

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES ²

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 \blacksquare 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 CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES - 561-2585
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL - 234-5621
 - BALTIMORE GAS & ELECTRIC COMPANY - 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.
9. TREES AND SHRUBS TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION AND BACKFILL.
11. 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.
12. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
13. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G.5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
16. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
17. FOR RESTORATION SCHEDULE SEE SHEET 4 OF 7.
18. ALL HOUSE CONNECTIONS SHALL BE INSTALLED BY OPEN CUT.

Reviewed for Howard County S.C.D. and meets technical requirements.

James McJohn Date: 9-5-84
U.S. SOIL CONSERVATION SERVICE

This development plan is approved for soil erosion and sediment control by the Howard County Soil Conservation District.

Approved: *Stephen T. Hub* Date: 9/5/84
HOWARD COUNTY S.C.D.

ENGINEER'S CERTIFICATION

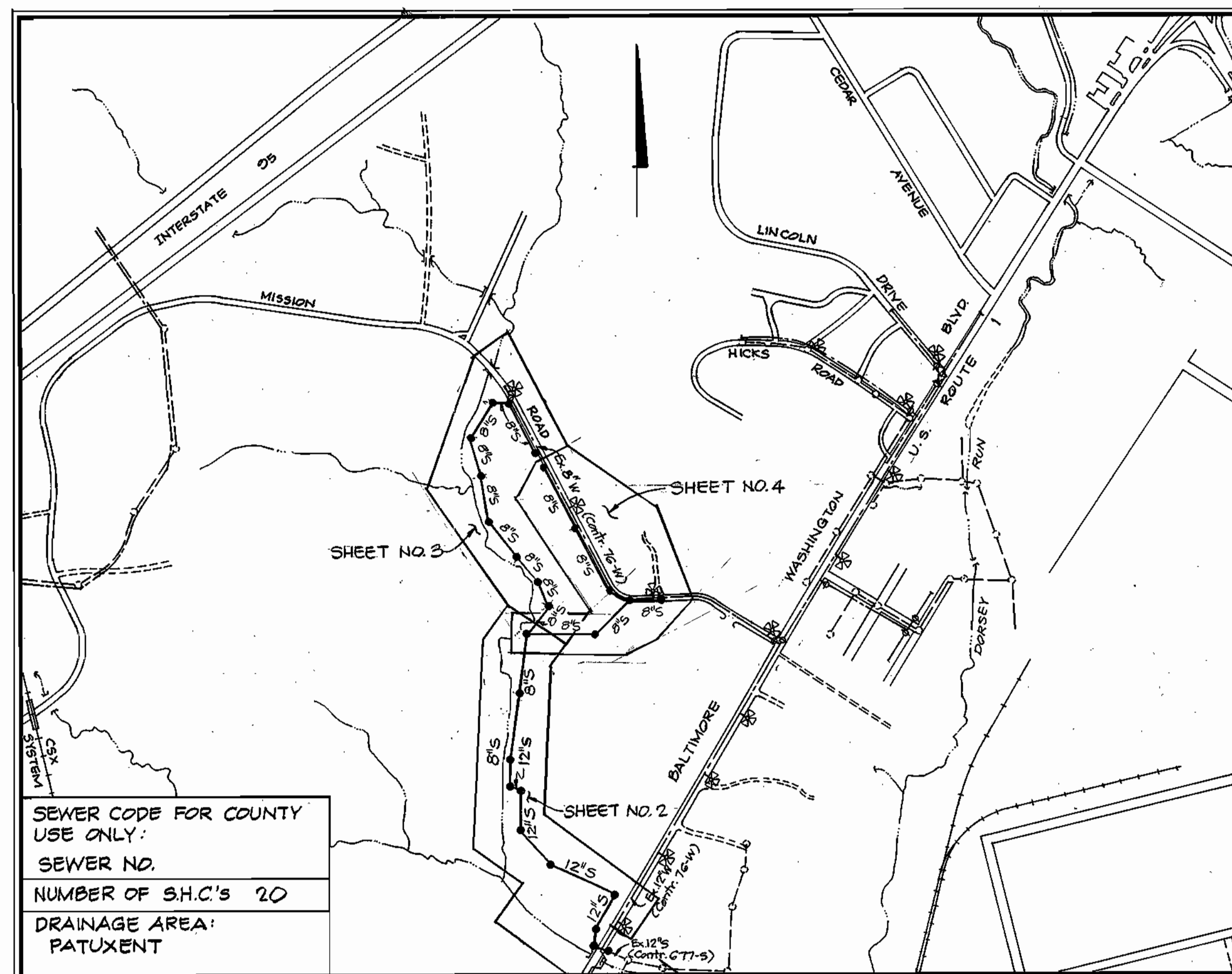
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

Walter P. Jamison Date: 9/13/84
KIDDE CONSULTANTS, INC.
1020 CROMWELL BRIDGE ROAD
TOWSON, MD. 21204

DEVELOPER'S CERTIFICATION

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

William S. Riley
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS



SEWER CODE FOR COUNTY USE ONLY:
SEWER NO. _____
NUMBER OF S.H.C.'S 20
DRAINAGE AREA: PATUXENT

MISSION ROAD COLLECTOR SEWER

CAPITAL PROJECT S-6098

CONTRACT NO. 20-1230

ELECTION DISTRICT NO. 6

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
12" Sewer	1,325 L.F.			
8" Sewer	4,516 L.F.			
12" D.I.P. Sewer	208 L.F.			
8" D.I.P. Sewer	75 L.F.			
Manholes	27 Δ			
Vertical Feet of MH Over 6.5 Feet	136 V.F.			
6" Sewer	402 L.F.			
30" Steel Sleeve	57 L.F.			
Wye Branches or Tees	14			
Vertical Standpipe Type Δ	12 V.F.			
8" Type B Drop Connections	2			

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE: _____
CHIEF, BUREAU OF UTILITIES DATE: _____

William S. Riley 9/13/84
CHIEF, BUREAU OF ENGINEERING DATE: _____
Stephen T. Hub 9/5/84
CHIEF, UTILITY DIVISION DATE: _____

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

DES: T.E.S.	K.C.I. Δ	General Note No. 18 Added 1 Manhole Quantity Revised 9/15/84	
DRN: T.E.S.	K.C.I. Δ	Added Note	8/11/84
CHK: W.B.H.	K.C.I. Δ	Location of Sewer in 600 Scale Plan Revised	4/29/84
	K.C.I. Δ	General Notes Revised	5/17/84
DATE: 8/15/84	K.C.I. Δ	Revised Standard Detail Reference	12/13/84
BY NO.		REVISION	DATE

