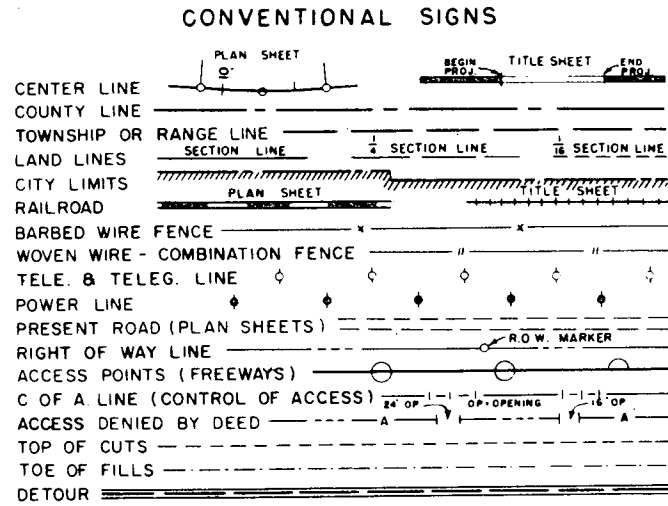


DEPARTMENT OF HIGHWAYS STATE OF COLORADO

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. LSI 25-2(5) STATE HIGHWAY NO. #25 EL PASO COUNTY

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO	LSI 25-2(5)	1

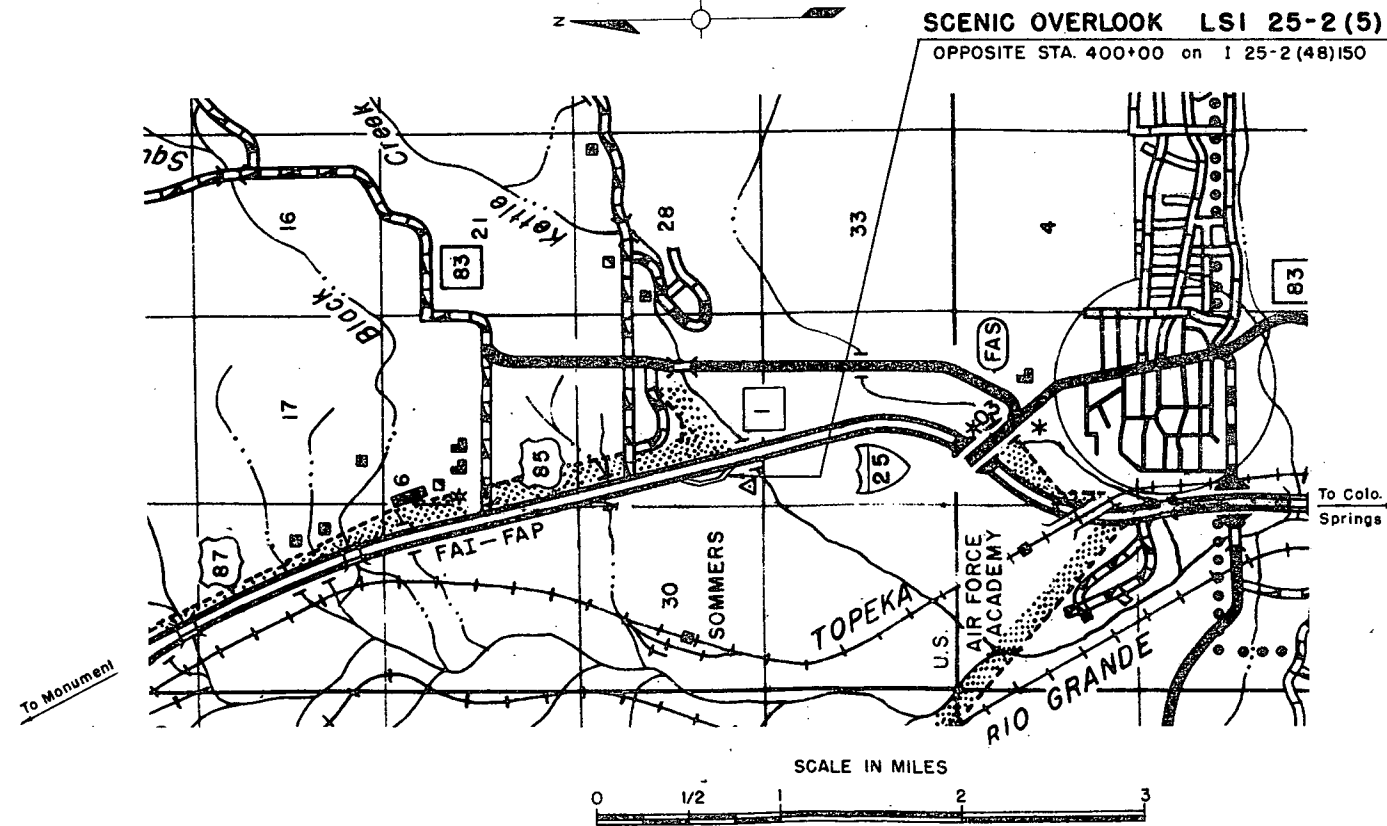


INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	SUMMARY OF APPROXIMATE QUANTITIES
3	SCENIC OVERLOOK AND PLANTING
4	PLANTING DETAILS
5-8	CROSS SECTIONS
M-612-C	DELINEATORS (2 SHEETS) (7-1-65)
M-614-1A	CONSTRUCTION IDENTIFICATION SIGNS (7-1-65)
M-614-TB	TRAFFIC SIGNING FOR HIGHWAY CONSTRUCTION (3 SHEETS)(7-1-65)

SCALES OF ORIGINAL DRAWINGS
 ON PLAN, 1 IN. = 50 FT.

GROSS LENGTH OF PROJECT } NO CENTER LINE LENGTH INVOLVED
 NET LENGTH OF PROJECT }



SEE SPECIAL PROVISIONS FOR
 NOTICE TO BIDDERS

DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO

APPROVED: *[Signature]* 3-22-66
 CHIEF ENGINEER DATE

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED: _____ DATE _____
 DIVISION ENGINEER

