

COLORADO DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED AS CONSTRUCTED FEDERAL AID PROJECT NO. HES 0004(47) STATE HIGHWAY NO. 14 LARIMER COUNTY

FED. ROAD REGION	DIVISION	PROJECT NO.	SHEET NO.												
VIII	COLO.	HES 0004(47)	1												
AS CONSTRUCTED															
NO REVISIONS ☐ REVISED 10-12-93 VOID ☐															
REVISIONS															
<table border="1"><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>															

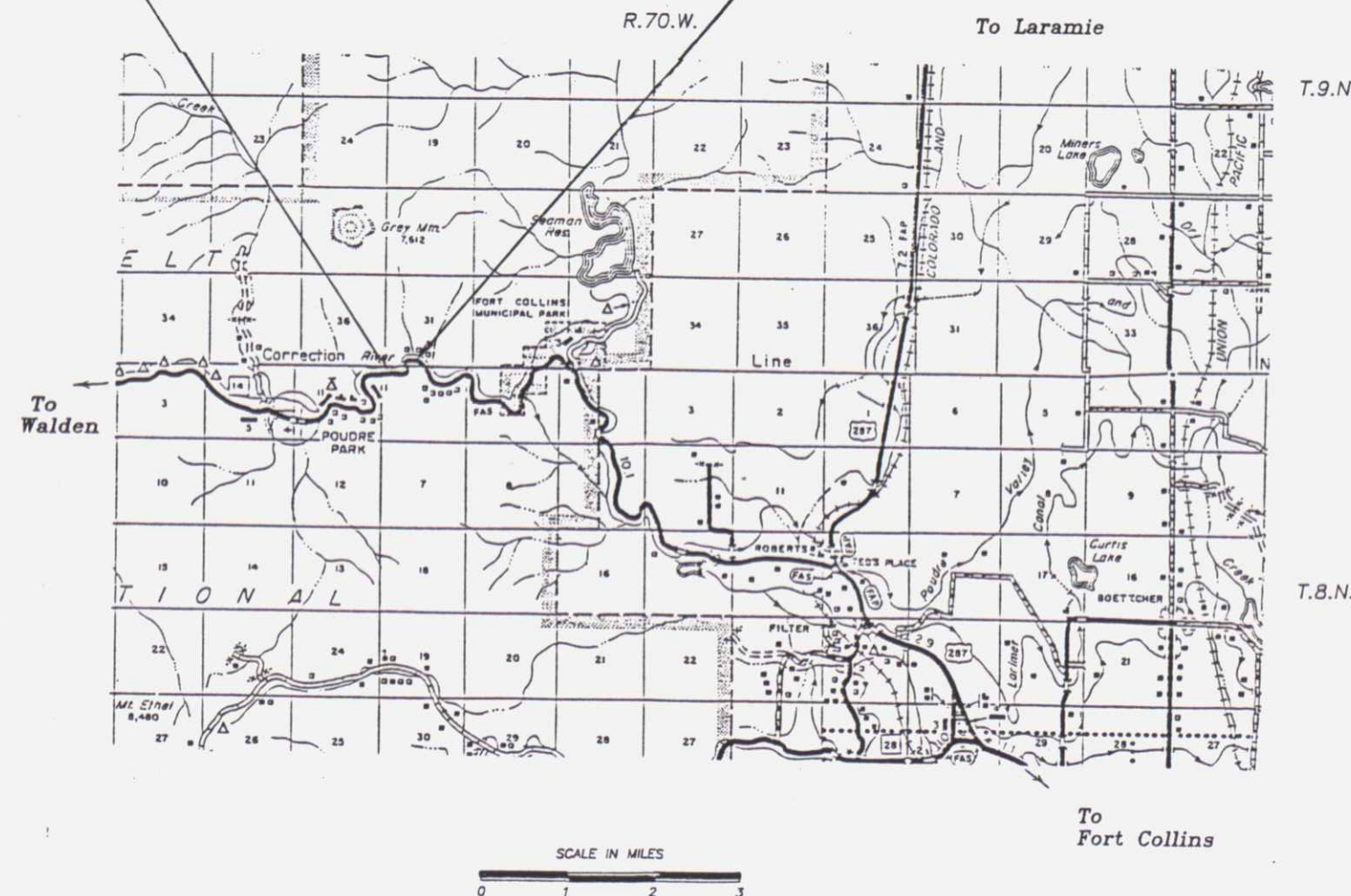
PRIMA OVERSIGHT NO ☒ YES ☐ NOT APPLICABLE ☐



TABULATION OF LENGTH & DESIGN DATA

STATION	Lin. Ft.	
	ROADWAY	MAJOR STR.
Sta. 150+00 ~ Begin HES 0004(47) M.P. 113.28 = Sta. 172+17 on Proj. S 0104(1)	2,200	
Sta. 172+00 ~ End HES 0004(47) M.P. 113.70 = Sta. 150+17 on Proj. S 0104(1)		
TOTALS	2,200	
SUMMARY	Lin. Ft.	Miles
Roadway Net Length	2,200	0.42
Major Structure		
Project Gross Length	2,200	0.42
DESIGN DATA	SH 14	
(For Information Only)		
MAXIMUM DEGREE OF CURVE	34°	
MAXIMUM GRADE	4%	
MINIMUM S.S.D. HORIZONTAL	150 ft	
MINIMUM S.S.D. VERTICAL	360 ft	
MAXIMUM DESIGN SPEED	20 MPH	
2013 DESIGN TRAFFIC VOLUME	{ DHV = 490 ADT = 3,050 8% TRUCKS	

SCALES OF ORIGINAL DRAWINGS
ON PLAN 1" = 50'
ON PROFILE 1" = 50' Horiz.
1" = 5' Vert.
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
Sta. 150+00 ~ Begin
HES 0004(47)
M.P. 113.28
= Sta. 172+17 on Proj. S 0104(1)
Sta. 172+00 ~ End
HES 0004(47)
M.P. 113.70
= Sta. 150+17 on Proj. S 0104(1)



