

**MATERIALS AND FABRICATION**

**1. SUPERSTRUCTURE CONCRETE:**

DECK CONCRETE SHALL MEET ALL REQUIREMENTS WITHIN THE STANDARD SPECIFICATIONS FOR CLASS H OR CLASS K CONCRETE AS APPLICABLE. A 28-DAY CONCRETE STRENGTH OF 4,000 PSI SHALL BE ATTAINED.

A WATER REDUCING, RETARDING ADMIXTURE IN ACCORDANCE WITH SECTION 707.2 OF THE STANDARD SPECIFICATIONS SHALL BE USED ON ALL SUPERSTRUCTURE CONCRETE. INCLUDE THE COST OF THE ADMIXTURE IN THE UNIT PRICE FOR CLASS H OR CLASS K CONCRETE. RETARDER WILL NOT BE REQUIRED BELOW 50°F, BUT WATER REDUCING ADMIXTURE SHALL BE USED. THE CONTRACTOR'S ATTENTION IS CALLED TO THE TEST REQUIREMENTS FOR THE SET-RETARDING ADMIXTURE.

SURFACES THAT RECEIVE A CONCRETE PROTECTIVE COATING SHALL MEET ALL REQUIREMENTS WITHIN THE STANDARD SPECIFICATIONS.

**2. MILD REINFORCING STEEL:**

REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M31 GRADE 60. REINFORCEMENT WITH EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED AT THE ENGINEER'S DISCRETION. DO NOT WELD REINFORCING BARS DURING FABRICATION.

**3. STRUCTURAL STEEL:**

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 GRADES 50, 50W, OR 50CR. ZONE 2 CHARPY V-NOTCH IMPACT TESTING SHALL APPLY IN TENSION ZONES.

BOLTED CONNECTIONS ARE DESIGNED AS SLIP-CRITICAL JOINTS WITH ALL FAYING SURFACES HAVING A CLASS B SLIP COEFFICIENT. FABRICATOR SHALL VERIFY THIS SLIP COEFFICIENT CAN BE ATTAINED.

**4. IDENTIFICATION MARKING:**

ALL STEEL MILL AND FABRICATOR IDENTIFICATION MARKINGS FOR STEEL PLATES, SHAPES, AND FABRICATED MEMBERS SHALL BE BY METAL TAGS, SOAPSTONE, OR SOME OTHER READILY REMOVABLE MATERIAL OR SHALL BE MARKED IN AN AREA OF THE COMPLETED MEMBER WHICH WILL BE ENCASED OR COVERED WITH CONCRETE. MARKING METHODS AND LOCATIONS ARE SUBJECT TO APPROVAL OF THE ENGINEER. DO NOT USE PAINT OR WAX-BASED CRAYONS FOR MARKING.

**5. STEEL STORAGE:**

STORE MEMBERS IN THE FABRICATION SHOP IN SUCH A MANNER AS TO BE KEPT FREE AND CLEAN OF ALL FOREIGN SUBSTANCES SUCH AS GREASE, OIL, CHALK AND CRAYON MARKS, PAINT, AND DIRT. ALL STORAGE SHALL BE ABOVE GROUND AND SLOPED TO ALLOW FREE DRAINAGE OF MELTED SNOW, RAINWATER AND DEW. IF STORED FOR PERIODS LONGER THAN THREE (3) MONTHS, THE MEMBERS MUST BE PLACED ON METAL SUPPORTS. FOR PERIODS OF STORAGE LESS THAN THREE (3) MONTHS, MEMBERS MAY BE PLACED ON CLEAN, UNTREATED WOOD TIMBERS. STORE PLATE GIRDERS WITH THE WEB IN THE UPRIGHT POSITION. THE MEMBERS MAY BE STACKED PROVIDED METAL OR WOOD SUPPORTS, AS NOTED ABOVE, SEPARATE INDIVIDUAL MEMBERS. UNDER NO CIRCUMSTANCES SHALL MEMBERS BE NESTED TOGETHER OR BUNDLED. DO NOT ALLOW TREATED LUMBER OR TREATED TIMBER TO CONTACT STEEL MEMBERS.

**6. SHOP DRAWING APPROVAL**

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER. SHOP DRAWING REVIEW AND APPROVAL SHALL BE IN ACCORDANCE WITH DD-102.

**ERECTION AND STORAGE**

**1. SUPERSTRUCTURE CONCRETE:**

THE DECK PLACEMENT SEQUENCE SHALL BE SHOWN WITHIN THE CONTRACT PLANS. THE DECK CONCRETE MUST ATTAIN A MINIMUM STRENGTH OF 3,000 PSI BEFORE SUBSEQUENT DECK PLACEMENTS ARE MADE.

NO CONSTRUCTION EQUIPMENT OR LOADS NOT REQUIRED TO COMPLETE THE DECK SLAB, PARAPETS, OR OTHER APPURTENANCES SHALL BE ALLOWED ON THE BRIDGE DECK. NO CONSTRUCTION EQUIPMENT WITH AN AXLE LOAD GREATER THAN 20,000 LBS SHALL BE PERMITTED ON THE BRIDGE DECK. CONTRACTOR SHALL PROVIDE THE AXLE WEIGHTS OF ALL CONSTRUCTION EQUIPMENT USED ON THE DECK.

