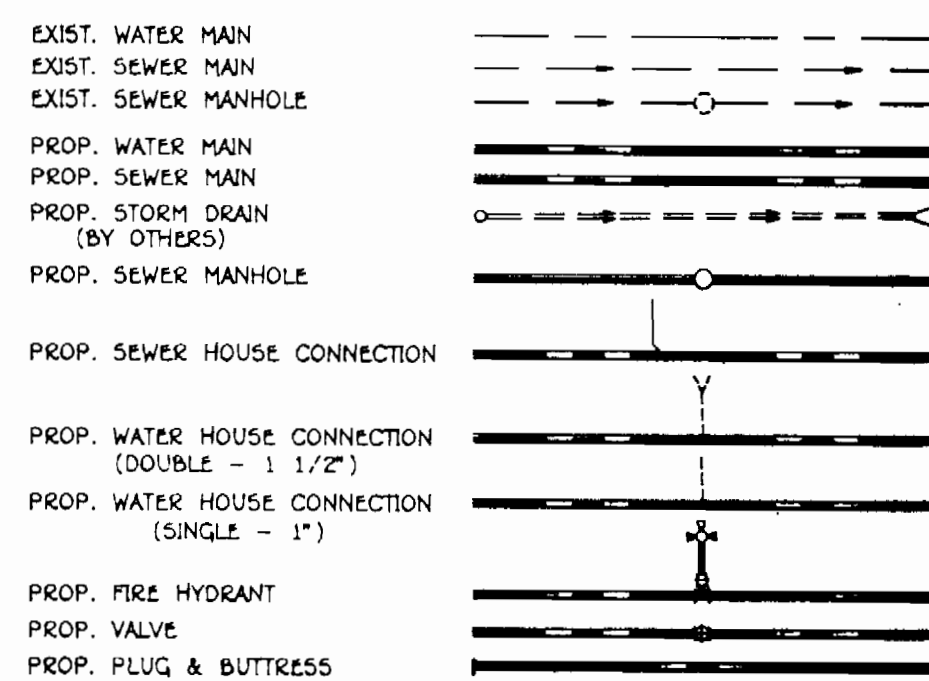


AS-BUILT 2-22-96

ws/1 WYNDEMERE, sect. 2
3410

LEGEND



PUBLIC WATER AND SEWER EXTENSIONS
WYNDEMERE SECTION TWO
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT No. 24-3410-D
PHASE ONE

BENCH MARKS

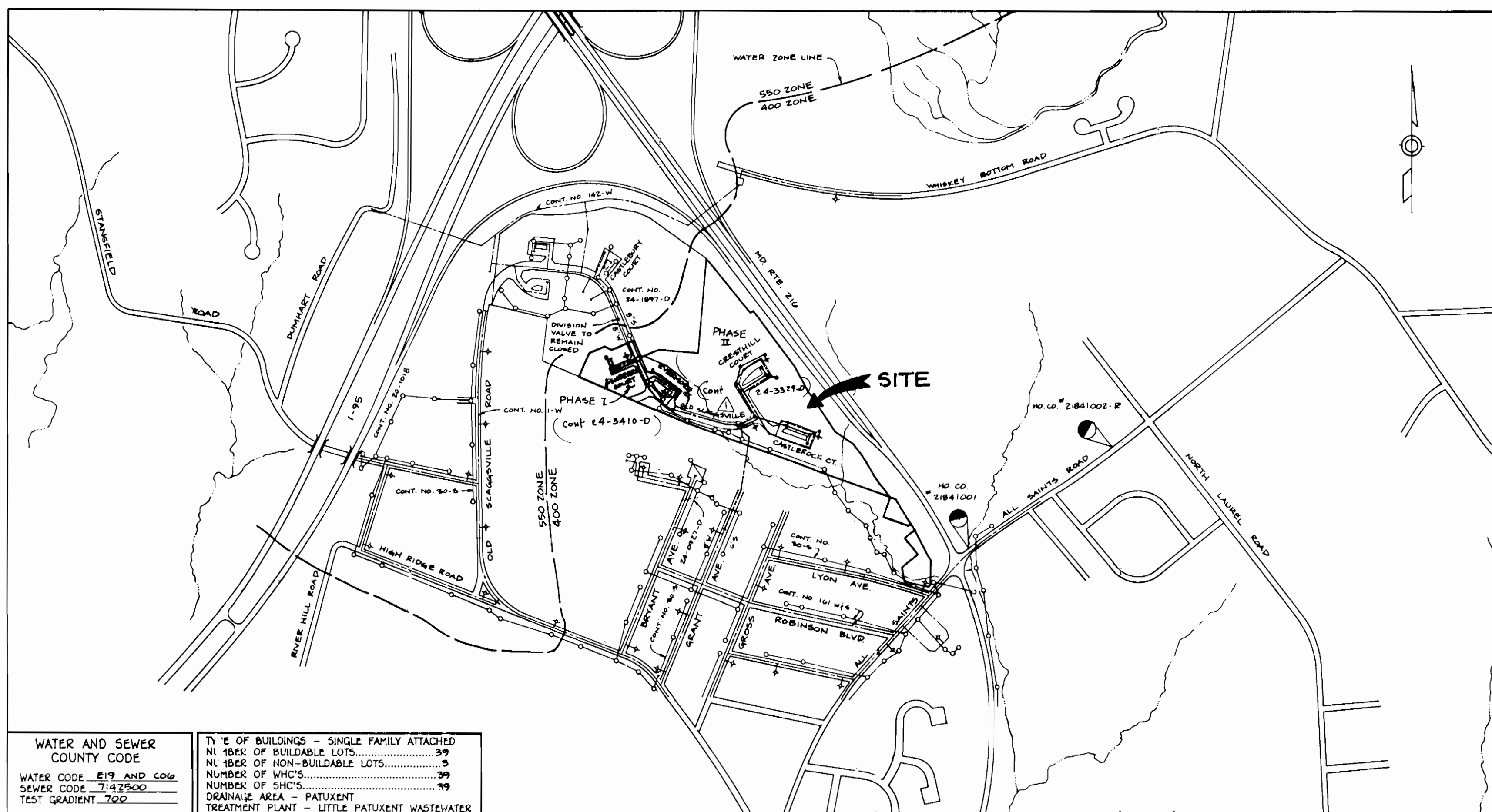
HO. CO. #21841001 ELEV. 228.138
R.B. 0.4' BELOW SURFACE
N 468156.503 E 841854.328
HO. CO. #21841002-R ELEV. 256.929
CONC. MONUMENT 1'± E. OF CONC. CURB
AND 3'± S. OF C.B. 0.6' BELOW SURF.
N 468957.312 E 843025.754

GENERAL NOTES

- PART 1 - GENERAL
1. 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.
2. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
3. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
4. 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 CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR 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.
5. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
6. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL [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 UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION.....531-5533
BALTIMORE GAS & ELECTRIC CO.850-4620
CONTRACTOR SERVICES.....787-9068
BALTIMORE GAS & ELECTRIC CO.787-9068
UNDERGROUND DAMAGE CONTROL.....1-800-257-7777
MISS UTILITY.....795-1390
COLONIAL PIPELINE CO.313-4900
HOWARD CO. DEPT. OF PUBLIC WORKS.....313-4900
BUREAU OF UTILITIES.....313-4900
7. 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.
8. CONTRACTOR SHALL REMOVE TREE STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
9. PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
10. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.
PART 2 - WATER
1. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
8. PRESSURE REDUCING VALVES TO BE PROVIDED ON ALL WATER HOUSE CONNECTIONS.
PART 3 - SEWER
1. ALL SEWER MAINS SHALL BE DIP, RCP, VCPX, CSPX, RCPD AND P.V.C. UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
3. FORCE MAINS SHALL BE D.I.P. ONLY.
4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

QUANTITIES table with columns: ITEMS, QUANTITIES ESTIMATED, AS-BUILT QUANTITIES, TYPE, MANUF./SUPPLIER. Includes items like 8" WATER, 12" V.P., FIRE TIE BRACKETS, 1 1/2" WHC, 8" SEWER, MANHOLE, 4" JHC.

SHEET INDEX table with columns: No., DESCRIPTION. Lists sheets 1 (TITLE SHEET), 2 (PLAN OF WATER AND SEWER MAINS), 3 (PROFILE OF WATER AND SEWER MAINS), 4 (PROFILES OF WATER AND SEWER MAINS).



WATER AND SEWER COUNTY CODE
WATER CODE 819 AND 806
SEWER CODE 2142500
TEST GRADIENT 7.02
TYPE OF BUILDINGS - SINGLE FAMILY ATTACHED
NL 186X OF BUILDABLE LOTS 39
NL 186X OF NON-BUILDABLE LOTS 5
NUMBER OF WHCS 39
NUMBER OF CHCS 39
DRAINAGE AREA - PATUXENT TREATMENT PLANT - LITTLE PATUXENT WASTEWATER

VICINITY MAP

SCALE: 1" = 600'

NOTE:

ALL WATER HOUSE CONNECTIONS SHALL BE 1-INCH WITH A 3/4-INCH METER, DUE TO MANDATORY SPRINKLER SYSTEM FOR MULTI-FAMILY DWELLING UNITS. TWIN WATER HOUSE CONNECTIONS SHALL BE 1 1/2-INCH WITH 2 1/2-INCH CONNECTIONS.

HOWARD SOIL CONSERVATION DISTRICT: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Patricia Engle/MS 2/1/95 DATE
U.S. SOIL CONSERVATION SERVICE

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

Greg Z. Sliz 2/1/95 DATE
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS F-94-35

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

Director of Public Works, Chief, Bureau of Engineering, Chief, Bureau of Utilities, dates and signatures.

TSA GROUP, INC.

planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

Handwritten signature of Greg Z. Sliz

Revisions table with columns: DES, DRN, CHK, DATE, BY, NO, REVISIONS. Includes entries for dam construction permit requirements and sewer & water as-builts.

TITLE SHEET

WYNDEMERE

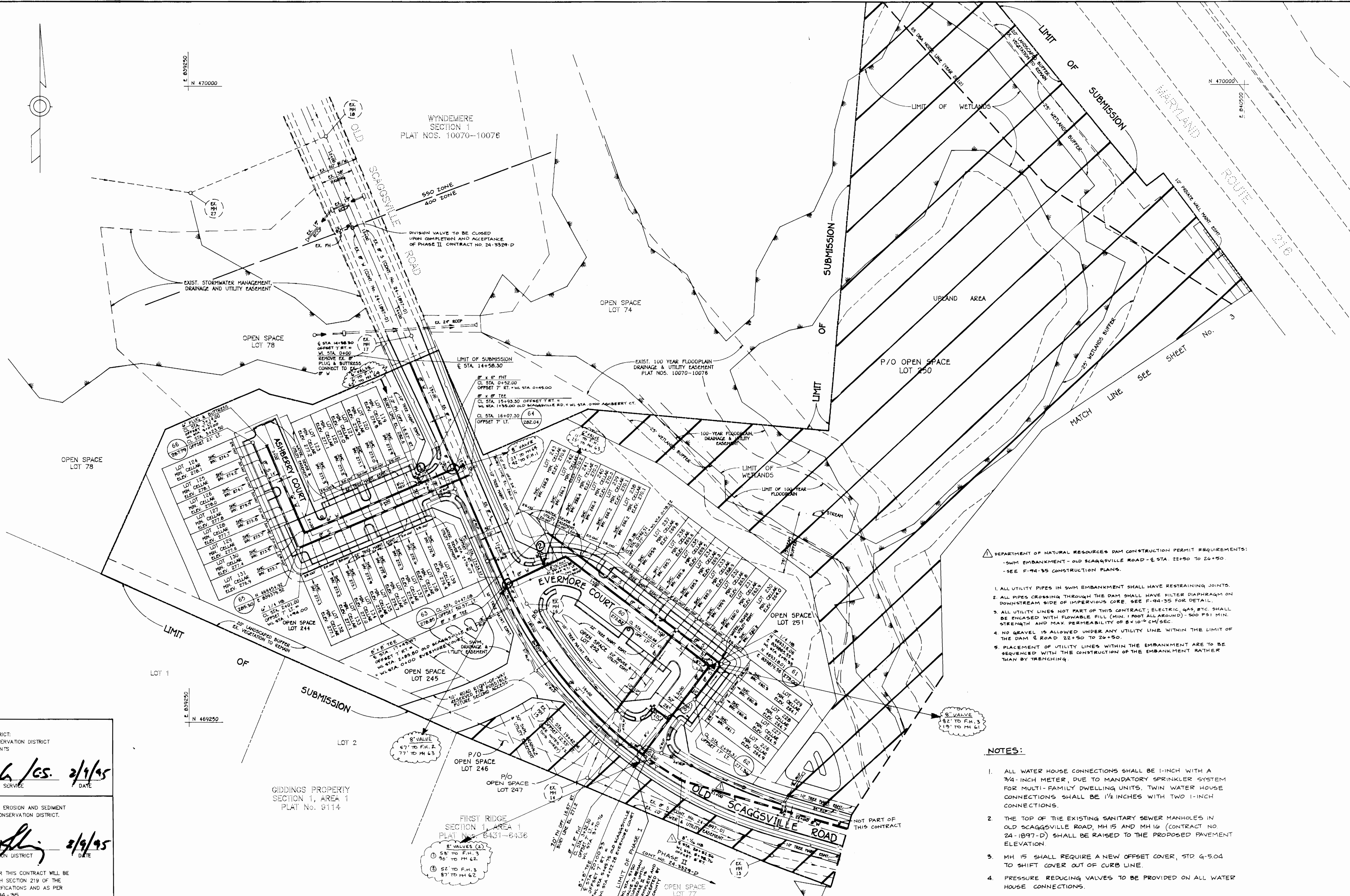
SECTION 2 PHASE I
LOTS 119-139, 226-243, 245, 251, AND 252
ELECTION DISTRICT NO. 6

CONTRACT NO. 24-3410-D

SCALE AS SHOWN

SHEET 1 OF 4

3410 WS/2 WYNDEMERE, sect. 2



- DEPARTMENT OF NATURAL RESOURCES DAM CONSTRUCTION PERMIT REQUIREMENTS:
- SWM EMBANKMENT - OLD SCAGGSVILLE ROAD - E STA. 22+50 TO 24+50
 - SEE F-94-35 CONSTRUCTION PLANS.
1. ALL UTILITY PIPES IN SWM EMBANKMENT SHALL HAVE RESTRAINING JOINTS.
 2. ALL PIPES CROSSING THROUGH THE DAM SHALL HAVE FILTER DIAPHRAGM ON DOWNSTREAM SIDE OF IMPERVIOUS CORE. SEE F-94-35 FOR DETAIL.
 3. ALL UTILITY LINES NOT PART OF THIS CONTRACT; ELECTRIC, GAS, ETC. SHALL BE ENCASED WITH FLOWABLE FILL (MIN. 1 FOOT ALL AROUND) - 500 PSI MIN. STRENGTH AND MAX PERMEABILITY OF 8x10⁻⁶ CM/SEC.
 4. NO GRAVEL IS ALLOWED UNDER ANY UTILITY LINE WITHIN THE LIMIT OF THE DAM & ROAD 22+50 TO 24+50.
 5. PLACEMENT OF UTILITY LINES WITHIN THE EMBANKMENT ARE TO BE SEQUENCED WITH THE CONSTRUCTION OF THE EMBANKMENT RATHER THAN BY TRENCHING.

- NOTES:
1. ALL WATER HOUSE CONNECTIONS SHALL BE 1-INCH WITH A 3/4-INCH METER, DUE TO MANDATORY SPRINKLER SYSTEM FOR MULTI-FAMILY DWELLING UNITS, TWIN WATER HOUSE CONNECTIONS SHALL BE 1 1/2 INCHES WITH TWO 1-INCH CONNECTIONS.
 2. THE TOP OF THE EXISTING SANITARY SEWER MANHOLES IN OLD SCAGGSVILLE ROAD, MH 15 AND MH 16 (CONTRACT NO. 24-1897-D) SHALL BE RAISED TO THE PROPOSED PAVEMENT ELEVATION.
 3. MH 15 SHALL REQUIRE A NEW OFFSET COVER, STD 4-5.04 TO SHIFT COVER OUT OF CURB LINE.
 4. PRESSURE REDUCING VALVES TO BE PROVIDED ON ALL WATER HOUSE CONNECTIONS.

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

Peterson Eyles /cs. 2/9/95
U.S. SOIL CONSERVATION SERVICE DATE

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

Glenn V. Alij 2/9/95
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-94-35

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert D. ... 2/10/95
DIRECTOR OF PUBLIC WORKS DATE

... 2/9/95
CHIEF, BUREAU OF ENGINEERING DATE

... 2/9/95
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

...

DES: JME, DRK	PBT	REVISIONS PER DEPT. OF NATURAL RESOURCES DAM CONSTRUCTION PERMIT REQUIREMENTS	9-9-94
DRN: DRK, DBT		SEPARATE PROJECT INTO TWO CONTRACTS - PHASE I AND PHASE II	2-8-95
CHK: JME			
DATE: 3/7/94			
5/20/94	BY NO.	REVISIONS	DATE

PLAN OF
WATER & SEWER MAINS

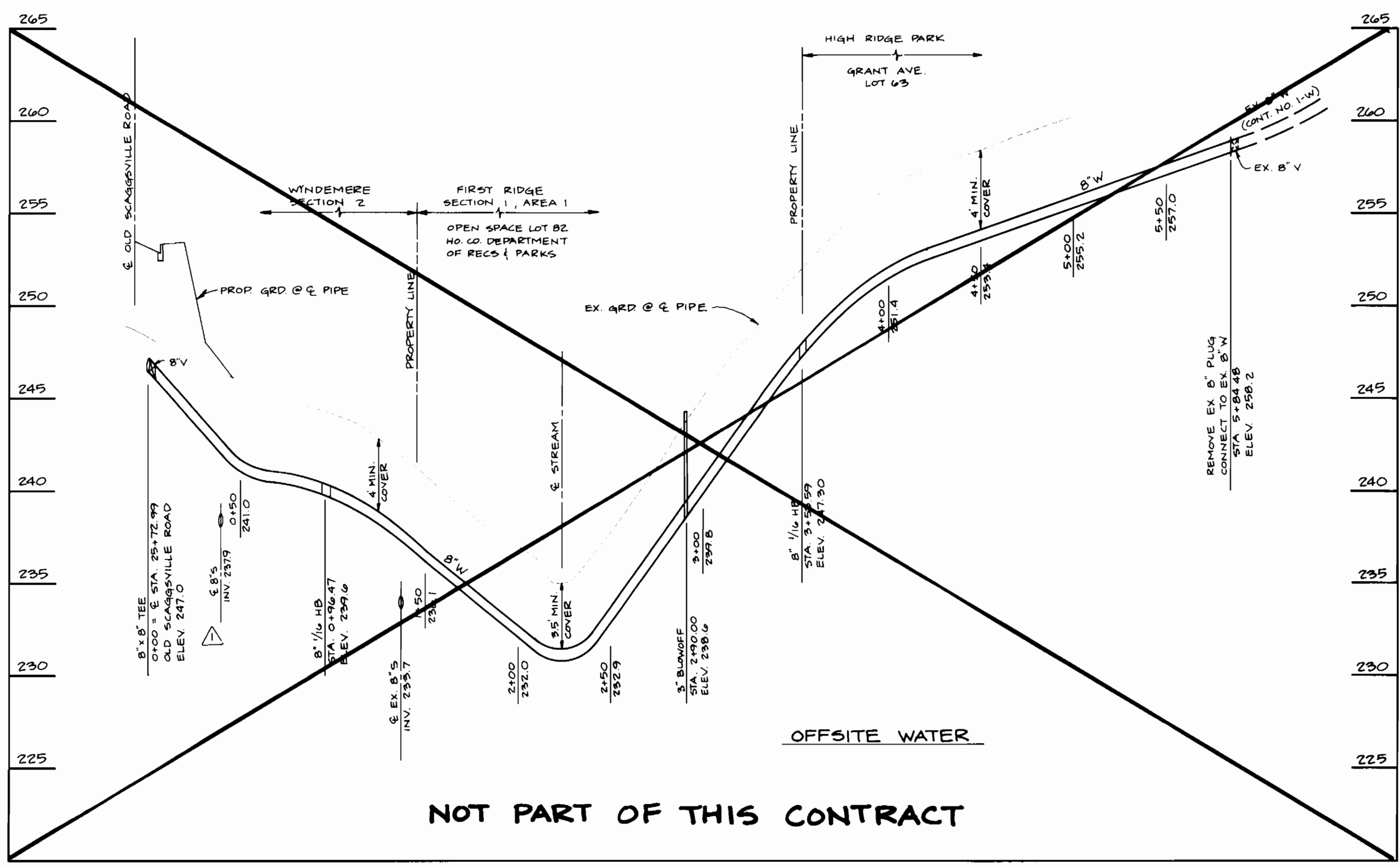
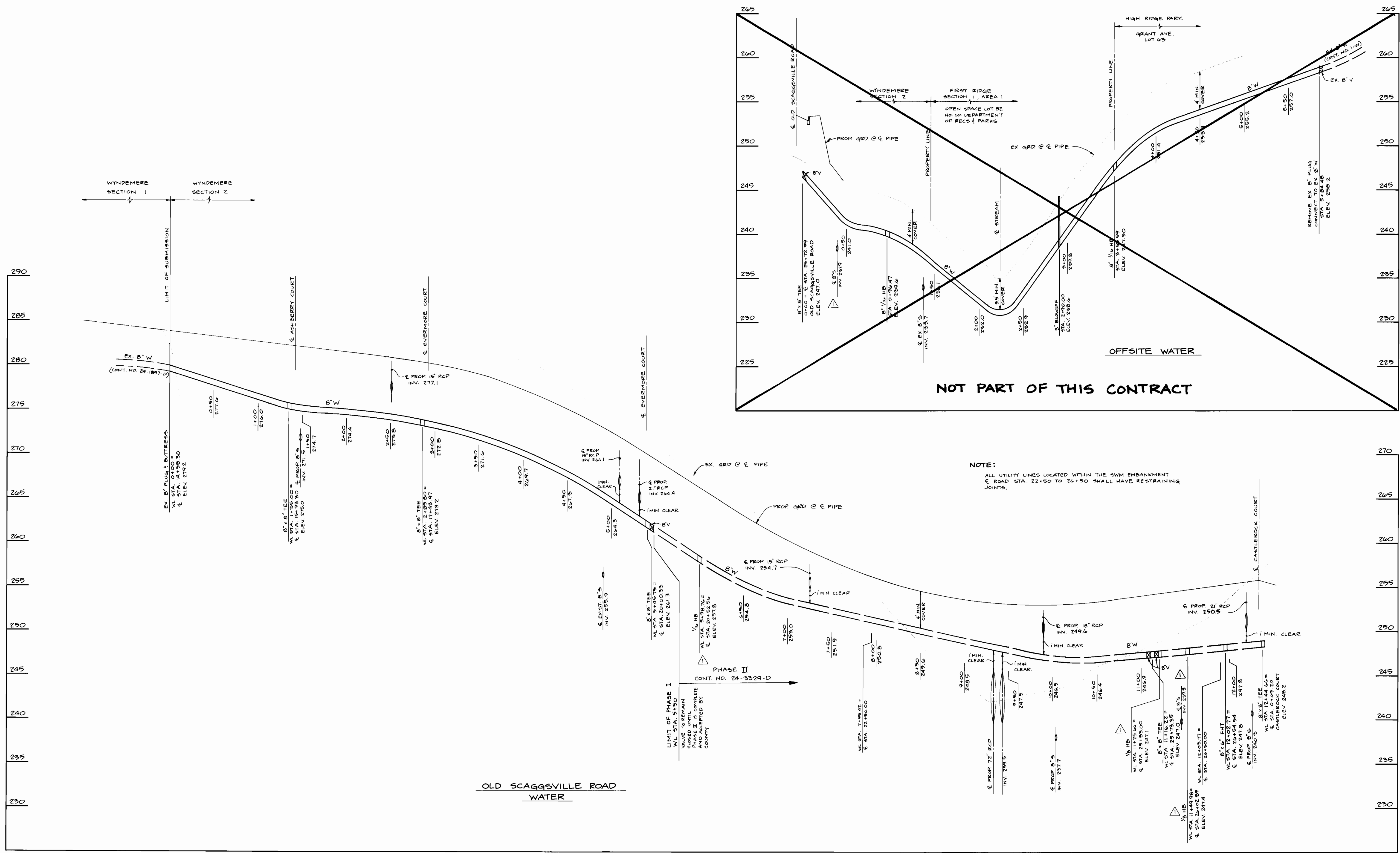
600 SCALE MAP NO. 47

WYNDEMERE
SECTION 2 PHASE 1
LOTS 119-139, 226-243, 245, 251, AND 252
ELECTION DISTRICT NO. 6
CONTRACT NO. 24-3410-D

SCALE
1" = 50'

SHEET
2 OF 4

3410 WS/3 WYNDEMERE, sect. 2



NOT PART OF THIS CONTRACT

NOTE:
ALL UTILITY LINES LOCATED WITHIN THE SWM EMBANKMENT
OF ROAD STA. 22+50 TO 26+50 SHALL HAVE RESTRAINING
JOINTS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND

James P. Lewis 2/9/95
DIRECTOR OF PUBLIC WORKS DATE

Robert A. Berman 2-9-95
CHIEF, BUREAU OF UTILITIES DATE

John M. Deane 2/9/95
CHIEF, BUREAU OF ENGINEERING DATE

John M. Deane 2/9/95
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

DES: JME, DRK	DBT	REVISIONS PER DEPT OF NATURAL RESOURCES DATA CONSTRUCTION PERMIT REQUIREMENTS	9-9-94
DRN: DBT		SEPARATE PROJECT INTO TWO CONTRACTS- PHASE I AND PHASE II	2-8-95
CHK: JME			
DATE: 3/7/94			
5/20/94	BY NO.	REVISIONS	DATE

PROFILES OF
WATER & SEWER MAINS

600 SCALE MAP NO. 47

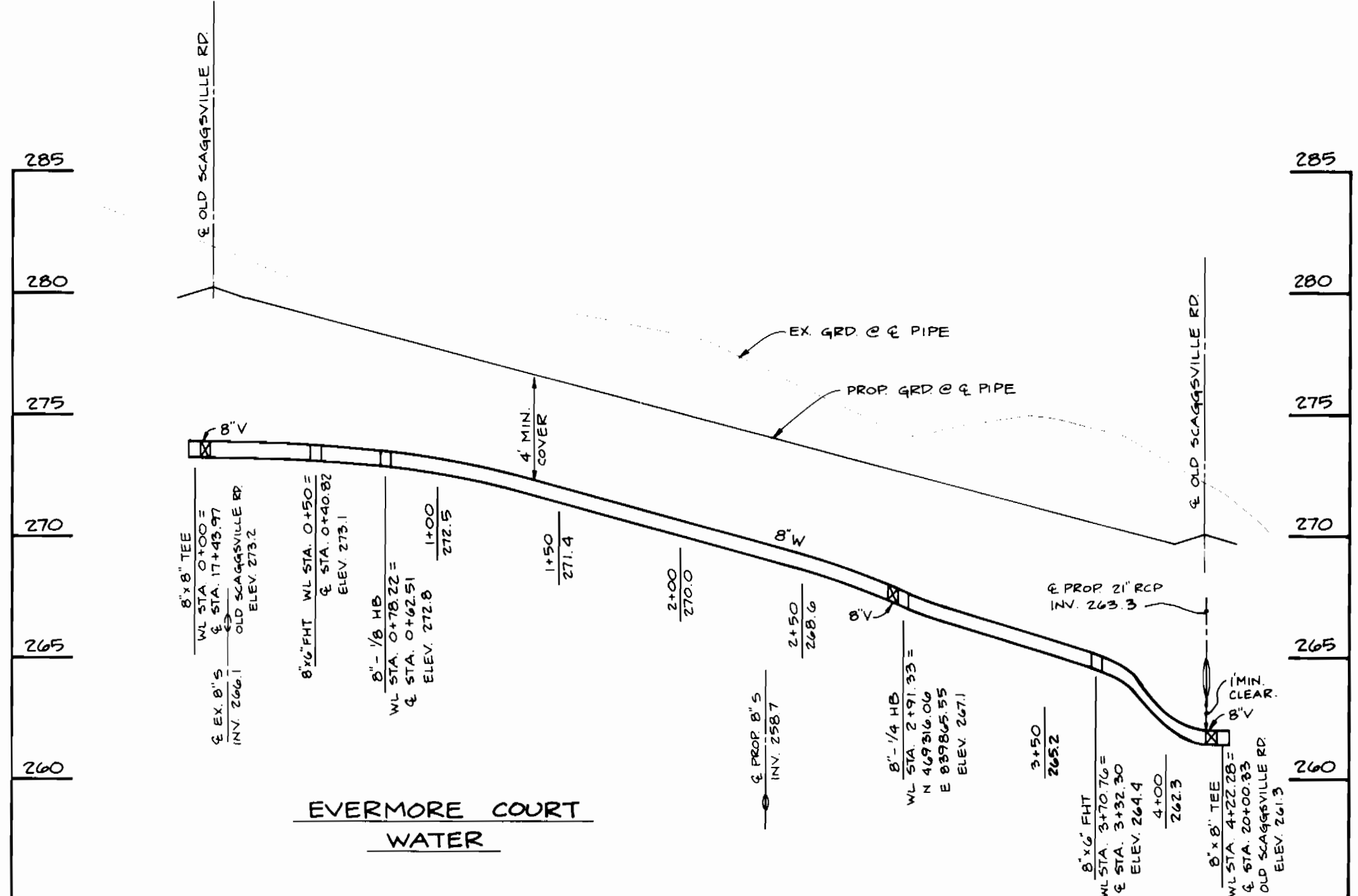
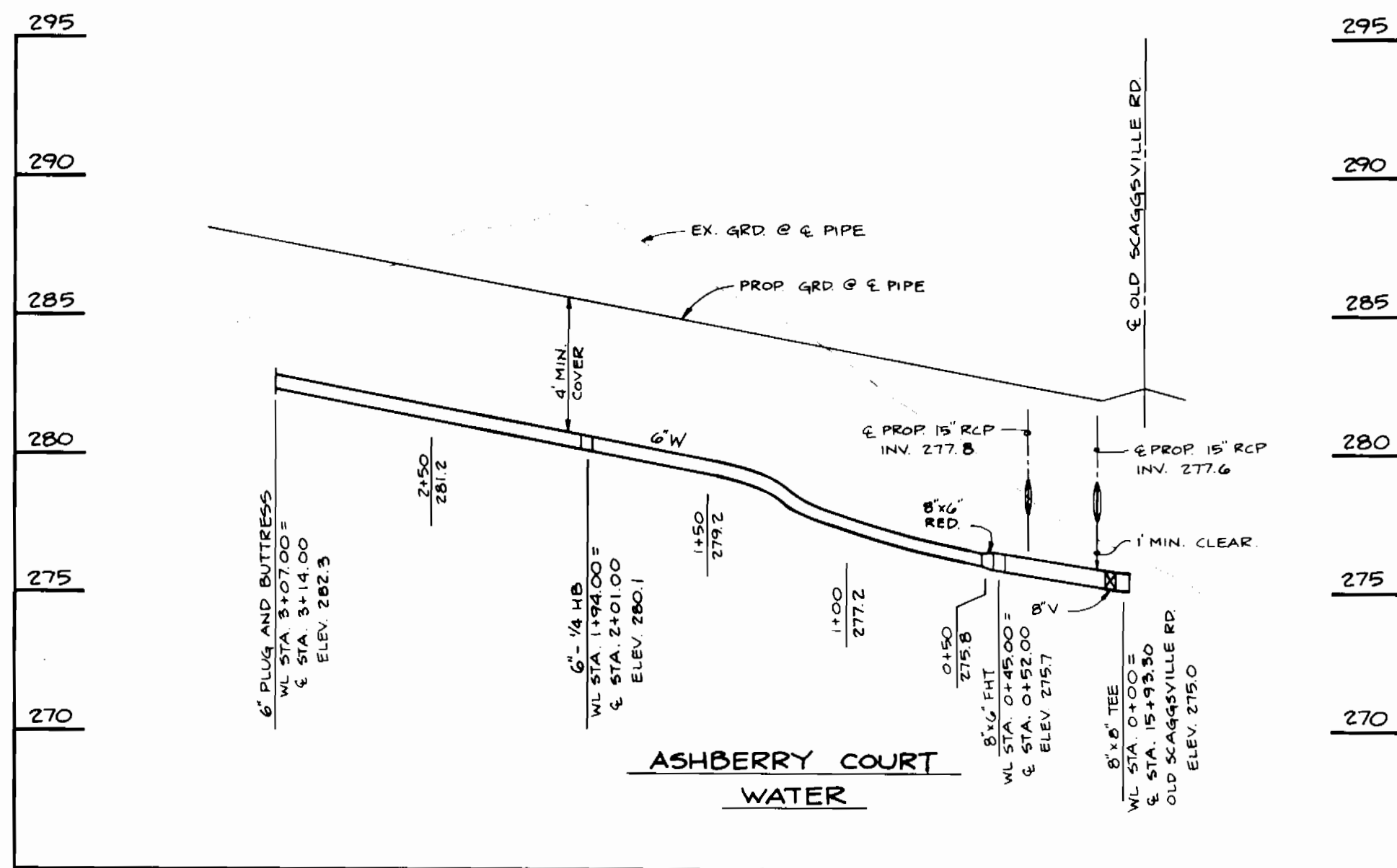
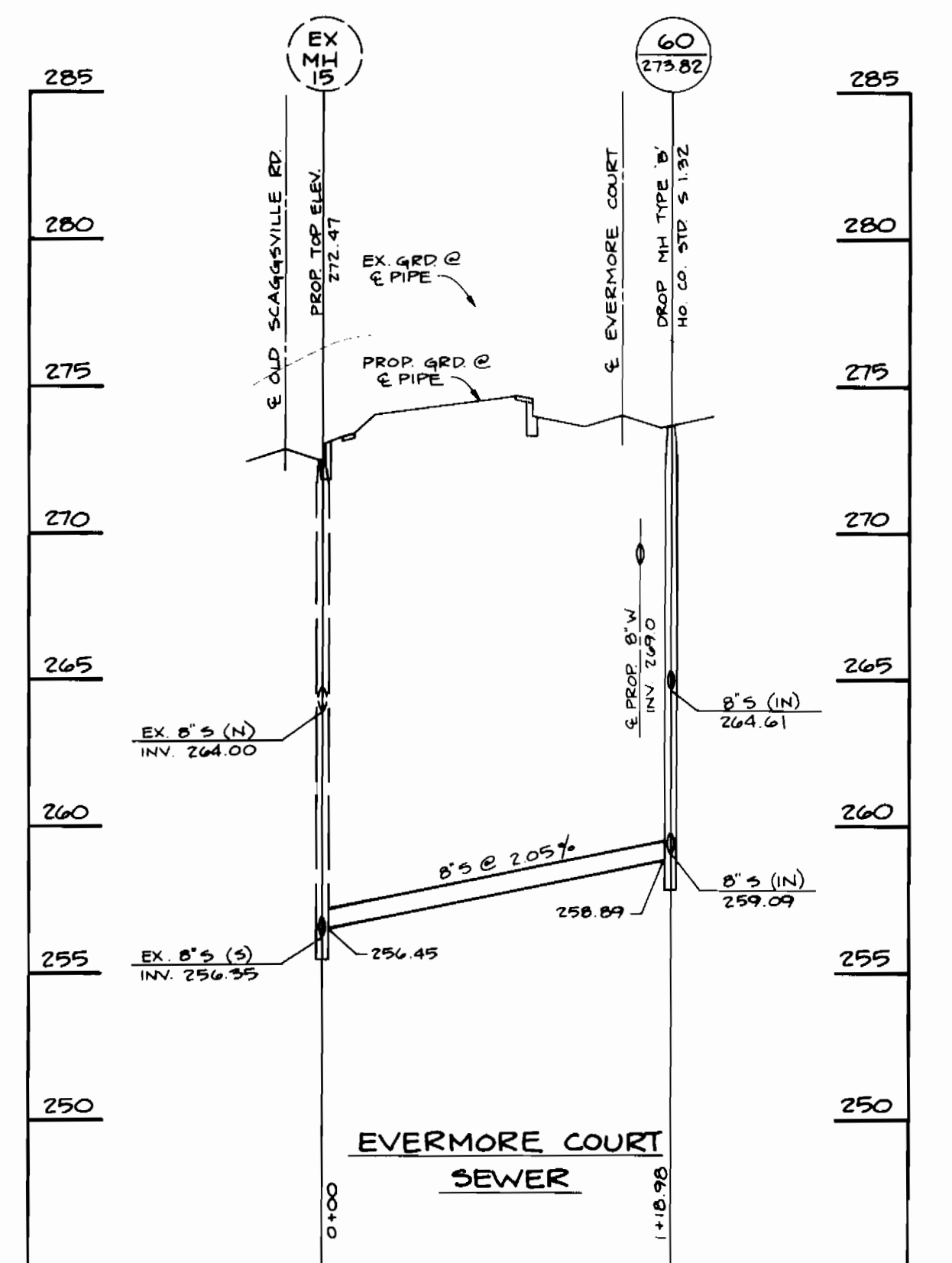
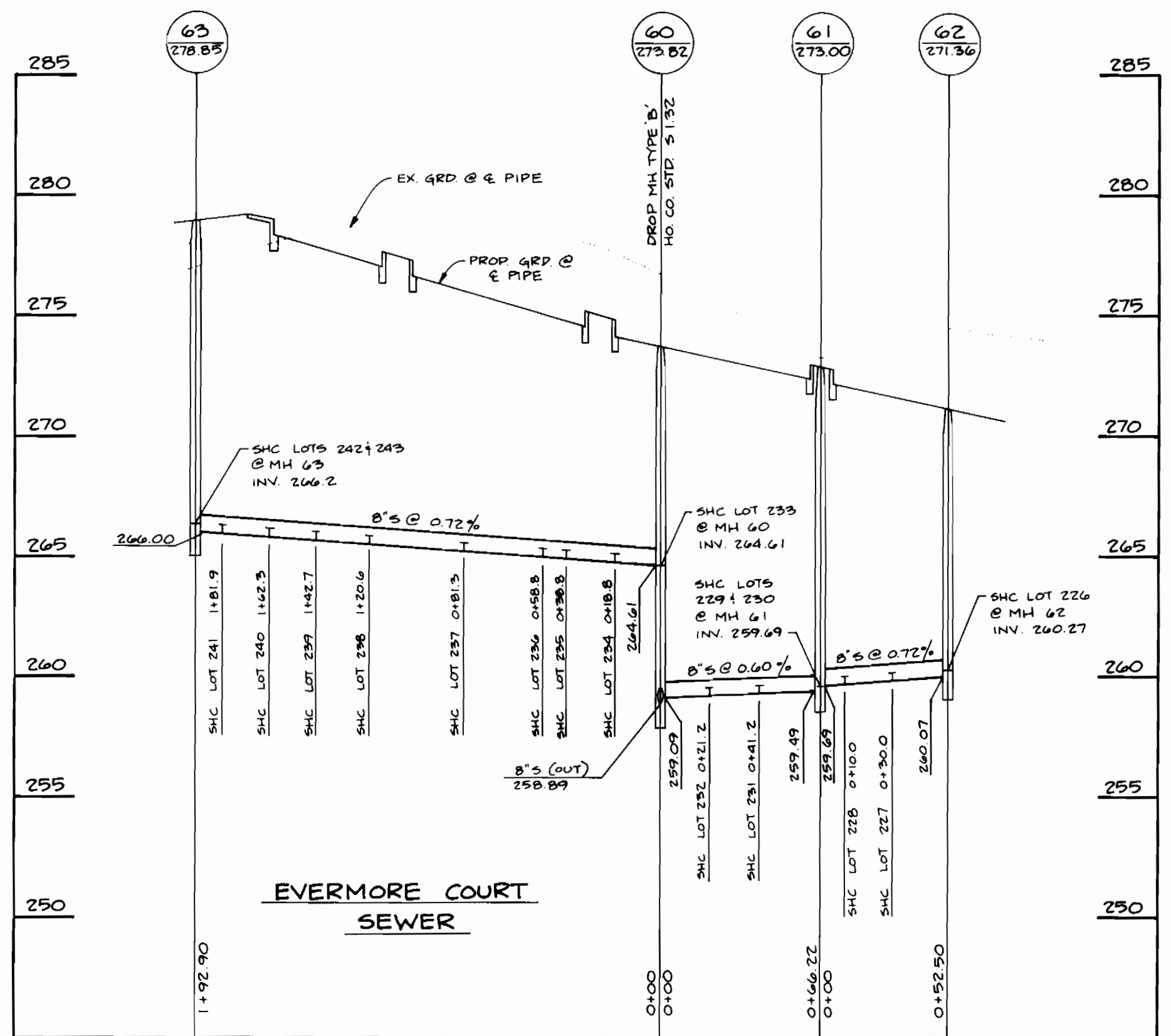
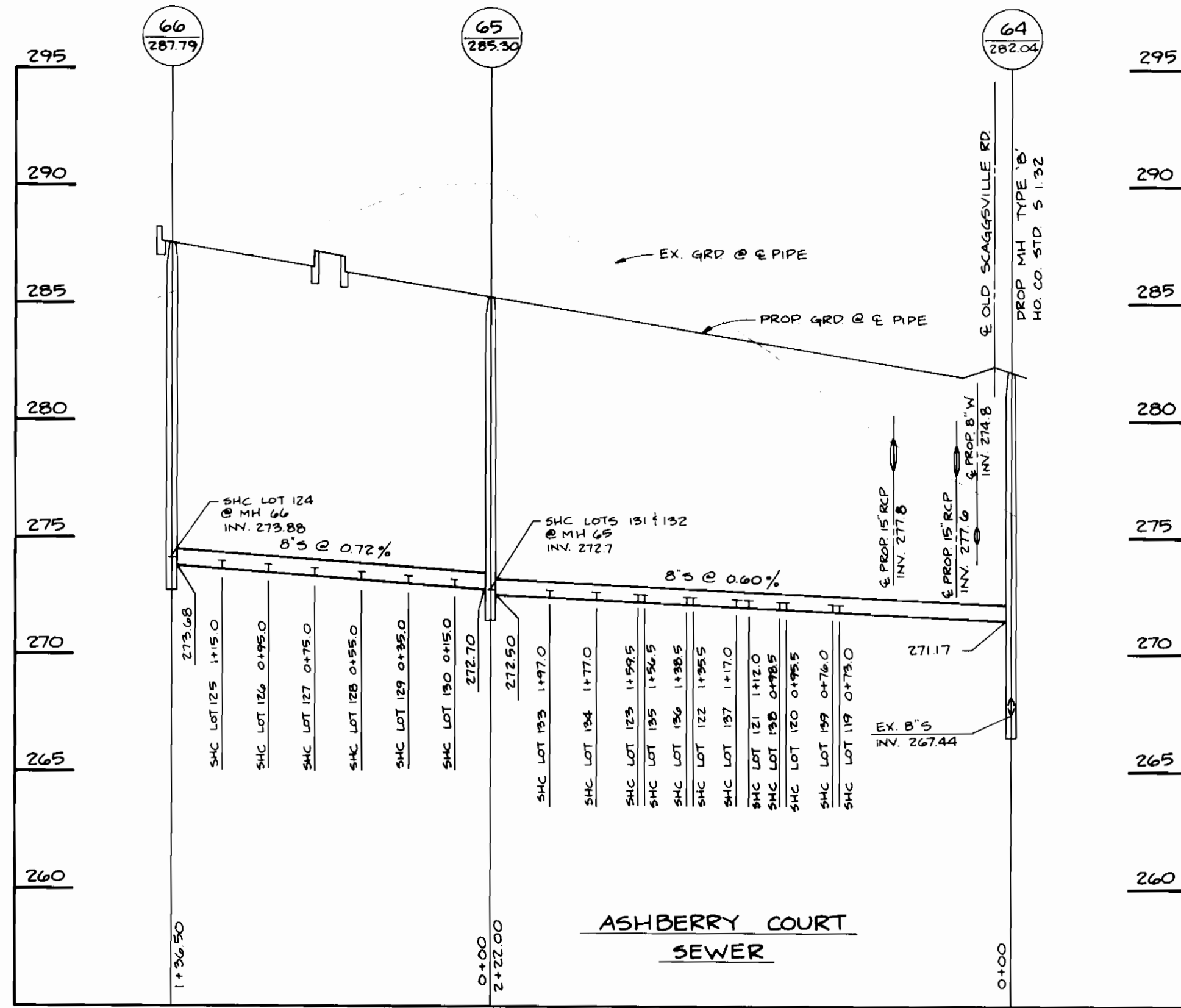
BLOCK 5 19 & 20

WYNDEMERE
SECTION 2 PHASE I
LOTS 119-139, 226-243, 245, 251, AND 252
ELECTION DISTRICT NO. 6
CONTRACT NO. 24-3410-D

SCALE
1" = 50' HORIZ.
1" = 5' VERT.

SHEET
3 OF 4

3410 ws/4 WYNDEMERE, sect. 2



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. Shaw 2/19/95
DIRECTOR OF PUBLIC WORKS DATE

Paul J. Sapan 2/19/95
CHIEF, BUREAU OF ENGINEERING DATE

Robert B. Bann 2-9-95
CHIEF, BUREAU OF UTILITIES DATE

John J. Dammann 2/19/95
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

DES: JME, DRK
DRN: DBT
CHK: JME
DATE: 3/7/94
5/20/94

SEPARATE PROJECT INTO TWO CONTRACTS - PHASE I AND PHASE II 2-8-95

PROFILES OF
WATER & SEWER MAINS

600 SCALE MAP NO. 47

WYNDEMERE
SECTION 2 PHASE I
LOTS 119-139, 226-243, 245, 251, AND 252
ELECTION DISTRICT NO. 6

CONTRACT NO. 24-3410-D

SCALE
1" = 50' HORIZ.
1" = 5' VERT.

SHEET 4 OF 4

3410 WYNDEMERE / AS-BUILT INFO.

WATER AS-BUILTS

SEWER AS-BUILTS

LOT #	AS-BUILT	LOT #	AS-BUILT
119	98' TO MH 64 37' TO F.H. 1	243	22' TO MH 63 45' TO F.H. 2
120	102' TO MH 64 46' TO F.H. 1		
121	111' TO MH 65 67' TO F.H. 1		
122	92' TO MH 65 96' TO F.H. 1		
123	89' TO MH 65 43' TO F.H. 1		
124	23' TO MH 66 127' TO MH 65		
125	25' TO MH 66 123' TO MH 65		
126	53' TO MH 66 96' TO MH 65		
127	67' TO MH 66 85' TO MH 65		
128	92' TO MH 66 53' TO MH 65		
129	95' TO MH 66 48' TO MH 65		
130	130' TO MH 66 25' TO MH 65		
131	135' TO MH 66 23' TO MH 65		
132	45' TO MH 65 158' TO F.H. 1		
133	46' TO MH 65 154' TO F.H. 1		
134	60' TO MH 65 122' TO F.H. 1		
135	55' TO MH 65 118' TO F.H. 1		
136	98' TO MH 65 88' TO F.H. 1		
137	102' TO MH 65 85' TO F.H. 1		
138	93' TO MH 64 62' TO F.H. 1		
139	90' TO MH 64 60' TO F.H. 1		
226	27' TO MH 62 49' TO MH 61		
227	36' TO MH 62 46' TO MH 61		
228	65' TO MH 62 27' TO MH 61		
229	60' TO MH 62 26' TO MH 61		
230	28' TO MH 61 59' TO MH 60		
231	30' TO MH 61 54' TO MH 60		
232	60' TO MH 61 30' TO MH 60		
233	63' TO MH 61 28' TO MH 60		
234	98' TO MH 61 38' TO MH 60		
235	102' TO MH 61 42' TO MH 60		
236	78' TO MH 60 126' TO F.H. 2		
237	73' TO MH 60 123' TO F.H. 2		
238	66' TO MH 63 71' TO F.H. 2		
239	63' TO MH 63 67' TO F.H. 2		
240	27' TO MH 63 45' TO F.H. 2		
241	23' TO MH 63 43' TO F.H. 2		
242	18' TO MH 63 43' TO F.H. 2		

LOT #	AS-BUILT
119	90' TO MH 64 29' TO F.H. 1
120	106' TO MH 64 44' TO F.H. 1
121	121' TO MH 64 124' TO F.H. 3
122	100' TO MH 65 81' TO F.H. 1
123	105' TO F.H. 1 80' TO MH 65
124	138' TO MH 65 22' TO MH 66
125	116' TO MH 65 31' TO MH 66
126	98' TO MH 65 45' TO MH 66
127	77' TO MH 65 66' TO MH 66
128	58' TO MH 65 83' TO MH 66
129	60' TO MH 65 103' TO MH 66
130	25' TO MH 65 123' TO MH 66
131	22' TO MH 65 145' TO MH 66
132	31' TO MH 65 167' TO MH 66
133	41' TO MH 65 147' TO F.H. 1
134	56' TO MH 65 129' TO F.H. 1
135	72' TO MH 65 110' TO F.H. 1
136	90' TO MH 65 95' TO F.H. 1
137	111' TO MH 65 80' TO F.H. 1
138	103' TO MH 64 66' TO F.H. 1
139	83' TO MH 64 58' TO F.H. 1
226	26' TO MH 62 58' TO MH 61
227	34' TO MH 62 38' TO MH 61
228	49' TO MH 62 28' TO MH 61
229	68' TO MH 62 28' TO MH 61
230	26' TO MH 60 72' TO MH 61
231	48' TO MH 60 36' TO MH 61
232	33' TO MH 60 64' TO MH 61
233	26' TO MH 60 72' TO MH 61
234	32' TO MH 60 90' TO MH 61
235	47' TO MH 60 108' TO MH 61
236	64' TO MH 60 128' TO MH 61
237	87' TO MH 60 116' TO MH 63
238	81' TO F.H. 2 66' TO MH 63
239	63' TO F.H. 2 55' TO MH 63
240	48' TO F.H. 2 33' TO MH 63
241	40' TO F.H. 2 18' TO MH 63
242	41' TO F.H. 2 14' TO MH 63
243	64' TO F.H. 2 34' TO MH 63

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

DES:				
DRN:				
CHK:				
DATE:	BY	NO.	REVISION	DATE

WATER & SEWER
AS-BUILTS

600' SCALE MAP NO. _____ BLOCK NO. _____

WYNDEMERE
SECTION 2 PHASE 1
LOTS 119-139, 226-243

CONTRACT NO. 24-3410-D

SCALE AS SHOWN
SHEET 4A OF 4

J&J WHITE MARSH, MD