GENERAL NOTES

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION LATEST EDITION" AND MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- 2. THE LOCATION AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN ARE APPROXIMATE, THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF EXISTING UTILITIES IN THE WORK AREA AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING
- 3. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING FREDERICK WARD ASSOC., INC. AT (410)-879-2090 IN THE EVENT OF ANY DISCREPANCIES ON THE PLAN OR IN THE RELATIONSHIP OF EXISTING GRADES WITH PROPOSED GRADES PRIOR TO BEGINNING WORK.
- 4. THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF A DISCREPANCY BETWEEN A SCALED DIMENSION AND A FIGURED DIMENSION SHOWN ON THE PLANS. THE FIGURED DIMENSION SHALL GOVERN.
- 5. IT SHALL BE DISTINCTLY UNDERSTOOD THAT THE FAILURE TO MENTION SPECIFICALLY WORK THAT WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- 6. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING WORK:

BELL ATLANTIC HOWARD COUNTY BUREAU OF UTILITIES AT&T CABLE LOCATION DIVISION

1-410-725-9976 1-410-313-2366 1-410-393-3553 1-410-685-0123

NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION AT LEAST 48 HOURS PRIOR TO START (1-410-313-1855) HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION (410) 313-1880

- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS, UNLESS STATED OTHERWISE.
- 8. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- 9. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 10. THE PURPOSE OF THIS SITE DEVELOPMENT PLAN IS TO CONSTRUCT A GASOLINE STATION, CONVENIENCE STORE, AND CAR WASH.
- 11. STORMWATER QUANTITY MANAGEMENT WILL BE PROVIDED BY AN OFF-SITE FACILITY ON PARCEL A-6 OF LYNDWOOD SQUARE. WATER QUALITY WILL BE PROVIDED FOR BY WAY OF A STORMCEPTOR.
- 12. SECTION 404 OF THE MD DEPARTMENT OF NATURAL RESOURCES DOES NOT APPLY NOR ARE ANY WETLANDS PERMITS REQUIRED FOR THIS PROJECT.
- 13. ALL DETERGENT USED IN THE CAR WASH FACILITY SHALL BE "PHOSPHATE FREE" AS PER HOWARD COUNTY REGULATIONS. THE CAR WASH FACILITY SHALL USE A WATER RECLAMATION SYSTEM.
- 14. PUBLIC WATER AND SEWER WILL BE UTILIZED. A 2" WATER METER SHALL BE LOCATED WITHIN THE TIGER MART AND WILL MEET ALL HOWARD COUNTY STANDARDS. THE WATER AND SEWER CONNECTIONS SHALL BE PRIVATELY
- 15. 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
- 16. ALL SITE LIGHTING MUST BE DIRECTED AWAY FROM THE ADJACENT PUBLIC RIGHT OF WAY AND THE VICINAL RESIDENTIAL PROPERTIES. LIGHTING MUST BE IN COMPLIANCE WITH THE ZONING REGULATIONS.
- 17. RESTROOMS SHALL BE PROVIDED PER HOWARD COUNTY CODE 12.109.

SITE ANALYSIS

- 1. TOTAL SITE AREA: 79,319 SQ.FT. OR 1.821 AC.
- 2. TOTAL NUMBER OF LOTS: 1
- 3. DEED REFERENCE: 1470/366 & 2041/258
- 4. PRESENT ZONING: PEC DISTRICT (PLANNED EMPLOYMENT CENTER)
- 5. ELECTION DISTRICT: FIRST
- 6. TAX MAP: 37 GRID: 16 PARCEL: 687
- 7. AREA REQUIREMENTS: A. REQUIRED:

20,000 SQ.FT. (GASOLINE SERVICE STATION) 2,160 SQ.FT. (CONVENIENCE STORE)
2,600 SQ.FT. (PARKING)
825 SQ.FT. (CARWASH)
22,585 SQ.FT.

B. PROVIDED: 79,319 SQ.FT. 8. NUMBER OF EMPLOYEES = 3

TOTAL REQUIRED:

9. PARKING: A. REQUIRED: CONVENIENCE STORE 2/1000 SQ.FT. X 2360SQ.FT.

= 5 SPACES

RESTAURANT (CARRY DUT) 6/1000 SQ.FT. X 200 SQ.FT. GAS STATION WITH CARWASH

= 2 SPACES = 4 SPACES

TOTAL REQUIRED

= 11 SPACES

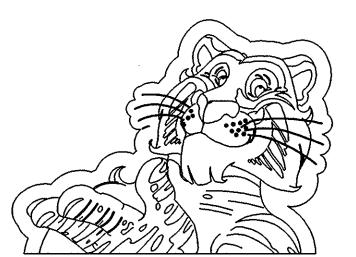
- 12 SPACES (INCLUDING 1 HANDICAP SPACE)
- 10. LANDSCAPE AREA: REQUIRED: 15.864 SQ.FT. = 20% PROPOSED: 48.450 SQ.FT. = 61%
- 11. IMPERVIOUS AREA: PROPOSED: 30,869 SQ.FT. = 39%
- 12. BUILDING USE: CONVENIENCE STORE WITH A FUEL SERVICE STATION AND CAR WASH

825 SQ.FT.

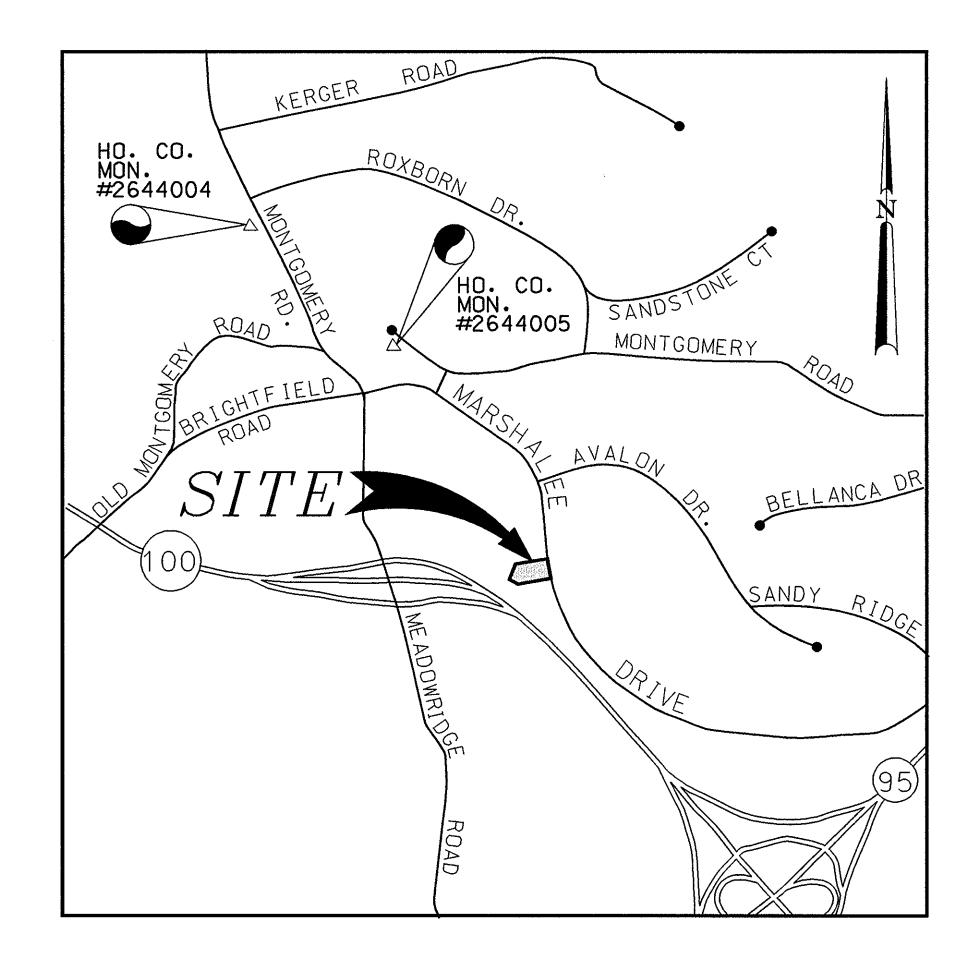
4262 SQ.FT. 7647 SQ.FT.

- 13. CONVENIENCE STORE COVERAGE: 2560 SQ.FT. CARWASH COVERAGE: CANOPY COVERAGE: TOTAL:
- 14. MIN. FRONTAGE REQUIRED = 120.00 FT. FRONTAGE ON MARSHALEE DRIVE = 204.73 FT.
- 15. HEIGHT OF TIGER MART = 14'-4''





6070 MARSHALEE DRIVE ELKRIDGE, MARYLAND 21227 RAS# 2-0352



VICINITY MAP

"=1000*"*

HOWARD COUNTY ADC MAP PAGE NUMBER 16 GRID NUMBER J7

BENCHMARK INFORMATION

- HOWARD COUNTY MONUMENT NO. 2644004: CONCRETE MONUMENT 1.0 FT. BELOW SURFACE S.W. CORNER OF INTERSECTION RTE. 103 AND OLD MONTGOMERY ROAD. ELEV. 402.135
- 2. HOWARD COUNTY MONUMENT NO. 2644005: CONCRETE MONUMENT 2.0 FT.BELOW SURFACE SOUTH SIDE MONTGOMERY ROAD EAST OF MEADOWRIDGE ROAD. ELEV. 416.931

ZONING HISTORY

- 1. CASE NO. ZEB 877M (CENTRE 9500)
 PETITIONER: 100 INVESTMENT LIMITED PARTNERSHIP
 REQUEST: RECLASSIFY 160 ACRES FROM R-20 TO PEC, 185.6 ACRES FROM
 R-20 TO R-SC, 6 ACRES FROM R-20 TO B-2, AND 21.6 ACRES FROM R-SC TO
- ACTION: GRANTED MAY 3, 1990 SUBJECT TO A GOLF COURSE TO BE BUILT.
- 2. CASE NO. BA 97-12E
 PETITIONER: EXXON CORPORATION REQUEST: CONSTRUCT NEW GASOLINE SERVICE STATION WITH CONVENIENCE STORE, CARRY-OUT RESTAURANT, AND CAR WASH. ACTION: GRANTED MAY 28, 1997
- REFERENCE FILES: ZB 877 R&M, WP 91-33, F-91-125, RES 188, S-93-02, PB 284 P93-11, SDP 93-105, F-94-29, F-94-95, WP 93-86, F-96-115, SDP 96-92, SDP 96-100, WP 96-87, F-97-95.

