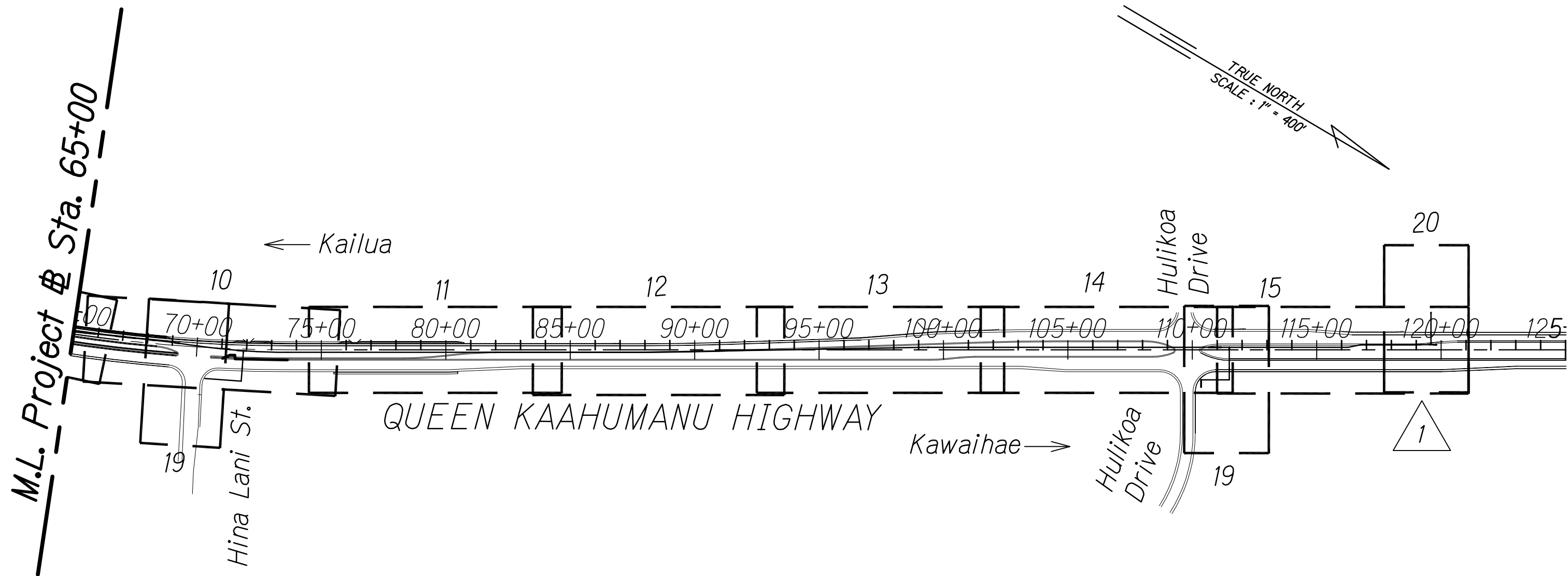
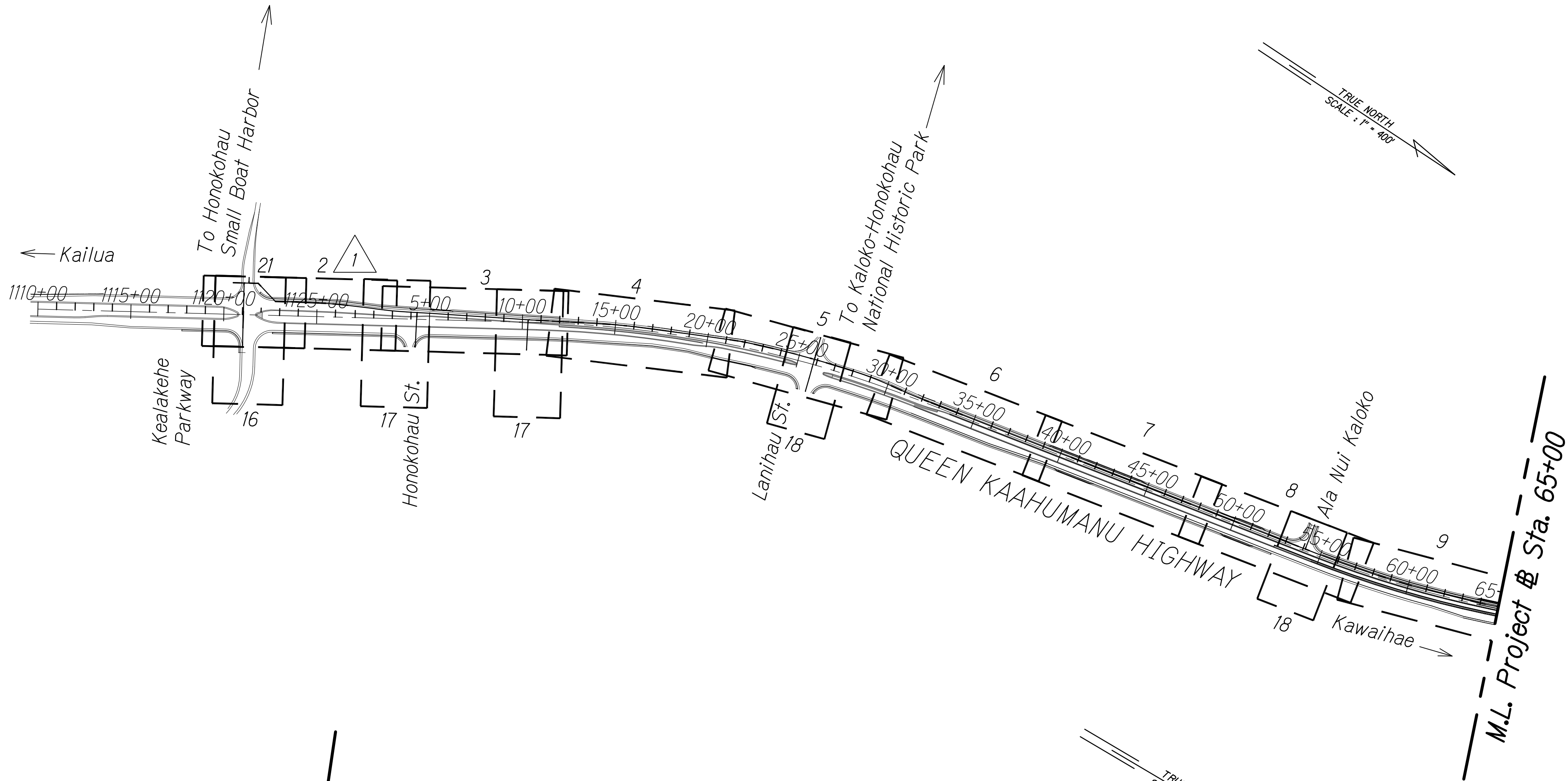
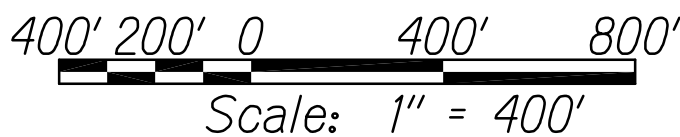


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	C.O. 218	528 522 22



GRAPHICAL SCALE:



KEY PLAN

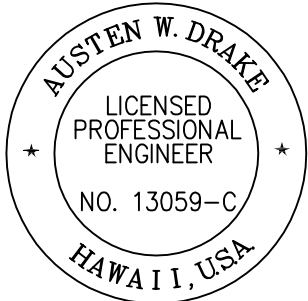
Scale: 1" = 400'

LEGEND FOR
AS-BUILT POSTINGS

Squiggly line for
as-built deletion

Double line for
as-built deletion

Roadway Text for as-built
posting



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.
Austen W. Drake
SIGNATURE APRIL 30, 2018
EXPIRATION DATE
OF THE LICENSE

1/22/16 Revised utility alignment & profile
due to SB & redesign; Line ext.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECLAIMED WATERLINE
PLAN AND PROFILE

QUEEN KAAHUMANU HIGHWAY WIDENING
Kealakehe Pkwy. To Keahole Airport Rd.(Ph. 2)
Federal Aid Project No. NH-019-1(38)R

Scale: AS NOTED Date: AUGUST 2016

SHEET No. 1 OF 21 SHEETS

Approved under separate cover

DIVISION CHIEF _____ DATE _____
COUNTY OF HAWAII
WASTEWATER DIVISION

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

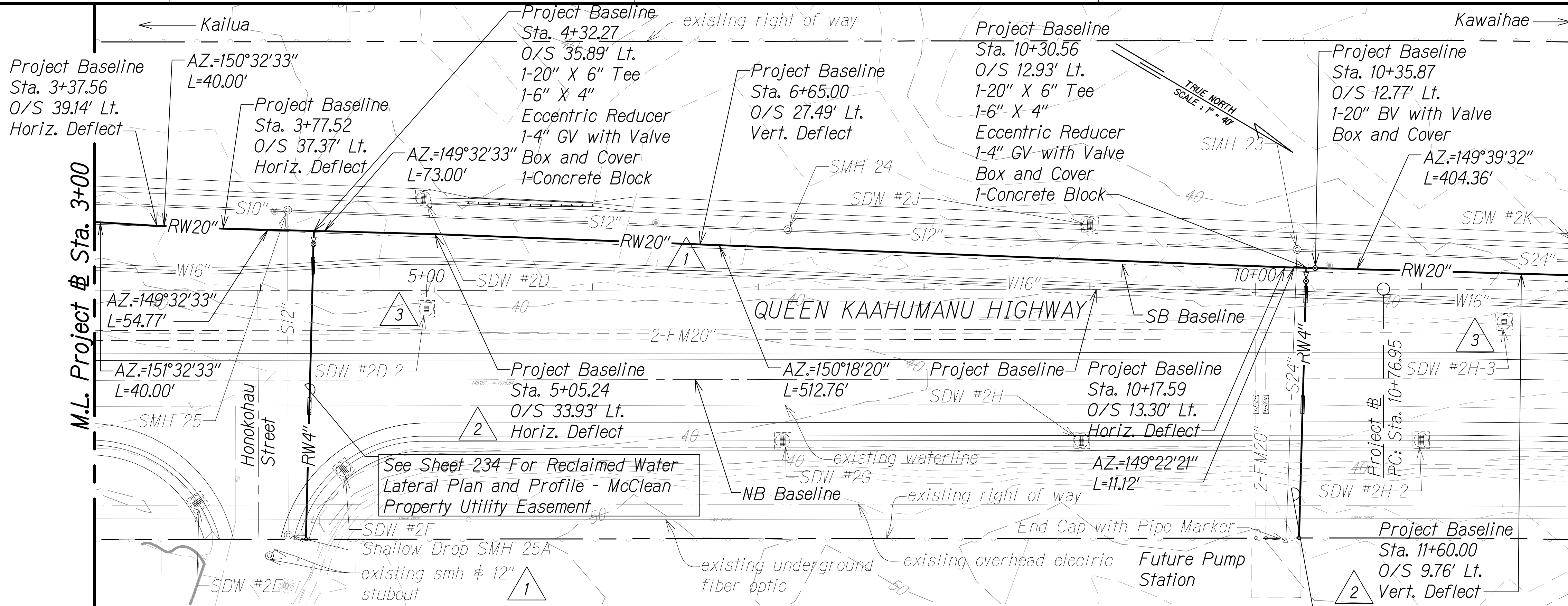
W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN K HWY WIDENING\01_CIVIL DRAWINGS\018 KEY PLAN_RECLAIMED WATER PP.DWG 6/15/2016 11:34 AM

"AS-BUILT"

C.O. 218

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_Hwy_WIDENING\01_CIVIL_DRAWINGS\220 SEWER PP-RW 03.DWG 2/13/2017 3:52 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	C.O. 220	528

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Sewerline
- Waterline
- Reclaimed Water (RW)
- Dual Force Main
- Sewer Manhole
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

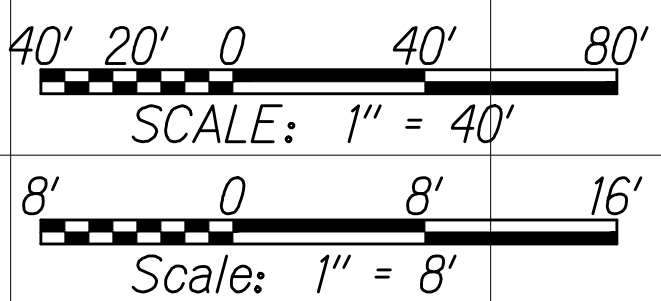
DATE



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Austen W. Drake
SIGNATURE
APRIL 30, 2018
EXPIRATION DATE OF THE LICENSE

GRAPHICAL SCALE:



RECLAIMED WATERLINE PROFILE

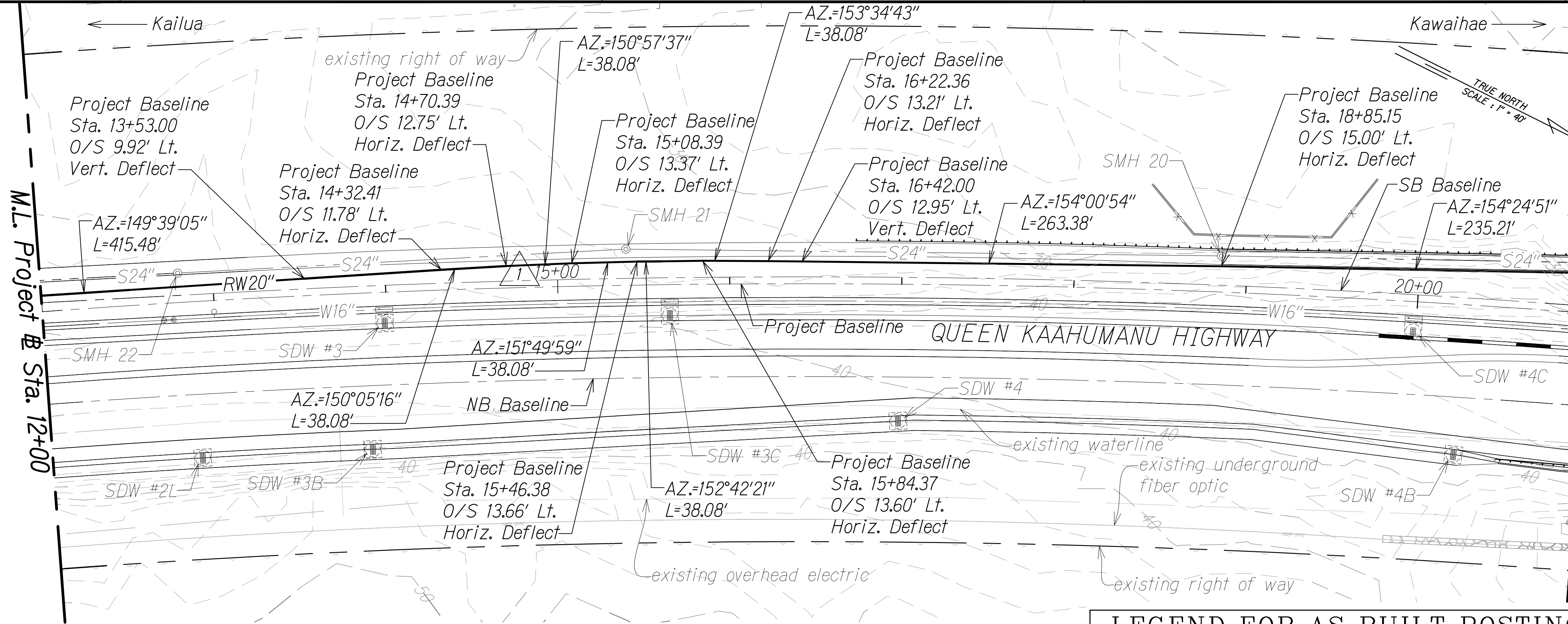
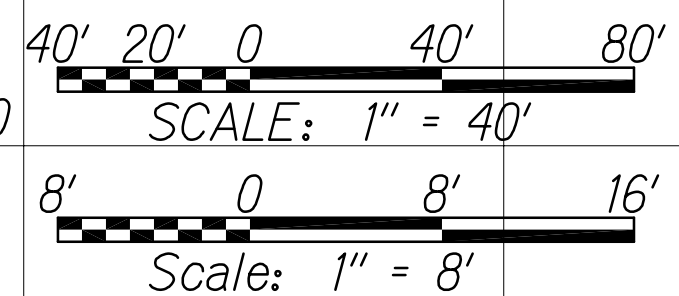
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

1/31/17	3	Added new drywells
6/30/16	2	Revised sh. ref.
1/22/16	1	Revised utility alignment & profile due to SB & redesign; Added exist. smh & stubout at Honokohau St.
DATE		REVISION

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GB_QUEEN_K_Hwy_WIDENING\01_CIVIL DRAWINGS\221 SEWER PP-RW 04.DWG 6/15/2016 1:33 PM

GRAPHICAL SCALE:



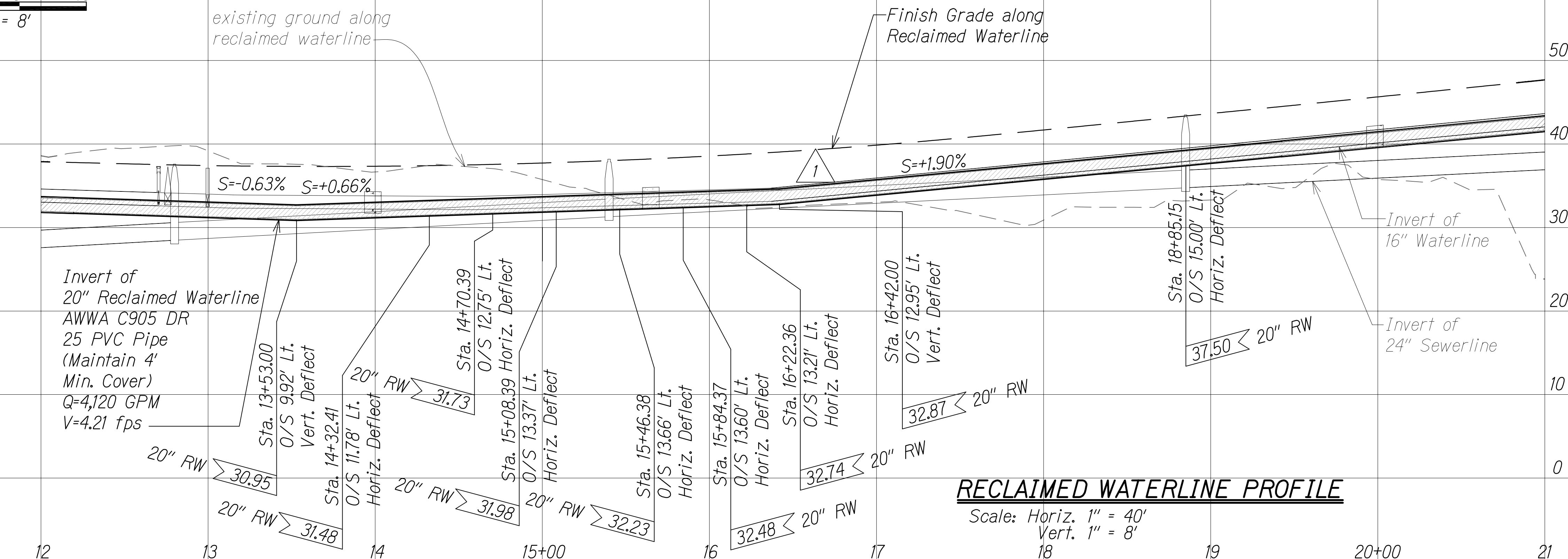
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K381R	2016	221	528

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- S10" Sewerline
- W16" Waterline
- RW20" Reclaimed Water (RW)
- Sewer Manhole
- Sewage Air Relief Valve (SARV)
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

