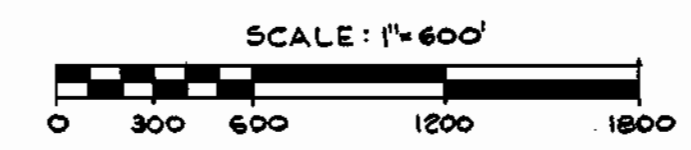


GENERAL NOTES

1. Approximate location of existing utilities is shown. The Contractor shall take all necessary precautions to protect existing utilities and to maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer by the Contractor at the Contractor's expense.
2. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities. Cost shall be included in the unit prices bid for excavation.
3. Clear all utilities by a minimum of 6". Clear of all poles 2'-0" minimum, or tunnel as required. Cost for tunneling or bracing at poles shall be included in the unit prices bid for excavation.
4. All pipe elevations shown are invert \odot elevations.
5. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
6. The Contractor shall provide a pipe joint in each sewer main within 2'-0" of the exterior of manhole walls.
7. Watertight manhole frame and cover to be used where indicated on drawings [Standard Detail 5-12 (RC2-63A)]. Where watertight manhole frame and cover is used, set top of frame 6" above finished grade.
8. For details not shown on the Contract Drawings see standard Details bound in the specifications.
9. Trees are to be protected from damage to the maximum extent.
10. Contractor shall remove trees, stumps and roots along the line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for sewer mains.
11. Elevations are on United States Coast and Geodetic Survey Datum. Grid System is based on Maryland State Coordinate System.



CONTRACT NO 418-S

SANITARY SEWERS

HOWARD COUNTY MARYLAND

DEPARTMENT OF PUBLIC WORKS



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE 1-24-72
CHIEF - BUREAU OF WATER AND SEWER

CONTRACT NO. 418-S
WSF-MD-03-05-1000

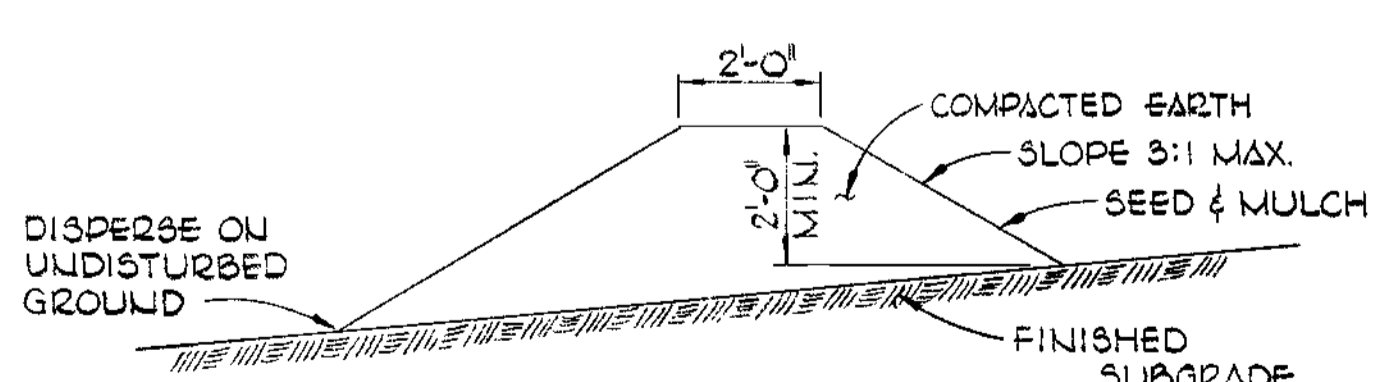
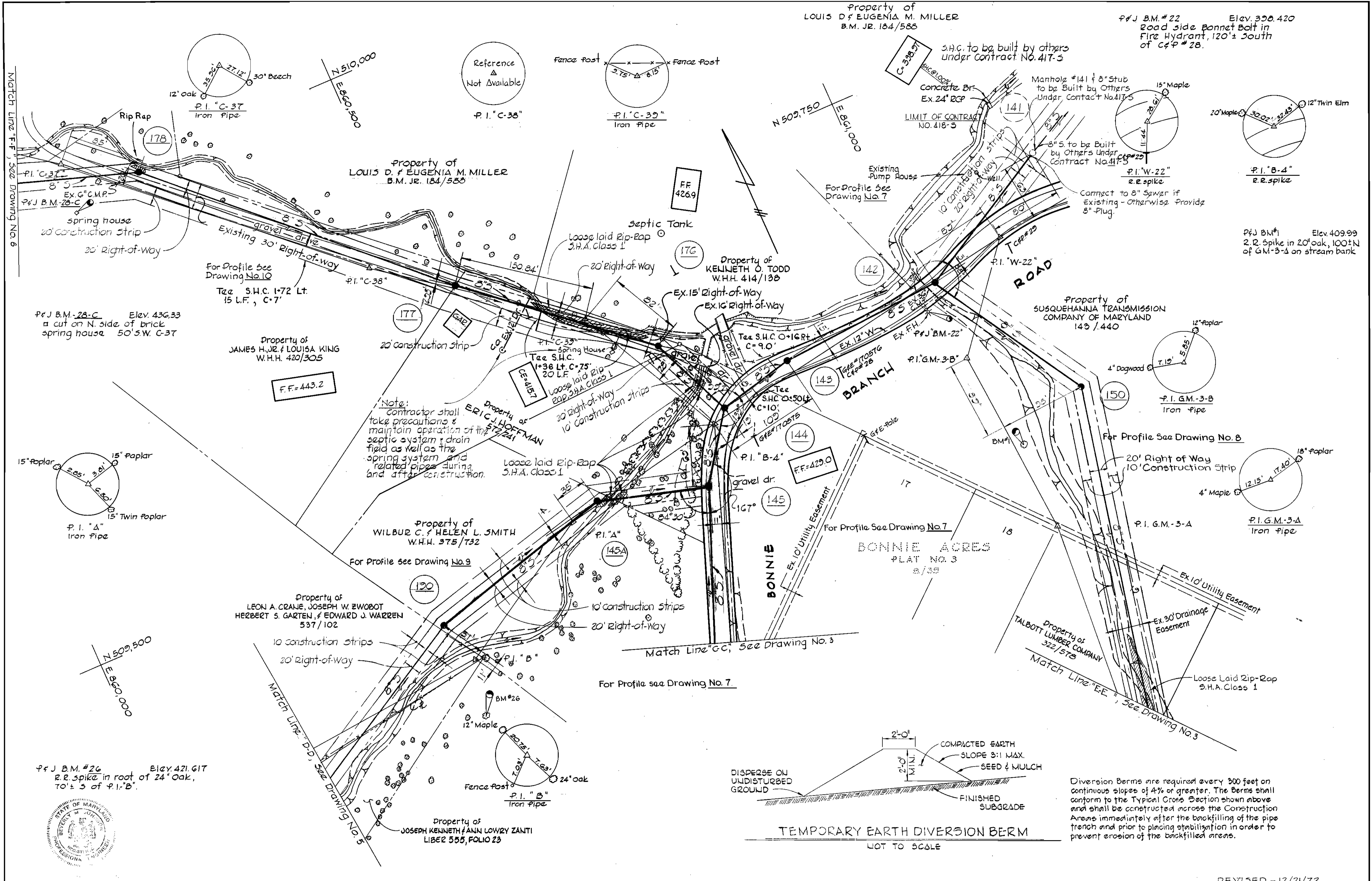
LOCATION MAP OF
SANITARY SEWERS

ELECTION DISTRICTS NO. 1 & 2

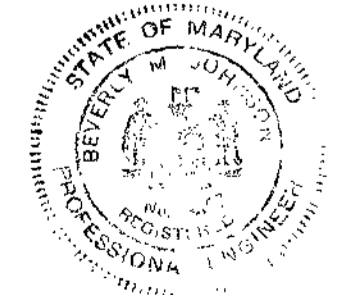
DRAWING NO. 1
OF 11 SCALE AS SHOWN

418-S/1

"AS BUILT" Aug. 28, 1974



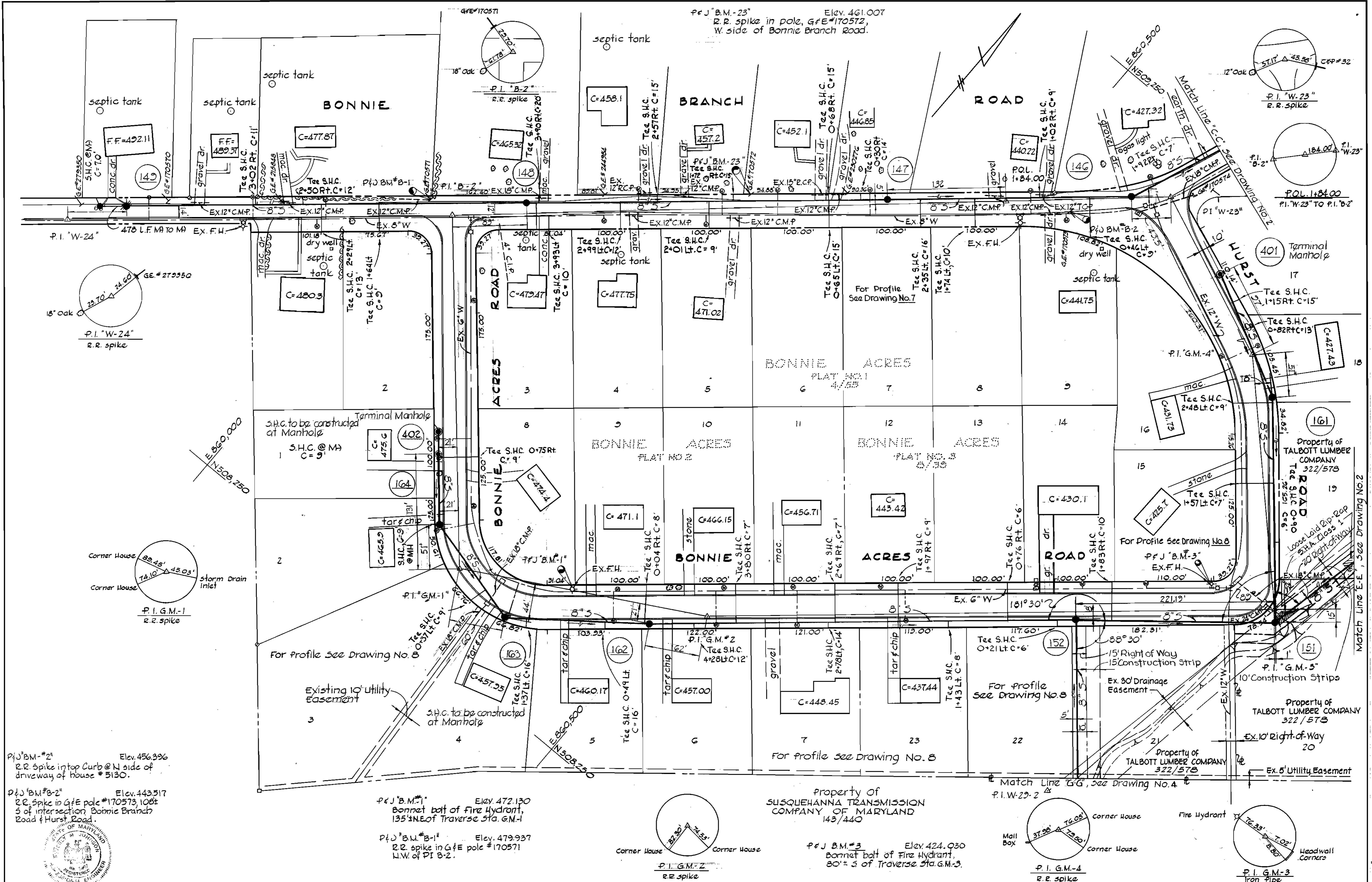
Diversion Berms are required every 300 feet on continuous slopes of 4% or greater. The Berms shall conform to the Typical Cross Section shown above and shall be constructed across the Construction Areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.



