

**BENCH MARKS**  
 BM #2043002 ELEV. 299.831'  
 CONCRETE MONUMENT SET FLUSH WITH GROUND 12" FROM 4' LOCUST TREE  
 BM #2043003 ELEV. 251171'  
 REBAR 3" BELOW SURFACE AND 4.4" FROM EDGE OF ROAD

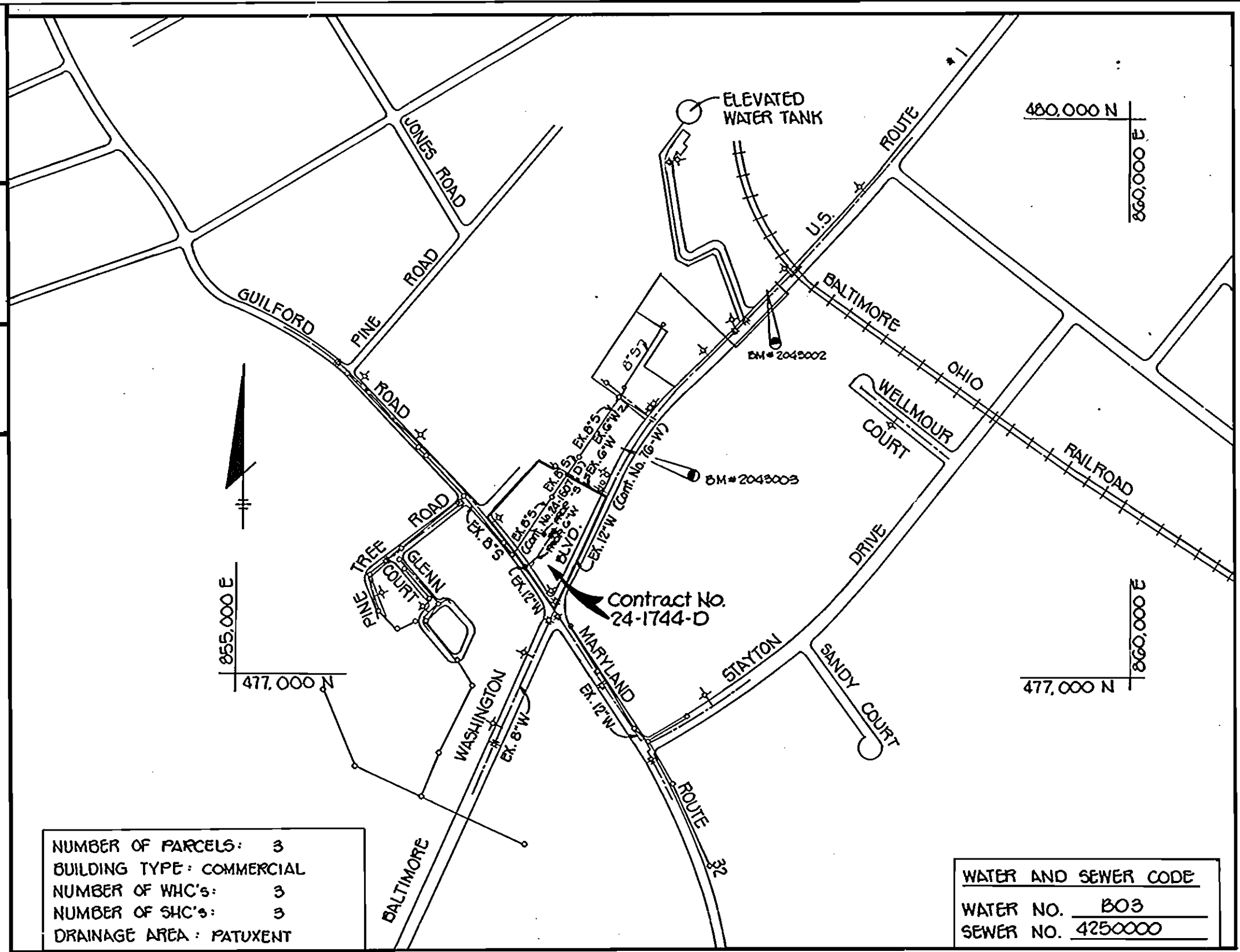
HOWARD SOIL CONSERVATION DISTRICT:  
 REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE DATE \_\_\_\_\_

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

HOWARD SOIL CONSERVATION DISTRICT DATE \_\_\_\_\_

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE #15 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS #F-88-160



**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 ENGINEER 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. DATA.

