

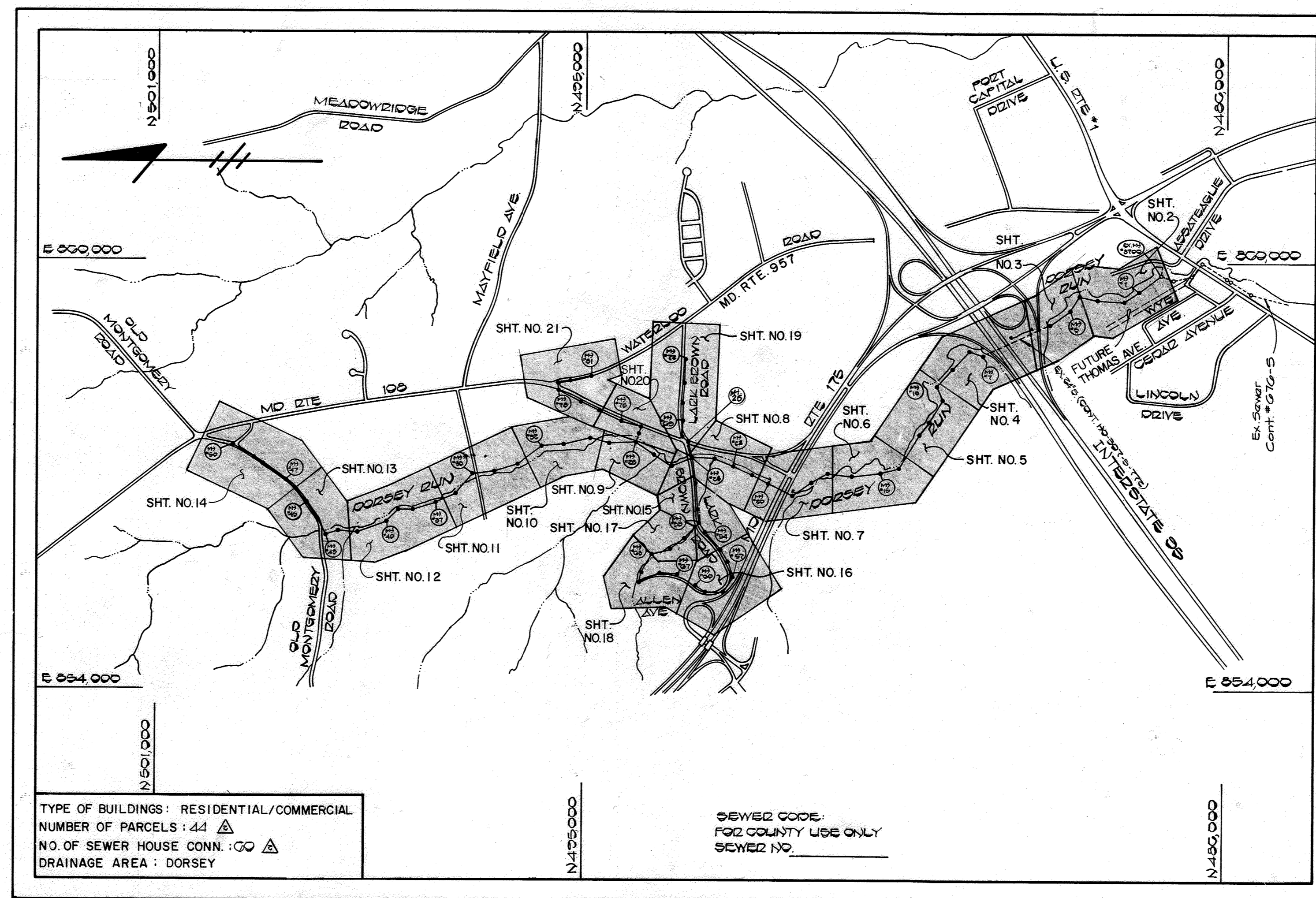
GENERAL NOTES

- 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-561-2585
BALTIMORE GAS & ELECTRIC CO.-UNDERGROUND DAMAGE CONTROL-234-5621
BALTIMORE GAS & ELECTRIC CO.-TROUBLE SHOOTING-298-9013
MISS UTILITY-1-569-0100
CHESAPEAKE & POTOMAC TELEPHONE 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 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 DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE A STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER (STANDARD DETAIL 65.51) TOGETHER WITH A WATERTIGHT MANHOLE INSERT AS SPECIFIED IN PARAGRAPH 4.37 OF THE SPECIAL PROVISIONS. SET MH FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- THE CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON SHEETS 22, 23, AND 24 IN ADDITION TO THE MEASURES INDICATED ON THE ACTUAL CONSTRUCTION DRAWINGS (SHEETS 2-21).
- INVERTS OF THE SEWER HOUSE CONNECTIONS AT THE PROPERTY LINE ARE INDICATED BY THE SYMBOL: [32.108]
- INTERCEPTOR SEWER CAPACITIES, FULL FLOW VELOCITIES, PARTIAL FLOW VELOCITIES AND DEPTHS OF FLOW SHOWN BELOW THE PROFILES ARE BASED ON A MANNING'S 'N' VALUE OF 0.013.
- "T.B." DENOTES TEST (SOIL) BORING.
- TREES LOCATED WITHIN THE RIGHT-OF-WAY & CONSTRUCTION STRIPS FOR THE PROPOSED SEWER MAINS HAVE BEEN IDENTIFIED BY TYPE IN ACCORDANCE WITH THE FOLLOWING LEGEND: B=BEECH, G=GUM, L=LOCUST, M=MAPLE, O=OAK, P=POPLAR, S=SYCAMORE, W=WALNUT. AREAS WHICH HAVE NOT BEEN INCORPORATED INTO THE METROPOLITAN DISTRICT HAVE BEEN DELINEATED AS FOLLOWS: [Symbol]

QUANTITIES			
ITEM	EST'D	AS BUILT	SUPPLIER
24" SEWER	87 L.F.		
15" SEWER	6616 L.F.		
12" SEWER	2716 L.F.		
10" SEWER	1328 L.F.		
8" SEWER	8680 L.F.		
6" SEWER	1575 L.F.		
MANHOLES	80 E.A.		
8" D.I.P. SEWER	889 L.F.		
12" D.I.P. SEWER	1048 L.F.		
16" D.I.P. SEWER	1047 L.F.		
RIP RAP	1025 SY.		

SEQUENCE OF SEWER MAIN CONSTRUCTION OPERATIONS

- INSTALL INTERCEPTOR SEWER MAIN FROM EXISTING MH. 8700 TO MH. 24 AS SHOWN ON SHEETS #1-#8.
- INSTALL COLLECTOR SEWER MAINS WHICH SERVE RESIDENCES ON LARK BROWN ROAD (EAST AND WEST FROM MD. ROUTE 108) AND ALLEN AVENUE; MH. 24 TO MH. 60 ON SHEETS #5 AND #16, MH. 53 TO MH. 67 ON SHEETS #7 AND #18, AND MH. 24 TO MH. 72 ON SHEET #19.
- INSTALL ALL SEWER HOUSE CONNECTIONS WHICH SERVE RESIDENCES ON LARK BROWN ROAD (EAST AND WEST FROM MD. ROUTE 108) AND ALLEN AVENUE AS SHOWN ON SHEETS 15, 16, 17, 18, AND 19.
- PERFORM LOW PRESSURE AIR TESTING OF THE INTERCEPTOR SEWER MAINS, COLLECTOR SEWER MAINS, AND THE SEWER HOUSE CONNECTIONS INSTALLED IN STEPS NO'S. 1, 2 & 3 ABOVE.
- ADDRESS ALL ITEMS OF WORK GENERATED DURING THE INSPECTION OF THE INTERCEPTOR SEWER MAINS, COLLECTOR SEWER MAINS AND SEWER HOUSE CONNECTIONS INSTALLED IN STEP NO'S. 1, 2 AND 3 ABOVE. - SEWER READY TO BE PLACED INTO SERVICE - END OF PHASE I.
- INSTALL INTERCEPTOR SEWER MAIN FROM MH. 24 TO MH. 43 AS SHOWN ON SHEETS #8-#13.
- INSTALL COLLECTOR SEWER MAINS ALONG OLD MONTGOMERY ROAD AND MARYLAND ROUTE 108 AND 957; MH. 43 TO MH. 50 ON SHEETS #13 AND #14, MH. 28 TO MH. 81 ON SHEETS #20 AND #21.
- INSTALL ALL SEWER HOUSE CONNECTIONS TO RESIDENCES ALONG OLD MONTGOMERY ROAD AND MARYLAND ROUTES 108 AND 957 AS SHOWN ON SHEETS 13, 14, 20 AND 21.
- PERFORM LOW PRESSURE AIR TESTING OF THE INTERCEPTOR SEWER MAINS, COLLECTOR SEWER MAINS AND THE SEWER HOUSE CONNECTIONS INSTALLED IN STEP NO'S. 6, 7 AND 8 ABOVE.
- ADDRESS ALL ITEMS OF WORK GENERATED DURING INSPECTION OF THE INTERCEPTOR SEWER MAINS, COLLECTOR SEWER MAINS AND THE SEWER HOUSE CONNECTIONS INSTALLED IN STEP NO'S. 6, 7 AND 8 ABOVE.



SCALE: 1"=1200'

DORSEY RUN INTERCEPTOR

US ROUTE 1 TO OLD MONTGOMERY ROAD

CAPITAL PROJECT S-6053

CONTRACT NO. 20-1264

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 15 VOLUME IV OF THE HOWARD COUNTY DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. THIS PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Flaker 3/6/85
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Jane M. Helmer 3/6/85
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Don F. Nalley 3-11-85
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Beaman 3-2-85
CHIEF, BUREAU OF UTILITIES DATE

James B. Ray 3-11-85
CHIEF, BUREAU OF ENGINEERING DATE

Donald Deppa 3-1-85
CHIEF, UTILITY DESIGN DIVISION DATE

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

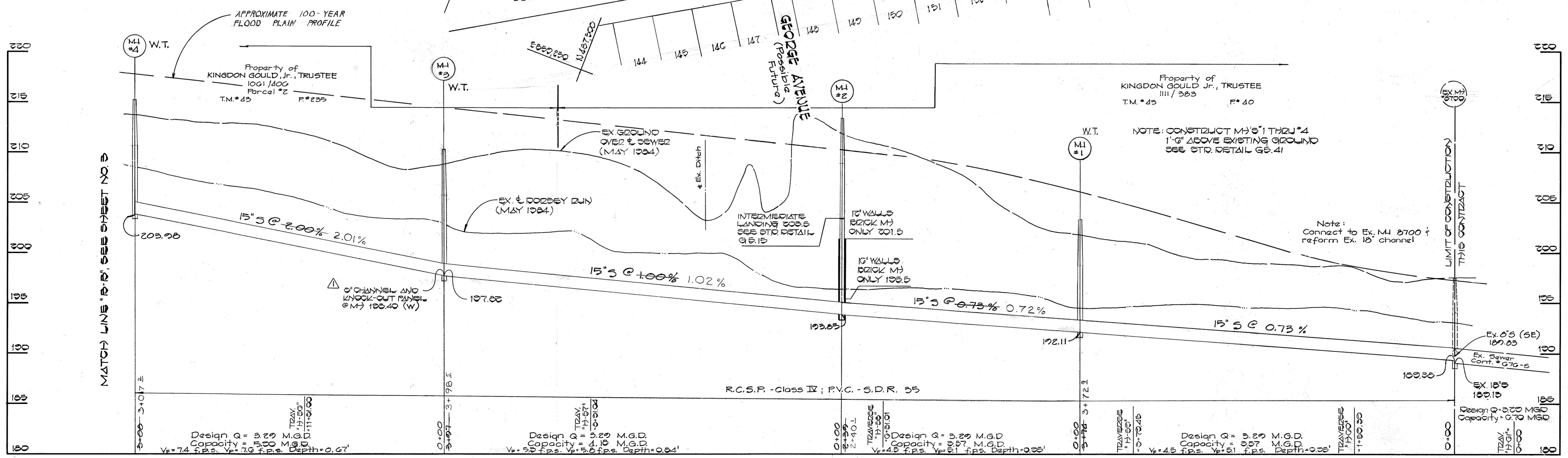
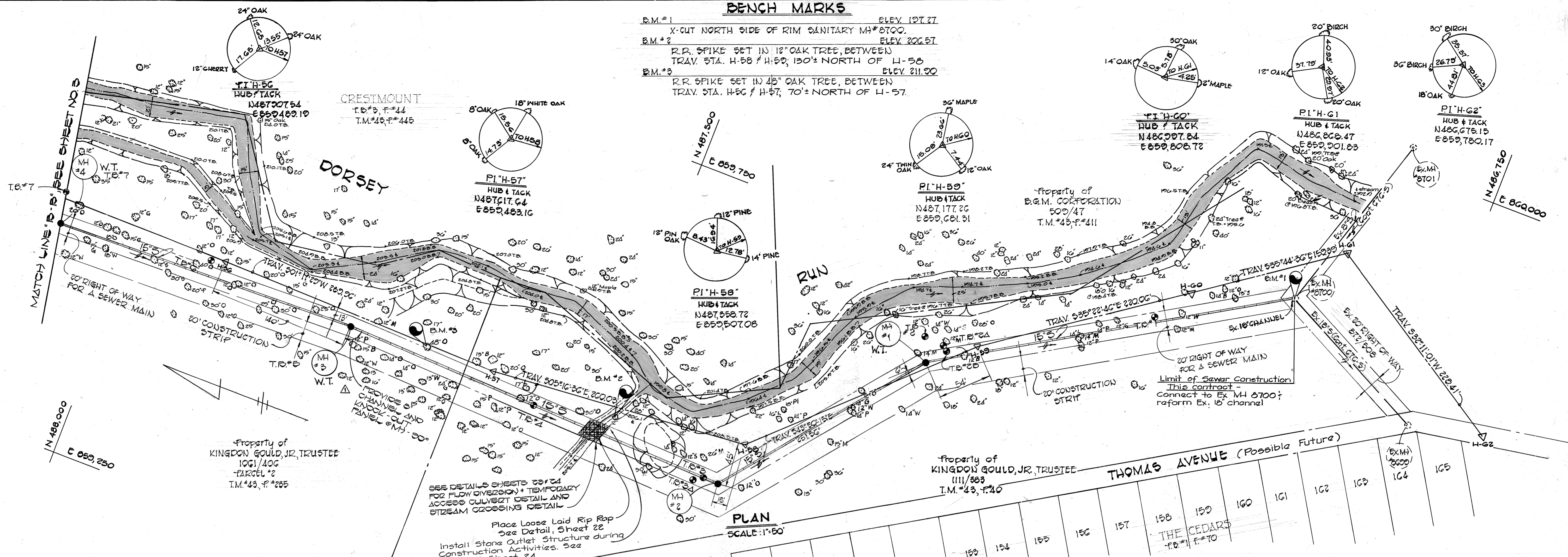
Terrell A. Fisher
DATE 3/1/85

DES. P.W.K.			
DRN. D.B.S.			
CHK. T.A.F.			
DATE 3/1/85			
BY NO.		REVISION	

TITLE SHEET	
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DORSEY RUN INTERCEPTOR
CAPITAL PROJECT NO. S-6053
CONTRACT NO. 20-1264
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

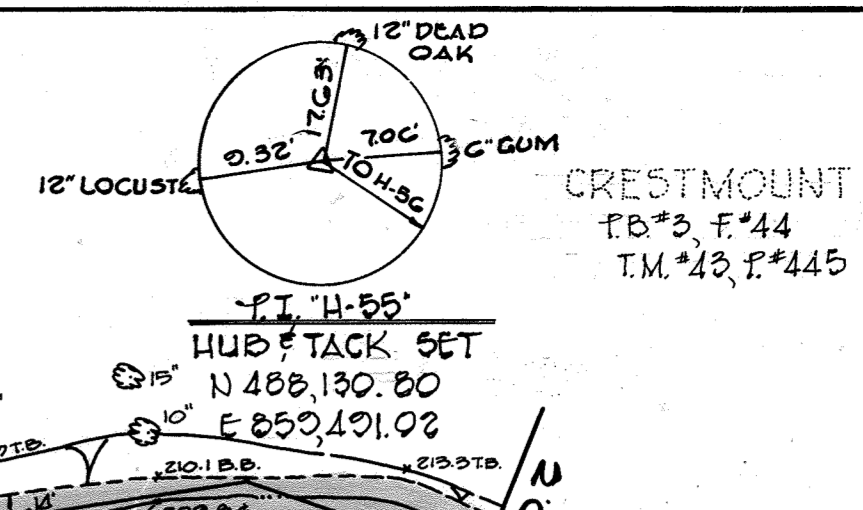
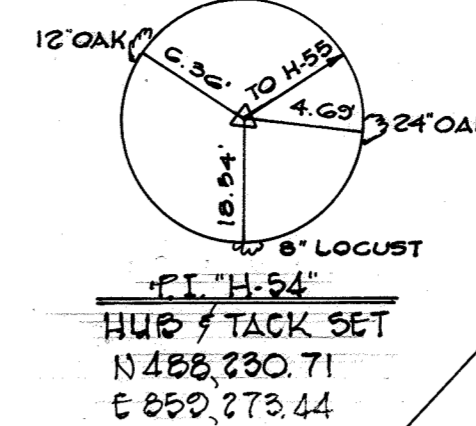
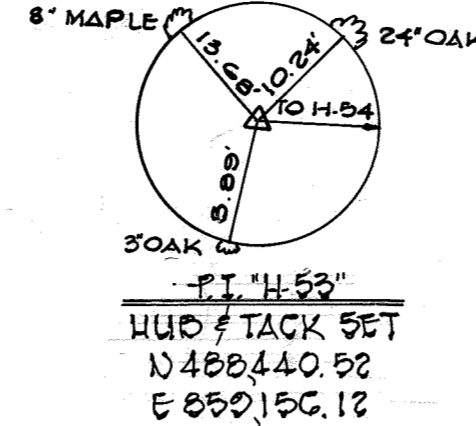
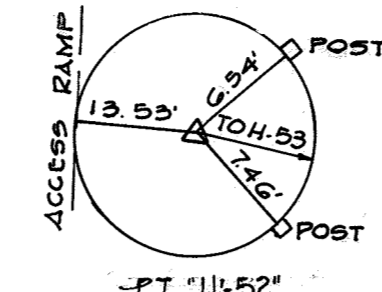
SCALE AS SHOWN
SHEET 1 OF 24



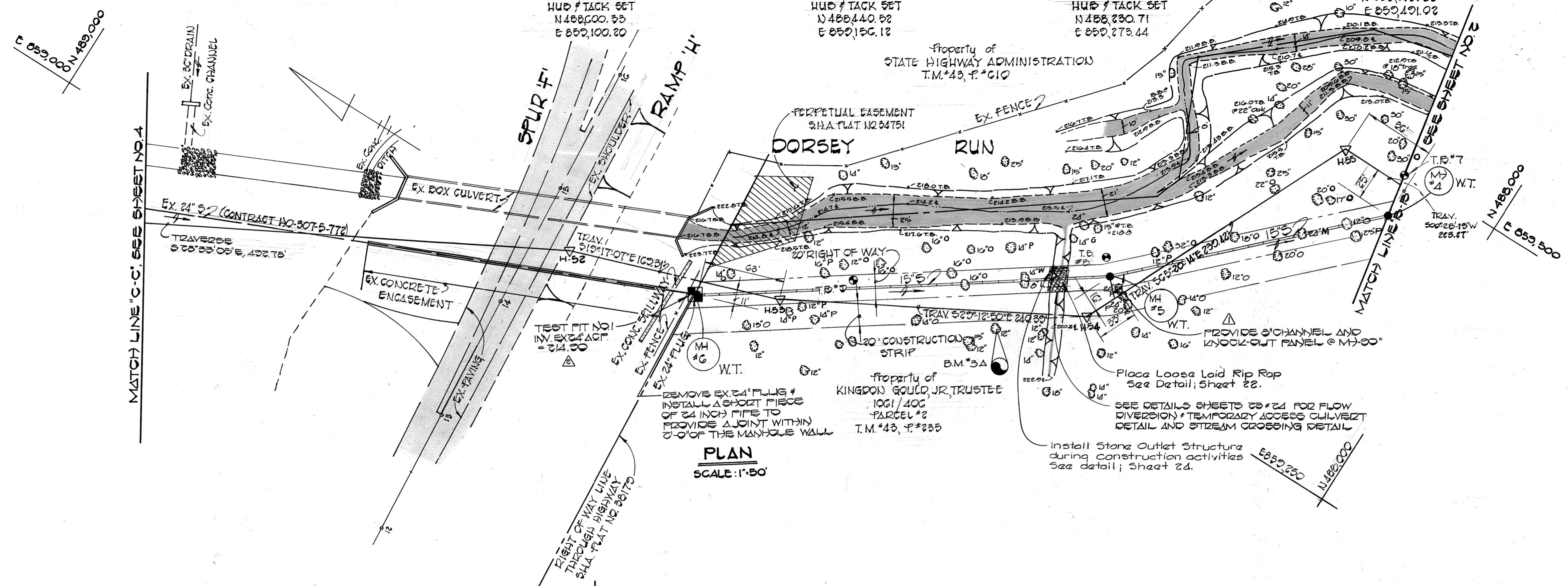
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>Wayne F. Neuman</i> 3-11-85 Chief, Bureau of Engineering: <i>[Signature]</i> 3-11-85 Chief, Bureau of Utilities: <i>[Signature]</i> 3-22-85 Chief, Utility Division: <i>[Signature]</i>		FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 461-2855 Terrell A. Fisher		DES. D.B.S. DRN. D.B.S. CHK. T.A.F. DATE: 3/1/85		PLAN AND PROFILE SEWER MAINS		DORSEY RUN INTERCEPTOR CAPITAL PROJECT NO. S-6053 CONTRACT NO. 20-1264 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 2 OF 24	
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BENCH MARKS

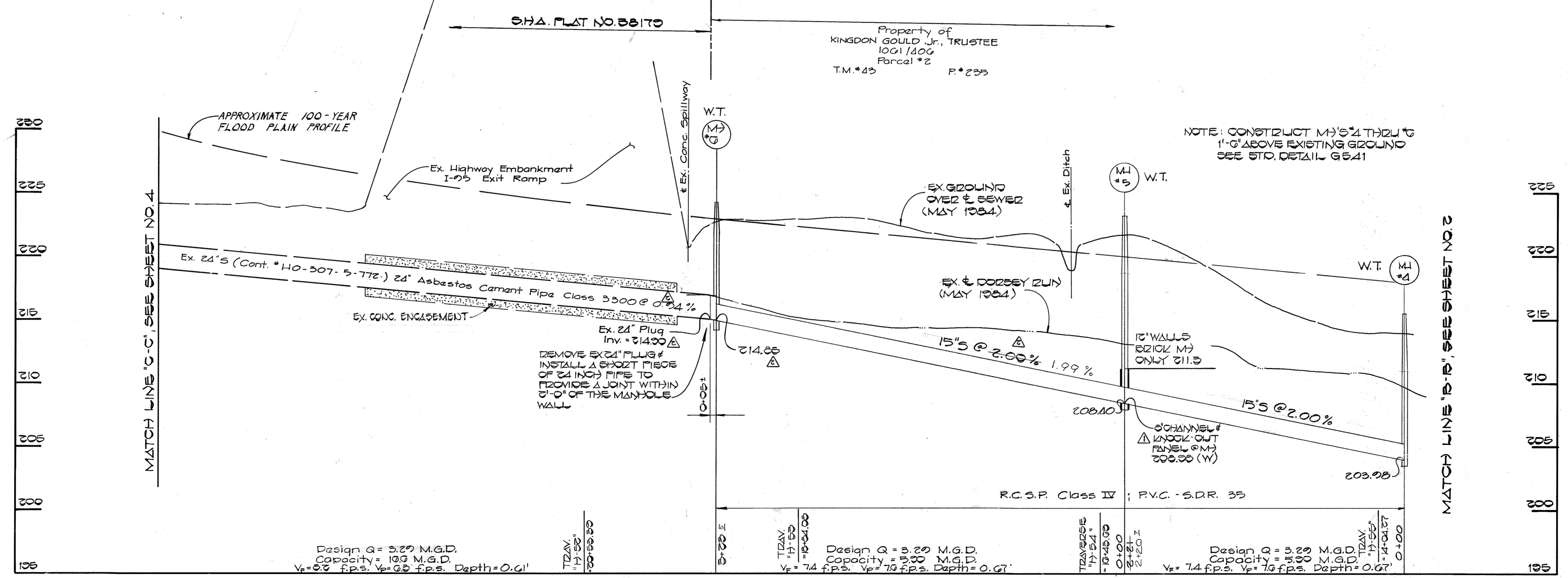
B.M.#3A ELEV. 224.00
 R.P. SPIKE SET IN 12" FINE TREE
 BETWEEN TRAV. STA. H-55 & H-54; 60' NORTH OF H-54.
 HO. CON. MON.#2344002R ELEV. 223.24
 STD. CON. MON. SET FLUSH WITH
 SURFACE, SOUTH SIDE WESTBOUND LANE
 ROUTE 175, AND WEST OF I-28.



