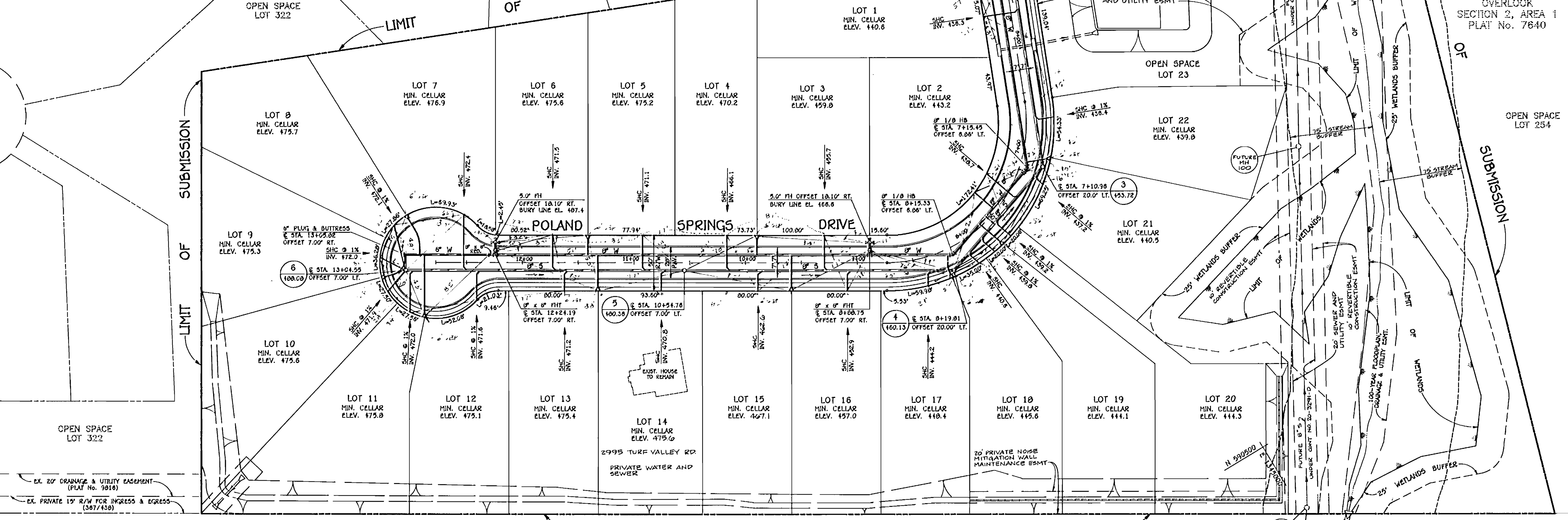
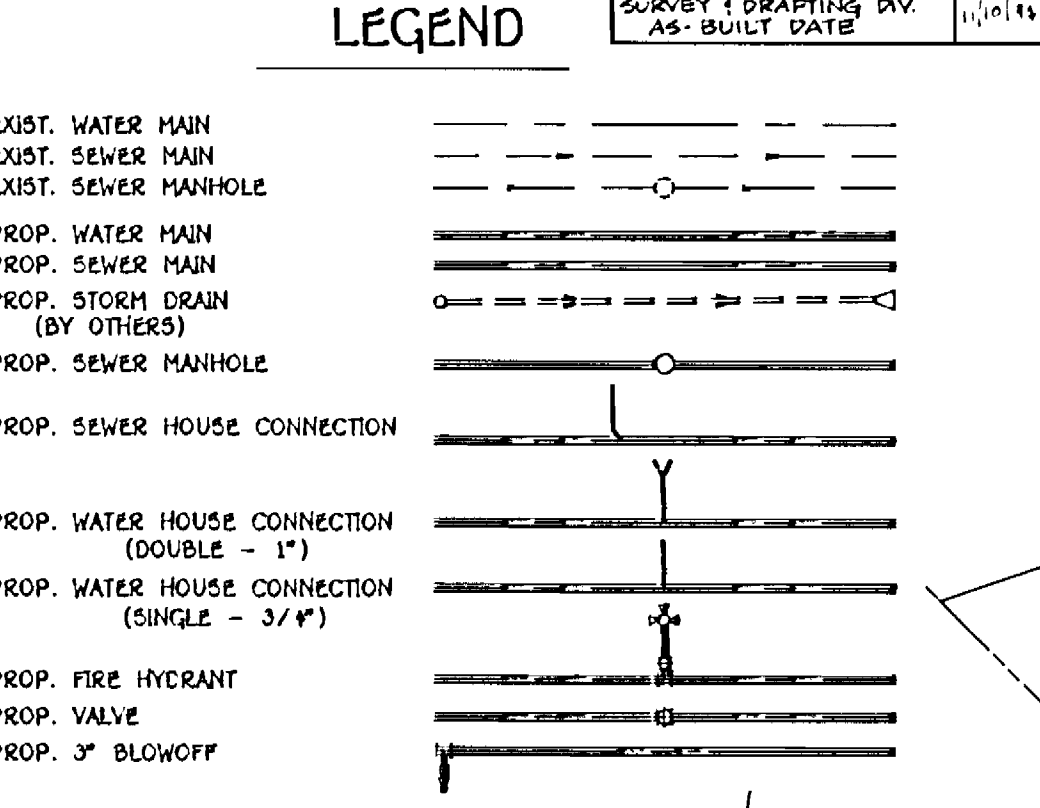
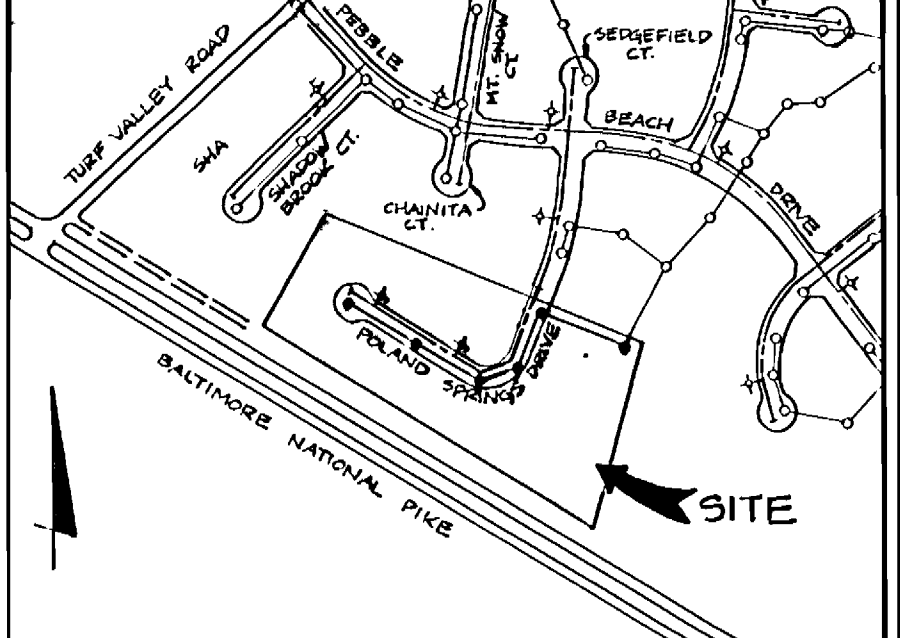