THE CONTRACTOR IS RESPONSIBLE AND ASSUMES ALL RESPONSIBILITY FOR THE FALSEWORK SUPPORT SYSTEM. THE CONTRACTOR SHALL SUBMIT THE FORMING PLAN AND SUPPORTING CALCULATIONS TO THE ENGINEER PRIOR TO ERECTION. FORMING DESIGN SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WEST VIRGINIA, WHO SHALL ALSO VERIFY THAT THE DESIGN IS UTILIZED IN THE FIELD.

**2. MILD REINFORCING STEEL:**

THE CONTRACTOR SHALL FIELD REPAIR ALL DAMAGED OR CUT EPOXY COATED REINFORCING STEEL WITH AN APPROVED EPOXY REPAIR MATERIAL. DO NOT WELD REINFORCEMENT BARS DURING CONSTRUCTION.

**3. STRUCTURAL STEEL:**

DO NOT WELD ANY PART OF THE SUPERSTRUCTURE WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER, UNLESS SHOWN ON THE CONTRACT PLANS. NO WELDING OF THE STAY-IN-PLACE FORMS OR OTHER CONNECTION WILL BE PERMITTED.

**4. STEEL STORAGE:**

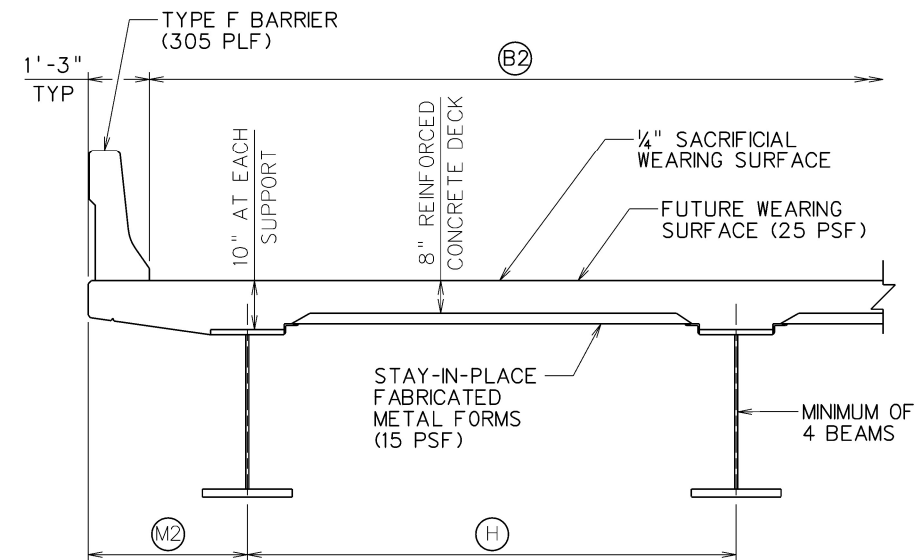
THE SAME REQUIREMENTS FOR SHOP STORAGE SHALL APPLY IN THE FIELD.

**5. HANDLING:**

STEEL MEMBERS MUST NOT BE GOUGED, SCRATCHED, DENTED, OR ALLOWED TO RUB AGAINST OTHER MEMBERS THAT WOULD RESULT IN DAMAGE TO THE BLAST CLEANED PROFILE. MEMBERS SHALL BE HANDLED USING SOFTENERS AND SLINGS INSTEAD OF CHOKERS AND CHAINS.

**CONTROL DIMENSION NOTES**

THE CONTROL DIMENSIONS AND LIMITS TABLE PROVIDE MINIMUM AND MAXIMUM VALUES FOR EACH DIMENSION USED WITHIN DEVELOPMENT OF THESE STANDARDS. DEVIATIONS FROM THESE DIMENSIONS MAY NECESSITATE MODIFICATION TO THE BEAM SIZES. DETAILED DIMENSIONS SHOULD BE DEFINED USING STANDARD DETAIL SHEETS.



**PARTIAL TYPICAL SECTION**

CONTROL DIMENSIONS AND LIMITS TABLE				
CODE	DESCRIPTION	MINIMUM	MAXIMUM	TARGET
B2	ROADWAY WIDTH	15'-0"		SEE DD-601
C	SPAN LENGTH	30'-0"	140'-0"	
H	GIRDER SPACING	6'-0"	11'-0"	SEE NOTE A
M2	OVERHANG	2'-0"	0.33 x H	

NOTE A - VARY BEAM SPACING TO DETERMINE SOLUTION THAT MINIMIZES TOTAL STEEL WEIGHT

NOT TO SCALE

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

DESIGNED	DATE	CHECKED	DATE
DRAWN	DATE	REVIEWED	DATE

STANDARD STEEL GIRDER DESIGN DATA SHEETS  
**STANDARD STEEL BEAM NOTES**  
**SHEET 2 OF 2**  
SHEET NUMBER 3300GN2

NO.	REVISION	DATE	BY
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PRINT DATE  
19-SEP-2022 09:22

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