SUMMARY OF APPROXIMATE QUANTITIES

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	LSI 25-2(5)	2	

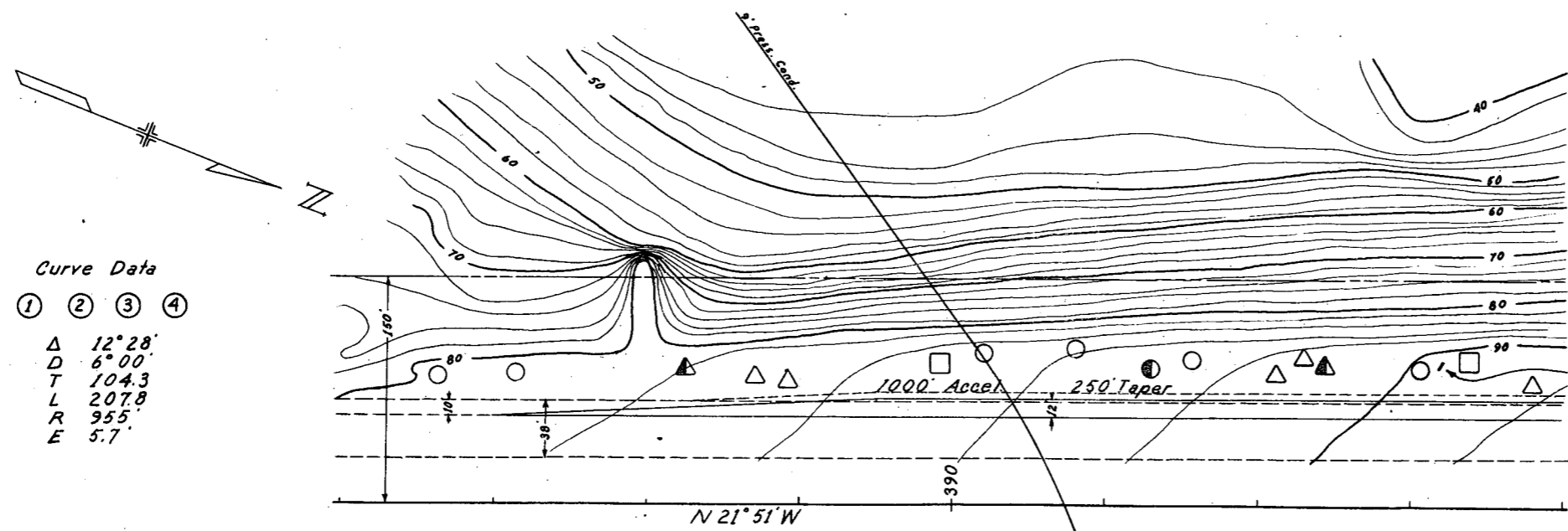
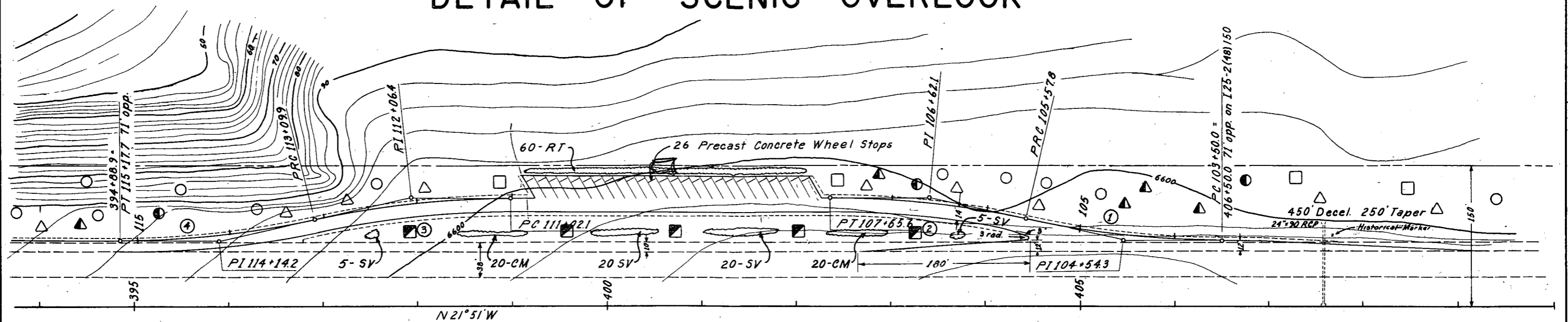
CONTRACT ITEM NO.	ITEM	SYMBOL	SIZE	SPACING	MANNER PREPARED	UNIT	LAND-SCAPING	SCENIC OVERLOOK	PROJECT TOTALS
202 203	Removal of Delineators Unclassified Excavation (Complete in place)					Each Cu. Yd.		6 800	6 800
207	Topsoil (Special)					Cu. Yd.	1,100		1,100
208 208	Seeding Mulching					Acre Acre	2 2		2 2
<i>DECIDUOUS TREES</i>									
208 208	Russianolive (Elaeagnus Angustifolia) Siberian Elm (Ulmus Pumila)	◻ ◻	6'-8' 5'-6'		B.R. B.R.	Each Each	5 6		5 6
<i>EVERGREENS</i>									
208	Rocky Mountain Juniper (Juniperus Scopulorum)	△	3'-4'		B. & B.	Each	14		14
208	Eastern Redcedar (Juniperus Virginiana)	▲	3'-4'		B. & B.	Each	7		7
208	Austrian Pine (Pinus Nigra)	●	3'-4'		B. & B.	Each	4		4
208	Ponderosa Pine (Pinus Ponderosa)	○	3'-4'		* B. & B.	Each	17		17
<i>SHRUBS</i>									
208	Cotoneaster Multiflora (Cotoneaster Multiflora)	CM	2'-3'	5'	B.R.	Each	40		40
208	Threeleaf Sumac (Rhus Trilobata)	RT	1'-2'	5'	B.R.	Each	60		60
208	Common Lilac (Syringa Vulgaris)	SV	2'-3'	5'	B.R.	Each	50		50
304	Aggregate Base Course (Class 6)					Ton		800	800
403	Hot Bituminous Pavement (Grade E)(Haul and Asphalt)					Ton		400	400
411	Liquid Asphaltic Material (MC)					Gal.		1,700	1,700
609	Curb Type III (Section B)					Lin. Ft.		208	208
612 612	Delineators (Type I) Delineators (Type II)					Each Each		4 20	4 20
<i>STATE FORCES</i>									
	Signing and Striping (Non-Federal Aid)					Lump Sum			●
	Reset Historical Marker (Non-Federal Aid)					Lump Sum			●

◊ B.R. - Bare Rooted
◊ B & B - Balled & Burlapped

* 2X Transplant and Root-Pruned

FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	LSI 25-2(5)	3	

DETAIL OF SCENIC OVERLOOK



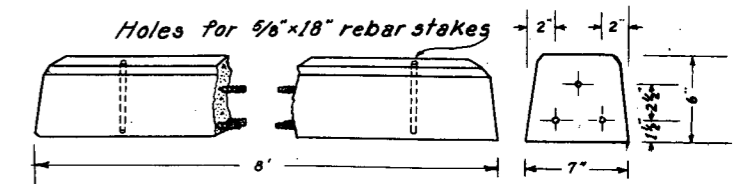
Curve Data

①	②	③	④
Δ	12° 28'		
D	6° 00'		
T	104.3		
L	207.8		
R	955'		
E	5.7'		

LEGEND

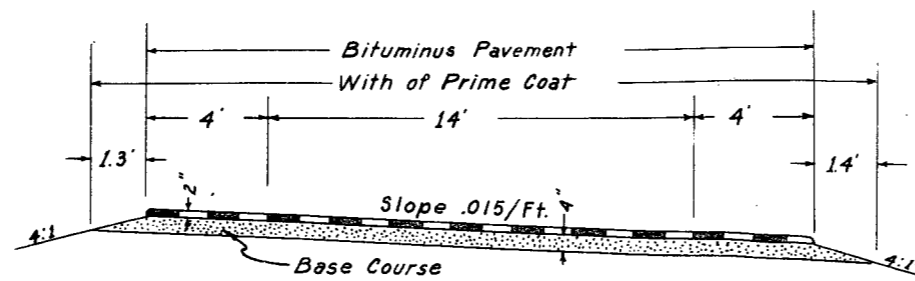
- | Trees | | Shrubs | |
|-------|--------------------------|--------|------------------------|
| 17 | ○ Ponderosa Pine | 60 RT | Threelaf Sumac |
| 14 | △ Rocky Mountain Juniper | 50 SV | Common Lilac |
| 6 | □ Siberian Elm | 40 CM | Cotoneaster Multiflora |
| 5 | ■ Russianolive | | |
| 4 | ● Austrian Pine | | |
| 7 | ▲ Eastern Redceder | | |
- Historical Marker to be relocated by State Forces.

