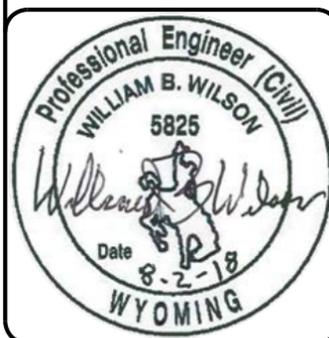


TRANSVERSE DOWEL JOINTED CONCRETE PAVEMENT NOTES

See **Concrete Pavement Joints** Standard Plan for joint details.

General Requirements

- ① End tapered paving sections at a transverse joint.
- ② The plans will specify which ramps require transverse doweled joints. When specified, begin the use of type "D" joints in lieu of type "A" joints at the gore area where the ramp separates from mainline and gore area pavement slabs as shown. Extend type "D" joints across the entire width of the ramp.
- ③ Where the ramp pavement is longitudinally tied to the mainline pavement and where the transverse joints are at an angle to the mainline transverse joints, do not dowel the transverse ramp joints.



Designed by: WBIW
 Drawn by: JK
 Checked by: WBIW
 Previous Dwg. No. 414-1A

DIVIDED HIGHWAYS AND TWO-WAY TRAFFIC HIGHWAYS (PLANT MIX SHOULDERS)

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



CONCRETE PAVEMENT STANDARD PLAN

STANDARD PLAN NUMBER
414-1B
 SHEET 1 of 4
 Issued by: ENGINEERING SERVICES
 Date Issued: OCTOBER 2018

Continued

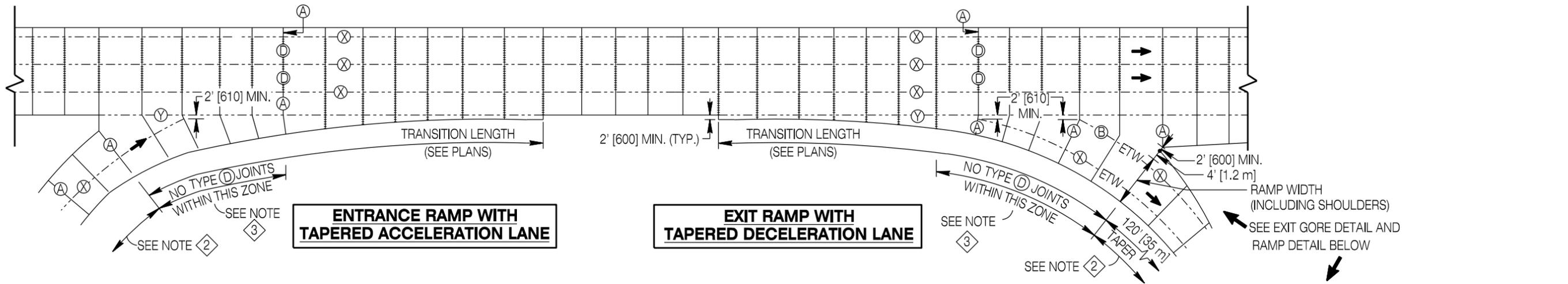
④ Adjacent to every approach slab, a reinforced concrete slab 16 ft. [4.8 m] in length extending the entire width of the pavement is required with #4 [#13] rebar placed at 12 in. [300] centers in each direction with 3 in. [75] minimum cover from any surface. A type "E" joint is required between this slab and the conventional pavement.

Longitudinal Joints

Substitute type "Y" joints for type "X" joints when a construction joint is required. Do not space longitudinal joints greater than 14 ft. [4.2 m].