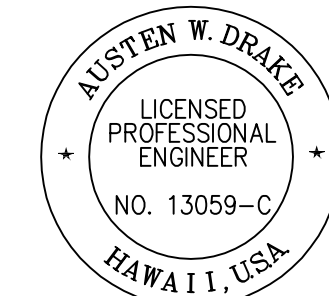


RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION



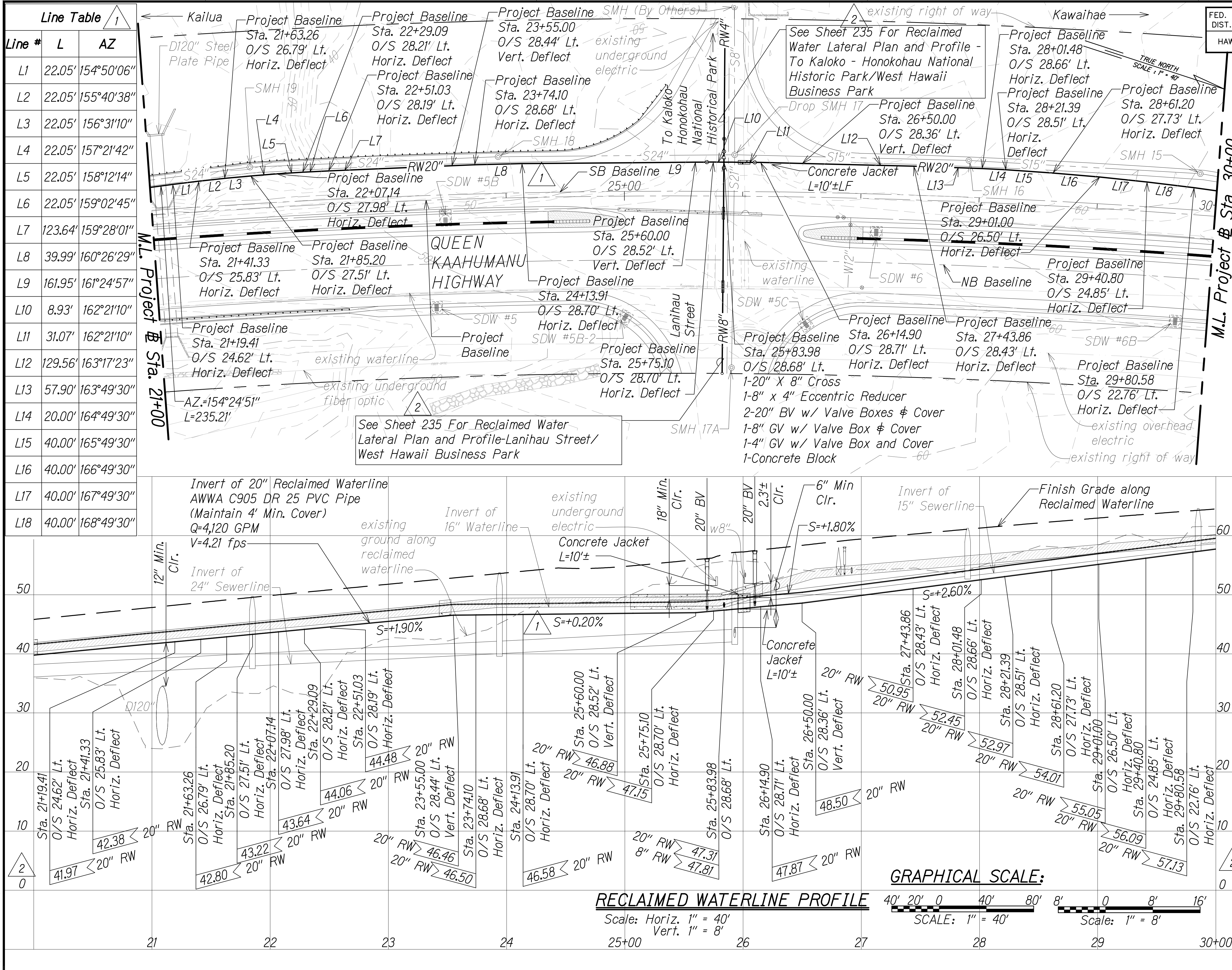
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.
Austen W. Drake
SIGNATURE
APRIL 30, 2018
EXPIRATION DATE
OF THE LICENSE

1/22/16	Revised utility alignment & profile due to SB & redesign
DATE	REVISION

SHEET No. 4 OF 21 SHEETS

"AS-BUILT"

C.O. 221



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	222	528

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Sewerline
- Waterline
- Reclaimed Water (RW)
- Sewer Manhole
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric
- existing underground electric

LEGEND FOR AS-BUILT POSTINGS

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

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

AUSTIN W. DRAKE
LICENSED PROFESSIONAL ENGINEER
NO. 13059-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Austin W. Drake
SIGNATURE
APRIL 30, 2018
EXPIRATION DATE OF THE LICENSE

6/30/16	2	Revised sht. ref & grid elev.
1/22/16	1	Revised utility alignment & profile due to SB & redesign
DATE	REVISION	

SHEET No. 5 OF 21 SHEETS

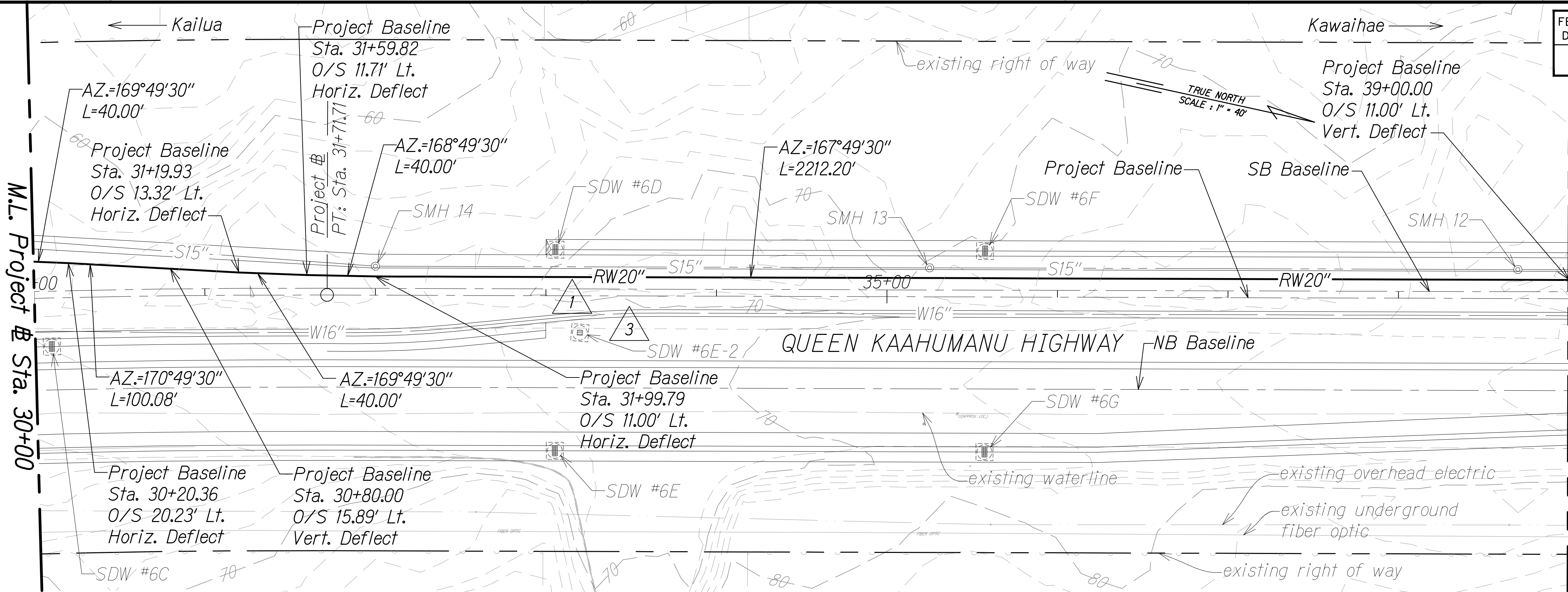
C.O. 222

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

WAL CIVIL 3D PROJECTS\2008-2013-001 GRI QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\222 SEWER PP-RW 05.DWG 8/16/2016 6:32 PM

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

W:_CIVIL 3D PROJECTS\2008_003_001 GRI QUEEN K HWY WIDENING\01 CIVIL DWGS\223 SEWER PP-RW 06.DWG 2/13/2017 3:57 PM



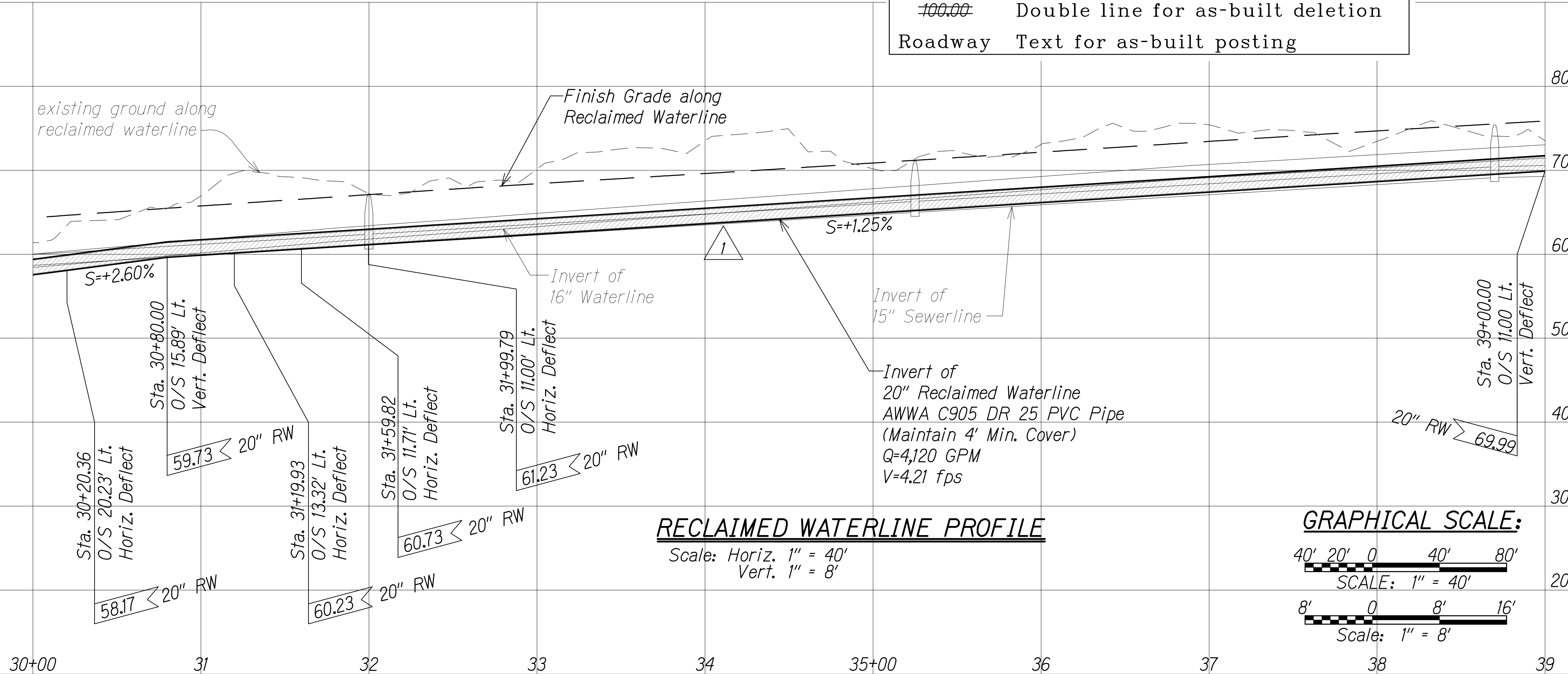
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO. C.O.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	223	528

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- S10" Sewerline
- W16" Waterline
- RW20" Reclaimed Water (RW)
- Sewer Manhole
- Sewage Air Relief Valve (SARV)
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

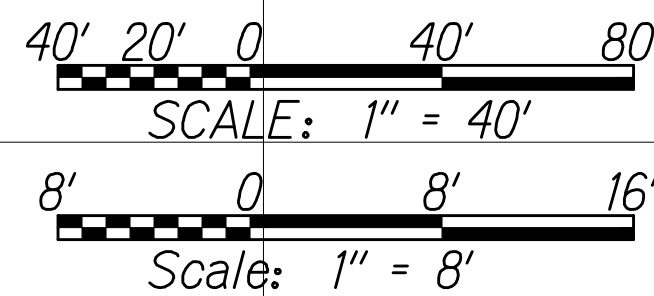
- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting



RECLAIMED WATERLINE PROFILE

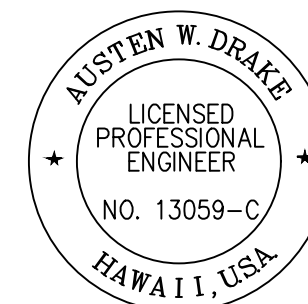
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

GRAPHICAL SCALE:



Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION



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ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.
Signature: Austen W. Drake
EXPIRATION DATE OF THE LICENSE: APRIL 30, 2018

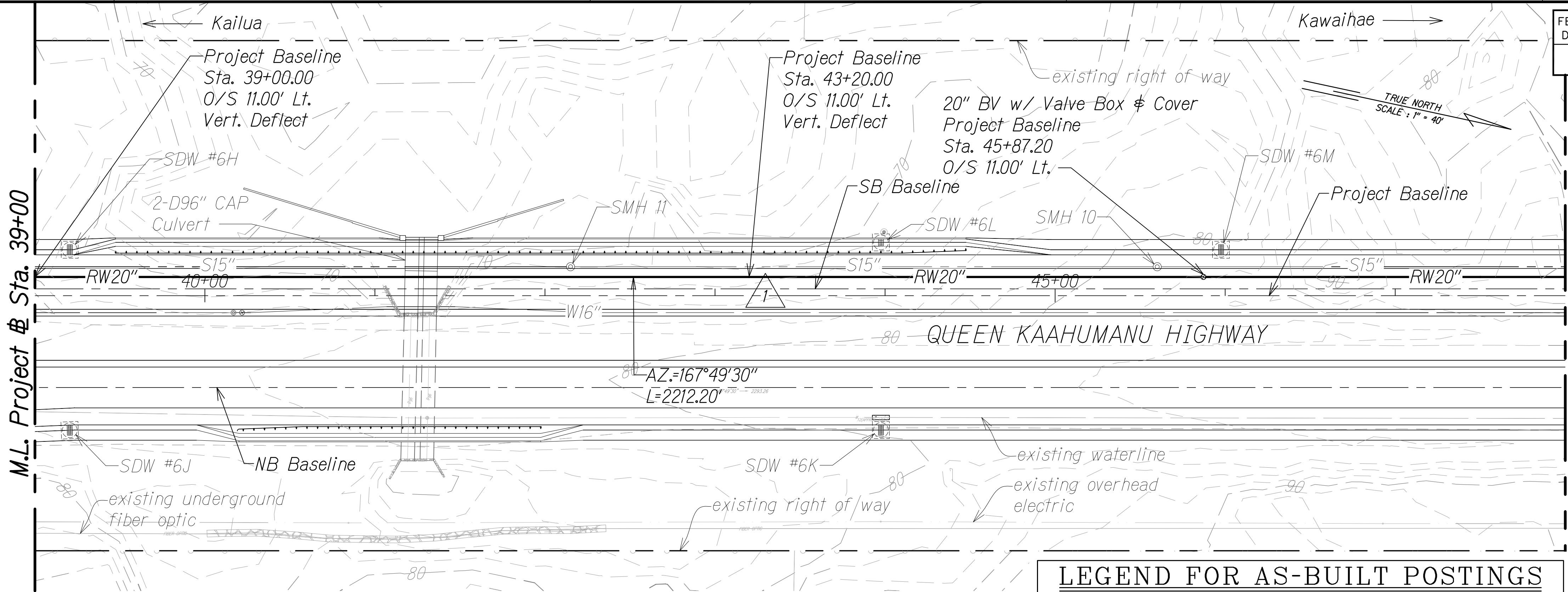
1/31/17	3	Added new drywell
1/22/16	1	Revised utility alignment & profile due to SB & redesign
DATE		REVISION

SHEET No. 6 OF 21 SHEETS

C.O. 223

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

W:_CIVIL 3D PROJECTS\2008_003_001 GB QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\224 SEWER PP-RW 07.DWG 6/15/2016 1:58 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K(38)R	2016	C.O. 224	528 322

LEGEND:

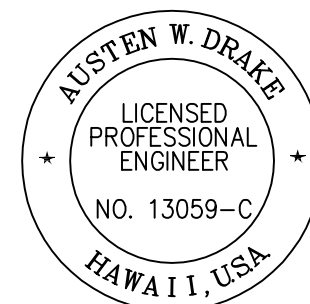
- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- S10" Sewerline
- W16" Waterline
- RW20" Reclaimed Water (RW)
- Sewer Manhole
- Sewage Air Relief Valve (SARV)
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION



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CONSTRUCTION OF THIS PROJECT
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Austen W. Drake
SIGNATURE
APRIL 30, 2018
EXPIRATION DATE
OF THE LICENSE

1/22/16	1	Revised utility alignment & profile due to SB & redesign
DATE	REVISION	

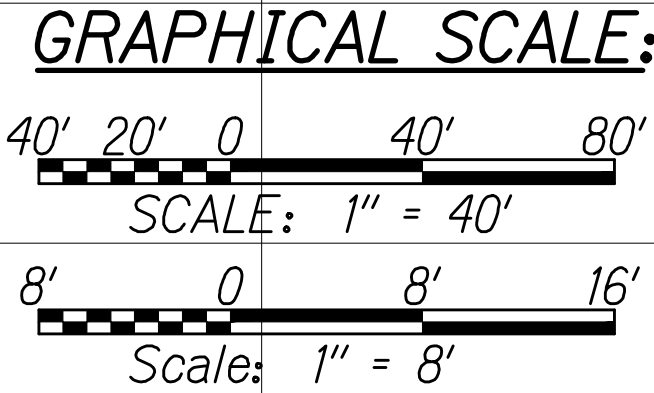
SHEET No. 7 OF 21 SHEETS

C.O. 224

"AS-BUILT"

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

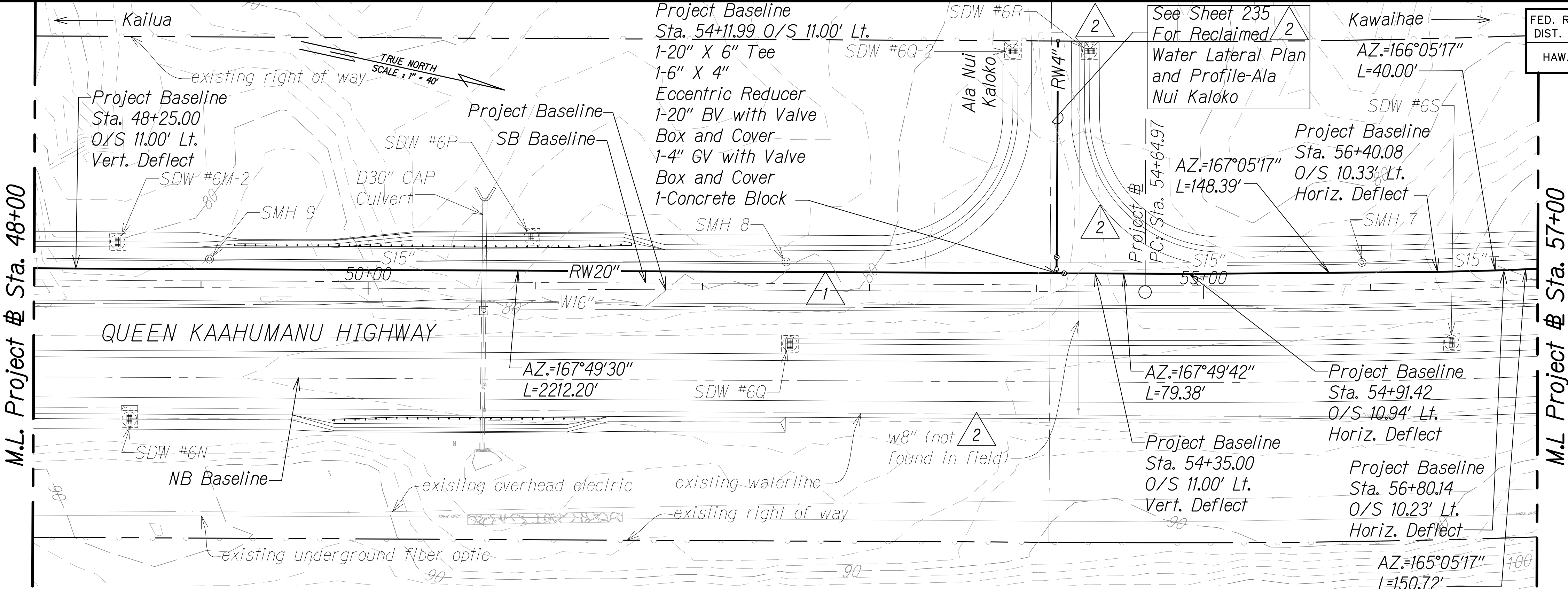
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RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'