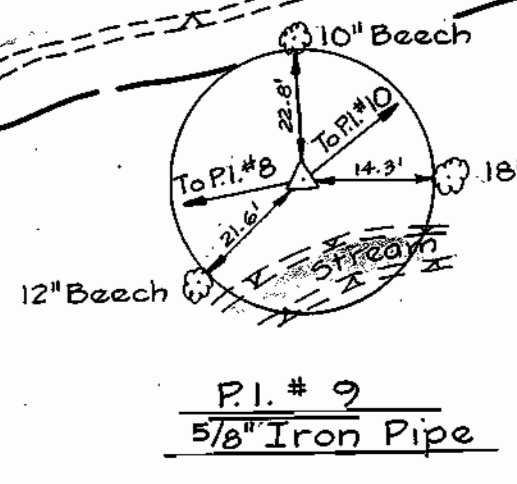
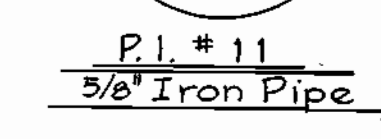
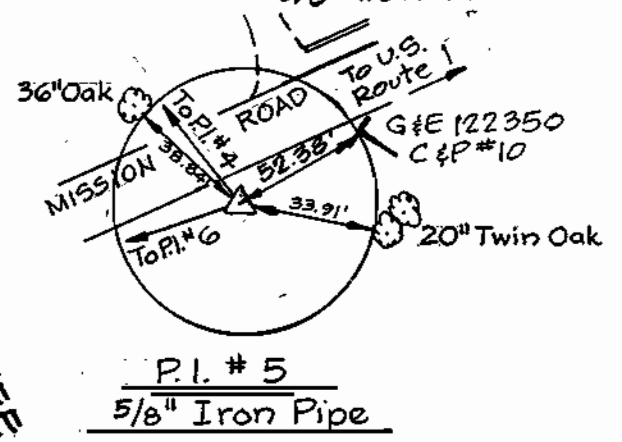
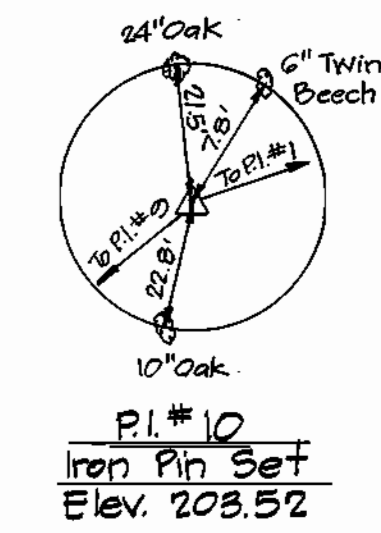
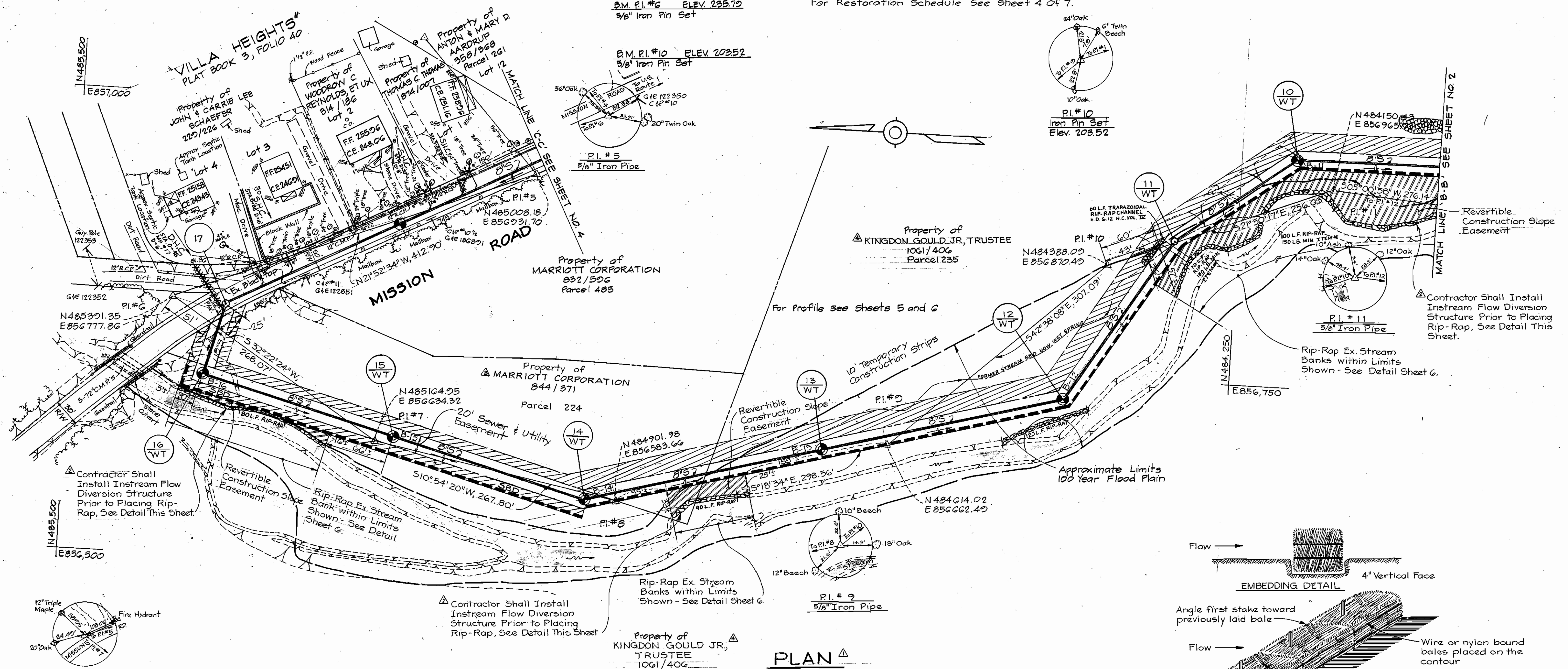
LOCATION MAP OF
SEWER MAIN EXTENSION

MISSION ROAD COLLECTOR SEWER
CAPITAL PROJECT S-6098
CONTRACT NO. 20-1230
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

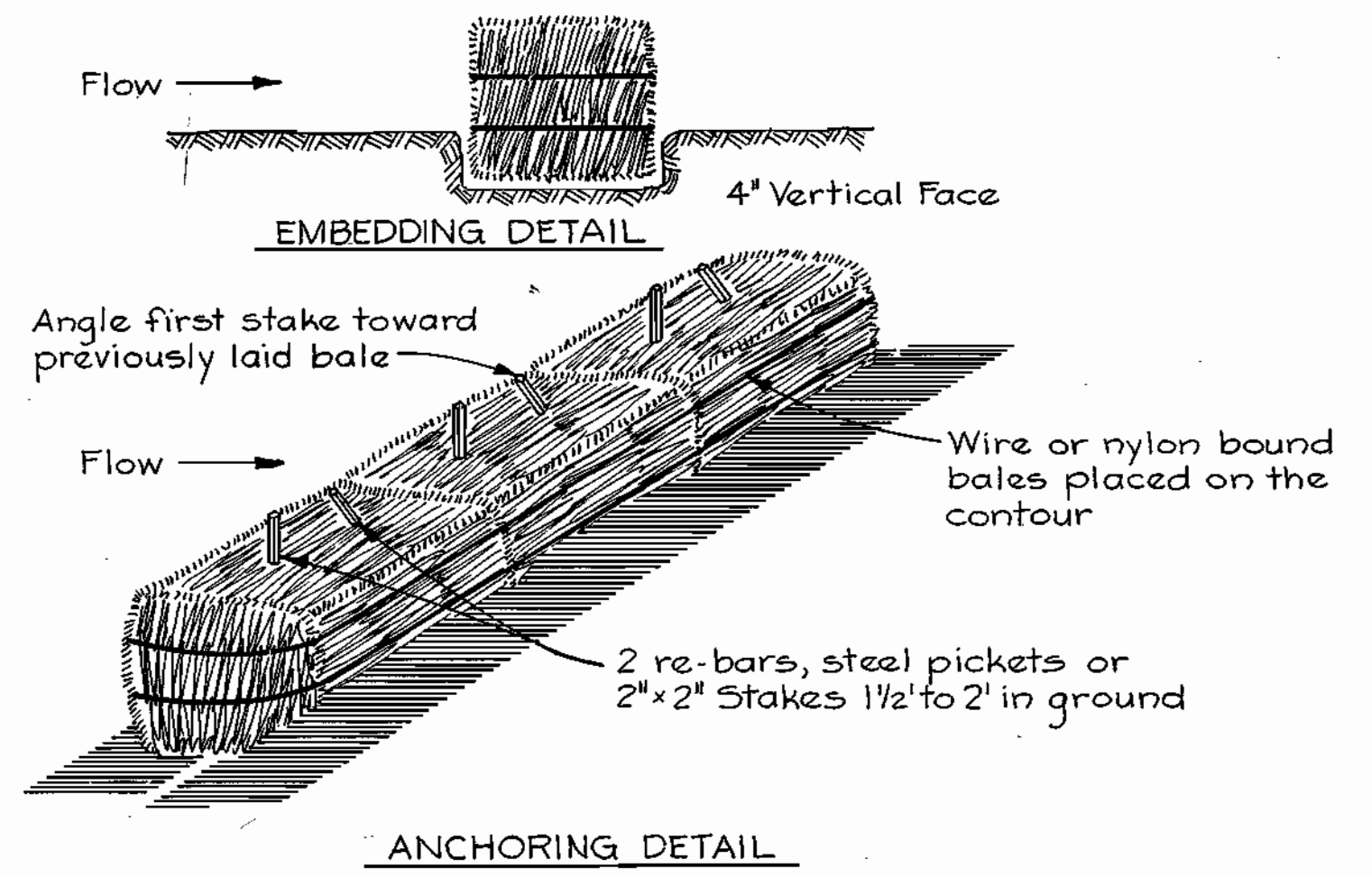
SCALE AS SHOWN
SHEET 1 OF 7

BENCH MARKS
 B.M. P.I.#6 ELEV. 235.70
 5/8" Iron Pin Set

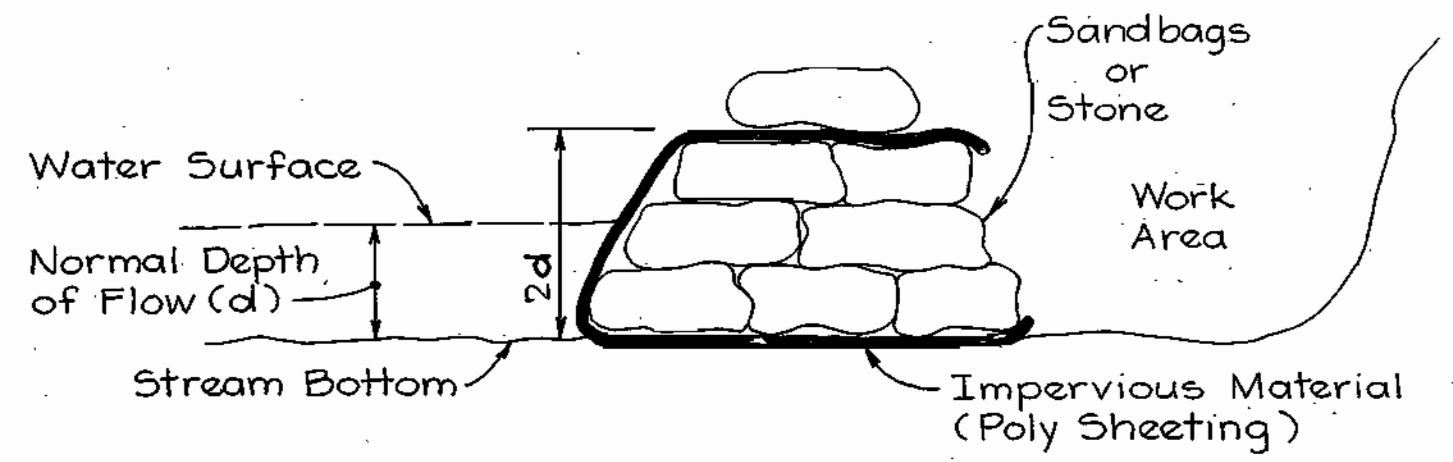
NOTE:
 For Restoration Schedule See Sheet 4 of 7.