- 1 TITLE SHEET
- 2 STANDARD PLANS LIST
- 3 TYPICAL SECTIONS, GENERAL NOTES,
NATIVE SEEDING PLAN
- 4-5 SUMMARY OF APPROXIMATE QUANTITIES
- 6 SUMMARY OF EARTHWORK QUANTITIES,
SURFACING PLAN, STRUCTURE QUANTITIES
- 7 DETAIL OF GUARDRAIL TYPE 4 (SPECIAL),
TABULATION OF GUARDRAIL & DELINEATOR
- 8-9 PLAN & PROFILE SHEETS
- 10 TABULATION OF SIGNS,
CONSTRUCTION TRAFFIC CONTROL DEVICES
- 11 PERMANENT SIGNING PLAN

AS CONSTRUCTED INFORMATION	
Contractor	Mountain Constructors, Inc.
Project Engineer	Wendy Turner
Project Started	July 27, 1993
Project Completed	October 12, 1993
As Constructed Plans Approved	10/21/93 Resident Engr. Date

93138 G.R.R./REGION 4

AS CONSTRUCTED		FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO. REVISIONS	1012.93	REVISED	VOID	VIII	COLO.
				HES 0004(47)	2

PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER
☒ M-100-1	STANDARD SYMBOLS	1
☒ M-107-1	TEMPORARY EROSION CONTROL	2
☐ M-203-1	APPROACH ROADS	3
☐ M-203-2	DITCH TYPES	4
☒ M-203-10	SUPERELEVATION CROWNED HIGHWAYS	5
☐ M-203-11	SUPERELEVATION DIVIDED HIGHWAYS SHOULDER PIVOT	6
☐ M-203-12	SUPERELEVATION STREETS	7
☐ M-203-13	SUPERELEVATION DIVIDED HIGHWAYS CENTER PIVOT	8
☒ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES (3 SHEETS)	9
☐ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES	12
☒ M-210-1	MAILBOX SUPPORTS (2 SHEETS)	13
☐ M-214-1	PLANTING DETAILS	15
☐ M-412-1	CONCRETE PAVEMENT JOINTS	16
☐ M-412-2	CURBED CONCRETE PAVEMENT JOINTS	17
☐ M-504-1	STEEL CRIBBING	18
☐ M-506-1	GABIONS AND SLOPE MATTRESS	19
☐ M-510-1	STRUCTURAL PLATE CULVERT PIPE H-20 LOADING	20
☐ M-601-1	SINGLE CONCRETE BOX CULVERT (2 SHEETS)	21
☐ M-601-2	DOUBLE CONCRETE BOX CULVERT (2 SHEETS)	23
☐ M-601-3	TRIPLE CONCRETE BOX CULVERT (2 SHEETS)	25
☐ M-601-10	HEADWALL FOR PIPE CULVERTS	27
☐ M-601-11	TYPE "S" SADDLE HEADWALL FOR PIPE CULVERTS	28
☐ M-601-12	HEADWALLS AND CULVERT OUTLET PAVING	29
☐ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS	30
☒ M-603-1	METAL AND PLASTIC CULVERT PIPE (2 SHEETS)	31
☐ M-603-2	REINFORCED CONCRETE PIPE	33
☐ M-603-3	PRECAST CONCRETE BOX CULVERT	34
☐ M-603-10	CONCRETE AND METAL END SECTIONS (2 SHEETS)	35
☒ M-604-10	INLET, TYPE C	37
☐ M-604-11	INLET, TYPE D	38
☐ M-604-12	CURB INLET, TYPE R (2 SHEETS)	39
☐ M-604-13	CONCRETE INLET, TYPE 13	41
☐ M-604-20	MANHOLES (3 SHEETS)	42
☐ M-605-1	SUBSURFACE DRAINS	45
☒ M-606-1	GUARDRAIL, TYPE 3, W-BEAM (12 SHEETS)	46
☒ M-606-12	GUARDRAIL, TYPE 4, CONCRETE BARRIER (6 SHEETS)	58

PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER
☐ M-607-1	WIRE FENCES AND GATES (2 SHEETS)	64
☐ M-607-2	CHAIN LINK FENCE (3 SHEETS)	66
☐ M-607-3	BARRIER FENCE	69
☐ M-607-4	DEER FENCE AND GATE (2 SHEETS)	70
☐ M-607-10	PICKET SNOW FENCE	72
☐ M-608-1	CURB RAMPS	73
☒ M-609-1	CURBS AND GUTTERS	74
☐ M-611-1	CATTLE GUARD (2 SHEETS)	75
☐ M-613-1	CONVENTIONAL HIGHWAY LIGHTING (3 SHEETS)	77
☐ M-613-2	HIGH MAST LIGHTING (2 SHEETS)	80
☐ M-614-1	RUMBLE STRIPS	82
☐ M-615-1	EMBANKMENT PROTECTOR, TYPE 3	83
☐ M-615-2	EMBANKMENT PROTECTOR, TYPE 5	84
☐ M-616-1	INVERTED SIPHON (ALSO USE APPLICABLE M-603)	85
☐ M-620-1	FIELD LABORATORY, CLASS 1	86
☒ M-620-2	FIELD LABORATORY, CLASS 2	87
☐ M-620-11	FIELD OFFICE, CLASS 1	88
☐ M-620-12	FIELD OFFICE, CLASS 2	89
☐ M-629-1	SURVEY MONUMENTS (2 SHEETS)	90

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

PLAN NUMBER	S STANDARD TITLE	PAGE NUMBER
☒ S-612-1	TYPICAL DELINEATOR INSTALLATIONS (5 SHEETS)	93
☒ S-614-1	TYPICAL GROUND SIGN PLACEMENT	98
☒ S-614-2	CLASS I GROUND SIGN INSTALLATIONS	99
☒ S-614-3	CLASS II GROUND SIGN INSTALLATIONS	100
☐ S-614-4	CLASS III SIGNS, SHEET ALUMINUM PANELS (3 SHEETS)	101
☐ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS (2 SHEETS)	104
☐ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS)	106
☐ S-614-10	TYPICAL MARKER ASSEMBLY INSTALLATIONS	108
☐ S-614-11	MILEPOST SIGN AND INSTALLATION	109
☐ S-614-12	STRUCTURE NUMBER INSTALLATION (BRIDGE INFORMATION SHEET)	110
☐ S-614-14	FLASHING BEACON AND SIGN INSTALLATION (2 SHEETS)	111
☐ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATION	113
☐ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS	114
☐ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS	115
☐ S-614-40	TYPICAL TRAFFIC SIGNAL INSTALLATION DETAILS (3 SHEETS)	116
☒ S-627-1	TYPICAL PAVEMENT MARKINGS (4 SHEETS)	119
☒ S-630-1	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (9 SHEETS)	123
☒ S-630-2	BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP) & VERTICAL PANELS	132
☐ S-630-3	FLASHING BEACON (PORTABLE) DETAILS	133

