

SECTION 31 10 00 SITE CLEARING

PART 1 GENERAL

1.01 SUMMARY

- A. Inclusions:
 - 1. Provisions set forth in Divisions 0 and 1;
 - 2. Clear site of plant life and grass;
 - 3. Remove root system of trees and shrubs;
 - 4. Remove surface debris;
 - 5. Reuse or recycling
 - 6. Clean up.
- B. Related Sections:
 - 1. Section 31 22 00 Earthwork
 - 2. Section 31 31 19 Vegetation Control

1.02 SUBMITTALS

- A. Record Drawings:
 - 1. Keep a record of the location and size of all capped pipe and /or conduit.
 - 2. Submit record drawings per General Conditions.

1.03 QUALITY ASSURANCE

- A. Regulatory Compliance:
 - 1. Work shall comply with applicable provisions of local and State safety and health ordinances.
 - a. Burning of removed materials is not permitted within the project limits.
 - 2. Take out and maintain required permits, approval and licenses necessary to legally complete this Work.
 - 3. Insure that subcontractors are properly licensed and have required permits to perform their work.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Provide materials, not specifically described, but required for proper completion of the work of this Section, as selected by the Contractor.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work.
 - 1. Do not proceed until unsatisfactory conditions are corrected.
- B. Accept the premises in the condition as found on the first day of work under this Contract.

3.02 PREPARATION

- A. Notify utility companies concerning cut-off or restoration of service, or of relocation or modification of any such service that the work of this contract may require.
 - 1. Where utility cuffing, capping, or plugging is required, perform such work in accordance with requirements of the utility company or governmental agency having jurisdiction.
- B. Utilities:
 - 1. Protect and maintain in operation utility, irrigation, or sewer lines that are required to remain operative during the period of this contract.
 - a. If service is interrupted as a result of Work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
 - b. If active utility lines are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
 - c. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Architect and secure his instructions.
 - 1) Do not proceed with permanent relocation of utilities until written instructions are received from the Architect.

3.03 PROTECTION OR ADJUSTMENTS

- A. Enclose area of work with fence barricades.
 - 1. Protect trees and shrubs, where indicated to remain, by providing an additional fence around the tree or shrub so trees and shrubs will not be damaged in any way as part of the Work.
- B. The working area shall be kept securely locked at all times work is in progress.

- C. Post signs and warnings devices necessary to exclude all persons, except those directly connected with the work from work areas.
 - 1. Barricade open depressions and holes occurring as part of this Work, and post warning lights on property adjacent to or with public access.
 - a. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
- D. Maintain access to the project site at all times.
- E. Protect adjacent buildings, shrubs, trees, and lawns from damage.
 - 1. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by operations under this Section.
- F. Do not interfere with use of adjacent buildings or safe ingress or egress.
- G. Use of explosives will not be permitted.

3.04 CLEARING

- A. Remove from Site:
 - 1. Vegetation, including roots of plants not shown, to remain.
 - a. Roots under and/or within five feet of proposed structures shall be completely removed to a minimum depth of two (2) feet below the bottom of the lowest proposed structural footing or two (2) feet below existing grade, whichever is lower.
 - 1) Roots deeper than the elevation indicated above, shall be excavated to allow no roots larger than one and one-half (1-1/2) inches in diameter.
 - 2) Surface vegetation shall not be used as engineered fill or blended with and compacted.
 - b. Remove roots outside five feet of proposed structures and larger than 1-1/2 inch in diameter to a depth of at least 12 (12) inches below the existing ground surface.
 - 1) Treat roots smaller than one and one-half (1-1/2) inch in diameter remaining in the soil with a weed killer as specified in Section 02282 – Vegetation Control.
 - 2. Rubbish and debris;
 - 3. Rocks larger than 1 1/2" in diameter not shown to remain.
 - 4. Remove vineyard vegetation, posts, wires, and irrigation lines designated for removal on Drawings.
 - a. All underground irrigation lines shall be unearthed and removed from site.
 - 1) Plug or cap lines at property lines.
 - a) Coordinate with Construction Manager, when applicable, or Architect.

5. Reuse or recycling: Per T24, Part 11, CGBSC Section 5.408.3 100% of trees, stumps, rocks, and associated vegetation resulting from land clearing shall be recycled or reused.
 - a. Utilize a Waste Management Company that can provide verifiable documentation that waste was diverted from landfills.
 - b. Conform to Waste Management Plan Developed for this project.

3.05 CONSERVATION OF TOPSOIL

- A. After the area has been cleared of vegetation, strip the existing topsoil to a depth necessary to provide at least 6-inch depth of topsoil in areas shown on the Drawings to receive turf or plants, and to fill planters, without contamination with sub-soils.
 1. Coordinate topsoil volume required with Construction Manager, when applicable, or Architect. Remove excess topsoil from property and dispose of offsite in legal manner.
- B. Stockpile in an area clear of new construction.
 1. Maintain the stockpile in a manner, which will not obstruct the natural flow of drainage.
 2. Maintain stockpile free from debris and trash.
- C. Keep the topsoil damp to prevent dust and drying out.

