PRECAST PANEL NOTES

(1) THE CONCRETE COMPRESSIVE STRENGTH OF THE PRECAST PANEL UNITS SHALL BE 4000 psi AT RELEASE AND 5000 psi AT 28 DAYS. CORROSION INHIBITOR SHALL BE USED (4 GAL/CY).

(2) PRESTRESSING STEEL SHALL BE 0.6"Φ UNCOATED SEVEN-WIRE STRAND CONFORMING TO AASHTO M203 (ASTM A416) GRADE 270 LOW RELAXATION. ALL STRANDS SHALL BE PRE-TENSIONED TO 43.9 kips PER STRAND (75% INITIAL PULL). POST-TENSIONING STRANDS SHALL BE UNCOATED SEVEN-WIRE STRAND CONFORMING TO AASHTO M203 (ASTM A416) GRADE 270 LOW RELAXATION.

(3) ALL REINFORCING STEEL FOR THE SUPERSTRUCTURE SHALL CONFORM TO AASHTO M31 (ASTM A615) GRADE 60 AND SHALL BE EPOXY COATED.

(4) THE PRECAST PANEL REINFORCING AND PRESTRESSING STEEL SHALL HAVE A MINIMUM CLEAR COVER OF 2", UNLESS OTHERWISE NOTED.

(5) A GROUT DAM/FORMWORK SHALL BE USED TO RETAIN GROUT PLACED WITHIN THE HAUNCH ABOVE THE TOP FLANGE OF THE GIRDER. ALL UNYIELDING FORMWORK AND LEVELING SCREWS SHALL BE REMOVED PRIOR TO PAVING AND MEMBRANING OPERATIONS. THE PROPOSED METHOD FOR RETAINING HAUNCH GROUT SHALL BE SUBMITTED FOR DOCUMENTATION.

(6) THE FINAL POST-TENSIONING FORCE SHALL INDUCE A MINIMUM OF 250 PSI OF COMPRESSION ACROSS THE TRANSVERSE JOINT OF THE DECK PANEL PLUS AN ADDITIONAL TENSILE STRESS, XXX PSI, REQUIRED TO COMPENSATE FOR NEGATIVE MOMENT OVER THE PIERS FOR A TOTAL OF XXX PSI. THE CONTRACTOR SHALL SUBMIT THE PROPOSED POST-TENSIONING PLAN AS PART OF THE PRECAST PANEL SHOP DRAWINGS TO THE ENGINEER.

(7) POST-TENSIONING OF THE PANEL SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 528.

(8) LIFTING DEVICES AND ADDITIONAL STEEL AS REQUIRED SHALL BE DESIGNED BY THE CONTRACTOR TO ENSURE THAT THERE IS NO TENSILE STRESS IN THE PRECAST PANELS DURING HANDLING AND ERECTION.

(9) THE TOPS OF THE PRECAST UNITS SHALL BE FINISHED SMOOTH AND SHALL NOT BE RAKED.

(10) THE DECK PANEL UNIT SHEAR KEYS SHALL BE BLAST CLEANED PRIOR TO SHIPPING.

(11) THE DECK PANEL UNIT SHEAR KEYS SHALL BE FLUSHED AND CLEANED JUST PRIOR TO GROUTING. GROUT FOR TRANSVERSE KEYS SHALL CONFORM TO 528.2.9.

(12) GROUTING OF HAUNCH AND SHEAR CONNECTOR BLOCKOUTS SHALL NOT BEGIN UNTIL AFTER COMPLETION OF POST-TENSIONING.

(13) THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS AND CALCULATIONS PREPARED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW HAMPSHIRE. THE CONTRACTOR SHALL DEVELOP THE DETAILED SEQUENCE OF WORK TASKS TO BE PERFORMED AND SHALL SUBMIT THEM WITH THE SHOP DRAWINGS.

(14) FINAL PANEL ELEVATIONS SHALL BE ATTAINED BY ADJUSTING THE TORQUE ON LEVELING SCREWS TO PROMOTE AN EQUAL DISTRIBUTION OF PANEL DEAD LOAD TO ALL GIRDERS. THE TORQUE SCHEDULE SHALL BE SUBMITTED WITH THE SHOP DRAWINGS FOR THE PANELS. THE TORQUE TOLERANCE SHALL BE ± 15%.

(15) EXTEND LONGITUDINAL REINFORCEMENT 1'-6" BEYOND END OF PANEL INTO CLOSURE POUR AT ABUTMENTS.

(16) ALTERNATE SHEAR KEY DETAILS ARE ALLOWED BUT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL WITH THE SHOP DRAWINGS.

(17) POST-TENSIONING DUCT NUMBER, SIZE, AND LOCATION SHALL BE DETERMINED BY THE CONTRACTOR. REFER TO SPECIAL PROVISION 528.3.1.7.8.1 FOR MINIMUM SIZE OF DUCTS.

(18) PANELS SHALL BE STABILIZED DURING PHASED CONSTRUCTION TO AVOID "WALKING" OF THE PANELS. THE CONTRACTOR SHALL SUBMIT DETAILS OF STABILIZATION FOR APPROVAL.

(19) EACH LEVELING SCREW SHALL BE DESIGNED TO RESIST HALF OF THE PANEL LOAD.

(20) TWO REINFORCING U BARS SHALL BE REQUIRED AROUND PANEL EDGE BLOCKOUT TO LIMIT CRACKING, ONE IN THE TOP MAT AND ONE IN THE BOTTOM MAT.