COLORADO
DEPARTMENT OF TRANSPORTATION

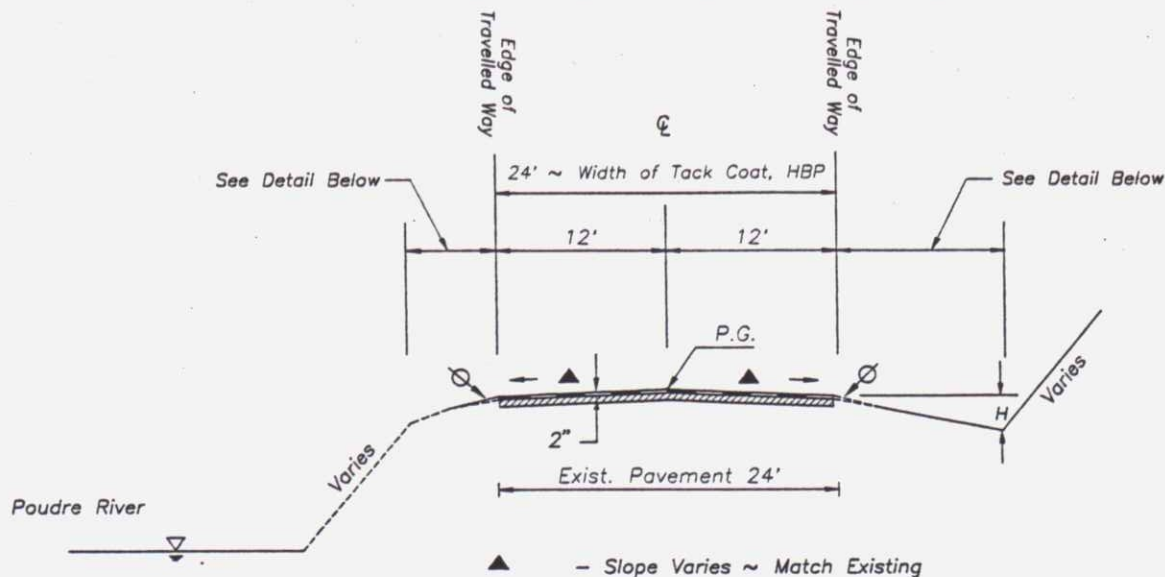
STANDARD PLANS LIST

M & S STANDARDS NOVEMBER 1992

The depth and width of the side ditch shall be varied where necessary to provide proper drainage.

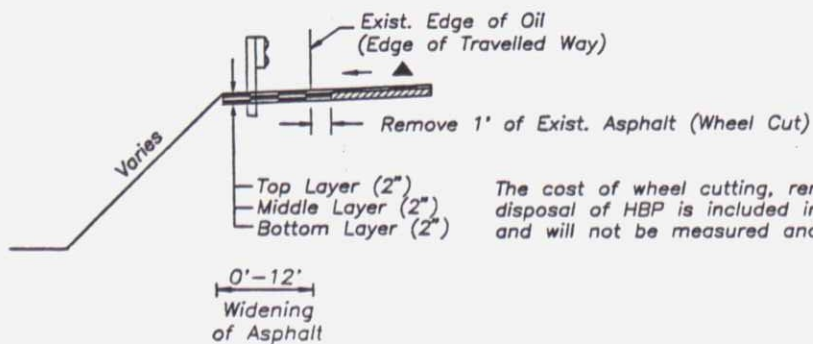
Break points on slopes and in bottoms of ditches shall be rounded during construction for a pleasing appearance. See Standards for Details of Cut Slope Treatments, Flaring, and Widening.

TYPICAL SECTION
S.H. 14
STA. 150+00 TO STA. 172+00



The Contractor will be required to place ABC CL 6 (Special) to this line after the paving operation is complete.

DETAIL-WIDENING FOR GUARDRAIL
STA. 165+00 TO STA. 170+50 LT.

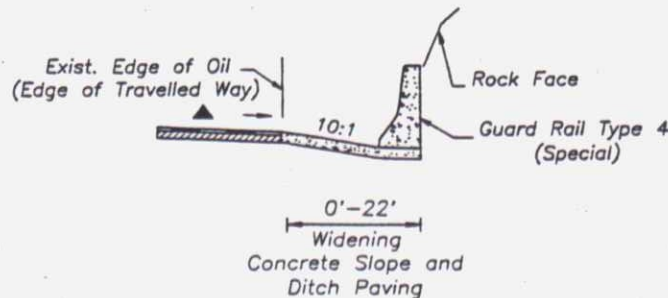


Material shall be placed in separate courses at the following approximate rates per 100 lin. ft. of roadway:

2" layer of HBP (Grade C) (per 12' width) ~ 15 tons
ABC CL 6 (Special) ~ 3 tons

The rate shown have been determined from information available at the time of design. Rates should be adjusted during construction to obtain the required approximate thickness.

DETAIL-CONCRETE AND DITCH PAVING
STA. 162+00 TO STA. 164+00 RT.



GENERAL NOTES

For preliminary plan quantities of Pavement Structure Materials, the following rates of application were used:

Tack Coat Diluted Emulsified Asphalt (Slow Setting).....0.10 Gals./Sq.Yd. (Diluted)
Bituminous Pavement (Grading C).....112 Lbs./Sq.Yd./Inch
Aggregate Base Course (Class 6)(Special).....133 Lbs./Cu. Ft.

Rates of application shall be as determined by the Engineer at the time of application.

Diluted Emulsified Asphalt for Tack Coat shall consist of 1 part Emulsified Asphalt and 1 part water. Rates of application shall be as determined by the Engineer at the time of application. It is estimated that 400 gal of Emulsified Asphalt (Slow Setting) will be required.

A ski type device at least 30 feet in length, will be required with each bituminous paver. This device shall be used on all passes and lifts of bituminous pavement placed.

Any layer of Bituminous Pavement that is to have a succeeding layer placed thereon shall be completed full width before succeeding layer is placed.

Depth of Moisture-Density control for this project shall be as follows:
Full depth of all embankments.
Bases of Cuts and Fills - 0.5 foot.

