

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	UO12-2(13)	18	

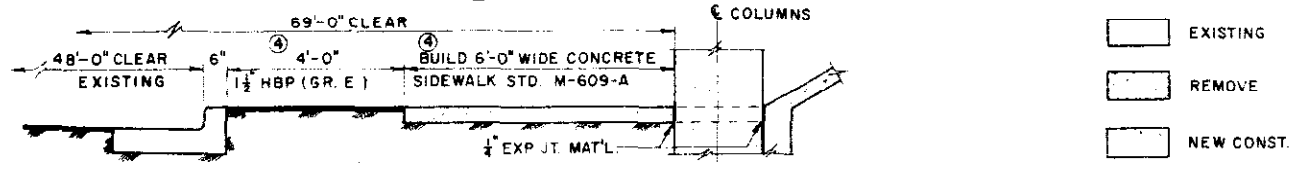
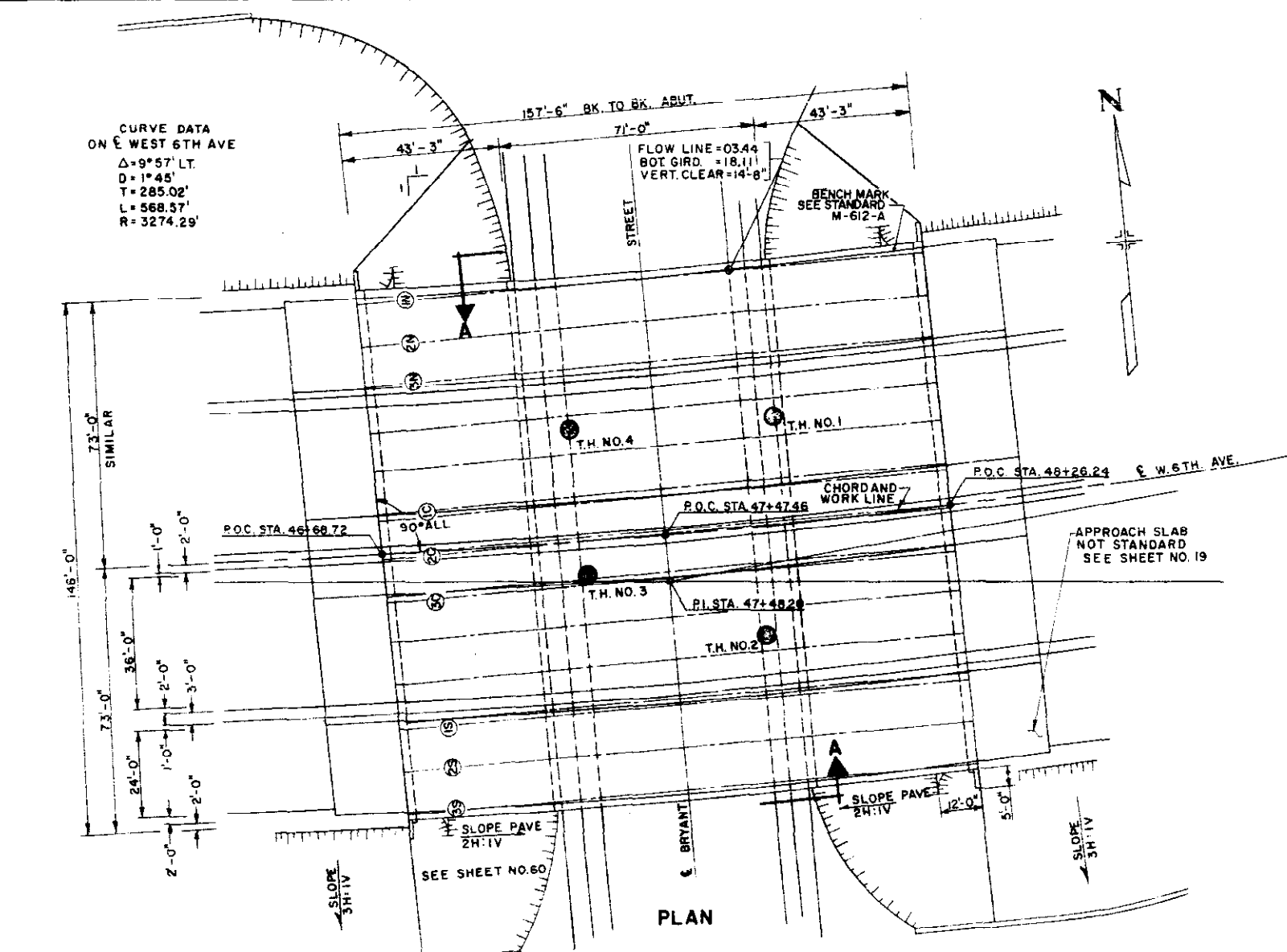
Steel Pile Cutoff
12-BP-53

