

SITE DEVELOPMENT PLAN

FOR

MOBIL OIL CORPORATION SS# 16-F04

PARCEL "G"
SECTION 4, AREA 2

VILLAGE OF RIVER HILL

CLARKSVILLE, 5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

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7. MISCELLANEOUS NOTES & DETAILS
8. MISCELLANEOUS NOTES & DETAILS
9. STORMCEPTOR NOTES & DETAILS

SITE ANALYSIS

Area of Parcel:	56,878 Square Feet (1.3 Acres)
Present Zoning:	NT, COMMERCIAL, FDP 222-Part II
Disturbed Area:	56,828 sf
Proposed Use:	Motor vehicle fuel sales (Gasoline service station with service bays), automated car wash and convenience stores.
Floor Space (w/roof overhang):	Convenience Store 2,500 s.f. Service Station & Bays 1,640 s.f. Car Wash & Storage 648 s.f. Overhang (total) 786 s.f. TOTAL: 5,554 s.f.
Canopy Area:	3,302 s.f.
Maximum # Employees:	7
Parking Required:	3 spaces per bay x 3 bays = 9 spaces 1 space/employee = 7 spaces Convenience store: 1 sq/200 sf x 1127 sf = 6 spaces Total Required = 22 spaces Total Provided = 22
Building Coverage:	8,856 s.f. (15.6% of Parcel)
Paved Parking Lot Coverage:	30,660 s.f. (54.1% of Parcel)
Open Space Coverage: (landscaped area)	21,080 s.f. (37.2% of Parcel)

OWNER
Mobil Oil Corporation
10617 Braddock Rd.
Fairfax, VA 22032
Attn: Scott Ballard
(703) 219-2009

PREPARED FOR
The Rouse Company
10275 Little Patuxent Parkway
Columbia, MD 21044-3456
(410) 992-6022
Attn: Gregory Klar

PERMIT INFORMATION BLOCK			
SUBDIVISION NAME:	SECTION/AREA:	PARCEL #:	
VILLAGE OF RIVERHILL	4/2	G	
PLAT: 12422	BLOCK #: 6	TAX/ZONE MAP: NT-COMMERCIAL 34	ELEC. DIST.: 5th
LOT NUMBER: PARCEL G		ADDRESS: 5015 SIGNAL BELL LANE	

GENERAL NOTE:
It is the responsibility of the contractor to review all of the drawings and specifications associated with this project work scope prior to the initiation of construction. Should the contractor find a conflict with the documents relative to the specifications or applicable codes, it is the 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.

MISS UTILITY
CALL "MISS UTILITY" AT 1-800-257-7777 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 THESE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.

APPROVED
HOWARD COUNTY
9/10/97
HOWARD COUNTY PLANNING BOARD

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.
Carol M. Bond 12-24-97
COUNTY HEALTH OFFICER H/C DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
David Smith 12/30/97
DIRECTOR DATE

Michael J. ... 12/19/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

COVER SHEET

MOBIL OIL CORPORATION SS #16-F04
VILLAGE OF RIVER HILL (SECT. 4 AREA 2)
TAX MAP 34, GRID 6, PARCEL G
5th ELECTION DISTRICT
CENSUS TRACT 6055
CLARKSVILLE, HOWARD COUNTY, MARYLAND

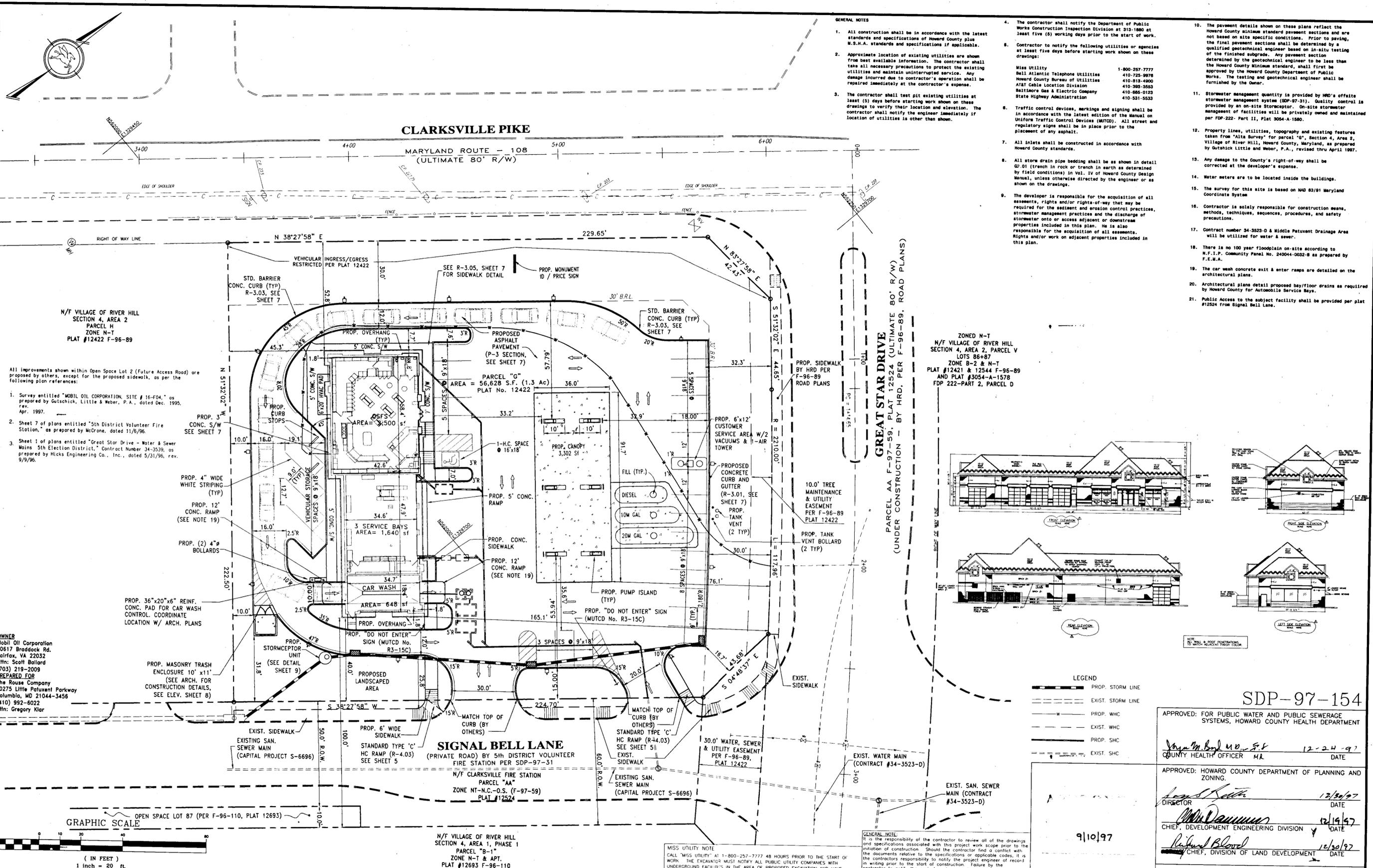
SCALE: NONE PROJECT No. P97169/S95028 SHEET 1 OF 9 REV. No. 2
DRAWING No. S5028CV2

A.J. VOLANTH
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. 048814-C
MARYLAND LICENSE No. 12345
NEW JERSEY LICENSE No. 39259

TYREE ENGINEERING, P.C.
CIVIL & CONSULTING ENGINEERS
TRAFFIC ENGINEERS
SURVEYORS
ENVIRONMENTAL & SITE PLANNERS
ARCHITECTURAL DESIGNERS
PROJECT MANAGERS
TEL (703) 904-8350
15 DODGERS COURT
STERLING, VA 20166
FAX (703) 904-8386
BROOKFIELD, CT. AUBURN, MASS.

