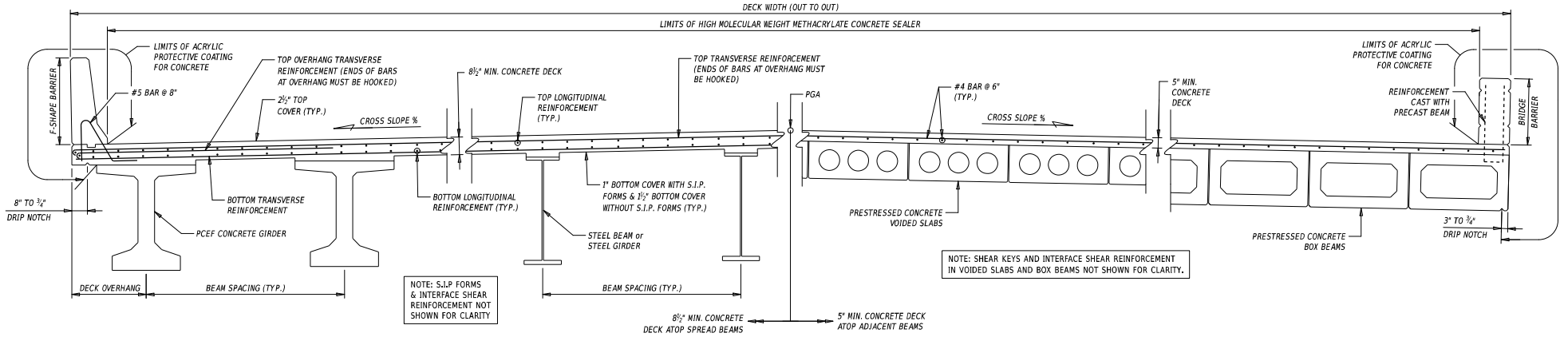
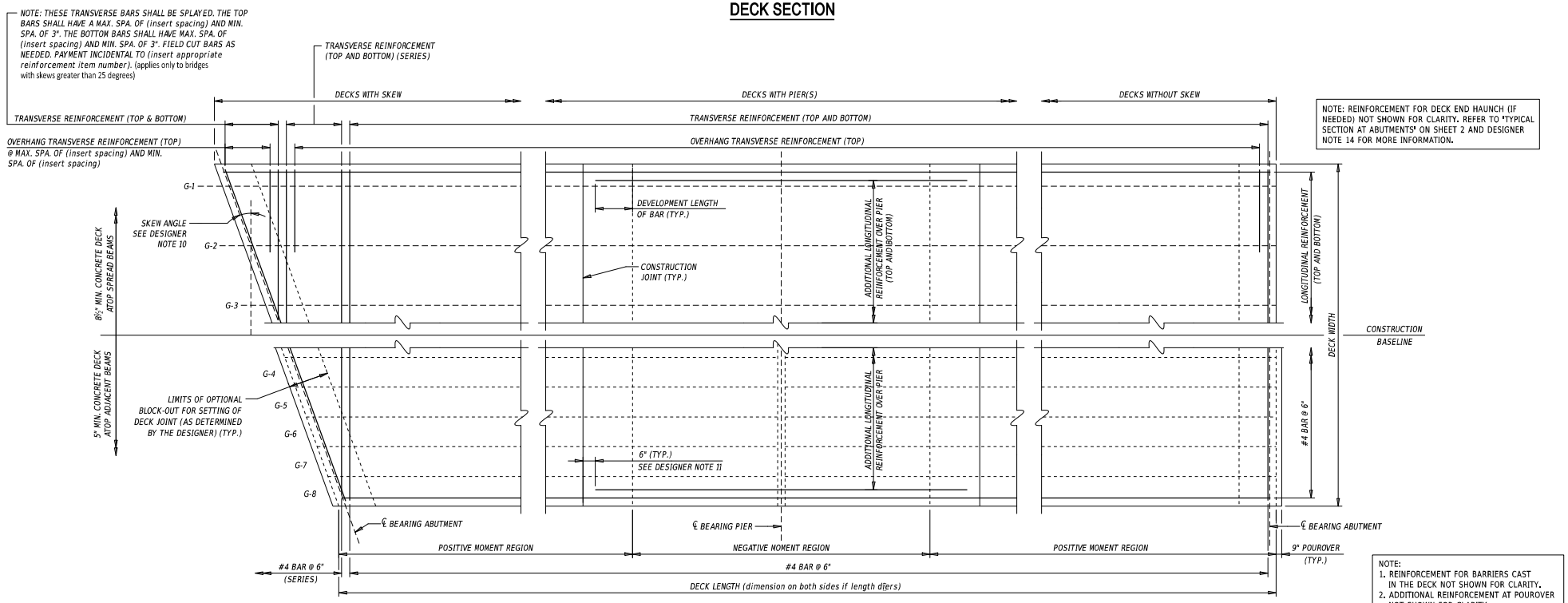
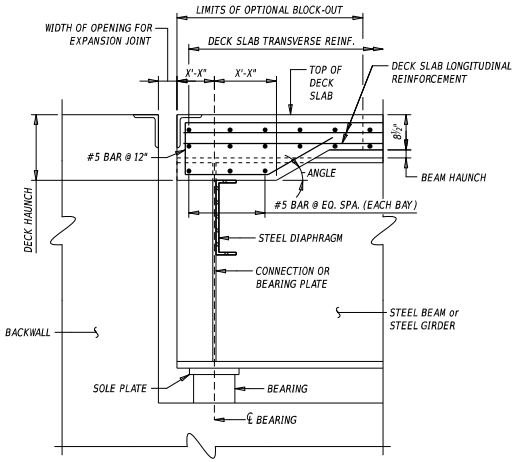