WS 418-5/2

"AS BUILT" - AUG. 28, 1974

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 1-26-72 DATE <i>W. O. Filbert</i> CHIEF - BUREAU OF WATER AND SEWER	CONTRACT NO. 418-S W.S.-MD-03-05-1000	PLAN OF SEWER MAINS	BONNIE BRANCH ROAD ELECTION DISTRICTS NO. 1 & 2	REVISSED - 12/21/72	DRAWING NO. 2	SCALE 1"=50'
					OF 11	JANUARY 22, 1973	



P&J B.M. #2
Elev. 456.396
R.R. Spike in top curb @ N side of driveway of house # 5130.

P&J B.M. #B-2
Elev. 443.517
R.R. Spike in G&E pole #170573, 108ft S of intersection Bonnie Branch Road & Hurst Road

P&J B.M. #1
Elev. 472.130
Barnet ball of Fire Hydrant, 135' N.E. of Traverse Sta. G.M.-1

P&J B.M. #B-1
Elev. 479.937
R.R. spike in G&E pole #170571 N.W. of P.I. B-2.

Property of SUSQUEHANNA TRANSMISSION COMPANY OF MARYLAND 143/440

P&J B.M. #3
Elev. 424.030
Barnet ball of Fire Hydrant, 80' S of Traverse Sta. G.M.-3.



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 1-26-72
CHIEF - BUREAU OF WATER AND SEWER

CONTRACT NO. **418-S**
WSF-MD-03-05-1000

PLAN OF SEWER MAINS

ELECTION DISTRICTS NO. 1 & 2

DRAWING NO. **3**
OF **11**
SCALE **1"=50'**

JANUARY 22, 1973

WS 418-5/3

"AS BUILT" AUG. 29, 1974

P&J B.M. 28 Elev. 467.031
 R.R. spike in 30' oak, West side
 of Ilchester Road, 100'± South
 of G&E pole #162428

P&J B.M. "F-1" Elev. 457.990
 R.R. spike in base of Power
 Pole #241628, at intersection
 of Ilchester Road & Font Road.

Property of
 SUSQUEHANNA TRANSMISSION
 COMPANY OF MARYLAND
 143/440

E 861,000
 N 508,250

For Profile See Drawing No. 8

Match Line "J-J", See This Drawing

Match Line "G-G", See Drawing No. 3

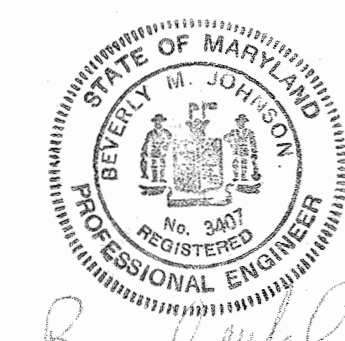
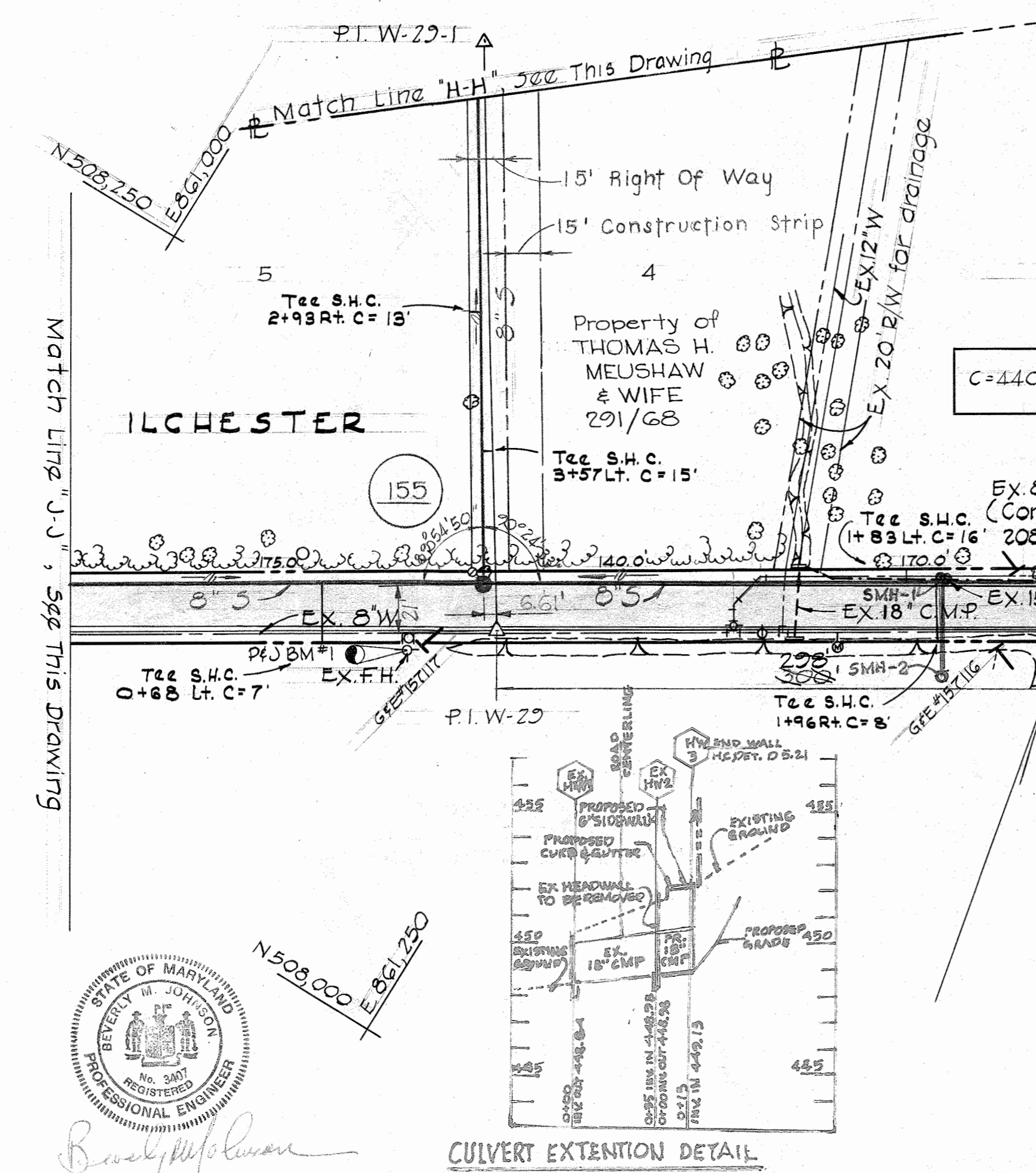
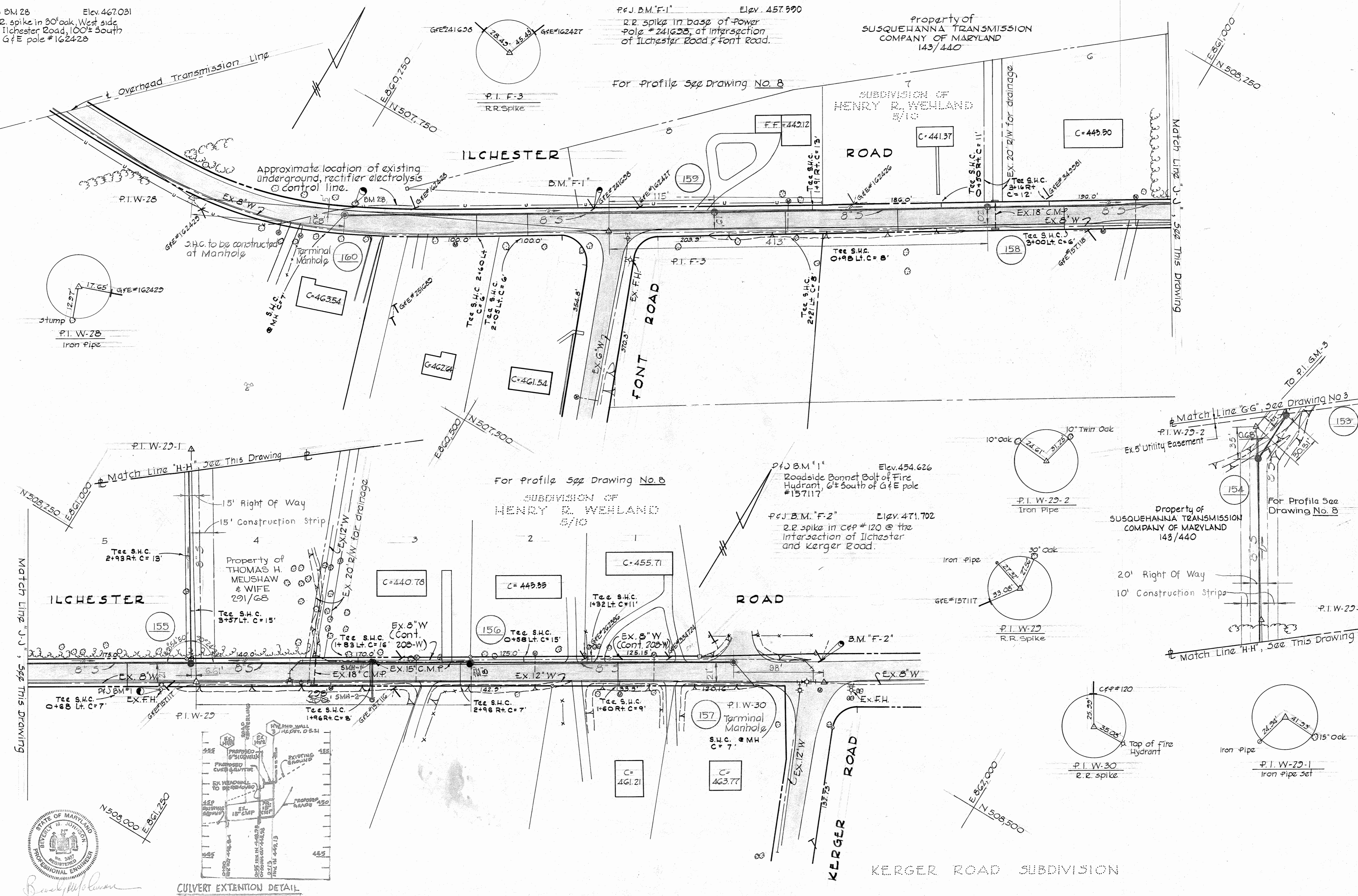
For Profile See Drawing No. 8

