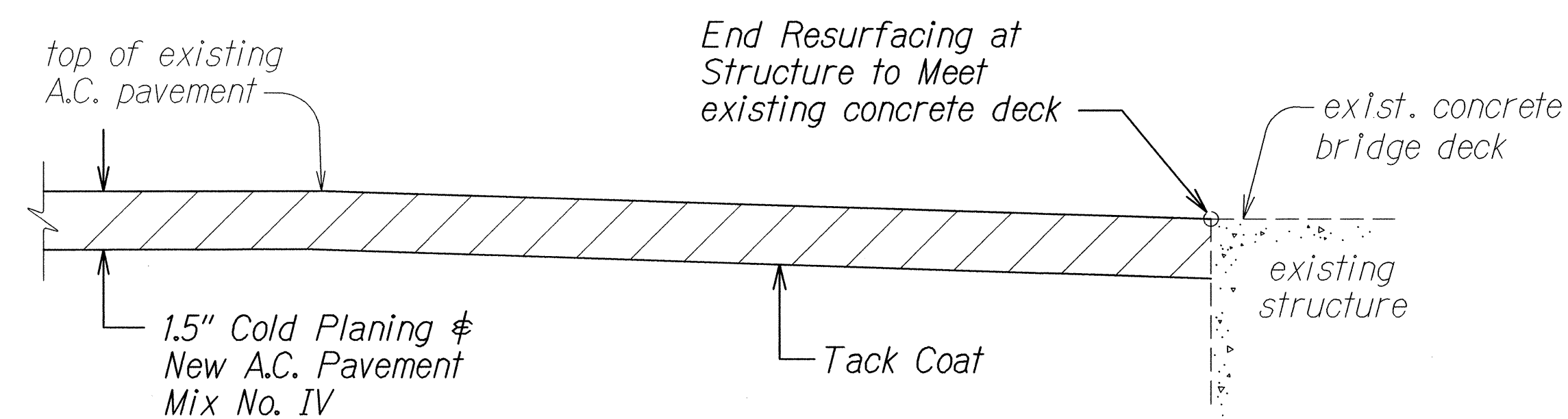
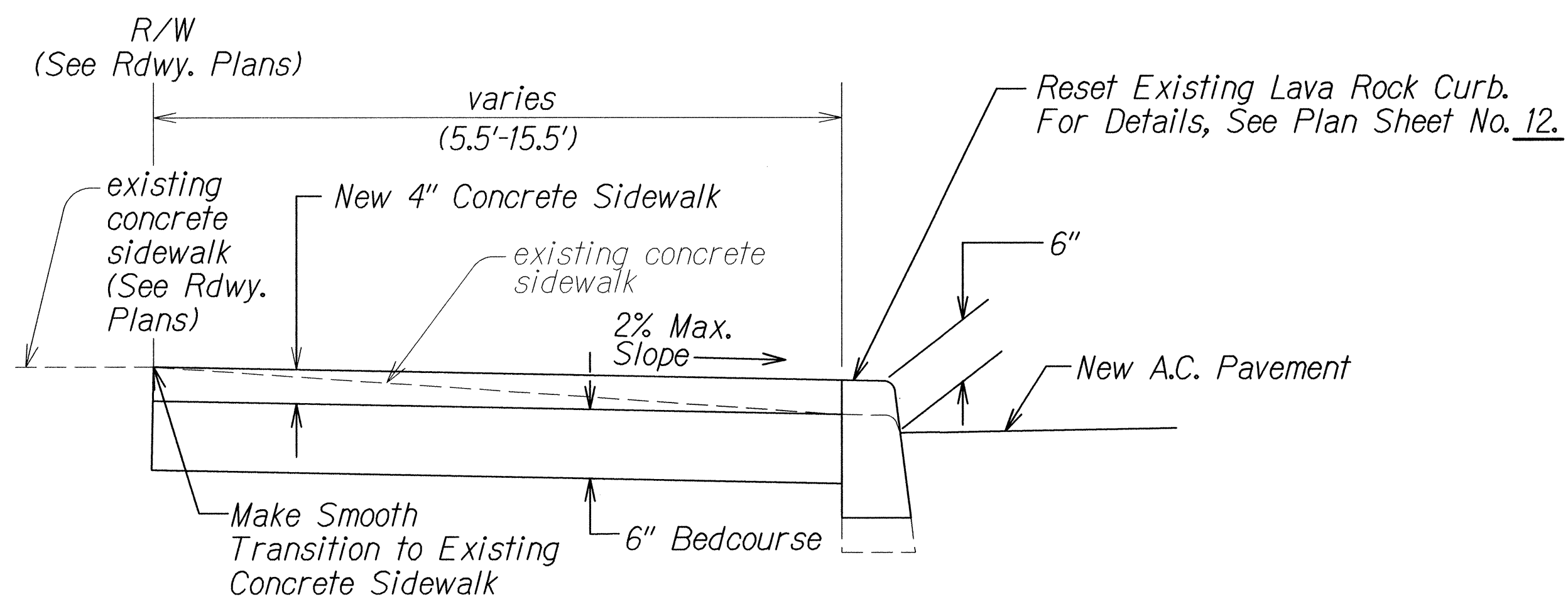


The diagram illustrates a cross-section of a road deck. A horizontal line represents the top of the existing AC pavement. Below this, a hatched area represents the 1.5" Cold Planing & New AC Pavement Mix No. IV. A dashed line indicates the top of the existing structure deck. A vertical line marks the boundary between the existing AC and the new mix. A note on the right states: "Cold Plane exist. a.c. to a depth of 1 1/2" or to the top of the structure deck, whichever is less. Thickness of New A.C. overlay shall be the thickness of the existing a.c. removed." Another note on the right points to the hatched area: "1.5" Cold Planing & New A.C. Pavement Mix No. IV (Hatched Area)". A note on the left points to the boundary line: "Tack Coat". A note on the right points to the dashed line: "top of existing structure deck".