Vert. 1" = 8'



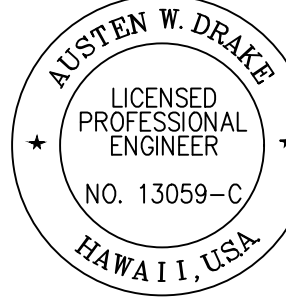
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	C.O. 225	528

- LEGEND:**
- Finish Grade along Reclaimed Waterline
 - existing ground along reclaimed waterline
 - Sewerline
 - Waterline
 - RW20" Reclaimed Water (RW)
 - Sewer Manhole
 - Sewage Air Relief Valve (SARV)
 - Butterfly Valve (BV)
 - Gate Valve (GV)
 - Shallow Drywell
 - Sewer Lateral
 - Water Lateral
 - Reclaimed Water Lateral
 - existing waterline (w)
 - existing underground fiber optic
 - existing overhead electric

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

DATE



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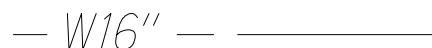
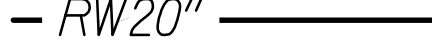







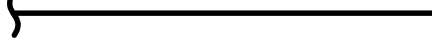




Austen W. Drake
SIGNATURE

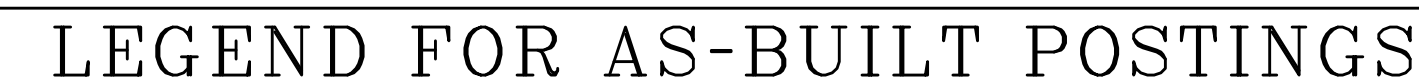
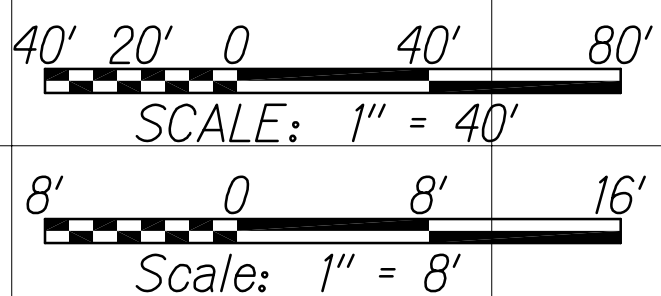
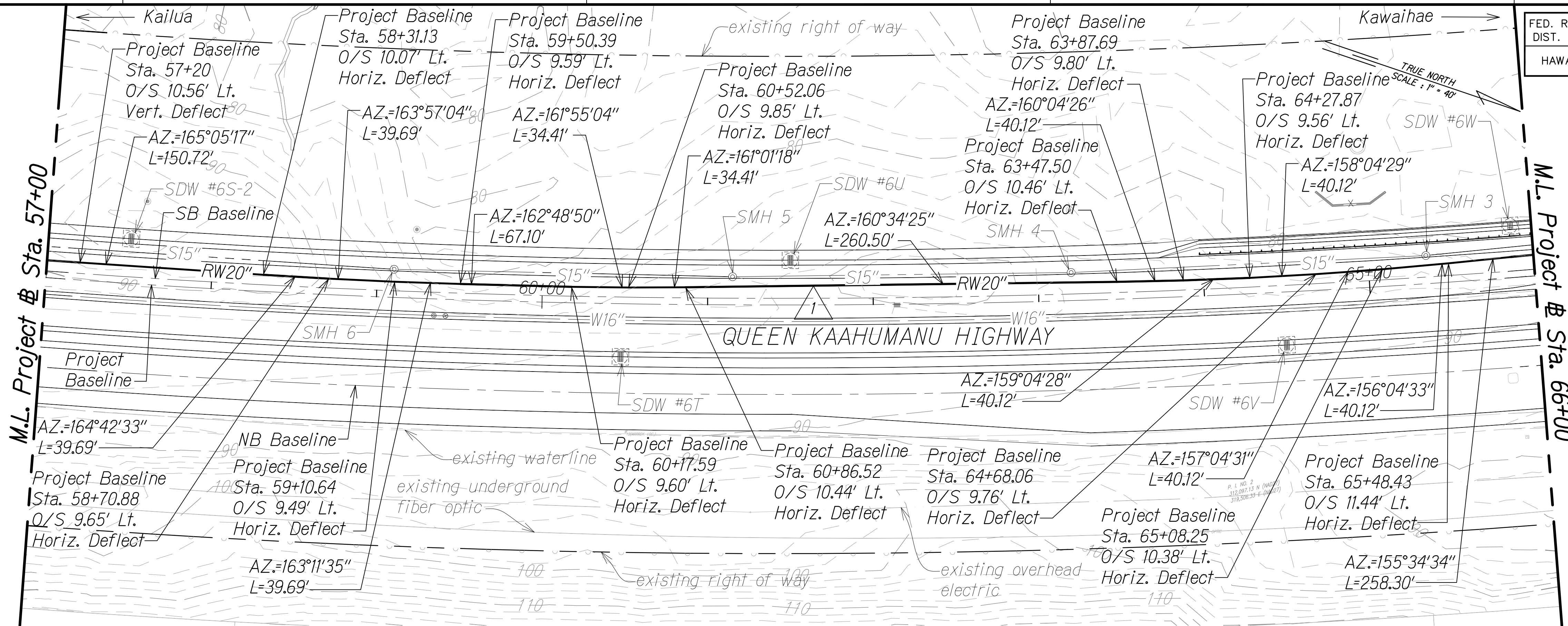
APRIL 30, 2018
EXPIRATION DATE OF THE LICENSE



8/1/16	2	Ala Nui Kaloko shift; Revised sht. ref. & utilities
1/22/16	1	Revised utility alignment & profile due to SB & redesign
DATE	REVISION	

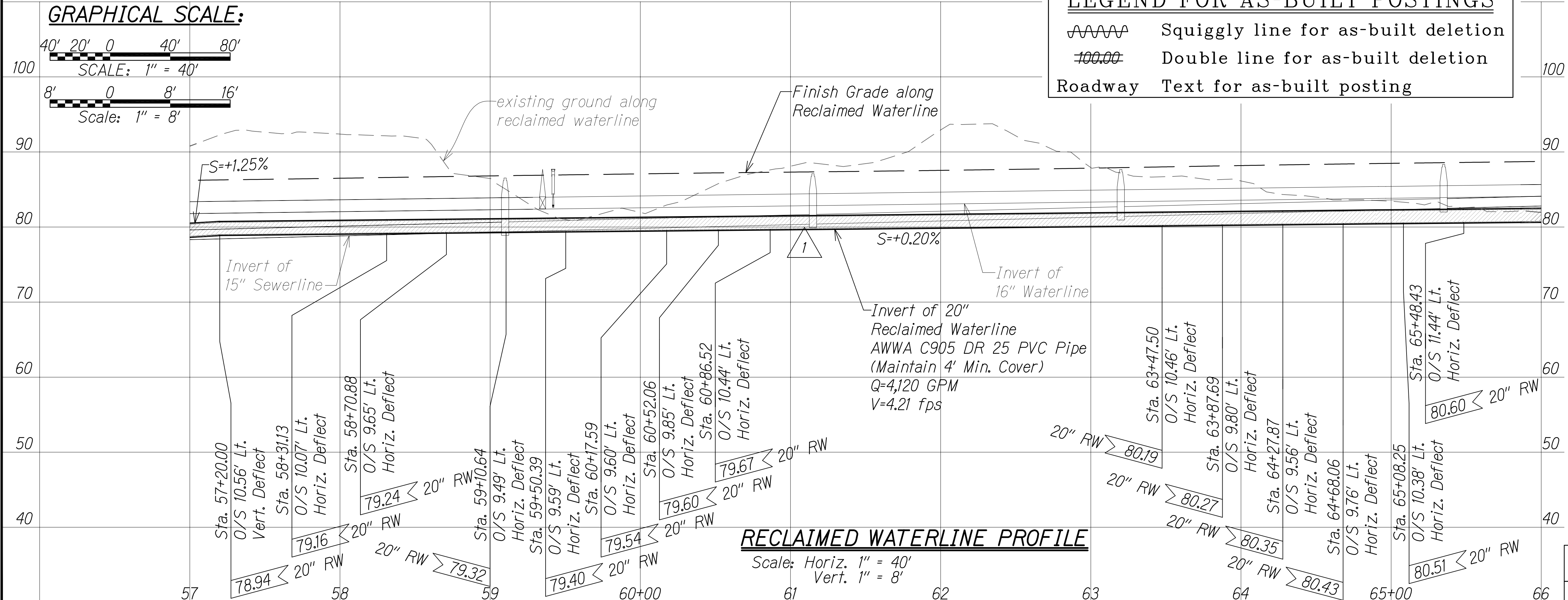
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	C.O. 226	528 522

LEGEND:

-  Finish Grade along
Reclaimed Waterline
 existing ground along
reclaimed waterline
 Sewerline
 Waterline
 Reclaimed Water (RW)
 Sewer Manhole
 Sewage Air Relief
Valve (SARV)
 Butterfly Valve (BV)
 Gate Valve (GV)
 Shallow Drywell
 Shallow Drywell
 Sewer Lateral
 Water Lateral
 Reclaimed Water
Lateral
 existing waterline (w)
 existing underground
fiber optic
 existing overhead
electric



- | | |
|---|-------------------------------------|
|  | Squiggly line for as-built deletion |
|  | Double line for as-built deletion |
| Roadway | Text for as-built posting |




Approved under separate cover

DIVISION CHIEF _____ DATE _____
 COUNTY OF HAWAII
 WASTEWATER DIVISION



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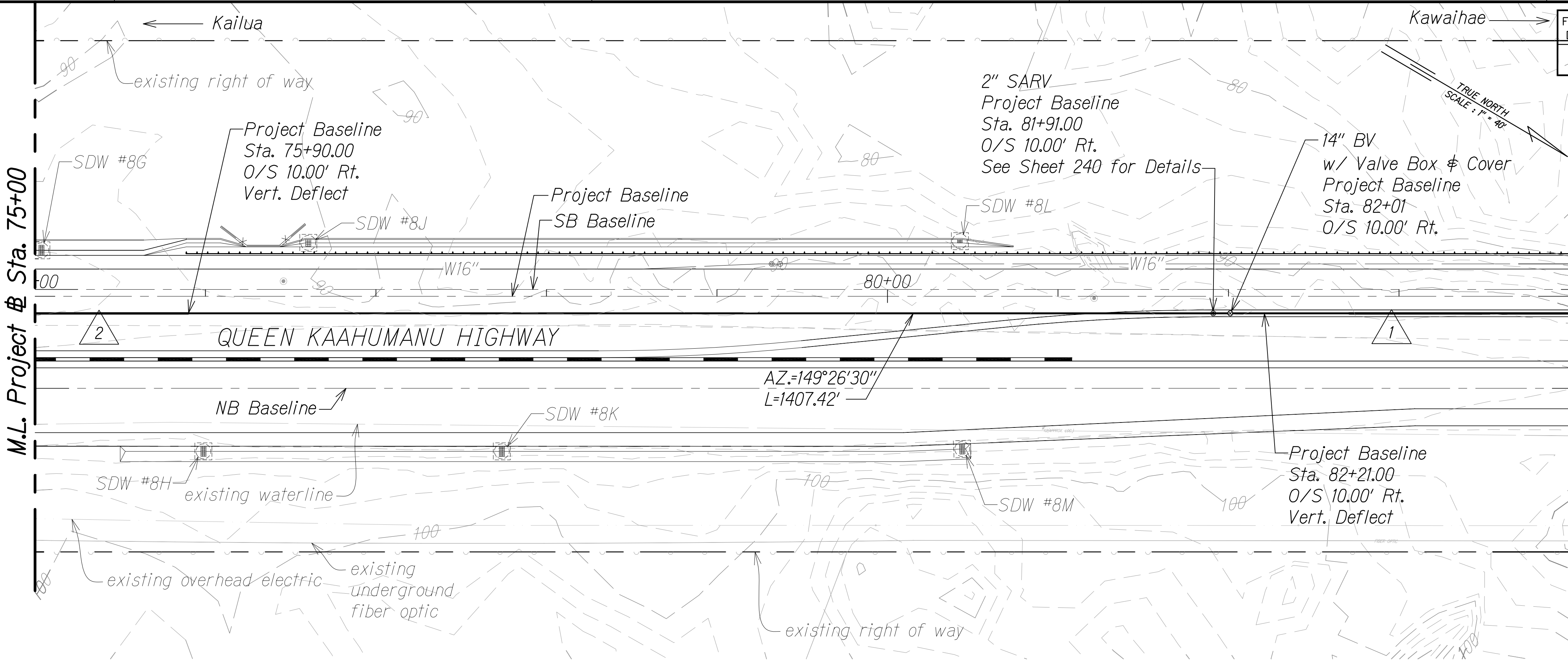
Austen W. Drake APRIL 30, 2018
SIGNATURE EXPIRATION DATE
OF THE LICENSE

1/22/16	 Revised utility alignment & profile due to SB & redesign
DATE	REVISION

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

W:_CIVIL 3D PROJECTS\2008_003_001 GBI QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\228 SEWER PP-RW 11.DWG 6/15/2016 2:51 PM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K381R	2016	C.O. 228	528 522



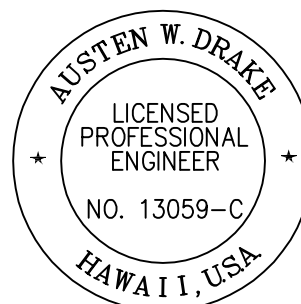
- LEGEND:**
- Finish Grade along Reclaimed Waterline
 - existing ground along reclaimed waterline
 - Waterline
 - Reclaimed Water (RW)
 - Sewage Air Relief Valve (SARV)
 - Butterfly Valve (BV)
 - Gate Valve (GV)
 - Shallow Drywell
 - Sewer Lateral
 - Water Lateral
 - Reclaimed Water Lateral
 - existing waterline (w)
 - existing underground fiber optic
 - existing overhead electric

- LEGEND FOR AS-BUILT POSTINGS**
- Squiggly line for as-built deletion
 - Double line for as-built deletion
 - Roadway Text for as-built posting

Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

DATE



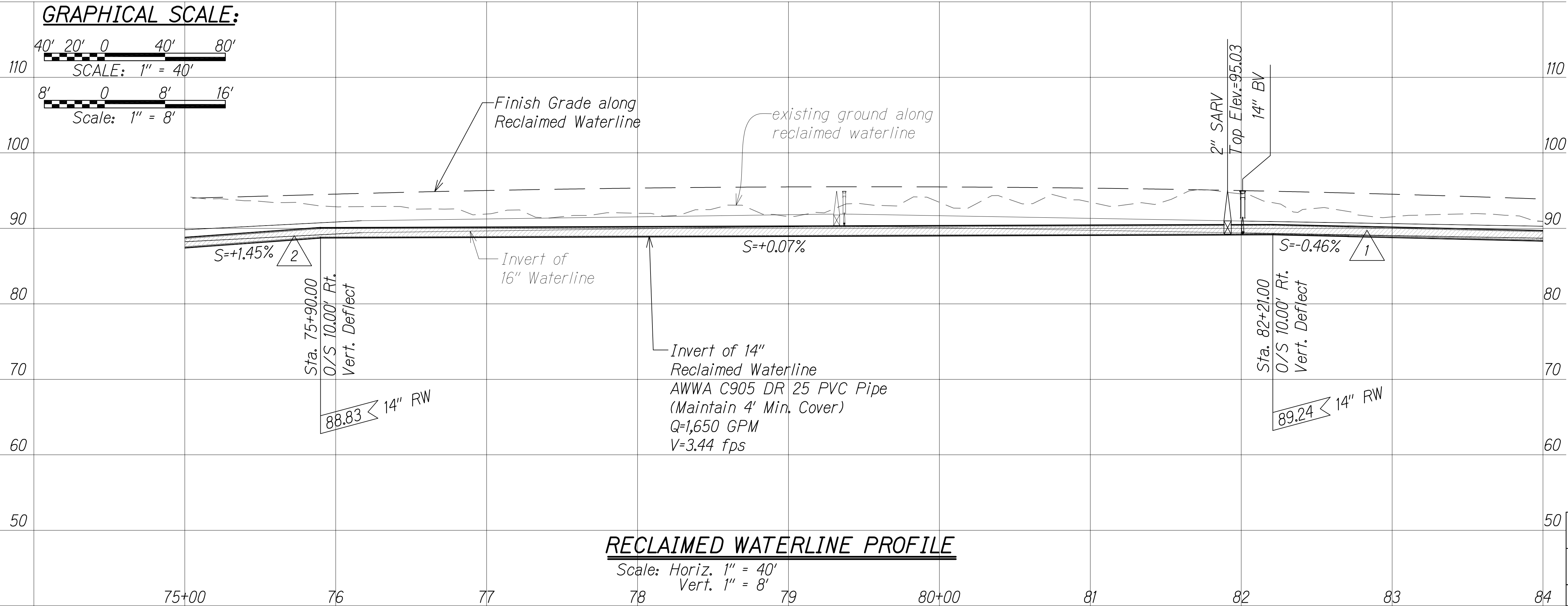
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.
Austin W. Drake
SIGNATURE EXPIRATION DATE
OF THE LICENSE APRIL 30, 2018

8/1/16	2	Realigned to outside of exist. pavement
1/22/16	1	Revised utility alignment & profile due to SB & redesign
DATE	REVISION	

