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3	PLAN VIEW OF SEWER MAINS
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5	PROFILES OF WATER AND SEWER MAINS

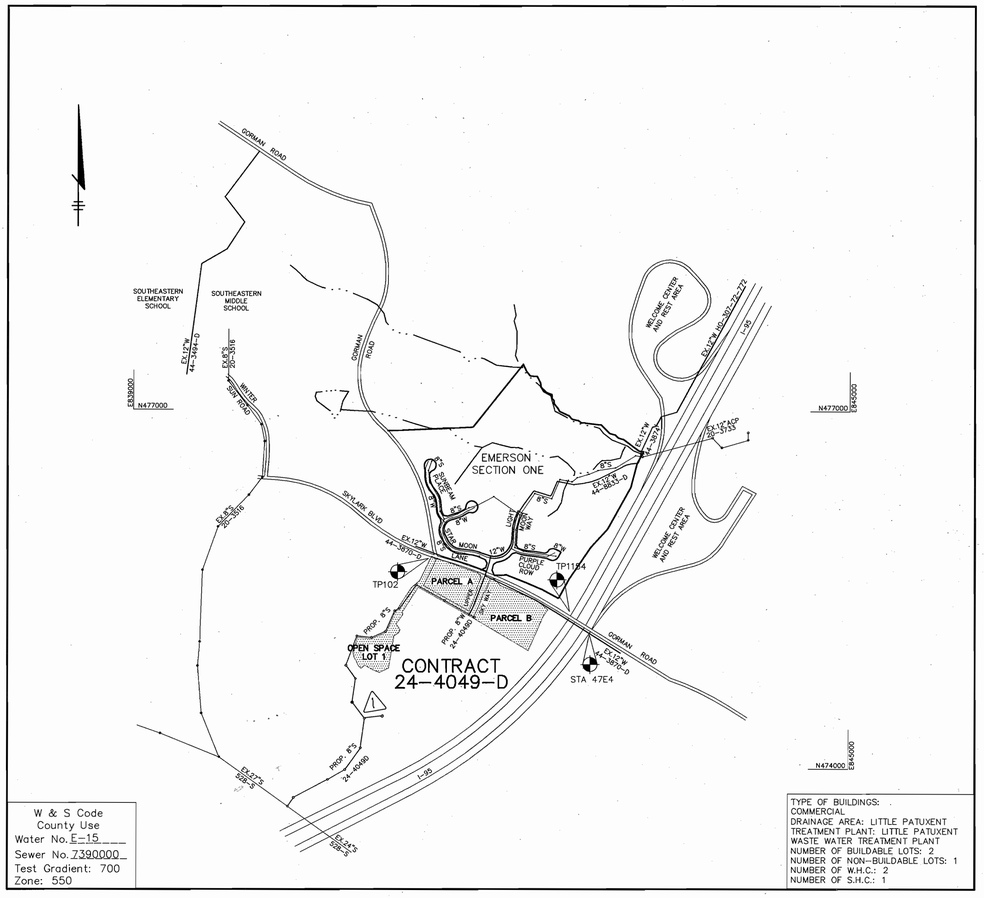
WATER AND SEWER EXTENSIONS
EMERSON
SECTION 3 AREA 2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4049-D

BENCHMARKS

TRAVERSE POINT 102
ELEVATION 346.19
N 536,499.165
E 1,353,974.017
LOCATED NEAR THE
INTERSECTION OF GORMAN
ROAD AND SKYLARK BLVD.

TRAVERSE POINT 1154
ELEVATION 347.45
N 536,018.069
E 1,355,129.333
LOCATED NEAR THE
I-95 BRIDGE ALONG
GORMAN ROAD

HOWARD COUNTY
CONTROL STATION 47E4
ELEVATION 339.00
N 535,846.16
E 1,355,431.23
LOCATED NEAR THE
I-95 BRIDGE ALONG
GORMAN ROAD



W & S Code
County Use
Water No. E-15
Sewer No. 7390000
Test Gradient: 700
Zone: 550

TYPE OF BUILDINGS:
COMMERCIAL
DRAINAGE AREA: LITTLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT
WASTE WATER TREATMENT PLANT
NUMBER OF BUILDABLE LOTS: 2
NUMBER OF NON-BUILDABLE LOTS: 1
NUMBER OF W.H.C.: 2
NUMBER OF S.H.C.: 1

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 service. 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 83/91.