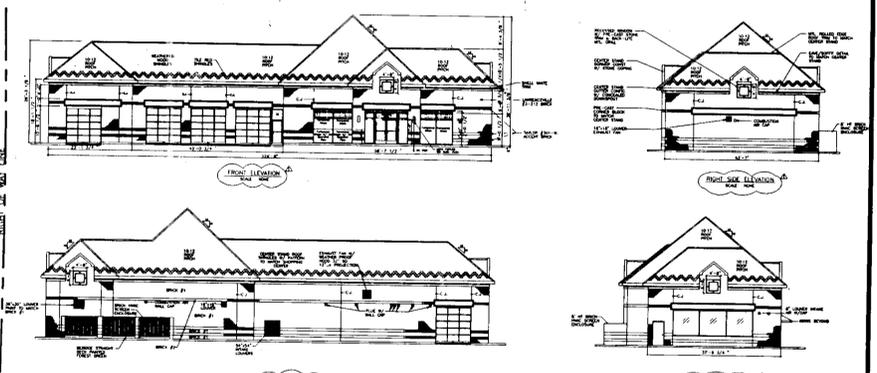
Mobil US&M&R Asset Services
DESIGN ENGINEERING
RBJ 05/28/97 APPROVED
DESIGN ENGINEER
DESIGN CHECK
DRAWN BY
DRAWING CHECK

No.	REVISION	DATE	DRN.	CHK.	APR.	No.	REVISION	DATE	DRN.	CHK.	APR.
2	REVISED PER COUNTY COMMENTS	8/28/97	RJV	AJV							
1	GENERAL REVISION	7/21/97	RJV	AJV							



- GENERAL NOTES**
- 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.
 - 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.
 - 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.
 - 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.
 - 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 410-725-9976
 Howard County Bureau of Utilities 410-818-4900
 AT&T Cable Location Division 410-388-3553
 Baltimore Gas & Electric Company 410-685-0123
 State Highway Administration 410-531-5533
 - Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
 - All inlets shall be constructed in accordance with Howard County standards.
 - All storm drain pipe bedding shall be as shown in detail 02.01 (trench in rock or trench in earth as determined by field conditions) in Vol. IV of Howard County Design Manual, unless otherwise directed by the engineer or as shown on the drawings.
 - The developer is responsible for the acquisition of all easements, rights and/or rights-of-way that may be required for the easement and erosion control practices, stormwater management practices and the discharge of stormwater 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.
 - 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.
 - Stormwater management quantity is provided by HMD's offsite stormwater management system (SDP-97-31). Quality control is provided by an on-site stormwater. On-site stormwater management of facilities will be privately owned and maintained per FDP-222-Part II, Plat 3054-A-150.
 - Property lines, utilities, topography and existing features taken from "Alta Survey" for parcel "G", Section 4, Area 2, Village of River Hill, Howard County, Maryland, as prepared by Outrick Little and Weber, P.A., revised thru April 1997.
 - Any damage to the County's right-of-way shall be corrected at the developer's expense.
 - Water meters are to be located inside the buildings.
 - The survey for this site is based on NAD 83/91 Maryland Coordinate System.
 - Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions.
 - Contract number 34-3523-D Middle Patuxent Drainage Area will be utilized for water & sewer.
 - There is no 100 year floodplain on-site according to M.F.I.P. Community Panel No. 24044-0032-B as prepared by F.E.M.A.
 - The car wash concrete exit & enter ramps are detailed on the architectural plans.
 - Architectural plans detail proposed bay/floor drains as required by Howard County for Automobile Service Bays.
 - Public Access to the subject facility shall be provided per plat #12624 from Signal Bell Lane.

ZONED N-T
 N/F VILLAGE OF RIVER HILL
 SECTION 4, AREA 2, PARCEL V
 LOTS 86-87
 ZONE B-2 & N-T
 PLAT #12421 & 12544 F-96-89
 AND PLAT #3054-A-1578
 FDP 222-PART 2, PARCEL D



- LEGEND**
- PROP. STORM LINE
 - EXIST. STORM LINE
 - PROP. WHC
 - EXIST. WHC
 - PROP. SHC
 - EXIST. SHC

SDP-97-154

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

Joseph M. Bond 12-24-97
 COUNTY HEALTH OFFICER MA DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

James H. Smith 12/30/97
 DIRECTOR DATE

Mike Dammus 12/19/97
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

9/10/97

HOWARD COUNTY PLANNING BOARD

SITE PLAN

MOBIL OIL CORPORATION SS #16-F04 (SDP-97-154)
 VILLAGE OF RIVER HILL (SECT. 4 AREA 2)
 TAX MAP 34, GRID 6, PARCEL G
 5th ELECTION DISTRICT, CENSUS TRACT 6055
 PLAN F-96-89, PLAT 12422
 CLARKSVILLE, HOWARD COUNTY, MARYLAND

SCALE: 1"=20'

PROJECT NO: S95028/P97169 SHEET 2 OF 9
 DRAWING NO: S5028S53

SDP-97-154

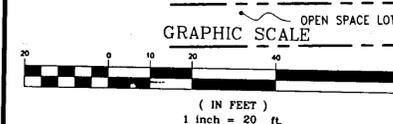
NO.	REVISION	DATE	BY	CHK	APR.
3	REV. PER COUNTY COMMENTS	8/28/97	J.V.	J.V.	
2	REV. PER CLIENT COMMENTS	8/21/97	J.V.	J.V.	
1	GENERAL REVISION	7/21/97	J.V.	J.V.	
No.	REVISION	DATE	BY	CHK	APR.

A.J. VOLANTH
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. 04814-E
 MARYLAND LICENSE NO. 01440
 NEW JERSEY LICENSE NO. 29379

TYREE ENGINEERING, P.C.
 CIVIL & CONSULTING ENGINEERS
 ENVIRONMENTAL & SITE PLANNERS
 ARCHITECTURAL DESIGNERS & PROJECT MANAGERS

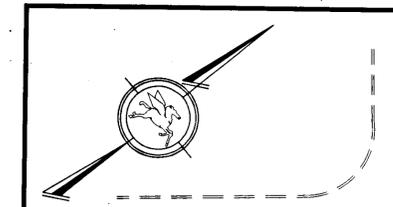
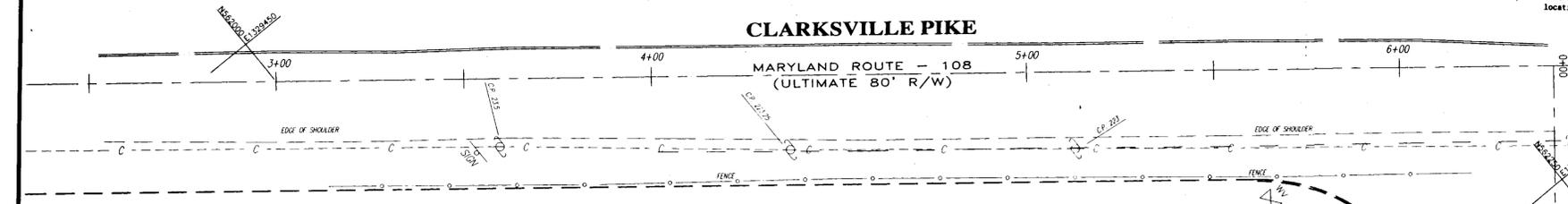
TEL: (703) 904-8350 15 DOUGLAS COURT STERLING, VA 20166 FAX: (703) 904-8356

OWNER
 Mobil Oil Corporation
 10617 Braddock Rd.
 Fairfax, VA 22032
 Attn: Scott Ballard
 (703) 219-2009
 PREPARED FOR
 The Rouse Company
 10275 Little Patuxent Parkway
 Columbia, MD 21044-3456
 (410) 992-6022
 Attn: Gregory Klar

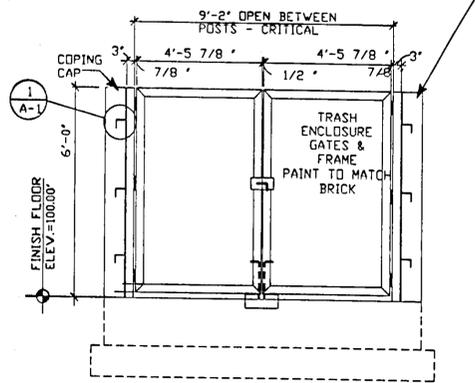


- All improvements shown within Open Space Lot 2 (Future Access Road) are proposed by others, except for the proposed sidewalk, as per the following plan references:
- Survey entitled "MOBIL OIL CORPORATION, SITE # 16-F04," as prepared by Gutschick, Little & Weber, P.A., dated Dec. 1995, rev. Apr. 1997.
 - Sheet 7 of plans entitled "5th District Volunteer Fire Station," as prepared by McCreone, dated 11/6/96.
 - Sheet 1 of plans entitled "Great Star Drive - Water & Sewer Mains 5th Election District," Contract Number 34-3539, as prepared by Hicks Engineering Co., Inc., dated 5/31/96, rev. 9/9/96.

