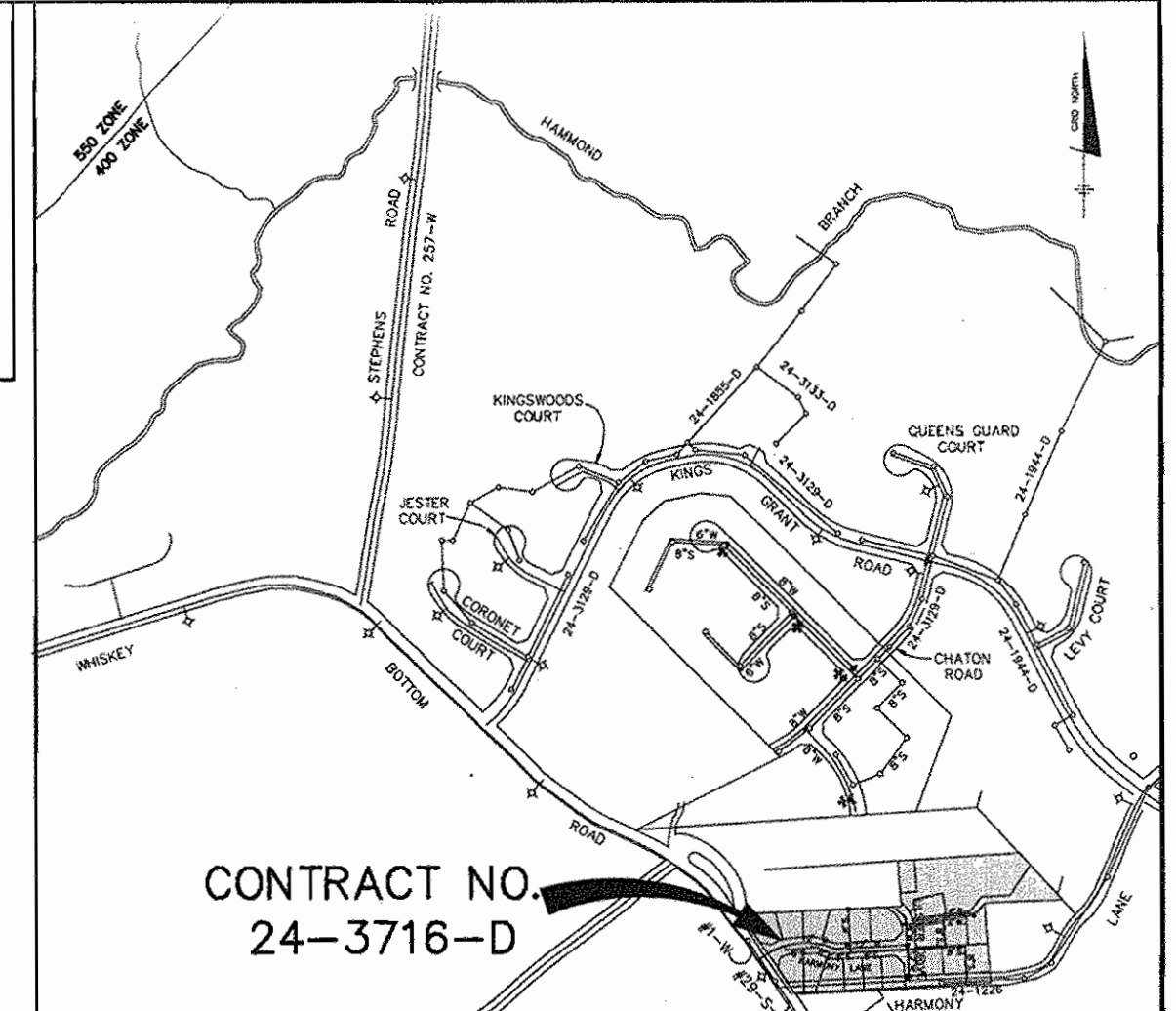


BENCH MARKS--(NAD'83)			
HO. CO. #508A	EL. N/A	STANDARD DISC ON CONC. MONUMENT	
N 527561.6702'	E 1359772.5936'		
HO. CO. #5085	EL. 178.242'	STANDARD DISC ON CONC. MONUMENT	
N 524999.3640'	E 1357925.6751'		



CONTRACT NO. 24-3716-D	
WATER AND SEWER COUNTY CODE	TYPE OF BUILDINGS - SINGLE FAMILY DETACHED
WATER CODE 003	NUMBER OF BUILDABLE LOTS.....21
SEWER CODE 7270000	NUMBER OF NON-BUILDABLE LOTS.....1
TEST GRADIENT .550	NUMBER OF WHC'S.....20
	NUMBER OF SHC'S.....20
	DRAINAGE AREA.....LITTLE PATUXENT TREATMENT PLANT

VICINITY MAP
SCALE: 1"=600'

