

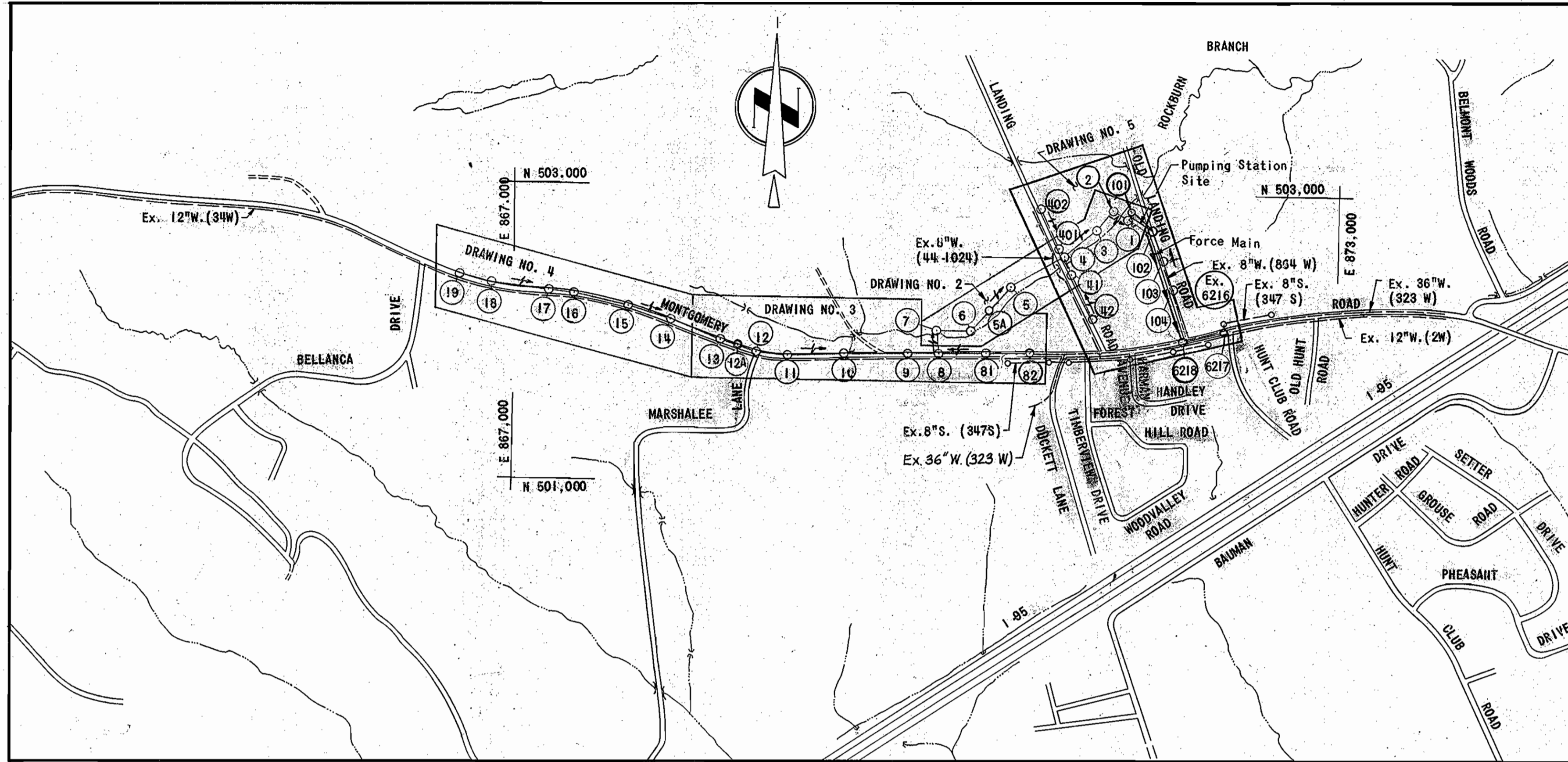
INDEX OF DRAWINGS

DRAWING NO.	TITLE
1	LOCATION PLAN
2	PLAN OF SEWER
3	PLAN OF SEWER
4	PLAN OF SEWER
5	PLAN OF SEWER
6	PROFILES OF SEWER AND FORCE MAIN
7	PROFILES OF SEWER MAINS
8	PUMPING STATION-ARCHITECTURAL
9	PUMPING STATION-STRUCTURAL
10	PUMPING STATION-MECHANICAL-STRUCTURAL
11	PUMPING STATION-MECHANICAL-STRUCTURAL SITE-ELECTRICAL
12	PUMPING STATION-ELECTRICAL
13	PUMPING STATION-ELECTRICAL
14	PUMPING STATION-ELECTRICAL

Reviewed for Howard County S.C.D. and meets technical requirements.  
*James M. Helm* Date: 8-15-84  
 U.S. SOIL CONSERVATION SERVICE  
 This development plan is approved for soil erosion and sediment control by The Howard County Soil Conservation District.  
 Approved: *Stephen J. Kulis* Date: 8-13-84  
 HOWARD COUNTY S.C.D.

ENGINEER'S CERTIFICATION  
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.  
*Rummel, Klepper & Kahl* Date: 5/31/83  
 RUMMEL, KLEPPER & KAHL  
 1035 N. CALVERT STREET  
 BALTIMORE, MARYLAND 21202

DEVELOPER'S CERTIFICATION  
 "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 Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."  
*Kremin & Riley*  
 BUREAU OF ENGINEERING  
 DEPARTMENT OF PUBLIC WORKS



LOCATION PLAN  
 Scale: 1"=800'

ITEM	QUANTITIES			MATERIAL SUPPLIER
	ESTIMATED	TYPE	AS-BUILT	
4-Inch Force Main	930 L.F.			
6-Inch House Connections	1000 L.F.			
8-Inch Sewer Main	7700 L.F.			
Manholes	33 EA.			
Pumping Station And Appurtenances	1 L.S.			

SEWER CODE FOR COUNTY USE ONLY:  
 SEWER NO. 2150562  
 NUMBER OF S.H.C. = 20 D.H.C. = 27  
 DRAINAGE AREA: PATAPSCO

APPROVED: For Public Water, Public Sewerage And Storm Drainage Systems And Roads  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Deane F. Nummy* 10-23-84  
 DIRECTOR DATE  
*Kremin & Riley* 10-11-84  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: For Public Water And Public Sewerage Systems  
 HOWARD COUNTY HEALTH DEPARTMENT  
*Joseph Boyles* 10-22-84  
 COUNTY HEALTH OFFICER DATE

APPROVED: Howard County Office of Planning And Zoning  
*Thomas A. Danahy* 10-24-84  
 PLANNING DIRECTOR DATE  
*John F. Davis* 10-19-84  
 CHIEF, DIVISION OF LAND DEV. & ZONING ADMIN. DATE

CONTRACT NO. 10-1043  
 CAPITAL PROJECTS S-6089-2 AND S-6127

ROCKBURN BRANCH COLLECTION SYSTEM

MONTGOMERY ROAD SECTION

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

ADDRESS CHART	
LOT NO.	STREET ADDRESS
R-66	5730 OLD LANDING ROAD

SUBDIVISION NAME OLD LANDING RD. PUMPING STATION	SECTION/AREA -	LOT/PARCEL NO. P.66
PLAT NO. /OR L/F 232/227	BLOCK NO. ZONE 6 R-20	TAX/ZONE MAP 37
WATER CODE -	ELEC. DIST. 1ST	CENSUS TR 6011
SEWER CODE -	2150562	

APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 9-7-84  
*1870*

ROCKBURN BRANCH COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043  
 SDP 1 OF 5

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*John F. Davis* 10-17-84  
 CHIEF, BUREAU OF ENGINEERING DATE  
*Robert M. Quinn* 10-17-84  
 CHIEF, BUREAU OF UTILITIES DATE  
*Stephen J. Kulis* 10-10-84  
 CHIEF, UTILITY DIVISION DATE

RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 1035 NORTH CALVERT STREET  
 BALTIMORE, MARYLAND 21202

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

LOCATION PLAN

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

DRAWING NO. OF	SCALE AS SHOWN
1 OF 14	AS SHOWN

**BENCH MARK**  
 B.M. M-4 Elev. 233.86  
 Square Cut In Concrete Headwall,  
 47.0' South of Traverse Point 8 On  
 West Side Of Landing Road

HOWARD COUNTY  
 DEPARTMENT OF RECREATION AND PARKS  
 P. 68  
 939/483

WARREN STOFFER, JR.  
 ET UX  
 P. 62  
 172/303

CHARLES H. REUWER  
 ET UX  
 P. 66  
 232/227

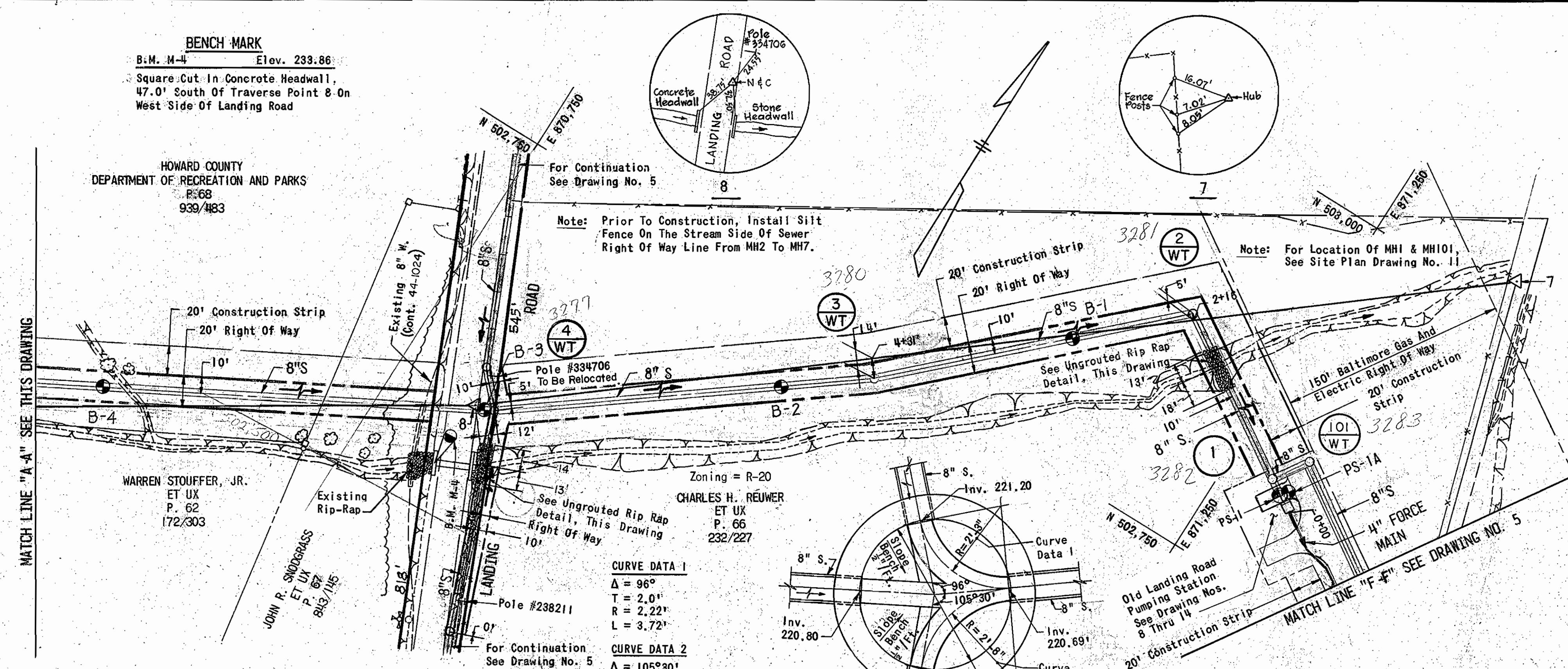
WARREN STOFFER, JR.  
 ET UX  
 P. 62  
 172/303

**GENERAL NOTES**

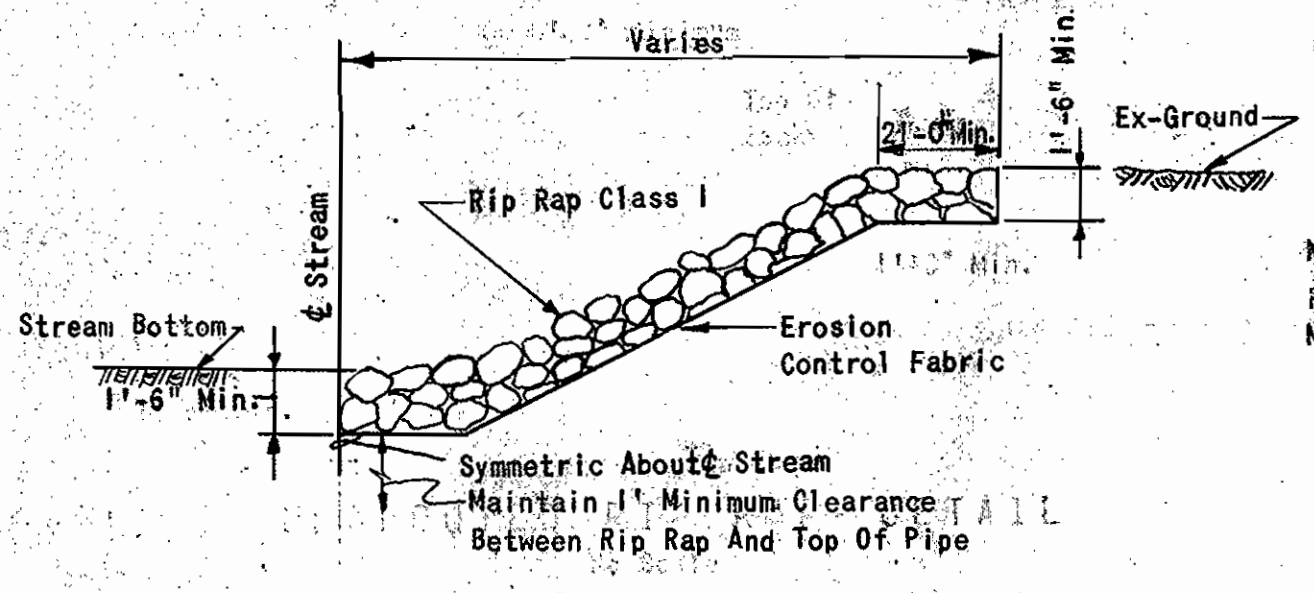
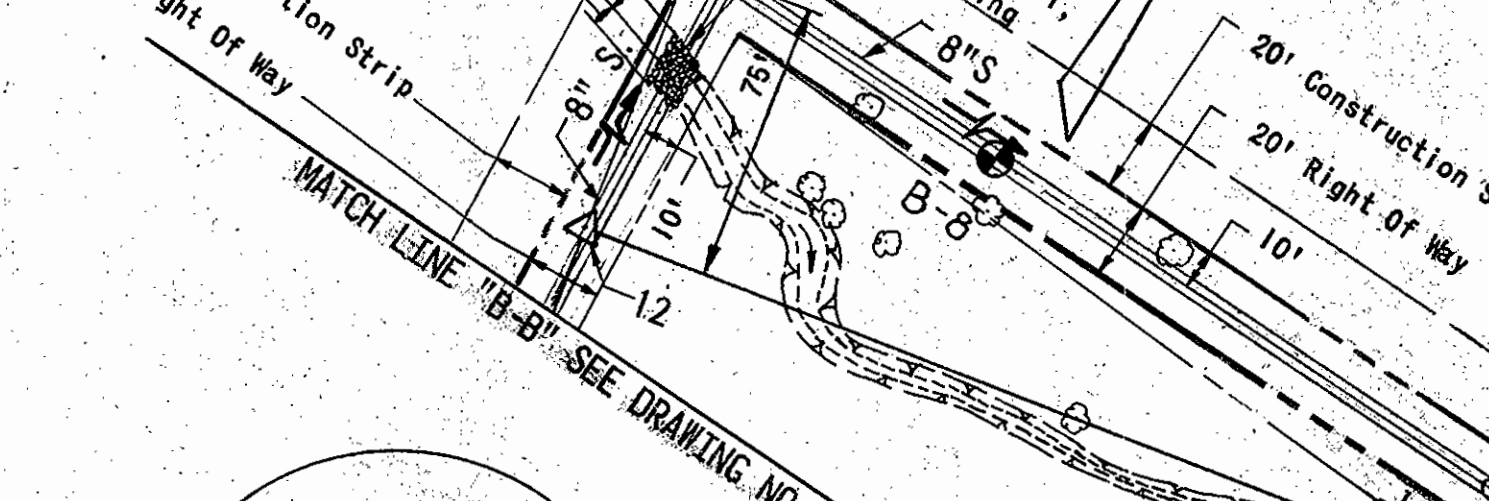
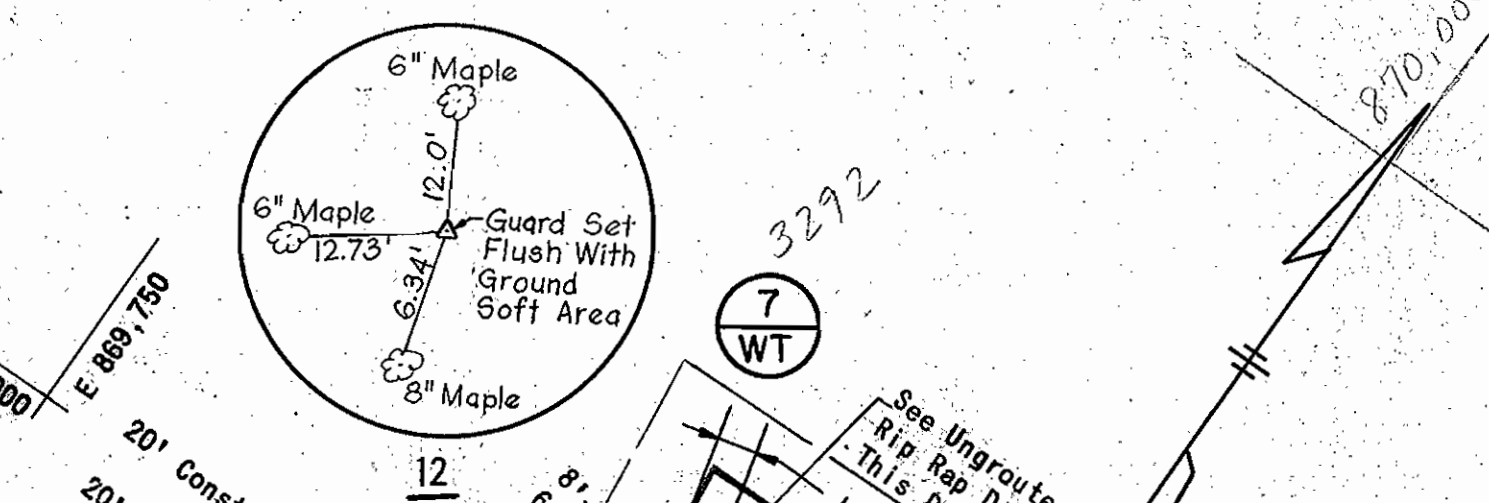
- Approximate Locations Of Existing Mains Are Shown. The Contractor Shall Take All Necessary Precautions To Protect Existing Mains And Services And Maintain Uninterrupted Supply. Any Damage Incurred Shall Be Repaired Immediately To The Satisfaction Of The Engineer At The Contractor's Expense.
- All Horizontal Controls Are Based On Maryland State Coordinates.
- All Vertical Controls Are Based On U.S.G.S. Data.
- All Pipe Elevations Shown Are Invert Elevations Unless Otherwise Indicated. Clear All Utilities By A Minimum Of 6". Clear All Poles By 2'-0" Minimum Or Tunnel As Required. The Owner Has Contacted The Utilities Companies And Has Made Arrangements For Relocating Or Bracing Of Poles As Shown On The Drawings. In The Event The Contractor's Work Requires Relocating Or Bracing Of Additional Poles, Any Cost Incurred By The Owner For Relocating Or Bracing Additional Poles Or Damages Shall Be Deducted From Money Owed The Contractor. The Contractor Shall Coordinate With The Utility Companies To Schedule The Relocating Or 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. 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 Utilities Or Agencies At Least Five Working Days Before Starting Work Shown On These Plans:  
 State Highway Administration - 531-5593  
 Baltimore Gas & Electric Co. - Contractor Services - 561-2585  
 Baltimore Gas & Electric Co. Underground Damage Control - 284-5621  
 Baltimore Gas & Electric Co. Trouble Shooting - 288-9013  
 Miss Utility - 1-559-0100  
 Colonial Pipeline Co. - 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 V.C.P., H.D.P.E. 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.
- Force Mains Shall Be D.I.P. Only.
- Manholes Shown With 12" And 16" Walls Are Brick Manholes Only.
- Manholes Designated W.T. In Plan And Profile Shall Have Watertight Frame And Covers, Standard Detail G5.52. Where Watertight Manhole Frame And Cover Is Used, Set Top Of Frame 1'-6" Above Finished Grade Unless Otherwise Noted On The Drawings.
- House(s) With The Symbol "C.N.S." Indicates That Cellar Cannot Be Served.
- The Location Of Each House Connection Is Shown Schematically Only. Final Location Is To Be Determined In The Field By The Engineer After Consultation With The Property Owner, And The County.
- All Force Main Fittings Shall Be Buttressed With Concrete In Accordance With Standard Details For Water Mains Unless Otherwise Noted In Special Provisions Or On The Contract Drawings.
- The Contractor Shall Comply With All Requirements For Sediment And Erosion Control As Indicated On The Contract Drawings And As Set Forth In Article 15, Protection Of The Environment, Of Volume IV Of Howard County Design Manual, Standard Specifications And Details For Construction.
- Following Initial Soil Disturbance Or Redisurbance, Permanent Or Temporary Stabilization Shall Be Completed Within:  
 a. Seven Calendar Days As To The Surface Of All Perimeter Controls, Dikes, Swales, Ditches, Perimeter Slopes, And All Slopes Greater Than 3 Horizontal To 1 Vertical.  
 b. Fourteen Days As To All Other Disturbed Or Graded Areas On The Project Site.