PLAN
 Scale: 1" = 50'

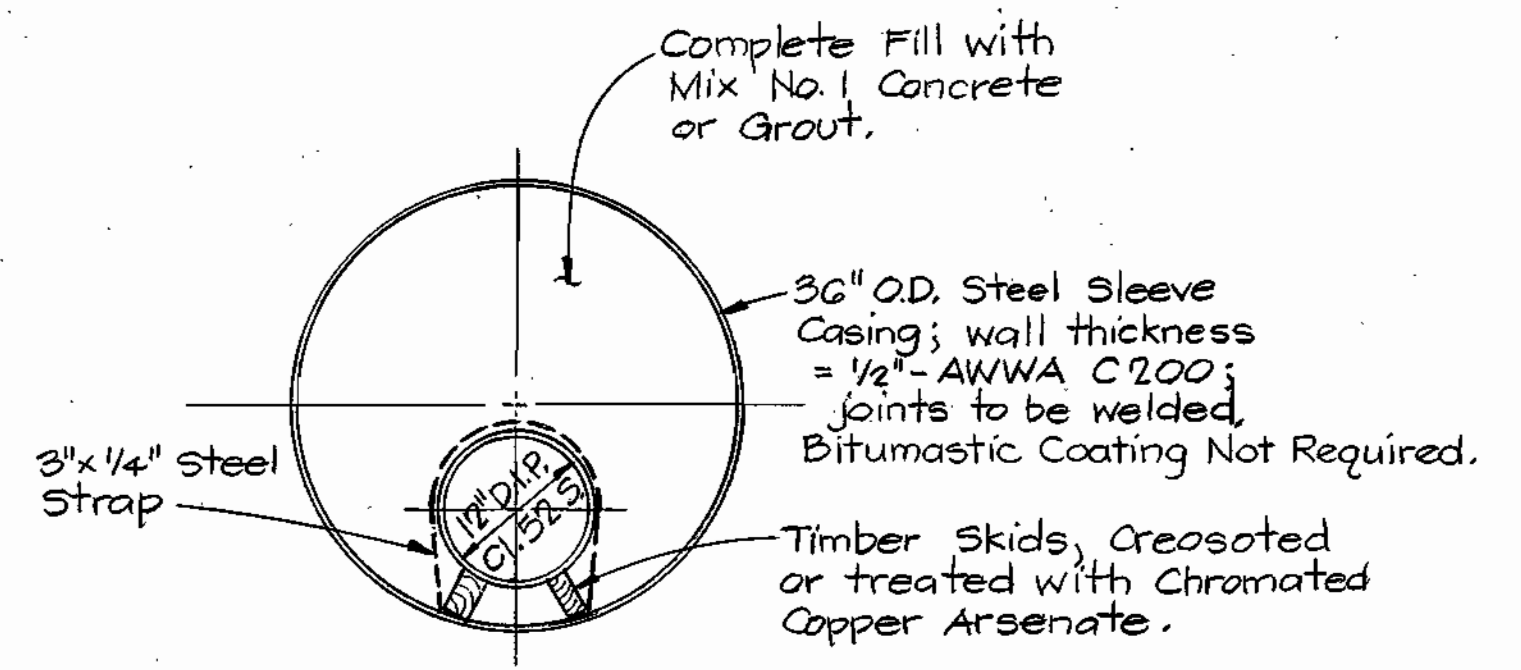


- Bales shall be placed in a row with ends tightly abutting adjacent bales.
- Each bale shall be embedded in the soil a minimum of 4".
- Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed.
- Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.



DETAIL INSTREAM FLOW DIVERSION STRUCTURE
 No Scale

- NOTES:**
- The height of the dike shall be twice the normal depth of flow for example: At 1' of flow depth, the dike should be 2' high at the extent of the poly sheeting.
 - Whenever sheeting is overlapped it shall be from upstream to downstream, for example: Sheeting overlap
 - An upland dewatering pit should be constructed to pump any seepage from the work area.



DETAIL JACKING AND BORING 12" SEWER - 36" STEEL SLEEVE
 Not To Scale

TRAVERSE TIES TO E MANHOLES

TRAVERSE NO.	BEARING	DIST.	MANHOLE NO.
P.I.#11	N 37° 00' 10" E	50.25'	10
P.I.#10	S 23° 20' 43" E	76.03'	11
P.I.#10	N 74° 44' 31" W	152.40'	12
P.I.#9	N 07° 35' 02" W	70.32'	13
P.I.#8	N 01° 56' 00" E	30.90'	14
P.I.#7	S 14° 58' 30" E	24.27'	15
P.I.#6	S 64° 05' 31" W	89.88'	16

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director: *John E. Harms* DATE: 9-12-84
 Chief, Bureau of Engineering: *Robert J. Kelly* DATE: 3-28-84
 Chief, Bureau of Utilities: *Robert J. Kelly* DATE: 3-28-84

KIDDE CONSULTANTS, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

DES: T.E.S.	K.C.I.	Added Restoration Note	7/9/84
DRN: T.E.S.	K.C.I.	Owner's Name Revised	4/29/84
CHK: W.B.H.	K.C.I.	Revised Property Owner - Parcel 224	7/2/85
	K.C.I.	Instream Diversion Structure Note & Detail Added	1/7/85
DATE: 8/15/84	K.C.I.	R/W Revised; Rip-Rap of Stream Added	12/13/84
BY NO.	REVISION	DATE	

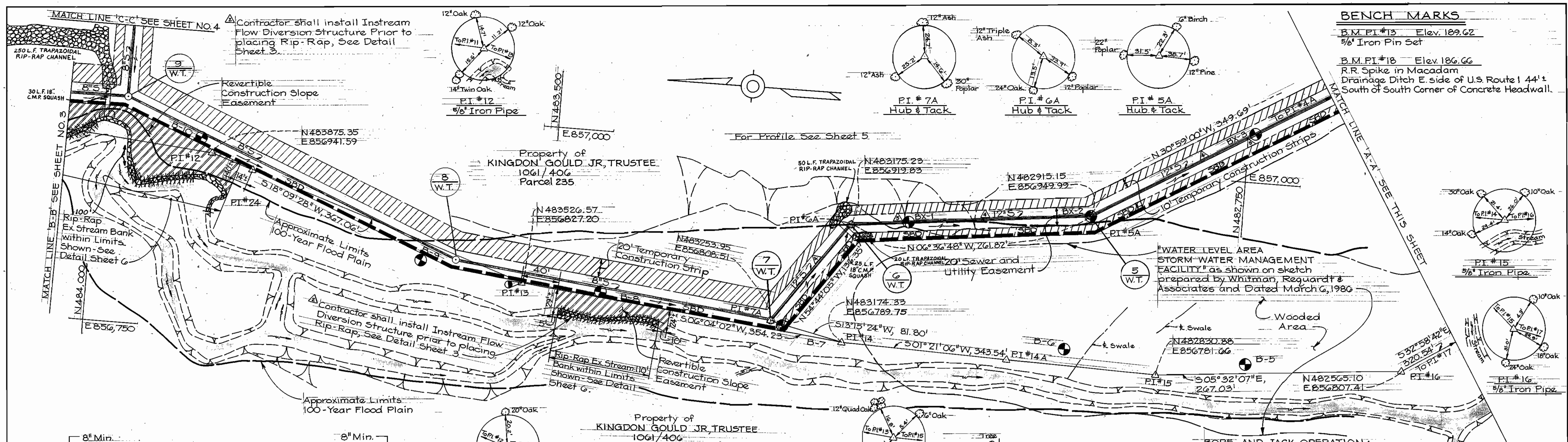
PLAN OF SEWER MAIN EXTENSIONS

600' SCALE MAP NO. 43 BLOCK NO. 13

MISSION ROAD COLLECTOR SEWER

CAPITAL PROJECT S-6098
 CONTRACT NO. 20-1230
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 7



BENCH MARKS

B.M. PI #13 Elev. 189.62
5/8" Iron Pin Set

B.M. PI #18 Elev. 186.66
R.R. Spike in Macadam
Drainage Ditch E. side of U.S. Route 1 44' ±
South of South Corner of Concrete Headwall.