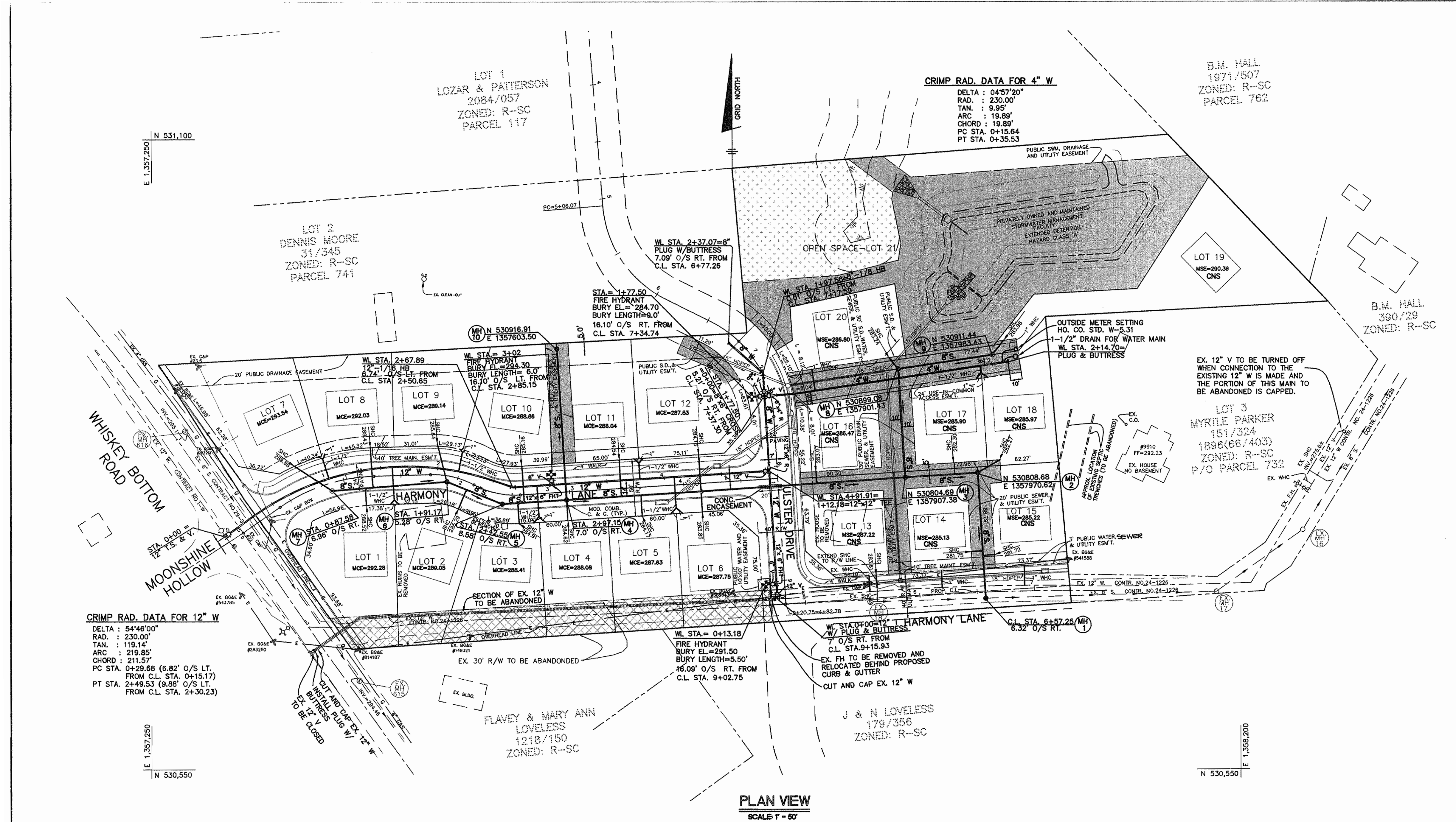
GENERAL NOTES

- PART 1 - GENERAL**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED WHICH SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES (NAD'83).
 - ALL VERTICAL CONTROLS ARE BASED ON HOWARD COUNTY 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. 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 THE 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.
 - 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. 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 Φ 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.....410-531-5533
 - BALTIMORE GAS & ELECTRIC CO.410-850-4620
 - CONTRACTOR SERVICES.....410-850-4620
 - BALTIMORE GAS & ELECTRIC CO.410-797-9668
 - UNDERGROUND DAMAGE CONTROL.....410-800-267-7777
 - MISS UTILITY.....410-800-267-7777
 - COLONIAL PIPELINE CO.....410-795-1390
 - BUREAU OF UTILITIES, HOWARD CO. DEPT. OF PUBLIC WORKS.....410-313-4900
 - 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.
 - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
 - ALL WATER MAINS TO BE O.I.P. UNLESS OTHERWISE NOTED.
 - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2459 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 DPM REQUIREMENTS PER SECTION 18.114 (a) OF THE HOWARD COUNTY CODE.

- PART 2 - WATER**
- ALL WATER MAINS TO BE O.I.P. CLASS 80 UNLESS OTHERWISE NOTED.
 - TIPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 18.000 AND 18.005 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 SETTINGS UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE DIP, AND P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED M.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 05.52, WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE (S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

DEVELOPER/CONTRACT PURHASER:
SDC GROUP, INC.
P.O. BOX 417
ELICOTT CITY, MARYLAND 21041
(410) 442-2101



NOTE: SOME VALVES SHOWN WILL REQUIRE THE INSTALLATION OF A WATER MAIN VALVE KEY EXTENSION. SEE HOWARD COUNTY STANDARD DETAIL #W-3.65.

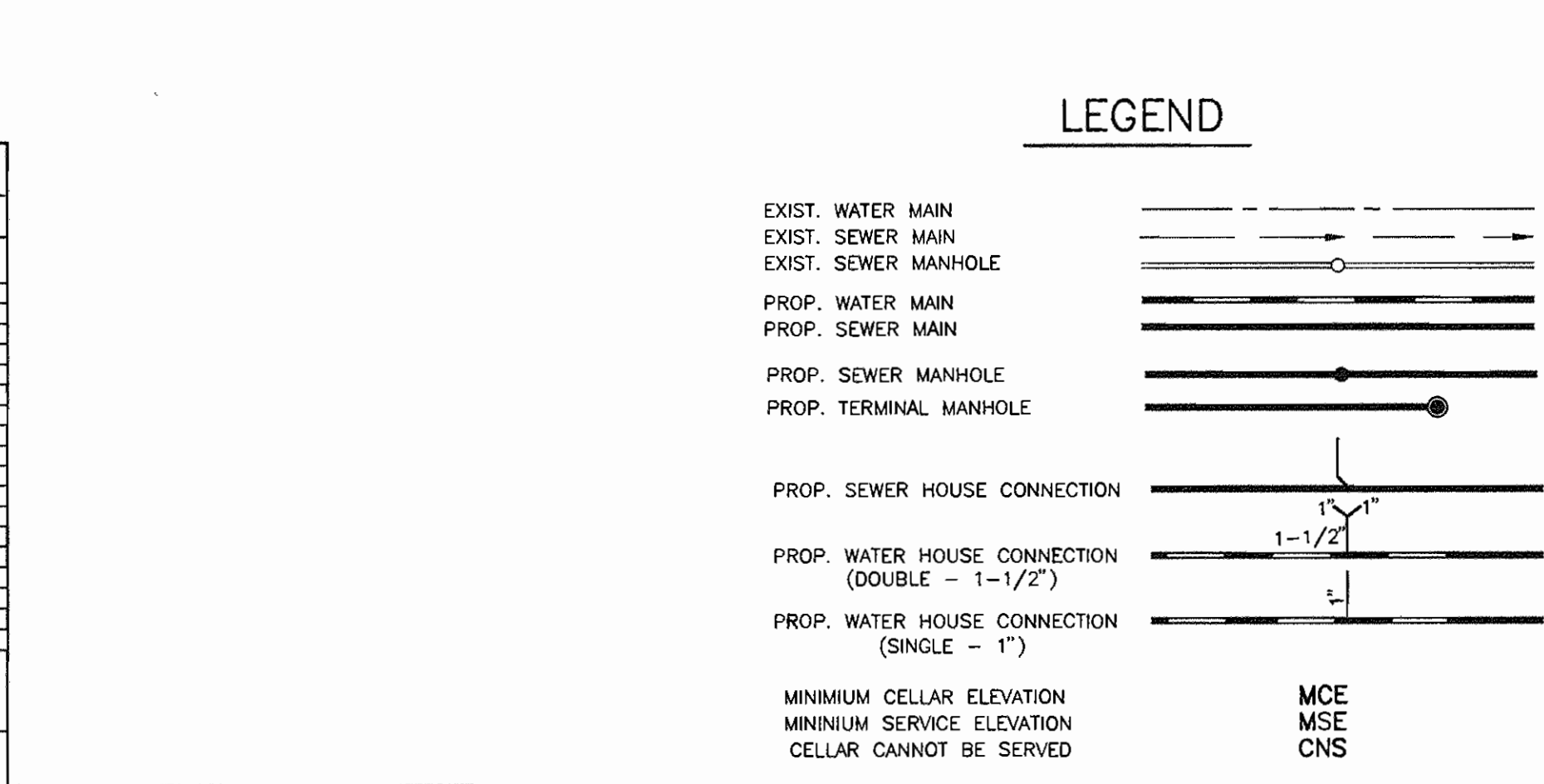
QUANTITIES				
ITEM	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" WATER	504 L.F.			
8" WATER	125 L.F.			
4" WATER	215 L.F.			
12" TIE TEE	2 EA.			
8" x 8" CROSS	1 EA.			
12" VALVES	2 EA.			
8" VALVES	4 EA.			
6" x 4" REDUCER	1 EA.			
12" x 8" REDUCER	1 EA.			
12" x 6" FHT	2 EA.			
FIRE HYDRANTS	3 EA.			
12" T.S. & V.	1 EA.			
4" MHP	121 L.F.			
1-1/2" MHC	131 L.F.			
8" SEWER (PVC)	982 L.F.			
MANHOLES	9 EA.			
4" SHC	409 L.F.			

