
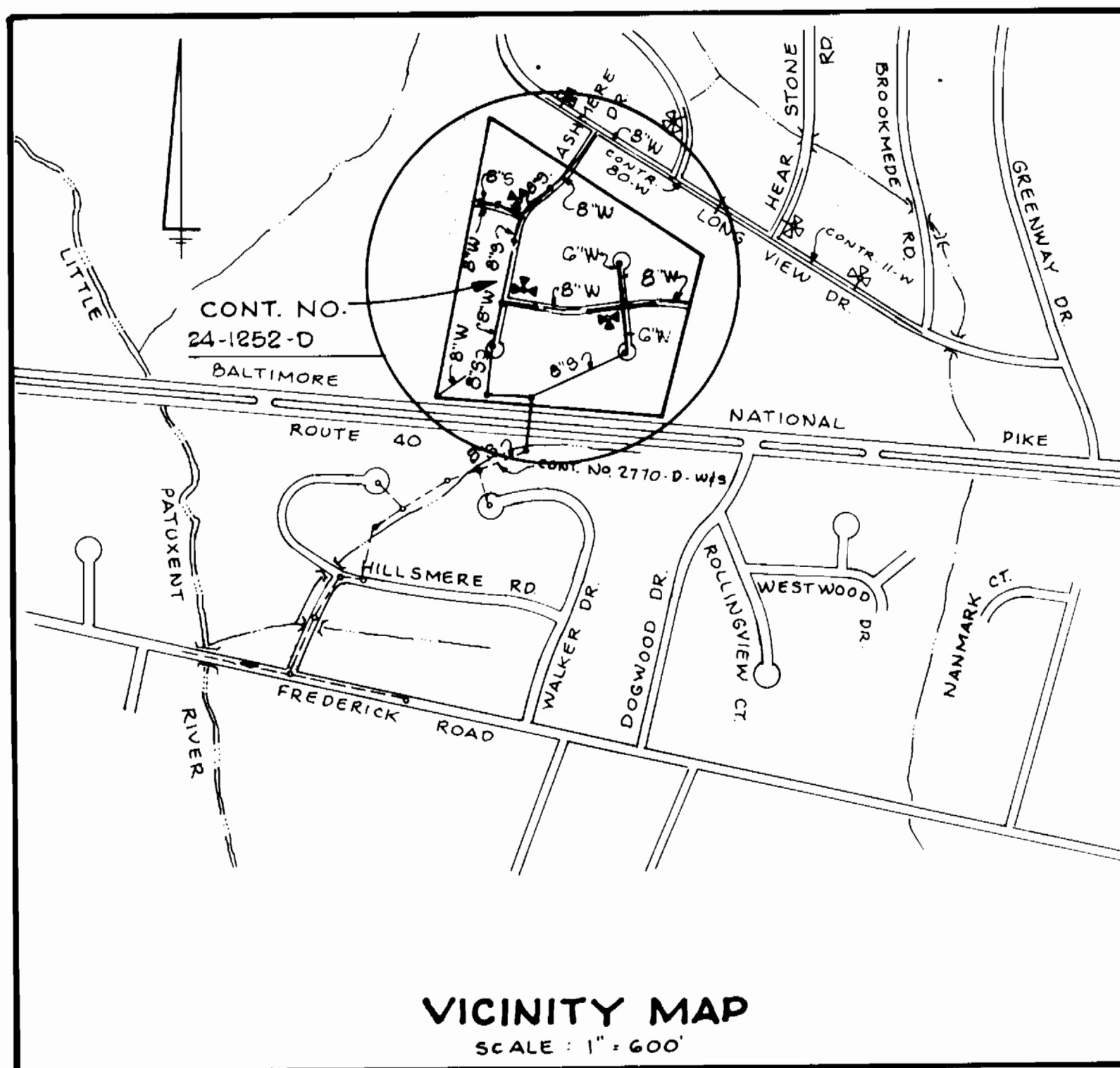


GENERAL NOTES

- Approximate location 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.
- 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 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. 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 - 531-5533
 Baltimore Gas & Electric Co. - Contractor Services 561-2585
 Baltimore Gas & Electric Co. - Under Ground Damage Control - 234-5621
 Baltimore Gas & Electric Co. - Trouble Shooting - 298-9013
 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.



| QUANTITIES | | | |
|---------------------|-----------|-----------|---------------------------------------|
| ITEMS | BID | AS BUILT | MATERIAL/SUPPLIER |
| 8" SEWER PVC | 3020 L.F. | 2807.82 | PVC/AMERICAN PIPE & PLASTICS, INC. |
| MANHOLES | 16 EA. | 16 EA. | ATLANTIC PRECAST |
| SAN. HOUSE CONN. | 1240 L.F. | 1202 L.F. | PVC/AMERICAN PIPE & PLASTICS, INC. |
| 8" SEWER DIP | | 216 L.F. | DIP LL-52/A?P WATER |
| 6" VALVE | 2 EA. | 2 EA. | M.S./MUNICIPAL CONTRACTORS SALES INC. |
| 8" WATER | 2200 L.F. | 2457 L.F. | " " " " |
| 6" WATER | 455 L.F. | 486 L.F. | " " " " |
| 8" TAP SLEEVE & V. | 1 EA. | 1 EA. | " " " " |
| 8" VALVE | 5 EA. | 5 EA. | " " " " |
| FIRE HYDRANT | 3 EA. | 3 EA. | " " " " |
| F.H. VALVE | 3 EA. | 3 EA. | " " " " |
| 3/4" W. HOUSE CONN. | 410 L.F. | 669 L.F. | K'COOPER " " " " |
| 1" W. HOUSE CONN. | 450 L.F. | 421 L.F. | " " " " " " |
| 1 1/2" BLOWOFF | 1 EA. | 0 | " " " " " " |
| 1 1/2" DRAIN | 4 EA. | 5 EA. | " " " " " " |

WATER NOTES

- All water mains to be D.I.P. unless otherwise noted.
 - Tops of all water mains to have a minimum of 3-1/2' 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 strapped and buttressed with concrete in accordance with Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1003 the Standard Specifications.
 - The contractor shall not operate any water main valves on the existing water system.
 - All Water House Connections shall be for an inside meter setting.
 - For all copper Water House Connections, utilize flared type fittings only.
- SEWER NOTES
- All sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. Class 2400 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.
 - 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 G552. 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.
 - Wall thickness given on profiles for manholes are applicable only for brick manholes.

| | | |
|-------------------|---------------|----------------------|
| TYPE OF BUILDINGS | SINGLE FAMILY | WATER AND SEWER CODE |
| NUMBER OF LOTS | 42 | SEWER NO. 5520000 |
| NUMBER OF W.H.C. | 42 | WATER NO. F14 |
| NUMBER OF S.H.C. | 42 | |
| DRAINAGE AREA | SAVAGE (L.P.) | |

