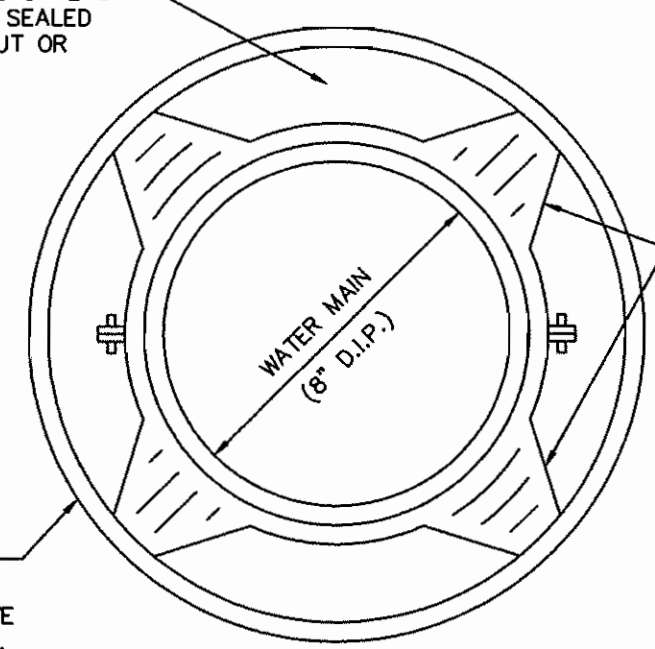


ANNULAR SPACE AT EACH END OF CASING SHALL BE SEALED WITH 6" CEMENT GROUT OR FLOWABLE ASH



STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY ADVANCE PRODUCTS AND SYSTEMS, INC. (MODEL SS), OR CASCADE WATERWORKS MANUFACTURING CO. (MODEL CCS), OR ALTERNATIVE AS APPROVED BY HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS.

CASING SPACERS TO BE EQUALLY SPACED AT 1/3 POINTS ALONG LENGTH OF PIPE & AT EACH SIDE OF JOINT.

STEEL SLEEVE CASING
STEEL CASING TO HAVE 3/8" WALL THICKNESS. JOINTS TO BE WELDED.

CASING PIPE DETAIL
NO SCALE

OWNER / DEVELOPER
CLARKSVILLE AUTO PROPERTIES, LLC
6374 TEN OAKS ROAD
CLARKSVILLE, MARYLAND
(410)-531-5656

QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" x 8" TAPPING SLEEVE & VALVE	1 EA.			
8" x 8" TEE	1 EA.			
8" x 6" REDUCER	1 EA.			
6" VALVE	1 EA.			
FIRE HYDRANT (8.0')	1 EA.			
8" x 4" TEE	1 EA.			
8" CAP & BUTRESS	1 EA.			
4" VALVE	1 EA.			
4" CAP	1 EA.			
4" WATER HOUSE CONNECTION	24 L.F.			
8" WATER MAIN	105 L.F.			
6" WATER MAIN (FOR FIRE HYD.)	18 L.F.			
20" STEEL TUNNEL CASING	70 L.F.			

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

DEVELOPER'S CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

5/1/98
SIGNATURE OF DEVELOPER
STEPHEN KAUF
PRINTED NAME OF DEVELOPER

WATER MAIN TABULATION CHART

NORTHING	EASTING	APPURTENANCE
563,105.9264	1,330,393.6188	12" x 8" T.S.&V.
563,150.4485	1,330,337.0303	8" x 8" TEE
563,161.5788	1,330,322.8835	F.HYD.
563,128.4429	1,330,319.7169	8" x 4" TEE
563,124.2516	1,330,316.4193	8" C.&B.
563,142.8229	1,330,301.4397	4" CAP. (6PL)

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON TECHNICAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

