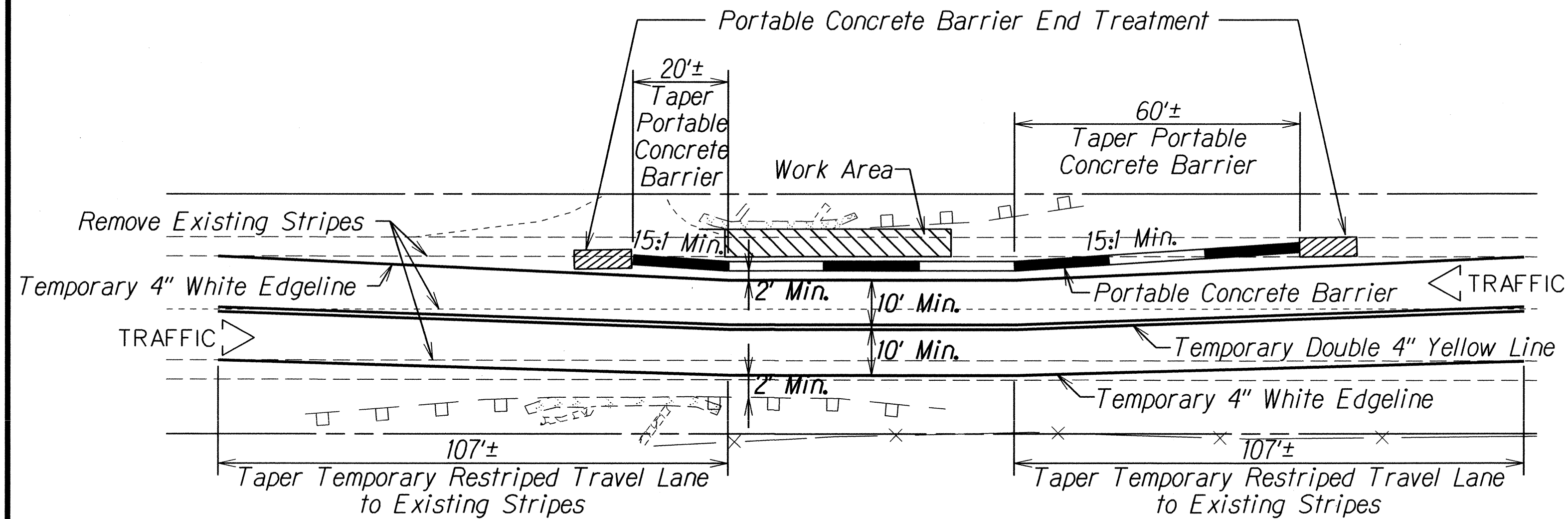
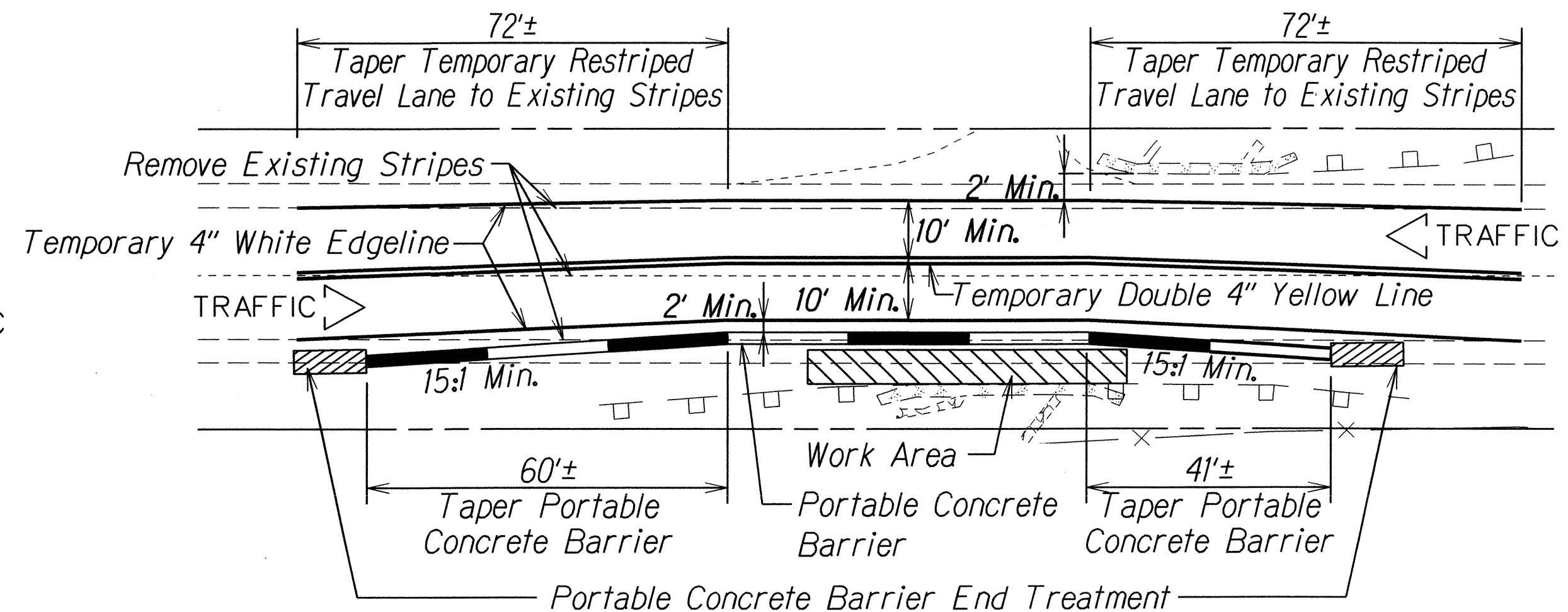


