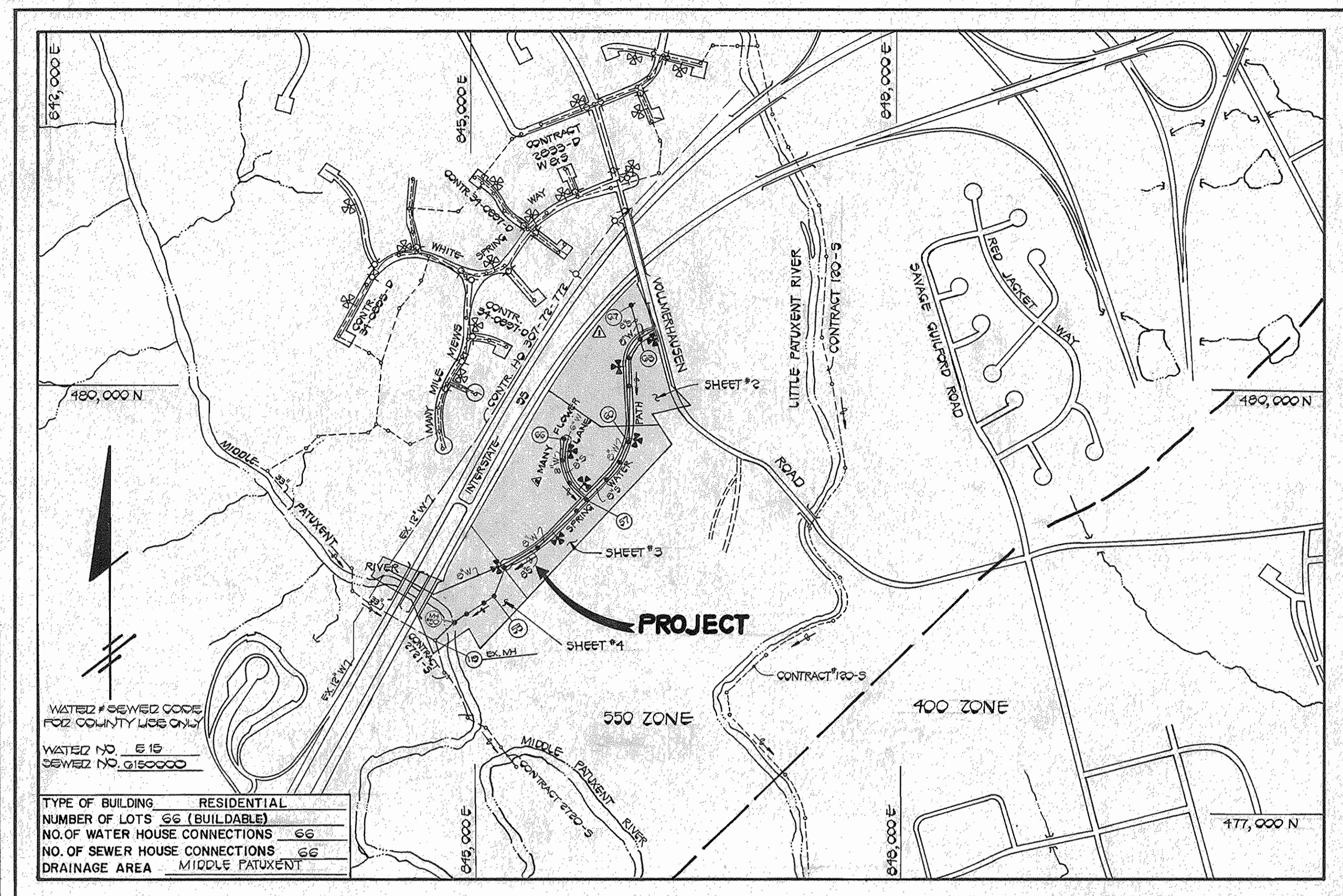


GENERAL NOTES

- 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: 650-4620
 CBP: 1-800-257-7777
 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
- 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 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	ESTIMATED	AS-BUILT	SUPPLIER
8" WATER	3000 L.F.	3660	Griffin Pipe Products Co. Class 52 DIP
6" WATER	100 L.F.	199	Griffin Pipe Products Co. Class 52 DIP
8" VALVES	4 EACH	4	Belton Road Supply Co., Inc. US Pipe Foundry
6" VALVES	5 EACH	5	Belton Road Supply Co., Inc. US Pipe Foundry
12" x 8" T.S. VALVE	1 EACH	1	Belton Road Supply Co., Inc. US Pipe Foundry
FIRE HYDRANTS	5 EACH	5	Belton Road Supply Co., Inc. US Pipe Foundry
3/4" WHC	700 L.F.	440.17	Belton Road Supply Co., Inc. Howell Metals
1" WHC	800 L.F.	1079.51	Belton Road Supply Co., Inc. Type-K Charlotte Pipe
8" SEWER	2970 L.F.	2980	Belton Road Supply Co., Inc. PVC SDR 35
8" D.I.P. SEWER	500 L.F.	540	Griffin Pipe Products Co. Class 52 DIP
6" SHC	1500 L.F.	1508	Belton Road Supply Co., Inc. Charlotte Pipe
MANHOLES	10 EACH	18	Applied Concrete Products, Inc. Charlotte Pipe
20" STEEL CASING PIPE	240 L.F.	240	C.C.S.T. Const. Co. Pittsburg Pipe

WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO. 610
 SEWER NO. 0150000

TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF LOTS: 66 (BUILDABLE)
 NO. OF WATER HOUSE CONNECTIONS: 66
 NO. OF SEWER HOUSE CONNECTIONS: 66
 DRAINAGE AREA: MIDDLE PATUXENT

SCALE: 1"=600'

CONTRACT NO. 34-1543-D

VILLAGE OF KING'S CONTRIVANCE

SECTION 5 - 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 F87-01

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

James M. Helms 3-20-87
 US SOIL CONSERVATION SERVICE DATE

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

APPROVED:
Stephen L. Fisher 3/20/87
 HOWARD SOIL CONSERVATION DISTRICT DATE

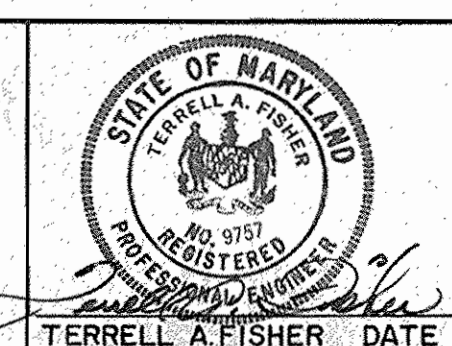
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Mark F. Neumayr 3-31-87
 DIRECTOR OF PUBLIC WORKS DATE

Robert M. Reisinger 3-30-87
 CHIEF BUREAU OF UTILITIES DATE

William F. Fisher 3-30-87
 CHIEF, LAND DEVELOPMENT DIVISION DATE

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



DES: D.B.S.				
DRN: D.B.S.				
CHK: T.A.F.	DAN. S.	CHANGE ROAD NAME	9-11-87	
DATE: 11/10/80	D.S.	REVISE 14" IN VICINITY MAP	9-13-87	
BY: NO.		REVISION	DATE	

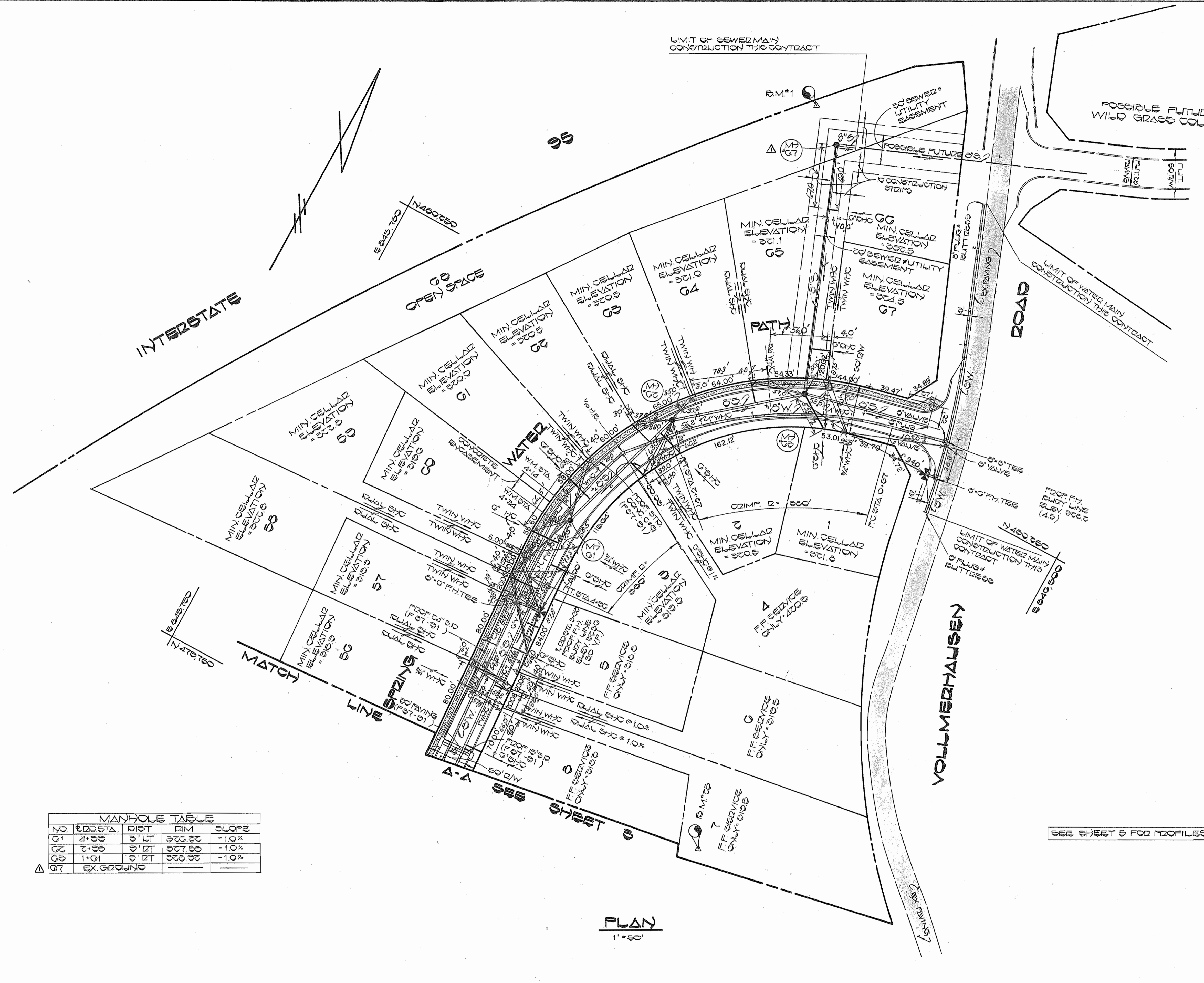
TITLE SHEET

600' SCALE MAP NO. 40, 47 BLOCK NO.

VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 CONTRACT NO. 34-1543-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 7



SEWER HOUSE CONNECTION
INVERT ELEVATIONS AT PROPERTY LINE

STATION	LOT	ELEVATION
M7 G0 TO M7 G1		
0+00 LT	LOT 10 (1/2)	312.40
0+00 LT	LOT 56	313.00
0+00 LT	LOT 5	313.00
1+25 LT	LOT 6	313.75
2+11 LT	LOTS 56+57 (1/2)	313.27
3+00 LT	LOTS 56+57	313.97
3+54 LT	LOT 5	313.67
3+15 LT	LOTS 56+59	314.45
3+47 LT	LOT 5	314.50
3+70 LT	LOT 60	314.75
M7 G1 TO M7 G2		
0+00 LT	LOT G1	315.04
0+05 LT	LOT A (1/2)	314.01
1+19 LT	LOTS G2+G3	315.34
1+27 LT	LOT C	315.51
M7 G2 TO M7 G3		
0+07 LT	LOTS G4+G5	315.74
M7 G3 LT	LOT 1	316.59
M7 G3 TO M7 G4		
0+47 LT	LOT G7 (PAC)	320.00
1+00 LT	LOT G8 (PAC)	321.70

MANHOLE TABLE

NO	POST STA.	RIST	RIM	SLOPE
G1	2+98	3" LT	322.50	-1.0%
B8	2+95	3" DT	327.50	-1.0%
B9	1+01	3" DT	328.50	-1.0%
G7	EX. GROUND			

BENCH MARKS

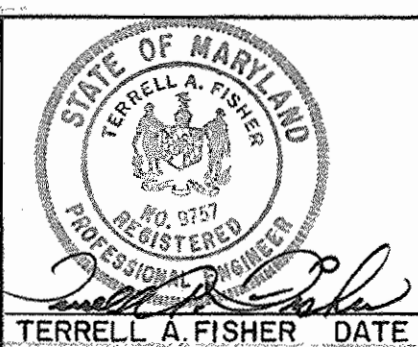
B.M.#1	ELEV. 340.90
1/2" DEBAR SET IN OPEN SPACE LOT 60 @ DEAD OF LOT 65 (TRAVERSE STA. C-11')	
B.M.#25	ELEV. 314.00
1/2" DEBAR SET IN LOT 7 @ DEAD OF LOT 5 (TRAVERSE STA. C-25')	

SEE SHEET 5 FOR PROFILES OF WATER & SEWER MAINS

PLAN
1" = 50'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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



DES: D. B. S.			
DRN: D. B. S.			
CHK: T. A. F.			
DATE: 11/10/87			
BY: NO.	REVISE M7 NO.	REVISION	DATE

PLAN
WATER & SEWER MAINS
600' SCALE MAP NO. 4247 BLOCK NO.

VILLAGE OF KING'S CONTRIVANCE
SECTION 5 AREA 2
CONTRACT NO. 34-1543-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 7

CONTRACT NO. 34-1543-D
VILLAGE OF KING'S CONTRIVANCE
SECTION FIVE, AREA TWO
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

AS-BUILT 9-21-87

SEWER HOUSE CONNECTION
INVERT ELEVATIONS AT PROPERTY LINE

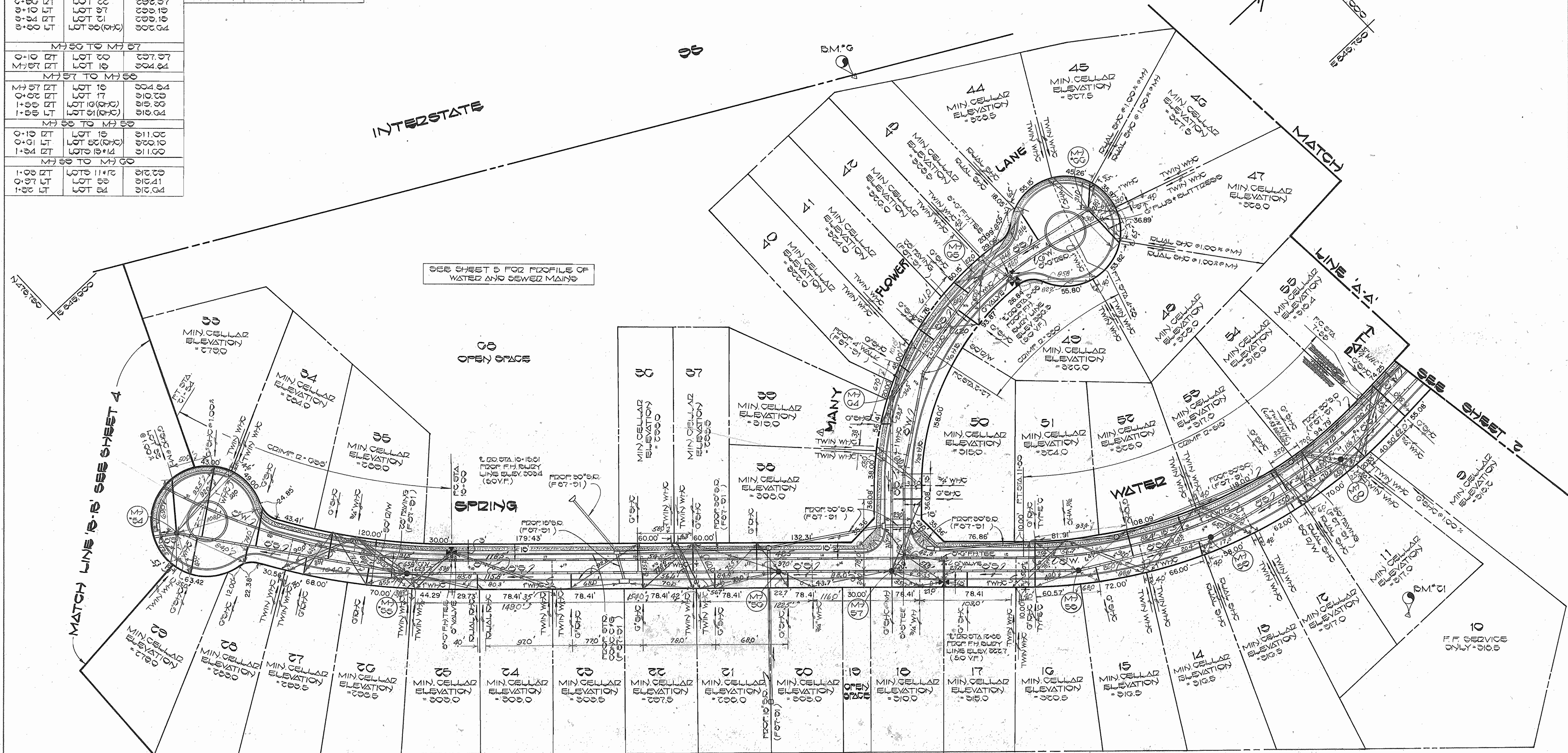
STATION	LOT	ELEVATION	STATION	LOT	ELEVATION			
M7 54 TO M7 55								
M7 54 LT	LOT 22 (1%)	272.77	M7 57 LT	LOT 15	304.84			
0+75 LT	LOT 23	274.45	0+78 LT	LOT 50	303.73			
0+76 LT	LOT 23 (1%)	274.73	1+00 LT	LOT 39	314.24			
0+78 LT	LOT 23	277.03	M7 57 TO M7 58					
0+87 LT	LOT 24	278.33	0+34 LT	LOT 40	317.24			
1+23 LT	LOT 27 (1%)	283.30	0+78 LT	LOT 41	319.01			
1+57 LT	LOT 28	284.14	1+00 LT	LOT 49	320.72			
2+12 LT	LOT 28 (1%)	283.30	1+22 LT	LOT 42	321.23			
M7 55 TO M7 56								
0+78 LT	LOT 25 (1%)	283.30	M7 55 TO M7 56					
1+70 LT	LOT 25 (1%)	283.30	0+75 LT	LOT 23 (1%)	283.30			
2+50 LT	LOT 26	282.37	M7 56 LT	LOT 23 (1%)	283.30			
3+10 LT	LOT 27	283.15	M7 56 RT	LOT 24 (1%)	283.30			
3+24 LT	LOT 21	283.15	M7 56 TO M7 57					
3+30 LT	LOT 20 (1%)	287.07	0+10 LT	LOT 20	297.07			
M7 57 TO M7 58								
M7 57 RT	LOT 16	304.84	M7 57 LT	LOT 16	304.84			
M7 57 TO M7 58								
M7 57 RT	LOT 17	310.23	M7 58 TO M7 59					
0+02 LT	LOT 17	310.23	0+13 LT	LOT 15	311.02			
1+55 LT	LOT 19 (1%)	315.30	0+31 LT	LOT 50 (1%)	320.10			
1+55 LT	LOT 21 (1%)	315.04	1+34 LT	LOT 19 (1%)	311.02			
M7 58 TO M7 59								
0+13 LT	LOT 15	311.02	M7 59 TO M7 60					
0+31 LT	LOT 50 (1%)	320.10	1+08 LT	LOT 11 (1%)	312.23			
1+34 LT	LOT 19 (1%)	311.02	0+27 LT	LOT 33	312.41			
M7 59 TO M7 60								
1+08 LT	LOT 11 (1%)	312.23	1+22 LT	LOT 34	312.04			
0+27 LT	LOT 33	312.41						
1+22 LT	LOT 34	312.04						

BENCH MARKS

B.M.*G ELEV. 313.42
 1/4 DECADE SET IN OPEN SPACE LOT 60E
 REAR OF LOT 43 (TRAVELERS STA. C-G)
 B.M.*21 ELEV. 314.78
 1/4 DECADE SET IN REAR OF LOT 11
 (TRAVELERS STA. C-21)

MANHOLE TABLE

NO.	EDG. STA.	DIST.	DIM.	SLOPE
60	0+34	10' LT	324.84	+1.0%
59	3+03	10' LT	323.40	+1.0%
58	11+40	10' LT	323.92	-1.5%
57	13+41	7' LT	319.71	-0.6%
56	14+04	7' LT	319.77	-0.3%
55	16+07	9' LT	301.22	-4.0%
54	COURT		307.0	
53	1+70	21' LT	303.01	+5.0%
52	3+33	0' LT	304.83	+4.0%
51	COURT		303.15	



SEE SHEET 5 FOR PROFILE OF WATER AND SEWER MAINS

Property of
 HOWARD COUNTY, MD.
 03/2009
 T.M. 47 P.10

PLAN
 1"=50'

CONTRACT NO. 34-1543-D
 VILLAGE OF KING'S CONTRIVANCE
 SECTION FIVE, AREA TWO
 WATER AND SEWER EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert M. Beaman* 3-30-87
 Chief, Bureau of Utilities

Chief, Bureau of Engineering: *William S. Key* 3-30-87
 Chief, Land Development Division

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

8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043

Professional Engineer: *Terrell A. Fisher*

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 11/10/06	
DAN. Δ	CHANGE ROAD NAME
BY NO.	REVISION
DATE: 6-11-87	

PLAN
WATER & SEWER MAINS

600' SCALE MAP NO. 42-47 BLOCK NO.

VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2

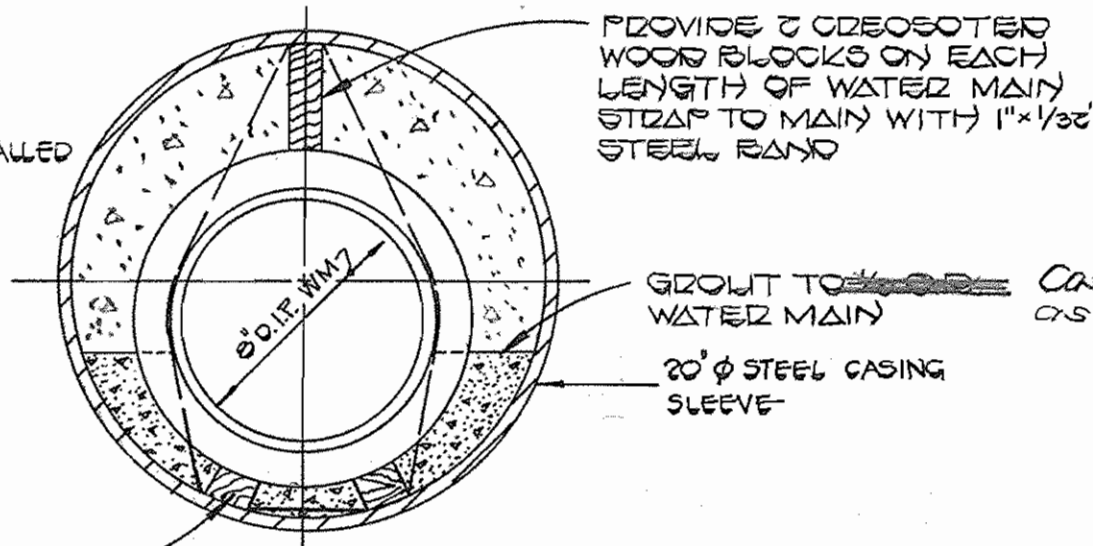
CONTRACT NO. 34-1543-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 7

BENCH MARKS

B.M.#14 ELEV. 217.18
 X-CUT IN DIM OF EX. WM BLOWOFF MANHOLE; APPROX. 130' WEST OF 'E' OF I-95 SOUTHBOUND LANES
 B.M.#50 ELEV. 236.80
 P.I. SET IN 10' GAL.; APPROX. 50' NORTHWEST OF PROPOSED 8" SEWER MAIN BETWEEN PROPOSED M-750 + 51

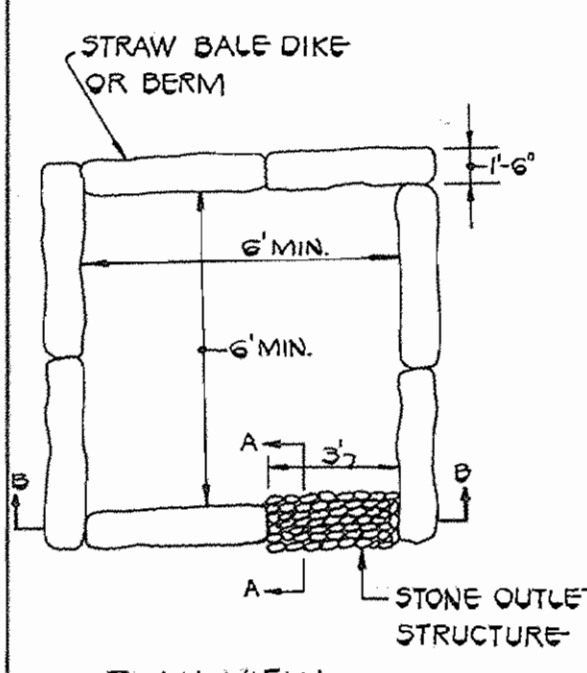
NOTE: STEEL CASING SLEEVE SHALL BE INSTALLED BY OPEN CUT METHOD



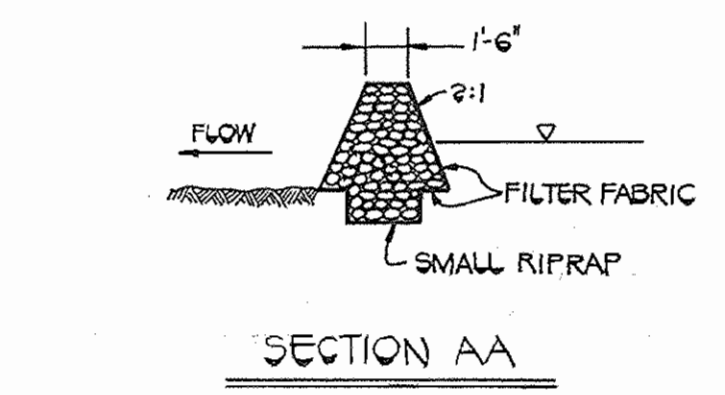
Grout to Water Main
 20" ϕ STEEL CASING SLEEVE
 Casing Grouted Full as shown

TIMBER SLIDING CROSSCUTTER OR TREATED WITH CHROMIUM COPPER AZOXYNATE

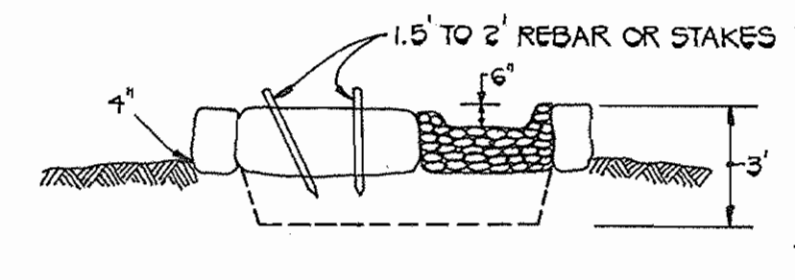
DETAIL: 6" D.I.P. WM IN 20" ϕ STEEL CASING SLEEVE
 NO SCALE