DETAIL OF PRECAST CONCRETE WHEEL STOPS



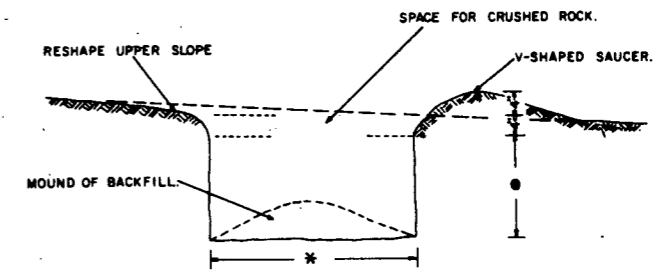
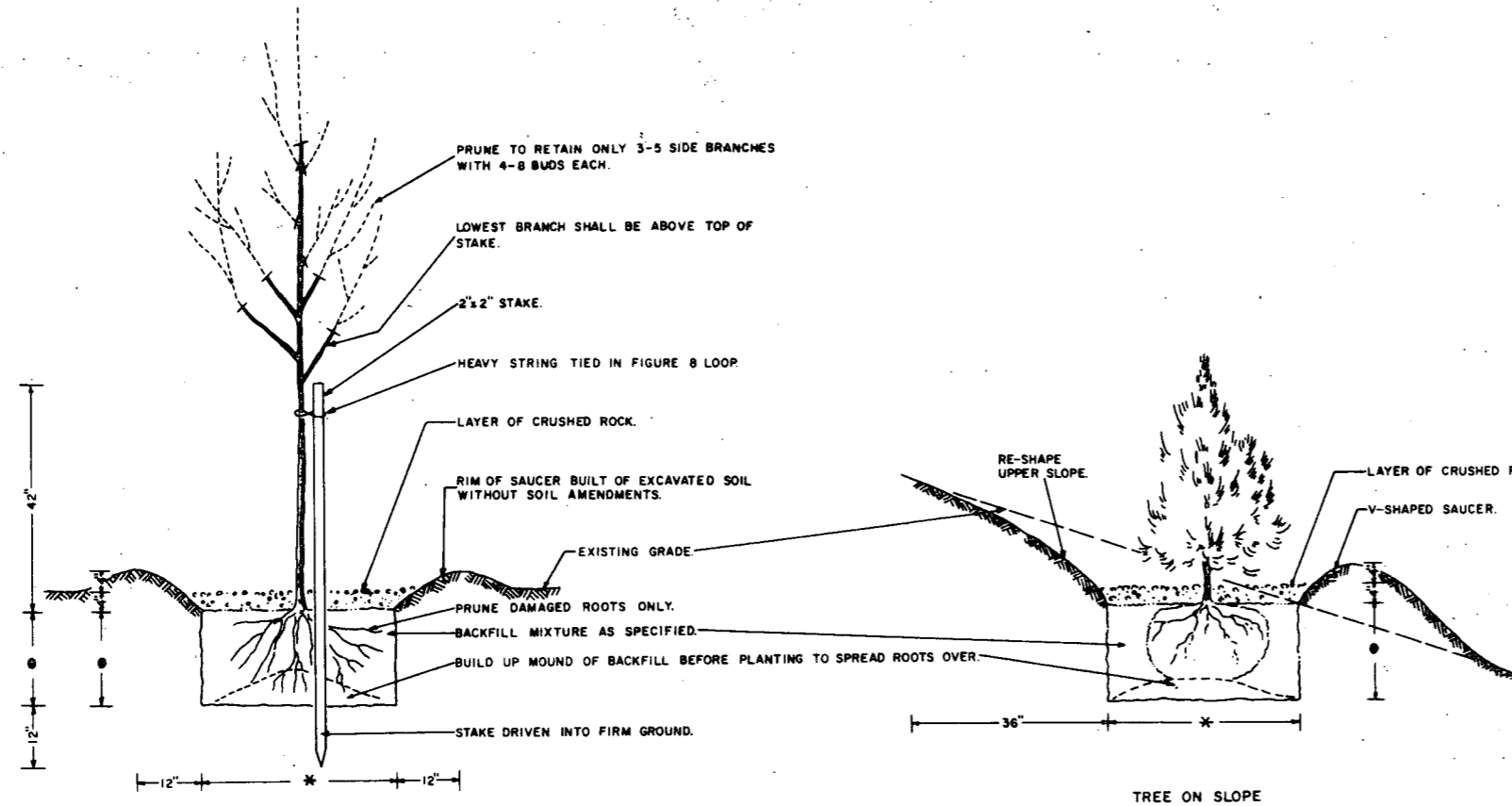
GENERAL NOTES

- This project is to be constructed in conformity with the Interim Standard Specifications of the Department of Highways, State of Colorado, adopted July 1, 1965, including revisions thereof dated December 1, 1965.
- For preliminary plan quantities of Asphaltic Road Materials, the following rates of application were used
 Prime Coat MC @ 0.40 Gals. per Sq. Yd.
- Rate of application and grade of Asphaltic Material shall be as determined by the Engineer at the time of application.
- All embankment material in the roadbed and the bases of cuts and fills shall be constructed with moisture and density control. Bases of cuts and fills shall be constructed with moisture and density control to a depth of 6 inches.

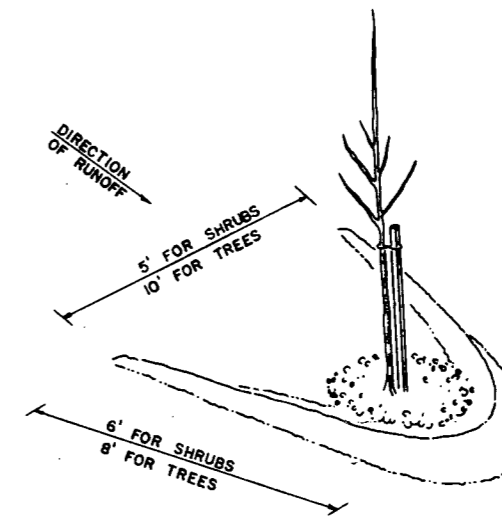


FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	LS125-2(5)	4	

PLANTING DETAILS

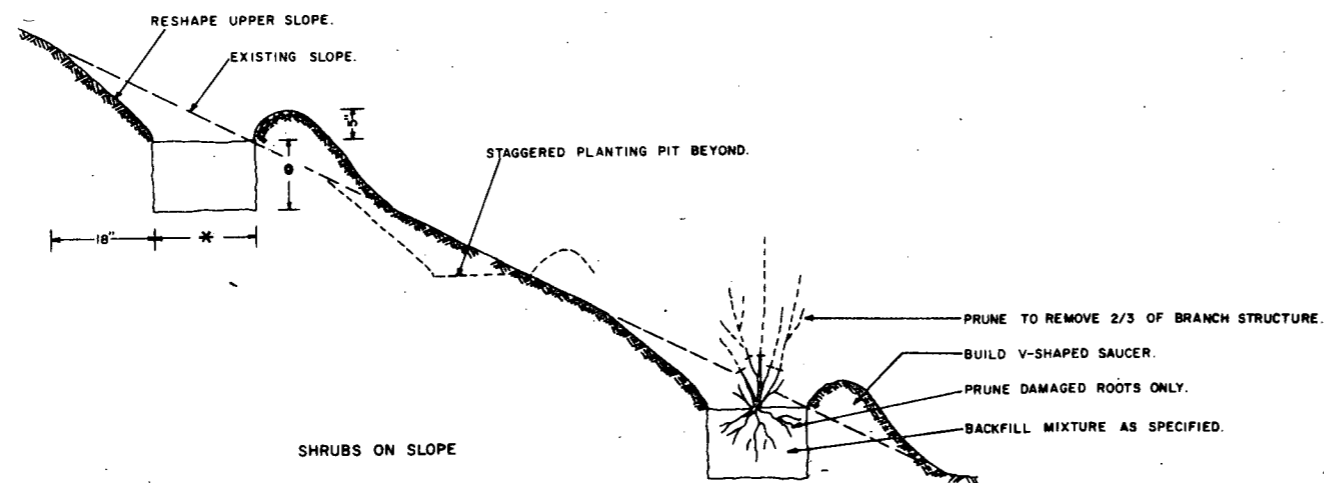


TREE PLANTING PIT ON 5% SLOPE



SKETCH OF V-SHAPED SAUCER FOR TREE PLANTING ON SLOPES

NOTE: V-SHAPED SAUCER IS REQUIRED WHERE GROUND SLOPES MORE THAN 4%.



* DIAMETER OF PIT EQUAL TO SPREAD OF ROOT OR BALL PLUS 6". MINIMUM DIAMETER 18" FOR SHRUBS, 36" FOR TREES.

