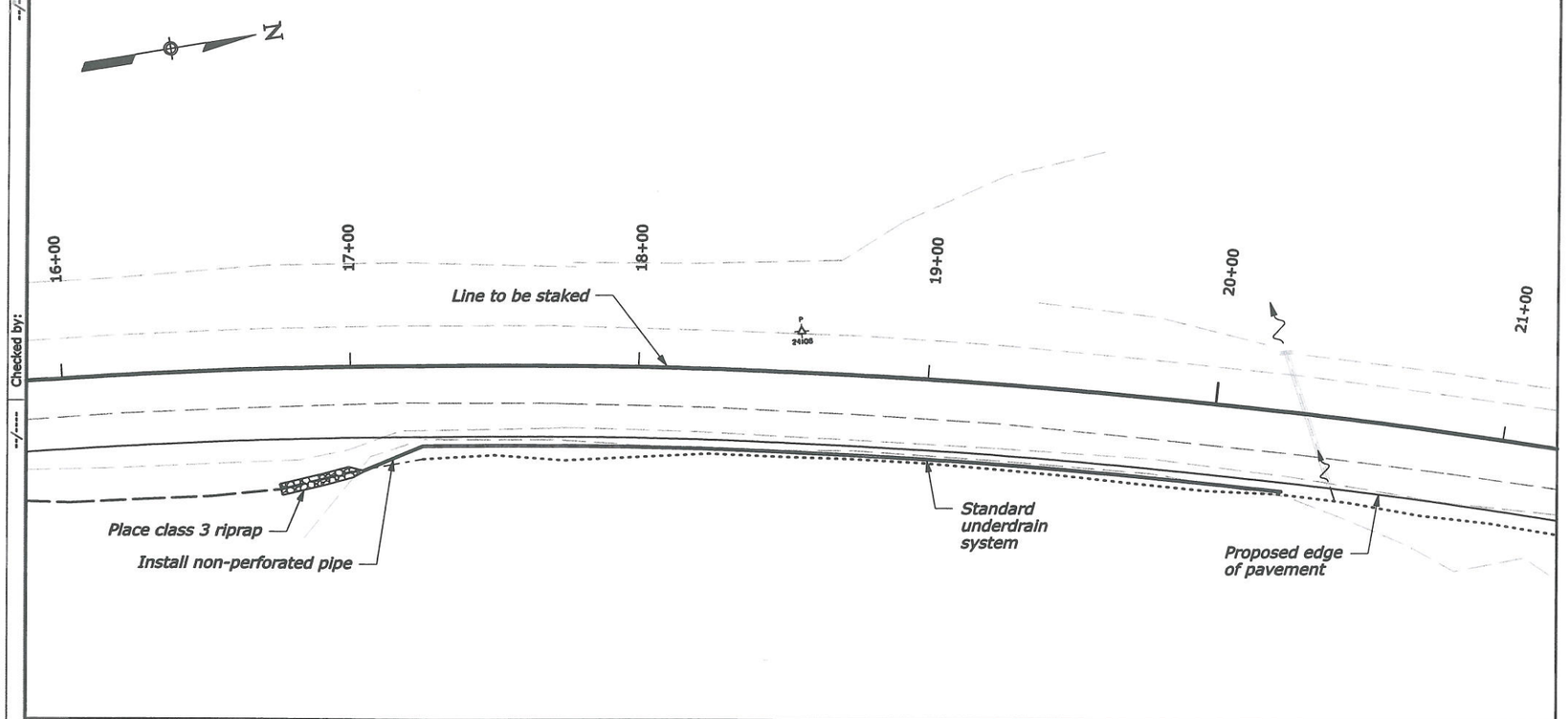
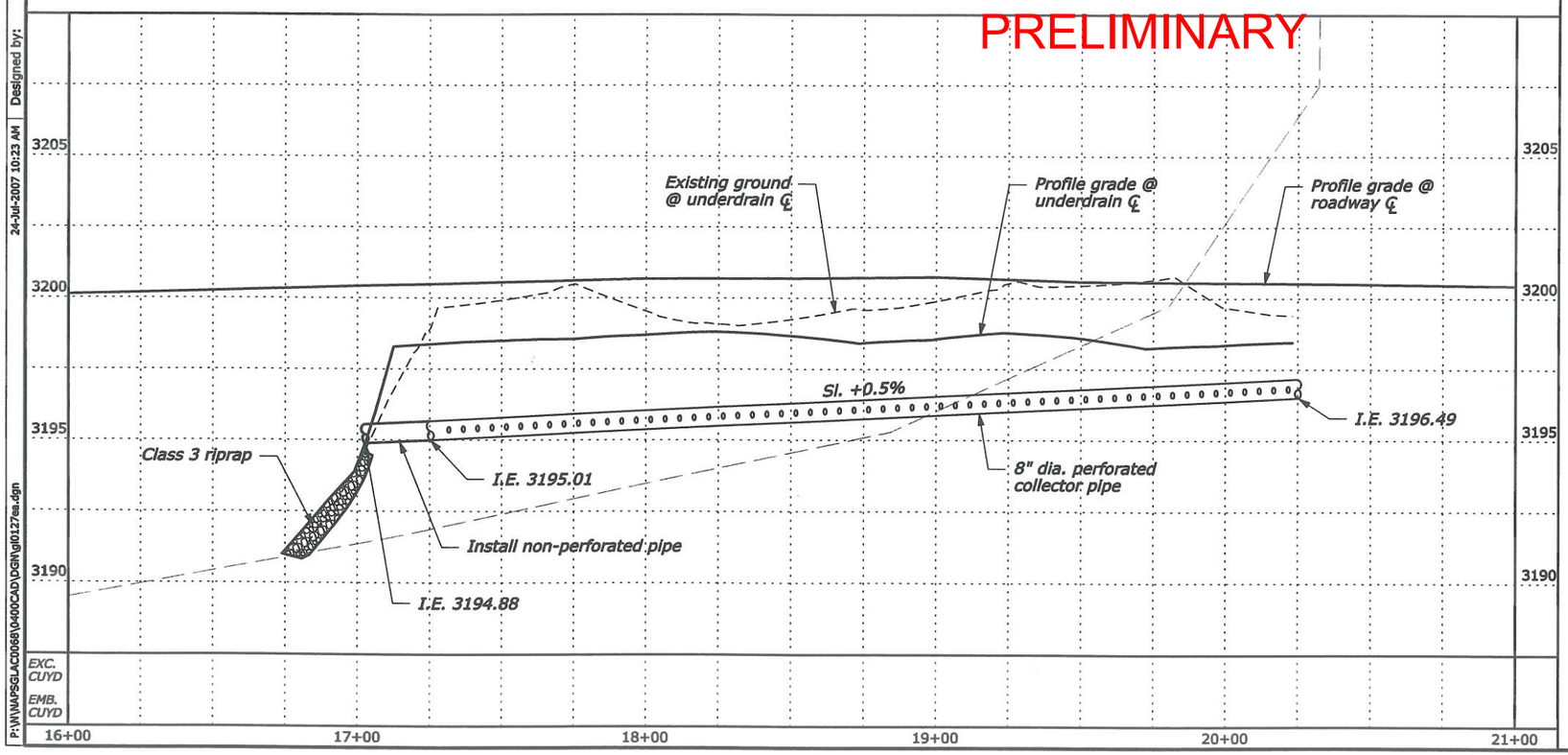
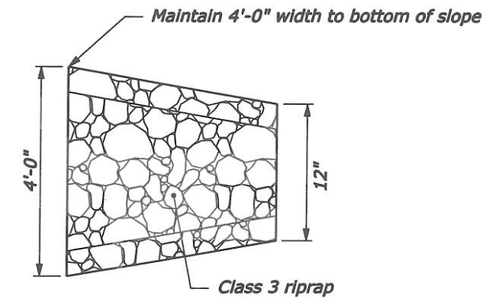
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	G.1