PLAN VIEW



SECTION AA

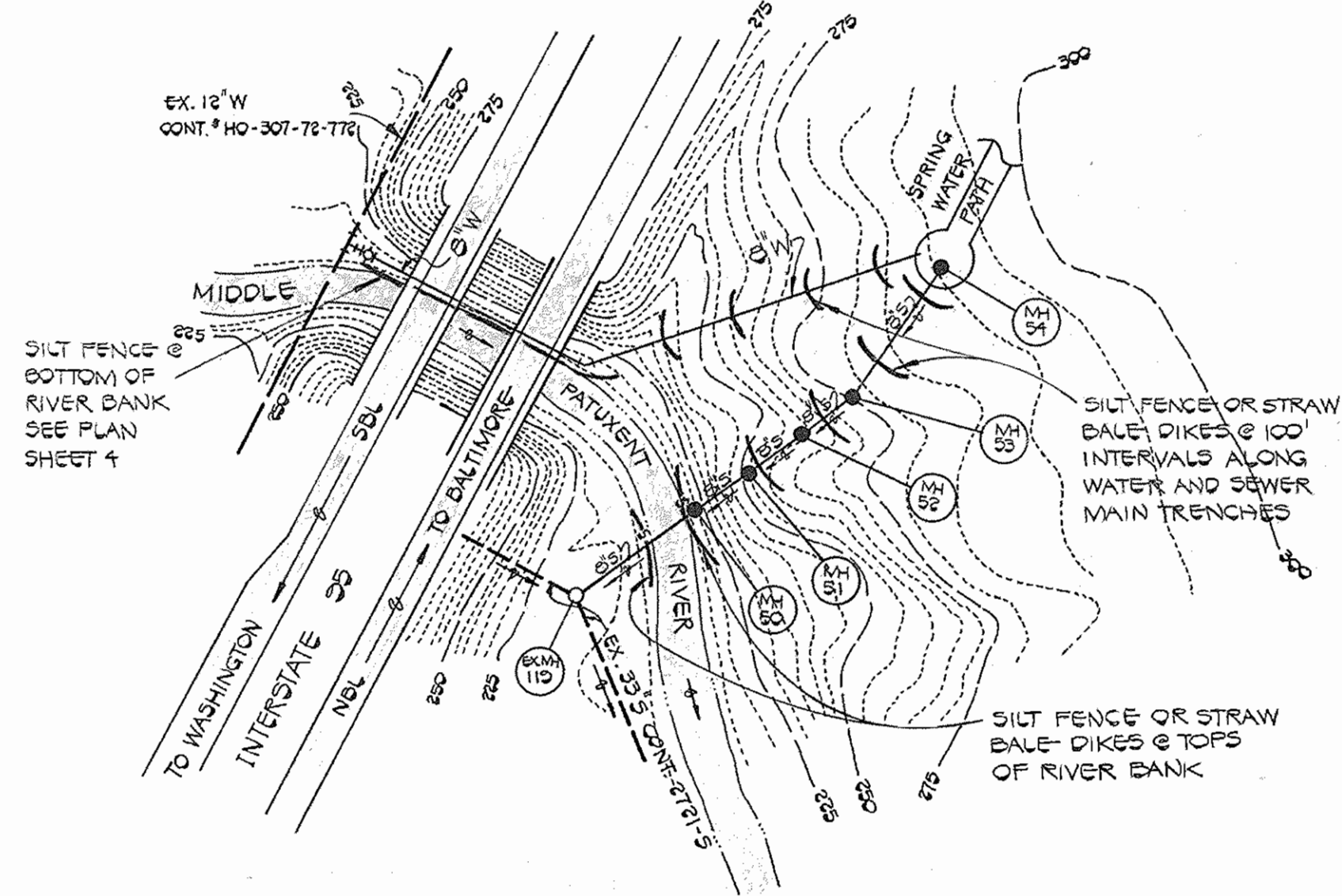


SECTION BB

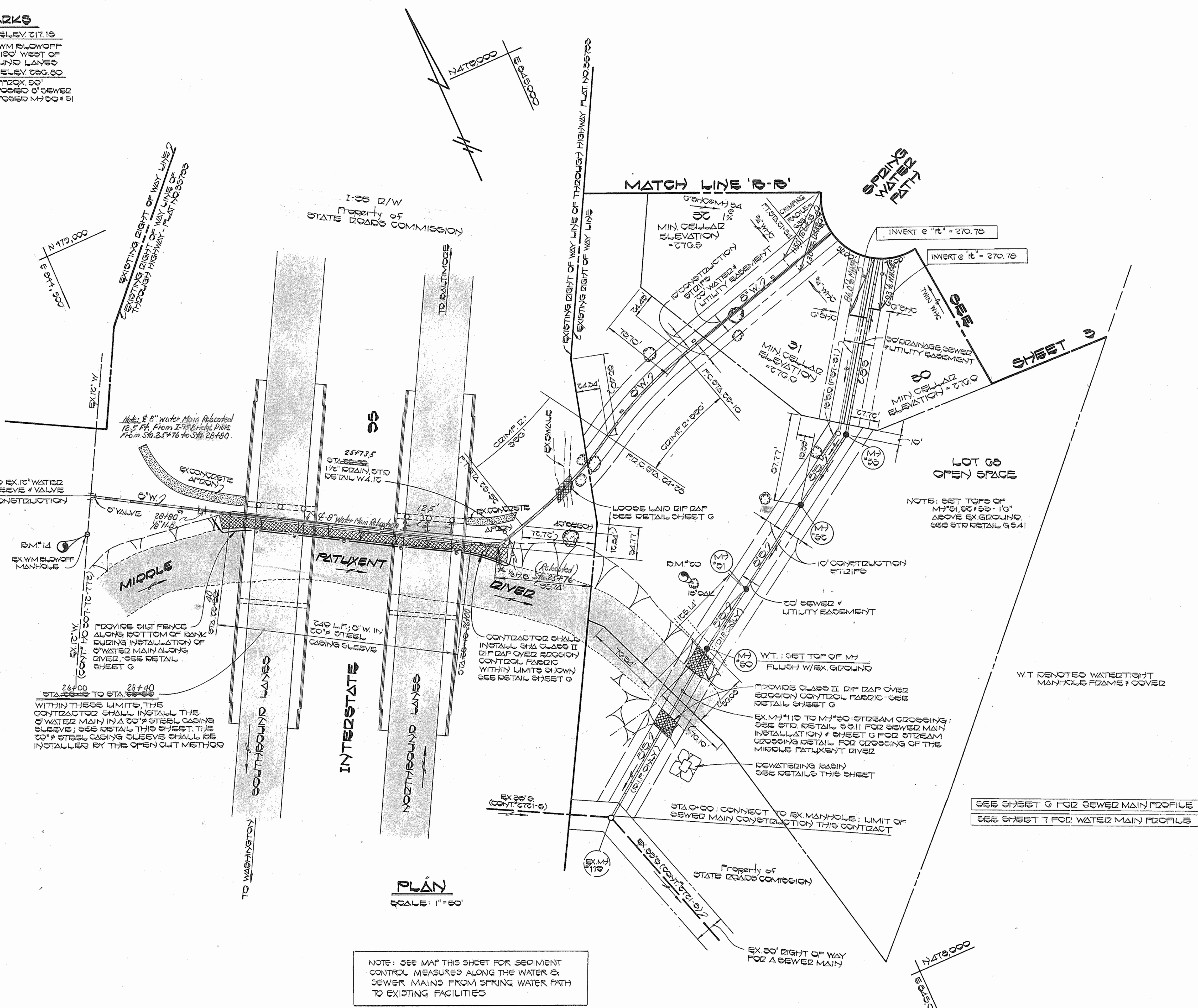
STA. 28+91; CONNECT TO EX. 10" WATER MAIN W/ 10" ϕ TAPPING SLEEVE & VALVE
 LIMIT OF WATER MAIN CONSTRUCTION THIS CONTRACT

- NOTES**
1. 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.
 2. SEE PLAN THIS SHEET FOR LOCATION OF DEWATERING BASIN.

DETAILS: DEWATERING BASIN



SEDIMENT CONTROL MAP
 SCALE: 1" = 200'



PLAN
 SCALE: 1" = 50'

NOTE: SEE MAP THIS SHEET FOR SEDIMENT CONTROL MEASURES ALONG THE WATER & SEWER MAINS FROM SPRING WATER PATH TO EXISTING FACILITIES

SEE SHEET 6 FOR SEWER MAIN PROFILE
 SEE SHEET 7 FOR WATER MAIN PROFILE

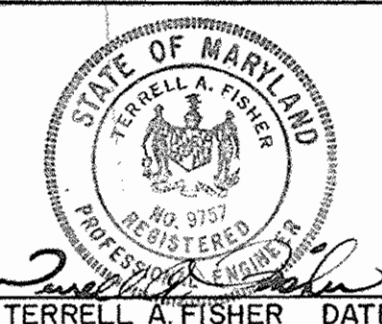
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John F. Nix
 DIRECTOR OF PUBLIC WORKS
 DATE: 3-21-17

W. Lee ...
 CHIEF, BUREAU OF ENGINEERING
 DATE: 3-30-17

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

8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043

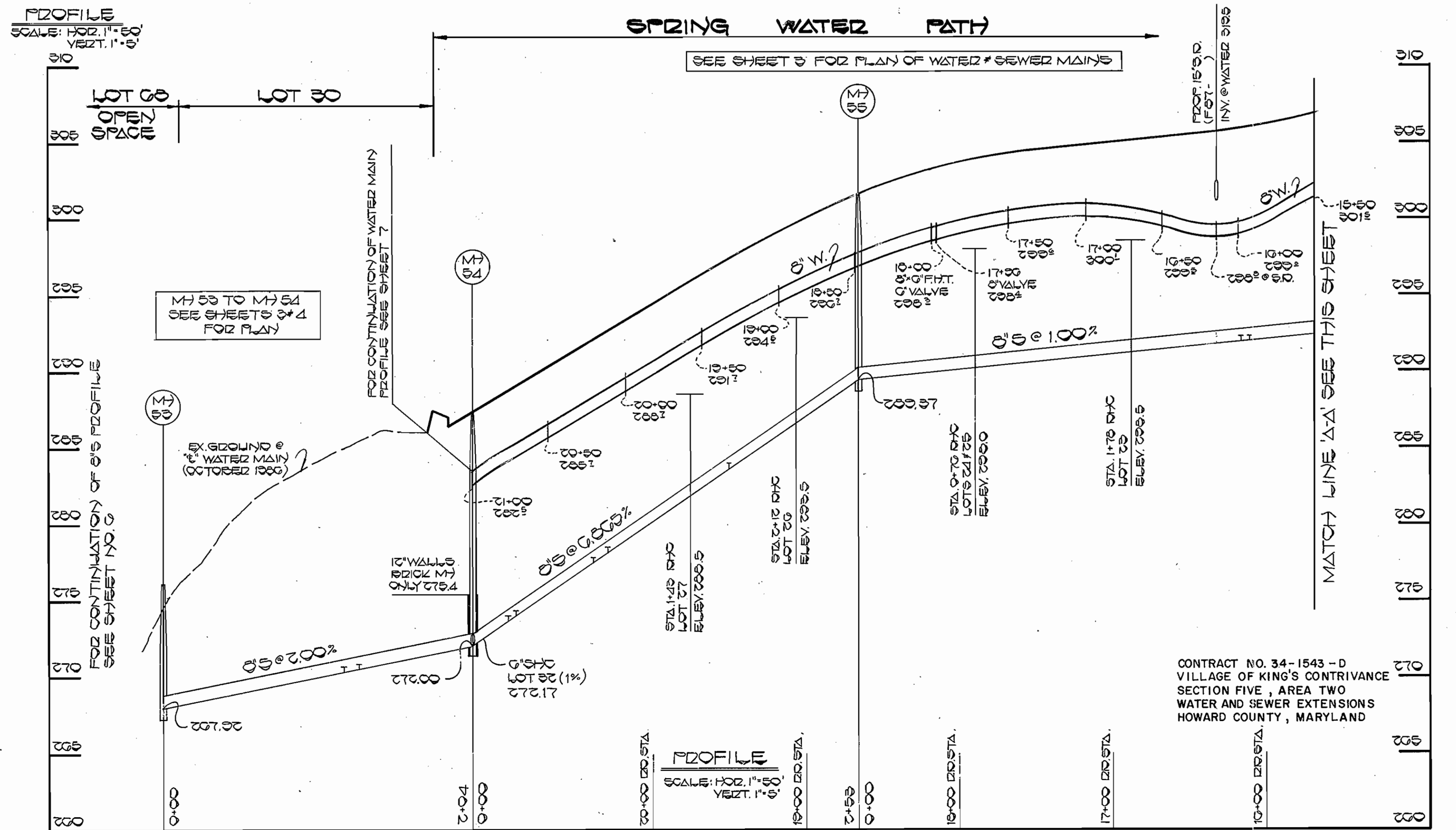
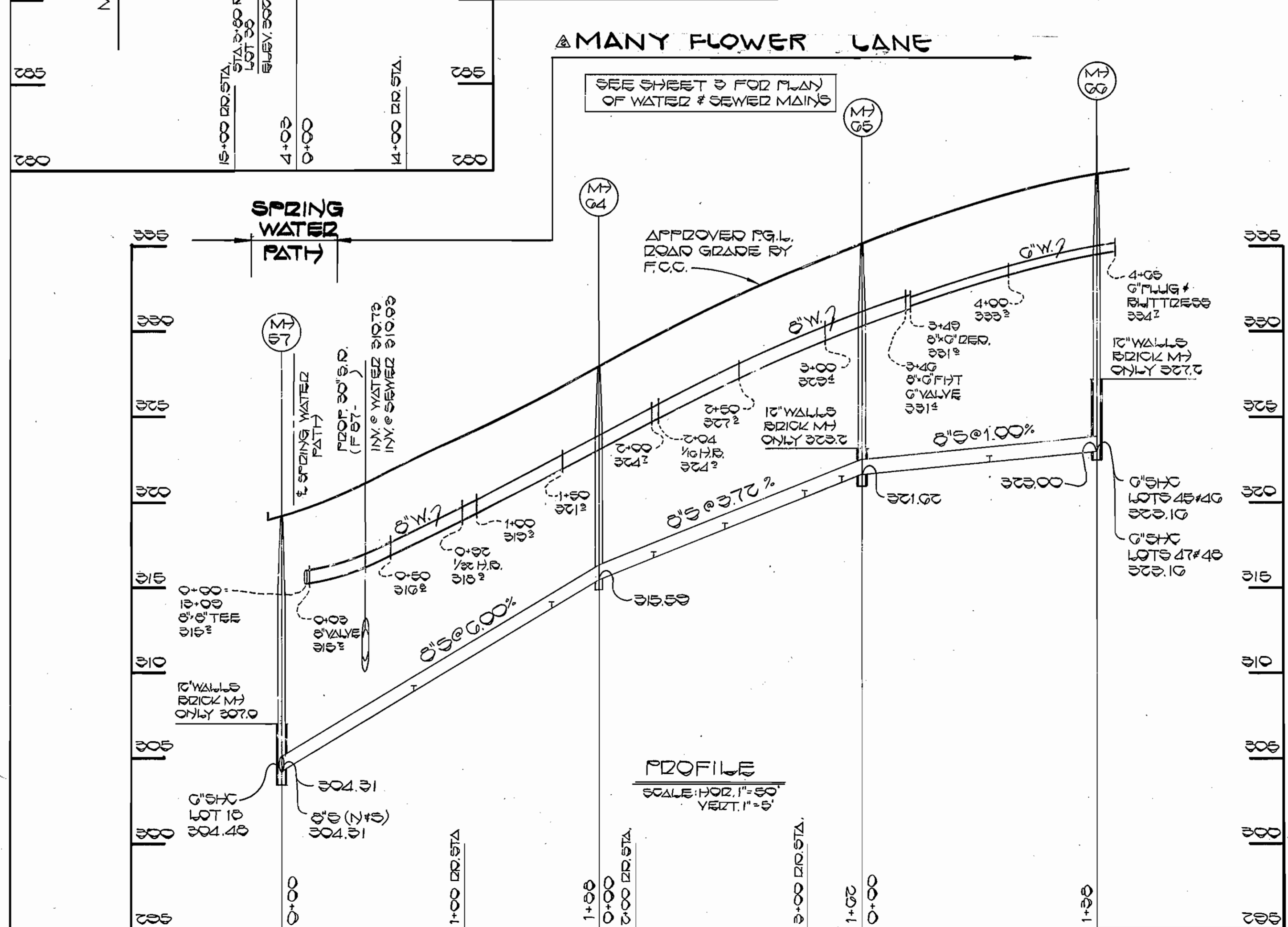
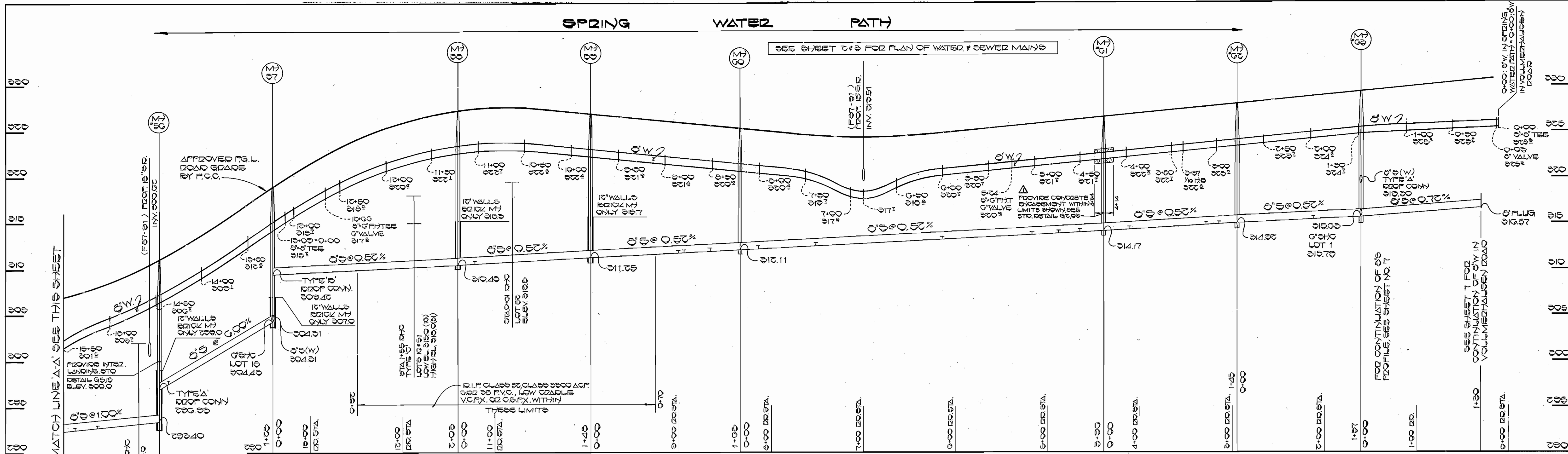


