

**CITY OF FARGO SPECIFICATIONS
REMOVALS**

**PART 1
DESCRIPTION OF WORK**

The work to be done under this section of the Specifications and the accompanying plans consists of all labor, material, and equipment necessary to perform vegetation removal, topsoil stripping, abandonment or removal and disposal of designated in-place infrastructure, and such other work and incidentals as may be necessary to properly complete the work.

PART 2
MATERIAL

2.1. OWNERSHIP AND DISPOSAL OF REMOVED MATERIALS

Removed materials shall become the property of the Contractor unless otherwise indicated, except for flap gates, sluice gates, manhole/inlet castings, valves, and hydrants, which shall be salvaged and delivered to City Personnel at the City of Fargo cold storage site at 2401 5th Avenue North, unless otherwise directed by the Engineer.

Disposal of all removed materials shall be in accordance with all applicable federal, state or local regulations.

PART 3
CONSTRUCTION

3.1. LOCATION AND PROTECTION OF EXISTING UTILITIES

The location of the public or private utilities may be shown on the plans, as reported by the various utility companies and the City, but this does not relieve the contractor of the responsibility of determining the accuracy or completeness of said locations. North Dakota law requires the contractor to contact ND One-Call at 800-795-0555 prior to any underground interference. The contractor shall protect all trees, shrubs, manholes, water shut-off, survey monuments, or any other existing utilities from damage. Any utilities that are damaged during the course of the work shall be repaired or replaced to the satisfaction of the engineer at the contractor's expense.

3.2. CLEARING AND GRUBBING

Prior to topsoil stripping, all topsoil shall be made to be free from surface vegetation over six inches in height, trash, stones, and all other debris by clearing and grubbing. The Engineer will establish the limits for clearing and grubbing and designate all trees, shrubs, plants and other items that are to be removed. Unless otherwise specified, all material cleared and grubbed shall be disposed of at the City of Fargo landfill.

3.3. TREE REMOVAL

The Engineer will mark all trees that are to be removed; the Contractor shall not remove any tree not marked for removal. The Contractor shall take all appropriate precautions to protect trees that are not marked for removal. All tree removals shall include pulling from the ground and removing the root ball (stump) of all removed trees. In no case will grinding of the root ball be allowed.

3.4. TOPSOIL STRIPPING

Where topsoil stripping requirements are not outlined in the Special Instructions, the entire thickness of existing topsoil shall be stripped. Topsoil that is temporarily stockpiled for respreading on the project shall be piled within the construction limits delineated by the Engineer. Where the plans or Special Instructions call for permanent stockpiling of topsoil, the costs to haul and shape the material to a drainable, mowable stockpile shall be included in the contract price for topsoil stripping.

3.5. REMOVAL OF UNDERGROUND UTILITIES*3.5.1. REMOVAL OR ABANDONMENT OF PIPE*

Existing pipe shall be removed or abandoned where so designated on the plans or as directed by the Engineer. When existing pipe is encountered which is not shown on the plans, it shall not be removed or abandoned until the Engineer has been notified of its presence and has directed its removal or abandonment.

All ends of pipe on live sanitary sewers and water mains shall be sealed to a watertight condition with a slip-on or mechanical plug manufactured for the size and type of pipe being plugged. Other pipes may be plugged with low-slump concrete in accordance with the standard detail for concrete pipe plugs.

3.5.2. ASBESTOS-CEMENT PIPE (ACP) SPECIAL REQUIREMENTS

Removal, disposal, alteration, modification or abandonment of existing ACP shall meet the requirements of the current publication entitled “AWWA Work Practices for Asbestos-Cement Pipe” or subsequent revisions and in accordance with the requirements provided in the current standard entitled “OSHA Asbestos Construction Standards” or subsequent revisions for the removal, disposal, or abandonment of all ACP as shown on the plans and/or encountered in the field during construction, and any other applicable federal, state or local regulation.

