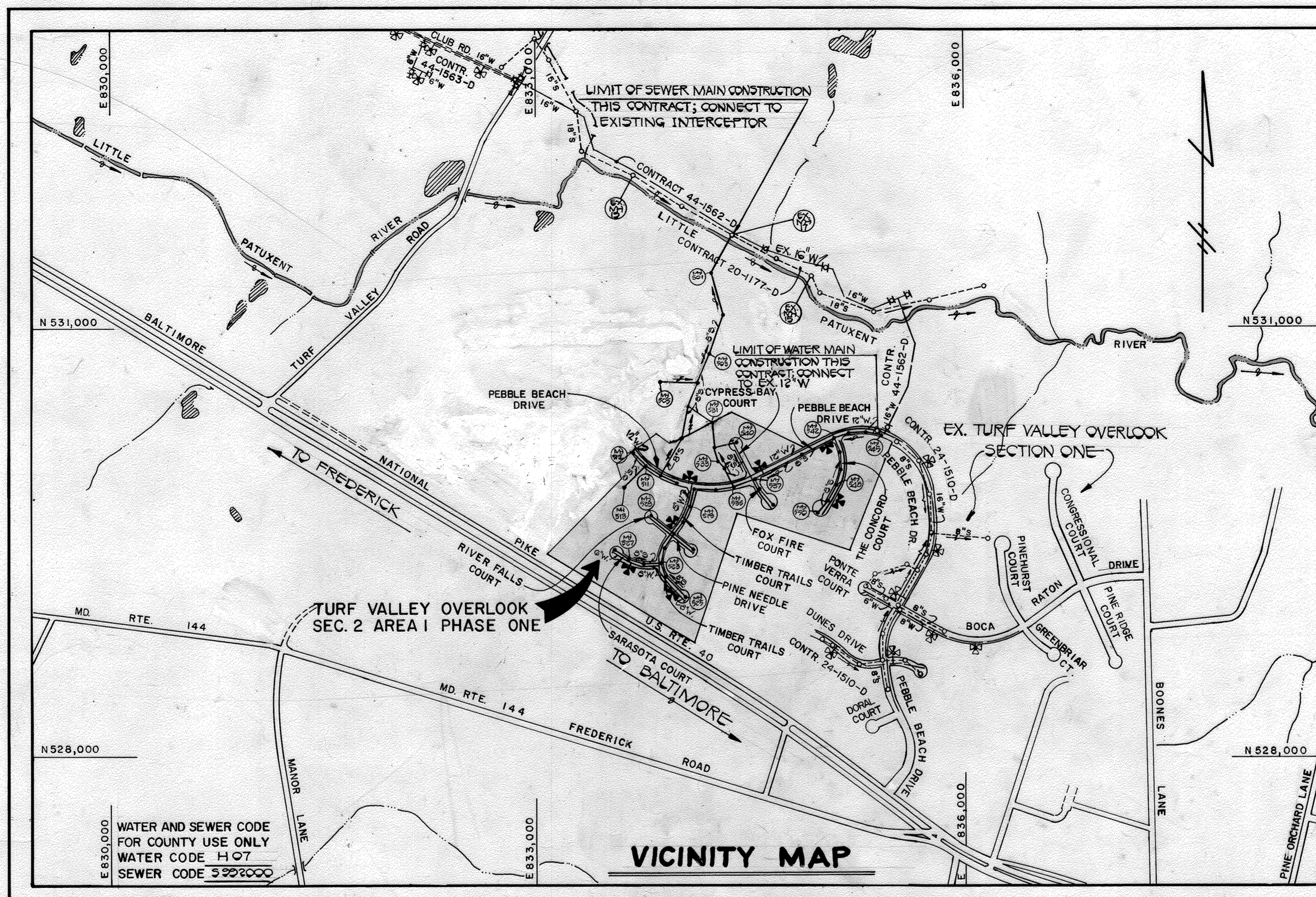


QUANTITIES			
ITEM	EST'D	AS-BUILT	SUPPLIER
MANHOLES	45 EA.	44 EA.	ATLANTIC DUCTILE
8" SEWER	5306 L.F.	5256 L.F.	ATLANTIC STATES
8" WATER (D.I.P.)	1517 L.F.	1482 L.F.	ATLANTIC STATES
6" S.H.C.	2357 L.F.	2549.5 L.F.	ATLANTIC STATES
10" WATER	2001 L.F.	2000 L.F.	ATLANTIC STATES
8" WATER	2102 L.F.	2085 L.F.	"
6" WATER	1006 L.F.	959.5 L.F.	"
12" W.C. VALVE	8 EA.	7 EA.	WICKER CO.
1" W.C.	807 L.F.	761.5 L.F.	"
3/4" W.C.	336 L.F.	373 L.F.	"
6" W-OFFS	4 EA.	3 EA.	"
3/4" WATER	113 L.F.	86 L.F.	ATLANTIC STATES
10" VALVES	1 EA.	1 EA.	ATLANTIC STATES
6" VALVES	4 EA.	4 EA.	"
8" VALVES	3 EA.	3 EA.	"
6" G. REDUCERS	2 EA.	2 EA.	GITHAN PIPE



TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS	20 (26) (SCHEDULE)
NO. OF WATER HOUSE CONNECTIONS	26
NO. OF SEWER HOUSE CONNECTIONS	91
DRAINAGE AREA	LITTLE PATUXENT

(PATUXENT WASTEWATER TREATMENT PLANT)
(MD. RTE 103 PUMPING STATION)

SCALE: 1" = 600'

CONTRACT NO. 24-1676-D

TURF VALLEY OVERLOOK

SECTION 2 AREA 1 PHASE 1

WATER AND SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

1. 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6".
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.
7. 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.
8. 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: 298-9013
 - 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
9. 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.
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.
11. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
12. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
13. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
14. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
15. 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.
16. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
17. 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).
18. 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.
19. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT 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.
20. 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.
21. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
22. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
23. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
24. MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL 65.51.

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 F88-23

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

James M. Nelson 11-6-87
DIRECTOR OF PUBLIC WORKS DATE

PLAN REFERENCE NUMBERS:	
S 00-20	
F 07-22	
F 00-33	

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

APPROVED:

Stephen P. Fisher 11/6/87
HOWARD SOIL CONSERVATION DISTRICT DATE

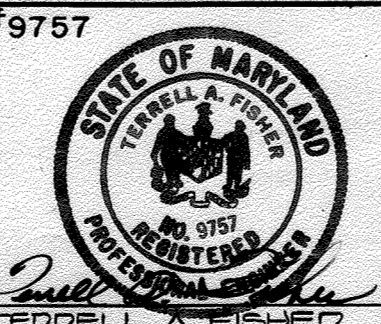
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Nelson 11/10/87
DIRECTOR OF PUBLIC WORKS DATE

Richard A. Fisher 11-5-87
CHIEF, BUREAU OF UTILITIES DATE

Richard A. Fisher 11-5-87
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC. #9757
CONSULTING ENGINEERS AND LAND SURVEYORS
8368 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043



DES: D.B.S.	W.C.F. A	REVISE QUANTITIES	10-18-87
DRN: D.B.S.	G.W. A	REVISE QUANTITIES & VICINITY MAP	10-20-87
CHK: P.W.K.			
DATE: 8/1/87	BY NO.	REVISION	DATE

TITLE	SHEET
600' SCALE MAP NO. 10E17	BLOCK NO.

* NOTE: AS-BUILTS ON S.H.C AND W.H.C ON SHEETS 12A AND 12B *

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 12B

AS-BUILT 04-07-89

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

SEWER HOUSE CONNECTION					
STATION		LOT	ELEVATION	INVERT ELEVATIONS AT PROPERTY LINE	
MH*536 TO MH*510				MH*531 TO MH*530	
MH 536	LT	LOT 192	414.00	1-05	LOT 201
MH*537 TO MH*538				MH*530 TO MH*535	
MH 537	LT	LOT 191	425.10	0-40	LOT 200
MH*538 TO MH*535				MH*531 TO MH*540	
MH 538	LT	LOT 191	425.10	MH 531	LOT 201
MH*535 TO MH*540				MH*540 TO MH*543	
MH 535	LT	LOT 192	408.20	MH 540	LOT 179
MH*540 TO MH*540				MH*543 TO MH*544	
MH 540	LT	LOTS 200+203	408.20	0-78	LOT 178
MH*540 TO MH*540				MH*543 TO MH*544	
MH 540	LT	LOTS 200+203	408.20	0-43	LOT 178 (10)
MH*540 TO MH*540				MH*544 TO MH*545	
MH 540	LT	LOTS 200+203	408.20	0-45	LOT 171
MH*540 TO MH*540				MH*545 TO MH*547	
MH 540	LT	LOTS 200+203	408.20	0-49	LOT 170
MH*540 TO MH*540				MH*547 TO MH*548	
MH 540	LT	LOTS 200+203	408.20	0-49	LOT 169
MH*540 TO MH*540				MH*548 TO MH*549	
MH 540	LT	LOTS 200+203	408.20	0-50	LOT 168
MH*540 TO MH*540				MH*549 TO MH*550	
MH 540	LT	LOTS 200+203	408.20	0-50	LOT 168
MH*540 TO MH*540				MH*550 TO MH*550	
MH 540	LT	LOTS 200+203	408.20	0-50	LOT 168
MH*540 TO MH*540				MH*550 TO MH*550	
MH 540	LT	LOTS 200+203	408.20	0-50	LOT 168

Property of
HOWARD COUNTY, MD
477 / 788
T.M.'G P.'0

Property of
HOWARD COUNTY, MD
477 / 788
T.M.'G P.'0

MATCH LINE C-C SEE SHEET 5
MATCH LINE SEE SHEET 6

MANHOLE TABLE				
NO.	E.O.D. STA.	INVERT	DIAM.	SLOPE
545	07+80	5' LT	420.50	0.53%
544	08+30	0' LT	421.97	0.34%
543	30+30	3' LT	420.18	0.10%
542	31+08.50	5' LT	421.30	1.5%
541	34+71	7' LT	419.30	0.5%
537	39+12	7' LT	427.00	0.0%
535	39+39	0' LT	425.34	-2.0%
536	40+03	0' LT	4	0.7%
540	1+19	7' LT	423.10	0.1%
547	2+30	4' LT	424.71	7.1%
548	3+00	4' LT	421.50	3.3%
549	4+00	0' LT	420.00	1.5%
550	COULZT	-	443.50	-
555	0+35	7' LT	430.50	5.5%
539	COULZT	-	444.75	-
540	COULZT	-	423.00	-

PEBBLE BEACH DRIVE
THE CONCORD COULZT
FOX FIRE COULZT
CYPRESS BAY COULZT

SEE SHEET NO. 10 FOR PROFILES OF
OUTFALL SEWER MAIN
SEE SHEET NO. 6 FOR PROFILES IN
PEBBLE BEACH DRIVE
SEE SHEET NO. 7 FOR PROFILES IN
THE CONCORD COULZT
SEE SHEET NO. 8 FOR PROFILES IN
CYPRESS BAY COULZT & FOX
FIRE COULZT

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 11-5-87
Chief, Bureau of Engineering: *[Signature]* DATE: 11-9-87
Chief, Land Development Division: *[Signature]* DATE: 11-9-87

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

TERRELL A. FISHER DATE: 8/9/87

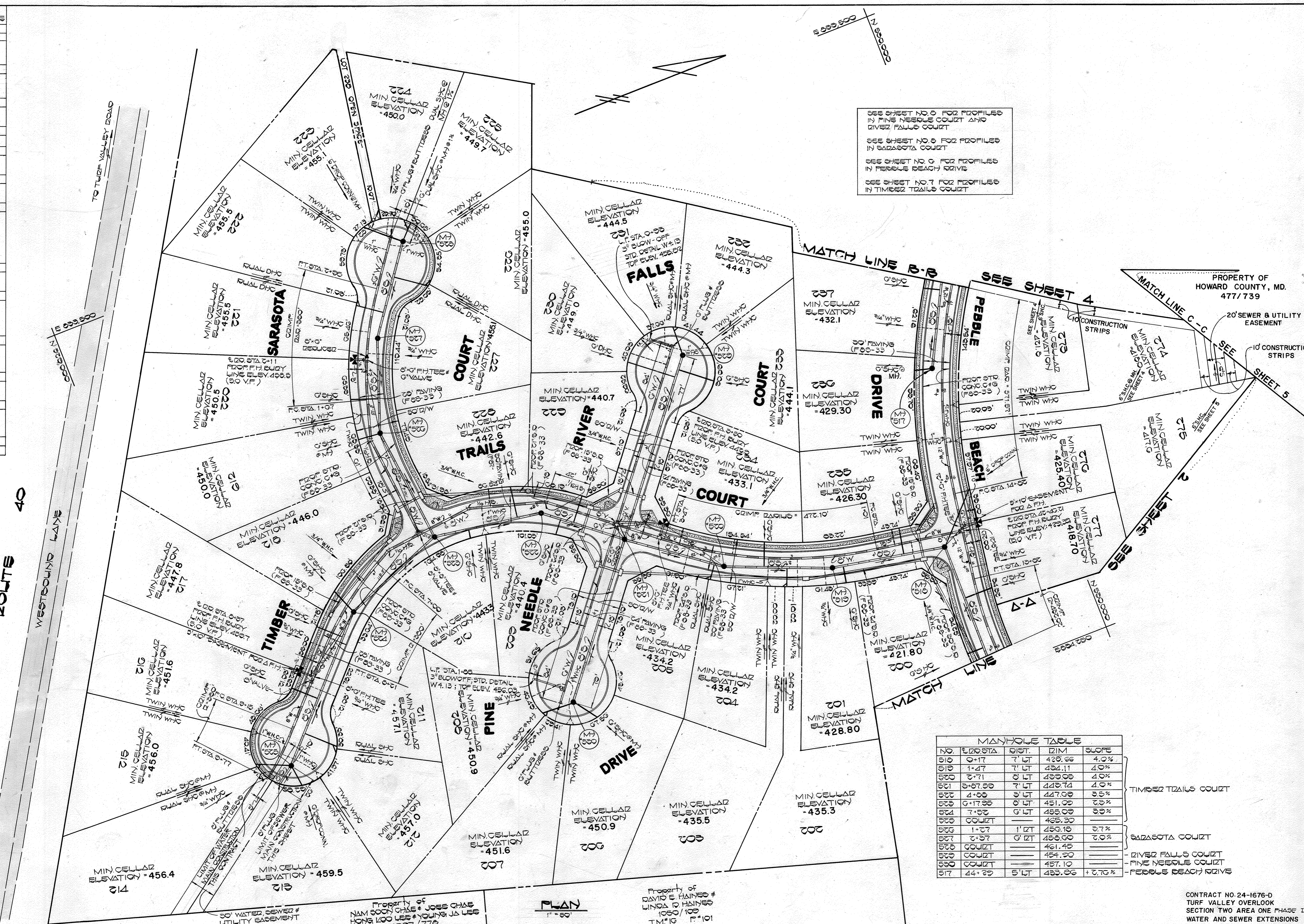
DES: P.W.K.	DRN: D.B.S.	CHK: P.W.K.	DATE: 8/9/87
G.W.	BY	NO.	REVISION
REVISION	DATE	600' SCALE MAP NO. 19-17	BLOCK NO.