Match Line "H-H", See This Drawing

Property of
 SUSQUEHANNA TRANSMISSION
 COMPANY OF MARYLAND
 143/440

20' Right Of Way
 10' Construction Strips

KERGER ROAD SUBDIVISION

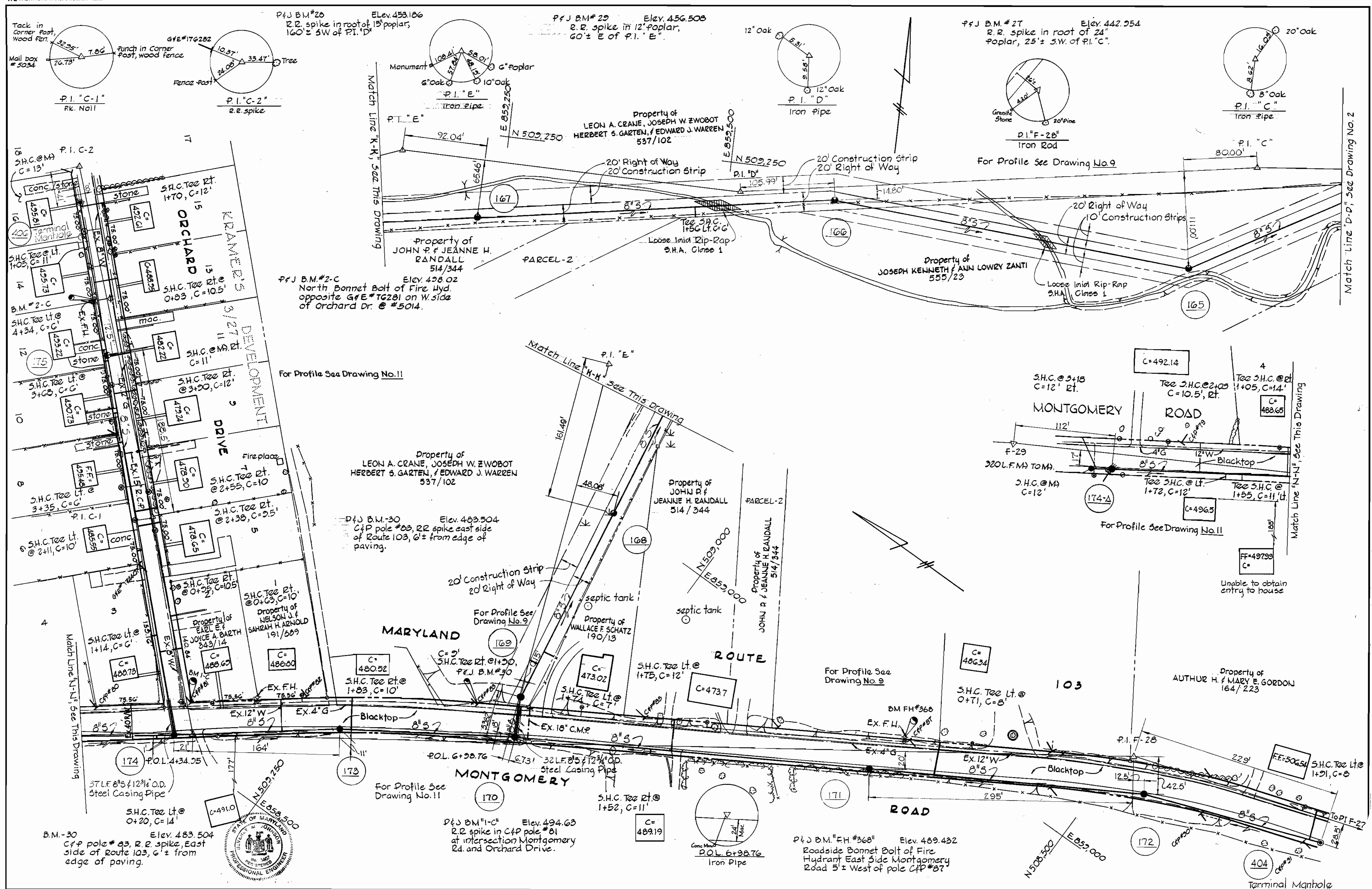


Beverly Johnson

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE 1-26-72 <i>W.O.P. Webb</i> CHIEF - BUREAU OF WATER AND SEWER	CONTRACT NO. 418-S WSF-MD-03-05-1000	PLAN OF SEWER MAINS	ELECTION DISTRICT NO. 2	DRAWING NO. 4	SCALE 1"=50'
					OF 11	

WS 418-S/M

"AS BUILT" AUG. 29, 1974



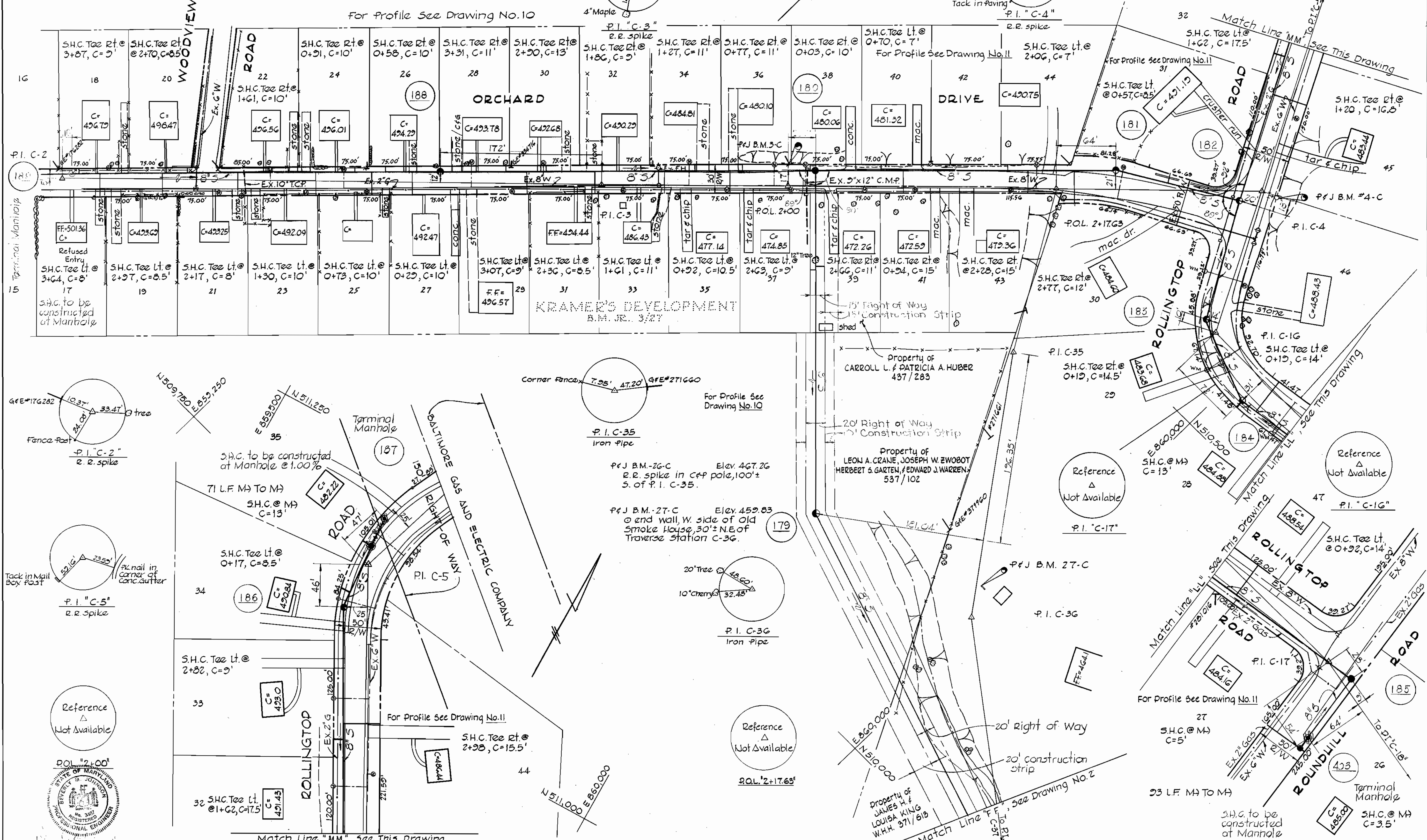
WS 418-S/5

<p>PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND</p>	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 1-26-72 DATE</p>	<p>CONTRACT NO. 418-S</p>	<p>PLAN OF SEWER MAINS</p>	<p>ELECTION DISTRICT NO. 2</p>	<p>DRAWING NO. 5 OF 11 SCALE 1"=50'</p>
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P.F.J. B.M. #3-C Elev. 481.24
 R.R. spike in G&E pole #250775
 between #4518 & #4322 of
 Orchard Drive.

P.F.J. B.M. #5-C Elev. 490.06
 Notch in North Side W.M.
 Rim at #4830 Rollingtop Rd.

P.F.J. B.M. #4-C Elev. 476.68
 S. Bonnet Bolt (roadside) Fire Hyd.
 N. Side Rollingtop Drive at Int.
 of Orchard Drive.



WS 418-5/c



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 1-26-72
 DATE

CONTRACT NO. 418-S
 WSF-MD-03-05-1000

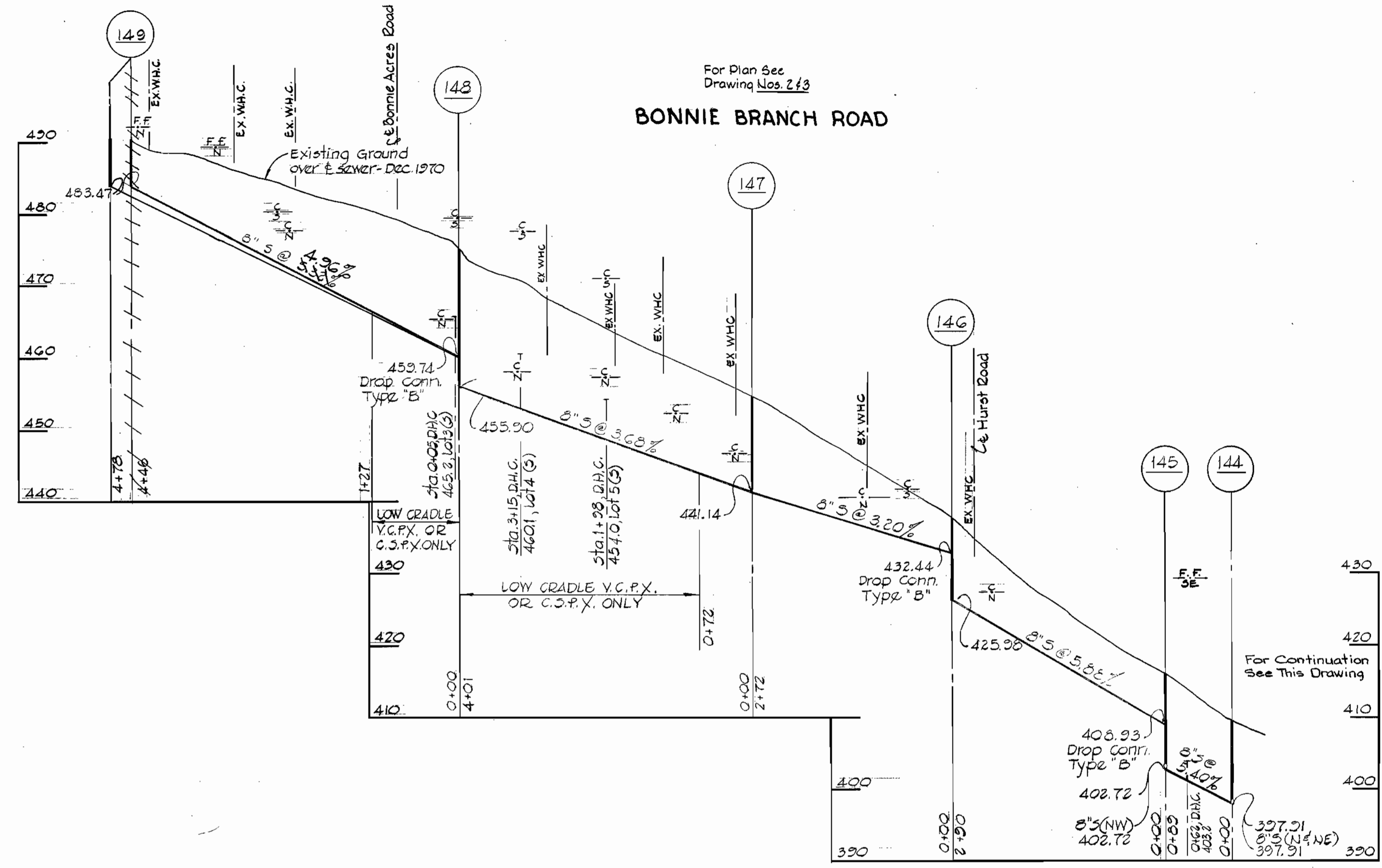
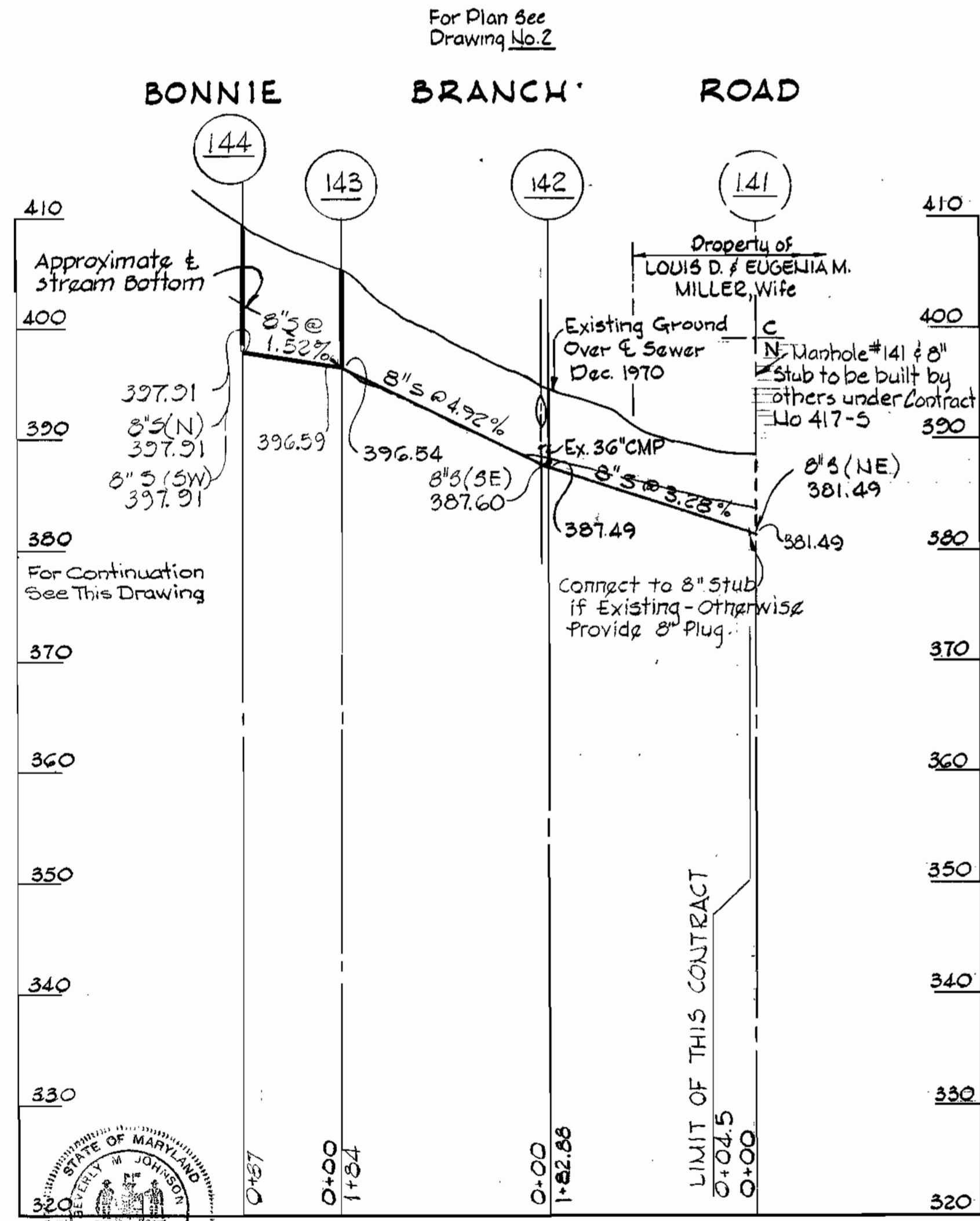
PLAN OF SEWER MAIN

