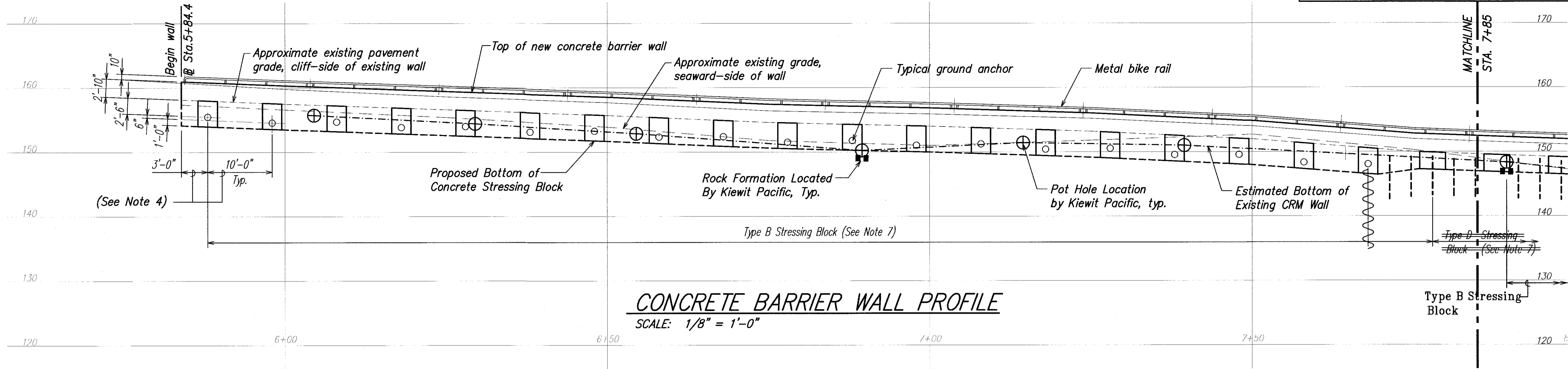
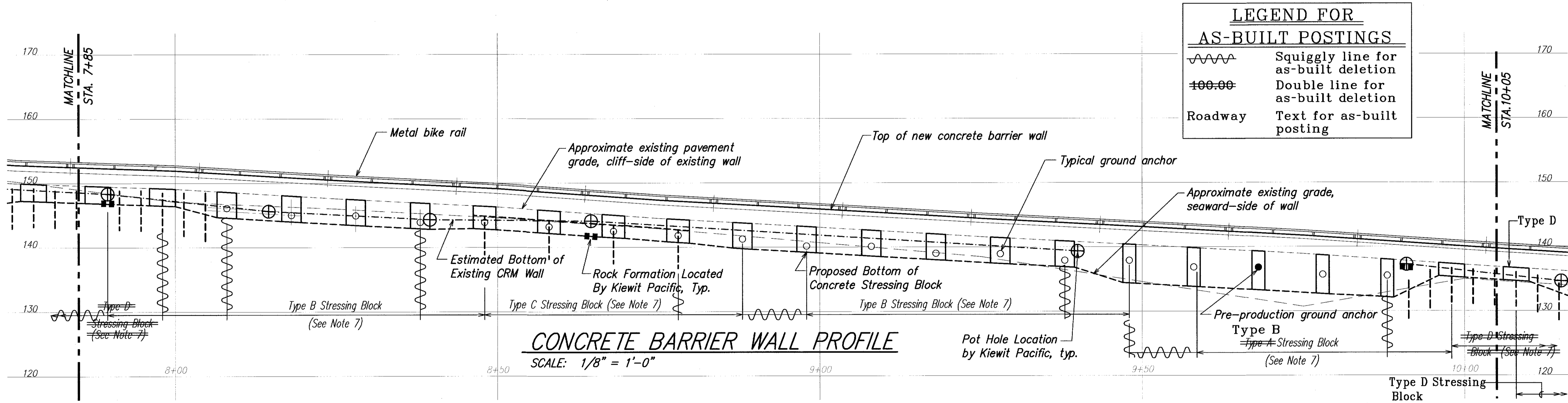


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(51)	2007	C.O. 30	106



CONCRETE BARRIER WALL PROFILE
 SCALE: 1/8" = 1'-0"



CONCRETE BARRIER WALL PROFILE
 SCALE: 1/8" = 1'-0"

LEGEND FOR AS-BUILT POSTINGS

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- Double line for as-built deletion
- Text for as-built posting

NOTES:

- Ground anchor work shall conform to Specification Section 681.
- Design Criteria / Definitions:
 - Working Load = 1.0 Static Load Plus 1.0 Extreme Event (Extreme Event I - Seismic or Extreme Event II - Vehicle Collision).
 - Design Load = Factor of Safety (1.33) times Working Load.
 - Lock-off Load = Factor of Safety (1.33) times Static Load.
 - Max. Test Load = (1.5) times Design Load.
- Anchors are shown on the seaward face of wall and shall be drilled normal to existing wall.
- Dimension are measured along seaward-side of stressing block.
- Contraction joints for the stressing block shall coincide with those for the new concrete barrier wall. Such joints shall be located 5'-0" from ground anchors and a maximum spacing 20'-0" oc.
- The Engineer shall determine location of performance test anchor after Contractor has submitted installation sequence. See Section 681 for additional requirements.
- Stressing Block Limits are Estimates Based on Pot Hole Information Provided by Kiewit Pacific. Exact Limits of Stressing Blocks to be Determined during Construction.

TIEBACK TABLE			
Design Load 0.53 f's Max.	Maximum Test Load 0.75 f's Max.	Transfer (Lockoff) Load 0.7 f's Max.	Anchor Set Loss (Max.)
88 k	132 k	55 k	3/8"
f's = Ultimate tensile strength of the tendon			

DAVID K. FUJIMURA
 LICENSED PROFESSIONAL ENGINEER
 NO. 8104-S
 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujimura
 SIGNATURE

4-30-12
 EXPIRATION DATE OF THE LICENSE

4/15/10	2	Revised Stressing Block
DATE	REVISION	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

CONCRETE BARRIER WALL PROFILE

*Kalaniana'ole Highway Improvements
 Retaining Wall at Makapuu, Oahu
 Federal-Aid Project No. NH-072-1(51)*

Scale: As Noted Date: April 2007

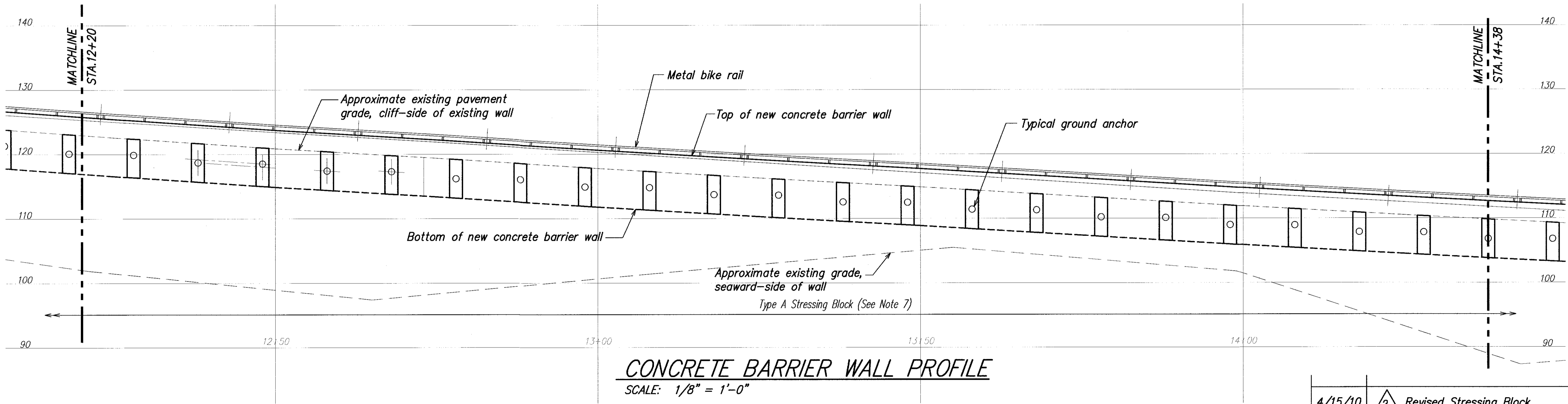
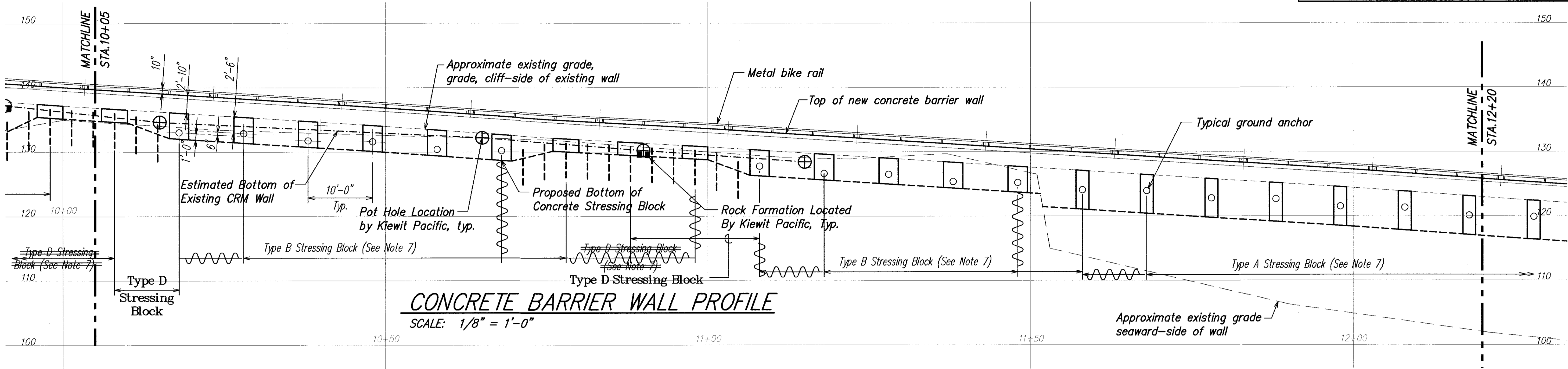
SHEET No. S-4 OF 15 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

"AS-BUILT"

C.O. 30

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(51)	2007	C.O. 31	106



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
No.	

LEGEND FOR
AS-BUILT POSTINGS

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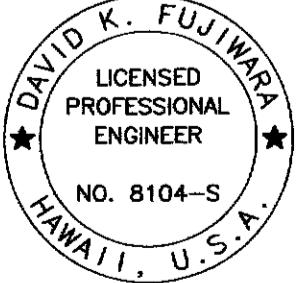
Double line for as-built deletion

Roadway Text for as-built posting

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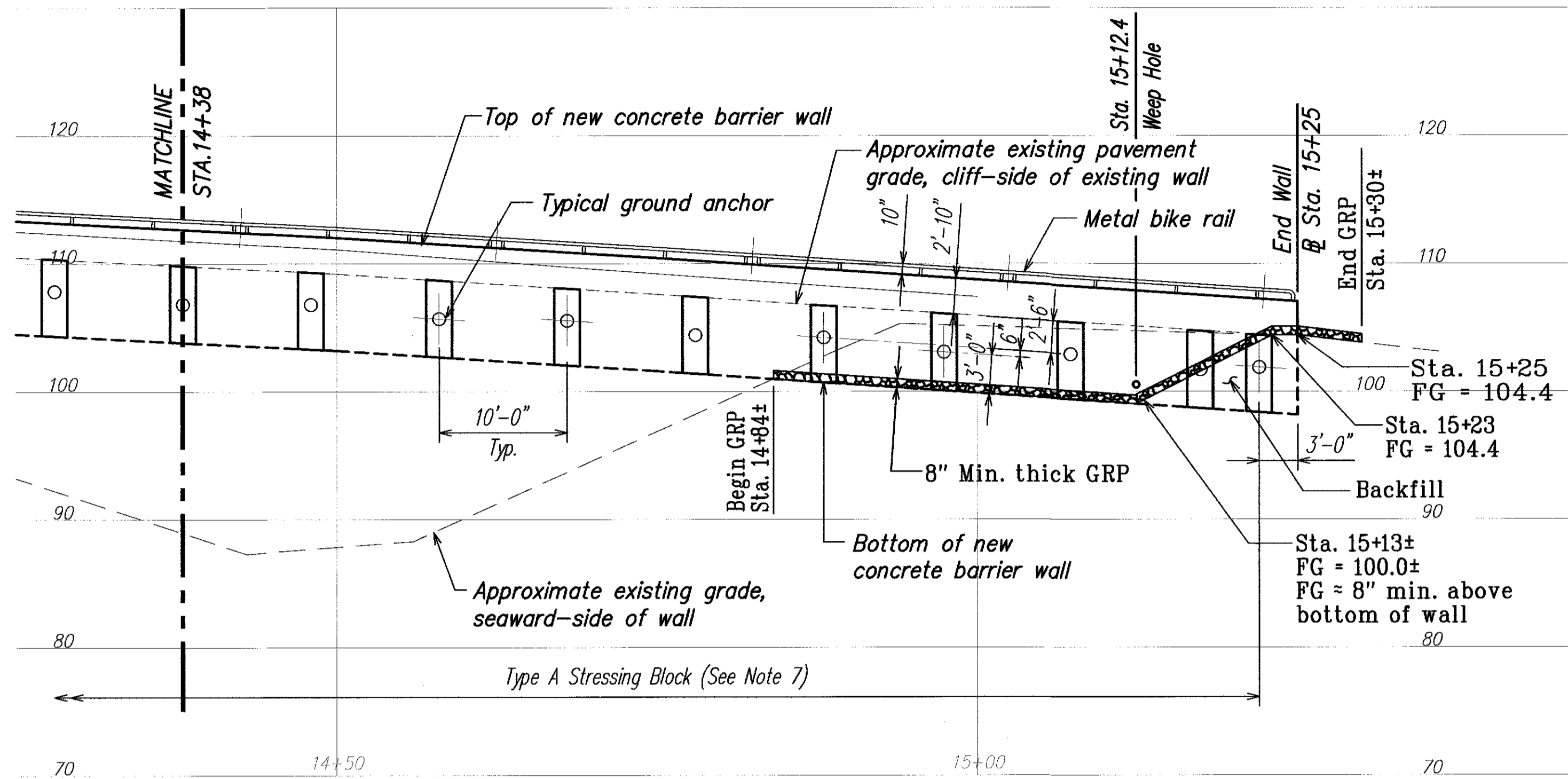
David K. Fujimura 4-30-12

SIGNATURE EXPIRATION DATE OF THE LICENSE



4/15/10	2 Revised Stressing Block
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION CONCRETE BARRIER WALL PROFILE <i>Kalanianaʻole Highway Improvements Retaining Wall at Makapuu, Oahu</i> Federal-Aid Project No. NH-072-1(51) Scale: As Noted Date: April 2007 SHEET No. S-5 OF 15 SHEETS	

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(51)	2007	C.O. 32	106



CONCRETE BARRIER WALL PROFILE
 SCALE: 1/8" = 1'-0"

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

LEGEND FOR AS-BUILT POSTINGS

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Roadway Text for as-built posting

DAVID K. FUJIMURA  
 LICENSED PROFESSIONAL ENGINEER  
 NO. 8104-S  
 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

*David K. Fujimura*  
 SIGNATURE

4-30-12  
 EXPIRATION DATE OF THE LICENSE

|                                                                                                                                                                                                                                                                                                          |                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 4/15/10                                                                                                                                                                                                                                                                                                  | 2 Revised Stressing Block |
| DATE                                                                                                                                                                                                                                                                                                     | REVISION                  |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><br><b>CONCRETE BARRIER WALL PROFILE</b><br><br><i>Kalanianaʻole Highway Improvements<br/>           Retaining Wall at Makapuu, Oahu<br/>           Federal-Aid Project No. NH-072-1(51)</i><br>Scale: As Noted Date: April 2007 |                           |
| SHEET No. S-6 OF 15 SHEETS                                                                                                                                                                                                                                                                               |                           |