
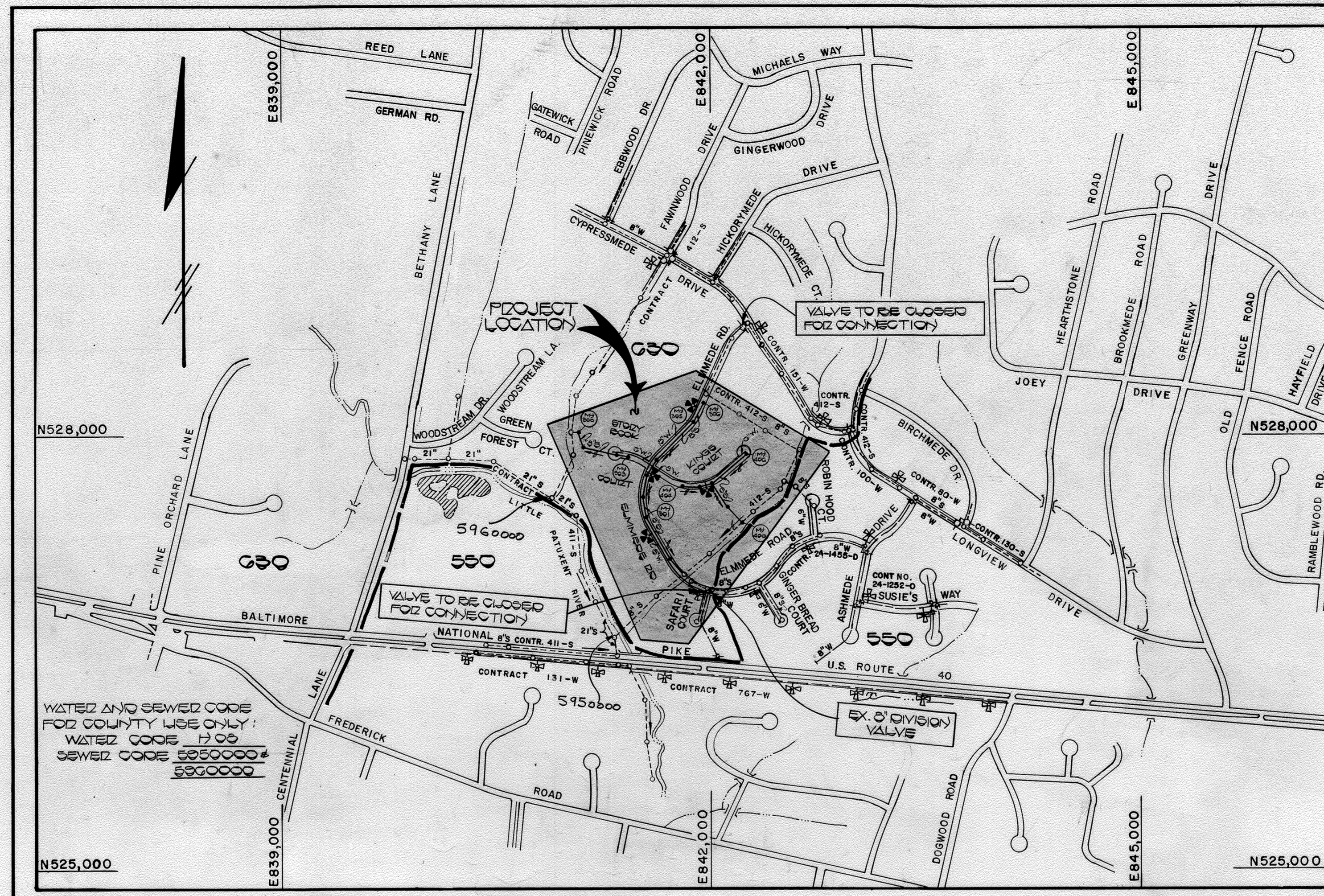


GENERAL NOTES

- 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. DATA.
- 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&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.
- FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPED FITTINGS ONLY.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METTER 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 M.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS STANDARD DETAIL 65.52 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 65.51.