● VARIABLE

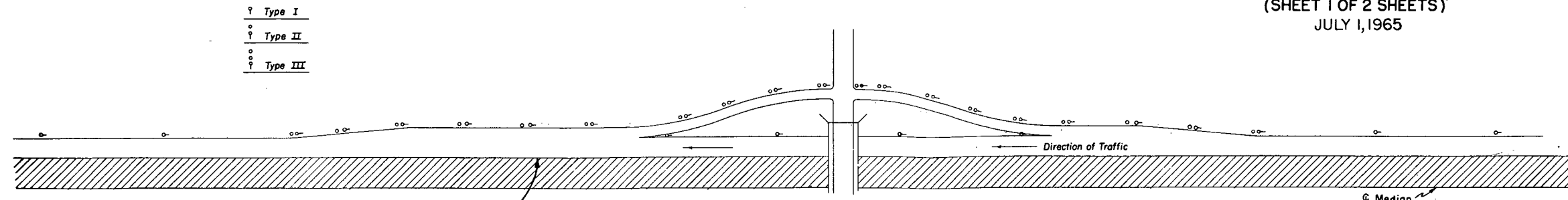
SHRUBS IN LEVEL PLANTING AREA

STANDARD M-612-C

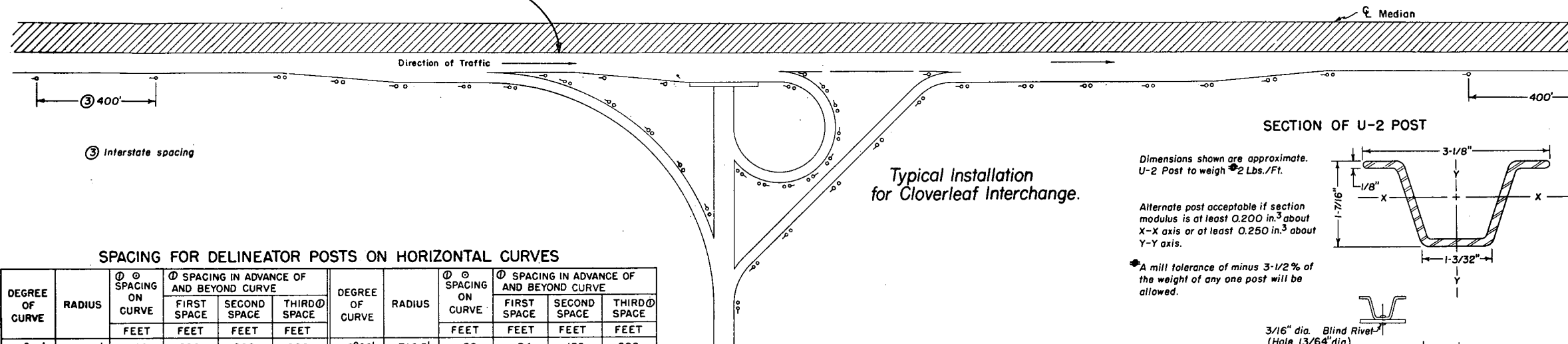
(SHEET 1 OF 2 SHEETS)
JULY 1, 1965

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS	



EDGE OF PAVED SHOULDER
Typical Installation for Diamond Interchange.

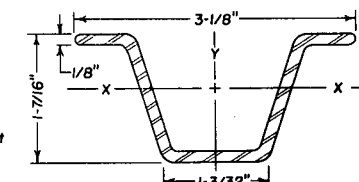


Typical Installation for Cloverleaf Interchange.

③ Interstate spacing

SECTION OF U-2 POST

Dimensions shown are approximate.
U-2 Post to weigh 2 Lbs./Ft.



Alternate post acceptable if section modulus is at least 0.200 in.³ about X-X axis or at least 0.250 in.³ about Y-Y axis.

*A mill tolerance of minus 3-1/2% of the weight of any one post will be allowed.

Posts shall meet requirements of Par. 4.5 of U.S. Dept. of Commerce Commercial Standard 184-51. Acceptable material includes re-rolled railroad rails.

When normal delineator spacing falls on a road approach or crossroad, move delineator either direction a distance not to exceed 1/4 normal spacing.

Type, location and spacing of delineators for tunnels and snow sheds shall be as directed by the Engineer.

Delineator Posts are not to be placed along Frontage Roads.

Color of Posts shall be Interstate Green.

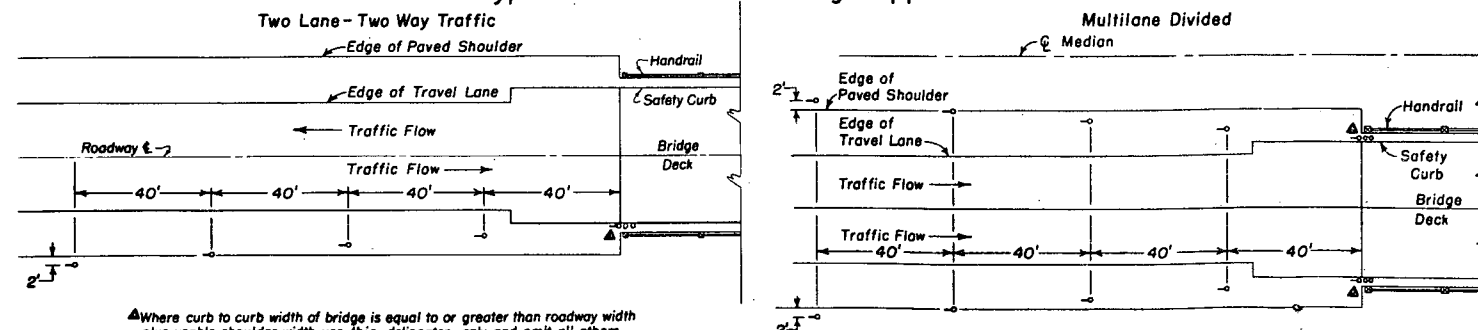
SPACING FOR DELINEATOR POSTS ON HORIZONTAL CURVES

DEGREE OF CURVE	RADIUS	① SPACING IN ADVANCE OF AND BEYOND CURVE				DEGREE OF CURVE	RADIUS	② SPACING IN ADVANCE OF AND BEYOND CURVE			
		FIRST SPACE	SECOND SPACE	THIRD SPACE	④ SPACING ON CURVE			FIRST SPACE	SECOND SPACE	THIRD SPACE	④ SPACING ON CURVE
0°30'	11460.0'	200	200	200	200	8°00'	716.3'	52	94	156	200
1°00'	5730.0'	151	200	200	200	8°30'	674.1'	50	90	150	200
1°30'	3820.0'	123	200	200	200	9°00'	636.7'	48	86	144	200
2°00'	2865.0'	106	191	200	200	9°30'	603.2'	47	85	141	200
2°30'	2292.0'	95	171	200	200	10°00'	573.0'	46	83	138	200
3°00'	1910.0'	86	155	200	200	10°30'	545.7'	45	81	135	200
3°30'	1637.1'	80	144	200	200	11°00'	520.9'	43	77	129	200
4°00'	1432.5'	74	133	200	200	11°30'	498.3'	42	76	126	200
4°30'	1273.3'	70	126	200	200	12°00'	477.5'	41	74	123	200
5°00'	1146.0'	66	119	198	200	15°00'	382.0'	36	65	108	200
5°30'	1041.8'	63	113	189	200	18°00'	318.3'	33	59	99	198
6°00'	955.0'	60	108	180	200	21°00'	272.9'	30	54	90	180
6°30'	881.5'	58	104	174	200	25°00'	229.2'	27	49	81	162
7°00'	818.6'	55	99	165	200	30°00'	191.0'	24	43	72	144
7°30'	764.0'	53	95	159	200						

① S = 2 √R-50 1-ST. SPACE = 1.8S 2-ND. SPACE = 3S 3-RD. SPACE = 6S
NO SPACES TO EXCEED 200 FT.

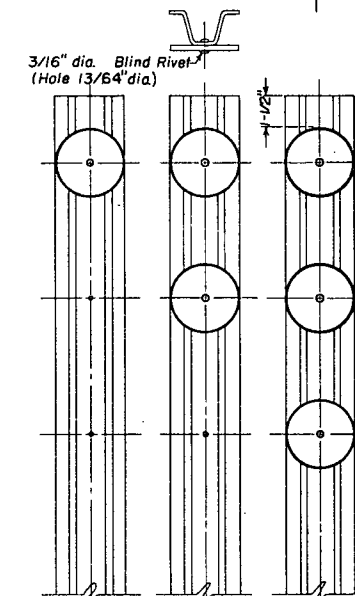
④ Omit third space on Secondary and Primary Routes and double the distance on the curve and in advance of and beyond curve. For curves less than 2 degrees on Interstate through roadways use Interstate tangent spacing.

Typical Installation at Bridge Approaches



Where curb to curb width of bridge is equal to or greater than roadway width plus usable shoulder width, use this delineator only and omit all others.
Note: Where guard rail is present, place delineators outside of guard rail and at height which will permit clear view of all three Delineator buttons.

When approach slab has curb, place Type III delineator immediately behind curb.

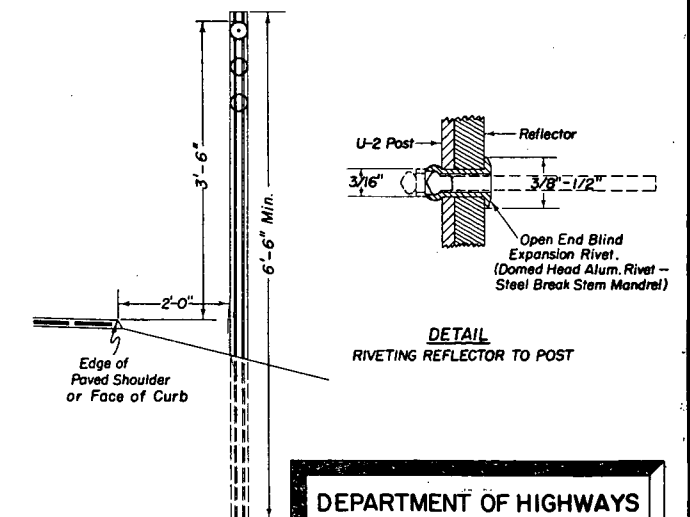


TYPE I
1-3" dia.
Crystal
Reflector
on U-2 Post

TYPE II
2-3" dia.
Yellow
Reflectors
on U-2 Post

TYPE III
3-3" dia.
Yellow
Reflectors
on U-2 Post

Min. 3 holes in all posts required as shown.



DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DELINEATORS

Designed by CKM
Made by WNC
Checked by LEO

Approved by [Signature]
Staff Design Engr.
Date: July 1, 1965

STANDARD M-612-C

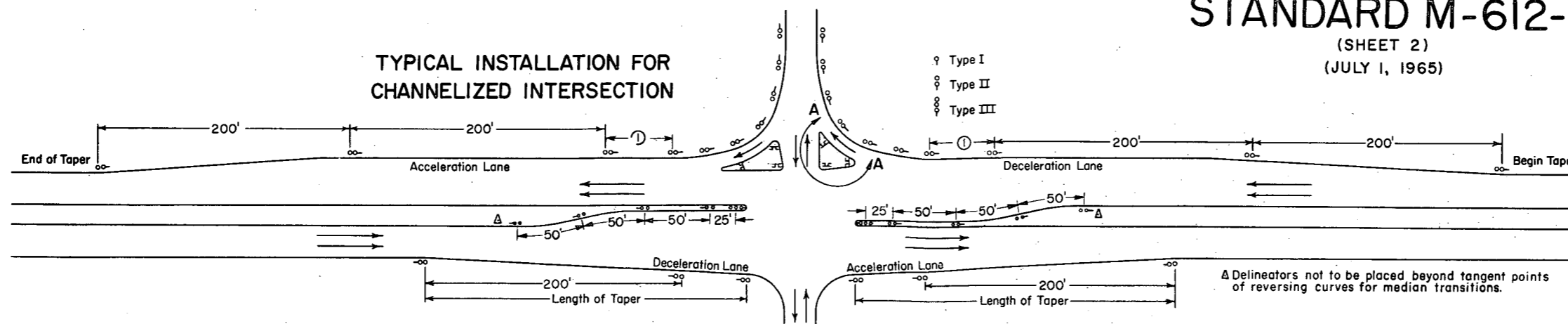
(SHEET 2)

(JULY 1, 1965)

FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

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TYPICAL INSTALLATION FOR CHANNELIZED INTERSECTION



GENERAL NOTES

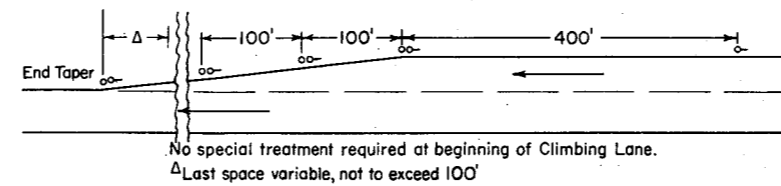
For Radii greater than 200 Feet, use spacing from Table included on Sheet 1 of this Standard.

For additional General Notes, see Sheet 1 of this Standard.

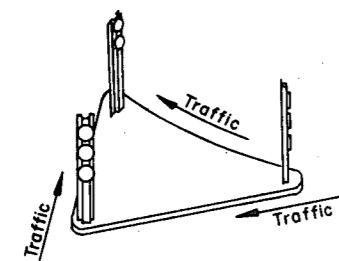
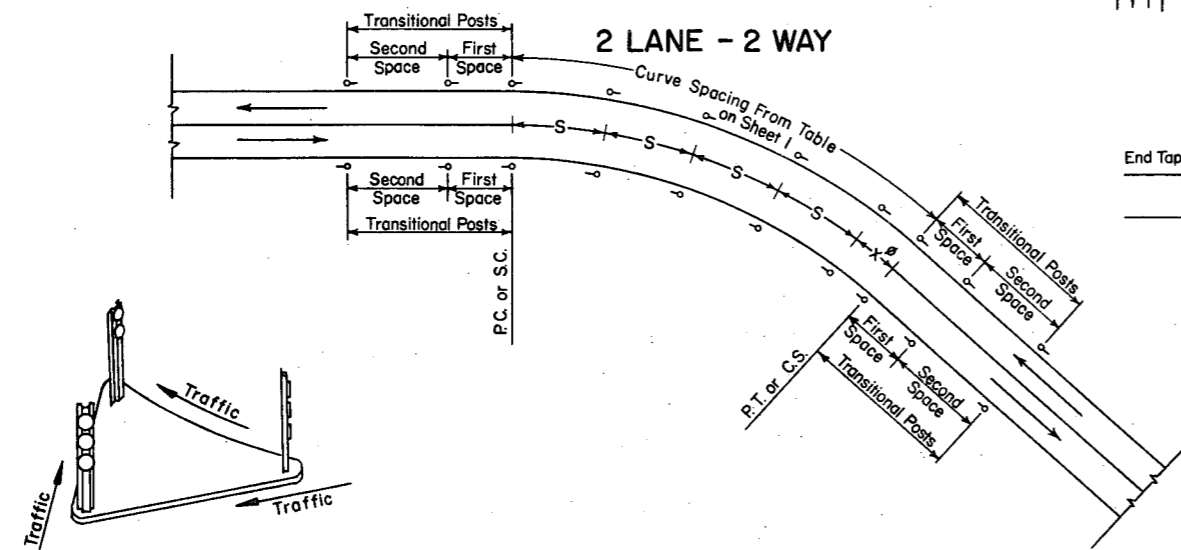
Place face of button at 90° to C of roadway.

Lengths of speed change lanes including tapers shall be as shown on plans.