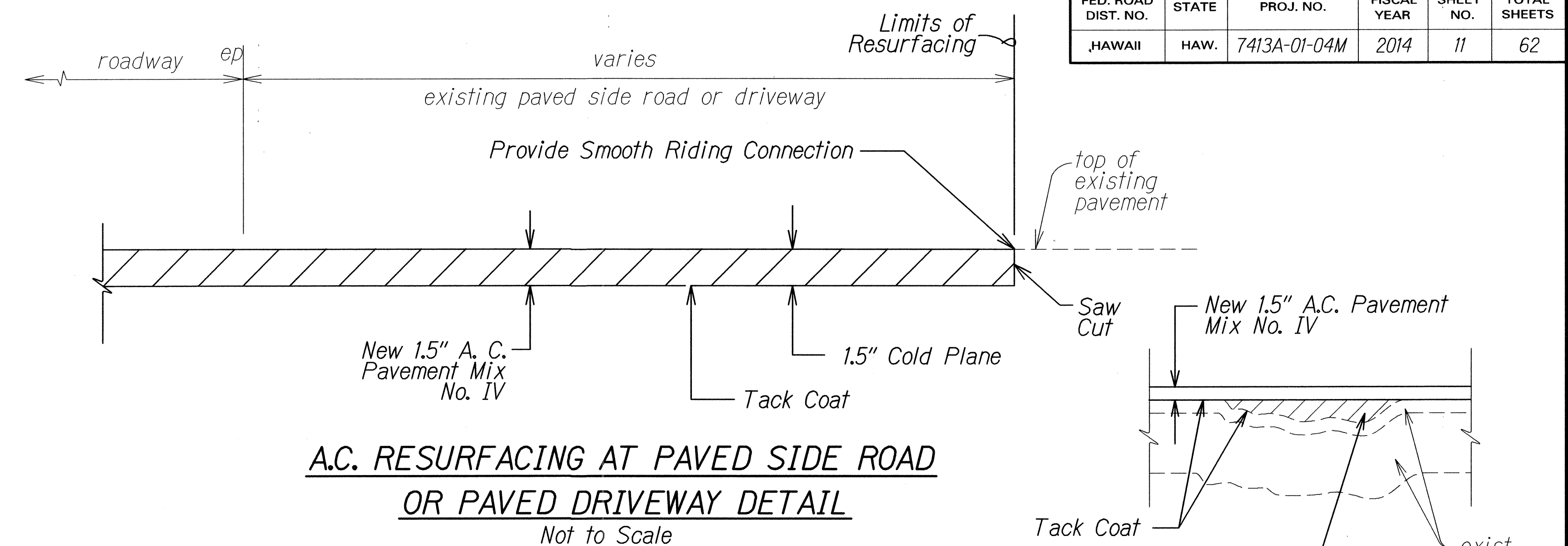
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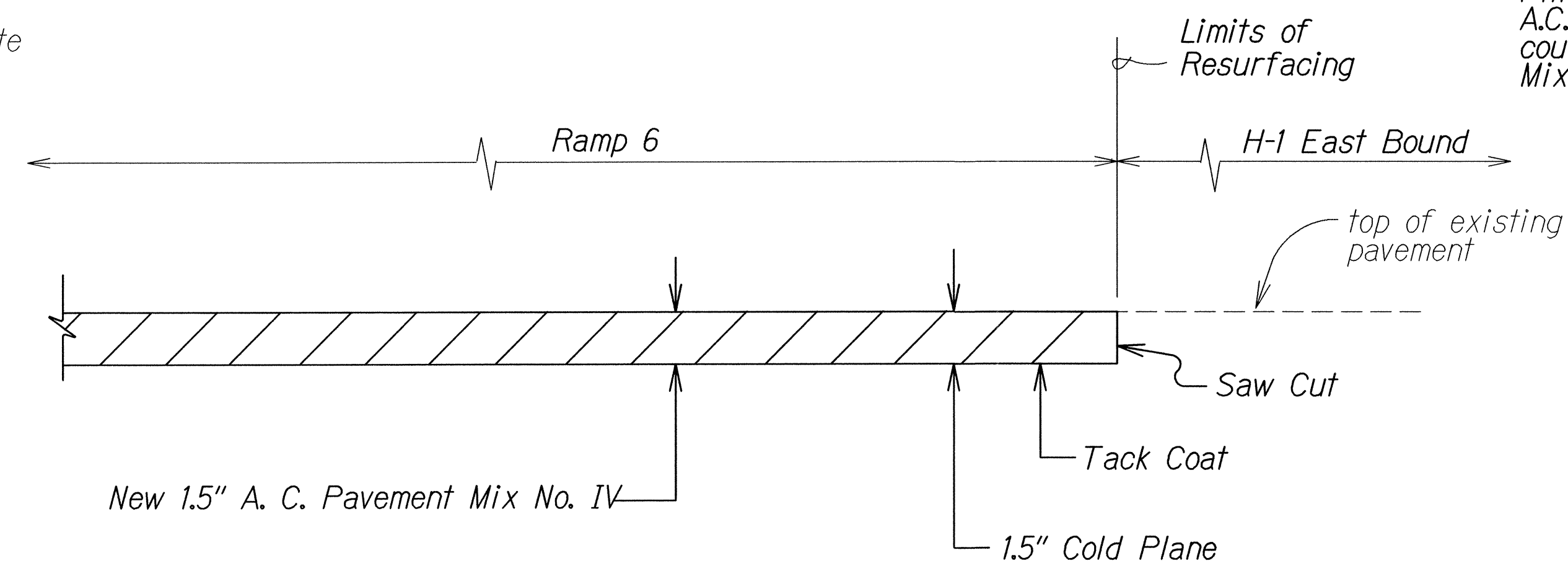
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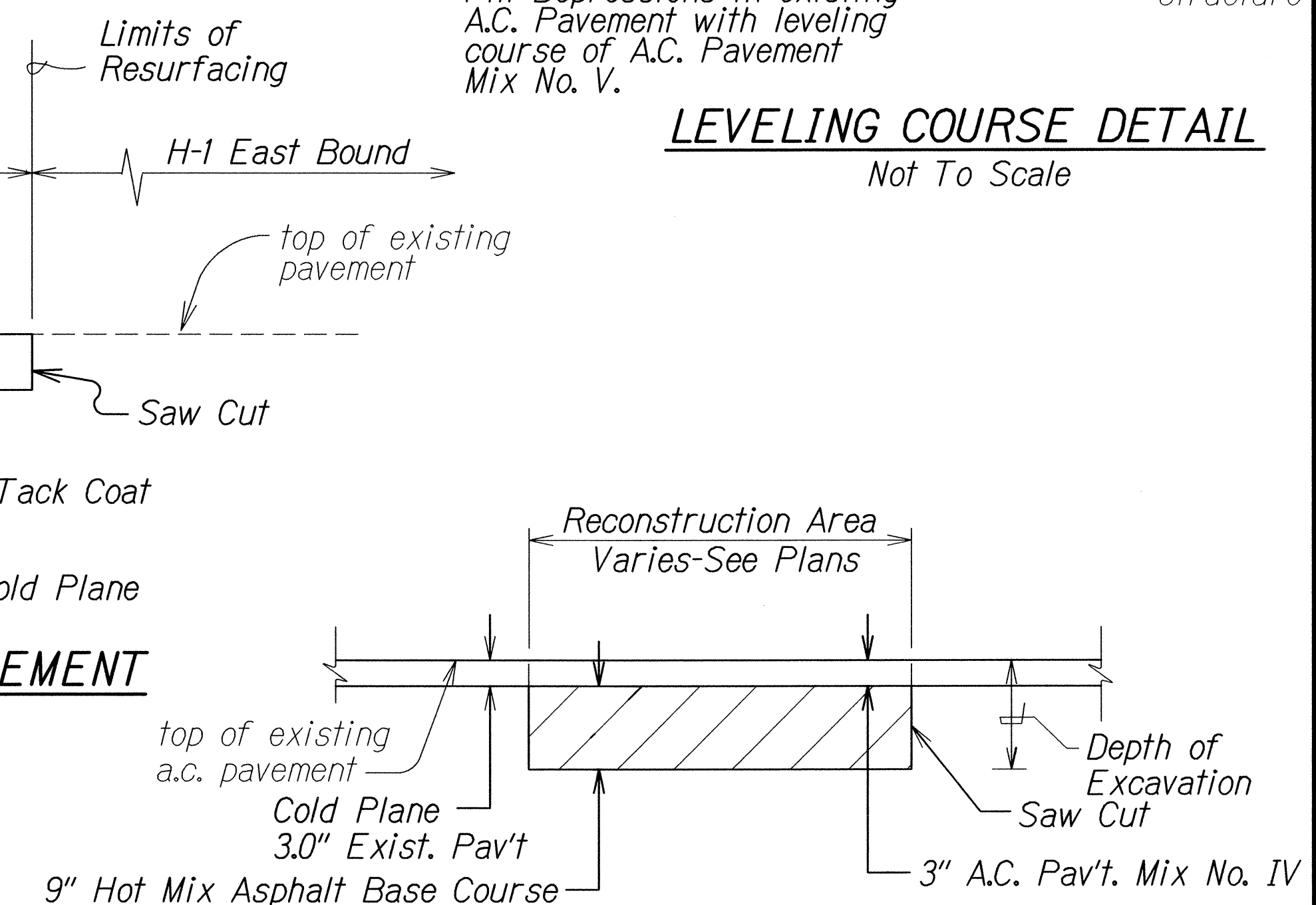
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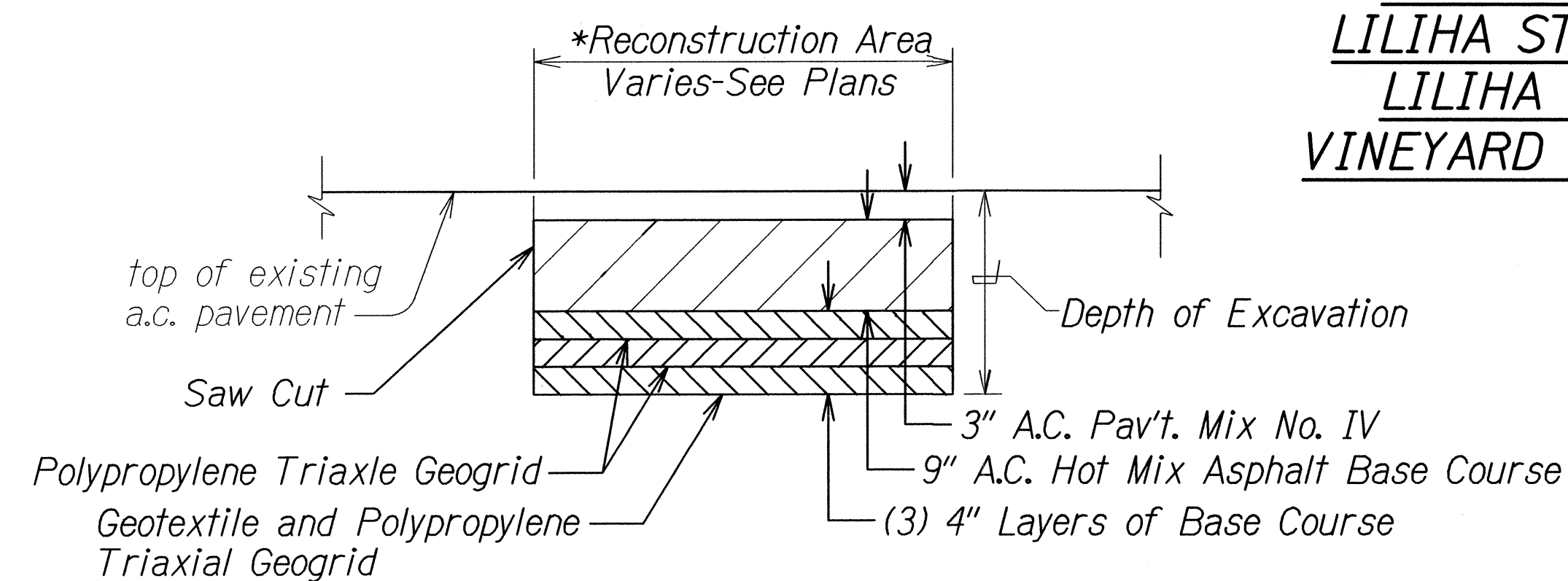
Not to Scale



Not to Scale



Not To Scale



A.C. PAVEMENT RECONSTRUCTION DETAIL

Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

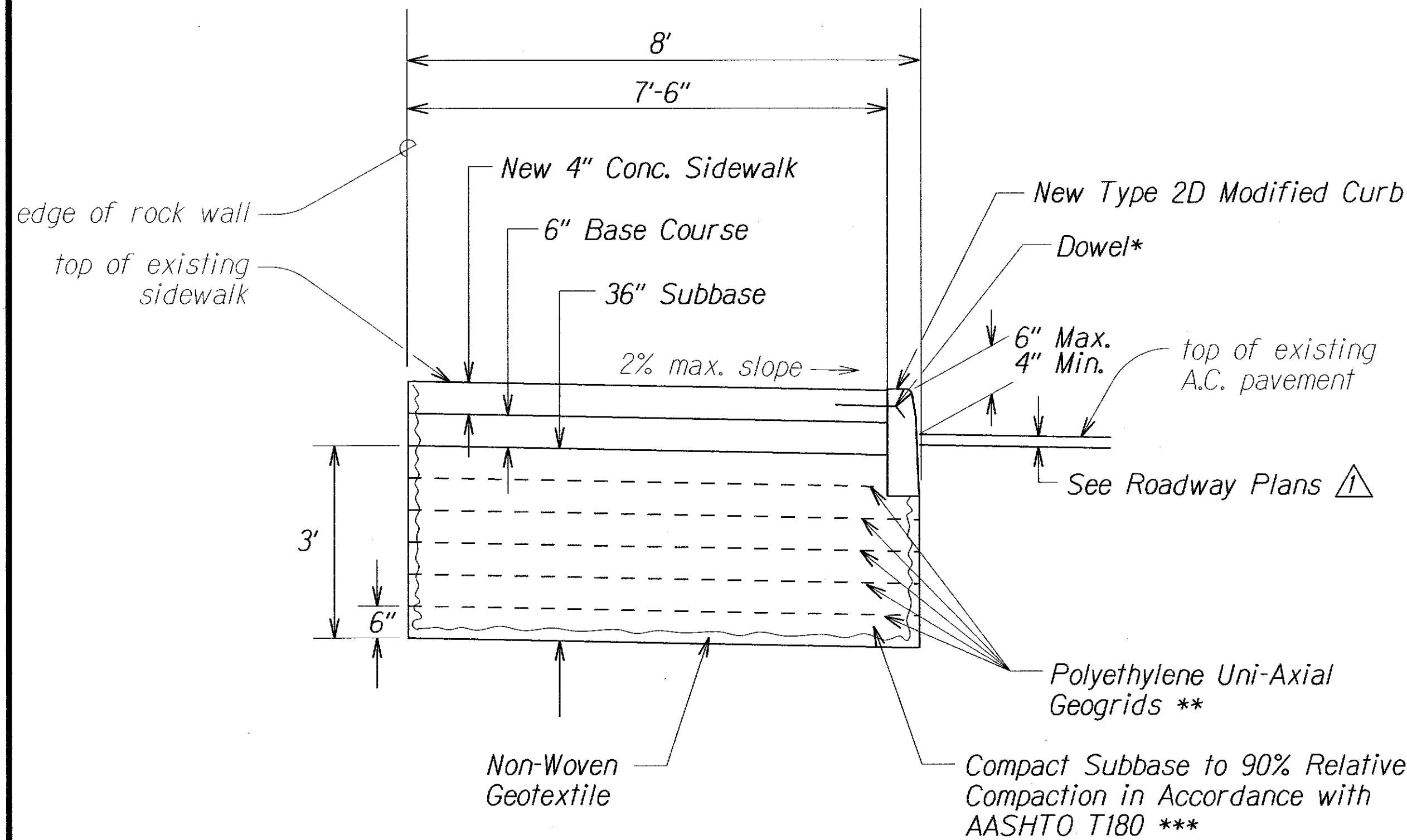
DETAILS

LILIHA STREET REHABILITATION
North King Street to School Street
Project No. 7413A-01-04M

Scale: As Noted Date: April, 2014

SHEET No. 1 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7413A-01-04M	2014	C.O. ADD. 12	62

