

200 EARTHWORK

ITEM 202 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

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202.01 Description This work consists of removing, wholly or in part, and legally disposing of all buildings, fences, guardrails, structures, old pavements, abandoned pipe lines, storage tanks, septic tanks, privy vaults, and other obstructions not designated or permitted to remain, except for utilities and obstructions to be removed and disposed of under other items in the contract. This work also consists of backfilling the resulting trenches, holes, and pits, and salvaging designated materials. *All work performed shall meet the requirements of Item 207.* When specific pay items for removal of structures and obstructions are not listed on the plans or in the proposal, perform this work under 203 Roadway Excavation and Embankment.

202.02 General Construction Requirements. Raze, remove, and dispose of all buildings and foundations, structures, fences, guardrails, old pavements, abandoned pipelines, storage tanks, septic tanks, privy vaults, and other obstructions within the right-of-way, except utilities and those items where other provisions have been made for removal. *Remove and store, at the specified locations within the project limits, or reuse all designated salvageable materials.*

The City will take ownership of all salvageable items specified for storage. Reuse all salvageable items specified for reuse on the project. When the proposal does not indicate an item for storage or for reuse, the Contractor shall take ownership of all unusable materials and removal items.

Use all suitable excavated material in the work or legally use, to recycle or dispose of all removal items according to federal, state, and city regulations. Written permission of the property owner shall be furnished to the Engineer for all unusable materials destroyed or disposed outside the right-of-way on private property.

Do not remove any item in use by traffic until after making arrangements to accommodate traffic.

When backfilling is required, and when the removal item is under the proposed pavement or paved shoulder, backfill the resulting cavities, voids, or trenches (in accordance with Item 912). When backfilling is required, and when the removal item is outside the proposed pavement or paved shoulder limits or when rollers greater than 8 tons (7 metric tons) are used, the Contractor may use 203 embankment material. Place and compact the backfill in accordance with 203.

For areas backfilled outside the plan construction limits, provide a final grade that presents a neat, well-drained appearance that conforms to the final topography and prevents water from draining onto adjacent properties.

202.03 Bridges Removed. *If within a stream, remove the substructures of existing structures, including piling, down to the proposed stream bottom. For those parts outside the stream, remove substructures to a minimum of 1 foot (0.3 m) below proposed ground surface. Remove, as necessary, those portions of existing structures that lie wholly or in part within the limits for a new structure to accommodate the construction of the proposed structure.*

Where alteration of an existing structure requires removal of portions of the structure, remove those portions with sufficient care as to avoid damage to the remaining portion of the structure. In case of damage to the existing structure, repair or replace the structure at no expense to the City.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

202.04 Pipe Removed. *Remove and reuse, store, or dispose of pipe, or culvert as specified in the proposal for payment.*

If removing an existing concrete water line pipe that was constructed prior to 1980, it may be an asbestos pipe. Test the pipe by using a City approved environmental consultant to determine if it is an asbestos pipe. If it is determined that the pipe is asbestos, then a certified asbestos Contractor must perform the removal. Unless the pipe is specifically denoted in the contract documents as asbestos pipe removed, then this work is to be done under 109.04 or an agreed unit price.

If removing pipe from or around a stream, perform the removal according to 202.03.

Seal openings left in walls of manholes or catch basins that are to remain in place, and remove and dispose of the pipe headwalls.

If an adjacent existing pipe is encountered during removal operations and the pipe is inactive or is to be abandoned, plug or seal the remaining ends of the pipe before proceeding with backfilling operations. Perform plugging and sealing by using approved precast stoppers or masonry bulkheads.

Remove a sufficient section of the pipe to allow the Engineer to determine the quality of the pipe and the possibility of its removal without damage to pipe specified for reuse or storage. If the Engineer determines the pipe is salvageable, carefully remove the remainder of the pipe to avoid breaking or damaging the pipe. Transport and store the removed pipe, as necessary before relaying, to avoid losing or damaging the pipe. Replace sections of pipe lost or damaged by negligence or by use of improper methods at no additional cost to the City. Clean all pipe before reusing. Remove salvageable pipe under 202 Pipe Removed for Reuse or Storage.

If the Engineer determines the pipe is unusable, take ownership of the pipe, and dispose of or recycle it according to 202.02. Remove unusable pipe under Item 202 Pipe Removed or as per 202.01.

Before backfilling the trench, excavate the caved material, as necessary. Backfill trenches, resulting from the removal of pipe, according to Item 202.02, except when the trench lies within the limits of subsequent excavation.

