

### GENERAL NOTES

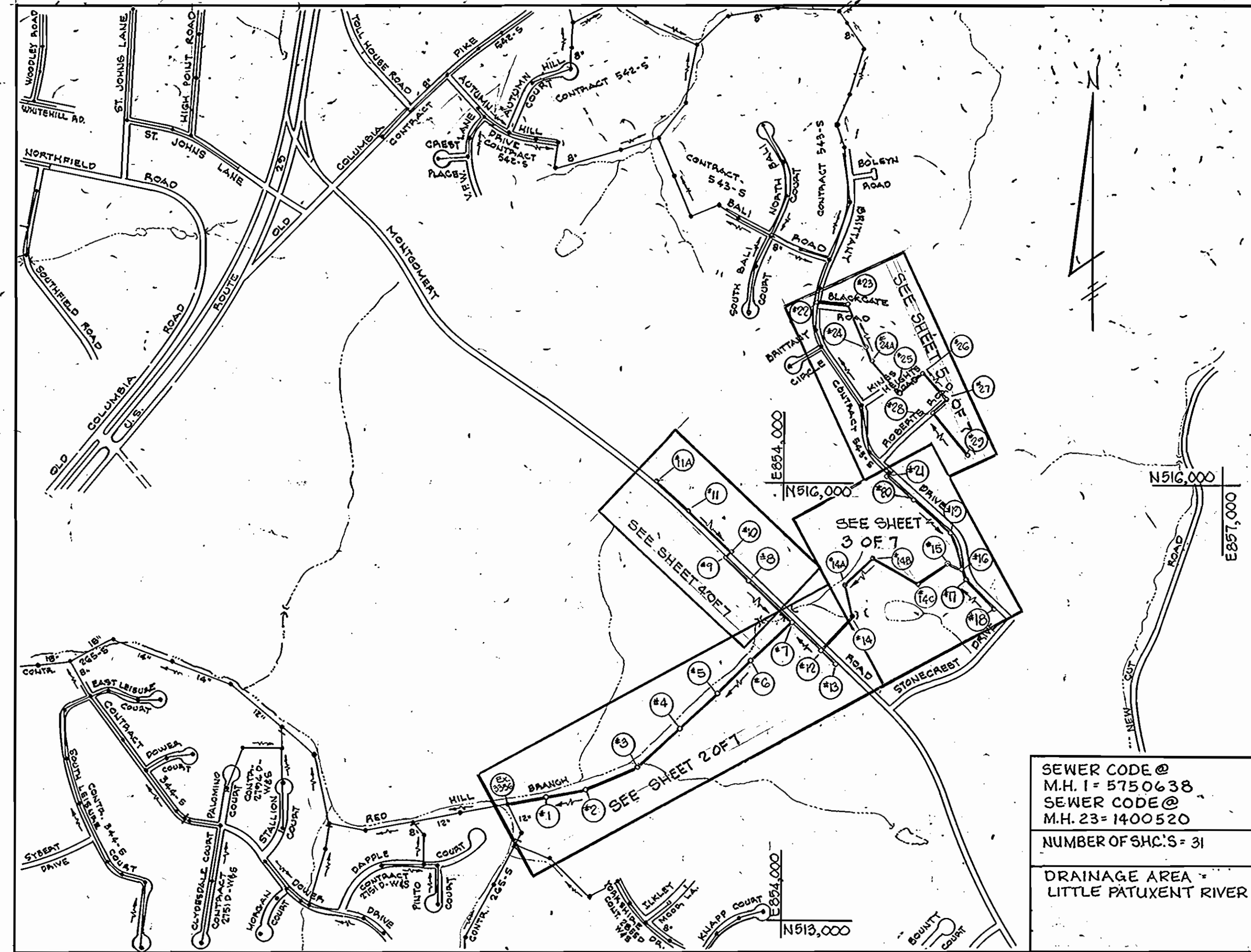
- APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT  $\phi$ 2 ELEVATIONS, UNLESS OTHERWISE INDICATED.
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE. ANY CONFLICTS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
- ALL MATERIALS AND CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6 INCHES. CLEAR ALL POLES BY 2'-0" MIN. OR TUNNEL, AS REQUIRED. ANY COSTS INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE INSTALLATION AS APPLICABLE.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIPS ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
  - BALTIMORE GAS & ELECTRIC-UNDERGROUND ELECTRIC DIVISION CUSTOMER SERVICE - (285-0123)
  - BALTIMORE GAS & ELECTRIC-UNDERGROUND GAS DIVISION CUSTOMER SERVICE - (285-0123)
  - ENGINEERING - "DAMAGE CONTROL" - (234-5621)
  - "MIS" UTILITY - (1-555-0100); STATE HIGHWAY ADMINISTRATION (531-5533)
  - CHESAPEAKE & POTOMAC (CAP) TELEPHONE - (725-9976)
  - BUREAU OF UTILITIES, HOWARD COUNTY - (392-2366)
- ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., A.C.P. CLASS 2400, D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE DATUM.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL AND DISPOSAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE INSTALLATION AS APPLICABLE.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS WELL AS OTHER REQUIREMENTS NECESSARY TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION & MAINTENANCE OPERATIONS.
- (A) DENOTES ASSUMED ELEVATION.

### CONSTRUCTION SEQUENCE SCHEDULE

- INSTALLATION AND STABILIZATION OF SEDIMENT AND EROSION CONTROL MEASURES.
- CLEARING AND GRUBBING CONSTRUCTION AREA.
- REMOVAL AND/OR DISPOSAL OF TREES, STUMPS OR OTHER DEBRIS.
- CONSTRUCTION OF SANITARY SEWER AND APPURTENANCES.
- WHEN AUTHORIZED REMOVAL OF TEMPORARY SEDIMENT CONTROL DEVICES.
- RE-STABILIZE ALL DISTURBED AREAS.

### SEDIMENT CONTROL NOTES

- ALL CONSTRUCTION PERTAINING TO SOIL EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS, REVISED JANUARY 1982 AND THE HOWARD SOIL CONSERVATION DISTRICTS STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS, DATED JULY 1975.
- STRAW BALE DIKES, STONE OUTLET STRUCTURES, TEMPORARY EARTH DIVERSION BERMS, TEMPORARY STREAM ACCESS COLLECTS, ETC. SHOWN ON THE PLANS MAY BE ADDED TO, DELETED, OR ADJUSTED AS FIELD CONDITIONS REQUIRE.
- ALL SPOIL MATERIALS SHALL BE STOCKPILED ON THE HIGH SIDE OF THE CONSTRUCTION STRIP.
- STABILIZED CONSTRUCTION ENTRANCES, IF REQUIRED, TO BE LOCATED WHERE DIRECTED BY THE ENGINEER IN THE FIELD.



