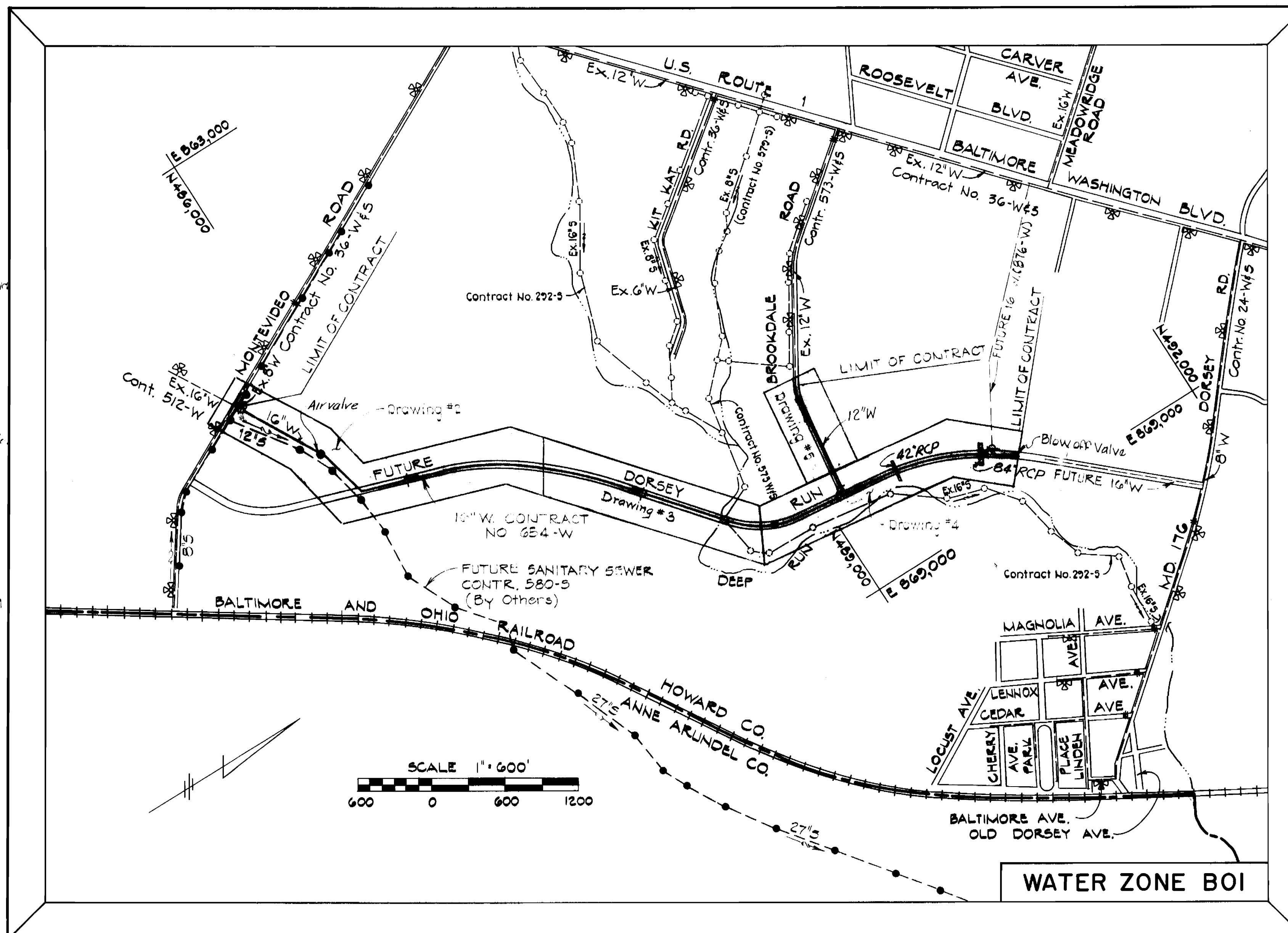


QUANTITIES			
ITEM	ESTIMATED	"AS BUILT"	SUPPLIER
16" WATER	8000 LF	810 LF	American Pipe
12" WATER	1000 LF	1000 LF	
AIR REL. MH.	2 EACH		PRIMEK
16" VALVES*	5 EACH	5	American Pipe
12" VALVES	1 EACH	1	
16" 1/8 BENDS	1 EACH	1	American Pipe
16" x 16" TEES	1 EACH	1	
16" x 12" TEES	1 EACH	1	
16" x 6" TEES	1 EACH	1	
12" x 6" TEES	1 EACH	1	
42" R.C.P.	100 LF	100 LF	Concrete Pipe
84" R.C.P.	20 LF	20 LF	
16" 1/8 BEND	3 Each	3	American Pipe
16" PLUG	1 Each	1	
6" PLUG	10 Each	10	
BLOW-OFF VALVE	1 Each	1	A & F Pipe Supply

* 16" Valves shall be provided with 2" bypass and installed in a concrete vault in accordance with standard detail W-21

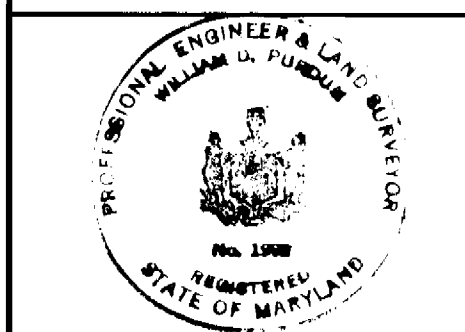


GENERAL NOTES

- The approximate locations of existing utilities are shown. The Contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the Contractor's operation shall be repaired immediately at the Contractor's expense.
- All horizontal controls are based on Maryland State Grid Coordinate system.
- All vertical controls are based on U.S.C. & G.S. Datum.
- All pipe elevations shown are invert elevations.
- All utilities shall be cleared by a minimum of 6'. All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required. Cost for tunneling or bracing poles shall be included in the unit prices bid for excavation and backfill for water mains.
- For all standard details see the standards bound in the specifications.
- The Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
- The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:
 State Highway Administration - 531-5533
 Baltimore Gas and Electric Company - Underground Electric Distribution Engineering - "Damage Control" - 234-5691
 Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - 234-5833
 Chesapeake and Potomac Telephone Company - 725-8976
 Miss Utility - 1-558-0180
- Trees shall be protected from damage to the maximum extent. Trees located outside the limit of clearing shall not be removed or damaged by the Contractor.
- The Contractor shall remove trees, stumps, and roots along the line of excavation as directed by the Engineer. The cost for such removal shall be included in the unit prices bid for excavation and backfill for water mains.
- The Contractor shall place regulation "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.
- All water mains shall be D.I.P., RCPP unless otherwise noted.
- The top of all water mains shall have a minimum of 3'-6" cover unless otherwise noted.
- All valves shall be strapped to the tees in accordance with the standard details.
- All water main fittings shall be buttressed or anchored with concrete in accordance with the standard details.
- All fire hydrants shall be strapped to the tees and shall be buttressed with concrete in accordance with the standard details. The cost of strapping fire hydrants and valves shall be included in the unit price bid for furnishing and installing fire hydrants. The soil around fire hydrants shall be compacted in accordance with Section 5-15 of the Standard Specifications. Fire hydrant bury line elevations shall be set to the elevations shown on the drawings.
- All 16-inch ductile iron pipe shall be ANSI Class 54. All 12-inch ductile iron pipe shall be ANSI Class 52.

CAPITAL PROJECT W-4-8028 CONTRACT NO. 654-W MONTEVIDEO ROAD TO DORSEY ROAD WATER MAIN EXTENSION

HOWARD COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS



William D. Purdum, Chief-Bureau of Utilities, dated 6/9/81

PURDUM & JESCHKE ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
5/11/81
DIRECTOR OF PUBLIC WORKS-DATE

CONTRACT NO. 654-W
CAPITAL PROJECT NO. W-4-8028

LOCATION MAP

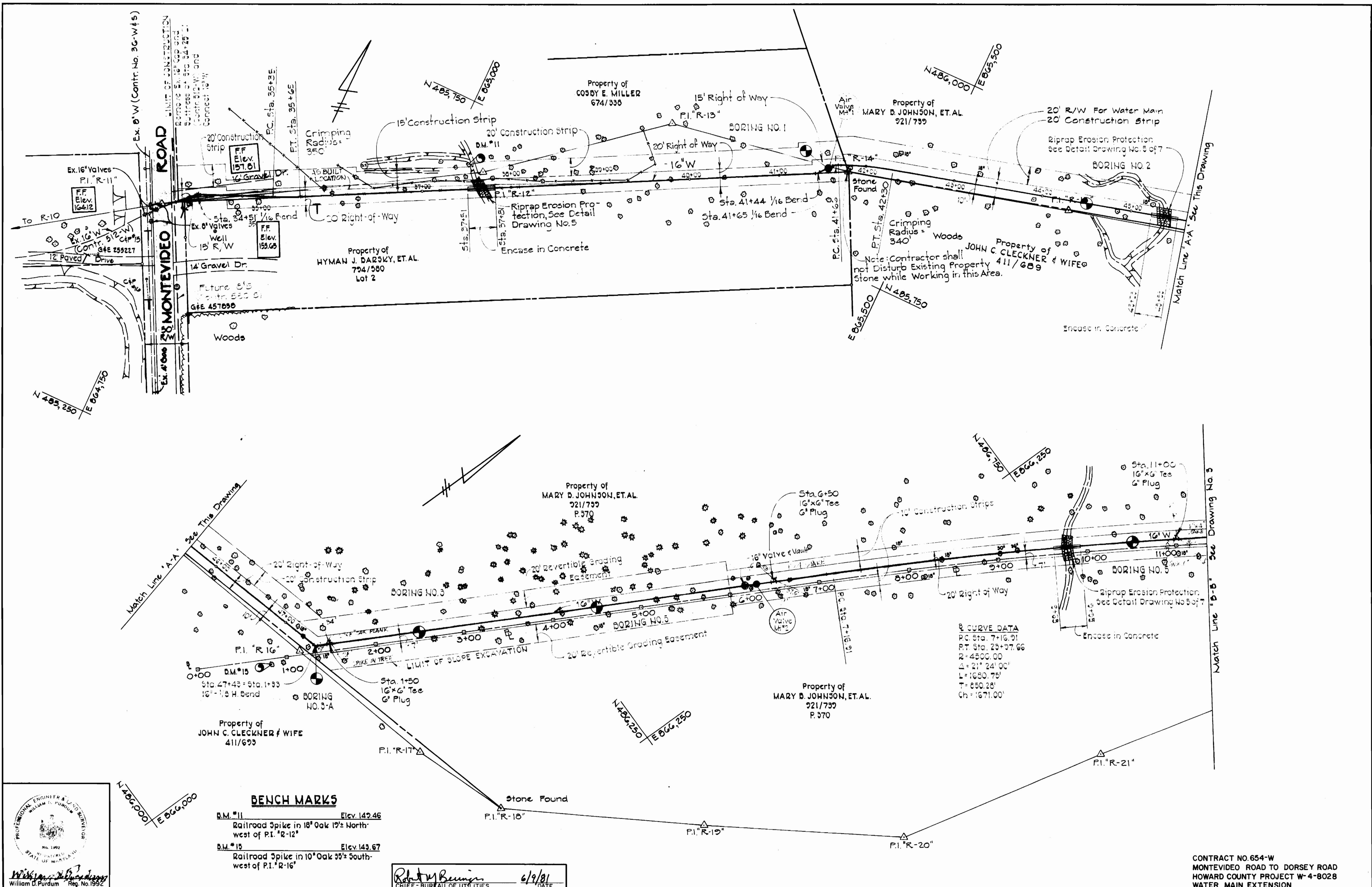
MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

DRAWING NO. 1 OF 7
SCALE 1"=600'

CONTRACT NO. 654-W
MONTEVIDEO ROAD TO DORSEY ROAD
HOWARD COUNTY PROJECT W-4-8028
WATER MAIN EXTENSION

REV. NO.	REV. DATE	AS PER D.P.W. COMMENTS	REVISION DESCRIPTION
1	10-20-81	AS PER D.P.W. COMMENTS	

Designed RHB
Drafted PWR
Checked CHL
Date

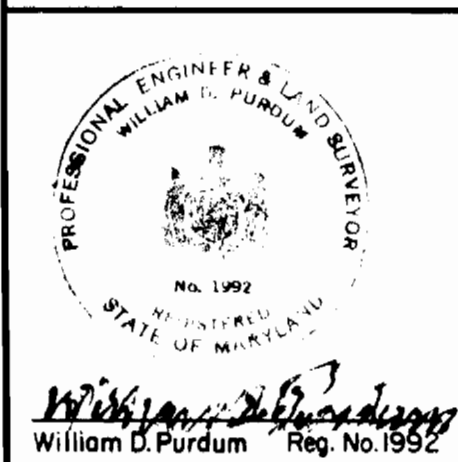


BENCH MARKS

B.M. #11 ELEV. 142.46
 Railroad Spike in 18" Oak 19' North
 west of P.I. 'R-12'

B.M. #15 ELEV. 143.67
 Railroad Spike in 10" Oak 35' South-
 west of P.I. 'R-16'

Robert M. Beemer 6/9/81
 CHIEF - BUREAU OF UTILITIES DATE



PURDUM & JESCHKE
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works - DATE Chief - Bureau of Engineering - DATE