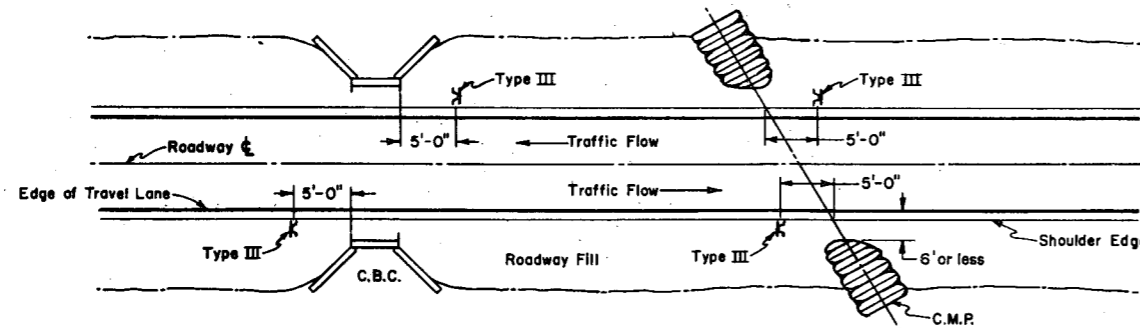
TYPICAL INSTALLATION FOR CLIMBING LANE TRANSITION



2 LANE - 2 WAY

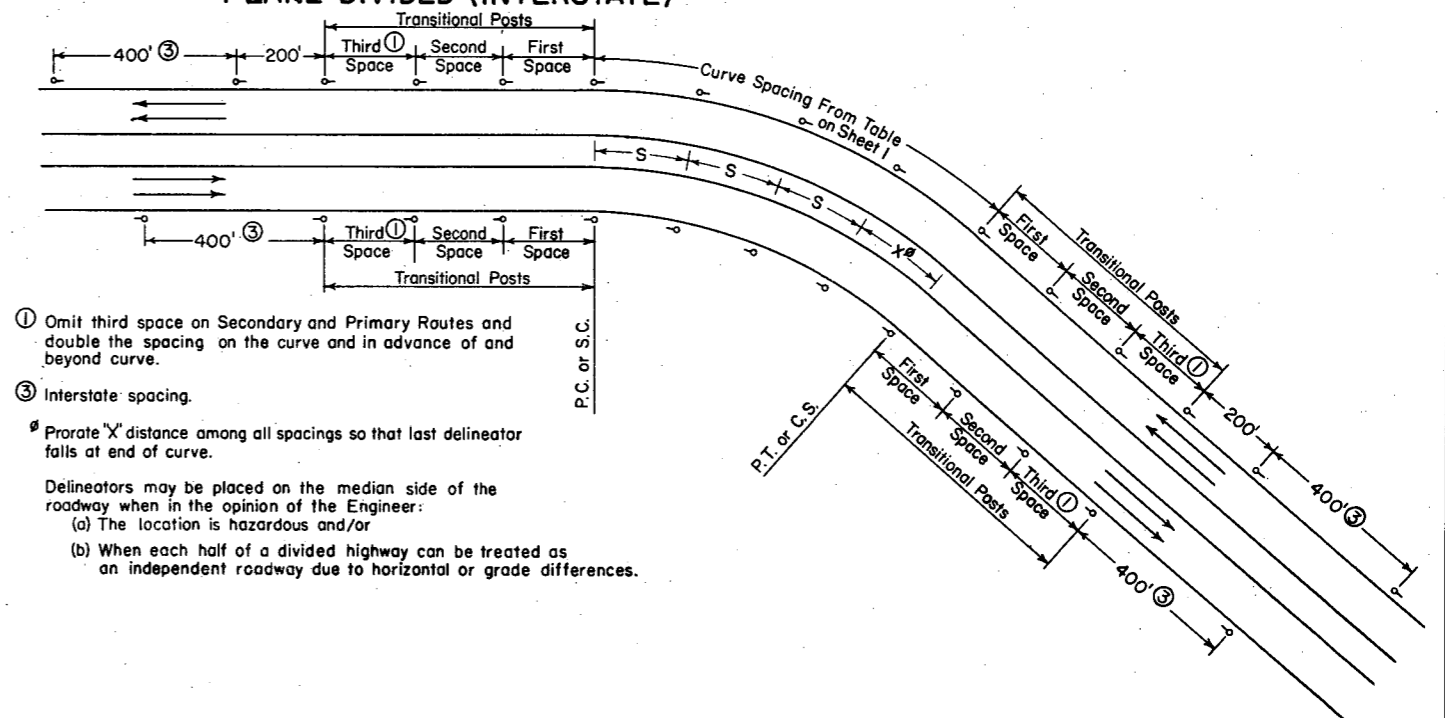


TYPE III DELINEATOR PLACEMENT AT HAZARDOUS MINOR STRUCTURES



Type III Delineators shall be placed as shown to mark hazardous ends of culverts and other minor structures. These structures are considered hazardous when the exposed barrel of the culvert or the roadway side of headwall or box is 6' or less from the edge of travel lane.

4 LANE DIVIDED (INTERSTATE)



① Omit third space on Secondary and Primary Routes and double the spacing on the curve and in advance of and beyond curve.

③ Interstate spacing.

Prorate 'X' distance among all spacings so that last delineator falls at end of curve.

Delineators may be placed on the median side of the roadway when in the opinion of the Engineer:

- (a) The location is hazardous and/or
- (b) When each half of a divided highway can be treated as an independent roadway due to horizontal or grade differences.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

DELINEATORS

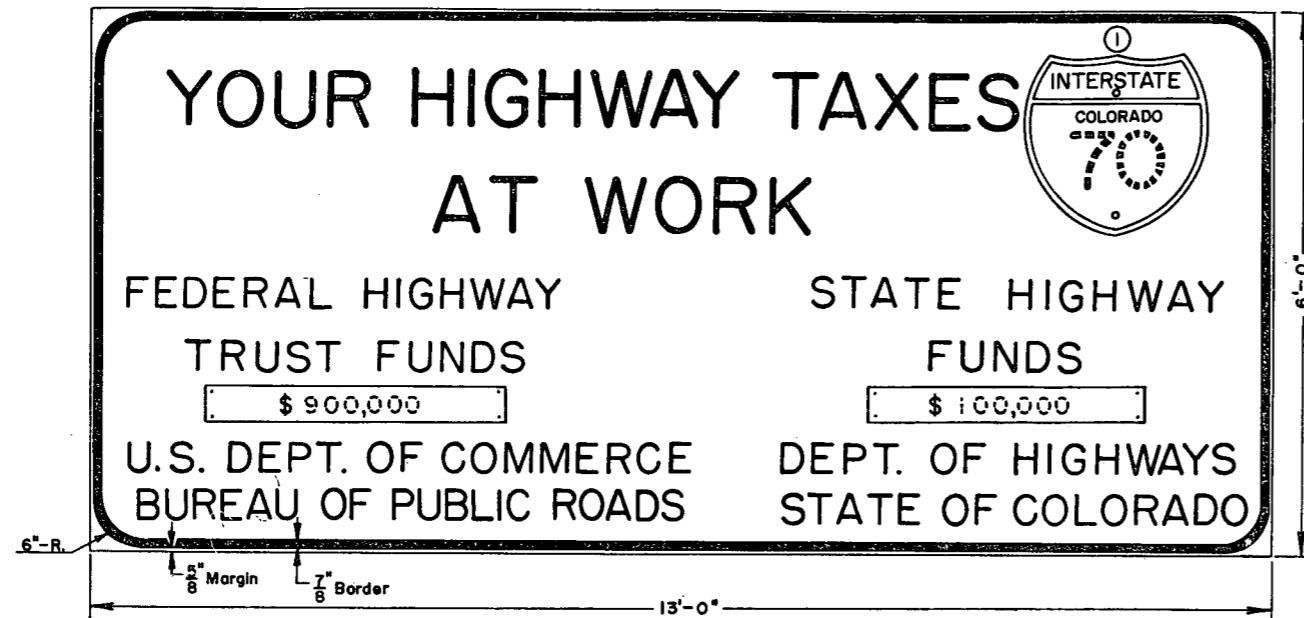
Designed by C.K.M. Approved by T.E.F.
Made by T.E.F. Staff Design Engr.
Checked by L.E.O. Date: July 1, 1965

TYPICAL SIGNS

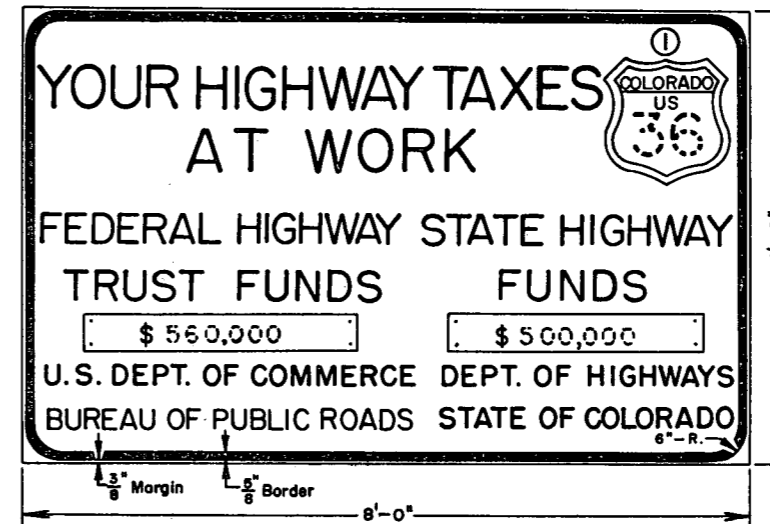
STANDARD M-614-IA

(JULY 1, 1965)