# CONTRACT NO 20-1069

## CAPITAL PROJECT NO. S-6088

### STONECREST

## OUTFALL AND COLLECTOR SEWERS

# HOWARD COUNTY MARYLAND

## DEPARTMENT OF PUBLIC WORKS

I/WE CERTIFY THAT ALL 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.

*William E. Ray* 9-13-82

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 SOIL CONSERVATION DISTRICT.

*Arthur E. Leonard* 9/10/82  
DATE

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

APPROVED: *William T. Reine* 9-14-82  
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*James M. Allen* 9-14-82  
U.S. SOIL CONSERVATION SERVICE DATE



*David R. Hall* 8-22-82  
DAVID R. HALL #10517 DATE

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

*George F. Nemmy* 8-30-82  
DIRECTOR OF PUBLIC WORKS DATE

*Allen S. Brown* 8/30/82  
CHIEF, UTILITY DIVISION DATE

**FREDERICK WARD ASSOCIATES, INC.**  
ENGINEERS ARCHITECTS SURVEYORS  
5 SOUTH MAIN STREET BEL AIR, MARYLAND

EPA PROJ. NO. C-240723-03  
CONTRACT NO. 20-1069  
CAPITAL PROJECT S-6088

LOCATION MAP

AS-BUILTS

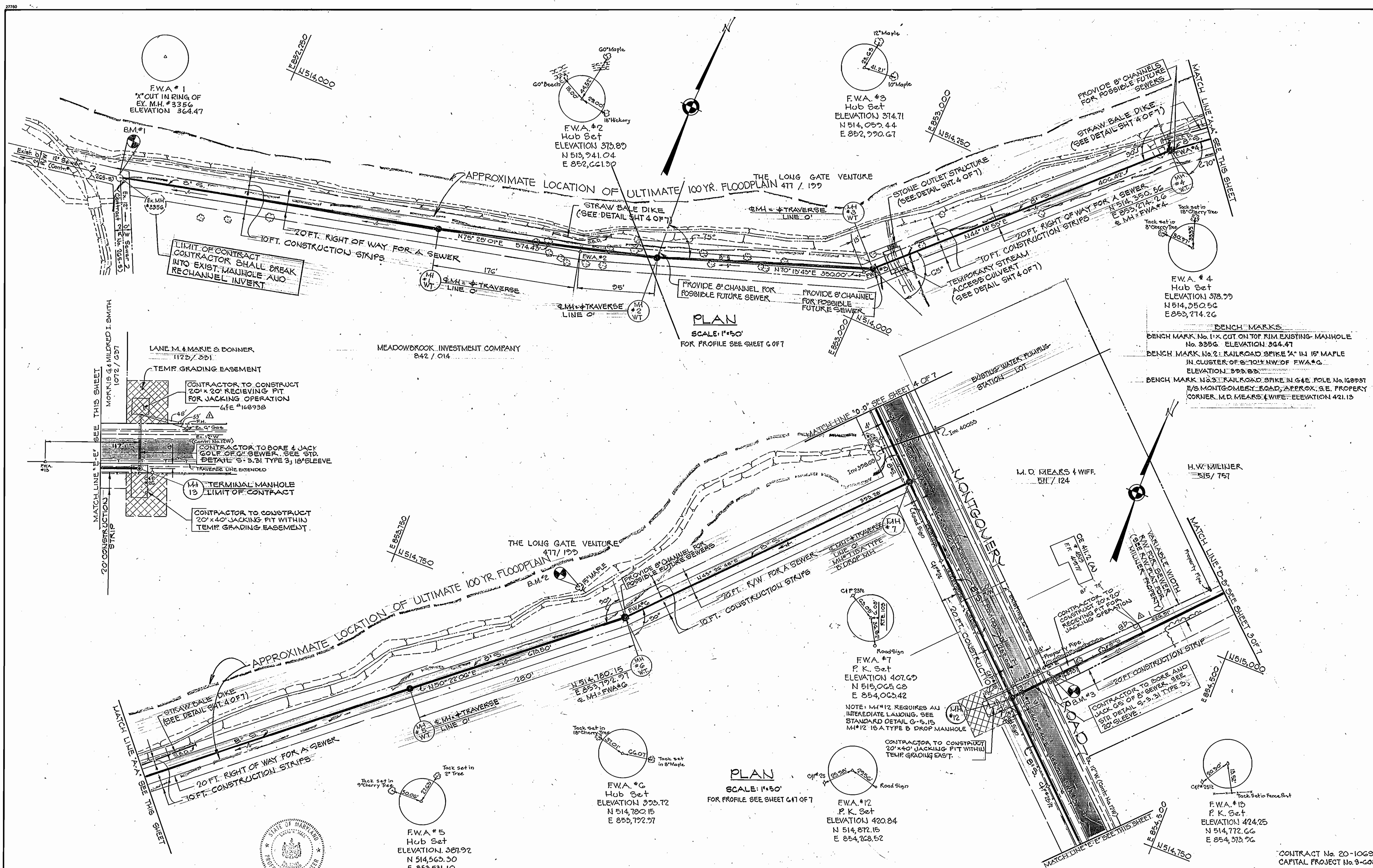
ELECTION DISTRICT  
ELICOTT CITY NO. 2

CONTRACT No. 20-1069  
CAPITAL PROJECT No. S-6088  
STONECREST OUTFALL AND  
COLLECTOR SEWERS  
HOWARD COUNTY, MARYLAND

ITEM	QUANTITIES			SUPPLIERS
	ESTIMATED	AS-BUILT	MATERIALS	
8" SEWER	8,370 L.F.	8,793 LF (Inc. 37% L.F. P.V.C.)		GRIFFIN-DIP
6" SEWER	750 L.F.	715 LF	P.V.C.	BELAIR SUP. PVC
MH'S	34	34	Precast Conc.	Atlantic Precast

DRAWING NO. 1 OF 7  
SCALE 1"=600'





**PLAN**  
SCALE: 1"=50'  
FOR PROFILE SEE SHEET G OF 7

**PLAN**  
SCALE: 1"=50'  
FOR PROFILE SEE SHEET G11 OF 7

AS-BUILTS

**BENCH MARKS**  
BENCH MARK No. 1: 1" X CUT ON TOP RIM EXISTING MANHOLE No. 3356 ELEVATION 364.47  
BENCH MARK No. 2: RAILROAD SPIKE 'A' IN 16' MAPLE IN CLUSTER OF 8-10' NW OF F.W.A.#G ELEVATION 393.85  
BENCH MARK No. 3: RAILROAD SPIKE IN 6 1/2" POLE No. 160937 E/S MONTGOMERY ROAD, APPROX. S.E. PROPERTY CORNER M.D. MEARS & WIFE ELEVATION 421.13