CONTRACT NO. 654-W
 CAPITAL PROJECT NO. W-4-8028

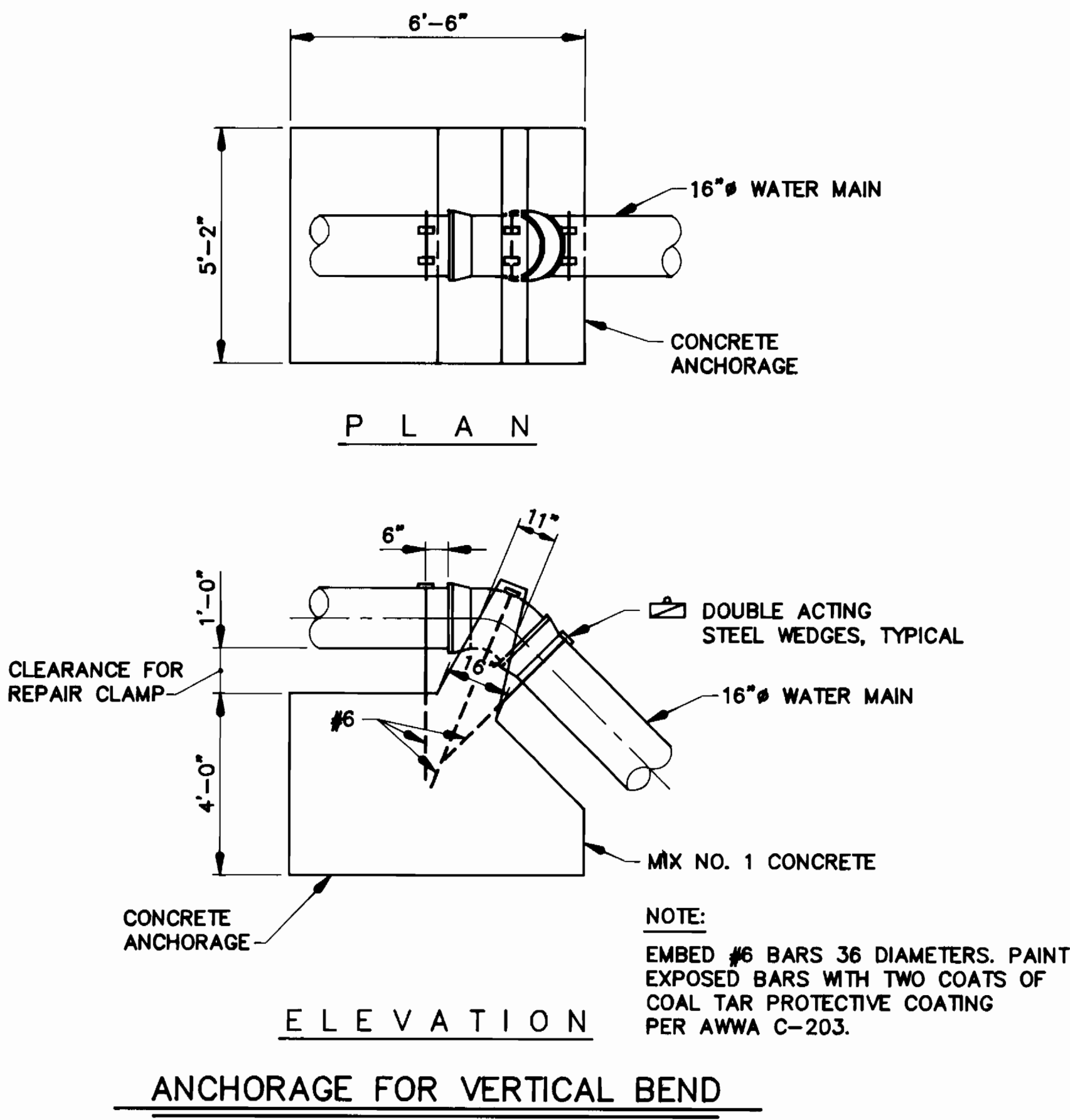
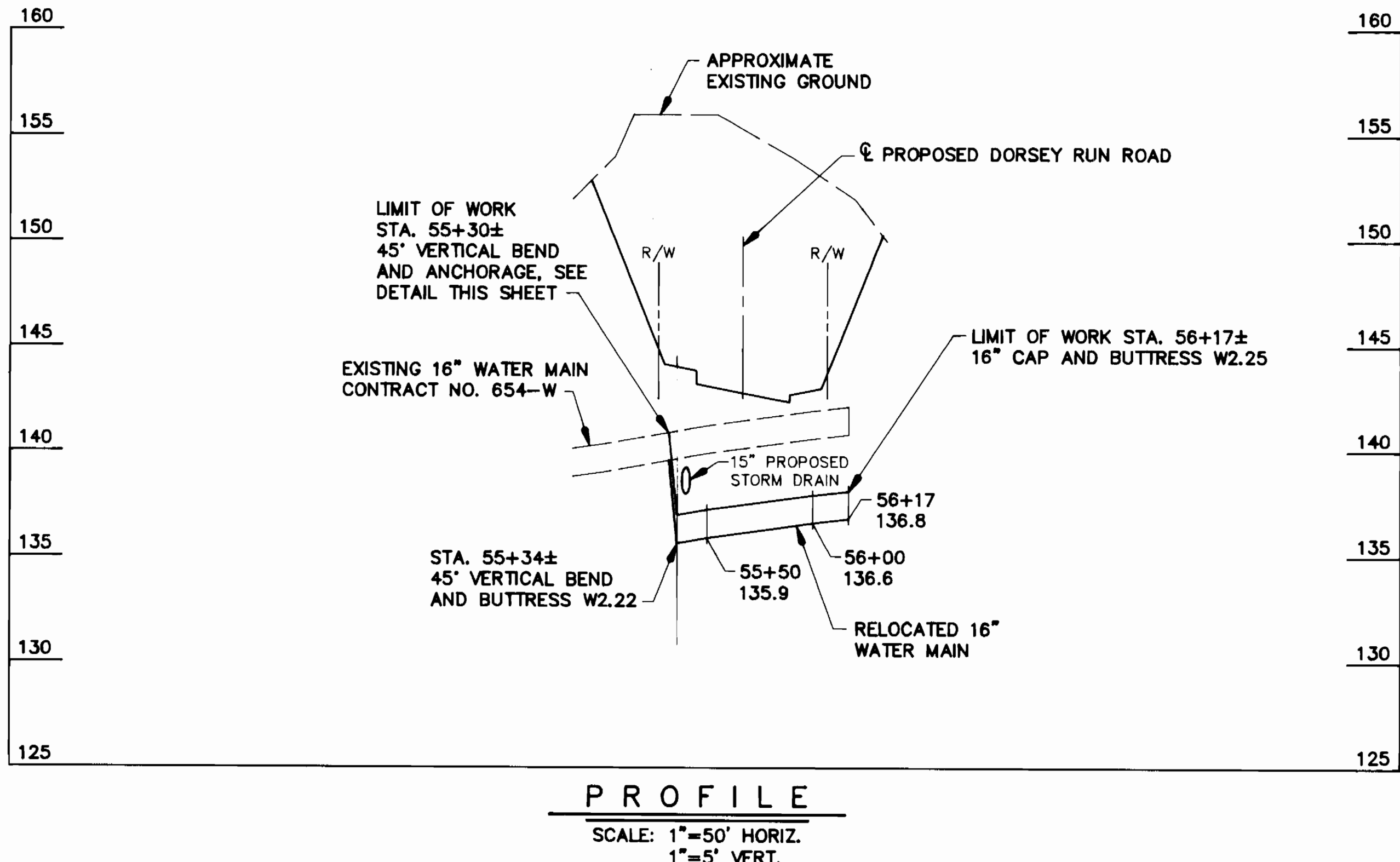
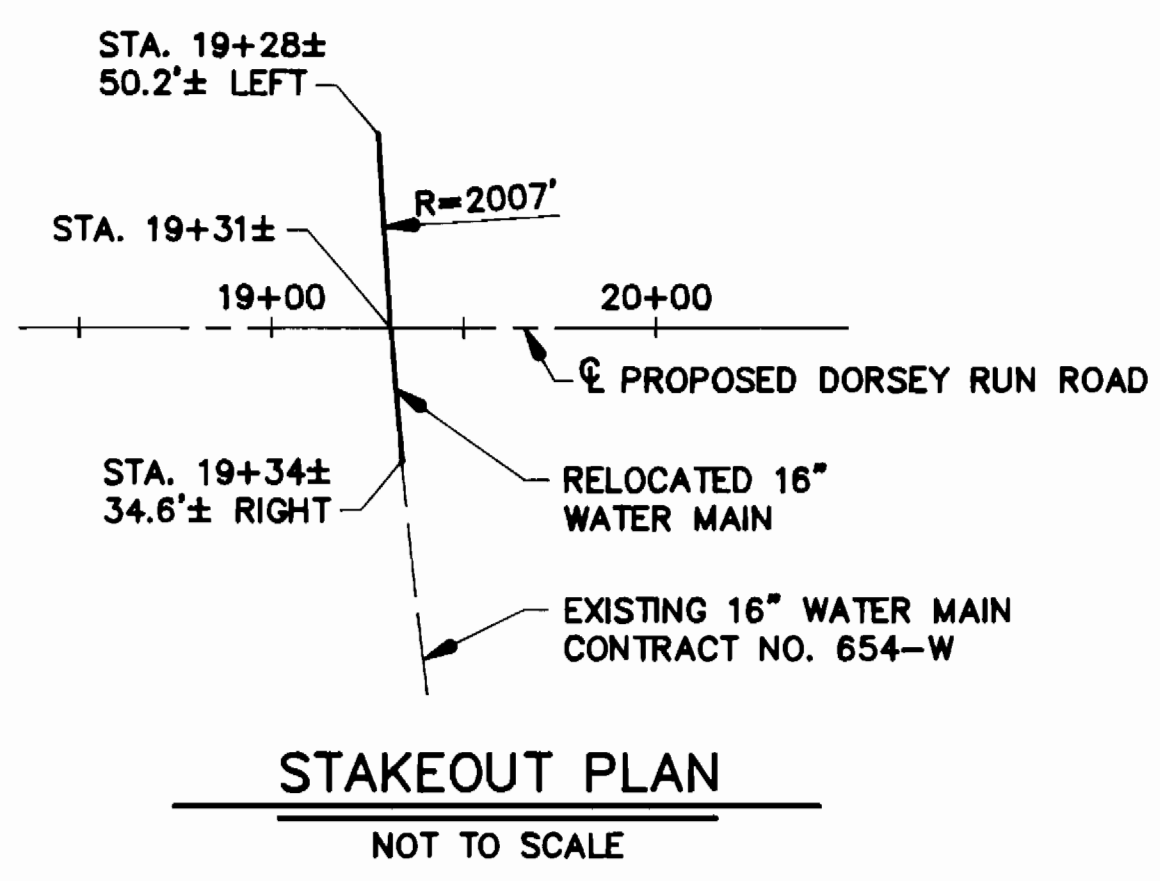
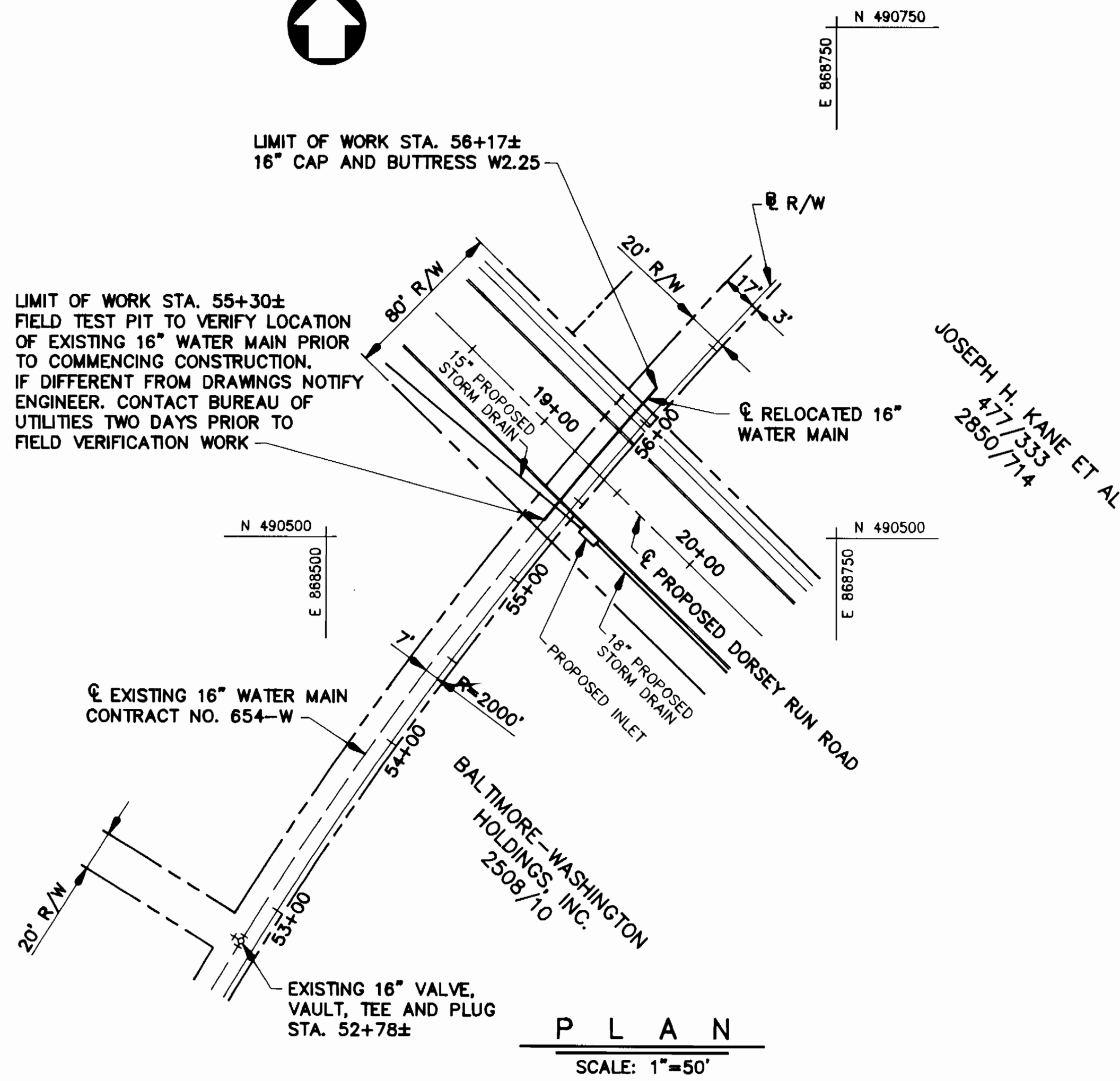
PLAN

MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

CONTRACT NO. 654-W
 MONTEVIDEO ROAD TO DORSEY ROAD
 HOWARD COUNTY PROJECT W-4-8028
 WATER MAIN EXTENSION

DRAWING NO. 2 OF 7 SCALE 1" = 50'

Designed RHB
 Drafted PWR
 Checked CHL
 Date



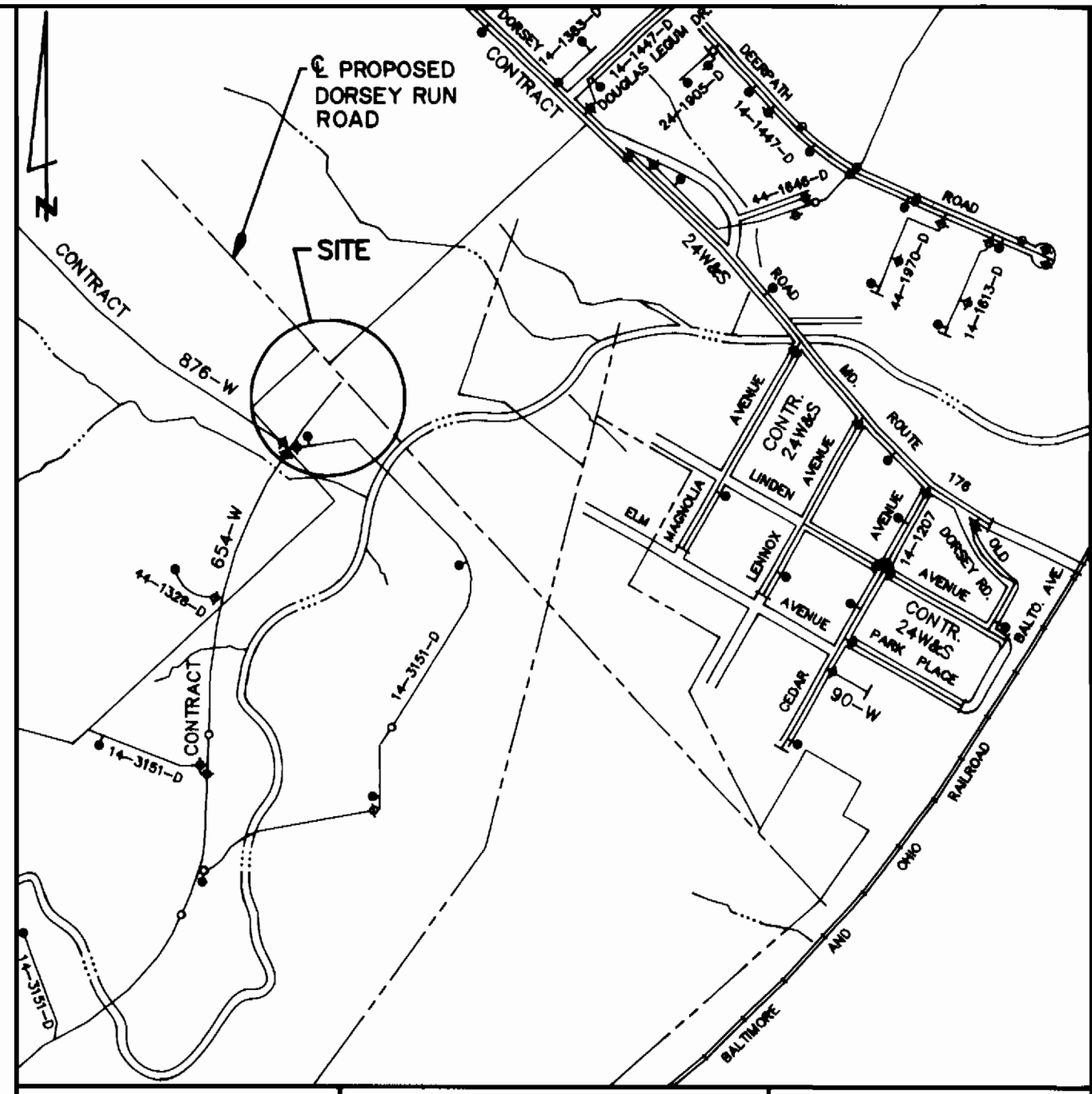
GENERAL NOTES

PART I

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- 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 (LATEST EDITION). 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T 865-3803
BG&E - (CONTRACTOR SERVICES) 850-4620
BG&E - UNDERGROUND DAMAGE CONTROL 787-9068
BUREAU OF UTILITIES (DPW) 313-4900
CHESAPEAKE & POTOMAC TELEPHONE CO. 597-8585
COLONIAL PIPELINE CO. 795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 531-5533
- 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

PART II WATER

- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.



TYPE OF BUILDING: N/A	VICINITY MAP SCALE: 1"=600'	WATER CODES FOR COUNTY USE ONLY
NO. OF W.H.C.: N/A		WATER NO. B01
DRAINAGE AREA: PATAPSCO		

QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
16" WATER MAIN	L.F.	90		

SEQUENCE OF CONSTRUCTION

- CONTACT HOWARD COUNTY DIVISION OF CONSTRUCTION INSPECTION (313-1870) PRIOR TO STARTING DATE.
- INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV AND PLANS FOR PROPOSED DORSEY RUN ROAD.
- LOCATE EXISTING 16" VALVE AT WATER MAIN STA. 52+78±.
- TEST PIT TO LOCATE EXISTING 16" WATER MAIN.
- ARRANGE WITH BUREAU OF UTILITIES FOR SHUT DOWN OF EXISTING 16" WATER MAIN THAT IS TO BE RELOCATED.
- EXCAVATE TO REMOVE EXISTING 16" WATER MAIN AND INSTALL RELOCATED 16" WATER MAIN.
- RESTORE TRENCH AREA TO ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS.
- UPON PERMISSION FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES.
- FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.

DEVELOPER'S CERTIFICATION	ENGINEER'S CERTIFICATION
<p>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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>Richard J. Sporn</i> 8/15/94 BUREAU OF ENGINEERING DEPARTMENT OF PUBLIC WORKS</p>	<p>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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>John C. Wallace</i> 8/15/94 JOHN C. WALLACE, P.E.</p>
<p>REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.</p> <p>U.S. SOIL CONSERVATION SERVICE</p>	<p>THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.</p> <p>APPROVED HOWARD COUNTY S.C.D.</p>

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard J. Sporn 8/15/94
DIRECTOR OF PUBLIC WORKS

John C. Wallace 8-19-94
CHIEF, BUREAU OF UTILITIES

John C. Wallace 8-15-94
CHIEF, WATER AND SEWER DESIGN DIVISION

WALLACE, MONTGOMERY & ASSOCIATES
110 WEST ROAD
TOWSON, MARYLAND 21204
(410) 494-9093

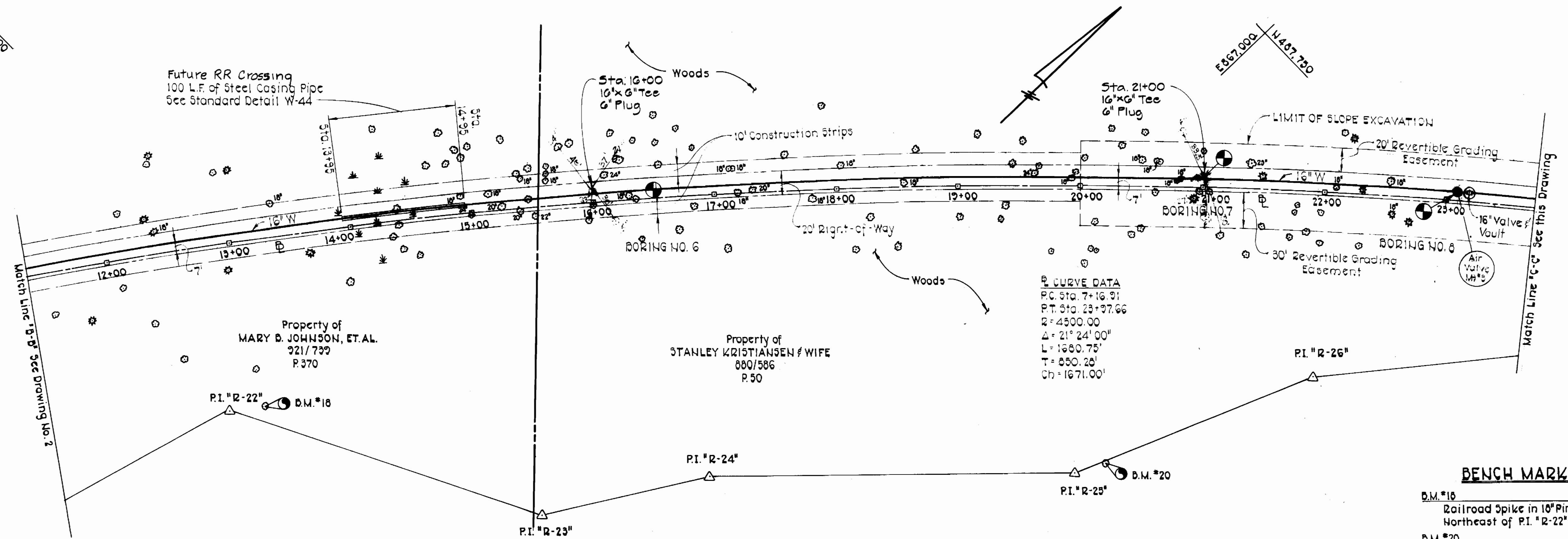
John C. Wallace

DES: J.C.W.					
DRN: D.E.D.					
CHK: J.C.W.					
DATE: 8/94	BY NO.	REVISION	DATE	600' SCALE MAP NO. 43	BLOCK NO.

DORSEY RUN ROAD WATER RELOCATION
CAPITAL PROJECT W-8156
CONTRACT NO. 654-W
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

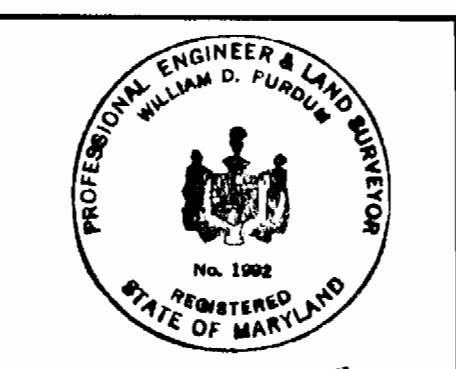
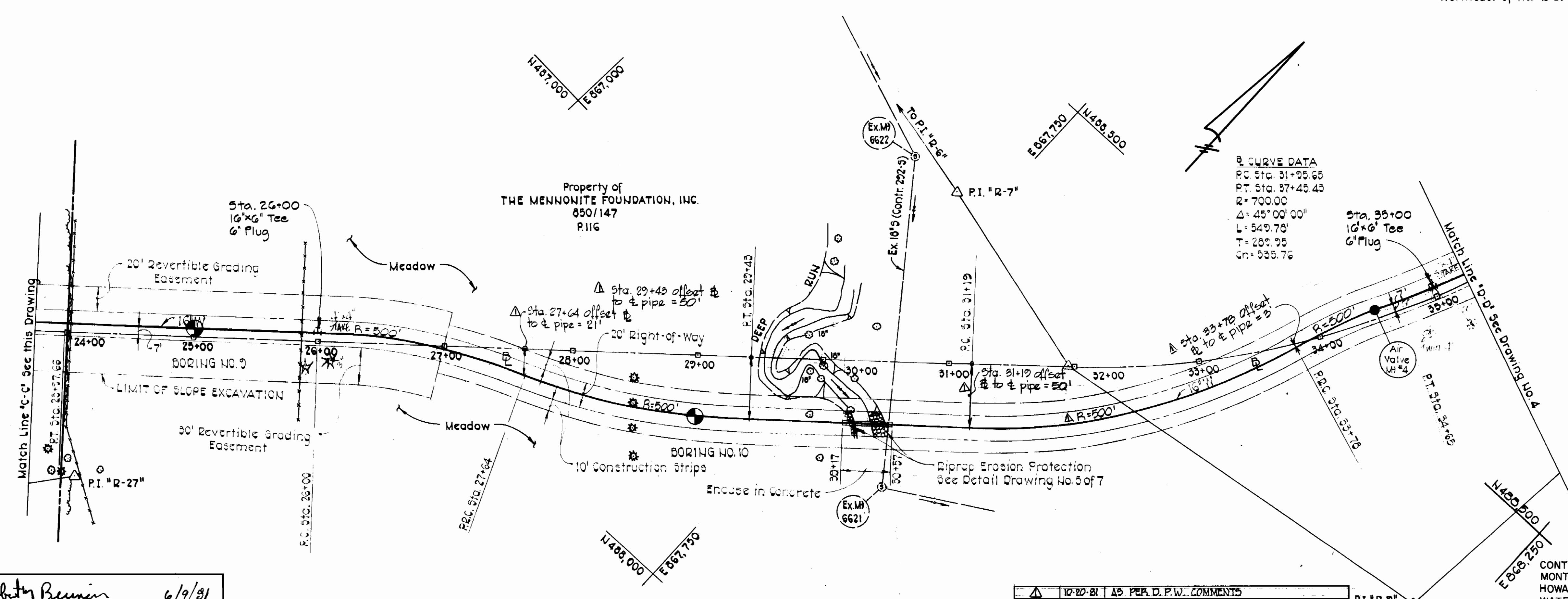
SCALE AS SHOWN
SHEET 2A OF 5

E 566,240
N 437,000



BENCH MARKS

B.M. #18	Elev. 142.77
Railroad Spike in 10" Pine 30'	
Northeast of P.I. 'R-22'	
B.M. #20	Elev. 153.25
Railroad Spike in 12" Oak 25'	
Northeast of P.I. 'R-25'	



William D. Purdum Reg. No. 1992
 Robert Benjamin 6/9/81
 CHIEF - BUREAU OF UTILITIES DATE

