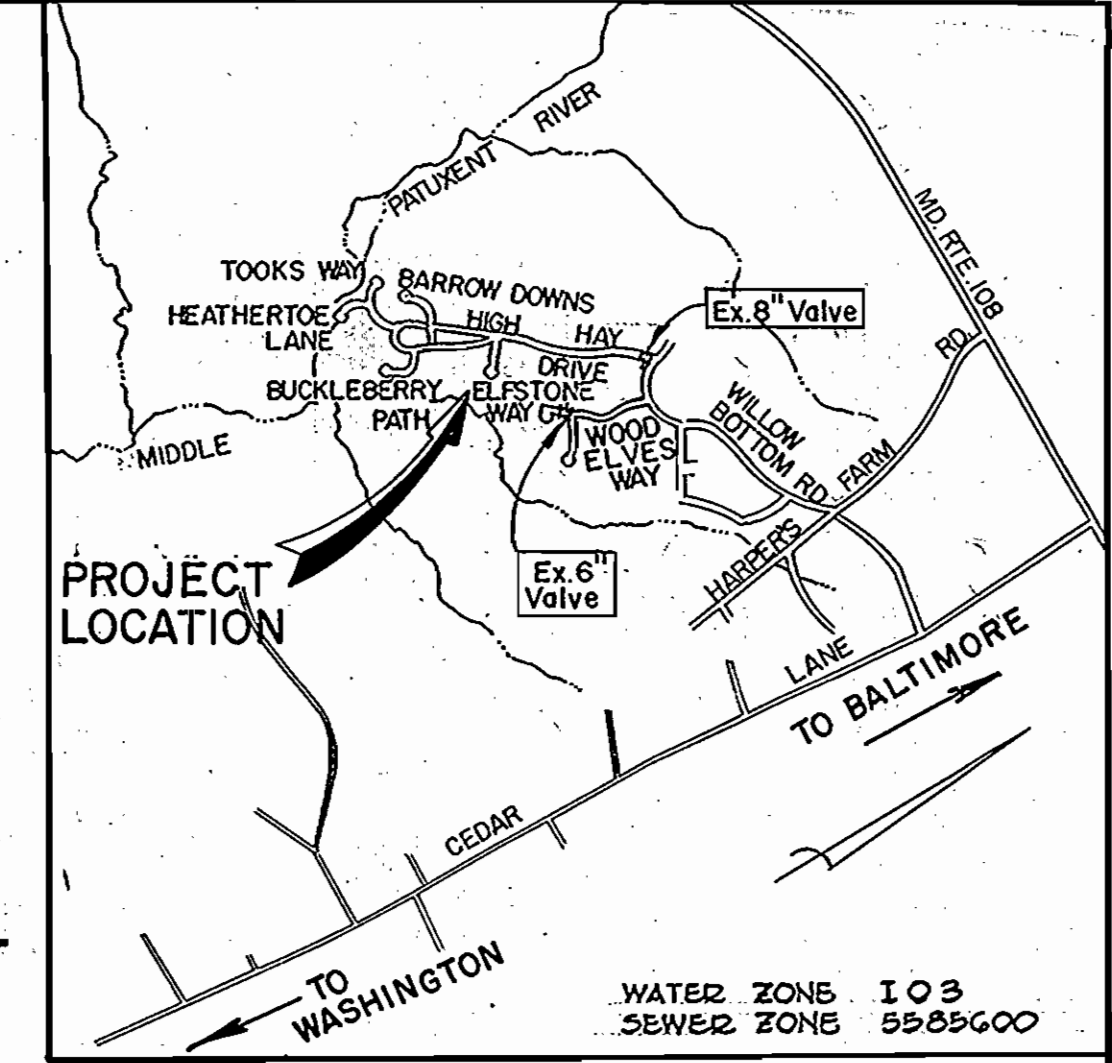
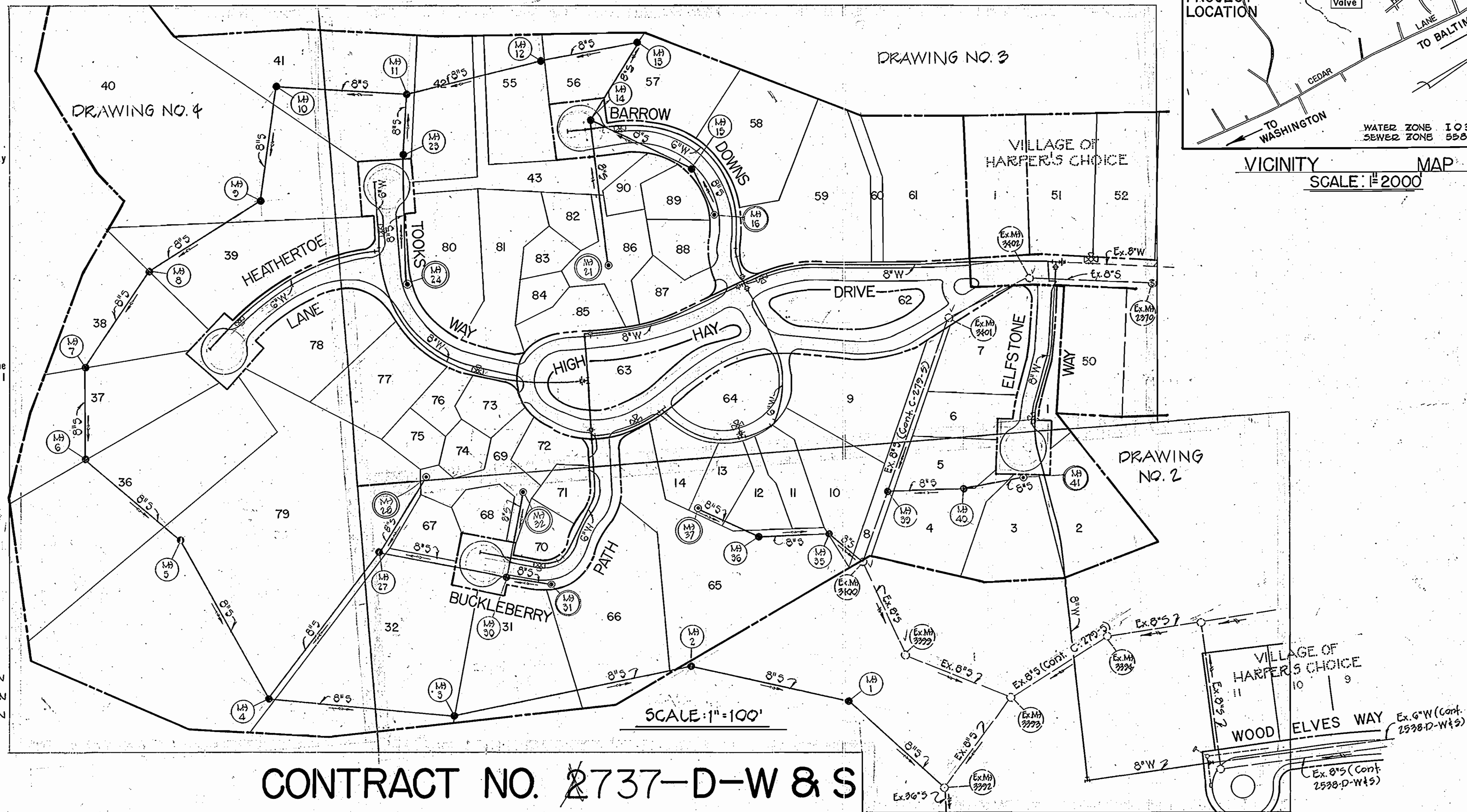


**GENERAL NOTES**

- 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 pipe elevations shown are invert elevations.
- The Contractor shall locate existing utilities well in advance of construction activities.
- For details not shown on the drawings, see standard details bound in specifications.
- Clear all utilities by a minimum of 6 inches. Clear all utility poles by 2'-0" minimum or tunnel as required. Any costs incurred to the Contractor for tunneling or bracing poles shall be included in the unit price bid for excavation.
- The Contractor shall provide a pipe joint in all sewer mains within 2'-0" of exterior manhole walls.
- All manholes shall be 4'-0" inside diameter, unless otherwise noted.
- Buttress or anchor all water main fittings with concrete. All valves shall be strapped to tees in accordance with standard details.
- All water mains to have a minimum of 3.5' cover unless otherwise noted.
- All fire hydrants shall be strapped to the tee and shall be buttressed with concrete in accordance with standard details. Cost of strapping fire hydrants and valves to be included in the unit price bid for furnishing and installing fire hydrants. Soil around the fire hydrant to be compacted in accordance with Section 5-15 of the Standard Specifications.
- Bury line elevations on fire hydrants shall be set to the elevations shown on the plan.
- Trees are to be protected from damage to the maximum extent.
- Contractor shall remove trees, stumps, and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for water and sewer mains.
- All sewer mains shall be C.S.P.X., V.C.P.X., or A.C.P. Class 2400 unless otherwise noted.
- Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:  
Miss Utility (Collect) 1-559-0100
- Horizontal and vertical controls are based on Maryland State Grid Coordinate System.

QUANTITIES			
Item	Unit	Estimated	As-Built
8" Sewer	L.F.	5470	4551 - AC
6" Sewer	L.F.	1,115	634 - DIP
8" Water	L.F.	2400	2333 - DIP
6" Water	L.F.	1950	1063 - DIP
Fire Hydrants	Each	2	2
Manholes	V.F.	203	
1" W.H.G.	L.F.	480	
3/4" W.H.G.	L.F.	1095	



CONTRACT NO. 2737-D-W & S

# VILLAGE OF HARPER'S CHOICE - SECTION 2, AREA 4

## WATER & SEWER EXTENSIONS

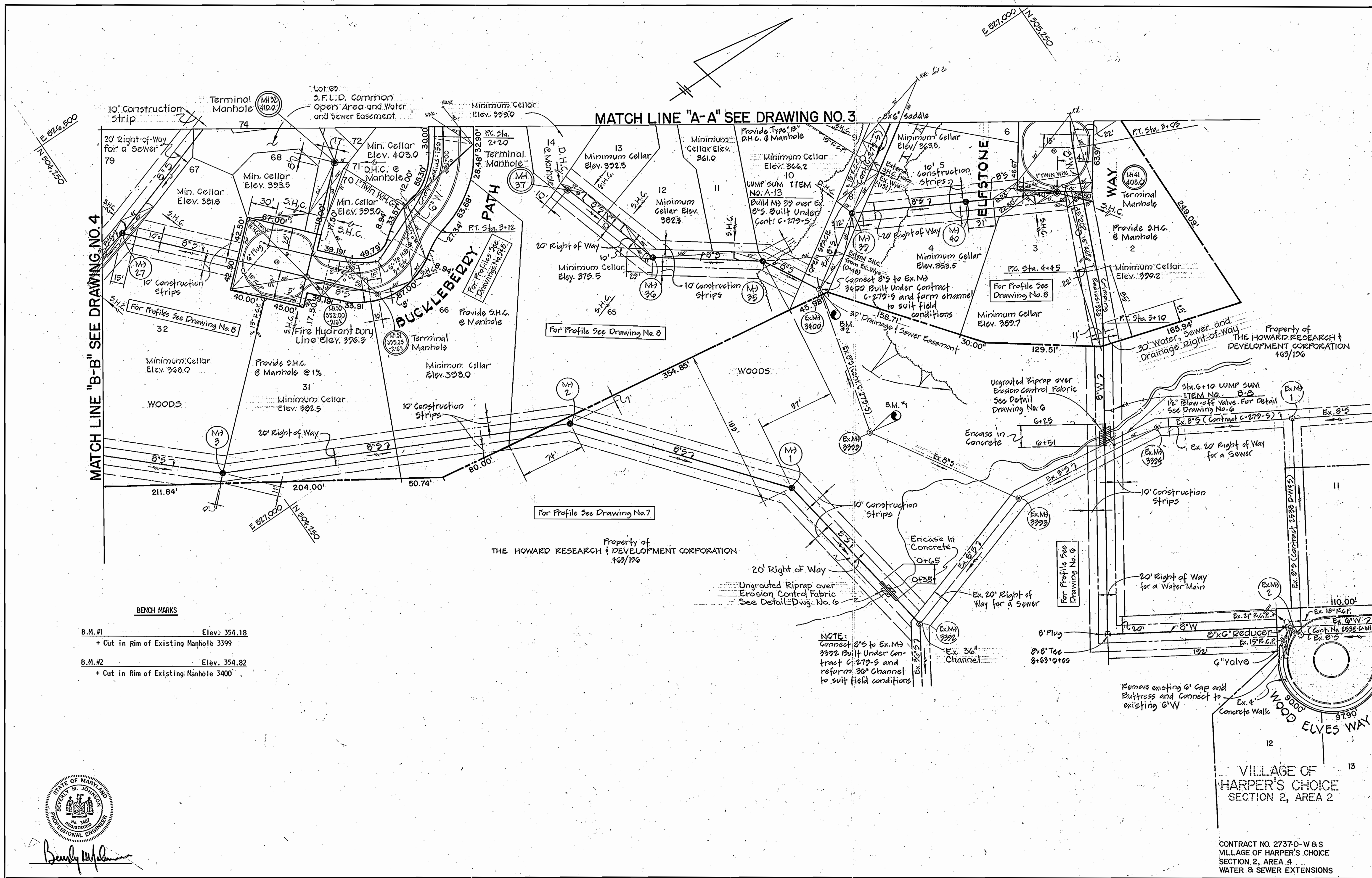
DEPARTMENT OF PUBLIC WORKS - HOWARD COUNTY, MARYLAND



CONTRACT NO. 2737-D-W & S  
VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
WATER & SEWER EXTENSIONS