INTERSTATE SYSTEM



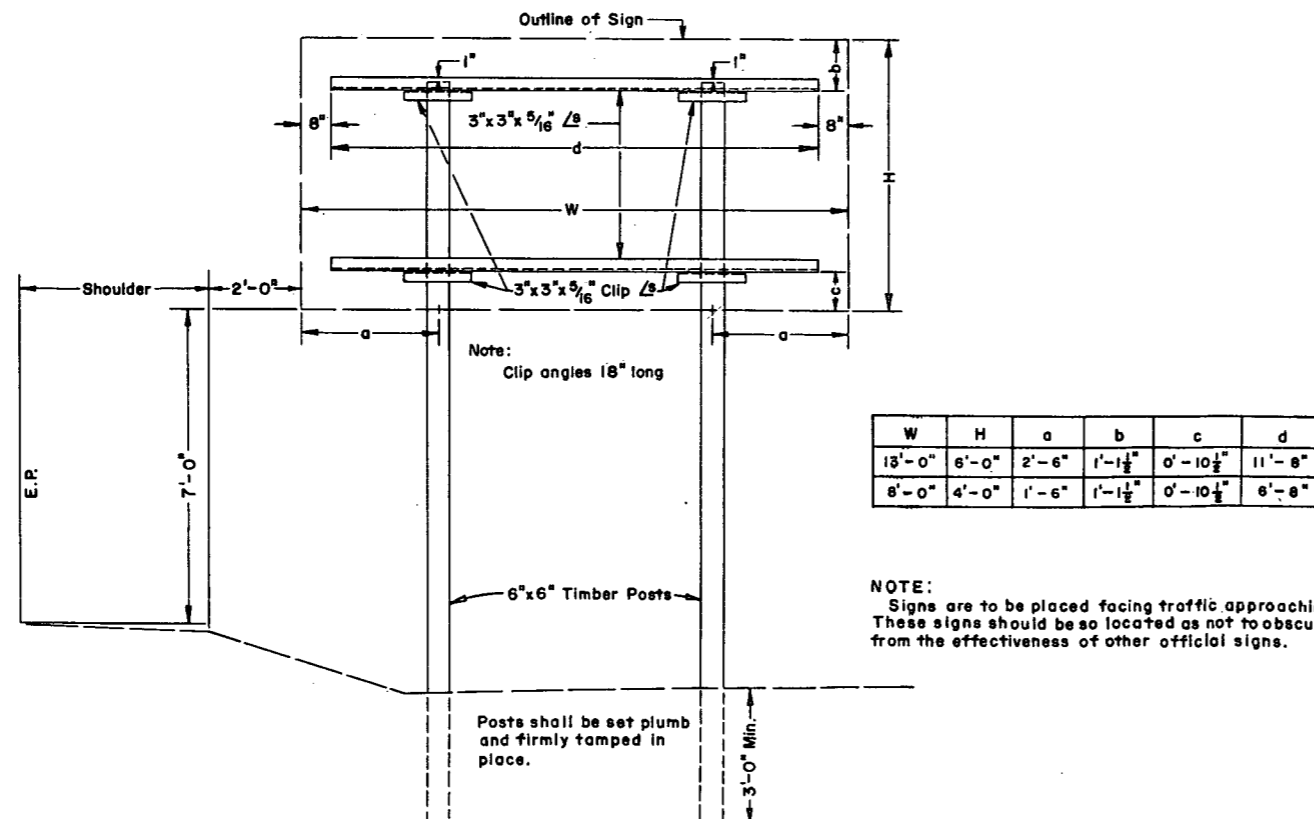
PRIMARY & SECONDARY SYSTEM



FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO			

REVISIONS	

INSTALLATION DETAIL



GENERAL NOTES

All work shall be done in accordance with the Standard Specifications applicable to the project.

Signs shall be made of 3/4" Plywood or other material approved by the Department.

When a third governmental agency is participating its official name should be included centrally in lines 6 and 7.

Posts shall be 6" x 6" S 4 S timber or other material approved by the Department and shall be painted white.

Signs are to be non-reflectORIZED, black letters, numerals, and border on plain white background. Route Marker plaques to be the appropriate standard colors, non-reflectORIZED.

Layout of signs will be furnished by the Traffic Operations Section indicating the details as to letter size, symbols, spacing, figure for amount of funds, etc. which are required for these signs.

These signs will be furnished and installed by State Forces.

① Applicable Interstate, U.S. Shield or State Route Shield.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
CONSTRUCTION
IDENTIFICATION
SIGNS

Designed by B.F.R. Approved by: *[Signature]*
Made by D. J. B.
Checked by M.R.H. Date: July 1, 1965

STANDARD M-614-TB

(SHEET 2 OF 3 SHEETS)

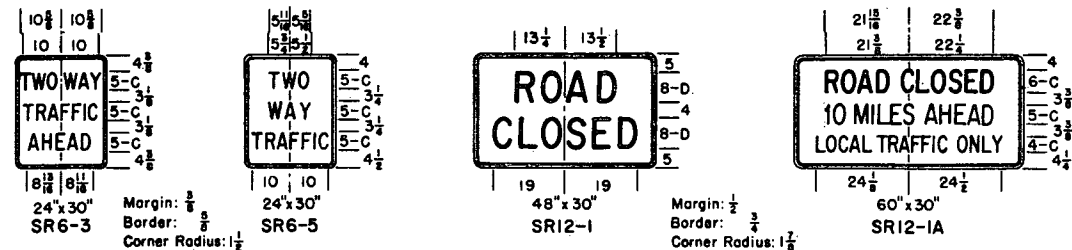
(JULY 1, 1965)

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

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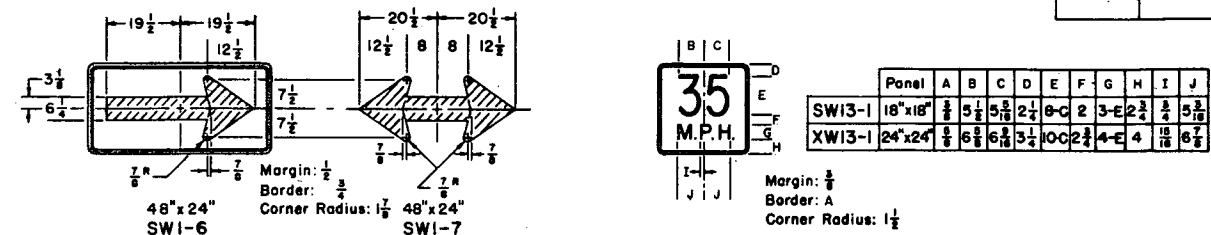
REGULATORY SIGNS

See Note No. 9



WARNING SIGNS

See Note No. 10



WARNING SIGNS

See Note No. 10

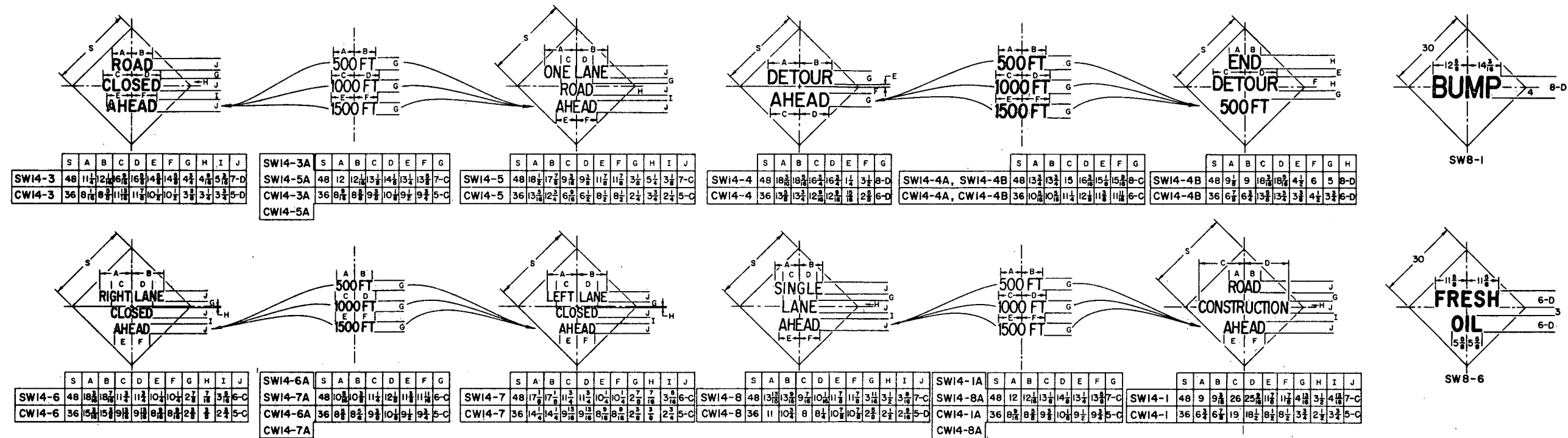
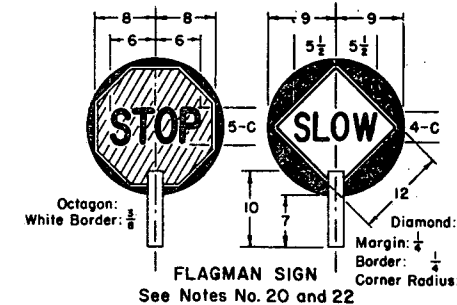
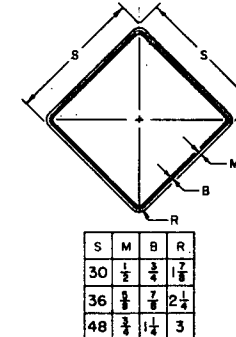


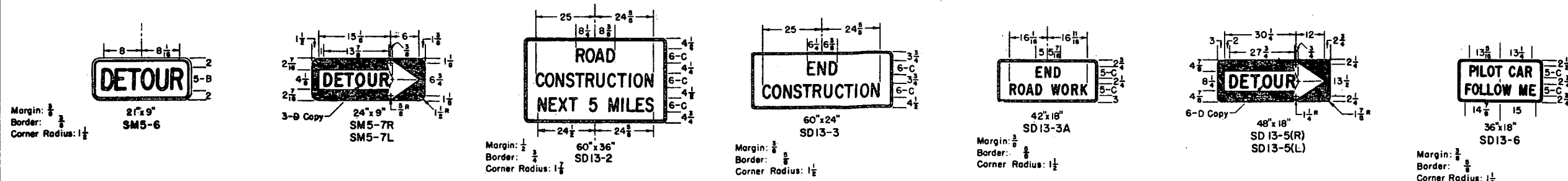
PLATE DETAILS



NOTES:
 SEE SHEET 1 FOR TYPICAL SIGNING AND SIGN PLACEMENT.
 SEE SHEET 3 FOR GENERAL NOTES APPLICABLE TO SHEETS 1 AND 2.
 ALL DIMENSIONS THAT ARE NOT LABELED ARE IN INCHES.

