

Section 02221

REMOVING EXISTING PAVEMENTS, STRUCTURES AND BURIED UTILITIES

PART 1 GENERAL

1.01 SUMMARY

This Section includes:

- A. Removing concrete paving, asphaltic concrete pavement, brick pavement, and base courses.
- B. Removing concrete curbs, concrete curbs and gutters, sidewalks, and driveways.
- C. Removing pipe culverts, sewers, and sewer leads.
- D. Removing waterlines and water services lines including asbestos cement pipe per OSHA guidelines.
- E. Removing existing inlets and manholes.
- F. Removing and disposing of pre-stressed concrete beams and drill shafts.
- G. Removing miscellaneous structures of concrete or masonry.
- H. Removing existing bridge.

1.02 MEASUREMENT AND PAYMENT

- A. Unit Prices.
 - 1. Payment for removing and disposing of asphaltic surfacing including base, regardless of thickness encountered, is on square yard basis measured between lips of gutters.
 - 2. Payment for removing and disposing of reinforced concrete pavement, with or without asphalt overlay, regardless of its thickness, is on square yard basis measured from back-to-back of curbs. Payment includes concrete pavement, esplanade curbs, curbs and gutters, and paving headers.
 - 3. Payment for removing and disposing of cement stabilized shell base course, with or without asphaltic surfacing, is on square yard basis.
 - 4. Payment for removing and disposing of concrete sidewalks and driveways is on square yard basis.

5. Payment for removing asphaltic surface course only is on a square yard basis paid under item description "Asphalt Surface Mill." This includes removal of existing surface to pavement base.
6. Payment for removing and disposing of miscellaneous concrete and masonry is on cubic yard basis of structure in place.
7. Payment for removing and disposing of pipe culverts, sewers, and sewer leads is on linear foot basis for each diameter and each material type of pipe removed.
8. Payment for removing and disposing of waterline and water service lines including asbestos cement pipe is on linear foot basis for each diameter pipe and each material type of pipe removed.
9. Payment for removing and disposing of existing inlets is on unit price basis for each inlet removed.
10. Payment for removing and disposing of prestressed concrete piles and drill shafts is on linear foot basis.
11. Payment for removing and disposing of existing bridge, including piles and abutments to minimum of 4 feet below ground level, is on a lump sum basis.
12. Payment for removing and disposing of existing manholes is on unit price basis for each manhole removed.
13. No payment for saw cutting of pavement, curbs, or curbs and gutters will be made under this section. Include cost of such Work in unit prices for items listed in bid form requiring saw cutting.
14. No payment will be made for Work outside maximum payment limits indicated on the Plans, or for pavements or structures removed for Contractor's convenience.

For utility installations: Match actual pavement replaced but no greater than maximum pavement replacement limits shown on the Plans. Limits of measurement will be shown on Street Cut Pavement Replacement Rules.

15. Refer to Section 01270 – "Measurement and Payment" for unit price procedures
- B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for Work in this Section is included in total Stipulated Price.

1.03 REFERENCES

- A. Conform to applicable codes for disposal of debris.
- B. Coordinate removal work with utility companies.

1.04 SUBMITTALS (NOT USED)

1.05 RELATED REQUIREMENTS

- A. Section 01270 – “Measurement and Payment”
- B. Section 01576 – “Waste Material Disposal”
- C. Section 02316 – “Excavation and Backfill for Structures”

1.06 – 1.13 NOT USED

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL / MANUFACTURER(S) (NOT USED)

3.02 PREPARATION

- A. Obtain advance approval from Project Manager for dimensions and limits of removal work.
- B. Identify known utilities below grade. Stake and flag locations.

3.03 ERECTION/INSTALLATION APPLICATION AND/OR CONSTRUCTION

A. Removals

1. Remove pavements and structures by methods that shall not damage underground utilities. Do not use drop hammer near existing underground utilities.
2. Minimize amount of earth loaded during removal operations.
3. Where existing pavement is to remain, make straight saw cuts in existing pavement to provide clean breaks prior to removal. Do not break concrete pavement or base with drop hammer unless concrete or base has been saw cut to the full depth of the pavement or base. The use of a drop hammer shall only be allowed with the written approval of the Engineer.

4. When street and driveway saw cut location is greater than one-half of pavement lane width, remove pavement for full lane width or to nearest longitudinal joint as directed by Project Manager.
5. Remove sidewalks and curbs to nearest existing dummy, expansion, or construction joint.
6. Where indicated on the plans or directed by the Project Manager, remove waterlines and water services lines. Remove asbestos cement pipe per OSHA guidelines. Provide plug and clamp for pipe ends if required in accordance with Section 02516 - Cut, Plug, and Abandonment of Waterlines [City of Houston Standard Specification].
7. Where existing end of pipe culvert or end of sewer is to remain, install 8-inch-thick masonry plug in pipe end prior to backfill in accordance with requirements of Section 02316 – “Excavation and Backfill for Structures”.

B. Backfill

Backfill of removal areas shall be in accordance with requirements of Section 02316 – “Excavation and Backfill for Structures”.

C. Disposal

1. Disposal shall be in accordance with requirements of Section 01576 – “Waste Material Disposal”.
2. Remove from site, debris resulting from Work under this section in accordance with requirements of Section 01576 – “Waste Material Disposal”.

3.04 – 3.08 NOT USED

3.09 PROTECTION

Protect the following from damage or displacement:

1. Adjacent public and private property.
2. Trees, plants, and other landscape features designated to remain.
3. Utilities designated to remain.
4. Pavement and utility structures designated to remain.
5. Bench marks, monuments, and existing structures designated to remain.

3.10 SCHEDULES (NOT USED)

END OF SECTION