Length	Location
1'	1
2'	1
2'	1
2'	1
2'	1

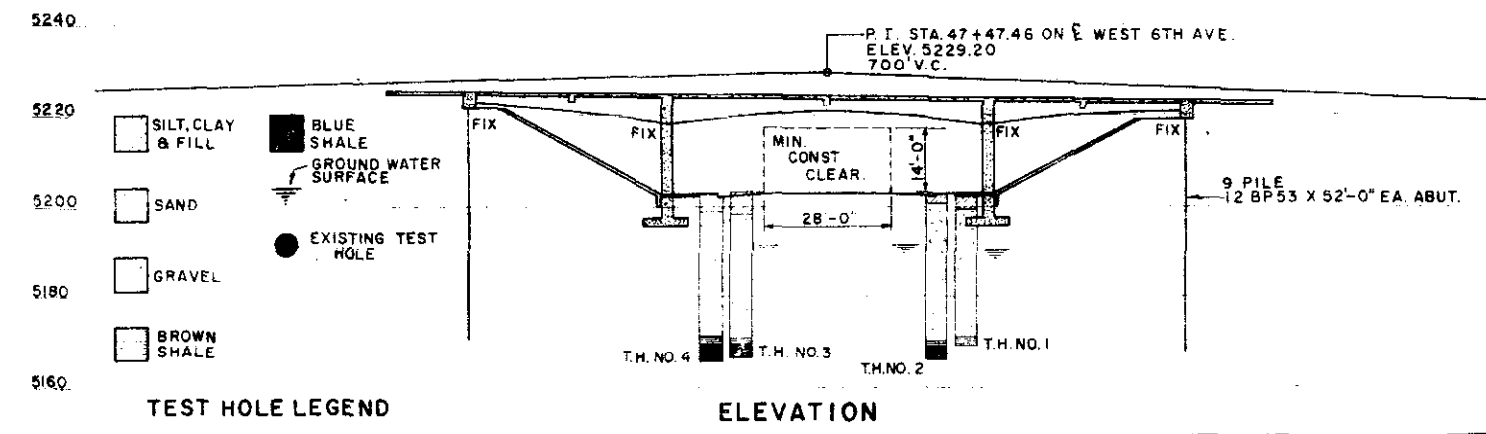
SUMMARY OF QUANTITIES						
ITEM	UNIT	DESCRIPTION	① ABUTS	PIERS	SUPERSTR.	TOTAL
202	EA.	REM PORT PRESENT STR.				2
206	CU. YD.	STR. EXCAV.	79	414		493
206	CU. YD.	STR. BKFL. (CL 3)	80	295		375
403	TON	HBP (GR E) HAUL & ASPH)	28 20		147 90	176 10
411	GAL.	LIQ ASPH. MATL (RC-800)	26 31		154 123	180 434
502	LIN. FT.	STEEL PILE (12BP53)	986 762			986 762
507	CU. YD.	CONC. SAND PAVE. (REINF)	190 237			190 237
509	L.S.	STR. STEEL (GALV.)				L.S.
601	CU. YD.	CONCRETE CL. A	85 144	446 153	689 722	910 1019
602	LB.	REINF. STEEL	18 195	26 415	197 885	241 795
606	LIN. FT.	GD. RAIL TY. 3A (DOUBLE)	50		150	200
613	LIN. FT.	1 1/2" ELEC. COND.			340 343	340 343
② -	SQ. FT.	EXP. JT. MAT'L		96	230	326
② -	SQ. FT.	EXP. JT. MAT'L			75	75
607	LIN. FT.	FENCE CHAIN LINK (36 INCH)	50		150	200

① INCLUDES QUANTITIES FOR 2 APPROACH SLABS.
 THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (②).
 PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.
 ③ DESIGN WEIGHT = 12,500 LB.
 Paid as per Suppliers Invoices 249,462 lbs

SHEET NO.	TITLE
18	GENERAL PLAN & ELEVATION
19	DETAILS ABUTMENT NO. 1 & 4
20	DETAILS PIER NO. 2 & 3
21	GIRDER DETAILS
22	SUPERSTRUCTURE DETAILS
23	DECK PLAN NORTH BRIDGE
24	DECK PLAN SOUTH BRIDGE



SECTION A
 ④ INCLUDE IN ROADWAY QUANTITIES FOR PAYMENT.



JEFFERSON ASSOCIATES
 CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO

GENERAL PLAN
 & ELEVATION

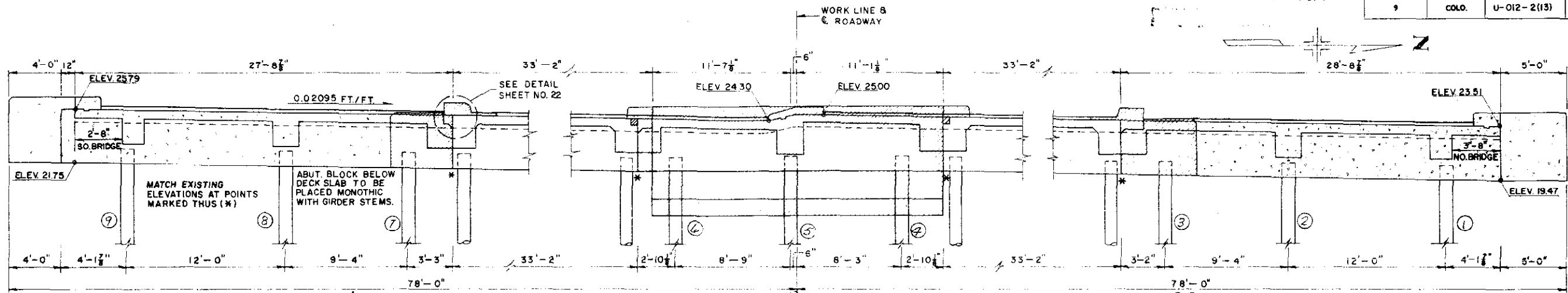
Across BRYANT ST. ON 6TH AVE.
 Sta. 46+68.72 TO 48+26.24

Near DENVER Sec. 8 T. 4 S. R. 68 W.

Designed by T.V.S. Approved by
 Made by W.J.P. Bridge Engineer
 Checked by G.D.C. Date: 19

NORTH F-16-EM
 STRUCTURE NO. SOUTH F-16-EN

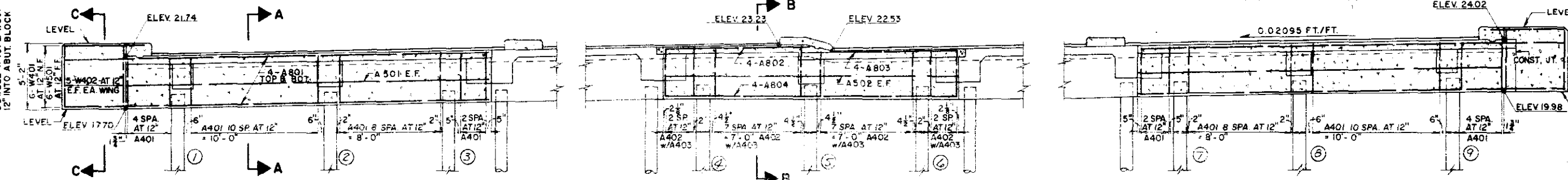
FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U-012-2(13)	19	



