PART 1 GENERAL

1.01 SECTION INCLUDES

A. CONTRACTOR shall provide environmental controls consistent with regulatory requirements throughout the duration of the PROJECT.

B. Full compensation for required compliance and cooperation is considered subsidiary to other items of WORK, and no additional compensation will be allowed.

1.02 SUBMITTALS

A. Dust control agents other than water must be approved by ENGINEER prior to use.

B. Plan for water control, if requested, prior to beginning any WORK.

C. Stormwater quality management measures, Stormwater Management Plan (SWMP) and methods proposed by CONTRACTOR must be in conformance with all applicable permits and approved by ENGINEER prior to installation and prior to moving onto the construction site.

1. Submit the initial phase SWMP at the preconstruction conference. Submit plans for future phases of construction a minimum of 28 days before start of that construction phase to allow review and resubmittal, if necessary.

D. Prepare schedules to implement stormwater management features, including but not limited to erosion and sediment control work, and submit for acceptance at preconstruction conference.

1. Schedules shall incorporate construction activities, haul roads, borrow pits, storage and plant sites, and the plan for disposal of waste material.

2. WORK shall not start until the ENGINEER has approved these schedules.

1.03 RELATED SECTIONS

A. The following is a list of SPECIFICATIONS, which may be related to this section:

1. Section 01 14 19, Use of Site.

2. Section 00 73 00, Supplementary Conditions

3. Section 00 73 00. Supplementary Conditions, Article 90, Permits

4. Section 00 73 94, Special Project Procedures
PART 3 EXECUTION

3.01 DUST CONTROL

A. CONTRACTOR shall minimize dust from construction operations.

B. During the performance of the WORK, whether on right-of-way provided by OWNER or elsewhere, CONTRACTOR shall furnish labor, equipment, and materials to control dust at all times, including evenings, holidays, and weekends.

C. CONTRACTOR shall be liable for any damage resulting from dust originating from CONTRACTOR’s operations.

3.02 HOUSEKEEPING

A. CONTRACTOR shall keep the PROJECT neat, orderly, and in a safe condition at all times, and shall store and use equipment, tools, and materials in a manner that does not present a hazard.

B. CONTRACTOR shall provide on-site containers for collection of rubbish and construction waste and dispose of it at frequent intervals during the progress of WORK, and whenever directed by ENGINEER.

C. CONTRACTOR shall be responsible for conforming will all elements of the SWMP and other CDPHE permits, including any requirements addressing storage and disposal of potential stormwater pollutants.

3.03 DISPOSAL

A. CONTRACTOR shall legally dispose of waste materials and materials determined by ENGINEER to be waste in an approved disposal site in a manner meeting all federal, state, local, and PROJECT regulations.

B. CONTRACTOR shall not bury waste unless authorized by the OWNER and the ENGINEER.

C. All costs related to disposal, including but not limited to dump fees, permits, etc., will be the responsibility of CONTRACTOR.

D. Excess excavation shall become the property of CONTRACTOR (unless otherwise specified) and be legally disposed of by CONTRACTOR outside the limits of construction in an approved disposal site.

E. Excess excavated material suitable for backfill shall not be disposed of until all backfill operations are complete.

F. CONTRACTOR shall immediately inform ENGINEER of any hazardous materials encountered during construction and legally dispose of such hazardous materials at an approved disposal site.

G. Burning will not be permitted.
3.04 WATER CONTROL

A. Periodic Flooding:
   1. The PROJECT may be subject to periodic flooding as a result of rainfall and snowmelt, reservoir or pond releases, flows from adjacent developed areas and stormwater pipes, and groundwater flows from saturated soils or other groundwater sources.
   2. Refer to Section 31 23 19, Dewatering, for water control and dewatering requirements.

B. Until final acceptance of the PROJECT by OWNER, CONTRACTOR shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof from any cause, including surface and subsurface water, whether arising from the execution or from non-execution of the WORK.

C. CONTRACTOR shall rebuild, repair, restore, and make good injuries or damages to any portion of the WORK because of causes beyond the control of and without the fault of negligence of CONTRACTOR, including but not restricted to high water, floods, or acts of God, of the public enemy, or of governmental authorities.

D. CONTRACTOR shall be responsible for the PROJECT and shall take such precautions as may be necessary to construct the PROJECT in a dry condition and provide for drainage, dewatering, and control of surface and subsurface water and shall erect any necessary temporary structures or other facilities at CONTRACTOR’s expense.

E. CONTRACTOR is advised that the WORK may occur in a river or drainage channel subject to intermittent and extensive runoff conditions such that, unless the construction area is properly protected, localized flooding and extensive soil erosion may occur.

F. OWNER, at OWNER’s option, may require CONTRACTOR to update the water control plan.

G. CONTRACTOR, at CONTRACTOR’s expense, shall furnish necessary equipment and materials required to control surface and subsurface water in all areas from start of WORK through the completion of the PROJECT. Applicable permits related to specific controls shall be obtained by CONTRACTOR and all associated fees shall be borne by the CONTRACTOR.