DECK SECTION



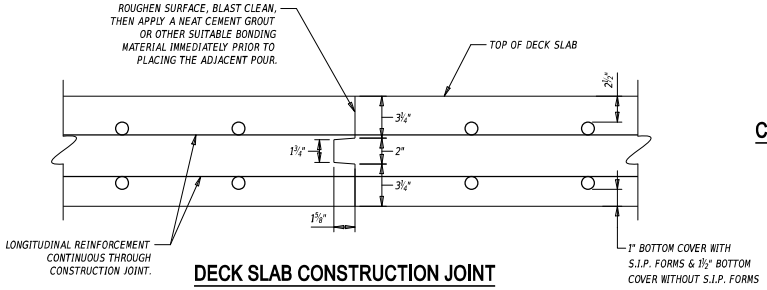
DECK PLAN



NOTE: SHEAR STUDS, BASE PLATE, AND PEDESTALS NOT SHOWN FOR CLARITY.

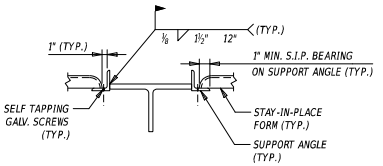
TYPICAL SECTION AT ABUTMENTS

(STEEL BEAM or STEEL GIRDER)



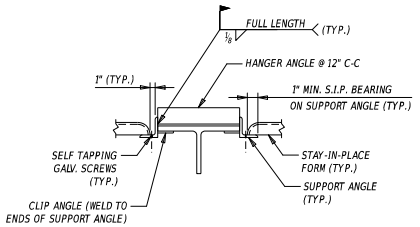
DECK SLAB CONSTRUCTION JOINT

NOTE: TYPICAL FOR 8½" DECK SLABS. INCREASE BOTH 3¼" DIMENSIONS EQUALLY FOR THICKER SLABS.



COMPRESSION FLANGE STAY-IN-PLACE FORM CONNECTION DETAIL

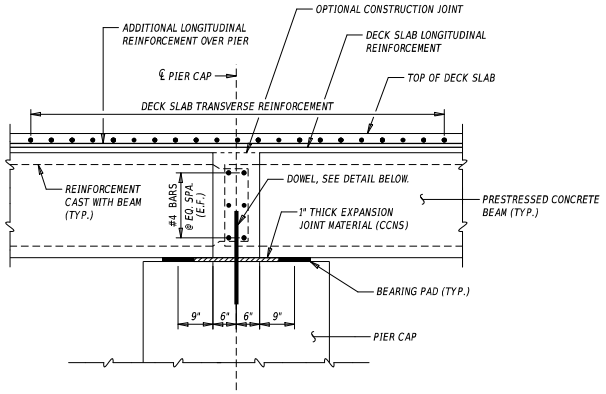
(STEEL BEAM or STEEL GIRDER)



NOTE: DO NOT WELD DIRECTLY TO THE TOP FLANGE IN THE TENSION ZONE.