PURDUM & JESCHKE
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: DATE
 Chief - Bureau of Engineering: DATE

CONTRACT NO. 654-W
 CAPITAL PROJECT NO. W-4-8028

PLAN

MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

CONTRACT NO. 654-W
 MONTEVIDEO ROAD TO DORSEY ROAD
 HOWARD COUNTY PROJECT W-4-8028
 WATER MAIN EXTENSION

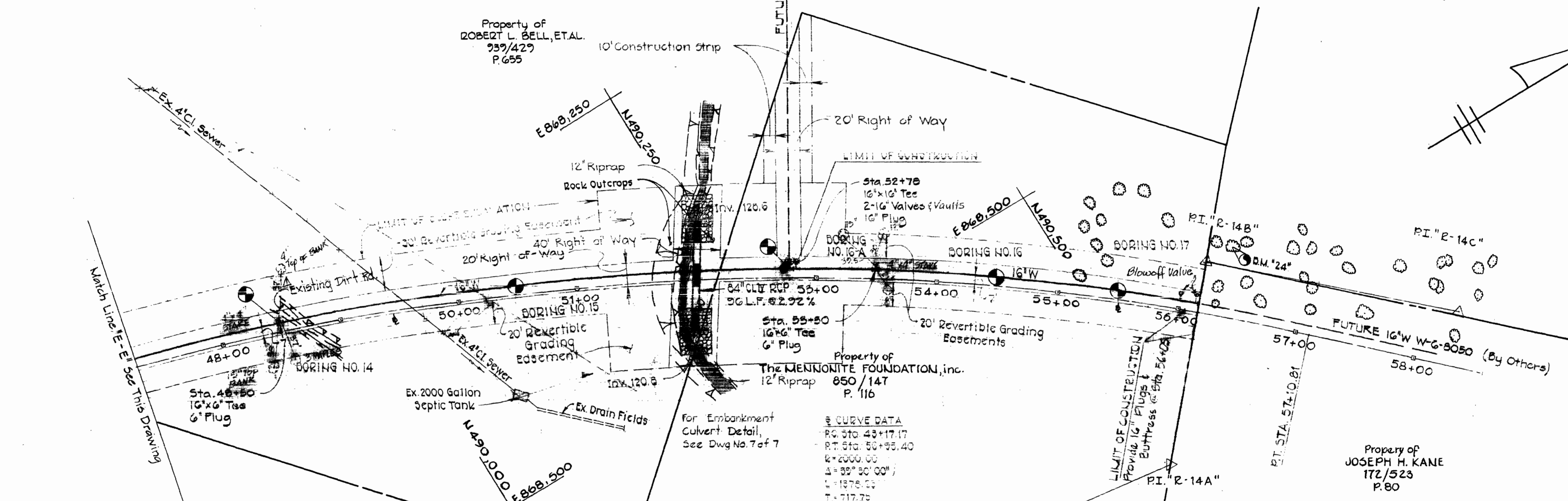
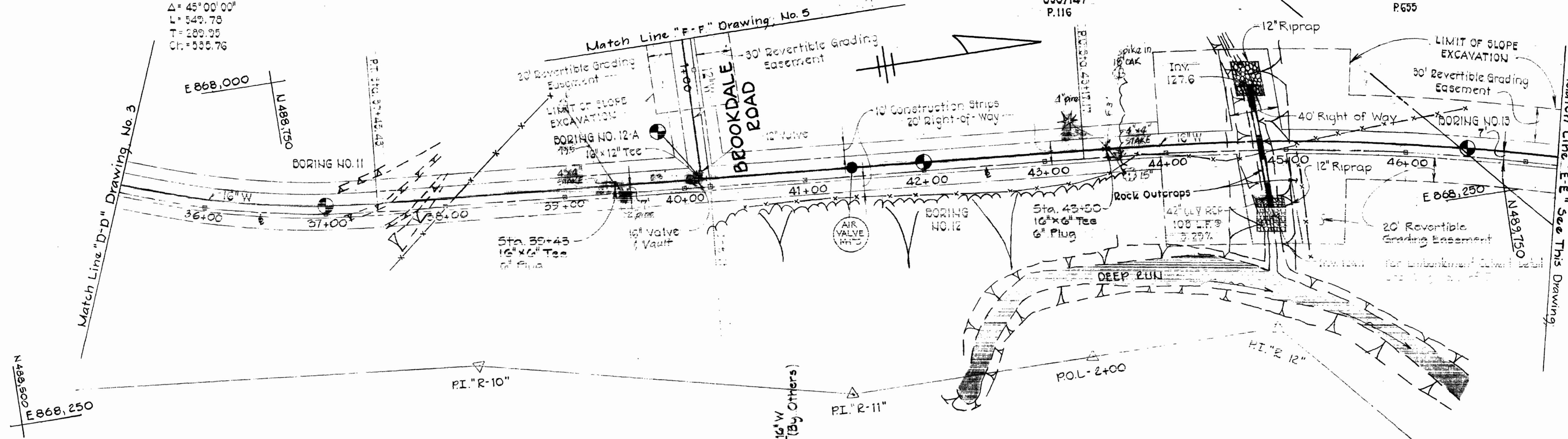
DRAWING NO. 3	SCALE 1" = 50'	Designed: RHB
OF 7		Drafted: ARZ
		Checked: CHL
		Date:

& CURVE DATA
 P.C. Sta. 31+95.65
 P.T. Sta. 37+45.43
 R = 700.00
 Δ = 45° 00' 00"
 L = 549.78
 T = 289.95
 Ch = 935.76

Property of
 THE MENNONITE FOUNDATION, INC.
 850/147
 P.116

Property of
 ROBERT L. BELL, ET AL.
 939/429
 P.655

& CURVE DATA
 P.C. Sta. 43+17.17
 P.T. Sta. 50+95.40
 R = 2000.00
 Δ = 39° 29' 00"
 L = 1376.23
 T = 717.75
 Ch = 1391.12



BENCH MARKS
 B.M. #24 Elev. 194.88
 Railroad Spike in 30' Oak 23' North
 of P.I. "R-14-B"



William D. Purdum, Reg. No. 1992
 Robert M. Benner, Chief-Bureau of Utilities, DATE 6/9/81

PURDUM & JESCHKE
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works - DATE 5/1/81
 Chief-Bureau of Engineering - DATE 5/1/81

CONTRACT NO. 654-W
 CAPITAL PROJECT NO. W-4-8028

PLAN

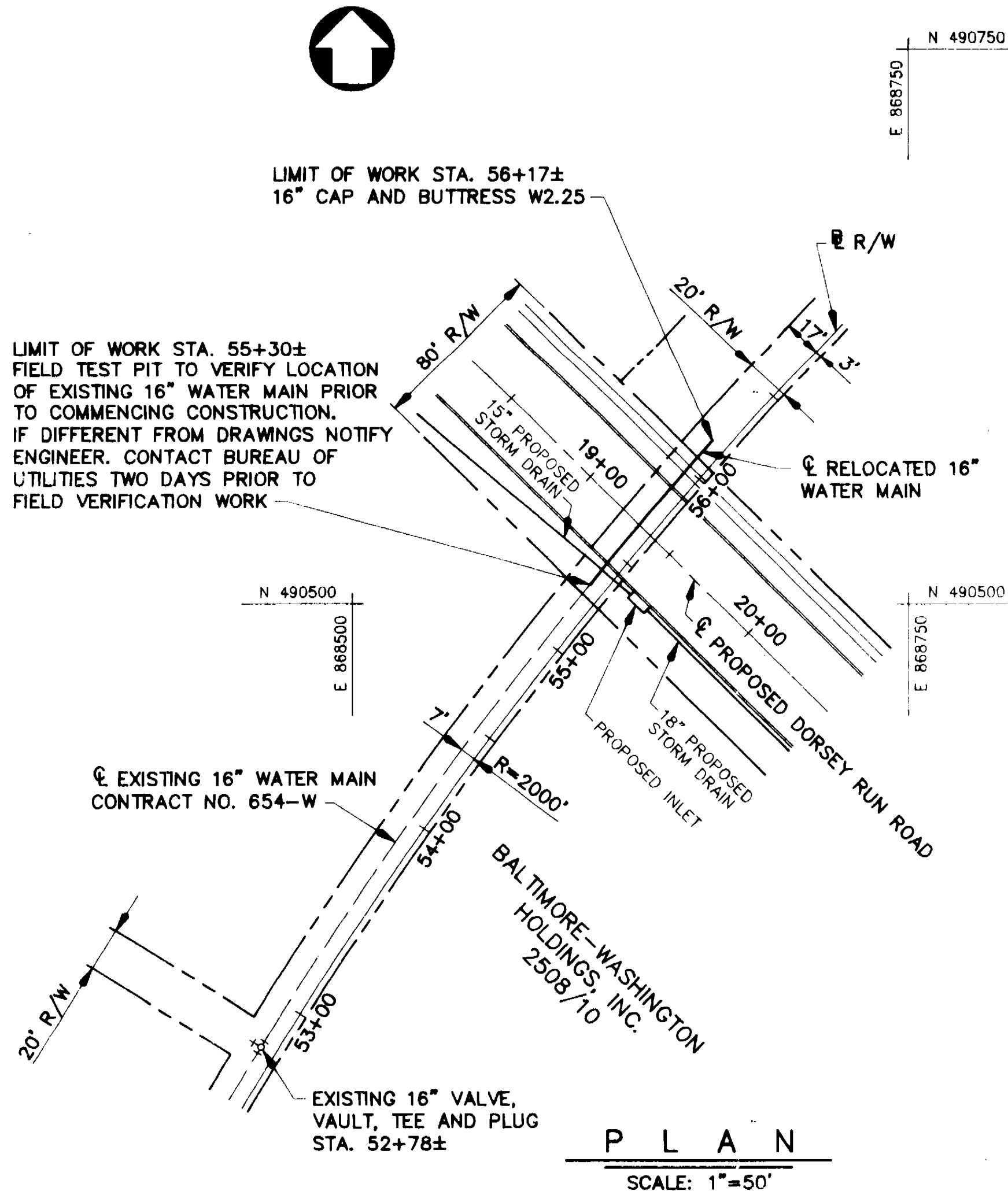
MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

DRAWING NO. 4 OF 7
 SCALE 1" = 50'
 Date:

REV. NO.	REV. DATE	REVISION DESCRIPTION
1	10-20-81	AS PER D.P.W. COMMENTS

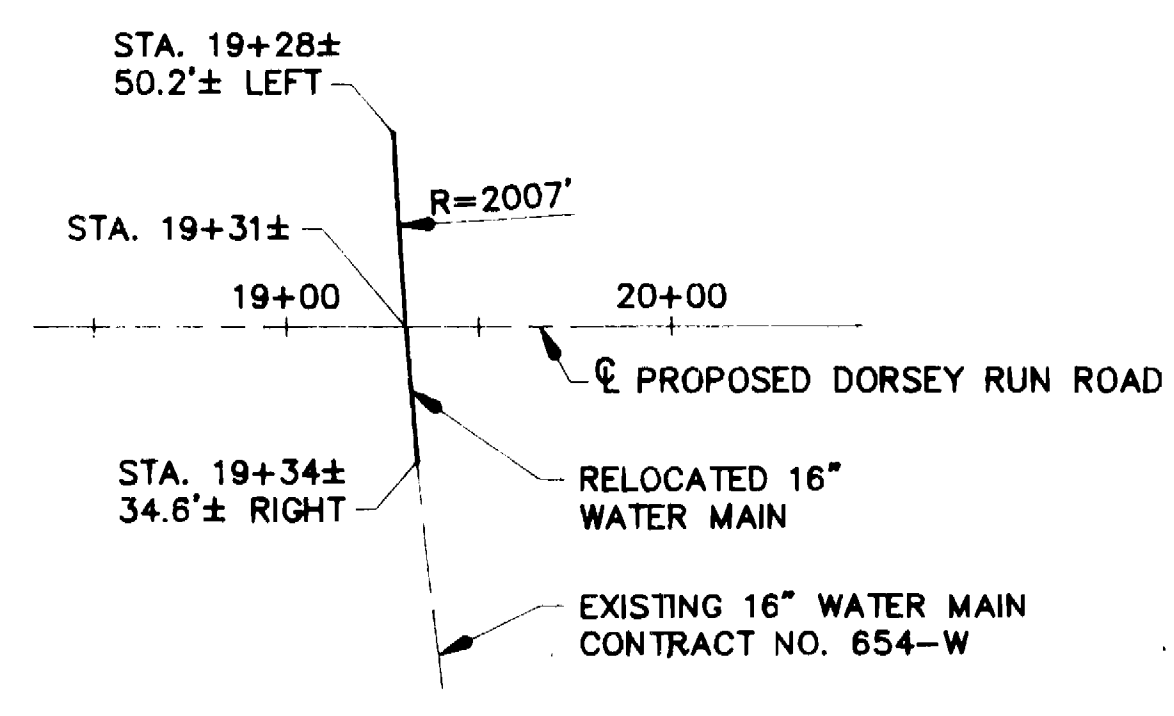
CONTRACT NO 654-W
 MONTEVIDEO ROAD TO DORSEY ROAD
 HOWARD COUNTY PROJECT W-4-8028
 WATER MAIN EXTENSION