Cutting: Keep the pipe wet at all times. A pipe-cutter shall be used – sawing the pipe will not be allowed.

Coupling Removal: Keep the pipe wet at all times. AC coupling removal may be accomplished by gradually splitting the coupling lengthwise using a chisel and hammer. After the top of the coupling has been split, a crowbar or similar tool is used as a lever to split the bottom of the coupling.

Cleaning: Vacuum dust and/or cuttings with a HEPA rated vacuum cleaner. DO NOT blow out with compressed air, dry sweep, or vacuum with a non-HEPA rated vacuum cleaner.

Rasping: Keep the pipe wet at all times. Field-cut ends and/or holes made in the pipe by using a hammer and chisel may be dressed or beveled using a coarse wood rasp. All dust and cuttings shall be removed from the pipe’s interior

by flushing with water, wet mopping, or vacuuming with a HEPA rated vacuum cleaner.

Handling: Care shall be taken to prevent the breakup of the pipe material by rough handling or dropping of the pipe. All removed ACP shall be disposed of at the City of Fargo Landfill or other approved disposal site.

Wet Tapping: Keep the pipe wet at all times. Downstream flushing shall be performed or tapping equipment shall be used that provide positive purge or “blow-off” features.

Dry Tapping: Keep the pipe wet at all times. All dust and cuttings shall be removed from the pipe’s interior by flushing with water, wet mopping, or vacuuming with a HEPA rated vacuum cleaner.

3.5.3. REMOVAL OR ABANDONMENT OF MANHOLES/INLETS

Existing manholes and/or inlets shall be removed or abandoned where so designated on the plans or as directed by the Engineer. When an existing manhole/inlet is encountered which is not shown on the plans, it shall not be removed or abandoned until the Engineer has been notified of its presence and has directed its removal or abandonment.

Manholes/inlets to be abandoned shall have the pipe leads plugged from within the manhole with two feet of low-slump concrete, the top section shall be removed, then the manhole/inlet shall be filled and compacted with ND Class 3 – modified aggregate.

3.6. REMOVAL OF PAVEMENT, CURB & GUTTER, AND SIDEWALK

All removals shall include full-depth saw-cutting along removal lines. Should street light conductors be damaged during pavement, sidewalk, and/or curb & gutter removal/replacement, the Contractor shall replace the entire length of street light conductors between street light standards at his sole expense.

3.6.1. REMOVE EXISTING PAVING

This bid item is provided for the full-depth removal of pavement of all types. Where new pavement will later be installed, the Contractor shall remove 6-inches, or the depth shown on the plans, of subgrade material to provide room for paving base material.

For removal of concrete pavement, the Contractor shall “double saw” the pavement at the removal lines to eliminate the risk of spalling the pavement that is to remain. The Contractor shall repair all spalled concrete by removing and replacing the entire spalled panel to the next joint at his sole expense.

3.6.2. REMOVE & REPLACE ASPHALT PAVEMENT

This bid item is provided for the full-depth removal and replacement of various, typically small areas of asphalt pavement for the purpose of repairing deteriorated pavement. The work shall also include removal of 6-inches of subgrade material to provide room for base material under the new asphalt pavement.

The Contractor shall provide and install 6-inches of recycled crushed concrete for base material under the new pavement. All new asphalt paving shall be constructed in accordance with Section 2400 of these Specifications. The sides and bottom of the patch hole shall be cleaned and coated with tack, then patched with matching thickness, up to 9" thick, of asphalt in lifts not to exceed 3" each. Adequate compaction shall be obtained, and sufficient cooling shall occur for each lift, both in the sole opinion of the Engineer, prior to placing subsequent lifts.

3.6.3. REMOVE & REPLACE CONCRETE PAVEMENT

This bid item is provided for the full-depth removal and replacement of various, typically small areas of concrete pavement for the purpose of repairing deteriorated pavement. The work shall also include removal of 6-inches of subgrade material to provide room for base material under the new concrete pavement.

