
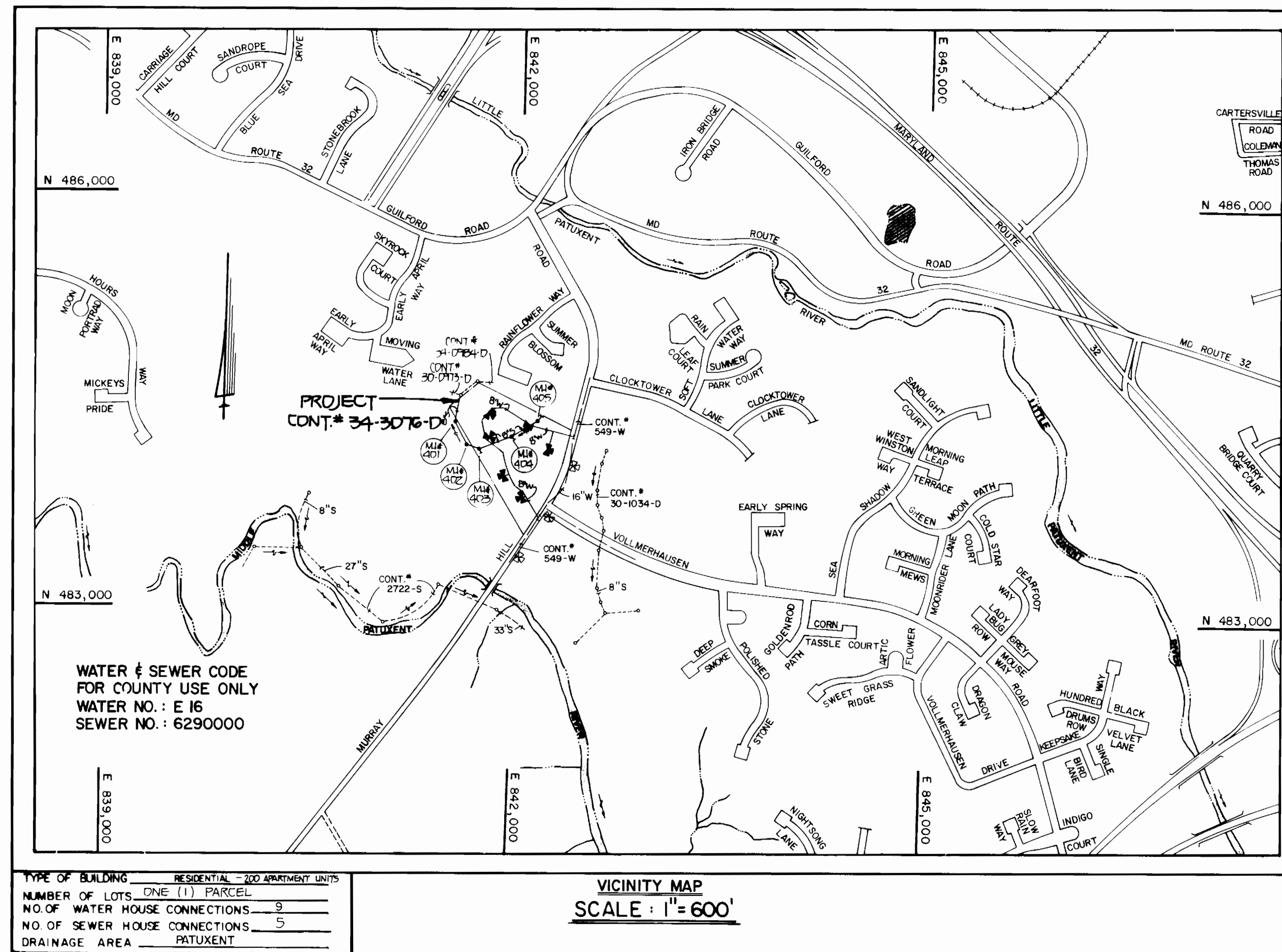


**GENERAL NOTES**

- 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 1000 AND 1005 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 65.52 WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 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.
- 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 65.51.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153. DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER & OTHER LIQUIDS.



QUANTITIES			
ITEM	ESTIMATED	AS BUILT	SUPPLIER
8" SEWER	1,014 LF	999 LF	AMERICAN PIPE
6" SEWER	30 LF	30 LF	"
MANHOLES	5 EACH	5 EACH	ATLANTIC CONCRETE
8" WATER	1,633 LF	1,648 LF	GRIFFEN PIPE
6" WATER	245 LF	249 LF	"
4" WATER	80 LF	80 LF	"
2" WATER	40 LF	40 LF	HOWELL METAL
FIRE HYDRANTS	6 EACH	6 EACH	U.S. PIPE
8" VALVES	1 EACH	1 EACH	MUELLER CO.
6" VALVES	6 EACH	6 EACH	"
4" VALVES	8 EACH	8 EACH	"
2" OUTSIDE METER & VAULT	1 EACH	1 EACH	MUELLER CO AMERITECH
16" x 8" TAPPING SLEEVE & VALVE	2 EACH	2 EACH	MUELLER CO.

