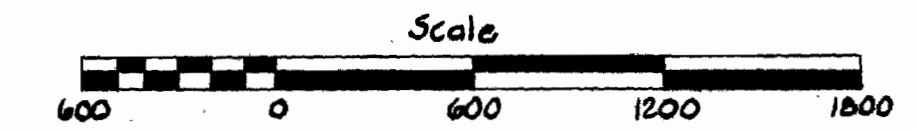


CONTRACT NO. 521-S
CENTENNIAL SANITARY SEWER PROJECT
NO. S-4-6030 PHASE I
HOWARD COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITY	UNIT
Sanitary Sewer	19,882 LF	
Manhole	535 VF	

DESIGN DATA					
AREA SYMBOL	AREA ACRES	POPULATION DENSITY ULTIMATE	POPULATION ULTIMATE	ULT. AVG. SEWAGE FLOW (M.G.D.)	ULT. PEAK & DESIGN FLOW (M.G.D.)
A	150	6.76	1,014	0.091	0.389
B	107	3.15	338	0.030	0.129
A-B	257	5.26	1,352	0.121	0.518



CONTRACT NO. 521-S
CENTENNIAL SEWER
S-4-6030, PHASE I

NS 521-S-1

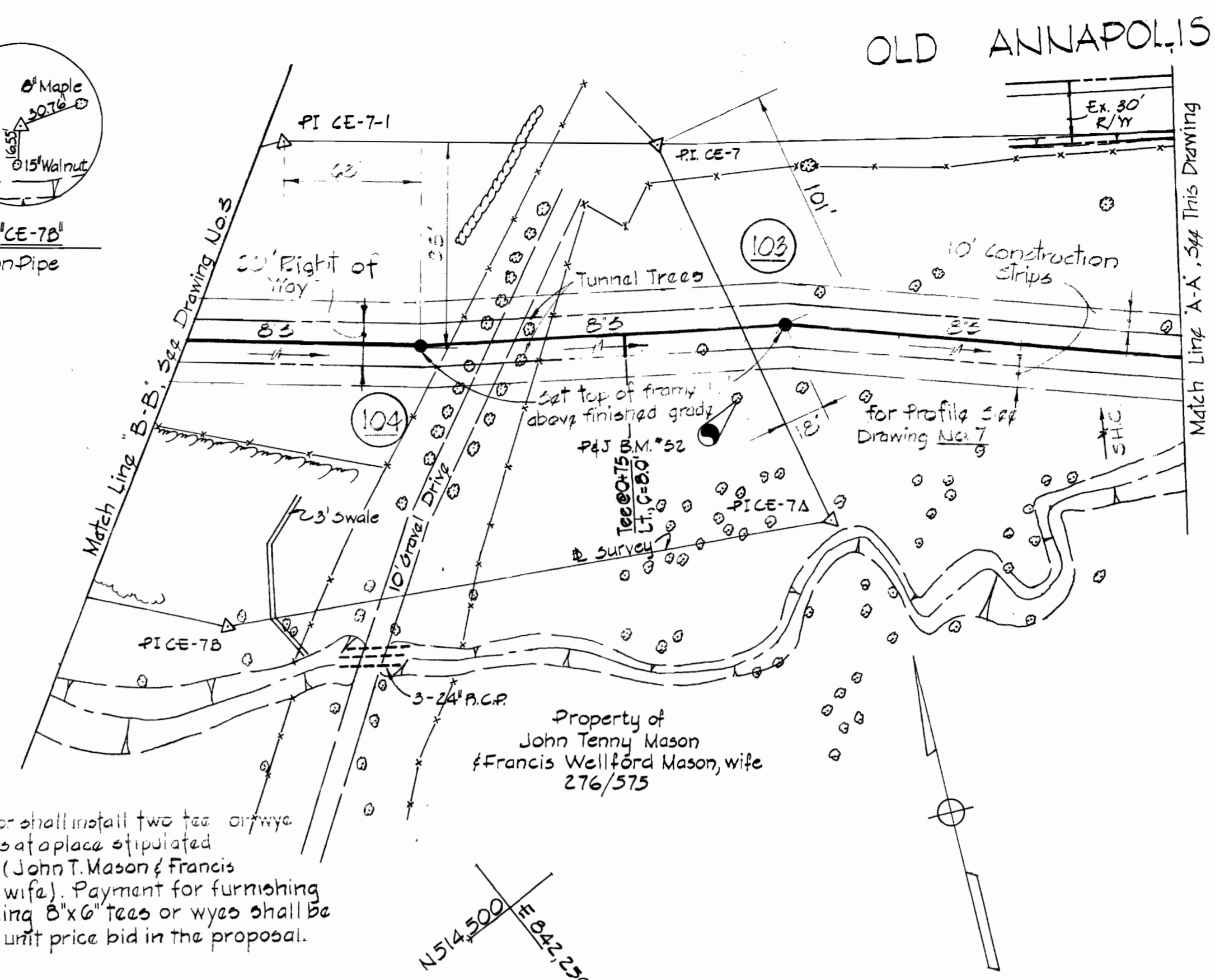
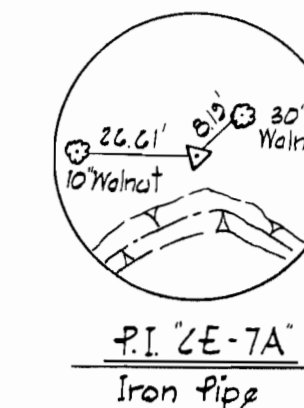
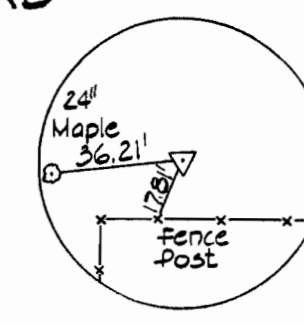
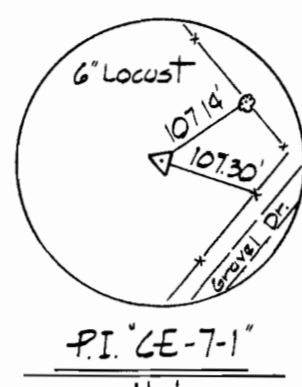
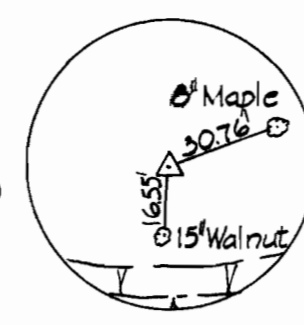
AS BUILT

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 1-8-74 W. O. Gilbert CHIEF - BUREAU OF ENGINEERING	CONTRACT NO. 521-S	LOCATION MAP OF SANITARY SEWERS	ELECTION DISTRICT NO. 2	DRAWING NO. 1 OF 9 SCALE AS SHOWN Pos. Sheets 1, 2, 3, 4, 5 6, 7, 12/13
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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 all poles by 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 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. For details not shown on the Contract Drawings, see standard details bound in the Specifications.
8. Trees are to be protected from damage to the maximum extent.
9. The 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.
10. All vertical and horizontal controls are based on Maryland State Grid System.
11. Contractor shall notify the following utilities or agencies at least (5) days before starting work shown on these plans.
 BALTIMORE GAS AND ELECTRIC COMPANY
 Underground Electric Distribution Engineering
 "Damage Control" - Mr. G.J. Zeller, Manager 234-3691
 Underground Gas Distribution Engineering
 Mr. Bell 234-5533
 CHESAPEAKE AND POTOMAC TELEPHONE COMPANY
 Mr. Joe Sanczenko, Field Engineer 288-8317
12. 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.