202.041 Pipe Filled In Place. This work consists of leaving specified lengths in place and constructing masonry bulkheads or placing precast stoppers and filling the pipe's internal void. The fill material shall be controlled density fill mix as specified on the plans *unless other materials are specified.*

202.05 Pavement, Walks, Steps, Gutters, Curbs, or Traffic Dividers Removed As designated, *remove and dispose of, or remove and store or reuse the existing wearing course, concrete base course, concrete pavement, bituminous wearing course on brick or concrete base, concrete walks, concrete steps, concrete gutters, stone or concrete curbs, and concrete traffic dividers. If removing only a portion of an existing pavement, walk, step, gutter, curb, or traffic divider, saw or otherwise cut a neat joint at the removal limit if it does not occur at an existing joint.*

If Pavement Removed is specified, remove all asphalt, concrete, or brick from the surface to the bottom of the pavement courses as shown in the plans. If Base Removed is specified, then remove the specific layer as shown in the plans. If 202 Wearing Course Removed is specified remove all asphalt from the surface to the top of the concrete or brick or remove the specific layer or layers shown in the plans.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

In areas where curb and gutter is to be replaced, the contractors concrete removal method shall ensure that the existing underdrains are not damaged.

202.06 Buildings Demolished. Do not disturb buildings and appurtenances designated for demolition until the Engineer provides a *Notice of Possession and Approval to Proceed*. Immediately after receiving approval, schedule and perform the *demolition* under the Engineer's direction in order to accommodate utility rearrangements and clearance of structures, *whether the building is located partially or totally on temporary or permanent right-of-way perform the demolition the same.*

The Contractor may use buildings located partially on and partially off permanent right-of-way for storage, office, living quarters, or other purposes, provided the Contractor furnishes a copy of a written agreement between it and the property owner to the Engineer. The agreement shall allow such use during the period of the contract and save the City harmless from any claims whatsoever by reason of such use.

Remove foundations, floors, floor slabs, and basement, pit, well, and cistern walls to a minimum of 1 foot (0.3 m) below the grade of the surrounding area.

Completely remove all tanks and clear basements of all materials, debris, appliances, wood or metal partitions, and wood floors so only masonry walls and concrete basement floors remain. Break up and remove all floor slabs under which a pit, well, cistern, or tank exists. Break up basement floors to be left in place, and seal remaining drains with masonry or with precast clay or concrete stoppers.

Take ownership of all materials except those belonging to a public or private utility. Notify the owners of water, electric, or gas meters when the meters are ready for removal. *Disconnect all utilities according to local requirements.*

After completing demolition work and obtaining the Engineer's approval, immediately backfill the cavity created by the removal item according to 202.02, *except when the cavity lies within the limits of subsequent excavation or other work.*

202.07 Septic Tanks and Privy Vaults Removed Empty all septic tanks and privy vaults. Dispose of the removed contents in a manner that conforms to the requirements of the State and Local Boards of Health or other authorities having jurisdiction

Completely remove and dispose of septic tanks and privy vaults located above the subgrade or finished ground surface. For septic tanks and privy vaults located below the subgrade or finished ground surface, remove tops and walls to a minimum depth of 3 foot (1.0 m) below subgrade or 1 foot (0.3 m) below finished ground surface. Break up floors and seal remaining drains with masonry or with precast clay or concrete stoppers.

Backfill the cavity created by the removal, partial removal, or emptying operation according to 202.02, *except when the cavity lies within the limits of subsequent excavation or other work.*

202.08 Underground Storage Tanks Removed Remove and dispose of underground storage tanks or regulated underground storage tanks, as designated in the proposal, and according to the requirements of the authorities having jurisdiction.

When regulated underground storage tank removed is specified, remove the tank in accordance with the Bureau of Underground Storage Tank Regulations of the Division of Fire Marshal (BUSTR), Ohio Environmental Protection Agency, and all-applicable Local, State, and Federal regulations. Removal includes obtaining the required permit, disposing of the tank and its contents, testing the excavated material, and preparing the closure report. Provide a Certified Tank Installer to supervise the removal. Provide an independent non-Contractor employee BUSTR inspector or a State Certified BUSTR inspector to perform the BUSTR required inspections. For tanks containing hazardous substances other than

petroleum, use the Ohio Environmental Protection Agency regulations in addition to State Fire Marshal regulations.

Completely remove regulated underground storage tank and contents. Take ownership and dispose of tanks according to 202.02 and the above requirements. If any contaminated water or soil disposal or remediation is required to perform the necessary work under other items in the contract or according to 109.04.

When underground storage tanks removed is specified, completely remove and dispose of the tank. Dispose of the removed contents in a manner that conforms to the requirements of the State and Local Boards of Health or other authorities having jurisdiction. Backfill the cavity created by the removal items according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

202.09 Guardrail and Fence Removed Carefully dismantle and store existing guardrail (including anchor assemblies and terminal assemblies, and any attached posts, signs, and delineators) and fence when designated for reuse or storage by the City. Dispose of wood posts and other materials not considered salvageable according to 202.02.

