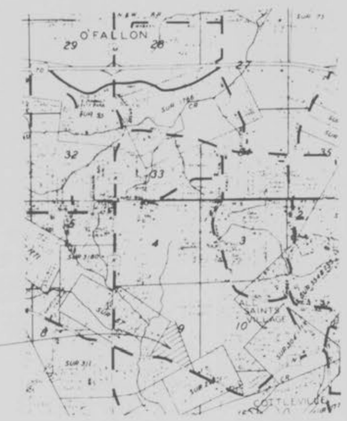
WHEATFIELD

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

"AS-BUILTS"

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 A.S.T.M. C-14.
5. Storm sewers 21" diameter or larger shall be A.S.T.M. C-76, Class II.
6. All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (A.S.T.M. C-76, Class II) unless noted otherwise on the plans.
7. Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.O. - ___ gage.
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 A.A.S.H.O. T-180 Compaction Test" (A.S.T.M. 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 A.A.S.H.O. T-99" (A.S.T.M. 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 .02 feet more or less of those shown on the grading plan.
14. No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
15. Barricades will consist of three standard 2" 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 ½).
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 ___.
27. This tract is served by:
    A
    B
    C
    D
    E



LOCATION MAP

PROJECT BENCHMARK

INDEX

LEGEND

C.I.	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
	Test Hole
	Existing fence line
	Existing tree line
	Storm sewer (existing)
	Sanitary sewer (existing)
	Water line
	Tee and valve
	Hydrant
	Thrust block

This is to certify to Pickett Creek Sewer Dist. that these "As-Built" San./Storm plans are based on actual field surveys conducted during April, 1992 and the results are shown here on.

by Pickett Ray & Silver

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

Date

This is to certify to Pickett Creek Sewer Dist. that these "As-Built" Sewer plans are based on actual field surveys conducted during Sept., 19 91 and the results are shown here on.

by Pickett Ray & Silver

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

9/3/91
Date

"AS-BUILTS" 4-24-92 K.A.W.
9-3-91 K.A.W.
8-14-90 K.A.W.

Pickett Ray & Silver, Inc.

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

DATE 8/14 84-067

1/7

AS-BUILTS
WHEATFIELD-PLAT 4

"AS-BUILTS"
12-19-89; DWD
9-3-91; KAW
4-24-92; KAW

WHEATFIELD PLAT TWO FLAT PLAN

FEB. 1985 # 84-067

Rev.	2-1-88	DR	LAT. STATIONS
Rev.	6-15-88	SH	WATER LINES
Rev.	7-1-88	SH	STORM SEWER
Rev.	7-2-[illegible]	ES	A.I. [illegible]
[illegible]	7-[illegible]	ES	FH's & Valve
[illegible]	[illegible]	ES	[illegible]
Rev.	11-13-89	K.A.W.	per Wheatfield

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)

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

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

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

4-24-92
9-3-91

2/7

"AS-BUILTS"

WHEATFIELD PLAT 4

WHEATFIELD
PLAT THREE
FLAT PLAN
FEB 1985
84-067
Rev 6-15-88 SW WATER LINES
Rev 7-23-90 (clouded areas)
8-14-90 KAW As-Built
9-3-91 KAW As-Built
NOTE: SHADED "BALLOONS" INDICATE "AS-BUILT" STRUCTURES.
MATCH LINE
PROPERTY N/F PAUL LOEFFLER 288/111
WINDY WHEAT (50' W.) DRIVE 26' W' Pvmt
CLOVER FARM (50' W.) DRIVE 26' W. Pvmt
HIGH MEADOW (50' W.) DRIVE
WHEATFIELD FARMS (60' W.) DRIVE 36' W. Pvmt
LOT 13
DARDENNE LOT 12 FARMS
PLAT LOT ONE 11
LOT 10
EXISTING PLAT ONE
N
1" = 50'
9-3-91
3/7
3/8
"AS-BUILTS"
WHEATFIELD 4