CONTRACT No. 20-1069  
CAPITAL PROJECT No. 9-G088  
STONECREST OUTFALL AND COLLECTOR SEWER  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DAVID R. HALL #10517  
8/16/82  
DATE

FREDERICK WARD ASSOCIATES, INC.  
ENGINEERS ARCHITECTS SURVEYORS  
5 SOUTH MAIN STREET BEL AIR, MARYLAND

Rev.	Date	Remarks
Δ	12-84	As-Built

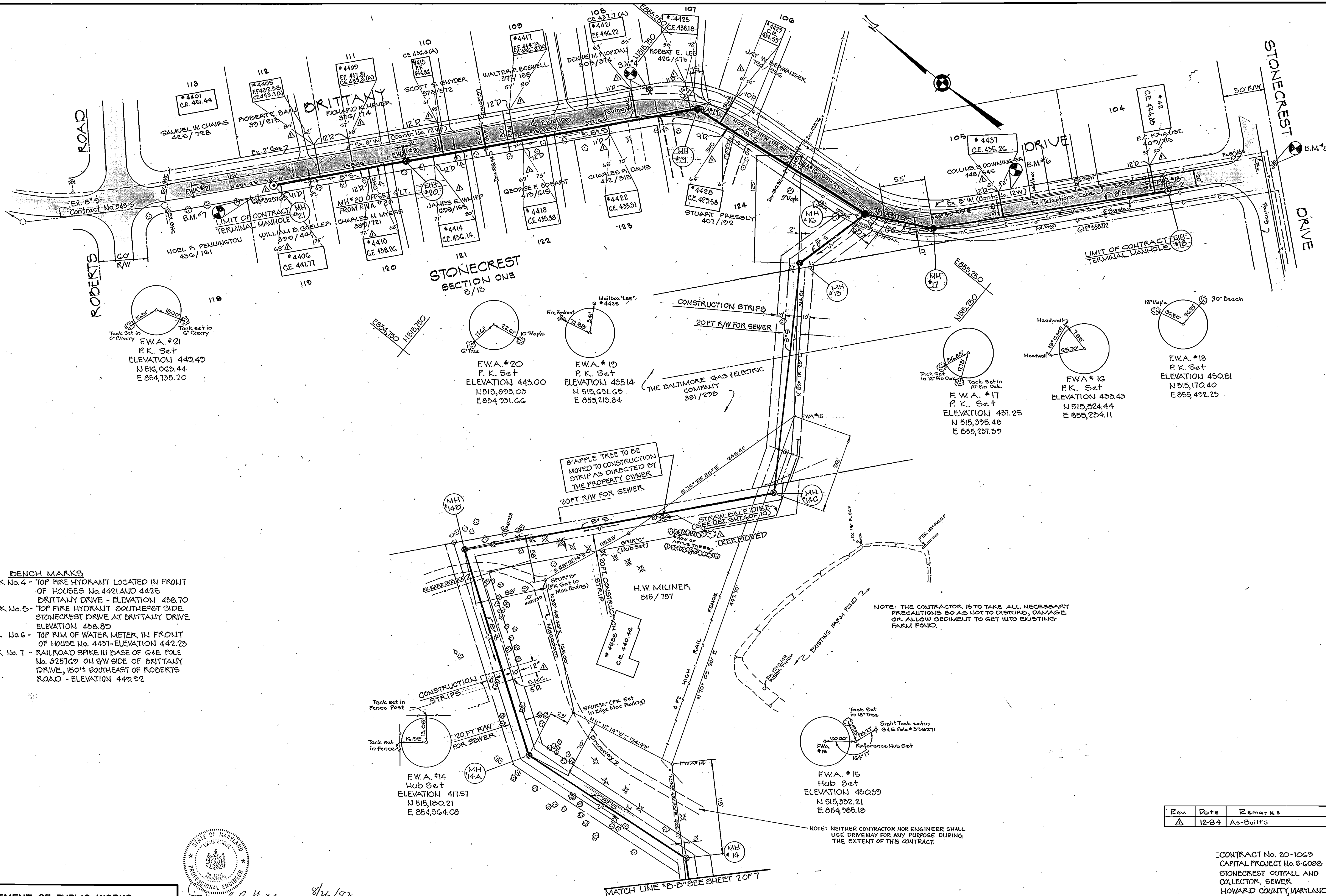
CONTRACT NO. 20-1069  
CAPITAL PROJECT S-6088

PLAN OF  
SEWER MAIN

ELECTION DISTRICT  
ELLICOTT CITY NO. 2

DRAWING NO. 2 OF 7  
SCALE AS SHOWN  
DES: A.E.L.  
DRN: T.W.  
CHK: A.E.L.





- BENCH MARKS**
- BENCH MARK No. 4 - TOP FIRE HYDRANT LOCATED IN FRONT OF HOUSES No. 4421 AND 4425 BRITANNY DRIVE - ELEVATION 438.70
  - BENCH MARK No. 5 - TOP FIRE HYDRANT SOUTHWEST SIDE STONECREST DRIVE AT BRITANNY DRIVE ELEVATION 458.80
  - BENCH MARK No. 6 - TOP RIM OF WATER METER IN FRONT OF HOUSE No. 4431 - ELEVATION 442.23
  - BENCH MARK No. 7 - RAILROAD SPIKE IN BASE OF G4E POLE No. 325729 ON S/W SIDE OF BRITANNY DRIVE, 150'± SOUTHEAST OF ROBERTS ROAD - ELEVATION 442.92

APPLE TREE TO BE MOVED TO CONSTRUCTION STRIP AS DIRECTED BY THE PROPERTY OWNER

NOTE: THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS SO AS NOT TO DISTURB, DAMAGE OR ALLOW SEDIMENT TO GET INTO EXISTING FARM POND.

NOTE: NEITHER CONTRACTOR NOR ENGINEER SHALL USE DRIVEWAY FOR ANY PURPOSE DURING THE EXTENT OF THIS CONTRACT.