CRESTMOUNT
 T.O.#5, F.#44
 T.M.#43, F.#445



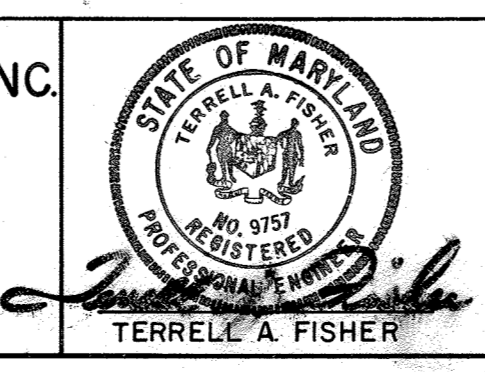
PLAN
 SCALE: 1"=50'



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Don F. Nummy* 3-11-85
 Chief, Bureau of Engineering: *[Signature]* 3-1-85
 Chief, Bureau of Utilities: *[Signature]* 3-7-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLIGOTT CITY, MARYLAND
 461-2855



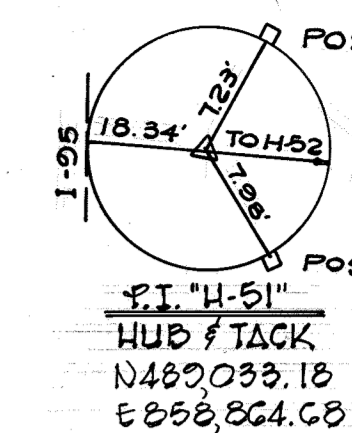
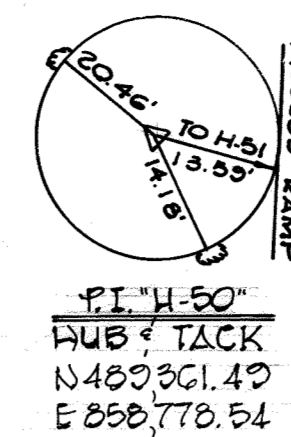
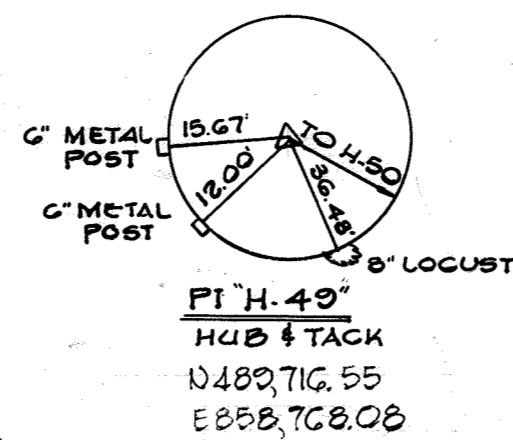
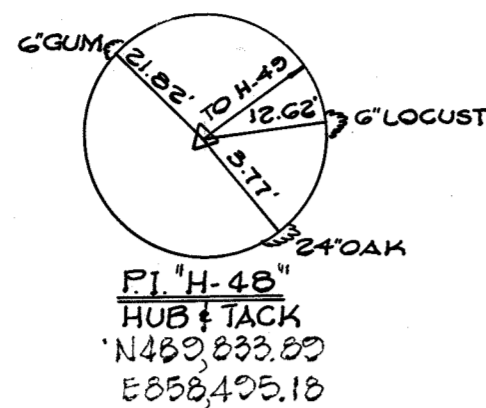
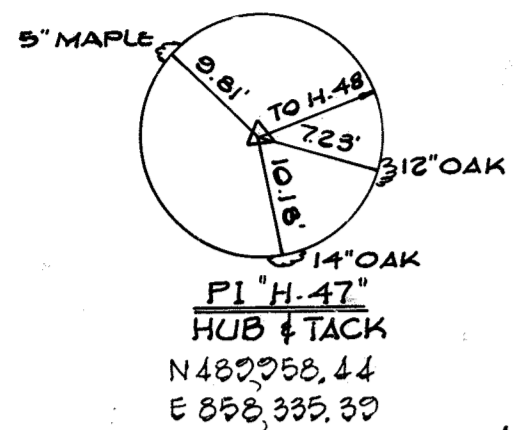
DES: D.B.S.			
DRN: D.B.S.			
CHK: T.A.F.	085	ENTRANCE BUILT IN OF 24" & REVISE SLOPES	7-18-85
DATE: 3/1/85	085	ADD CHANNEL & KNICK-OUT PANEL @ M#5	4-11-85
BY NO.		REVISION	DATE

PLAN AND PROFILE
SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 3 OF 24

BENCH MARKS

B.M.#4
ELEV. 248.91
R.R. SPIKE SET IN 12" PIN OAK TREE
BETWEEN TRAV. STA. H-49' & H-50'; 100'± SOUTH
OF H-49.



Parcel 'B'
Appliance Park East
Parcels A & B
Plat # G059

Property of
The Howard Research and
Development Corporation
1308/541 P#587
T.M.#43

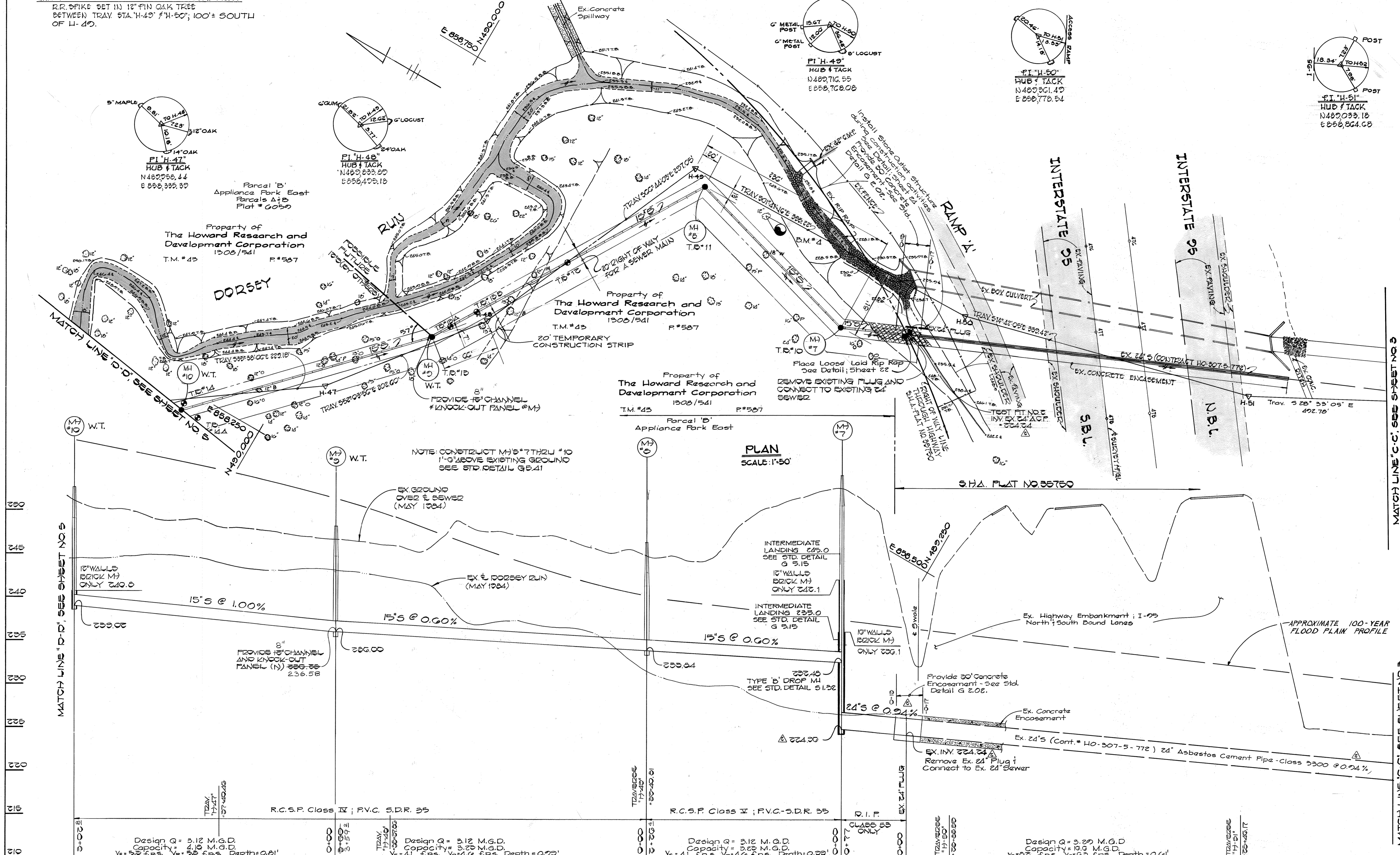
Property of
The Howard Research and
Development Corporation
1308/541 P#587
T.M.#43

Property of
The Howard Research and
Development Corporation
1308/541 P#587
T.M.#43

Parcel 'B'
Appliance Park East

PLAN
SCALE: 1"=50'

NOTE: CONSTRUCT M'S #7 THRU #10
1'-0" ABOVE EXISTING GROUND
SEE STD. DETAIL G 2.41



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Neumaier* 3-7-15
Date: 3-7-15

Chief, Bureau of Engineering: *[Signature]* DATE
Chief, Bureau of Utilities: *[Signature]* DATE

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND
461-2855

STATE OF MARYLAND
TERRELL A. FISHER

DES. D.B.S.	
DRN. D.B.S.	
CHK. T.A.F.	
DATE: 2/15	
BY NO.	
REVISION	
DATE	

PLAN AND PROFILE
SEWER MAINS

600' SCALE MAP NO. 37 & 43 BLOCK NO.

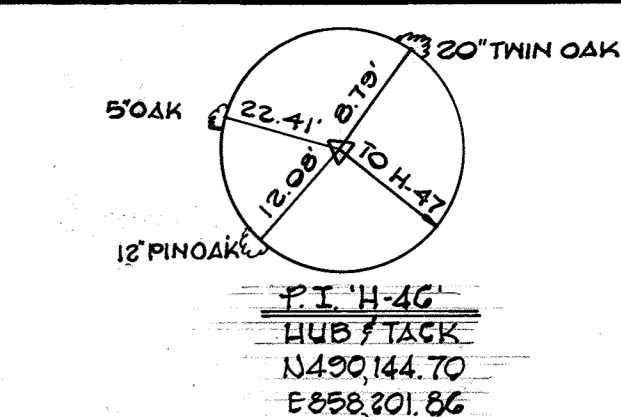
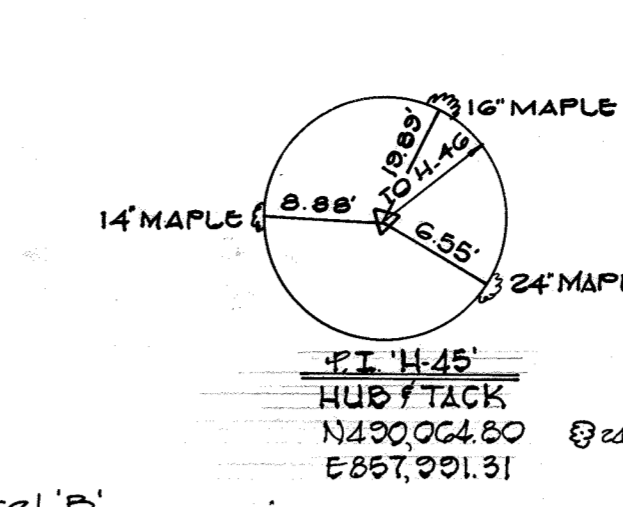
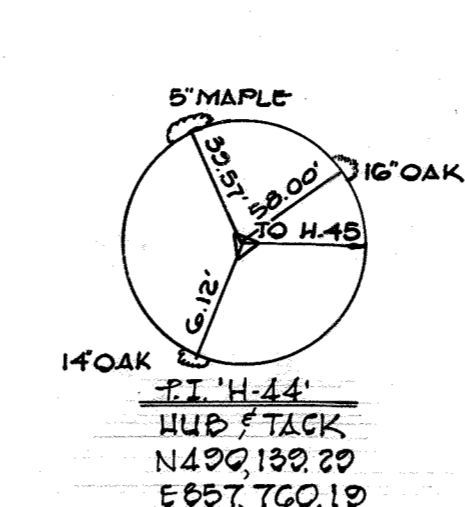
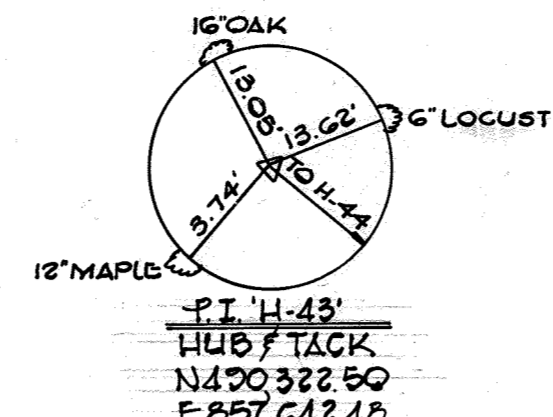
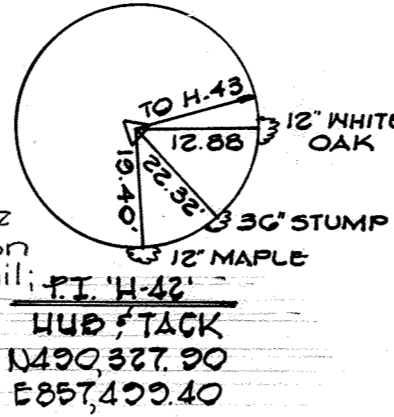
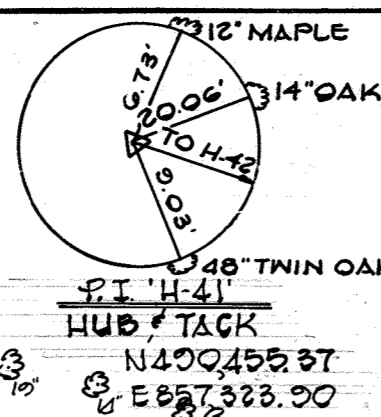
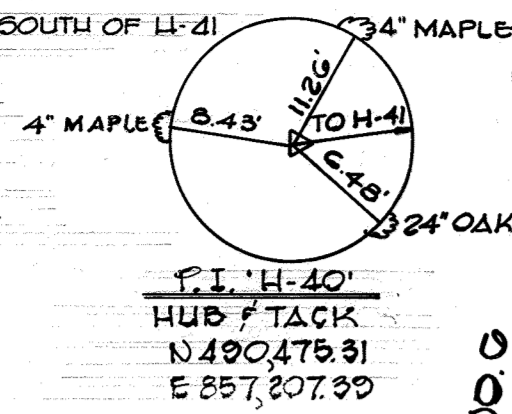
DORSEY RUN INTERCEPTOR

CAPITAL PROJECT NO. S-6053
CONTRACT NO. 20-1264
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 24

BENCH MARKS

B.M. #5 ELEV. 222.23
 R.R. SPIKE SET IN 18" PIN OAK TREE
 BETWEEN TRAVERSE STA. H-41 & H-42, 70' SOUTH OF H-41
B.M. #6 ELEV. 226.53
 R.R. SPIKE SET IN 26" TWIN OAK
 TREE BETWEEN TRAVERSE STA.
 H-45 & H-46, 130' SOUTH OF H-45.

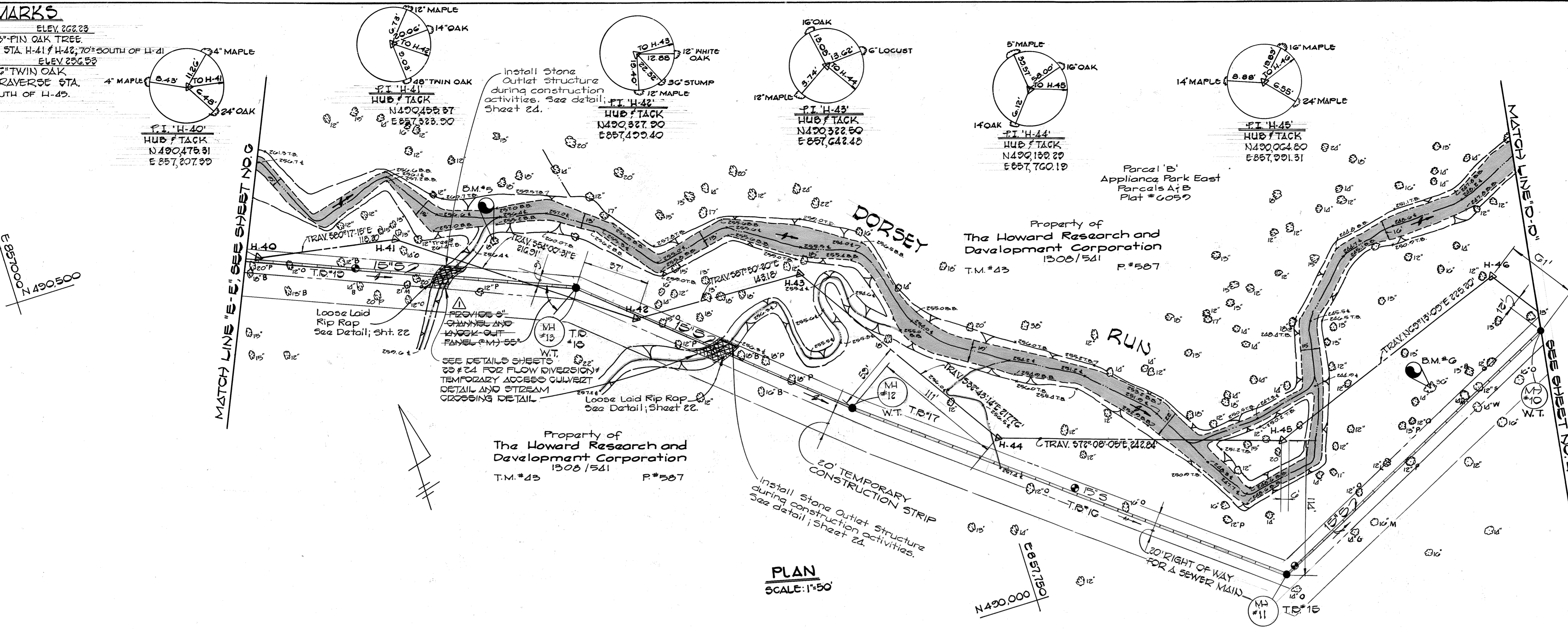


N 490,250
 E 858,990

N 490,000
 E 857,000

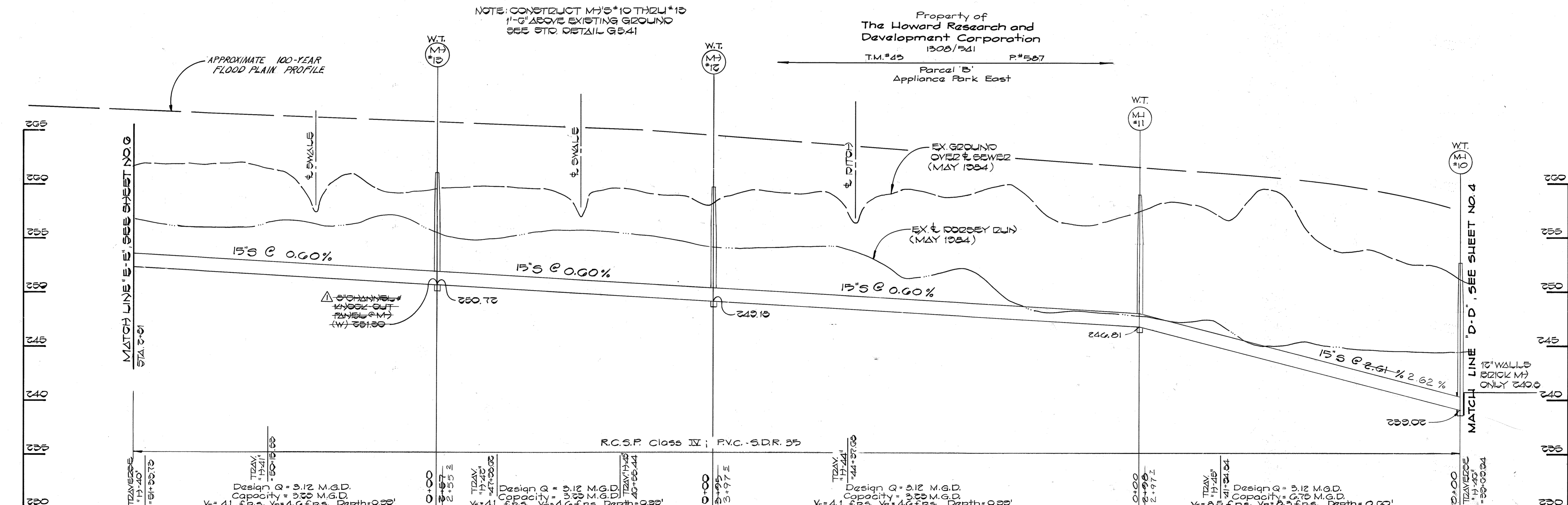
MATCH LINE "E-E", SEE SHEET NO. 3

MATCH LINE "D-D", SEE SHEET NO. 4



PLAN
SCALE: 1"=50'

NOTE: CONSTRUCT MH'S #10 THRU #12 1'-0" ABOVE EXISTING GROUND SEE STD. DETAIL G-341



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Joseph F. Neuman* 3-11-85
 Chief, Bureau of Engineering: *Robert M. Beaman* 3-7-85
 Chief, Bureau of Utilities: *Robert M. Beaman* 3-7-85
 Chief, Utility Division: *Robert M. Beaman* 3-7-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855
 State of Maryland Professional Engineer Seal for Terrell A. Fisher

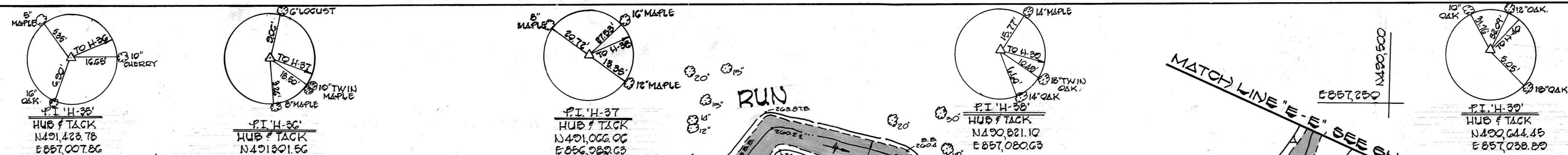
DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 9/1/85	
BY: []	NO. []
REVISION: []	DATE: []

PLAN AND PROFILE
SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO. []

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 5 OF 24

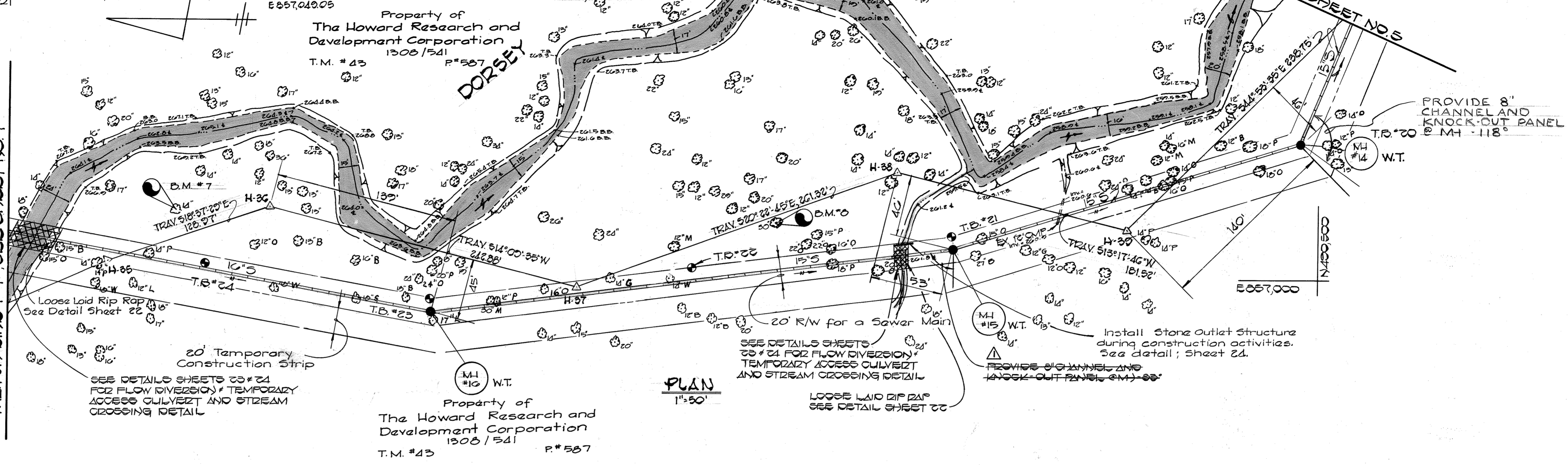
BENCH MARKS

B.M.#7 ELEV 208.50
 I.R. SPIKE SET IN 14" OAK TREE BETWEEN
 TRAVERSE STATION H-30 & H-31, 60'± SOUTHEAST OF H-30.
 B.M.#8 ELEV 202.14
 I.R. SPIKE SET IN 30" OAK TREE BETWEEN
 TRAVERSE STATION H-37 & H-38, 100'± NORTH OF H-38.



