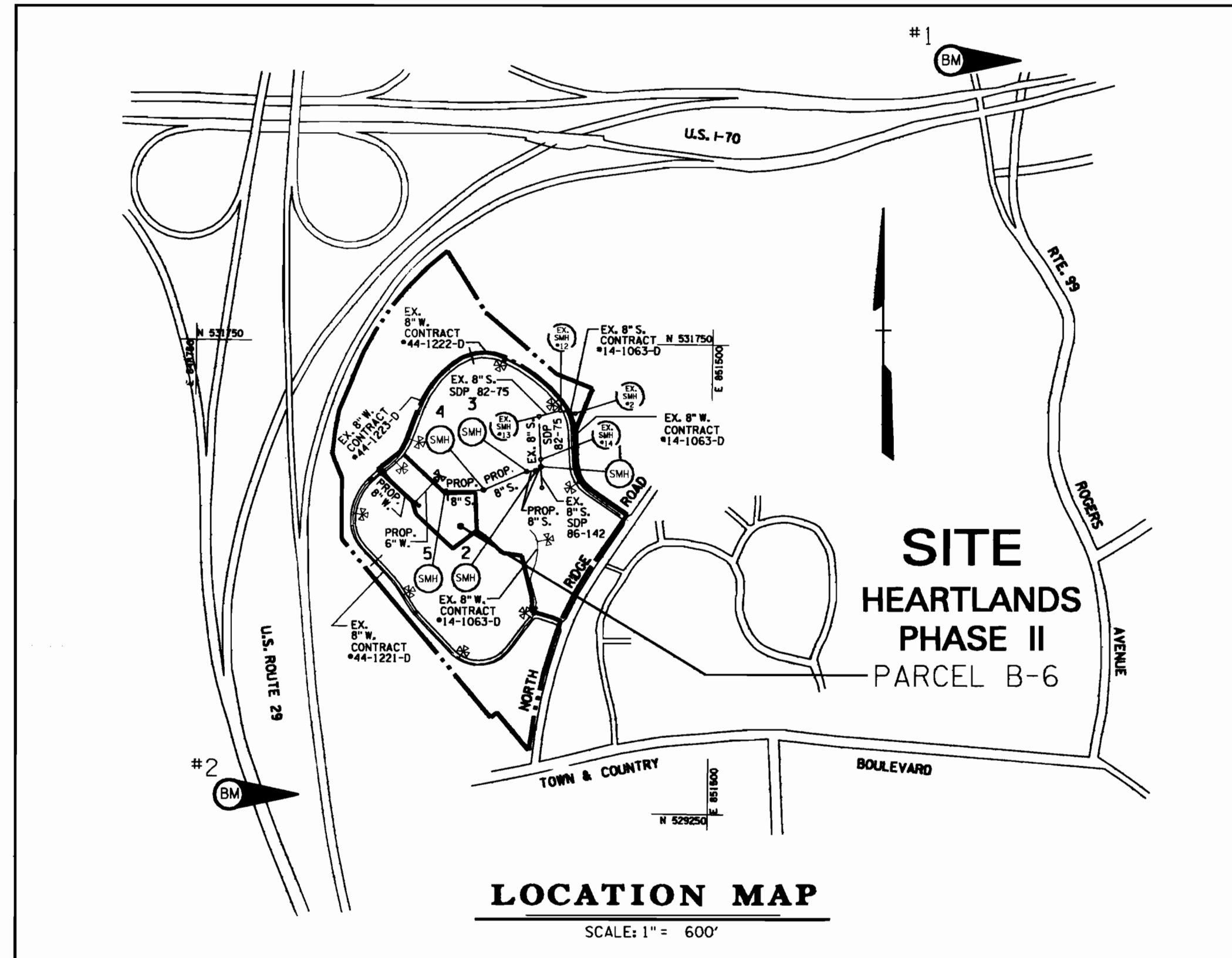


*1 ELEV. 466.882 CONTROL STA. 3443001
 BENCHMARK: HOWARD COUNTY, MARYLAND
 BEING A 3/4" REINFORCING ROD SET IN GRAVEL SHOULDER
 0.2' BELOW SURFACE 21.8' EAST OF C OF RTE. 99

*2 ELEVATION 469.057 CONTROL STATION 3342001
 BENCHMARK: HOWARD COUNTY, MARYLAND
 BEING A CONCRETE MONUMENT ON TOP OF HOGSBACK BETWEEN MD. RTE. 29 NORTH
 AND SOUTH, 4000'+/- NORTH OF U.S. RTE. 40

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" DIP	248 L.F.		
6" DIP	170 L.F.		
FIRE HYDRANT	1 EA. (5.0' BURY)		
6" F.H. VALVE	1 EA.		
8" VALVE	1 EA.		
8" x 8" TAPPING SLEEVE	1 EA.		
8" x 6" TEE	1 EA.		
6" VALVE (EXCLUDING F.H.)	1 EA.		
8" x 6" REDUCER	1 EA.		
6" CAP	1 EA.		
8" SEWER	254 L.F.		
8" SEWER (D.I.P.)	277 L.F.		
MANHOLE	37 V.F.		
MANHOLE	5 EACH		

EXISTING QUANTITIES (to be Dedicated)		
ITEM	AS BUILT	MATERIALS
EX. 8" SAN.	470' LF	P.V.C.
EX. MANHOLE	4 EACH	STD. SAN. MANHOLE
EX. MANHOLE	40 V.F.	STD. SAN. MANHOLE



WATER & SEWER CODE (COUNTY USE)
 SEWER NO. 1454400
 WATER NO. F03

TYPE OF BUILDINGS: ELDERLY HOUSING/APARTMENT BUILDING - 103 UNITS
 NUMBER OF PARCELS: ONE
 NUMBER OF WATER HOUSE CONNECTIONS: ONE
 NUMBER OF SEWER HOUSE CONNECTIONS: ONE
 DRAINAGE AREA: PATAPSCO

GENERAL NOTES WATER & SEWER

- 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, UNLESS OTHERWISE NOTED.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6 INCHES. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COSTS INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
- FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES 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. - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE - 685-0123.
 BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND GAS DISTRIBUTIONS CUSTOMER SERVICE - 685-0123.
 ENGINEERING - "DAMAGE CONTROL" - 234-5621.
 MISS UTILITY - 1-800-257-7777.
 CHESAPEAKE & POTOMAC (CAP) TELEPHONE COMPANY - 725-9976.
 AMERICAN TELEPHONE & TELEGRAPH (AT&T) - CABLE LOCATION DIVISION - 393-3553.
 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 REPLACE OR RELOCATE ALL EXISTING TREES REMOVED ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REPLACEMENT SHALL BE INCLUDED IN THE PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.

GENERAL NOTES WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 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 SECTIONS 1005 AND 1006 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3 INCH THROUGH 12 INCH FOR WATER AND OTHER LIQUIDS.

GENERAL NOTES SEWER

- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X. 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 FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL GS.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE, STANDARD DETAIL G.5.41.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH THIS PLAN, WITH SECTION 210 OF THE STANDARD SPECIFICATIONS, AND SEDIMENT CONTROL PLAN SDP 90-204.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

John R. Robertson 10/24/90
 SIGNATURE DATE

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

APPROVED *John M. Nelson* 10/24/90
 HOWARD S.C.D. DATE

REFERENCE NUMBERS
 SDP-90-204
 FINAL PLAT-F-90-

WATER & SEWER EXTENSION
 CONTRACT NO. 14-3068-D
 HEARTLANDS PHASE II
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS

THE HEARTLANDS
 PHASE II - PARCEL B-6
 WATER & SEWER EXTENSION
 CONTRACT # 14-3068-D

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

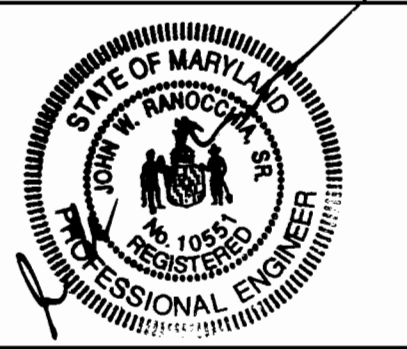
Paul W. Sporn 10/26/90
 DIRECTOR OF PUBLIC WORKS - DATE (Acting)

Robert Sumner 10-17-90
 CHIEF - BUREAU OF UTILITIES - DATE

John M. Nelson 10-26-90
 CHIEF - LAND DEVELOPMENT DIVISION - DATE

DAFT McCUNE WALKER, INC.
 LAND PLANNING CONSULTANTS
 LANDSCAPE ARCHITECTS
 ENGINEERS

200 E. PENNSYLVANIA AVENUE
 TOWSON, MARYLAND 21284



DESIGN BY:	TJ
DRAWN BY:	JCW-WALI
CHECKED BY:	RAB
DATE:	JUNE 12, 1990
BY:	JCW
NO.:	1
REVISION:	COMMENTS AS PER COUNTY REQUIREMENTS
DATE:	12/5/90

WATER & SEWER EXTENSION
 COVER SHEET

600 SCALE MAP NO. 17 BLOCK NO. 23

THE HEARTLANDS
 PHASE II HOUSING
 PARCEL B-6

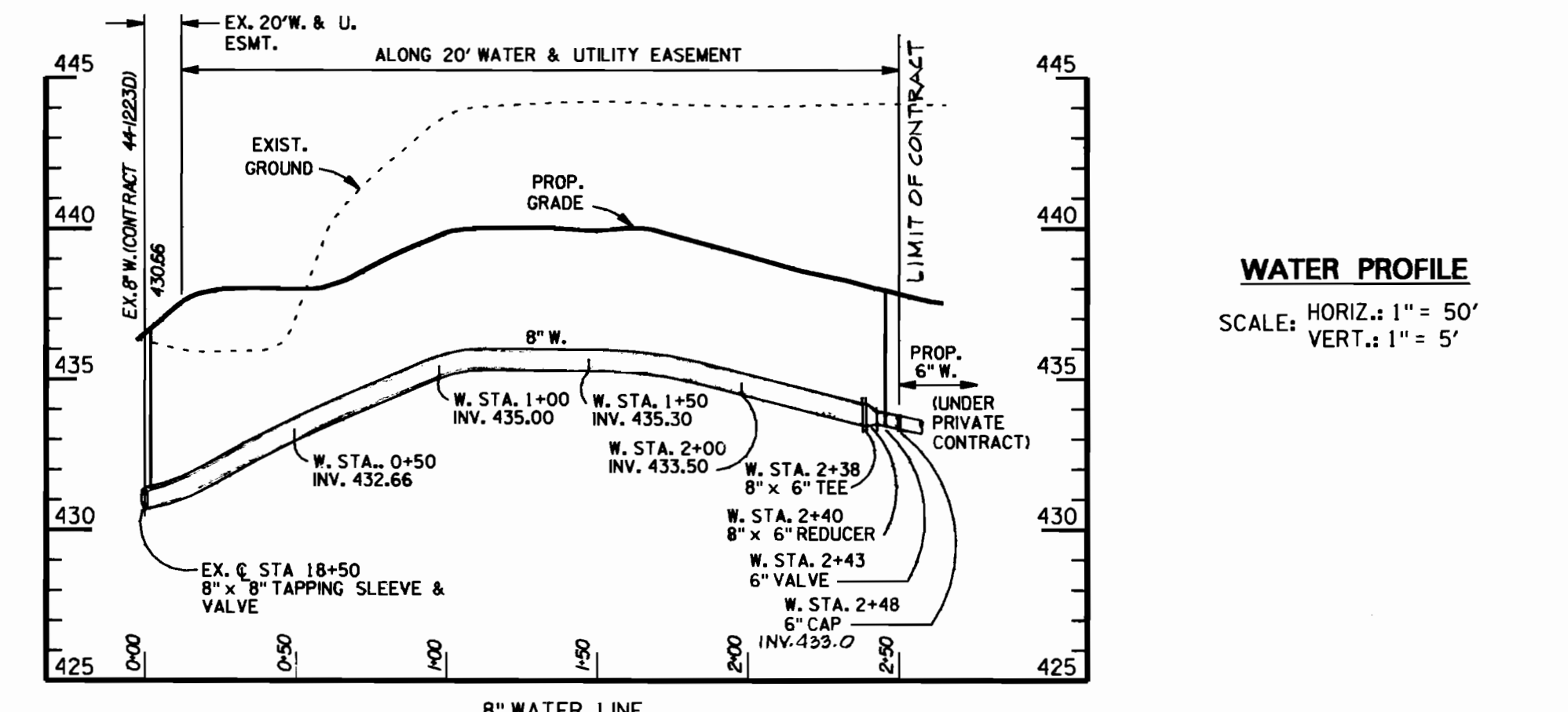
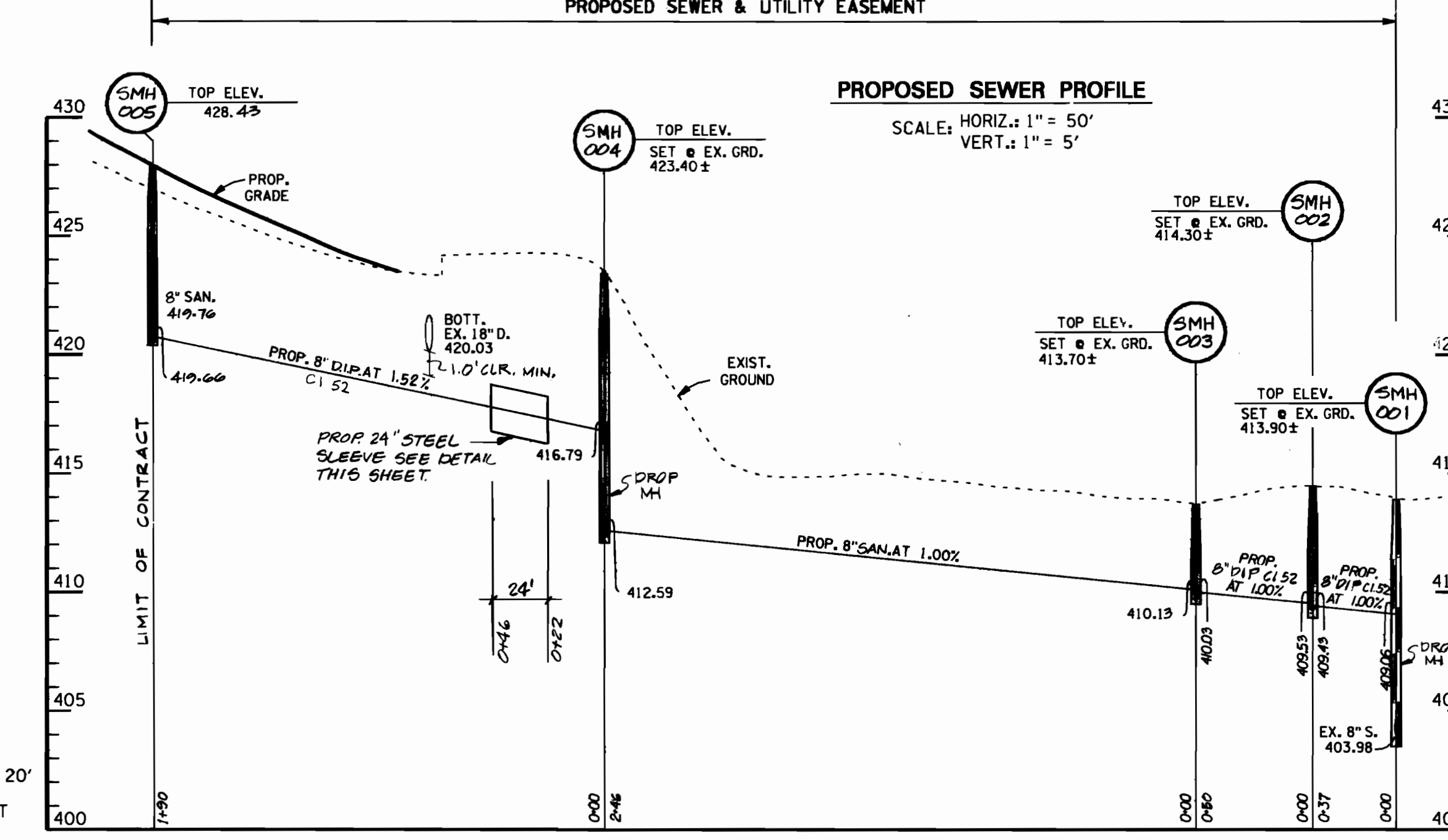
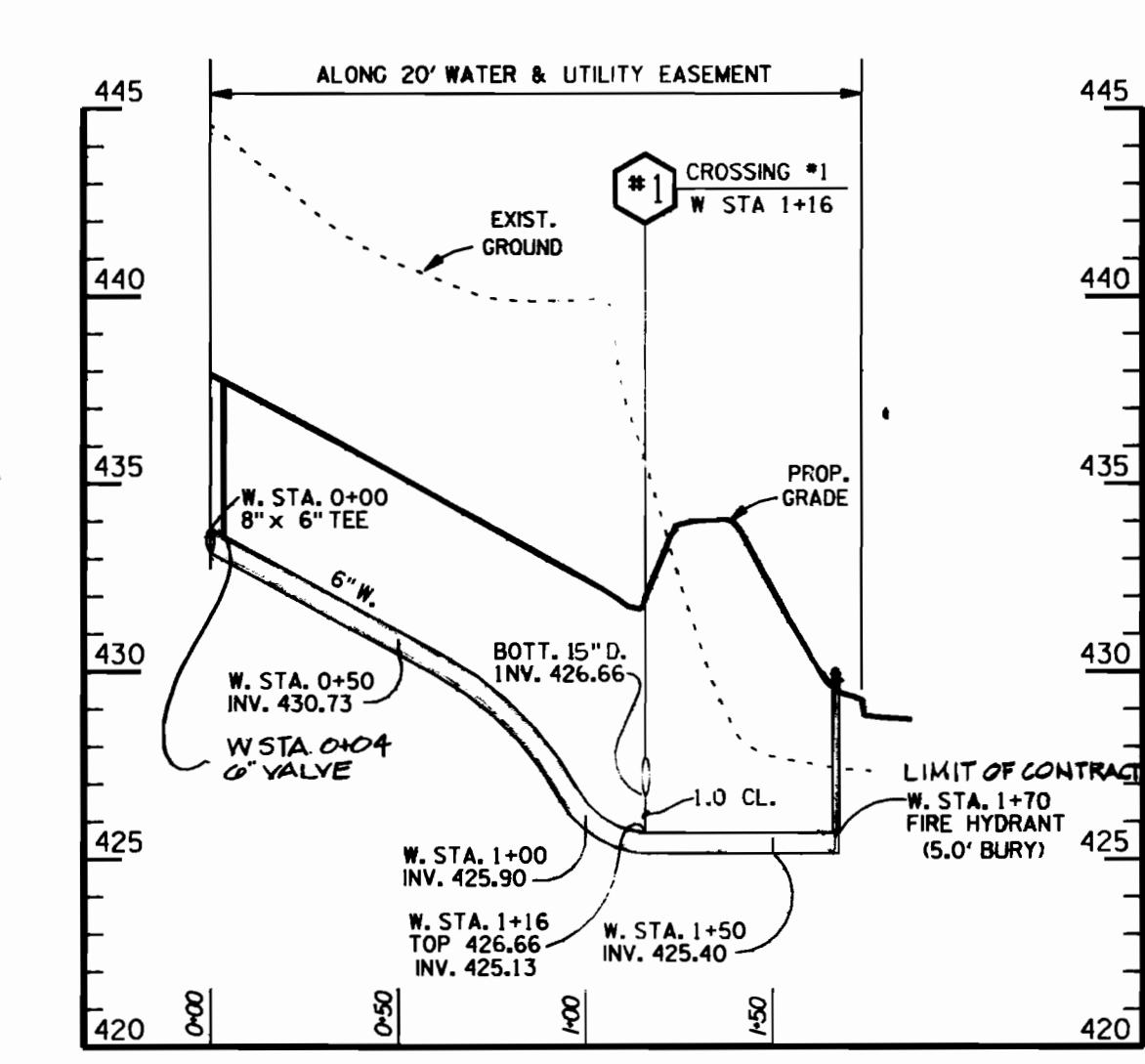