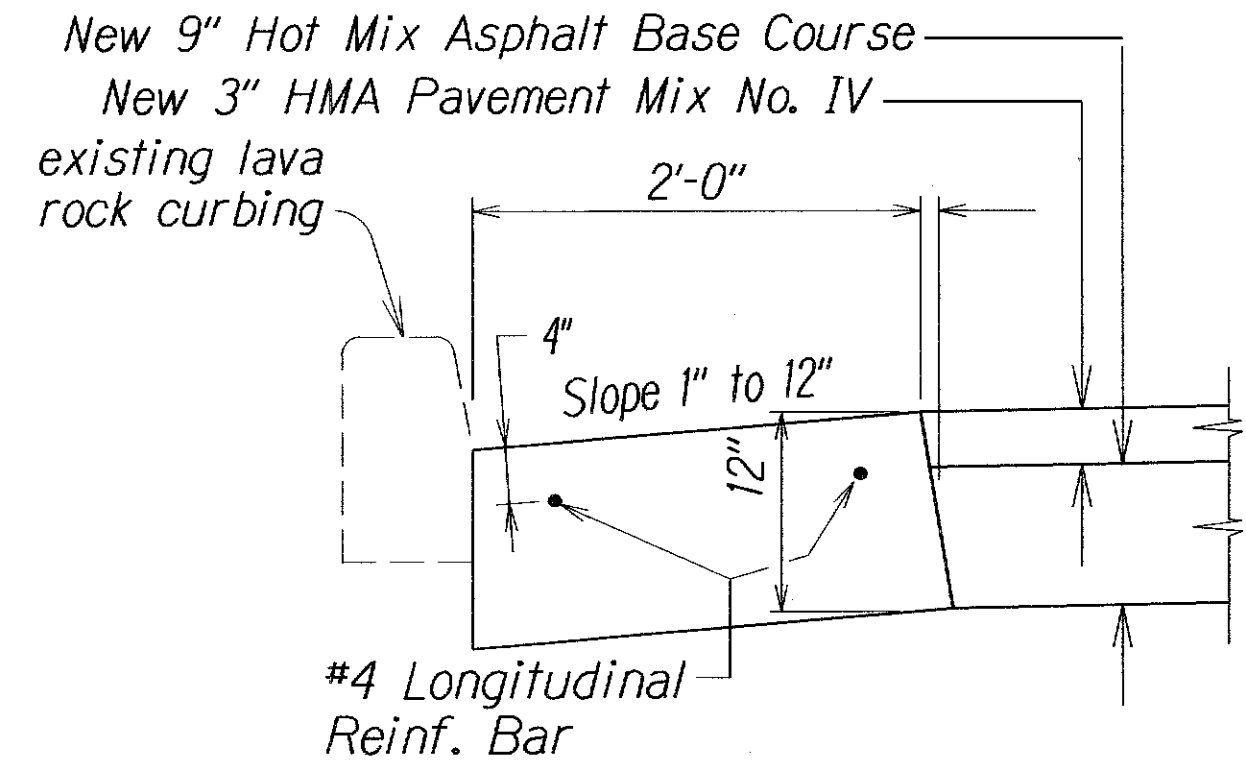


*Dowel curb and sidewalk together with 18" long #4 deformed rebars spaced 12" on-center. Bend dowel at back of curb as shown.

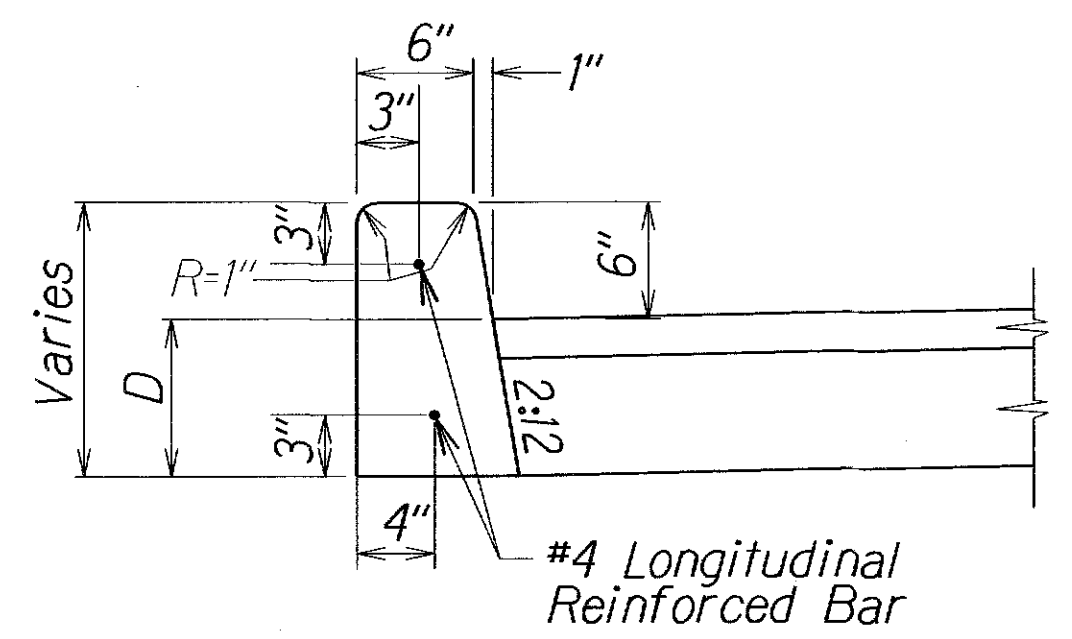
** Place geogrids at 6" spacing

*** Subbase should consist of 10% to 20% fines (material that passes the #200 sieve)

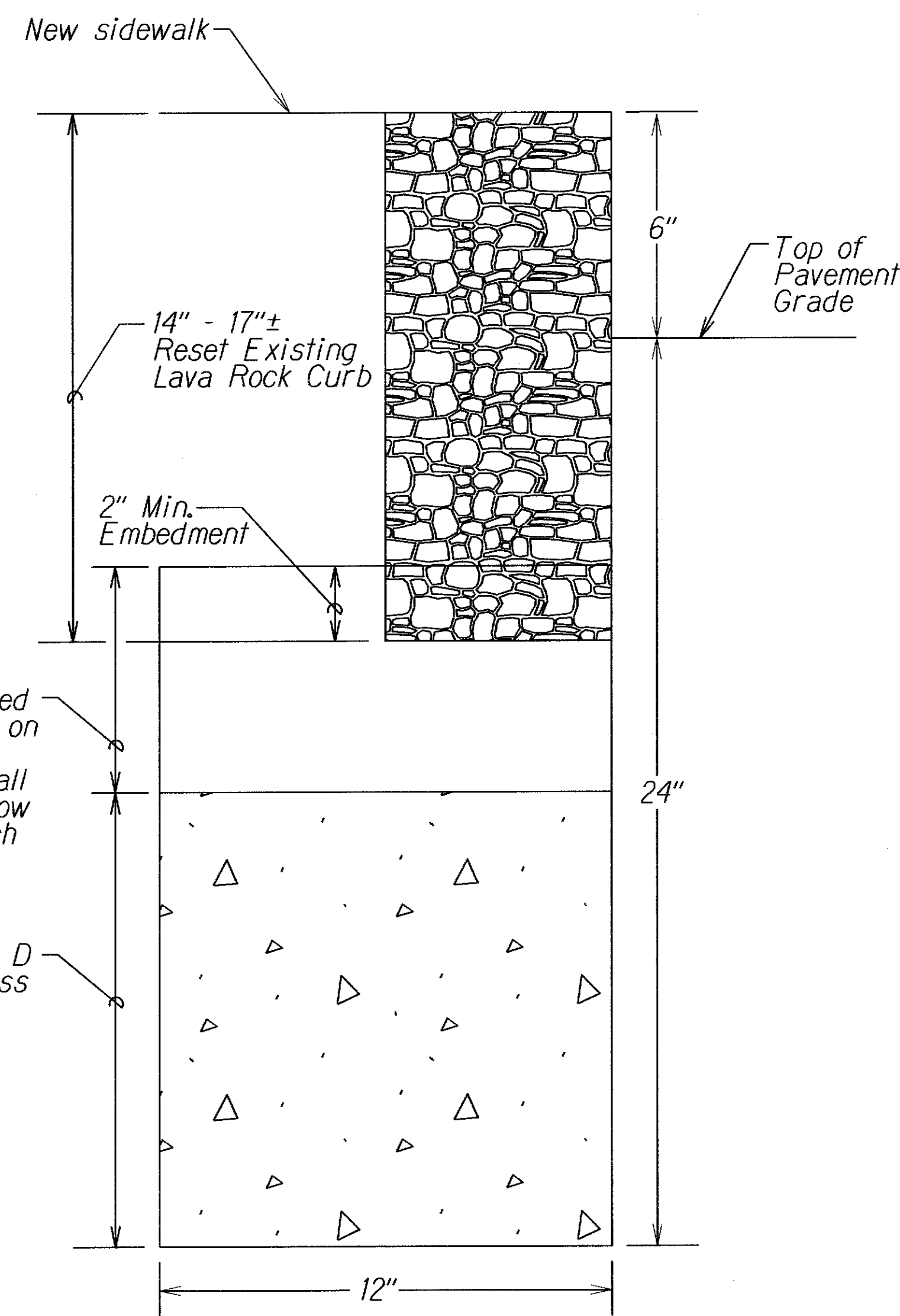
CONCRETE SIDEWALK RECONSTRUCTION DETAIL
LILIHA FRONTAGE ROAD @ STA. 2+84± to
LILIHA ACCESS ROAD @ STA. 4+30± RT.
 Not to Scale



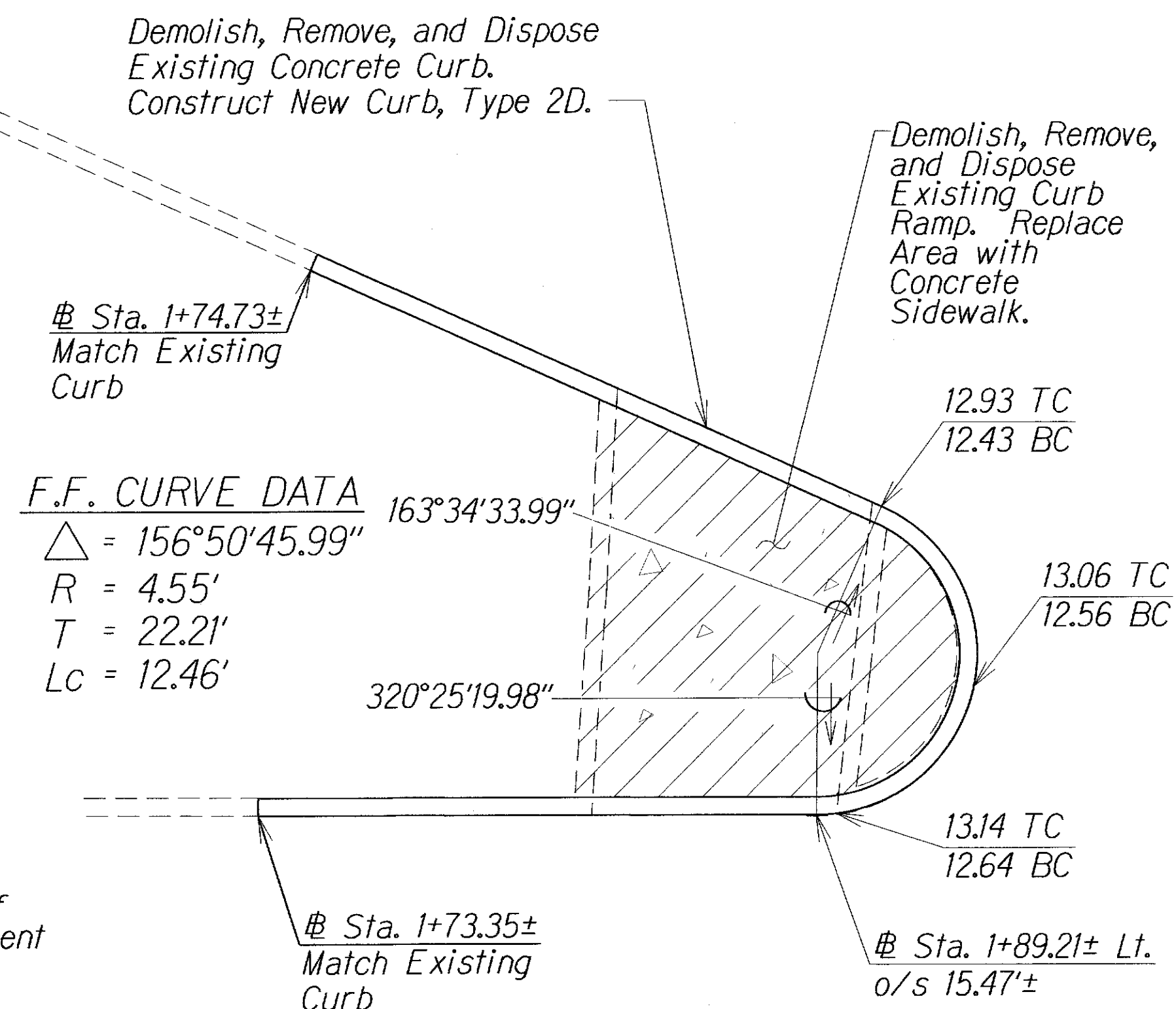
GUTTER, TYPE 2A
 Not to Scale



MODIFIED CURB, TYPE 2D



RESETTING EXISTING LAVA ROCK CURBING
 Not to Scale



F.F. CURVE DATA
 $\Delta = 156^{\circ}50'45.99''$
 $R = 4.55'$
 $T = 22.21'$
 $Lc = 12.46'$

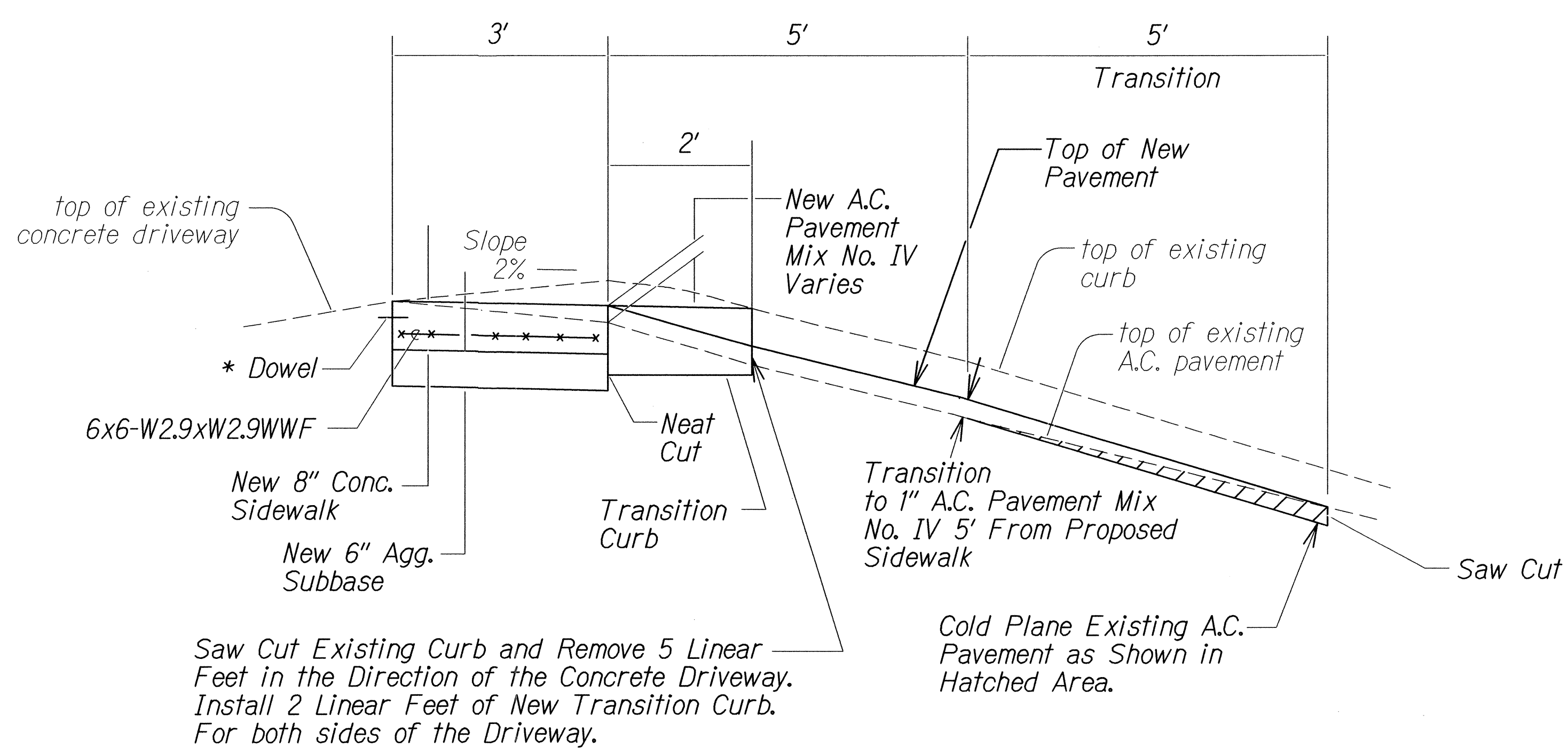
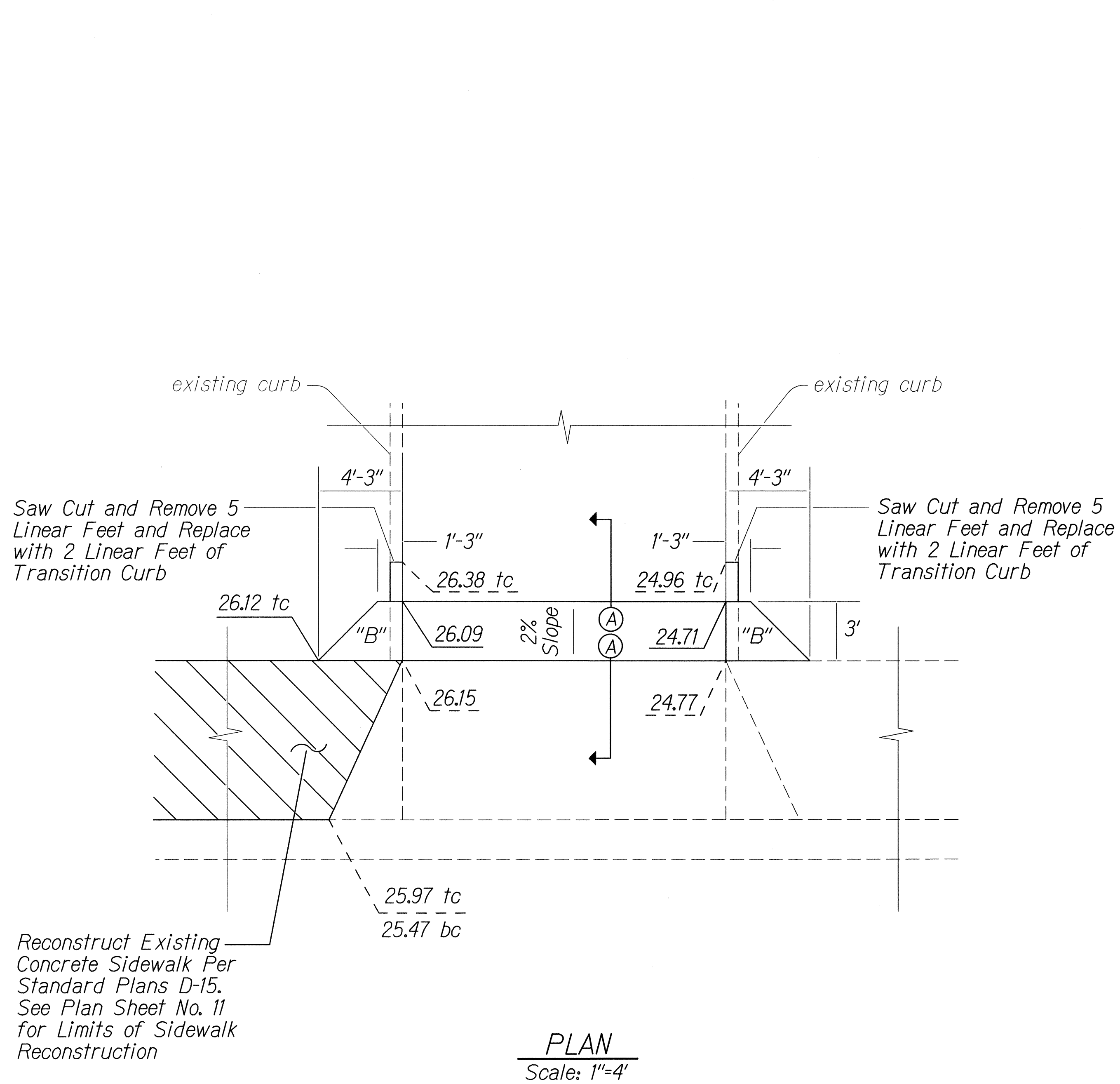
CURB RECONSTRUCTION DETAIL
LILIHA ST. @ 1+73± to
LILIHA ST. @ 1+92± Lt.
 Not to Scale

8/20/15	3	Revised Resetting Existing Lava Rock Curbing Detail.
6/16/14	1	Revised Call-out. Revised Depth of Gutter, Type 2A.

