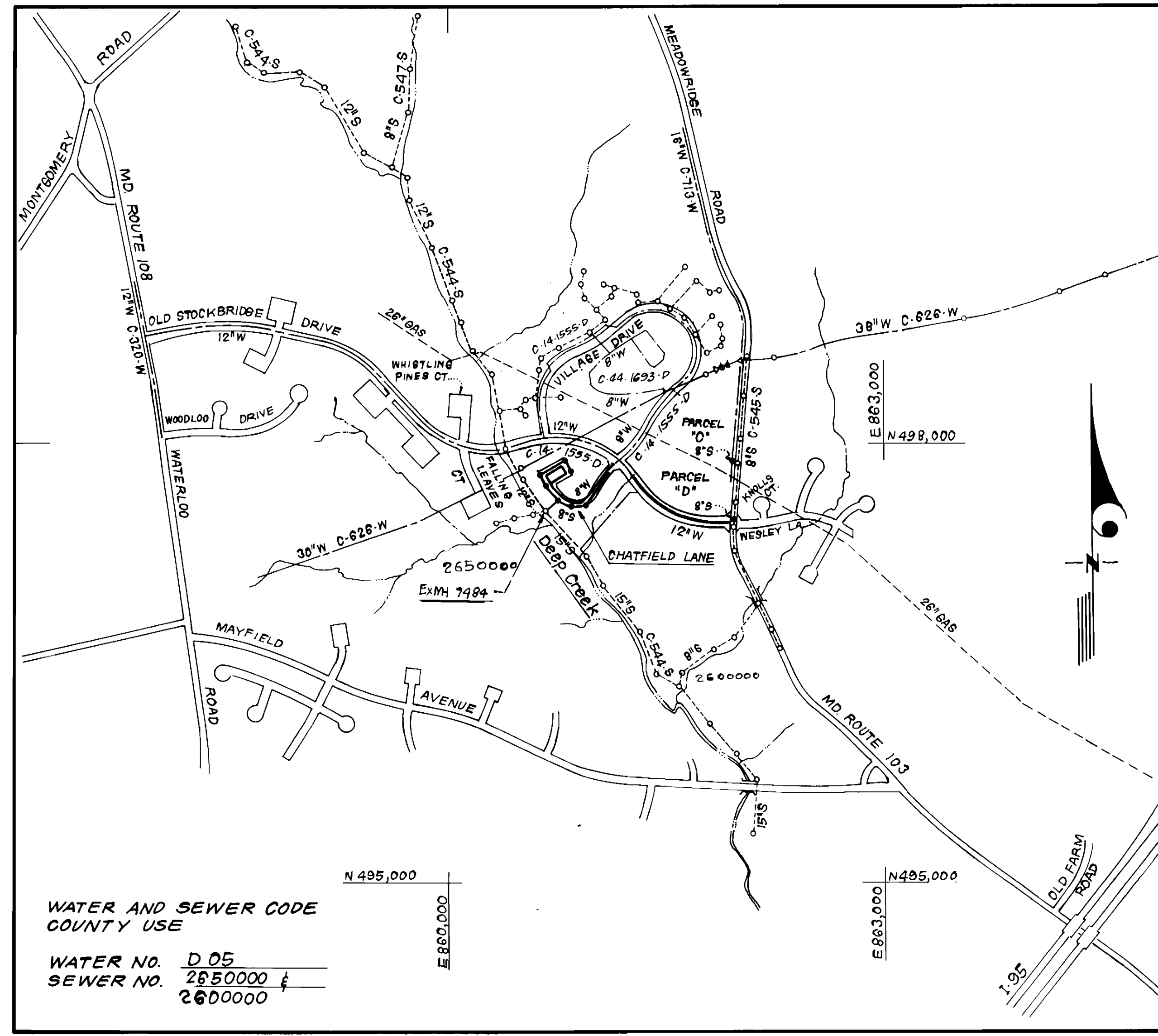


SEWER HOUSE CONNECTION TABLE					
LOTS	Inv. E.	MIN. C.	LOTS	Inv. E.	MIN. C.
139/140	291.0	294.2	173/174	265.9	269.2
141/142	287.5	290.7	175/176	266.2	269.5
143/144	284.4	287.8	177/178	271.1	274.3
145/146	280.0	283.2	179/180	272.4	275.6
147/148	276.9	280.1	181/182	273.6	276.8
149/150	273.7	276.9	183/184	274.9	278.1
151/152	270.5	274.0	185/186	276.3	279.5
153	271.1	274.3	187/188	276.5	279.7
154/155	270.7	273.9	189/190	276.9	280.1
156/157	270.1	273.3	191/192	277.5	280.7
158/159	269.0	272.4	193/194	269.2	272.4
160/161	268.4	271.6	195/196	269.9	272.5
162/163	267.8	271.0	197/198	269.9	273.1
164	267.3	270.5	199/200	283.6	286.8
165/166	267.5	270.7	201/202	286.7	289.8
167/168	267.7	270.9	203/204	289.7	292.9
169/170	268.1	271.3	205/206	291.4	294.8
171/172	269.7	273.0			

TYPE OF BUILDING	Townhouses
NO. OF UNITS	68
NO. OF SHC'S	68
NO. OF WHC'S	68
DRAINAGE AREA	Patapsco W.W.T.P.

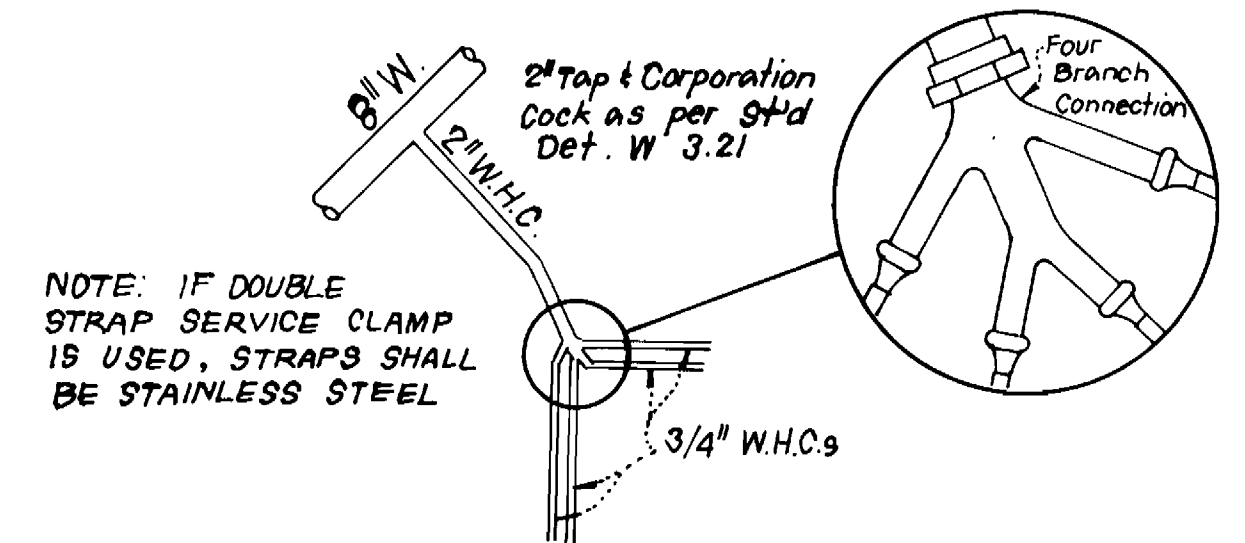


WATER AND SEWER CODE COUNTY USE
 WATER NO. D 05
 SEWER NO. 2650000 & 2600000

VICINITY MAP
 SCALE 1" = 600'

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 Inspector, 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" 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.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications & Ho Co. Design Manual, Volume II. The contractor shall have Volume II on the job.
- 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 (5) working days before starting work shown on these plans.
 State Highway Administration - 531-5533
 Baltimore Gas & Electric Company - Contractor Services - 850-4620
 Baltimore Gas & Electric Company - Underground Damage Control - 859-9004
 Baltimore Gas & Electric Company - Trouble Shooting - 298-9001
 "Miss Utility" - 1-559-0100
 Chesapeake & Potomac (C & P) Telephone Company - 1-800-257-7777
 Colonial Pipeline Company - 795-1390
 Bureau of Utilities Howard County - 992-2366
- 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.
- 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.
- 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.
- All water mains to be C.I.P. CLASS 52 unless otherwise noted.
- Top 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.
- Block all fittings with concrete.
- 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 1000 & 1005 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- All sewer mains shall be C.S.P.X., V.C.P.X., 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.
- Water main and water house connection lines must have a minimum 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 horizontal separation of 10'.
- 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.