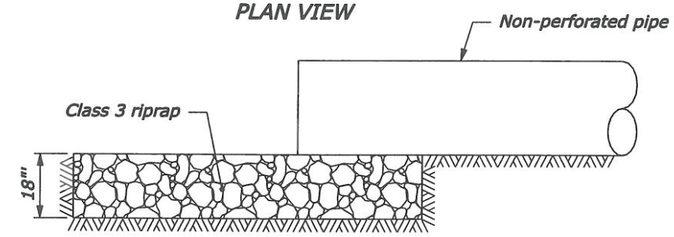


PRELIMINARY



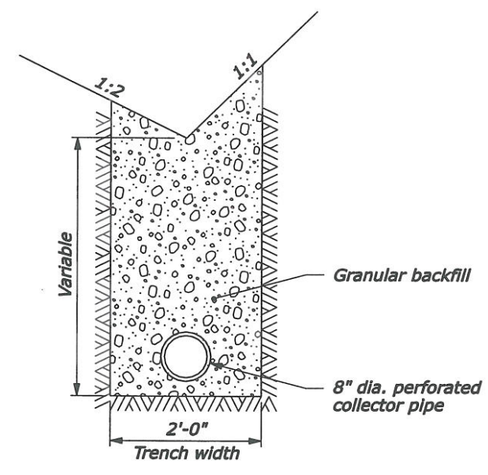


PLAN VIEW



PROFILE VIEW

PLACED RIPRAP, ENERGY DISSIPATOR



STANDARD UNDERDRAIN SYSTEM TYPICAL SECTION

STANDARD UNDERDRAIN SYSTEM PLAN, PROFILE, AND DETAIL

Checked by:
Designed by:
24-Jul-2007 10:23 AM
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STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	H.1

NOTES

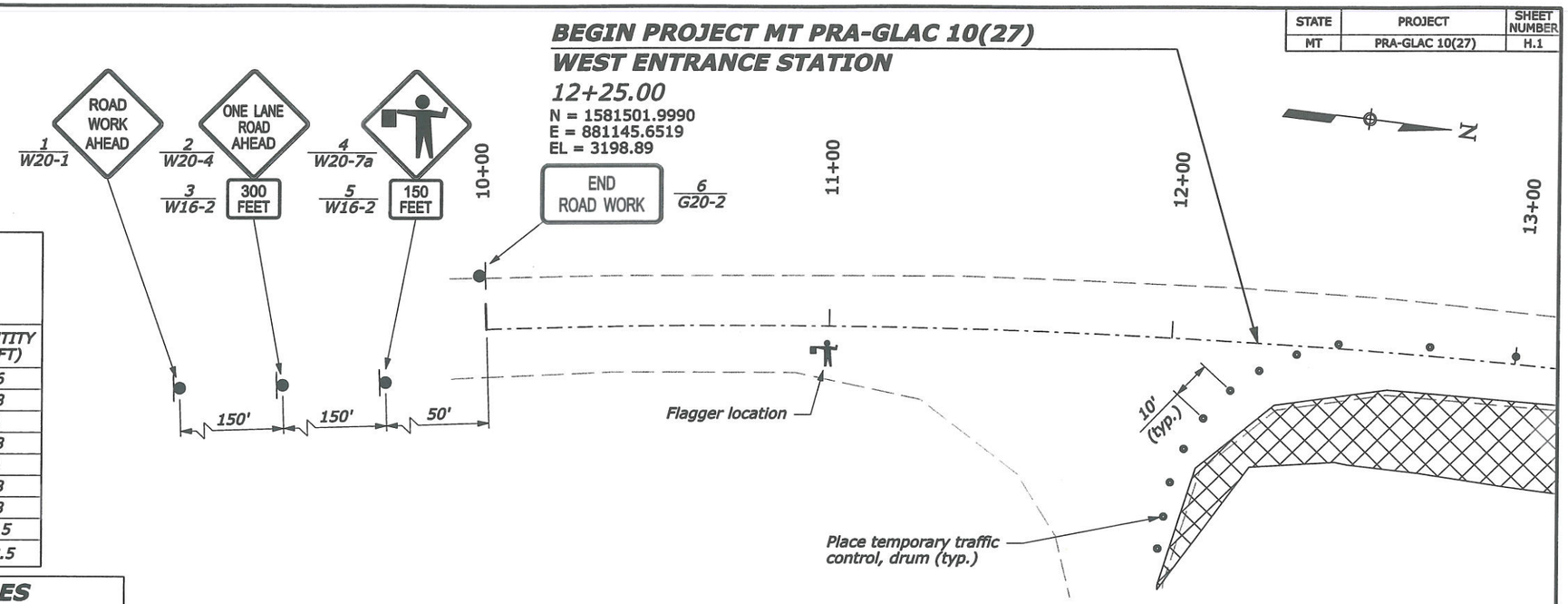
1. Barrels will be used to barricade traffic from construction.
2. Flaggers will be used to direct traffic through a one way lane during construction.
3. Barrel spacing is at 25 feet spacing through construction and 10 feet spacing at tapers.
4. If the east lane (right, inbound lane) is closed, move all traffic to the west (outbound) lane.

ITEM 63504-1000 TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGNS

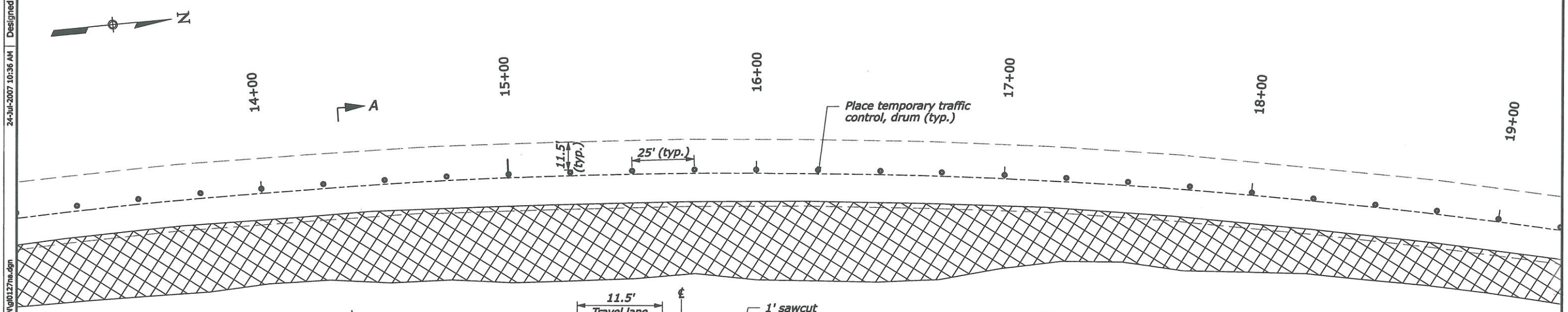
MUTCD NUMBER	LEGEND	SIGN SIZE (in)	NUMBER OF SIGNS	QUANTITY (SQFT)
W20-1	ROAD WORK AHEAD	36 x 36	4	36
W20-4	ONE LANE ROAD AHEAD	36 x 36	2	18
W16-2	300 FEET plaque	24 x 18	3	9
W20-7a	Flagger symbol	36 x 36	2	18
W16-2	150 FEET plaque	24 x 18	3	9
G20-2	END ROAD WORK	36 x 18	4	18
W5-1	ROAD NARROWS	36 x 36	2	18
W21-5	SHOULDER WORK	30 x 30	2	12.5
TOTAL				138.5

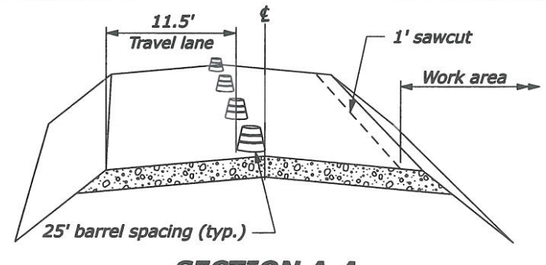
TEMP. TRAFFIC CONTROL QUANTITIES

ITEM	DESCRIPTION	QUANTITY
63502-1300	Temporary traffic control, drum	90 each
63503-0700	Temporary traffic control, pavement markings	1147 lnft
63503-0800	Temporary traffic control, pavement marking removal	1147 lnft



PRELIMINARY





SECTION A-A

LEGEND

- Work area
- 7 / R7-8 — Sign no. / MUTCD no.
- Traffic control drums
- Flagger location

TEMP. TRAFFIC CONTROL PROJECT SIGNING (CONSTRUCTION PHASE)

