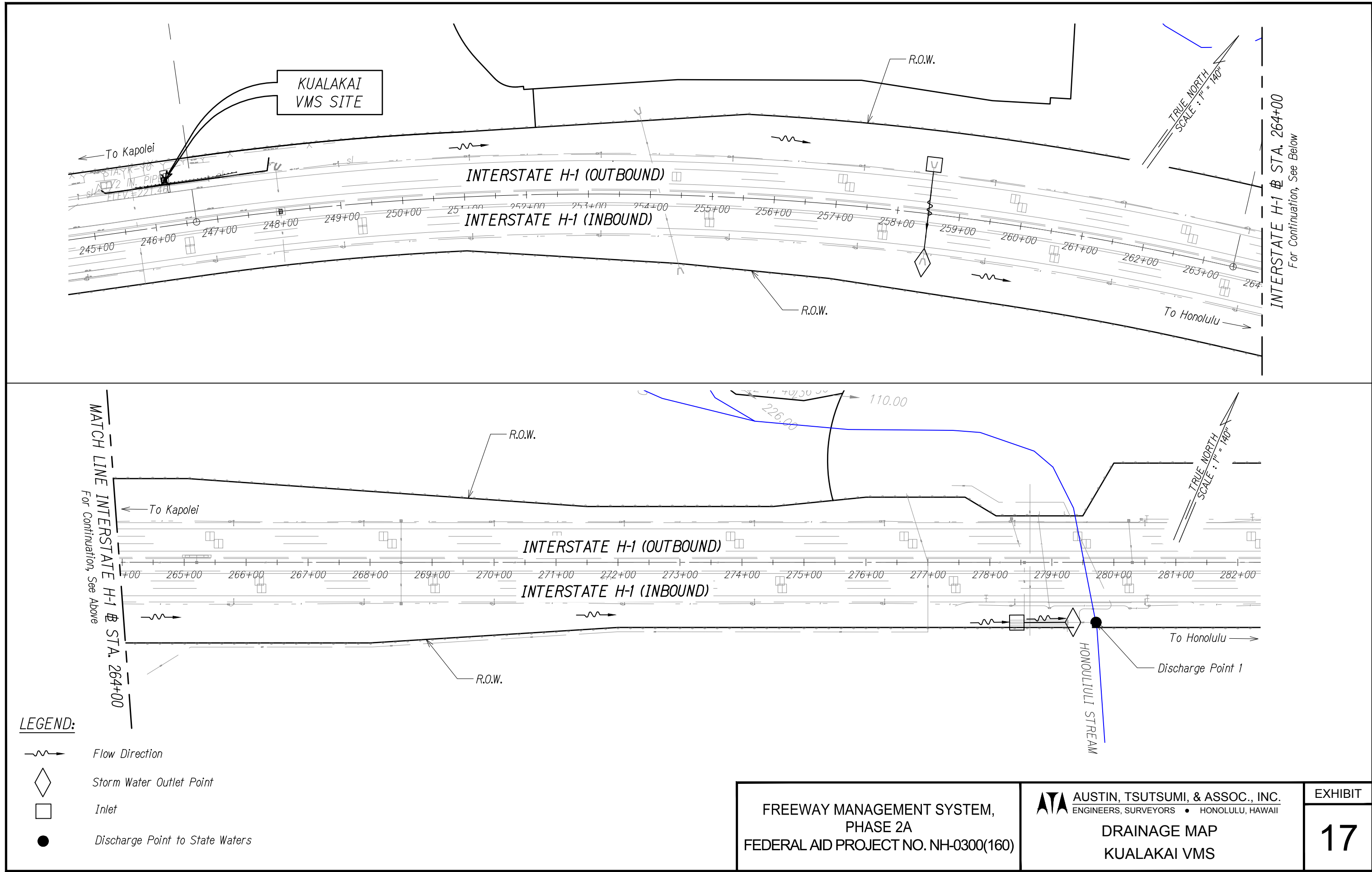
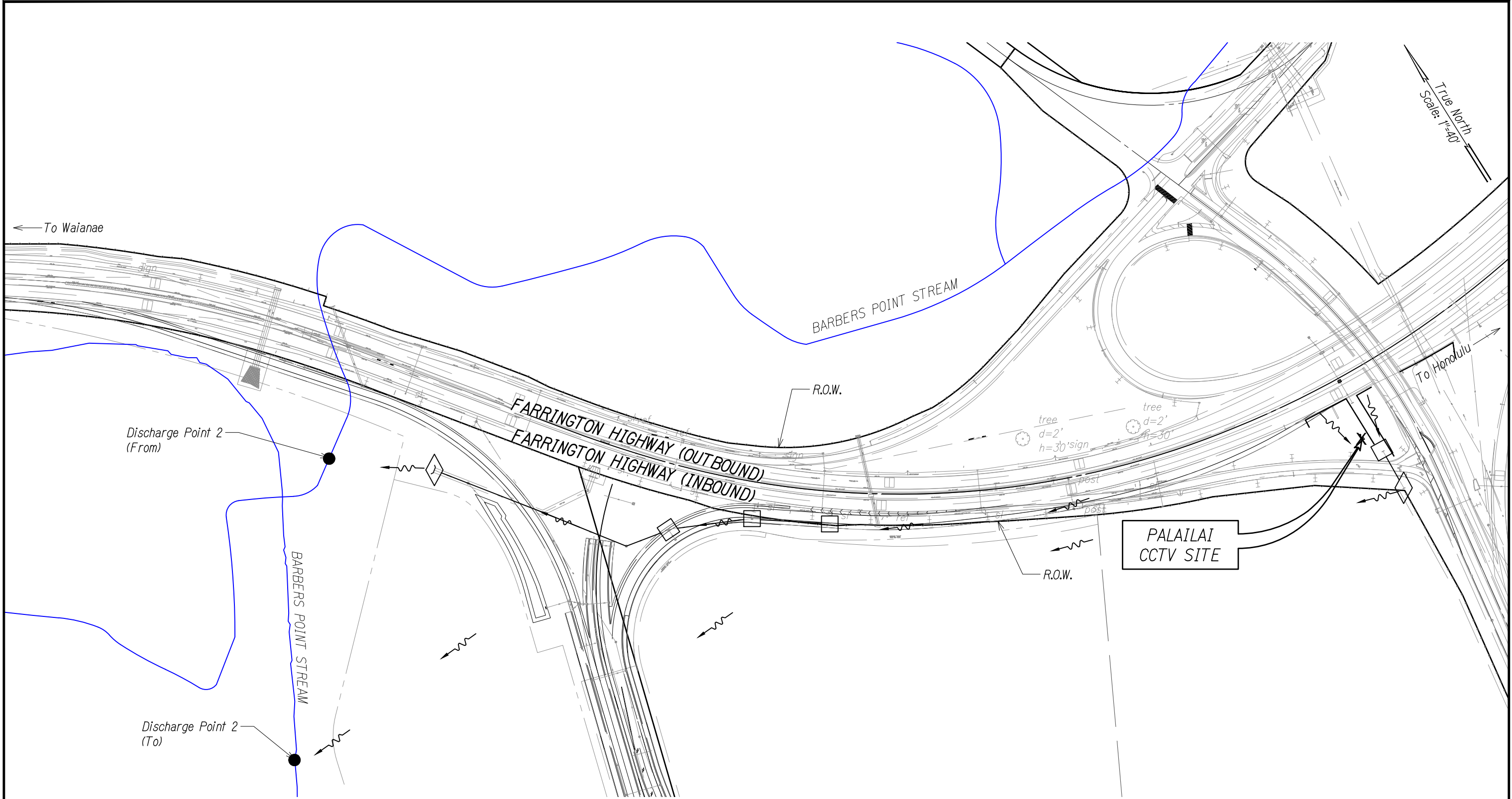


FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\17-DRAINAGE MAP_KUALAKAI VMS.DWG



FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\18-DRAINAGE MAP_PALAILAI CCTV.DWG

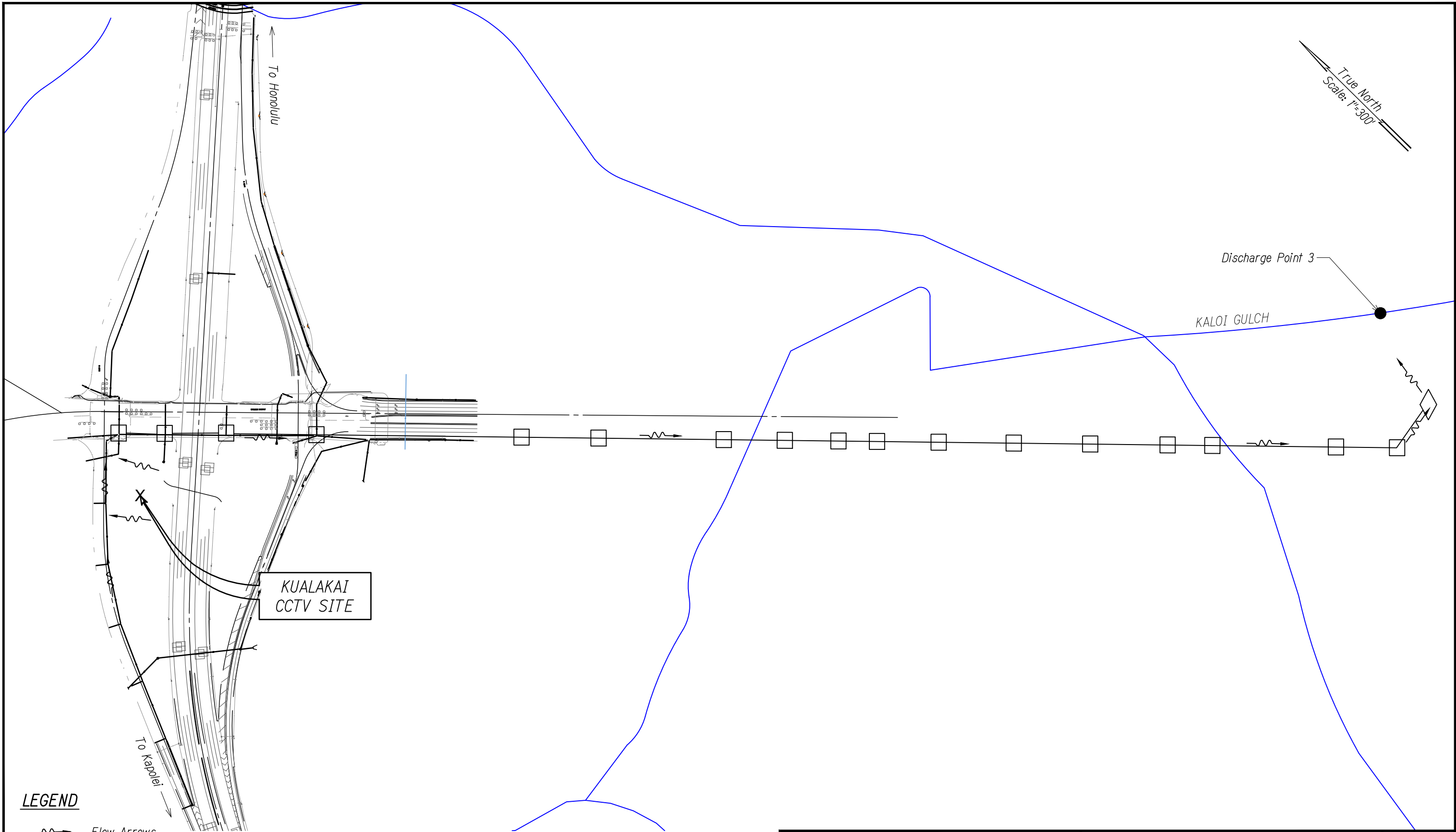


LEGEND

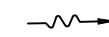
- Flow Arrows
- Storm Water Discharge Point
- Grated Drain Inlet

FREEWAY MANAGEMENT SYSTEM, PHASE 2A FEDERAL AID PROJECT NO. NH-0300(160)	AUSTIN, TSUTSUMI, & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII	EXHIBIT
		18

FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\19-DRAINAGE MAP_KUALAKAI CCTV.DWG



LEGEND

-  Flow Arrows
-  Storm Water Discharge Point
-  Grated Drain Inlet

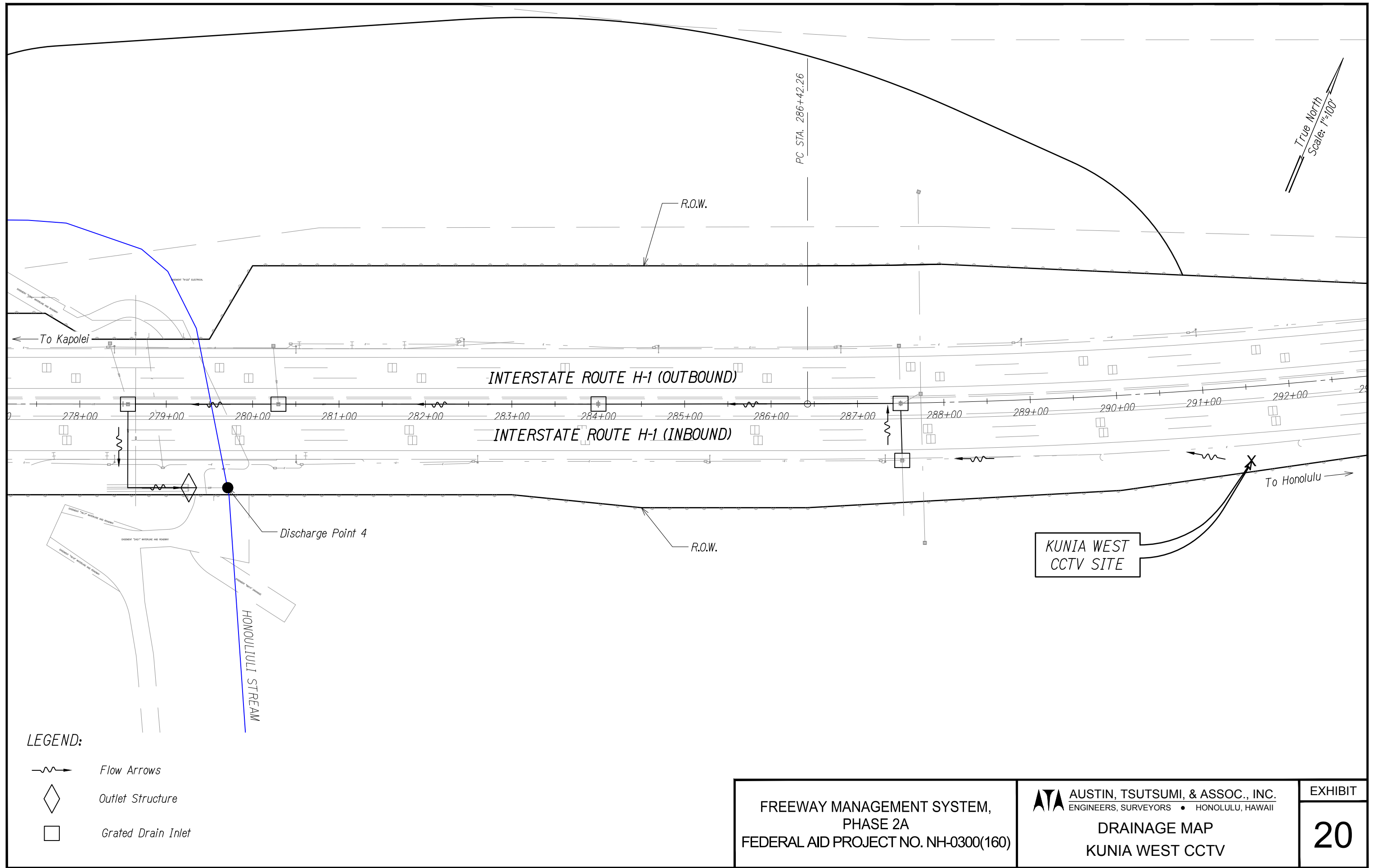
FREEWAY MANAGEMENT SYSTEM,
PHASE 2A
FEDERAL AID PROJECT NO. NH-0300(160)