SHEET No. 11 OF 21 SHEETS

RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

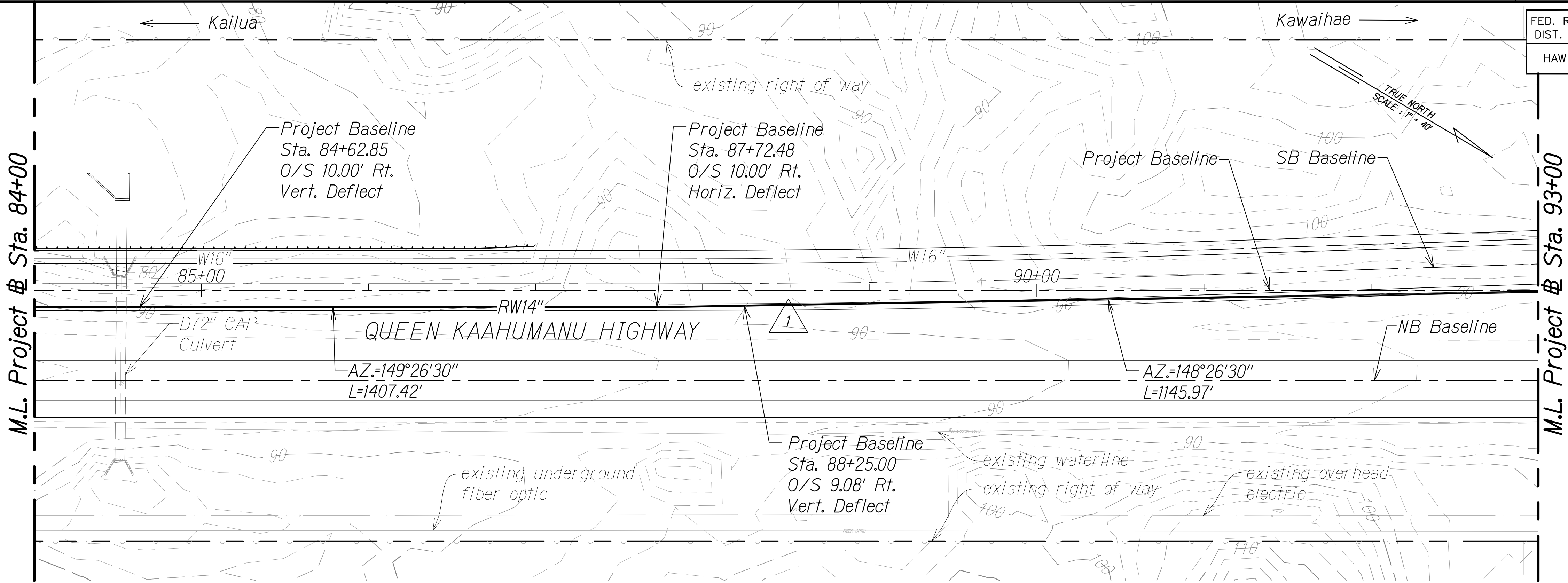


"AS-BUILT"

C.O. 228

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

W:_CIVIL 3D PROJECTS\2008_003_001 GBI QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\229 SEWER PP-RW 12.DWG 6/15/2016 2:53 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K(38)R	2016	C.O. 229	528 222

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Waterline
- Reclaimed Water (RW)
- Sewage Air Relief Valve (SARV)
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

Approved under separate cover

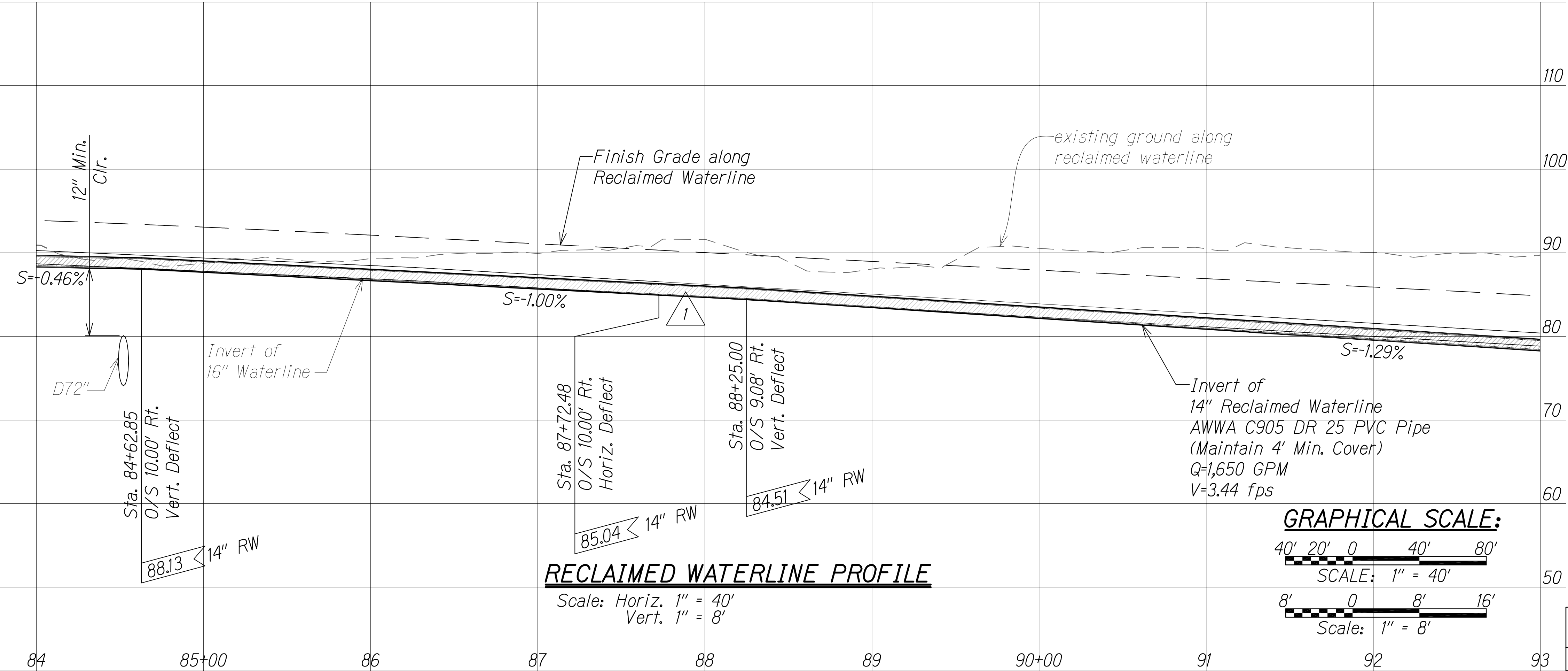
DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

DATE



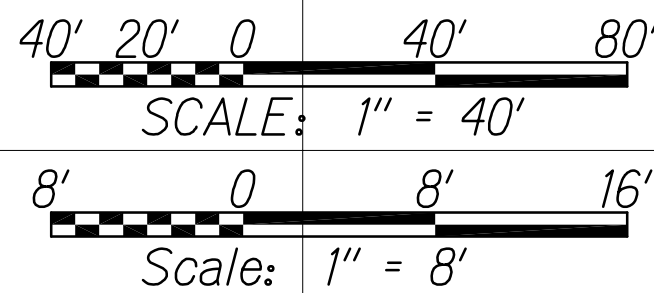
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE
APRIL 30, 2018
EXPIRATION DATE OF THE LICENSE



RECLAIMED WATERLINE PROFILE

GRAPHICAL SCALE:



1/22/16	Revised utility alignment & profile due to SB & redesign
DATE	REVISION

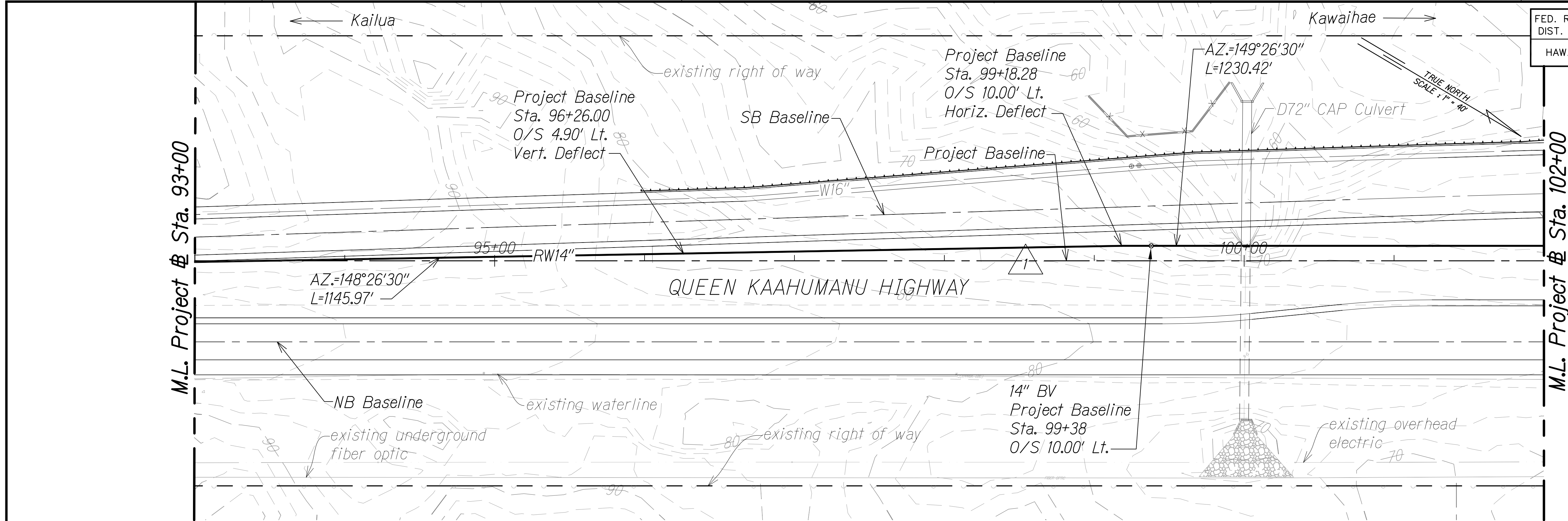
SHEET No. 12 OF 21 SHEETS

"AS-BUILT"

C.O. 229

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_Hwy_WIDENING\01_CIVIL DRAWINGS\230 SEWER PP-RW 13.DWG 6/15/2016 2:59 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K381R	2016	C.O. 230	528 222

LEGEND:

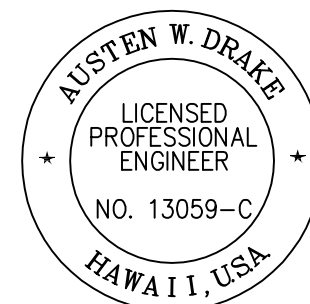
- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Waterline
- Reclaimed Water (RW)
- Sewage Air Relief Valve (SARV)
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

Approved under separate cover

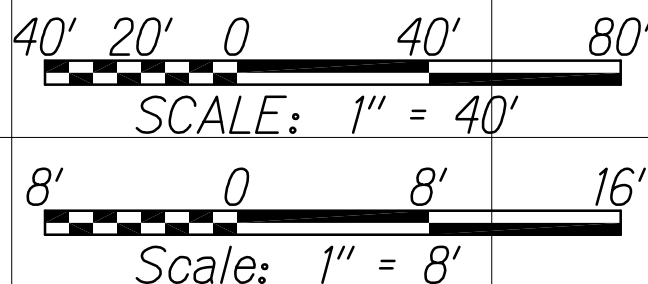
DIVISION CHIEF COUNTY OF HAWAII WASTEWATER DIVISION



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

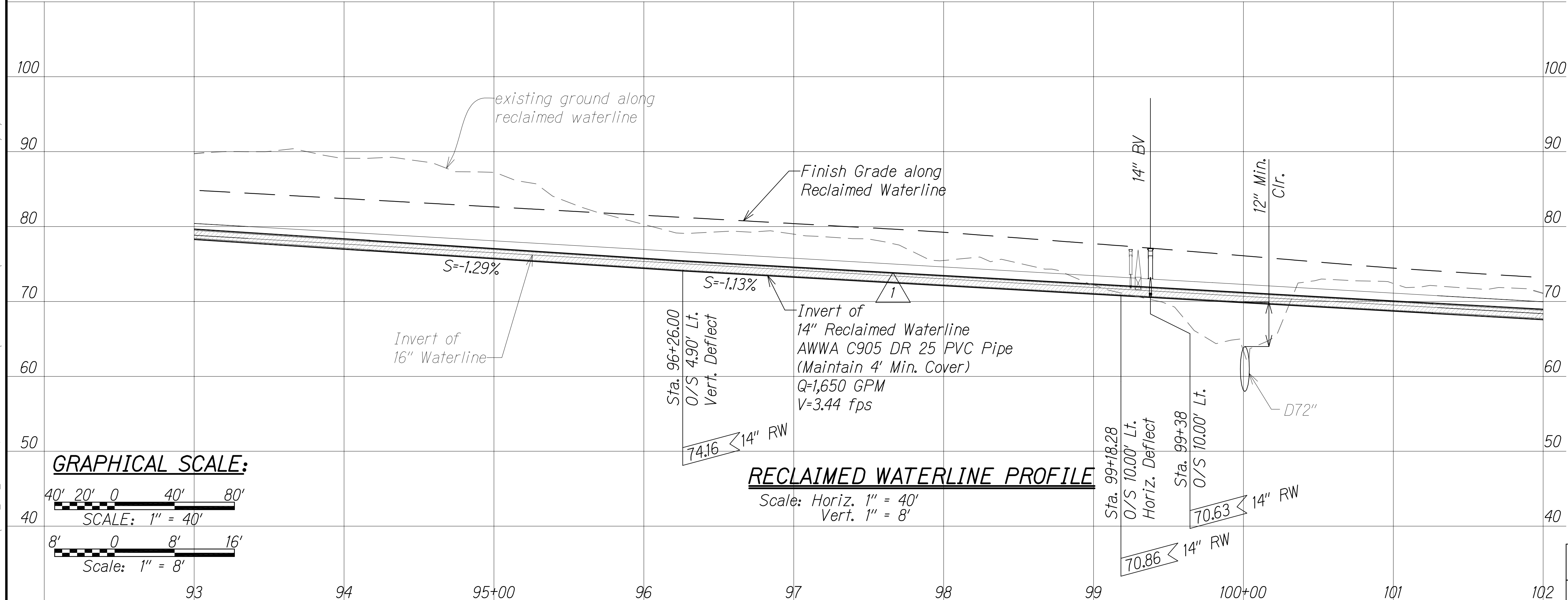
Signature: Austen W. Drake, APRIL 30, 2018, EXPIRATION DATE OF THE LICENSE

GRAPHICAL SCALE:



RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40' Vert. 1" = 8'



1/22/16	Revised utility alignment & profile due to SB & redesign
DATE	REVISION

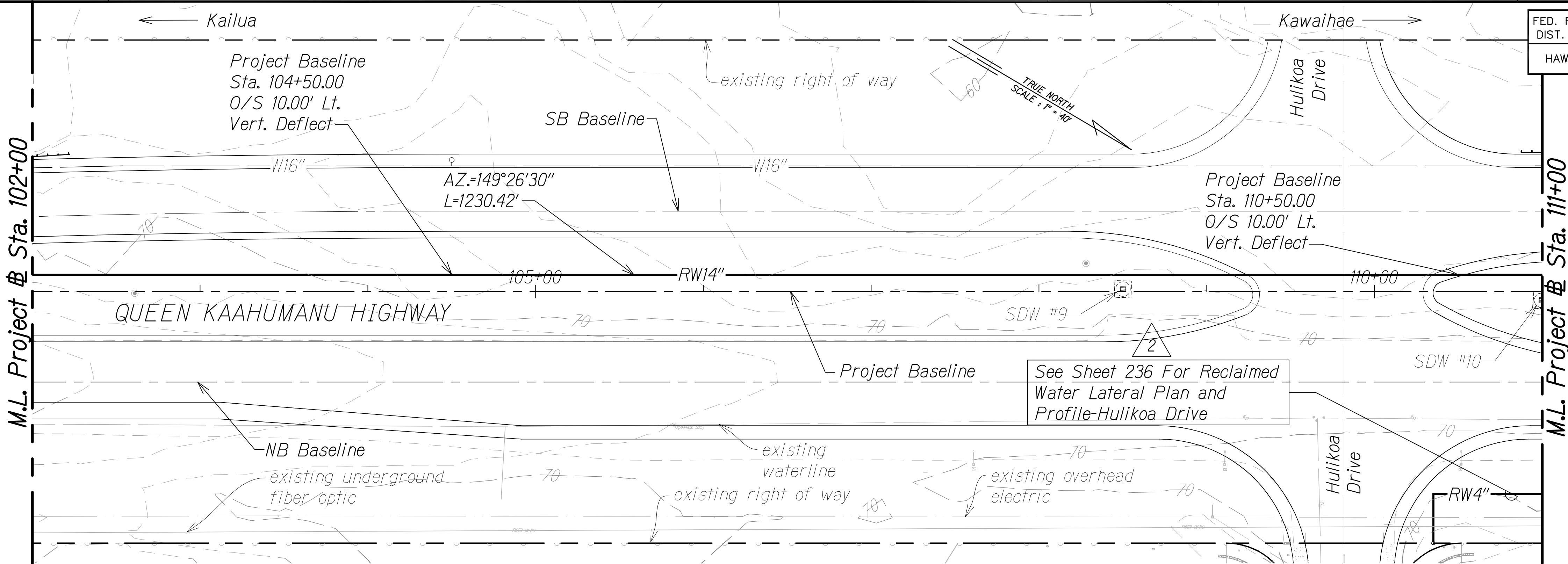
SHEET No. 13 OF 21 SHEETS

"AS-BUILT"

C.O. 230

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_Hwy_WIDENING\01_CIVIL DRAWINGS\231 SEWER PP-RW 14.DWG 6/15/2016 3:06 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K(38)R	2016	C.O. 231	528 522

LEGEND:

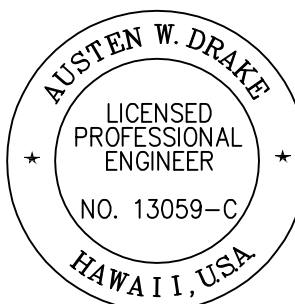
- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Waterline
- Reclaimed Water (RW)
- Sewage Air Relief Valve (SARV)
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

Approved under separate cover

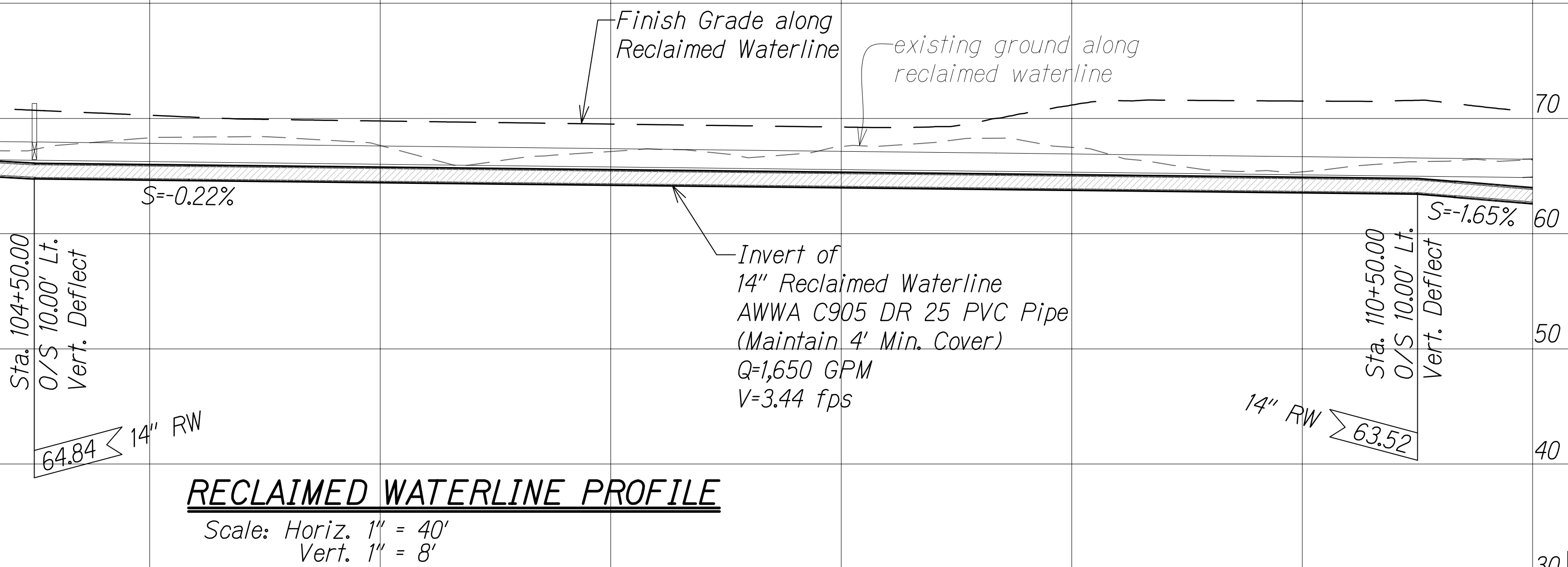
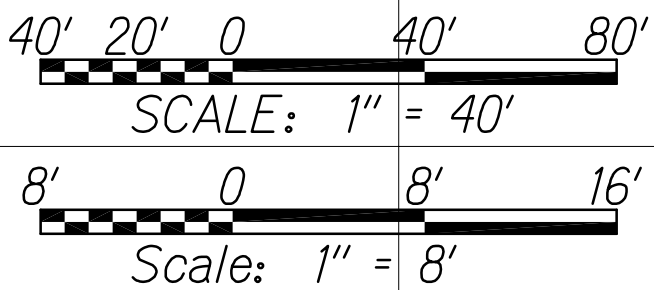
DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION



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ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.

