STANDARD PLANS SUMMARY

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| HAWAII | HAW. | STP-050-1(12) | 1993 | 2 | 9 |

| STANDARD PLAN NO. | 1 TITIE | DATE |
|--|--|-----------|
| B-01 | Notes and Miscellaneous Details | 07/01/86 |
| B-02 | | |
| B-03 | Typical Structure Excavation and Backfill Pay Limits | 07/01/86 |
| B-04 · | ; · | |
| B-05 | | |
| B-06 | Concrete Box Girder | 07/01/86 |
| B-07 | Concrete Box Girder | 07/01/86 |
| B-08 | Concrete Box Girder | 07/01/86 |
| B-09 | | |
| B-10 | | |
| B-11 · | | |
| B-12 · | Prestressed Concrete Piles | r07/16/90 |
| B-13 · | Prestressed Concrete Piles | r07/16/90 |
| manadakan adalah di kemanan dan adalah sebian dan adalah dan berdari dan | | |
| makking ang ang mang ang mang mang mang mang | | |

| D-13 | Field Office & Project Site Laboratory | 07/01/86 |
|--------|--|-----------|
| D-12 | Project Site Laboratory | 07/01/86 |
| D-11 · | Project Site Laboratory | 07/01/86 |
| D-10 | Field Office | 07/01/86 |
| D-09 | Field Office | 07/01/86 |
| D-08 | Landscaping Shrub and Tree Planting | 07/01/86 |
| D-07 | Street Survey Monument | 07/01/86 |
| D-06 | Centerline and Reference Survey Monument | 07/01/86 |
| D-05 | Typical Details of Reinforced Concrete Drop Driveway | 07/01/86 |
| D-04 • | Typical Details of Curbs and/or Gutters | 07/01/86 |
| D-03 | Wire Fence With Metal Posts | 07/01/86 |
| D-02 | Chain Link Fence Without Toprail | r07/26/90 |
| D-01 | Chain Link Fence With Toprail | r03/06/87 |

07/01/86

Type A, B, C and D Catch Basin

| H-03 Type A2⋅ B2⋅ C2 and D2 Catch Basin 07/01/86 H-04 Typical Reinforcing Details for Catch Basins 07/01/86 H-05 Type A⋅ B and C Storm Drain Manhole 07/01/86 H-06 Type D and E Storm Drain Manhole 07/01/86 H-07 Type F Storm Drain Manhole 07/01/86 H-08 Catch Basin and Manhole Casting 07/01/86 H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-98 Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214. 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" S | H-02 | Type A1, B1, C1 and D1 Catch Basin | 07/01/86 |
|---|--------|---|-----------|
| H-05 Type A, B and C Storm Drain Manhole 07/01/86 H-06 Type D and E Storm Drain Manhole 07/01/86 H-07 Type F Storm Drain Manhole 07/01/86 H-08 Catch Basin and Manhole Casting 07/01/86 H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214. 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-03 | Type A2, B2, C2 and D2 Catch Basin | 07/01/86 |
| H-06 Type D and E Storm Drain Manhole 07/01/86 H-07 Type F Storm Drain Manhole 07/01/86 H-08 Catch Basin and Manhole Casting 07/01/86 H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-04 | Typical Reinforcing Details for Catch Basins | 07/01/86 |
| H-07 Type F Storm Drain Manhole 07/01/86 H-08 Catch Basin and Manhole Casting 07/01/86 H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-05 | Type A. B and C Storm Drain Manhole | 07/01/86 |
| H-08 Catch Basin and Manhole Casting 07/01/86 H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214. 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-06 | Type D and E Storm Drain Manhole | 07/01/86 |
| H-09 Type A-9 and A-9P Frames and Grates 07/01/86 H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-07 | Type F Storm Drain Manhole | 07/01/86 |
| H-10 Type A-9B Frames and Grates 07/01/86 H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-08 | Catch Basin and Manhole Casting | 07/01/86 |
| H-11 Type 61614 and 61214 Grated Drop Inlet 07/01/86 H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214. 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-09 | Type A-9 and A-9P Frames and Grates | 07/01/86 |
| H-12 Type 61616 Grated Drop Inlet 07/01/86 H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-10 | Type A-9B Frames and Grates | 07/01/86 |
| H-13 61214, 61614 & 61616 Steel Frames and Grates 07/01/86 H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-11 · | Type 61614 and 61214 Grated Drop Inlet | 07/01/86 |
| H-14 61214B Steel Frame and Grates 07/01/86 H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-12 | Type 61616 Grated Drop Inlet | 07/01/86 |
| H-15 61614B Steel Frame and Grates 07/01/86 H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-13 | 61214, 61614 & 61616 Steel Frames and Grates | 07/01/86 |
| H-16 Concrete and Cement Rubble Masonry Structures r10/16/90 H-17 Inlet Structures r10/16/90 H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-14 | 61214B Steel Frame and Grates | 07/01/86 |
| H-17Inlet Structuresr10/16/90H-18Flared End Section for Culverts07/01/86H-19Outlet Structuresr02/15/91H-20Concrete Spillway Inlet07/01/86H-2118" Slotted C.M.P. Drain07/01/86H-22C.M.P. Coupling Details Standard Jointr10/16/90 | H-15 | 61614B Steel Frame and Grates | 07/01/86 |
| H-18 Flared End Section for Culverts 07/01/86 H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-16 | Concrete and Cement Rubble Masonry Structures | r10/16/90 |
| H-19 Outlet Structures r02/15/91 H-20 Concrete Spillway Inlet 07/01/86 H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-17 | Inlet Structures | r10/16/90 |
| H-20 Concrete Spillway Inlet H-21 18" Slotted C.M.P. Drain H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-18 | Flared End Section for Culverts | 07/01/86 |
| H-21 18" Slotted C.M.P. Drain 07/01/86 H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-19 | Outlet Structures | r02/15/91 |
| H-22 C.M.P. Coupling Details Standard Joint r10/16/90 | H-20 | Concrete Spillway Inlet | 07/01/86 |
| | H-21 | 18" Slotted C.M.P. Drain | 07/01/86 |
| H-23 Hat Shaped Coupling Band r10/16/90 | H-22 | C.M.P. Coupling Details Standard Joint | r10/16/90 |
| | H-23 | Hat Shaped Coupling Band | r10/16/90 |
| | | | |

| STANDARD PLAN NO. | TITLE | DATE |
|----------------------|--|---------|
| TE-01 | Miscellaneous Sign Details | 07/01/ |
| TE-02 ● | Galvanized Flanged Channel Sign Post Mounting | 07/01/ |
| TE-03 ● | Galvanized Square Tube Sign Post Mounting | 07/01/ |
| TE-04 | Regulatory Signs | r09/01/ |
| TE-05 | Warning Signs | 07/01/ |
| TE-06 | Miscellaneous Signs | r11/03/ |
| TE-07 | Reserved | 07/01/ |
| TE-08 ● | Construction Signs | r09/01/ |
| TE-09 | Miscellaneous Intersection Signs | r03/06/ |
| TE-10 | Reserved | 07/01/ |
| TE-11 | Bike Route Sign and Supplementary Plates | 07/01/ |
| TE-12 | State Route Marker and Auxiliary Markers | 07/01/ |
| TE-13 | Interstate Route Marker | 07/01/ |
| TE-14 · | State Route Marker and Border Detail for Guide Signs | 07/01/ |
| TE-15 · | Route Marker Assemblies | 07/01/ |
| TE-16 ● | Miscellaneous Reflector Markers | 07/01/ |
| TE-17 · | Type II Object Markers | 07/01/ |
| TE-18 | Mileposts | 07/01/ |
| TE-19 | Reserved | 07/01/ |
| TE-20 | Overhead Sign Supports | 07/01/ |
| TE-21 | Overhead Sign Support, Box Truss Type, Aluminum | 07/01/ |
| TE-22 | Foundation Details and Schedules | 07/01/ |
| TE-23 | Supports for Ground Mounted Guide Sign | r11/03/ |
| TE-24 · | Breakaway Sign Supports for Ground Mounted Guide Signs | 07/01/ |
| TE-25 | Laminated Aluminum Sign Panels (Overhead) | 07/01/ |
| TE-26 | Laminated Aluminum Sign Panels (Ground Mounted) | 07/01/ |
| TE-27 | Solid Aluminum Extruded Sign Panel and Accessory Details | 07/01/ |
| TE-28 | Guide Signs Luminaire Mountings | 07/01/ |
| TE-29 | Reserved | 07/01/ |
| TE-30 • | Raised Pavement Markers and Striping | r05/09/ |
| TE-31 ● | Miscellaneous Pavement Markings | r05/09/ |
| TE-32 | Miscellaneous Pavement Markings | r05/09/ |
| TE-33 | Miscellaneous Pavement Markings | r11/03/ |
| | Reserved | 07/01/ |
| TE-34 TE-35 | Pavement Alphabets, Numbers & Symbols | 07/01/ |
| | | |
| TE-36 | Pavement Alphabets, Numbers & Symbols | 07/01/ |
| TE-37 | Reserved Traffic Signal System Missellaneous Details | 07/01/ |
| TE-38 | Traffic Signal System, Miscellaneous Details Traffic Signal System, Miscellaneous Details | r11/03/ |
| TE-39 | Traffic Signal System, Miscellaneous Details | 07/01/ |
| TE-40 | Loop Detectors | r11/03/ |
| TE-41 | Pullboxes Type III Traffic Signal Standard | 07/01/ |
| TE-42 | Type III Traffic Signal Standard | 07/01/ |
| TE-43 | Concrete Pullbox (2' x 3') | 07/01/ |