ATA AUSTIN, TSUTSUMI, & ASSOC., INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII
DRAINAGE MAP
KUALAKAI CCTV

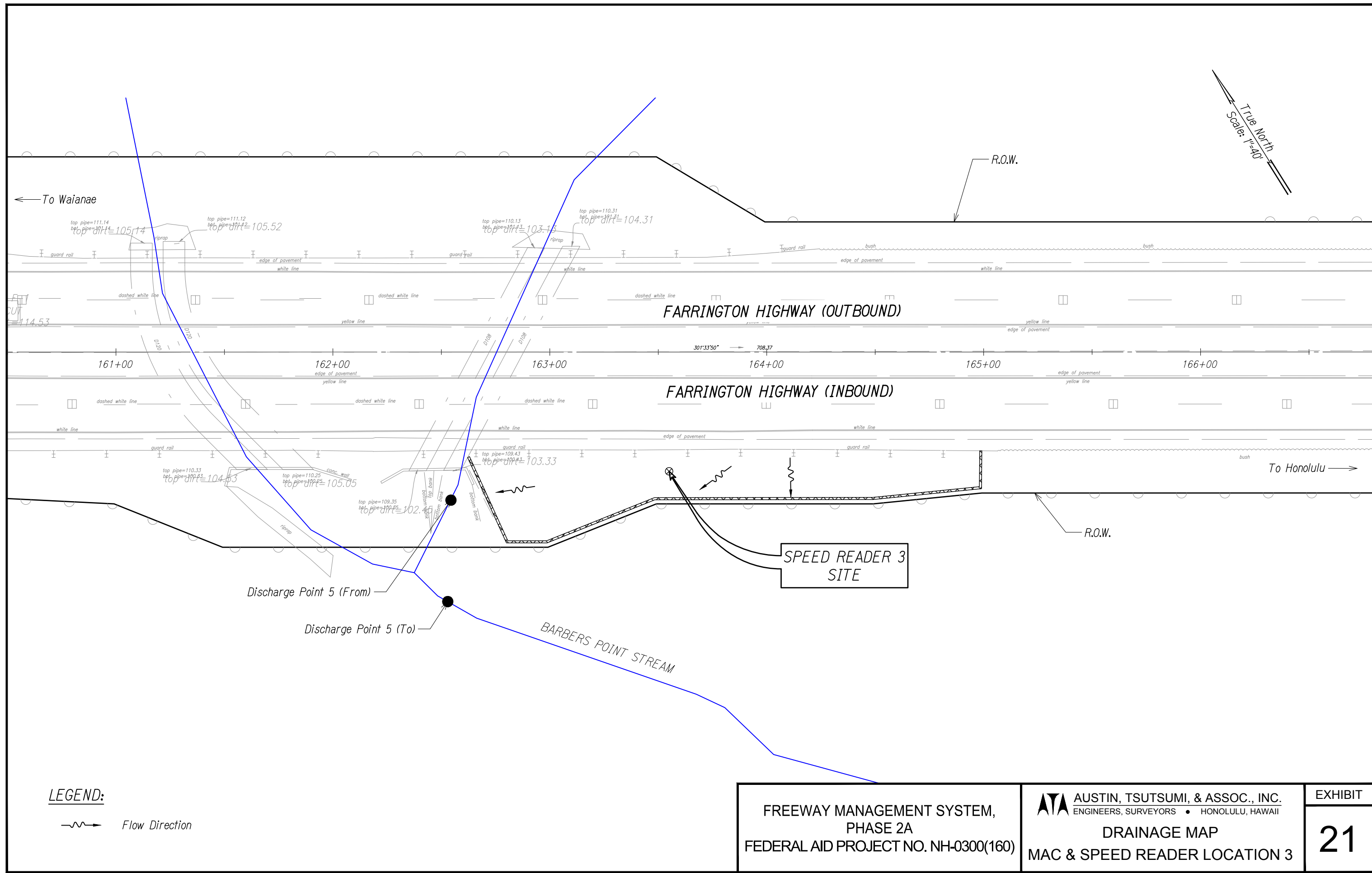
EXHIBIT

19

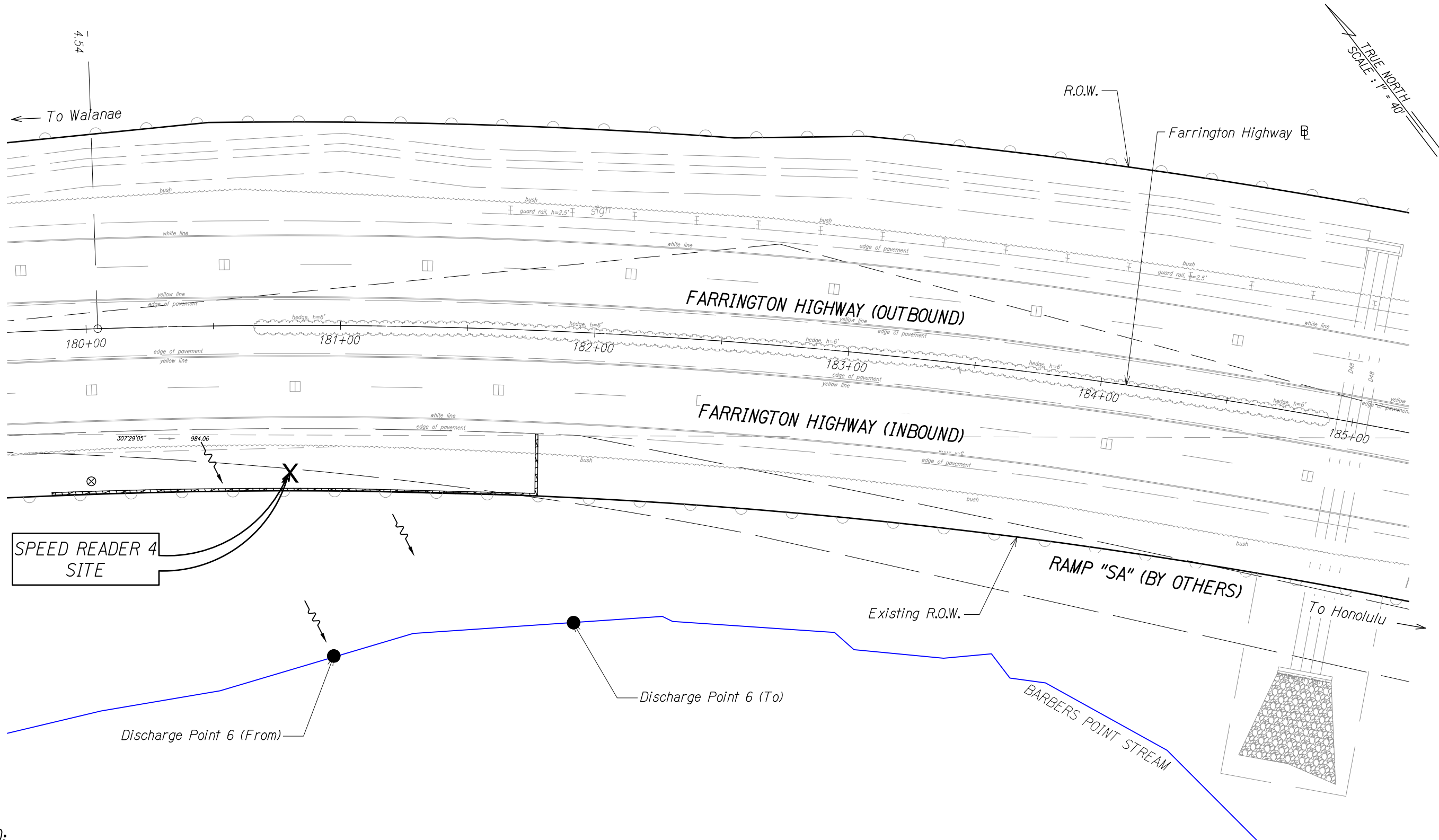
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FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAP_MAC & SPEED READER LOCATION 3.DWG



FREEWAY MANAGEMENT SYSTEM, PHASE 2A FEDERAL AID PROJECT NO. NH-0300(160)	AUSTIN, TSUTSUMI, & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII	EXHIBIT