QUANTITIES			
ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
8" WATER	123 L.F.		
8" WATER	82 L.F.		
8" VALVE	1 EA		
FIRE HYDRANTS	1 VHS		
3" VHS	10 L.F.		
8" SEWER	1,077 L.F.		
MANHOLES	8 EA		
4" SMC	228 L.F.		

WATER HOUSE CONN. CHART	
LOT No.	STATION
1	5+58.1
2	7+81.1
3-4	7+99.5
5-6	11+11.2
7-8	13+58.5
9-10	17+37.3
11-12	17+93.3
13-14	11+32.3
15-16	9+58.7
17-18	9+53.2
19-20	7+77.3
21-22	7+02.7

NOTES:
 1. SEE PROFILES FOR SEWER HOUSE CONNECTION STATIONS.
 2. WATER HOUSE CONNECTIONS ARE 3/4" INCH.
 3. TWIN WHCS ARE 1" INCH.

BENCH MARKS (NAD 83)	
HO. CO #1613	ELEV. 470.531
CONC. MON. @ SURF 9'-1" E BOUND RT. 40	
20'-0" W. OF C. CONC. CHANNEL EXTENDED	
0.3 MILES E. OF HARRIOTSVILLE RD.	
N 180560.396 M	E 408977.333 M.
HO. CO #1618	ELEV. 470.53
CONCRETE MONUMENT (BY 1984)	
N 179977.231 M	E 407881.831 M.