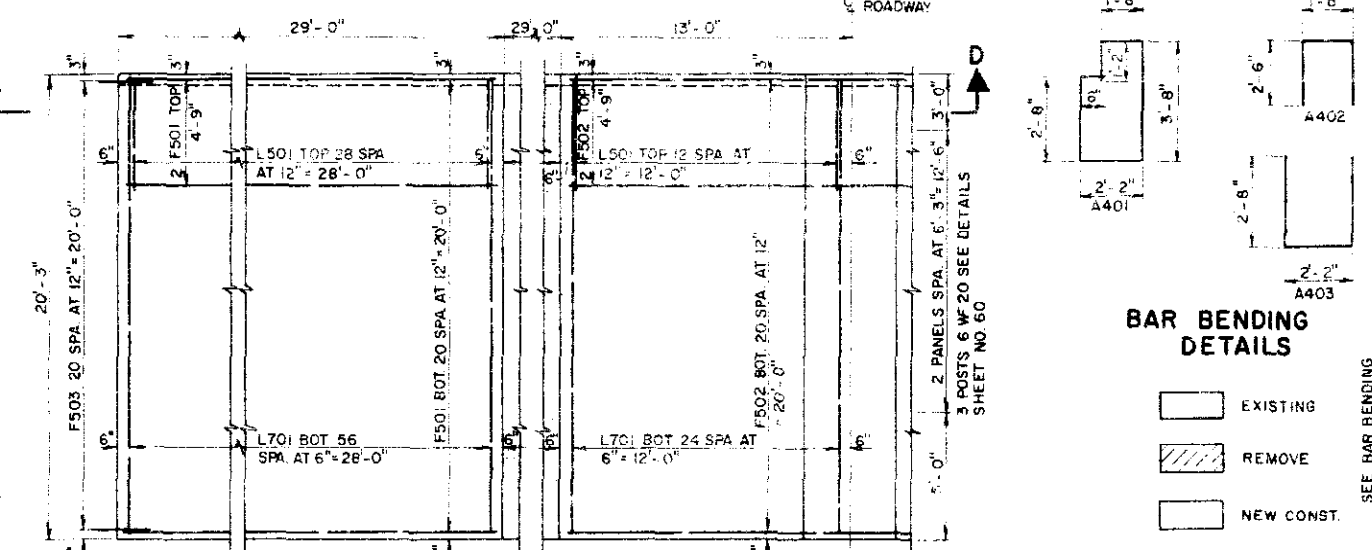
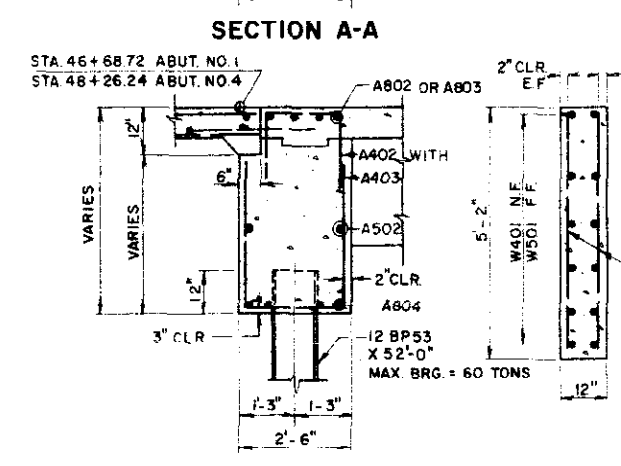
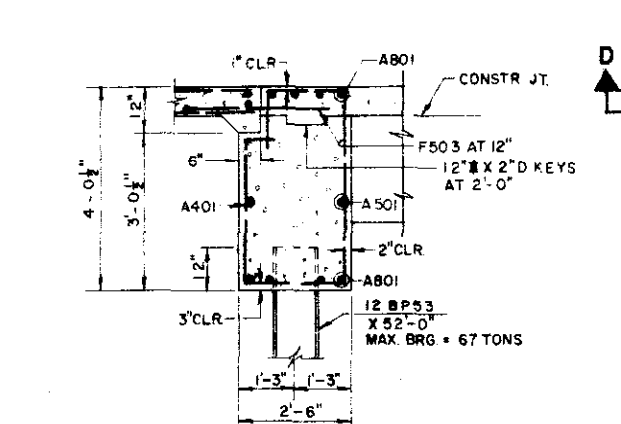
Summary of In Place Piling

Abut No	Piling No	Length In Place
1	1	52'
1	2	51'
1	3	52'
1	4	53'
1	5	55'
1	6	53'
1	7	51'
1	8	53'
1	9	53'
4	1	50'
4	2	49'
4	3	52'
4	4	51'
4	5	51'
4	6	50'
4	7	51'
4	8	50'
4	9	52'

ELEVATION ABUTMENT NO. 1

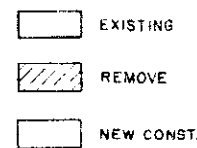


ELEVATION ABUTMENT NO. 4



PLAN APPROACH SLAB

BAR BENDING DETAILS



BAR LIST

MARK	SIZE	SHAPE	NO REQ'D	LENGTH
A401	4		112	11'-10"
A402	4		44	6'-8"
A403	4		44	7'-6"
L401	4		14	20'-0"
B401	4		44	2'-9"
B403	4		22	6'-6 1/2"
W401	4		24	6'-0"
W402	4		40	4'-10"
L501	5		168	5'-0"
F501	5		92	28'-9"
F502	5		46	26'-0"
F503	5		252	1'-7"
B501	5		88	1'-3 1/2"
W501	5		24	6'-0"
A501	5		8	28'-6"
A502	5		4	23'-0"
L701	7		328	20'-0"
A801	8		32	28'-6"
A802	8		8	11'-6"
A803	8		8	13'-6"
A804	8		8	22'-11"

① SUMMARY OF QUANTITIES

ITEM	UNIT	DESCRIPTION	AMOUNT
403	TON	H.B.P. (GR. E)	20.20
411	GAL.	LIQ. ASPH. MATL. (RC-800)	31.86
509	LS	STR. STEEL (GALV.)	LS
601	CU. YD.	CONC. CL. A	144.00
602	LB.	REINF. STEEL	28,667 → 19,195
606	LIN. FT.	GD. RAIL TY. 3A DOUBLE	50

② 2 APPROACH SLABS
DESIGN WEIGHT = 510 LB.