Rev	Date	Remarks
Δ	12-84	As-Built

CONTRACT No. 20-1069  
 CAPITAL PROJECT No. S-6088  
 STONECREST OUTFALL AND COLLECTOR, SEWER  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY MARYLAND  
 Director of Public Works: *Robert M. Switzer* 8/20/82  
 Chief, Bureau of Utilities: *Allen L. Brown* 8/30/82



DAVID R. HALL #10517 8/26/82 DATE

**FREDERICK WARD ASSOCIATES, INC.**  
 ENGINEERS ARCHITECTS SURVEYORS  
 5 SOUTH MAIN STREET BEL AIR, MARYLAND

CONTRACT NO. 20-1069  
 CAPITAL PROJECT S-6088

PLAN OF  
 SEWER MAIN

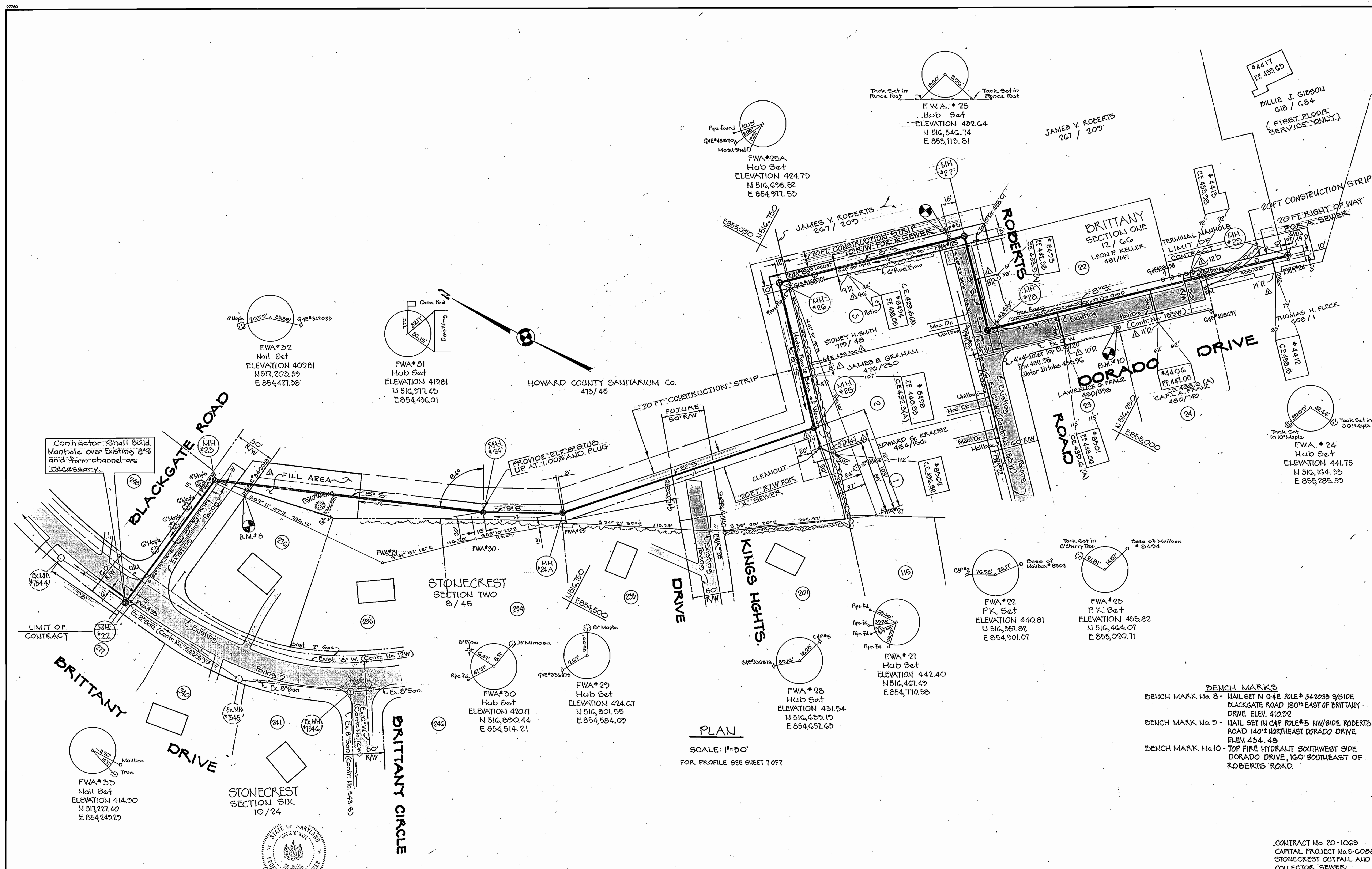
AS-BUILTS  
 ELECTION DISTRICT  
 ELLICOTT CITY NO. 2

DRAWING NO. 3 OF 7  
 SCALE AS SHOWN  
 DES: A.E.L.  
 DRN: T.W.  
 CHK: A.E.L.









HOWARD COUNTY SANITARIUM Co.  
413/45

**PLAN**  
SCALE: 1"=50'  
FOR PROFILE SEE SHEET 707

- BENCH MARKS**
- BENCH MARK No. 8 - NAIL SET IN G&E. POLE # 342033 9/810E BLACKGATE ROAD 180'± EAST OF BRITTANY DRIVE ELEV. 410.92
  - BENCH MARK No. 9 - NAIL SET IN C&P POLE # 5 NW/SIDE ROBERTS ROAD 140'± NORTHEAST DORADO DRIVE ELEV. 434.48
  - BENCH MARK No. 10 - TOP FIRE HYDRANT SOUTHWEST SIDE DORADO DRIVE, 160'± SOUTHWEST OF ROBERTS ROAD.

CONTRACT No. 20-1069  
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STONECREST OUTFALL AND COLLECTOR SEWER  
HOWARD COUNTY, MARYLAND

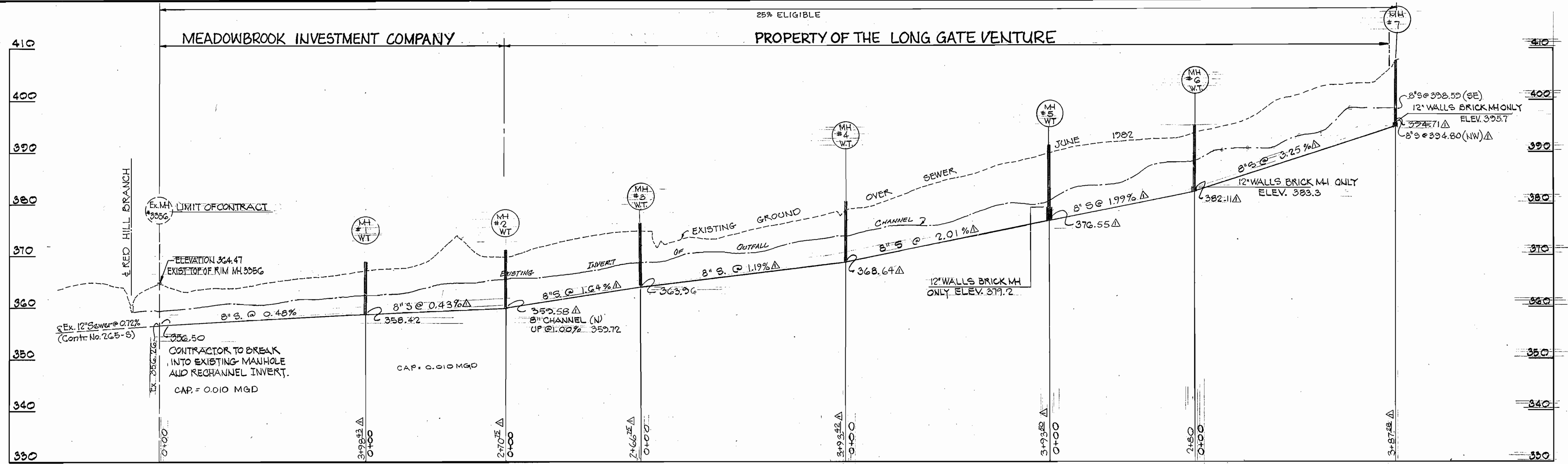
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
8/26/82  
DAVID R. HALL # 10517 DATE

