FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	24	161

Sta. 1246+96± Hwy., O/S ±17' Lt.
=Sta. 0+00 12" W.L.
Conn. to exist. w12 C.I. pipe.
Contractor to verify invert and location.
Materials for conn.
1–12" D.I. to C.I. Adapter
1–12" x 12" D.I. Tee
1–12" Cap
3–12" GV, 150#
3–Valve box w/ cover
1–Conc. block w/ struct. struts
Temp. for testing
1–12" Cap w/4" C.O.
1–Conc. block

See Elec. dwgs. for Electrical work

Sta. 1246+96 Hwy., O/S 10' Lt.
=Sta. 0+07 12" W.L.
1–12" 1/4 Bend, D.I. (H)
1–Conc. Blk.

Sta. 1247+15 Hwy., O/S 10' Lt.
=Sta. 0+26 12" W.L.
1–12" 1/32 Bend, D.I. (H)
1–Conc. Blk.

Sta. 1247+40 Hwy., O/S 15' Lt.
=Sta. 0+52 12" W.L.
12"–1/32 Bend, D.I. (H)
w/ Conc. Blk.

Demolish and remove existing w12, conc. jacket and water meters as req'd. to construct new W12 (Ph. 3), see sht. C–21 & C–23

Cut exist. w12

Temp. Cap on W12

Cut & cap W12

Emergency work done in 2021 to backfill scour hole with concrete

w12 to remain

Exist. pedestrian bridge

Sta. 1+37 12" W.L.
1–3/4" ARV (Temp.)
Contractor shall provide cage for ARV similar to detail on Sht. S11.4. Submit shop drawings of ARV cage for review and approval by BWS & Project Engineer

True North
1"=20'

Kaipapau Stream

lot 59
tmk: 5–4–18: 2

Emergency work done in 2021 to repair wall and backfill area with boulders and concrete

Temp. Cap on W12

Cut & cap W12

Cut exist. w12

℄ Kamehameha Hwy.

Sta. 1248+91 Hwy., O/S 15' Lt.
=Sta. 2+02.64 12" W.L.
12"–1/4 Bend, D.I. (H)
w/ Conc. Blk.

Temp. Cap on W6

Sta. 1249+10± Hwy., O/S ±15' Lt.
Conn. to exist. w12 C.I. pipe.
Contractor to verify invert and location.
Materials for conn.
2–12" D.I. to C.I. Adapter
1–12" x 6" D.I. Tee
1–6" Cap
1–12" GV, 150#
1–6" GV, 150#
2–Valve box w/ cover
1–Conc. block w/ struct. struts
Temp. for testing
1–6" Cap w/2–1/2" C.O.
1–Conc. block

Sta. 1248+95± Hwy., O/S ±18' Lt.
Conn. to exist. w12 C.I. pipe.
Contractor to verify invert and location.
Materials for conn.
1–12" D.I. to C.I. Adapter
1–12" x 12" D.I. Tee
1–12" Cap
3–12" GV, 150#
3–Valve box w/ cover
1–Conc. block w/ struct. struts
Temp. for testing
1–12" Cap w/4" C.O.
1–Conc. block

12–INCH TEMPORARY WATERLINE PLAN (PHASE 1 & 2)

Scale: 1"=20'

Notes:

1. The existing waterlines shown on these plans were located using record drawings and toning information from the Board of Water Supply. The contractor shall make an independent check by probing the waterlines and coordinating with the Board of Water Supply to ascertain the exact locations of the waterlines. Any discrepancies shall be immediately brought to the attention of the Engineer prior to any work on the water system.
2. Demolish and remove existing waterline as required to construct temporary waterline.
3. Dewatering for removal of water system shall be considered inciental to Item No. 202.0520.
4. Dewatering for installation of the temporary and pernanent water system shall be considered incidental to Item No. 624.1003 Water Systems. No additional compensation will be provided for dewatering.
5. See Sht. C–25 for sections showing temporary 12" waterline on pedestrian bridge and under Kamehameha Highway.