QUANTITIES			
ITEM	EST'D	AS-BUILT	SUPPLIED
6" SEWER	7000 L.F.	2670.5	Belair Road Supply
8" SEWER	1204 L.F.	1387.2	Belair Road Supply
MANHOLES	17 EA.	17 ea.	Atlantic Concrete
6" WATER	6316 L.F.	2382.0 LF	Griffin Pipe Prod.
8" WATER	508 L.F.	509.1 LF	"
FIRE HYD.	4 EA.	4 ea.	Belair Road Supply
3/4" W.H.C.	640 L.F.	645.0 LF	"
1" W.H.C.	508 L.F.	490.0 LF	"
1 1/2" W.H.C.	1 EA.	1 ea.	"
1 1/2" W.H.C.	65 L.F.	26.0 LF	"
6" VALVES	0 EA.	3 ea.	"
8" VALVES	1 EA.	1 ea.	"



TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS (50 BUILDABLE)	50
NO. OF WATER HOUSE CONNECTIONS	50
NO. OF SEWER HOUSE CONNECTIONS	50
DRAINAGE AREA	LITTLE PATUXENT

SCALE: 1" = 600'

CONTRACT NO. 24-1599-D
ENCHANTED FOREST ESTATES
SECTION 1 AREA 2
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 F87-135

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEET'S TECHNICAL REQUIREMENTS.
James M. Sch... 4-15-87
 US SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERED F87-135