4-24-92 K.A.W.
9-3-91 K.A.W.
12-19-89; DWD

"AS-BUILTS"

WHEATFIELD PLAT TWO SANITARY SEWER PROFILE

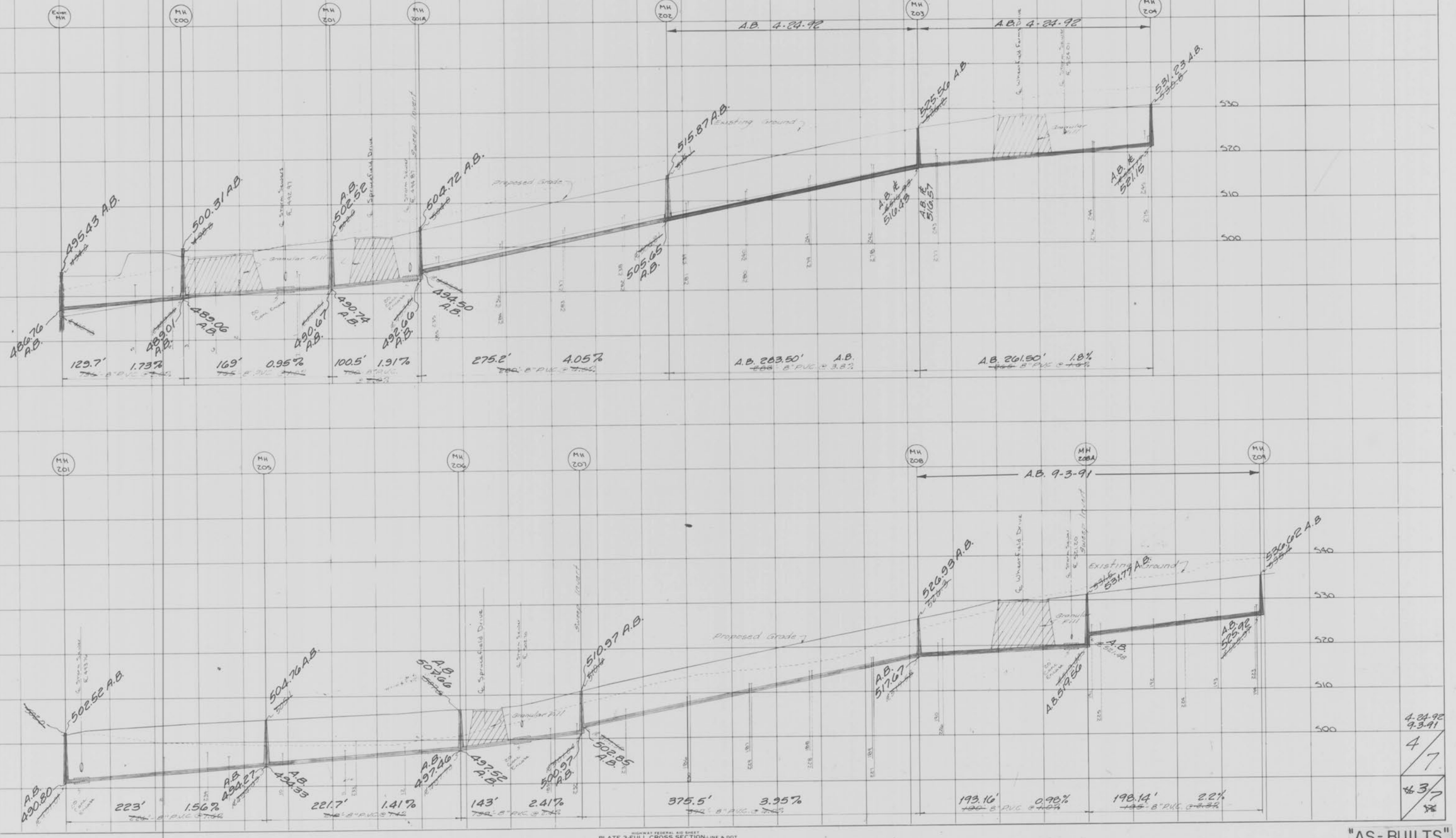
FEB. 1985 84-067

Scale
Vert. 1"=10'
Horz. 1"=50'

Note: A.B. = "As-Built"

FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / NOTE BOOK / AREAS / NO. / AREAS CHECKED

ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / NOTE BOOK / AREAS / NO. / AREAS CHECKED



4-24-92
9-3-91
4/7
& 3/7

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
TELEDYNE
PRINTED IN U.S.A.

