
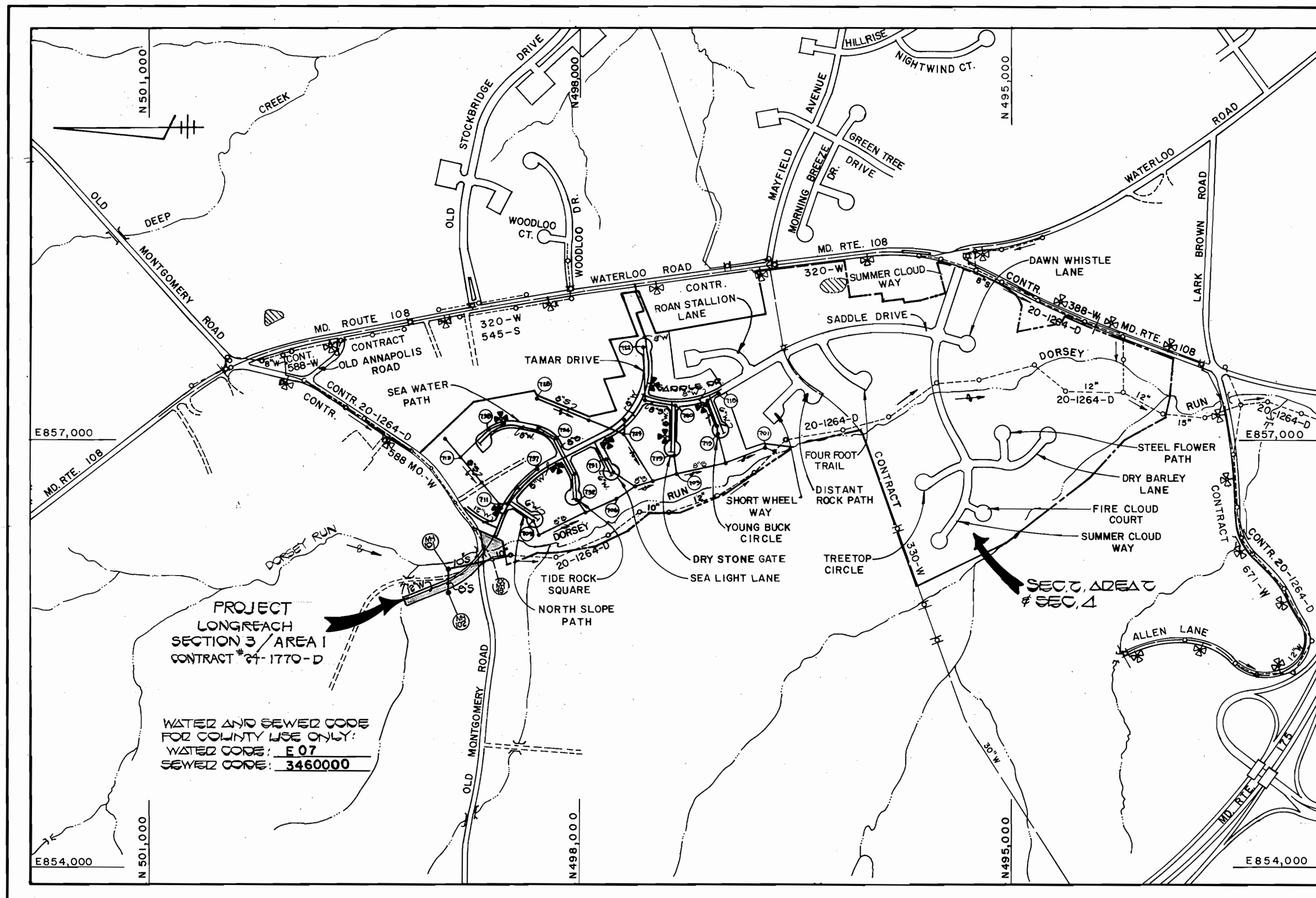


GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM 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. 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 STATE HIGHWAY ADMINISTRATION : 531-5533
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES: 850-4620
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 859-9004
 BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-9001
 MISS UTILITY: 1-559-0100
 COLONIAL PIPELINE COMPANY: 795-1390
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 992-2366
 C.B.P. TELEPHONE COMPANY: 1-800-257-7777
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- 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.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 AND 1008 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS. (STD. DETAIL W.3.21).
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS STANDARD DETAIL GS.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED. SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. CLASS 2400 OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL GS.51.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153: DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.

