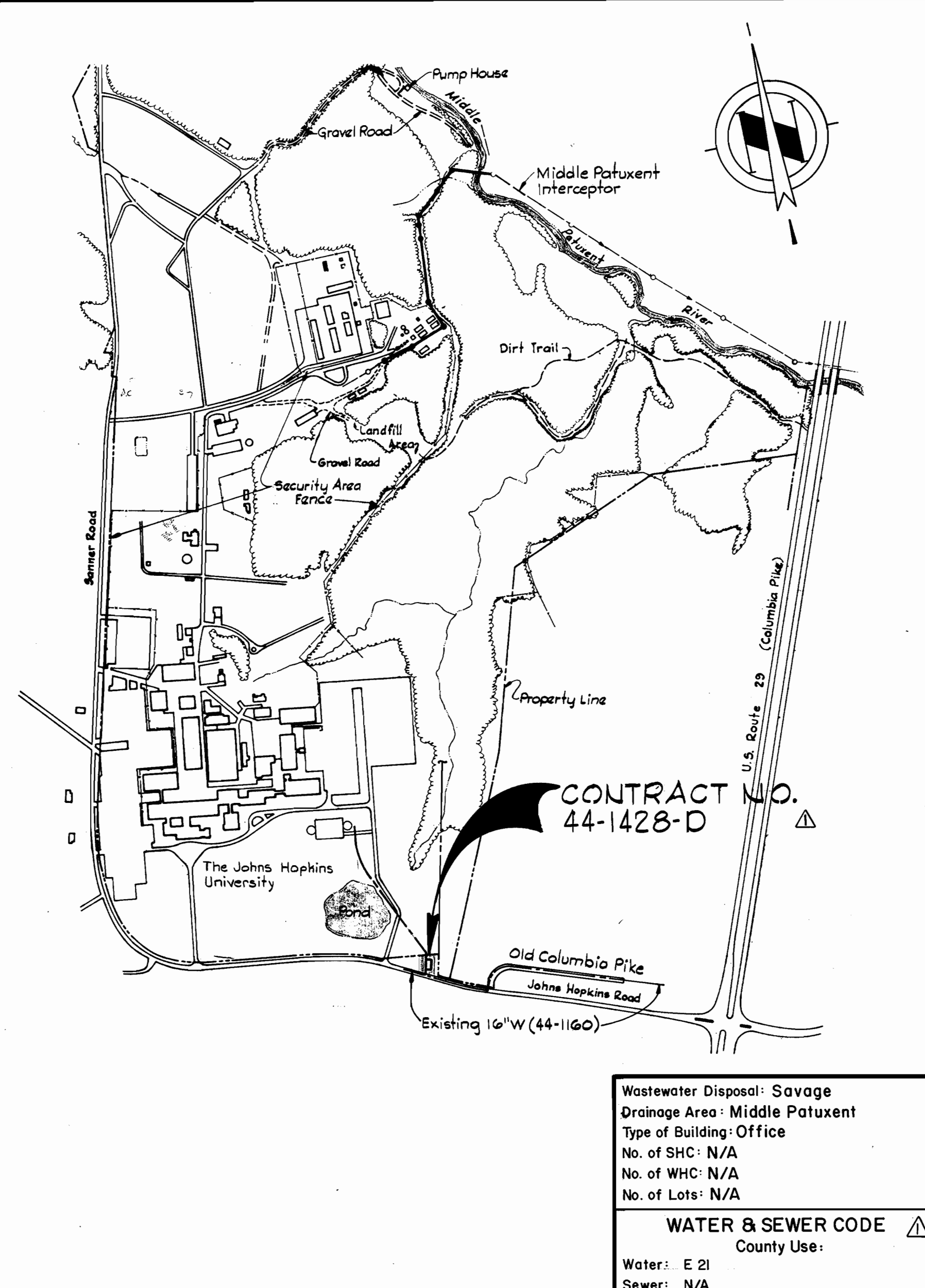


BENCH MARK
 WR#A B.M.#K-3A Elev. 424.95
 "X" Cut on Fire hydrant
 bonnet bolt.

GENERAL NOTES

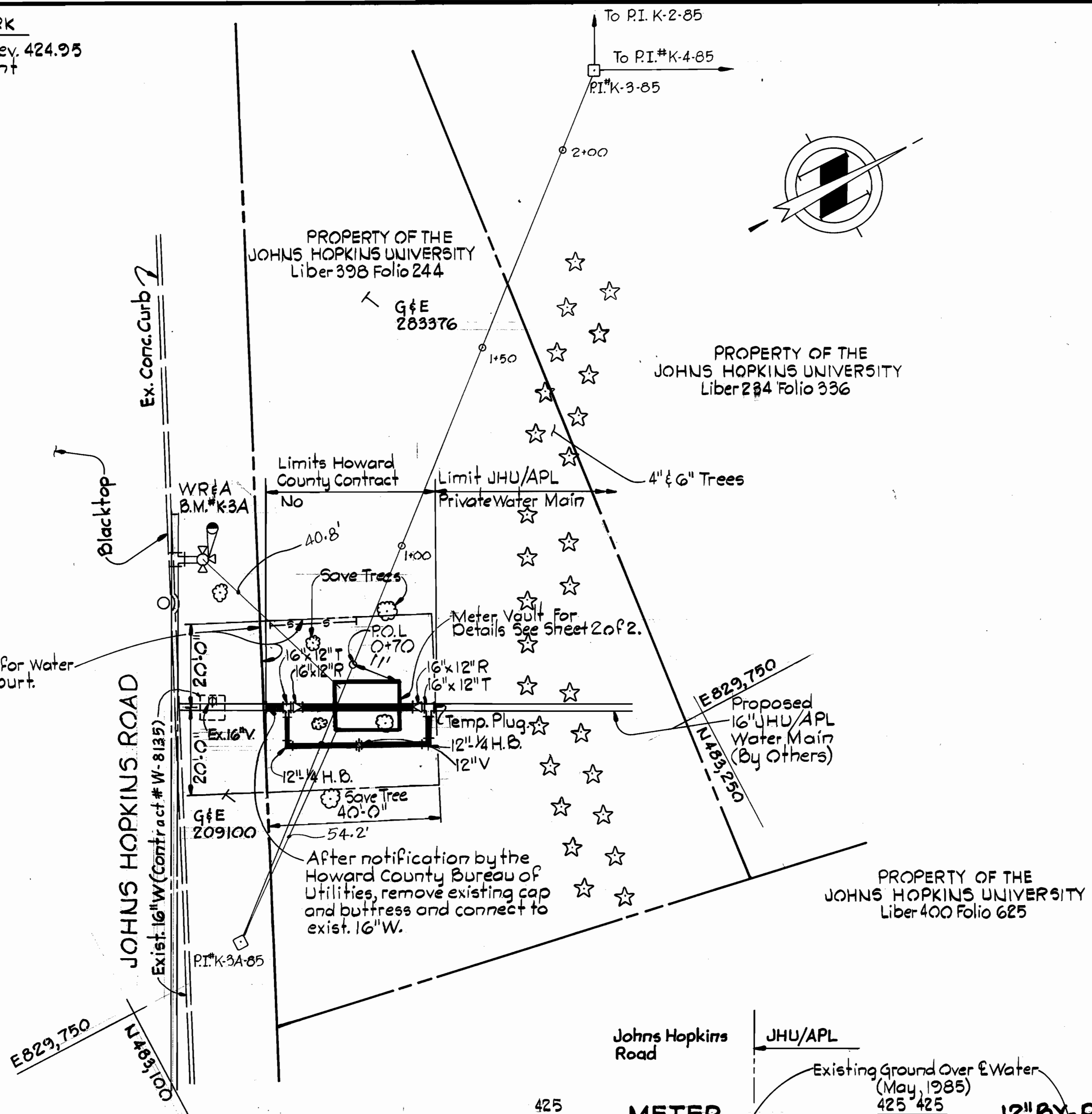
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM TO OBTAIN ELEVATIONS ON THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY DATUM, ADD 0.94 FEET TO U.S.G.S. 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.
- 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.
- 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.
- 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 AND ELECTRIC CO. - CONTRACTOR SERVICES 561-2585
 BALTIMORE GAS AND ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL - 234-5621
 BALTIMORE GAS AND ELECTRIC CO. - TROUBLE SHOOTING - 298-9013
 MISS UTILITY - 1 - 559-0100
 COLONIAL PIPELINE CO. - 795-1390
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366.
 THE JOHNS HOPKINS UNIVERSITY, APPLIED PHYSICS LABORATORY-MR. ARTHUR STUCKI - 953-5134
- 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 AND SET ASIDE FOR JHU/APL DISPOSAL.
- ALL WATER MAINS TO BE D.I.P. 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 1003 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- STRAW BALE DIKE AND SILT FENCE ARE INTERCHANGEABLE.



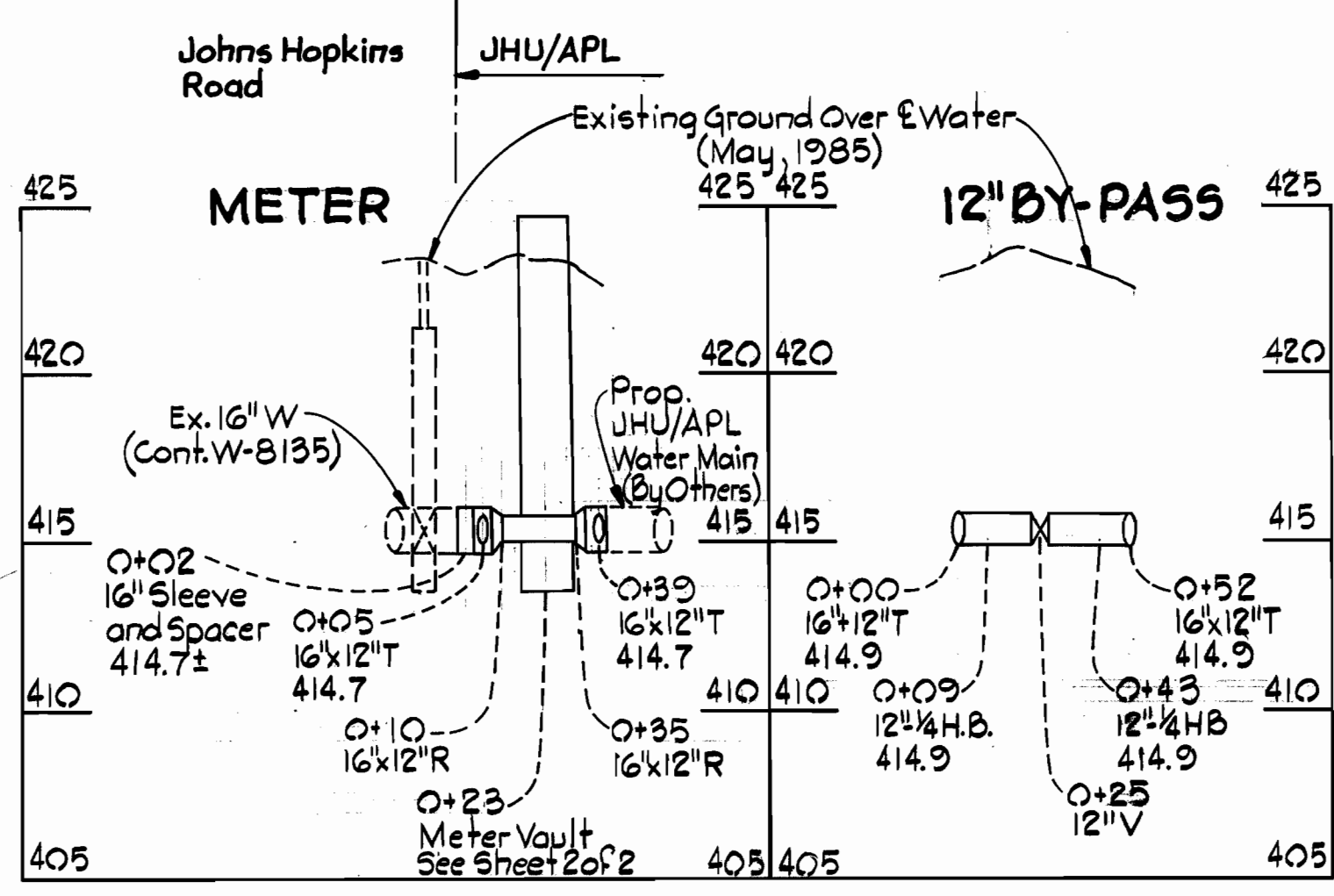
Wastewater Disposal: Savage
 Drainage Area: Middle Patuxent
 Type of Building: Office
 No. of SHC: N/A
 No. of WHC: N/A
 No. of Lots: N/A

WATER & SEWER CODE
 County Use:

Water: E 21
 Sewer: N/A



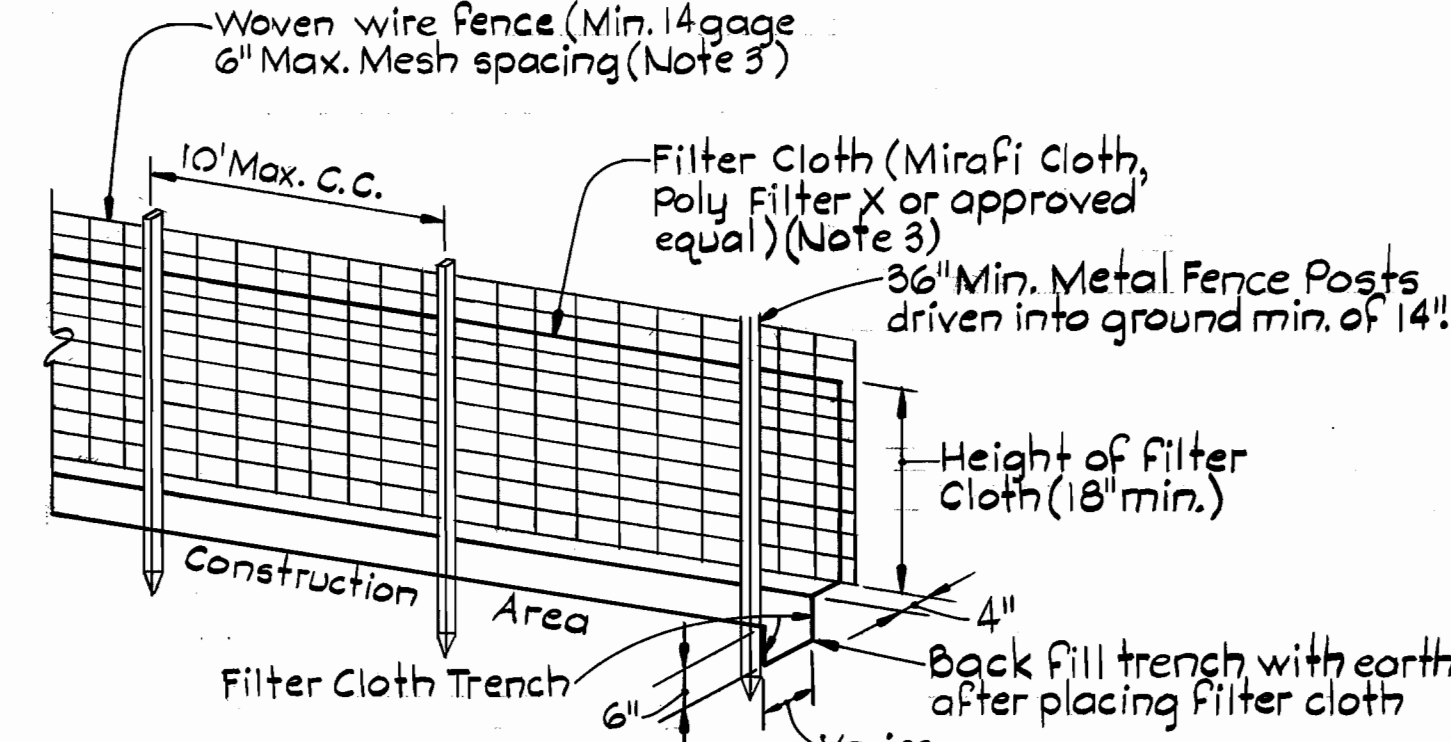
PLAN
 Scale: 1" = 20'



PROFILES
 Scale: Hor. 1" = 50'
 Vert. 1" = 5'

QUANTITIES

ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
12" Water LF	52	48.5	GRIFFIN PIPE PRODUCTS
12" Valve EA	1	1	M&J VALVE CO.
12" x 10" x 6" MFM Meter EA	1	1	GRIFFIN PIPE PRODUCTS
16" x 12" T EA	2	2	"
16" x 12" R EA	2	2	"
12" x 12" H.B. EA	2	2	"



SILT FENCE DETAIL

- SILT FENCE NOTES:**
- Woven wire fence to be fastened securely to fence posts by use of wire ties.
 - Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24" x 24".
 - In lieu of the silt fence shown on this sheet the Contractor may use a prefabricated silt fence equivalent to ENVIROFENCE as manufactured by the Celanese Corporation.
 - Standard Symbol

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

Jessie McNeil 1-31-86
 SIGNATURE DATE
 U.S. SOIL CONSERVATION

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard County Conservation District.

APPROVED:
Stephen L. Fultz 1/31/86
 HOWARD S.C.D. DATE

Sediment Control Measures for this Contract will be implemented in accordance with Article 15 of the Standard Specifications and Road Construction Plans F-85-145.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John F. Nimmer 1-31-86
 DIRECTOR OF PUBLIC WORKS - DATE

Robert Reisinger 1-28-86
 CHIEF - BUREAU OF UTILITIES - DATE

Michael F. Johnson 1-31-86
 CHIEF - BUREAU OF ENGINEERING - DATE

Michael F. Johnson 1-31-86
 CHIEF - LAND DEVELOPMENT DIVISION - DATE

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 2315 ST. PAUL ST.
 BALTIMORE, MARYLAND

