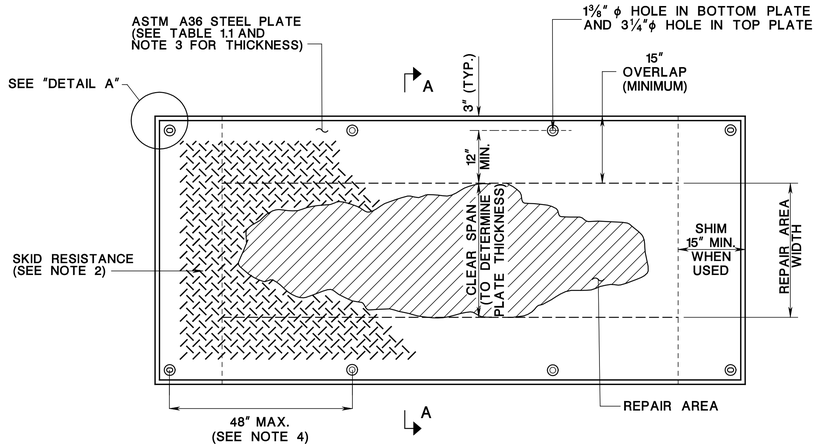
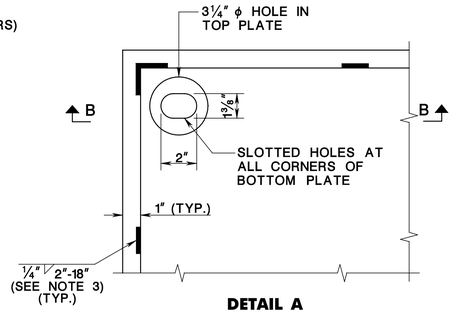
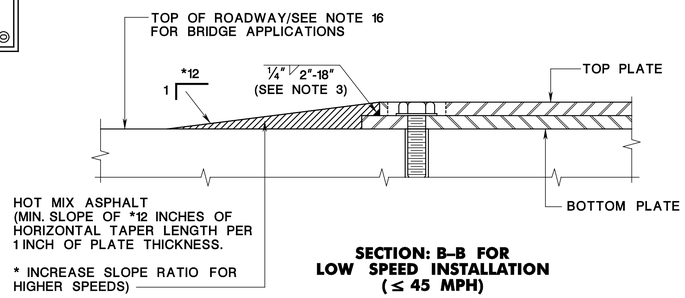