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DETAILS <u>LILIHA STREET REHABILITATION</u> <u>North King Street to School Street</u> <u>Project No. 7413A-01-04M</u> Scale: As Noted Date: April, 2014 SHEET No. 2 OF 4 SHEETS	

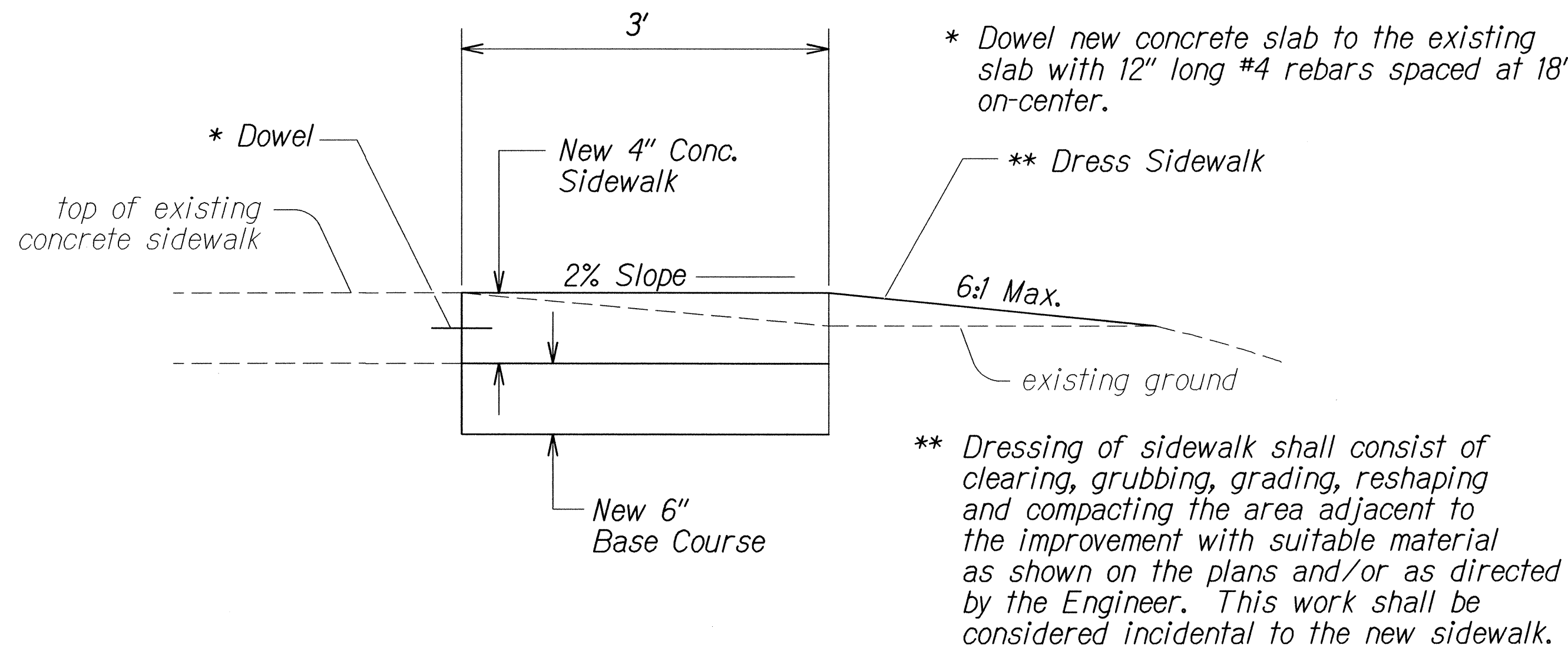
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
QUANTITIES BY	
NOTED BY	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7413A-01-04M	2014	13	62



SECTION "A-A"

Not to Scale



TYPICAL DETAIL OF "B" SLABS

Not to Scale

APRON OFFSET SIDEWALK DETAIL

LILIHA ST. @ STA. 12+30± RT.

Scale: As Noted

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
2/10/14	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

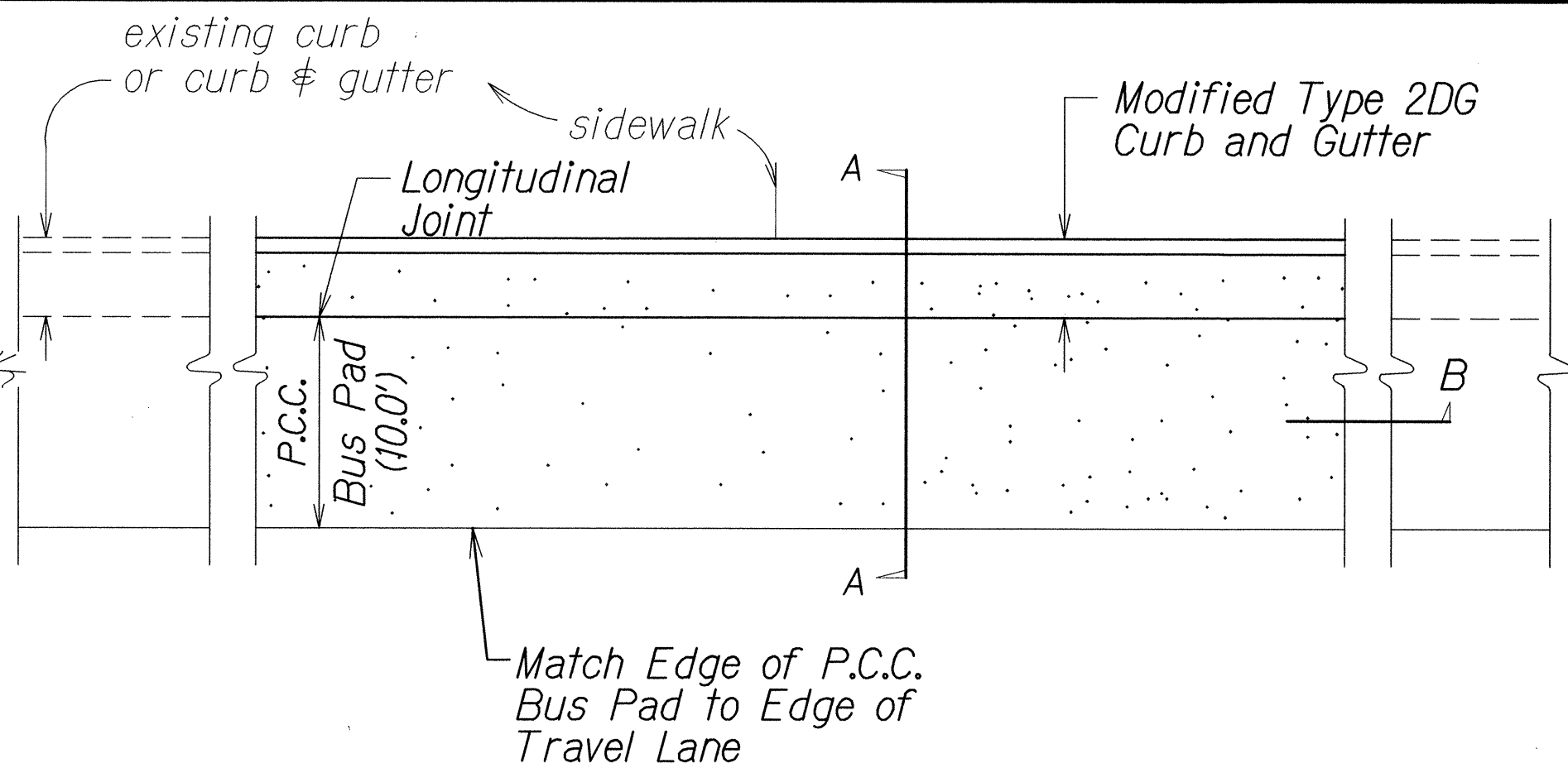
LILIHA STREET REHABILITATION
North King Street to School Street
Project No. 7413A-01-04M