"AS-BUILTS"
WHEATFIELD
4

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.
As-Built 9-3-91 K.A.W.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, NO., DATE, AREAS CHECKED

MH 303 — MH 307 — MH 308

Proposed Grade

Existing Ground

A.B. 505.06 — A.B. 509.71 — A.B. 518.8

A.B. IE OUT 495.00 — A.B. IE IN 499.05 — A.B. IE OUT 506.64

A.B. 340.93' 8" P.V.C. @ 0.91% — A.B. 270.05' 8" P.V.C. @ 3.6%

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

MH 307 — MH 309 — MH 310 — MH 311

A.B. 9-3-91

Proposed Grade

Existing Ground

Granular Fill

A.B. 509.71 — A.B. 518.48 — A.B. 522.15 — A.B. 532.66 — A.B. 523.99

A.B. IE OUT 498.97 — A.B. IE IN 504.05 — A.B. IE OUT 508.42 — A.B. IE IN 508.79 — A.B. IE OUT 514.20 — A.B. IE IN 514.23

A.B. 288.12' 8" P.V.C. @ 3.3% — A.B. 111.30' 8" P.V.C. @ 2.49% — A.B. 357.57' 8" P.V.C. @ 2.7%

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, NO., DATE, AREAS CHECKED

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
TELEDYNE
PRINTED IN U.S.A.

9-3-91

5/7

5/8

"AS-BUILTS"

