READ THIS FIRST

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one--you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “ [ ] “ as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “ [ “ character quickly). Again, these bracket characters should be removed.

It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built in styles and formatting your outline should be fine (turn on the formatting toolbar by going to View > Toolbars > Formatting). Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab).

You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to reapply the “Numbered Material” format.

Use paragraph above when project utilizes CQC and Section 01 45 16.13 - Contractor’s Quality Control Program. Provide text for inspection and testing to be performed by the Contractor with specifics on frequency and scope.

1. GENERAL
   1. SUMMARY OF WORK
      1. The extent and location of the “Steel Floor and Roof Deck” Work is indicated in the Contract Documents.
   2. GOVERNING CODES, STANDARDS, AND REFERENCES
      1. American Iron and Steel Institute (AISI)
         1. Specifications for the Design of Cold Formed Steel Structural Members
      2. American Society for Testing and Materials (ASTM)
      3. American Institute of Steel Construction (AISC)
         1. ASTM A1008/A1008M, Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable
         2. ASTM A653, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
         3. Steel Deck Institute (SDI)
   3. SUBMITTALS
      1. Submit materials data in accordance with Section 01 33 00 - Submittals. Furnish manufacturers’ technical literature, standard details, product specifications, and installation instructions for all products.
      2. Submittals shall include the following:
         1. Shop Drawings
            1. Show all shop and erection details, including layout patterns, cuts, copes, connections, holes, threaded fasteners, rivets and welds.
            2. Include in steel [floor and roof] deck submittals all pertinent technical data or accompany them with the applicable Steel Deck Institute Standard Load Tables.
         2. Laboratory Tests
2. MATERIALS

A. If only one product is acceptable (single or sole source product), obtain an approved Competition Waiver and submit to the CPO Construction, Contract Administrator. The language shall read as: “Manufacturer Name, Product # XXXXX, No Equal.” Refer to CPO-6 Competition Waiver Policy for more information.

B. If a Competition Waiver is not approved or more than one product is acceptable, this section must list a minimum of 2 products plus the language “Or Approved Equal,” along with salient characteristics. Refer to CPO Construction’s Salient Characteristics Guidelines for more information.

* 1. MATERIAL REQUIREMENTS
     1. Floor Deck
        1. Material: Steel floor deck [panels] shall be Type [\_\_\_] as manufactured by [\_\_\_] (Note to Designer – Provide 2 manufacturers), Or Approved Equal. The gage and finish shall be as indicated at the various locations specified on the drawings. Steel floor deck shall be manufactured from steel conforming to ASTM A653, Grade [\_\_\_] and having a minimum yield strength of 80 ksi.
        2. Design: The maximum design stress shall not exceed 30 ksi under a total dead load and live load of [\_\_\_] psf. Deflection shall not exceed [1/180] [1/240] of the span under a live load of [\_\_\_] psf. The section properties shall be computed in accordance with “Specifications for the Design of Cold Formed Steel Structural Members,” latest edition, as published by the American Iron and Steel Institute.
     2. Floor Deck Accessories
        1. Where required or indicated on the drawings, butt strips, inside and outside closures, finish strips, closure sheets, welding washers and other accessories necessary for a complete installation shall be manufacturer's standard, as furnished by the Contractor, subject to the approval of the Engineer.
     3. Roof Deck
        1. General: Steel roof deck [panels] shall be Type [\_\_\_] as manufactured by [\_\_\_] (Note to Designer – Provide 2 manufacturers), Or Approved Equal. The gage and finish shall be indicated at the various locations specified on the drawings. All steel should be coated with nonpolluting material. See comments in Galvanized Roof Deck.
        2. Galvanized Roof Deck: Steel roof deck shall be manufactured from steel conforming to ASTM A653 Grade [\_\_\_]. At the Seaport, galvanized roof and other building material should be avoided in all cases since galvanized materials leach zinc into stormwater. More than 80% of Seaport properties are covered by Ecology’s Industrial General Stormwater permit requiring sites to meet a 117 ppb benchmark. Galvanized and other metal roof products require expensive treatment to achieve this level and should therefore be avoided.
        3. Primed-Painted Roof Deck: Steel roof deck shall be manufactured from steel conforming to ASTM A1008 Grade [\_\_\_] having a minimum yield strength of 33 ksi. Prime-painted steel decks shall be phosphatized, and both surfaces shall be roller-coated with an oven-cured flexible primer before forming.
        4. Design: The maximum design stress shall not exceed 20 ksi under a total dead load and live load of [\_\_\_] psf. Deflection shall not exceed 1/240 of the span under a live load of [\_\_\_] psf. The section properties shall be computed in accordance with “Specifications for the Design of Cold Formed Steel Structural Members,” latest edition, as published by the American Iron and Steel Institute.
     4. Roof Deck Accessories
        1. Where required or indicated on the drawings, cant strips, butt strips, ridge and valley plates, inside and outside neoprene closures, sump pans, finish strips, closure sheets, welding washers and other accessories necessary for a complete installation shall be manufacturer’s standard, as furnished by the Contractor, subject to the approval of the Engineer.
  2. FABRICATION &SUPPLY OF MATERIALS
  3. MATERIAL HANDLING & STORAGE
     1. Protection:
        1. Use all means necessary to protect steel decking before, during and after installation and to protect the installed Work and materials of all other trades. Steel decking that is to be [finish-painted] [epoxy-coated] [or otherwise shop-coated] in the shop shall be packaged to facilitate delivery with a minimum of damage to the finished surface. Do not use decking for storage or as working platform until units have been fastened into position.
     2. Replacements:
        1. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer at no additional cost to the Port.
  4. QUALITY ASSURANCE & INSPECTIONS
     1. Quality Assurance
        1. Inspection and Testing: Sampling and testing to assure compliance with the contract provisions shall be in accordance with [Section 01 45 29 - Quality Control; Testing Laboratory Services] [Section 01 45 16.13 – Contractor’s Quality Control Program] of these specifications. The Contractor may obtain copies of results of tests performed by the Port of Seattle from the office of the Engineer at no cost. Tests conducted for the sole benefit of the Contractor shall be at the Contractor's expense.