Temporary Waterline Notes:

1. The temporary waterline shall be constructed, tested and in–service prior to starting construction of permanent water system. The contractor shall coordinate with the Board of Water Supply (BWS) for shut–down of the existing 12–inch waterline. The maximum down time shall be six (6) hours unless otherwise approved by the BWS. The contractor shall be responsible for providing advanced notification to all users affected by the waterline shut–down.
2. The temporary waterline shall not be in–service for more than two (2) months unless otherwise approved by the BWS.
3. Contractor shall be responsible for protecting & maintaining temporary waterline. Any repairs needed shall be coordinated with BWS personnel.
4. Contractor to provide all fittings, bends as required and install temporary 3/4" ARV in cage at high point of temporary waterline
5. The contractor shall be responsible for providing safe temporary pedestrian access at all times that meets ADA requirements.
6. The contractor shall be responsible for providing traffic controls during temporary waterline installation.

Install 215 LF temporary 12" (93 LF Fusible PVC DR–14) waterline. Lay temporary 12" waterline on existing pedestrian walkway. See Temporary Waterline Notes on this sheet.

Exist. ground along w12

Emergency work done in 2021 to backfill scour hole with concrete (Beyond)

Exist. Pedestrian Bridge

Temporary Fusible PVC DR–14 Waterline

Exist. Kaipapau Stream Ped. Bridge

Inv. 12" Fusible PVC waterline

Emergency work done in 2021 to repair wall and backfill area with boulders and concrete (Beyond)

0+3 12" G.V.
S=5.3%
S=1.1%
S=0.77%
Level
S=100%
3' Min. Cover
Level
S=3.2%
3' Min. Cover
Level
1+37 3/4" ARV (Tem
2+04 12" G.V.
2+28 12" G.V.
W12

0+00
0+44.88
0+49.62
0+61.04
1+11.18
1+32.01
1+42.01
1+53
1+90
2+06.46
2+30
2+25
2+22

Conn. to exist. w12 Contractor to verify inv. & location of 12" W
W12 6.00
1–12" 1/16 Bend, D.I. (BV) 1–Conc. Block
W12 6.00
1–12" 1/16 Bend, D.I. (TV) 1–Conc. Block
W12 10.73
Deflect 1.2°
W12 11.11
Deflect 0.2°
W12 11.68
Deflect 0.2°
W12 11.84
1–12" 1/16 Bend, D.I. (TV) 1–Conc. Block
W12 11.84
1–12" 1/16 Bend, D.I. (BV) 1–Conc. Block
W12 7.57
Deflect 1.8°
W12 8.76
Conn. to exist. w12 Contractor to verify inv. & location of 12" W
W12 8.76
Conn. to exist. w12 Contractor to verify inv. & location of 12" W
W12 9.11
1–12"x6" Tee
1–6" cap
2–Conc. Block
W6 9.31
W12 9.06
Conn. to exist. w12 Contractor to verify inv. & location of 12" W
W12 9.03

0
(–)10
(–)20

Graphic Scales:

1" = 4' 4' 2' 0 4' 8' Scale in Feet

1" = 20' 20' 10' 0 20' 40' Scale in Feet

12–INCH TEMPORARY WATERLINE PROFILE (PHASE 1 & 2)

Scales: 1"=20' Horiz.
1"=4' Vert.

0+00 1+00 2+00 3+00

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

APPROVED:
For Manager and Chief Engineer, BWS
(for work affecting BWS facilities State R/W & BWS easements only)
MAY 24 2021
DATE

WALTER G. C. CHONG
LICENSED PROFESSIONAL ENGINEERS
No. 8882-C
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" AS DEFINED IN CHAPTER 16–115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."
4/30/22
SIGNATURE LIC. EXPIRATION
R. M. TOWILL CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

12–INCH WATERLINE
PLAN & PROFILE (PHASE 1 & 2)

Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR–083–1(48)

Scale: As Noted Date: February 2021

SHEET No. C-22 OF SHEETS

RMTC JOB NO. : 1–19548–0E