SHEET INDEX

SHEET NUMBER	DRAWING TITLE
1	COVER SHEET
2	EXISTING CONDITIONS AND DEMOLITION PLAN
3	SITE LAYOUT PLAN
4	SITE GRADING PLAN
5	SITE UTILITY AND PIPING PLAN
6	SEDIMENT AND EROSION CONTROL P
7	SEDIMENT AND EROSION CONTROL NOTES & DETAILS
8	STORMCEPTOR NOTES, DETAILS, AND STORM DRAIN PROFILE
9	SITE DETAILS
10	BUILDING AND SIGNAGE PLAN
11	LANDSCAPE PLAN
12	DRAINAGE AREA MAP

PARCEL NO.

A-8

12509

LYNDWOOD SQUARE

N/A

PEC

PLAT NO. BLOCK NO. ZONE

N/A

TAX/ZONE-

SEWER CODE

DATE:	NUMBER	REVISION DESCRIP	TION
APPROVED	: DEPARTME	NT OF PLANNING AND ZONING	
CHIEF-DEV	W DANG PELOPMENT I	ENGINEERING DIVISION	5/8/98 DATE
CHIEF-DIV	nde k	Hanatta. LAND DEVELOPMENT &	6/11/98 DKE
DIRECTOR	SS	Mr	6/12/98 DATE
APPROVED		IC WATER AND PUBLIC SEWERAGE	SYSTEMS

TEMS HOWARD COUNTY HEALTH DEPARTMENT.

> EXXON PIPELINE COMPANY ECO BELL STREET HOUSTON, TEXAS 77002

EXON CORPORATION
6301 IVY LANE SUITE 700

GREENBELT, MARYLAND 20770 ATTN: MR. ROBERT CASERTA PHONE: (301)-513-7511

ADDRESS CHART STREET ADDRESS 6070 MARSHALEE DRIVE. ELKRIDGE LOT/PARCEL NO. ECT./AREA

A-8

ELECT. DIST. CENSUS T

2610400

1	DATE
,	The state of the s
	STORY THE
	S S S S S S S S S S S S S S S S S S S
	JONAL ESS.

SDP# 98-16

FREDERICK WARD ASSOCIATES, INC. ENGINEERS • ARCHITECTS • SURVEYORS P.O. BOX 727. 5 SOUTH MAIN STREET. BEL AIR, MARYLAND 21014

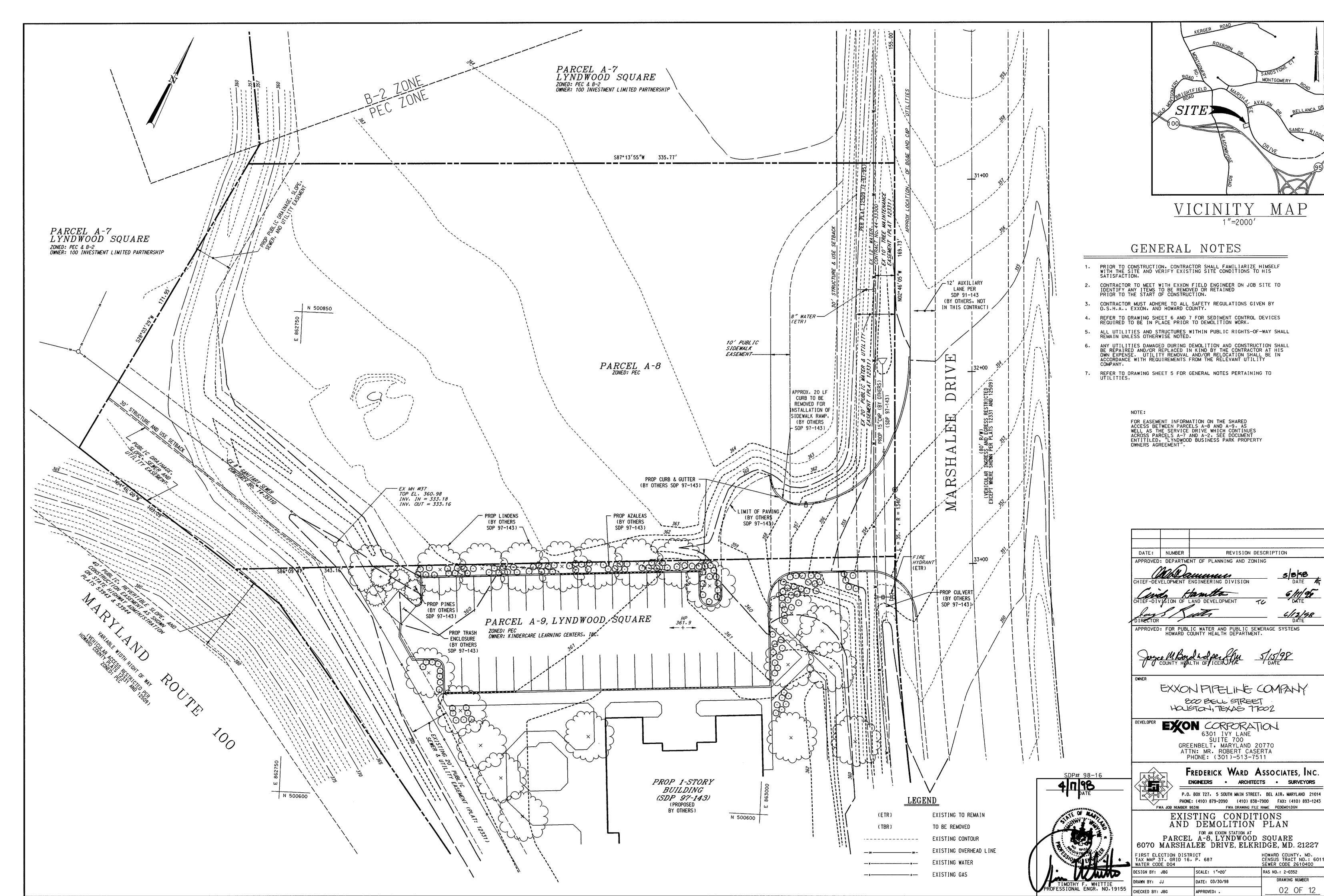
> FWA JOB NUMBER 96316 FWA DRAWING FILE NAME PETITLE.DGN COVER SHEET FOR AN EXXON STATION AT

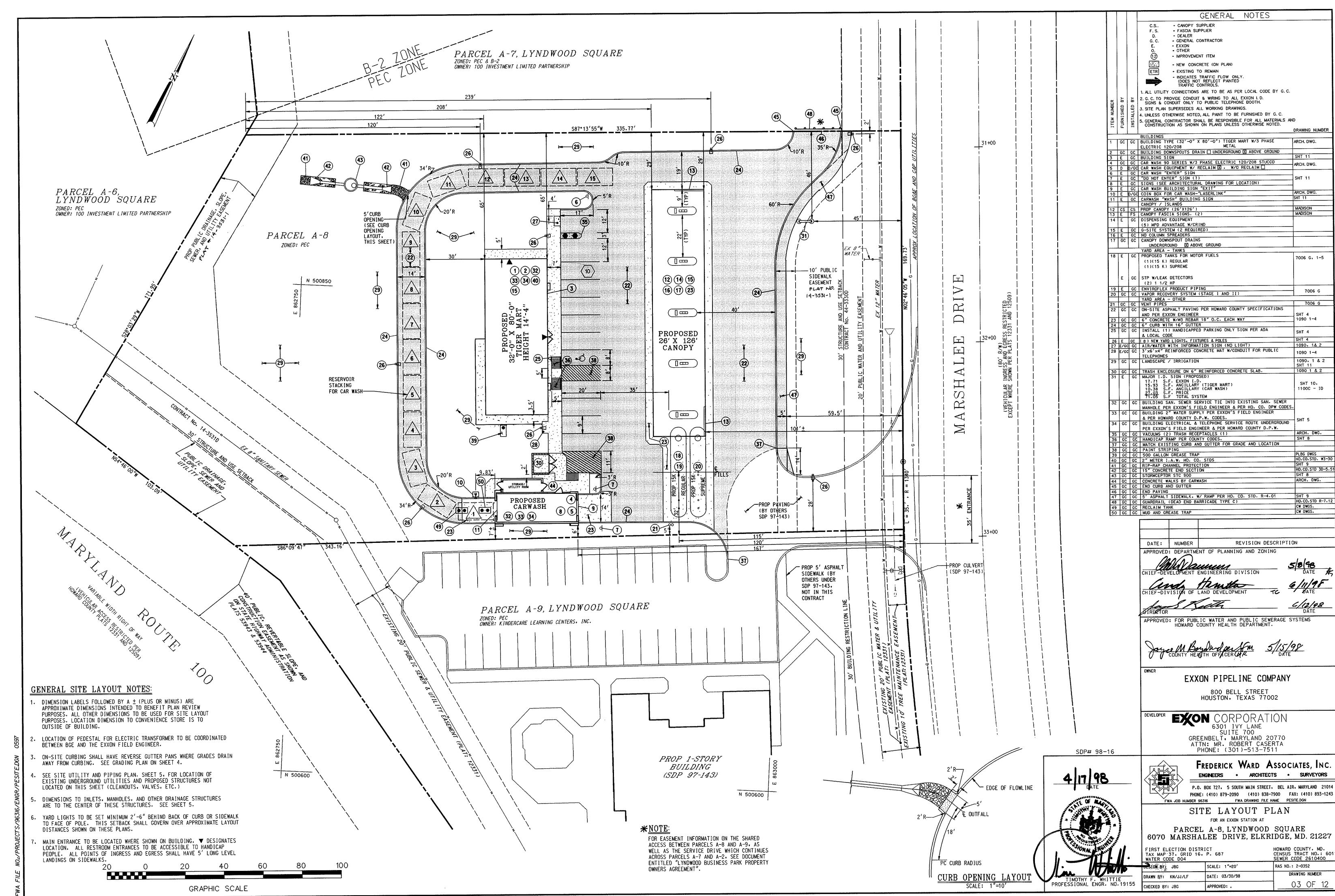
PHONE: (410) 879-2090 (410) 838-7900 FAX: (410) 893-1243