**TRAVERSE COORDINATES**

NO.	NORTH	EAST
7	503,019.90	871,346.97
8	502,581.06	870,808.90
9	502,357.16	870,454.15
10	502,212.48	870,313.02
11	502,057.94	870,160.91
12	501,998.92	869,920.89



**CHANNEL DETAIL - MANHOLE 4**



**UNGRADED RIP RAP - DETAIL**

No Scale

PIPE CLASSES	
SEWER MAIN	
MATERIAL	CLASS
Vitrified Clay Pipe (V.C.P.)	Extra Strength
Polyvinylchloride (P.V.C.)	SDR 35
High Density Polyethylene (H.D.P.)	SDR 32.5
FORCE MAIN	
MATERIAL	CLASS
Ductile Iron Pipe (D.I.P.)	52

APPROVED  
 DIVISION OF LAND DEVELOPMENT &  
 ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 9-7-84

ROCKBURN BRANCH  
 COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043

SDP 2 OF 5

APPROVED: Howard County Office Of Planning And Zoning  
 Planning Director  
 DATE 10-24-84

APPROVED: For Public Water And Public Sewerage Systems  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER  
 DATE 10-22-84

APPROVED: For Public Water, Public Sewerage And Storm Drainage Systems And Roads  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR  
 DATE 10-23-84

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR OF PUBLIC WORKS  
 DATE 10-17-84

RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 1035 NORTH CALVERT STREET  
 BALTIMORE, MARYLAND 21202

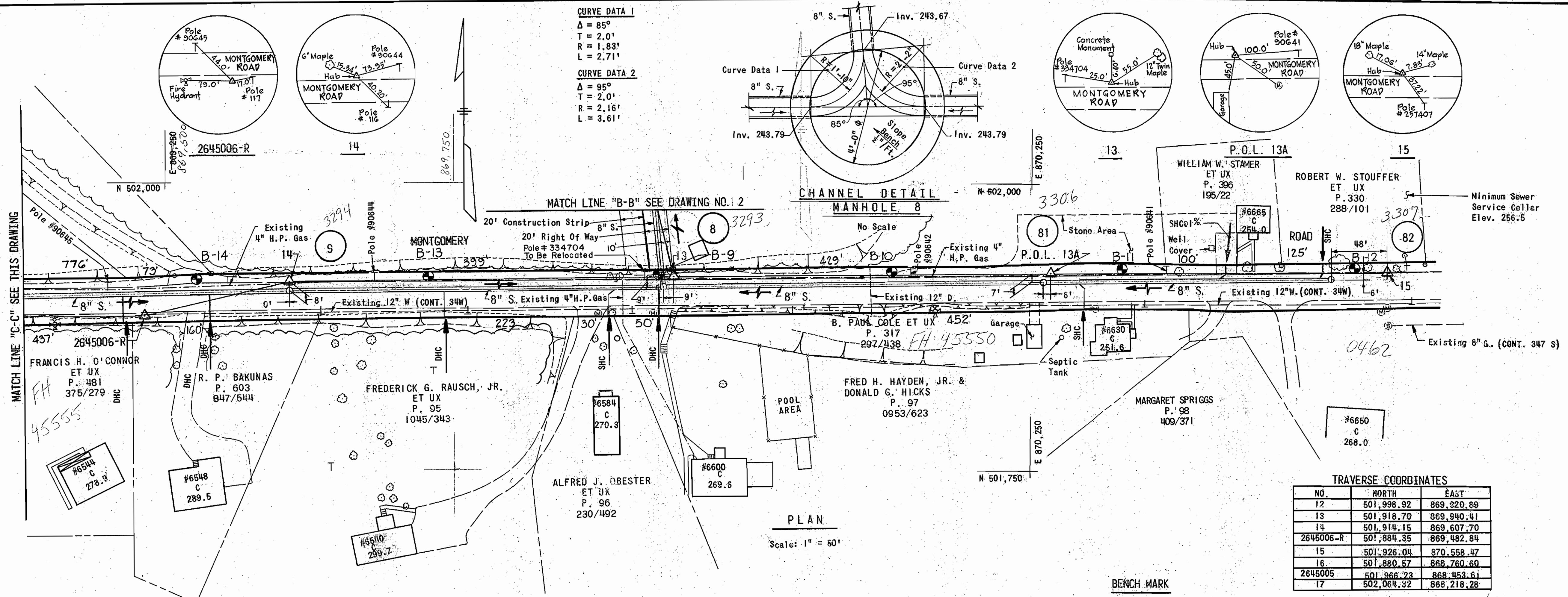
CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

PLAN OF SEWER

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

DRAWING NO. 2 OF 14  
 SCALE AS SHOWN

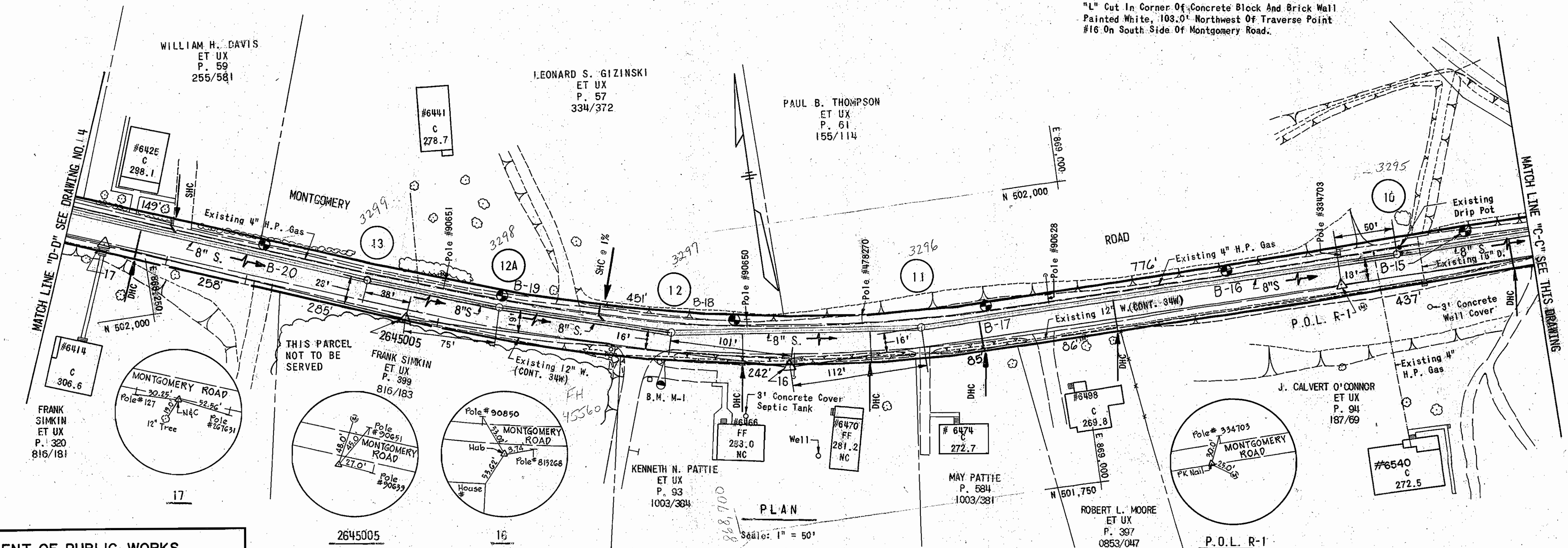
SDP-85-27



PLAN  
Scale: 1" = 50'

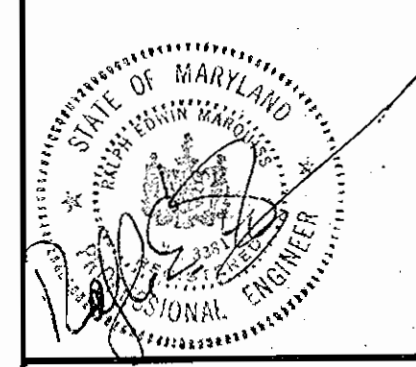
BENCH MARK

B.M. M-1 ELEV. 283.63  
 "L" Cut In Corner Of Concrete Block And Brick Wall Painted White, 103.0' Northwest Of Traverse Point #16 On South Side Of Montgomery Road.



PLAN  
Scale: 1" = 50'

ROCKBURN BRANCH  
 COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Ray F. Nease*  
 Chief, Bureau of Engineering: *Raymond J. ...*  
 Chief, Bureau of Utilities: *...*  
 Chief, Utility Division: *...*

RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

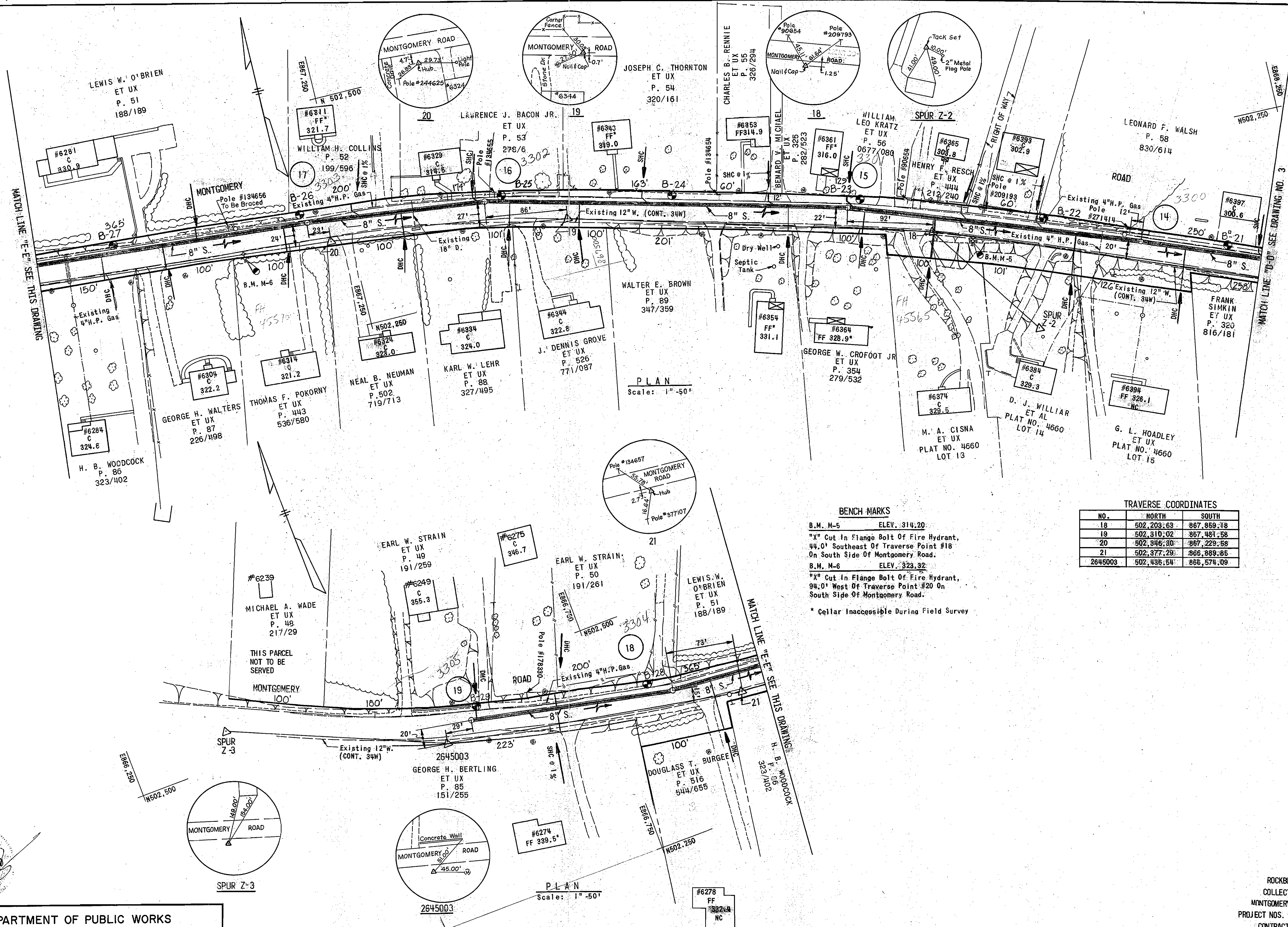
PLAN OF SEWER

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

DRAWING NO. 3 OF 14  
 SCALE AS SHOWN

S. M. S. H. W.

1043 w/s 4



PLAN  
Scale: 1" = 50'

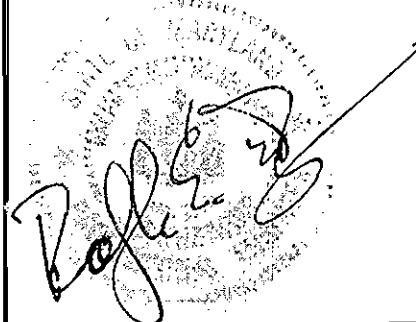
PLAN  
Scale: 1" = 50'

BENCH MARKS

- B.M. M-5 ELEV. 314.20
- "X" Cut In Flange Bolt Of Fire Hydrant, 44.0' Southeast Of Traverse Point #18 On South Side Of Montgomery Road.
- B.M. M-6 ELEV. 323.32
- "X" Cut In Flange Bolt Of Fire Hydrant, 94.0' West Of Traverse Point #20 On South Side Of Montgomery Road.
- \* Cellar Inaccessible During Field Survey

TRAVERSE COORDINATES

NO.	NORTH	SOUTH
18	502,203.63	867,859.18
19	502,310.02	867,481.58
20	502,346.30	867,229.58
21	502,377.29	866,889.85
2645003	502,436.54	866,574.09



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 10-17-89  
 Chief, Bureau of Engineering: *[Signature]* DATE: 10-10-89  
 Chief, Bureau of Utilities: *[Signature]* DATE: 10-10-89

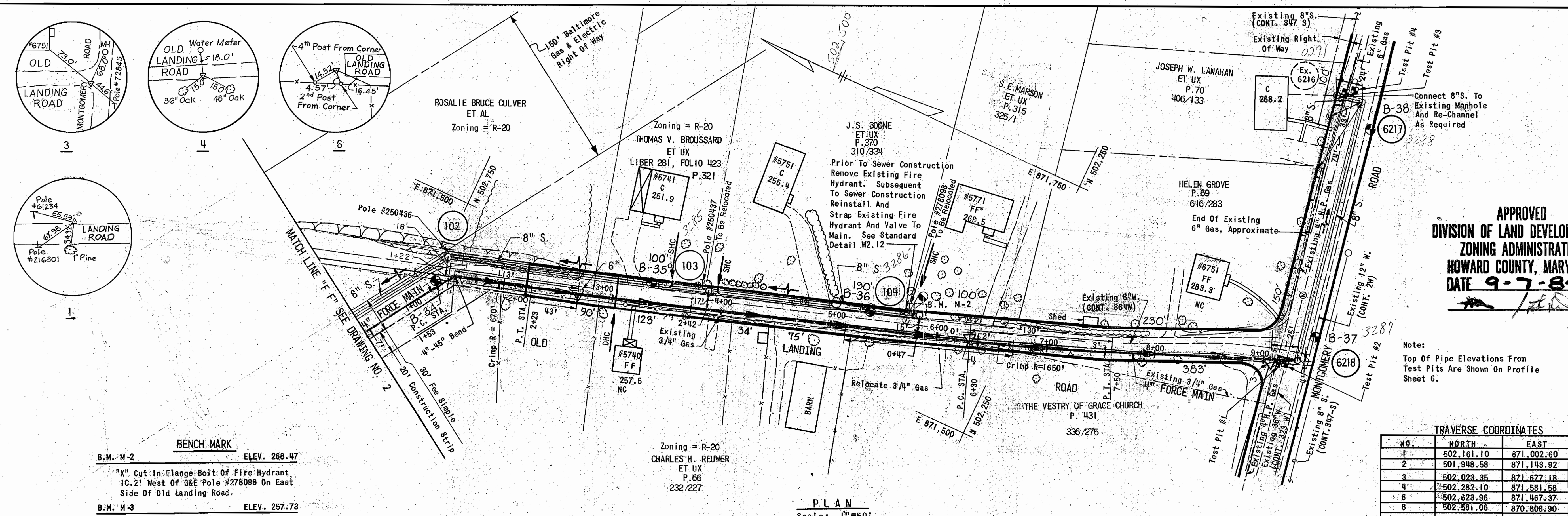
RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

PLAN OF SEWER

ROCKBURN BRANCH-MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

DRAWING NO. 4 OF 14  
SCALE AS SHOWN



APPROVED  
DIVISION OF LAND DEVELOPMENT &  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 9-7-84

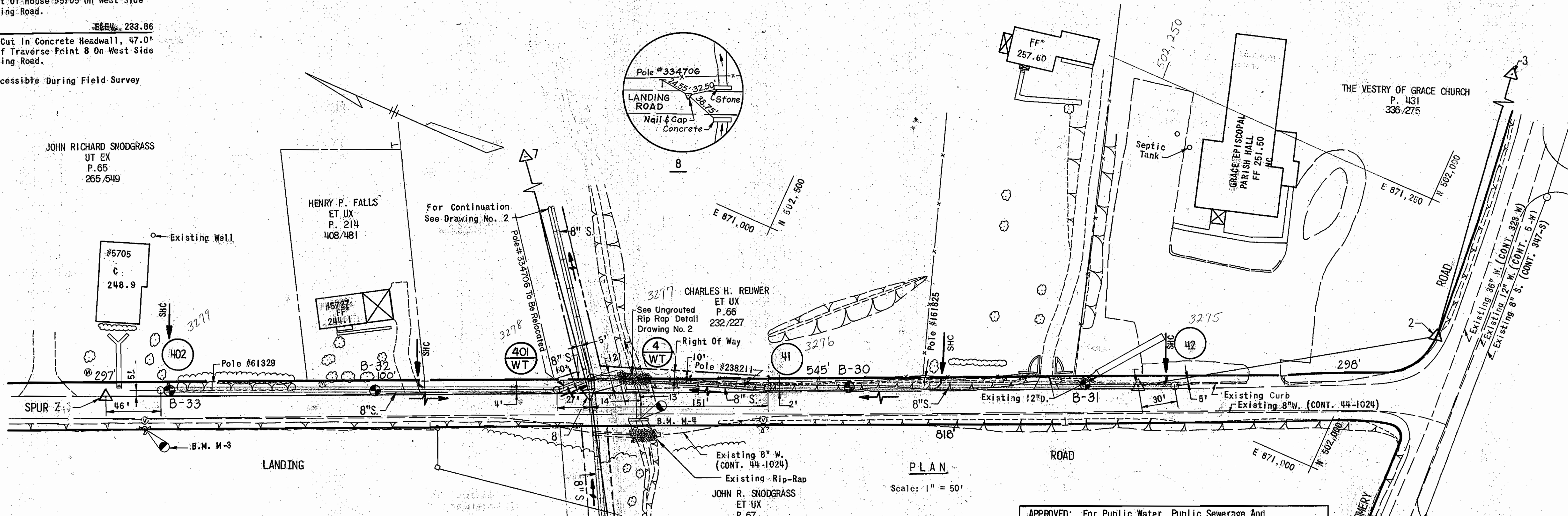
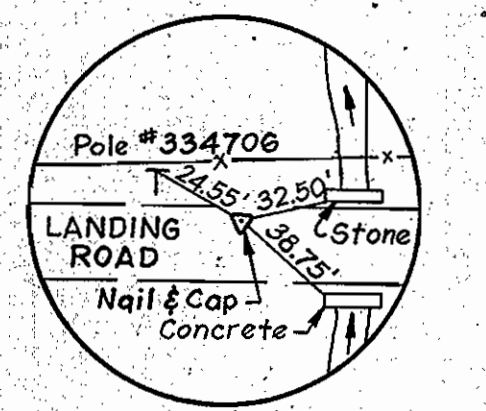
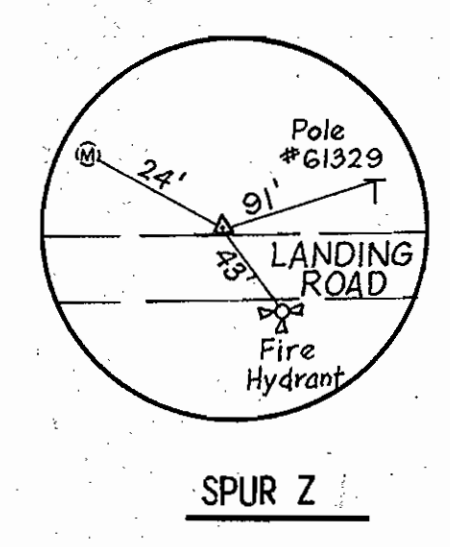
Note:  
Top Of Pipe Elevations From  
Test Pits Are Shown On Profile  
Sheet 6.

