

## SECTION 01 74 21

### WASTE MANAGEMENT

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Waste management plan.

##### 1.02 MEASUREMENT AND PAYMENT

- A. Separate measurement or payment will not be made for work required under this Section. All costs in connection with the work specified herein will be considered to be included with the related items of work in the Bid Schedule of the Bid Form, or incidental to the Work.

##### 1.03 DEFINITIONS

- A. "Conversion Rate" means the rate set forth in the standardized Conversion Rate Table approved by the Engineer for use in estimating the weight of materials identified in the Waste Management Plan.
- B. "Divert" means to use material for any purpose other than disposal in a landfill or transfer facility.
- C. "Good faith" shall be as defined by law.
- D. "Recycling Service" means an off-site service that provides processing of material and diversion from landfill.
- E. "Hauler" means the entity that transports construction and demolition debris to either a landfill or a recycling service.

##### 1.04 SYSTEM DESCRIPTION

- A. Performance Requirements: The requirements for diversion of construction and demolition debris from landfill shall in no case be less than that required by local regulations. The minimum percentages for diversion of construction and demolition waste shall be as follows, unless modified in Contract Specifications Section 01 74 21 - Waste Management, on the basis of a waste characterization study for the Work:
  1. Divert a minimum of 75 percent of construction waste from landfill.
  2. Divert a minimum of 100 percent of steel, asphalt, concrete, and land-clearing waste from landfill and an overall minimum of 70 percent of remaining demolition waste from landfill.

- B. Specific Requirements: Recycle magnetic ballasts and older fluorescent lamps containing polychlorinated biphenyls (PCBs) and other toxic chemicals in such a manner that potentially dangerous chemicals are safely reprocessed.

**1.05 SUBMITTALS**

- A. Submit specified Waste Management Plan using written and graphic representation to indicate how waste will be diverted from landfills. See Section 01 81 13 “Sustainability Requirements” for schedule of required Waste Management Plan submittals.
- B. Submit certification from recycling services that are not listed in directories acceptable to the Engineer. Examples of directories acceptable to the Engineer are listed under the Article entitled “Quality Assurance” herein.
- C. Submit reports in accordance with approved Plan.

**1.06 QUALITY ASSURANCE**

- A. Regulatory requirements
  - 1. Comply with the requirements of the jurisdictional authority. In instances where the requirements specified herein are more stringent than those of specified herein, comply with specified requirements.
  - 2. Obtain approval of the Waste Management Plan by the jurisdictional authority before beginning on-site mobilization if such approval is mandated by the jurisdictional authority.
- B. Recycling service company qualifications; any of the following:
  - 1. Listed in the City of Oakland, “Directory of Recycling Services for Construction and Demolition Material”.
  - 2. Listed in the Alameda County Waste Management Authority’s “Builders’ Guide to Reuse and Recycling, A Directory for Construction and Demolition Materials.
  - 3. Listed in Central Contra Costa Solid Waste Authority’s, “Builder’s Guide”.
  - 4. Any recycling services that will certify in writing that accepted waste will be diverted from landfill, not dumped illegally, and not dumped at sea.

**1.07 WASTE MANAGEMENT PLAN**

- A. Plan Development: Develop a plan for diverting the specified percentage of construction debris from landfill. Include in plan either or both written and graphic information to indicate how waste will be diverted from landfills.
  - 1. Submit and discuss the plan at or before the pre-construction meeting.

## WASTE MANAGEMENT

2. Propose means and methods for collecting and separating each type of debris deemed reusable or recyclable.
3. Identify the off-site recycling service and hauler of each designated debris item, who have agreed to accept and divert that item from landfill, in the proposed quantities anticipated. Schedule each item and list off-site recycling service and hauler company name, telephone number, address, and person contacted.
4. Include a "good faith" estimate of each type of construction waste that would be generated if no diversion methods were implemented. Submit with calculations based upon weight of each material. The following items are subject to the "good faith" estimate and diversion requirement:
  - a. Asphalt concrete
  - b. Portland cement concrete
  - c. Brick, clay products and ceramic tile
  - d. Aggregate
  - e. Clean earth fill
  - f. Metals
  - g. Wood products, including pallets
  - h. Plant and tree trimmings, may be included in wood products if so accepted by recycling service.
  - i. Gypsum board
  - j. Latex paint (not applicable to demolition work)
  - k. Plastic piping
  - l. Glass, excluding that used for containers
  - m. Insulations
  - n. Acoustical ceiling tiles, panels and boards
  - o. Resilient floorings
  - p. Carpets, and polyurethane foam pads (other types of pads may be included if accepted by recycling service)
  - q. Cardboard and paper products
  - r. Other, depending on anticipated waste.

5. Calculate quantities, and convert volume measurements to weights in accordance with the defined Conversion Rate.

**B. Plan Implementation**

1. Maintain log of each load, of each category item diverted from landfill. Log in separately debris sent to a Class III landfill and materials sent to recycling facilities.
  - a. Include in log, type of load, load weight, name of hauling service; recycling service or landfill, and date accepted by recycling service or by landfill.
  - b. The Engineer reserves the right to audit the log at any time, retain and make available, all weight tickets, copies of receipts and invoices.
  - c. Units of measure: Use same units as stated in the approved plan "good faith" estimate of construction waste that would be generated if no remedial methods were implemented.
2. Material handling
  - a. Separation facilities
    - 1) Designate a specific on site area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return.
    - 2) Keep waste bins and pile areas neat and clean. Clearly mark bins for each category of waste. Do not commingle non-recyclable waste with materials designated for reuse or recycling.
  - b. Environmental controls during handling, storage, or transport: Do not permit designated materials to become contaminated or to contaminate site or surrounding areas.
3. Training and coordination
  - a. Furnish copies of the Waste Management Plan to all on-site supervisors, each subcontractor, and the Engineer.
  - b. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all entities at the appropriate stages of the Work.
  - c. Meetings: Include construction waste management on the agenda of meetings. At a minimum, discuss waste management goals and issues at the following meetings:
    - 1) Pre-construction meeting.
    - 2) Regularly scheduled job-site meetings.

WASTE MANAGEMENT

- C. Hazardous waste: Separate hazardous waste. Store and dispose of according to Contract requirements and local regulations.

**PART 2 – PRODUCTS**

Not Used

**PART 3 – EXECUTION**

Not Used

**END OF SECTION 01 74 21**