Charles R. Reitz

DES: J.E.L.			
DRN: C.J.K.			
CHK: E.A.S.			
DATE: 9/25/85			
BY:	NO.	REVISION	DATE

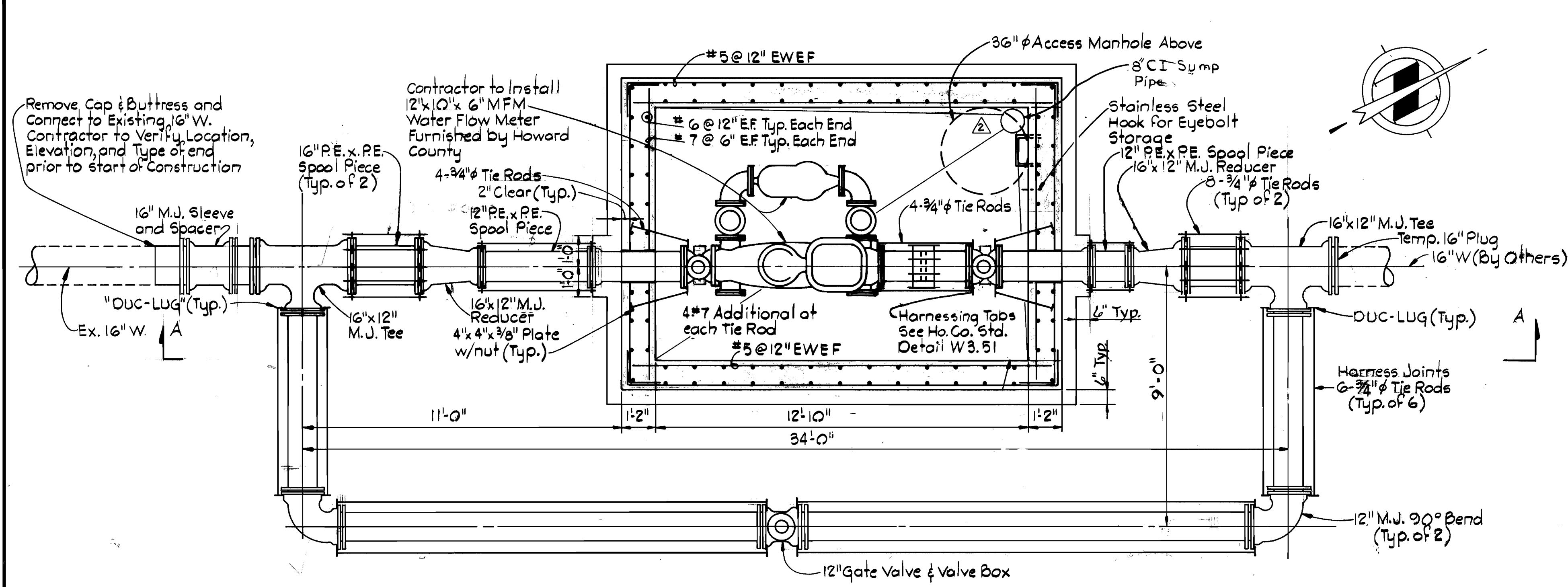
PLAN AND PROFILE OF WATER METER

ADD CONTRACT NO., WATER, SEWER CODE: 44-1428-D

SCALE MAP NO. 41 BLOCK NO. 16

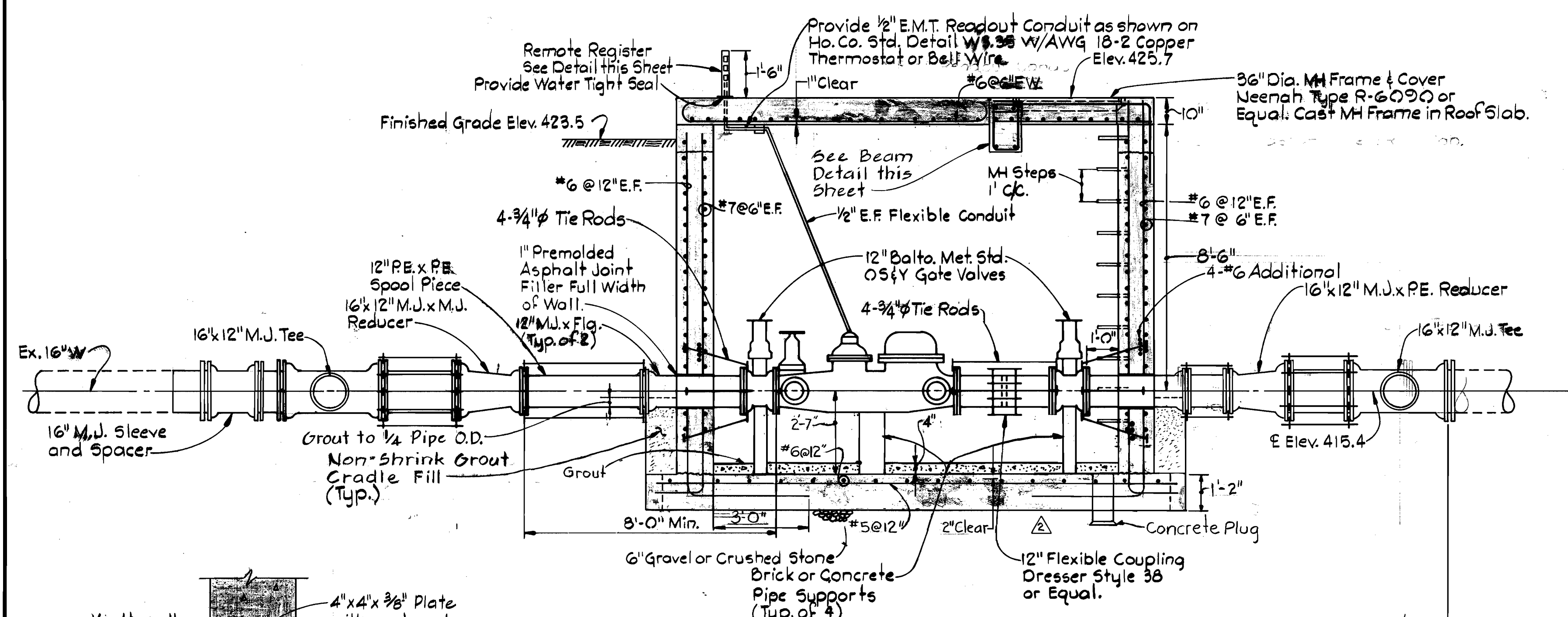
THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY
 ELECTION DISTRICT NUMBER 5
 CONTRACT NO. 44-1428-D