3.06 CLEANING OR REPAIR

- A. Debris resulting from the work of this Section shall be removed and hauled away from the site.
 1. Debris and rubbish shall not be allowed to accumulate on the site.
- B. All material generated by this work shall be disposed of properly outside the project limits, in accordance with all applicable regulations, laws, and ordinances.
 1. Sprinkle loose material while being stored, handled, or loaded.
- C. Burning of removed materials is not permitted within the project limits.

3.07 CONDITION OF FINISHED WORK

- A. Protections, tools, materials, plant apparatus, and rubbish or debris shall be removed.
- B. Existing areas to remain, public or private property, that may have been damaged, made dirty, or otherwise disorderly as a result of this work shall be restored to good order.

END OF SECTION 31 10 00

EARTHWORK SECTION 31 22 00

PART 1 GENERAL

1.01 SUMMARY

A. Inclusions:

1. Provisions set forth in Divisions 0 and 1;
2. Earth moving;
3. Application of water as required for compaction or dust control;
4. Importing or removal of soil as required to complete the work;
5. Preparation of sub-grade below walks and paving;
6. Dust control during earthwork operations;
7. Clean up.

1.02 QUALITY ASSURANCE

A. Regulatory Compliance:

1. Work shall be performed in strict compliance with laws, ordinances, or regulations that govern this work.

B. Project Record Documents:

1. Any deviations from the work shown on the contract documents shall be clearly indicated on the project record documents.

PART 2 PRODUCTS

1.01 MATERIALS

A. Earth:

1. Filling and back-filling earth shall be clean and essentially granular with sufficient silt and clay binders.

B. Imported Fill:

1. If it becomes necessary to import materials from offsite to complete the site grading, import soils shall consist of essentially granular, silty sands with low expansion potential and free of grasses, weeds, debris, rocks larger than 4" in maximum dimension and soluble sulfates in excess of 200 parts per million. Import fill shall contain sufficient silt and clay binders to render them stable in footing trenches and capable of maintaining specified elevation tolerances during paving operations.

2. Any earthen materials proposed to be brought onto the school sites are subject to testing to verify they are in compliance with Department of Toxic Substance Control (DTSC) standards. Owner shall determine if testing of materials is required prior to any materials being brought onto the site. Testing of materials may take up to two weeks to verify compliance with DTSC standards.
3. Imported fill material shall be approved by the Soils Engineer.
4. Contact the Soils Engineer a minimum of 48 hours prior to the placement of fill materials to allow for proper review of the bottom of excavations.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Contractor shall thoroughly examine the project site prior to submitting his bid to familiarize himself with the conditions of the site and the conditions in which he will be required to work.
- B. Contractor shall thoroughly examine contract documents prior to bid.
 1. Documents do not necessarily indicate a balanced site.
- C. Contractor shall familiarize himself with the locations of utilities found onsite and shall protect utilities not shown to be removed.
 1. Coordinate excavations near existing utilities with utility companies.

3.02 INSTALLATION

- A. Excavations:
 1. Structural Over-Excavation:
 - a. Excavate to provide at least 12" of engineered fill beneath all footings and throughout the entire building.
 - 1) Extend over-excavation a minimum of five feet beyond the extent of exterior structural footings.
 - b. Comply with noted requirements shown on drawings.
 - c. Roots unearthed during excavation work shall be completely removed to a minimum depth of two (2) feet below the bottom of the lowest proposed structural footing or two (2) feet below finished subgrade, whichever is lower.
 - 1) Roots deeper than the elevation indicated above shall be excavated to allow no roots larger than one and one-half (1-1/2) inches in diameter.
 - d. Contractor shall notify Architect/Project Inspector for proper inspection/review of the bottom of the excavations can occur prior to continuing work.

2. Excavations for Concrete Footings:
 - a. Trench and excavation bottoms shall be smooth and uniform;
 - b. Do not excavate below required bottom of footing elevations;
 - 1) If over-excavated areas occur, they shall not be backfilled with earth materials.
 - 2) Fill with concrete to match footing at contractor's expense.
 - c. Keep excavations free of standing water.

B. Fill

1. Preparation for Fill:
 - a. Blade area to achieve a smooth uniform appearance.
 - b. Scarify to a depth of 6".
 - c. Moisten to near optimum moisture content.
 - d. Compact to required compaction to a depth of 6".
2. Placing and Compacting Fill:
 - a. Place fill material in even layers which do not exceed 8" thickness after compaction.
 - b. Compact to required compaction.
 - 1) Not less than 90% of maximum dry density per ASTM D1557.
 - 2) Rework layers not complying with minimum density requirements until compliance is achieved.
 - c. Fill to within 0.1 feet of indicated finished grades.
 - d. Surface of fill to be smooth and uniform.
3. Placing Fill on a Slope:
 - a. For sub-grades steeper than 10 to 1, place fill in flat bench layers.
 - 1) Benches shall be min. 10'-0" in width

C. Back-Filling:

1. After completion and inspection of concrete footings, fill voids between footings and earth banks with clean soil.
 - a. Place in layers that do not exceed 6" in thickness after compaction.
 - b. Compact to required compaction as specified for placing and compacting fill.
 - c. Fill to within 0.1 feet of indicated finished grades.
 - d. Surface to be smooth and uniform.
2. No jetting or ponding will be allowed, unless approved by the Structural Engineer of Record.