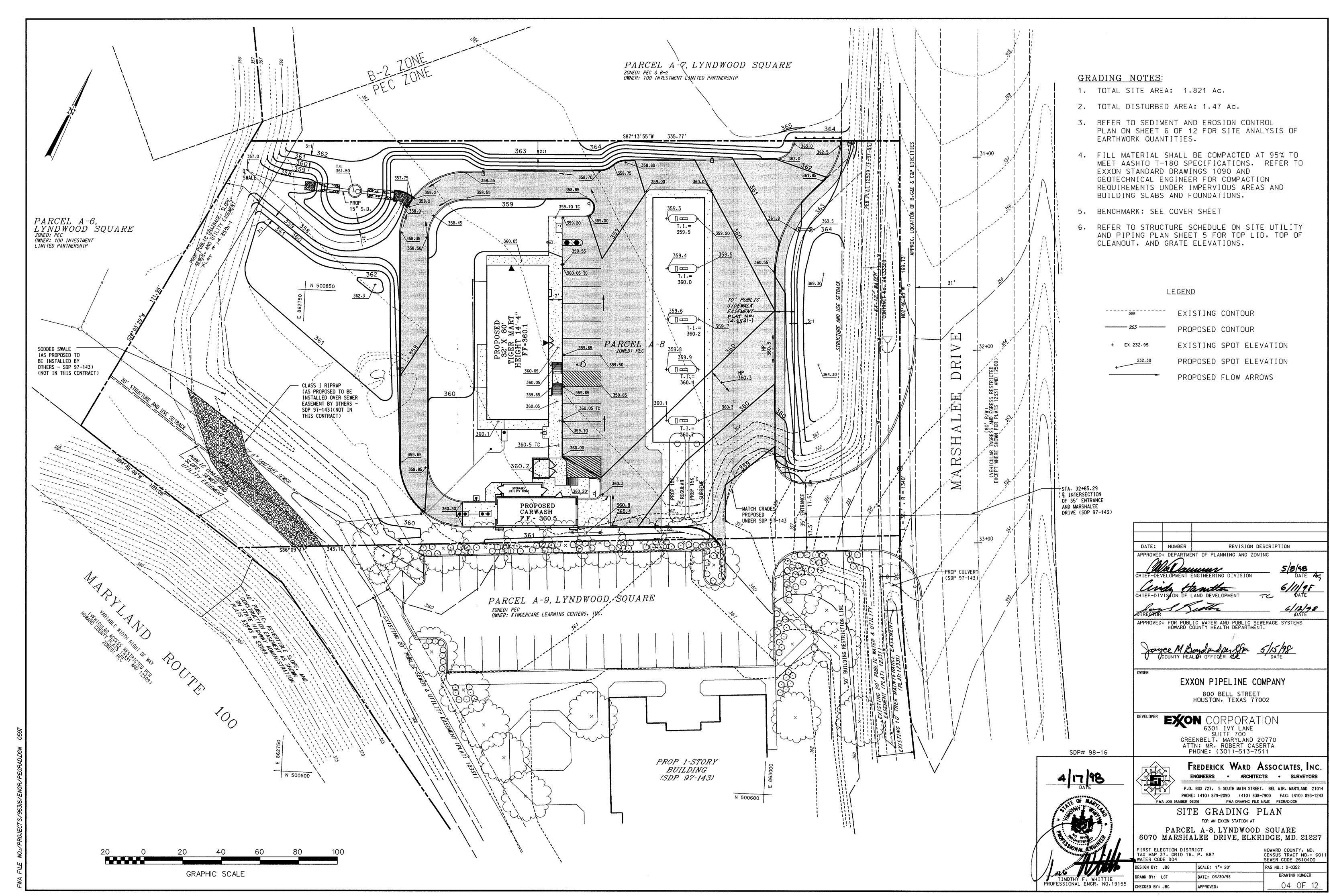
PARCEL A-8, LYNDWOOD SQUARE

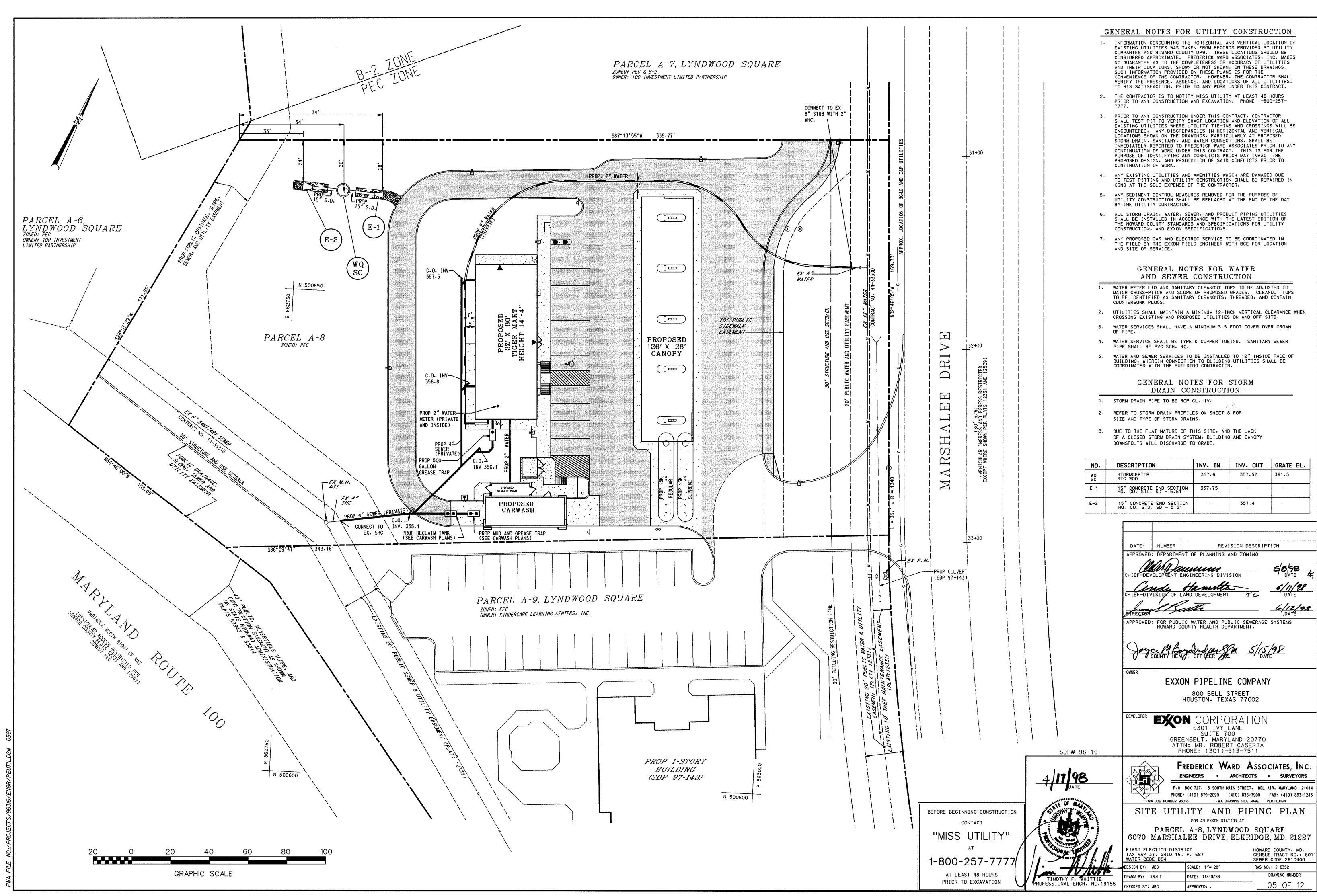
6070 MARSHALEE DRIVE, ELKRIDGE, MD. 21227 HOWARD COUNTY, MD. CENSUS TRACT NO.: 6011

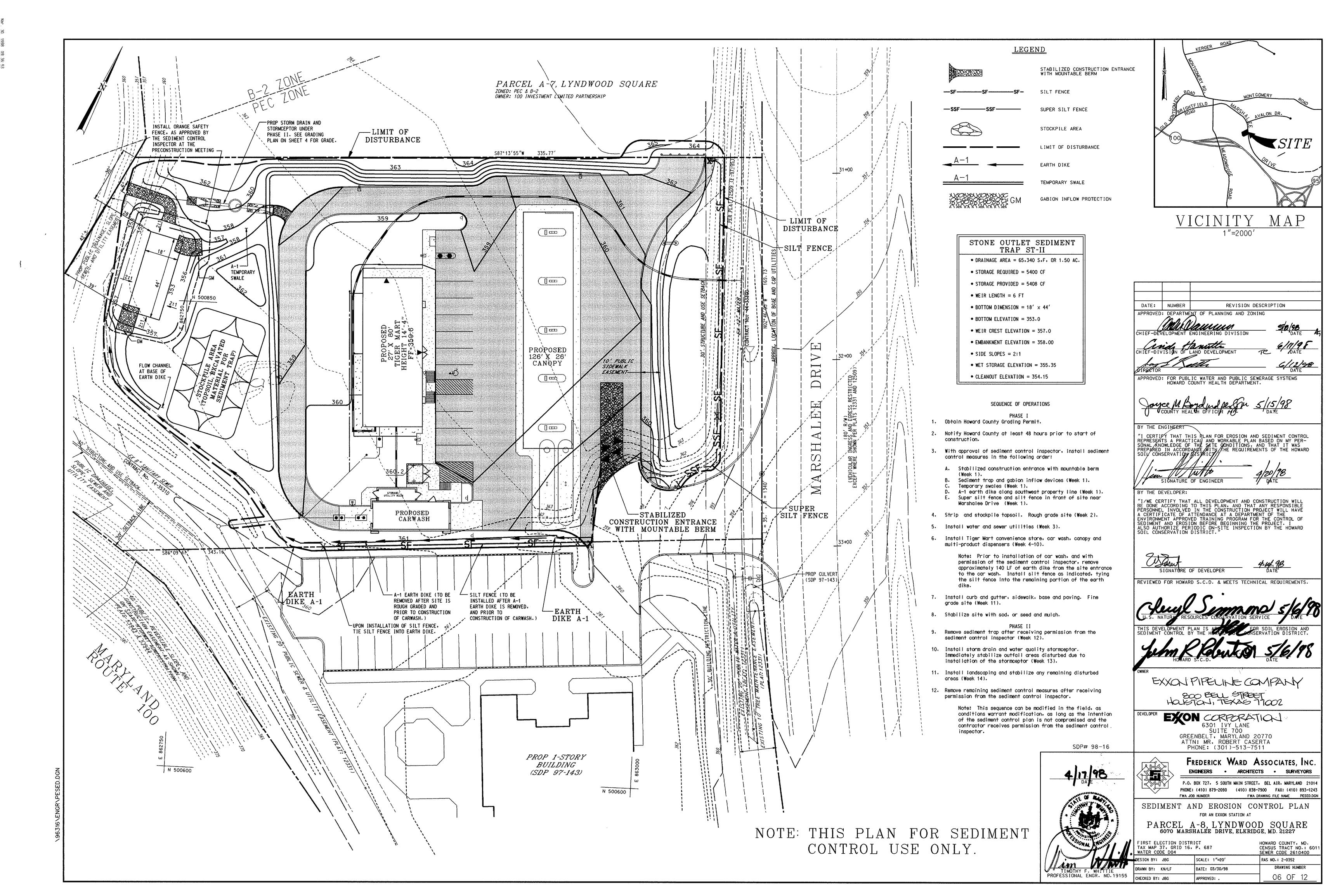
EWER CODE 2610400 ESIGN BY: JBG RAS NO.: 2-0352 SCALE: 1"= 20' DRAWING NUMBER DATE: 03/30/98 01 OF 12 CHECKED BY: JBG