WS 654-W/4

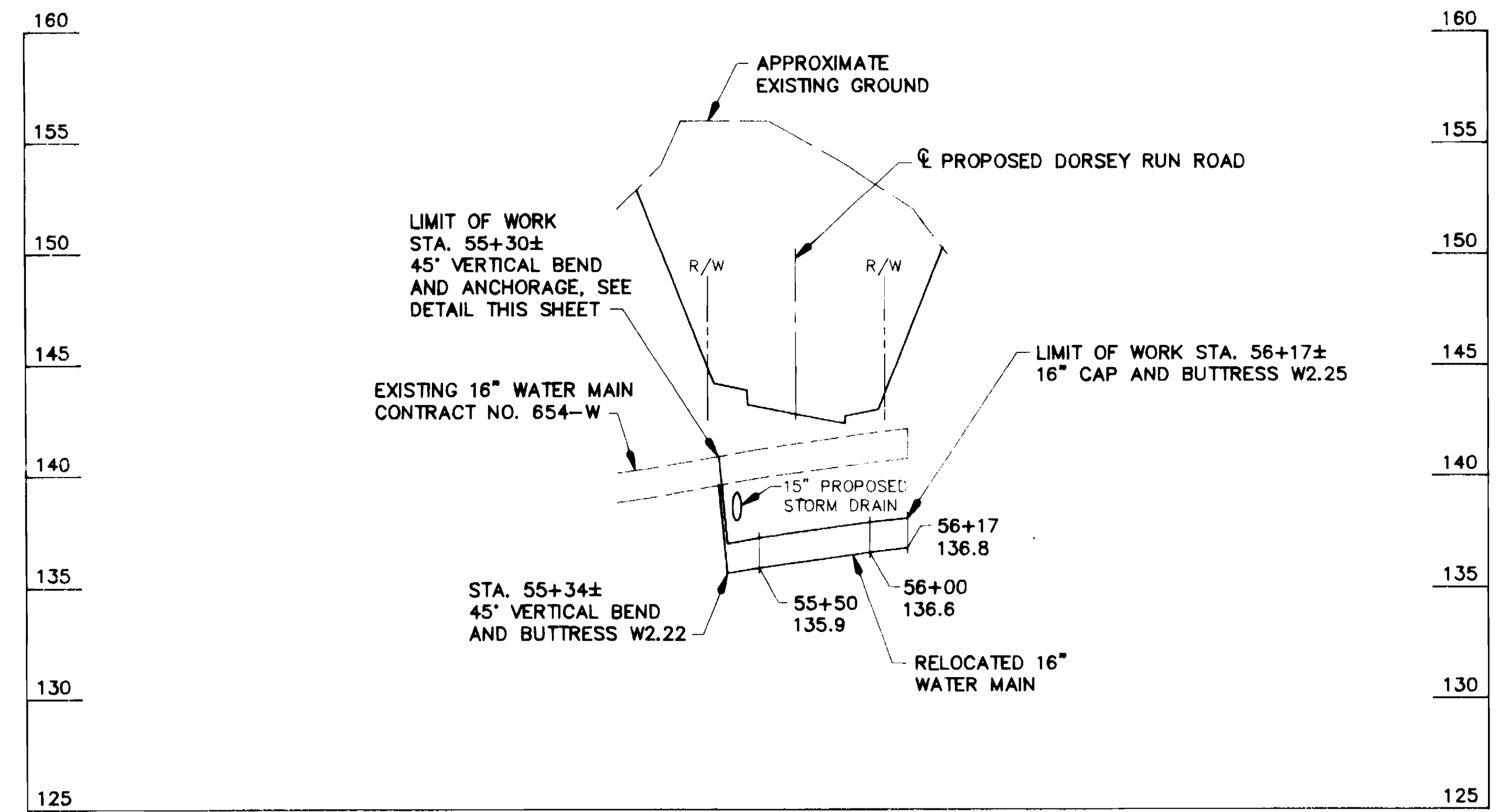


PLAN
SCALE: 1"=50'

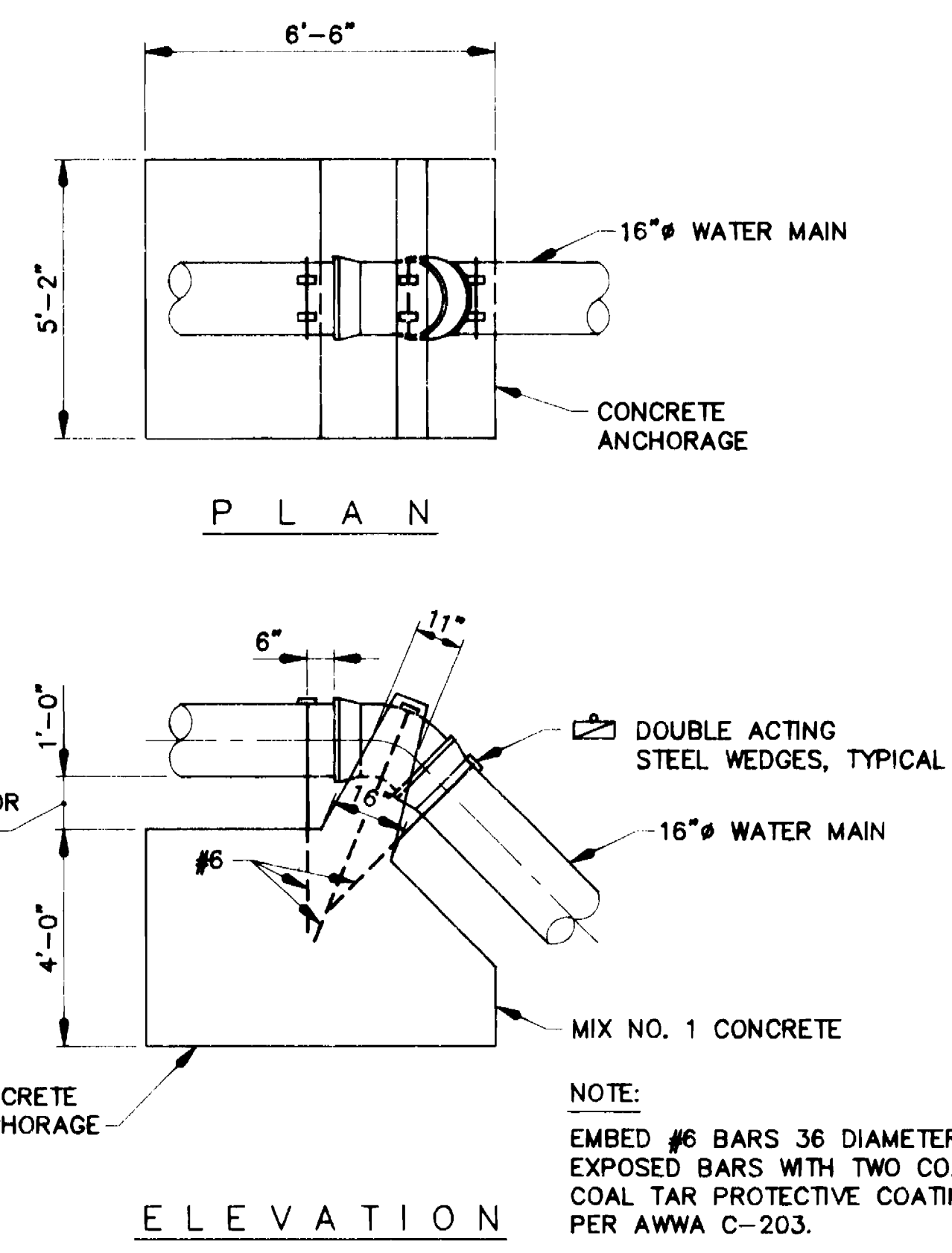
JOSEPH H. KANE ET AL
477/333
2850/714



STAKEOUT PLAN
NOT TO SCALE



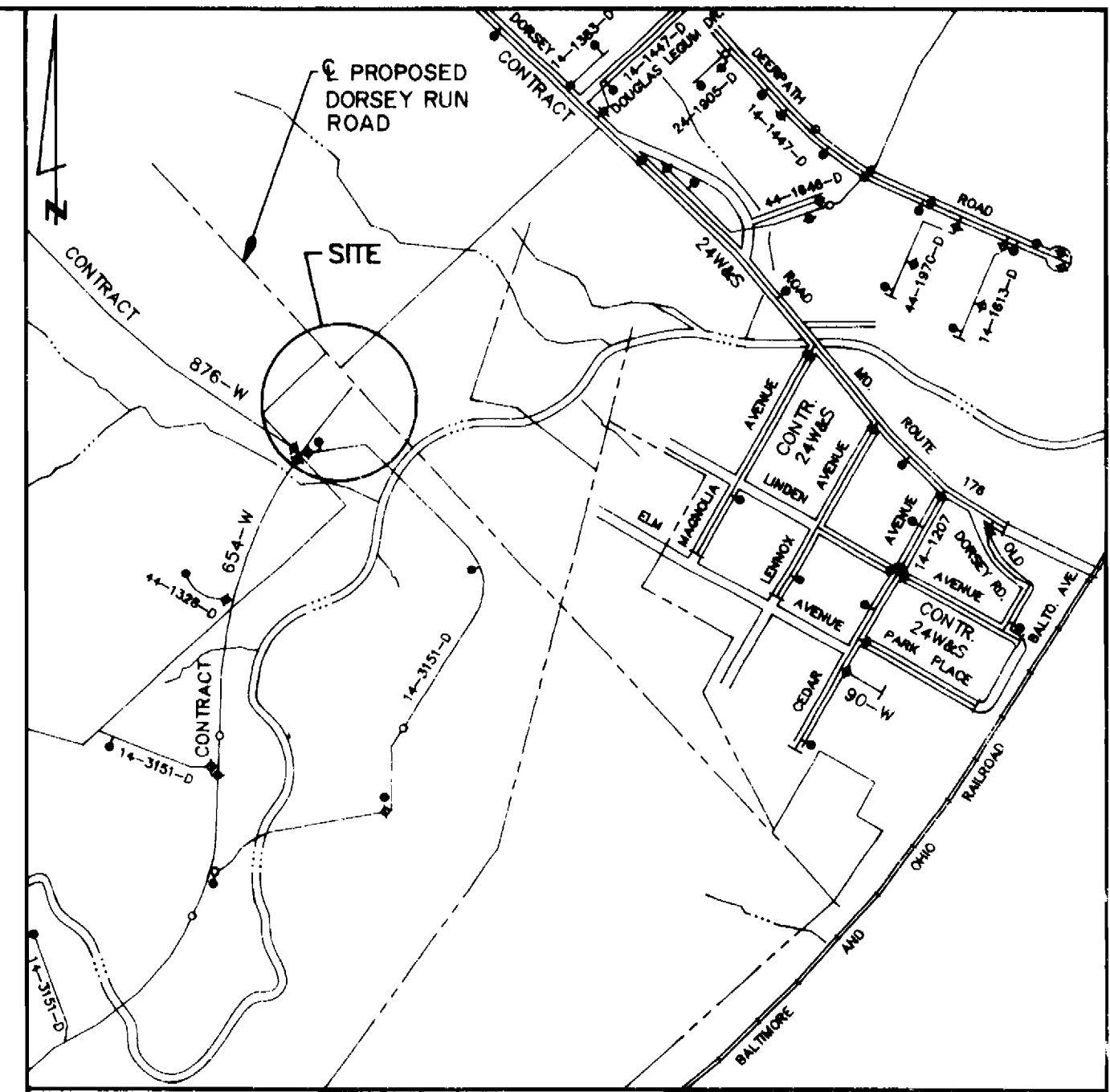
PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.



ANCHORAGE FOR VERTICAL BEND

GENERAL NOTES

- PART I**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - 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 (LATEST EDITION). 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T 865-3803
BG&E - (CONTRACTOR SERVICES) 850-4620
BG&E - UNDERGROUND DAMAGE CONTROL 787-9068
BUREAU OF UTILITIES (B.U.) 313-4900
CHESAPEAKE & POTOMAC TELEPHONE CO. 597-8585
COLONIAL PIPELINE CO. 795-1390
MISS. UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 531-5533
 - 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.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18114(g) OF THE HOWARD COUNTY CODE.
- PART II WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.



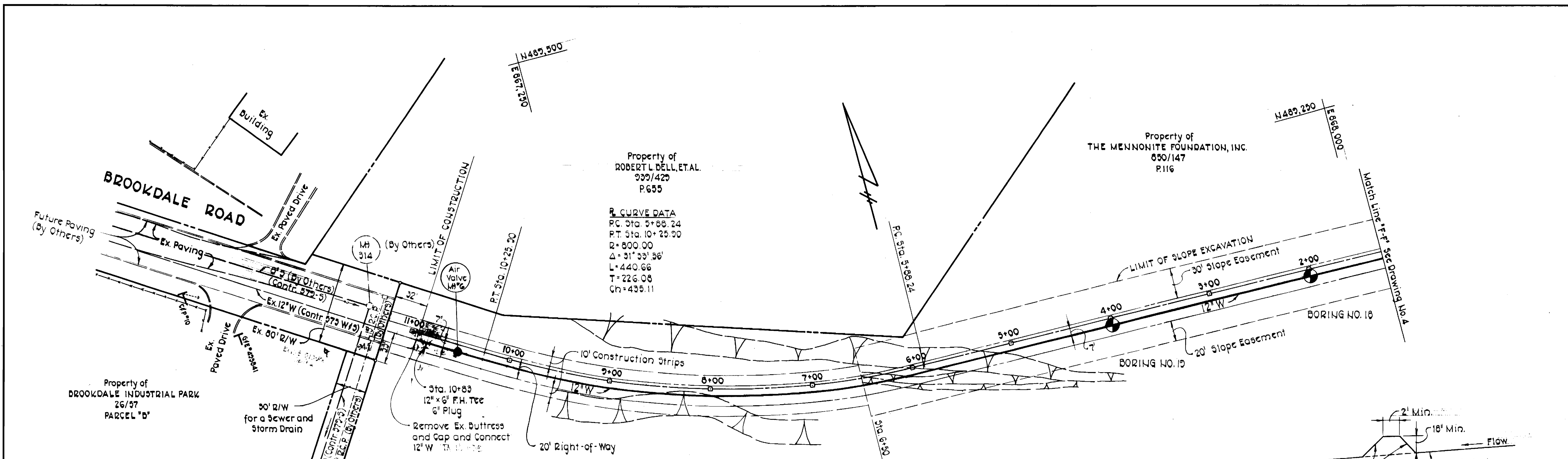
TYPE OF BUILDING: N/A	VICINITY MAP SCALE: 1"=600'	WATER CODES FOR COUNTY USE ONLY WATER NO. B01
NO. OF W.H.C.: N/A		
DRAINAGE AREA: PATAPSCO		

QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
16" WATER MAIN	L.F.	90		

SEQUENCE OF CONSTRUCTION

- CONTACT HOWARD COUNTY DIVISION OF CONSTRUCTION INSPECTION (313-1870) PRIOR TO STARTING DATE.
- INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV AND PLANS FOR PROPOSED DORSEY RUN ROAD.
- LOCATE EXISTING 16" VALVE AT WATER MAIN STA. 52+78±.
- TEST PIT TO LOCATE EXISTING 16" WATER MAIN.
- ARRANGE WITH BUREAU OF UTILITIES FOR SHUT DOWN OF EXISTING 16" WATER MAIN THAT IS TO BE RELOCATED.
- EXCAVATE TO REMOVE EXISTING 16" WATER MAIN AND INSTALL RELOCATED 16" WATER MAIN.
- RESTORE TRENCH AREA TO ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS.
- UPON PERMISSION FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES.
- FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.

