GENERAL NOTES

1. USE OF THIS STANDARD REQUIRES PERMISSION FROM THE DISTRICT BRIDGE ENGINEER. THE STANDARD IS INTENDED TO BE UTILIZED BY DESIGNERS OF ACCELERATED BRIDGE CONSTRUCTION PROJECTS AND CONTRACTORS FOR VALUE ENGINEERING OF DESIGN-BUILD PROJECTS.

2. THIS STANDARD IS ONLY APPROVED FOR STRAIGHT BRIDGES WITH A LESS THAN 20 DEGREES BETWEEN THE AXES OR IN A CURVE WHERE THE TANGENT SLOPE IS LESS THAN 20%. THE BRIDGE ENGINEER SHALL determine if the bridge is to be treated as a straight bridge.

3. SPACE SISSORS SPANS AND BRIDGES SHOWN AS A STRIP OF CONCRETE DECK SHALL USE STAY-IN-PLACE MASONRY FIXING. THE SHEET IS FOR REFERENCES ONLY.

4. IF REQUIRED, THE DESIGNER MUST PROVIDE THE NUMBER, LOCATION, FORCE AND STRESS (IF REQUIRED) FOR ALL OF THE PRESTRESSED ANCHORAGES AND ANCHORAGE DEVICES.

5. ADJUST EACH PANEL TO PROPER ELEVATION USING VERTICAL ADJUSTMENT DEVICES TO PROPERLY DISPLACE THE DECK LOAD TO BEAMS (AS DETERMINED AT DESIGN). PLACE FORMWORK FOR TRANSVERSE JOINTS, couple POST-TENSIONING DUCTS AND SHEAR KEYS IN ACCORDANCE WITH ULTRA HIGH PERFORMANCE CONCRETE STANDARD SPECIAL PROVISION, IF APPLICABLE. (SEE STEP 9 BELOW).

6. THE NUMBER AND LOCATION OF LIFTING DEVICES SHALL BE DESIGNED BY THE CONTRACTOR.

7. PLACE FORMWORK FOR TRANSVERSE JOINTS, couple POST-TENSIONING DUCTS AND SHEAR KEYS IN ACCORDANCE WITH ULTRA HIGH PERFORMANCE CONCRETE STANDARD SPECIAL PROVISION, IF APPLICABLE.

8. INSTALL POST-TENSIONING STRANDS IN DUCTS AND TENSION TO SPECIFIED STRESS IF REQUIRED. GREAT DUCTS WITHIN 3 CALENDAR DAYS AFTER TRAVELING, POOL DUCTS WITHIN 24 HOURS OF BRIDGE INSTALLATION AND ALL OTHER POST-TENSIONING DUCTS FULL LENGTH OF BRIDGE (IF REQUIRED). IF CASTING IS NOT GOING TO BE PERFORMED DURING THE SAME DAY THE TENDONS ARE STRESSED, THEN WITHIN 4 CALENDAR DAYS AFTER STRESSING, REMOVE THE TENDONS AND CLEAN THE DUCTS (IF REQUIRED). GROUT DUCTS WITHIN 3 CALENDAR DAYS AFTER STRESSING.

9. THE NUMBERS OF THE SHEAR BLOCKOUTS AND ALL OTHER REINFORCEMENT MATERIAL FOR THE TRANSVERSE JOINTS SHALL BE BLAST CLEANED TO HAVE AN EXPOSED ADEQUATE FINISH.

10. INTERFACE OF PRECAST PANELS ALONG THE TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE BLAST CLEANED TO HAVE AN EXPOSED ADEQUATE FINISH.

11. USE OF THIS STANDARD PROVIDES THE DESIGNER WITH THE OPPORTUNITY TO UTILIZE THE CURRENT VERSION OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION REFERENCE DRAWINGS FOR PRECAST CONCRETE DECK PANELS AND ASSOCIATED COMPONENTS.

12. THIS STANDARD IS ONLY APPROVED FOR STRAIGHT BRIDGES WITH A LESS THAN 20 DEGREES BETWEEN THE AXES OR IN A CURVE WHERE THE TANGENT SLOPE IS LESS THAN 20%

13. THIS STANDARD IS NOT APPLICABLE TO PROJECTS AND BY CONTRACTORS FOR VALUE ENGINEERING OR DESIGN-BUILD PROJECTS.

14. USE OF THIS STANDARD REQUIRES PERMISSION FROM THE DISTRICT BRIDGE ENGINEER. THE STANDARD IS INTENDED TO BE UTILIZED BY DESIGNERS OF ACCELERATED BRIDGE CONSTRUCTION PROJECTS AND CONTRACTORS FOR VALUE ENGINEERING OF DESIGN-BUILD PROJECTS.

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SEQENCE OF CONSTRUCTION

1. ERECT BEAMS AND INSTALL DIAPHRAGMS.

2. IF SPAN-IN-PLACE MASONRY FIXING IS APPLICABLE, PLACE FORMWORK PER DETAILS ON SHEET 4 TO REMOVE FORMS ARE PLACED AFTER PANELS ARE SET (SEE STEP 5 BELOW).

3. PLACE PANELS BY PRESETTING THE VERTICAL ADJUSTMENT DEVICES TO THE REQUIRED ANTICIPATED DEPTH.

4. USE PRECAST PANELS ALONG THE TRANSVERSE JOINTS, couple POST-TENSIONING DUCTS AND SHEAR KEYS IN ACCORDANCE WITH ULTRA HIGH PERFORMANCE CONCRETE STANDARD SPECIAL PROVISION, IF APPLICABLE.