TENSION FLANGE STAY-IN-PLACE FORM CONNECTION DETAIL

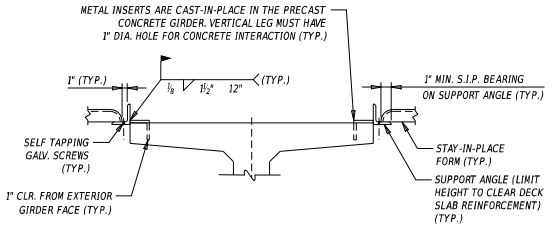
(STEEL BEAM or STEEL GIRDER)



NOTE: THE QUANTITY, LOCATION, AND SPACING OF DOWELS AS DETERMINED BY DESIGNER.

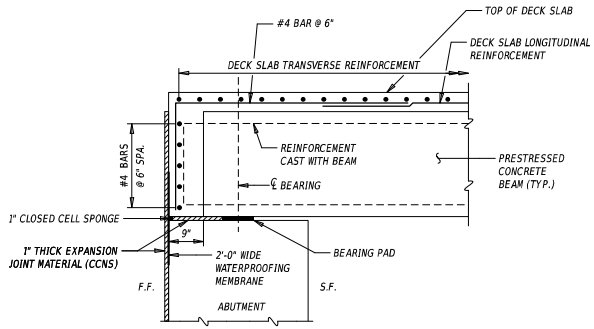
DECK SLAB DETAIL AT PIER

(ADJACENT BEAMS)



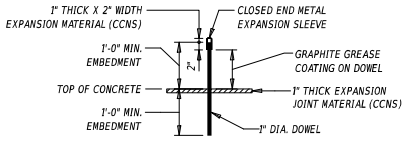
FLANGE STAY-IN-PLACE FORM CONNECTION DETAIL

(PCEF CONCRETE GIRDER SHOWN BUT SAME DETAILS MAY BE USED AT SPREAD BOX BEAMS)



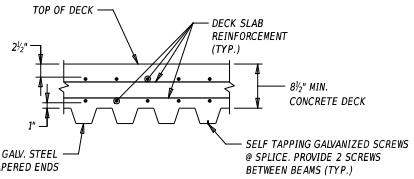
DECK SLAB POUROVER DETAIL

(ADJACENT BEAMS)



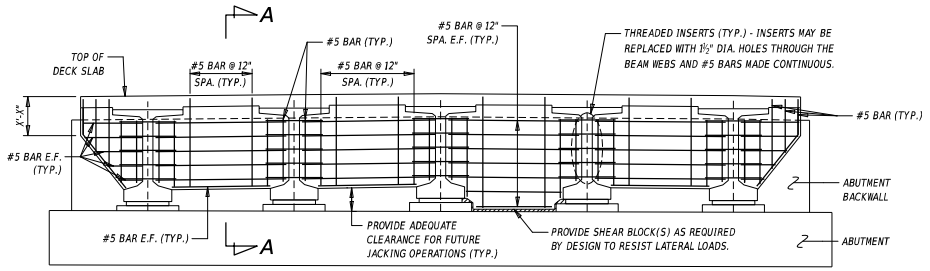
DOWEL DETAIL FOR DECK SLAB AT PIER

(ADJACENT BEAMS OR PCEF GIRDERS @ FIXED BEARING ONLY)



