# **2020 Standard Plan Revision Summary**

## **Section B**

B-5.20-03 Catch Basin Type 1 – Subject Matter Expert (SME) requested revision to catch basin knockout criteria.

**B-10.70-01 Catch Basin - PVC** – Subject Matter Expert (SME) requested revision to catch basin's dimension criteria based on size.

**B-30.05-00 Rolled Curb Drain (New Plan)** – Subject Matter Expert (SME) requested creation of this standard plan for use on roundabouts.

**B-30.60-00 Grate Inlet on Catch Basin Type 2** – Former Plan Sheet Library (PSL) Item DS-2; the Subject Matter Expert (SME) request this plan has achieved Standard Plan status due to frequency of use.

**B-60.20-02 Connection Details for Dissimilar Culvert Pipe** – Subject Matter Expert (SME) requested revision to add detailing regarding heat shrink requirement.

## Section C

*C-1 Raising Beam Guardrail Detail* – Deleted Notes 1 and 2 that gave conditions allowing snow load washers on beam guardrail. Replaced the deleted notes with new Note 1 stating to remove snow load washers when performing raising beam guardrail work per DM 1610.04(4). Revises Raising Beam Guardrail Detail by adding Type 1 and Type 31 allowable raised height ranges per DM 1120.03(7), DM 1610.04(3), and Standard Specification 8-11.3(1)E.

**C-1b Beam Guardrail Posts and Blocks** – Page 2, Steel Post-W-Beam Detail: Show new position of anti-rotation hole at top of steel W-beam guardrail posts (new hole location is further from post edge and post will be more durable during installation). Show optional galvanizing holes at bottom of steel W-Beam guardrail posts (the new holes helps fabricators handle posts during galvanization).

*C-20.10-06 Beam Guardrail Type 31* – Steel Post Detail: Show new position of anti-rotation hole new hole location is further from post edge and post will be more durable during installation). Notes section: Adds new Note 7 stating anti-rotation holes are optional if installer uses routed blocks to prevent rotation. Typical Section ~ With Curb: Adds new callout for curb types used with guardrail. Assorted minor updates (clerical) on plan sheet for clarity.

*C-22.16-07 Beam Guardrail Type 31 – Buried Terminal Type 2* – Note 3: Note revised to correctly show Elevation<sub>G</sub> Formula.

*C-22.40-08 Beam Guardrail Type 31 Non-Flared Terminal (All Posted Speeds)* – Plan View: Embankment widening updated showing terminal pad dimensions designed to fit all 3 types of terminals shown on the WSDOT QPL regardless of differing lengths. All 3 terminal Elevation Views: Align all terminals to the left at the splice points where terminal ends and Type 31 beam guardrail begins. This clearly shows that terminals are different lengths and shows how the terminals are placed in the embankment widening for terminals. MSKT Elevation View: Redraw the MSKT terminal head to show a more accurate representation of the actual terminal head. MAX-Tension Elevation View: Redraw the MAX-Tension anchor post 0 to show a more accurate representation of the actual anchor post.

*C-22.45-05 Beam Guardrail Type 31 Non-Flared Terminal Posted Speed 45 MPH and Below)* – Plan View: Embankment widening updated showing terminal pad dimensions designed to fit all 3 types of terminals shown on the WSDOT QPL regardless of differing lengths. All 3 terminal Elevation Views: Align all terminals to the left at the

splice points where terminal ends and Type 31 beam guardrail begins. This clearly shows that terminals are different lengths and shows how the terminals are placed in the embankment widening for terminals. MSKT Elevation View: Redraw the MSKT terminal head to show a more accurate representation of the actual terminal head. Trinity SoftStop Elevation View: System Length dimension changed from 38'-4 1/2" to ' - 3 1/2". MAXTension Elevation View: Redraw the MAX-Tension anchor post 0 to show a more accurate representation of the actual anchor post.

*C-60.10-01 Concrete Barrier Type F (Precast)* – Subject Matter Expert (SME) requested revision to address feedback received with the initial rollout of the Standard Plan from PEO project and from supplier comments.

*C-60.20-00 Precast Type F Barrier to Dissimilar Shaped Barrier Transition (New Plan)* – Transition plan for Type F to dissimilar Shaped Barriers.

