

# STANDARD PLANS SUMMARY

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | ARR-0460(14)       | 2009        | 2         | 26           |

| STANDARD PLAN NO. | TITLE                                                                     | DATE     |
|-------------------|---------------------------------------------------------------------------|----------|
| B-01              | NOTES & MISCELLANEOUS DETAILS                                             | 05/31/07 |
| B-03              | BACKFILL DETAILS AT EARTH RETAINING STRUCTURES                            | 05/31/07 |
| B-12              | PRESTRESSED CONCRETE PILES & COMPRESSION SPLICE CAN DETAILS               | 05/31/07 |
| B-12A             | PRESTRESSED CONCRETE PILES, PILE & COMPRESSION SPLICE CAN DETAILS & NOTES | 05/31/07 |
| B-12B             | PILE INTERACTION DIAGRAM                                                  | 05/31/07 |
| B-13              | PRESTRESSED CONCRETE PILE BUILD-UP DETAILS                                | 05/31/07 |
|                   |                                                                           |          |
|                   |                                                                           |          |

|      |                                                     |          |
|------|-----------------------------------------------------|----------|
| D-01 | CATTLE GATE                                         | 05/31/07 |
| D-02 | CHAIN LINK FENCE WITH TOPRAIL                       | 05/31/07 |
| D-03 | CHAIN LINK FENCE WITHOUT TOPRAIL                    | 05/31/07 |
| D-04 | WIRE FENCE WITH METAL POSTS                         | 05/31/07 |
| D-05 | TYPICAL DETAILS OF CURBS AND/OR GUTTERS             | 05/31/07 |
| D-06 | TYPICAL DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY | 05/31/07 |
| D-07 | CENTERLINE AND REFERENCE SURVEY MONUMENTS           | 05/31/07 |
| D-08 | STREET SURVEY MONUMENT                              | 05/31/07 |
| D-15 | CONCRETE SIDEWALK                                   | 05/31/07 |
| D-16 | P.C.C. BUS PAD                                      | 05/31/07 |
| D-17 | P.C.C. BUS PAD                                      | 05/31/07 |
| D-18 | P.C.C. PAVEMENT LAYOUT                              | 05/31/07 |
| D-19 | P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS     | 05/31/07 |
| D-20 | P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS     | 05/31/07 |
| D-21 | P.C.C. LONGITUDINAL JOINT DETAILS                   | 05/31/07 |
| D-22 | P.C.C. CONNECTION TO CURBS AND GUTTERS              | 05/31/07 |
| D-23 | JOINTS                                              | 05/31/07 |
|      |                                                     |          |

|      |                    |          |
|------|--------------------|----------|
| L-01 | TREE PLANTING      | 08/16/06 |
| L-02 | TREE PLANTING      | 08/16/06 |
| L-03 | TREE TRANSPLANTING | 08/16/06 |
| L-04 | PALM PLANTING      | 08/16/06 |
| L-05 | SHRUB PLANTING     | 08/16/06 |
| L-06 | LANDSCAPE DETAILS  | 08/16/06 |
| L-07 | LANDSCAPE DETAILS  | 08/16/06 |
| L-08 | LANDSCAPE DETAILS  | 08/16/06 |
| L-09 | LANDSCAPE DETAILS  | 08/16/06 |
| L-10 | LANDSCAPE DETAILS  | 08/16/06 |
| L-11 | PLANTING NOTES     | 08/16/06 |
| L-12 | IRRIGATION DETAILS | 08/16/06 |
| L-13 | IRRIGATION DETAILS | 08/16/06 |
| L-14 | IRRIGATION DETAILS | 08/16/06 |
| L-15 | IRRIGATION DETAILS | 08/16/06 |
| L-16 | IRRIGATION DETAILS | 08/16/06 |
| L-17 | IRRIGATION DETAILS | 08/16/06 |
| L-18 | IRRIGATION DETAILS | 08/16/06 |
| L-19 | IRRIGATION DETAILS | 08/16/06 |
| L-20 | IRRIGATION DETAILS | 08/16/06 |
| L-21 | IRRIGATION DETAILS | 08/16/06 |
| L-22 | IRRIGATION DETAILS | 08/16/06 |
| L-23 | IRRIGATION DETAILS | 08/16/06 |
| L-24 | IRRIGATION NOTES   | 08/16/06 |
|      |                    |          |