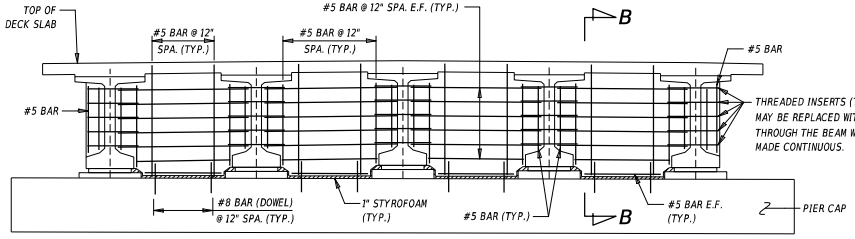
STAY-IN-PLACE STEEL FORM DETAIL

F.F. = FILL FACE
S.F. = STREAM FACE
CCNS = CLOSED CELL NEOPRENE SPONGE



END DIAPHRAGM ELEVATION

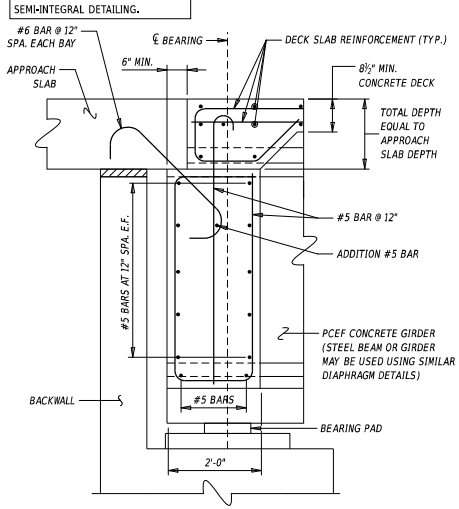
NOTE: EXAMPLE UTILIZING PCEF CONCRETE GIRDERS



PIER DIAPHRAGM ELEVATION

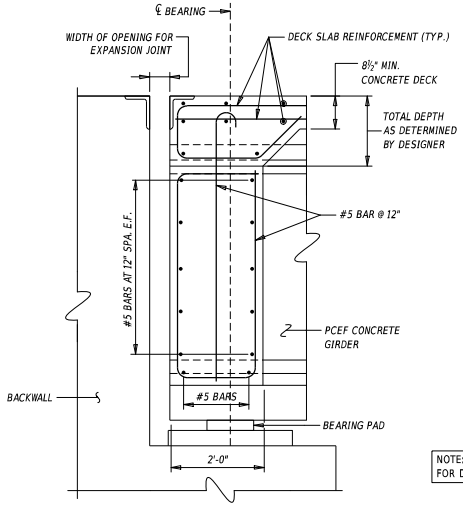
NOTE: EXAMPLE UTILIZING PCEF CONCRETE GIRDERS

NOTE: REFER TO DETAIL NO. 310.03 FOR FURTHER INFORMATION ON SEMI-INTEGRAL DETAILING.



END DIAPHRAGM SECTION

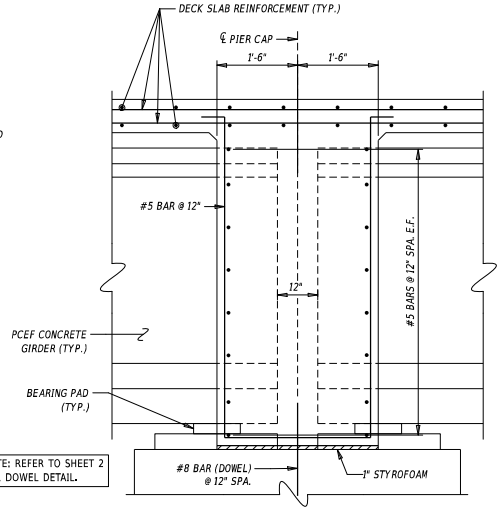
(SEMI-INTEGRAL ABUTMENT - SECTION A-A)



END DIAPHRAGM SECTION

(JOINT @ ABUTMENT & BACKWALL - SECTION A-A)

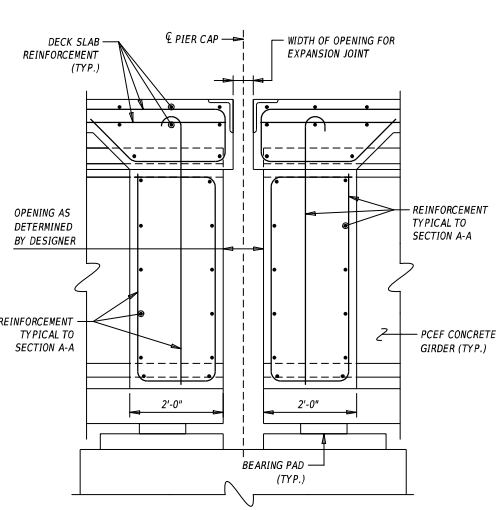
NOTE: DIMENSIONS PROVIDED IN PIER DIAPHRAGM SECTIONS ARE BASED ON ZERO SKEW. THE DIMENSIONS WILL LIKELY INCREASE WITH SKEW. EXPANSION JOINT DETAILS AND P/S STRANDS EXTENDING INTO DIAPHRAGM IN THESE SECTIONS NOT SHOWN FOR CLARITY.