ELECTION DISTRICT NO. 2

DRAWING NO. 6 OF 11
SCALE 1" = 50'

"AS BUILT" AUG. 30, 1974

WS 418-S/7



PROFILES
Scale: Hor. 1"=100'
Vert. 1"=10'

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-26-72
DATE
W. O. Faloutsos
CHIEF - BUREAU OF WATER AND SEWER

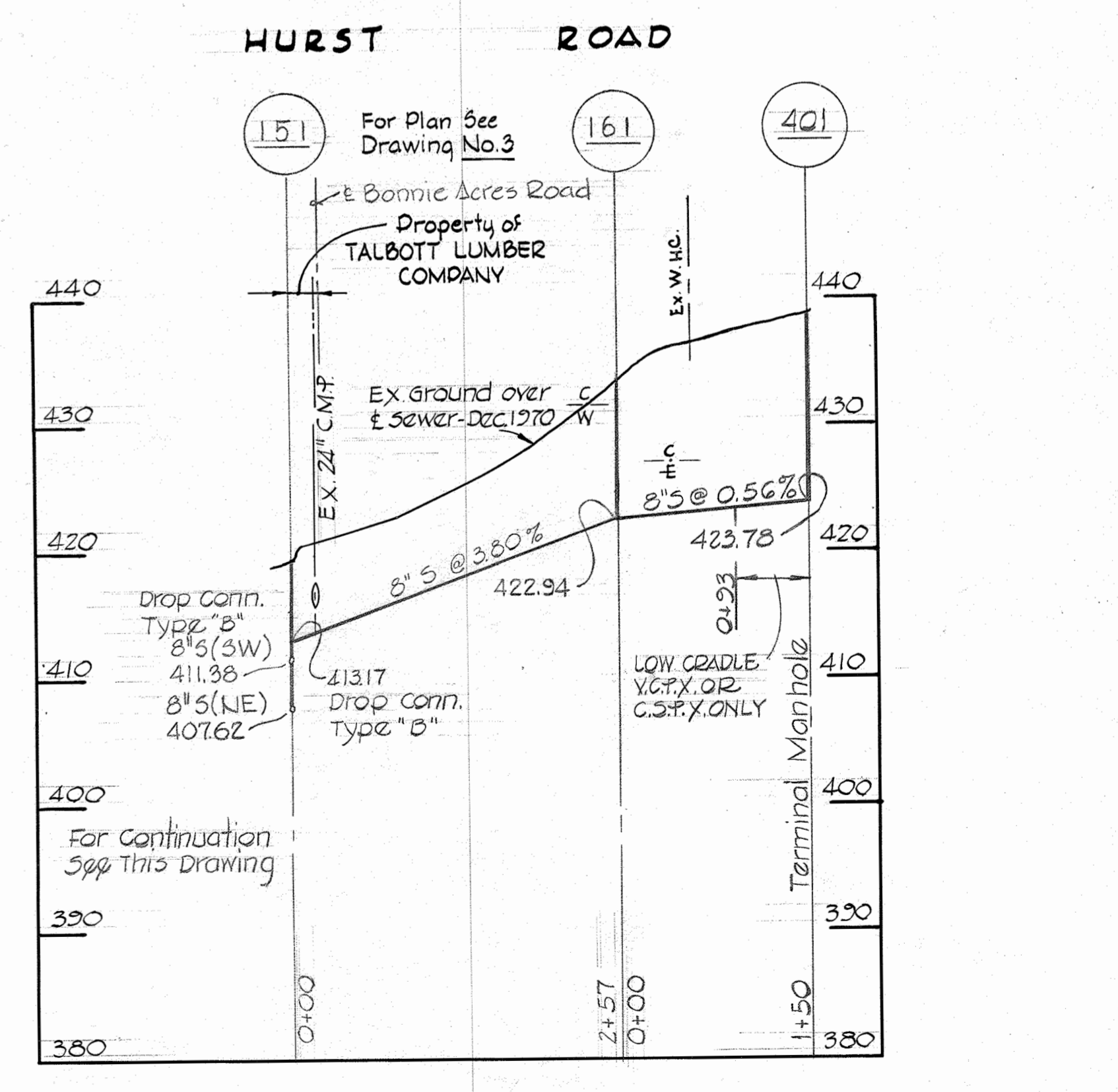
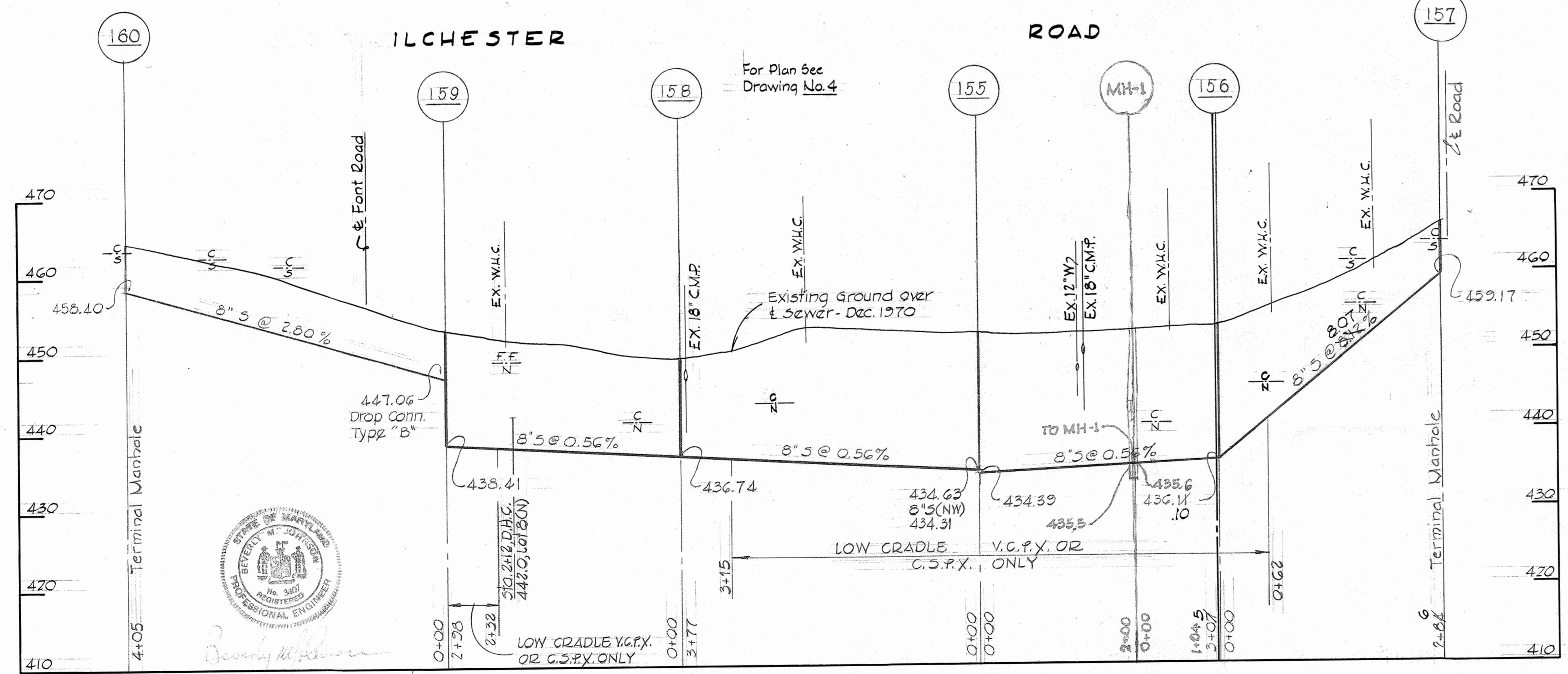
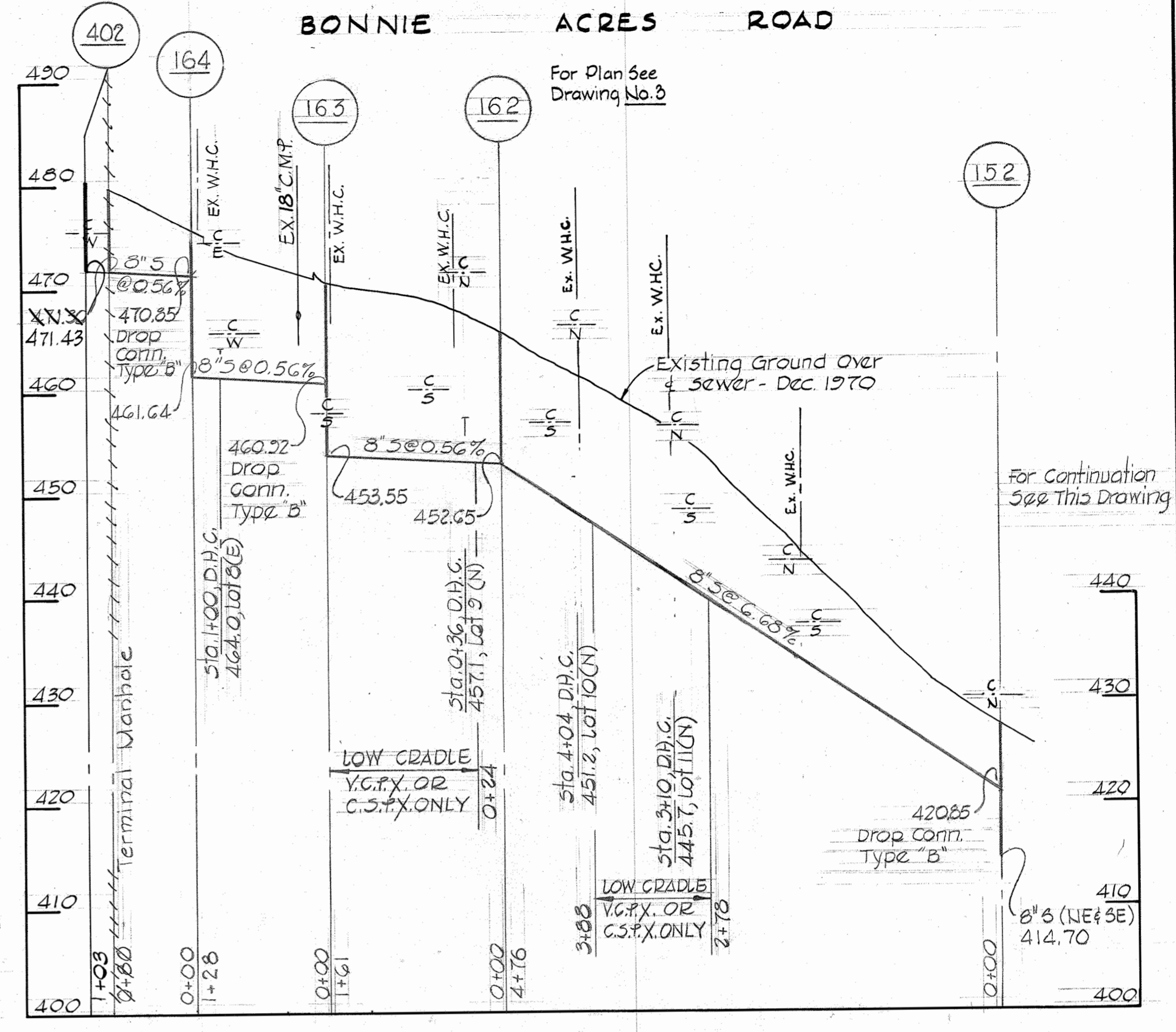
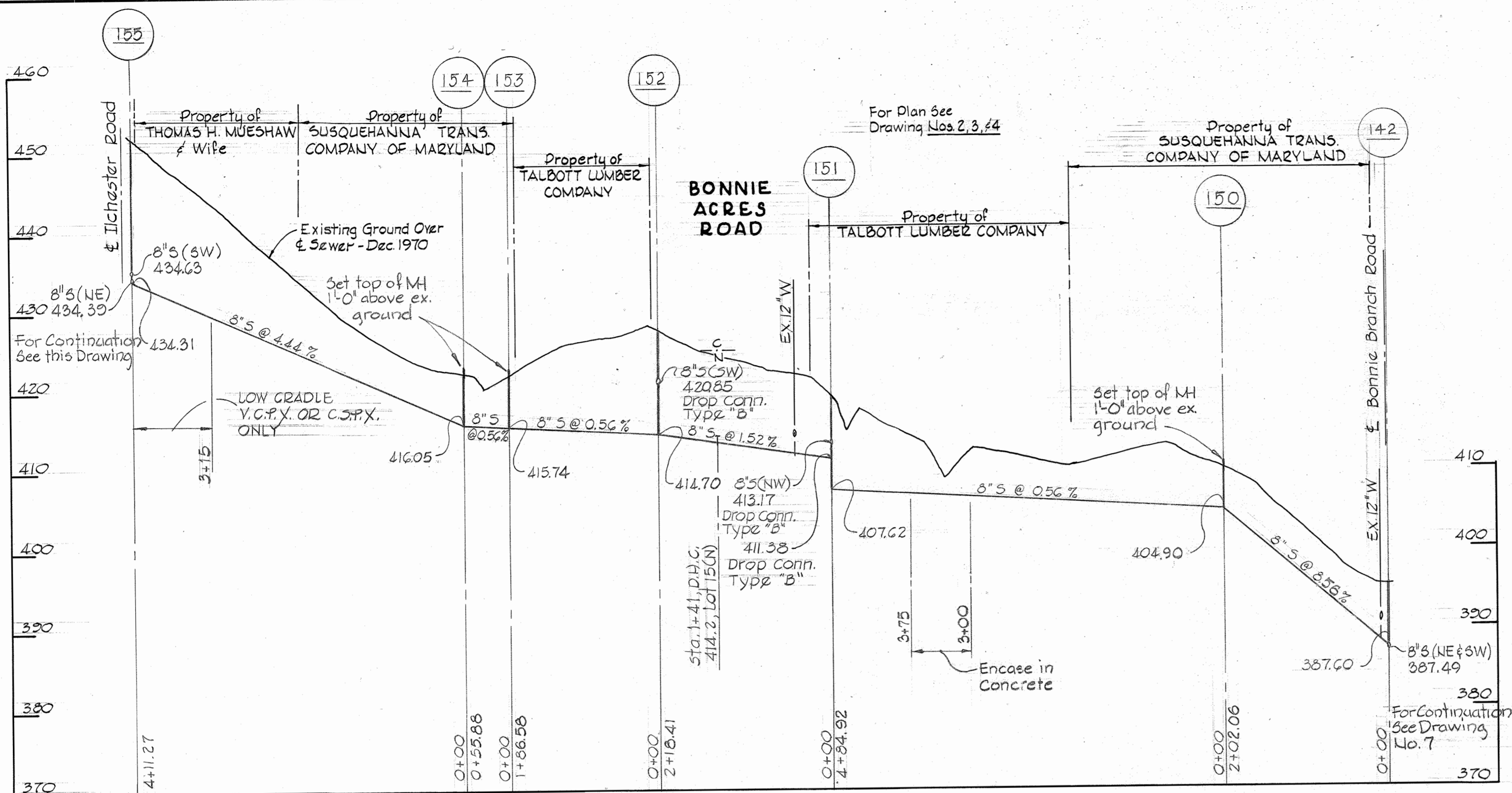
CONTRACT NO. 418-S
WSF-MD-03-05-1000

