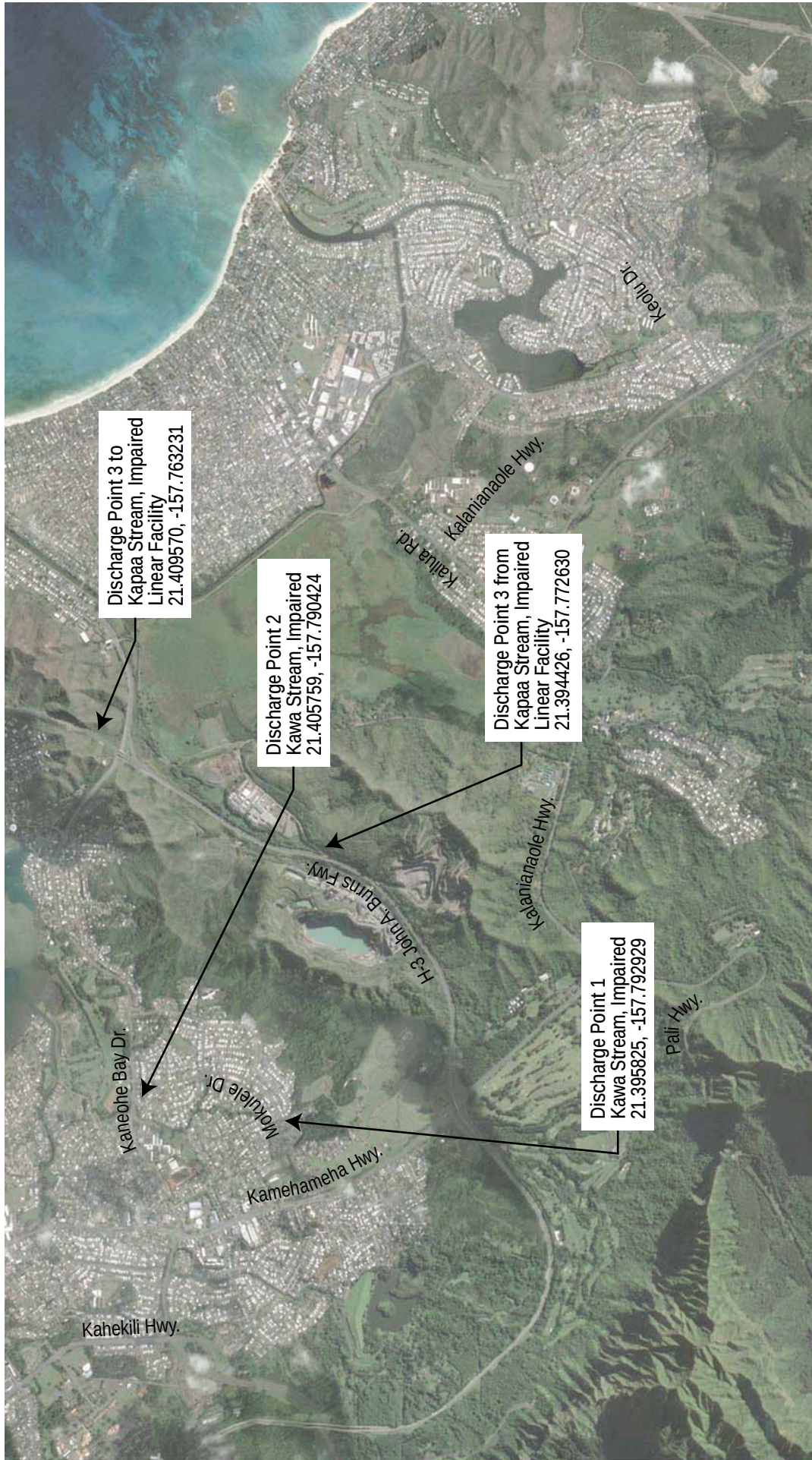


A-3 Receiving Waters and Discharge Locations



Receiving Water Discharge Point Locations
Miscellaneous Permanent Best Management Practices on Oahu

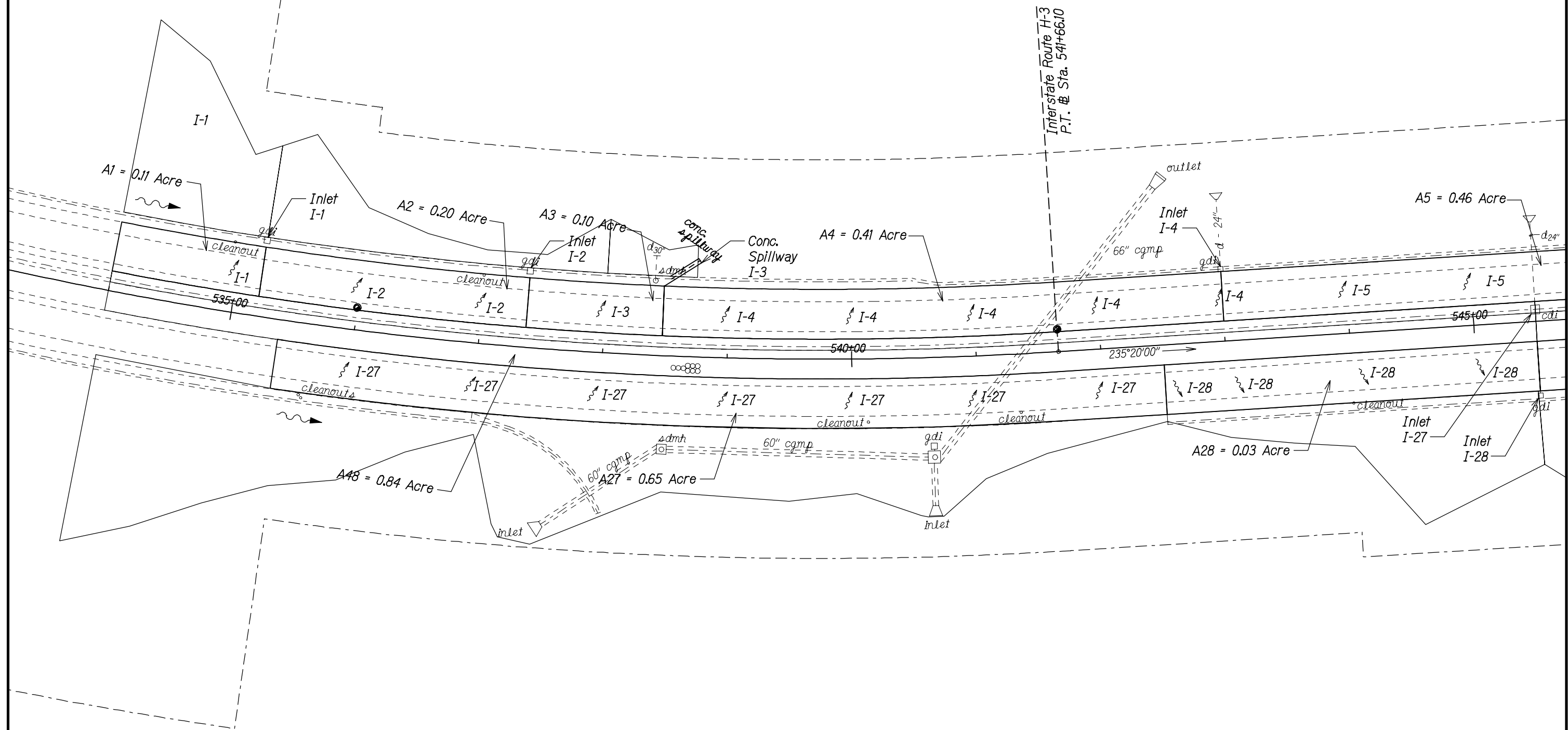
Drainage Area Summary - Interstate Route H-3

