

western Elem. School #2

WS/1

SEDIMENT & EROSION CONTROL FOR OUTFALL SEWER CONSTRUCTION

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs per acre 30-0-0 urea fertilizer (9 lbs./1000 sq.ft.)
- 2) Alternative - Apply 1 ton per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue grass seed. For the period November 1 thru March 1, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of weeping lovegrass. During the period October 16 thru March 1, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue or 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass. During the period October 16 thru March 1, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue or 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass. During the period October 16 thru March 1, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue or 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass. During the period October 16 thru March 1, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue or 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass.

MULCHING: Apply 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (3 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TOTAL TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.).

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 tons per acre of annual ryegrass (3.2 lbs./1000 sq.ft.) for the first 10 days, followed by 2 lbs. per acre (0.5 lbs./1000 sq.ft.) of weeping lovegrass (0.2 lbs./1000 sq.ft.). For the period November 1 thru February 1, protect site by applying 2 tons per acre (0.5 lbs./1000 sq.ft.) of straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (3 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq.ft.) for anchoring.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

NOTE:

- 1) Stream Crossing Work shall be accomplished during a 3 day clear weather forecast.
- 2) Open trench construction shall be limited to 3 lengths or that which shall be backfilled and stabilized in one work day.

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County D.P.W. Permit prior to the start of any construction. (3.13-18.50)
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in compliance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be provided within 7 calendar days. All perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, a) 14 days as to all other disturbed or graded areas on the site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec.51), sod (Sec.54), temporary seedings (Sec.50) and mulching (Sec.52). Temporary seedings and mulching may be used only where recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All disturbed areas shall remain in a dormant condition in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. SITE ANALYSIS

Total Area of Site: 15.0 AC
Area Disturbed: 15.0 AC
Area to be graded or paved: 0.0 AC
Area to be vegetatively stabilized: 15.0 AC
Total Cut: 1,600 CY
Total Fill: 1,600 CY

8. Any sediment control practice which is disturbed by grading or excavation of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County D.P.W. Sediment Control Inspector.

10. On sites with disturbed areas exceeding 2 acres, approval of the responsible agency shall be required prior to installation of perimeter erosion and sediment controls, but before grading or earthmoving operations begin. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. All horizontal controls are based on Maryland State Coordinates.

12. All vertical controls are based on U.S.G.S. Datum.

13. All pipe elevations shown are invert elevations.

14. Clear all utilities by a minimum of 6' "clear all poles by 2'-0" minimum or tunnel as required. Any cost incurred to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.

15. For details not shown on the drawings use Howard County Standard Details.

16. For materials and construction methods use Howard County Standard Specifications & Details and Howard County Design Manual, Volume IV(Latest Edition). The Contractor shall have copies of these on the job site.

17. Contractor shall locate existing utilities a minimum of two (2) weeks in advance of construction operations in the vicinity of proposed utilities at his own expense.

18. Contractor shall notify the following utilities or agencies at least five (5) working days before starting work shown on these plans.

19. State Highway Administration - 531-5533

Baltimore Gas & Electric Company - Underground Damage Control - 787-9068

Baltimore Gas & Electric Company - Contractor Services - 850-4620

Baltimore Gas & Electric Company - Trouble Shooting - 298-9001

"Miss Utility" - 1-800-257-7777

Chesapeake & Potomac (C & P) Telephone Company - 1-800-257-7777

Bureau of Utilities Howard County - 313-4900

Colonial Pipeline Company - 795-1390

20. 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.

21. Contractor shall remove trees, stumps, and roots along line of excavation as directed by the Inspector. Payment for such removal shall be included in the bid for excavation and backfill.

22. 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.

23. All water mains to be D.I.P. Class 52 unless otherwise noted.

24. Top of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.

25. Valves adjacent to tees shall be strapped to tees.

26. Block all fittings with concrete.

27. Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with Std. Det. W1.1 & W2.1. Soil around the fire hydrant to be compacted in accordance with Sections 1000 & 1005 of the Standard Specifications.

28. All water house connections shall be for an inside meter setting.

29. The contractor shall not operate any water main valves on the existing system.

30. All sewer mains shall be P.V.C., or D.I.P., unless otherwise noted.

31. All manholes shall be 4'-0" inside diameter, unless otherwise noted.

32. Water main and water house connection lines must have a minimum of one foot separation from the sanitary sewer and sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.

33. Manholes designated thus : WT, shall have a Watertight Frame and Cover.

34. This Contract CANNOT be placed in service until CAPITAL PROJECT NO. W-8213 is built and placed in service.

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Western Elem. School

250' WSW

3452

SEWER LINE STAKEOUT TABLE			
FROM	TO	BEARING	DISTANCE
TRAV. STA. NO. 6	EX MH	N 73°57'49" E	362.21'
TRAV. STA. NO. 6	MH NO. 1	S 28°29'00" E	199.93'
TRAV. STA. NO. 102	MH NO. 2	N 67°20'33" E	51.47'
TRAV. STA. NO. 103	MH NO. 3	N 32°30'39" E	94.61'
TRAV. STA. NO. 103	MH NO. 4	N 86°55'25" E	98.49'
TRAV. STA. NO. 103	MH NO. 5	S 06°35'08" W	145.17'
TRAV. STA. NO. 104	MH NO. 6	N 21°59'59" E	73.65'
TRAV. STA. NO. 104	MH NO. 7	S 41°04'21" W	271.55'
TRAV. STA. NO. 105	MH NO. 8	N 49°18'12" E	17.67'

PARCEL NO. 115

PROPERTY OF
HOWARD COUNTY DEPARTMENT OF EDUCATION



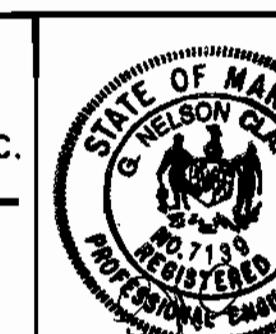
A MATCH LINE 'A-A' SEE SHEET NO. 3 A'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert W. Beirne 10-11-95
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Mark McNamee 10/16/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(410) 361-7500 BALTO. (301) 621-8100 WASH.



DES: JTR

CAD #: DRN: JTP

CHK: CM

PCC

ADD NEW EASEMENT, RELOCATED MH & ADD NEW SEWER MH

DATE: MAY, 35

BY NO.

REVISION

DATE

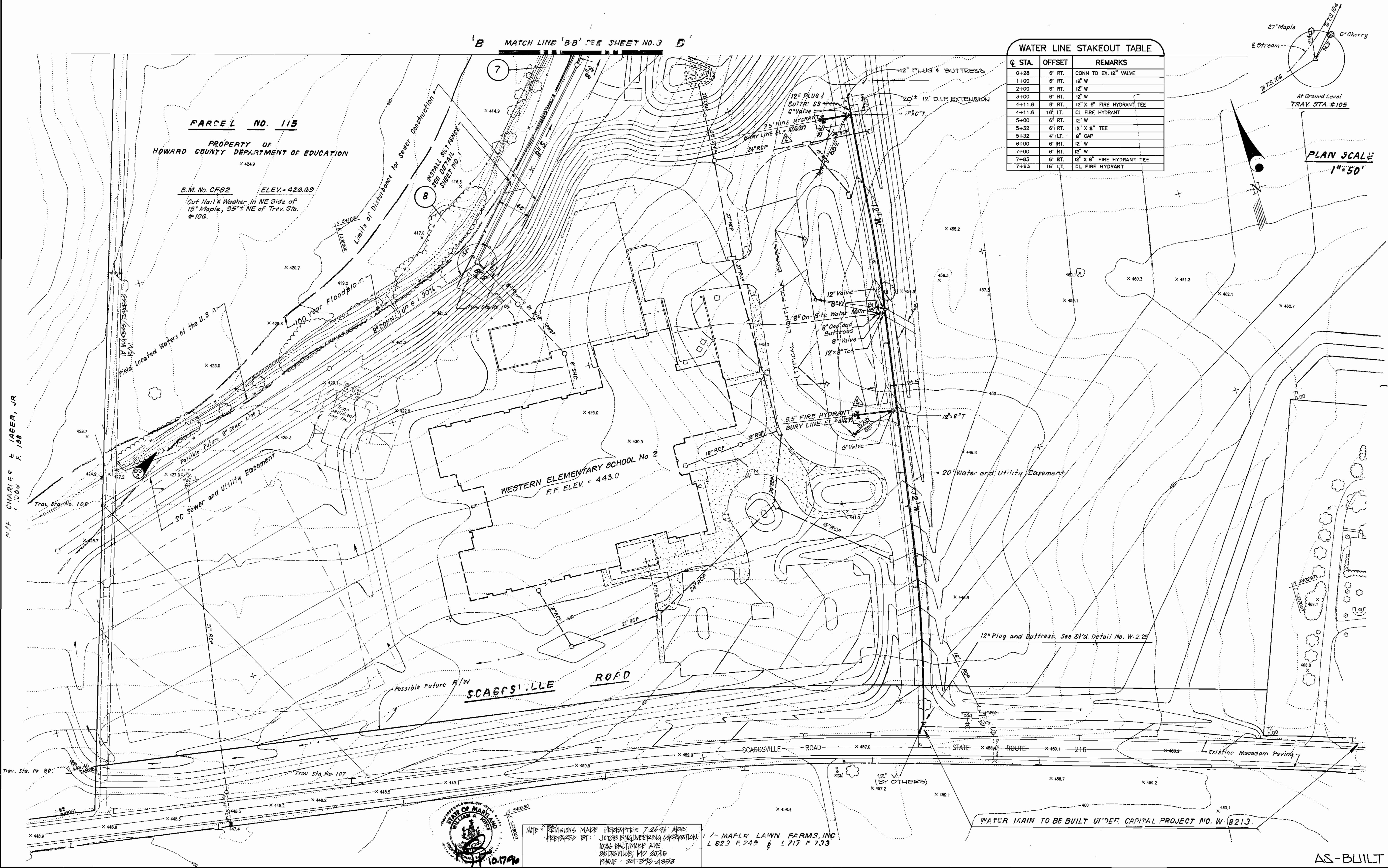
PLAN VIEW OF
WATER & SEWER LINES

WESTERN ELEMENTARY SCHOOL NO. 2
PARCEL NO. 115
FIFTH (5th) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3452-D

SCALE AS SHOWN
SHEET 2 OF 6
C-5-3-204

AS-BUILT 9/96

3452 ws/4 Western Elem. School



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

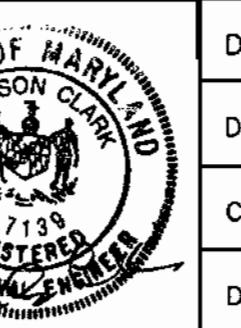
Robert B. Beamer 10-11-95
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

H. M. McComas 10/16/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



CLARK FINEFRICK & SACKETT, INC.
ENGINEERS PLANNERS SURVEYORS
7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(410) 381-7500 BALTO. (301) 621-8100 WASH.