5/1/98
SIGNATURE OF ENGINEER
John M. DeWitt
PRINTED NAME OF ENGINEER

BENCHMARKS

BM#903 REBAR & CAP	EL.: 454.08
BM#905 REBAR & CAP	EL.: 478.66

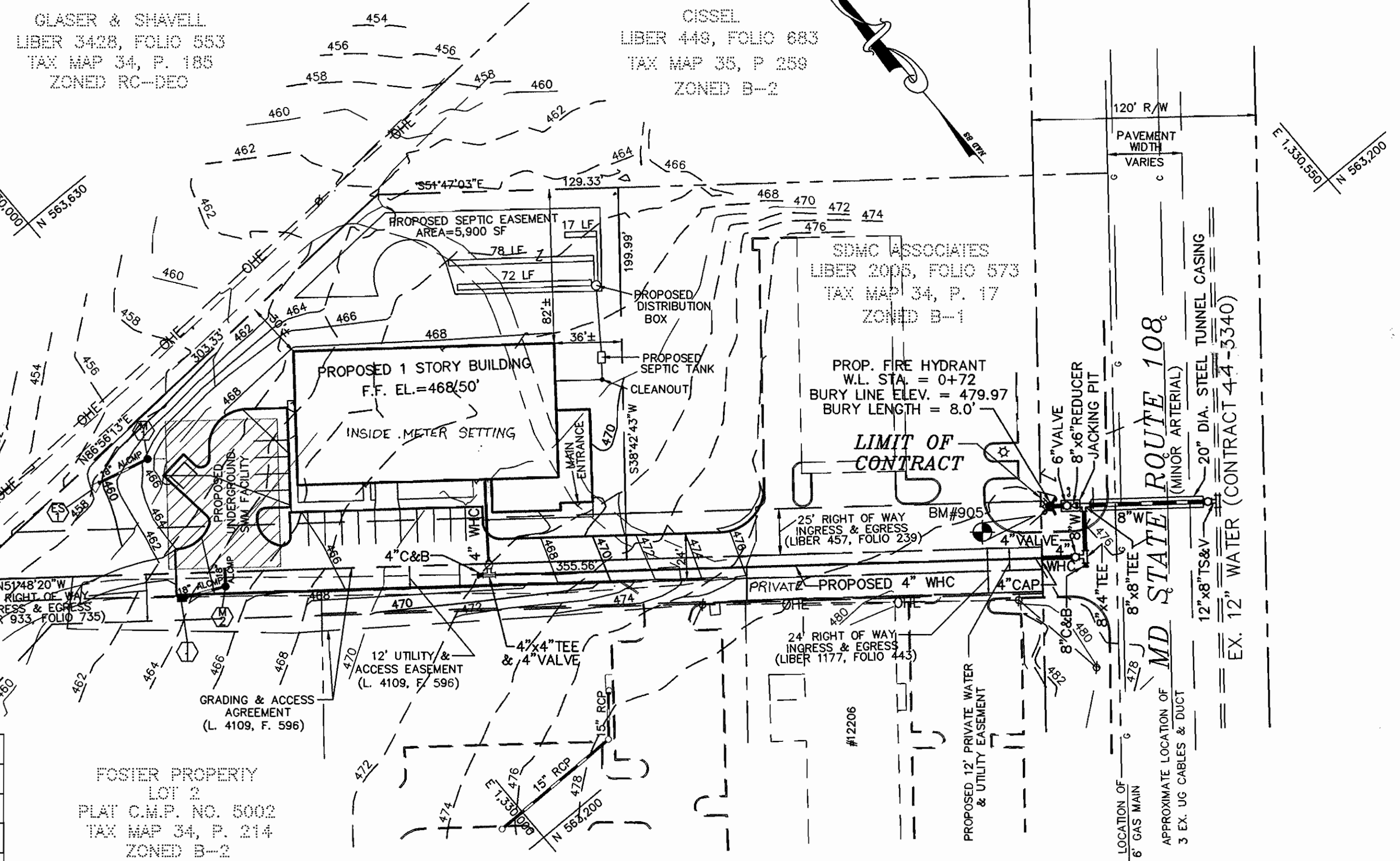
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND MEETS TECHNICAL REQUIREMENTS.