Inlet #	Area (acres)	C	Intensity (in.)	Discharge (cfs)
1	0.11	0.9	6.325	0.63
2	0.20	0.9	6.325	1.14
3	0.10	0.9	6.325	0.57
4	0.41	0.9	6.325	2.33
5	0.46	0.9	6.325	2.62
6	0.38	0.9	6.325	2.16
7	0.93	0.9	6.325	5.29
8	0.64	0.9	6.325	3.64
9	0.23	0.9	6.325	1.31
10	0.59	0.9	6.325	3.36
11	0.26	0.9	6.325	1.48
11 (Area 12)	0.54	0.9	6.325	3.07
13	0.96	0.9	6.325	5.46
14	0.35	0.9	6.325	1.99
14 (Area 15)	0.43	0.9	6.325	2.45
16	0.56	0.9	6.325	3.19
17	0.99	0.9	6.325	5.64
18	1.05	0.9	6.325	5.98
19	0.36	0.9	6.325	2.05
20	0.31	0.9	6.325	1.76
21	0.52	0.9	6.325	2.96
22	0.12	0.9	6.325	0.68
23a	0.22	0.55	6.325	0.77
23b	0.03	0.55	6.325	0.10
24	0.17	0.55	6.325	0.59
25	0.06	0.55	6.325	0.21
26	0.05	0.55	6.325	0.17
27	0.65	0.9	6.325	3.70
28	0.03	0.9	6.325	0.17
29	0.41	0.9	6.325	2.33
30	0.50	0.9	6.325	2.85
31	0.33	0.9	6.325	1.88
32	0.32	0.9	6.325	1.82
33	0.24	0.9	6.325	1.37
34	0.46	0.9	6.325	2.62
35a	0.19	0.9	6.325	1.08
35b	0.19	0.9	6.325	1.08
35c	0.10	0.9	6.325	0.57
36	0.86	0.9	6.325	4.90
37	0.58	0.9	6.325	3.30
38	0.37	0.9	6.325	2.11
39	0.56	0.9	6.325	3.19
40a	0.36	0.9	6.325	2.05
40b	0.36	0.9	6.325	2.05
41	0.35	0.9	6.325	1.99
42	0.35	0.9	6.325	1.99

Drainage Area Summary - Interstate Route H-3

Inlet #	Area (acres)	C	Intensity (in.)	Discharge (cfs)
43	0.49	0.9	6.325	2.79
44	0.92	0.9	6.325	5.24
45	0.45	0.9	6.325	2.56
46	0.31	0.9	6.325	1.76
47	0.66	0.9	6.325	3.76
48	0.84	0.55	6.325	2.92
49	0.49	0.55	6.325	1.70
50	0.50	0.55	6.325	1.74
51	0.25	0.55	6.325	0.87
52	0.44	0.55	6.325	1.53
53a	0.15	0.55	6.325	0.52
53b	0.15	0.55	6.325	0.52
53c	0.10	0.55	6.325	0.35
54	0.49	0.55	6.325	1.70
55	1.57	0.55	6.325	5.46
56	0.91	0.55	6.325	3.17
57	1.00	0.55	6.325	3.48
58	0.24	0.55	6.325	0.83
59	0.14	0.55	6.325	0.49
60	0.61	0.55	6.325	2.12
TOTALS	28.95			80.51

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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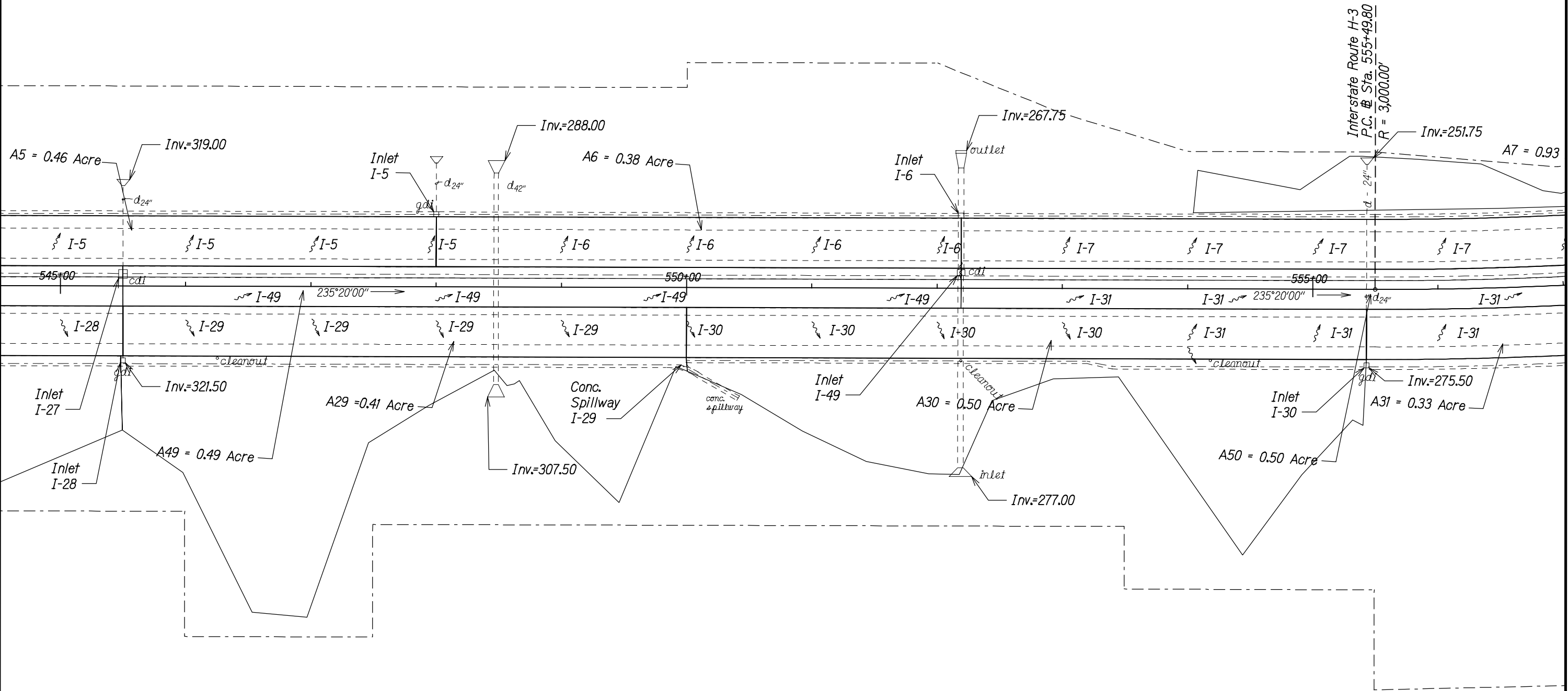
SIGNATURE _____ EXPIRATION DATE OF THE LICENSE 04/30/12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