D. Finish Grading:

1. After cutting, filling, and back-filling are complete, finish grade site to within 0.1 feet of indicated grades, except as noted below.
 - a. Lawn or turf areas: 1" below adjacent walks.
 - b. Grade a sufficient distance behind curbs to allow for placement of forms.

E. Dust Control:

1. During all phases of the earthwork, water material and site to reduce dust.

F. Noise Control:

1. Use reasonable measures to control noise.

G. Cleanup:

1. Rake clean.
2. Remove unsuitable materials, excess materials, and debris, and dispose of offsite in a legal manner.
3. Adjacent roadways shall be kept clean during the progress of this work.
4. Upon completion of this work, water spray clean adjacent roadways.

3.03 PROTECTION

A. Contractor shall protect all adjacent properties from damage resulting from the work of this Section.

B. Contractor shall protect the work of other trades from damage resulting from the work of this Section.

1. Layout or survey markers shall be carefully maintained.
 - a. Damaged markers must be replaced at the contractor's expense.

C. Provide and maintain proper barricades or barriers to ensure safety of workers and the general public.

1. Provide dusk-to-dawn warning lights at hazards adjacent to public access.
2. Protect existing concrete walks, curbs, and other permanent structures that are to remain.
 - a. Repair or replace damaged items to the satisfaction of the Architect.

D. Contractor shall take precautions to avoid loss of soil or debris during transit.

E. Underground Utilities:

1. Maintain all underground utilities, unless noted otherwise.
 - a. Comply with utility company requirements.
2. Notify Owner and utility company of any utilities to be cut off, modified, or relocated.
 - a. Comply with utility company requirements.

F. Take necessary precautions to guard against water accumulation in trenches, under buildings, or on adjacent property during the course of this work.

G. Take necessary precautions to guard against erosion of the project site or adjacent property during the course of this work.

3.04 QUALITY CONTROL

A. Tolerances:

1. Variation from indicated grades may not exceed 1/10 of a foot.

B. Certification of Grades:

1. Contractor shall hire a California state licensed civil engineer or surveyor to certify that the grades established during the earthwork comply with the requirements of the contract documents.
2. Contractor shall deliver to Owner an electronic copy the grading plan (1"=30'-0" scale) as-graded plan.
 - a. Plan shall be produced in a professional manner.
 - b. Plan shall show as-graded elevations.
 - c. Plan shall be stamped and signed by the civil engineer or land surveyor hired by the Contractor to certify the grading.
3. The Owner reserves the right, at their own discretion, to hire an independent civil engineer to perform a survey of the project site to confirm the accuracy of the grading work.

C. Field Testing:

1. Field density testing shall be performed as directed by the Soils Engineer.

END OF SECTION 31 22 00

VEGETATION CONTROL SECTION 31 31 19

PART 1 GENERAL

1.01 SUMMARY

- A. Inclusions:
 - 1. Provisions set forth in Divisions 0 and 1;
 - 2. Pre-construction vegetation control;
 - 3. Clean up.
- B. Related Sections:
 - 1. Section 32 13 13 Site Concrete
- C. Performance Requirements:
 - 1. Sterilization shall prevent seed germination and plant growth, under paving, sidewalks, curbs, gutters, and other areas indicated on the drawings.

1.02 SUBMITALS

- A. Product or Material Data:
 - 1. Submit copies of material data sheets to the Architect for review prior to application.
 - 2. Submittal shall include the manufacturers data sheets showing the appropriate application rate for the proposed use.

1.03 QUALITY ASSURANCE

- A. Regulatory Compliance:
 - 1. Comply with regulations governing the storage and application of these materials.
 - 2. Conform to State of California requirements for licensure and authority to use toxicant chemicals.
- B. Qualifications:
 - 1. Application shall be performed by an applicator approved by the chemical manufacturer.
- C. Environmental Requirements:
 - 1. Apply materials only under environmental conditions within the manufacturer's range of recommended conditions.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use one of the following materials in working solution in strict conformance with governmental regulations:
 - 1. Under paving, sidewalks, curbs, gutters:
 - a. Treflan (Trifluralin);
 - b. Pramitol 25E (prometon)
 - c. Or approved equal.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine the area upon which work is to be performed.
 - 1. Correct detrimental conditions prior to application.

3.02 DELIVERY, STORAGE AND HANDLING

- A. Store materials in strict conformance with the manufacturer's written recommendations and government regulations.

3.03 INSTALLATION OR APPLICATION

- A. Apply in accordance with the manufacturer's recommendation.
- B. Apply to area receiving paving, sidewalks, curbs, and gutters immediately prior to installation.
- C. Apply herbicide material to bottom of apparatus yards, jump pits, and sand areas immediately prior to installation of protective surfacing.

3.04 PROTECTION OR ADJUSTMENTS

- A. Take precautions to protect adjoining property and areas designated for planting.

END OF SECTION 31 31 19