The Contractor shall provide and install 6-inches of recycled crushed concrete for base material under the new pavement. All new concrete paving shall be constructed in accordance with Section 2100 of these Specifications.

3.6.4. REMOVE CURB AND GUTTER

The Contractor shall remove the curb & gutter and 2-inches of subgrade material to provide room for bedding material where new sidewalk will be installed.

3.6.5. REMOVE & REPLACE CURB AND GUTTER

This bid item is provided for removal and replacement of various, typically short lengths of curb and gutter (mountable or standard) where the pavement and boulevard are to remain. The work shall include saw-cutting through the curb and gutter at each end of the removal, and also along the curb/pavement edge (curb flange) for the entire length of the curb and gutter to be removed. The Contractor shall remove 2-inches of subgrade material to provide room for bedding material under the new curb and gutter.

The Contractor shall provide and install 2-inches of ND Class 5 or recycled crushed concrete for bedding material under the new curb and gutter. All new curbs and gutters shall be constructed in accordance with Section 2100 of these Specifications. The new curb and gutter shall be tied into the existing curb with two 18-inch long No. 4 epoxy-coated deformed bars. The work shall also include removing debris from and patching any voids created in the pavement during curb and gutter removal.

3.6.6. REMOVE CONCRETE SIDEWALK

The Contractor shall remove the sidewalk and 2-inches of subgrade material to provide room for bedding material where new sidewalk will be installed.

3.6.7. REMOVE & REPLACE SIDEWALK

These bid items are provided for removal and replacement of various, typically short lengths of 4" or 6" thick sidewalk. The Contractor shall remove 2-inches of subgrade material to provide room for base material under the new sidewalk.

The Contractor shall provide and install 2-inches of ND Class 5 or recycled crushed concrete for bedding under the new sidewalk. All new sidewalks shall be constructed in accordance with Section 2300 of these Specifications.

3.6.8. *REMOVE & REPLACE ADA RAMP*

This bid item is provided for removal and replacement of sidewalk curb ramps where the adjacent sidewalk is to remain. The Contractor shall remove 2-inches of subgrade material to provide room for base material under the new ramp.

The Contractor shall provide and install 2-inches of ND Class 5 or recycled crushed concrete for bedding under the new ramp. All new sidewalk curb ramps shall be constructed in accordance with Section 2300 of these Specifications.

3.6.9. *REMOVE & REPLACE 6" CONCRETE DRIVEWAY*

This bid item is provided for removal and replacement of driveway aprons where necessary. The Contractor shall remove adequate-depth subgrade material to provide room for base material under the new driveway.

The Contractor shall provide and install 2-inches of ND Class 5 or recycled crushed concrete for bedding under the new driveway. All new driveway pavement shall be tied to adjacent existing driveway pavement with 18-inch long No. 4 epoxy-coated deformed bars spaced 24" O.C., and shall be constructed in accordance with Section 2300 of these Specifications.

3.6.10. *REMOVE EXISTING DRIVEWAY*

The Contractor shall remove adequate-depth subgrade material to provide room for base material under the new driveway.

PART 4
GUARANTEE, MEASUREMENT & PAYMENT

4.1. GUARANTEE

The guarantee does not apply to removals, but shall be per the Contract for all pipe plugs.

4.2. MEASUREMENT AND PAYMENT

Removal areas may not be limited to those shown on the plans. Actual removal limits will be marked in the field by the Engineer prior to removal operations commencing. Pay quantities for non-lump-sum bid items will be adjusted based on actual removal quantities as determined by the Engineer by using field measurements or computerized mapping software as deemed appropriate by the Engineer.

All replacement of removed items shall be in accordance with the requirements of the applicable sections of these Specifications. The contractor will be responsible for all costs associated with removal & replacement of any items lying outside the marked removal limits that are damaged during construction.