DES JTR	CAD #	DRN. JTR	PROFESSIONAL ENGINEER
			REG'D. PROFESSIONAL ENGINEER
CHK: CM	VCC	ADJ. NEW EASEMENT, RELOCATED PH & ADD NEW SEWER MH	10/3/04
	JEP	ADJUSTED PH AND ADDED 16' INGRESS/EGRESS R/W	7-26-96

DATE: MAY, 95 BY NO. REVISION DATE

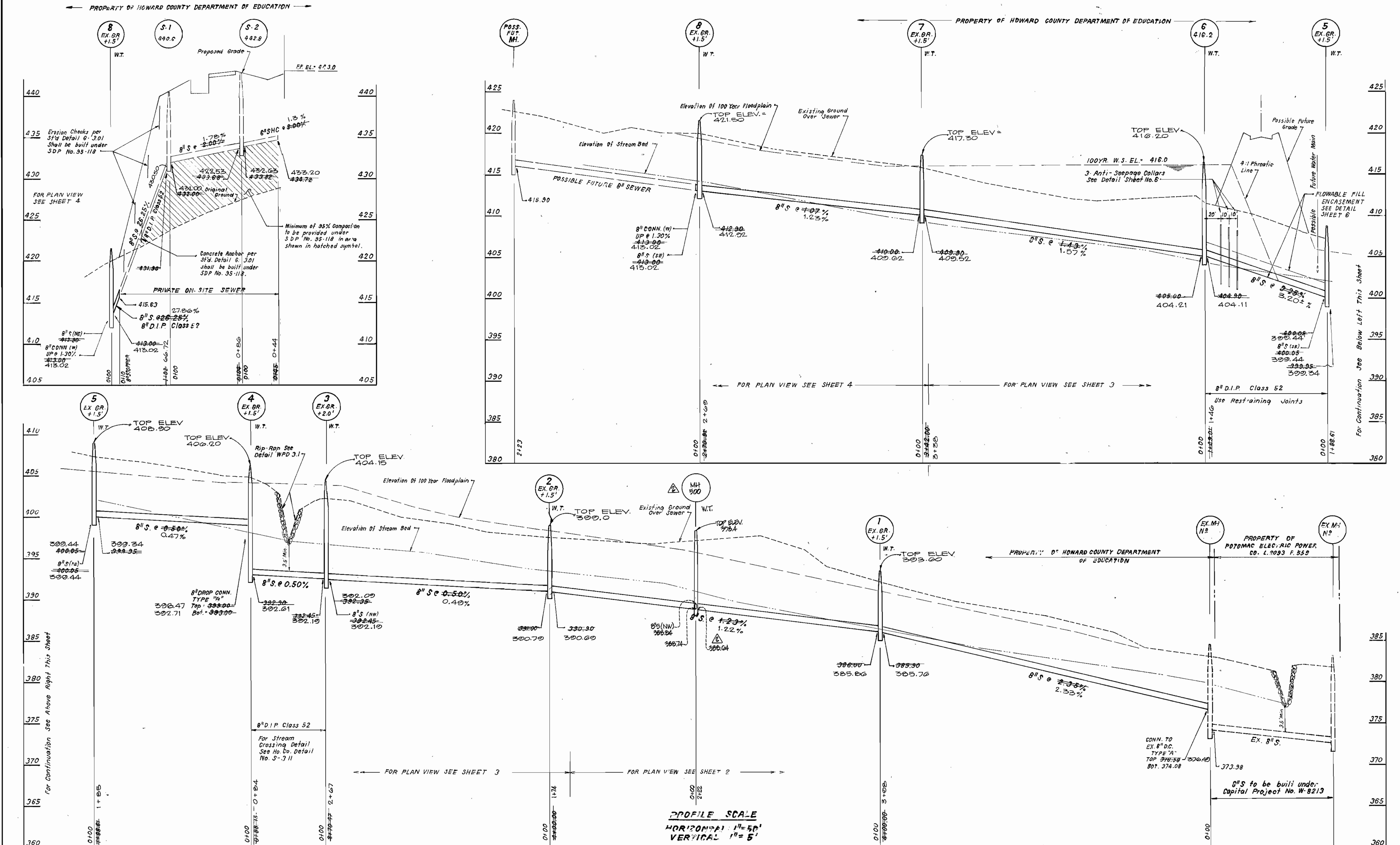
PLAN VIEW OF
WATER & SEWER LINES

600' SCALE MAP NO. 418-16 BLOCK NO. 202-21nd 283

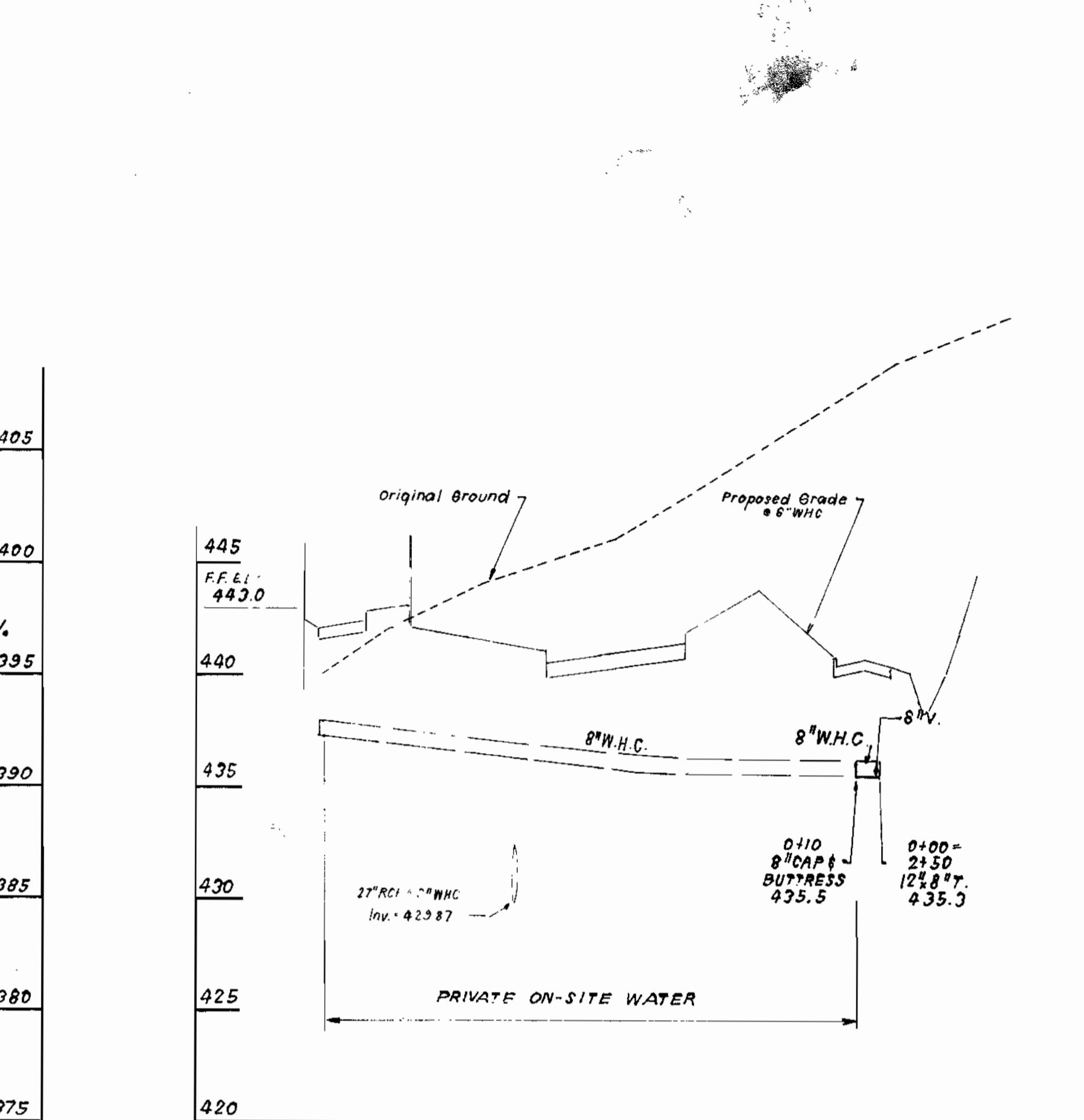
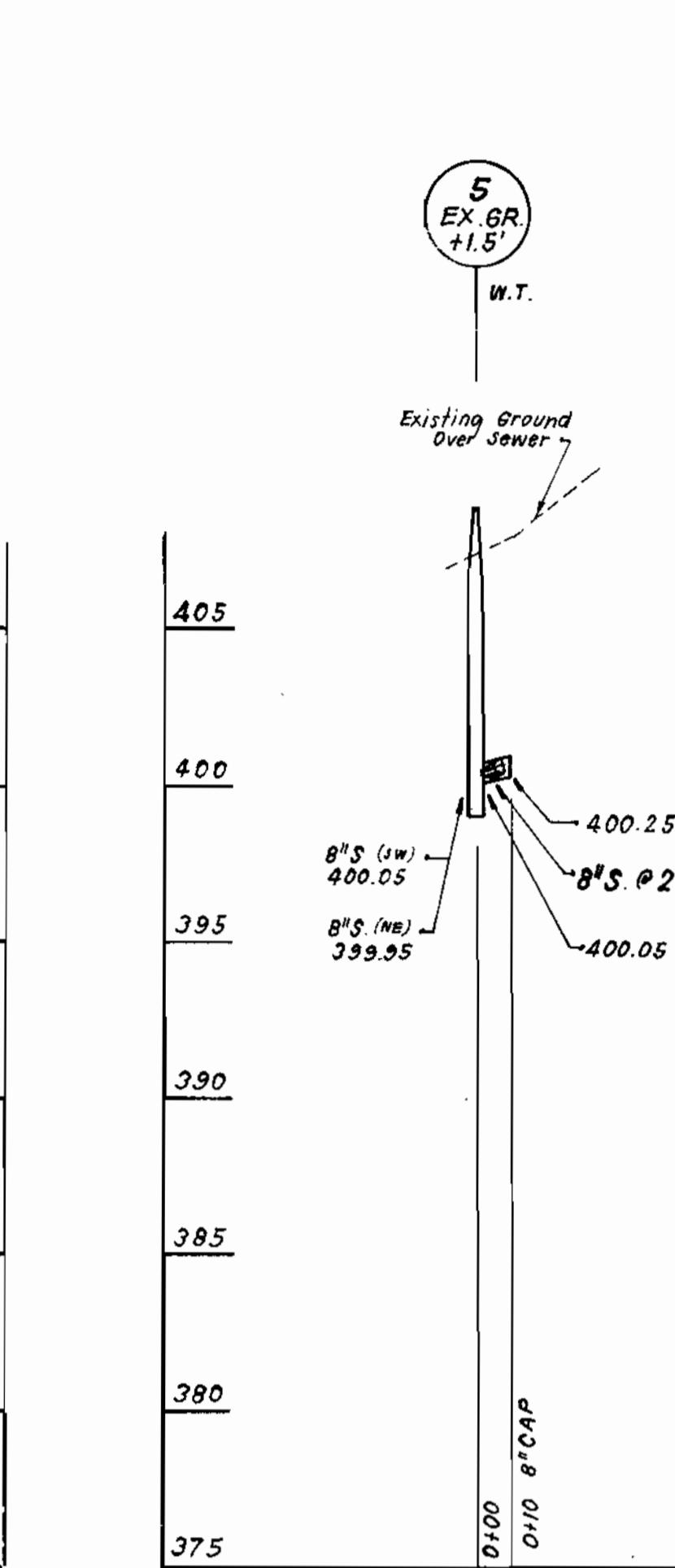
