FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-08-14	2016	18	88

INDEX TO DRAWINGS

SHEET	DESCRIPTION
Q1	New Concrete Barrier Index & Bridge General Notes
Q2	New Concrete Barrier Layout Plan
Q3	New Concrete Barrier - Pier #21
Q4	New Concrete Barrier - Pier #22
Q5	New Concrete Barrier - Pier #23
Q6	New Concrete Barrier - Pier #24
Q7	New Concrete Barrier Foundation
Q8	New Concrete Barrier Typical Sections

GENERAL NOTES

DESIGN SPECIFICATIONS:

1. AASHTO LRFD Bridge Design Specifications, 7th Edition 2014, including all interim revisions.

2. State of Hawaii, Department of Transportation, Highways Division, "Design Criteria for Bridges and Structures", August 8, 2014.

CONSTRUCTION SPECIFICATIONS:

1. Hawaii Standard Specifications for Road and Bridge Construction 2005, including Special Provisions.

MATERIALS:

1. Concrete: 4,000 psi, unless otherwise specified.

2. Concrete Admixtures: See Special Provisions.

3. Concrete for concrete barriers shall meet the requirements of Section 601, Structural Concrete.

4. A shrinkage-reducing admixture (SRA), Tetraguard AS20, manufactured by BASF, or Eclipse, Manufactured by W.R. Grace & Co., or approved equal shall be added to the concrete. The minimum dosage requirement shall be 128 ounces per cubic yard of concrete. The concrete shall have a minimum shrinkage strain of 0.00006 at 28-days and 0.000145 at 56-days according to ASTM C512.

5. A corrosion inhibitor amine carboxylate water-based admixture shall be added to the concrete. The minimum dosage shall be 1.5 pints per cubic yard of concrete.

6. HMA Pavement, Mix No. 4 shall meet the requirements of Section 401, Hot Mix Asphalt (HMA) Pavement.

REINFORCING STEEL:

1. Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement shall meet the requirements of AASHTO M 31M/M 31-10 Grade 60. (ASTM A615/A615M-09 Grade 60).

2. Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement to be spliced by welding or otherwise welded shall meet the requirements of AASHTO M 31M/M 31-10 Grade 60. (ASTM A615/A615M-09 Grade 60) and meet the requirements of ASTM A706/A706M-09b.

3. Reinforcing Steel for Concrete Barriers shall meet the requirements of Hawaii Specifications Section 602 but will not be paid for separately.

MISCELLANEOUS MATERIALS:

1. Preformed Expansion Joint Filler for concrete (bituminous type) shall conform to AASHTO M 33-99 (2012). ASTM D 994-98 (2010).

1. Roofing Felt shall conform to ASTM D 226 (09) Type 2 (No. 30).

ORIGINAL PLAN	SURVEY PLOTTED BY XXX DATE XXX.XXX
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	TRACED BY XXX.XXX
NOTE BOOK	DESIGNED BY XXX XXX.XXX
	QUANTITIES BY XXX XXX.XXX
No.	CHECKED BY XXX XXX.XXX

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER INDEX & GENERAL NOTES

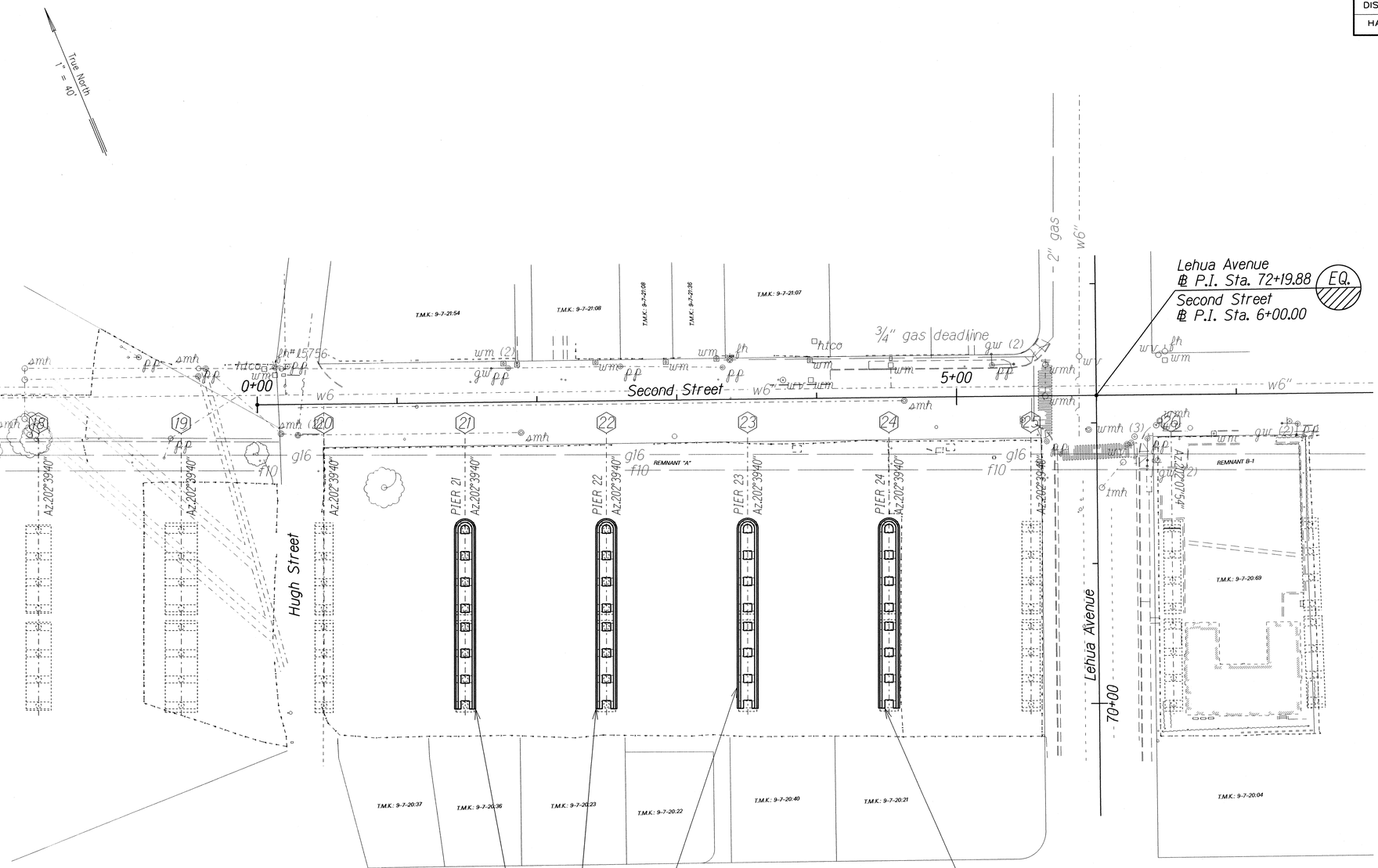
COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-O-08-14

Scale: As Noted — Date: March, 2016

SHEET No. Q1 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	19	88



LAYOUT PLAN

Scale: 1" = 40'

ORIGINAL PLAN	SURVEY PLOTTED BY	XXX	DATE XXX, 192
	DRAWN BY	XXX	. .
	TRACED BY	XXX	XXX, 192
NOTE BOOK	DESIGNED BY	XXX	XXX, 192
	QUANTITIES BY	XXX	XXX, 192
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER LAYOUT PLAN

COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

Scale: As Noted Date: March, 2016

SHEET No. Q2 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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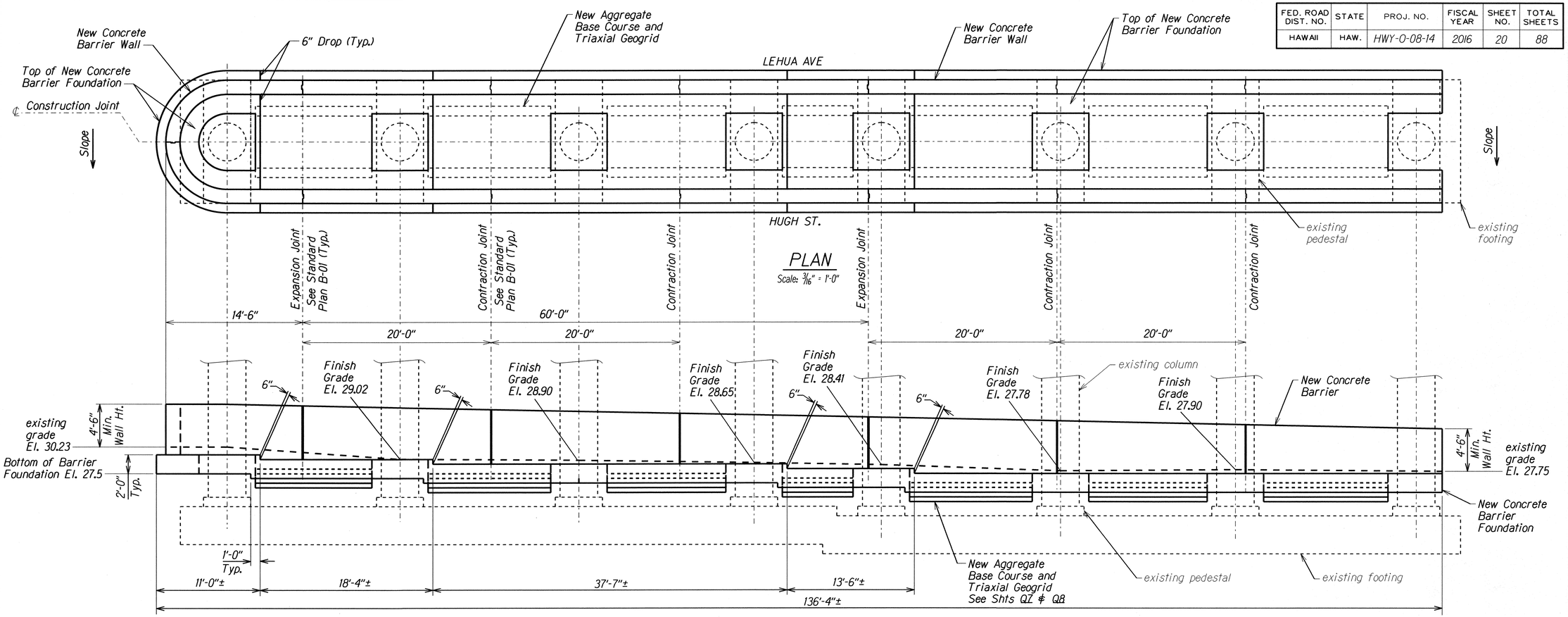
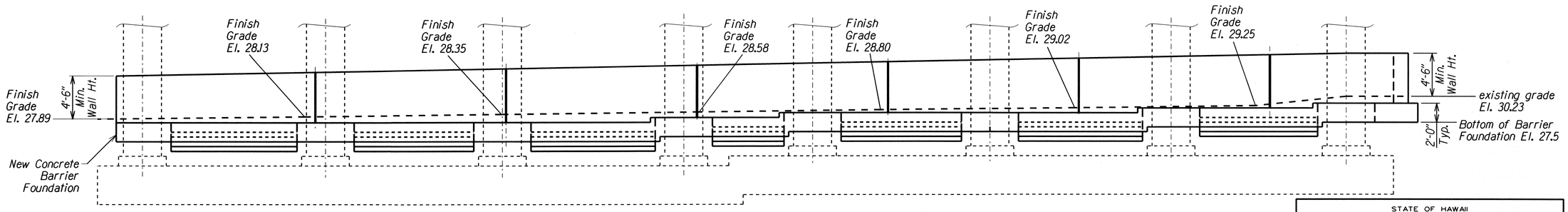


HUGH ST. ELEVATION

Scale: 3/16" = 1'-0"



LEHUA AVE ELEVATION

Scale: 3/16" = 1'-0"

Notes:

1. Elevations are Similar but Opposite Hand, except for Finish Grade Elevations. Lehua Ave Elevation is to show the Finish Grade Elevations on that side of the columns, which effect the Concrete Barrier Wall height. A minimun Wall height of 4'-6" from Finish Grade must be maintained along the entire Barrier.
2. HMA Pavement over Concrete Barrier Foundation and spacing around existing columns not shown for clarity.

PIER NO. 21

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER - PIER #21

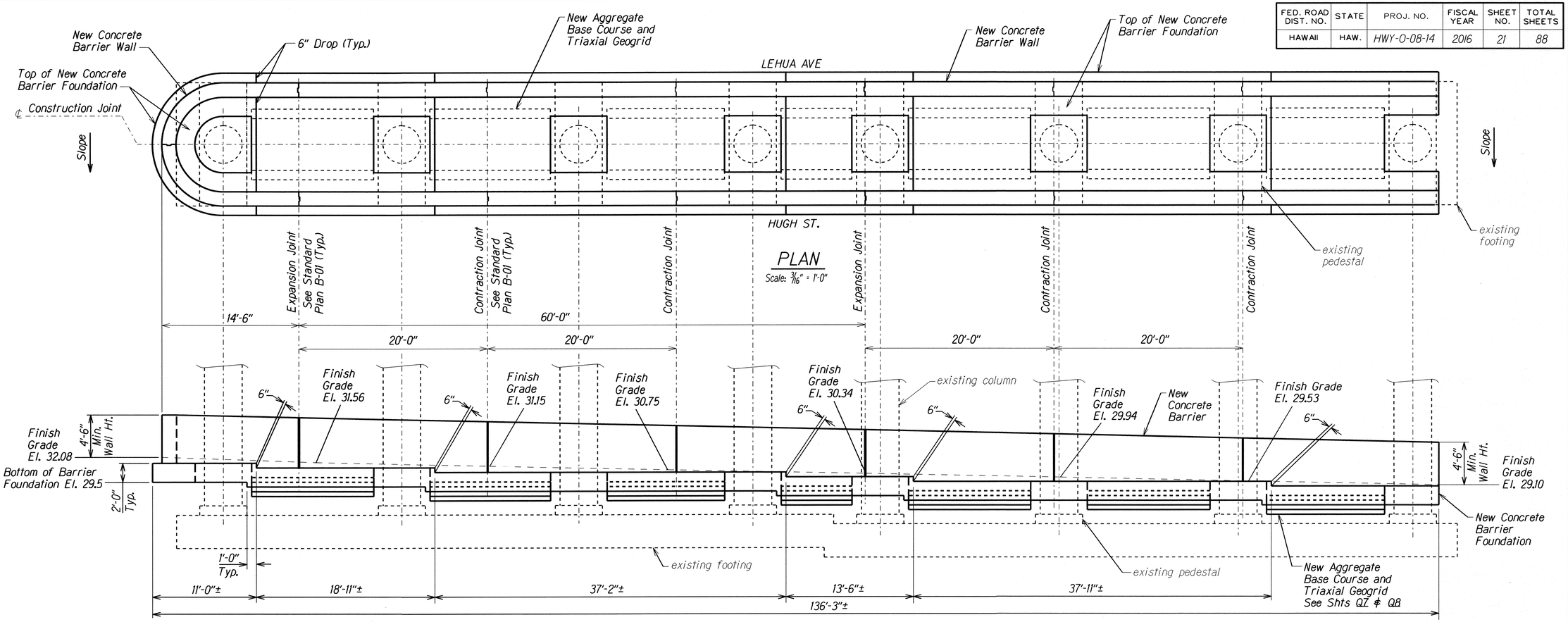
COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

Scale: As Noted — Date: March, 2016

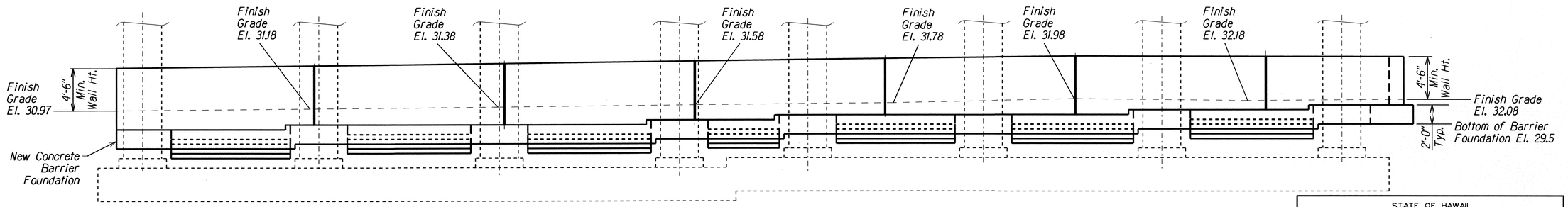
SHEET No. Q3 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	21	88



HUGH ST. ELEVATION

Scale: 3/16" = 1'-0"



LEHUA AVE ELEVATION

Scale: 3/16" = 1'-0"

Notes:
1. Elevations are Similar but Opposite Hand, except for Finish Grade Elevations. Lehua Ave Elevation is to show the Finish Grade Elevations on that side of the columns, which effect the Concrete Barrier Wall height. A minimun Wall height of 4'-6" from Finish Grade must be maintained along the entire Barrier.
2. HMA Pavement over Concrete Barrier Foundation and spacing around existing columns not shown for clarity.

PIER NO. 22

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER - PIER #22

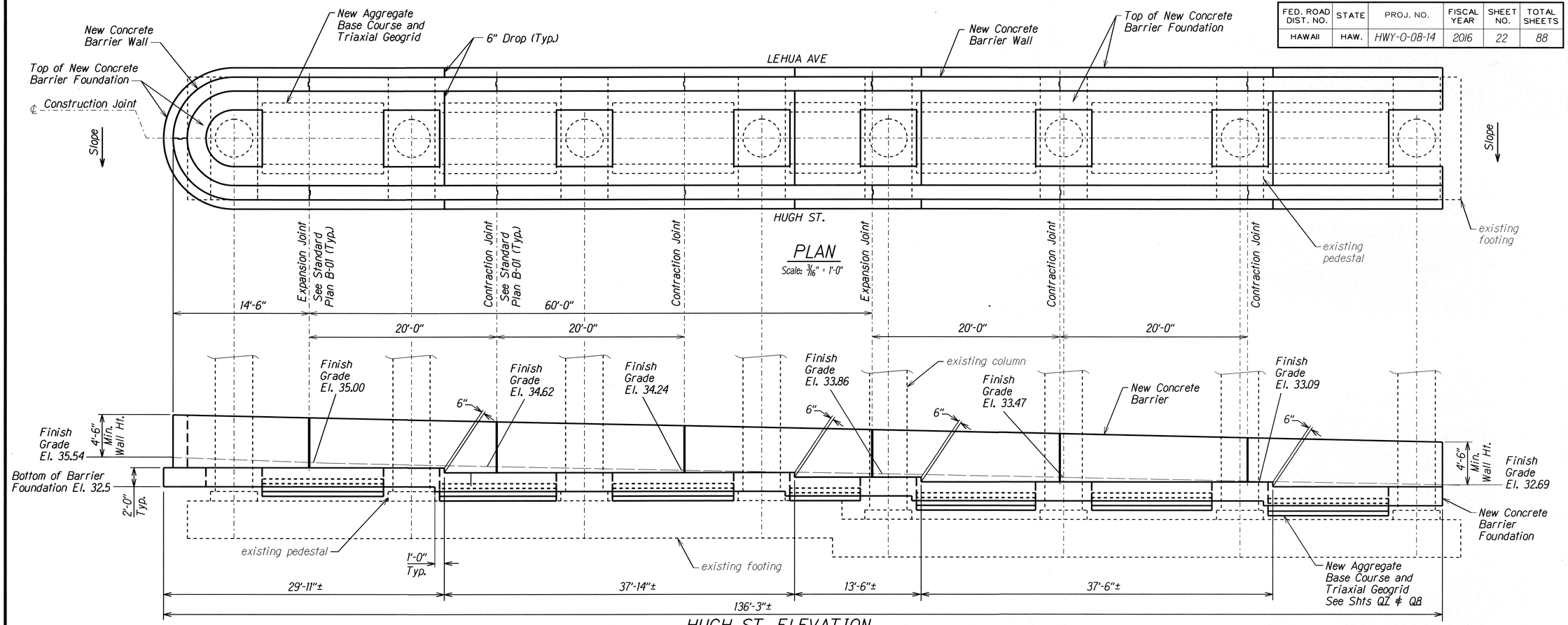
COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

Scale: As Noted Date: March, 2016

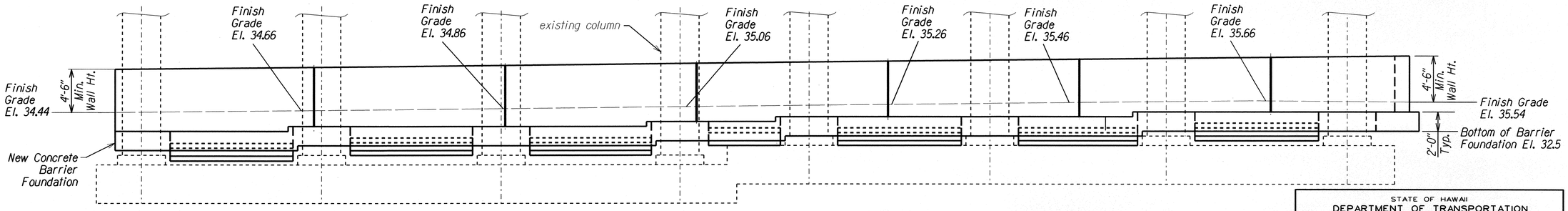
SHEET No. Q4 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	22	88



HUGH ST. ELEVATION

Scale: 3/16" = 1'-0"



LEHUA AVE ELEVATION

Scale: 3/16" = 1'-0"

Notes:
1. Elevations are Similar but Opposite Hand, except for Finish Grade Elevations. Lehua Ave Elevation is to show the Finish Grade Elevations on that side of the columns, which effect the Concrete Barrier Wall height. A minimun Wall height of 4'-6" from Finish Grade must be maintained along the entire Barrier.
2. HMA Pavement over Concrete Barrier Foundation and spacing around existing columns not shown for clarity.

PIER NO. 23

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER - PIER #23

COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

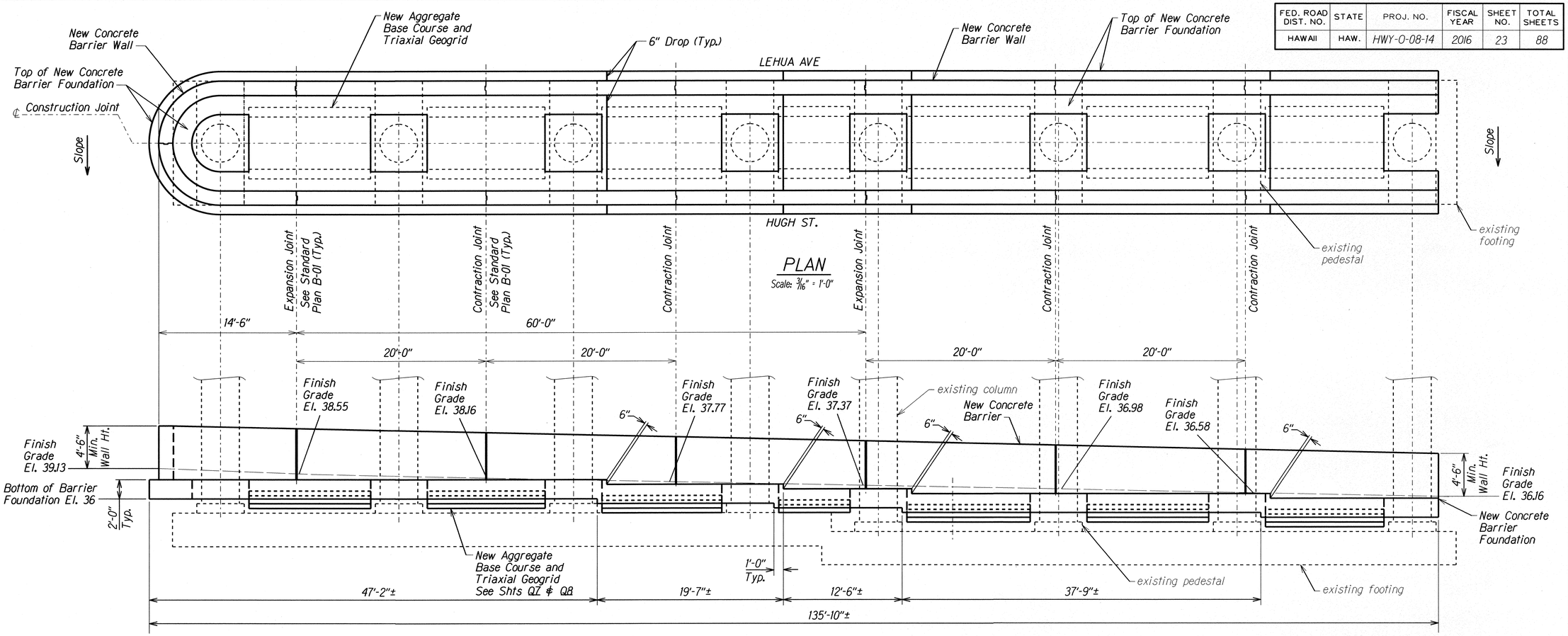
Beneath Interstate Route H-1 Pearl City Viaduct

Project No. HWY-0-08-14

Scale: As Noted Date: March, 2016

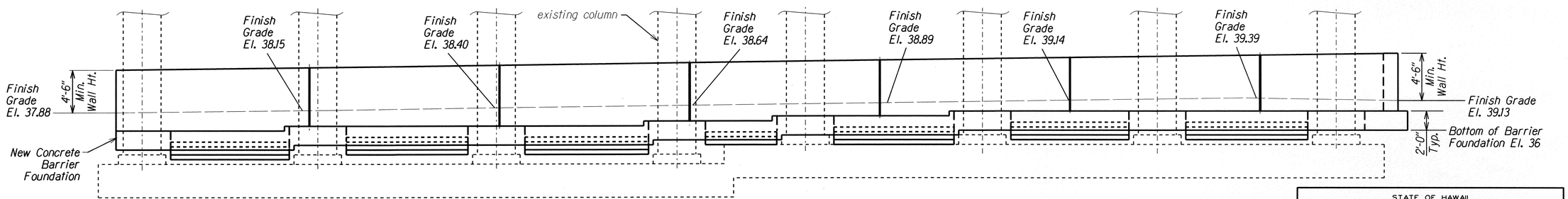
SHEET No. Q5 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	23	88



HUGH ST. ELEVATION

Scale: 3/16" = 1'-0"



LEHUA AVE ELEVATION

Scale: 3/16" = 1'-0"

Notes:
1. Elevations are Similar but Opposite Hand, except for Finish Grade Elevations. Lehua Ave Elevation is to show the Finish Grade Elevations on that side of the columns, which effect the Concrete Barrier Wall height. A minimun Wall height of 4'-6" from Finish Grade must be maintained along the entire Barrier.
2. HMA Pavement over Concrete Barrier Foundation and spacing around existing columns not shown for clarity.

PIER NO. 24

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER - PIER #24

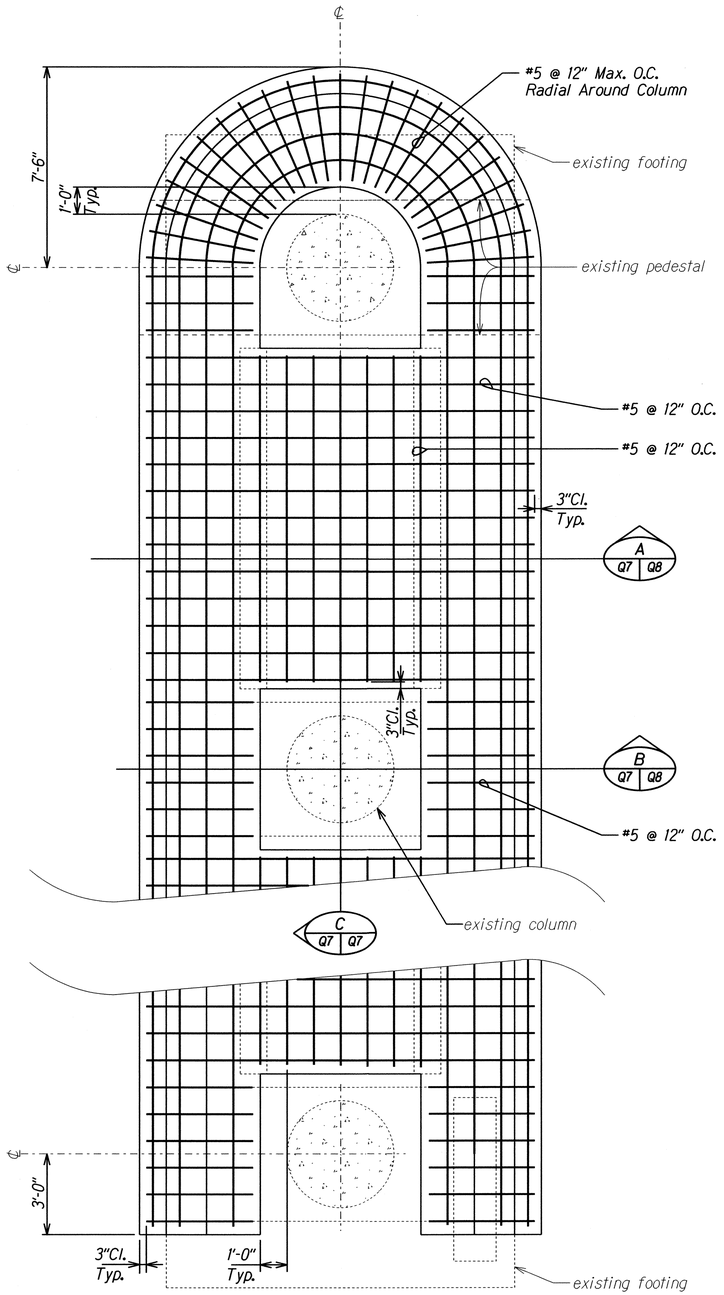
COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

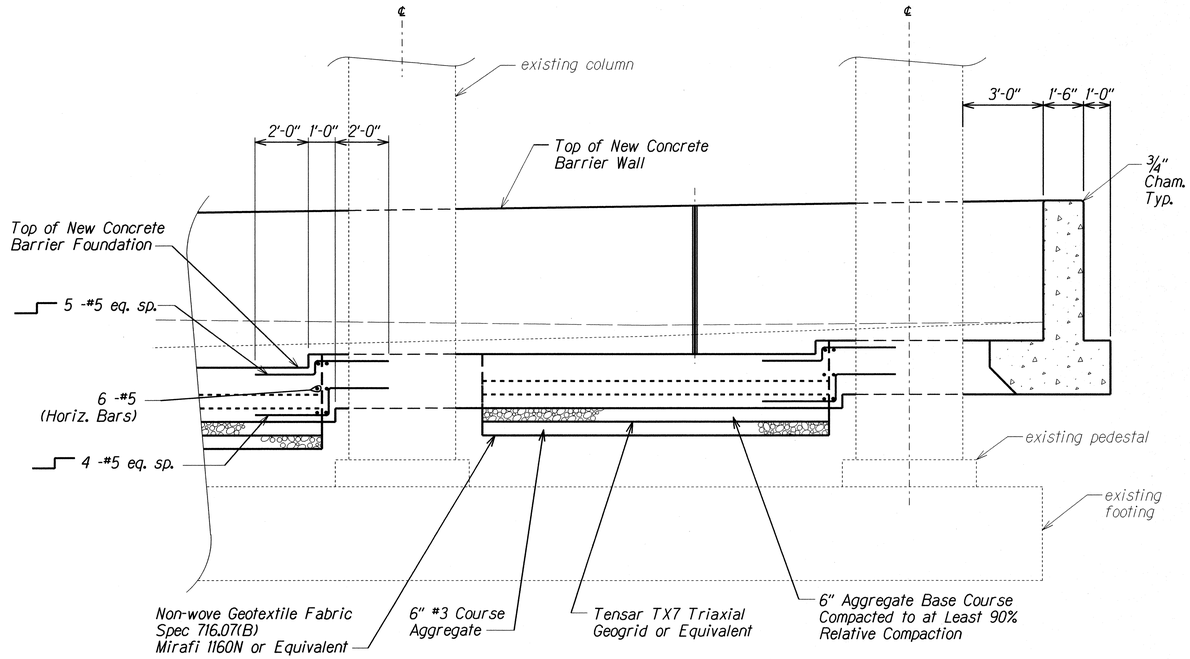
Scale: As Noted — Date: March, 2016

SHEET No. Q6 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	24	88



FOUNDATION PLAN
Scale: 3/8" = 1'-0"



NOTE: Only Reinforcing at Elevation
Change Shown for Clarity

TYP. SECTION AT COLUMN
Scale: 3/8" = 1'-0"
C
Q7 Q7

NOTE: New Concrete Barrier & Reinforcing
Not Shown.
See Sheet Q8 For Typical Section At
Column & Between Columns.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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	TRACED BY	
NOTE BOOK	DESIGNED BY XXX	XXX 1921
	QUANTITIES BY XXX	XXX 1921
No. XXXXXXXX	CHECKED BY XXX	XXX 1921

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER FOUNDATION

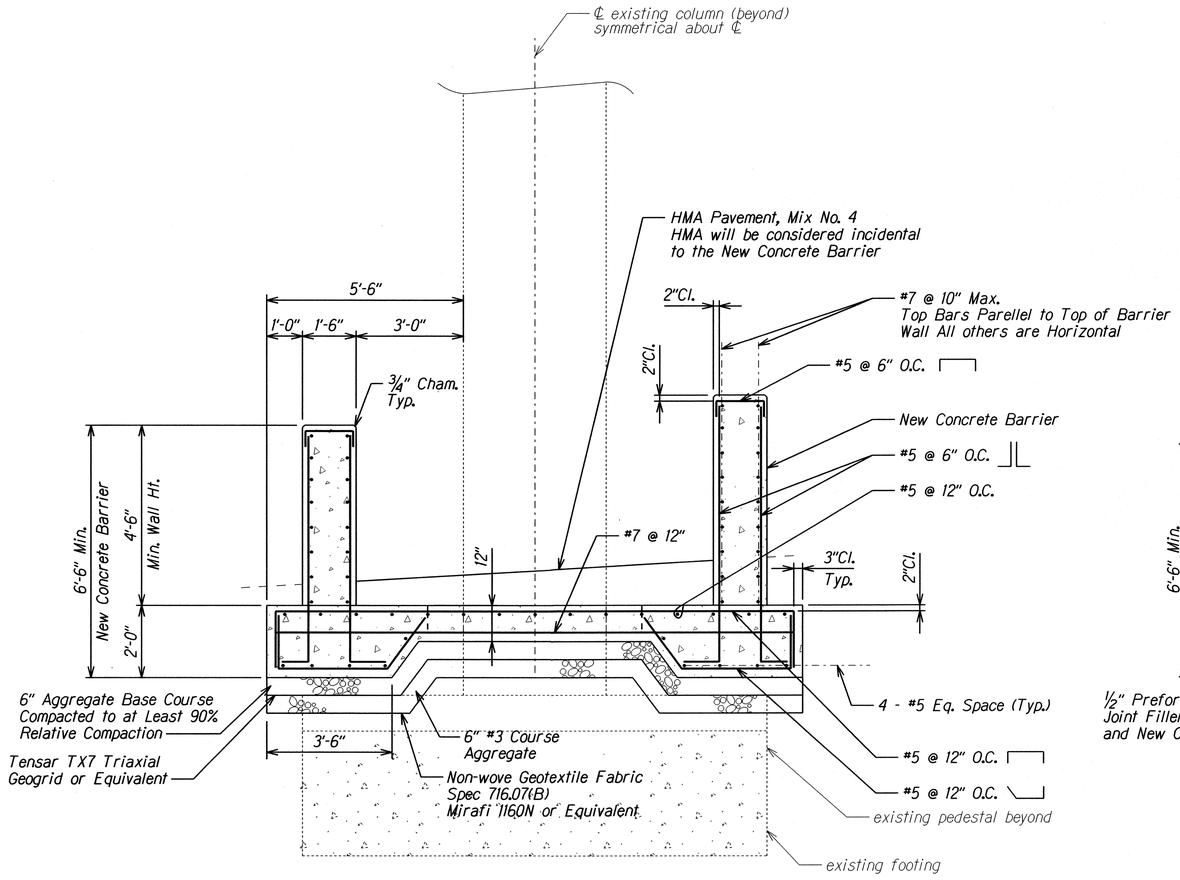
COMMERCIAL DRIVER'S LICENSE AND
MOTORCYCLE LICENSE TESTING FACILITY
EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