DEVELOPER'S CERTIFICATION	ENGINEER'S CERTIFICATION
<p>"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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>Robert J. Jenson</i> 8/15/94 BUREAU OF ENGINEERING WORKS DEPARTMENT OF PUBLIC WORKS</p>	<p>"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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>John C. Wallace</i> 8/15/94 JOHN C. WALLACE, P.E.</p>
<p>REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.</p> <p>U.S. SOIL CONSERVATION SERVICE</p>	<p>THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.</p> <p>APPROVED HOWARD COUNTY S.C.D.</p>



Property of
ROBERT L. DELL, ET. AL.
339/420
P.655

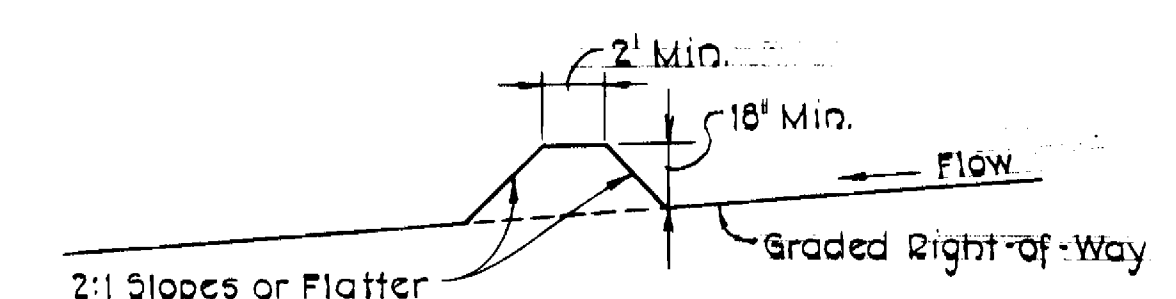
Property of
THE MENNONITE FOUNDATION, INC.
850/147
P.116

R CURVE DATA
P.C. Sta. 5+88.24
P.T. Sta. 10+25.90
R=800.00
Δ=31°33'36"
L=440.66
T=226.08
Ch=435.11

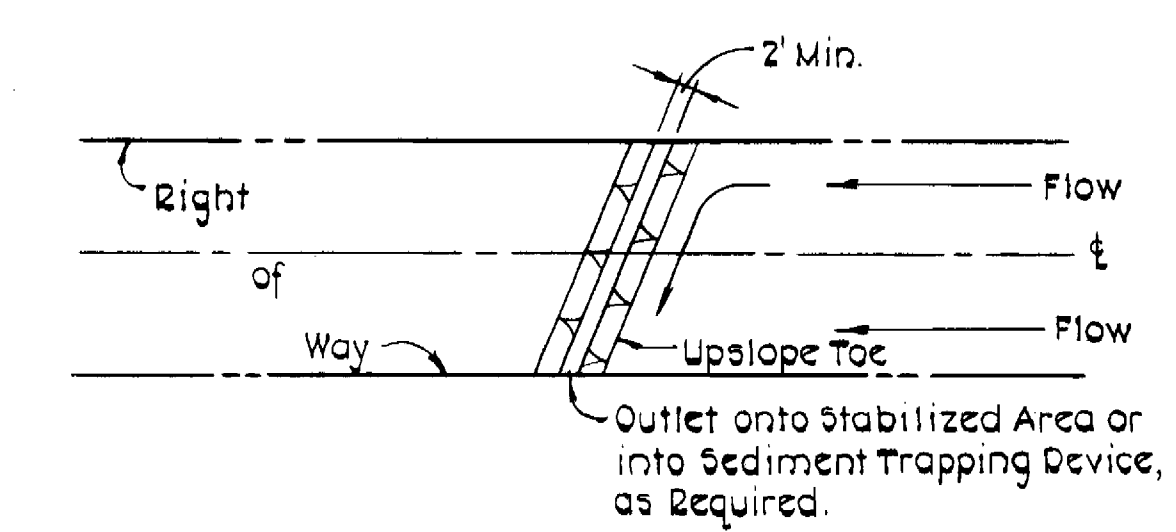
PLAN
Scale: 1"=50'

SEDIMENT CONTROL NOTES

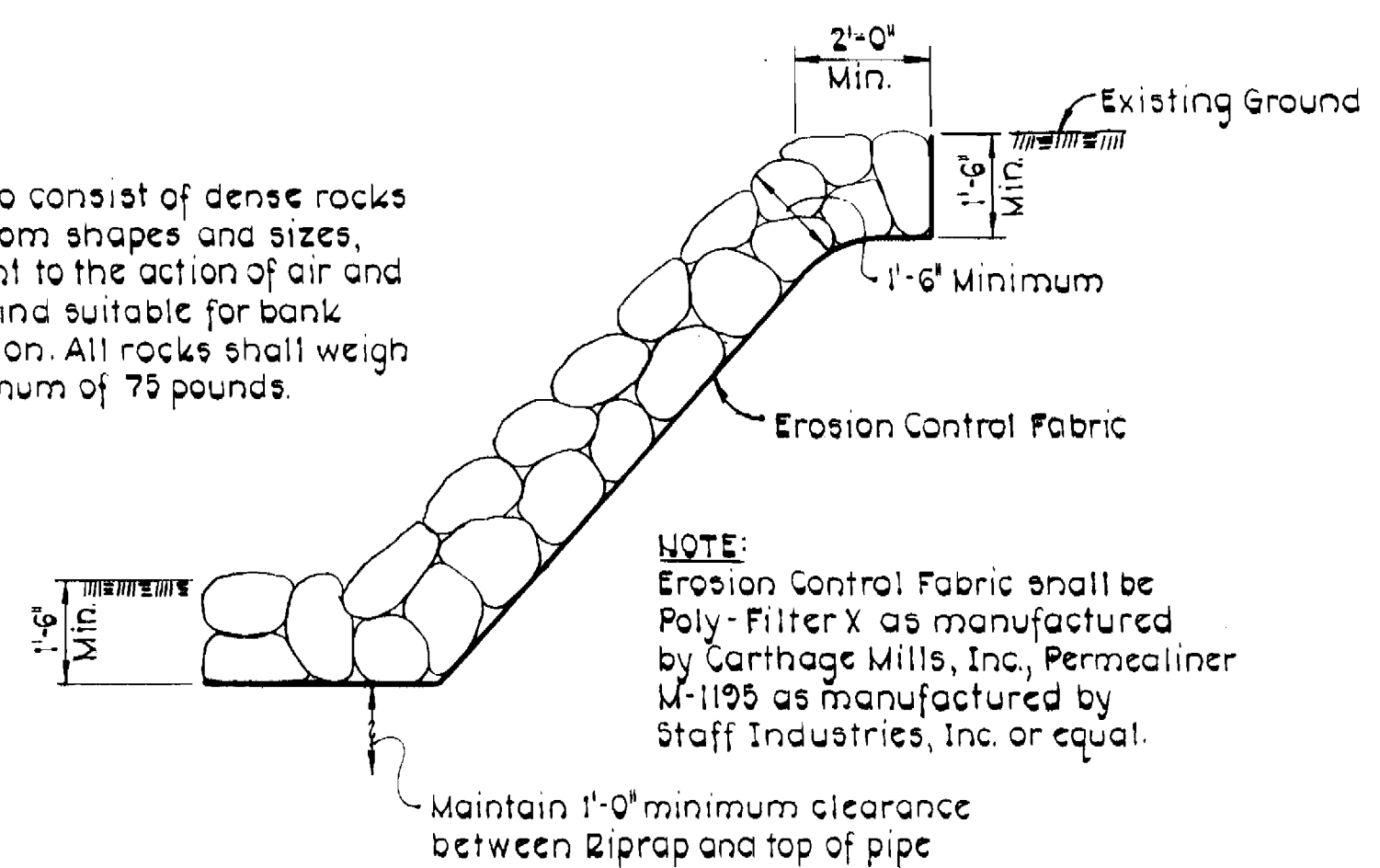
1. Interceptor Dikes shall be placed at the following intervals:
Slope 0-5% Every 300 Feet
Slope 5-10% Every 200 Feet
Slope 10% or greater Every 100 Feet
2. All dikes shall be machine compacted.
3. All interceptor dikes shall have positive drainage to an outlet.
4. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
5. Field location should be adjusted as needed to utilize a stabilized safe outlet.
6. Interceptor dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin when either the interceptor dike channel or the drainage area above the dike are not adequately stabilized.
7. Periodic inspection and required maintenance must be provided.
8. All disturbed areas shall be seeded and straw mulched in accordance with Section 5-20 of the Specifications. Payment for seeding and mulching shall be included in the unit price bid for Excavation and Backfill for water mains.



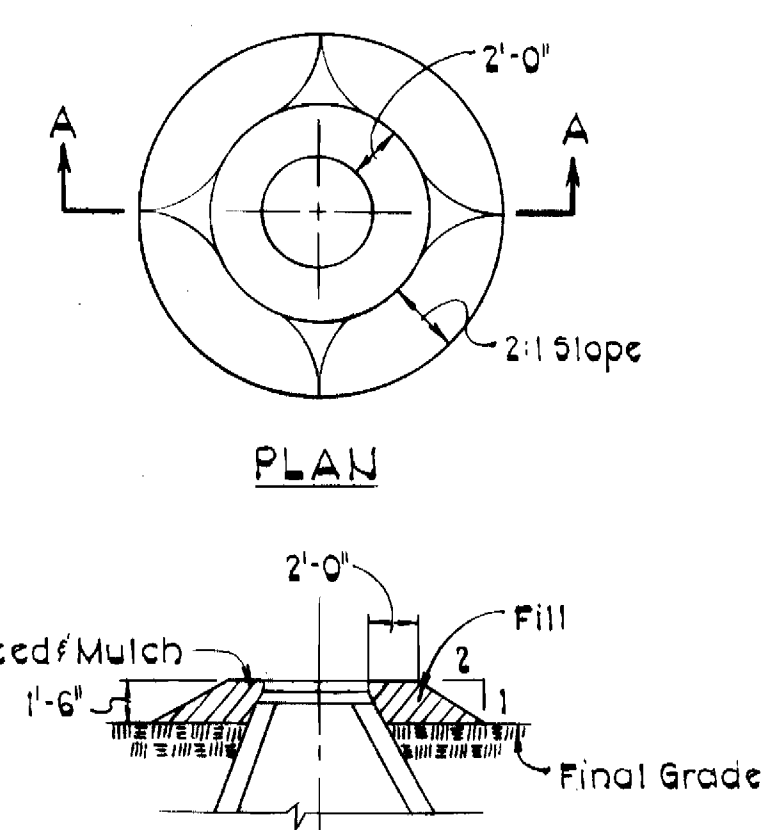
CROSS SECTION



INTERCEPTOR DIKE
Not to Scale



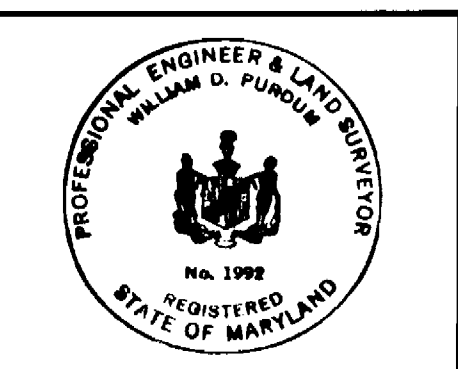
LOOSE LAID RIPRAP DETAIL
Not to Scale



SECTION A-A
FILL AT MANHOLE
Not to Scale

E COORDINATE TABLE		
STATION	NORTH	EAST
0+00	485,889.57	865,894.27
P.C. 7+16.91	486,522.58	866,230.84
P.T. 23+27.66	487,826.68	867,275.61
P.C. 31+25.65	488,345.97	867,881.50
P.T. 37+45.43	488,823.76	868,123.90
Int. 40+20.47+0+00	489,078.00	868,149.00
P.C. 43+17.17	489,323.55	868,167.74
P.T. 56+25.40	490,626.46	868,720.34
BROOKDALE ROAD		
0+00 Int.	489,078.00	868,149.00
P.C. 5+88.24	489,109.64	867,556.88
P.T. 10+28.90	489,236.22	867,149.27

CONTRACT NO. 654-W
MONTEVIDEO ROAD TO DORSEY ROAD
HOWARD COUNTY PROJECT W-4-8028
WATER MAIN EXTENSION



William D. Purdum, Reg. No. 1992
Robert M. Resman, Chief - BUREAU OF UTILITIES
DATE: 6/1/81

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

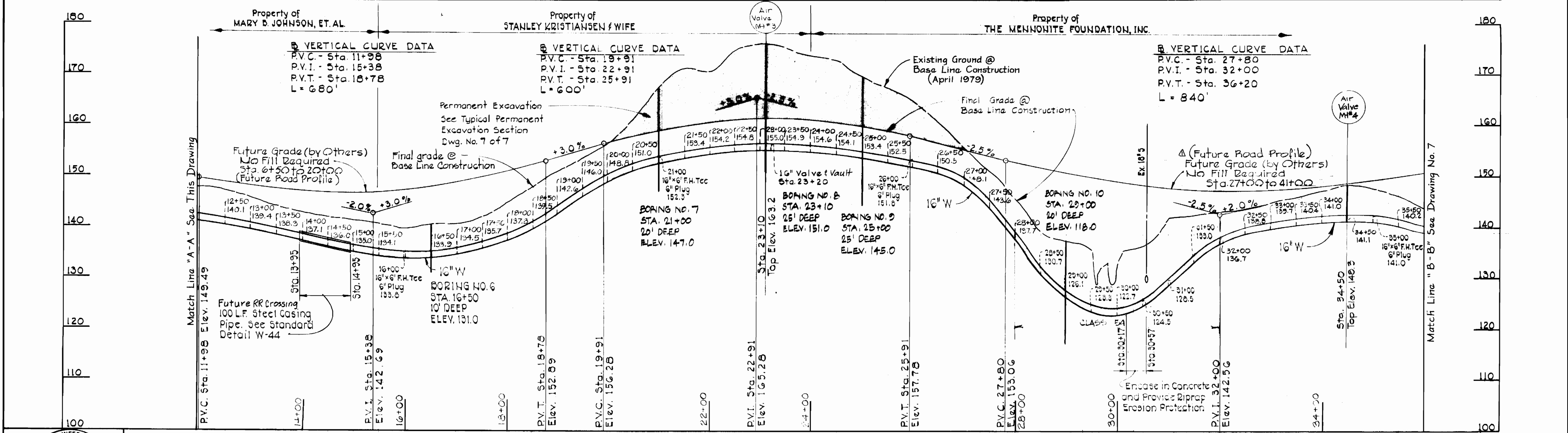
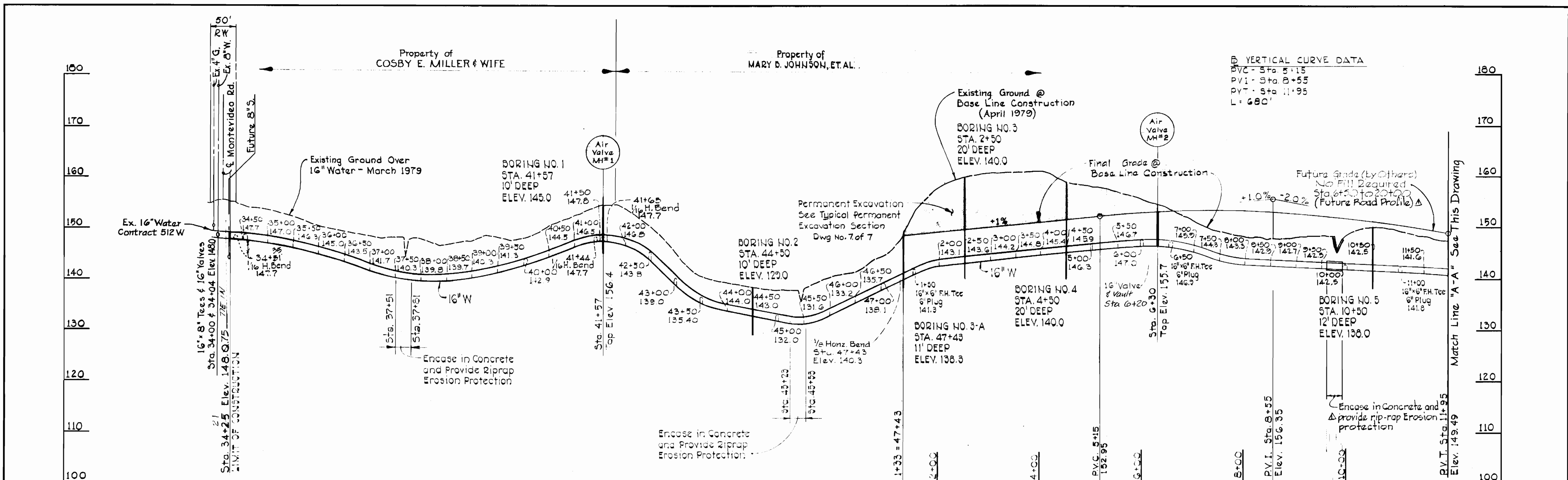
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: DATE: 5-11-81
Chief - Bureau of Engineering: DATE: 5/14/81

CONTRACT NO. 654-W
CAPITAL PROJECT NO. W-4-8028

PLAN

MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

DRAWING NO. 5 OF 7
SCALE AS SHOWN
Designed: RHB
Drafted: ARZ
Checked: CHL
Date:



William D. Purdum, Chief - Bureau of Utilities, Date: 6/2/81

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

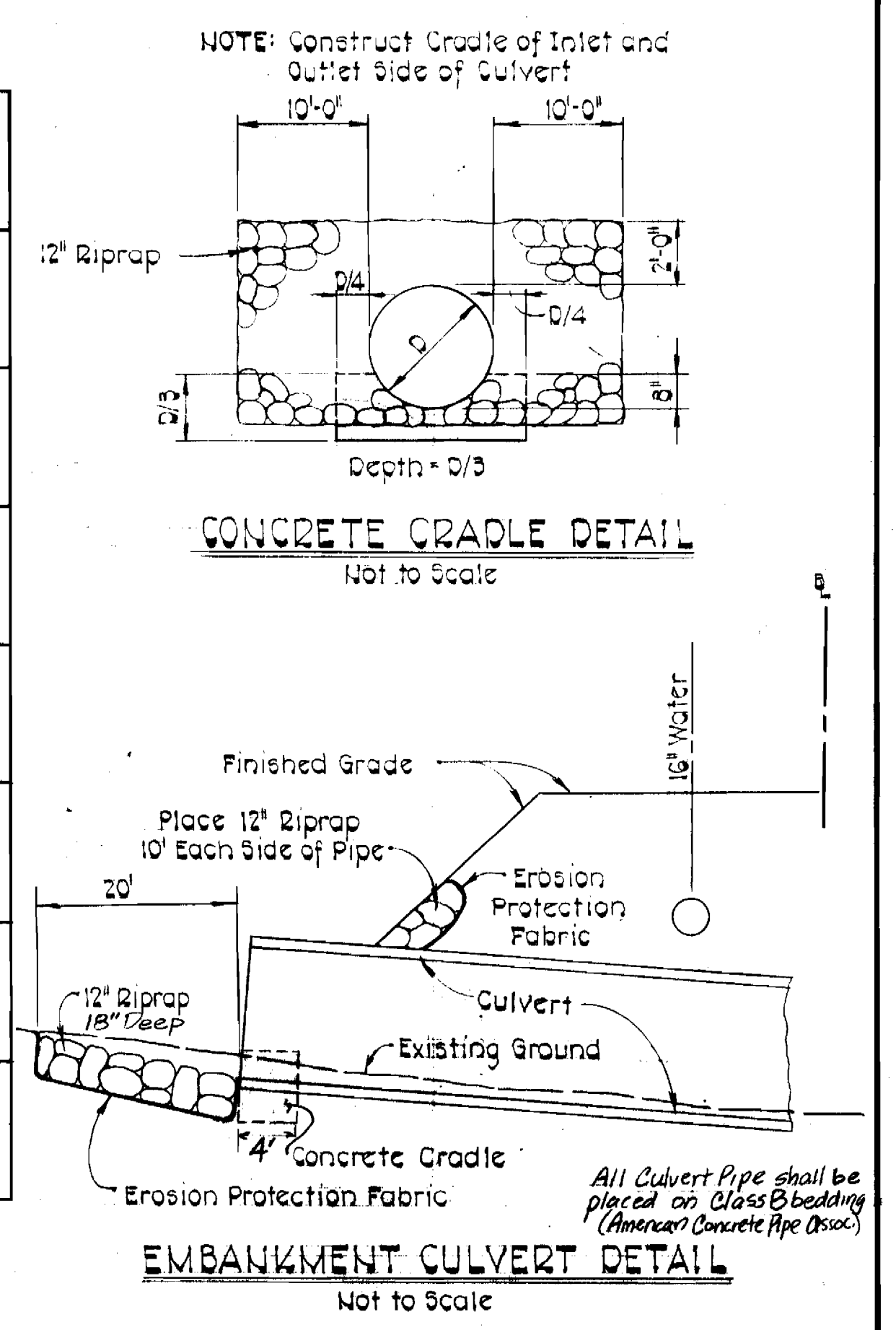
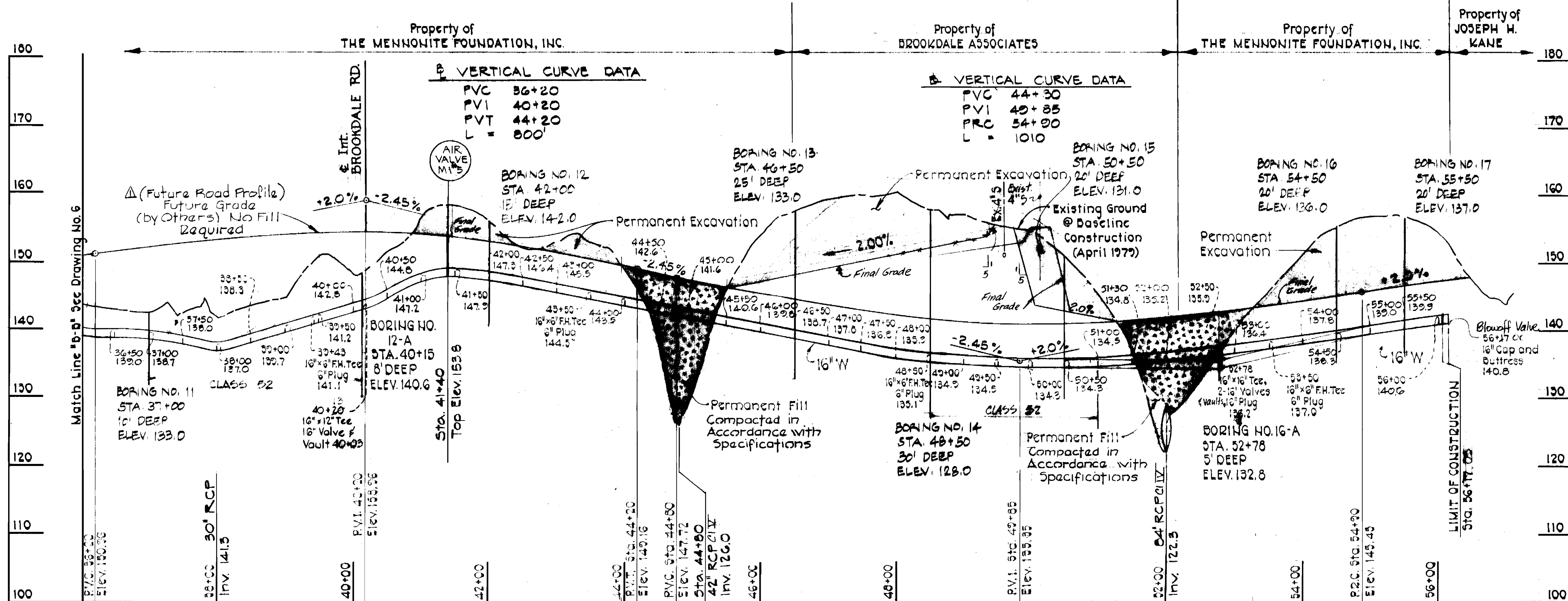
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works - Date: 5-11-81
Chief - Bureau of Engineering - Date:

CONTRACT NO. 654-W
CAPITAL PROJECT NO. W-4-8028

PROFILE

MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

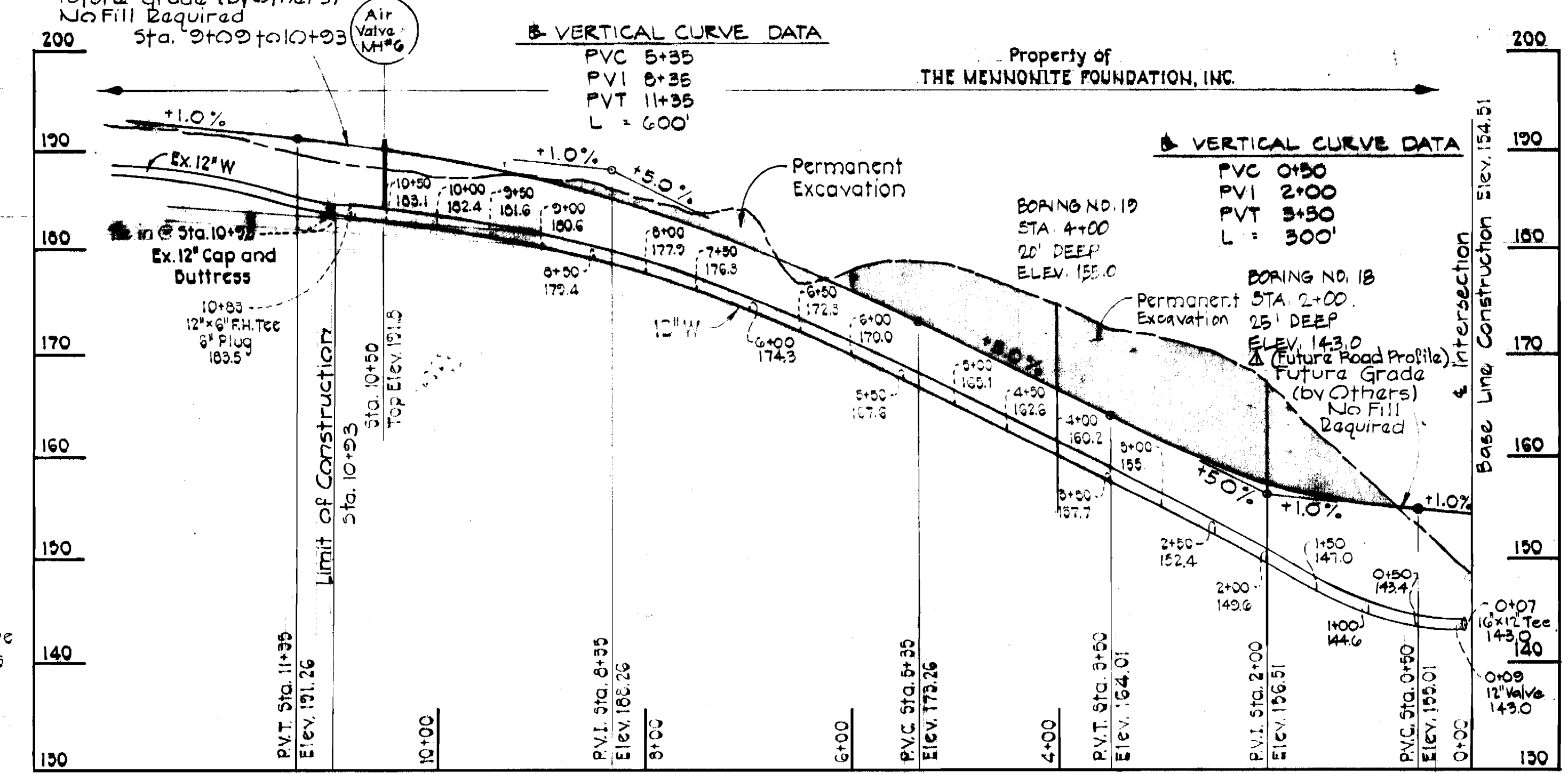
CONTRACT NO. 654
MONTEVIDEO ROAD TO DORSEY ROAD
HOWARD COUNTY PROJECT W-4-8028
WATER MAIN EXTENSION
DRAWING NO. 6 OF 7
SCALE AS SHOWN
Designed R.H.B.
Drafted P.W.R.
Checked C.H.L.
Date