4-WAY WHC DETAIL
 LOTS 154 THRU 157 & 174 THRU 177
 NO SCALE

CONTRACT NO. 14-1798-D
 WOODLAND VILLAGE
 SECTION 2, AREA 1, LOTS 139-209 & PARCELS "C" & "D"
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS

QUANTITIES			
ITEM	EST'D	AS-BUILT	MATERIAL / SUPPLIER
12" W	826 LF	520 LF	Quillen Pipe
8" W	665 LF	520 LF	"
6" W	486 LF	420 LF	"
8" S	1,245 LF	1190 LF	3 in. non-reinforced
6" SHC	1,180 LF	1120 LF	"
2" WHC	125 LF	120 LF	Howell Mfg Co.
1" WHC	730 LF	630 LF	"
3/4" WHC	1,110 LF	1100 LF	"
F.H.	5 EA	5 EA	Muehle Company
4'-0" DIA MH	9 EA	10 EA	MUEHLE CONCRETE PIPES
12" V.	2 EA	2 EA	Muehle Co.
8" V.	3 EA	3 EA	"
6" V. (exc) PH	1 EA	1 EA	"
16" x 12" TS & V	1 EA	1 EA	"
8" DUCTYPE "A"	1 EA	1 EA	ATLANTIC STATES PIPE CO.

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F-88-180; Drawing Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.
 SIGNATURE: [Signature] DATE: 6/11/88
 U.S. SOIL CONSERVATION SERVICE
 This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: [Signature] DATE: 6/17/88
 HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 [Signatures and Dates]
 DIRECTOR OF PUBLIC WORKS DATE: 6/16/88
 CHIEF, BUREAU OF ENGINEERING DATE: 6/17/88
 CHIEF, BUREAU OF UTILITIES DATE: 6-16-88
 CHIEF, LAND DEVELOPMENT DIV. DATE: 6/17/88

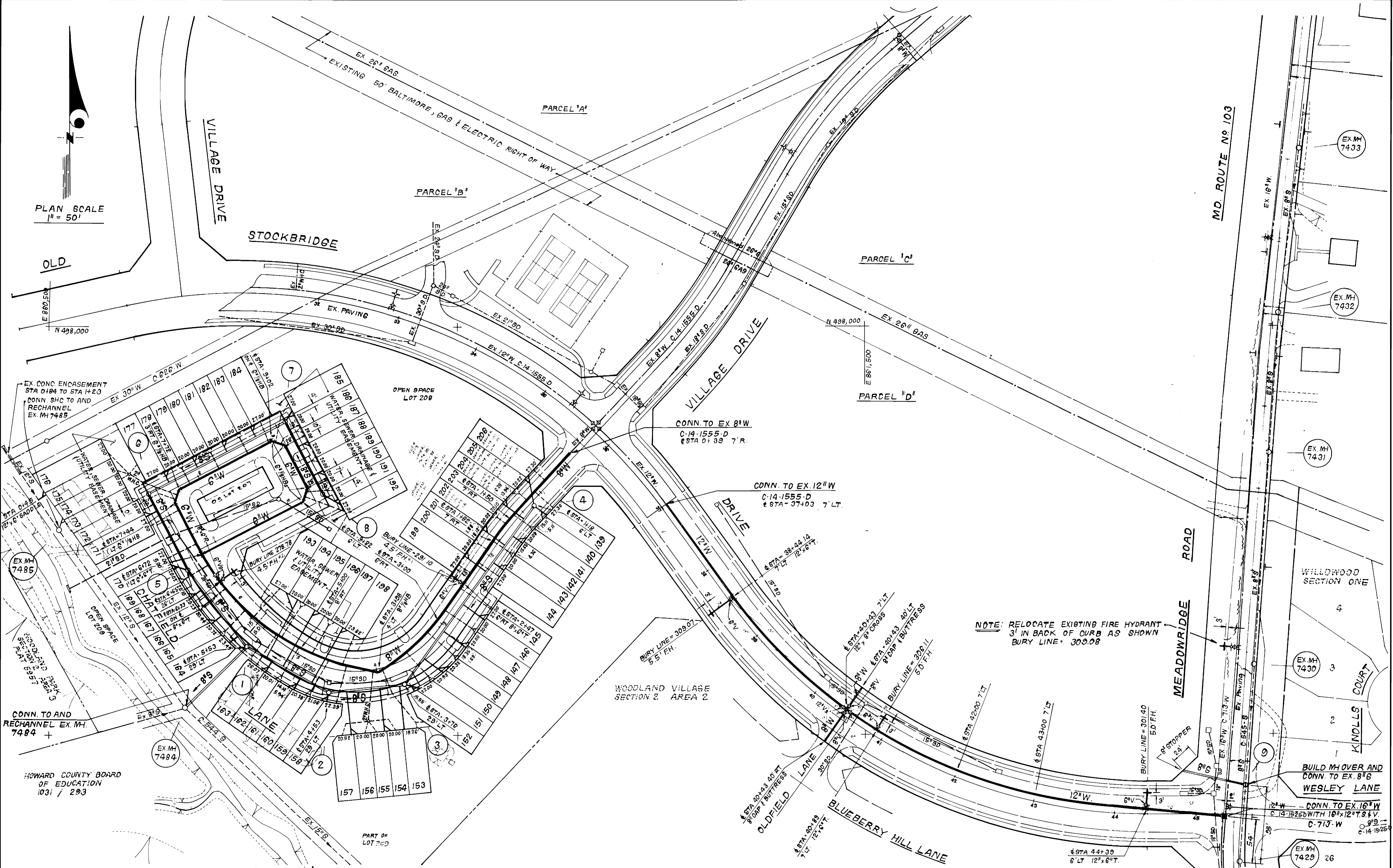
CLARK, FINEFROCK & SACKETT
 ENGINEERS - PLANNERS - SURVEYORS
 7135 MINSTREL WAY COLUMBIA, MD. 21045
 Phone: Balt. (301) 381-7500
 Wash. (301) 621-8100



