

46. PROPOSED THREADED ROD TENSIONING SEQUENCE FOR RODS PASSING THROUGH GLUED LAMINATED GIRDERS AND DIAPHRAGMS:

- INITIALLY TENSION RODS TO 15 KIPS
- RE-TENSION TO 15 KIPS 1 WEEK AFTER THE INITIAL STRESSING
- RE-TENSION TO 15 KIPS 4-6 WEEKS AFTER THE SECOND STRESSING

47. CROSS BRACE THREADED RODS PASSING BENEATH THE GLUED LAMINATED GIRDERS SHALL BE WRENCH TIGHTENED UPON COMPLETION OF THE DIAPHRAGM THREADED ROD TENSIONING SEQUENCE.

48. ALL COMPONENTS OF THE THREADED ROD AND CROSS BRACE ASSEMBLY SHALL BE PAID UNDER ITEM 522.40, "STRUCTURAL GLUED LAMINATED TIMBER".

**TIMBER NOTES**

49. ALL TIMBER CONSTRUCTION SHALL COMPLY WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION WITH INTERIMS THROUGH 2012, THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION 2005 AND ITS LATEST REVISIONS, AND THE LATEST EDITION OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) SPECIFICATION.

50. ALL TIMBER SHALL BE GRADED BY A RECOGNIZED GRADING AGENCY AND, WHERE APPLICABLE, THE REQUIREMENTS OF THE SOUTHERN PINE INSPECTION BUREAU (SPIB). INDIVIDUAL BOARDS SHALL NOT BE STAMPED WITH A GRADE STAMP AND MATERIAL CERTIFICATIONS SHALL BE SUBMITTED FOR ALL TIMBER IN ACCORDANCE WITH SECTION 709.

51. UNLESS NOTED OTHERWISE, ALL SAWN TIMBER INCORPORATED IN THE PROJECT SHALL MEET THE REQUIREMENTS OF SUBSECTION 709.01, "STRUCTURAL LUMBER AND TIMBER" OF THE STANDARD SPECIFICATIONS AND THE FOLLOWING:

- WEARING SURFACE: WHITE OAK, NO. 1 GRADE, FULL SAWN
- ALL OTHER: SOUTHERN YELLOW PINE, NO. 1 GRADE, DRESSED (SURFACED FOUR SIDES)

52. GLUED LAMINATED TIMBER BEAMS AND DIAPHRAGMS SHALL MEET THE REQUIREMENTS OF SUBSECTION 709.03, "STRUCTURAL GLUED LAMINATED TIMBER" OF THE STANDARD SPECIFICATIONS AND SHALL BE COMPRISED OF SOUTHERN PINE. GLUED LAMINATED TIMBER BEAMS SHALL MEET THE DESIGN VALUES FOR AASHTO COMBINATION SYMBOL 26F-1.9E. GLUED LAMINATED TIMBER DIAPHRAGMS SHALL MEET THE DESIGN VALUES FOR AASHTO COMBINATION SYMBOL 24F-1.8E.

53. PRESERVATIVE TREATMENT FOR TIMBER SHALL BE AS FOLLOWS:

- NAIL LAMINATED TIMBER DECK PANELS: PRESERVATIVE TYPE II OR TYPE III (SEE NEXT NOTE)
- GLUED LAMINATED TIMBER: PRESERVATIVE TYPE II
- WEARING SURFACE: NO TREATMENT
- ALL OTHER: PRESERVATIVE TYPE V

INCISING WILL NOT BE ALLOWED.

54. THE FABRICATOR MAY USE PRESERVATIVE TYPE II OR III (PENTACHLOROPHENOL TYPE A OR TYPE C) TO TREAT THE NAIL LAMINATED TIMBER DECK PANELS. IF PRESERVATIVE TYPE II IS SELECTED, EXPANSION BATH AND STEAM CLEANING POST TREATMENT OPERATIONS SHALL BE INCORPORATED. IF PRESERVATIVE TYPE III IS SELECTED, POST TREATMENT NEED ONLY INCLUDE EXPANSION BATH OPERATIONS.

55. ALL TREATED WOOD PRODUCTS IN THIS PROJECT SHALL BE PRODUCED IN COMPLIANCE WITH THE "BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC AND WETLAND ENVIRONMENTS" (BMPs) PUBLISHED BY THE WESTERN WOOD PRESERVERS INSTITUTE (WWW.WWPINSTITUTE.ORG), NOVEMBER 1, 2011 OR THE MOST CURRENT VERSION INCLUDING PUBLISHED AMENDMENTS.