Signature: Austen W. Drake
EXPIRATION DATE OF THE LICENSE: APRIL 30, 2018

GRAPHICAL SCALE:



RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

8/1/16	2	Revised sht. ref.
1/22/16	1	Revised utility profile due to SB @ redesign
DATE	REVISION	

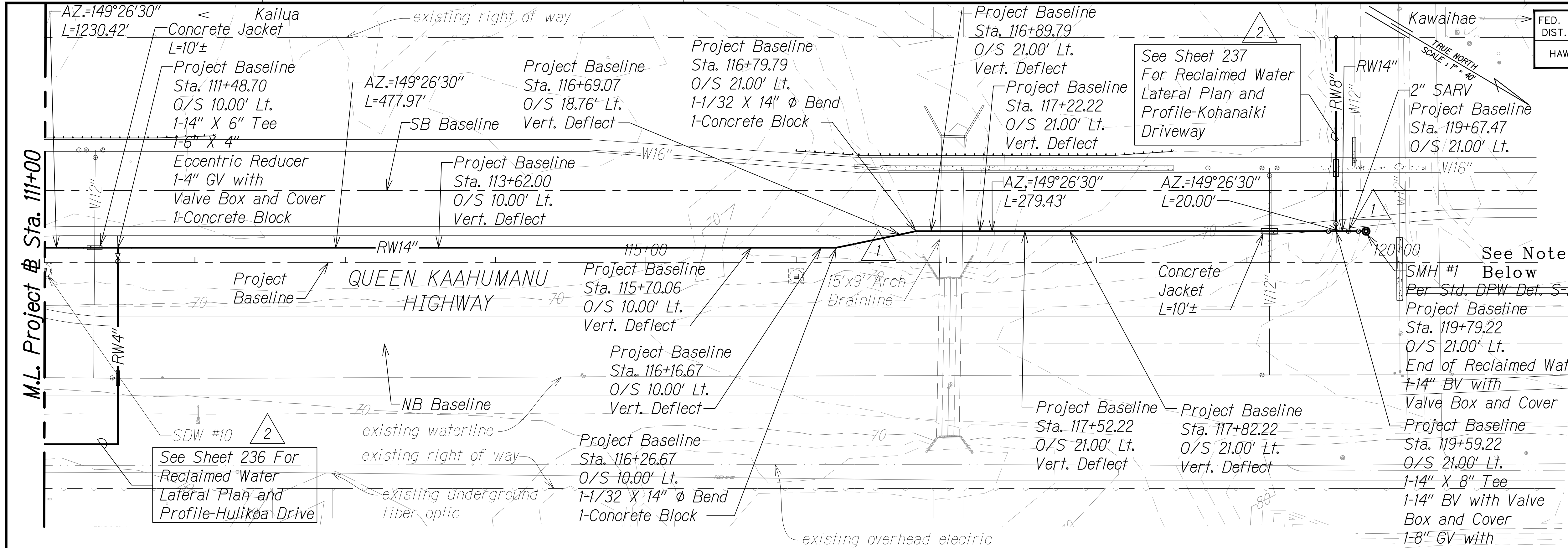
SHEET No. 14 OF 21 SHEETS

"AS-BUILT"

C.O. 231

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GRI_QUEEN K HWY WIDENING\01_CIVIL DRAWINGS\230 SEWER PP-RW 15.DWG 6/14/2019 5:59 PM



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-K(38)R	2016	C.O. 232	528

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Waterline
- Reclaimed Water (RW)
- Sewage Air Relief Valve (SARV)
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

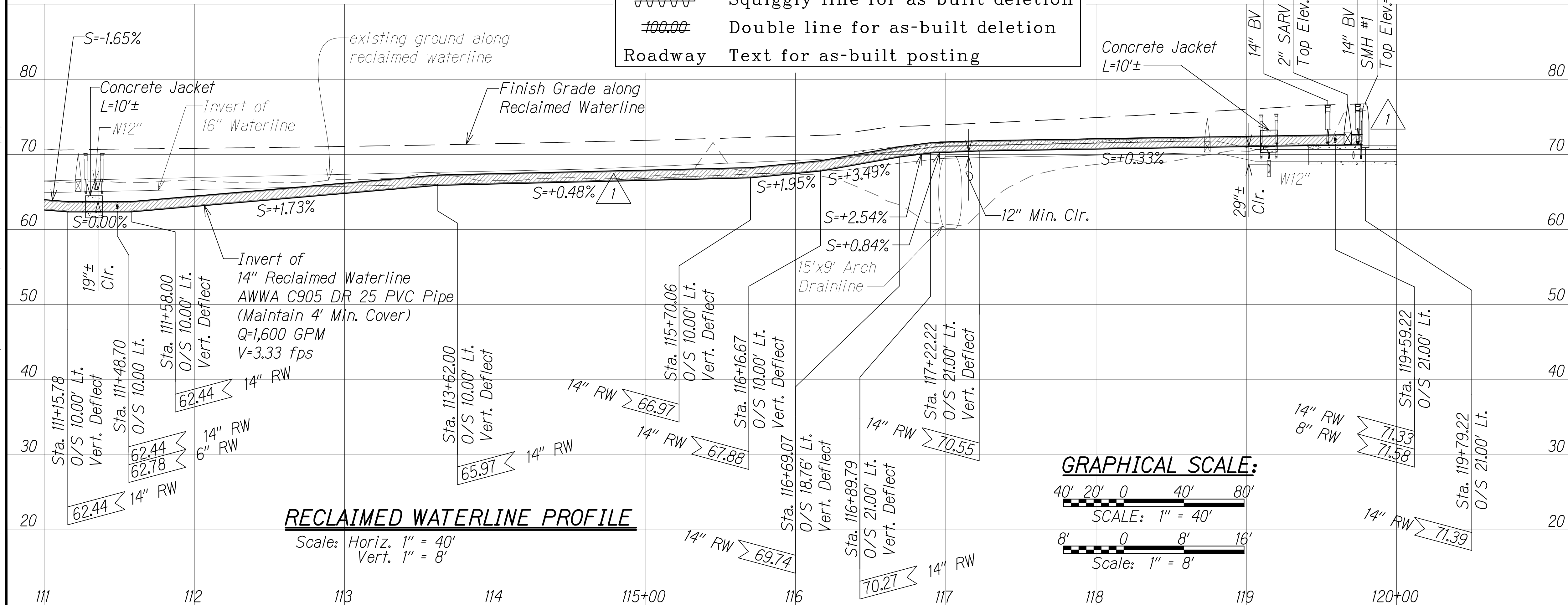
~~~~~ Squiggly line for as-built deletion

~~~~~~~~~ Double line for as-built deletion

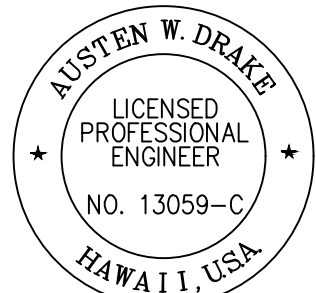
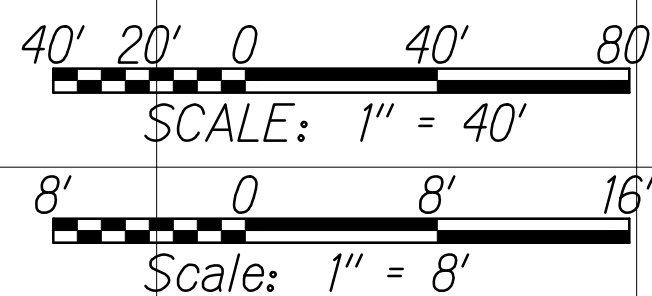
Roadway Text for as-built posting

NOTES:

- MH shall be a Flat Top Type, See Det. Sht. 217.
- MH shall have a Type "SB" Frame and Cover. See DPW Det. S-33 and S-35.



GRAPHICAL SCALE:



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Signature: Austen W. Drake, Date: APRIL 30, 2018, Signature: [Signature], Expiration Date of the License: [Signature]

| DATE | REVISION |
|---------|---------------------------------|
| 6/30/16 | 2 Revised sht. ref. |
| 1/22/16 | 1 Extension to Kohanaiki parcel |

SHEET No. 15 OF 21 SHEETS

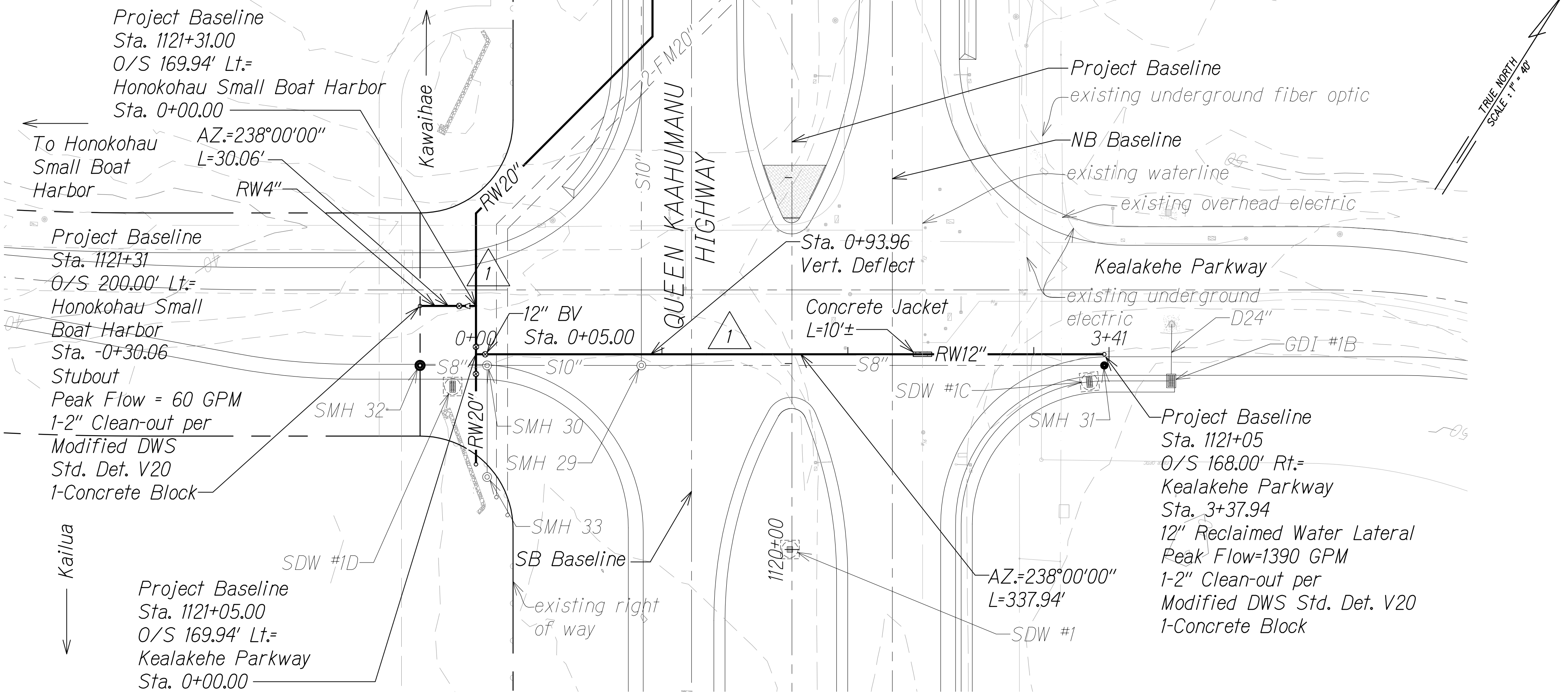
"AS-BUILT"

C.O. 232

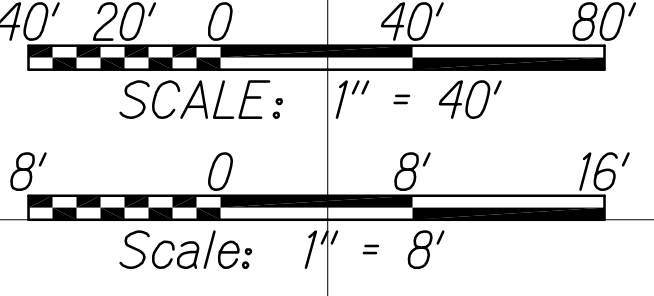
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|-----------------------|
| HAWAII | HAW. | NH-019-K(38)R | 2016 | C.O. 233 | 528
522 |

LEGEND:

- — — — — Finish Grade along Reclaimed Waterline
- - - - - existing ground along reclaimed waterline
- S10" - - - - - Sewerline
- W16" - - - - - Waterline
- RW12" - - - - - Reclaimed Water (RW)
- 2-FM20" - - - - - Dual Force Main
- ⊙ Sewer Manhole
- Clean-out
- ⊙ Butterfly Valve (BV)
- ⊙ Gate Valve (GV)
- ⊙ Shallow Drywell
- ⊙ Grated Drop Inlet
- { - - - - - Sewer Lateral
- { - - - - - Water Lateral
- { - - - - - Reclaimed Water Lateral
- w16" — existing waterline (w)
- FIBER OPTIC — existing underground fiber optic
- o — existing overhead electric
- — — — — existing underground electric



GRAPHICAL SCALE:



Invert of 4" Reclaimed Waterline
AWWA C900 DR 25
PVC Pipe
(Maintain 4' Min. Cover)
Q=60 GPM
V=1.53 fps

RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

LEGEND FOR AS-BUILT POSTINGS

- ~~~~~ Squiggly line for as-built deletion
- ~~100.00~~ Double line for as-built deletion
- Roadway Text for as-built posting

Approved under separate cover

DIVISION CHIEF _____ DATE _____
COUNTY OF HAWAII
WASTEWATER DIVISION

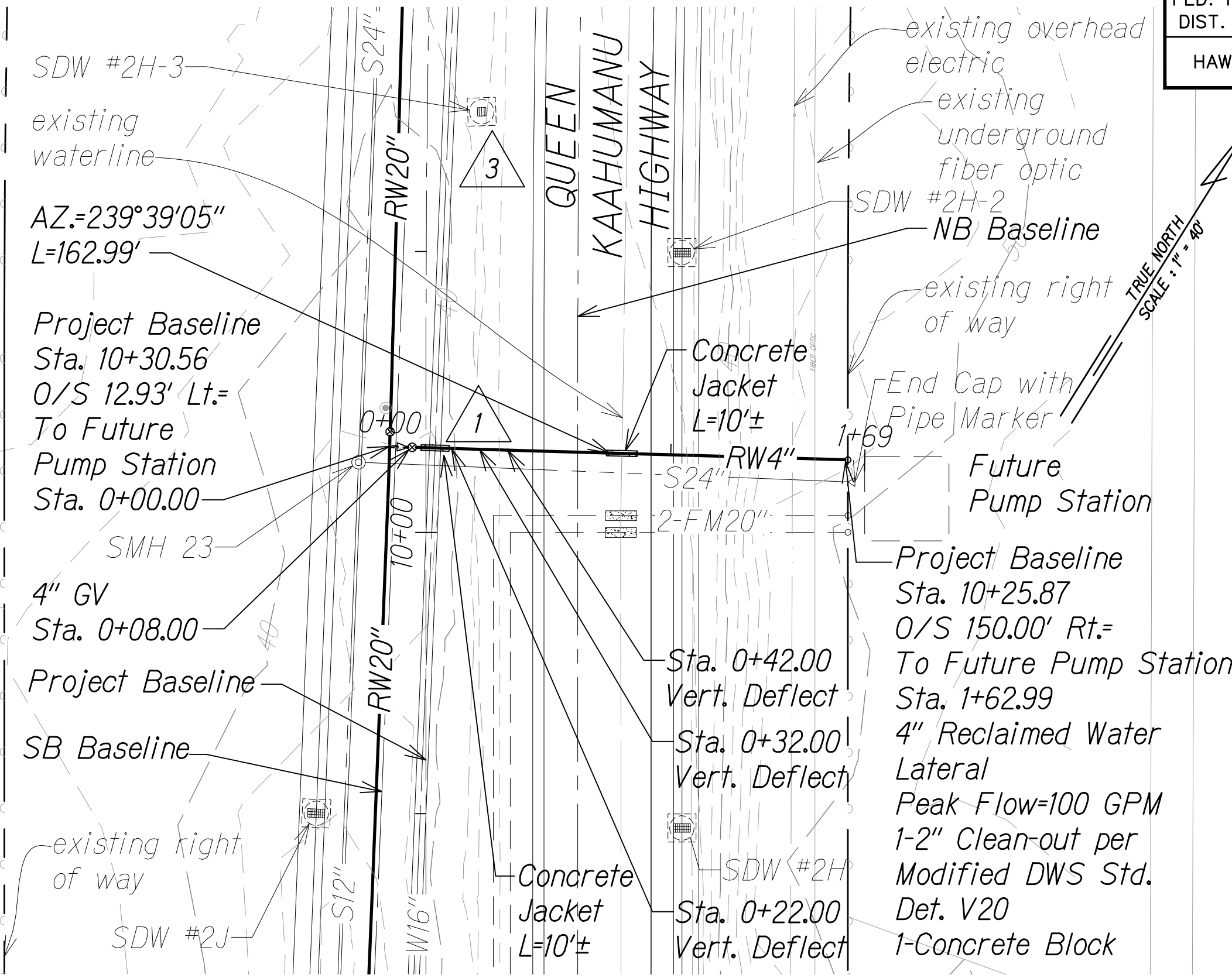
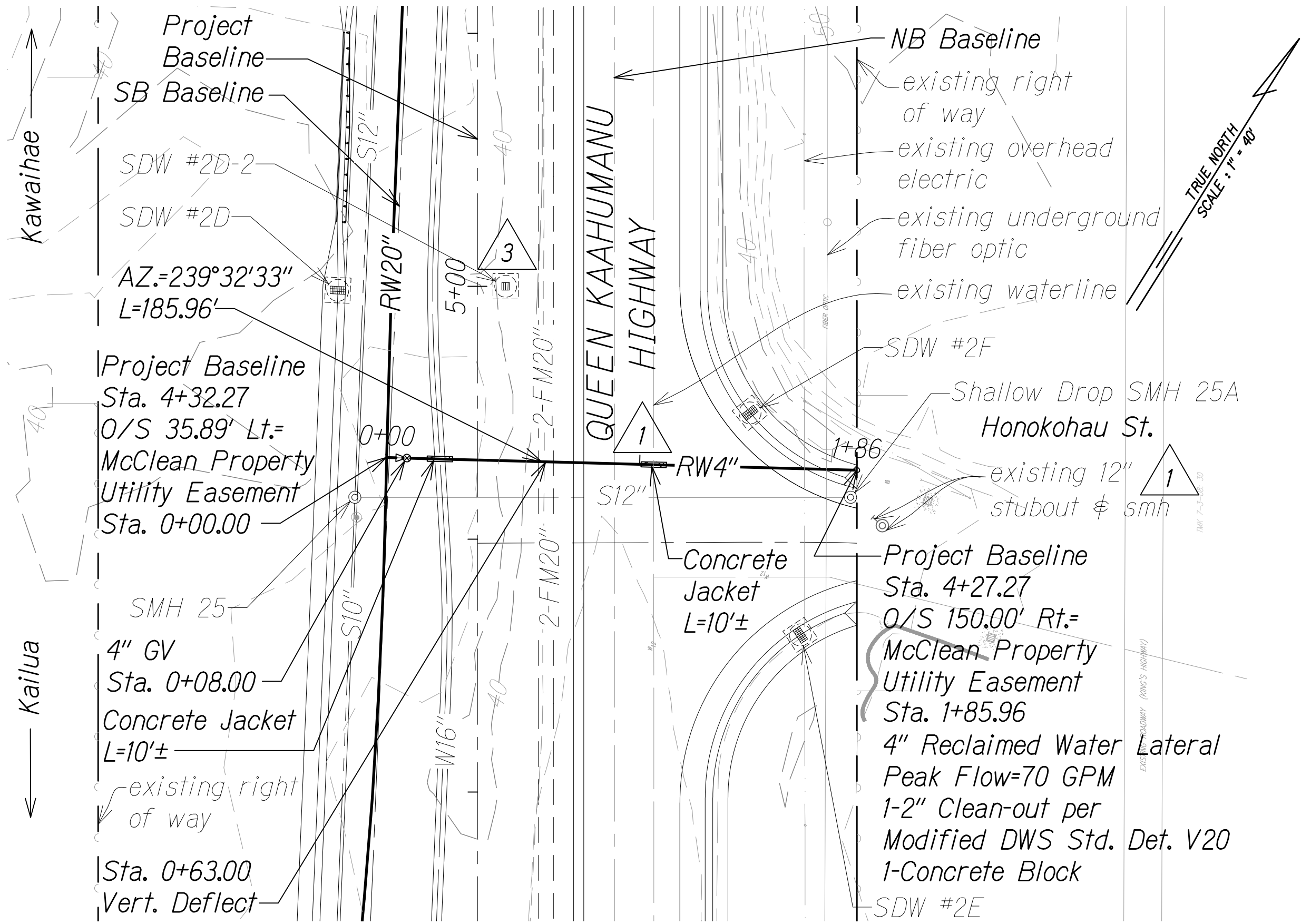


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ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.
Austen W. Drake APRIL 30, 2018
SIGNATURE EXPIRATION DATE
OF THE LICENSE

| | | |
|---------|---|--|
| 1/22/16 | 1 | Revised utility alignment & profile due to SB & redesign |
| DATE | | REVISION |

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

W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_HWY_WIDENING\01_CIVIL_DRAWINGS\DWY 01 CIVIL DWGS\234_SEWER PP-RW 17.DWG 2/13/2017 4:09 PM

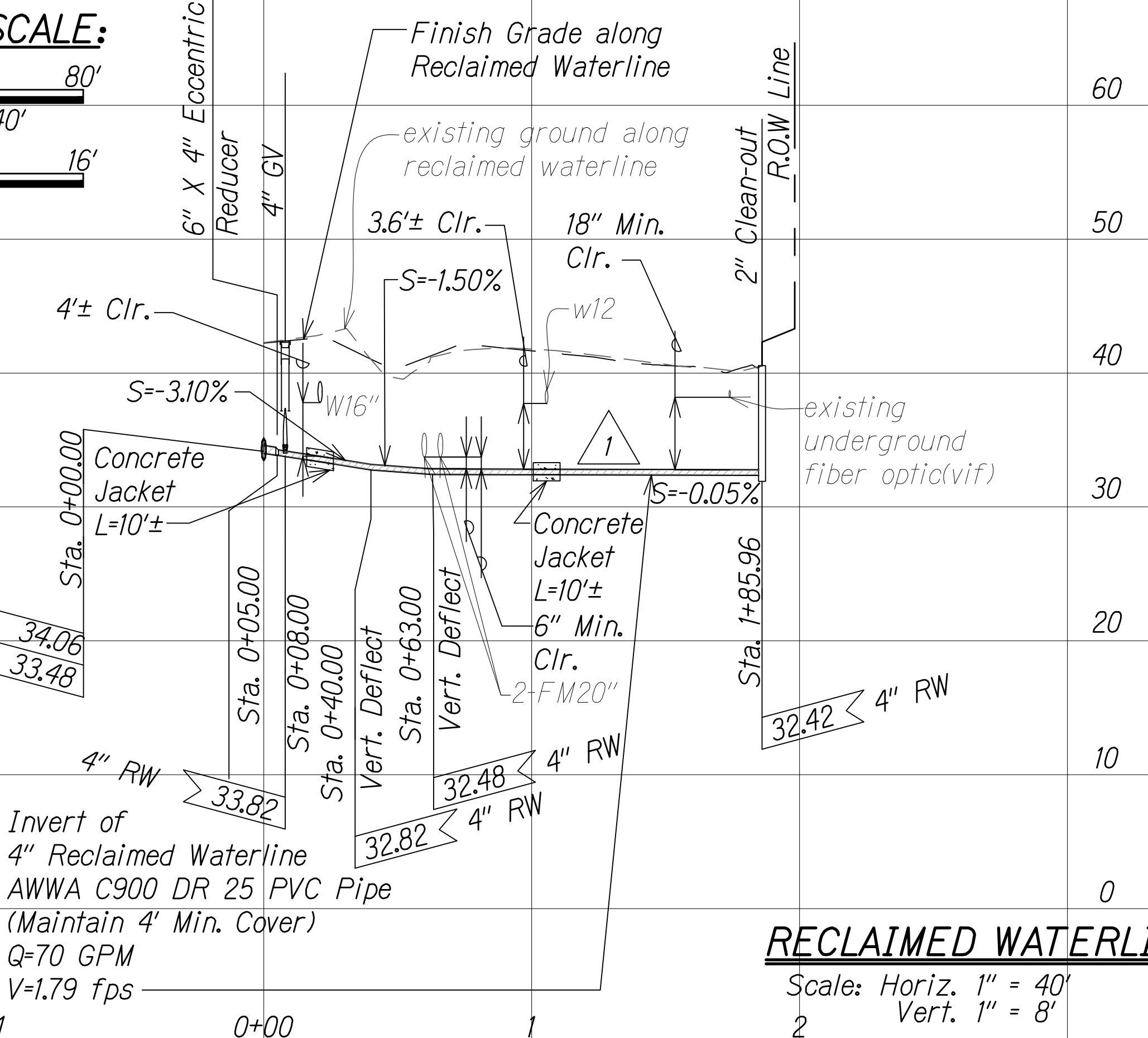
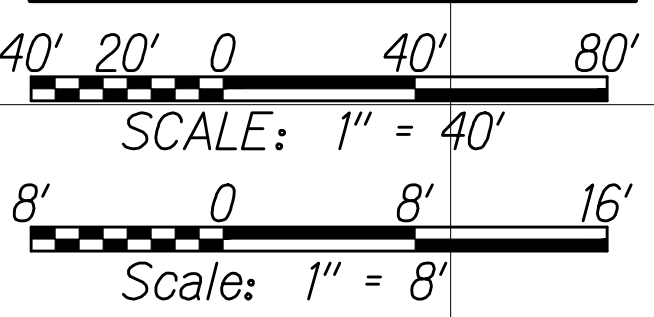


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-019-1(38)R | 2016 | C.O. 234 | 528 |

LEGEND:

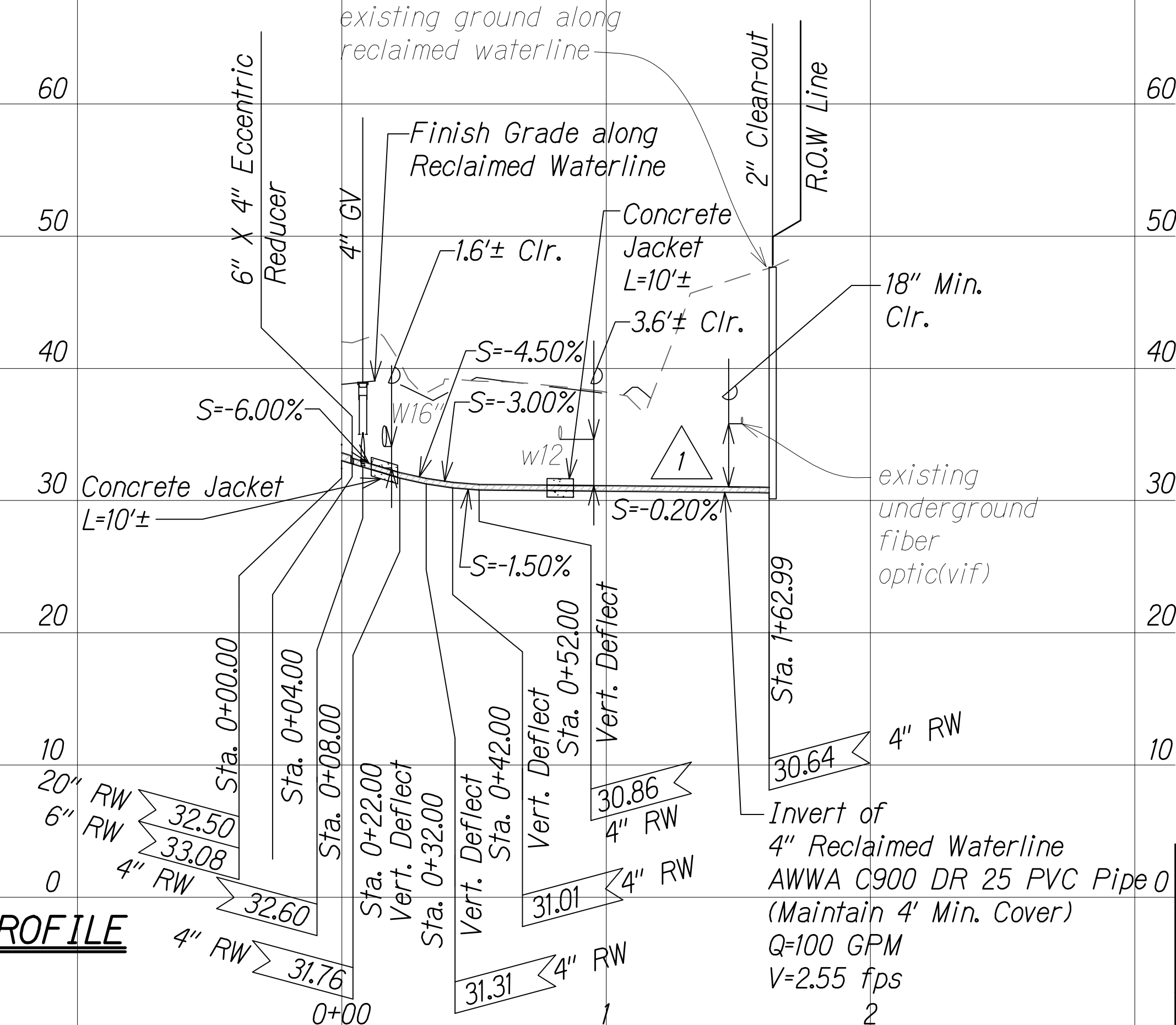
- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- S10" Sewerline
- W16" Waterline
- RW20" Reclaimed Water (RW)
- 2-FM20" Dual Force Main
- SMH Sewer Manhole
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric
- existing underground electric

GRAPHICAL SCALE:



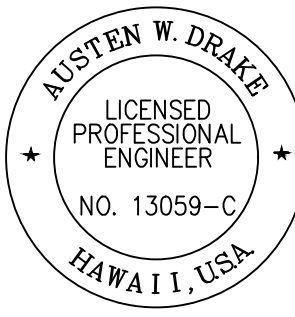
RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'



Approved under separate cover

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Signature: Austen W. Drake
EXPIRATION DATE OF THE LICENSE: APRIL 30, 2018

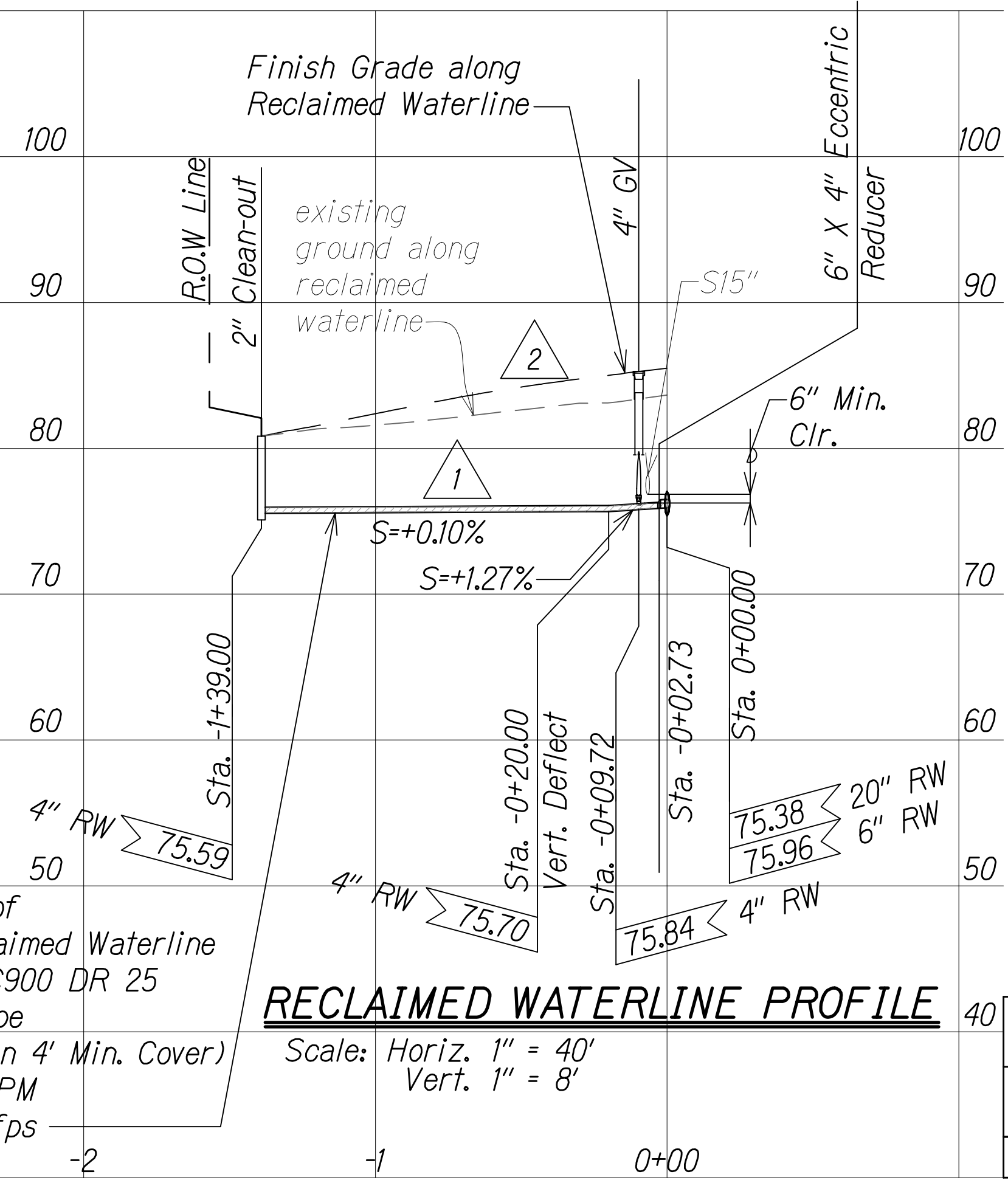
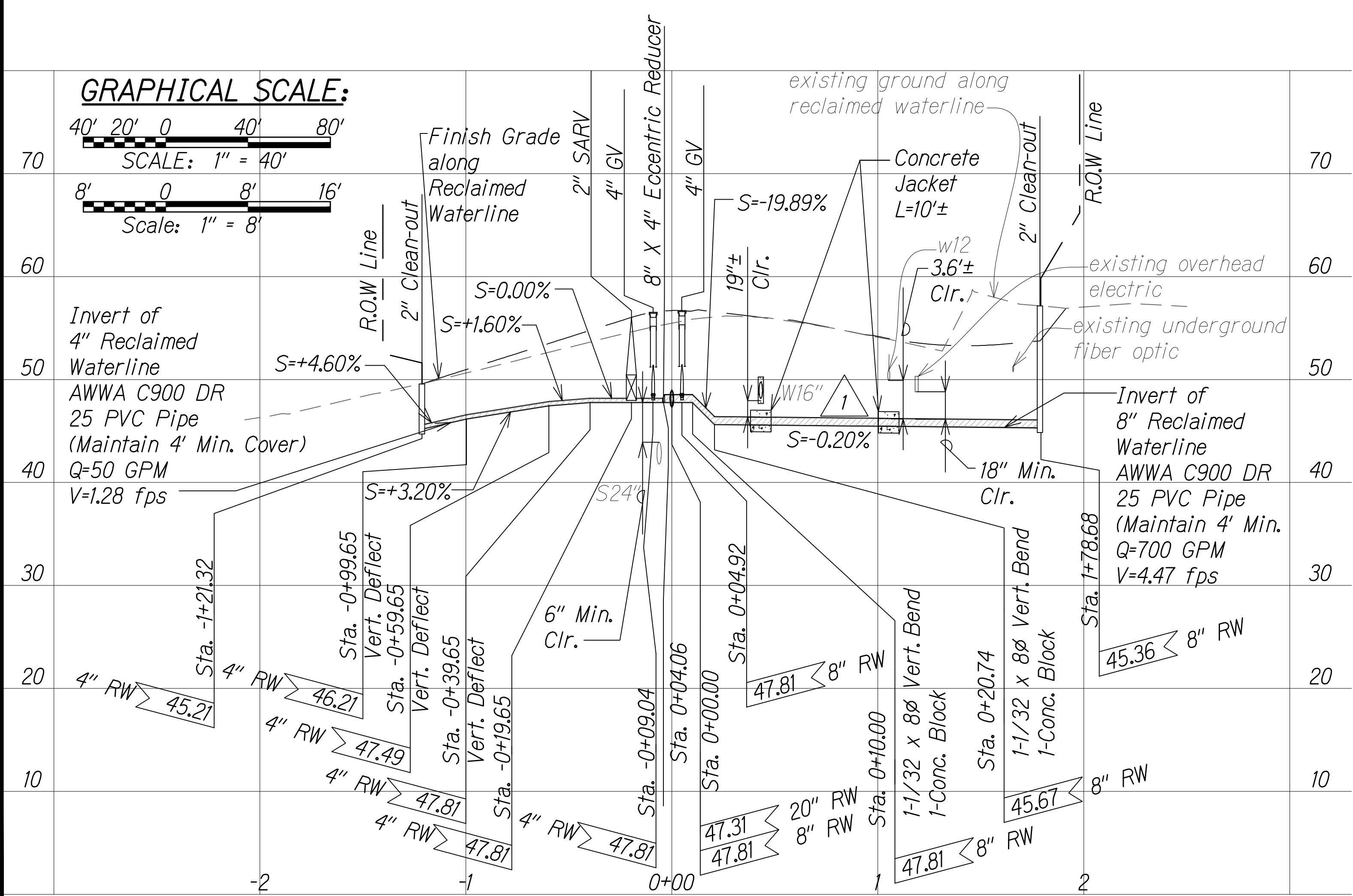
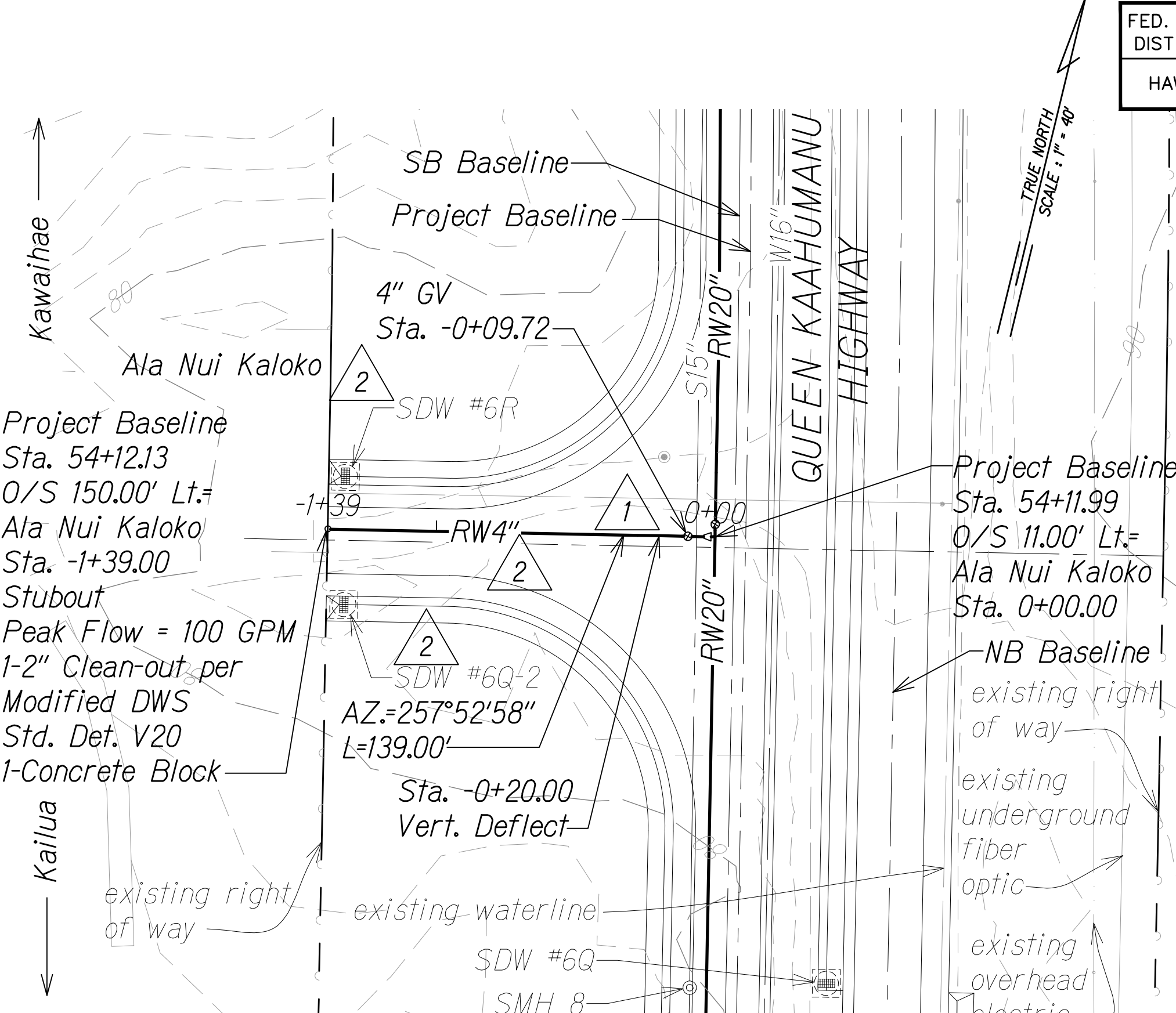
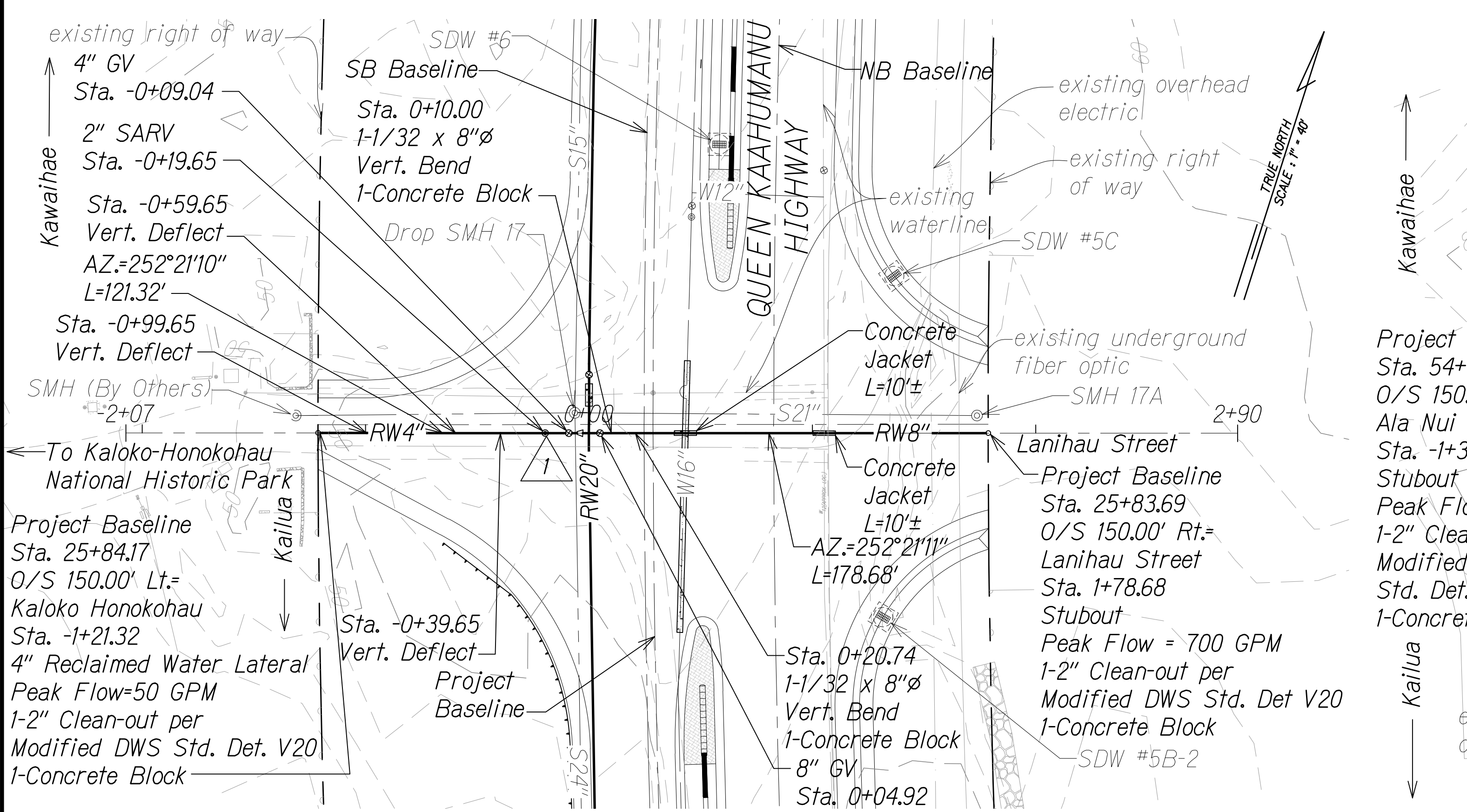
| | | |
|---------|---|---|
| 1/31/17 | 3 | Added new drywells |
| 1/22/16 | 1 | Revised utility alignment & profile due to SB & redesign; Added exist. smh & stubout at Honokohau St. |
| DATE | | REVISION |

SHEET No. 17 OF 21 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-019-K(38)R | 2016 | C.O. 235 | 528 |

LEGEND:

- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- S10" Sewerline
- W16" Waterline
- RW20" Reclaimed Water (RW)
- Sewer Manhole
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- FIBER OPTIC
- existing underground fiber optic
- existing overhead electric



Approved under separate cover

DIVISION CHIEF COUNTY OF HAWAII WASTEWATER DIVISION

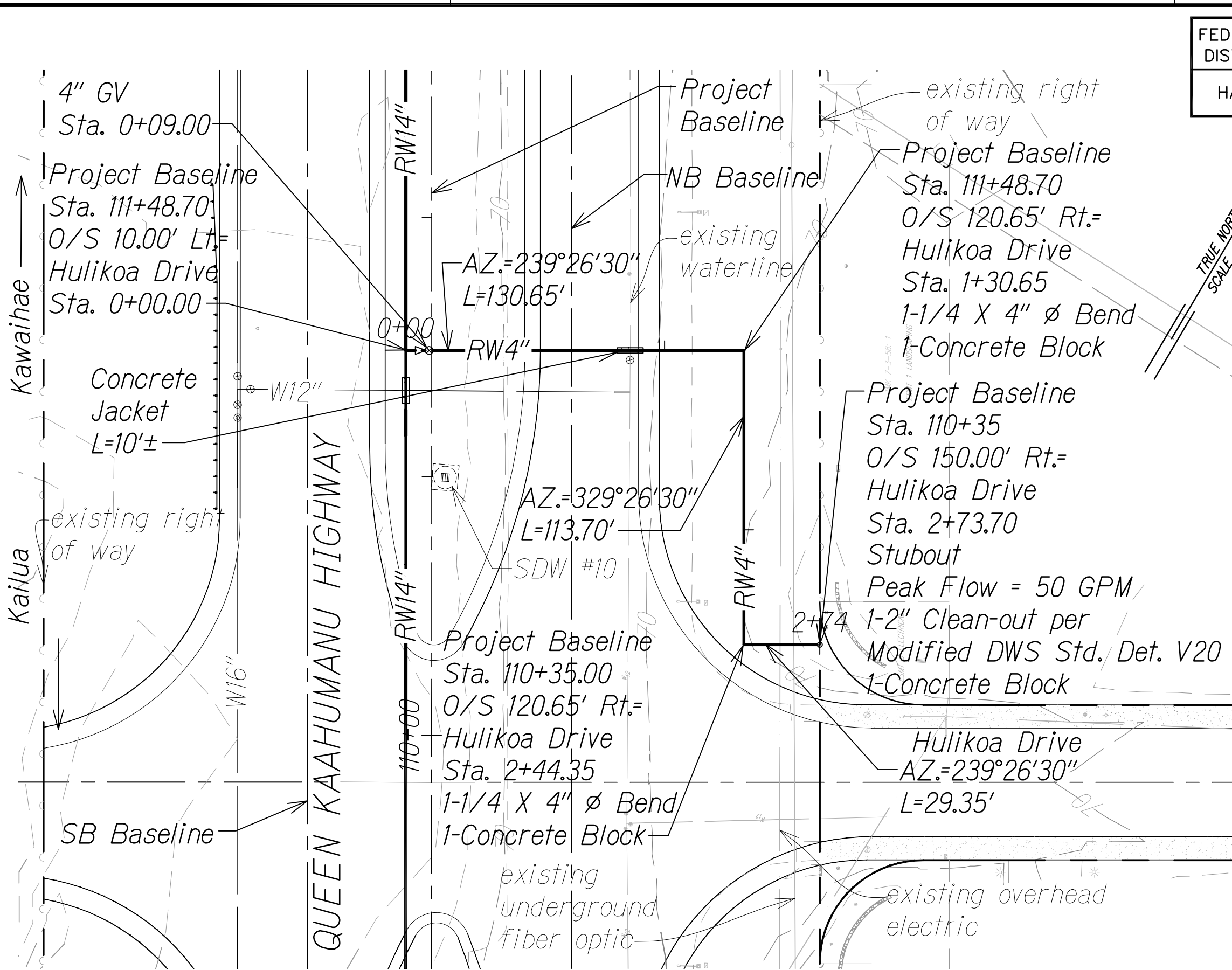
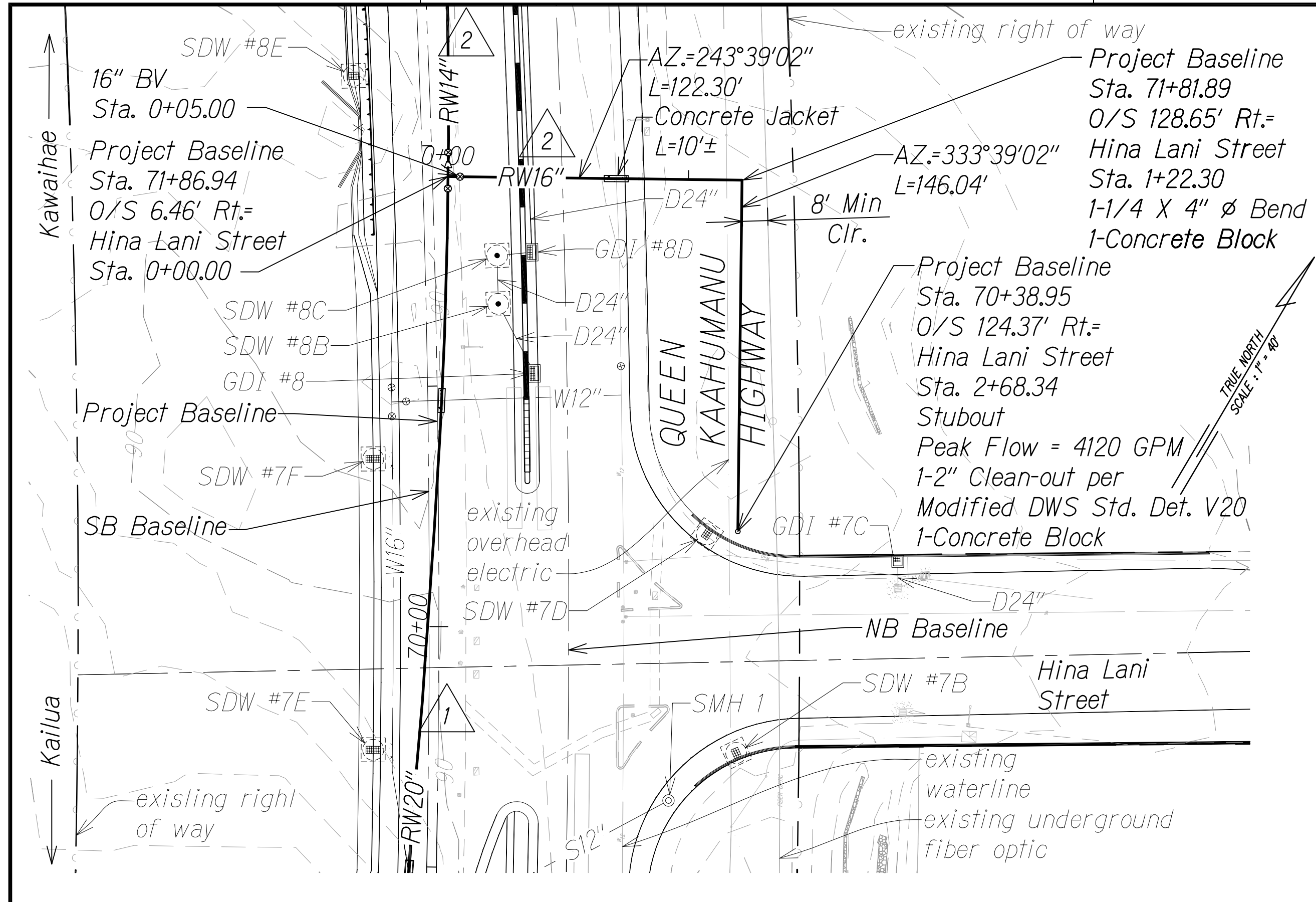


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Signature: Austin W. Drake