Excavation required for compaction of bases of cuts and fills will be considered as subsidiary to that operation and will not be paid for separately.

Type of compaction for this project shall be AASHTO T99.

Road approaches shall be paved to a 2" thickness with Hot Bituminous Pavement (Gr. C) and shall be placed as follows:

Public approaches and entrances to building or residences shall be paved 50 feet out from edge of shoulder or to the Right Of Way line, whichever is less.
Field entrances shall be paved 4 feet out from edge of shoulder.

Structure Excavation and Structure Backfill for culverts will not be measured and paid for separately, but shall be included in the work.

Structure Excavation for riprap and ditch paving will not be measured and paid for separately, but shall be included in the work.

Clearing and Grubbing shall be included in earthwork and will not be paid for separately.

It is estimated that 20 hours of Blading for regrading flowline of ditch with a motor grader in the 125 to 150 flywheel horsepower range will be required for this project.

It is estimated that 2 Reset Mailboxes will be required for this project at station 151+00 LT.

It is estimated that the following will be required:

Removal of Tree ~78 Each

It is estimated that 800 linear feet of Silt Fence will be required from Sta. 163+00 To Sta. 171+00, (Minimum height 18").

NATIVE SEEDING PLAN

Soil preparation, Seeding and Mulching for an estimated 1/5 acre will be required within the Right of Way limits on all disturbed areas not surfaced.

The following types and approximate rates of native seeding shall be used:

COMMON NAME	BOTANICAL NAME	LBS PLS/ACRE
Western wheatgrass v. Rosanna	Pascopyrum smithii	7
Streambank wheatgrass v. Sodar	Agropyron riparium	4
Hard fescue	Festuca ovina v. duriuscula	1
Blue grama v. Hachita	Bouteloua gracilis	1
Slender wheatgrass	Elymus trachycaulus	4
Rocky Mtn. penstemon	Penstemon strictus v. bandera	.5
Yarrow	Achillea millefolium	.1
TOTAL		17.6

No fertilizing will be required for this project.

SEEDING APPLICATION: Hand broadcast and rake to a depth of .25"-.5".

MULCHING APPLICATION: Soil retention blanket (special) per project special provision 216.

Mulching requirements and application rates for area flatter than 2:1 shall be as follows:
1.5 tons Native Hay per acre in combination with an organic mulch tackifier.

Soil retention blanket (special) shall be placed on slopes steeper than 2:1 not in rock. See project special provision 216 Soil Retention Blanket (Special).

It is estimated that 309 Brush Layer Cutting will be required to replace existing vegetation.

PROJECT TOTALS

SEEDING (NATIVE) Hydraulic	.5	7	ACRE
MULCHING	.4	1	ACRE
MULCH TACKIFIER	40	TONS	POUNDS
SOIL RETENTION BLANKET (SPECIAL)		400	SQUARE YARDS

SUMMARY OF ^{FINAL} APPROXIMATE QUANTITIES

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	REVISED 10-12-93	VOID	VIII	COLO.	HES 0004(47)	4

INDEX	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY BID ITEMS												PROJECT TOTALS	
				PLAN	AS CONST.											PLAN	AS CONST.
305'S	202	REMOVAL OF TREE	EACH	8	9											8	9
	202	REMOVAL OF PIPE	EACH	4	4											4	4
	202	REMOVAL OF GROUND SIGN	EACH	10	10											10	10
	202	REMOVAL OF GUARDRAIL TYPE 3	LF	469	469											469	469
	203	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	281	238											281	238
	203	BLADING	HOOR	20	10											20	10
	210	RESET MAILBOX STRUCTURE (TYPE 1)	EACH	2	2											2	2
	212	SEEDING (NATIVE)	ACRE	1	.5											1	.5
	213	MULCHING	ACRE	1	.4											1	.4
	213	MULCH TACKIFIER	LB	100	40											100	40
	214	BRUSH LAYER CUTTING Deleted by 105	EACH	300	0											300	0
	216	SOIL RETENTION BLANKET (SPECIAL)	SY	400	400											400	400
	304	AGGREGATE BASE COURSE (CLASS 6) (SPECIAL)	TON	67	143.26											67	143.26
	403	HOT BITUMINOUS PAVEMENT (PATCHING) (ASPHALT)	TON	26	28.64											26	28.64
	403	HOT BITUMINOUS PAVEMENT (GRADING C) (ASPHALT)	TON	876	885.36											876	885.36
	411	EMULSIFIED ASPHALT (SLOW-SETTING)	GAL	400	227											400	227
	420	SILT FENCE	LF	800	800											800	800
	506	RIPRAP (12 INCH)	CY	5	3											5	3
	507	CONCRETE SLOPE AND DITCH PAVING CMO #2	CY	46	52.84											46	52.84
	601	CONCRETE CLASS A (MISCELLANEOUS)	CY	30	39.96											30	39.96
	604	INLET TYPE C (5 FOOT)	EACH	4	4											4	4
	606	GUARDRAIL TYPE 3 (6-3 POST SPACING)	LF	550	563											550	563
	606	END ANCHORAGE TYPE 3E	EACH	2	2											2	2
	612	DELINEATOR (TYPE I) (BARRIER)	EACH	4	4											4	4
	612	DELINEATOR (FLEXIBLE) (TYPE I)	EACH	74	43											74	43
	612	DELINEATOR (FLEXIBLE) (TYPE III)	EACH	8	8											8	8
	614	SIGN PANEL (CLASS I)	SF	49.25	49.25											49.25	49.25
	614	SIGN PANEL (CLASS II)	SF	28	28											28	28
	614	TIMBER SIGN POST 4X4 INCH	LF	142.5	127											142.5	127
	614	TIMBER SIGN POST 6X6 INCH	LF	47.5	45											47.5	45
	617	24 INCH CULVERT PIPE	LF	196	190											196	190
	620	FIELD LABORATORY (CLASS 2)	EACH	1	1											1	1
	620	SANITARY FACILITY	EACH	1	1											1	1

FINAL

NO REVISIONS

REVISÉ 10.12.93

VOID

SHEET
NO.

VIII

COLO.

HES 0004(47)

5

S CONST.