PROFILE

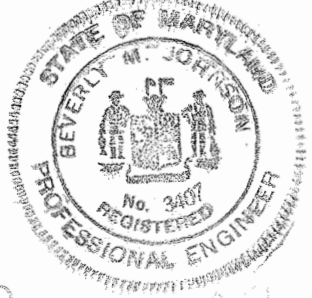
ELECTION DISTRICTS NO. 1 & 2

DRAWING NO. 7 OF 11
SCALE AS SHOWN

"AS BUILT" AUG. 30, 1974



PROFILES
Scale: Hor 1"=100'
Vert 1"=10'



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-26-72
DATE

CONTRACT NO. 418-S
WSF-MD-03-05-1000

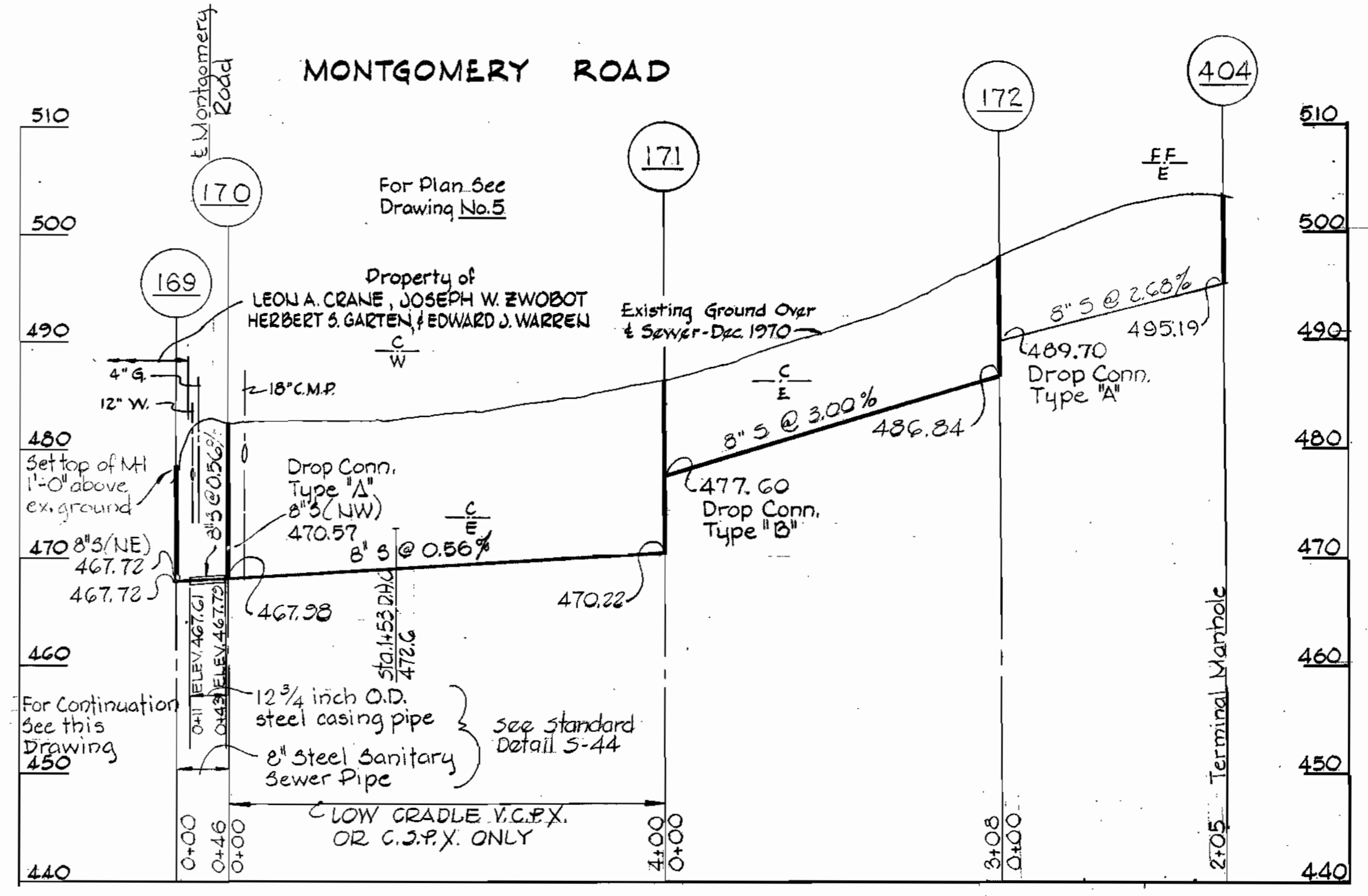
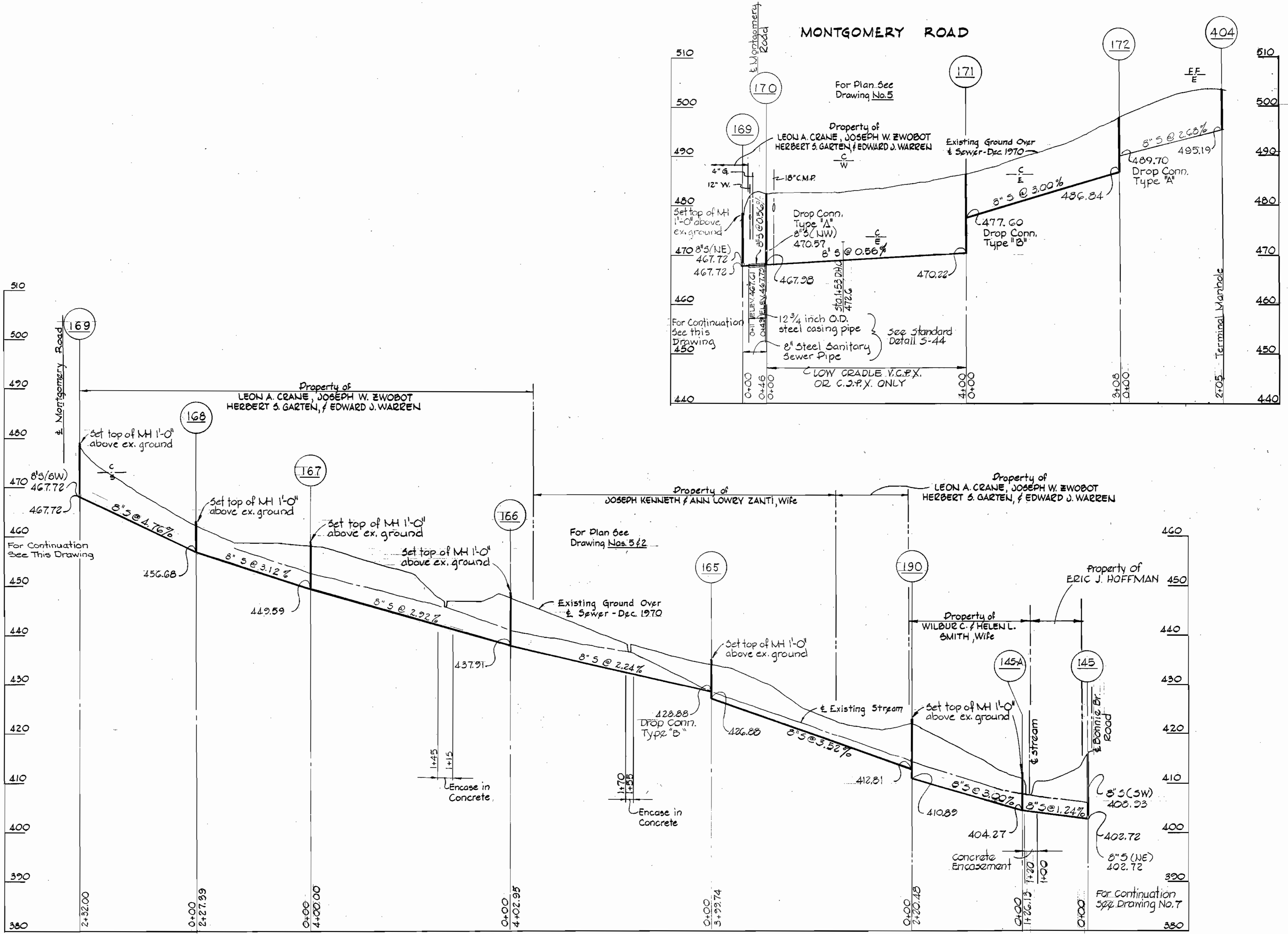
PROFILE