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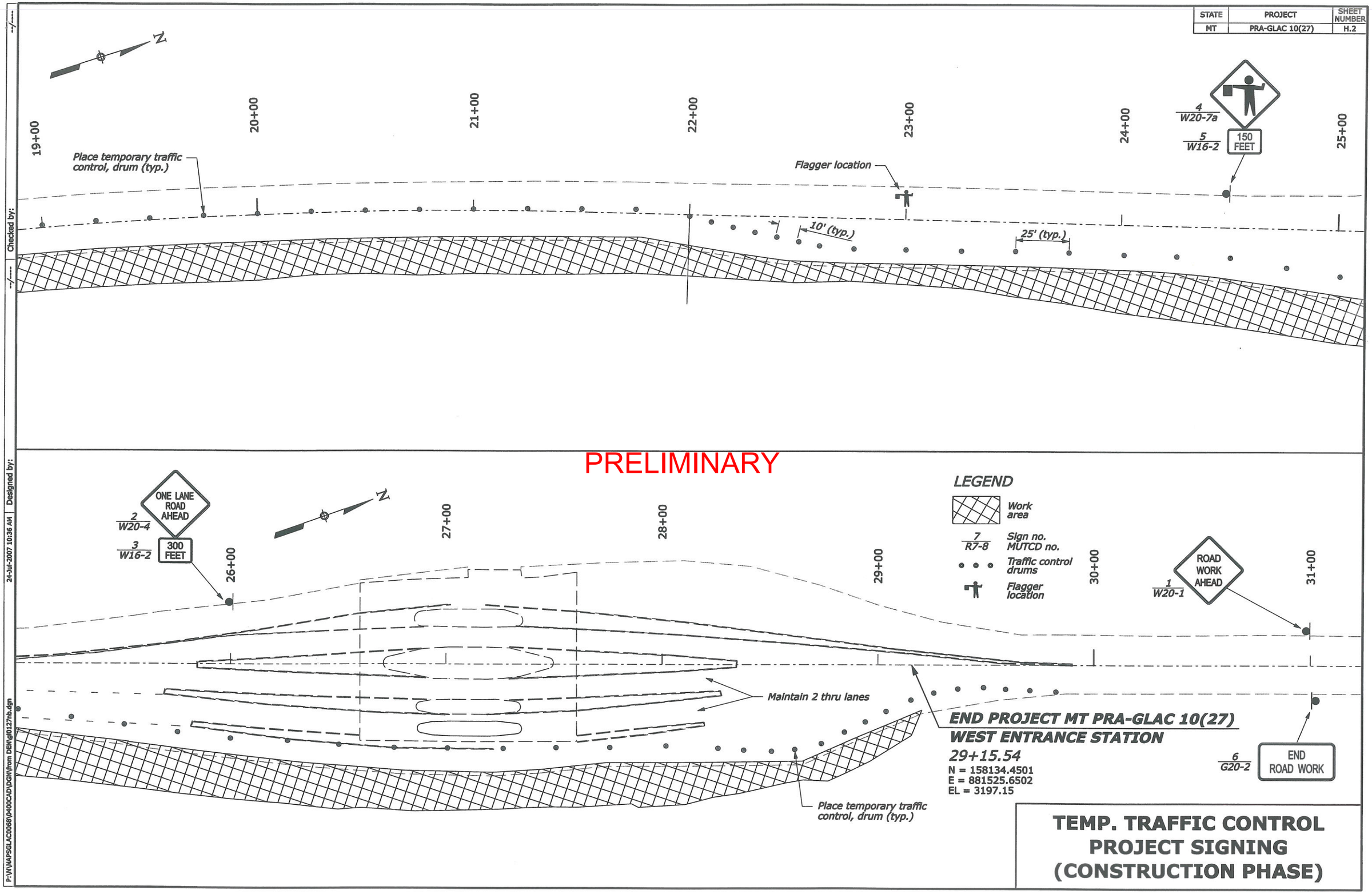
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	H.2



TEMP. TRAFFIC CONTROL PROJECT SIGNING (CONSTRUCTION PHASE)

Checked by:

Designed by:

24-Jul-2007 10:36 AM

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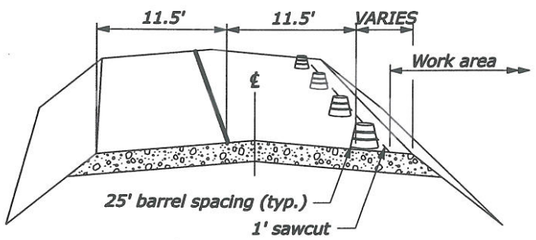
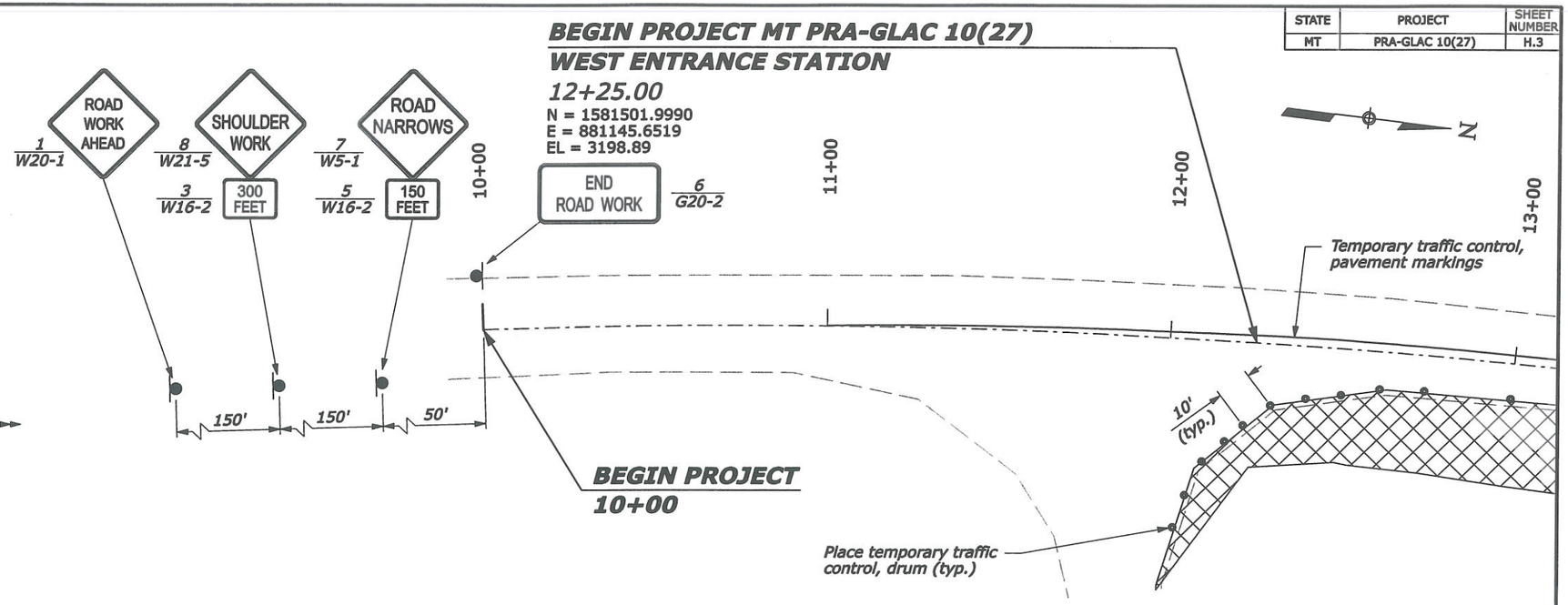
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	H.3

NOTES:

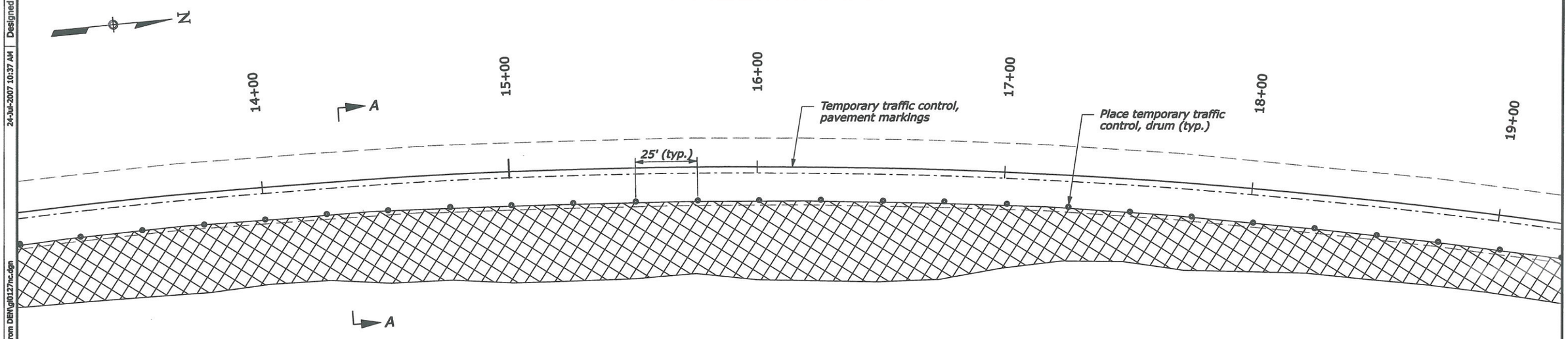
1. Barrels will be placed at the sawcut line to barricade traffic from Construction limits.
2. Temporary striping will be placed to separate traffic into 2 lanes.
3. Barrel spacing is at 25 feet spacing through construction and 10 feet spacing at tapers.
4. If the east lane (right, inbound lane) is closed, move all traffic to the west (outbound) lane.