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 12-23-77	CONTRACT NO. 2737-D-W & S	LOCATION MAP	VILLAGE OF HARPER'S CHOICE SECTION 2, AREA 4 ELECTION DISTRICT NO.5 HOWARD COUNTY, MARYLAND	DRAWING NO. 1	SCALE AS SHOWN
					OF 8	

WS 737 W-S/2



**BENCH MARKS**

B.M.#1	Elev: 354.18
+ Cut in Rim of Existing Manhole 3399	
B.M.#2	Elev. 354.82
+ Cut in Rim of Existing Manhole 3400	



*Beverly M. Johnson*

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

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 12-28-77  
 W. O. Filbert  
 CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 2737-D-W & S

**PLAN**  
**WATER & SEWER MAINS**

**VILLAGE OF HARPER'S CHOICE**  
 SECTION 2, AREA 4  
 ELECTION DISTRICT NO. 5  
 HOWARD COUNTY, MARYLAND

<b>DRAWING NO. 2 OF 8</b>	<b>SCALE 1"=50'</b>	Designed: REP/RDB Drafted: ARZ/REC Checked: TAF
---------------------------	---------------------	---

**BENCH MARKS**

B.M.#3	Elev. 396.00
+ Cut in Rim of Existing Manhole 3401	
B.M.#4	Elev. 406.58
+ Cut in Rim of Existing Manhole 3402	

VILLAGE OF HARPER'S CHOICE  
HOBBITS GLEN GOLF COURSE  
P.B. 11/2/67

VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 3  
P.B. 22 / F 50

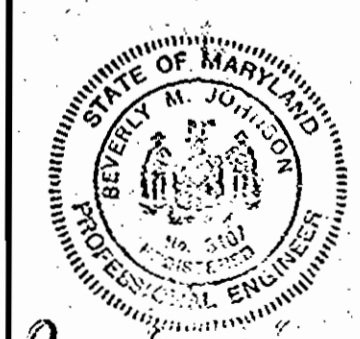
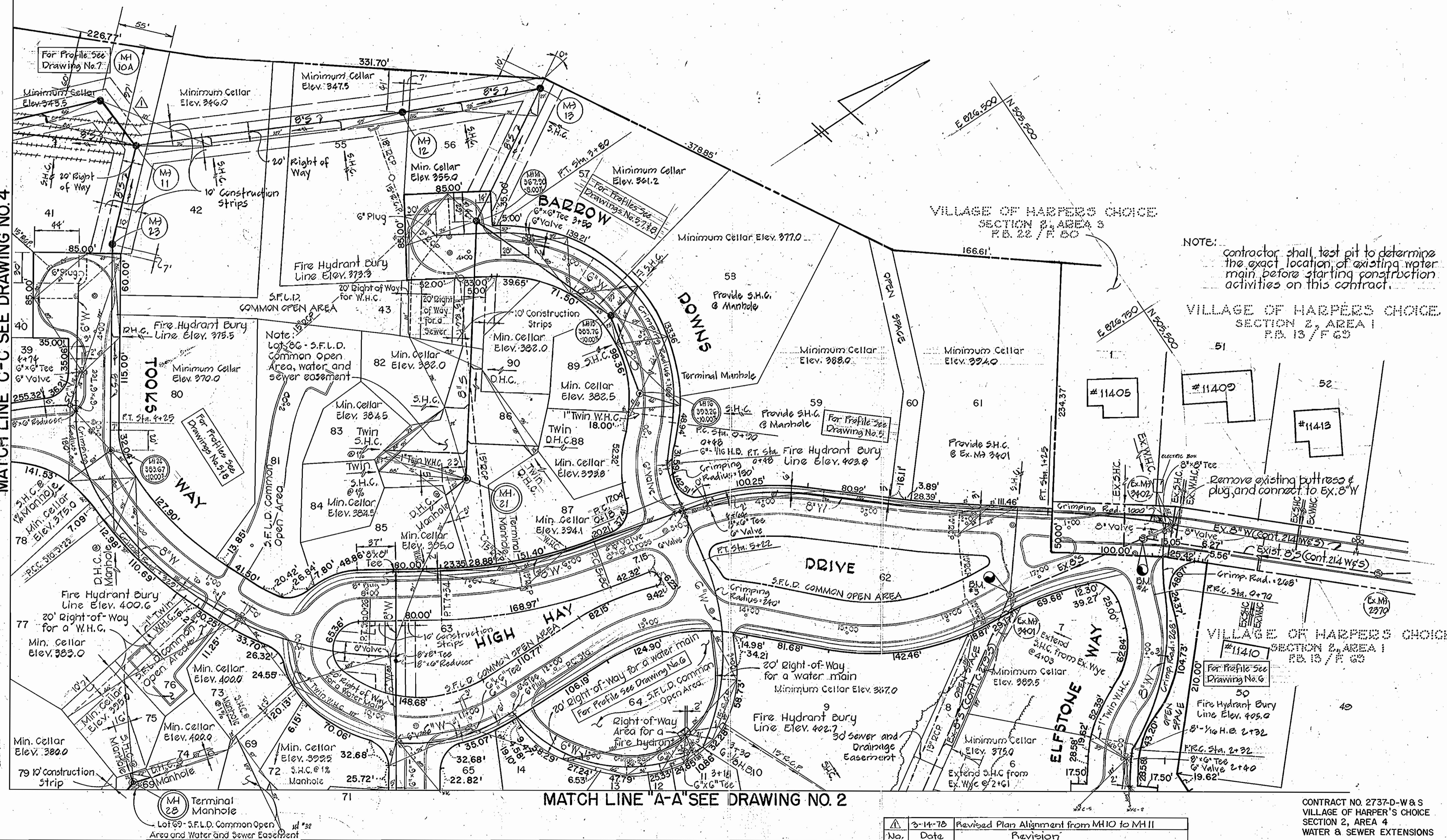
NOTE:  
contractor shall test pit to determine the exact location of existing water main before starting construction activities on this contract.

VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 1  
P.B. 13 / F 63

VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 1  
P.B. 13 / F 63

MATCH LINE "C-C" SEE DRAWING NO. 4

MATCH LINE "A-A" SEE DRAWING NO. 2



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
12-28-77  
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 2737-D-W&S

PLAN  
WATER & SEWER MAINS

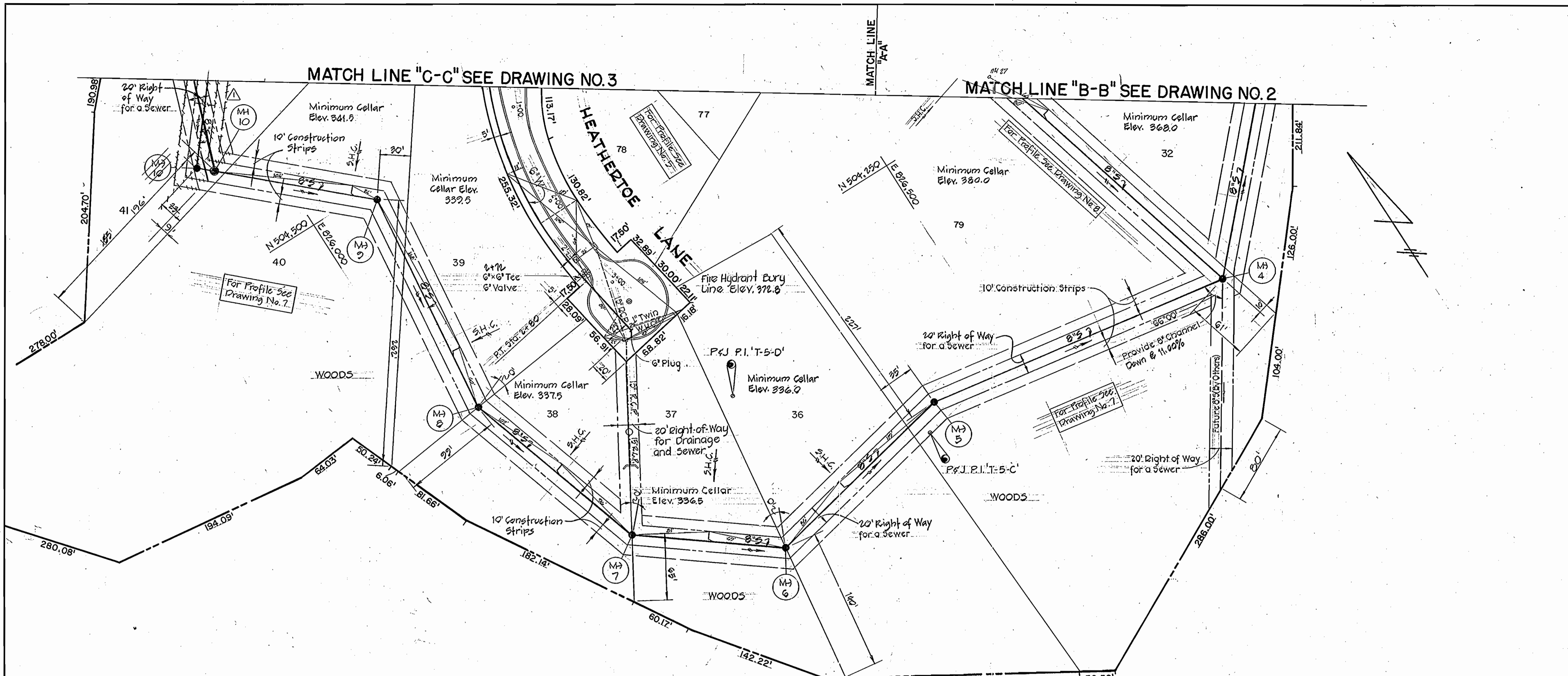
VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

CONTRACT NO. 2737-D-W&S  
VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
WATER & SEWER EXTENSIONS

DRAWING NO. 3 OF 8	SCALE 1"=50'	Des: REF/RDB Drafted: ARZ Checked: TAF
--------------------	--------------	--

No.	Date	Revision
1	3-14-78	Revised Plan Alignment from MH10 to MH11

WS 737 W-5/3



**BENCH MARKS**

P&J P.I.'T-5-D' Elev. 358.55  
 Iron pipe set ±195' northwest of proposed manhole #5 and ±165' northeast of proposed manhole #7.

P&J P.I.'T-5-C' Elev. 333.51  
 Iron pipe set ±30' southwest of proposed manhole #5 and ±179' northeast of proposed manhole #6.