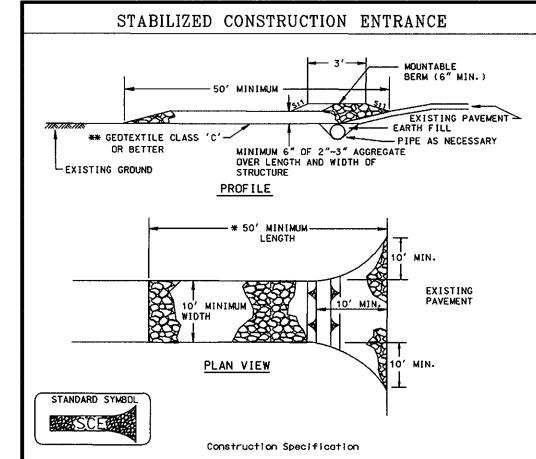












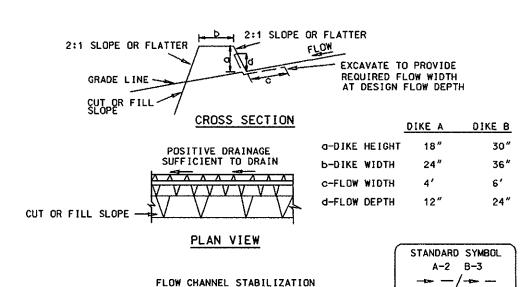
. Length - minimum of 50' (*30' for single residence lot). Width - 10' minimum, should be flared at the existing road to provide a turning

Geotextile fabric (filter cloth) shall be placed over the existing ground prior o placing stone. **The plan approval authority may not require single family

6. 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

. Surface Water — all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of 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

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.



DETAIL 1 - EARTH DIKE

GRADE 0.5% MIN. 10% MAX. 1. Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod 3. 4" - 7" stone or recycled concrete equivalent pressed into

the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%. 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event. U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT

36" MINIMUM LENGTH FENCE POST 10' MAXIMUM CENTER TO DRIVEN A MINIMUM OF 16" INTO CENTER ___ -16" MININUM HEIGHT OF GEOTEXTILE CLASS F - 8" MINIMUM DEPTH IN GROUND 36" MINIMUM FENCE~ PERSPECTIVE VIEW CLOTH -FENCE POST SECTION MINIMUM 20" ABOVE FLOW UNDISTURBED THE HATTER HATTEN EMBED GEOTEXTILE CLASS F TOP VIEW - FENCE POST DRIVEN A A MINIMUM OF 8" VERTICALLY MINIMUM OF 16" INTO INTO THE GROUND THE GROUND CROSS SECTION SECTION A STANDARD SYMBOL STAPLE/ -----SF ------JOINING TWO ADJACENT SILT FENCE SECTIONS Construction Specifications . Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be $1^{1}/2^{\prime\prime} \times 1^{1}/2^{\prime\prime}$ square (minimum) cut. or $1^{3}/4^{\prime\prime}$ diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

DETAIL 22 - SILT FENCE

 Geotextile shall be fastened securely to each fence post with wire ties or stables at top and mid-section and shall meet the following requirements for Geotextile Class F: Test: MSMT 509 Tensile Strength 50 lbs/in (min.)

Filtering Efficiency 75% (min.) Test: MSMT 322 Where ends of geotextile fabric come together, they shall be overlapped.

20 lbs/in (min.)

0.3 gai ft */ minute (max.) Test: MSMT 322

folded and stapled to prevent sediment bypass 4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

staples at top and mid section and shall meet the following requirements for Geotextile Class F: Tensile Strength Tensile Modulus Flow Rate MARYLAND DEPARTMENT OF ENVIRONMENT Filtering Efficiency E - 15 - 3 WATER MANAGEMENT ADMINISTRATION

Test: MSMT 509

Test: MSMT 509 20 lbs/in (min.) Test: MSMT 509 0.3 gal/ft 2/minute (max.) Test: MSMT 322 Test: MSMT 322

TOP OF EMBANKMENT WEIR LENGTH , THE EXISTING GROUND GROUND SECTION B-B 4' MIN. WIDTH THICKNESS) OUTLET ELEVATION

PERSPECTIVE VIEW + T + APRON (SEE NOTE) SMALL RIP-RAP 4" TO 7" NOTE: 5' MINIMUM LENGTH UP TO ACRES. OVER 5 ACRES US STONE/RIPRAP SEDIMENT TRAP ST-1V BOTTOM ELEVATION

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II

repairs made as needed.

of the outlet channel.

DATE:

BY THE ENGINEER:

BY THE DEVELOPER:

free during the life of the trap.

6. The structure shall be inspected periodically and after each rain and

pollution is abated. Once constructed, the top and outside face of the

8. The structure shall be dewatered by approved methods, removed and the

11. The elevation of the top of any dike directing water into the trap must

12. Geotextile Class C shall be placed over the bottom and sides of the

outlet channel prior to the placement of stone. Sections of filter cloth must

overlap at least 1' with the section nearest the entrance placed on top. The

13. Outlet - An outlet shall be provided. Including a means of conveying the

discharge in an erosion free manner to an existing stable channel.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL

REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PER-SONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

"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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

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

filter cloth shall be embedded at least 6" into existing ground at the entrance

area stabilized when the drainage area has been properly stabilized.

9. Refer to Section D for specifications concerning trap dewatering.

10. Minimum trap depth shall be measured from the weir elevation.

equal or exceed the elevation of the trap embankment.

7. Construction of traps shall be carried out in such a manner that sediment

embankment shall be stabilized with seed and mulch. Points of concentration

criteria. The remainder of the interior slopes should be stabilized (one time)

with seed and mulch upon trap completion and monitored and maintained erosion

Inflow shall be protected in accordance with Grade Stabilization Structure

Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any 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 stones, rocks, organic material 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-rap 4" to 7" in size with a 1' thick layer of $\frac{3}{4}$ " to $\frac{1}{2}$ " washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.

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 trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE

DETAIL 2 - TEMPORARY SWALE

WATER MANAGEMENT ADMINISTRATION C - 9 - 10

by 6" and folded.

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS

1. CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA

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 THATCH.

3. STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN

THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. 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)

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 ITS INSTALLATION.

SITE PREPARATION

FERTILIZER AND LIME APPLICATION RATES SHALL BE DETERMINED BY SOIL TEST. UNDER UNUSUAL CIRCUM - STANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, FERTILIZER AND LIME MATERIALS MAY BE APPLIED IN AMOUNTS SHOWN UNDER B. BELOW.

A. PRIOR TO SODDING, THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS, AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR

B. WHERE THE SOIL IS ACID OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 2 TONS/ACRE OR 100 POUNDS PER 1,000 SQUARE FEET. IN ALL SOILS, 1,000 POUNDS PER ACRE 5 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 THE SOL

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 AND THAT ALI JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.

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

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 OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THROUGHLY WET. THE OPERATIONS OF LAYING TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.

SOD MAINTENANCE

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

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 OTHERWISE SPECIFIED.

D. MAINTENANCE OF ESTABLISHED SOD SHOULD FOLLOW SPECIFICATIONS OUTLINED IN TABLE 54-1. 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 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 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 21/2 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 11/2 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 GALS. PER ACRE (5 GALS./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GALS. PER ACRE (8 GALS./1000 SOLET.) FOR ANCHORING

PERMANENT SEEDING NOTES

WATER MANAGEMENT ADMINISTRATION

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).

Tensile Modulus

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF

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 UREAFORM 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. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS. 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 11/2 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 FLAT AREA. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ.FT.) FOR ANCHORING.

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

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.

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

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 SEDIMENTS TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR 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

7. SITE ANALYSIS:

TOTAL AREA OF SITE - 1.821 ACRES AREA DISTURBED - 1.41 ACRES AREA TO BE ROOFED OR PAVED • 0.75 ACRES± AREA TO BE VEGETATIVELY STABILIZED - 0.66 ACRES± TOTAL CUT - 6200 CUBIC YARDS TOTAL FILL - 0 CUBIC YARDS OFF-SITE WASTE/BORROW LOCATION TO BE DETERMINED

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED
UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

DETAIL 6 - GABION INFLOW PROTECTION

DETAIL 33 - SUPER SILT FENCE

10' MAXIMUM

WITH 1 LAYER OF

34" MINIMUM

FILTER CLOTH

Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the

for a 6' fence shall be used, substituting 42" fabric and 6' length

4. Filter cloth shall be embedded a minimum of 8" into the ground.

develop in the silt fence, or when silt reaches 50% of fence height

latest Maryland State Highway Details for Chain Link Fencing. The specification

2. Chain link fence shall be fastened securely to the fence posts with wire ties.

The lower tension wire, brace and truss rods, drive anchors and post caps are not

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced

5. When two sections of filter cloth adjoin each other, they shall be overlapped

7. Filter cloth shall be fastened securely to each fence post with wire ties or

50 lbs/in (min.)

75% (min.)

6. Maintenance shall be performed as needed and silt buildups removed when "bulges"

34" MINIMUM

6" MINIMUM

STANDARD SYMBOL

---- SSF ----

FLOW

--- 16" MIN. 1ST LAYER OF

FILTER CLOTH*

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10'

CENTER TO CENTER

TISTISTISTISTIST

SURFACE

CHAIN LINK FENCING -

EMBED FILTER CLOTH 8"

required except on the ends of the fence.

every 24" at the top and mid section.

MINIMUM INTO GROUND

* IF MULTIPLE LAYERS ARE

REQUIRED TO ATTAIN 42'

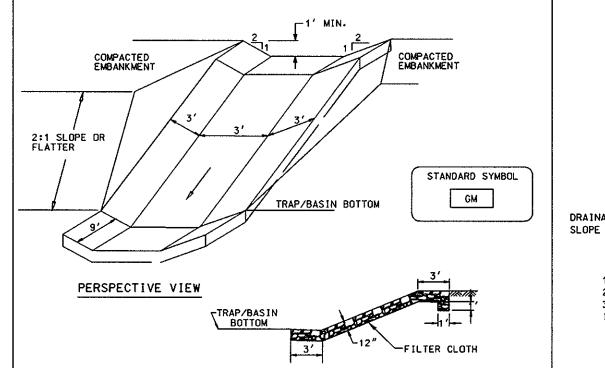
FILTER CLOTH-

21/2" DIAMETER

GALVANIZED

OR ALUMINUM

GROUND



Construction Specifications

1. Gabion inflow protection shall be constructed of 9' x 3' x 9" gabion

baskets forming a trapezoidal cross section 1' deep, with 2:1 side slopes, and a 3' bottom width.