NAME OF UTILITY CONTRACTOR:
SURVEY AND DRAFTING AS-BUILT DATE:

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

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND PER F-99-56



NOTES:

- EXISTING UTILITIES SHOWN ARE TAKEN FROM RECORD INFORMATION AND FIELD LOCATIONS.
- CONTRACTOR SHALL VERIFY ALL UTILITIES LOCATIONS PRIOR TO ANY CONSTRUCTION.
- TEST PITS MUST BE PERFORMED WHERE WATER MAIN AND/OR SEWER MAIN ARE TO BE CONNECTED TO THE EXISTING WATER MAIN AND/OR SEWER MAIN.
- IF THE EXISTING INVERT ELEVATION OF THE EXISTING SEWER MAIN IS GREATER THAN THE ELEVATION SHOWN ON THE PLAN, CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER BEFORE ANY FURTHER CONSTRUCTION AND/OR FIELD ADJUSTMENT. ANY FIELD ADJUSTMENTS MUST BE APPROVED BY THE DESIGN ENGINEER AND/OR HOWARD CO. DPW.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Robert Beatty 2-12-99
CHIEF, BUREAU OF UTILITIES

Howe... 2/22/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION

BENCHMARK ENGINEERING, INC.

4840 BALTIMORE NATIONAL PIKE - SUITE 418 - ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-5844

DES: YSL
DRN: YSL
CHK: DAM
DATE: 10/98

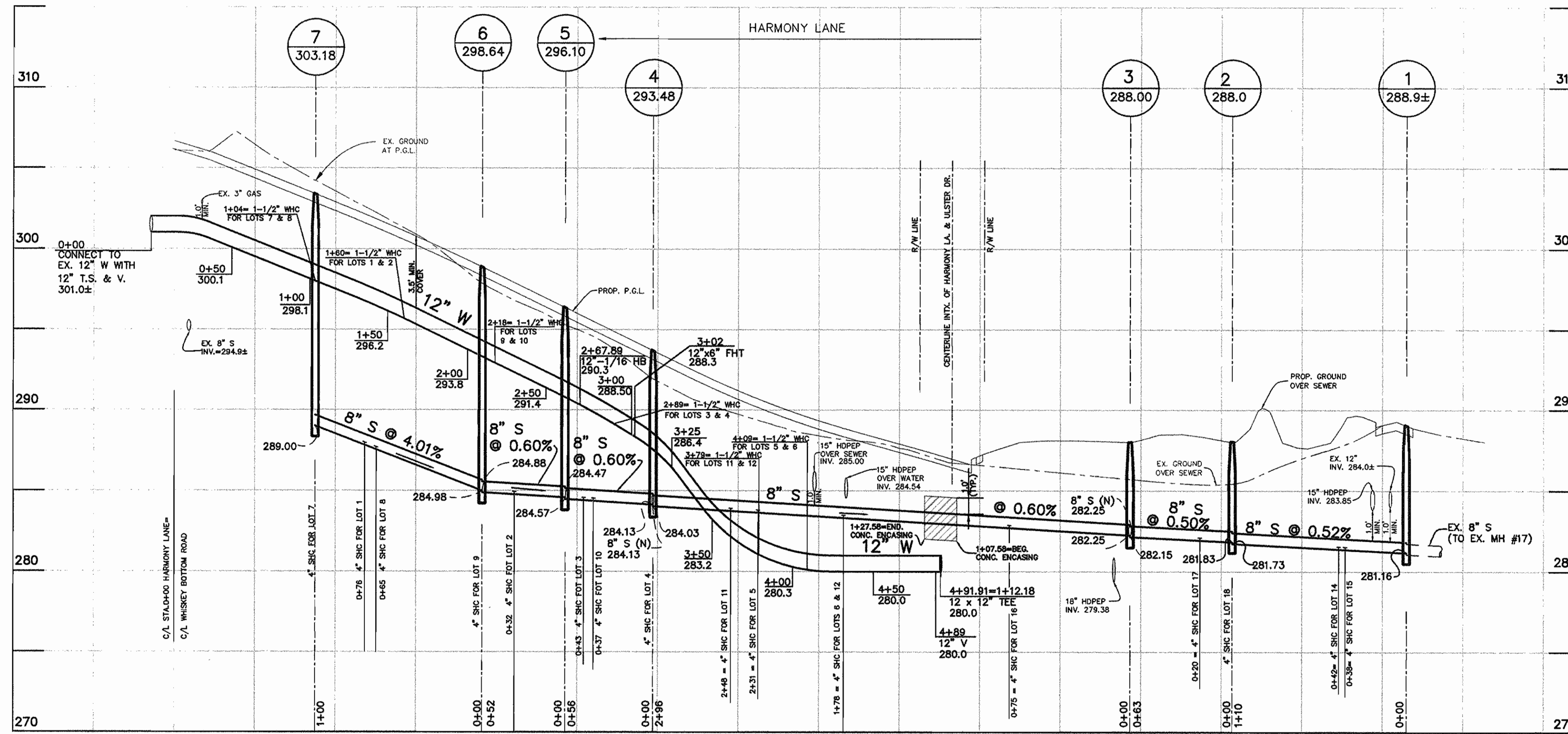
BY	NO.	REVISIONS	DATE

KINGS ARMS
LOTS 1 THRU 21
HOWARD COUNTY ELECTION DISTRICT NO. 6

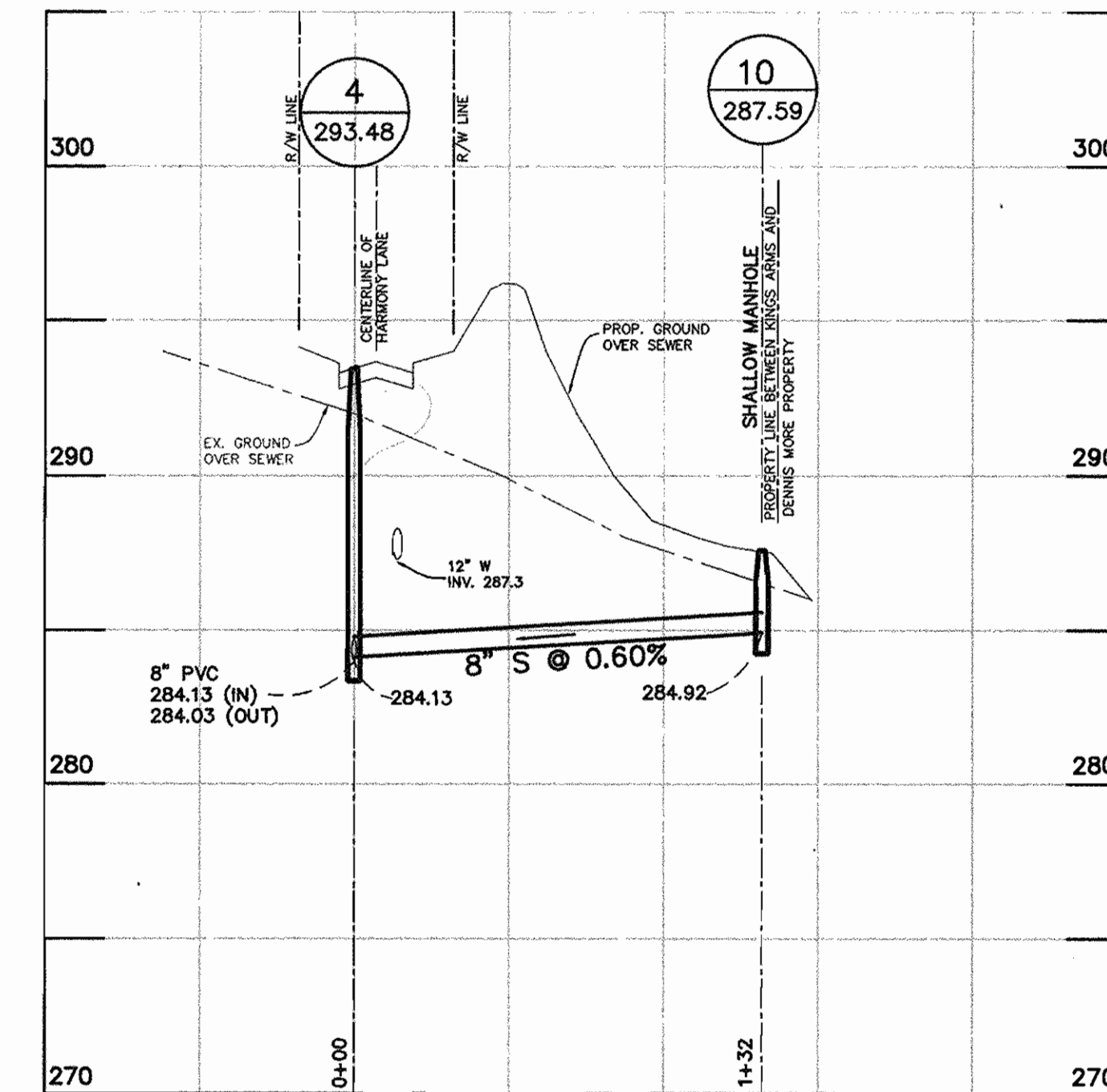
WATER & SEWER EXTENSION AND SEWER RELOCATION

CONTRACT NO. 24-3716-D

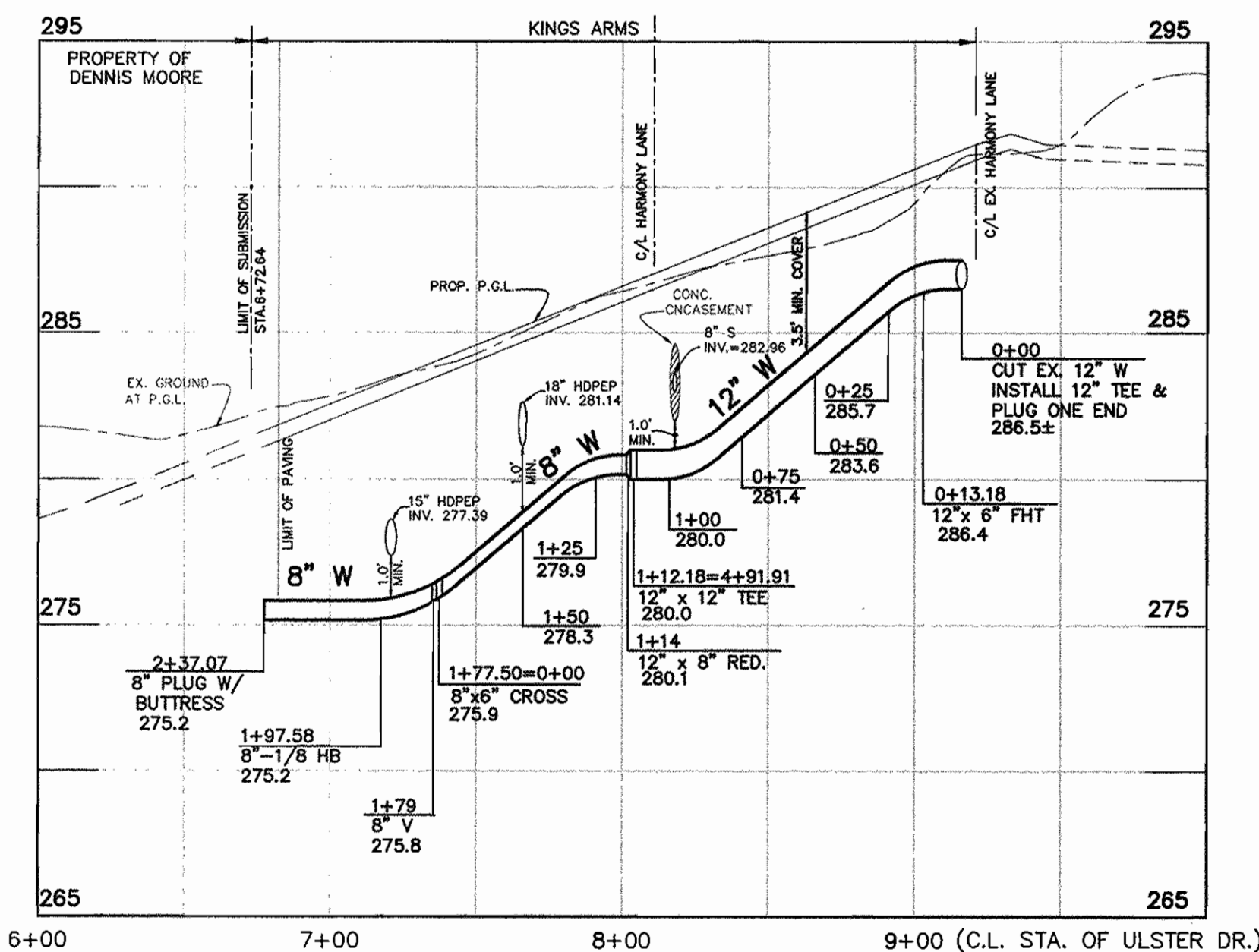
SCALE AS SHOWN
SHEET 1 OF 2



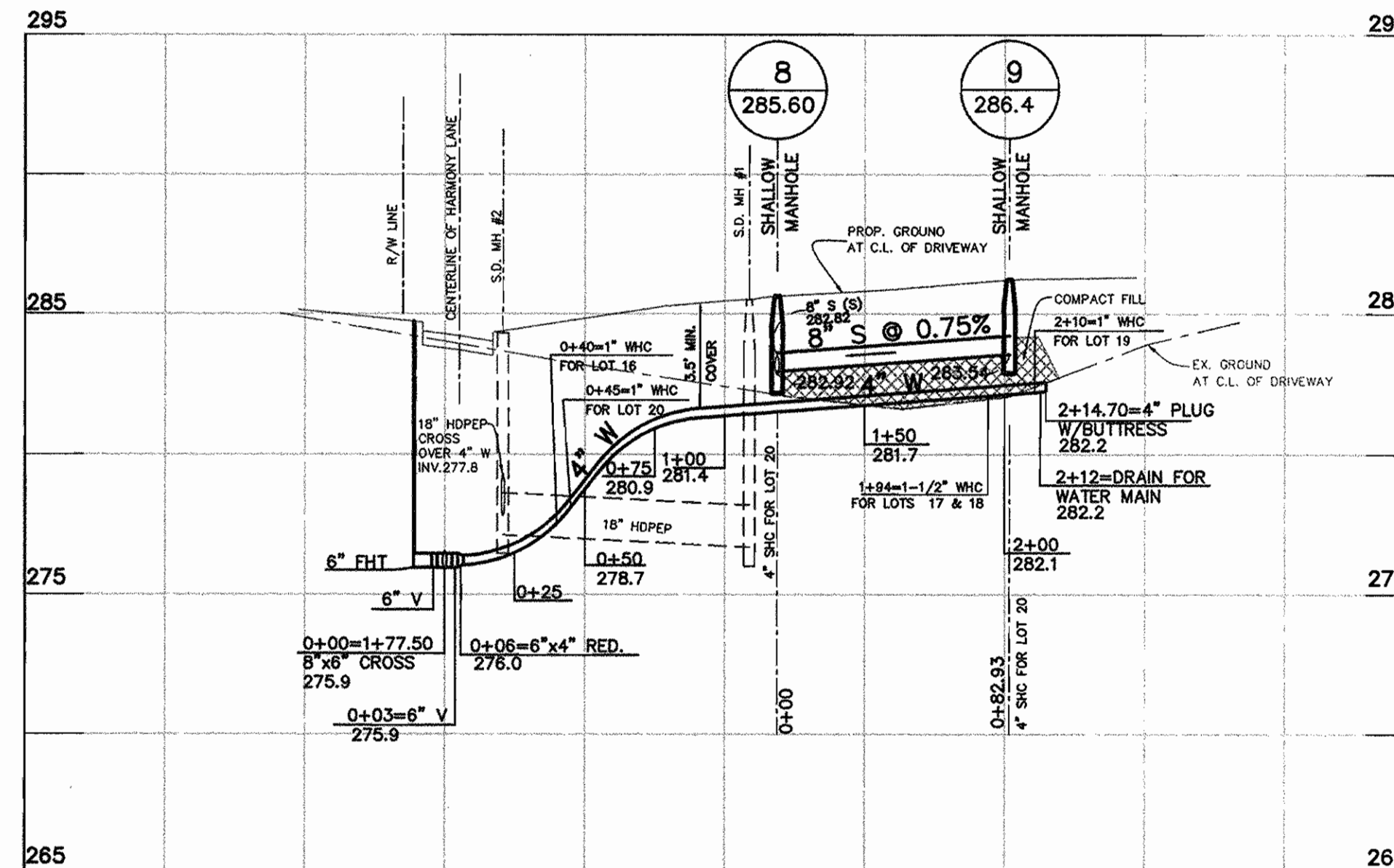
WATER & SEWER PROFILE AT HARMONY LANE
