

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI HP & TI 200(2)	A2	A4

abutment
 acceleration
 aggregate
 ahead
 algebraic difference in grades
 alternate
 and
 and others
 and wife
 and so forth (et cetera)
 approach
 approximate
 asphalt
 asphalt concrete
 at
 average daily traffic

 back
 back to back
 balance point
 baseline
 batter
 beam
 bearing
 beginning
 bench mark
 bottom
 bridge

 cast iron
 cement rubble masonry
 centerline
 center to center
 centers
 channel change
 chord
 clear
 column
 concrete
 connection
 construction
 construction joint
 contingent sum
 continuous
 contracting officer
 corrugated
 corrugated metal pipe
 coulomb
 county
 countersink
 creek
 cubic meter
 culvert
 curve left
 curve right

 deceleration
 degree
 degree Celsius
 delta
 Department of Hawaiian Homelands
 design hour volume
 design speed
 detail
 diagonal
 diameter
 diaphragm
 district
 Division of Forestry and Wildlife
 donation land claim
 drawing(s)
 ductile iron

abut.
 Accel
 aggr.
 AH
 A
 alt.
 &
 et al
 et ux
 et c.
 appr.
 approx.
 asph.
 A.C.
 @
 ADT

 BK
 b. to b.
 BP
 @
 btr.
 bm.
 brg.
 beg.
 BM
 Bot.
 br.

 C.I.
 CRM
 @
 cc or c. to c.
 ctrs.
 ch. ch.
 chord
 clr.
 col.
 conc.
 conn.
 constr.
 constr. jt.
 CTSM
 cont.
 co
 corr.
 CMP
 C
 co.
 ctsk.
 or?
 m or m3
 culv.
 LT
 RT

 Decel
 ° deg.
 °C
 Δ
 DHHL
 DHV
 V
 Def.
 diag.
 dia. or D
 diaph.
 Dist.
 DOFAW
 DLC
 drwg(s).
 D.I.

east
 edge of pavement
 edge of shoulder
 edge of water
 edge of road
 elevation
 elevation with number
 embankment
 Engineer(s)
 equation
 excavation
 existing
 expansion joint

 federal
 feet
 finish
 flange
 footing
 for example

 galvanized
 gage (gauge)

 Hawaii Department of Transportation
 Hawaii Electric Light Company
 headwall
 hectare
 height
 hexagon
 high water
 highway
 house
 homestead entry survey
 horizontal
 hydraulic grade line

 identification
 inch
 inclusive
 incoming road grade
 inside diameter
 invert

 joint

 K (length of vert curve per percent change
 in algebraic difference in grades)
 kilogram
 kilometer
 kilometer per hour

 lamination
 latitude
 left
 length of curve
 linear feet
 longitudinal
 low water
 lump sum

 magnetic
 maintenance
 material
 maximum
 meter (measurement)
 metric ton
 millimeter

E
 EP
 ES
 EW
 ER
 elev.
 El. 94.066
 emb.
 engr(s).
 EQ or eq.
 exc.
 Exist.
 exp. jt.

 Fed.
 ', ft.
 fin.
 flg.
 ffg.
 e.g.

 galv.
 ga.

 HDOT
 HELCO
 hdwl.
 ha
 Ht.
 hex.
 HW
 hwy.
 hse.
 HES
 Horiz.
 H.G.R.

 iden.
 "
 Incl.
 GI
 ID
 Inv.

 jt.

 L/A

 kg
 km
 km/h

 lam.
 lat.
 lt.
 Lc
 L.F.
 long.
 LW
 LPSM

 mag.
 maint.
 matl.
 max.
 m
 t
 mm

mile post
 miles per hour
 minute(s) (angular)
 minimum
 miscellaneous
 modified
 monument
 mountain(s)

 negative
 not in contract
 north
 newton
 not to scale
 number

 on center
 offset
 original ground
 out to out
 outgoing road grade
 outside diameter

 pascal
 pavement
 pedestrian
 percent
 perforate
 permanent berm
 Plan & Profile
 plate
 Pohakuloa Training Area
 point of beginning
 point of compound curve
 point of ending
 point of vertical curve
 point of vertical intersection
 point of vertical tangent
 Portland Cement Concrete
 point of curve
 point on curve
 point of intersection
 point of spiral to curve
 point of curve to spiral
 point on spiral
 point of spiral to tangent
 point on tangent
 point of tangent to spiral
 point of tangent
 project

 Q₅₀
 quantities

 radian
 radius
 range
 reconstruction
 reinforcement
 required
 reservoir or Reservation
 retaining wall
 right
 right-of-way
 road
 roadway
 route

 school
 second (angular)
 second (time)

M.P.
 M.P.H.

 min.
 misc.
 mod.
 mon.
 min(s).

 neg.
 N.I.C.
 N
 N
 N.T.S.
 no. or #

 O.C.
 O/S
 OG
 o. to o.
 G2
 OD

 Pa
 pvmt.
 ped.
 pct. or %
 perf.
 PB
 PP
 pl. or pl.
 PTA
 POB
 PCC
 POE
 PVC
 PVI
 PVT
 P.C.C.
 PC
 POC
 PI
 PSC or SC
 PCS or CS
 POS
 PST or ST
 POT
 PS or TS
 PT
 proj.

 50-year water runoff
 quant.

 rad
 R
 R.
 reconst.
 reinf.
 req'd.
 res.
 ref. wall
 rt.
 R/W or ROW
 rd.
 rdwy.
 rte.

 sch.
 "
 s

section
 sheet
 sidewalk
 slope
 slope protection
 south
 spacing, Spaces or Spaced
 specification
 speed
 square
 square meter
 standard
 station
 stiffener
 straight
 street
 stringer
 structural
 super-elevation
 super-elevation rate
 symmetrical

 tangent
 tangent length
 tax map key
 temporary construction easement
 temporary bench mark
 that is
 thick
 thread
 township
 typical

 vehicles per hour
 velocity
 vertical
 vertical point of intersection

 warehouse
 weight
 west

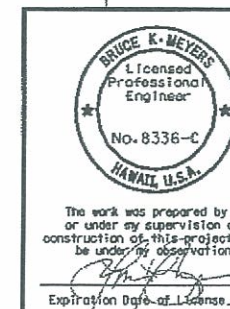
sec.
 sht.
 sidewalk
 slp.
 sl. prot.
 S
 spa.
 spec.
 spd
 sq
 m² or m2
 std.
 sta.
 stiff.
 str.
 st.
 stgr.
 struc. or structl.
 SE
 e
 sym.

 tan.
 T
 TMK
 TCE
 TBM
 i.e.
 thk.
 thd.
 T.
 typ.

 vph
 V
 vert.
 VPI

 whs.
 wt.
 W

PT



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PLAN ABBREVIATIONS

Scale: N/A Date: June 5, 2009

SHEET No. 1 OF 1

M:\Mproj\208009H\sheet\shra003.dgn

NATIONAL BOUNDARY	
STATE BOUNDARY	
COUNTY BOUNDARY	
CITY BOUNDARY	
TOWNSHIP or RANGE LINE	
SECTION LINE	
1/4 SECTION LINE	
1/16 SECTION LINE	
NATIONAL PARK or FOREST BOUNDARY	
PROPERTY LINE	
RIGHT-OF-WAY LINE	
RIGHT-OF-WAY LINE with MONUMENT	EXISTING PROPOSED
PARTIAL CONTROL OF ACCESS	EXISTING PROPOSED
FULL CONTROL OF ACCESS	EXISTING PROPOSED
EASEMENT (Permanent)	PE
SLOPE STAKE	TOP OF CUT TOE OF FILL
JEEP TRAIL/GRAVEL ROAD	
ROADWAY, EXISTING	
RAILROAD	SINGLE TRACK MULTIPLE TRACK
TRAIL	
INTERMITTENT DRAINAGE & SMALL CREEK	
LARGE CREEK	
RIVER	
CONSTRUCTION LIMITS	
EARTH BERM	
EARTH LINED CHANNEL	
ENVIRONMENTALLY SENSITIVE AREA	
EROSION CONTROL MAT TYPE 3	
GRADE FIELD ACCESS ROAD	
OBLITERATE EXISTING ROADWAY	
SEDIMENT CONTROL LOGS	
SILT FENCE	
SURVEY CONTROL POINT TIES	
TEMPORARY CONSTRUCTION EASEMENT (TCE)	
WATERLINE	EXISTING PROPOSED
EXISTING WATERLINE TO BE REMOVED WITHIN THE ROW OR ABANDONED OUTSIDE OF ROW	

	EXISTING	PROPOSED
CONTOURS		
FENCE		
GATE with FENCE		
CONSTRUCTION FENCE	No Symbol	
CATTLEGUARD		
GUARDRAIL	No Symbol	
MEDIAN & SIDE BARRIER		
SIGNS	POST MOUNTED PORTABLE COMMERCIAL	
RETAINING WALL		wall face
POWER POLE with UTILITY LINE		
TELEPHONE POLE with UTILITY LINE		
JOINT USE POLE with UTILITY LINES		
SUPPORT POLE with ANCHOR		
TELEPHONE BOOTH or PEDESTAL	TB or TP	TB or TP
STREET LIGHT		
UNDERGROUND UTILITIES G=gas, O=oil, P=power, SA=sanitary sewer, SS=storm sewer, T=telephone,		
BRIDGE		
PIPE CULVERT (arrow shows flow)		
PIPE CULVERT with END SECTION		
PIPE CULVERT with HEADWALL		
BOX CULVERT		
CULVERT with DROP INLET		
UNDERDRAIN		
TRAVERSE POINT (Horizontal & Vertical) Top of Triangle Points North	T-45 645.934	No Symbol
TRAVERSE POINT (Horizontal)	T-3	No Symbol
BRASS CAP		No Symbol
STEEL PIN		No Symbol
HUB & TACK		No Symbol
SPOT ELEVATION	99.9	No Symbol
COORDINATE GRID TICK		No Symbol
BUILDING		
BORING LOCATION		No Symbol

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI HP & TI 200(2)	A3	A4

LAKE, POND or RESERVOIR, MARSHLAND	
SPRING	
TREELINE, TREE	
BUSH	
MATERIAL SOURCE	
MORTARED RIPRAP	
RIPRAP	
CHECK DAM	

	FOUND	PROJECTED
SECTION CORNER	36 31 1 6	36 31 1 6
1/4 SECTION CORNER	15 22	15 22
1/16 SECTION or PROPERTY CORNER		
PROPERTY CORNER		No Symbol
PARCEL NUMBER	No Symbol	400
NORTH ARROW		TRUE NORTH SCALE

NOTE:
Other symbols used in the plans will be shown in a legend on the appropriate plan sheet.

RT

BRUCE K. MEYERS
Licensed Professional Engineer
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HAWAII, U.S.A.

The work was prepared by me or under my supervision and construction of this project will be under my observation.

Expiration Date of License 5/13

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PLAN SYMBOLS

Scale: N/A Date: June 5, 2009

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