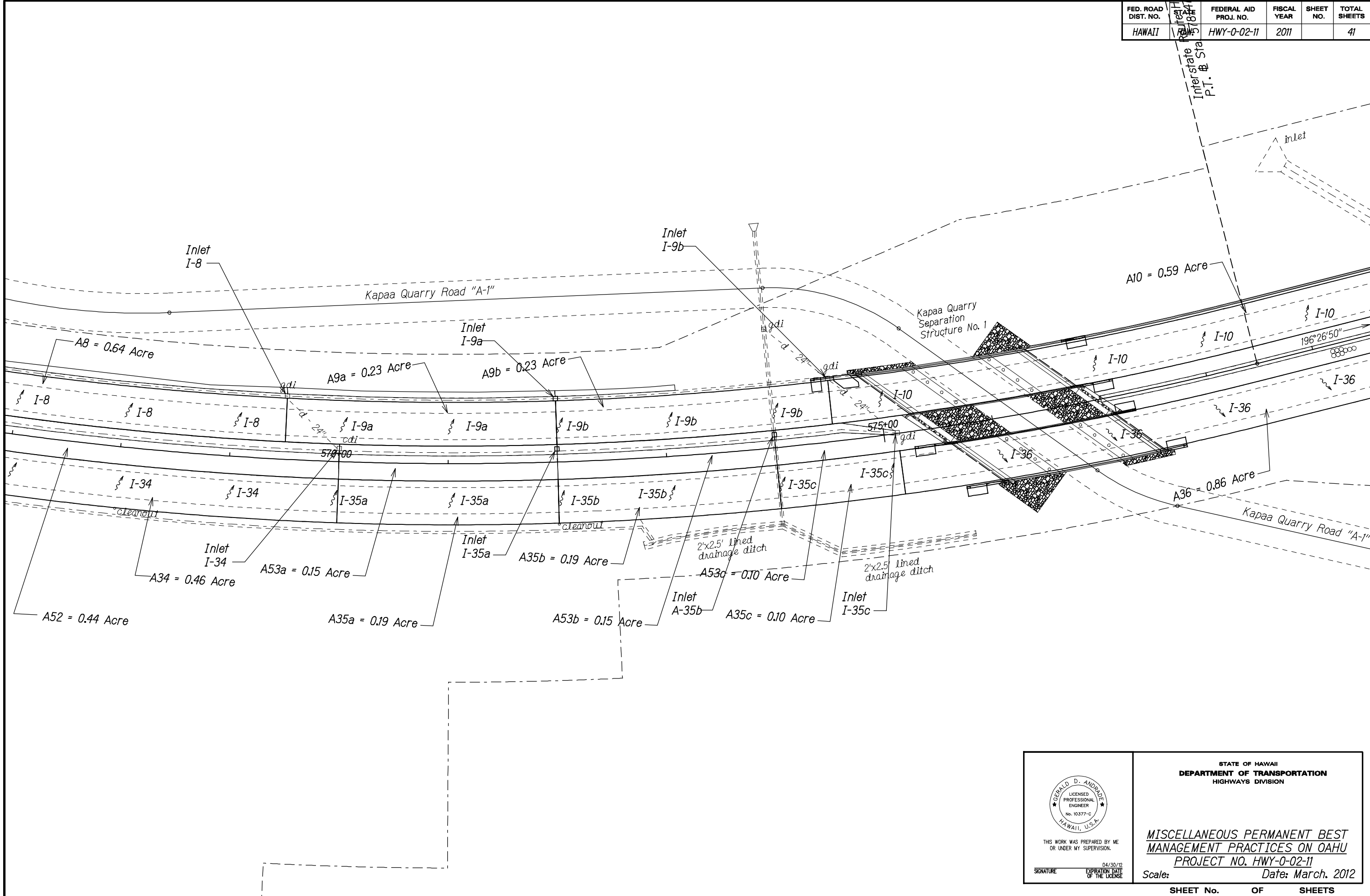
MISCELLANEOUS PERMANENT BEST
MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11

Scale: _____ Date: March, 2012

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



FED. ROAD DIST. NO.	STATE PROJECT NO.	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HWY-0-02-11	HWY-0-02-11	2011	41	41



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LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

