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| **~~~~ SPECIFIER NOTES ~~~~~**  This specification guidelines, its sections, and text included, is intended to be used in the preparation of Contract Documents. It contains **Specifier Notes** which shall guide editing by the A/E consultant for the uniqueness of each project during the preparation of the Project Manual. Where **[Optional]** appears in this document, it indicates requirements which may/may not be relevant to the subject project depending upon the project complexity, scope, and unique conditions. For **DRAFT** specifications prepared during the design process, use Microsoft Word, Track Changes. Set Criteria so that deletion show as strikethrough. Deletions and additions are to be in red text.  Notes unique to this section:  *1. This section is based on guidelines presented by projects seeking LEED Certification. If other certification processes are to be used, A/E should review and edit this section as appropriate.*  *2. A/E shall review and include any construction waste management requirements unique to the jurisdictions where the project is located, or as required by the Owner.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

SECTION 01 7419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

A. Owner requires that this project generate the least amount of trash and waste possible.

B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.

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| **~~~~ SPECIFIER NOTES ~~~~~**  *The A/E shall determine which of the following articles are to be included and edit as appropriate. Consider the project scope, complexity, and elements included in other Division 01 sections.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

D. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration:

1. Any material proposed for reuse on-site, must be reviewed and approved by the Architect. Architect may require additional testing/engineering review and approvals. Any costs associated with additional testing/engineering shall be provided by the Contractor at no additional costs to the project. See Part 2 below for Substitution procedures to be used when requesting material reuse.

2. Aluminum and plastic beverage containers

3. Corrugated cardboard

4. Wood pallets

5. Clean dimensional wood

6. Land clearing debris, including brush, branches, logs, and stumps; see Section 01 1000 - Site Clearing for use options

7. Concrete

8. Bricks

9. Concrete masonry units

10. Precast concrete panels

11. Asphalt paving

12. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.

13. Glass

14. Gypsum drywall and plaster

15. Plastic buckets

16. Carpet, carpet cushion, carpet tile, and carpet remnants, both new and removed and include conduct for reclamation programs.

17. Asphalt roofing shingles

18. Paint

19. Plastic sheeting

20. Rigid foam insulation

21. Vinyl siding

22. Windows, doors, and door hardware

23. Plumbing fixtures

24. Mechanical and electrical equipment

25. Fluorescent lamps (light bulbs)

26. Acoustical ceiling tile and panels

27. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

E. Contractor shall develop and follow a Waste Management Plan designed to implement these requirements.

F. The following sources may be useful in developing the Waste Management Plan:

1. Washington State Department of Ecology at https://ecology.wa.gov/.

a. Reducing & recycling waste: <https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste>

b. Construction and demolition: <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Dangerous-waste-guidance/Common-dangerous-waste/Construction-and-demolition>

G. Methods of trash/waste disposal that are not acceptable are:

1. Burning on the project site

2. Burying on the project site

3. Dumping or burying on other property, public or private

4. Other illegal dumping or burying

5. Incineration, either on- or off-site

H. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

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| **~~~~ SPECIFIER NOTES ~~~~~**  *The A/E shall determine which of the following sections are included in the Project Manual and edit as appropriate.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including the General Conditions for Washington State Facilities Construction and other Division 01 specification sections, apply to this section.

B. Section 01 1100 - Summary of Hazardous Materials Work: Procedures for handling and disposal of hazardous materials.

C. Section 01 3000 - Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.

D. Section 01 3329 - Sustainable Design Reporting - LEED: Procedures for sustainable design documentation.

E. Section 01 5000 - Temporary Facilities and Controls: Additional requirements related to trash/waste collection and removal facilities and services.

F. Section 01 6000 - Product Requirements: Waste prevention requirements related to delivery, storage, and handling.

G. Section 01 7000 - Execution Requirements Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

H. Section 01 7800-Closeout Submittals and Procedures.

1.03 DEFINITIONS

A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.

B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.

C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.

D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.

E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.

F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.

G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.

H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

I. Return: To give back reusable items or unused products to vendors for credit.

J. Reuse: To reuse a construction waste material in some manner on the project site.

K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.

L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.

M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.

N. Toxic: Poisonous to humans either immediately or after a long period of exposure.

O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.

P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

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| **~~~~ SPECIFIER NOTES ~~~~~**  *A/E shall edit the following article as appropriate for the project scope and complexity.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Waste Management Plan: Include the following information:

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| **~~~~ SPECIFIER NOTES ~~~~~**  *For projects of Limited Scope, change the following article to submit within 7 days.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

1. Submit Waste Management Plan within 14 days after date established in Notice to Proceed.

2. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.

3. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).

4. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.

a. List each material proposed to be salvaged, reused, or recycled.

b. List the local market for each material.

c. State the estimated net cost, versus landfill disposal.

5. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.

6. Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.

7. Transportation: Identify the destination and means of transportation of materials to be recycled, i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.

C. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.

1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.

2. Submit Report on a form acceptable to Owner.

3. Landfill Disposal: Include the following information:

a. Identification of material.

b. Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.

c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.

d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.

4. Recycled and Salvaged Materials: Include the following information for each:

a. Identification of material, including those retrieved by installer for use on other projects.

b. Amount, in tons or cubic yards, date removed from the project site, and receiving party.

c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.

d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.

e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.

5. Material Reused on Project: Include the following information for each:

a. Identification of material and how it was used in the project.

b. Amount, in tons or cubic yards.

c. Include weight tickets as evidence of quantity.

6. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 WASTE MANAGEMENT PLAN IMPLEMENTATION

A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.

B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and A/E.

C. Instruction: 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. Meetings: Discuss trash/waste management goals and issues at project meetings.

1. Job safety meetings.

E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.

1. As a minimum, provide:

a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.

b. Separate dumpsters for each category of recyclable.

c. Recycling bins at worker lunch area.

2. Provide containers as required.

3. Provide adequate space for pick-up and delivery and convenience to subcontractors.

4. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.

F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.

G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility to prevent contamination of recyclable materials.

H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.

I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

END OF SECTION 01 7419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL