67	11.5	18.0
12	86.00	W12X26	9.4	-0.97	11.3	17.6
13	94.00	W12X26	9.1	-0.04	10.9	17.0
14	102.00	W12X26	8.8	0.78	10.6	16.5
15	110.00	W12X26	8.6	-0.62	10.3	16.0
16	118.00	W12X26	8.8	0.78	10.6	16.5
17	126.00	W12X26	9.0	-0.78	10.8	16.8
18	132.00	W12X26	6.1	-0.50	7.3	11.1

DESIGN NOTES:

PER SOILS REPORT

ACTIVE SOIL PRESSURE = 45H SURCHARGE LOADING = 250 PSF, GAMMA = 120 PCF PASSIVE SOIL PRESSURE = Ka X GAMMA, WHERE Ka = 1.66 X = POINT OF ZERO SHEAR AND Mmax (depth below H) H = DESIGN HEIGHT OF WALL = EXPOSED HEIGHT + 2 FT.

Dmin = Dcalc + 20 %



SHEET 4 OF 6

12/2/99

	EL "2" WOREL MANYCANO
	REVISED 12/2
COUMD	J- MMAR FT. KIPS = MAXIMUM MOMENT ON BEAM (ABOUT POINT & BELOW GIRSON)
F	00 # 10 MMAX = (Pa+Po) (H/3+X)-Pp (X/3)
	= 10.59 (6.7/3 + 5.16) - (1.66 × 0.17) (5.16) 2/2 × 2× 12 × (5.16)
	= 78.28-18.22 = 60.07 FT. KIPS/BEAM
20LUMN	K- SX REQUIN 3 = BEAM SECTION MODULUS REQU.
	SK MIN = MMAX X12/ (50x0,60) L ALL SO KSI MIN. YIELD.
	62 410 - Sx = 60,01×12 / (50×0,60) = 24,028 IN 3
	FROM AISC MANUAL (NEED 12" PILE FOR
	PROPER DRAINLYE & L" FLANGE FOR BOURDS)
	SELECT W12×26 Sx = 33,4103
column	L +M - TRIAL & ERROR SOLVER FOR SUMMING
	MOMENTS ABOUT D (EXCULATED TOE)
	VARY COLUMN L TILL M CLOSES IN ON ZERO
on	FOR #10 (Pa+P3) =0
	02 10.59×(6.7/3+0)-(1.66×0.12)×D3/2×2×24/12×7/3=0
	02 23.70+10.59 D-0.1378 D3=0
	USING D= 9.9 -> -0.33 (CLOSE AS POS. TO RERO
COLUMN	N-DUSED = CALCULATED TOE + 20%
	FOR # 10 9.9 × 1.20 = .11 9
	O - BEAM LENGTH = H+TOE
	FOR # 10 = 6.7+ 11.9 - 186
FOUNDA	TIONS UNLIMITED, INK. 301962.8100 WOME ENDIN

TWHISKEY BOHOM HOLDE LEUTER PARCEL 2 LAUREL HARY HAND REVISED 12/2/99 SAMPLE LONGHANDE SPREAD SHEET EXPLANATIONS USING BEAM # 10 FOR EXAMPLES COLUMN A. DEAM NUMBER - SEE ELEN, SHEET =1 COLUMN B - SATION NUMBER - DISTANCE FROM BEGIN WALL (FT.) COLUMN C - TOP OF WALL GIZADE - FIZOM CIVIL FLANS COLUMN D - BOTTOM OF WALL GRADE - FROM GIVIL PLANS COLUMN E - TOP OF CONCRETE ENCASEMENT - TAKEN @ 2 BELOW BOTTOM OF WALL ELEV. COLUMN F - HOLE DIAMETER (DRILLING) ALL 24" COLUMN G - DESIGN HEIGHT OF WALL = (COL C - COLE) COLUMU H - Pa+Ps (KIPS) = ACTIVE = SUIZCHAIZGE LOAD ON WALL

FOIZ \$10 Pa+Ps= A5(67+250/20) x 6.7/2 x8 = 10.59 KIFS/BEAH. COLUMN I - XIN FT. WHERE Y=0 LO DISTANCE POELOW SUBGIZADE WHERE HORIZ. FORCES = 0 (OR V SHEAR = 0) THIS IS POINT OF MAXIMUM MOMENTON BEAM or Pa+PS = Kpx x2/2×2d (d= HOLE DIAMETER) SOILS REPORT SAYS USE KP=1.66, 8=120 FOR # 10 10:59 = 1.66 × 0.12 ×2/2 × 2×24/2, FOUNDATIONS UNIMITED NO 301967 81003

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND CHIEF, DIVISION OF LAND DEVELOPMENT WHISKEY BOTTOM TRADE CENTER C LIMITED PARTNERSHIP C/O GINGERY DEVELOPMENT GROUP 1001 ROCKVILLE PIKE SUITE 503 ROCKVILLE, MARYLAND 20852 (301) 424-3600 ATTN: MR. MONTE GINGERY

WHISKEY BOTTOM TRADE CENTER SITE PLAN PHASE III PARCEL "C"

TAX MAP No. 50 PARCEL C

SIXTH (6) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

RETAINING WALL DETAILS AND COMPUTATIONS

NGINEERS■ PLANNERS■ LANDSCAPE ARCHITECTS■ SURVEYORS■ CONSTRUCTION INSPEC MKA INCORPORATED

20251 CENTURY BOULEVARD 1st FLOOR ■ GERMANTOWN, MARYLAND 20874

(301)916-4100 ■ FAX (301)916-2262

GERMANTOWN, MD MCLEAN, VA

ATTN: MS. CHERYL MAZELON

SDP-99-169 DESIGNED BY: FOUNDATIONS UNLIMITED, INC.

DRAWING BY: NICK WHITE PROJECT/FILE NO. 5457

SCALE: NO SCALE DRAWING No. 14 OF 14

DATE: DEC. 1999

ENGINEER

SOILS VZEPOIZT SAYS USE 45H+250 PSF SURCHARGE, X=120 02 Pa+Ps = AB (H+ 250/120) × H/2 × 5P/30/14