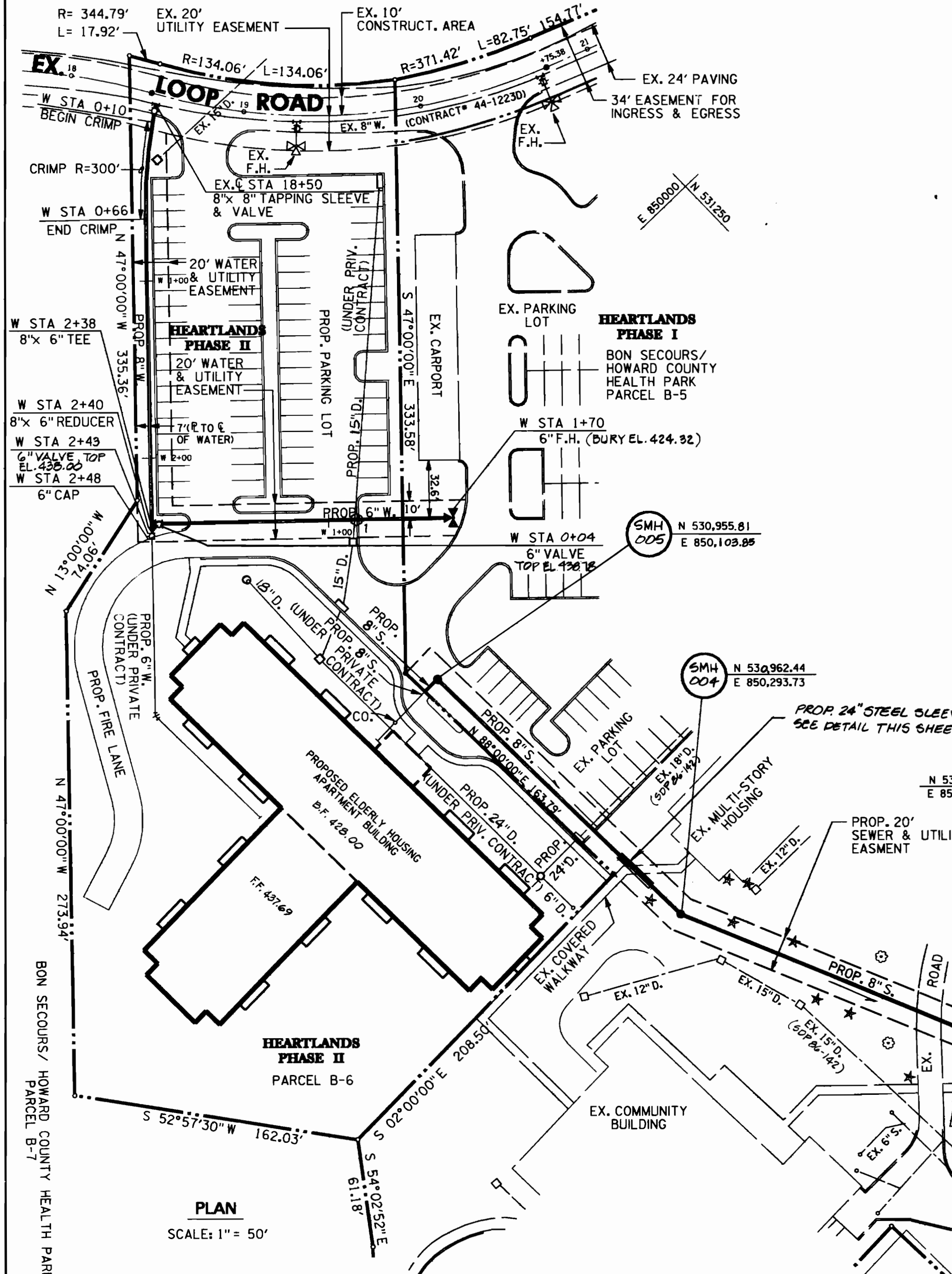
HOWARD COUNTY HEALTH PARK
 HOWARD COUNTY, MARYLAND

SECTION 2, AREA 1
 2ND ELECTION DISTRICT

CONTRACT NO. 14-3068-D

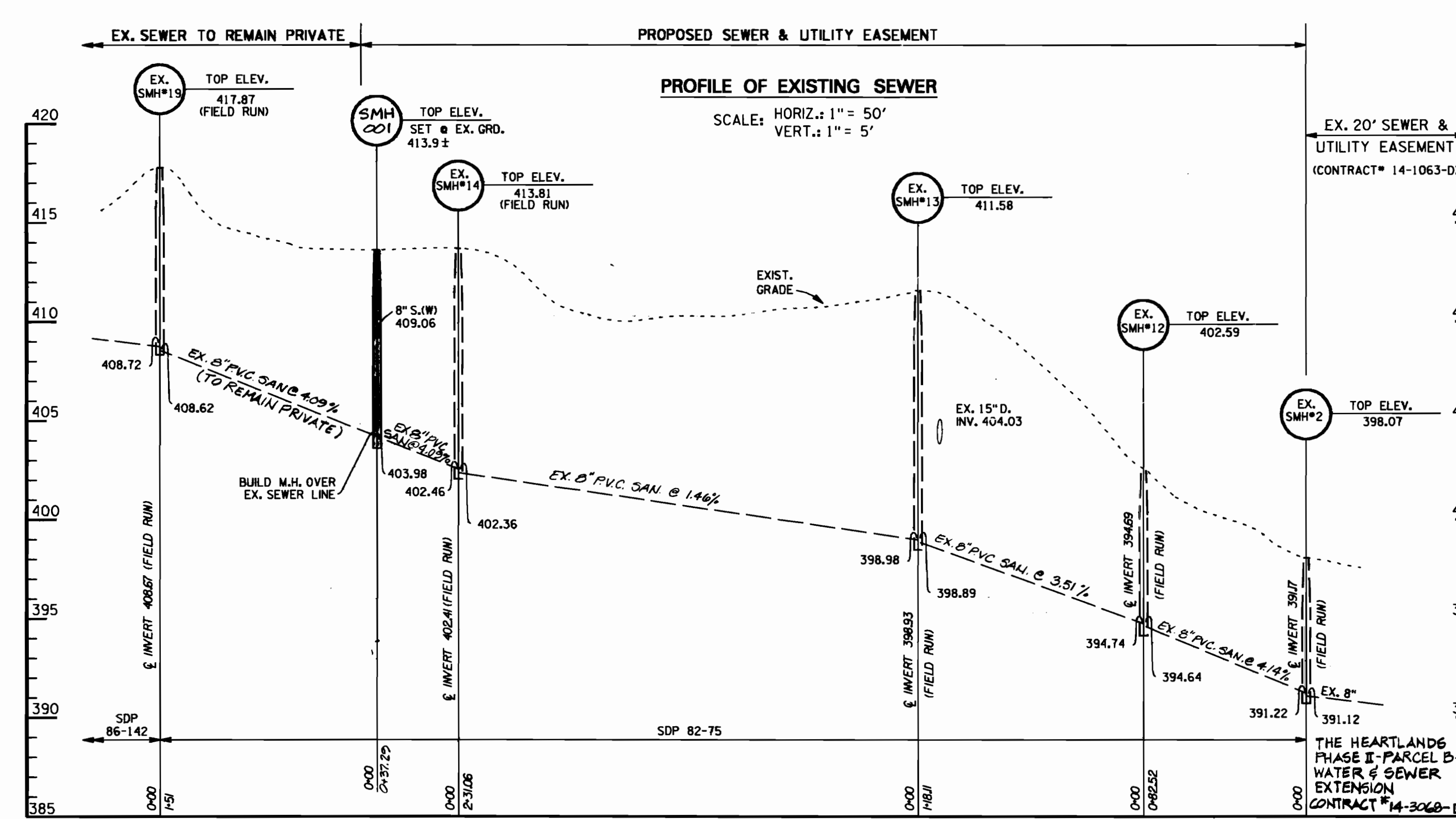
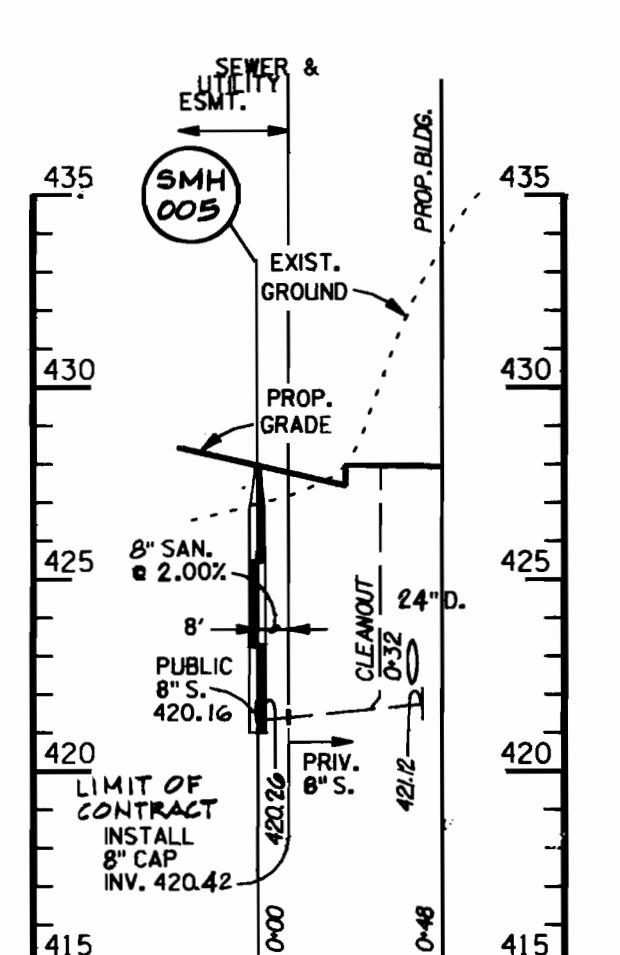
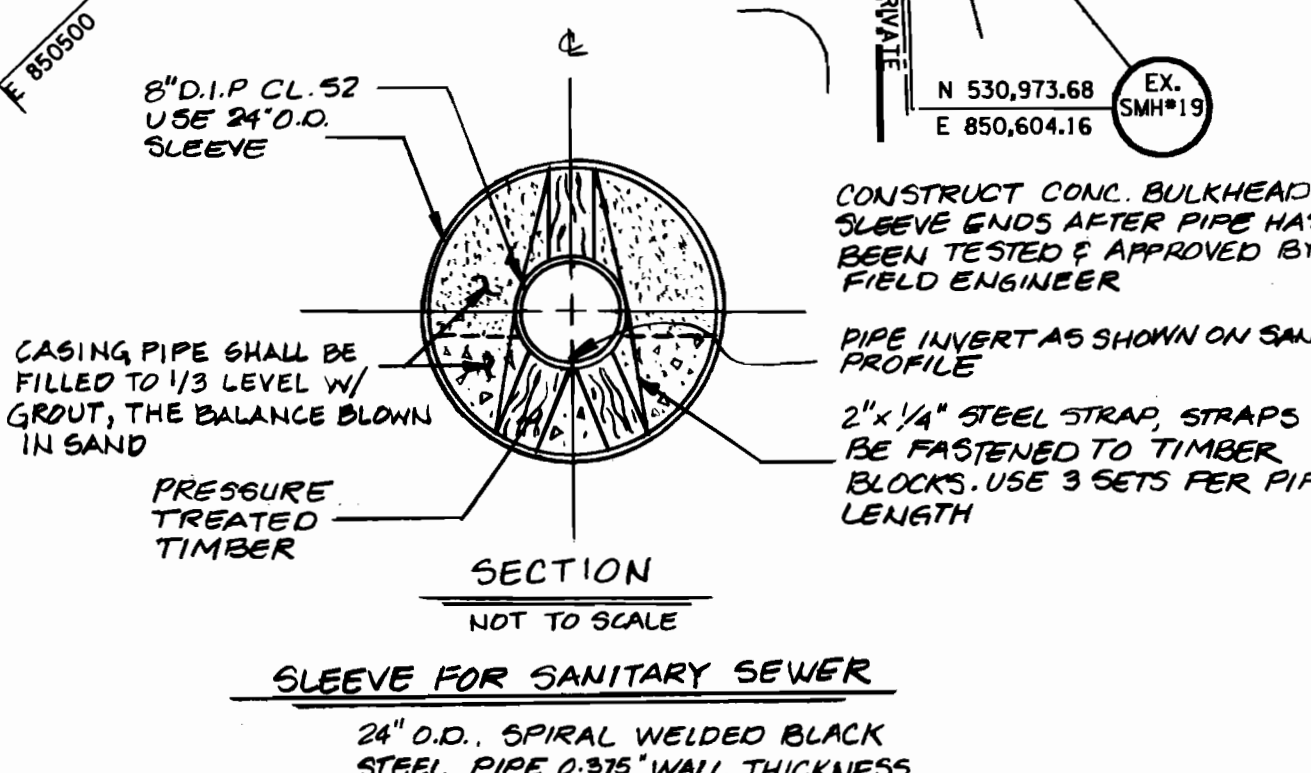
SCALE AS SHOWN

