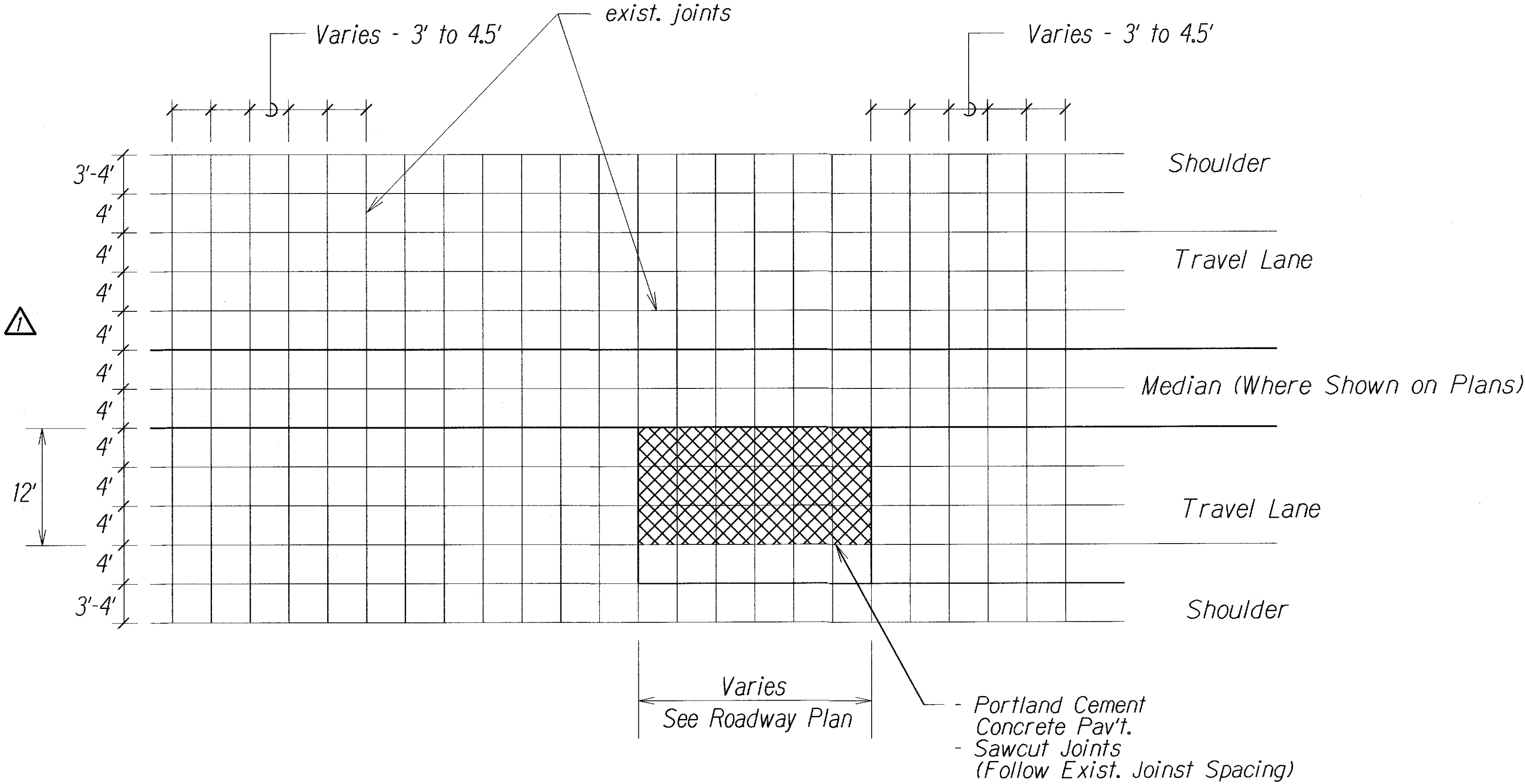
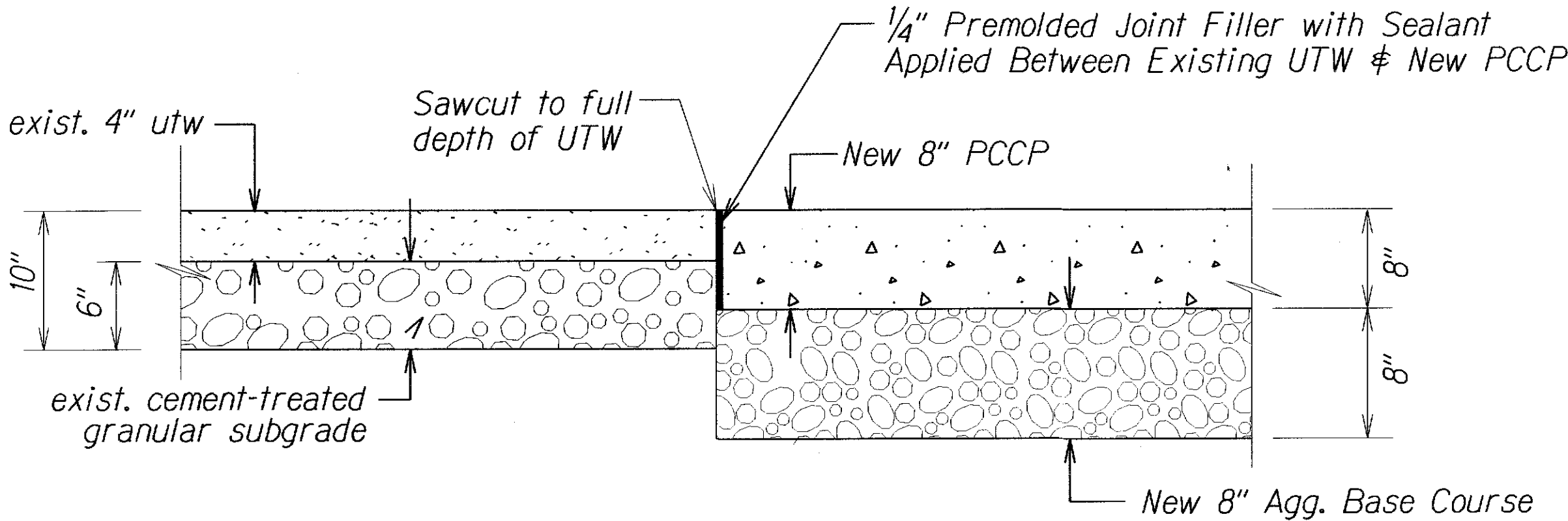