		21

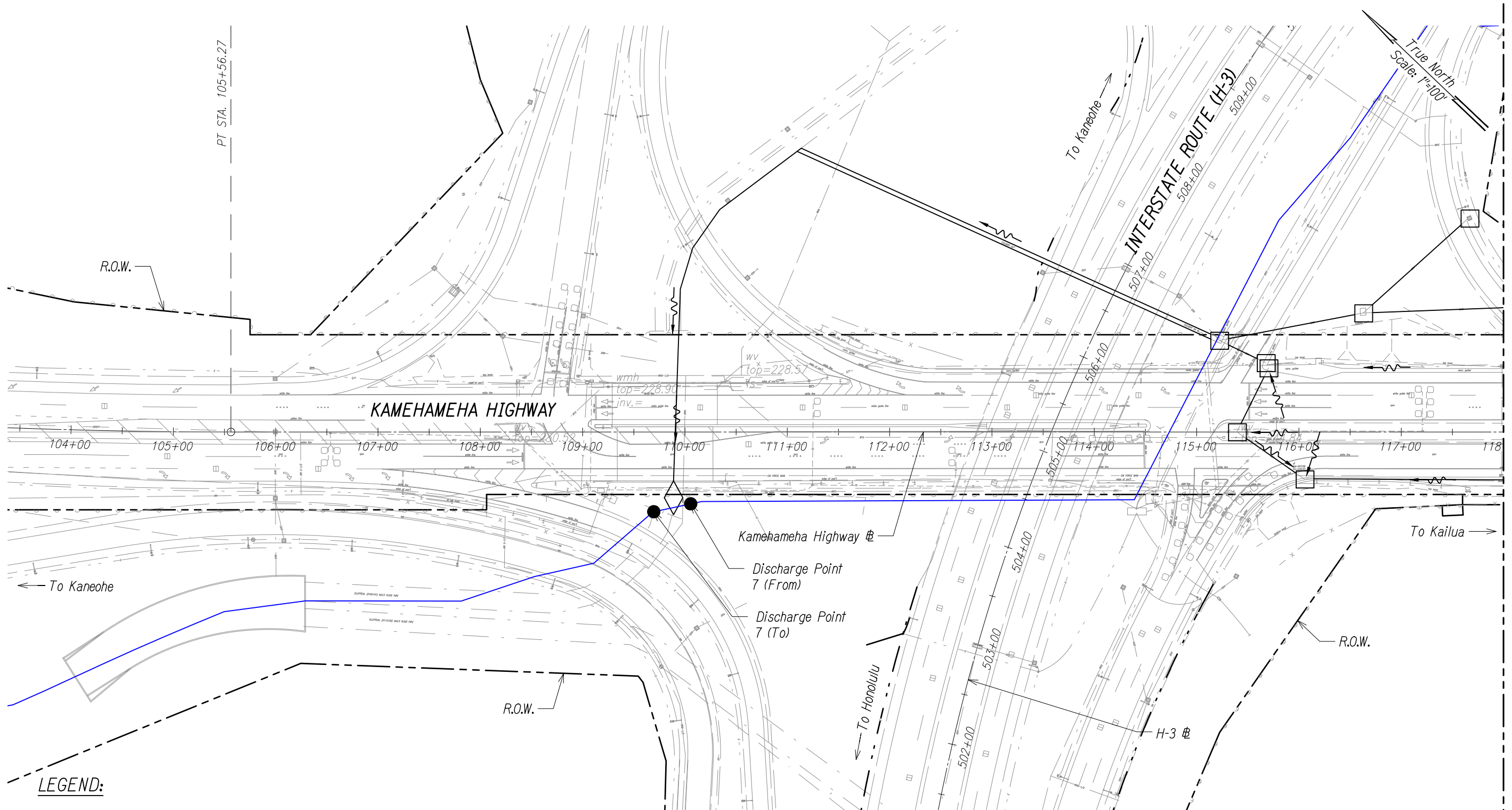


LEGEND:

-  Flow Arrows
-  Outlet Structure
-  Grated Drain Inlet

FREEWAY MANAGEMENT SYSTEM, PHASE 2A FEDERAL AID PROJECT NO. NH-0300(160)	 AUSTIN, TSUTSUMI, & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII DRAINAGE MAP MAC & SPEED READER LOCATION 4	EXHIBIT 22
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FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\23-DRAINAGE MAP_KAMEHAMEHA CONDUIT - 1.DWG