NOTE: REFER TO SHEET 2 FOR DOWEL DETAIL.

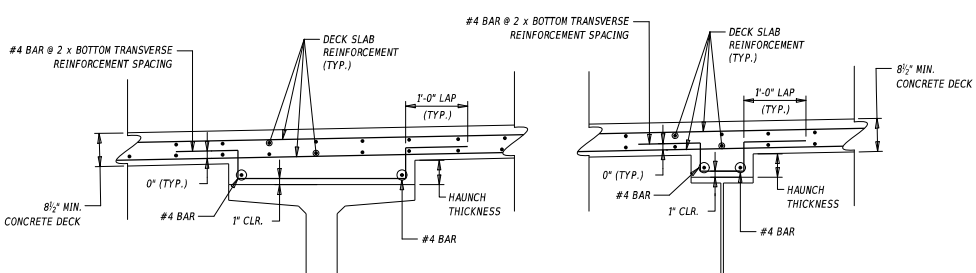
PIER DIAPHRAGM SECTION

(FIXED BEARINGS - SECTION B-B)



PIER DIAPHRAGM SECTION

(EXPANSION BEARINGS - SECTION B-B)



PCEF CONCRETE GIRDERS

HAUNCH REINFORCEMENT IS REQUIRED WHEN HAUNCH THICKNESS IS 5" OR GREATER AT ANY POINT ACROSS THE WIDTH OF HAUNCH IF S.I.P. FORMS ARE USED. IF S.I.P. FORMS ARE NOT USED, THE HAUNCH REINFORCEMENT REQUIREMENT IS LOWERED TO THICKNESS OF 3" OR GREATER.

STEEL BEAM AND STEEL GIRDERS

HAUNCH REINFORCEMENT IS REQUIRED WHEN HAUNCH THICKNESS IS 3" OR GREATER AT ANY POINT ACROSS THE WIDTH OF HAUNCH. THIS APPLIES TO BOTH CASES WHERE S.I.P. FORMS ARE USED OR NOT USED.

HAUNCH REINFORCEMENT DETAILS

NOTE: S.I.P FORMS & INTERFACE SHEAR REINFORCEMENT NOT SHOWN FOR CLARITY

PROJECT SPECIFIC NOTES

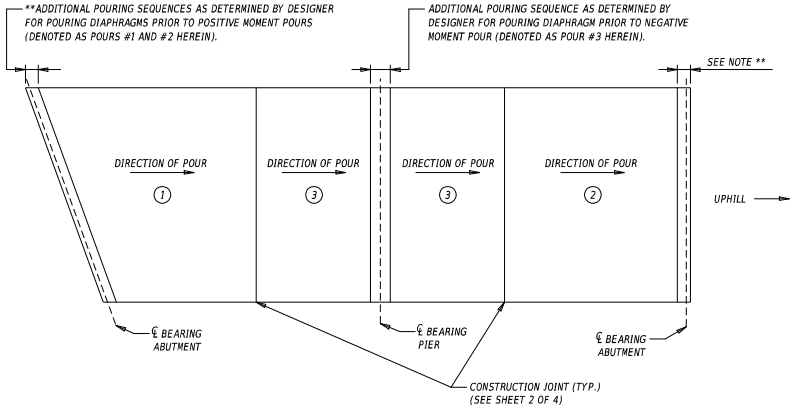
1. (phased construction only) *MECHANICAL COUPLERS SHALL BE USED AT LOCATIONS WHERE USE OF LAP SPLICES ARE NOT FEASIBLE. MECHANICAL COUPLERS SHALL BE EPOXY COATED. PAYMENT FOR COUPLERS SHALL BE INCIDENTAL TO THE APPROPRIATE BAR REINFORCEMENT ITEM.*
2. (phased construction only) *REINFORCEMENT CONNECTED VIA MECHANICAL COUPLERS MAY NEED TO BE FIELD CUT TO ALLOW FOR PROPER ROOM FOR THE COUPLER. PAYMENT FOR SUCH WORK SHALL BE INCIDENTAL TO THE APPROPRIATE BAR REINFORCEMENT ITEM.*
3. (phased construction only) *THE CONTRACTOR HAS THE OPTION TO DRILL IN LIEU OF USING MECHANICAL COUPLERS. #(insert reinforcing bar number) MUST BE USED. THE BARS MUST BE EMBEDDED INTO THE DECK A MINIMUM OF (insert length) EACH WAY. ANY DRILLING MUST NOT COME INTO CONTACT WITH THE EXISTING REINFORCEMENT. ANY DAMAGE TO THE EXISTING REINFORCEMENT MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.*