3. All vertical controls are based on NAVD 88.

4. All pipe elevations shown are invert elevations unless otherwise noted on the plans.

5. Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. 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 monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.

6. 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.

7. 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.

8. The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

AT&T	1-800-252-1133
BGE (Contractor Services)	410-850-4620
BGE (Underground Damage Control)	410-787-9068
Bureau of Utilities	410-313-4900
Colonial Pipeline Co.	410-795-1390
Miss Utility	1-800-257-7777
State Highway Administration	410-531-5533
Verizon	1-800-743-0033 / 410-224-9210

9. Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.

10. The contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.

11. The contractor shall notify the Bureau of Highways, Howard County, at 410-313-7450 at least five working days before open cutting or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

WATER NOTES

1. All water mains shall be D.I.P. Class 52 unless otherwise noted.

2. Tops of all water mains shall have a minimum of 3'-6" of 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 installed in accordance with Standard Details. The 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.

SEWER NOTES

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. 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 watertight frame and covers, Standard Detail G5.52. Where watertight manhole frames and covers 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

ITEMS	QUANTITIES ESTIMATED	AS-BUILT QUANTITIES	AS-BUILT TYPE	AS-BUILT MANUFACTURER / SUPPLIER
8" WATER	458 LF			
6" WATER	16 LF			
FIRE HYDRANTS	1 EA.			
3" WHC	8 LF			
8" SEWER	2331 LF △1			
8" DIP CL52	1020 LF △1			
SEWER MANHOLES	17 EA. △1			
TYPE B DROP CONNECTION	1 EA.			

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-02-178

CHECKBOX	
AS-BUILT DATE	
SURVEY AND DRAFTING DIVISION	

Review for Howard Soil Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 11/19/02

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT — DATE 11/19/02

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES — DATE 11-12-02

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/3/02

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND — CHRISTOPHER J. REID — REGISTERED PROFESSIONAL ENGINEER — NO. 19949
CHRISTOPHER J. REID #19949

DES: C.J.R.
DRN: DAM
CHK: C.J.R.
DATE: 10/30/02

BY	NO.	REVISION	DATE
CJR	△1	REV. QUANTITIES, ADDED NEW SEWER TO VICINITY MAP	01-10-03

TITLE SHEET

600' SCALE MAP NO. 47 BLOCK NO. 8 & 9

EMERSON
SECTION 3 AREA 2
PARCEL A & B AND OPEN SPACE LOT 1
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 24-4049-D

SCALE AS SHOWN

SHEET 1 OF 5

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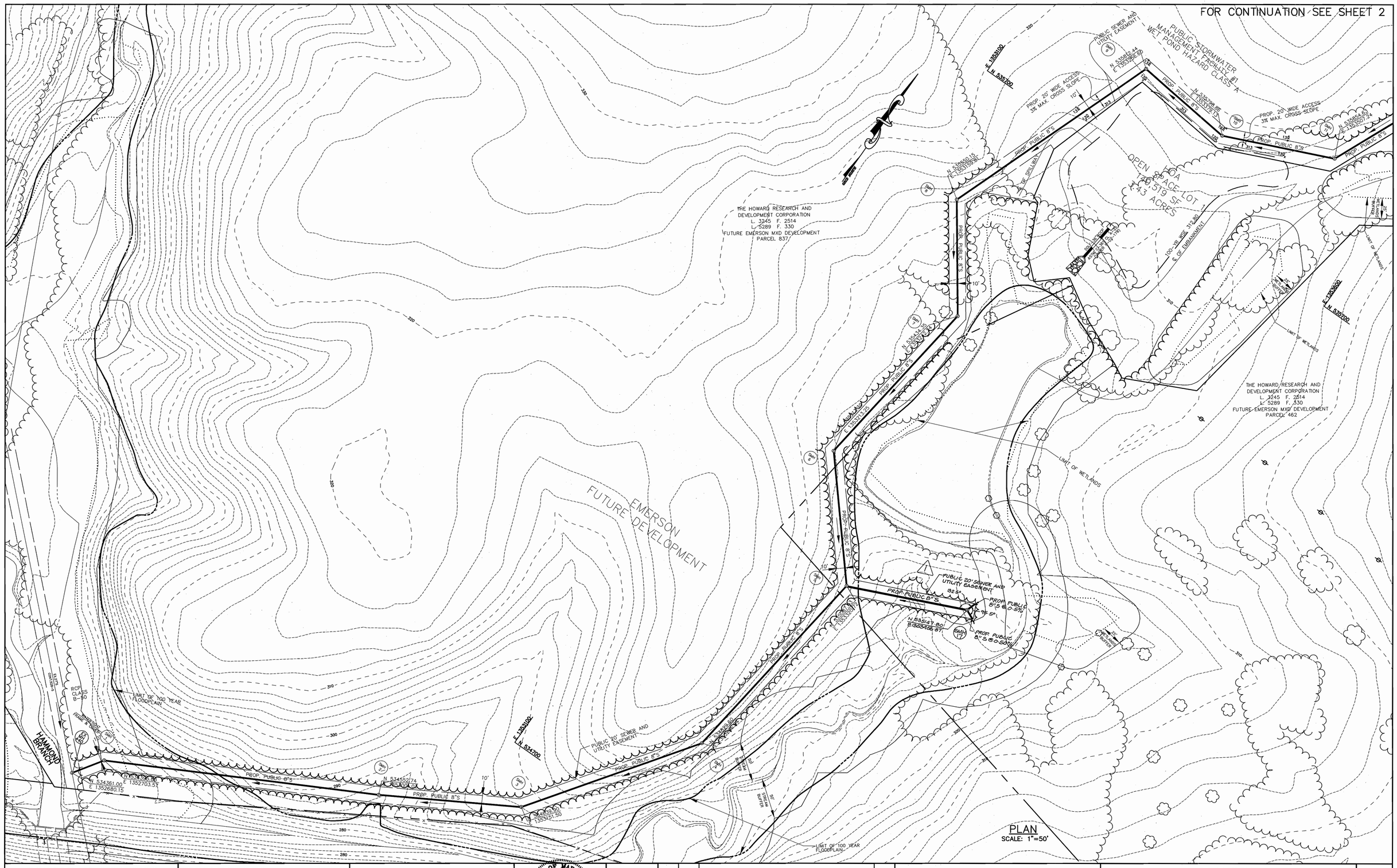

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND	Patton Harris Rust & Associates, pc Engineers. Surveyors. Planners. Landscape Architects. PHR+A 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	STATE OF MARYLAND CHRISTOPHER J. REID No. 19949 PROFESSIONAL ENGINEER	DES: C.J.R. DRN: DAM CHK: C.J.R. DATE: 10/30/02	BY / NO. / REVISION / DATE CJR / 1 / ADDED SMH 17 FROM SMH 5 / 01-10-03	PLAN VIEW OF SEWER MAINS	EMERSON SECTION 3 AREA 2 PARCEL A & B AND OPEN SPACE LOT 1 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 24-4049-D	SCALE AS SHOWN
11-12-02 CHIEF, BUREAU OF UTILITIES DATE	12/8/02 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE		CHRISTOPHER J. REID #19949			600' SCALE MAP NO. 47 BLOCK NO. 8 & 9		SHEET 3 OF 5

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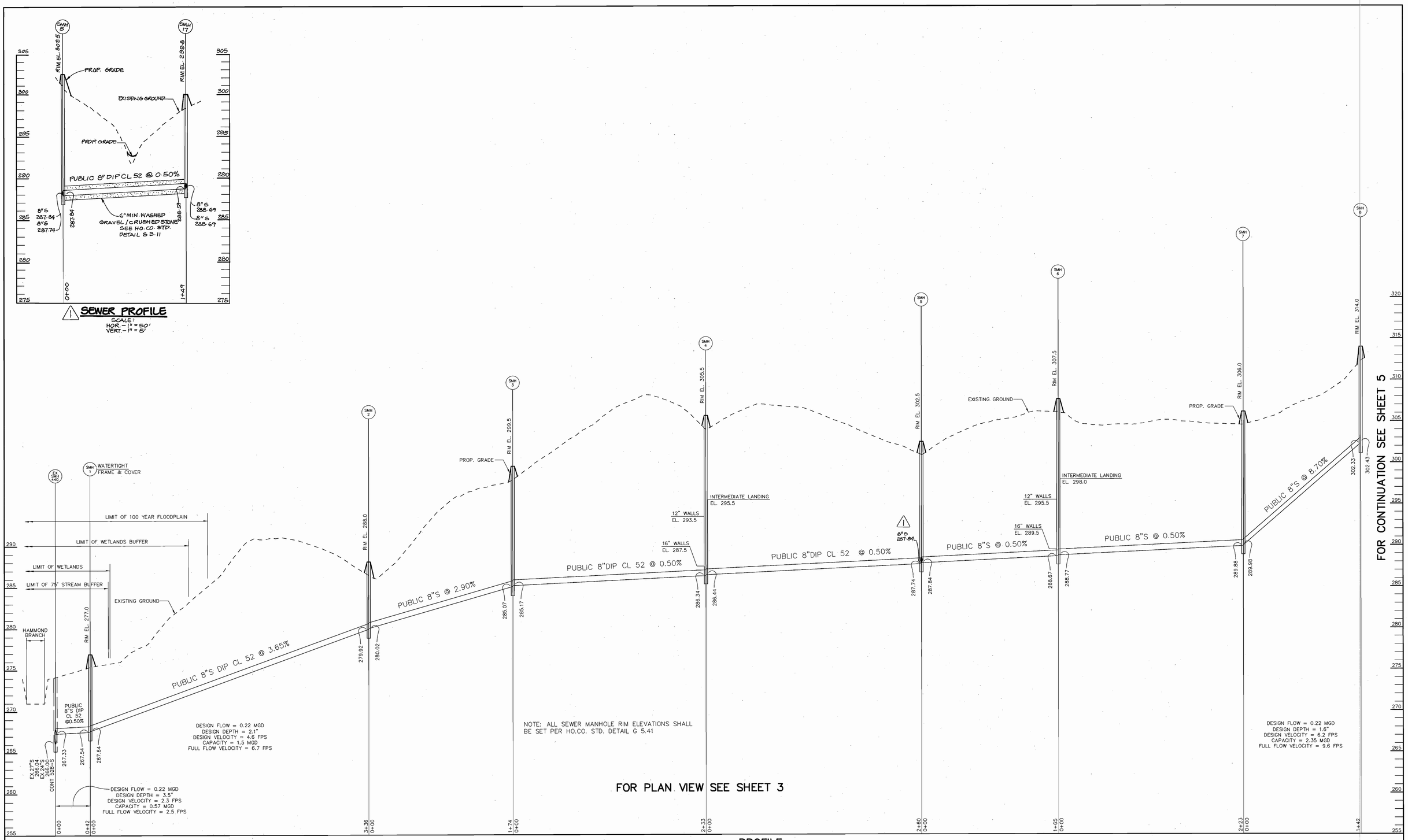

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND	Patton Harris Rust & Associates, pc Engineers. Surveyors. Planners. Landscape Architects. PHR+A 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	STATE OF MARYLAND CHRISTOPHER J. REID REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER J. REID #19949	DES: C.J.R. DRN: DAM CHK: C.J.R. DATE: 10/30/02	BY	NO.	REVISION	DATE	PROFILES OF SEWER MAINS 600' SCALE MAP NO. 47 BLOCK NO. 8 & 9	EMERSON SECTION 3 AREA 2 PARCEL A & B AND OPEN SPACE LOT 1 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 24-4049-D	SCALE AS SHOWN SHEET 4 OF 5
11-12-02 CHIEF, BUREAU OF UTILITIES DATE	12/3/02 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE				CJR		MODIFIED PROFILE-SMH5 AND ADDED SEWER PROFILE-SMH5-SMH17.	01-10-03			

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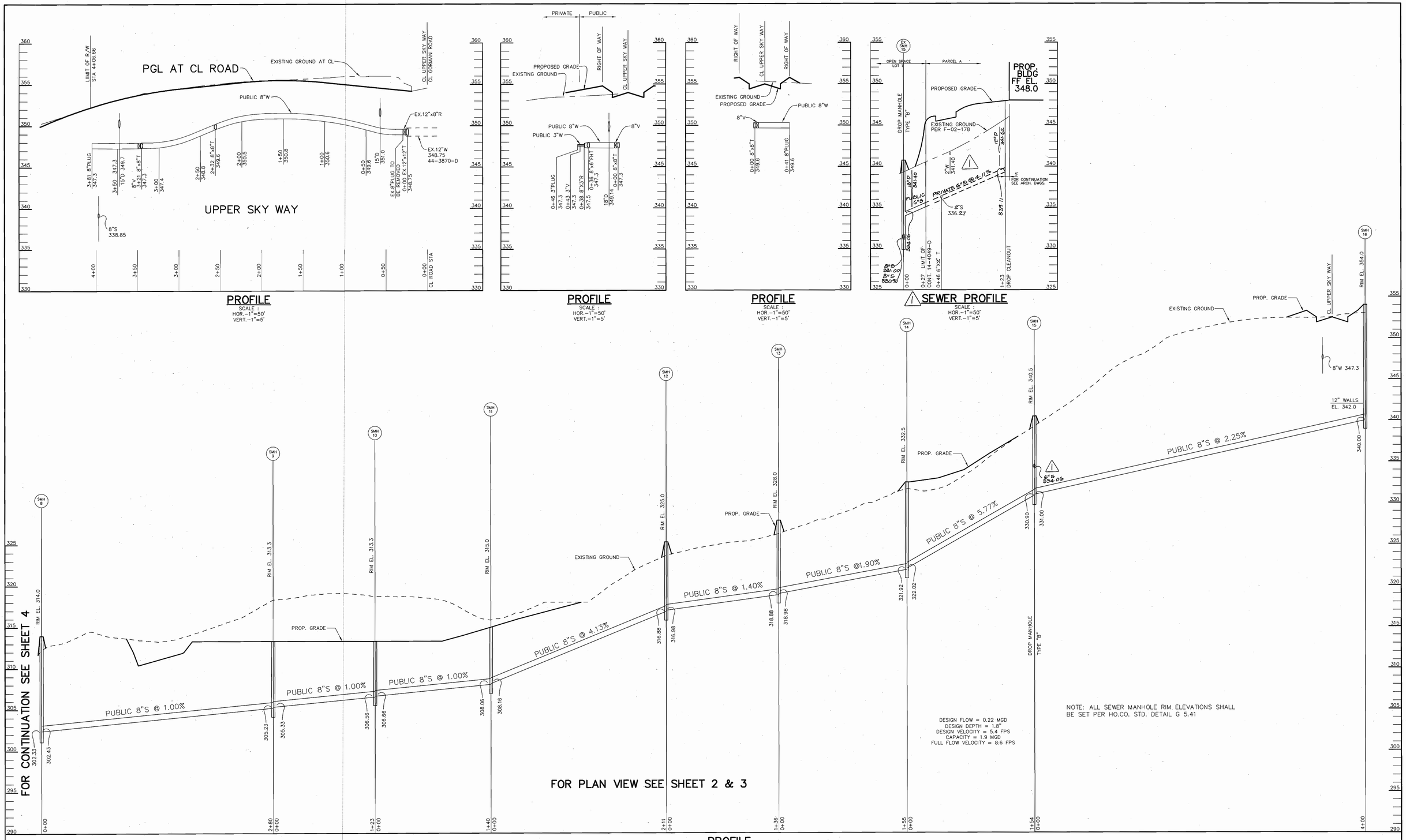

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND	Patton Harris Rust & Associates, pc Engineers. Surveyors. Planners. Landscape Architects. PHR+A 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	STATE OF MARYLAND CHRISTOPHER J. REID PROFESSIONAL ENGINEER CHRISTOPHER J. REID #19949	DES: C.J.R. DRN: DAM CHK: C.J.R. DATE: 10/30/02	CJR / 1 / MODIFIED SEWER PROFILE / 01-10-03 BY / NO. / REVISION / DATE	PROFILES OF WATER AND SEWER MAINS 600' SCALE MAP NO. 47 BLOCK NO. 8 & 9	EMERSON SECTION 3 AREA 2 PARCEL A & B AND OPEN SPACE LOT 1 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 24-4049-D	SCALE AS SHOWN SHEET 5 OF 5
11-12-02 CHIEF, BUREAU OF UTILITIES DATE	12/3/02 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE							

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