PLAN
WATER & SEWER MAINS

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET 2 OF 12

SEWER HOUSE CONNECTION		
STATION	LOT	ELEV.
MH*536 TO MH*518		
0+44 LT (DHC)	LOT 200	415.00
1+05 RT	LOT 277	412.76
ENH 518 RT	LOT 276	410.10
MH*535 TO MH*519		
0+17 RT	LOT 235	420.51
1+10 LT	LOT 201	423.92
MH*519 TO MH*500		
0+52 LT	LOTS 202, 203	425.42
0+70 LT	LOT 234	426.51
MH*500 TO MH*501		
0+11 LT	LOTS 204, 205	428.44
MH*501 TO MH*502		
0+00 LT	LOT 229	434.79
0+77 LT	LOT 208	434.87
MH*502 TO MH*503		
0+28 LT	LOT 220	436.60
0+05 LT	LOT 210	437.65
MH*503 TO MH*504		
MH*504 LT	LOT 210	440.29
0+31 LT	LOT 217	441.69
1+07 LT	LOT 216	445.30
1+50 LT	LOTS 211, 212	450.82
MH*505 LT	LOT 219	453.50
MH*506 LT	LOTS 214, 215	449.47
MH*506 TO MH*507		
MH*507 LT	LOT 219	443.77
0+39 LT	LOT 209	444.21
MH*507 TO MH*508		
0+30 LT (DHC)	LOTS 221, 222	449.14
0+72 LT (DHC)	LOTS 220, 227	448.84
MH*508 LT (DHC)	LOTS 223	448.96
MH*509 LT	LOT 225 (1%)	445.41
MH*509 TO MH*500		
1+34 LT (DHC)	LOT 220	442.66
2+09 LT	LOT 229	438.03
MH*500 LT	LOT 209	444.81
MH*500 LT	LOTS 207, 208	444.89
MH*510 TO MH*517		
0+26 LT	LOT 237	426.40
MH*517 RT	LOT 236	423.59
MH*527 TO MH*528		
MH*528 RT	LOT 224 (1%)	449.41



SEE SHEET NO. 6 FOR PROFILES IN FINE NEEDLE COURT AND RIVER FALLS COURT
 SEE SHEET NO. 6 FOR PROFILES IN SARASOTA COURT
 SEE SHEET NO. 6 FOR PROFILES IN PEBBLE BEACH DRIVE
 SEE SHEET NO. 7 FOR PROFILES IN TIMBER TRAILS COURT

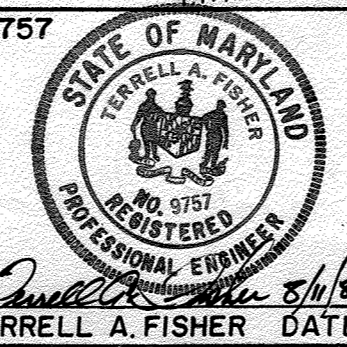
MANHOLE TABLE				
NO.	STATION	DIST.	DIM.	SLOPE
510	0+17	7' LT	428.66	4.0%
510	1+47	7' LT	434.11	4.0%
520	2+71	0' LT	439.08	4.0%
521	3+07.50	7' LT	440.74	4.0%
522	4+00	3' LT	447.09	3.5%
523	5+17.99	0' LT	451.09	3.3%
524	7+32	0' LT	458.09	3.9%
525	COURT		465.30	
526	1+07	1' LT	459.18	3.7%
527	2+37	0' LT	459.00	3.0%
528	COURT		461.45	
529	COURT		454.20	
530	COURT		457.10	
517	4+29	5' LT	433.56	3.7%

TIMBER TRAILS COURT
 SARASOTA COURT
 RIVER FALLS COURT
 FINE NEEDLE COURT
 PEBBLE BEACH DRIVE

CONTRACT NO. 24-1676-D
 TURF VALLEY OVERLOOK
 SECTION TWO AREA ONE PHASE ONE
 CONTRACT NO. 24-1676-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: James M. [Signature]
 Chief, Bureau of Engineering: [Signature]
 Chief, Bureau of Utilities: [Signature]

FISHER, COLLINS, AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043
 Terrell A. Fisher, Date: 8/1/87



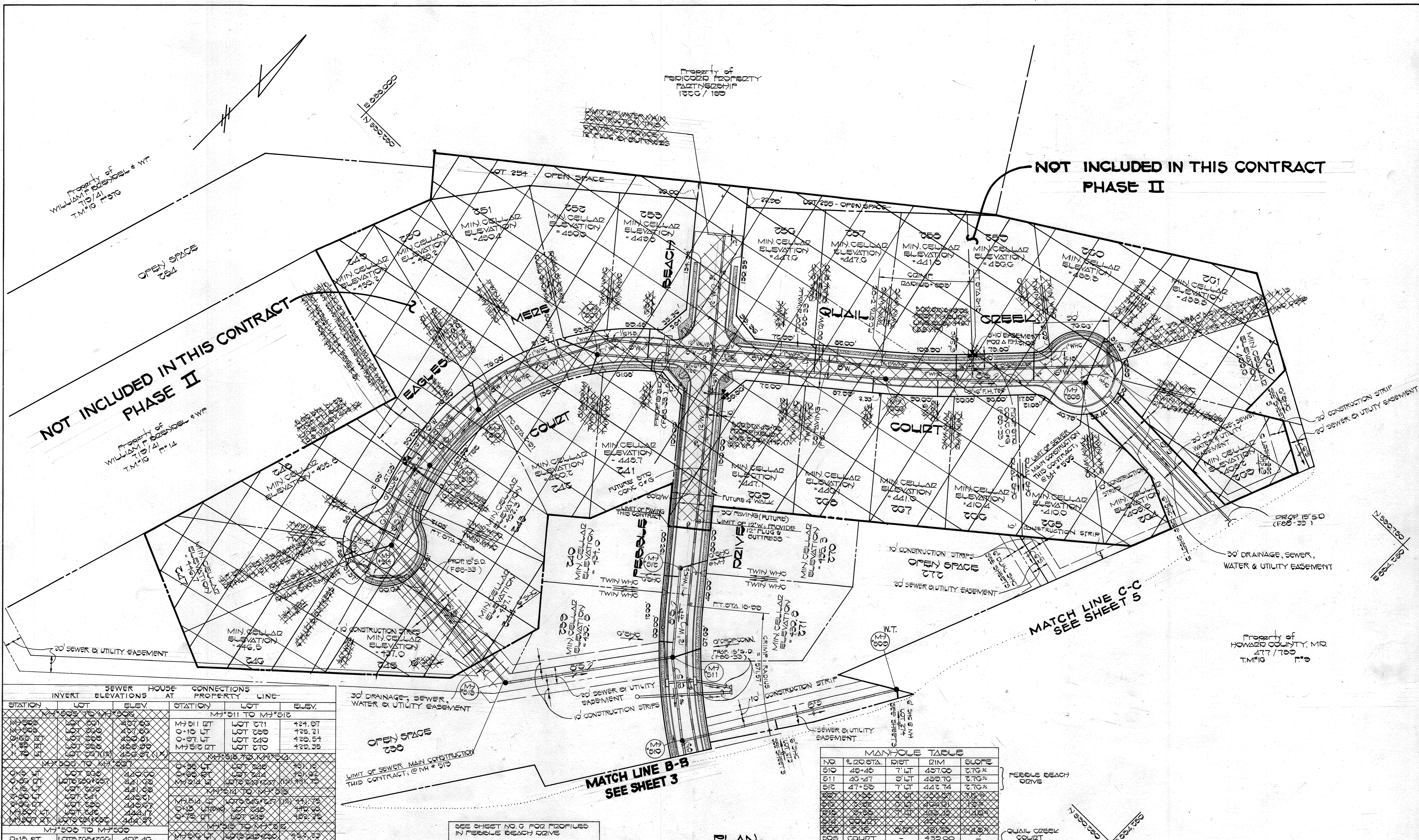
DES. PWK. D.B.S.	
DRN. D.B.S. / J.O.	
CHK. P.W.K.	
DATE: 8/1/87	
G.W. / NO.	
REVISION	
DATE	

PLAN
 WATER & SEWER MAINS
 600' SCALE MAP NO. 16 & 17 BLOCK NO.

TURF VALLEY OVERLOOK
 SECTION TWO AREA ONE PHASE ONE
 CONTRACT NO. 24-1676-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SHEET 12 OF 12

BRUNING 441-132-69150

AS-BUILT 04-07-89



SEWER HOUSE CONNECTIONS		CONNECTIONS	
STATION	INVERT	HOUSE ELEVATIONS AT PROPERTY	LINE
MH 508	LOT 264	424.87	MH 511 TO MH 512
MH 509	LOT 265	425.21	
MH 510	LOT 266	428.54	
MH 511	LOT 267	422.35	
MH 512	LOT 268	424.7	MH 513 TO MH 514
MH 513	LOT 269	425.16	
MH 514	LOT 270	426.92	
MH 515	LOT 271	427.92	MH 516 TO MH 517
MH 516	LOT 272	428.71	
MH 517	LOT 273	429.71	
MH 518	LOT 274	429.94	MH 519 TO MH 520
MH 519	LOT 275	429.94	
MH 520	LOT 276	429.46	MH 521 TO MH 522
MH 521	LOT 277	429.46	
MH 522	LOT 278	429.46	
MH 523	LOT 279	429.46	MH 524 TO MH 525
MH 524	LOT 280	429.46	
MH 525	LOT 281	429.46	

NO.	STATION	DIST.	DIM.	SLOPE
510	48+48	7' LT	437.00	2.70%
511	49+47	9' LT	439.70	2.70%
512	47+55	7' LT	442.74	2.70%
513	47+55	4' LT	433.57	1.12%
514	47+55	4' LT	424.01	1.12%
515	47+55	4' LT	424.01	1.12%
516	47+55	4' LT	424.01	1.12%
517	47+55	4' LT	424.01	1.12%
518	47+55	4' LT	424.01	1.12%
519	47+55	4' LT	424.01	1.12%
520	47+55	4' LT	424.01	1.12%
521	47+55	4' LT	424.01	1.12%
522	47+55	4' LT	424.01	1.12%
523	47+55	4' LT	424.01	1.12%
524	47+55	4' LT	424.01	1.12%
525	47+55	4' LT	424.01	1.12%

SEE SHEET NO. 9 FOR PROFILES IN FERRULE BEACH DRIVE

SEE SHEET NO. 10 FOR PROFILES OF OUTFALL SEWER MAIN

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *James J. ...*
Date: *11/28/87*

Chief, Bureau of Engineering: *...*
Date: *11/28/87*

Chief, Land Development Division: *...*
Date: *...*

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

Terrell A. Fisher, P.E.
Date: *8/1/87*

DES: P.W.K. D.B.S.
DRN: D.B.S.
CHK: P.W.K.
DATE: *8/1/87*

SEPARATE PHASE II FROM PHASE I

PLAN
WATER & SEWER MAINS

600' SCALE MAP NO. 16 B 17 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 12 B

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

BRUNING 68150

04-07-89

SEWER HOUSE CONNECTIONS			
INVERT ELEVATIONS AT PROPERTY LINE			
STATION	LOT	MH	ELEV.
MH 503 TO MH 504			
0+94 RT.	LOT 262	MH 503	399.59
1+58 RT.	LOT 263	MH 504	399.70
MH 504 TO MH 508			
0+42 RT.	LOT 264	MH 504	399.44
MH 508 TO MH 509			
0+18 RT.	LOTS 265 & 266	MH 508	402.40
1+98 LT.	LOT 275	MH 509	411.74

SEE STD. DETAIL S 3.11 FOR SEWER MAIN INSTALLATION AT STREAM AND SHEET 12 FOR STREAM CROSSING DETAIL & METHOD OF ACCESS ACROSS THE LITTLE PATUXENT RIVER

PROPERTY OF MANGIONE ENTERPRISES OF TURF VALLEY 920/250 (PARCEL ONE)