*Beverly M. Johnson*

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

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
*W. O. Faller* 12-23-77  
 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2737-D-W&S

PLAN  
 WATER & SEWER MAINS

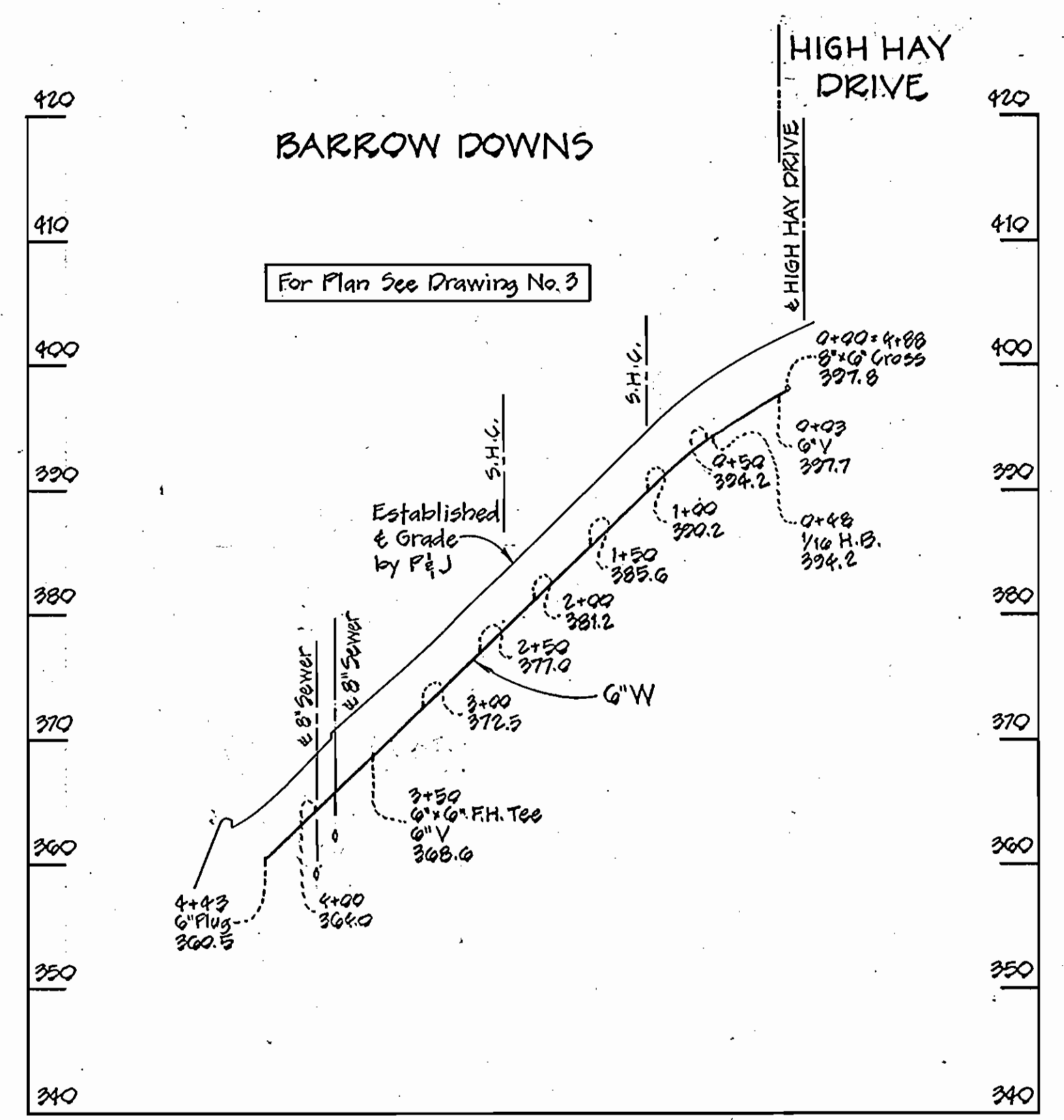
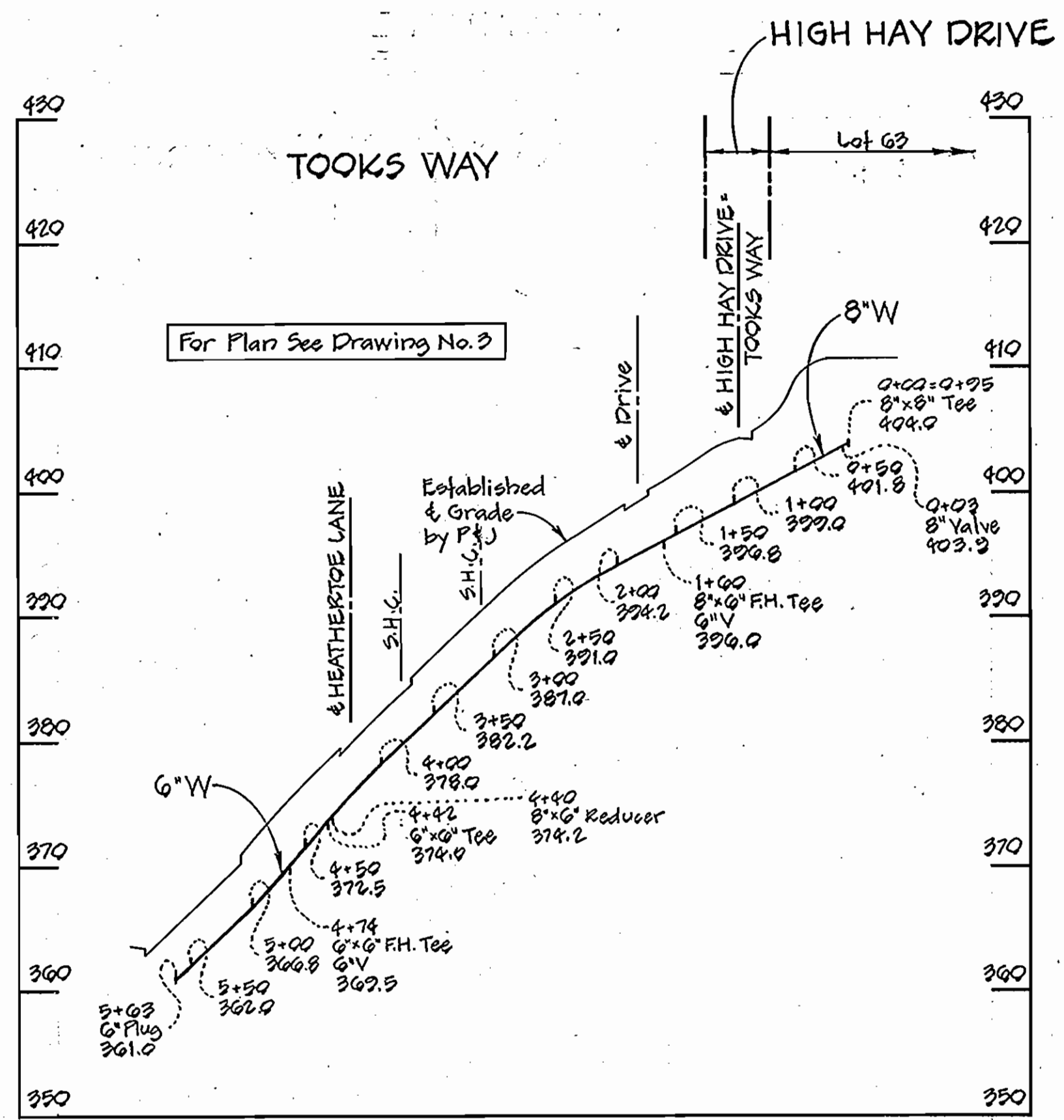
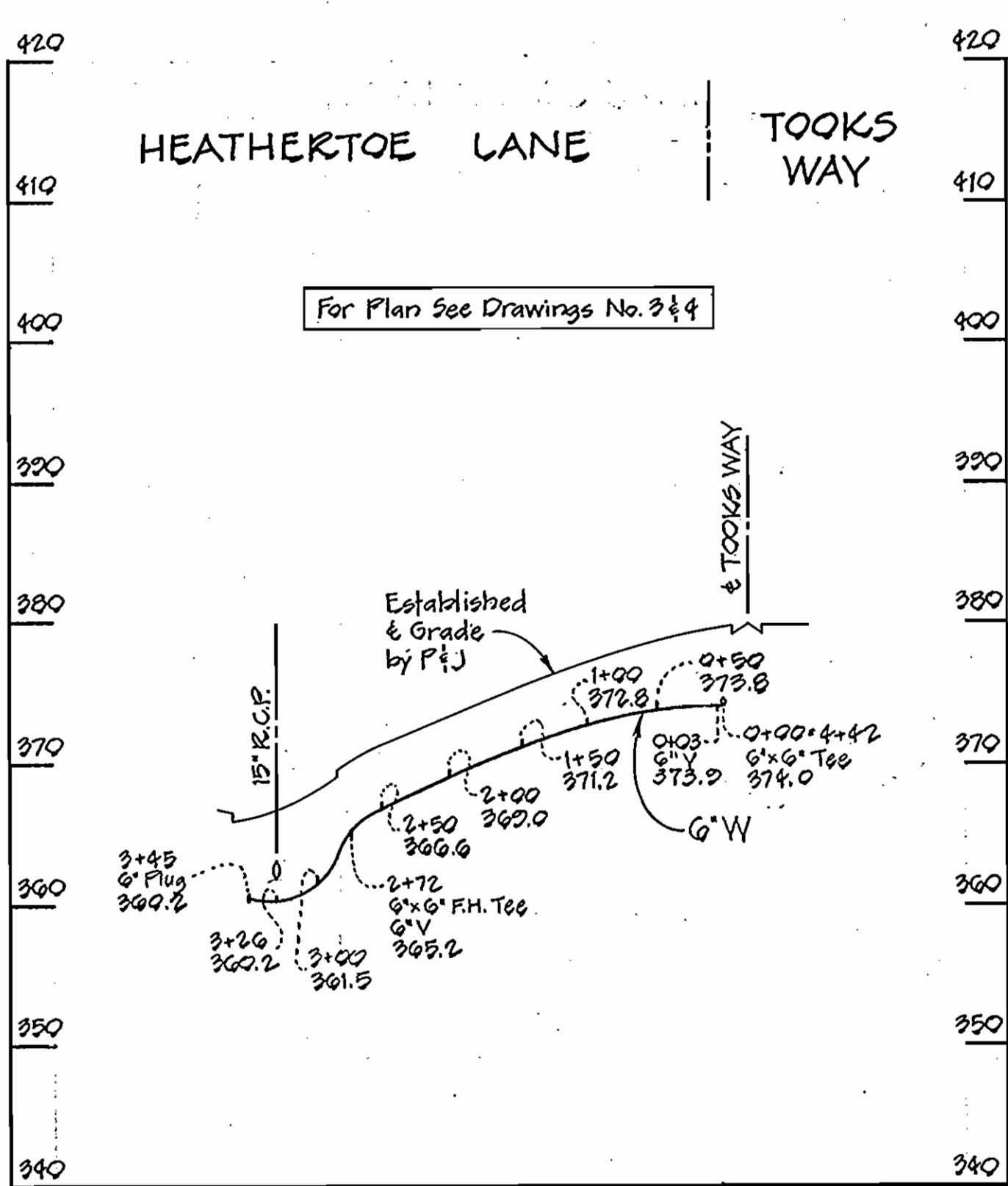
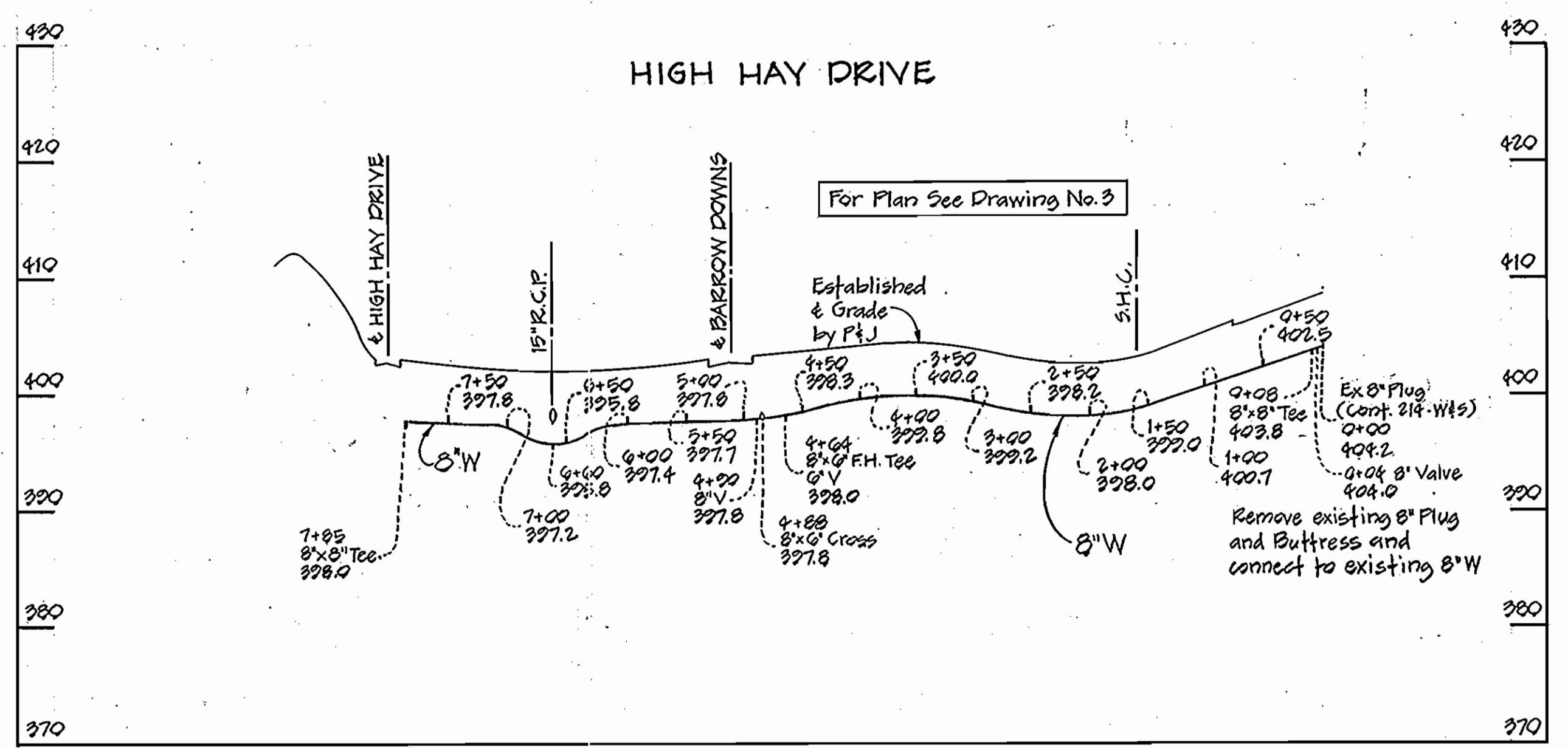
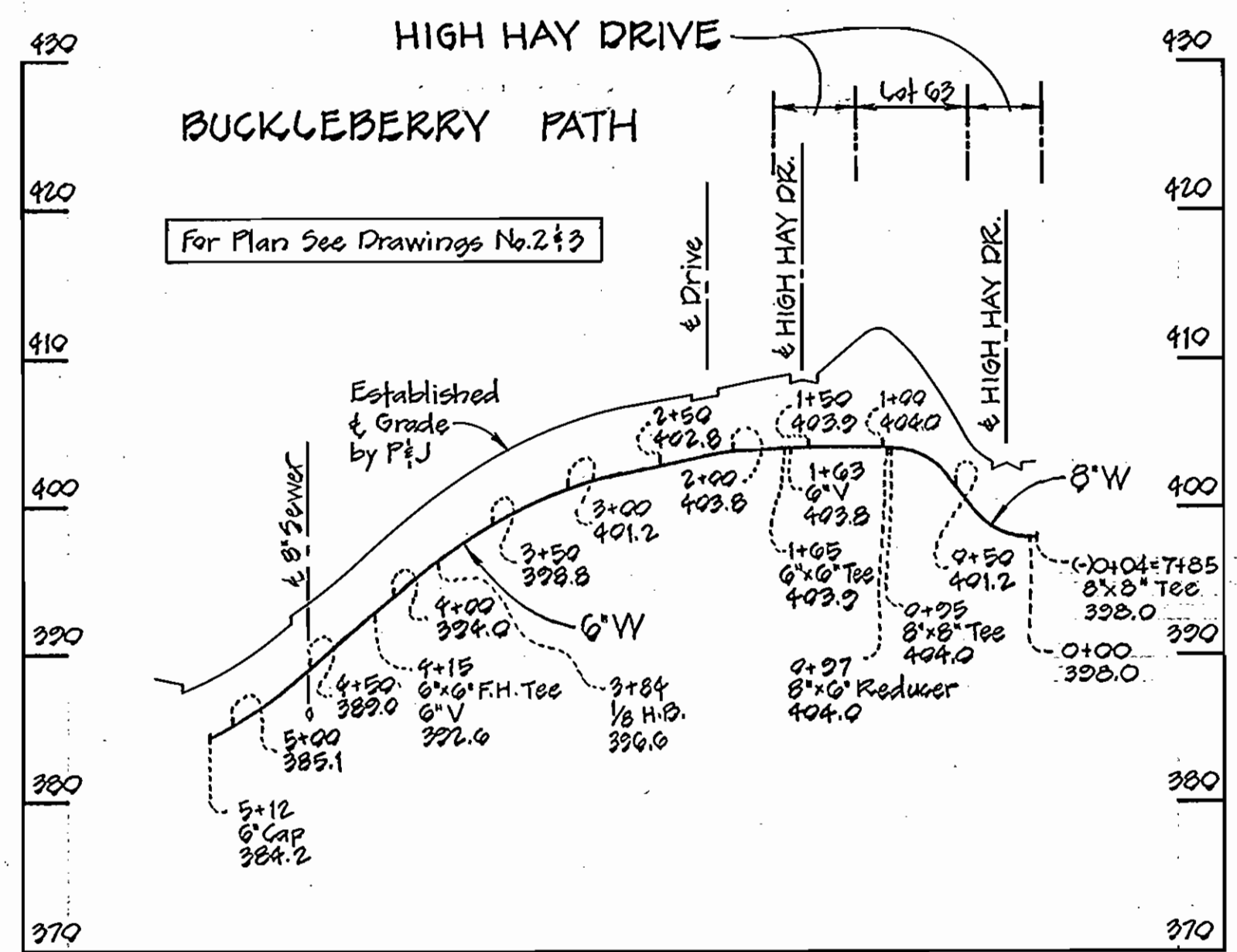
**VILLAGE OF HARPER'S CHOICE**  
 SECTION 2, AREA 4  
 ELECTION DISTRICT NO.5  
 HOWARD COUNTY, MARYLAND