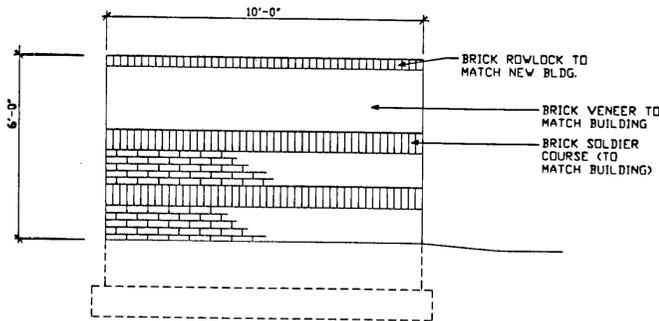
N/F VILLAGE OF RIVER HILL
 SECTION 4, AREA 2
 PARCEL H
 ZONE N-T
 PLAT #12422 F-96-89



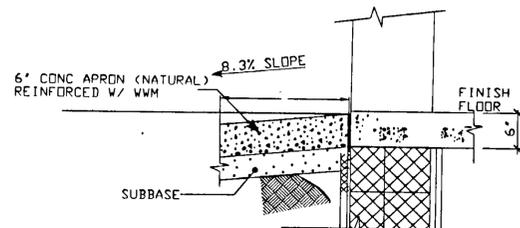
3" X 5" X 1/4" STEEL TUBE SUPPLIED BY GC
GROUT FILLED AND TIED INTO BLOCK (TYP).
POST EXTENDS FULL DEPTH OF FOUNDATION
OR 3', WHICHEVER IS LESS.



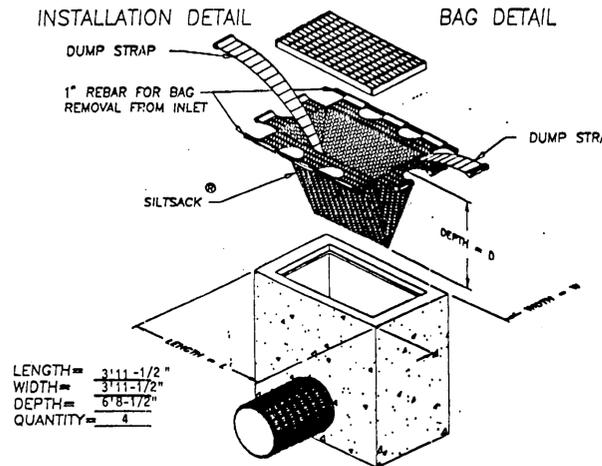
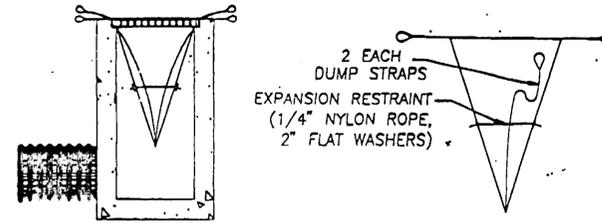
SCALE: 3/8" = 1'-0"



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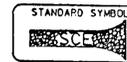
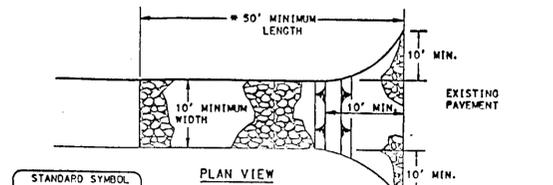
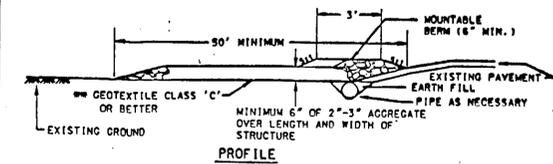
TYPICAL SECTION AT SERVICE BAY CONCRETE APRON
NO SCALE



- Once all fence has been run over with all, the catch basin must be cleaned out and the siltsack reinstalled.
- Remove lid from the catch basin, drop in the 'SILTSACK' and replace the lid. Installation time is approximately 1 minute.
- Cover the flaps with dirt and the installation is complete.
- As the water rises it begins to cascade in from all sides.
- To remove the 'SILTSACK': (1) slide 2 rebar through the pockets on the long side flaps; (2) after lifting bars are in place, leave in place or remove catch basin lid; (3) hook a lift sling to the rebar; and (4) pick the sack up with heavy equipment.
- Removing the 'SILTSACK' takes approximately 2-5 minutes.
- The unique permeability of the 'SILTSACK' fabric lets the water out and keeps the silt in - notice the clean catch basin.

SILT SACK DETAIL (To be used in place of AGIP)
NO SCALE

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Length - minimum of 50' (30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipes installed through the stabilized construction entrance shall be protected with a mountable berm with 3:1 slope and a minimum of 6" of stone over the pipe. Pipe has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
7 - 17 - 8

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

OWNER
Mobil Oil Corporation
10617 Braddock Rd.
Fairfax, VA 22032
Attn: Scott Ballard
(703) 219-2009
PREPARED FOR
The Rouse Company
10275 Little Patuxent Parkway
Columbia, MD 21044-3456
(410) 992-6022
Attn: Gregory Klar

SDP-97-154

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

Joseph M. Bejn. W.D. F.S. 12-24-97
COUNTY HEALTH OFFICER Md DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Richard Blundell 12/29/97
DIRECTOR DATE

Michael Dammann 12/15/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Richard Blundell 12/15/97
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 9/10/97

HOWARD COUNTY PLANNING BOARD

MISCELLANEOUS NOTES & DETAILS

MOBIL OIL CORPORATION SS #18-P04
VILLAGE OF RIVER HILL #12
TAX MAP 34, GRID 8, PARCEL 8
5th ELECTION DISTRICT
CENSUS TRACT 8055
CLARKSVILLE, HOWARD COUNTY, MARYLAND

SCALE 1"=20'
PROJECT No. P97169/S95028
DRAWING No. S5028503
SHEET 8 OF 9
REV. No. 2

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.

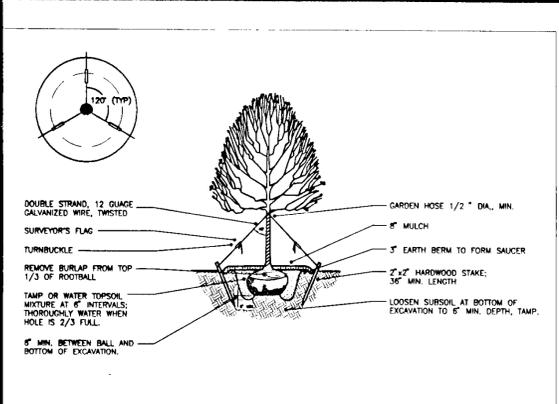
No.	REVISION	DATE	DRN	CHK	APP
2	REVISED PER COUNTY COMMENTS	8/28/97	KJV	KJV	
1	GENERAL REVISION	7/21/97	KJV	KJV	

A.J. VOLANTH
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. 24824-C
MARYLAND LICENSE NO. 23242
NEW JERSEY LICENSE NO. 29329

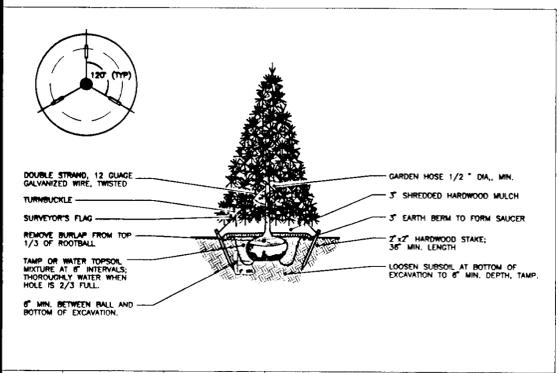
TYREE ENGINEERING, P.C.
• CIVIL & CONSULTING ENGINEERS
• TRAFFIC ENGINEERS
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Mobil USMR Asset Services
DESIGN ENGINEERING
DESIGNER RBV
05/29/97
APPROVED