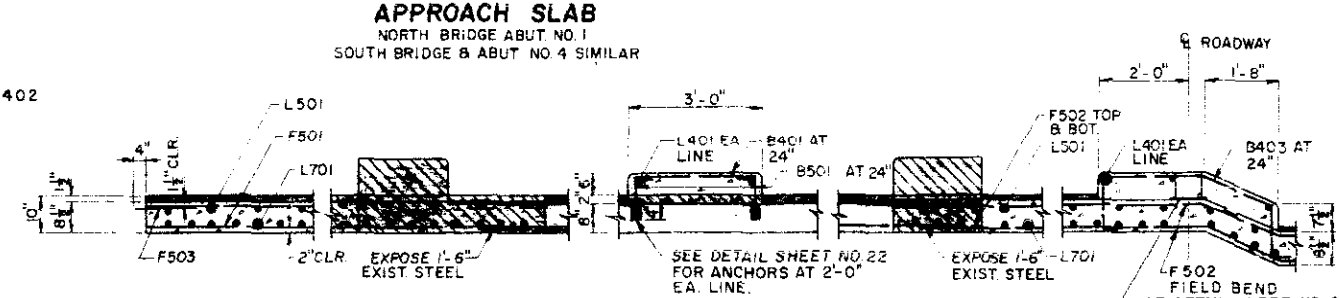
③ SUMMARY OF QUANTITIES

ITEM	UNIT	DESCRIPTION	AMOUNT
206	CU. YD.	STR. EXCAV.	79
206	CU. YD.	STR. BKFL. (CL. 3)	80
502	LIN. FT.	STEEL PILE (12 BP 53)	2,206
507	CU. YD.	CONC. S.B.D. PAVE. (REINF.)	237.190

④ 2 ABUTMENTS

① BAR SUMMARY

545 LF #4 AT 0.668 #/FT =	365
5195 LF #5 AT 1.043 #/FT =	5,420
6560 LF #7 AT 2.044 #/FT =	13,410
TOTAL =	19,195 LB



NORTH F-16-EM
STRUCTURE NO. SOUTH F-16-EN

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DETAILS
ABUTMENT NO. 1 & 4

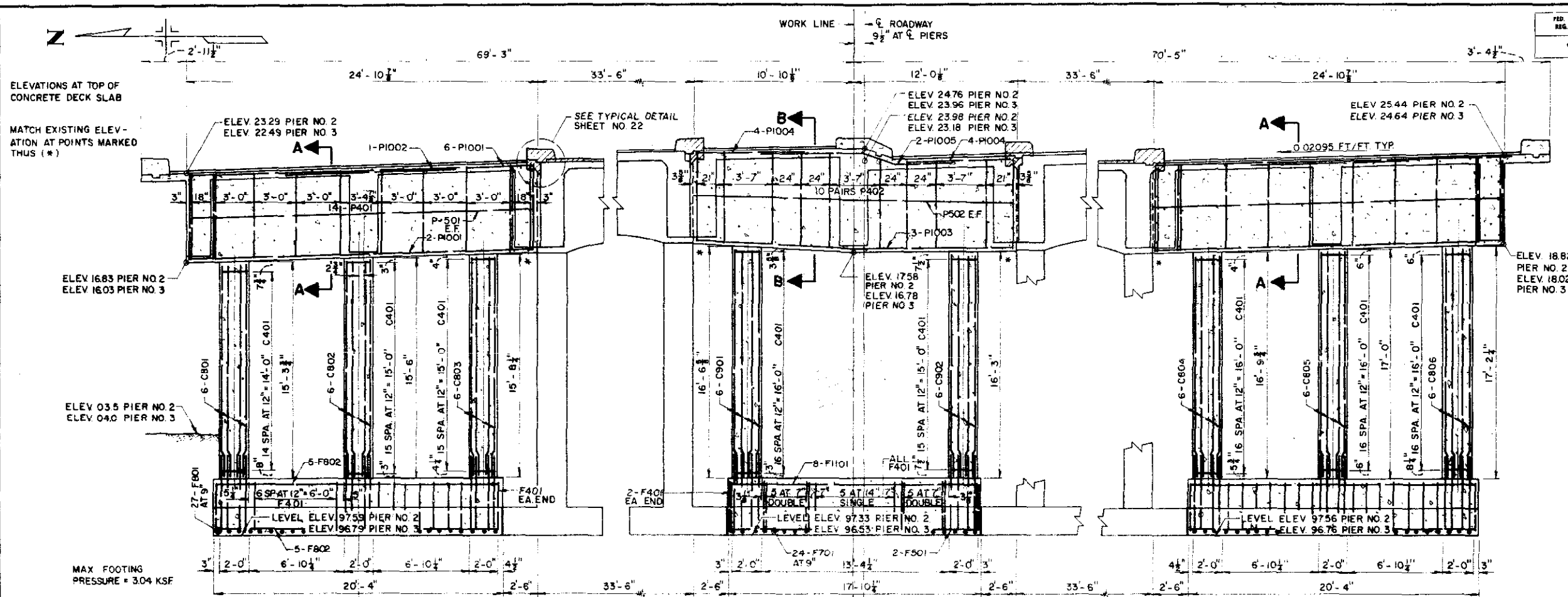
Across BRYANT ST. ON 6TH AVE.
Sta. 46+68.72 TO 48+26.24