SCALE: HOR.: 1" = 50'
VERT.: 1" = 5'



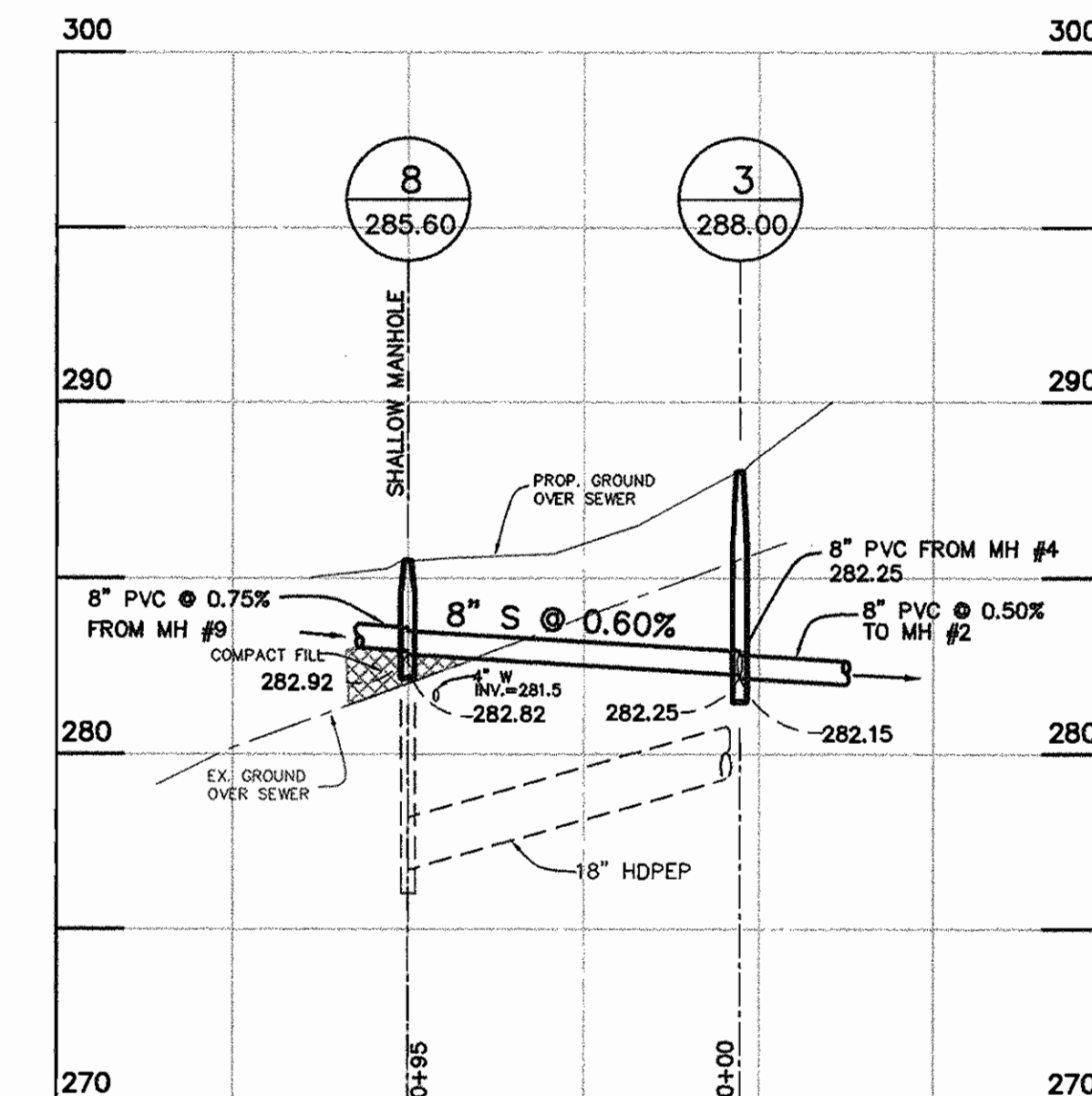
8" SEWER PROFILE AT LOTS 10/11
SCALE: HOR.: 1" = 50'
VERT.: 1" = 5'



12" W AT ULSTER DRIVE
SCALE: HOR.: 1" = 50'
VERT.: 1" = 5'



WATER & SEWER PROFILE AT COMMON DRIVEWAY
SCALE: HOR.: 1" = 50'
VERT.: 1" = 5'



8" SEWER PROFILE AT LOTS 16/17
SCALE: HOR.: 1" = 50'
VERT.: 1" = 5'

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

John R. Blanton 2/15/99
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Cheryl Simmons 2/15/99
NATURAL RESOURCES CONSERVATION SERVICE DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND PER F-99-56

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

BENCHMARK
ENGINEERS - LAND SURVEYORS - PLANNERS
ENGINEERING, INC.