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(072)	2015	21	107



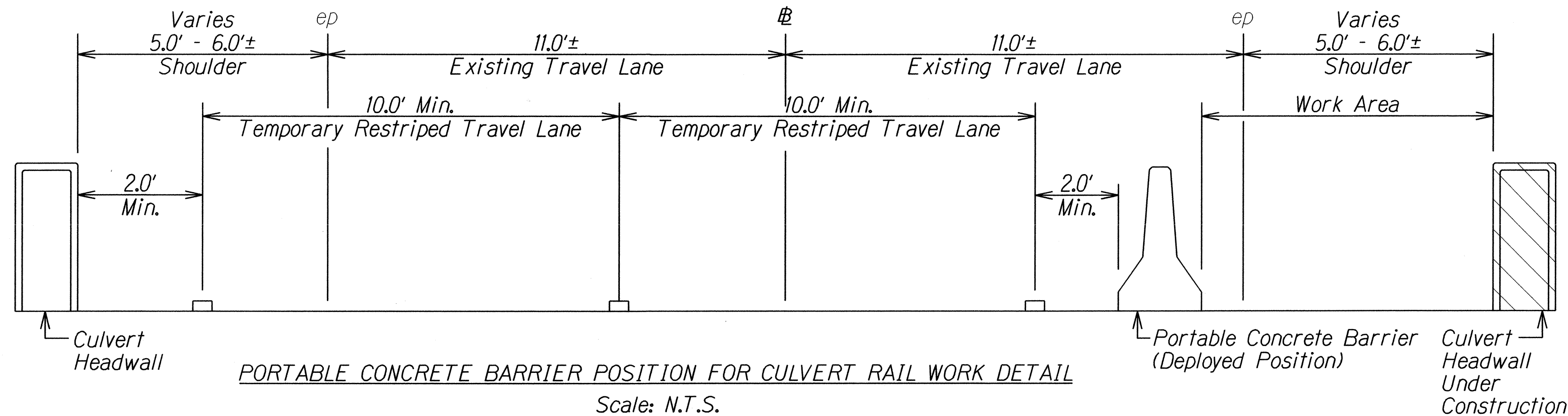
PORTABLE CONCRETE BARRIER PLAN FOR CULVERT RAIL WORK (MAKAI)  
 @ STA. 374+48± to @ STA. 377+22±

Scale: N.T.S.



PORTABLE CONCRETE BARRIER PLAN FOR CULVERT RAIL WORK (MAUKA)  
 @ STA. 374+16± to @ STA. 376+20±

Scale: N.T.S.