LOOSE LAID RIP RAP-SEE DETAILS SHEET 12

LIMIT OF SEWER MAIN CONSTRUCTION CONNECT TO EX. MH #17 AND FORM CHANNEL

EX. 20' SEWER & UTILITY EASEMENT 1458/760

PROPERTY OF BOARD OF COUNTY COMMISSIONERS OF HOWARD COUNTY, MARYLAND 477/739

NOTE: W.T. DENOTES WATERTIGHT MANHOLE FRAME & COVER

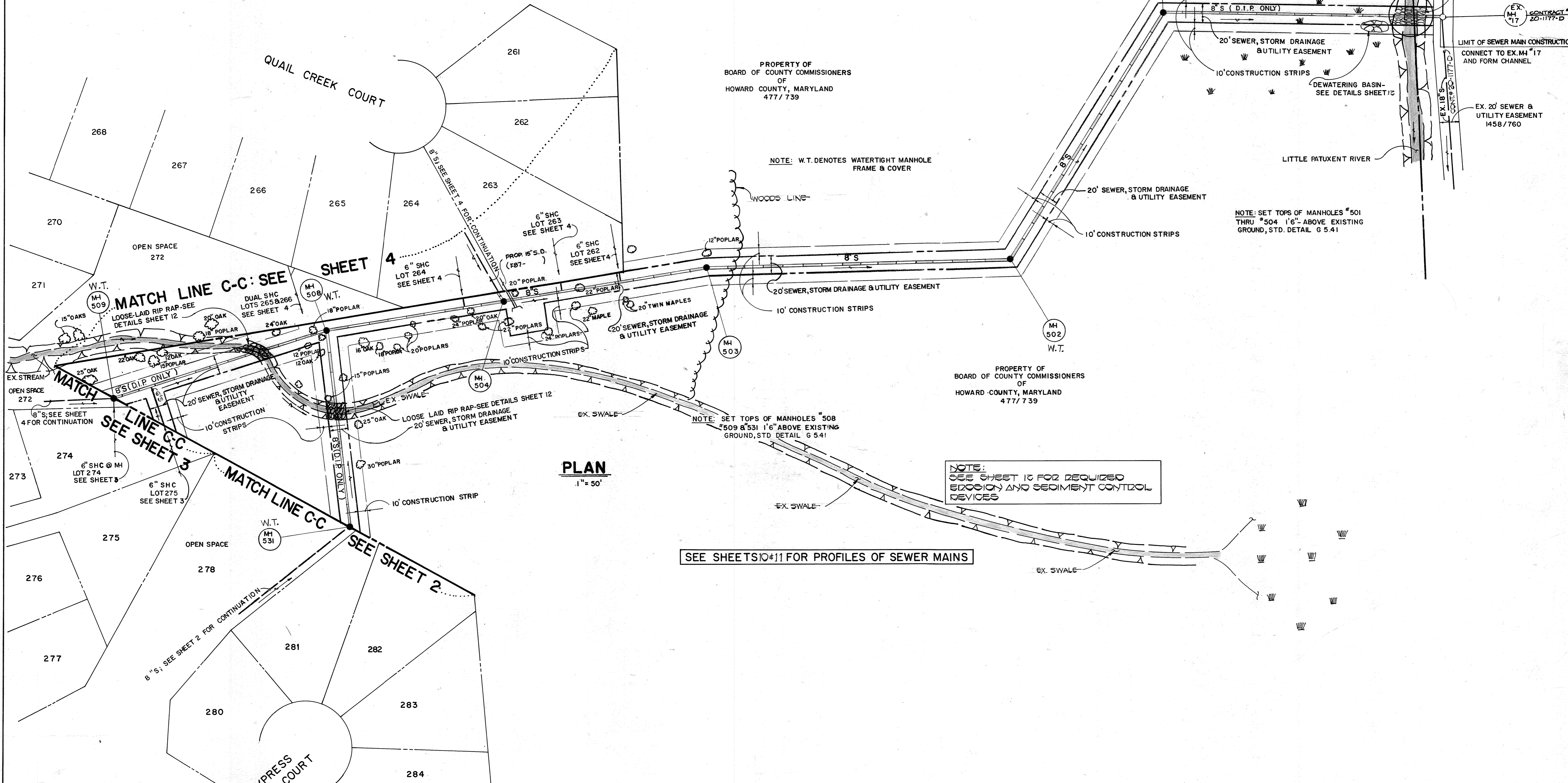
NOTE: SET TOPS OF MANHOLES #501 THRU #504 1'6" ABOVE EXISTING GROUND, STD. DETAIL G 5.41

NOTE: SET TOPS OF MANHOLES #508 #509 & #531 1'6" ABOVE EXISTING GROUND, STD. DETAIL G 5.41

NOTE: SEE SHEET 13 FOR REQUIRED EROSION AND SEDIMENT CONTROL DEVICES

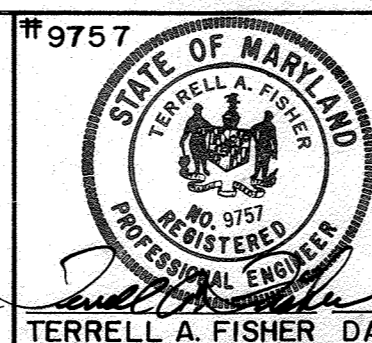
SEE SHEETS 10 & 11 FOR PROFILES OF SEWER MAINS

PLAN
1" = 50'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

FISHER, COLLINS, AND CARTER, INC.



DES: P.W.K.	
DRN: S.B.	
CHK: P.W.K.	
DATE: 8/1/97	
BY: NO.	
REVISION	

PLAN
SEWER MAINS

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 5 OF 12

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

BRUNING 69150

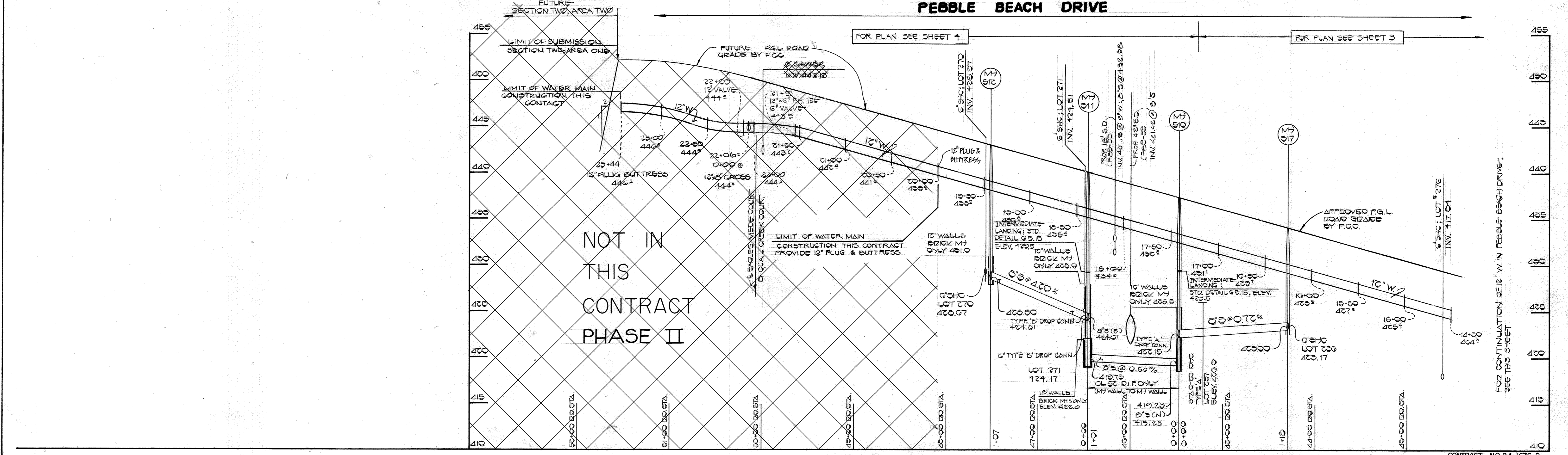
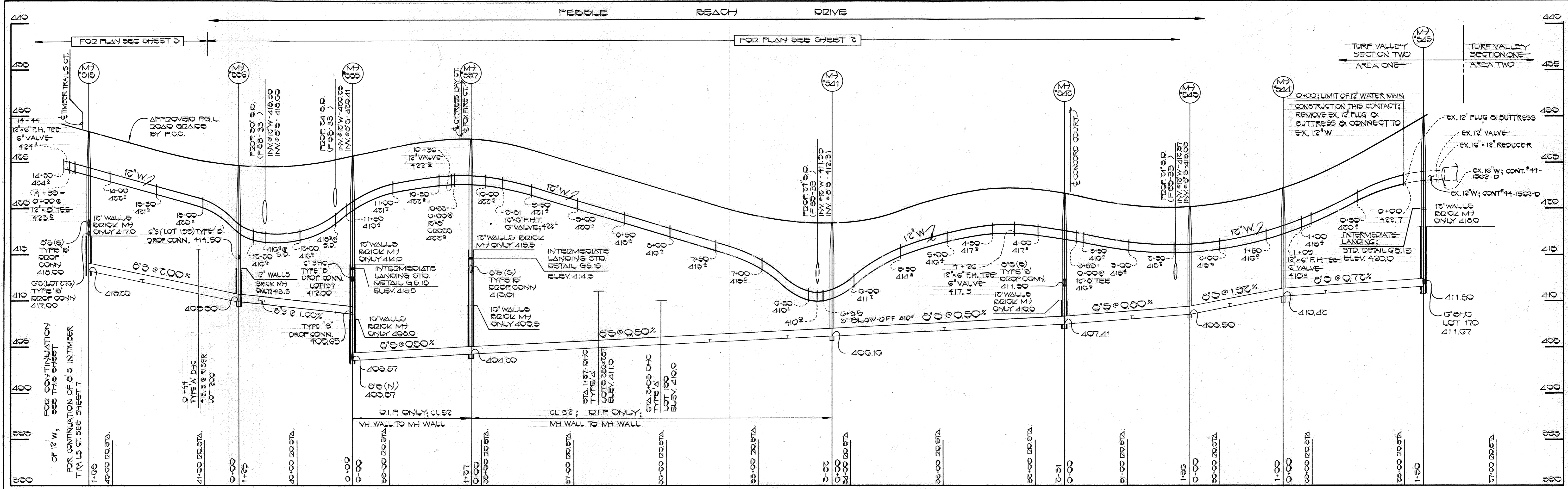
Director of Public Works
11/5/97

Chief, Bureau of Engineering
11/5/97

Chief, Land Development Division
11/5/97

ASBUILT

04-07-89

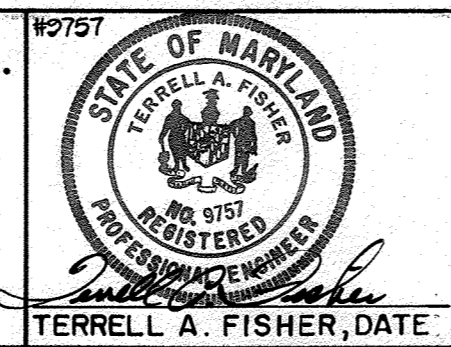


PROFILES
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS: [Signature] DATE: 11-5-87
CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 11-5-87
CHIEF, LAND DEVELOPMENT DIVISION: [Signature] DATE: 11-5-87

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



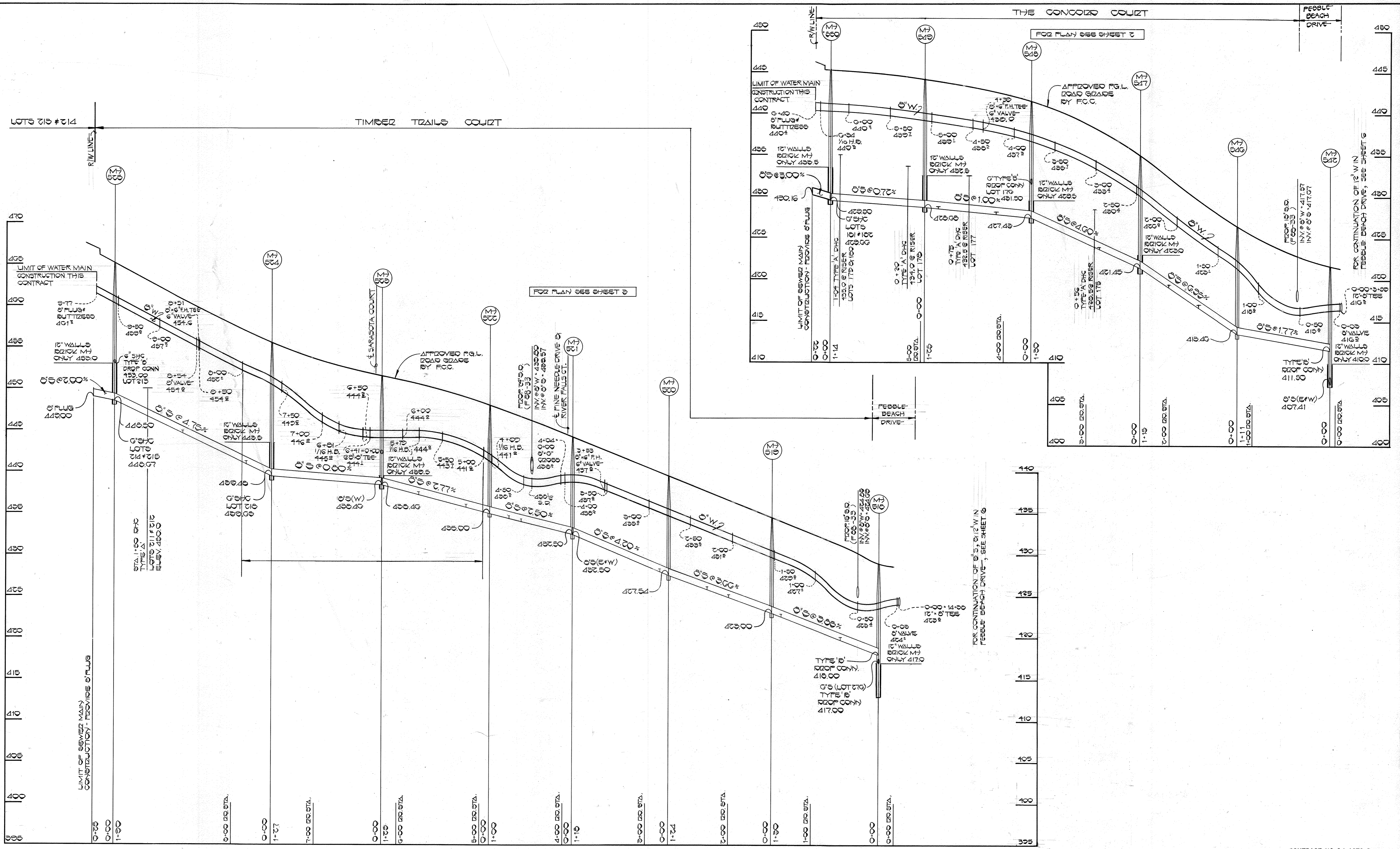
DES: P.W.K./D.S.	
DRN: D.S.	
CHK: P.W.K.	
DATE: 8/1/87	
G.W. Δ SEPARATE PHASE II FROM PHASE I	10-20-88
BY NO.	REVISION

PROFILES	
WATER & SEWER MAINS	
600' SCALE MAP NO. 16-17	BLOCK NO.