DES: JTR			
DRN: JTR			
CHK: CDM	JTR 3 Deleted 8" & 12" ID from Ex. MH 7931 to MH 10	1-24-82	
	GES 2 Rev. invert @ R and min. C for Lots 193 & 194	7-29-89	
	JTR 1 Added 8" DC @ Ex. MH 7931 & 8" Ductile Iron Pipe	3-12-89	
DATE: 2-22-88	BY NO.	REVISION	DATE

TITLE SHEET
 600' SCALE MAP NO. 37 BLOCK NO.

WOODLAND VILLAGE
 SECTION 2, AREA 1, LOTS 139-209 & PARCEL "D"
 1ST ELECTION DISTRICT
 CONTRACT NO. 14-1798-D
 SHEET 1 OF 34



PLAN SCALE
1" = 50'

NOTE: RELOCATE EXISTING FIRE HYDRANT
3' IN BACK OF CURB AS SHOWN
BURY LINE = 309.08

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 6/1/88
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 6/7/88
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 6/6/88
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 6/7/88
CHIEF, LAND DEVELOPMENT DIV. DATE

CFE CLARK · FINEPROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(301) 381-7500 BALTO. (301) 621-8100 WASH.



DES: JTR			
DRN: JTR			
CHK: CCM			
DATE: 2-22-88			
BY NO.	REVISION	DATE	
JTR 3	Deleted 8" S & MH 10 from EX MH 7431 to MH 10	1-24-82	
JTR 65 2	Rev. loc of W & SHC to lots 180 & 184	7-21-81	
JTR 88 1	Added 8" D.C. & Ex. MH 7431 # 8" Ductile Iron Pipe	3-13-81	