SHEET 1 OF 2



PROPOSED SANITARY SEWER STRUCTURE TABLE

NO.	TYPE	INV. OUT	TOP ELEV.
1	ST'D(DROP)	403.98	413.90±
2	STANDARD	409.41	414.30±
3	STANDARD	410.00	413.70±
4	ST'D(DROP)	412.59	423.40±
5	STANDARD	420.74	428.45±



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

John R. Roberts 10/24/90
SIGNATURE DATE

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

APPROVED *James M. Helm* 10/24/90
HOWARD S.C.D. DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH THIS PLAN, WITH SECTION 219 OF THE STANDARD SPECIFICATIONS, AND SEDIMENT CONTROL PLAN SDP 90-204.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Donald J. Seaman 10/26/90
DIRECTOR OF PUBLIC WORKS - DATE (Acting)

Richard J. Seaman 10-17-90
CHIEF - BUREAU OF UTILITIES - DATE

Richard J. Seaman 10-26-90
CHIEF BUREAU OF ENGINEERING - DATE

Richard J. Seaman 10-17-90
CHIEF - LAND DEVELOPMENT DIVISION - DATE

DAFT McCUNE WALKER, INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS

200 E. PENNSYLVANIA AVENUE
TOWSON, MARYLAND 21284

DESIGN BY: TJ
DRAWN BY: JCW-WALI
CHECKED BY: RAB
DATE: JUNE 12, 1990

REVISION

PLAN AND PROFILES
WATER AND SEWER MAINS

600 SCALE MAP NO. 17 BLOCK NO. 23

THE HEARTLANDS
PHASE II HOUSING
PARCEL B-6

HOWARD COUNTY HEALTH PARK
SECTION 2, AREA 1
JOB NO. 8015K
SHEET 2 OF 2

CONTRACT NO. 14-3068-D