

Stormwater Management Plan (SWMP) for

Arby's | Falcon, Colorado

Project:

Arby's | Falcon, CO
11775 Meridian Market VW
Falcon, CO 80831

Client & Applicant:

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Item 1. Add Qualified Stormwater Manager and Contractor Information to cover/title sheet. If unknown, add a placeholder to be updated prior to the pre-construction meeting:

QUALIFIED STORMWATER MANAGER

Name: _____

Company: _____

Address: _____

CONTRACTOR

Name: _____

Company: _____

Address: _____

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1.0 QUALIFIED STORMWATER MANAGER:

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2.0 SPILL PREVENTION AND RESPONSE PLAN:

- A. Spill Prevention and Response Procedures:
- The stormwater manager, contractor, and/or person of contact will make it the primary objective to respond to spills of any kind very quickly and proactively. The prevention and minimization of spills into the storm water runoff and conveyance system will be taken into account onsite. If a spill release occurs, it is critical to contain all contamination and materials to prevent their release into the receiving waters.
 - Spill Response Procedures:
 - Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
 - Site personnel shall respond to the situation immediately if a spill represents a substantial threat to the receiving waters so that the spill can be contained, and the site superintendent should be notified after the situation has been stabilized.
 - The stormwater manager, contractor, site superintendent, and/or person of contact shall be responsible for completing a spill report form and for reporting the spill to the appropriate agency.
 - Inspected and maintained spill response equipment shall be available as necessary to replace any used spill prevention materials.
 - Spill kit locations shall be reported to the stormwater manager, contractor, site superintendent, and/or person of contact. All fueling sites shall contain the necessary spill kits.
 - Absorbent materials, which are used in cleaning up spilled materials, will be disposed of in a manner subject to the approval of the Colorado Department of Public Health.
- B. Notification Procedures:
- Any personnel observing a spill will immediately instigate the following procedure:
 1. Dialing "0" from any telephone.
 2. Notify the appropriate emergency personnel.
 - The Emergency Coordinator will then take the following actions:
 1. Barricade the area allowing no vehicles to enter or leave the spill zone.
 2. Notify the Colorado Department of Public Health, Office of Emergency Response by calling the appropriate telephone number:
Office: 720-924-1398
Toll Free: 888-569-1831 x3320
Also notify the National Response Center at 800-424-8802 and provide the following information:
 - Time of observation of the spill
 - Location of the spill
 - Identity of material spilled
 - Probable source of the spill
 - Probable time of the spill
 - Volume of the spill and duration

- Present and anticipated movement of the spill
 - Weather conditions
 - Personnel at the scene
 - Action initiated by personnel
3. Notify the Falcon Fire Department (719) 495-4050
 4. Notify the Colorado Springs Police (Falcon Division) (719) 444-7240
 5. Notify waste recovery contractor, maintenance personnel or other contractual personnel as necessary for cleanup.
 6. Coordinate and monitor cleanup until the situation has been stabilized and all spills have been eliminated.
 7. Cooperate with the CDPHE Response Team on procedures and reports involved with the event.

3.0 MATERIALS HANDLING

A. General Materials Handling Practices:

- Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. Material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as required to prevent storm water from contacting stored materials. Chemicals that are not compatible shall be stored in separate areas so that spilled materials cannot combine and react.
- Disposal of materials shall be in compliance with the local jurisdiction, the Colorado Department of Public Health, the Environmental Protection Agency, and with the manufacturer's instructions.
- As soon as materials become no longer usable onsite, they should be removed immediately.

B. In order to keep the site clear of obstruction and the downstream BMPs functional, adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided.

C. Specific Materials Handling Practices:

- All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate storm water.
- All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored on site shall be covered and contained and protected from vandalism.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
- Wheel wash water shall be settled and discharged on site by infiltration. Wheel wash water shall not be discharged to the storm water system.
- Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and ad application rates that will not result in loss of chemicals to storm water runoff. Follow manufacturer's recommendations for application rates and procedures.
- Sources with pH-modifiers shall be managed to prevent contamination of runoff and storm water collected on site. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste

streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

- D. Contractor to implement appropriate spill prevention and response procedures during equipment maintenance and fueling.
- E. Concrete Washout: Any discharge of water containing waste cement from the concrete wash station to the stormwater runoff conveyance system is prohibited.

4.0 POTENTIAL SOURCES OF POLLUTION

The description of potential pollutants sources associated with the construction activities are as follows: Silt and sediment from exposed soils, leaves, mulch, vehicular sources such as leaking fuel or oil, brake fluid, brake dust, trash, debris, biological agents found in trash, fertilizers, herbicides, pesticides, acid rain, lime dust and concrete washout. Add in portable toilets.

5.0 IMPLEMENTATION OF CONTROL MEASURES

The below sequencing and description of the proposed construction activities have been created in an effort to eliminate sediment from leaving the project during construction while protecting the adjoining properties and downstream waterways.