**CONTRACT NO. 34-3076-D**  
**VILLAGE OF KINGS CONTRIVANCE; SEC.3, AREA 2**  
**HUNTINGTON II APARTMENTS; MURRAY HILL ROAD**  
**WATER AND SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

PLAN REFERENCE NUMBERS:  
 S 90-35  
 SDP 91-29

AS BUILT  
 COMPLETED 8-22-91

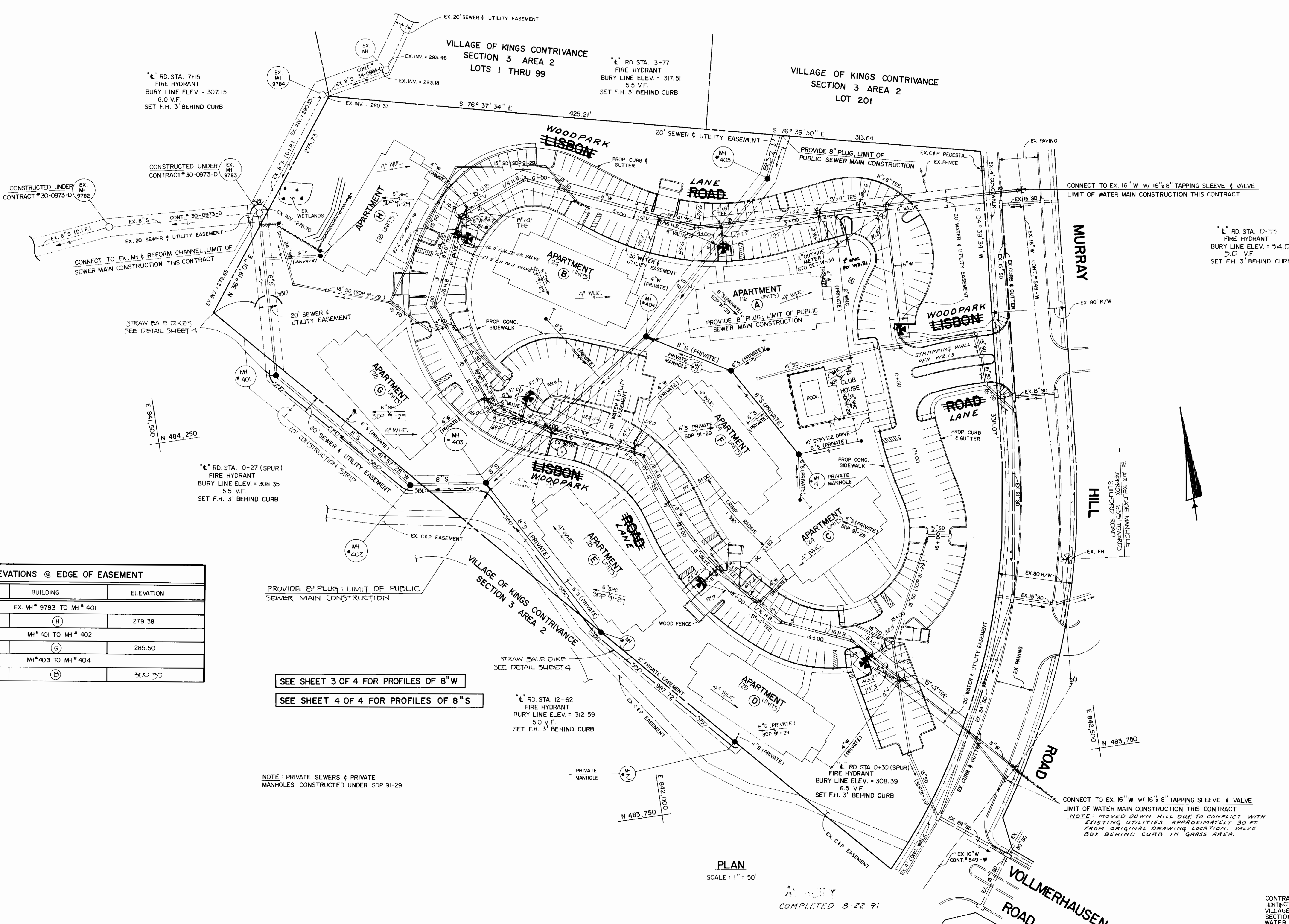
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *[Signature]* DATE: 11/28/90  
 HOWARD SOIL CONSERVATION DISTRICT

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 SITE DEVELOPMENT PLANS, SDP 91-29.  
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 APPROVED: *[Signature]* DATE: 11/28/90  
 U.S. SOIL CONSERVATION SERVICE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS: <i>[Signature]</i> DATE: 11-28-90 CHIEF, BUREAU OF UTILITIES	FISHER, COLLINS AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 9171 BALTIMORE NATIONAL PIKE, SUITE 100 ELLICOTT CITY, MARYLAND 21043 TERRELL A. FISHER DATE:	DES: MJM DRN: SFH CHK: PWK DATE: BY NO REVISION DATE	TITILE SHEET 600' SCALE MAP NO. 42 BLOCK NO.	VILLAGE OF KINGS CONTRIVANCE; SECTION 3, AREA 2 HUNTINGTON II APARTMENTS; MURRAY HILL ROAD CONTRACT NO. 34-3076-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 1 OF 4
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CONTRACT NO. 34-3076-D  
 HUNTINGTON II APARTMENTS; MURRAY HILL ROAD  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 3, AREA 2  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND





1/2" RD. STA. 7+15  
FIRE HYDRANT  
BURY LINE ELEV. = 307.15  
6.0 V.F.  
SET F.H. 3' BEHIND CURB

1/2" RD. STA. 3+77  
FIRE HYDRANT  
BURY LINE ELEV. = 317.51  
5.5 V.F.  
SET F.H. 3' BEHIND CURB

1/2" RD. STA. 0+53  
FIRE HYDRANT  
BURY LINE ELEV. = 314.0  
5.0 V.F.  
SET F.H. 3' BEHIND CURB

1/2" RD. STA. 0+27 (SPUR)  
FIRE HYDRANT  
BURY LINE ELEV. = 308.35  
5.5 V.F.  
SET F.H. 3' BEHIND CURB

1/2" RD. STA. 12+62  
FIRE HYDRANT  
BURY LINE ELEV. = 312.59  
5.0 V.F.  
SET F.H. 3' BEHIND CURB

1/2" RD. STA. 0+30 (SPUR)  
FIRE HYDRANT  
BURY LINE ELEV. = 308.39  
6.5 V.F.  
SET F.H. 3' BEHIND CURB

INVERT ELEVATIONS @ EDGE OF EASEMENT		
STATION	BUILDING	ELEVATION
EX. MH # 9783 TO MH # 401		
0+15	(H)	279.38
MH # 401 TO MH # 402		
0+93	(G)	285.50
MH # 403 TO MH # 404		
1+75	(B)	300.50

SEE SHEET 3 OF 4 FOR PROFILES OF 8" W  
SEE SHEET 4 OF 4 FOR PROFILES OF 8" S

NOTE: PRIVATE SEWERS & PRIVATE MANHOLES CONSTRUCTED UNDER SDP 91-29

PLAN  
SCALE: 1" = 50'  
COMPLETED 8-22-91

CONTRACT NO. 34-3076-D  
HUNTINGTON II APARTMENTS; MURRAY HILL RD  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 3 AREA 2  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DATE: 11-28-90  
CHIEF, BUREAU OF UTILITIES

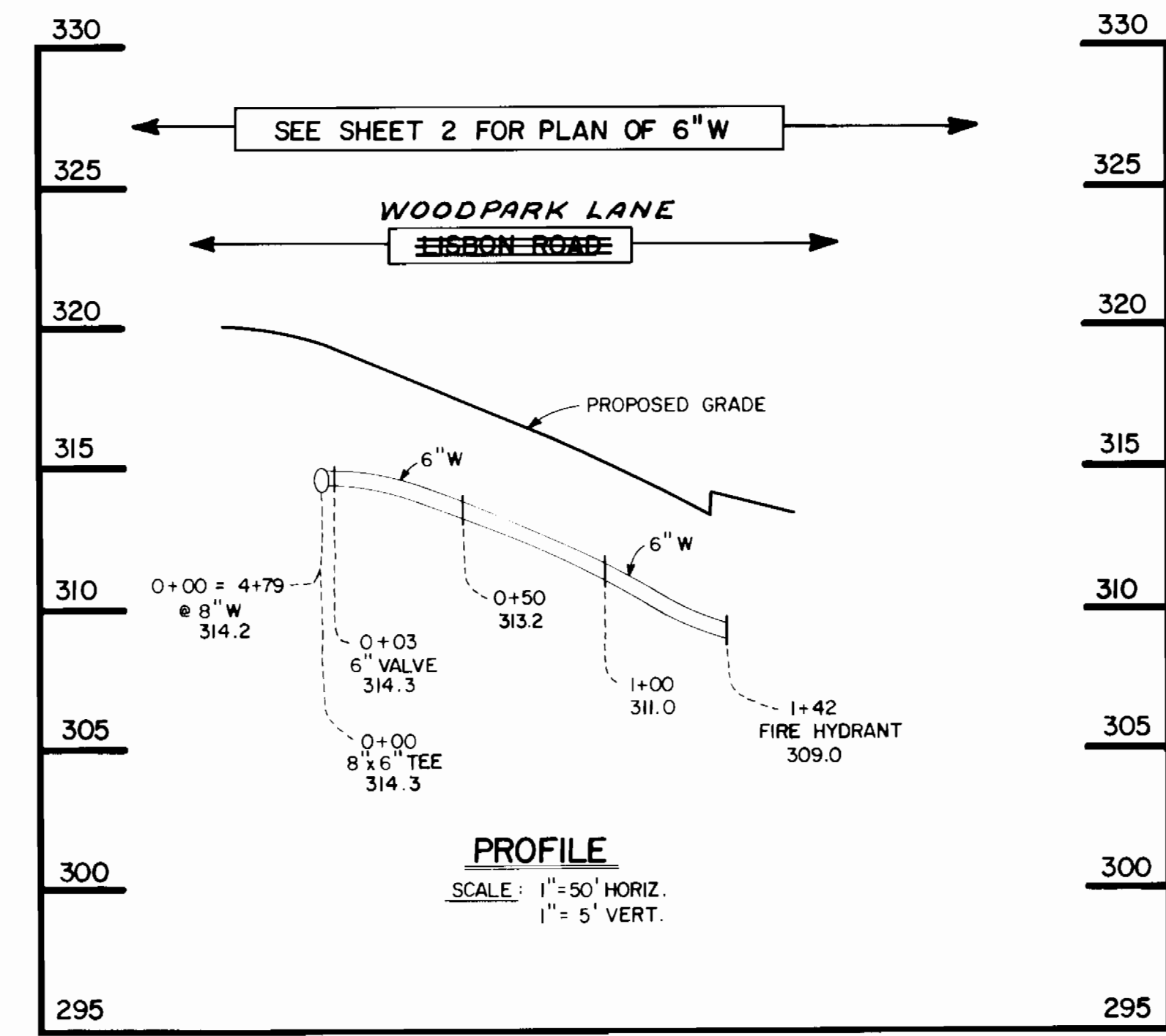
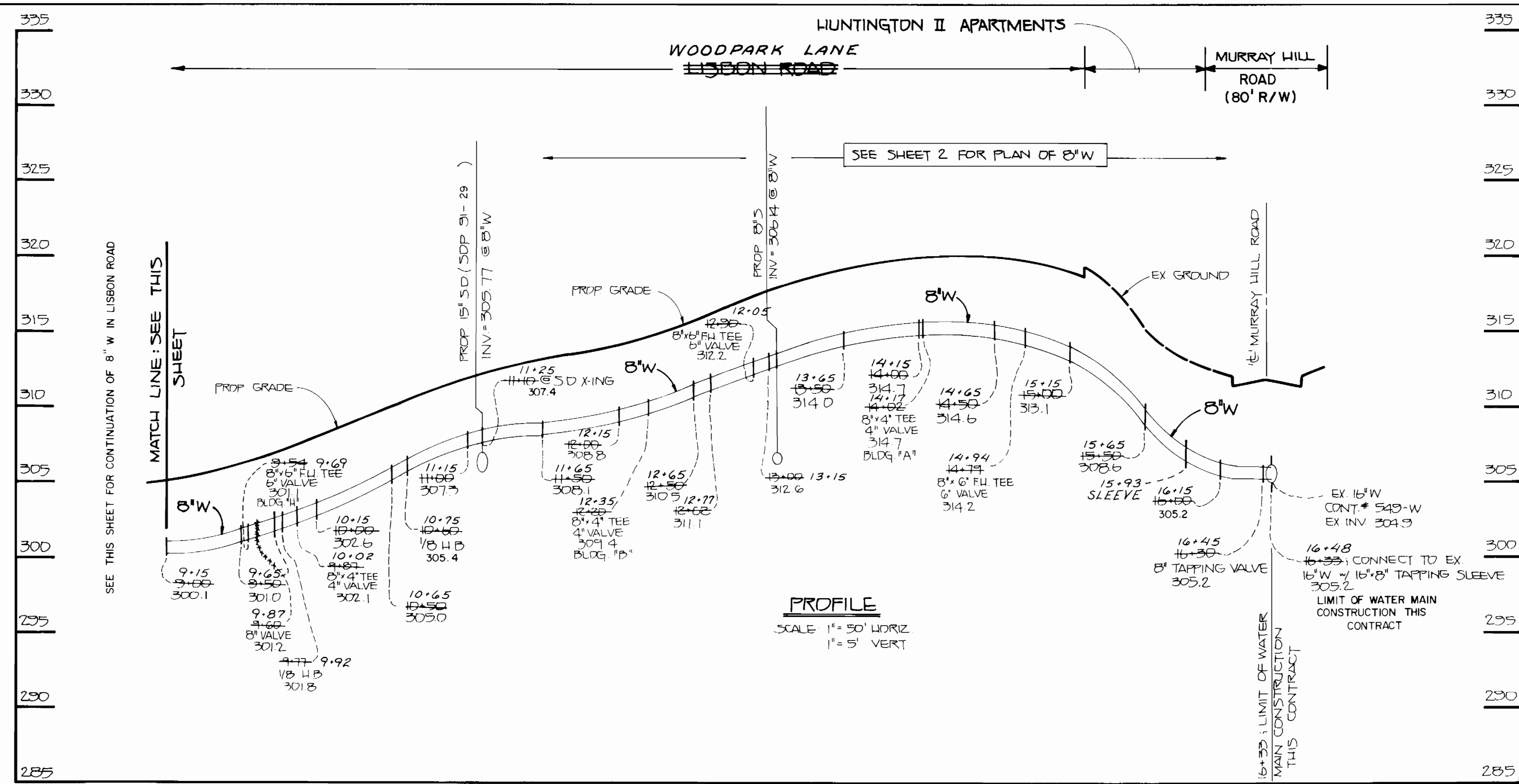
FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
9171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043  
DATE: 11/28/90  
TERRELL A. FISHER

DES: MJM					
DRN: SFH					
CHK: PWK					
DATE: 10/1/90	BY: NO.	REVISION	DATE	600' SCALE MAP NO. 42	BLOCK NO.

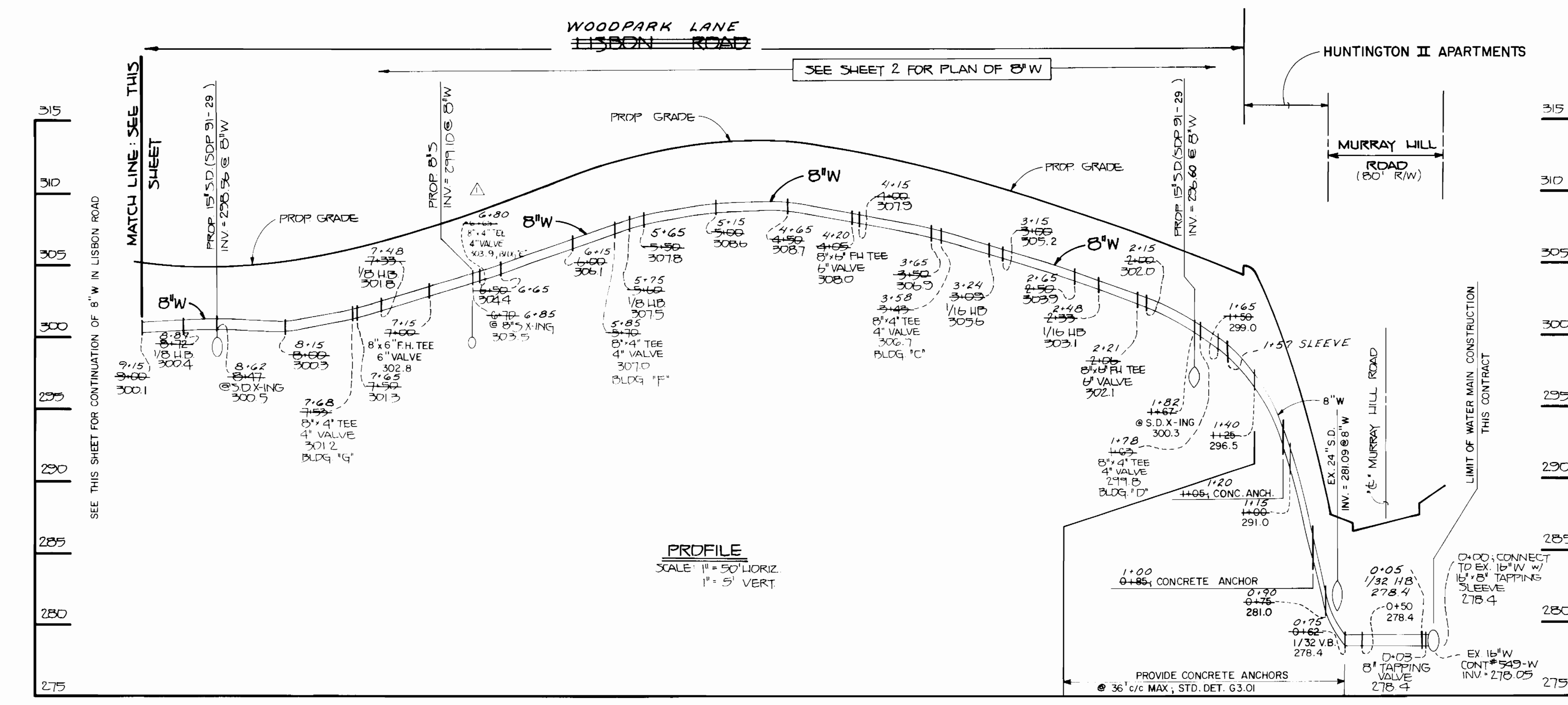
PLAN  
WATER & SEWER MAINS

VILLAGE OF KINGS CONTRIVANCE; SECTION 3, AREA 2  
HUNTINGTON II APARTMENTS; MURRAY HILL ROAD  
CONTRACT NO. 34-3076-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 2 OF 4





6" W: FIRE HYDRANT LEAD @ WM STA. 4+79



SEE SHEET 4 OF 4 FOR SEWER MAIN PROFILES

AS-BUILT  
COMPLETED 8-22-91

CONTRACT NO. 34-3076-D  
HUNTINGTON II APARTMENTS, MURRAY HILL RD  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 3, AREA 2  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 11-29-90  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 11-29-90  
CHIEF, BUREAU OF UTILITIES DATE

FISHER, COLLINS, AND CARTER, INC. #9757

CONSULTING ENGINEERS AND LAND SURVEYORS  
SUITE 100  
9711 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043

*[Signature]* 10/1/90  
TERRELL A. FISHER DATE

DES: MM					
DRN: MM					
CHK: PWK					
BY: 5F4	Δ	REVISE 4" W TO BUILDING, "E"			
NO.		REVISION			
DATE: 10/1/90					

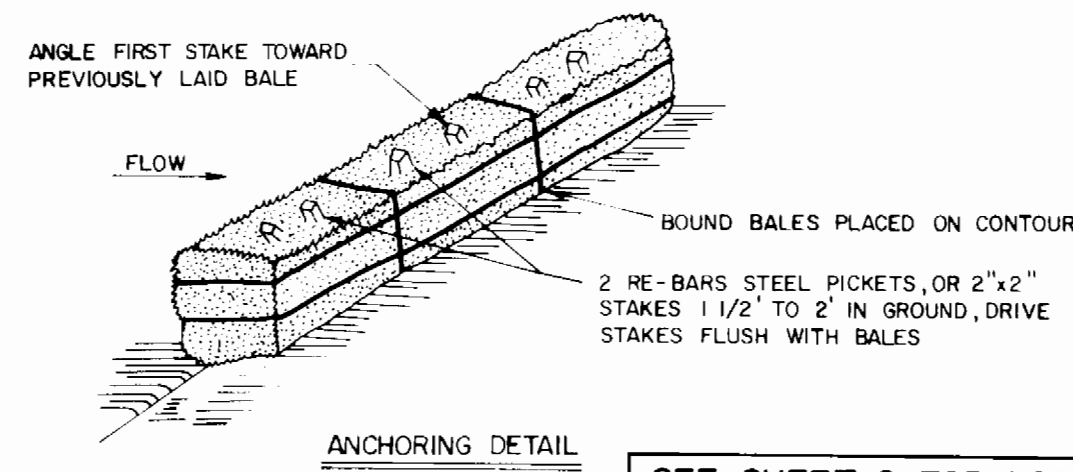
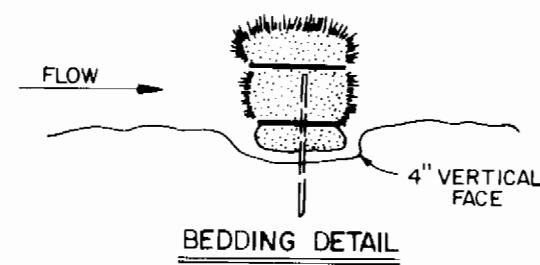
PROFILE  
WATER MAINS