MATCH LINE "F-F" SEE SHEET NO. 7

MATCH LINE "E-E" SEE SHEET NO. 5



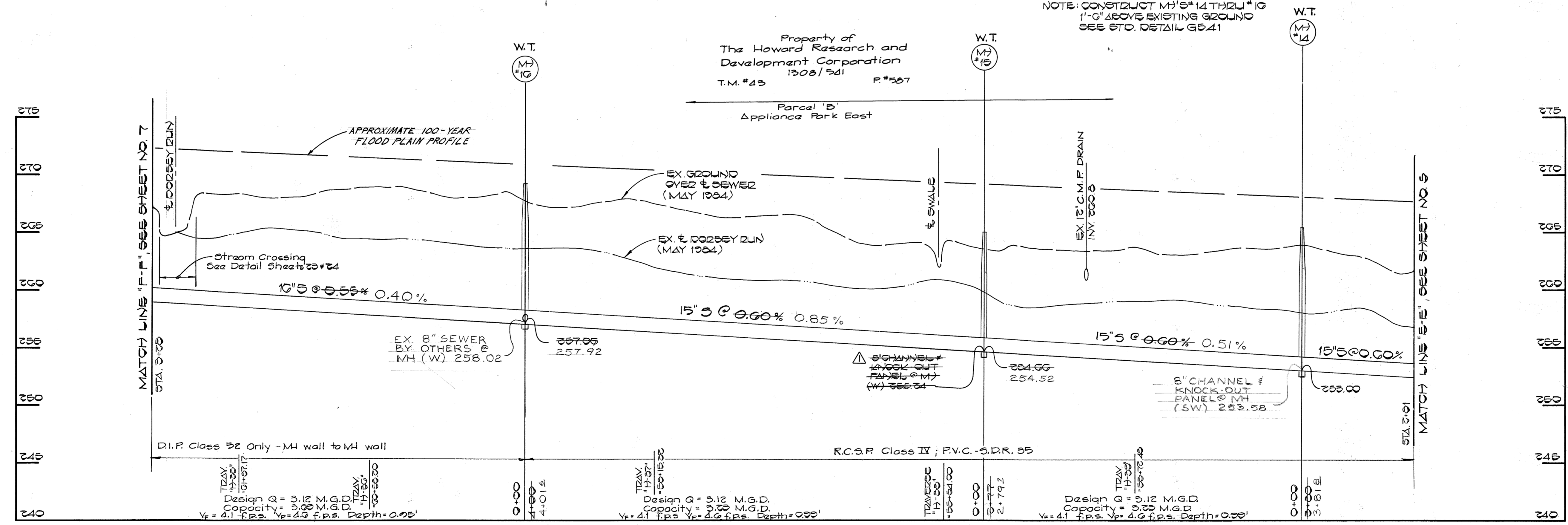
Property of
 The Howard Research and
 Development Corporation
 1308/541 P#567
 T.M.#43

Property of
 The Howard Research and
 Development Corporation
 1308/541 P#567
 T.M.#43

Parcel 'B'
 Appliance Park East
 Parcels A & B
 Plat #G050

PLAN
 1"=50'

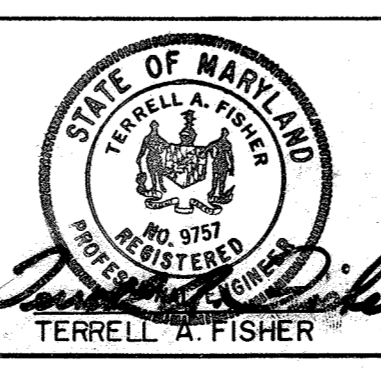
NOTE: CONSTRUCT M#14 THROUGH
 1'-0" ABOVE EXISTING GROUND
 SEE STD. DETAIL G541



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *George F. Nummy*, 3-11-85
 Chief, Bureau of Engineering: *[Signature]*, 3-11-85
 Chief, Bureau of Utilities: *Robert M. Beatty*, 3-7-85
 Chief, Utility Division: *[Signature]*, 3-11-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855



DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: [Signature]	
NO.:	
REVISION:	
DATE: 4-11-85	

PLAN AND PROFILE
 SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

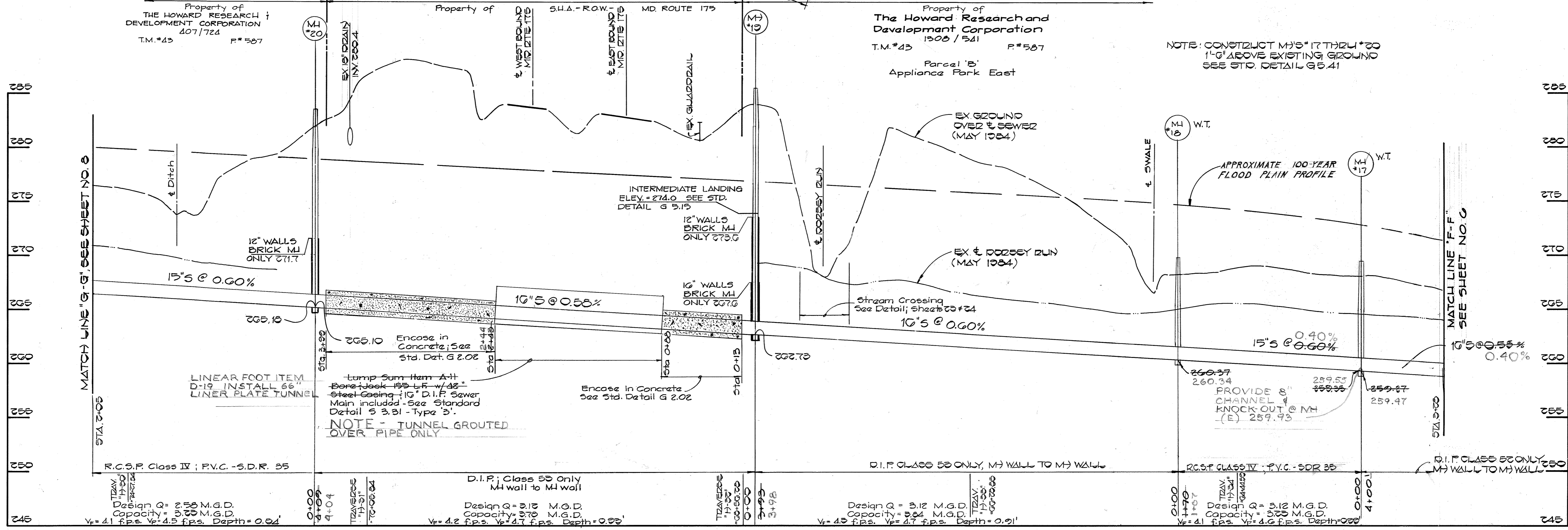
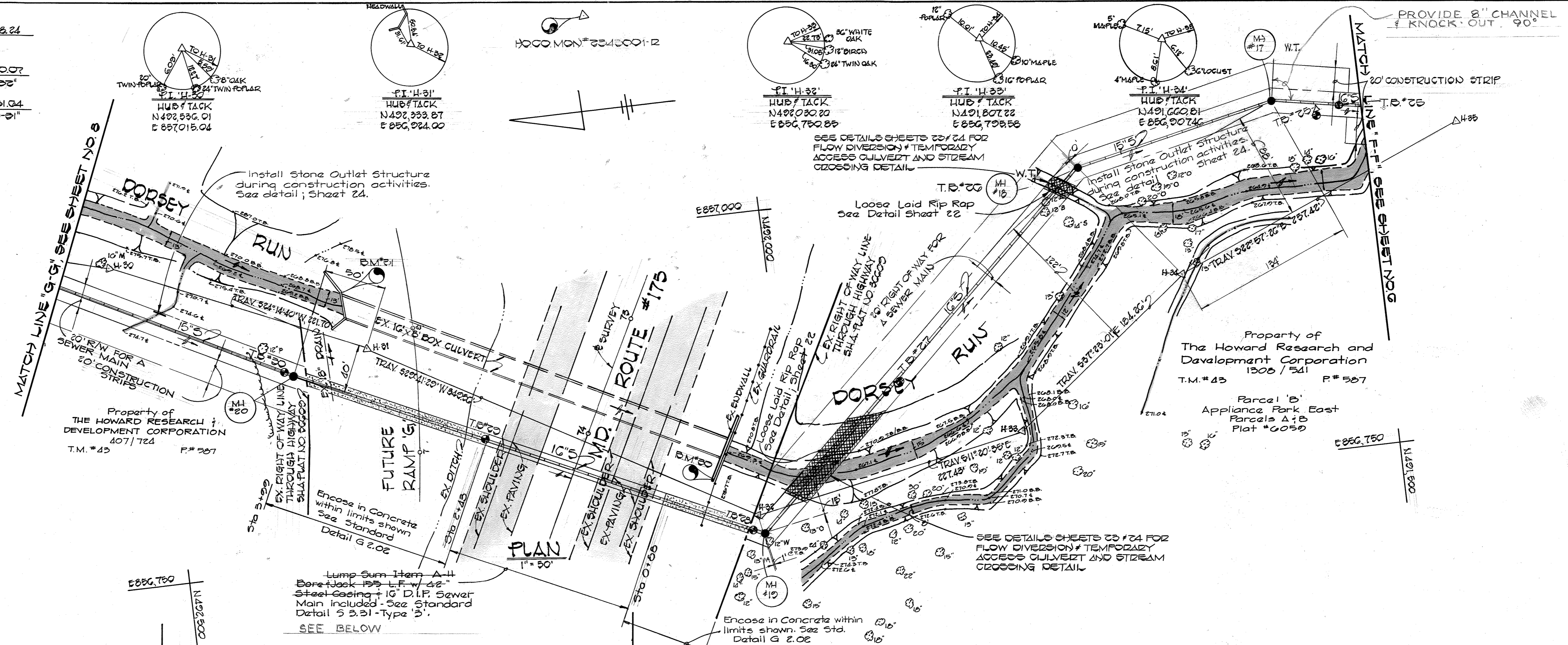
SCALE AS SHOWN
 SHEET 6 OF 24

BENCH MARK

HO CO MON # 2243001-2 ELEVY 286.24
 3/4" REDAR FOUND 23" BELOW SURFACE AT NORTHEAST
 CORNER OF ROUTE 175 / MD. ROUTE 108

B.M. # 30 ELEVY 280.07
 X-CUT ON ENDWALL, 47'± NORTH-EAST OF TRAV STA. "H-33"

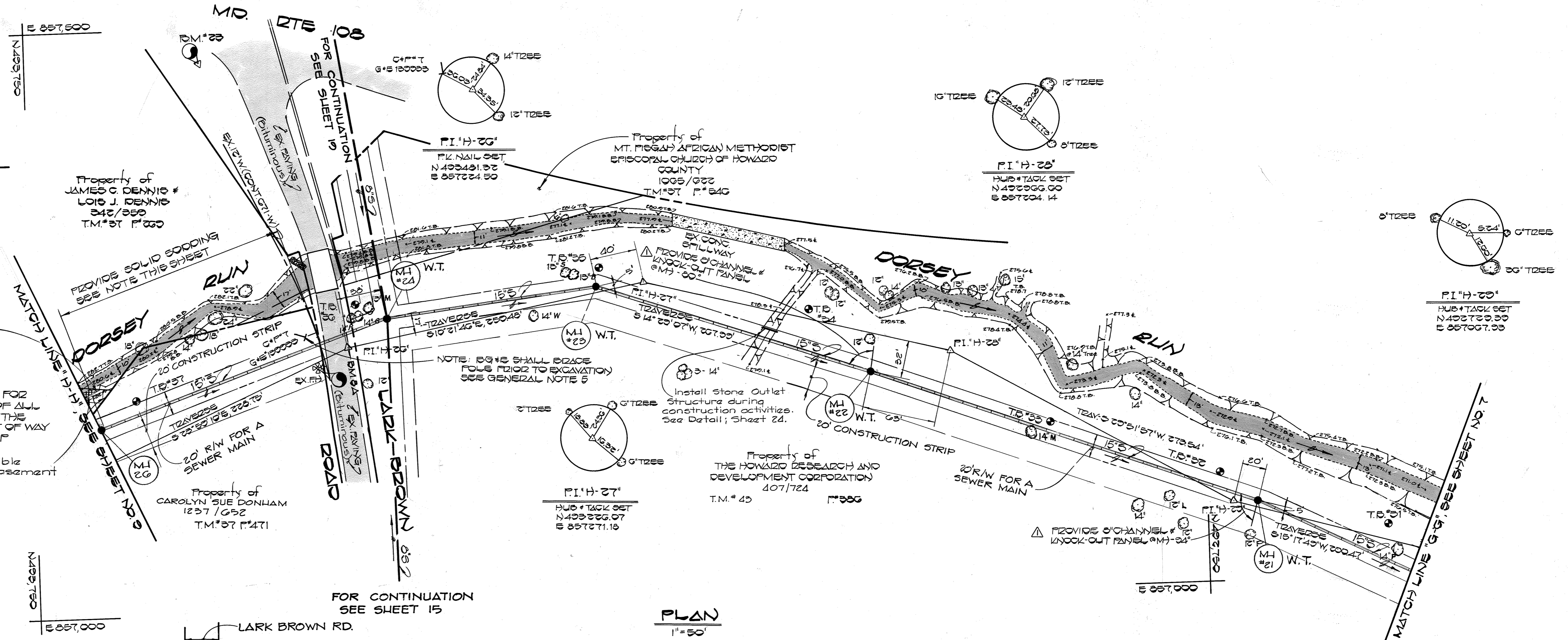
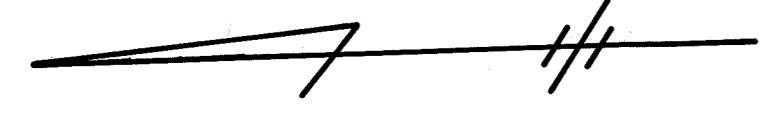
B.M. # 31 ELEVY 281.04
 X-CUT ON TOP ENDWALL, 50'± NORTH-EAST OF TRAV STA. "H-31"



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

BENCH MARKS

B.M. 23 ELEV. 291.40
 H.O.G. MON # 2443001-12,
 NORTHWEST CORNER OF MD
 ZTE 108 & LARK BROWN ROAD
 B.M. 24 ELEV. 293.05
 BASE PLATE BOLT ON EX. FH,
 30' S. NORTHWEST OF P.I.'H-23'



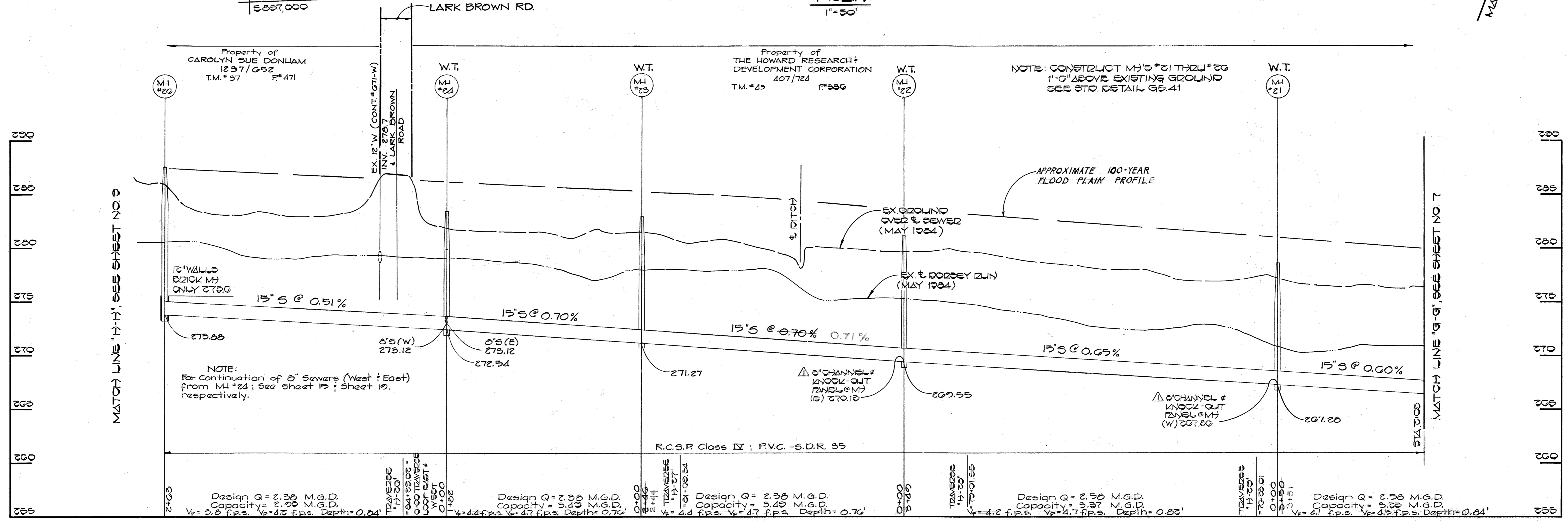
Loose Laid Rip-Rap
 See Detail; Sheet 22
 Contractor shall utilize sandbags to create a temporary stream diversion device while placing rip rap along the stream in this area.

NOTE: M1 #24 TO M1 #23
 STA. 0+00 TO STA. 7+03
 PROVIDE SOLID CODDING FOR SURFACE RESTORATION OF ALL DISTURBED AREAS WITHIN THE FULL WIDTH OF THE RIGHT OF WAY AND CONSTRUCTION STRIP

Reversible Grading Easement

FOR CONTINUATION SEE SHEET 15

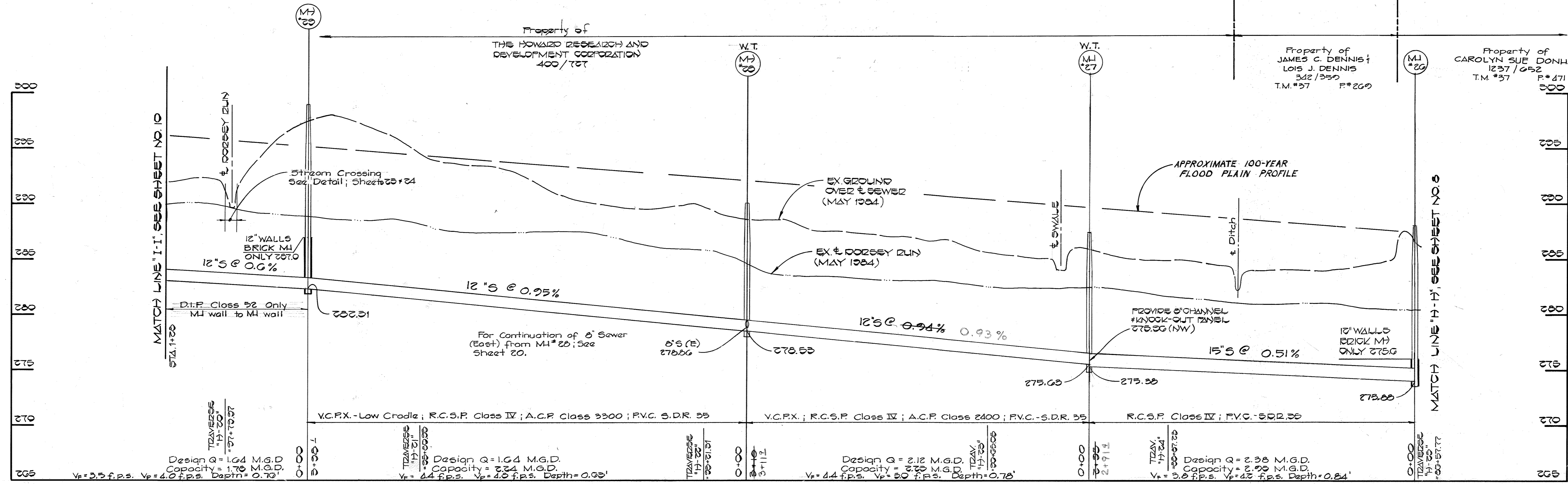
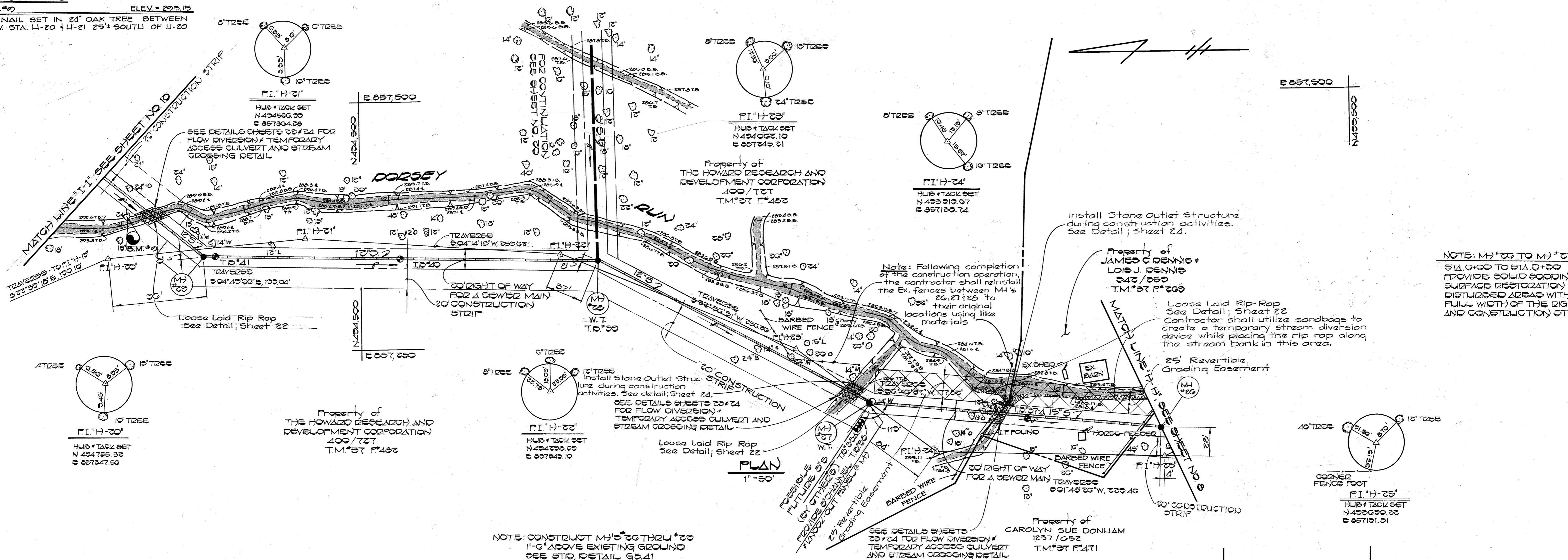
PLAN
 1" = 50'



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

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 3-1-85 CHIEF, BUREAU OF ENGINEERING DATE: 3-1-85 CHIEF, UTILITY DIVISION	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 461-2855 TERRELL A. FISHER	DES: D.B.S. DRN: D.B.S. CHK: T.A.F. DATE: 2/1/85	PLAN AND PROFILE SEWER MAINS		DORSEY RUN INTERCEPTOR CAPITAL PROJECT NO. S-6053 CONTRACT NO. 20-1264 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 8 OF 24
			STATE OF MARYLAND TERRELL A. FISHER LICENSE NO. 11200 RESIDENT ENGINEER			

BENCHMARKS
 B.M.#2 ELEV. = 222.15
 PK NAIL SET IN 24" OAK TREE BETWEEN TRAV. STA. 11-20 & 11-21 25' SOUTH OF 11-20.