TRAVERSE COORDINATES

NO.	NORTH	EAST
1	502,161.10	871,002.60
2	501,948.58	871,143.92
3	502,023.35	871,677.18
4	502,282.10	871,581.58
6	502,823.96	871,487.37
8	502,551.06	870,808.90
SPUR Z	502,958.10	870,639.50

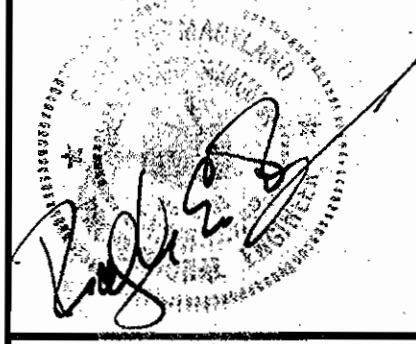
**BENCH MARK**  
B.M. M-2 ELEV. 268.47  
"X" Cut In Flange Bolt Of Fire Hydrant,  
10.2' West Of G&E Pole #278098 On East  
Side Of Old Landing Road.  
B.M. M-3 ELEV. 257.73  
"X" Cut In Flange Bolt Of Fire Hydrant,  
In Front Of House #5705 On West Side  
Of Landing Road.  
B.M. M-4 ELEV. 233.86  
Square Cut In Concrete Headwall, 47.0'  
South Of Traverse Point 8 On West Side  
Of Landing Road.  
\*Cellar Inaccessible During Field Survey

PLAN  
Scale: 1"=50'



PLAN  
Scale: 1"=50'

5/12/84



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
G. F. Nolley 10-18-84  
Ruth Berman 10-17-84

APPROVED: Howard County Office of Planning And Zoning  
10-24-84  
PLANNING DIRECTOR  
Acting Chief, Division of Land Dev. & Zoning Admin. 10-19-84

APPROVED: For Public Water And Public  
Sewerage Systems  
HOWARD COUNTY HEALTH DEPARTMENT  
10-22-84  
COUNTY HEALTH OFFICER

APPROVED: For Public Water, Public Sewerage And  
Storm Drainage Systems And Roads  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
10-27-84  
DIRECTOR  
Acting Chief, Bureau of Engineering 10/22/84

ROCKBURN BRANCH  
COLLECTION SYSTEM  
MONTGOMERY ROAD SECTION  
PROJECT NOS. S-6089-2 & S-6127  
CONTRACT NO. 10-1043  
SDP 3 OF 5

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
1035 NORTH CALVERT STREET  
BALTIMORE, MARYLAND 21202

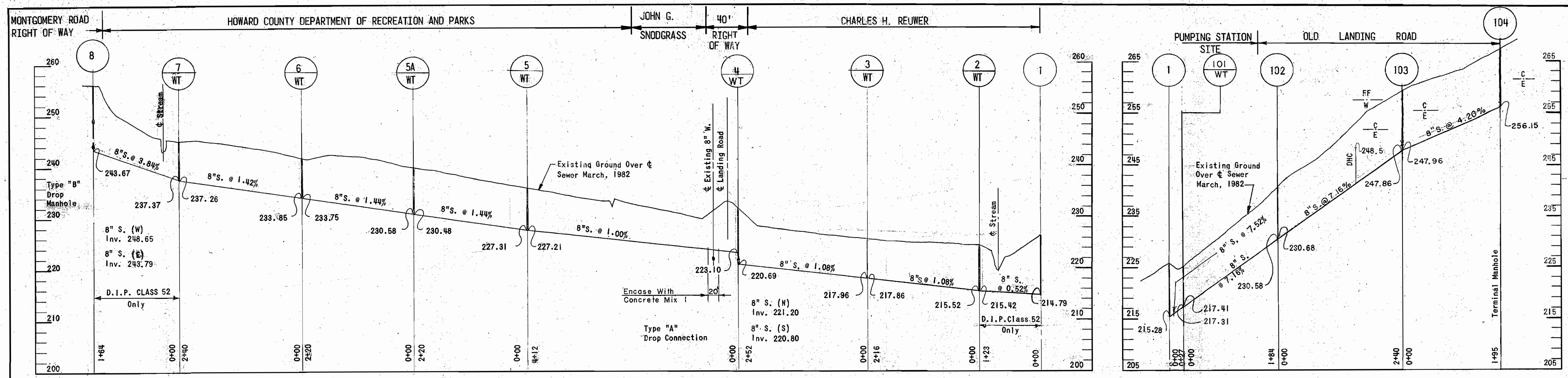
CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

PLAN OF SEWER

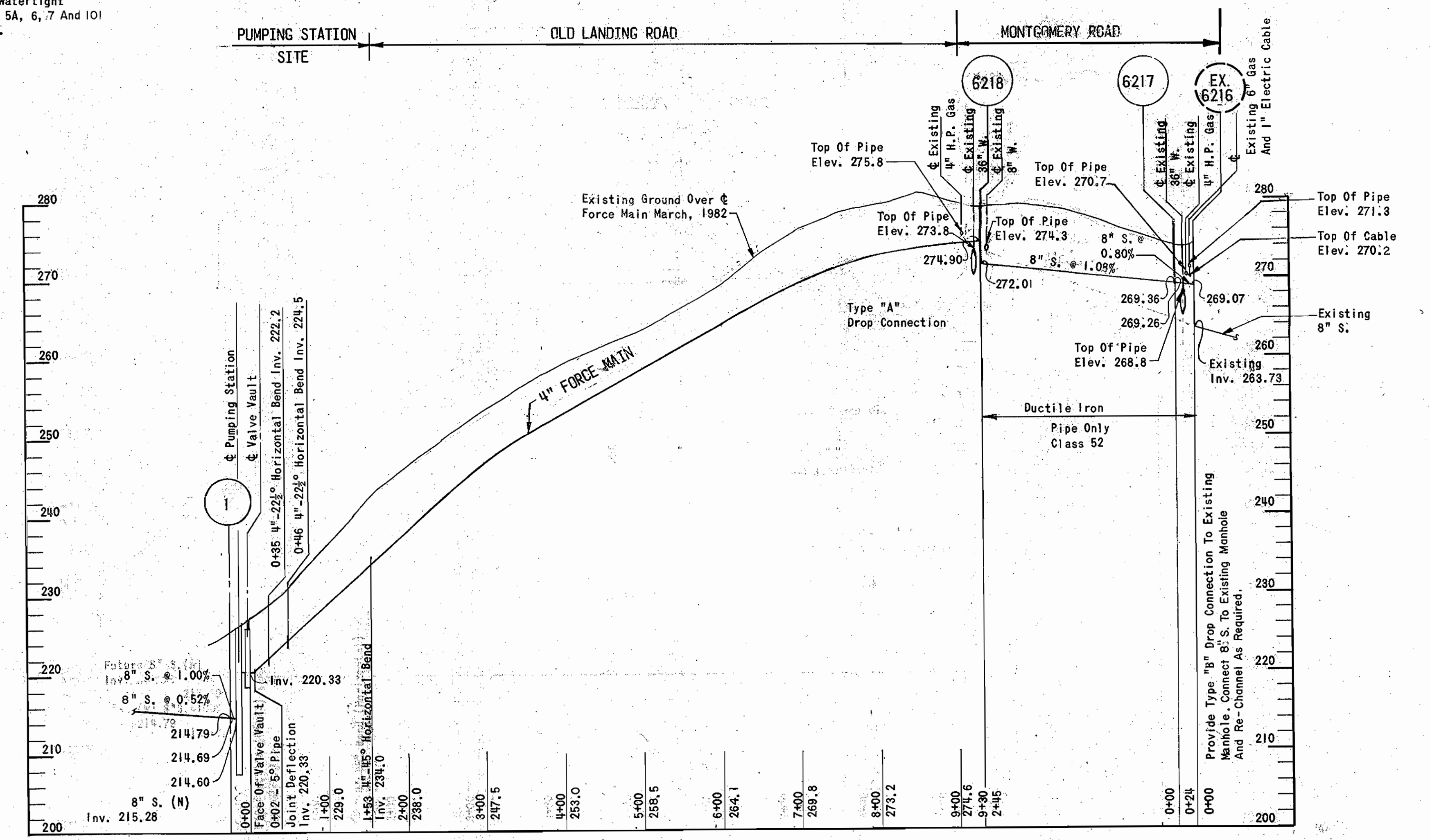
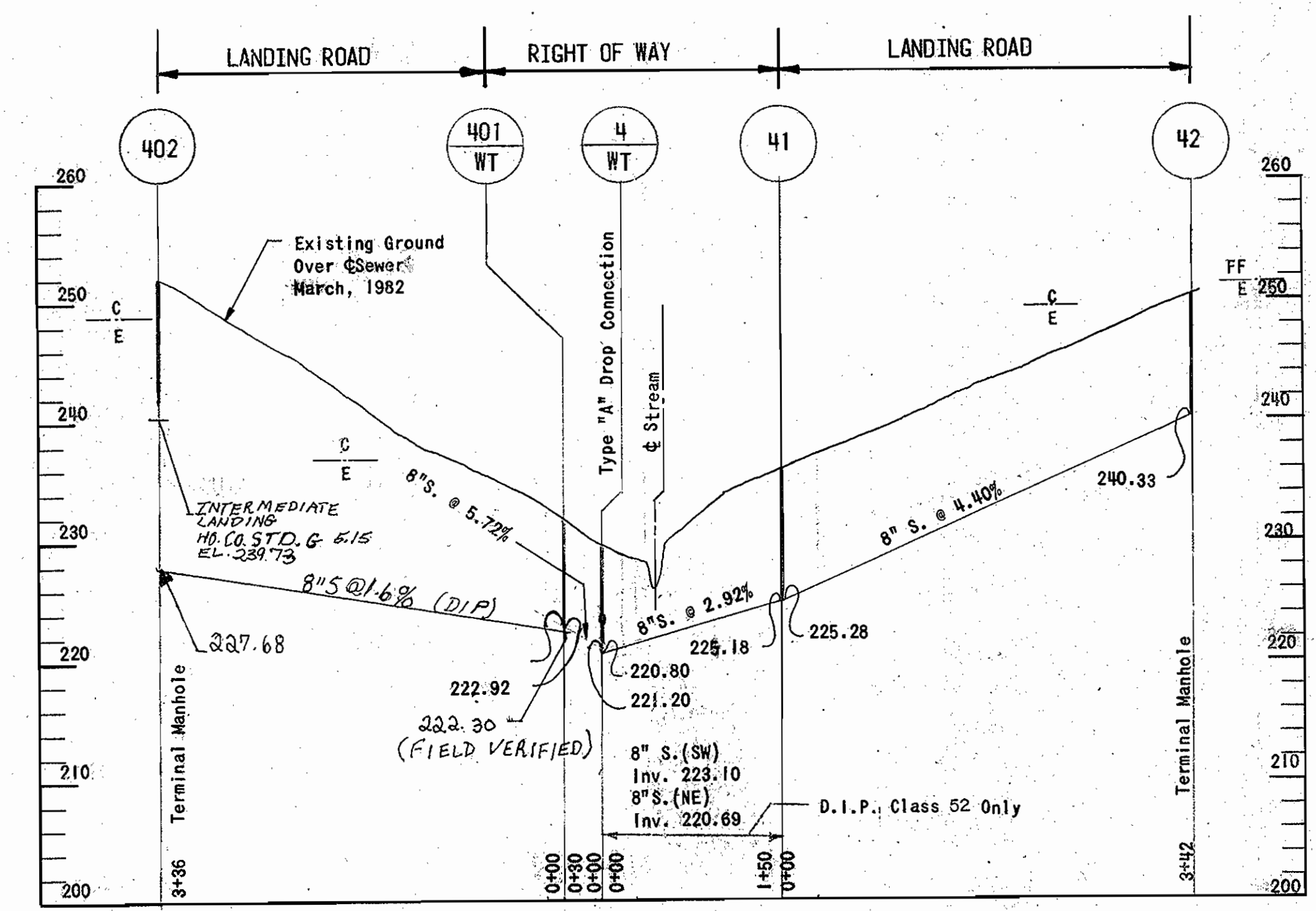
ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

DRAWING NO. 5 OF 14  
SCALE AS SHOWN

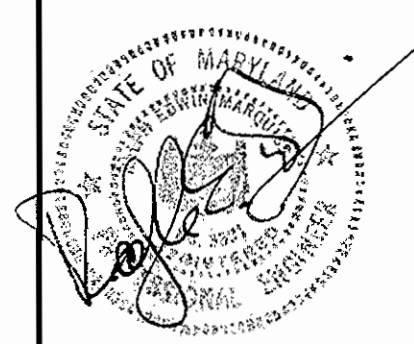
SDP-85-27



NOTE:  
Set Frames And Covers Of Watertight  
Manholes 2, 3, 4, 401, 5, 5A, 6, 7 And 101  
Flush With Existing Grade.



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



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
 J. F. Neumaier 10-18-84  
 R. L. Bunker 10-17-84  
 CHIEF, BUREAU OF UTILITIES

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

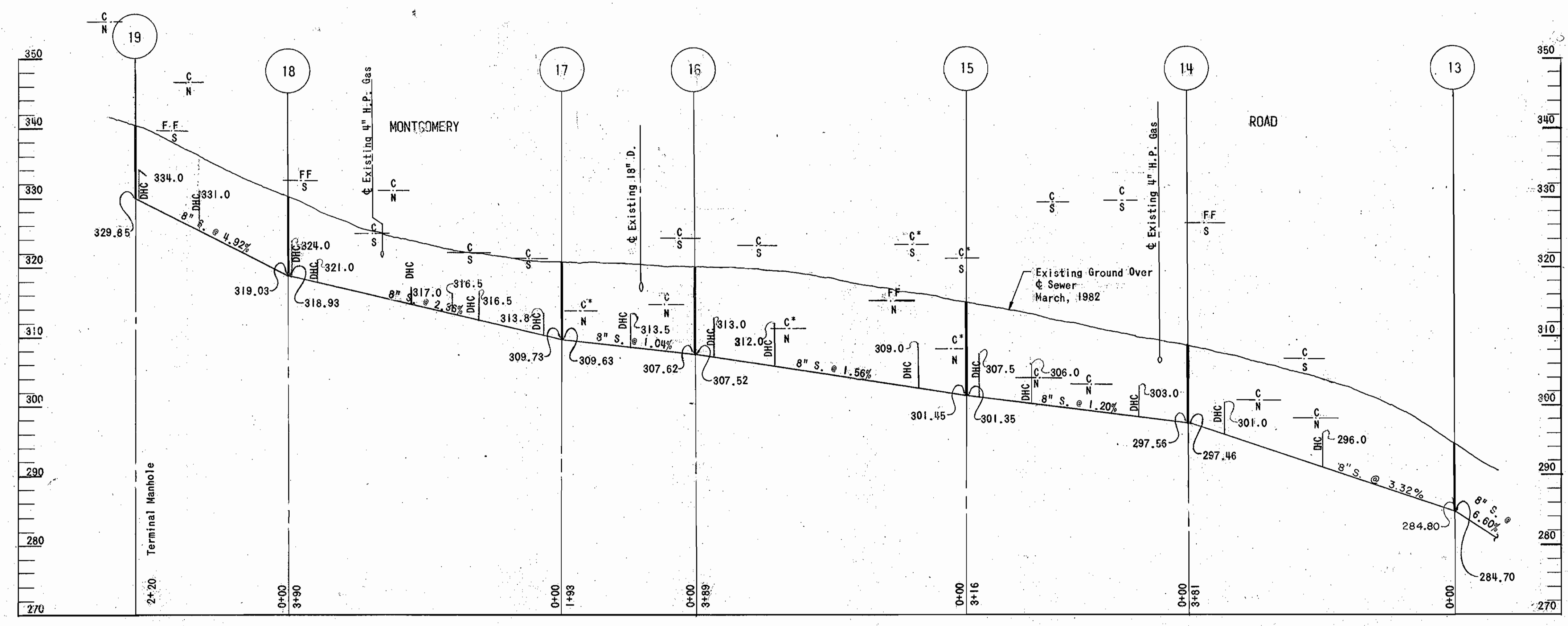
PROFILES OF SEWER AND FORCE MAIN

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

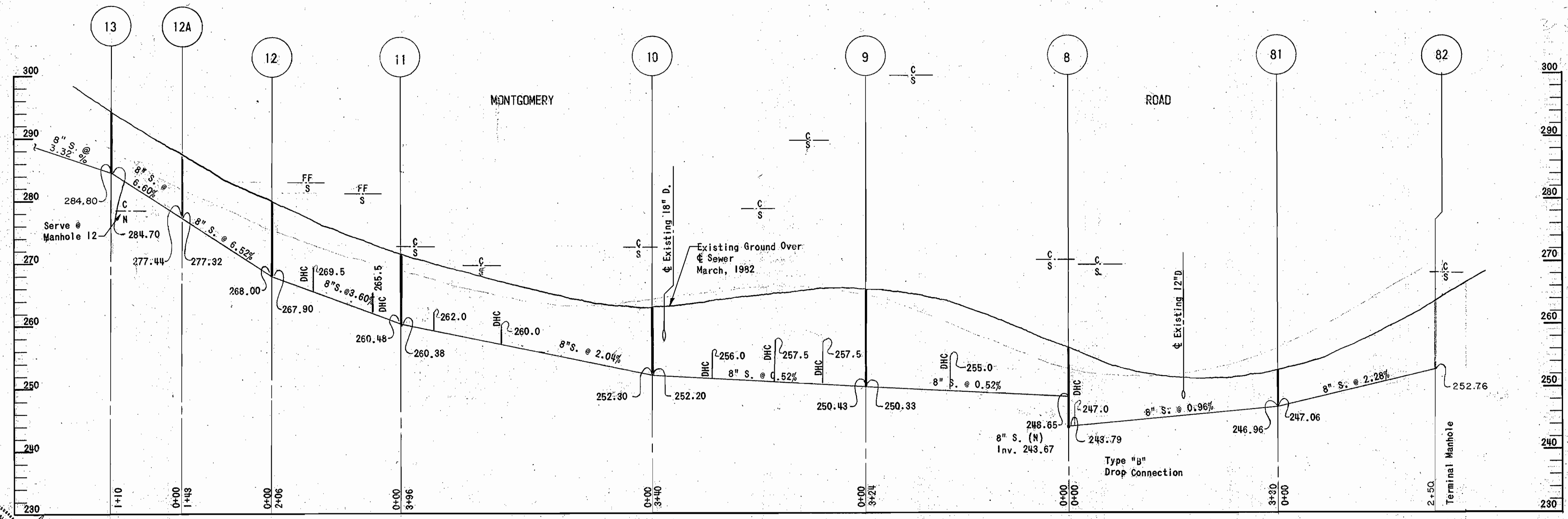
DRAWING NO. 6 OF 14  
SCALE AS SHOWN

ROCKBURN BRANCH  
COLLECTION SYSTEM  
MONTGOMERY ROAD SECTION  
PROJECT NOS. S-6089-2 & S-6127  
CONTRACT NO. 10-1043

1043 2/5 6



\*Cellar Inaccessible. Cellar Elevation Shown Assumed 8.0 Feet Below First Floor Elevation.



