

# SHELL OIL COMPANY

HOUSTON, TEXAS

## PROPOSED IMPROVEMENTS

4205 MONTGOMERY ROAD  
 ELLICOTT CITY  
 HOWARD COUNTY, MARYLAND



VICINITY MAP  
 COPYRIGHT AND THE MAP PEOPLE  
 PERMIT USE NO. 20694276  
 SCALE 1" = 200'

ELEVATIONS AS SHOWN HEREON ARE BASED ON HOWARD COUNTY SURVEY CONTROL STATION NO. 241B, WHICH IS A CONCRETE MONUMENT LOCATED ALONG COLUMBIA ROAD, APPROXIMATELY 200 FEET EAST OF ST. JOHN'S LANE. ELEVATION 391.270

Area of Parcel:	44842 Square Feet (1.03 Acres)
Present Zoning:	B-2
Disturbed Area:	33800 sf
Proposed Use:	Motor vehicle fuel sales (Gasoline service station with service bays), and automated car wash.
Floor Space:	Service Station & Bays 2,058 s.f. Car Wash & Storage 684 s.f. Canopy 1,268 s.f. TOTAL: 4,010 s.f.
Maximum # Employees:	3
Parking Required	
Service Station w/ 3 Service Bays	
3 sp + 3 sp / bay x 3 bays	12 spaces
Car wash: 1 sp / car wash	1 space
TOTAL REQUIRED	13 spaces
Parking Provided	14 spaces
Building Coverage:	4,010 s.f. (8.9% of Parcel)
Paved Parking Lot Coverage:	21,969 s.f. (49.0% of Parcel)
Open Space Coverage:	18,863 s.f. (42.1% of Parcel)

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

*George M. ...* 12-27-97  
 COUNTY HEALTH OFFICER HR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James S. ...* 1/2/98  
 DIRECTOR DATE

*...* 12/20/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Richard B. ...* 12/30/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SHEET INDEX

- COVER SHEET
- DEMOLITION PLAN
- SITE PLAN
- GRADING & UTILITY PLAN
- EROSION & SEDIMENT CONTROL PLAN
- DRAINAGE DIVIDE PLAN
- PROFILES & DETAILS
- STORMCEPTOR NOTES & DETAILS
- MISCELLANEOUS NOTES & DETAILS
- LIGHTING & LANDSCAPE PLAN
- BUILDING & CANOPY ELEVATIONS

PREPARED BY  
**BOHLER ENGINEERING, INC.**  
 100 CARPENTER ROAD  
 STERLING, VIRGINIA

OWNER:  
 SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
 RESTON, VA 22090, c/o MS. RACHEL CDX  
 PHONE #: (703) 707-5610

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

SDP-97-82

PERMIT INFORMATION BLOCK			
LOT NUMBER	STREET ADDRESS		
PARCEL 311	4205 MONTGOMERY ROAD		
NAME/PROJECT:	SECTION AREA:	PARCEL #:	BLOCK #:
SHELL STATION	N/A	311	24
ZONE:	TAX/ZONE MAP:	ELECT. DIST.:	CENSUS TRACT:
B-2	24	2nd	6028
WATER CODE	SEWER CODE:		
F04	5750615		

<b>BOHLER ENGINEERING, INC.</b> CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD SUITE 100 KULPSVILLE, PENNSYLVANIA 19443 WATCHUNG, NEW JERSEY SUITE 202 STERLING, VIRGINIA 20164 (908) 668-8300 PHONE: (703) 904-8350 FAX: (703) 904-8356 (215) 393-8300			
PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT	TITLE: COVER SHEET		
E.L. STEINFELDT PROFESSIONAL ENGINEER NEW YORK LICENSE NO. 69719 NEW JERSEY LICENSE NO. 34912 PENNSYLVANIA LICENSE NO. 40447 DELAWARE LICENSE NO. 8704 CONNECTICUT LICENSE NO. 17-88	A.J. VOLANTH PROFESSIONAL ENGINEER NEW YORK LICENSE NO. 69719 NEW JERSEY LICENSE NO. 34912 PENNSYLVANIA LICENSE NO. 40447 DELAWARE LICENSE NO. 8704 VIRGINIA LICENSE NO. 0402-031438		
SCALE (H) 1" = 10' DATE: 01/20/97 SHEET NO. 1 OF 11	DRAWN BY: BEK PROJECT NO: P97713 CHECKED BY: ANW CAD L.O. #: 77713SC4 REV. NO. 4		

PARCEL 677  
LANDS N/F CLOVERLAND  
FARMS DAIRY INC.  
D.B. 529, PG. 404  
ZONE: B-2

EXISTING BUILDING  
(ROYAL FARMS)

APPROXIMATE EX. LOC.  
U/G ELECT. AS PER  
UTILITY MARKOUT

APPROX. LOCATION  
EX. 4" GAS LINE

SAN. M.H.  
RM=404.59  
INV A=394.92  
INV B=374.89

SAN. M.H.  
RM=402.58  
INV A=393.72  
INV B=393.69

BENCHMARK  
DOCK SPIKE SET  
ELEV = 402.91

EX. PAVEMENT (TO BE REMOVED)  
EX. SIG STORAGE TANK (TO REMAIN)  
EX. SIG STORAGE TANK (TO BE REMOVED)  
EX. STORAGE AREA (TO BE REMOVED)  
EX. SIDEWALK (TO REMAIN)  
EX. POWER POLE (TO REMAIN)  
EX. TRASH DUMPSTER (TO BE RELOCATED)  
EX. 'B' LIGHTS (TO BE RELOCATED)

EX. PAVEMENT (TO BE REMOVED)  
EX. SIG STORAGE TANK (TO BE REMOVED)  
EX. TELEPHONE (TO REMAIN)  
EX. SIDEWALK (TO REMAIN)  
EX. CURB (TO REMAIN)  
EX. 'B' LIGHT (TO BE RELOCATED)

EX. POWER POLE (TO REMAIN)  
EX. VACUUM (TO BE REMOVED)  
EX. AIR TOWER (TO BE REMOVED)  
EX. PAVEMENT (TO BE REMOVED)  
EX. TRASH DUMPSTER (TO BE RELOCATED)  
EX. 'B' LIGHTS (TO BE RELOCATED)

EX. 3/4" W/I (TO REMAIN)  
EX. INLET (TO REMAIN)  
EX. FANTRY MAT. (TO BE REMOVED)  
EX. SIG STORAGE TANKS (TO REMAIN)  
EX. CONC. MAT. (TO BE REPLACED)  
EX. CONC. MAT. (TO BE RESURFACED WITH ASPHALT)  
EX. 'B' LIGHTS (TO BE RELOCATED)  
EX. W/I (TO BE RELOCATED)  
EX. W/I (TO BE RELOCATED)

INLET  
CR1-402.89  
INV A=396.69  
INV B=399.64

INLET  
CR1-402.96  
INV A=402.46

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

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CR2-403.61  
INV A=400.99  
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INLET  
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INV A=400.99  
INV B=400.74

INLET  
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CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
CR2-403.61  
INV A=400.99  
INV B=400.74

INLET  
CR1-404.34  
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INV A=400.99  
INV B=400.74

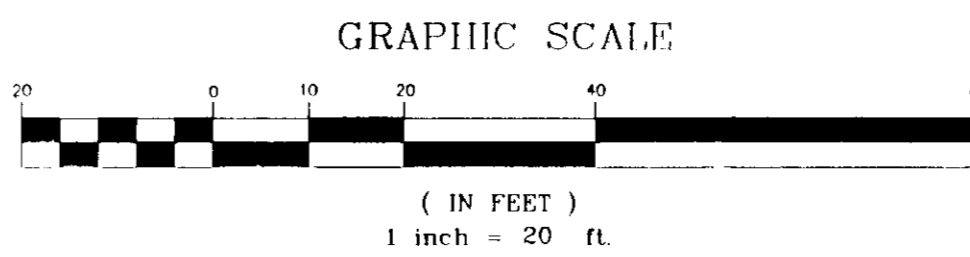
PARCEL 736  
LANDS N/F 4123 OLD  
COLUMBIA ASSOCIATES  
D.B. 2729, PG. 463  
ZONE: R-20

OLD COLUMBIA PIKE  
CLARKSVILLE PIKE - MARYLAND STATE ROUTE 1987  
VARIABLE R.O.W.

MONTGOMERY ROAD  
MONTGOMERY STATE ROUTE 103  
VARIABLE R.O.W.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*Joseph M. Badner, Esq.* 12/29/97  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*James S. Korte* 1/3/98  
DIRECTOR DATE  
*John DeCunzio* 1/10/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*Richard B. Good* 12/30/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



OWNER:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
RESTON, VA 22090, c/o MS. RACHEL COX  
PHONE #: (703) 707-5610

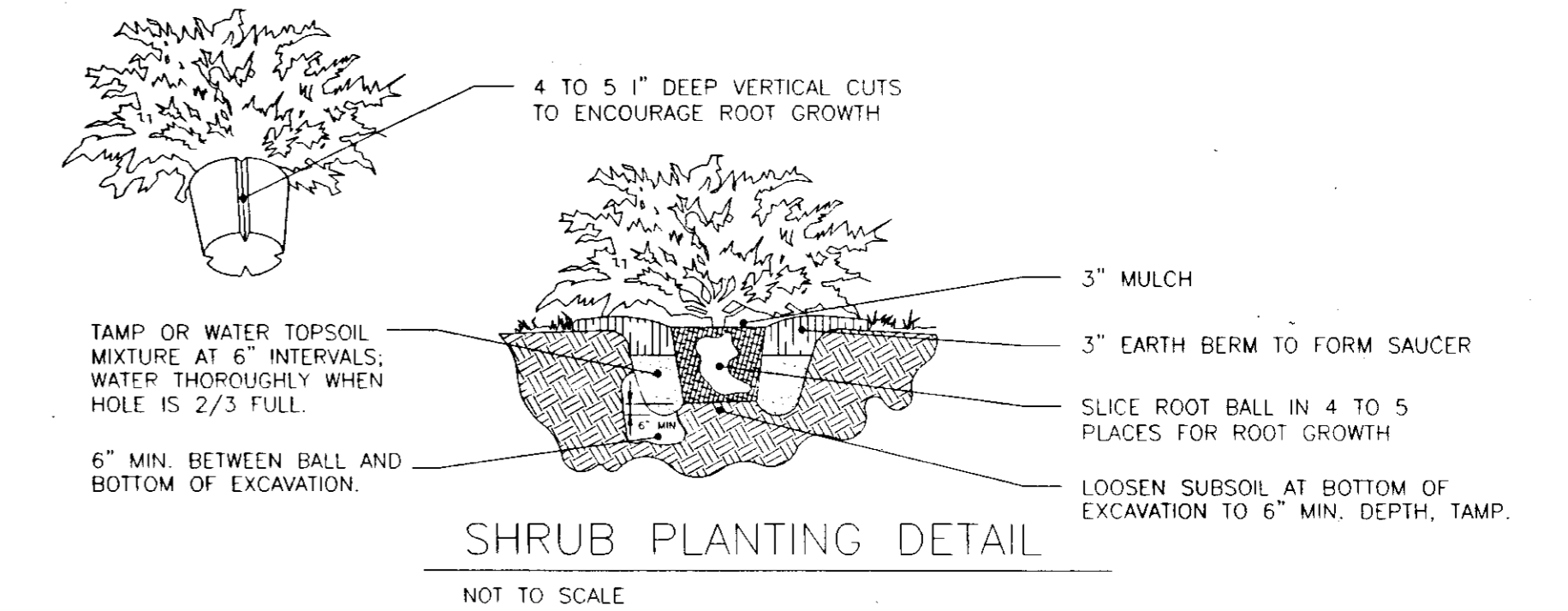
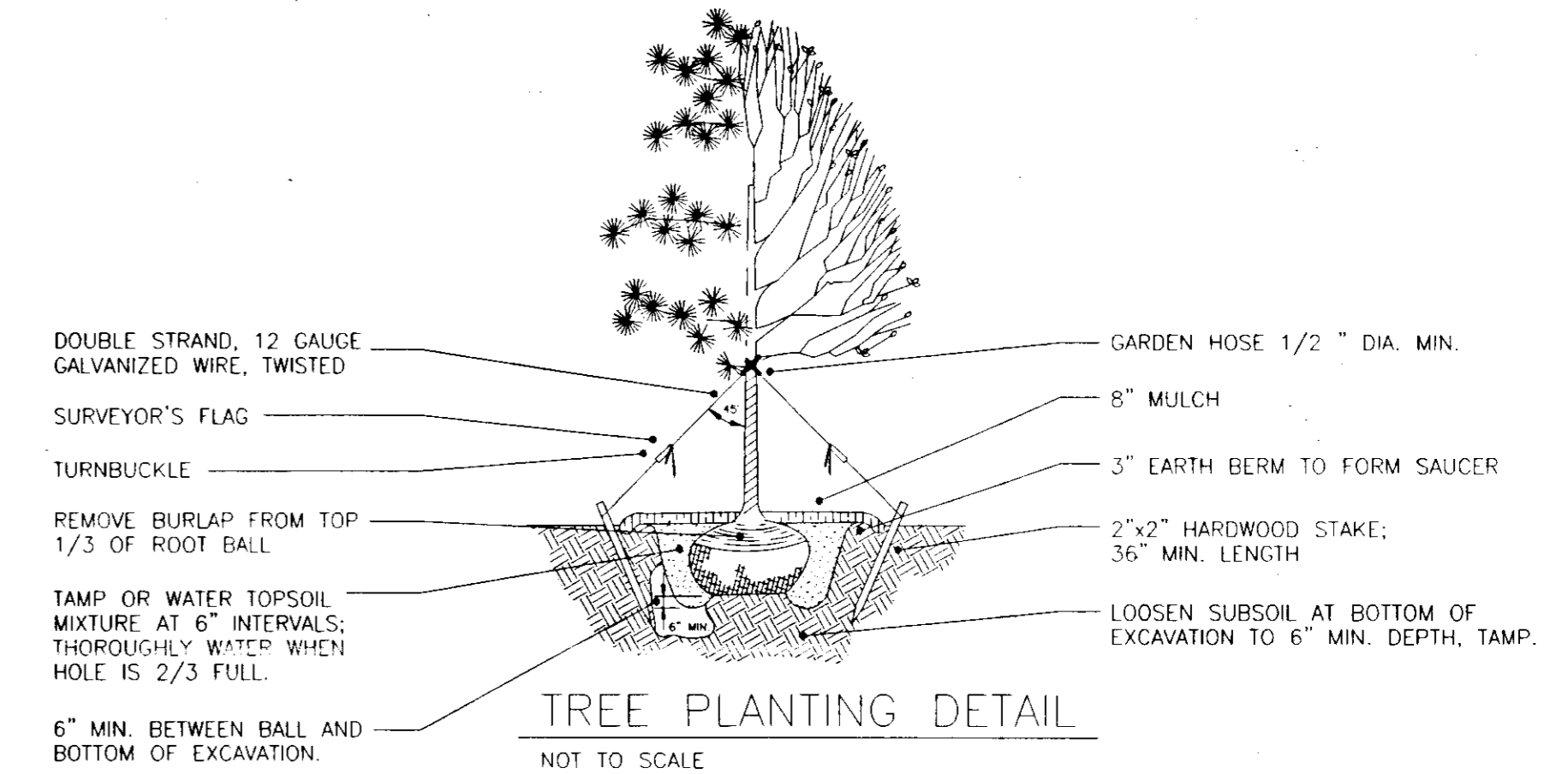
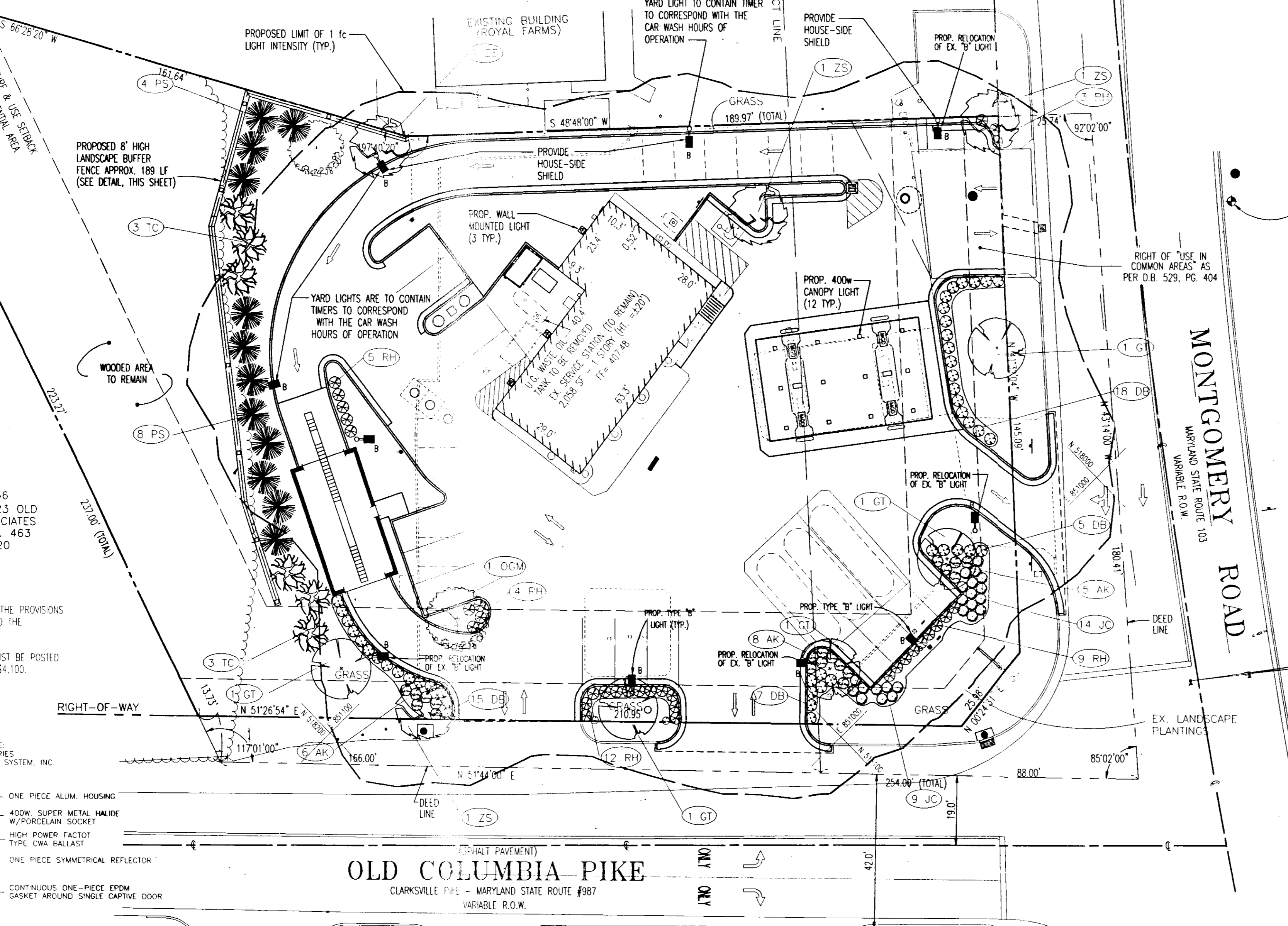
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THIS SHEET FOR DEMOLITION PURPOSES ONLY!

<p><b>BOHLER ENGINEERING, INC.</b> • CIVIL &amp; CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL &amp; SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD SUITE 202 STERLING, VIRGINIA 20184 KULPSVILLE, PENNSYLVANIA 19443 WATCHUNG, NEW JERSEY TAX MAP #24, BLOCK #24, PARCEL 311 PHONE: (703) 804-8350 FAX: (703) 804-8350</p>	
<p>PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD 2ND ELECTION DISTRICT</p>	<p>TITLE: <b>DEMOLITION PLAN</b></p>
<p>SCALE: (H) 1" = 20' (V) 1" = 20'</p>	<p>DATE: 01/20/97</p>
<p>DRAWN BY: BEK CHECKED BY: AN</p>	<p>PROJECT NO.: 997713 CAD ID #: P7713004</p>
<p>PROFESSIONAL ENGINEER NEW YORK LICENSE No. 69219 NEW JERSEY LICENSE No. 24842 PENNSYLVANIA LICENSE No. 40447 DELAWARE LICENSE No. 87034 CONNECTICUT LICENSE No. 17588</p>	<p>PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE No. 048314-E MARYLAND LICENSE No. 21347 NEW JERSEY LICENSE No. 38339 DELAWARE LICENSE No. 10734 VIRGINIA LICENSE No. 0402 031438</p>
<p>CONSTRUCTION CHECK DATE</p>	<p>SHEET No: <b>2</b> OF 11 REV. No. 4</p>

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
GT	5	QLEDITSIA TRICANTHOS	HONEY LOCUST	2-1/2" to 3" CAL.	B&B
OCM	1	ACER RUBRUM OCTOBER GLORY	OCTOBER GLORY MAPLE	2-1/2" to 3" CAL.	B&B
ZS	4	ZELKOVA SERRATA	VILLAGE GREEN	2-1/2" to 3" CAL.	B&B
TC	6	TSUGA CANADENSIS	CANADIAN HEMLOCK	6-8" HT	B&B
PS	12	PINUS STROBUS	WHITE PINE	6-8" HT	B&B
AK	19	AZALEA KURUME	KURUME AZALEA	18"-24"	CONT.
DB	45	EUONYMUS ALATA COMPACTA	COMPACT BURNING BUSH	24"-30"	CONT.
RH	21	ILEX ROTUNDFOLIA	ROUNDLEAF HOLLY	18"-24"	CONT.
JC	23	JUNIPERUS PRITZER COMPACTA	COMPACT PRITZER JUNIPER	15"-18"	CONT.

PARCEL 677  
LANDS N/F CLOVERLAND  
FARMS DAIRY INC.  
D.B. 529, PG. 404  
ZONE: B-2



LUMINAIRE: ESTIMATION  
CAD NUMBER: RD 51W  
CAD NUMBER SIZE: 1  
FILENAME: J:\LSI\LSI000006 IES  
LUMENS: 4000  
SPIN: 0

LSI LIGHTING SYSTEM  
CATALOG NUMBER: LSI000006 IES  
FILE NUMBER: LSI000006 IES  
REPORT NUMBER: 17132413  
LUMENS: 4000  
LUMINAIRE DIMENSIONS (FEET): WIDTH = 0 LENGTH = 0 HEIGHT = 0  
FACTORS: MULTIPLIER 1 BALLAST = 1 BALLAST LAMP = 1  
NUMBER OF VERTICAL ANGLES = 30 0 TO 180 DEGREES  
NUMBER OF HORIZONTAL ANGLES = 21 0 TO 180 DEGREES

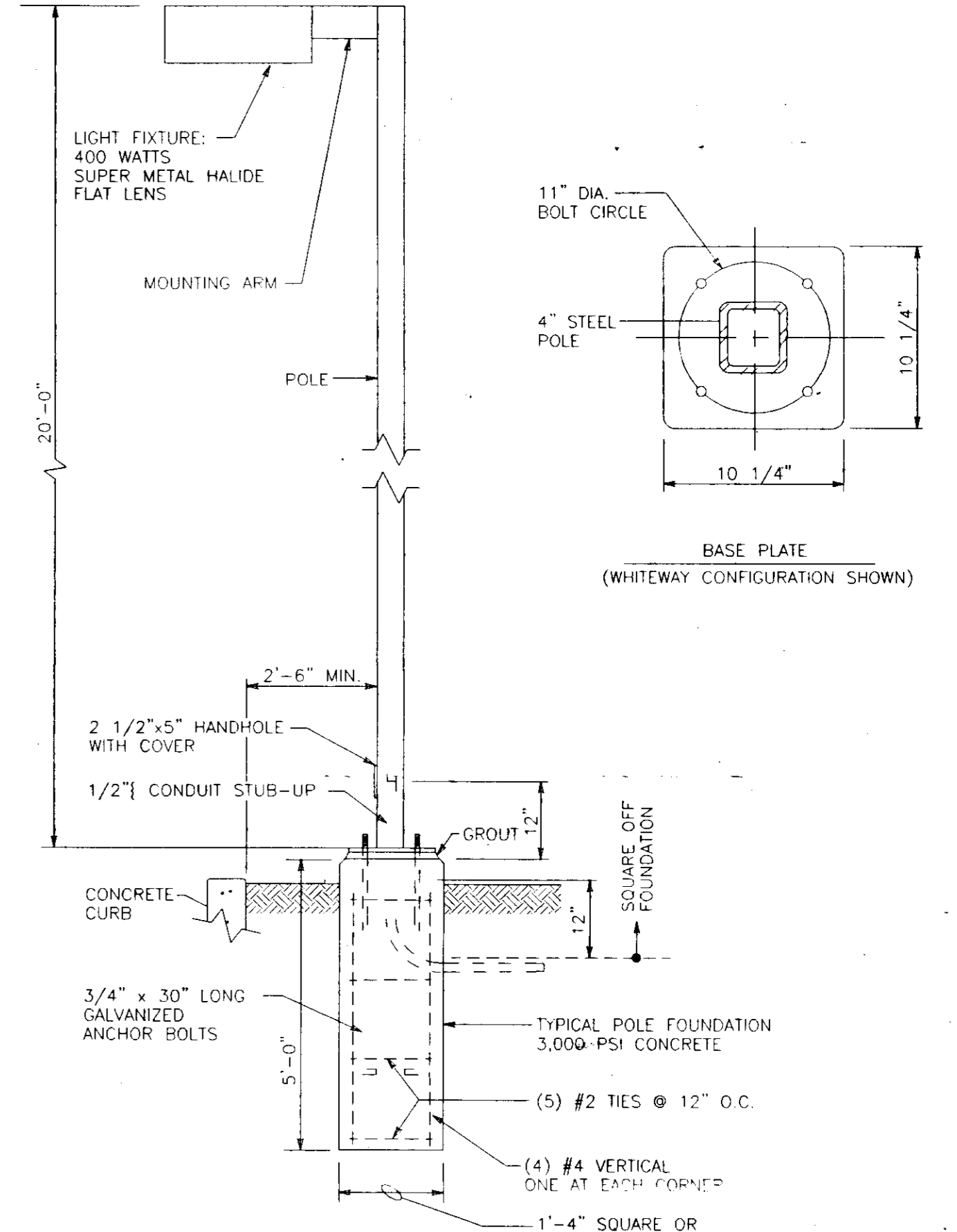
LUMINAIRE: SWAZIA  
FILENAME: J:\LSI\LSI000007 IES  
LUMENS: 4000  
SPIN: 0

LSI LIGHTING SYSTEM  
CATALOG NUMBER: SW5-400-50W-73  
FILE NUMBER: LSI000007 IES  
REPORT NUMBER: 17134190  
LUMENS: 4000  
LUMINAIRE DIMENSIONS (FEET): WIDTH = 0 LENGTH = 0 HEIGHT = 0  
FACTORS: MULTIPLIER 1 BALLAST = 1 BALLAST LAMP = 1  
NUMBER OF VERTICAL ANGLES = 30 0 TO 180 DEGREES  
NUMBER OF HORIZONTAL ANGLES = 21 0 TO 180 DEGREES

LUMINAIRE: EAGLE  
FILENAME: J:\LSI\LSI000008 IES  
LUMENS: 12000  
SPIN: 0

LSI LIGHTING SYSTEM  
CATALOG NUMBER: EAGLE-12000-50W-PC  
FILE NUMBER: LSI000008 IES  
REPORT NUMBER: 17134190  
LUMENS: 12000  
LUMINAIRE DIMENSIONS (FEET): WIDTH = 0 LENGTH = 0 HEIGHT = 0  
FACTORS: MULTIPLIER 1 BALLAST = 1 BALLAST LAMP = 1  
NUMBER OF VERTICAL ANGLES = 30 0 TO 180 DEGREES  
NUMBER OF HORIZONTAL ANGLES = 21 0 TO 180 DEGREES

CITATION: TOTAL NUMBER OF LOCATIONS = 10  
EMCO: TOTAL NUMBER OF LOCATIONS = 3  
LUMINAIRE FC = 107  
MULTIPLIER FC = 107  
MULTIPLIER FC = 0



INDICATES LOCATION OF PROPOSED OR RELOCATED TYPE "B" AREA LIGHT. ALL EXTERIOR LIGHTING MUST BE SHIELDED & DIRECTED SO THAT IT DOES NOT ILLUMINATE RESIDENTIAL PROPERTIES, DOES NOT SHINE DIRECTLY ONTO ANY ADJACENT PROPERTIES, AND DOES NOT PRODUCE GLARE WHICH WOULD CAUSE A HAZARD FOR MOTOR VEHICLE OPERATORS IN THE VICINITY OF THE PROPERTY.

