

GENERAL NOTES

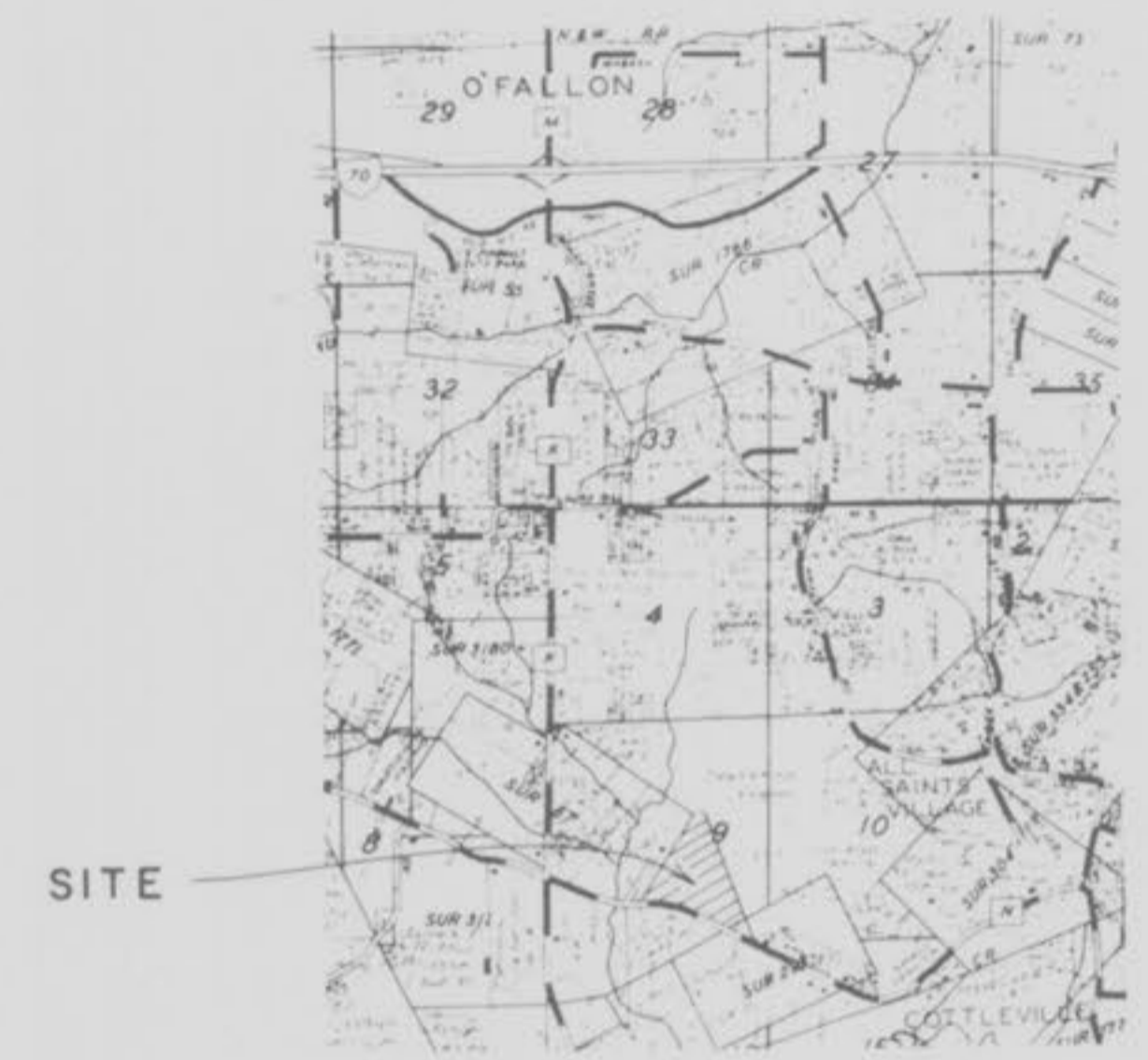
- 1 Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
- 2 Underground utilities have been plotted from available information and therefore their locations must be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to grading or construction of improvements.
- 3 Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR35.
- 4 Storm sewers 18" diameter or smaller shall be ASTM C-14.
- 5 Storm sewers 21" diameter or larger shall be ASTM C-76, Class II.
- 6 All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class II) unless noted otherwise on the plans.
- 7 Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M36, AASHTO plans for gauge.
- 8 All filled places under buildings, proposed storm and sanitary sewer lines and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by local governing authority specifications. All tests shall be verified by a Soils Engineer.
- 9 All filled places in paved State, County or City roads (Highways) shall be compacted to 90% of maximum density as determined by the "Standard Proctor Test AASHTO T-99" (ASTM D 698) unless otherwise specified by local governing authority specifications. All tests shall be verified by a Soils Engineer.
- 10 All storm and sanitary trench backfills will be water jetted. Granular backfill will be used under pavement areas.
- 11 Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
- 12 No area shall be cleared without permission of the developer.
- 13 All grade shall be within 0.2 feet more or less of those shown on the grading plan.
- 14 No slope shall be greater than 2:1 and shall be either sodded or seeded and mulched.
- 15 Barricades will consist of three standard 12" x 36" red and white striped scotchlite hazard markers mounted on two pound "U" channel sign post, with bottom of marker seven feet above pavement surface.
- 16 All manhole and catch basin tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fall in line with sewer construction the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
- 17 All standard street curb inlets to have front of inlet 2 feet behind curb.
- 18 The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one half feet (2-1/2').
- 19 Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- 20 All cast iron pipe for water mains shall conform to AWWA specification C-106 and/or C-108. The cast iron fittings shall conform to AWWA specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to AWWA specification C-111.
- 21 All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- 22 All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- 23 All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- 24 All PVC sanitary sewer pipe to be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 7/10" of the pipe dia above the bottom of the pipe.
- 25 All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way Markers shall be reset at the completion of grading.
- 26 All streets must meet the specifications and installation requirements of the City of St. Louis.
- 27 This tract is served by
 - A
 - B
 - C
 - D
 - E

WHEATFIELD

PART OF U.S. SURVEY 293 & PART OF FRAC. SEC. 9
T. 46 N., R. 3 E., ST. CHARLES COUNTY MISSOURI

"AS-BUILTS"

PLAT THREE



SITE

LOCATION MAP

PROJECT BENCHMARK

SHEET	DESCRIPTION
1	TITLE SHEET
2-3	FLAT PLAN
4-6	SANITARY SEWER PROFILE
7-8	STORM SEWER PROFILE

LEGEND

- CL Curb Inlet
- D C I Double Curb Inlet
- A I Area Inlet
- G I Grate Inlet
- M H Manhole
- F E Flared end section
- E P End pipe
- C P Concrete pipe
- R C P Reinforced concrete pipe
- C M P Corrugated metal pipe
- C I P Cast iron pipe
- P V C Polyvinyl chloride pipe
- V C P Vitrified clay pipe
- C O Clean out
- V T Vent trap
- Storm sewer (proposed)
- Sanitary sewer (proposed)
- Existing contour
- Proposed contour
- Street sign
- End of lateral
- Lateral
- 5 Lot or building number
- T-e-t Hole
- Existing fence line
- Existing tree line
- Storm sewer (existing)
- Sanitary sewer (existing)
- Water line
- Tee and valve
- Cap
- Hydrant
- Thrust block

This is to certify to Docket Book Sewer District that these "As-Built" sewer plans are based on actual field surveys conducted during Sept. 1990 and the results are shown here on.

by Pickett Ray & Silver

Delmar F. Vincent
MO R.L.S. No 1869

9/16/90
Date

"AS-BUILTS" 8-14-90 KAN.



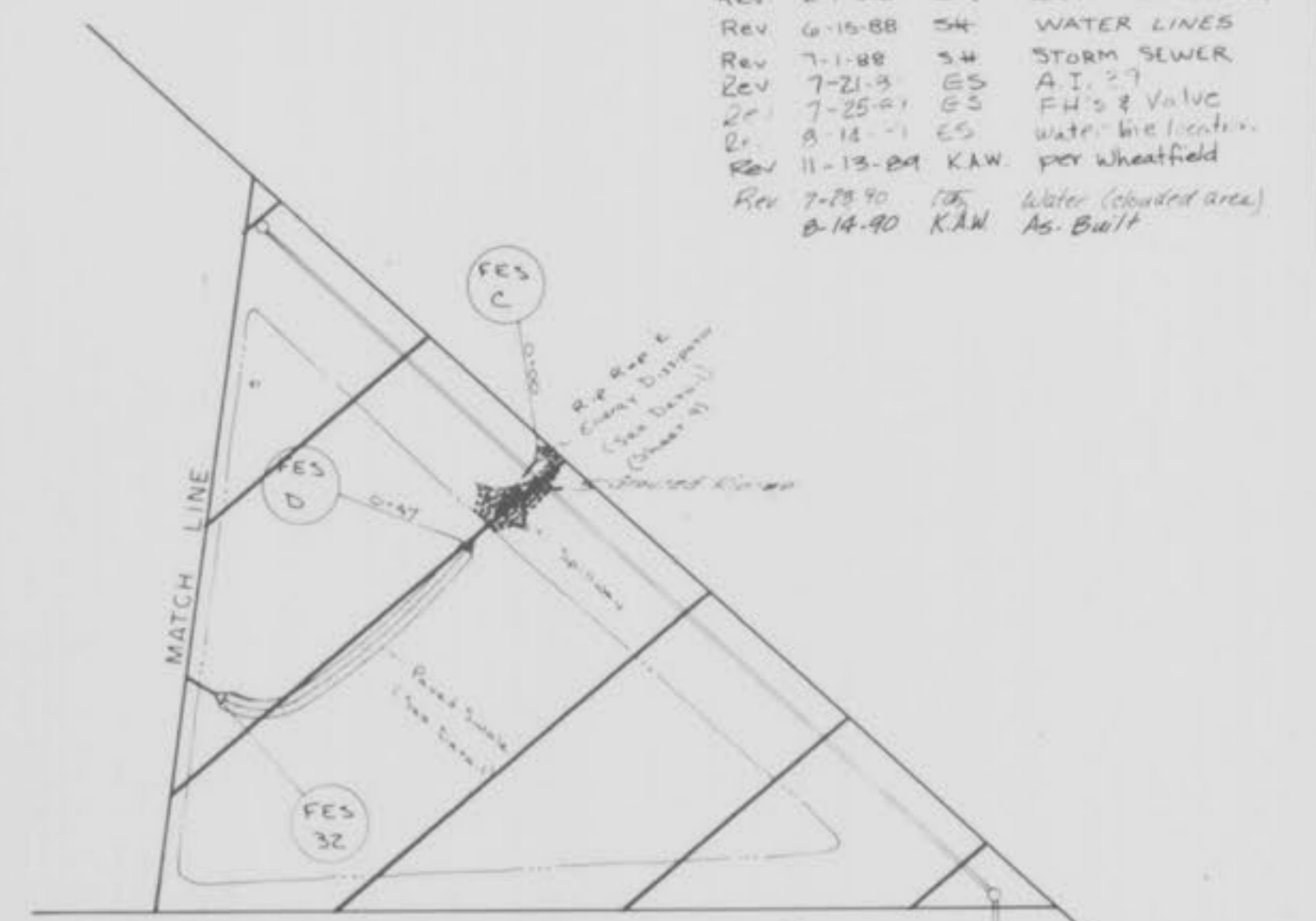
T.B. FARMS DEVELOPMENT CO.
661 BENT BROOK COURT
ST. LOUIS, MO 63122
314-965-2889

1/8

84-067

WHEATFIELD PLAT THREE FLAT PLAN
FEB. 1985 84-067

REV	DATE	BY	DESCRIPTION
2-1-88	DR		LAY. STATIONS
6-15-88	SH		WATER LINES
7-1-88	SH		STORM SEWER
7-21-88	GS		A.I. 2-1
7-25-88	GS		F.I.S. & VALVE
8-14-88	ES		Water Line Location
11-18-84	KAW		per Wheatfield
7-28-90	DK		Water (shaded area)
8-14-90	KAW		As-Built



NOTE: SHADED "BALLOONS" INDICATE "AS-BUILT" STRUCTURES.

- MATERIALS TO BE USED ON STATE RIGHT-OF-WAY**
- CONCRETE SURFACE**
- 6" Sack Mix
 - 8" Concrete
 - 6" x 6" x 6" Steel Mesh (3" below finished grade)
 - 4" Rolled Stone Base
 - Integral Concrete Curb (6" Vertical) (5/8" Steel Dowels @ 2'C C)
- ASPHALT SURFACE**
- 8" Rolled Stone Base or 6" Type X (Black Base)
 - 3" Asphalt Top (Type C)
 - Machine Laid
 - Asphalt Curb (6" Vertical)

Sight Distance 500' Both Directions

All entrances shall meet the specifications and installation requirements of the City of O'Fallon and the Missouri Highway & Transportation Department.

All Entrances Shall Have A Minimum Sight Distance OF 500' After Construction

Note: A.I. 39 shall be type 5-2 inlet Refer to Sheet 604.27c pg 1-3 of Missouri Standard Plans for Highway Construction for details.

Sight Distance 500' Both Directions.

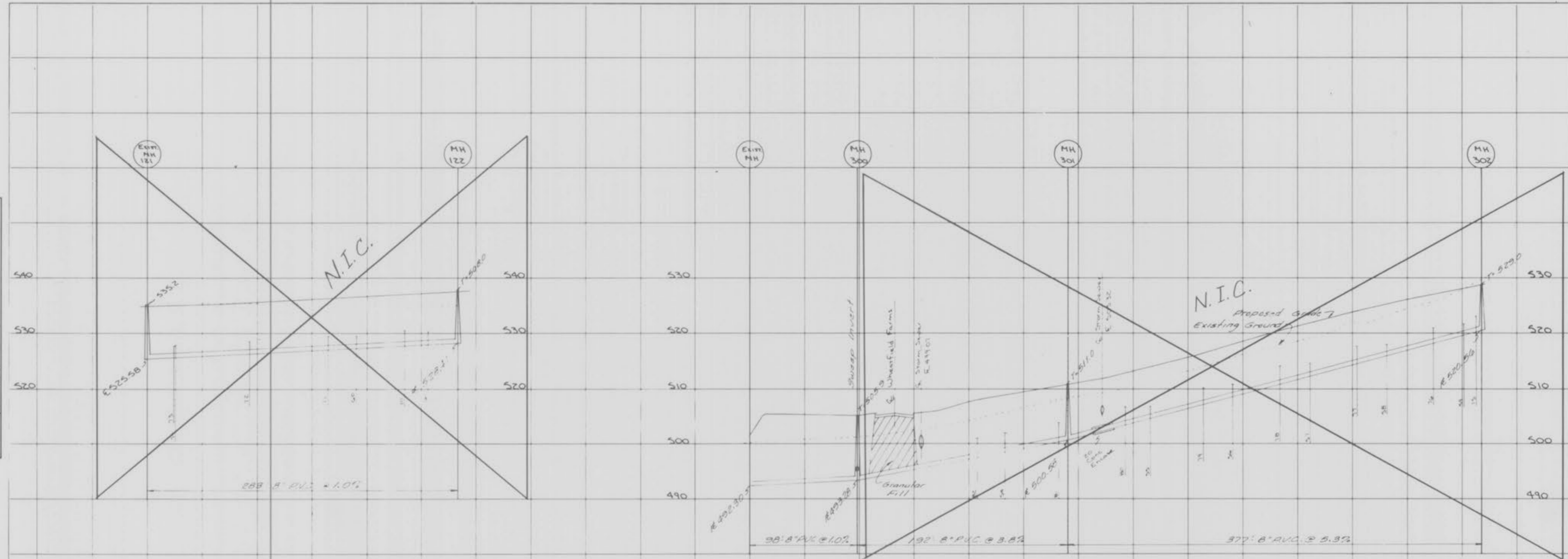
Rev 6-15-88 54 WATER LINES
 Rev 7-23-90 186 Water ("clouded areas")
 8-14-90 K.A.N. As-Built



NOTE: SHADED "BALLOONS"
 INDICATE "AS-BUILT" STRUCTURES.

Scale
 Vert 1"=10'
 Horz 1"=50'
 As-Built B-14-90 K.A.W.

FINAL SURVEY
 DATE: _____ BY: _____
 ORIGINAL SURVEY PLOTTED
 TEMPLATE AREA
 NOTE BOOK NO. _____
 DATE: _____



NOTE: A.B. = "AS-BUILT"

