
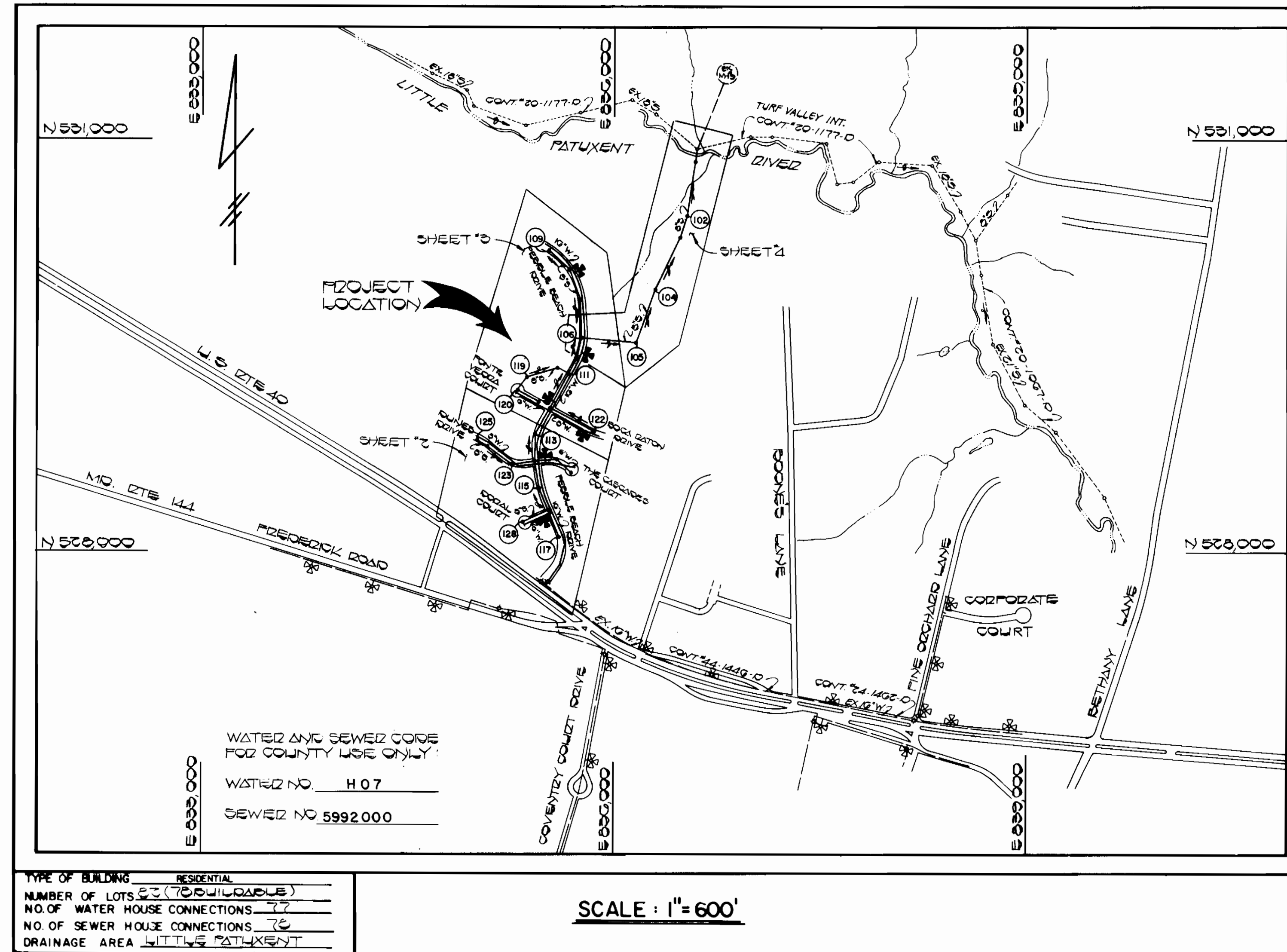


GENERAL NOTES

- 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: 561-2585
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 234-5621
 BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-9013
 MISS UTILITY: 1-559-0100
 COLONIAL PIPELINE COMPANY: 795-1390
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS: 992-2366
- 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 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 65.52 WHERE WATER-TIGHT 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	SUPPLIER
10" WATER	2075 LF	2675 LF	ATLANTIC STATE
8" WATER	275 LF	264 LF	
6" WATER	280 LF	2542 LF	
1 1/2" WATER	80 LF	75 LF	
10" VALVES	1 EA	1 EA	AL PIPE INC.
8" VALVES	4 EA	4 EA	
6" VALVES	10 EA	10 EA	
FIRE HYD	0 EA	0 EA	
8" W/H	1100 LF	1504 LF	
1" W/H	000 LF	450 LF	
1 1/2" DRAIN	0 EA	2 EA	
8" SEWER	6,025 LF	5910 LF	HAWINTANKIES
6" (P) SEWER	205 LF	200 LF	
6" SFC	2,075 LF	2,159.1 LF	
MANHOLES	22 EA	22 EA	REPAIR SUPPLY



CONTRACT NO. 24-1510-D
TURF VALLEY OVERLOOK
SECTION 1 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 15 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 802-000

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. Helms 9/29/86
 U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED:

Stephen R. Fisher 9/29/86
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John F. Neumy 10-9-86
 DIRECTOR OF PUBLIC WORKS DATE

Robert M. Reinger 9-30-86
 CHIEF, BUREAU OF UTILITIES DATE

William H. Fisher 10-1-86
 CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043

DES. P.W.K.					
DRN. D.B.S.					
CHK. T.A.F.					
DATE: 8/5/86					
LAN. BY	NO.	REVISE	QUANTITY	BY	DATE

TITLE SHEET

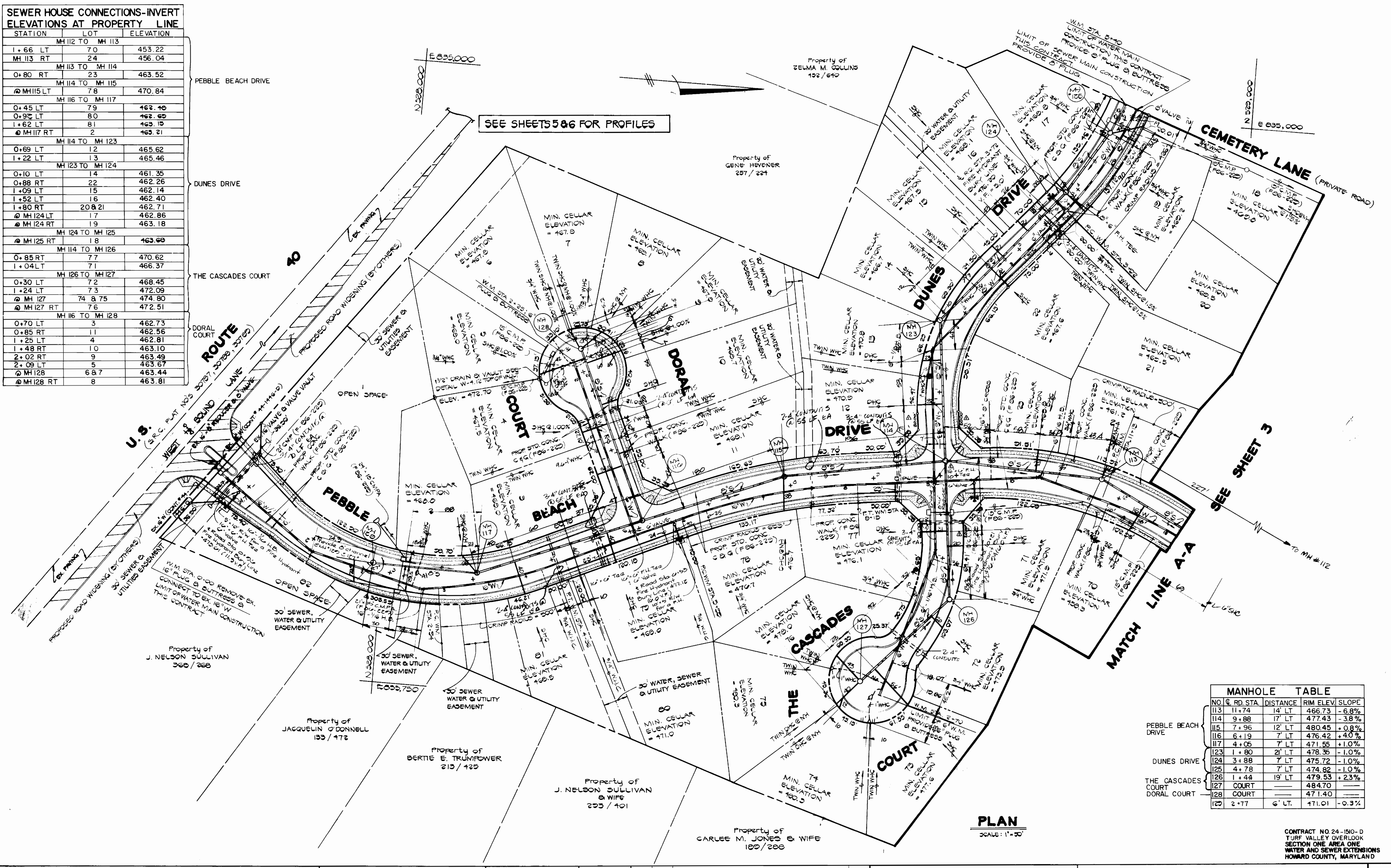
600' SCALE MAP NO. 15,17,22 BLOCK NO. _____

TURF VALLEY OVERLOOK
 SECTION ONE AREA ONE
 CONTRACT NO. 24-1510-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 7

SEWER HOUSE CONNECTIONS-INVERT ELEVATIONS AT PROPERTY LINE

STATION	LOT	ELEVATION
MH 112 TO MH 113		
I+66 LT	70	453.22
MH 113 RT	24	456.04
MH 113 TO MH 114		
O+80 RT	23	463.52
MH 114 TO MH 115		
MH 115 LT	78	470.84
MH 116 TO MH 117		
O+45 LT	79	462.10
O+92 LT	80	462.60
I+62 LT	81	463.15
MH 117 RT	2	463.21
MH 114 TO MH 123		
O+69 LT	12	465.62
I+22 LT	13	465.46
MH 123 TO MH 124		
O+10 LT	14	461.35
O+88 RT	22	462.26
I+09 LT	15	462.14
I+52 LT	16	462.40
I+80 RT	20 & 21	462.71
MH 124 LT	17	462.86
MH 124 RT	19	463.18
MH 124 TO MH 125		
MH 125 RT	18	463.60
MH 114 TO MH 126		
O+85 RT	77	470.62
I+04 LT	71	466.37
MH 126 TO MH 127		
O+30 LT	72	468.45
I+24 LT	73	472.09
MH 127	74 & 75	474.80
MH 127 RT	76	472.51
MH 116 TO MH 128		
O+70 LT	3	462.73
O+85 RT	11	462.56
I+25 LT	4	462.81
I+48 RT	10	463.10
2+02 RT	9	463.49
2+09 LT	5	463.67
MH 128	6 & 7	463.44
MH 128 RT	8	463.81



SEE SHEETS 5 & 6 FOR PROFILES

SEE SHEET 3

MATCH LINE A-A

MANHOLE TABLE				
NO.	RD. STA.	DISTANCE	RIM ELEV.	SLOPE
113	11+74	14' LT	466.73	-6.8%
114	9+88	17' LT	477.43	-3.8%
115	7+96	12' LT	480.45	+0.8%
116	6+19	7' LT	476.42	+4.0%
117	4+05	7' LT	471.55	+1.0%
123	1+80	21' LT	478.35	-1.0%
124	3+88	7' LT	475.72	-1.0%
125	4+78	7' LT	474.82	-1.0%
126	1+44	19' LT	479.53	+2.3%
127	COURT		484.70	
128	COURT		471.40	
129	2+77	6' LT	471.01	-0.3%

PLAN
SCALE: 1"=50'

CONTRACT NO. 24-1510-D
TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DATE: 10-1-16
DATE: 9-30-16

CHIEF, BUREAU OF ENGINEERING
CHIEF, BUREAU OF UTILITIES

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

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER DATE

DES: P.W.K.
DRN: J.O.
CHK: T.A.F.