OWNER:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
RESTON, VA 20190, c/o MS. RACHEL CDK  
PHONE #: (703) 787-5610

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

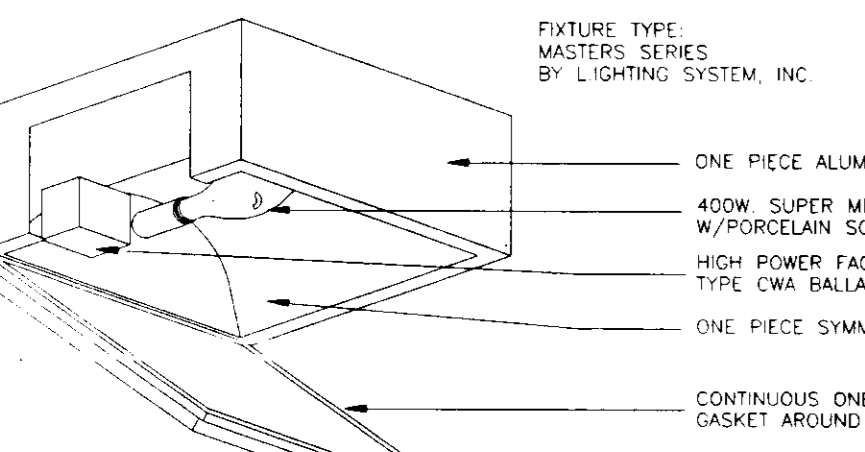
APPROVED: [Signature] 12/29/97 DATE  
COUNTY HEALTH OFFICER

APPROVED: [Signature] 1/2/98 DATE  
DIRECTOR

APPROVED: [Signature] 12/10/97 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: [Signature] 12/30/97 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

GENERAL NOTES:  
A. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.  
B. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$4,100.

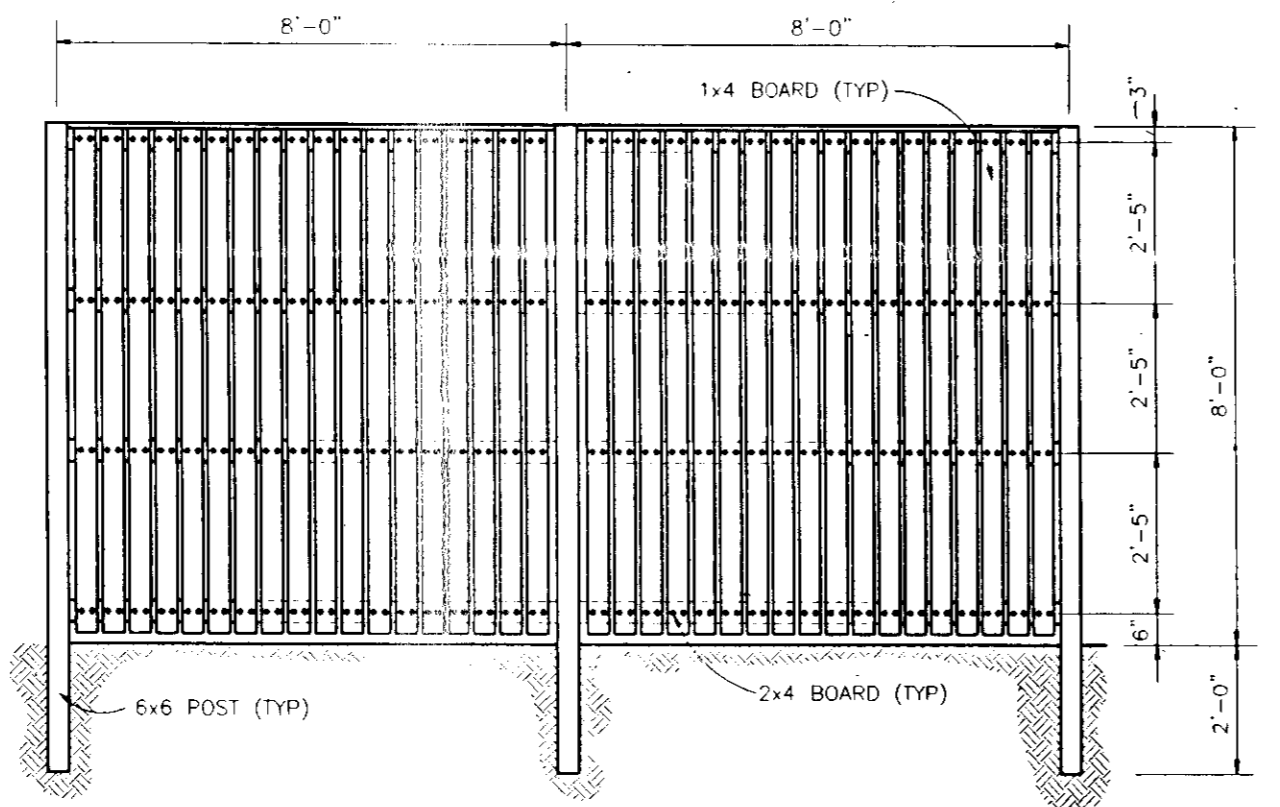


CANOPY LIGHT DETAIL  
NOT TO SCALE

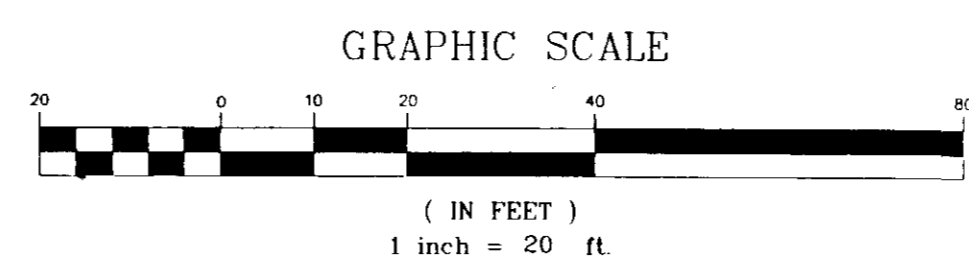
SCHEDULE A - PERIMETER LANDSCAPE EDGE LAYOUT W/FENCE AND SUPPLEMENTAL PLANTINGS (BEYOND CODE)

Category	Adjacent to roadways		Adjacent to Perimeter Properties	
	TYPE E	TYPE C	TYPE A	TYPE B
Landscape Type	Old Columbia Pike ±228'	Montgomery Road ±165'	NORTH PL ±223'	SOUTH PL ±352'
Credit for existing vegetation (Yes, No, Linear feet) (Describe below if needed)	N/A	YES ±223'	YES ±104'	
Credit for wall, fence or Berm (Yes, No, Linear feet) (Describe below if needed)	N/A	YES (8' HT) ±187 LF	NO (6' HT) ±15 LF	
Number of plants required		(SEE EX. VEG. WITH FENCE)		
Shade trees	5	4	7	4
Evergreen trees	6	4	11	0
Shrubs	0	0	0	0
Number of plants provided	(A) 5	(B) 3	(C) 0	(D) 3
Shade trees	0	0	8	2
Evergreen trees	0	0	8	0
Other trees (2:1 substitution)	0	0	0	0
Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)	62	50	0	0

(A) Substitute 62 shrubs for 6 evergreen trees  
(B) Substitute 50 shrubs for 1 shade tree and 4 evergreen trees  
(C) Substitute 8 evergreen trees for 4 shade trees  
(D) Substitute 2 evergreen trees for 1 shade tree

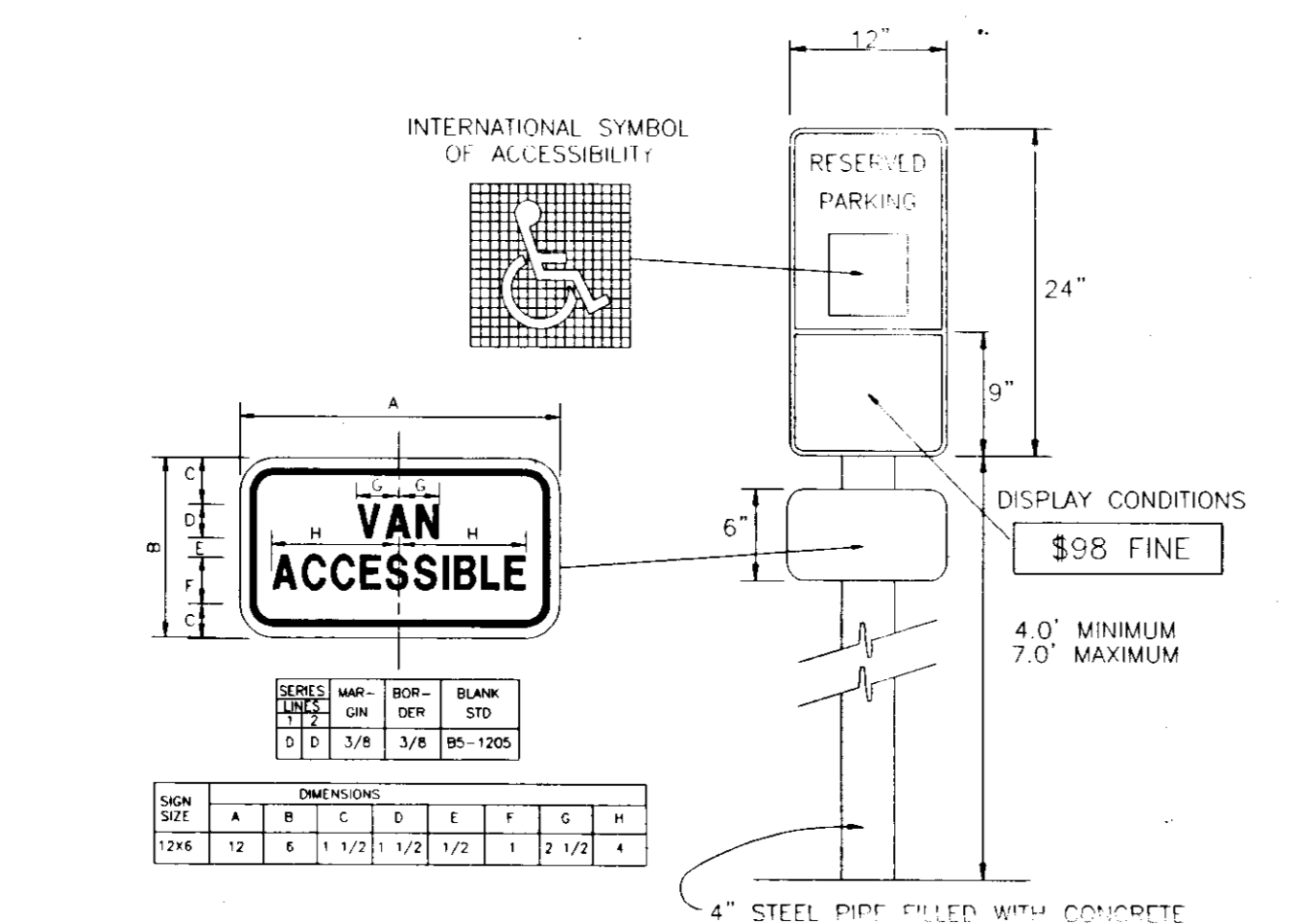
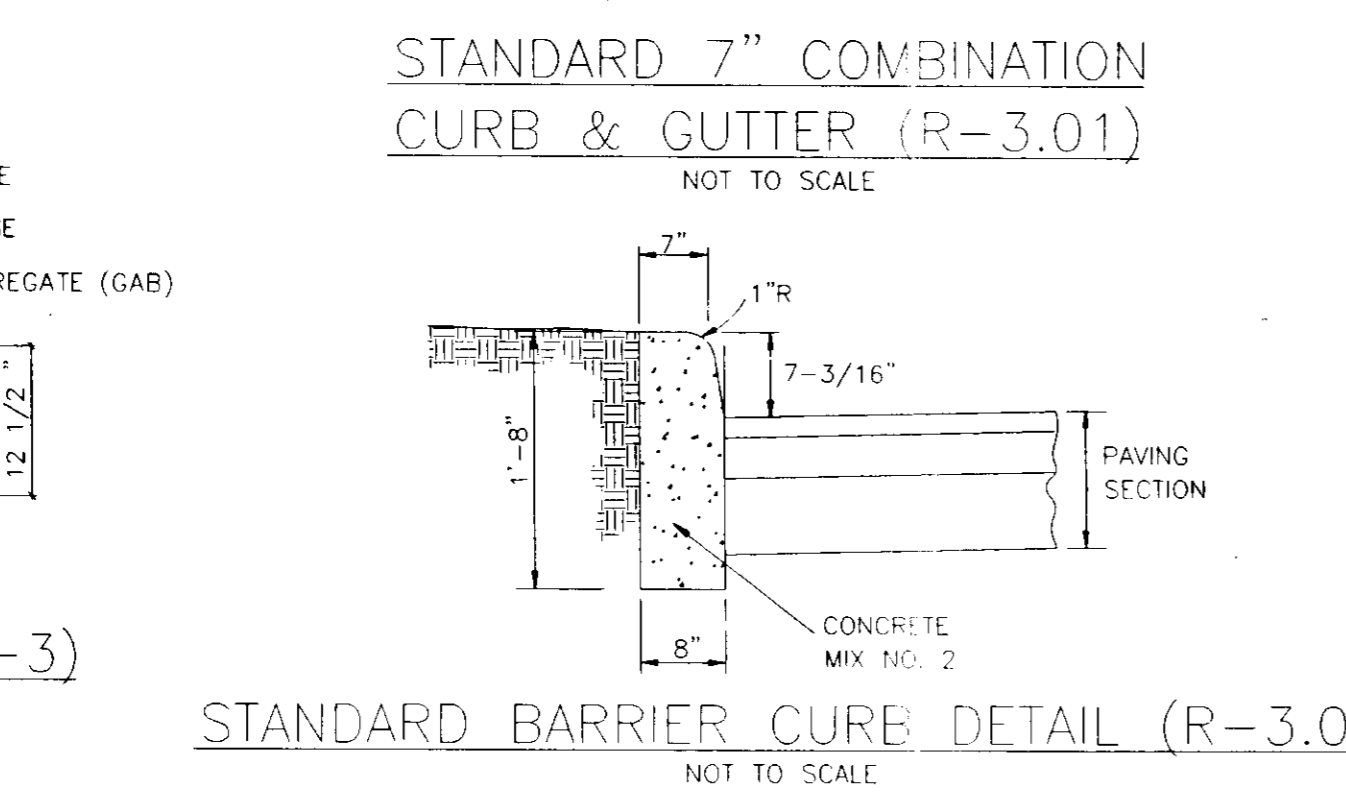
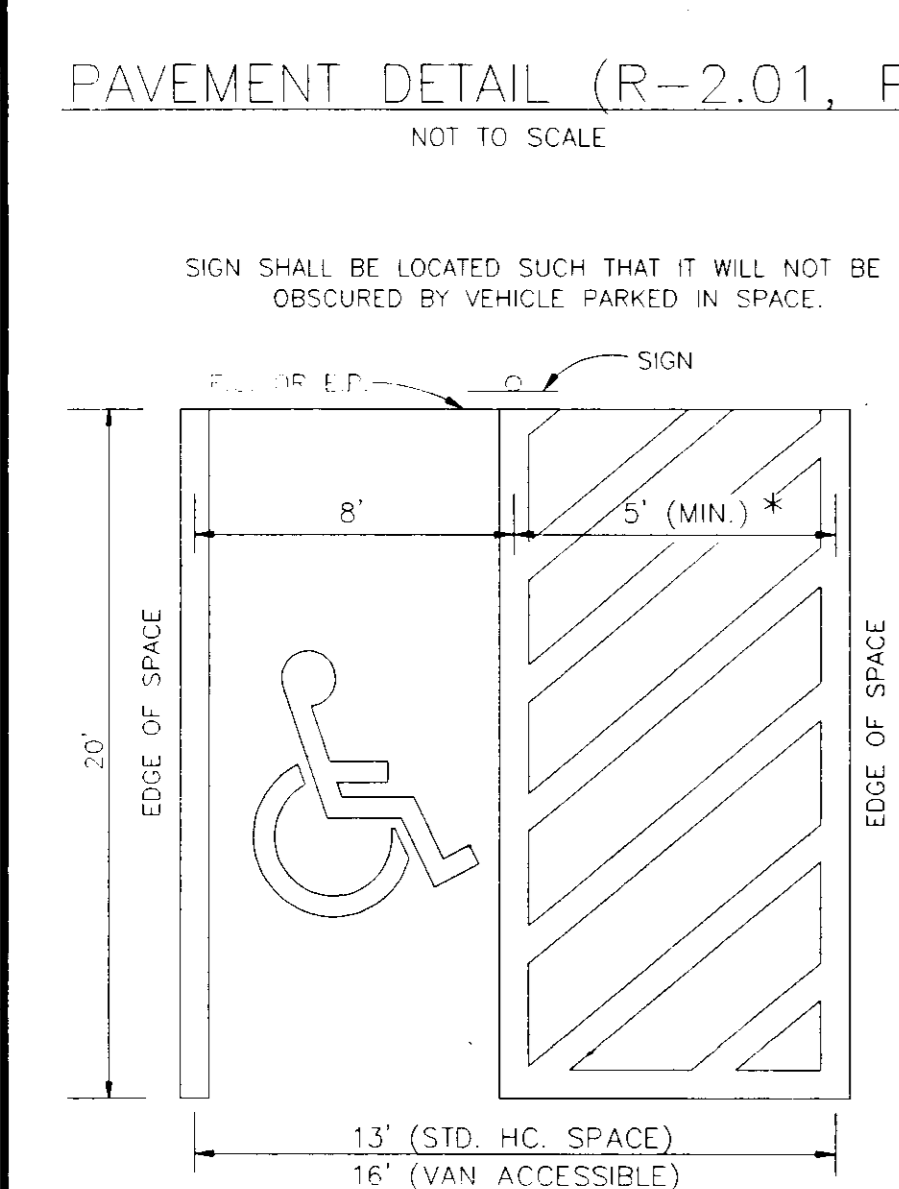
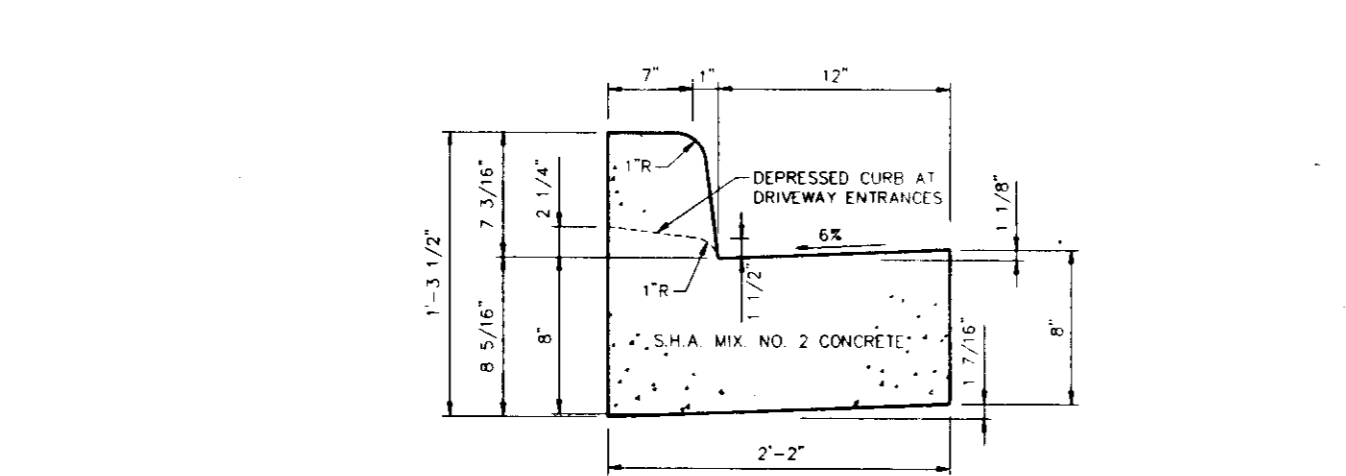
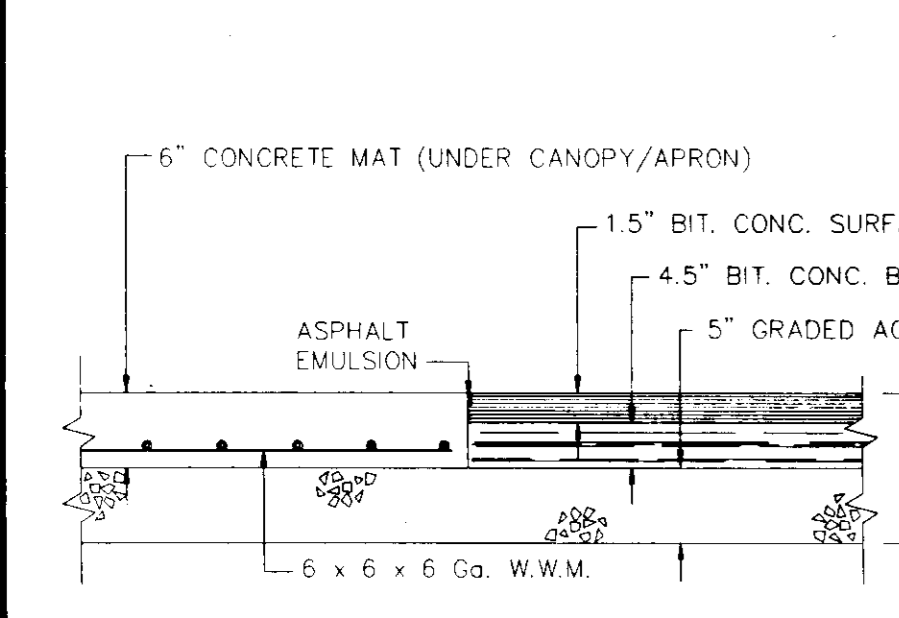
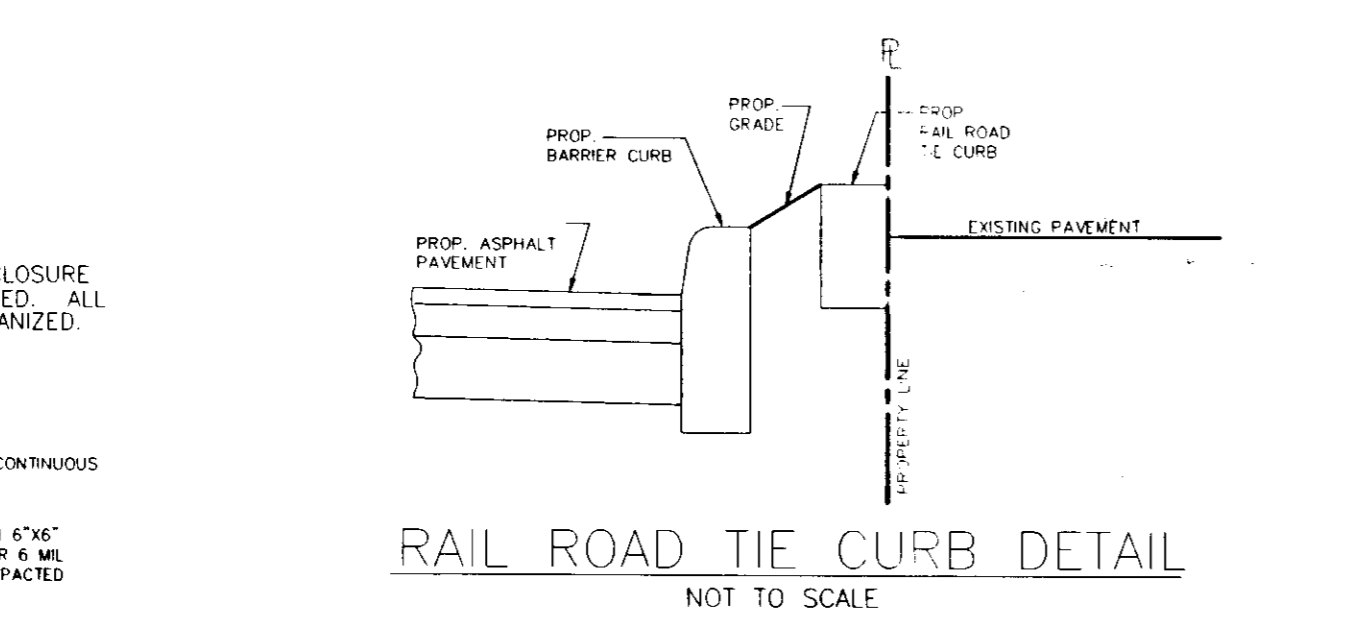
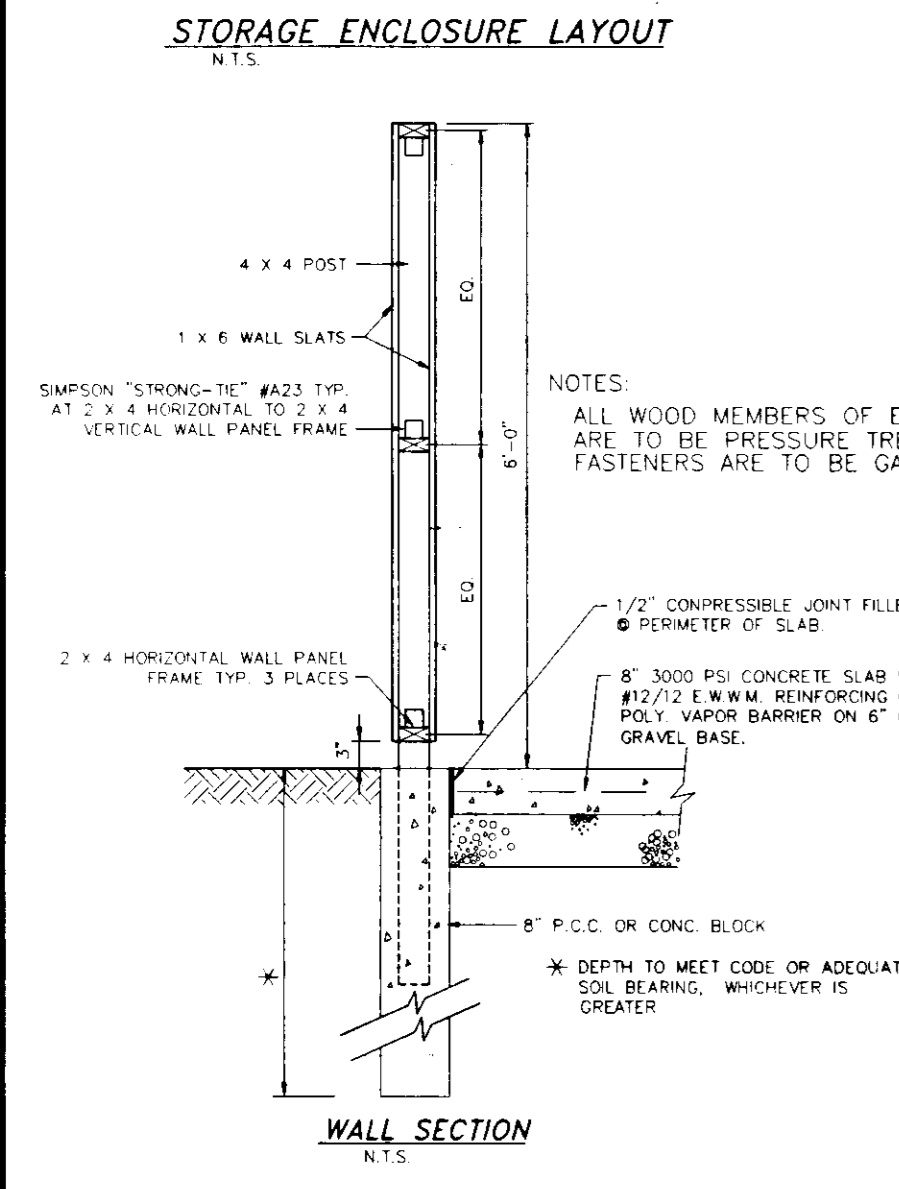
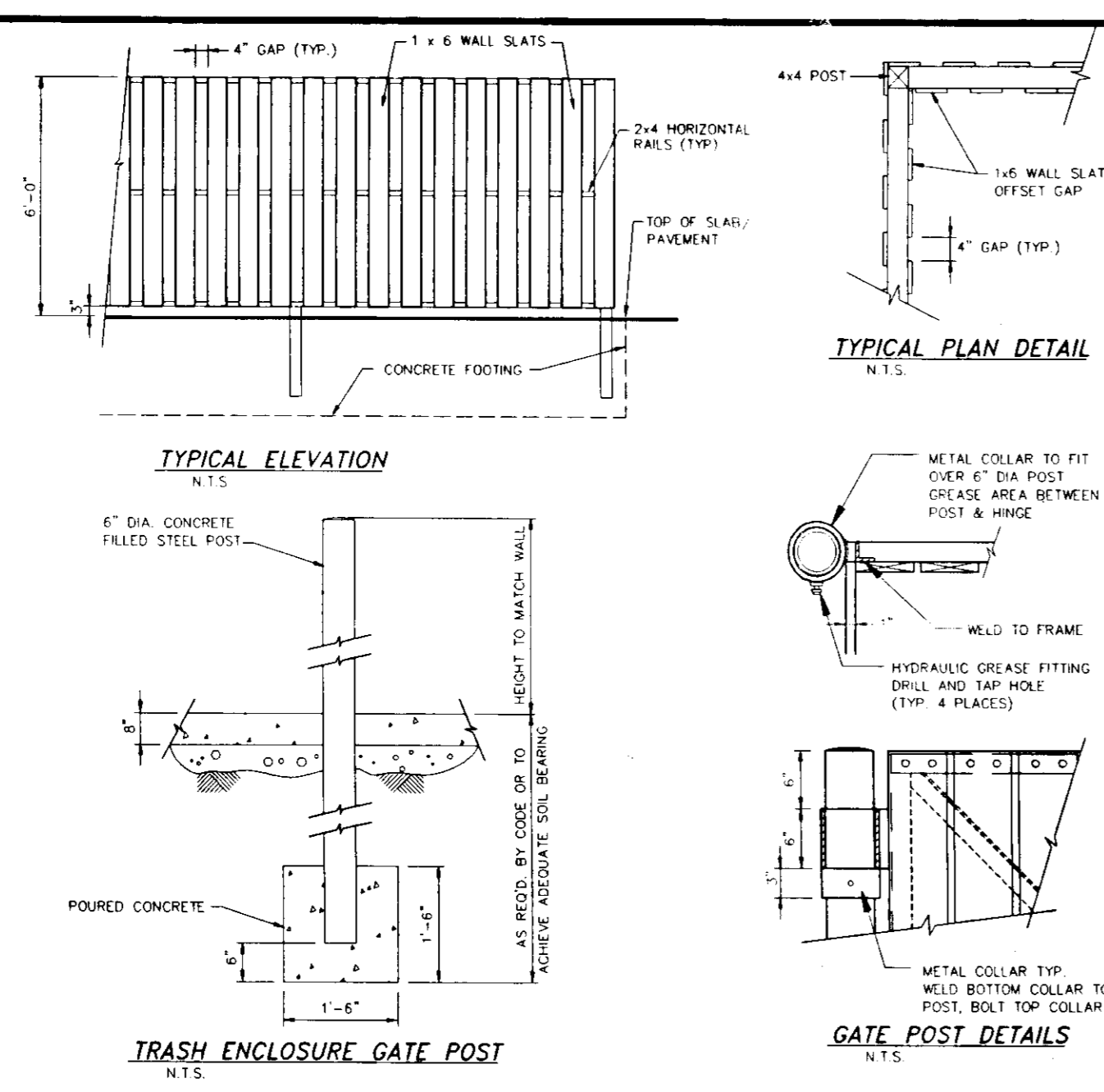
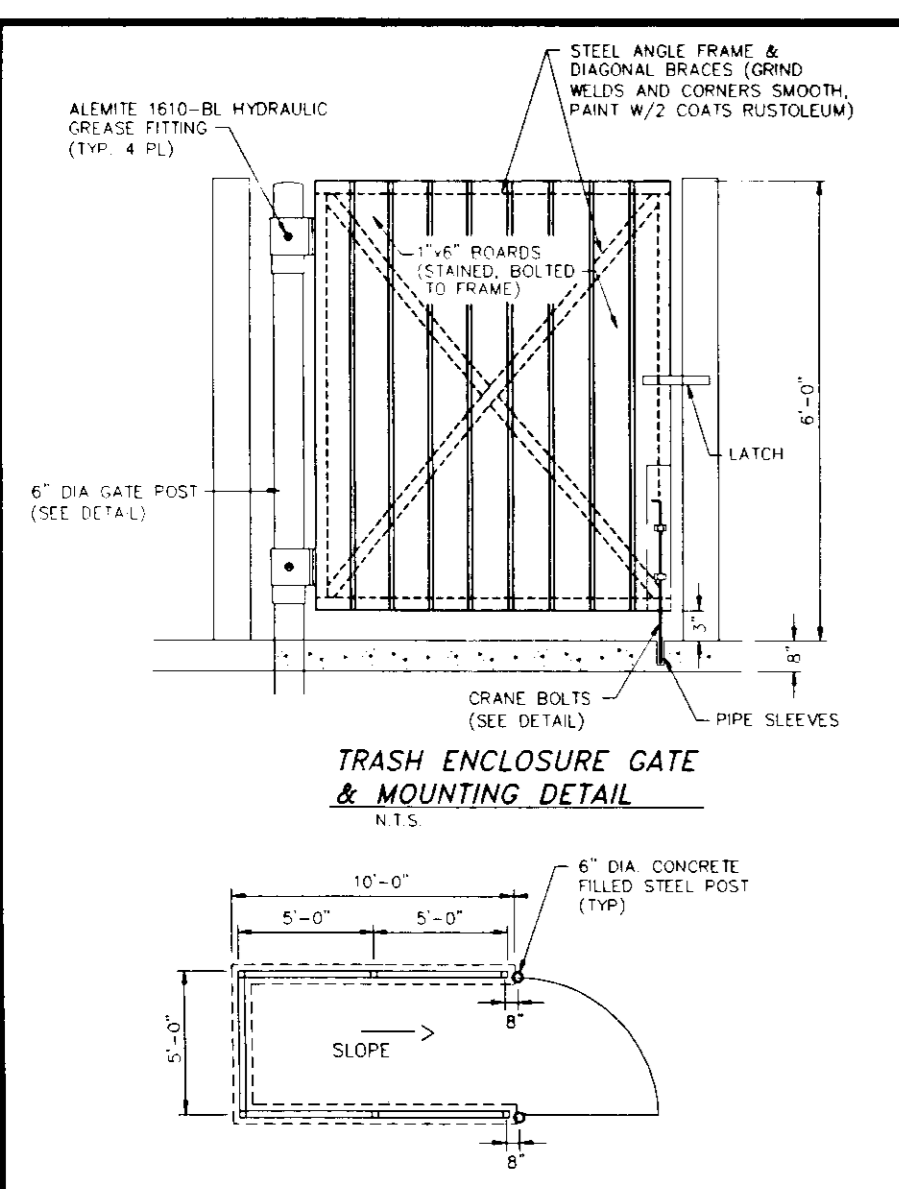