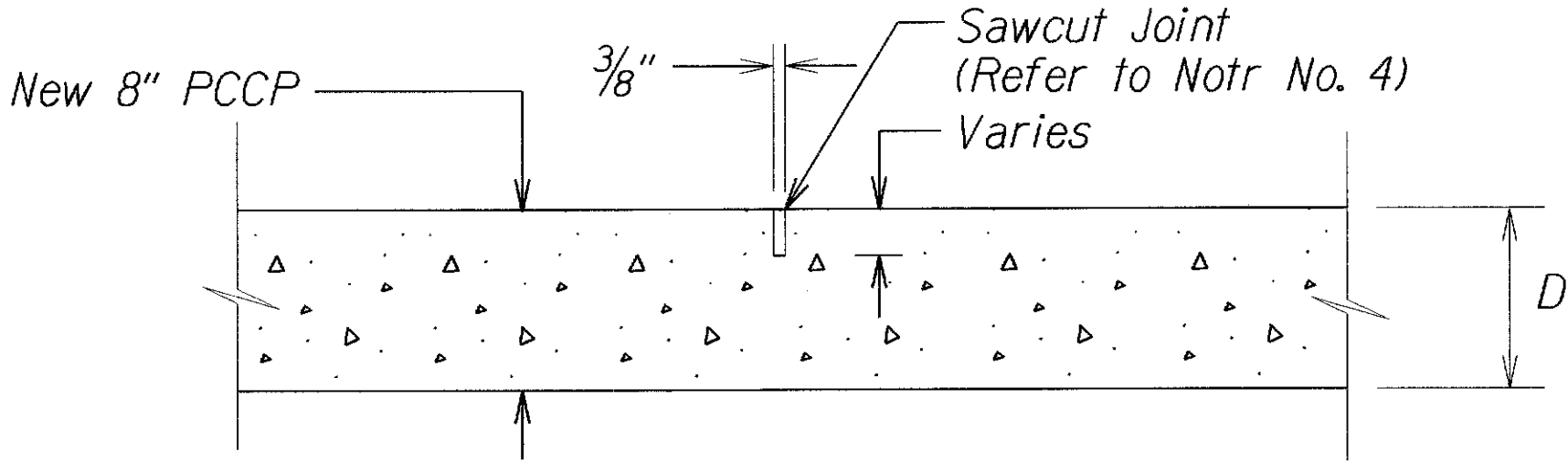
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51B-01-17M	2017	ADD. 9	21