Scale: As Noted

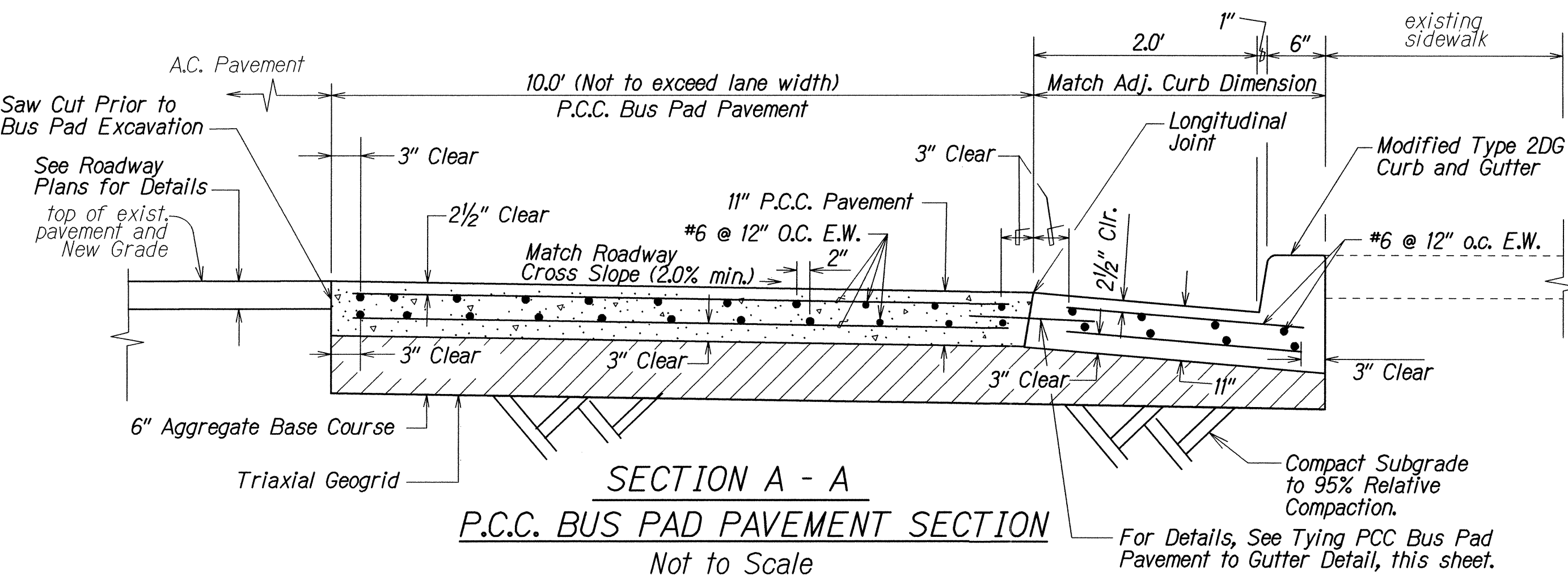
Date: April, 2014

SHEET No. 3 OF 4 SHEETS

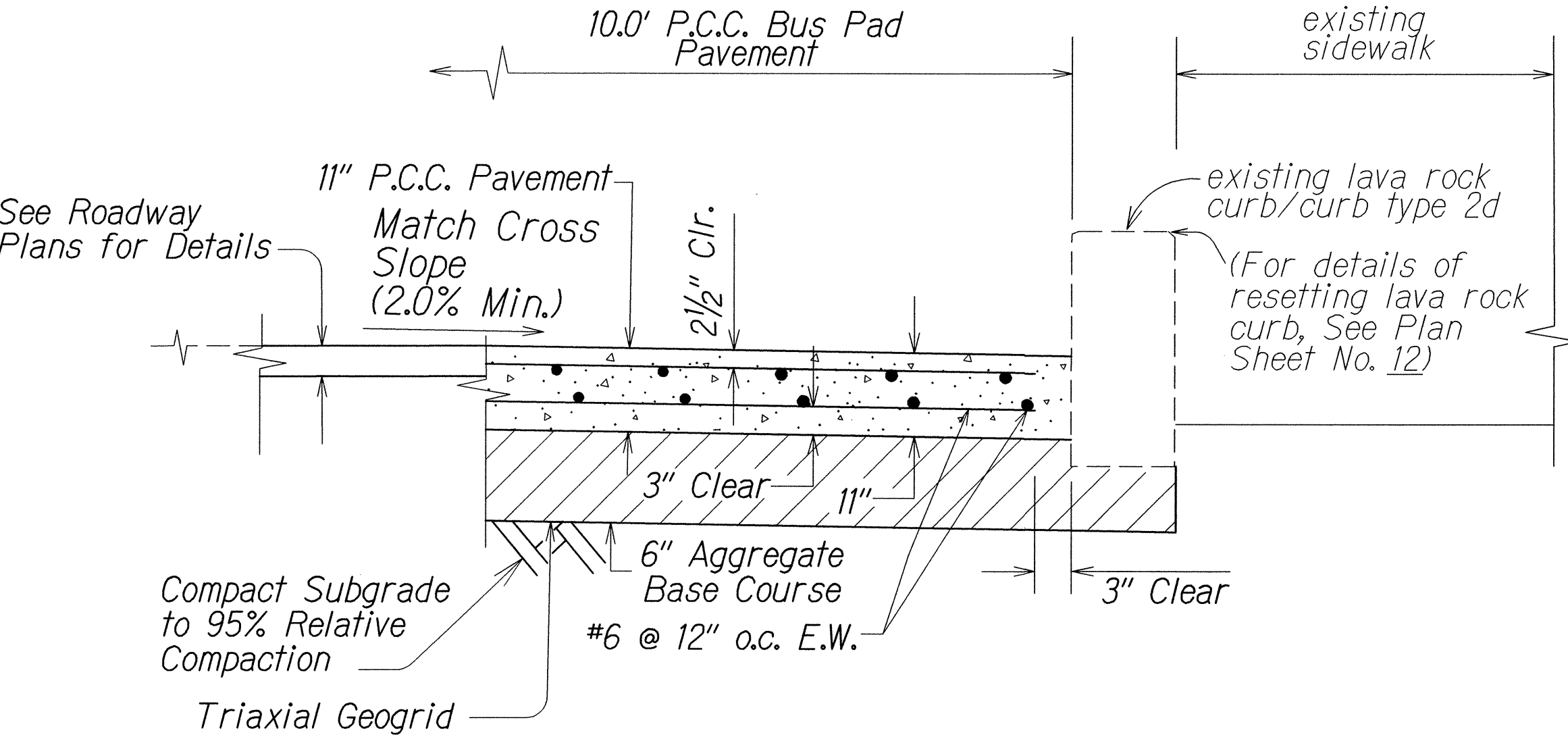
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7413A-01-04M	2014	14	62



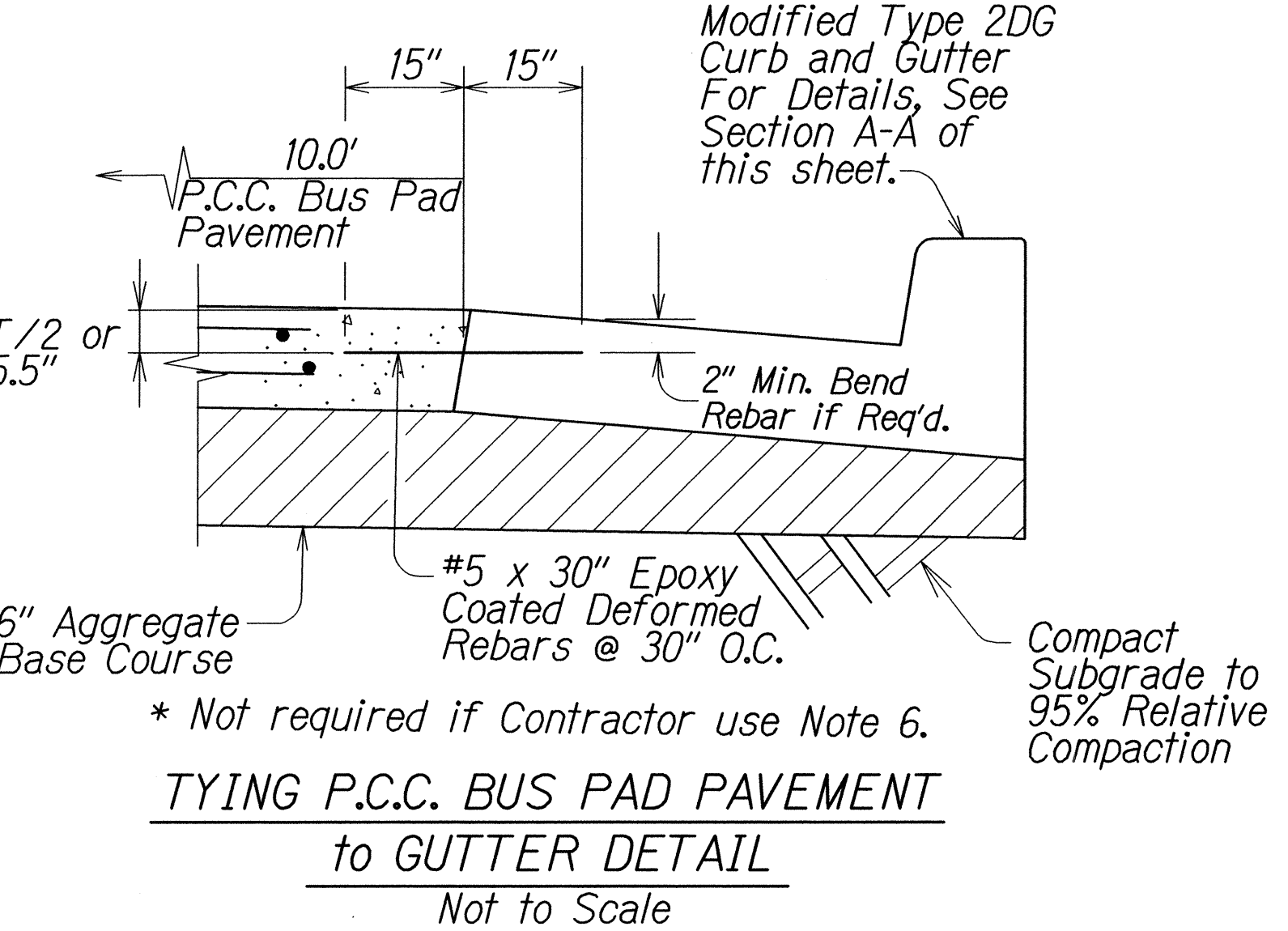
TYPICAL JOINT LOCATION and LAYOUT
PLAN for P.C.C. BUS PAD PAVEMENT
Not to Scale



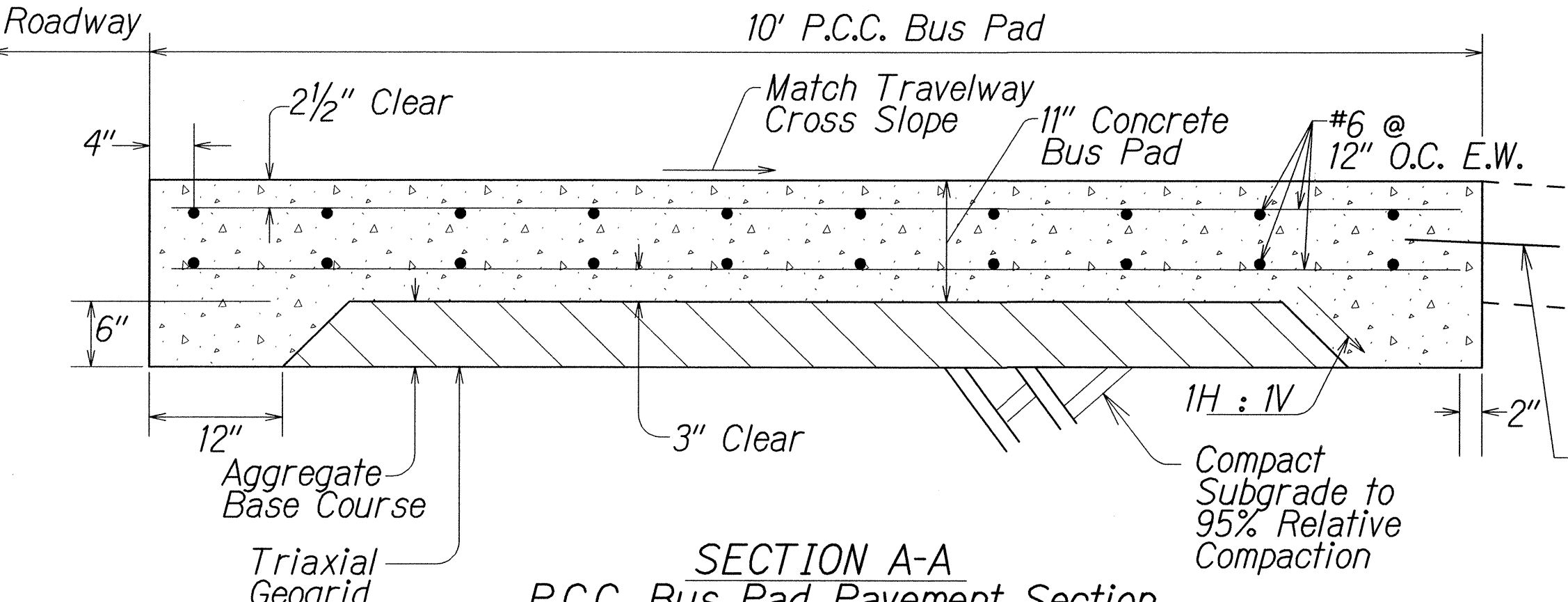
- Notes:
- Provide continuously reinforced Bus Pad without transverse construction joints. Transverse construction joints with load transfer devices or dowels are required for P.C.C. Bus Pad Pavement greater than 70 feet in length. Provide 3" clearance between the rebar and the edge of pavement.
 - Provide a constant grade match roadway cross slope(2% min.) on the New P.C.C. Bus Pad Pavement and match existing A.C. Pavement to the New Bus Pad within the transition area.
 - Epoxy coated reinforcement shall conform to AASHTO M 284, (ASTM 775).
 - Concrete shall attain a minimum 14-day flexural strength, $f_r=650$ psi.
 - Roadway excavation pavement required for the installation of P.C.C. Bus Pad Pavement and disposal of excavated materials shall be considered incidental to Item No. 411.2110 Concrete Bus Pad Pavement and will not be paid for separately.
 - P.C.C. Bus Pad can be poured monolithically together with the Curb and Gutter and the rebar pattern can continue from the bus pad into the Curb and Gutter (Same rebar arrangement) provided the plan details and slopes are met.
 - Removal and Demolishing of existing Type 2DG Curb and Gutter shall be considered incidental to New Modified Type 2DG Curb and Gutter.
 - Forms shall be used for the concrete bus pad, and the A.C. should not be used as a form. Following the setting of the concrete, the forms should be removed and filled with properly compacted A.C. Pavement Mix No. IV.