FREDERICK WARD ASSOCIATES, INC.  
ENGINEERS ARCHITECTS SURVEYORS  
5 SOUTH MAIN STREET BEL AIR, MARYLAND

CONTRACT NO. 20-1069  
CAPITAL PROJECT S-6088

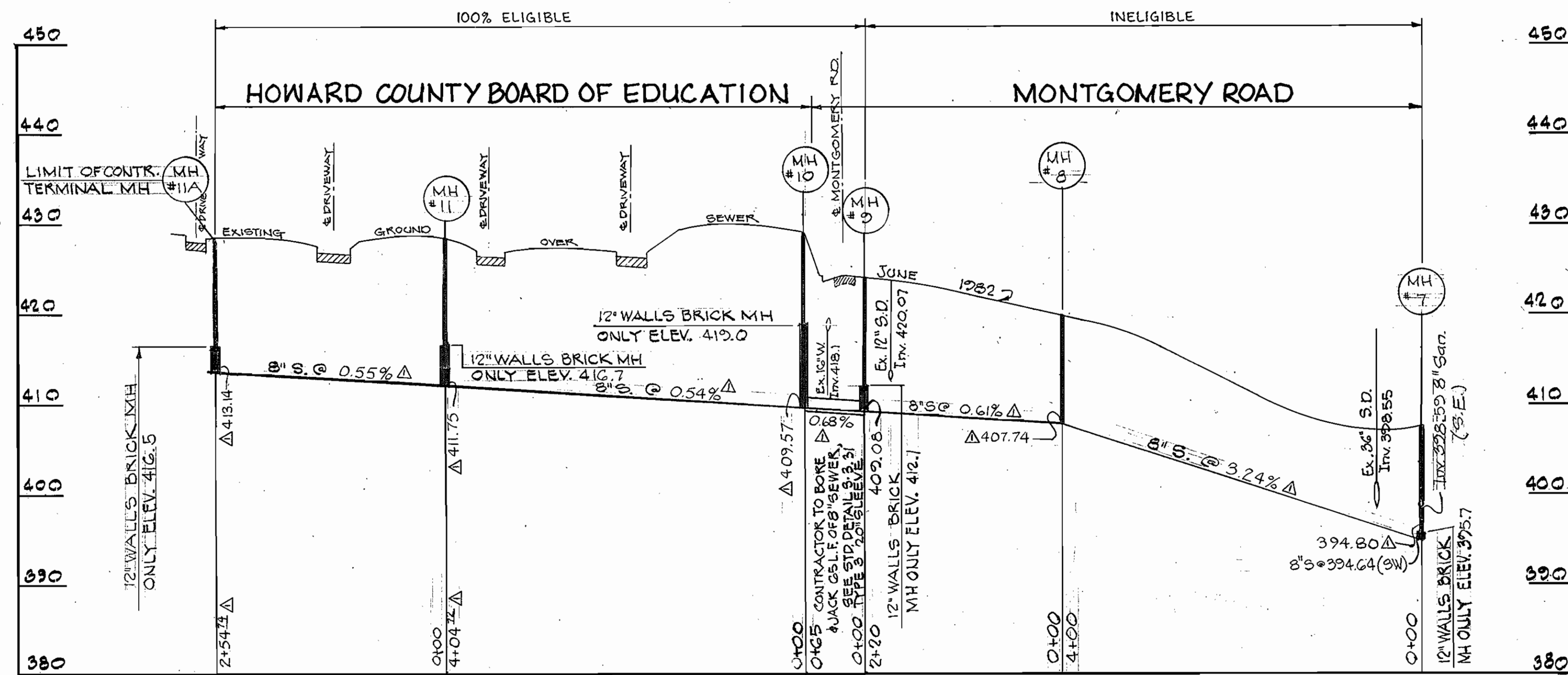
AS-BUILTS  
ELECTION DISTRICT  
ELLICOTT CITY NO. 2  
DRAWING NO. 5 OF 7  
SCALE AS SHOWN  
DES: A.E.L.  
ORN: T.W.  
CHK: A.E.L.