| STANDARD PLAN NO. | TITLE                                                            | DATE     |
|-------------------|------------------------------------------------------------------|----------|
| H-01A             | TYPE A CATCH BASIN                                               | 05/31/07 |
| H-01B             | TYPE B CATCH BASIN                                               | 05/31/07 |
| H-01C             | TYPE C CATCH BASIN                                               | 05/31/07 |
| H-01D             | TYPE D CATCH BASIN                                               | 05/31/07 |
| H-01E             | CATCH BASIN SECTIONS                                             | 05/31/07 |
| H-02A             | TYPE A1 CATCH BASIN                                              | 05/31/07 |
| H-02B             | TYPE B2 CATCH BASIN                                              | 05/31/07 |
| H-02C             | TYPE C1 CATCH BASIN                                              | 05/31/07 |
| H-02D             | TYPE D1 CATCH BASIN                                              | 05/31/07 |
| H-02E             | CATCH BASIN SECTION                                              | 05/31/07 |
| H-03              | TYPE A,B, AND C STORM DRAIN MANHOLE                              | 05/31/07 |
| H-04              | TYPE D STORM DRAIN MANHOLE                                       | 05/31/07 |
| H-05              | TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES              | 05/31/07 |
| H-06              | TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES              | 05/31/07 |
| H-07              | CATCH BASIN AND MANHOLE CASTINGS                                 | 05/31/07 |
| H-08              | TYPE 1A-9 AND 1A-9P GRATED DROP INLET                            | 05/31/07 |
| H-09              | TYPE 2A-9 AND 2A-9P GRATED DROP INLET                            | 05/31/07 |
| H-10              | TYPE A-9 OR A-9P STEEL FRAMES                                    | 05/31/07 |
| H-11              | TYPE A-9 AND A-9P STEEL GRATES                                   | 05/31/07 |
| H-12              | TYPE 61614P AND 1211214P GRATED DROP INLET                       | 05/31/07 |
| H-13              | TYPE 61616P AND 1211216P GRATED DROP INLET                       | 05/31/07 |
| H-14              | TYPE 61214P GRATED DROP INLET                                    | 05/31/07 |
| H-15              | TYPE 1211214, 1211214P, 1211216, 1211216P STEEL FRAME AND GRATES | 05/31/07 |
| H-16              | TYPE 61614, 61614P, 61616, 61616P STEEL FRAME AND GRATES         | 05/31/07 |
| H-17              | TYPE 61214 STEEL FRAMES AND GRATES                               | 05/31/07 |
| H-18              | TYPE 61214P STEEL GRATES                                         | 05/31/07 |
| H-19              | TYPE 61614B STEEL FRAME AND GRATES                               | 05/31/07 |
| H-20              | CEMENT RUBBLE MASONRY STRUCTURES                                 | 05/31/07 |
| H-21              | CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES                    | 05/31/07 |
| H-22              | INLET/OUTLET STRUCTURE                                           | 05/31/07 |
| H-23              | INLET/OUTLET STRUCTURE                                           | 05/31/07 |
| H-24              | FLARED END SECTION FOR CULVERTS                                  | 05/31/07 |
| H-25              | FLARED END SECTION FOR CULVERTS                                  | 05/31/07 |
| H-26              | CONCRETE SPILLWAY INLET                                          | 05/31/07 |
| H-27              | CAP COUPLING DETAILS STANDARD JOINT                              | 05/31/07 |
| H-28              | REINFORCED CONCRETE COLLAR & JACKET                              | 05/31/07 |
| H-29              | UNDERDRAIN CLEANOUT STEEL FRAME AND COVER                        | 05/31/07 |
| H-30              | UNDERDRAIN CONNECTION TO DRAINAGE STRUCTURE                      | 05/31/07 |
|                   |                                                                  |          |

|        |                                               |          |
|--------|-----------------------------------------------|----------|
| TE-01  | SIGN HEIGHT AND LOCATION                      | 07/11/08 |
| TE-1A  | SIGN INSTALLATION                             | 07/11/08 |
| TE-02A | GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING | 05/31/07 |
| TE-02B | GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING | 05/31/07 |
| TE-02C | GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING | 05/31/07 |
| TE-03A | GALVANIZED SQUARE TUBE SIGN POST MOUNTING     | 05/31/07 |
| TE-03B | GALVANIZED SQUARE TUBE SIGN POST MOUNTING     | 05/31/07 |
| TE-04  | REGULATORY SIGNS                              | 07/11/08 |
| TE-05  | WARNING SIGNS                                 | 07/11/08 |
| TE-06  | MISCELLANEOUS SIGNS                           | 07/11/08 |
| TE-07  | CONSTRUCTION SIGNS                            | 07/11/08 |
| TE-08  | MISCELLANEOUS INTERSECTION SIGNS              | 07/11/08 |