Near DENVER Sec. 8 T. 4S. R. 68W

Designed by GDC
Checked by TVS

Approved by
Bridge Engineer
Date: 19

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U-012-2(13)	20	



① BAR LIST

MARK	SIZE	SHAPE	NO. REQ'D	LENGTH
P401	4	□	56	16'-5"
P402	4	□	40	9'-7"
F401	4	□	132	12'-4"
C401	4	○	262	6'-6"
PI005	10		4	11'-10"
HI101	11		144	5'-0"
F801	8		108	10'-6"
F802	8		40	20'-0"
D801	8		72	5'-5"
C801	8		12	15'-0"
C802	8		12	15'-3"
C803	8		12	15'-5"
C804	8		12	16'-6"
C805	8		12	16'-9"
C806	8		12	17'-0"
PI001	10		32	24'-8"
PI002	10		4	17'-0"
PI004	10		8	24'-8"
F701	7		48	9'-6"
F501	5		4	17'-7"
FI101	11		16	17'-7"
D901	9		24	5'-9"
C901	9		12	16'-3"
C902	9		12	16'-0"
PI003	10		6	17'-7"
PI004	10		16	7'-6"
PS02	5		4	17'-7"

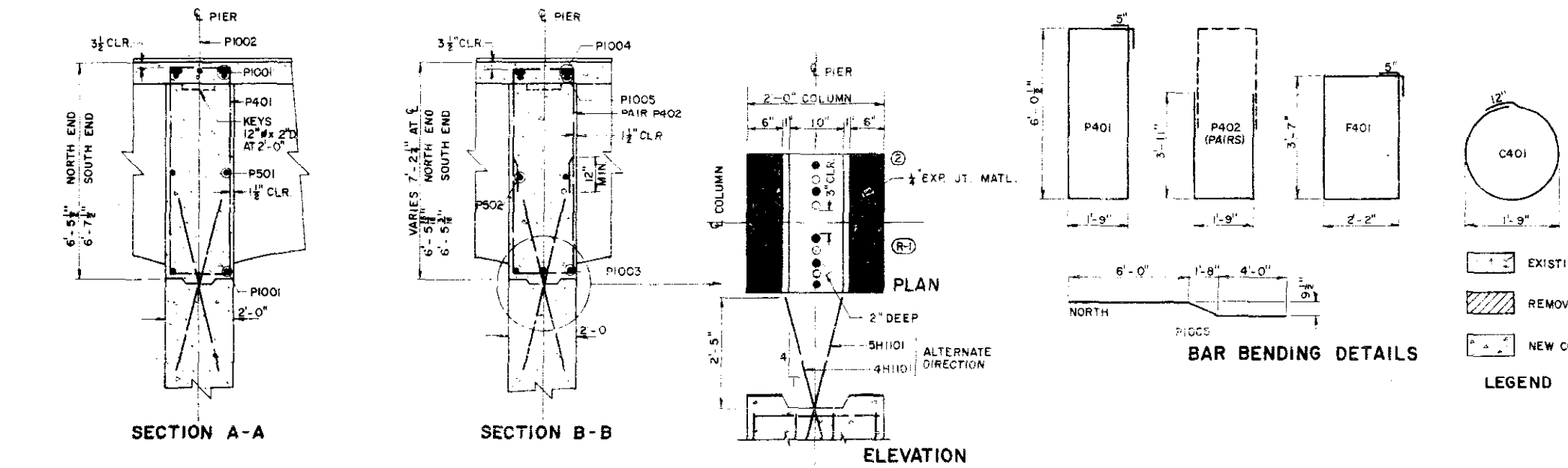
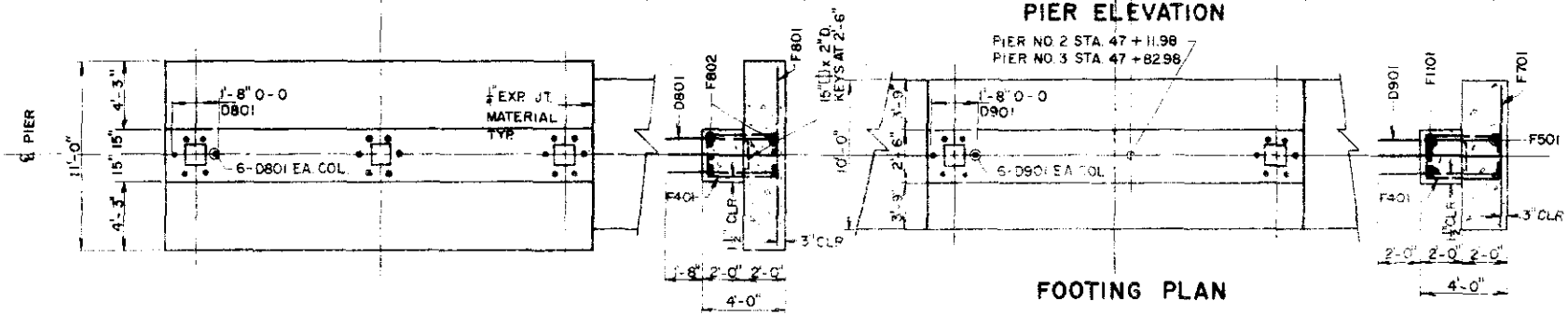
① BAR SUMMARY

4635	L F #4	AT 0.668 #/FT.	=	3095
340	L F #5	AT 1.043 #/FT.	=	355
455	L F #7	AT 2.044 #/FT.	=	930
3475	L F #8	AT 2.670 #/FT.	=	9280
525	L F #9	AT 3.400 #/FT.	=	1785
1105	L F #10	AT 4.303 #/FT.	=	4755
1000	L F #11	AT 5.313 #/FT.	=	5315
				TOTAL = 25,515

① SUMMARY OF QUANTITIES

ITEM	UNIT	DESCRIPTION	AMOUNT
206	CU YD.	STR. EXCAV.	414
206	CU YD.	STR. BKFL. (CL. 3)	295
601	CU YD.	CONCRETE CL. A	153,148
602	LB	REINF. STEEL 26 #3/	28,516
②	SQ. FT.	1" EXP. JT. MATL.	96

① FOR 2 PIERS
THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS ②. PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.



