CITY OF FORT WAYNE MASTER UPDATED: 1/5/15

SECTION 01 71 33

NTS: This section contains requirements for barricades and warning signals, and protection of trees and plants, existing structures, floors and roofs, and installed products and landscaping. Delete inapplicable requirements and edit to suit the project.

This section is coordinated with Paragraphs GC-1.01.a.49, GC-4.01 through GC-4.04, GC-6.13, and other provisions of the General Conditions. Coordinate edits to this section with the General Conditions.

1. GENERAL
	1. DESCRIPTION
		1. Contractor shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage, as specified in the General Conditions and this Section.
		2. To prevent damage, injury, or loss, Contractor’s actions shall include the following:
			1. Storing apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with progress of the Work or Work of other contractors or utility company.
			2. Providing suitable storage facilities for materials subject to injury by exposure to weather, theft, breakage, or otherwise.
			3. Placing upon the Work or any part thereof only loads consistent with the safety and integrity of that portion of the Work.
			4. Frequently cleaning up refuse, rubbish, scrap materials, and debris caused by Contractor’s operations so that, at all times, the Site is safe and orderly, and workmanlike in appearance.
			5. Providing barricades and guard rails around the following: openings, scaffolding, temporary stairs and ramps, around excavations, elevated walkways, and other hazardous areas.
		3. Do not, except after written consent from proper parties, enter or occupy privately-owned land with personnel, tools, materials or equipment, except on lands and easements provided by Owner.
		4. Contractor has full responsibility for preserving public and private property and facilities on and adjacent to the Site. Direct or indirect damage done by, or on account of, any act, omission, neglect, or misconduct by Contractor in executing the Work, shall be restored by Contractor, at his expense to condition equal to that existing before damage was done.
		5. The Contractor is responsible for the restoration of all property corners and control monuments damaged or destroyed by construction related activities. Any disturbed monuments must be replaced by an Indiana Professional Land Surveyor, and approved by the Engineer, at the Contractor’s expense.

NTS: Section “1.2” is to be included if project is bid on unit price basis. Section to be deleted or revised if project is to be bid on lump sum basis.

* 1. MEASUREMENT AND PAYMENT
		1. This item shall be included in overall Project cost and not bid as a separate Work item.
	2. BARRICADES AND WARNING SIGNALS
		1. Barricades and Warning Signals – General:
			1. Where Work is performed on or adjacent to roadway, access road, right-of-way, or public place, Contractor shall provide barricades, fences, lights, warning signs, danger signals, watchmen, and take other precautionary measures for protecting persons, property, and the Work.
			2. Contractor shall paint barricades to be visible at night.
			3. From sunset to sunrise, Contractor shall furnish and maintain at least one light at each barricade.
			4. Contractor shall erect sufficient barricades to keep vehicles from being driven on or into Work under construction.
			5. Contractor shall furnish watchmen as required to protect the Work.
			6. Contractor’s responsibility for maintaining barricades, signs, lights, and for providing watchmen shall continue until the Work is accepted, by the Owner, in accordance with the General Conditions.
		2. Temporary Fencing. Contractor shall provide and maintain temporary security fencing to protect Work if required.
	3. TREE AND PLANT PROTECTION
		1. Tree and Plant Protection – General:
			1. Contractor shall protect existing trees, shrubs, and plants on or adjacent to the Site, shown or designated to remain in place, against unnecessary cutting, breaking, or skinning of trunk, branches, bark, or roots.
			2. Do not store materials or park equipment within the drip line.
			3. In areas subject to traffic, Contractor shall provide temporary fencing or barricades to protect trees and plants.
			4. Fires are not allowed.
			5. Within the limits of the Work, Contractor shall water trees and plants that are to remain to maintain their health during construction operations.
			6. Cover all exposed roots with burlap, which shall be kept continuously wet. Cover exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, runoff, or noxious materials in solution.
			7. If branches or trunks are damaged, prune branches immediately and protect cut or damaged areas with emulsified asphalt compound specifically for horticultural use in manner acceptable to Engineer.
			8. Trees that may be damaged during construction shall be trimmed before construction commences. This includes private trees that overhang the public right-of-way. All cuts shall be in accordance with the standards of National Arborist Association.
			9. Trenching must be no closer than having the inside wall of the trench six feet (6’) from the trunk of trees, 15 inches (15”) in diameter and larger. On tress 15 inches (15”) and smaller, the inside wall of the trench must be no closer than three feet (3’). When trenching is to be done closer than said restrictions, the trees and stumps should be removed by a competent tree specialist who is licensed by the City and holds an adequate certificate of insurance. Trees removed shall be removed completely, including stump and major roots, and disposed of properly by the Contractor off-site.