(21) HAUNCH HEIGHT SHALL BE ADJUSTED TO AVOID SPLICE PLATE BOLTS ON TOP FLANGES OF STEEL GIRDERS. CONTRACTOR SHALL BE AWARE OF POTENTIAL FOR CONFLICT BETWEEN LEVELING SCREWS AND SPLICE PLATE BOLTS ON TOP FLANGES OF STEEL GIRDERS.

(22) SEE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR SECTIONS 520 AND 528 FOR ADDITIONAL INFORMATION.

NOTES TO DESIGNER

1) A HAUNCH THICKNESS SHALL BE PROVIDED THAT ACCOUNTS FOR GIRDER CAMBER TOLERANCE, FIELD SPLICE PLATES AND ANY OTHER DETAIL THAT MIGHT IMPACT THE 1" MINIMUM HAUNCH THICKNESS REQUIREMENT. THE INTENT IS TO HOLD FINISHED GRADE ELEVATIONS AND TAKE UP CHANGES IN DECK THICKNESS WITHIN THE HAUNCH.

2) WHEN C-C GIRDER SPACING DIFFERS FROM THOSE LISTED IN TABLES, THE PANEL DESIGN SHALL BE BASED ON THE NEXT LONGER TABULATED C-C GIRDER SPACING.

3) SHEAR CONNECTOR HEIGHTS MAY NEED ADJUSTMENT TO ACCOMMODATE THIS OPTION.

4) DESIGNER TO PROVIDE NEGATIVE MOMENT COMPRESSIVE FORCE OVER THE PIERS, AS REQUIRED.

DECK SLAB ELEVATION NOTES

AFTER THE GIRDERS ARE ERECTED AND BEFORE FULL DEPTH DECK PANELS ARE SET, ELEVATIONS ON THE TOP FLANGE OF THE GIRDERS ARE TO BE OBTAINED AT THE POINTS INDICATED IN "BOTTOM OF SLAB ELEVATION TABLE" DETAILED IN THE PLANS AND GIRDER HAUNCH DETAILS.

DECK PANEL DESIGN

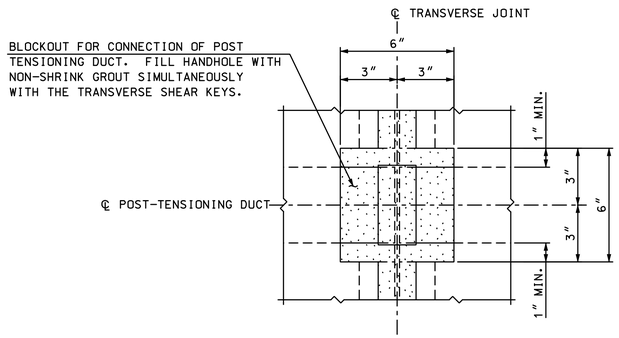
STEEL GIRDER

C-C GIRDER SPACING	# STRANDS
5'-6"	10
6'-0"	12
6'-6"	12
7'-0"	14
7'-6"	14
8'-0"	14
8'-6"	16
9'-0"	16
9'-6"	18
10'-0"	18

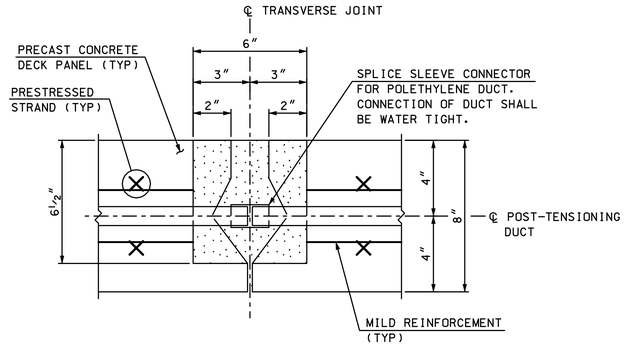
BULB-TEE GIRDER

C-C GIRDER SPACING	# STRANDS
8'-0"	12
8'-6"	14
9'-0"	14
9'-6"	16
10'-0"	16
10'-6"	18
11'-0"	18
11'-6"	20
12'-0"	20

- LIVE LOAD = HS25
- ALLOWABLE TENSION IN CONCRETE = 0 psi
- DECK PANEL THICKNESS = 8"
- PAVEMENT AND MEMBRANE THICKNESS = $2\frac{5}{8}$"
- STEEL FLANGE WIDTH = 10" MIN
- NEGATIVE MOMENT COMPRESSIVE STRESS = XXX psi



BLOCKOUT FOR POST-TENSIONING DUCT PLAN



TRANSVERSE DECK JOINT AT POST TENSIONING DUCT

BLOCKOUT DETAILS

SCALE: 3" = 1'-0"

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/18/2011

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRD/Design-Build	DB-FullDepth-DECK PANELS	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN XX BRIDGE NO. XXX\XXX STATE PROJECT XX

LOCATION XX

PRECAST OPTION - FULL DEPTH PRECAST CONCRETE DECK PANELS (1 OF 2)

BRIDGE SHEET: XX OF XX

FILE NUMBER: XX-X-X

REVISIONS AFTER PROPOSAL			BY	DATE		BY	DATE
		DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX
		DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX
		QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX

ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE		----------	XX	XX