DATE: 8/5/06

R.A.I. ADD LOT DIMENSIONS & CHANGE FIN. TEE SIDE 10/07/06
BY NO. REVISION DATE

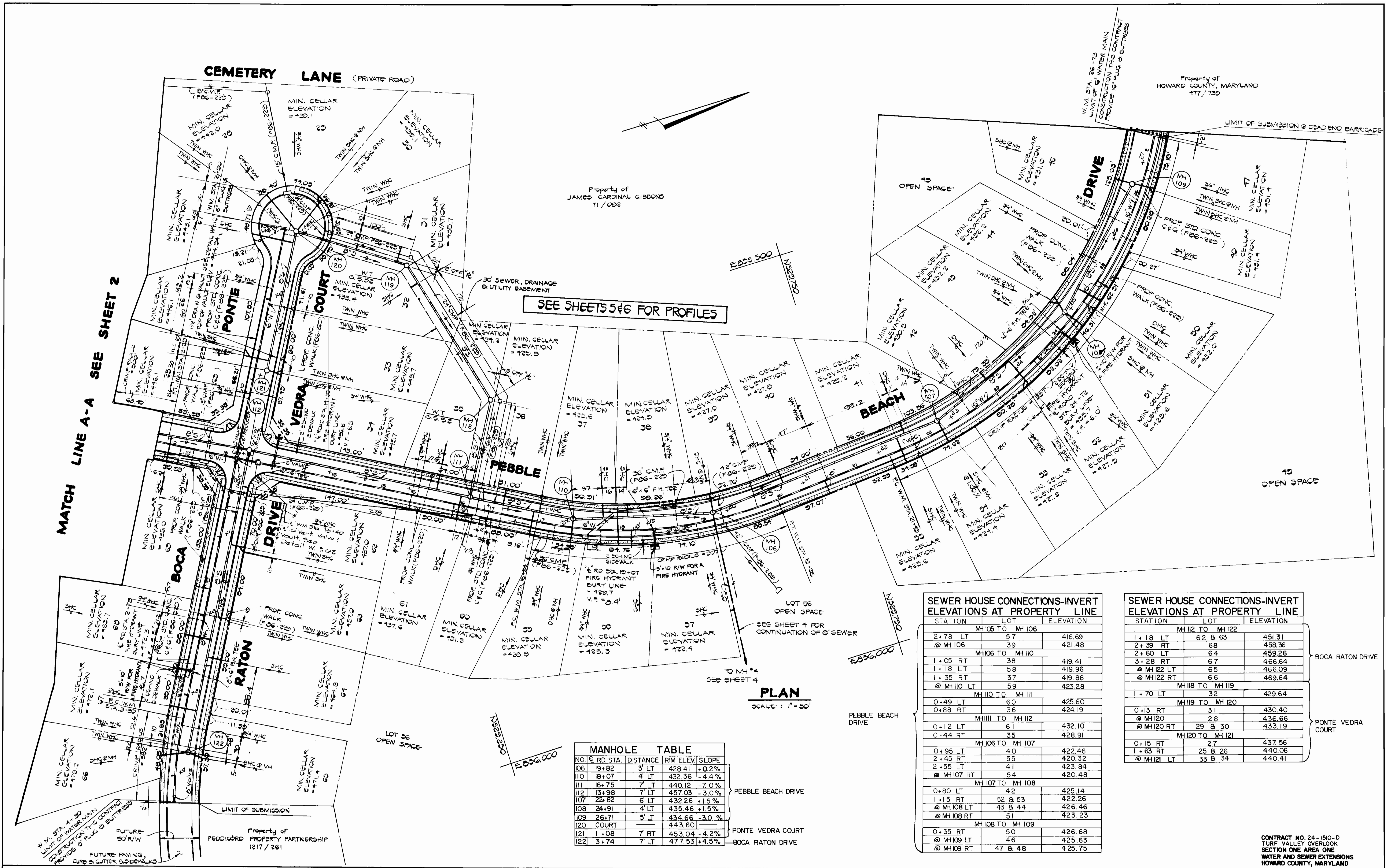
PLAN
WATER AND SEWER MAINS

600' SCALE MAP NO. 16, 17, & 22 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
CONTRACT NO. 24-1510-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 7

AS-BUILT



SEE SHEETS 5 & 6 FOR PROFILES

PLAN
SCALE: 1" = 50'

MANHOLE TABLE				
NO.	RD. STA.	DISTANCE	RIM ELEV.	SLOPE
106	19+82	3' LT	428.41	+0.2%
110	18+07	4' LT	432.36	-4.4%
111	16+75	7' LT	440.12	-7.0%
112	13+98	7' LT	457.03	-3.0%
107	22+82	6' LT	432.26	+1.5%
108	24+91	4' LT	435.46	+1.5%
109	26+71	5' LT	434.66	-3.0%
120	COURT		443.60	
121	1+08	7' RT	453.04	-4.2%
122	3+74	7' LT	477.53	+4.5%

SEWER HOUSE CONNECTIONS-INVERT ELEVATIONS AT PROPERTY LINE			
STATION	LOT	ELEVATION	
2+78 LT	MH 105 TO MH 106	57	416.69
@ MH 106		39	421.48
	MH 106 TO MH 110		
1+05 RT		38	419.41
1+18 LT		58	419.96
1+35 RT		37	419.88
@ MH 110 LT		59	423.28
	MH 110 TO MH 111		
0+49 LT		60	425.60
0+88 RT		36	424.19
	MH 111 TO MH 112		
0+12 LT		61	432.10
0+44 RT		35	428.91
	MH 106 TO MH 107		
0+95 LT		40	422.46
2+45 RT		55	420.32
2+55 LT		41	423.84
@ MH 107 RT		54	420.48
	MH 107 TO MH 108		
0+80 LT		42	425.14
1+15 RT		52 & 53	422.26
@ MH 108 LT		43 & 44	426.46
@ MH 108 RT		51	423.23
	MH 108 TO MH 109		
0+35 RT		50	426.68
@ MH 109 LT		46	425.63
@ MH 109 RT		47 & 48	425.75

SEWER HOUSE CONNECTIONS-INVERT ELEVATIONS AT PROPERTY LINE			
STATION	LOT	ELEVATION	
	MH 112 TO MH 122		
1+18 LT		62 & 63	451.31
2+39 RT		68	458.36
2+60 LT		64	459.26
3+28 RT		67	466.64
@ MH 122 LT		65	466.09
@ MH 122 RT		66	469.64
	MH 118 TO MH 119		
1+70 LT		32	429.64
	MH 119 TO MH 120		
0+13 RT		31	430.40
@ MH 120		28	436.66
@ MH 120 RT		29 & 30	433.19
	MH 120 TO MH 121		
0+15 RT		27	437.56
1+63 RT		25 & 26	440.06
@ MH 121 LT		33 & 34	440.41

CONTRACT NO. 24-1510-D
TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DATE: 9-30-86
DATE: 10-1-86