WATER MAIN PROFILE

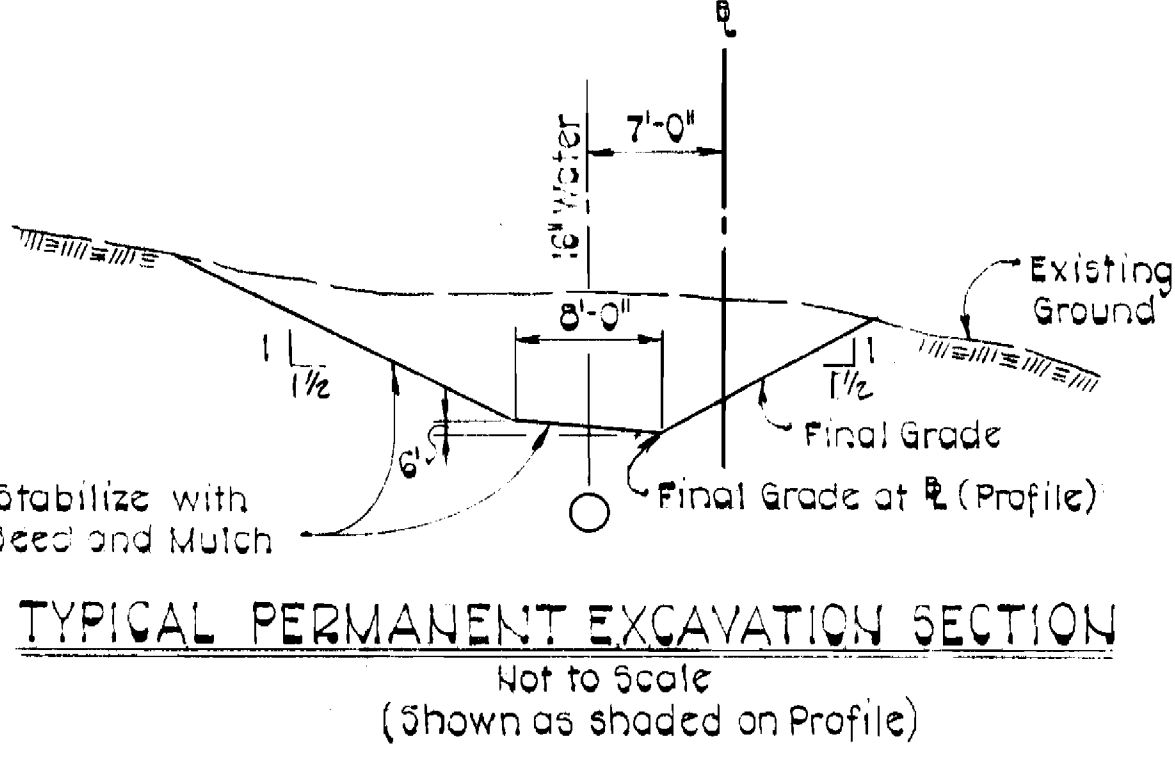
Scale: Horiz. 1"=100'
Vert. 1"=10'

BROOKDALE ROAD

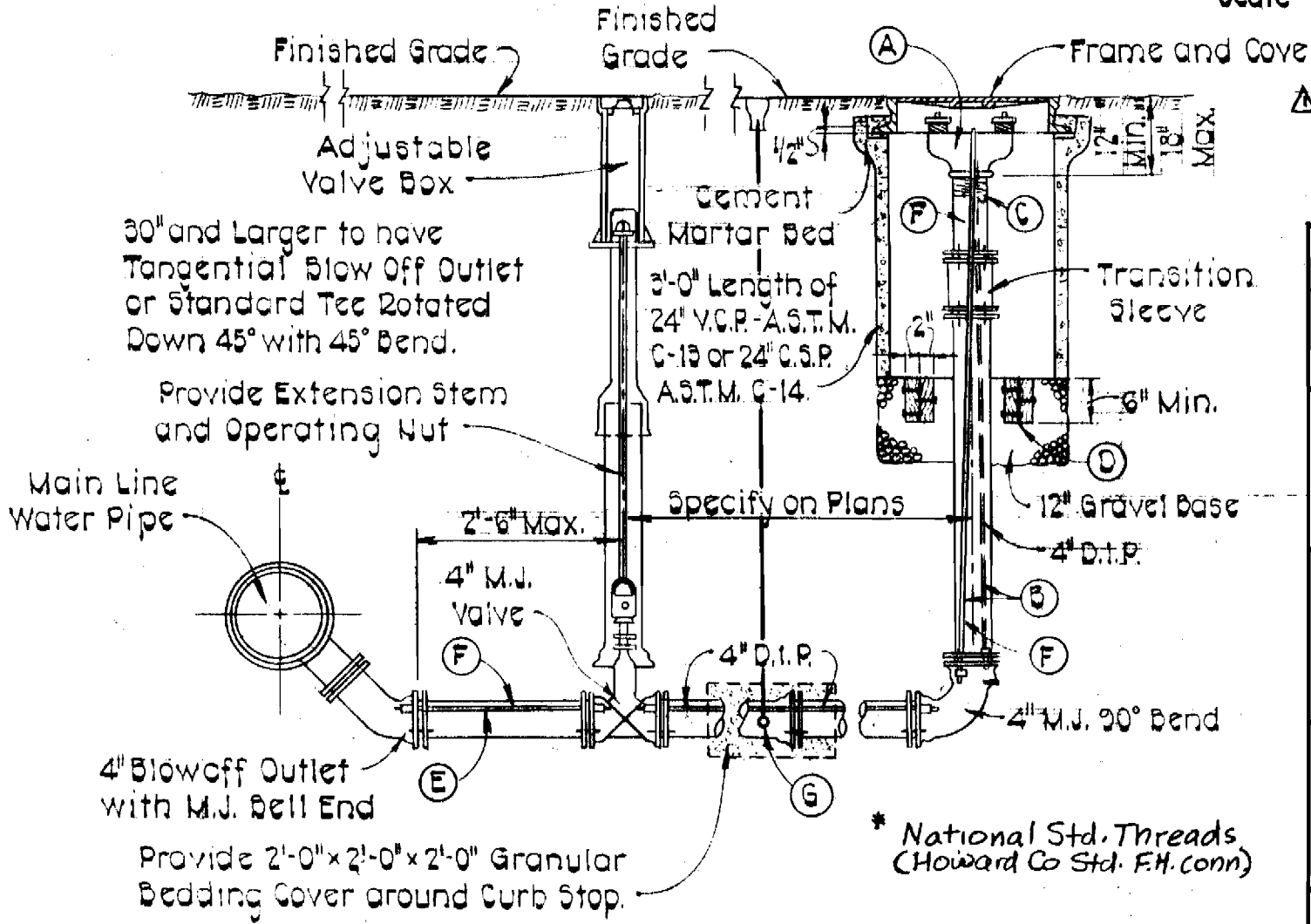


WATER MAIN PROFILE

Scale: Horiz. 1"=100'
Vert. 1"=10'

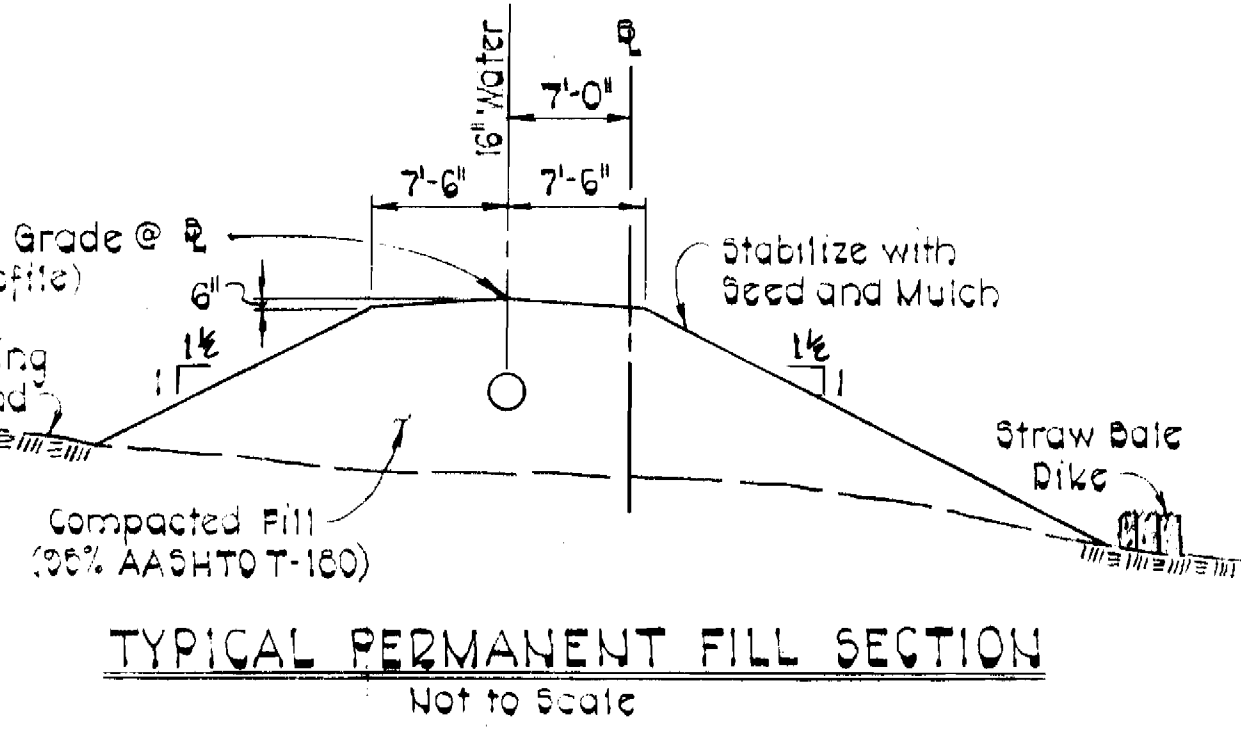


TYPICAL PERMANENT EXCAVATION SECTION
Not to Scale
(Shown as shaded on Profile)



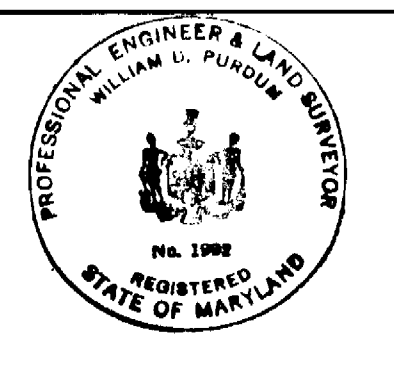
BLOWOFF DETAIL

Not to Scale



TYPICAL PERMANENT FILL SECTION
Not to Scale

- (A) 2 1/2" x 2 1/2" x 4" Straight Body Siamese Connection. Install without Clappers.
- (B) Strap Siamese Connection to Bell of Bend with Single 3/4" Steel Bar. See Howard County Standard Detail W-6C for Detail of Bell, Bend Bar to Conform to Shape of Siamese Connection Shape.
- (C) 1/2" Long 4" Steel Pipe 4 1/2" O.D. Schedule 40 with Screw and Plain Ends.
- (D) 2" x 6" Cont. Lumber Spiked together and placed as shown. Timbers to have Firm Bearing and to Extend a Minimum of 18" on each Side Beyond Limits of Trench, 4" x 4" Timbers may be Used for Supports.
- (E) Strap Valve and 90° Bend to Main Line. See Howard County Standard Detail W-51. Use 2-3/4" Steel Bars Diametrically Opposite Each Other.
- (F) Paint all Exposed Steel Surfaces with 2 Coats of Bituminous Coating.
- (G) 3/4" Corp. Cock with Short Copper Nipple and 3/4" Curb Stop with Curb Box Assembly. Provide Cut-off Stem to Ground Surface to Drain Pipe. Provide Extended Stems on Curb Cock as Required.



William D. Purdum, Chief - Bureau of Utilities, Date: 6/9/81

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
5-11-81
DIRECTOR OF PUBLIC WORKS - DATE

CONTRACT NO. 654-W
CAPITAL PROJECT NO. W-4-8028

PROFILE

REV. NO.	REV. DATE	REVISION DESCRIPTION
1	10-20-81	As Per D.P.W. Comments

MONTEVIDEO ROAD TO DORSEY ROAD
WATER MAIN EXTENSION

CONTRACT NO. 654-W
MONTEVIDEO ROAD TO DORSEY ROAD
HOWARD COUNTY PROJECT W-4-8028
WATER MAIN EXTENSION

DRAWING
NO. 7
OF 7

SCALE
AS SHOWN

Designed R.H.B.
Drafted P.W.R.
Checked C.H.L.
Date