2. Geotextile Class C shall be installed under all ambion baskets.

3. The stone used to fill the gabion baskets shall be 4'' - 7''.

TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED

SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE

REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY

THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE

SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE

PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND

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

i. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT

LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE

AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY.

TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY

GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER

BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON

OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET)

DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED

INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS

VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS.

ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS

iii. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF

PRIOR TO THE PLACEMENT OF TOPSOIL, LIME SHALL BE

IVY. THISTLE, OR OTHERS AS SPECIFIED.

DESCRIBED IN THE FOLLOWING PROCEDURES.

USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST

REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING

AGRICULTURAL EXPERIMENTAL STATION.

THAN 11/2" IN DIAMETER.

THE FOLLOWING:

4. Gabions shall be installed in accordance with manufacturers recommendations.

5. Gabion Inflow Protection shall be used where concentrated flow is present on slopes steeper than 4:1.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

PROFILE ALONG CENTERLINE

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

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 1-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.

iv. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL

IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. 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.

- EXISTING GROUND 2:1 OR FLATTER C MINIMUM SWALE A SWALE B D MINIMUM C 1' MIN- 1' MIN-0 4' MIN. 6' MIN. CROSS SECTION OUTLET AS REQUIRED

PLAN VIEW DRAINAGE AREA = 10 dc (MAX) SLOPE = 10% (MAX)

FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX

← 0.5% SLOPE MINIMUM

FLOW A

 Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4"-7" stone or recycled concrete equivalent pressed into soil

Construction Specifications

1. All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%. 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an

undisturbed stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the

proper functioning of the swale. 5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of

bank projections or other irregularities which will impede normal flow-6. Fill. if necessary, shall be compacted by earth moving equipment. 7. All earth removed and not needed for construction shall be placed so

that it will not interfere with the functioning of the swale. 8. Inspection and maintenance must be provided periodically and after each rain event.

> MARYLAND DEPARTMENT OF ENVIRONMENT PAGE WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL

DE DEVELOPER

EXXON PIPELINE COMPANY 800 BELL STREET HOUSTON, TEXAS 77002

EXON CORPORATION 6301 IVY LANE SUITE 700 GREENBELT, MARYLAND 20770

ATTN: MR. ROBERT CASERTA PHONE: (301)-513-7511



P.O. BOX 727. 5 SOUTH MAIN STREET. BEL AIR. MARYLAND 2101 PHONE: (410) 879-2090 (410) 838-7900 FAX: (410) 893-1243 FWA JOB NUMBER 96316 FWA DRAWING FILE NAME PESEDDTL.DGN SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

FOR AN EXXON STATION AT

PARCEL A-8, LYNDWOOD SQUARE 6070 MARSHALEE DRIVE, ELKRIDGE, MD. 21227

TAX MAP 37, GRID 16, P. 687 WATER CODE DO4 ESIGN BY: RM/KFW SCALE: AS NOTED RAWN BY: KN/LF DATE: 03/30/98

APPROVED: .

FIRST ELECTION DISTRICT

CHECKED BY: JBG

07 OF 12

HOWARD COUNTY, MD.

CENSUS TRACT NO.: 60

DRAWING NUMBER

SEWER CODE 2610400

RAS NO.: 2-0352

GENERAL NOTES

- 1. SILT AND DEBRIS SHALL NOT BE ALLOWED TO ENTER THE STRUCTURES UNTIL CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 2. ALL OPENINGS TO STRUCTURES SHALL BE PROTECTED WITH THE APPROPRIATE SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- VARIOUS TYPES OF EQUIPMENT ARE AVAILABLE COMMERCIALLY FOR THE CLEANOUT OF SYSTEMS. THE MOST COMMONLY USED EQUIPMENT AND TECHNIQUES USED FOR CLEANING SUBSURFACE SYSTEMS ARE VACUUM PUMP & WATERJET SPRAY. BOTH SYSTEMS ARE GENERALLY MOUNTED ON A SELF-CONTAINED VEHICLE AND CAN EFFECTIVELY REMOVE STONES, LEAVES, LITTER, AND SEDIMENT DEPOSITS FROM SUMPS AND CHAMBERS.

CONTRACTOR INSTALLATION INSTRUCTION'S PRECAST CONCRETE STORMCEPTOR

FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703 OR STORMCEPTOR CANADA AT 1-800-565-4801

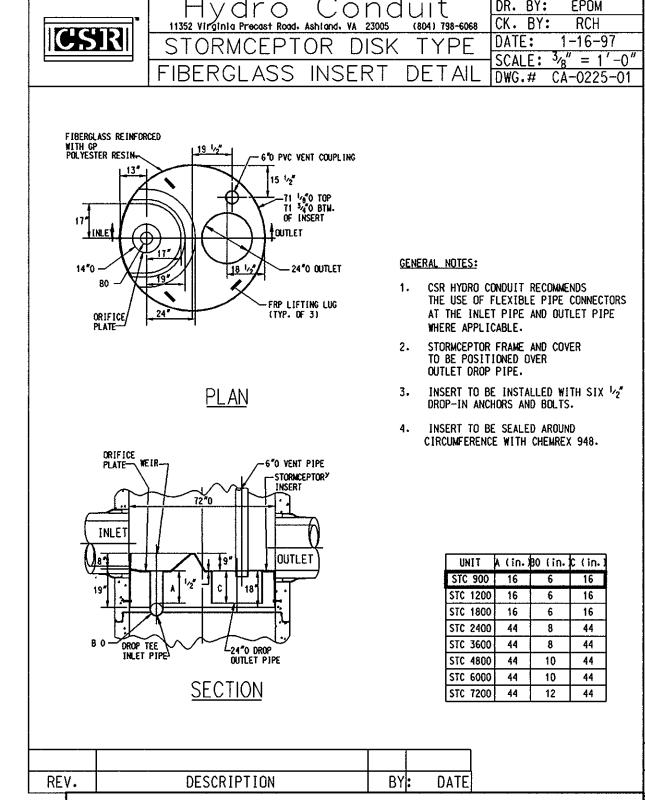
- 1. Stake-out the location of the stormceptor and excavate hole. Excavate adequate space to connect inlet and outlet pipes to unit. Install a 12" deep (or as required) layer of compacted aggregate subbase at bottom of excavation. Install mule or shoring, as needed,
- 2. Check elevation of unit by measuring its sections from base of the storage chamber (bottom of units 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.
- 3. Secure inspector approval of subgrade and subbase.
- 4. 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 8).
- (For stormceptor models smaller than STC-2000 skip Step 5 and go to Step 6)
- 5. Install reducing slab. (Stormceptor models >= STC 2000) 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).
- 6. 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 chamber 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.
- 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.
- 8. Install stormceptor drop pipes according to STC pipe installation procedure on reverse side of these instructions.
- 9. 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.
- Install top cap with opening for stormceptor 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 local/state/province requirements.
- 12. Install and set grade adjusting rings, as needed.
- 13. Install and set stormceptor frame and cover. Secure MH frame to top slab to
- 14. The stormceptor should be pumped out when the sediment control measures are removed (site permanently stabilized), and filled with clean water.
- 15. Final inspection.

WATER QUALITY MAINTENANCE NOTES

- 1. INSPECT THE STORMCEPTOR ON A MONTHLY BASIS AND NOTE SEDIMENT AND OIL ACCUMULATIONS. MORE FREQUENT INSPECTIONS ARE APPROPRIATE WHERE OIL SPILLS OCCUR REGULARLY. STORMCEPTOR CANADA INC. CAN PROVIDE ADVICE ON SAMPLING EQUIPMENT.
- SEDIMENT SHOULD BE REMOVED ANNUALLY. OR WHENEVER THE ACCUMULATION REACHES 50% OF THE OPERATING DEPTH, FROM BASE TO DRAIN INVERT, MORE FREQUENT REMOVAL OF SEDIMENTS MAY BE NECESSARY IN AREAS OF NEW CONSTRUCTION, OR WHERE VEGETATION HAS NOT YET BEEN ESTABLISHED.
- VACUUM TRUCKS ARE USED TO REMOVE THE SEDIMENT AND OIL FROM THE STORMCEPTOR TREATMENT CHAMBER. OIL LEVELS GREATER THAN 2.5 CM SHOULD BE REMOVED IMMEDIATELY BY A LICENSED WASTE MANAGEMENT FIRM, AND SIGNIFICANT SPILLS MUST BE REPORTED TO THE APPROPRIATE REGULATORY AGENCY.TRUCK DRIVER SHALL ARRANGE FOR ON-SITE TRAFFIC CONTROLS WITH DEALER SO TRUCK CAN GET IN AND OUT OF CARWASH DRIVE TO AND FROM FLAT AREA NEAR STORMCEPTOR
- 4. THE PIPES AND STRUCTURAL PARTS SHALL BE CLEANED AND REPAIRED AS NEEDED. REPAIR AND/OR REPLACEMENT OF PARTS SHALL BE IN KIND.
- 5. ALL MAINTENANCE SHALL BE PERFORMED BY THE OWNER OR BY THE OWNER'S REPRESENTATIVE AT THE OWNER'S EXPENSE.
- 6. MINIMIZE SURFACE EROSION FROM PERVIOUS SURFACES AT ALL TIMES; MAINTAIN GRASS, SOD. AND/OR MULCH COVERED UPON LANDSCAPINGS.
- 7. REMOVE DEBRIS ON TOP OF INLET GRATES AFTER EVERY REINFALL, AND OILS, SILTS AND AGGREGATES, AND DEBRIS FROM ALL INLETS AND STRUCTURES.
- 8. AT INTERVALS NOT EXCEEDING 1 YEAR, OR AS NEEDED, REMOVE ALL GREASE
- 9. THE DISPOSAL OF THE LIQUID AND SILID MATTER SHOULD BE AS FOLLOWS: A. ALL LIQUID MATERIAL IN THE SEPARATOR INLET 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 SILID MATERIAL SHALL BE DELIVERED TO AN APPROVED SANITARY LANDFILL.