BOUNTY VISTA

WATER & SEWERAGE CONSTRUCTION PLANS

CONTRACT NO. 24-1252-D-W#5

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THESE SPECIFICATIONS AND ALSO SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-83-99

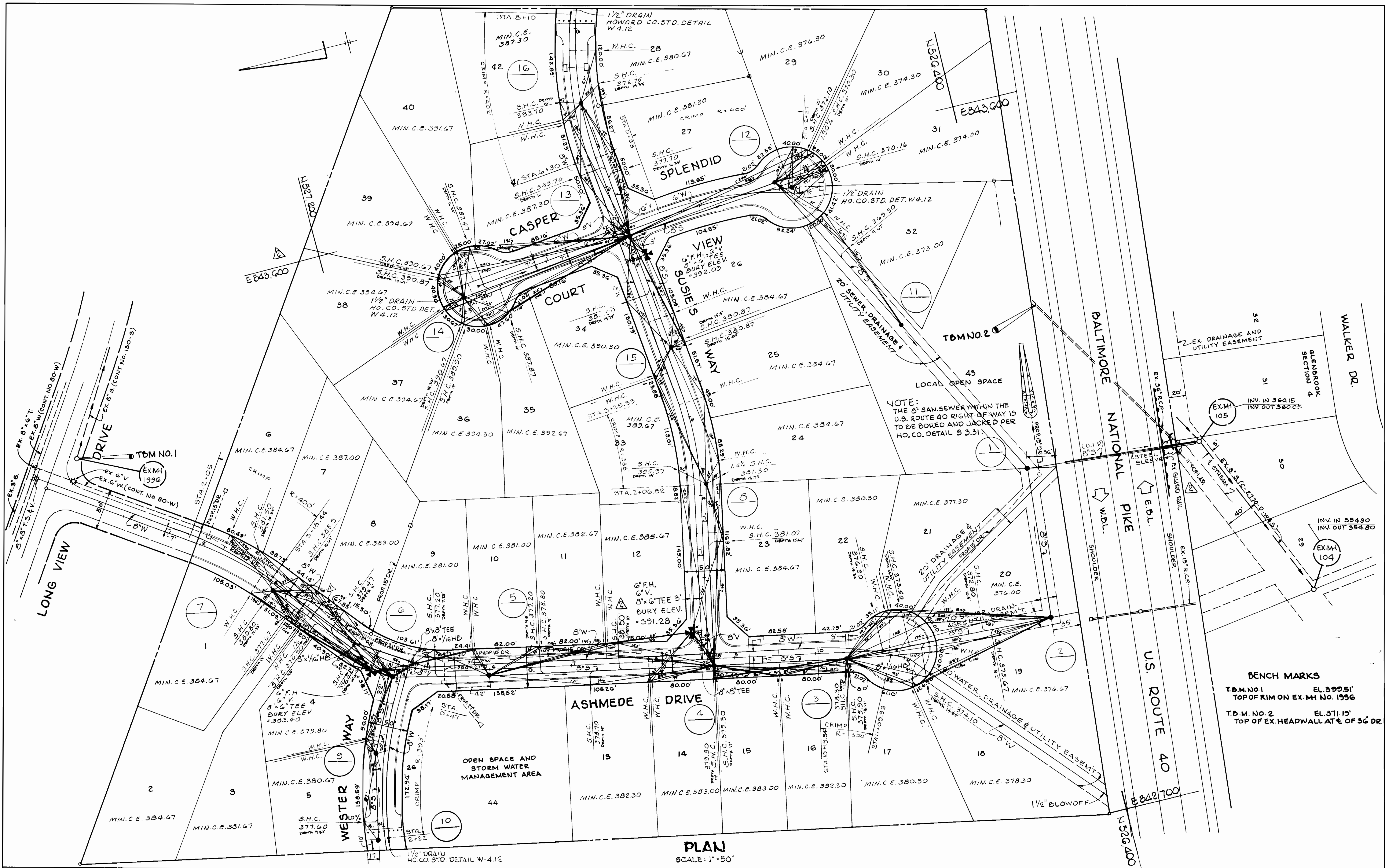
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

James M. Helms 10/25/84
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:
Stephen L. Keller 10-25-84
HOWARD SOIL CONSERVATION DISTRICT DATE

| | | | | | | | |
|--|--|---|--|--|--|---|--|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>Robert M. Bainger</i> 10-30-84 Chief, Bureau of Engineering: <i>William F. ...</i> 10/19/84 Chief, Land Development Div: <i>...</i> 10/19/84 | | SPELLMAN LARSON & ASSOC., INC. CIVIL ENGINEERS & LAND SURVEYORS 105 W. CHESAPEAKE AVENUE TOWSON, MARYLAND, 21204 DES: LVA DRN: H.K. CHK: AWR DATE: 8/16/84 | | TITLE SHEET AR 1 SEE SHTS. 2, 3, 4, 5 & 6 OF G BY NO. REVISION DATE: 2/27/84 | | CONTRACT NO. 24-1252-D-W#5 BOUNTY VISTA 2ND ELECTION DISTRICT HOWARD COUNTY, MD. SCALE AS SHOWN SHEET 1 OF 6 | |
|--|--|---|--|--|--|---|--|



PLAN
SCALE: 1"=50'

BENCH MARKS
 T.B.M. NO. 1 EL. 399.51'
 TOP OF RIM ON EX. M.H. NO. 1996
 T.B.M. NO. 2 EL. 371.15'
 TOP OF EX. HEADWALL AT E. OF 36' DR.

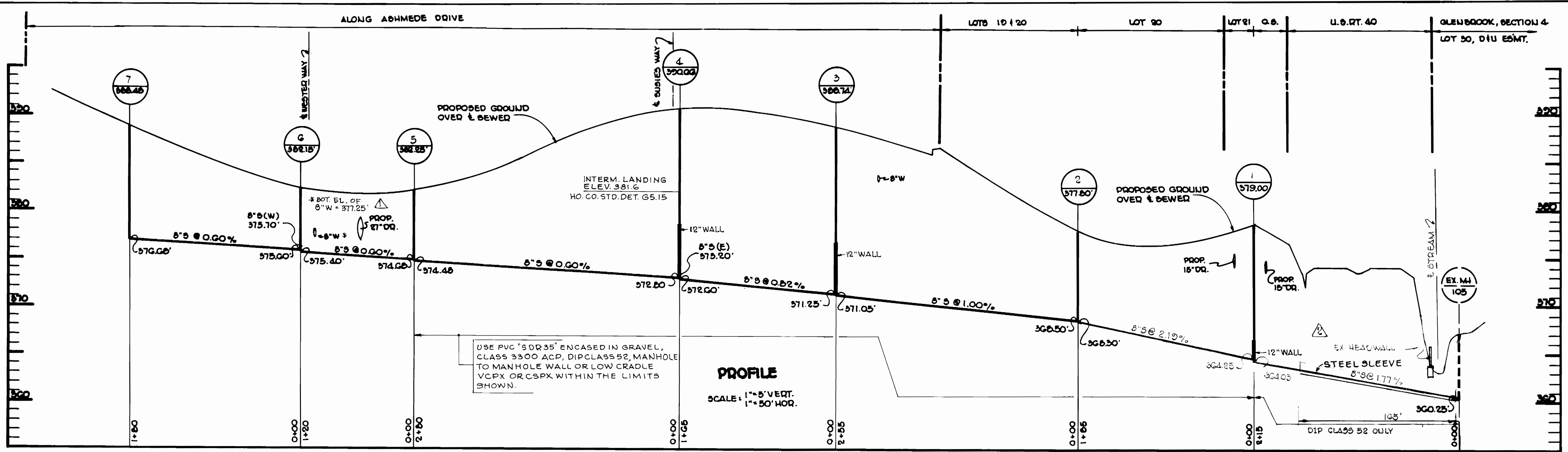
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: [Signature] 10/31/84
 Chief, Bureau of Engineering: [Signature] 10/31/84
 Chief, Bureau of Utilities: [Signature] 10-31-84