PLAN A
Scale: 1" = 50'

BORE AND JACK OPERATION:

The Contractor shall install the 36" Steel Sleeve from the downstream side of the sewer. The Contractor may remove as many lengths of existing 12" S. Pipe as required to install his driving pit. The Contractor shall confine his operation to the existing 20' Right-of-Way and Construction Strips shown. Should his operation require additional area, it shall be the Contractor's responsibility to obtain same, and no additional cost will be paid for such. The Contractor shall submit a detailed written procedure for the Bore and Jack Operation for approval by the County before beginning work. The Contractor shall also confine his receiving pit operation within the Right-of-Way and Construction Strips shown; if additional area is required it shall be the Contractor's responsibility to obtain same and no additional cost will be paid for such. The Contractor shall not schedule any operation that would hinder flow in the local stream adjacent to the receiving pit.

NOTE:

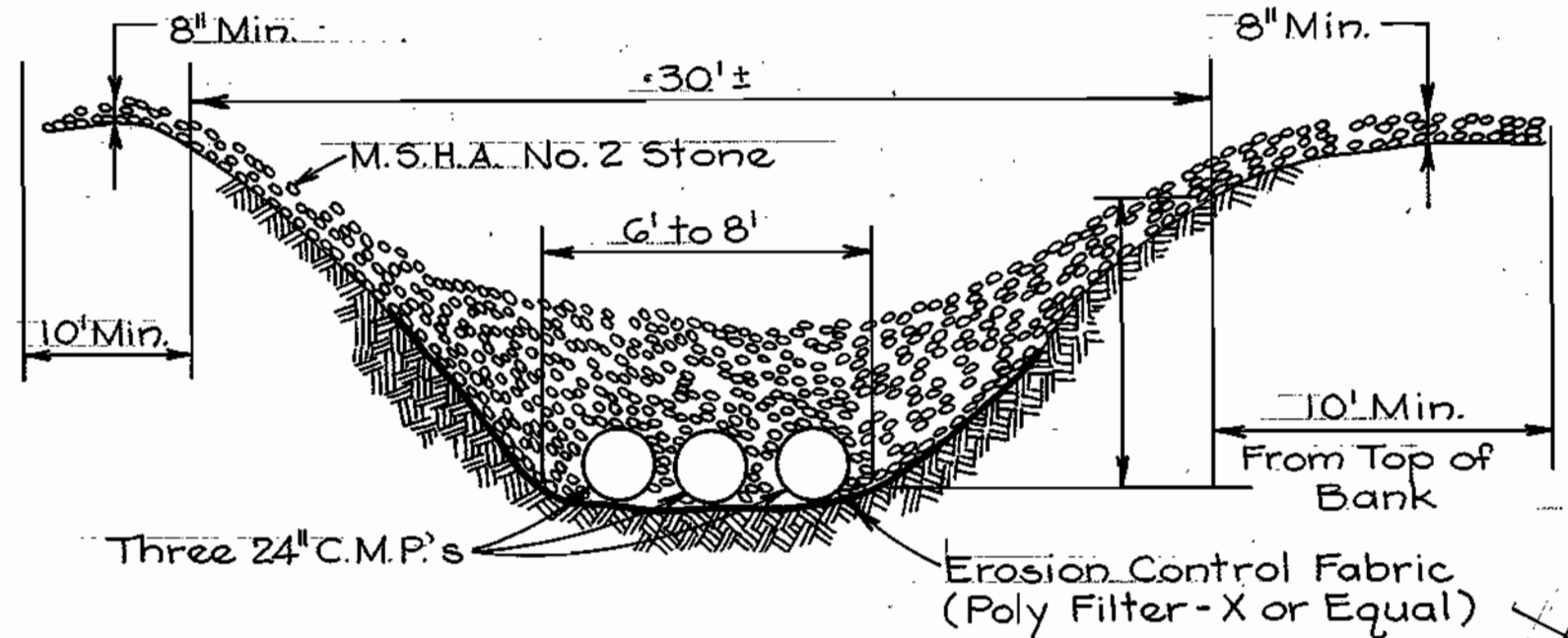
Contractor shall protect trees during construction, should the trees be damaged they shall be replaced at no additional cost to the County.

NOTE:

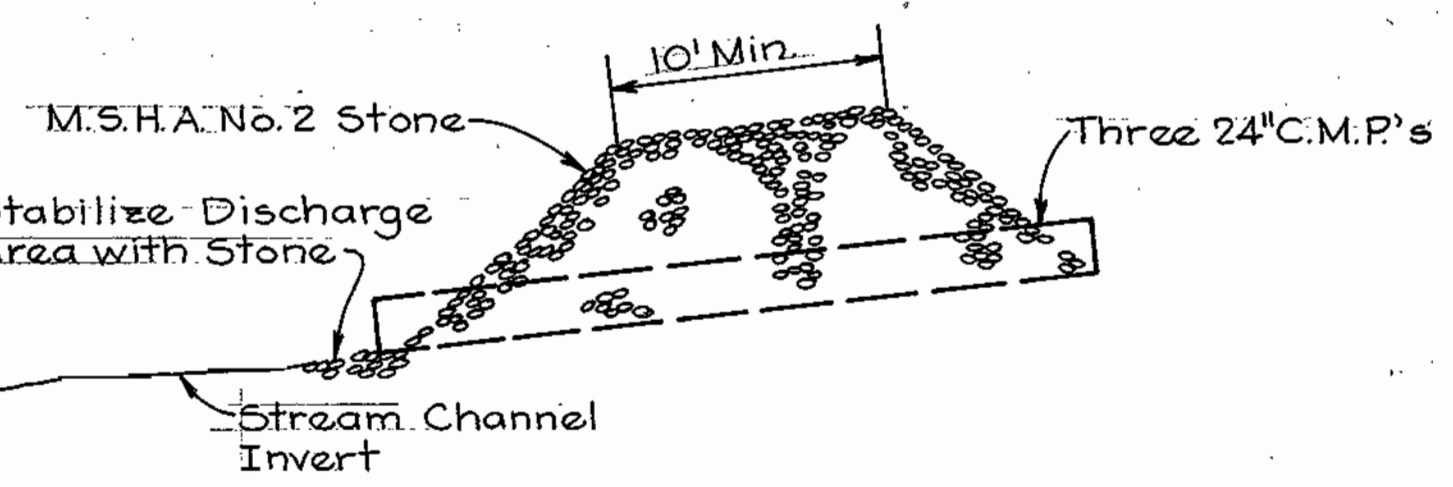
For Restoration Schedule See Sheet 4 of 7.

CONSTRUCTION NOTE:

The Contractor shall within ten days of the award of the Contract, Test Pit all utilities within U.S. Route 1 including the end of the Ex. 12" S and verify the horizontal location of each utility. He shall also obtain top and bottom elevations of all utilities during his test pitting operation. This information shall be immediately conveyed to Howard County. Payment for Test Pits shall be under the appropriate item in the Specification. Upon receipt of this information Howard County will review it and advise the Contractor within five (5) days if adjustments to the horizontal or vertical alignments are required.



SECTION ACROSS CHANNEL



SECTION ALONG CHANNEL

STABILIZED STREAM BED CROSSING
Not to Scale.