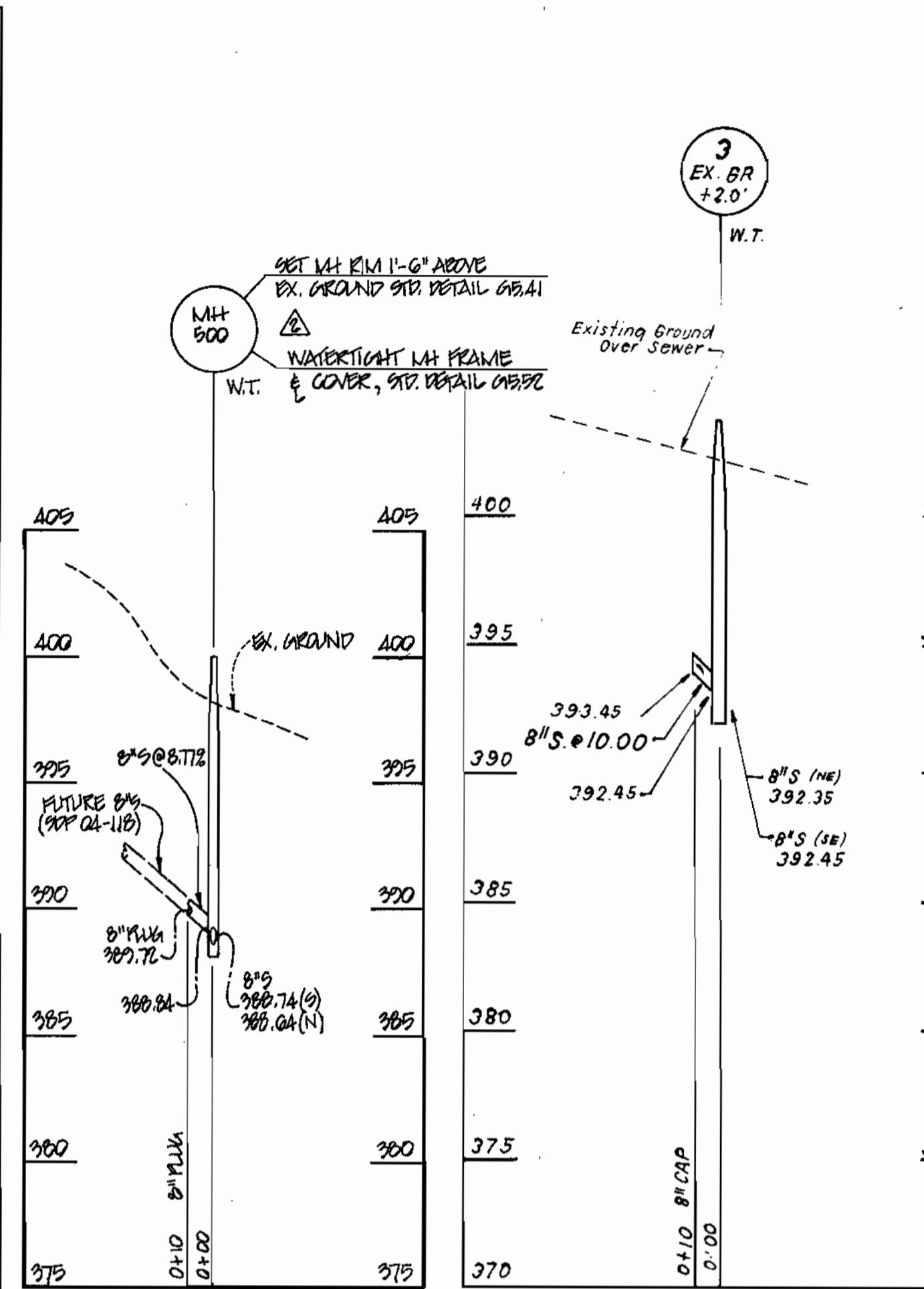
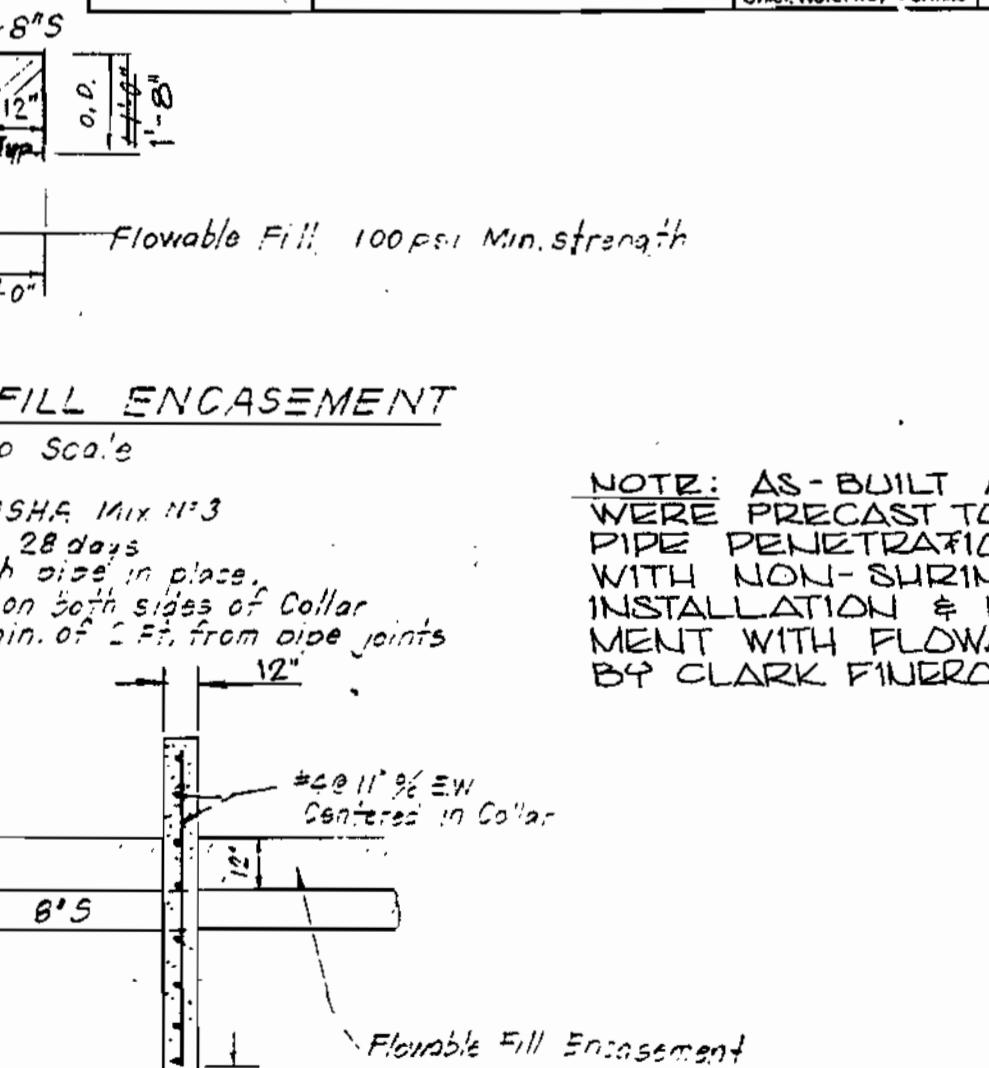
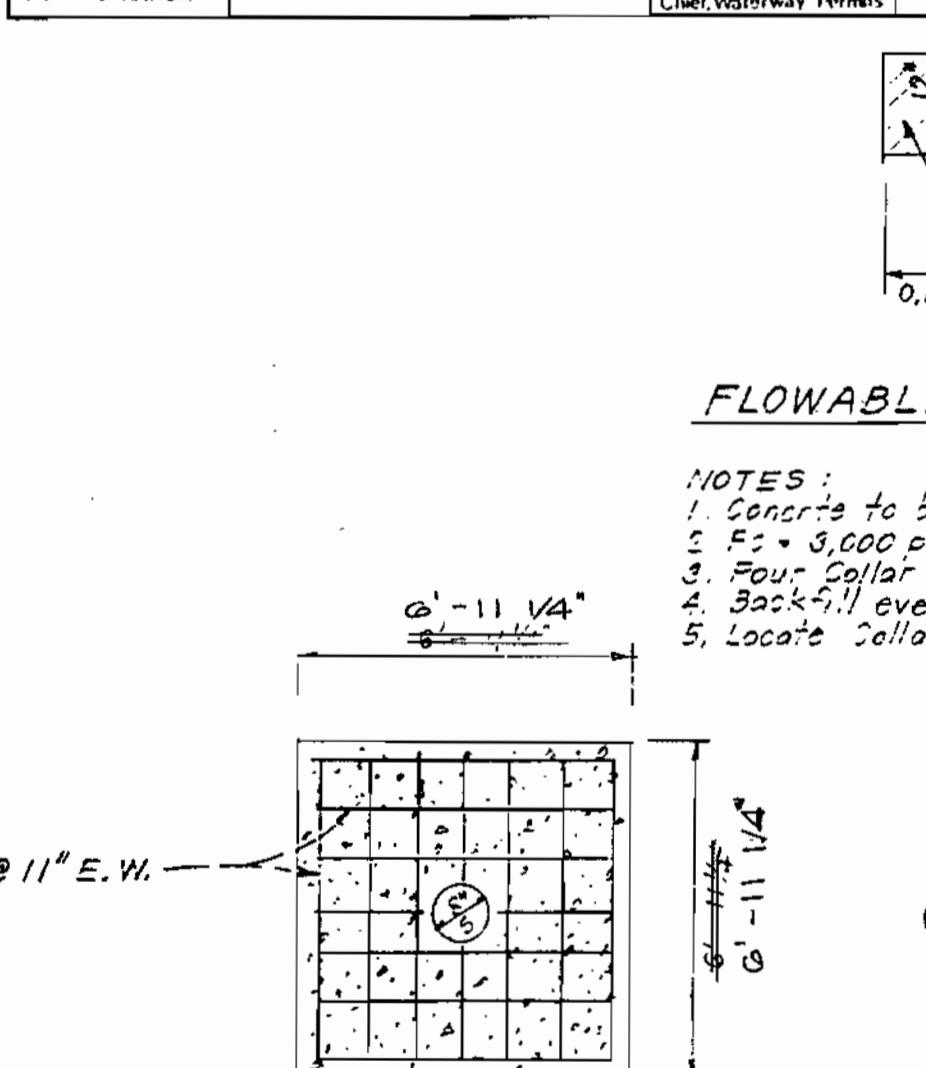
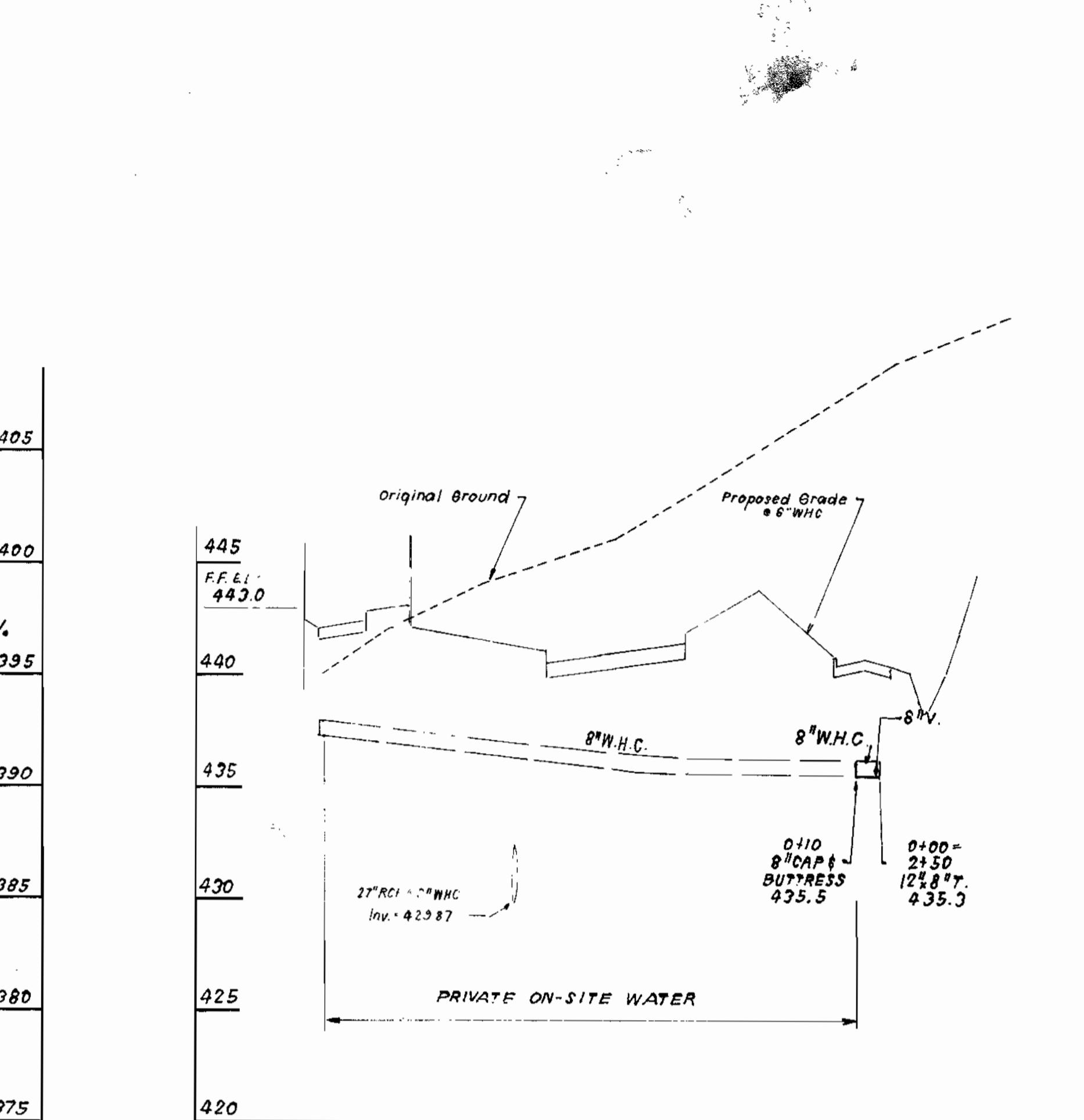
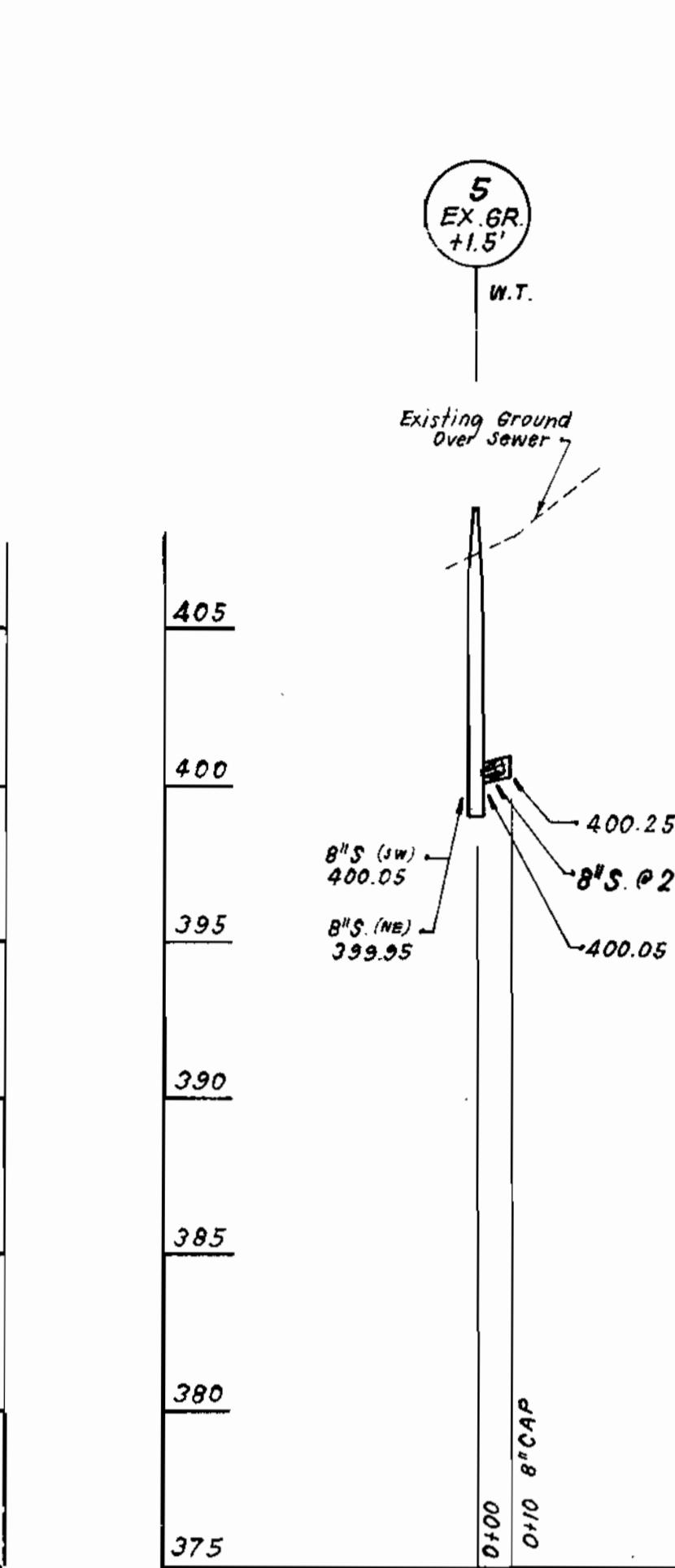