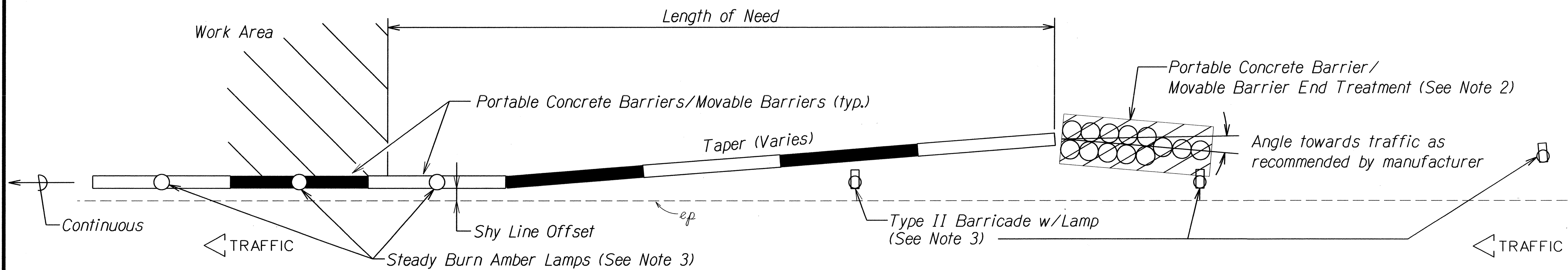


PORTABLE CONCRETE BARRIER POSITION FOR CULVERT RAIL WORK DETAIL

Scale: N.T.S.

**Notes:**

1. Portable Concrete Barriers shall be set to the Deployed Position for the duration of Culvert rail work. The Contractor shall not perform work on both sides of the structure concurrently.
2. Portable Concrete Barrier End Treatments (QuadGuard CZ, TRACC, REACT-350, TAU-II, ABSORB 350 or equivalent) shall comply with the manufacturer's recommendations/requirements.
3. Place Type II Barricade w/Lamp at spacings and positions that comply with part 6 of the MUTCD, Typical Application 5, and install steady burn amber lamps on Portable Concrete Barriers @ 20.0' o.c. Installing, maintaining and removing each steady burn amber lamp including changing of batteries and bulbs shall be considered incidental to applicable Portable Concrete Barrier items.
4. Travel Lanes shall be temporarily restriped and adjusted to 10 feet to accommodate Portable Concrete Barrier Installation and use. Following the completion of culvert work, Travel Lanes shall be restriped to their original locations. This work shall be considered incidental to various contract items and shall not be paid for separately.
5. The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks, and ADA access routes, and side streets, and cross streets at all times. This work shall be considered incidental to various contract items and will not be paid for separately.
6. The Contractor shall develop a Traffic Control Plan to include all necessary Traffic Control Devices. This work shall be considered incidental to Contract Item No. 645.0100 - Traffic Control and shall not be paid for separately.



TYPICAL DETAIL - PORTABLE CONCRETE/MOVABLE BARRIER INSTALLATION

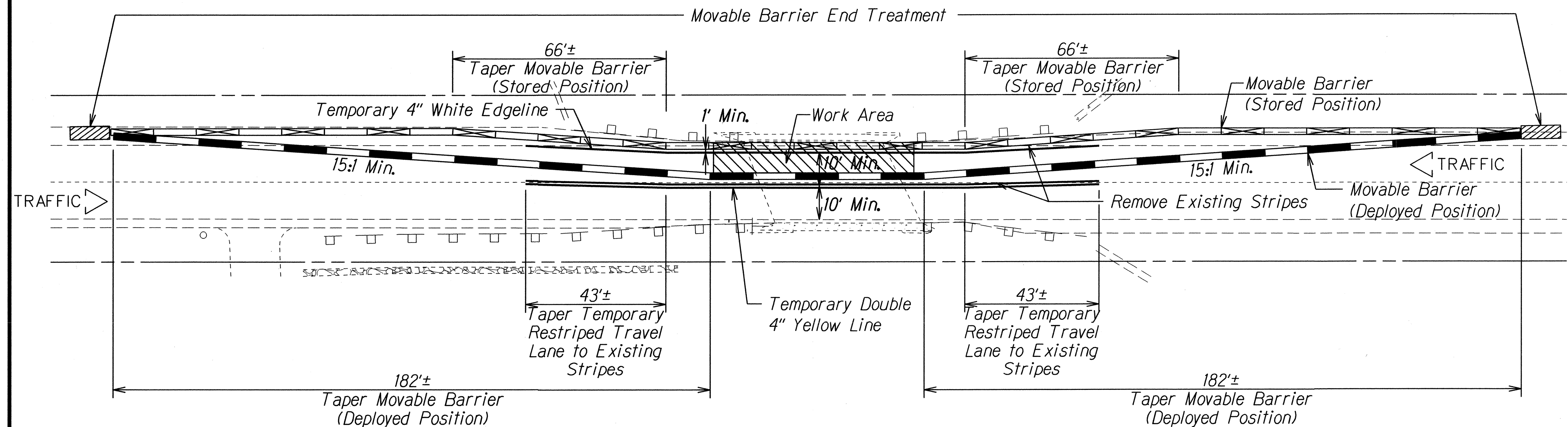
Scale: N.T.S.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