BUFFER FENCE DETAIL  
NOT TO SCALE



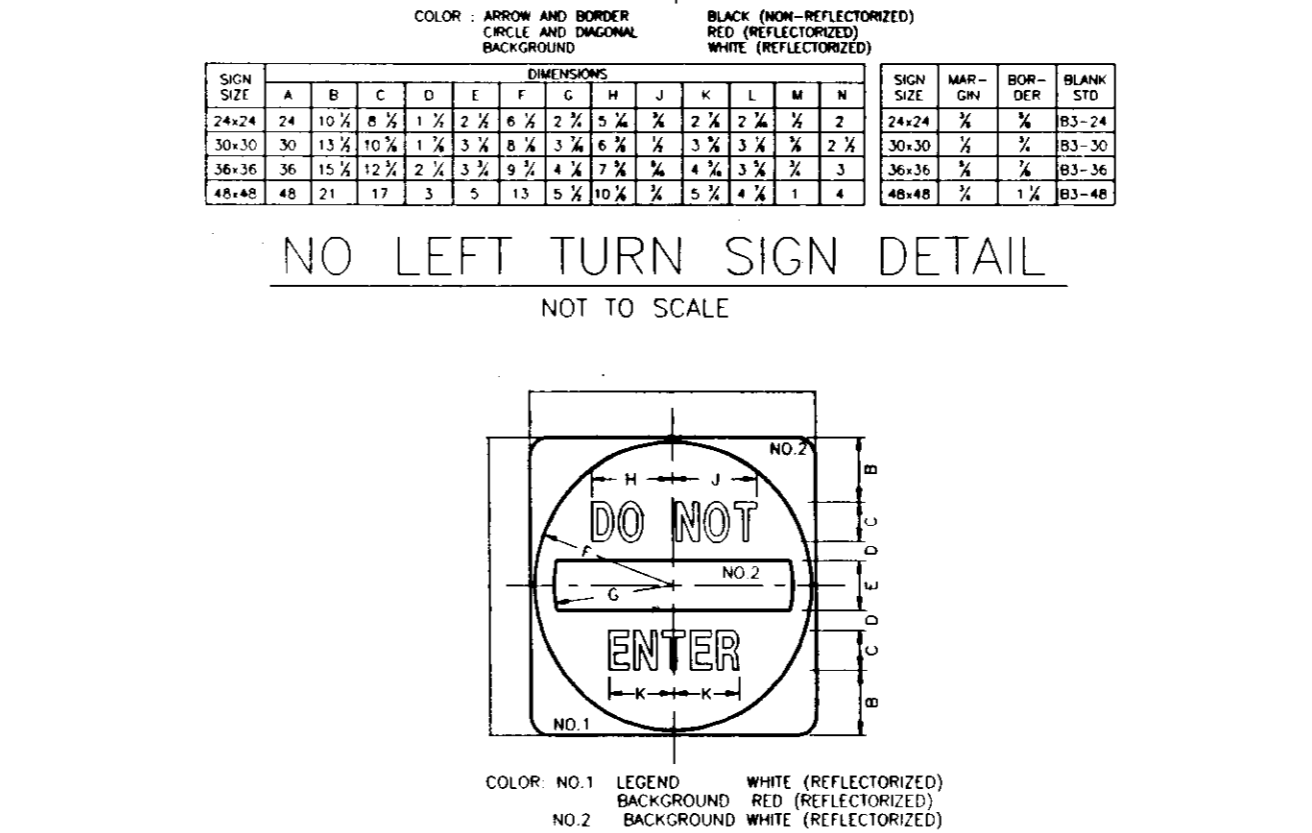
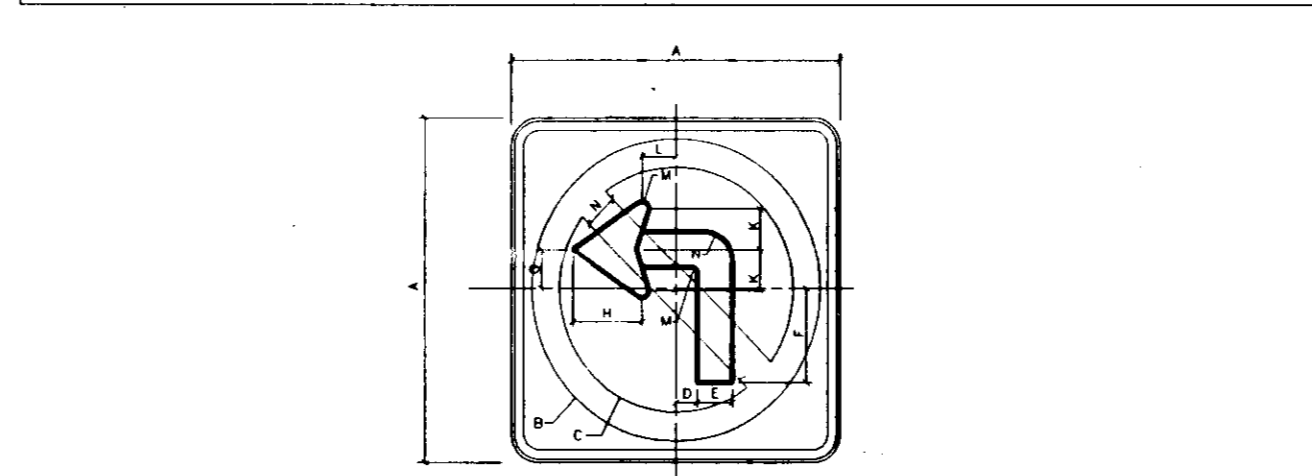
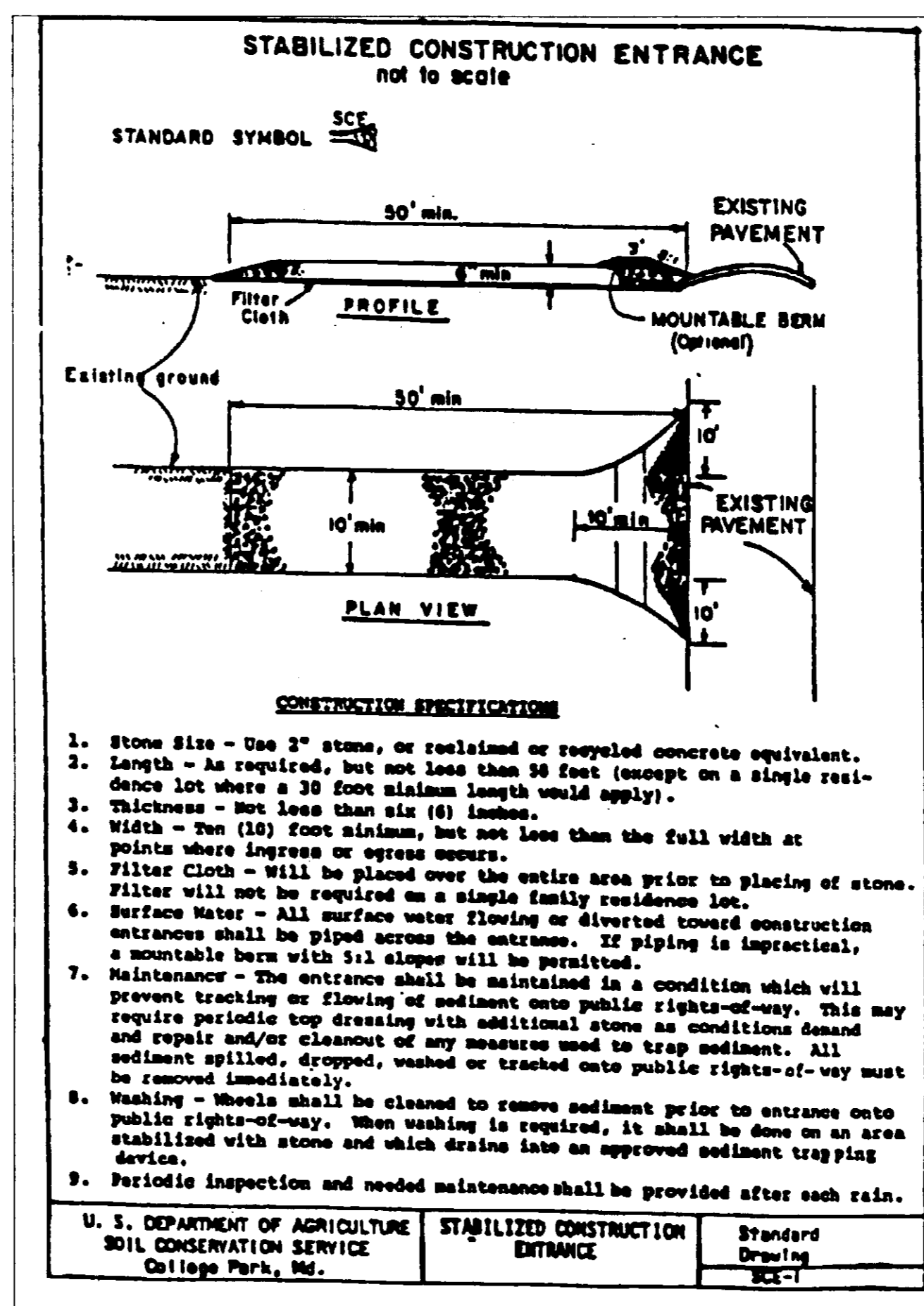
NOTE: THIS SHEET FOR LIGHTING & LANDSCAPING PURPOSES ONLY!

<b>BOHLER ENGINEERING, Inc.</b> CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD WATCHING, NEW JERSEY (908) 668-8300 100 CARPENTER DRIVE SUITE 202 STERLING, VIRGINIA 20164 (703) 904-8350 FAX: (703) 904-8356 1555 BUSTARD ROAD SUITE 100 KULPSVILLE, PENNSYLVANIA 19443 (215) 393-6300	
PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT	TITLE: <b>LIGHTING &amp; LANDSCAPE PLAN</b>
E.L. STEINFELDT PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 048314-E NEW JERSEY LICENSE NO. 34812 PENNSYLVANIA LICENSE NO. 40447 DELAWARE LICENSE NO. 10734 CONNECTICUT LICENSE NO. 17588	A.J. VOLANTH PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 048314-E NEW JERSEY LICENSE NO. 34812 PENNSYLVANIA LICENSE NO. 40447 DELAWARE LICENSE NO. 10734 VIRGINIA LICENSE NO. 0402 031438
SCALE: (H) 1" = 20' DATE: 01/20/97 DRAWN BY: BEK PROJECT NO: P97713 CHECKED BY: AW CAD ID: P7713556 CONSTRUCTION CHECK DATE:	SHEET NO: 10 OF 11 REV. NO: 6



**GENERAL NOTES:**

1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS M.S.H.A. STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. 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.
4. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
5. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
6. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
  - MISS UTILITY 1-800-257-7777
  - BELL ATLANTIC TELEPHONE UTILITIES 725-9976
  - HOWARD COUNTY BUREAU OF UTILITIES 313-4900
  - AT&T CABLE LOCATION DIVISION 393-3553
  - BALTIMORE GAS & ELECTRIC COMPANY 665-0123
  - STATE HIGHWAY ADMINISTRATION 531-5533
7. 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.
8. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
9. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
10. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
11. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
12. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
13. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL 02.01 (TRENCH BEDDING DETAILS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
14. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM WATER ONTO OR ACCESS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
15. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE-SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER TO BE LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
16. STORM WATER MANAGEMENT QUALITY CONTROL FOR THIS DEVELOPMENT IS PROVIDED BY AN ONSITE STORM WATER MANAGEMENT FACILITY IN THE FORM OF A STORMCEPTOR WATER QUALITY DEVICE WHICH SHALL BE PRIVATELY OWNED AND MAINTAINED.
17. ALL ELEVATIONS SHOWN ARE BASED ON USC&G DATUM REFERENCE HOWARD COUNTY SURVEY CONTROL DISK #2418, ELEVATION=391.27.
18. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
19. WATER METERS ARE TO BE LOCATED INSIDE THE BUILDINGS.
20. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS.
21. PUBLIC WATER AND SEWER ARE TO BE UTILIZED FOR THIS PROJECT. PUBLIC WATER CONTRACT 11W, DWG. #4, WATER ZONE CODE F04 PUBLIC SANITARY SEWER CONTRACT 20-1081, DWG. #3, DRAINAGE CODE 5750615.
22. THERE IS NO ONSITE 100 YEAR FLOODPLAIN.
23. THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH ONE (1) FOOT CONTOUR INTERVALS PREPARED BY CONTROL POINT ASSOCIATES, INC. DATED MARCH 5, 1996.
24. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY SURVEY CONTROL DISK #2418 (ELEV. 391.27) WAS USED FOR THIS PRODUCT.
25. EXISTING UTILITIES ARE BASED ON A BOUNDARY AND TOPOGRAPHICAL SURVEY, PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED 3/5/96, FILE # C96029.
26. THERE ARE NO WETLANDS ON THIS SITE.