SPELLMAN, LARSON & ASSOC., INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 105 W. CHESAPEAKE AVENUE
 TOWSON, MARYLAND, 21204
 [Signature] P.E. #3321 10/5/84

| | |
|---------------|---|
| DES: A.W.R. | |
| DRN: H.K. | |
| CHK: AWR | AR [Symbol] ADDED GRID TICKS, S.H.C. LOT 12, TOPO DETAIL EX. M.H. 105 |
| DATE: 8/16/84 | AR [Symbol] ADDED PLAN SCALE / REV. ALIGN OF W/L |
| BY: NO. | REVISION |
| | DATE: 12/27/84 |

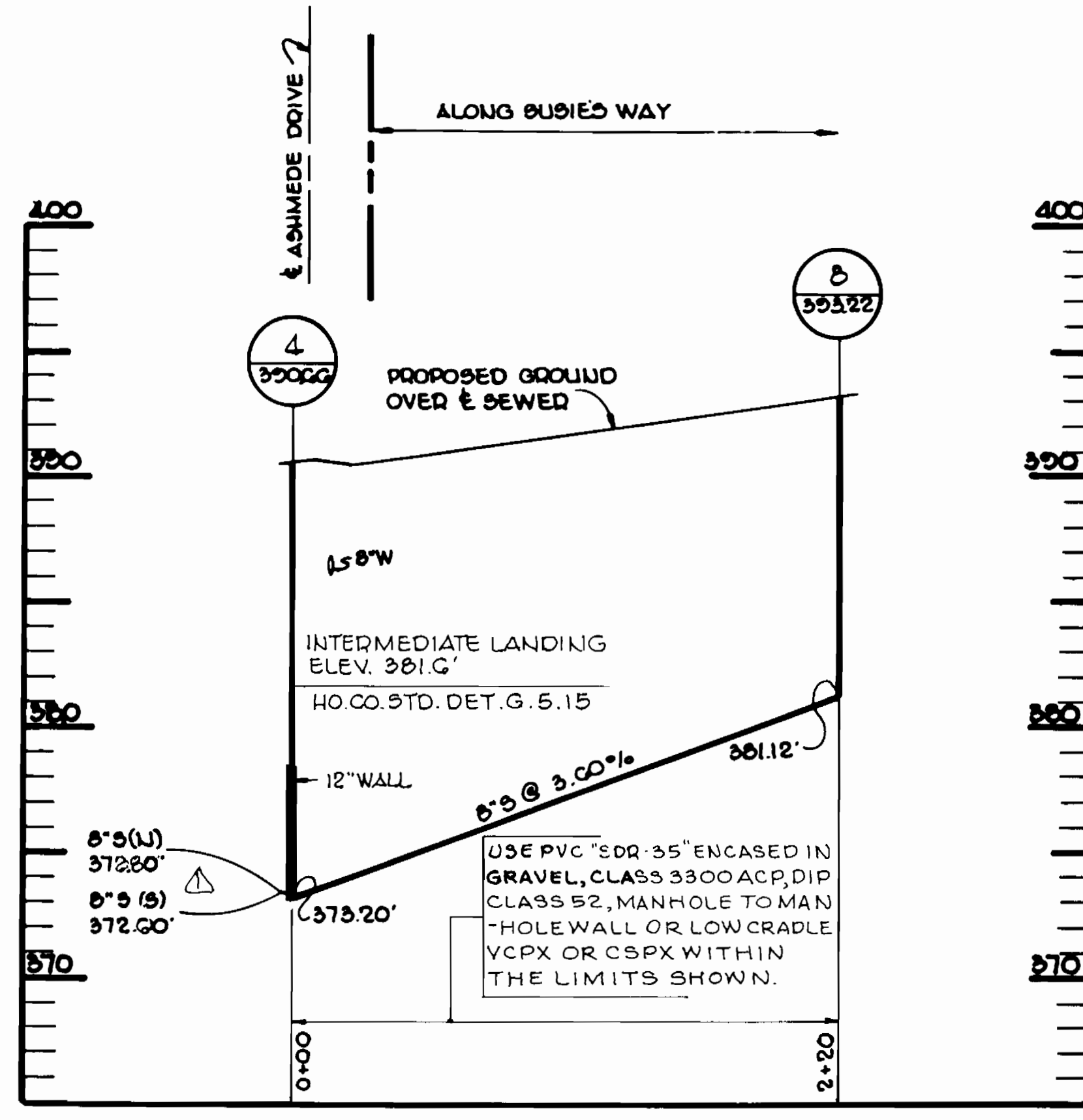
PLAN OF WATER & SEWER MAINS
 600' SCALE MAP NO. 24 BLOCK NO. 3

CONTRACT NO. 24-1252-D-W & B
BOUNTY VISTA
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MD.
 SCALE AS SHOWN
 SHEET 2 OF 6
 AS-BUILT AUG. 1986