REQUIRED PROCEDURES AND INSPECTIONS FOR INGROUND WATER QUALITY FACILITY

- THE FOLLOWING INSPECTIONS ARE REQUIRED DURING CONSTRUCTION: (ADDITIONAL INSPECTIONS MAY BE REQUIRED AND NOTED BY THE INSPECTOR.)
- PRECONSTRUCTION MEETING: AN OPPORTUNITY TO REVIEW SITE PLANS, DISCUSS THE PURPOSE OF THE FACILITY AND TO ANSWER QUESTIONS REGARDING CONSTRUCTION AND/OR INSPECTION
- 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 PRECONSTRUCTION MEETING. INSPECTIONS TO BE MADE AT, BUT NOT LIMITED TO, THE FOLLOWING INSTALLATION STEPS: A. INSTALLATION OF SUBGRADE AND SUBBASE B. FINAL INSPECTION



Stormceptor® GASKET

(1) The Stormceptor® section should be handled with care

to avoid any chipping of the bell or spigot.

(2) Carefully clean all dirt and debris from the spigot,

(3) Place the profile gasket in the step of the "dry"

spigot. Verify that the pointed end of the gasket

Insert a smooth, round rod, such as a screwdriver,

between the gasket and the spigot. Be careful not to

cut or lacerate the gasket. Equalize the gasket stretch

by running the rod around the entire circumference

including the leading edge. Lubricate the spigot and

Align the Stormceptor sections (spigot with the bell).

Verify that the gasket touches the lead-in taper around

section will not home exactly the same. (See Figure 2)

sections together (cracking may occur). Contact

If jointing problems arise, do not force the Stormceptor®

(5) Apply joint lubricate to the inner surface of the bell

GUIDELINES FOR ASSEMBLING

the inside area of the bell.

several times.

the entire circumference.

(7) Gently push the joint home. Note that every

CSR Hydo Conduit immediately.

. PRE-CONSTRUCTION MEETING. *

. FINAL INSPECTION. *

4035M-4 (REV 4-89)

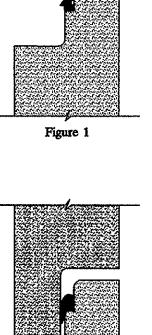
INSTALLATION OF STRUCTURES AND ASSOCIATED STORM DRAINAGE*

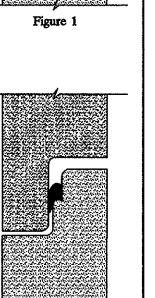
Stormceptor® JOINT

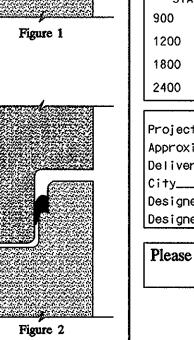
PROFILE GASKETS ON A SINGLE STEP

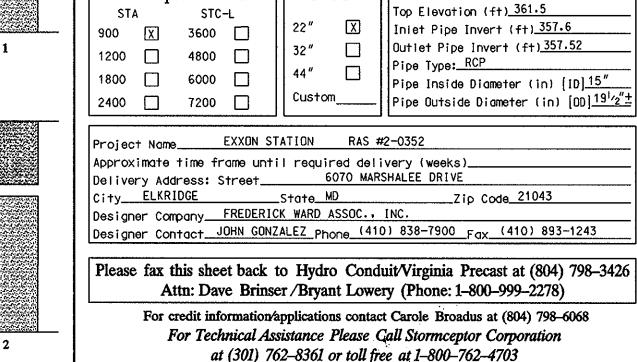
INSTALLATION INSTRUCTIONS

Hydro Conduit Virginia Precest 11352 Virginia Precest Rd. AShland, YA 23005 Contractor Information Telephone (804) 798-6068 Foceimile (804) 798-3426 Address_ |Zip Code_ Contact_ Name EXXON CORPORATION Phone (301) 513-7511 Fax (301) 513-7532 is directed towards the shoulders of the spigot. (See Figure 1) Stormceptor[®] Model









STORMCEPTOR COVER AND GRATE

TO SUIT -

INLET

DESIGN SPECIFICATIONS 1. ASTM C 478 2. BASE WEIGHT = 6.46 TONS

Owner Information

L INLET TEE

NOTE: 1. NON-SMOOTH OUTSIDE WALL PIPE TO BE GROUTED IN PLACE (NO KOR-N-SEAL BOOTS)

MINIMUM OF 60" OR TO THE GRADE (WHICHEVER IS THE LESSER)

3. COVER TO BE LOCATED ADJACENT TO INLET INSPECTION PORT

2. RISER SECTION ABOVE THE INSERT TO BE 72" FOR A

GRADE ADJUSTERS TO SUIT FINISHED GRADE

PIPE Connector

ENLARGED OUTLET

CONNECTION DETAIL

STC 900 PRECAST CONCRETE STORMCEPTOR

900 US GALLON CAPACITY

Stormceptor® Order Request Form

15" RCP/

Insert Size

STORMCEPTOR STORAGE RISER
NODEL NO. CHAMBER. FT. SECTION FT.

5.2

Office Use Only

Internal Sale...

15" RCP

09/12/95

Order#.....

-0° INLET

Date

Please draw orientation of inlet and outlet

pipes on diagram along with pipe inside

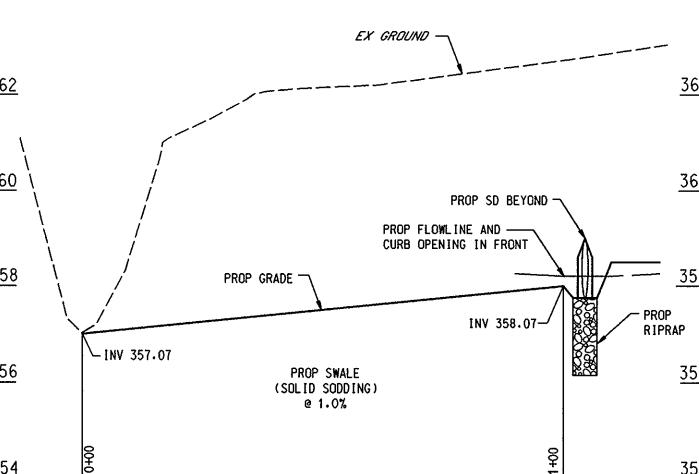
clearly mark inlet pipes with an I and

outlet pipes with an 0 and provide the

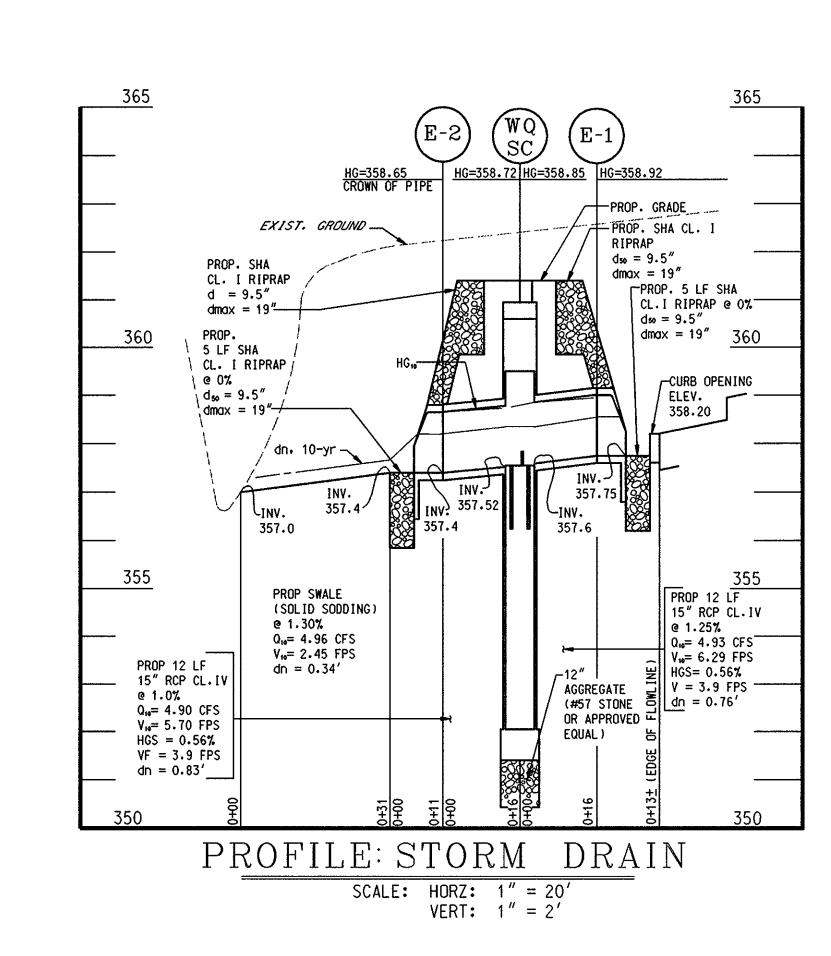
inlet/outlet pipe angle in degrees.

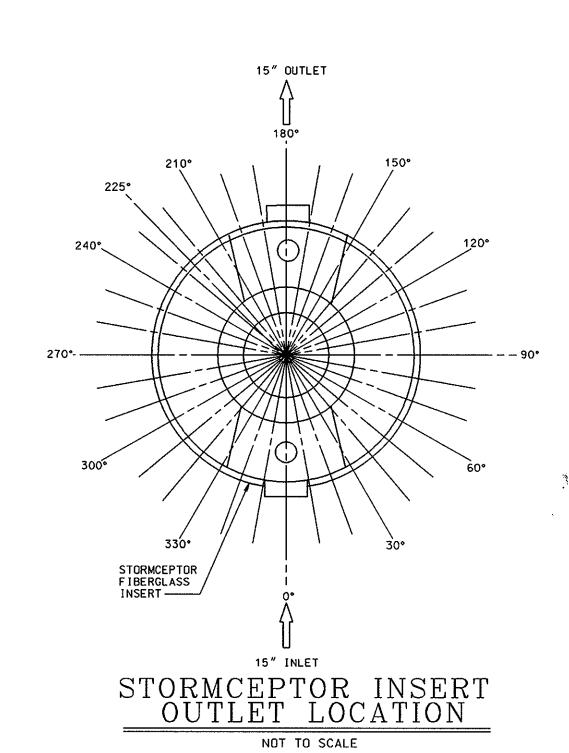
| Manhole__WQSC_

diameter (in.) and invert elevation (ft.)