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET 6 OF 12B

04-07-89



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

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]*
 Chief, Bureau of Engineering: *[Signature]*
 Chief, Bureau of Utilities: *[Signature]*

DATE: 11-5-87

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

#9757

 TERRELL A. FISHER

DES: PWK/dbs	
DRN: D.B.S.	
CHK: P.W.K.	
DATE: 8/9/87	
BY: NO.	REVISION

PROFILES
WATER & SEWER MAINS

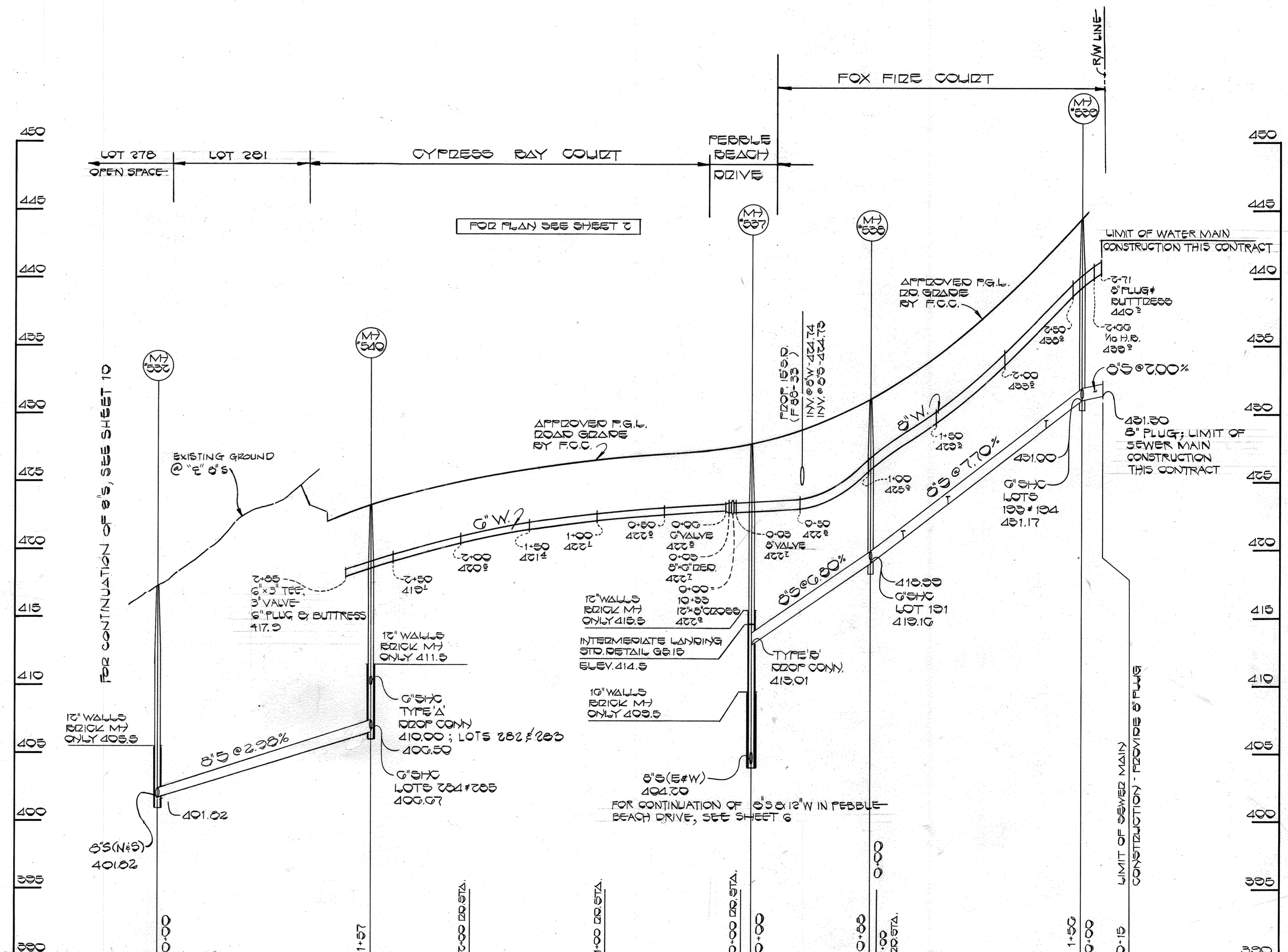
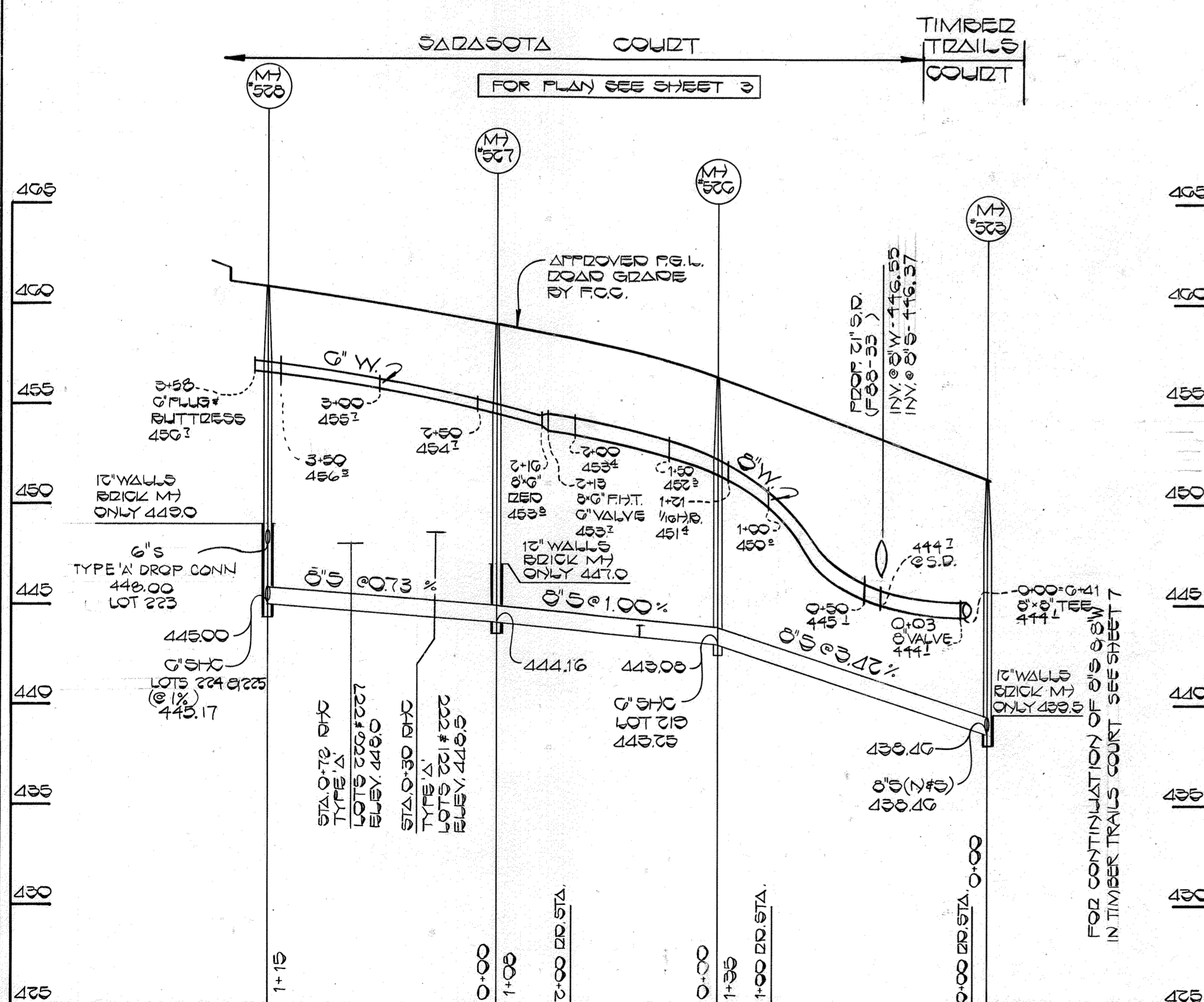
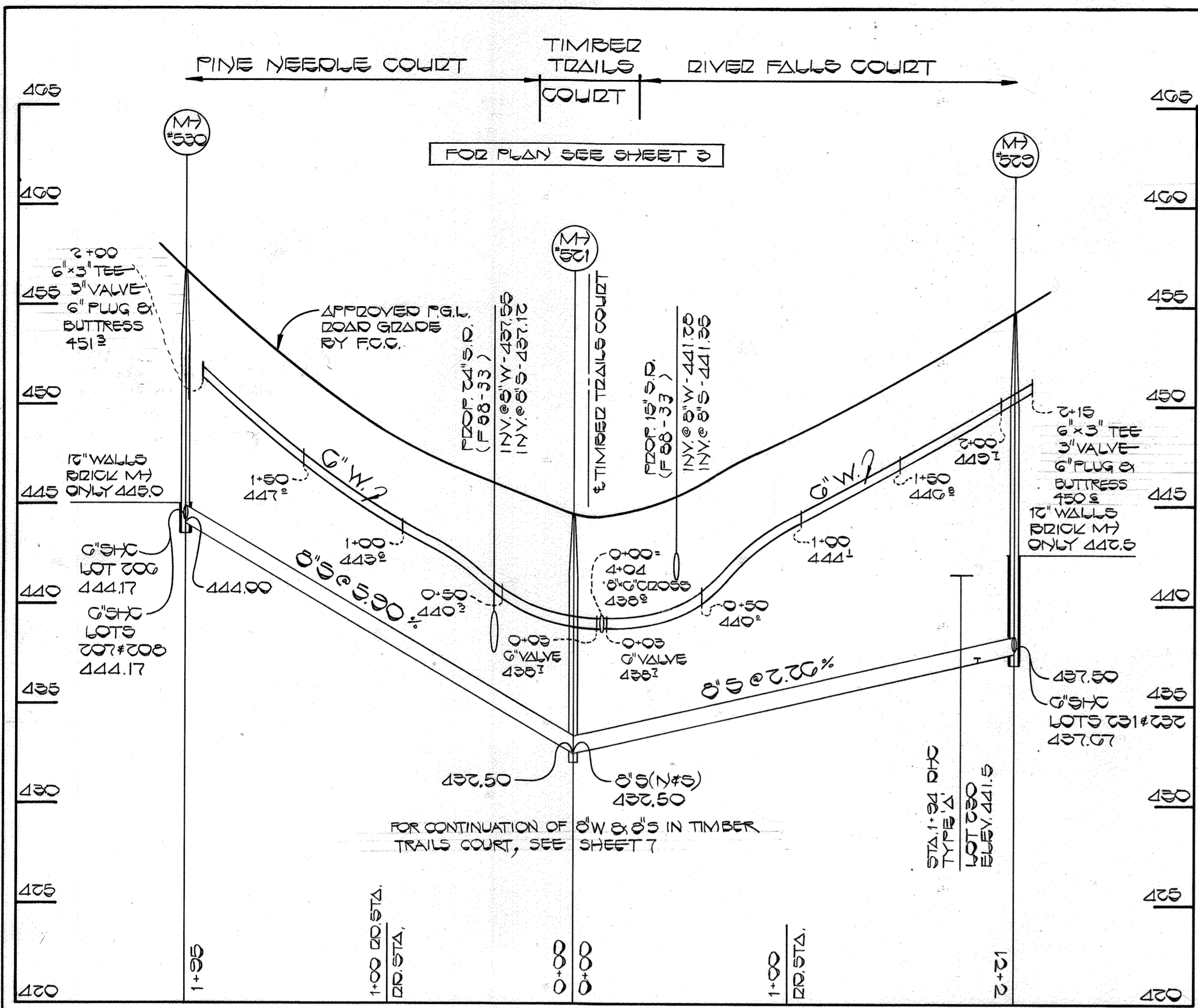
600' SCALE MAP NO. 16.17 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 12

BRUNING 69150

04-07-85

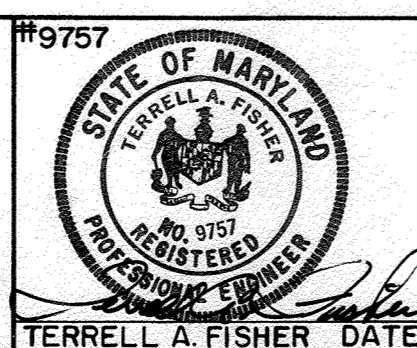


PROFILES
SCALE: HOR. 1"=50'
VERT. 1"=5'

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS
DATE 11-5-87
CHIEF, BUREAU OF UTILITIES

