STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

P.E., R.O.W., and UTILITIES UNDER FC 014-2(3). 80045
80045

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
VIII	COLORADO	FR 014-2(17)	1

AS CONSTRUCTED
NO REVISIONS ☐ REVISED 7-24-90 VOID ☐

REVISIONS			
R-1	4-24-89	SHEETS 1, 3	JLH

PLAN AND PROFILE OF PROPOSED

FEDERAL AID PROJECT NO. FR 014-2(17)

STATE HIGHWAY NO. 14

WELD COUNTY

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN = 50 FT
ON PROFILE { 1 IN = 50 FT. HORIZONTAL
1 IN. = 5 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

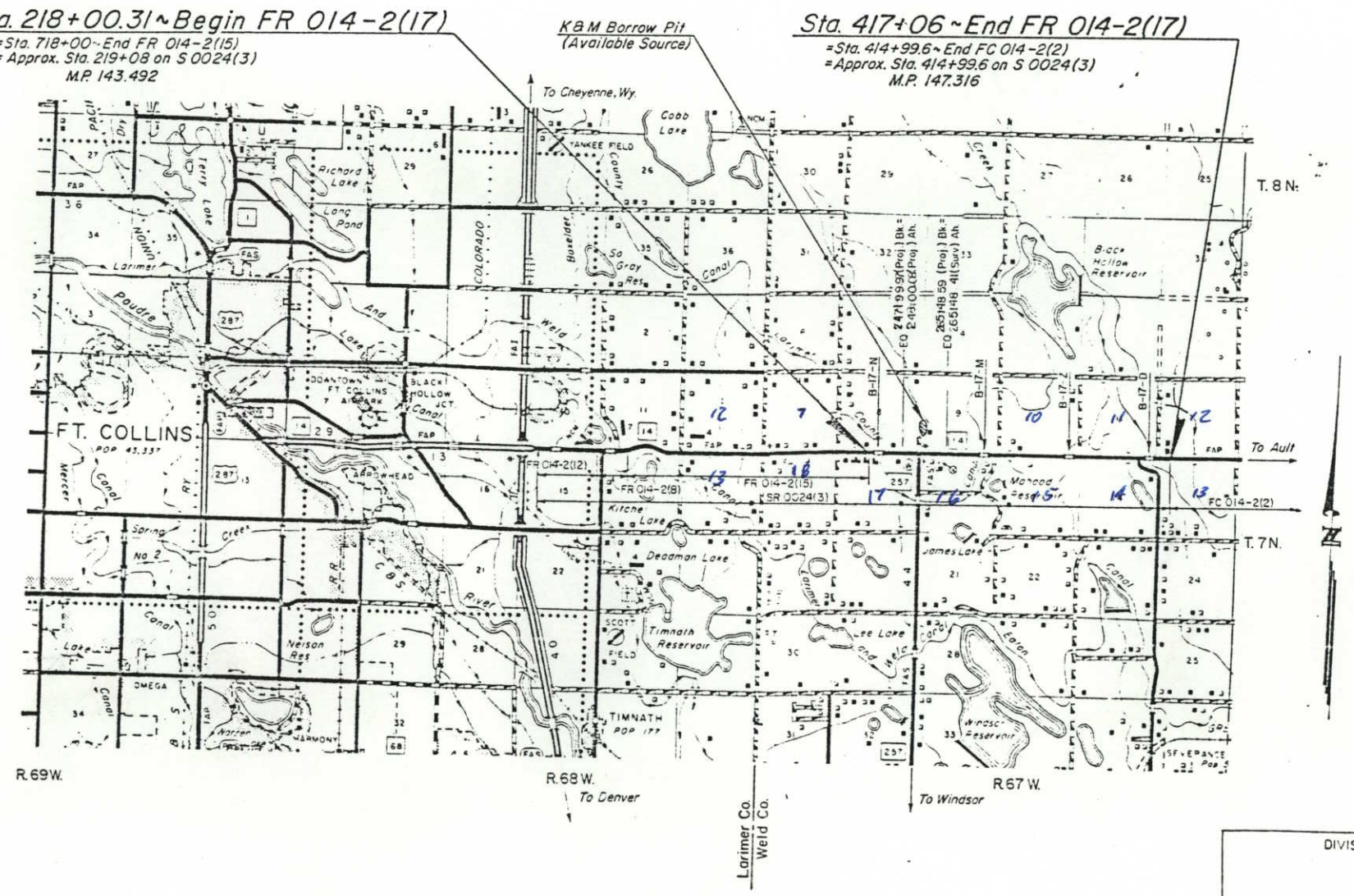
TABULATION OF LENGTH & DESIGN DATA

STATION	LIN. FT. ROADWAY	LIN. FT. MAJOR STRUCTURE
218+00.31 Begin FR 014-2(17) =718+00 End FR 014-2(15) =Approx. Sta. 219+08 on S 0024(3) M.P. 143.492		
	403.13	
222+03.44 Str. B-17-DQ		35.12
222+38.56		
	2561.41	
247+99.97 (Proj.) Bk. 248+00.08 (Proj.) Ah. —EQUATION		
	1748.51	
265+48.59 (Proj.) Bk.= 265+48.41 (Surv.) Ah. —EQUATION		
	2448.54	
289+96.95 Str. B-17-DP		38.10
290+35.05		
	12,670.95	
417+06~ End FR 014-2(17) Approx. Sta. 414+99.6 End FC 014-2(2) Approx. Sta. 414+99.6 on S 0024(3) M.P. 147.316		
TOTALS	19,832.54	73.22

	LIN. FT.	MILES
ROADWAY (NET LENGTH)	19,832.54	3.756
MAJOR STRUCTURE	73.22	0.014
PROJECT GROSS LENGTH	19,905.76	3.770

DESIGN DATA

MAXIMUM DEGREE OF CURVE	N/A
MAXIMUM GRADE	5.62%
MINIMUM S.S.D. HORIZONTAL	>530'
MINIMUM S.S.D. VERTICAL	530'
MAXIMUM DESIGN SPEED	60 M.P.H.
2009 DESIGN TRAFFIC	DHV = 560 ADT = 5100 % Trucks = 16



SCALE IN MILES
0 0.5 1 2 3
0 1 2 3 4 5 6
SCALE IN KILOMETRES

INDEX OF SHEETS

SHEET NO.	
1	TITLE SHEET
2	STANDARD PLANS LIST
3-4	TYPICAL SECTIONS, GENERAL NOTES, SEEDING PLAN, DETAILS OF DITCH CHANGE
5-7	SUMMARY OF APPROXIMATE QUANTITIES
8-10	STRUCTURE QUANTITIES
11	DELINEATOR TABULATION, FENCING TABULATION
12	SUMMARY OF EARTHWORK QUANTITIES, SURFACING PLAN
13	CBC STRUCTURE B-17-DQ, STA. 222+
14	CBC STRUCTURE B-17-DF, STA. 290+
15	CBC, STA. 348+
16	CBC, STA. 406+
17	K & M BORROW PIT (AVAILABLE SOURCE)
18	DETAILS OF TRAFFIC DETECTOR LOOPS
19	DETAIL OF INTERSECTION, STA. 248+00 (SH 257)
20-23	DETOUR DETAILS
24	WETLAND REPLACEMENT PLAN
25-38	PLAN AND PROFILE SHEETS
39	SAND BARREL IMPACT ATTENUATORS
40	TABULATION OF SIGNING QUANTITIES
41-42	TABULATION OF SIGNS
43-44	CLASS III SIGNS SHEET ALUMINUM PANELS
45-46	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS
47	SCHEDULE OF CONSTRUCTION TRAFFIC SIGNS, TRAFFIC CONTROL PLAN, ADVANCE CONSTRUCTION SIGNING AND APPROVED DETOUR LOCATIONS

NEW AND REVISED STANDARDS

M-606-12	GUARD RAIL TYPE 4 CONCRETE BARRIER (2-18-83)	9 SHEETS
M-620-2	FIELD LABORATORY - CLASS 2 (5-25-88)	1 SHEET

DIVISION OF HIGHWAYS

APPROVED:

James E. Siebel 3-27-79
ASST CHIEF ENGINEER DATE

AS CONSTRUCTED INFORMATION

CONTRACTOR Western Materials (Dave Stoelzner)
Project ENGINEER Owen Leonard
(Project or Resident)
PROJECT STARTED September 19 1989
PROJECT COMPLETED July 24 1990
AS CONSTRUCTED PLANS APPROVED [signature]
Res. Eng. R 10/19/90
TITLE DATE

88052 G.R.R./Dist 4

COLORADO
PARTMENT OF HIGHWAYS
OF HIGHWAYS:
FORM NO. 134:
. 1983

AS CONSTRUCTED					
NO REVISIONS	REVISED 7-24-90	VOID	FED. ROAD REGION VIII	DIVISION COLO.	PROJ. NO. FR 014-2(17)