JEFFERSON ASSOCIATES
CIVIL ENGINEERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DETAILS
PIER NO. 2 & 3

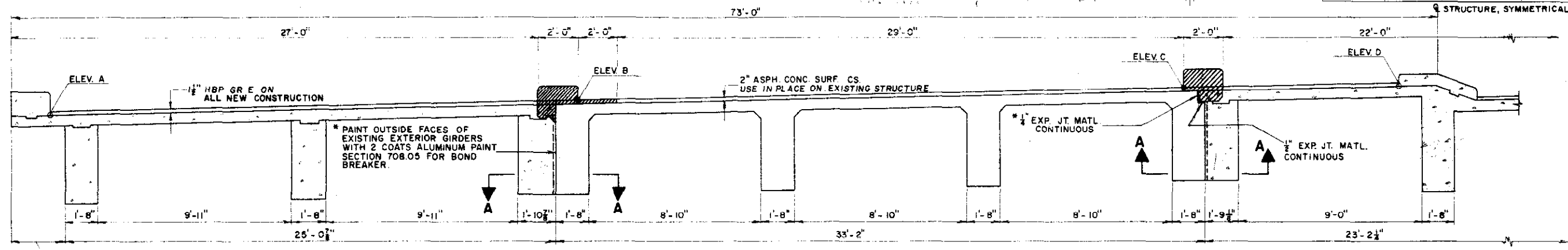
Across BRYANT STREET ON 6th AVE
Sta. 46+88.72 TO 48+26.24

Near DENVER Sec. 8 T. 4 S. R. 68 W.

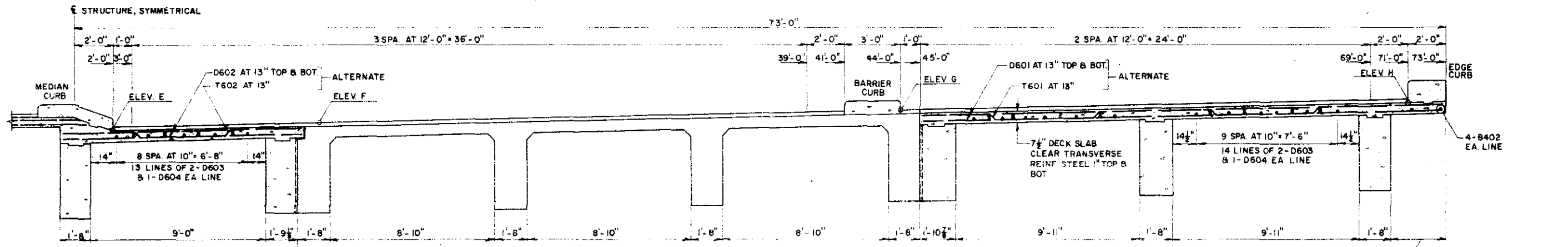
Designed by T.V.S. Approved by _____
Made by W.J.P. Bridge Engineer
Checked by G.D.C. Date: 19__

NORTH F-16-EM
STRUCTURE NO. SOUTH F-16-EN

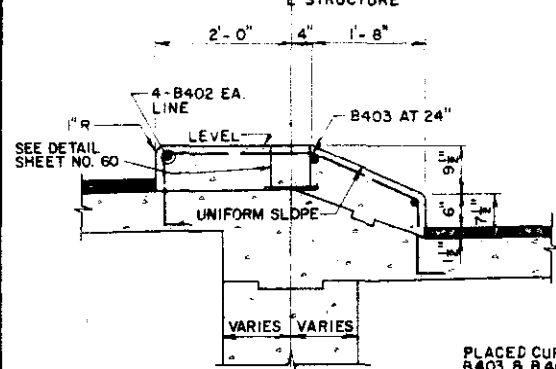
FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLD.	U 012-2(13)	22	