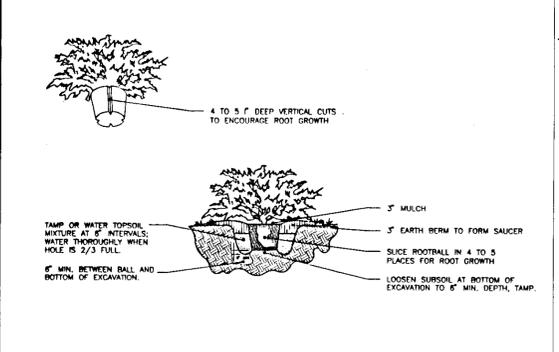
SDP-97-154



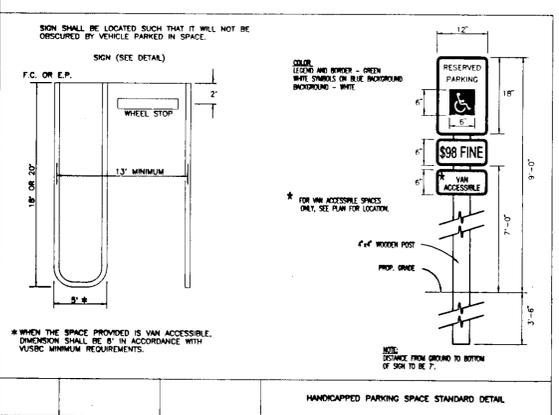
PLANTING DETAIL DECIDUOUS TREE WITH TYPICAL GUYING



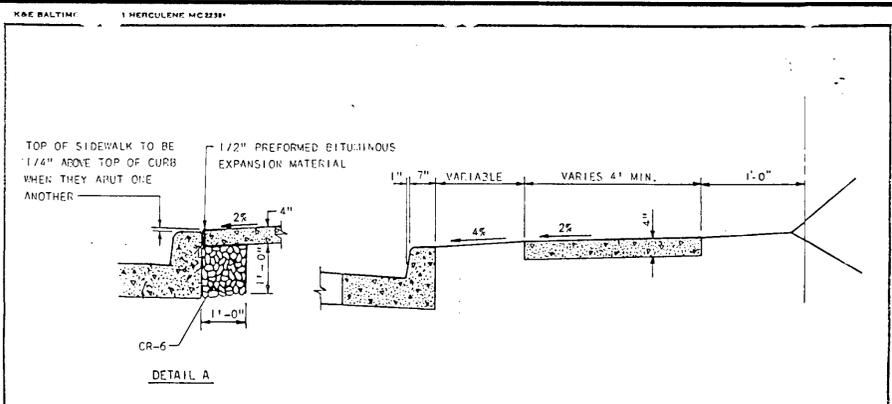
PLANTING DETAIL EVERGREEN TYPICAL GUYING



PLANTING DETAIL CONTAINER SHRUB



HANDICAPPED PARKING SPACE STANDARD DETAIL

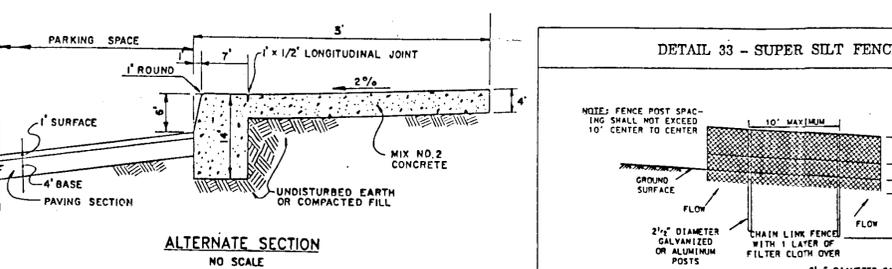


NOTES:
 1. SIDEWALK TO BE SCRIBED IN 5' MAXIMUM SQUARES.
 2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 15' APART.
 3. 1/2\"/>

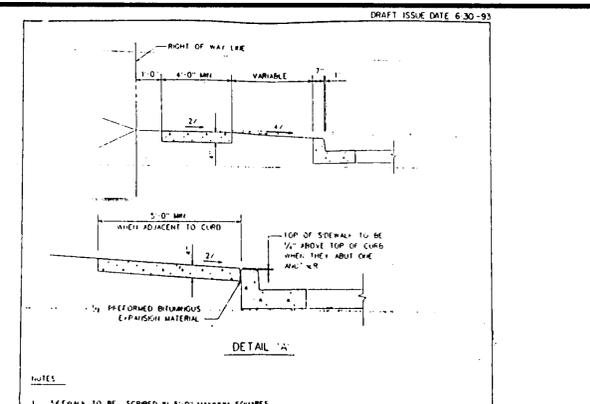
HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 Approved: *[Signature]* Chief-Bur. of Engr. Date: *[Date]*



NOTES:
 1. LONGITUDINAL JOINT BETWEEN SIDEWALK AND CURB SHALL BE CONTINUOUS AND TO A DEPTH OF 1/4\"/>

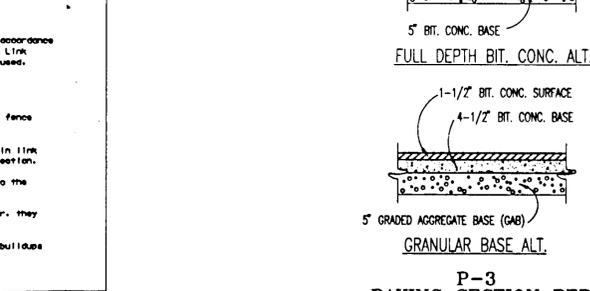
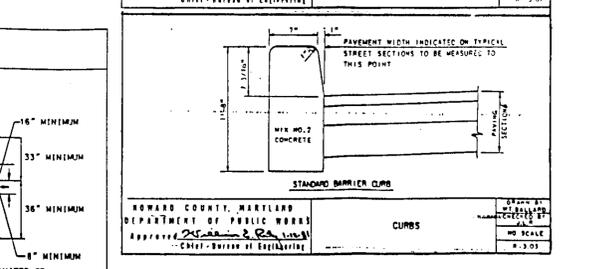
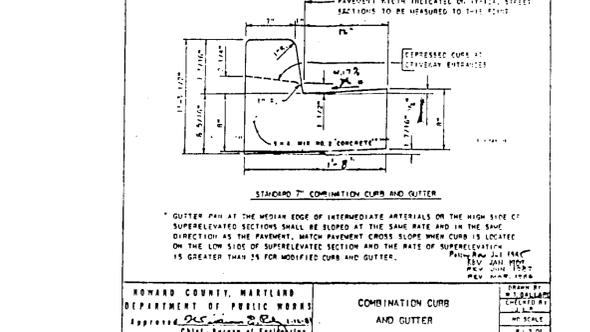


ALTERNATE SECTION NO SCALE
 DETAIL ADAPTED FROM HOWARD CO. R. 3-07
 MONOLITHIC CURB & SIDEWALK PRIVATE PARKING AREA



NOTES:
 1. SIDEWALK TO BE SCRIBED IN 5' MAXIMUM SQUARES.
 2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 15' APART.
 3. 1/2\"/>

HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 Approved: *[Signature]* Chief-Bur. of Engr. Date: *[Date]*



P-3 PAVING SECTION PER STD. DETAIL R-2.01 N.T.S.