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

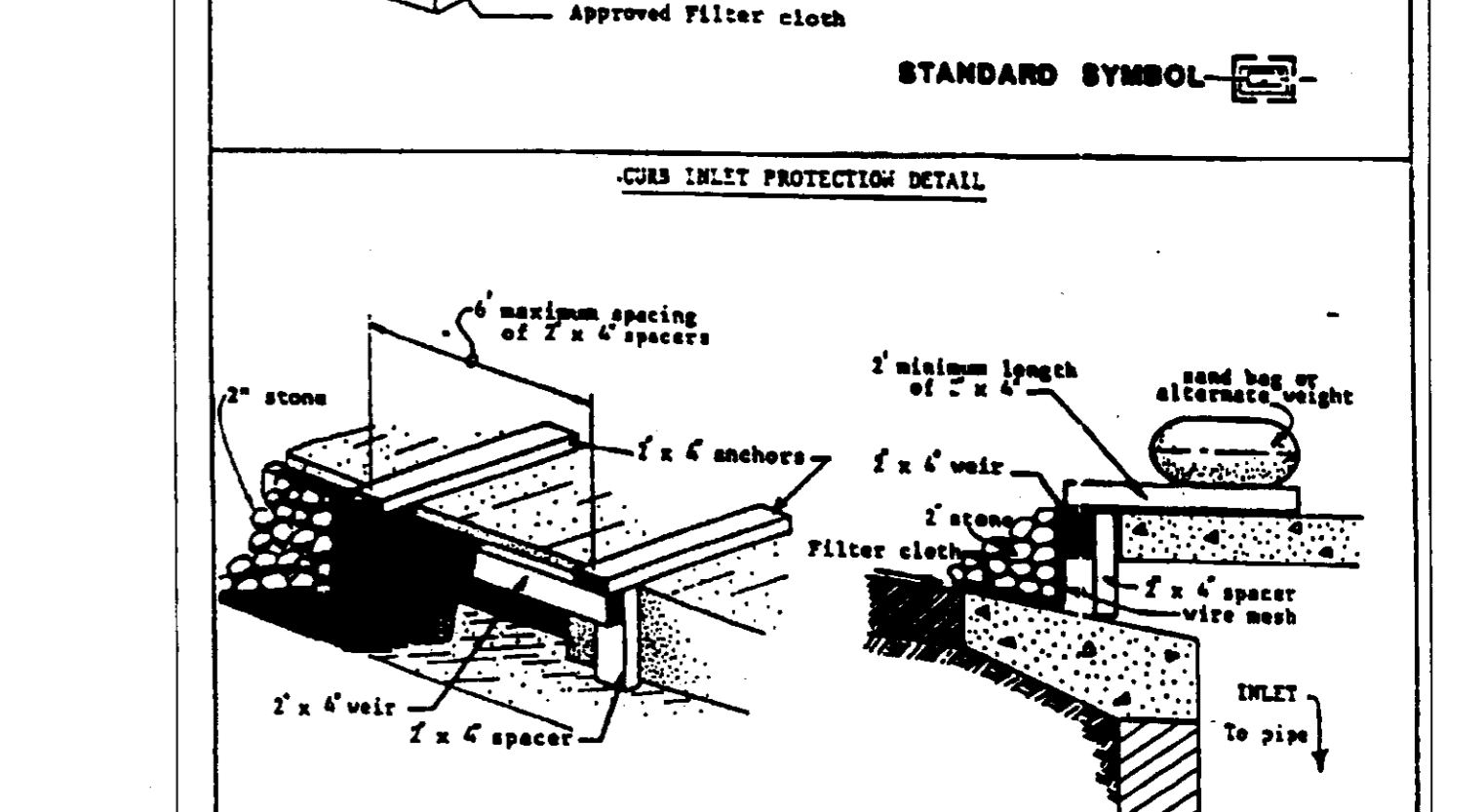
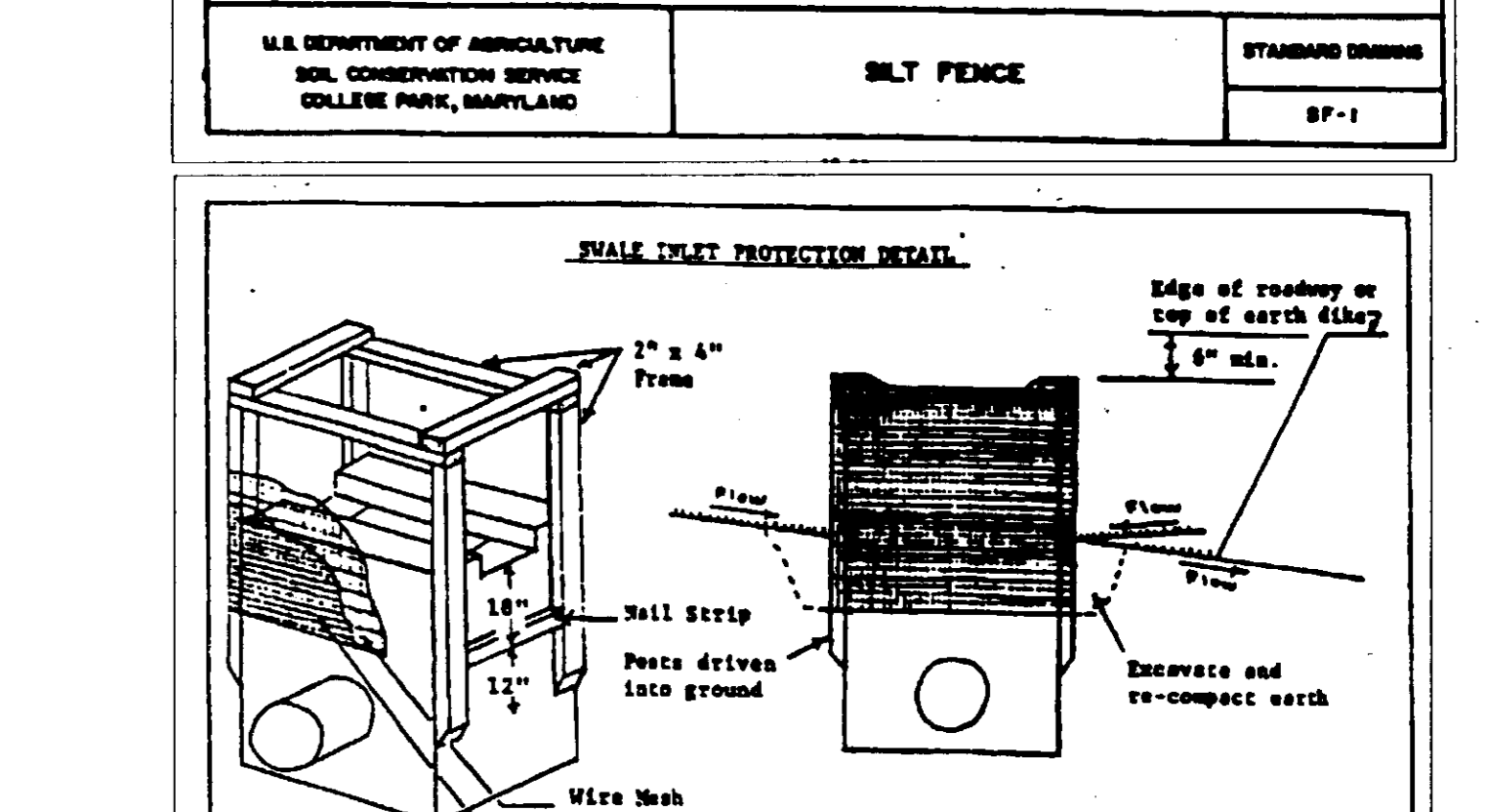
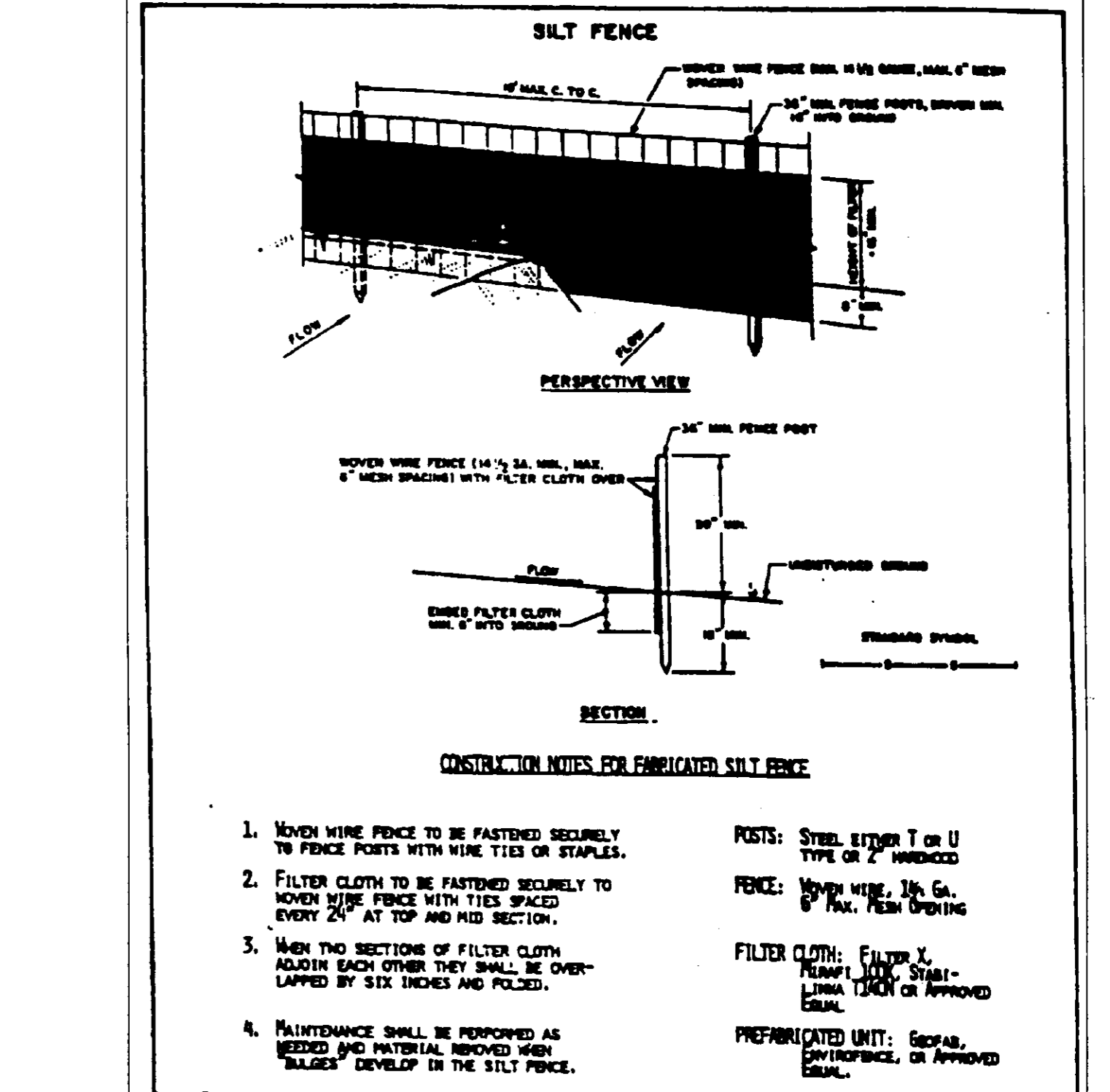
*James M. Boyd* 12-29-97  
COUNTY HEALTH OFFICER HR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 12/29/97  
DIRECTOR DATE

*Richard Blood* 12/29/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Richard Blood* 12/29/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



OWNER: SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900 RESTON, VA 22090, c/o MS. RACHEL COX PHONE #: (703) 707-5610

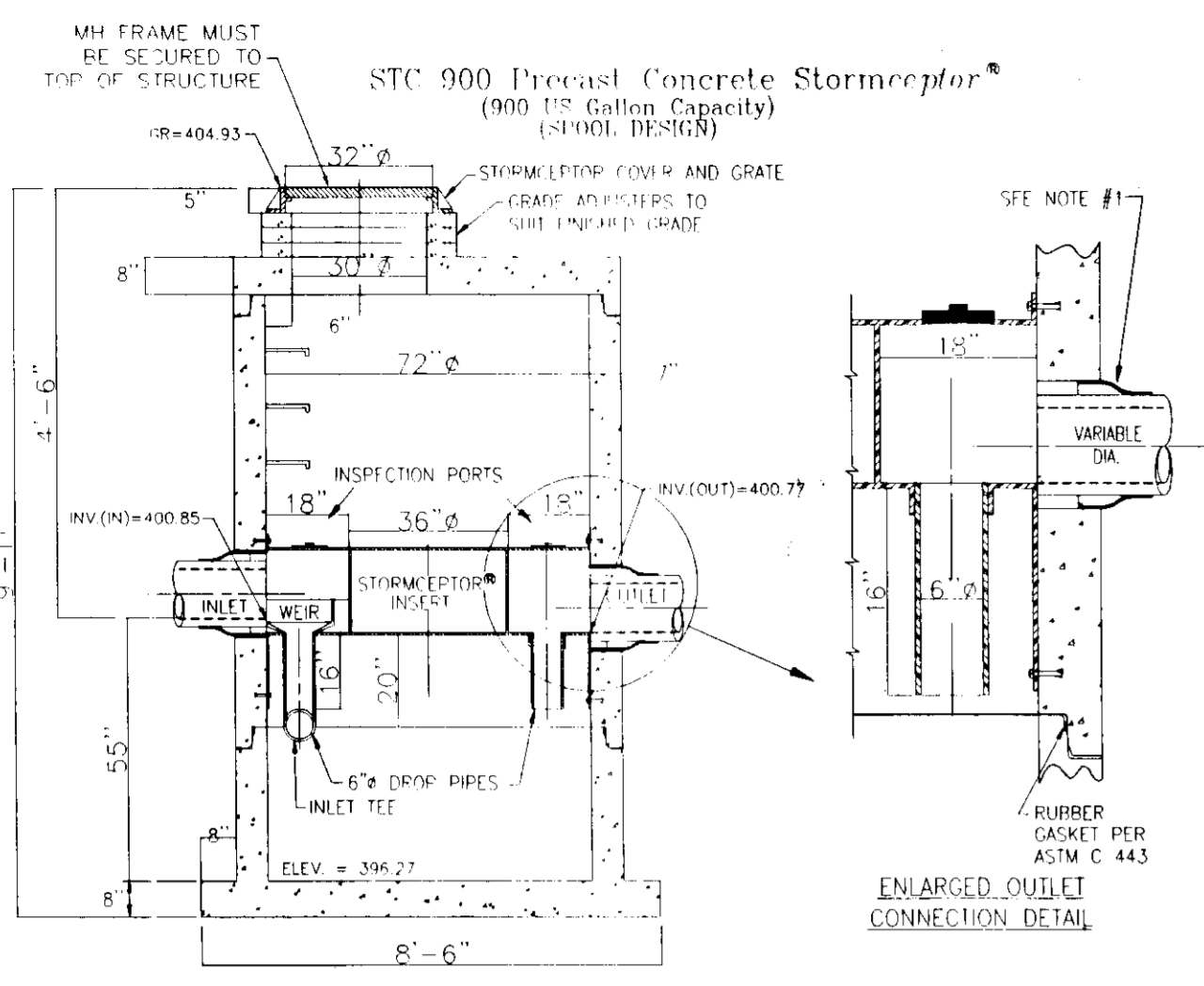
**BOHLER ENGINEERING, INC.**  
• CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS •  
1555 BUSTARD ROAD SUITE 100 KULPSVILLE, PENNSYLVANIA 19443  
775 MOUNTAIN BOULEVARD WATCHUNG, NEW JERSEY SUITE 202 STERLING, VIRGINIA 20164  
(908) 668-8300 PHONE: (703) 904-8350 FAX: (703) 904-8356 (215) 393-8300

PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD  
TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT

TITLE: MISC. NOTES & DETAILS

E.L. STEINFELDT A.J. VOLANTH  
PROFESSIONAL ENGINEER NEW YORK LICENSE NO. 69719 NEW JERSEY LICENSE NO. 54812 PENNSYLVANIA LICENSE NO. 40447 DELAWARE LICENSE NO. 8704 CONNECTICUT LICENSE NO. 17588  
PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 69719-MARYLAND LICENSE NO. 21342 NEW JERSEY LICENSE NO. 39339 VIRGINIA LICENSE NO. 0402 031430

SCALE: (H) AS NOTED (V) DATE: 01/20/97 SHEET No: 4 OF 11  
DRAWN BY: BEK PROJECT No: P97713  
CHECKED BY: AVN CAD ID: F7713014  
CONSTRUCTION CHECK DATE



SECTION THRU CHAMBER  
 1. CSR RECOMMENDS THE USE OF FLEXIBLE CONNECTION AT THE INLET AND OUTLET WHERE APPLICABLE.  
 2. COVER TO BE POSITIONED OVER INLET INSPECTION PORT.

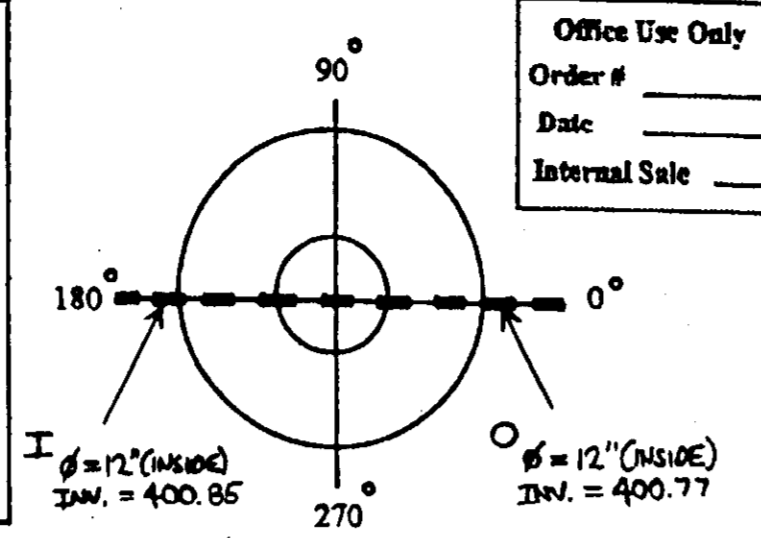
### Concrete Stormceptor® Order Request Form \*

**Contractor Information**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_  
 Zip Code \_\_\_\_\_  
 Contact \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Fax \_\_\_\_\_

**Office Use Only**

Order # \_\_\_\_\_  
 Date \_\_\_\_\_  
 Internal Sale \_\_\_\_\_



**Owner Information**

Name Shell Oil Co., Attn: Rachel Cox  
 Phone 703-707-5610  
 Fax 703-707-5640

Stormceptor® Model	Insert Size	Manhole Number	NO. ST.
900 <input checked="" type="checkbox"/>	22" <input checked="" type="checkbox"/>	Top Elevation (ft)	404.93
1200 <input type="checkbox"/>	32" <input type="checkbox"/>	Inlet Pipe Invert (ft)	400.85
1800 <input type="checkbox"/>	44" <input type="checkbox"/>	Outlet Pipe Invert (ft)	400.77
2400 <input type="checkbox"/>	Custom _____	Pipe Type: <u>RCP CL III</u>	12"
		Pipe Inside Diameter (in) [ID]	16-1/2"
		Pipe Outside Diameter (in) [OD]	

**Project Name** Shell Oil Co. - Ellicott City, Howard County, MD  
**Approximate time frame until required delivery (weeks)** Approx. construction start-5/15/97  
**Delivery Address: Street** 4205 Montgomery Road  
**City** Ellicott City **State** Maryland **Zip Code** \_\_\_\_\_  
**Designer Company** Bohler Engineering  
**Designer Contact** Adam Volanth, P.E. **Phone** 215-393-8300 **Fax** \_\_\_\_\_

Please fax this order to Stormceptor at (301) 762-4190  
 For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1 (800) 762-4703

\* TO BE INCLUDED ON SWM PLAN BY DESIGNER 12/20/95

- CONTRACTOR INSTALLATION INSTRUCTIONS  
 PRECAST CONCRETE STORMCEPTOR
- 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 THE BOTTOM OF THE EXCAVATION. INSTALL TRENCH BOX OR SHORING AS NEEDED.
  - CHECK ELEVATION OF UNIT BY MEASURING 12" BELOW FROM BASE OF STORAGE CHAMBER (BOTTOM OF UNITS START 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 SUBGRADE AND SUBBASE. ALL LIFTING APPARATUS IS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR.
  - INSTALL STORAGE CHAMBER. (INSTALL SCHEDULED LIFTING PINS INTO BASE OF STORAGE CHAMBER). ATTACH CABLES OR CHAINS TO ALL 3 LIFT LOOPS 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).
  - INSTALL BYPASS SECTION 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 W-SHAPED FIBERGLASS WEIRS (INSIDE INSERT). INSTALL RUBBER GASKET ON TOP OF BYPASS SECTION AND COAT WITH LUBRICATING GREASE, IF NOT PRELUBRICATED.
  - INSTALL STORMCEPTOR DROP PIPES ACCORDING TO STC PIPE INSTALLATION PROCEDURE.
  - 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 STEPS ARE INCLUDED, ADDITIONAL STEPS ABOVE MUST BE REQUIRED. NOTE: FOR SHALLOW INSTALLATIONS, THIS SECTION MAY NOT BE REQUIRED.
  - INSTALL TOP SLAB WITH OPENING FOR STORMCEPTOR FRAME AND COVER. IF OPENING IS OFFSET (NOT CENTERED) THE TOP SLAB OPENING SHOULD BE ORIENTED ABOVE THE STORMCEPTOR INLET INSPECTION PORT (PIUG).
  - BACKFILL STORMCEPTOR WITH APPROVED BACKFILL MATERIAL (NO ORGANIC OR TOPSOIL OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL SHOULD BE COMPACTED TO LOCAL/STATE REQUIREMENTS.
  - INSTALL AND SET GRADE ADJUSTING RINGS, AS NEEDED. PLACE ALL LIFT HOLES WITH TARED FLEXIBLE PLUG AND KNIFE IN PLACE. PLUGS IN STORAGE CHAMBER MUST BE GROUTED INSIDE AND OUTSIDE WITH GROUT.
  - INSTALL AND SET STORMCEPTOR FRAME AND COVER.
  - INSTALL INLET AND OUTLET STORM DRAIN PIPES. CONNECT INLET AND OUTLET STORM DRAIN PIPES WITH FLEXIBLE BOOT (WHEN PROVIDED) AND WITH NON-SHRINK GROUT WHEN NO FLEXIBLE BOOT IS PROVIDED. THE INVERT OF THE INLET AND OUTLET PIPE IS TO MATCH UP WITH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT INSTALLATION PROCEDURES: CENTER THE PIPE IN 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 CONTACT OF THE RUBBER. MOVE PIPE HORIZONTALLY AND/OR VERTICALLY TO BRING TO GRADE.
  - THE STORMCEPTOR SHOULD BE PUMPED OUT WHEN THE SEDIMENT CONTROL MEASURES ARE REMOVED (SEE PERMANENTLY STABILIZED).
  - FINAL INSPECTION.
- FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703

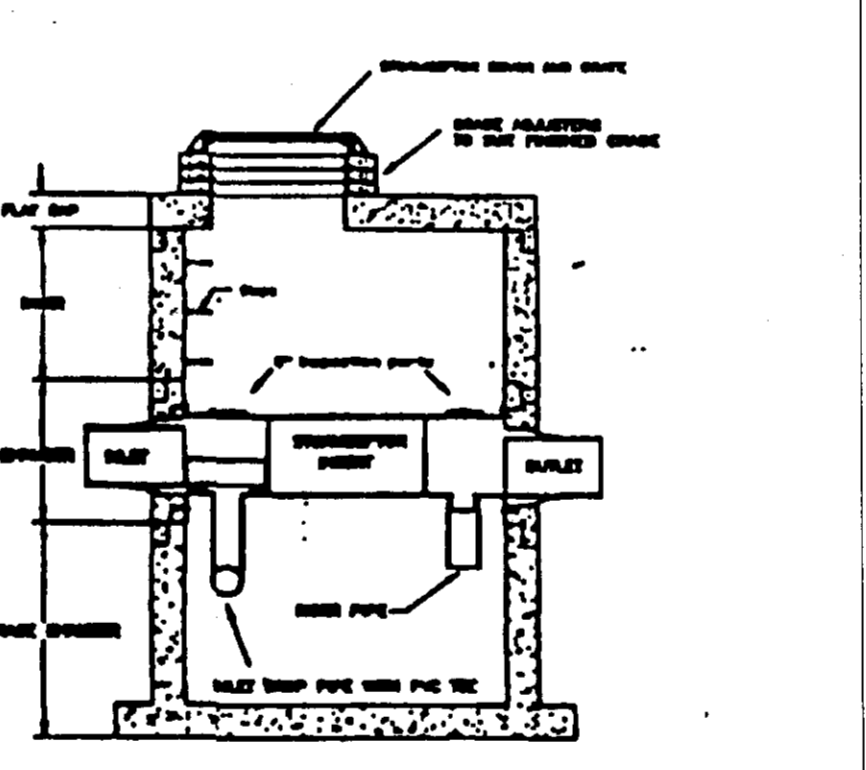
- OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICES
- THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE PERIODICALLY INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE OWNER SHALL INSPECT THE STORMCEPTOR UNIT YEARLY AT A MINIMUM UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS SHALL BE DONE BY USING A CLEAR FLEX-GLASS TUBE (SLUDGE JUDGE) TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE SEDIMENT LEVELS EXCEED THE LEVELS SPECIFIED IN TABLE 6 OF THE STORMCEPTOR TECHNICAL MANUAL, THE UNIT MUST BE CLEANED.
  - THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES.
  - THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
  - THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR UNIT SHALL BE REPAIRED AS NEEDED.
  - THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO THE HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

- INSPECTION NOTES: PRECAST CONCRETE STORMCEPTOR
- PRIOR TO THE START OF INSTALLING THE STORMCEPTOR, THE MDEP INSPECTOR MUST BE CALLED 48 HOURS IN ADVANCE AT (301) 217-6301 (PRE-CONSTRUCTION MEETING).
  - THE MDEP INSPECTOR MUST BE NOTIFIED (217-6301) AT EACH OF THE FOLLOWING STAGES:
    - APPROVAL OF SUBGRADE. PREPARE A COMPACTED GRAVEL BED AT THE BOTTOM OF THE EXCAVATION (TYPICAL 6" DEEP). COMPACT GRANULAR MATERIAL.
    - PLACE STORMCEPTOR IN EXCAVATION AT CORRECT ELEVATION AND AT CORRECT ALIGNMENT AND GRADE FOR INLET AND OUTLET STORM DRAINS. LEVEL UNIT. INSTALL BASE AND LOWER FRAME. MIDDLE SECTION WITH STORMCEPTOR INSERT, RISER SECTION, TOP SLAB WITH PERSONWAY, LEVELING RINGS AND MANHOLE FRAME AND COVER.
    - BACKFILL STORMCEPTOR WITH SUITABLE NATIVE SOIL (NO ORGANIC OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL SHOULD RECEIVE COMPACTIVE EFFORT.
    - WHEN SITE IS PERMANENTLY STABILIZED AND SEDIMENT CONTROL MEASURES HAVE BEEN REMOVED AND STABILIZED, THEN THE STORMCEPTOR WILL BE FIMPED OUT AND CLEANED, FILLED WITH CLEAN WATER, AND PLACED IN STORMWATER MANAGEMENT OPERATION.
    - FINAL INSPECTION.

AS MANUFACTURED BY CSR-HYDRO CONDUIT AND STORMCEPTOR CORPORATION. MODEL STC-1800, PRECAST CONCRETE. FOR TECHNICAL INFORMATION CALL STORMCEPTOR AT 1-800-762-4703. TO ORDER CONTACT CSR-HYDRO CONDUIT, VIRGINIA PRECAST AT 1-800-999-2278 AT LEAST 4 WEEKS PRIOR TO NEEDED DELIVERY.

CONTACT VINCE BERG @ (301) 762-8361 FOR STORMCEPTOR TECHNICAL INFORMATION, IF APPROPRIATE.

### STC PIPE INSTALLATION PROCEDURE



- MODELS STC 900, STC 1200, STC 1800
- DROP PIPE INSTALLATION**
- Drop pipe MUST NOT be attached to Stormceptor® riser until the BY-PASS CHAMBER section has been connected to the installed STORAGE CHAMBER.
  - Install the drop pipe while inside the Storage Chamber. Enter the Storage Chamber via a ladder placed down the Stormceptor riser pipe hole.
  - The drop pipe with the T-section MUST be connected to the INLET riser using the supplied PVC cement. Make certain that the orientation of the Tee is correct. (see drawings).
  - The riser pipe MUST be connected to the OUTLET riser using the supplied PVC cement.

OWNER:  
 SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
 RESTON, VA 20190, c/o MS. RACHEL COX  
 PHONE #: (703) 707-5610

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

### 4.0 Installation Procedures

#### 4.1 Concrete Stormceptor® Installation

The installation of the concrete Stormceptor® should conform in general to state highway or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

**Excavation**  
 Excavation for the installation of the Stormceptor® should conform to state highway or local specifications. Topsoil that is removed during the excavation for the Stormceptor® should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles, and the general site preparation for the installation of the Stormceptor® should conform to state highway or local specifications.

The Stormceptor® should not be installed on frozen ground. Excavation should extend a minimum of 12 inches from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

**Leveling**  
 A 6 to 12 inch layer of granular material (conforming to local or state highway backfill specifications) should be installed, compacted, and leveled at the bottom of the excavation to the proper elevation for the installation of the interceptor base.

**Backfilling**  
 Backfill material should conform to state highway or local specifications. Generally, backfill material should be placed in uniform layers not exceeding 12 inches in depth. Each layer should be compacted to 93% of the maximum dry density. Backfill is not to contain topsoil.