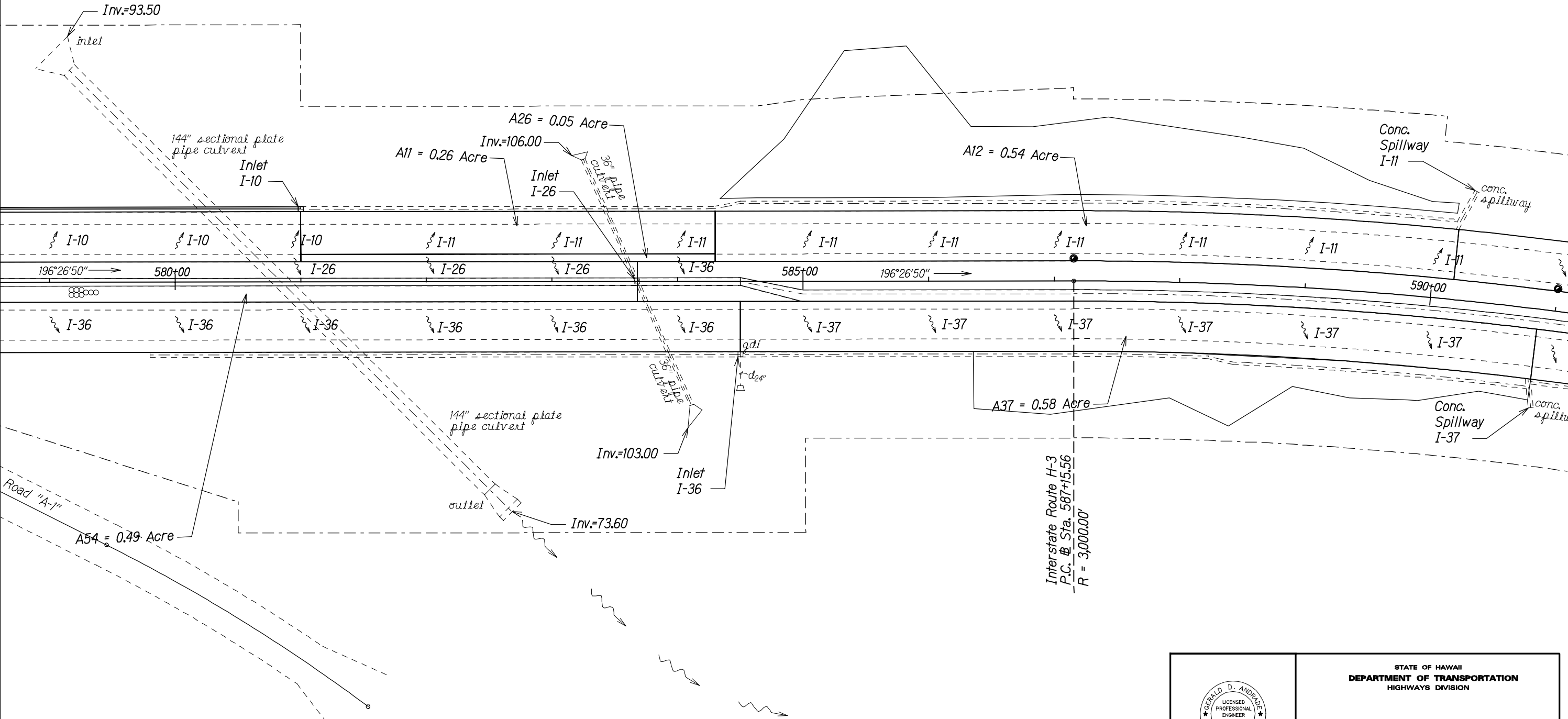
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MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



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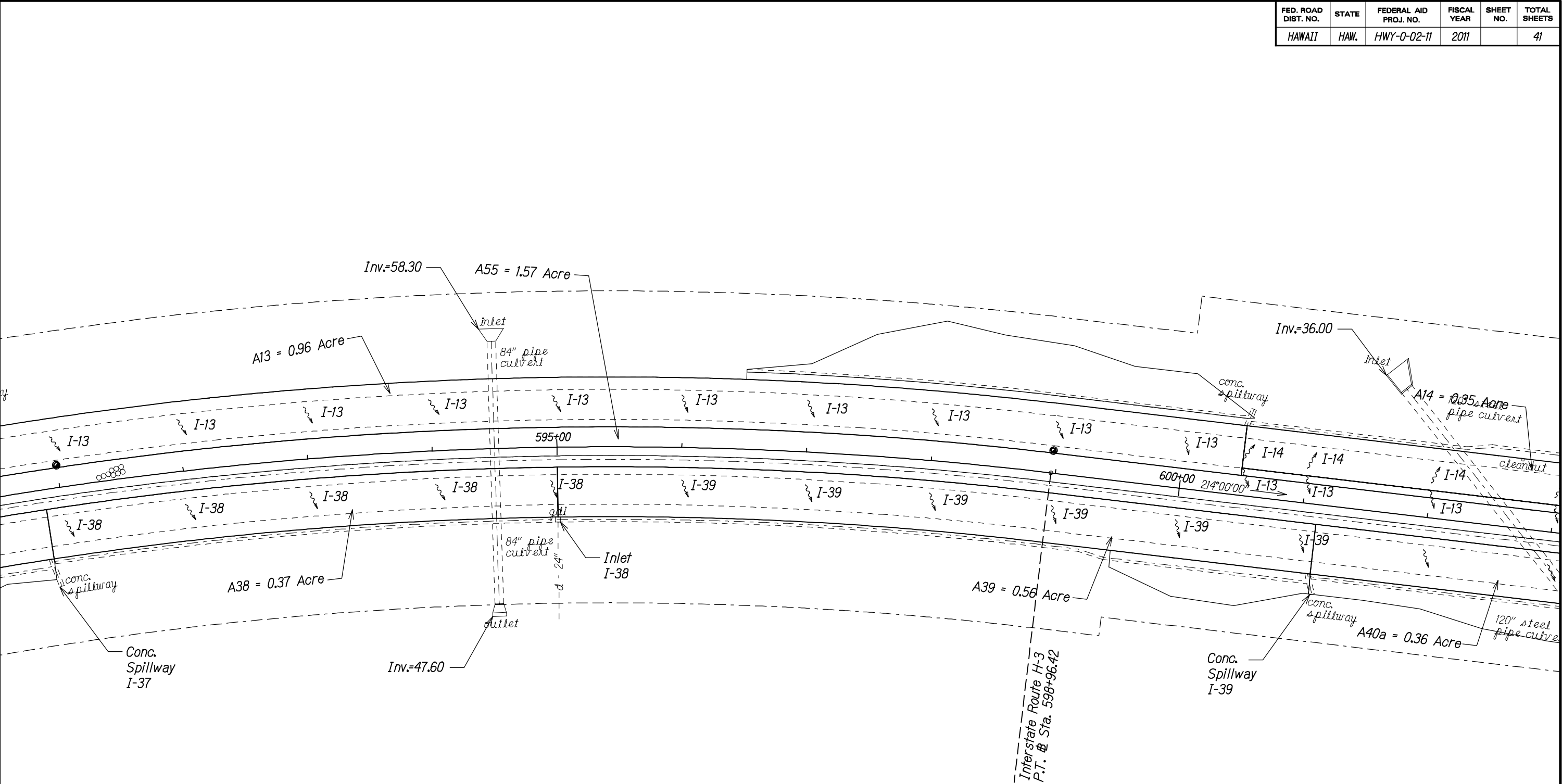
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HIGHWAYS DIVISION