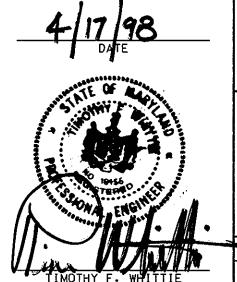
PROFILE: BYPASS SWALE SCALE: HORZ: 1" = 20'



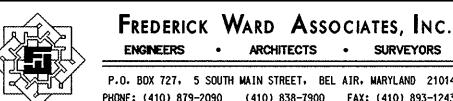


DATE: NUMBER REVISION DESCRIPTION APPROVED: DEPARTMENT OF PLANNING AND ZONING APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT. EXXON PIPELINE COMPANY HOUSTON, TEXAS 77002

EXON CORPORATION 6301 IVY LANE GREENBELT, MARYLAND 20770 ATTN: MR. ROBERT CASERTA PHONE: (301)-513-7511



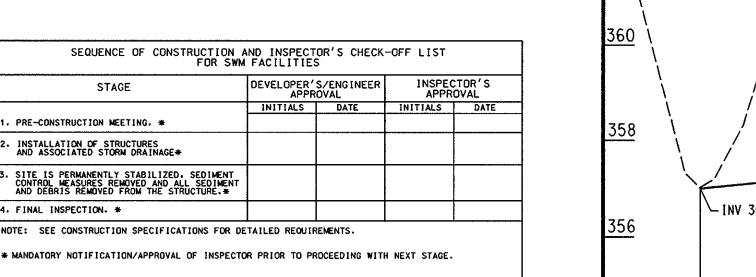
SDP# 98-16



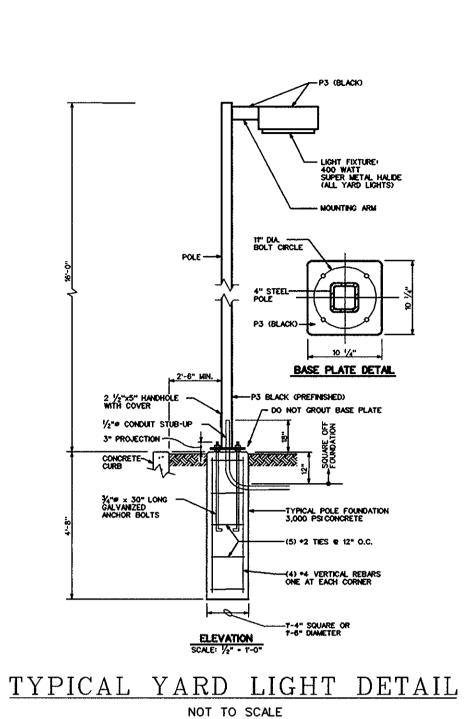
PHONE: (410) 879-2090 (410) 838-7900 FAX: (410) 893-1243 FWA JOB NUMBER 96316 FWA DRAWING FILE NAME PESTORMB.DGN STORMCEPTOR NOTES, DETAILS, AND STORM DRAIN PROFILE

FOR AN EXXON STATION AT PARCEL A-8, LYNDWOOD SQUARE 6070 MARSHALEE DRIVE, ELKRIDGE, MD. 21227 FIRST ELECTION DISTRICT HOWARD COUNTY, MD.

TAX MAP 37. GRID 16. P. 687 CENSUS TRACT NO.: 601 SEWER CODE 2610400 RAS NO.: 2-0352 DRAWING NUMBER DATE: 03/30/98 08 OF 12 CHECKED BY: JBG



VERT: 1" = 2'



FURNISHED BY OWNER. INSTALLED BY G.C.: LIGHT FIXTURE. MOUNTING ARM, POLE, ANCHOR BOLTS, NUTS, AND WASHERS BY OWNER, ALL OTHER MATERIALS FURNISHED AND INSTALLED BY G.C.

NOTE: LIGHTING TO BE SHIELDED ON TOP AND FOUR SIDES TO PREVENT GLARE ONTO ADJACENT PROPERTIES

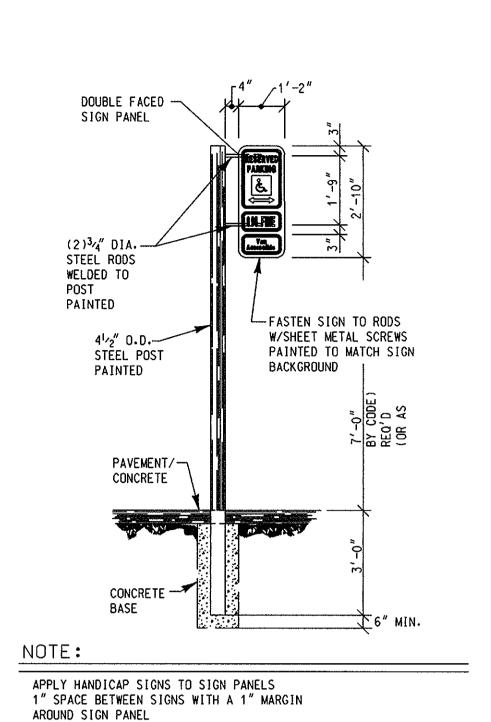


COLORS: LEGEND AND BORDER - GREEN WHITE SYMBOL ON BLUE BACKGROUND BACKGROUND - WHITE

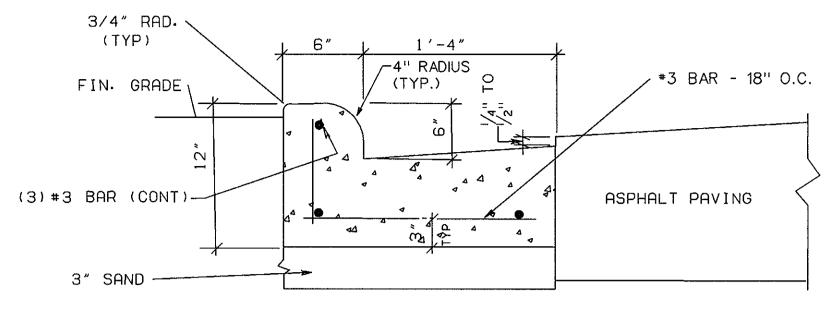
1.) ONE SIGN TO BE APPLIED TO METAL SIGN BOARD MOUNTED TO METAL

2.) FREE STANDING SIGN 7'-0" ABOVE FINISHED GRADE.

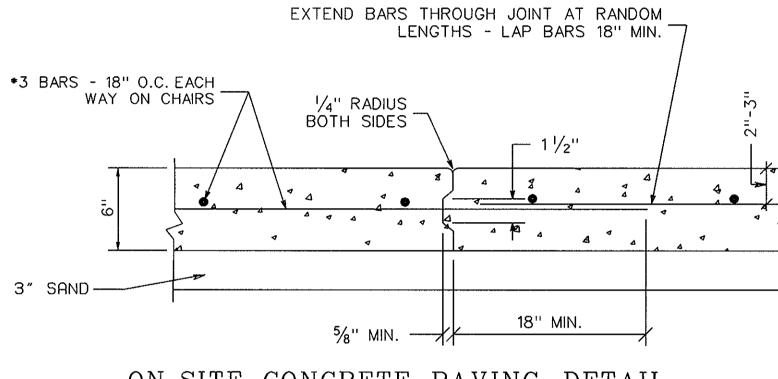
3.) MOUNTED ON WALL OR STRUCTURE 6'-0" ABOVE GRADE.