STAY-IN-PLACE FORM NOTES

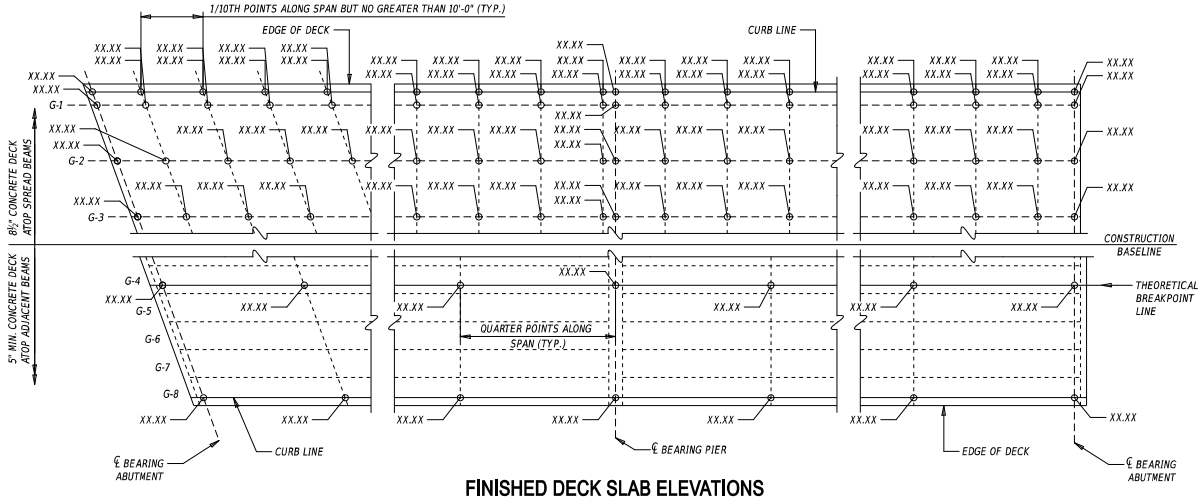
1. *THESE FORMS SHALL BE VERTICALLY ADJUSTED TO ATTAIN LINE AND GRADE REQUIRED ON THE PLANS.*
2. *THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL. METAL FORMS MUST BE GALVANIZED AND MORTAR TIGHT. STEEL METAL SCREWS MUST BE NON-CORROSIVE. SELF TAPPING SCREWS SHALL BE INSTALLED AT THE SIDE LAP OF THE SHEETS AT MID-SPAN SUPPORTS. ALL ANGLES, WELDS, AND INSERTS MUST BE DESIGNED BY THE CONTRACTOR.*
3. *ALL MATERIALS AND LABOR NEEDED FOR FORMS SHALL BE INCIDENTAL TO ITEM 610017 - P.C.C. MASONRY, SUPERSTRUCTURE, CLASS D.*
4. (for multi-span steel beams or steel girders only) *TENSION FLANGE DETAIL IS IN THE AREA ALONG THE BEAM BETWEEN SPLICES.*
5. (for multi-span steel beams or steel girders only) *WELDING TO STEEL BEAM FLANGES IN TENSION ZONE IS STRICTLY PROHIBITED.*