5/1/98
Cheryl Simmons
DATE

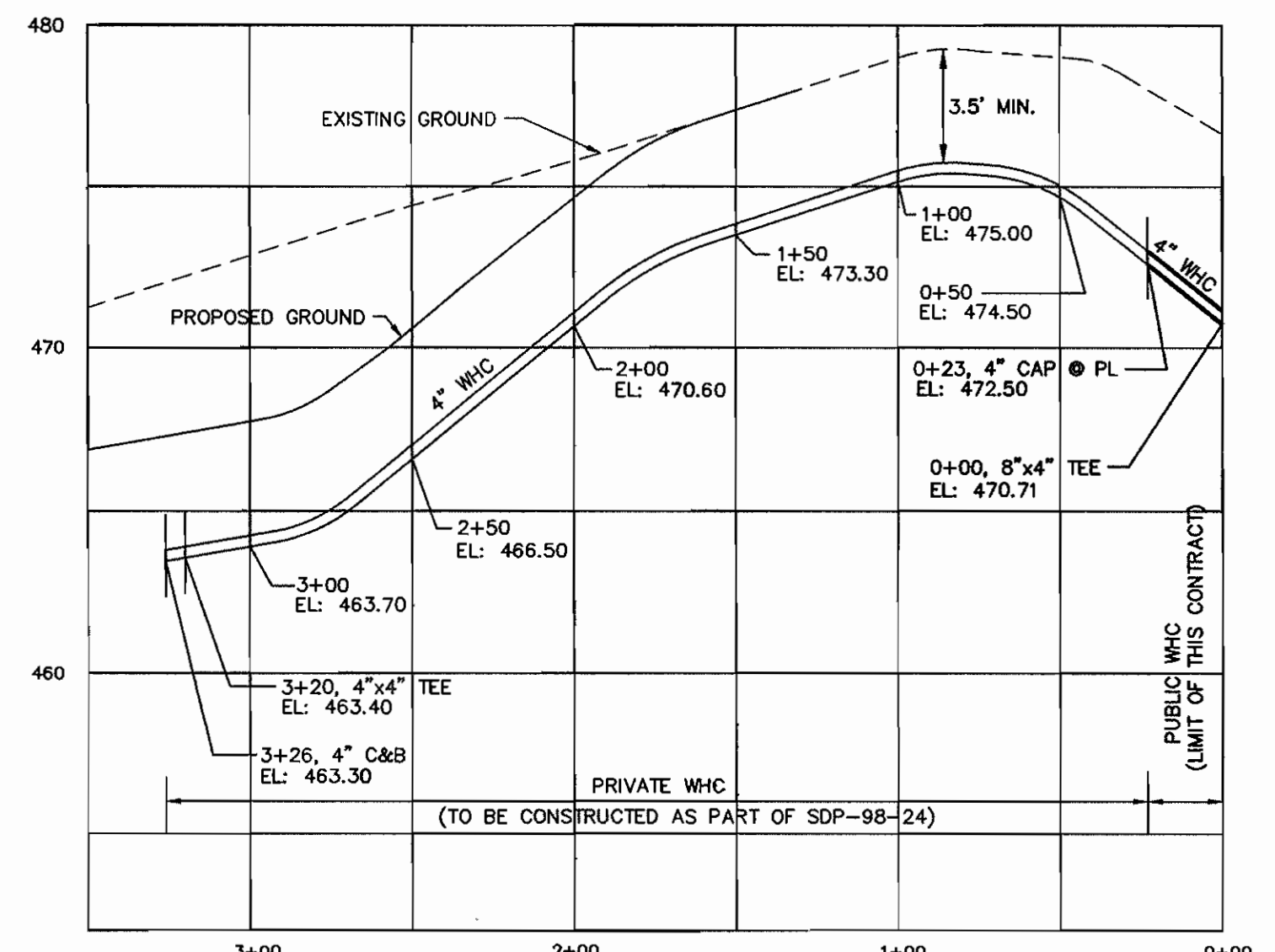
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