DES: D. B. S.					
DRN: D. B. S.					
CHK: T. A. F.					
DATE: 11/10/06	BY: NO.	REVISION	DATE	600 SCALE MAP NO. 42.47	BLOCK NO.

PLAN
 WATER & SEWER MAINS

VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 CONTRACT NO. 34-1543-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 7



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Walter M. ... 3-31-87
 DIRECTOR OF PUBLIC WORKS DATE

Walter M. ... 3-30-87
 CHIEF, BUREAU OF UTILITIES DATE

Walter M. ... 3-30-87
 CHIEF, BUREAU OF ENGINEERING DATE

Walter M. ... 3-30-87
 CHIEF, LAND DEVELOPMENT DIVISION DATE

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

8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043

STATE OF MARYLAND
 TERRILL A. FISHER
 REGISTERED PROFESSIONAL ENGINEER
 DATE: 11/10/80

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 11/10/80	
BY: NO.	REVISION
1	ADD ENCASUREMENT WM STA. 4+14 - 4+34, SPRING WATER PATH 5-12-87

PROFILES
 WATER & SEWER MAINS

600' SCALE MAP NO. 42.47 BLOCK NO.

VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2

CONTRACT NO. 34-1543-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

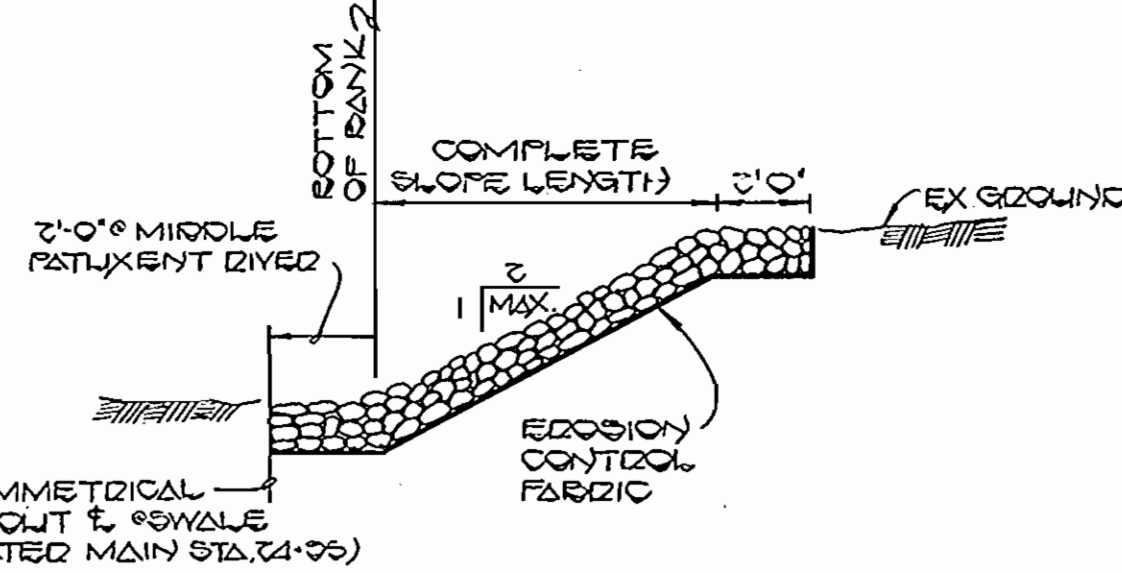
SCALE AS SHOWN

SHEET 5 OF 7

AS BUILT 3-21-87

DIP DAP NOTES

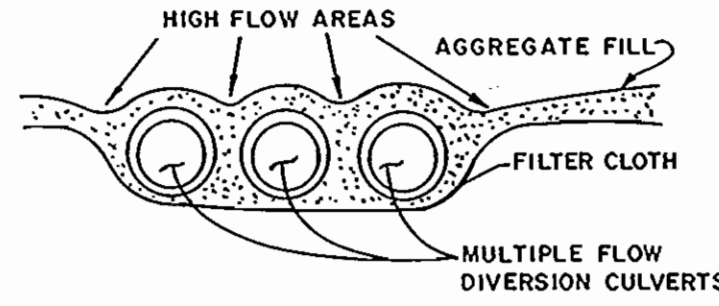
- DIP DAP SHALL BE PLACED OVER ALL DISTURBED AREAS WITHIN THE FULL WIDTH OF THE RIGHT OF WAY AT THOSE LOCATIONS INDICATED ON THE DRAWINGS.
- DIP DAP FOR PLACEMENT ALONG THE STREAM BANK AT THE SEWER MAIN CROSSING SHALL CONFORM TO SHA SPECIFICATIONS FOR CLASS II STONE AND THE THICKNESS OF THE DIP DAP LAYER SHALL BE 2'-0" EROSION CONTROL FABRIC SHALL BE POLY FILTERED-X AS MANUFACTURED BY CARTRIDGE MILLS, INC. OR FIBREGLASSER M-1105 AS MANUFACTURED BY STAFF INDUSTRIES, INC. OF EQUAL.



LOOSE LAID DIP DAP DETAIL
NO SCALE

EROSION AND SEDIMENT CONTROL NOTES

- ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 15 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 MATERIAL SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE CONSTRUCTION AREA.
- IMMEDIATELY FOLLOWING BACKFILL OF THE WATER AND SEWER MAIN TRENCHES, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
- 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.
- ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
- SEE WATER MAIN CONSTRUCTION SEQUENCE AND OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE THIS SHEET.
- SEE SEDIMENT CONTROL MAP (SCALE: 1"=200') ON SHEET 4 FOR SEDIMENT CONTROL DEVICES ALONG THE WATER MAIN CONSTRUCTION AND OUTFALL SEWER MAIN CONSTRUCTION AREAS.



SECTION A-A
NO SCALE

CONSTRUCTION REQUIREMENTS AND SPECIFICATIONS FOR STREAM CROSSING

- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
- FLOW DIVERSION CULVERTS MUST BE SIZED TO ACCOMMODATE NORMAL STREAM FLOW.
- THE FLOW BARRIER SHALL BE CONSTRUCTED OF SANDBAGS, WASHED RIPRAP, OR OTHER APPROVED MATERIAL AS PER WPD 2.3. THE MATERIALS SHALL BE SIZED TO WITHSTAND NORMAL STREAM FLOW VELOCITIES.
- ALL DEWATERING OF THE CONSTRUCTION AREA SHALL BE PUMPED TO A DEWATERING BASIN (WPD1.1) PRIOR TO RE-ENTERING THE STREAM. SEE DETAILS ON SHEET 4.
- THE TEMPORARY CULVERT CROSSING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL TAC-1, 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL.
- SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED IN ACCORDANCE WITH AN APPROVED SEDIMENT AND EROSION CONTROL PLAN AND THE INSPECTING AUTHORITY APPROVES THEIR REMOVAL.

OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE

- IMPLEMENT CONDITIONS AND REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT - SEE SPECIFICATIONS.
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES - SEE PLAN THIS SHEET.
- CLEAR AND GRUB AS REQUIRED 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 AND COMPACT TRENCH IN ACCORDANCE WITH THE SPECIFICATIONS.
- FOR THE SEWER MAIN INSTALLATION AT THE MIDDLE PATUXENT RIVER, REFERENCE THE STREAM CROSSING AND SPECIFICATIONS FOR THE STREAM CROSSING AND HOWARD COUNTY STANDARD DETAIL S3.11.
- STABILIZE AND SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE NOTES SHOWN ON THIS SHEET.
- PLACE CLASS II RIPRAP ALONG THE BANKS OF THE MIDDLE PATUXENT RIVER WITHIN THE LIMITS SHOWN ON SHEET 4 AND IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.