ORIGINAL SURVEY
 DATE: _____ BY: _____
 ORIGINAL SURVEY PLOTTED
 TEMPLATE AREA
 NOTE BOOK NO. _____
 DATE: _____

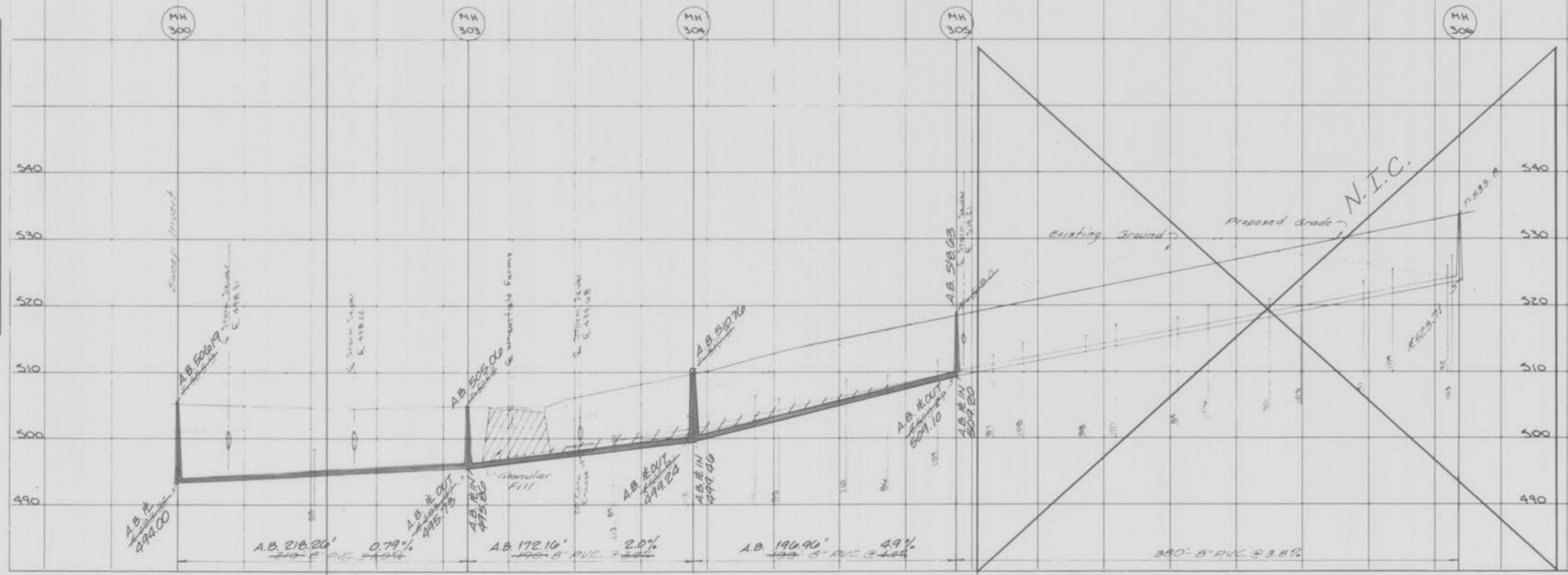


PLATE 3-FULL CROSS SECTION LINE & DOT
 WHEATFIELD
 PRINTED IN U.S.A.

"AS-BUILTS"

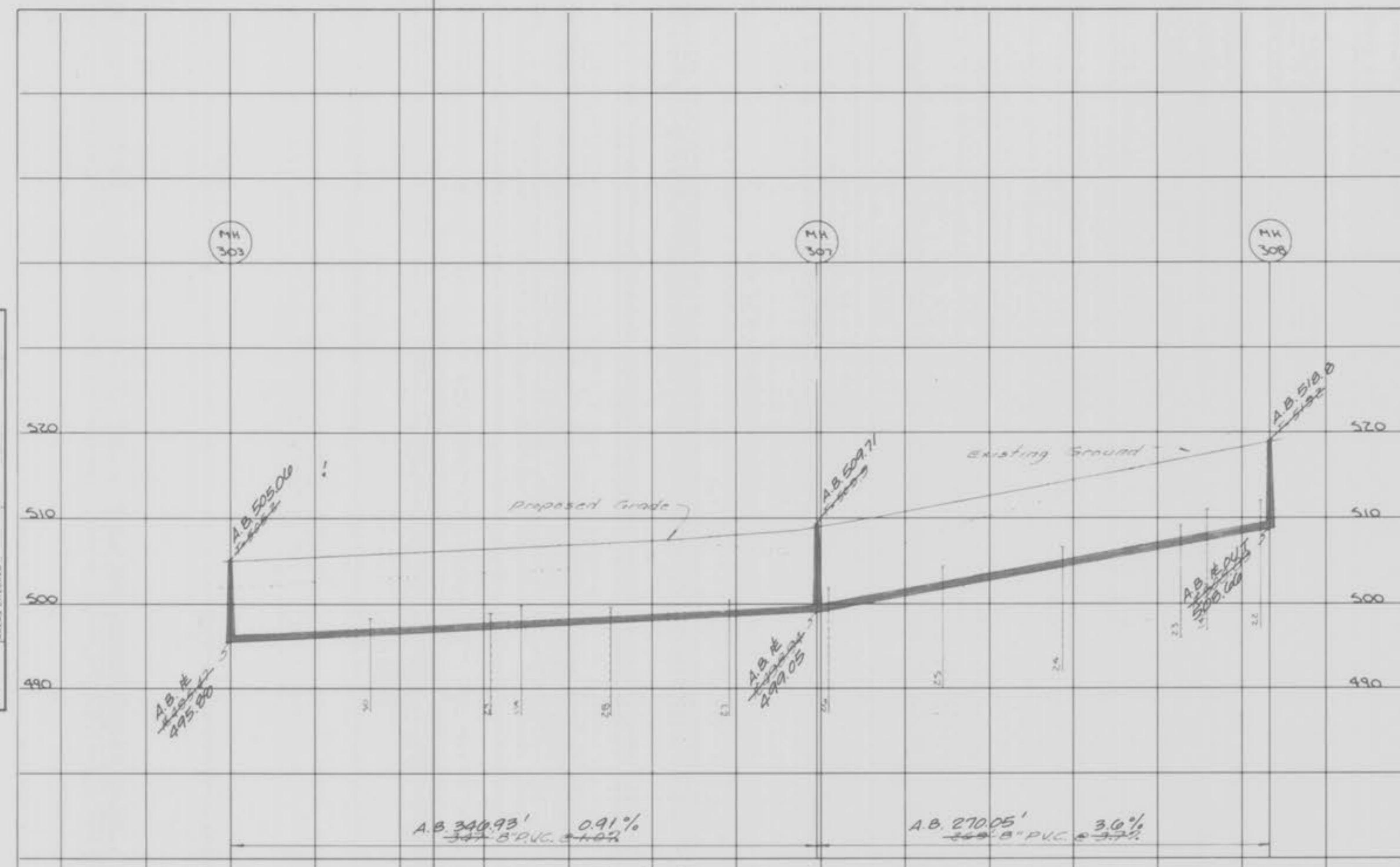
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WHEATFIELD
 PLAT THREE
 SANITARY SEWER PROFILE
 FEB 1985 84-067

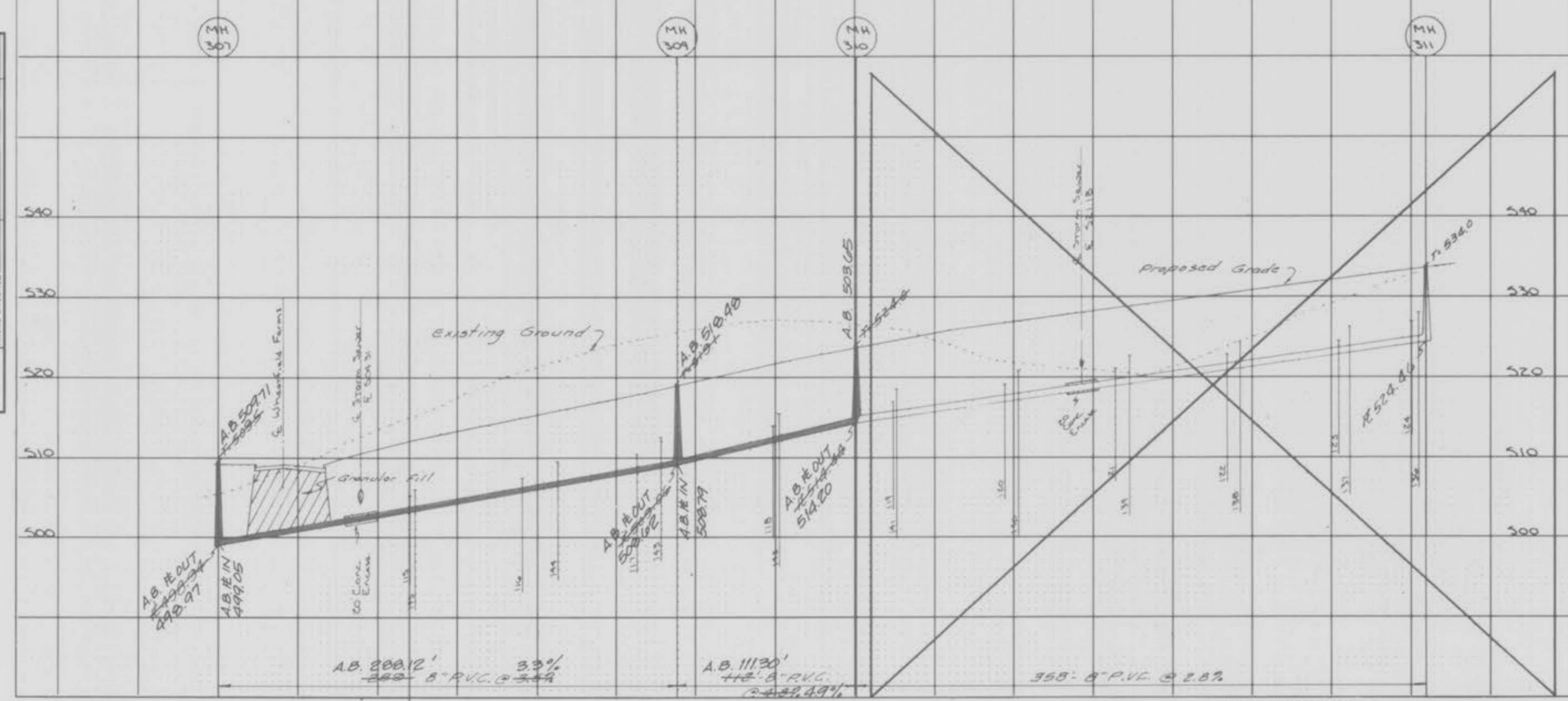
Scale
 Vert. 1"=10'
 Horz. 1"=50'
 As-Built 5-14-90 K.A.W.

DATE: _____ BY: _____
 SURVEYED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 TEMPLATE: _____
 AREA CHECKED: _____

DATE: _____ BY: _____
 SURVEYED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 TEMPLATE: _____
 AREA CHECKED: _____



NOTE: A.B. = AS-BUILT



5
8

"AS-BUILTS"

WHEATFIELD
 PLAT THREE
 SANITARY SEWER PROFILE
 FEB 1985 84-067

Scale
 Vert. 1"=10'
 Horiz. 1"=50'
 As-Built 5-14-90 K.A.W.

NOTE: A.B. = "AS-BUILT"



