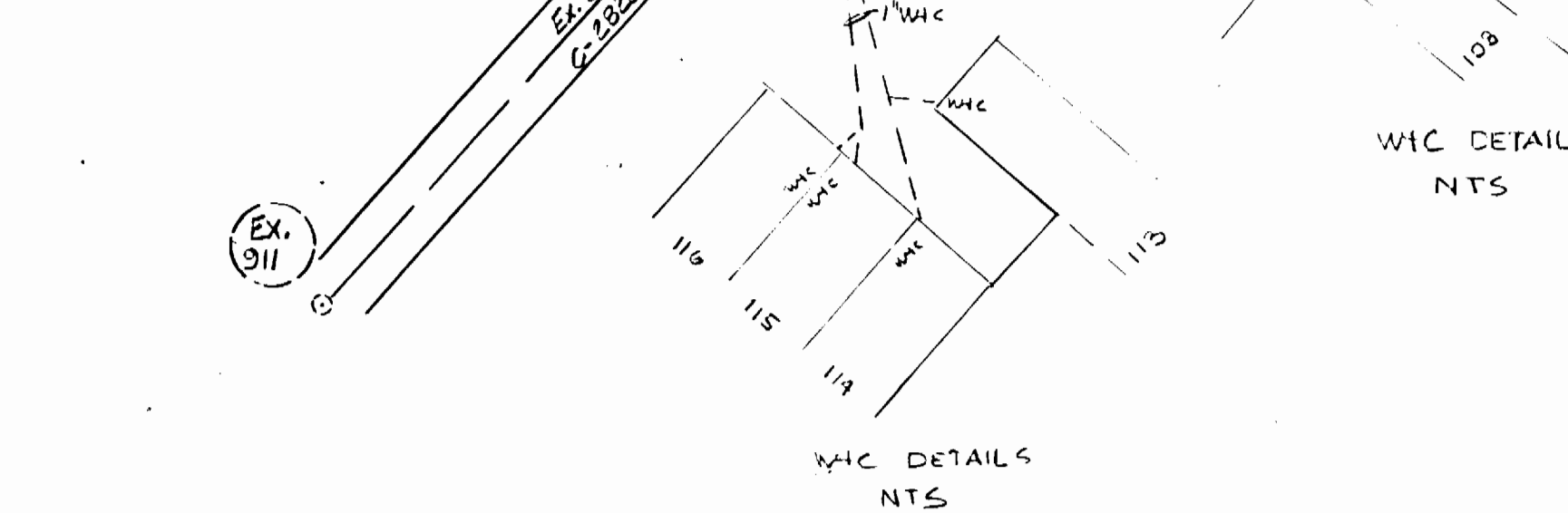
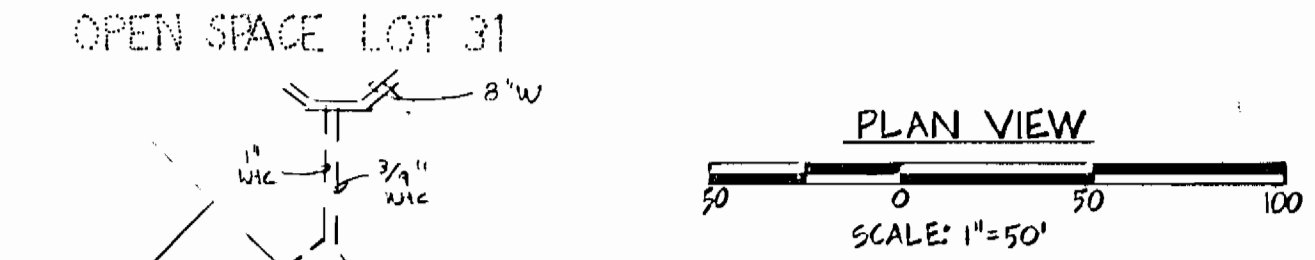


VICINITY MAP SCALE: 1"=600'
GENERAL NOTES

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 INSPECTOR, AT THE CONTRACTOR'S EXPENSE.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6" CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION AND BACKFILL.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STD. DETAILS.
7. FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STD. SPECIFICATIONS, AND HOWARD COUNTY DESIGN MANUAL VOLUME IV. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
8. 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.
9. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING THE WORK SHOW ON THESE PLANS.

STATE HIGHWAY ADMINISTRATION	531-5533
BALTIMORE GAS & ELEC. CO. - CONTRACTOR SERVICES	890-1880
BALTIMORE GAS & ELEC. CO. - UNDERGROUND DAMAGE CONTROL	890-5004
BALTIMORE GAS & ELEC. CO. - TROUBLE SHOOTING	890-5001
"MISS UTILITY"	1-800-297-7777
CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY	393-3648
COLONIAL PIPELINE COMPANY	793-1350
BUREAU OF UTILITIES HOWARD COUNTY	998-2366
10. TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
11. CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE INSPECTOR. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION AND BACKFILL.
12. 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.
13. ALL WATER MAINS TO BE DUCTILE IRON PIPE (D.I.P.)
14. TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2' COVER UNLESS OTHERWISE NOTED.
15. ALL VALVES SHALL BE STRAPPED TO TEES IN ACCORDANCE WITH STANDARD DETAILS.
16. BLOCK ALL FITTINGS WITH CONCRETE, SEE STDS. BOUND IN SPECIFICATIONS.
17. BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE 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 TO BE COMPACTED IN ACCORDANCE WITH SECTIONS 1003 & 1008 OF THE STANDARD SPECIFICATIONS.
18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
19. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXIST. SYSTEM.
20. ALL SEWER MAINS SHALL BE C.S.P.P., V.C.R.P., P.V.C., OR A.C.P. CLASS 2400 UNLESS OTHERWISE NOTED.
21. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
22. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
23. WATER MAIN AND WATER HOUSE CONNECTION LINES MUST HAVE A MIN. OF ONE FOOT SEPARATION FROM THE SANITARY SEWER AND SEWER HOUSE CONNECTIONS AS THEY CROSS. EXCEPT AT CROSSINGS, WATER AND SEWER LINES SHALL HAVE A MINIMUM HORIZ. SEPARATION OF 10'.
24. FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.
25. CONCRETE BUTTRESSES ARE TO BE INSTALLED AT ALL BENDS, TEES AND CAPS.



QUANTITIES			
ITEM	ESTM'D	AS BUILT	MATERIAL/SUPPLIER
# 8" S	1583'	1583'	304-55 J-M MANUFACTURING
8" W	796'	796'	PVC COOP GRIFFIN PIPE CO.
6" W	335'	320'	CL-52 " "
# 6" SHC	270'	170'	592-35 J-M MANUFACTURING
MH	25	25	CONCRETE ATLANTIC CONCRETE
PH	2	2	U.S. PIPE AND FOUNDRY
6" CAP	4	1	" "
1" WVC	335'	665'	TYPE K COPPER HOWELL METALS
6" V	3	3	" "
1 1/2" DRAIN BLOW-OFF	4	4	" "
3/4" WVC	870'	370'	TYPE K COPPER HOWELL METALS
2" WVC	65'	DELETED	" "
8" x 6" C	1	1	" "
8" x 1/2" HB	2	4	" "
8" x 1/2" HB	5	4	" "
6" x 1/2" HB	8	3	" "
6" x 1/2" HB	1	0	" "
6" x 1/2" HB	1	1	" "

TYPE OF BUILDING	TOWNHOUSES
NUMBER OF UNITS	75
NUMBER OF SHCS	75
NUMBER OF WVC'S	75
DRAINAGE AREA	LITTLE PATUXENT

NOTE: FOR ELEVATION OF SHC INV. @ R. SEE SH. 4 OF 4.

DIP CL-50 ALSO 5640 GRIFFIN PIPE CO.

Sediment Control Measures will be implemented in accordance with Section 210 of the Specifications & with Road Construction Plan F09-100; Drawing Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

James M. ... 10-15-86
SIGNATURE DATE
U.S. SOIL CONSERVATION SERVICE

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED
Stephen R. ... 10/16/86
Howard S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Paul F. ... 10-23-86
DIRECTOR OF PUBLIC WORKS DATE