QUANTITIES				
ITEM	EST'D	AS-BUILT	SUPPLIER	MANUFACTURER
12" W	Ø17 I.F.	Ø14 L.F.	A&P-WATER & SEWER	ATLANTIC-STATES
6" W	45 I.F.	42 L.F.	A&P-WATER & SEWER	ATLANTIC-STATES
F.H.W/6" VALVE	2 EACH	2 EA.	A&P-WATER & SEWER	MUELLER
12" VALVE	1 EACH	1 EA.	A&P-WATER & SEWER	KENNEDY
10" S (D.I.P.)	31Ø I.F.	31Ø L.F.	A&P-WATER & SEWER	ATLANTIC-STATES
Ø" S (D.I.P.)	15Ø I.F.	15Ø L.F.	A&P-WATER & SEWER	ATLANTIC-STATES
MANHOLES	2 EACH	2 EA.		
Ø" W	3Ø L.F.	37 L.F.	A&P-WATER & SEWER	ATLANTIC-STATES
Ø" VALVE	1 EACH	1 EA.	A&P-WATER & SEWER	KENNEDY
Ø" S	5 L.F.	5 L.F.	A&P-WATER & SEWER	FLO CONTROL



TYPE OF BUILDING	COMMERCIAL
NUMBER OF LOTS	1 PARCEL
NO. OF WATER HOUSE CONNECTIONS	1
NO. OF SEWER HOUSE CONNECTIONS	1
DRAINAGE AREA	(DORSEY) LEW. T. PLANT.

SCALE: 1" = 600'

CONTRACT NO. 24-1770-D
VILLAGE OF LONGREACH
SECTION 3 AREA 1
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F 88-145
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 3-16-88
 U.S. SOIL CONSERVATION SERVICE DATE

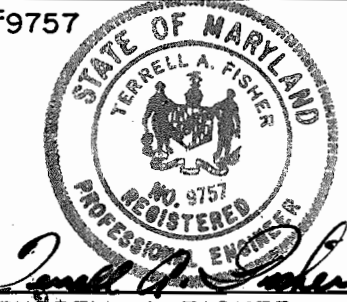
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

PLAN REFERENCE NUMBER:
F 88-145

APPROVED:

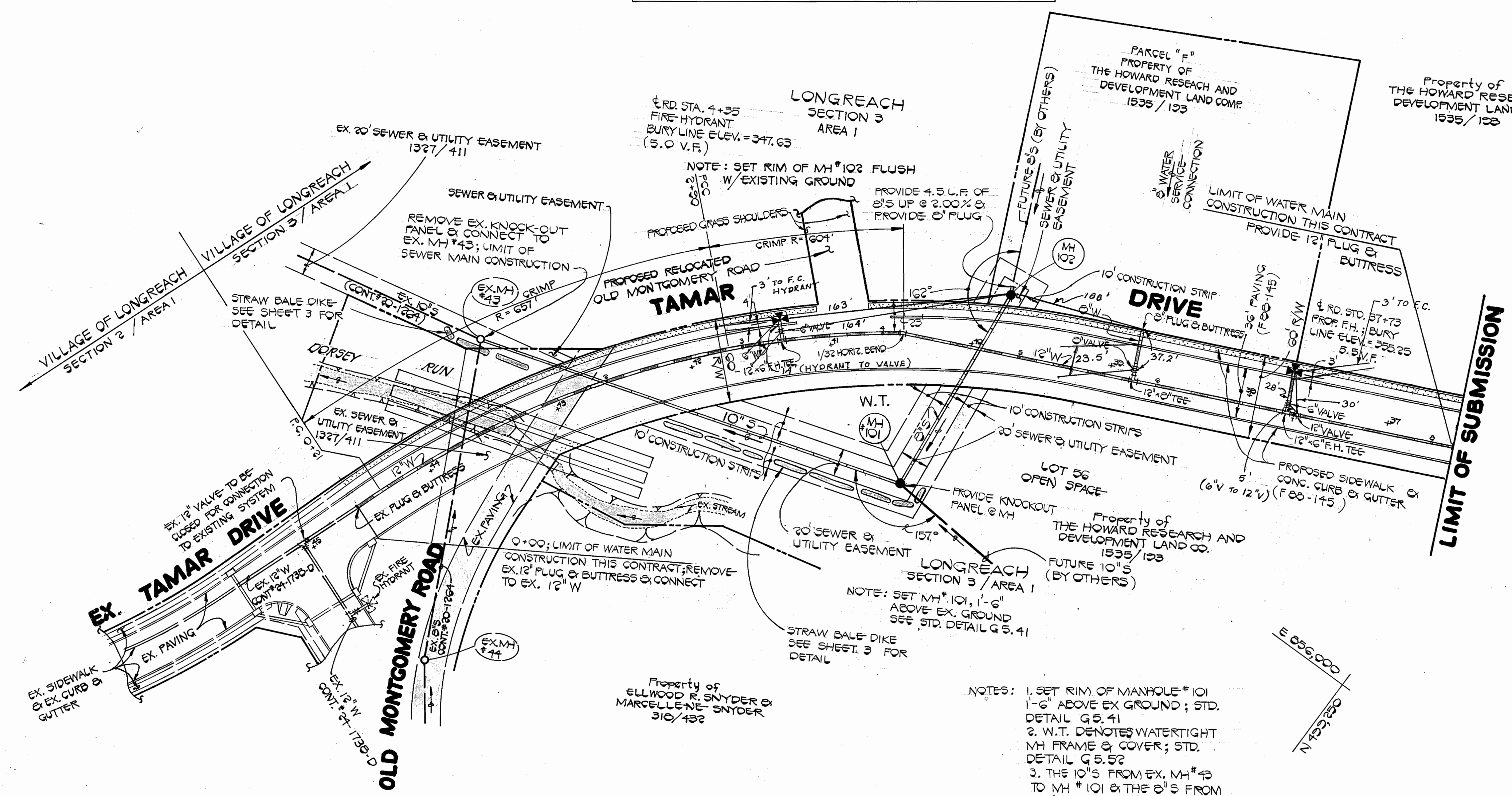
[Signature] 3/16/88
 HOWARD SOIL CONSERVATION DISTRICT DATE

CONTRACT NO. 24-1770-D
 VILLAGE OF LONGREACH
 SECTION 3 AREA 1
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 3/17/88 DIRECTOR OF PUBLIC WORKS DATE 3-14-88 CHIEF, BUREAU OF UTILITIES DATE		FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLKOTT CITY, MARYLAND 21043 3-17-88 CHIEF, BUREAU OF ENGINEERING DATE CHIEF, LAND DEVELOPMENT DIVISION DATE			DES: P.W.K. DRN: J.O. CHK: T.A.F. DATE: 1/1/88	TITLE SHEET	SCALE AS SHOWN SHEET 1 OF 3
600' SCALE MAP NO. 97		BLOCK NO. 1, 5, 10, 14					

N 429,250
E 856,000

SEE SHEET 3 OF 3 FOR PROFILES OF 6" S & 8" W



PLAN
SCALE: 1" = 50'

- NOTES:
1. SET RIM OF MANHOLE #101 1'-6" ABOVE EX GROUND; STD. DETAIL G 5.41
 2. W.T. DENOTES WATERTIGHT MH FRAME & COVER; STD. DETAIL G 5.52
 3. THE 10" S FROM EX. MH #13 TO MH #101 & THE 8" S FROM MH #101 TO MH #102 SHALL BE D.I.F.; CLASS 52 ONLY, MH WALL TO MH WALL.

CONTRACT NO. 24-1770-D
VILLAGE OF LONGREACH
SECTION 3 AREA 1
WATER AND SEWER EXTENSION
HOWARD COUNTY MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works Chief, Bureau of Utilities	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043		DES: D.B.S.			PROFILES WATER AND SEWER MAINS	VILLAGE OF LONGREACH SECTION 3 AREA 1 CONTRACT NO. 24-1770-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
			DRN: D.B.S.					
DATE: 3/17/88 DATE: 3-17-88	DATE: 3-17-88 DATE: 3-17-88	DATE: 1/12/88	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 37 BLOCK NO.	AS-BUILT 9-26-88

TAMAR DRIVE

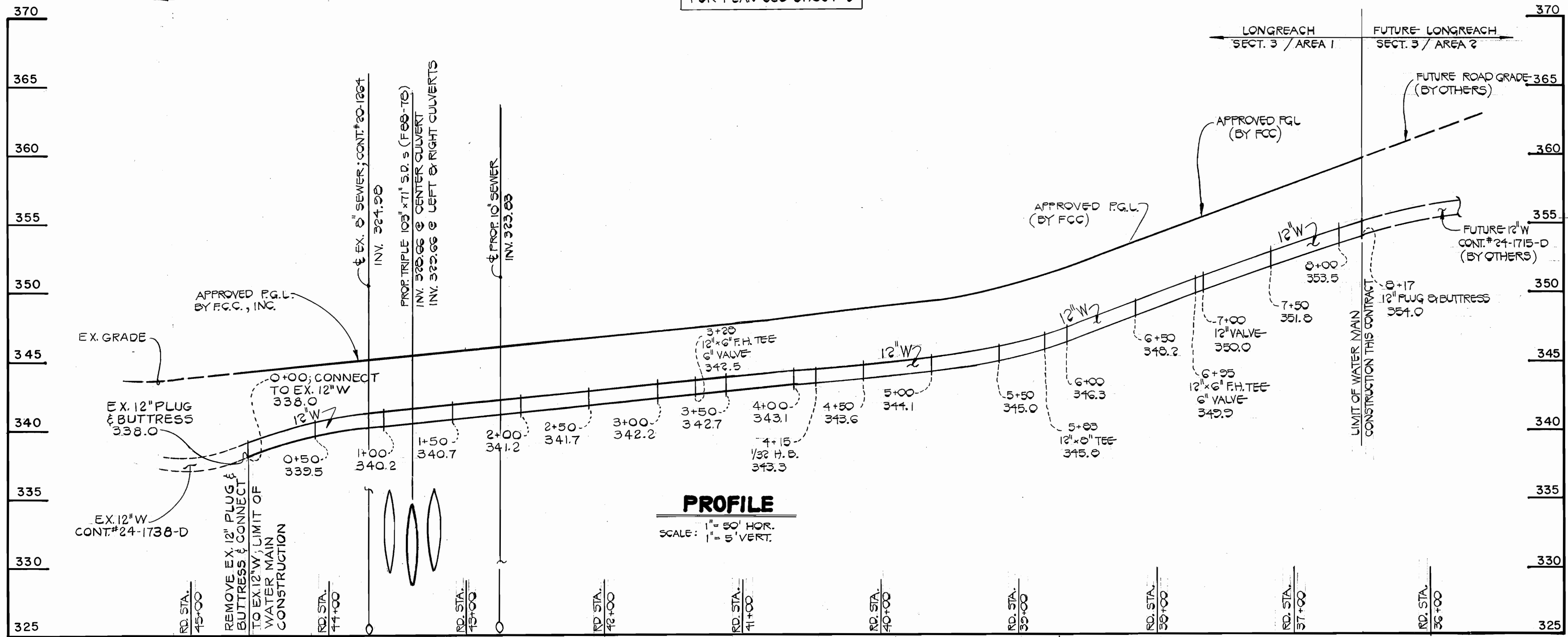
FOR PLAN SEE SHEET 2

PERMANENT STABILIZATION AND SEEDING NOTES

1. REFERENCE SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS FOR COMPLETE REQUIREMENTS REGARDING PERMANENT STABILIZATION AND SEEDING OF ALL DISTURBED AREAS.
2. REFERENCE PARAGRAPH 219.11 FOR EXECUTION REQUIREMENTS REGARDING PERMANENT SEEDING.
3. LIMESTONE: APPLY LIMESTONE AT THE RATE OF 1 1/2 TONS PER ACRE ON SANDY AND SILTY SOILS AND 2.3 TONS PER ACRE ON CLAY OR CLAY LOAM SOILS.
4. FERTILIZER: APPLY FERTILIZER AT THE RATE OF 600 POUNDS OF 0-20-20 PER ACRE WITH LIMESTONE APPLICATION (SEE ABOVE) IMMEDIATELY PRIOR TO SEEDING, APPLY 400 POUNDS OF 38-0-0 UREAFORM AND 500 POUNDS OF 10-20-20 PER ACRE.
5. PERMANENT SEED SHALL CONFORM TO THE REQUIREMENTS, MIXTURES AND APPLICATION RATES AS SPECIFIED IN SUBPARAGRAPH 219.10-2.
6. MULCH SHALL BE CLEAN, WEED-FREE, UNROTTED STRAW APPLIED AT THE RATE OF NOT LESS THAN 1 1/2 TONS PER ACRE OR WOOD CHIPS WITH A COVERAGE OF 1 1/2 INCHES IN DEPTH.
7. MULCH SHALL BE ANCHORED WITH CUT BACK AND EMULSIFIED ASPHALT APPLIED AT A RATE OF 5 GALLONS PER 1000 SQUARE FEET- REFERENCE SUBPARAGRAPH 219.10-6 FOR MULCH ANCHORING ALTERNATIVES.

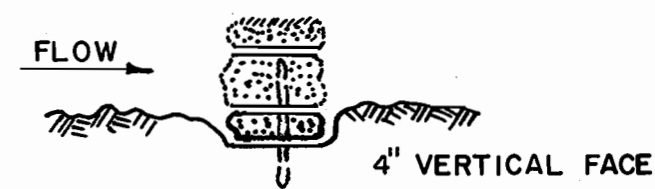
STABILIZATION NOTES

- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
1. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 2. 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

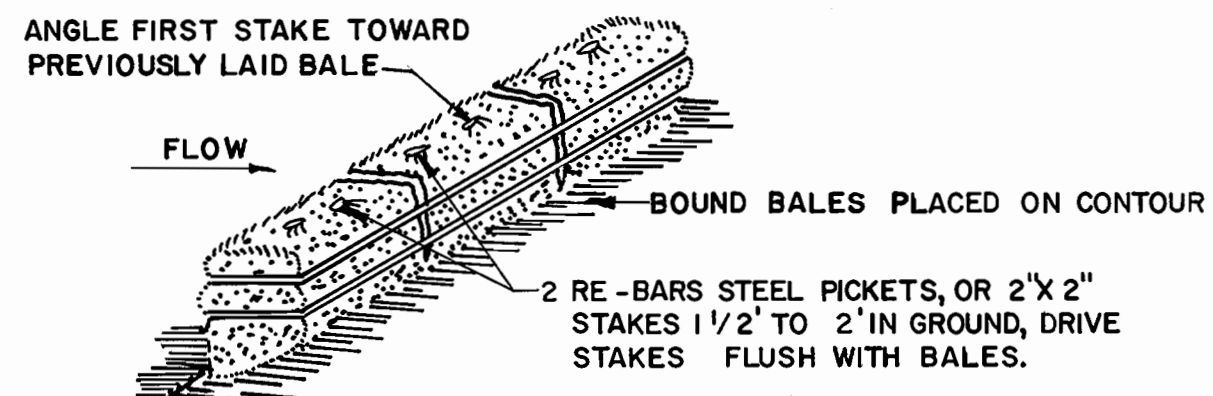


PROFILE

SCALE: 1" = 50' HOR. 1" = 5' VERT.



BEDDING DETAIL



ANCHORING DETAIL

STRAW BALE DIKE

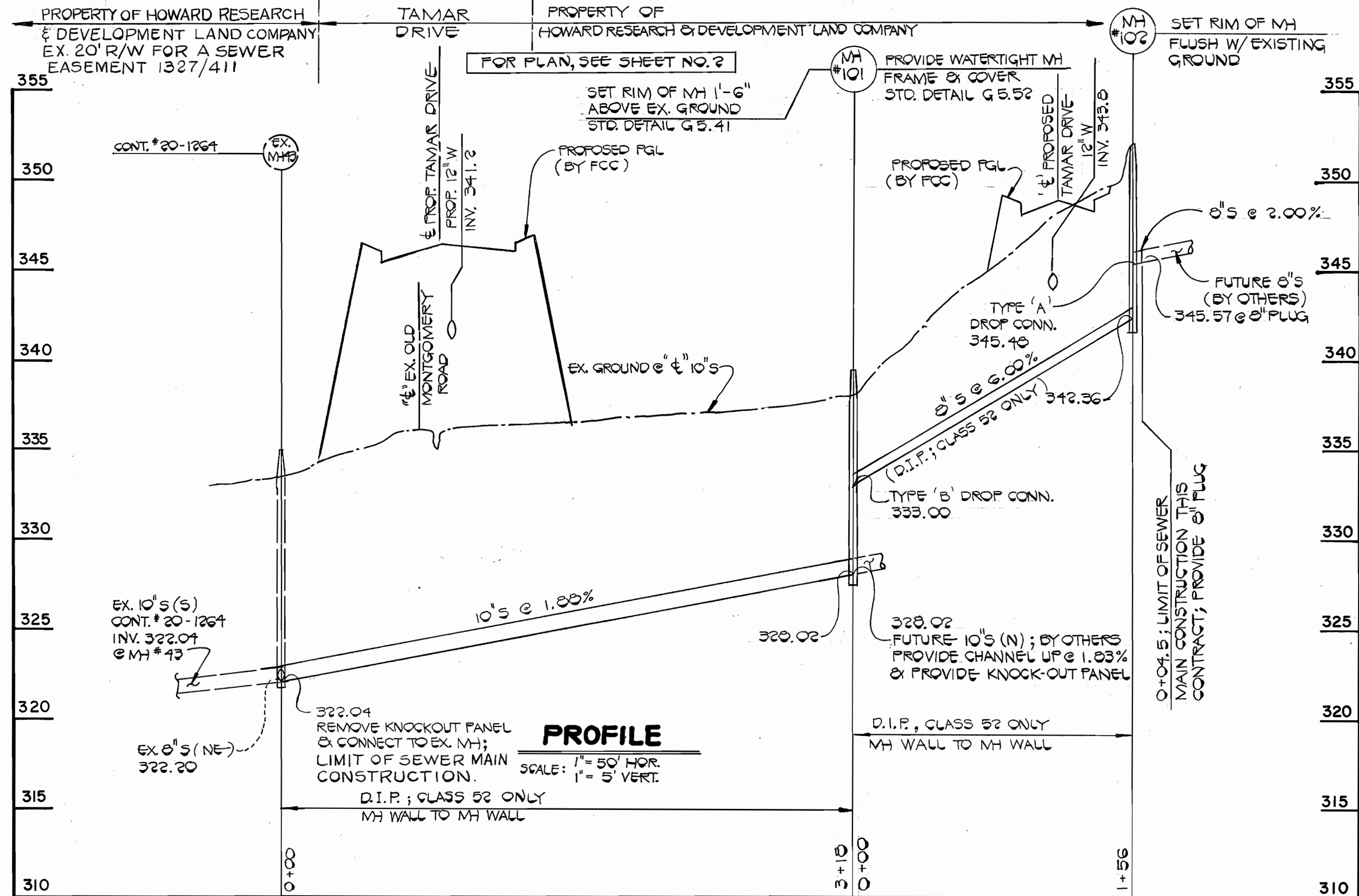
1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

SEWER MAIN CONSTRUCTION SEQUENCE

1. IMPLEMENT CONDITIONS & REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT - SEE CONTRACT SPECIFICATIONS.
2. INSTALL REQUIRED SEDIMENT & EROSION CONTROL DEVICES - SEE PLAN SHEET FOR LOCATIONS.
3. CLEAR AND GRUB AS NECESSARY - WITHIN THE LIMITS OF THE SEWER MAIN RIGHT OF WAY ONLY.
4. EXCAVATE TRENCH; PLACE EXCAVATED MATERIAL ON THE UPGRADE SIDE OF THE SEWER MAIN TRENCH.
5. INSTALL SEWER MAIN, BACKFILL & COMPACT TRENCH IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
6. STABILIZE, SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
7. FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS AND UPON APPROVAL OF THE SOIL CONSERVATION DISTRICT INSPECTOR, REMOVE THE EROSION & SEDIMENT CONTROL DEVICES.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE SEWER MAIN TRENCH.
4. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER MAIN TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
5. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
6. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
7. SEE SEWER MAIN CONSTRUCTION SEQUENCE THIS SHEET.



PROFILE

SCALE: 1" = 50' HOR. 1" = 5' VERT.

CONTRACT NO. 24-1770-D
VILLAGE OF LONGREACH
SECTION 3 AREA 1
WATER AND SEWER EXTENSION
HOWARD COUNTY MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 3/17/88 3-14-88	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 39757 3838 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 TERRELL A. FISHER DATE	DES: D.B.S.	DRN: D.B.S.	CHK: T.A.F.	DATE: 1/14/88	PROFILES WATER AND SEWER MAINS	VILLAGE OF LONGREACH SECTION 3 AREA 1 CONTRACT NO. 24-1770-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
		BY NO.	REVISION	DATE	600' SCALE MAP NO. 37			BLOCK NO.