FINAL SURVEY
 DATE
 BY
 CHECKED
 NO. AREAS CHECKED

ORIGINAL SURVEY
 DATE
 BY
 CHECKED
 NO. AREAS CHECKED

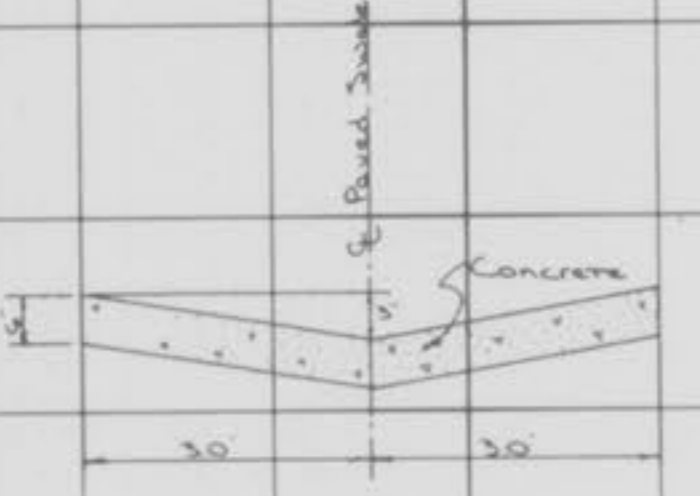
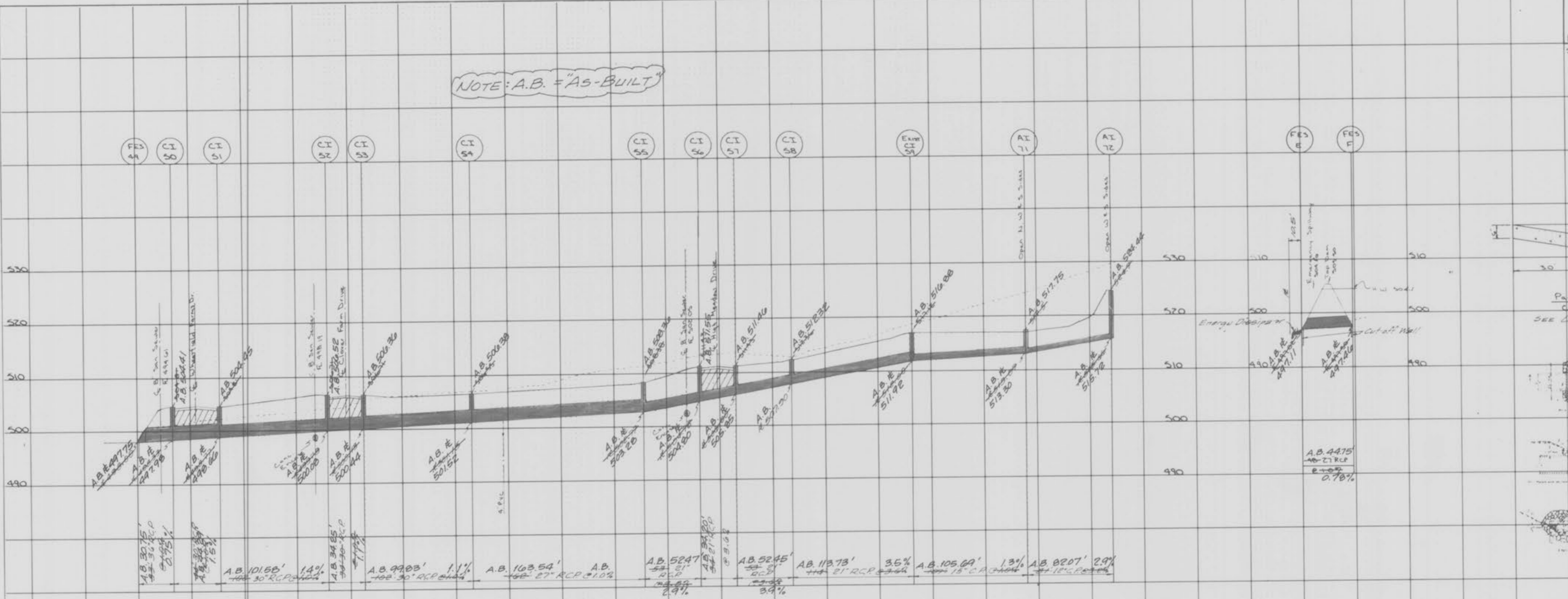
WHEATFIELD
PLAT THREE
STORM SEWER PROFILE
FEB 1985 84-067

Scale
Vert 1"=10'
Hori 1"=50'
As-Built 5-14-90 K.A.W.

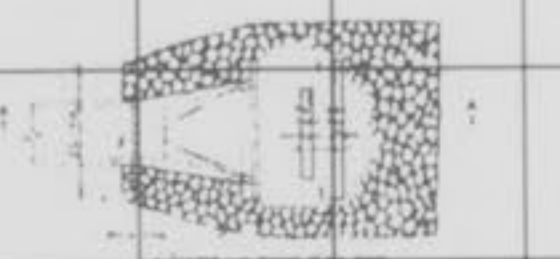
FINAL SURVEY PLOTTED
DATE: _____
BY: _____
NOTE BOOK NO. _____
AREAS CHECKED: _____

ORIGINAL SURVEY PLOTTED
DATE: _____
BY: _____
NOTE BOOK NO. _____
AREAS CHECKED: _____

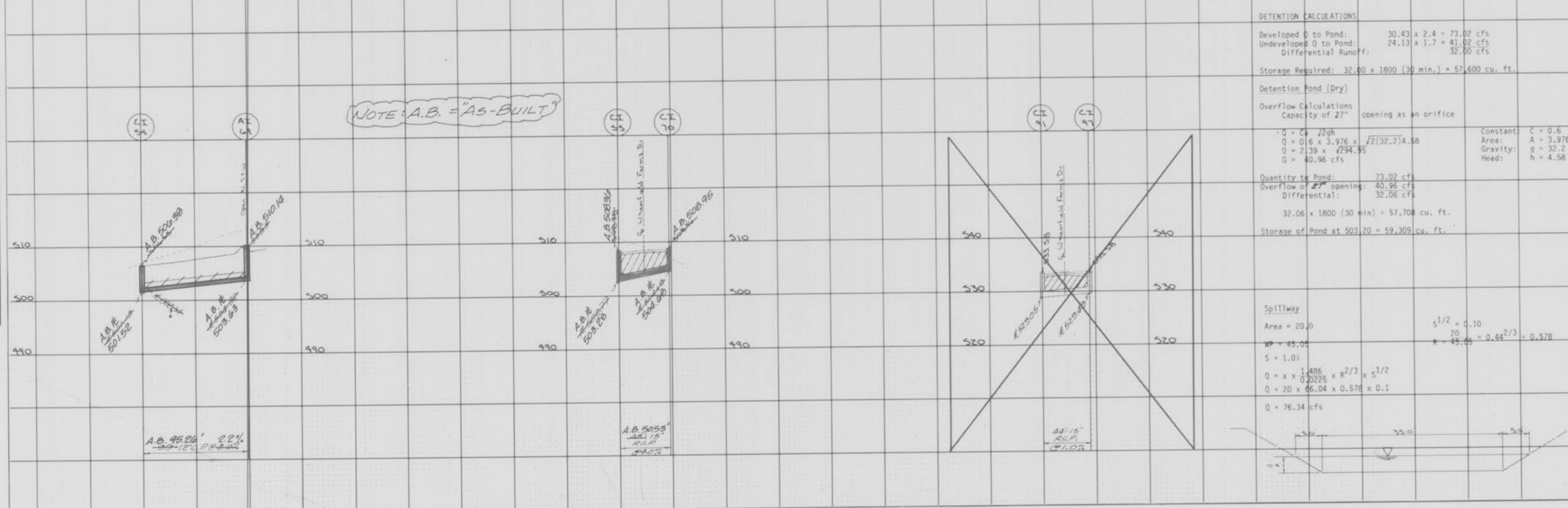
NOTE: A.B. = "AS-BUILT"