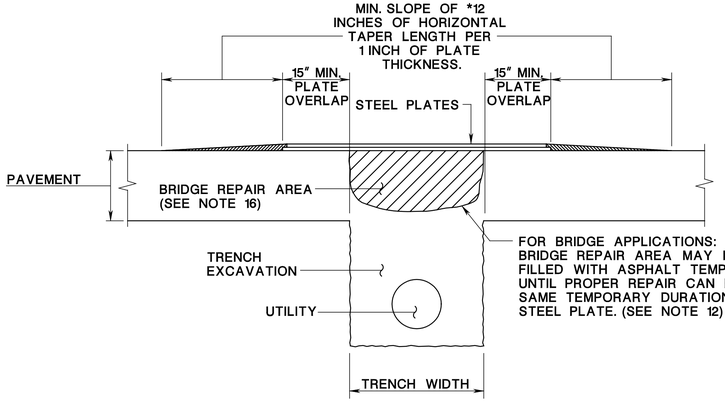
PLAN – STEEL PLATE OVER REPAIR AREA



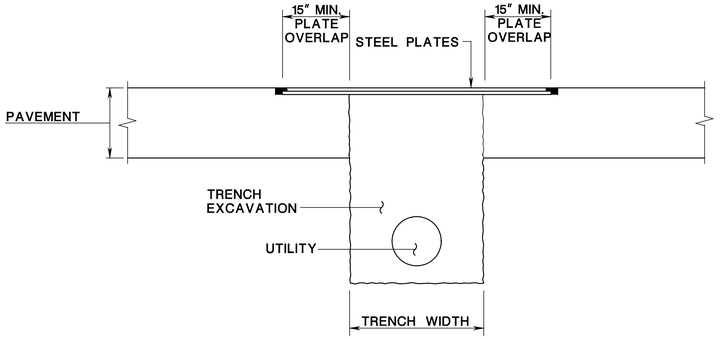
DETAIL A



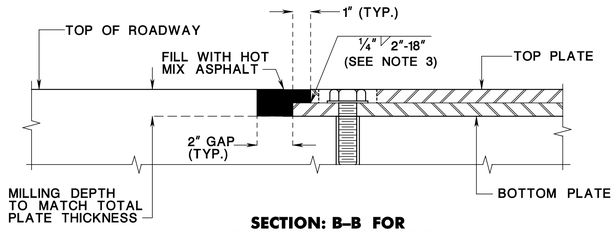
SECTION: B–B FOR
LOW SPEED INSTALLATION
(≤ 45 MPH)



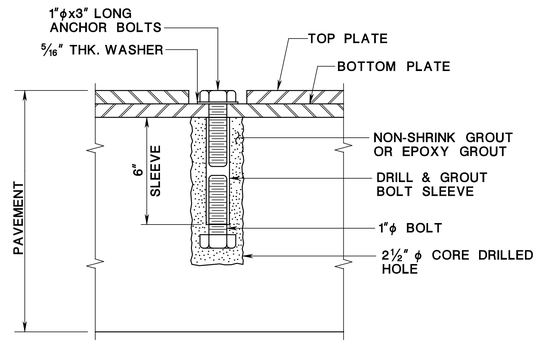
SECTION: A–A FOR
LOW SPEED INSTALLATION
(≤ 45 MPH)



SECTION: A–A FOR
HIGH SPEED INSTALLATION
(> 45 MPH)



SECTION: B–B FOR
HIGH SPEED INSTALLATION
(> 45 MPH)



STEEL PLATE ANCHORING DETAIL

NOTES:

1. PROVIDE TEMPORARY STEEL PLATES ONLY WHEN AN EXCAVATION IN OR NEAR THE ROADWAY NEEDS TO BE COVERED FOR TEMPORARY TRAFFIC OPERATION OR PEDESTRIAN USE UNTIL THE EXCAVATION CAN BE PROPERLY BACKFILLED. PAYMENT FOR TEMPORARY STEEL PLATE BRIDGING WILL BE INCLUDED UNDER THE ITEM BEING CONSTRUCTED.
2. ENSURE THAT IN ALL CASES THE TOP STEEL PLATES ARE SKID RESISTANT BY PROVIDING ⅛ INCH HIGH BY 1 INCH LONG BEAD WELDS APPROXIMATELY 2 INCH CENTER TO CENTER EACH WAY OVER THE ENTIRE RIDING SURFACE. CONFORM STEEL PLATES TO BE FABRICATED FROM ASTM A36 STEEL (MINIMUM).
3. TWO (2) PLATES OF EQUAL THICKNESS WELDED TOGETHER WITH ¼ INCH FILLET WELDS 2 INCHES LONG ON 18 INCH CENTER TO CENTER, WITH THE TOP PLATE BEING SMALLER IN SIZE THAN THE BOTTOM PLATE AS SHOWN IN DETAIL "A". WELDING OF PLATES TO ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
4. ENSURE THAT STEEL PLATE BRIDGING AND SHORING INSTALLED ARE EITHER LOW OR HIGH SPEED AS DESCRIBED BELOW:
   a. PROVIDE ASPHALT RAMP WITH THE MINIMUM SLOPE OF *12 INCHES OF HORIZONTAL TAPER LENGTH PER 1 INCH OF PLATE THICKNESS TO COVER ALL EDGES OF THE STEEL PLATES FOR LOW SPEED INSTALLATION (FOR POSTED SPEEDS ≤ 45MPH).