Robert M. ... 10-21-86
CHIEF, BUREAU OF UTILITIES DATE

Robert ... 10-22-86
CHIEF, BUREAU OF ENGINEERING DATE

Robert ... 10-22-86
CHIEF, LAND DEVELOPMENT DIV. DATE

Dewberry & Davis
ENGINEERS-ARCHITECTS-PLANNERS-SURVEYORS

804 WEST DIAMOND AVENUE
GAITHERSBURG, MARYLAND 20877
(301) 948-8300



DES. M.D.	
DRN. J.M.	
CHK:	
DATE:	
BY NO.	
REVISION	
DATE	10-20

PLAN OF
WATER MAINS & SEWER

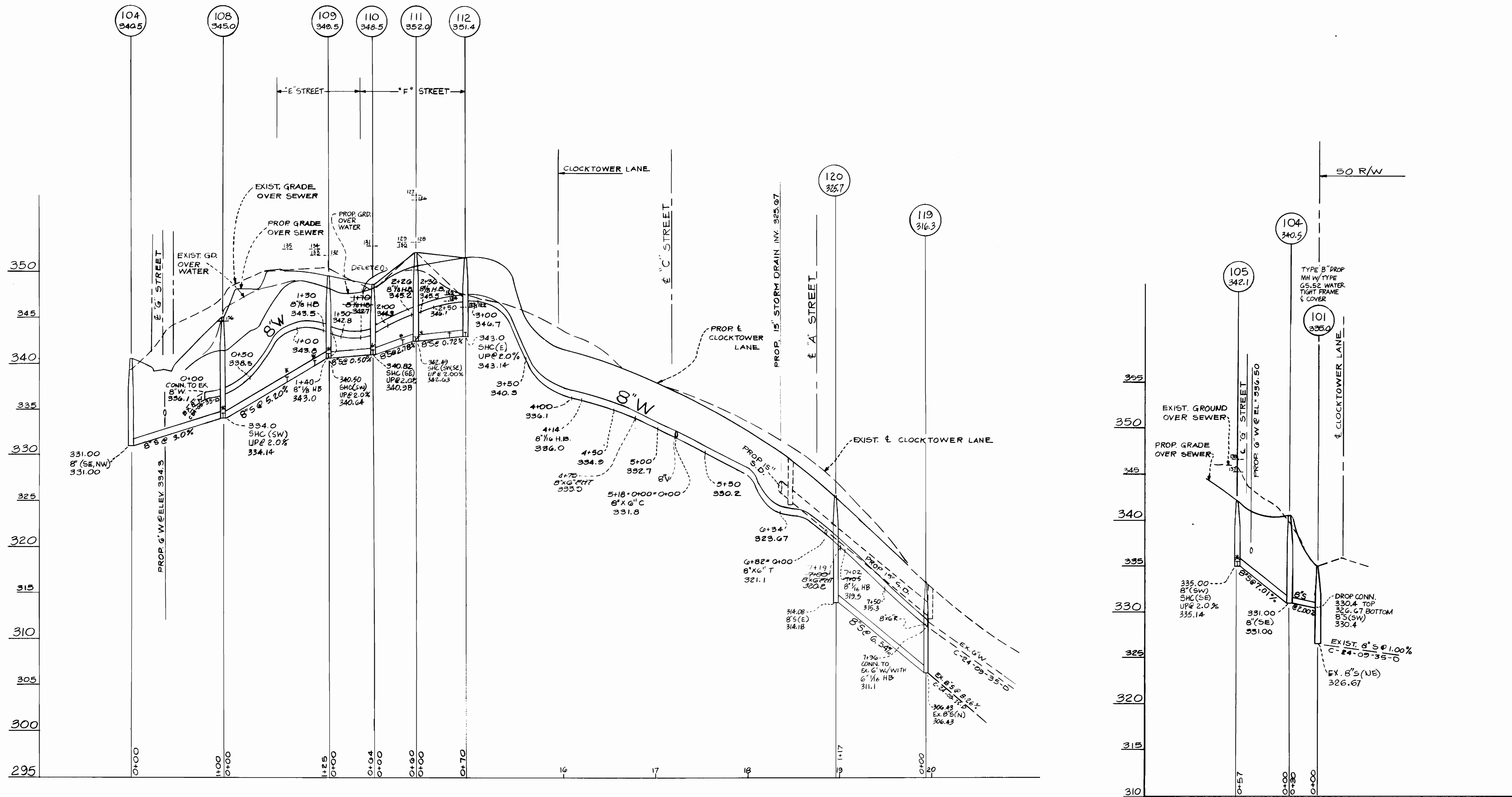
600' SCALE MAP NO. 42 BLOCK NO. _____

COLUMBIA
VILLAGE OF KINGS CONTRIVANCE
SECTION 3, AREA 1, PARCEL 0-7A
LOTS 070 - 078

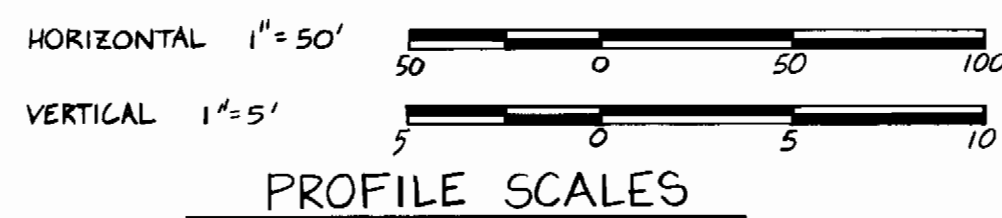
CONTRACT NO. 24-1474-D

SCALE
AS SHOWN

SHEET
1 OF 4



W & S FROM CLOCKTOWER LANE THRU "E" STREET AND "F" STREET TO CLOCKTOWER LANE.



NOTE:

* DEVOTES DHC

8" S. FROM CLOCKTOWER LANE TO "G" STREET

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Mary F. Neuman 10-23-96
DIRECTOR OF PUBLIC WORKS DATE

Robert A. Benner 10-21-96
CHIEF, BUREAU OF UTILITIES DATE

D. S. ... 10-22-96
CHIEF, BUREAU OF ENGINEERING DATE

... 10-22-96
CHIEF, LAND DEVELOPMENT DIV. DATE

Dewberry & Davis
ENGINEERS - ARCHITECTS - PLANNERS
SURVEYORS

804 WEST DIAMOND AVENUE
GAITHERSBURG, MARYLAND 20877
(301) 948-8300



DES: U. D.				
DRN: J. M.				
CHK:				
DATE: 4-28-96	BY	NO.	REVISION	DATE

PROFILES OF
WATER MAINS & SEWER

600' SCALE MAP NO. 42 BLOCK NO.

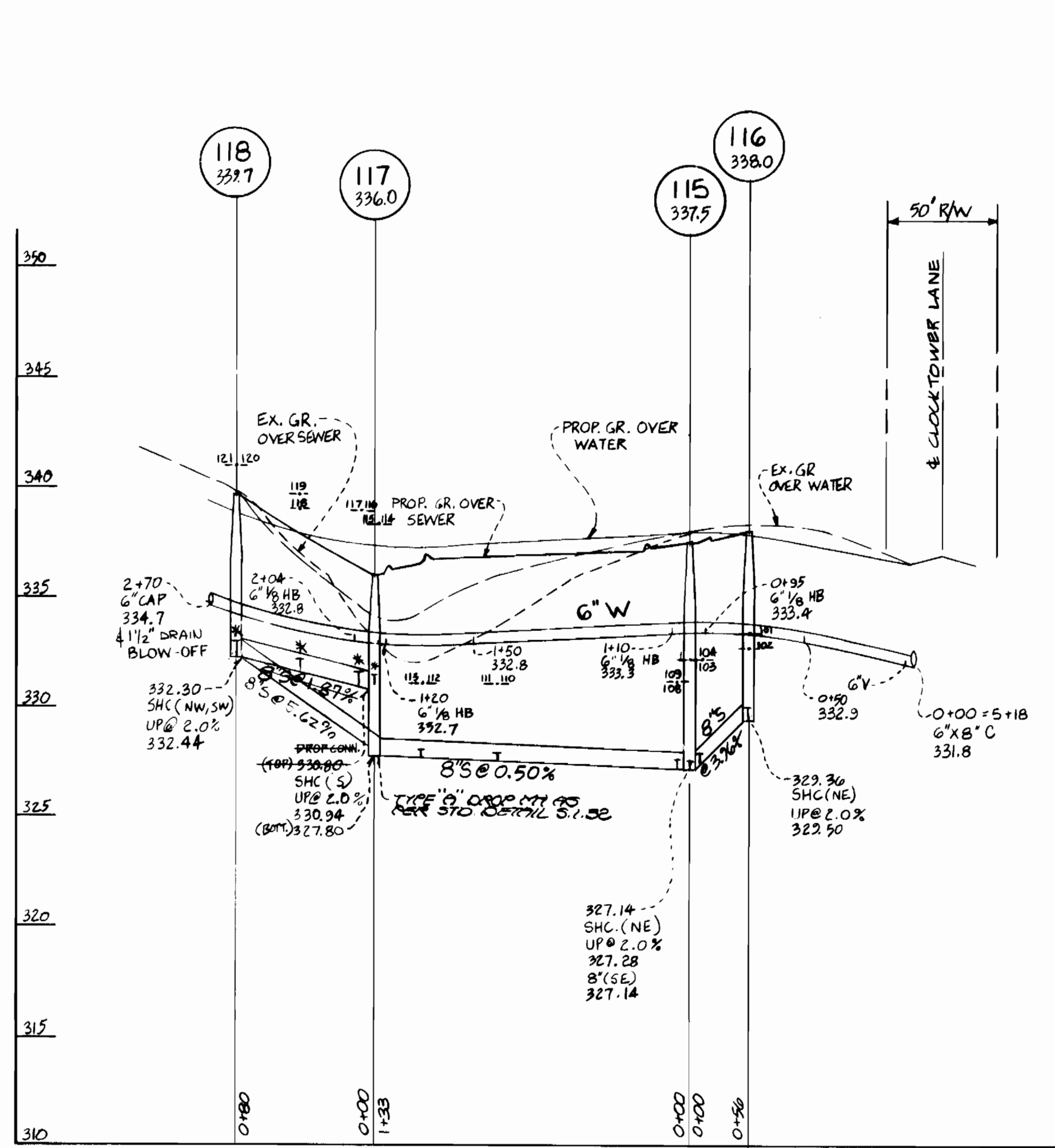
COLUMBIA
VILLAGE OF KINGS CONTRIVANCE
SECTION 3, AREA 1, PARCEL D-7A
LOTS D70 - D157

CONTRACT NO. 24-1474-D

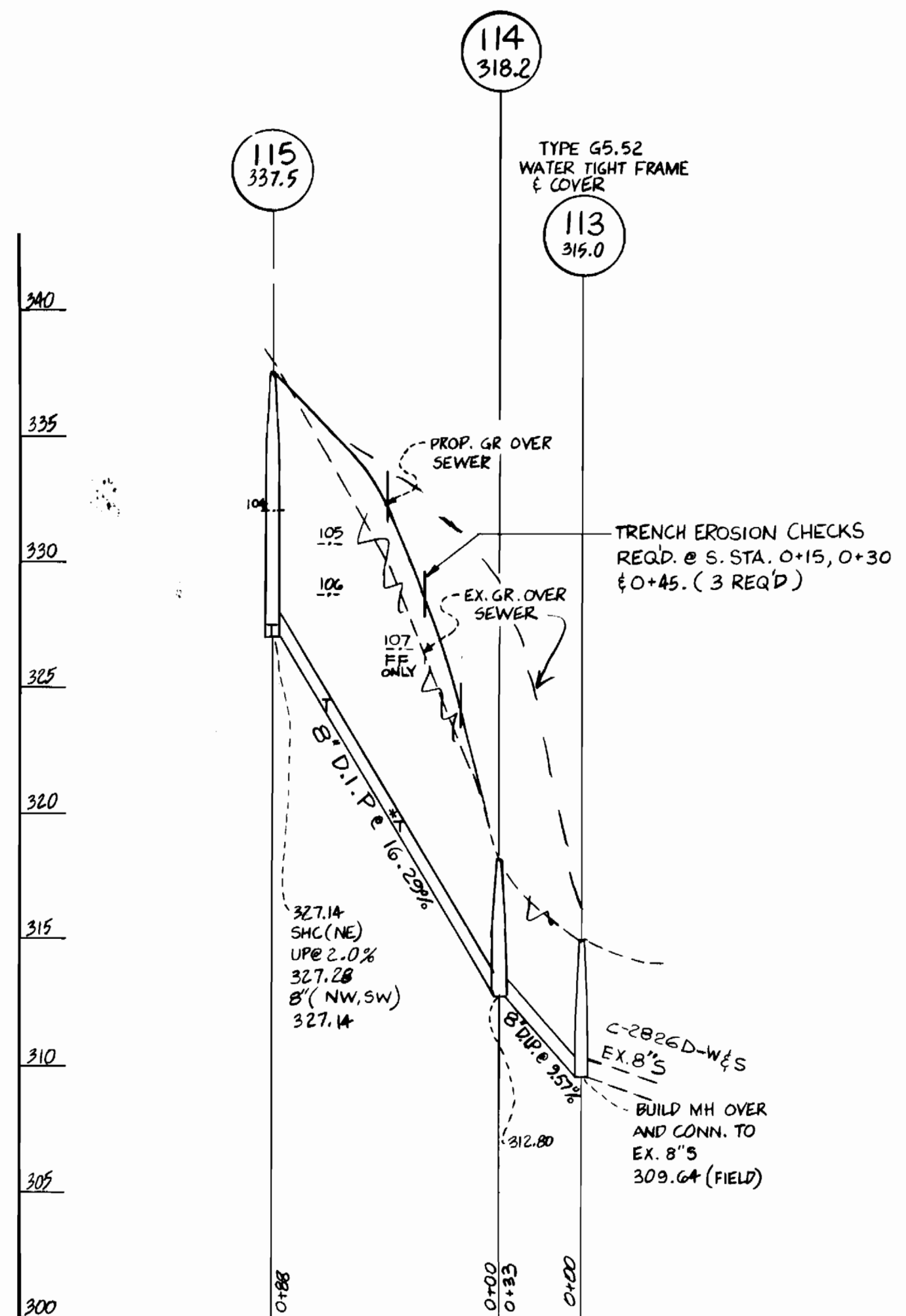
SCALE

SHEET

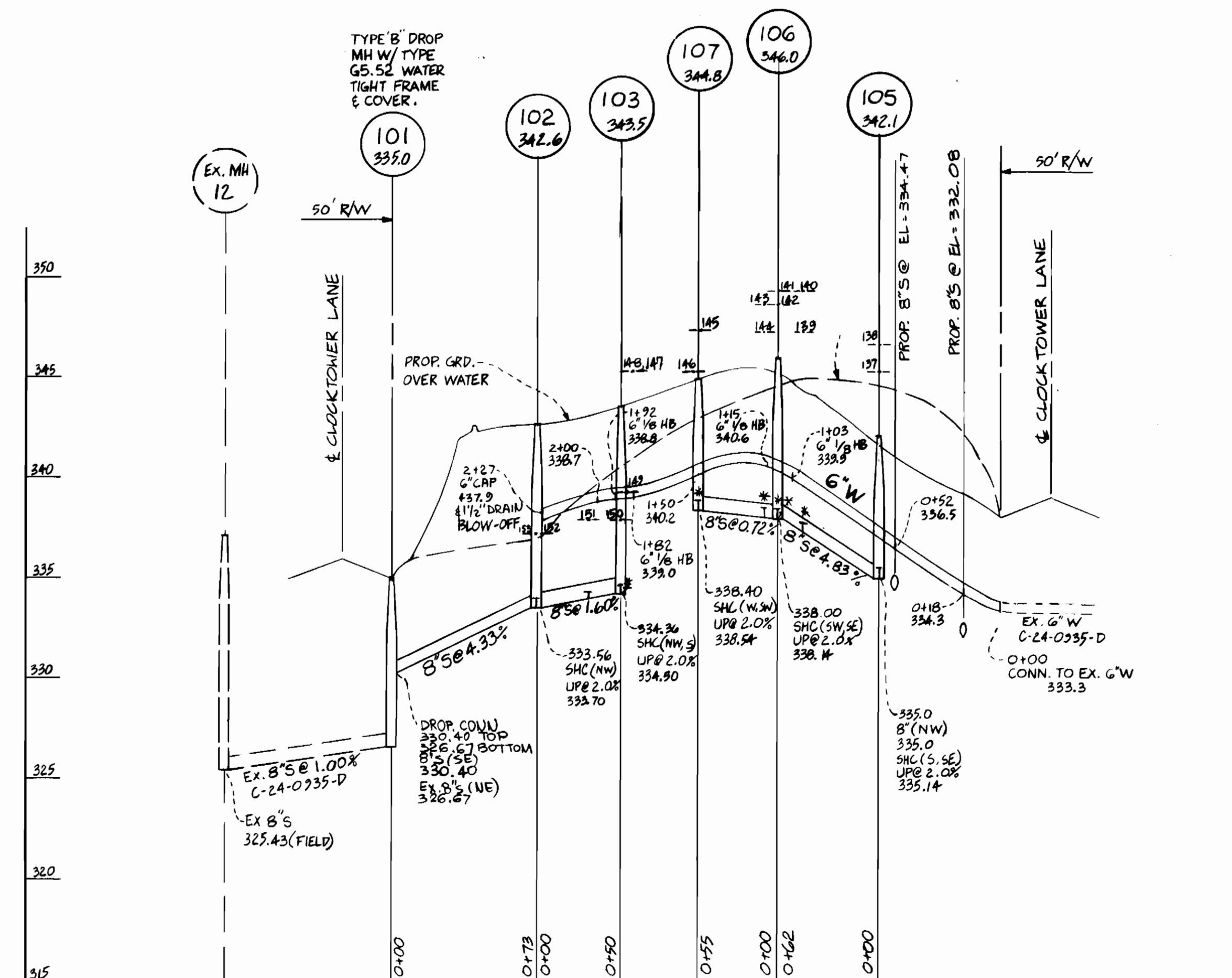
2 OF 4



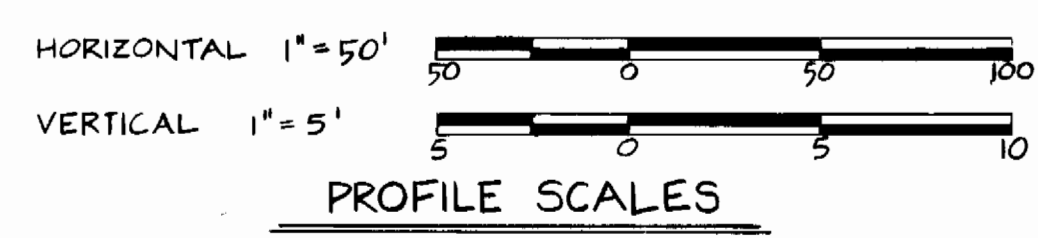
"C" STREET



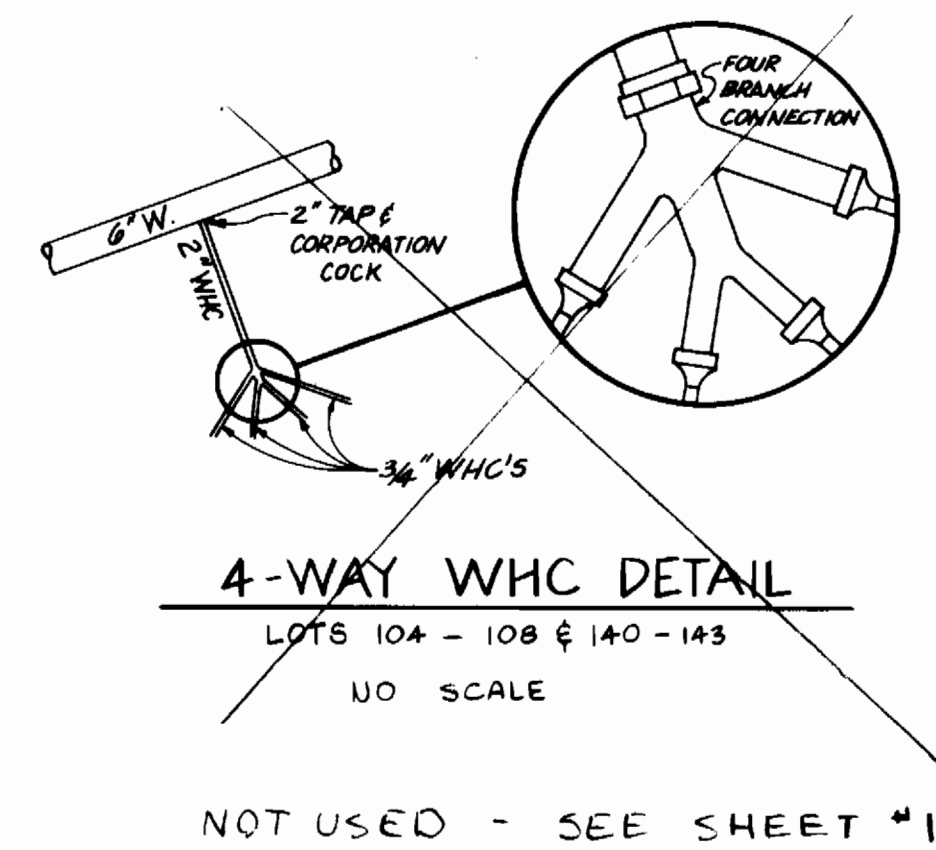
8'S FROM EX. 8'S TO 'C' STREET



'G' STREET

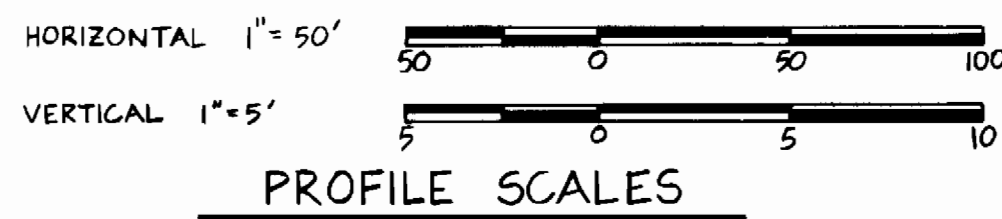
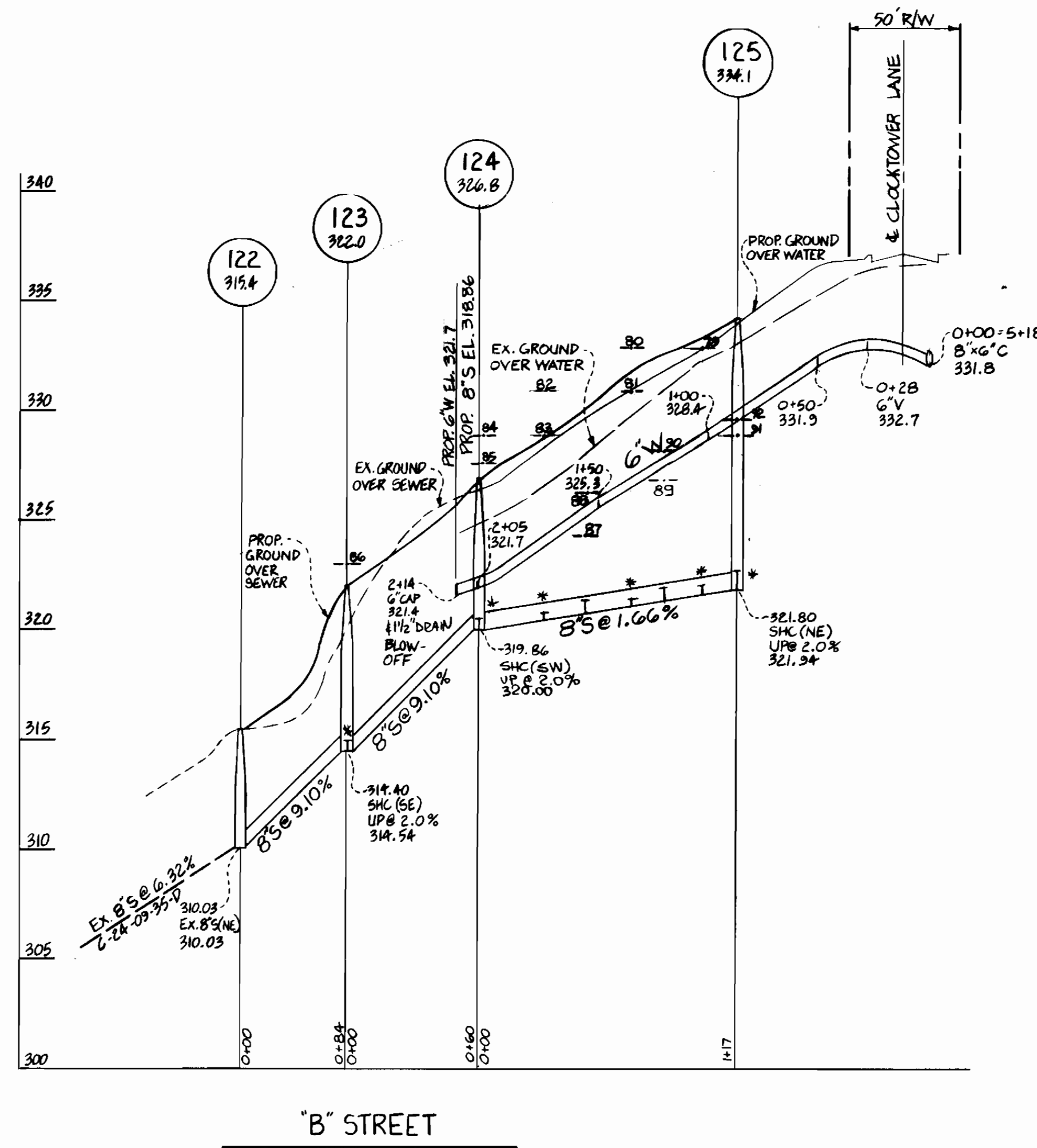
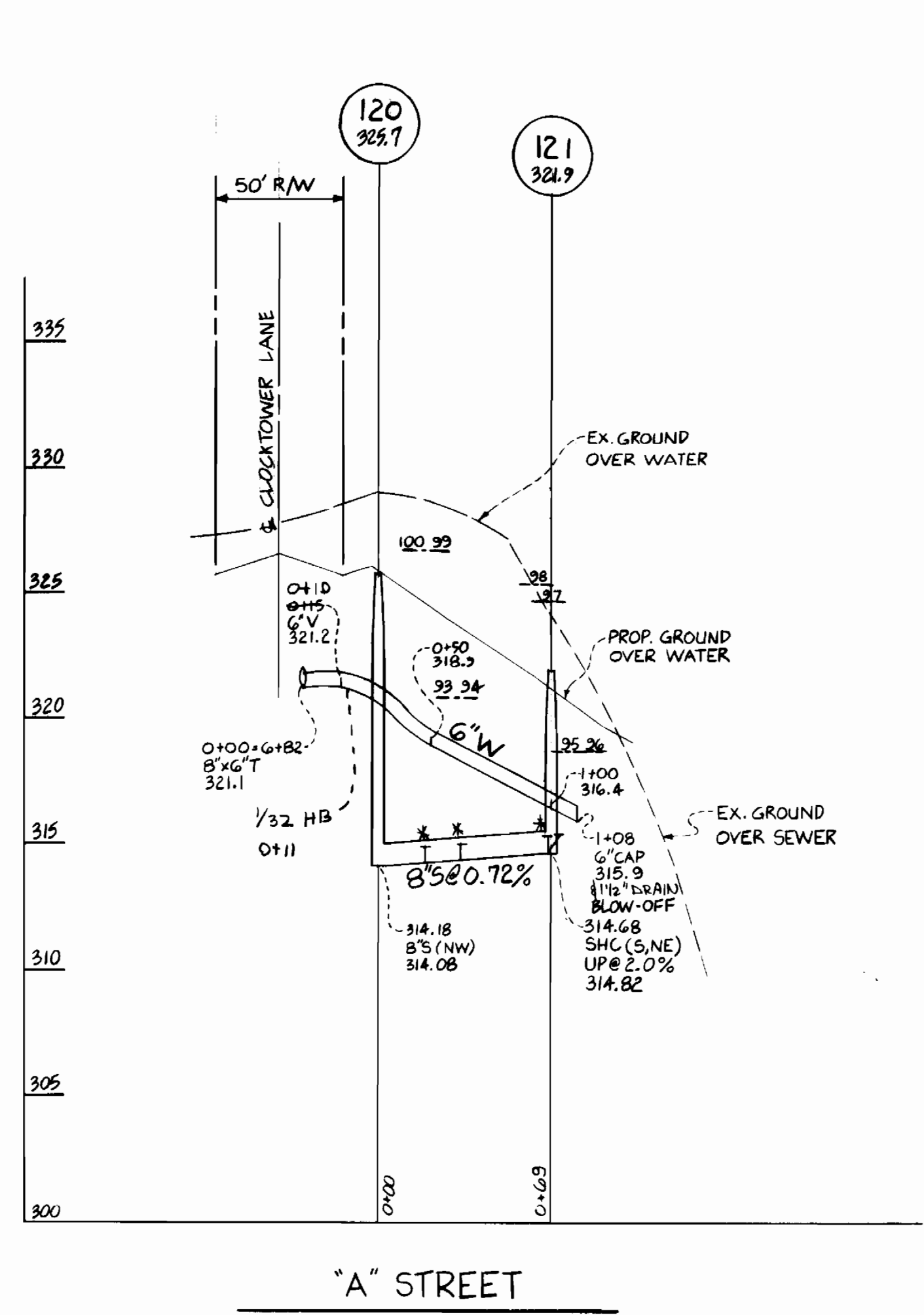


NOTE
 * DEJOTES DHC.