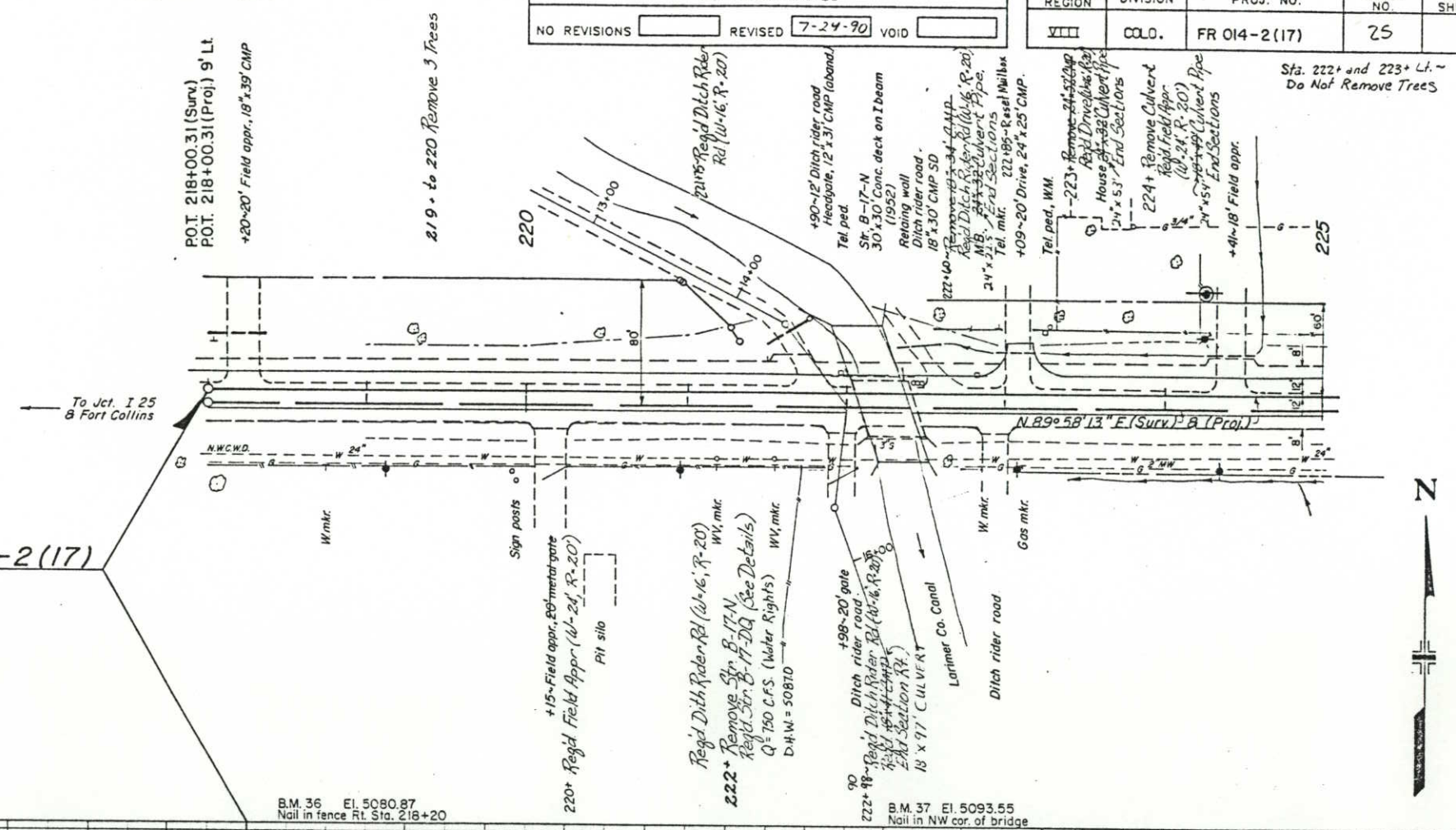
SHEET NO.	TOTAL SHEETS
25	

Utilities:

U.S. West Communications Telephone
North Weld County Water District
West Gas Supply
Public Service Co. Gas
Poudre Valley REA
Platte River Power Authority

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
OR 534-6700 IN METRO DENVER
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

DETOUR #1 REQ'D. LT. 217± to 226±



Sta. 218+00.31 (Proj.) ~ Begin FR 014-2(17)

=Sta. 718+00 End FR 014-2(15)
Approx. Sta. 219+08 on S 0024(3)
M.P. 143.492

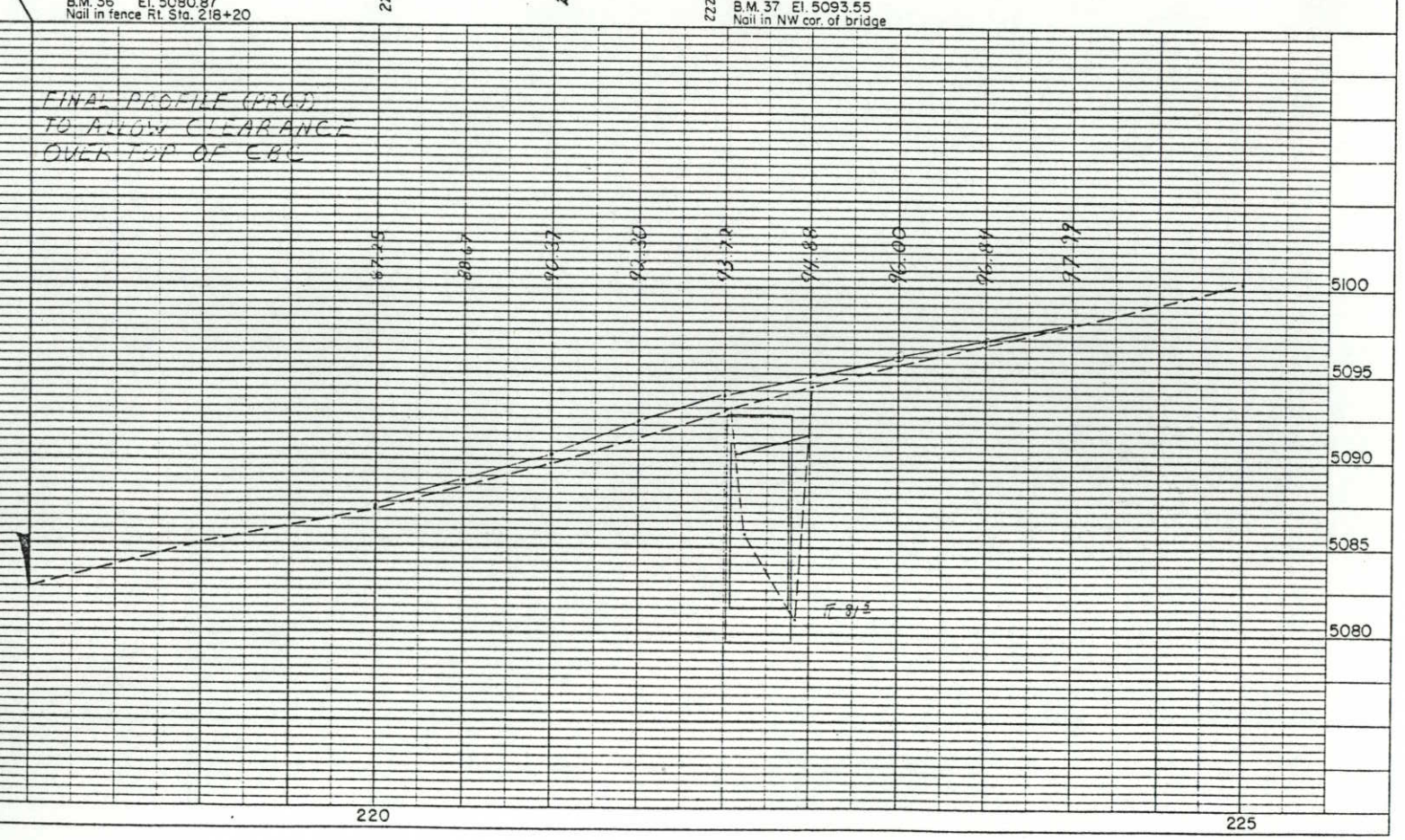
R.O.W. shown is for Information Only.
Dimensions are to Section Line.
See R.O.W. Project FC 014-2(3) for Details.

Note: Basis of Bearings ~ Previous Project FC 014-2(15)
Existing Vertical Curve Data from S 0024(3)

B.M. 36 El. 5080.87
Nail in fence Rt. Sta. 218+20

B.M. 37 El. 5093.55
Nail in NW cor. of bridge

NOTE: Except for Grading Section, Profile Grade shall be the required thickness of overlay above grade of existing pavement.



PLAN			
SURVEYED			
PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
NO.			

DATE	BY

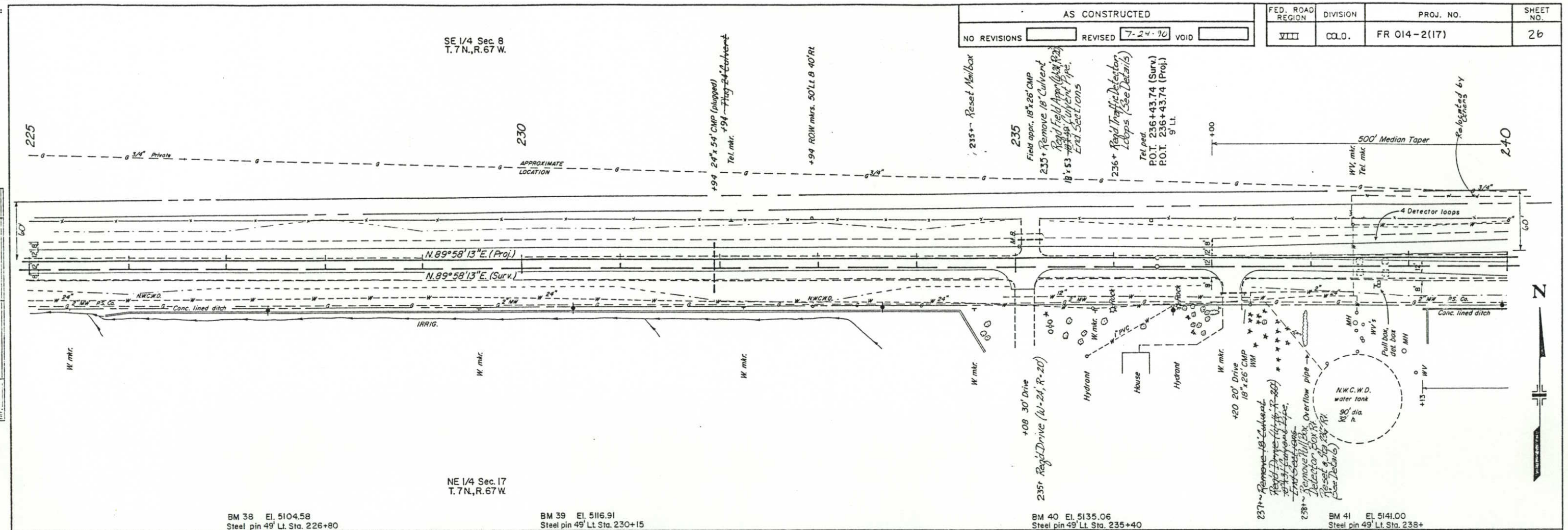
PROFILE			
SURVEYED			
PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED		
	B.M.'S NOTED		
NO.			