STABILIZATION NOTES

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

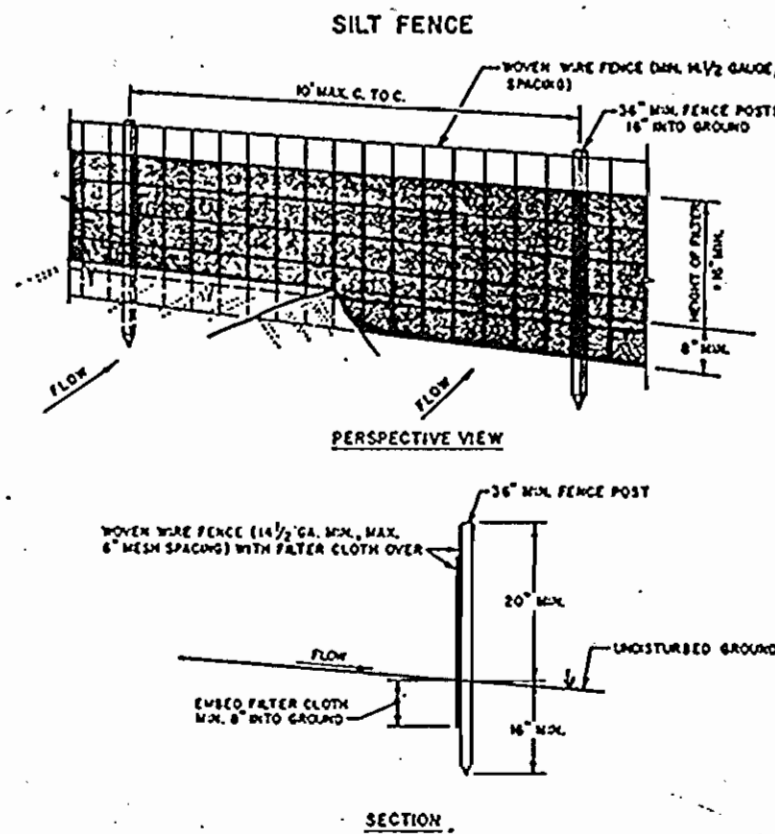
- 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
- 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

PERMANENT STABILIZATION AND SEEDING NOTES

- SEEDBED SHALL BE PREPARED TO A MINIMUM DEPTH OF 3 INCHES, WHEN THE AREA TO BE SEEDING HAS BEEN RECENTLY LOOSENOED TO THE EXTENT THAT AN ADEQUATE SEEDBED EXISTS, NO ADDITIONAL TREATMENT IS REQUIRED.
- APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE.
- APPLY FERTILIZER AT THE MINIMUM RATE OF 500 POUNDS OF 10-10-10 PER ACRE.
- SEED ALL DISTURBED AREAS WITH A MIXTURE OF CERTIFIED KENTUCKY 31 FESCUE AT 50 POUNDS PER ACRE AND INOCULATED KOREAN LESPEDEZA AT 15 POUNDS PER ACRE.
- MULCH SHALL BE UNWEATHERED SMALL GRAIN STRAW AND SHALL BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE.
- ANCHOR MULCH WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GALLONS PER 1,000 SQ. FT.

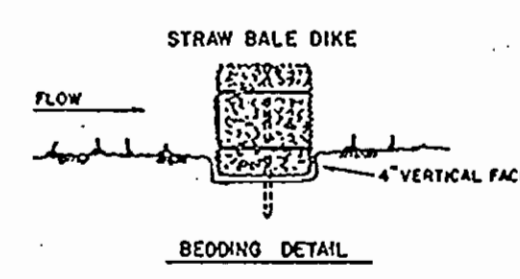
WATER MAIN CONSTRUCTION SEQUENCE

- IMPLEMENT CONDITIONS AND REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT AND THE SHA UTILITY CONSTRUCTION PERMIT - SEE SPECIFICATIONS.
- INSTALL SEDIMENT AND EROSION CONTROL DEVICES - SEE WATER MAIN PLAN AND SEDIMENT CONTROL MAP - SHEET 4.
- CLEAR AND GRUB AS REQUIRED - WITHIN THE LIMITS OF THE WATER MAIN RIGHT-OF-WAY ONLY.
- EXCAVATE TRENCH PLACE EXCAVATED MATERIAL ON THE UPGRADE SIDE OF THE WATER MAIN TRENCH.
- INSTALL 20" STEEL CASING (WITHIN LIMITS SHOWN), 8" WATER MAIN, BACKFILL AND COMPACT TRENCH IN ACCORDANCE WITH THE SPECIFICATIONS.
- STABILIZE AND SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE NOTES SHOWN ON THIS SHEET.
- PLACE CLASS II RIPRAP ALONG THE BANKS OF THE MIDDLE PATUXENT RIVER WITHIN THE LIMITS SHOWN ON SHEET 4 AND PLACE RIP RAP AT THE SWALE CROSSING AS INDICATED ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL THIS SHEET.
- FOLLOWING SUCCESSFUL STABILIZATION AND UPON APPROVAL OF THE SOIL CONSERVATION DISTRICT INSPECTOR, REMOVE THE EROSION AND SEDIMENT CONTROL DEVICES.

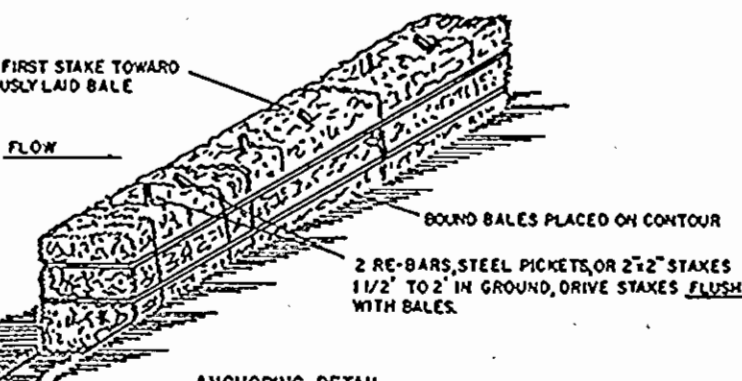


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- 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 TIES SPACED EVERY 2' AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO PREVENT "BAGS" DEVELOP IN THE SILT FENCE.



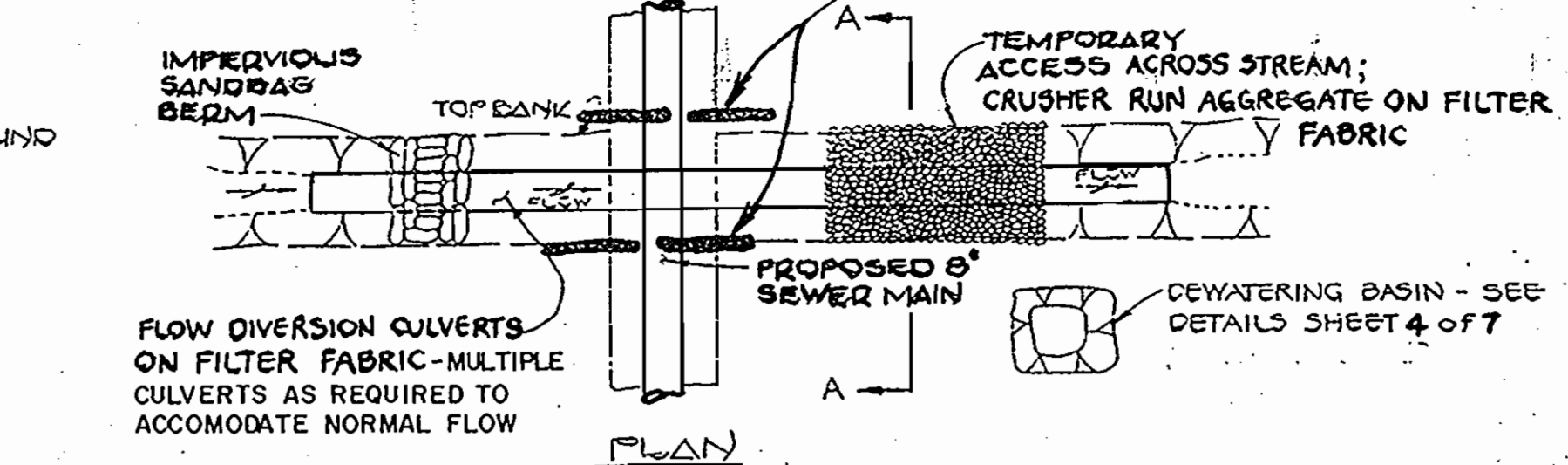
BEDDING DETAIL



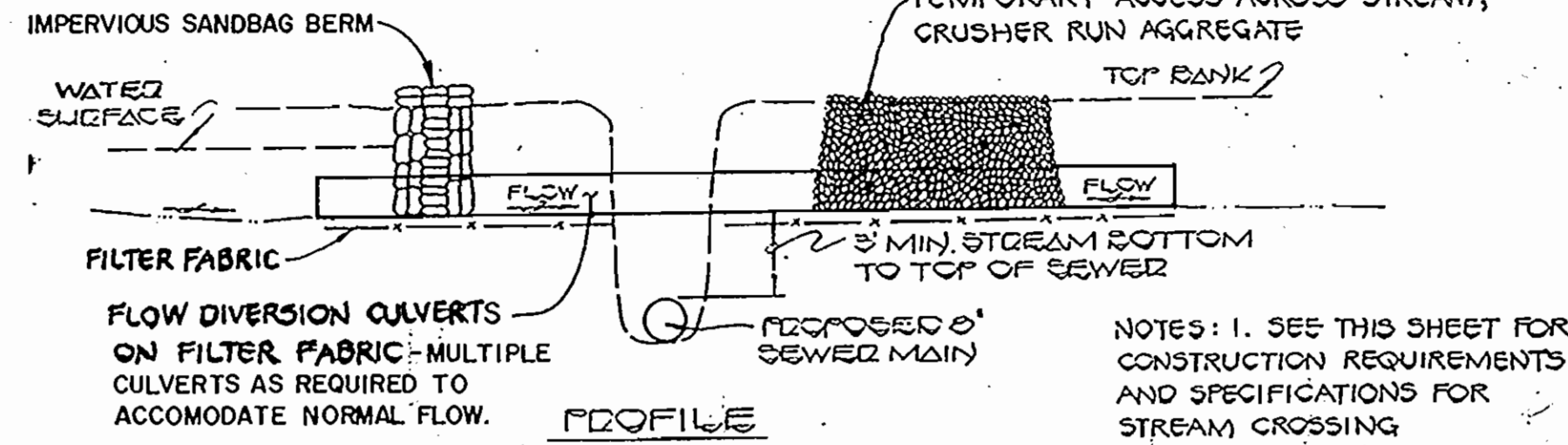
ANCHORING DETAIL

- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH DISE TIGHTLY ADJUTING THE ADJACENT BALES.
- EACH BALE SHALL BE DIVIDED 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 FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS AS NOT TO BLOCK OR IMPED STORM FLOW OR DRAINAGE.

STREAM BALE DIKES & TOPS OF BANKS



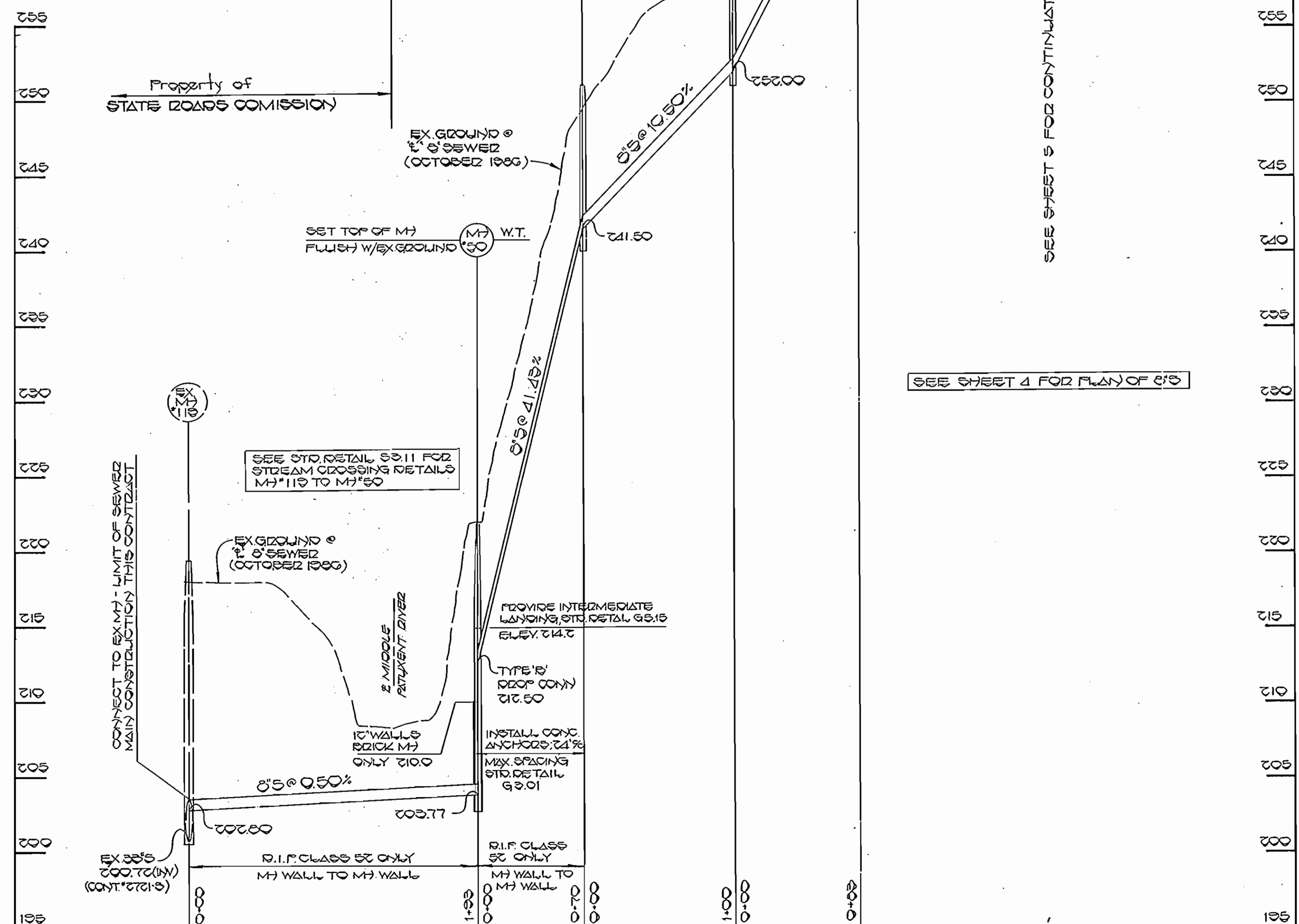
PLAN



PROFILE

STREAM CROSSING DETAIL
NO SCALE

- NOTES: 1. SEE THIS SHEET FOR CONSTRUCTION REQUIREMENTS AND SPECIFICATIONS FOR STREAM CROSSING
2. ALSO REFERENCE STD. DETAIL S3.11 FOR SEWER MAIN INSTALLATION AT STREAM.



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

CONTRACT NO. 34-1543-D
VILLAGE OF KING'S CONTRIVANCE
SECTION FIVE, AREA TWO
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DATE: 3-30-87
CHIEF, BUREAU OF UTILITIES

DATE: 3-30-87
CHIEF, BUREAU OF ENGINEERING

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

8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

DATE: 11/87

DES: D. B. S.	
DRN: D. B. S.	
CHK: T. A. F.	
DATE: 11/87	
BY: NO.	
REVISION	
DATE	

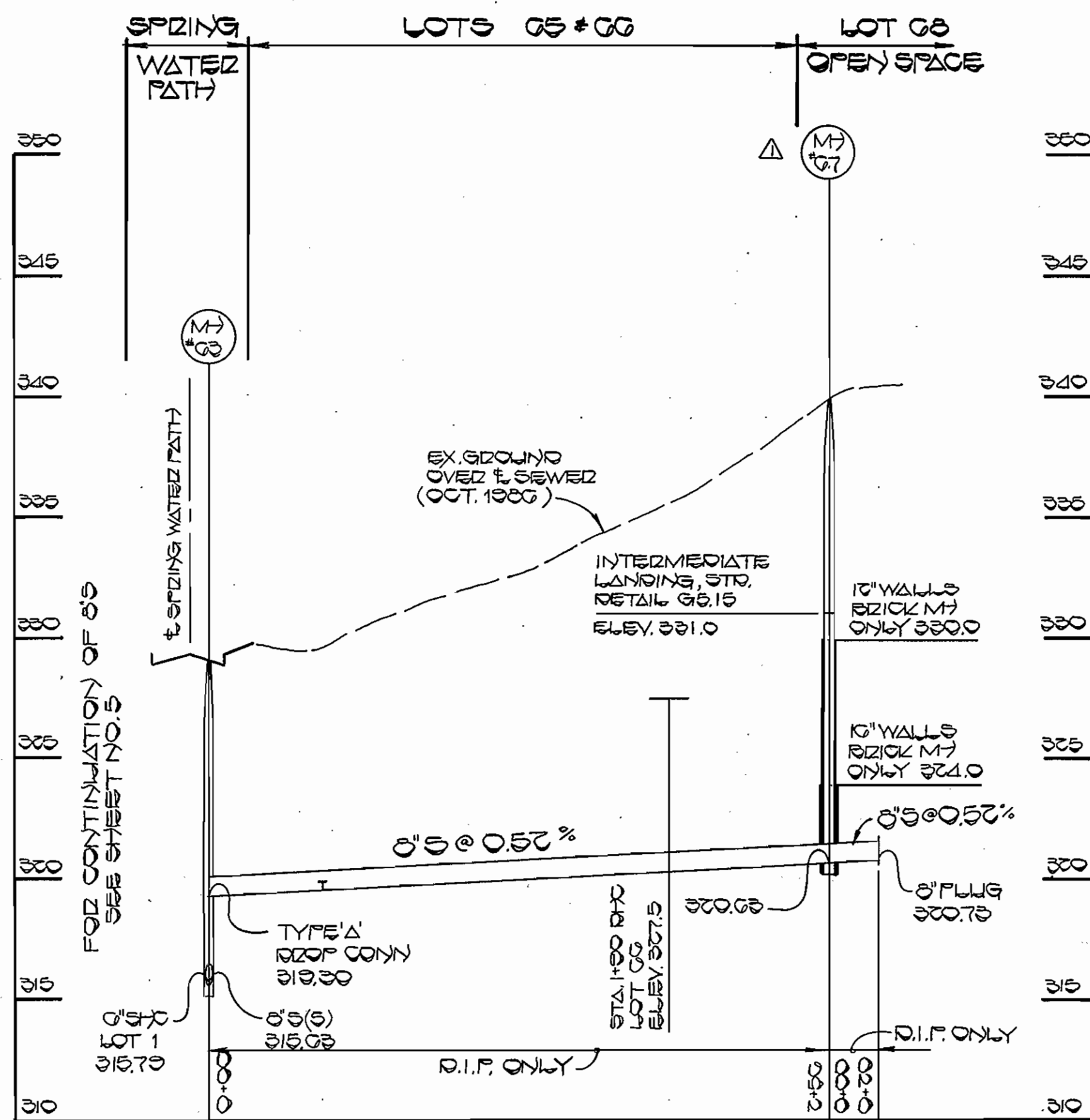
PROFILES AND DETAILS
SEWER MAINS

600' SCALE MAP NO. 48.47 BLOCK NO.