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

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>James F. Nummy</i> 3-11-85 Chief, Bureau of Engineering: <i>Paul H. ...</i> 3-11-85 Chief, Bureau of Utilities: <i>Robert ...</i> 3-7-85 Chief, Utility Division: <i>Paul ...</i> 3-11-85	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 461-2855 Terrell A. Fisher	DES: D.B.S. DRN: D.B.S. CHK: T.A.F. DATE: 3/1/85	PLAN AND PROFILE SEWER MAINS	DORSEY RUN INTERCEPTOR CAPITAL PROJECT NO. S-6053 CONTRACT NO. 20-1264 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
					SHEET 9 OF 24

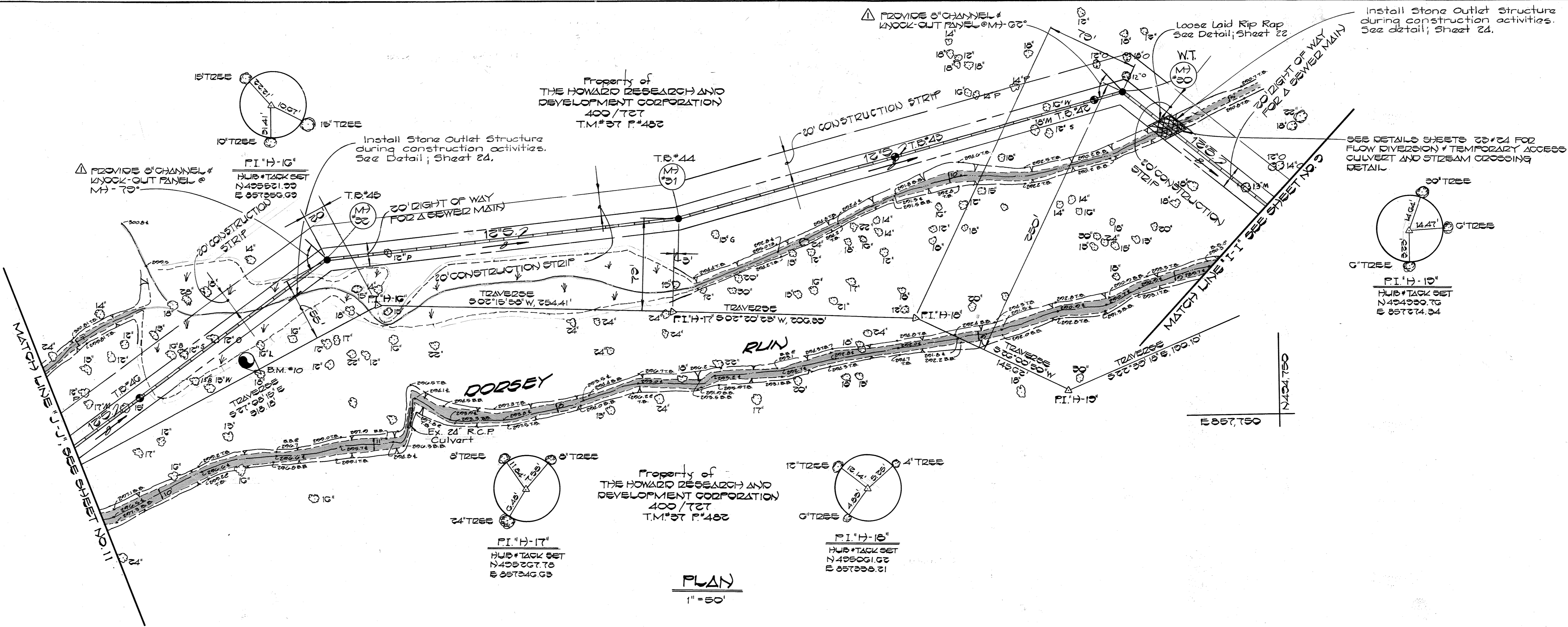
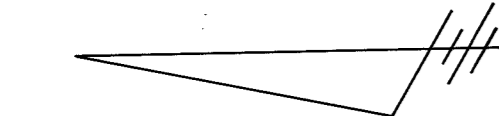
BENCHMARKS

B.M. #10 ELEV. 900.14
 P.K. NAIL SET IN 16' POPLAR BETWEEN
 TRAV. STA. 4+15 & 4+16; 200' SOUTH OF 4+15

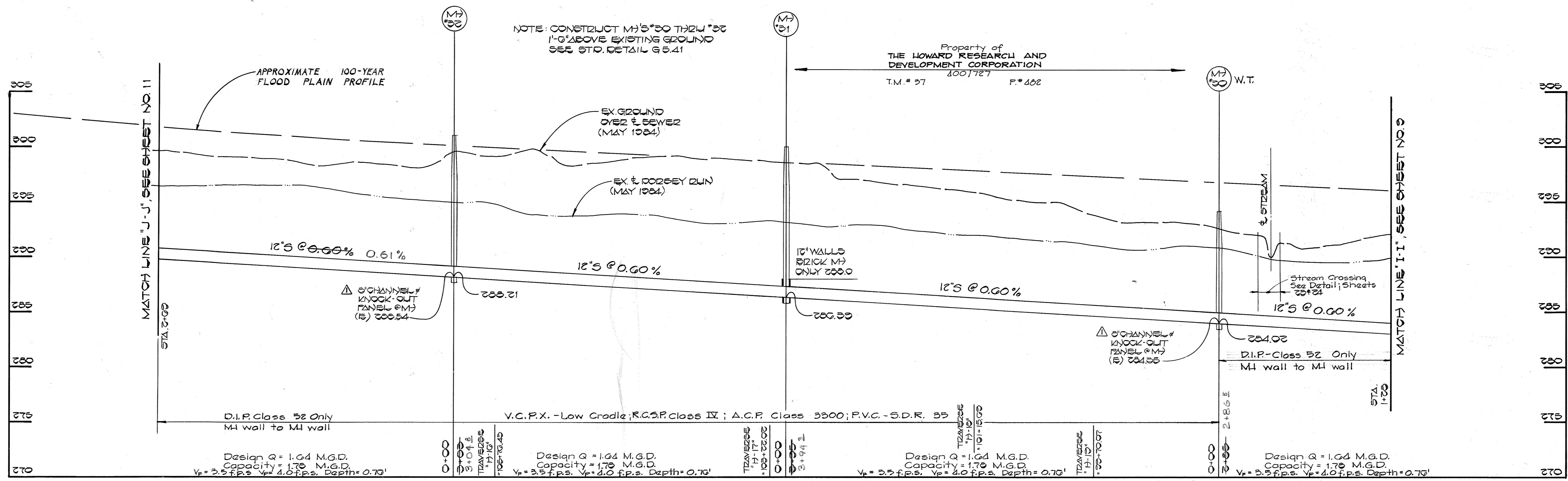
E 857,500

N 450,000

E 857,250



PLAN
 1" = 50'

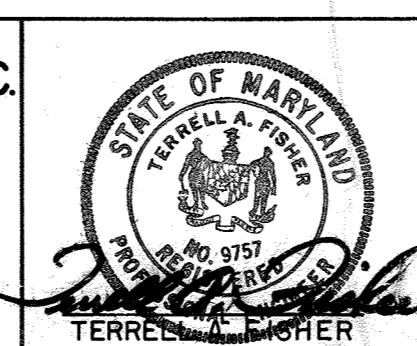


PROFILE
 SCALE: HOR. 1" = 50'
 VERT. 1" = 5'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Nemy* 3-1-85
 Chief, Bureau of Engineering: *[Signature]* 3-1-85
 Chief, Bureau of Utilities: *[Signature]* 3-7-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855



DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: [Signature]	
NO. []	
REVISION []	
DATE: 3/1/85	

PLAN AND PROFILE
SEWER MAINS

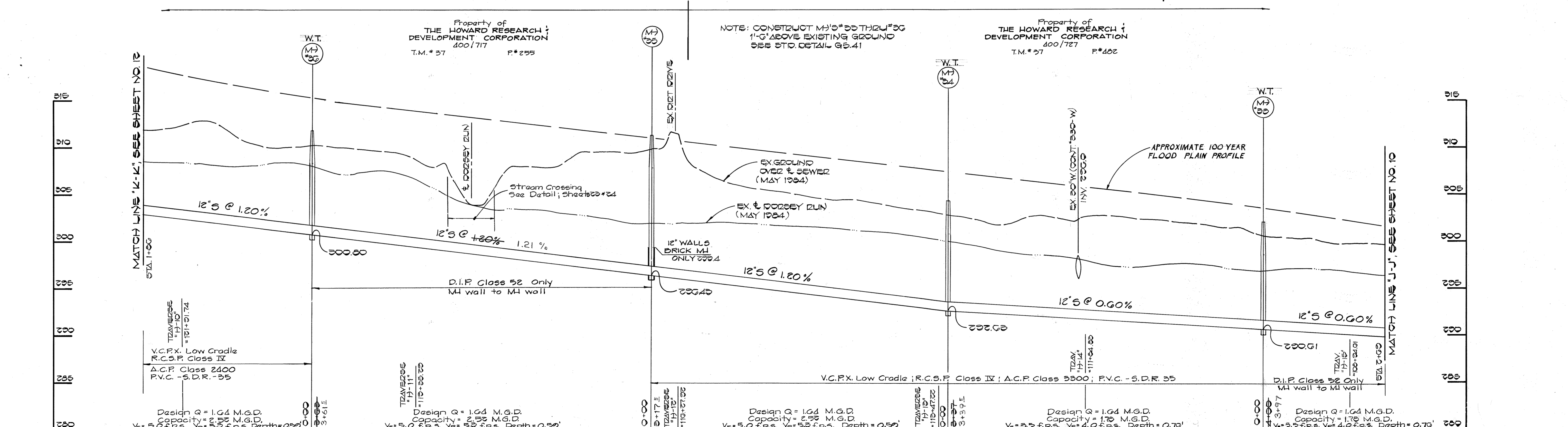
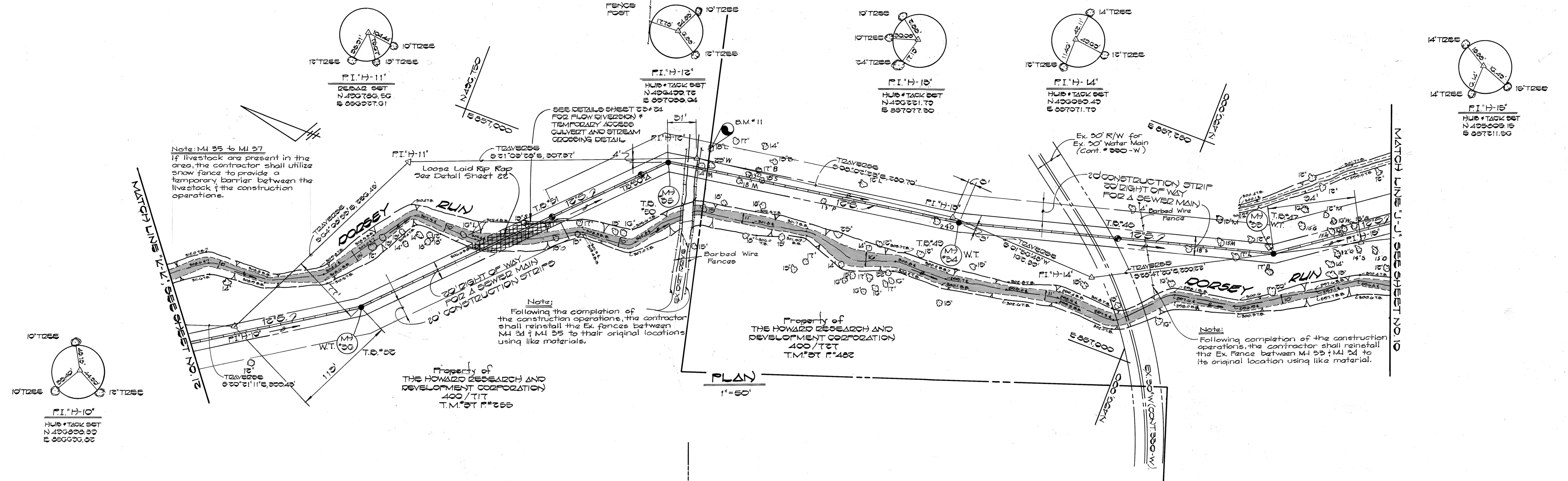
600' SCALE MAP NO. 37 & 43. BLOCK NO. []

DORSEY RUN INTERCEPTOR

CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 10 OF 24

BENCHMARK
 B.M.#11 ELEV. 300.05
 P.K. NAIL SET IN AN 16' DEAD TREE BETWEEN
 TRAV. STA. H-12 & H-13; 17'± SOUTH OF H-12.



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 3-1-85
 Chief, Bureau of Engineering: *[Signature]* DATE: 3-1-85
 Chief, Bureau of Utilities: *[Signature]* DATE: 3-2-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855

STATE OF MARYLAND
 TERRELL A. FISHER
 REGISTERED PROFESSIONAL SURVEYOR

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: NO.	
REVISION	
DATE	

**PLAN AND PROFILE
 SEWER MAINS**

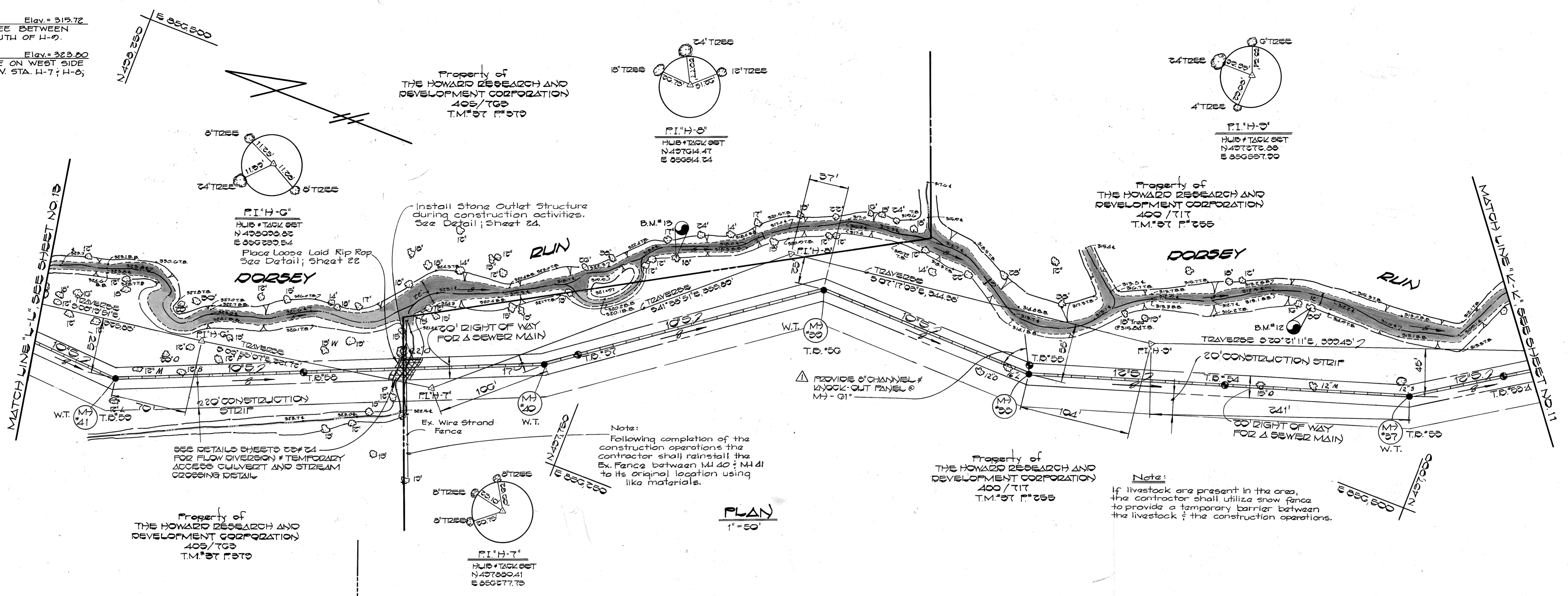
600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR

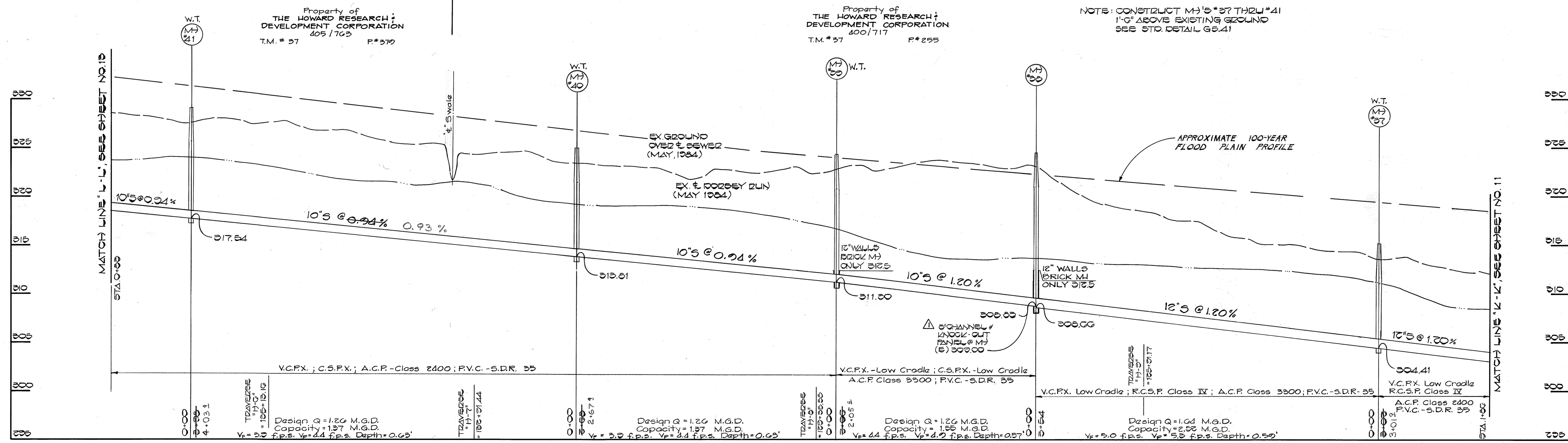
CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 11 OF 24

Benchmarks
 B.M. #12 Elev. = 319.72
 P.K. NAIL SET IN 30' OAK TREE BETWEEN TRAV. STA. H-7; H-10; 150' ± SOUTH OF H-9.
 B.M. #13 Elev. = 323.80
 P.K. NAIL SET IN 18' OAK TREE ON WEST SIDE OF DORSEY RUN BETWEEN TRAV. STA. H-7; H-8; 250' ± SOUTH OF H-7.



PLAN
 1" = 50'



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Don F. Nummy* 3-11-85
 Chief, Bureau of Engineering: *...* 3-11-85
 Chief, Bureau of Utilities: *...* 3-11-85
 Chief, Utility Division: *...* 3-11-85

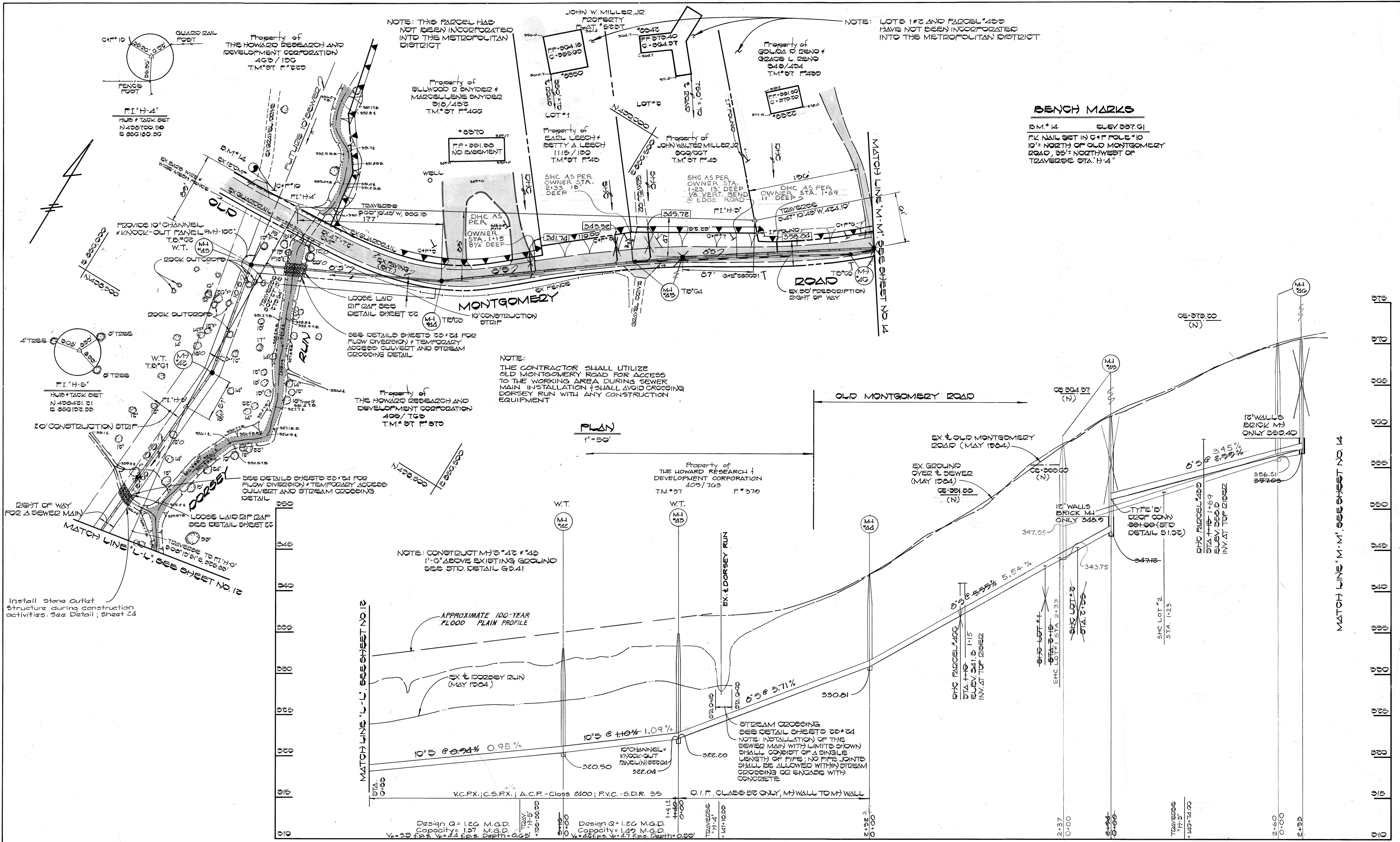
FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855
 State of Maryland Seal: *Terrell A. Fisher*

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: NO.	
REVISION	
DATE: 4-11-85	

PLAN AND PROFILE
SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO. _____

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 12 OF 24



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert M. Berman*
 Chief, Bureau of Utilities: *Robert M. Berman*

DATE: 3-7-85

Chief, Bureau of Engineering: *Robert M. Berman*
 Chief, Utility Division: *Robert M. Berman*

DATE: 3-1-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 TERRELL A. FISHER