Unless otherwise provided for in the bid documents, the contract unit price for each removal item shall include all labor, equipment, materials, and delivery necessary to saw-cut, remove, and dispose of the item as specified herein.

4.2.1. CLEARING AND GRUBBING

All costs for “clearing and grubbing”, including landfill fees, shall be included in the price bid for other items unless a bid item for CLEAR & GRUB is provided on the bid sheet, in which case all said costs shall be included in the contract unit price for CLEAR & GRUB.

4.2.2. TREE REMOVAL

Measurement and payment shall be made on a per tree basis, including removal of the stump, for trees measuring 6 inches in diameter or greater at a point 4.5 feet off the ground. All costs for removal of any/all trees smaller than this shall be considered incidental to the Contract.

4.2.3. *TOPSOIL STRIPPING*

Where a volume-based bid item is provided on the bid sheet, the Engineer will calculate the volume of topsoil stripping to be paid by first determining the area of stripping that was performed by a method described above, then multiplying that area by an assumed topsoil thickness of 1 foot.

4.2.4. *REMOVAL OF ASBESTOS-CEMENT PIPE (ACP)*

ACP removal and disposal shall be paid for under the REMOVE PIPE – ASBESTOS CEMENT bid item at the contract unit price per linear foot, irrespective of the depth and/or size of the pipe, which shall include the cost of removing and disposing all pipe material, pipe bend sections, jointing material, restraints, stainless steel stiffeners and all other appurtenances, and of handling, hauling, dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the Engineer (unless separate bid item is provided), necessary permits, and all material or work necessary to remove and dispose of the pipe as specified in the Contract Documents and/or as directed by the Engineer, all of which shall be in accordance with all applicable federal, state and local regulations and requirements.

4.2.5. *REMOVAL OF ALL OTHER TYPES OF PIPE*

Pipe removal and disposal shall be paid for under the REMOVE PIPE bid item for the type of pipe being removed (be it sanitary sewer, watermain, storm sewer, etc.) at the contract unit price per linear foot, irrespective of the depth, pipe material, and/or size of the pipe, which shall include the cost of removing and disposing all pipe material, pipe bend sections, jointing material, restraints, stainless steel stiffeners and all other appurtenances, and of flushing, handling, hauling, dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the Engineer (unless separate bid item is provided), necessary permits, and all material or work necessary to remove and dispose of the pipe as specified in the Contract Documents and/or as directed by the Engineer, all of which shall be in accordance with all applicable federal, state and local regulations and requirements. All costs for removal of service pipes being replaced shall be included in the contract unit price of the size and type of pipe being installed.

4.2.6. REMOVAL OF CASTINGS, VALVES, AND HYDRANTS

All costs for removal and disposal (delivery to City per **Part 2** above) of valves and hydrants as specified in PART 2 above shall be incidental to the removal of water main.

All costs for removal and disposal (delivery to City per **Part 2** above) of manhole/inlet castings as specified above shall be included in the price bid for other items.

4.2.7. ABANDONMENT AND PLUGGING OF PIPES

Abandonment of pipe will not be a pay item. Where a bid item for plugging is provided, plugging the ends of abandoned pipe will be paid for at the contract unit price for the size/type of plug to be installed, regardless of plugging method. Otherwise, all costs for plugging existing pipes shall be included in the price bid for other items.

4.2.8. ABANDONMENT OF MANHOLES/INLETS

Abandonment of manholes/inlets will be paid for at the contract unit price for each manhole/inlet abandoned in accordance with these Specifications. Payment shall include all costs for plugging all pipe leads inside the manhole/inlet, top section removal, and all backfill.

4.2.9. REMOVAL OF MANHOLES AND INLETS

Removal of manholes/inlets shall be paid for under the corresponding REMOVE MANHOLE or REMOVE INLET bid item at the contract unit price per each, irrespective of depth, material, and/or size, which shall include all costs to remove the base, barrel, adjusting rings, and casting in accordance with these Specifications.