Transverse Joints

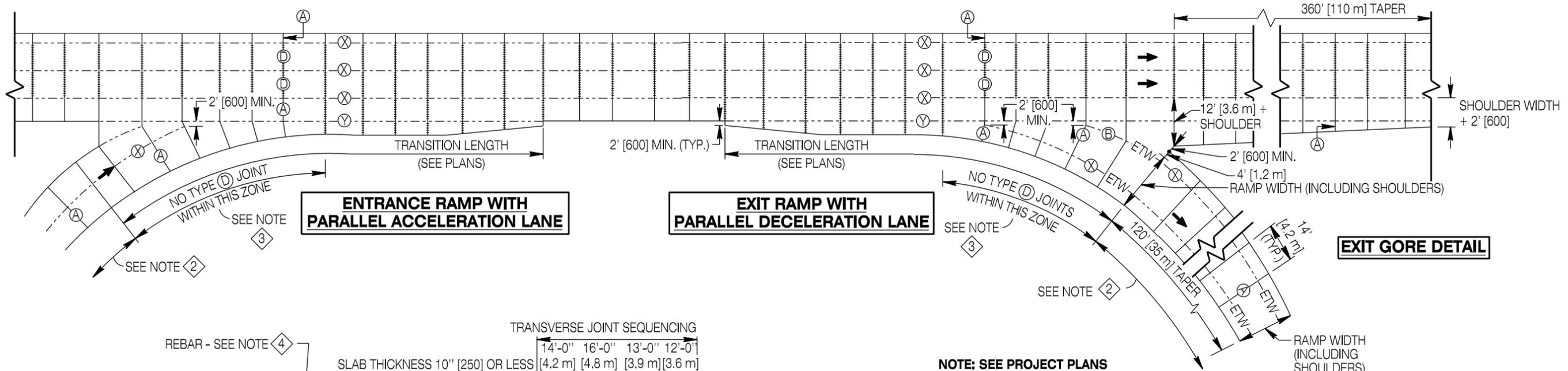
Details are for transverse dowel jointed Concrete Pavement. Use type "A" joints for type "D" joints when transverse doweled joints are not specified. Space transverse joints on ramps at 14 ft. [4.2 m] and perpendicular to centerline. Use type "D" transverse joints perpendicular to the roadway. Use type "D" transverse joints in climbing lanes. Do not place transverse joint at less than 6 ft. [1.8 m] spacing. Use type "D" joints full width of the pavement at construction joint locations for transverse dowel jointed concrete.



ENTRANCE RAMP WITH TAPERED ACCELERATION LANE

EXIT RAMP WITH TAPERED DECELERATION LANE

RAMP WIDTH (INCLUDING SHOULDERS)
SEE EXIT GORE DETAIL AND RAMP DETAIL BELOW

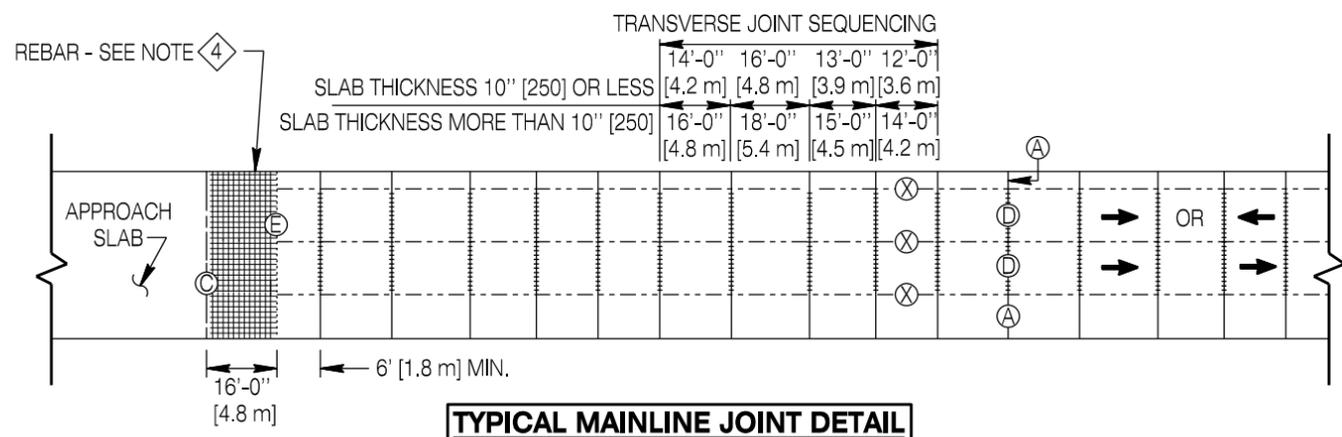


ENTRANCE RAMP WITH PARALLEL ACCELERATION LANE

EXIT RAMP WITH PARALLEL DECELERATION LANE

EXIT GORE DETAIL

SHOULDER WIDTH + 2' [600]



TYPICAL MAINLINE JOINT DETAIL

APPLIES TO DIVIDED HIGHWAYS AND TWO-WAY TRAFFIC ROADWAYS

NOTE: SEE PROJECT PLANS FOR WIDTHS

See Notes On **Sheet 1**

JOINT LEGEND	
—(A)—	TYPE A
---(B)---	TYPE B
---(C)---	TYPE C
---(D)---	TYPE D
---(E)---	TYPE E
---(X)---OR---(Y)---	TYPE X OR Y (SEE NOTES)
MISC. LEGEND	
ETW	EDGE OF TRAVELED WAY

Designed by: WBW
Drawn by: JK
Checked by: WBW
Previous Dwg. No. 414-1A

DIVIDED HIGHWAYS AND TWO-WAY TRAFFIC HIGHWAYS (CONCRETE SHOULDERS)

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



WYOMING DEPARTMENT OF TRANSPORTATION



CONCRETE PAVEMENT

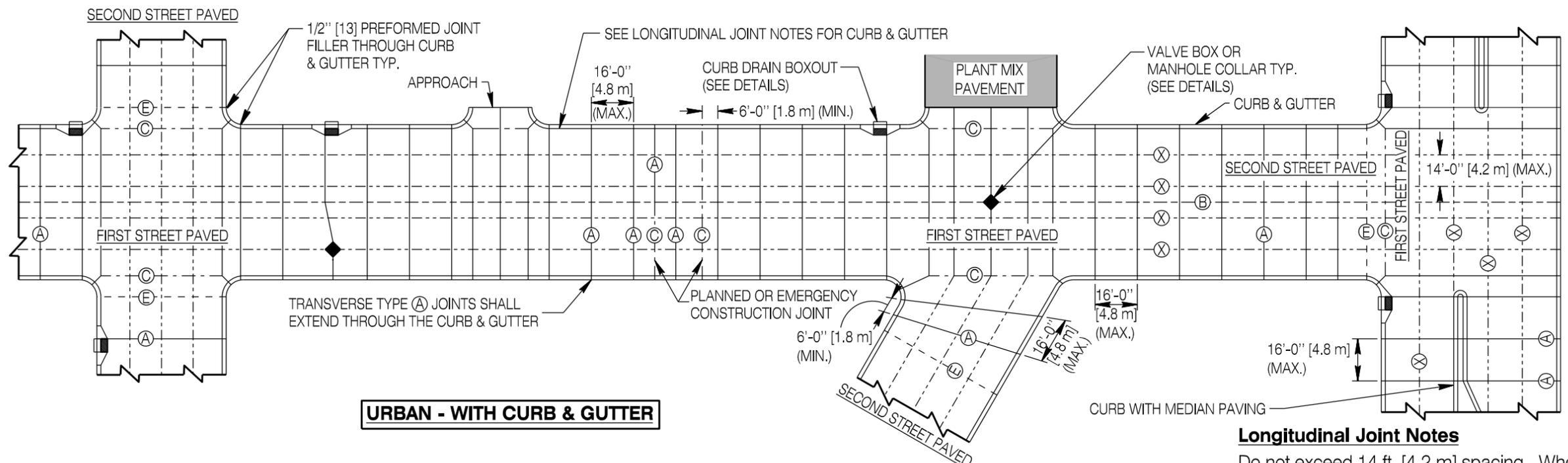
STANDARD PLAN

STANDARD PLAN NUMBER

414-1B

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Issued by: ENGINEERING SERVICES
Date Issued: OCTOBER 2018



JOINT LEGEND	
(A)	Transverse
(E)	Longitudinal
(C)	Construction
(X) or (Y)	Curbside
(B)	Centerline

URBAN PAVEMENT NOTES

- General Notes**
Whenever possible, meet the following requirements for sawing joints at intersections:
1. Intersecting joint angles at 90 degrees or greater.
 2. Minimum joint length is 2 ft. [610].
 3. Minimum slab length is 6 ft. [1.8 m].
 4. T = Slab thickness.

Longitudinal Joint Notes

Do not exceed 14 ft. [4.2 m] spacing. Whenever possible, place to coincide with lane markings.

Use type "Y" joints when a construction joint is required.

Use the following curb and gutter joints:

1. Type "Y" joint - no lateral restraint exists behind the curb.
2. Type "B" joint - full lateral constraint exists behind the curb.
 - a. Full lateral constraint exists when sidewalk or curb is placed against a foundation or other immovable object. Soil does not comprise full lateral constraint.