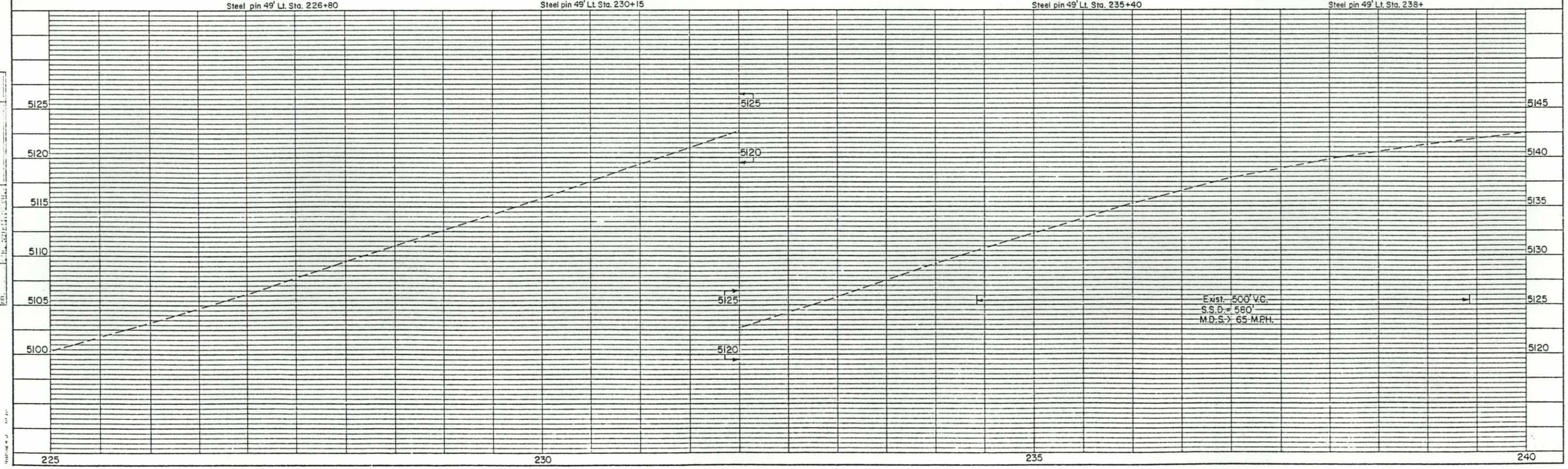
DATE	BY

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS:
H. FORM NO. 134:
NOV. 1983

AS CONSTRUCTED							
NO REVISIONS		REVISED	7-24-90	VOID			

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	FR 014-2(17)	26





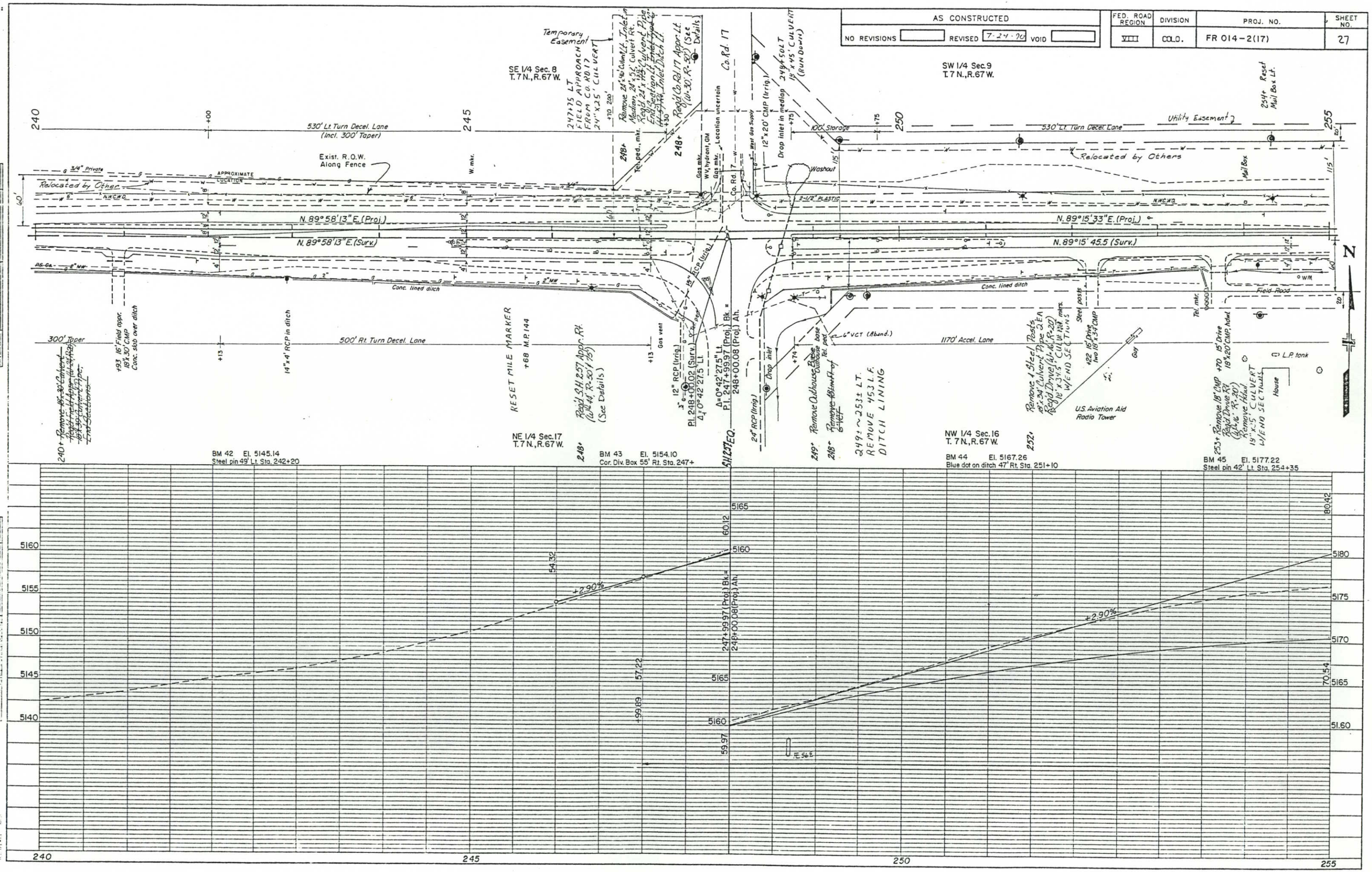
PLAN			BY	DATE
NOTE BOOK	SURVEYED			
	PLOTTED			
	ALIGNMENT CHECKED			
	RT. OF WAY CHECKED			
NO.				

PROFILE			BY	DATE
NOTE BOOK	SURVEYED			
	PLOTTED			
	ALIGNMENT CHECKED			
	B. M.'S NOTED			
NO.				

OF COLORADO
DEPARTMENT OF HIGHWAYS
ION OF HIGHWAYS:
H. FORM NO. 134:
NOV. 1983

AS CONSTRUCTED			
NO REVISIONS	REVISED 7-24-90	VOID	

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	FR 014-2(17)	27

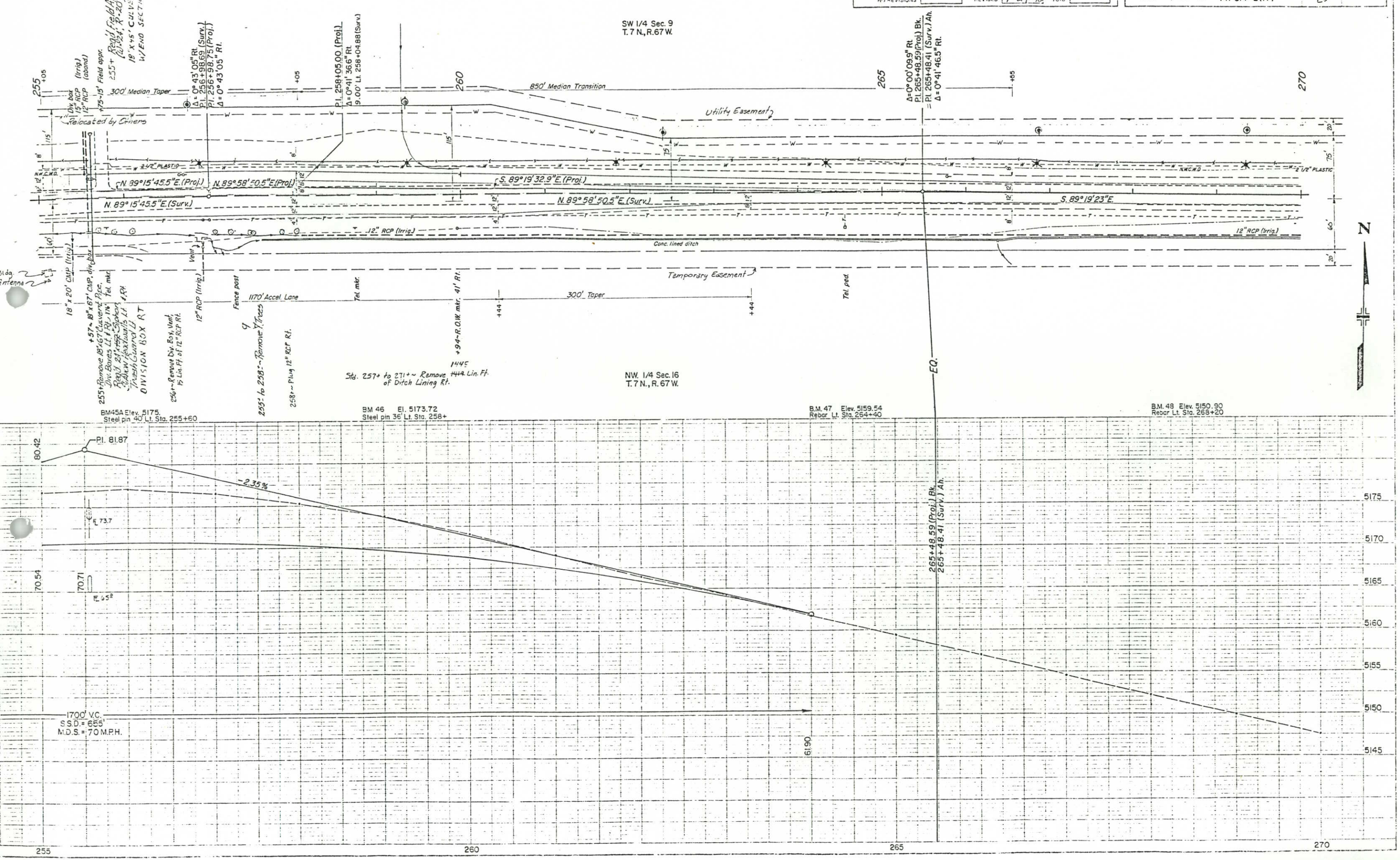


PLAN
NOTE BOOK
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
NOTE BOOK
SURVEYED
PLOTTED
ALIGNMENT CHECKED
B. M.'S NOTED
BY
DATE

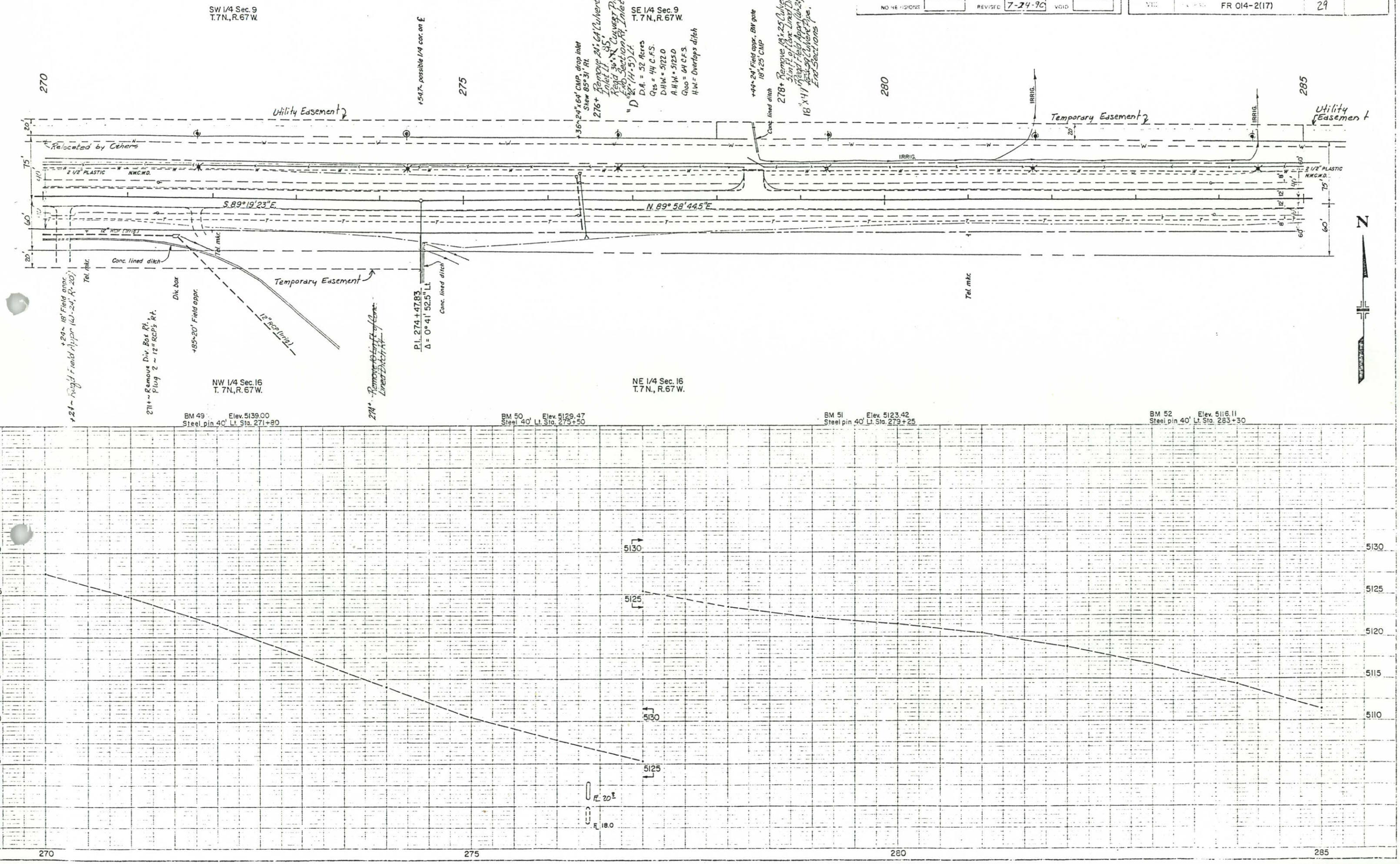
AS CONSTRUCTED			
NO REVISIONS		REVISED 7-24-90	VOID

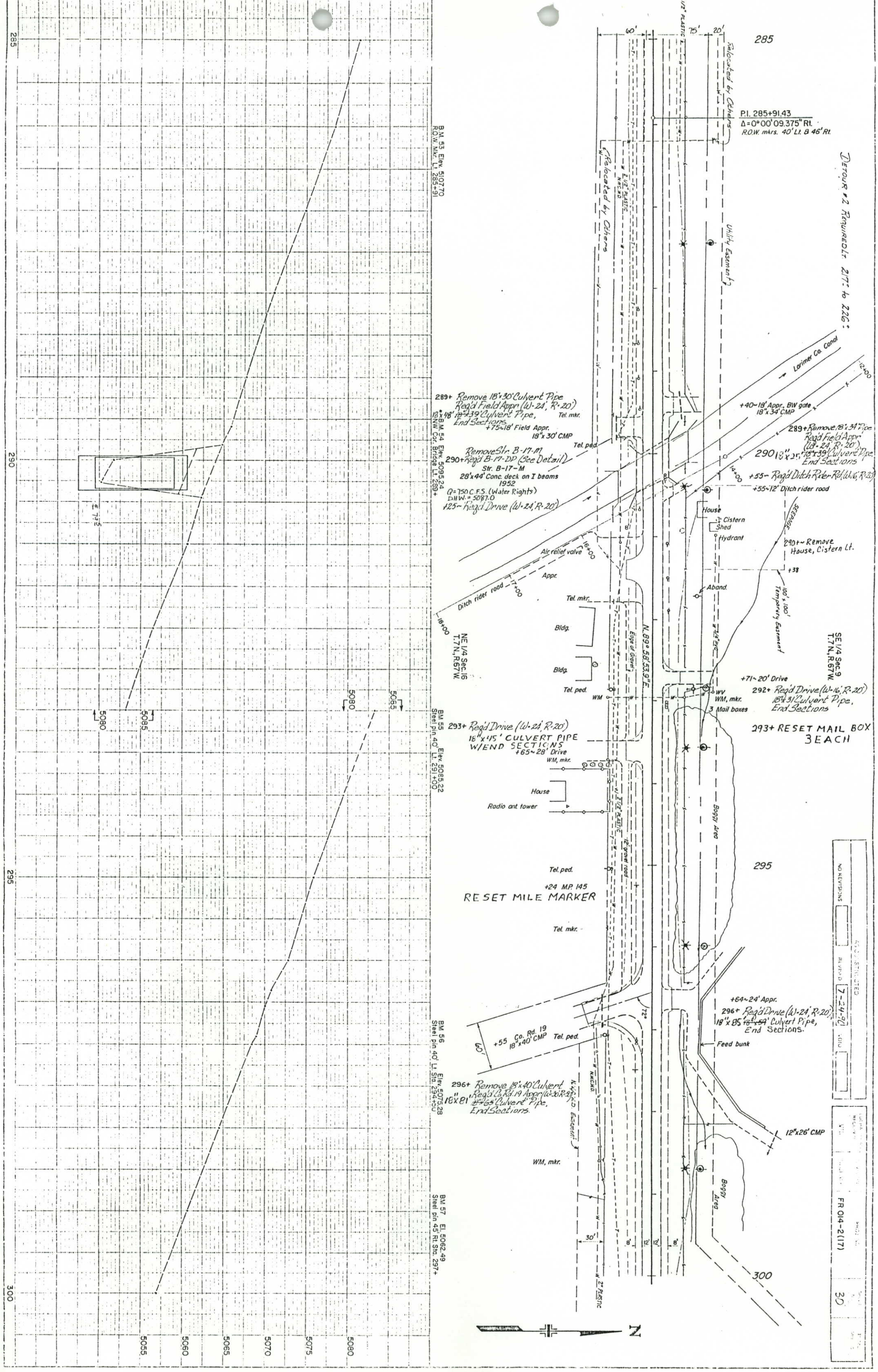
		PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIC.		FR 014-2(17)	28	



AS CONSTRUCTED					
NO REVISIONS		REVISED 7-24-90	VOID		

PROJECT NO.	PROJ. NO.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII		FR 014-2(17)	29	