PLANTING SPECIFICATIONS

- SCOPE OF WORK:
 - THIS WORK SHALL CONSIST OF PERFORMING CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING, AND EQUIPMENT AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
 - TOPSOIL - A SOIL ANALYSIS REPORT SHALL BE SUBMITTED AND SHOW THE PERCENTAGE OF EACH CONSTITUENT, PH, AND OTHER PERTINENT SOIL CHARACTERISTICS. RECOMMENDATIONS SHOULD INCLUDE QUANTITIES OF EACH SOIL AMENDMENT AND FERTILIZER REQUIRED TO ACHIEVE OPTIMUM SOIL CONDITIONS.
 - PLANTING SCHEDULE - ALL PLANT MATERIAL SHALL BE PLANTED NO EARLIER THAN APRIL 15 AND MAY CONTINUE THROUGH MAY 15 OR BEGIN AUGUST 15 BUT CONTINUE NO LATER THAN DECEMBER 1 OR UNTIL GROUND FREEZES. DO NOT INSTALL PLANT MATERIALS WHEN TEMPERATURES ARE BELOW 35 DEGREES FAHRENHEIT OR ABOVE 90 DEGREES FAHRENHEIT.
- MATERIALS:
 - GENERAL - ALL MATERIALS SHALL BE BEST OF ITS KIND AVAILABLE. DO NOT BEGIN SOIL PREPARATION AND PLANTING UNTIL IRRIGATION WORK AROUND PLANTING AREAS IS COMPLETE AND APPROVED.
 - PLANTS - ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED AND FREE FROM DISEASE AND INSECT DAMAGE. QUALITY AND SIZE OF PLANT MATERIAL SHALL CONFORM TO THE NATIONAL AND STATE OF GRADING CODE OF NURSERY STOCK AND BE OF NUMBER ONE GRADE - PLANT MATERIAL PROVIDED MUST COMPLY WITH ANSI 2001.
 - FERTILIZER AND SOIL AMENDMENTS
 - LIME - FULLY REACTIVE LIMESTONE CONTAINING NOT LESS THAN 85% TOTAL CARBONATES WITH A MINIMUM OF 30% MAGNESIUM CARBONATES, MINIMUM SIZE PASSING A 10-MESH SIEVE AND MINIMUM SOLUBLE POTASH.
 - PEAT HUMUS - SHALL BE DECOMPOSED PEAT, PH SUITABLE FOR INTENDED USE.
 - SAND - SHALL BE CLEAN WASHED SAND FREE OF TOXIC MATERIALS.
 - PERLITE - HORTICULTURAL PERLITE OF SOIL AMENDMENT GRADE.
 - COMMERCIAL FERTILIZER - GRANULAR, COMMERCIAL GRADE, PH NEUTRAL COMPRISED OF BOTH SLOW AND FAST RELEASE ELEMENTS AND CONTAINING THE FOLLOWING MINIMUM CONTENT OF AVAILABLE PLANT NUTRIENTS:
 - TREES AND SHRUBS: 5% TOTAL NITROGEN, 10% PHOSPHORIC ACID, 5% SOLUBLE POTASH.
 - GRASS: 3% TOTAL NITROGEN, 10% PHOSPHORIC ACID, 5% SOLUBLE POTASH.
 - LAWNS: AVAILABLE NITROGEN CONTENT AS REQUIRED TO PROVIDE 1 POUND PER 1,000 SQUARE FEET AT NORMAL APPLICATION RATE, MINIMUM 4% PHOSPHORIC ACID, AND A MINIMUM 2% SOLUBLE POTASH.
- GENERAL WORK PROCEDURES:
 - LANDSCAPE WORK SHALL BE ACCORDING TO THE A.A. (AMERICAN ASSOCIATION OF NURSERYMEN) STANDARDS ESTABLISHED FOR LANDSCAPE CONSTRUCTION AND PLANTING.
 - WEEDING:
 - BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DIG OUT BY THE ROOTS AND DEPOSITED AT THE CONTRACTOR'S EXPENSE.
 - SOIL CONDITIONING:
 - CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6\"/>
 - PLANTING:
 - POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
 - PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH WIDTH TWICE THE DIAMETER OF THE ROOT BALL AND 6\"/>
- FINISH GRADING:
 - ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS 1 FOOT OF FINISH GRADE.
 - ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.
 - ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
 - DECORATIVE MULCH (TWICE SHREDDED HARDWOOD MULCH) APPLY A UNIFORM THREE INCH (3\") THICK LAYER OF MULCH IN THE FOLLOWING AREAS: AROUND ALL PLANTING PITS AND PLANTING BEDS, DURING THE MAINTENANCE AND WARRANTY PERIOD, THE CONTRACTOR IS REQUIRED TO APPLY NEW MULCH AS NECESSARY DUE TO EROSION, SETTLING OR AS REQUIRED BY THE LANDSCAPE ARCHITECT. WORK MULCH INTO TOP OF PLANTING SOIL BACKFILL; FINISH LEVEL WITH ADJACENT GRADE.
- GUARANTEE:
 - CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR.
- CLEAN-UP:
 - UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL EXCAVATED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
 - MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS, TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER ORIGIN OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WEATHERS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
 - MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRASSING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF EROSION OR BARE AREAS.

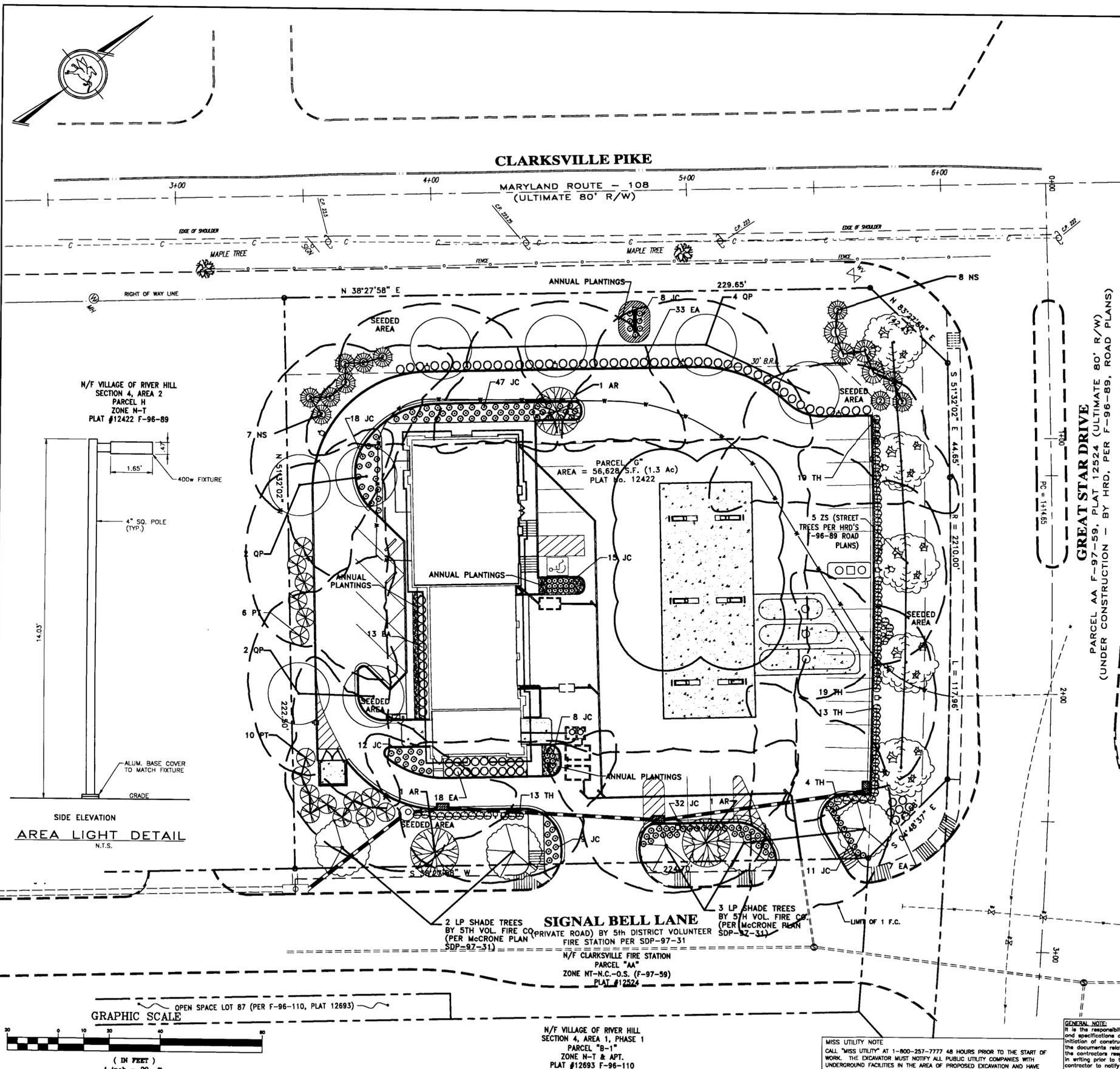
OWNER
 Mobil Oil Corporation
 10617 Braddock Rd.
 Fairfax, VA 22032
 Attn: Scott Boland
 (703) 219-2009
 PREPARED FOR
 The Rouse Company
 10275 Little Patuxent Parkway
 Columbia, MD 21044-3456
 (410) 992-6022
 Attn: Gregory Kiarr

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
[Signature] COUNTY HEALTH OFFICER MR DATE: 12-24-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] DIRECTOR DATE: 12/30/97
[Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 12/19/97
[Signature] CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 12/30/97