SITE AND IMPERVIOUS DRAINAGE AREA DATA			
SITE	TOTAL DRAINAGE AREA (ACRES)	GREEN SPACE ACRES	IMPERVIOUS AREA ACRES
4205 MONTGOMERY RD HOWARD CO. MD	0.292 ACRES	0.037 ACRES	0.255 ACRES

WATER QUALITY TREATED FLOWS			
STORMCEPTOR MODEL	IMPERVIOUS DRAINAGE AREA (ACRES)	STORM DRAIN SIZE (in/ou)	MAX TREATED FLOW RATE (gallons per minute / cfs)
STC 900	0.255 ACRES	12"RCP/12"RCP	285 gpm/0.64 cfs

STORMCEPTOR CAPACITIES			
STORMCEPTOR MODEL	TOTAL HOLDING CAPACITY (gallons)	OIL HOLDING CAPACITY (gallons)	SEDIMENT HOLDING CAPACITY** (cubic feet)
STC 900	950 gallons	280 gallons	75 cubic feet

\* TOTAL SUSPENDED SEDIMENT REMOVAL EFFICIENCY OF BREE ANTIPIATED, PER STORMCEPTOR LITERATURE

STORMCEPTOR MAX TREATMENT AREAS			
STORMCEPTOR MODEL	IMPERVIOUS DRAINAGE AREA	MAX IMPERVIOUS AREA GUIDELINE (urban drainage area)	MAX IMPERVIOUS AREA GUIDELINE (treatment train area *)
STC 900	0.255 ACRES	0.36 ACRES	0.45 ACRES

\* A DOWNSTREAM REGIONAL STORMWATER MANAGEMENT FACILITY IS OPERATIONAL

STORMCEPTOR BYPASS DESIGN DATA				
STORMCEPTOR MODEL	TOTAL DRAINAGE AREA	O10 (cfs)	INSERT SIZE HEIGHT (feet)	MAX BYPASS FLOW RATE (cfs)
STC 900	0.292 ACRES	1.75 cfs	22 INCHES	11.9 cfs

STRUCTURE SCHEDULE			
STORMCEPTOR MODEL	TOP OF GRAVEL BASE ELEV.	STORM DRAIN INVERT ELEV.	STORM DRAIN TOP ELEV.
STC 900	395.60	400.85/400.77	404.93

\* CHECK DELIVERED UNITS DIMENSIONS TO CONFIRM DESIGN ELEVATIONS

MAXIMUM IMPERVIOUS DRAINAGE AREA GUIDELINES (AC)				
STORMCEPTOR MODEL (STC/STC)	SENSITIVE AREA (SOIL TSS REMOVAL)	STANDARD AREA (70% TSS REMOVAL)	DEGRADED AREA (60% TSS REMOVAL)	TREATMENT TRAIN AREA (50% TSS REMOVAL)
900	0.45*	0.55	0.70	0.90

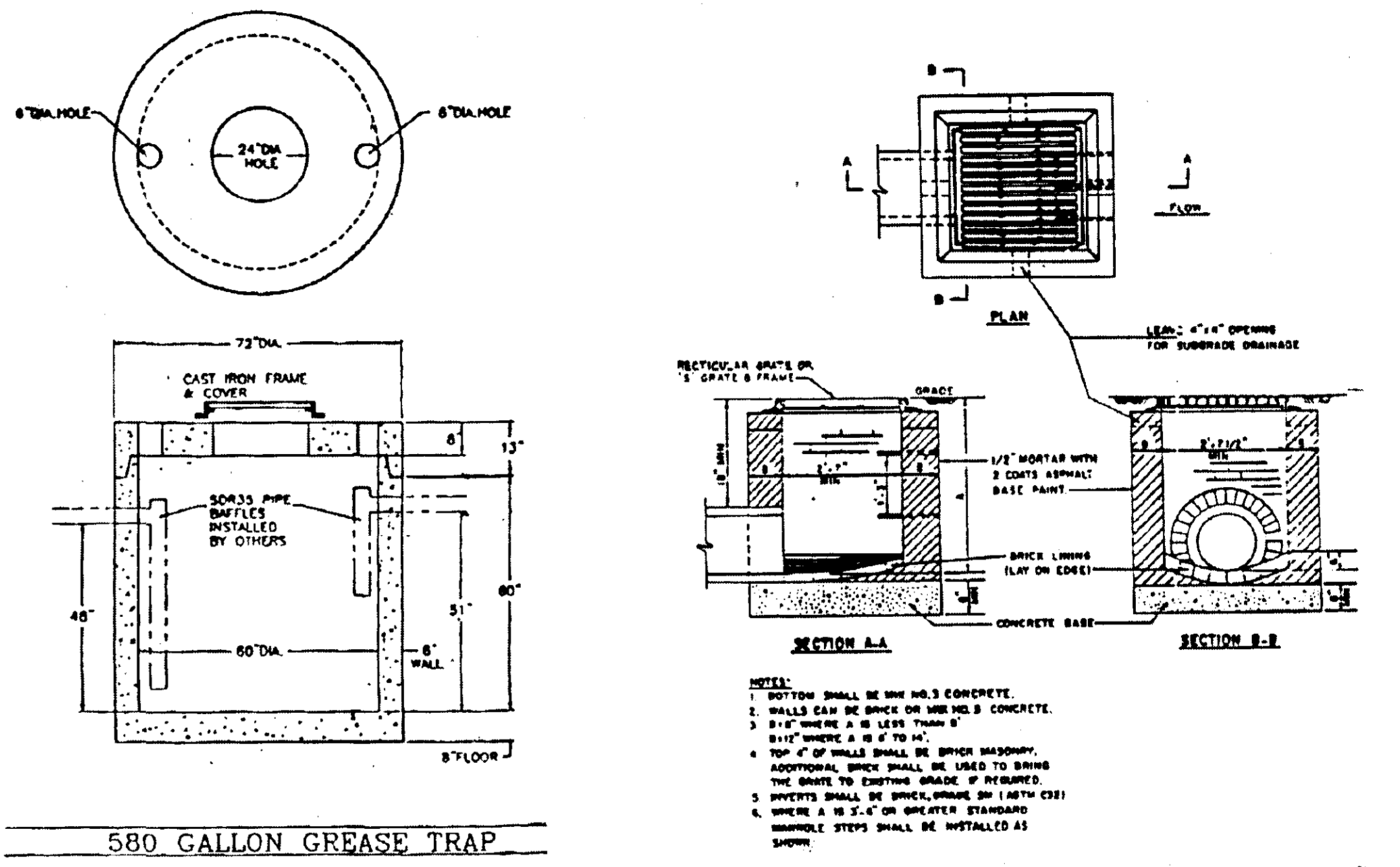
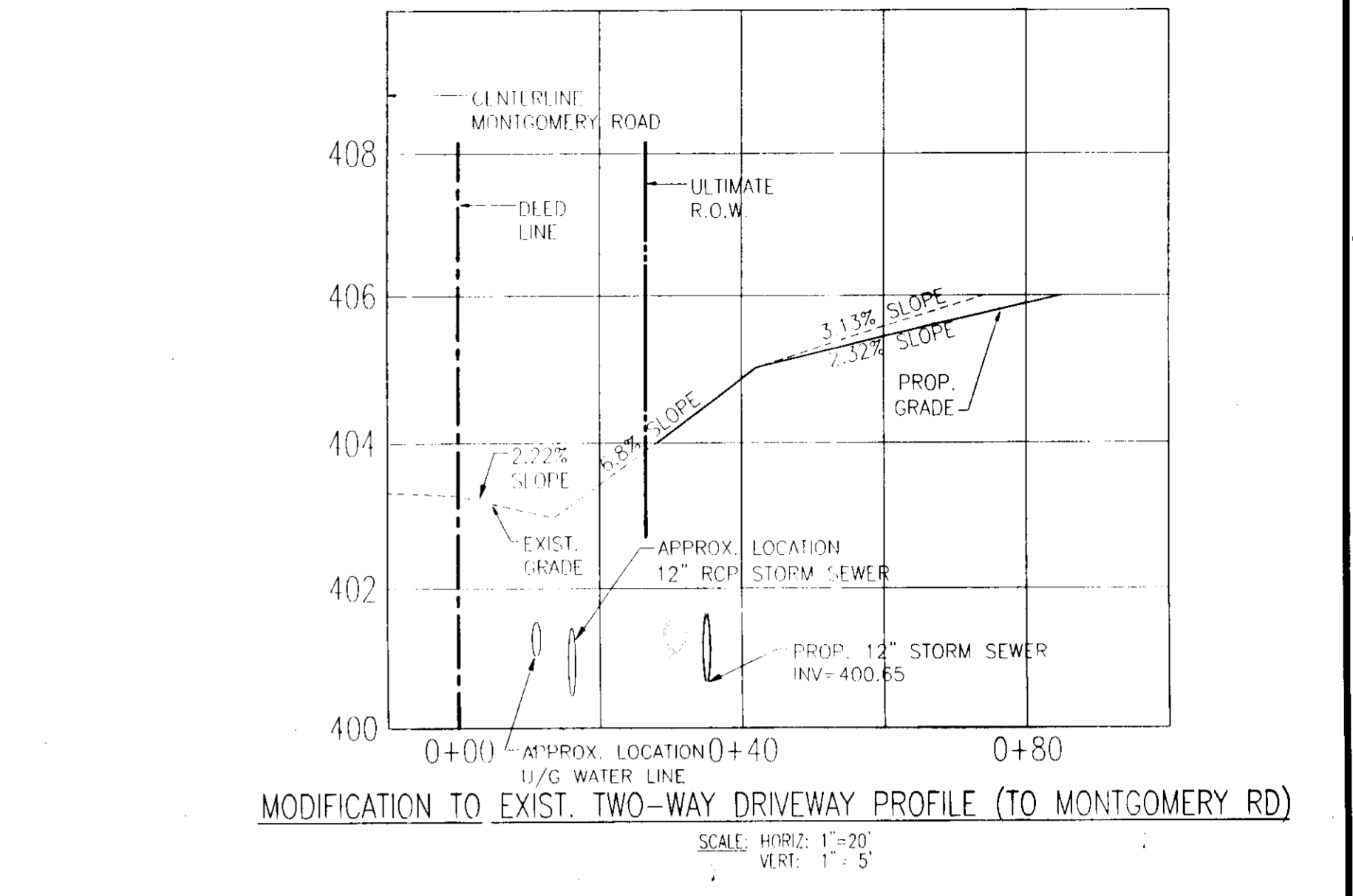
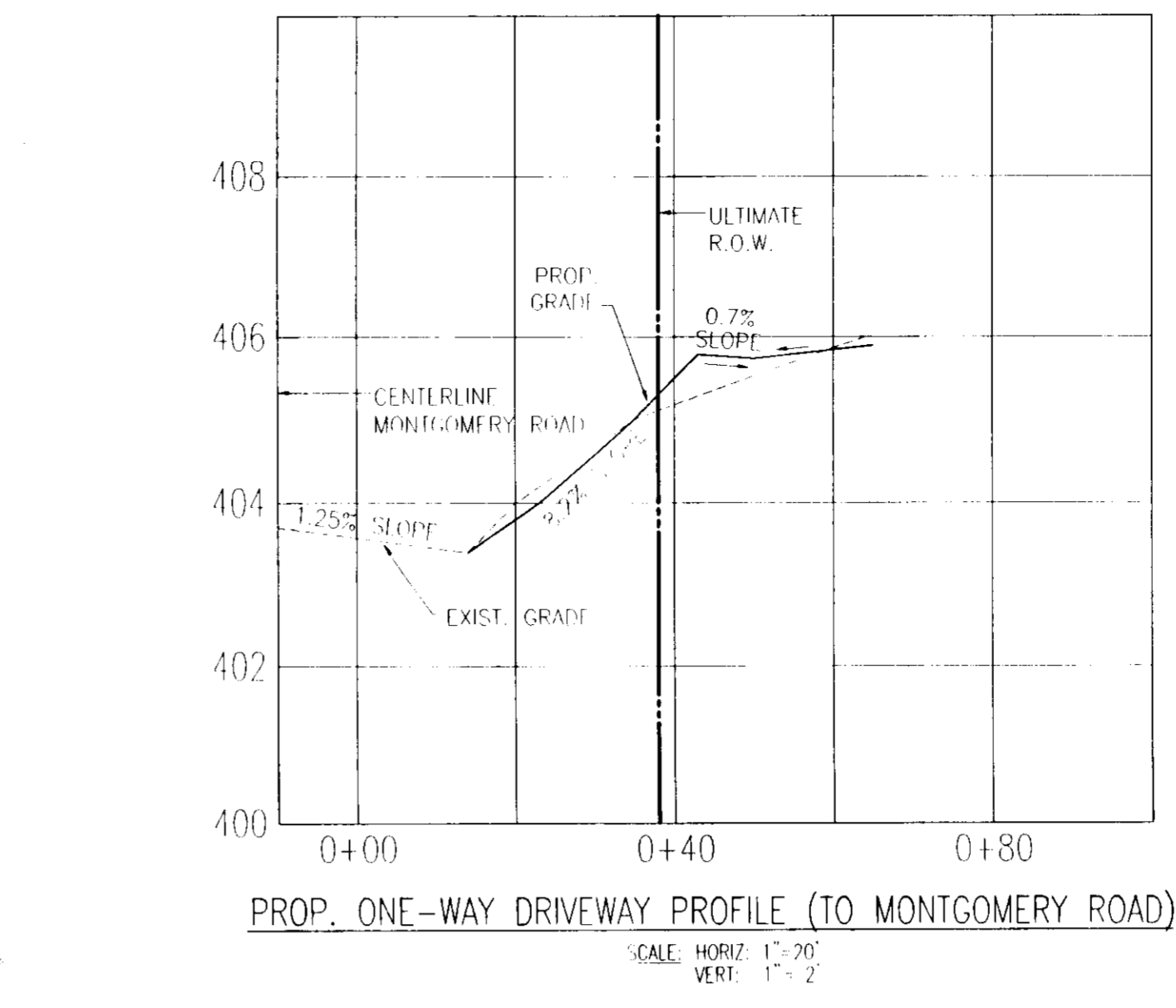
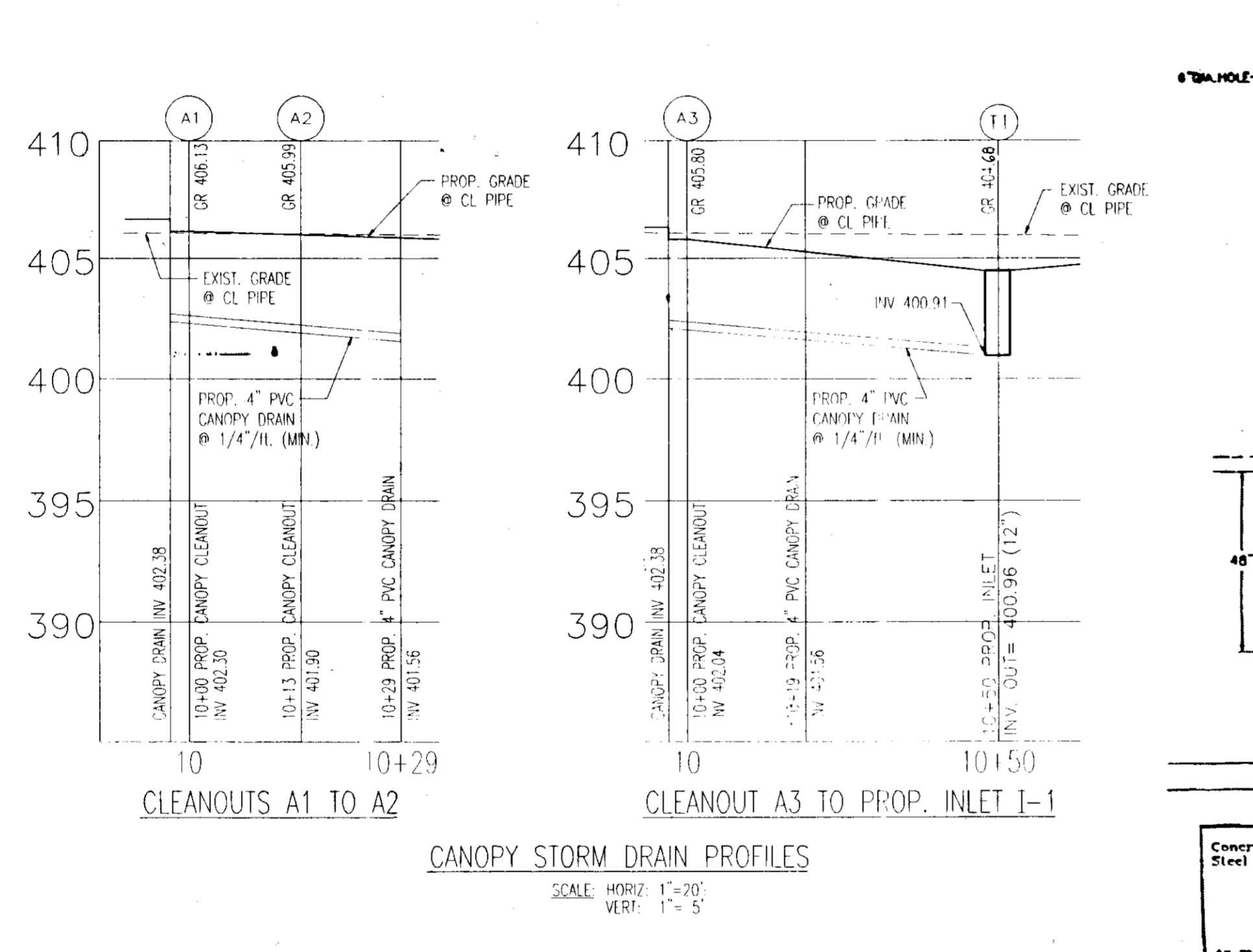
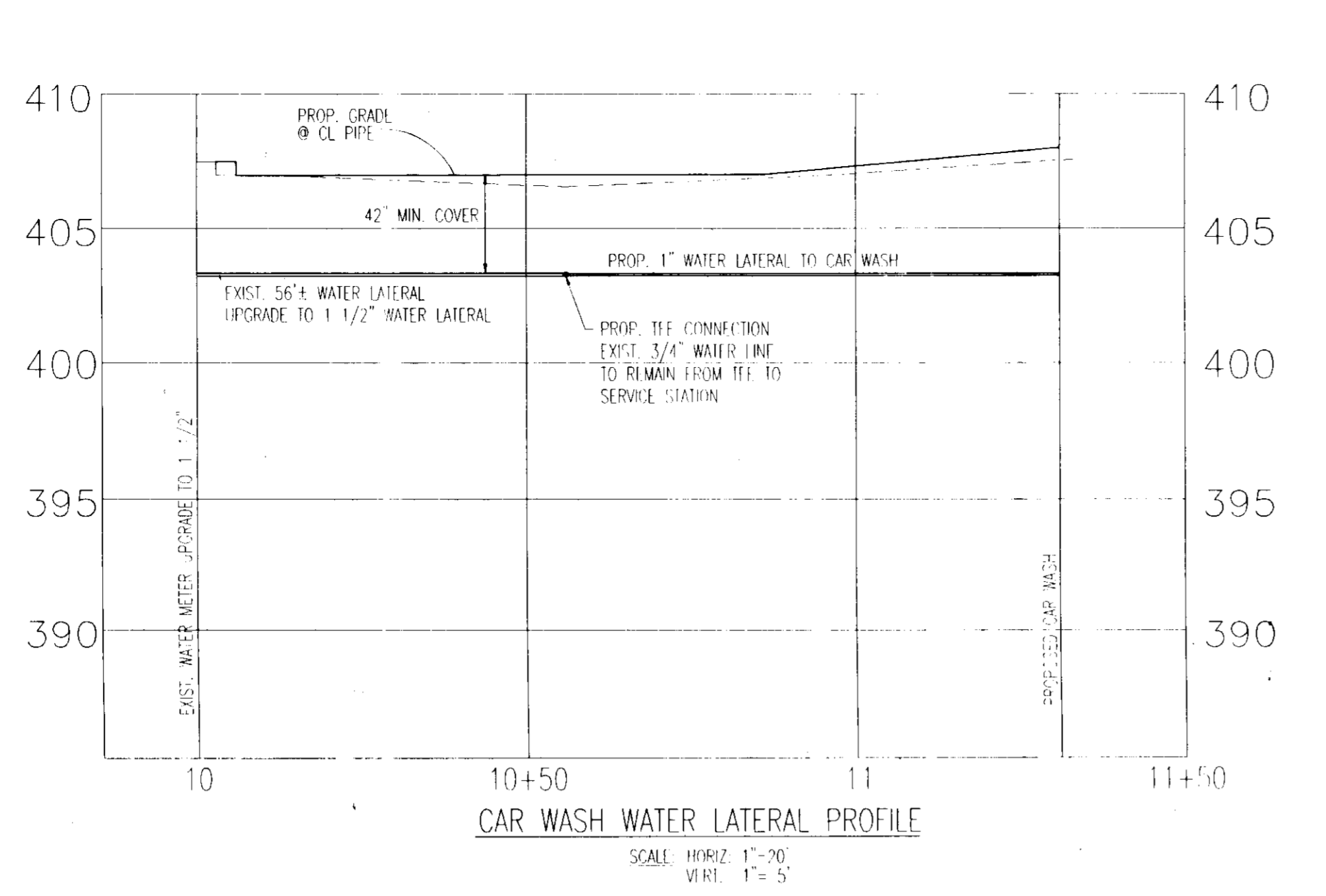
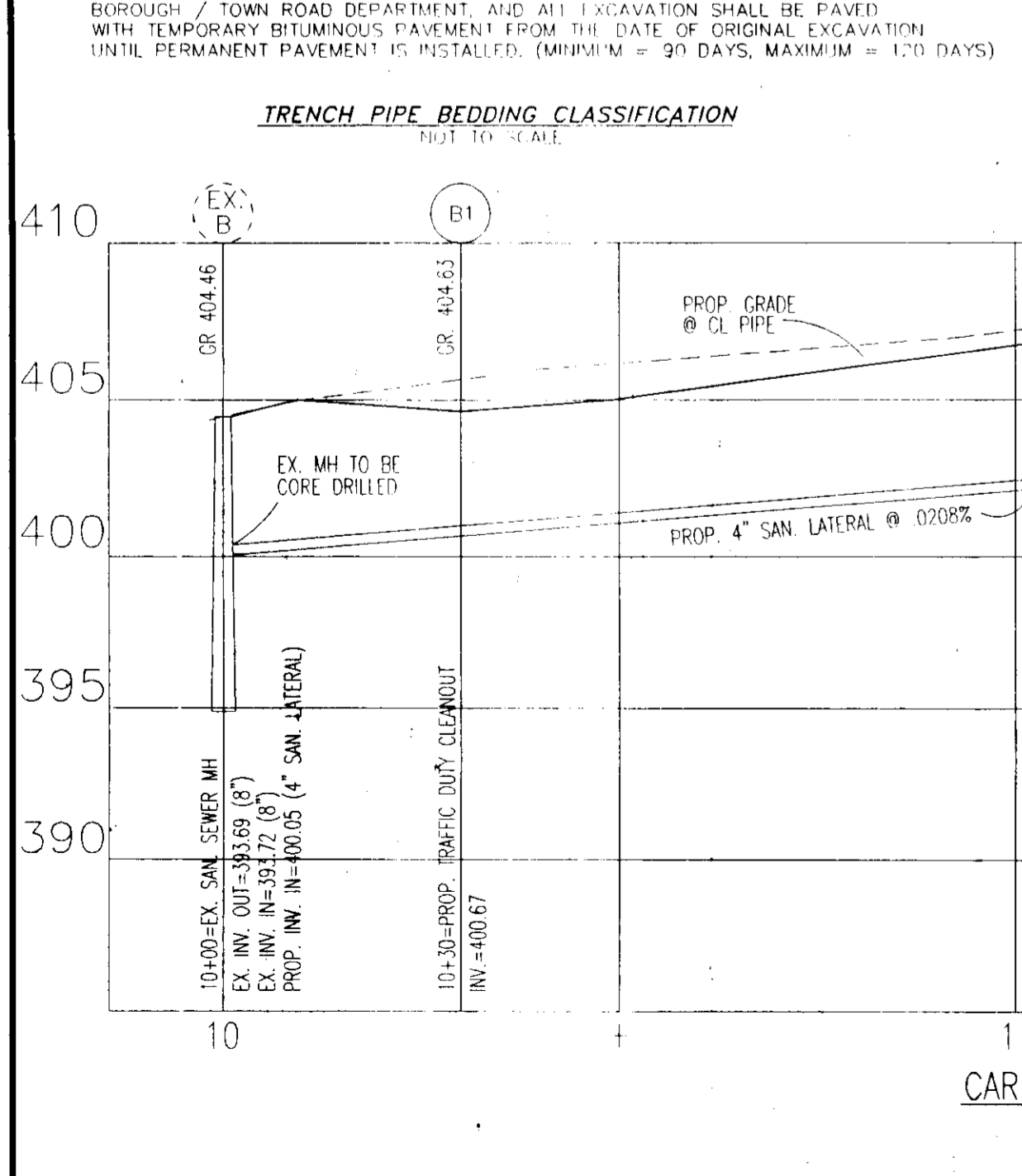
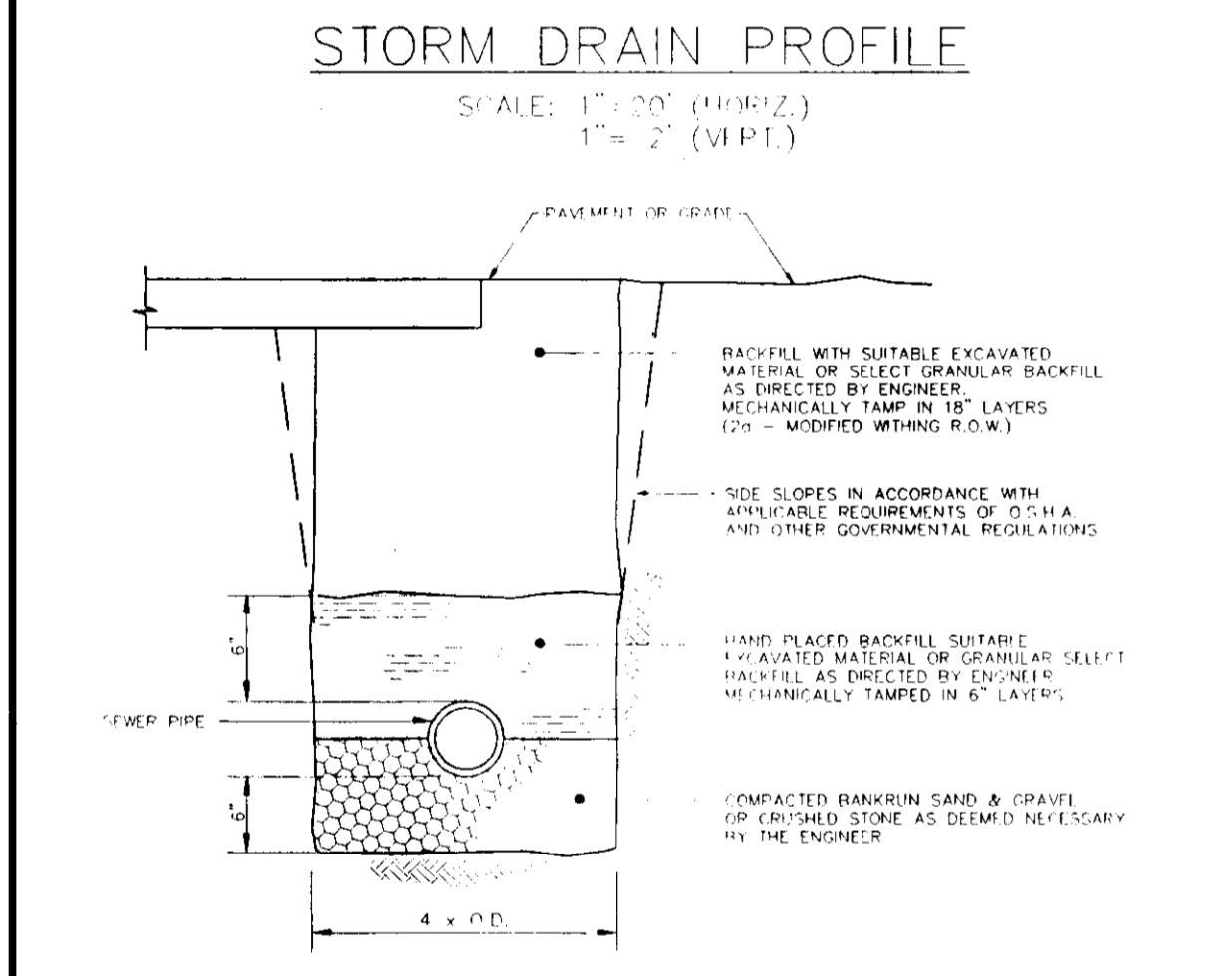
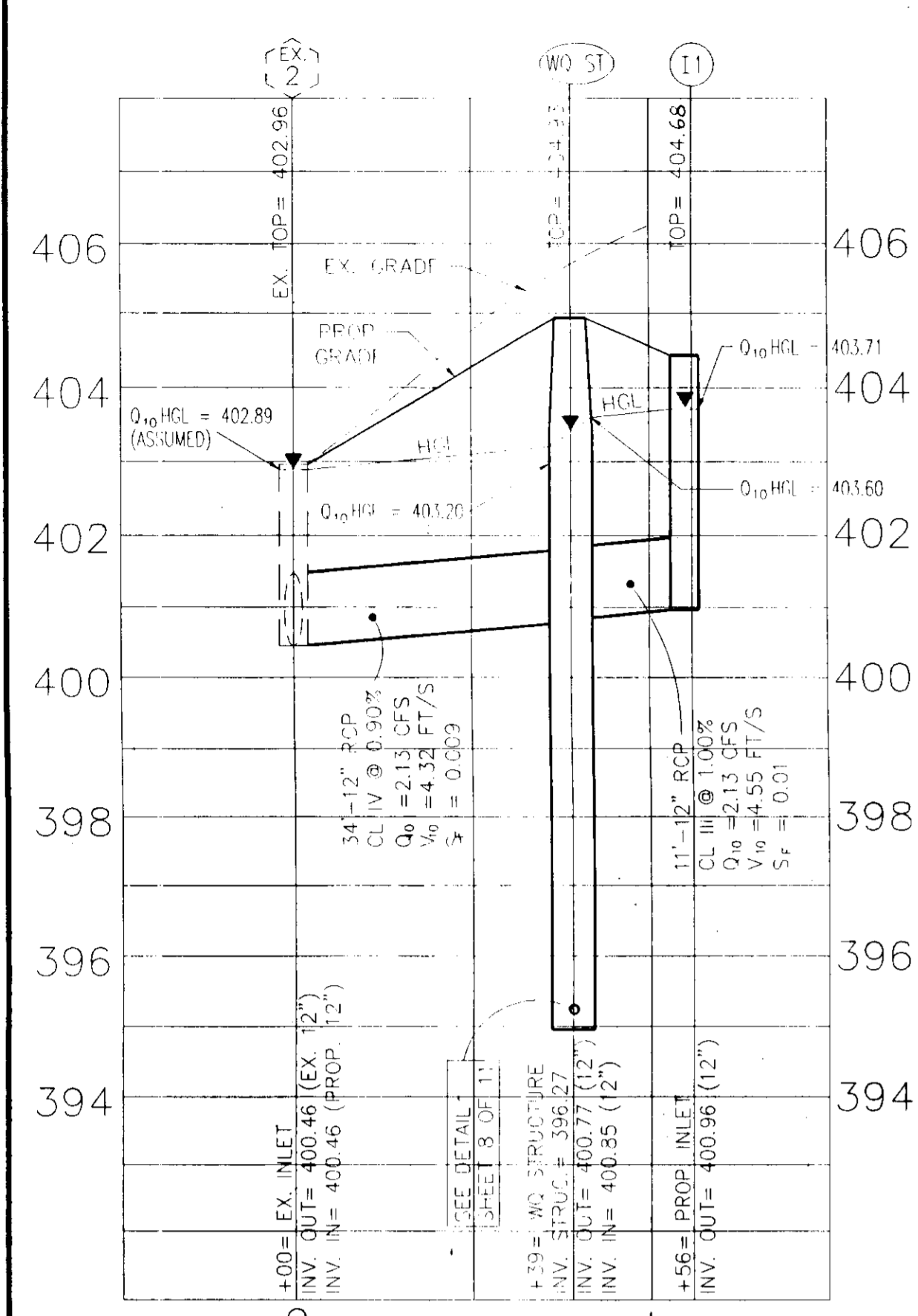
\*\*UTILIZED FOR DESIGN PURPOSES