- ### 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 MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 8". 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 "X" AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTE 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 MADE 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.....531-5533
 - BALTIMORE GAS & ELECTRIC CO.....795-1390
 - CONTRACTOR SERVICES.....850-4820
 - BALTIMORE GAS & ELECTRIC CO.....850-4820
 - UNDERGROUND DAMAGE CONTROL.....787-9068
 - MISS UTILITY.....1-800-257-7777
 - COLONIAL PIPELINE CO.....795-1390
 - BUREAU OF UTILITIES
 - HOWARD CO. DEPT. OF PUBLIC WORKS.....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 D.I.P. UNLESS OTHERWISE NOTED.
 - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-0" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - 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(g) OF THE HOWARD COUNTY CODE.
- PART 2 - WATER**
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS 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.
 - 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 1000 AND 1005 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 SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE DIP, RCP, VCPX, CSPX, RSSP AND 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.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52, WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

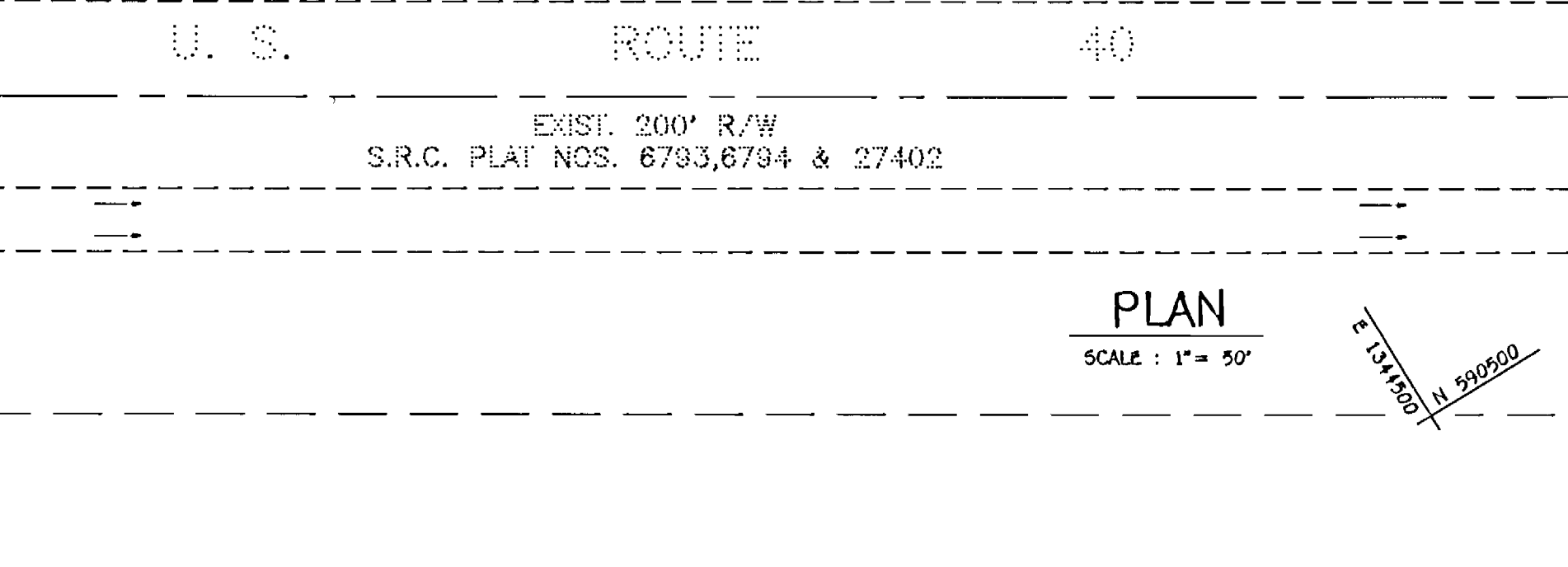
HOWARD SOIL CONSERVATION DISTRICT:
 REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
 AND MEETS TECHNICAL REQUIREMENTS

Jana M. Zeb... 7/6/93
 U.S. SOIL CONSERVATION SERVICE

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

Jeffrey... 7/6/93
 HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
 IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
 HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
 ROAD CONSTRUCTION PLANS F-93-104



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Samuel... 7/8/93
 DIRECTOR OF PUBLIC WORKS

Robert... 6-29-93
 CHIEF, BUREAU OF UTILITIES

TSA GROUP, INC.
 planning • engineering • surveying
 8480 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043

STATE OF MARYLAND
 PROFESSIONAL ENGINEER

DES:	DRK.	DBT.	ELIMINATE DHC FOR LOTS 14 AND 15.	DATE:
DRN:	DRK/DBT			11/8/93
CHK:	J.M.E.			
DATE:	6-25-93	BY:	NO.	REVISIONS