DRAWING NO. 4 OF 8	SCALE 1"=50'	Des: REP/RDB Drafted: REC Checked: TAF
--------------------	--------------	--

No.	Date	Revision
1	2-14-78	Rev. Plan Alignment from MH 10 to MH 11

CONTRACT NO. 2737-D-W & S  
 VILLAGE OF HARPER'S CHOICE  
 SECTION 2, AREA 4  
 WATER & SEWER EXTENSIONS

WS 737 W-S/H



*Beverly M. Johnson*

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

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
*12-28-77* *12-23-77*  
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2737-D-W & S

PROFILES  
WATER MAINS

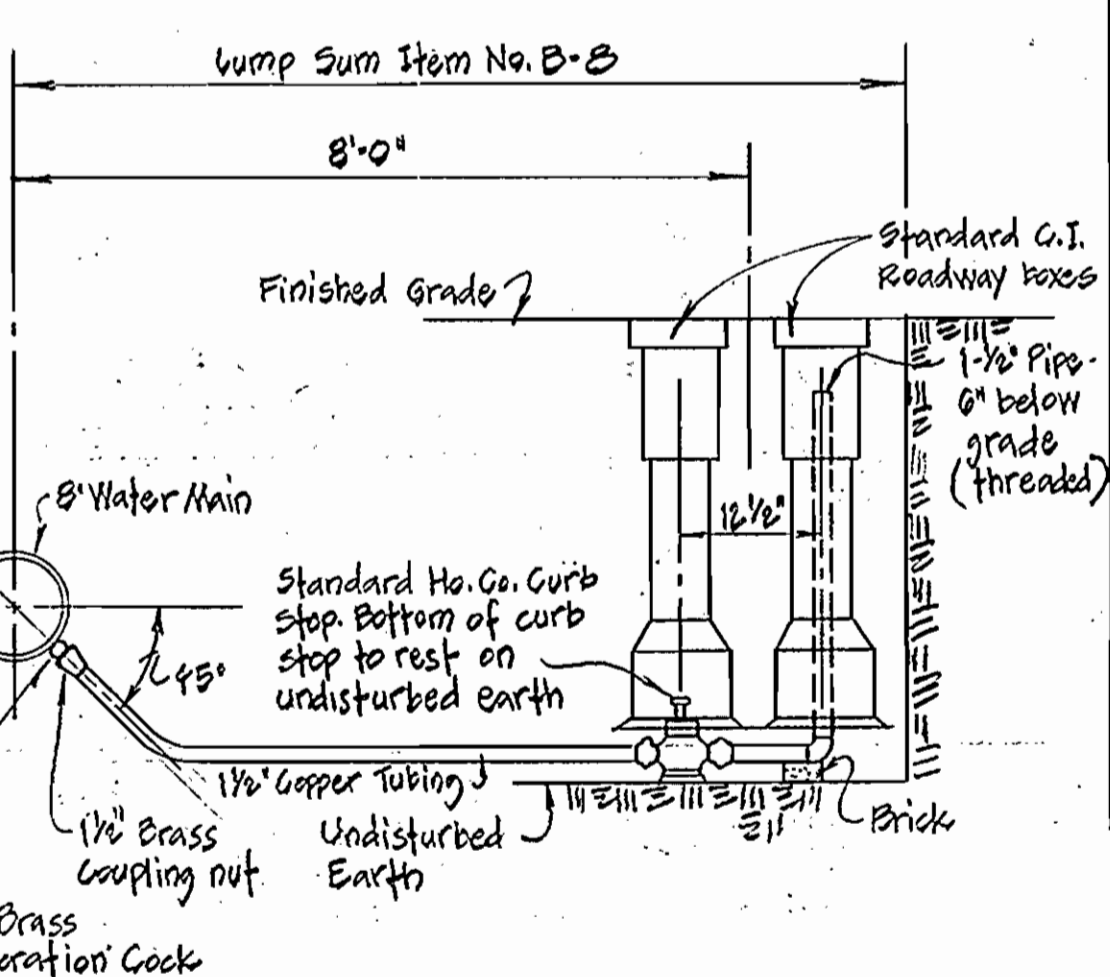
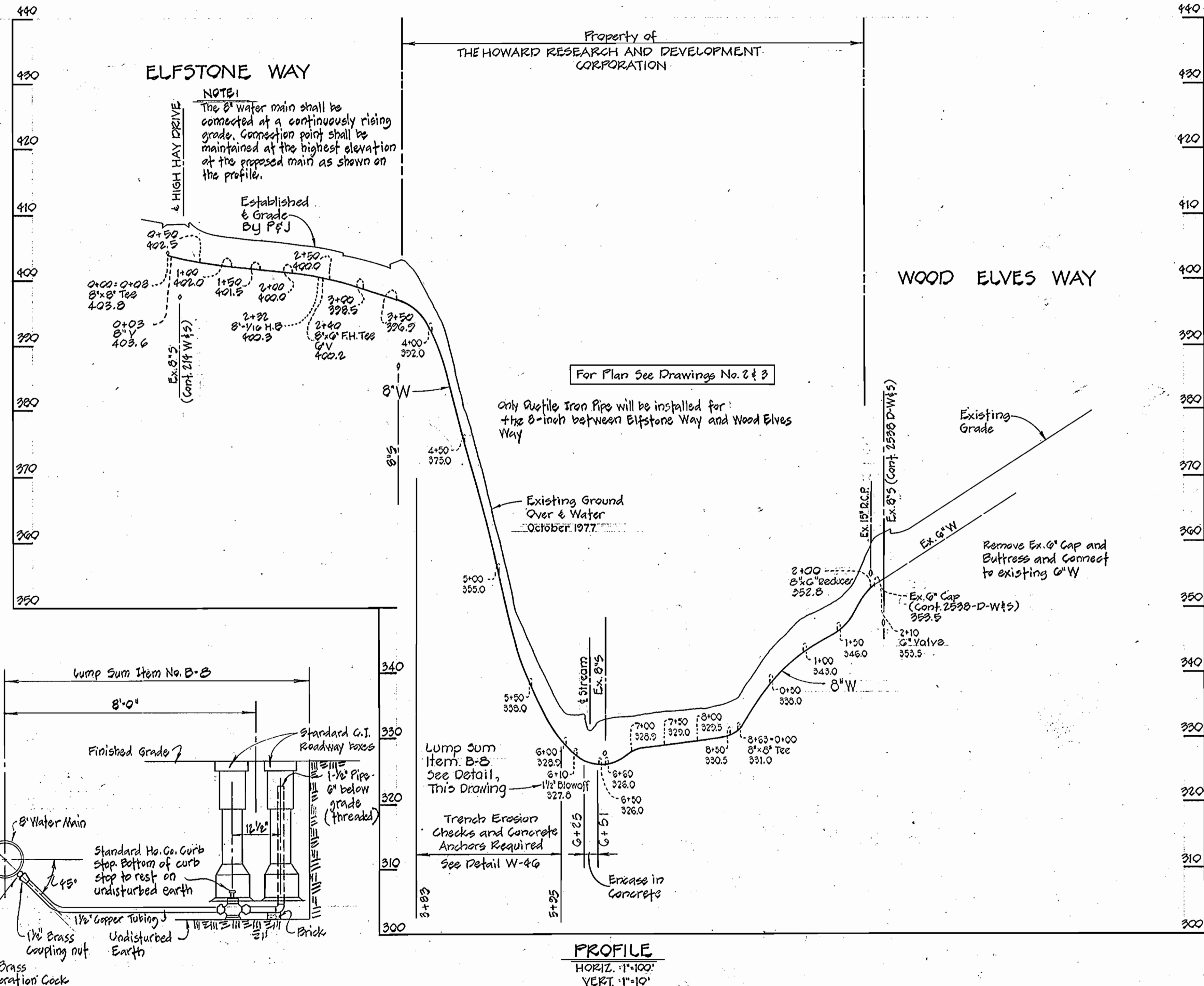
**VILLAGE OF HARPER'S CHOICE**  
SECTION 2, AREA 4  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

