
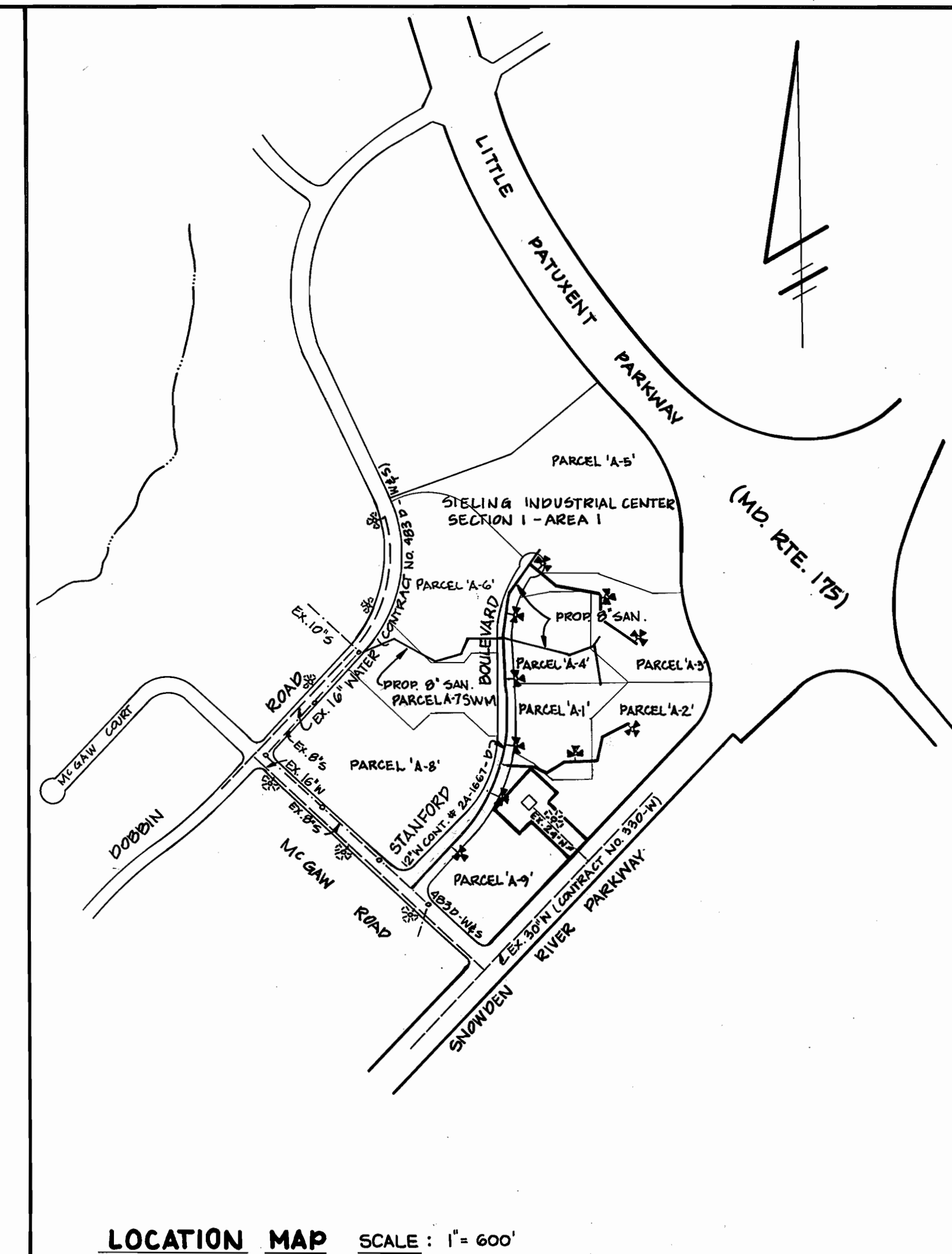


**GENERAL NOTES**

- PART I
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICE AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
  - ALL VERTICAL CONTROLS ARE BASED ON U. S. G. S. DATA.
  - ALL PIPE ELEVATIONS 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 UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTORS 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 THE MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTIONS METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOL. IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTIONS. THE CONTRACTOR SHALL HAVE A COPY OF VOL. 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 RESULTS OF THE TEST 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, BALTO. GAS AND ELECTRIC CO., CONTRACTOR SERVICES 850-4620, BALTO. GAS AND ELECTRIC CO. UNDERGROUND DAMAGE CONTROL 859-9004, BALTO. GAS AND ELECTRIC CO. TROUBLE SHOOTING 298-9001, MISS. UTILITY 1-899-0100, COLONIAL PIPELINE 785-1390 BUREAU OF UTILITIES, HOWARD CO. DEPT. OF PUBLIC WORKS 992-2366, C&P TELEPHONE 1-800-257-7777.
  - 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - PLACE REGULATION 'MEN WORKING' WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATIONS MANUAL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.