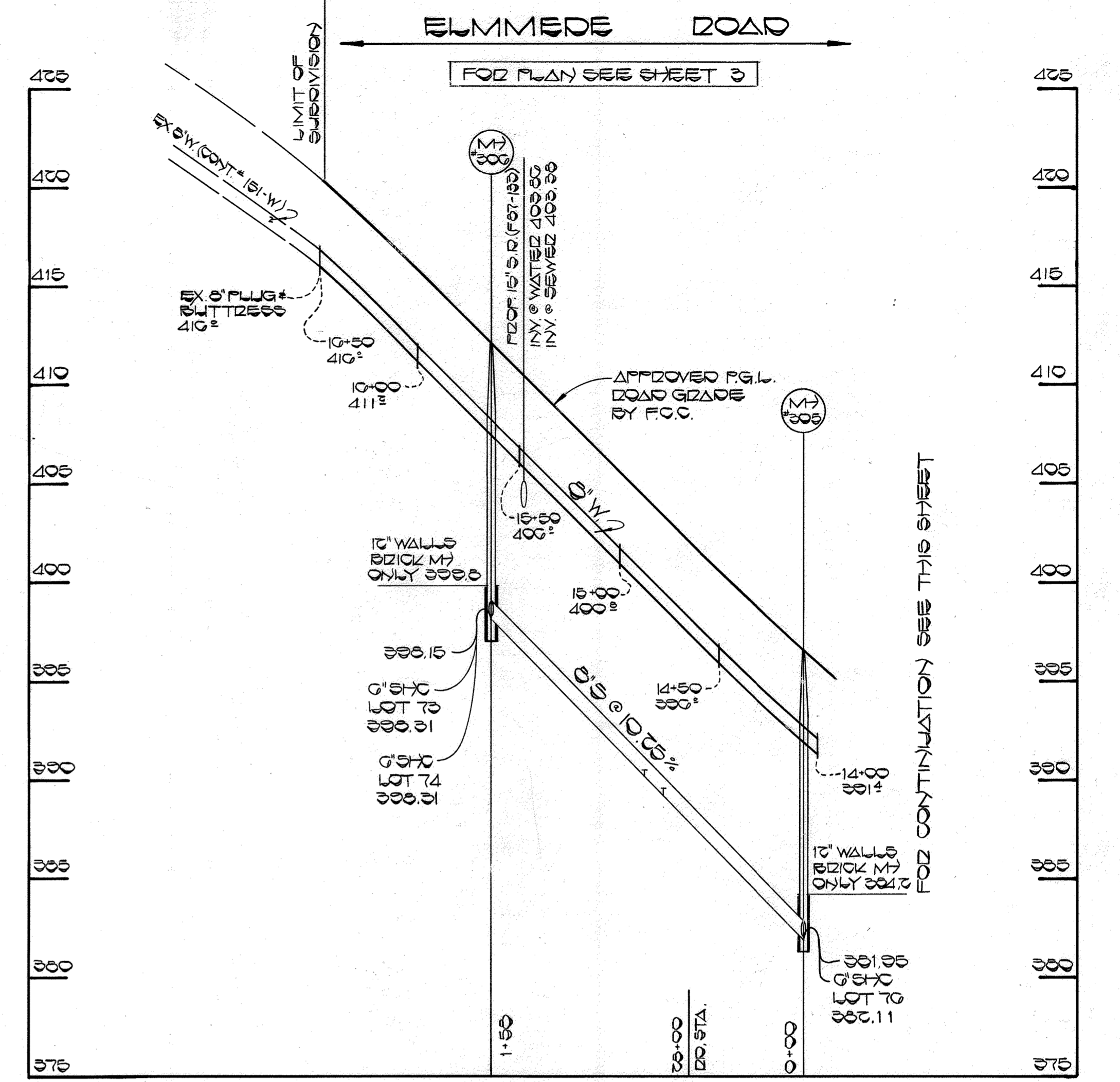
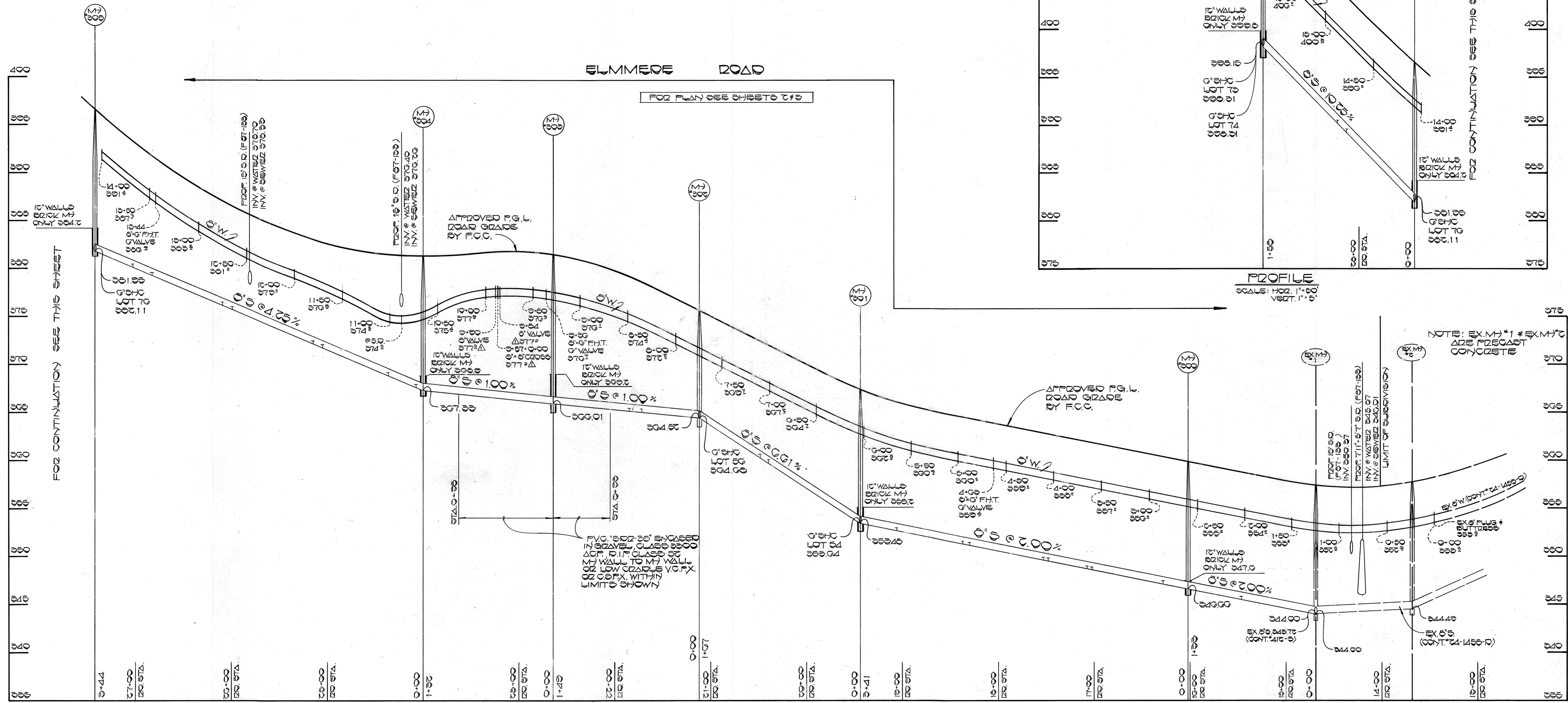
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY
 HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:
Stephen L. Fisher 4-15-87
 HOWARD SOIL CONSERVATION DISTRICT DATE