C-60.30-00 Type F Transition to Type 2 Barrier Plan (New Plan) - Transition plan for Type F to Type 2 Barrier.

**C-60.70-00 Precast Type F Anchoring Transition Plan (New Plan)** – Plan showing anchoring patterns for barrier systems.

*C-70.10-02 Single-Slope Concrete Barrier (Precast)* – (Notes and Details on All Pages) - Revise barrier embedment and grade separation cases by providing separate barrier details, callouts, or notes when embedded in asphalt/concrete or embedded in compacted soil (for MASH compliancy). Page 1 Elevation View: Lifting slot length and height has been reduced (for MASH compliancy). Page 1, Barrier Connection Detail: Detail revised to show rebar grid placed on bottom of slot. Page 1, Notes: Remove note allowing temporary installation of barrier (for MASH compliancy)., Page 1, Notes: Revises Note 2 for installation of barrier on horizontal curves with radius less than 2000 feet. Now tells designers to use C-80.10 cast in place single slope barrier instead of C-70.10 precast single slope barrier with modified end design (for MASH compliancy modified barrier has not been MASH crash tested. Also, no modified end design has been developed).

*C-75.10-02 Single-Slope Concrete Barrier (Precast) Transition Section* – Notes Section: Removes Note 2 allowing temporary installation of barrier (for MASH compliancy). Elevation View: Lifting slot length and height has been reduced (for MASH compliancy). Sections A, B, and C: Updates callouts for minimum embedment is asphalt/concrete, or in compacted soil (for continuity of precast single slope barrier system components).

*C-75.20-02 Single-Slope Concrete Barrier (Precast) Vertical Back* – Notes Section: Removes Note 2 allowing temporary installation of barrier (for MASH compliancy). Elevation View: Lifting slot length and height has been reduced (for MASH compliancy). Sections A and B: Updates callouts for minimum embedment is asphalt/concrete, or in compacted soil (for continuity of precast single slope barrier system components).

**C-75.30-02 Single-Slope Concrete Barrier (Precast) Terminal** – Notes Section: Removes Note 2 allowing temporary installation of barrier (for MASH compliancy). Elevation View: Lifting slot height has been reduced (for MASH compliancy). Sections A and B: Updates callouts for minimum embedment is asphalt/concrete, or in compacted soil (for continuity of precast single slope barrier system components).

*C-80.10-02 Single-Slope Concrete Barrier (Cast-In-Place) Dual Faced* – Sheets 2 and 3 – Minor updates to plan correcting or clarifying embedment values and barrier heights.

**C-85.11-01 Single-Slope Concrete Barrier Placement (Wrap)** – Plan Note 3 changed to Plan Note 1, and the note is revised to state how this barrier placement is used in preservation projects and all other projects (for LRFD Bridge code requirements and MASH compliancy).

## **Section F**

- **F-10.12-04 Cement Concrete Curbs** Title: "Depressed Curb Section" (Plan upper right corner Section) has been revised to "Depressed Curb and Gutter Section". Minor clerical items revised.
- **F-10.18-02** Roundabout Cement Concrete Curbs ASDE and ASCE has requested a revision to designate the 3/8" Premolded joint filler at the location indicated be an option. Feedback received from users; in certain instances it may be a better option to pour the entire section as a single pour in lieu of installation of the joint.
- **F-10.40-04 Extruded Curb Placement** Revises Extruded Curb at Beam Guardrail detail to show that detail is for Type 1 guardrail only, Update Note 5 that Type 3 and 6 (6-inch tall) curbs are not used under Type 1 guardrail with posted speeds greater than 50 mph (Added the Type 1 clarification because Type 31 beam guardrail is successfully crash tested with 6-inch curbs greater than 50 mph). **Please note: This plan had been through statewide review on 1/24/2020, additional revisions have been incorporated and re-review is warranted.**
- **F-30.10-04 Cement Concrete Sidewalk** ASDE and ASCE has requested a revision to the expansion Joint spacing to better align with state wide agencies guidance.
- **F-40.15-04 Perpendicular Curb Ramp** ASDE and ASCE has requested a drafting error correction. Plan View A, extent of the expansion joint limits should be to sidewalk side of the curb and gutter not to the face of curb.