When curb and gutter is placed monolithically with concrete pavement, match curb and gutter depth with the pavement. Delete longitudinal curb joint if overall slab width does not exceed 14 ft. [4.2 m].

Place type "B" joint at or near the centerline of roadways 40 ft. [12.0 m] or more in width.

Transverse Joint Notes

Use type "D" joints when transverse dowel jointed concrete pavement is specified. Do not restrict longitudinal movement of transverse dowel jointed pavement slabs at intersections.

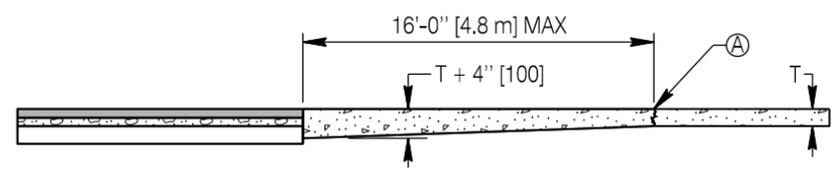
Extend transverse joint sawing through the curb when curb and gutter is placed monolithically with pavement. Do not saw intermittent joints.

When design speeds exceed 45 mph [70 km/h], skew transverse joints 1L:6W counter clockwise. Do not skew doweled transverse joints.

Do not exceed 16 ft. [4.8 m] spacing.

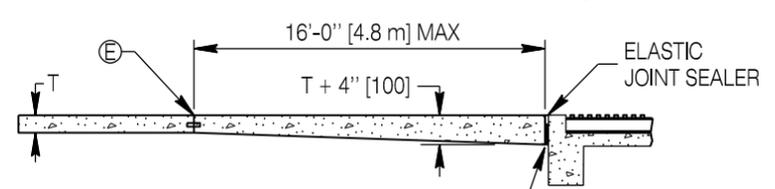
Do not terminate transverse joints at the centerline. Span transverse joints the full width of pavement.