CONTRACT NO. 24-1599-D
 ENCHANTED FOREST ESTATES
 SECTION ONE AREA TWO
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert M. Be...</i> 4-21-87 CHIEF, BUREAU OF UTILITIES DATE	FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 TERRELL A. FISHER DATE	DES: D.B.S.				TITLE SHEET 600 SCALE MAP NO. <u>24</u> BLOCK NO. <u>283</u>	ENCHANTED FOREST ESTATES SECTION 1 AREA 2 CONTRACT NO. 24-1599-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
		DRN: D.B.S.						SHEET 1 OF 5

APR 22 1987

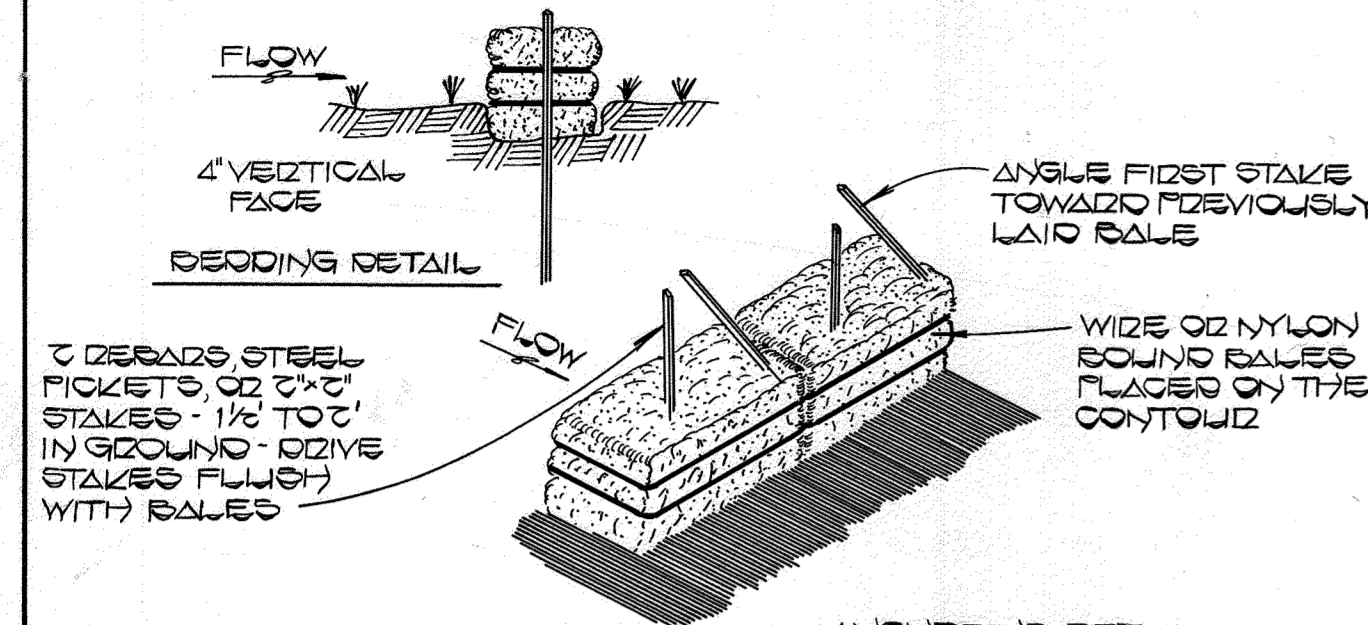


PROFILE
SCALE: HOR. 1"=50'
VERT. 1"=5'