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 10-23-86 Chief, Bureau of Engineering: <i>[Signature]</i> 12-22-86 Chief, Bureau of Utilities: <i>[Signature]</i> 10-21-86 Chief, Land Development Div.: <i>[Signature]</i> 12-21-86		Dewberry & Davis ENGINEERS - ARCHITECTS - PLANNERS - SURVEYORS 804 WEST DIAMOND AVENUE GAITHERSBURG, MARYLAND 20877 (301) 948-8300		DES: M.D. DRN: J.M. CHK: DATE: 4-28-86		PROFILES OF WATER MAINS & SEWER		COLUMBIA VILLAGE OF KINGS CONTRIVANCE SECTION 3, AREA 1, PARCEL 0-7A LOTS 079 - 0187		SCALE
		STATE OF MARYLAND THOMAS L. BERRY REGISTERED PROFESSIONAL ENGINEER NO. 8278		BY NO. REVISION DATE		600' SCALE MAP NO. 42 BLOCK NO.		CONTRACT NO. 24-1474-D		SHEET 3 OF 4

ELEVATIONS		
LOTS	SHC Inv. @ R.	BASEMENT ELEV.
* 79	322.00	332.97
* 80/81	321.40	332.97/330.97
* 82/83	320.80	330.97/328.97
* 84/85	320.40	328.97/327.64
* 86	314.70	323.0
87/88	321.34	324.33/326.33
89/90	322.00	326.98/328.31
* 91/92	322.74	328.96/329.61
* 93/94	314.72	320.66/320.66
* 95/96	315.14	318.66/318.66
* 97/98	315.42	324.64/325.31
* 99/100	314.90	326.64/326.64
101/102	323.70	333.32/332.66
103	327.98	332.0
104	327.30	332.0
105/106	324.15	330.64/328.66
* 107 FF ONLY	320.46	336.81 FF ONLY
108/109	327.40	331.01/331.01
110/111	327.70	331.01/331.01
112/113	327.80	331.01/331.01
* 114/115	321.54	338.26/338.26
* 116/117	331.30	338.32/338.32
* 118/119	331.70	339.98/340.24
* 120/121	322.54	340.90/340.90
122/123	343.32	346.26/346.25
124/125	343.46	346.91/347.57
* 126/127	343.29	347.57/348.16
* 128	342.73	353.24
* 129/130	342.20	353.24/352.68
* 131	341.08	352.58
* 132	340.74	351.64
* 133/134	340.02	351.64/352.30
* 135	338.52	352.30
* 136	334.42	344.64
* 137/138	335.24	345.30/346.64
* 139/140	337.40	347.30/349.30
* 141	338.24	349.30
* 142	338.24	348.64
* 143/144	338.10	348.64/347.51
* 145/146	338.64	347.51/345.31
* 147/148	334.80	345.31/345.31
149/150	335.10	335.33/338.0
151	334.60	338.0
152/153	334.30	337.34/337.34



NOTES

1) * DENOTES DHC ON LOTS 79 TO 86, 93, 94, 97 TO 100, 107, 114 TO 121 & 126 TO 148.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Walter F. Neumaier 10-23-86
DIRECTOR OF PUBLIC WORKS DATE

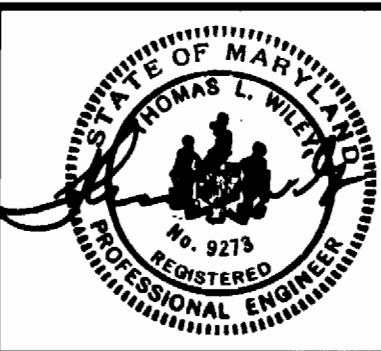
Robert W. Berman 10-21-86
CHIEF, BUREAU OF UTILITIES DATE

Thomas B. Davis 10-22-86
CHIEF, BUREAU OF ENGINEERS DATE

Robert W. Berman 10-22-86
CHIEF, LAND DEVELOPMENT DIV. DATE

Dewberry & Davis
ENGINEERS-ARCHITECTS-PLANNERS-SURVEYORS

804 WEST DIAMOND AVENUE
GAITHERSBURG, MARYLAND 20877
(301) 948-8300



DES: M.D.					
DRN: J.M.					
CHK:					
DATE: 4-28-86	BY:	NO.:	REVISION:	DATE:	

PROFILES OF WATER MAINS & SEWER

600' SCALE MAP NO. 42 BLOCK NO. _____

COLUMBIA
VILLAGE OF KINGS CONTRIVANCE
SECTION 3, AREA 1, PARCEL D-7A
LOTS 070-0187

CONTRACT NO. 24-1474-D

SCALE _____

SHEET 4 OF 4