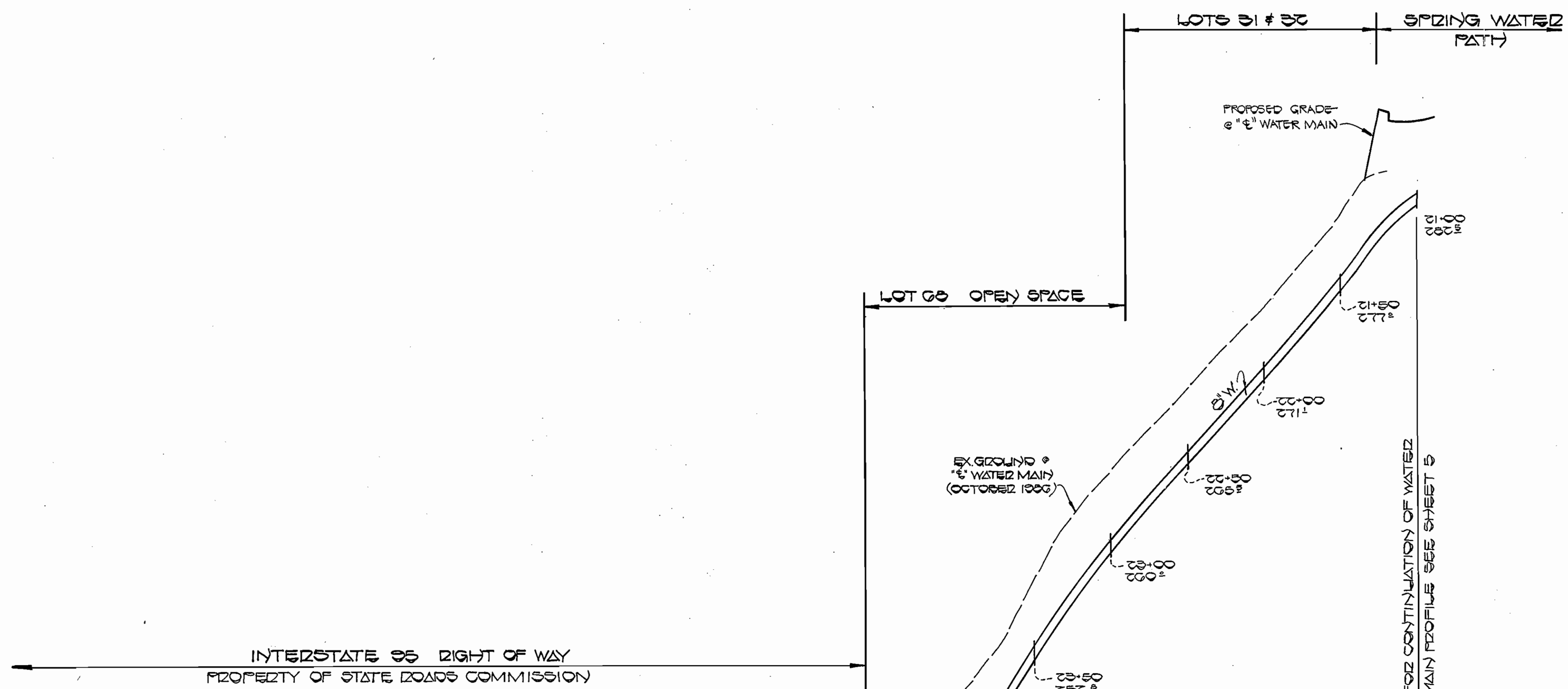
VILLAGE OF KING'S CONTRIVANCE
SECTION 5 AREA 2

CONTRACT NO. 34-1543-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

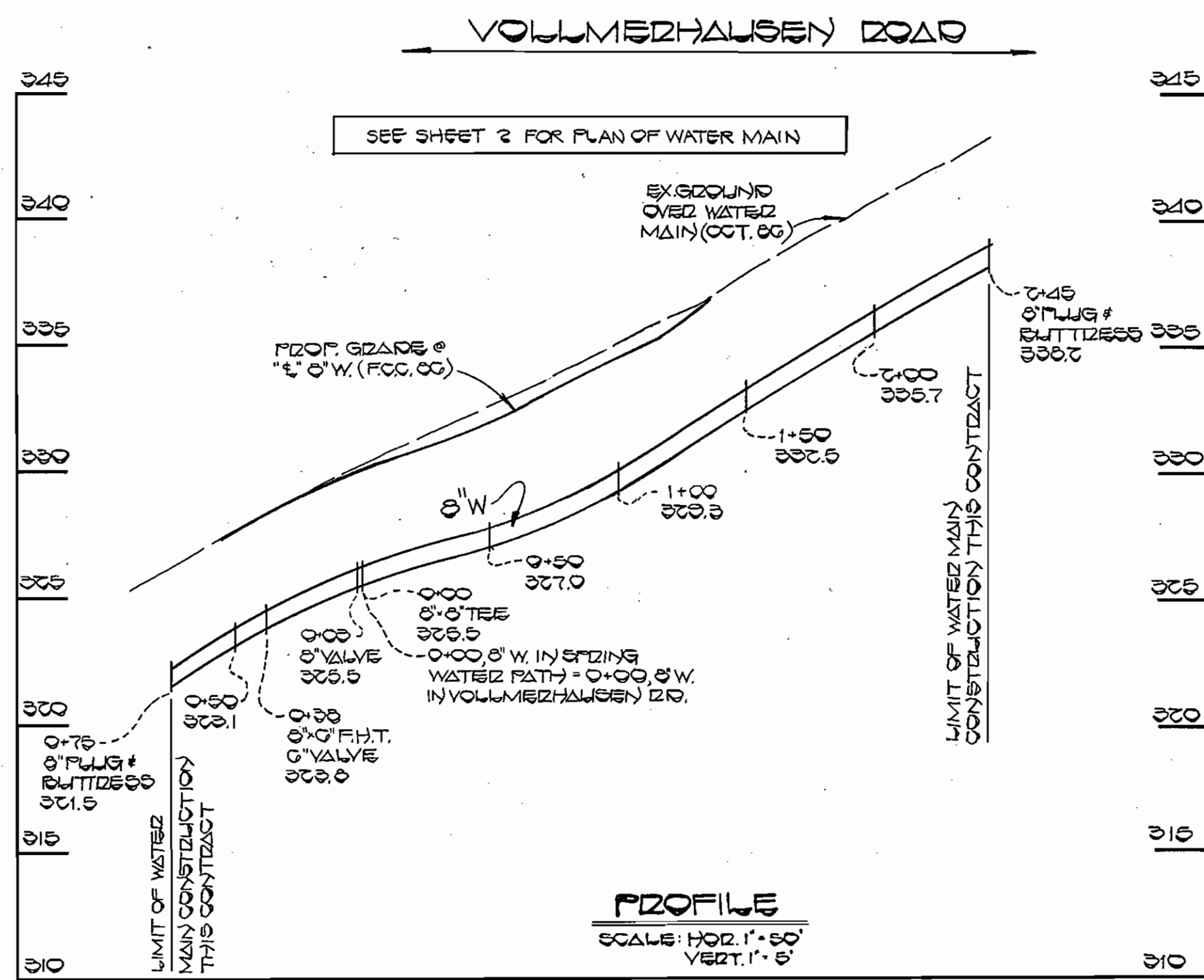
SHEET 6 OF 7



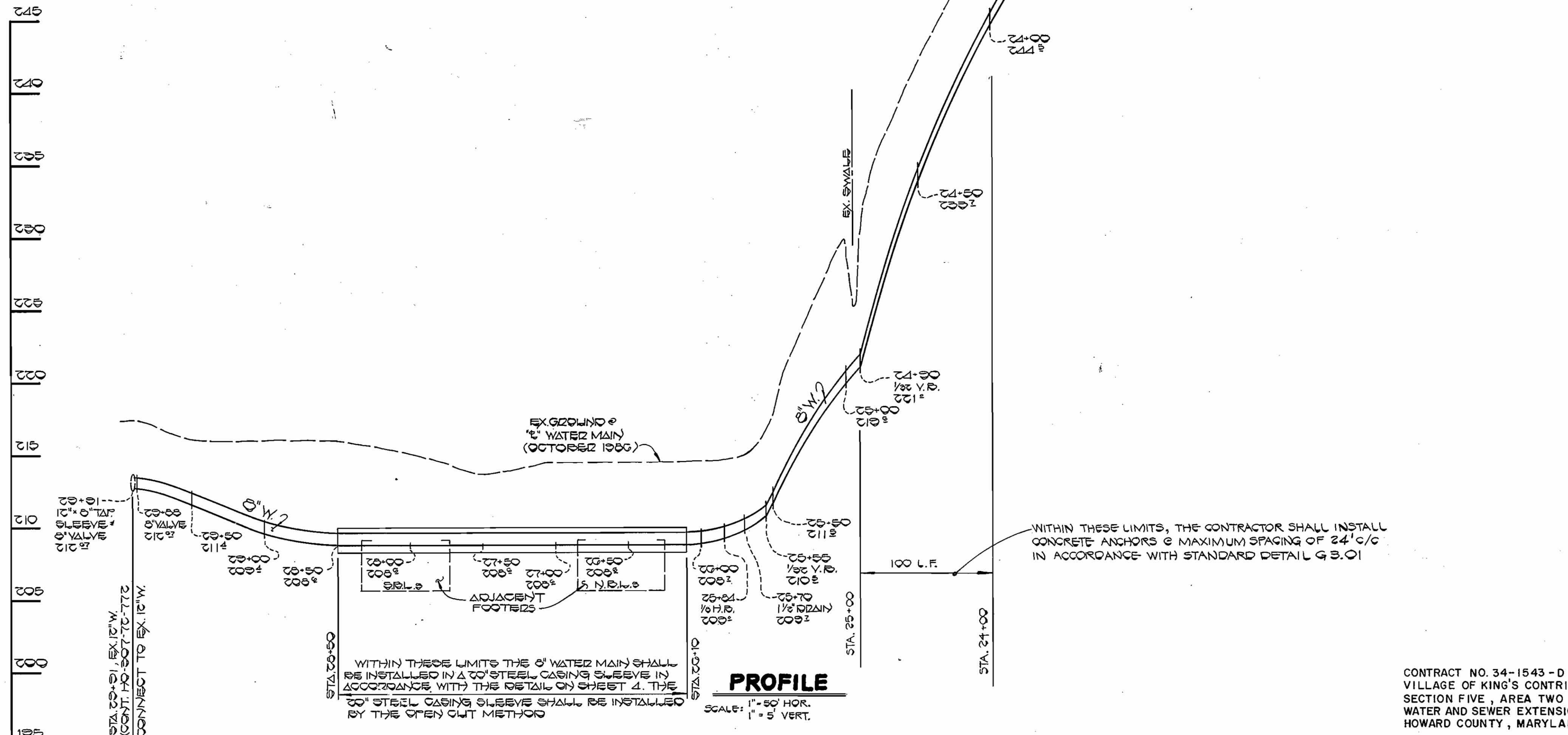
PROFILE
SCALE: HOR. 1"=50'
VERT. 1"=5'



INTERSTATE 95 RIGHT OF WAY
PROPERTY OF STATE ROADS COMMISSION



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



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

CONTRACT NO. 34-1543-D
VILLAGE OF KING'S CONTRIVANCE
SECTION FIVE, AREA TWO
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

BRUNING 44-132 (3) 19

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Joseph F. Nemy 3-21-87
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Swain 3-30-87
CHIEF, BUREAU OF UTILITIES DATE

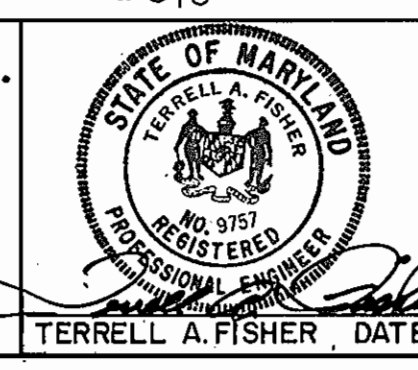
William S. Ray 3-30-87
CHIEF, BUREAU OF ENGINEERING DATE

William S. Ray 3-30-87
CHIEF, LAND DEVELOPMENT DIVISION DATE

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

8388 COURT AVENUE
ELLICOTT CITY, MARYLAND 21043

TERRELL A. FISHER, DATE



DES:	
DRN:	
CHK: T. A. F.	
DATE: 1/10/80	
BY:	
NO.:	
REVISION:	
DATE:	

PROFILES	
WATER & SEWER MAINS	
600' SCALE MAP NO. 44.41	BLOCK NO.

VILLAGE OF KING'S CONTRIVANCE
SECTION 5 AREA 2

CONTRACT NO. 34-1543-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 1