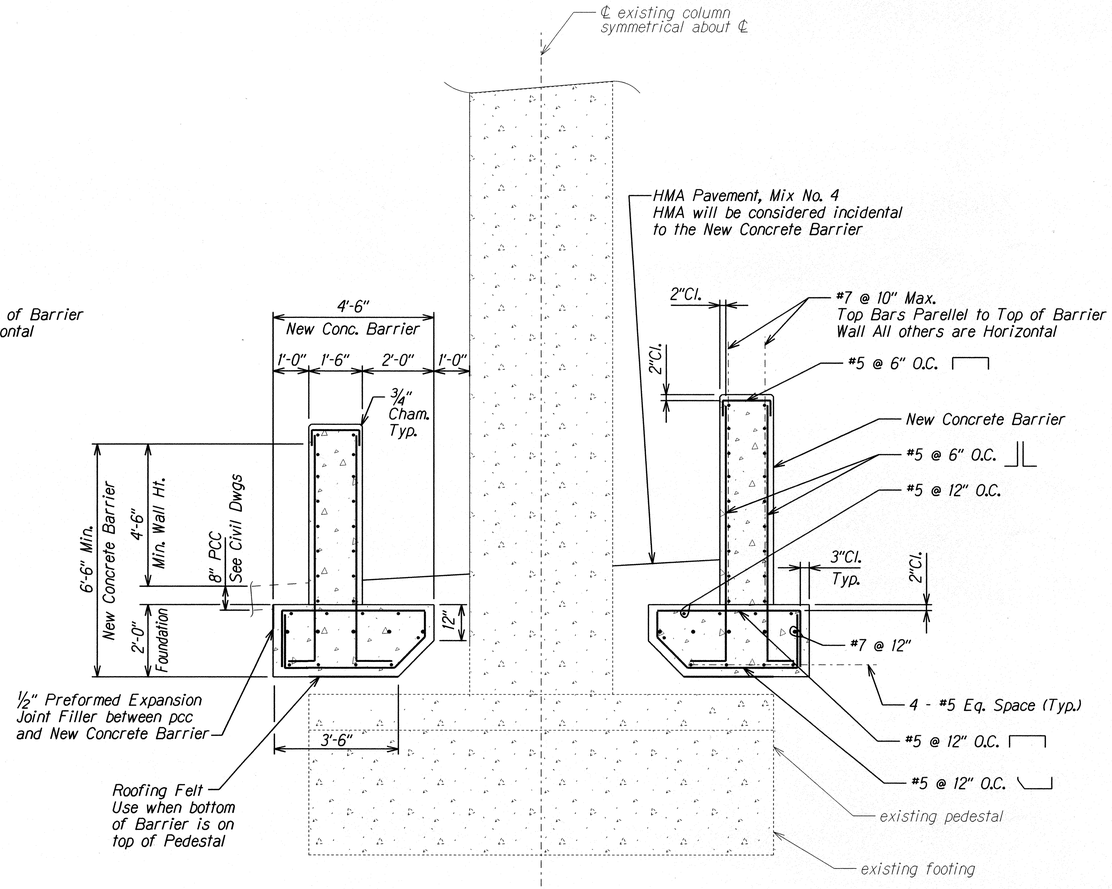
Scale: As Noted Date: March, 2016

SHEET No. Q7 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-08-14	2016	25	88



IN BETWEEN COLUMNS (A, Q7 | Q8)
Scale: 1/2" = 1'-0"



AT COLUMN (B, Q7 | Q8)
Scale: 1/2" = 1'-0"

TYPICAL SECTIONS

ORIGINAL PLAN	SURVEY PLOTTED BY	XXX	DATE	XXX 1997
	DRAWN BY			
NOTE BOOK	TRACED BY	XXX		XXX 1997
	DESIGNED BY	XXX		XXX 1997
No. XXXXXXXX	QUANTITIES BY	XXX		XXX 1997
	CHECKED BY	XXX		XXX 1997

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW CONCRETE BARRIER TYPICAL SECTIONS

COMMERCIAL DRIVER'S LICENSE AND MOTORCYCLE LICENSE TESTING FACILITY EXAMINATION SITE AND OFFICE RENOVATION

Beneath Interstate Route H-1 Pearl City Viaduct
Project No. HWY-0-08-14

Scale: As Noted — Date: March, 2016

SHEET No. Q8 OF 8 SHEETS