      * INCREASE SLOPE RATIO FOR HIGHER SPEEDS. CLEAN EXISTING ROADWAY OR BRIDGE DECK SURFACE AND APPLY TACK COAT PRIOR TO ASPHALT RAMP CONSTRUCTION.

   b. MILL THE PAVEMENT TO A DEPTH EQUAL TO THE THICKNESS OF THE PLATE AND TO A WIDTH AND LENGTH 4 INCHES LARGER THAN THE DIMENSIONS OF THE PLATE FOR HIGH SPEED INSTALLATION (FOR POSTED SPEEDS > 45MPH). THE ADDITIONAL 2 INCHES OF MILLING ON EACH SIDE WILL ALLOW MANAGEABLE INSTALLATION.
5. ANCHORAGE SYSTEM WILL BE DRILLED OUT WHEN STEEL PLATES ARE REMOVED. BACKFILL THE DOWEL HOLES IN THE PAVEMENT WITH EITHER GRADED FINES OF HOT MIX ASPHALT CONCRETE MIX, CONCRETE SLURRY, EPOXY OR AN EQUIVALENT THAT IS SATISFACTORY TO THE RE.
6. SHORING, IF REQUIRED, WILL BE PART OF THE PERMITTED OPERATION. ENSURE THAT THE TRENCH IS ADEQUATELY SHORED TO SUPPORT THE TRAFFIC LOADS.
7. STEEL PLATE BRIDGING ON FREEWAYS AND INTERSTATES IS NOT ALLOWED.
8. SECURE STEEL PLATES FROM LATERAL MOVEMENT AND VERTICAL VIBRATION (TO MINIMIZE NOISE) WHILE IN USE.
9. USE TEMPORARY PAVING WITH HOT MIX ASPHALT TO FEATHER THE EDGES OF THE PLATES, IF INSTALLED AS LOW SPEED DESCRIBED ABOVE.
10. SECURE BRIDGING AGAINST DISPLACEMENT BY USING ADJUSTABLE CLEATS, SHIMS, OR OTHER DEVICES.
11. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF STEEL PLATES, SHORING, AND HOT MIX ASPHALT RAMPS AS NECESSARY TO ENSURE SAFE CONTINUOUS OPERATION.
12. IF A SPECIFIC DURATION OF TIME IS NOT APPROVED BY THE RE, DO NOT EXCEED STEEL PLATE BRIDGING MORE THAN 5 CONSECUTIVE DAYS IN ANY GIVEN WEEK.
13. PREPARE A STRUCTURAL DESIGN BY A NJ REGISTERED PROFESSIONAL ENGINEER, FOR SPANS GREATER THAN 5'-3".
14. ENSURE THAT ALL STEEL PLATES WITHIN THE RIGHT-OF-WAY, USED IN OR OUT OF THE ROADWAY, ARE WITHOUT DEFORMATION. INSPECTORS CAN DETERMINE THE TRUENESS OF STEEL PLATES BY USING A STRAIGHT EDGE AND SHOULD REJECT ANY PLATE THAT IS PERMANENTLY DEFORMED.
15. IN ADVANCE OF STEEL PLATE BRIDGING, USE A 48" X 48" W8-24 (STEEL PLATE AHEAD) SIGN WITH BLACK LETTERING ON AN ORANGE BACKGROUND. THIS SIGN IS USED ALONG WITH ANY OTHER REQUIRED CONSTRUCTION SIGNING.
16. FOR BRIDGE APPLICATIONS USE LOW SPEED INSTALLATION WITHOUT ANCHOR BOLTS FOR BOTH HIGH AND LOW SPEED ROADWAYS. ENSURE STEEL PLATE USED MEETS MATERIAL, DIMENSIONAL AND THICKNESS CRITERIA, AND ALL POLICIES PROVIDED HEREIN. A SINGLE PLATE IS RECOMMENDED.

TABLE 1.1	
MAX. CLEAR SPAN OR TRENCH WIDTH	MIN. TOTAL PLATE THICKNESS
1'-11"	¾"
3'-5"	1"
5'-3"	1¾"

TEMPORARY STEEL PLATE BRIDGING

N.T.S

CD-159-11

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-159-11.1

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BDC17D-08-ORIGINAL SHEET