ELECTION DISTRICT NO. 1

DRAWING NO. 8 OF 11 SCALE AS SHOWN

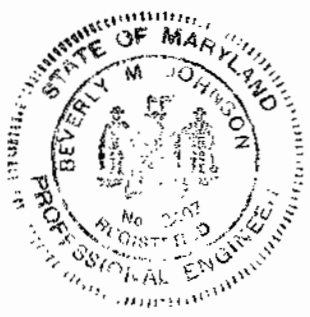
JANUARY 23, 1973

" AS BUILT " AUG. 29, 1974



PROFILES
 SCALE: Hor.: 1" = 100'
 Vert.: 1" = 10'

WS 418-S/9



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DATE: 1-26-72
 CHIEF - BUREAU OF WATER AND SEWER

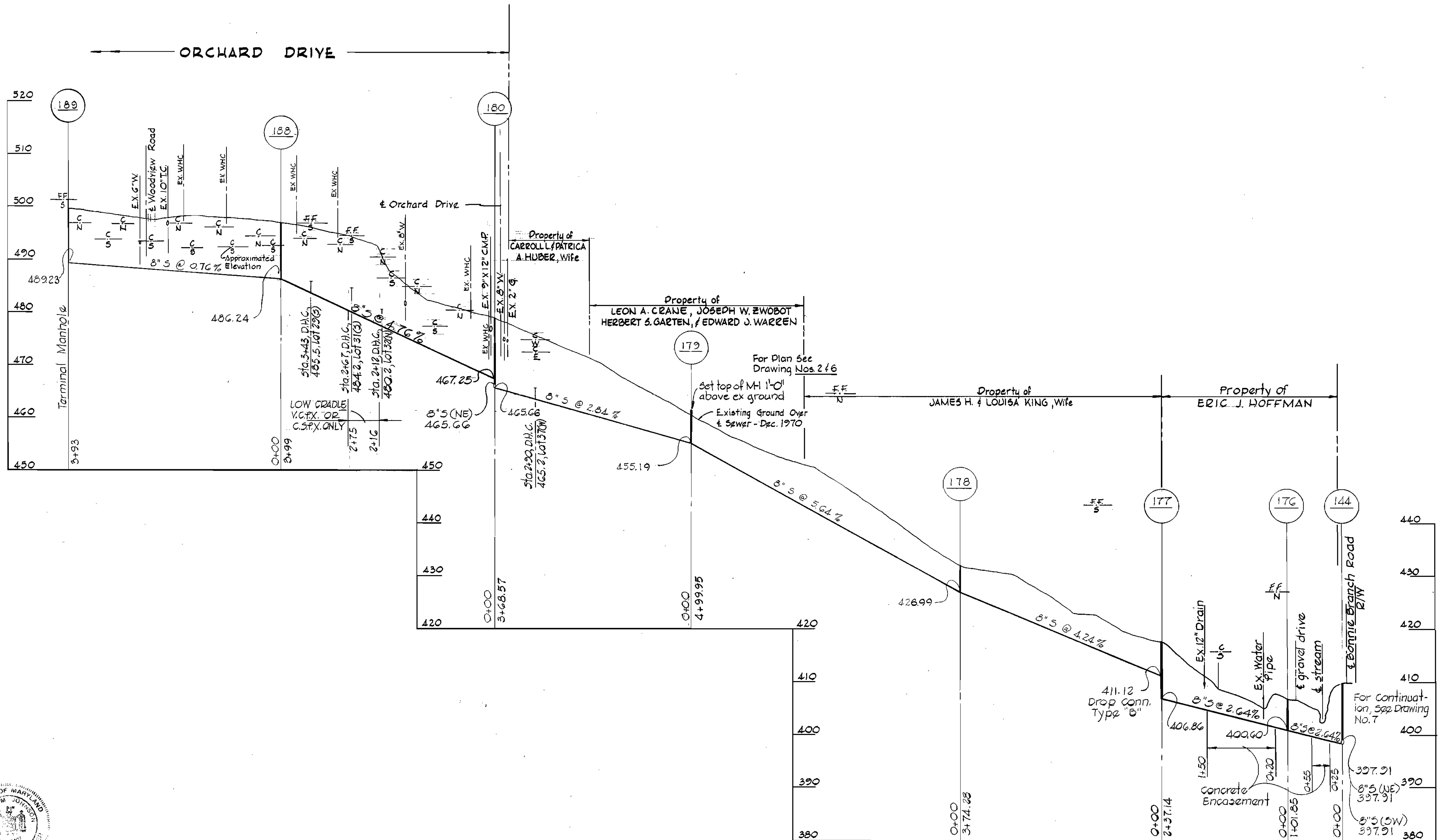
CONTRACT NO. **418-S**
 WSF-MD-03-05-1000

PROFILE

ELECTION DISTRICT NO. 2

DRAWING NO. **9**
 OF **11**
 SCALE **AS SHOWN**

"AS BUILT" AUG. 30, 1974



PROFILES
 Scale: Hor. 1"=100'
 Vert. 1"=10'



PURDUM & JESCHKE
 ENGINEERS
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 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DATE 1-26-72
 CHIEF - BUREAU OF WATER AND SEWER