4.2.10. REMOVE EXISTING PAVING

Payment shall be considered full compensation for removing and disposing of existing pavement with no differentiation in payment based on thickness or type, as well as removing the subgrade material to the depth specified if applicable.

4.2.11. REMOVE & REPLACE ASPHALT PAVEMENT

This bid item shall include all costs for the work to remove the existing pavement with no differentiation in payment based on thickness, remove subgrade material to the depth specified, and install new base material and pavement in its place as specified herein.

4.2.12. REMOVE & REPLACE CONCRETE PAVEMENT

This bid item shall include all costs for the work to remove the existing pavement of thickness noted in the bid item, remove subgrade material to the depth specified, and install new base material and pavement in its place as specified herein.

4.2.13. REMOVE CURB & GUTTER

This bid item shall include all costs for the work to remove the existing curb & gutter with no differentiation in payment based on type or size, and to remove subgrade material to the depth specified herein.

4.2.14. REMOVE & REPLACE CURB & GUTTER

This bid item shall include all costs for the work to remove the existing curb & gutter and subgrade material, and install new base material and curb & gutter in its place as specified herein.

4.2.15. REMOVE CONCRETE SIDEWALK

Removal of sidewalk will be paid for at the contract unit price for the corresponding thickness of sidewalk to be removed, which shall include all costs for the work to remove the existing sidewalk with no differentiation in payment based on width, and to remove subgrade material to the depth specified herein.

4.2.16. REMOVE AND REPLACE SIDEWALK

This bid item shall include all costs for the work to remove the existing sidewalk with no differentiation in payment based on width, remove subgrade material to the depth specified, and install new base material and sidewalk in its place as specified herein.

4.2.17. REMOVE AND REPLACE ADA RAMP

This bid item shall include all costs for the work to remove the existing sidewalk curb ramp with no differentiation in payment based on width or thickness, remove subgrade material to the depth specified, and install new base material and sidewalk curb ramp in its place as specified herein. Detectable warning panels are paid for under a separate bid item.