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. 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.

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.

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. 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 - 561-2585  
 BALTIMORE GAS & ELECTRIC CO. UNDER GROUND DAMAGE CONTROL - 234-5621  
 BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 298-9013  
 MISS UTILITY - 1-800-257-7777  
 COLONIAL PIPELINE CO. - 795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366

9. 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.

10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BIDDING FOR EXCAVATION AND BACKFILL.

11. 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.

12. ALL WATER MAINS TO BE D.I.P. CLASS 52.

13. TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 33" COVER UNLESS OTHERWISE NOTED.

14. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.

15. BLOCK ALL FITTINGS WITH CONCRETE.

16. 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 AND 1008 OF THE GENERAL REQUIREMENTS FOR WATER AND SEWER.

17. ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.

18. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.

19. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH UNIT PRICE BIDDING FOR EXCAVATION AND BACKFILL.

20. THE SERVICE CLAMPS ARE TO HAVE STAINLESS STEEL STRAPS.

21. ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., P.V.C. OR A.C.P. CLASS 2400 UNLESS OTHERWISE NOTED.

22. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.

23. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.

24. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.

25. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52 VOLUME IV WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE.

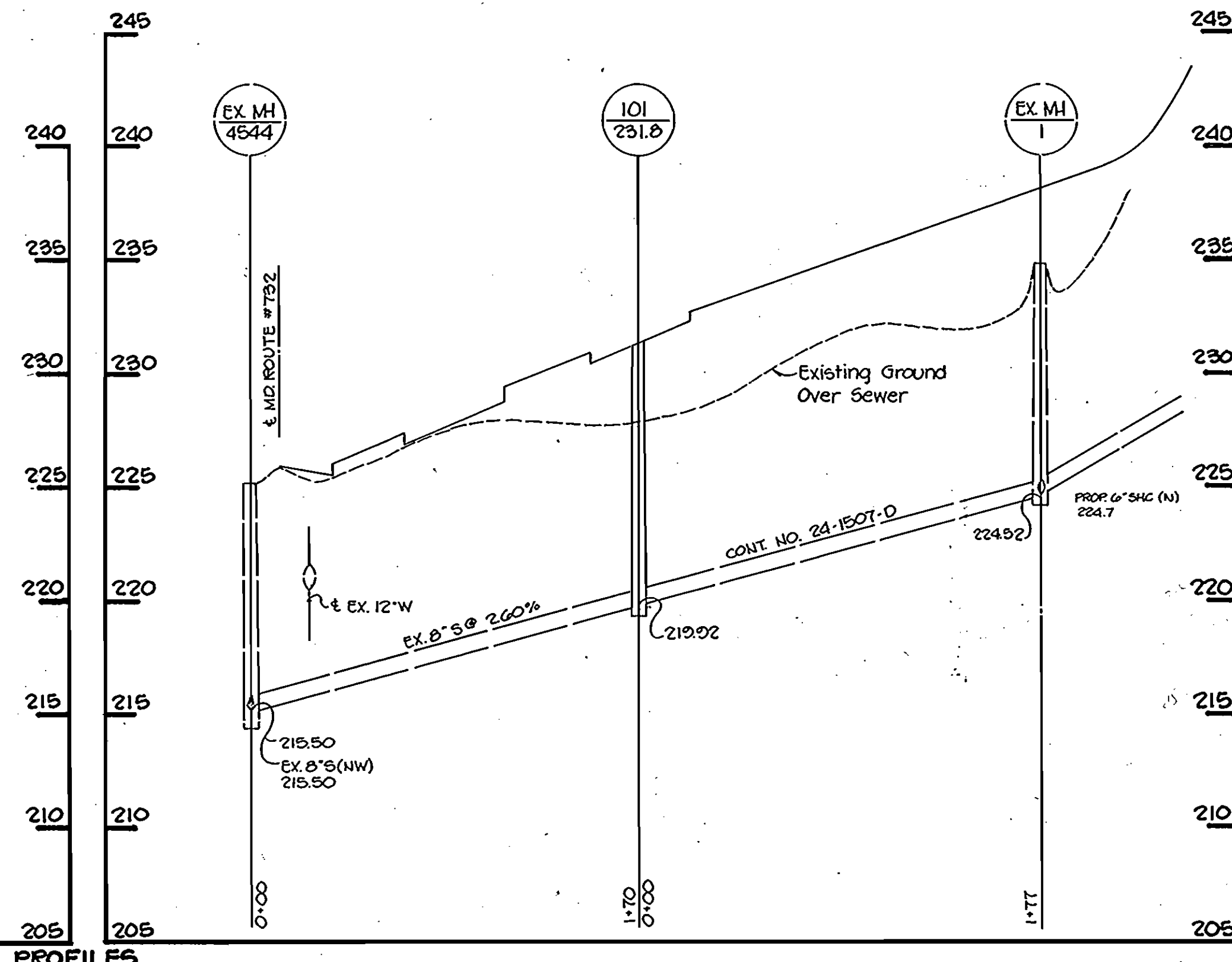
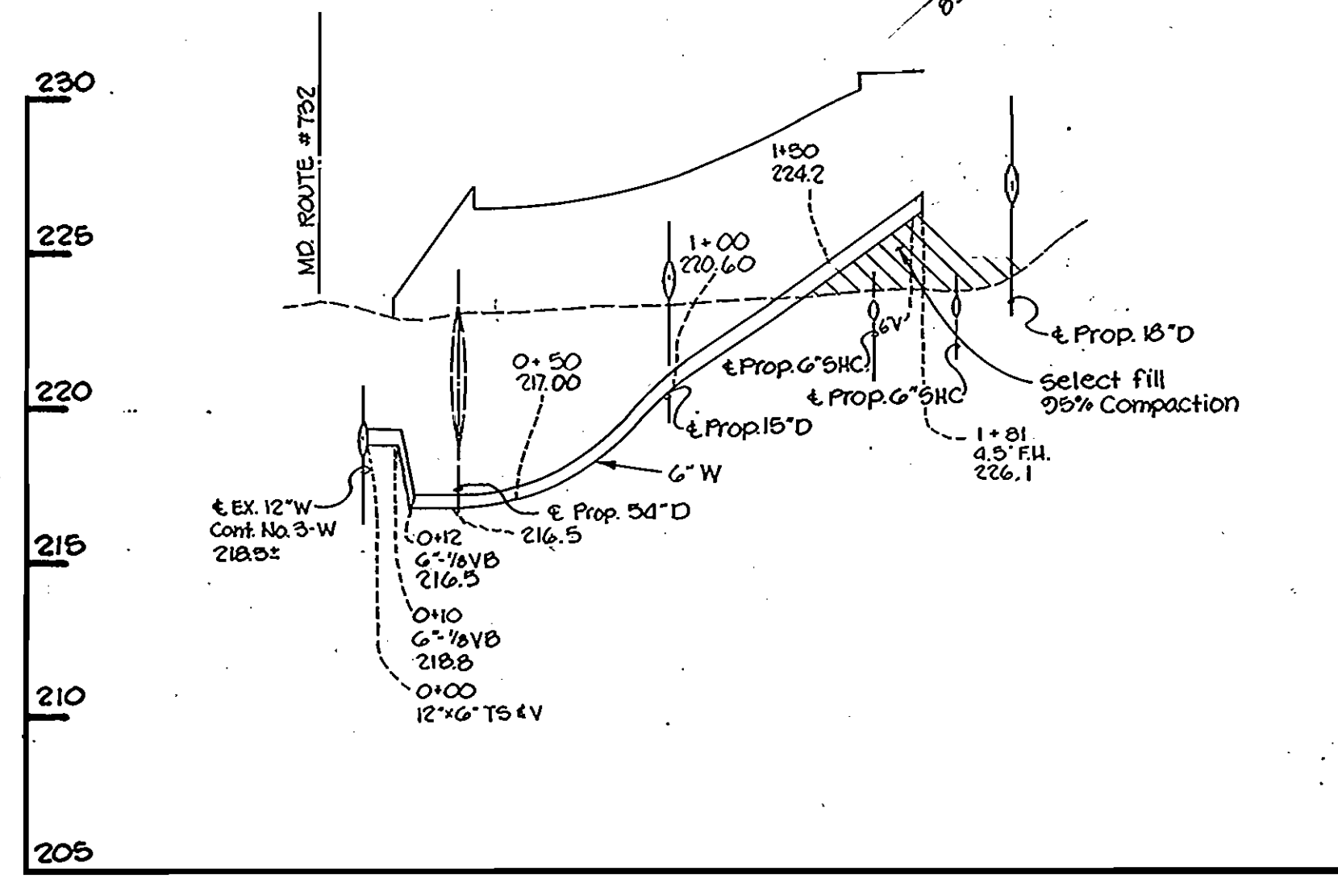
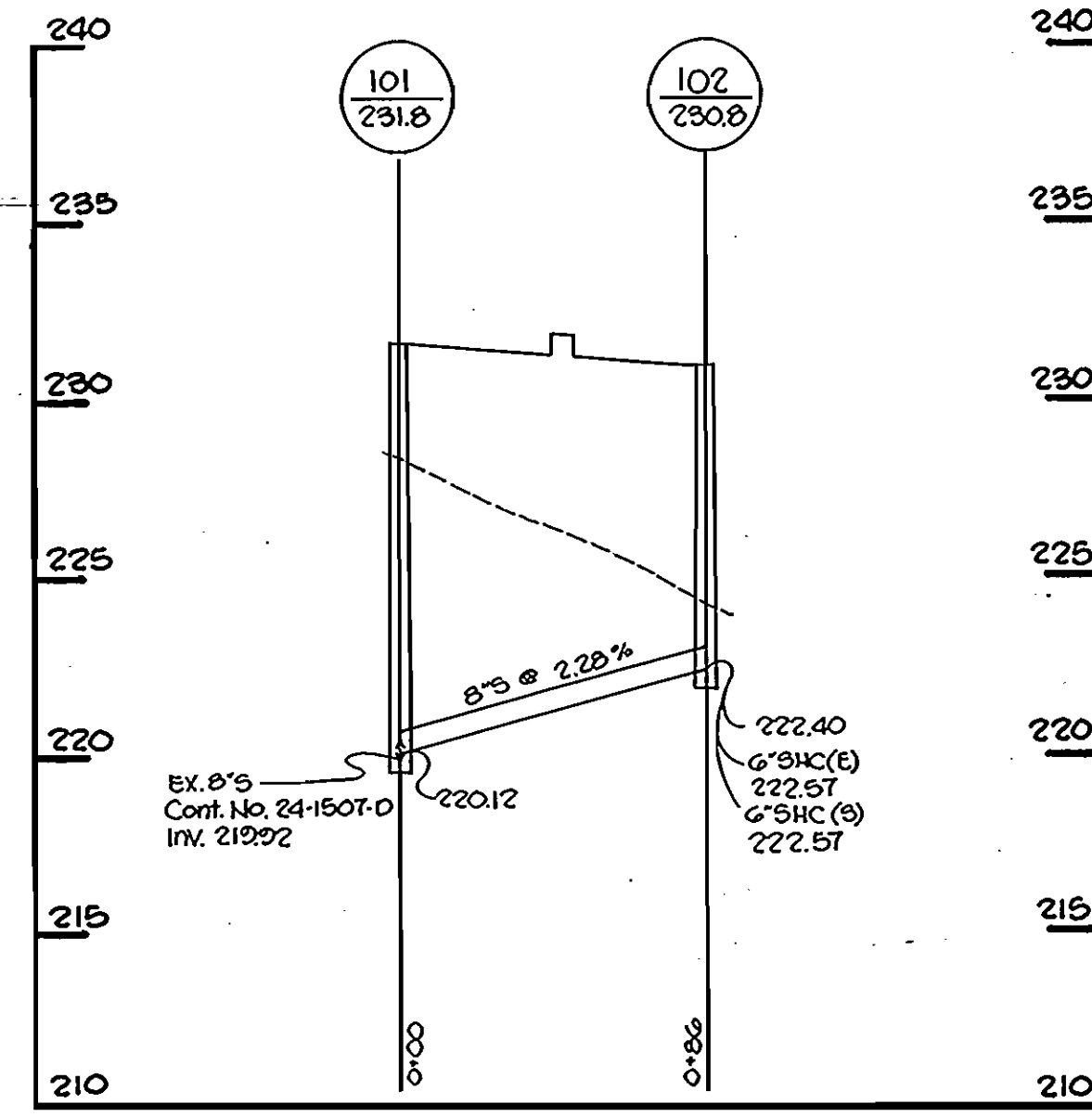
26. HOUSE(S) WITH THE SYMBOL "C.H.S." INDICATES THE CELLAR CANNOT BE SERVED.

27. ALL WATER HOUSE CONNECTIONS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12" ABOVE ALL SANITARY SEWER CROSSINGS.

28. ALL SANITARY SEWER HOUSE CONNECTIONS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12" BELOW ALL WATER MAIN CROSSINGS.

29. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.

30. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.



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ITEM	QUANTITY	AS BUILT	SUPPLIER
2" WHC	20 LF	20 LF	VINCENT BRASS
1" WHC	25 LF	54 LF	" "
8" Sewer	80 LF	83 LF	N/A
6" SHC	10 LF	109 LF	N/A
V.F. MH	20 VF	20.5 VF	N/A
F.H.S.	1	2	3" multi-chamber manhole frame and cover
12" x 6" T&V	1	2	MANHOLE
6" W	181 LF	190.5 LF	ATLANTIC

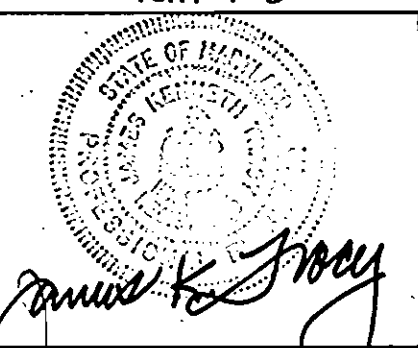
DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert M. Bauman* DATE: 10-19-88

Chief, Bureau of Engineering: *Richard E. Rahn* DATE: 10/20/88

Chief, Land Development Division: *Michael J. ...* DATE: 10/20/88

TRACY, SCHULTE & ASSOCIATES INC.  
 planning architecture engineering  
 8450 Baltimore National Pike Suite 34  
 Ellicott City, Maryland 21043



DES: DAM	
DRN: CDT	
CHK:	
DATE: 10-5-88	
BY NO.	
REVISION	
ADD NOTE FOR F.H.	
DATE	6/2/89

PLAN AND PROFILES  
 WATER AND SEWER MAINS

600' SCALE MAP NO. 48 BLOCK NO. 1

COLUMBIA JUNCTION  
 SECTION 2, AREA I  
 ELECTION DISTRICT NO. 6  
 CONTRACT NO. 24-1744-D

SCALE AS SHOWN

SHEET 1 OF 1