| STANDARD PLAN NO. | TITLE                                                    | DATE     |
|-------------------|----------------------------------------------------------|----------|
| TE-09             | BIKE ROUTE SIGN & SUPPLEMENTARY PLATES                   | 07/11/08 |
| TE-10             | INTERSTATE ROUTE MARKER                                  | 07/11/08 |
| TE-11             | STATE ROUTE MARKER AND AUXILIARY MARKERS                 | 07/11/08 |
| TE-12             | STATE ROUTE MARKER AND BORDER DETAIL FOR GUIDE SIGNS     | 07/11/08 |
| TE-12A            | ROUTE SIGN ASSEMBLIES                                    | 07/11/08 |
| TE-13             | STREET NAME SIGN ON MAST ARM                             | 07/11/08 |
| TE-14             | MISCELLANEOUS REFLECTOR MARKERS                          | 07/11/08 |
| TE-15             | OBJECT MARKERS                                           | 07/11/08 |
| TE-16             | MILE POSTS                                               | 07/11/08 |
| TE-17A            | CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS             | 05/31/07 |
| TE-17B            | CANTILEVER SIGN FRAME DETAIL AND SECTION                 | 05/31/07 |
| TE-17C            | CANTILEVER SIGN FRAME DETAIL                             | 05/31/07 |
| TE-17D            | CANTILEVER SIGN FRAME SECTION                            | 05/31/07 |
| TE-17E            | CANTILEVER SIGN FRAME DETAILS                            | 05/31/07 |
| TE-18A            | TWO POST OVERHEAD SIGN FRAME ELEVATIONS                  | 05/31/07 |
| TE-18B            | TWO POST SIGN FRAMING PLAN SECTION                       | 05/31/07 |
| TE-18C            | TWO POST SIGN FRAMING SECTIONS AND DETAILS               | 05/31/07 |
| TE-18D            | TWO POST SIGN FRAME DETAILS                              | 05/31/07 |
| TE-18E            | TWO POST SIGN FRAME DETAILS                              | 05/31/07 |
| TE-19A            | OVERHEAD SIGN FRAMING SCHEDULE                           | 05/31/07 |
| TE-19B            | SIGN POST DRILLED SHAFT FOUNDATION                       | 05/31/07 |
| TE-19C            | SPREAD FOOTING                                           | 05/31/07 |
| TE-19D            | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19D.1          | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19D.2          | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19D.3          | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19D.4          | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19D.5          | SIGN FRAME FOUNDATION SCHEDULE                           | 05/31/07 |
| TE-19E            | ANCHORAGE DETAILS                                        | 05/31/07 |
| TE-19F            | ANCHORAGE DETAILS                                        | 05/31/07 |
| TE-19G            | MISCELLANEOUS SIGN FRAME DETAILS                         | 05/31/07 |
| TE-19H            | LUMINAIRE WALKWAY SUPPORT                                | 05/31/07 |
| TE-19J            | FIXED MESSAGE LUMINAIRE SUPPORT                          | 05/31/07 |
| TE-19K            | MISCELLANEOUS SIGN DETAILS                               | 05/31/07 |
| TE-19L            | MISCELLANEOUS SIGN DETAILS                               | 05/31/07 |
| TE-19M            | MISCELLANEOUS SIGN FRAME DETAILS                         | 05/31/07 |
| TE-20             | SUPPORTS FOR GROUND MOUNTED GUIDE SIGN                   | 05/31/07 |
| TE-20A            | SUPPORTS FOR GROUND MOUNTED GUIDE SIGN                   | 05/31/07 |
| TE-20B            | SUPPORTS FOR GROUND MOUNTED GUIDE SIGN                   | 05/31/07 |
| TE-20C            | SUPPORTS FOR GROUND MOUNTED GUIDE SIGN                   | 05/31/07 |
| TE-21A            | SIGN BREAKAWAY MOUNTS                                    | 05/31/07 |
| TE-21B            | SIGN BREAKAWAY MOUNTS                                    | 05/31/07 |
| TE-22             | LAMINATED ALUMINUM SIGN PANELS (OVERHEAD)                | 05/31/07 |
| TE-23             | LAMINATED ALUMINUM SIGN PANELS (GROUND MOUNTED)          | 07/11/08 |
| TE-24             | SOLID ALUMINUM EXTRUDED SIGN PANEL AND ACCESSORY DETAILS | 05/31/07 |
| TE-25             | GUIDE SIGNS LUMINAIRE MOUNTINGS                          | 05/31/07 |
| TE-26             | RAISED PAVEMENT MARKERS AND STRIPING                     | 07/11/08 |
| TE-27             | RAISED PAVEMENT MARKERS AND STRIPING                     | 07/11/08 |
| TE-28             | ENTRANCE AND EXIT PAVEMENT MARKINGS                      | 07/11/08 |
| TE-28A            | ENTRANCE AND EXIT PAVEMENT MARKINGS                      | 07/11/08 |
| TE-28A            | MISCELLANEOUS PAVEMENT MARKINGS                          | 07/11/08 |
| TE-29             | PAVEMENT ARROWS AND SYMBOLS                              | 07/11/08 |
| TE-30             | PAVEMENT ALPHABETS, NUMBERS & SYMBOLS                    | 07/11/08 |