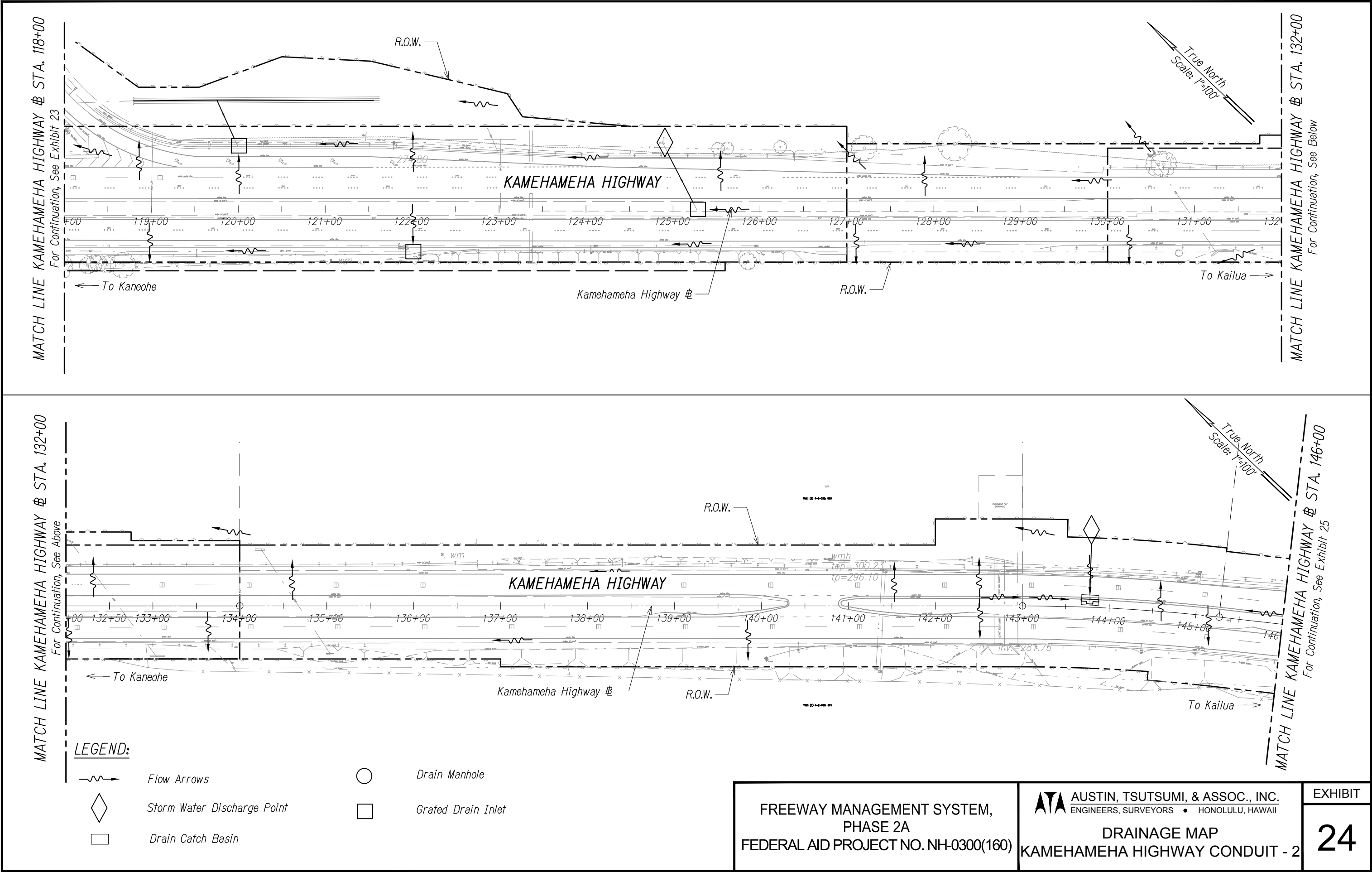
FREEWAY MANAGEMENT SYSTEM,
PHASE 2A
FEDERAL AID PROJECT NO. NH-0300(160)

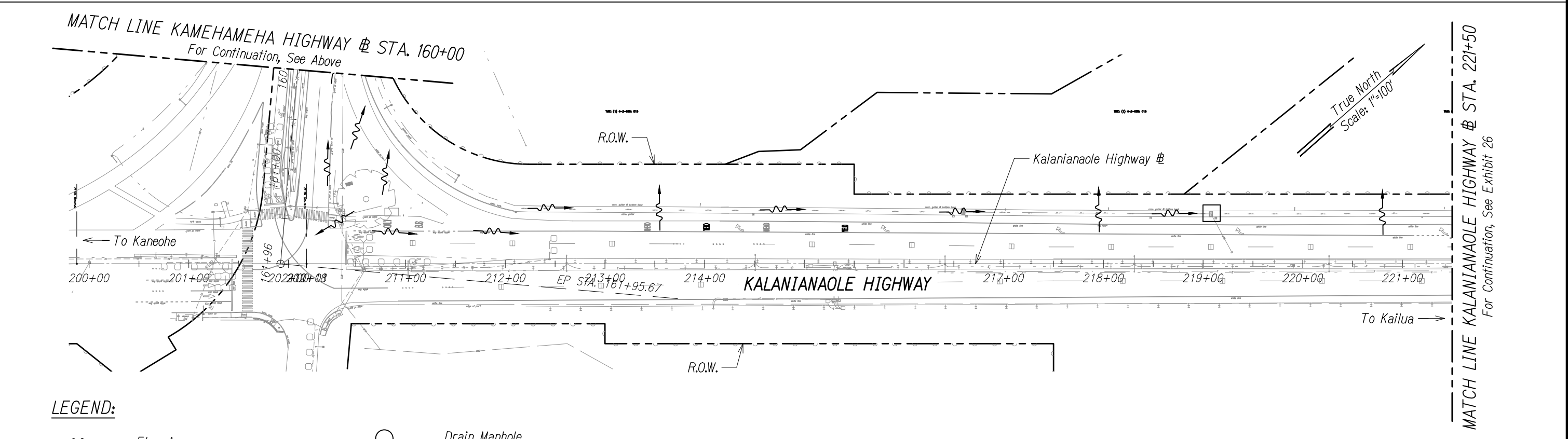
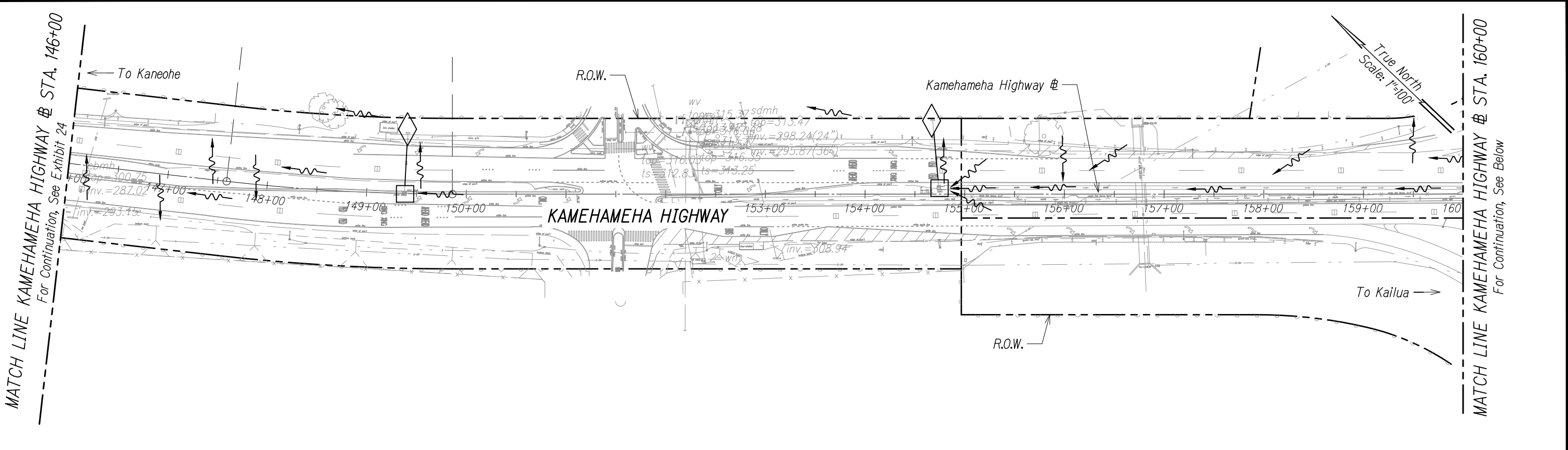
AUSTIN, TSUTSUMI, & ASSOC., INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