COLORADO

AS CONSTRUCTED

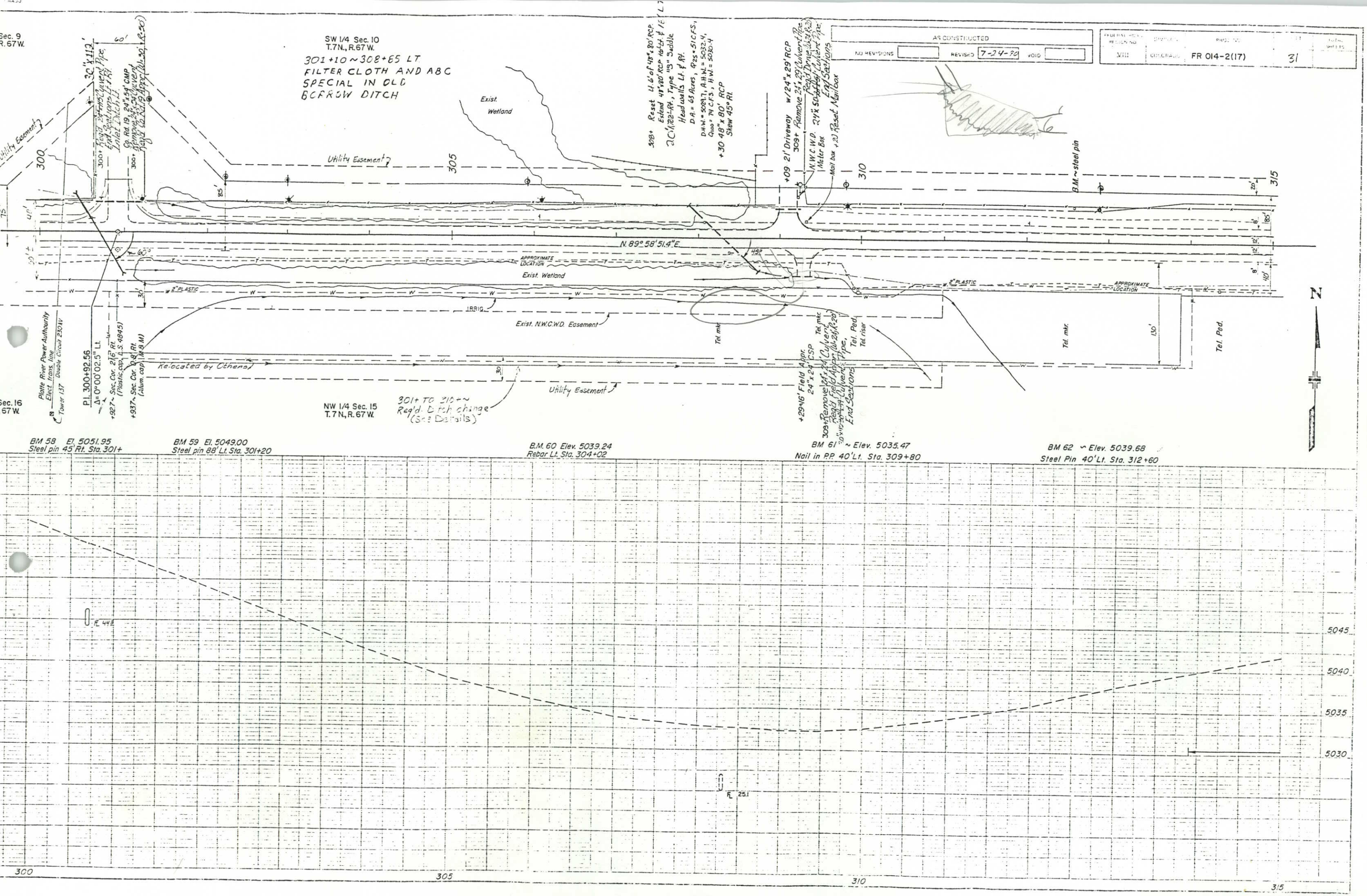
NO REVISIONS ☐ REVISED 7-24-90 VOID ☐

		PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII		FR 014-2(17)	30	

DETOUR #2 REQUIRED LT. 217± to 226±
285
P.I. 285+91.43
Δ=0°00'09.375" Rt.
R.O.W. mkrs. 40' Lt. & 46' Rt.
Relocated by Others
Utility Easement
20'
75'
60'
1/2" PLASTIC
2 1/2" PLASTIC N.W.C.W.D.
Relocated by Others
Larimer Co. Canal
12+00
14+00
16+00
17+00
18+00
+40~18' Appr., BW gate 18"x34' CMP
289+ Remove 18"x34' Pipe
Reqd Field Appr. (W-24', R-20')
290 18"x25', 18"x39' Culvert Pipe, End Sections
+55~ Reqd Ditch Rider Rd (W-16', R-20')
+55~12' Ditch rider road
House
Cistern
Shed
Hydrant
SEEPAGE
290+~ Remove House, Cistern Lt.
+38
100' x 100' Temporary Easement
Aband.
3/4" PVC
SE 1/4 Sec. 9 T.7 N., R.67 W.
+71~20' Drive
292+ Reqd Drive (W-16', R-20') 18"x31' Culvert Pipe, End Sections
WV
WM, mkr.
3 Mail boxes
293+ RESET MAIL BOX 3 EACH
295
Boggy Area
N. 89° 58' 53.9" E.
Edge of Gravel
12' gravel road
2 1/2" PLASTIC
289+ Remove 18"x30' Culvert Pipe
Reqd Field Appr. (W-24', R-20')
18"x48' 18"x39' Culvert Pipe, End Sections
+75~18' Field Appr.
18"x30' CMP
Tel. mkr.
Tel. ped.
Remove Str. B-17-M
290+ Reqd B-17-DP (See Detail)
Str. B-17-M
28'x44' Conc. deck on I beams
1952
Q=750 C.F.S. (Water Rights)
D.H.W.=5087.0
+25~ Reqd Drive (W-24', R-20')
Air relief valve
Appr.
Ditch rider road
Tel. mkr.
Bldg.
Bldg.
Tel. ped.
WM
NE 1/4 Sec. 16 T.7 N., R.67 W.
293+ Reqd Drive (W-24', R-20') 18"x15' CULVERT PIPE W/END SECTIONS
+65~28' Drive
WM, mkr.
House
Radio ant. tower
Tel. ped.
+24 M.P. 145
RESET MILE MARKER
Tel. mkr.
72°
+55 Co. Rd. 19 18"x40' CMP
Tel. ped.
60'
296+ Remove 18"x40' Culvert
Reqd Co. Rd. 19 Appr. (W-30', R-20')
18"x81' 18"x65' Culvert Pipe, End Sections
N.W.C.W.D.
N.W.C.W.D. Easement
WM, mkr.
30'
2" PLASTIC
+64~24' Appr.
296+ Reqd Drive (W-24', R-20') 18"x85' Culvert Pipe, End Sections.
Feed bunk
12"x26' CMP
Boggy Area
300
8'
12'
12'
8'
N
B.M. 53 Elev. 5107.70 R.O.W. Mkr. Lt. 285+91
B.M. 54 Elev. 5095.24 NW Cor. Bridge Lt. 289+
BM 55 Elev. 5085.22 Steel pin 40' Lt. 291+00
BM 56 Elev. 5075.28 Steel pin 40' Lt. Sta. 294+50
BM 57 El. 5062.49 Steel pin 45' Rt. Sta. 297+
5065
5080
5085
5080
℄ 73±
5080
5075
5070
5065
5060
5055
285
290
295
300

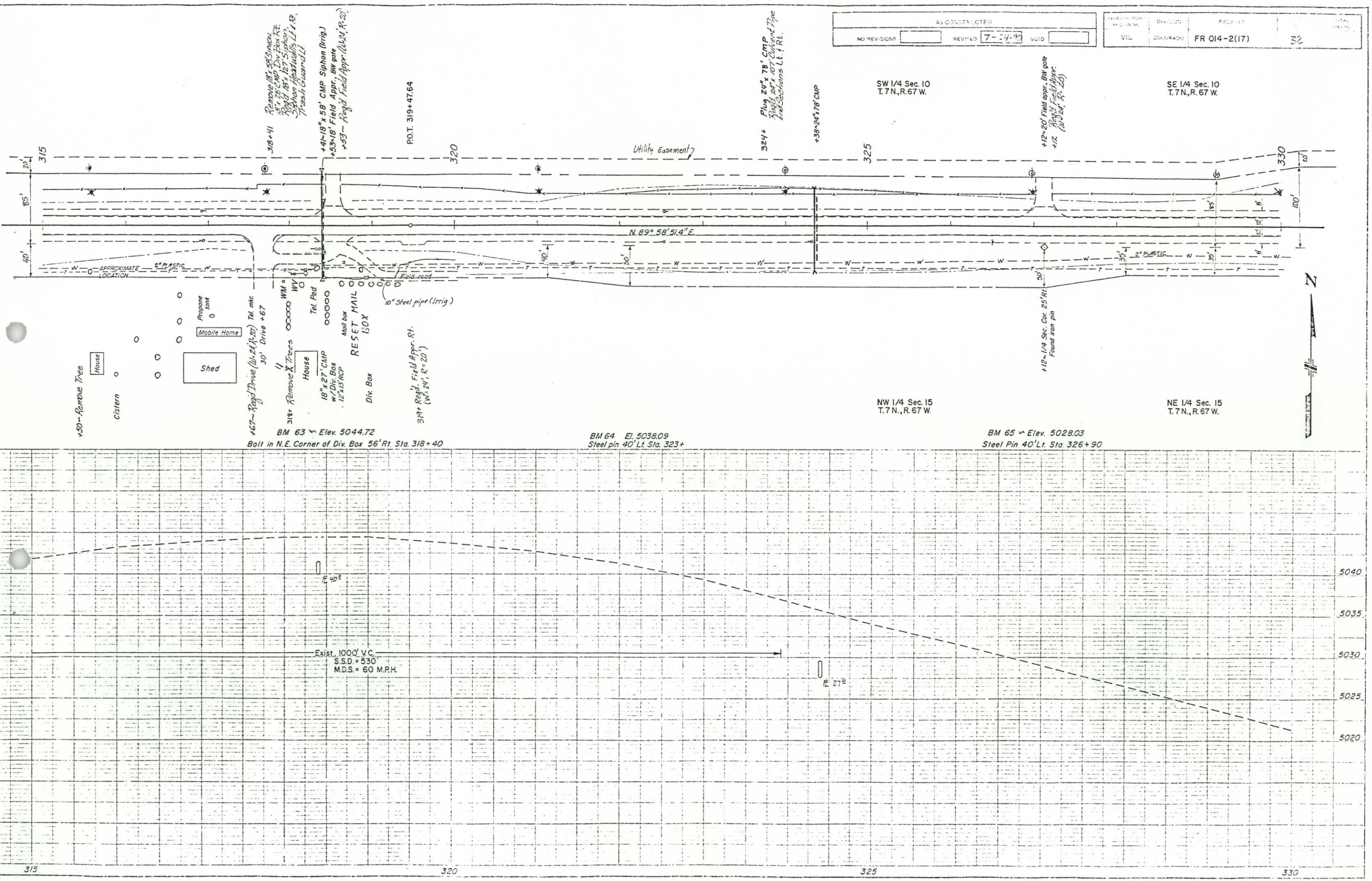
AS CONSTRUCTED			
NO REVISIONS		REVISED 7-24-90	VOID