- PART II SEWER
- 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" WALLS ARE BRICK MAHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN THE PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G-552. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS NOTED ON DRAWINGS.
  - MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER STANDARD DETAIL G-551.
  - THE CONTRACTOR SHALL ARRANGE TO HAVE THE EXISTING UNDERGROUND CABLE FIELD LOCATED PRIOR TO ANY EXCAVATION FOR THE SEWER MAIN.
  - THE SERVICE CLAMPS ARE TO HAVE STAINLESS STEEL STRAPS.
  - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-155 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.



LOCATION MAP SCALE: 1" = 600'

**BENCH MARK**

BM # 234401 ELEV. 307.49  
 STANDARD CONCRETE MONUMENT SET FLOSH WITH SURFACE  
 NORTH 491,393.018 EAST 859,206.723  
 BM # 2343001 ELEV. 288.24  
 3/4" RB. SET 0.3 FT. BELOW THE SURFACE  
 NORTH 492,140.801 EAST 857,226.671

TYPE OF BUILDING : OFFICE  
 DRAINAGE AREA : LITTLE PATUXENT  
 NO. SHEETS : 2  
 NO. MHC : 2  
 NO. PARCELS : 9  
 WATER CODE : E06  
 SEWER CODE : 5933000

QUANTITIES			
ITEMS	ESTIMATED	AS - BUILT	MATERIAL - SUPPLIER
MANHOLE (SEWER)	10 Ea.	10	CONCRETE PRODUCTS OF 48" RECAST America
8" SANITARY SEWER	1686 L.F.	1686	SBR 55 / Hewlett-Packard
6" SANITARY SEWER	41 L.F.	41	" " " "
8" SANITARY (D.I.P.)	291 L.F.	397	C.I. 52 / Griffin

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

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SDP. 07-193.

HOWARD SOIL CONSERVATION DISTRICT DATE 3/8/88 ENGINEER *George W. Stephens Jr.*

U.S. SOIL CONSERVATION SERVICE DATE 3/8/88 *J. Helm*

DEPARTMENT OF PUBLIC WORKS

*James P. Kelly* 3/16/88 DIRECTOR OF PUBLIC WORKS DATE

*Robert B. Berman* 3-19-88 CHIEF, BUREAU OF UTILITIES DATE


*William D. Kelly* 3-15-88 CHIEF, BUREAU OF ENGINEERING DATE

*William J. Griffin* 3-28-88 CHIEF, LAND DEVELOPMENT DIV. DATE

ENGINEER

**GEORGE W. STEPHENS JR. AND ASSOCIATES, INC.**

303 ALLEGHENY AVENUE TOWSON, MD. 21284  
 (301) 825-8120



DESIGNED: W.Z.	BY	NO.	REVISIONS	DATE
DRAWN: J.W.				
CHECKED: W.Z./T.G.				

TITLE SHEET FOR PROPOSED SANITARY SEWER

CONTRACT NO. 20-1768-D

600' SCALE MAP NO. 36 BLOCK NO. 23 & 24

COLUMBIA CORPORATE PARK

SIELING INDUSTRIAL PARK SECTION 1 - AREA 1 PARCELS A-1 THRU A-9

HOWARD CO., MARYLAND AUGUST 17, 1987 ELECTION DIST. 6

SCALE: AS SHOWN

SHEET NO. 1 OF 3

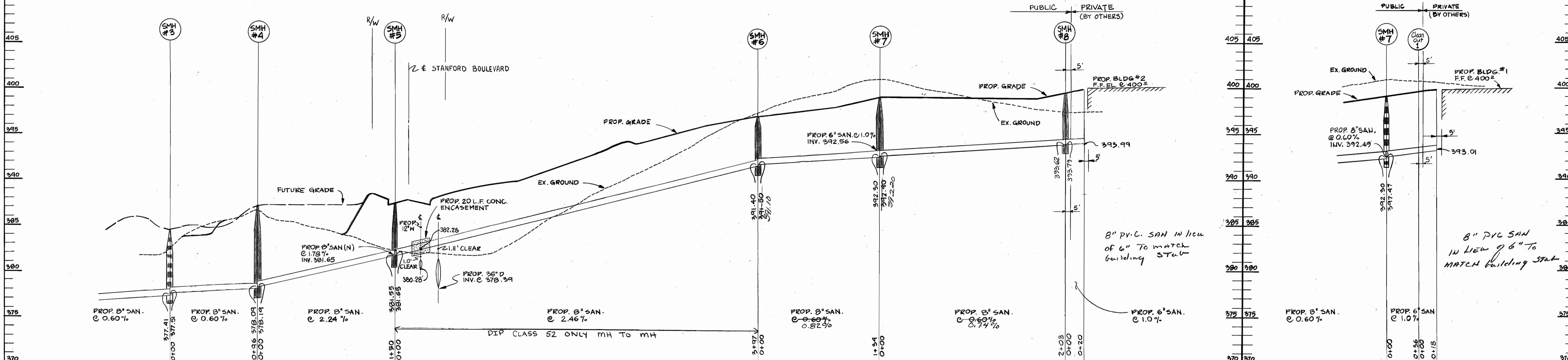
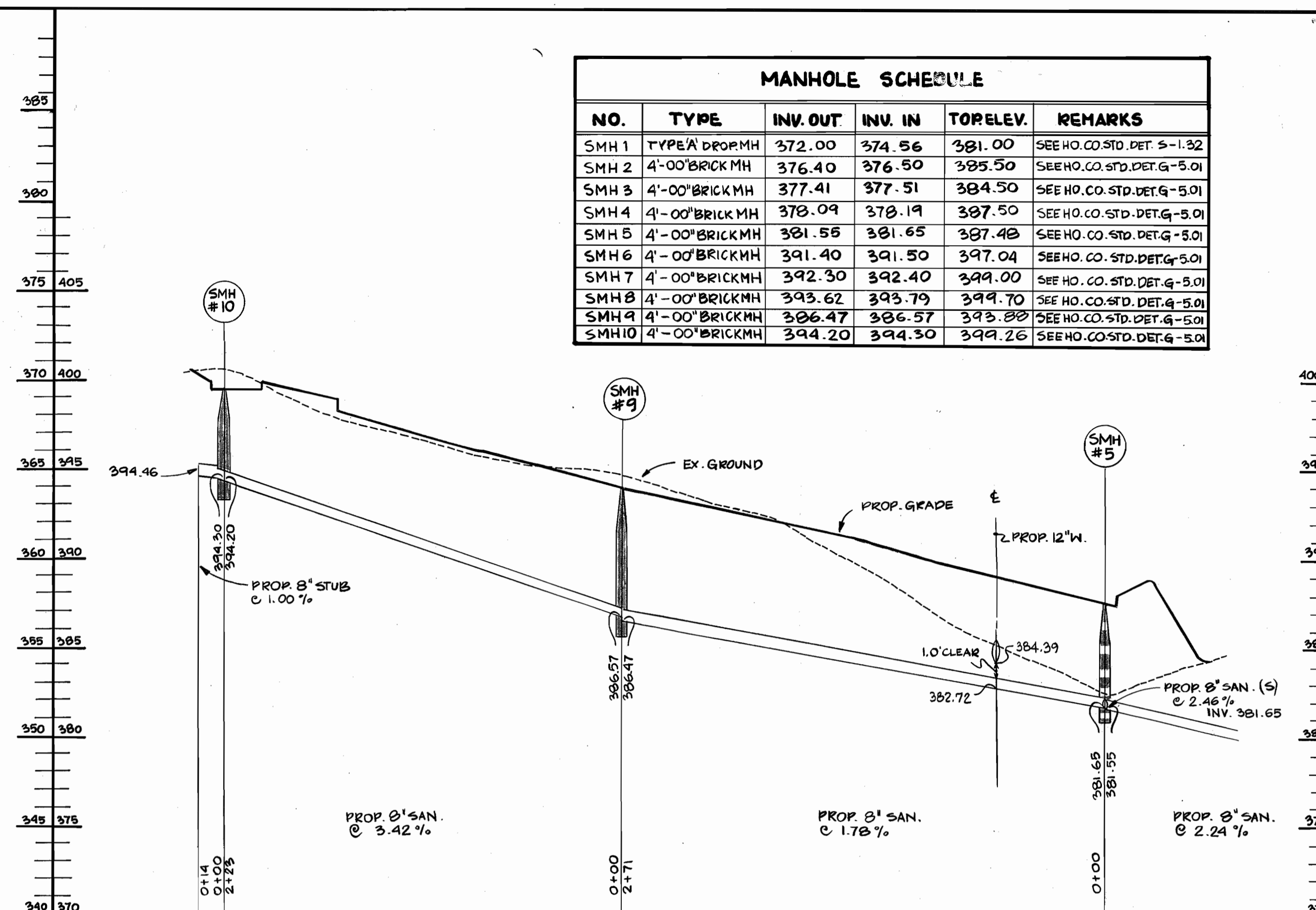
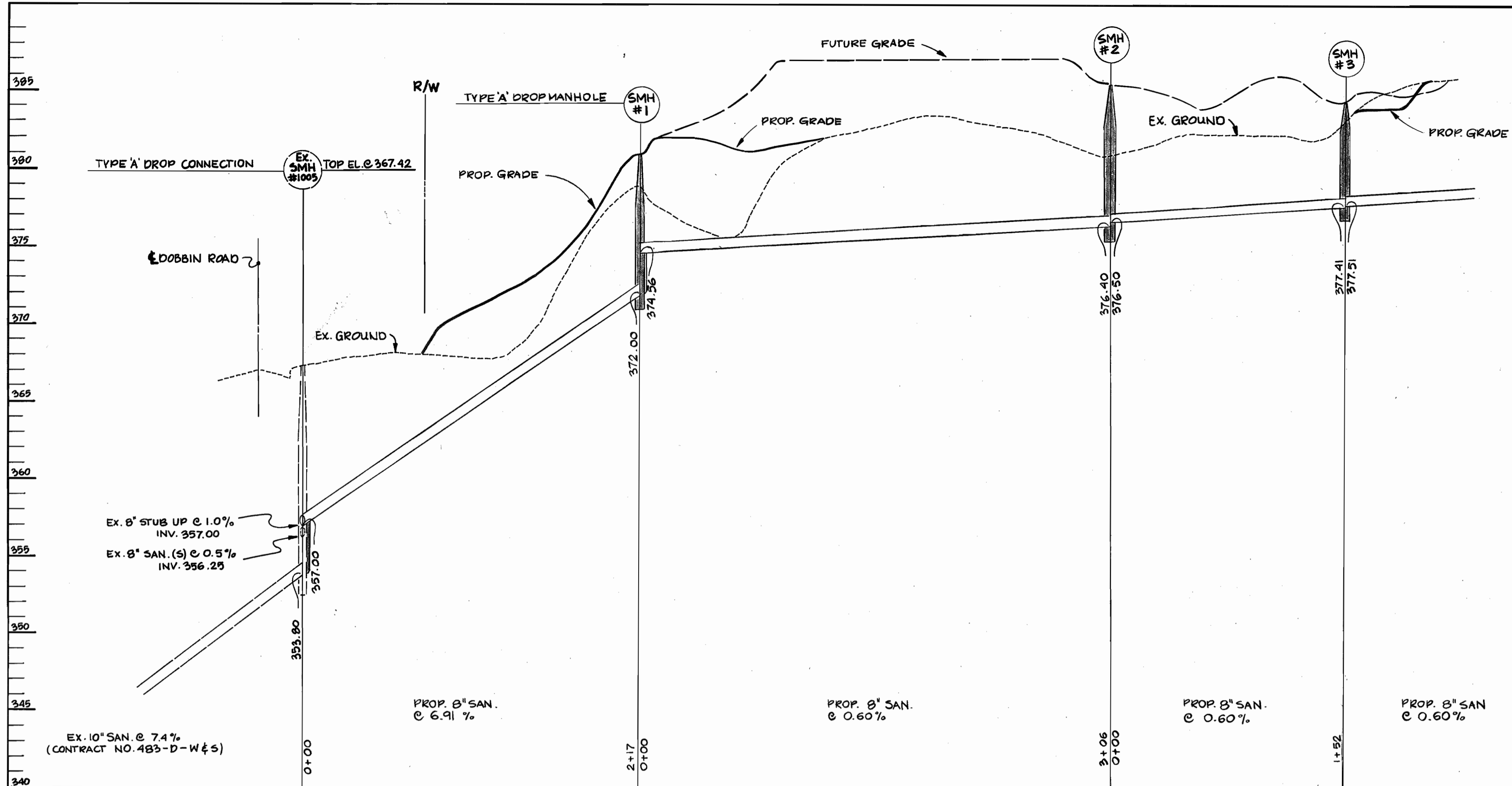
AS SHOWN 8-16-88