DRAINAGE MAP
KAMEHAMEHA HIGHWAY CONDUIT - 1

EXHIBIT

23



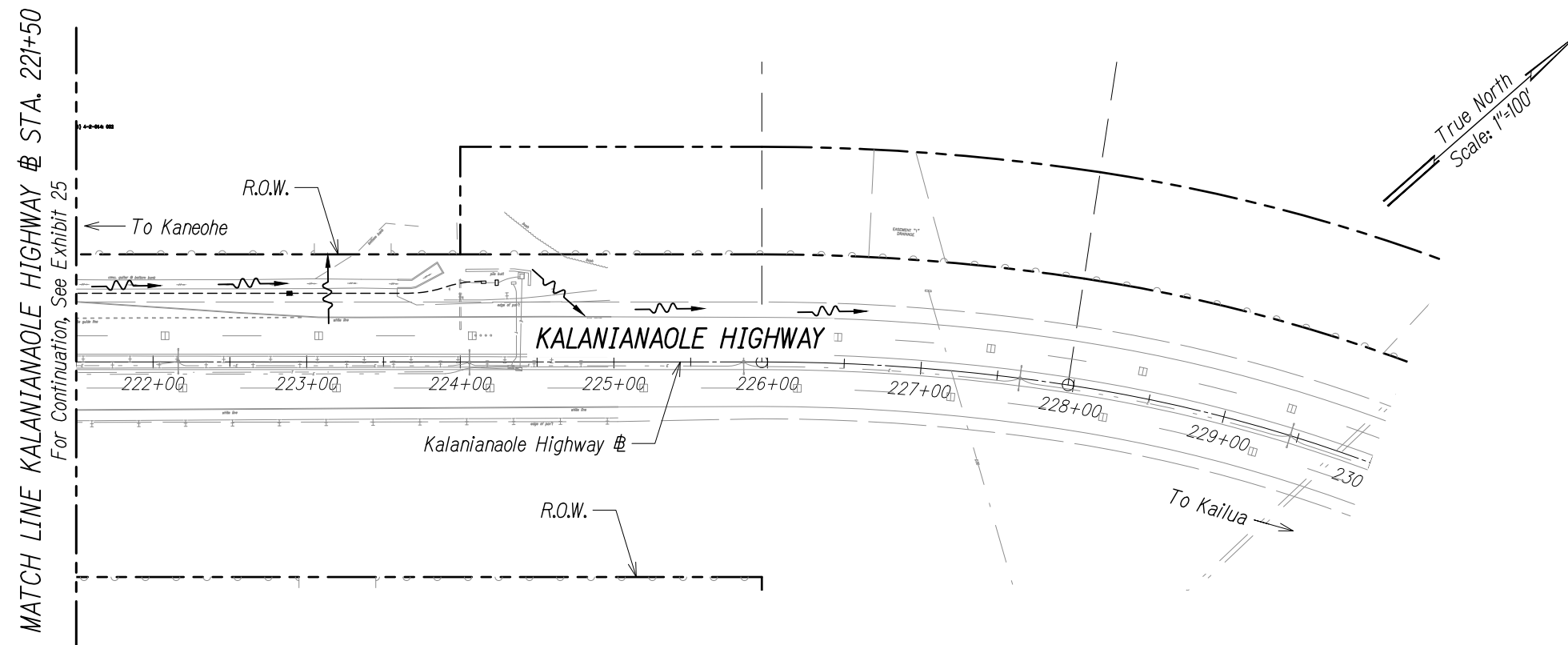


LEGEND:

- | | | | |
|--|-----------------------------|--|--------------------|
| | Flow Arrows | | Drain Manhole |
| | Storm Water Discharge Point | | Grated Drain Inlet |
| | Drain Catch Basin | | |

FREEWAY MANAGEMENT SYSTEM, PHASE 2A FEDERAL AID PROJECT NO. NH-0300(160)	AUSTIN, TSUTSUMI, & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII	EXHIBIT
	DRAINAGE MAP	
	KAMEHAMEHA HIGHWAY CONDUIT - 3	25

FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\26-DRAINAGE MAP_KAMEHAMEHA CONDUIT - 4.DWG



LEGEND:

- | | | | |
|---|-----------------------------|---|--------------------|
|  | Flow Arrows |  | Drain Manhole |
|  | Storm Water Discharge Point |  | Grated Drain Inlet |
|  | Drain Catch Basin | | |

FREEWAY MANAGEMENT SYSTEM,
PHASE 2A
FEDERAL AID PROJECT NO. NH-0300(160)

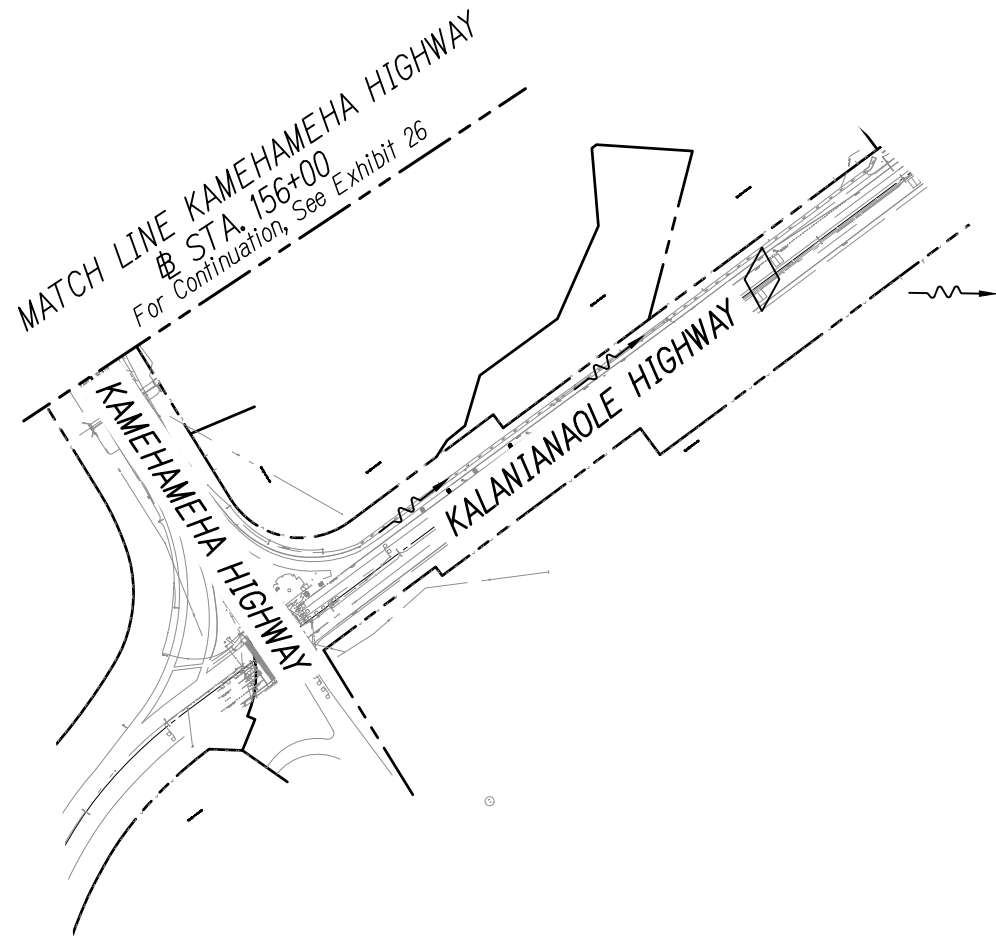
ATA AUSTIN, TSUTSUMI, & ASSOC., INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