SCALE AS SHOWN
 SHEET 1 OF 2



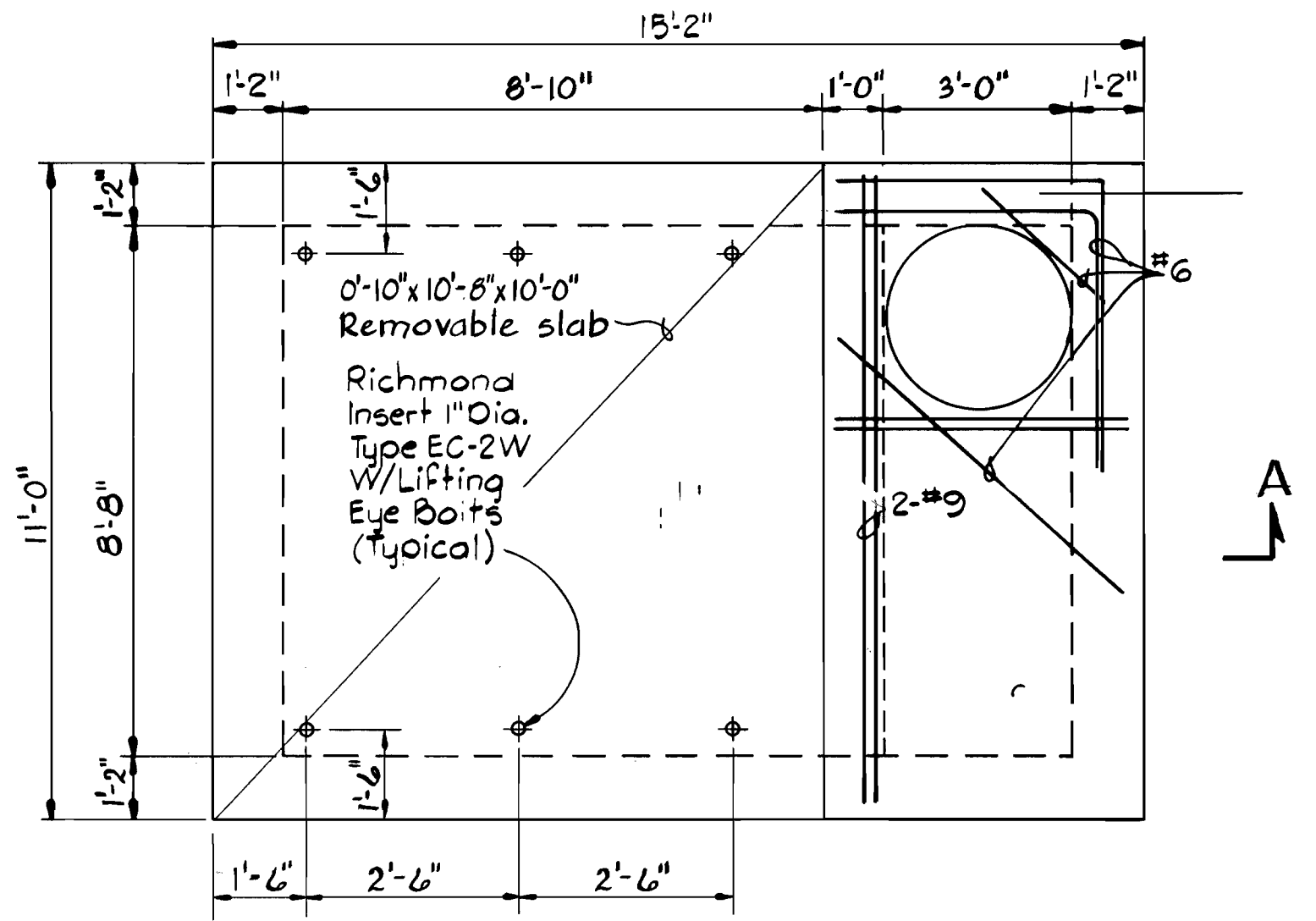
PLAN - BELOW TOP SLAB

SCALE: 3/8"=1'-0"



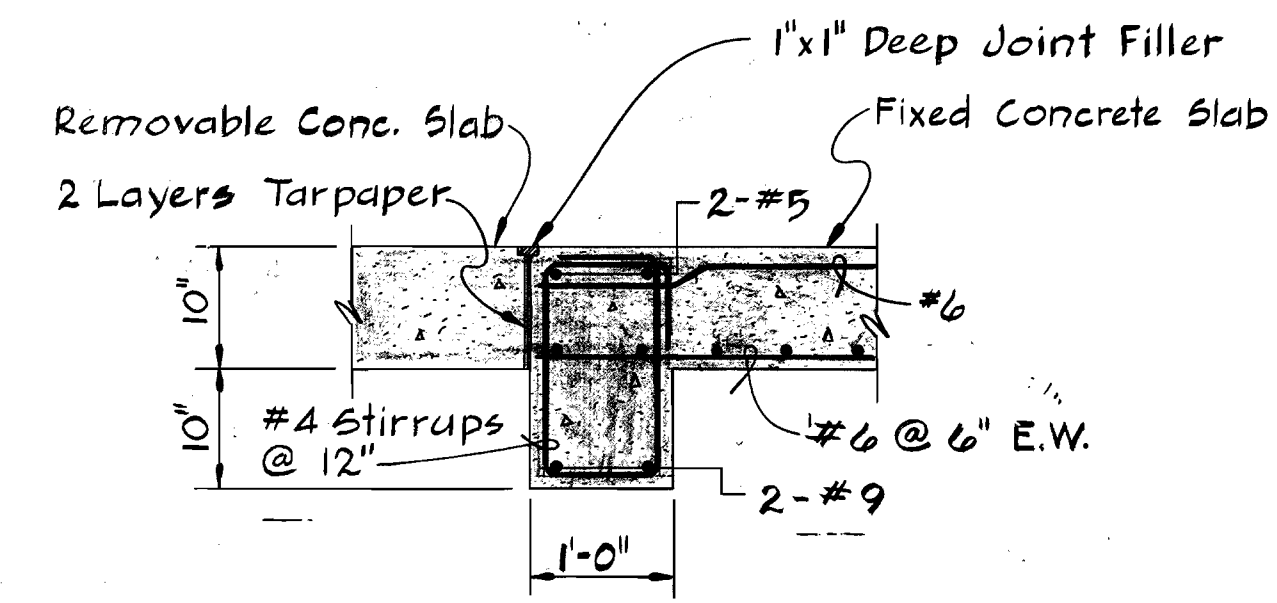
SECTION A-A

SCALE: 3/8"=1'-0"



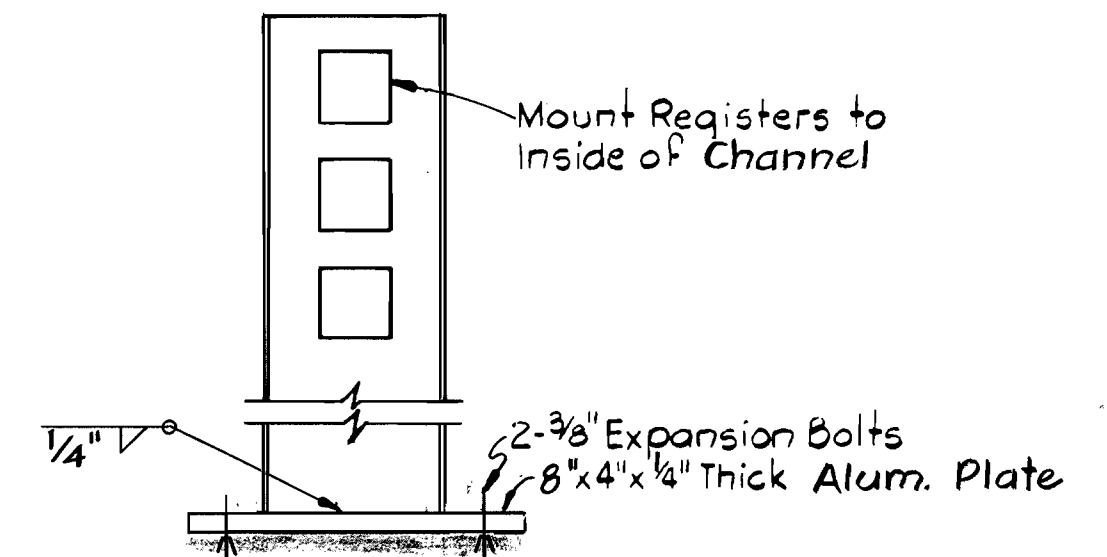
PLAN - TOP SLAB

SCALE: 3/8"=1'-0"

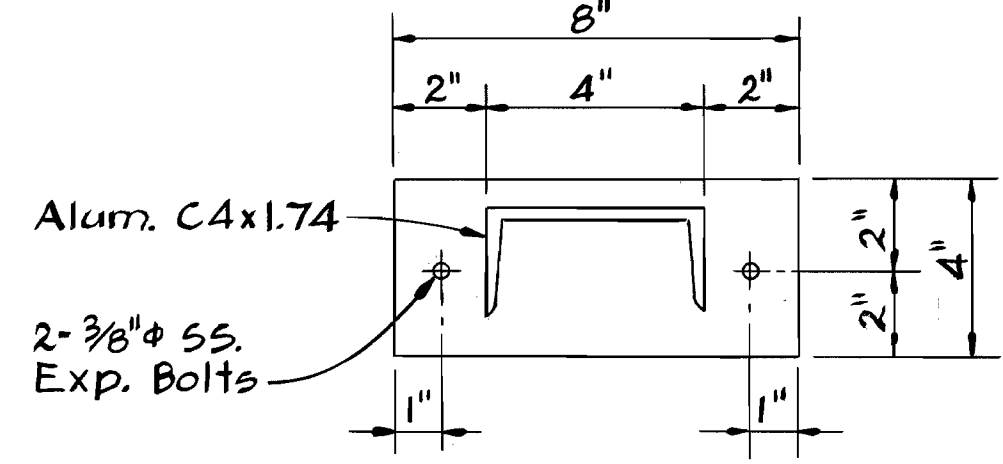


BEAM DETAIL

SCALE: 3/4"=1'-0"



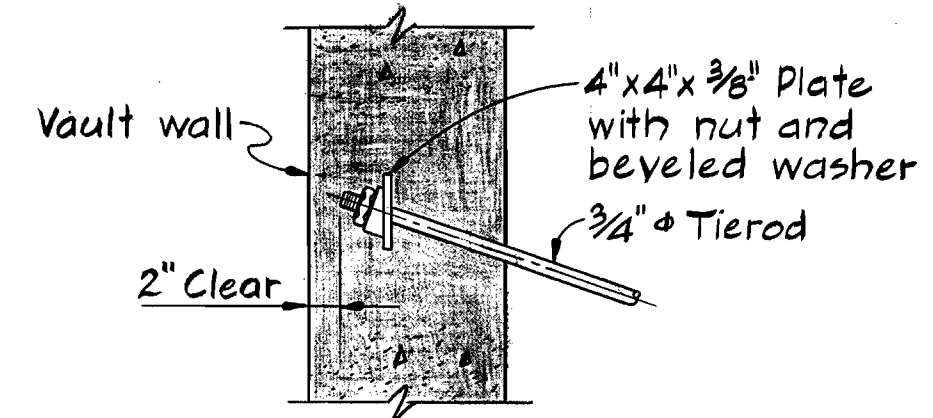
ELEVATION



PLAN

REGISTER MOUNTING DETAIL

NO SCALE



TYPICAL TIE ROD DETAIL

SCALE: 1"=1'-0"

GENERAL NOTES

1. Reinforced concrete shall be detailed and constructed in accordance with the current "ACI Standard Building Code Requirements for Reinforced Concrete" (318-83).
2. Reinforcing steel shall be detailed in accordance with ACI 315-80, Manual of Standard Practices for Detailing Reinforced Concrete Structures, except where shown otherwise.
3. All reinforcement shall conform to ASTM Specification A615-82 Grade 60 including Supplement 51.
4. Meter Vault concrete shall be Mix No. 6.
5. All splices and embedments for reinforcing bar not dimensioned on this drawing shall be detailed as Class "C" Splices.
6. Unless otherwise noted on the drawing, concrete cover for reinforcement shall be as follows:
 - a) Concrete slabs on earth or gravel..... 3 inches.
 - b) Beams, slabs and walls exposed to ground, weather or process liquids after the removal of forms 2 inches

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works - DATE 2-2-86
Robert M. Bergeron - DATE 1-28-86
Chief - Bureau of Utilities - DATE

Chief - Bureau of Engineering - DATE
Chief - Land Development Division - DATE

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS

2315 ST. PAUL ST.
BALTIMORE, MARYLAND

Charles A. Reardt

DES: J.E.L./T.M.A.				
DRN: C.J.K./L.C.B.				
CHK: E.A.S./J.O.A.				
DATE: 9/25/85	BY: NO.	REVISION	DATE	

VAULT DETAILS, SUMP CLEARANCE 12/20/85
ADD CONTRACT NO. 12/20/85

WATER METER VAULT PLAN AND DETAILS

600' SCALE MAP NO. 41 BLOCK NO. 16

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY

ELECTION DISTRICT NUMBER 5
CONTRACT NO. 44-1428-D

SCALE AS SHOWN
SHEET 2 OF 2