NOTE: EX. M.T. #1 & EX. M.T. #2 ARE PRECAST CONCRETE

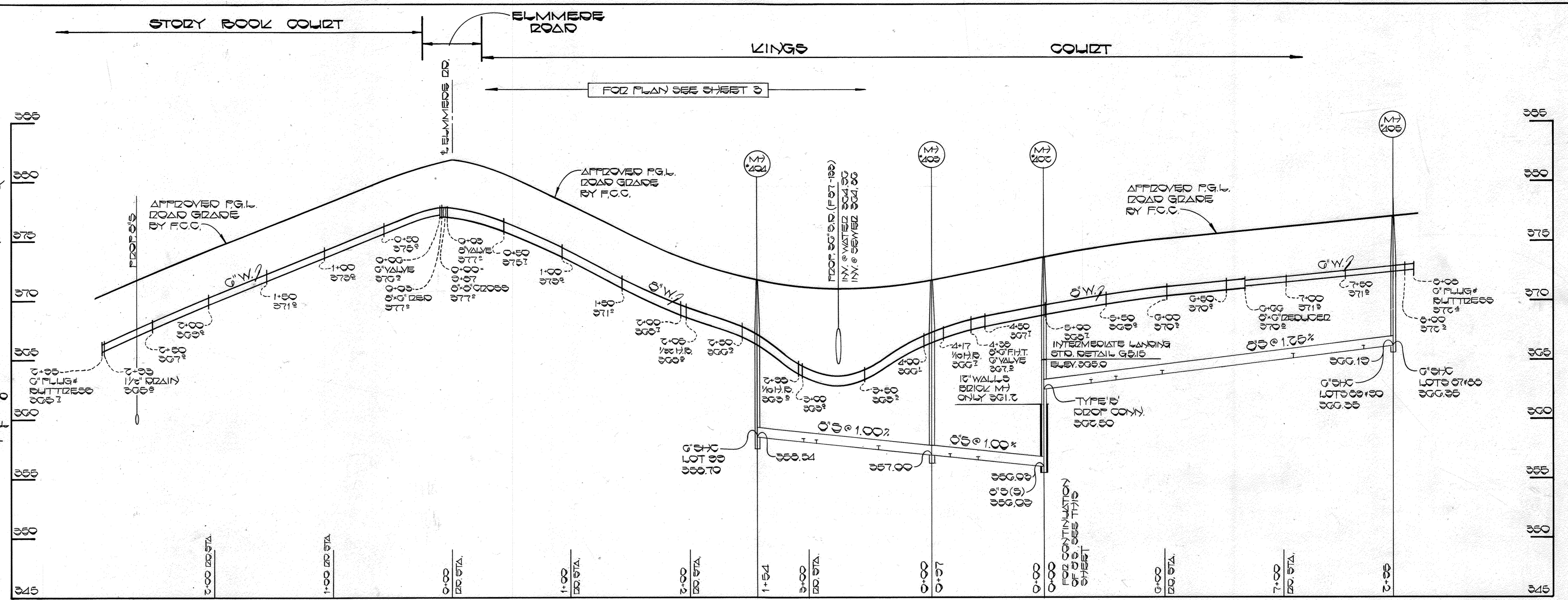
PVC 15" I.D. 25' ENCASED IN 2" WALL, CLASS 3000 ΔCP. 2" IF CLASS 50 M.T. WALL TO M.T. WALL OR LOW GRADE V.C.P. OR CSF. WITHIN LIMITS SHOWN

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	TERRELL A. FISHER DATE: 1-31-87	DES: D.B.S.		PROFILES WATER & SEWER MAINS	ENCHANTED FOREST ESTATES SECTION 1 AREA 2 CONTRACT NO. 24-1599-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
			DRN: D.B.S.				CONTRACT NO. 24-1599-D ENCHANTED FOREST ESTATES SECTION ONE AREA TWO WATER AND SEWER EXTENSION HOWARD COUNTY, MARYLAND
Chief, Bureau of Engineering Chief, Land Development Division			CHK: T.A.F.				
			DATE: 1-31-87		600' SCALE MAP NO. 24 BLOCK NO. 2-3		AS-BUILT April 22, 1988