MISCELLANEOUS NOTES & DETAILS

THIS DRAWING AND ALL INFORMATION HEREON IS THE PROPERTY OF MOBIL USMAR ASSET SERVICES AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED. THE DRAWING AND ANY COPIES HEREOF (PARTIAL OR COMPLETE) SHALL BE RETURNED TO THE OWNER UPON DEMAND.	<table border="1"> <tr> <th>No.</th> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>CHK</th> <th>APP</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>CHK</th> <th>APP</th> </tr> <tr> <td>2</td> <td>REVISED PER COUNTY COMMENTS</td> <td>8/28/97</td> <td>JLV</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>GENERAL REVISION</td> <td>7/21/97</td> <td>JLV</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	No.	REVISION	DATE	BY	CHK	APP	NO.	REVISION	DATE	BY	CHK	APP	2	REVISED PER COUNTY COMMENTS	8/28/97	JLV									1	GENERAL REVISION	7/21/97	JLV									<table border="1"> <tr> <td>U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE</td> <td>PAGE R - 28 - 3</td> <td>MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION</td> </tr> </table>	U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE R - 28 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	<table border="1"> <tr> <td>A.J. VOLANTH PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 24824-C NEW JERSEY LICENSE NO. 39329</td> <td>TYBEE ENGINEERING, P.C. CIVIL & CONSULTING ENGINEERS TRAFFIC ENGINEERS SURVEYORS ENVIRONMENTAL & SITE PLANNERS ARCHITECTURAL DESIGNERS PROJECT MANAGERS TEL. (703) 904-8350 15 DOUGLAS COURT STERLING, VA 20186 FAX. (703) 904-8356 BROOKFIELD, CT. AUBURN, MASS.</td> <td>Mobil USMAR Asset Services DESIGN ENGINEERING FARFAX, VIRGINIA DESIGN ENGINEER RBJ 05/29/97 APPROVED DESIGN CHECK DRAWN BY CHECKED BY DATE</td> <td>MOBIL OIL CORPORATION SS #16-F04 VILLAGE OF RIVER HILL, 412 TAX MAP 34, GRID 6, PARCEL C 5th ELECTION DISTRICT CENSUS TRACT 6055 CLARKSVILLE, HOWARD COUNTY, MARYLAND PROJECT NO. P97169/S95028 DRAWING NO. S5028S03 SCALE: 1"=20' SHEET 7 OF 9 REV. NO. 2</td> </tr> </table>	A.J. VOLANTH PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. 24824-C NEW JERSEY LICENSE NO. 39329	TYBEE ENGINEERING, P.C. CIVIL & CONSULTING ENGINEERS TRAFFIC ENGINEERS SURVEYORS ENVIRONMENTAL & SITE PLANNERS ARCHITECTURAL DESIGNERS PROJECT MANAGERS TEL. (703) 904-8350 15 DOUGLAS COURT STERLING, VA 20186 FAX. (703) 904-8356 BROOKFIELD, CT. AUBURN, MASS.	Mobil USMAR Asset Services DESIGN ENGINEERING FARFAX, VIRGINIA DESIGN ENGINEER RBJ 05/29/97 APPROVED DESIGN CHECK DRAWN BY CHECKED BY DATE	MOBIL OIL CORPORATION SS #16-F04 VILLAGE OF RIVER HILL, 412 TAX MAP 34, GRID 6, PARCEL C 5th ELECTION DISTRICT CENSUS TRACT 6055 CLARKSVILLE, HOWARD COUNTY, MARYLAND PROJECT NO. P97169/S95028 DRAWING NO. S5028S03 SCALE: 1"=20' SHEET 7 OF 9 REV. NO. 2
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LANDSCAPE INSTALLATION AND CERTIFICATION

- Required landscaping shall be included in the developer's agreement for the subdivision or development; additional surety is required. Alternately, a separate developer's agreement for landscaping, with the surety may be executed.
- All landscaping shown on the approved final plan or site development plan shall be completed in accordance with the approved landscape plan before a release of surety. Prior to such release, the plan preparer shall submit written certification to the Department of Planning and Zoning that healthy plant materials were properly installed in accordance with the approved landscape plan and that a 1 year guarantee has been executed.
- When there is no developer's agreement required for a subdivision or site development requiring a landscape plan, the grading permit agreement and surety shall be modified to incorporate landscaping requirements.

MAINTENANCE

- The owner, tenant, and their respective agents, if any, shall jointly and severally be responsible for the maintenance of the required landscaping. All required plantings shall be maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable regulations.
- No plant material shall be allowed to encroach on road rights-of-way so that sight distance is impeded.

SEE SHEET 7 FOR ADDITIONAL LANDSCAPE NOTES AND DETAILS.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadway (NORTH)	Adjacent to Roadway (EAST)	Adjacent to Roadway (WEST)	Adjacent to Properties (SOUTH)
Landscape Type	E	E	E	B
Linear Feet of Roadway Frontage / Perimeter	161'	175'	230'	223'
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	N/A		N/A	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	N/A		N/A	
Number of Plants Required				
Shade Trees	4 (1:40)	5 (1:40)	6 (1:40)	5 (1:40)
Evergreen Trees	40 (1:4)	44 (1:4)	58 (1:4)	6 (1:40)
Shrubs				
Number of Plants Provided				
Shade Trees	0	4	1	2
Evergreen Trees	8	54	6	17
Other Trees (2:1 substitution)				
Shrubs (10:1 substitution)	47	54	78	--
(Describe plant substitution credits below if needed)	(A)	(C)	(D)	(B)

- (A) Substitute 8 evergreen trees for 4 shade trees.
- (B) Substitute 6 evergreen trees for 3 shade trees.
- (C) Substitute 10 shrubs for 1 shade tree.
- (D) Substitute 6 evergreens for 3 shade trees & 20 shrubs for 2 shade trees.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	22 (including 1 handicap)
Number of Trees Required	1
Number of Plants Provided	
Shade Trees	3
Other Trees (2:1 substitution)	

LANDSCAPING SCHEDULE

SYMBOL	BOTANICAL/COMMON NAME	QUANTITY	SIZE	REMARKS	
QP	Quercus Phellos / Willow Oak	8	2" CAL.	B&B	
AR	Acer Rubrum / October Glory Red Maple	3	2 1/2" CAL.	B&B	
PT	Pinus Thunbergiana / Japanese Black Pine	16	6' to 8'	B&B	
NS	Picea Abies (Excelsa) / Norway Spruce	(1)	4	10' to 12'	B&B
		(2)	11	8' to 10'	B&B
JC	Juniperus Chinensis 'Sargentii' / Sargent Juniper	180	30" to 36"	Cont.	
EA	Euonymus Alatus 'Compacta' / Compact Burning Bush	84	30" to 36"	Cont.	
TH	Taxus x Media Hickii / Hicks Yew	68	24" to 30"	Cont.	
ZS	Zelkova serrata / Japanese zelkova	5	2 1/2"-3" CAL.	B&B	
LP	Platanus x aceriflora / London Planetree	5	2 1/2"-3" CAL.	B&B	

LANDSCAPE PLAN NOTES:

- This plan has been prepared in accordance with the New Town alternative compliance provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
- Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$4,100.00.

- LEGEND**
- X 478.87 EXIST. SPOT ELEVATION
 - X 477.20 PROP. SPOT ELEVATION
 - 478 EXIST. GROUND CONTOUR
 - 477 PROP. GROUND CONTOUR
 - PROP. STORM LINE
 - PROP. WHC
 - PROP. SHC

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 9/10/97

SDP-97-154

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

[Signature] 12/27/97
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 12/22/97
DIRECTOR DATE

[Signature] 12/15/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

HOWARD COUNTY PLANNING BOARD

LIGHTING & LANDSCAPE PLAN

MOBIL OIL CORPORATION SS #16-F04 (SDP-97-154)
VILLAGE OF RIVER HILL (SECT. 4 AREA 2)
TAX MAP 34, GRID 8, PARCEL G
5th ELECTION DISTRICT, CENSUS TRACT 6055
PLAN F-96-89, PLAT 12422
CLARKSVILLE, HOWARD COUNTY, MARYLAND