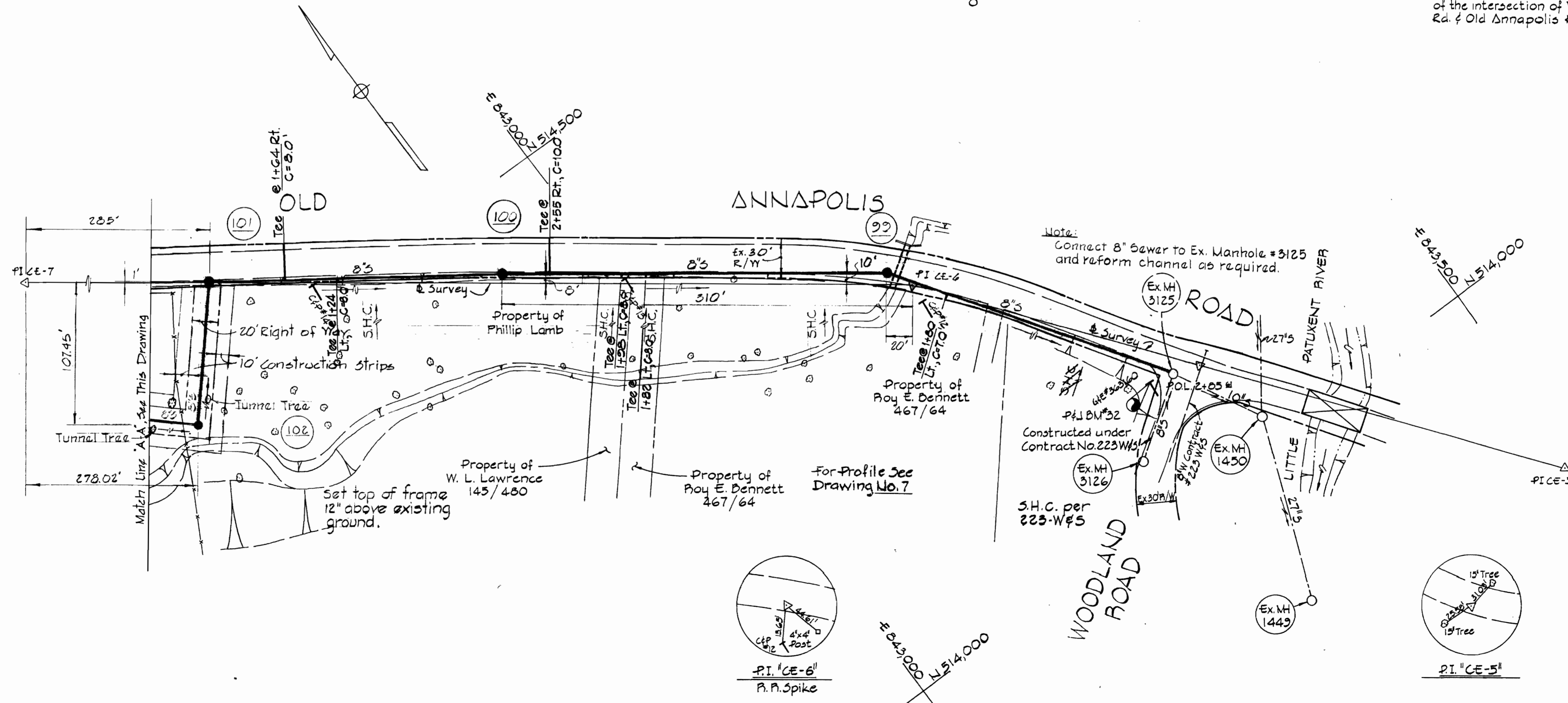
N 515.000 E 842.250



Contractor shall install two tee or wye connections at a place stipulated by owner, (John T. Mason & Francis W. Mason, wife). Payment for furnishing and installing 8"x6" tees or wyes shall be under the unit price bid in the proposal.

BENCH MARKS

- PIJ BM #52 - Elev. 335.74
60 penny nail in 15" Oak, 70' ± N of CE-7A
- PIJ BM #32 - Elev. 321.30
10 penny case hardened nail in G & E #363160 on the southwest corner of the intersection of Woodland Rd. & Old Annapolis Rd.



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DATE 1-8-74
 W. O. Falvel
 CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 521-S

PLAN OF
 SEWER MAINS

ELECTION DISTRICT NO. 2

DRAWING
 NO. 2
 OF 9

SCALE
 1" = 50'

DESIGNED BY
 CHECKED BY
 PLS. SHEET 11

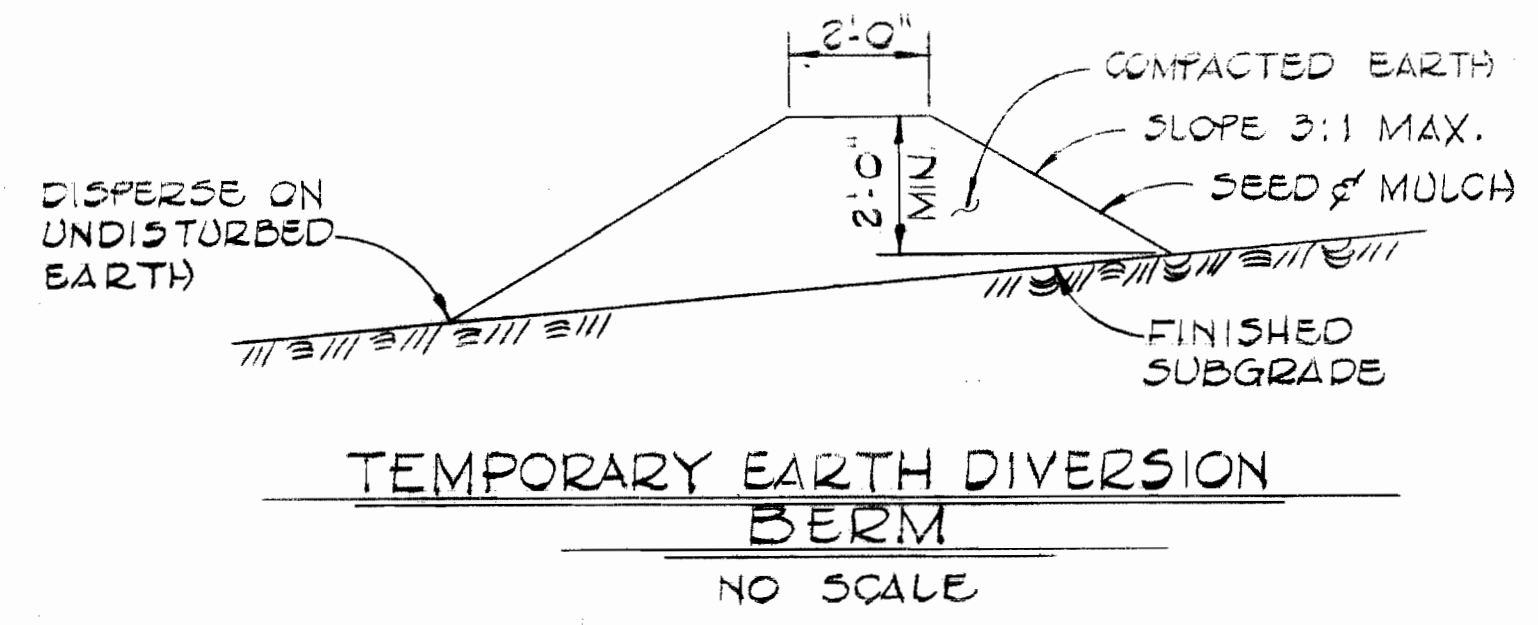
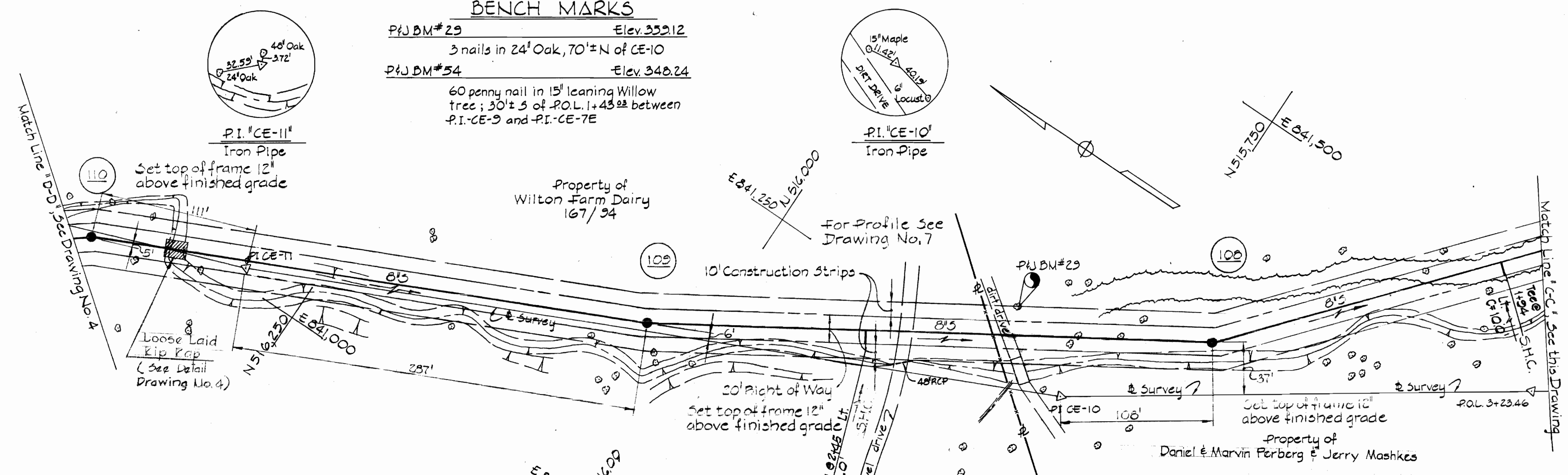
CONTRACT NO. 521-S
 CENTENNIAL AREA
 S-4-6030, PHASE 1