GUIDE SIGNS

See Note No. 11



DEPARTMENT OF HIGHWAYS
 STATE OF COLORADO

TRAFFIC SIGNING FOR HIGHWAY CONSTRUCTION

Designed By: D.R.W. Approved By: *[Signature]*
 Made By: H.B.D. Checked By: J.B. Date: AUGUST 9, 1965

M-6-BA

STANDARD M-614-TB

(SHEET 3 OF 3 SHEETS)
(JULY 1, 1965)

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLORADO		

REVISIONS		

GENERAL NOTES

1. All work shall be done in accordance with: (a) the Standard Specifications applicable to the Project, and (b) the "Manual on Uniform Traffic Control Devices for all Classes of Streets and Highways" published by the Department of Highways.
2. Where traffic is maintained through or over any part of the Project the Contractor will be required to mark all hazards within the limits of the Project (including connecting roads) with well-maintained Barricades, Warning, and Guide Signs. All Barricades and Signs shall be moved, added to, changed or removed as required during the progress of construction and removed entirely when the Project is completed.
3. Where traffic is prohibited from the Project the Detour will be marked by the Department except that the Contractor shall provide, erect and maintain Barricades, complete, (when required) at the ends of the Project, ends of the Detour and connecting roads. All U.S. or State Route Markers required for the Project will be furnished, and installed by the Department. The location and positioning of Warning Signs, Barricades, and Regulatory Signs shall be as recommended by the appropriate District Engineering Forces of the Department.
4. Work on the Project shall not be started until all required signs are in place and approved by the Engineer. Where speed control appears necessary such speed control shall be requested from the Engineer by the Contractor. Control of speed through a construction zone may be achieved by Advisory Speed plates in conjunction with Warning Signs (SW13-1 for use with 30" Warning Signs and XW13-1 for use with 36" and 48" Warning Signs). The Advisory Speed plate is to be posted only at those locations where the safe speed is lower than the imposed Regulatory speed limit.
5. All Signs and Barricades shall be placed for best visibility and legibility, maintained in good condition and kept clean and free of dirt at all times. Contractor's and Engineer's vehicles and equipment must be parked so that signs and barricades are visible to approaching traffic at all times.
6. Where two identical signs are used for dual posting they are to be staggered on the two sides of the roadway for a minimum distance of 75' to avoid a tunneling effect.
7. Examples for marking Projects, as shown on Sheet 1, are typical of signs required and are subject to alteration to fit actual conditions encountered in the field. Locations for control devices are to be staked by the Engineer. In all cases Warning signs are to be placed well in advance of the hazard, the distance depending on topography and existing approach speeds. Additional markings and any special signs required for the guidance and protection of traffic will be placed as required on the Project at the Contractor's expense.
8. Desirable sizes for signs are shown on Sheet 1 of this Standard. Larger or smaller signs shall be used where warranted. Detailed dimensions for signs normally used in connection with construction are shown on Sheet 2 of this Standard. For information on standard roadway signs not detailed on this Standard see the "Manual on Uniform Traffic Control Devices for all Classes of Streets and Highways" published by the Department of Highways.
9. Signs with the prefix "R" in the sign code are Regulatory signs and as such impose legal compulsions or restrictions on drivers and should only be used as authorized by the Engineer.
10. Signs with the prefix "W" in the sign code are Warning signs and are used to alert traffic to existing or potentially hazardous conditions.
11. Signs with the prefix "D" or "M" in the sign code are Guide signs. Those with the prefix "D" convey general information and those with the prefix "M" are used for marking the traffic route.
12. All signs shall be reflectorized unless otherwise specified on plans. Regulatory and Guide signs (unless otherwise specified) shall have a screen processed black legend and border on a white flexible reflective sheeting, non-exposed lens background. The back side of Regulatory and Guide signs shall be painted with two coats of "Exterior Sign White Paint." Warning signs shall have a screen processed black legend and border on a highway yellow flexible reflective sheeting, non-exposed lens background. The back side of Warning signs shall be painted with two coats of "Federal Yellow Synthetic Sign Enamel."
13. Painting for wood surfaces shall conform with Section 508 of the Standard Specifications.
14. Posts for regulatory, warning, and guide signs will normally be 4" x 4" or 6" x 6" and shall conform to the Standard Specifications for Untreated Timber-S4S. Timber shall conform to Construction grade Paragraph 123B or 125B of Standard No. 15 Grading & Dressing Rules for West Coast Douglas Fir (1956) or Dense Structural 58 and LL Structural 58 Paragraph 284 or 285 of 1956 Grading Rules for Southern Pine. Posts shall be painted with one coat of "White Wood Primer" and one coat of "Outside White Paint."
15. Sign panels furnished by the Contractor for use only during construction may be fabricated from plywood, aluminum, steel or other suitable material but shall be stable and durable enough to meet other requirements of this Standard.
16. All material shall be sound and durable. Barricades, signs, symbols, and lettering shall be of good workmanship. Uneven lettering will not be accepted.
17. Alternate methods of processing signs or the substitution of symbols or other reflecting elements for painted symbols will be permitted only after approval by the Department.
18. Torches and Lanterns shall be either of the fuel-burning or battery-powered type approved by the Department. Particular care shall be taken to protect all signs and barricades from smoke and smudge.
19. Barricades, Flashing Beacons and Flashers - Refer to appropriate "M" Standard (Timber Barricades) for details.
20. Flagman Sign - This sign shall have a black painted background on both sides to form a contrast for the octagonal Stop sign and the diamond Warning sign. The "STOP" sign shall be fabricated by reverse screen process using transparent red paint on smooth surface silver reflective sheeting. The "SLOW" side of the Flagman Sign shall be black process paint on smooth surface yellow reflective sheeting. Handle to be grooved on one side to indicate reading of sign to Flagman.
21. Sign "A": This is the first advance warning sign and shall be placed 1,500 feet ahead of Barricade or project terminal. Postings are required on both sides of the roadway on divided highways. Dual posting is required where warranted on two-lane, two-way highways.
Sign "B": This is the second advance warning sign and shall be placed 1,000 feet ahead of barricade or project terminal. Postings are required on both sides of the roadway on divided highways and singly on two-lane, two-way highways.
Sign "C": This is the third advance warning sign in cases where barricades are used and shall be placed 500 to 750 feet ahead of barricade or potentially hazardous condition. Postings are required on both sides of the roadway on divided highways and singly on two-lane, two-way highways.
Sign "D": SD13-2 - This sign shall be placed to mark the beginning of a Project of more than 2 miles in extent, where traffic is maintained through the project. It shall be placed singly and near the beginning of construction.
Sign "E": SD13-3 - This sign shall be placed to mark the end of the Project. It shall be placed singly and may be placed opposite barricade if desirable.
Sign "F": Construction identification signs shall be furnished and installed by the Department on all Federal-Aid and Forest Highway Projects where actual construction is in progress and visible to highway users. These signs should be located so as not to obscure or detract from the effectiveness of other official signs. Where two or more projects are contiguous the appropriate data may be included in one set of signs. Refer to appropriate "M" Standard (Identification Signs) for sign details.
Signs A through F shall be furnished, installed and maintained by the Department.
22. When Flags are used in lieu of the Flagman Sign, they shall be a minimum of 18"x18", made of a good grade of bright red material, and fastened securely to a staff of approximately 3 foot length. The free edge should be weighted to insure that the flag will hang vertically, even in heavy winds.

SPECIAL NOTE: Requirements of this Standard are optional to those of Standard M-614-TA through 12-31-65. Following that date Standard M-614-TA will be obsolete.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

**TRAFFIC SIGNING
FOR HIGHWAY
CONSTRUCTION**

Designed By: D.R.W.	Approved By: <i>[Signature]</i>
Made By: J.L.S.	Date: AUGUST 9, 1965
Checked By: J.B.	

M-6-EA
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