CHIEF, BUREAU OF UTILITIES
CHIEF, LAND DEVELOPMENT DIVISION

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

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER
DATE: 8/5/86

DES: P.W.K.	
DRN: J.O.	
CHK: T.A.F.	
DATE: 8/5/86	

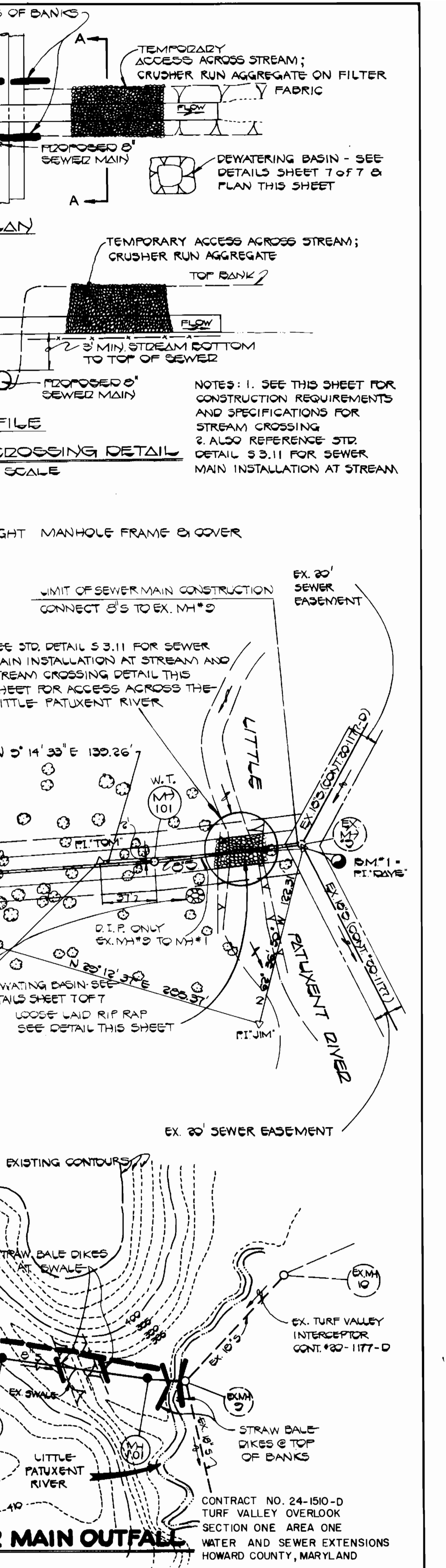