DES:	YSL		
DRN:	YSL		
CHK:	DAM		
DATE:	10/98	YSL 1	REV. PER COUNTY'S COMMENTS DATED 11/4/1998 12/98
BY:	NO.		REVISIONS
DATE:			

WATER & SEWER EXTENSION
PROFILES

KINGS ARMS
LOTS 1 THRU 21
HOWARD COUNTY ELECTION DISTRICT NO. 6
CONTRACT NO. 24-3716-D

SCALE AS SHOWN

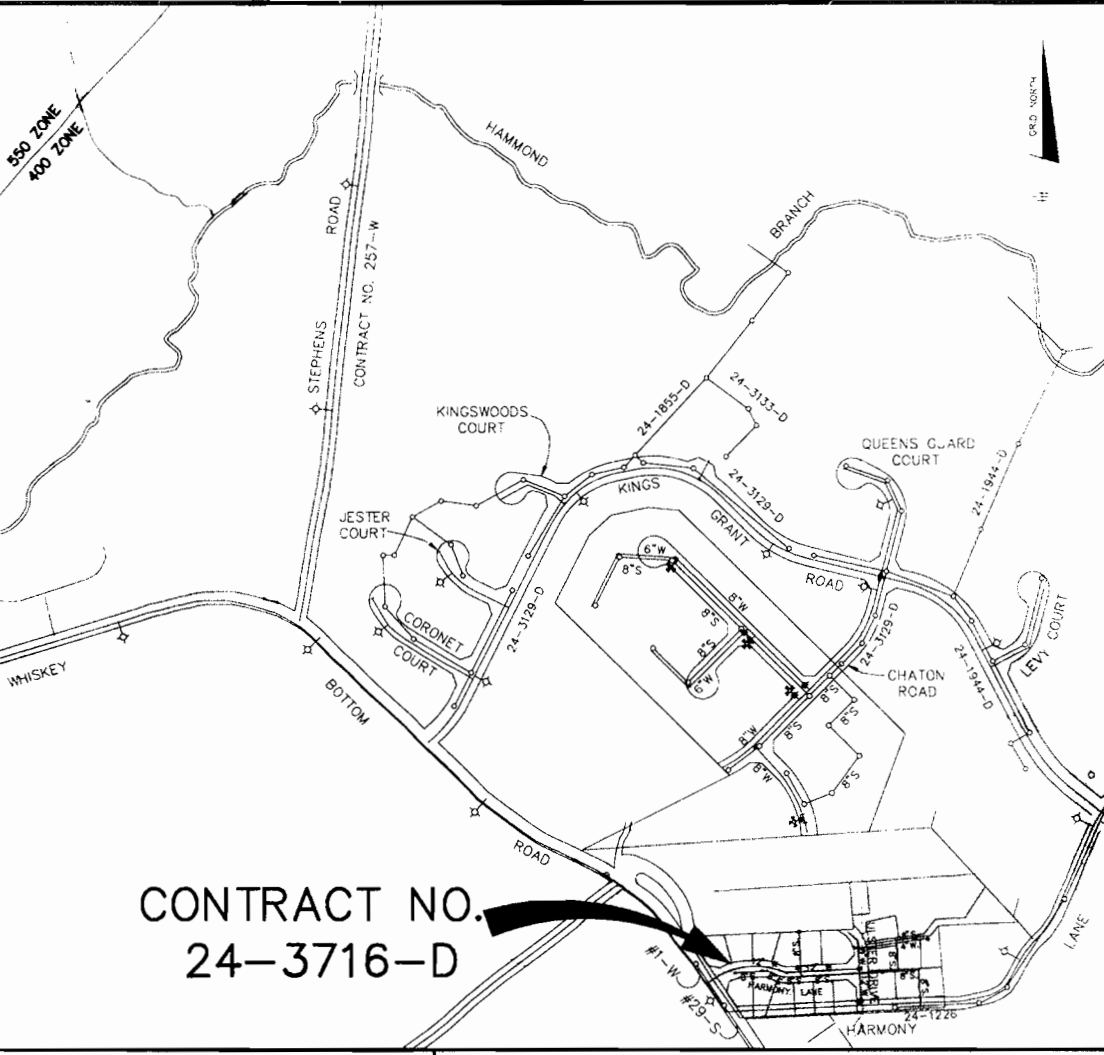
SHEET 2 OF 2

DEVELOPER/CONTRACT PURHASER:
SDC GROUP, INC.
P.O. BOX 417
ELLCOTT CITY, MARYLAND 21041
(410) 442-2101

600 SCALE MAP NO. 47

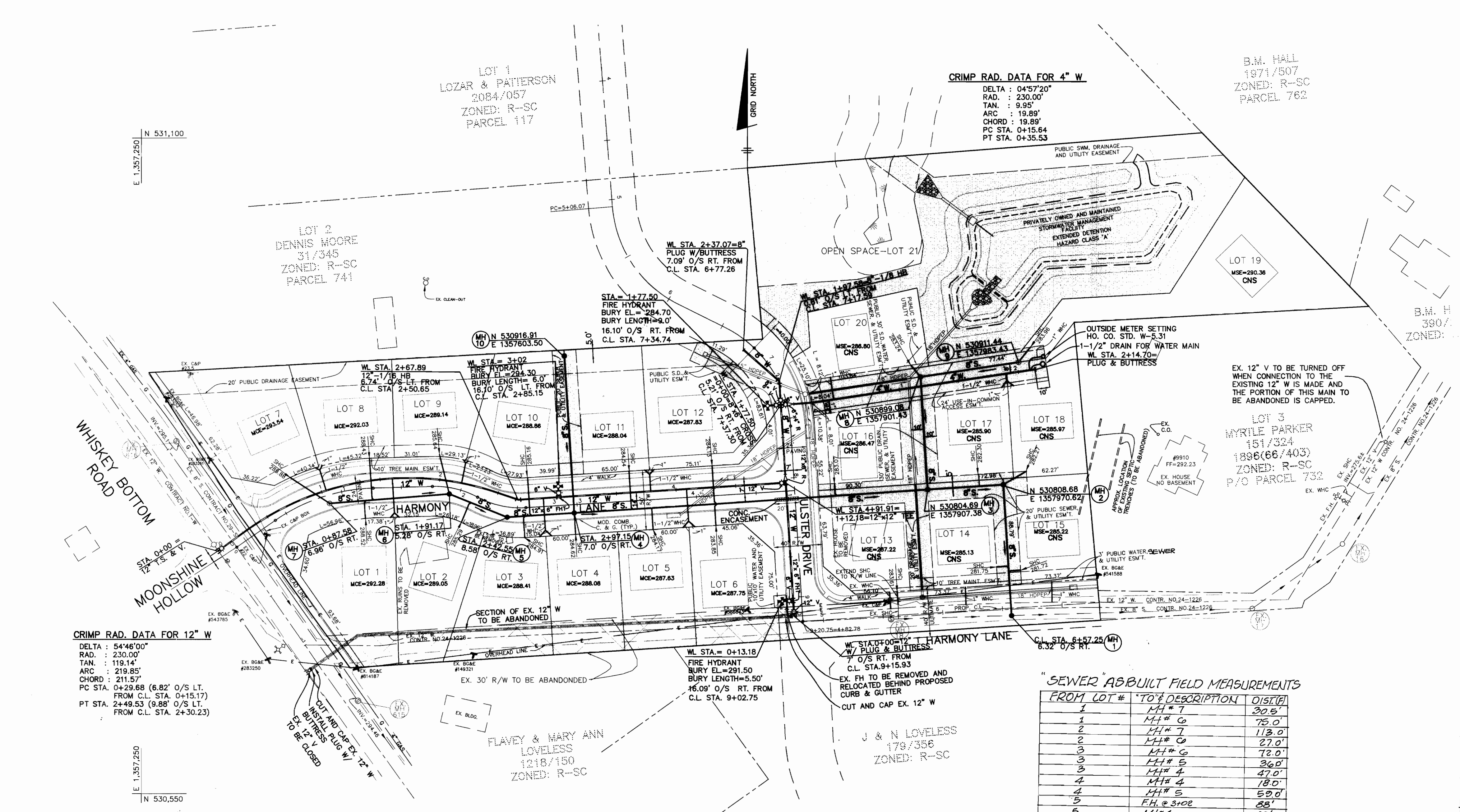
BLOCK 21 & 22

HO. CO. #508A EL. N/A
STANDARD DISC ON CONC. MONUMENT
N 527561.6702' E 1359772.5936'
HO. CO. #508B EL. 178.242'
STANDARD DISC ON CONC. MONUMENT
N 524999.3640' E 1357925.6751'



CONTRACT NO.
24-3716-D

WATER AND SEWER COUNTY CODE
SEWER CODE C03
TEST GRADIENT 7270000
TYPE OF BUILDINGS - SINGLE FAMILY DETACHED
NUMBER OF BUILDABLE LOTS... 21
NUMBER OF NON-BUILDABLE LOTS... 1
NUMBER OF WHC'S... 20
NUMBER OF SHC'S... 20
DRAINAGE AREA... LITTLE PATUXENT TREATMENT PLANT



CRIMP RAD. DATA FOR 12" W
DELTA: 54°46'00"
RAD.: 230.00'
TAN.: 119.14'
ARC.: 219.85'
CHORD.: 211.57'
PC STA. 0+29.68 (6.82' O/S LT. FROM C.L. STA. 0+15.17)
PT STA. 24+49.53 (9.88' O/S LT. FROM C.L. STA. 24+30.23)

CRIMP RAD. DATA FOR 4" W
DELTA: 04°57'20"
RAD.: 230.00'
TAN.: 9.95'
ARC.: 19.89'
CHORD.: 19.89'
PC STA. 0+15.64
PT STA. 0+35.53

B.M. HALL
1871/507
ZONED: R-SC
PARCEL 762

LOT 3
MYRILE PARKER
1886(86/403)
ZONED: R-SC
P/O PARCEL 732

SEWER AS-BUILT FIELD MEASUREMENTS
FROM LOT # TO DESCRIPTION DIST (ft)

FROM LOT #	TO DESCRIPTION	DIST (ft)
1	MH # 7	30.5'
1	MH # 6	75.0'
2	MH # 7	113.0'
2	MH # 6	27.0'
3	MH # 6	72.0'
3	MH # 4	36.0'
4	MH # 4	47.0'
4	MH # 3	18.0'
4	MH # 2	59.0'
5	FH @ 3102	88'
6	MH # 4	12.0'
6	FH @ 3102	100'
7	EX. MH # 6	100'
7	MH # 7	39'
8	MH # 7	49'
8	MH # 6	74'