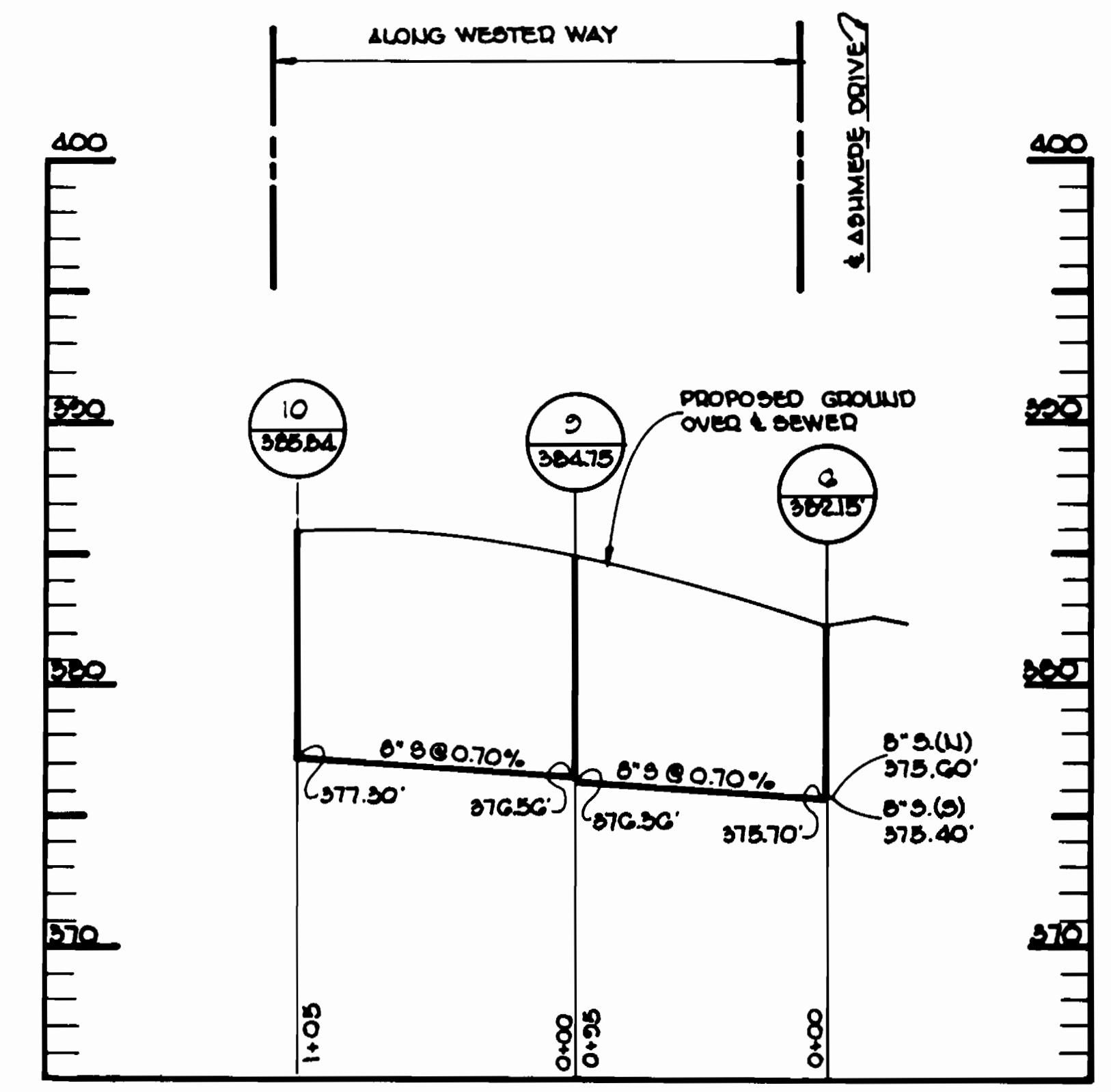


USE PVC "SDR 35" ENCASED IN GRAVEL, CLASS 3300 ACP, DIP CLASS 52, MANHOLE TO MANHOLE WALL OR LOW CRADLE VCPX OR CSPX WITHIN THE LIMITS SHOWN.

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



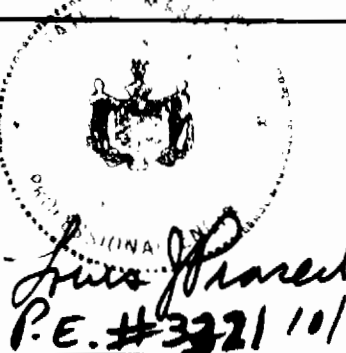
PROFILE
SCALE: 1"=5' VERT.
1"=50' HOR.



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

SPELLMAN, LARSON & ASSOC., INC.
CIVIL ENGINEERS & LAND SURVEYORS
105 W. CHEESAPEAKE AVENUE
TOWSON, MARYLAND, 21204



| | | | | |
|----------|---------|---|--|---------------|
| DES. AWR | | | | |
| DRN. AWR | | | | |
| CHK. AWR | AR | MAH-RAISE INV. 1.5' / ADD STREAM X-ING WHICHE | | |
| | AR | MAH-ELEV. 1 8"W - X-ING BOT. ELEV. | | |
| DATE: | 9/12/84 | REVISION | | DATE 12/21/84 |

PROFILE OF SEWER MAINS

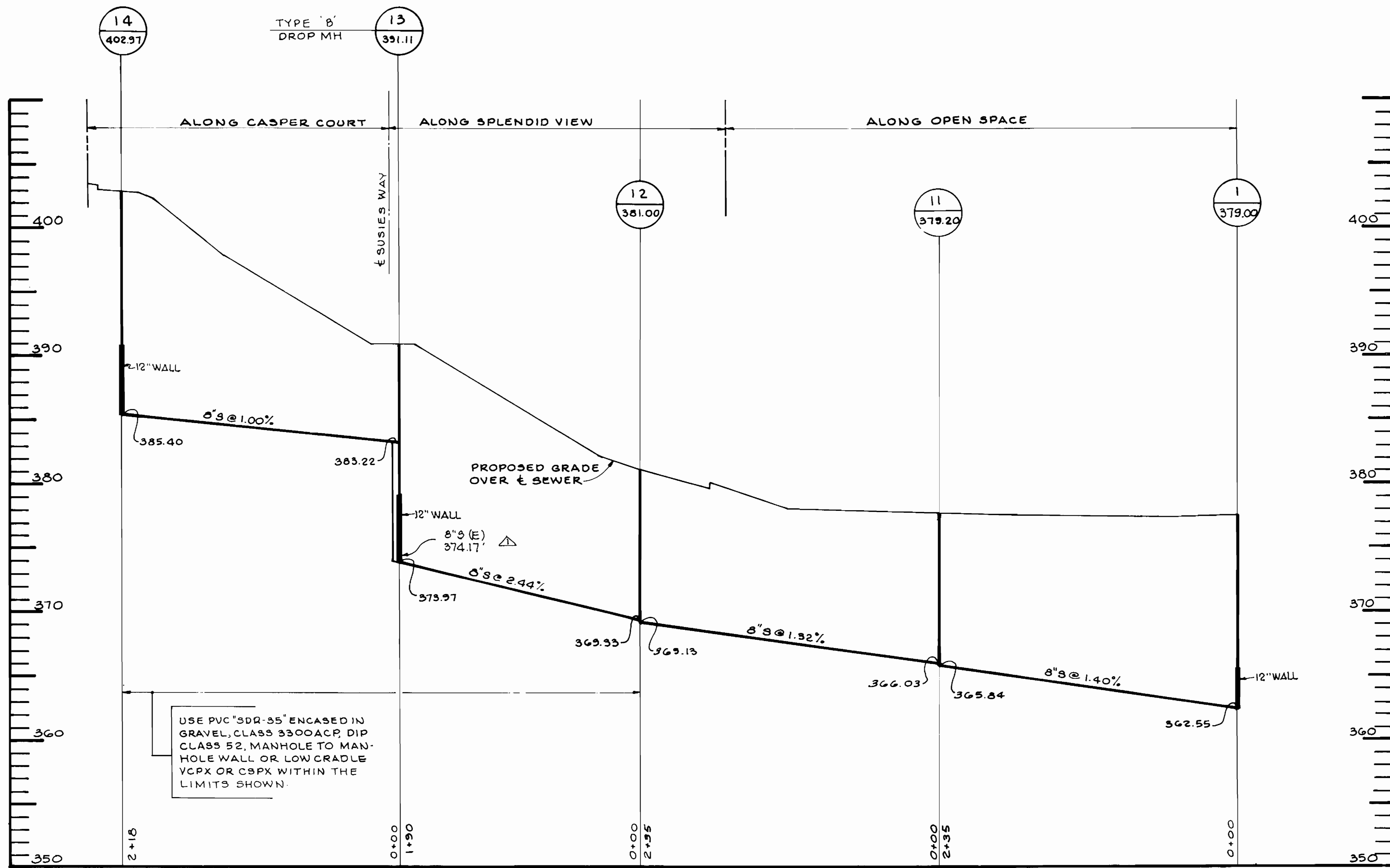
BOUNTY VISTA
CONTRACT NO. 24-1252-D-W & B