TRAVERSE NO.	BEARING	DIST.	MANHOLE NO.
PI #18	N 61° 20' 13" E	131.00'	1
PI #18	N 24° 54' 46" E	99.56'	2
PI #G-1	N 06° 38' 05" E	82.05'	3
PI #3A	N 57° 32' 57" W	390.60'	4
PI #15	N 63° 01' 24" E	188.25'	5
PI #14	N 89° 36' 13" E	130.07'	6
PI #14	N 13° 32' 24" E	81.76'	7
PI #13	N 15° 09' 07" E	75.74'	8
PI #12	N 30° 09' 39" E	108.26'	9
PI #18	N 22° 42' 46" E	234.44'	2A

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John E. Harms 5-20-86
DIRECTOR OF PUBLIC WORKS DATE

William E. Bay 5/19/86
CHIEF, BUREAU OF ENGINEERING DATE

Richard Bringer 5-19-86
CHIEF, BUREAU OF UTILITIES DATE

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

William E. Bay
CHIEF, UTILITY DIVISION DATE

DES.	CHK.	DATE	BY	NO.	REVISION	DATE
T.E.S.		8/15/84			Corrected Spelling - Shifted Note	8/15/84
J.M.G.		7/19/86			Added Restoration Note	7/19/86
		6/3/84			Added Soil Borings BX-1 to BX-7	6/3/84
		4/29/84			Revised Sewer Main Location	4/29/84
		4/11/85			Revised Location of Manhole #3	4/11/85
		1/17/85			Instream Diversion Structure Note Added	1/17/85
		2/13/84			R/W Revised; Rip-Rap of Stream Added	2/13/84

PLAN OF SEWER MAIN EXTENSIONS

600' SCALE MAP NO. 43 BLOCK NO. 19 & 20

MISSION ROAD COLLECTOR SEWER

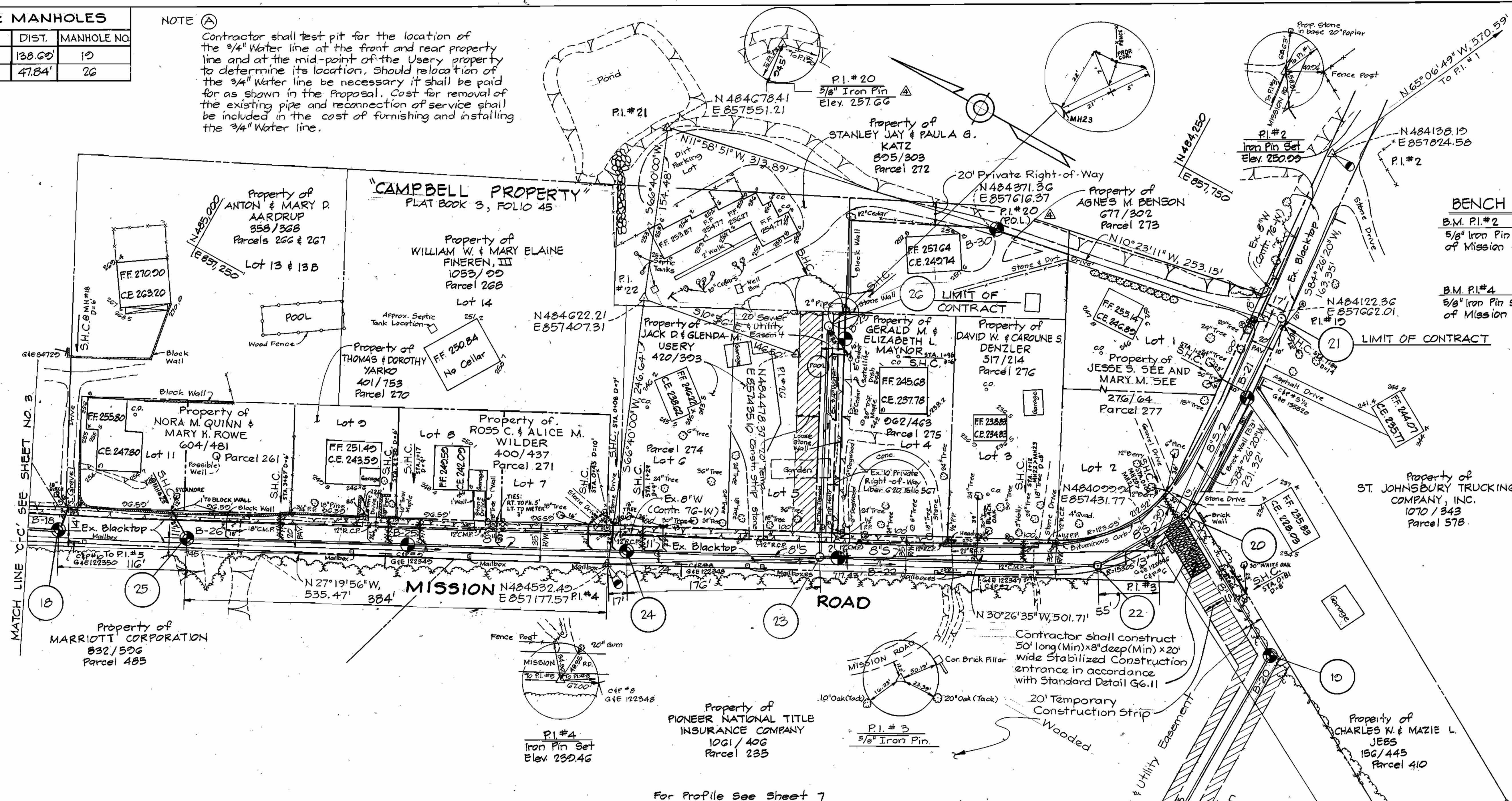
CAPITAL PROJECT S-6098
CONTRACT NO. 20-1230
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 7

AS-BUILT JOHN E. HARMS AND ASSOC. JULY, 1987

TRAVERSE NO.	BEARING	DIST.	MANHOLE NO.
P.I. #3	S 13° 40' 34" W	138.60'	19
P.I. #26	S 74° 54' 14" E	47.84'	26

NOTE (A)
Contractor shall test pit for the location of the 3/4" Water line at the front and rear property line and at the mid-point of the User property to determine its location. Should relocation of the 3/4" Water line be necessary it shall be paid for as shown in the Proposal. Cost for removal of the existing pipe and reconnection of service shall be included in the cost of furnishing and installing the 3/4" Water line.



BENCH MARKS
 B.M. P.I. #2 ELEV. 250.00
 5/8" Iron Pin Set in N. Edge of Mission Road
 B.M. P.I. #4 ELEV. 230.46
 5/8" Iron Pin Set in W. Edge of Mission Road

MATCH LINE 'C-C' SEE SHEET NO. 3

MATCH LINE 'C-C' SEE SHEET NO. 2

For Profile See Sheet 7

PLAN
Scale: 1" = 50'

RESTORATION SCHEDULE

LOCATION	DESCRIPTION OF RESTORATION	LOCATION	DESCRIPTION OF RESTORATION
FROM TO		FROM TO	
Ex. MH 8760	MH 1 Seed & Mulch	MH 9	MH 10 Seed & Mulch
MH 1	MH 2 No Restoration - Bored & Jacked	MH 19	MH 20 Seed & Mulch
MH 2	MH 2A Seed & Mulch	MH 20	MH 21 Roadway - Bituminous Concrete, Right & Left of Road - Sod, Driveway - Stone, Gravel or Bituminous Concrete
MH 2A	MH 3 Seed & Mulch		
MH 3	MH 4 Seed & Mulch		
MH 4	MH 5 Seed & Mulch	MH 20	MH 22 Roadway - Bituminous Concrete, Shoulder - Gravel, Right of Road - Sod, Left of Road - Seed & Mulch, Driveway - Stone or Gravel
MH 5	MH 6 Seed & Mulch		
MH 6	MH 7 Seed & Mulch		
MH 7	MH 8 Seed & Mulch	MH 22	MH 23 Roadway - Bituminous Concrete, Shoulder - Gravel, Right of Road - Sod, Left of Road - Seed & Mulch, Driveway - Stone or Gravel
MH 8	MH 9 Seed & Mulch		
MH 9	MH 10 Seed & Mulch		
MH 10	MH 11 Seed & Mulch	MH 23	MH 24 Roadway - Bituminous Concrete, Shoulder - Gravel, Right of Road - Sod, Left of Road - Seed & Mulch, Driveway - Stone or Gravel
MH 11	MH 12 Seed & Mulch		
MH 12	MH 13 Seed & Mulch		
MH 13	MH 14 Seed & Mulch	MH 24	MH 25 Roadway - Bituminous Concrete, Shoulder - Gravel, Right of Road - Sod, Left of Road - Seed & Mulch, Driveway - Stone or Gravel
MH 14	MH 15 Seed & Mulch		
MH 15	MH 16 Seed & Mulch		
MH 16	MH 17 0+00 - 0+70 - Seed & Mulch 0+70 - 0+75 - Roadway - Bituminous Concrete, Shoulder - Gravel	MH 23	MH 26 0+00 - 0+15 - Roadway - Bituminous Conc. 0+15 - 2+24 - Sod
MH 17	MH 18 Roadway - Bituminous Concrete, Shoulder - Gravel, Right of Road - Seed & Mulch, Left of Road - Sod, Driveway - Stone, Gravel or Macadam		

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE
 CHIEF, BUREAU OF UTILITIES DATE

KIDDE CONSULTANTS, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

DES: T.E.S.			
DRN: T.E.S.	K.C.I.	Labeled P.I. #20 & Added Plan & Scale	2/15/84
CHK: W.B.H.	K.C.I.	Revised Restoration Schedule	8/11/86
	K.C.I.	Added Restoration Schedule	7/9/86
	K.C.I.	Stream Crossing Detail Deleted	4/23/86
DATE: 8/15/84	BY NO.	REVISION	DATE