SECTION A-A



PRELIMINARY



LEGEND

- Work area
- 7 / R7-8 — Sign no. / MUTCD no.
- Traffic control drums

TEMP. TRAFFIC CONTROL PROJECT SIGNING (NON-CONSTRUCTION PHASE)

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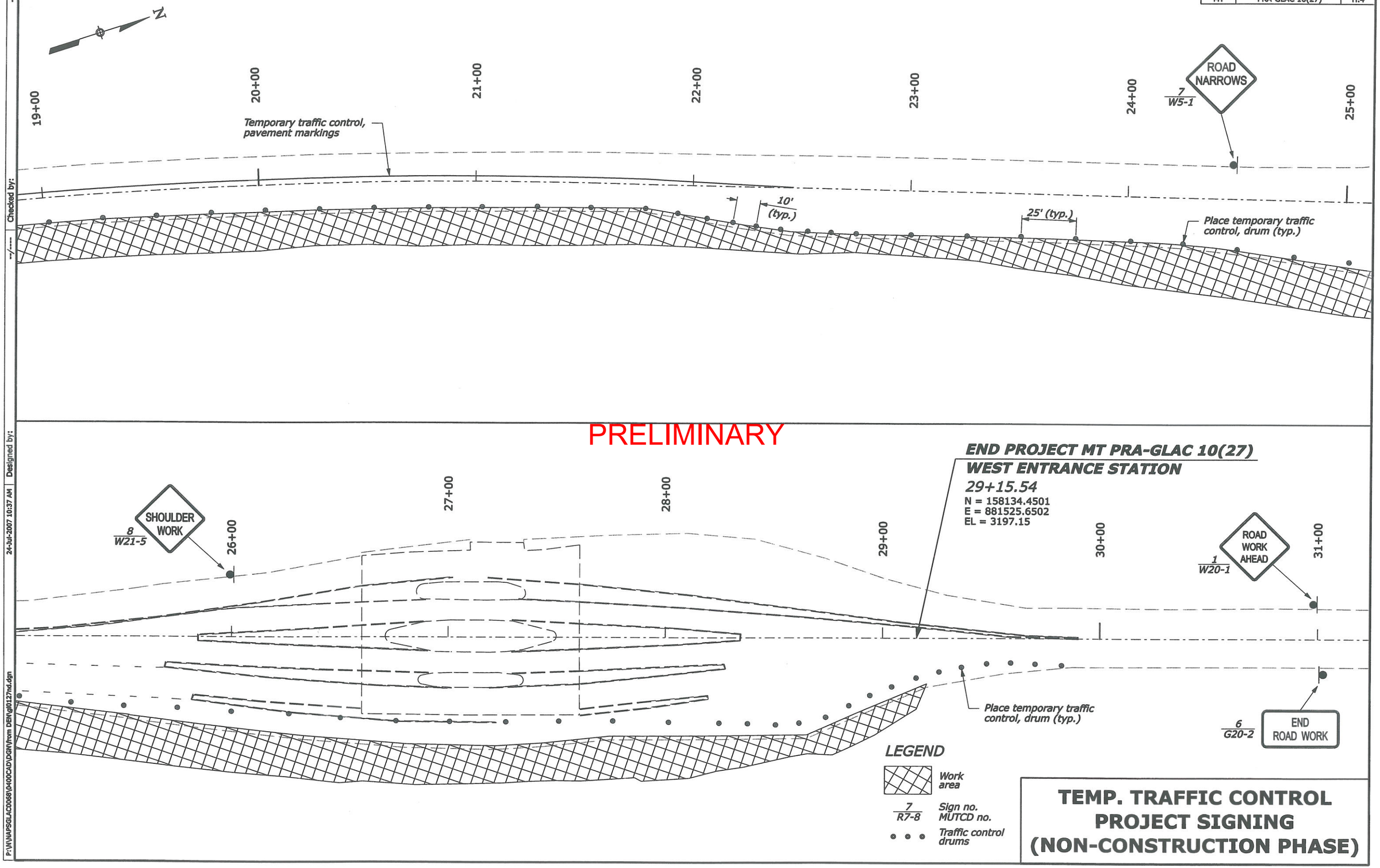
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	H.4



TEMP. TRAFFIC CONTROL PROJECT SIGNING (NON-CONSTRUCTION PHASE)

Checked by:

Designed by:

24-Jul-2007 10:37 AM

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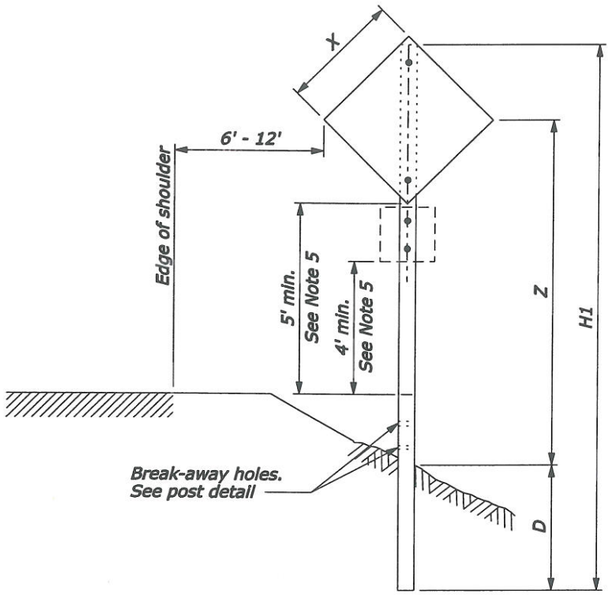
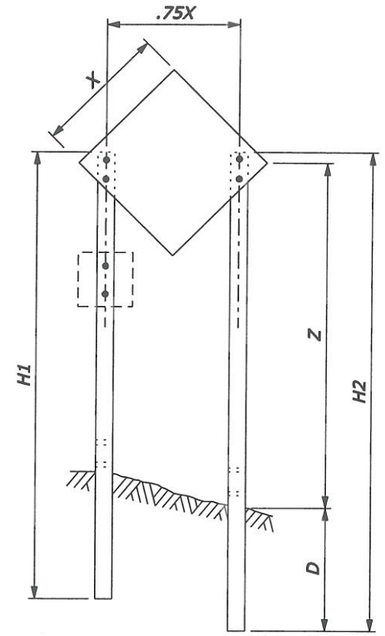
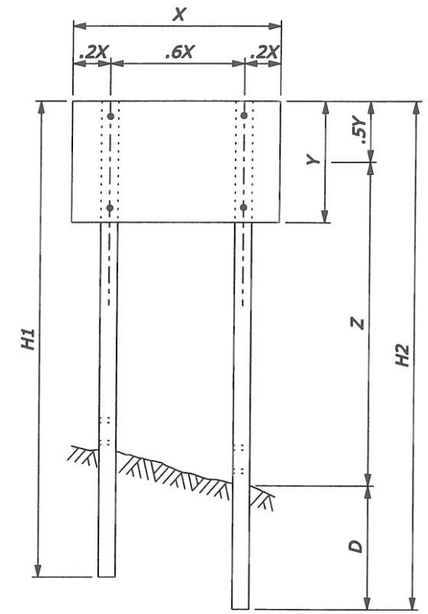
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	H.5