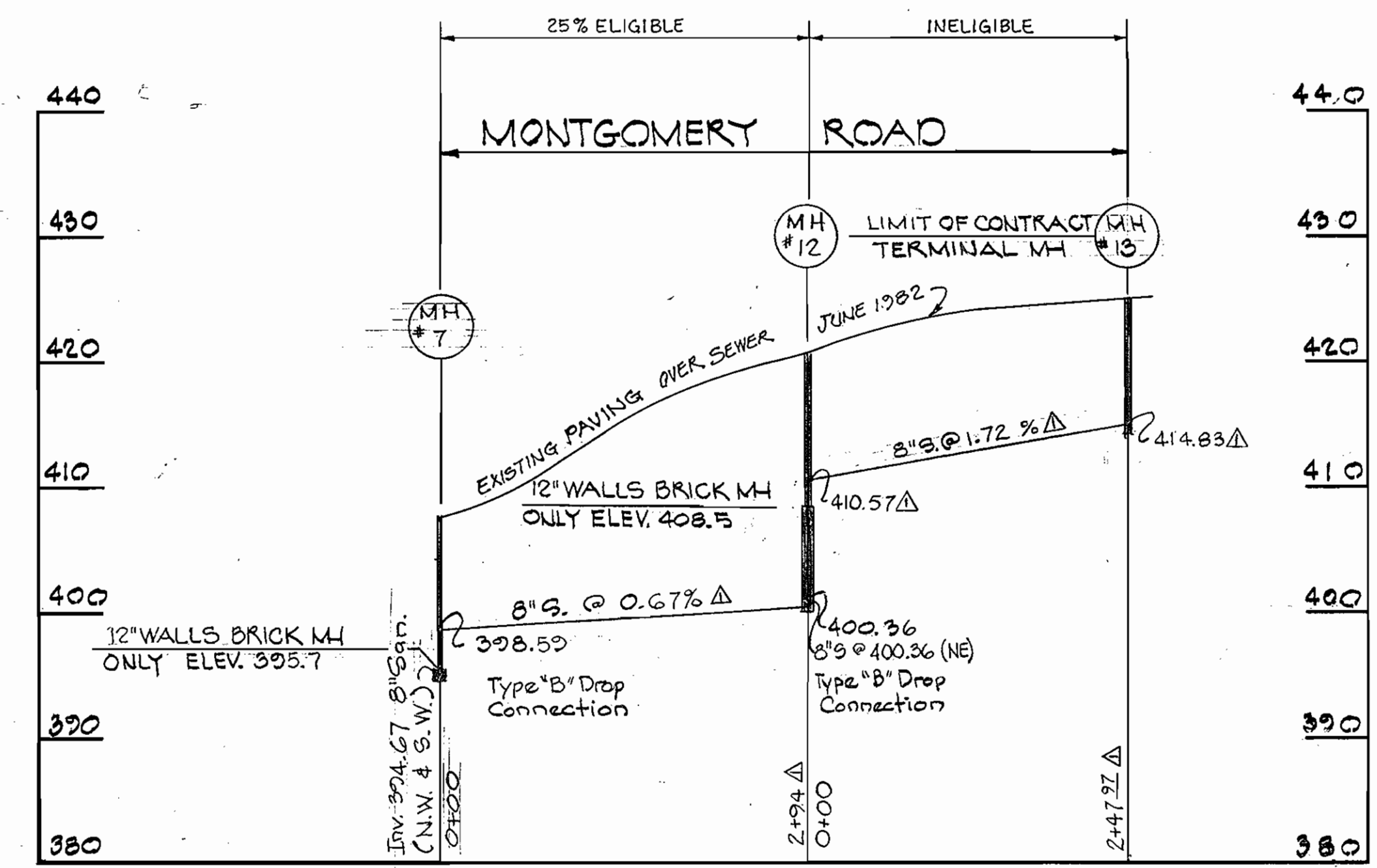
FOR PLAN SEE SHEET 2 OF 7

**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'



FOR PLAN SEE SHEET 4 OF 7

**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'



FOR PLAN SEE SHEET 2 OF 7

**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'

CONTRACT No. 20-1069  
 CAPITAL PROJECT No. S-6088  
 STONECREST OUTFALL AND  
 COLLECTOR SEWER  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY MARYLAND  
 Director of Public Works: *Robert F. Newman* 8-30-82  
 Chief, Bureau of Engineering: *Allen S. Brown* 8/30/82  
 Chief, Bureau of Utilities: *Allen S. Brown* 8/30/82



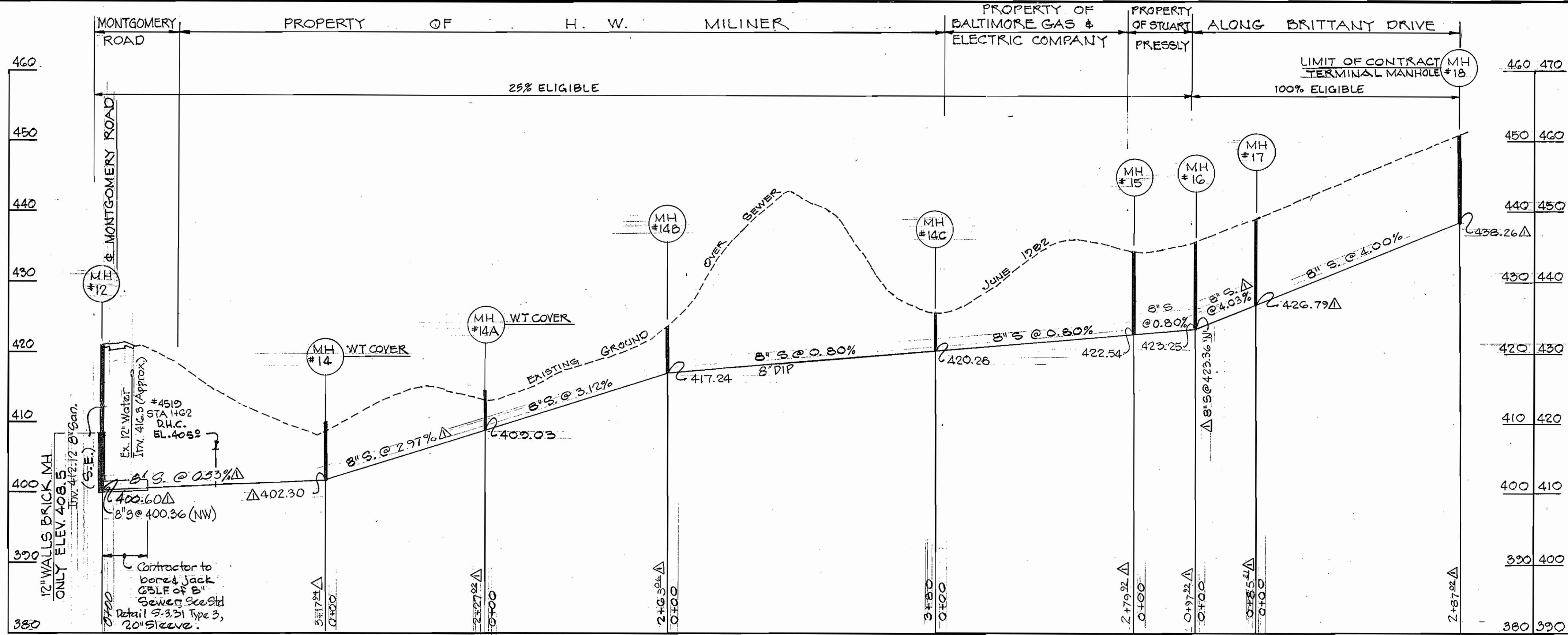
*David R. Hall* 8/26/82  
 DAVID R. HALL #10617 DATE  
**FREDERICK WARD ASSOCIATES, INC.**  
 ENGINEERS ARCHITECTS SURVEYORS  
 5 SOUTH MAIN STREET BEL AIR, MARYLAND