9	MH # 6	32'
9	MH # 5	77'
10	MH # 4	40'
10	MH # 3	30'
11	FH @ 3102	26.5'
11	FH @ 3102	52'
11	FH @ 3102	88'
12	12" MH @ ULSSTER LA.	60.25'
12	TO FH @ 3102	121'
12	MH # 1	100.5'
12	TO EX. MH # 18	24'
14	TO MH # 1	40.5'
14	TO MH # 2	72'
14	TO MH # 3	87'
15	TO MH # 1	30'
15	TO MH # 2	72'
16	TO MH # 3	112.75'
16	TO MH # 2	74'
17	TO MH # 2	23.42'
17	TO MH # 3	44'
18	TO MH # 3	122.48'
18	TO MH # 2	22.42'
19	TO MH # 2	17.42'
19	TO MH # 3	29'
20	TO MH # 3	13.28'
20	TO MH # 2	106'

WATER FIELD MEASUREMENTS (PIIS)

LOT #	DESCRIPTION	TO	DIST (ft)
1	MANHOLE # 6	# 6	51.5'
1	"	# 7	57'
2	"	# 6	41.5'
2	"	# 7	57.5'
3	"	# 4	32.5'
3	"	# 5	31.0'
4	"	# 4	20.0'
4	"	# 5	34.5'
5	TO INLET # 4	# 4	10.0'
5	"	# 3	53.0'
6	"	# 3	50.0'
7	"	# 4	18.5'
7	TO MH # 7	# 7	32.0'
7	TO LOT 7 TO LOT 1		70.0'
8	TO MH # 7	# 7	33.0'
8	TO LOT 1		10'
W.VAL.	WHISKEY BOT. MH		10'
"	"	MH # 6	40'
"	"	LOT 7	55'
9	MANHOLE # B		61'
9	"	# 6	30'
10	TO MH # 6	# 6	88.5'
10	TO MH # 6	# 6	31.5'
11	TO MH # 4	# 4	70'
11	TO INLET # 4	# 4	41'
F.H.	TO MH # 4	# 4	7'
F.H.	TO MH # 5	# 5	4.8'
VALVE	TO MH # 4	# 4	48.0'
VALVE	TO MH # 5	# 5	45'
LOT 18	TO MH # 4	# 4	74'
LOT 18	TO INLET # 3	# 3	12'
END OF WATER LINE ULSSTER LA.	TO FH # 5		100.25'
"	TO VAL. # 3		100.25'
W.V.# 1	TO F.H.		10.0'
"	TO F.H.		18.0'
"	TO F.H.		7.5'
LOT 18	TO MH # HARMONY LA.		23'
LOT 12	TO MH # 1		107'
LOT 14	TO EX. MH # 18		47'
LOT 15	TO MH # 1		120'
LOT 15	TO MH # 3		32'
LOT 16	TO LOT 20		29.5'
LOT 16	TO MH # 8		82'
LOT 17	TO MH # 2		80'
LOT 17	TO MH # 3		23.5'
LOT 18	TO MH # 2		20.5'
LOT 18	TO MH # 3		81'
WATER	BLOW OFF TO MH # 2		107'
WATER	BLOW OFF TO METER BOX LOT 19		24'
METER	BOX TO MH # 9		42.5'
LOT 10	TO MH # 8		76.0'
LOT 20	TO F.H. ULSSTER LAINE # 3		25.0'
VALVE	TO ULSSTER LAINE TO INLET # 3		32.0'
F.H. @	1177.50 TO INLET # 2		25.0'