DRAINAGE MAP
KAMEHAMEHA HIGHWAY CONDUIT - 4

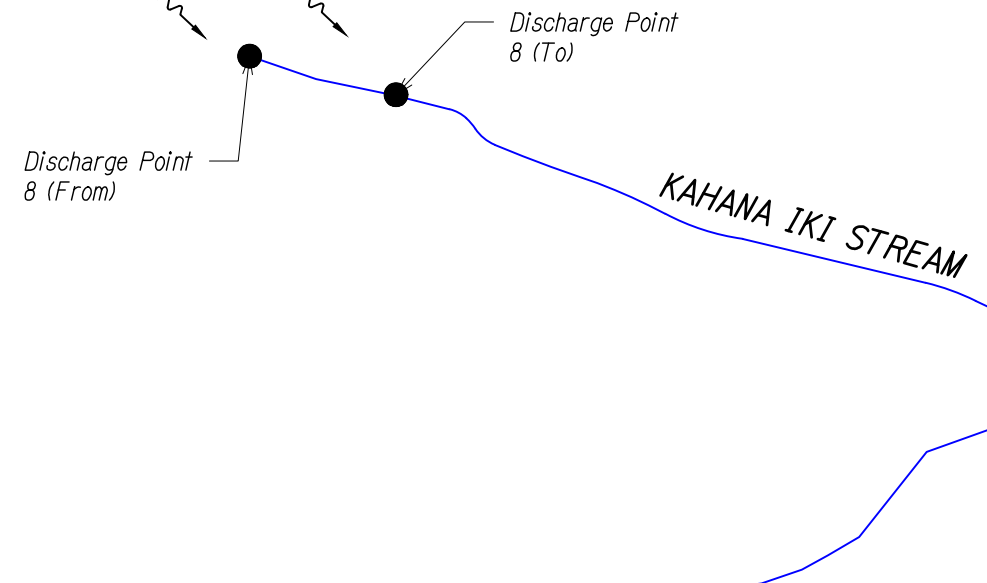
EXHIBIT

26

FN: \\FILES\PROJECTS\2016\16-049\ENGINEERING\NPDES\EXHIBITS\2_DRAINAGE MAPS\27-DRAINAGE MAP_KAMEHAMEHA CONDUIT - 5.DWG



True North
Scale: 1"=350'



LEGEND

- | | | | |
|---|-----------------------------|---|--------------------|
|  | Flow Arrows |  | Drain Manhole |
|  | Storm Water Discharge Point |  | Grated Drain Inlet |

FREEWAY MANAGEMENT SYSTEM,
PHASE 2A
FEDERAL AID PROJECT NO. NH-0300(160)

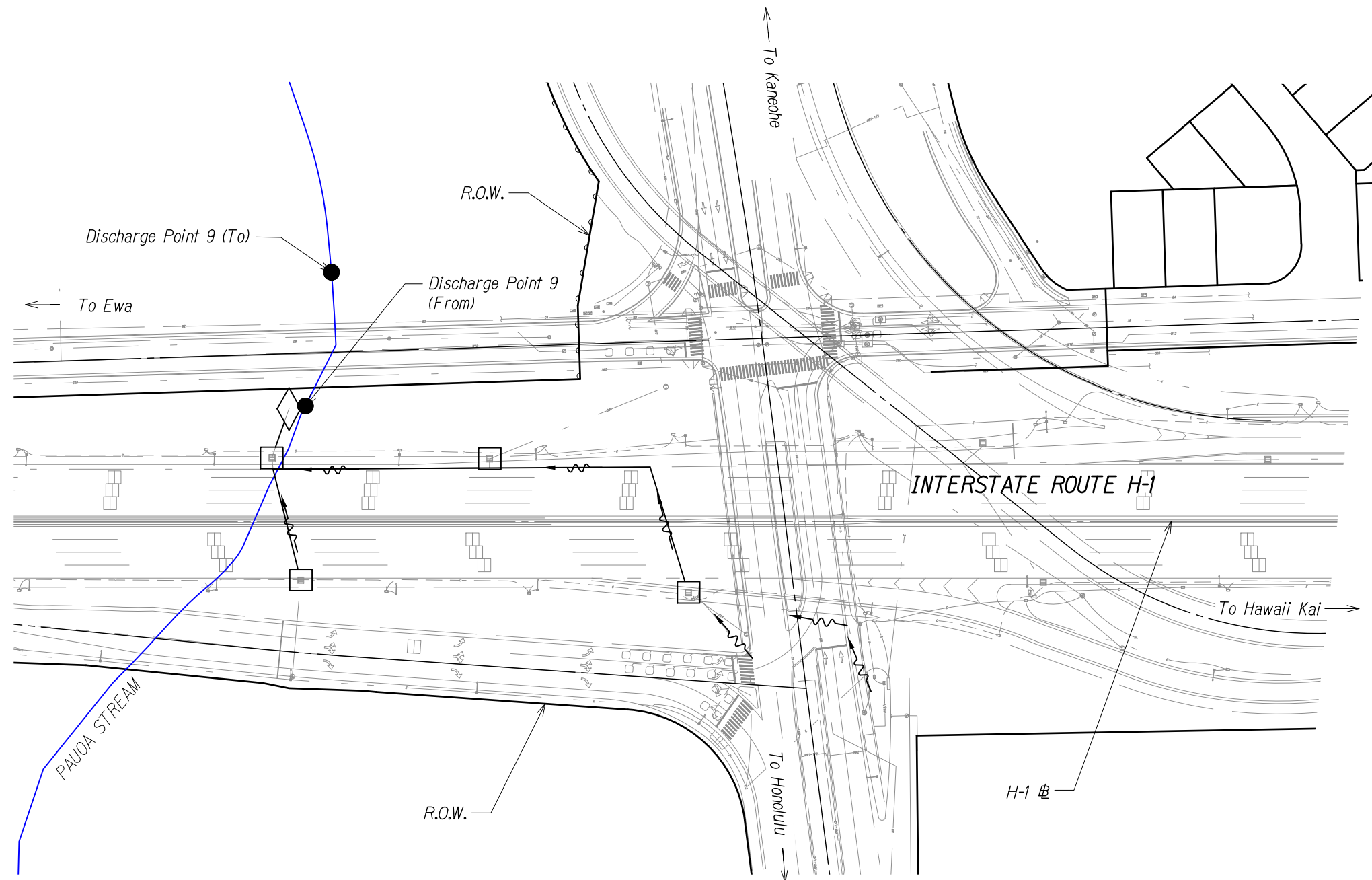
ATA AUSTIN, TSUTSUMI, & ASSOC., INC.
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DRAINAGE MAP
KAMEHAMEHA HIGHWAY CONDUIT - 5