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11

Scale: _____ Date: March, 2012

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



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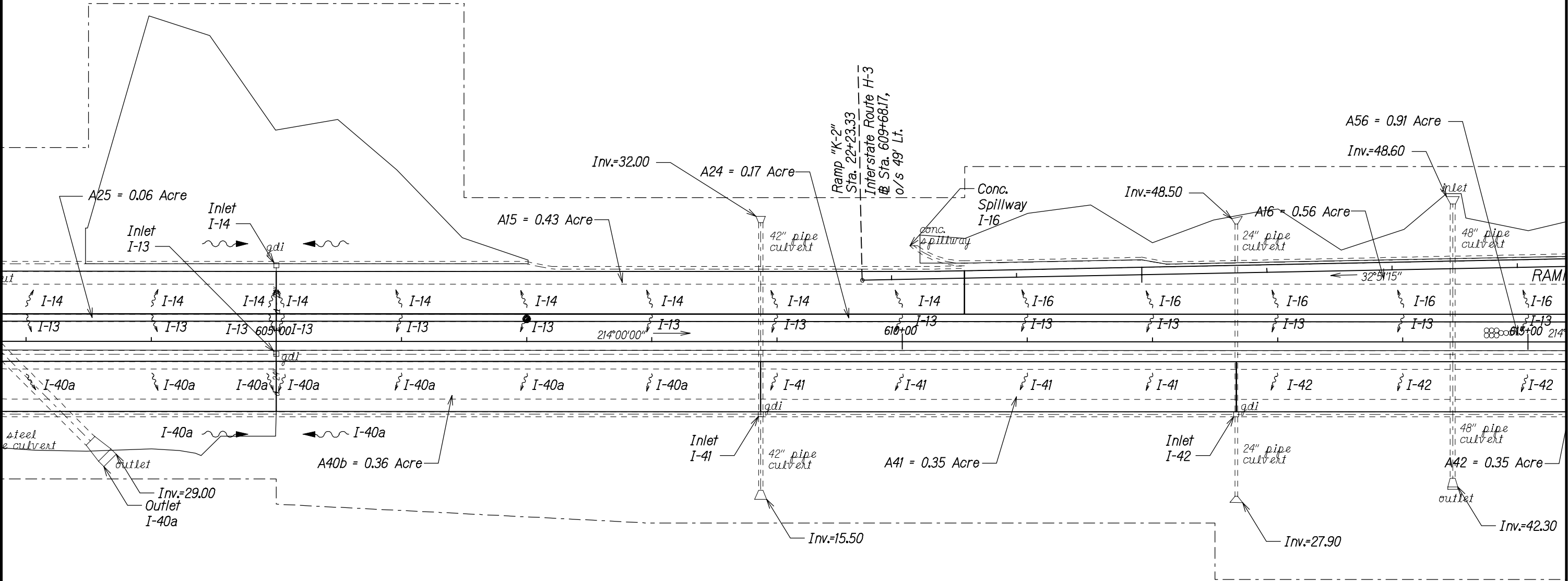
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HIGHWAYS DIVISION

MISCELLANEOUS PERMANENT BEST
MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11

Scale: _____ Date: March, 2012

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



SURVEY PLOTTED BY	DATE
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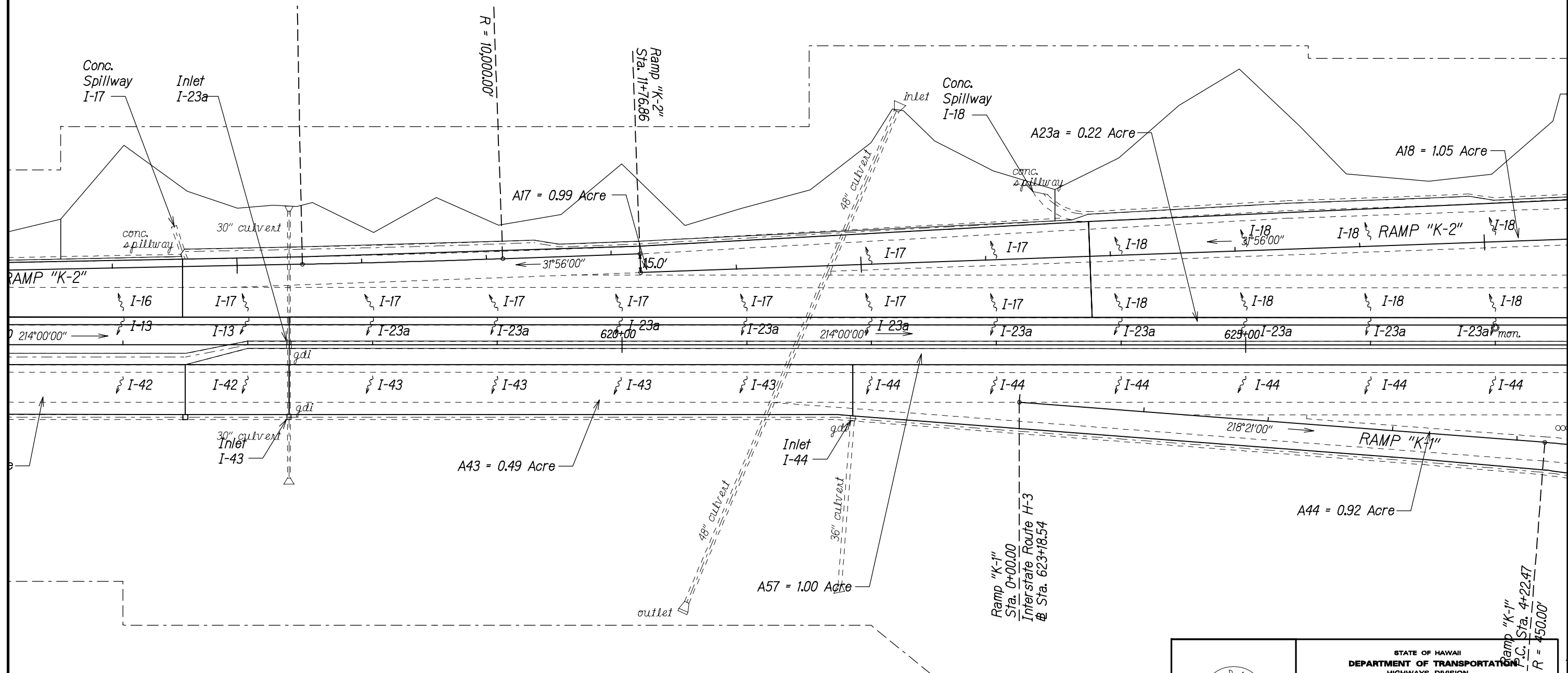
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HIGHWAYS DIVISION

MISCELLANEOUS PERMANENT BEST
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PROJECT NO. HWY-0-02-11
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HAWAII	HAW.	HWY-0-02-11	2011		41



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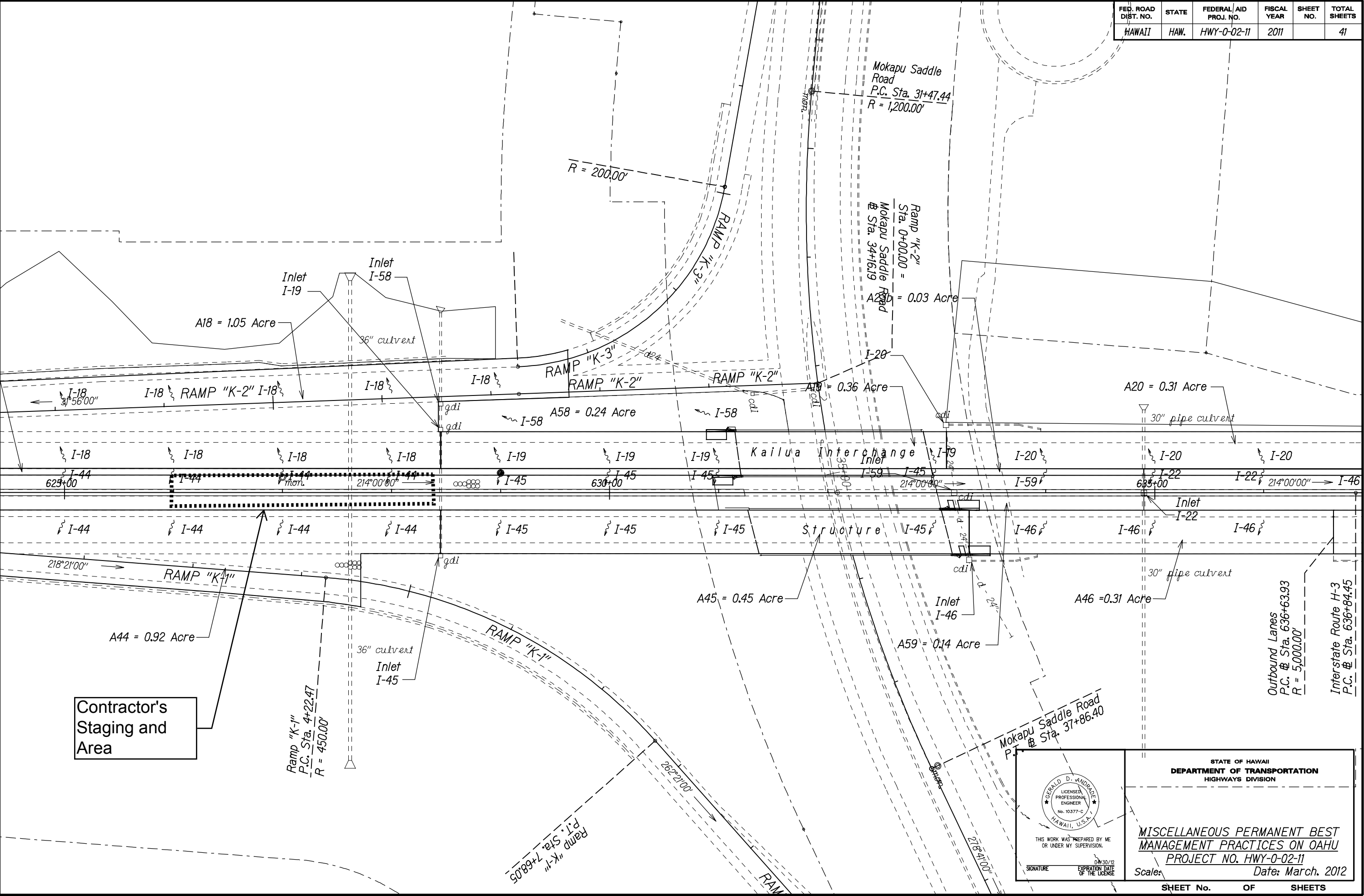
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MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11
Scale: _____ Date: March, 2012

SHEET No. _____ OF _____ SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



Contractor's
Staging and
Area

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GERALD D. ANDRUS

LICENSED PROFESSIONAL ENGINEER

No. 10377-C

HAWAII, U.S.A.

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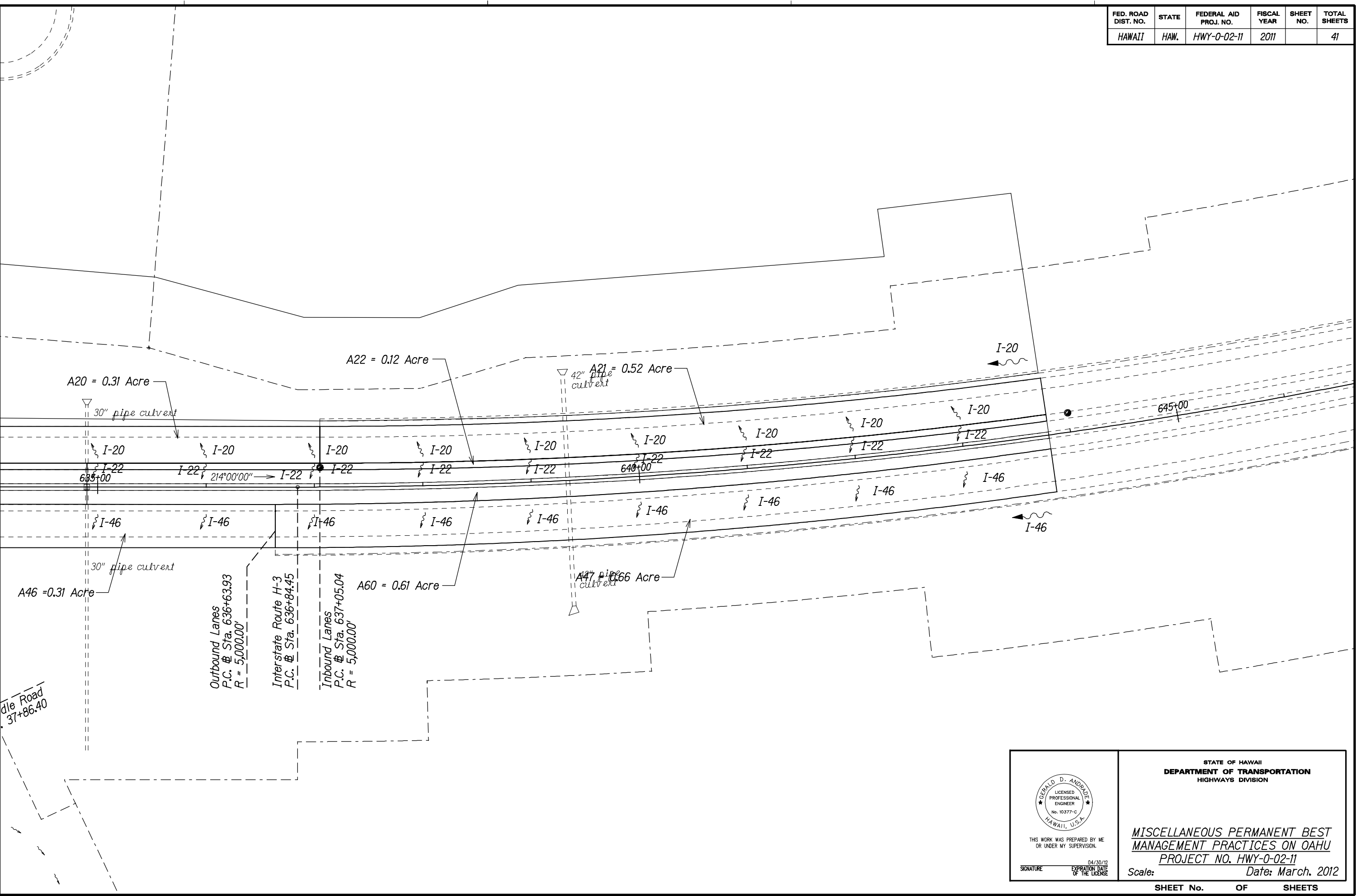
HIGHWAYS DIVISION