SCALE 1" = 20'
PROJECT No. S95028/P97169 SHEET 6 OF 9
DRAWING No. S5028SS3 REV. No. 3

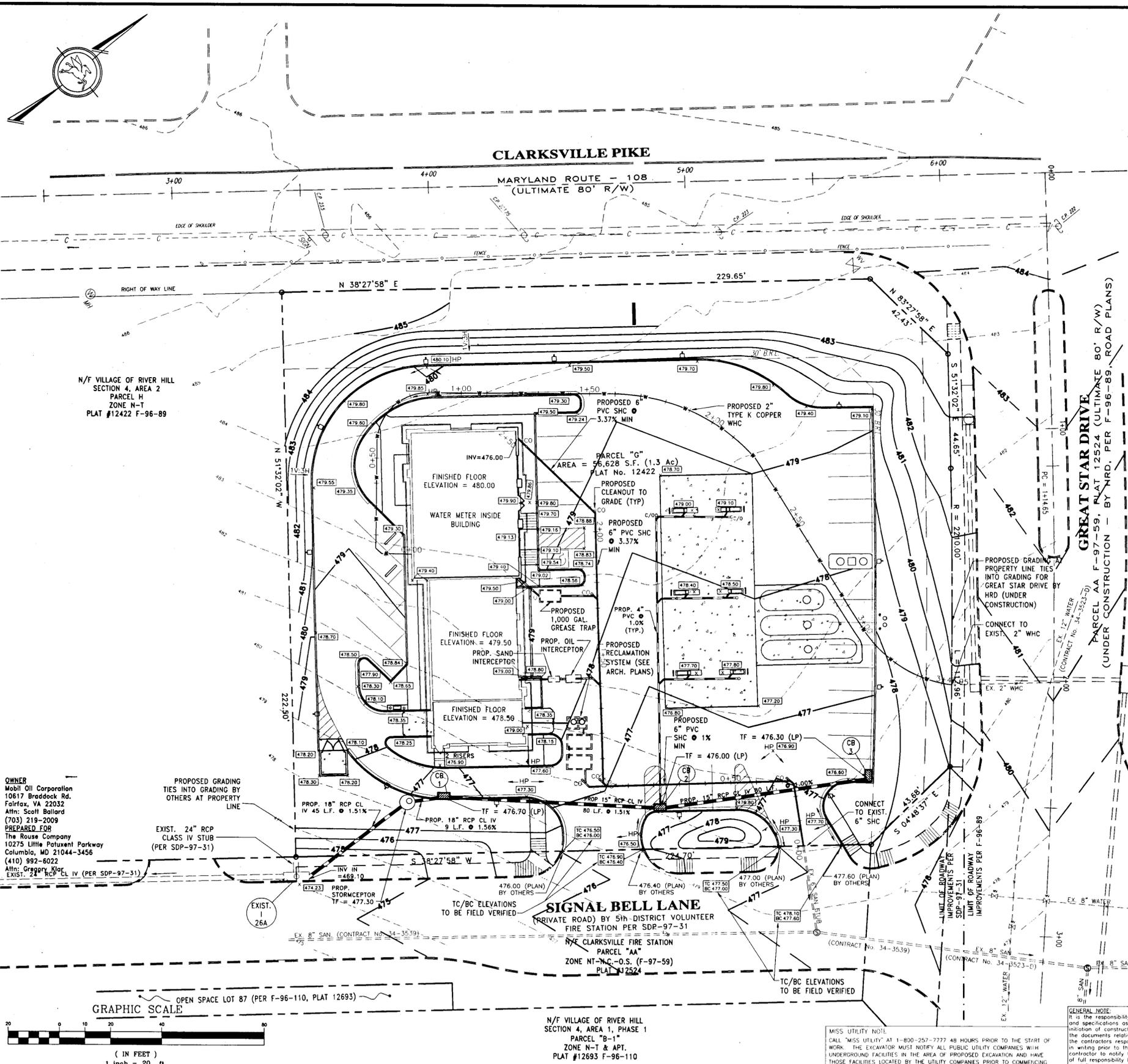
No.	REVISION	DATE	DRN.	CHK.	APR.	No.	REVISION	DATE	DRN.	CHK.	APR.
3	REV. PER COUNTY COMMENTS	8/28/97									
2	REV. PER CLIENT COMMENTS	8/21/97									
1	GENERAL REVISION	7/21/97									

A.J. VOLANTH
PROFESSIONAL ENGINEER
MARYLAND LICENSE NO. 44884-E
NEW JERSEY LICENSE NO. 3559

TYREE ENGINEERING, P.C.
CIVIL & CONSULTING ENGINEERS
TRAFFIC ENGINEERS
SURVEYORS
ENVIRONMENTAL & SITE PLANNERS
ARCHITECTURAL DESIGNERS
PROJECT MANAGERS
TEL. (703) 904-8350 15 DODD ST. STERLING, VA 20166
FAX. (703) 904-8356 BROOKFIELD, CT. ALBURN, MASS

Mobil US&M Asset Services
DESIGN ENGINEERING
REB 05/29/97 APPROVED
DATE

MOBIL OIL CORPORATION SS #16-F04 (SDP-97-154)
VILLAGE OF RIVER HILL (SECT. 4 AREA 2)
TAX MAP 34, GRID 8, PARCEL G
5th ELECTION DISTRICT, CENSUS TRACT 6055
PLAN F-96-89, PLAT 12422
CLARKSVILLE, HOWARD COUNTY, MARYLAND

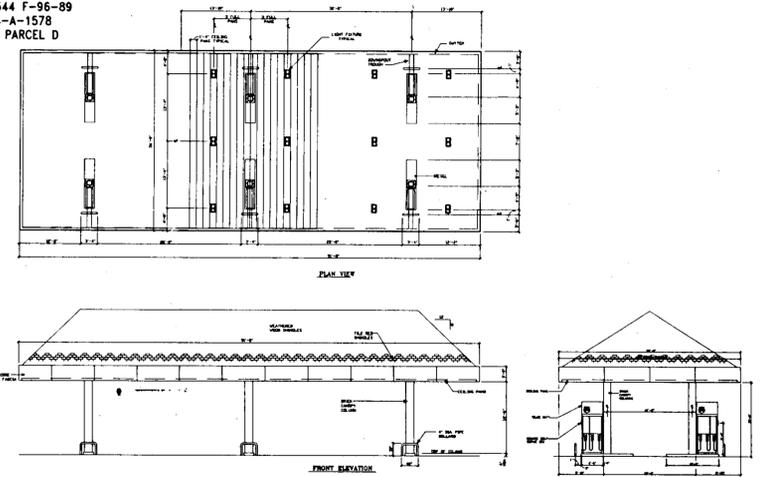


STORM DRAIN INLET & STRUCTURE SCHEDULE

Structure No.	Type	Agency & Std. Detail No.	Structure Top Elev.	Invert In	Invert Out
CB-1	"S"	H.C. SD 4.22	476.70	470.35	470.00
CB-2	"S"	H.C. SD 4.22	476.00	471.70	471.60
CB-3	"S"	H.C. SD 4.22	476.30	-	472.51
Stormceptor	Model STC 1800	---	477.30	469.86	469.78

- GRADING AND UTILITY 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 service connection points shall be confirmed independently by the Contractor in field prior to the commencement of construction. All discrepancies shall be reported immediately in writing to the Engineer. Construction shall commence beginning at the lowest points. Grading 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 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 area 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. Contractors price for water service shall include all fee appurtenances required by the utility to provide a complete working service.
 - All spot grades depicted are at bottom curb elevations with curb reveal as depicted on Howard County Curb Standard Detail.
 - Public Water Contract No. _____ Drawing No. _____ Water Zone Code _____
 - Public Sewer Contract No. _____ Drawing No. _____ Drainage Code _____

ZONED N-T
N/F VILLAGE OF RIVER HILL
SECTION 4, AREA 2, PARCEL V
LOTS 86+87
ZONE B-2 & N-T
PLAT #12421 & 12544 F-96-89
AND PLAT #3054-A-1578
FDP 222-PART 2, PARCEL D



- LEGEND**
- X 479.87 EXIST. SPOT ELEVATION
 - X 477.20 PROP. SPOT ELEVATION
 - 479 --- EXIST. GROUND CONTOUR
 - 477 --- PROP. GROUND CONTOUR
 - 477 --- PROP. GROUND CONTOUR (BY OTHERS)
 - --- PROP. STORM LINE
 - --- EXIST. STORM LINE
 - --- PROP. WHC
 - --- EXIST. WHC
 - --- PROP. SHC
 - --- EXIST. SHC

SDP-97-154

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

Joseph M. Duff 12/24/97
COUNTY HEALTH OFFICER MR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Joseph M. Duff 12/30/97
DIRECTOR DATE

John Damman 12/19/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 9/10/97

HOWARD COUNTY PLANNING BOARD

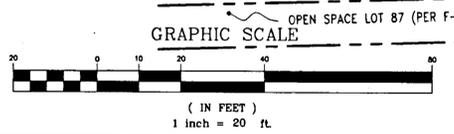
GRADING & UTILITY PLAN

MOBIL OIL CORPORATION SS #16-F04 (SDP-97-154)
VILLAGE OF RIVER HILL (SECT. 4 AREA 2)
TAX MAP 34, GRID 6, PARCEL G
5th ELECTION DISTRICT, CENSUS TRACT 6055
PLAN F-96-89, PLAT 12422
CLARKSVILLE, HOWARD COUNTY, MARYLAND

SCALE 1"=20'
PROJECT No. S95028/P97169 SHEET 3 OF 9
DRAWING No. S5028S3 REV. No. 3

OWNER
Mobil Oil Corporation
10817 Braddock Rd.
Fairfax, VA 22032
Attn: Scott Ballard
(703) 219-2009

PREPARED FOR
The Rouse Company
10275 Little Potomac Parkway
Columbia, MD 21044-3456
(410) 992-6022
Attn: Gregory Nigam
EXIST. 24" RCP CL IV (PER SDP-97-31)



N/F VILLAGE OF RIVER HILL
SECTION 4, AREA 1, PHASE 1
PARCEL "B-1"
ZONE N-T & APT.
PLAT #12693 F-96-110

MISS UTILITY NOTE:
It is the responsibility of the contractor to review all of the drawings and specifications associated with this project work scope prior to the initiation of construction. Should the contractor find a conflict with the documents relative to the specifications or applicable codes, it is the 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.