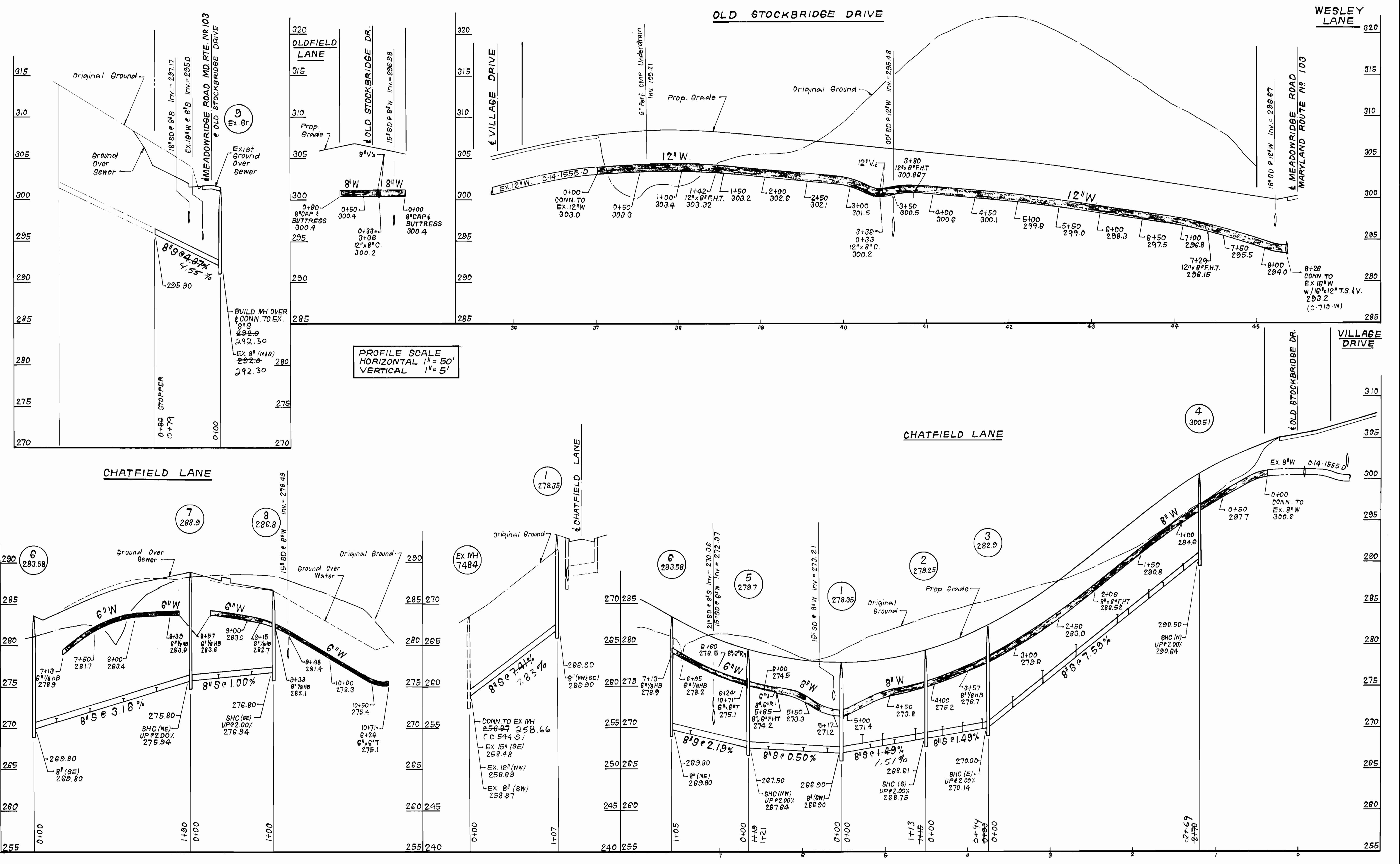
PLAN & PROFILE OF
WATER & SEWER MAINS

600' SCALE MAP NO. 37 BLOCK NO.

WOODLAND VILLAGE
SECTION 2, AREA 1, LOTS 139-209 & PARCEL "D"
1ST ELECTION DISTRICT
CONTRACT NO. 14-1798-D

SCALE AS SHOWN

SHEET 2 OF 3A



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James H. ... 6/1/88
 DIRECTOR OF PUBLIC WORKS DATE

William B. ... 6/1/88
 CHIEF, BUREAU OF ENGINEERING DATE

John ... 6/1/88
 CHIEF, BUREAU OF UTILITIES DATE

... 6/1/88
 CHIEF, LAND DEVELOPMENT DIV. DATE

CFS CLARK · FINEPROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045
 (301) 381-7500 BALTO. (301) 621-8100 WASH.