MANHOLE SCHEDULE					
NO.	TYPE	INV. OUT.	INV. IN	TORELEV.	REMARKS
SMH 1	TYPE 'A' DROP MH	372.00	374.56	381.00	SEE HO. CO. STD. DET. 5-1.32
SMH 2	4'-00" BRICK MH	376.40	376.50	385.50	SEE HO. CO. STD. DET. G-5.01
SMH 3	4'-00" BRICK MH	377.41	377.51	384.50	SEE HO. CO. STD. DET. G-5.01
SMH 4	4'-00" BRICK MH	378.09	378.19	387.50	SEE HO. CO. STD. DET. G-5.01
SMH 5	4'-00" BRICK MH	381.55	381.65	387.48	SEE HO. CO. STD. DET. G-5.01
SMH 6	4'-00" BRICK MH	391.40	391.50	397.04	SEE HO. CO. STD. DET. G-5.01
SMH 7	4'-00" BRICK MH	392.30	392.40	399.00	SEE HO. CO. STD. DET. G-5.01
SMH 8	4'-00" BRICK MH	393.62	393.79	399.70	SEE HO. CO. STD. DET. G-5.01
SMH 9	4'-00" BRICK MH	386.47	386.57	393.88	SEE HO. CO. STD. DET. G-5.01
SMH 10	4'-00" BRICK MH	394.20	394.30	399.26	SEE HO. CO. STD. DET. G-5.01



**SANITARY SEWER PROFILES**  
 SCALE: 1" = 50' HORIZ.  
 1" = 5' VERT.

THE DEVELOPMENT PLAN IS APPROVED FOR SOIL AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. <i>Robert W. Zehn</i> 3/8/88 HOWARD SOIL CONSERVATION DISTRICT DATE	REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. <i>J. Helm</i> 3/8/88 U.S. SOIL CONSERVATION SERVICE DATE	SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SOP. 87-193.
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**DEPARTMENT OF PUBLIC WORKS**

*James M. ...* 3/14/88  
 DIRECTOR OF PUBLIC WORKS DATE

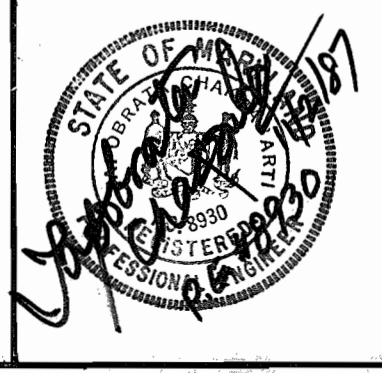
*Richard ...* 3/14/88  
 CHIEF, BUREAU OF UTILITIES DATE

*Michael ...* 3/14/88  
 CHIEF, BUREAU OF ENGINEERING DATE

*Michelle ...* 3/14/88  
 CHIEF, LAND DEVELOPMENT DIV. DATE

**ENGINEER**  
**GEORGE W. STEPHENS JR.**  
**AND ASSOCIATES, INC.**

303 ALLEGHENY AVENUE TOWSON, MD. 21204  
 (301) 825-8120



DESIGNED: W.Z.	BY NO.	REVISIONS	DATE
DRAWN: J.W.			
CHECKED: W.Z./T.G.			

**PROFILES FOR**  
**PROPOSED SANITARY SEWER**  
 CONTRACT NO. 20-1768-D

**PROPOSED OFFICE**  
**COLUMBIA CORPORATE PARK**  
 SHELING INDUSTRIAL PARK  
 SECTION 1 AREA 1  
 PARCELS A-1 THRU A-7

SCALE: AS SHOWN

SHEET NO. 3 OF 3

HOWARD CO. MARYLAND AUGUST 17, 1987 ELECTION DIST. 6

AS-BUILT 8-16-88