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

1043 2/15 7



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*John F. Nunn* 10-18-84  
 DIRECTOR OF PUBLIC WORKS DATE  
*Richard M. Brainerd* 10-17-84  
 CHIEF, BUREAU OF UTILITIES DATE

*William B. Ridd* 10-18-84  
 CHIEF, BUREAU OF ENGINEERING DATE  
*Walter D. DeLeon* 10-10-84  
 CHIEF, UTILITY DIVISION DATE

DEPARTMENT OF PUBLIC WORKS  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

PROFILES OF SEWER MAINS

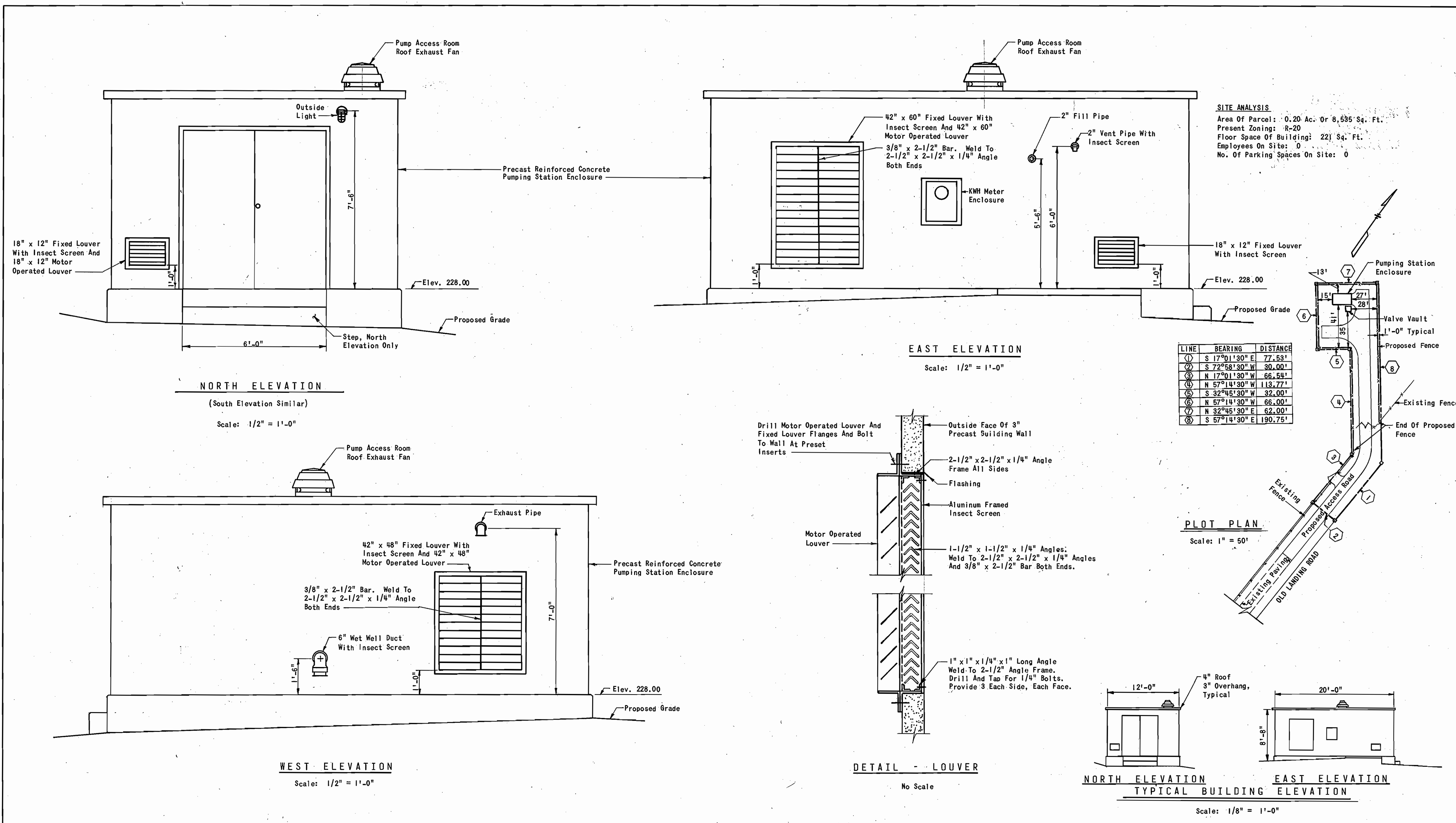
ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

ROCKBURN BRANCH  
 COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043

DRAWING NO. 7  
 OF 14

SCALE AS SHOWN

1043 2/5 8



**SITE ANALYSIS**  
 Area Of Parcel: 0.20 Ac. Or 8,535 Sq. Ft.  
 Present Zoning: R-20  
 Floor Space Of Building: 221 Sq. Ft.  
 Employees On Site: 0  
 No. Of Parking Spaces On Site: 0

LINE	BEARING	DISTANCE
①	S 17°01'30" E	77.53'
②	S 72°58'30" W	30.00'
③	N 17°01'30" W	66.54'
④	N 57°14'30" W	113.77'
⑤	S 32°45'30" W	32.00'
⑥	N 57°14'30" W	66.00'
⑦	N 32°45'30" E	62.00'
⑧	S 57°14'30" E	190.75'



**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

APPROVED: *John F. Neuma* 10-18-84  
 DIRECTOR OF PUBLIC WORKS DATE

APPROVED: *Charles J. ...* 10-10-84  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: *Robert M. Brunner* 10-17-84  
 CHIEF, BUREAU OF UTILITIES DATE

APPROVED: Howard County Office Of Planning And Zoning  
*Thomas J. Harris* 10-24-84  
 PLANNING DIRECTOR DATE

APPROVED: *Louis F. ...* 10-19-84  
 CHIEF, DIVISION OF LAND DEV. & ZONING ADMIN. DATE

APPROVED: For Public Water And Public Sewerage Systems  
 HOWARD COUNTY HEALTH DEPARTMENT  
*James ...* 10-22-84  
 COUNTY HEALTH OFFICER DATE

APPROVED: For Public Water, Public Sewerage And Storm Drainage Systems And Roads  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*John F. Neuma* 10-18-84  
 DIRECTOR DATE

APPROVED: *William ...* 10-23-84  
 CHIEF, BUREAU OF ENGINEERING DATE

**APPROVED**  
**DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION**  
**HOWARD COUNTY, MARYLAND**  
 DATE **9-7-84**  
*MA / JFD*

ROCKBURN BRANCH COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043

RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 1035 NORTH CALVERT STREET  
 BALTIMORE, MARYLAND 21202

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

PUMPING STATION  
 ARCHITECTURAL

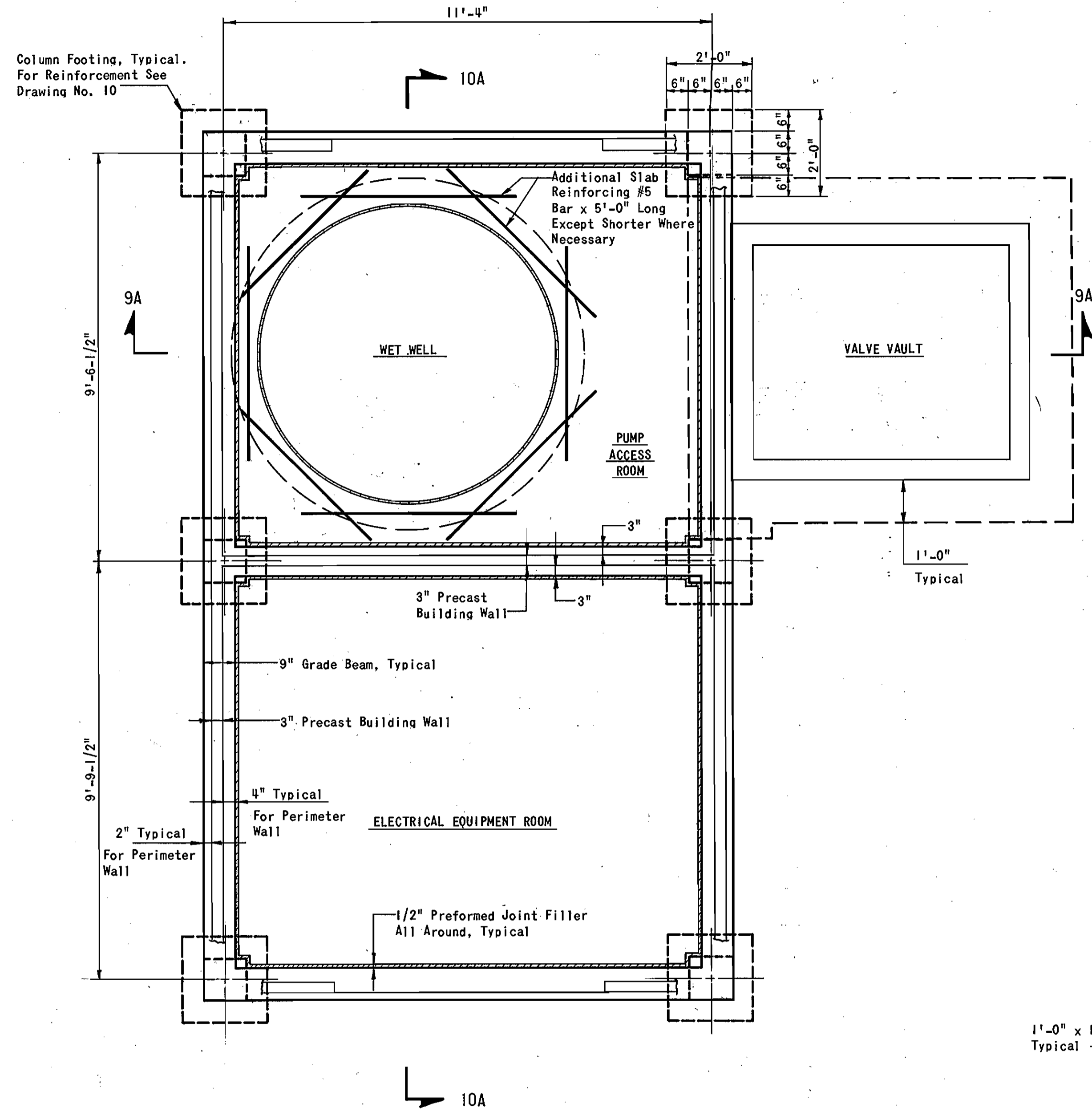
ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

SDP 4 OF 5

DRAWING NO. 8	SCALE AS SHOWN
OF 14	

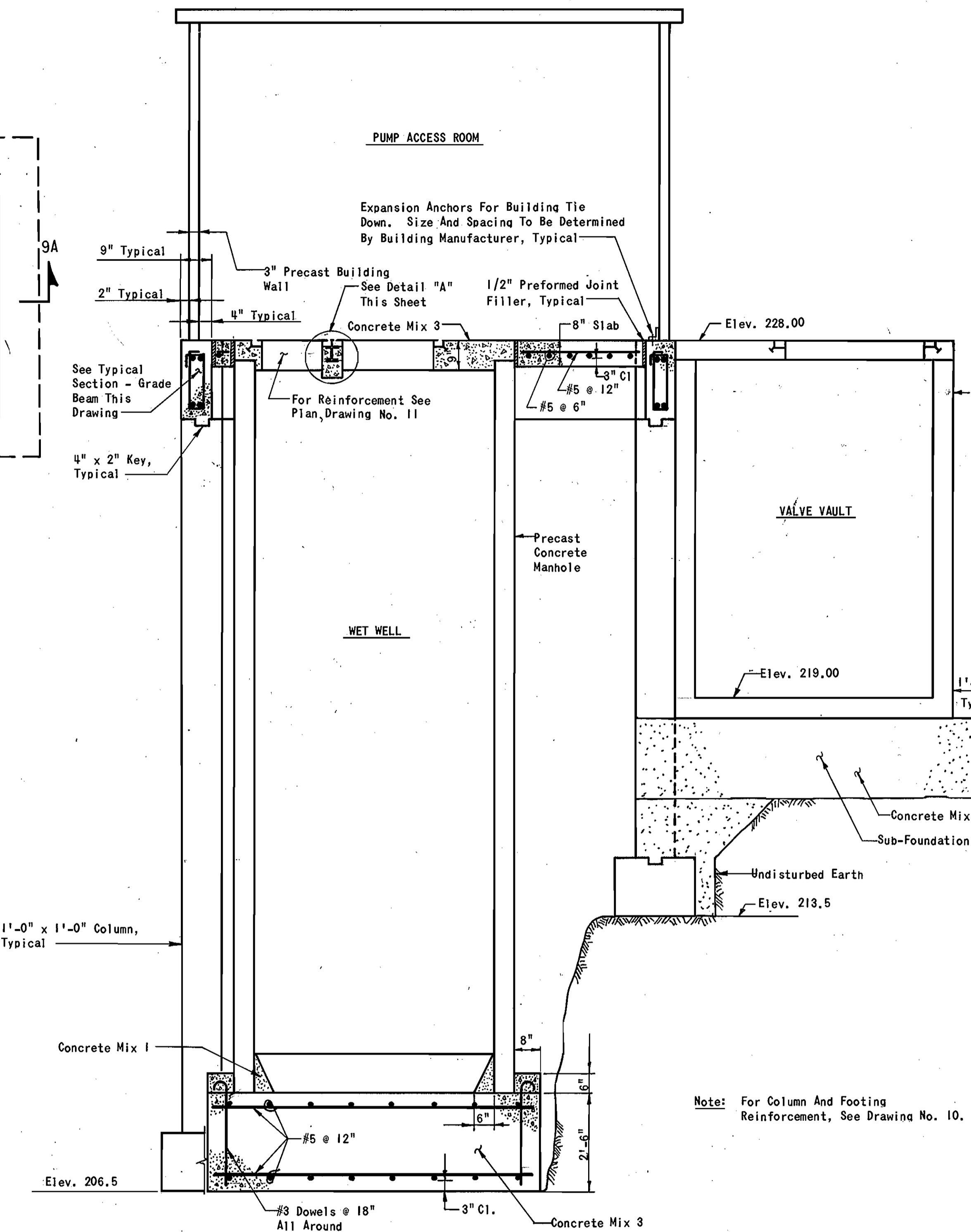


1043 2/15 9



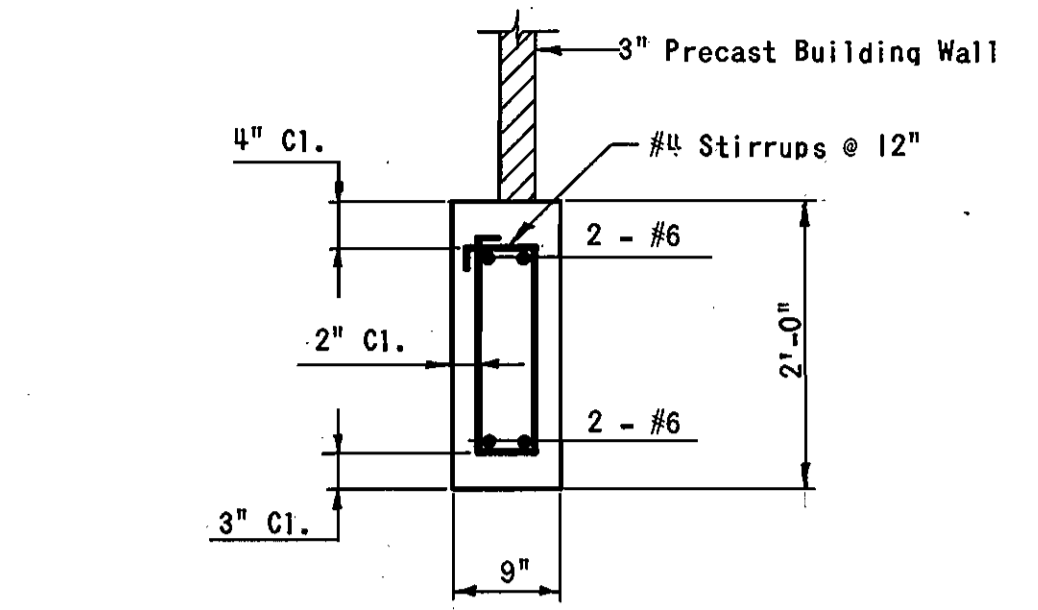
PLAN - FLOOR AND FOUNDATION

Scale: 1/2" = 1'-0"



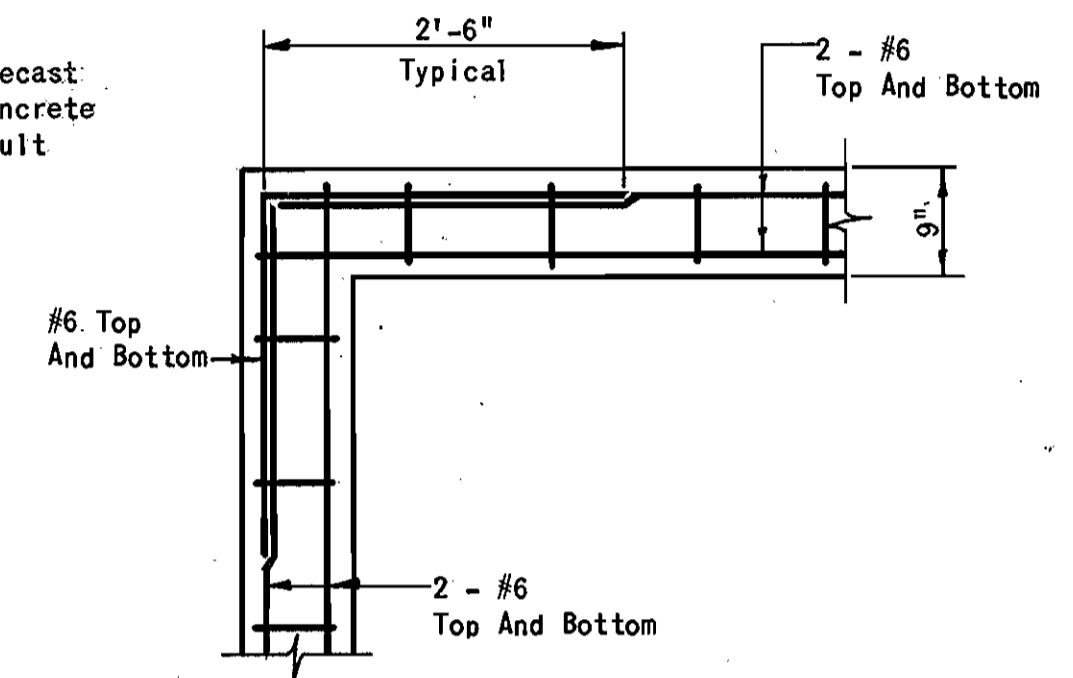
ELEVATION 9A/9

Scale: 1/2" = 1'-0"