SINGLE POST SIGN



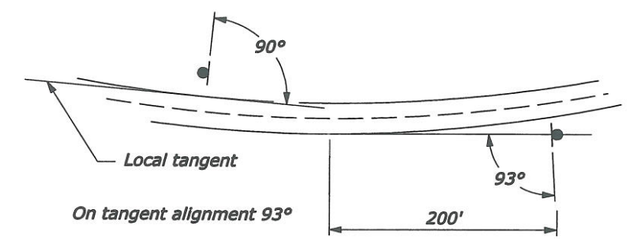


TWO POST SIGN

PRELIMINARY

NOTE:

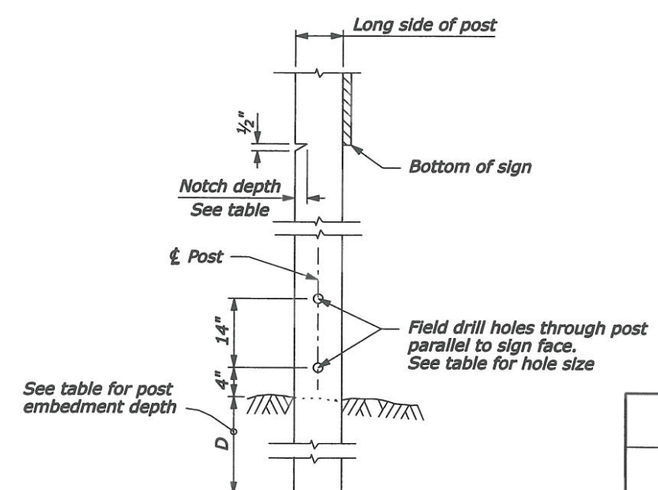
1. Attach sign panels with a minimum of 2 - ¼" dia. bolts per post.
2. Mount signs smaller than listed on a single 4" x 4" post. For signs not shown, use next largest size.
3. H1 and H2 = Overall post length. Select post lengths to fit field conditions.
4. D = Post embedment depth for average soil conditions.
5. When pedestrians are present, or in areas where the view obstructed, use 7' minimum mounting height.



SIGN INSTALLATION ANGLE

WOOD POST SELECTION TABLE

SIGN SHAPE	X x Y	GROUNDLINE TO CENTER OF SIGN HEIGHT (Z)									
		Z IS 10' OR LESS					Z IS GREATER THAN 10'				
		NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH	NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH
◇ ○	30" x 30"	1	4" x 4"	36"	0	0	1 or 2	4" x 6" 4" x 4"	48" 36"	1½" 0	0 0
◇ ○ ○	36" x 36"	1 or 2	4" x 6" 4" x 4"	48" 36"	1½" 0	0 0	1 or 2	4" x 6" 4" x 4"	48" 36"	1½" 0	0 0
◇ ○	48" x 48"	1	4" x 6"	48"	1½"	0	1 or 2	6" x 8" 4" x 6"	48" 48"	3" 1½"	0 1¾"
▭	60" x 30"	2	4" x 4"	36"	0	0	2	4" x 6"	48"	1½"	1¾"
▭	78" x 42"	2	4" x 6"	48"	1½"	1¾"	2	4" x 6"	48"	1½"	1¾"
▭	96" x 48"	2	4" x 6"	48"	1½"	1¾"	2	6" x 8"	48"	3"	2¼"



POST DETAIL

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

CONSTRUCTION SIGN INSTALLATION WOOD POSTS

DETAIL APPROVED FOR USE 12/2006

REVISED:

DETAIL W635-20

P:\N\NAPSGLAC0068\0400CAD\DGN\from DEN\gl0127ne.dgn 24-Jul-2007 10:37 AM

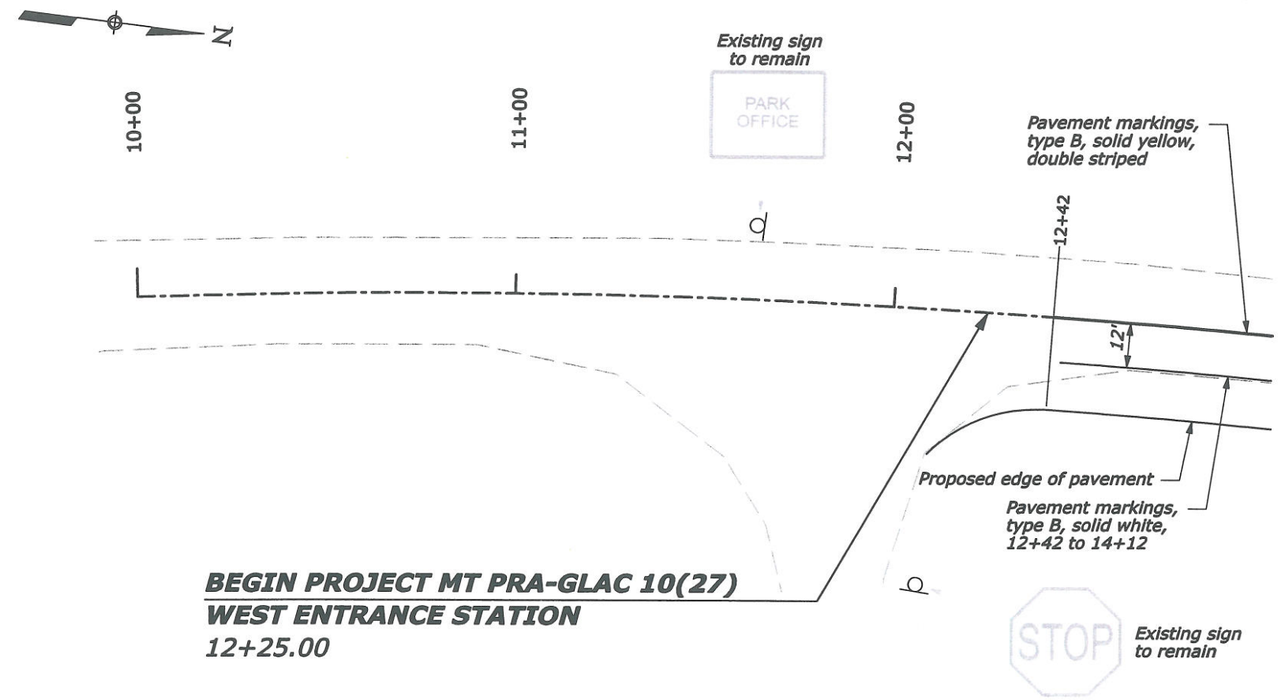
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	I.1

ITEM 63301-0000 SIGN SYSTEM

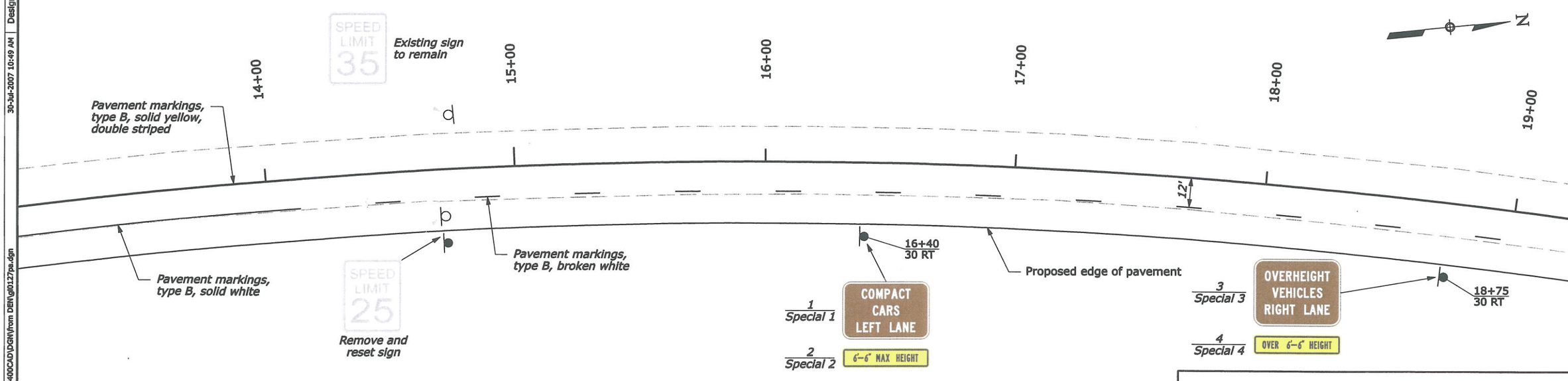
MUTCD NUMBER	LEGEND	SIGN SIZE (in)	NUMBER OF SIGNS	QUANTITY (sqft)
Special 1	COMPACT CARS LEFT LANE	4'-6"X3'-0"	1	13.5
Special 2	6-6 MAX HEIGHT	4'-6"X1'-0"	1	4.5
Special 3	OVERHEIGHT VEHICLES RIGHT LANE	5'-0"X4'-0"	1	20.0
Special 4	OVER 6-6 HEIGHT	4'-6"X1'-0"	1	4.5
Special 5	Vehiclular Traffic Directional	8'-0"X6'-0"	1	48.0
Special 6	EMPLOYEE BY-PASS	4'-0"X4'-0"	1	16.0
Special 7	NO VISITORS	4'-6"X1'-6"	1	6.75
W11-2	Pedestrian Traffic	3'-5"X3'-5"	1	12.25
TOTAL				125.5