NOTE:  
 "STORMCEPTOR" STRUCTURE IS PROPOSED TO SATISFY STORMWATER MANAGEMENT AND BMP REQUIREMENTS FOR THIS SITE.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 [Signature] COUNTY HEALTH OFFICER [Signature] 12-29-97 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
 [Signature] DIRECTOR 1/2/98 DATE  
 [Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION 12/10/97 DATE  
 [Signature] CHIEF, DIVISION OF LAND DEVELOPMENT 12/30/97 DATE

<b>BOHLER ENGINEERING, INC.</b> CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS 776 MOUNTAIN BOULEVARD WATCHUNG, NEW JERSEY (908) 668-8000 100 CARPENTER DRIVE SUITE 202 STERLING, VIRGINIA 20164 (703) 904-0350 1505 BUSTARD ROAD SUITE 100 KILPSVILLE, PENNSYLVANIA 19443 (717) 393-8300	
PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELLICOTT DISTRICT	TITLE: <b>STORMCEPTOR NOTES &amp; DETAILS</b>
SCALE: (AS NOTED) DATE: 01/20/97 SHEET No: 8 DRAWN BY: BEK PROJECT No: P97713 CHECKED BY: AN DATE: 1/27/98 SHEET 8 OF 11 REV. No: 4	E.L. STEINFELDT PROFESSIONAL ENGINEER NEW YORK LICENSE No. 69719 PENNSYLVANIA LICENSE No. 48314-E NEW JERSEY LICENSE No. 34812 PENNSYLVANIA LICENSE No. 60447 DELAWARE LICENSE No. 10734 VIRGINIA LICENSE No. 2462 031-38



Concrete Minimum Strength: 4000 p.s.i. @ 28 days  
Steel Reinforcement: 6x12x1/2x20 in sides (outer) 6x6x1/2x14 in sides (inner) #4 Rebar around hole #2 Rebar in base

AS MANUFACTURED BY MODERN CONCRETE SEPTIC TANK COMPANY

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

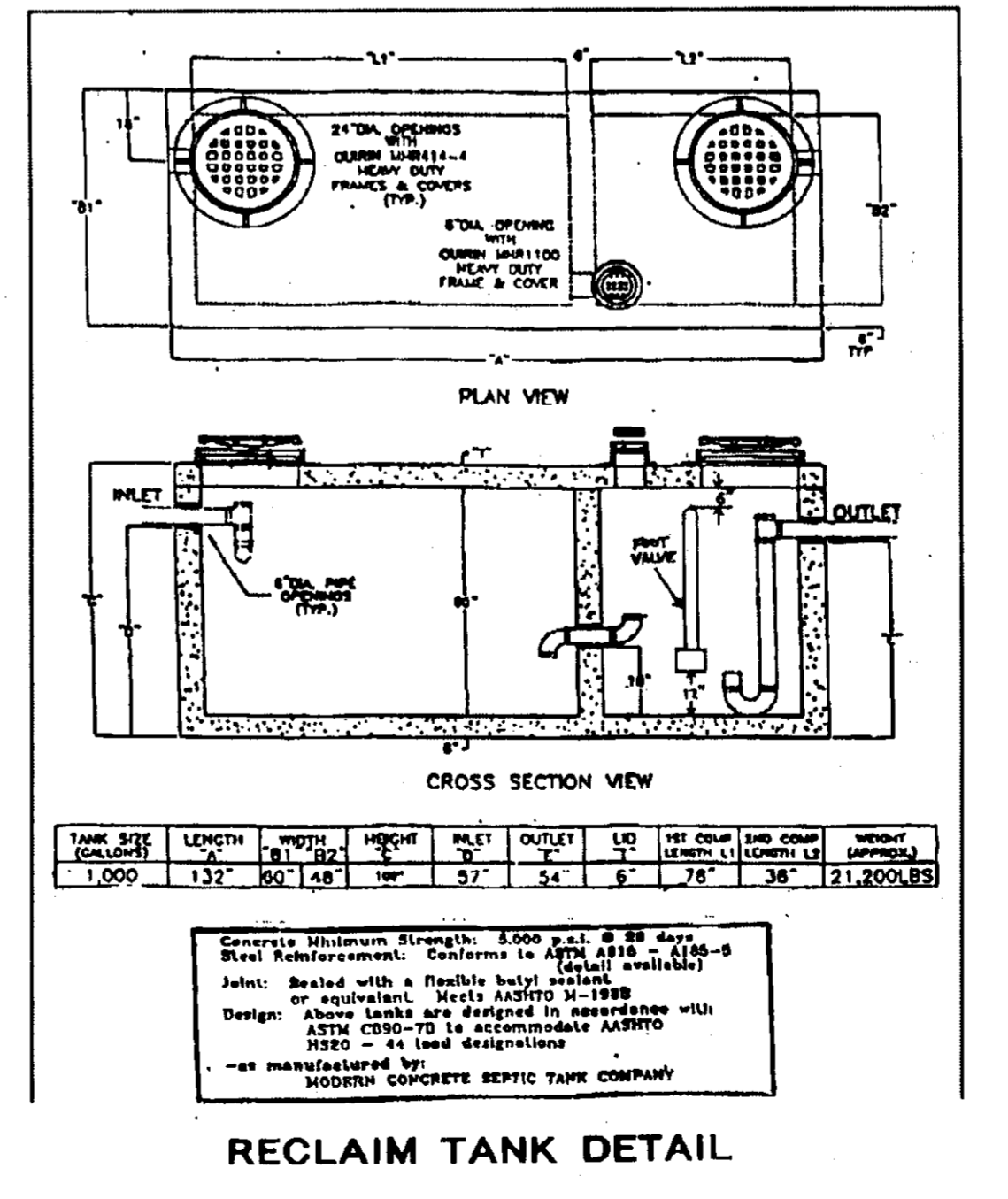
TYPE 'S' INLET

REV. JAN. 1997  
REV. OCT. 1992  
REV. JAN. 1991

OWNER:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
RESTON, VA 22090, c/o MS. RACHEL COX  
PHONE #: (703) 707-5610

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
[Signature]  
COUNTY HEALTH OFFICER  
DATE: 12-29-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
[Signature]  
DIRECTOR  
DATE: 1/2/98  
[Signature]  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 12/16/97  
[Signature]  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 12/30/97



Concrete Minimum Strength: 6000 p.s.i. @ 28 days  
Steel Reinforcement: Conforms to ASTM A638 - (100-6) (Local available)  
Joint: Sealed with a flexible butyl material or equivalent. Sealed ASBESTO 3-1988  
Design: Above tanks are designed in accordance with ASTM C593-73 in accordance with ASBESTO  
#200 - 4 Load designations  
- AS MANUFACTURED BY MODERN CONCRETE SEPTIC TANK COMPANY

**BOHLER ENGINEERING, INC.**  
\* CIVIL & CONSULTING ENGINEERS \* PROJECT MANAGERS \* ENVIRONMENTAL & SITE PLANNERS \* MUNICIPAL ENGINEERS \*  
100 CARPENTER DRIVE SUITE 202 STERLING, VIRGINIA 20164 KULPSVILLE, PENNSYLVANIA 19443  
(908) 668-8300 PHONE: (703) 904-8350 FAX: (703) 904-8356 (215) 393-8300

PROJECT: SHELL OIL COMPANY  
4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD  
TAX MAP #24, BLOCK #24, PARCEL 311  
2ND ELECTION DISTRICT

TITLE: **PROFILES & DETAILS**

SCALE: (H) AS NOTED (V) 01/20/97 SHEET No: 7 OF 11

DRAWN BY: BEK PROJECT No: P97713  
CHECKED BY: AV CAD ID: P7713PES  
REV. No: 5

E.L. STEINFELDT PROFESSIONAL ENGINEER  
NEW YORK LICENSE No. 69719  
NEW JERSEY LICENSE No. 34812  
PENNSYLVANIA LICENSE No. 40447  
DELAWARE LICENSE No. 8704  
CONNECTICUT LICENSE No. 17588

A.J. VOLANTH PROFESSIONAL ENGINEER  
PENNSYLVANIA LICENSE No. 048314-C-1  
MARYLAND LICENSE No. 21342  
NEW JERSEY LICENSE No. 36359  
DELAWARE LICENSE No. 8704  
VIRGINIA LICENSE No. 0402 0314-8

CONSTRUCTION CHECK DATE

PARCEL 677  
LANDS N/F CLOVERLAND  
FARMS DAIRY INC.  
D.B. 529, PG. 404  
ZONE: B-2

APPROXIMATE EX. LOC.  
U/G ELECT. AS PER  
UTILITY MARK-OUT

EXISTING BUILDING  
(ROYAL FARMS)

APPROX. LOCATION  
EX. GAS LINE

PROP. PUBLIC SEWER &  
UTILITY EASEMENT  
N 41°32'04" W 8.76'  
N 50°05'15" E 20.00'  
S 41°32'04" E 8.31'  
S 48°48'00" W 20.00'  
(170.7 S.F.)

DA3 = 18,269  
IMPERV. = 18%  
C = 0.38

DA1 = 11,166 S.F.  
IMPERV. = 93%  
C = 0.90

DA2 = 12,741 S.F.  
IMPERV. = 87%  
C = 0.86

DA4 = 2,666 S.F.  
IMPERV. = 45%  
C = 0.56

TOTAL DRAINAGE AREAS = 44,842 S.F. (1.03 AC)  
IMPERVIOUS COVERAGE = 57.9% (25,979 S.F.)  
LANDSCAPING COVERAGE = 42.1% (18,863 S.F.)  
TOTAL SITE "C" FACTOR = 0.66

**LEGEND**

	PROP. DRAINAGE AREA DIVIDES
	DRAINAGE FLOW ARROWS
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING GRADE
	PROPOSED GRADE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	PROPOSED GAS LINE
	EXISTING GAS LINE
	PROPOSED WATER LINE
	EXISTING WATER LINE
	PROPOSED ELECTRIC LINE
	EXISTING ELECTRIC LINE

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

*Joyce M. Boyd* 12-29-97  
COUNTY HEALTH OFFICER, H.R. DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND  
ZONING.

*Paul Smith* 1/2/98  
DIRECTOR DATE

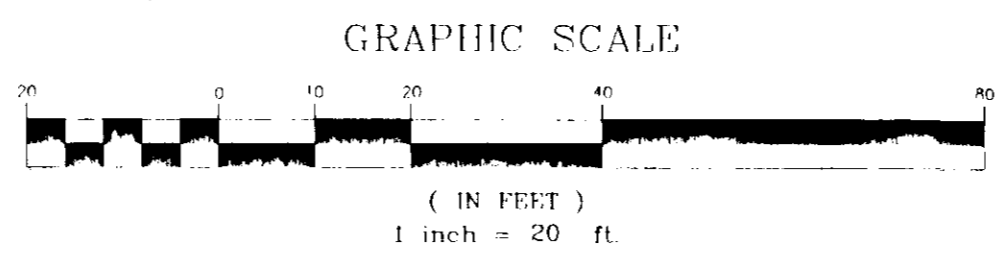
*John Dammus* 12/18/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Richard Blood* 12/30/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #200  
RESTON, VA 22090, c/o MS. PACIFIC CDK  
PHONE #: (703) 797-5610

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

**SOIL TYPE**  
KeB2 - KELLY SILT LOAM, 3 TO 8% SLOPES, MODERATELY ERODED.



<p><b>BOHLER ENGINEERING, INC.</b> CIVIL &amp; CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL &amp; SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD SUITE 202 WATCHING, NEW JERSEY (908) 668-8700 STERLING, VIRGINIA 20184 SUITE 100 KULPSVILLE, PENNSYLVANIA 19443 PHONE: (703) 904-8350 FAX: (703) 904-8356</p>	
<p>PROJECT: SHELL OIL COMPANY 4305 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT</p>	<p>TITLE: <b>DRAINAGE DIVIDE PLAN</b></p>
<p><b>E.L. STEINFELDT</b> PROFESSIONAL ENGINEER NEW YORK LICENSE NO. 60710 NEW JERSEY LICENSE NO. 21747 PENNSYLVANIA LICENSE NO. 48441 DELAWARE LICENSE NO. 10734 CONNECTICUT LICENSE NO. 17198</p>	<p><b>A.J. VOLANTH</b> PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 045314-E MARYLAND LICENSE NO. 21747 NEW JERSEY LICENSE NO. 39359 DELAWARE LICENSE NO. 10734 VIRGINIA LICENSE NO. 0452 01/14/98</p>
<p>SCALE (H) 1" = 20' DATE: 01/20/97 DRAWN BY: BEK CHECKED BY: AN PROJECT NO.: P771713 CAD ID #: P7713556</p>	<p>SHEET NO.: 6 OF 11 REV. NO.: 6</p>

**EROSION & SEDIMENT CONTROL NOTES**

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTING AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (3-3-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL AND REVISIONS THEREOF.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, REPAIRMENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 48 HOURS. CALCULOUS BAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DICES, PERMETER SLOPS AND ALL SLOPES GREATER THAN 3:1 TO 1.4 DAVIS AS TO OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS, BASINS, CHAINS MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERMETER IN ACCORDANCE WITH THE CENTER 12 OF THE HOWARD COUNTY DESIGN MANUAL - STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, FOR PERMANENT SEEDINGS (SEC. 50), SOIL (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 50). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE USED WHEN RECOMMENDED SEEDING DOES 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 THE PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:  
 AREA DISTURBED: 35,537 S.F.  
 AREA TO BE VEGETATIVELY STABILIZED: 9,558 S.F.  
 TOTAL IMPERVIOUS AREA: 25,979 S.F.  
 TOTAL LOT AREA: 44,842 S.F.  
 DISTURBANCE: 15% OF TOTAL LOT AREA  
 ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REINSTALLED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. SITE GRADING WILL BEGIN ONLY AFTER ALL PERMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
10. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
11. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBALEMENT MATERIALS. THE EXACT CONCENTRATION OF UNDESIRABLES OR REMOVAL OF UNSUITABLE MATERIALS SHALL BE DETERMINED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR WHICH MAY AFFECT THE WORK.
12. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTING AGENCY SHALL BE OBTAINED UPON COMPLETION OF INSTALLATION OF PERMETER CONTROL AND SEDIMENT CONTROL BEFORE PROCEEDING WITH ANY OTHER PART OF DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING IMPORTATION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTING AGENCY IS MADE.
13. TRAPICES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE FEET LENGTHS OF THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHEREVER IT IS LOCATED.
14. CONTRACTOR TO UTILIZE IRON SPIKES TO SECURE SILT FENCE IN AREAS OF EXISTING PAVEMENT. SAND BAGS SHOULD BE UTILIZED AT THE BOTTOM OF THE SILT FENCE TO ENSURE STABILIZATION.

- SEQUENCE OF CONSTRUCTION:**
1. OBTAIN HOWARD COUNTY GRADING PERMIT.
  2. NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
  3. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH THE SEDIMENT CONTROL INSPECTOR (48 HOURS MINIMUM NOTICE).
  4. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY FIELD MARKED ALL PERMETER SILT FENCE AND INLET PROTECTION IN OLD COLUMBIA PIKE SHALL BE INSTALLED PRIOR TO ANY CLEARING OR LAND DISTURBING ACTIVITIES (WEEK 1).
  5. THE EXISTING TREES ALONG THE EAST PROPERTY LINE SHALL BE PROTECTED AT ALL TIMES DURING CLEARING, GRADING AND CONSTRUCTION. GRADING AND THE USE OF HEAVY EQUIPMENT INSIDE THE TREE LINE SHOULD BE MINIMIZED (WEEK 1).
  6. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE (WEEK 1).
  7. ONCE SEDIMENT CONTROL DEVICES HAVE BEEN INSTALLED, THE PERMITS SHALL OBTAIN WRITTEN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR BEFORE PROCEEDING WITH ANY ADDITIONAL LAND-DISTURBING ACTIVITIES (WEEK 1).
  8. AFTER APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, SITE DEMONSTRATION SHALL BE DONE. EXISTING CURB, GUTTER AND PAVING SHALL BE REMOVED AND HAIKED FROM THE SITE (WEEK 2).
  9. THE ON-SITE INLET STORMSEWER WATER QUALITY FACILITY AND FORMING THE STORM DRAIN PIPE SHALL BE COMPLETED. ALL GRAIN SOFT PROTECTION SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE INLET (WEEK 2-3).
  10. UNDERGROUND TANK WORK AND SITE UTILITY WORK SHALL BE DONE FOLLOWED BY ON-SITE CURB, GUTTER AND PAVING (WEEK 3-5).
  11. THE CONTRACTOR SHALL AT ALL TIMES PROJECT ACCOUNTS ON-LANDS PRINCE LEAVING THE SITE. PERMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FILED CERTAIN AND CONTROL SEDIMENTATION ON THE SITE. THE CONTRACTOR MAY NEED TO ORDER OF REPAIR MEASURES AS DECIDED BY THE SEDIMENT CONTROL INSPECTOR (WEEK 1-8).
  12. ONCE BASE PAVING IS COMPLETED AND ALL LANDSCAPE AREAS HAVE BEEN STABILIZED, STORM DRAIN PIPES SHALL BE LAID OUT AND ALL SBT REMOVED (WEEK 6).
  13. ALL LANDSCAPED AREAS SHALL BE SEEDED AND MULCHED AND/OR PLANTED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN (WEEK 7).
  14. ONCE AN AREA HAS BEEN COMPLETED AND STABILIZED, SEDIMENT CONTROL DEVICES CAN BE REMOVED ONLY WITH WRITTEN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR (WEEK 8).

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

DEVELOPER: *C. H. Or.* DATE: 12-8-97

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

ENGINEER: *[Signature]* DATE: 12-8-97

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

NATURAL RESOURCES CONSERVATION SERVICE: *[Signature]* DATE: 12/13/97

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

HOWARD SOIL CONSERVATION DISTRICT: *[Signature]* DATE: 12/15/97

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

COUNTY HEALTH OFFICER: *[Signature]* DATE: 12-29-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *[Signature]* DATE: 1/2/98

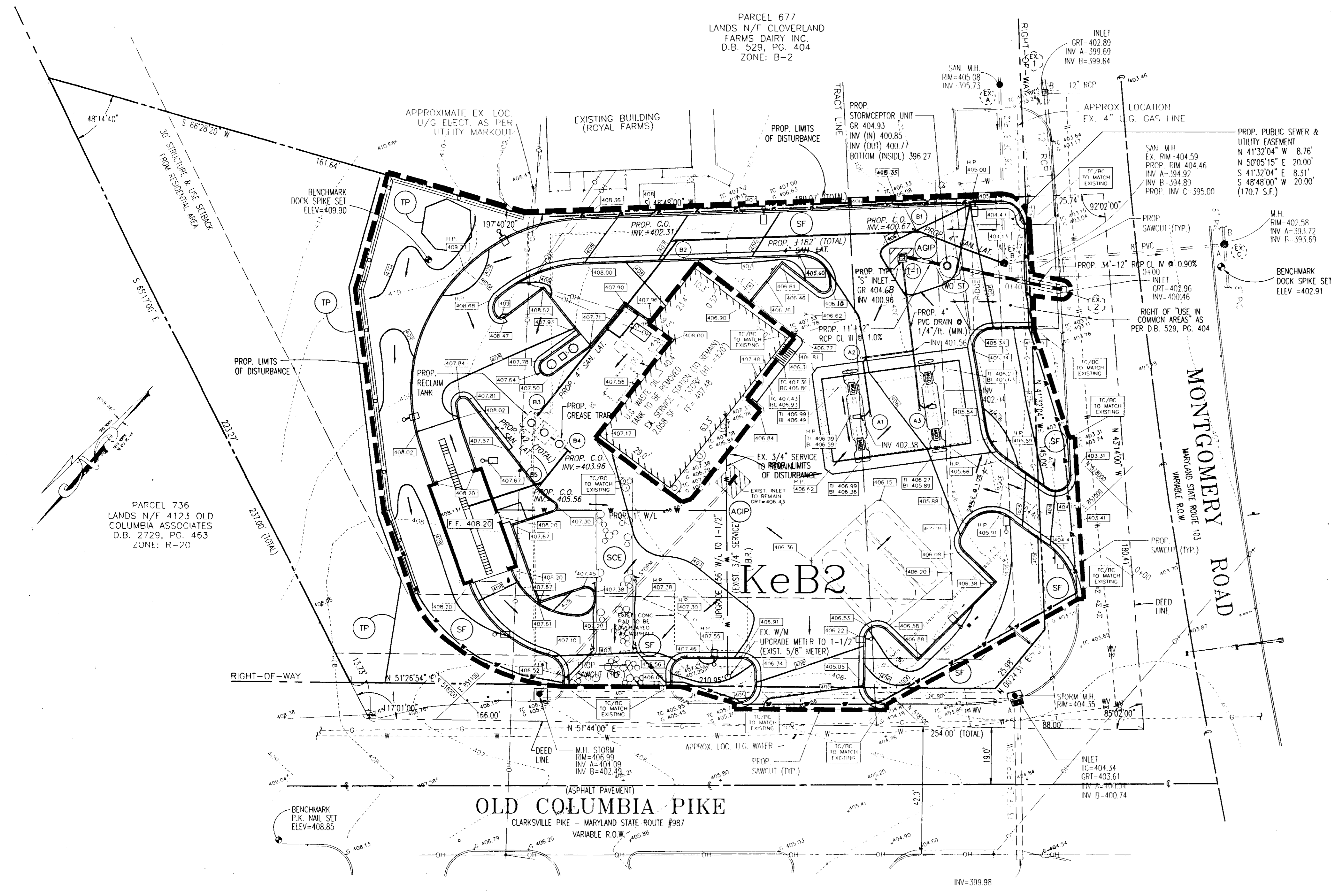
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 1/2/98

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 12/30/97

**BOHLER ENGINEERING, INC.**  
 CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS  
 776 MOUNTAIN BOULEVARD SUITE 202 STERLING, VIRGINIA 20164  
 WATCHKINGS, NEW JERSEY (908) 668-8100 PHONE: (703) 804-8350 FAX: (703) 904-8350

PROJECT: SHELL OIL COMPANY  
 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD  
 TAX MAP #24, BLOCK #24, PARCEL 311  
 2ND ELECTION DISTRICT

E.L. STEINFELDT A.J. VOLANTH  
 PROFESSIONAL ENGINEER  
 NEW YORK LICENSE NO. 60719  
 NEW JERSEY LICENSE NO. 34612  
 PENNSYLVANIA LICENSE NO. 40442  
 DELAWARE LICENSE NO. 10734  
 VIRGINIA LICENSE NO. 0402-031438

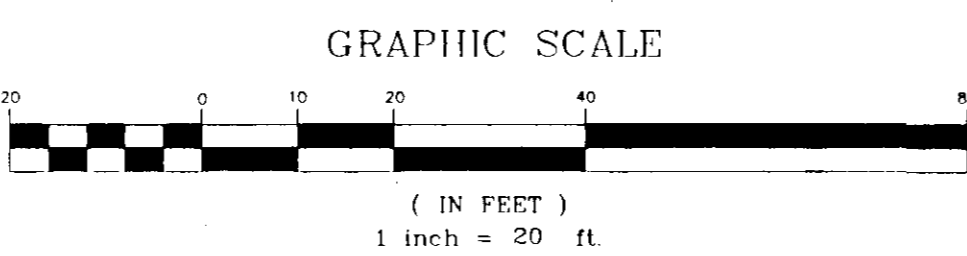


**SITE ANALYSIS DATA**

1. TOTAL SITE AREA = 44,842 S.F.
2. TOTAL DISTURBED AREA = 35,537 S.F.
3. TOTAL IMPERVIOUS AREA = 25,979 S.F.
4. AREA TO BE VEGETATIVELY STABILIZED = 9,558 S.F.

NOTE: THESE QUANTITIES ARE FOR SEDIMENT CONTROL USE ONLY. CONTRACTOR SHALL NOT RELY ON THESE QUANTITIES FOR ESTIMATING & BIDDING PURPOSES.