PLAN OF SEWER MAIN EXTENSIONS
 600' SCALE MAP NO. 43 BLOCK NO. 13

MISSION ROAD COLLECTOR SEWER
 CAPITAL PROJECT S-6098
 CONTRACT NO. 20-1230
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 7

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL SET FORTH IN THE CONTRACT DRAWINGS, THE USDA SOIL CONSERVATION SERVICE MANUAL, "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS", AND VOLUME IV - ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV.
2. THE CONTRACTOR SHALL NOT PUMP FROM EXCAVATED AREAS DIRECTLY INTO THE HOWARD COUNTY STORM DRAINAGE SYSTEM OR ANY NATURAL WATER COURSE. WHERE GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PORTABLE OR EXCAVATED SEDIMENT TRAPS TO PREVENT SILTED TRENCH WATER FROM ENTERING STORM DRAINAGE SYSTEMS OR NATURAL WATERWAYS.
3. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH WHENEVER POSSIBLE, AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE COURSES.
4. ALL SWALES SHALL BE EQUIPPED WITH A SEDIMENT RETENTION DEVICE TO TRAP SEDIMENT AND FILTER WATER LEAVING THE RIGHT-OF-WAY PRIOR TO ENTERING ANY RUNNING STREAMS.
5. THE CONTRACTOR SHALL PROVIDE STRAW BALE DIKES NORMAL TO SURFACE WATER FLOW AROUND ALL VEHICLE AND EQUIPMENT STAGING AREAS AS SHOWN IN "DETAIL OF A STRAW BALE DIKE" ENCLOSED IN SPECIFICATIONS.
6. ROADSIDE DITCHES AND DRAINAGE PIPES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION FOLLOWING COMPLETION OF CONSTRUCTION.
7. THE CONTRACTOR SHALL DISPOSE OF SPOILS IN ACCORDANCE WITH GOOD SOIL CONSERVATION PRACTICE AND IN SUCH A MANNER THAT NONE CAN BE CARRIED INTO ANY DRAINAGE FACILITY OR WATER COURSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL OR EXCESS EXCAVATED MATERIAL ON A SITE APPROVED BY THE SOIL CONSERVATION DISTRICT. DOCUMENTATION OF APPROVAL AND SITE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING WORK.
8. THE HOWARD COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING BY THE CONTRACTOR AS TO WHERE EXCESS MATERIAL WILL BE DISPOSED OR BORROW MATERIAL WILL BE OBTAINED. PRIOR TO BEGINNING ANY WORK ON THIS PROJECT, COPIES SHALL BE PROVIDED TO THE ENGINEER.
9. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES WILL BE REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR, AS THE WORK PROGRESSES OR REQUIRES.
11. THE CONTRACTOR SHALL NOTIFY IN WRITING, A HOWARD COUNTY SEDIMENT CONTROL DIVISION REPRESENTATIVE AT LEAST THREE (3) DAYS PRIOR TO STARTING WORK. PLEASE CONTACT: HOWARD COUNTY - 992-2436. COPIES SHALL BE PROVIDED TO THE ENGINEER.
12. THE CONTRACTOR SHALL PLACE A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN IN THE HOWARD COUNTY STANDARD DETAILS, 66.11, WHERE SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
13. SEDIMENT REMOVAL - ALL TRAPPED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AT THE AUTHORIZED LANDFILLS PRIOR TO REMOVAL OF SEDIMENT CONTROL STRUCTURES.
14. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - A.) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).
 - B.) FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
15. EXCAVATED TOPSOIL AND SUBSOIL SHALL BE KEPT SEPERATE AND REPLACED IN THEIR NATURAL ORDER.
16. A CONTINUOUS SEDIMENT BARRIER SHALL BE PROVIDED FOR ALL DISTURBED AREAS UNTIL THE AREA IS STABILIZED.
17. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL THE SEDIMENT CONTROL INSPECTOR APPROVES THEIR REMOVAL.

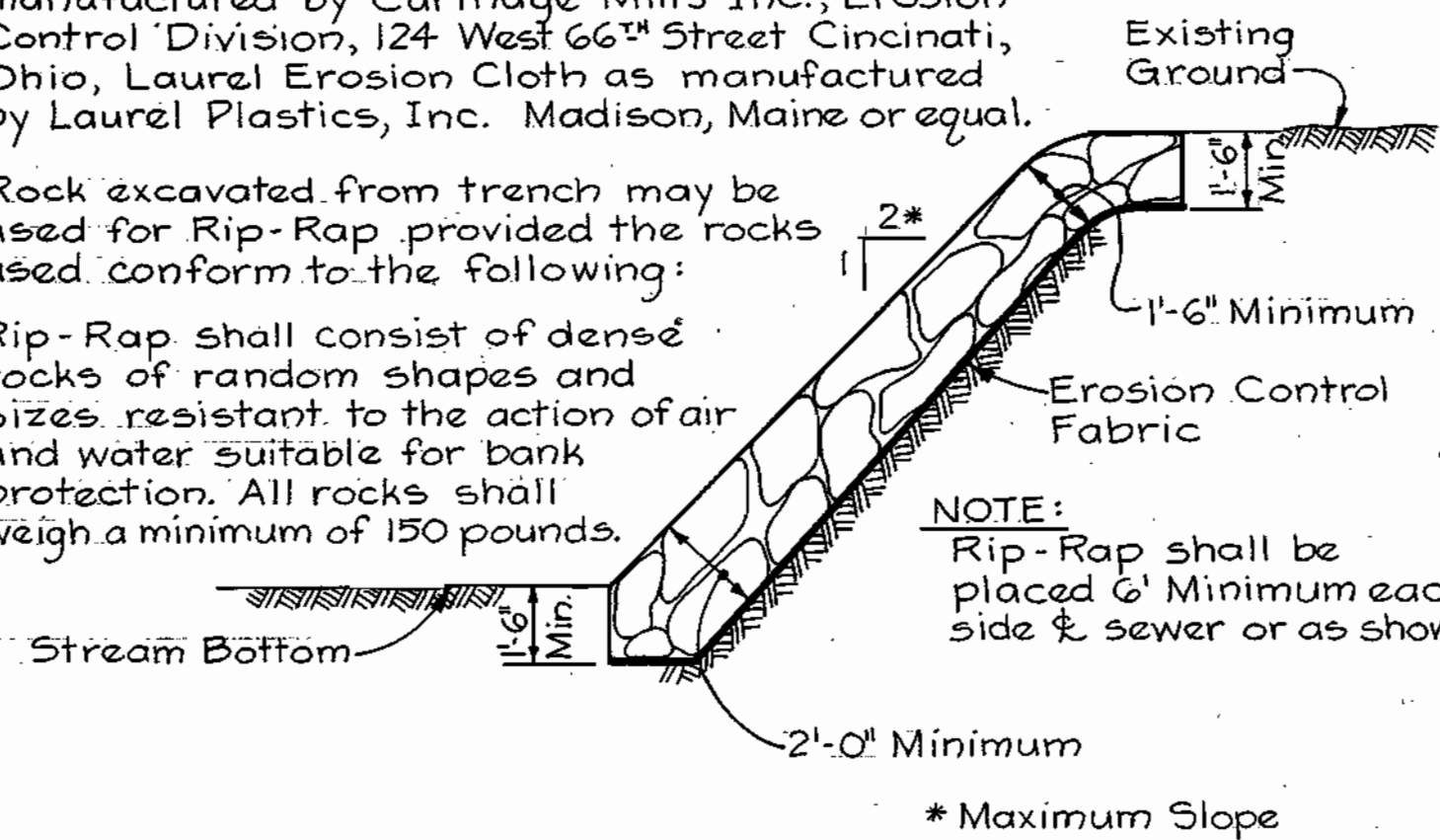
NOTES:

Erosion Control Fabric shall be Poly Filter X as manufactured by Carthage Mills Inc., Erosion Control Division, 124 West 66th Street Cincinnati, Ohio, Laurel Erosion Cloth as manufactured by Laurel Plastics, Inc. Madison, Maine or equal.