Paved Scale
Cross Section
SEE LOCATION SHEET 2/8

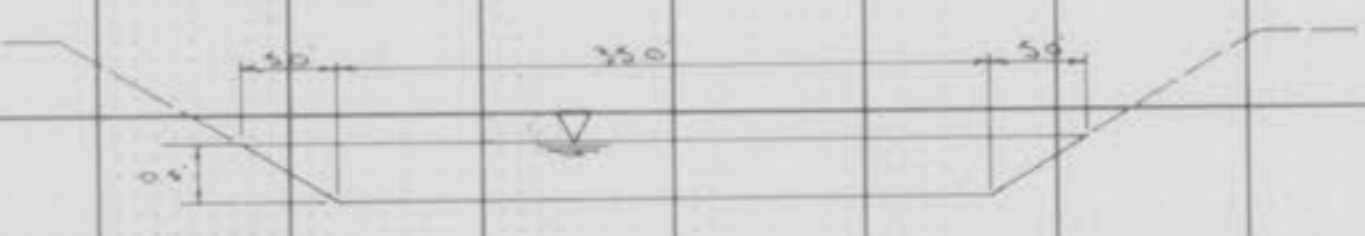


NOTE: A.B. = "AS-BUILT"



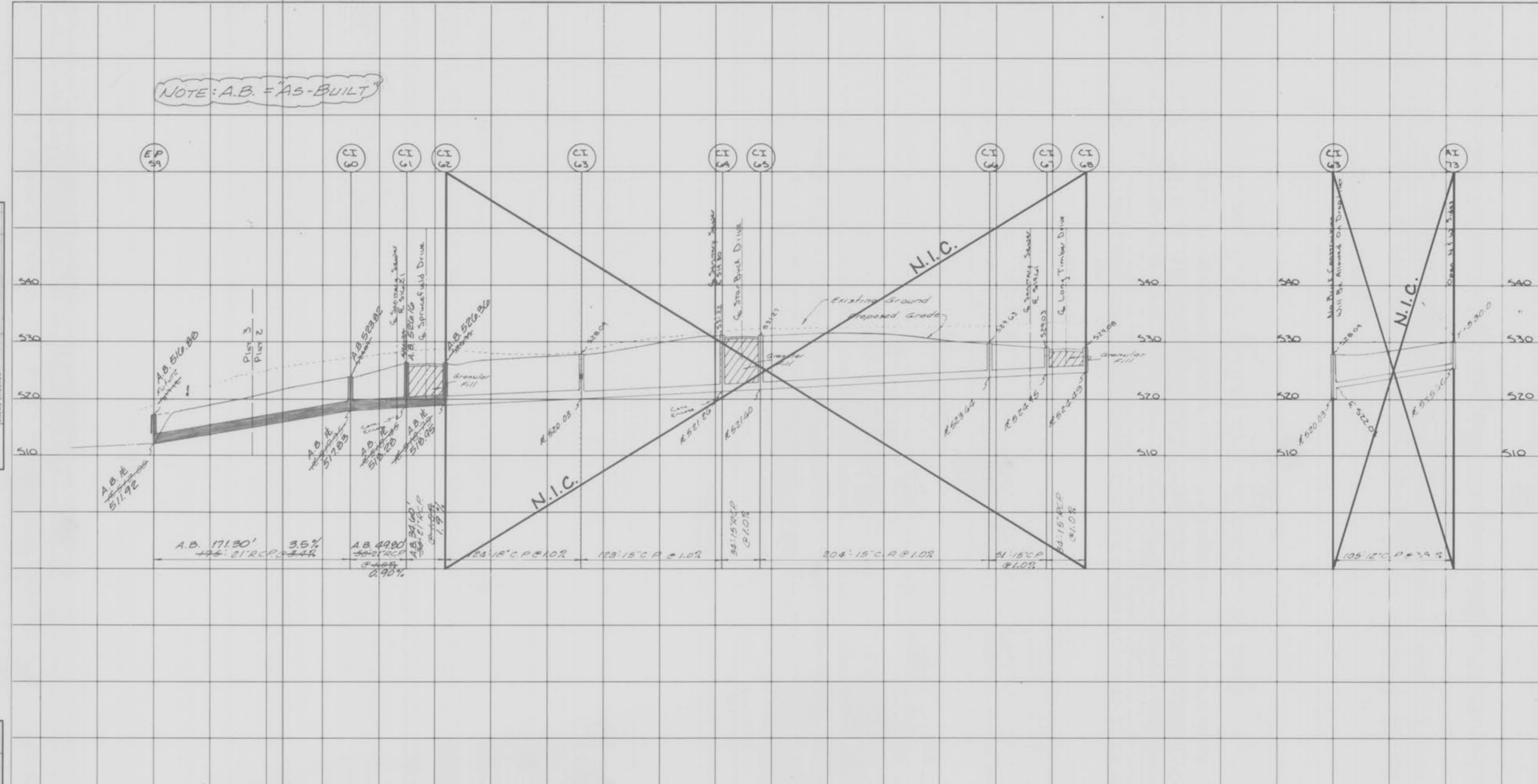
DETENTION CALCULATIONS
Developed 0 to Pond: 30.43 x 2.4 = 73.02 cfs
Undeveloped 0 to Pond: 24.13 x 1.7 = 41.02 cfs
Differential Runoff: 32.00 cfs
Storage Required: 32.00 x 1800 (30 min.) = 57,600 cu. ft.
Detention Pond (Dry)
Overflow Calculations
Capacity of 27" opening as an orifice
Q = C_s L^{3/2} H^{3/2}
Q = 0.6 x 3.976 x $\sqrt{2(32.2)}$ 4.58
Q = 2.39 x $\sqrt{294.95}$
Q = 40.96 cfs
Constant: C = 0.6
Area: A = 3.976
Gravity: g = 32.2
Head: h = 4.58
Quantity to Pond: 73.02 cfs
Overflow of 27" opening: 40.96 cfs
Differential: 32.06 cfs
32.06 x 1800 (30 min) = 57,708 cu. ft.
Storage of Pond at 503.20 = 59,309 cu. ft.