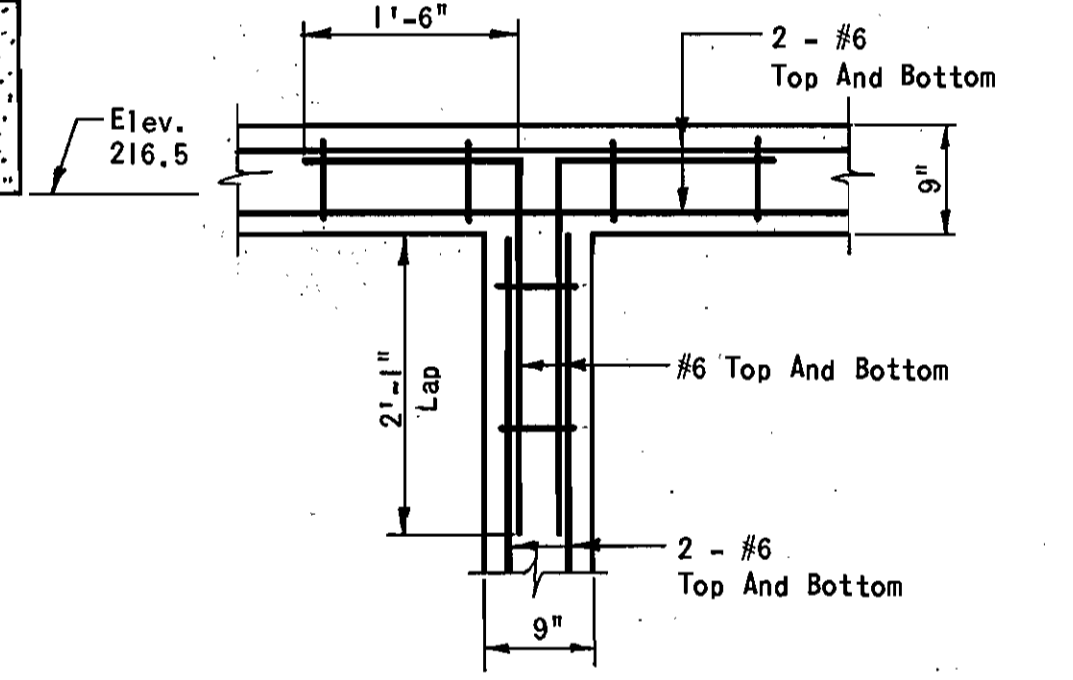
TYPICAL SECTION - GRADE BEAM

Scale: 3/4" = 1'-0"



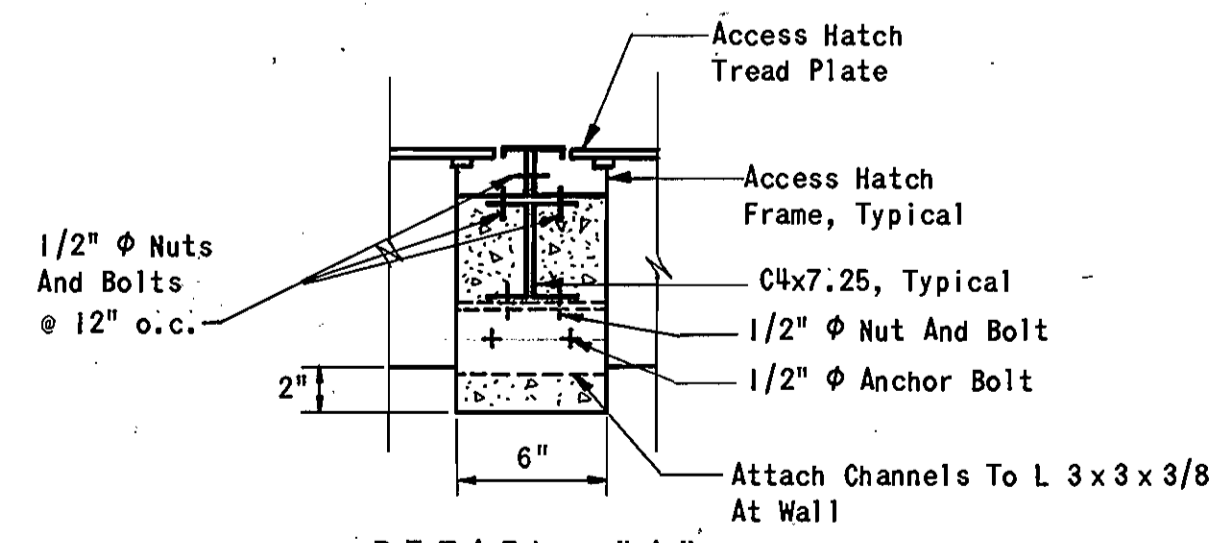
TYPICAL CORNER - GRADE BEAM

Scale: 3/4" = 1'-0"



TYPICAL JOINT AT INTERIOR WALL GRADE BEAM

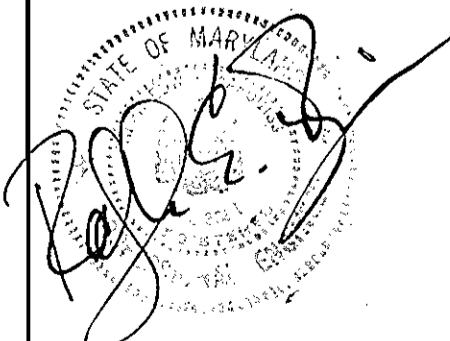
Scale: 3/4" = 1'-0"



DETAIL "A"

Scale: 1-1/2" = 1'-0"

Note: For Column And Footing Reinforcement, See Drawing No. 10.



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *Henry F. ...* 10-18-84  
 Chief, Bureau of Engineering: *...* 10/11/84  
 Chief, Bureau of Utilities: *...* 10-17-84  
 Chief, Utility Division: *...* 10-10-84

RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

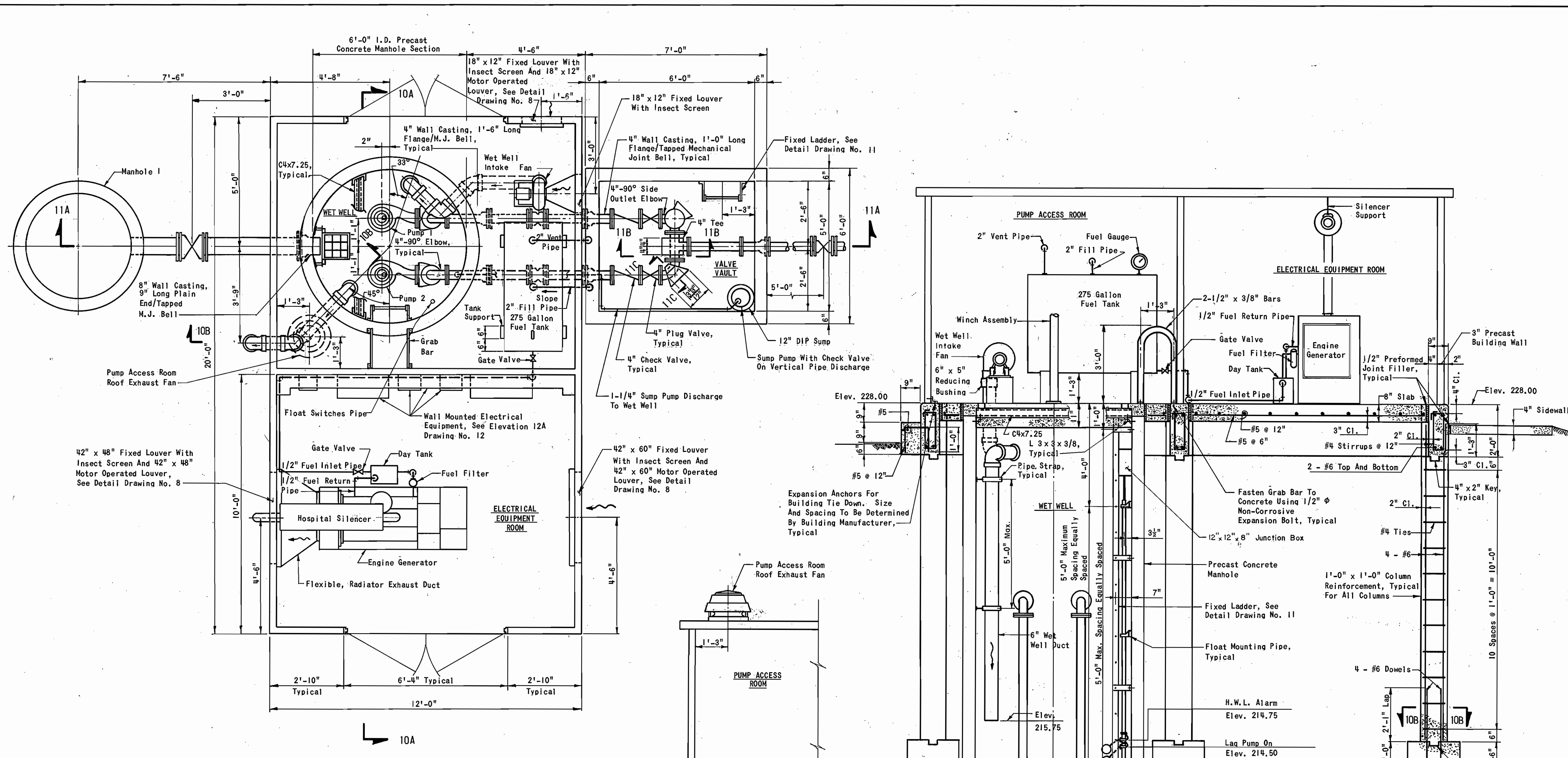
CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127

PUMPING STATION  
 STRUCTURAL  
 PLAN - ELEVATION - SECTION

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

DRAWING NO. 9	SCALE AS SHOWN
OF 14	

1043 w/s 10



**PLAN - PUMPING STATION**  
Scale: 1/2" = 1'-0"

Note: Wetwell And Valve Vault Shown With Top Slab Removed.

**ELEVATION 10B/10**  
Scale: 1/2" = 1'-0"

**ELEVATION 10A/9, 10**  
Scale: 1/2" = 1'-0"

**TYPICAL COLUMN FOOTING SECTION 10B/10**  
Scale: 1/2" = 1'-0"



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

John F. Norman, 10-17-84, Director of Public Works  
 Kenneth S. Reed, 10-17-84, Chief, Bureau of Engineering  
 Kenneth S. Reed, 10-17-84, Chief, Utility Division

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

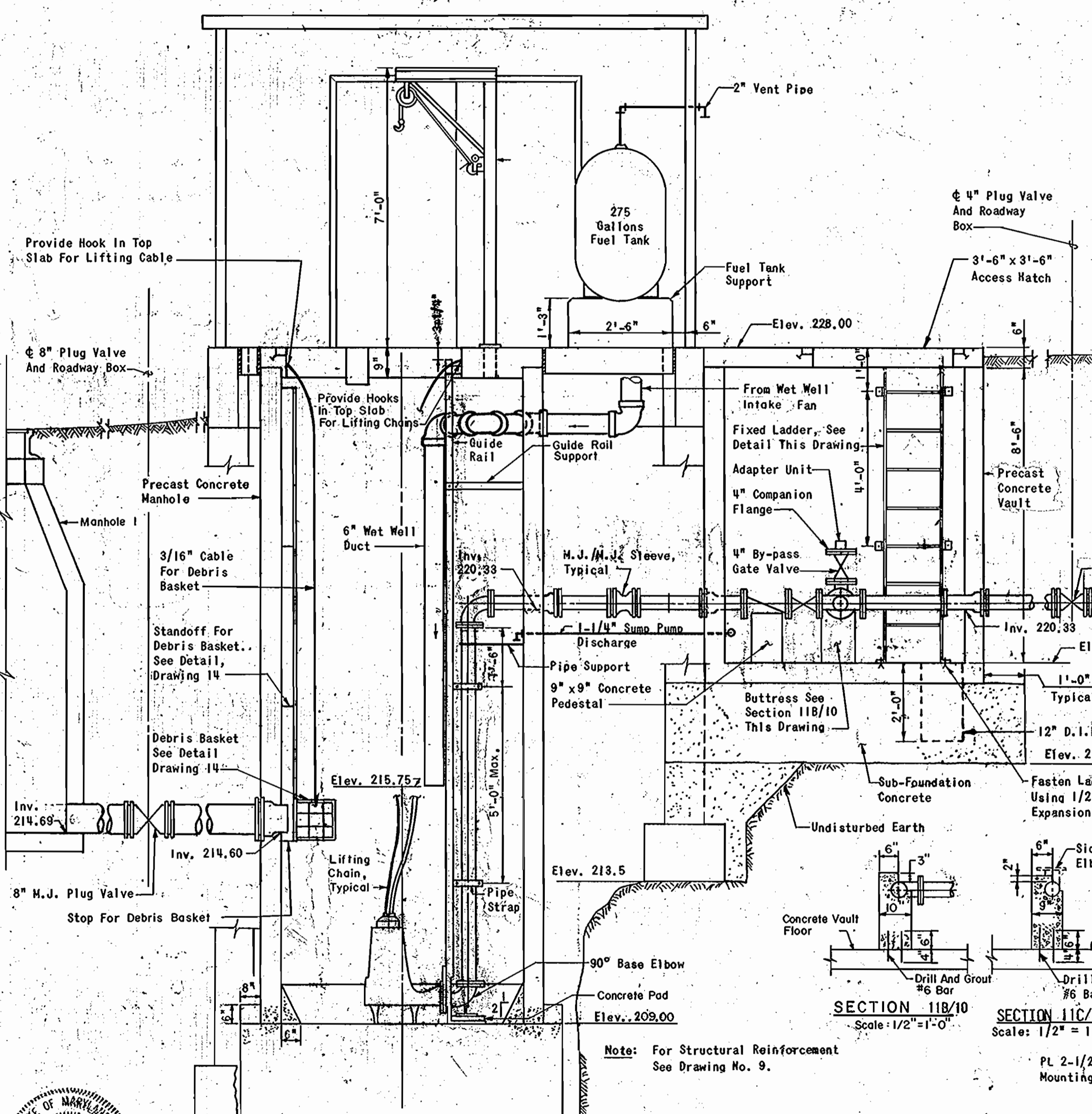
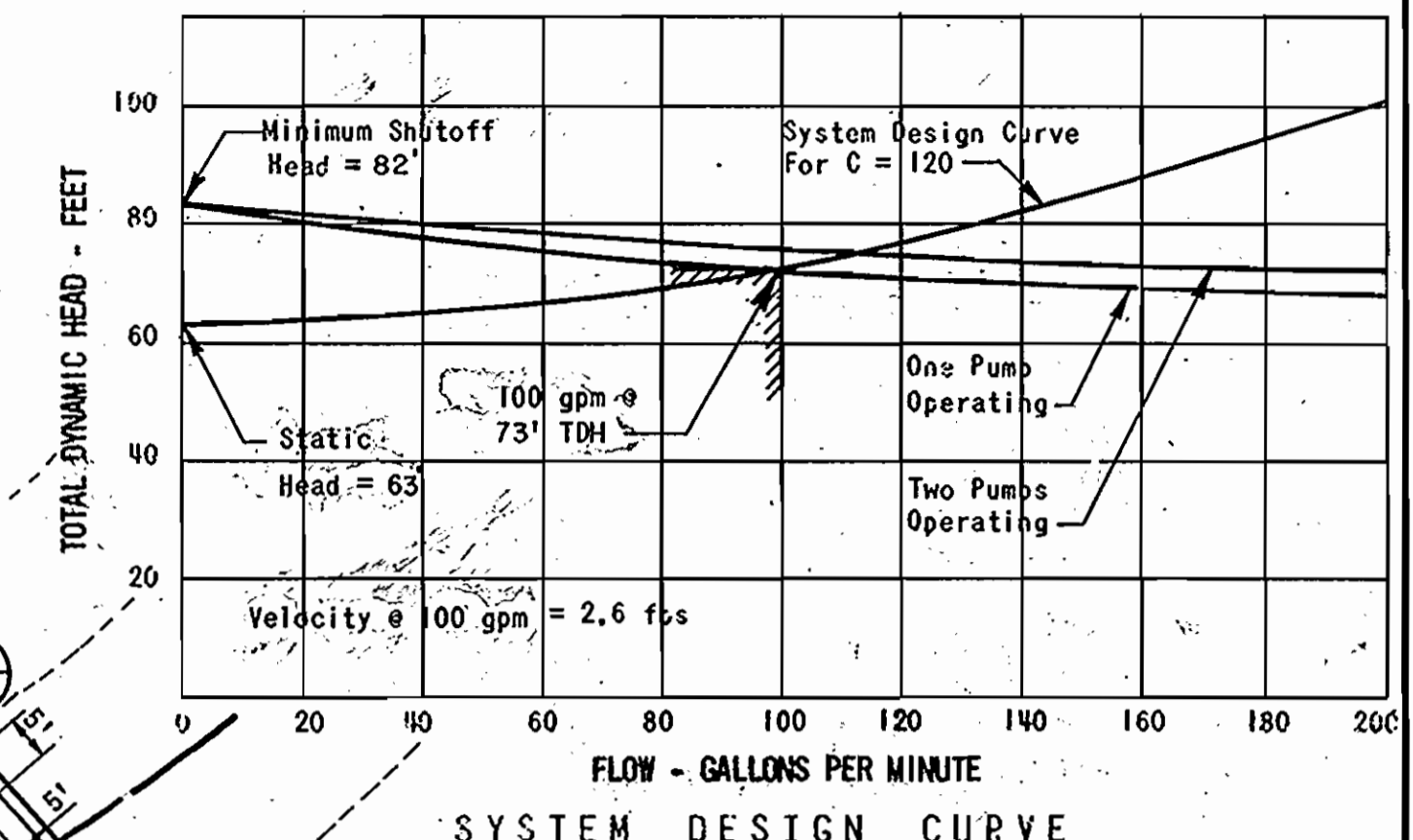
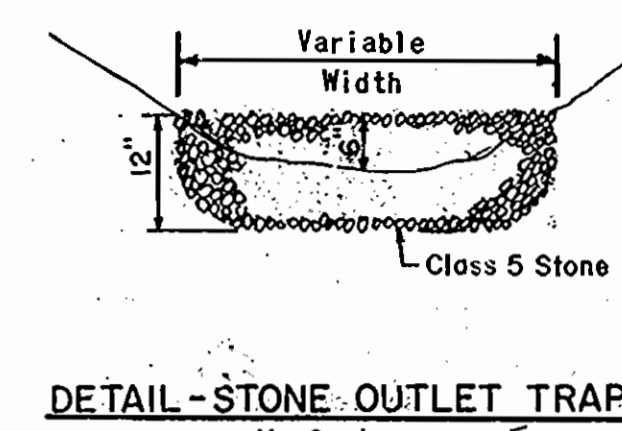
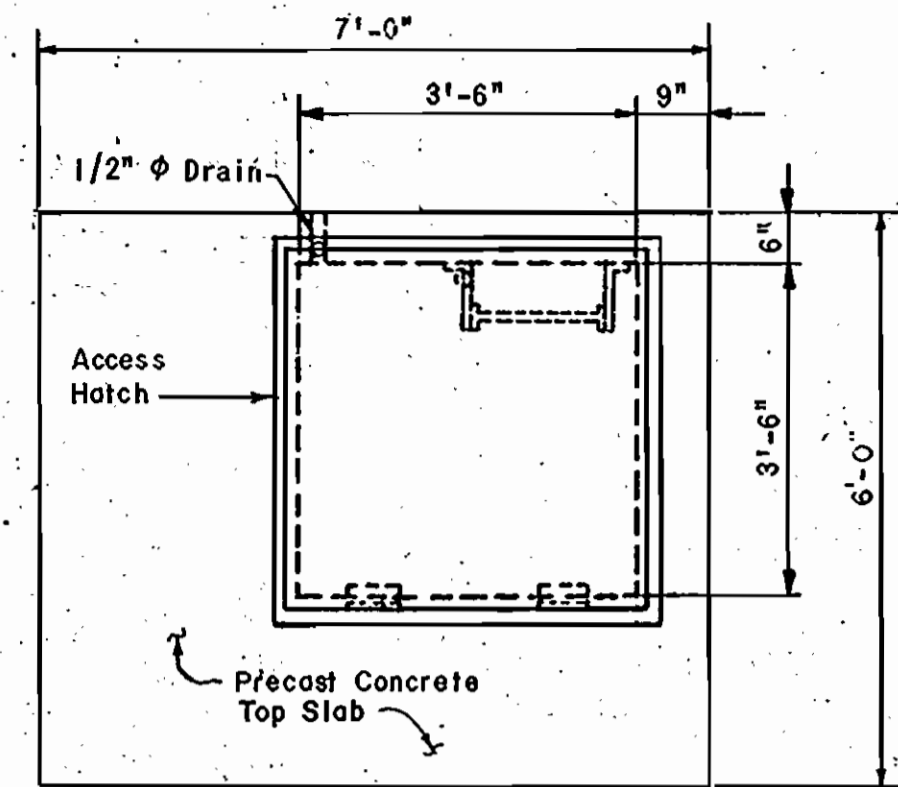
PUMPING STATION  
MECHANICAL - STRUCTURAL  
PLAN - ELEVATION - SECTION