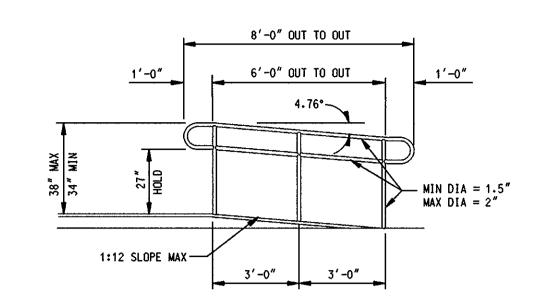
HANDICAP SIGN DETAILS NOT TO SCALE



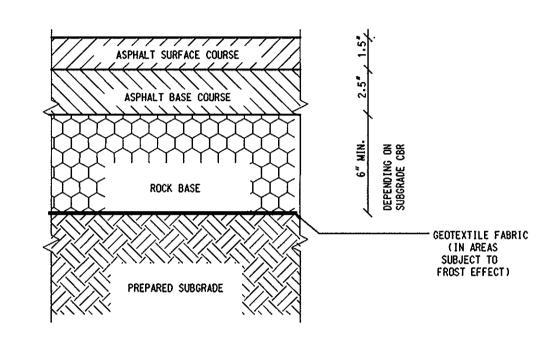
ON-SITE CURB DETAIL NOT TO SCALE



ON-SITE CONCRETE PAVING DETAIL NOT TO SCALE



HANDRAIL AND RAMP ELEVATION NOT TO SCALE

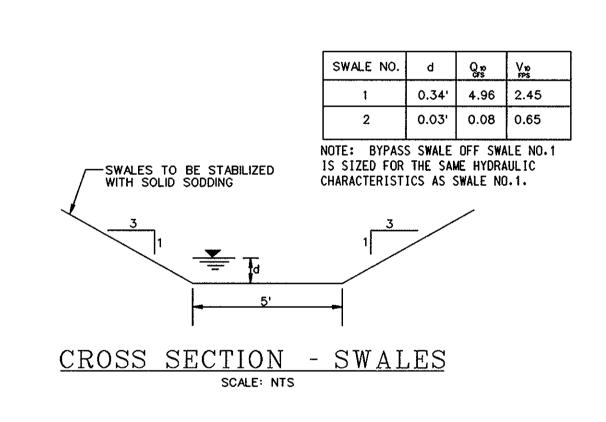


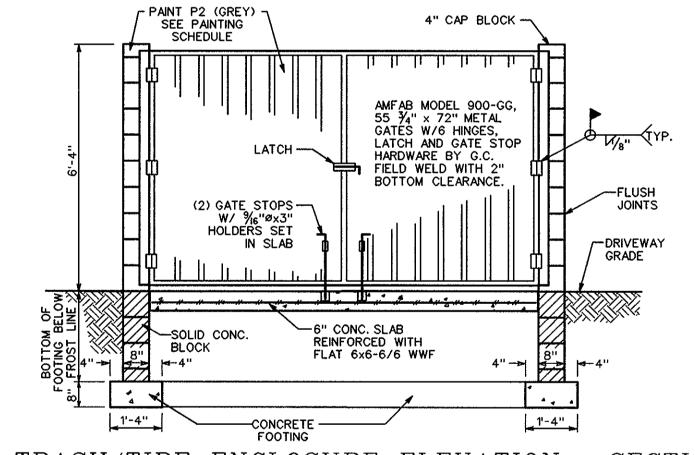
P-2 ASPHALT PAVING SECTION NOT TO SCALE

DATE: NUMBER

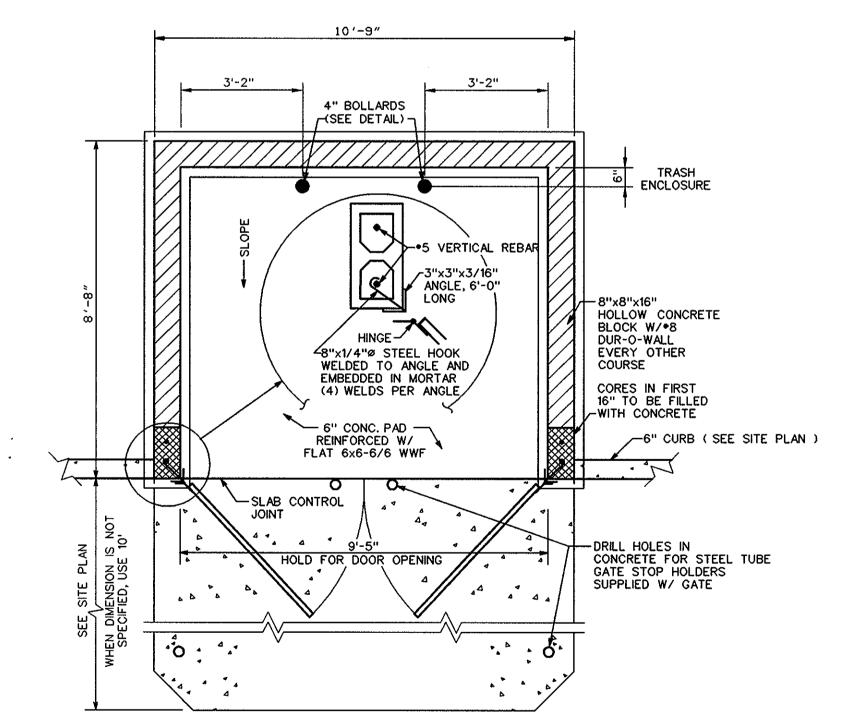
APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT.

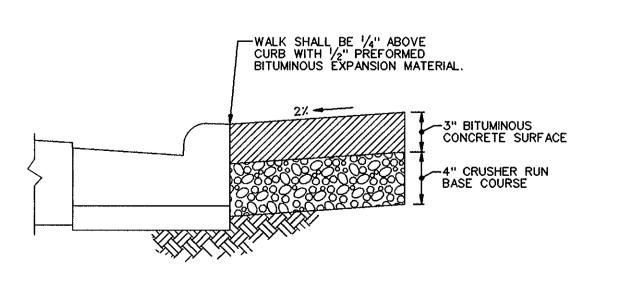




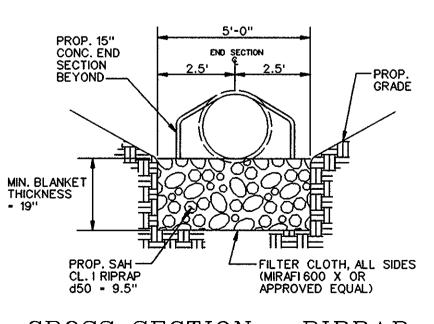
TRASH/TIRE ENCLOSURE ELEVATION - SECTION NOT TO SCALE



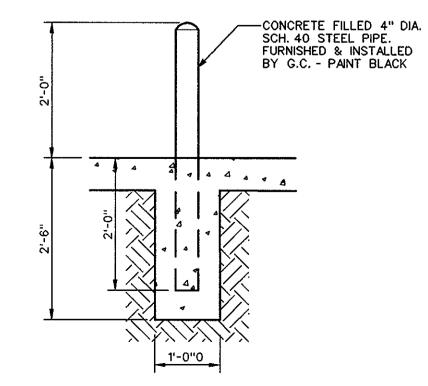
TRASH ENCLOSURE PLAN



SIDEWALK DETAIL SCALE: NTS

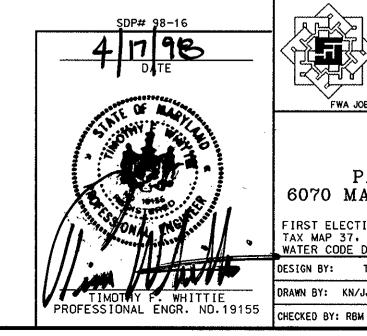


CROSS SECTION - RIPRAP SCALE: NTS



BOLLARD DETAIL NOT TO SCALE

NOT TO SCALE



6301 IVY LANE SUITE 700 GREENBELT, MARYLAND 20770 ATTN: MR. ROBERT CASERTA PHONE: (301)-513-7511	
FREDERICK WARD ASSOCIATE ENGINEERS • ARCHITECTS • SU	S, IN

EXXON PIPELINE COMPANY

HOUSTON, TEXAS TOO2

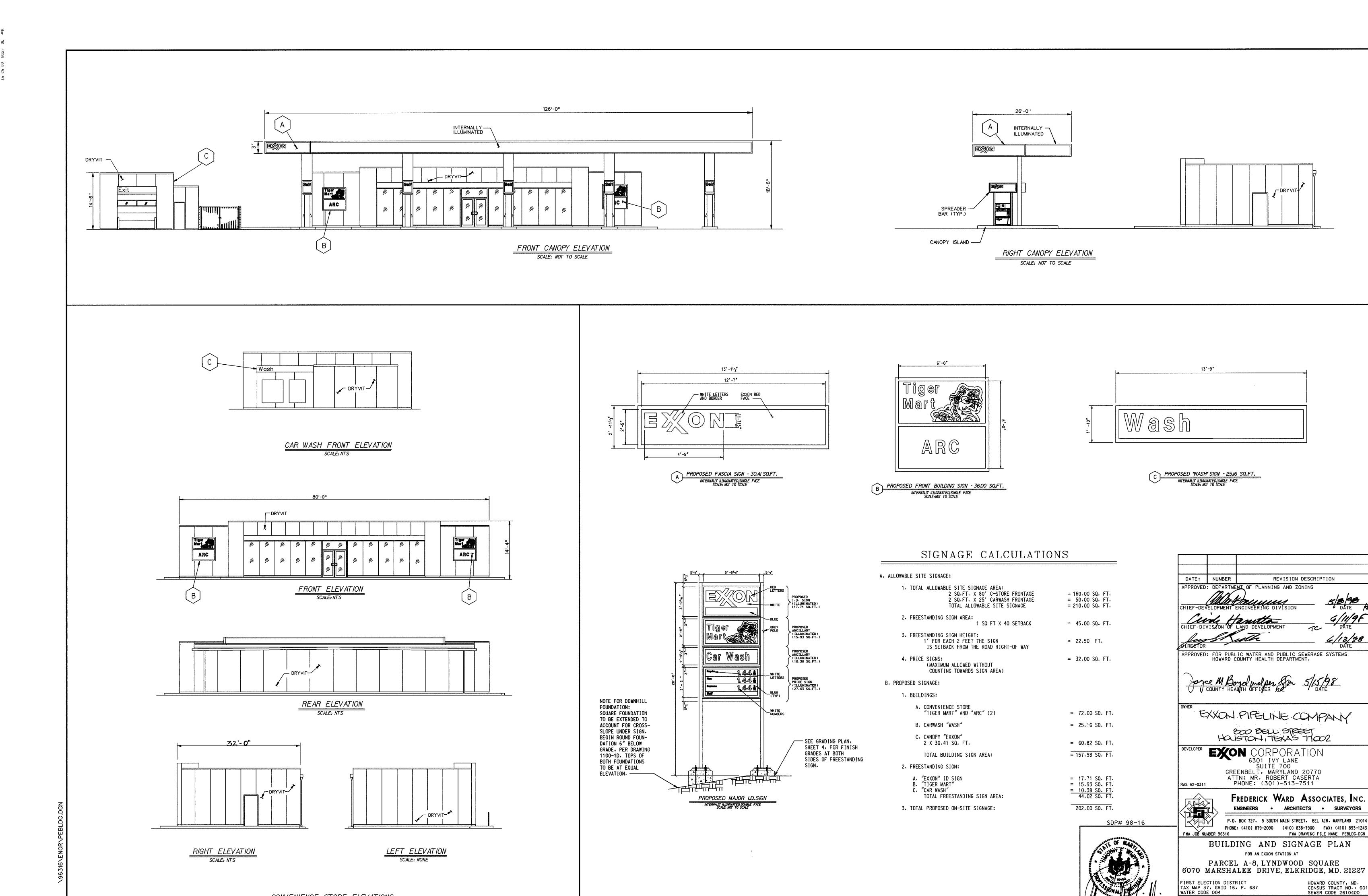
REVISION DESCRIPTION

P.O. BOX 727. 5 SOUTH MAIN STREET, BEL AIR, MARYLAND 21014 PHONE: (410) 879-2090 (410) 838-7900 FAX: (410) 893-1243 FWA DRAWING FILE NAME PESITDTL.DGN

SITE DETAILS FOR AN EXXON STATION AT

PARCEL A-8, LYNDWOOD SQUARE 6070 MARSHALEE DRIVE, ELKRIDGE, MD. 21227

FIRST ELECTION DISTRICT TAX MAP 37. GRID 16. P. 687 WATER CODE DO4 HOWARD COUNTY, MD. CENSUS TRACT NO.: 6011 SEWER CODE 2610400 ESIGN BY: TFW RAS NO.: 2-0352 DRAWING NUMBER DATE: 03/30/98 09 OF 12 APPROVED:



CONVENIENCE STORE ELEVATIONS

SDP-98-16

DRAWING NUMBER

10 OF 12

HOWARD COUNTY, MD. CENSUS TRACT ND.: 601' SEWER CODE 2610400

RAS NO. 2-0352

13'-9"

DATE: NUMBER

RAS #2-0311

DESIGN BY: JBG

DRAWN BY: LCF

CHECKED BY: JBG

REVISION DESCRIPTION

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT.

EXXON PIPELINE COMPANY

HOUSTON, TEXAS 77002

FREDERICK WARD ASSOCIATES, INC.

ENGINEERS • ARCHITECTS • SURVEYORS

P.O. BOX 727, 5 SOUTH MAIN STREET, BEL AIR, MARYLAND 21014

PHONE: (410) 879-2090 (410) 838-7900 FAX: (410) 893-1243

BUILDING AND SIGNAGE PLAN

FOR AN EXXON STATION AT

SCALE: AS SHOWN

DATE: 03/30/98

APPROVED:

FWA DRAWING FILE NAME PEBLOG.DGN

EXON CORPORATION
6301 IVY LANE
SUITE 700
GREENBELT, MARYLAND 20770
ATTN: MR. ROBERT CASERTA
PHONE: (301)-513-7511