SCALE AS SHOWN
SHEET 3 OF 6

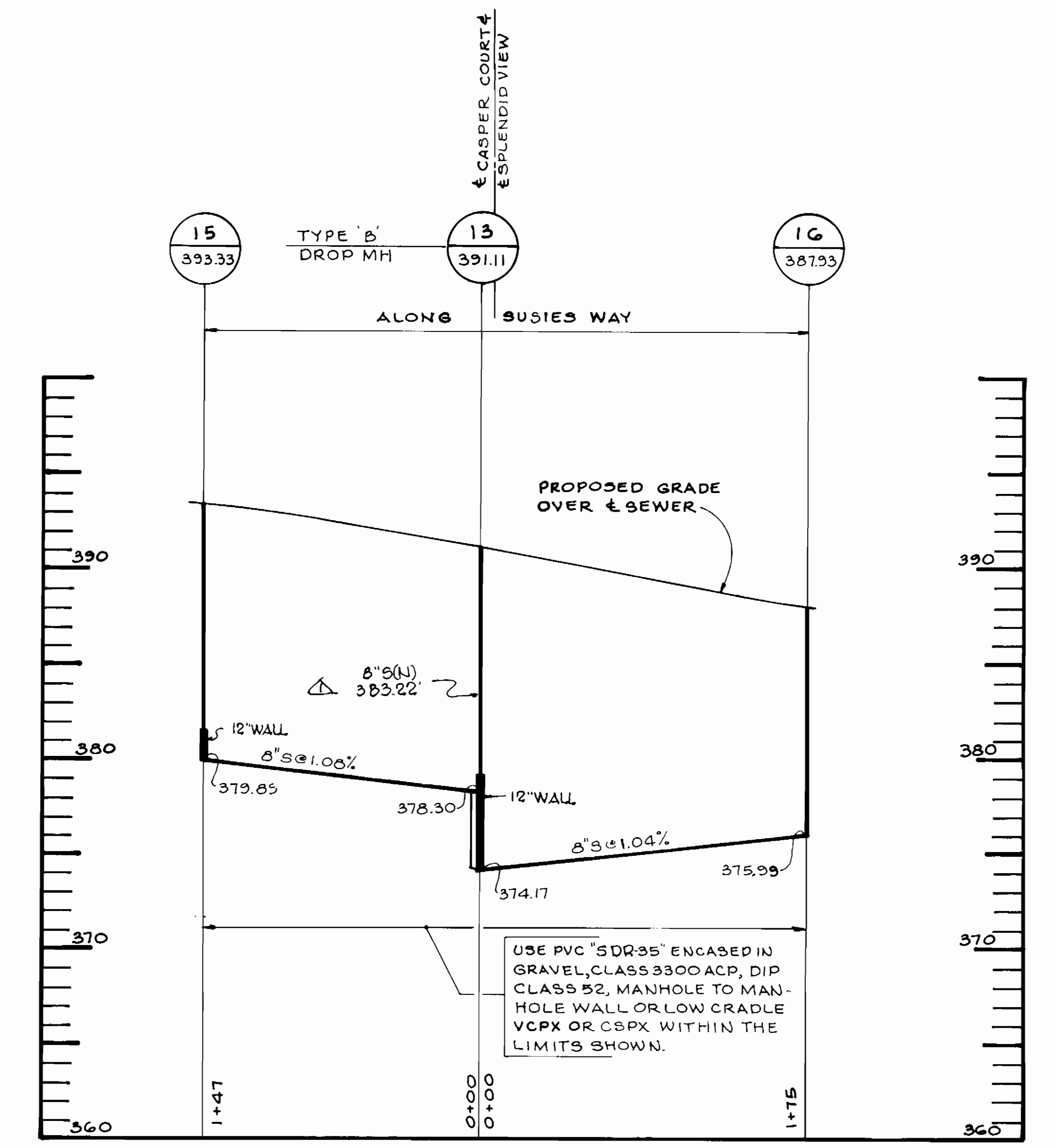
2ND ELECTION DISTRICT HOWARD COUNTY, MD.