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

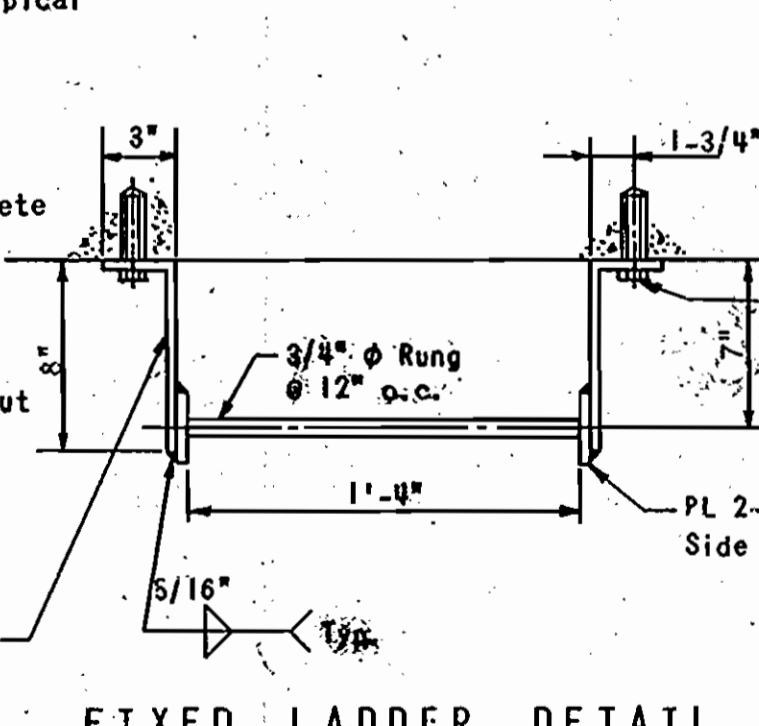
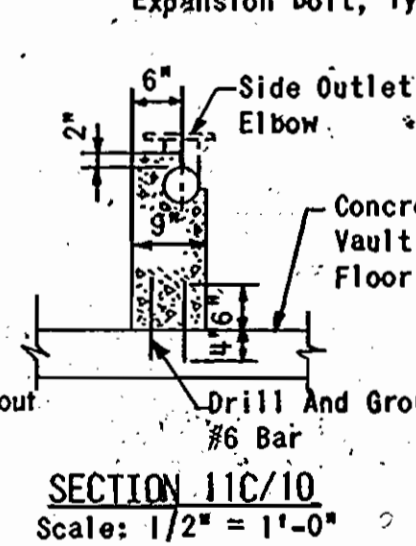
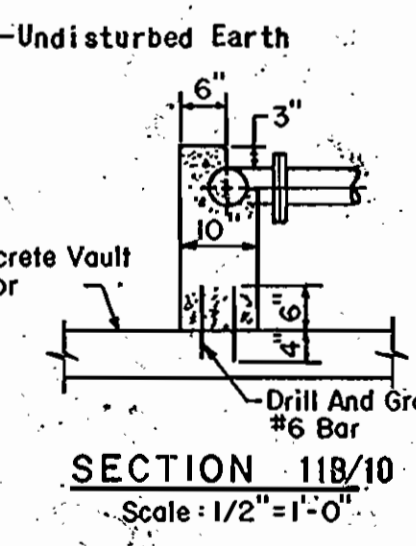
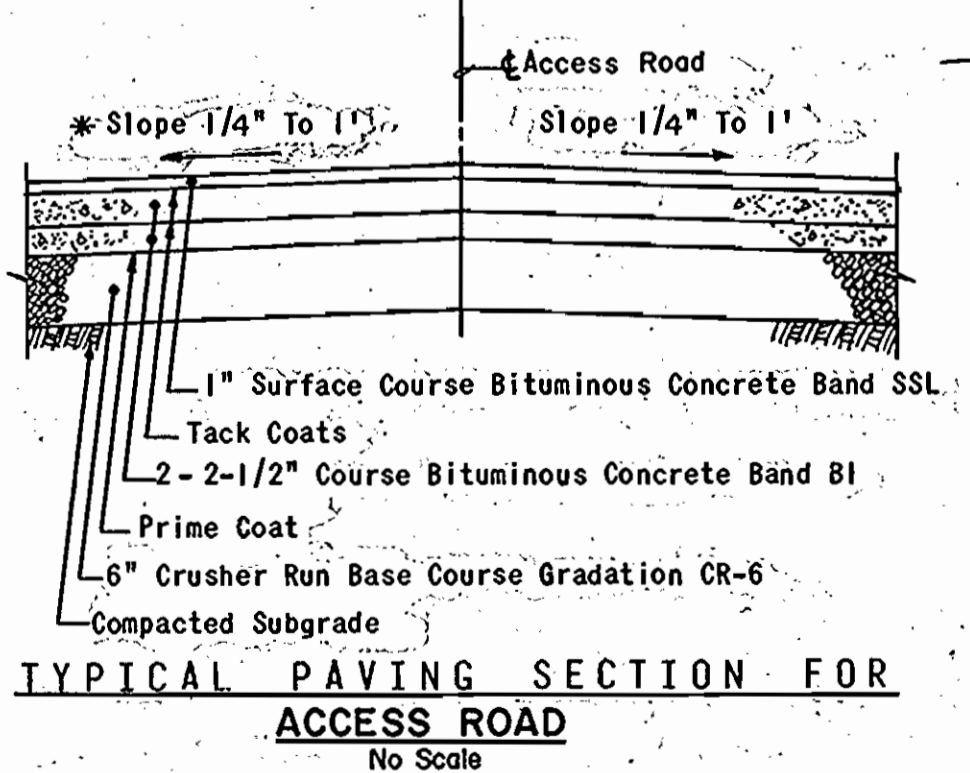
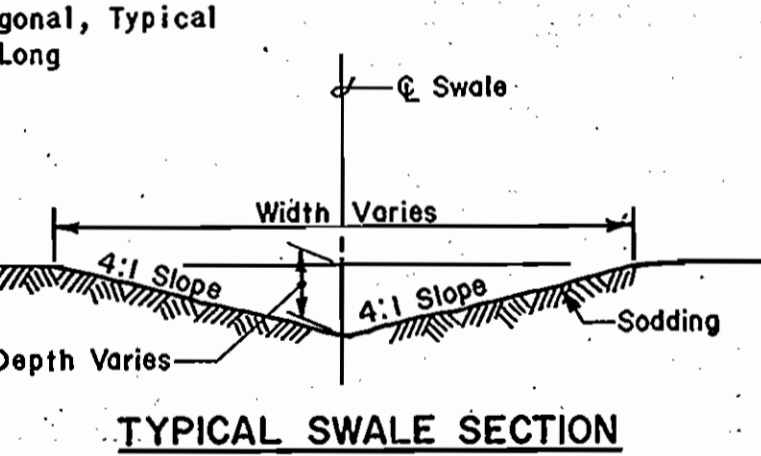
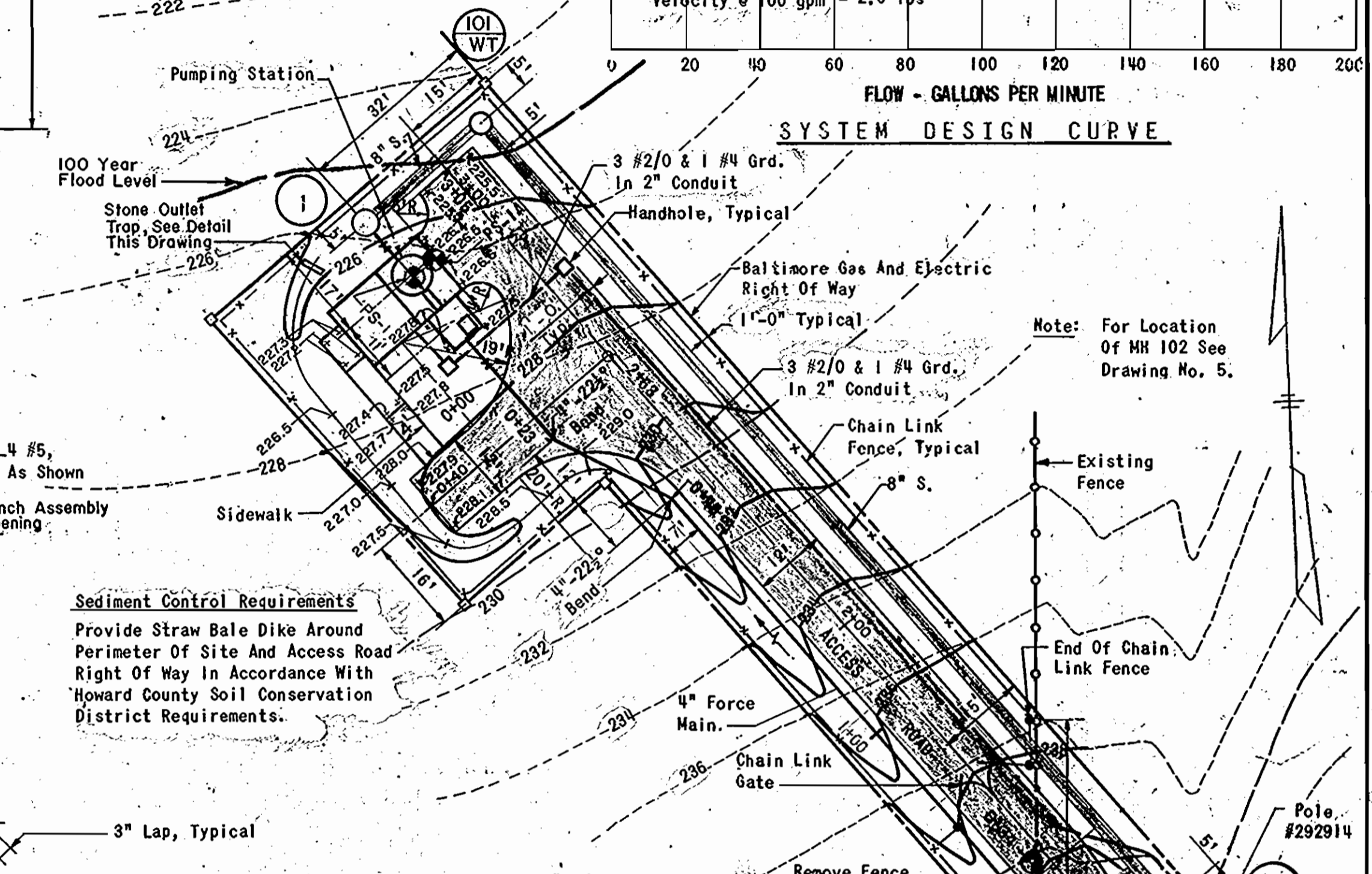
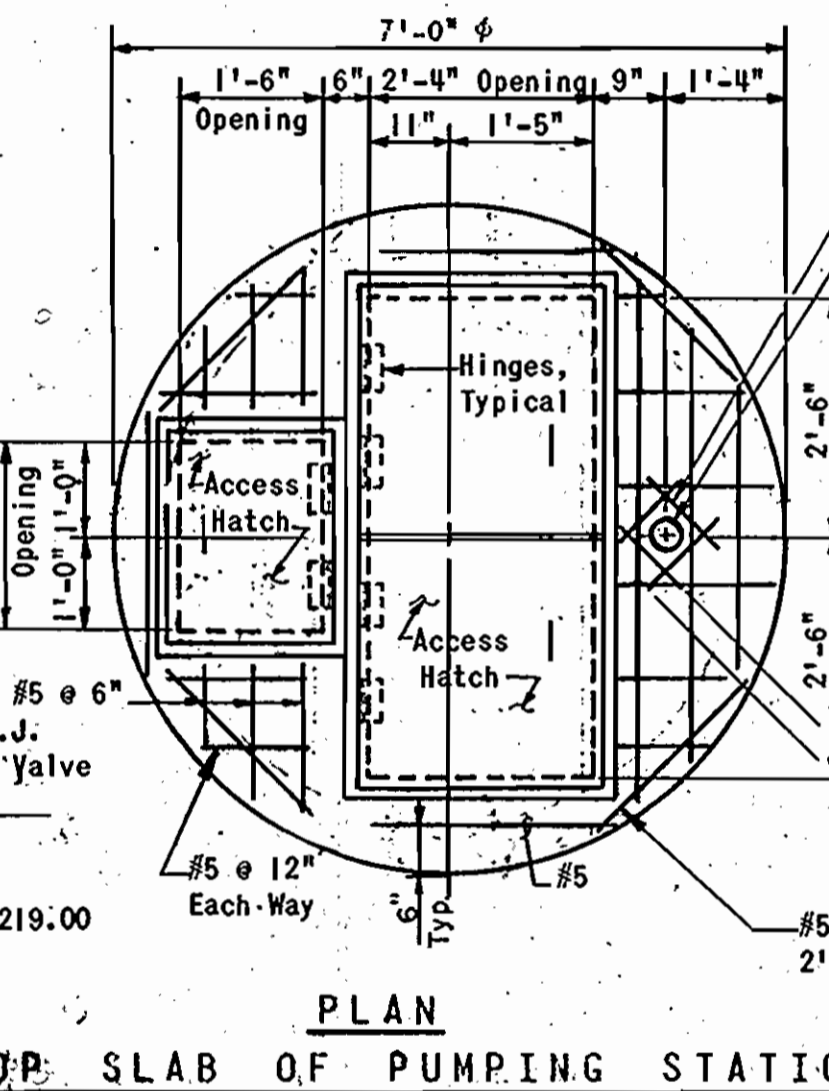
DRAWING NO. 10  
OF 14  
SCALE AS SHOWN

ROCKBURN BRANCH  
COLLECTION SYSTEM  
MONTGOMERY ROAD SECTION  
PROJECT NOS. S-6089 & S-6127  
CONTRACT NO. 10-1043

APPROVED  
 DIVISION OF LAND DEVELOPMENT &  
 ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 9-7-84  
 MS



PLAN TOP SLAB OF VALVE VAULT  
 Scale: 1/2" = 1'-0"



CURVE DATA  
 Δ = 40°-30'  
 R = 60.00'  
 T = 18.45'  
 L = 35.34'



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director: Henry F. Newman  
 Chief, Bureau of Engineering: [Signature]  
 Chief, Bureau of Utilities: [Signature]

APPROVED: For Public Water, Public Sewerage And Storm Drainage Systems And Roads  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Director: Henry F. Newman  
 Chief, Bureau of Engineering: [Signature]

APPROVED: Howard County Office Of Planning And Zoning  
 Planning Director: [Signature]  
 Chief, Division of Land Dev. & Zoning Admin.: [Signature]

APPROVED: For Public Water And Public Sewerage Systems  
 HOWARD COUNTY HEALTH DEPARTMENT  
 County Health Officer: [Signature]

\* Eliminate Crown From Sta. 0+00 To Sta. 1+45. See Site Plan For Finished Grades.

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6088-2 & S-6127

PUMPING STATION  
 MECHANICAL-STRUCTURAL-SITE-ELECTRICAL  
 PLANS-ELEVATION-SECTIONS-DETAILS

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

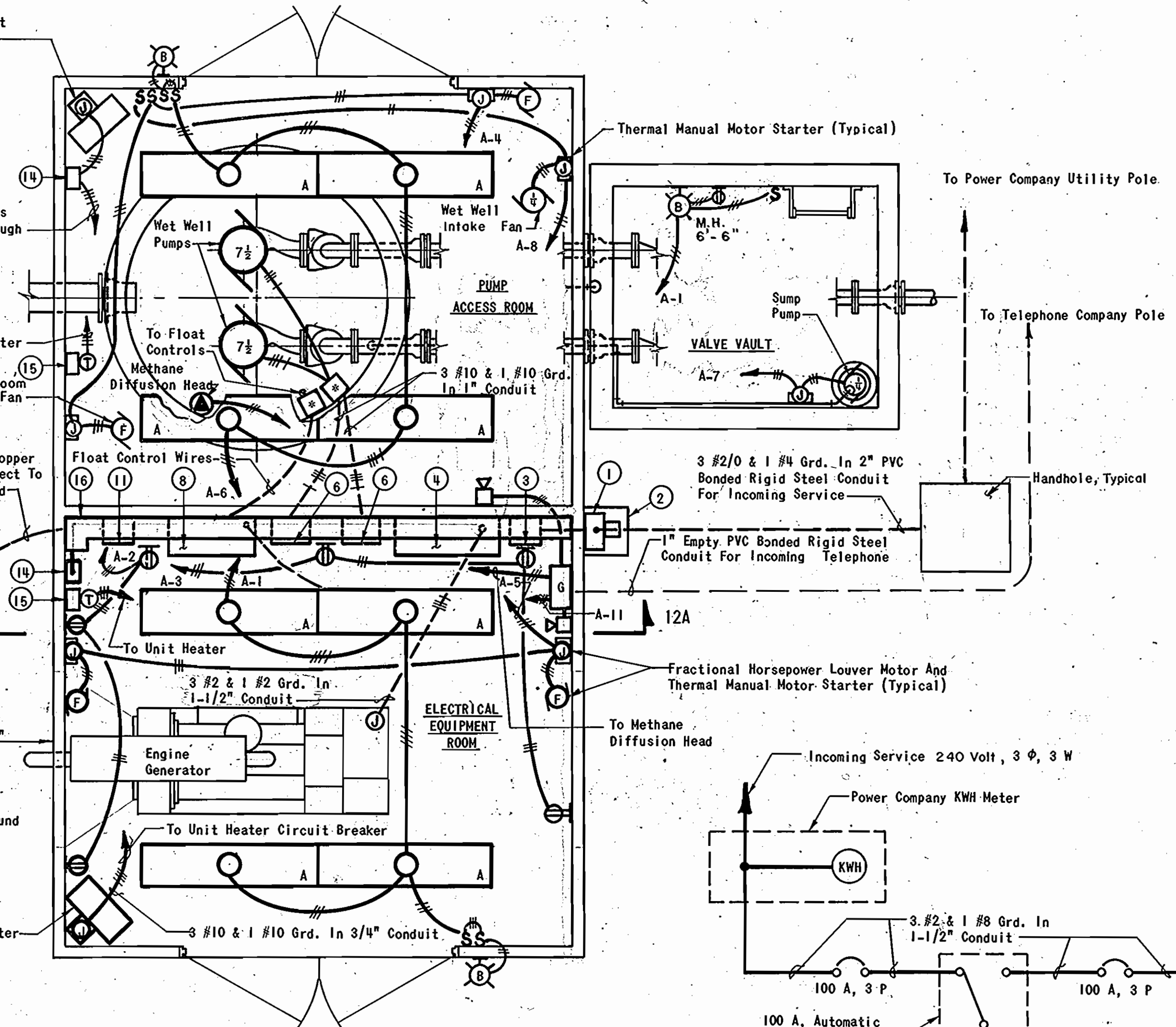
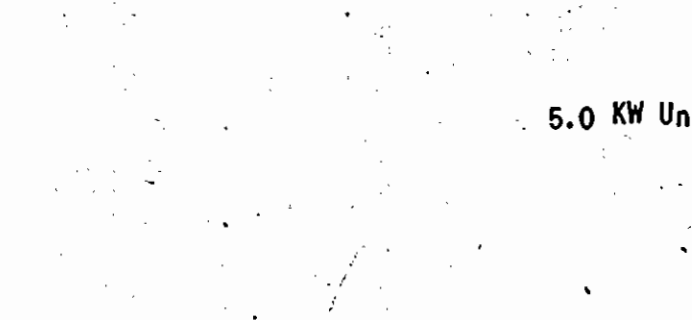
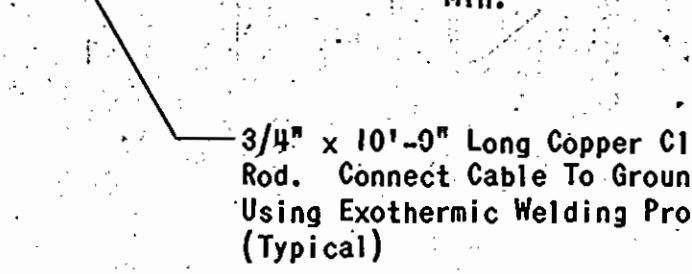
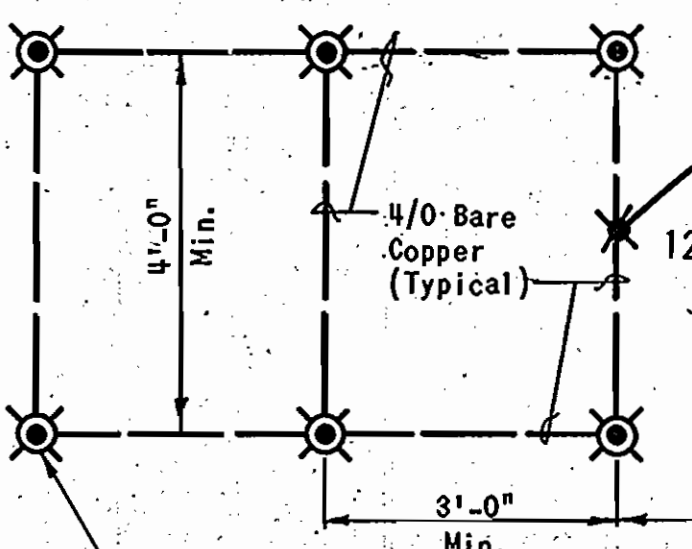
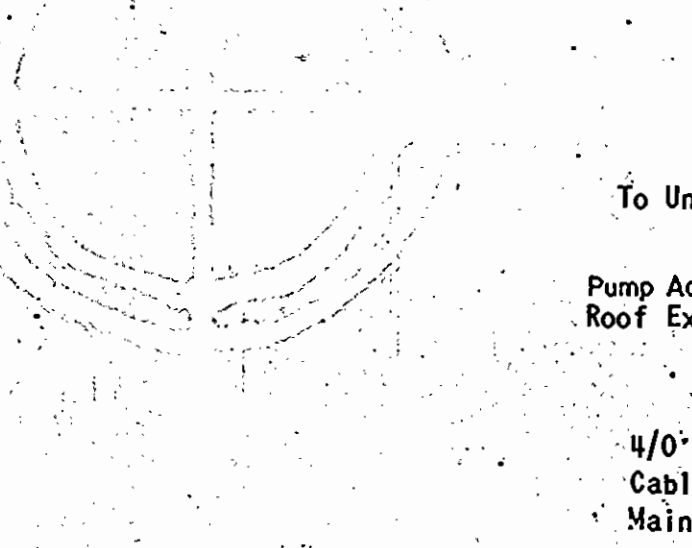
DRAWING NO. 11 OF 14  
 SCALE AS SHOWN

