

SCALE: HORZ.: 1"= 50

		QUA	NTITIES	
ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8*,W	8",W L.F.		406	D.I.PWATER PRO
1,7W	L.F.	22	24	COPPER-WATER PRO
and FH	ĘĄ.	1	,1 ·	MUELLER-WATER PRO
6'W	EA. L.F.	19	18	DIP WATER PRO
8" CAP &	EA.	1	1	D.I.P - WATER PRO
BUTTRESS	EA	1	4	MUELLER-WATER-PRO

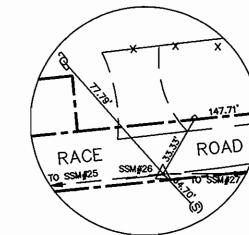
CHECKBOX	
AS-BUILT DATE:	
SURVEY AND	DRAFTING DIVISION

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
- 2. LAYOUT ALIGNMENT AT SITE. (1 DAY) 3. INSTALL SEDIMENT CONTROL DEVICE (SILT FENCE) ALONG EDGE OF PAVEMENT ON
- EAST SIDE OF RACE ROAD WITHIN THE WORK LIMITS. (1 DAY)
- 4. EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. (30 DAYS) 5. INSTALL WATER MAIN. (30 DAYS)
- 6. BACKFILL TRENCH SAME DAY AND RESURFACE WITH BITUMINOUS PAVING WHERE NEEDED
- 7. CLEAN UP CONSTRUCTION SITE. (1 DAY)
- 8. REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)

STRUCTURE	DISTANCE (SSM #26 TO SSM #27)	OFFSET		
PC 0+00 LIMIT OF WORK	3+65.52	Lt. 2.35'		
0+49.94 P.O.T.	3+15.68	Lt. 0.25'		
1+00 8" W	2+66.05	Lt. 6.36'		
1+61.14 P.O.C	2+05.31	Lt. 13.83'		
2+00 8" W	1+66.58	Lt. 16.93'		
2+62.08 P.0.T.	1+04.58	Lt. 14.99'		
3+00 0+66.88	0+66.88	Lt. 11.24'		
4+00 8" W	-0+32.63	Lt. 1.32'		
4+01 WHC	-0+33.41	Lt. 1.24'		
WHC @ PL	-0+35.61	Lt. 23.14'		
4+03 8x6T	-0+35.61	Lt. 1.03'		
FH	-0+37.47	Lt. 19.60'		
4+06 CAP & BUTTRESS LIMIT OF WORK	5+34.04	Lt. 12.90'		

STAKEOUT SCHEDULE



SSM PI #26 N 559,337.3974 E 1,393,757.5955 EL.= 31.00

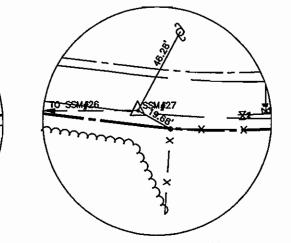
SURVEY NOTES:

I. HOWARD COUNTY STATION 38A9 CONC. MON. SW COR. RTE. No. 1 & MONTGOMERY RD.

NORTH (83) 561,056.3627 EAST (83) 1,389,634.097 222.67 ELEV.

2. HOWARD COUNTY STATION 38BA ALUM. DISC ON 3/4" REBAR ON WEST SIDE OF RTE. No. 1 & 100' N. OF SUMMER HOME TER.

NORTH (83) 561,056.3627 1,389,634.097 EAST (83) ELEV. 222.67



SSM PI #27 N 559,585.0320 E 1,393,949.3540 EL.= 31.68

<u>BENCH MARKS</u>

BM #1 (SSM#26) EL.= 31.00 P.K. NAIL ON E. SIDE OF RACE ROAD 64.70' WEST OF SANITARY MANHOLE, 77.70' EAST OF BGE POLE #211446 & 33.33' SW OF A MAIL BOX IN #6114 RACE ROAD.

BM #2 (SSM#27) EL.= 31.68 P.K. NAIL ON E. SIDE OF RACE ROAD 19.68' WEST OF FORSE FIELD FENCE POST AND 46.28' SE OF BGE POLE #202175.

-16' MINIMUM HEIGHT OF GEOTEXTILE CLASS F PERSPECTIVE VIEW FENCE POST SECTION FENCE POST DRIVEN A A MINIMUM OF 8' VERTICALLY | STANDARD SYMBOL _____SF-___ JOINING TWO ADJACENT SILT FENCE SECTIONS Construction Specifications 1. Fence posts shall be a minimum of 36" long driven 16" minimum into the around. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be 2. Geotextile shall be fastened securely to each fence post with wire ties

or staples at top and mid-section and shall meet the following requirements

50 lbs/in (min.)

20 lbs/in (min.)

3. Where ends of geotextile fabric come together, they shall be overlapped,

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

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

Test: MSMT 509

WATER MANAGEMENT ADMINISTRATION

Tensile Modulus

folded and stapled to prevent sediment bypass.