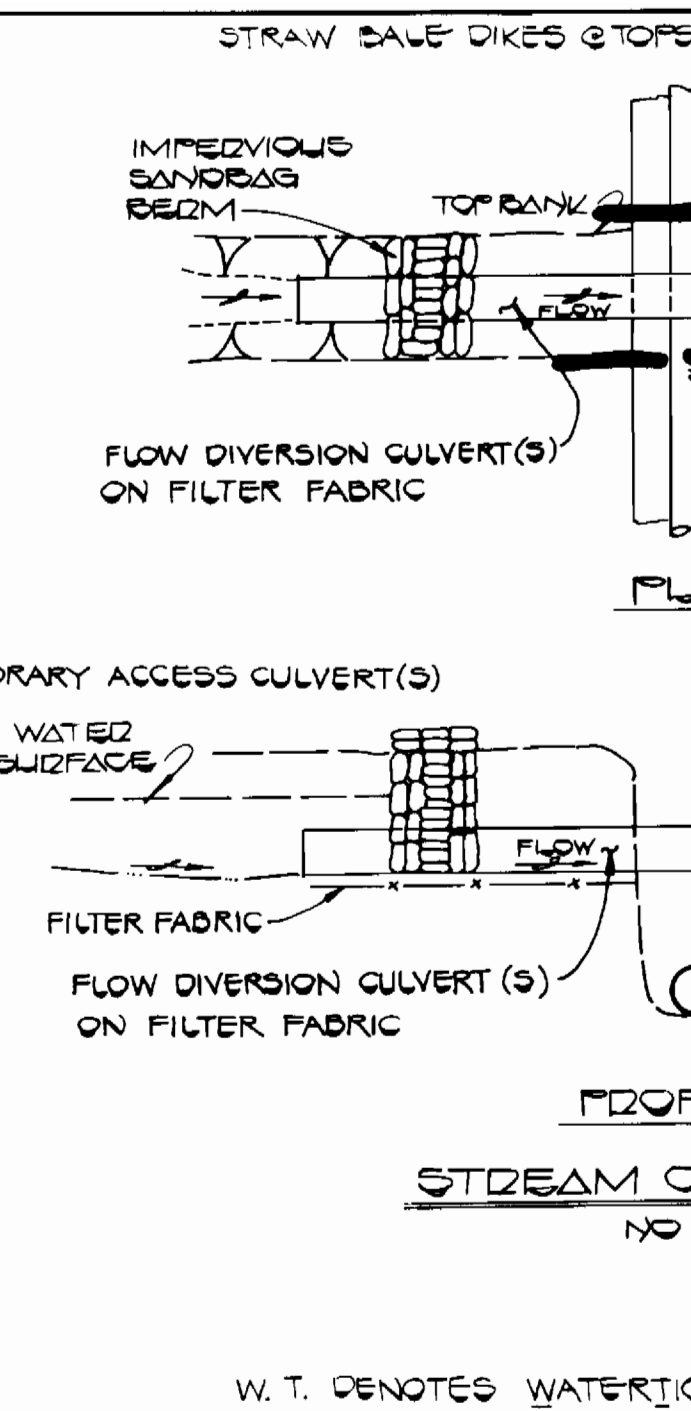
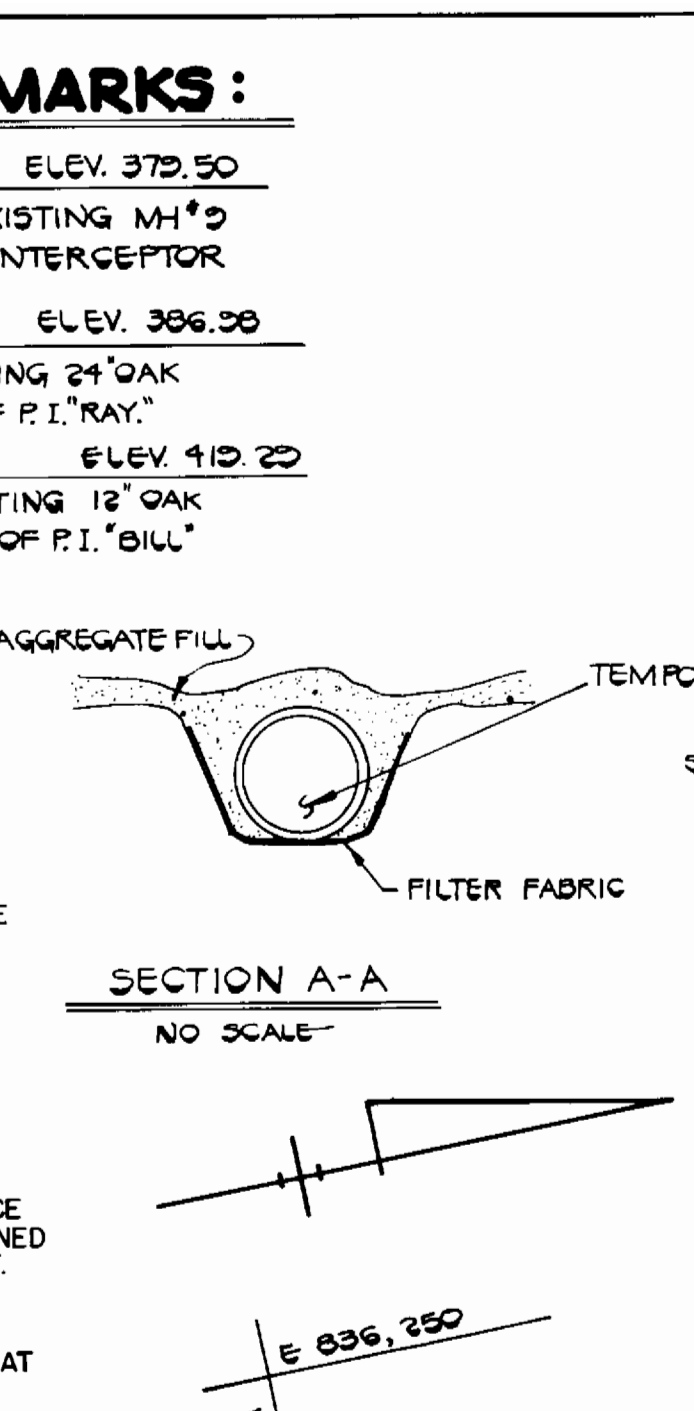
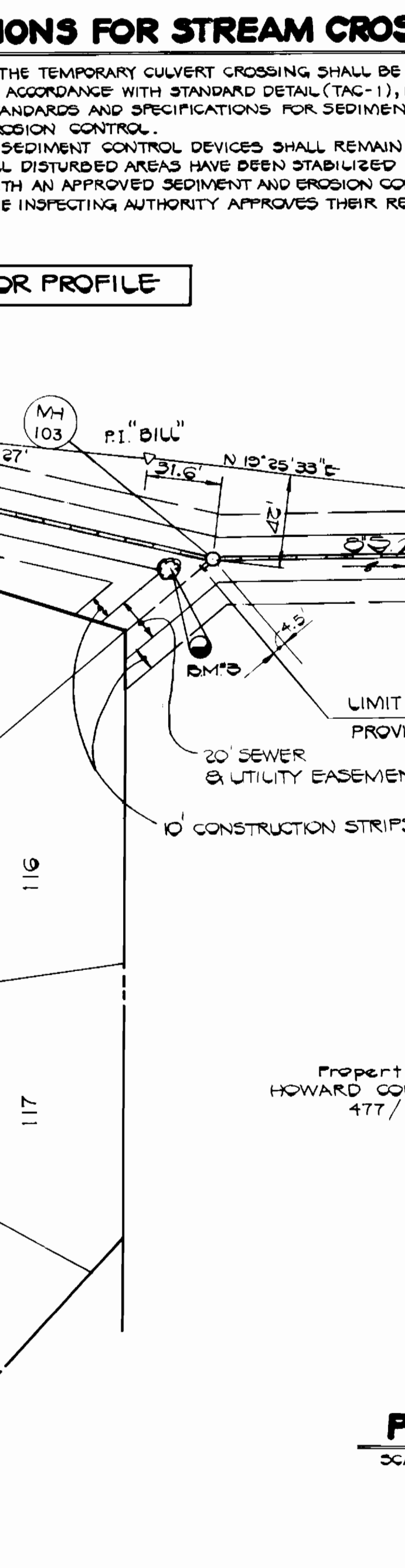
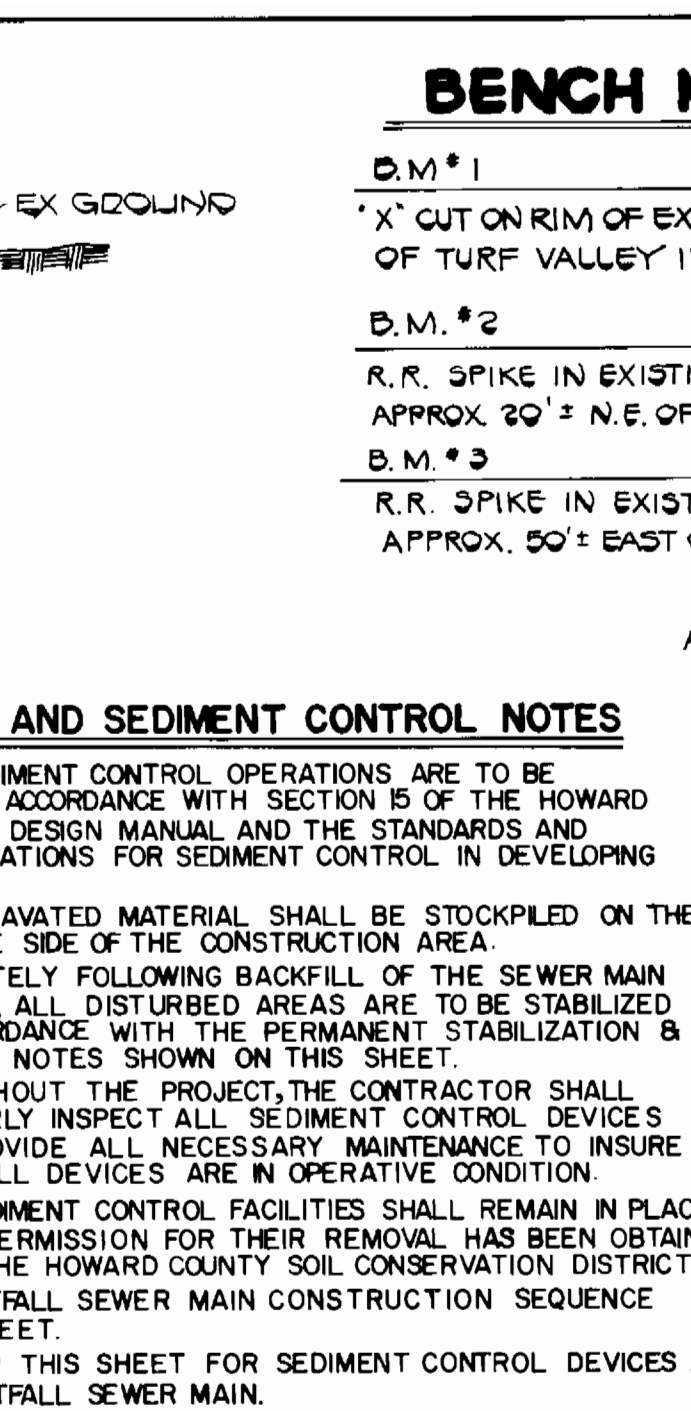
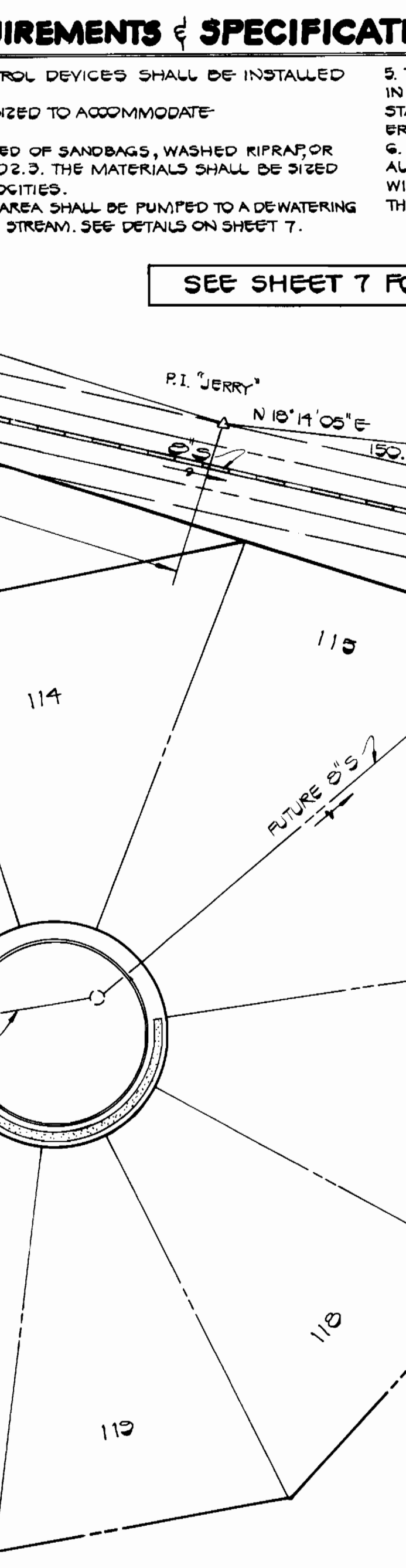
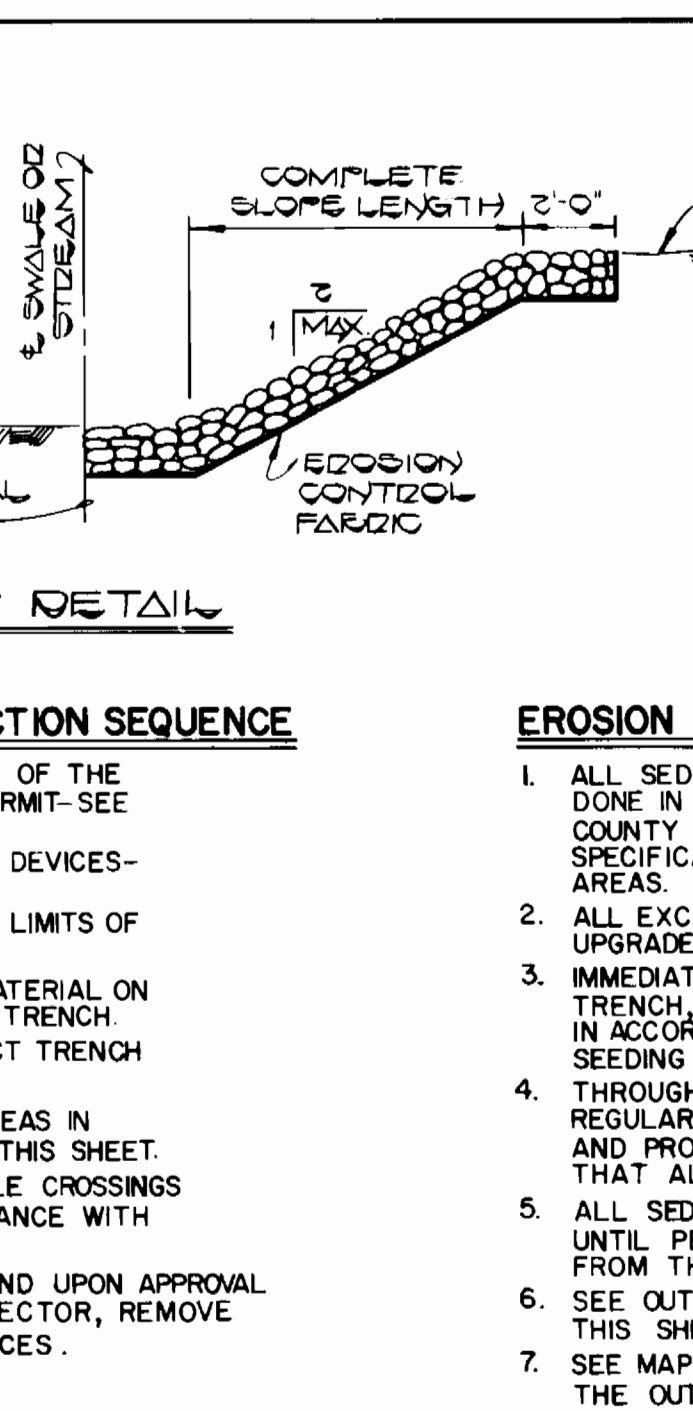
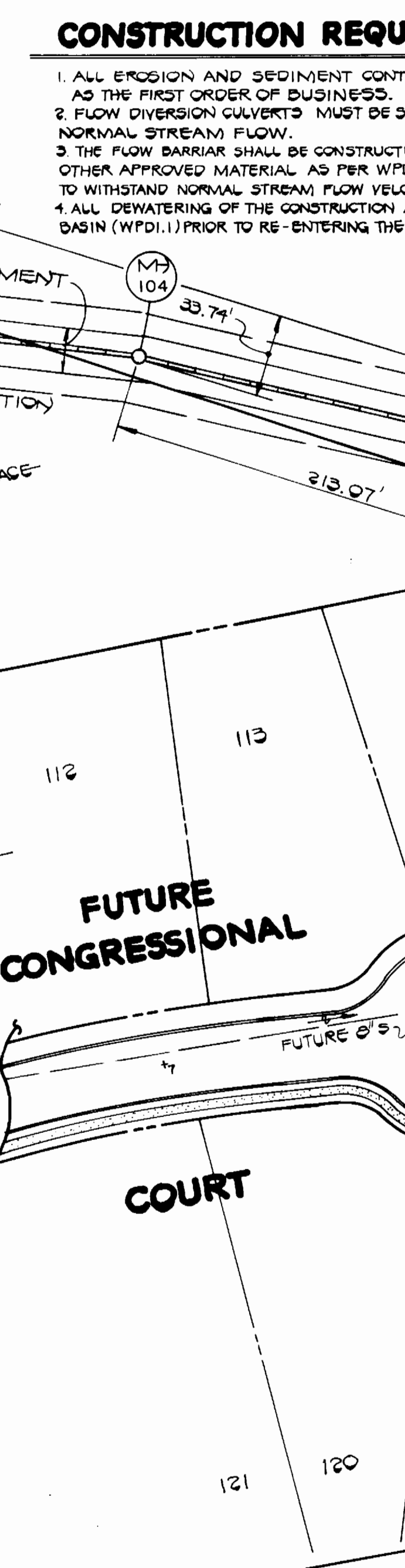
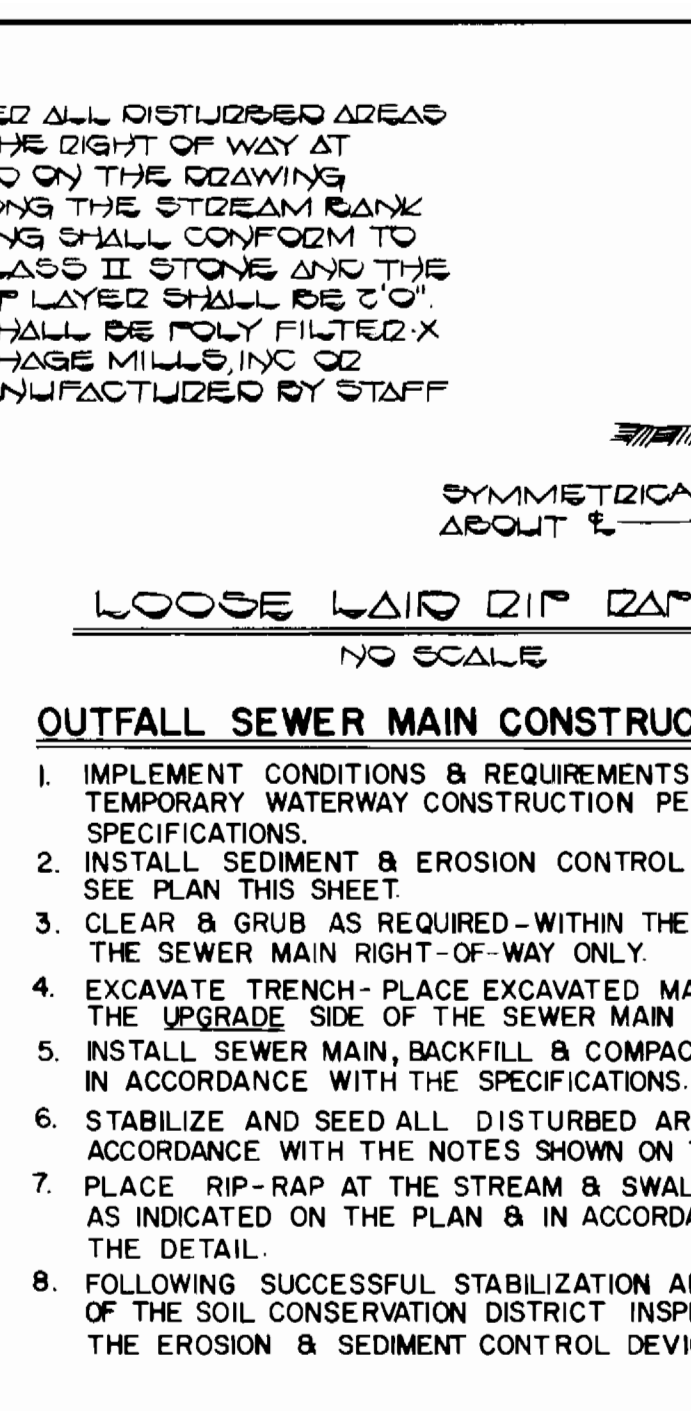
