

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-22(001)	2019	00	--

**STRUCTURAL REPAIR NOTES:**

1. Repair to CMU block wall shall be made using a pourable repair material using a form and pour technique in accordance with the American Concrete Institute (ACI) RAP Bulletin 4.
2. Repair material shall be MAPEI PLANITOP 15 or approved equal.
3. Extend repair material 50%, by weight, with clean 3/8" pea gravel.
4. Mix repair material according to manufacturer's instructions.
5. Allow adhesive for drill and epoxy dowel bars to achieve full cure prior to placement of repair material.
6. Sawcut perimeter of repair area at a depth of no greater than 1".
7. Salvage any existing embedded reinforcement within the limits of the repair area that has not been damaged.
8. Remove scale and loose rust from any corroded reinforcing using a power driven abrasive wheel.
9. All exposed concrete surfaces shall be cleaned using either high-pressure water blasting or oil-free abrasive blasting.
10. Build forms tight against existing CMU wall. Caulk all edges to ensure watertightness.
11. Provide "birdmouth" chute at top of forms for material placement.
12. Flood forms with clean water for minimum 15-minutes immediately prior to placement of repair material to ensure forms are water-tight and existing concrete substrate is Saturated Surface Dry (SSD). drain forms prior to material placement.
13. Fill forms with repair material in one operation. There shall be no cold joints in the field of the repair.
14. Forms shall be left in place as long as possible, but no less than 3-days, to allow repair mortar to cure.
15. Hammer-sound the entire area of the repair to determine overall integrity. Hollow sounds represent poor bond or defective concrete.
16. Grind any protrusions that extend outside of the limits of the planned pour, such as the "birdmouth" chute.
17. Allow concrete to cure for a minimum 28 days prior to painting.

**I. GENERAL SPECIFICATIONS**

International Building Code 2006

**II. MATERIALS**

- (A) All reinforcing steel shall be ASTM A615 deformed grade 60 unless otherwise noted.
- (B) Epoxy for anchoring threaded rod or deformed bar shall be Hilti HIT RE 500 V3 or approved equal.
- (C) Repair material shall be Mapei Planitop 15 or approved equal.

**III. REINFORCEMENT**

- (A) Reinforcing bars shall be detailed in accordance with the latest edition of the American Concrete Institute (ACI) detailing manual unless otherwise noted.
- (B) All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.
- (C) Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of the intersections is less than 12 inches in each direction, in which case alternate intersections shall be tied.

**IV. CONSTRUCTION NOTES**

- (A) The contractor shall verify all dimensions and site conditions before commencing work or ordering materials.
- (B) The contractor shall be solely responsible for the protection of adjacent properties, utilities, and existing and new structures from damage due to construction.
- (C) Drilled holes in existing concrete for reinforcing steel dowels shall not be left unfilled for more than 8 hours.
- (D) Except as noted otherwise, all vertical dimensions are measured plumb.

ORIGINAL PLAN	DATE
NO.	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	

DRAWING NAME: 2100 DRG001A 00 00 PROJECTS 19-000-PALI TUNNEL-NSP-01 CAD 04-22-19 ELEC BLOC-BEG-S001 ELEC BLOC-DWG PLOT TIME: 04-19-19, 8:59 AM

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>STRUCTURAL GENERAL NOTES</b>	
<b>PALI HIGHWAY DEBRIS REMOVAL AND EMERGENCY SLOPE STABILIZATION PROJECT</b>	
<b>FAP Proj. No. ER-22(001)</b>	
Scale: As Noted	Date: April 19, 2019
SHEET No. 50 OF 00 SHEETS	

"AS-BUILT"

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