Use paragraph above when the project does not utilize Contractor’s Quality Control (CQC). Coordinate closely with Section 01 45 29 - Quality Control; Testing Laboratory Services to assure Sampling and Testing on materials called for in that section agree with intent of this section.

OR

Use paragraph above when project utilizes CQC and Section 01 45 16.13 – Contractor’s Quality Control Program. Provide text for inspection and testing to be performed by the Contractor with specifics on frequency and scope.

* + - 1. Testing and Inspection for Contractor Quality Control: The Contractor shall perform the inspection and tests described below and, based upon the results of these inspections and tests, shall take the action required and shall submit specified reports.
         1. Welding:
         2. Reports:

Use paragraph above when project utilizes CQC and Section 01 45 16.13 - Contractor’s Quality Control Program. Provide text for inspection and testing to be performed by the Contractor with specifics on frequency and scope.

* + - 1. Codes and Standards: Comply with all pertinent codes and regulations.
      2. Qualification of Workmen: All welding shall be performed by welders who are currently certified by the Washington Association of Building Officials.

1. EXECUTION
   1. PROJECT INFORMATION
   2. PREPARATION FOR EXECUTION
   3. EXECUTION OF WORK
      1. Erection
         1. Steel [floor and roof deck] shall be installed by qualified workmen in accordance with the approved erection drawings. Wherever possible, extend the deck sheets [panels] over three or more spans. When the deck is properly positioned, anchor it to the structural supports directly through the bottom of the rib, either by welding or by using self-drilling screws. [Connect Type B by button-punching]. Perform in the field all cutouts of 16 square feet or less and all skew cutting. Under no conditions leave placed sheets [panels] unattached at the end of a working day.
         2. When support spacing is 7’-0” or more, attach deck sheets [panels] at the mid-span by [either welds or screws] [by button-punching for Type B deck].
         3. After completion of all welds or other fastening, touch up abrasions of painted or galvanized surfaces.
   4. QUALITY ASSURANCE & INSPECTIONS
   5. DELIVERABLES
2. MEASUREMENT AND PAYMENT
   1. GENERAL
      1. No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the [Schedule of Unit Prices] [Lump Sum price bid for the Project].

End of Section

Revision History:

05/01/2014 Conversion to 2004 CSI Numbering System

10/15/2014 Added Sole Source and Salient Characteristics Note to Part 2

01/12/2025 Revised 2.04.A Quality Assurance