A.J. VOLANNI
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 35294-E
NEW YORK LICENSE NO. 2024

TYREE ENGINEERING, P.C.
CIVIL & CONSULTING ENGINEERS
TRAFFIC ENGINEERS
SURVEYORS
ENVIRONMENTAL & SITE PLANNERS
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PROJECT MANAGERS
TEL. (703) 904-8350
15 DOUGLAS COURT
STERLING, VA 20186
FAX. (703) 904-8356
BROOKFIELD, CT. AUBURN, MASS.

Mobil USM&R Asset Services
DESIGN ENGINEERING
RBU 05/29/97 APPROVED
DESIGN CHECK
DRAWN BY
DRAWING CHECK

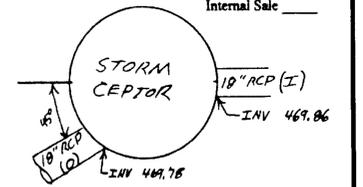
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1	GENERAL REVISION	7/21/97	J.V.								

SDP-97-154

Concrete Stormceptor Order Request Form*

Official Use Only
 Order # _____
 Date _____
 Internal Sale _____

Contractor Information
 Name The Rouse Company
 Address 10275 Little Patuxent Parkway
 City Columbia
 State Maryland
 Zip Code 21044-3456
 Contact Gregory Klar
 Phone 410-992-6022
 Fax 410-992-6149



Owner Information
 Name Mobil Oil Corporation
 Phone 702-219-2009
 Fax 703-219-2038

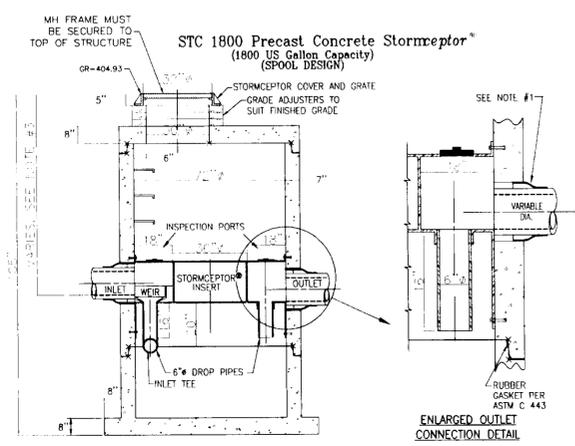
Please draw orientation of inlet and outlet pipes on drawing along with pipe inside diameter (in.) and invert elevation (ft.). Clearly mark inlet pipes with an I and outlet pipes with an O and provide the inlet/outlet pipe angle in degrees.

Stormceptor Model	Insert Size	Data
900	3600	22" X
1200	4800	32" X
1800	6000	44" X
2400	7200	Custom

Manhole/Structure Number	Proposed Stormceptor
477.30	
469.86	
469.78	
18" class IV RCP	
18"	
23"	

Project Name Mobil Oil Corporation Station #16-F04
 Approximate time frame until required delivery (weeks) 8
 Exact Delivery Address: Street 5105 Signal Bell Lane
 City Clarksville State MD Zip Code _____
 Designer Company Bohler Engineering
 Designer Contact Adam Volanth, P.E. Phone 215-393-8300 Fax 215-393-8130

Please fax this sheet to Stormceptor Corporation at (301) 762-4190
 For Technical Information Please Call Stormceptor Corporation at (301) 762-8361 or Toll Free at 1-800-762-4703
 *Form to be included on plan by Designer



SECTION THRU CHAMBER
 NOTE:
 1. CSR RECOMMENDS THE USE OF FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET WHERE APPLICABLE.
 2. COVER TO BE POSITIONED OVER INLET INSPECTION PORT.
 3. RISER SECTION ABOVE THE INSERT TO BE 2'-0" FOR A MINIMUM OF 5'-0" FROM TOP OF INSERT TO GRADE (WHENVER IS LESS).
 4. THIS IS A GENERAL ARRANGEMENT DRAWING CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.

4'-0" I.D. CONCRETE STRUCTURE
 32" INSERT HEIGHT (18" RCP IN & OUT)
 STC 1800 Precast Concrete Stormceptor®
 (1800 US Gallon Capacity)

PRECAST CONCRETE STORMCEPTOR® DETAIL

NOT TO SCALE

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 ITS SECTIONS FROM BASE OF THE STORAGE CHAMBER (BOTTOM OF UNIT'S SLAB) TO THE INVERT OF STORMCEPTOR BYPASS CHAMBER INLET ELEVATION (FIBERGLASS INSERT). SUBTRACT THIS DISTANCE FROM DESIGN INVERT ELEVATION TO DETERMINE TOP OF SUBBASE ELEVATION. CHECK ELEVATION OF INSTALLED SUBBASE AND ADJUST AS NEEDED.
- SECURE INSPECTOR APPROVAL OF SUBGRADE AND SUBBASE. ALL LIFTING APPARATUS IS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR.
- INSTALL STORAGE CHAMBER. (INSTALL SCREW LIFTING PINS INTO BASE OF STORAGE CHAMBER.) ATTACH CABLES OR CHAINS TO ALL 3 LIFT 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).
- 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 V-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 STEP(S) ARE INCLUDED. ALIGN STEPS ABOVE INLET INSPECTION PORT. 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 (PLUG).
- 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 REQUIREMENTS.
- INSTALL AND SET GRADE ADJUSTING RINGS, AS NEEDED. PLUG ALL LIFT HOLES WITH TAPERED FLEXIBLE PLUG AND KNOCK IN TO 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 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 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 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 (SITE PERMANENTLY STABILIZED).
- FINAL INSPECTION.

FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

- 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 PLEXIGLASS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE SEDIMENT DEPTHS 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 HOWARD COUNTY INSPECTOR MUST BE CALLED 48 HOURS IN ADVANCE. (PRE-CONSTRUCTION MEETING).
- THE INSPECTOR MUST BE NOTIFIED 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 TANK, 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 PUMPED 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.

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.

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

SDP-97-154

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY DEPARTMENT OF HEALTH AND ZONING.
 Joseph M. Bond, MD, MPH
 COUNTY HEALTH OFFICER
 DATE: 12-24-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Richard B. Good
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12/30/97

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 9/10/97

STORMCEPTOR NOTES & DETAILS

MOBIL OIL CORPORATION SS #16-F04
 VILLAGE OF RIVER HILL, 412
 TAX MAP 34, GRID 6, PARCEL G
 5th ELECTION DISTRICT
 CENSUS TRACT 6055
 CLARKSVILLE, HOWARD COUNTY, MARYLAND

SCALE: 1"=20'
 PROJECT No. P97169/S95028
 DRAWING No. S5028SD3
 SHEET 9 OF 9
 REV. No. 2

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No.	REVISION	DATE	BY	CHK	APR	No.	REVISION	DATE	BY	CHK	APR
2	REVISED PER COUNTY COMMENTS	8/28/97	J.V.								
1	GENERAL REVISION	7/21/97	J.V.								
No.	REVISION										

A.J. VOLANTH
 DESIGN ENGINEER

TYREE ENGINEERING, P.C.
 CIVIL & CONSULTING ENGINEERS
 TRAFFIC ENGINEERS
 SURVEYORS
 ENVIRONMENTAL & SITE PLANNERS
 ARCHITECTURAL DESIGNERS
 PROJECT MANAGERS
 TEL. (703) 904-8350
 15 DOUGLAS COURT
 STERLING, VA 20166
 FAX. (703) 904-8356
 BROOKFIELD, CT. ALBURN, MASS.

Mobil US&M Asset Services
 DESIGN ENGINEERING
 FARFAX, VIRGINIA
 DESIGNED BY: RBJ
 DATE: 05/29/97
 CHECKED BY: [Signature]
 DATE: [Date]
 DRAWN BY: [Signature]
 DATE: [Date]

SDP-97-154