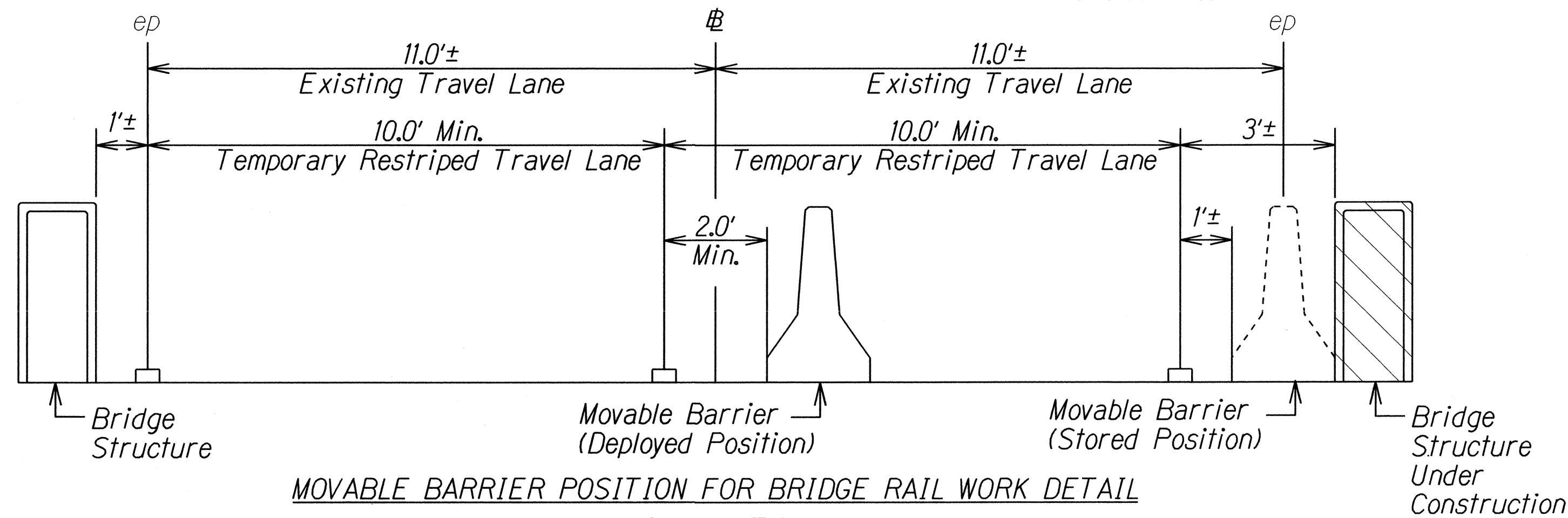
**TEMPORARY PORTABLE CONCRETE BARRIER**  
**PLAN FOR CULVERT RAIL WORK (TYP.)**  
 KAMEHAMEHA HIGHWAY RESURFACING  
 Dairy Road to Laiewai Bridge  
 Federal Aid Project No. NH-083-1(072)  
 Scale: As Shown Date: May, 2015