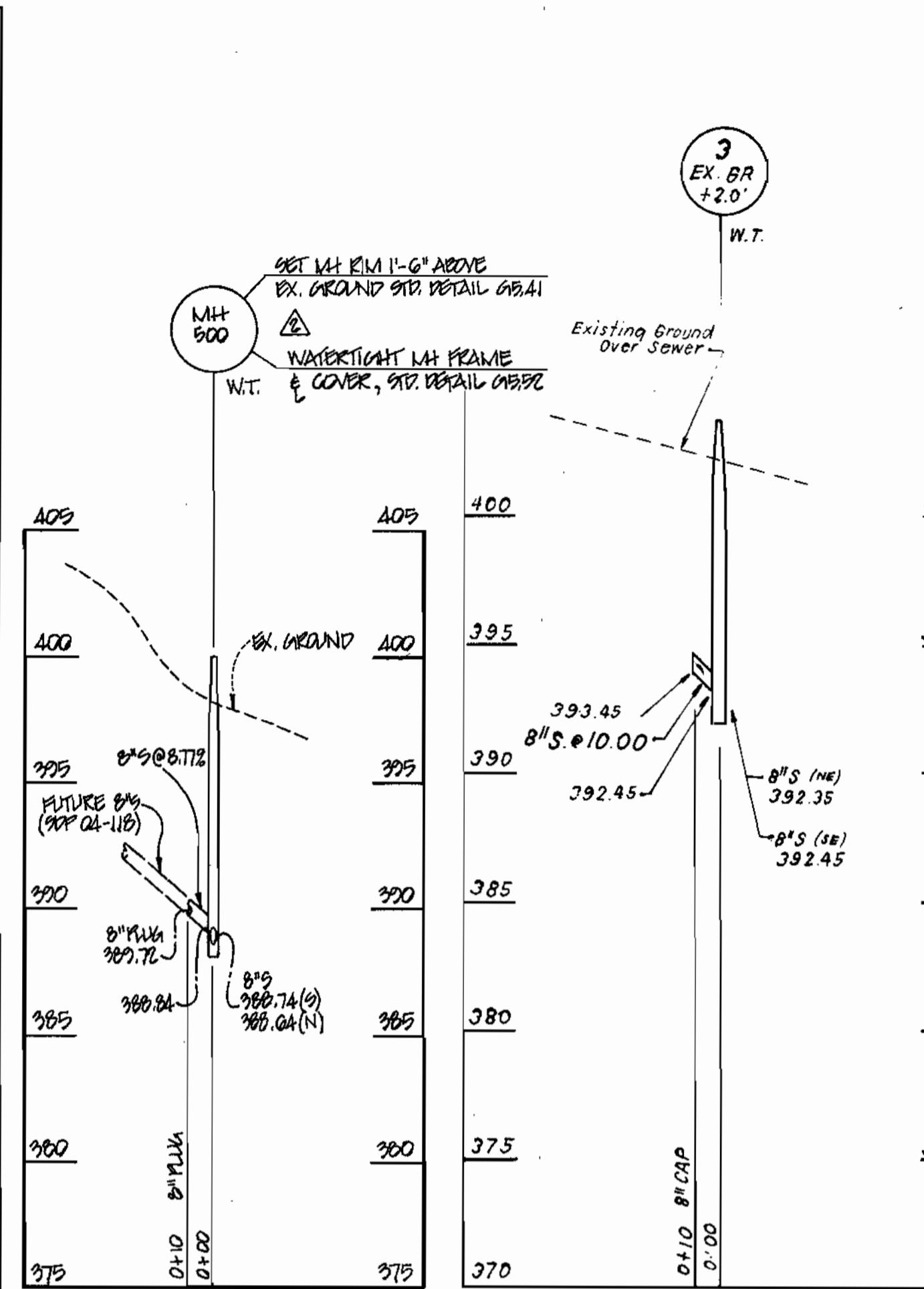
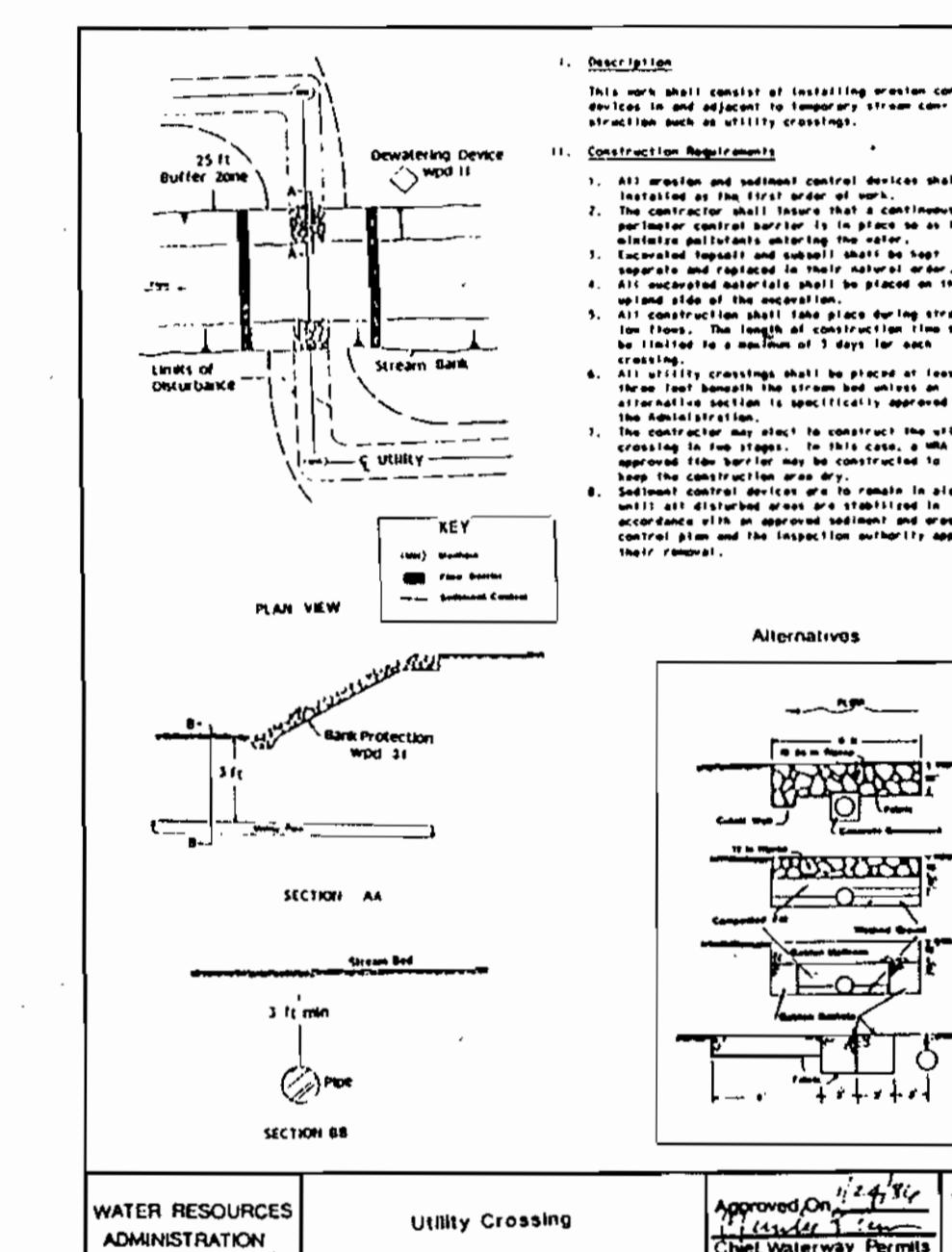
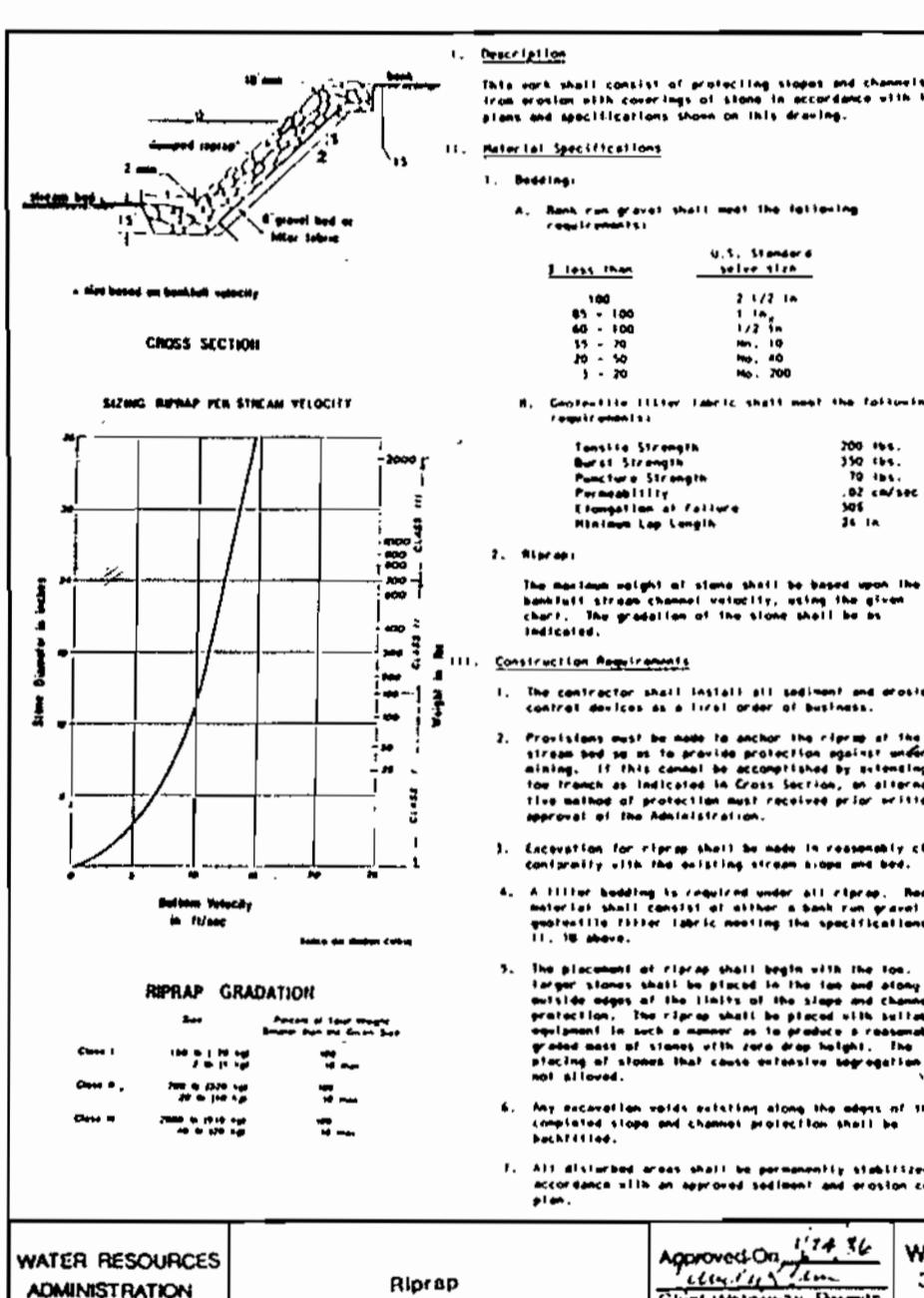
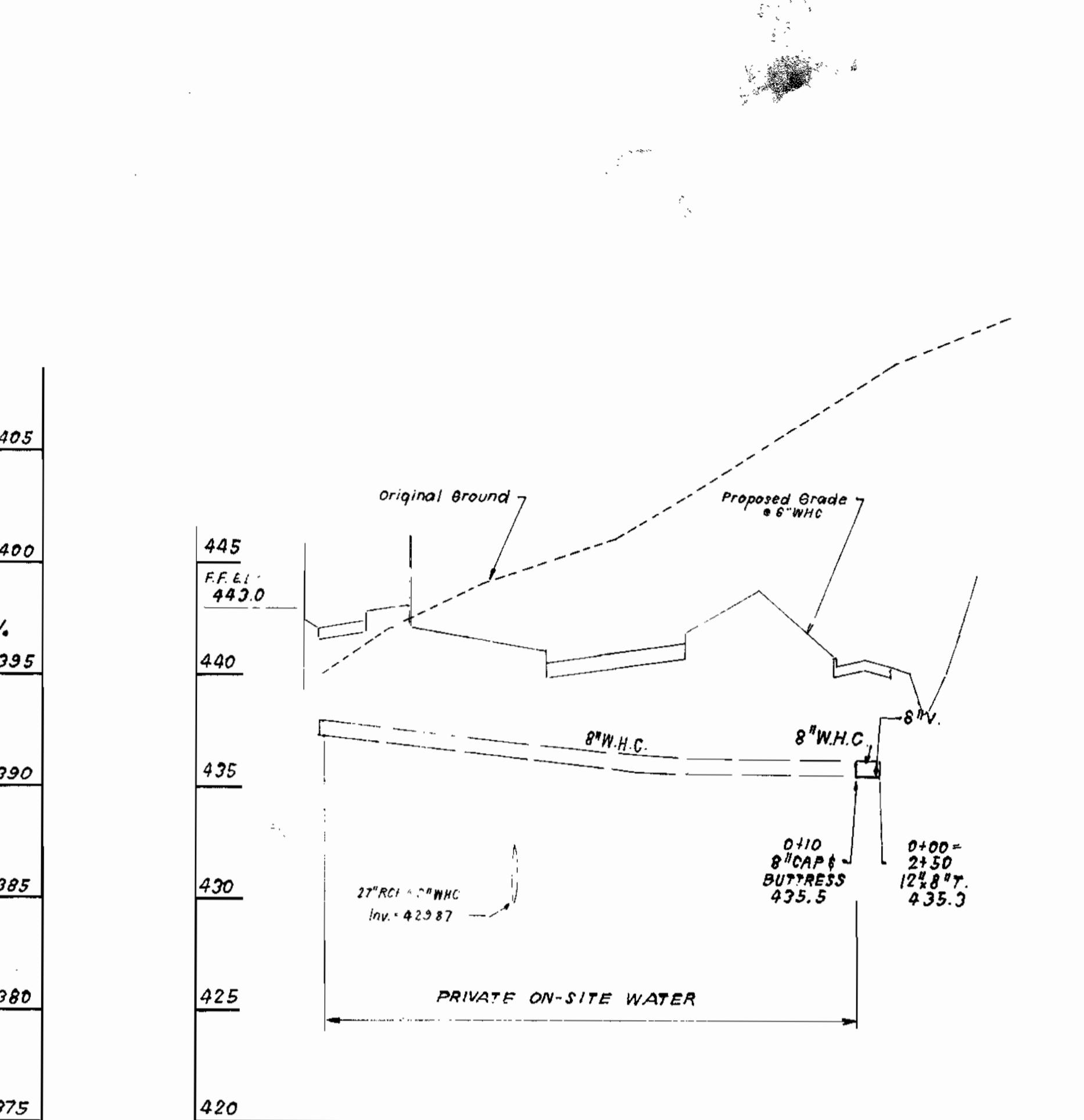
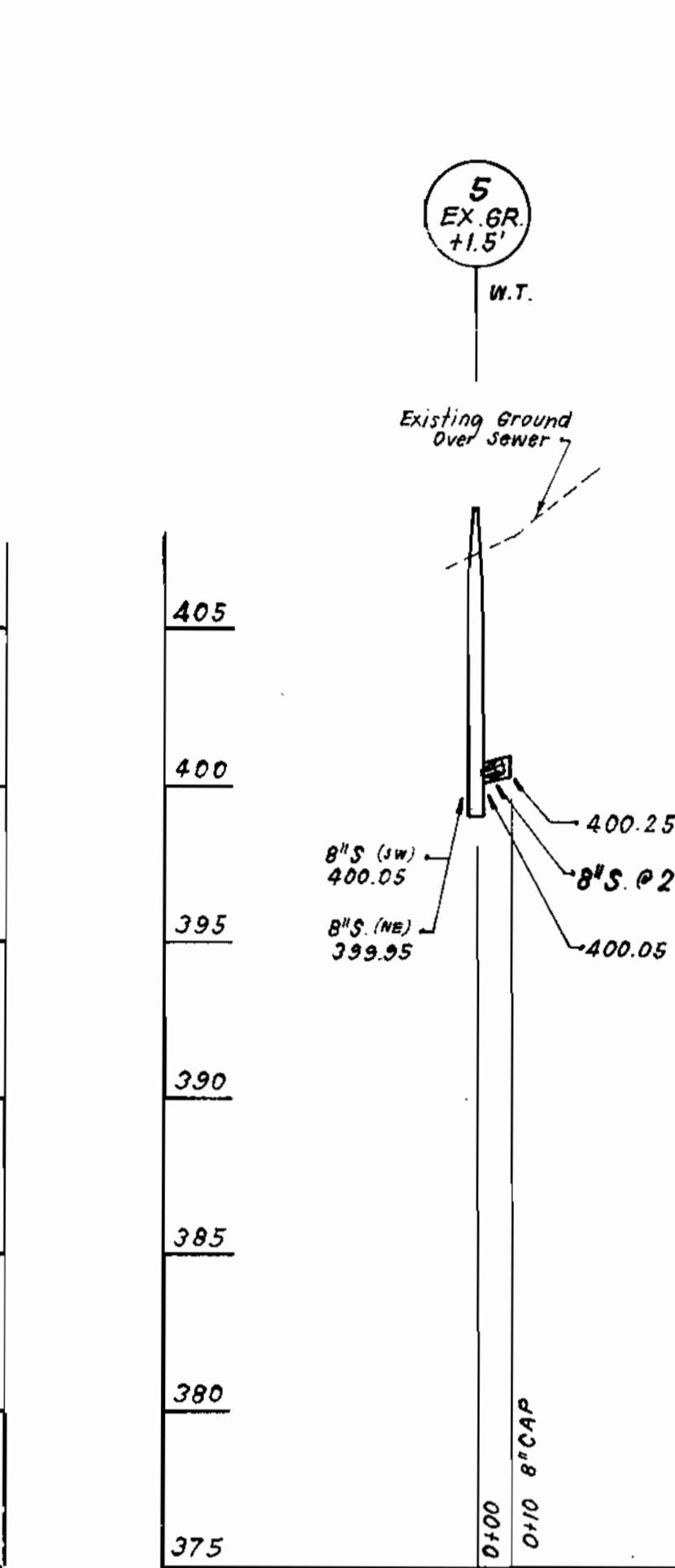
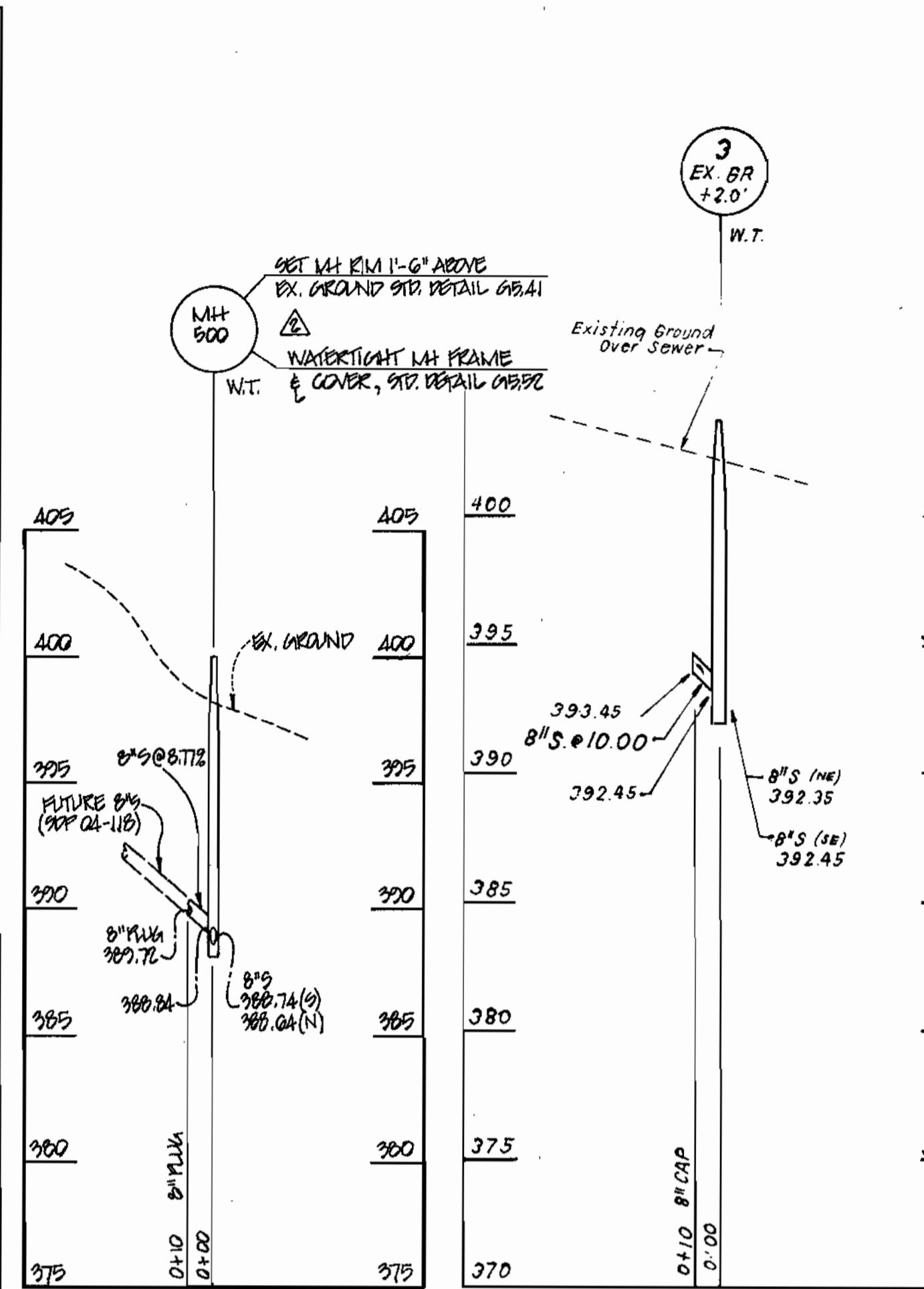
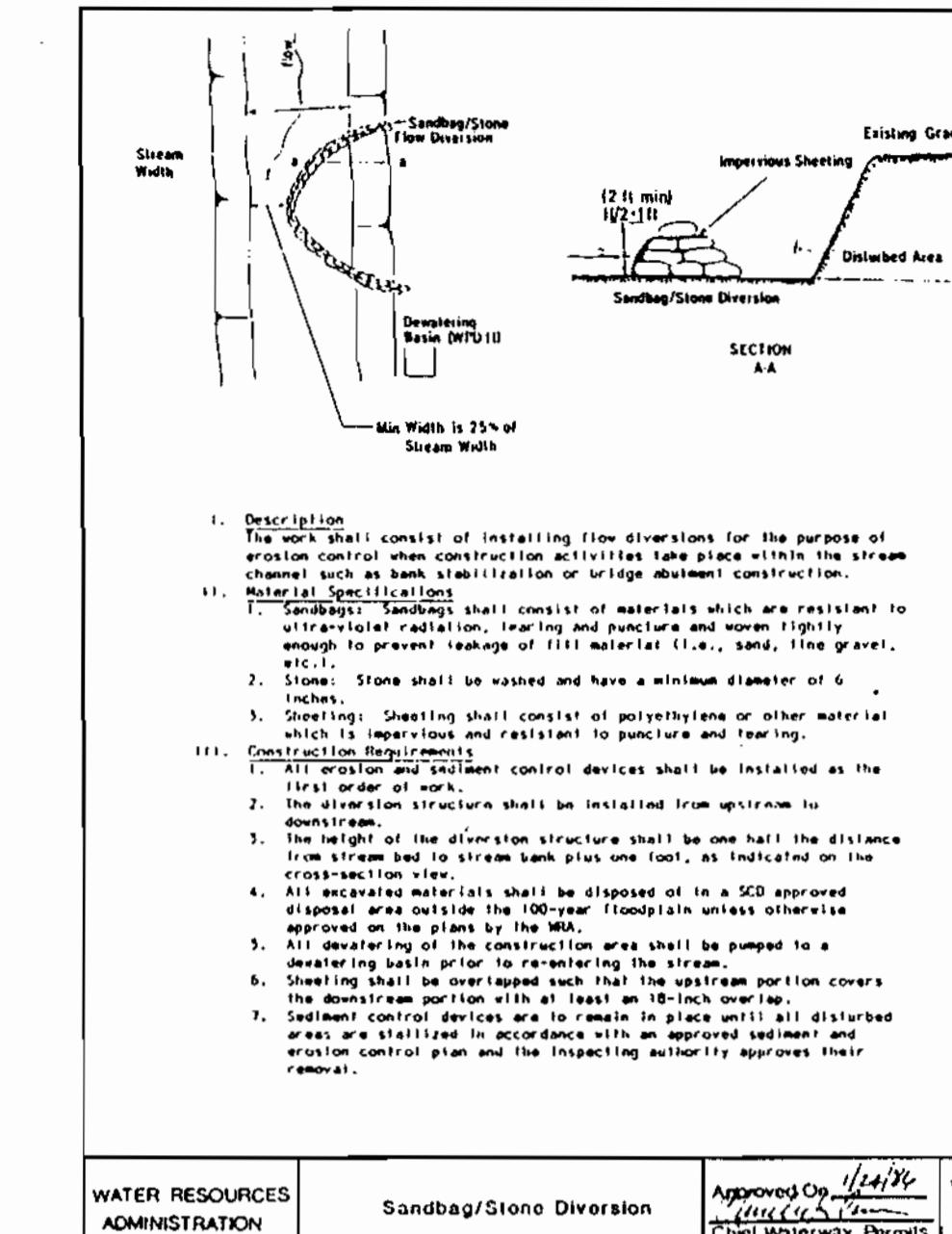
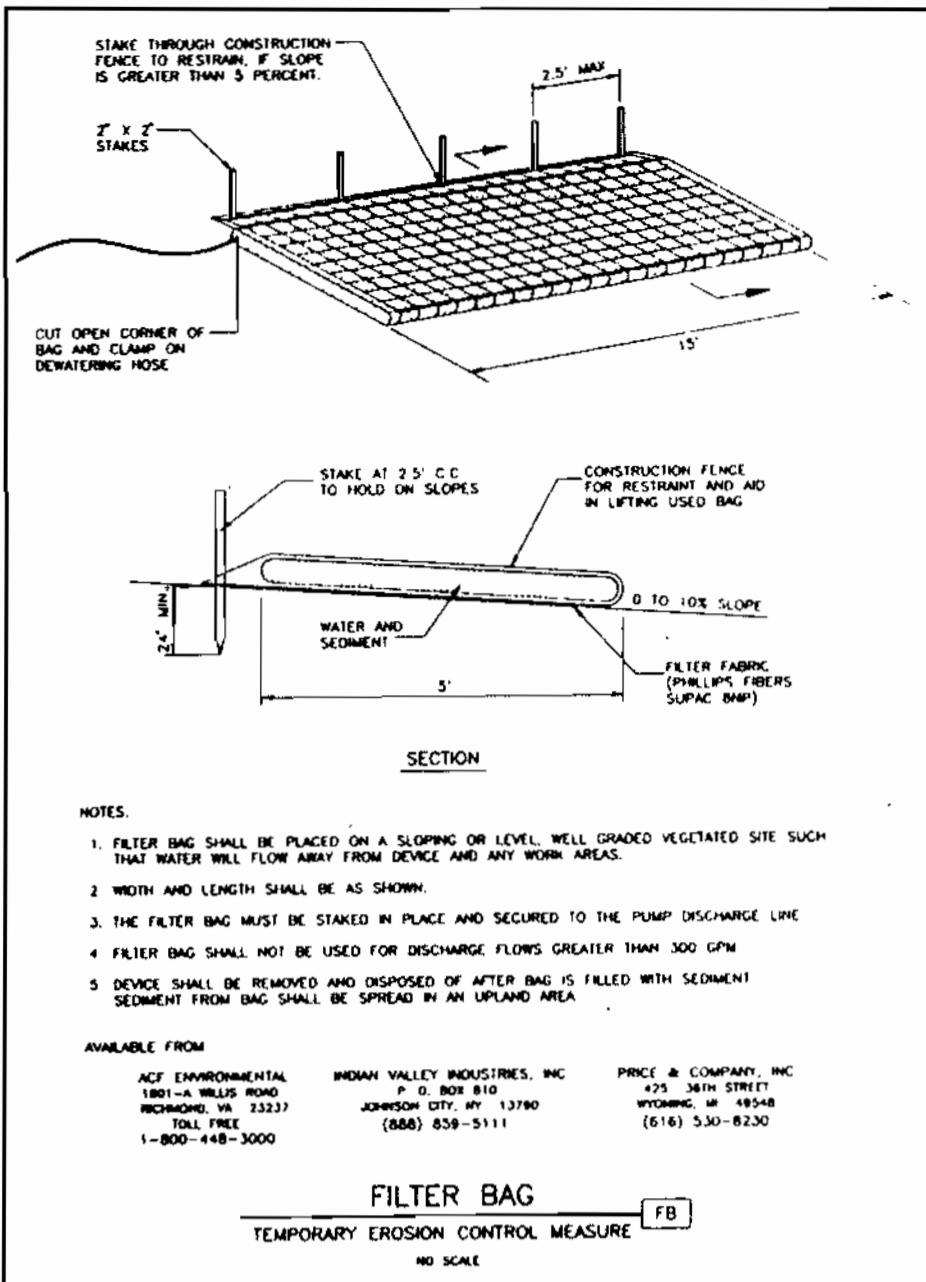
WESTERN ELEMENTARY SCHOOL NO. 2
PARCEL NO. 115
FIFTH (5th) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3452-D

SCALE
AS SHOWN
SHEET
4 OF 6

3452 ws/5 western Elem. School



3452 ws/6 Western Elem. school

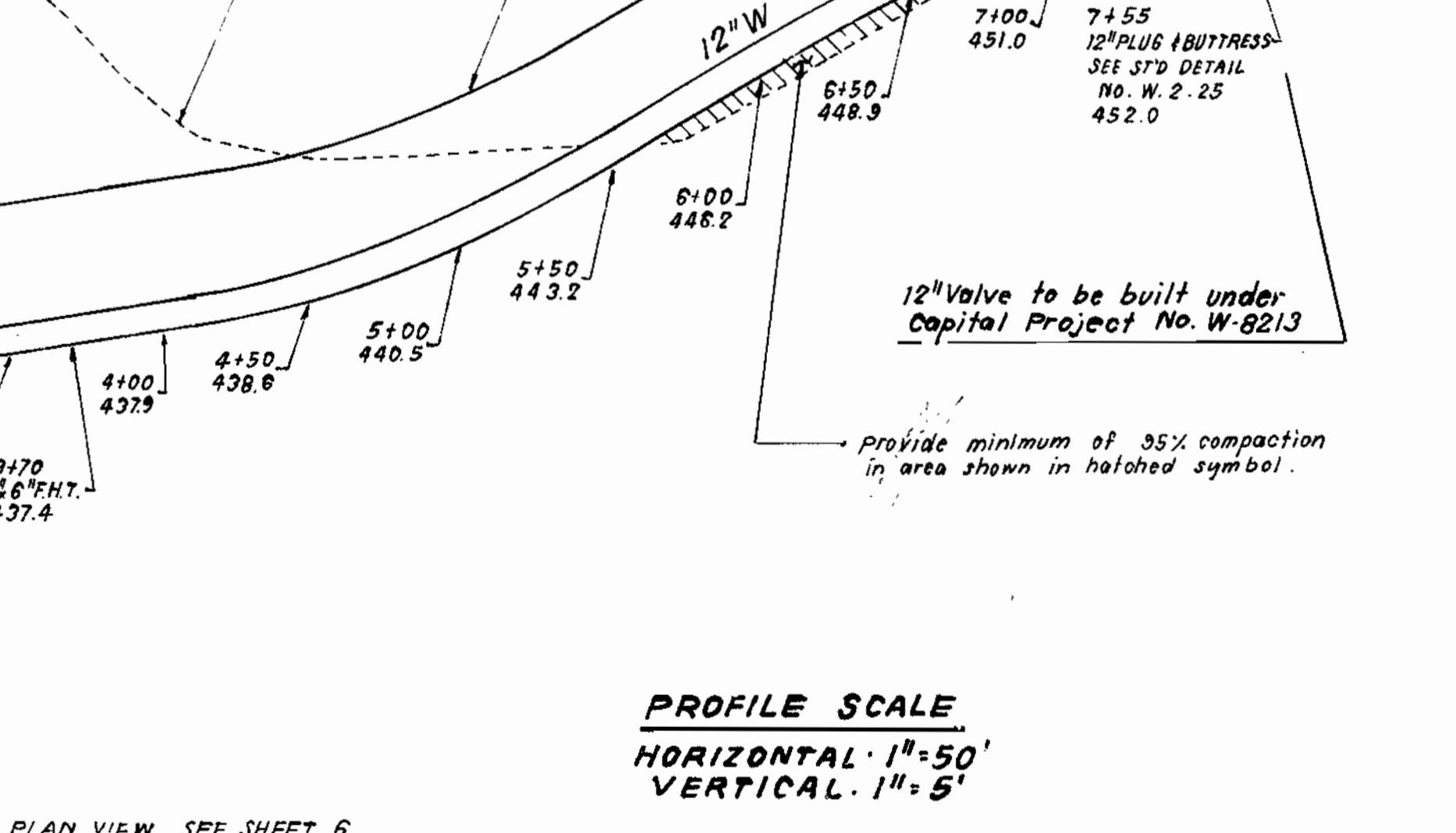
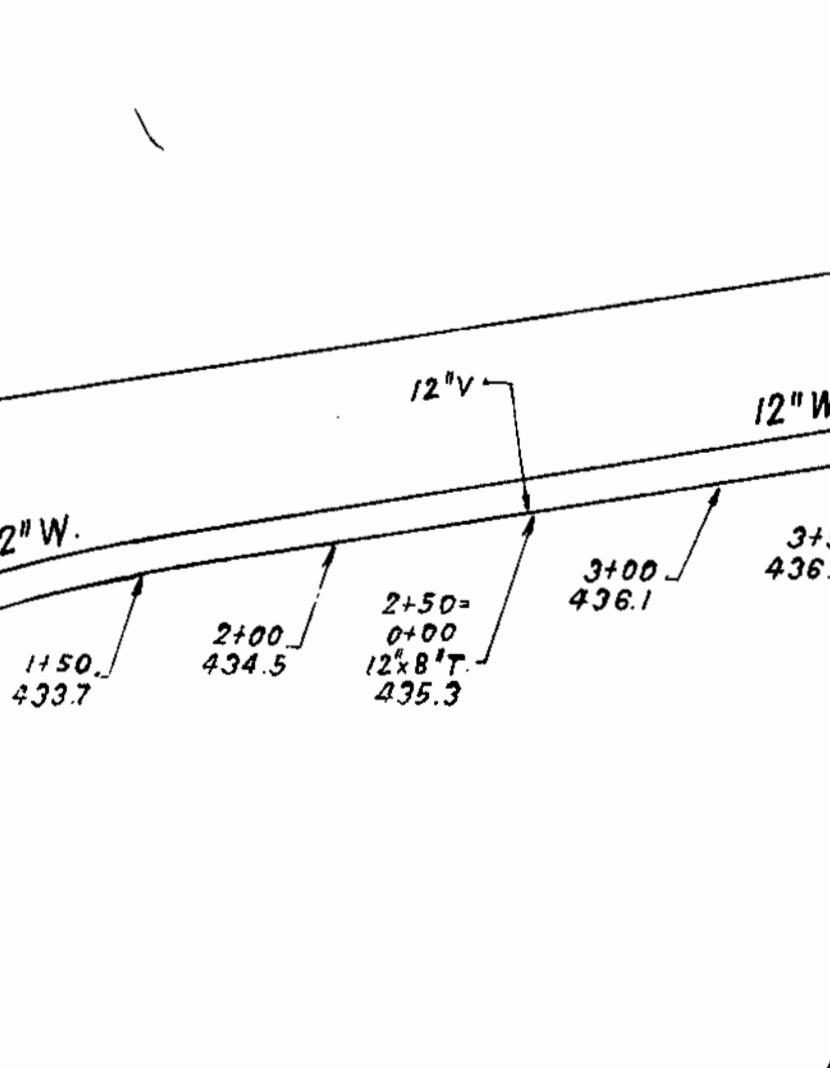
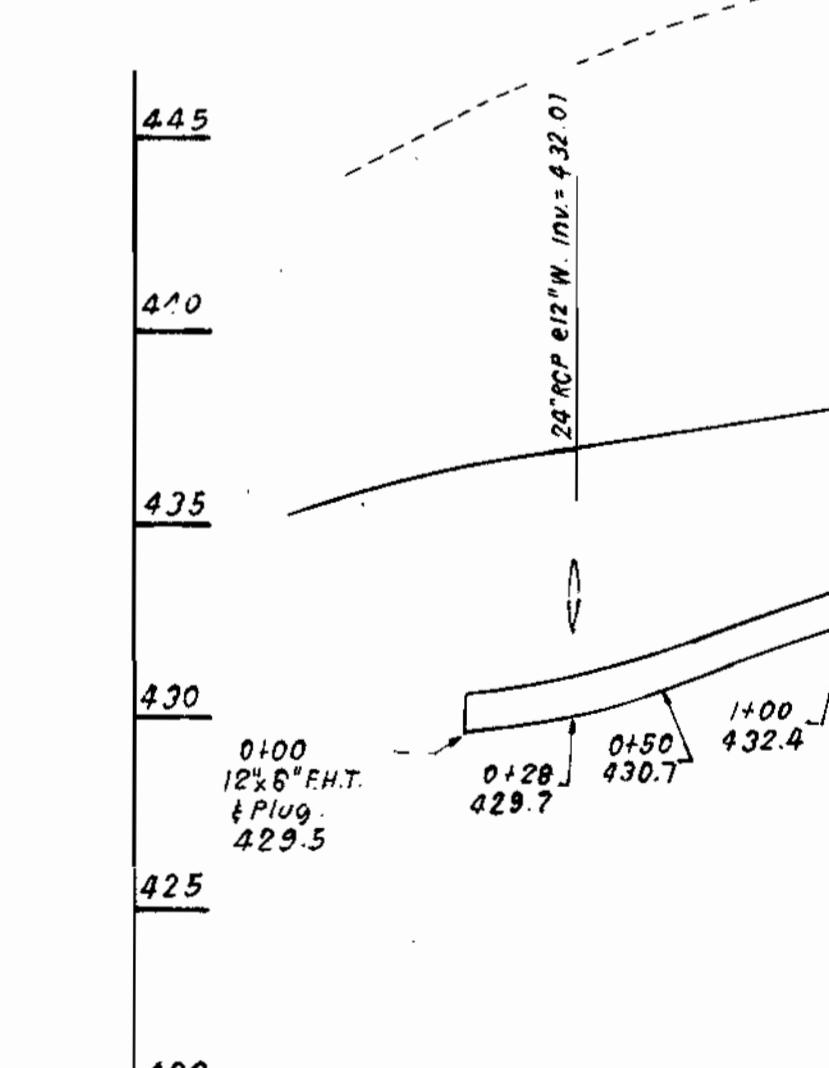
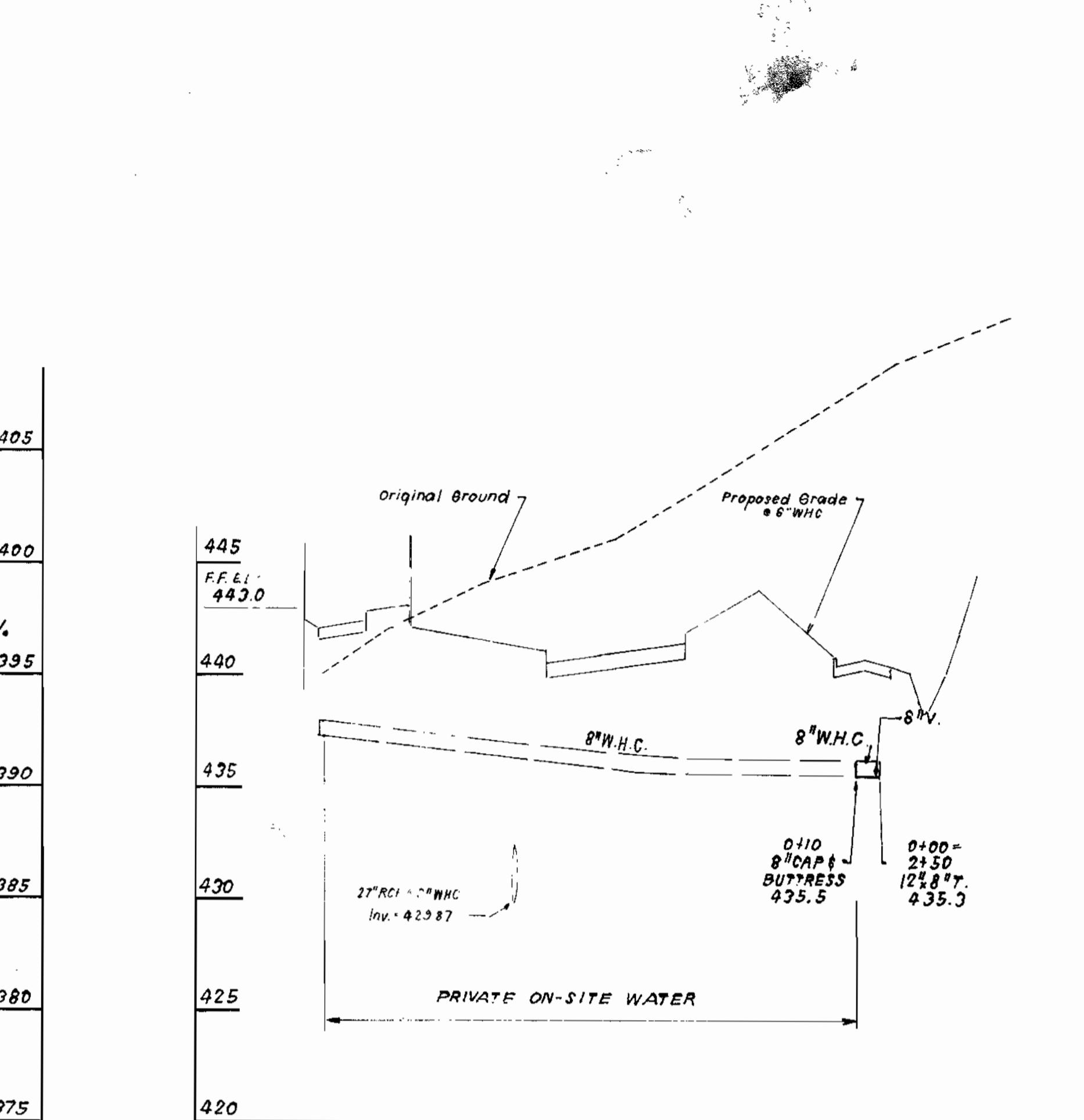
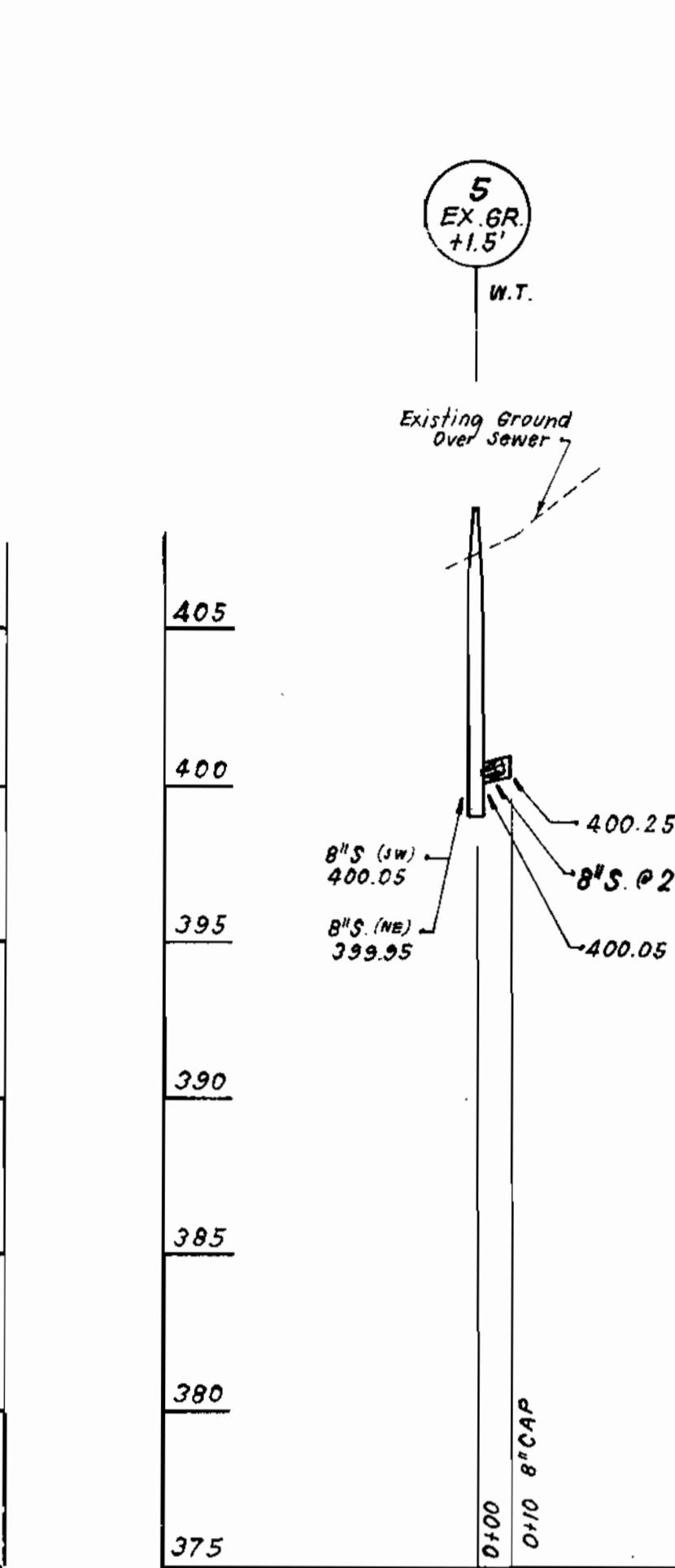
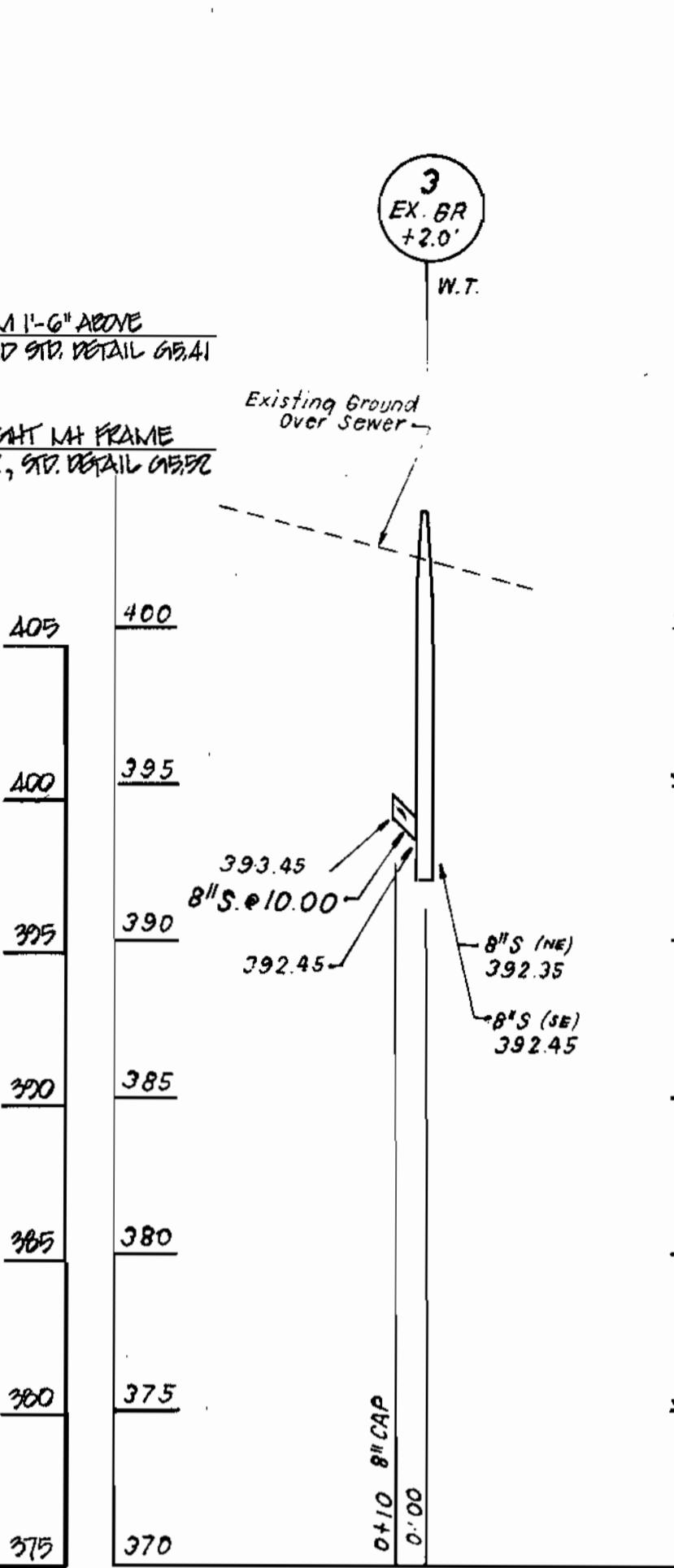


ANTI-SEE PAGE COLLAR

No Scale

NOTES:
1. Concrete to be MSHC Mix N-3
2. F2 = 3,000 psi & 28 days
3. Four Collar with size in place.
4. Backfill evenly on both sides of Collar
5. Locate Collar min. of 2 ft. from pipe joints

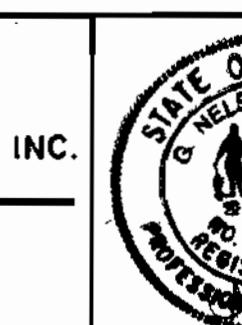
NOTE: AS-BUILT ANTI-SEE PAGE COLLARS
WERE PRECAST TO DIMENSIONS SHOWN.
PIPE PENETRATION WAS SEALED
WITH NON-SHRINK GROUT AFTER
INSTALLATION & PRIOR TO ENCA-
SEMENT WITH FLOWABLE FILL APPROVED
BY CLARK FINEFROCK & SACKETT INC.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CLARK - FINEFROCK & SACKETT, INC.
ENGINEERS - PLANNERS - SURVEYORS
7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(410) 381-7500 BALTO. (301) 621-8100 WASH.



STATE OF MARYLAND
NO. 7135
PROFESSIONAL ENGINEER

DES: JTR
DRN: JTR
CHK: CM
DATE: MAY, 95
BY NO. REVISION DATE
600' SCALE MAP NO. 41 8746 BLOCK NO. 20821 and 283

PROFILES OF WATER & SEWER LINES

WESTERN ELEMENTARY SCHOOL NO. 2
PARCEL NO. 115
FIFTH (5th) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3452-D

SCALE
AS SHOWN
SHEET
6 OF 6

AS-BUILT