1043 r/s 11

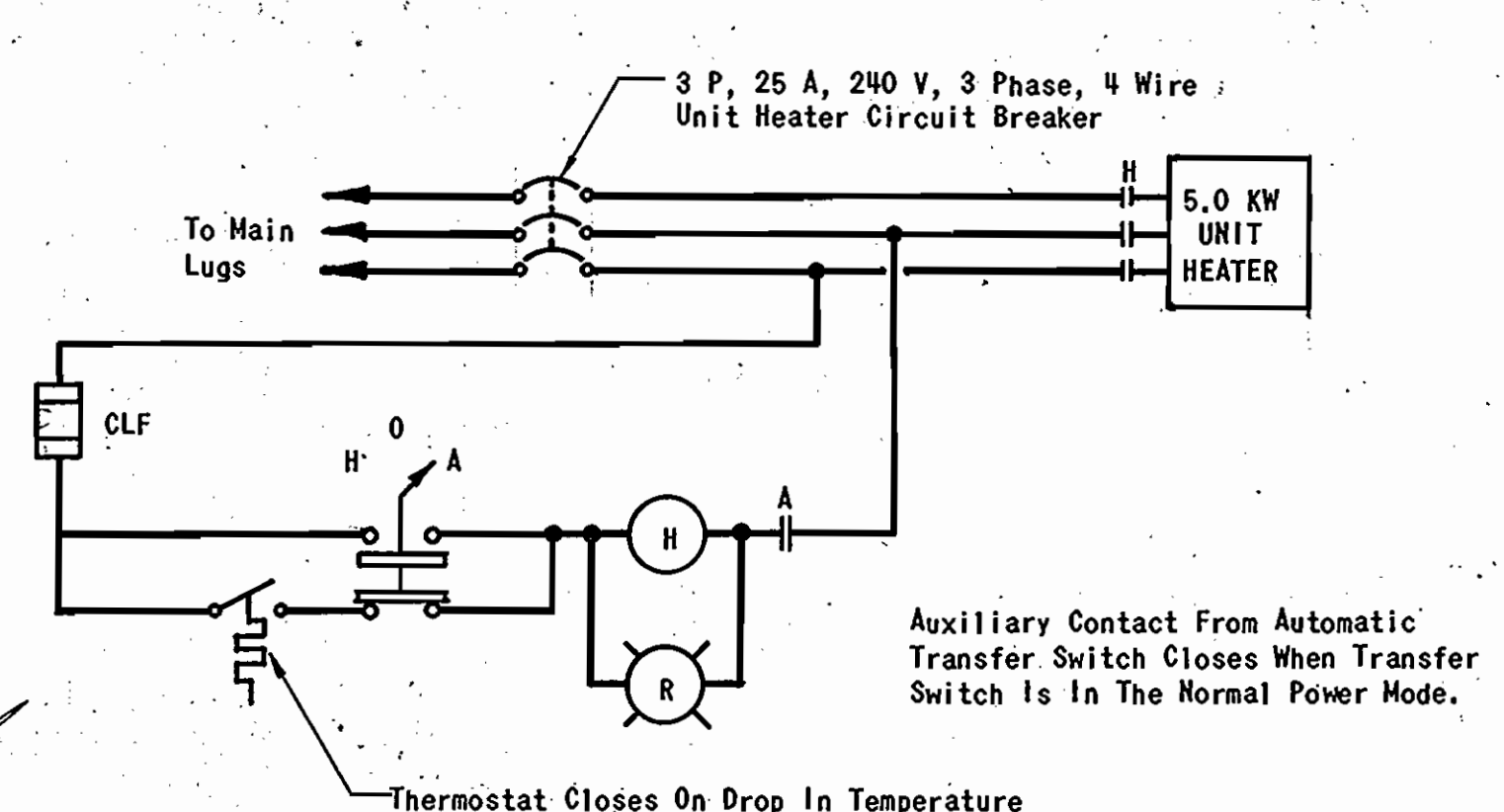
1043 2/5 12

- Notes:**
- All Electrical Equipment Installed In Pump Access Room Shall Be NEMA 4X.
  - Provide And Install Conduit Seals And Sleeves On All Conduits Entering Wet Wall.

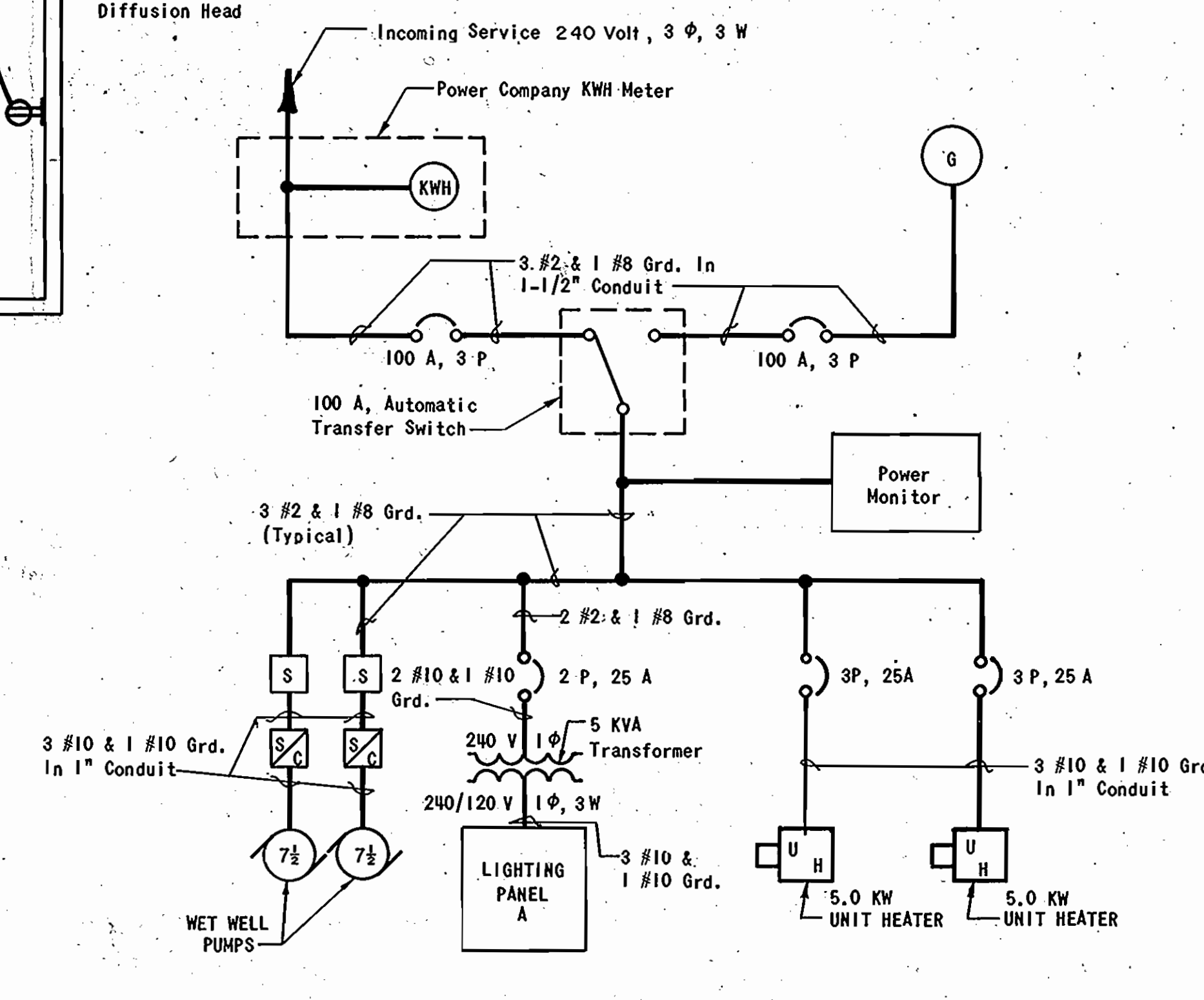
\*12" x 12" x 8" NEMA Class 1, Group C Junction Box



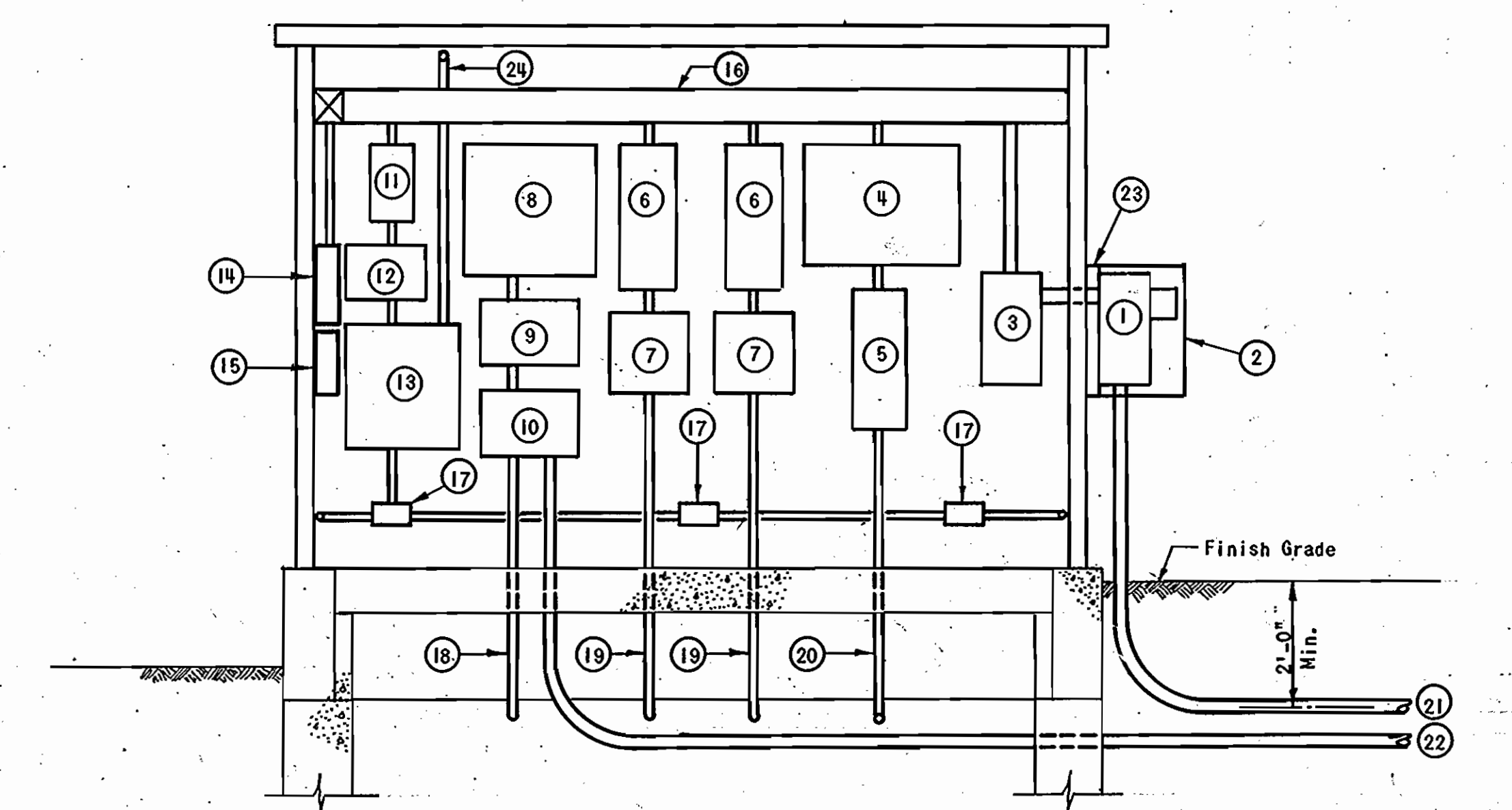
**PLAN**  
Scale: 1/2" = 1'-0"



**UNIT HEATER CONTROL DIAGRAM**  
No Scale

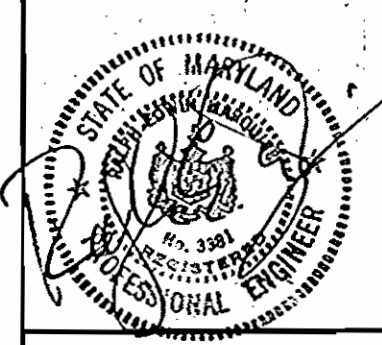


**SINGLE LINE DIAGRAM**  
No Scale



**ELEVATION 12A/12**  
Scale: 1/2" = 1'-0"

- EQUIPMENT KEY**
- |   |  |
|---|--|
| 1 Power Company Kilo-watt Hour Meter (KWH Meter)  | 13 240/120 Volt, 1 Phase, 3 Wire Lighting Panel "A"  |
| 2 KWH Meter Enclosure, Minimum 12 Gauge Galvanized Steel 24" High x 20" Wide x 15" Deep. Provide Hasp For Locking | 14 240/120 Volt, 3 Phase, 3 Pole, 25 Amp Unit Heater Circuit Breaker                             |
| 3 240 Volt, 3 Phase, 3 Pole, 100 Amp Main Breaker   | 15 Unit Heater Controls-In 12" x 12" x 6" Enclosure  |
| 4 100 Amp Automatic Transfer Switch   | 16 6" x 6" Wire Way  |
| 5 240 Volt, 3 Phase, 3 Pole, 100 Amp Generator Breaker  | 17 120 Volt Duplex Receptacles   |
| 6 Combination Starter   | 18 Control Wire To Float Controls In 1" Conduit  |
| 7 Soft Start Controller   | 19 3 #10 & 1 #10 Ground In 1" Conduit From Starters To Wet Well Pumps                            |
| 8 Pump Control Panel  | 20 3 #2 & 1 #8 Ground In 1-1/2" Conduit From Generator Breaker To Engine Generator Control Panel |
| 9 Power Monitor   | 21 3 #2/0 & 1 #4 Ground In 2" PVC Bonded Rigid Steel Conduit For Incoming Service                |
| 10 Telemetry Equipment  | 22 1" Empty PVC Bonded Rigid Steel Conduit For Incoming Telephone Service                        |
| 11 240/120 Volt, 3 Phase, 2 Pole, 25 Amp Transformer Breaker  | 23 1-1/2" x 1-1/2" Structural Steel Channel, PVC Coated  |
| 12 240/120 Volt, 1 Phase, 5 KVA Transformer   | 24 Branch Lighting Circuits In 1" Conduit  |



**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Newman* 10-18-84  
 Chief, Bureau of Engineering: *Richard E. O'Donnell* 10-18-84  
 Chief, Bureau of Utilities: *Richard E. O'Donnell* 10-17-84  
 Chief, Utility Division: *Richard E. O'Donnell* 10-18-84

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

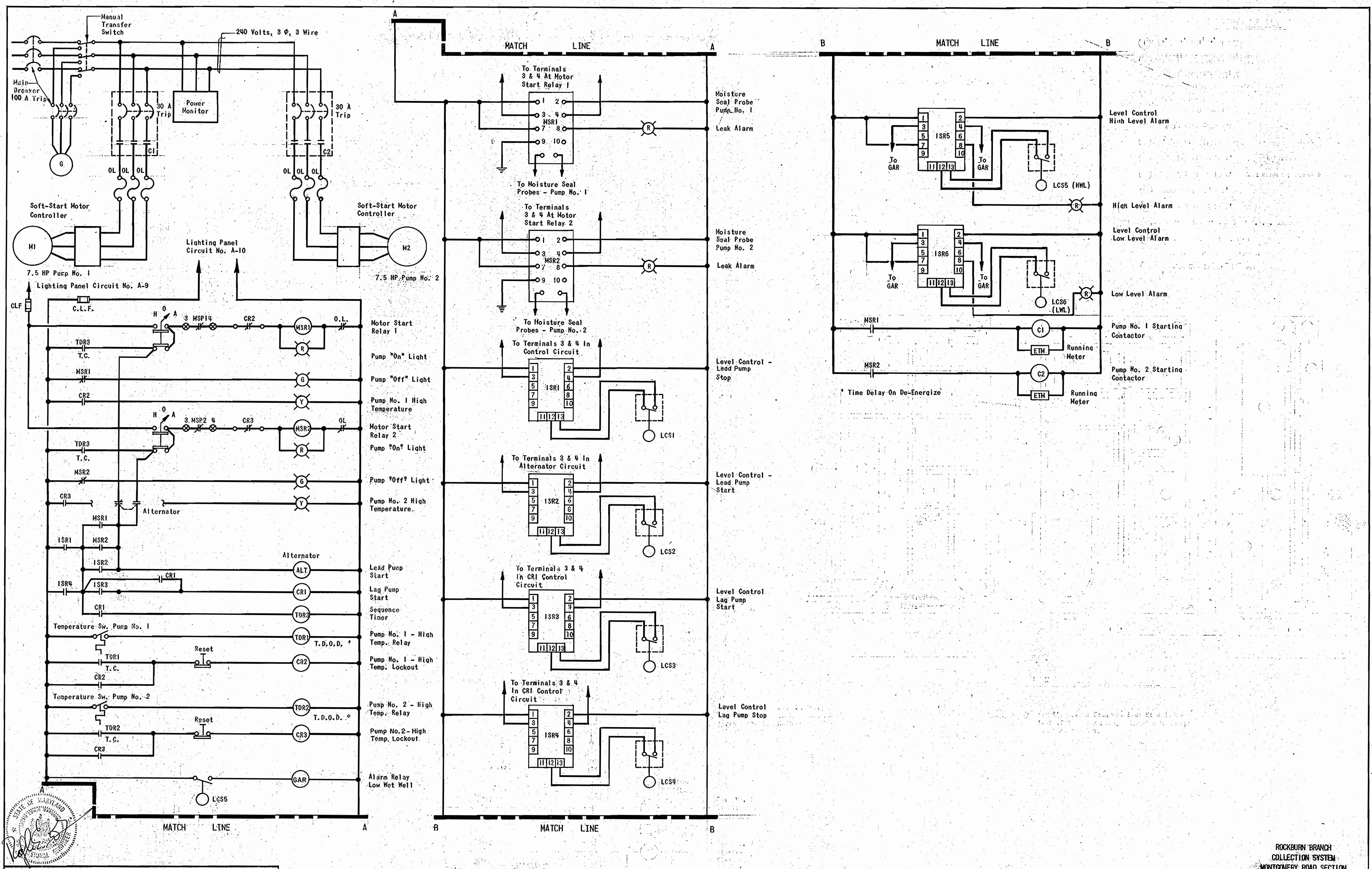
PUMPING STATION  
ELECTRICAL  
PLAN - SECTION - DIAGRAMS

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

DRAWING NO. 12	SCALE AS SHOWN
OF 14	

ROCKBURN BRANCH  
COLLECTION SYSTEM  
MONTGOMERY ROAD SECTION  
PROJECT NOS. S-6089-2 & S-6127  
CONTRACT NO. 10-1043

1043 w/s 13



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DATE 10-17-84  
 DATE 10-10-84

PUMPING STATION CONTROL DIAGRAM  
 No. Scale  
 RUMMEL, KLEPPER & KAHL  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
 CAPITAL PROJECT NO. S-6089-2 & S-6127  
 PUMPING STATION

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
 ELECTION DISTRICT 1  
 HOWARD COUNTY, MARYLAND

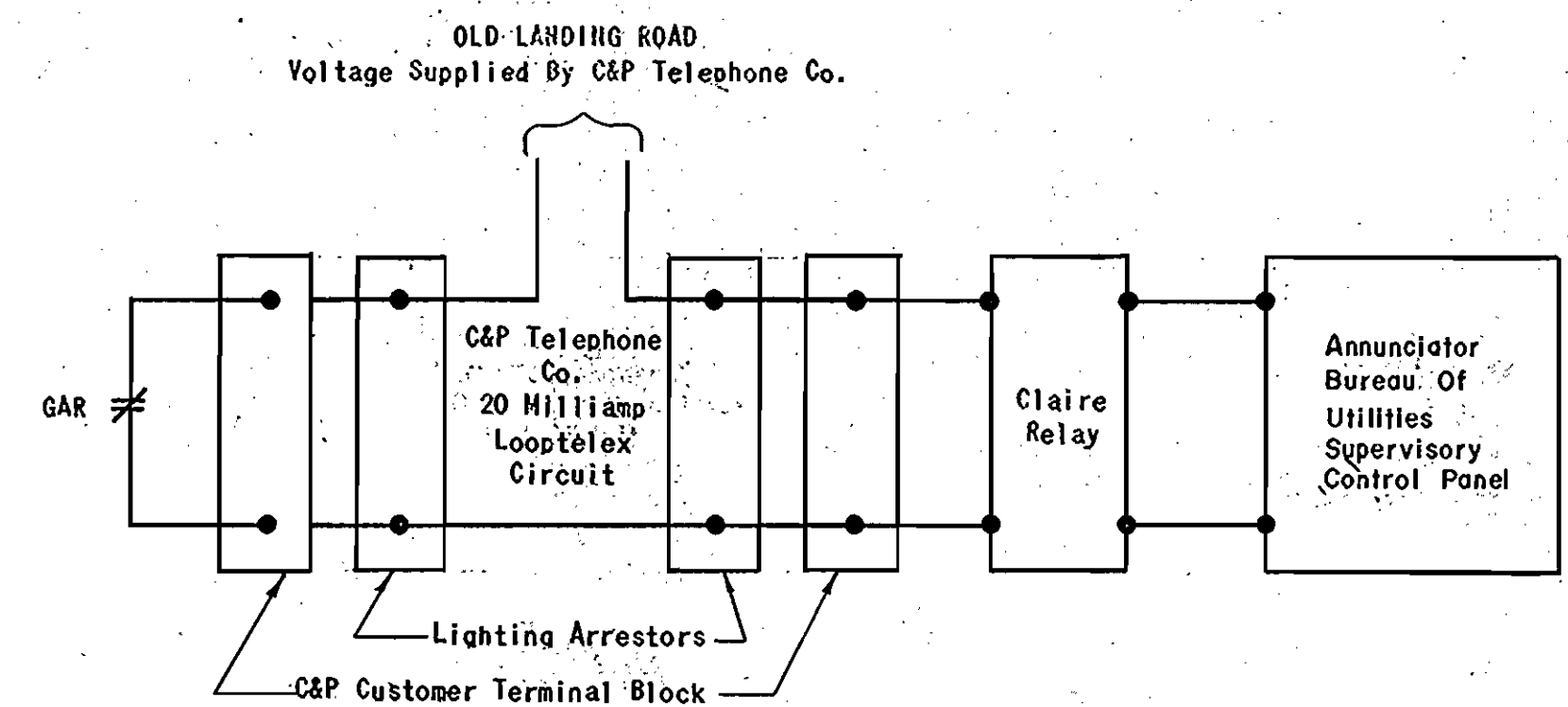
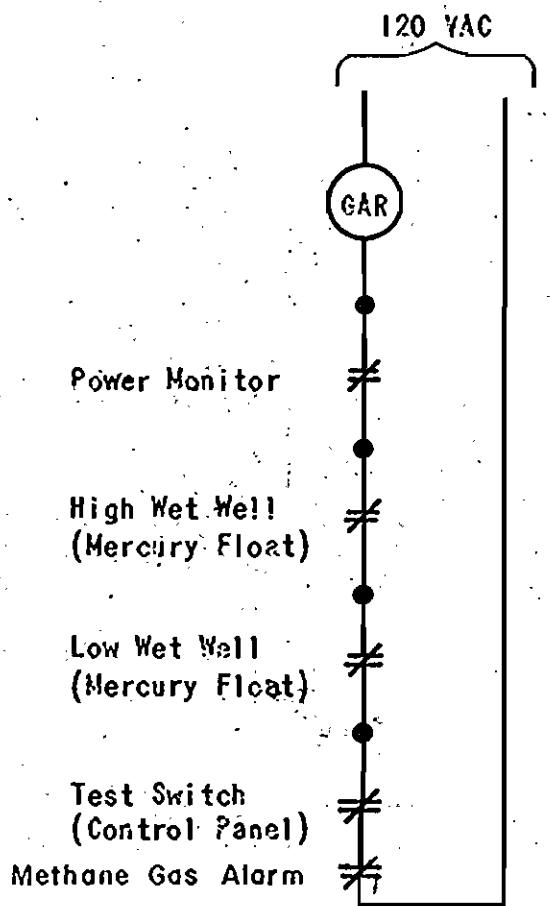
ROCKBURN BRANCH  
 COLLECTION SYSTEM  
 MONTGOMERY ROAD SECTION  
 PROJECT NOS. S-6089-2 & S-6127  
 CONTRACT NO. 10-1043  
 DRAWING NO. 13 OF 14  
 SCALE AS SHOWN

**ELECTRICAL LEGEND**

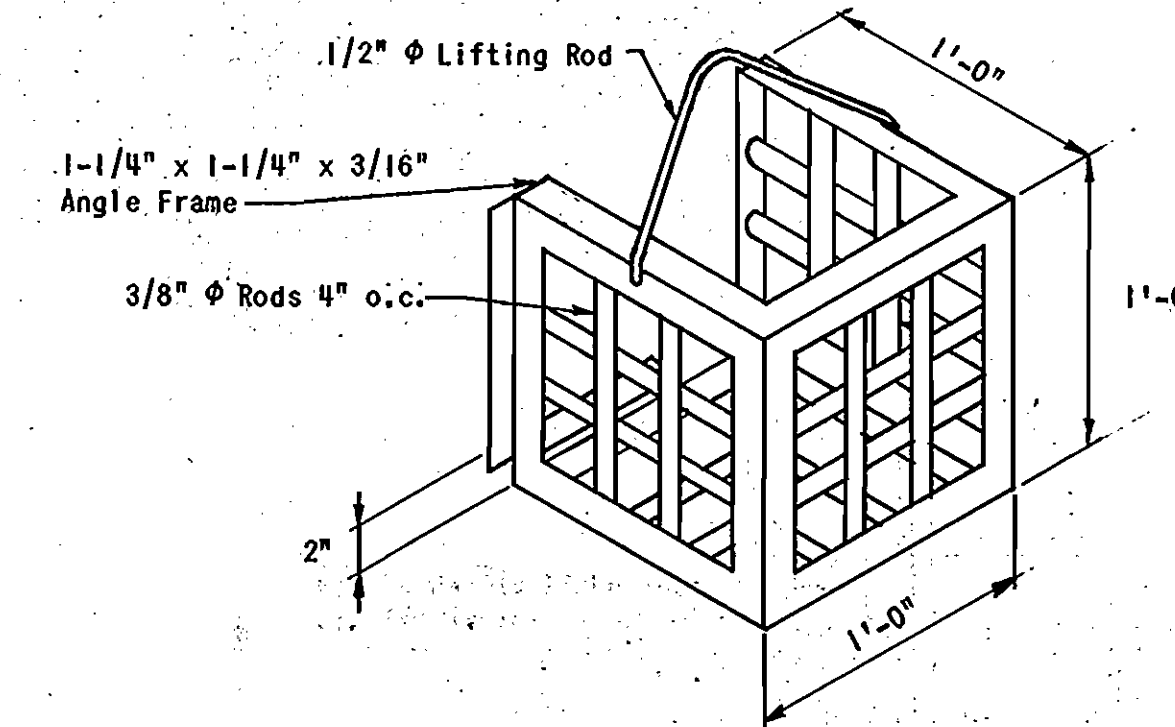
	3/4" $\phi$ x 10'-0" Long Copper Clad Steel Ground Rod		Contacts - Normally Open		Duplex Receptacle Outlet
	Ground Rod And Exothermically Welded Connection		Contacts - Normally Closed		Single Pole Switch Mounting Height 4'-0" To Center Of Box
	Exothermically Welded Connection		O.L. Overload Element - Three Required In Each Starter		Junction Box
	Circuit Breaker		Motor - Number Indicates Horsepower		Incandescent Fixture
	C.L.F. - Current Limiting Fuse		TDR Time Delay Relay		Fluorescent Fixture, Letter Indicates Type Of Fixture
	Fusible Overload		ALT Alternator		Homerun To Panel - Number Of Arrows Indicates Number Of Circuits & Number Of Cross Lines Indicate Number Of Conductors
	Selector Switch - Hand-Off-Automatic		Indicator Lights - R = Red - On, G = Green - Off		Conduit In Or Under Floor Or Buried
	Reset Switch		Ground		Weatherproof
	Transformer		Lightning Arrester		H.P. Horsepower
	Combination Magnetic Starter		KWH Kilowatt Hour Meter		Methane Gas Control - Indicating Unit
	Thermostat Or Temperature Switch		ETM Elapsed Time Meter		Methane Gas Alarm Horn
	Magnetic Starter Coil Or Electrically Operated Relay		Alarm Control		Methane Gas Diffusion Head, Locate In Accordance With Manufacturer's Recommendations
	Control Relay - Number Identifies Relay And Contacts		Terminal Connection		Grd., G. Ground
	Transfer Relay		Soft Start Controller		

**SCHEDULE OF PANEL "A"**  
120/240 VOLTS, 1-PHASE, 3-WIRE, 100 A. BUS CAPACITY, MAIN LUGS ONLY

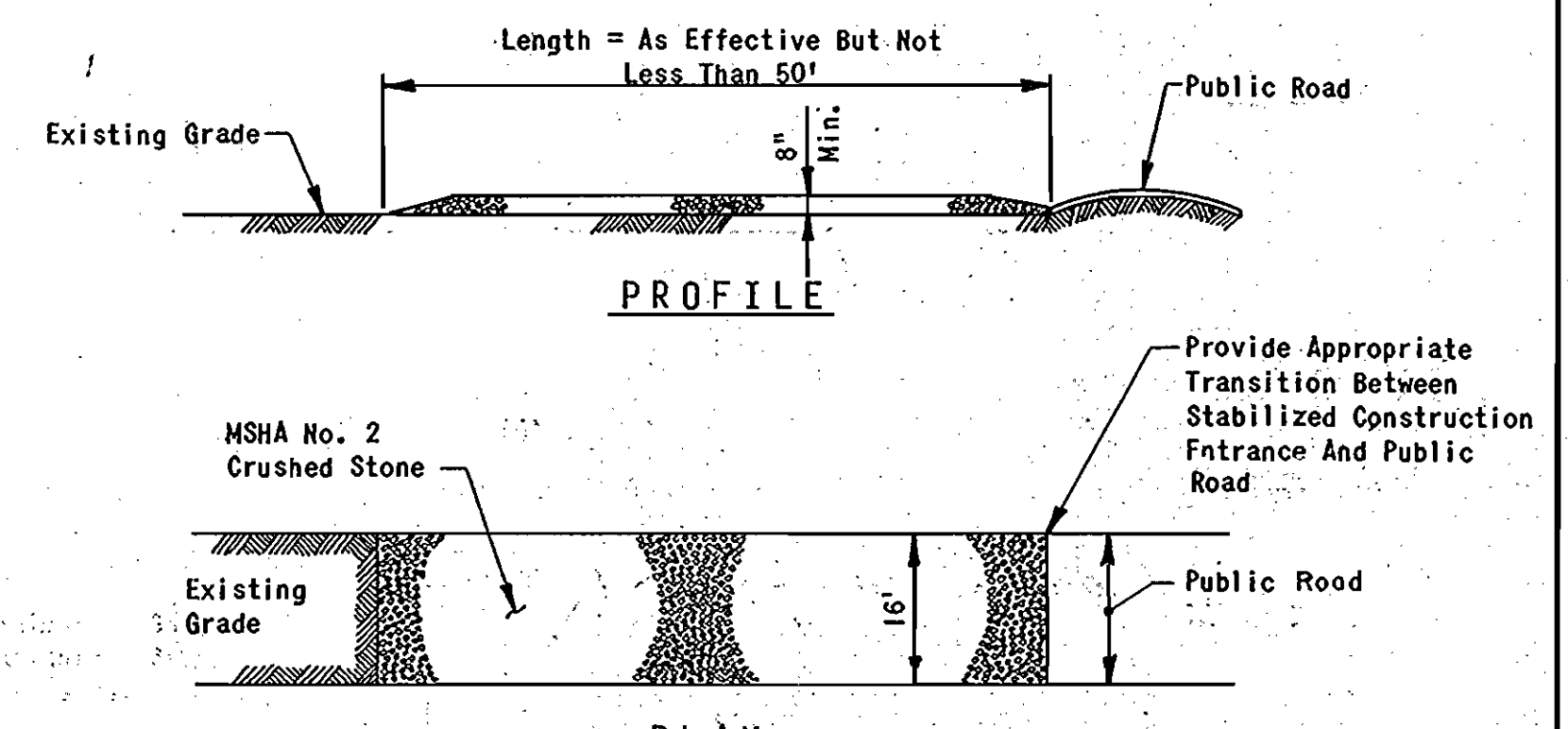
CIRCUIT NUMBER	EQUIPMENT SERVED	CONNECTED LOAD H.P. OR KW	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS			WIRING			REMARKS
				NO. OF POLES	FRAME SIZE	TRIP SIZE	NO.	SIZE	CONDUIT	
1	Fluorescent Lights	0.32	1 120	1	70	20	2	12	3/4"	
2	Receptacles		1 120	1	70	20	2	12	3/4"	
3	Receptacles		1 120	1	70	20	2	12	3/4"	
4	Pump Access Room Roof Exhaust Fan/Motor Operated Louver	Fractional	1 120	1	70	20	2	12	3/4"	
5	Louver Motors	Fractional	1 120	1	70	20	2	12	3/4"	
6	Fluorescent Lights	0.32	1 120	1	70	20	2	12	3/4"	
7	Sump Pump	1/3 HP	1 120	1	70	20	2	12	3/4"	
8	Wetwell Intake Fan	1/4 HP	1 120	1	70	20	2	12	3/4"	
9	Pump Control		1 120	1	20	20	2	12	3/4"	
10	Pump Control		1 120	1	20	20	2	12	3/4"	
11	Methane Gas Detection System		1 120	1	70	20	2	12	3/4"	
12-14	Spares		1 120	1	70	20				



**GENERAL ALARM RELAY - DIAGRAM**  
No Scale

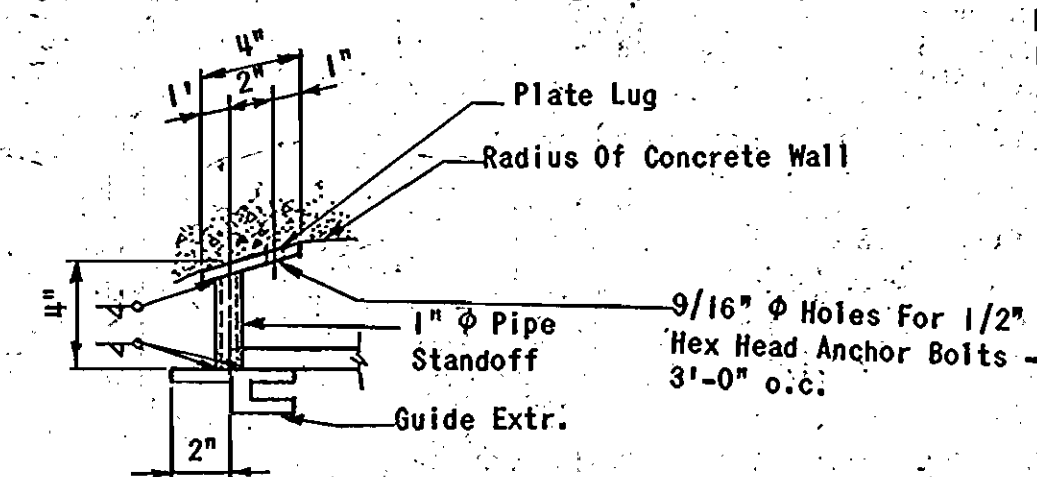


**DETAIL - DEBRIS BASKET**  
Scale: 1-1/2" = 1'-0"



**DETAIL - TEMPORARY STABILIZED CONSTRUCTION ENTRANCE**  
No Scale

- NOTES:**
- When Necessary, Wheels Shall Be Cleaned To Remove Sediment Prior To Entrance Onto Public Road. When Washing Is Required, It Shall Be Done On An Area Stabilized With Crushed Stone Which Drains Into An Approved Sediment Trap Or Sediment Basin. All Sediment Shall Be Prevented From Entering Any Storm Drain, Ditch, Or Watercourse Through Use Of Sand Bags, Gravel, Boards Or Other Approved Methods.
  - The Entrance Shall Be Maintained In A Condition Which Will Prevent Tracking Or Flowing Of Sediment Onto Public Road. This May Require Periodic Top Dressing With Additional Stone As Conditions Demand And Repair And/Or Cleanout Of Any Measures Used To Trap Sediment. All Sediment Spilled, Dropped, Washed Or Tracked Onto Public Road Must Be Removed Immediately.



**DETAIL - TYPICAL STANDOFF**  
Scale: 1-1/2" = 1'-0"

1043/14 S



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Ray F. Neuman* 10-16-84  
DIRECTOR OF PUBLIC WORKS DATE

*Small* 10-17-84  
CHIEF BUREAU OF ENGINEERING DATE

*Small* 10-10-84  
CHIEF, UTILITY DIVISION DATE

RUMMEL, KLEPPER & KAHL  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

CONTRACT NO. 10-1043  
CAPITAL PROJECT NO. S-6089-2 & S-6127

PUMPING STATION  
ELECTRICAL LEGEND & SCHEDULE

ROCKBURN BRANCH MONTGOMERY ROAD SECTION  
ELECTION DISTRICT 1  
HOWARD COUNTY, MARYLAND

DRAWING NO. 14  
OF 14

SCALE AS SHOWN

ROCKBURN BRANCH  
COLLECTION SYSTEM  
MONTGOMERY ROAD SECTION  
PROJECT NOS. S-6089-2 & S-6127  
CONTRACT NO. 10-1043