DRAWING NO. 5 OF 8	SCALE	Designed: ROB Drafted: REC Checked: TAF
	HORIZ: 1"=100'	
	VERT: 1"=10'	

CONTRACT NO. 2737-D-W & S  
VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
WATER & SEWER EXTENSIONS

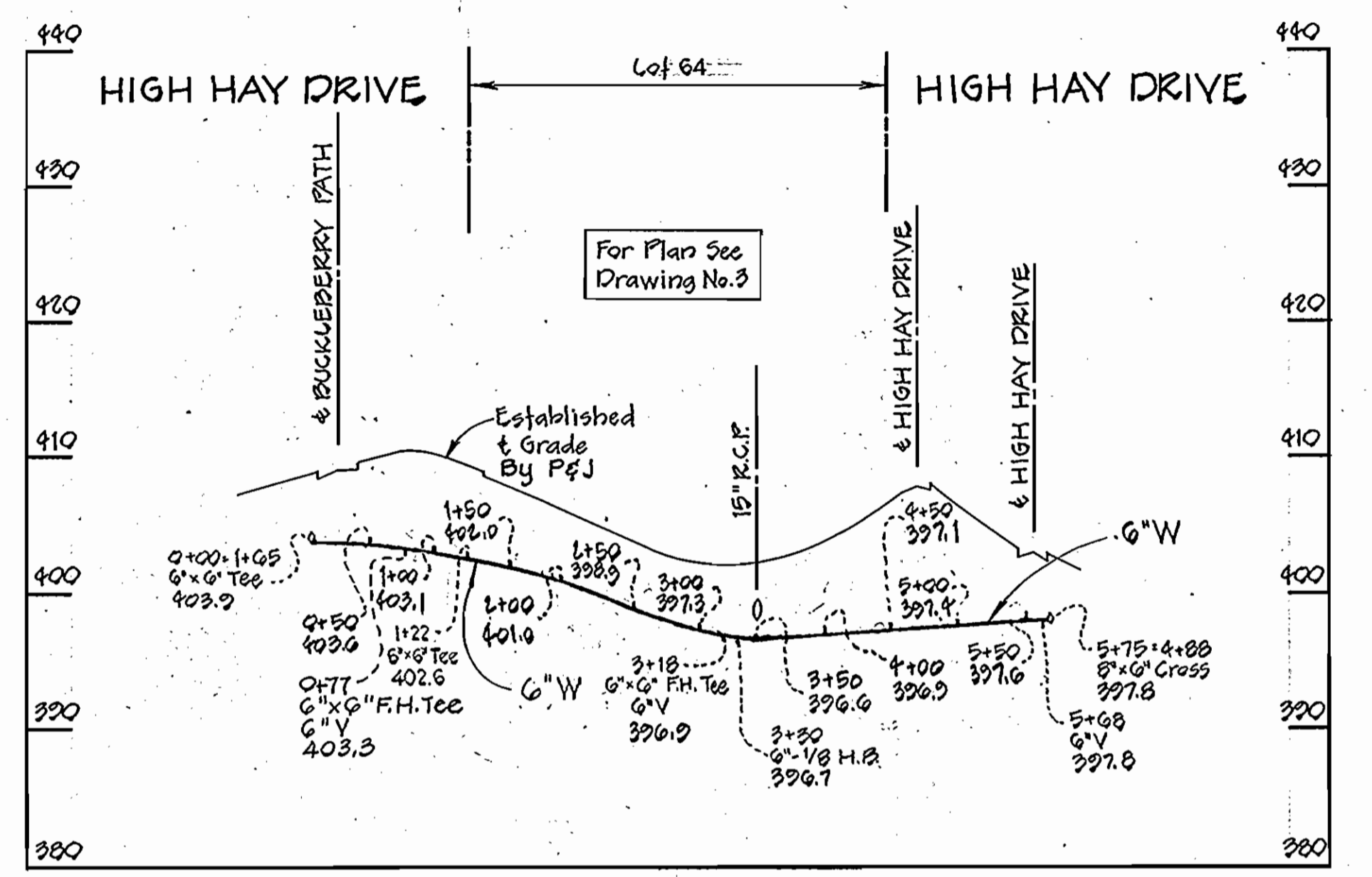
WS 737 W-S/5

WS 737 W-S/6



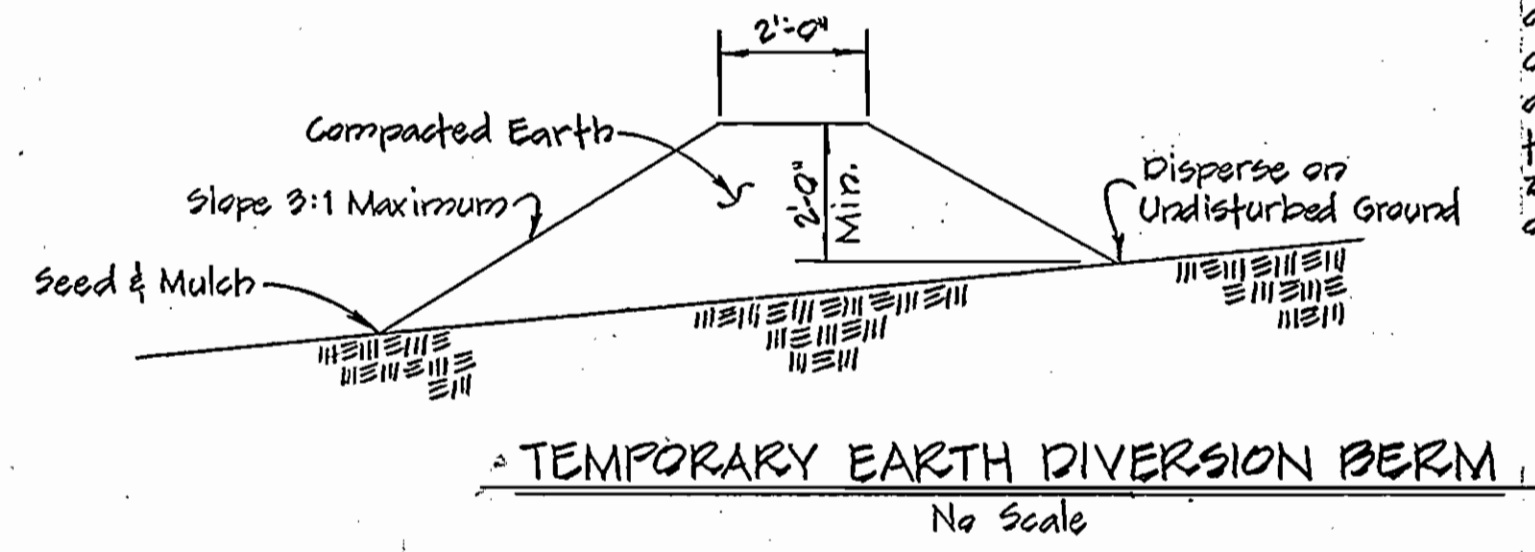
DETAIL-BLOW OFF ASSEMBLY No Scale

PROFILE HORIZ. 1"=100' VERT. 1"=10'

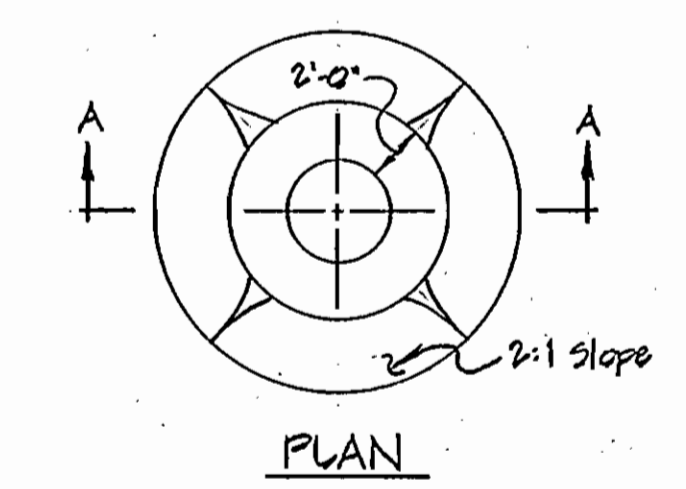


PROFILE HORIZ. 1"=100' VERT. 1"=10'

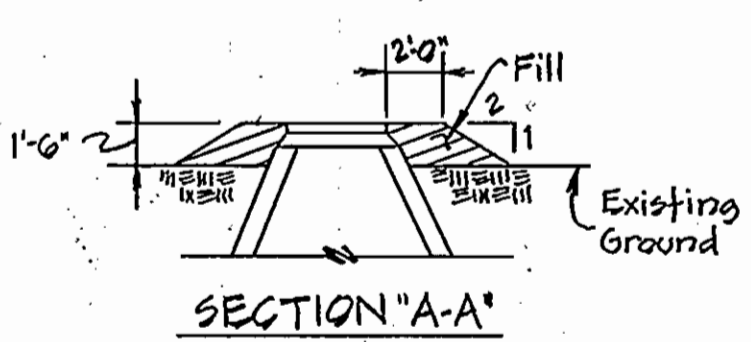
Diversion berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown herein and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.



TEMPORARY EARTH DIVERSION BERM No Scale

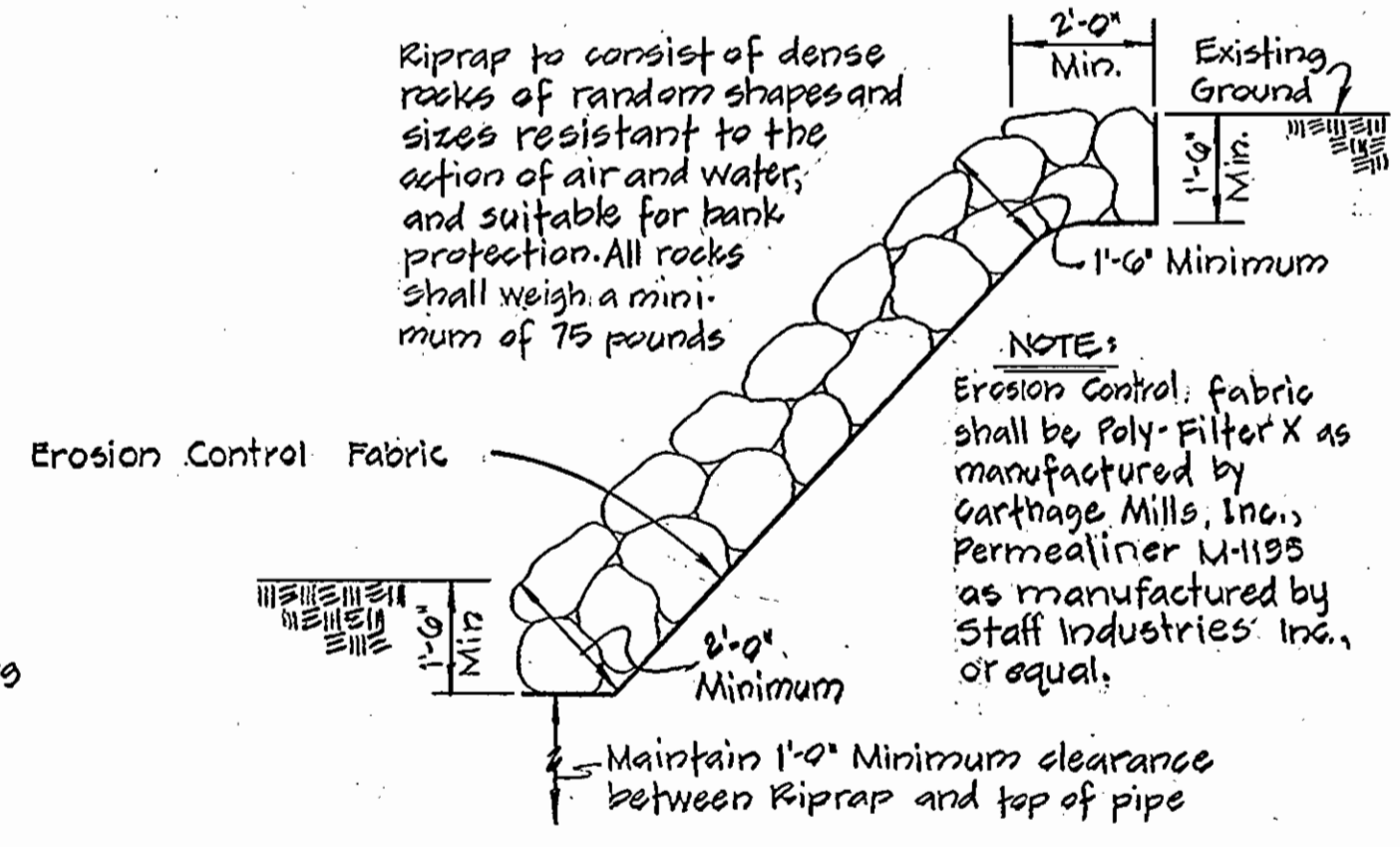


PLAN



SECTION 'A-A'