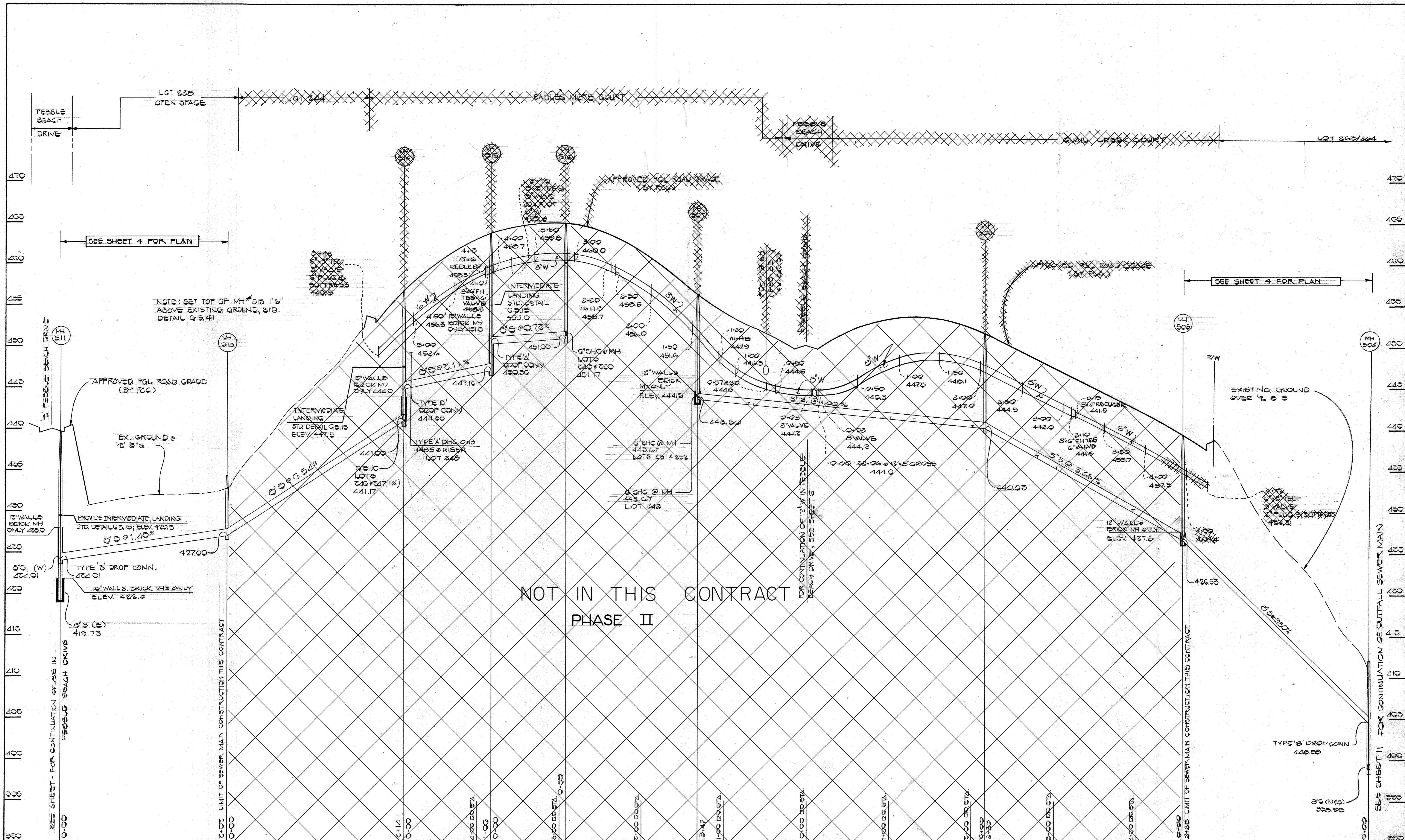
FISHER, COLLINS, AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043



DES. P.W.K. D.B.S.	
DRN. D.B.S.	
CHK. P.W.K.	
DATE: 8/1/87	
G.W. BY	NO.
REVISION	
DATE	

PROFILES
WATER & SEWER MAINS
600' SCALE MAP NO. 16 & 17 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 12 OF 12



NOTE: SET TOP OF MH # 513 1' 6" ABOVE EXISTING GROUND, STD. DETAIL G.5.41

NOT IN THIS CONTRACT
PHASE II

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

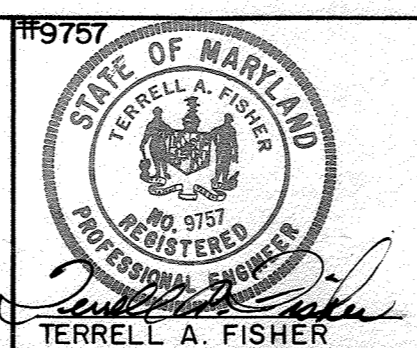
CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] DIRECTOR OF PUBLIC WORKS
[Signature] CHIEF, BUREAU OF ENGINEERING
[Signature] CHIEF, BUREAU OF UTILITIES

DATE: 11-5-87
DATE: 11-5-87

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



DES: PWK/DBS.	
DRN: B.B.	
CHK: P.W.K.	
DATE: 8/4/87	
G.W. BY	NO.
SEPARATE PHASE II FROM PHASE I	
REVISION	
DATE: 10/20/88	

PROFILES
WATER & SEWER MAINS

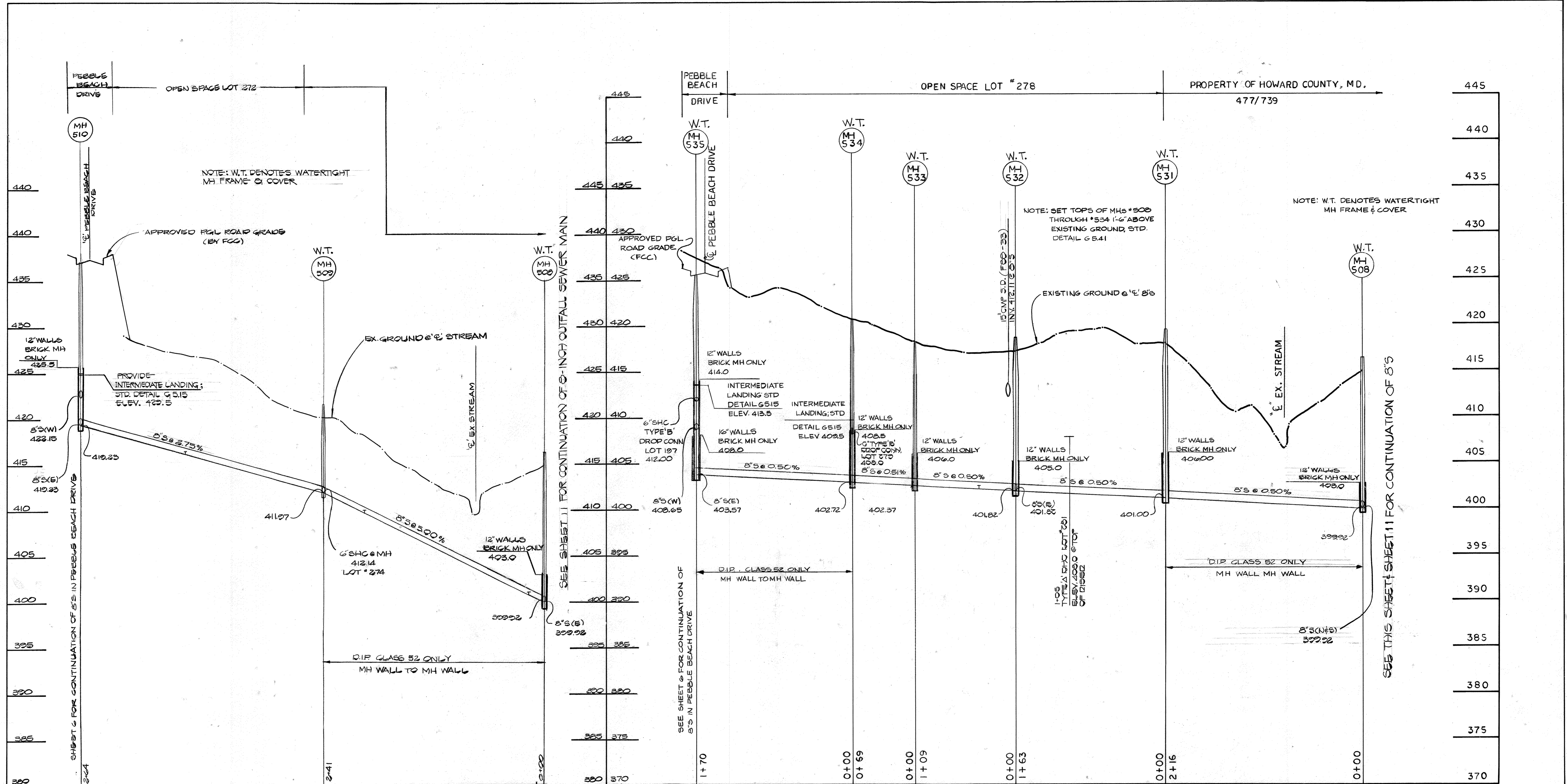
600' SCALE MAP NO. _____ BLOCK NO. _____

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 12B

BRUNING 69150

04-07-85



PROFILES: 8" S: OUTFALL SEWER MAIN

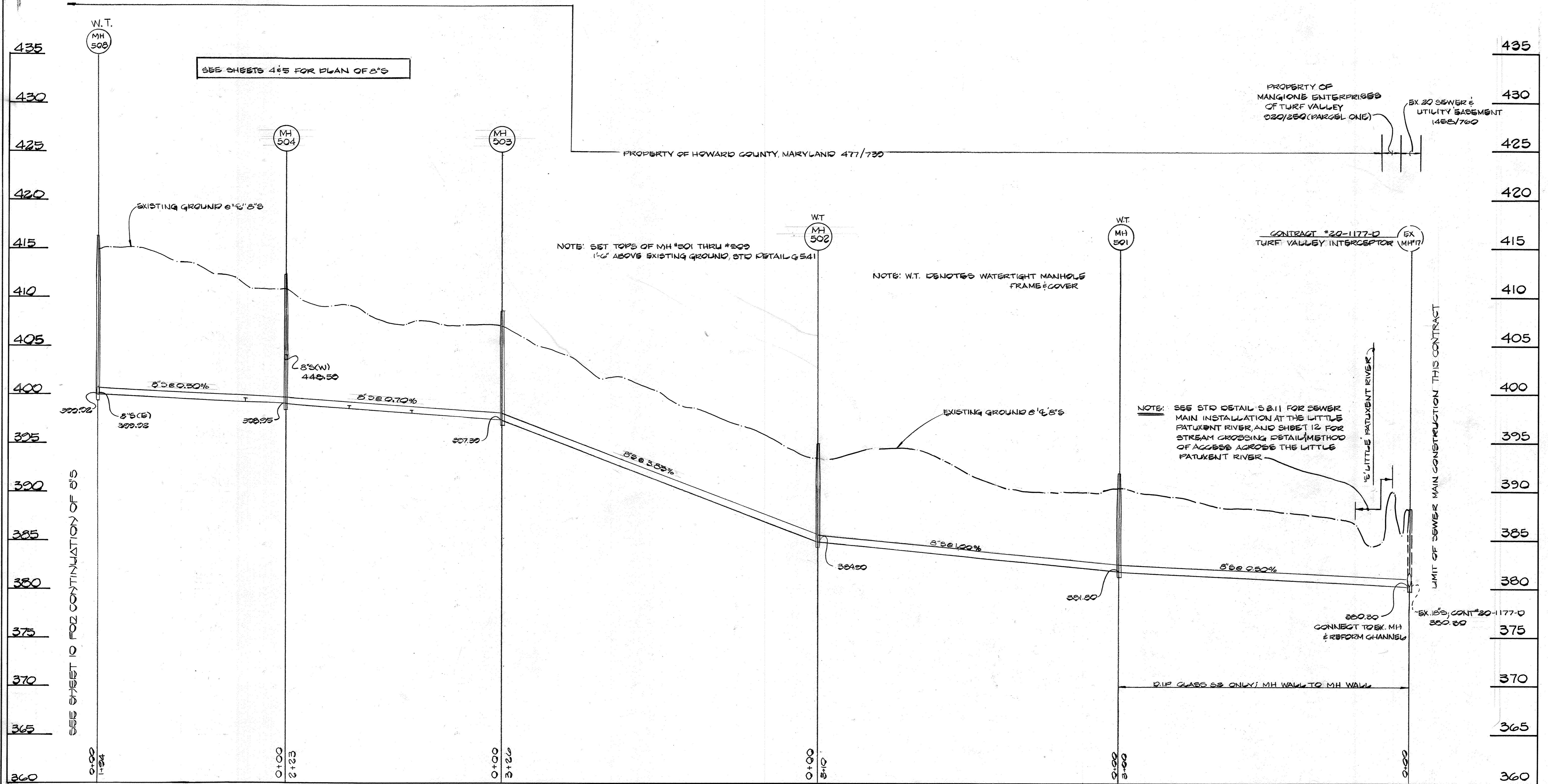
SCALE: 1" = 50' HORIZ
1" = 5' VERT

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 11-5-87 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>[Signature]</i> 11-5-87 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>FISHER, COLLINS AND CARTER, INC. #9757 CONSULTING ENGINEERS AND LAND SURVEYORS</p> <p>8388 COURT AVENUE ELLCOTT CITY, MARYLAND 21043</p> <p><i>[Signature]</i> TERRELL A. FISHER DATE</p>	<p>DES: P.W.K.</p> <p>DRN: B.B.</p> <p>CHK: P.W.K.</p> <p>DATE: 8/1/87</p>	<p>PROFILES SEWER MAINS</p> <p>REVISION: 0-20-88</p> <p>DATE: 600' SCALE MAP NO. 16 & 17 BLOCK NO.</p>	<p>TURF VALLEY OVERLOOK SECTION TWO AREA ONE PHASE ONE CONTRACT NO. 24-1676-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 10 OF 12B</p>
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CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

BRUNING 44-132 69150

04-07-89



PROFILES: 8" S : OUTFALL SEWER MAIN

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

CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *[Signature]* 11/5/87
Chief, Bureau of Engineering: *[Signature]* 11/5/87
Chief, Land Development Division: *[Signature]* 11/5/87

FISHER, COLLINS, AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043
#9757
STATE OF MARYLAND
TERRELL A. FISHER

DES: P.W.K.	
DRN: D.P.	
CHK: P.W.K.	
DATE: 8/87	
BY NO.	
REVISION	
DATE	

PROFILES
SEWER MAINS
600' SCALE MAP NO. 16 & 17 BLOCK NO.