URBAN - WITH CURB & GUTTER



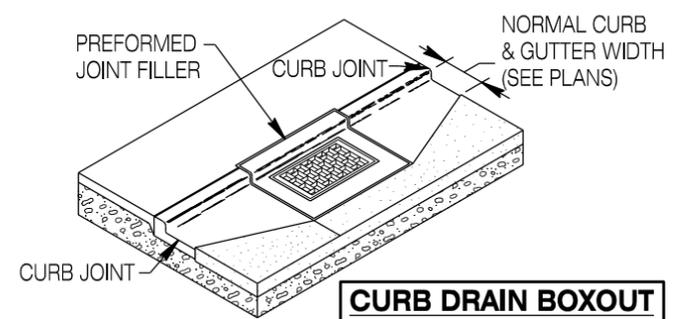
CONCRETE PAVEMENT TO PLANT MIX PAVEMENT TRANSITION

LONGITUDINAL SECTION VIEW



TRANSITION TO CATTLE GUARD OR RAILROAD CROSSING

LONGITUDINAL SECTION VIEW



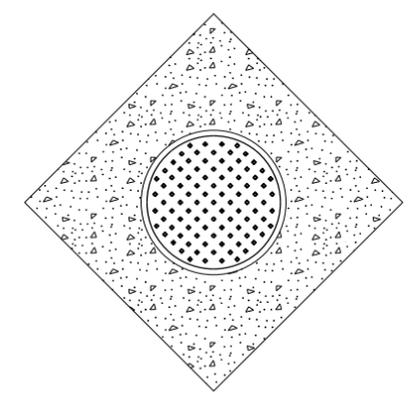
CURB DRAIN BOXOUT

SEE **CURB AND GUTTER** STANDARD PLAN FOR DETAILS



VALVE BOX COLLAR

SEE **VALVE BOX COLLARS** STANDARD PLAN FOR DETAILS



CONCRETE MANHOLE COLLAR

SEE **MANHOLE COLLARS** STANDARD PLAN FOR DETAILS

Designed by: WBW
Drawn by: JK/RCS
Checked by: WBW
Previous Dwg. No. 414-1A

URBAN PAVEMENT DETAILS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



CONCRETE PAVEMENT

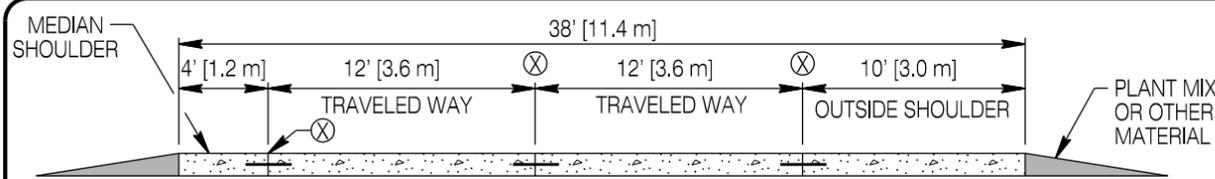
STANDARD PLAN

STANDARD PLAN NUMBER

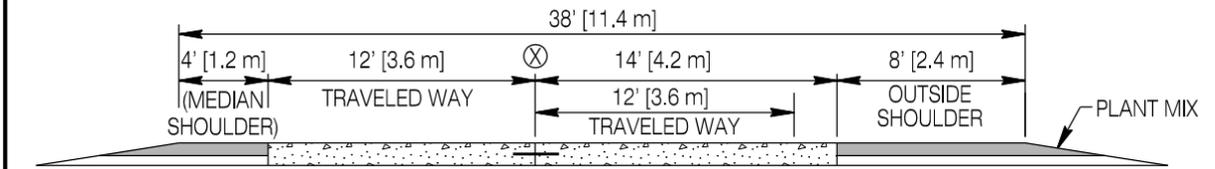
414-1B

SHEET 3 of 4

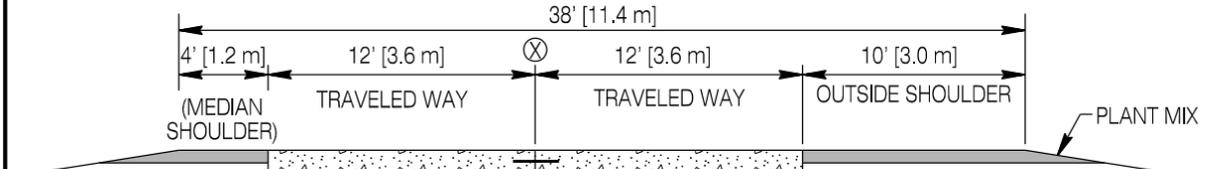
Issued by: ENGINEERING SERVICES
Date Issued: OCTOBER 2018



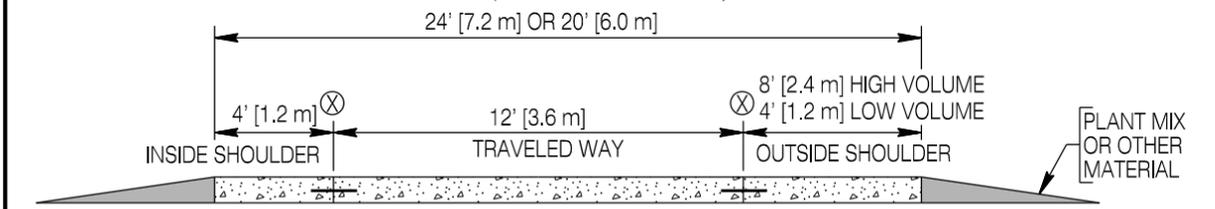
DIVIDED ROADWAYS INTERSTATE MAINLINE
(CONCRETE SHOULDERS)



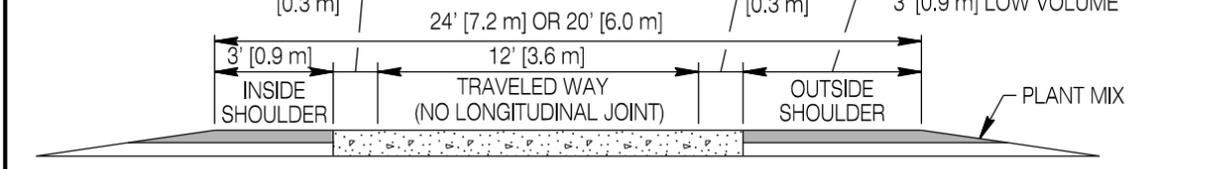
DIVIDED ROADWAYS INTERSTATE MAINLINE
(PLANT MIX SHOULDER & 14 ft. [4.2 m] WIDE CONC. SLAB.)