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CHIEF BRIDGE ENGINEER
RECOMMENDED
BUREAU OF PROJECT DELIVERY
STANDARD
FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

NOTES:
1. FOR ADDITIONAL NOTES, SEE SHEET 1.
2. PANEL LENGTH TO BE DETERMINED BY DESIGNER.
3. BRIDGE BARRIERS SHALL BE CAST INTEGRAL WITH DECK PANEL PRIOR TO ERECTION.
4. PANELS SHALL BE CAST IN-PLACE AT THE OPTION OF THE CONTRACTOR.
5. FOR DECK PANEL REINFORCEMENT DETAILS, SEE SHEET 3.
6. FOR HAUNCH DETAILS AND SHEAR CONNECTOR BLOCKOUT DETAILS, SEE SHEET 4.
7. FOR BRIDGE BARRIER DETAILS, TRANSVERSE JOINT DETAILS AND LONGITUDINAL CLOSURE FOR DETAILS, SEE SHEET 5.
8. FOR VERTICAL ADJUSTMENT DEVICE DETAILS AND POST-TENSIONING DETAILS, SEE SHEET 6.
9. FOR ADDITIONAL NOTES, SEE SHEET 7.

TYPICAL DECK LAYOUT

TYPICAL PANEL LAYOUTS

INTERIOR PANEL (SIMILAR TO INTERIOR PANEL EXCEPT AS NOTED) SEE NOTE 4.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY
STANDARD
FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

SEE NOTE 4.

1'-6" MAX.

TRANSVERSE JOINT (TYP.)

NOTE 2

12'-0" MAX.

NOTE 3

4'-0" MAX.

NOTE 4

4'-0" MAX.

NOTE 5

INTERIOR PANEL

SEE NOTE 4.

TYPICAL PANEL LAYOUTS

COMMONWEALTH OF PENNSYLVANIA
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FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

SEE NOTE 4.
Typical Panel Reinforcement Layouts

NOTES:

1. Barrier reinforcement not shown for clarity.

2. Top panel reinforcement shown. Bottom panel reinforcement not shown for clarity.

3. Post-tensioning anchorage zone reinforcement not shown for clarity.


5. Provide longitudinal steel for distribution for structural adequacy.

6. Provide continuous transverse reinforcement for structural adequacy.

7. Provide discontinuous transverse reinforcement behind shear connector blockouts as required for temperature and shrinkage.

8. For skewed panels, adjust size and spacing of shear connector blockouts as required for shear connector blockouts as required.

9. For skewed panels, transverse reinforcement behind shear connector blockouts is required. Post-tensioning reinforcement meets strength requirements.

10. Provide raked finish construction joint when necessary to avoid internalewn deck panel.

Commonwealth of Pennsylvania
Department of Transportation
Bureau of Project Delivery

Standard
Full Depth Precast Concrete Deck Panels for Prestressed Concrete PA Bulb-Tee Beam and Steel I-Beam/I-Girder Bridges

Recommended: 04/12/2013
Recommended: 04/30/2013

BD-605M
FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

STANDARD
FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

RECOMMENDED APR. 29, 2016
RECOMMENDED APR. 29, 2016

NOTE:
1. Haunch Formwork Material, Attachment Hardware and Patching Material are incidental items to the Prestressed Deck.
2. Paint all exposed Steel with approved galvanized spray containing a minimum of 92% Zinc.
3. Maximum Spacing of Form Support/Attachment Devices is 4'-0".
FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

DECK PANEL
CONCRETE
8' MIN.

CONCRETE PERFORMANCE
ULTRA HIGH

REINFORCEMENT
TRANSVERSE

PRESTRESSED BEAM
CONCRETE PERFORMANCE
ULTRA HIGH

CROWN
ROADWAY
1"
1"

D E C K  P A N E L
C O N C R E T E
8 ' "  M I N .

A
A
A
1 "  
2 "

REINFORCING PANEL
CONCRETE DECK
REINFORCEMENT
LONGITUDINAL

CONCRETE PERFORMANCE
ULTRA HIGH

ROD
BACKER

CHAMFER (TYP.)

VIEW A-A

SECTION D-D
(COMMON JOINT ALIGNMENT)

LONGITUDINAL CLOSURE POUR BETWEEN BEAMS/GIRDERS

LONGITUDINAL CLOSURE POUR OVER BEAM

COMMONWEALTH OF PENNSYLVANIA
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FULL DEPTH PRECAST CONCRETE DECK PANELS FOR PRESTRESSED CONCRETE PA BULB-TEE BEAM AND STEEL I-BEAM/I-GIRDER BRIDGES

REINFORCED TRANSVERSE JOINT DETAILS
(TYP. JOIN TO BE USED FOR DECKS WITH LONGITUDINAL POST-TENSIONING)

CONSTRUCTION JOINT TO BE CLOSED 1/32" MAX. WITH TRANSVERSE DECK REINFORCEMENT (TYP.)

ADJACENT DECK PANELS
DIFFERENCE BETWEEN MAX. ELEVATION AND TRANSVERSE PANEL JOINT

NOTE TO DESIGNER: SEE SHEET 6 FOR DETAILS.
VERTICAL ADJUSTMENT (TYP.)

DIFFERENCE BETWEEN ADJACENT DECK PANELS
" MAX. ELEVATION DIFFERENCE

NOTE TO DESIGNER: SEE SHEET 6 FOR DETAILS.
DIFFERENCE UNIFORMLY ACROSS CLOSURE POUR

NOTCH
DRIP

LEVEL
REINFORCING PANEL
DECK CONCRETE

ALTERNATE LOCATION
REINFORCEMENT
LONGITUDINAL
LOCATION PREFERRED
REINF.
LONGIT.

PROJECT DELIVERY
DIRECTOR, BUR. OF PROJECT DELIVERY
APR. 29, 2016
APR. 29, 2016