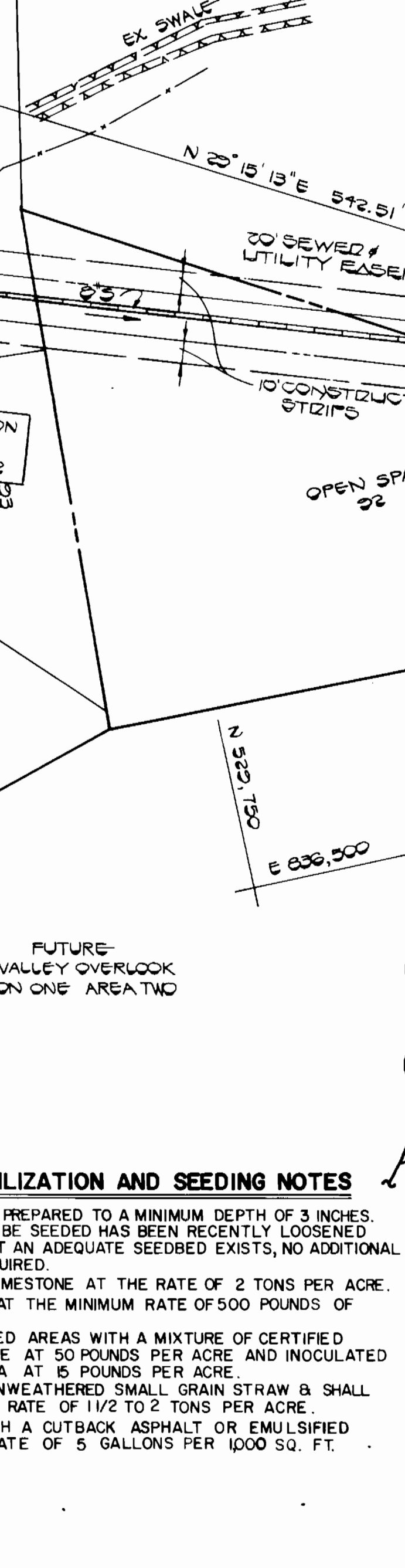
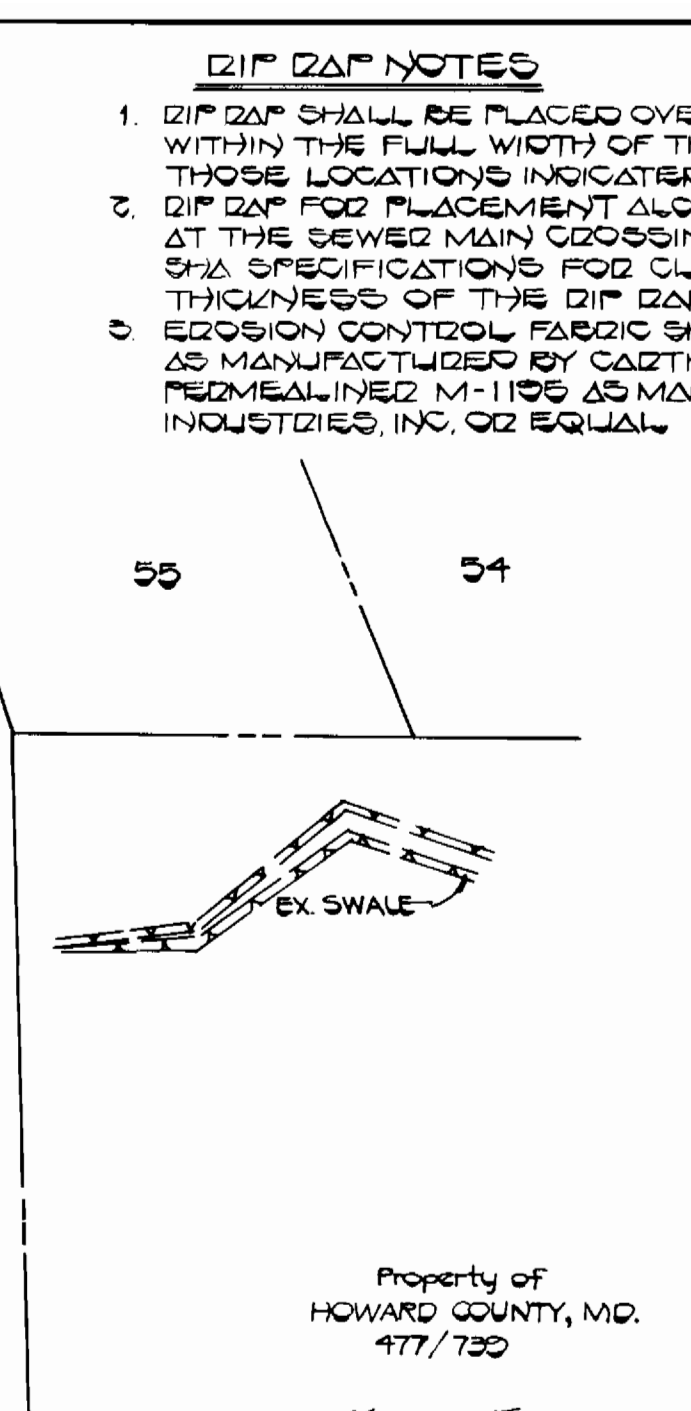
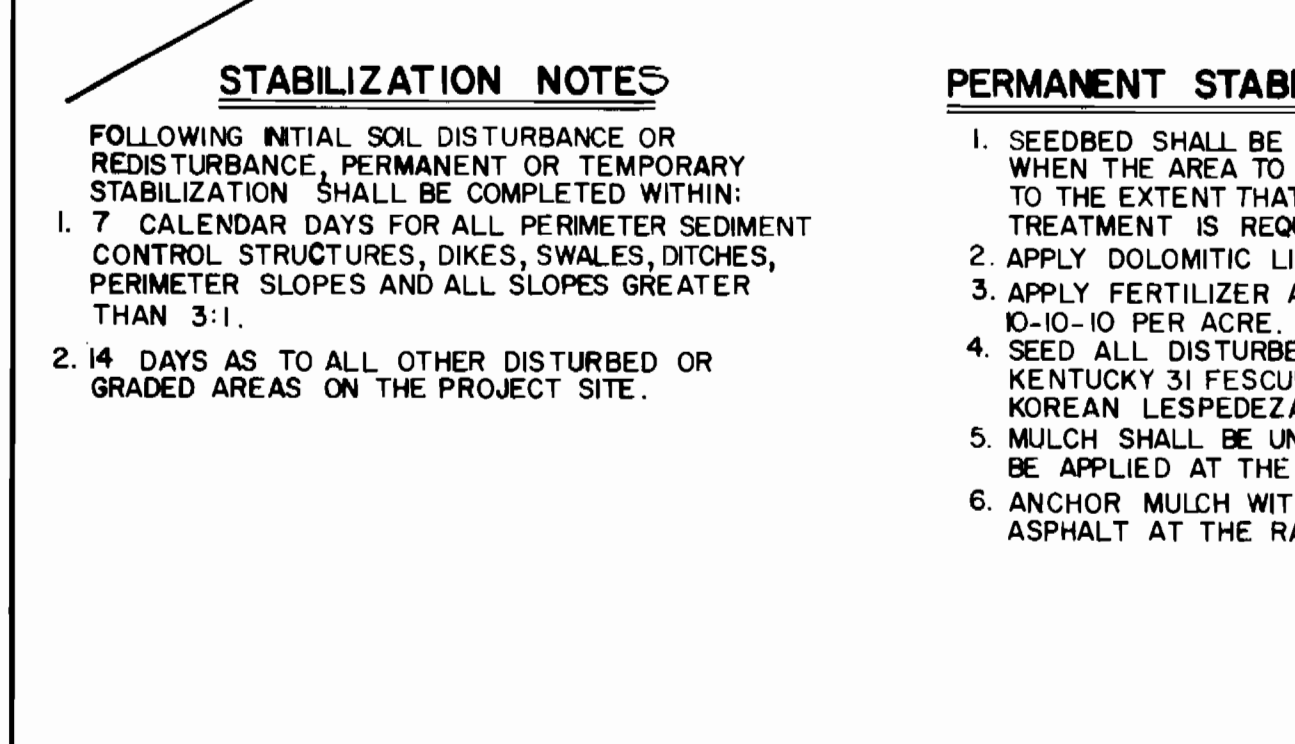
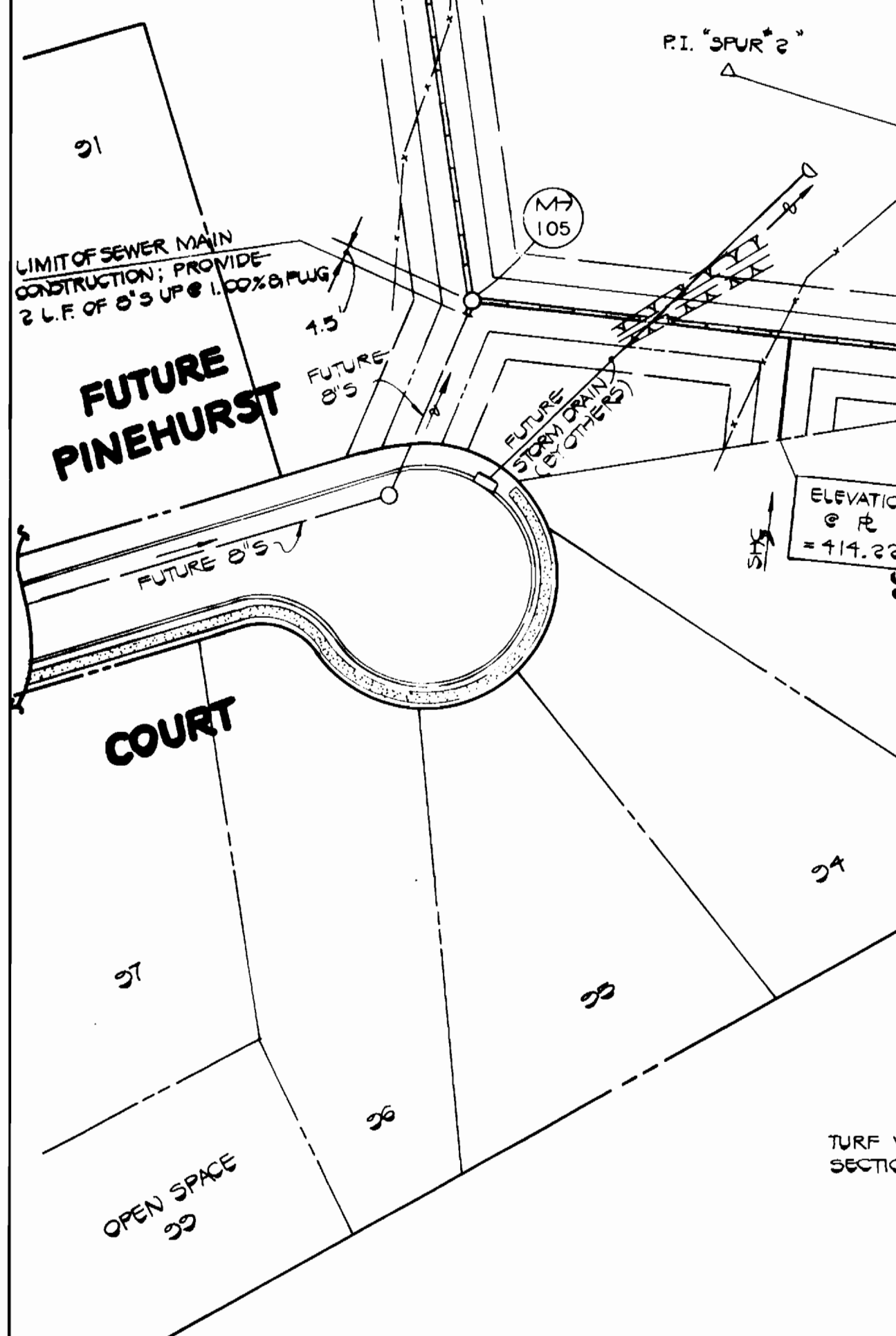
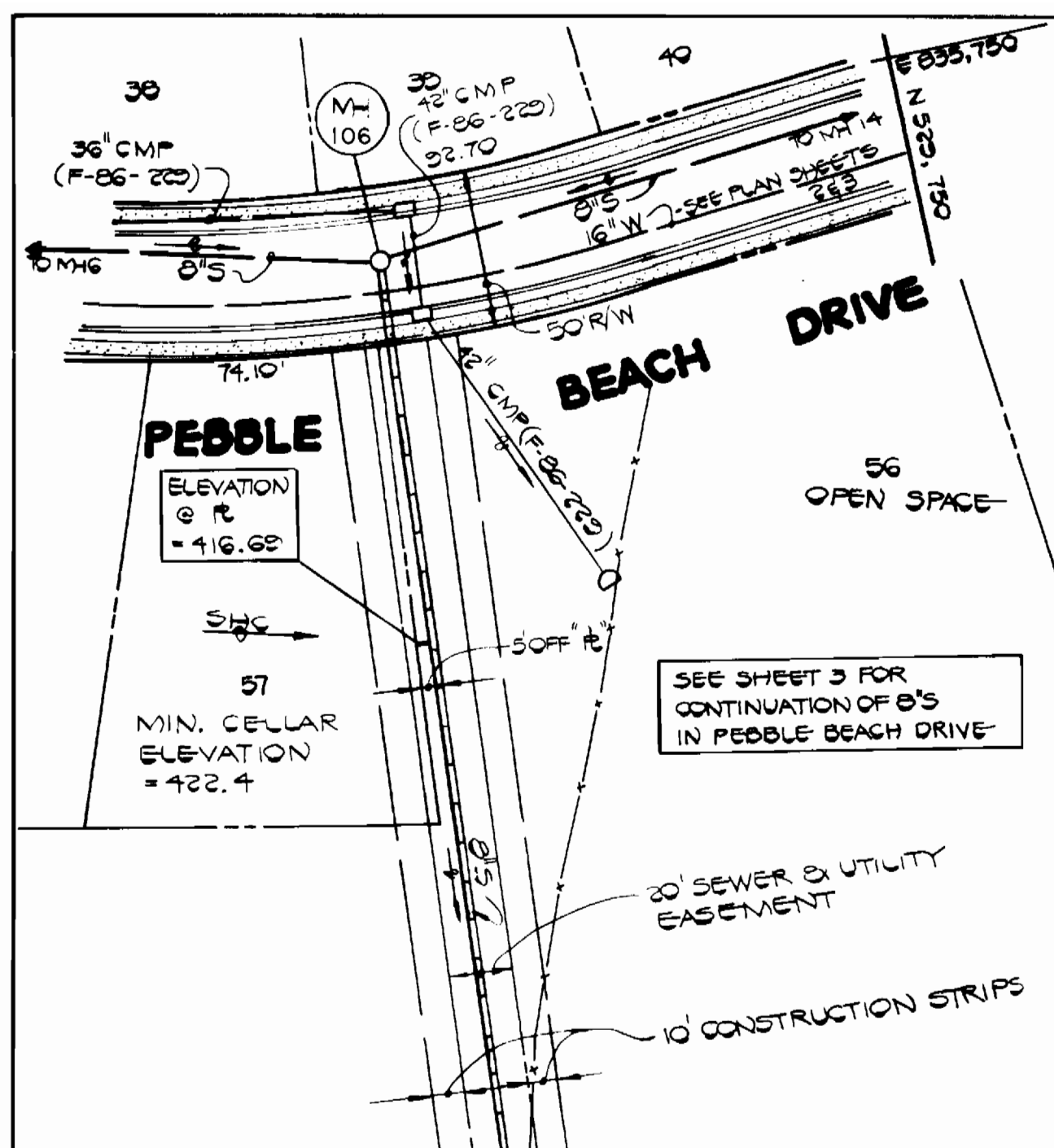
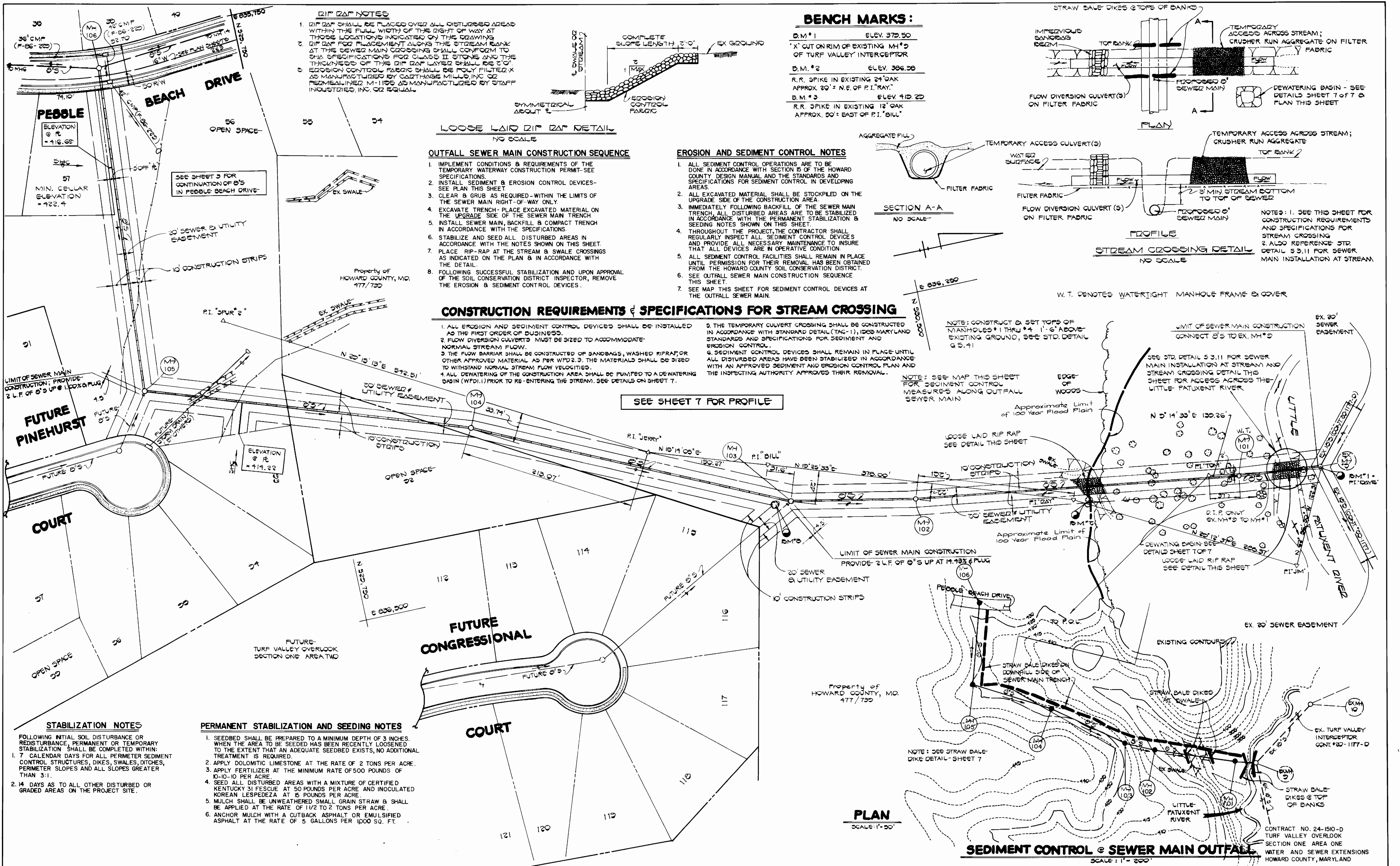
PLAN
WATER AND SEWER MAINS