DESIGNER NOTES

1. 'PROJECT SPECIFIC NOTES' AND 'STAY-IN-PLACE FORM NOTES' ARE REQUIRED TO BE SHOWN ON THE PLAN SETS WHEN APPLICABLE.
2. UNDER 'STAY-IN-PLACE FORM NOTES', IF ECONOMICAL FOR REHABILITATION PROJECTS OR WHEN DEAD LOAD IS A CONTROL, ADD A NOTE THAT METAL FORMS WITH BLOCKED OUT VALLEYS MAY BE USED.
3. UNDER 'DECK SECTION', A TYPICAL DECK THICKNESS OF 8½" OVER SPREAD BEAMS IS SHOWN. THE ALLOWABLE RANGE AS PER SECTION 106.4.2.2 IS 8½" TO 10" THICK. NOTE THAT THE ½" THICK INTEGRAL SACRIFICIAL WEARING SURFACE IS INCLUDED IN THE ALLOWABLE RANGE.
4. UNDER 'DECK SECTION', THE EXAMPLE BARRIER USED ON DECK OVER SPREAD BEAMS IS A C.I.P. F-SHAPE BARRIER. THE EXAMPLE BARRIER USED ON DECK OVER ADJACENT BEAMS IS A C.I.P. VERTICAL FACE BARRIER, TYPICALLY WITH AESTHETIC RUSTICATION ON BOTH FACES OF THE BARRIER. REFER TO DETAIL NO. 325.02 - BRIDGE RAILING DETAILS AND SECTION 106.5 FOR MORE INFORMATION ON BRIDGE BARRIERS AND RAILINGS.
5. UNDER 'DECK SECTION', IF REQUIRED, THE LIMITS OF ACRYLIC PROTECTIVE COATING FOR CONCRETE MUST BE SHOWN ON THE PLANS IN ACCORDANCE WITH SECTION 106.5.1.
6. UNDER 'DECK SECTION', S.I.P FORMS ARE NOT SHOWN FOR CLARITY, BUT IT IS THE DEPARTMENT'S PREFERENCE TO UTILIZE USE OF S.I.P. FORMS FOR C.I.P. DECKS. REFER TO SECTION 106.4.2.
7. UNDER 'DECK SECTION' AND 'DECK PLAN', FOR SPREAD BEAMS, IT IS ASSUMED THAT THE REINFORCEMENT UTILIZES THE EMPIRICAL DESIGN IN ACCORDANCE WITH A9.7.2 WHICH TYPICALLY CONSIST OF #5 BARS AT 12" SPACING. NOTE THAT THE AASHTO CRITERIA TO QUALIFY THE USE OF EMPIRICAL DESIGN MUST BE MET.
8. UNDER 'DECK SECTION' AND 'DECK PLAN', FOR ADJACENT BEAMS, THE REINFORCEMENT USED IS #4 AT 6" FOR A SINGLE MAT IN EACH DIRECTION IN ACCORDANCE WITH SECTION 106.4.2.3.2.
9. UNDER 'DECK SECTION' AND 'DECK PLAN', ANY ADDITIONAL LONGITUDINAL REINFORCEMENT USED OVER PIER(S) TO RESIST NEGATIVE MOMENTS MUST MEET REQUIREMENTS OF A6.10.1.7 FOR STEEL BEAMS or STEEL GIRDERS AND APPROPRIATE SUBSECTIONS IN A5 FOR PRECAST PRESTRESSED CONCRETE BEAMS.
10. UNDER 'DECK PLAN', THE TRANSVERSE REINFORCEMENT LAYOUT AT THE SKEW IS SHOWN WITH ASSUMPTION THAT THE BRIDGE SKEW IS GREATER THAN 25 DEGREES. FOR BRIDGES WITH SKEW OF 25 DEGREES OR LESS, THE TRANSVERSE REINFORCEMENT LAYOUT MUST BE PLACED PARALLEL TO THE C-C BEARINGS. REFER TO SECTION 106.4.2.3.1.1. THIS APPLIES BOTH TO DECKS OVER SPREAD BEAMS AND ADJACENT BEAMS.
11. UNDER 'DECK PLAN', THE TRANSVERSE CONSTRUCTION JOINT ADJACENT TO NEGATIVE MOMENTS MUST BE LOCATED 6 INCHES OUTSIDE OF THE END OF THE ADDITIONAL LONGITUDINAL REINFORCEMENT OVER PIER(S) IN ACCORDANCE WITH SECTION 106.4.2.10. ALSO REFER TO 'DECK SLAB CONSTRUCTION JOINT' ON SHEET 2 OF THIS DETAIL, WHICH MUST BE SHOWN ON THE PLAN SET.
12. UNDER 'DECK PLAN', THE BARRIER REINFORCEMENTS TO BE CAST WITH THE DECK ARE NOT SHOWN FOR CLARITY, BUT MUST BE SHOWN ON THE PLANS.
13. UNDER 'DECK PLAN', IF ANY LAP SPLICING ARE NEEDED, THE MINIMUM LENGTH OF THE LAP SPLICE FOR EACH BAR SIZE MUST BE SHOWN ON THE DECK PLAN.
14. UNDER 'TYPICAL SECTION AT ABUTMENTS', THIS DETAIL IS ONLY FOR STEEL BEAM OR STEEL GIRDERS UTILIZING EXPANSION JOINTS BETWEEN ABUTMENT BACKWALL AND END OF DECK. THE END DECK HAUNCH MUST REST ATOP THE END DIAPHRAGMS. THE END DIAPHRAGM SHOWN IS A C-CHANNEL, BUT OTHER END DIAPHRAGM TYPES MAY BE CONSIDERED. THE DIMENSIONS OF THE DECK END HAUNCH VARIES AND MUST BE DETERMINED BY THE DESIGNER ON A CASE-BY-CASE BASIS. SUCH DETAILS WERE NOT SHOWN FOR EXPANSION JOINTS AT PIERS SINCE THESE ARE NOT COMMON, HOWEVER IF THERE ARE NEED FOR SUCH JOINTS AT PIERS, THE DETAILS AS SHOWN UNDER 'TYPICAL SECTIONS AT ABUTMENTS' ARE SIMILAR AND MUST BE SHOWN ON THE PLANS.
15. UNDER 'DECK SLAB POUROVER DETAIL', THIS DETAIL IS FOR ADJACENT BEAMS ONLY AND IS CONSIDERED A PART OF SEMI-INTEGRAL ABUTMENT SYSTEM. THE INFORMATION SHOWN UNDER THIS DETAIL IS TYPICAL FOR MAJORITY OF THE PROJECTS THAT UTILIZES DECK SLAB POUROVER. THE DESIGNER MUST EVALUATE THE NEED TO MODIFY THE DETAILS IF NECESSARY. REFER TO DETAIL NO. 310.03 FOR MORE INFORMATION ON ABUTMENT DETAILS FOR THE DECK SLAB POUROVER.
16. UNDER 'DECK SLAB DETAIL AT PIER', THIS DETAIL IS FOR ADJACENT BEAMS ONLY. THE INFORMATION SHOWN UNDER THIS DETAIL IS TYPICAL FOR MAJORITY OF THE PROJECTS. THE DESIGNER MUST EVALUATE THE NEED TO MODIFY THE DETAILS IF NECESSARY.
17. STAY-IN-PLACE FORM DETAILS MUST BE SHOWN FOR THE APPROPRIATE BEAM TYPE AND BRIDGE TYPE ON THE PLANS.
18. UNDER 'DECK SLAB POUR SEQUENCE', THE EXAMPLE SHOWN IS FOR A 2-SPAN BRIDGE. FOR MORE INFORMATION ON DECK POUR SEQUENCE, REFER TO SECTION 106.4.2.6 ANY PHASING WORK WILL REQUIRE ADDITIONAL INFORMATION AND MUST BE SHOWN ON THE PLANS.
19. UNDER 'FINISHED DECK ELEVATIONS', THE EXAMPLE SHOWN IS FOR A 2-SPAN BRIDGE ON CONSTANT GRADE. REFER TO SECTION 106.4.3 FOR MORE INFORMATION.
20. THE DESIGNER MUST CONSIDER THE AFFECTS OF CAMBER OF PRESTRESSED CONCRETE BEAMS WHEN SETTING THEIR DECK GRADES. THE DECKS OR HAUNCHES WILL TYPICALLY BE THICKER AT THE ENDS OF THE BEAM THAN AT THE CENTER OF SPAN.



DECK SLAB POUR SEQUENCE



FINISHED DECK SLAB ELEVATIONS