WHEATFIELD
4

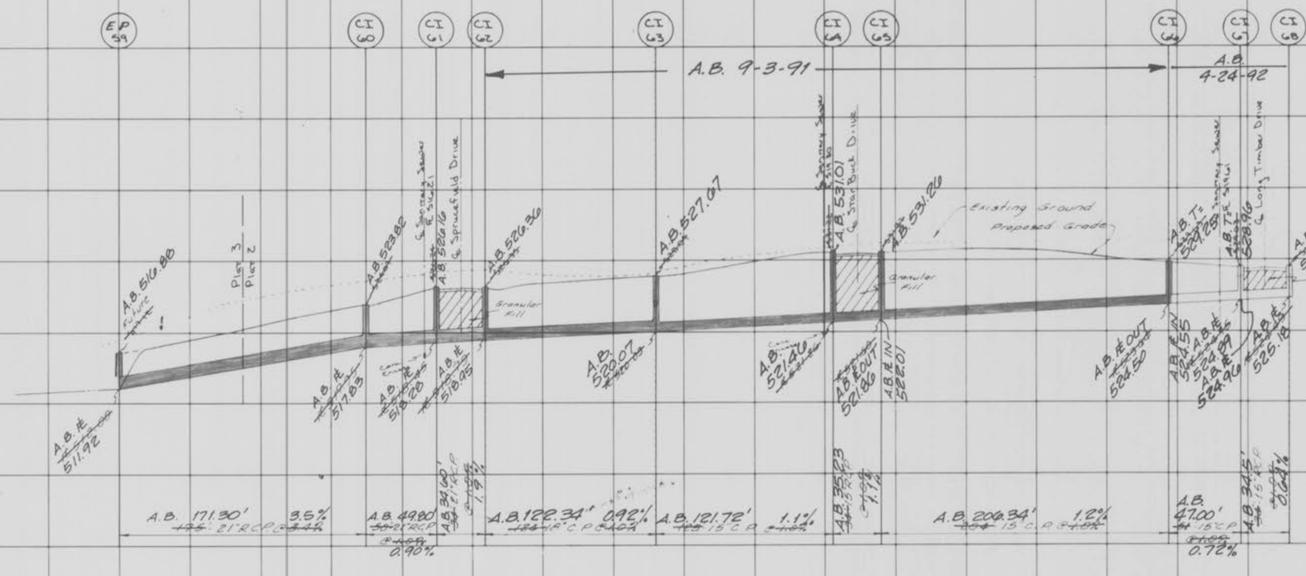
WHEATFIELD
PLAT THREE
STORM SEWER PROFILES

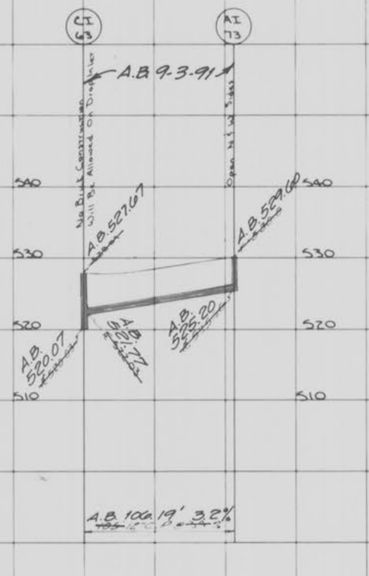
FEB 1985 84-067

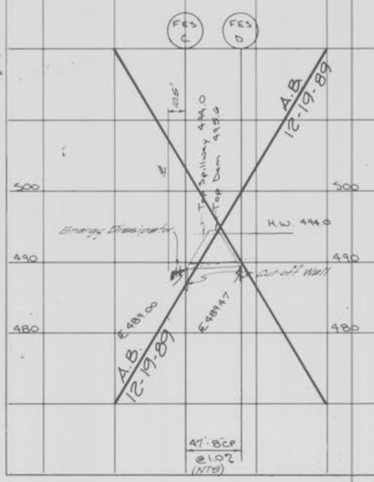
Scale
Vert 1"=10'
Horz 1"=50'

As-Built 5-14-90 K.A.W.
As-Built 9-3-91 K.A.W.
As-Built 4-24-92 K.A.W.

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







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

$Q = Ca\sqrt{2gh}$
$Q = 0.6 \times 0.349 \times \sqrt{2(32.2)4.27}$
$Q = 0.21 \times \sqrt{274.99}$
$Q = 3.47$ 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 x 1800 (30 min) = 54,990 cu. ft.

Storage of Pond at 494.00 = 67,768 cu. ft.

Spillway

Area = 9.5

WP = 24.05

S = 1.0'

$Q = A \times \frac{1.486}{0.0225} \times R^{2/3} \times S^{1/2}$

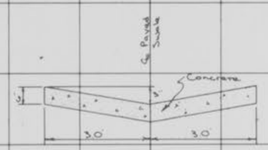
$Q = 9.5 \times 66.04 \times .543 \times .1$

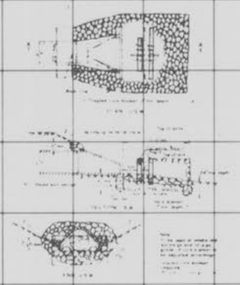
$Q = 34.07$ cfs

$S^{1/2} = 0.10$

$R^{2/3} = \frac{9.5}{24.05} = 0.40 \quad R^{2/3} = .543$

Paved Swale Cross Section





Energy Dissipator

4-24-92
9-3-91

6/7
8/8

"AS-BUILTS"
WHEATFIELD
4

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
"WITELEDGE"
PRINTED IN U.S.A.

WHEATFIELD
PLAT THREE
STORM SEWER PROFILES

FEB. 1985 — 84-067

Scale: Vert. 1"=10' Horz. 1"=50'

AS-BUILTS 9-3-91 KAW.