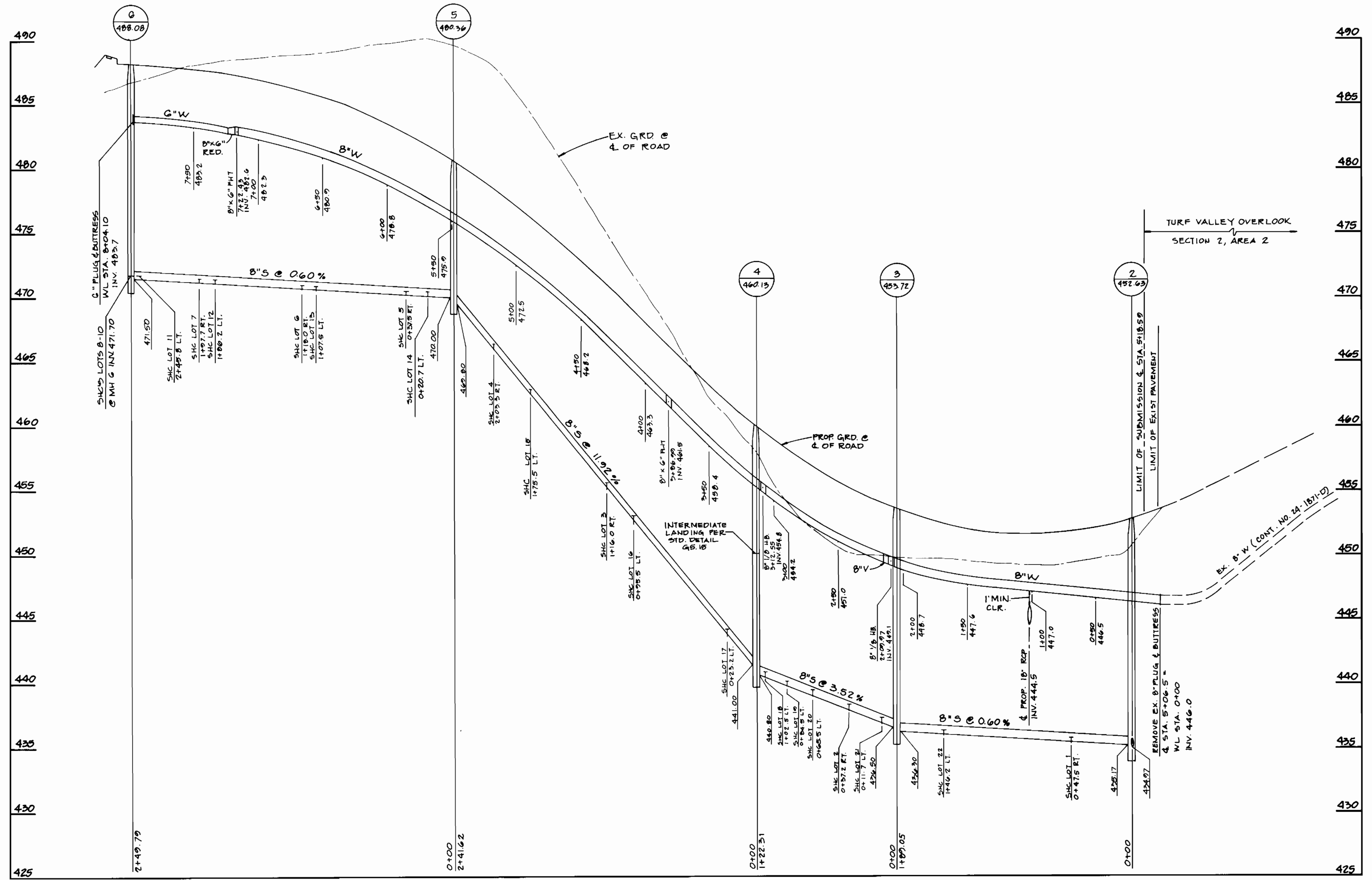
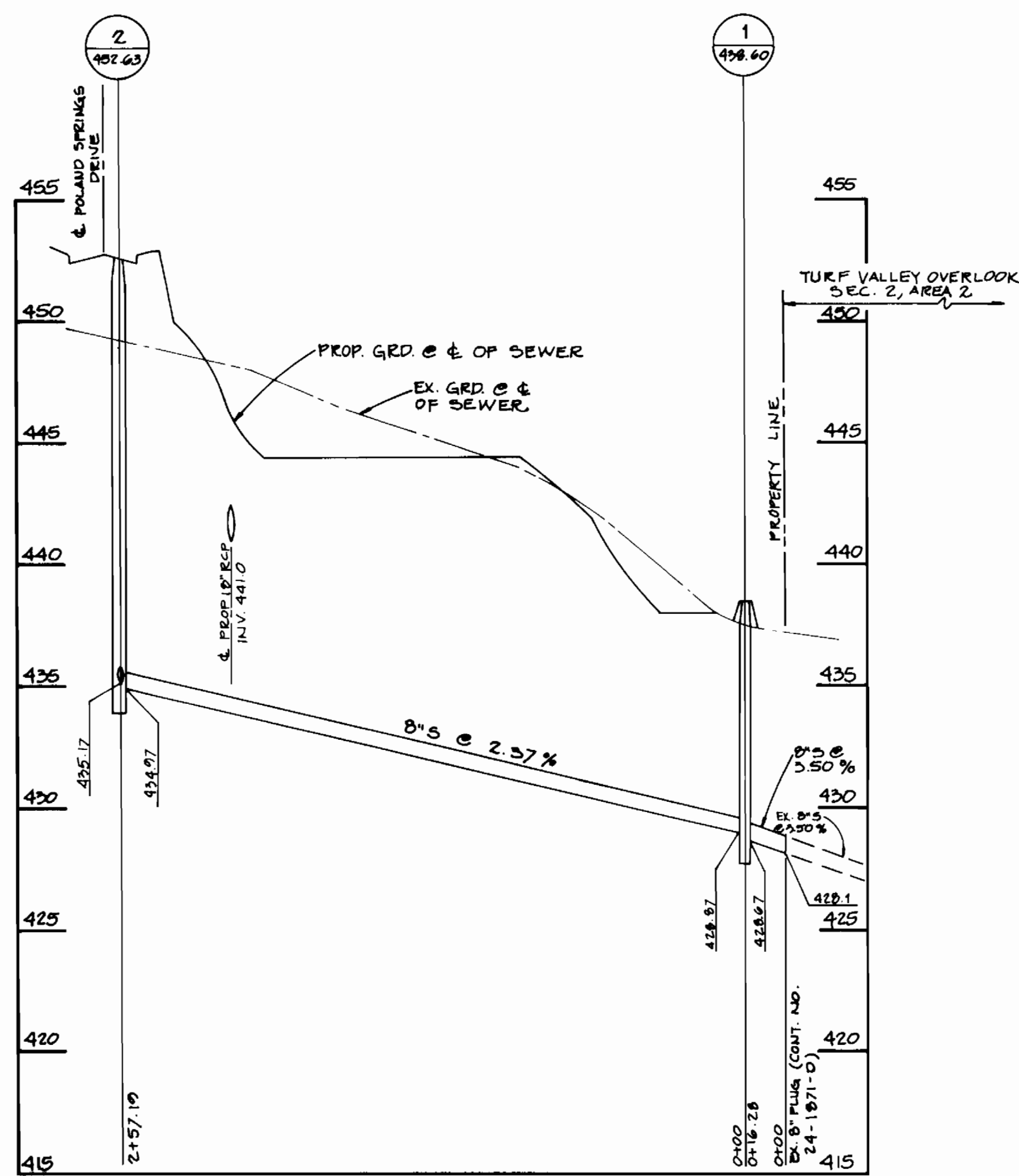
PLAN OF
 WATER & SEWER MAINS

