

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
- B. Stripping and removal of topsoil, vegetation, and unsuitable materials from designated areas.
- C. Excavation, handling, and stockpiling of earth materials for reuse or disposal.
- D. Protection and maintenance of stockpiled materials.
 - 1. Related Sections
 - 2. Section 31 00 00 – Earthwork
 - a) Section 31 23 00 – Excavation and Fill
 - b) Section 31 25 00 – Erosion and Sedimentation Controls
 - c) Section 31 20 00 – Earth Moving
 - d) Section 31 22 00 – Grading
 - e) Section 32 91 00 – Planting Soil and Soil Amendments
 - f) Section 01 35 29 – Health and Safety Procedures
 - g) Section 01 33 00 – Submittal Procedures
 - 3. Definitions
 - a) Earth Stripping: Removal of topsoil, vegetation, and unsuitable materials from the site surface.
 - b) Stockpiling: Temporary storage of stripped earth materials for reuse or disposal.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- C. ASTM D422 – Particle-Size Analysis of Soils
- D. ASTM D698 – Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³)
- E. ASTM D4318 – Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- F. ASTM D1556 – Density and Unit Weight of Soil in Place by the Sand-Cone Method
- G. Occupational Safety and Health Administration (OSHA) Standards
- H. OSHA 29 CFR 1926 – Safety and Health Regulations for Construction
- I. U.S. Environmental Protection Agency (EPA)
- J. EPA SW-846 – Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
- K. American National Standards Institute (ANSI)
- L. ANSI A10.9 – Safety Requirements for Excavation Work
- M. International Code Council (ICC)
- N. International Building Code (IBC) 2021 Edition

- O. Local and State Regulations
- P. Comply with all applicable local and state environmental, safety, and construction codes and regulations.

1.3 SUBMITTALS

- A. Action Submittals
 - 1. Product Data: Include manufacturer's information on equipment used for stripping and stockpiling.
 - 2. Construction Schedule: Indicate timing and sequence of stripping and stockpiling operations.
 - 3. Method Statement: Detailed description of procedures for stripping, excavation, stockpiling, and protection of materials.
 - 4. Equipment List: Identification of equipment intended for use.
 - 5. Quality Control Plan: Procedures for soil classification, testing, and verification of material suitability.
 - 6. Erosion and Sediment Control Plan: Include measures to prevent erosion and sedimentation during stripping and stockpiling.
- B. Informational Submittals
 - 1. Soil Test Reports: Results of soil classification, contamination, and suitability analyses.
 - 2. Material Source Documentation: Documentation identifying sources of imported soils if used.
 - 3. Safety Plan: Health and safety procedures related to earth stripping and stockpiling operations.
 - 4. Environmental Protection Measures: Documentation of compliance with environmental permits and regulations.
 - 5. Photographic Documentation: Pre-stripping and post-stripping site conditions.

1.4 QUALITY ASSURANCE

- A. Qualifications
 - 1. Perform work by experienced personnel skilled in earth stripping and stockpiling operations.
 - 2. Contractor shall employ a qualified geotechnical engineer or soil specialist to oversee testing and classification.
- B. Testing and Inspection
 - 1. Soil samples shall be tested in accordance with ASTM standards referenced in 1.2.
 - 2. Verify soil moisture content and compaction characteristics to ensure suitability for reuse or disposal.
 - 3. Inspections shall be conducted to verify compliance with project requirements and environmental regulations.

C. Environmental Compliance

1. Comply with all erosion and sedimentation control requirements during stripping and stockpiling.
2. Maintain dust control measures to minimize airborne particulates.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery

1. Coordinate delivery of equipment and materials to minimize site congestion and disruption.

B. Storage

1. Stockpile stripped materials in designated areas as indicated on project drawings.
2. Protect stockpiles from contamination, erosion, and excessive moisture.
3. Maintain stockpile geometry to prevent instability and ensure ease of access.

C. Handling

1. Handle materials to prevent mixing of unsuitable materials with approved soils.
2. Prevent compaction or degradation of stockpiled materials by restricting heavy equipment movement over stockpiles.

1.6 WARRANTIES

- A. Provide warranty that stripped and stockpiled materials are free from contamination and meet project specifications for reuse.
- B. Warranty period shall be minimum one year from date of substantial completion.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Equipment Manufacturers (examples)

1. Caterpillar Inc.
2. John Deere
3. Komatsu Ltd.
4. Volvo Construction Equipment
5. Hitachi Construction Machinery

B. Material Suppliers

1. Local soil suppliers approved by project geotechnical engineer.
2. Suppliers of erosion control materials and soil amendments as specified in related sections.

2.2 MATERIALS

A. Stripped Topsoil

1. Free of roots, debris, stones over 2 inches in diameter, and other deleterious materials.
2. Suitable for reuse in landscaping, planting, or site restoration.
- B. Subsoil and Other Earth Materials
 1. Classified and tested according to ASTM D2487 and project geotechnical requirements.
 2. Free of organic matter and unsuitable contaminants.
- C. Erosion Control Materials
 - a) Mulch, geotextiles, silt fences, and other materials conforming to Section 31 25 00.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Verify site boundaries and stripping limits with project surveyor.
- B. Identify and mark protected areas and utilities prior to stripping.
- C. Install erosion and sediment control measures as required before beginning stripping operations.
- D. Conduct pre-stripping photographic documentation of existing site conditions.

3.2 EARTH STRIPPING

- A. Remove topsoil, vegetation, and unsuitable materials to depths and limits indicated on drawings or as directed by Engineer.
- B. Strip materials in a manner to prevent mixing of unsuitable soils with topsoil or stockpile materials.
- C. Do not strip when soils are frozen or excessively wet to avoid damage and contamination.
- D. Transport stripped materials promptly to designated stockpile areas.
- E. Maintain safe slopes and access routes during stripping operations.

3.3 STOCKPILING

- A. Locate stockpiles in designated areas with stable subgrade and adequate drainage.
- B. Construct stockpiles to a height not exceeding 10 feet unless otherwise approved.
- C. Shape stockpiles to promote drainage and minimize erosion.
- D. Protect stockpiles from contamination by debris, waste, or construction materials.
- E. Cover or stabilize stockpiles as required to control dust and erosion.
- F. Restrict equipment movement on stockpiles to prevent compaction and degradation.
- G. Maintain records of stockpile volumes, locations, and material characteristics.

3.4 TESTING AND ACCEPTANCE

- A. Sample stockpiled materials for classification and suitability testing in accordance with ASTM standards.
- B. Reject materials contaminated or unsuitable for reuse; remove from site or dispose of according to regulations.
- C. Engineer will perform periodic inspections of stripping and stockpiling operations to verify compliance.

3.5 CLEANUP

- A. Remove debris, unsuitable materials, and equipment from site upon completion of stripping and stockpiling.
- B. Restore disturbed areas outside stripping limits as directed.

3.6 PROTECTION

- A. Protect stripped and stockpiled materials from erosion, contamination, and compaction until reused or removed.
- B. Maintain erosion and sediment control devices during stockpiling phase.
- C. Monitor stockpiles regularly for signs of instability or environmental impact and take corrective action as necessary.

END OF SECTION

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DEMX ARCHITECTURE
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