EXISTING/NEW JOINT SPACING PLAN
Not to Scale



PORTLAND CEMENT CONCRETE PAVEMENT RECONSTRUCTION DETAIL
Not to Scale



PORTLAND CEMENT CONC. PAV'T.
TYPICAL TRANSVERSE JOINT
Not to Scale

- Notes:**
- Hawaii Standard Specifications for Road & Bridges Construction, 2005 shall be complied with. For any conflict between the standard specification and these drawings, the more stringent shall apply.
 - The Contractor shall remove all silt and debris resulting from his work deposited in drainage facilities, roadways and other areas. The cost incurred for any necessary remedial action by the Engineer shall be paid by the Contractor.
 - Saw cutting of pavement, removal and disposal of concrete pavement, cement treated granular subgrade and excavated materials, and testing of material test specimen shall be considered an incidental to Item No. 411.0100 - Portland Cement Concrete Pavement. Contractor shall protect all storm drains to prevent the discharge of foreign materials to the water.
 - 1** Saw cuts for transversal joint shall be 3/8" wide and the depth shall be 1/3 the slab thickness. Seal all joints with approved sealant. Care must be exercised so as not to damage the surrounding panels.
 - The required 7-day flexural strength for Portland Cement Concrete Pavement (PCCP) when tested in accordance with the standard specifications shall be 550 psi.

4/18/17	1 - Revise Note No. 4
4/18/17	1 - Revise Dimensions
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TYPICAL SECTIONS KAPULE HIGHWAY PAVEMENT REPAIR Halau Street to Ahukini Road Project No. 51B-01-17M Not to Scale Date: April 2017	
SHEET No. 3 OF 3 SHEETS	

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL	
PLAN	
SECTION	
DETAIL	
DATE	
BY	
CHECKED BY	
DATE	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51B-01-17M	2017	ADD. 13	21