EXHIBIT

27

TRUE NORTH
SCALE : 1" = 100'



KINAU CONDUIT DRAINAGE - FOR DISTURBED AREA NEAR PALI HIGHWAY

Scale : 1" = 100'

LEGEND:

-  Flow Arrows
-  Storm Water Discharge Point
-  Drain Manhole
-  Grated Drain Inlet

FREEWAY MANAGEMENT SYSTEM,
PHASE 2A
FEDERAL AID PROJECT NO. NH-0300(160)

 **AUSTIN, TSUTSUMI, & ASSOC., INC.**
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DRAINAGE MAP
KINAU CONDUIT DRAINAGE -
PALI HIGHWAY

EXHIBIT

28

This engineering plan view illustrates the proposed interchange between Interstate Route H-1 and Kinau Street. The drawing includes the following details:

- Interstate Route H-1:** Shown as a multi-lane highway running horizontally across the upper portion of the plan. A north arrow points towards the top left, labeled "To Ewa".
- Kinau Street:** A street running diagonally from the bottom left towards the top right, intersecting with H-1. It is labeled "KINAU STREET" and "Kinau Street @".
- Interchange Structure:** The plan shows a bridge structure for Kinau Street crossing over Interstate Route H-1. Key features include:
 - Riser 1:** Located at the bottom left of the bridge, with a height of $h=20.6x$ and a width of $b=10$.
 - Riser 2:** Located in the middle of the bridge, with a height of $h=20.6x$ and a width of $b=10$.
 - Riser 3:** Located at the top right of the bridge, with a height of $h=20.6x$ and a width of $b=10$.
- Right-of-Way (R.O.W.):** Indicated by solid lines along the edges of the highway and street.
- Other Features:**
 - Signs:** Various signs are indicated, including "AHEAD OF RAMP" and "AHEAD OF RAMP".
 - Drainage:** Wavy lines represent drainage ditches or culverts.
 - Utility Lines:** Dashed lines represent utility lines.
 - Topography:** Contour lines and spot elevations are shown to indicate the ground profile.

The plan view provides a detailed technical drawing of the proposed interchange, showing the alignment, structure, and surrounding infrastructure.

Scale : 1" = 100'

	<i>Flow Arrows</i>
	<i>Storm Water Discharge Point</i>
	<i>Drain Catch Basin</i>

○ *Drain Manhole*

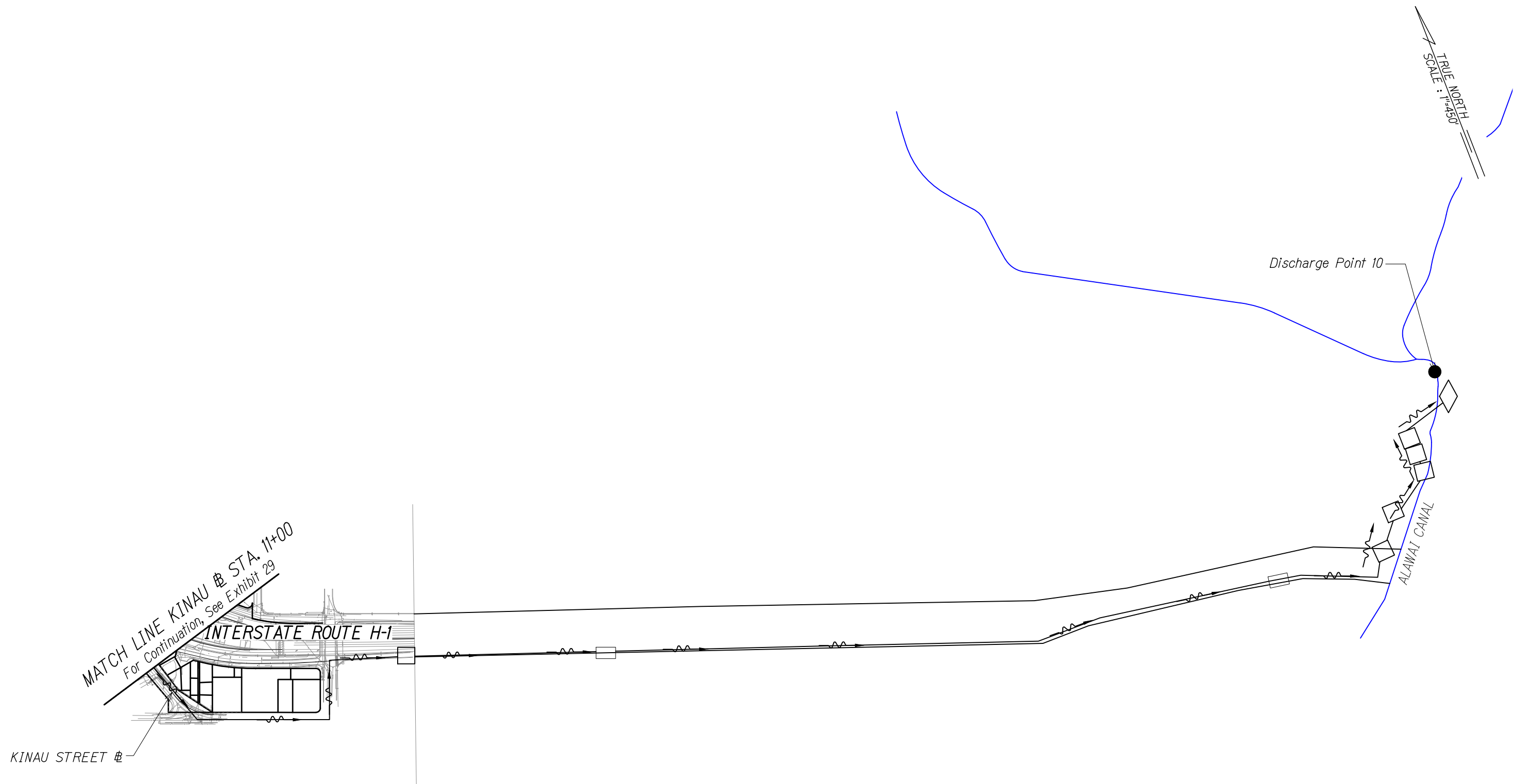
□ *Grated Drain Inlet*

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DRAINAGE MAP KINAU
CONDUIT DRAINAGE - KINAU

EXHIBIT

29



LEGEND:

- | | | | |
|--|-----------------------------|--|--------------------|
| | Flow Arrows | | Drain Manhole |
| | Storm Water Discharge Point | | Grated Drain Inlet |
| | Drain Catch Basin | | |

KINAU CONDUIT DRAINAGE - FOR DISTURBED AREA AT KINAU
 Scale : 1" = 450'

FREEWAY MANAGEMENT SYSTEM, PHASE 2A FEDERAL AID PROJECT NO. NH-0300(160)	AUSTIN, TSUTSUMI, & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII DRAINAGE MAP KINAU CONDUIT DRAINAGE - KINAU STREET	EXHIBIT
		30