Pre-Construction Activities:

1. Call the necessary utility locate service to check the location of any existing utilities. They should be notified two working days before construction takes place.
2. A silt fence shall be installed at the edges of the project site where there is potential for any stormwater runoff. Potential areas are identified based on existing topography and shown on sheets CE-101. The installed silt fence should be inspected, and any accumulating sediment removed.
3. Evaluate existing vegetation suitable for use as filter strips along the project boundaries.
4. A construction entrance shall be placed as shown on sheet CE-101.
5. Establish construction staging area for equipment and vehicles as far from swales as possible.
6. Establish onsite location for owner/operator/contractor placement of approved plans.

Construction Activities:

1. Once erosion and sediment control measures are in place, begin land clearing. Land clearing and demolition shall be followed immediately by rough grading. Do not leave large areas unprotected for more than 14 days. All disturbed areas that potentially will be idle for 14 days or more will be stabilized (seeded, mulched, etc.) immediately.
2. After the completion of mass grading, all final grading, the seeding of landscape berms, and the construction of swales shall immediately take place.
3. Upon completion of mass grading, install sanitary and storm sewers. As storm sewers are constructed, install inlet protection measures.
4. Upon completion of sewer installation and inlet protection, proceed with concrete pavement construction.
5. As necessary, liming of streets should be done prior to the installation of storm sewers to prevent the transmission of lime dust to ponds or receiving waters.
6. Once inlet protection is in place, final grade all areas.
7. Contractor shall maintain erosion control measures and devices during the construction phase and until siltation of the streets and storm sewers will no longer occur.

Add the following note to the appropriate section of the SWMP:

Toilets: Portable toilets will be located a minimum of 10 feet from stormwater inlets and 50 feet from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

8. After all disturbed areas have been stabilized, remove accumulated sediment from sediment basin and diversion swales.
9. When 70% of vegetative cover is obtained and all temporary erosion and sediment control measures have been removed, the owner shall notify the governing agencies of completion.

Sequence of Major Activities / Schedule: Start – March 1, 2021, End – April 2022

- | | | |
|----|--|---------------|
| 1. | Initial pre-construction control measures to be installed. | March 1, 2021 |
| 2. | Site Grading with interim control measures. | March 2021 |
| 3. | Seeding and mulching with interim control measures. | October 2021 |
| 4. | Final Stabilization with final control measures. | April 2022 |

Erosion and Sediment Controls (See Sheets CE-101 & CE-501 of the construction plans):

1. Silt Fence to be installed along downstream limits of disturbed areas
2. Inlet Protection to be installed at all necessary storm inlets
3. Temporary Gravel Entrance to be installed for construction equipment & vehicle tracking
4. Existing vegetation beyond the limits of construction will be preserved
5. Temporary Seeding to be installed in areas that will be disturbed for significant periods of time
6. Permanent Seeding and Mulching will be installed after rough grading

Other Controls:

1. All waste materials to be disposed appropriately off-site to an appropriate location.
2. Contractor keep all surrounding streets free of debris, trash, dirt, etc.

6.0 SITE DESCRIPTION

A. Nature of Construction Activity

- o The site is located near the southwest corner of Woodmen Road and Meridian Road in El Paso County, CO within the Falcon Highlands Market Place commercial subdivision. The subject property has been platted as Lot 2 within the FHMP Filing No. 1B and has been assigned an address of 11775 Meridian Market View; Falcon, Colorado. The proposed improvements will include a ±2,579 square-foot Arby's fast-food restaurant building along with its associated parking, drainage, and utility infrastructure.
- o Stormwater quality and detention has been master planned for the subject site's proposed improvements and the overall calculations for the entire commercial subdivision has been provided in the appendix of the drainage report for this site. Applicable pages from the "Falcon Highlands Market Place Filing No. 1B Preliminary and Final Drainage Report" prepared by URS (October 18, 2005) can be found in the Appendix of the drainage report for this site.

B. Proposed sequence of major activities: See Section 5 above regarding all construction phasing and activities.

C. Total Site Area = 1.14 acres; Project Disturbed Area = 0.80 acres

D. Soil erosion potential and potential impacts upon discharge:

- o According to the USDA Natural Resources Conservation Service for El Paso County, on-site soils consisted of Blakeland-Fluvaquentic Haplaquolls soils.

E. Existing site vegetation: This site is currently a vacant outlot with mainly grass vegetation.

F. Allowable non-stormwater components of discharge: Non-anticipated.

G. Receiving waters: The ground cover over the existing site generally directs stormwater runoff from north to south into a master planned storm sewer system located in the Meridian Market VW right-of-way. Stormwater is collected by the existing storm sewer system and then directed

Item 9. Include method used to determine ground cover (i.e., visual, aerial inspection)

To what degree does this type of soil have the potential to erode (high, medium, low), and what would the downstream impacts be?

Item 26. Add a note stating that this project does not rely on control measures owned or operated by another entity.

Describe what stream/river is just downstream of the pond.

- to an existing wet stormwater quality detention pond (Pond 'MN' in the master planned report) that is located just south of the subject site and across Meridian Road.
- H. Stream Crossings: No stream crossings are located within the construction limits.