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU

PROJECT NO. HWY-0-02-11

Scale: Date: March, 2012

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11	2011		41



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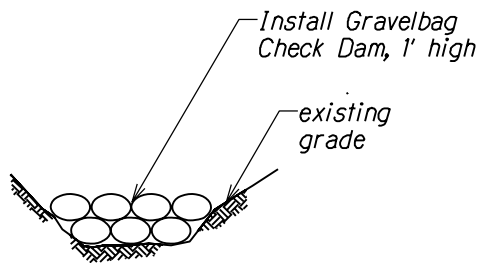
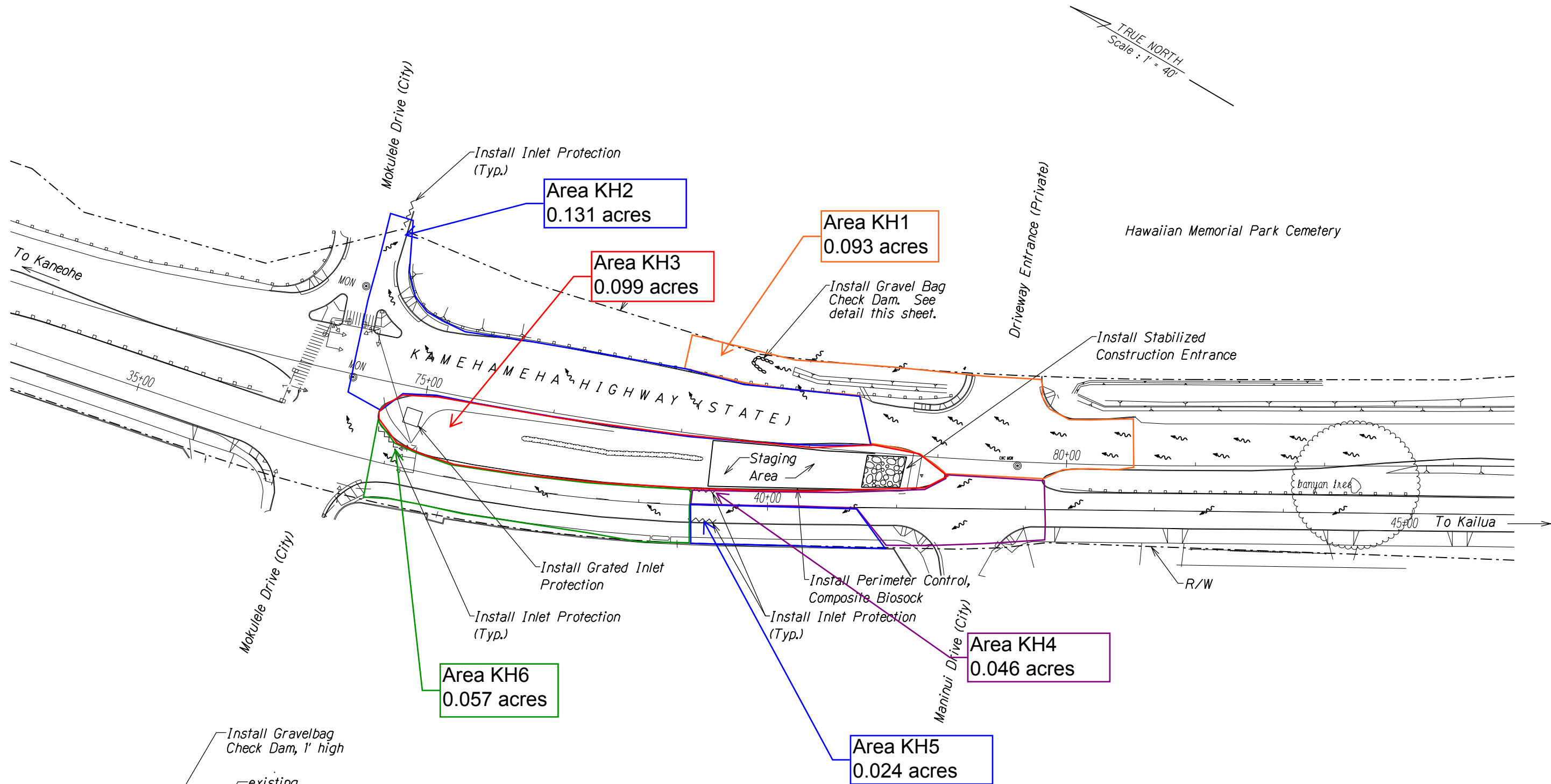
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11

Scale: Date: March, 2012

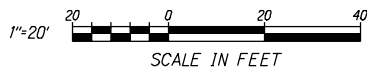
Drainage Area Summary - Kamehameha Highway

Inlet #	Area (acres)	C	Intensity (in.)	Discharge (cfs)
KH1	0.093	0.90	6.325	0.53
KH2	0.131	0.90	6.325	0.75
KH3	0.099	0.55	6.325	0.34
KH4	0.046	0.90	6.325	0.26
KH5	0.024	0.90	6.325	0.14
KH6	0.057	0.90	6.325	0.32
TOTALS	0.450			2.34