FEDERAL AID PROJECT REGION NO.	STATE	PROJ. NO.	SHEET	TOTAL SHEETS
VIII	COLORADO	FR 014-2(17)	31	



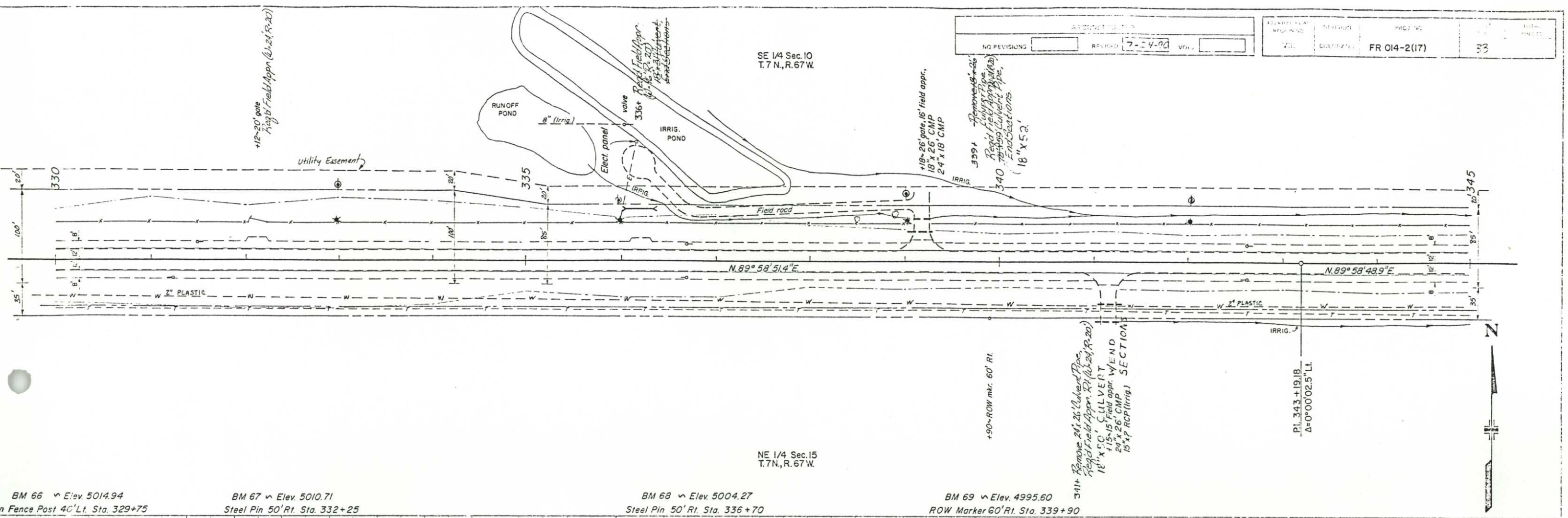
AS CONSTRUCTED			
NO REVISIONS		REVISED 7-24-90	VOID