CONTRACT NO. 418-S
 WSF-MD-03-05-1000

PROFILE

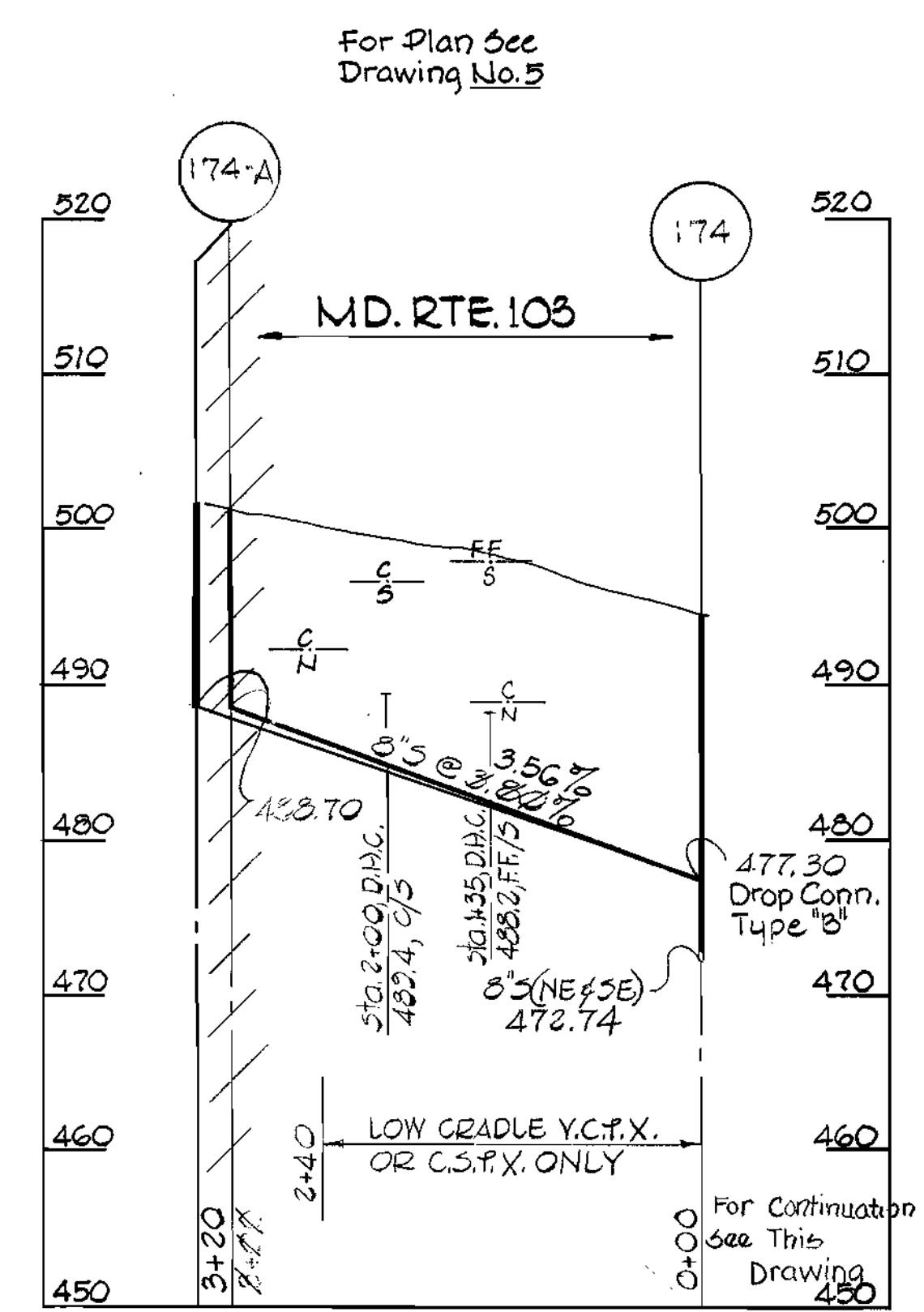
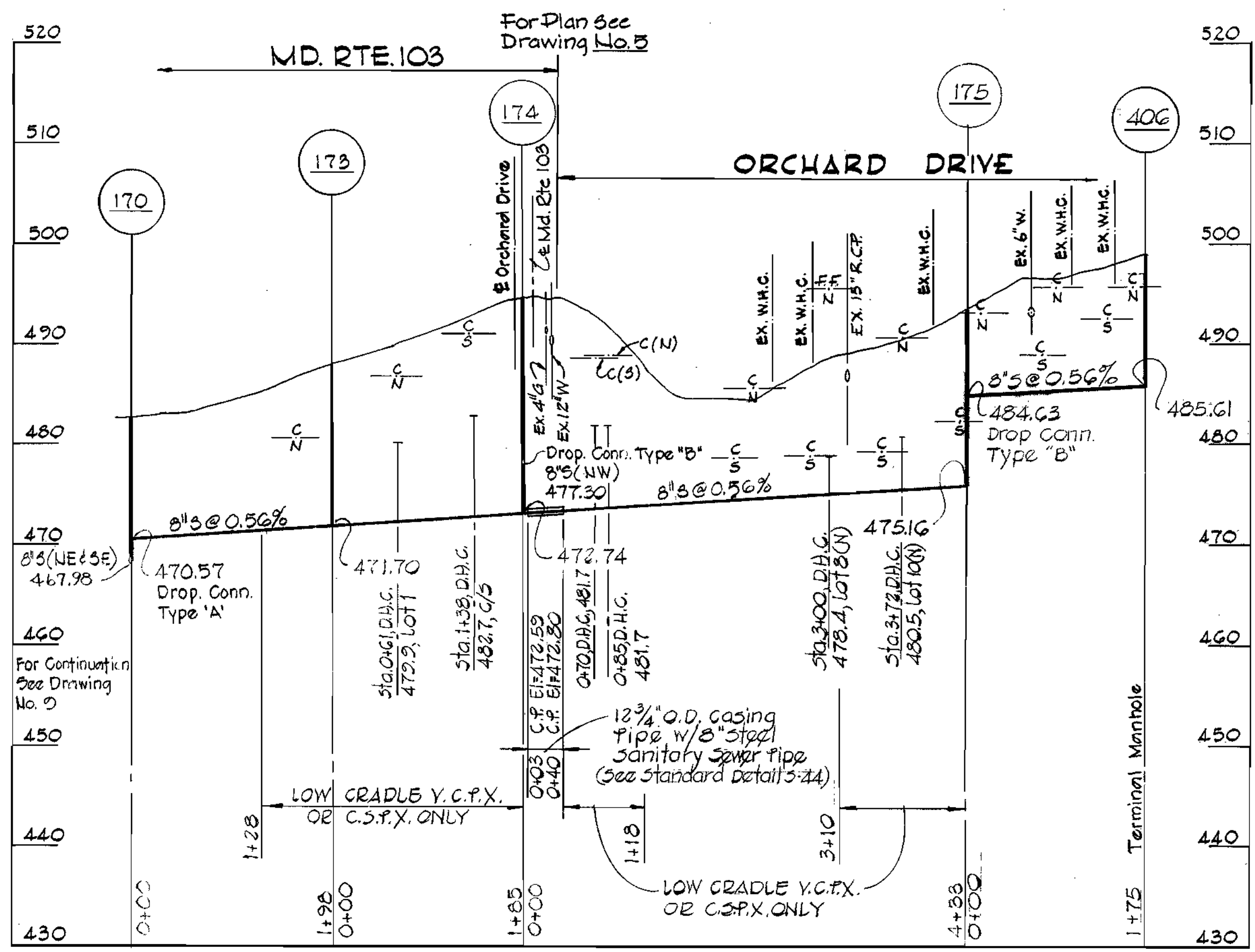
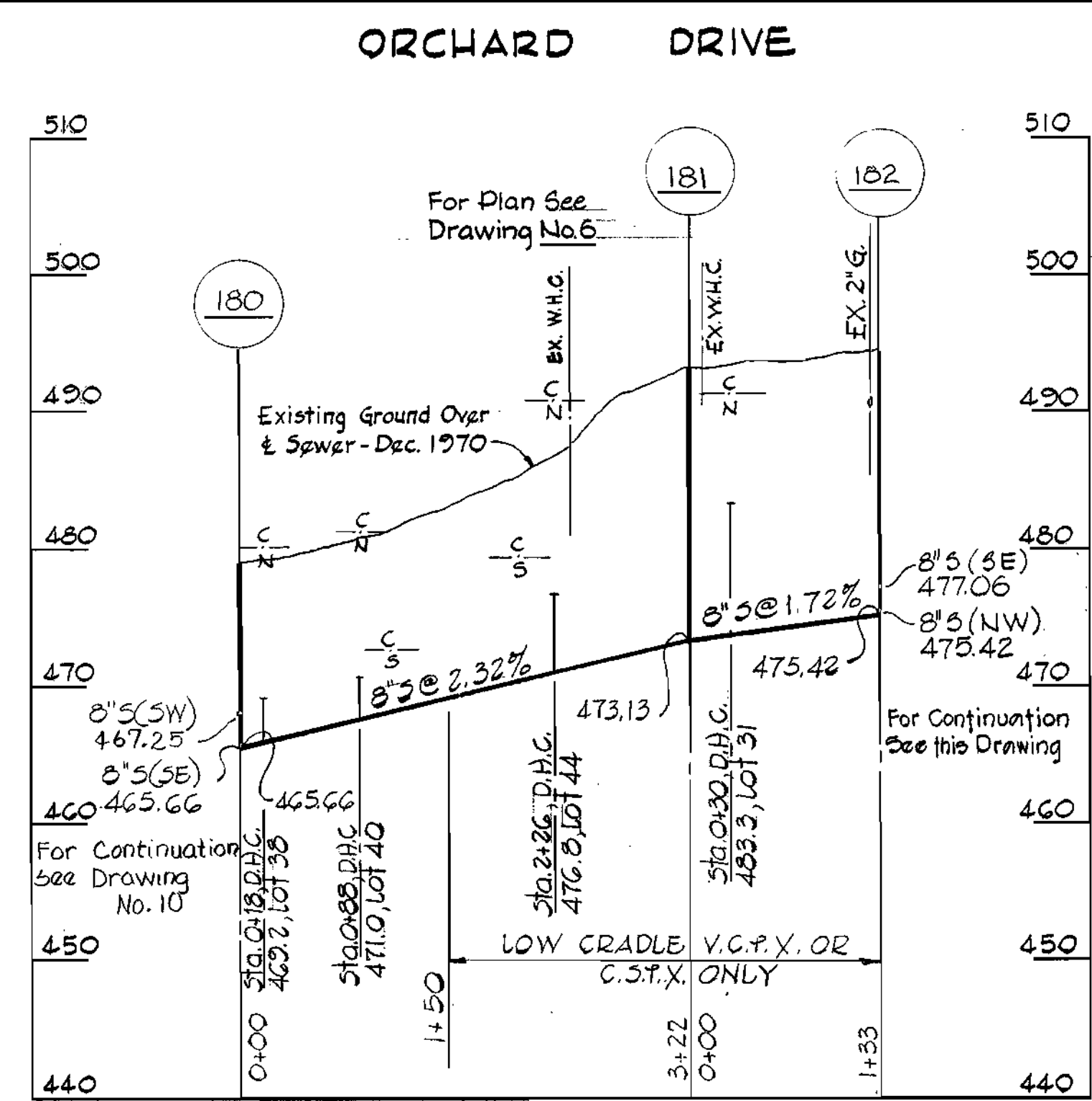
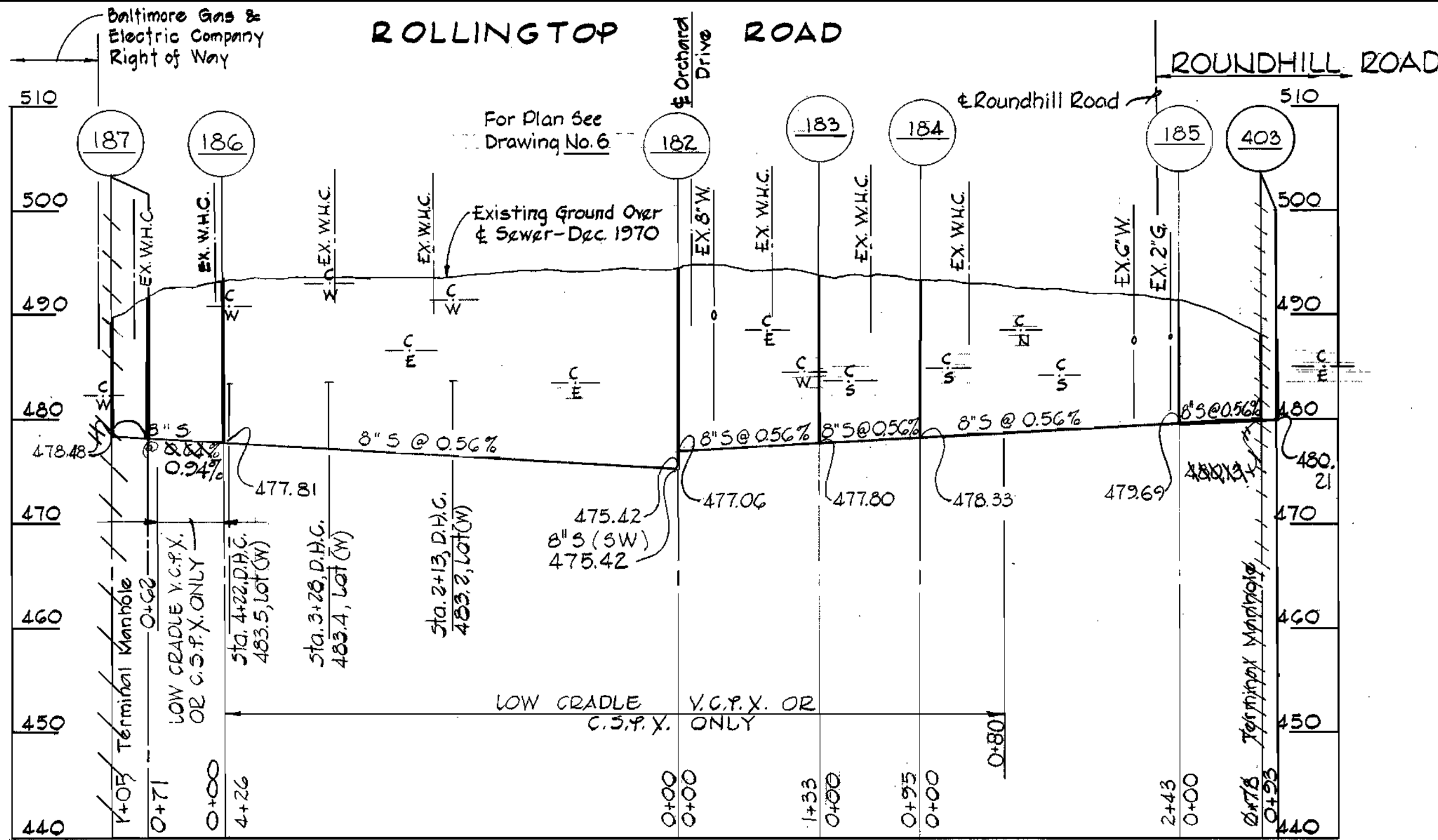
ELECTION DISTRICTS NO. 2

DRAWING NO. 10
 OF 11
 SCALE **AS SHOWN**

JANUARY 22, 1973

"AS BUILT" AUG. 30, 1974

WS 418-S/10



PROFILES
SCALE - Hor: 1" = 100'
Vert: 1" = 10'