EXPIRATION DATE OF THE LICENSE: APRIL 30, 2018

| DATE | REVISION |
|---------|--|
| 8/1/16 | 2 Ala Nui Kaloko shift & utility revisions |
| 1/22/16 | 1 Revised utility alignment & profile due to SB & redesign |

| | |
|---------------|------|
| ORIGINAL PLAN | DATE |
| DESIGNED BY | |
| NOTED BY | |
| CHECKED BY | |
| NO. | |

W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_Hwy_WIDENING\01_CIVIL_DRAWINGS\1236_SEWER_PP-RW_19.DWG 6/15/2016 5:17 PM



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-019-K381R | 2016 | C.O. 236 | 528 222 |

LEGEND:

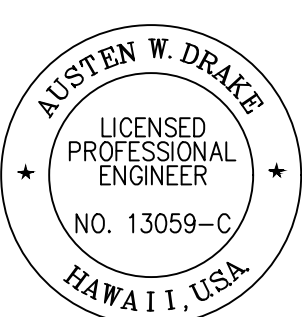
- Finish Grade along Reclaimed Waterline
- existing ground along reclaimed waterline
- Sewerline
- Waterline
- Reclaimed Water (RW)
- Sewer Manhole
- Clean-out
- Butterfly Valve (BV)
- Gate Valve (GV)
- Shallow Drywell
- Grated Drop Inlet
- Sewer Lateral
- Water Lateral
- Reclaimed Water Lateral
- existing waterline (w)
- existing underground fiber optic
- existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

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

DIVISION CHIEF
COUNTY OF HAWAII
WASTEWATER DIVISION

DATE

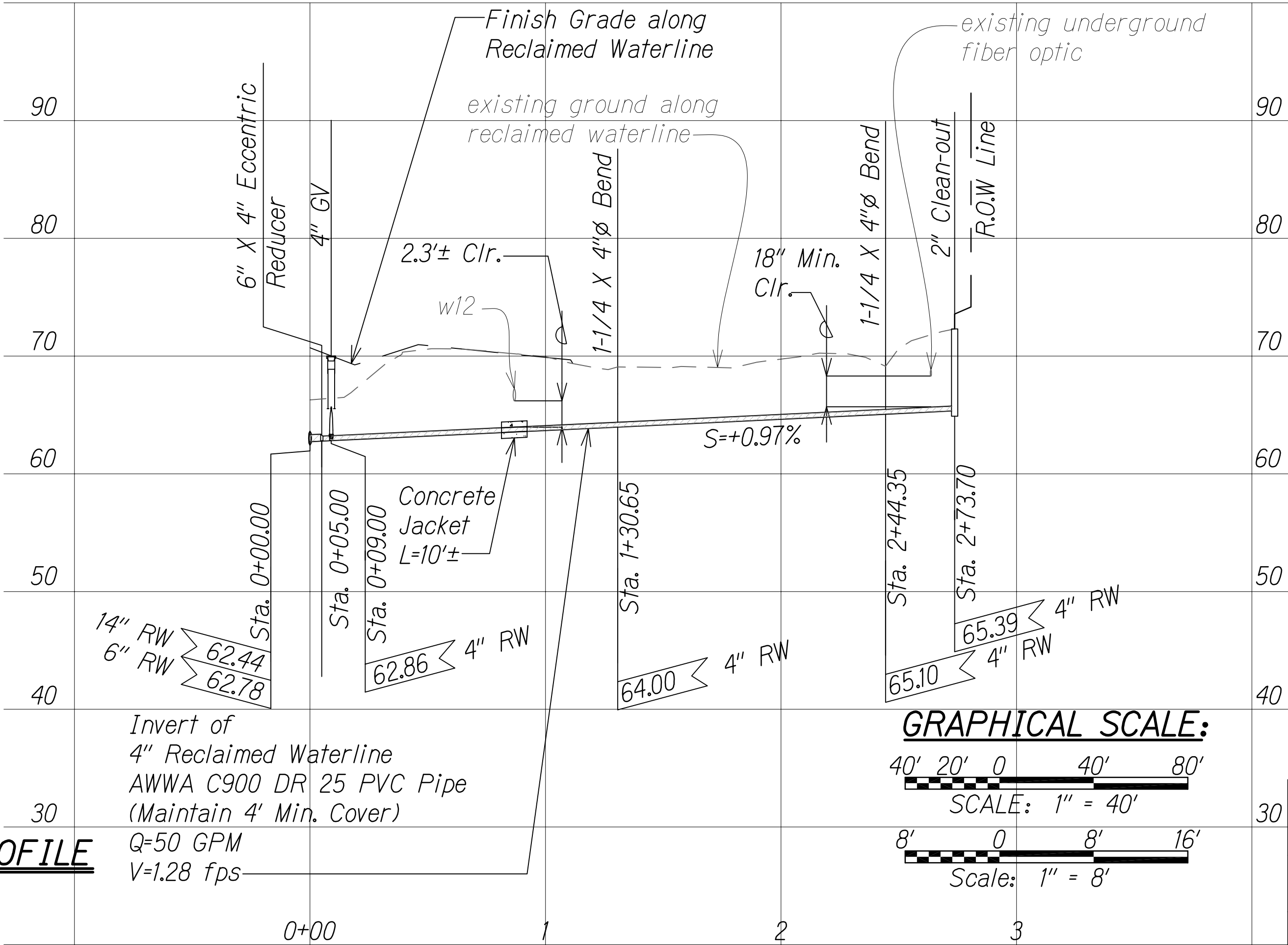
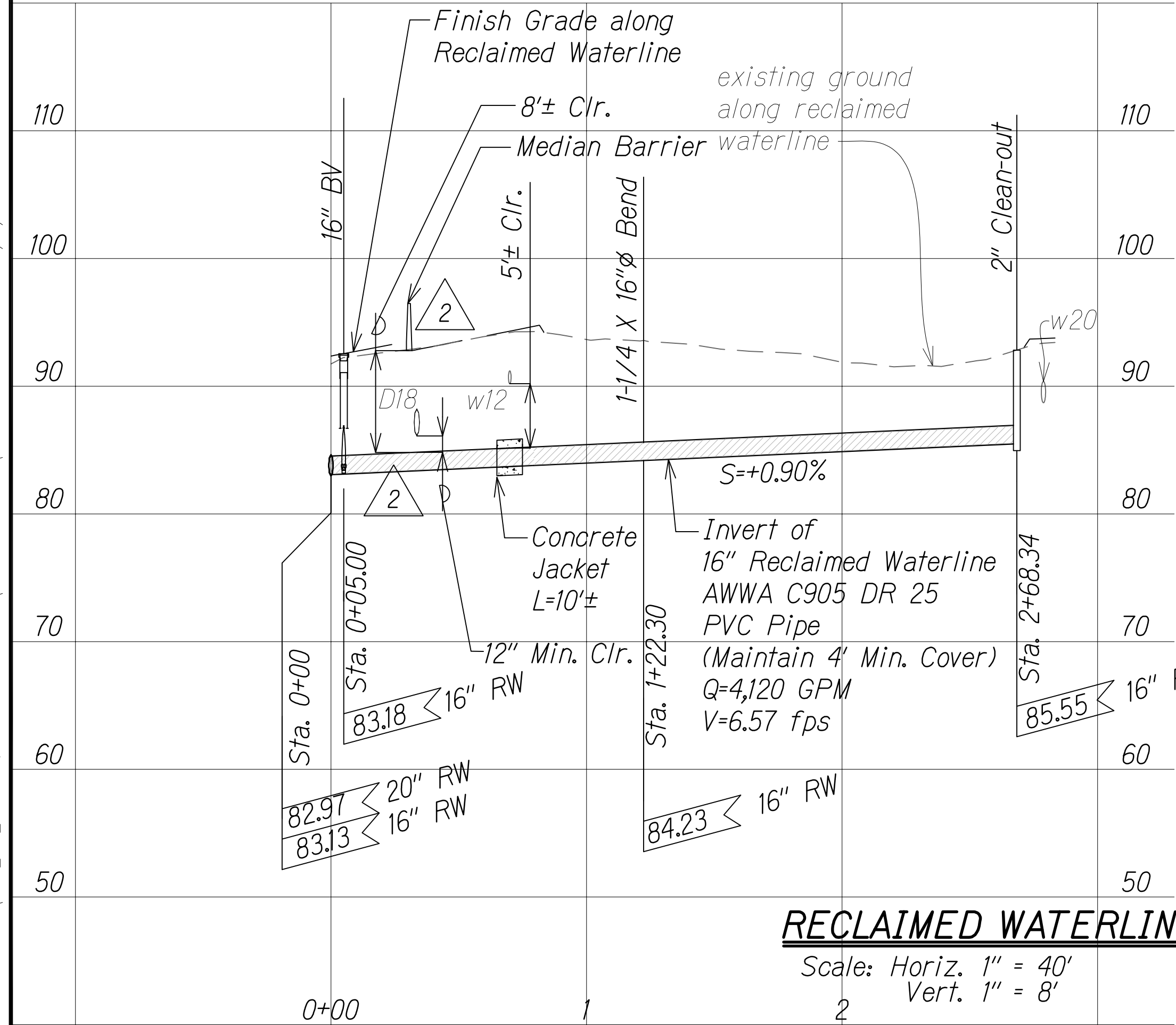


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION.

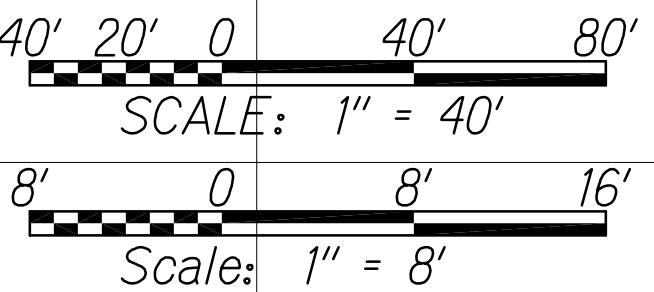
SIGNATURE: Austin W. Drake
EXPIRATION DATE OF THE LICENSE: APRIL 30, 2018

RECLAIMED WATERLINE PROFILE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'



GRAPHICAL SCALE:



| DATE | REVISION |
|---------|--|
| 8/1/16 | 2 Realigned main line to outside of exist. pav't; Revised lateral layout and median barrier type |
| 1/22/16 | 1 Revised utility alignment & profile due to SB & redesign |

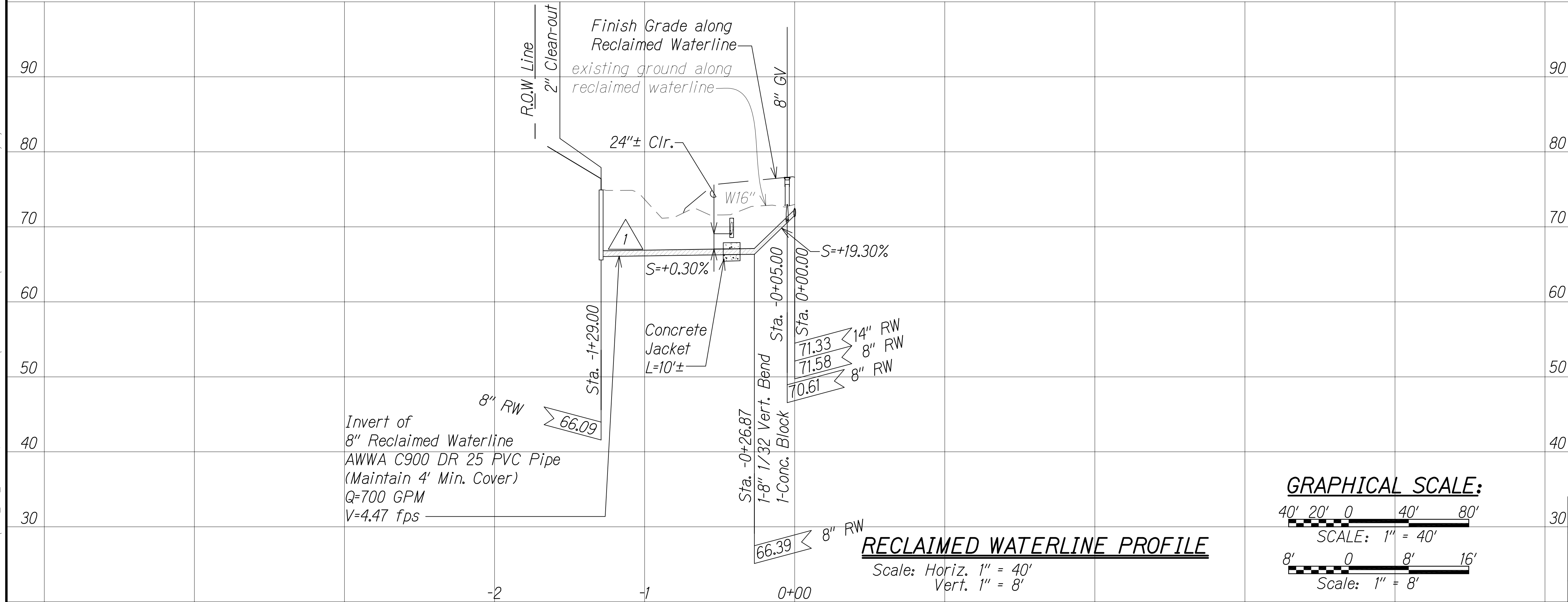
SHEET No. 19 OF 21 SHEETS

"AS-BUILT"

C.O. 236

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

W:_CIVIL_3D PROJECTS\2008_003_001 GBI QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\237 SEWER PP-RW 20.DWG 6/15/2016 5:27 PM



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|------------------------------|
| HAWAII | HAW. | NH-019-K381R | 2016 | C.O. 237 | 528
522
222 |

LEGEND:

- — — — — Finish Grade along Reclaimed Waterline
- - - - - existing ground along reclaimed waterline
- W16" - - - - - Waterline
- RW20" - - - - - Reclaimed Water (RW)
- Clean-out
- Sewage Air Relief Valve (SARV)
- Butterfly Valve (BV)
- Gate Valve (GV)
- { — — — — — Water Lateral
- { — — — — — Reclaimed Water Lateral
- W16" — — — — — existing waterline (w)
- FIBER OPTIC — — — — — existing underground fiber optic
- • — — — — — existing overhead electric

LEGEND FOR AS-BUILT POSTINGS