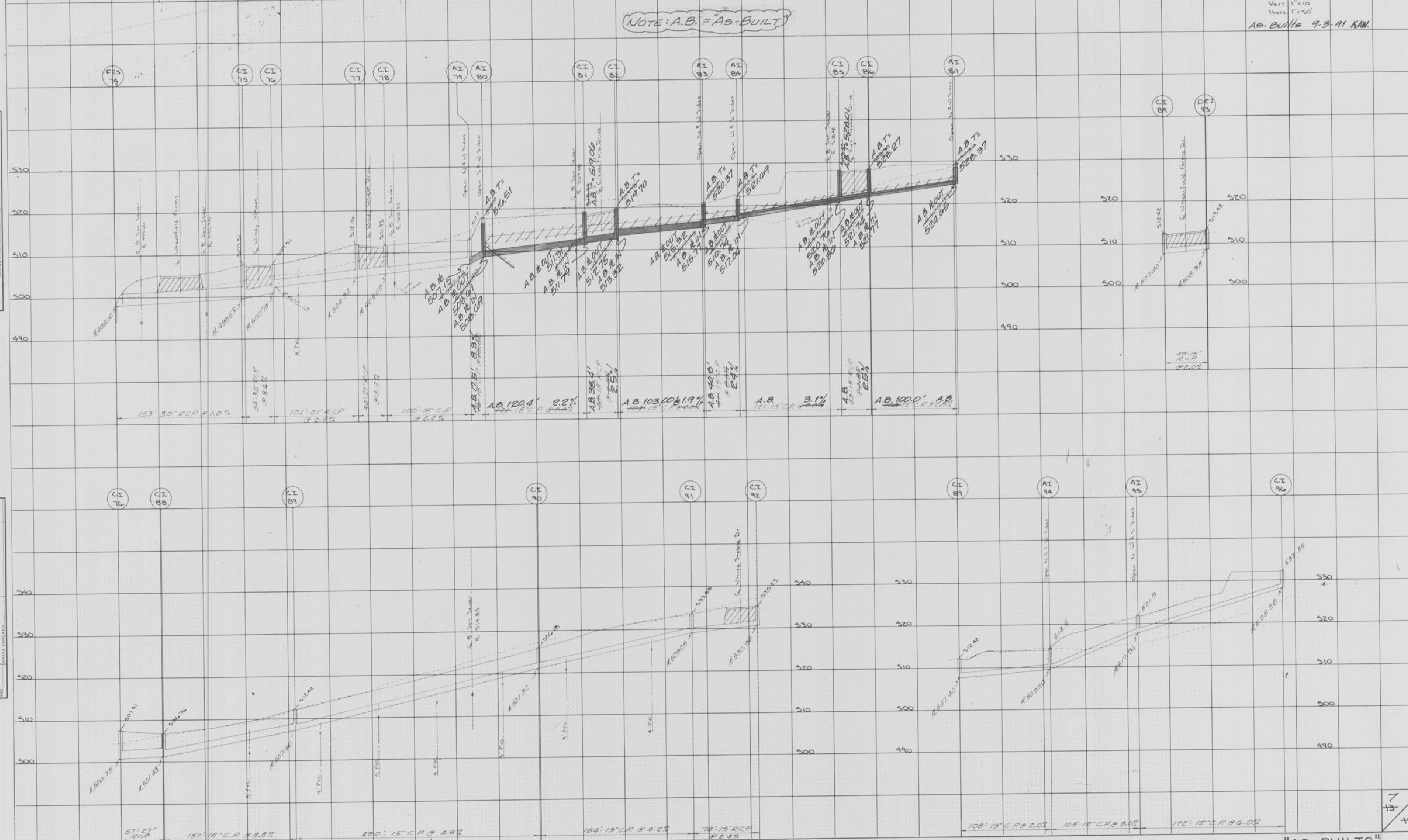


PLATE 3-FULL CROSS SECTION-LINE & DOT

FINAL SURVEY

ORIGINAL SURVEY

7/7

"AS-BUILTS"

WHEATFIELD 4