45 BUILT
 6-26-76

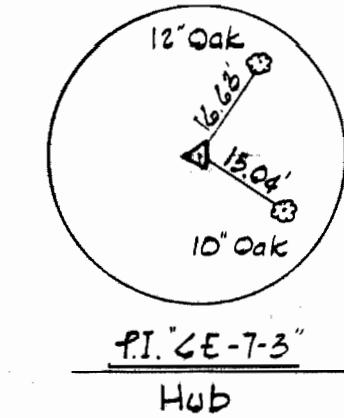
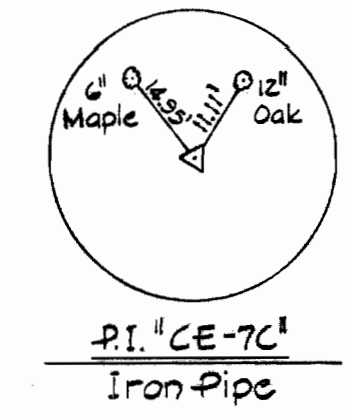
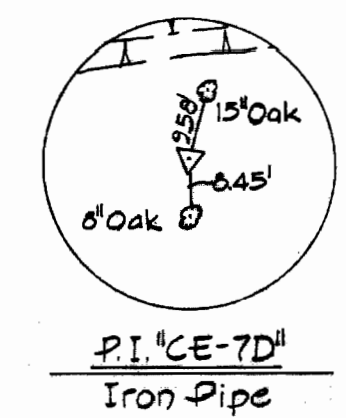
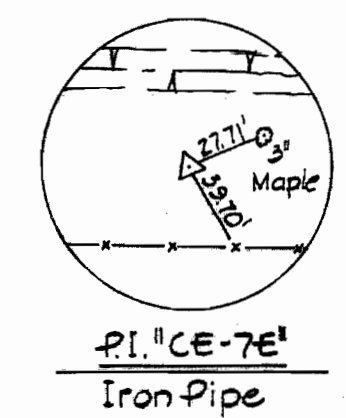
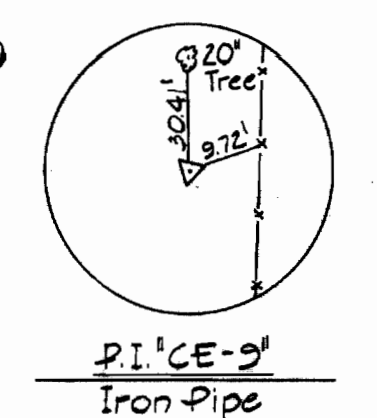
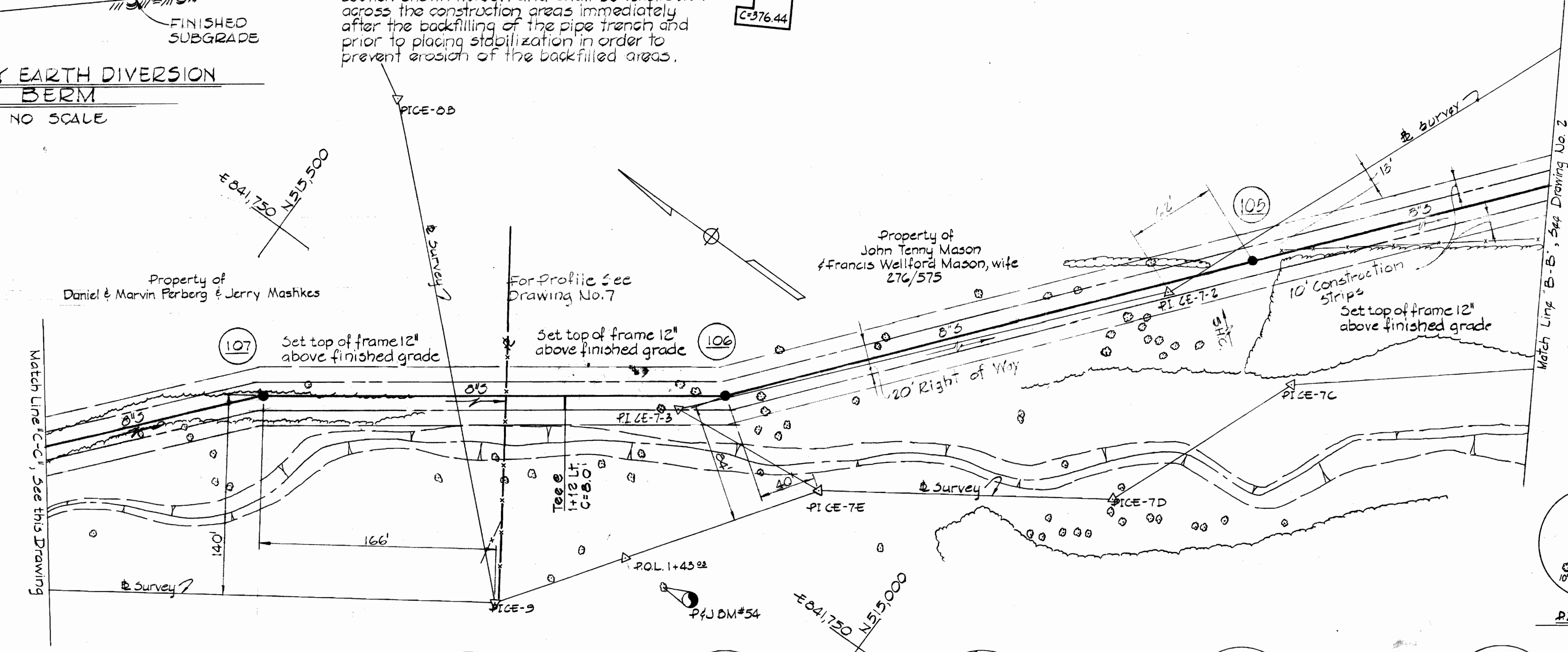
WS 521-5/2

BENCH MARKS

P&J BM#29 Elev. 359.12
 3 nails in 24" Oak, 70'± N of CE-10
 P&J BM#54 Elev. 348.24
 60 penny nail in 15" leaning Willow tree; 30'± S of P.O.L. 1+43.22 between P.I.-CE-9 and P.I.-CE-7E



Diversion Berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical cross section shown hereon 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.