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	13	43



GRAVEL BAG CHECK DAM DETAIL
Not to Scale



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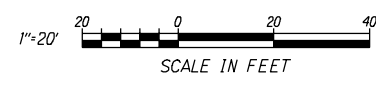
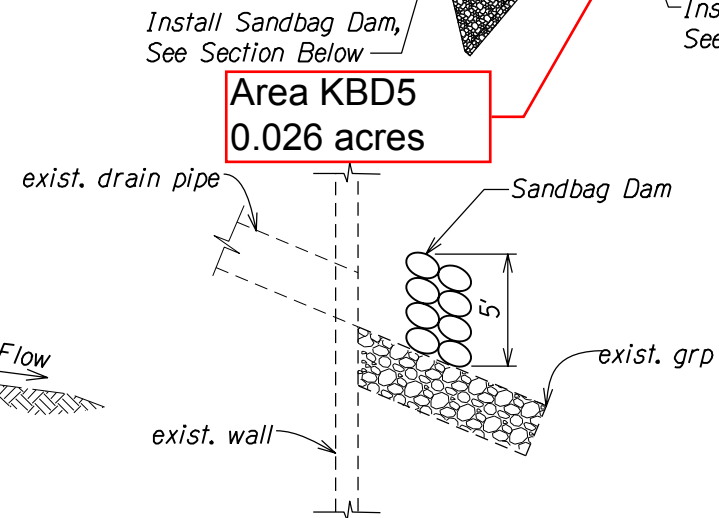
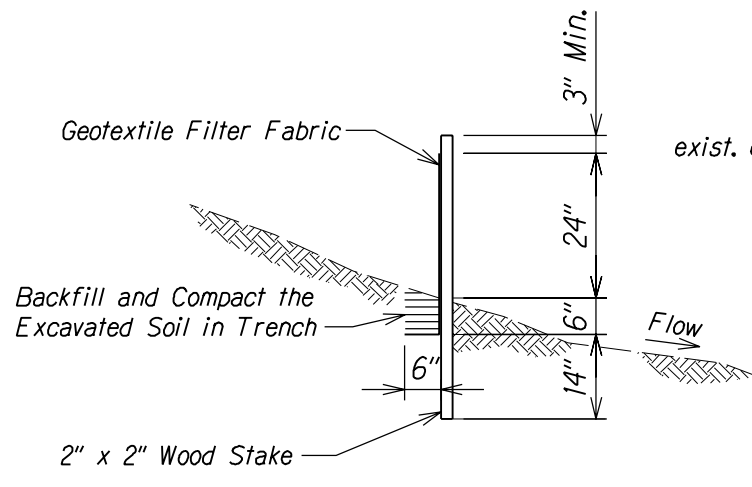
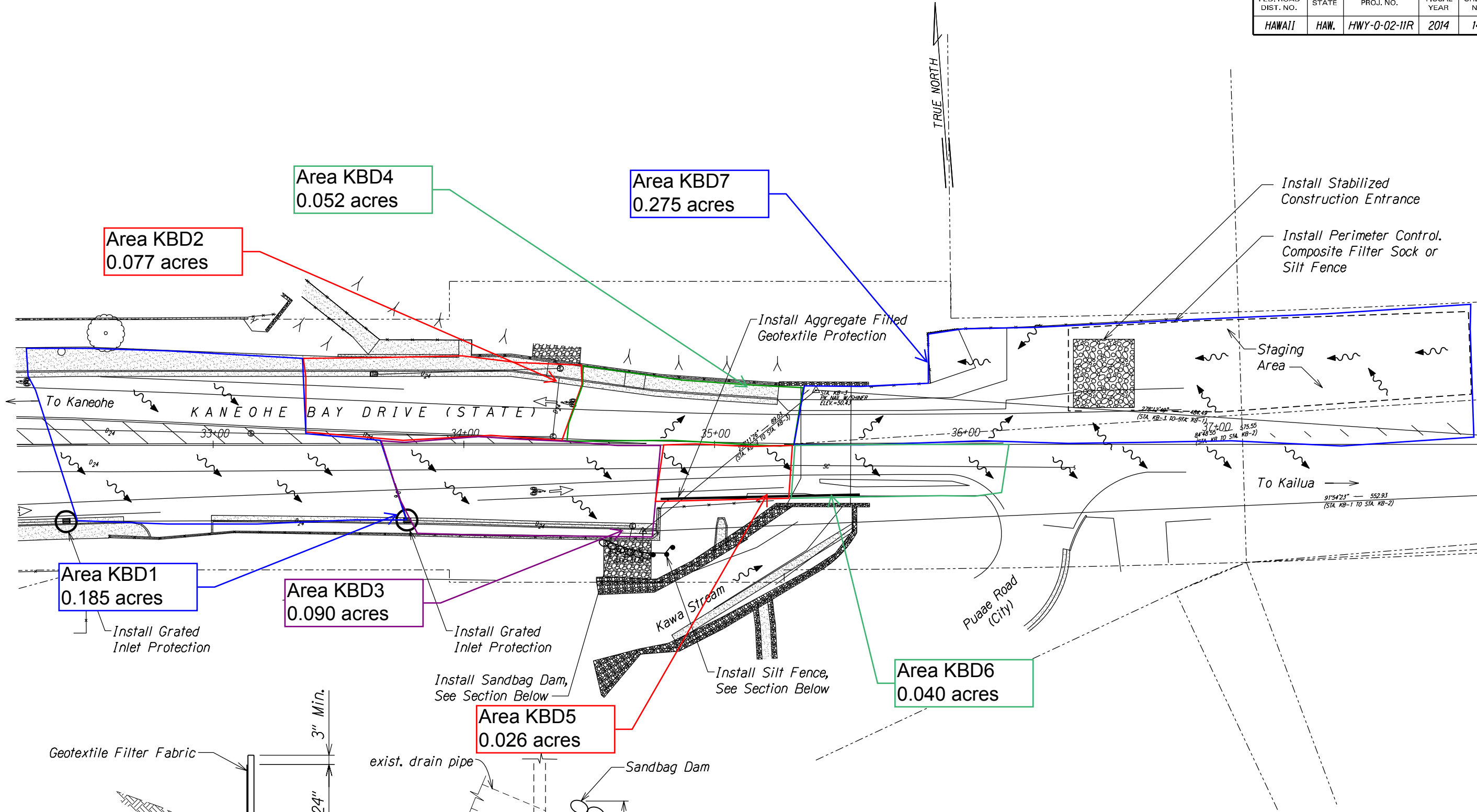
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HIGHWAYS DIVISION

EROSION CONTROL PLAN
KAMEHAMEHA HIGHWAY
MISCELLANEOUS PERMANENT BEST
MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R
Scale: 1"=40' Date: April, 2014

Drainage Area Summary - Kaneoha Bay Drive

Inlet #	Area (acres)	C	Intensity (in.)	Discharge (cfs)
KBD1	0.185	0.90	6.325	1.05
KBD2	0.077	0.90	6.325	0.44
KBD3	0.090	0.90	6.325	0.51
KBD4	0.052	0.90	6.325	0.30
KBD5	0.026	0.90	6.325	0.15
KBD6	0.040	0.90	6.325	0.23
KBD7	0.275	0.55	6.325	0.96
TOTALS	0.745			3.63

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	14	43



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EROSION CONTROL PLAN
KANEOHE BAY DRIVE
MISCELLANEOUS PERMANENT BEST
MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R
Scale: 1"=20' Date: April, 2014