AS-BUILT AUG 1986

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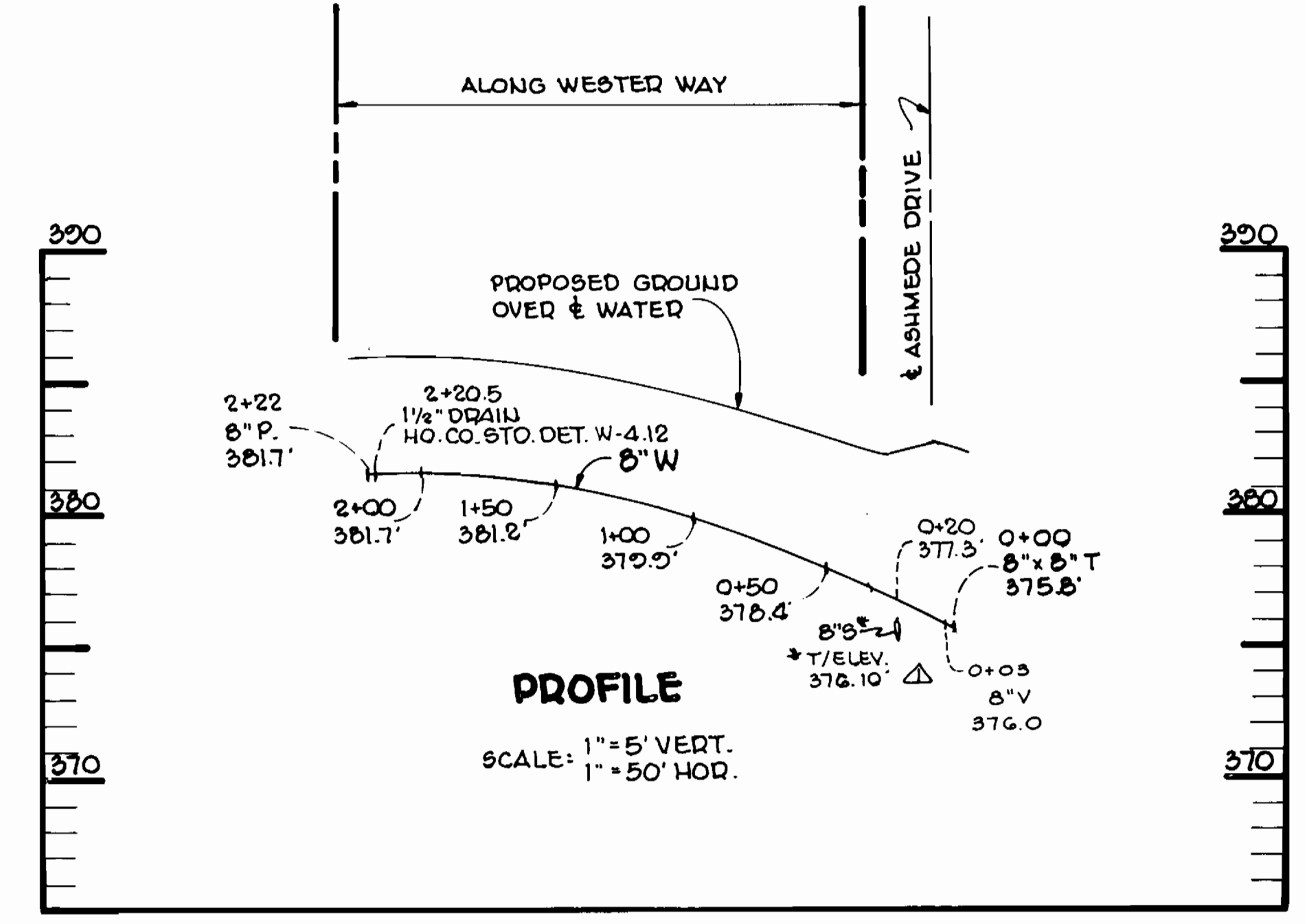
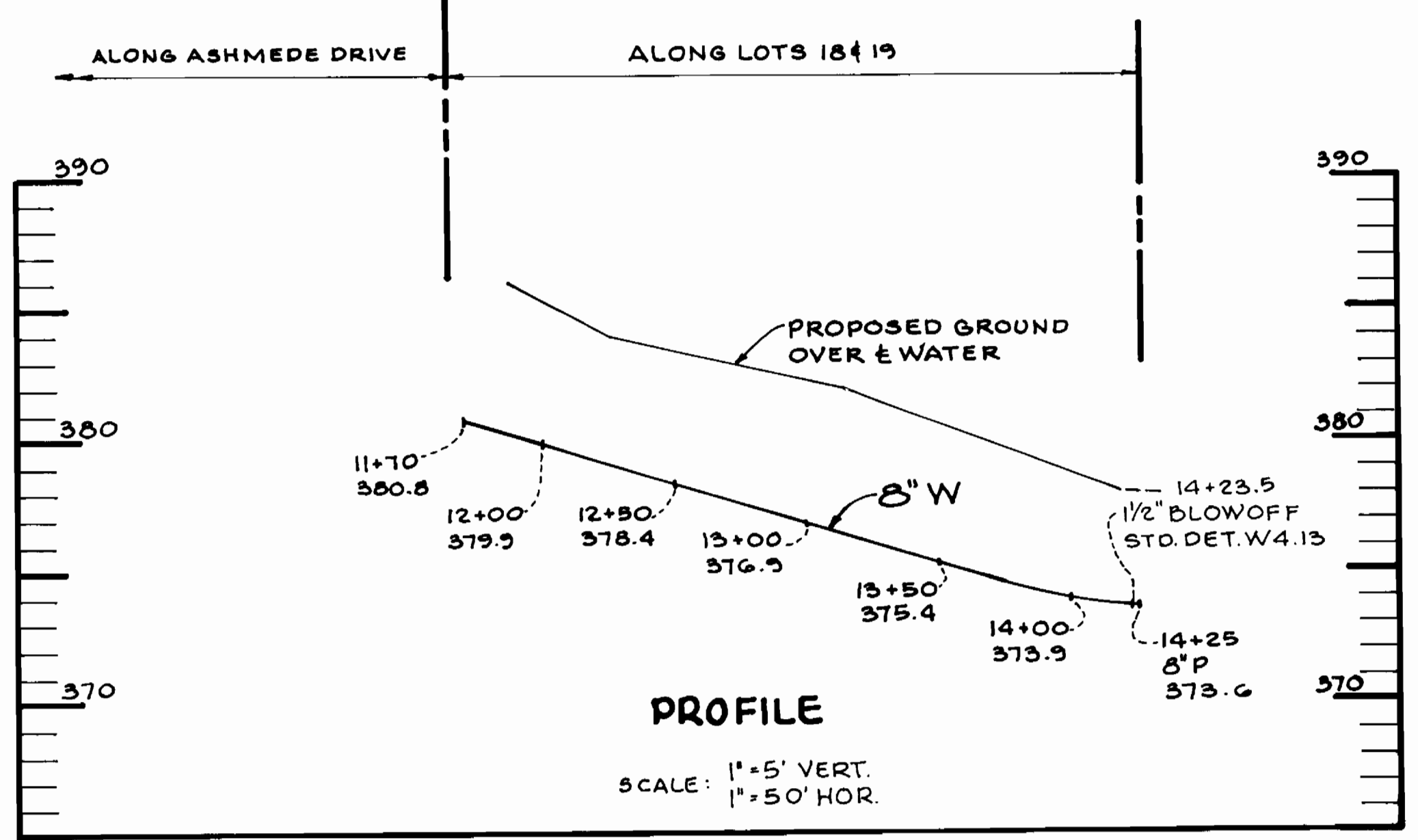
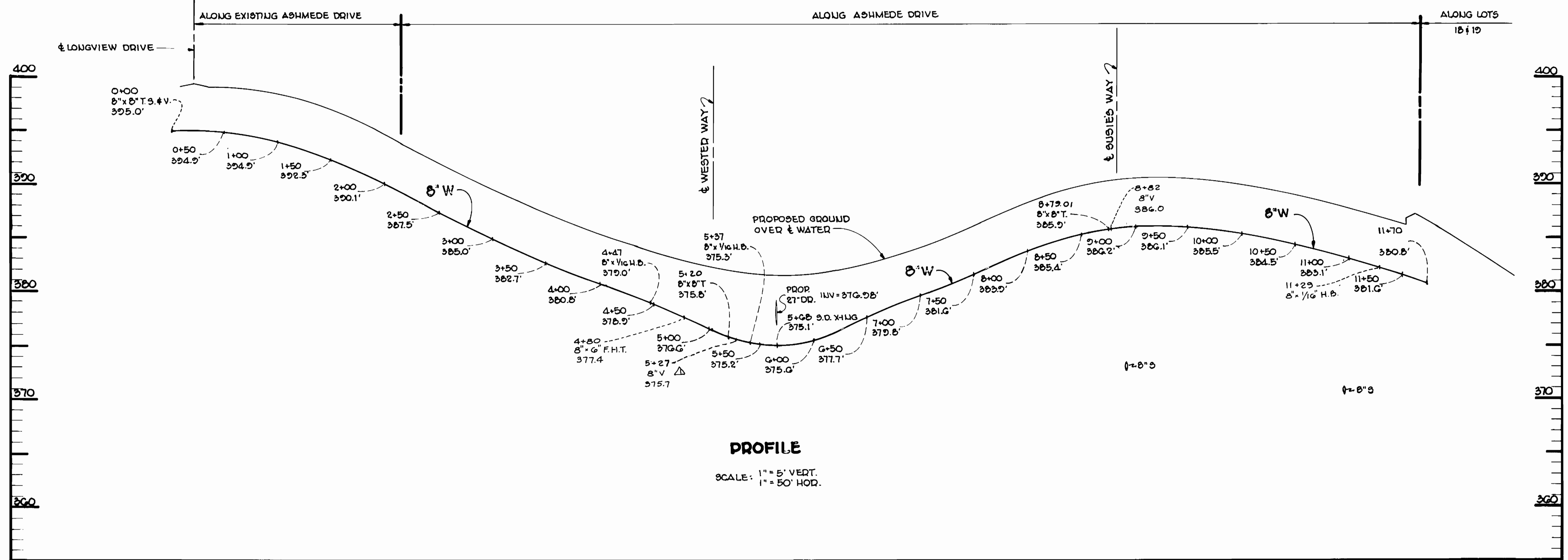


PROFILE
SCALE: 1"=5' VERT.
1"=50' HOR.



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

| | | | | | | | | | | | |
|---|--|--|--|---|--|---------------------------|--|--|--|--------------------------------|--|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 10/3/84 Chief, Bureau of Utilities: <i>[Signature]</i> | | SPELLMAN, LARSON & ASSOC., INC. CIVIL ENGINEERS & LAND SURVEYORS 105 W. CHESAPEAKE AVENUE TOWSON, MARYLAND, 21204 Chief, Land Development Div.: <i>[Signature]</i> | | P.E. # 3321 10/5/84 DATE: 8/16/84 MH 13 - ADD. CONLI. ELEV. | | PROFILE OF SEWER MAINS | | CONTRACT NO. 24-1252-D-W & S BOUNTY VISTA | | SCALE AS SHOWN SHEET 4 OF 6 | |
| 2ND ELECTION DISTRICT HOWARD COUNTY, MD. | | | | | | AS-BUILT AUG. 1986 | | | | | |



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

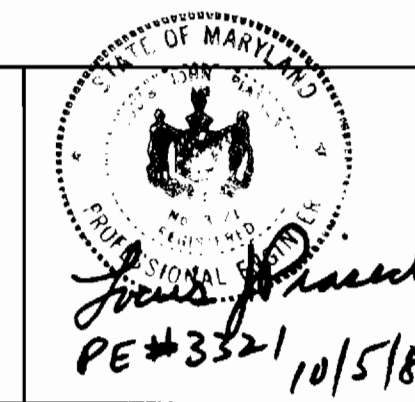
James P. ... 12.21.84
 DIRECTOR OF PUBLIC WORKS DATE

William S. ...
 CHIEF, BUREAU OF ENGINEERING

Robert M. ... 10-30-84
 CHIEF, BUREAU OF UTILITIES DATE

William ...
 CHIEF, LAND DEVELOPMENT DIV. DATE

SPELLMAN, LARSON & ASSOC., INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 105 W. CHESAPEAKE AVENUE
 TOWSON, MARYLAND, 21204



DES: AWR
 DRN: AWR
 CHK: AWR
 DATE: 9/12/84

AR BY NO. MISC. ELEVGS. & LOC 8" V. IN ASHMEDE DR. 12/27/84
 REVISION DATE

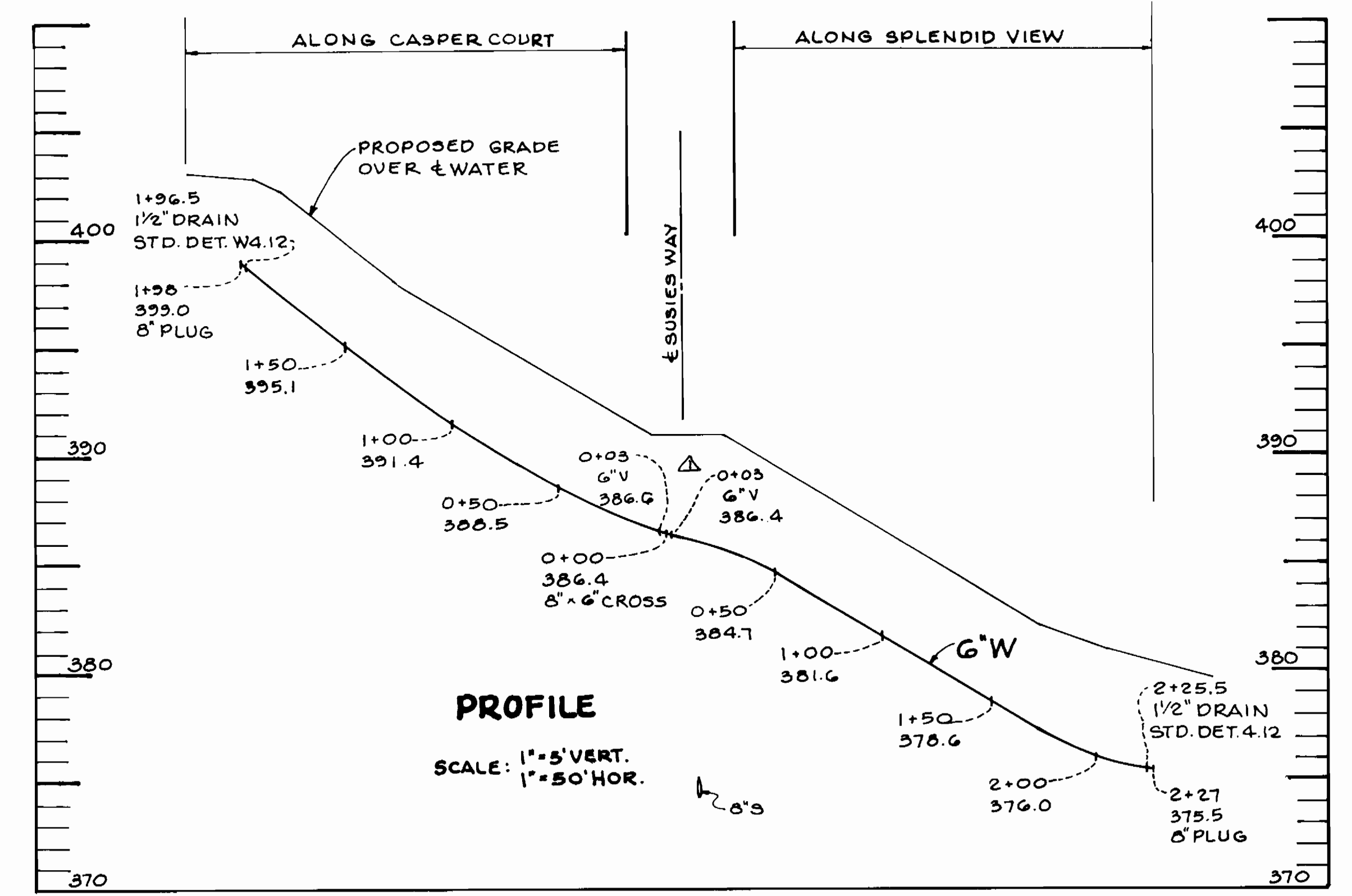
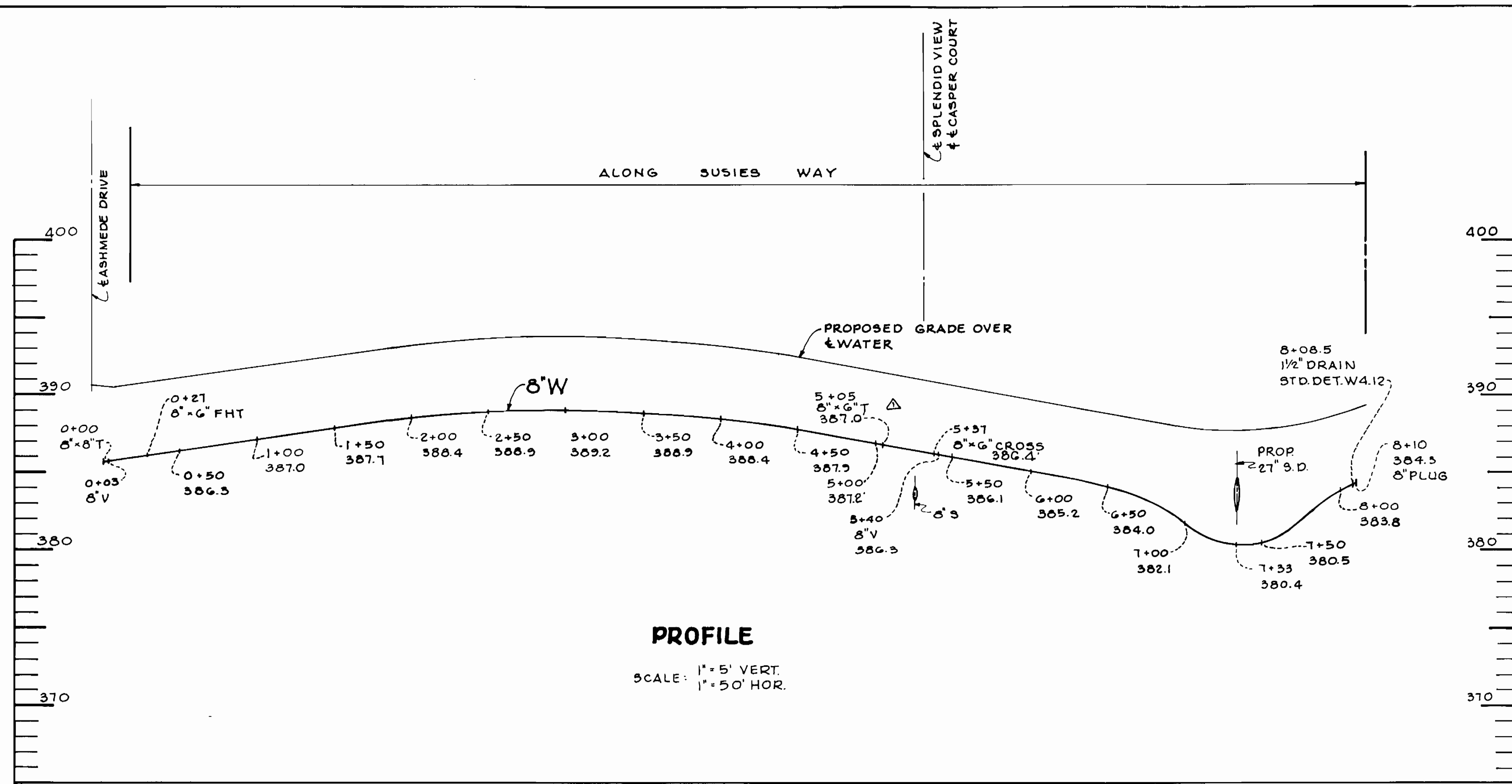
PROFILE OF
 WATER MAINS

600' SCALE MAP NO. 24 BLOCK NO. 3

SCALE AS SHOWN

SHEET 5 OF 6

2ND ELECTION DISTRICT
 HOWARD COUNTY, MD.



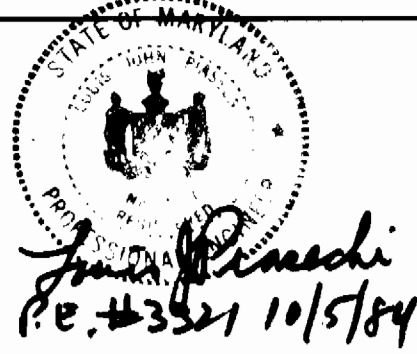
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
DIRECTOR OF PUBLIC WORKS
DATE: 10-2-84

[Signature]
CHIEF, BUREAU OF ENGINEERING
DATE: 10/5/84

[Signature]
CHIEF, LAND DEVELOPMENT DIV.
DATE: 10/5/84

SPELLMAN, LARSON & ASSOC., INC.
CIVIL ENGINEERS & LAND SURVEYORS
105 W. CHESAPEAKE AVENUE
TOWSON, MARYLAND, 21204



| | |
|---------------|--|
| DES. H. K. | |
| DRN. H. K. | |
| CHK: AWR | |
| DATE: 8/19/84 | |
| BY: AR | |
| BY: N.C. | |
| MISC. ELEVS. | |
| REVISION | |

PROFILE OF WATER MAINS

60' SCALE MAP NO. 24 BLOCK NO. 3

CONTRACT NO. 24-1252-D-W # 3
BOUNTY VISTA

2ND ELECTION DISTRICT
HOWARD COUNTY, MD.

SCALE AS SHOWN

SHEET 6 OF 6

AS-BUILT AUG. 1986