PERM. TRAFFIC CONTROL QUANTITIES

ITEM	DESCRIPTION	QUANTITY
61509-0000	Detectable warning panels	1.3 sqyd
63306-2100	Post, wood, 8-inch diameter	1 each
63316-0000	Remove and reset sign	4 each
63401-0055	Pavement markings, type B, broken white	290 LF
63401-0060	Pavement markings, type B, solid yellow	3701 LF
63401-0065	Pavement markings, type B, solid white	2654 LF
63405-0850	Pavement markings, type B, accessibility symbol	1 each



PRELIMINARY



LEGEND:
7 / R7-8 — Sign no. / MUTCD no.

PERM. TRAFFIC CONTROL STRIPING LAYOUT AND SIGN LOCATIONS

Designed by: 30-Jul-2007 10:49 AM
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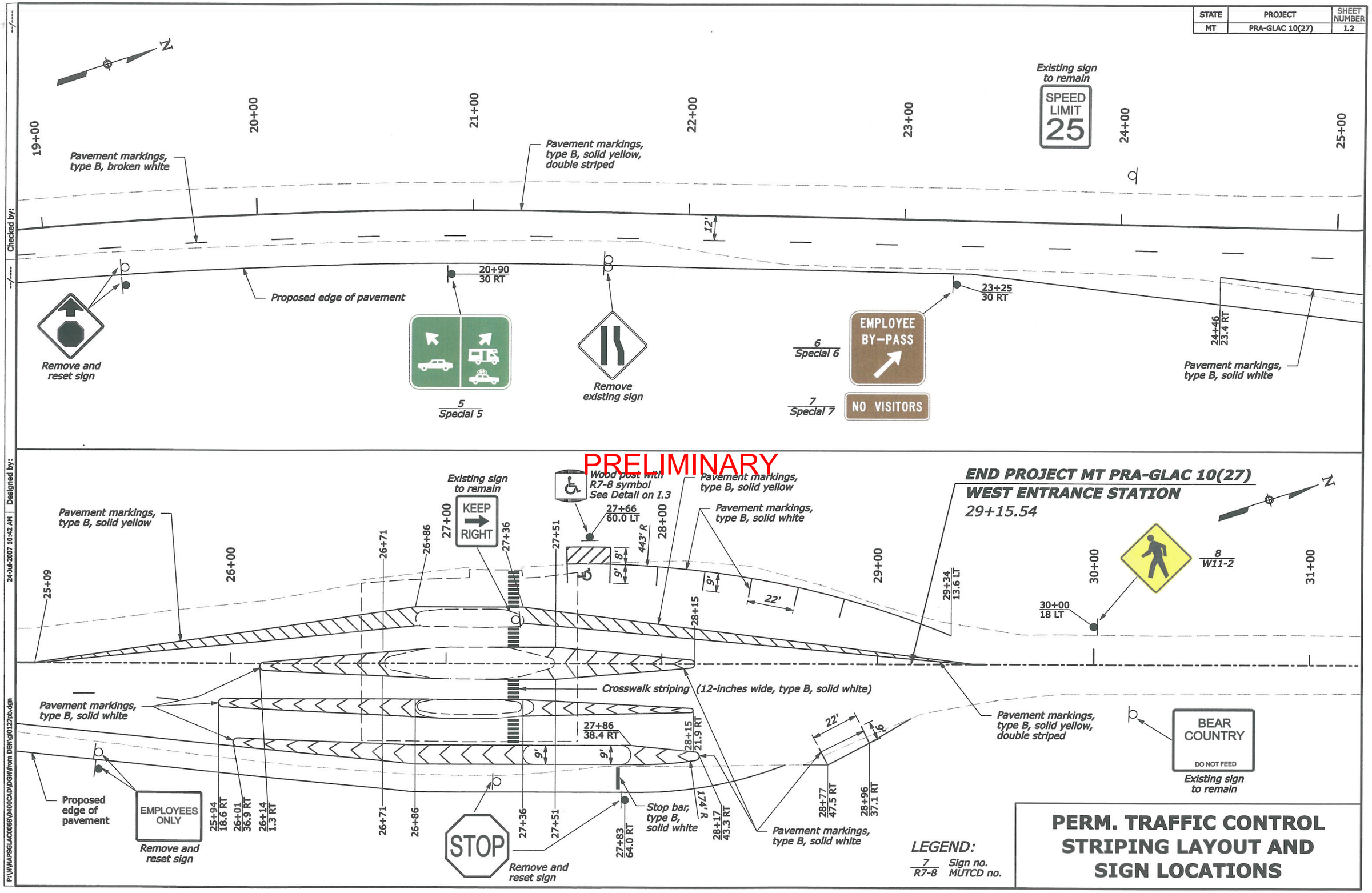
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	I.2



PERM. TRAFFIC CONTROL STRIPING LAYOUT AND SIGN LOCATIONS

Checked by:

Designed by:

24-Jul-2007 10:42 AM

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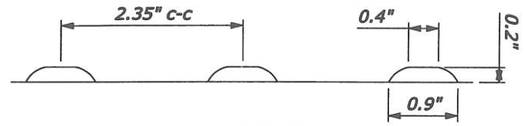
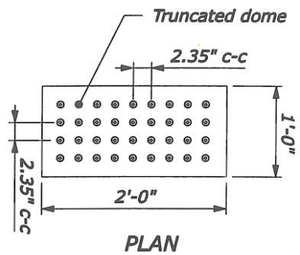
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	I.3