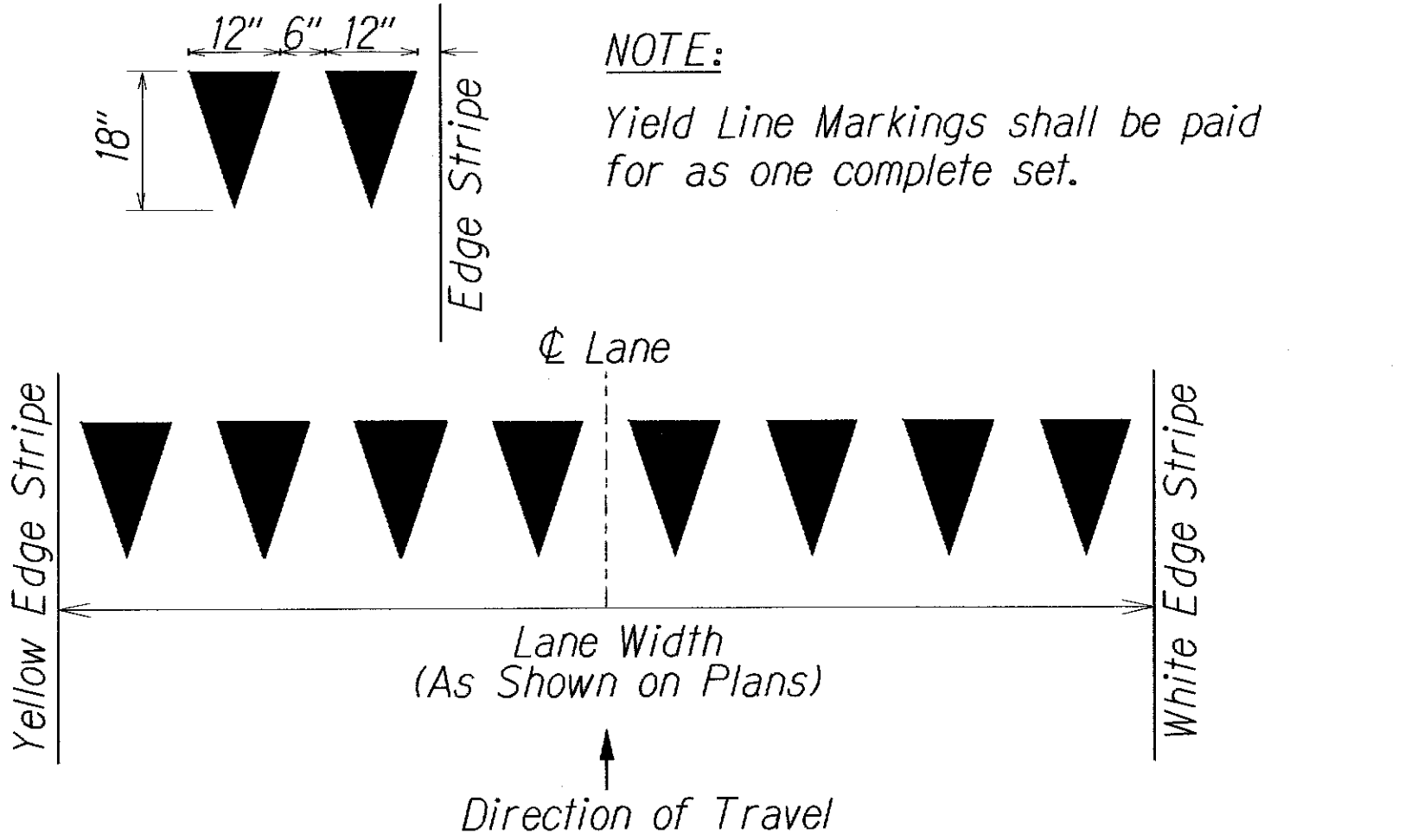
LEGEND

- 4" Wide x 10.0 Long Yellow Stripe @ 40.0' o.c.
(Tape, Type I or Thermoplastic Extrusion)
- Type C Raised Pavement Markers @ 40'-0" o.c.
- 8" White Stripe with Type C Raised Pavement Markers @ 20'-0" o.c.
(Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow Stripes with Type D Raised Pavement Markers on both outside edges of yellow line @ 10'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow Stripes with Type H Raised Pavement Markers on both outside edges of yellow line @ 10'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" Yellow Edge Stripe with Type H Raised Pavement Markers @ 30'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- Lane Change Restriction Marking
4" Wide x 10.0 Long Yellow Stripe @ 20.0' o.c.
(Tape, Type I or Thermoplastic Extrusion)
- Type C Raised Pavement Markers @ 20'-0" o.c.
4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
- 4" or 8" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" White Guide Lines (Tape, Type III or Thermoplastic Extrusion except for bus bays)
- Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
- Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
- Channelizing Island or Deceleration Lane Gore (Tape, Type II or Thermoplastic Extrusion)
- Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)
- ONLY Pavement Word (Tape, Type III or Thermoplastic Extrusion)

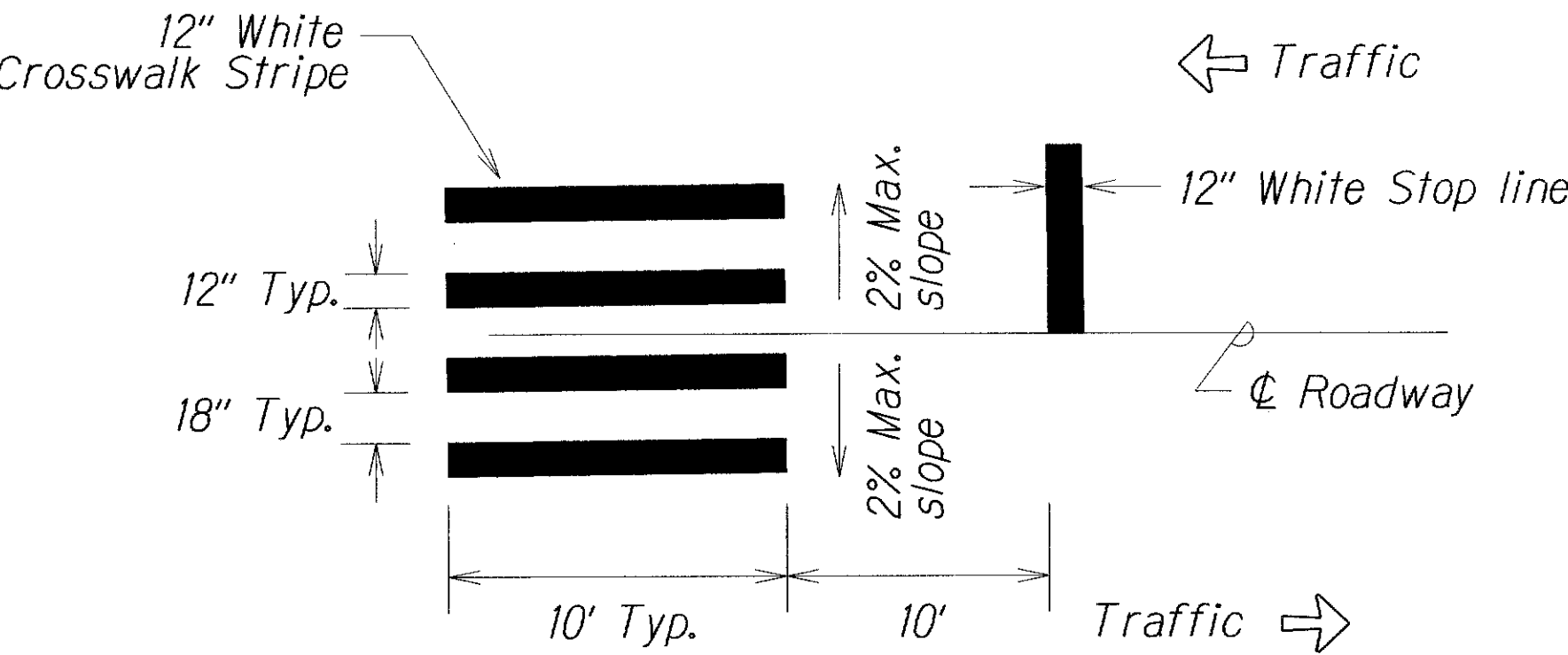
- 4" Wide x 10.0 Long Yellow Stripe @ 20.0' o.c.
(Tape, Type I or Thermoplastic Extrusion)
- Type D Raised Pavement Markers @ 20.0' o.c.
(Passing Direction)
- Type D Raised Pavement Markers @ 20.0' o.c.
(No-Passing Direction)
- 4" Single Solid Yellow Stripe (Tape, Type I or Thermoplastic Extrusion)
- Extension of Edge Line, 4" Wide x 2'-0" Long White Stripe @ 10'-0" o.c. w/Type C Markers @ 40'-0" o.c.
(Tape, Type III or Thermoplastic Extrusion)
- ②
- Crosswalk and Stop Line. All Stop Lines shall be 10'-0" from Crosswalk unless otherwise noted. The circled number indicates the number of lanes for payment
(Tape, Type III or Thermoplastic Extrusion)