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(072)	2015	22	107



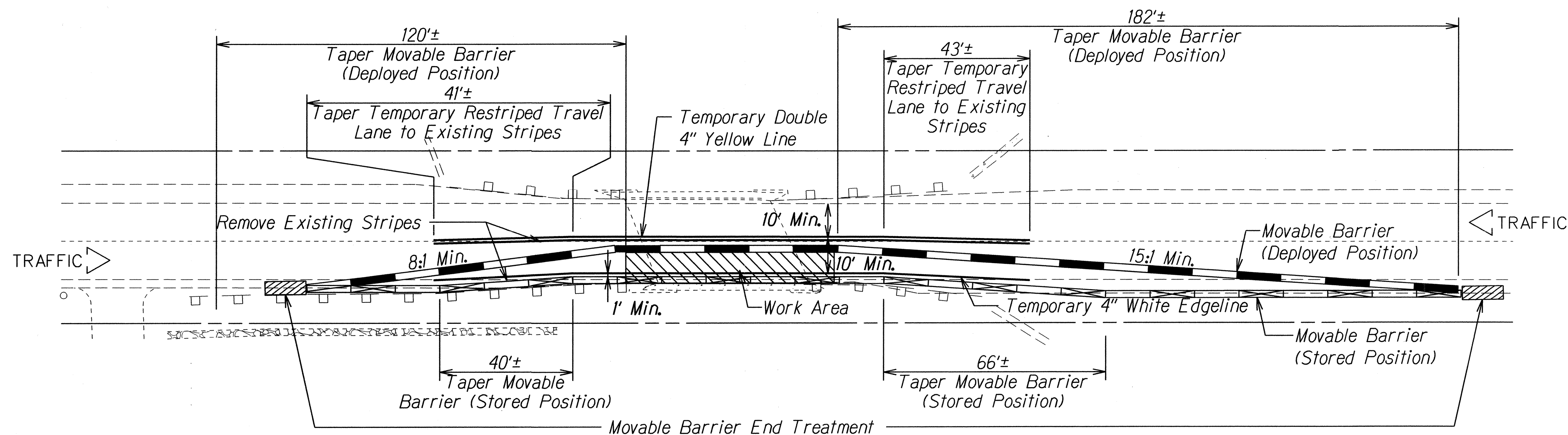
MOBILE BARRIER PLAN FOR RAIL WORK AT WAIALEE STREAM BRIDGE (MAKAI)  
 ± STA. 379+35± to ± STA. 383+89±

Scale: N.T.S.



MOBILE BARRIER POSITION FOR BRIDGE RAIL WORK DETAIL

Scale: N.T.S.



MOBILE BARRIER PLAN FOR RAIL WORK AT WAIALEE STREAM BRIDGE (MAUKA)  
 ± STA. 380+08± to ± STA. 383+97±

Scale: N.T.S.

Notes:

1. Movable Barriers shall be set to the Deployed Position for the duration of bridge rail work, and returned to the Stored Position prior to the end of the work day. While Movable Barriers are set to Deployed Position, the Contractor shall implement contra-flow operations. The Contractor shall not perform work on both sides of the structure simultaneously.
2. Movable Barrier End Treatment (QuadGuard CZ, TRACC, REACT-350, TAU-II, ABSORB 350 or equivalent) shall comply with the manufacturer's recommendations/requirements.
3. Place Type II Barricade w/Lamp at spacings and positions that comply with part 6 of the MUTCD, Typical Application 5, and install steady burn amber lamps on Movable Barriers @ 20.0' o.c. Installing, maintaining and removing each steady burn amber lamp including changing of batteries and bulbs shall be considered incidental to applicable Movable Barrier Items.
4. Travel Lanes shall be temporarily restriped and adjusted to 10 feet to accommodate Movable Barrier Installation and use. Following the completion of culvert work, Travel Lanes shall be restriped to their original locations. This work shall be considered incidental to various contract items and shall not be paid for separately.
5. The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks, and ADA access routes, and side streets, and cross streets at all times. This work shall be considered incidental to various contract items and will not be paid for separately.
6. The Contractor shall develop a Traffic Control Plan to include all necessary Traffic Control Devices. This work shall be considered incidental to Contract Item No. 645.0100 - Traffic Control and shall not be paid for separately.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
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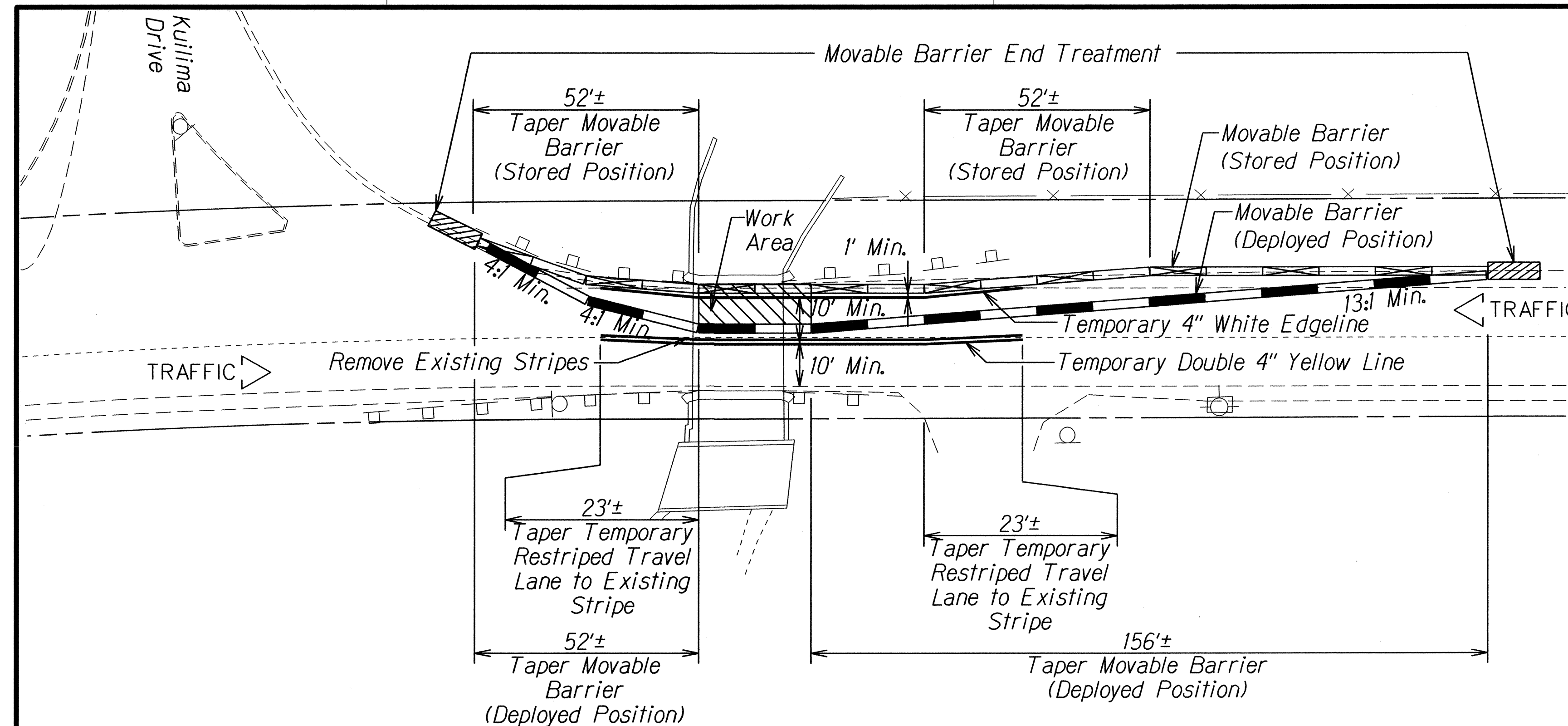
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**TEMPORARY MOVABLE BARRIER PLAN**  
**AT WAIALEE STREAM BRIDGE (TYP.)**  
**KAMEHAMEHA HIGHWAY RESURFACING**  
**Dairy Road to Laiawai Bridge**  
 Federal Aid Project No. NH-083-1(072)  
 Scale: As Shown Date: May, 2015