5/1/98
John K. Robertson
DATE

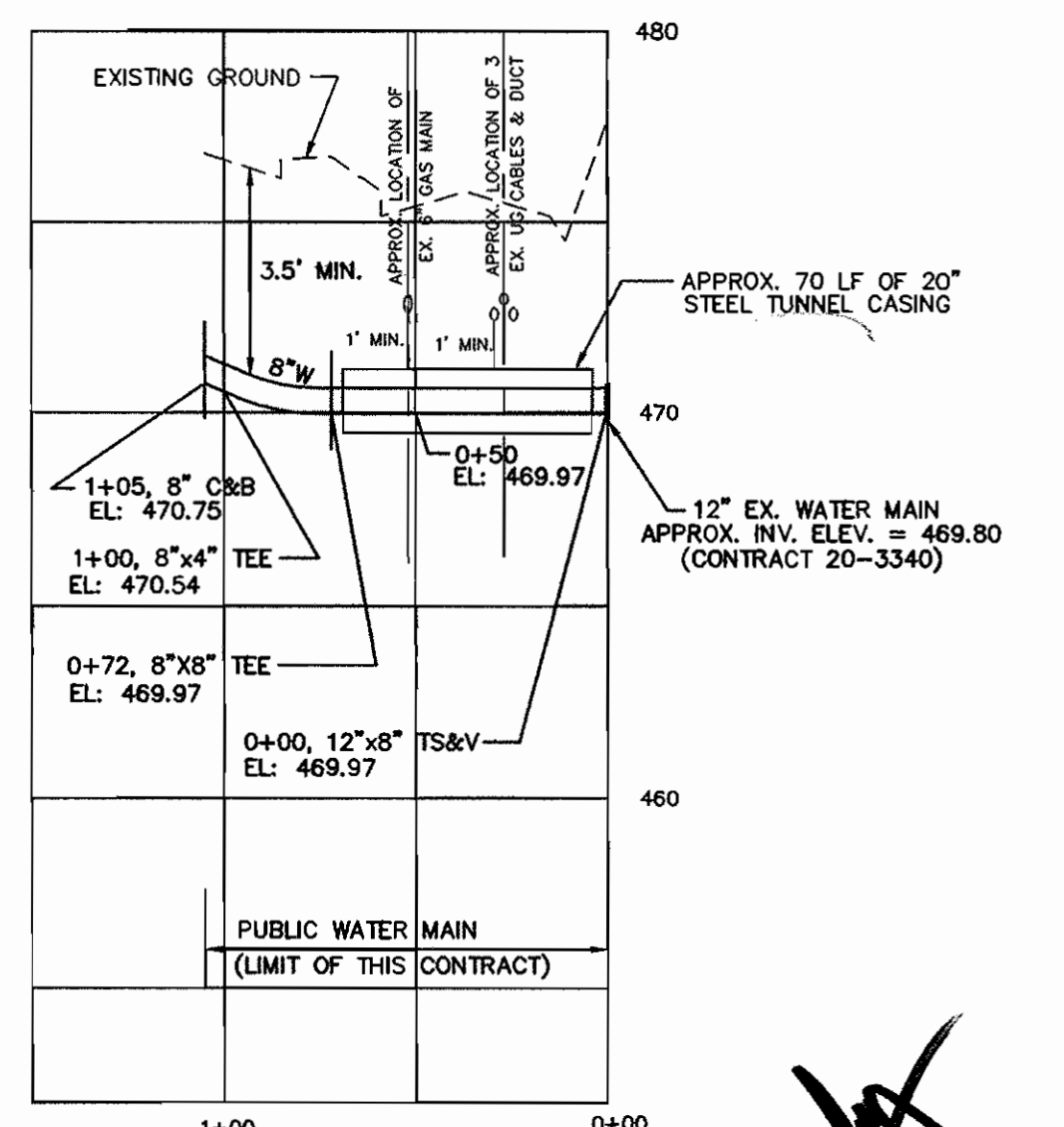
TYPE OF BUILDING _____ COMMERCIAL
No. OF UNITS _____ 1
No. OF WATER HOUSE CONNECTIONS _____ 1
No. OF SEWER HOUSE CONNECTIONS _____ 0
DRAINAGE AREA _____ MIDDLE PATUXENT RIVER
TREATMENT PLANT _____ LITTLE PATUXENT



PLAN
SCALE: 1"=50'