| STAND PLAN | | TITLE | DATE |
|---------------|---|---|-----------|
| TE-45 | · | Reserved | 07/01/86 |
| TE-46 | | Reserved | 07/01/86 |
| TE-47 | • | Reserved | 07/01/86 |
| TE-48 | | Reserved | 07/01/86 |
| TE-49 | | Reserved | 07/01/86 |
| TE-50 | • | Metal Guardrail | r03/06/87 |
| TE-51 | • | Metal Guardrail | r09/01/87 |
| TE-52 | | Metal Guardrail with Rubrail | r11/03/89 |
| TE-53 | | Metal Guardrail with Rubrail at Obstruction | r09/01/87 |
| TE-54 | • | Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation) | r11/03/89 |
| TE-55 | | Metal Guardrail Connection to Concrete Barrier | r11/03/89 |
| TE-56 | · | Concrete Barrier Transition | 07/01/86 |
| TE-57 | · | Guardrail Type 3. Thrie Beam | r11/03/89 |
| TE-57A | • | Guardrail Type 3, Modified Thrie Beam | 11/03/89 |
| TE-58 | | Approach End Flare, One & Two Way Roadway | 07/01/86 |
| TE-59 | | Trailing End Flare, One & Two Way Roadway | r11/03/89 |
| TE-60 | | Anchor Block Details | 07/01/86 |
| TE-61 | • | Breakaway Cable Terminal (BCT) | r11/03/89 |
| TE-62 | • | Breakaway Cable Terminal (BCT) | r09/01/87 |
| TE-63 | | Guardrail Type 4 (Rigid Barrier) | r09/01/87 |
| TE-64 | | Portable Concrete Barrier | r11/03/89 |
| TE-65 | • | Guardrail Type 4. Miscellaneous | r09/01/87 |
| TE-66 | • | Barricades | 07/01/86 |
| TE-67 | | Delineation & Pavement Markings at Bridges | 07/01/86 |
| TE-68 | | Wheelchair Ramps | r11/03/89 |
| TE-69 | | Wheelchair Ramps | r11/03/89 |
| | | | |
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| | | | |

NOTE:

02/15/91 REVISED STANDARD PLAN H-19 10/16/90 REVISED STANDARD PLANS H-16,H-17, H-22 & H-23.

07/16/90 REVISED STANDARD PLANS B-12,B-13, 05/09/90 REVISED STANDARD PLANS TE-30,TE-31,

11/03/89 REVISED STANDARD PLANS TE-06, TE-23,

09/01/87 REVISED STANDARD PLANS TE-04, TE-06,

03/06/87 REVISED STANDARD PLANS D-01, TE-09,

TE-61, TE-63 & TE-64.

TE-65 & TE-69.

DATE

TE-30, TE-31, TE-32, TE-33, TE-38, TE-40, TE-52, TE-54, TE-55, TE-57,

TE-59, TE-61, TE-64, TE-68 & TE-69.

TE-08, TE-32, TE-51, TE-53, TE-54, TE-55, TE-57, TE-59, TE-62, TE-63,

TE-40, TE-50, TE-51, TE-57, TE-59,

REVISION

ADDED TE-57A TO STANDARD PLANS

07/26/90 REVISED STANDARD PLANS D-02.

& TE-32.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

ROUTE 50: KAUMUALII HIGHWAY
GUARDRAIL AND SHOULDER IMPROVEMENTS

AT VARIOUS LOCATIONS

F.A. Project No. STP-050-1(12)

SHEET No. 2 OF 9 SHEETS