Rock excavated from trench may be used for Rip-Rap provided the rocks used conform to the following:

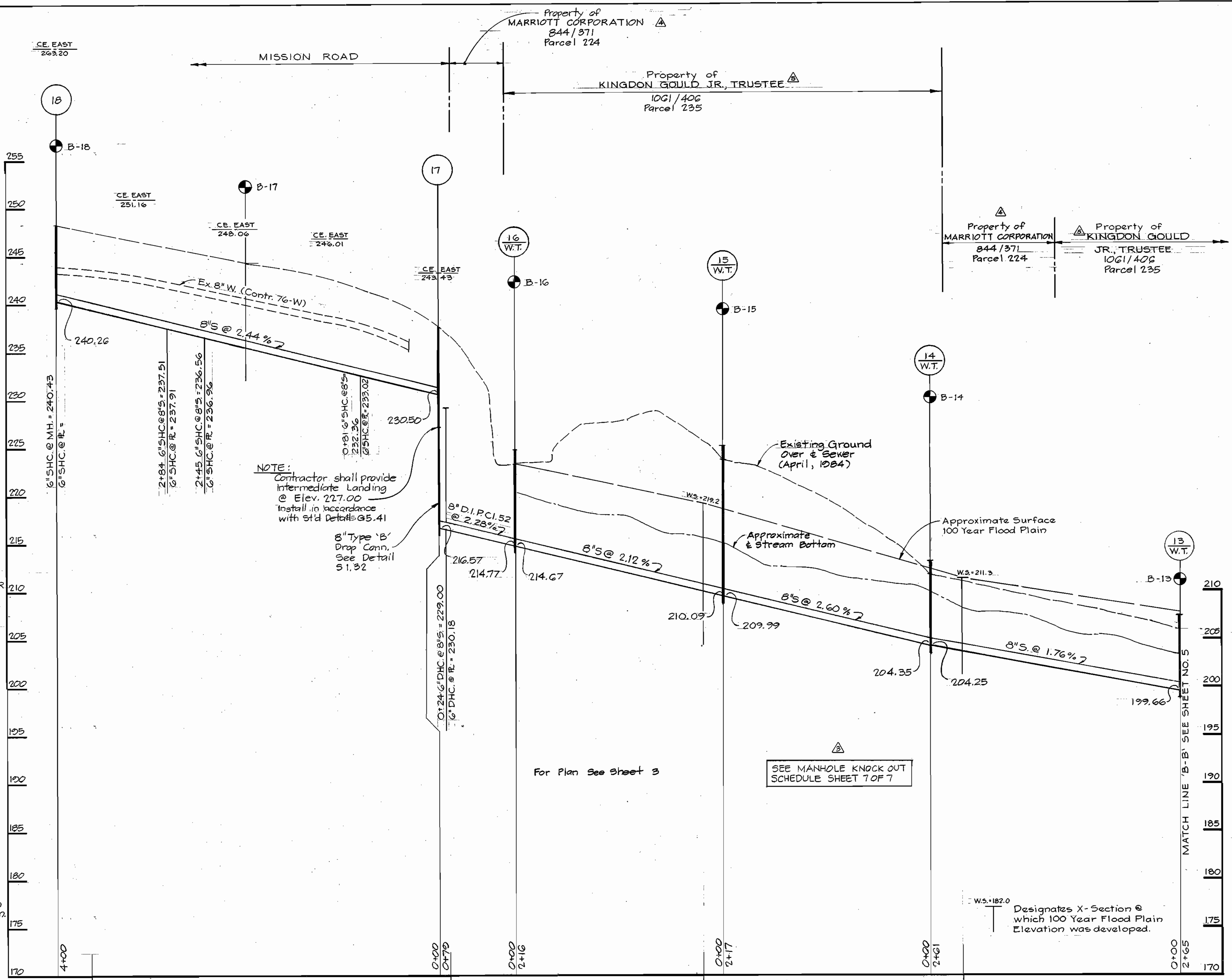
Rip-Rap shall consist of dense rocks of random shapes and sizes resistant to the action of air and water suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.

NOTE:
Rip-Rap shall be placed 6' Minimum each side of sewer as shown.



RIP-RAP DETAIL

No Scale



PROFILE

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

NOTE:
Should the Contractor elect to use ACP on this Project, Class 4000 must be Utilized.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert F. Nemes* 9-12-84
 Chief, Bureau of Engineering: *William S. Poirier* 11-12-84
 Chief, Bureau of Utilities: *Robert H. Benjamin* 9-12-84
 Chief, Utility Division: *Kevin J. Kain* 8-28-84

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

Michael J. Kidde
Professional Engineer

DES: T. E. S.	K.C.I.	Revised ACP Note	6/9/84
	K.C.I.	Revised Property Owner	4/29/84
DRN: J. M. G.	K.C.I.	Revised Property Owner	7/2/85
	K.C.I.	Added Manhole knock-out Note	4/11/85
CHK: W. B. H.	K.C.I.	Note on Clearance betwn Rip-Rap & Pipe Removal	1/7/85
	K.C.I.	Sediment Control Notes Revised; Detail Revised	12/19/84
DATE: 8/15/84	BY NO.	REVISION	DATE

PROFILE OF SEWER MAIN EXTENSIONS

600' SCALE MAP NO. 43 BLOCK NO. 13

MISSION ROAD COLLECTOR SEWER

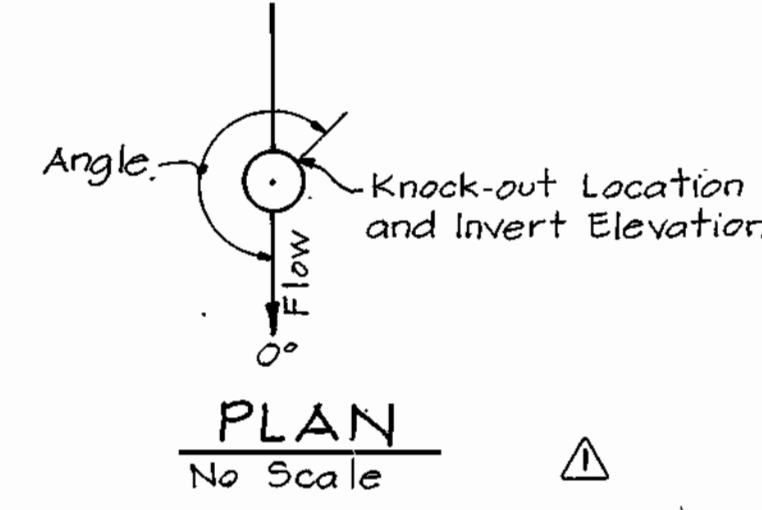
CAPITAL PROJECT S-6098
 CONTRACT NO. 20-1230
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 6 OF 7