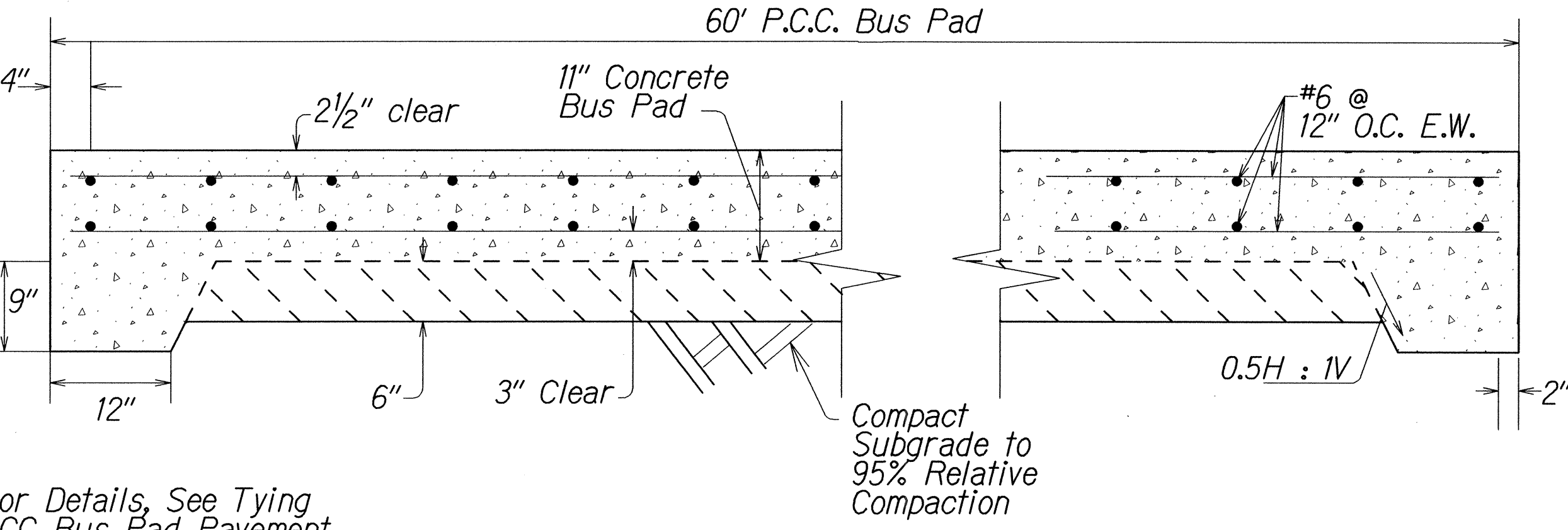
P.C.C. BUS PAD PAVEMENT SECTION
Sta. 8+54± Rt. to Sta. 9+14± Rt.
Not to Scale



TYING P.C.C. BUS PAD PAVEMENT
to GUTTER DETAIL
Not to Scale



SECTION A-A
P.C.C. Bus Pad Pavement Section
Liliha St. Sta. 12+22± to Sta. 12+82± Lt.
Not to Scale



SECTION B
P.C.C. Bus Pad Pavement Section
Liliha St. Sta. 12+22± to Sta. 12+82± Lt.
Not to Scale

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
CHECKED BY	_____
APPROVED BY	_____
ORIGINAL PLAN	_____
NOTES	_____
QUANTITIES BY	_____
EXAMINED BY	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

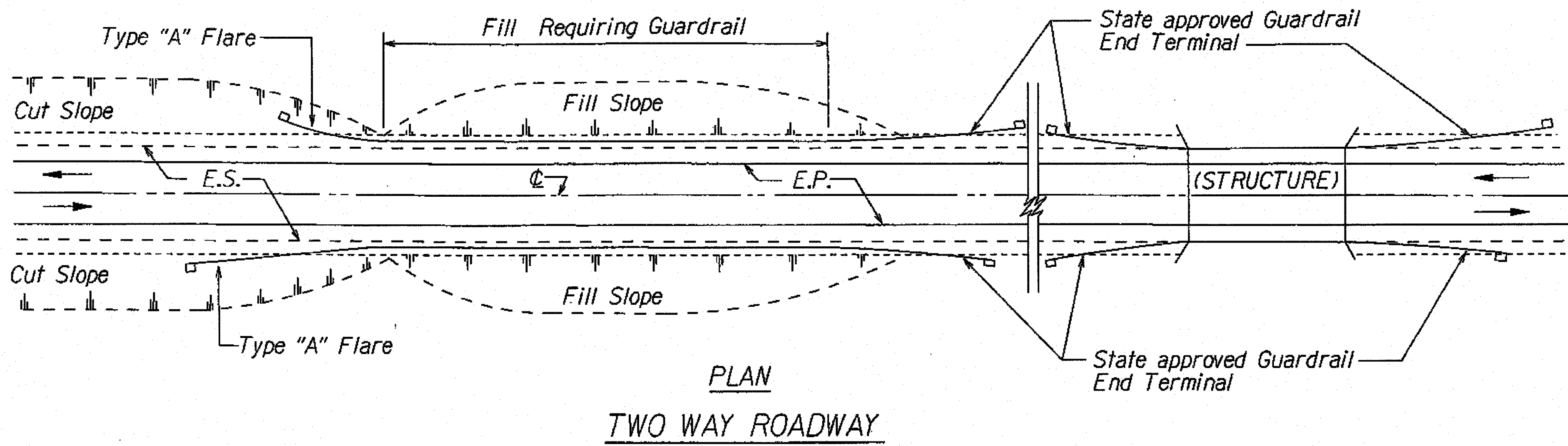
P.C.C. BUS PAD DETAIL

LILIHA STREET REHABILITATION
North King Street to School Street
Project No. 7413A-01-04M

Scale: Not to Scale Date: April, 2014

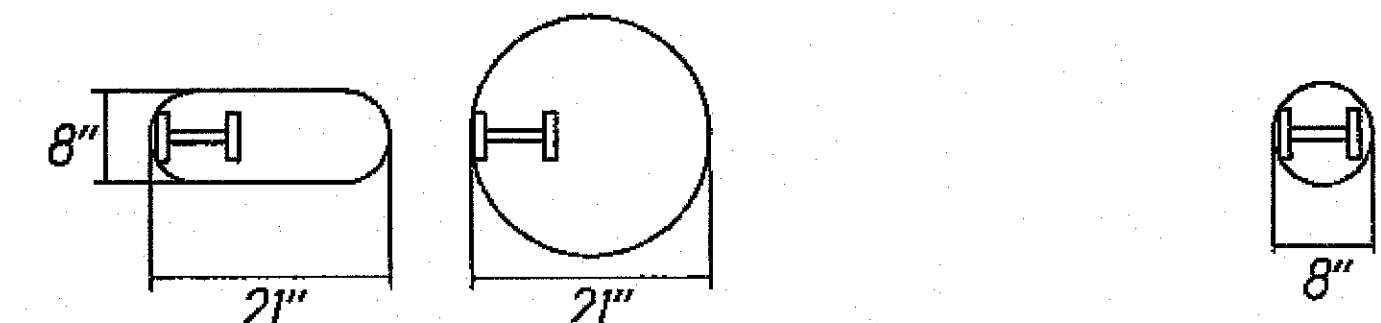
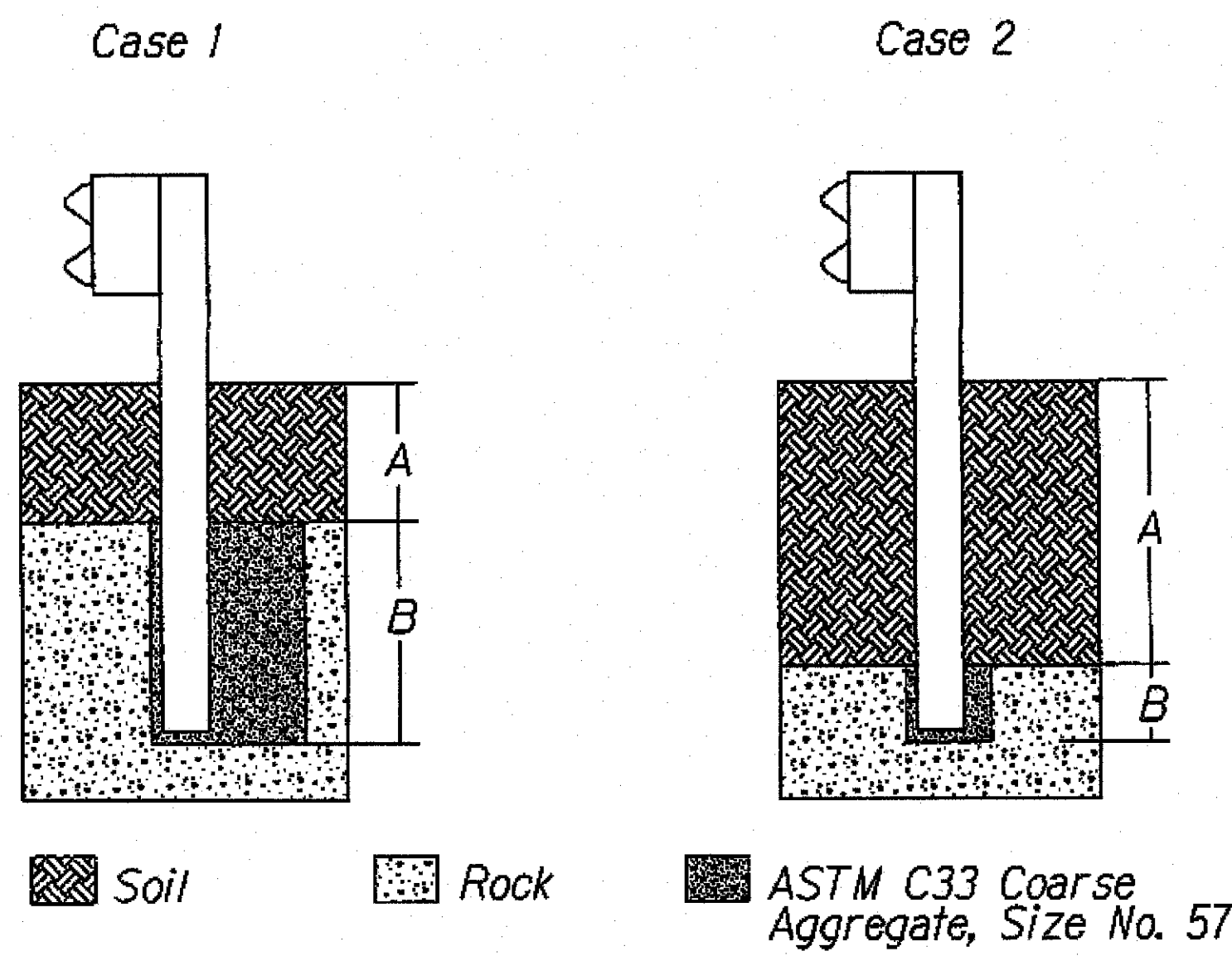
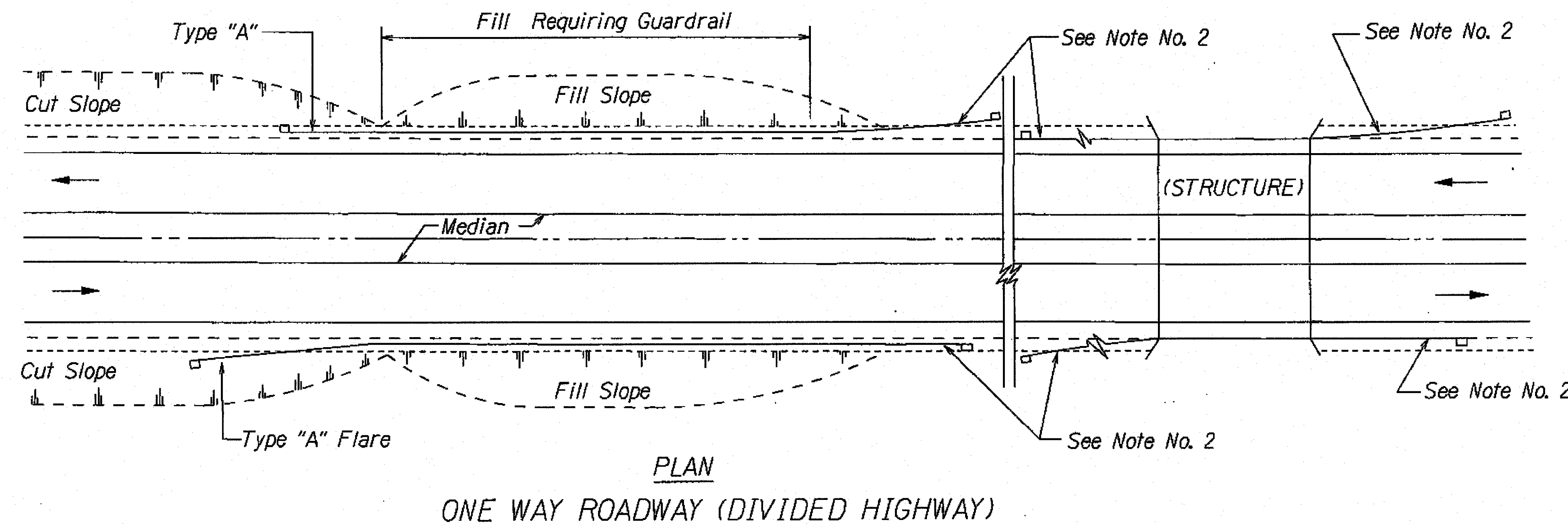
SHEET No. 4 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7413A-01-04M	2014	C.O. 14S-1	62



- NOTES:**
1. Metal Guardrail connection to concrete structures requires End Post Connection. See Structure Plans.
 2. Depending on the existing field conditions, the Engineer shall determine which guardrail end terminal should be installed.
 3. Refer to State's most current approved Product List for NCHRP 350 approved Guardrail End Terminals.

