

University of Houston Master Specification

<Insert Project Name>

<Insert U of H Proj #>

<Insert Issue Name>

<Insert Issue Date>

SECTION 31 1100 - CLEARING AND GRUBBING

Revise this Section by deleting and inserting text to meet Project-specific requirements.

This Section uses the term "Landscape Architect." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

Delete hidden text after this Section has been edited for the Project.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Subsurface data is available from the Owner. Contractor is urged to carefully analyze the site conditions.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- C. The Contractor's attention is specifically directed, but not limited, to the following documents for additional requirements:
 - 1. The current version of the *Uniform General Conditions for Construction Contracts*, State of Texas, available on the web site of the Texas Facilities Commission.
 - 2. The University of Houston's *Supplemental General Conditions and Special Conditions for Construction*.

1.2 SUMMARY

- A. This section includes clearing and grubbing, topsoil removal and stockpiling, disconnecting, capping or sealing, and abandoning site utilities in place, and disposal of all vegetation, rubbish and excess material, as required for site grading and related staging areas as noted on the Drawings and in accordance with these specifications.

1.3 DEFINITIONS

- A. Topsoil: Topsoil: Soil with organic content suitable for sustaining the growth of a soil stabilizing groundcover such as turf. Topsoil is spread over prepared subgrade.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

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- C. Subgrade: The uppermost surface of an excavation, including excavation for trenches, or the top surface of a fill or backfill immediately below base course, pavement, or topsoil materials.
- D. Unauthorized excavation consists of removing materials beyond indicated subgrade elevations or dimensions without direction by the Owner's representative. Unauthorized excavation, as well as remedial work directed by the Owner's Representative, shall be at the Contractor's expense.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site and disposed of legally not to harm the Owner.

1.5 SUBMITTALS

- A. Photographic and/or digitally recorded documentation, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements must be prepared. Unless otherwise documented, any damage discovered to trees, plantings, and site features denoted to remain, will be considered the responsibility of the Contractor to correct. The Owner may at his/her discretion request such photographs and/or video tapes be submitted at any time.
- B. Record Drawings: In accordance with requirements of Division 01 sections, identify and accurately locate capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and Authorities Having Jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated on drawings to be salvaged and store on Owner's premises where indicated. Contractor to contact Owner's representative for coordination.
- C. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

[Confirm utility locator service information and ensure utilities are located properly.](#)

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- D. Utility Locator Service: Notify Lonestar Notification Center at 713-732-0365 for area where Project is located before site clearing.
- E. General Site Narrative: **<Describe the site in its existing state, i.e. vacant, previously improved, wooded, etc. and then describe the intent of the Work of the Project >.**
- F. Staging Areas - Approval must be obtained from the Owner to use any area for staging that is not specifically identified as such on the Drawings. The Contractor shall restore all areas used for staging, the extent of said restoration to be defined by the Owner upon granting approval for the use of said area for staging.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

[Determine which type\(s\) of soil\(s\) are required for the Work of this Section and comply with the requirements specified in the Section referenced below.](#)

- A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 31 Section "Site Grading."
 - 1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Notify Owner one week prior to commencement of clearing and grubbing activities.
- B. Protect and maintain benchmarks and survey control points from disturbance during construction.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.
- D. Locate and clearly flag trees and vegetation to remain or to be relocated.
- E. Control dust and noise, perform work in accordance with requirement of Authorities Having jurisdiction. No explosives are permitted. No on-site burning is permitted.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

[Select option in paragraph below as appropriate for the Project.](#)

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- A. Provide temporary erosion and sedimentation control measures [**in compliance with the requirements of Division 31 Section "Erosion and Sedimentation Control"**] [as indicated on the clearing and grubbing Drawings].
- B. Provide measures according to a sediment and erosion control plan, specific to the site, which complies with EPA 832/R-92-005 or requirements of Authorities Having Jurisdiction, whichever is more stringent.
- C. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal

3.3 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities. Contractor is responsible for any service charge required for shut-off action. If other outstanding fees or billings are encountered, the Contractor shall notify the Owner's representative for direction.
- B. Known utilities are shown on Drawings. If a utility is discovered that is not shown, contact Owner's representative for direction. Do not interrupt unknown utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Owner's representative not less than two weeks in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.

3.4 CLEARING

- A. Construction - That portion of the site required for constructing the Work under these specifications shall be cleared of all vegetation, such as trees, brush, grass and weeds and all other objectionable matter to the limits as depicted in the Drawings. Stumps and roots shall be completely removed.
 - 1. Protect roots and branches of trees designated to remain.
 - 2. Remove only trees and shrubs within clearing areas designated in Drawings unless otherwise indicated.
 - 3. Completely remove stumps, root and other debris protruding through ground surface to a minimum depth of 12 inches below the ground.
 - 4. Carefully and cleanly cut roots and branches of trees indicated to remain where such roots and branches obstruct new construction.
 - 5. Remove rocks, stumps, roots, and other vegetation within limits of construction to a minimum depth of six inches.

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- a. Remove roots greater than three inches in diameter.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

3.5 STRIPPING

- A. Topsoil stripping:
 1. Remove sod and grass before stripping topsoil.
 2. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials. A minimum of six (6) inches of soil shall be stripped. This must be verified with the geotechnical report provided by the Owner for this project. If discrepancies exist, review with Owner prior to start of work.
 - a. Remove subsoil and non-soil materials from topsoil, including trash, debris, weeds, roots, and other waste materials and legally dispose of them off Owner's property.
 3. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.

COORDINATE HEIGHT IN PARAGRAPH BELOW WITH OWNER TO ENSURE THAT HEIGHT IS APPROPRIATE.

- a. Limit height of topsoil stockpiles to 72 inches.
- b. Do not stockpile topsoil within tree protection zones.
- c. Stockpile surplus topsoil to allow for re-spreading deeper topsoil.
4. Strip man-made fills under structures and pavements to minimum 12 inches below the ground surface and dispose of all waste materials.
- B. At all times during clearing and stripping operations, the area shall be kept in a manner to prevent ponding. Refer to Division 31 Section "Erosion and Sedimentation Control."

3.6 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

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3.7 DISPOSAL

- A. Disposal of Cleared Materials: Subject to approval of the Owner, remove material from clearing operations from the worksite and dispose of legally.
 - 1. Disposal of Material by Removal
 - a. Material disposed of by removal from the construction area shall be removed from the areas prior to the completion of the work under these specifications. All materials removed shall become the property of the Contractor.
 - b. Materials to be disposed of by dumping shall be hauled to an approved dump. It shall be the responsibility of the Contractor to make any necessary arrangements with private parties and with local officials pertinent to locations and regulations of such dumping. Any fees or charges required to be paid for dumping of materials shall be paid by the Contractor.
 - c. In hauling any material from the site, it shall be the responsibility of the Contractor to prevent debris from dropping from vehicles and littering the site or area streets and roads. The Contractor shall promptly remove any debris which falls from vehicles.
 - d. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities

3.8 STOCKPILING

- A. All topsoil from the stripping operations shall be stockpiled in the areas so designated on the Drawings. Materials shall be deposited and spread in such a manner to ensure proper drainage and prevent severe erosion of the stockpile.
- B. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

END OF SECTION 31 1100

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