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 11 OF 12

BRUNING 69150

04-07-87

STABILIZATION NOTES

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

- 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
- 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

PERMANENT STABILIZATION AND SEEDING NOTES

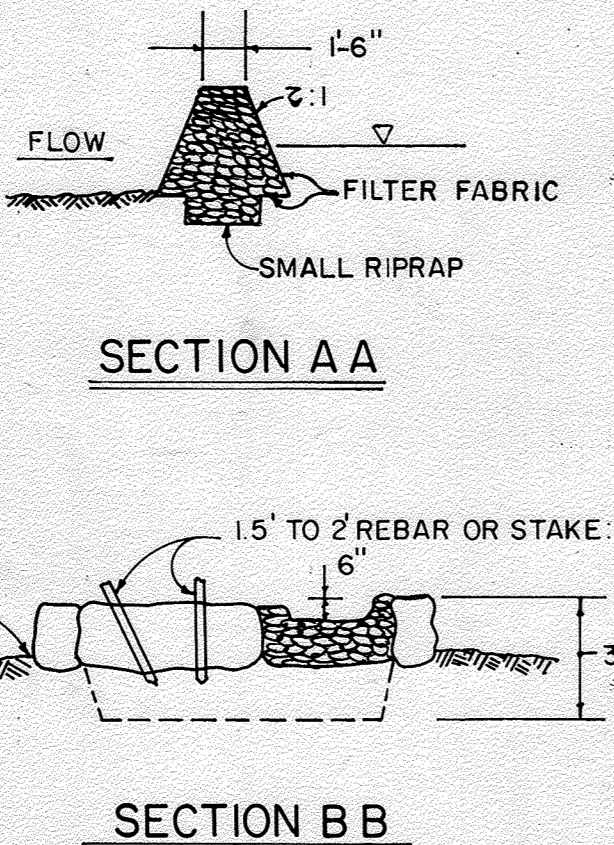
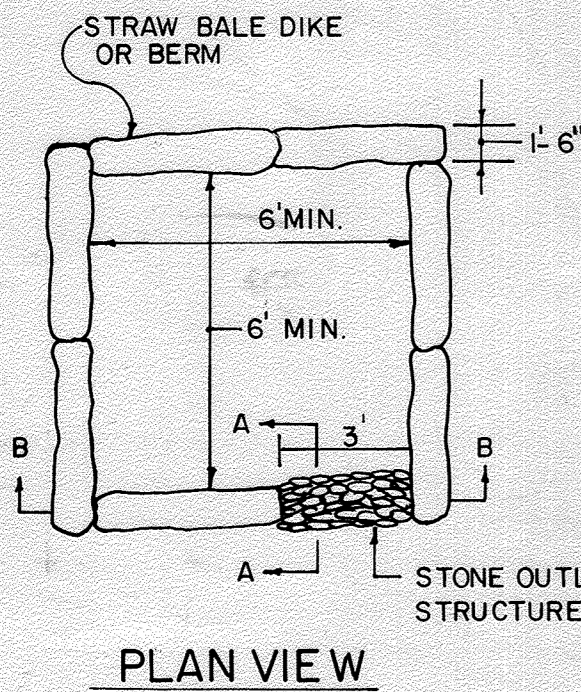
- REFERENCE SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS FOR COMPLETE REQUIREMENTS REGARDING PERMANENT STABILIZATION AND SEEDING OF ALL DISTURBED AREAS.
- REFERENCE PARAGRAPH 219.11 FOR EXCITATION REQUIREMENTS REGARDING PERMANENT SEEDING.
- LIMESTONE: APPLY LIMESTONE AT THE RATE OF 13 TONS PER ACRE ON SANDY AND SILTY SOILS AND 2.3 TONS PER ACRE ON CLAY OR CLAY LOAM SOILS.
- 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.
- PERMANENT SEED SHALL CONFORM TO THE REQUIREMENTS, MIXTURES AND APPLICATION RATES AS SPECIFIED IN SUBPARAGRAPH 219.10.2.
- MULCH SHALL BE CLEAN, WEED-FREE, UNROTTED STRAW APPLIED AT THE RATE OF NOT LESS THAN 13 TONS PER ACRE OR WOOD CHIPS WITH A COVERAGE OF 1 1/2 INCHES IN DEPTH.
- MULCH SHALL BE ANCHORED WITH CUI BACK AND IMBEDDED ASPHALT APPLIED AT A RATE OF 5 GALLONS PER 1000 SQUARE FEET. REFERENCE SUBPARAGRAPH 219.10.6 FOR MULCH ANCHORING ALTERNATIVES.

EROSION AND SEDIMENT CONTROL NOTES:

- 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.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
- ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE SEWER MAIN TRENCH.
- 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.
- THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
- ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
- SEE SEWER MAIN CONSTRUCTION SEQUENCE THIS SHEET.
- SEE STREAM CROSSING DETAIL AND CONSTRUCTION REQUIREMENTS AND SPECIFICATIONS THIS SHEET FOR SEWER MAIN INSTALLATION AND ACCESS ACROSS THE LITTLE PATUXENT RIVER.
- SEE SEDIMENT CONTROL MAP (SCALE 1"=200') ON THIS SHEET FOR SEDIMENT CONTROL DEVICES ALONG THE SEWER MAIN INSTALLATION.

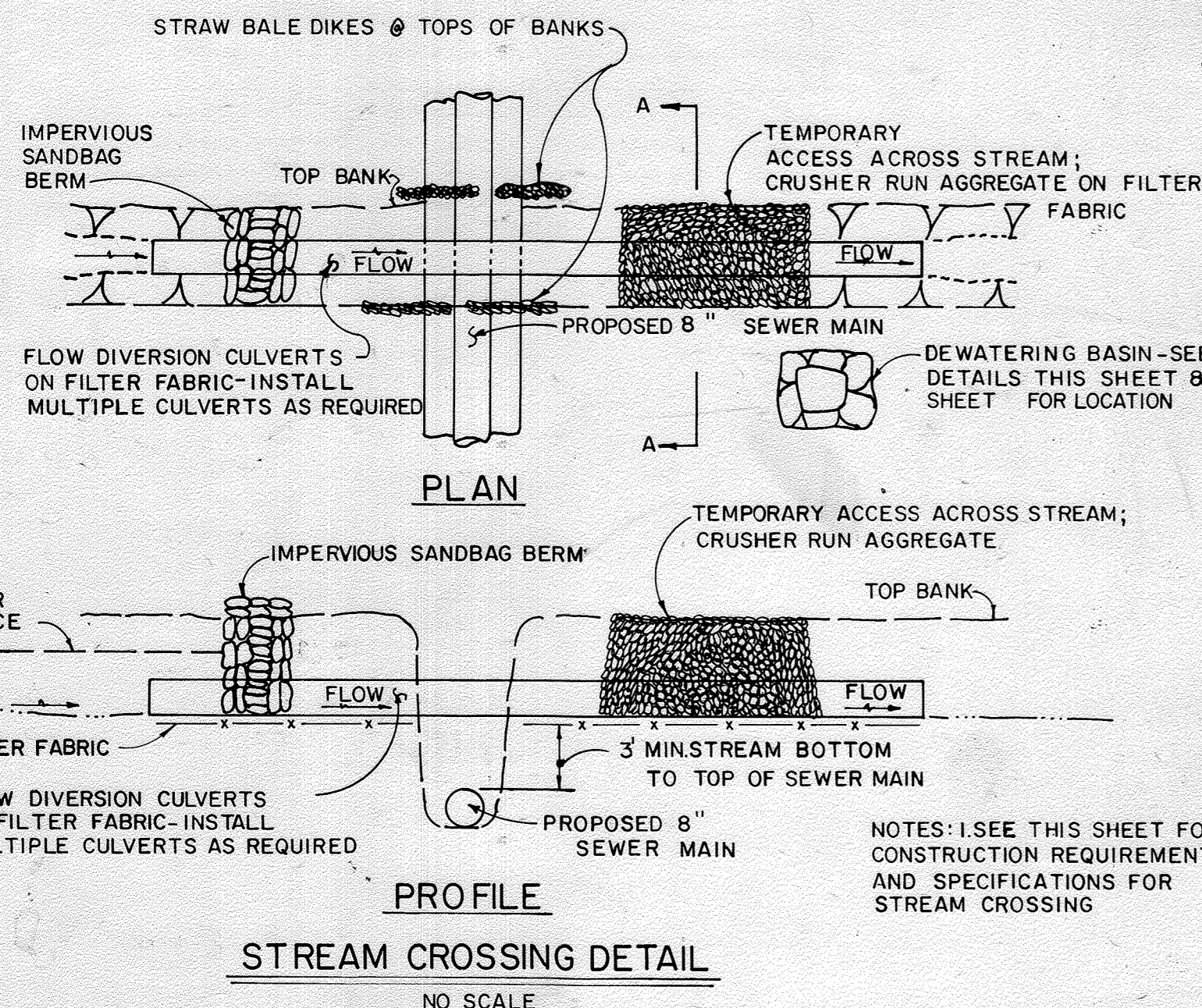
CONSTRUCTION REQUIREMENTS & SPECIFICATIONS FOR STREAM CROSSING

- INSTALLATION OF ALL REQUIRED EROSION & SEDIMENT CONTROL DEVICES SHALL BE THE FIRST ORDER OF BUSINESS.
- THE FLOW DIVERSION CONVERTS MUST BE SIZED TO ACCOMMODATE NORMAL STREAM FLOW.
- THE FLOW BARRIER SHALL BE CONSTRUCTED OF IMPERVIOUS SANDBAGS, WASHED RIP-RAP OR OTHER APPROVED MATERIAL IN ACCORDANCE WITH WPD 2.3. THE MATERIALS SHALL BE SIZED TO WITHSTAND NORMAL STREAM FLOW VELOCITIES.
- ALL DEWATERING OF THE CONSTRUCTION AREAS SHALL BE PUMPED TO A DEWATERING BASIN (WPD 1.1) PRIOR TO RE-ENTERING THE STREAM. SEE DETAILS OF THE DEWATERING BASIN THIS SHEET.
- THE TEMPORARY CULVERT CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL TAG-1 OF THE 1983 MARYLAND STANDARDS & SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN SEEDED, MULCHED & STABILIZED IN ACCORDANCE WITH THE APPROVED SEDIMENT & EROSION CONTROL PLAN AND ALSO UNTIL THE INSPECTING AUTHORITY APPROVES THEIR REMOVAL.



- NOTES:**
- ALL DEWATERING OF THE CONSTRUCTION AREA DURING THE SEWER MAIN INSTALLATION SHALL BE PUMPED TO A DEWATERING BASIN (WPD 1.1 - AS SHOWN ABOVE) PRIOR TO RE-ENTERING THE STREAM.
 - SEE PLAN SHEET NO. 5 FOR LOCATION OF DEWATERING BASIN.

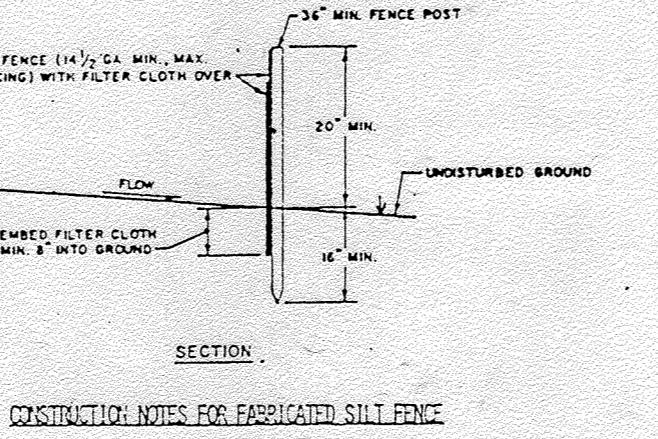
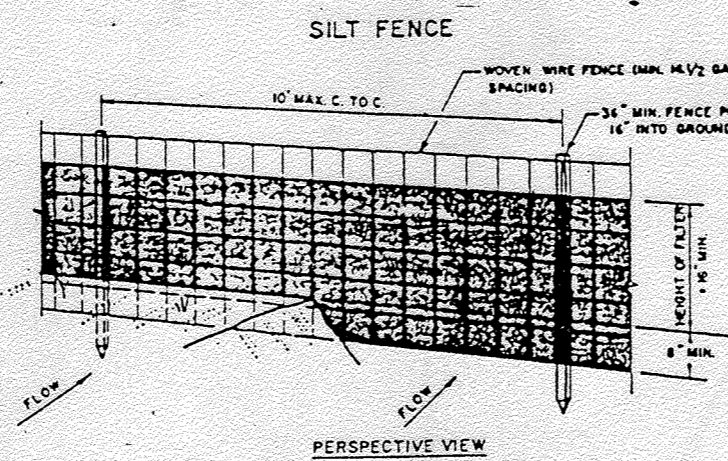
DETAILS: DEWATERING BASIN



- NOTES:** 1. SEE THIS SHEET FOR CONSTRUCTION REQUIREMENTS AND SPECIFICATIONS FOR STREAM CROSSING

SEWER MAIN CONSTRUCTION SEQUENCE

- Implement conditions & requirements of the temporary waterway construction permit - see contract specifications.
- Install required sediment & erosion control devices - see plan this sheet.
- Clear and grub as necessary - within the limits of the sewer main right of way only.
- Excavate trench; place excavated material on the upgrade side of the sewer main trench.
- Install sewer main, backfill & compact trench in accordance with the contract specifications.
- For installation of the sewer main at the Little Patuxent River, see the stream crossing detail this sheet.
- Stabilize, seed and mulch all disturbed areas in accordance with the permanent stabilization and seeding notes shown on this sheet.
- Place rip rap at the Little Patuxent River and at the swale crossings as shown in plan & in accordance with the detail this sheet.
- Following successful stabilization of all disturbed areas and upon approval of the Soil Conservation District inspector, remove the erosion & sediment control devices.