56. ALL "STRUCTURAL LUMBER AND TIMBER, TREATED" SHALL BE CUT AND DRILLED TO THE APPROPRIATE GEOMETRIES PROVIDED IN THE PLANS AND SPECIFICATIONS PRIOR TO TREATMENT. FIELD CUTTING AND/OR DRILLING WILL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER ON A CASE-BY-CASE BASIS. DAMAGE TO TREATED TIMBERS CAUSED BY FABRICATION, HANDLING, OR CONSTRUCTION MAY BE CAUSE FOR REJECTION. WHERE FIELD CUTTING OR DRILLING IS ALLOWED BY THE ENGINEER, THE FRESHLY EXPOSED SURFACE SHALL BE TREATED WITH TWO COATS OF COPPER NAPHTHENATE SOLUTION, LIBERALLY APPLIED IN ACCORDANCE WITH SUBSECTION 522.13C OF THE STANDARD SPECIFICATIONS.

57. ONLY MATURE WOOD SHALL BE USED FOR STRUCTURAL APPLICATIONS; JUVENILE WOOD WILL NOT BE ALLOWED. "MATURE" AND "JUVENILE" WOOD DEFINITIONS SHALL BE IN ACCORDANCE WITH THE "WOOD HANDBOOK: WOOD AS AN ENGINEERING MATERIAL" PUBLISHED BY THE FOREST PRODUCTS LABORATORY AND AVAILABLE AT WWW.PFL.FS.FED.US.

58. THE FOLLOWING MATERIALS WILL BE RANDOMLY SELECTED, FROM THE PROJECT, BY THE VTRANS MATERIALS AND RESEARCH SECTION FOR PHYSICAL AND CHEMICAL TESTING. THESE QUANTITIES SHALL BE ADDED TO THE PROJECT QUANTITIES SHOWN IN THE PLANS. PAYMENT SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.

- A. STEEL BACKED TIMBER GUARDRAIL
  - 2 - 6x10x10 FT RAIL SECTIONS
- B. CURB AND SIDEWALK TIMBER
  - 2 - 8x8x6 FT CURB SECTIONS
  - 2 - 2x8x5.67 FT SIDEWALK PLANKS
  - 2 - 4x8x1.5 FT SIDEWALK STIFFENER SECTIONS
- C. TIMBER PEDESTRIAN RAILING, BRIDGE
  - 2 - 3x8x6 FT RAIL SECTIONS
  - 2 - 3x6x6 FT RAIL SECTIONS
  - 2 - 3x12x6 FT RAIL SECTIONS
  - 2 - 6x6x5 FT RAIL POSTS
- D. TIMBER DECK
  - 2 - 3x8x8 FT RUNNER PLANKS
  - 2 - 2x6x8 FT DECK PLANK LAMINATES

59. NO TIMBER SPECIES SUBSTITUTIONS WILL BE ALLOWED.

**MATERIALS FOR STRUCTURAL LUMBER AND TIMBER**

MEMBER TYPE	MEMBER SIZE (SEE NOTE 51)	QUANTITY (MFBM)	PAY ITEM FOR MEMBER TYPE
RUNNER PLANKS	3"x8"	9.84	522.20 - STRUCTURAL LUMBER AND TIMBER, UNTREATED
RUNNER PLANKS AT STEEL COVER PLATES	2"x8"	0.31	522.20 - STRUCTURAL LUMBER AND TIMBER, UNTREATED
RUNNER PLANKS - TRANSVERSE SPACERS AT STEEL COVER PLATES	1"x6"	0.05	522.20 - STRUCTURAL LUMBER AND TIMBER, UNTREATED
SCUPPER BLOCKING (CURB)	4x8	0.93	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
CURB	8x8	6.85	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
SCUPPER BLOCKING (SIDEWALK INTERIOR BEAM)	8x8	0.62	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
SIDEWALK INTERIOR BEAM	4x8	1.71	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
SIDEWALK PLANKS	2x8	7.90	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - POST	6x6	1.70	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - POST (FLOATING SPAN ENDS)	5x6	0.05	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - BACKER BOARD	2x6	0.01	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - BOTTOM RAIL	3x12	1.95	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - MIDDLE RAIL	3x6	0.98	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED
PEDESTRIAN RAIL - TOP RAIL	3x8	1.30	522.25 - STRUCTURAL LUMBER AND TIMBER, TREATED

REVISION	DESCRIPTION	DATE
REVISION #1	RUNNER PLANK THICKNESS CHANGE	2/5/2014

PROJECT NAME: BROOKFIELD  
PROJECT NUMBER: BRF FLBR(2)

**TYL** INTERNATIONAL

FILE NAME: z12e134bdrnotes.dgn PLOT DATE: 2/5/2014  
PROJECT LEADER: J. OLUND DRAWN BY: S. MORGAN  
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PROJECT NOTES 2 SHEET 8 OF 70