
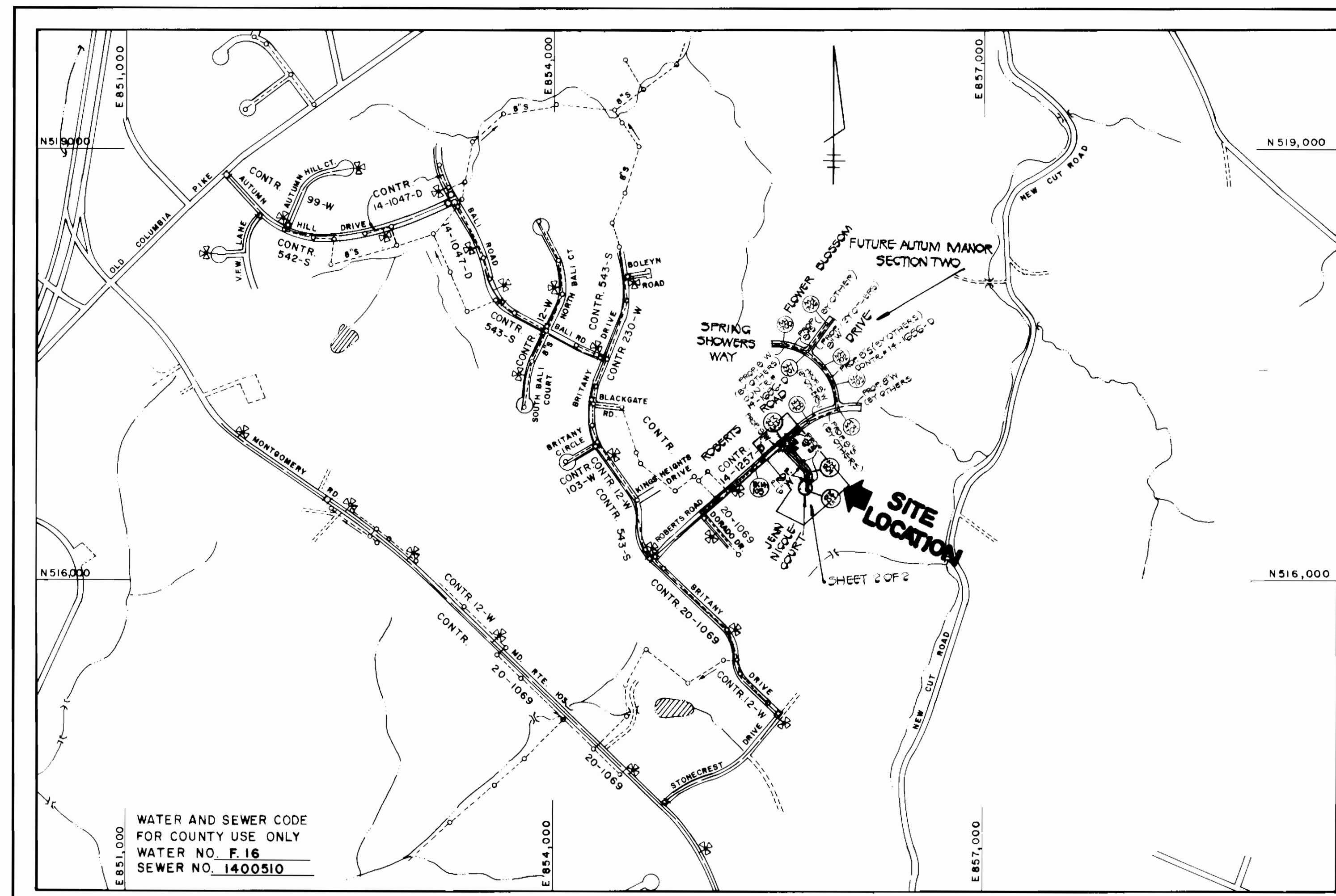


**GENERAL NOTES**

- 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. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6".
- 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S 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: 850-4620
  - BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 859-9004
  - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-9001
  - MISS UTILITY: 1-559-0100
  - COLONIAL PIPELINE COMPANY: 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS: 992-2366
  - C&P TELEPHONE COMPANY: 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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- 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 SECTION 1003 AND 1008 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. (STD. DETAIL W.3.21).
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT 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.
- 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 FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5.51.
- THIS WATER AND SEWER CONTRACT WILL NOT BE CONSTRUCTED AND PLACED IN SERVICE UNTIL AUTUMN MANOR - SECTION 2 CONTRACT #14-1686-D AND AUTUMN MANOR - SECTION 1, AREA 2 CONTRACT #14-1682-D ARE CONSTRUCTED AND PLACED IN SERVICE.



TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS	12 (11 BUILDABLE)
NO OF WATER HOUSE CONNECTIONS	11
NO OF SEWER HOUSE CONNECTIONS	11
DRAINAGE AREA	PATAPSCO

SCALE : 1" = 600'

# CONTRACT NO. 14-1722-D

# ANGELA VALLEY

## SECTION 2

## WATER AND SEWER MAIN EXTENSIONS

# HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

WATER & SEWER AS-BUILTS

CONTRACT NO. 14-1722-D  
ANGELA VALLEY  
SECTION TWO (LOTS 1-12)  
WATER AND SEWER EXTENSIONS  
HOWARD COUNTY, MARYLAND

QUANTITIES			
ITEM	ESTIMATED	AS-BUILT	SUPPLIER
8" SEWER	581 L.F.	579 L.F.	J.M. MANFRO CORP.
8" WATER	310 L.F.	309 L.F.	GREEN PIPE PRODUCTION CO.
6" WATER	480 L.F.	445 L.F.	"
F.H.W.S.V.	1 EA.	1 EA.	MUELLER COMPANY
6" VALVES	1 EA.	1 EA.	"
6" SHC.	135 L.F.	130 L.F.	J.M. MANFRO CORP.
1" WHC.	130 L.F.	128 L.F.	HOFFMANN MFG. CO.
3/4" WHC.	135 L.F.	134 L.F.	"
4" W.	4.7 L.F.	4.5 L.F.	GREEN PIPE PRODUCTION CO.
BLOW OFF	1 EA.	1 EA.	MUELLER COMPANY
MANHOLES	3 EA.	3 EA.	MUELLER COMPANY PRODUCTS, INC.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F 88-C1.

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

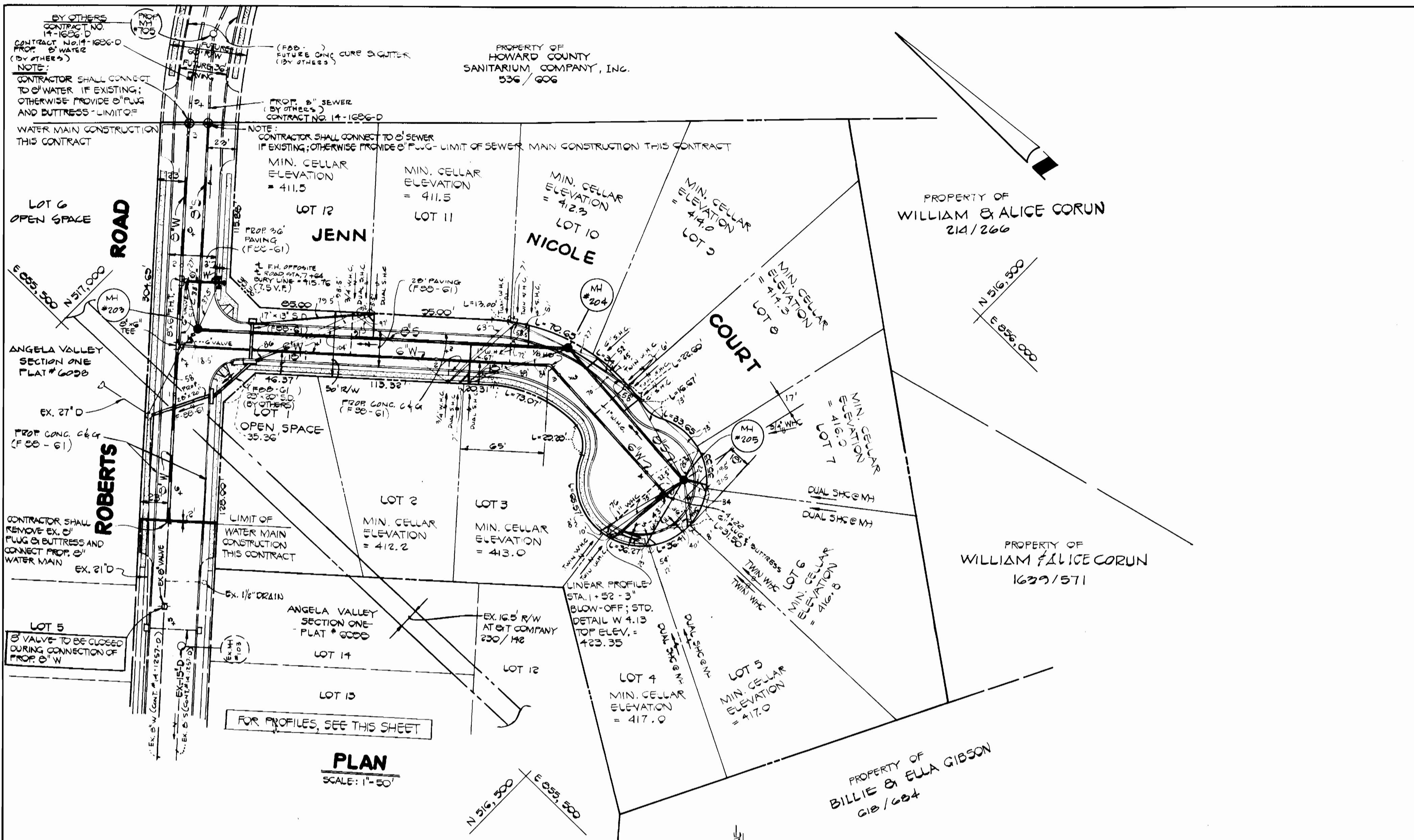
*James M. Selma* 11-25-87  
SOIL CONSERVATION SERVICE DATE

REFERENCE NUMBERS:
P 87-67
F 88-61

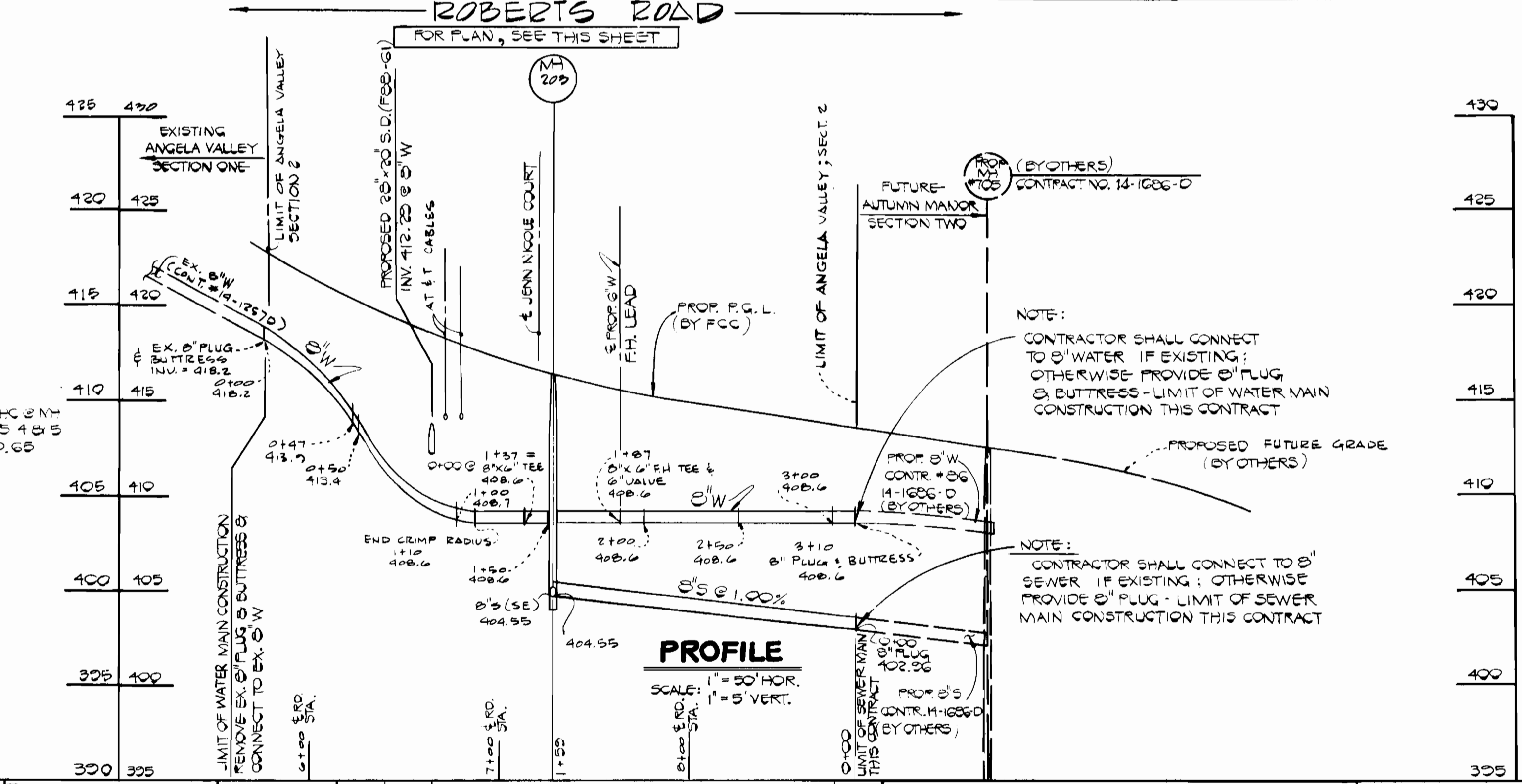
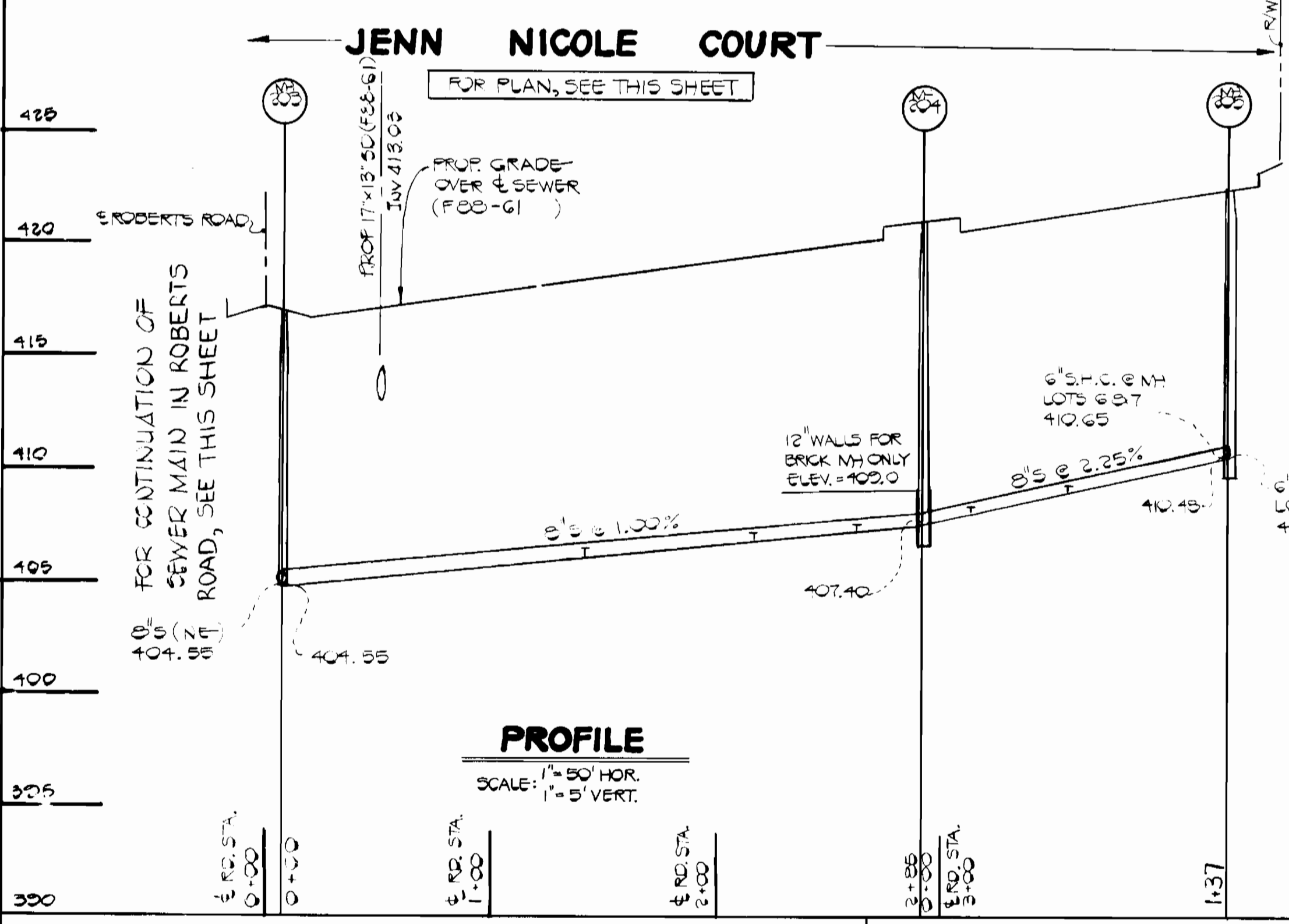
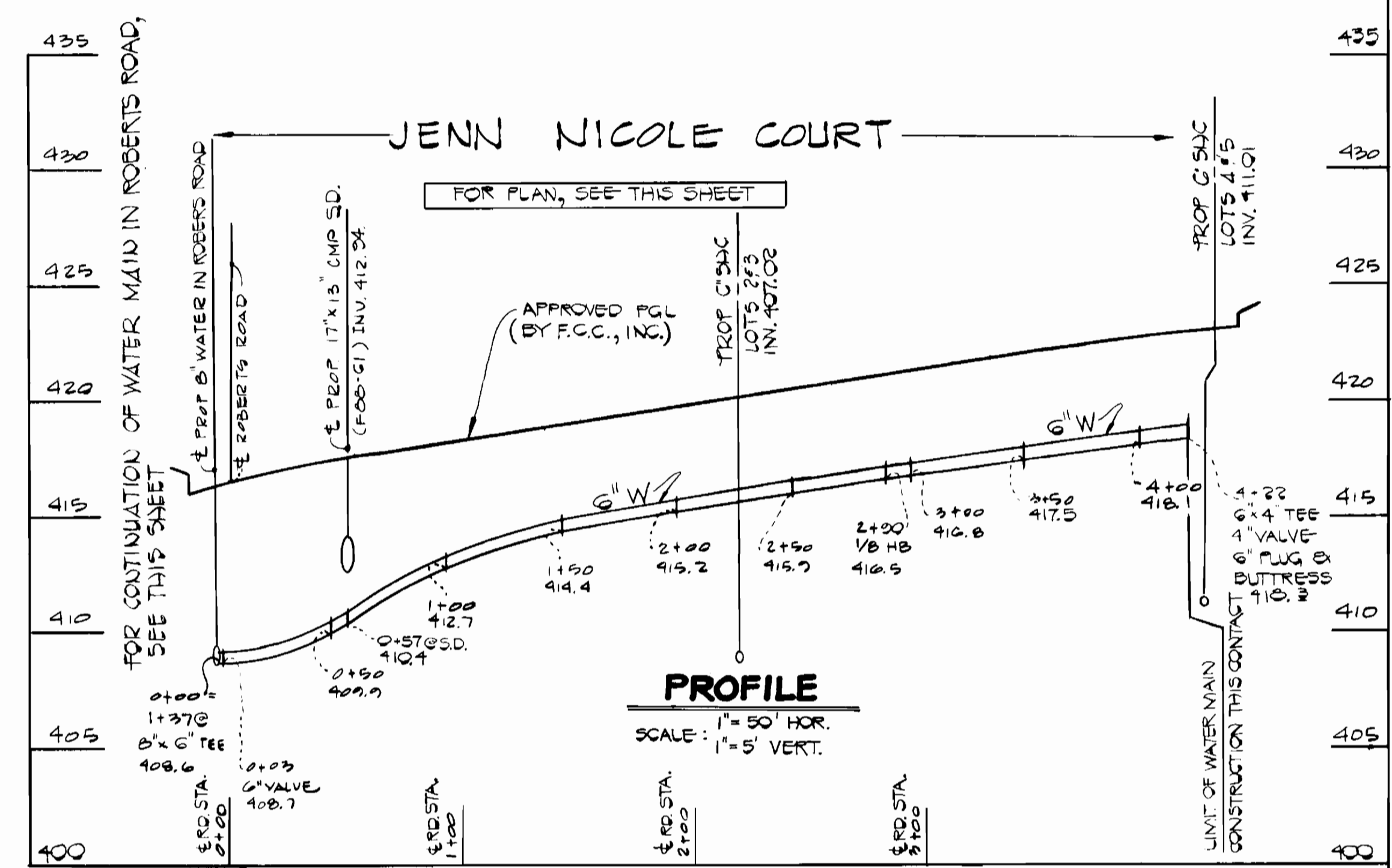
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:  
*Stephen R. Selma* 11/24/87  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  <i>James M. Selma</i> 11/27/87 DIRECTOR OF PUBLIC WORKS DATE  <i>Robert B. ...</i> 11-19-87 CHIEF, BUREAU OF UTILITIES DATE	FISHER, COLLINS, AND CARTER, INC. #9757 CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLCOTT CITY, MARYLAND 21043  <i>Terrell A. Fisher</i> TERRELL A. FISHER DATE	DES: T.A.F. DRN: D.B.S. CHK: P.W.K. DATE: 11/10/87 HY NO REVISION DATE	TITLE SHEET  600' SCALE MAP NO. 25 BLOCK NO. 19	ANGELA VALLEY SECTION TWO (LOTS 1-12) CONTRACT NO. 14-1722-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  SCALE AS SHOWN SHEET 1 OF 2
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INVERT OF SEWER HOUSE CONNECTIONS AT PROPERTY LINE		
STATION	LOT	INVERT ELEV.
MH # 203 TO MH # 204		
1+35 LT.	LOTS 11 & 12	406.35
2+11 RT.	LOTS 2 & 3	407.35
2+96 LT.	LOT # 10	407.51
MH # 204 TO MH # 205		
0+22 LT.	LOT # 8	408.21
0+66 LT.	LOT # 9	409.20
0M # 205 LT.	LOTS 6 & 7	411.09
0M # 205 RT.	LOTS 4 & 5	411.01



MANHOLE TABULATION				
MH NO.	ERD. STA.	DISTANCE	RIM	SLOPE
MH # 203	ROBERTS RD 7+25	7' RT	416.24	-2.6%
MH # 204	JENN NICOLE ST 2+07	10' LT	421.32	+1.5%
MH # 205	QU-DE-SAC	-	422.65	+1.9%

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 11-27-87  
 Chief, Bureau of Engineering: *[Signature]* 11-27-87  
 Chief, Bureau of Utilities: *[Signature]* 11-19-87  
 Chief, Land Development Division: *[Signature]* 11-19-87

FISHER, COLLINS AND CARTER, INC. #9757  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 8388 COURT AVENUE  
 ELLICOTT CITY, MARYLAND 21043  
 Terrell A. Fisher DATE

DES: T. A. F.			
DRN: J. O.			
CHK: P. W. K.			
DATE:	BY NO.	REVISION	DATE

PLAN AND PROFILES  
WATER AND SEWER MAINS

ANGELA VALLEY  
SECTION TWO (LOTS 1-12)  
CONTRACT NO. 14-1722-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2