SHEET No. 2 OF 3 SHEETS



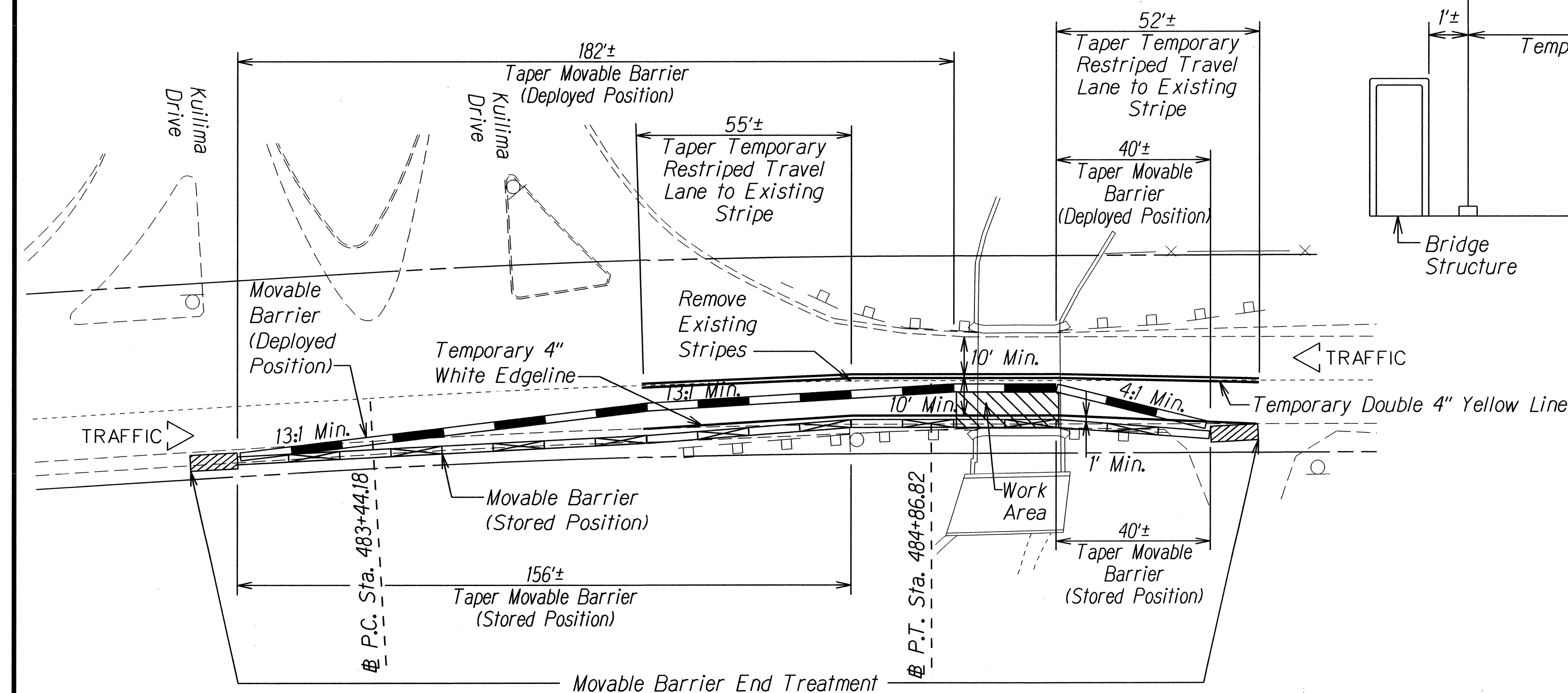
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(072)	2015	23	107



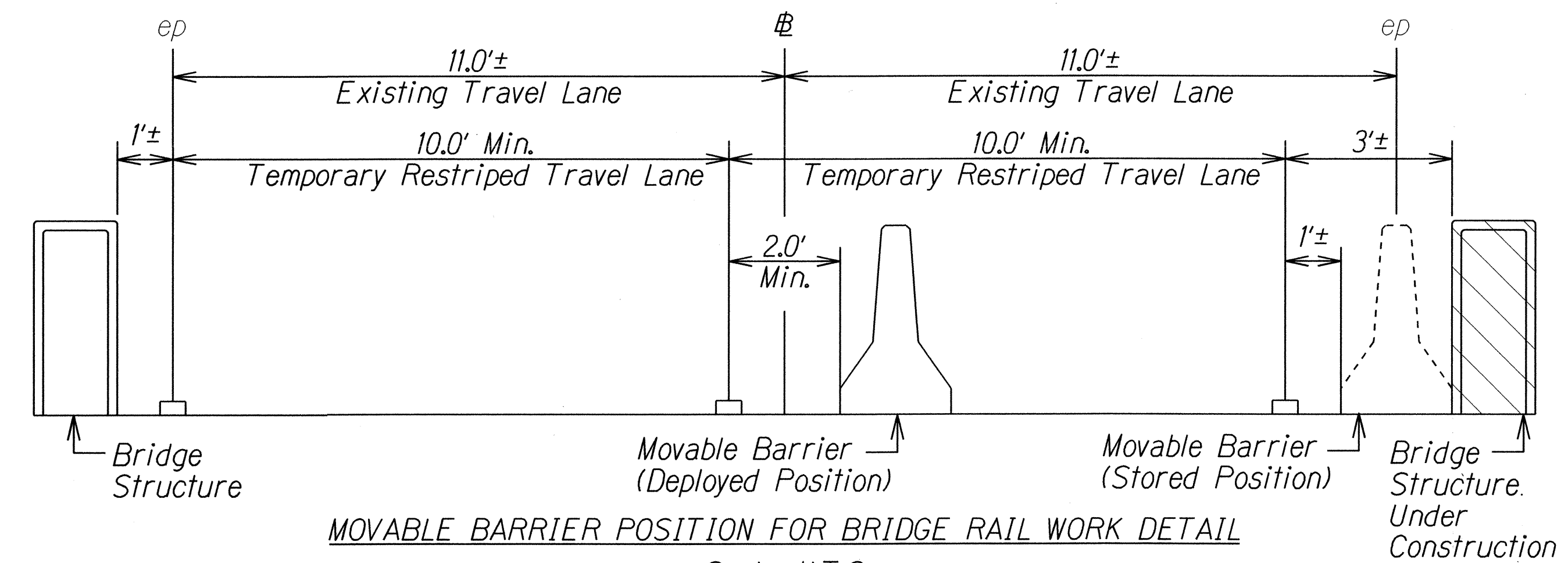
MOBILE BARRIER PLAN FOR RAIL WORK AT KUILIMA STREAM BRIDGE (MAKAI)  
 @ STA. 484+38± to @ STA. 486+94±  
 Scale: N.T.S.

**Notes:**

1. Movable Barriers shall be set to the Deployed Position for the duration of bridge rail work, and returned to the Stored Position prior to the end of the work day. While Movable Barriers are set to Deployed Position, the Contractor shall implement contra-flow operations. The Contractor shall not perform work on both sides of the structure simultaneously.
2. Movable Barrier End Treatment (QuadGuard CZ, TRACC, REACT-350, TAU-II, ABSORB 350 or equivalent) shall comply with the manufacturer's recommendations/requirements.
3. Place Type II Barricade w/Lamp at spacings and positions that comply with part 6 of the MUTCD, Typical Application 5, and install steady burn amber lamps on Movable Barriers @ 20.0' o.c. Installing, maintaining and removing each steady burn amber lamp including changing of batteries and bulbs shall be considered incidental to applicable Movable Barrier Items.
4. Travel Lanes shall be temporarily restriped and adjusted to 10 feet to accommodate Movable Barrier Installation and use. Following the completion of culvert work, Travel Lanes shall be restriped to their original locations. This work shall be considered incidental to various contract items and shall not be paid for separately.
5. The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks, and ADA access routes, and side streets, and cross streets at all times. This work shall be considered incidental to various contract items and will not be paid for separately.
6. The Contractor shall furnish 3 flaggers to control traffic during the installation and removal of Movable Barriers. This work shall be considered incidental to various contract items and shall not be paid for separately.
7. The Contractor shall develop a Traffic Control Plan to include all necessary Traffic Control Devices. This work shall be considered incidental to Contract Item No. 645.0100 - Traffic Control and shall not be paid for separately.



MOBILE BARRIER PLAN FOR RAIL WORK AT KUILIMA STREAM BRIDGE (MAUKA)  
 @ STA. 483+00± to @ STA. 485+70±  
 Scale: N.T.S.



MOBILE BARRIER POSITION FOR BRIDGE RAIL WORK DETAIL  
 Scale: N.T.S.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**TEMPORARY MOVABLE BARRIER PLAN  
 AT KUILIMA STREAM BRIDGE (TYP.)**

KAMEHAMEHA HIGHWAY RESURFACING  
 Dairy Road to Laiewai Bridge  
 Federal Aid Project No. NH-083-1(072)  
 Scale: As Shown Date: May, 2015