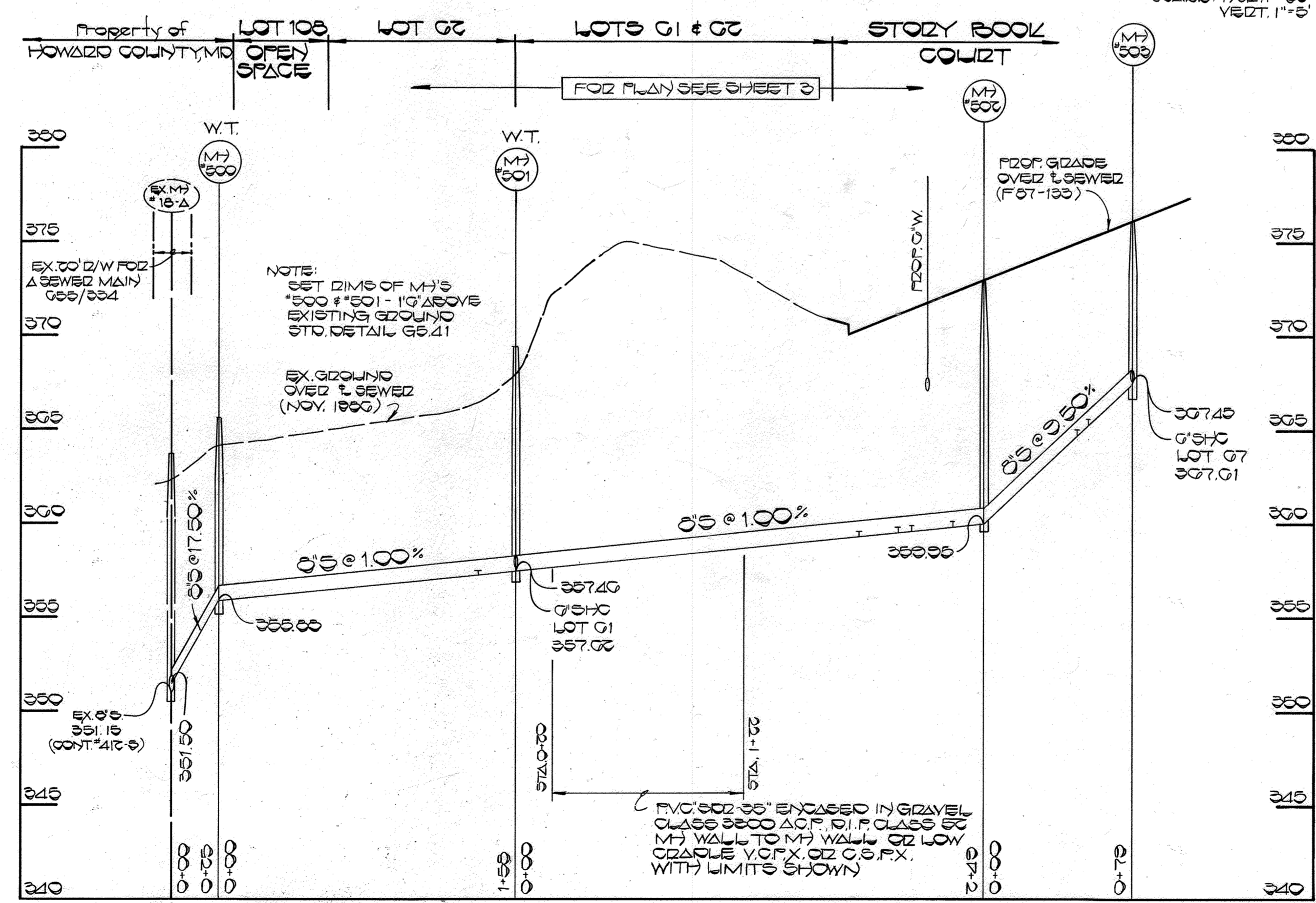


- CONSTRUCTION SPECIFICATIONS**
- BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES AND PLACED SO THE BINDINGS ARE HORIZONTAL.
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR IRON RODS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE GIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALE TOGETHER. STAKES SHALL BE GIVEN FLUSH WITH THE BALE.
 - INSPECTION SHALL BE FREQUENT AND REPAIR & REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPROVE STORM FLOW OR RAINAGE.