**SOIL TYPE**  
 KeB2 - KELLY SILT LOAM, 3 TO 8% SLOPES, MODERATELY ERODED.



**STANDARD SYMBOLS**  
 \*NOTE: SEE SHEET 9 FOR DETAILS

- SILT FENCE
- AT GRADE INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- TREE PROTECTION FENCE

**MISS UTILITY**  
 CALL "MISS UTILITY" AT 1-800-297-7977 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

NOTE: THIS SHEET FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY!



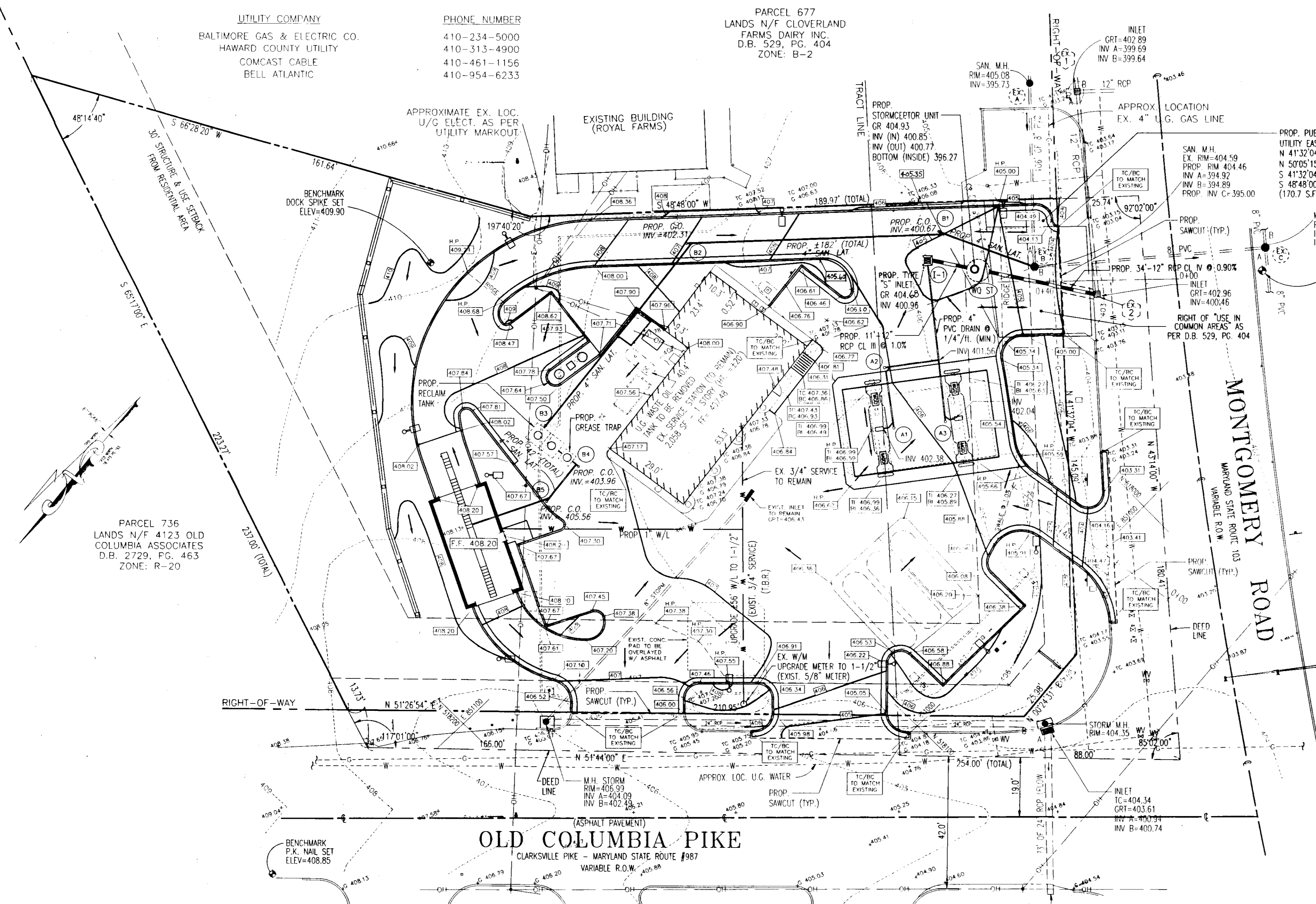
UTILITIES:  
THE FOLLOWING COMPANIES WERE NOTIFIED BY THE MISS UTILITY ONE-CALL SYSTEM (1-800-257-7777) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND/OR SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 43837 & 43869

UTILITY COMPANY	PHONE NUMBER
BALTIMORE GAS & ELECTRIC CO.	410-234-5000
HAWARD COUNTY UTILITY	410-313-4900
COMCAST CABLE	410-461-1156
BELL ATLANTIC	410-954-6233

PARCEL 677  
LANDS N/F CLOVERLAND  
FARMS DAIRY INC  
D.B. 529, PG. 404  
ZONE: B-2

**GRADING NOTES:**

- Contractor is responsible for verification of existing topography and utility invert elevations prior to commencement of any construction. Contractor to ensure 0.75% min. slope against all gutters to prevent puddling. Any discrepancies shall be provided to the Howard County Engineer in writing immediately.
- Location of all existing and proposed services are approximate and must be confirmed independently with local utility companies prior to commencement of any construction or excavation. Sanitary sewer and all other utility services connection points shall be confirmed independently by the Contractor in field prior to the commencement of construction. All discrepancies shall be reported immediately in writing to the Engineer. Construction shall commence beginning at the lowest points. Crossings with existing underground installations shall be field verified by test pit prior to commencement of construction.
- The suitability of excavating material for use as backfill shall be determined by the County Engineer.
- Subbase material for sidewalks, curb, or asphalt shall be free of organics and other unsuitable materials. Should subbase be deemed unsuitable, subbase is to be removed and filled with approved fill material compacted to 95% optimum density (as determined by modified proctor method).
- All work shall be performed in accordance with these plans, specifications, requirements, and standards of the local governing authority. The Contractor shall be responsible for removing and replacing all soft, yielding or unsuitable materials and replacing with suitable materials. All excavated or filled areas shall be compacted to 95% of modified proctor maximum density per A.S.T.M. test D-1557. Moisture content at time of placement shall not exceed 2% above nor 3% below optimum. Contractor shall submit a compaction report prepared by a qualified, licensed, Soils Engineer, certifying that the subbase within the areas to be paved has been compacted in accordance with these plans and specs.
- Water service materials shall be Copper type "K". Diameter shall be as noted on plans and shall be installed with 36" minimum cover or below frostline whichever is greater. Contractor's price for water service shall include all fees and appurtenances required by the utility to provide a complete working service.
- All proposed spot elevations depicted at a curbline are bottom of curb/pavement grade elevations with a curb reveal proposed to top of curb as detailed on sheet 9 of 11.



DRAWN BY:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
RESTON, VA 22090, c/o MS. RACHEL CDK  
PHONE # (703) 707-5610

PUBLIC WATER: CONTRACT 114, DWG. #4, WATER ZONE CODE F04

PUBLIC SANITARY SEWER: CONTRACT 20-1081, DWG. #3, DRAINAGE CODE 5750615

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*Joseph M. Boyd* 12-29-97  
COUNTY HEALTH OFFICER MK DATE

**GENERAL NOTE:**

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*James L. Little* 1/6/98  
DIRECTOR DATE  
*John Damm* 12/29/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*Richard Blood* 12/30/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**STORMWATER MANAGEMENT FACILITY STRUCTURE SCHEDULE (SEE PROFILE, SHEET 7)**

STRUCTURE No.	INFLOW INVERT ELEVATION	OUTFALL INVERT ELEVATION	TOP LID ELEVATION
WQ ST.	400.85	400.77	404.93
I-1 (ST-4.22 TYPE "S" INLET) (SEE DETAIL SHEET 7 OF 11)	-	400.96	404.68

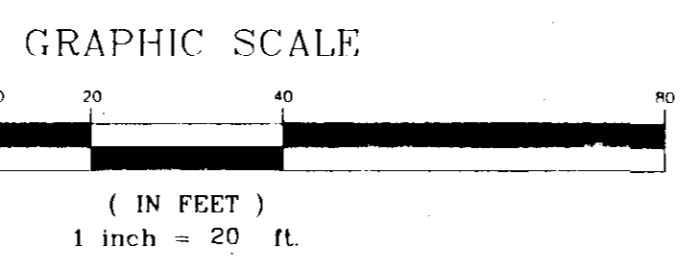
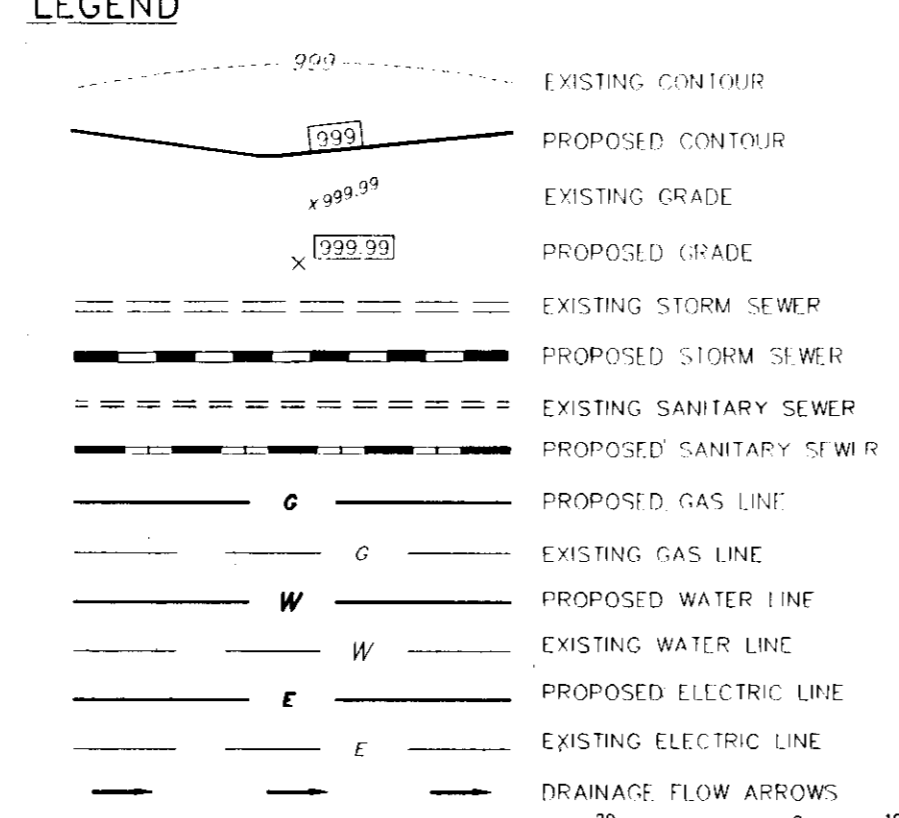
**SANITARY SEWER SYSTEM CLEANOUT SCHEDULE (SEE PROFILE, SHEET 7)**

CLEANOUT No.	SIZE (INCHES)	INVERT ELEVATION	TOP ELEVATION
B1	4"	400.67	404.63
B2	4"	402.31	407.00
B3	4"	403.88	407.59
B4	4"	403.96	407.26
B5	4"	404.54	407.46

**CANOPY STORM DRAIN CLEANOUT SCHEDULE (SEE PROFILE, SHEET 7)**

CLEANOUT No.	SIZE (INCHES)	INVERT ELEVATION	TOP ELEVATION
A1	4"	402.30	406.13
A2	4"	401.90	405.99
A3	4"	402.04	405.80

**LEGEND**



<p><b>BOHLER ENGINEERING, INC.</b> • CIVIL &amp; CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL &amp; SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD WATCHUNG, NEW JERSEY 07075 SUITE 202 (908) 668-8100</p>		<p>1455 BUSTARD ROAD SUITE 100 KULPSVILLE, PENNSYLVANIA 19443 (215) 393-8300</p>	
<p>PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD, ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT</p>		<p>TITLE: <b>GRADING AND UTILITY PLAN</b></p>	
<p>SCALE: (H) 1" = 20' (V) 1" = 10'</p>		<p>DATE: 01/20/98</p>	
<p>DRAWN BY: BEK CHECKED BY: AN</p>		<p>PROJECT NO.: 797713 CAD ID: P7713556</p>	
<p>PROFESSIONAL ENGINEER NEW YORK LICENSE No. 6919 NEW JERSEY LICENSE No. 24812 PENNSYLVANIA LICENSE No. 40447 DELAWARE LICENSE No. 10734 CONNECTICUT LICENSE No. 17588</p>		<p>PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE No. 048314-E MARYLAND LICENSE No. 21462 NEW JERSEY LICENSE No. 36139 DELAWARE LICENSE No. 10734 VIRGINIA LICENSE No. 0402 031438</p>	
<p>CONSTRUCTION CHECK</p>		<p>DATE</p>	
<p>REV. No. 6</p>		<p>OF 11</p>	

**SITE NOTES:**

- DWNER: SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900 RESTON, VA 20190, c/o MS. RACHEL COX PHONE #: (703) 707-5410
  - TAX MAP: TAX MAP 24 PART OF LOT 311, ELLICOTT CITY, HOWARD COUNTY
  - ZONING: B-2 (BUSINESS DISTRICT)
  - SITE AREA: 53,106 SF (1.217 AC.) TO DEED LINES. 44,142 SF (1.029 AC.) TO R.O.W. LINES.
  - SCOPE OF WORK:
    - DEMOLITION OF EXISTING CANOPY, PUMPS, ISLANDS AND MAT.
    - CONSTRUCTION OF CAR WASH, STACKING LANE AND RELATED PARKING.
    - CONSTRUCTION OF CANOPY, PUMPS, ISLANDS AND MAT, REPLACEMENT OF DISPENSERS AND UNDERBERG PRODUCT LINES.
    - CONSTRUCTION OF MINOR CURBING, SIDEWALK AND LANDSCAPING.
  - ZONING ORDINANCE PROVISIONS \* (SITE CALCULATIONS BASED ON 44,842 SF AREA)
 

	REQUIRED	EXISTING	PROPOSED
A) MINIMUM LOT SIZE:	24,604 SF	44,842 SF	44,842 SF
B) MINIMUM LOT FRONTAGE:	112.0'	114.5'	114.5'
C) LANDSCAPE OPEN SPACE:	(20%)	21,454 SF (47.8%)	18,863 SF (42.1%)
D) MAXIMUM BUILDING HEIGHT:	40'	42.0'	42.0'
E) SETBACKS:			
FOR PUBLIC RIGHT-OF-WAY:	30'	42.3' (VARIANCE GRANTED)	42.9' (VARIANCE GRANTED)
OTHER AREAS:	10'	18.8'	18.8'
RESIDENTIAL AREAS:	30'	110.0'	47.5'
  - PARKING:
    - GASOLINE SERVICE STATION W/SERVICE BAYS: 3 SP + 3 SP/BAY X 3 BAYS: 12 SPACES
    - CAR WASH: 1 SP X 1 CAR WASH: 1 SPACE

TOTAL SPACES REQUIRED: 13 SPACES  
STANDARD SPACES PROVIDED: 12 SPACES  
VAN ACCESSIBLE/HANDICAPPED: 1 SPACE  
TOTAL SPACES PROVIDED: 13 SPACES
  - GROSS BUILDING AREA:
 

	EXISTING	PROPOSED
SERVICE STATION	2,058 SF	2,058 SF
CAR WASH	N/A	684 SF
CANOPY	1,095 SF	1,268 SF
TOTAL	3,153 SF	4,010 SF
  - CAR WASH STACKING:
 

	REQUIRED	EXISTING	PROPOSED
	15	N/A	15
- \* BASED UPON PROPOSED ZONING REGULATIONS DATED OCTOBER 18, 1993.

7. THIS PROPERTY IS SERVICED BY PUBLIC WATER AND SEWER FACILITIES.

8. NO ADJACENT OR NEIGHBORING PROPERTIES WILL BE ADVERSELY AFFECTED BY THE PROPOSED DEVELOPMENT.

9. ALL HOWARD COUNTY STORM WATER QUANTITY AND QUALITY REQUIREMENTS WILL BE MET.

10. TOPOGRAPHIC (2' INTERVALS) AND BOUNDARY INFORMATION SHOWN HEREIN IS BASED UPON A SURVEY PERFORMED BY CONTROL POINT ASSOC. INC. DATED MARCH 5, 1996. MERIDIAN IS BASED ON THE RECORD D.I.D. OF THE PROPERTY.

11. TITLE REPORT NOT PROVIDED.

12. NO HISTORIC OR BURIAL STRUCTURES OR GRAVES ARE KNOWN TO EXIST ON THE SITE TO THE BEST OF OUR KNOWLEDGE.

13. VARIANCE NUMBER BA 98-59 V WAS GRANTED ON FEBRUARY 4, 1998 TO VARY THE THIRTY FOOT SETBACK RESTRICTION FROM A RESIDENTIAL DISTRICT TO THE EXISTING SERVICE STATION BUILDING.

14. SPECIAL EXCEPTION NUMBER 529-C WAS GRANTED FOR THE GASOLINE STATION ON FEBRUARY 17, 1967.

15. THIS SITE DOES NOT LIE WITHIN A FLOOD PLAIN HAZARD AREA ACCORDING TO FEMA FIRM COMMUNITY PANEL 240044 0023-B, EFFECTIVE DATE DEC. 4, 1986.

16. V.L.R.E. (VEHICULAR IMPRESS & EGRESS IS RESTRICTED) LIMITS HAVE BEEN PROVIDED ALONG ALL PUBLIC ROAD FRONTAGE EXCEPT AT ACCESS POINTS.

17. BA 96-32 EBY HAS BEEN APPROVED (10/3/96) AS OUTLINED IN THE DECISION AND ORDER INDICATED ON THIS SHEET.

18. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY SURVEY CONTROL DISK #241R (ELEV. 391.27) WAS USED FOR THIS PRODUCT.

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

APPROVED: DEVELOPMENT ENGINEERING DIVISION

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT

Decision & Order Conditions BA #98-32 EBY (APPROVED 10/3/96)

Based upon the foregoing, it is this 3rd day of October, 1996, by the Howard County Board of Appeals, ORDERED:

That the Petition of the Shell Oil Company for a special exception to expand an existing gasoline service station to include one additional fuel dispenser, a car wash, and a canopy covering the service islands and variances to reduce the required minimum 30 foot setback from a public street right-of-way to (i) 20.9 feet for the proposed canopy, (ii) 23 feet for vehicles using the pump island and (iii) 14 feet for the required car wash stacking spaces on the Property known as 4205 Montgomery Road, Ellicott City, Howard County, Maryland, be and the same is hereby GRANTED, subject to the following conditions:

- The special exception shall apply only to the gasoline service station with service bays and a car wash as described in the petition, and as depicted on the special exception plan dated June 3, 1996 and submitted to the Board.
- All exterior lighting shall be shielded and directed so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare which would cause a hazard for motor vehicle operators in the vicinity of the Property.
- The Petitioner shall retain and preserve the existing woodlands in the eastern area of the Property. The Petitioner shall construct and maintain in good repair and appearance a solid wood fence eight to ten feet in height on the western edge of the wooded area along the width of the Property around the proposed car wash stacking lane as shown on Petitioner's Exhibit 2. The Petitioner shall plant and maintain a type C landscaped screening in front of the fence facing the entire outside edge of the car wash stacking lane which is adjacent to the wooded area.
- The hours of operation for gasoline sales shall be 24 hours, seven days a week. The service bays shall operate from 7:00 a.m. to 7:00 p.m. Monday through Saturday. The car wash shall operate from 7:00 a.m. to 10:00 p.m., seven days a week.
- The Petitioner shall redesign the parking spaces between the garage and car wash stacking lane as shown on the special exception plan to satisfy the requirements of the County's Department of Planning and Zoning.
- The Petitioner shall comply with all applicable federal, state and county laws and regulations.

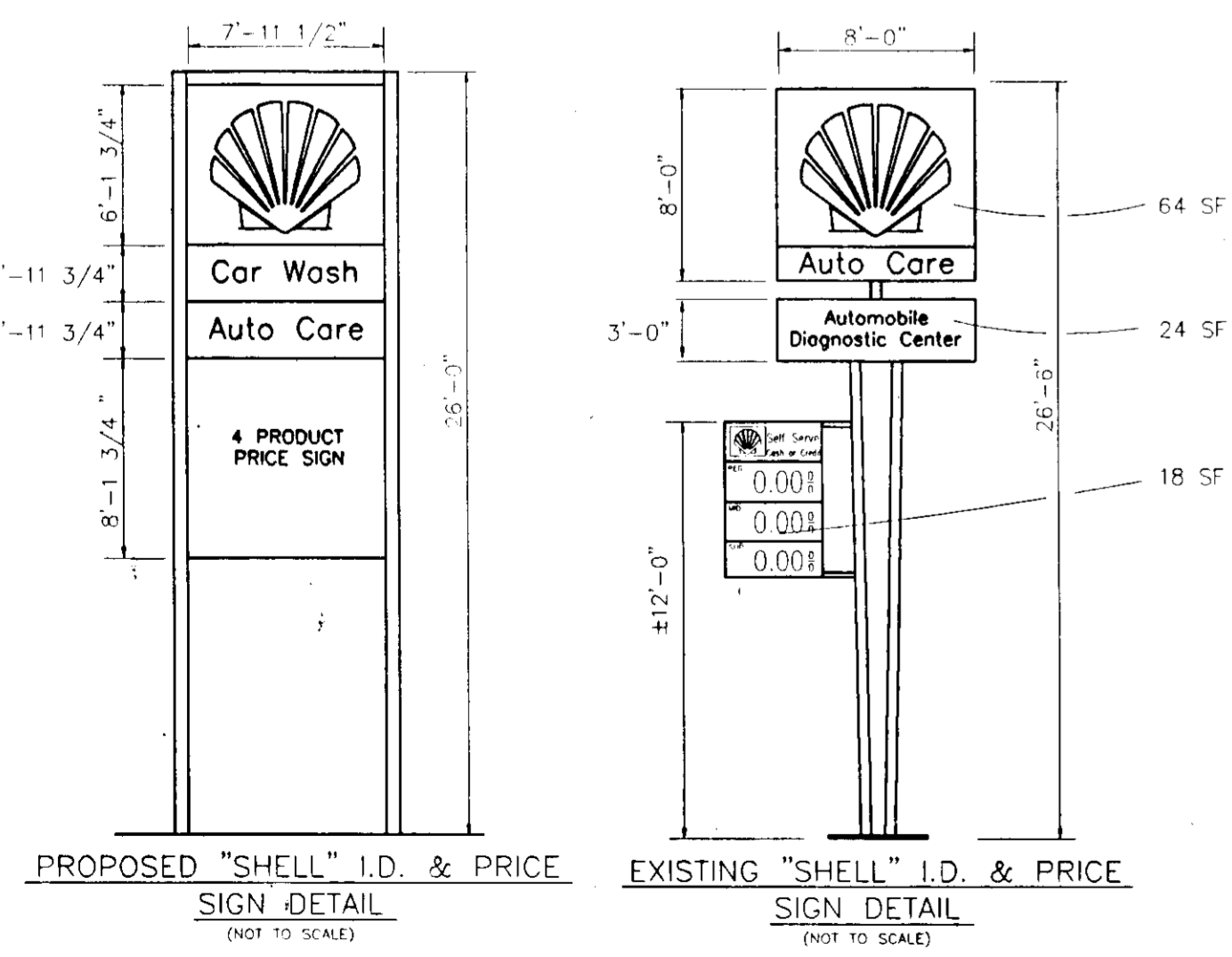
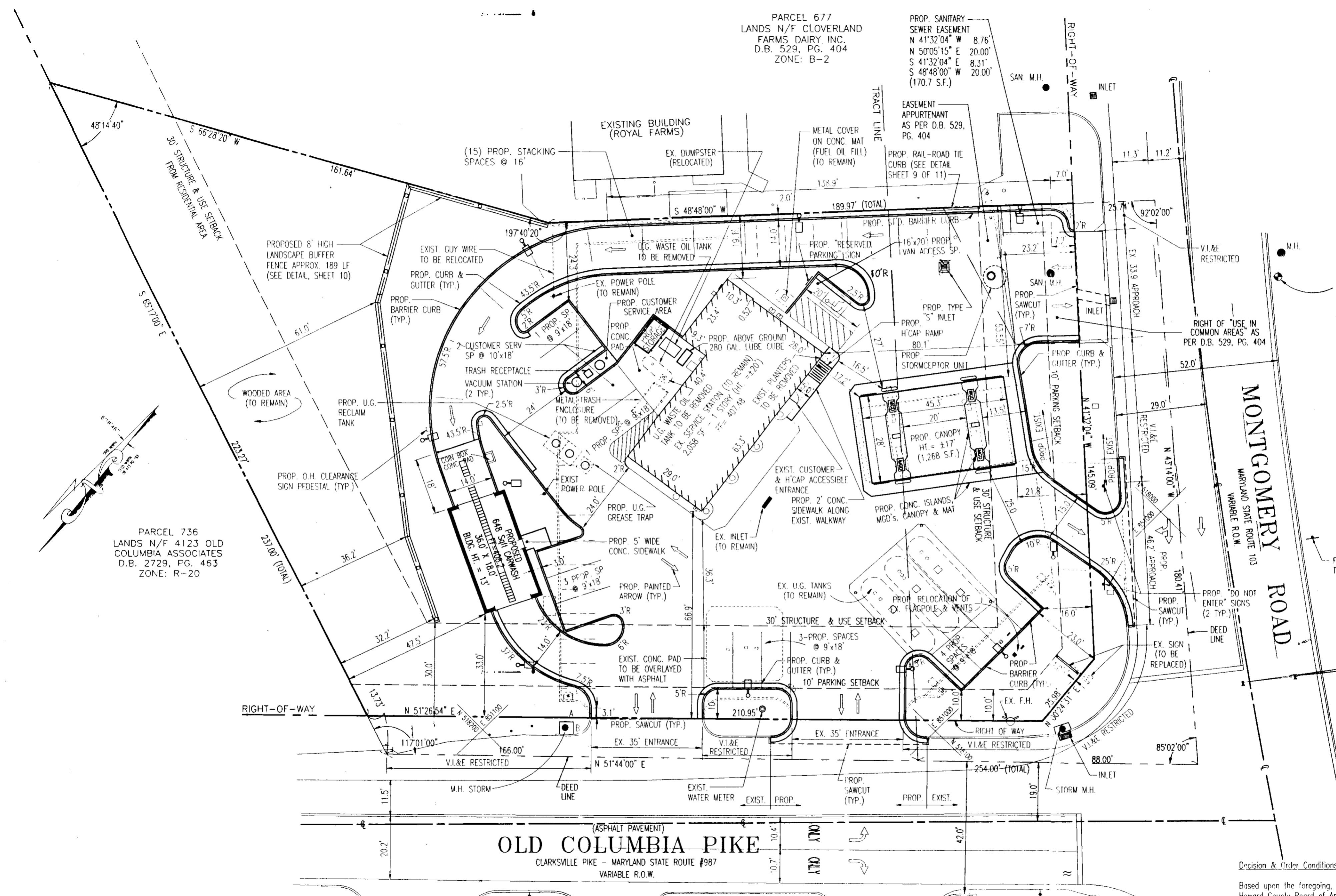
**WAIVERS GRANTED**

WP-98-45, REQUEST TO WAIVE SECTION 16.156(K) TO PERMIT REACTIVATION OF SITE DEVELOPMENT PLAN, WAS APPROVED BY THE PLANNING DIRECTOR, BY A LETTER DATED NOV. 26, 1997, SUBJECT TO THE FOLLOWING CONDITIONS:

- THE DEVELOPER AGREEMENT SHALL BE COMPLETED AND THE PLAN ORIGINALS SHALL BE SUBMITTED WITHIN FORTY-FIVE (45) DAYS FROM THE DATE OF THE DECISION (BY JANUARY 10, 1998).
- AN SHP ACCESS PERMIT FOR ENTRANCE AND STORM DRAIN WORK WITHIN THE SHP RIGHT-OF-WAY MUST BE OBTAINED.