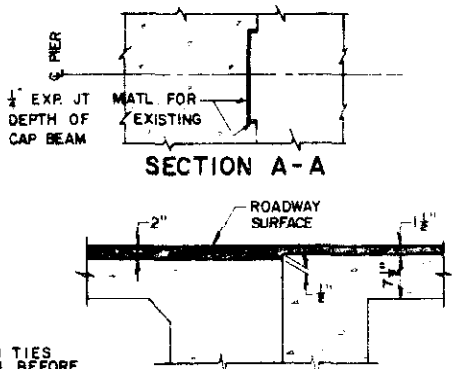
SUPERSTRUCTURE SECTION NORTH BRIDGE



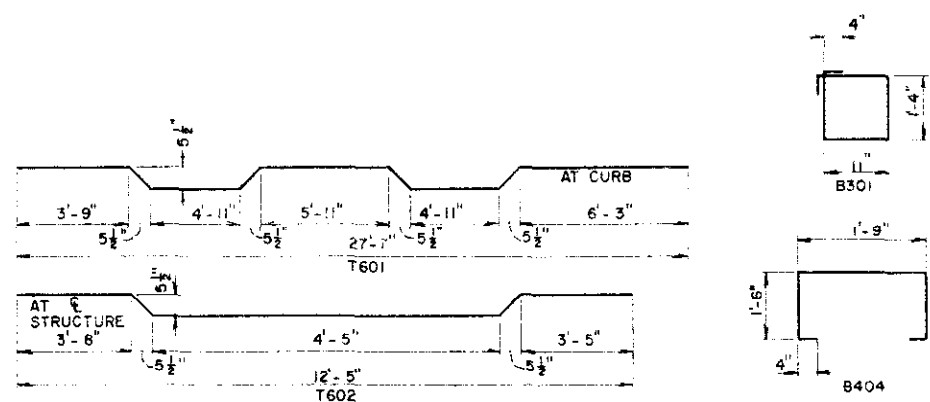
SUPERSTRUCTURE SECTION SOUTH BRIDGE



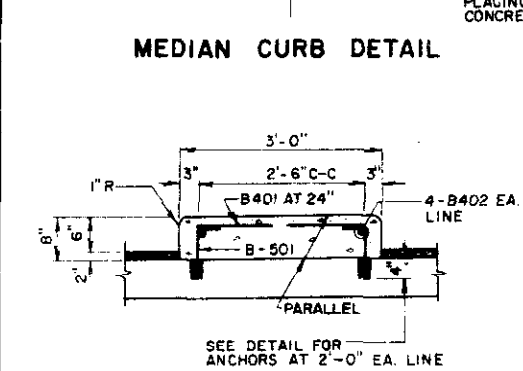
MEDIAN CURB DETAIL



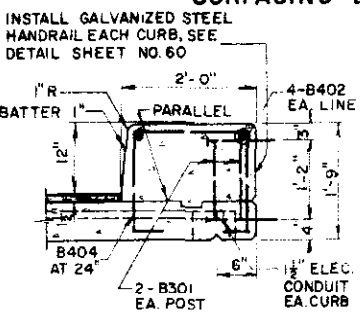
SURFACING DETAIL



BAR BENDING DETAILS



BARRIER CURB DETAIL



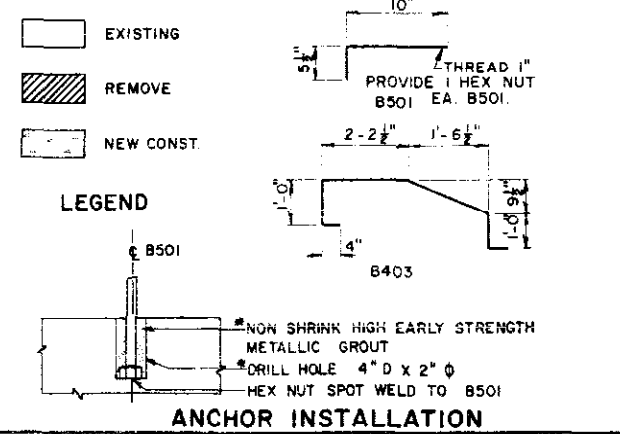
EDGE CURB DETAIL

NORTH BRIDGE

SLOPE POINT	ABUT. NO. 1	PIER NO. 2	PIER NO. 3	ABUT. NO. 4
ELEV. A	23.55	23.28	22.48	21.78
B	24.24	23.97	23.17	22.46
C	24.88	24.62	23.83	23.12
D	25.00	24.73	23.93	23.23

SOUTH BRIDGE

SLOPE POINT	ABUT. NO. 1	PIER NO. 2	PIER NO. 3	ABUT. NO. 4
ELEV. E	24.30	24.03	23.23	22.53
F	24.66	24.40	23.59	22.87
G	25.31	25.04	24.24	23.54
H	25.75	25.48	24.68	23.98



ANCHOR INSTALLATION

BAR LIST

MARK	SIZE	SHAPE	NOREQ'D	LENGTH
B301	3		80	5'-2"
B401	4		158	2'-9"
B402	4		60	4'-0"
B403	4		79	6'-6"
B404	4		158	5'-5"
B501	5		316	1'-3 1/2"
D601	6		552	27'-7"
D602	6		552	12'-5"
D603	6		164	6'-0"
D604	6		82	3'-9"
T601	6		270	28'-4"
T602	6		270	12'-10"

SUMMARY OF QUANTITIES

ITEM	UNIT	DESCRIPTION	AMOUNT
403	TON	HBP (GR.E)	90.47
411	GAL.	LIQ. ASPH. MAT'L. (RC-800)	123.44
509	L.S.	STR. STEEL GALV.	L.S.
601	CU. YD.	CONCRETE CL. A	727.689
602	LB.	REINF. STEEL 1/2" (RC-36)	107.005
606	LIN. FT.	SD RAIL TY. 3A (DOUBLE)	150
613	LIN. FT.	1/2" ELEC. CONDUIT	343.340
*	SQ. FT.	1/2" EXP. JT. MATL.	230
*	SQ. FT.	1/2" EXP. JT. MATL.	75

THERE SHALL BE NO SEPARATE PAYMENT FOR ITEMS MARKED THUS (*). PAYMENT THEREFORE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 601, CONCRETE CL. A.
 (2) DESIGN WEIGHT = 11,990 LB.

BAR SUMMARY

415 LF #3 AT 0.376 #/FT.	=	155
6495 LF #4 AT 0.668 #/FT.	=	4340
895 LF #5 AT 1.043 #/FT.	=	935
46,294 LF #6 AT 1.502 #/FT.	=	69,535
1295 LF #8 AT 2.670 #/FT.	=	3460
TOTAL	=	78,425

(1) INCLUDES 2 ABUTMENTS

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

**DEPARTMENT OF HIGHWAYS
STATE OF COLORADO**

**SUPERSTRUCTURE
DETAILS**

Across BRYANT ST. ON 6th AVE.
Sta. 46+68.72 TO 48+26.24
Near DENVER Sec. 8 T. 4 S. R. 68 W.
Designed by T.V.S. | Approved by
Made by F.F.J. | Bridge Engineer
Checked by G.D.C. | Date: 19