CONTRACT NO. 20-1069  
 CAPITAL PROJECT S-6088

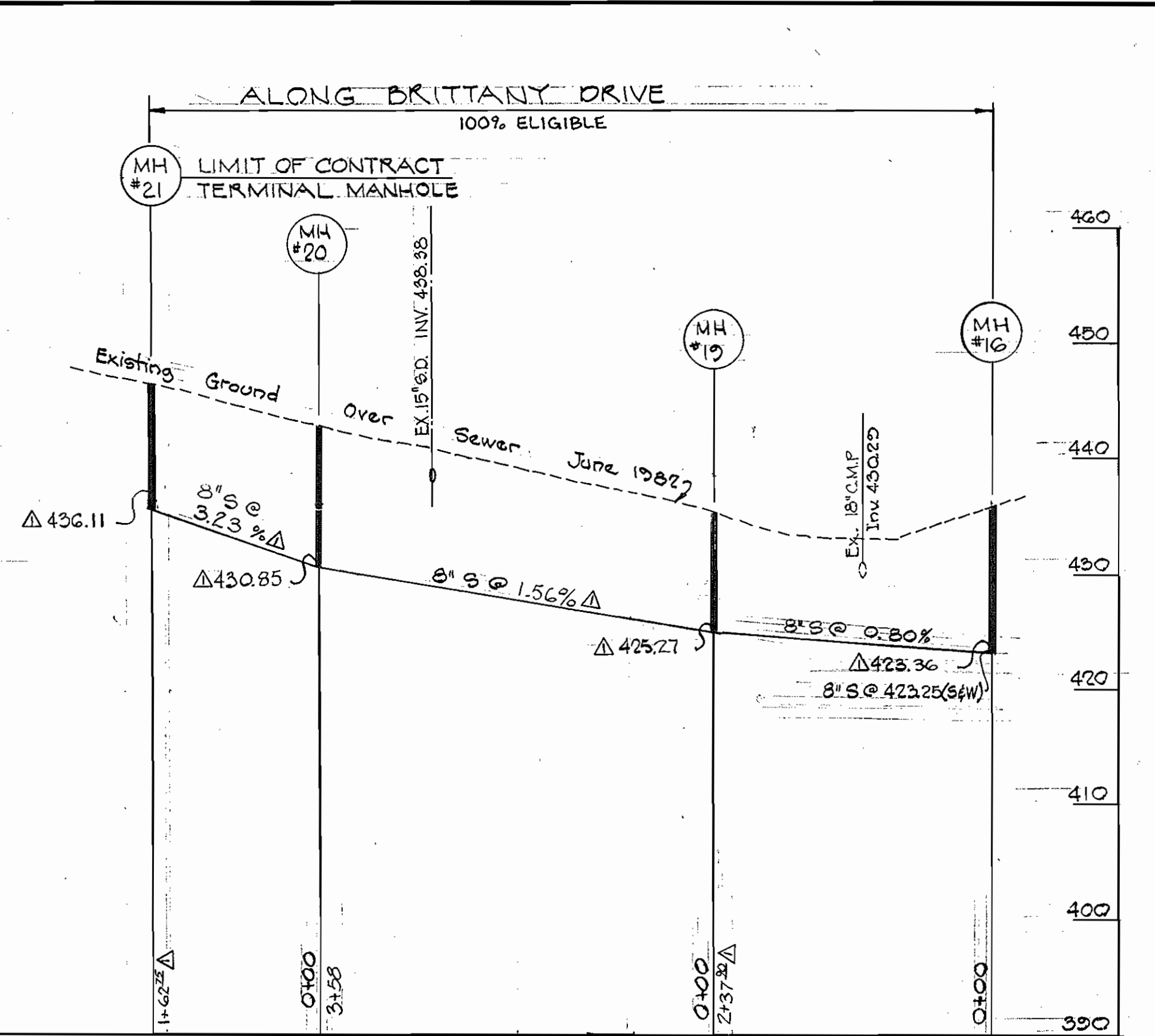
Rev. Date Remarks  
 Δ 12-84 As-Built

AS-BUILTS  
 ELECTION DISTRICT  
 ELLICOTT CITY NO. 2

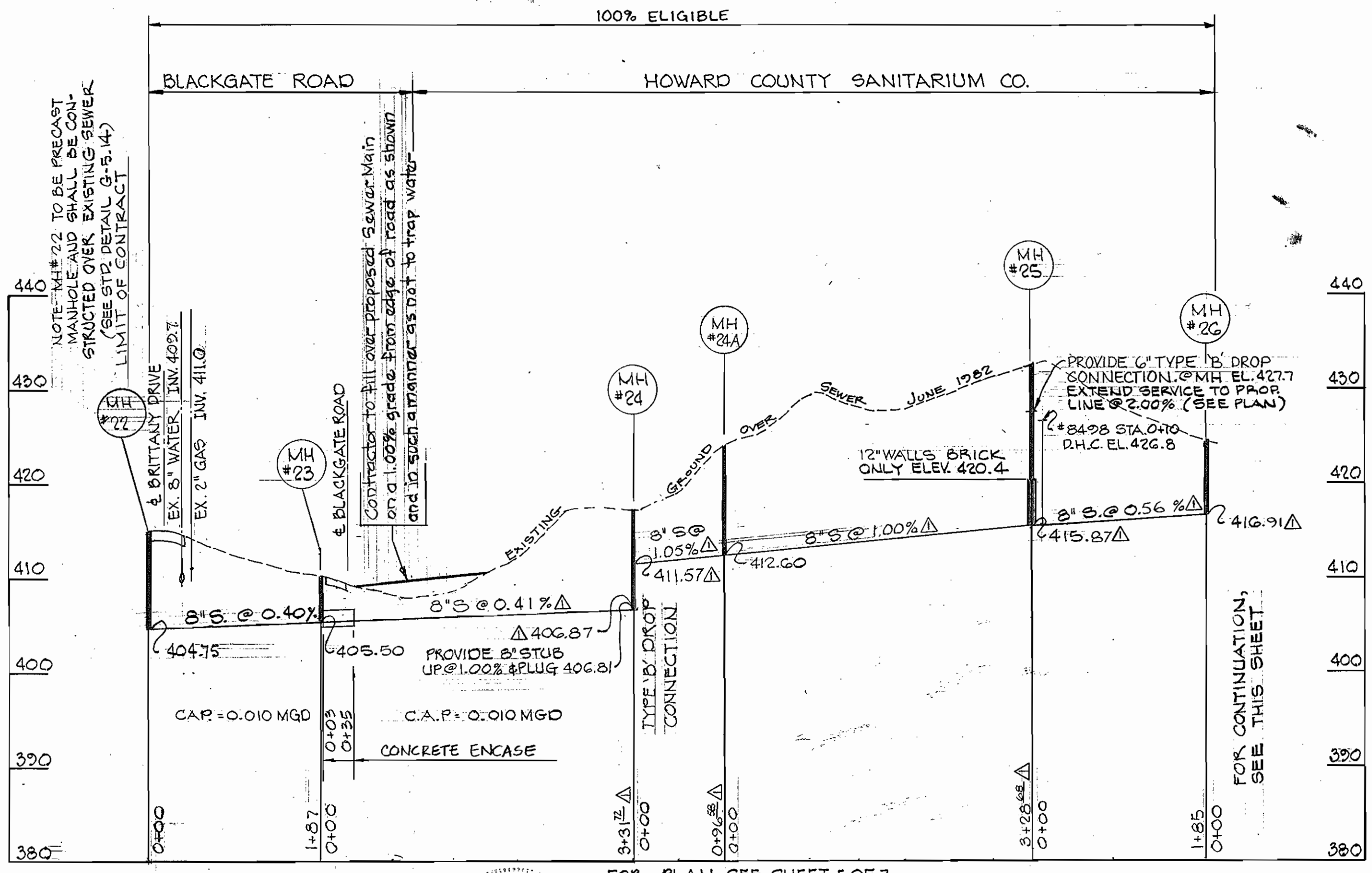
DRAWING NO. 6 OF 7  
 SCALE AS SHOWN  
 DES. A.P.L.  
 DRN. T.W.  
 CHK. A.E.L.