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-26-72
DATE

CONTRACT NO. **418-S**
WSF-MD-03-05-1000

PROFILE

ELECTION DISTRICTS NO. 2

DRAWING NO. **II**
OF **II**
SCALE **AS SHOWN**

JANUARY 22, 1973

"AS BUILT" AUG. 30, 1974

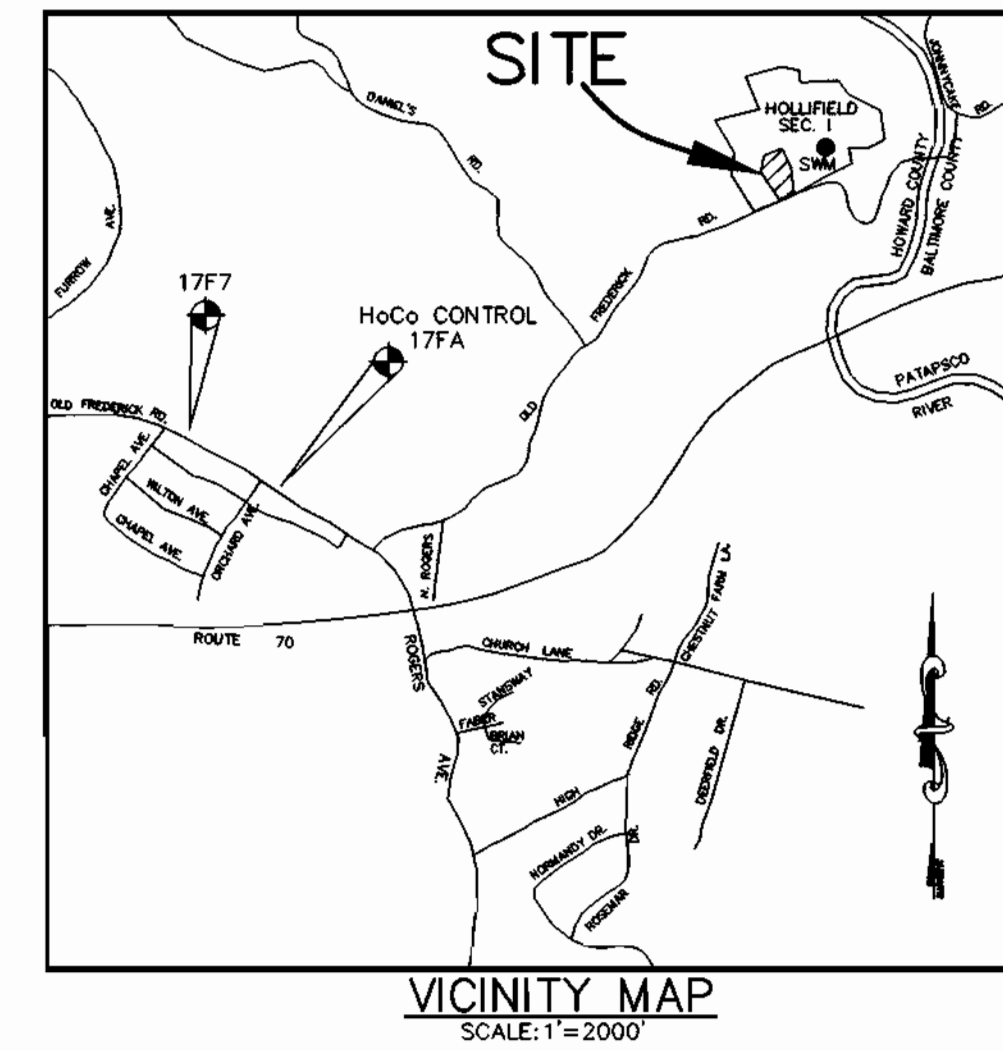
WS 418-S/11

LEGEND

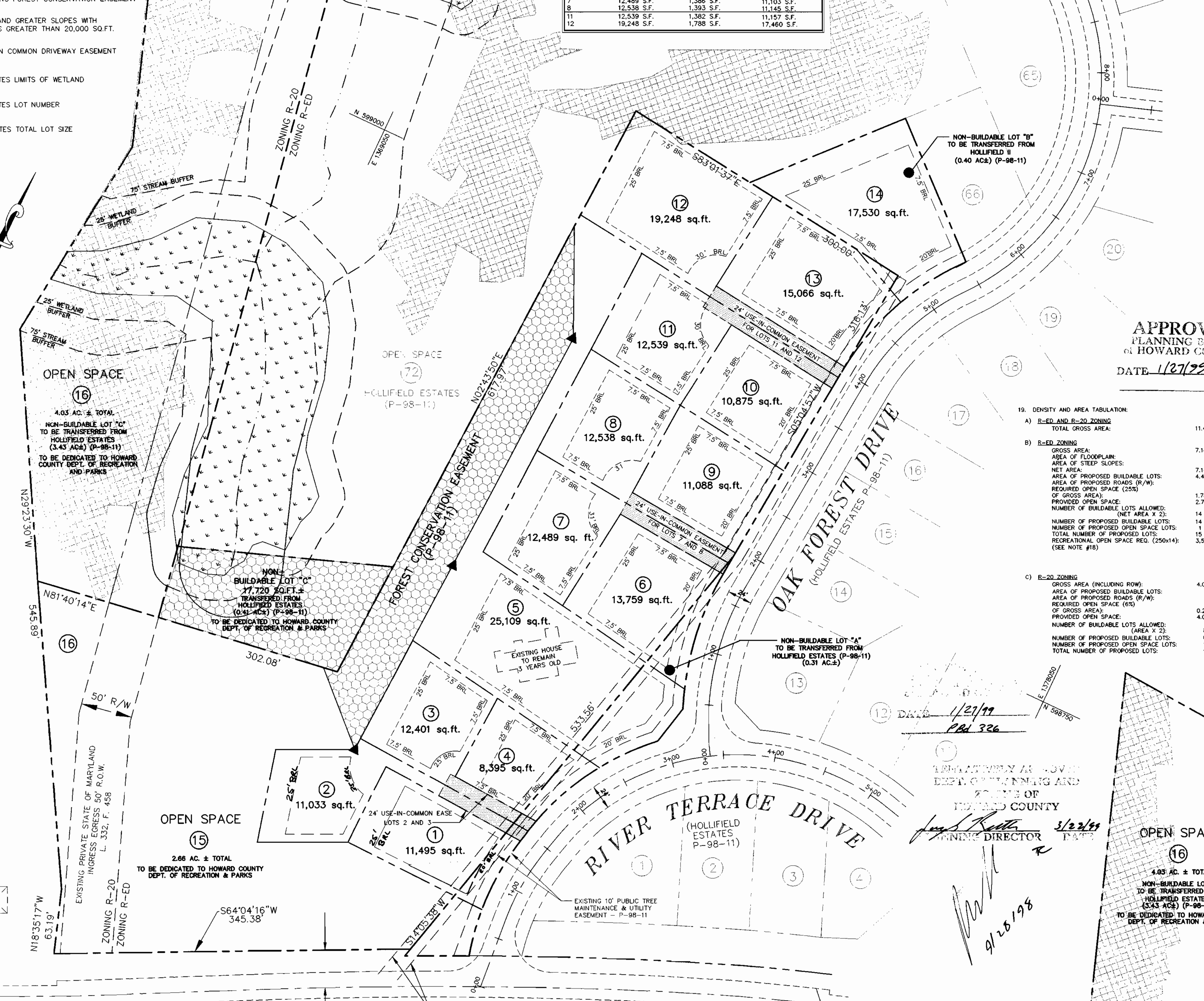
- EXISTING FOREST CONSERVATION EASEMENT
- 25% AND GREATER SLOPES WITH AREAS GREATER THAN 20,000 SQ.FT.
- USE IN COMMON DRIVEWAY EASEMENT
- DENOTES LIMITS OF WETLAND
- DENOTES LOT NUMBER
- DENOTES TOTAL LOT SIZE

SEE MATCHLINE THIS SHEET

MINIMUM LOT SIZE			
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
2	11,033 S.F.	1,796 S.F.	9,237 S.F.
3	12,401 S.F.	2,225 S.F.	10,176 S.F.
7	12,489 S.F.	1,386 S.F.	11,103 S.F.
8	12,538 S.F.	1,393 S.F.	11,145 S.F.
11	12,539 S.F.	1,382 S.F.	11,157 S.F.
12	19,248 S.F.	1,788 S.F.	17,460 S.F.



date	MAY 98	engineering	MMP/SD	approval
project	95115	illustration	AMY/SD	scale
				1" = 50'
no.		description		revisions



19. DENSITY AND AREA TABULATION:

A) R-ED AND R-20 ZONING	TOTAL GROSS AREA:	11.40 AC. ±
B) R-ED ZONING	GROSS AREA:	7.14 AC. ±
	AREA OF FLOODPLAIN:	0 AC.
	AREA OF STEEP SLOPES:	0 AC.
	NET AREA:	7.14 AC. ±
	AREA OF PROPOSED BUILDABLE LOTS:	4.44 AC. ±
	AREA OF PROPOSED ROADS (R/W):	0 AC.
	REQUIRED OPEN SPACE (25% OF GROSS AREA):	1.78 AC. ±
	PROVIDED OPEN SPACE:	2.70 AC. ±
	NUMBER OF BUILDABLE LOTS ALLOWED: (NET AREA X 2):	14 LOTS
	NUMBER OF PROPOSED BUILDABLE LOTS:	14 LOTS
	NUMBER OF PROPOSED OPEN SPACE LOTS:	1 LOTS
	TOTAL NUMBER OF PROPOSED LOTS:	15 LOTS
	RECREATIONAL OPEN SPACE REQ. (250X14):	3,500 SQ.FT.
	(SEE NOTE #18)	
C) R-20 ZONING	GROSS AREA (INCLUDING ROW):	4.03 AC. ±
	AREA OF PROPOSED BUILDABLE LOTS:	0 AC.
	AREA OF PROPOSED ROADS (R/W):	0 AC.
	REQUIRED OPEN SPACE (6%) OF GROSS AREA:	0.24 AC. ±
	PROVIDED OPEN SPACE:	4.03 AC. ±
	NUMBER OF BUILDABLE LOTS ALLOWED: (AREA X 2):	8 LOTS
	NUMBER OF PROPOSED BUILDABLE LOTS:	0 LOTS
	NUMBER OF PROPOSED OPEN SPACE LOTS:	1 LOT
	TOTAL NUMBER OF PROPOSED LOTS:	1 LOT

- GENERAL NOTES:**
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN GRANTED.
 - PROJECT BACKGROUND:
LOCATION: TAX MAP 18 PARCEL 1
ZONING: R-ED
ELECTION DISTRICT: 2ND
DPZ FILES: S-96-16 (8/1/96) F-94-09, WP-94-09, P-98-11
DEED REFERENCE: L. 3646/F. 472
 - TOPOGRAPHIC INFORMATION IS BASED ON HOWARD COUNTY 200 SCALE TOPOGRAPHIC MAPS.
 - BOUNDARY INFORMATION IS BASED ON RECORDED PLAT 10988.
 - PROPERTY IS LOCATED WITHIN THE PLANNED AREA OF THE METROPOLITAN DISTRICT. EXTENSION OF WATER AND SEWER SYSTEM AT HOLLIFIELD ESTATE (P-98-11).
 - STORMWATER MANAGEMENT IS PROVIDED BY HOLLIFIELD ESTATES.
 - WATER AND SEWER WILL BE PUBLIC.
 - NO STREAMS OR WETLANDS EXIST ON SITE.
 - NO FLOODPLAIN EXISTS ON SITE.
 - ACCESS PROVIDED BY OAK FOREST DRIVE AND RIVER TERRACE DRIVE, HOLLIFIELD ESTATES, SECTION 1.
 - NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
 - LIMIT OF EXISTING TREE BOUNDRY BASED ON FOREST STAND DELINEATION STUDY BY CHESAPEAKE ENVIRONMENTAL MANAGEMENT DATED FEBRUARY 1996.
 - WAIVER PERTAINING WP-94-09 WAS APPROVED FOR POSTPONEMENT OF FOREST CONSERVATION AT MINOR SUBDIVISION STAGE.
 - FINAL GRADING FOR EACH LOT WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE.
 - PUBLIC WATER AND SEWER ALLOCATION FOR THIS DEVELOPMENT IS SUBJECT TO SECTION 18-1228 OF HOWARD COUNTY CODE. ALLOCATION WILL BE MADE AT THE TIME OF FINAL PLAT APPROVAL IF CAPACITY IS AVAILABLE AT THAT TIME.
 - FOREST CONSERVATION PROVIDED UNDER P-98-11.
 - NO TRAFFIC OR NOISE STUDIES REQUIRED.
 - RECREATIONAL OPEN SPACE PROVIDED UNDER HOLLIFIELD ESTATES (P-98-11).
 - WETLANDS BASED ON A STUDY BY C.E.M. DATED FEBRUARY 1996.
 - This plan was approved by the Planning Board on Planning Bd. Case 326 by Decision + Order dated 1/27/99.

18144749N
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY
PLANNING DIRECTOR
3/22/99
DATE 1/27/99
PBA 326

OWNER/DEVELOPER
Charles Skirven
5401 Twin Knolls Road, Suite 10
Columbia, Maryland 21045
(410) 995-0081

TAX MAP 18, PARCEL 1
HOLLIFIELD ESTATES II
HOWARD COUNTY, MARYLAND
2ND ELECTION DISTRICT
PRELIMINARY EQUIVALENT SKETCH

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsy Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Balt. (301) 661-5521 Wash. (410) 997-0298 Fax.