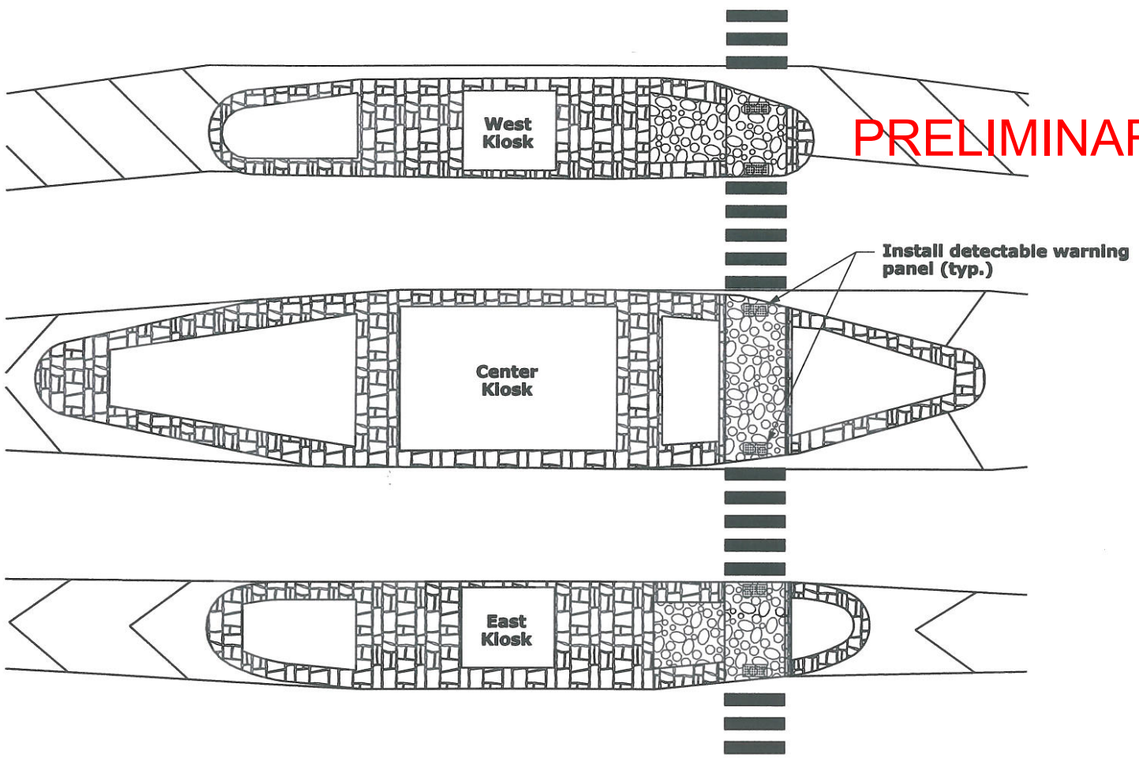


SECTION
TRUNCATED DOME

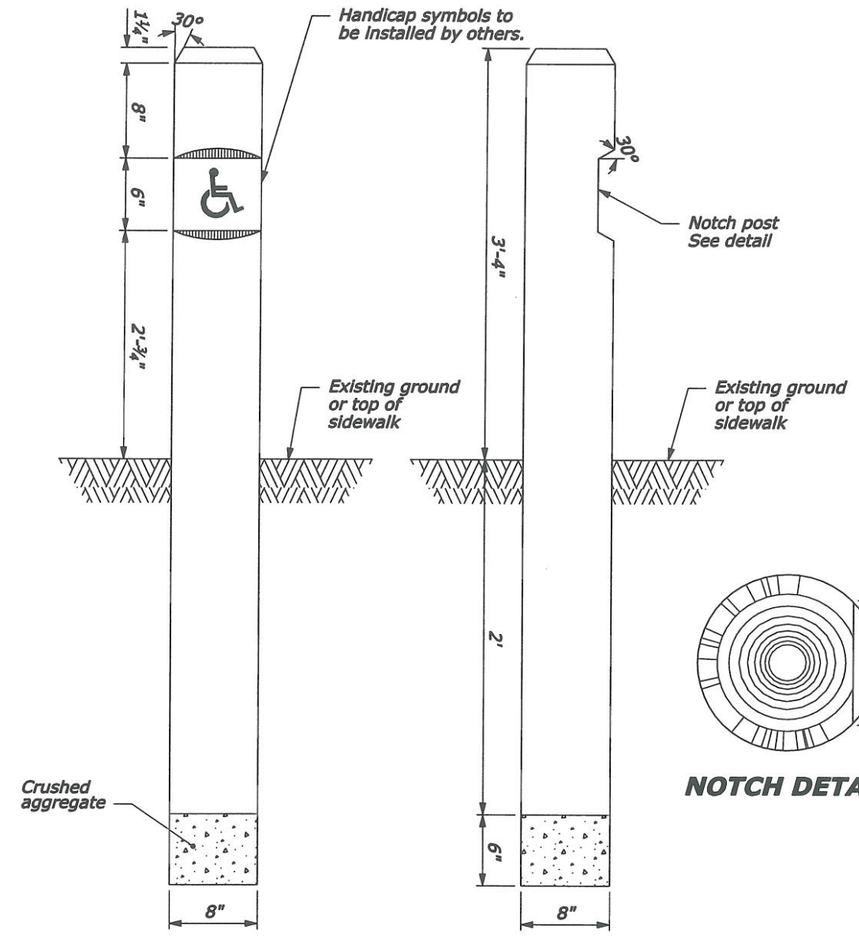


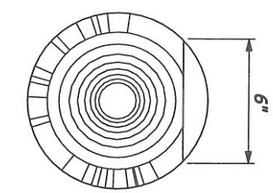
PLAN

DETECTABLE WARNING PANEL DETAIL



PRELIMINARY





NOTCH DETAIL

POSTS, WOOD, 8" DIAMETER DETAILS

NOTE:

1. The final locations of the signs will be determined in the field by the CO.

PMIS Pkg. No. 90958 NPS Drwg. No. 117/41957

PERMANENT SIGNING DETAILS

Designed by: GTSR Team | Checked by: --/---- | Greg Kwack 12/2006

24-Jul-2007 10:43 AM

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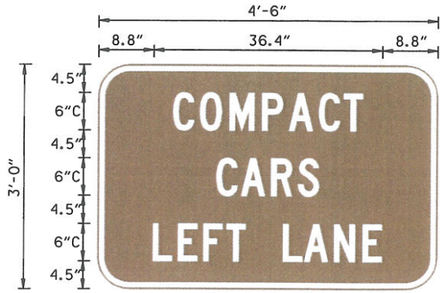
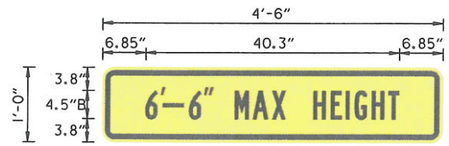
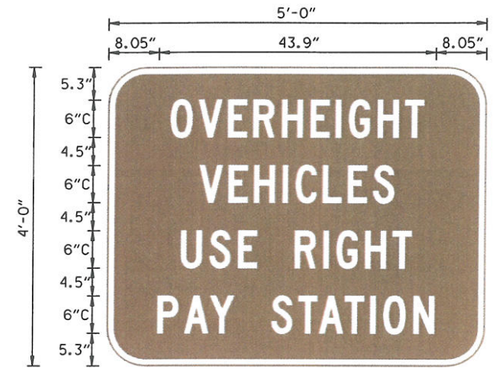
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	I.4