- NOTES (STRONG POST W-BEAM IN ROCK):**
1. Backfill of drilled holes shall be with compressible material, ASTM C33 Coarse Aggregate, Size No. 57.
 2. Elongated 21-inch long hole can be accomplished by drilling three 8-inch diameter holes at 6 1/2-inches on center.



Plan View Steel Posts
Either hole configuration acceptable

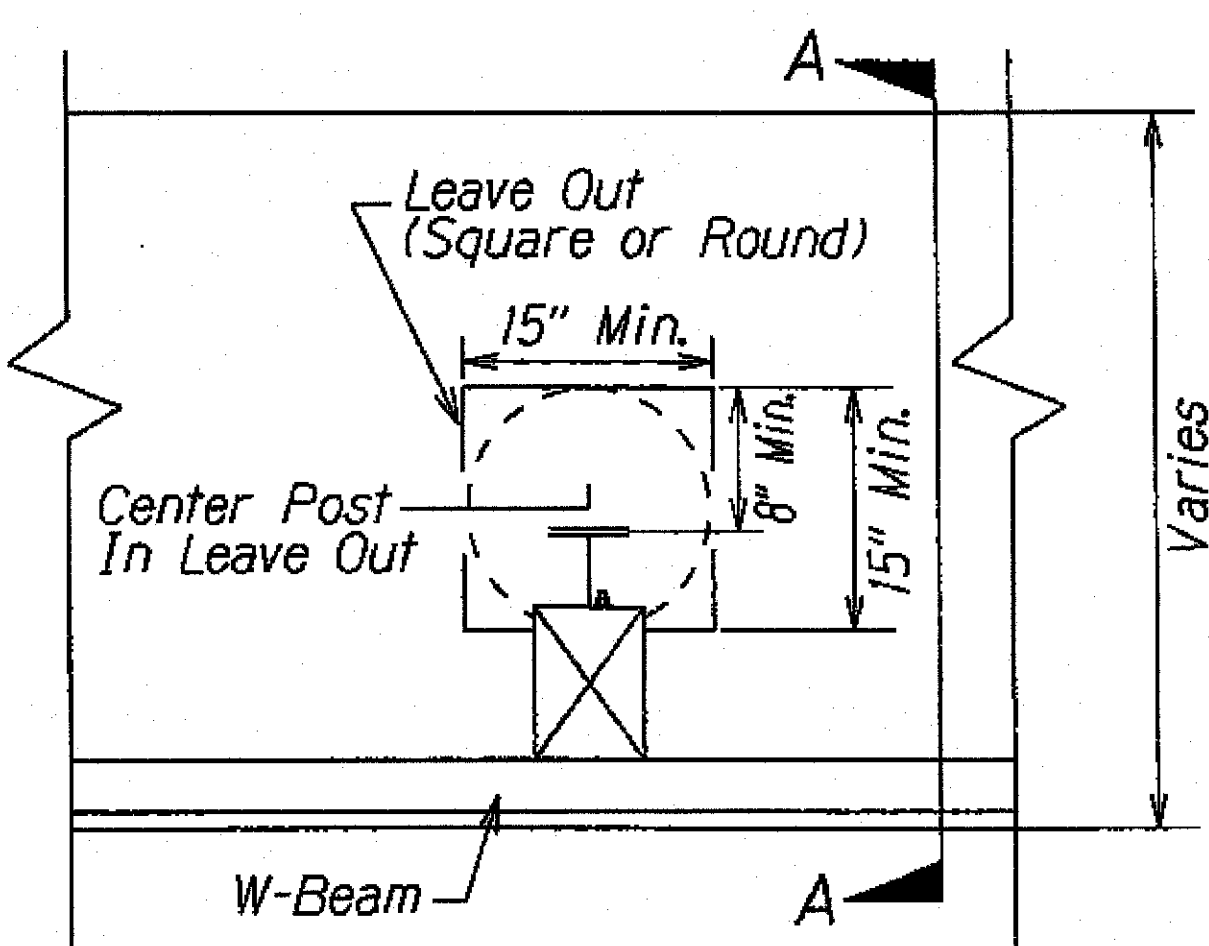
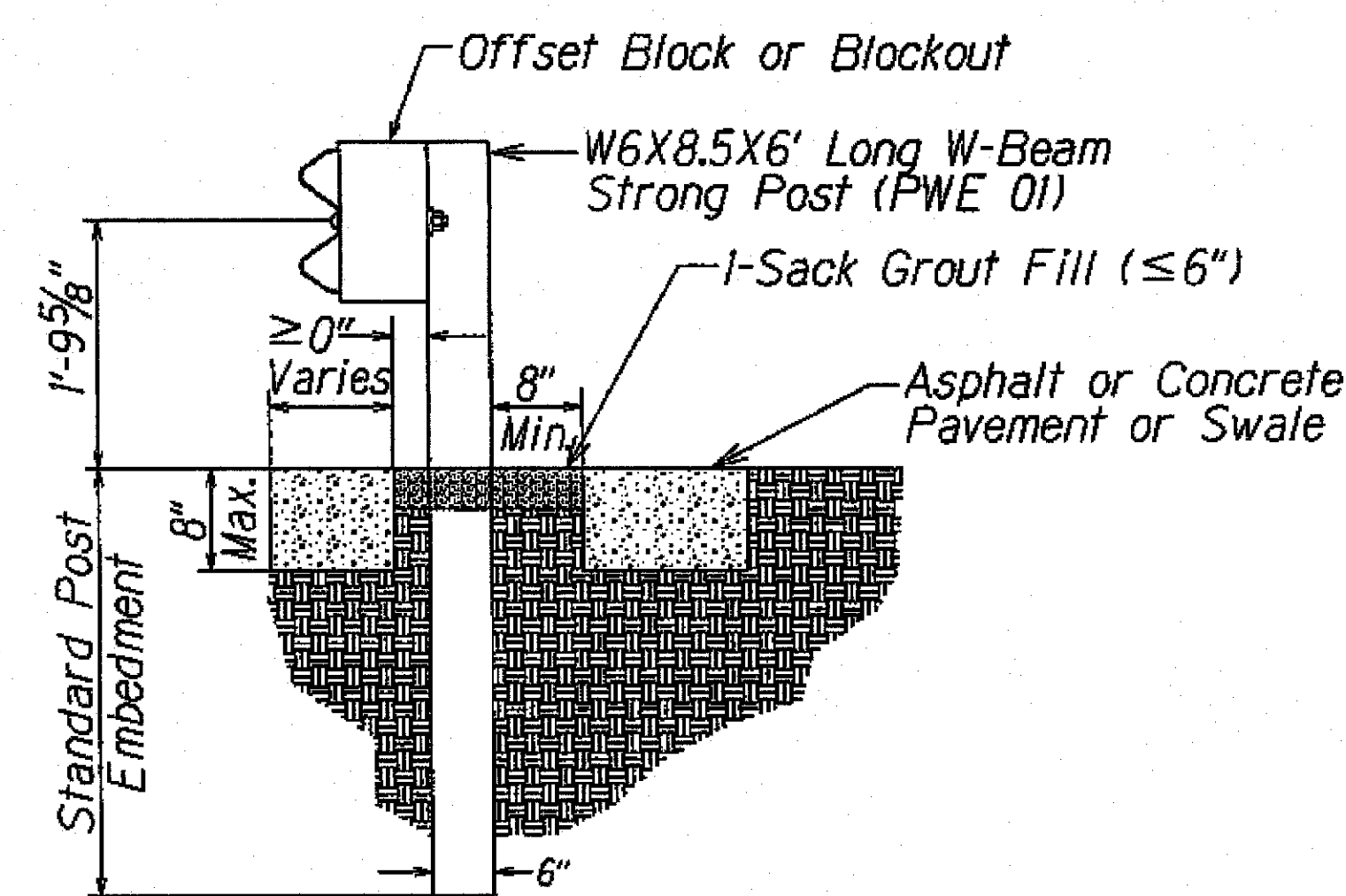
(A) ranging from 0 to 18-inches, the depth of required drilling (B) is equal to 24-inches.

(A) ranging from 18-inches to the embedment depth of the post, depth of required drilling (B) is equal to either 12-inches or the desired embedment depth minus the depth of soil whichever is less.

Overlying Soil Depths of 0 to 18-inches

Overlying Soil Depths of 18 to 42-inches

STRONG POST W-BEAM GUARDRAIL IN ROCK



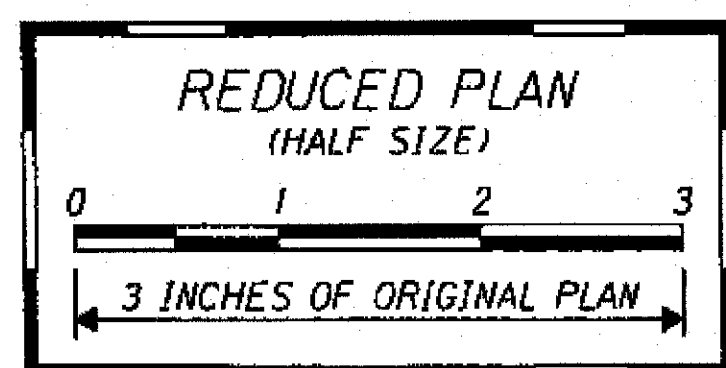
AS-BUILT DRAWINGS

This certifies that the dimensions and details shown on this sheet reflect the dimensions and details, and specifications as constructed in the field.

KAIKOR CONSTRUCTION CO., INC.

DATE: 7/27/20

**STRONG POST W-BEAM GUARDRAIL
POST IN PAVEMENT OR DRAINAGE SWALE**



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL DETAILS
LILIHA STREET REHABILITATION
North King Street to School Street
Project No. 7413A-01-04M
Scale: NTS
Date: April, 2014