| STANDARD PLAN NO. | TITLE                                             | DATE     |
|-------------------|---------------------------------------------------|----------|
| TE-31             | PAVEMENT ALPHABETS, NUMBERS & SYMBOLS             | 07/11/08 |
| TE-32             | TYPE I & II TRAFFIC SIGNAL SYSTEM MISC. DETAILS   | 05/31/07 |
| TE-33             | TYPE II TRAFFIC SIGNAL SYSTEM                     | 08/16/06 |
| TE-33A.1          | TYPE II TRAFFIC SIGNAL STANDARD                   | 05/31/07 |
| TE-33A.2          | TYPE II TRAFFIC SIGNAL STANDARD                   | 05/31/07 |
| TE-34             | LOOP DETECTOR DETAILS                             | 07/11/08 |
| TE-35             | LOOP DETECTORS & DUCT DETAILS                     | 07/11/08 |
| TE-36             | TRAFFIC SIGNAL DETAILS                            | 07/11/08 |
| TE-37             | PULLBOX & COVER DETAILS                           | 07/11/08 |
| TE-37A            | TYPE "A" TRAFFIC PULLBOX                          | 05/31/07 |
| TE-37B            | TYPE "A" TRAFFIC PULLBOX REINFORCING              | 05/31/07 |
| TE-37C            | TYPE "B" TRAFFIC PULLBOX                          | 05/31/07 |
| TE-37D            | TYPE "B" TRAFFIC PULLBOX REINFORCING              | 05/31/07 |
| TE-37E            | TYPE "B" TRAFFIC PULLBOX FOUNDATION               | 05/31/07 |
| TE-37F            | TYPE "C" TRAFFIC PULLBOX                          | 05/31/07 |
| TE-37G            | TYPE "C" TRAFFIC PULLBOX REINFORCING              | 05/31/07 |
| TE-37H            | TYPE "C" TRAFFIC PULLBOX FOUNDATION               | 05/31/07 |
| TE-37J            | TRAFFIC PULLBOX COVER AND DETAILS                 | 05/31/07 |
| TE-38             | TYPE III TRAFFIC SIGNAL STANDARD                  | 05/31/07 |
| TE-38A.1          | TYPE III TRAFFIC SIGNAL STANDARD                  | 05/31/07 |
| TE-38A.2          | TYPE III TRAFFIC SIGNAL STANDARD                  | 05/31/07 |
| TE-39             | METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER    | 07/11/08 |
| TE-40             | CONCRETE BARRIER TRANSITION                       | 05/31/07 |
| TE-40A            | CONCRETE BARRIER TRANSITION SECTIONS              | 05/31/07 |
| TE-41             | GUARDRAIL TYPE 4 (RIGID BARRIER)                  | 05/31/07 |
| TE-42             | PORTABLE CONCRETE BARRIER                         | 05/31/07 |
| TE-43             | PORTABLE CONCRETE BARRIER                         | 05/31/07 |
| TE-44             | GUARDRAIL TYPE 4 MISCELLANEOUS DETAILS            | 07/11/08 |
| TE-45             | BARRICADES                                        | 07/11/08 |
| TE-46             | DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES | 07/11/08 |
| TE-47             | HIGHWAY LIGHT STANDARD                            | 05/31/07 |
|                   |                                                   |          |
|                   |                                                   |          |

NOTE:  
STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " ● " NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 ● )

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**STANDARD PLANS SUMMARY**  
**MAUNALOA HIGHWAY RESURFACING**  
**Hoolehua to Vicinity of Keonelele Avenue**  
**Federal-Aid Project No. ARR-0460(14)**  
Date: February, 2009  
SHEET No. 1 OF 1 SHEETS

|               |      |
|---------------|------|
| ORIGINAL PLAN | DATE |
| DRAWN BY      |      |
| TRACED BY     |      |
| NOTE BOOK     |      |
| DESIGNED BY   |      |
| QUANTITIES BY |      |
| CHECKED BY    |      |