- ~~~~~ Squiggly line for as-built deletion
- ~~100.00~~ Double line for as-built deletion
- Roadway Text for as-built posting

Approved under separate cover

DIVISION CHIEF _____ DATE _____
COUNTY OF HAWAII
WASTEWATER DIVISION

AUSTEN W. DRAKE
LICENSED PROFESSIONAL ENGINEER
NO. 13059-C
HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Austen W. Drake
SIGNATURE EXPIRATION DATE OF THE LICENSE APRIL 30, 2018

| DATE | REVISION |
|---------|---|
| 8/1/16 | 2 Added azimuth and distance |
| 1/22/16 | 1 Revised utility alignment & profile due to main line ext. to Kohanaiki parcel |

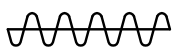
SHEET No. 20 OF 21 SHEETS

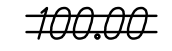
C.O. 237

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

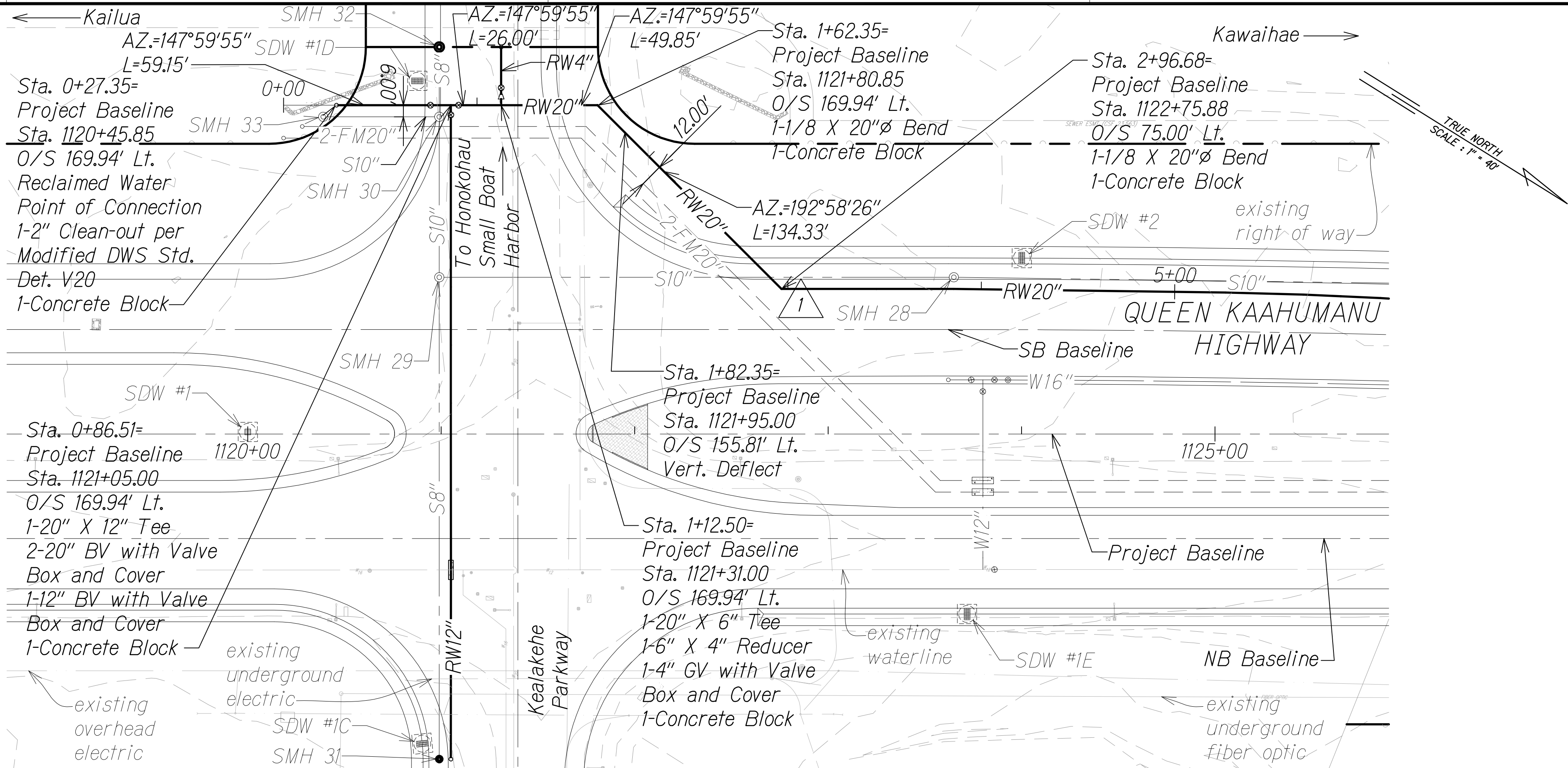
W:_CIVIL_3D_PROJECTS\2008_003_001_GBI_QUEEN_K_Hwy_WIDENING\01_CIVIL_DRAWINGS\238_SEWER_PP-FW_21.DWG 6/15/2016 5:33 PM

LEGEND FOR
AS-BUILT POSTINGS

 Squiggly line for as-built deletion


 Double line for as-built deletion


Roadway Text for as-built posting





| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-019-K(38)R | 2016 | C.O. 238 | 528
322 |


LEGEND:


 Finish Grade along Reclaimed Waterline


 existing ground along reclaimed waterline


 S10" Sewerline


 W16" Waterline


 RW20" Reclaimed Water (RW)


 2-FM20" Dual Force Main


 Sewer Manhole


 Sewage Air Relief Valve (SARV)


 Butterfly Valve (BV)


 Gate Valve (GV)


 Shallow Drywell


 Sewer Lateral


 Water Lateral

 Reclaimed Water Lateral

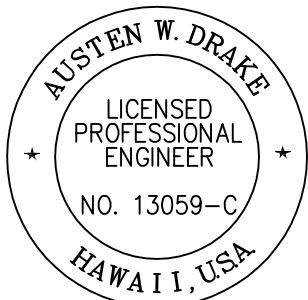
 existing waterline (w)

 existing underground fiber optic

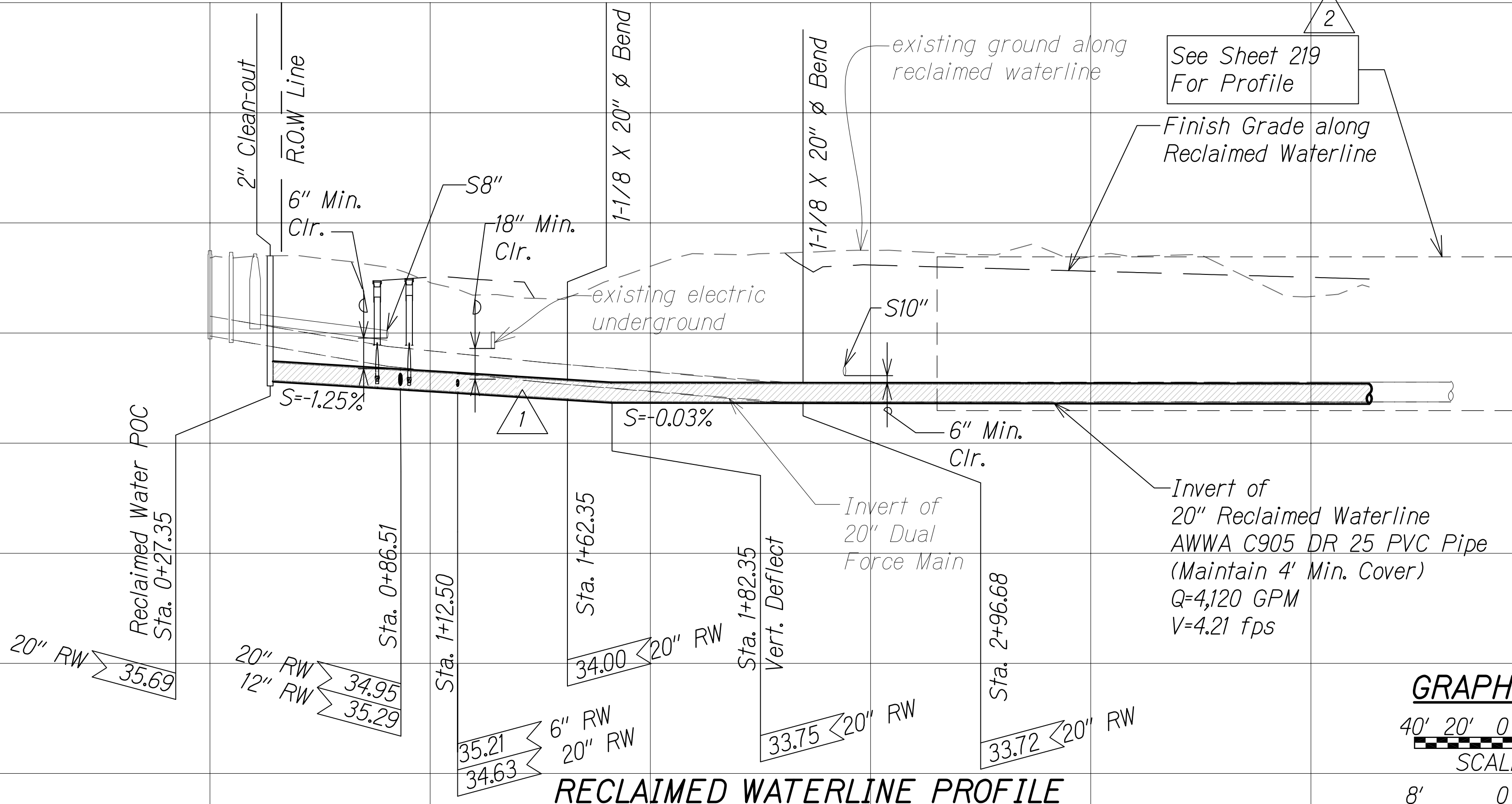
 existing overhead electric

 existing underground electric

Approved under separate cover
DIVISION CHIEF _____ DATE _____
COUNTY OF HAWAII
WASTEWATER DIVISION





THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Austin W. Drake APRIL 30, 2018
SIGNATURE EXPIRATION DATE OF THE LICENSE



RECLAIMED WATERLINE PROFILE
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

GRAPHICAL SCALE:

 SCALE: 1" = 40'

 Scale: 1" = 8'