#### Section G

*G-25.10-05 Steel Sign Support Foundation Details* – Plan revised to add clarification based on user's feedback: Key Note 3 – in lieu of referring to Key note 2 (using key note symbol) note has been revised to read as follows: "Single-Post installations require square steel posts. For single-post installations, divide the **2 posts** MAX. XYZ in half."

## Section J

- *J-10.10-04 Cabinet Orientation Conduit Layout and Foundation Detail* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.12-00 Service Cabinet Installation Wood Post (New Plan)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.14-00 Service Cabinet Installation Timber Pole (New Plan)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.16-01 Service Cabinet Type A (0 60 Amp Type 120 Volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.17-01 Service Cabinet Type B (0 60 Amp Type 120/240 Volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.18-01 Service Cabinet Type C (0 60 Amp Type 240/480 Volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.20-03 Service Cabinet Type B (0 200 Amp Type 120/240 Volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.21-01 Service Cabinet Type D (0 200 Amp Type 120/240 Volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with policy.
- *J-10.22-01 Service Cabinet Type E (0 200 Amp Type 480 volt Single Phase)* Subject Matter Expert (SME) requested revision to re-organize service cabinet Std. Plans and to ensure guidance aligns with poli

*J-28.24-02 Steel Light Standard Placement (Fixed Base)* – Updated Case E and Case F details to correctly show barrier deflection values per DM Exhibit 1610-3.

*J-81.10-01 Type 334 Ramp Meter/Data Station Cabinet* – Subject Matter Expert (SME) requested revision to reorganize service cabinet Std. Plans and to ensure guidance aligns with policy.

### Section K

*K-80.10-02 Class A Construction Signing Installation* – Updated Sign Installation (Behind Traffic Barrier) detail to correctly show beam guardrail deflection value per DM Exhibit 1610-3.

*K-80.35-01 Temporary Conc. Barrier Anchoring* – Revised Plan Note 1, Type 1 Anchor description, and Type 3 Anchor description to show plan is used for temporary anchoring of Type F barrier on bridge decks, and Type 2 barrier on cement concrete pavement, bridge decks, or asphalt. Re-draw anchor brackets in plan view of anchored barrier.

**K-80.37-01 Temporary Conc. Barrier Anchoring ~ Narrow** – Revised Plan Note 1, Type 2 Anchor: Class 1 call outs, and Type 2 Anchor: Class 1 & 2 callouts to show plan is used for temporary anchoring of Type F or Type 2 Narrow base barrier on cement concrete pavement or bridge decks. Re-draw anchor brackets in plan views of anchored barrier.

# Section M

M-1.20-04 Ramp Channelization Single Lane – Plan revised to align with guidance provided in the Design Manual.

M-1.40-03 Ramp Channelization Two Lane - Plan revised to align with guidance provided in the Design Manual.

*M-1.60-03 Ramp Channelization Collector-Distributor Road* – Plan revised to align with guidance provided in the Design Manual.

*M-3.10-04 Left Turn Channelization* – Plan revised to align with guidance provided in the Design Manual.

*M-3.20-03 Left Turn Channelization Reduced Tapers* – Plan revised to align with guidance provided in the Design Manual.

*M-3.30-04 Left Turn Channelization Tee Intersection and Back-to-Back Turn Lanes* – Plan revised to align with guidance provided in the Design Manual.

*M-3.40-04 Two-Way Left Turn and Median Channelization* – Plan revised to align with guidance provided in the Design Manual.

M-3.50-03 Left Turn Channelization – Plan revised to align with guidance provided in the Design Manual.

M-5.10-03 Right Turn Channelization – Plan revised to align with guidance provided in the Design Manual.

**M-12.10-02 Roundabout Pavement Markings** – Subject Matter Expert (SME) requested revision based on experience gained and to add new pavement markings established.

*M-20.10-03 Longitudinal Marking Patterns* – Subject Matter Expert (SME) requested revision to re-organize sheet layout (second sheet added) and to add new line pavement markings for roundabouts.