H. CONTRACTOR is responsible for furnishing; transporting; and installing all materials and equipment, well points, pumping, channelization, diversion, damming, or other means of controlling surface water, groundwater, runoff from other drainage tributaries, and pipe effluent as necessary to complete all of the WORK in accordance with the CONTRACT DOCUMENTS.

3.05 WATER QUALITY CONTROL

A. CONTRACTOR shall comply with the “Colorado Water Quality Control Act”, the “Protection of Fishing Streams”, the “Clean Water Act”, regulations promulgated, certifications issued, and the construction requirements listed below.
1. In the event of conflicts between Federal and State water quality control laws, rules, or regulations, the more restrictive laws, rules, or regulations shall apply.

B. This WORK shall consist of measures needed for the purpose of minimizing water pollution, erosion, and sedimentation during the length of the construction activity.

C. This SPECIFICATION shall be followed to minimize the pollution of any watercourse, wetland, or water impoundment area.

D. Stormwater Management Plan (SWMP):

1. If a SWMP is provided in the DRAWINGS and SPECIFICATIONS it shall be used by CONTRACTOR as a guideline only. The CONTRACTOR shall be responsible for the development and implementation of the SWMP.

2. CONTRACTOR shall submit SWMP for review by OWNER in accordance with the submittal requirements defined in these SPECIFICATIONS. Adjustments to the approved plan may be required by OWNER based on actual construction operations. Changes to the plan shall only be made with the written approval of the OWNER.

3. The SWMP may include measures for the control of erosion and sedimentation, and measures for stormwater quality management.

4. CONTRACTOR shall take the necessary steps to comply with the intent of OWNER’s SWMP guidance, if it is provided in the DRAWINGS and SPECIFICATIONS, and other applicable standards, permit conditions, and regulations of appropriate agencies.

E. CONTRACTOR shall construct, operate, maintain, and remove in a safe manner temporary erosion and sediment control features described in OWNER’s SWMP guidance, if it is provided in the DRAWINGS and SPECIFICATIONS.

F. CONTRACTOR shall conduct the WORK in such a manner to prevent contamination of adjacent watercourses, wetlands, or water impoundment areas.

G. Diversion or Bypass around Erosion Control Facilities:

1. Any diversion from, or bypass of water around facilities necessary to maintain compliance with the terms and conditions contained in SWMP is prohibited except:

   a. Where unavoidable to prevent loss of life or severe property damage.

   b. Where excessive storm drainage or runoff would damage the facilities.

2. If diversion or bypass of water around the facilities occurs, CONTRACTOR shall immediately notify OWNER of the occurrence.
3. CONTRACTOR, at CONTRACTOR’s expense, shall repair the breached or bypassed facilities and shall be responsible for the restoration of site drainage to conform to the requirements of the approved SWMP.

H. If CONTRACTOR installs a portable concrete or asphalt plant, it is CONTRACTOR’s responsibility to obtain stormwater discharge and other required permits for such plants.

I. CONTRACTOR shall provide design and implementation methods for overall site stormwater quality management to prevent contaminated surface runoff from entering the waters of the State and of erosion and sediment control measures for the purpose of correcting conditions unforeseen during the design of the PROJECT, or for emergency situations that develop during construction.

1. Applicable erosion and sediment control measures can be found in the UDFCD Urban Storm Drainage Criteria Manual, Volume 3—Best Management Practices.

J. CONTRACTOR shall include temporary erosion and sediment control features for construction work outside the right-of-way that is necessary for borrow pits, haul roads, and equipment and material storage sites.

1. Should the inclusion of these additional work areas cause the PROJECT to be subject to Stormwater Discharge Permit(s), it shall be CONTRACTOR’s responsibility to obtain the necessary permit(s).

K. CONTRACTOR shall continuously maintain stormwater management features from start of WORK through the completion of the PROJECT, ensuring proper functionality.

L. CONTRACTOR is responsible for the removal and storage and/or disposal of accumulated sediment.

M. Any construction waste or salvageable material, excavation excess material, fill material, construction equipment, toxins, fuels, lubricants, and other petroleum distillates shall not be stored or stockpiled within fifty (50) feet of the ordinary high water line of any watercourse, wetland, or water impoundment area or other sensitive areas as identified by the ENGINEER.

N. Equipment servicing shall occur within ENGINEER approved designated areas.

O. Spill prevention and containment measures as proposed by CONTRACTOR and approved by ENGINEER shall be used at all storage sites.

3.06 NOISE CONTROL

A. Mechanical equipment shall be equipped with the best available mufflers to reduce noise.

B. CONTRACTOR shall be responsible for obtaining any necessary permits and shall limit noise to the levels established in the permit and in local jurisdiction noise control ordinances, if applicable.
C. CONTRACTOR shall perform noise level monitoring as necessary, or as requested by the OWNER, to show that permitted noise levels are not exceeded.

D. During the performance of the WORK, whether on right-of-way provided by OWNER or elsewhere, CONTRACTOR shall furnish all the labor, equipment, and materials required to reduce the noise nuisance.

3.07 OTHER SPECIAL PROJECT CONTROL MEASURES.

A. Other Special Project Control Measures should be included in Section 00 73 94 SPECIAL PROJECT PROCEDURES.

END OF SECTION