600 SCALE MAP NO. 42 BLOCK NO.

VILLAGE OF KINGS CONTRIVANCE; SECTION 3, AREA 2  
HUNTINGTON II APARTMENTS; MURRAY HILL ROAD  
CONTRACT NO. 34-3076-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 3 OF 4



SEE SHEET 2 FOR LOCATIONS

**STRAW BALE DIKE**

- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

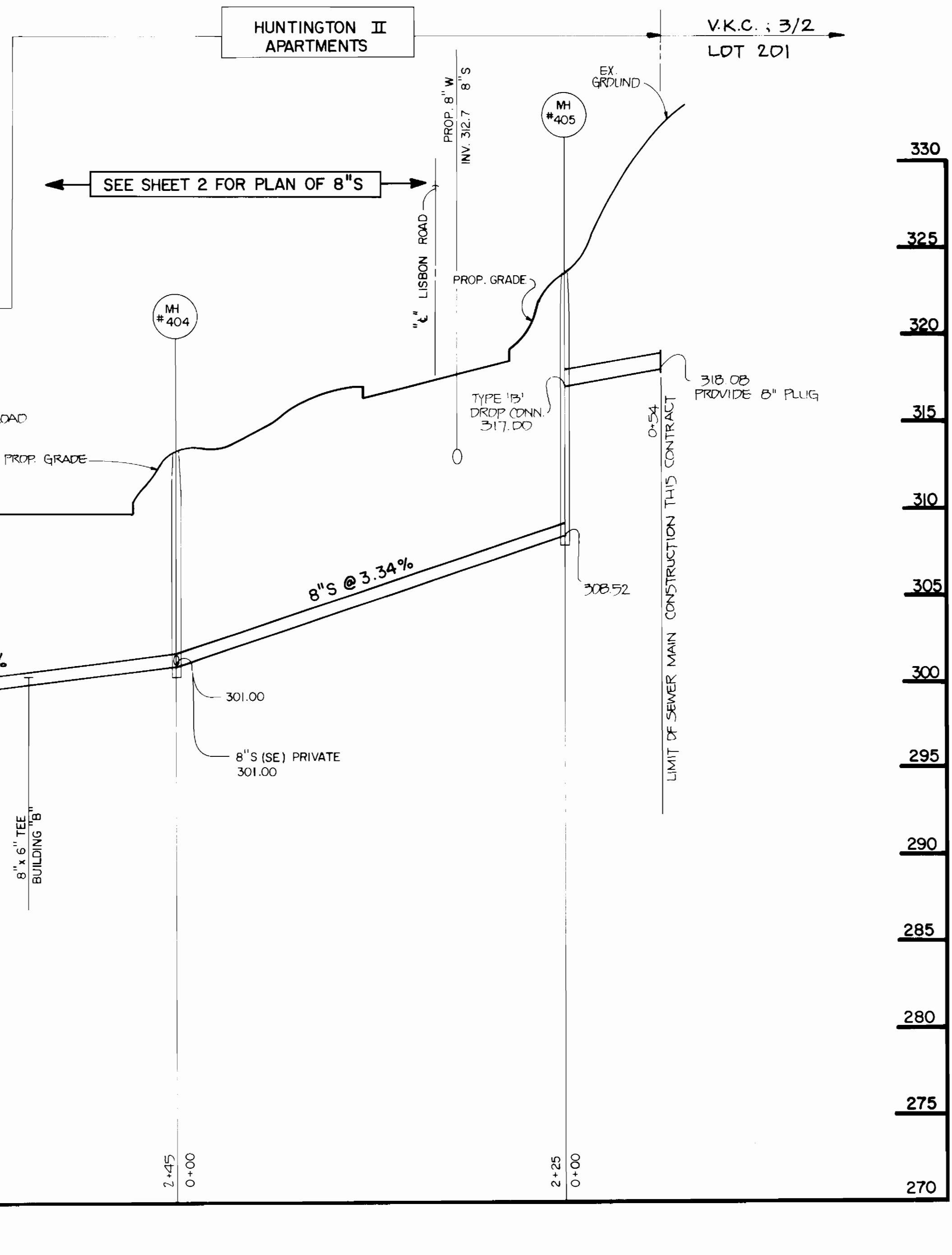
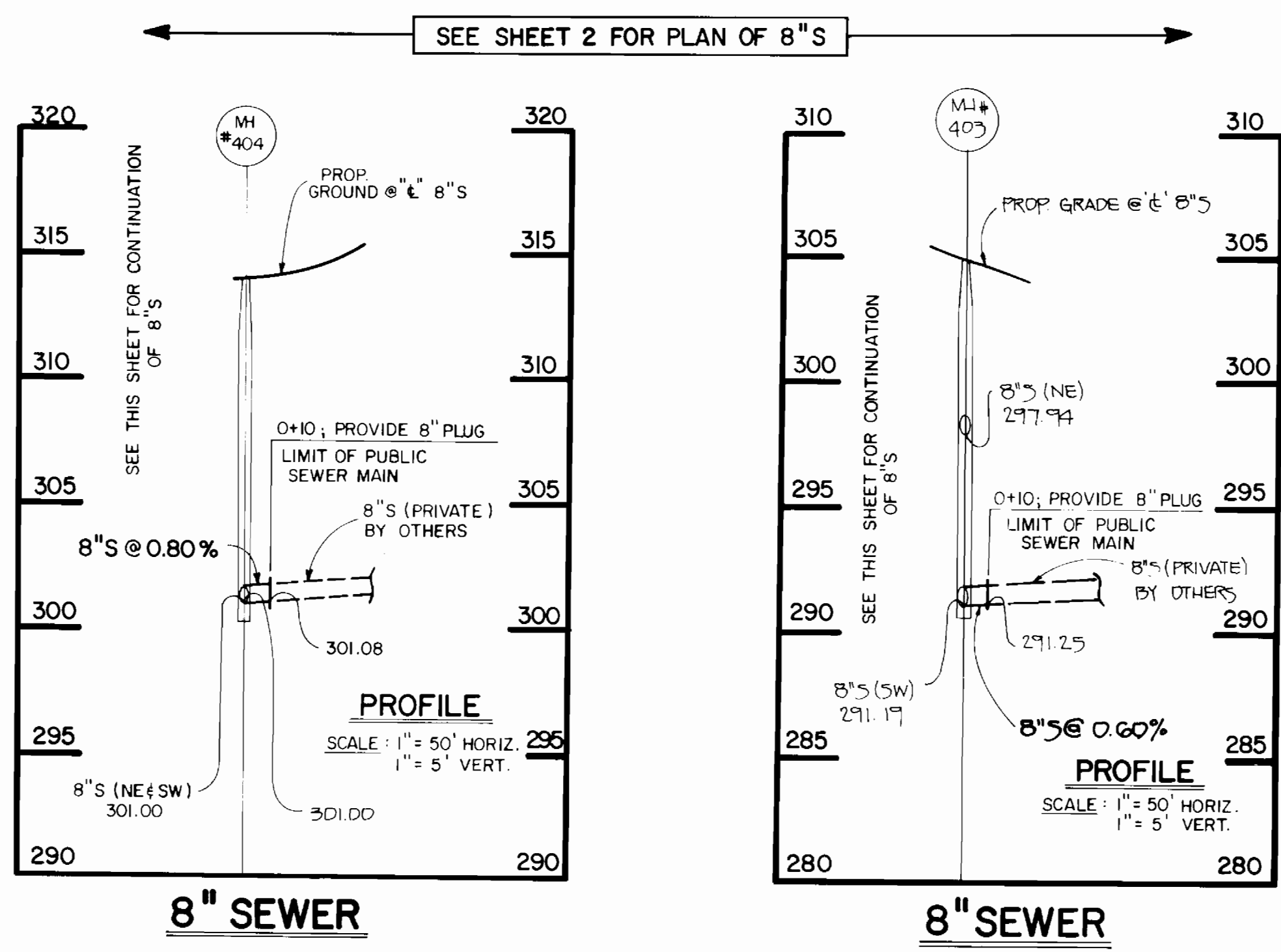


TABLE: MANHOLE RIM ELEVATIONS*	
MANHOLE NO.	RIM ELEVATION
401	293.5
402	295.0
403	305.0
404	313.5
405	323.5

\*INTENT IS TO SET MANHOLE RIMS FLUSH W/ EXISTING OR PROPOSED FINISHED GRADES

**8" PUBLIC SEWER**

COMPLETED 8-22-91

CONTRACT NO. 34-3076-D  
HUNTINGTON II APARTMENTS; MURRAY HILL RD.  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 3, AREA 2  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 11-28-90 CHIEF, BUREAU OF UTILITIES		FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 9171 BALTIMORE NATIONAL PIKE, SUITE 100 ELLICOTT CITY, MARYLAND 21043 DATE: 10/19/90 TERRELL A. FISHER		DES: MJM DRN: SFH CHK: PWK DATE: 10/19/90		PROFILE SEWER MAINS		VILLAGE OF KINGS CONTRIVANCE; SECTION 3, AREA 2 HUNTINGTON II APARTMENTS; MURRAY HILL ROAD CONTRACT NO. 34-3076-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 4 OF 4
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