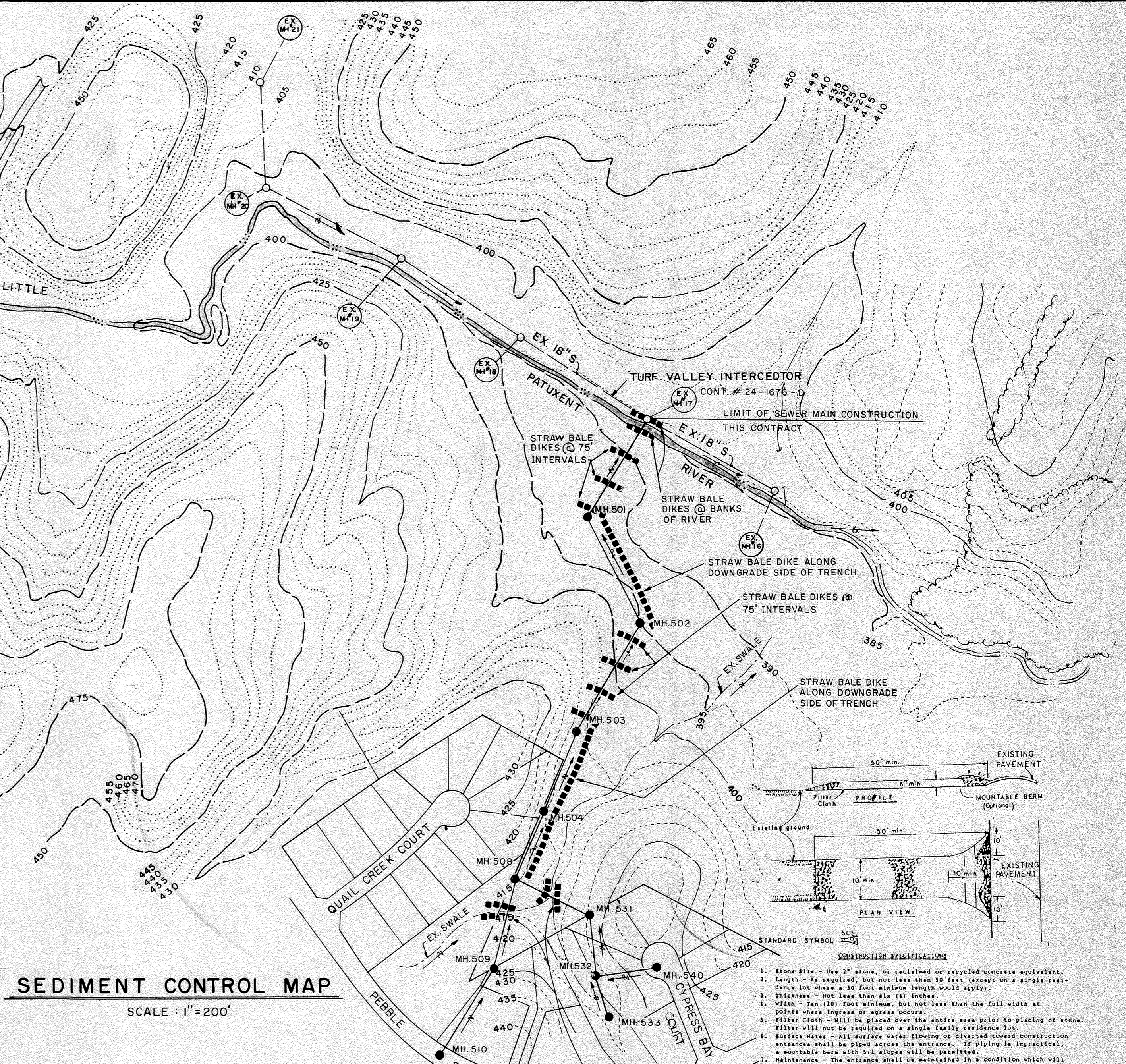


- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE:**
- NOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO NOVEN WIRE FENCE WITH TIE SPACED EVERY 24" AT TOP AND MID SECTION.
 - WHEN THE SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BALES" DEVELOP IN THE SILT FENCE.
- POSTS:** STEEL EITHER T OR U TYPE OR C WOODKOD
- FENCE:** NOVEN WIRE, 1/2 GAL. & FAX, FISH OPENING
- FILTER CLOTH:** FILTER X, NURF 100, STABIL-100, 1244 or APPROVED EQUAL
- PREPARED UNIT:** GEOPAD, DIVYFENCE, OR APPROVED EQUAL

- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ADJUTING 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 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.
- INSPECTION SHALL BE PRESENT 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 IMPED STORM FLOW OR DRAINAGE.

SEDIMENT CONTROL MAP

SCALE: 1"=200'



- NOTES:**
- AT THE CONTRACTOR'S OPTION; SILT FENCE MAY BE USED IN LIEU OF STRAW BALE DIKE; SEE DETAILS & CONSTRUCTION SPECIFICATIONS THIS SHEET
 - SEDIMENT CONTROL FOR UTILITY CONSTRUCTION WITHIN THE LIMITS OF THE SUBDIVISION SHALL BE AS SHOWN ON THE STREET TREE, GRADING & SEDIMENT CONTROL PLAN: SHEETS 16, 17 & 18 OF THE ROADS & STORM DRAIN CONSTRUCTION PLANS, F88-33

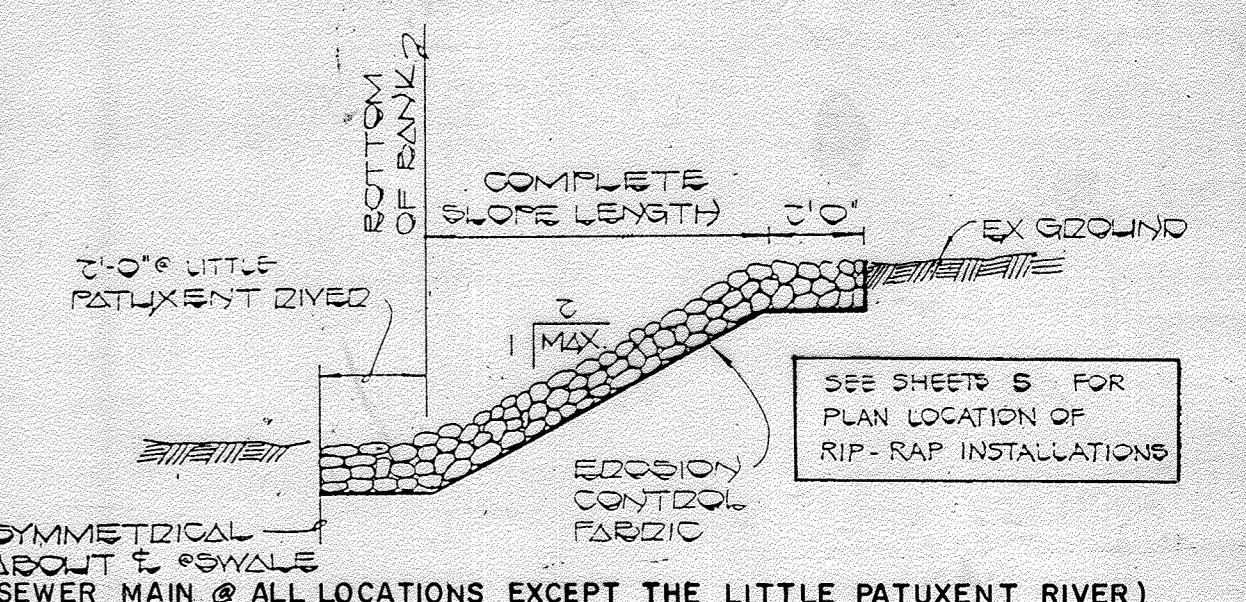
RIP-RAP NOTES

- RIP-RAP SHALL BE PLACED OVER ALL DISTURBED AREAS WITHIN THE FULL WIDTH OF THE RIGHT OF WAY AT THOSE LOCATIONS INDICATED ON THE DRAWINGS
- RIP-RAP FOR PLACEMENT ALONG THE STREAM BANK AT THE SEWER MAIN CROSSING SHALL CONFORM TO THE SPECIFICATIONS FOR CLASS II STONE AND THE THICKNESS OF THE RIP-RAP LAYER SHALL BE 2'0"
- EROSION CONTROL FABRIC SHALL BE POLY FILTED X 25 MANUFACTURED BY CARTRIDGE MILLS, INC. OR FEMALINER M-1188 AS MANUFACTURED BY STAFF INDUSTRIES, INC. OR EQUAL

LOOSE LAID RIP-RAP DETAIL

NO SCALE

STABILIZED CONSTRUCTION ENTRANCE



CONTRACT NO. 24-1676-D
TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE I
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. New
DIRECTOR OF PUBLIC WORKS
DATE: 11/5/87

Robert M. Bennett
CHIEF, BUREAU OF UTILITIES
DATE: 11-5-87

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

9757

Terrell A. Fisher
REGISTERED PROFESSIONAL ENGINEER

DES: P.W.K., D.B.S.	
DRN: S.B.	
CHK: P.W.K.	
DATE: 8/4/87	
BY: NO.	
REVISION	
DATE: 8/20/88	

SEDIMENT CONTROL PLAN & DETAILS

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

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE PHASE ONE
CONTRACT NO. 24-1676-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 12 OF 12B