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 1-8-74 DATE
 200 F. B. F. Chief Bureau of Engineering

CONTRACT NO. 521-S

PLAN OF SEWER MAINS

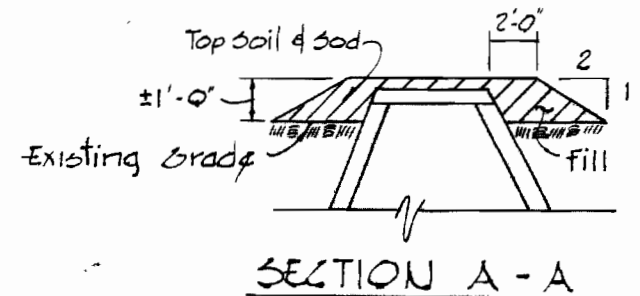
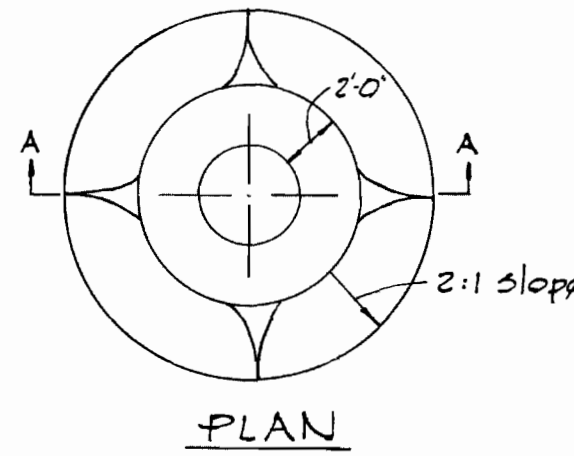
ELECTION DISTRICT NO. 2
 DRAWING NO. 3 OF 9

SCALE 1" = 50'
 DESIGNED: NCA
 DRAFTED: TAJ
 CHECKED: NCA
 P&J 5/18/75

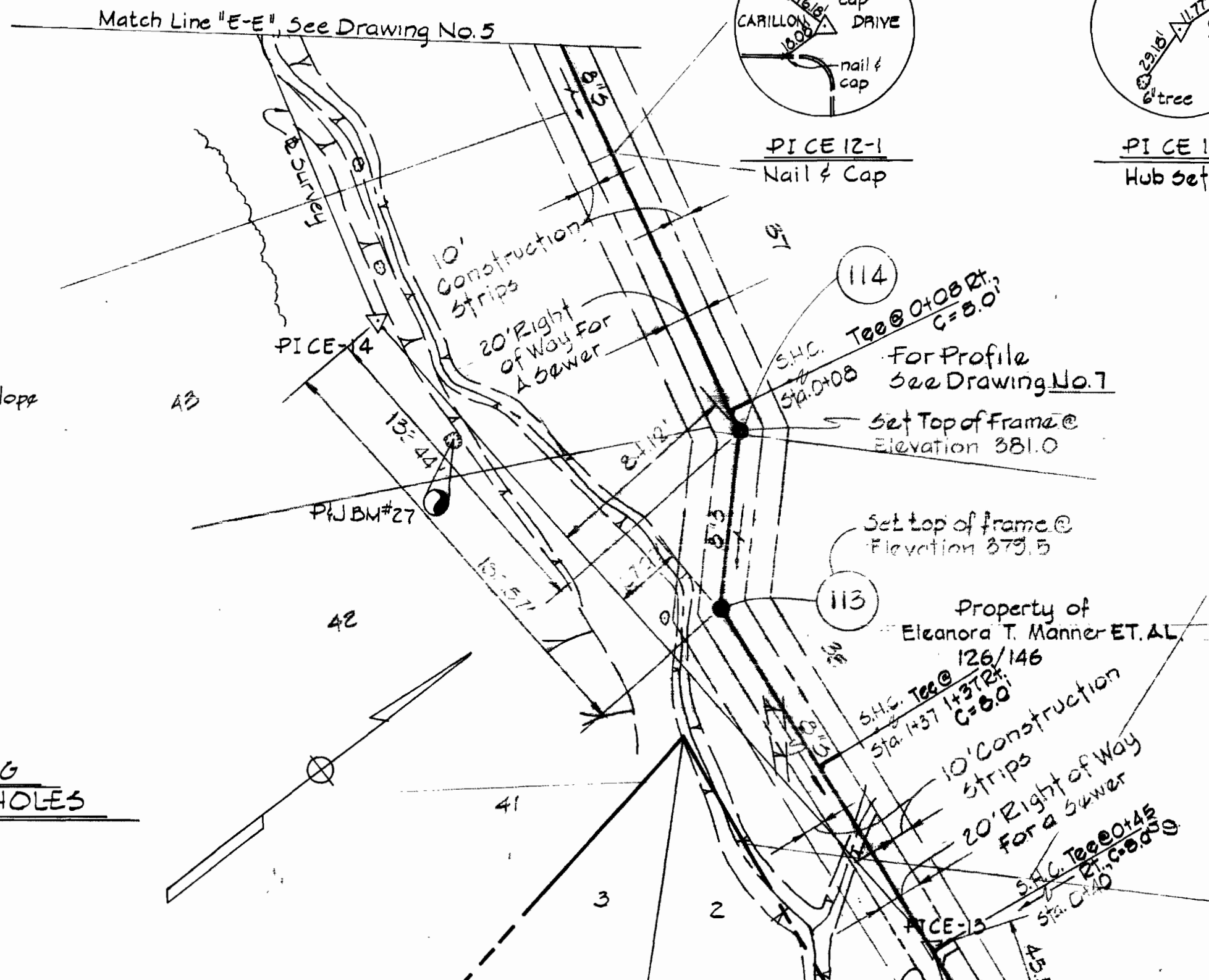
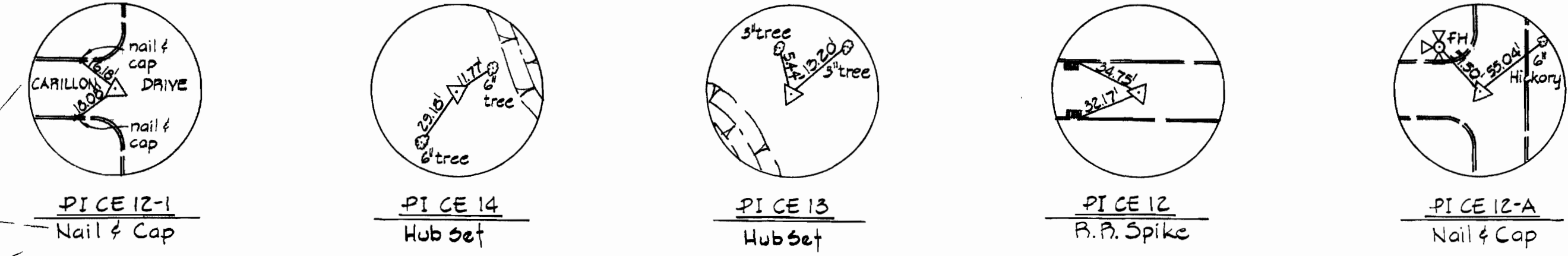
BENCH MARKS

PAJ BM #27 - Elev. 384.09
 Nail set in 3" tree 60± E CE-14

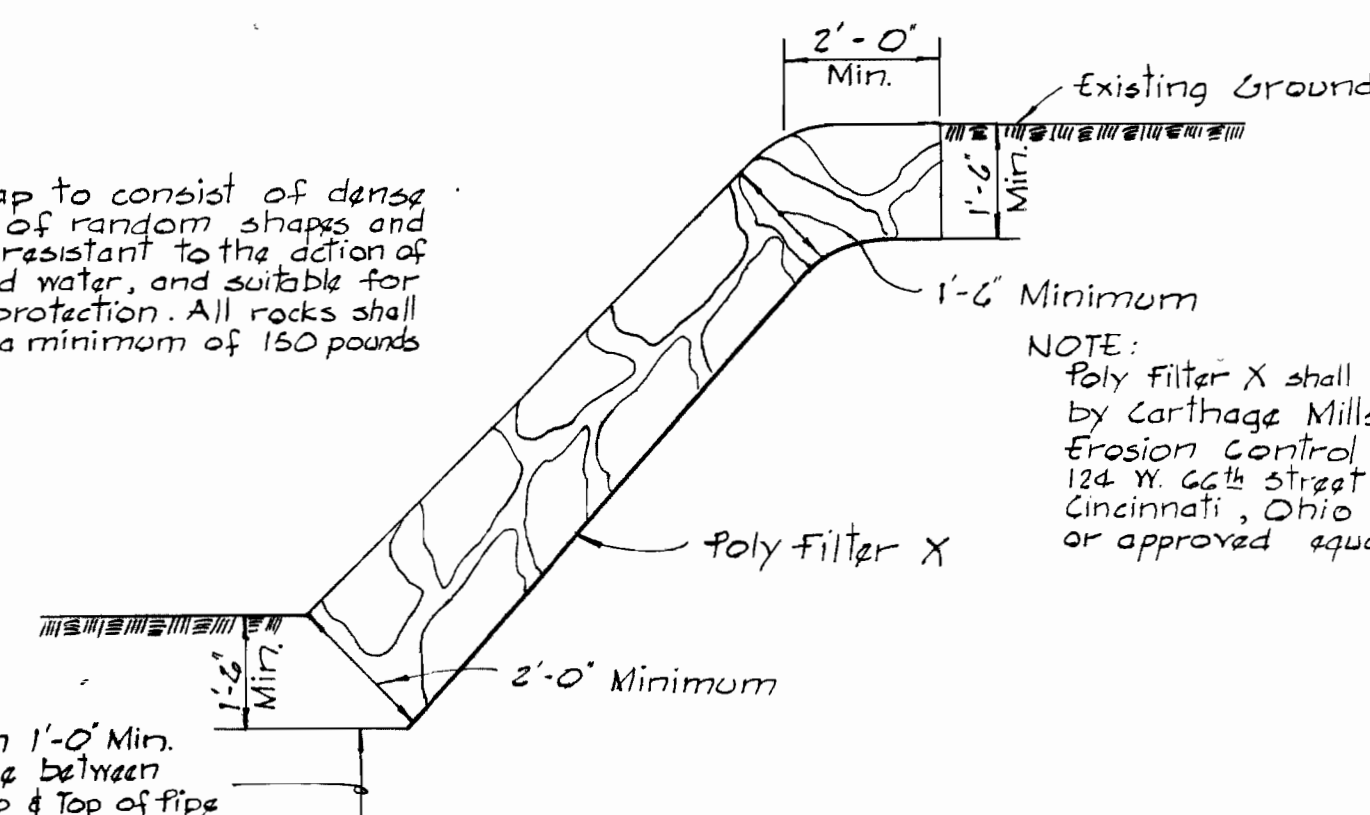
PAJ BM #22 - Elev. 383.51
 Roadside bonnet bolt of a fire hydrant
 125± S of CE-12 on the W side of
 Carillon Dr.



**FURNISHING AND PLACING
 SPECIAL BACKFILL AT MANHOLES**
 NO SCALE

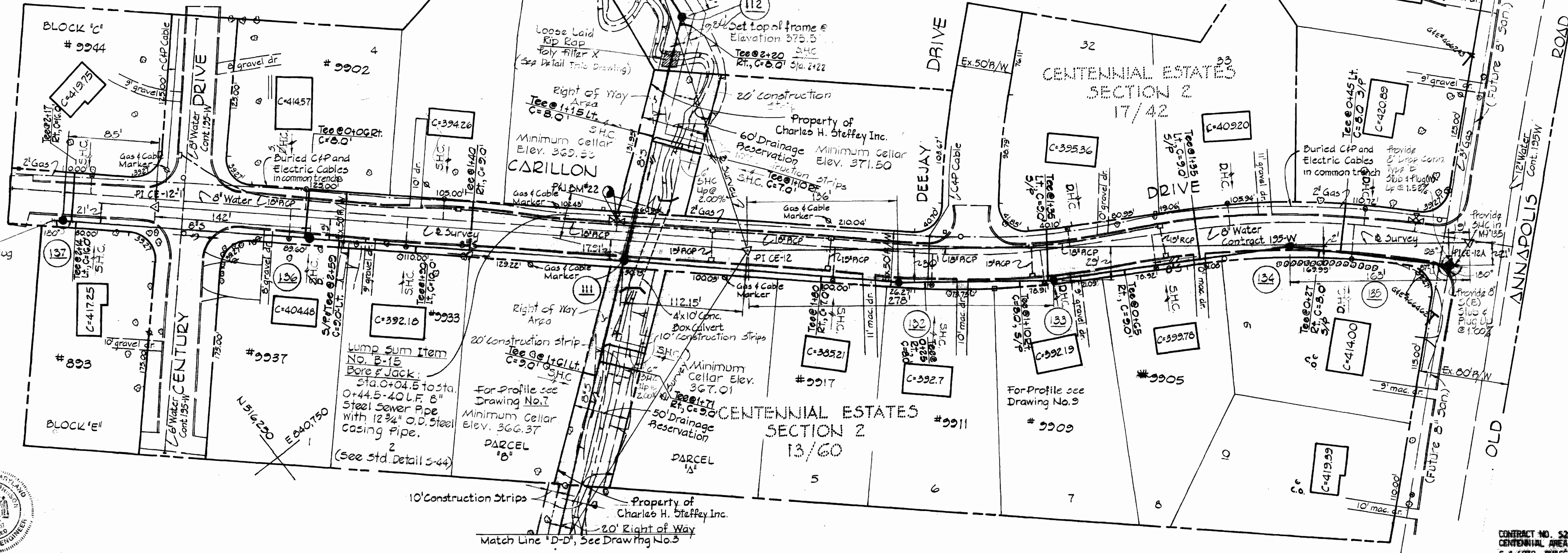


Rip-Rap to consist of dense rocks of random shapes and sizes, resistant to the action of air and water, and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.



NOTE: Poly Filter X shall be as manufactured by Carthage Mills, Inc. Erosion Control Division 124 W. 24th Street Cincinnati, Ohio or approved equal

CENTURY ESTATES
 As Proposed by W.R. & A
 September, 1975



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 1-8-74
 DATE

CONTRACT NO. 581-S
 CHIEF BUREAU OF ENGINEERING

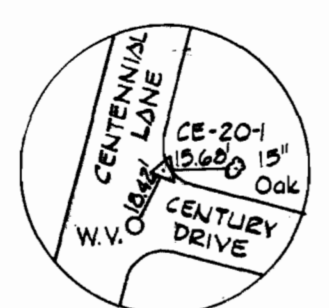
**PLAN OF
 SEWER MAINS**

ELECTION DISTRICT NO. 2

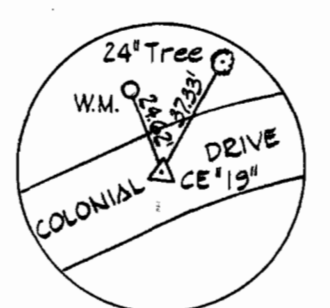
**DRAWING
 NO. 4
 OF 9**

SCALE
 1" = 50'