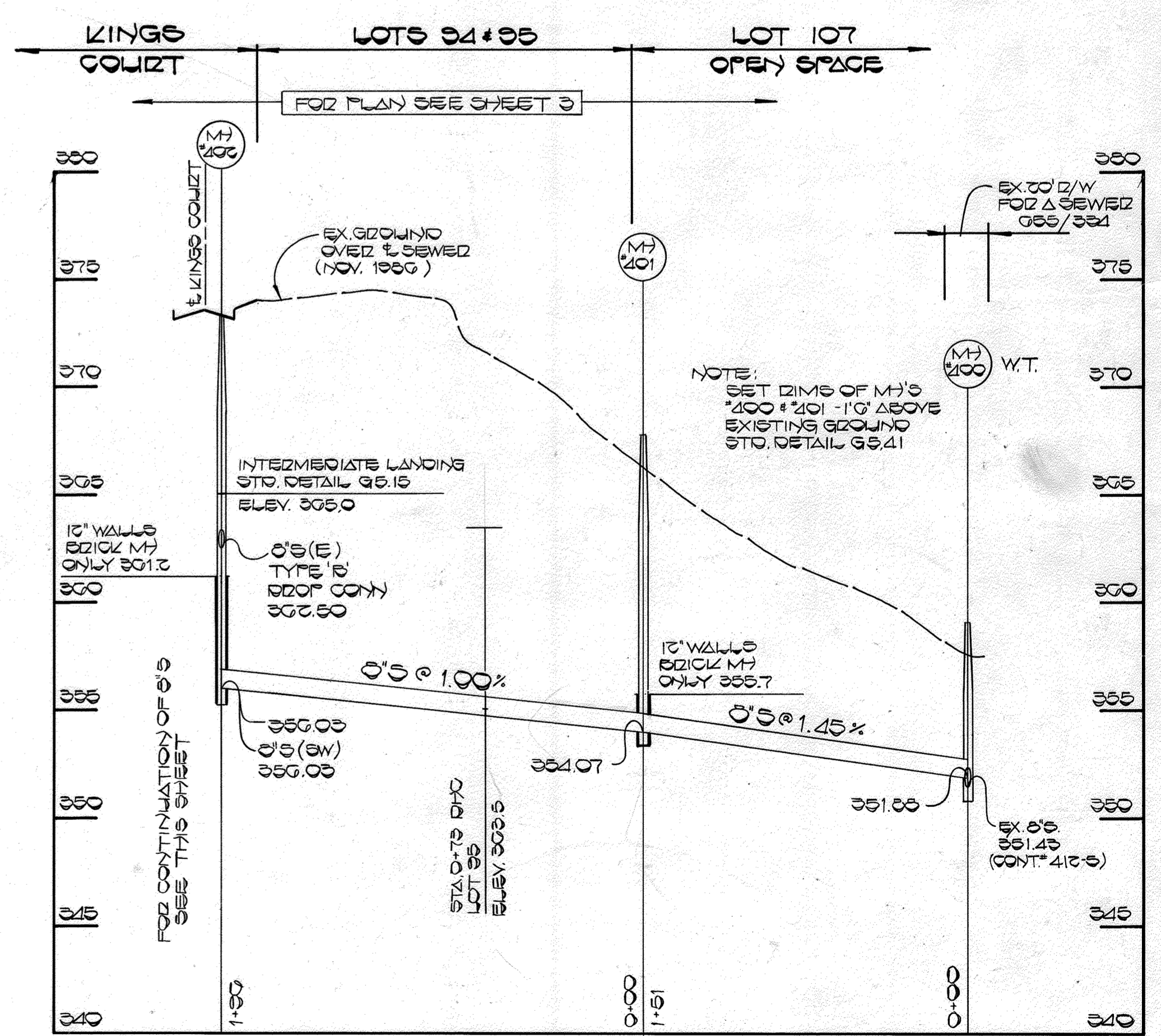
STRAW BALE DIKE
NO SCALE



PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

4-23-87
DIRECTOR OF PUBLIC WORKS

4-22-87
CHIEF, BUREAU OF ENGINEERING

4-21-87
CHIEF, BUREAU OF UTILITIES

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER
PROFESSIONAL ENGINEER

DES: D. B. S.			
DRN: D. B. S.			
CHK: T. A. F.			
DATE: 1-21-87	BY: NO.	REVISION	DATE

PROFILES AND DETAILS
WATER & SEWER MAINS

600' SCALE MAP NO. 24 BLOCK NO. 243

ENCHANTED FOREST ESTATES
SECTION 1 AREA 2
CONTRACT NO. 24-1599-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 5 OF 5

AS-BUILT April 22, 1988