600' SCALE MAP NO. 16,17,23 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
CONTRACT NO. 24-1510-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

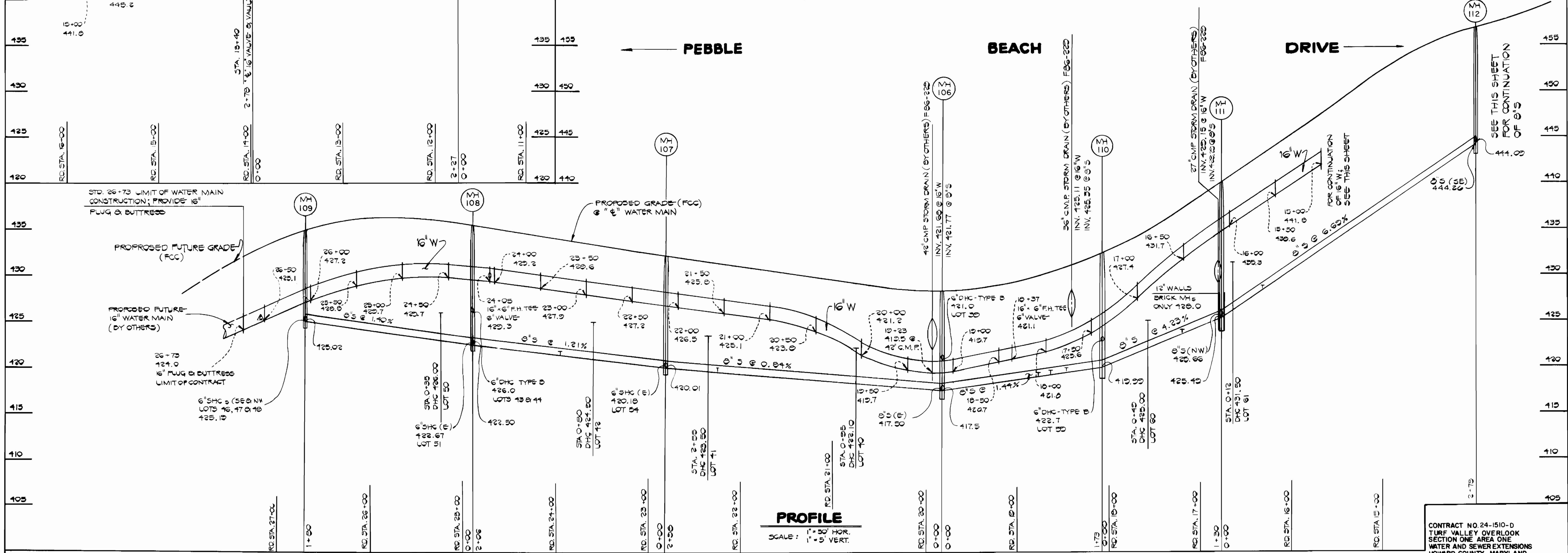
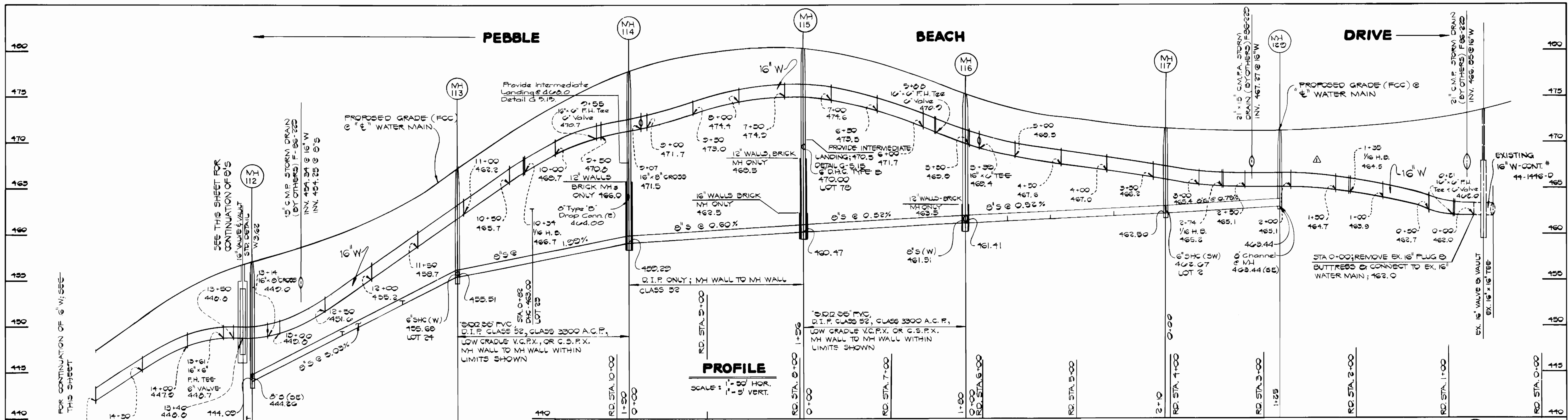
SCALE AS SHOWN
SHEET 3 OF 7

AS-BUILT



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> DATE: 10-1-86 Chief Bureau of Utilities: <i>[Signature]</i> DATE: 9-30-86		FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 Chief Engineer: <i>[Signature]</i> DATE: 8/5/86		DES: P.W.K. DRN: J.O. CHK: T.A.F. DATE: 8/5/86		PLAN SEWER MAINS		TURF VALLEY OVERLOOK SECTION ONE AREA ONE CONTRACT NO. 24-1510-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 4 OF 7
--	--	--	--	---	--	---------------------	--	---	--	--------------------------------