4.2.18. REMOVE AND REPLACE 6" CONCRETE DRIVEWAY

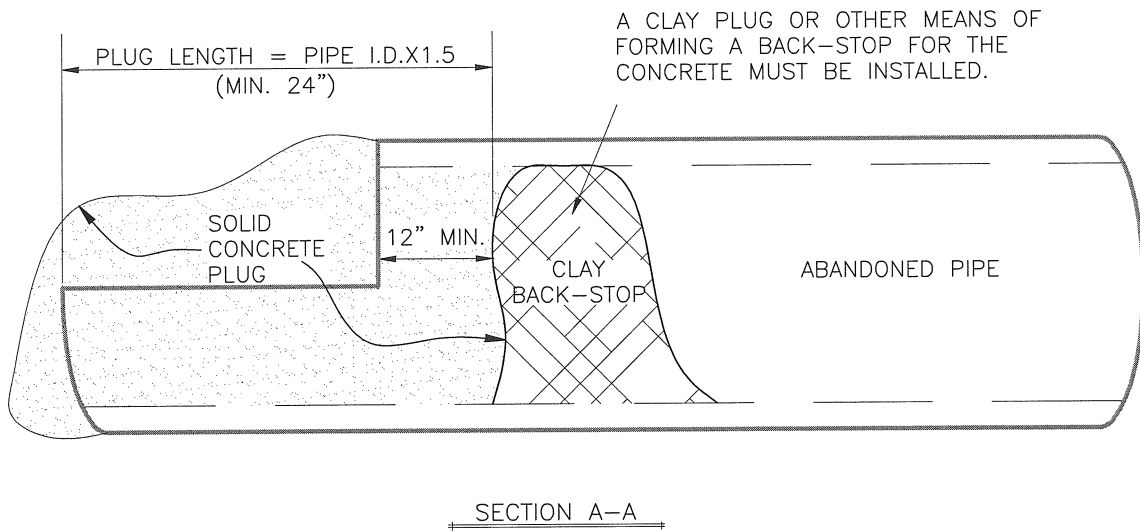
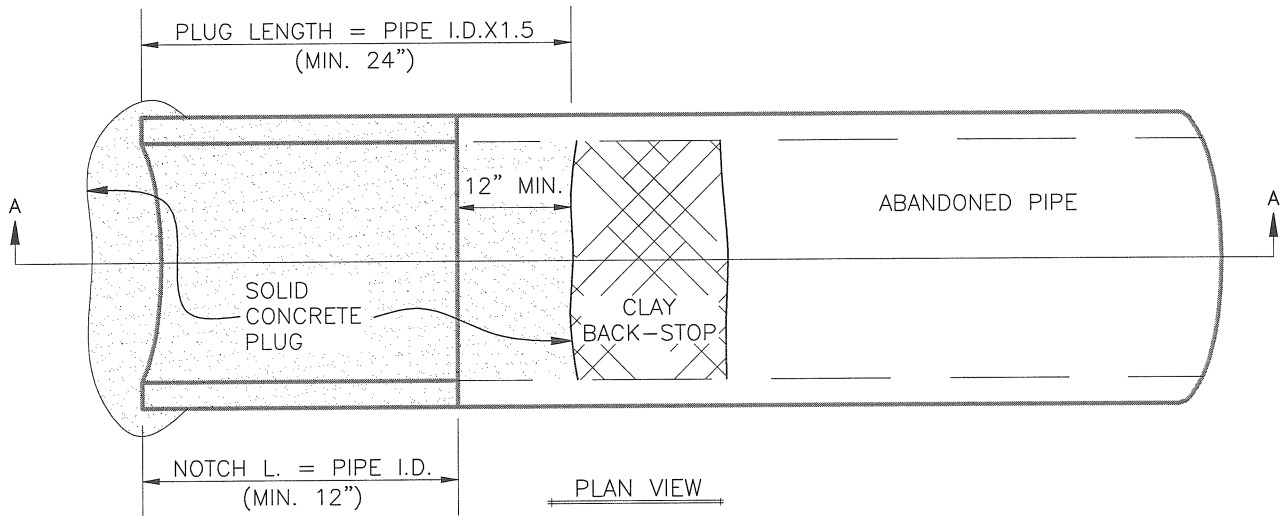
This bid item shall include all costs for the work to remove the existing concrete driveway with no differentiation in payment based on width, remove subgrade material to the depth specified, and install new base material and driveway in its place as specified herein.

4.2.19. REMOVE EXISTING DRIVEWAY

This bid item shall include all costs for the work to remove the existing driveway with no differentiation in payment based on width, thickness, nor material, and removal of the subgrade material to the depth specified.

4.2.20. OTHER COSTS

All other costs for work necessary to properly complete the work specified herein including, but not limited to trenching and backfilling per Section 1000 of these Specifications, shall not be bid items; the costs shall be charged to other items unless a bid item is specifically included on the bid sheet.



WHERE ALLOWED BY THE ENGINEER,
A CONCRETE PLUG MAY BE USED TO PLUG
THE ENDS OF ABANDONED PIPE.

NOTCH & REMOVE TOP OF PIPE DOWN TO
THE SPRING LINE.

PLUG PIPE 12" OR SMALLER SHALL HAVE A
CUT OPENING OF AT LEAST 12".

FILL VOID UP TO CLAY BACK-STOP WITH
LOW SLUMP CONCRETE UP TO THE TOP OF
PIPE.

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|--|-----------------------|
| SECTION NO. 1050 | DRAWING NO. 5.1 |
| REV.D. 2012 | |
| CONCRETE PLUG (WHERE ALLOWED) | |
| CITY OF FARGO ENGINEERING DEPARTMENT | |
| APPROVED <i>BED</i> | DATE <i>2-21-2012</i> |