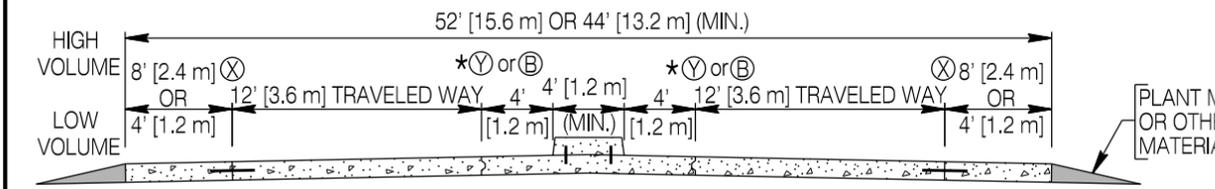
DIVIDED ROADWAYS INTERSTATE MAINLINE
(PLANT MIX SHOULDERS)



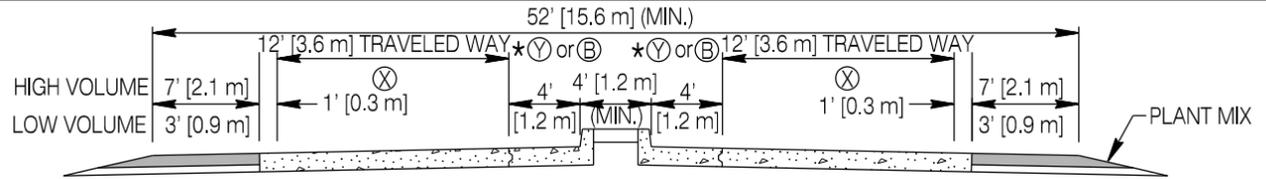
ONE LANE RAMP
(CONCRETE SHOULDERS)



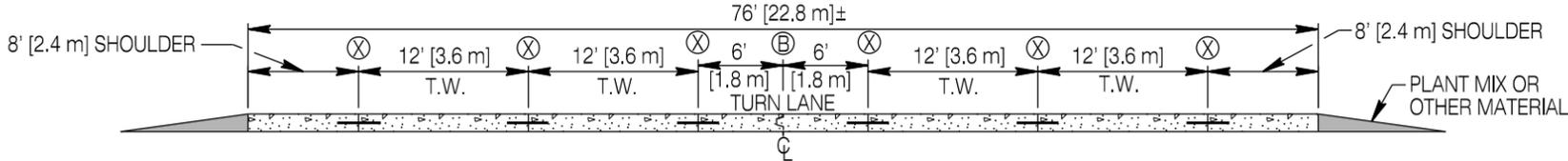
ONE LANE RAMP
(PLANT MIX SHOULDERS)



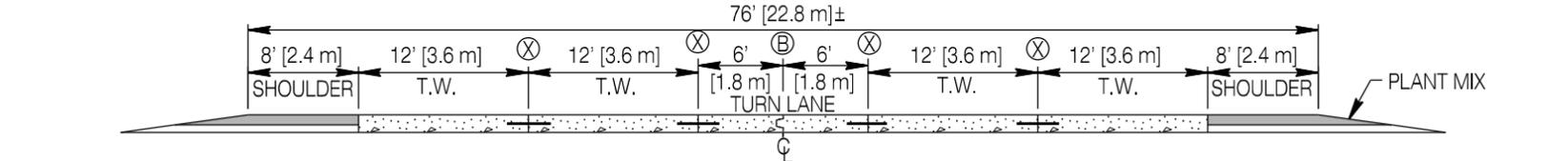
TWO LANE RAMP WITH RAISED MEDIAN
(CONCRETE SHOULDERS)