NOTES

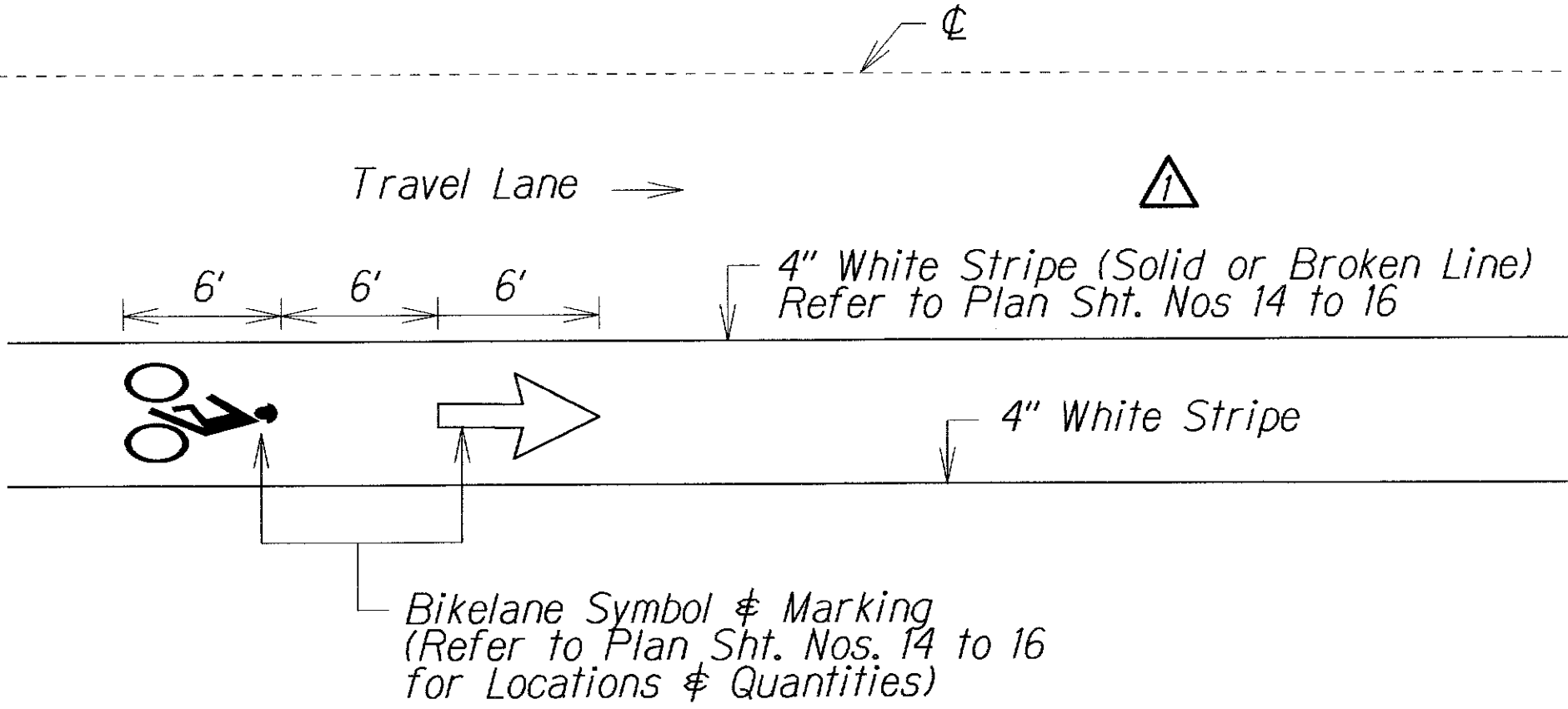
- Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
- Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be incidental to the various pavement marking items.
- Raised pavement markers shall not be installed within crosswalks.
- Final locations of all stop lines shall be approved by the Engineer prior to installation.
- All pavement striping shall be as noted on the legend or plans.
- Pavement marking (Tape or Thermoplastic Extrusion) over existing and new pavement shall be applied with an approved primer as recommended by the manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
- The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer. The signs shall be kept in place for the duration of the project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic control signs called for in Section 645 - Work Zone Traffic Control. The advance construction warning signs shall be new and become the property of the Contractor.
- Bikelane pavement symbol and marking shall conform to the latest editions and amendments of the Manual on Uniform Traffic Control Devices.
- All pavement markings and striping at portland cement concrete pavement shall be surrounded by a 2" wide non-reflective black border. Non-reflective boarder shall be Sealmaster Fast-Dry Traffic Paint or approved equal. Follow manufacturer's installation recommendation. This work shall be considered incidental to various contract items.



