

SYMBOLS AND ABBREVIATIONS

#	And	Demo.	Demolish, Demolition	GDI	Grated Drain Inlet	oc	On Center
@	At	Det.	Detail	GFRP	Glass Fiber Reinforced Polymer Rebar	Opn'g	Opening
Ø	Diameter	Dia.	Diameter			OB	Outbound
≥	Greater Than or Equal to	Diaph.	Diaphragm	Gr.	Grade	OD	Outside Diameter
≤	Less Than or Equal to	Dim.	Dimension	Grd.	Ground		
#	Number	Dist.	Distance	GRP	Grouted Rubble Pavement	Perf.	Perforated
		DO	Ditto			PL	Plate
		Dwls.	Dowels	Ht.	Height	PCCP	Portland Cement Concrete Pavement
Abbr.	Abbreviation	Dn.	Down	(H)	Hinge		
Add.	Additional	Dbl.	Double	Horiz., H	Horizontal	PC	Point of Curvature
Alt.	Alternate	DI	Drain Inlet, Ductile Iron	HDOT	State of Hawaii Department of Transportation	PCF	Pounds per Cubic Foot
AB	Anchor Bolt	Dwg., Dwgs.	Drawing, Drawings			P(e)	Effective Prestress Force After All Losses
AC	Asphaltic Concrete	DS	Drilled Shaft	HDPE	High Density Polyethylene	PSF	Pounds per Square Foot
Approx.	Approximate			HS	High strength	PSI, psi	Pounds per Square Inch
ASB	Asphalt Stabilized Base	E	East	HECO	Hawaiian Electric Company	PLF	Pounds per Linear Foot
Az.	Azimuth	EA, Ea, ea.	Each	HMA	Hot Mix Asphalt	PI	Point of Intersection of Tangents
		EF	Each Face				
Bk.	Back	EFH	Each Face Horizontal	IB	Inbound	PIVC	Point of Intersection of Vertical Curve
Bal.	Balance	EFV	Each Face Vertical	In.	Inch		
Ø	Baseline	EW	Each Way	ID	Inside Diameter	PT	Point of Tangency
Bm.	Beam	EPE	Existing Edge of Pavement	IF	Inside Face	Pt., Pts.	Point, Points
Brg., Brgs.	Bearing, Bearings	EPS	Expanded Polystyrene	Int.	Interior	PRC	Point of Reverse Curvature
BVC	Beginning of Vertical Curve	ES	Edge of Shoulder	Inv.	Invert	PVC	Polyvinyl Chloride
Bet.	Between	Elec.	Electrical			Prestr.	Prestressed
BF	Both Faces	EMH	Electrical Manhole	Jt.	Joint	P/S	Prestressed Strands
BW	Both Ways	El., Elev.	Elevation	JPCP	Jointed Precast Concrete Pavement	PB	Pull Box
BFE	Bottom of Footing Elevation	Emb.	Embankment				
Bot., Bott., B	Bottom	EVC	End of Vertical Curve			Rad., R	Radius
BOF	Bottom of Footing	Eq.	Equal	K	Kips	RF	Rear Face
Blt.	Bolt	Est.	Estimated	KF	Kip Foot	Rebar	Reinforcing Bar
		Exc.	Excavation	KSF	Kips Per Square Foot	Ref.	Reference
Cant.	Cantilever	Excl.	Excluding	KSI	Kips Per Square Inch	Reinf.	Reinforced, Reinforcing, Reinforcement
CIP	Cast Iron Pipe	Exist., Ex.	Existing	KLF	Kips Per Linear Foot	Req'd.	Required
	Cast-In-Place	Exp., (E)	Expansion			Ret.	Retaining
¢	Center line	EJ	Expansion Joint	L	Length	ROW	Right of Way
cc	Center to Center	Ext.	Exterior	Lb., lbs., LBS.	Pound, Pounds	Rdwy.	Roadway
CG	Center of Gravity			Ltg. Std.	Lighting Standard		
CFCW	Continuous Flashing Compound	(F)	Fixed	LF, Lin. Ft.	Linear Feet/Foot		
	Waterproofing	FA	Force account	LS	Lump Sum	Sect.	Section
Cl.	Class	FB	Flat Bar	Longit.	Longitudinal	Sht.	Sheet
Clr.	Clearance	FC	Compression Stresses			Sim.	Similar
CO	Clean Out	f'c	Specified Compressive Strength of Concrete at 28 days	M	Modified	Sl.	Slope
Col.	Column	f'ci	Specified Compressive Strength of Concrete at Time of Initial Prestress	MH	Manhole	S	South
Conc.	Concrete			Max.	Maximum	SB	Southbound
CBW	Concrete Barrier Wall			Mech.	Mechanical	Spc., Spg.	Spaces, Spacing
Conn.	Connection			Min.	Minimum	Sprd.	Spread
Const.	Construction	FF	Far Face, Front Face	Misc.	Miscellaneous	Spec.	Specification
CJ	Construction Joint	Fig.	Figure	MPH	Miles Per Hour	SF	Square Feet
Cntl. Jt.	Control Joint	Fin. Gr.	Finish Grade			SY	Square Yard
CLSM	Controlled Low Strength Material	fr	Modulus of Rupture	NF	Near Face	SS	Stainless Steel
		FRP	Fiberglass Reinforced Plastic	N	North	Std.	Standard
Cont.	Continuous	FT	Tensile Stresses	NB	Northbound	Sta.	Station
CF	Cubic Feet	Ftg.	Footing	NIC	Not in Contract	Stiff.	Stiffener
CY, Cu. Yd.	Cubic Yard	Ft.	Feet, Foot	No.	Number	Stirr.	Stirrups
				NTS	Not to Scale		
		Ga.	Gage, Gauge	NWIM	Nanocrete Weigh-In-Motion		
		Galv.	Galvanized	O/S	Offset		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

SYMBOLS & ABBREVIATIONS

KAUAI EMERGENCY FLOOD REPAIRS & CLEANUP  
At Various Locations April 2018, Rte. 560  
Proj. No. ER-19(001)

Scale: None      Date: Oct. 2018

SHEET No. S04 OF 4 SHEETS