DES: JTR			
DRN: JTR			
CHK: COM			
DATE: 2-22-88	BY: NO.	REVISION	DATE
		Rev. 8" W / 5D Xing @ W Sta. 5+17	7-28-89

PROFILES OF WATER & SEWER MAINS

600' SCALE MAP NO. 37 BLOCK NO. _____

WOODLAND VILLAGE
 SECTION 2, AREA 1, LOTS 139-209 & PARCEL "D"
 1ST ELECTION DISTRICT
 CONTRACT NO. 14-1798-D

SCALE AS SHOWN

SHEET 3 OF 34

SEWER AS-BUILT

WATER AS-BUILT

Lot #	LOCATION	DISTANCE	Lot #	LOCATION	DISTANCE	Lot #	LOCATION	DISTANCE	Lot #	LOCATION	DISTANCE
lot #139	Manhole #3	223'	lot #169	Manhole #6	99'	lot #139	Manhole #4	20'	lot #169	Manhole #1	142'
"	Manhole #4	20'	"	Manhole #5	23'	"	FH #1 STA: 3100	140'	"	Manhole #5	25'
lot #140	"	22'	lot #170	"	23'	lot #140	"	110'	lot #170	"	25'
"	Manhole #3	267'	"	Manhole #6	44'	"	Manhole #4	24'	"	Manhole #1	142'
lot #141	"	231'	lot #171	"	28'	lot #141	FH #1 STA: 3100	115'	lot #171	Manhole #6	55'
"	Manhole #4	95'	"	Manhole #5	82'	"	Manhole #4	28'	lot #172	"	15'
lot #142	"	50'	lot #172	"	88'	lot #142	"	60'	lot #173	"	14'
"	Manhole #3	225'	"	Manhole #6	29'	"	FH #1 STA: 3100	75'	lot #174	"	34'
lot #143	"	190'	lot #173	N/A	"	lot #143	"	70'	lot #175	"	45'
"	Manhole #4	82'	lot #174	N/A	"	"	Manhole #4	65'	lot #176	"	68'
lot #144	"	88'	lot #175	N/A	"	lot #144	"	95'	lot #177	"	35'
"	Manhole #3	185'	lot #176	N/A	"	"	FH #1 STA: 3100	75'	lot #178	"	55'
lot #145	"	131'	lot #177	Manhole #6	33'	lot #145	"	50'	lot #178	Manhole #7	142'
"	Manhole #4	149'	"	Manhole #7	163'	"	Manhole #3	137'	lot #179	"	132'
lot #146	"	154'	lot #178	"	158'	lot #146	"	110'	"	Manhole #6	64'
"	Manhole #3	125'	"	Manhole #6	38'	"	FH #1 STA: 3100	60'	lot #180	"	80'
lot #147	"	93'	lot #179	"	20'	lot #147	"	65'	"	Manhole #7	102'
"	Manhole #4	187'	"	Manhole #7	123'	"	Manhole #3	105'	lot #181	"	95'
lot #148	"	193'	lot #180	"	118'	lot #148	"	74'	"	Manhole #6	98'
"	Manhole #3	87'	"	Manhole #6	76'	"	FH #1 STA: 3100	87'	lot #182	"	132'
lot #149	"	50'	lot #181	"	109'	lot #149	"	92'	"	Manhole #7	65'
"	Manhole #4	228'	"	Manhole #7	83'	"	Manhole #3	68'	lot #183	"	57'
lot #150	"	233'	lot #182	"	77'	lot #150	"	35'	"	Manhole #6	158'
"	Manhole #3	47'	"	Manhole #6	115'	"	FH #1 STA: 3100	120'	lot #184	"	100'
lot #151	"	20'	lot #183	"	130'	lot #151	"	125'	"	Manhole #7	32'
"	Manhole #4	266'	"	Manhole #7	45'	"	Manhole #3	30'	lot #185	"	23'
lot #152	"	222'	lot #184	"	40'	lot #152	"	58'	"	Manhole #8	115'
"	Manhole #3	16'	"	Manhole #6	155'	"	Manhole #2	118'	lot #186	"	88'
lot #153	"	56'	lot #185	Manhole #7	17'	lot #153	"	115'	"	Manhole #7	18'
"	Manhole #2	103'	"	Manhole #8	118'	"	Manhole #3	53'	lot #187	"	23'