600 SCALE MAP NO. 16
 BLOCK 23

COLLEGE FARM
 SECTION 1, AREA 1
 LOTS 1 THRU 23
 ELECTION DISTRICT NO. 2

CONTRACT NO. 24-3286-D

SCALE AS SHOWN
 SHEET 1 OF 2



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Samuel M. Slavin 7/8/93
 DIRECTOR OF PUBLIC WORKS DATE

Paul J. Seaman 7/8/93
 CHIEF, BUREAU OF ENGINEERING DATE

John A. ... 6-29-93
 CHIEF, BUREAU OF UTILITIES DATE

William ... 7/8/93
 CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
 planning • engineering • surveying
 8480 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043



DES: DRK.	DBT: Δ	ELIMINATE DHC FOR LOTS 14 AND 15	11/8/93
DRN: J.W.G.			
CHK: J.M.E.			
DATE: 6-25-93	BY: NO.	REVISIONS	DATE

PROFILES OF
 WATER & SEWER MAINS

600 SCALE MAP NO. 16

BLOCK 23

COLLEGE FARM
 SECTION 1, AREA 1
 LOTS 1 THRU 23
 ELECTION DISTRICT NO. 2

CONTRACT NO. 24-3286-D

SCALE
 1" = 50' HORIZ.
 1" = 5' VERT.

SHEET
 2 OF 2