NTS: Edit Item “10” below if trees in easements are to be replaced.

* + - 1. All trees and shrubs located within the permanent and temporary easements that are removed to facilitate construction shall not be replaced unless otherwise noted on the Contract Drawings.
			2. Coordinate Work in this Article with Section 31 11 00, Clearing and Grubbing.
	1. PROTECTION OF EXISTING STRUCTURES
		1. Underground Facilities:
			1. Underground Facilities are defined in the General Conditions.
			2. All Underground Facilities known to Owner and Engineer, except water, gas, sewer, electric, and communications services to individual buildings and properties, are shown. This information is the best available to Owner and Engineer but, in accordance with the General Conditions, is not guaranteed to be correct or complete.
			3. Contractor shall explore ahead of trenching and excavation Work and shall uncover obstructing Underground Facilities sufficiently to determine their location, to prevent damage to Underground Facilities, and to prevent service interruption to building or parcels served by Underground Facilities. If Contractor damages an Underground Facility, Contractor shall restore it to original condition, in accordance with requirements of the owner of the damaged facility and the General Conditions.
			4. Necessary changes in the location of the Work may be directed by Owner or Engineer to avoid Underground Facilities not shown or indicated on the Contract Documents.
			5. If permanent relocation of an existing Underground Facilities is required and is not otherwise shown or indicated in the Contract Documents, Contractor will be directed in writing to perform the Work. When the relocation Work results in a change in the Contract Price, Contract Time, or both, the relocation Work shall be paid after execution of associated Change Order, in accordance with the Contract Documents.
		2. Surface Structures:
			1. Surface structures are existing buildings, structures, and other facilities at or above ground surface, including their foundations or any extension below ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, exposed piping and utilities, poles, exposed wires, posts, signs, markers, curbs, walks, and other facilities visible at or above ground surface.
			2. Existing surface facilities, including but not limited to guard rails, posts, guard cables, signs, poles, markers, and curbs that are temporarily removed to facilitate the Work shall be replaced and restored to their original condition at Contractor’s expense.
		3. Protection of Underground Facilities and Surface Structures:
			1. Contractor shall sustain in their places and protect from direct or indirect injury all Underground Facilities and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure or facility. Before proceeding with the Work of sustaining and supporting such structure or facility, Contractor shall satisfy Engineer that methods and procedures to be used have been approved by party owning same.
			2. Contractor shall bear all risks attending the presence or proximity of all Underground Facilities and surface structures within or adjacent to limits of the Work, in accordance with the Contract Documents. Contractor shall be responsible for damage and expense for direct or indirect injury caused by his Work to structures and facilities. Contractor shall repair immediately damage caused by his Work, to the satisfaction of owner of damaged structure or facility.

NTS: Delete or edit Article “1.6” if requirements of General Conditions Paragraph GC-6.13 are sufficient. Keep for plant projects.

* 1. PROTECTION OF FLOORS AND ROOFS
		1. Protection of Floors and Roofs – General:
			1. Protect floors and roofs until acceptance of the Work in accordance with the General Conditions.
			2. Use proper protective covering when moving heavy equipment, handling materials or other loads, when painting, handling mortar or grout, and when cleaning walls and ceilings.
			3. Use metal pans to collect oil and cuttings from pipe, conduit, and rod threading machines, and under metal cutting machines.
			4. Do not load concrete floors less than 28 days old without written permission of Engineer. Do not load floors, roofs, or slabs in excess of design loading.
			5. Do not load roofs without written permission of Engineer.
			6. Restrict access to roofs, and keep Contractor personnel off existing roofs, except as required for the Work.
			7. If access to roofs is required, roofing, parapets, openings, and all other construction on or adjacent to roof shall be protected with suitable plywood or other acceptable means.
	2. PROTECTION OF INSTALLED PRODUCTS AND LANDSCAPING
		1. Protect installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed prior to completion of Work.
		2. Control traffic to prevent damage to equipment, materials, and surfaces.
		3. Coverings:
			1. Provide coverings to protect equipment and materials from damage.
			2. Cover projections, wall corners and jambs, sills, and soffits of openings, in areas used for traffic and for passage of products in subsequent Work.
1. PRODUCTS (not used)
2. EXECUTION (not used)

+ + END OF SECTION + +