YIELD LINE DETAIL
Not to Scale



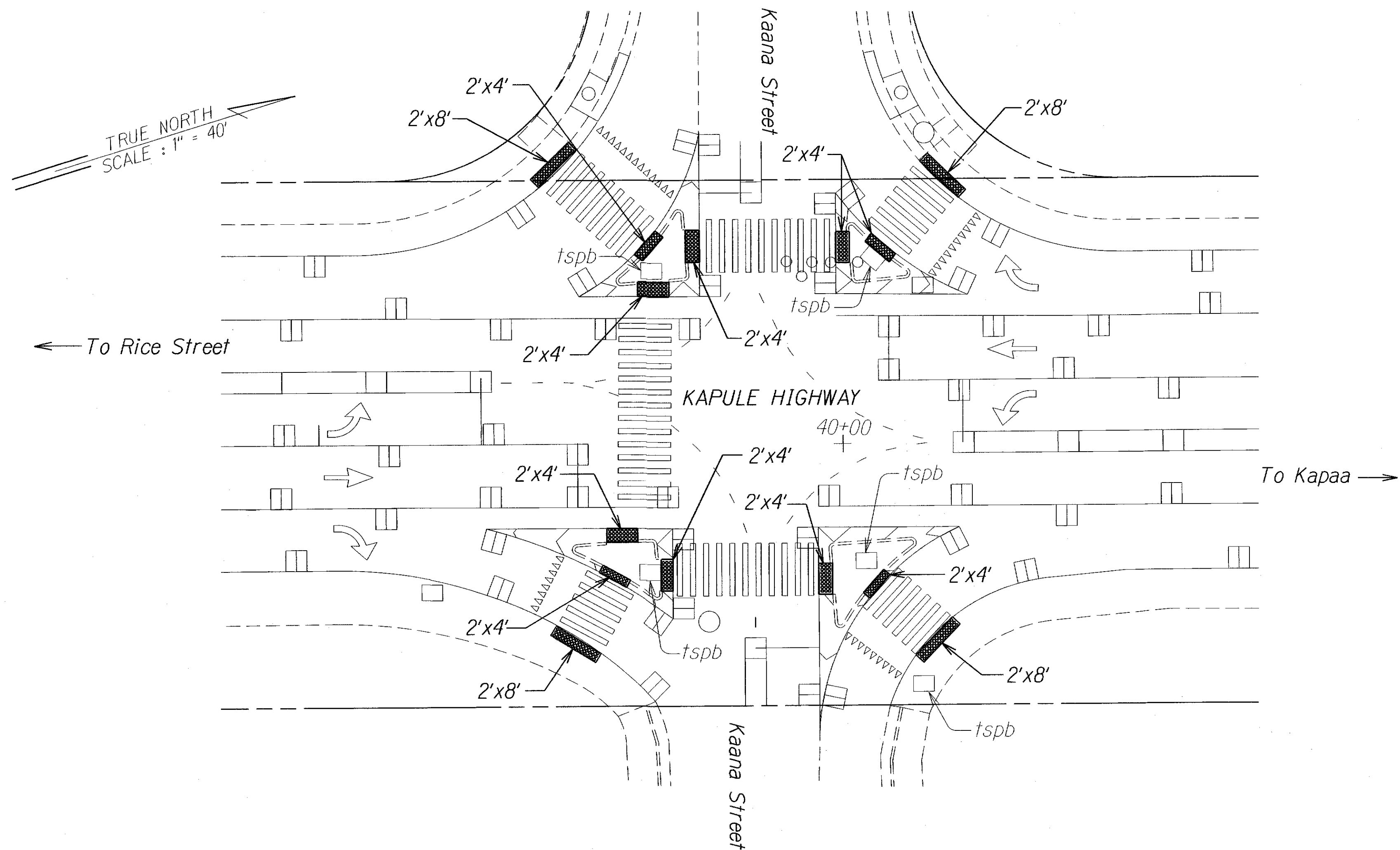
CROSSWALK DETAIL
Not to Scale



PAVEMENT MARKING FOR BICYCLE LANE
Not to Scale

4/18/17	△ - Revise White Stripe Width
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PAVEMENT MARKING LEGEND, DETAILS, NOTES & SUMMARY KAPULE HIGHWAY PAVEMENT REPAIR Halau Street to Ahukini Road Proj. No. 51B-01-17M Date: April 2017	
SHEET No. 11 OF 4 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51B-01-17M	2017	ADD. 19	21



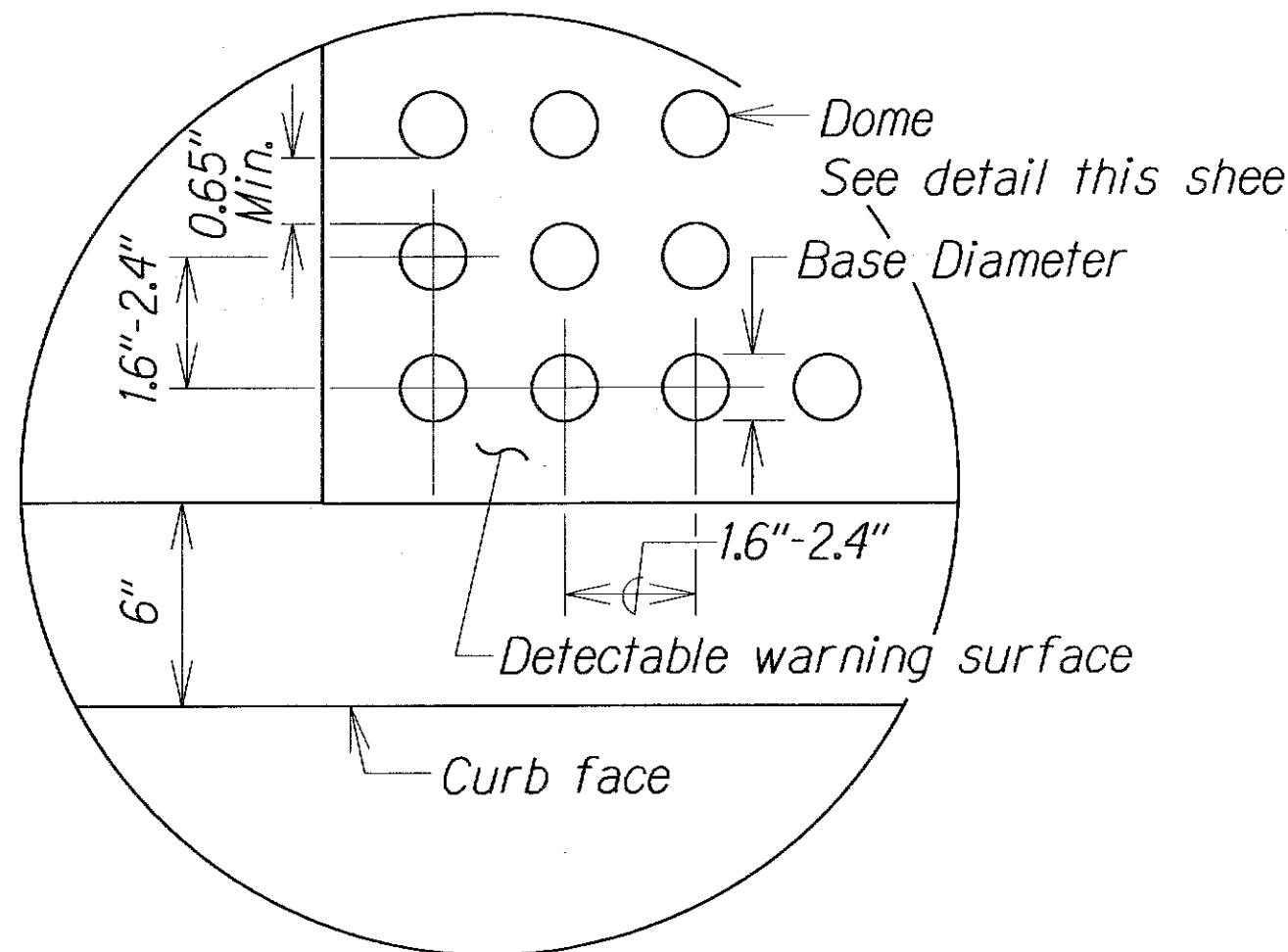
- △ LEGEND:
- Surface Applied Type Detectable Warning Sytem or Approved equal
 - Exist. Traffic Signal Pullbox
 - tspb