**GENERAL NOTE:**

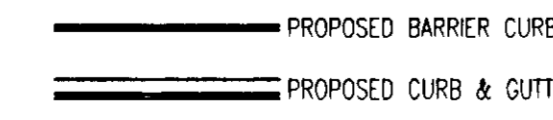
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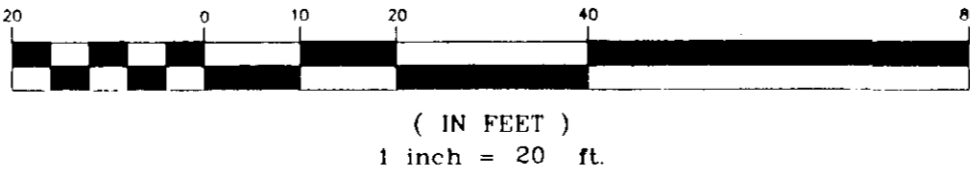
SIGNAGE REQUIREMENTS		EXISTING	PROPOSED
SIGN AREA	1 SF / 1 HOR. FT FROM R/W (±1 ft)	88 SF	80 SF
HEIGHT	1 VF / 2 HOR. FT FROM R/W - MAX. 26' (±1 ft)	26.5'	±26'
SETBACK	NO PART OF SIGN CAN EXTEND BEYOND R/W LINE	0'	±1'

\* VARIANCE RECEIVED

**CURB LEGEND**

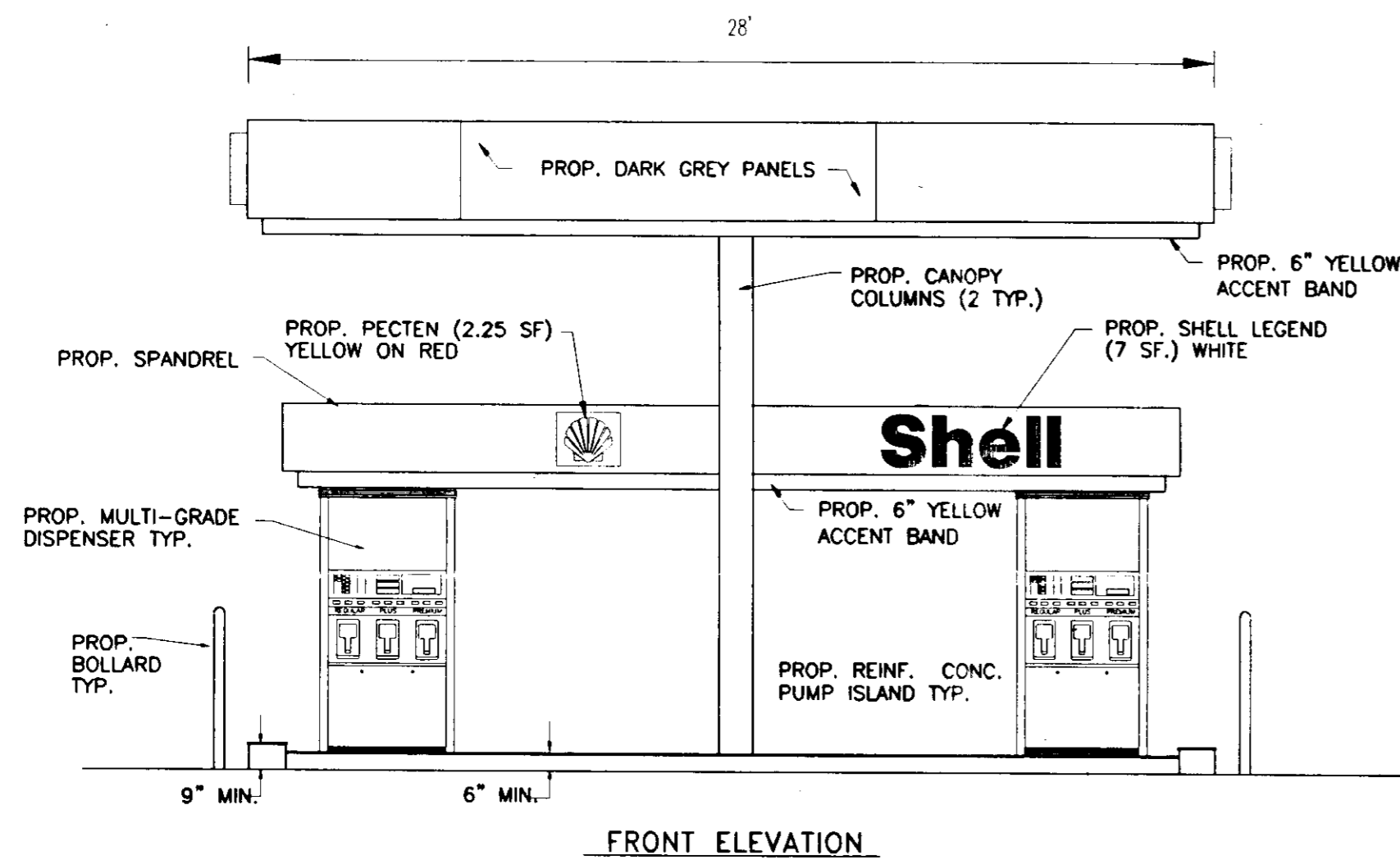


**GRAPHIC SCALE**

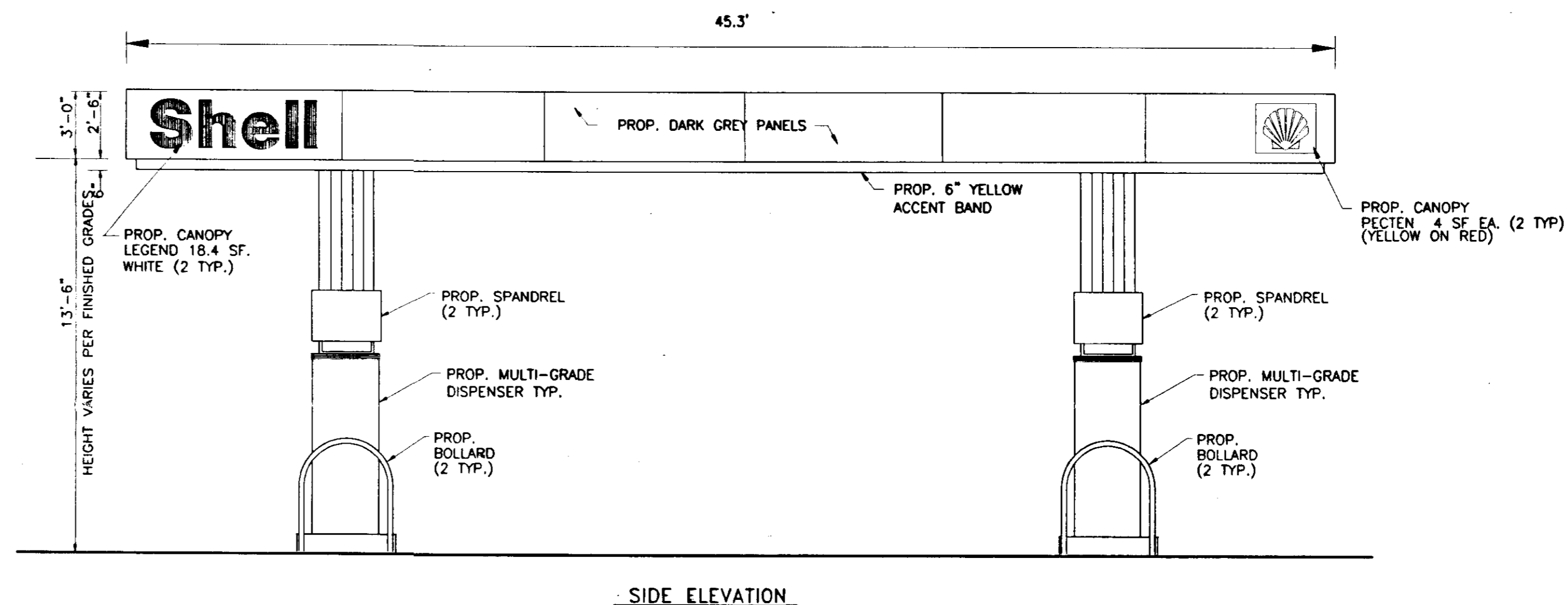


NOTE: ALL PROPOSED CURBING SHALL BE STANDARD BARRIER CURB UNLESS OTHERWISE SPECIFIED. FOR DETAIL SEE SHEET #9.

<p><b>BOHLER ENGINEERING, INC.</b>                  CIVIL &amp; CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL &amp; SITE PLANNERS • MUNICIPAL ENGINEERS                  776 MOUNTAIN BOULEVARD SUITE 100 WASHINGTON, NEW JERSEY (908) 688-8100                  100 CARPENTER DRIVE SUITE 202 STERLING, VIRGINIA 20164 (703) 904-8150 FAX: (703) 904-8358                  1555 BUSTARD ROAD SUITE 100 KULPSVILLE, PENNSYLVANIA 19443 (215) 393-8300</p>	
<p>PROJECT: SHELL OIL COMPANY                  4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD                  TAX MAP #24, BLOCK #24, PARCEL 311                  2ND ELLICOTT DISTRICT</p>	<p>TITLE: <b>SITE PLAN</b></p> <p>SCALE: (H) 1" = 20' (V) 1" = 20' DATE: 01/20/97 SHEET No: 3 OF 11</p> <p>DRAWN BY: BEK PROJECT No: P97713</p> <p>CHECKED BY: ANJ CAD ID: P7713556</p>
<p>PROFESSIONAL ENGINEER                  NEW YORK LICENSE No. 69719                  NEW JERSEY LICENSE No. 34819                  PENNSYLVANIA LICENSE No. 40447                  DELAWARE LICENSE No. 8784                  CONNECTICUT LICENSE No. 17588</p>	<p>PROFESSIONAL ENGINEER                  PENNSYLVANIA LICENSE No. 04874-C                  MARYLAND LICENSE No. 21342                  NEW JERSEY LICENSE No. 39319                  VIRGINIA LICENSE No. 0402 03438</p>
<p>REV. DATE COMMENT</p> <p>6 12/7/97</p> <p>5 10/29/97</p> <p>4 7/31/97</p> <p>3 5/1/97</p> <p>2 4/16/97</p> <p>1 3/28/97</p>	<p>CONSTRUCTION CHECK DATE</p>



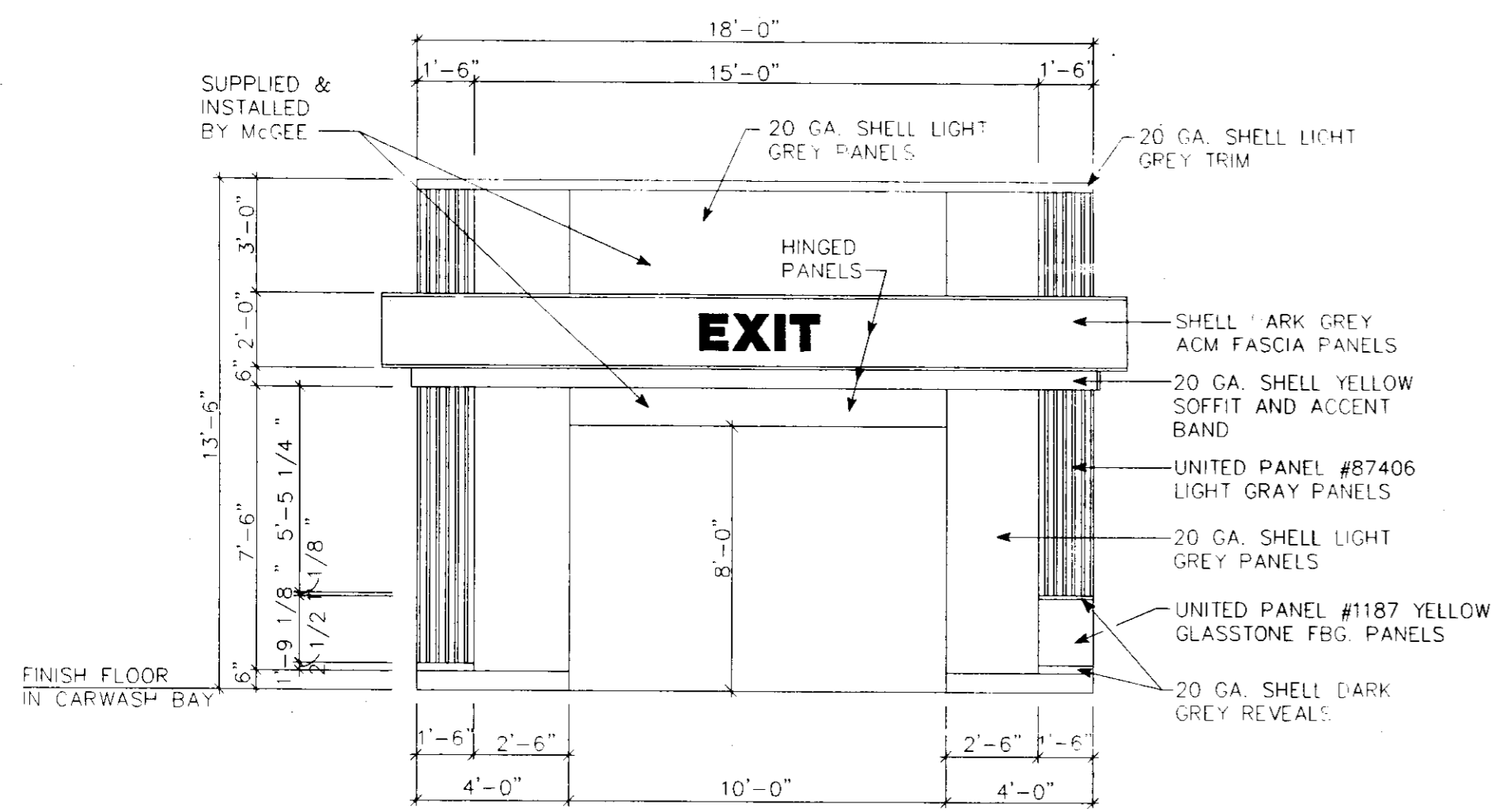
FRONT ELEVATION



SIDE ELEVATION

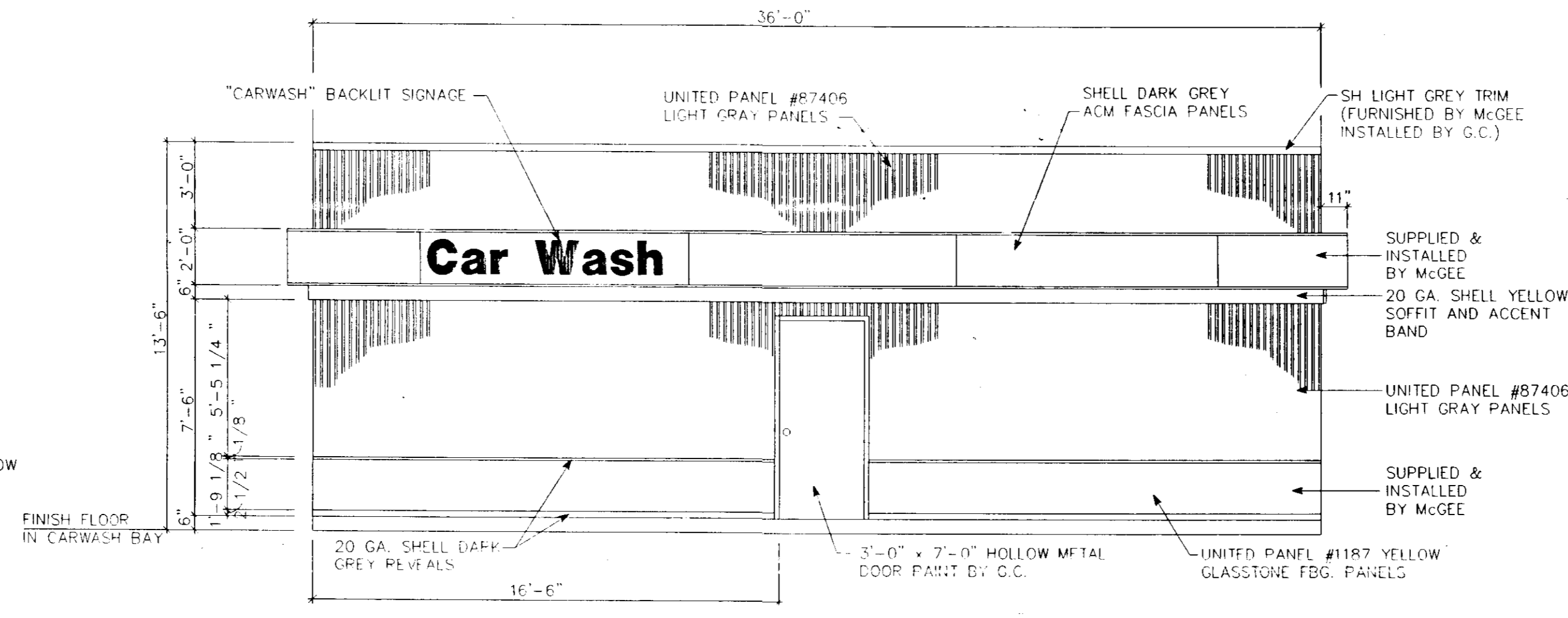
PUMP ISLAND & CANOPY ELEVATIONS

NOT TO SCALE



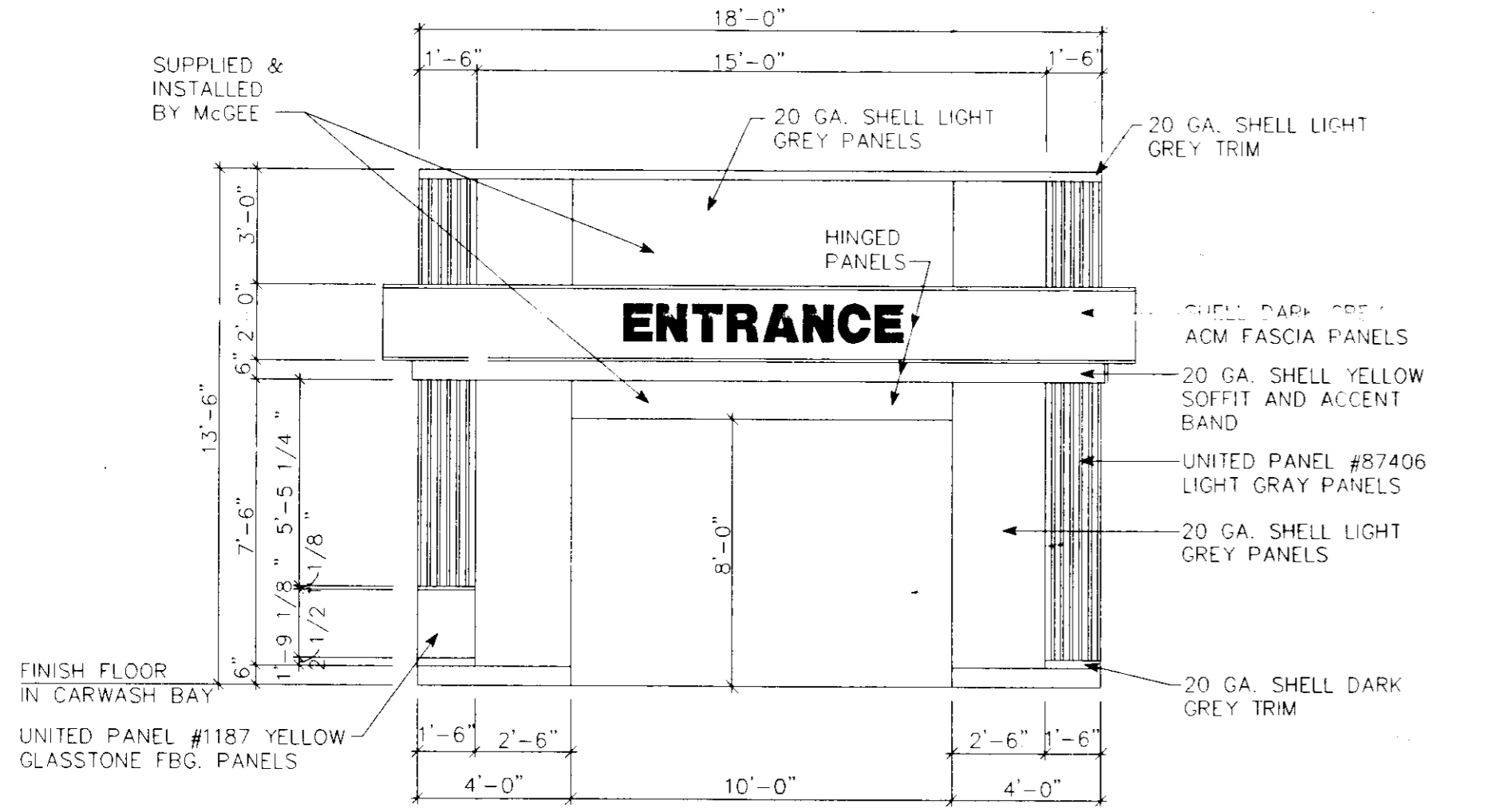
EXIT ELEVATION

N.T.S.



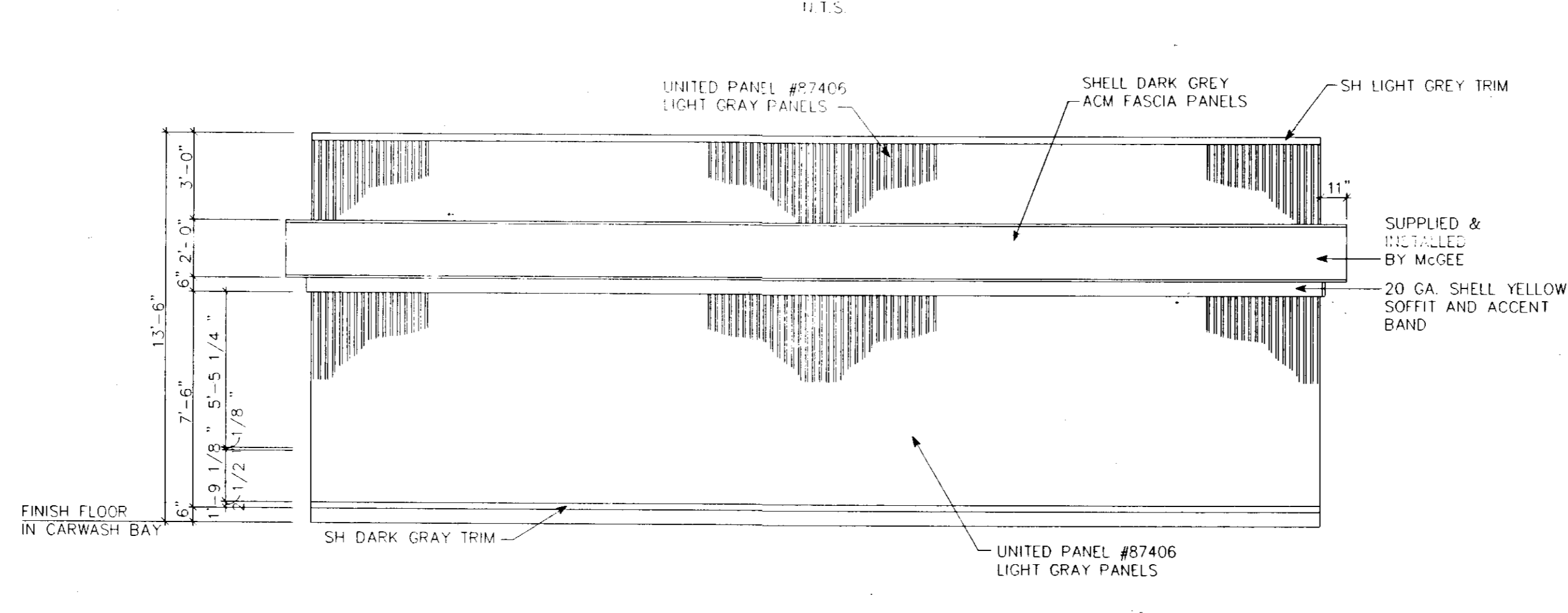
FRONT ELEVATION

N.T.S.



ENTRANCE ELEVATION

N.T.S.



REAR ELEVATION

N.T.S.

OWNER:  
SHELL OIL COMPANY, 11921 FREEDOM DRIVE, #900  
RESTON, VA 22090, c/o MS. RACHEL CDX  
PHONE #: (703) 707-5610

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

*[Signature]* 12/29/97  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 12/29  
DIRECTOR DATE  
*[Signature]* 12/10/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 12/30/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

<p><b>BOHLER ENGINEERING, INC.</b> • CIVIL &amp; CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL &amp; SITE PLANNERS • MUNICIPAL ENGINEERS • 776 MOUNTAIN BOULEVARD SUITE 202 1555 BUSTARD ROAD WATCHUNG, NEW JERSEY STERLING, VIRGINIA 20164 KULPSVILLE, PENNSYLVANIA 19443 (908) 668-8300 PHONE: (703) 904-8350 FAX: (703) 904-8356 (215) 393-8300</p>	
<p>PROJECT: SHELL OIL COMPANY 4205 MONTGOMERY RD., ELLICOTT CITY, HOWARD CO., MD TAX MAP #24, BLOCK #24, PARCEL 311 2ND ELECTION DISTRICT</p>	<p>TITLE: BUILDING &amp; CANOPY ELEVATIONS</p>
<p>PROFESSIONAL ENGINEER NEW YORK LICENSE No. 60719 NEW JERSEY LICENSE No. 34812 PENNSYLVANIA LICENSE No. 40447 DELAWARE LICENSE No. 8704 CONNECTICUT LICENSE No. 17588</p>	<p>PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE No. 048314-E MARYLAND LICENSE No. 21342 NEW JERSEY LICENSE No. 39339 DELAWARE LICENSE No. 10734 VIRGINIA LICENSE No. 0402 0314-38</p>
<p>SCALE: (H) AS NOTED DATE: 01/20/97 DRAWN BY: SFD PROJECT No.: P97713 CHECKED BY: AJV CAD No.: P7713E14 CONSTRUCTION CHECK: DATE</p>	<p>SHEET No.: 11 OF 11 REV. No.: 4</p>