FILL AT MANHOLE No Scale



UNGROUTED RIPRAP DETAIL Scale: 3/8"=1'-0"



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

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 12-28-77 W. O. Silbert 12-23-77

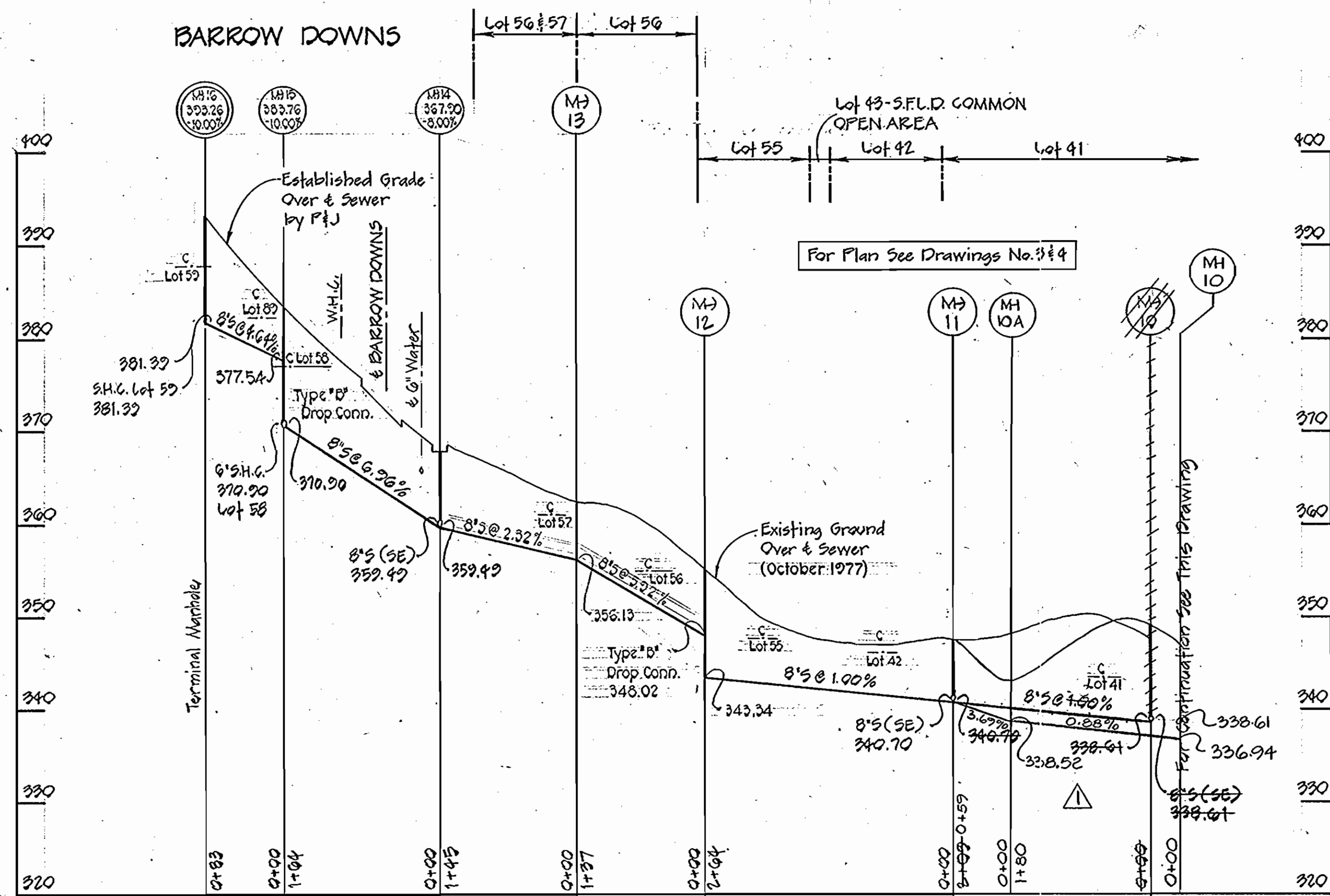
CONTRACT NO. 2737-D-W&S

PROFILES & DETAILS WATER & SEWER MAINS

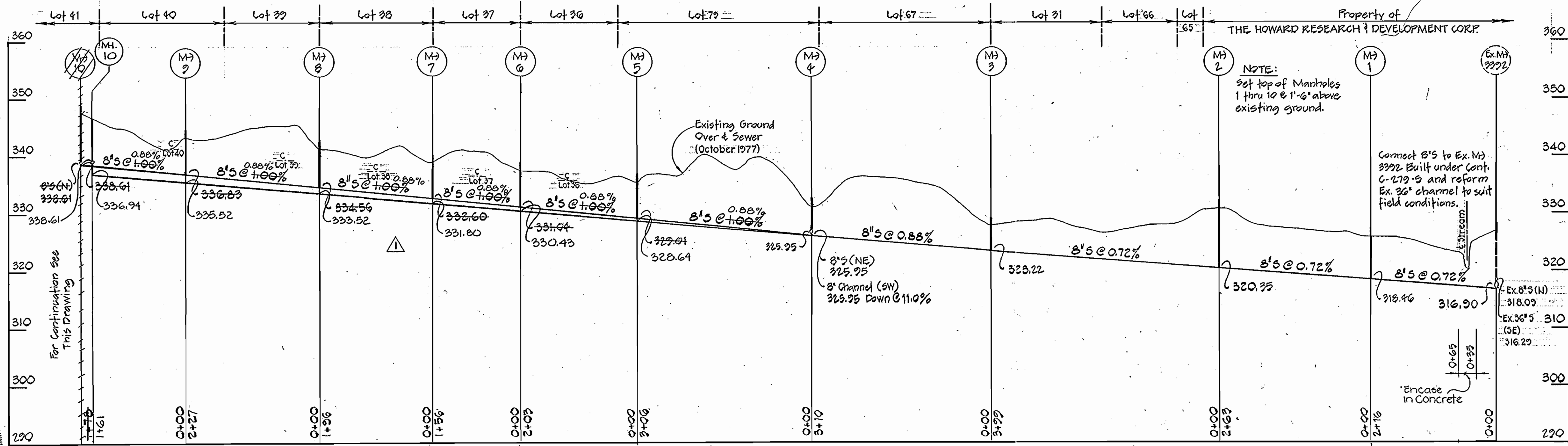
VILLAGE OF HARPER'S CHOICE SECTION 2, AREA 4 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

DRAWING NO. 6 OF 8	SCALE AS SHOWN	Designed: RDB Drafted: REC Checked: TAF
--------------------	----------------	---

**BARROW DOWNS**

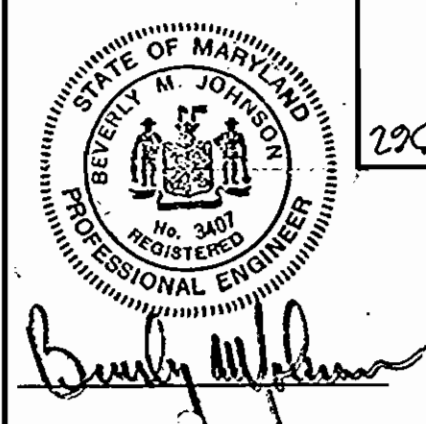


For Plan See Drawings No. 2 & 4



NOTE:  
Set top of Manholes  
1 thru 10 1'-6" above  
existing ground.