Property of
 KINGDON GOULD JR., TRUSTEE
 1061/406
 Parcel 235

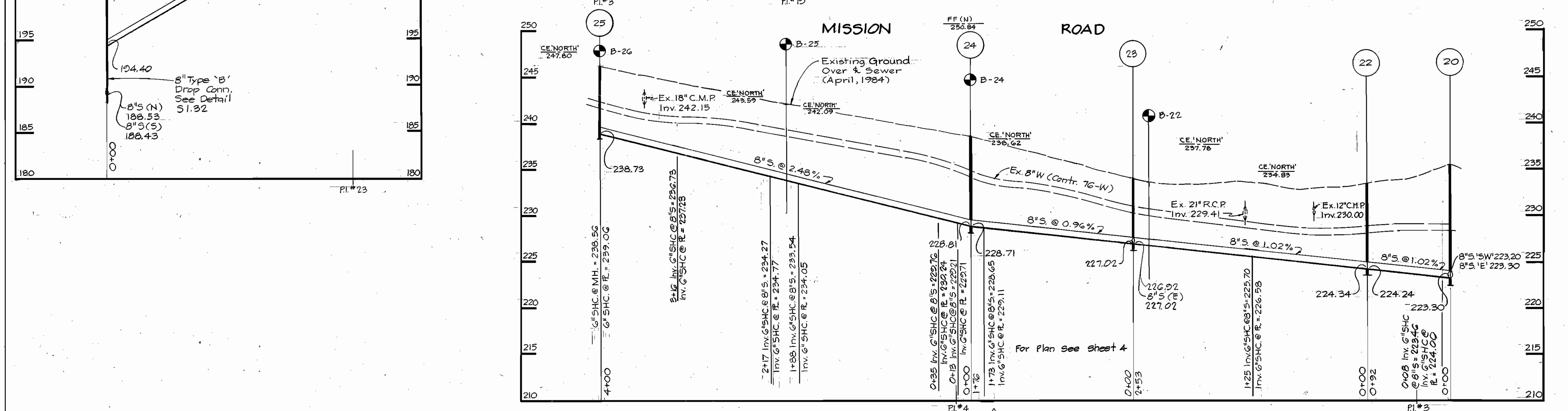
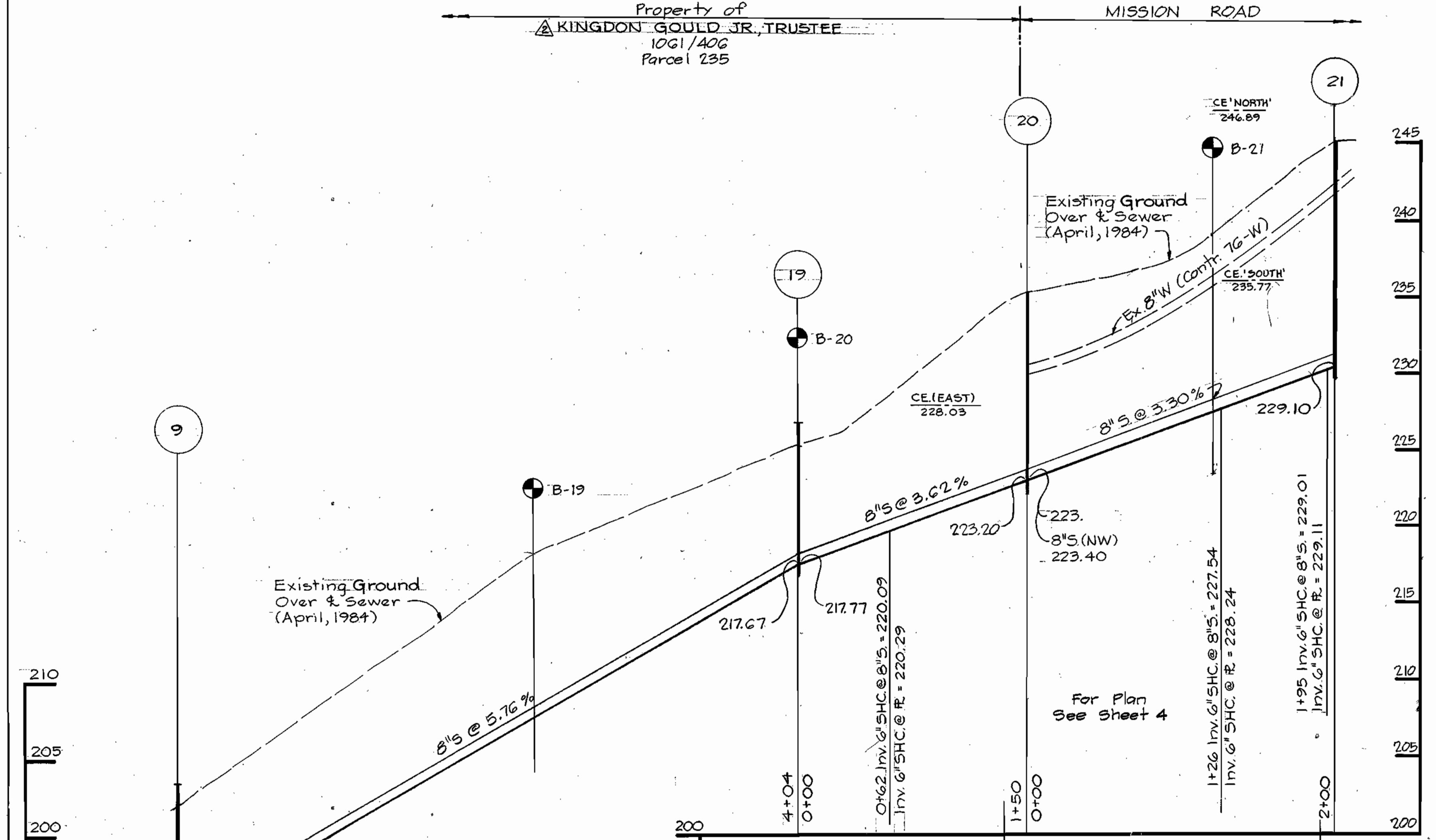
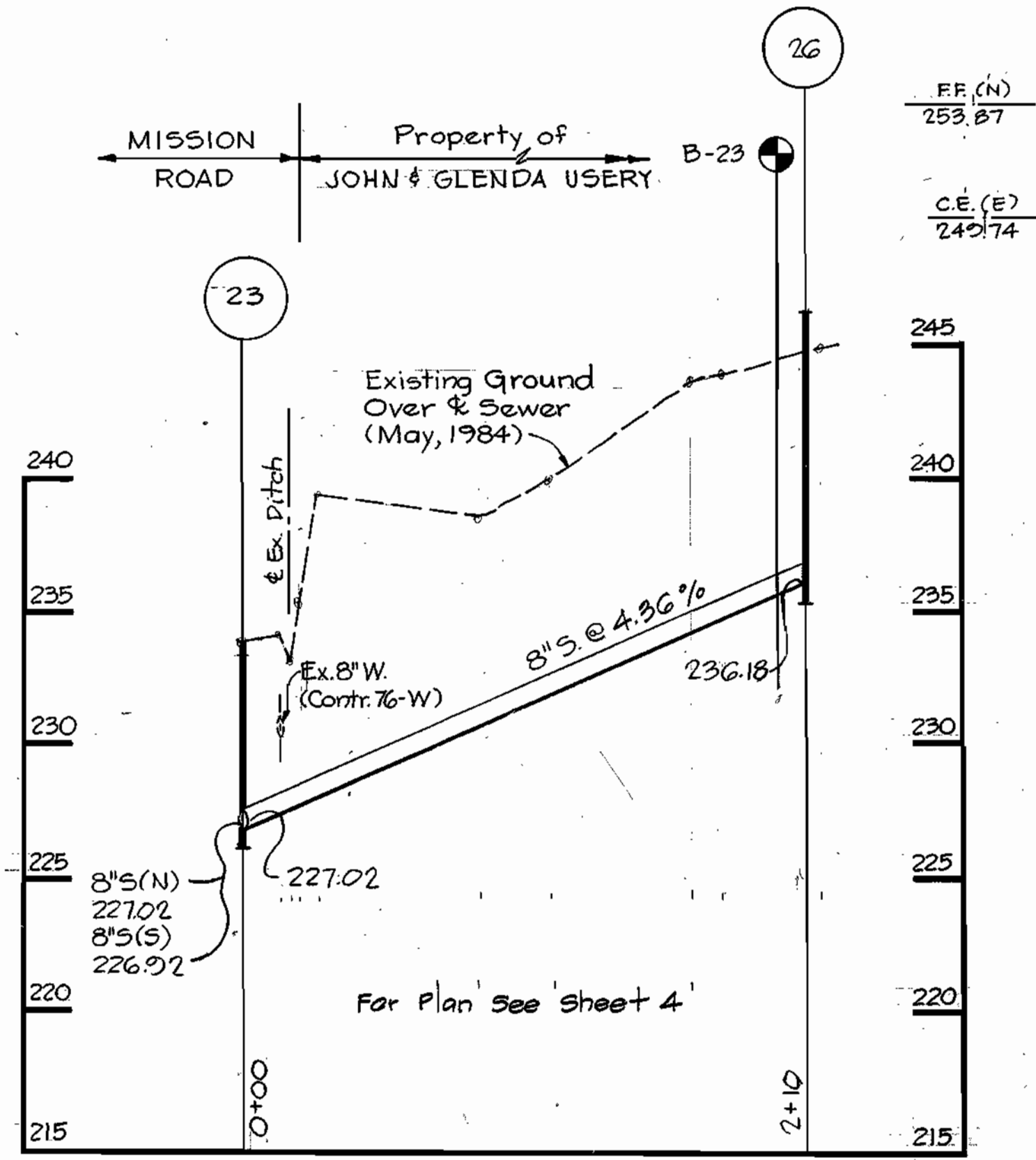
MISSION ROAD

NOTE (A):
 Contractor shall test pit for the location of the 3/4" Water at the front and rear property line and at the mid-point of the User's property to determine its location. Should relocation of the 3/4" Water line be necessary it shall be paid for as shown in the Proposal. Cost for removal of the existing pipe and reconnection of service shall be included in the cost of furnishing and installing the 3/4" Water line.



SCHEDULE MANHOLE KNOCK-OUT OPENINGS			
MH NO	ANGLE	DIRECTION	INV. ELEVATION
3	180°	NE	174.87
2	228°	SW	172.90
5	270°	NE	178.92
7	209°	NW	181.42
12	130°	W	105.43
14	20°	W	204.95
16	120°	W	214.77
16	200°	N	214.77

- NOTES:
1. Manholes listed above shall be provided with knock-out openings at the location and invert elevation shown.
 2. A Manhole may have more than one knock-out opening.
 3. Manholes listed above shall be channelized at their inverts in accordance with Standard Details G.5.31 and G.5.32.



PROFILES

Scale: Hor. 1" = 50'
 Vert. 1" = 50'

NOTE: (A)
 Should the Contractor elect to use ACP on this Project, only Class 4000 must be Utilized.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 9-11-84
 Chief, Bureau of Engineering: *[Signature]* Date
 Chief, Bureau of Utilities: *[Signature]* 8-25-84
 Chief, Utility Division: *[Signature]* Date

KIDDE CONSULTANTS, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

[Signature]

DES: T.E.S.			
DRN: J.M.G.			
CHK: W.B.H.	KCI	Revised ACP Note	6/5/84
	KCI	Revise Owner Name & Knock-Out Schedule	4/29/84
	KCI	Add MH Knock-out Schedule & Detail	4/11/85
DATE: 8/15/84	BY NO.	REVISION	DATE

PROFILE OF
 SEWER MAIN EXTENSIONS

600' SCALE MAP NO. 43 BLOCK NO. 13

MISSION ROAD COLLECTOR SEWER
 CAPITAL PROJECT S-6098
 CONTRACT NO. 20-1230
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 7 OF 7