DETECTABLE WARNING PLAN

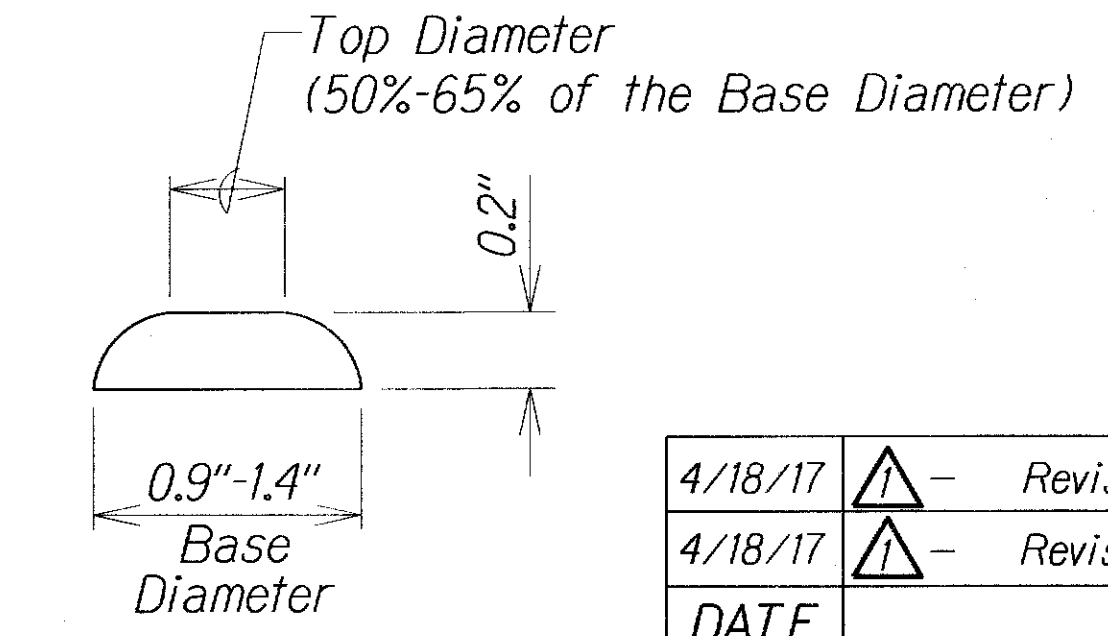
Not to Scale

NOTES:

1. Detectable warnings shall be 24 inches in the direction of travel and extend the full width of the curb ramp or flush surface (does not include flares).
2. Truncated domes shall have a diameter of 0.9 to 1.4 inch at the bottom, a diameter of 50%-65% of the base diameter at the top, a height of 0.2 inch and a center-to-center spacing of 1.6 to 2.4 inches measured along one side of a square arrangement.
3. Domes shall be aligned on a square grid in the predominant direction of travel to permit wheels to roll between the domes.
4. There shall be a minimum of 70 percent contrast in light reflectance between the detectable warning and an adjoining surface, or the detectable warning shall be "safety yellow".
5. The material used to provide visual contrast shall be an integral part of the detectable warning surface.
6. The detectable warning shall be located so that the edge nearest the curb line or other potential hazard is 6 to 8 inches from the curb line.
7. Detectable warning system or approved equal shall be installed into the surface of existing concrete pavement (follow manufacturer's installation recommendation). This work shall be paid under Item No. 629.3010 - ADA Warning System Pavement Marker.



ENLARGEMENT



DOMES SECTION

DETECTABLE WARNING SYSTEM DETAIL

Not to Scale

4/18/17	△ - Revise Legend
4/18/17	△ - Revise Note No. 7
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DETECTABLE WARNING PLAN AND DETAILS	
KAPULE HIGHWAY PAVEMENT REPAIR Halau Street to Ahukini Road Project No. 51B-01-17M	
Not to Scale	Date: April 2017
SHEET No. 1 OF 1 SHEETS	