WATER AS-BUILT

LOTS	LOCATION	DISTANCE	LOT	LOCATION	DISTANCE	LOT	LOCATION	DISTANCE
170	EXISTING 16" VALVE & VAULT PEBBLE BEACH DR. CONT #44-1562-D	55'	221	MANHOLE # 527	34'	288	STORM DRAIN MANHOLE STA: 7752 PEBBLE BEACH DR	52'
"	MANHOLE # 545	17'	"	FIRE HYDRANT STA: 2711 SARASOTA COURT	34.1'	"	MANHOLE # 541	154.5'
171	"	40.5'	222	"	118'	"	"	"
"	FIRE HYDRANT STA: 2910 PEBBLE BEACH DR.	50'	"	MANHOLE # 527	38.5'	"	"	"
172	"	39.6'	223	"	50'	"	"	"
"	MANHOLE # 544	39'	"	MANHOLE # 527	122.5'	"	* NOTES AS-BUILTS OF FIREHYDRANTS AND VALVES ON PLAN VIEW *	"
173	MANHOLE # 543	51'	224	"	142.5'	"	"	"
"	MANHOLE # 542	89'	"	MANHOLE # 528	32'	"	"	"
174	MANHOLE # 547	50'	225	"	28'	"	"	"
"	MANHOLE # 548	103.5'	"	MANHOLE # 527	133.8'	"	"	"
175	"	92.5'	226	"	127.5'	"	"	"
"	MANHOLE # 547	55.5'	"	MANHOLE # 528	50'	"	"	"
176	MANHOLE # 548	36'	227	MANHOLE # 527	22'	"	"	"
"	MANHOLE # 549	117.5'	"	FIRE HYDRANT STA: 2711 SARASOTA COURT	44.1'	"	"	"
177	"	46.5'	228	MANHOLE # 523	83.5'	"	"	"
"	MANHOLE # 548	99'	"	MANHOLE # 522	68.6'	"	"	"
178	MANHOLE # 549	76.5'	229	FIRE HYDRANT STA: 3750 TIMBER TRAILS COURT	99.5'	"	"	"
"	MANHOLE # 550	59.3'	"	MANHOLE # 529	126.5'	"	"	"
179	"	49'	230	"	59'	"	"	"
"	MANHOLE # 549	101'	"	3" Blow-off L.P. STA: 0793 RIVER FALLS COURT	28'	"	"	"
180	"	123.5'	231	"	21'	"	"	"
"	MANHOLE # 550	34'	"	MANHOLE # 529	38.5'	"	"	"
181	"	25'	232	"	29.5'	"	"	"
"	MANHOLE # 549	139.5'	"	3" Blow-off L.P. STA: 0793 RIVER FALLS COURT	63.6'	"	"	"
182	"	104.5'	233	"	69'	"	"	"
"	MANHOLE # 550	62'	"	MANHOLE # 529	52'	"	"	"
183	"	66'	234	MANHOLE # 520	33.5'	"	"	"
"	MANHOLE # 549	99'	"	MANHOLE # 519	117.5'	"	"	"
184	"	100'	235	MANHOLE # 517	88'	"	"	"
"	MANHOLE # 548	345'	"	FIRE HYDRANT STA: 42+46 PEBBLE BEACH DRIVE	102.5'	"	"	"
185	"	26.5'	236	"	120.5'	"	"	"
"	MANHOLE # 549	109'	"	MANHOLE # 517	80'	"	"	"
186	MANHOLE # 547	29.5'	237	"	51.5'	"	"	"
"	MANHOLE # 546	95'	238	OPEN SPACE LOT	"	"	"	"
187	MANHOLE # 541	70'	239	MANHOLE # 511	77'	"	"	"
"	FIRE HYDRANT STA: 32+22 PEBBLE BEACH DRIVE	135'	"	MANHOLE # 512	40.8'	"	"	"
188	"	141.5'	240	"	33.5'	"	"	"
"	MANHOLE # 541	62'	"	MANHOLE # 511	85'	"	"	"
189	"	90.5'	241	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
"	STORM DRAIN MANHOLE STA: 7752 PEBBLE BEACH DR.	38.5'	242	"	"	"	"	"
190	"	40'	243	"	"	"	"	"
"	FIRE HYDRANT STA: 37+29 PEBBLE BEACH DRIVE	198.5'	244	"	"	"	"	"
191	"	69'	245	"	"	"	"	"
"	MANHOLE # 537	82'	246	"	"	"	"	"
192	MANHOLE # 538	153'	247	"	"	"	"	"
"	MANHOLE # 539	35'	248	"	"	"	"	"
193	"	50.5'	249	"	"	"	"	"
"	MANHOLE # 538	139'	250	"	"	"	"	"
194	"	176.5'	251	"	"	"	"	"
"	MANHOLE # 539	17'	252	"	"	"	"	"
195	"	51'	253	"	"	"	"	"
"	MANHOLE # 538	130.5'	254	OPEN SPACE LOT	"	"	"	"
196	"	132'	255	"	"	"	"	"
"	MANHOLE # 539	59'	256	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
197	MANHOLE # 537	106'	257	"	"	"	"	"
"	MANHOLE # 535	30'	258	"	"	"	"	"
198	OPEN SPACE LOT	-	259	"	"	"	"	"
199	MANHOLE # 535	119'	260	"	"	"	"	"
"	MANHOLE # 536	20'	261	"	"	"	"	"
200	MANHOLE # 518	70.5'	262	"	"	"	"	"
"	MANHOLE # 519	98.2'	263	"	"	"	"	"
201	"	21'	264	"	"	"	"	"
"	MANHOLE # 520	101.5'	265	"	"	"	"	"
202	"	88.5'	266	"	"	"	"	"
"	MANHOLE # 519	47'	267	"	"	"	"	"
203	"	77'	268	"	"	"	"	"
"	MANHOLE # 520	58'	269	"	"	"	"	"
204	"	52'	270	MANHOLE # 512	22'	"	"	"
"	MANHOLE # 519	83'	"	MANHOLE # 511	114'	"	"	"
205	MANHOLE # 520	48'	271	"	105.2'	"	"	"
"	MANHOLE # 521	78'	"	MANHOLE # 512	23.5'	"	"	"
206	MANHOLE # 530	37'	272	OPEN SPACE LOT	"	"	"	"
"	3" Blow-off L.P. STA: 1785 PINE NEEDLE DRIVE	70'	273	MANHOLE # 517	49.8'	"	"	"
207	"	65'	"	FIRE HYDRANT STA: 42+44 PEBBLE BEACH DRIVE	144'	"	"	"
"	MANHOLE # 530	29'	274	"	134'	"	"	"
208	"	59'	"	MANHOLE # 517	55.5'	"	"	"
"	3" Blow-off L.P. STA: 1785 PINE NEEDLE DRIVE	9'	275	"	86.3'	"	"	"
209	MANHOLE # 522	64.8'	"	FIRE HYDRANT STA: 42+46 PEBBLE BEACH DRIVE	100.5'	"	"	"
"	MANHOLE # 523	64.5'	276	"	62'	"	"	"
210	"	55.1'	"	MANHOLE # 517	74.4'	"	"	"
"	MANHOLE # 522	73.5'	277	MANHOLE # 518	43'	"	"	"
211	MANHOLE # 524	58.5'	"	FIRE HYDRANT STA: 42+46 PEBBLE BEACH DRIVE	49.8'	"	"	"
"	MANHOLE # 525	99'	278	OPEN SPACE LOT	"	"	"	"
212	"	38'	279	MANHOLE # 540	135'	"	"	"
"	FIRE HYDRANT STA: 8137 TIMBER TRAILS COURT	122.5'	"	3" Blow-off L.P. STA: 1760 CYPRESS BAY COURT	116'	"	"	"
213	"	124.8'	280	"	110'	"	"	"
"	MANHOLE # 525	33'	"	MANHOLE # 540	132'	"	"	"
214	"	34'	281	"	53.2'	"	"	"
"	FIRE HYDRANT STA: 8139 TIMBER TRAILS COURT	129'	"	3" Blow-off L.P. STA: 1760 CYPRESS BAY COURT	47.5'	"	"	"
215	"	93.5'	282	"	41'	"	"	"
"	MANHOLE # 525	59'	"	MANHOLE # 540	30'	"	"	"
216	"	64'	283	"	45'	"	"	"
"	FIRE HYDRANT STA: 8137 TIMBER TRAILS COURT	87'	"	3" Blow-off L.P. STA: 1760 CYPRESS BAY COURT	121'	"	"	"
217	"	36'	284	"	20'	"	"	"
"	MANHOLE # 524	61.5'	284	MANHOLE # 540	48'	"	"	"
218	"	50.5'	285	"	67'	"	"	"
"	MANHOLE # 523	104'	"	3" Blow-off L.P. STA: 1760 CYPRESS BAY COURT	70'	"	"	"
219	MANHOLE # 526	28.5'	286	MANHOLE # 537	90.5'	"	"	"
"	FIRE HYDRANT STA: 2711 SARASOTA COURT	69.9'	"	FIRE HYDRANT STA: 3777 PEBBLE BEACH DRIVE	52.5'	"	"	"
220	"	62.5'	287	MANHOLE # 541	161.5'	"	"	"
"	MANHOLE # 526	39'	"	STORM DRAIN MANHOLE STA: 7752 PEBBLE BEACH DR.	56'	"	"	"

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF, BUREAU OF ENGINEERING _____ DATE _____

DES:			
DRN:			
CHK:			
DATE:			
BY	NO.	REVISION	DATE

KATHY WILSON 04-07-89

TURF VALLEY OVER-LOOK
WATER AS-BUILT

CONT. NO. 24-1676 - D

SCALE AS SHOWN

SHEET 12 of 12b

SEWER AS-BUILT

Lot	LOCATION	DISTANCE	Lot	LOCATION	DISTANCE	Lot	LOCATION	DISTANCE
170	EXISTING MANHOLE #109	78.5'	220	Manhole # 526	42.8'	273	Manhole # 509	152.1'
"	Manhole # 545	40.5'	"	Manhole # 527	78'	"	Manhole # 510	118.5'
"	FIRE HYDRANT STA: 29110 PELLIE BEACH DRIVE	156.5'	221	"	46'	"	"	263.5'
171	"	23'	"	Manhole # 528	91'	"	Manhole # 509	11'
"	Manhole # 545	145.5'	222	"	80'	"	Manhole # 508	244.6'
"	Manhole # 544	48.5'	"	Manhole # 527	42.8'	"	"	"
172	"	59'	223	"	129.8'	"	"	"
"	Manhole # 543	47'	"	Manhole # 528	49.5'	276	Manhole # 517	149.9'
173	"	65'	224	"	26.1'	"	FIRE HYDRANT STA: 42+46 1/2 PELLIE BEACH DRIVE	39'
"	Manhole # 542	77'	"	Manhole # 527	143'	277	"	78.5'
174	Manhole # 544	93'	225	"	144'	"	Manhole # 518	73.5'
"	Manhole # 547	47'	"	Manhole # 528	25'	278	OPEN SPACE 10T	"
175	"	47.8'	226	"	55'	279	Manhole # 534	12'
"	Manhole # 548	82'	"	Manhole # 527	90.8'	"	Manhole # 533	22'
176	"	30'	227	"	82.6'	280	"	22.5'
177	"	85'	"	Manhole # 528	62.5'	"	Manhole # 532	41.5'
"	Manhole # 549	60.5'	228	Manhole # 523	106.7'	281	Manhole # 531	110'
178	"	42.3'	"	Manhole # 522	145.4'	"	Manhole # 532	58'
"	Manhole # 550	103'	229	"	53.1'	282	Manhole # 540	25.5'
179	"	42'	"	Manhole # 521	70'	"	3" Blow-off L.P. STA: 1160 CYPRESS BAY COURT	23'
"	Manhole # 549	112'	230	Manhole # 529	64.5'	283	"	19'
180	"	116.5'	"	Manhole # 529	37'	284	Manhole # 540	27'
"	Manhole # 550	39.5'	231	3" Blow-off L.P. STA: 0193 RIVER FALLS COURT	31'	"	"	50'
181	"	34'	"	Manhole # 529	34'	"	3" Blow-off L.P. STA: 1160 CYPRESS BAY COURT	39.8'
"	Manhole # 549	139.5'	232	"	32.5'	285	"	44.6'
182	"	134'	233	"	42'	"	Manhole # 540	52.5'
"	Manhole # 550	37'	"	3" Blow-off L.P. STA: 0193 RIVER FALLS COURT	99.5'	286	Manhole # 537	142.5'
183	Manhole # 549	25'	234	Manhole # 520	55'	"	STORM DRAIN MANHOLE STA: 7152 PELLIE BEACH DR	138.5'
"	Manhole # 548	112'	"	Manhole # 519	82'	287	"	134'
184	"	50'	235	"	89.1'	288	Manhole # 537	147'
"	Manhole # 549	88'	"	Manhole # 518	56.5'	"	Manhole # 541	138.5'
185	Manhole # 548	82'	236	"	206.5'	"	STORM DRAIN MANHOLE STA: 7152 PELLIE BEACH DR	46.5'
"	Manhole # 547	47.8'	"	Manhole # 517	32.6'	"	"	"
186	"	59.5'	237	"	94.5'	"	"	"
"	Manhole # 546	47.5'	238	OPEN SPACE 10T	"	"	"	"
187	Manhole # 542	131.5'	239	Manhole # 511	24.5'	"	"	"
"	Manhole # 541	124.5'	"	Manhole # 512	92'	"	"	"
188	"	68'	240	"	20'	"	"	"
"	STORM DRAIN MANHOLE # 37A: 7152 PELLIE BEACH DRIVE	82.5'	"	Manhole # 511	99'	"	"	"
189	"	78'	241	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
"	Manhole # 541	73.5'	"	"	"	"	"	"
190	STORM DRAIN MANHOLE STA: 7152 PELLIE BEACH DRIVE	60'	242	"	"	"	"	"
"	Manhole # 537	131'	"	"	"	"	"	"
191	"	92'	243	"	"	"	"	"
"	Manhole # 538	17'	"	"	"	"	"	"
"	Manhole # 539	154.5'	244	Manhole # 514	149.5'	"	"	"
192	"	100.5'	"	Manhole # 515	62.5'	"	"	"
"	Manhole # 538	63'	245	"	58'	"	"	"
193	"	178.5'	"	Manhole # 514	163'	"	"	"
"	Manhole # 539	32.5'	246	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
194	"	26.8'	"	"	"	"	"	"
"	Manhole # 538	176'	247	"	"	"	"	"
195	"	139.8'	"	"	"	"	"	"
"	Manhole # 539	49'	248	"	"	"	"	"
196	"	137.5'	"	"	"	"	"	"
"	Manhole # 538	44.5'	249	"	"	"	"	"
197	Manhole # 537	125'	"	"	"	"	"	"
"	Manhole # 536	134'	250	"	"	"	"	"
198	OPEN SPACE 10T	"	"	"	"	"	"	"
199	Manhole # 535	128.5'	251	"	"	"	"	"
"	Manhole # 536	17'	"	"	"	"	"	"
200	Manhole # 518	127'	252	"	"	"	"	"
"	FIRE HYDRANT STA: 42+46 1/2 PELLIE BEACH DRIVE	136.8'	"	"	"	"	"	"
201	Manhole # 518	132.5'	253	"	"	"	"	"
"	Manhole # 519	23'	"	"	"	"	"	"
202	"	56.1'	254	OPEN SPACE 10T	"	"	"	"
"	Manhole # 520	77'	255	OPEN SPACE 10T	"	"	"	"
203	"	72'	256	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
"	Manhole # 519	62.3'	"	"	"	"	"	"
204	Manhole # 520	2.8'	257	"	"	"	"	"
"	Manhole # 521	110'	"	"	"	"	"	"
205	"	107.5'	258	"	"	"	"	"
"	Manhole # 520	26'	"	"	"	"	"	"
206	Manhole # 520	33.3'	259	"	"	"	"	"
207	"	34.8'	"	"	"	"	"	"
"	3" Blow-off L.P. STA: 1185 BLUE NEEDLE DRIVE	47'	260	"	"	"	"	"
208	"	40'	"	"	"	"	"	"
"	Manhole # 530	37.5'	261	"	"	"	"	"
209	Manhole # 521	80.2'	"	"	"	"	"	"
"	Manhole # 522	26'	262	Manhole # 503	95.2'	"	"	"
210	"	87.5'	"	Manhole # 504	129.5'	"	"	"
"	Manhole # 523	133.8'	263	"	66.2'	"	"	"
211	Manhole # 524	153'	"	Manhole # 504	159'	"	"	"
"	Manhole # 525	58'	264	* SEE CONTRACT # 24-1860-D FOR AS-BUILTS	"	"	"	"
212	"	56'	"	"	"	"	"	"
"	Manhole # 524	161'	265	"	"	"	"	"
213	"	210'	"	"	"	"	"	"
"	Manhole # 525	27.2'	266	"	"	"	"	"
214	"	37'	"	"	"	"	"	"
"	Manhole # 524	210.3'	267	"	"	"	"	"
215	"	209'	"	"	"	"	"	"
"	Manhole # 525	42'	268	"	"	"	"	"
216	"	90'	"	"	"	"	"	"
"	Manhole # 524	118'	269	"	"	"	"	"
217	"	47.8'	"	"	"	"	"	"
"	Manhole # 525	164'	270	Manhole # 512	35.5'	"	"	"
218	Manhole # 524	33'	"	Manhole # 511	124.5'	"	"	"
"	Manhole # 523	132'	271	"	37.5'	"	"	"
219	"	143.5'	"	Manhole # 510	111.5'	"	"	"
"	Manhole # 527	119.5'	272	OPEN SPACE 10T	"	"	"	"

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND				DES: _____ DRN: _____ CHK: _____ DATE: _____		KATHY WILSON 04-07-89		TURF VALLEY OVER-LOOK SEWER AS-BUILT CONT. NO. 24-1676-D		SCALE AS SHOWN SHEET 12b of 12b	
DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF, BUREAU OF ENGINEERING _____ DATE _____				BY _____ NO. _____ REVISION _____		DATE _____ 600' SCALE MAP NO. _____ BLOCK NO. _____					