AS BUILT 11-18-75

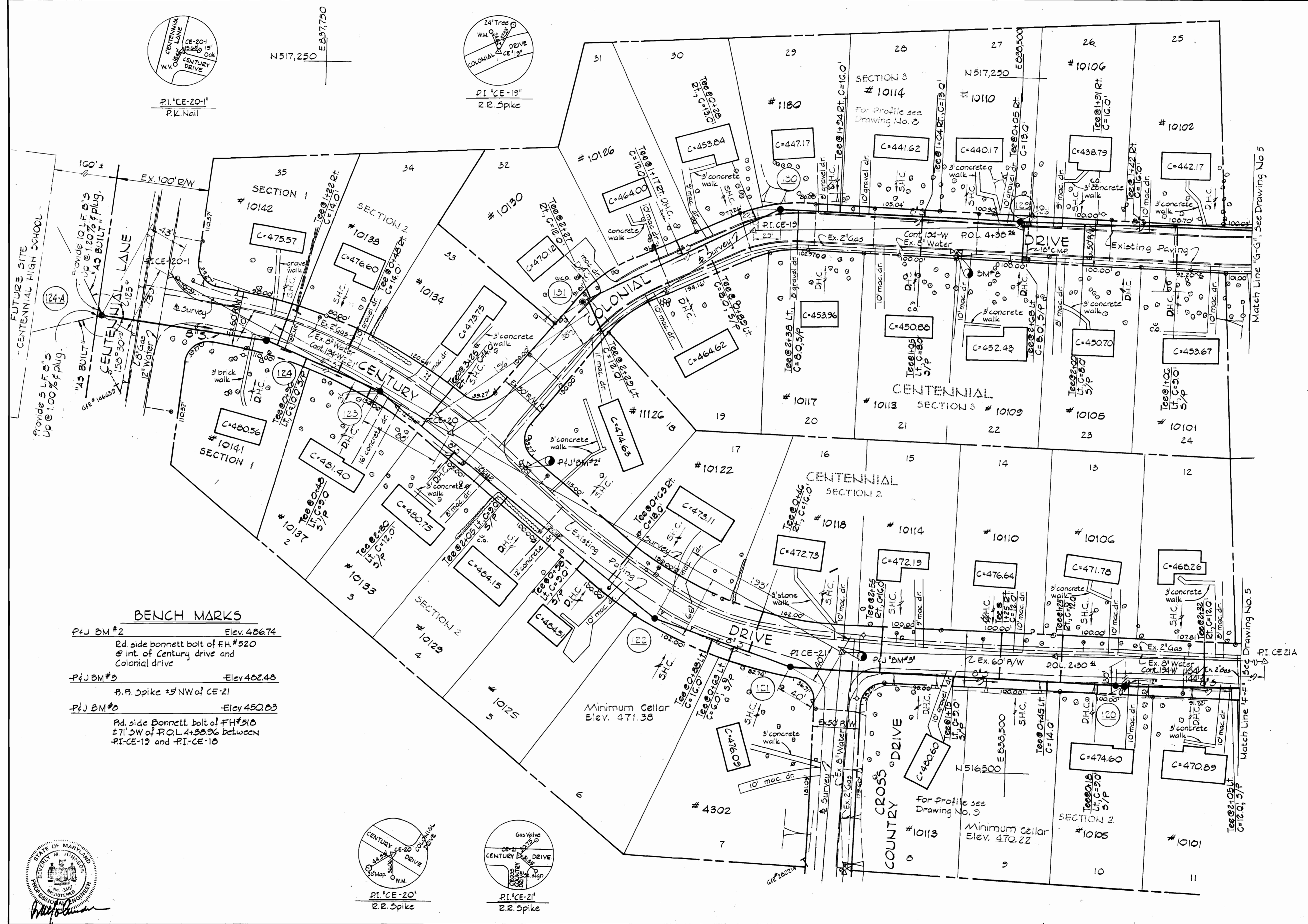


N 517,250
E 837,750



PI CE-20-1
P.K. Nail

PI CE-19
R.R. Spike



BENCH MARKS

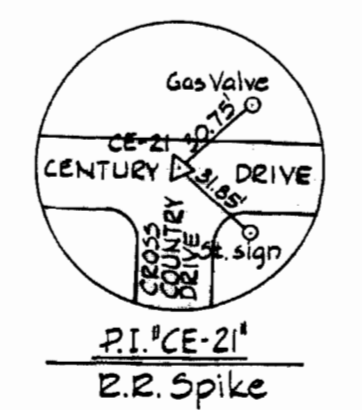
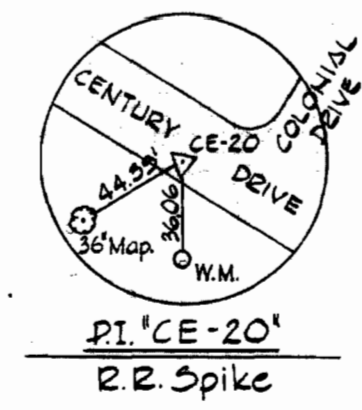
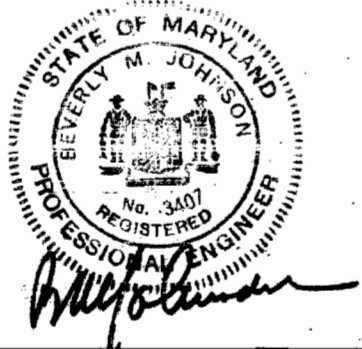
- PIJ BM #2 Elev. 486.74
Rd. side bonnett bolt of FH #520
@ int. of Century drive and
Colonial drive
- PIJ BM #3 Elev. 482.48
R.R. Spike 25' NW of CE-21
- PIJ BM #0 Elev. 450.83
Rd. side Bonnett bolt of FH #510
± 71' SW of P.O.L. 4+30.96 between
PI-CE-12 and PI-CE-10

Minimum Cellar
Elev. 471.38

Minimum Cellar
Elev. 470.22

Match Line "G-G", See Drawing No. 5

Match Line "H-H", See Drawing No. 5



PI CE-20
R.R. Spike

PI CE-21
R.R. Spike

WS 521-S/6

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-8-74
DATE

CONTRACT NO. 521-S

PLAN OF
SEWER MAINS

ELECTION DISTRICT NO. 2

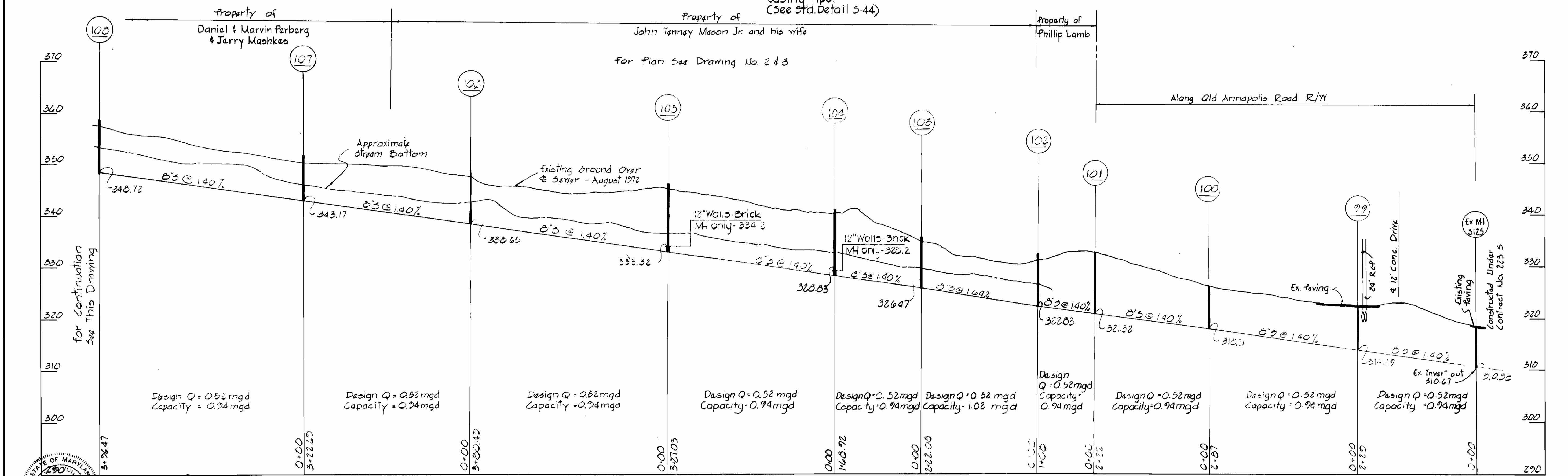
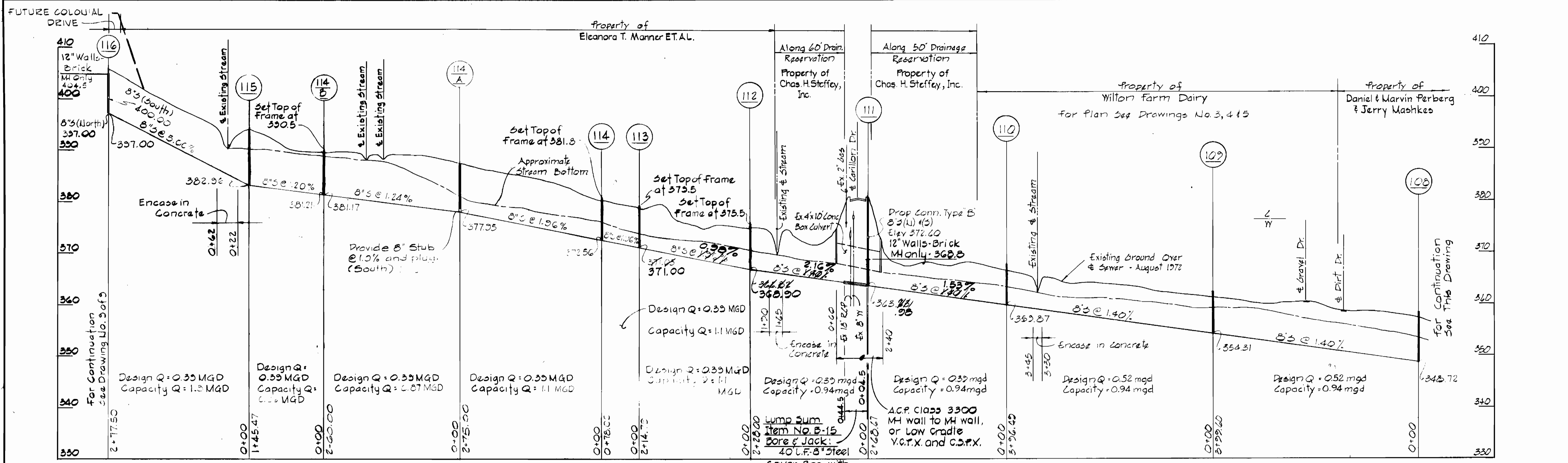
DRAWING
NO. 6
OF 9

SCALE
1" = 80'

DESIGNED: NCA
DRAFTED: TAN
CHECKED: NCA

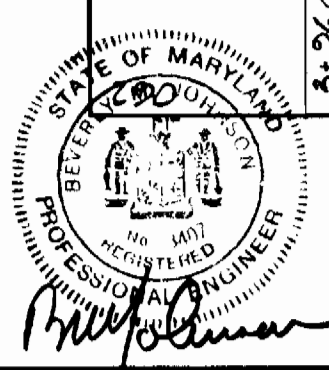
"AS BUILT"
8-26-76

CONTRACT NO. 521-S
CENTENNIAL AREA
5-4-6030, PHASE 1



PROFILES

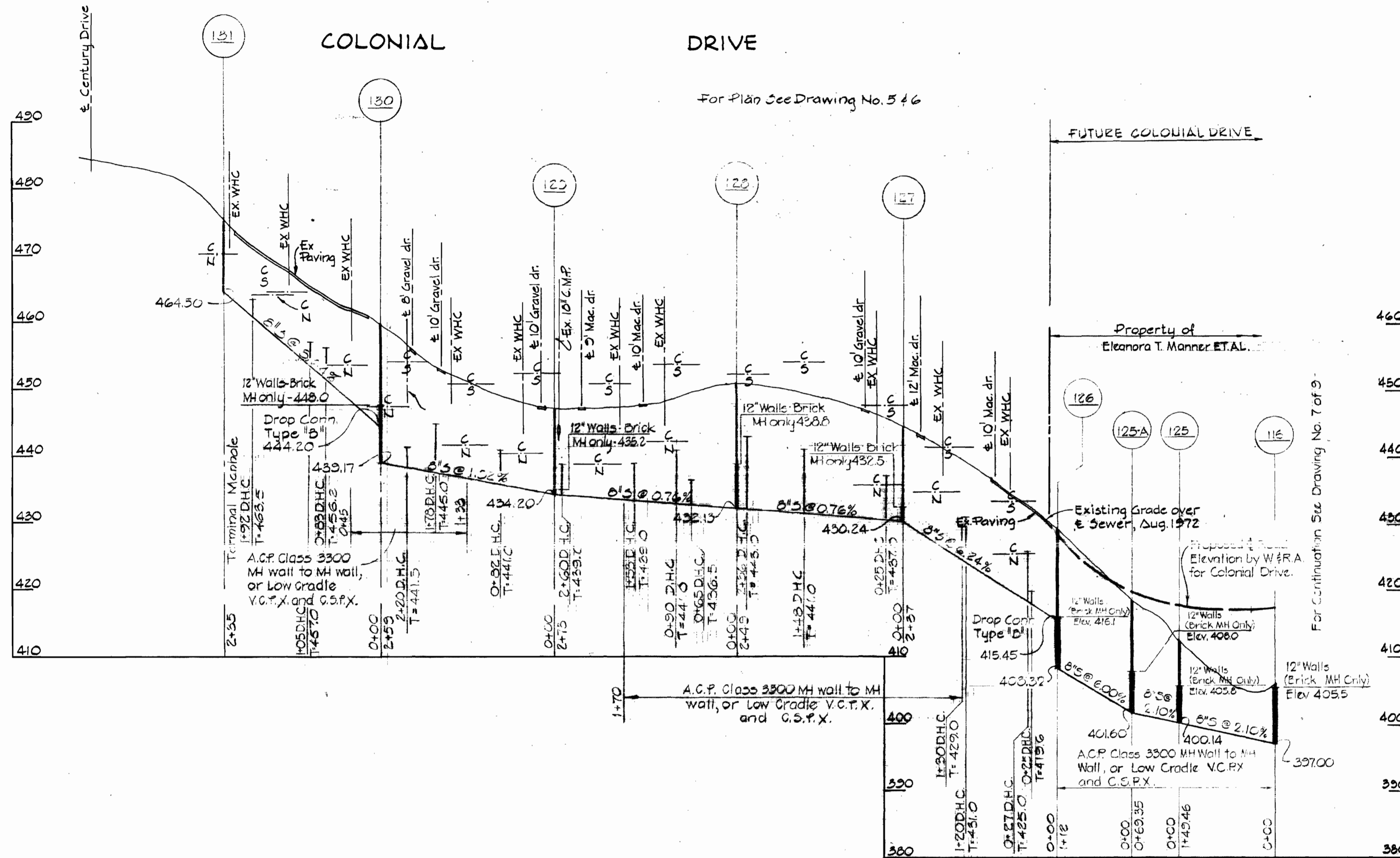
Scale: Horiz. 1" = 100'
Vert. 1" = 10'



CONTRACT NO. 521-5
CENTENNIAL AREA
S-4-6030, PHASE 1

<p>PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND</p>	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 1-8-74 CHIEF - BUREAU OF WATER AND SEWER</p>	<p>CONTRACT NO. 521-5</p>	<p>PROFILES</p>	<p>ELECTION DISTRICT NO. 2</p>	<p>DRAWING NO. 7 OF 9 SCALE AS SHOWN DESIGNED: NCA DRAFTED: MMW CHECKED: NCA</p>
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WS 521-5/8



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



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 1-8-74
 DATE

CONTRACT NO. 521-3

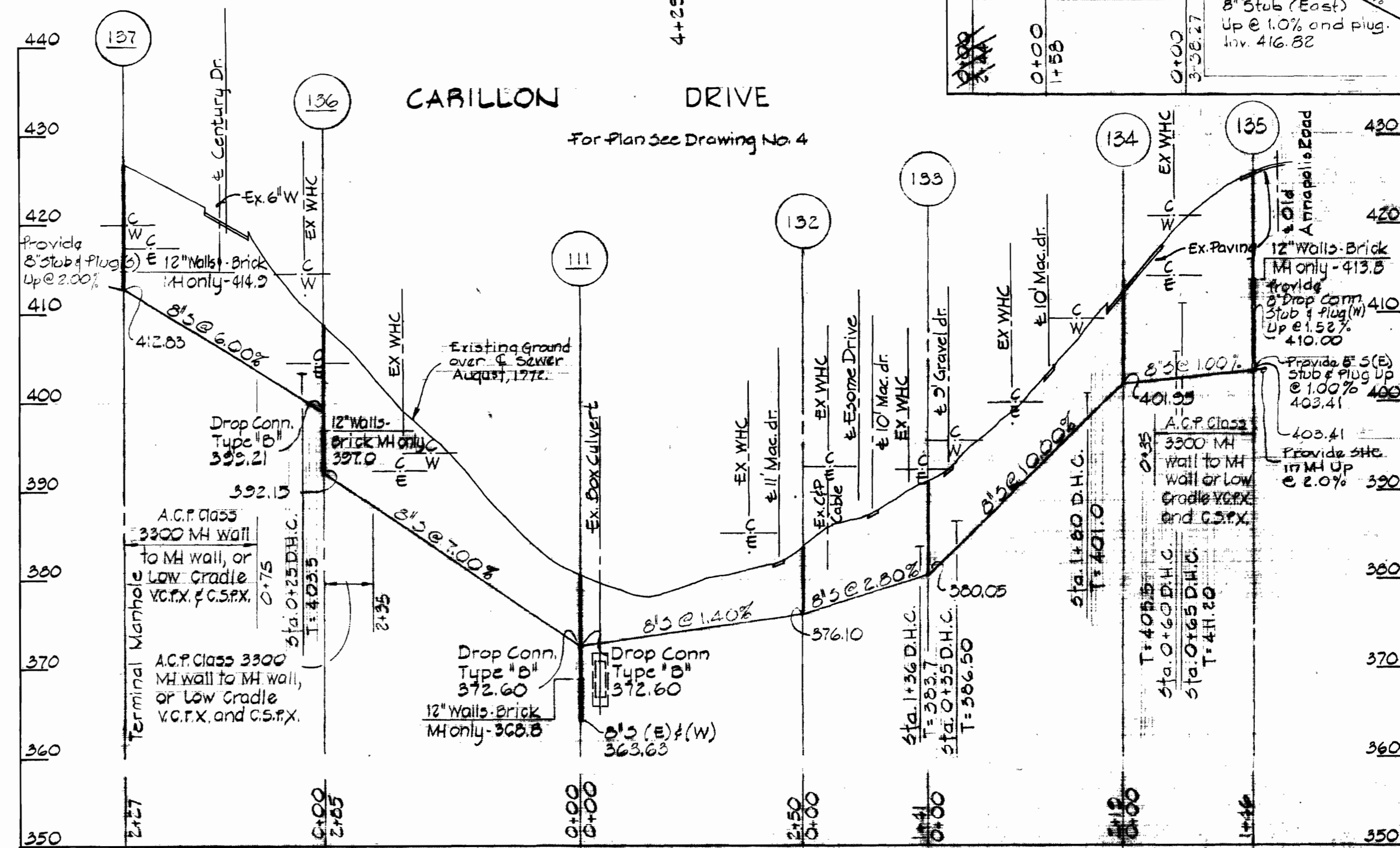
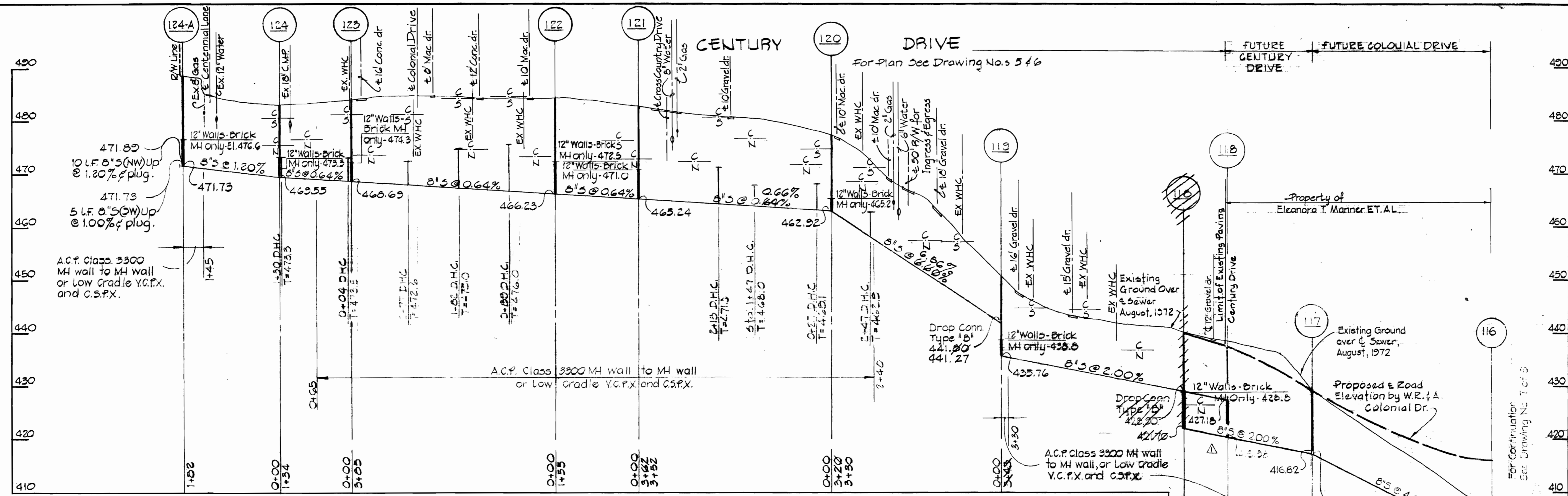
ELECTION DISTRICT NO. 2

DRAWING NO. 9 OF 9

SCALE AS SHOWN

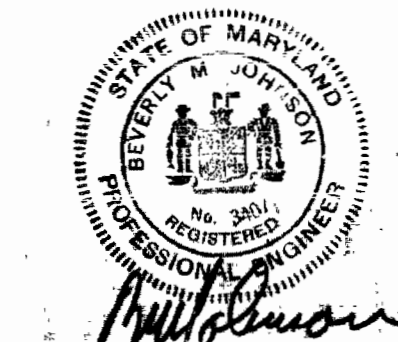
"AS BUILT"
 8-26-76

CONTRACT NO. 521-3
 CENTRAL AREA
 1-4-63, PHASE 1



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

REVISIONS	
2/10/76	Revised Manhole Location



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-8-74
DATE

CONTRACT NO. 521-5

ELECTION DISTRICT NO. 2

DRAWING NO. 9
SCALE AS SHOWN

CONTRACT NO. 521-5
GENERAL SPEC. 5-8-2000, PHASE 1

11-17-75

WS 521-5/9

W.O. 33-21

AS BUILT 6-20-76