DETAIL 22 - SILT FENCE

DEVELOPER'S CERTIFICATION ENGINEER'S CERTIFICATION "I/WE CERTIFY THAT ALL DEVELOPEMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL "I/WE CERTIFY THAT ALL DEVELOPEMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODING ON—SITE INSPECTION HAVE A CERTIFICATE OF THE ENVIRONMENT APPROVE TRAINING PROGRAM FOR THE CONTROL OF SEDIMEN AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODING ON—SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. THIS DEVELOPEMENT PLAN IS APPROVED FOR REVIEWED FOR HOWARD S.C.D. AND MEETS

PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED. SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

)PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.)
AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.). 2)ACCEPTALBE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OF DISK INTO UPPER THREE INCHES OF SOIL.

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

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

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

TEMPORARY SEEDING NOTES

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

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

SOIL AMENDMENTS: - APPLY 60 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.). SEEDING: - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14. SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS

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

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

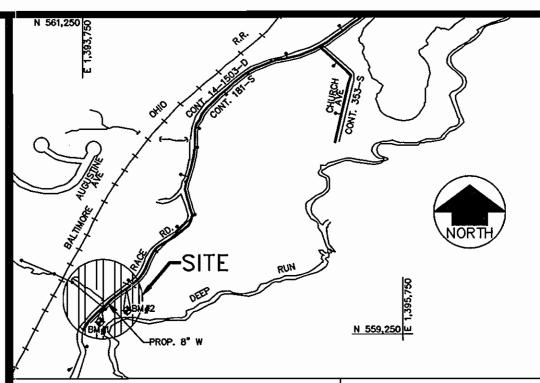
- 1. A MINIMUM OF 24 HOURS MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS, PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).
- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDER DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1,
- b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 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 EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (Sec. 51), SOD(Sec. 52), TEMPORARY SEEDING (Sec. 50) AND MULCHING (Sec. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED AREA TO BE ROOFED OR PAVED AREA TO BE VEGATATIVELY STABILIZED TOTAL CUT CU. YDS. 180 TOTAL FILL __ CU. YDS. OFFSITE WASTE/BORROW AREA LOCATION NA

- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
- 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 1. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER
- 12. CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.
- 13. REFER TO CONTRACT SPECIFICATIONS (PROJECT MANUAL) FOR SEEDING NOTES.

NOTE: SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARDS AND SPECIFICATIONS (VOL.IV) OF THE HOWARD COUNTY DESIGN MANUAL AND THIS PLAN.

BLOCK NO. 10



TYPE OF BUILDING: COMMERCIAL NUMBER OF PARCELS: WATER HOUSE CONNECTIONS:

DRAINAGE AREA:

WATER CODE FOR COUNTY USE ONLY: WATER No: A04

1-800-257-7777

531-5533

VICINITY MAP SCALE: 1" = 600'

PATAPSCO

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.

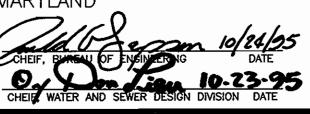
MISS UTILITY

STATE HIGHWAY ADMINISTRATION .

- 4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES. ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS. USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL ____ AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS: 865-3803 BG&E (CONTRACTOR SERVICES).. 850-4620 BG&E - UNDERGROUND DAMAGE CONTROL 787-9068 313-4900 BUREAU OF UTILITIES (DPW)... CHESAPEAKE & POTOMAC TELEPHONE CO. 597-8585 COLONIAL PIPELINE CO.
- 9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTEND. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD
- 12. ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- 13. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS
- 14. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 15. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 16. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- 17. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 18. PRIOR TO LAYING ANY WATER MAINS UNDER THIS CONTRACT, THE CONTRACTOR SHALL TEST PIT AT THE INDICATED CROSSINGS AND WATER MAIN CONNECTIONS, AND SHALL DETERMINE ELEVATIONS AND HORIZONTAL LOCATIONS OF MAINS. THE INFORMATION SHALL BE TURNED OVER TO THE ENGINEER AND THE CONTRACTOR SHALL LAY THE WATER MAINS IN ACCORDANCE WITH THE ENGINEERS INSTRUCTIONS.

RESTORATION SCHEDULE				
LOCATION	DISTANCE	TYPE		
0+0 TO 4+06 8" WATER	406 L.F.	PAVING		
WHC & 6*W	15.66 L.F.	PAVING		
WHC, 6"W & FH	6.34 LF.	SEEDING		

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND







ECHNICAL REQUIREMENTS.

bb.	DES: FCL				
He	· · · · ·				
	DRN: FCL				
	CHK: TWW				
ik.	DATE: OCT.'95	BY	NO.	REVISION	DATE

8-INCH WATER MAIN PLAN, PROFILE & NOTES RACE ROAD

600' SCALE MAP NO. 37

RACE ROAD WATER EXTENSION CAPITAL PROJECT No. W-8695

CONTRACT No. 44-3477 ELECTION DISTRICT No. 1 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET <u>1 OF 1</u>