**NOTES TO ARCHITECT/ENGINEER (A/E) & DAS/CS PROJECT MANAGER:**

This version of the Division 01 General Requirements is for **ALL** CT Department of Administrative Services (DAS) Construction Services (CS) **Design-Bid-Build (DBB) AND Construction Manager at Risk (CMR) Capital Construction Projects.**

IMPORTANT NOTE: Section 01 57 30 Indoor Environmental Control includes requirements for indoor air quality management during construction. Coordinate with requirements of other sections and verify that products and installation methods specified in other sections are environmentally appropriate. Edit to suit location and project.

IMPORTANT NOTE: Section 01 74 19 Construction Waste Management and Disposal includes requirements for waste management. This section represents data quality objectives and construction waste management. This section does *not* address environmental remediation, abatement, regulatory requirements, or requirements for environmental impact statements/reports. Edit to suit location and project.

**EDITING:** To Show the Editing Notes in this MS Word document the show/hide symbol (¶) button must be must turned on in the MS Word Toolbar. To print this document show/hide symbol (¶) must be turned off in the MS Word Toolbar, this will enable the document to indicate the correct number of total pages.

**TEXT:** The below **blue text** are project specific information that must be completed by the A/E as applicable to the specific project. When complete change **blue text** to **black text.** The ***bold and italicized text*** is for example purposes only and must be modified and edited by the A/E to make it project specific. For **text boxes**, left click on **Insert** and then insert project specific information over the word **Insert** in the underlined space.

**TABLES:** To view the Table Grid in this MS Word document, click inside any table, then go to the **Table Tools > Layout** tab, **Table** group, and click **View Gridlines.**

**HEADERS: The header** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the header shown herein. The header of each page shall contain the Section Number, the Section Title, and the page number & number of pages as shown herein.

**FOOTERS: The footer** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the footer shown herein. The footer shall contain the project number in the right hand side as shown herein. The revision date in the left side of the footer is to remain as it is for Department informational purposes only and should not be altered by the Architect/Engineer.

**SECTIONS AND PARAGRAPHS:** If a **Section** is not part of the project scope, **do not use** the Section in the General Requirements. Check “**NOT USED**” in the Table of Contents. **DO NOT delete** the Section title from the Table of Contents.

If a **Paragraph** is not applicable to the project, **delete the contents** of the Paragraph and renumber the subsequent Paragraphs. Edit **Paragraphs** carefully to reflect specific project requirements. DO NOT include Paragraphs or parts of Paragraphs in the project manual, which have no applicability to the specific project. KEEP IN NUMERICAL SEQUENCE and re-number as necessary.

**GENERAL CONDITIONS:** Please review the General Conditions carefully and coordinate the requirements of those Articles including the Definitions.

**DIVISION 01 SECTIONS** are the organizational key of the Project Manual. All revisions to this Division are the responsibility of the A/E. Division 01 must be closely coordinated with Division 00, Divisions 02 through 49, Division 50 (Project-Specific Available Information), the Drawings, and the Department’s Consultant Bid Data Statement (Form 6005, to be filled out by the A/E for bidding).

**IMPORTANT NOTE REGARDING “HIDDEN TEXT”:**

Each document contains Editing Notes in the form of “hidden text”. The Editing Notes assist the Architect in modifying and editing the document to make it project-specific. In order to show the “hidden text”, click the **Home** tab, and in the **Paragraph** group, click the **Show/Hide** symbol (¶). **Turn off** the Show/Hide symbol (¶) **before printing the document** in order to indicate the correct number of pages. **DELETE THIS NOTE.**

**IMPORTANT NOTE REGARDING FORMATTING:**

Insert a blank page at the end of all *odd numbered* specification sections that states “THIS PAGE INTENTIONALLY LEFT BLANK”. **DELETE THIS NOTE.**

# PART 1 - GENERAL

## RELATED DOCUMENTS

### **A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

## SUMMARY

### **A.** This Section includes requirements for waste management goals, waste management plan and waste management plan implementation.

### **B.** Related Sections: The following Sections contain requirements that relate to this Section:

#### **1.** Division 01 Section 01 11 00 "Summary of Work".

#### **2.** Division 01 Section 01 20 00 "Price and Payment Procedures".

#### **3.** Division 01 Section 01 25 00 "Substitution Procedures".

#### **4.** Division 01 Section 01 31 19 "Project Meetings".

#### **5.** Division 01 Section 01 33 00 "Submittal Procedures".

#### **6.** Division 01 Section 01 45 00 "Quality Control".

#### **7.** Division 01 Section 01 50 00 "Temporary Facilities and Controls".

#### **8.** Division 01 Section 01 60 00 "Product Requirements".

#### **9.** Division 01 Section 01 77 00 "Closeout Procedures".

#### **10**. Division 01 Section 01 81 13 "Sustainable Design Requirements".

## DEFINITIONS

### **A. Construction Waste:** Solid wastes such as building materials, packaging and rubble resulting from construction, paving and infrastructure.

### **B. Demolition Waste:** Solid wastes such as concrete, wood, brick, plaster, roofing materials, wallboard, metals, carpeting, insulation, and clean fill resulting from demolition or selective demolition of structures.

### **C. Recyclable Materials:** Products and materials that can be recovered and remanufactured into a new product. Recyclable materials include, but are not limited to, the following:

#### **1.** Metals (ferrous and non-ferrous), including banding, metal studs, ductwork, and piping.

#### **2**. Asphaltic concrete paving.

#### **3.** Portland cement concrete.

#### **4.** Gypsum products.

#### **5.** Paper and cardboard.

#### **6.** Wood products, including structural, finish, crates, and pallets.

#### **7.** Brick and masonry.

#### **8.** Carpet and padding.

#### **9.** Plastics.

#### **10.** Copper wiring.

### **D. Recycling Facility:** A business that specializes in collecting, handling, processing, distributing, or remanufacturing waste materials generated by new construction projects, into products or materials that can be used for this project or by others.

### **E. Salvage and Reuse:** Existing usable product or material that can be saved and reused in some manner on the project site. Materials for reuse must be approved by the Architect. Materials that can be salvaged and reused must comply with applicable technical specifications and include, but are not limited to, the following:

#### **1.** Dimensional lumber and other wood products.

#### **2.** Structural steel.

#### **3**. Soil.

#### **4**. Masonry products.

#### **5**. Plants.

### **F. Salvage for Resale:**  Existing usable product that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.

## WASTE MANAGEMENT GOALS

### **A.** The Owner has established that this Project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.

### **B.** The Contractor shall use all means available to divert the greatest extent practical and economically feasible, construction waste from landfills and incinerators.

### **C.** Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.

### **D.** Recycle and/or salvage a minimum of **[50] [75]** percent of non-hazardous construction **[and demolition]** waste by weight of the total solid waste generated by the Project.

### **E.** With regard to these goals the Contractor shall develop, for the Architect's review, a Waste Management Plan for this Project.

### **F.** Take a pro-active, responsible role in management of construction waste and require all subcontractors, vendors, and suppliers to participate in the effort. Establish a construction waste management program that includes the following categories:

#### **1.** Minimizing packaging waste.

#### **2.** Salvage and reuse.

#### **3.** Salvage for resale or donation.

#### **4.** Recycling.

#### **5.** Disposal.

## SUBMITTALS

### **Draft Waste Management Plan:** Within 30 days after receipt of Notice of Award of Bid, or prior to any waste removal, whichever occurs sooner, the Contractor shall submit **[three (3)] [****Insert]** copies of a Draft Waste Management Plan to the Construction Administrator.

### **Final Waste Management Plan:** Once the Owner has determined which of the recycling options addressed in the Draft Waste Management Plan are acceptable, the Contractor shall submit within 10 days **[three (3)] [Insert]**  copies of a Final Waste Management Plan.

### **Progress Reports:** Submit **[three (3)] [Insert]** copies of monthly progress reports, at the same time as the Application for Payment, documenting the following:

#### 1. Material category.

#### **2.** Point of waste generation.

#### **3.** Total quantity of waste in tons.

#### **4.** Quantity of waste salvaged, in tons.

#### **5.** Quantity of waste recycled, in tons.

#### **6.** Total quantity of waste recovered (salvaged plus recycled) in tons.

#### **7.** Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

### **D. Calculations:** Submit **[three (3)] [Insert]** copies of calculations indicating the end-of-project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Project prior to Substantial Completion.

### **E. Record Submittals:**

#### **1. Donations:** Indicate which salvageable materials were donated, who they were donated to, and whether the recipient is tax exempt. Submit documentation indicating receipt of donations.

#### **2. Sales:** Indicate which salvageable materials were sold, who they were sold to, and whether the recipient is tax exempt. Submit documentation indicating receipt of materials.

#### **3. Recycling:** Indicate which materials were recycled and the name of the facility licensed to accept them. Submit documentation such as manifests, weight tickets, receipts, and invoices.

#### **4.** **Waste Disposal:** Indicate which materials were accepted as waste by landfills and incinerator facilities licensed to accept them. Submit documentation indicating receipt of materials.

## QUALITY ASSURANCE

### **Regulatory Requirements:** Comply with regulations of State of Connecticut Department of Environment Protection, Waste Management Bureau Recycling Program.

### **Waste Management Conference:** Review and discuss the waste management plan, requirements for documenting quantities of each type of waste and its disposition, procedures for materials separation, procedures for periodic collection and transportation to recycling and disposal facilities. Review waste management requirements for each trade. Verify availability of containers and bins needed to avoid delays.