Item 12. Note that this project does not anticipate utilizing batch plants in the SWMP text

7.0 SITE MAP

The Stormwater Pollution Prevention construction plan sheets (CE-101 & CE-501) identify maps of the stormwater management plan. SWMP should be viewed as a "living document" that is continuously being reviewed and modified as a part of the overall process of evaluating and managing stormwater quality at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, operation or maintenance of the site which would require the implementation of new or revised BMPs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity or when BMPs are no longer necessary and are removed. The contractor shall update all necessary agencies of any changes to the SWMP.

8.0 FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

- A. Permanent seeding will be implemented in order to achieve long-term stabilization.
- B. A seed mixture suitable for the climate in which the subject site is located will be selected.
- C. Seeding application rates: Dryland – 20 to 25 lbs/acre, Irrigated – 40 lbs/acre. Seed should be drilled 0.25 to 0.5 inches into the soil.
- D. Mulching Stabilization Application: Apply 1-1/2 tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier. On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of much and mulch tackifier.
- E. Soil Fertilizer Application: Seed supplier to recommend the fertilizer application which shall consist of 90% fungal biomass (mycelium) and 10% potassium-magnesia with a grade of 6-1-3 or approved equal.
- F. Soil Conditioner Application: Apply conditioner, organic amendment to all seeded areas at 3 cubic yards per 1000 square feet.
- G. Final stabilization is achieved when 70% of vegetative cover is obtained and all temporary erosion and sediment control measures have been removed, the owner shall notify the governing agencies of completion.
- H. Apply all final control measures which include the site landscaping and reseeding for stabilization, making sure all spill containment procedures are followed, and any remaining housekeeping procedures.

Note/discuss the offsite stormwater detention pond that the SW from this site is directed to (Pond MN)

9.0 INSPECTION REPORTS

- A. Designated Inspector: He or She shall be a Qualified Stormwater Manager (QSM) that meets the Colorado Department of Pubic Health & Environment (CDPHE) criteria. Required duties for the QSM are identified in the Erosion Control Manual Appendix I.5.
- B. Inspection Frequency:
 - o Contractor shall inspect all BMPs and erosion control measures bi-weekly at a minimum, and immediately (within 24 hours) after any precipitation event occurs that causes surface erosion.
 - o Contractor to make sure all BMPs and erosion control measures are maintained in an effective operating condition daily.
- C. Inspection Items of Observation:
 - o All discharge points into the storm sewer conveyance system.
 - o All disturbed areas.
 - o Material storage and waste areas that are subject to precipitation.
 - o Locations where vehicles enter/leave the project site and concrete wash out locations.
 - o All erosion and sediment control measures identified on in the SWMP and/or on Sheet CE-101 of the construction plan documents.

- Spill response kit(s) condition.
- Any other structural BMPs that may require maintenance.
- D. Inspection Requirements and Procedures:
 - Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately, or problem vehicles or equipment should be removed from the project site.
 - Inspect and verify that BMPs and erosion control measures are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly to verify continued BMP implementation.
 - Inspect BMPs and erosion control measures subject to non-stormwater discharge daily while non-stormwater discharges occur. Inspect construction waste area regularly and Arrange for regular waste collection.
 - Inspect to determine if there is any evidence of, or potential for, pollutants entering the drainage system.
 - Inspect all site BMPs and erosion control measures to determine if they continue to adequately control all pollutants generated by site activity. All site BMPs shall meet design and operational criteria in the SWMP.
 - BMPs and erosion control measures shall be replaced or upgraded if not operating properly and functioning per the SWMP criteria.
 - Contractor shall remove sediment that has been collected by perimeter controls, such as silt fence and inlet protection, on a regular basis to prevent failure of BMPs, and remove potential of sediment from being discharged from the site in the event of BMP failure.
 - Contractor to NOT remove sediment or potential waste to ditches or streams and to instead mobilize to an appropriate disposal location.
 - Contractor to update the SWMP, Erosion Control Construction Sheets, and all other plan items with any new BMPs that will be utilized during the construction phase.
 - Contractor shall address BMPs that have failed or have the potential to fail without maintenance or modifications, as soon as possible, immediately in most cases, to prevent discharge of pollutants.
- E. Inspection Requirements and Procedures:
 - Inspection logs, records, and reports to be maintained by the contractor and should be located at the project site. All SWMP records shall be available to any necessary governing agencies at the project site.
 - QSM to sign all inspection logs.
 - During a period of 3 years after permit expiration or inactivity shall the permittee document all inspection results and records.
 - Inspection records to include the following:
 - Date of Inspection
 - Inspector's name, title, and signature.
 - Any site locations of sediment and/or pollutant discharge.
 - Any site locations in which BMPs are in need of maintenance.
 - Any site locations in which BMPs have failed to operate per SWMP criteria or were proved to be inadequate.
 - Any site locations of BMPs that were added as necessary.
 - Any modifications to the SWMP or Erosion Control Construction Plans.
 - Any reasoning of why the minimum inspection schedule could not be met.