VICINITY MAP

SCALE: 1" = 600'

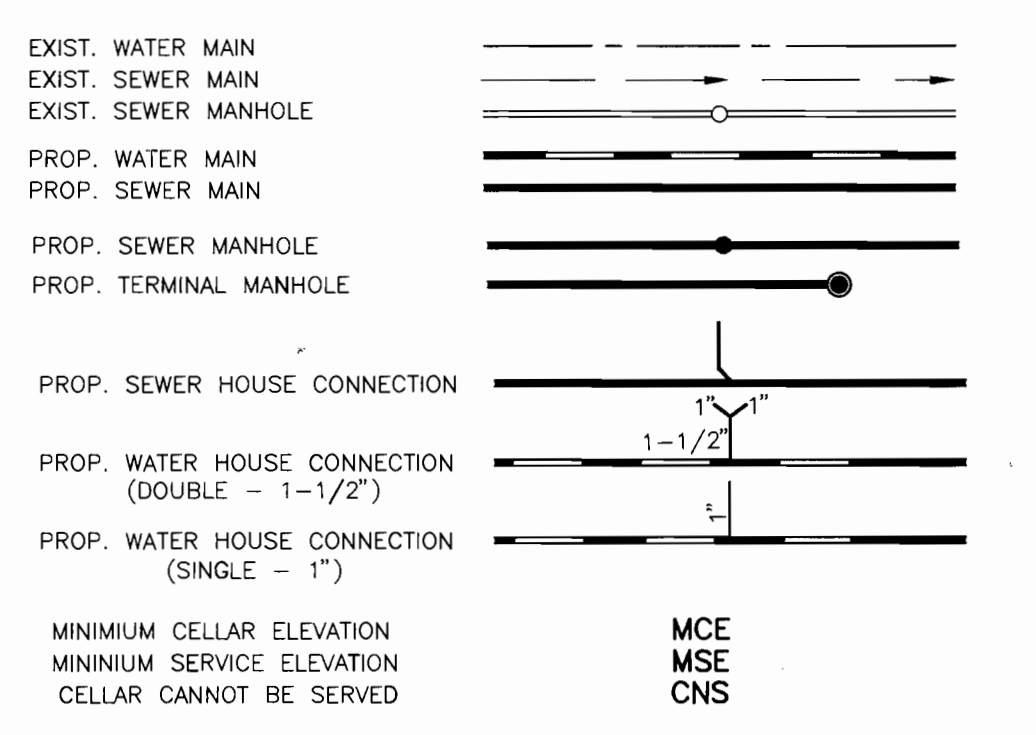
GENERAL NOTES

- 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES (NAD'83).
3. ALL VERTICAL CONTROLS ARE BASED ON HOWARD COUNTY DATUM.
4. 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. 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 THE 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. 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
6. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION... 410-531-5533
BALTIMORE GAS & ELECTRIC CO. ... 410-850-4620
BALTIMORE GAS & ELECTRIC CO. ... 410-797-9869
MISSISSIPPI PIPELINE CO. ... 410-297-7771
COLONIAL PIPELINE CO. ... 410-795-1390
BUREAU OF UTILITIES.
HOWARD CO. DEPT. OF PUBLIC WORKS... 410-313-4900
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. 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.
8. PLACE REGULATION, "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
9. ALL WATER MAINS TO BE O.I.P. UNLESS OTHERWISE NOTED.
10. TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
11. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
12. 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 DPM REQUIREMENTS PER SECTION 18.114(b) OF THE HOWARD COUNTY CODE.
PART 2 - WATER
1. ALL WATER MAINS TO BE O.I.P. CLASS B2 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 LOGS 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.
PART 3 - SEWER
1. ALL SEWER MAINS SHALL BE D.I.P. AND P.V.C. UNLESS OTHERWISE NOTED.
2. ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
3. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
4. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER TIGHT FRAME AND COVERS, STANDARD DETAIL 69.52, WHERE WATER TIGHT MANHOLE FRAME AND COVER IS USED. SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

NOTE: SOME VALVES SHOWN WILL REQUIRE THE INSTALLATION OF A WATER MAIN VALVE KEY EXTENSION. SEE HOWARD COUNTY STANDARD DETAIL #W-3.65.

QUANTITIES table with columns: ITEM, QUANTITIES ESTIMATED, QUANTITIES AS-BUILT, TYPE, MANUFACTURER/SUPPLIER. Items include 12" WATER, 8" WATER, 12" UTILITY, 8" X 6" CROSS, 12" VALVES, 8" VALVES, 6" VALVES, 6" X 4" REDUCER, 12" X 8" REDUCER, 12" X 6" FIT, FIRE HYDRANTS, 12" T.S. & V., 1" M.H.C., 1-1/2" M.H.C., 8" SEWER (PVC), MANHOLES, 4" SHC.

LEGEND



NOTES:
1. EXISTING UTILITIES SHOWN ARE TAKEN FROM RECORD INFORMATION AND FIELD LOCATIONS.
2. CONTRACTOR SHALL VERIFY ALL UTILITIES LOCATIONS PRIOR TO ANY CONSTRUCTION.
3. TEST PITS MUST BE PERFORMED WHERE WATER MAIN AND/OR SEWER MAIN ARE TO BE CONNECTED TO THE EXISTING WATER MAIN AND/OR SEWER MAIN.
4. IF THE EXISTING INVERT ELEVATION OF THE EXISTING SEWER MAIN IS GREATER THAN THE ELEVATION SHOWN ON THE PLAN, CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER BEFORE ANY FURTHER CONSTRUCTION AND/OR FIELD ADJUSTMENT. ANY FIELD ADJUSTMENTS MUST BE APPROVED BY THE DESIGN ENGINEER AND/OR HOWARD CO. DPW.

NAME OF UTILITY CONTRACTOR: C.J. MILLER INC.
SURVEY AND DRAFTING AS-BUILT DATE: 7/26/99

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
REVIEWED FOR HOWARD NATURAL RESOURCES CONSERVATION SERVICE.
DATE: 2/15/99

DEPARTMENT OF PUBLIC WORKS, DEPARTMENT OF PLANNING & ZONING, BENCHMARK ENGINEERING, INC., DES: YSL, DRN: YSL, CHK: DAM, DATE: 10/98, WATER & SEWER EXTENSION AND SEWER RELOCATION, KINGS ARMS LOTS 1 THRU 21, CONTRACT NO. 24-3716-D, SHEET 1 OF 2