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: NO.	
REVISION	
DATE	

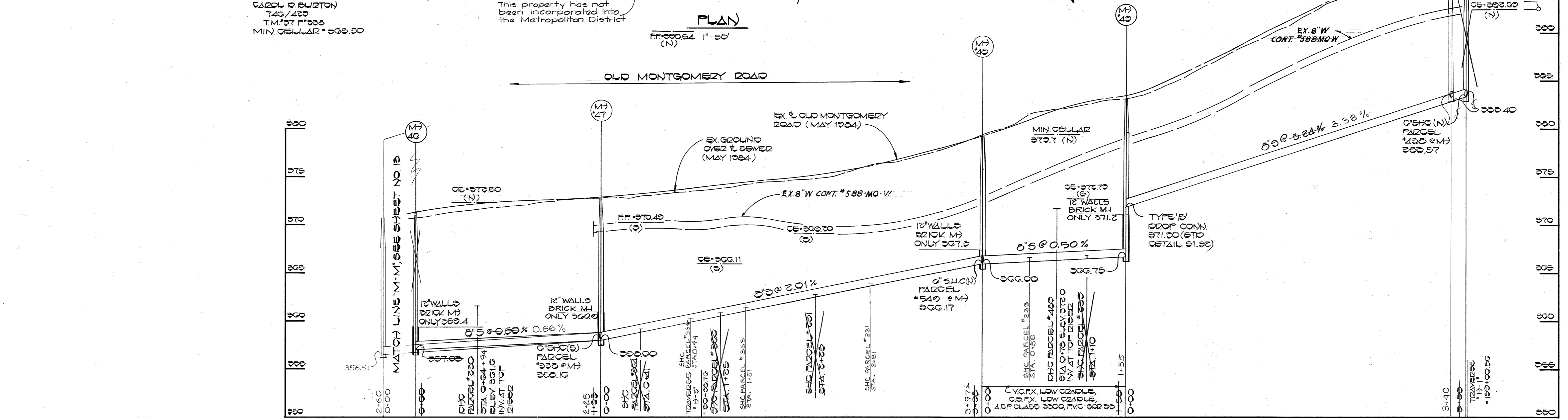
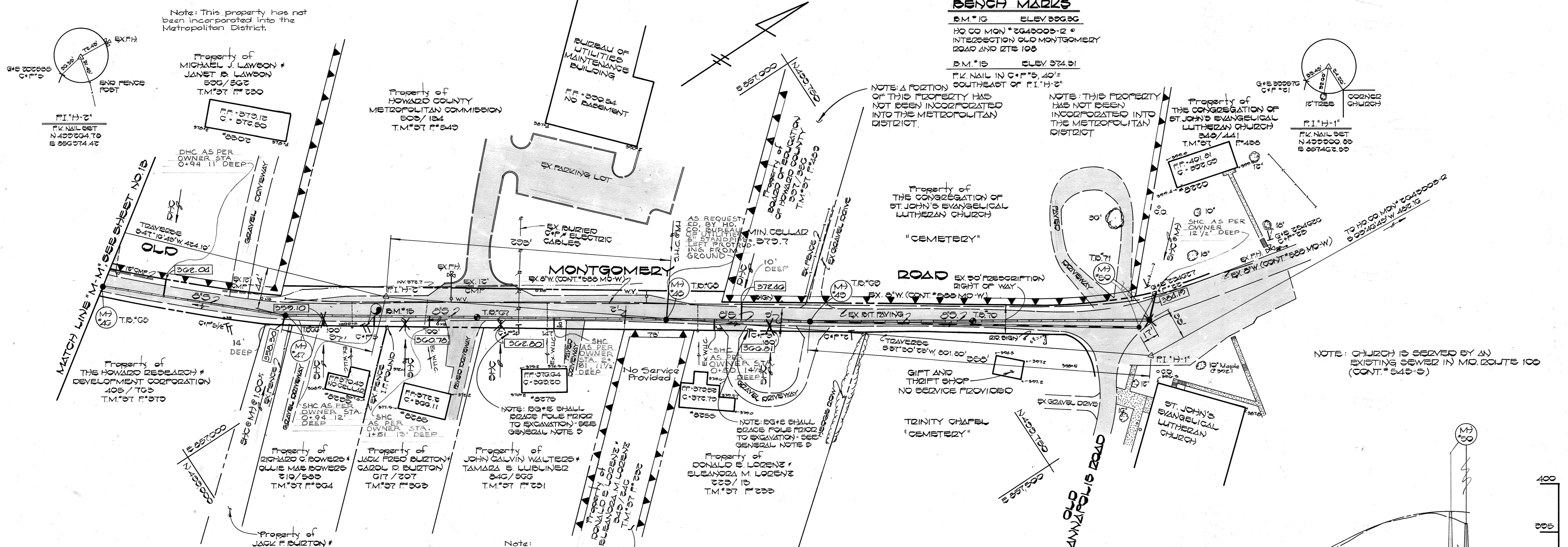
PLAN AND PROFILE
SEWER MAINS

600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR

CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 13 OF 24



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Nemy* 3-11-85
 Chief, Bureau of Engineering: *[Signature]* DATE
 Chief, Bureau of Utilities: *[Signature]* 3-7-85 DATE
 Chief, Utility Division: *[Signature]* DATE

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855

STATE OF MARYLAND
 TERRILL A. FISHER

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: [Signature]	
NO.:	
REVISION:	
DATE:	

PLAN AND PROFILE
SEWER MAINS

600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR

CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

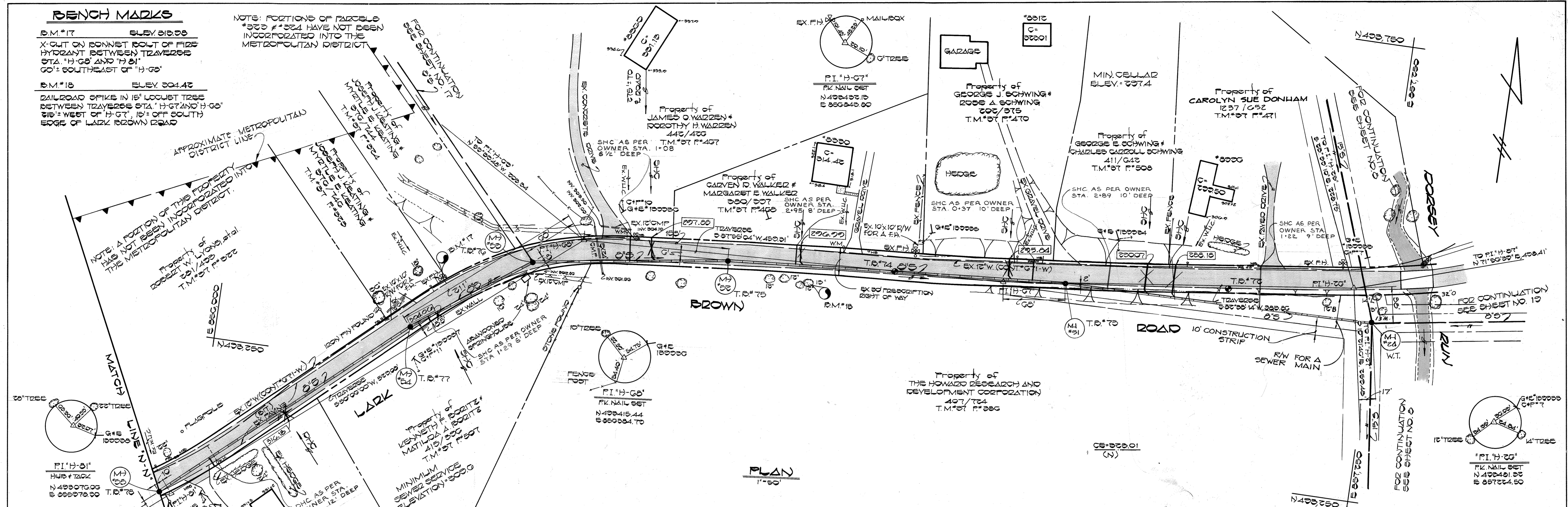
SCALE AS SHOWN
 SHEET 14 OF 24

BENCH MARKS

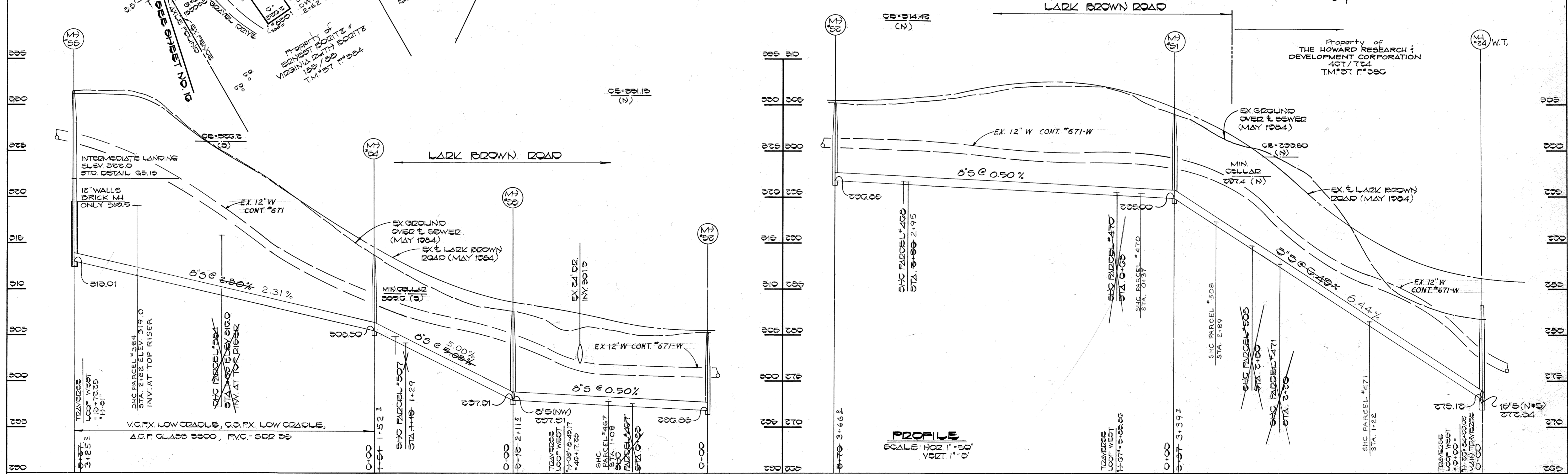
B.M.#17 ELEV. 318.98
 X-CUT ON BONNET BOLT OF FIRE HYDRANT BETWEEN TZAVESSE STA. 'H-G6' AND 'H-G1'
 GO SOUTHEAST OF 'H-G6'

B.M.#18 ELEV. 304.42
 RAILROAD SPIKE IN 16" LOCUST TREE BETWEEN TZAVESSE STA. 'H-G7' AND 'H-G6'
 215' WEST OF 'H-G7', 15' OFF SOUTH EDGE OF LARK BROWN ROAD

NOTE: PORTIONS OF PARCELS #303 & #304 HAVE NOT BEEN INCORPORATED INTO THE METROPOLITAN DISTRICT



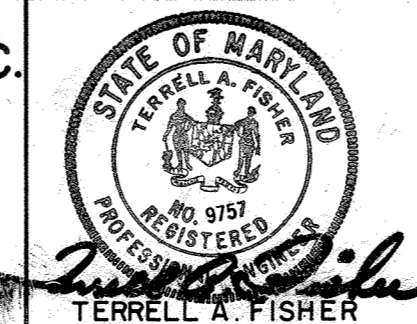
PLAN
 1"=50'



PROFILE
 SCALE: HOR. 1"=50'
 VERT. 1"=8'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* DATE: 3-1-85
 Chief, Bureau of Engineering: *[Signature]* DATE: 3-7-85
 Chief, Bureau of Utilities: *[Signature]* DATE: 3-7-85
 Chief, Utility Division: *[Signature]* DATE: 3-7-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855
 Terrell A. Fisher

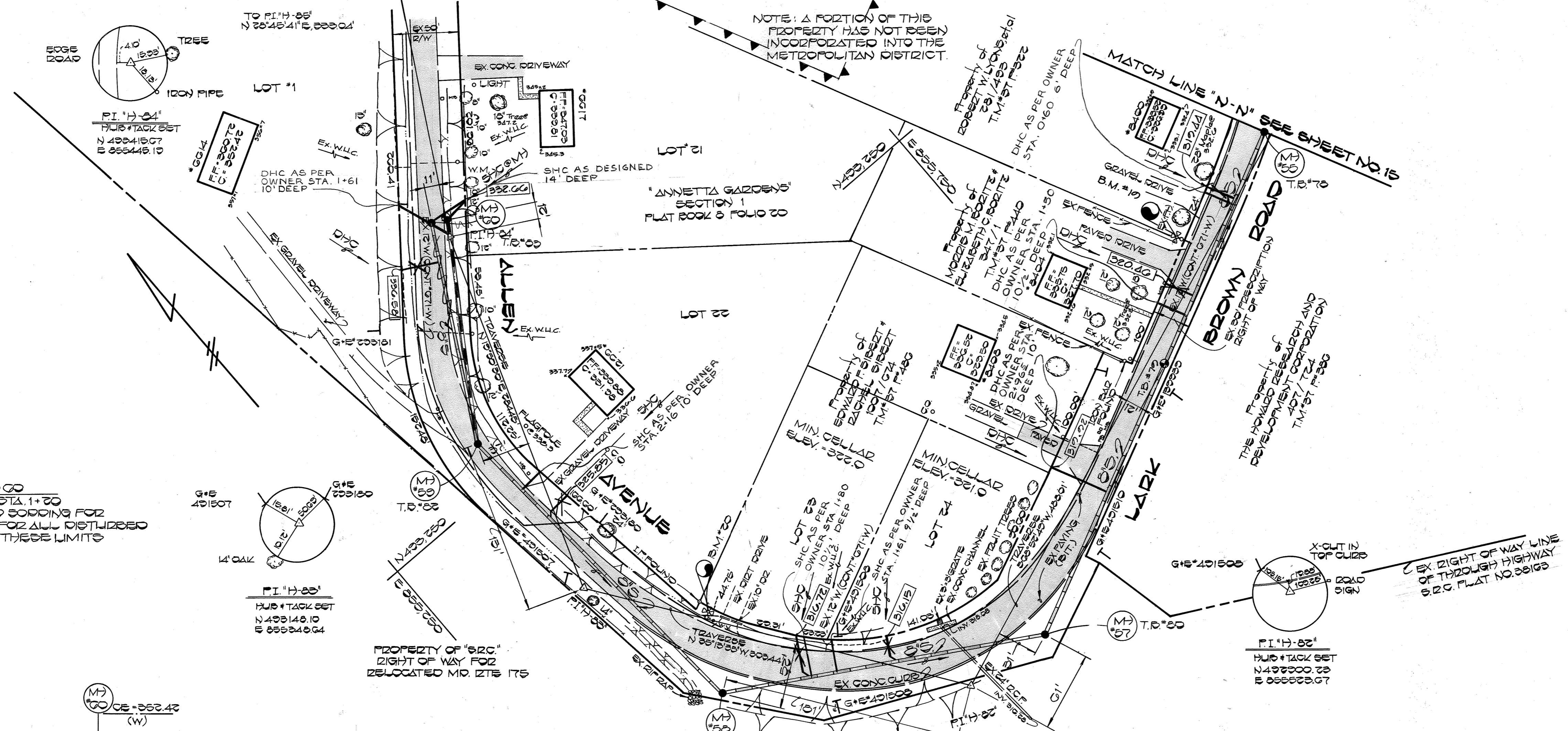


DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: NO.	
REVISION	
DATE	

PLAN AND PROFILE
 SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-60 53
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

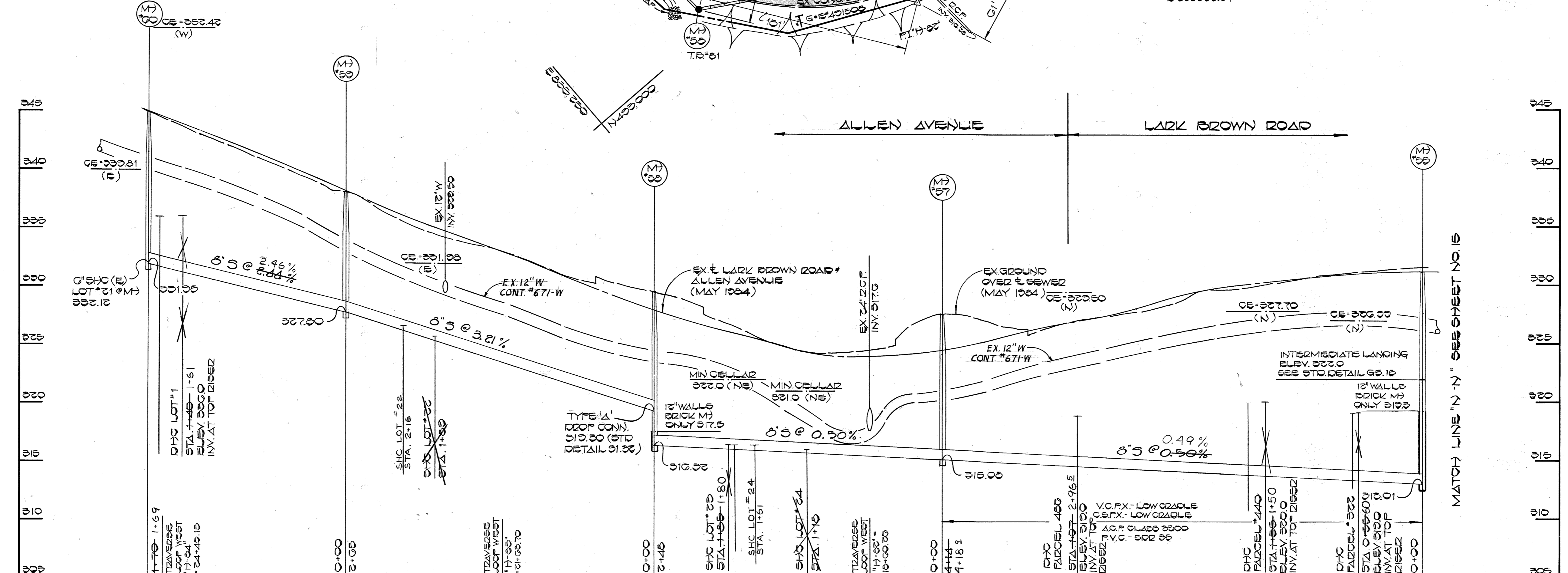
SCALE AS SHOWN
 SHEET 15 OF 24



BENCH MARKS

B.M. #10	ELEV. 330.57
X-CUT IN BONNET BOLT OF FIRE HYDRANT BETWEEN TRAVERSE STA. 1+01' & 1+02', 25' EAST OF 1+02' ON NORTH SIDE OF LARK BROWN RD	
B.M. #20	ELEV. 331.51
X-CUT IN BONNET BOLT OF FIRE HYDRANT BETWEEN TRAVERSE STA. 1+01' & 1+02', 25' SOUTHEAST OF 1+02' ON WEST SIDE OF ALLEN AVENUE	

NOTE: M750 TO M700 STA. 0+25 TO STA. 1+00 PROVIDE SOILD BORING FOR DESTORATION FOR ALL DISTURBED AREAS WITHIN THESE LIMITS

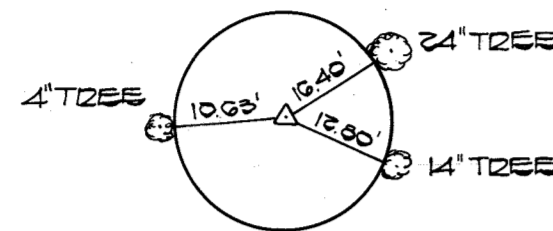


PROFILE
SCALE: HOR 1"=80'
VERT 1"=5'

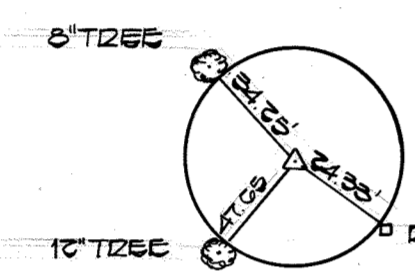
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND RECORDED PUBLIC WORKS CHIEF, BUREAU OF UTILITIES	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 461-2855		DES. D.B.S.		PLAN AND PROFILE SEWER MAINS	DORSEY RUN INTERCEPTOR CAPITAL PROJECT NO. S-6053 CONTRACT NO. 20-1264 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
			DRN. D.B.S.				SHEET 16 OF 24
DATE: 3-11-85 CHIEF, BUREAU OF ENGINEERING	DATE: 3-11-85 CHIEF, UTIL DIVISION	DATE: 3-11-85 TERRELL A. FISHER	DATE: 3-11-85	BY: NO. REVISION DATE	600' SCALE MAP NO. 37 B. 43 BLOCK NO.		

BENCH MARKS

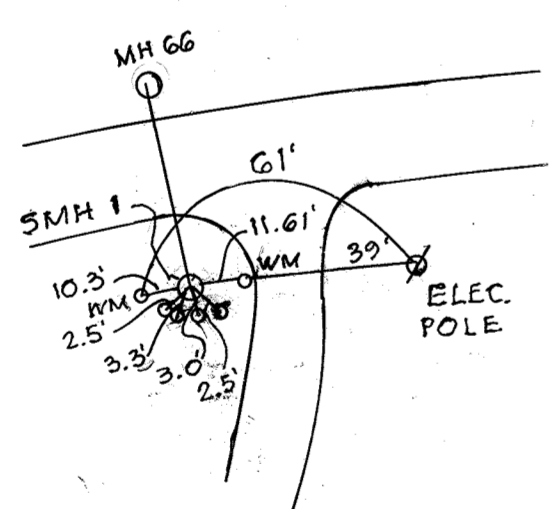
B.M. #22 ELEV. 333.24
RAILROAD SPIKE SET IN PAVEMENT'S
TRANSVERSE STA. "H-70", AT THE NORTHERN
LIMIT OF ALLEN AVENUE



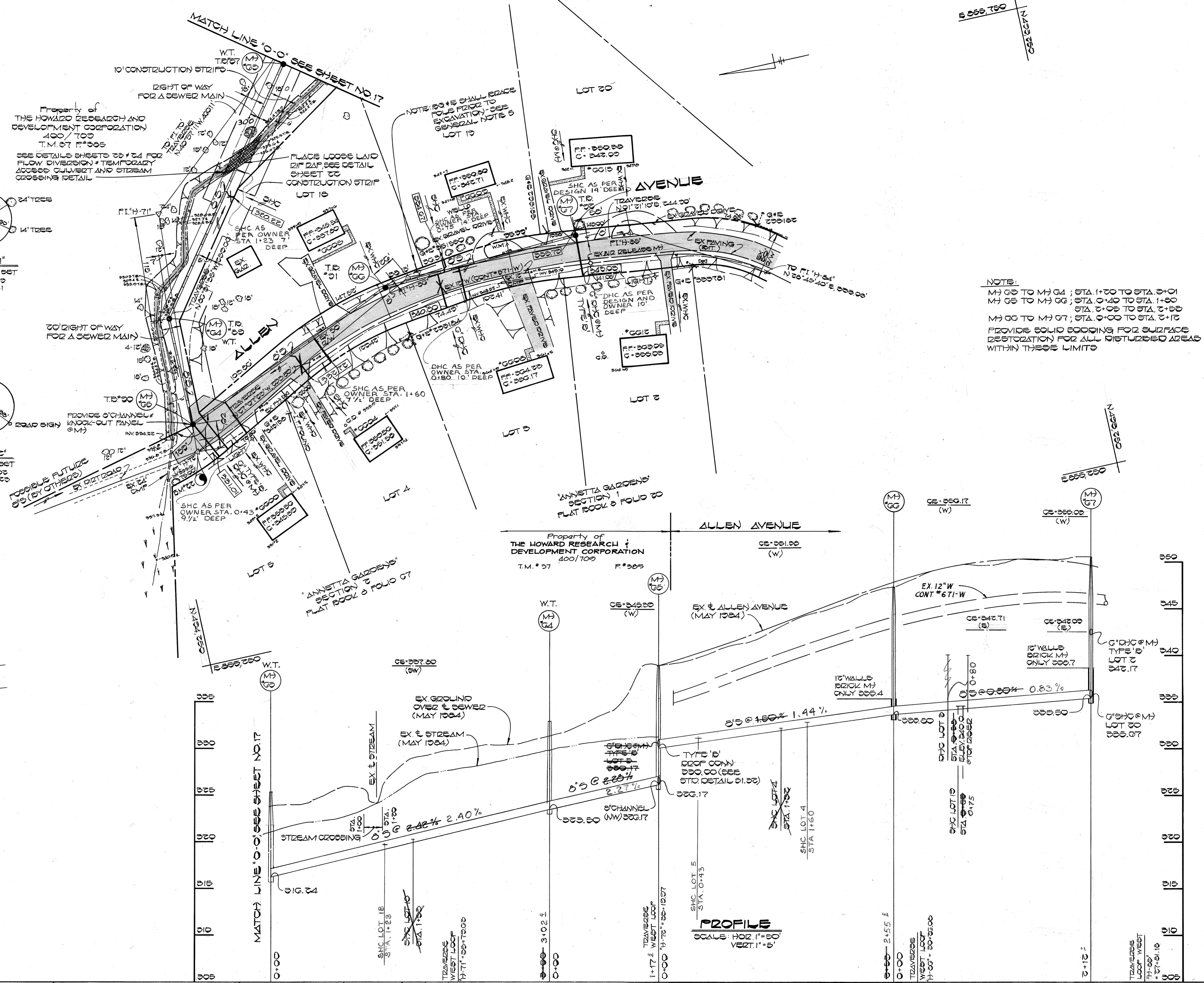
PI 'H-71'
HUB + TACK SET
N 43° 10' 30" W
E 333° 33' 41"



PI 'H-70'
R.D. SPIKE SET
N 43° 14' 00" W
E 333° 47' 23"



AS BUILT PULLS



NOTE:
MH 65 TO MH 64; STA. 1+00 TO STA. 3+01
MH 65 TO MH 66; STA. 0+40 TO STA. 1+00
STA. 2+05 TO STA. 2+50
MH 66 TO MH 67; STA. 0+00 TO STA. 2+10
PROVIDE SOLID SOODING FOR SURFACE
RESTORATION FOR ALL DISTURBED AREAS
WITHIN THESE LIMITS

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *Thomas F. Nunn* 3-11-85
Date: 3-2-85
Chief, Bureau of Engineering: *Robert J. ...*
Date: *...*
Chief, Bureau of Utilities: *...*
Date: *...*

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND
461-2855
TERRELL A. FISHER

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 2/1/85	
WRA: <input checked="" type="checkbox"/>	ADDED AS BUILT PULLS
BY: NO.	REVISION
DATE: 8/17/21	

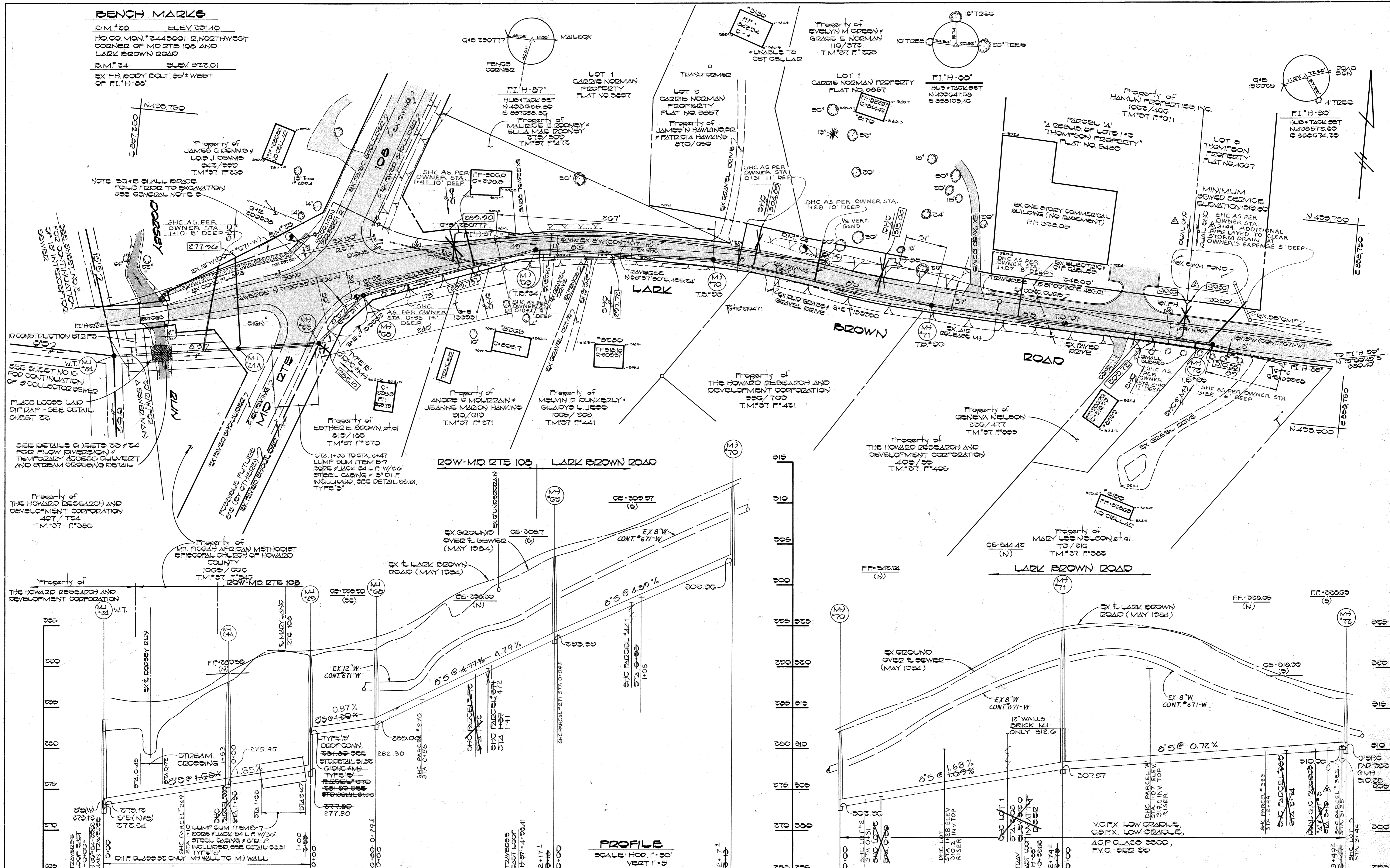
PLAN AND PROFILE
SEWER MAINS
600' SCALE MAP NO. 37 & 43 BLOCK NO. _____

DORSEY RUN INTERCEPTOR
CAPITAL PROJECT NO. S-6053
CONTRACT NO. 20-1264
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

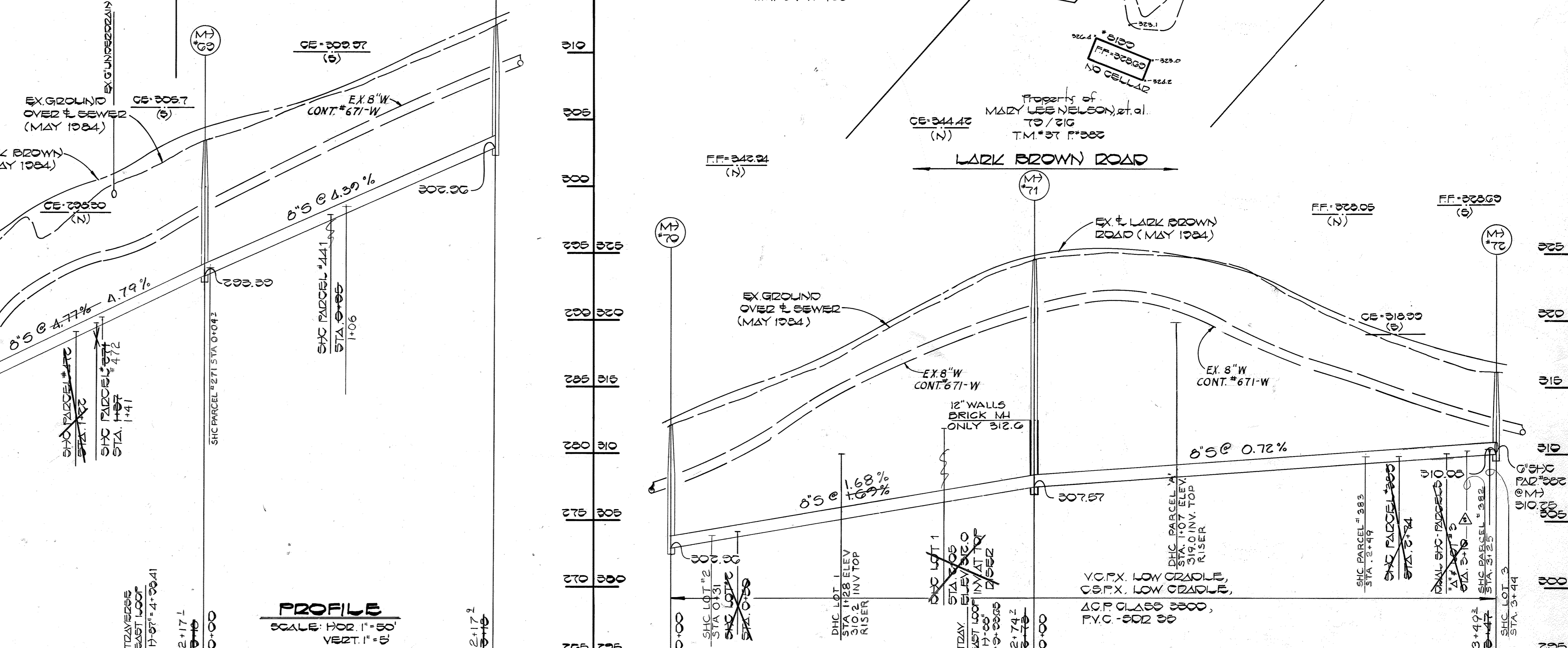
SCALE AS SHOWN
SHEET 18 OF 24

BENCH MARKS

B.M. # 23 ELEV 221.40
 HO. CO. MON. # 2445001-12, NORTHWEST
 CORNER OF MD RTE 108 AND
 LARK BROWN ROAD
 B.M. # 24 ELEV 222.01
 EX. FH. BODY POUT, 85' WEST
 OF P.I. # 11-85'



20'-W. MD RTE 108 LARK BROWN ROAD



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Shirley F. Neenan* 3-11-85
 Chief, Bureau of Engineering: *Richard A. Berman* 3-7-85
 Chief, Bureau of Utilities: *Richard A. Berman* 3-7-85
 Chief, Utility Division: *Richard A. Berman* 3-1-85

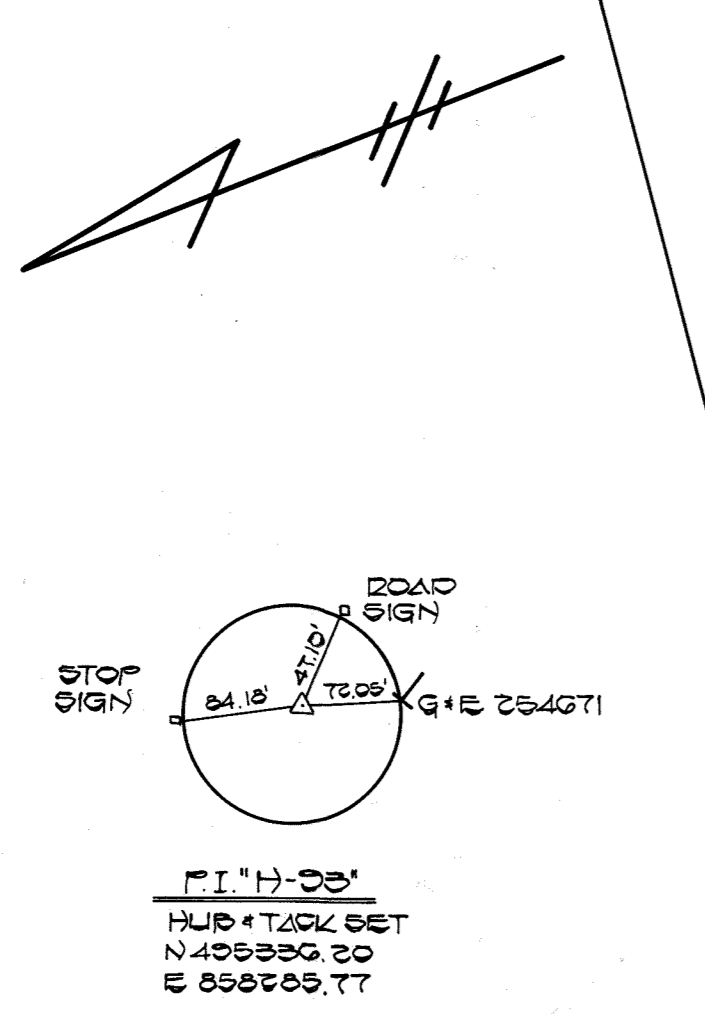
FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855
 State of Maryland Seal: *Terrell A. Fisher*

DES: D.B.S.	DATE: 2/1/85
DRN: D.B.S.	
CHK: T.A.F.	
BY: NO.	
REVISION	

PLAN AND PROFILE
SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 19 OF 24

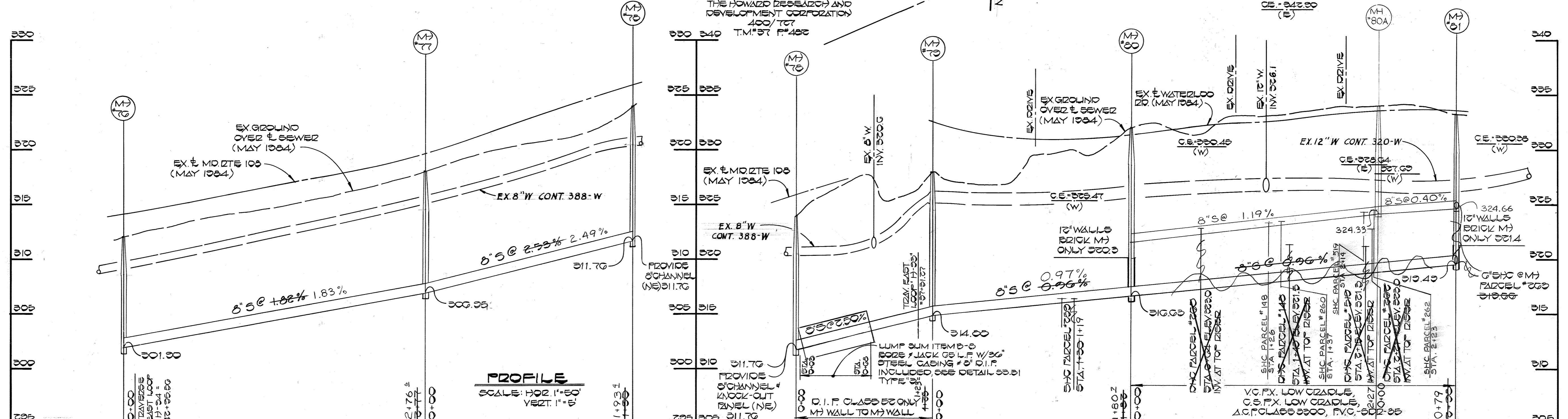
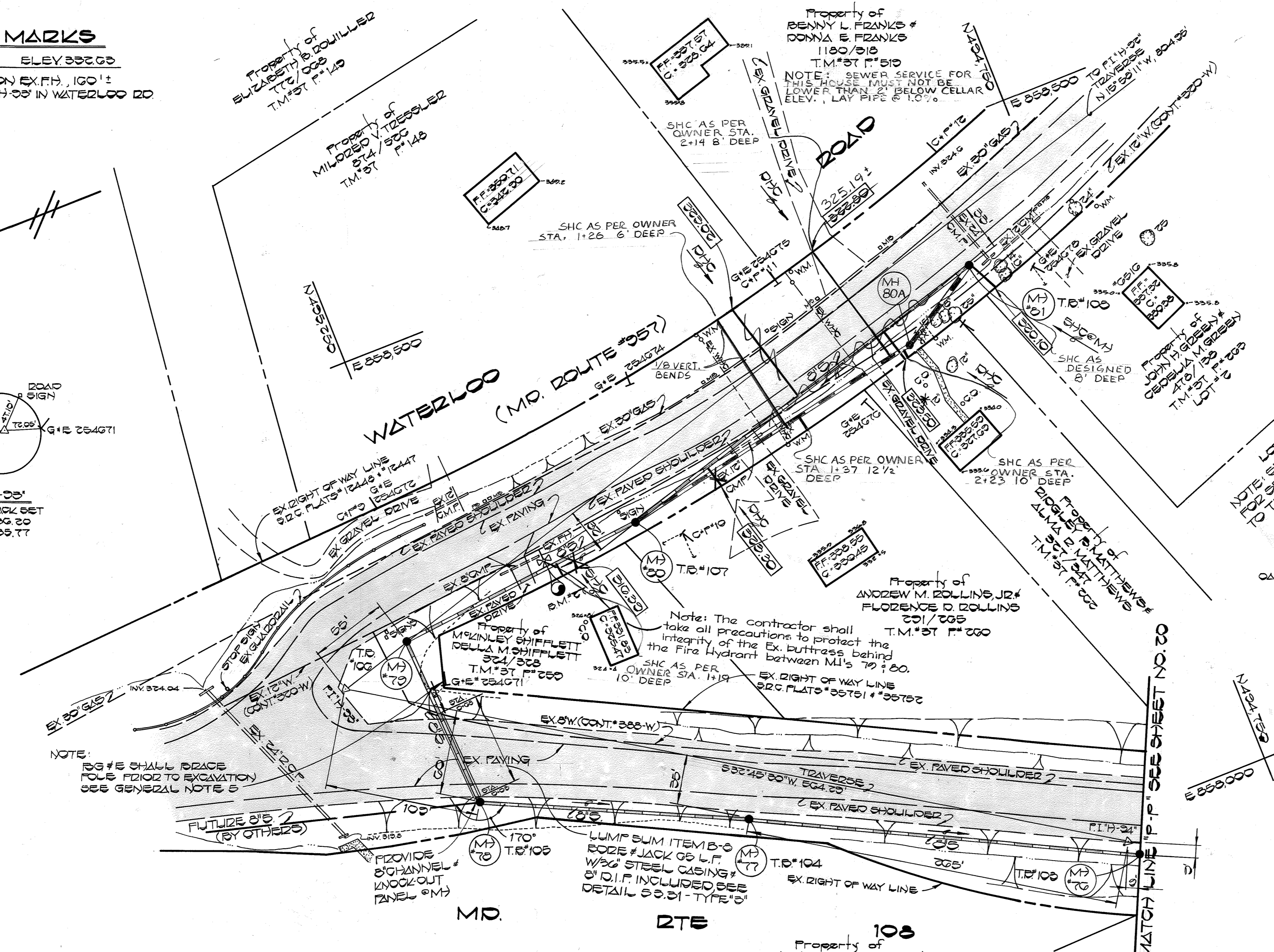
BENCH MARKS
 B.M.#07 ELEV. 332.65
 BODY BOLT ON EX. FH. 1.00'±
 SOUTH OF P.I. H-03 IN WATERLOO RD



P.I. H-03
 HUB + TACK SET
 N 49° 55' 00" E
 5858.55.77

NOTE:
 M7 TO M7 TO : STA. 0+05 TO STA. 1+05
 M7 TO M7 TO : STA. 0+00 TO STA. 0+30
 STA. 1+00 TO STA. 1+50
 M7 TO M7 TO : STA. 0+00 TO STA. 0+50
 STA. 1+00 TO STA. 1+50
 STA. 2+00 TO STA. 2+50
 PROVIDE SOLID SODDING FOR SURFACE RESTORATION FOR ALL DISTURBED AREAS WITHIN THESE LIMITS

NOTE:
 150# 8" SHALL DEPTH
 FOLDS FILL TO EXCAVATION
 SEE GENERAL NOTE 5



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Robert F. ...* DATE: 3-11-85
 Chief, Bureau of Engineering: *...* DATE: 3-11-85
 Chief, Bureau of Utilities: *...* DATE: 3-7-85
 Chief, Utility Division: *...* DATE: 3-11-85

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855
 STATE OF MARYLAND
 TERRILL A. FISHER
 LICENSED PROFESSIONAL SURVEYOR

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY: NO.	
REVISION	
DATE	

PLAN AND PROFILE
 SEWER MAINS
 600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
 CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 21 OF 24

BENCH MARK

B.M. #27 ELEV. 333.03
 BODY BOLT ON EX. F.H. 100'±
 SOUTH OF P.I. H-88 IN WATERLOO RD

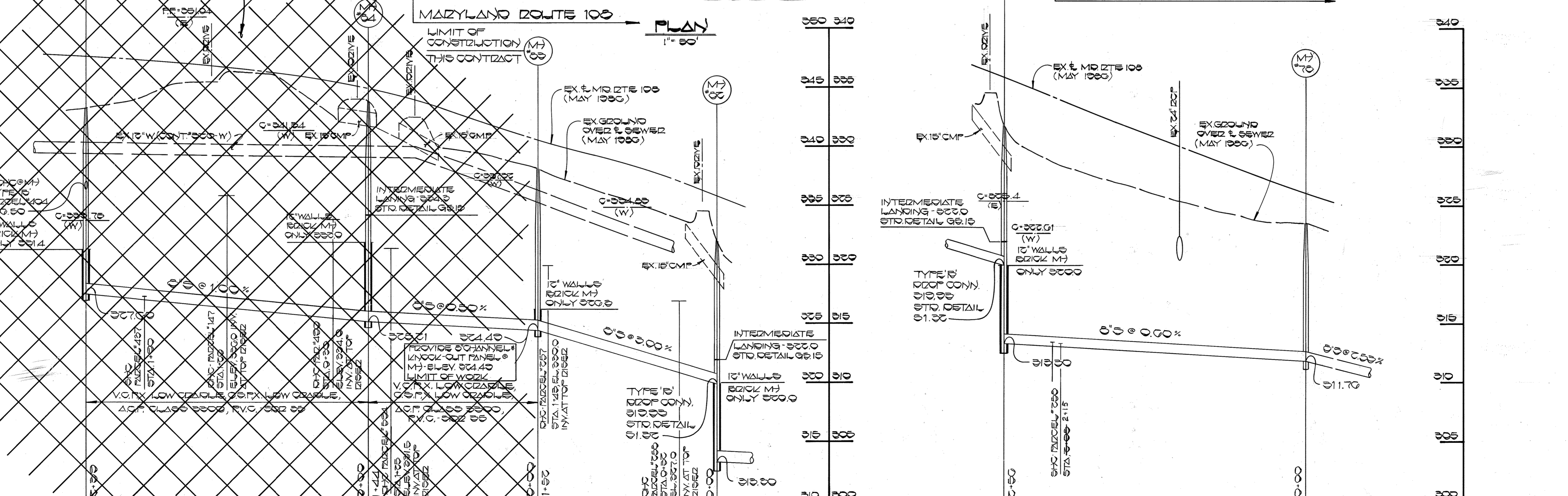
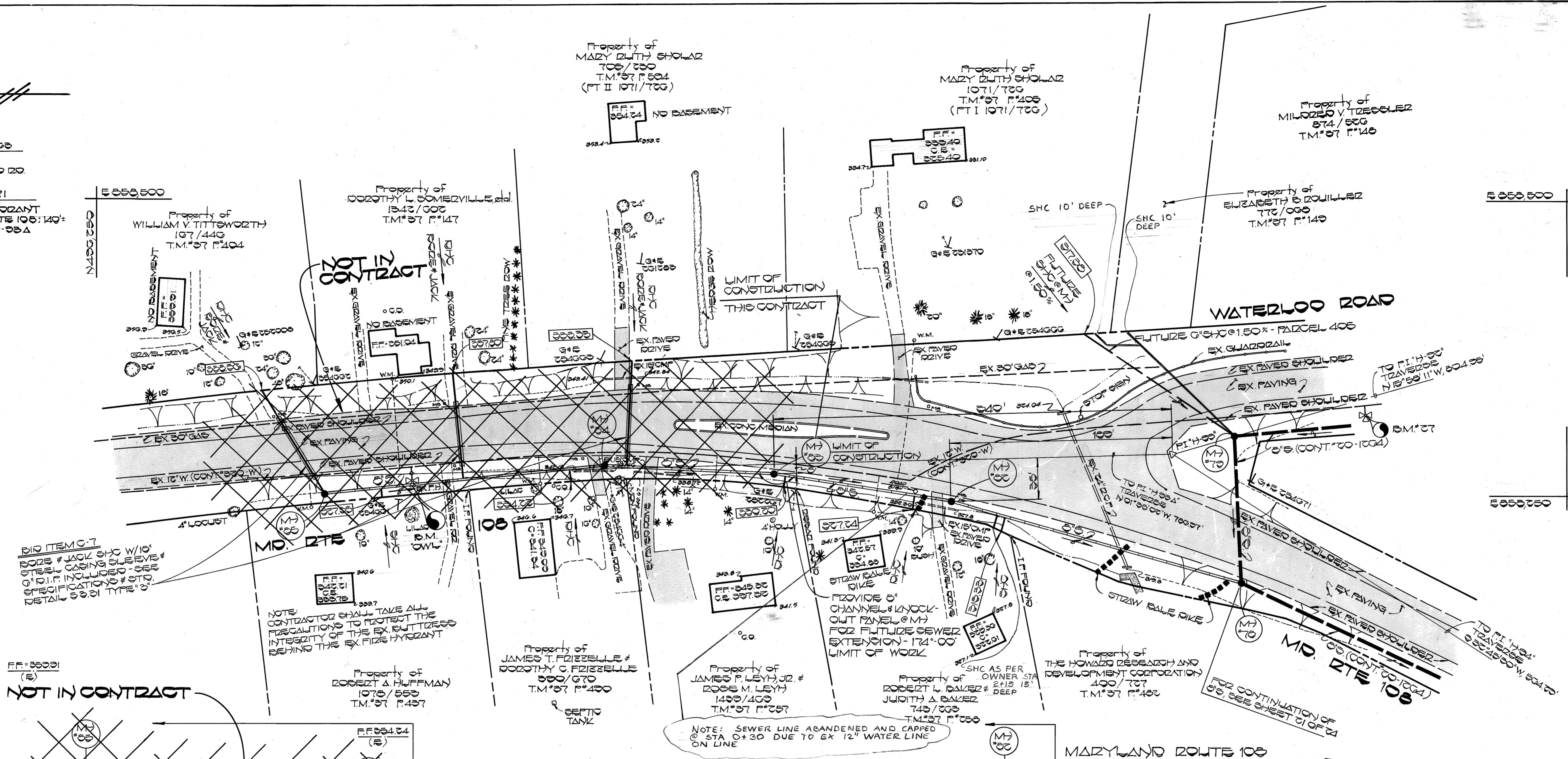
B.M. "OWL" ELEV. 346.71
 BONNET BOLT ON EX. FIRE HYDRANT
 WEST SIDE OF MARYLAND ROUTE 108; 140'
 SOUTH OF TRAVERSE POINT P.I. H-88A

TACK IN SIGN FOOT
 TACK IN 4' LOCUST

P.I. H-88A
 P.L. NAIL SET
 N 40° 00' 00" E
 5 550 00 00

ROAD SIGN
 STOP SIGN

P.I. H-88
 P.L. NAIL SET
 N 40° 00' 00" E
 5 550 00 00



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Nummy* 5-22-86
 Chief, Bureau of Engineering: *Arslan R. Ray* 5/19/86
 Chief, Bureau of Utilities: *Robert M. Berman* 5-20-86
 Chief, Utility Division: *William J. ...* 5/19/86

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND
 461-2855

TERRELL A. FISHER

DES: P.W.K.	BY	NO.
DRN: D.B.S.	REVISION	
CHK: T.A.F.	DATE: 5/19/86	

PLAN AND PROFILE
 SEWER MAINS

600' SCALE MAP NO. 37 BLOCK NO.