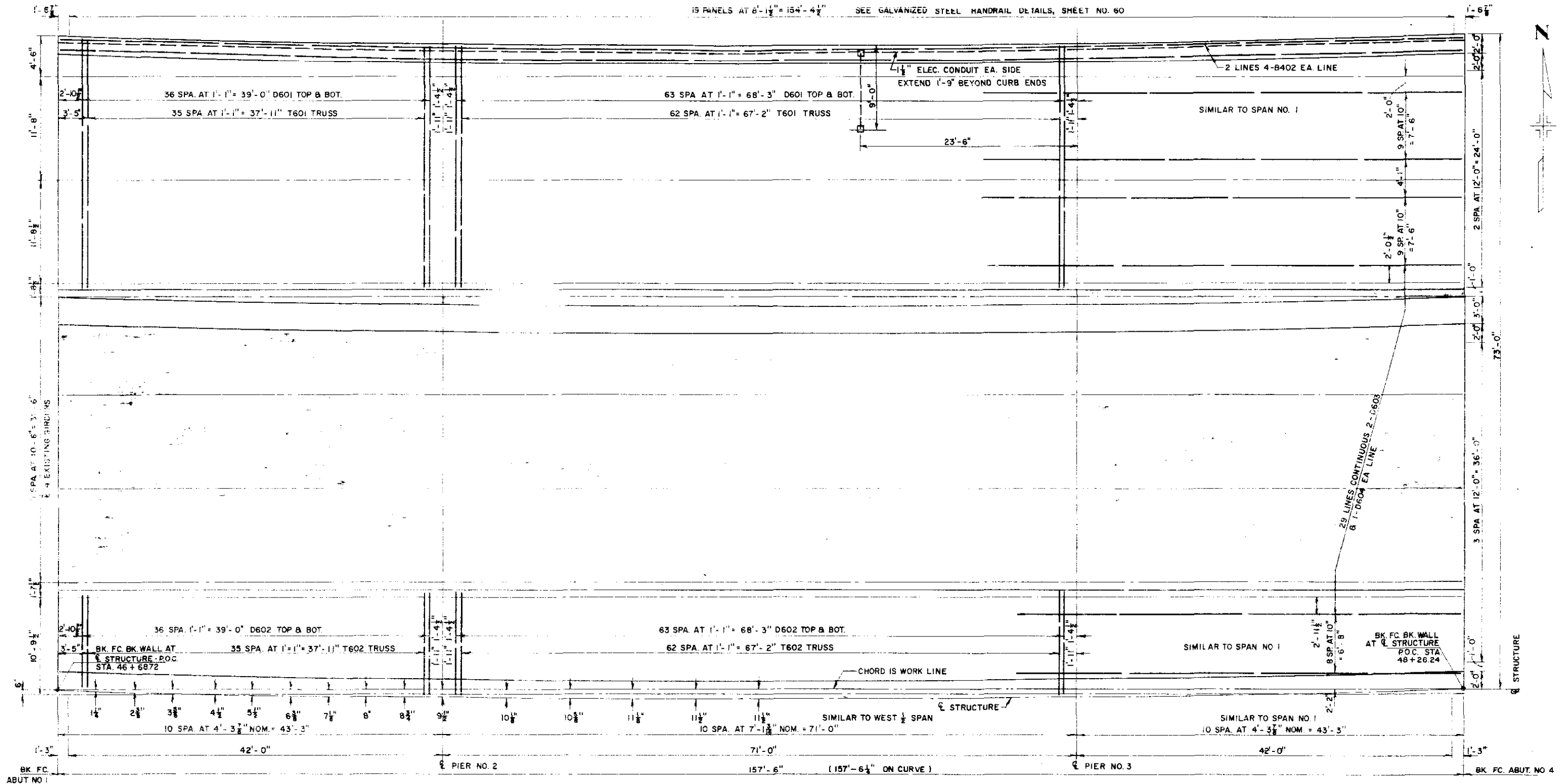
NORTH F-16 - EM
STRUCTURE NO. SOUTH F-16 - EN

REVISIONS

REVISIONS

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012 2 (13)	23	

15 PANELS AT 8'-1 1/2" = 124'-4 1/2" SEE GALVANIZED STEEL HANDRAIL DETAILS, SHEET NO. 60



**DEPARTMENT OF HIGHWAYS
STATE OF COLORADO**

**DECK PLAN
NORTH BRIDGE**

Across BRYANT ST ON 6th AVE.
Sta 46+68.72 TO 48+26.24
Near DENVER Sec. 8 T. 4S R. 68W

Designed by T.V.S. Approved by _____
Made by F.F.J. Bridge Engineer
Checked by G.D.C. Date: _____ 19__

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

NORTH F-16-EM
STRUCTURE NO. SOUTH F-16-EN

REVISIONS

REVISIONS

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U 012-2(13)	24	

24 AT 6'-3" = 150'-0" 25 POSTS 6WF20 SEE DETAIL SHEET NO. 60

CHORD IS WORK LINE

BK. FC. BK. WALL AT \bar{C} STRUCTURE P.O.C. STA. 46+68.72

BK. FC. BK. WALL AT \bar{C} STRUCTURE P.O.C. STA. 48+26.24

\bar{C} STRUCTURE

3 SPA. AT 12'-0" = 36'-0"

75'-0"

2 SPA. AT 12'-0" = 24'-0"

1'-0"

1'-6"

BK. FC. ABUT. NO. 4

1'-3"

1'-6"

BK. FC. ABUT. NO. 1

1'-3"

1'-6"

BK. FC. ABUT. NO. 1

SEE REINFORCING STEEL PLAN SHEET NO. 23

23'-6"

9'-0"

\bar{C} BRYANT STREET

71'-0"

19 PANELS AT 8'-1 1/4" = 154'-4 1/2"

SEE GALVANIZED STEEL HANDRAIL DETAILS SHEET NO. 60

\bar{C} PIER NO. 3

157'-6" (157'-6 1/4" ON CURVE)

\bar{C} END POST

1'-3"

1'-6"

\bar{C} END POST

42'-0"

\bar{C} PIER NO. 2

BK. FC. ABUT. NO. 1

BK. FC. ABUT. NO. 4

EXISTING

REMOVE

NEW CONST.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DECK PLAN
SOUTH BRIDGE

Across BRYANT ST ON 6th AVE.
Sta. 46+68.72 TO 48+26.24
Near DENVER Sec. 8 T. 4S R. 68W
Designed by T.V.S. Approved by
Made by F.F.J. Bridge Engineer
Checked by G.D.C. Date: 19

JEFFERSON ASSOCIATES
CIVIL ENGINEERS

NORTH F-16-EM
STRUCTURE NO. SOUTH F-16-EN