## WASTE MANAGEMENT PLAN

### **A. Draft Waste Management Plan:** Include the following in the Draft Plan:

NOTE: Modify list below to comply with specific project requirements.

#### **1.** Analysis of the proposed jobsite waste to be generated, including types and quantities.

#### **2.** **Landfill Options:** The name of the landfill(s) where trash will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all Project waste in the landfill(s).

#### **3.** **Alternatives to Landfilling:** A list of each material proposed to be salvaged, reused, or recycled during the course of the Project, the proposed local market for each material, and the estimated net cost savings or additional costs resulting from separating and recycling (versus landfilling) each material. "Net" means that the following have been subtracted from the cost of separating and recycling:

##### **a.** Revenue from the sale of recycled or salvaged materials and

##### **b.** Landfill tipping fees saved due to diversion of materials from the landfill. The list of these materials is to include, at a minimum, the following materials:

###### Cardboard.

###### Clean dimensional wood.

###### Beverage containers.

###### Land clearing debris.

###### Concrete.

###### Bricks.

###### Concrete Masonry Units (CMU).

###### Asphalt.

###### Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.

### **B. Resources for Development of Waste Management Plan:** The following sources may be useful in developing the Draft Waste Management Plan:

#### **Recycling Haulers and Markets:** Local haulers and markets for recyclable materials. For more information, contact the State of Connecticut Department of Environmental Protection, Waste Management Bureau Recycling Program, (860) 424-3365,

#### [www.dep.state.ct.us/wst/recycle/ctrecycle.htm](http://www.dep.state.ct.us/wst/recycle/ctrecycle.htm).

### **C. Final Waste Management Plan:** The Final Waste Management Plan shall contain the following:

#### **1.** Analysis of the proposed jobsite waste to be generated, including types and quantities.

#### **Landfill Options:** The name of the landfill(s) where trash will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all Project waste in the landfill(s).

#### **Alternatives to Landfilling:** A list of the waste materials from the Project that will be separated for reuse, salvage, or recycling.

#### **Meetings:** A description of the regular meetings to be held to address waste management. Refer to Section 01 31 19 "Project Meetings".

#### **Materials Handling Procedures:** A description of the means by which any waste materials identified in item (3) above will be protected from contamination, and a description of the means to be employed in recycling the above materials consistent with requirements for acceptance by designated facilities.

#### **Transportation:** A description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of materials.

## WASTE MANAGEMENT PLAN IMPLEMENTATION

### **A. Manager:** The Contractor shall designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.

### **B. Distribution:** The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, the Owner, and the Architect.

### **C. Instruction:** The Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.

### **D. Separation Facilities:** The Contractor shall lay out and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.

### **E. Hazardous Wastes:** Hazardous wastes shall be separated, stored, and disposed of according to local regulations.

### **F. Application for Progress Payments:** The Contractor shall submit with each Application for Progress Payment a Summary of Waste Generated by the Project. Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment. The Summary shall be submitted on a form acceptable to the Owner and shall contain the following information:

#### The amount (in tons or cubic yards) of material landfilled from the Project, the identity of the landfill, the total amount of tipping fees paid at the landfill, and the total disposal cost. Include manifests, weight tickets, receipt, and invoices.

#### For each material recycled, reused, or salvaged from the Project: the amount (in tons or cubic yards), the date removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, and the net total cost or savings of salvage or recycling of each material shall be indicated. Attach manifests, weight tickets, receipts, and invoices.

# PART 2 – PRODUCTS

# (Not Applicable)

# PART 3 – EXECUTION

## 3.1 PLAN IMPLEMENTATION

### **A.** Implement the waste management plan as approved by **[Architect] [Owner] [Construction Administrator].**

### **B.** Provide training of workers, contractors, subcontractors, and suppliers on proper waste management procedures.

#### **1.** Distribute waste management plan to all parties involved in the Project within **[three (3)] [Insert]** days of submittal return.

#### **2.** Distribute plan to parties when they first begin working on the Project site. Review plan procedures and locations established for salvage, recycling, and disposal.

## 3.2 SEPARATION OF RECYCLABLE WASTE MATERIALS

### **A.** Provide the necessary containers and bins, to facilitate the waste management program, that are clearly and appropriately marked. Prevent contamination of recyclable materials from incompatible products and materials. Separate construction waste at the project site by one of the following methods:

#### **Source Separated Method:** Waste products and materials, that are recyclable, are separated from trash and sorted into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Trash is transported to a landfill or incinerator.

#### **Co-Mingled Method:** All construction waste is placed into a single container and then transported to a recycling facility where the recyclable materials are sorted and processed and the remaining trash is transported to a landfill or incinerator.

#### Other methods proposed by the Contractor and approved by the **[Architect] [Owner] [Construction Administrator]**.

END OF SECTION 01 74 19