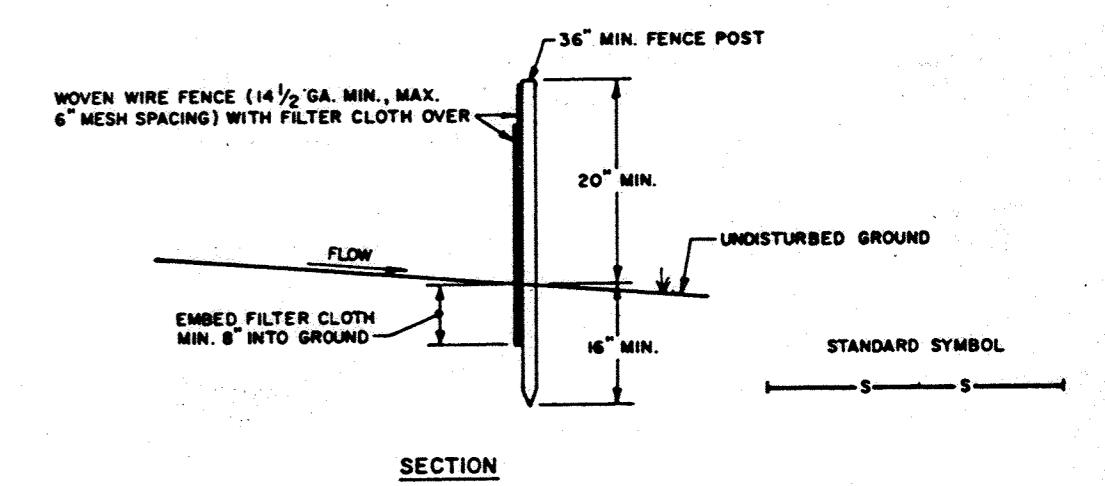
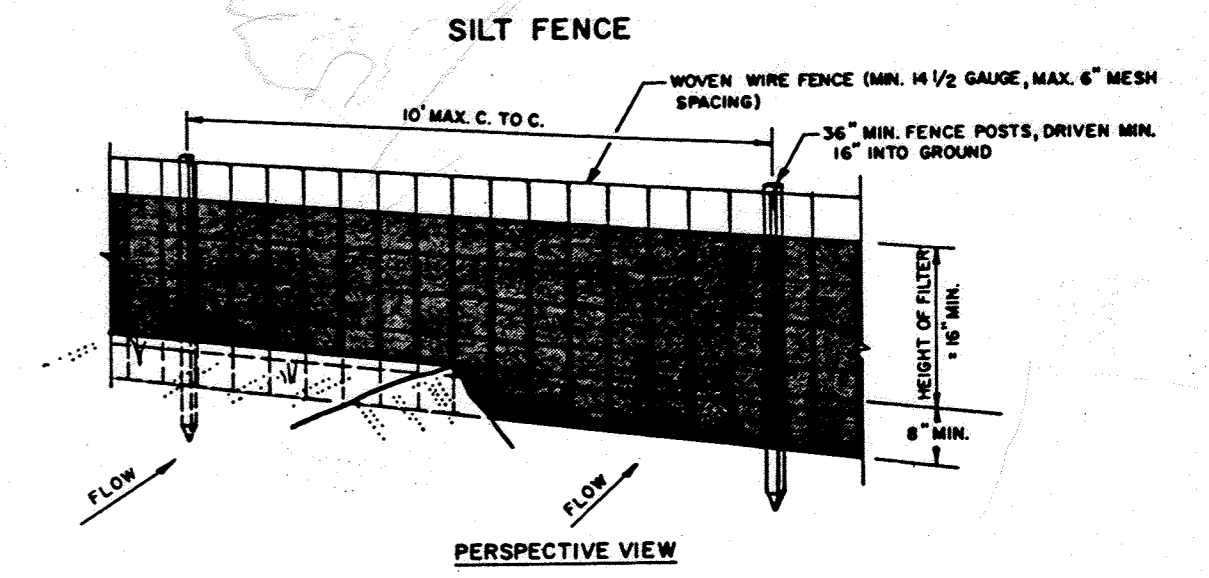
DORSEY RUN INTERCEPTOR

CAPITAL PROJECT NO. S-6053
 CONTRACT NO. 20-1264
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

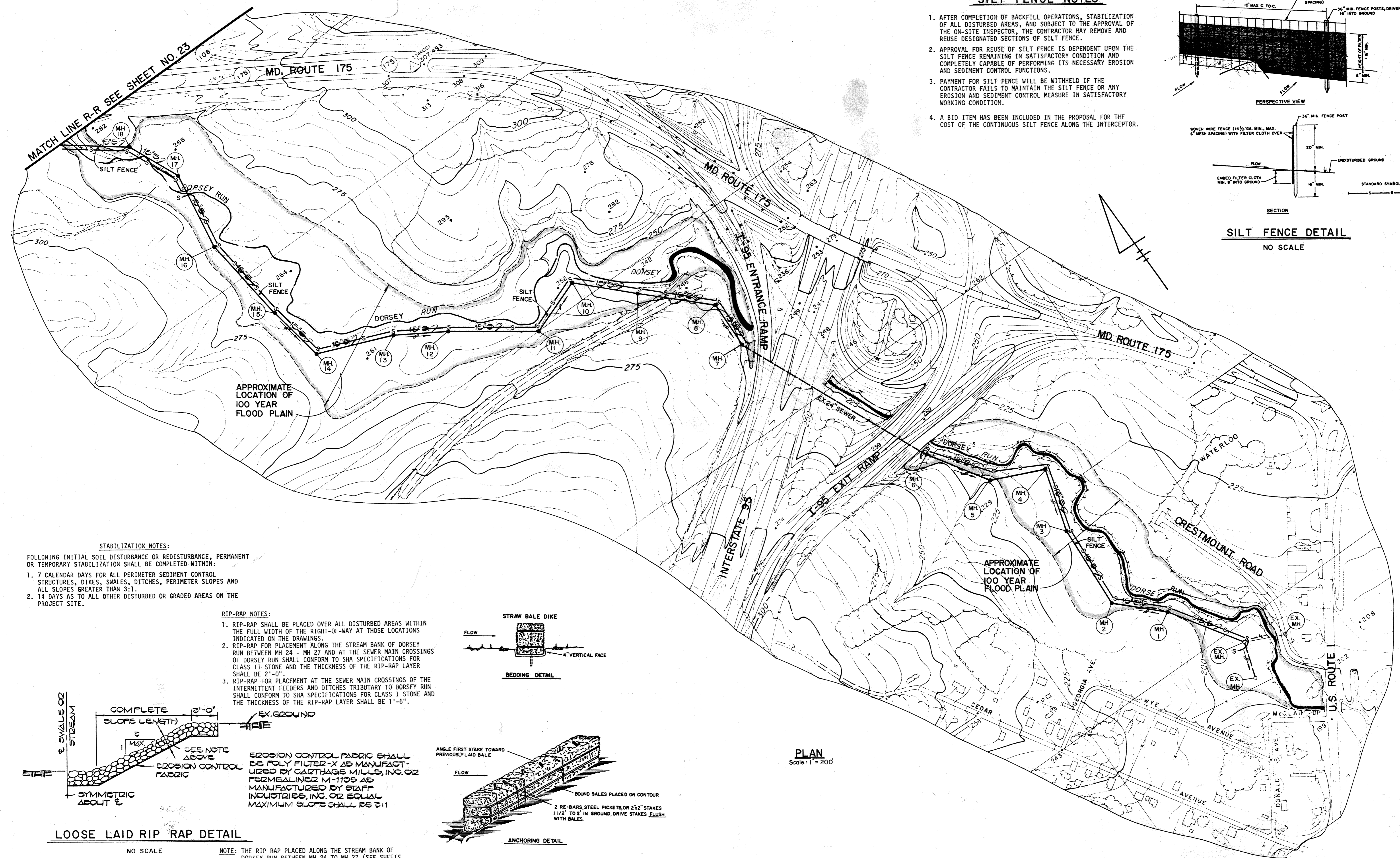
SCALE AS SHOWN
 SHEET 21A OF 24

SILT FENCE NOTES

1. AFTER COMPLETION OF BACKFILL OPERATIONS, STABILIZATION OF ALL DISTURBED AREAS, AND SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR, THE CONTRACTOR MAY REMOVE AND REUSE DESIGNATED SECTIONS OF SILT FENCE.
2. APPROVAL FOR REUSE OF SILT FENCE IS DEPENDENT UPON THE SILT FENCE REMAINING IN SATISFACTORY CONDITION AND COMPLETELY CAPABLE OF PERFORMING ITS NECESSARY EROSION AND SEDIMENT CONTROL FUNCTIONS.
3. PAYMENT FOR SILT FENCE WILL BE WITHHELD IF THE CONTRACTOR FAILS TO MAINTAIN THE SILT FENCE OR ANY EROSION AND SEDIMENT CONTROL MEASURE IN SATISFACTORY WORKING CONDITION.
4. A BID ITEM HAS BEEN INCLUDED IN THE PROPOSAL FOR THE COST OF THE CONTINUOUS SILT FENCE ALONG THE INTERCEPTOR.



SILT FENCE DETAIL
NO SCALE

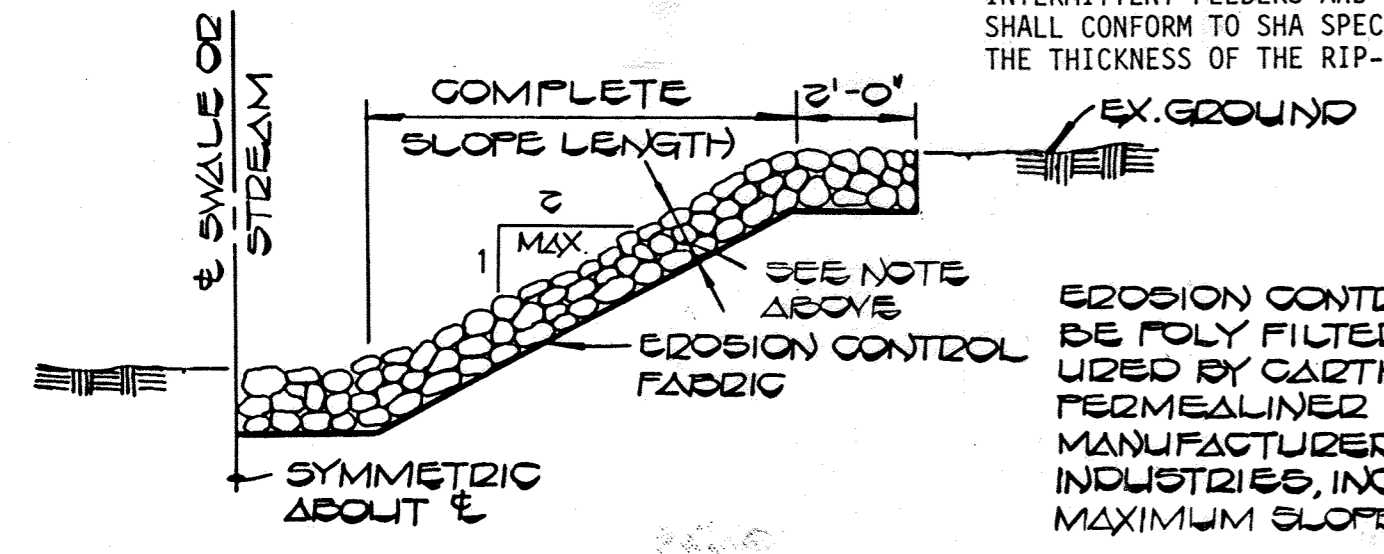
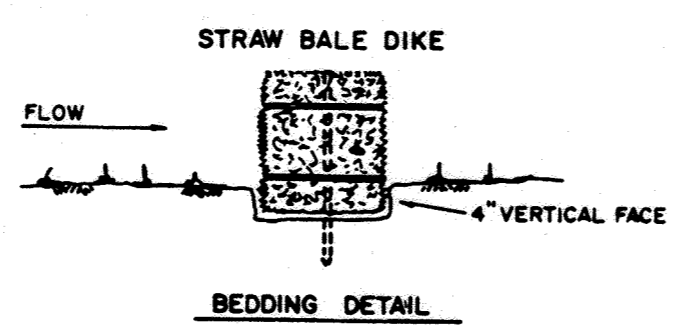


STABILIZATION NOTES:

- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
1. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKS, SMALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1
 2. 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

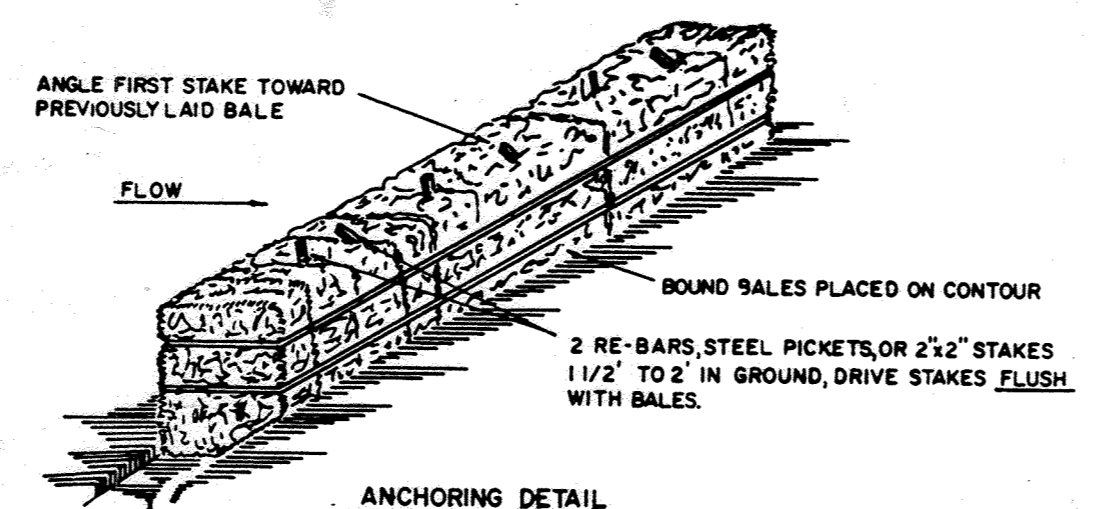
RIP-RAP NOTES:

1. 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.
2. RIP-RAP FOR PLACEMENT ALONG THE STREAM BANK OF DORSEY RUN BETWEEN MH 24 - MH 27 AND AT THE SEWER MAIN CROSSINGS OF DORSEY RUN SHALL CONFORM TO SHA SPECIFICATIONS FOR CLASS II STONE AND THE THICKNESS OF THE RIP-RAP LAYER SHALL BE 2'-0".
3. RIP-RAP FOR PLACEMENT AT THE SEWER MAIN CROSSINGS OF THE INTERMITTENT FEEDERS AND DITCHES TRIBUTARY TO DORSEY RUN SHALL CONFORM TO SHA SPECIFICATIONS FOR CLASS I STONE AND THE THICKNESS OF THE RIP-RAP LAYER SHALL BE 1'-6".



NO SCALE

NOTE: THE RIP RAP PLACED ALONG THE STREAM BANK OF DORSEY RUN BETWEEN MH 24 TO MH 27 (SEE SHEETS 8 AND 9) SHALL EXTEND ONLY TO THE BOTTOM OF THE BANK, AND NOT TO THE "E" OF STREAM AS INDICATED ABOVE.



STRAW BALE DIKE DETAIL

PLAN
Scale: 1" = 20'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Joseph F. Nummy 3-11-85
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Benjamin 3-7-85
CHIEF, BUREAU OF UTILITIES DATE

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND
461-2855



DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY	NO.
REVISION	

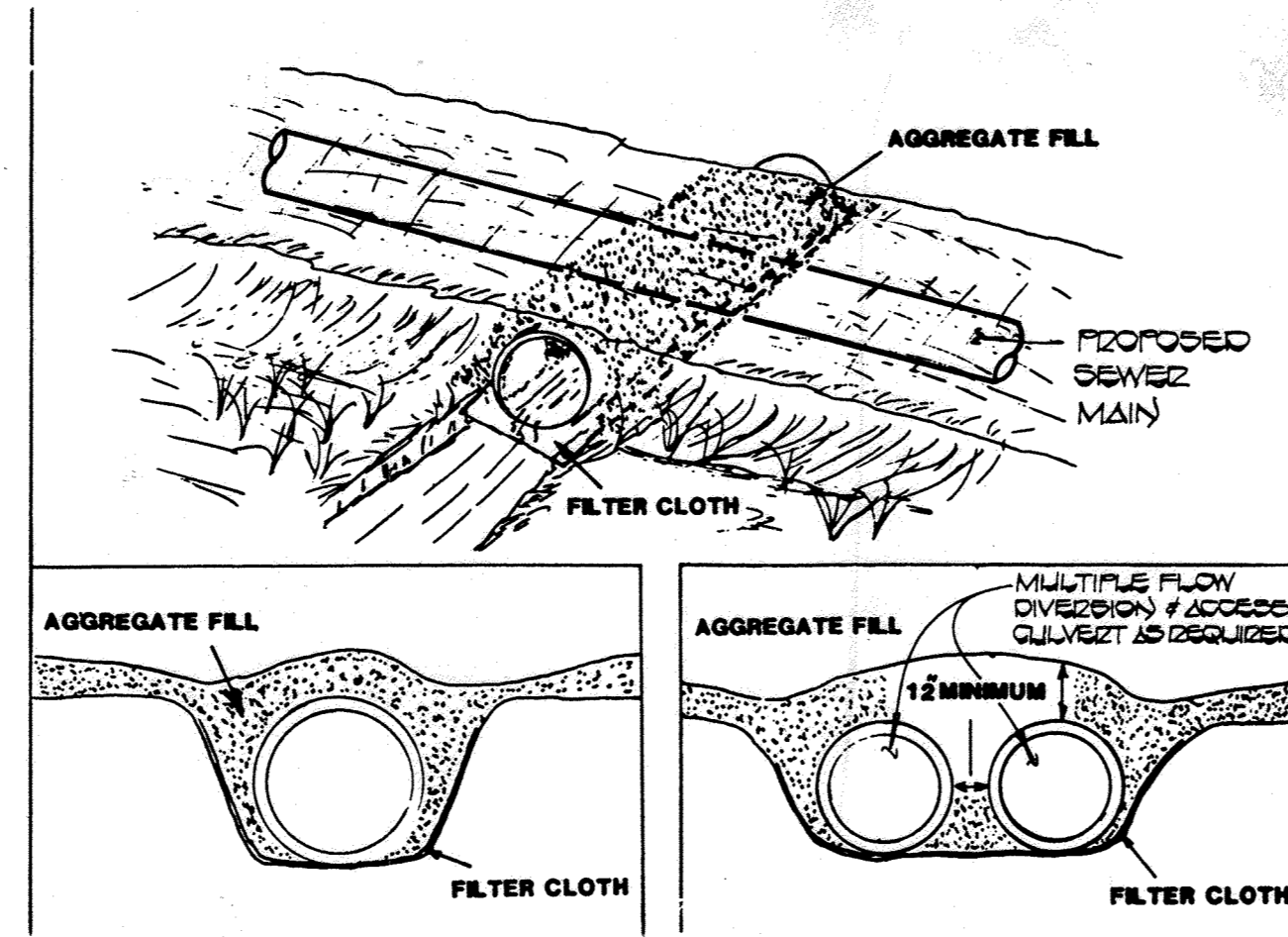
EROSION AND SEDIMENT CONTROL
PLAN & DETAILS

DORSEY RUN INTERCEPTOR
CAPITAL PROJECT NO. S-6053
CONTRACT NO. 20-1264
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 22 OF 24

EROSION AND SEDIMENT CONTROL NOTES

1. 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.
2. IMMEDIATELY FOLLOWING BACKFILL OF PIPE TRENCHES, ALL DISTURBED AREAS ARE TO BE STABILIZED WITH SEED AND MULCH IN ACCORDANCE WITH REFERENCED STANDARDS AND SPECIFICATIONS AND THE FOLLOWING STABILIZATION NOTES:
 - A. SEEDBED SHOULD BE PREPARED TO A MINIMUM DEPTH OF 3 INCHES WHEN THE AREA TO BE SEEDDED HAS BEEN RECENTLY LOOSENEED TO THE EXTENT THAT AN ADEQUATE SEEDBED EXISTS, NO ADDITIONAL TREATMENT IS REQUIRED.
 - B. LIME TO A PH OF 6.0 BUT IN THE ABSENCE OF A SOIL TEST, APPLY A MINIMUM OF ONE TON/ACRE OF GROUND LIMESTONE.
 - C. FERTILIZE AT THE MINIMUM RATE OF 500 POUNDS OF 10-10-10 PER ACRE.
 - D. MULCH THE SEEDBED WITH SMALL GRAIN STRAW AT A RATE OF 1.5 TONS PER ACRE.
 - E. SEED THE AREAS WITH KENTUCKY 31 TALL FESCUE AT A RATE OF 60 LBS/AC. THE SEEDING DATES ARE SPRING - 3/15 TO 5/15.



FLOW DIVERSION & TEMPORARY ACCESS CULVERT

NO SCALE

NOTE:

1. SEE CONSTRUCTION SPECIFICATIONS THIS SHEET.
2. THE CULVERTS SHALL BE USED FOR BOTH TEMPORARY ACCESS ACROSS THE STREAM AND FOR FLOW DIVERSION DURING SEWER MAIN CONSTRUCTION ACROSS THE STREAM - SEE STREAM CROSSING DETAIL SHEET 24.
3. THE CULVERTS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY OF THE PROPOSED SEWER MAIN.

CONSTRUCTION SPECIFICATIONS FOR FLOW DIVERSION AND TEMPORARY ACCESS CULVERT

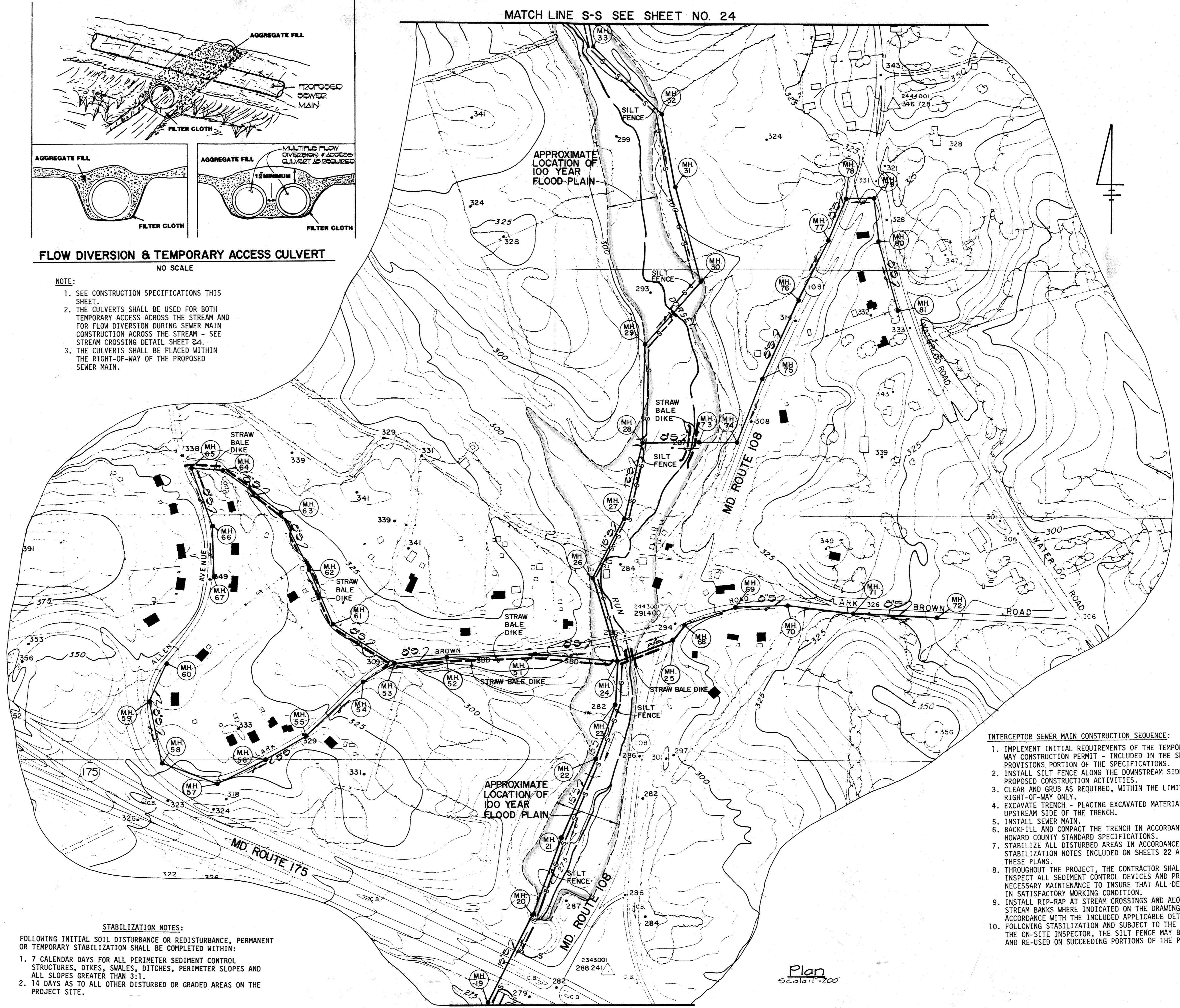
- a. **Restrictions** - No Construction or removal of a temporary access culvert will be permitted between October 1 through April 30 for all Class III and Class IV Trout Waters or between March 15 through June 15 for non-trout waterways.
- b. **Culvert Strength** - All culverts shall be strong enough to support their cross sectional area under maximum expected loads.
- c. **Culvert Size** - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fills. If a channel width exceeds 3 feet, additional pipes may be used until the cross sectional area of the pipes is greater than 60 percent of the cross sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe.
- d. **Culvert Length** - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
- e. **Filter Cloth** - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.
- f. **Culvert Placement** - The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).
- g. **Culvert Protection** - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill. At a minimum, the bedding and fill material used in the construction of the temporary access culvert crossings shall conform with the aggregate requirements cited in Section I.H. 1. above.
- h. **Stabilization** - All areas disturbed during culvert installation shall be stabilized within 14 calendar days of the disturbance in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."