SUMMARY OF EARTHWORK QUANTITIES

UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)		225
• Unclassified Excavation (From Cross Sections)		198
• Excavation for Inlet Basins (From Structure Cross Sections)		3513
Structure Quantities as Embankment		48
TOTAL (FOR PAY QUANTITY)		238 284
Embankment Material (For Information Only)		
Roadway (From Cross Sections)		222
Structure Quantities as Embankment		48
PROJECT TOTAL		270
Compaction (AASHTO T-99) (For Information Only)		
Embankment (Net)		222
Est. for Base Compaction		163
Structure Quantities as Embankment		48
PROJECT TOTAL		433
Wetting (For Information Only)		
Compaction		10
PROJECT TOTAL MGAL		10
ROADWAY QUANTITIES BALANCE (For Information Only)		
Excavation		
• Unclassified		198
• Excavation for Inlet Basins (From Structure Cross Sections)		35
TOTAL		233
Embankment (Net) Roadway		222
TOTAL		222
Embankment x Factor (1.0)		
Embankment		222
TOTAL		222
Excess Material (To be disposed of within Project Limits)		11

• Excavation may require rock blasting.

SURFACING PLAN

Location	Source	Length (Ft.)	Typical Section	Quantity ~ Tons			
				Hot Bituminous Pavement (Gr. C) (Asphalt)			Aggregate Base Course (Cl. 6)
				Top Layer	Middle Layer	Bottom Layer	Special
S.H. 14 150+00-164+50	Contractor	1450		435			44
S.H. 14 164+50-172+00		750		293	69	69	23
Est. for Road Approaches							
Est. for Approaches to Project							
Est. for Irregularities						10	
SUBTOTALS				758.49 728	89 126.87	79	143.26 87
PROJECT TOTALS					876 885.36		143.26 87

STRUCTURE QUANTITIES

INDEX			LOCATION	REMOVAL OF PIPE	UNCLASSIFIED EXCAVATION			STRUCTURE	STRUCTURE	HOT BITUMINOUS PAVEMENT (PATCHING) (ASPHALT)	INLET TYPE C (5 FOOT)	ITEM 617 ~ CULVERT PIPE				"H"	MISCELLANEOUS
BOOK	PAGE	SHEET			CUBIC YARD			EXCAVATION	BACKFILL			OVER CULV.					
					EACH	EXCAV	DITCH	EMB	CUBIC YARD				CUBIC YARD				
									CL. 1"				TON	24"	30"	FT.	
			151+44	1	53			24	31	6	1	50				5	
			153+33	1	14			35	37	5	1	44				5	
			162+00 to 164+00														
			162+17	1				38	39	5	1	50				4	52.84
			169+30	1	7					5	1	34					• 46 C.Y. Concrete Slope & Ditch Paving
			169+90		28		48	98	39	5	1	34				8	3 5 C.Y. Riprap (12")
			PROJECT TOTALS	4	13		48	195	146	26 28.64	4	796 190					

• Carried to Earthwork Summary

• Removed Culverts shall remain property of CDOT

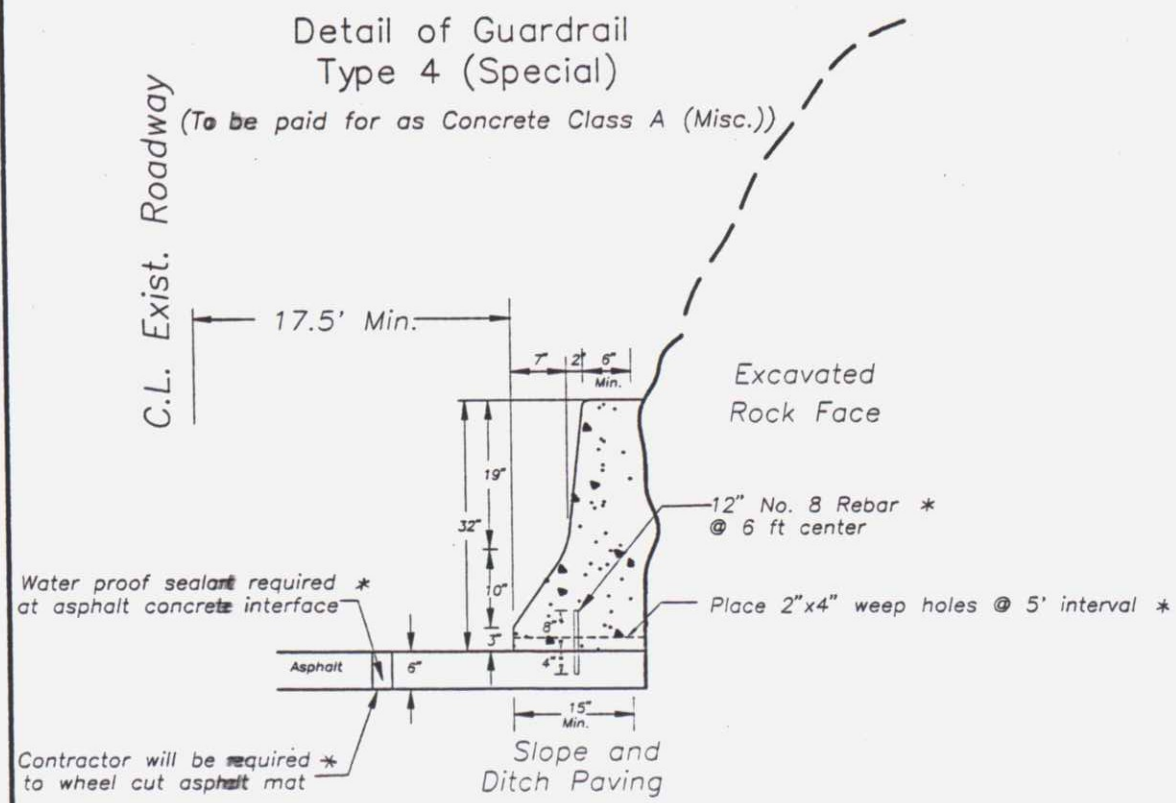
• Structure Excavation for Slope & Ditch Paving included in excavations quantities

• Structure Excavation and Structure Backfill (Class 1) shall not be measured and paid for separately but shall be included in cost of the work.

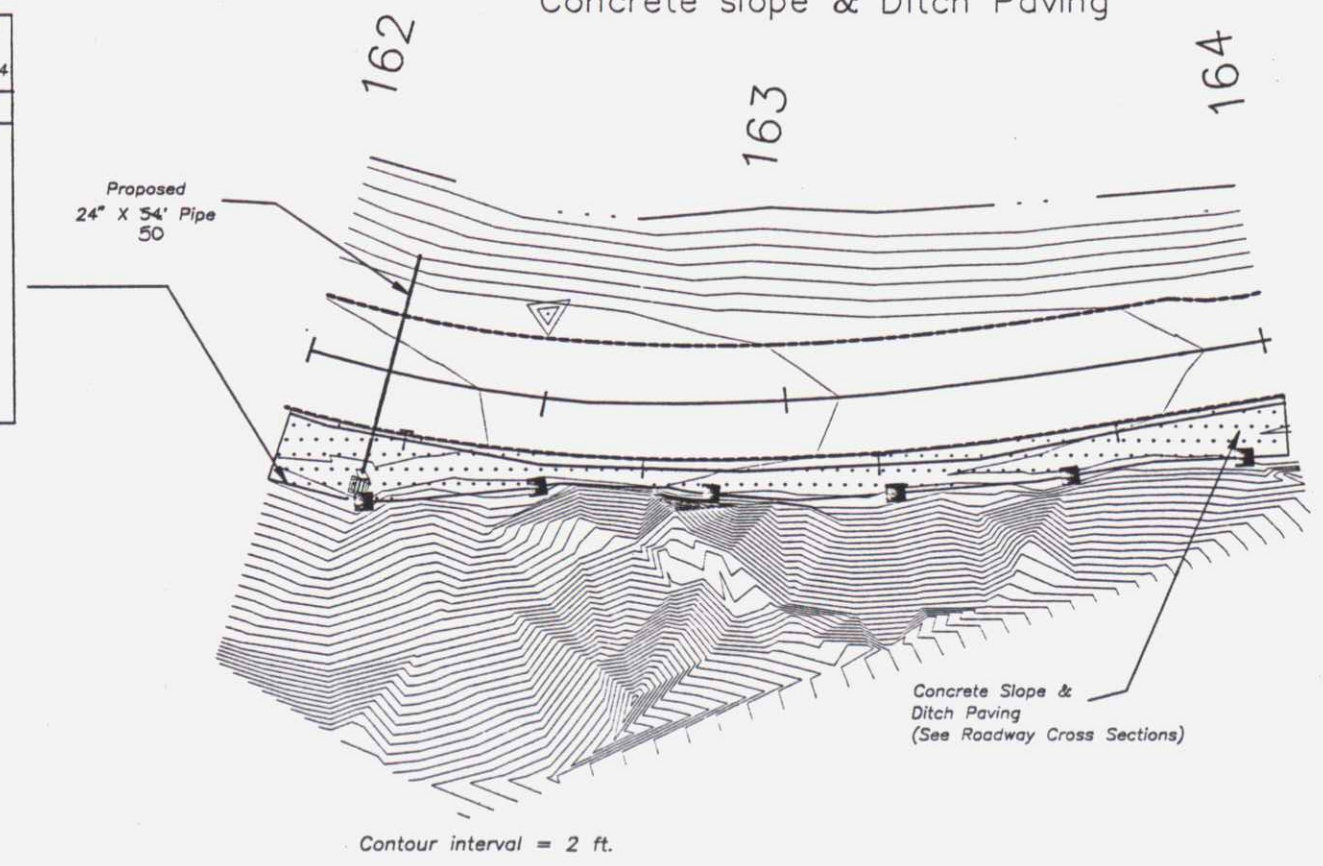
• The Contractor may use flow-fill backfill as a substitute for the Structure Backfill Class 1 at no additional cost to the project.

DETAIL OF GUARDRAIL TYPE 4 (SPECIAL), TABULATION OF GUARDRAIL & DELINEATOR

Location of type-4 Barrier &
Concrete slope & Ditch Paving



Location	Dist. from existing C.L. to front face of Guardrail Type 4
	Lin. Ft.
Sta 162+00	28.5
Sta 162+25	26
Sta 162+50	19.0
Sta 162+55	17.5
Sta 162+65	17.5
Sta 162+75	17.5
Sta 162+80	18.5
Sta 163+00	21.0
Sta 163+25	21.0
Sta 163+50	22.0
Sta 163+75	21.5
Sta 164+00	24.5



* Included in the cost of guardrail type 4 (Special)

Tabulation of Guardrail

Location	Side	Guardrail Type 4 (Special)	Guardrail Type 3 (6-3 Post Spacing)	End Anchorage Type 3E	* Removal of Guardrail Type 3
		Cu. Yd. ●	Lin. Ft.	Each	Lin. Ft.
162+00 to 164+00	Rt.	39.96			
165+00 to 170+50	Lt.		550.563	2	
164+90 to 170+25	Lt.				469
165+53 to 170+22	Lt.				
PROJECT TOTALS		39.96	550.563	2	469

Guardrail type 3 shall be weathered steel.

● Concrete quantity estimated at 0.15 cu. yd. per linear foot of guardrail type 4 (special).
Concrete for Guardrail Type 4 shall be colored with "Davis Western Gold # 5844" or equivalent.

Cost of the color will be included in the cost of the Guardrail Type 4 (Special).

* Includes 2 end sections
All guardrail posts shall be 7' in length

The Contractor shall be required to remove the asphalt mat around each guardrail post to provide a minimum opening of 1 square foot prior to installation of the post. After installation of the posts, the area between the post and the asphalt mat shall then be patched with hot bituminous pavement. This work shall not be paid for separately, but be included in the cost of the guardrail.

Tabulation of Delineators

Location	Side	Spacing	Quantity ~ Each		
			Delineator Type I (Flexible)	Delineator Type I (Barrier)	Delineator Type III (Flexible)
150+00 to 158+40	Lt. & Rt.	10' curve	20 14		
158+40 to 162+00	Lt. & Rt.	24' curve	14 9		
162+00 to 164+00	Rt.	24' curve		4	
162+00 to 164+00	Lt.	24' curve	4		
164+00 to 164+50	Lt. & Rt.	24' curve	2		
164+50 to 170+00	Lt. & Rt.	34' curve	34 14		
151+44	Lt. & Rt.	Inlet & Culvert			2
153+33	Lt. & Rt.	Inlet & Culvert			2
162+17	Lt. & Rt.	Inlet & Culvert			2
169+90	Lt. & Rt.	Inlet & Culvert			2
SUBTOTALS			74 43	4	8

Removal of the existing delineators shall not be measured and paid for separately, but shall be included in the work.
It is estimated that the following will be required:
Amber reflective elements ~ 8
Crystal reflective elements ~ 78 47

Locate Transverse Contraction joint for Guardrail Type 4 (Special) and Concrete Slope & Ditch Paving on 12' intervals.
(See Standards M 606-12 and M 609-1 for details)

02/24/93 15:27:30 C:\93138\ACAD\GRAIL D 93138 HRC

UTILITIES:
U.S. West

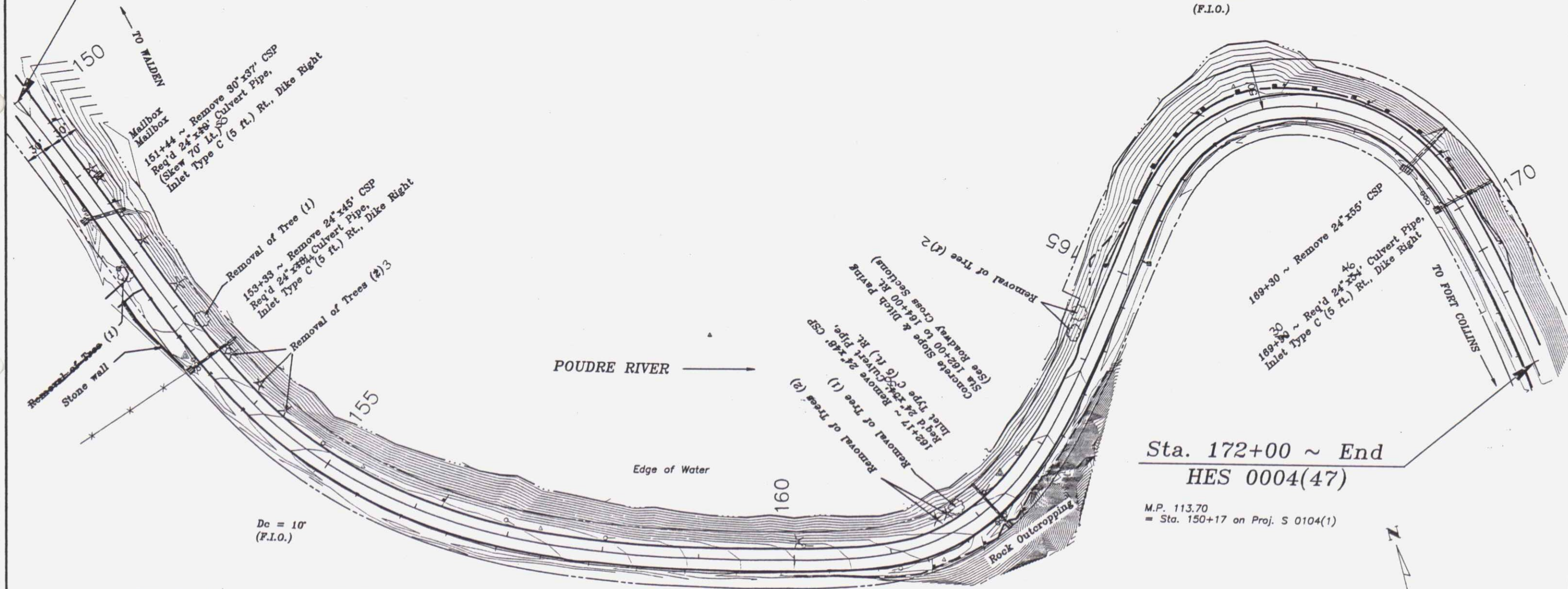
AS CONSTRUCTED		
NO REVISIONS	REVISED 10.12.93	VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	HES 0004(47)	8

Sta. 150+00 ~ Begin
HES 0004(47)

M.P. 113.28
= Sta. 172+17 on Proj. S 0104(1)

Dc = 34'
(F.I.O.)



Sta. 172+00 ~ End
HES 0004(47)

M.P. 113.70
= Sta. 150+17 on Proj. S 0104(1)

Dc = 10'
(F.I.O.)

Dc = 24'
(F.I.O.)

The center line of roadway
is the existing yellow line.
For additional alignment data,
refer to project: S 0104(1).

ROOSEVELT NATIONAL FOREST

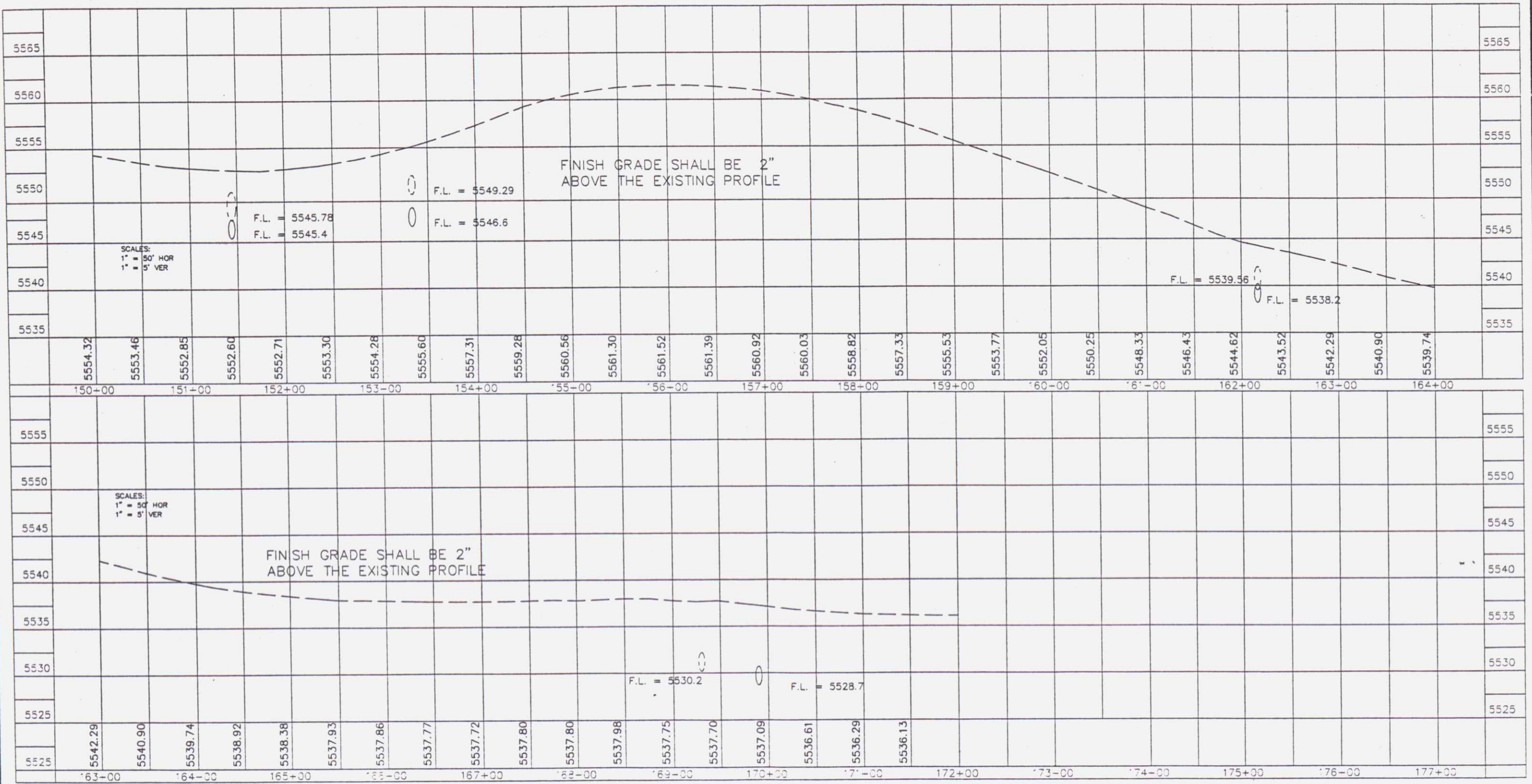
Scale: 1" = 50'
Contour Interval = 2 ft.