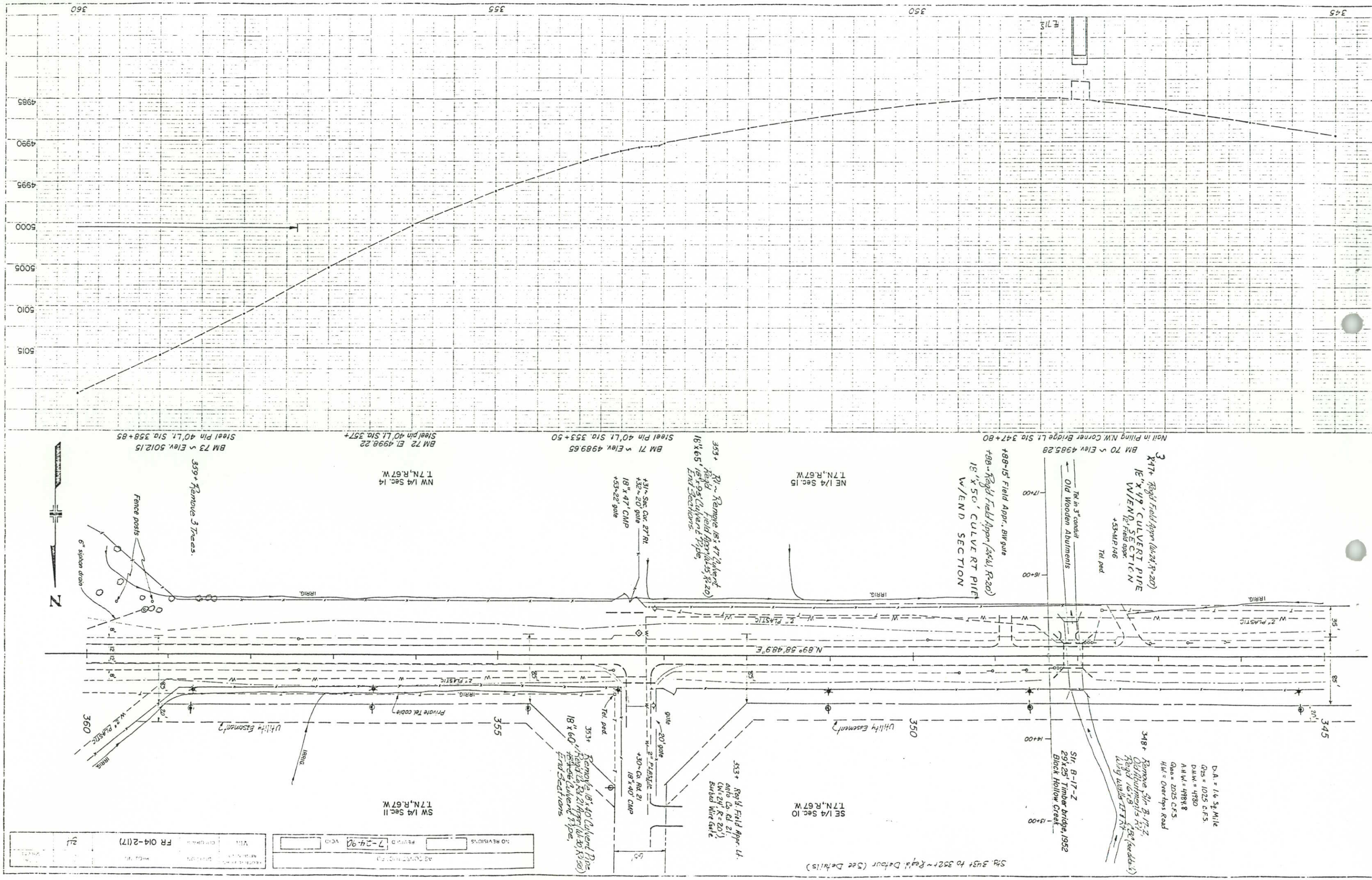
REGION NO.	DIVISION	PROJECT	TOTAL SHEETS
VIII	COLORADO	FR 014-2(17)	32

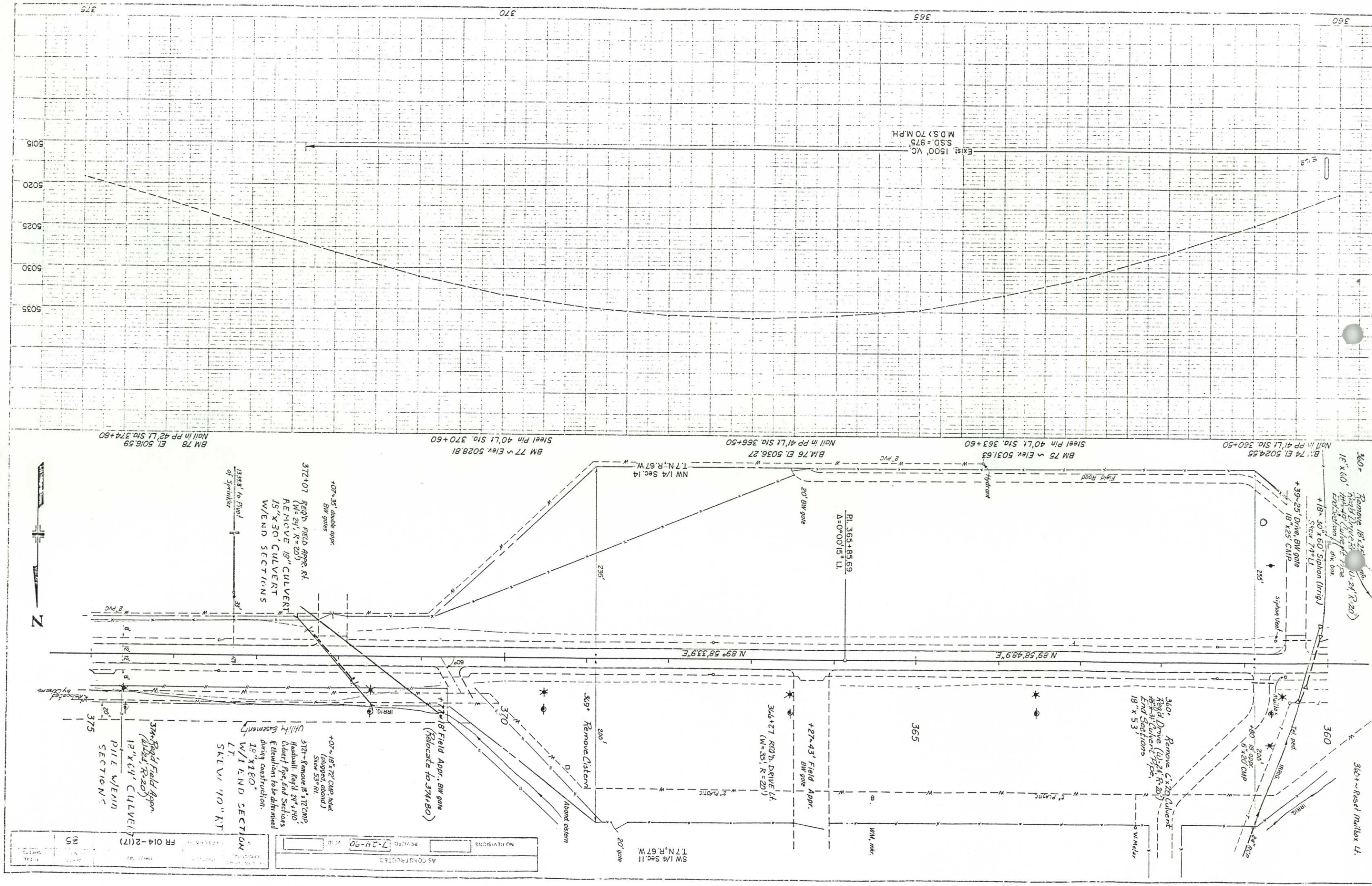


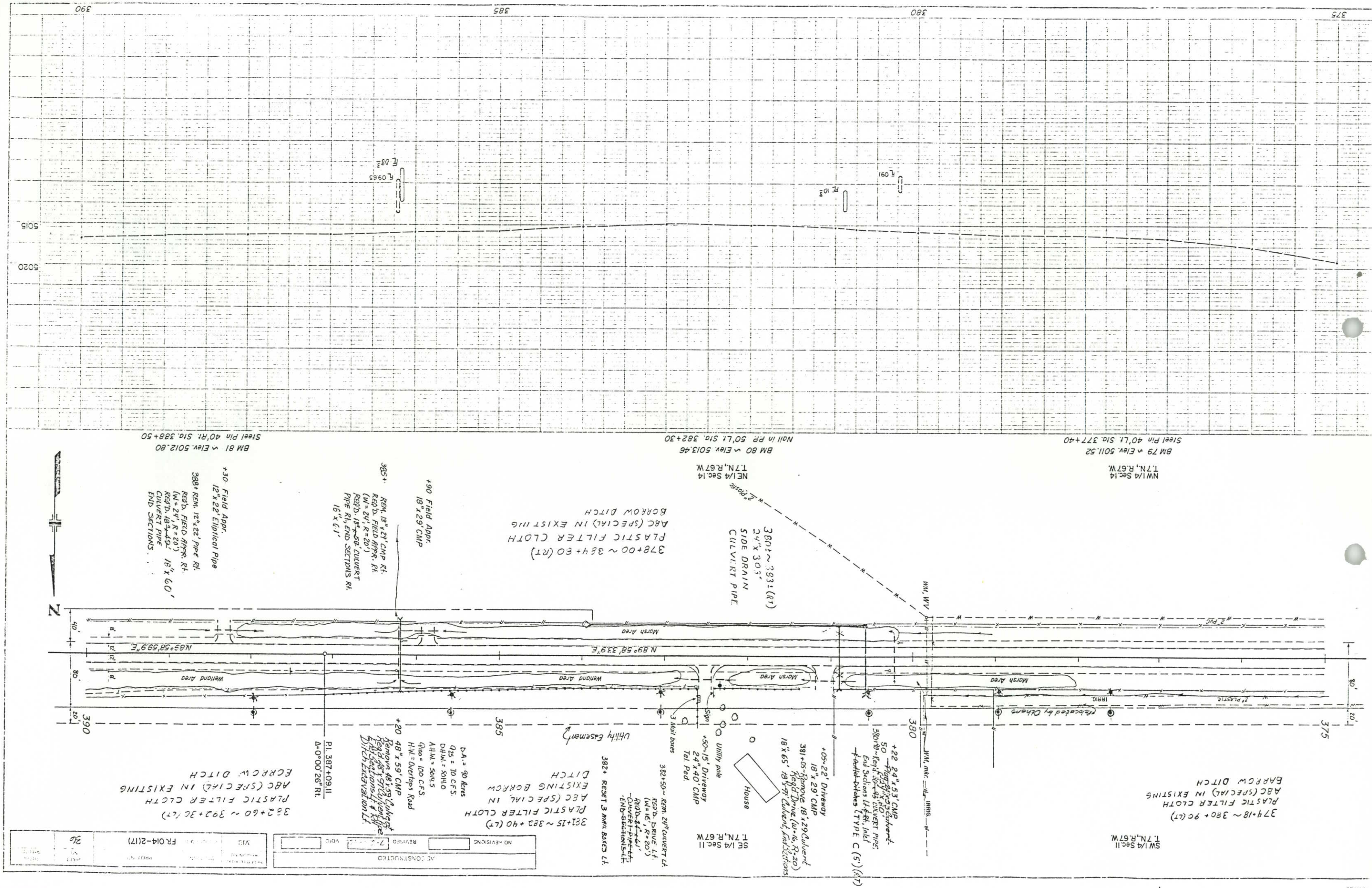
NO REVISIONS	REVISED 7-24-90	VOID

PROJECT NO.	PROJECT NO.	SHEET NO.
	FR 014-2(17)	33



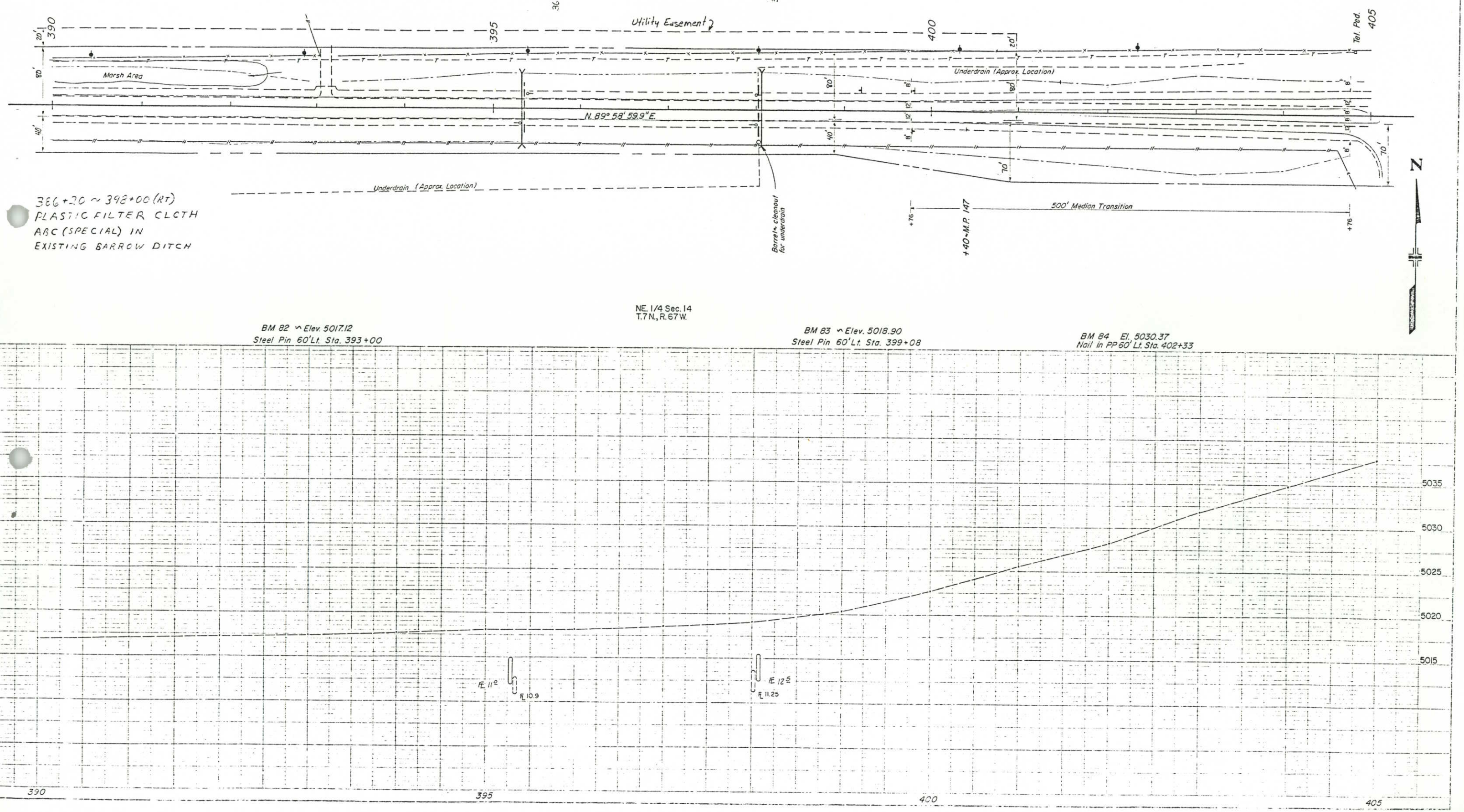

Sta. 343+ to 352+ ~ Rehab. Detour (See Details)
NO REVISIONS
REVISED 7-24-90
VOID
FR 014-2(17)
21
Sta. B-17-Z
29'x25' Timber bridge, 1952
Block Hollow Creek
D.A. = 1/4 Sq. Mile
Q25 = 1025 C.F.S.
D.H.W. = 4980
A.H.W. = 4984.8
Q100 = 2025 C.F.S.
H.W. = Overtops Road
348+ Remove Str. B-17-Z
Old Abutments (see det.)
Rehab Culvert Pipe
Utility easement
Rehab Field Appr. (L=24', R=20')
18'x 49' CULVERT PIPE
W/END SECTION
3
347+ Rehab Field Appr (L=24', R=20')
18'x 49' CULVERT PIPE
W/END SECTION
+53=M.P. 146
Tel. ped.
Tel. in 3" conduit
Old Wooden Abutments
BM 70 ~ Elev. 4985.28
Nail in Piling N.W. Corner Bridge Lt. Sta. 347+80
+88-15' Field Appr., BW gate
+88~ Rehab Field Appr (L=24', R=20')
18'x 50' CULVERT PIPE
W/END SECTION
NE 1/4 Sec. 15
T.7N.,R.67W.
353+ Rehab Field Appr. Lt.
onto Co. Rd. 21
(W=24', R=20')
Barbed Wire Gate
SE 1/4 Sec. 10
T.7N.,R.67W.
N.89°58'48.9"E.
2" PLASTIC
IRRIG.
20' gate
+30~ Co. Rd. 21
18"x 40' CMP
Tel. ped.
353+ Remove 18'x 40' Culvert Pipe
Rehab Co. Rd. 21 Appr (L=30, R=50)
18"x 60' Rehab Culvert Pipe,
End Sections
SW 1/4 Sec. 11
T.7N.,R.67W.
Utility Easement
Private Tel. cable
353+ Rehab Field Appr. Lt.
18"x 65' Rehab Field Appr (L=35, R=20)
18"x 94' Culvert Pipe,
End Sections
353+ Remove 18'x 47' Culvert
+31~ Sec. Cor. 27' Rt.
+32~ 20' gate
18"x 47' CMP
+53=22' gate
NW 1/4 Sec. 14
T.7N.,R.67W.
359+ Remove 3 Trees.
Fence posts
6" siphon drain
BM 71 ~ Elev. 4989.65
Steel Pin 40' Lt. Sta. 353+50
BM 72 El. 4998.22
Steel pin 40' Lt. Sta. 357+
BM 73 ~ Elev. 5012.15
Steel Pin 40' Lt. Sta. 358+85
N
345
350
355
360
4985
4990
4995
5000
5005
5010
5015


N
Existing Structures
Existing Structures
Existing Structures


N
375
380
385
390
5020
5015
BM 79 ~ Elev. 5011.52
Steel Pin 40'Lt. Sta. 377+40
BM 80 ~ Elev. 5013.46
Nail in PP 50'Lt. Sta. 382+30
BM 81 ~ Elev. 5012.80
Steel Pin 40'Rt. Sta. 388+50
NW 1/4 Sec.14
T.7N., R.67W.