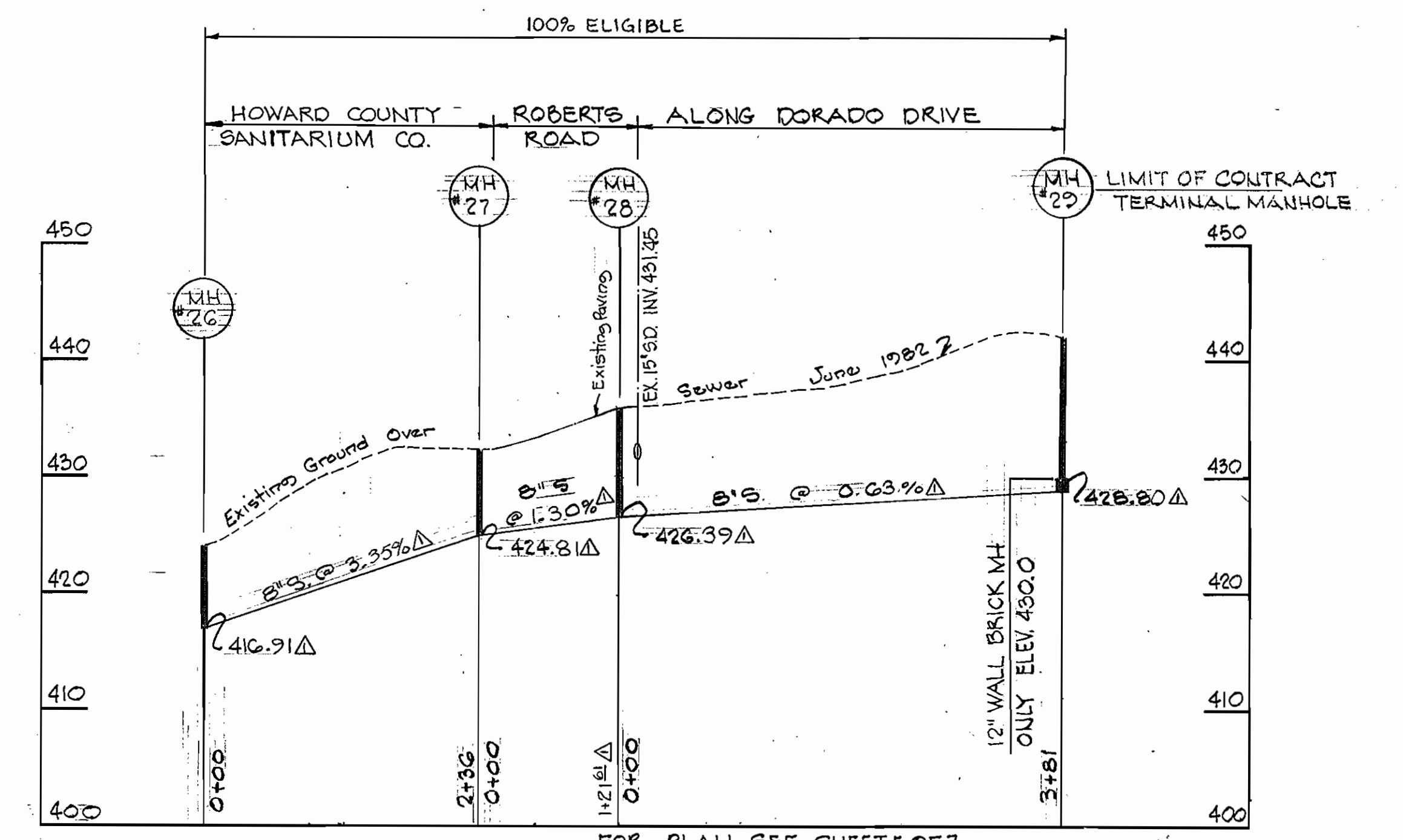
FOR PLAN SEE SHEET 2 OF 7  
**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'



FOR PLAN SEE SHEET 3 OF 7  
**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'



FOR PLAN SEE SHEET 5 OF 7  
**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'



FOR PLAN SEE SHEET 5 OF 7  
**PROFILE**  
 SCALE: HOR. 1"=100'  
 VERT. 1"=10'

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *Robert W. Brown* 8/30/82  
 Chief, Bureau of Utilities: *Allen L. Brown* 8/30/82

PROFESSIONAL ENGINEER  
 DAVID R. HALL #10517  
 DATE: 8/26/82  
**FREDERICK WARD ASSOCIATES, INC.**  
 ENGINEERS ARCHITECTS SURVEYORS  
 5 SOUTH MAIN STREET BEL AIR, MARYLAND

Rev.	Date	Remarks
Δ	12-84	As-Built

CONTRACT NO. 20-1069  
 CAPITAL PROJECT S-6088

AS-BUILTS  
 PROFILE OF SEWER MAIN  
 ELECTION DISTRICT: ELLICOTT CITY NO. 2  
 DRAWING NO. 7 OF 7  
 SCALE: AS SHOWN  
 DESIGNED BY: A.E.L.  
 DRAWN BY: T.W.  
 CHECKED BY: A.E.L.  
 CONTRACT No. 20-1069  
 CAPITAL PROJECT No. S-6088  
 STONECREST OUTFALL AND COLLECTOR SEWER  
 HOWARD COUNTY, MARYLAND