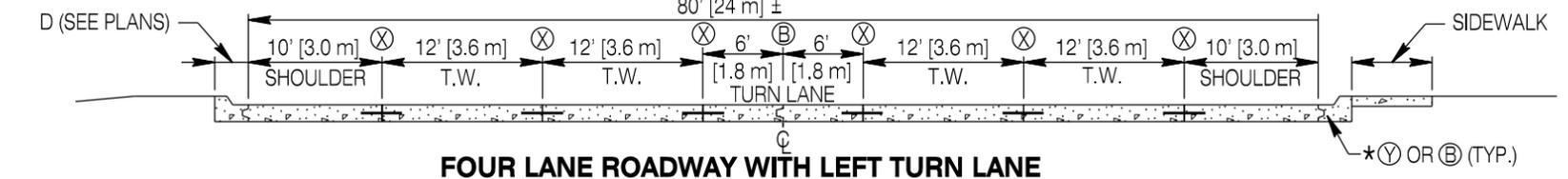
TWO LANE RAMP WITH RAISED MEDIAN
(PLANT MIX SHOULDERS)



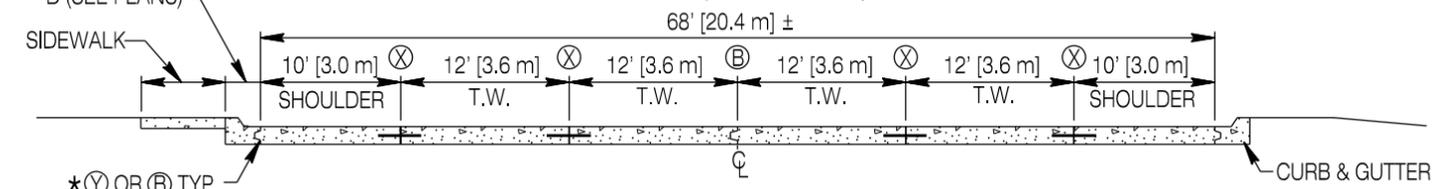
FOUR LANE ROADWAY WITH LEFT TURN LANE
(CONCRETE SHOULDERS)



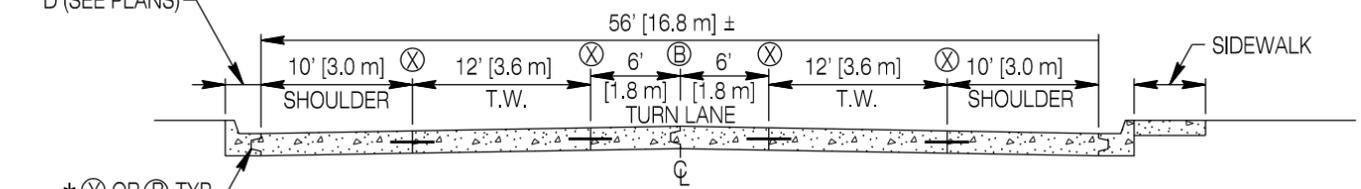
FOUR LANE ROADWAY WITH LEFT TURN LANE
(PLANT MIX SHOULDERS)



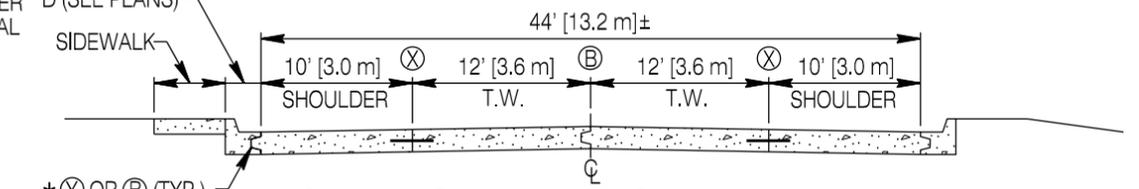
FOUR LANE ROADWAY WITH LEFT TURN LANE
(CURB & GUTTER)



FOUR LANE ROADWAY WITHOUT LEFT TURN LANE
(CURB & GUTTER)



TWO LANE ROADWAY WITH LEFT TURN LANE
(CURB & GUTTER)



TWO LANE ROADWAY WITHOUT LEFT TURN LANE
(CURB & GUTTER)

LEGEND
○ - DENOTES JOINT TYPE
T.W. - TRAVELED WAY

General Notes
★ See urban pavement details.
Construct a type "B" joint at or near the centerline of urban roadways 40 ft. [12.0 m] or more in width.
Site conditions may require joint modification as approved by the engineer.

Designed by: VBBW
Drawn by: JK
Checked by: VBBW
Previous Dwg. No. 414-1A

TYPICAL LONGITUDINAL JOINTS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.

WYOMING DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT

STANDARD PLAN

STANDARD PLAN NUMBER
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SHEET 4 of 4
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