NE 1/4 Sec.14
T.7N., R.67W.
SW 1/4 Sec.11
T.7N., R.67W.
SE 1/4 Sec.11
T.7N., R.67W.
FL 109
FL 108
FL 096.5
FL 08.2
Marsh Area
Wetland Area
N.89°58'33.9"E
N.63°58'59.9"E
Relocated by Others
2" PLASTIC
IRRIG.
WM, WV
WM, mkr.
2" PVC
80'
40'
20'
+22 24"x53' CMP
50' Flared End Section
380+19~Rem. 24"x40' Culvert
End Sections Lt. & Rt. Inst.
Install bikes (TYPE C (5)) (Rt)
+09~22' Driveway
18"x 29' CMP
381+05~Remove 18"x29' Culvert
Reset Drive (w=16', R=20)
18"x 65' 18"x91' Culvert End Sections
House
Utility pole
+50~15' Driveway
24"x 40' CMP
Tel. Ped.
Sign
3 Mail boxes
382+50~ Rem. 24" CULVERT Lt.
Reset Drive Lt.
(w=16', R=20')
Reset 24"x40' Culvert
CULVERT PIPE
END SECTIONS Lt.
382+ RESET 3 mail boxes Lt.
Utility Easement
D.A. = 90 Acres
Q25 = 70 C.F.S.
D.H.W. = 5014.0
A.H.W. = 5014.5
Q100 = 100 C.F.S.
H.W. = Overtop Road
+20 48"x 59' CMP
Remove 48"x59' Culvert
Reset 48"x59' Culvert
End Sections Lt. & Rt.
DITCH EXCAVATION Lt.
P.I. 387+09.11
Δ=0°00'26" Rt.
321+15 ~ 382+40 (Lt)
PLASTIC FILTER CLOTH
ABC (SPECIAL) IN EXISTING
BORROW DITCH
362+60 ~ 392+30 (Lt)
PLASTIC FILTER CLOTH
ABC (SPECIAL) IN EXISTING
BORROW DITCH
374+18 ~ 380+90 (Lt)
PLASTIC FILTER CLOTH
ABC (SPECIAL) IN EXISTING
BORROW DITCH
378+00 ~ 384+80 (Rt)
PLASTIC FILTER CLOTH
ABC (SPECIAL) IN EXISTING
BORROW DITCH
380+ ~ 383+ (Rt)
24"x 30'
SIDE DRAIN
CULVERT PIPE
+90 Field Appr.
18"x 29' CMP
385+ REM. 18"x29' CMP Rt.
Reset Field Appr. Rt.
(w=24', R=20')
Reset 18"x59' Culvert
Pipe Rt., End Sections Rt.
16'x 61'
+30 Field Appr.
12"x 22' Elliptical Pipe
368+ REM. 12"x22' Pipe Rt.
Reset Field Appr. Rt.
(w=24', R=20')
Reset 18"x40' 18"x 60'
Culvert Pipe
End Sections.
NO REVISIONS
REVISED
AS CONSTRUCTED
FR 014-2(17)
36

CONSTRUCTED							
NUMBER ISSUING		REVISED	7-24-96	VOUCH.			

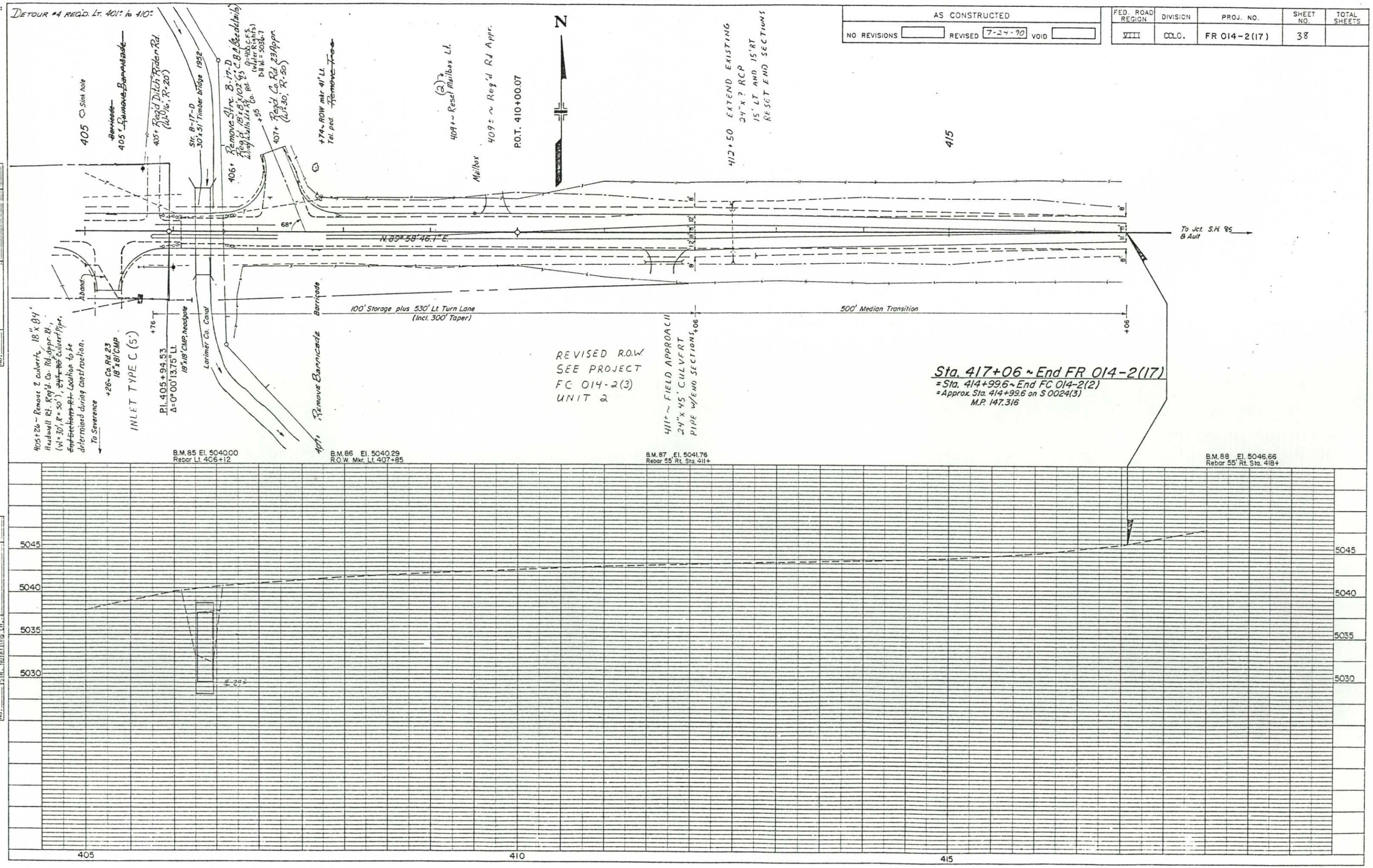
			FR 014-2(17)	37



COLORADO
PARTMENT OF HIGHWAYS
OF HIGHWAYS:
FORM NO. 134:
. 1983

AS CONSTRUCTED			
NO REVISIONS	REVISED 7-24-90	VOID	

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLO.	FR 014-2(17)	38	



PLAN	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
NO.		

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK ALIGNMENT CHECKED		
B.M. 's NOTED		
STR. HOLES CH.		
NO.		