03/08/93 10:18:51 G:\PPCI D 93138 LHM

AS CONSTRUCTED		
NO REVISIONS	10-12-93	REVISED
		VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLO.	HES 0004(47)	9	11

PROFILE FOR S.H. 14



TABULATION OF SIGNS

CONSTRUCTION TRAFFIC CONTROL DEVICES

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.)		LEGEND	SIGN PANEL (SQ. FT.)	
									4 x 4 TIMBER	6 x 6 TIMBER		CLASS I	CLASS II
1	30WT1-2	150+37 WB	30" X 30"	YELLOW	1		1	13'-6" 14'-9"	14'-6" 13.5		PEDESTRIAN CROSSING	6.25	
2	30D1-1	151+42 WB	30" X 24"	WHITE	1		1	13'-6"	13.5		PARKING	5.00	
3	SPECIAL	156+25 WB	96" X 30"	GREEN	1		2	14'-6" 16'-0"		29 32.0	TRIAL PARKING		20.00
4	24WT-8	161+38 EB	24" X 30"	YELLOW	1		1	14'-5" 0	14.50		CHEVRON	5.00	
5	24WT-8	161+89 EB	24" X 30"	YELLOW	1		1	13 14'-6"	13 14.5		CHEVRON	5.00	
6	24WT-8	162+40 EB	24" X 30"	YELLOW	1		1	14'-6"	14.5		CHEVRON	5.00	
7	48WT-6	166+45 WB	48" X 24"	YELLOW	1		1	15'-6"		15.5	ARROW		8.00
8	24RB-3a	166+50 WB	24" X 24"	WHITE			1	12'-6" 14'-6"	14'-0" 12.5		NO PARKING	4.00	
9	24WT-8	167+67 WB	24" X 30"	YELLOW	1		1	13'-0" 14'-6"	14'-5" 13.0		CHEVRON	5.00	
10	24RB-3a	168+00 WB	24" X 24"	WHITE			1	12'-6" 14'-6"	14'-0" 12.5		NO PARKING	4.00	
11	24WT-8	168+50 WB	24" X 30"	YELLOW	1		1	13'-0" 14'-6"	14'-5" 13.0		CHEVRON	5.00	
12	24WT-8	169+39 WB	24" X 30"	YELLOW	1		1	13'-0" 14'-6"	14'-5" 13.0		CHEVRON	5.00	
PROJECT TOTAL					10				142.5 127	47.5 44.5		49.25	28.00

SIGN CODE	LEGEND	SIZE	PANEL SIZE-QUANTITY		
			EACH		
			A	B	OTHER
48W20-1	ROAD/CONST./DIST.	48" x 48"		4	
48W20-1	ROAD/CONST./AHEAD	48" x 48"		20	
48W20-51a	GIVE 'EM A/BREAK	48" x 48"		2	
48W20-4	ONE LANE/ROAD/DIST.	48" x 48"		2	
48W20-7a	FLAGGER SYMBOL	48" x 48"		2	
36R2-1(30)	SPEED/LIMIT/25	36" x 48"		2	
36R2-1(40)	SPEED/LIMIT/35	36" x 48"		2	
48W21-14L	UNEVEN LANES/SYMBOL LEFT	48" x 48"		20	
24W21-14a	UNEVEN/LANES	24" x 30"	20		
60G20-2	END/CONSTRUCTION	60" x 24"		2	
48W21-13	SHOULDER DROP OFF SYMBOL	48" x 48"		2	
24W21-13a	SHOULDER/DROP OFF	24" x 30"	20		
W21-1	BLASTING/ZONE/1000 FT	48" x 48"		20	
W22-2	TURN OFF/2-WAY/RADIO	42" x 36"		20	
W22-3	END/BLASTING/ZONE	42" x 36"		20	
W8-1	BUMP	48" x 48"		2	
TOTAL			40	28	

OTHER DEVICES		
ITEM	UNITS	QUANTITY
TRAFFIC CONE	EACH	50
DRUM CHANNELIZING DEVICE	EACH	25 29
DRUM DEVICE (LIGHT)(F)	EACH	19 17
PAVEMENT MARKING PAINT	GAL.	88 61

1.) 30+Gal. White, 30+Gal. Yellow
The quantity based on two applications.

NOTES:

- POST LENGTHS ARE APPROXIMATE ONLY. EXACT LENGTHS TO BE DETERMINED BY THE ENGINEER.
- ALL REMOVED SIGNS SHALL BECOME THE PROPERTY OF CDOT.

PERMANENT SIGNING PLAN