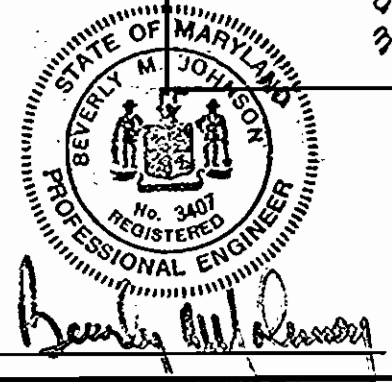
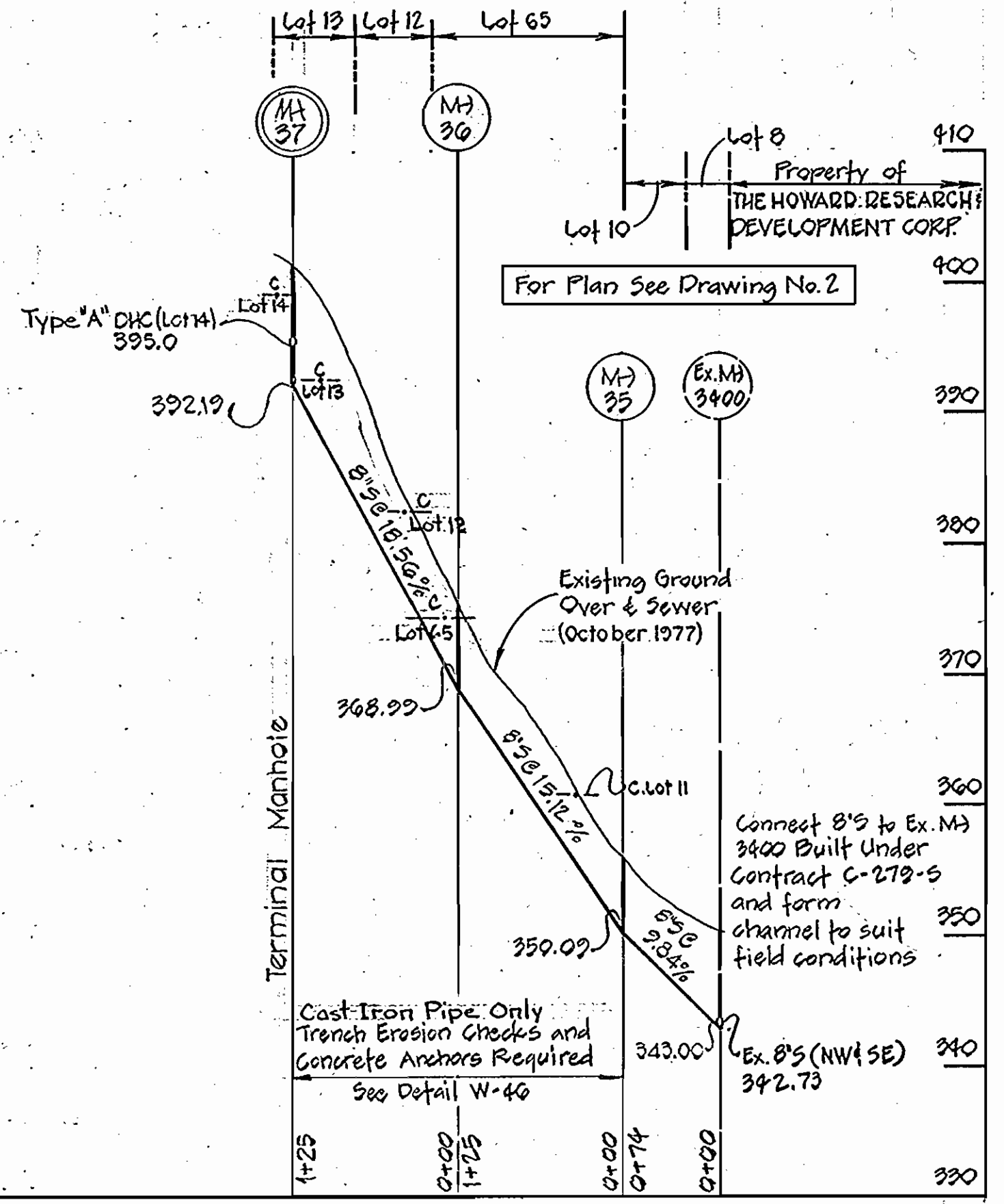
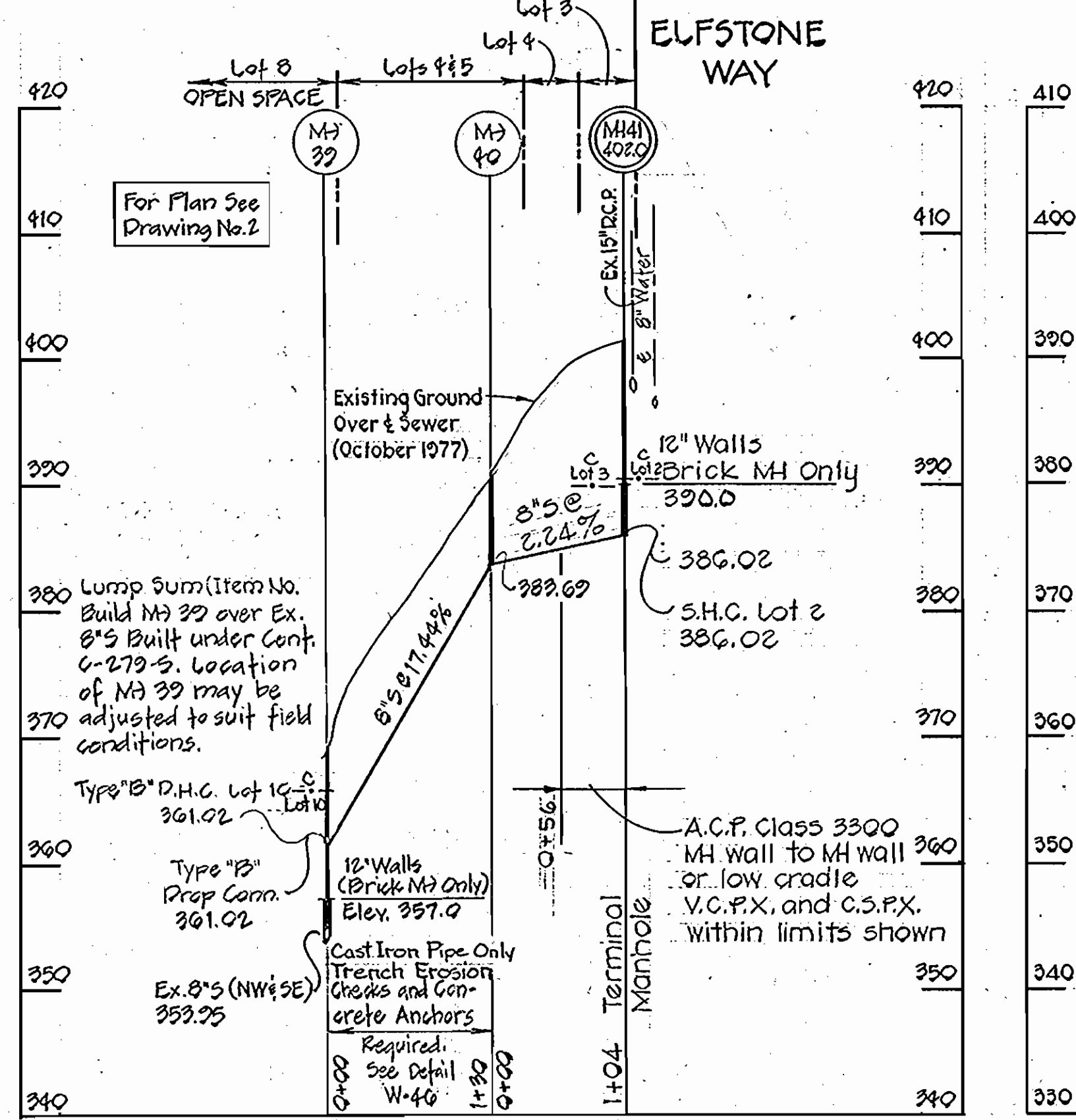
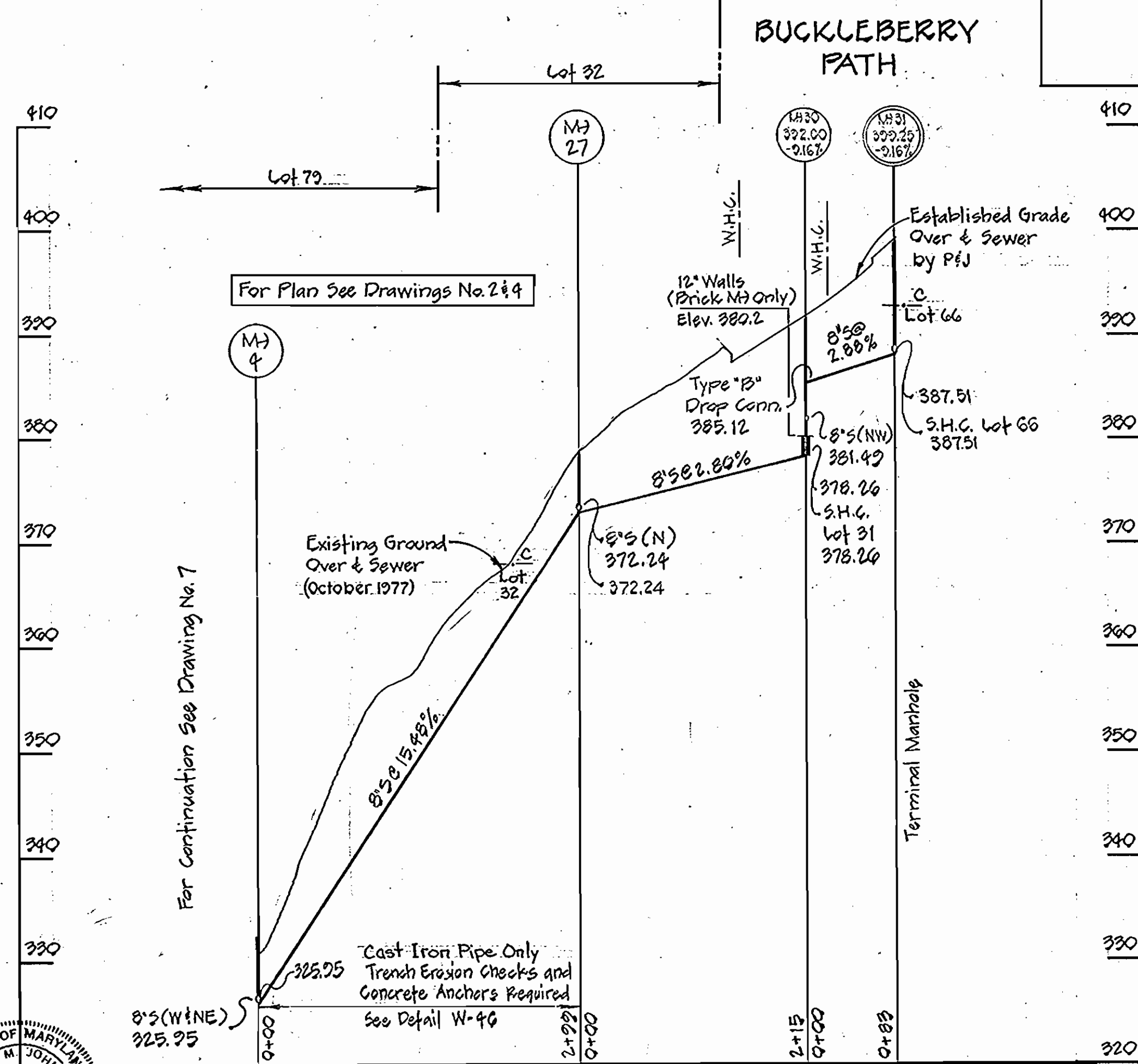
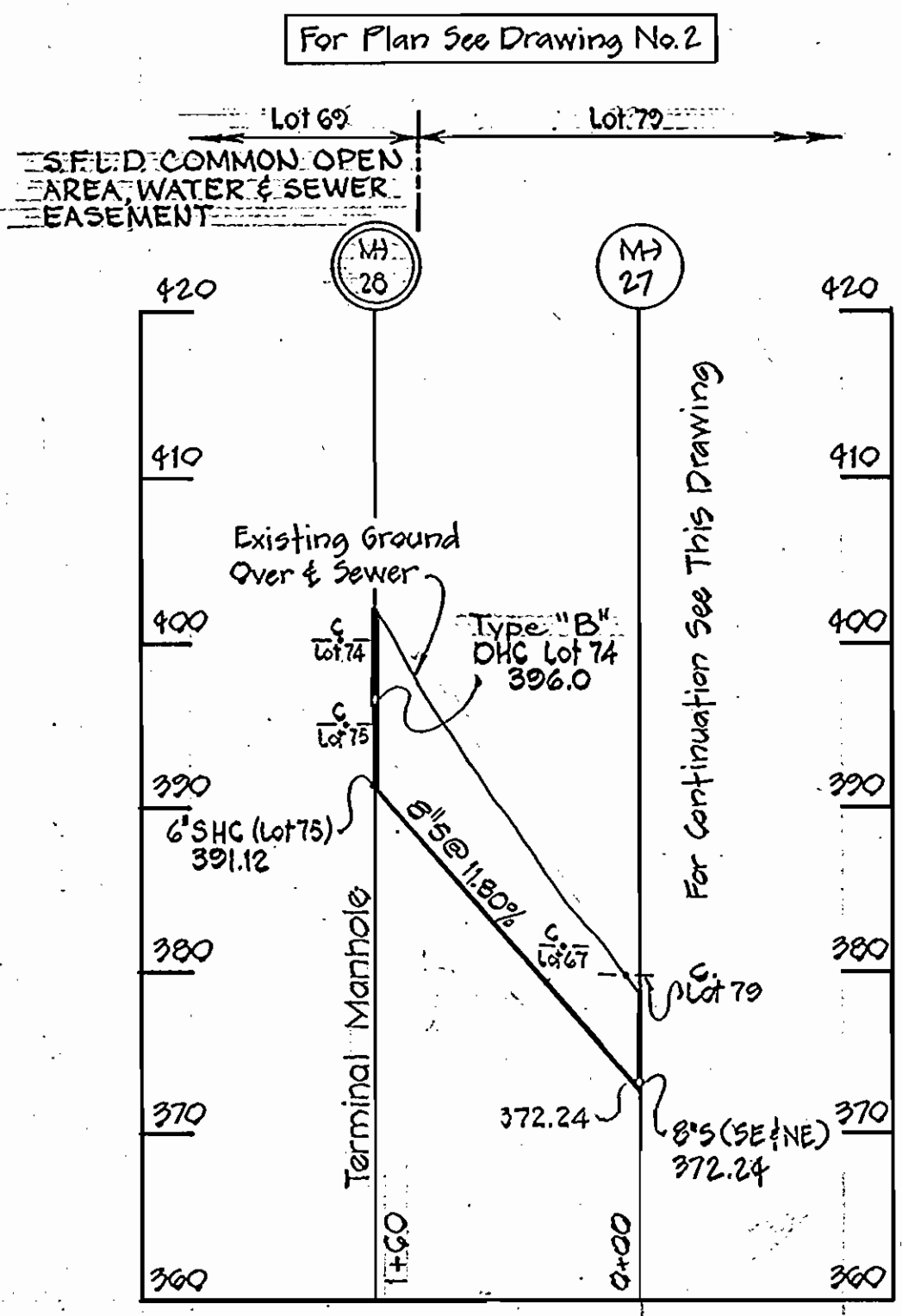
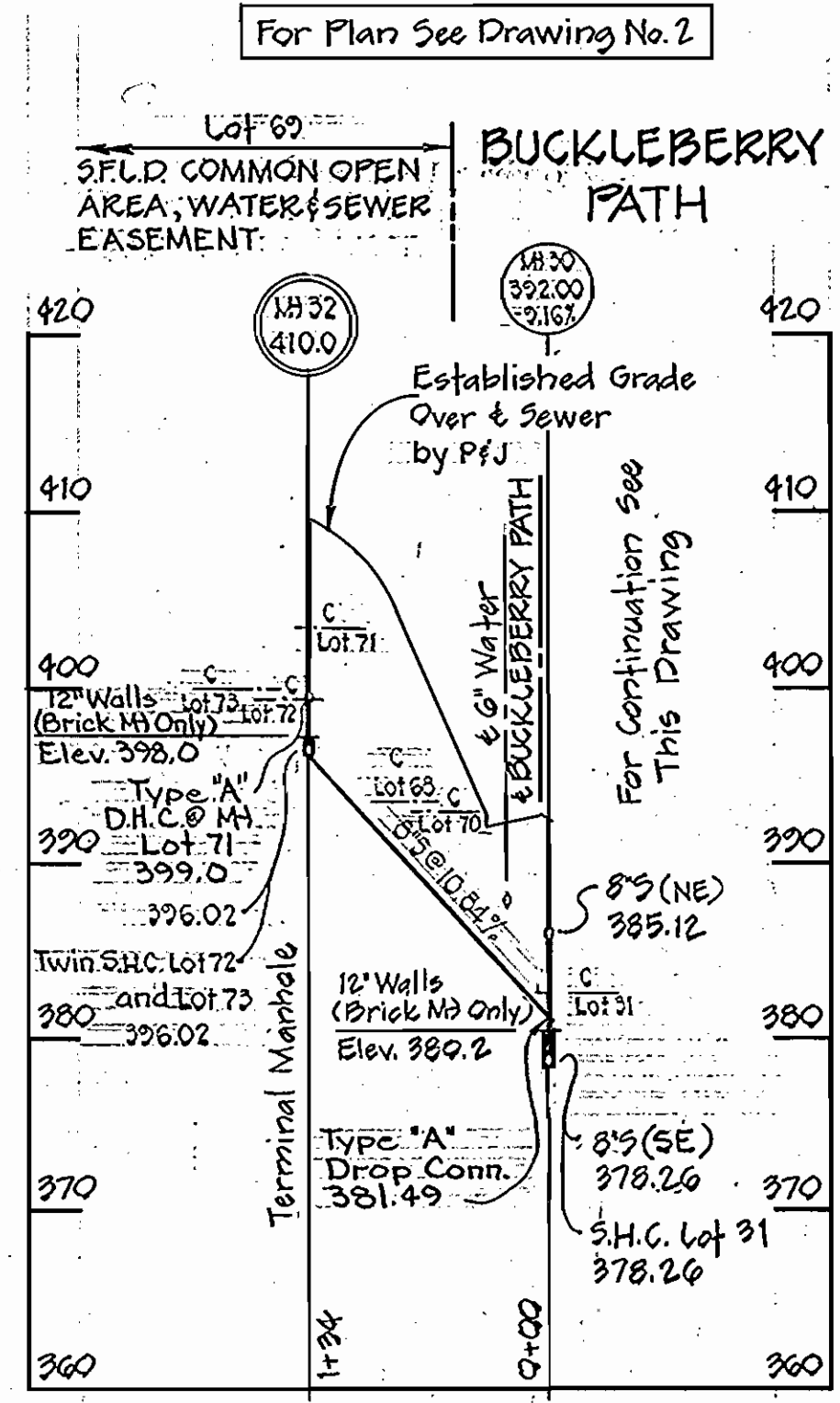
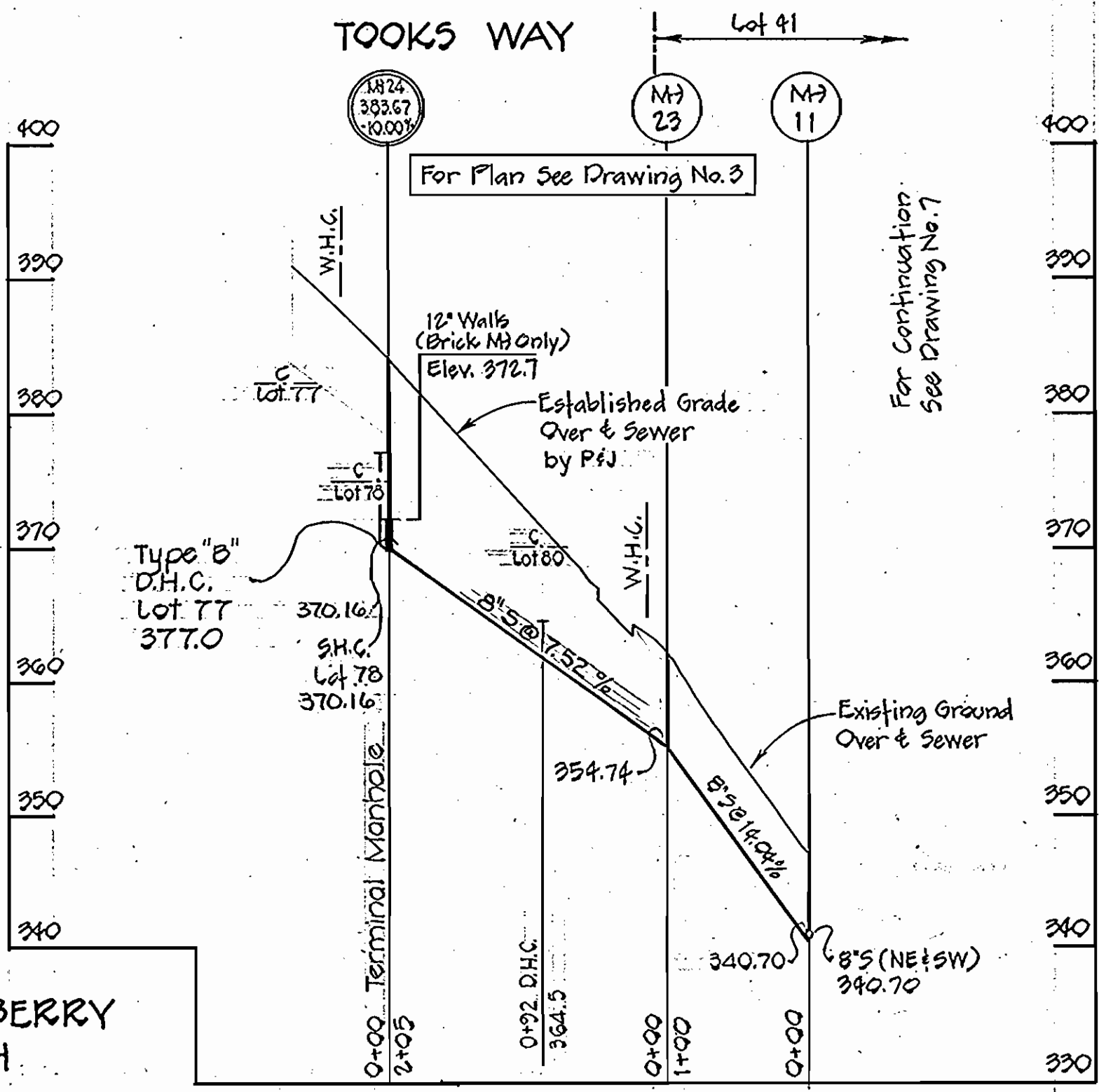
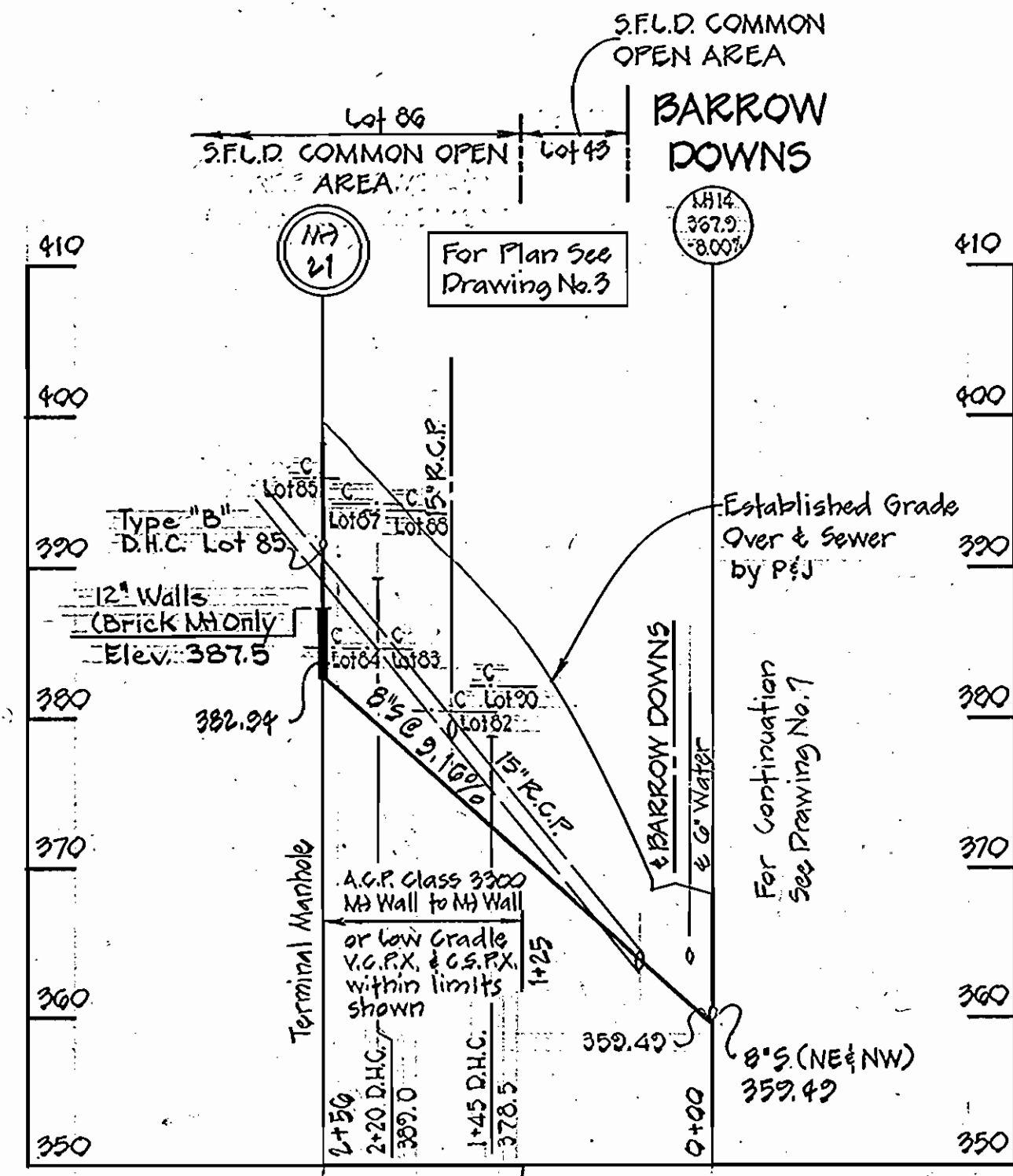
Connect 8'5" to Ex. M#  
3992 Built under Cont.  
C-279-S and reform  
Ex. 36" channel to suit  
field conditions.



*Beverly M. Johnson*

No.	Date	Revision
1	3-14-78	Revised Profile Alignment from MH 4 to MH 11

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 12-23-77 W. O. Tolbert DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE	CONTRACT NO. 2737-D-W & S	PROFILES SEWER MAINS	VILLAGE OF HARPER'S CHOICE SECTION 2, AREA 4 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND	DRAWING NO. 7 OF 8	SCALE HORIZ. 1"=100' VERT. 1"=10'	Designed: REP Drafted: REC Checked: TAF
					CONTRACT NO. 2737-D-W & S VILLAGE OF HARPER'S CHOICE SECTION 2, AREA 4 WATER & SEWER EXTENSIONS		



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
12-28-77  
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2737-D-W & S

PROFILES  
SEWER MAINS

VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

DRAWING NO. 8 OF 8  
SCALE: HORIZ. 1"=100', VERT. 1"=10'  
Designed-REP, Drafted-REC, Checked-TAF

CONTRACT NO. 2737-D-W & S  
VILLAGE OF HARPER'S CHOICE  
SECTION 2, AREA 4  
WATER & SEWER EXTENSIONS

WS 737 W-S/8