When fence is designated for replacement, do not remove the existing fence until the replacement material is on site. Begin the new installation within 7 working days of beginning the removal process.

When guardrail is designated to be replaced and traffic is being maintained in the adjacent lane, do not leave hazards unprotected except for the actual time required to remove the existing guardrail. Prepare the site and install the new guardrail in a continuous operation. Do not remove the guardrail until the replacement material is on the site and ready for installation. The Engineer will suspend work for failure to comply with this requirement.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

202.10 Raised Pavement Markers Removed. As designated, remove existing raised pavement markers in a manner that prevents damage to the castings. Fill all depressions caused by removing the castings with asphalt concrete by the end of the next working day. Remove all standing water from the hole prior to filling. Compact the bituminous concrete flush with the pavement. Store all removed markers on the project.

202.11 Manhole, Catch Basin, and Inlet Removed Remove existing drainage structures of the types designated for removal. Take ownership of castings unless otherwise noted on the plans.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

202.12 Manhole, Catch Basin, and Inlet Abandoned. Remove existing drainage structures of the types designated to be abandoned to a minimum of 1 foot (0.3 m) below the

finished subgrade or ground surface. Do not damage pipes that are to remain. Take ownership of castings unless otherwise noted on the plans.

Connect existing pipes with new pipe through the structures. Seal the existing inlet and outlet pipes with precast vitrified or concrete stoppers or with masonry of a type and thickness to fill the inlet or outlet pipe.

After connecting or sealing the existing pipes and removing the walls to the required depth, backfill the remaining cavities according to 202.02. If using connecting pipes, carefully hand tamp backfill under and around the pipe according to 202.02.

202.13 Method of Measurement. The Engineer will measure by one of the following alternate methods:

1. When the proposal stipulates that removal of structures and obstructions is on a lump sum basis, the work will include all structures or obstructions encountered at locations or within areas designated in the contract.
2. When the proposal stipulates that removal of specific items is on a unit basis, the Engineer will measure the quantity of each item by the unit stipulated in the contract.

202.14 Basis of Payment. Payment is full compensation for all work involved in the removal and storage, reuse, or disposal of structures and obstructions, including excavation and backfill incidental to their removal, removing the contents of the underground storage and septic tanks and the custody, preservation, storage on the right-of way, and disposal as provided in this specification.

For pipe removed and reused or stored, the City will pay for the accepted work under 202 Pipe Removed for Reuse or Storage. For unusable pipe removed, the City will pay for the accepted work under 202 Pipe Removed or as per 202.01.

Include all of the costs and work associated with compliance of the rules or regulations in the unit bid price for Regulated Underground Storage Tank Removed. When the underground storage tank is not regulated the work does not include obtaining inspection services, permits, testing excavated material, or closure reporting and the payment will be under Underground Storage Tank Removed.

Payment for Raised Pavement Markers Removed For Storage will include the cost of the asphalt concrete to fill depressions caused by removal of the castings.

The City will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
202	Lump Sum	Structures Removed
202	Lump Sum, Cubic Yard or Pound (Cubic Meter, or Kilogram)	Portions of Structures Removed
202	Linear Foot (Meter)	Pipe Removed for Reuse or Storage
202	Linear Foot (Meter)	Pipe Removed

202	Linear Foot (Meter)	Pipe Filled In Place
202	<i>Linear Foot (Meter)</i>	<i>Asbestos Pipe Removed</i>
202	Square Yard (Square Meter)	Pavement Removed
202	Square Yard (Square Meter)	Wearing Course Removed
202	Square Yard (Square Meter)	Base Removed
202	Square Foot (Square Meter)	Walk Removed
202	Lump Sum	Steps Removed
202	Linear Foot (Meter)	Curb Removed
202	Linear Foot (Meter)	Curb and Gutter Removed
202	Linear Foot or Square Yard (Meter or Square Meter)	Gutter Removed
202	Linear Foot (Meter)	Curb Removed for Storage
202	Each	Precast Traffic Dividers
202	Lump Sum	Building <i>Demolished</i>
202	Each	Underground Storage Tank Removed
202	Each	Regulated Underground Storage Tank Removed
202	Each	Septic Tank Removed
202	Each	Privy Vault Removed
202	Linear Foot (Meter)	Guardrail Removed
202	Linear Foot (Meter)	Guardrail Removed for Reuse or Storage
202	Linear Foot (Meter)	Fence Removed for Reuse or Storage
202	Each	Raised Pavement Marker Removed for Storage
202	Each	Manhole Removed
202	Each	Manhole Abandoned
202	Each	Catch Basin or Inlet Removed
202	Each	Catch Basin or Inlet Abandoned