BRUNING 44-132 691 50



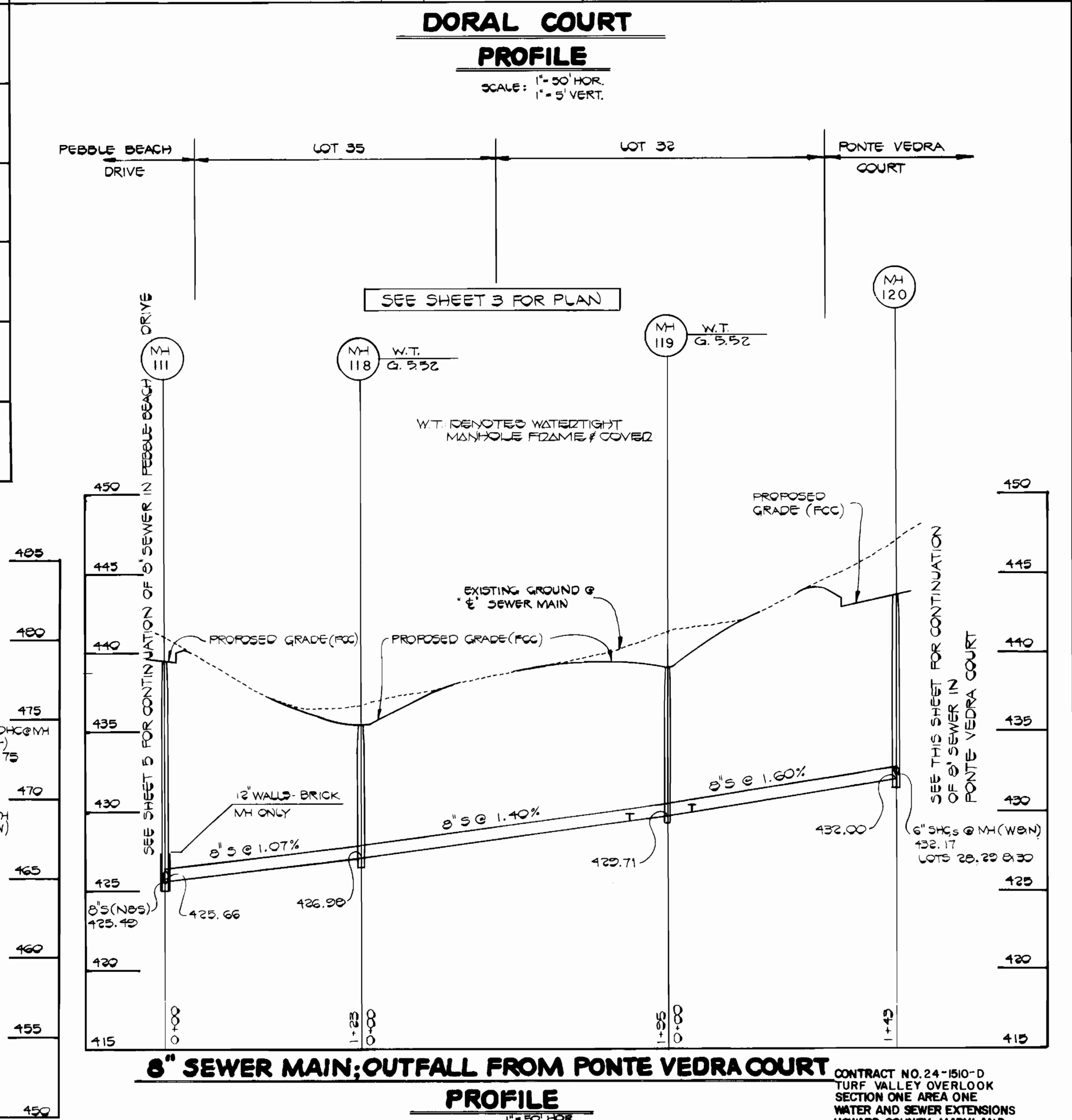
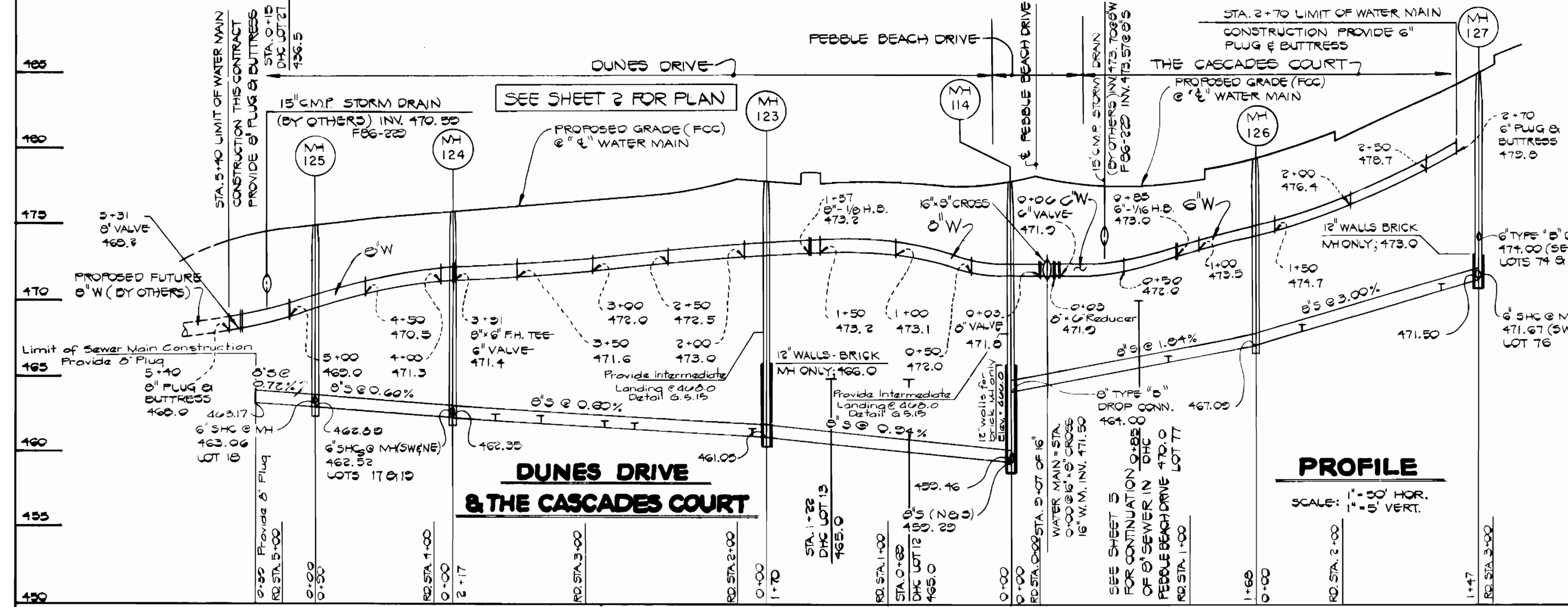
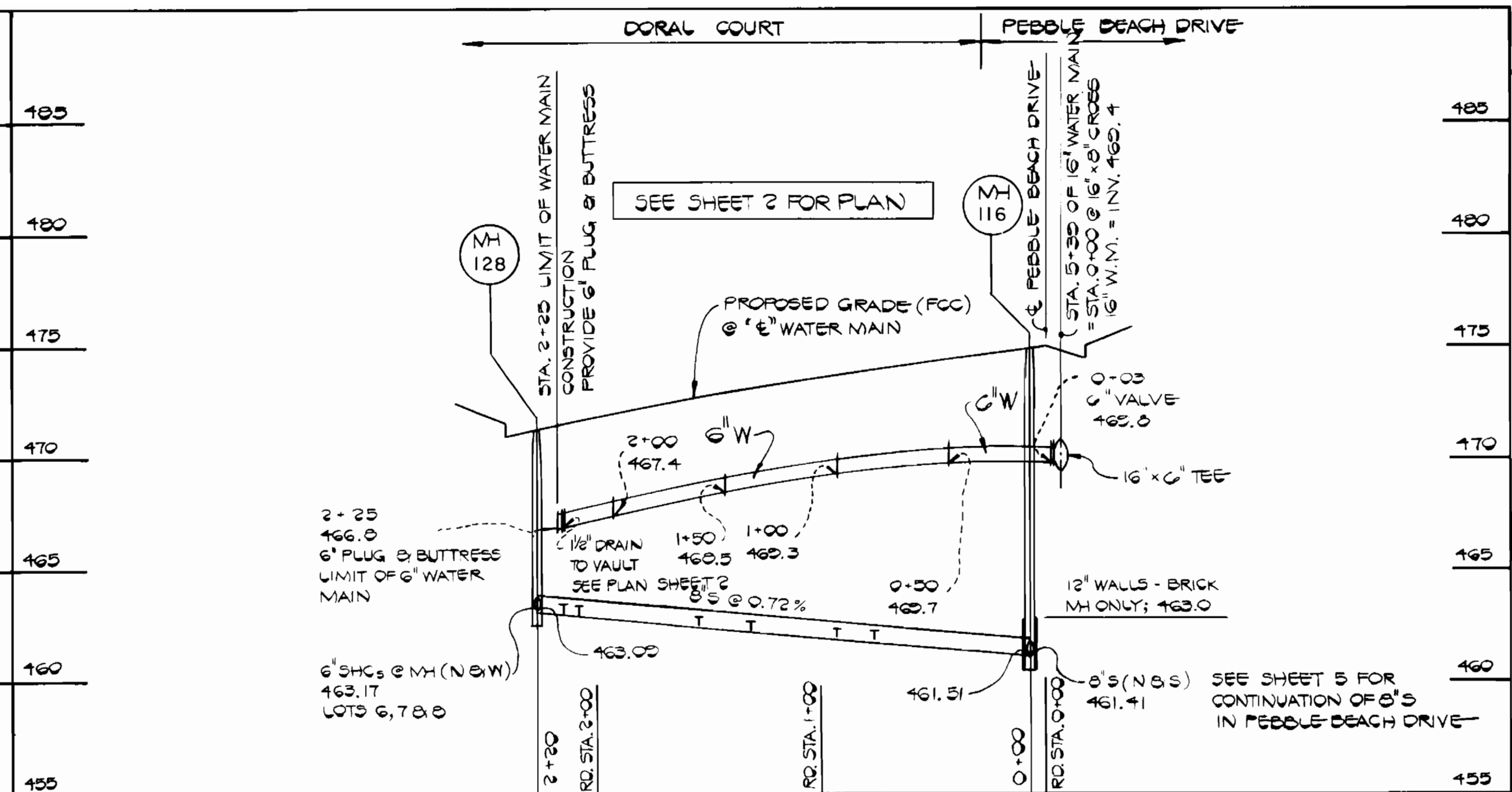
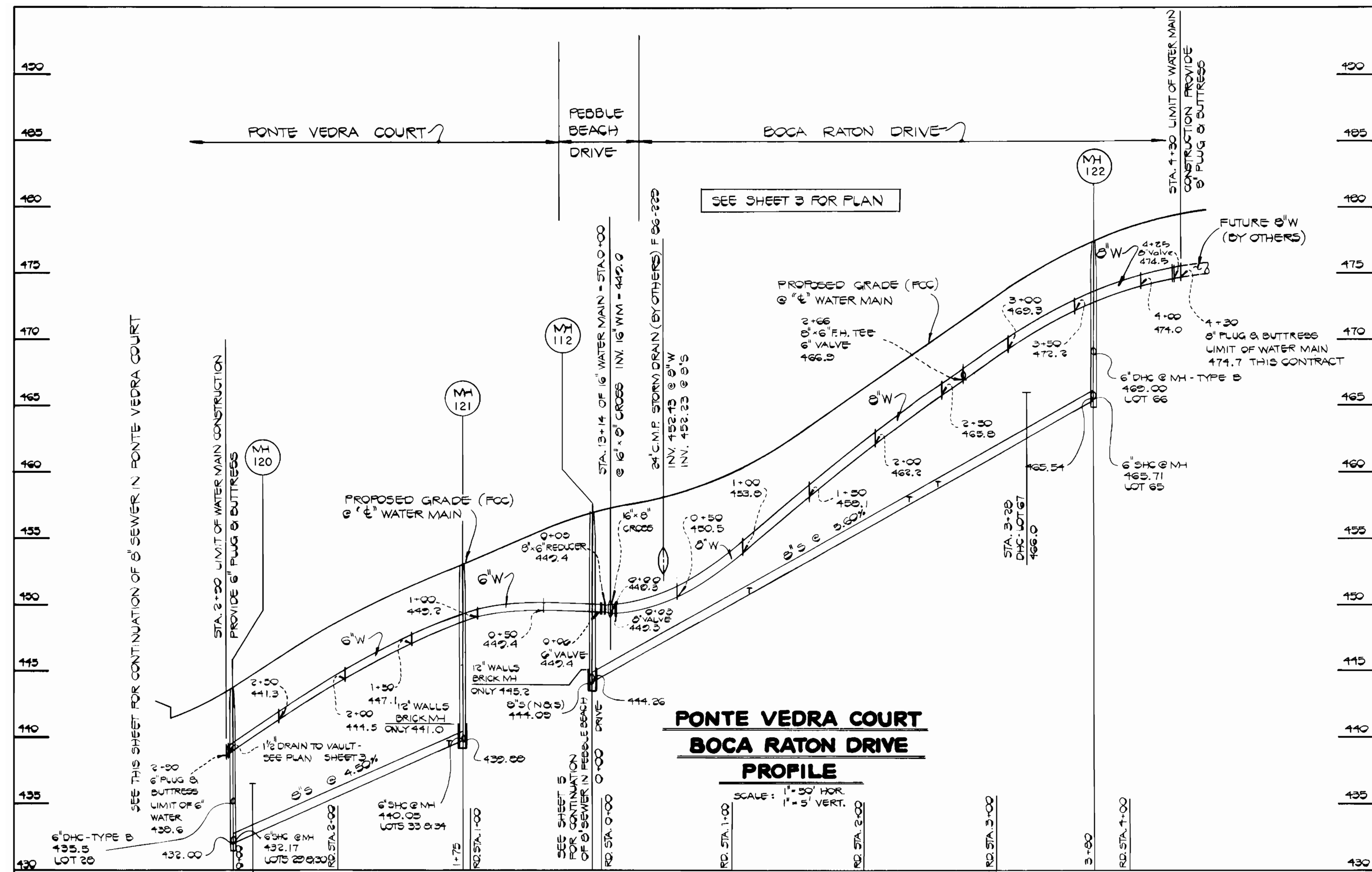
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 0-1-16
 Chief, Bureau of Engineering: *[Signature]* 0-1-16
 Chief, Bureau of Utilities: *[Signature]* 9-30-16
 Chief, Land Development Division: *[Signature]* 0-1-16

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043
 Terrell A. Fisher Date

DES: P.W.K.
 DRN: J.O.
 CHK: T.A.F.
 DATE: 8/5/86

PROFILES
 SEWER MAIN
 600' SCALE MAP NO. 16,17,23 BLOCK NO.

TURF VALLEY OVERLOOK
 SECTION ONE AREA ONE
 CONTRACT NO. 24-1510-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 5 OF 7



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 9-30-86
 Chief, Bureau of Utilities: *[Signature]* DATE: 9-30-86

Chief, Bureau of Engineering: *[Signature]* DATE: 10-1-86
 Chief, Land Development Division: *[Signature]* DATE: 10-1-86

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

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER DATE: 8/5/86

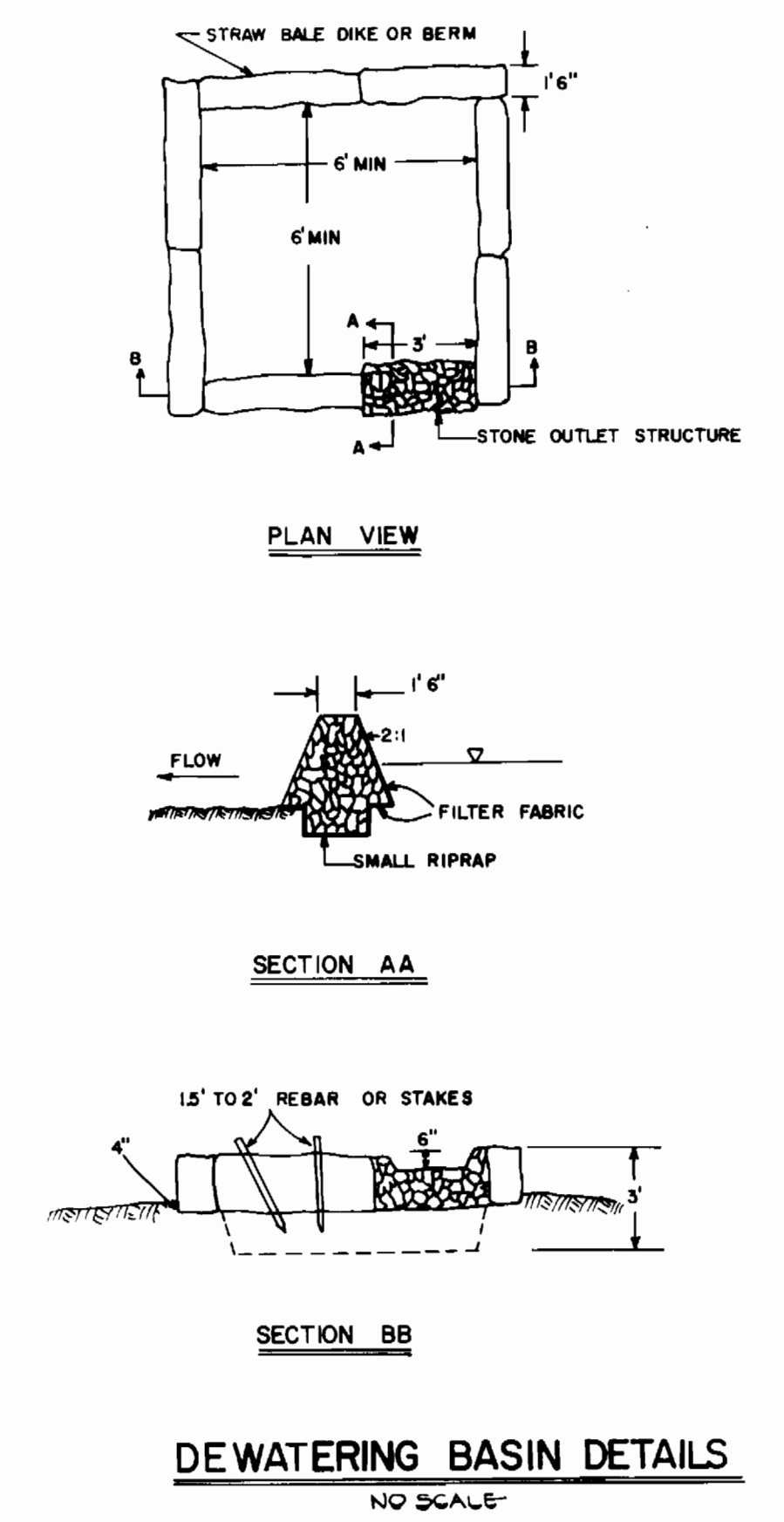
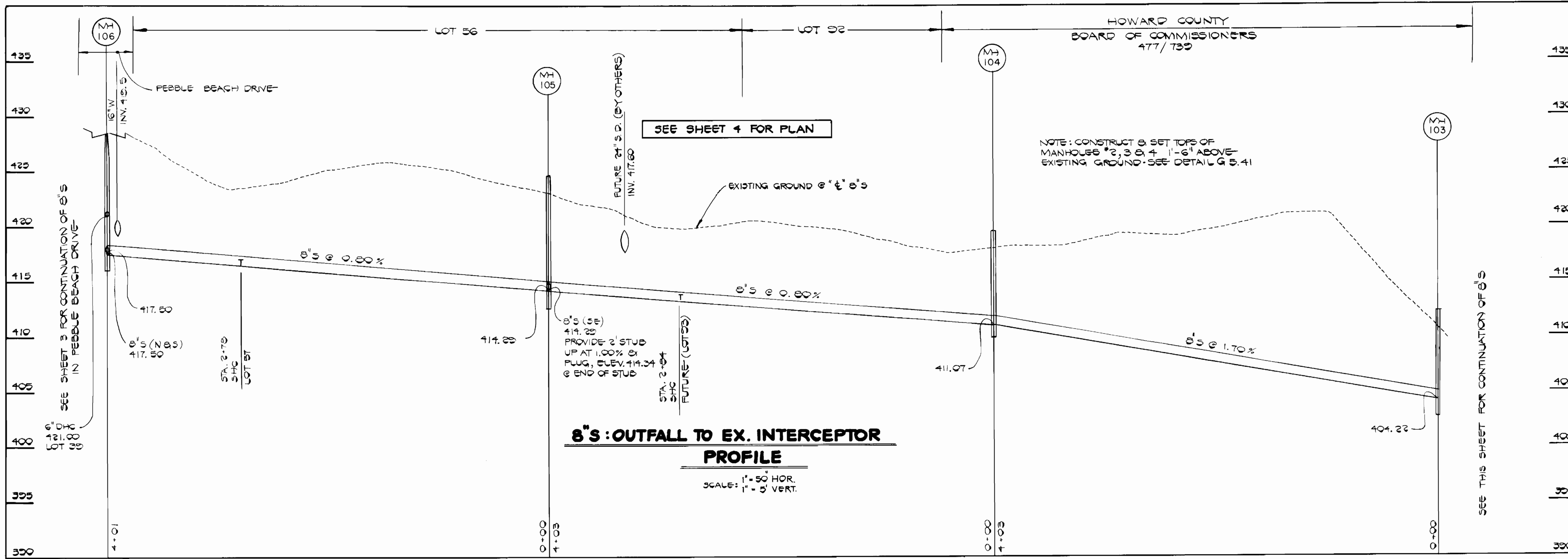
DES: P.W.K.	BY: NO.	REVISION	DATE
DRN: J.O.			
CHK: T.A.F.			
DATE: 8/5/86			

PROFILES
SEWER MAINS

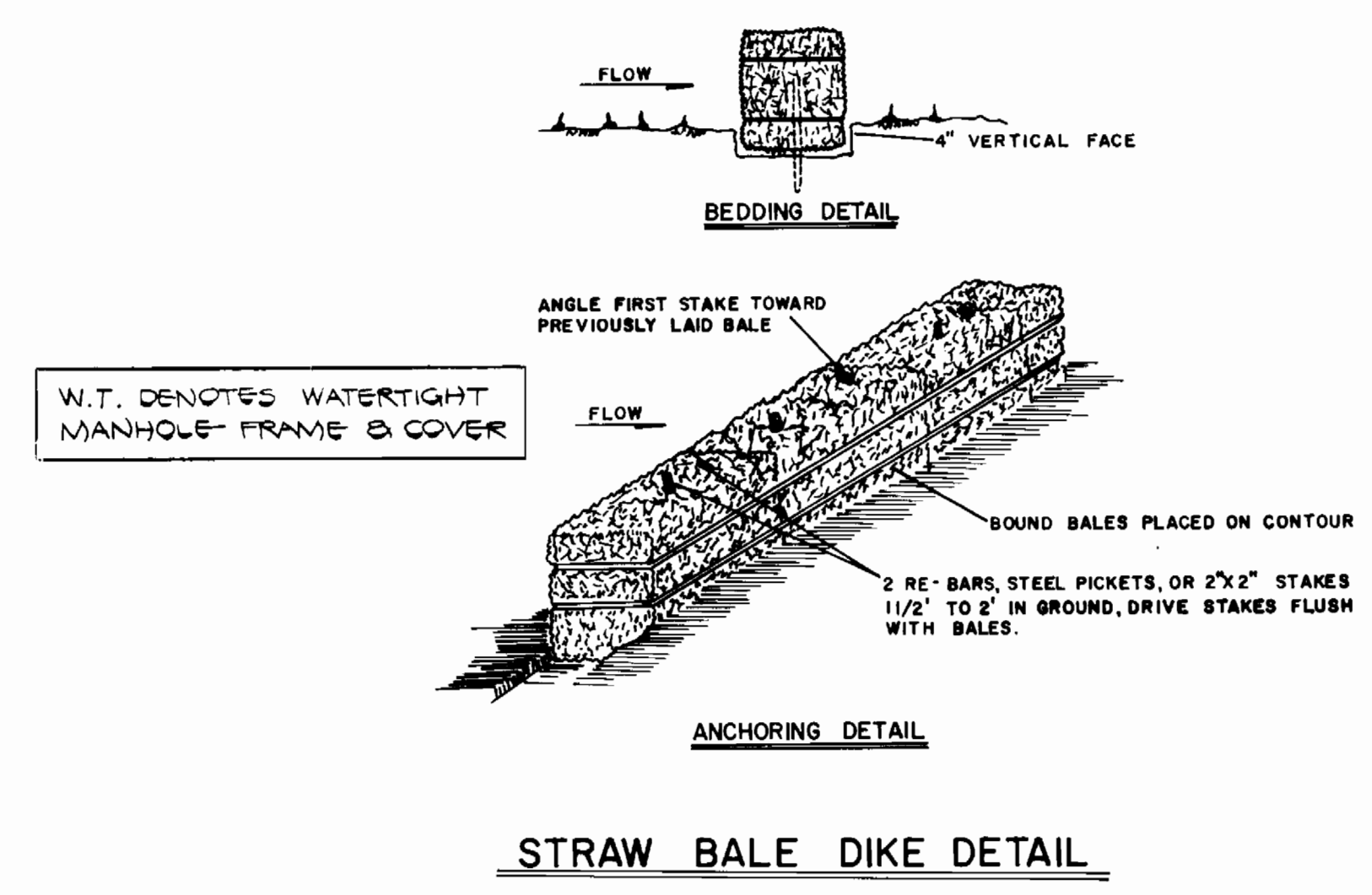
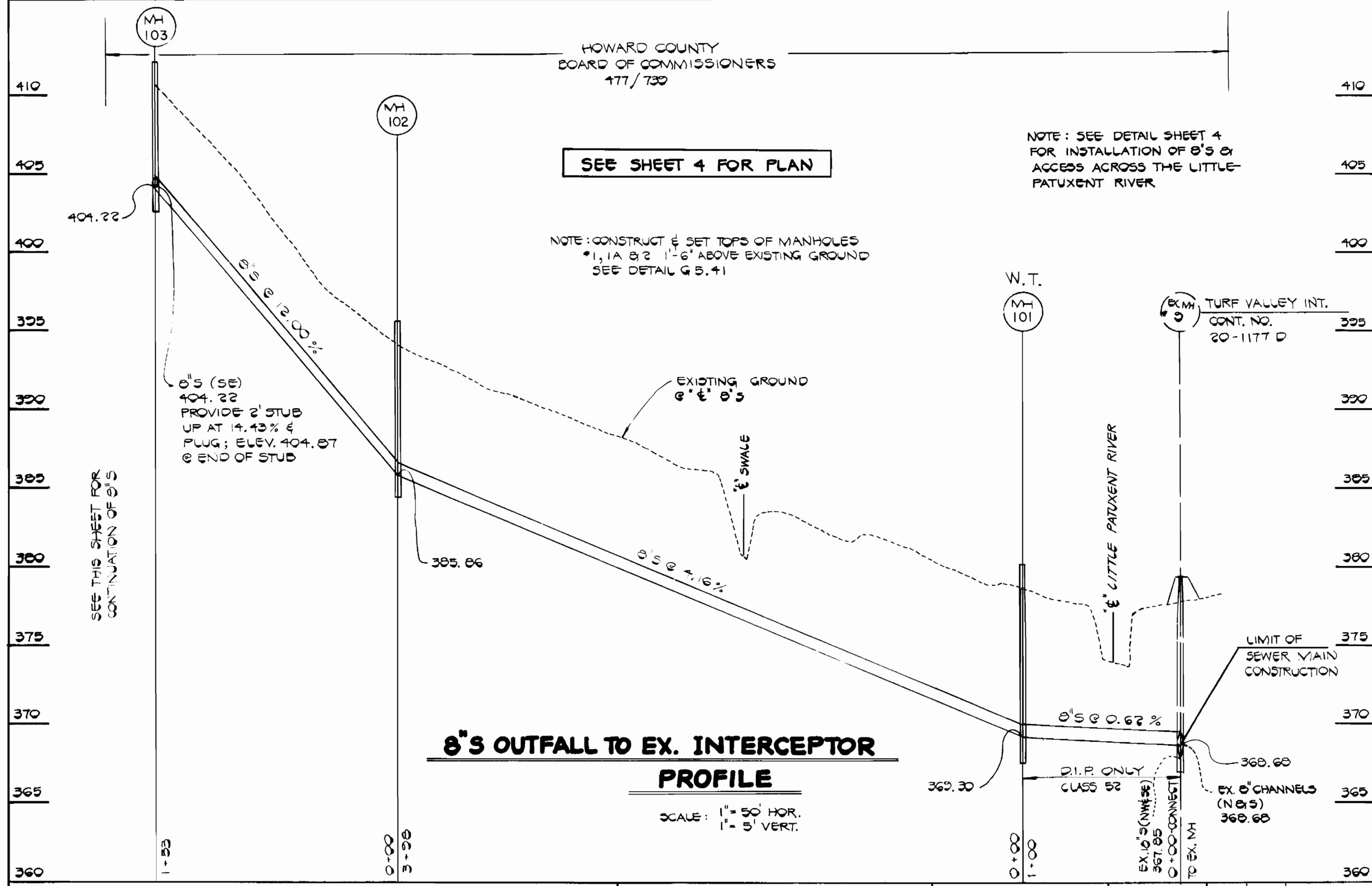
600' SCALE MAP NO. 16, 17, 23 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
CONTRACT NO. 24-1510-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 7



NOTE: SEE SHEET 4 OF 7 FOR PLAN LOCATION OF DEWATERING BASIN & STREAM CROSSING



CONTRACT NO. 24-1510-D
TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert Benjamin* DATE: 10-1-16
Chief, Bureau of Engineering: *Walter J. Fisher* DATE: 9-30-16
Chief, Bureau of Utilities: *Robert Benjamin* DATE: 9-30-16
Chief, Land Development Division: *Walter J. Fisher* DATE: 9-30-16

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

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER DATE: 8/5/16

DES: P. W. K.					
DRN: J. O.					
CHK: T. A. F.					
DATE: 8/5/16	BY: NO.	REVISION	DATE	600' SCALE MAP NO. 16.174.23	BLOCK NO.

PROFILES
WATER AND SEWER MAINS

TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
CONTRACT NO. 24-1510-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 7 OF 7