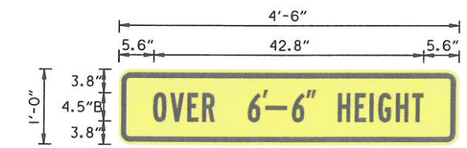
SPECIAL 1



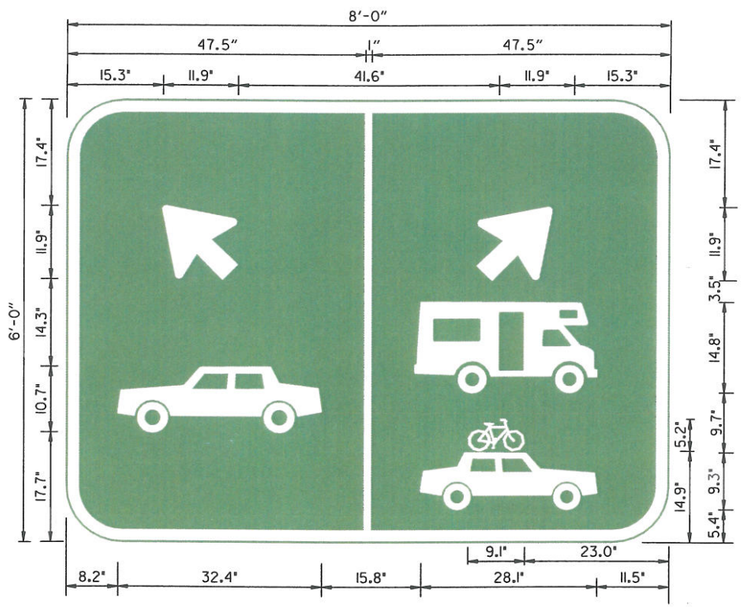
SPECIAL 2



SPECIAL 3



SPECIAL 4

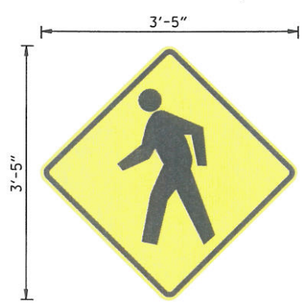


SPECIAL 5

PRELIMINARY

SPECIAL 6

SPECIAL 7



W11-2

PERMANENT SIGN DETAILS

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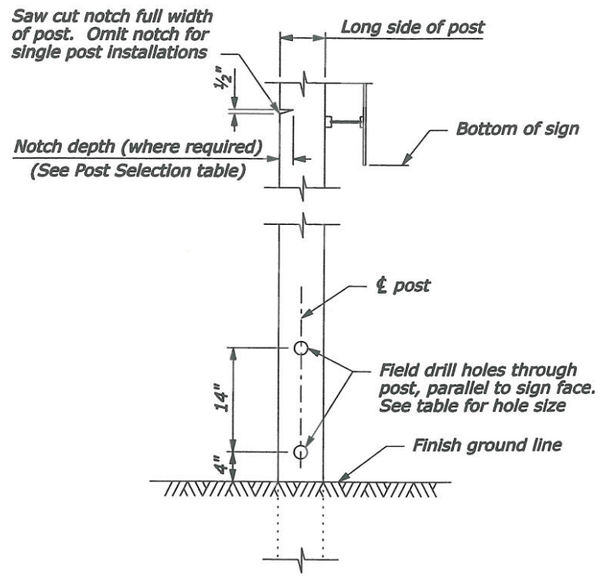
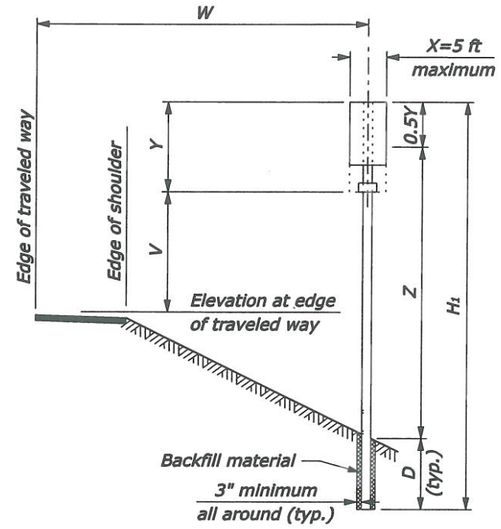
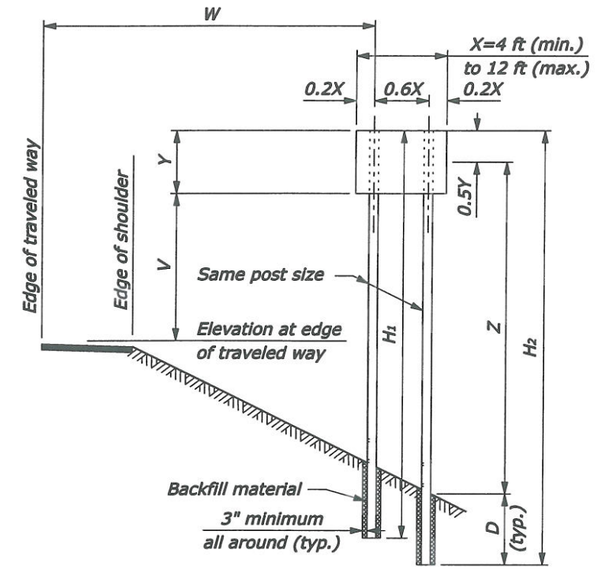
STATE	PROJECT	SHEET NUMBER
MT	PRA-GLAC 10(27)	I.5



POST DETAIL



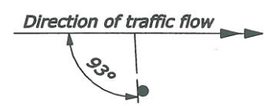
SINGLE POST SIGNS



TWO POST SIGNS

NOTE:

1. Traffic barrier protection is required for all posts larger than 6" x 8" when located within the clear zone or if the post is vulnerable to being struck when placed outside the clear zone.
2. H_1 thru H_4 indicate overall post length. Select post lengths to fit field conditions.
3. D is the minimum post embedment depth for average soil conditions. See Wood Post Selection Table below.
4. Z is the height from ground line to mid-height of sign at the longest post.
5. For the purpose of post selection X and Y are as follows:
   - Single sign, or back to back signs: X and Y are the overall dimensions of the signs.
   - Multiple sign installations: X and Y are the dimensions of a rectangle enclosing all the signs.



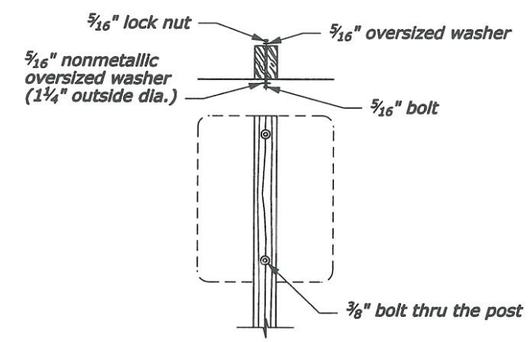
SIGN INSTALLATION ANGLE

For all retroflectorized signs where W > 25'

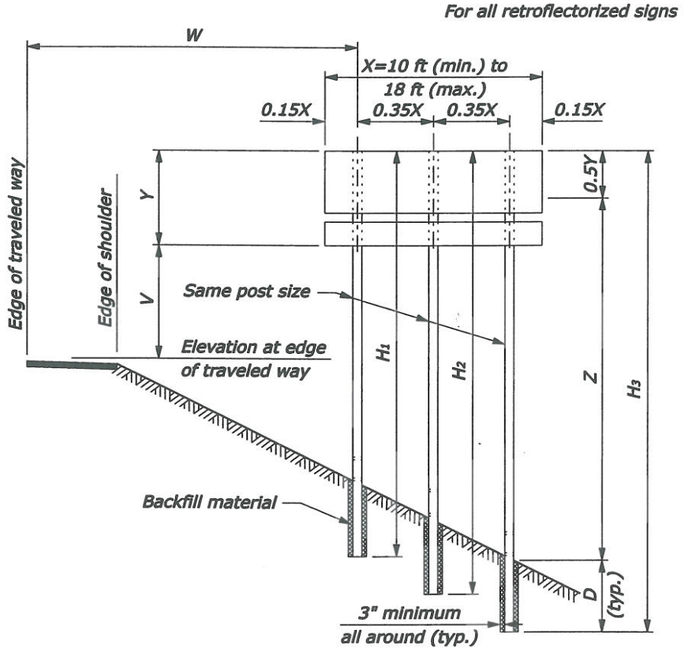
MINIMUM DISTANCE TO SIGN		
Location	Lateral Offset (W)	Mounting Height (V)
Rural Districts	6 ft	5 ft
Business or Residential Districts	2 ft from curb	7 ft

V may be reduced by 1 foot in rural districts for a secondary sign mounted below another sign.

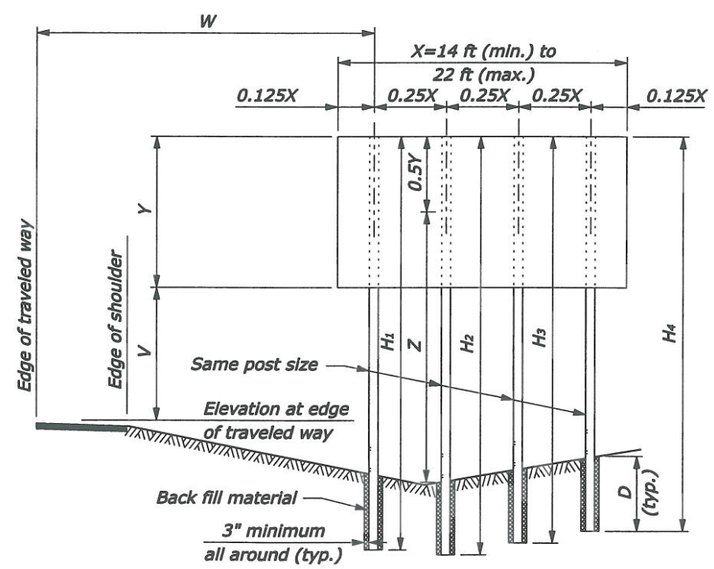
PRELIMINARY



TYPICAL MOUNTING FOR SIGNS WITHOUT ANGLES



THREE POST SIGNS



FOUR POST SIGNS

WOOD POST SELECTION TABLE						
POST SIZE (inch)	NUMBER OF POSTS 1	2	3	4	D	Notch depth and hole diameter
	Product of X-Y-Z in CUFT					
4 x 4	80	155	235	310	3'-0"	-
4 x 6	180	385	545	725	4'-0"	1¾"
6 x 6	235	475	710	950	4'-0"	1¾"
6 x 8	300	850	1280	1700	4'-0"	2½"
6 x 10	385	1180	1170	2360	5'-0"	-
8 x 10	575	1610	2410	3215	5'-0"	-
8 x 12	775	2310	3465	4620	6'-0"	-

Values shown are the maximum permitted. If the product of XYZ exceeds the limit for the largest post, use steel post installation.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

PERMANENT SIGN INSTALLATION WOOD POSTS

DETAIL APPROVED FOR USE --/----

REVISED: 2/1998
DRAFT: 1/2007

DETAIL W633-7

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