lot #154	"	88'	lot #186	"	112'	lot #154	"	58'	"	Manhole #8	80'
"	Manhole #3	60'	"	Manhole #7	15'	"	Manhole #2	96'	lot #188	"	50'
lot #155	"	62'	lot #187	"	37'	lot #155	"	74'	lot #189	Manhole #7	58'
"	Manhole #2	82'	"	Manhole #8	62'	lot #155	Manhole #3	67'	"	"	61'
lot #156	"	61'	lot #188	"	42'	lot #156	"	74'	"	Manhole #8	41'
"	Manhole #3	93'	"	Manhole #7	43'	"	Manhole #2	65'	lot #190	"	18'
lot #157	"	97'	lot #189	"	75'	lot #157	"	50'	"	Manhole #7	90'
"	Manhole #2	57'	"	Manhole #8	31'	"	Manhole #3	98'	lot #191	"	100'
lot #158	"	12'	lot #190	"	26'	lot #158	"	82'	"	Manhole #8	14'
"	Manhole #3	92'	"	Manhole #7	81'	"	Manhole #2	12'	lot #192	"	31'
lot #159	"	103'	lot #191	"	115'	lot #159	"	20'	"	Manhole #7	125'
"	Manhole #2	14'	"	Manhole #8	21'	"	Manhole #1	76'	lot #193	Manhole #2	138'
lot #160	"	43'	lot #192	"	27'	lot #160	"	93'	"	Manhole #1	76'
"	Manhole #1	80'	"	Manhole #7	120'	"	Manhole #2	25'	lot #194	"	83'
lot #161	"	74'	lot #193	Manhole #1	85'	lot #161	"	58'	"	Manhole #2	115'
"	Manhole #2	79'	"	Manhole #2	132'	"	Manhole #1	56'	lot #195	"	110'
lot #162	"	84'	lot #194	"	127'	lot #162	"	50'	"	Manhole #1	86'
"	Manhole #1	40'	"	Manhole #1	85'	"	Manhole #2	63'	lot #196	"	103'
lot #163	"	36'	lot #195	"	95'	lot #163	"	93'	"	Manhole #2	82'
"	Manhole #2	84'	"	Manhole #2	101'	"	Manhole #1	22'	lot #197	"	83'
lot #164	Manhole #1	34'	lot #196	"	98'	lot #164	"	28'	"	Manhole #1	110'
"	Manhole #5	101'	"	Manhole #1	100'	"	FH #2 STA: 6133'	78'	lot #198	"	130'
lot #165	"	73'	lot #197	"	120'	lot #165	"	73'	lot #198	Manhole #2	75'
"	Manhole #1	51'	"	Manhole #2	84'	"	Manhole #1	55'	lot #199	Manhole #9	110'
lot #166	"	57'	lot #198	"	81'	lot #166	"	70'	"	FH #1 STA: 3100	18'
"	Manhole #5	67'	"	Manhole #1	126'	"	Manhole #5	54'	lot #200	"	53'
lot #167	"	35'	lot #199	Manhole #3	165'	lot #167	"	48'	"	Manhole #4	87'
"	Manhole #1	93'	"	Manhole #4	108'	"	Manhole #1	75'	lot #201	"	80'
lot #168	"	98'	lot #200	Manhole #3	170'	lot #168	"	108'	"	FH #1 STA: 3100	58'
lot #168	Manhole #5	31'	"	Manhole #4	103'	"	Manhole #5	19'	lot #202	"	85'

SEE SHEET 2 of 3 for lot 201 thru 206 (SEWER)

SEE SHEET 2 of 3 for lot 203 thru 206 (WATER)

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		DES: _____ DRN: _____ CHK: _____ DATE: _____		SEWER AND WATER AS-BUILTS KATHY WILSON 10-20-89		WOODLAND VILLAGE CONTRACT NO. 14-1798-D		SCALE AS SHOWN
DIRECTOR OF PUBLIC WORKS _____ DATE _____	CHIEF, BUREAU OF ENGINEERING _____ DATE _____	BY _____ NO. _____	REVISION _____	DATE _____	600' SCALE MAP NO. _____	BLOCK NO. _____	SHEET 39 OF 39	