Culvert Maintenance Requirements

- a. **Inspection** - Periodic inspection shall be performed to ensure that the culverts, streambed, and streambanks are not damaged, and that sediment is not entering the stream or blocking fish passage or migration.
- b. **Maintenance** - Maintenance shall be performed, as needed in a timely manner to ensure that structures are in compliance with this standard and specification. This shall include removal and disposal of any trapped sediment or debris. Sediment shall be disposed of and stabilized outside the waterway flood plain.

Culvert Removal and Clean-Up Requirements

- a. **Removal** - When the crossing has served its purpose, all structures including culverts, bedding and filter cloth materials shall be removed within 14 calendar days. In all cases, the culvert materials shall be removed within one year of installation. No structure shall be removed during the spawning season (March 15 through June 15).
- b. **Final Clean-up** - Final clean-up shall consist of removal of the temporary structure from the waterway, removal of all construction materials, restoration of original stream channel cross section, and protection of the stream banks from erosion. Removed material shall be stored outside of the waterway flood plain.
- c. **Method** - Removal of the structure and clean up of the area shall be accomplished without construction equipment working in the waterway channel.
- d. **Final Stabilization** - All areas disturbed during removal shall be stabilized within 14 calendar days of that disturbance in accordance with the Standards for "Critical Area Stabilization With Permanent Seeding."



- INTERCEPTOR SEWER MAIN CONSTRUCTION SEQUENCE:**
1. IMPLEMENT INITIAL REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT - INCLUDED IN THE SPECIAL PROVISIONS PORTION OF THE SPECIFICATIONS.
 2. INSTALL SILT FENCE ALONG THE DOWNSTREAM SIDE OF THE PROPOSED CONSTRUCTION ACTIVITIES.
 3. CLEAR AND GRUB AS REQUIRED, WITHIN THE LIMITS OF THE RIGHT-OF-WAY ONLY.
 4. EXCAVATE TRENCH - PLACING EXCAVATED MATERIAL ON THE UPSTREAM SIDE OF THE TRENCH.
 5. INSTALL SEWER MAIN.
 6. BACKFILL AND COMPACT THE TRENCH IN ACCORDANCE WITH THE HOWARD COUNTY STANDARD SPECIFICATIONS.
 7. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE STABILIZATION NOTES INCLUDED ON SHEETS 22 AND 23 OF THESE PLANS.
 8. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN SATISFACTORY WORKING CONDITION.
 9. INSTALL RIP-RAP AT STREAM CROSSINGS AND ALONG THE STREAM BANKS WHERE INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH THE INCLUDED APPLICABLE DETAILS.
 10. FOLLOWING STABILIZATION AND SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR, THE SILT FENCE MAY BE REMOVED AND RE-USED ON SUCCEEDING PORTIONS OF THE PROJECT.

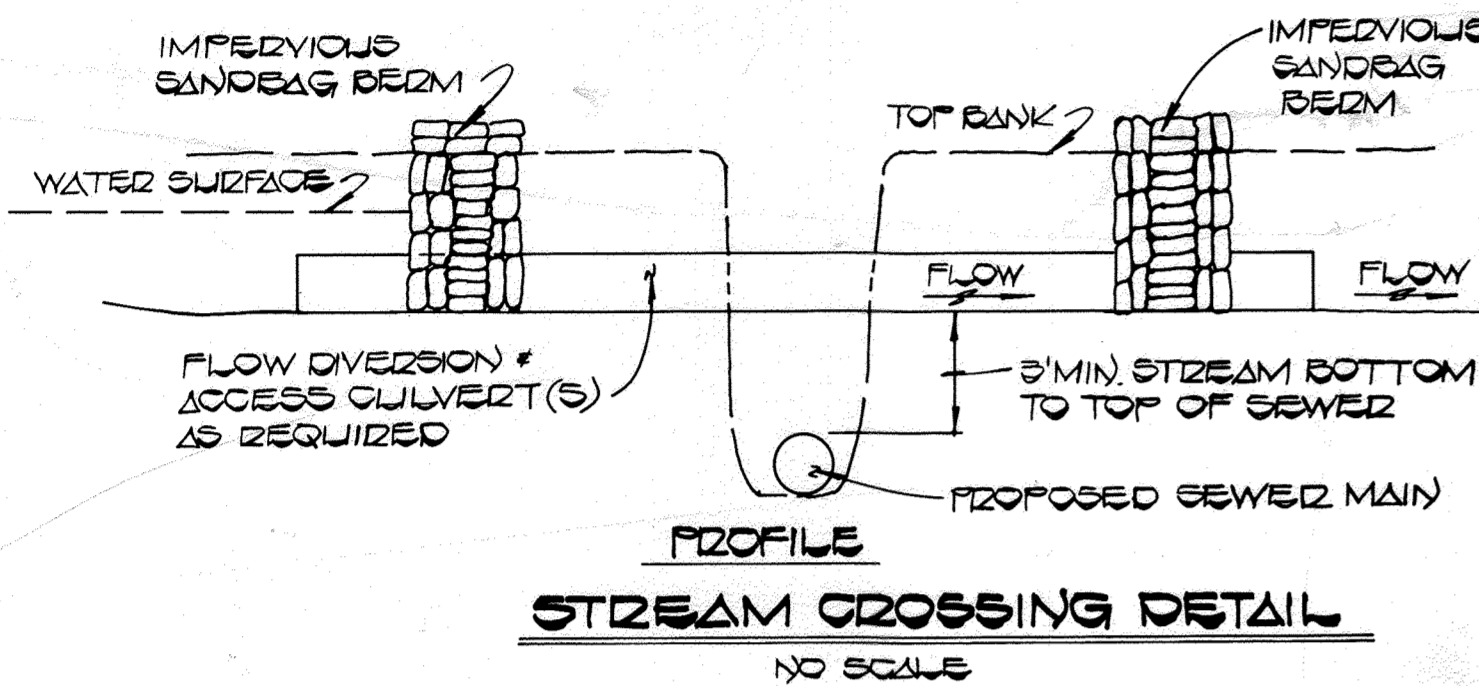
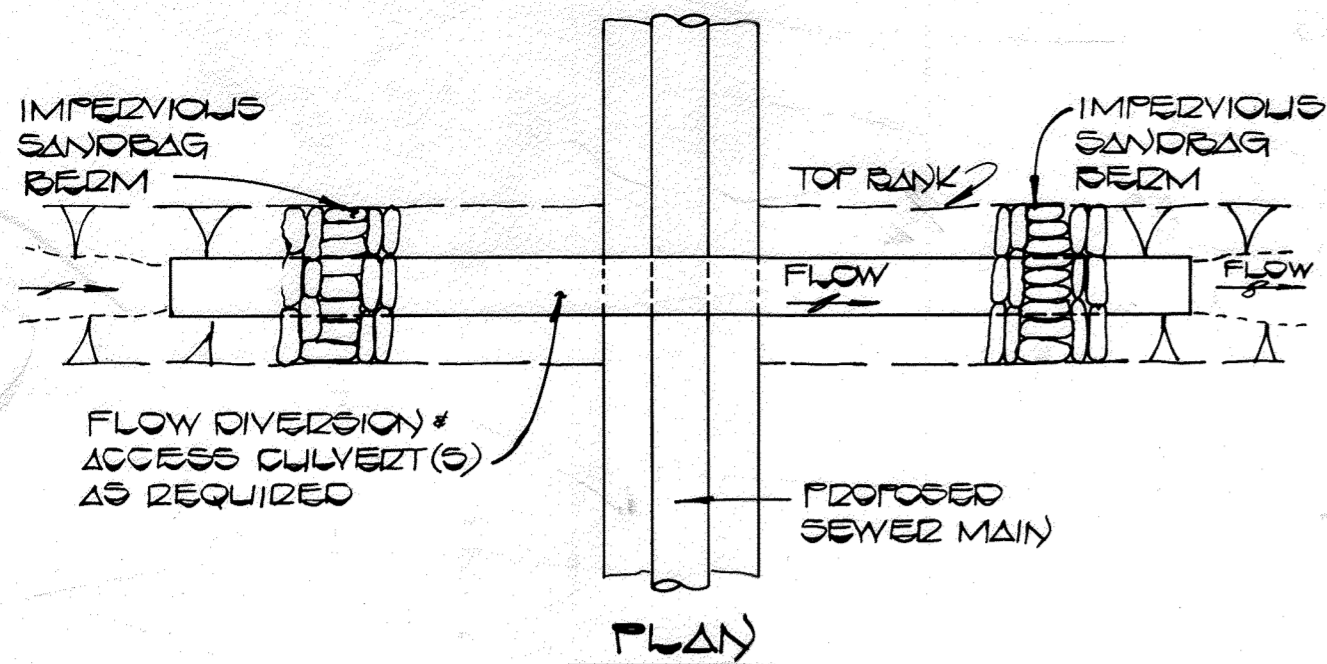
STABILIZATION NOTES:

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

1. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
2. 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

Plan
Scale 1" = 100'

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>George F. Neuman</i> 3-11-85 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Robert H. Burns</i> 3-7-85 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS</p> <p>8388 COURT AVENUE ELLICOTT CITY, MARYLAND</p> <p>461-2855</p> <p> TERRELL FISHER</p>	<p>DES: D.B.S.</p> <p>DRN: D.B.S.</p> <p>CHK: T.A.F.</p> <p>DATE: 3/1/85</p>	<p>EROSION AND SEDIMENT CONTROL</p> <p>PLAN & DETAILS</p> <p>600' SCALE MAP NO. 37 & 43 BLOCK NO.</p>	<p>DORSEY RUN INTERCEPTOR CAPITAL PROJECT NO. S-6053 CONTRACT NO. 20-1264 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 23 OF 24</p>
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NOTE: IF THE STREAM IS DRY AND INSTALLATION OF THE SEWER MAIN CAN BE COMPLETED IN ONE DAY, THE STREAM CROSSING DETAIL SHOWN CAN BE DELETED.

SEE SHEET 23 FOR FLOW DIVERSION & TEMPORARY ACCESS CULVERT DETAIL & SPECIFICATIONS

GENERAL EROSION AND CONTROL NOTES FOR SEWER MAIN CONSTRUCTION:

- EXCAVATED TOPSOIL AND SUBSOIL SHALL BE KEPT SEPARATE AND REPLACED IN THEIR NATURAL ORDER.
- ALL EXCAVATED MATERIALS SHALL BE STOCKPILED AND PLACED ON THE UPLAND SIDE (AWAY FROM STREAM) OF THE TRENCH.
- WHERE THE SEWER MAIN CROSSES DORSEY RUN, THE CROSSING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE DETAIL, NOTES AND CONSTRUCTION SEQUENCE SHOWN ON THIS SHEET.
- FOLLOWING COMPLETION OF THE STREAM CROSSINGS, THE TRENCH AND DISTURBED AREAS SHALL BE SEALED BY INSTALLATION OF SILT FENCE TO PREVENT RUN-OFF ALONG THE TRENCHLINE FROM ENTERING THE STREAM. THESE DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONTRIBUTING AREAS ARE STABILIZED.
- SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE SOIL CONSERVATION SERVICE INSPECTOR APPROVES THEIR REMOVAL.

MATCHLINE S.S. SEE SHEET NO. 23

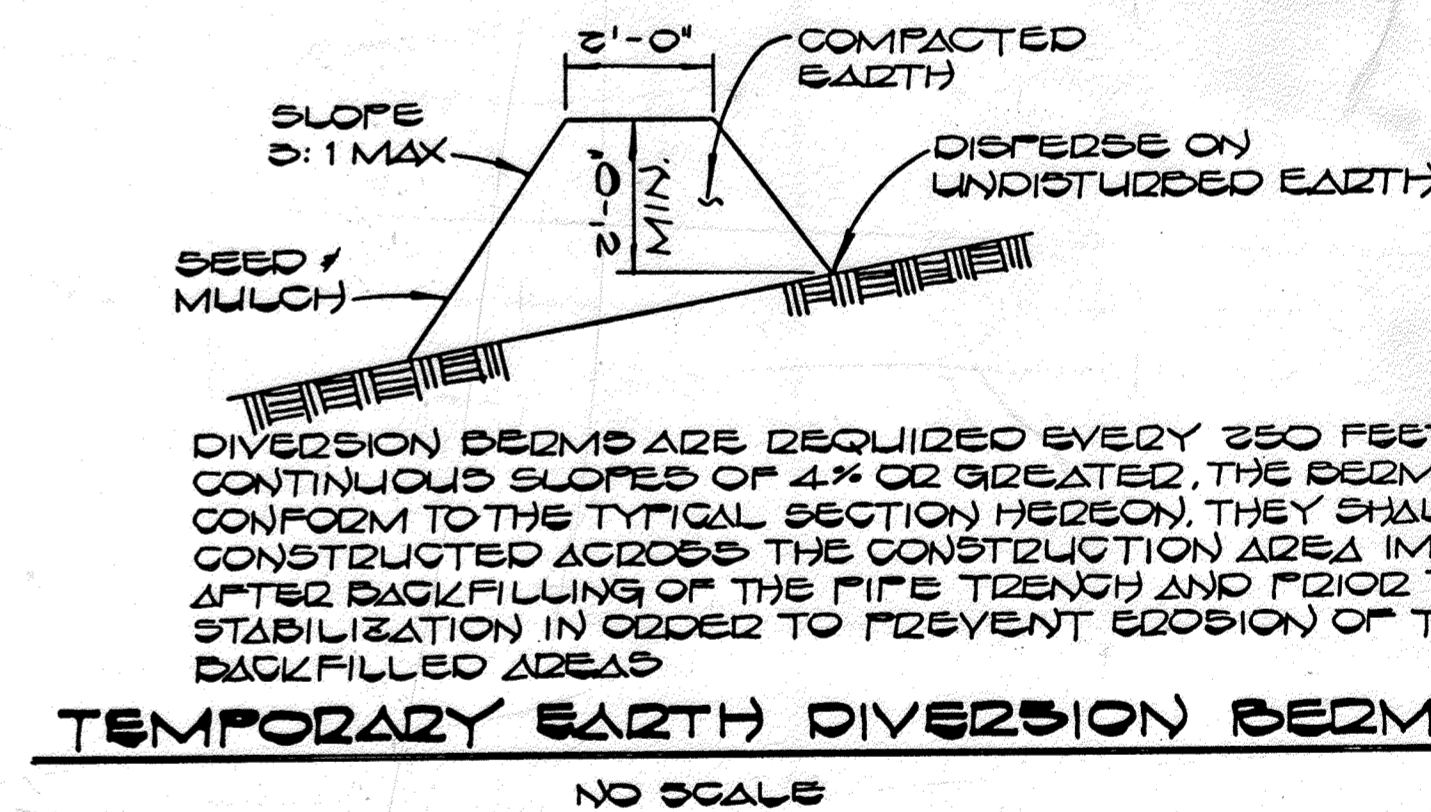
MATCHLINE S.S. SEE SHEET NO. 23

PLAN Scale: 1"=200'

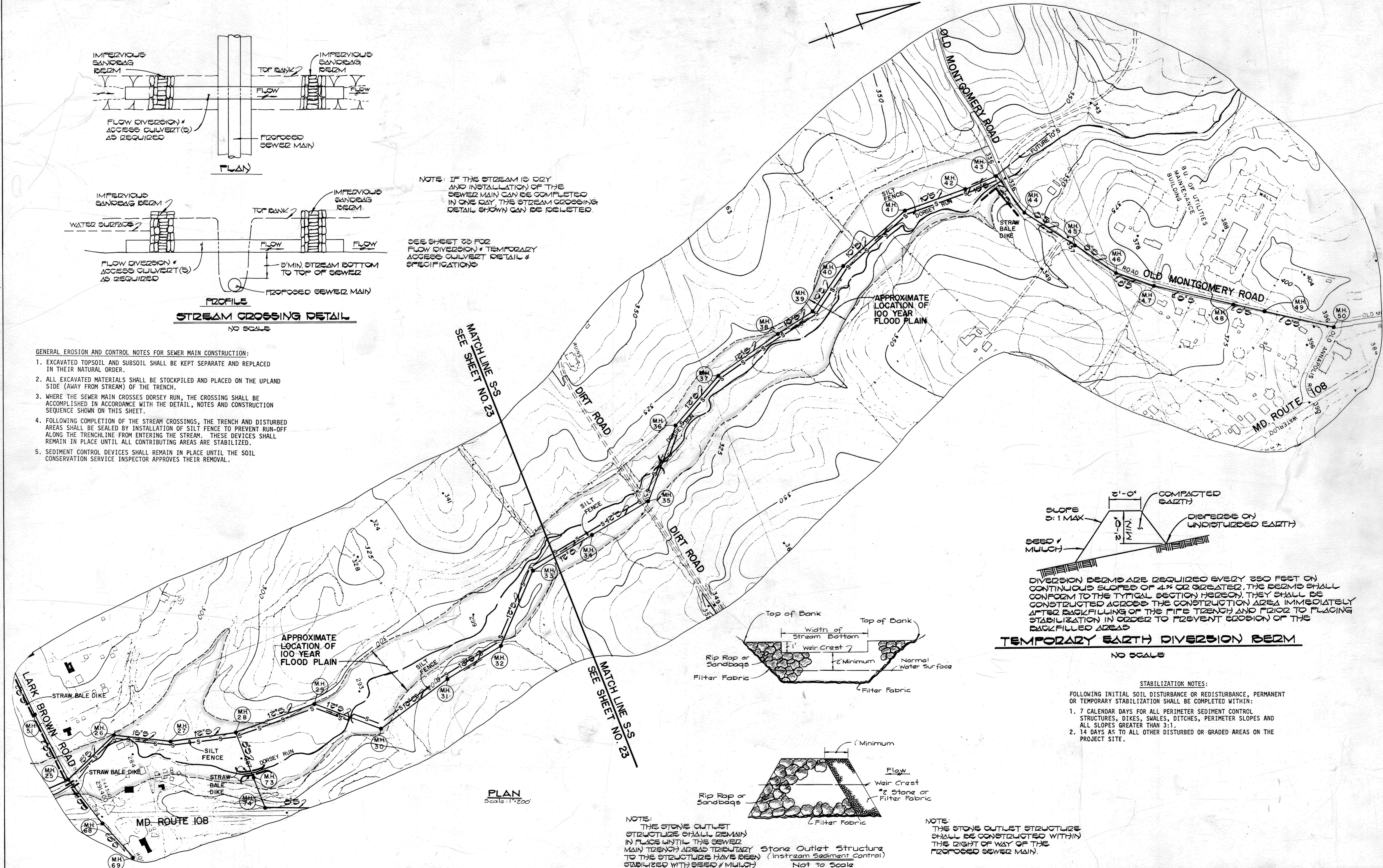
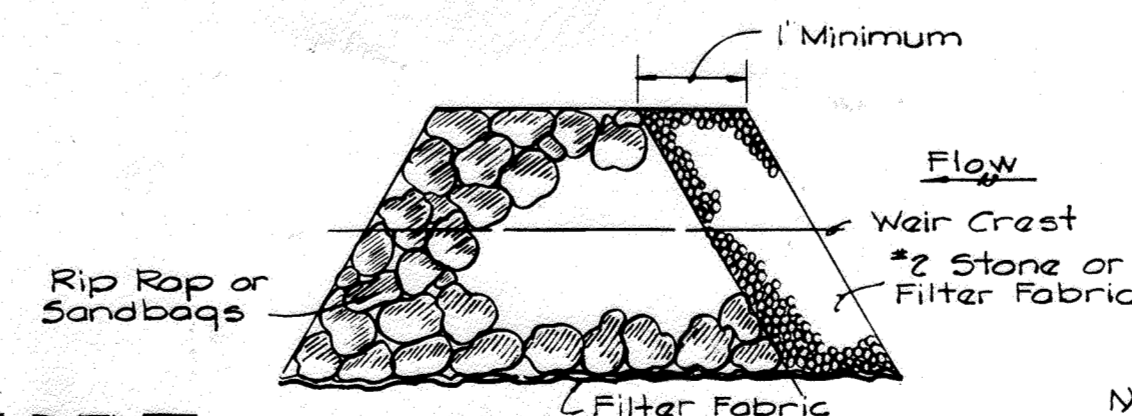
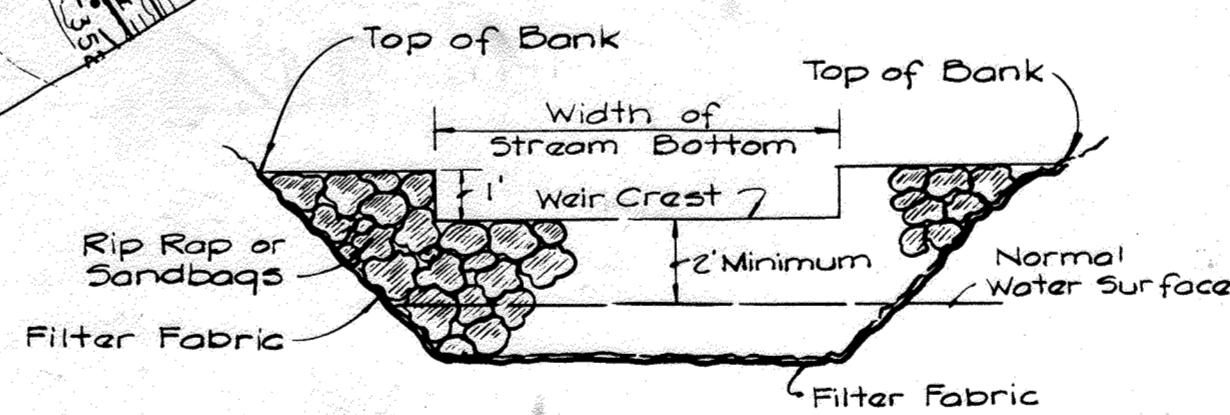
NOTE: THE STONE OUTLET STRUCTURE SHALL REMAIN IN PLACE UNTIL THE SEWER MAIN TRENCH AREAS TRIBUTARY TO THE STRUCTURE HAVE BEEN STABILIZED WITH SEED & MULCH.

Stone Outlet Structure (Instream Sediment Control) Not to Scale

NOTE: THE STONE OUTLET STRUCTURE SHALL BE CONSTRUCTED WITHIN THE RIGHT OF WAY OF THE PROPOSED SEWER MAIN.



- 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.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Shawn E. Neuman 3-7-85
DIRECTOR OF PUBLIC WORKS DATE

William A. Kelly 3-1-85
CHIEF, BUREAU OF ENGINEERING DATE

Paul Pagan 3-1-85
CHIEF, UTILITIES DIVISION DATE

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLICOTT CITY, MARYLAND
461-2855

STATE OF MARYLAND
TERRELL A. FISHER
REGISTERED PROFESSIONAL ENGINEER
NO. 9157
EXPIRES 12/31/85

DES: D.B.S.	
DRN: D.B.S.	
CHK: T.A.F.	
DATE: 3/1/85	
BY NO.	
REVISION	
DATE	

EROSION AND SEDIMENT CONTROL
PLAN & DETAILS

600' SCALE MAP NO. 37 & 43 BLOCK NO.

DORSEY RUN INTERCEPTOR
CAPITAL PROJECT NO. S-6053
CONTRACT NO. 20-1264
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 24 OF 24