Spillway
Area = 20.0
MP = 45.05
S = 1.01
Q = a x 1.486 x g^{2/3} x s^{1/2}
Q = 20 x 0.20225 x g^{2/3} x 0.1
Q = 76.34 cfs
s^{1/2} = 0.10
k = 45.05 = 0.44^{2/3} = 0.578



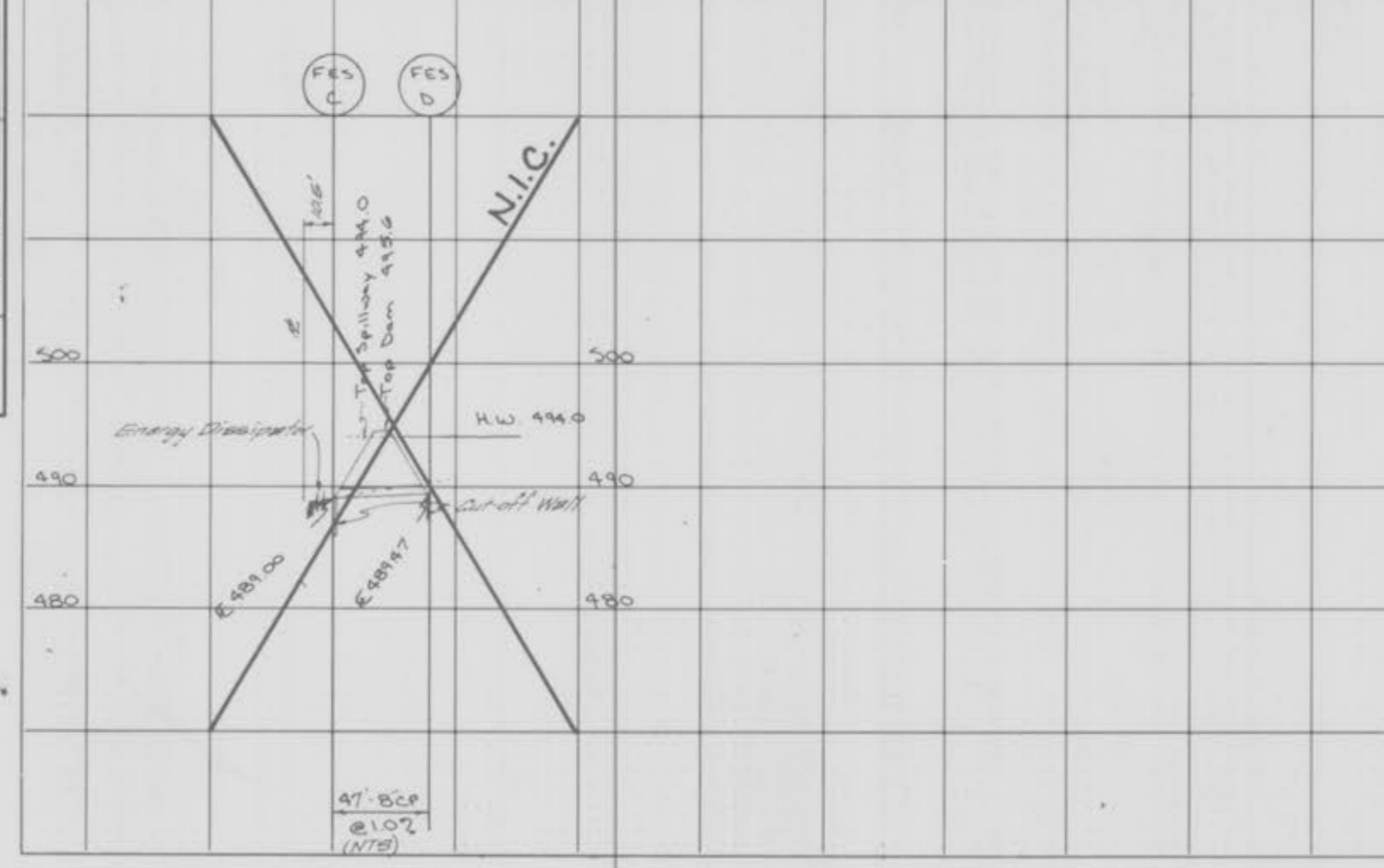
Scale
Vert. 1" = 10'
Hori. 1" = 50'
As Built 5-14-90 K.A.W.

NOTE: A.B. = AS-BUILT



FINAL SURVEY
DATE
BY
SURVEYED
TEMPLATE
NO. AREA CHECKED

ORIGINAL SURVEY
DATE
BY
SURVEYED
TEMPLATE
NO. AREA CHECKED



DETENTION CALCULATIONS
 Developed Q to Pond: 14.18 x 2.4 = 34.02 cfs
 Undeveloped Q to Pond: 2.42 x 1.7 = 4.11 cfs
 Differential Runoff: 29.91 cfs
 Storage Required: 29.91 x 1800 (30 min.) = 53,838 cu. ft.
Detention Pond (Dry)
Overflow Calculations
 Capacity of 8" opening as an orifice
 $Q = C_a \sqrt{2gh}$
 $Q = 0.6 \times 0.349 \times \sqrt{2(32.2)4.27}$
 $Q = 0.21 \times \sqrt{274.99}$
 $Q = 3.47 \text{ cfs}$
 Constant: C = 0.6
 Area: A = 0.349
 Gravity: g = 32.2
 Head: h = 4.27
 Quantity to Pond: 34.02 cfs
 Overflow of 18" opening: 3.47 cfs
 Differential: 30.55 cfs
 $30.55 \times 1800 (30 \text{ min}) = 54,990 \text{ cu. ft.}$
 Storage of Pond at 494.00 = 67,768 cu. ft.

Spillway
 Area = 9.5
 WP = 24.05
 $S = 1.0\%$
 $Q = A \times 1.486 \times R^{2/3} \times S^{1/2}$
 $Q = 9.5 \times 66.04 \times .543 \times .1$
 $Q = 34.07 \text{ cfs}$
 $5^{1/2} = 0.10$
 $R^{2/3} = \frac{9.5}{24.05} = 0.40$
 $R^{2/3} = .543$