4" WATER HOUSE CONNECTION

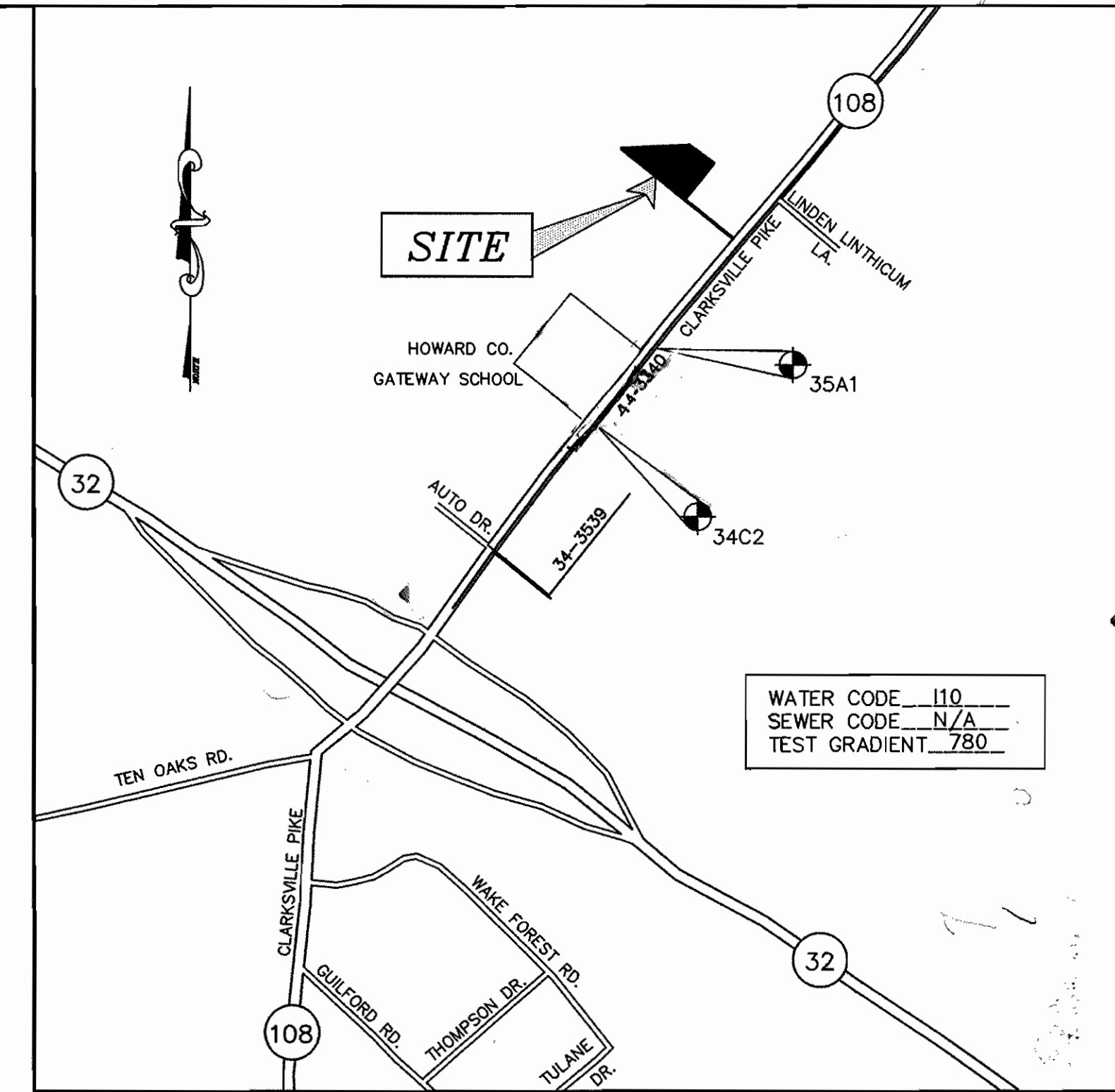


8" WATER MAIN

PROFILES
SCALE: HOR.: 1"=50'
VERT.: 1"=5'

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 ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES (NAD83).
- ALL VERTICAL CONTROLS ARE BASED ON NVD29.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL 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 BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO 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 (LATEST EDITION). 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 TEST PIT 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
BG & E CO. CONTRACTOR SERVICES 850-4620
BG & E CO. UNDERGROUND DAMAGE CONTROL 787-9068
MISS UTILITY 1-800-257-7777
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 313-4900
BUREAU OF UTILITIES 795-1390
- 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 WITHOUT APPROVAL.
- 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.
- 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 STRAPPED 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.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 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.
- ALL WATER METERS TO BE LOCATED INSIDE PROPOSED UNITS.
- STATIONING SHOWN IS WATER MAIN STATIONING.
- ALL CLEANOUTS AND BALL VALVES ARE TO BE LOCATED AT THE WATER, SEWER AND UTILITY EASEMENT LINE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- ON-SITE SEDIMENT CONTROL TO BE PROVIDED BY SDP-98-24. OFF-SITE SEDIMENT CONTROL TO BE AS FOLLOWS: ALL EXCAVATED MATERIAL SHALL BE STABILIZED ON THE UPGRADE SIDE OF THE MAIN TRENCH. EXCAVATION & BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE WORKING DAY.
- STORM DRAIN SYSTEM INDICATED FOR INFORMATIONAL PURPOSES ONLY. SEE ROAD PLANS FOR CONSTRUCTION DATA.
- FIELD SURVEY BY MILDENBERG, BOENDER & ASSOC., INC. BASED ON HOWARD CO. CONTROL MONUMENTS:
STATION 3422: N: 562,321.84 E: 1,329,750.693 EL: 493.620
STATION 35A1: N: 562,664.477 E: 1,330,026.822 EL: 478.967



VICINITY MAP
SCALE: 1"=600'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
5/1/98
Michael A. Giovanniello for RMB
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
5/1/98
John K. Robertson
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042
(410) 997-0286 (301) 821-5521 Wash. (410) 997-0288 Fax

engineering	illustration	approval	project	date	BY	NO.	REVISION	DATE
RLM	RLM	JBM/RJH	98075	APR 1998				

WATER PLAN & PROFILE
SCALE TAX MAP NO. 34 BLOCK NO. 6

CLARKSVILLE AUTO CENTER
CONTRACT NO. 44-3685-D
TAX MAP 34, PARCEL 244 LIBER 3903, FOLIO 0315
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND