

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF AVIATION  
DENVER INTERNATIONAL AIRPORT**

**LICENSE AGREEMENT**

**Multi-Purpose License – Northwest Corner of CPB & I-70**

**THIS LICENSE AGREEMENT (“Agreement”)** is entered into as of the date stated on the City’s signature page below (“**Effective Date**”) by and between the **CITY AND COUNTY OF DENVER (“City” or “Grantor”)** on behalf of its Department of Aviation (“**DEN**”), **FOREST CITY STAPLETON, LLC**, a Colorado limited liability company (“**FCS**”), the **PARK CREEK METROPOLITAN DISTRICT**, a quasi-municipal corporation and political subdivision of the State of Colorado (“**District**”) and the **STAPLETON DEVELOPMENT CORPORATION**, a Colorado nonprofit corporation (“**SDC**”). FCS and the District are collectively referred to herein as “**Grantee.**”

**WHEREAS**, the City owns, operates and maintains the Denver Municipal Airport System, which includes the former Stapleton International Airport (hereinafter “**Stapleton**” or “**Stapleton Site**”); and

**WHEREAS**, the City and Grantee have entered into a Master Facilities Development Agreement (“**MFDA**”) for the purpose of coordinating the review of phasing infrastructure at the Stapleton Site; and

**WHEREAS**, the City and Grantee anticipate entering into an Individual Facilities Development Agreement No. MD (“**IFDA**”) as required by the MFDA, prior to any infrastructure being constructed in the location shown on **Exhibit A (“Property”)**; and

**WHEREAS**, Grantee, at no cost to the City or its Department of Aviation, desires to utilize fill available from property within the Stapleton Site to bring the Property to final grade for development prior to purchase, and will perform such work in conformance with the MFDA and the IFDA and this Agreement; and

**WHEREAS**, the Grantee is qualified and ready, willing and able to complete such activities;

**NOW THEREFORE**, the City and Grantee covenant and agree as follows:

**1. CONSIDERATION.** Grantor makes these grants in consideration of the payment of Ten Dollars (\$10.00) and in consideration of Grantee performing the covenants herein and the signing by FCS and SDC of a “**Waiver Agreement and Joinder**” generally in the form attached hereto. The payment shall be made by Grantee or within ten (10) days of the date first above written, in good funds payable to the Airport Revenue Fund.

**2. PERMITTED ACTIVITIES.** “Permitted Activities” shall mean the following: (i) general construction traffic access, ingress and egress; (ii) compaction testing; (iii) Stormwater Management Plan control installation and maintenance; and (iv) site grading and placement of fill on the Property.

**3. GRANT OF LICENSE.** The City hereby grants to Grantee a nonexclusive license for the sole purpose of conducting the Permitted Activities within, across, and under the Property. Grantee shall be solely responsible for all soil placements, transportation, construction management including dust control, and ensuring no utilities or other property is damaged by Grantee’s activities on the Property. The City shall make information available to Grantee regarding any subsurface structures, pipelines, or cables that the City has knowledge of, but the City is not under a duty to inspect for the precautions to avoid damage to, or injury from, such utilities. Grantee agrees to be solely responsible for any such damage to or injury from, any such utilities on the City’s property which result from the Permitted Activities conducted by Grantee as specified herein.

All costs and expenses of the Permitted Activities conducted by Grantee under the Agreement, and of all work related thereto conducted by, through, or under Grantee, shall be at no cost to the City’s Department of Aviation. Grantee agrees to promptly pay when due, all bills, debts and obligations incurred by it in connection with its Permitted Activities on City property hereunder and not to permit the same to become delinquent and to suffer no lien, mortgage, judgment, or execution to be filed against the Property or improvements thereon.

The Permitted Activities shall be subject to the following additional requirements:

- a. Grantee shall perform the following tasks prior to commencing the Permitted Activities:
  1. Areas to be backfilled shall be surveyed prior to any backfill operations to determine the current grade, and a copy of the survey provided to the Project Manager.
  2. The area to be filled and graded shall be cleared and grubbed and representative samples collected from the resulting stockpiled soil at a frequency of one in every 2,000 cubic yards, or if the stockpile is less than 2,000 cubic yards, a minimum of three samples shall be collected. Soil samples shall be analyzed for the analytes specified for import soils in **Exhibit C**. Results of such sampling and testing shall be provided to Project Manager.
  3. The following shall be submitted to the Project Manager:
    - i. a description of the tasks that will be performed;
    - ii. a depiction of the locations where fill will be placed; and
    - iii. documentation of compliance with the Imported Soil Protocol attached hereto as **Exhibit C**.
- b. After completion of the Permitted Activities, a survey of the final grade of the Property shall be submitted to the Project Manager.

**4. PURPOSE OF LICENSE.** Grantee wishes to obtain authorization for itself, its employees, contractors, subcontractors, invitees, and successors and assigns (collectively, the “Grantee’s Parties”) to use the Property for the Permitted Activities.

**5. STORMWATER MANAGEMENT.**

a. During the term of this License, (i) the Grantee shall maintain all necessary permits for construction stormwater discharges (“**Stormwater Permits**”) related to construction activities on the Property; and (ii) the City shall provide sufficient access and operational control to the Grantee over the Property to implement the stormwater management plan attached as **Exhibit B** (“**SWMP**”).

b. All erosion control inspection and maintenance operations by the Grantee under the SWMP will be conducted outside of any area included in any environmental remediation activities, if applicable.

c. The City shall not interfere with or damage, and shall prohibit its contractors, permittees, lessees, licensees, and invitees from interfering or damaging, any structures or measures Grantee implements on the Property under the SWMP. If the City or its contractors, permittees, licensees, or invitees damage or interfere with any such structures or measures, subject to appropriation if required, the City shall promptly correct such damage or interference in a manner sufficient to avoid any violation of the Grantee’s Stormwater Permits or pay to Grantee an amount sufficient to compensate for the loss sustained by Grantee as a result of such damage or interference. However, if the Grantee modifies the SWMP during the term of this License, the City shall have no obligation to correct, or reimburse the Grantee, for any such damage to any modified structure or measure unless the City received advance notice of such modification.

d. If the City revokes or modifies this License in a manner that limits or eliminates such operational control prior to the Termination Date, such revocation or modification shall be effective on the date that City and Grantee either transfer the Property to the City’s Stormwater Permits or the Grantee completes all steps necessary to terminate the Grantee’s Stormwater Permit with respect to the Property. If the City elects to require the Grantee to terminate the Grantee’s Stormwater Permit with respect to the Property, the Grantee shall complete such steps no later than 30 days following receipt of notice from the City of such pending revocation or modification to this License.

**6. TERM.** Subject to the provisions hereof, the privileges granted herein shall commence upon the later of execution of this Agreement or payment of the consideration required herein. This Agreement shall not be terminated unless and until the term is cancelled or terminated as set forth in Paragraph 10 below.

**7. CONSTRUCTION.** Grantee shall comply with the requirements in the Service Plan for the Park Creek Metropolitan District in the City and County of Denver, Colorado, the Master Facilities Development Agreement, entered into by and between the City, Forest City, and/or the District in conducting the Permitted Activities. Prior to the commencement of any Permitted Activities, Grantee shall obtain and pay for all required building permits and other governmental approvals.

Prior to commencement of any Permitted Activities, Grantee’s contractors shall furnish bonds to Grantee and the City assuring 100% performance and labor and material payment of Grantee’s grading activity. Such bonds shall guarantee prompt and faithful performance of

Grantee's grading contract and prompt payment by Grantee's contractors to all persons supplying labor, materials, team hire, sustenance, provisions, provender, supplies, rental machinery, tools and equipment used directly or indirectly by said contractors, subcontractors, and suppliers in the prosecution of the work provided for in Grantee's construction agreement and shall protect the City from liability, losses, or damages therefrom. The payment bond and performance bond shall name Grantee as the obligee, with the City named on the dual obligee rider. Grantee shall furnish a copy of such bonds to the City's Aviation Department. All bonds shall be issued by a surety company which is licensed to transact business in the State of Colorado and which is satisfactory to and approved by the City. If a bond is executed by an attorney-in-fact of the surety, a power of attorney must be attached to the bond.

During the period that the Permitted Activities are performed on the Property, Grantee shall obtain or cause its contractors to obtain the insurance required on the attached **Exhibit D**, which shall be evidenced and confirmed on a form provided to the City. Such policy shall contain a waiver of subrogation in favor of the City's officers, officials, and employees and such waiver shall specifically waive any right of the insurers, to any setoff, counterclaim, or deduction.

**8. RETAINED RIGHTS OF THE CITY.** The City reserves the right of title, use, and occupancy of the Property, subject to the rights granted herein, provided that the City shall not unreasonably interfere with Grantee's exercise of the rights granted hereunder. The City reserves the right to use the Property as improved in connection with Grantee's exercises of its Permitted Activities for itself and its tenants, licensees, contractors, designees, successors and assigns, and for public purpose. The rights and privileges granted herein are subject to existing utilities, prior easements, rights-of-way, and other matters affecting title. The Permitted Activities shall be conducted in such a manner as to not unreasonably conflict with the rights or obligations of the City, or others with existing rights to use the Property, nor to interfere with the operations by the City with respect to such rights or obligations, nor to endanger lives and the safety of the public.

**9. REMEDICATION.** Grantee acknowledges that the City or others may have to remediate portions of the Property or property adjacent thereto. Notwithstanding anything to the contrary set forth in the Agreement, the City expressly reserves the right to investigate and remediate the Property on behalf of itself or other parties. Upon written notice by the City, Grantee agrees to relocate any portion of the Grantee's improvements that adversely affect or impede such investigation or remediation, at no cost to the City.

**10. MAINTENANCE.** Grantee shall be responsible for the maintenance of Grantee's improvements constructed in connection with the Permitted Activities and will maintain and restore all damage to the City's property.

**11. TERMINATION.**

- a. **Termination for Cause.** This Agreement may be terminated by the declaration of the Manager of the City's Aviation Department (the "Aviation Manager") for Grantee's failure to comply with any or all of the provisions and conditions of this Agreement, or for non-use for a period of two (2) years, or for abandonment by

Grantees. Prior to termination of Grantee's failure to comply with the provisions of this Agreement, non-use, or abandonment, the Aviation Manager shall provide notice specifying the grounds for termination, and the Grantee shall be allowed thirty (30) days to cure, or such longer period if the cure will require additional time and so long as the Grantee is diligently acting to complete the cure or commence work on the Property, as applicable

- b. **Termination by Purchase.** This Agreement and the rights granted herein shall terminate automatically with respect to all or any portion of the Property upon purchase of all or such portion the Property by Grantee or FC Stapleton II, LLC.
- c. **Termination at Request of Potential Buyer, Assignee, or Transferee:** This Agreement may be terminated by the Manager of Aviation at the request of a potential buyer, assignee, or transferee of the Property.
- d. **Termination upon Termination of the MLDA.** This Agreement and the rights granted herein shall terminate automatically upon termination of the Master Lease and Disposition Agreement or "MFDA".
- e. **Termination upon Dedication or Acceptance.** Notwithstanding anything to the contrary contained herein, the license and rights granted herein shall automatically terminate for any portion of the Property dedicated as a public right-of-way or conveyed to the City for open space purposes, including conveyance of the Permitted Activities, at such time as the applicable Property is so dedicated or conveyed.

The parties will cooperate to execute any documents necessary to terminate or reflect the termination of this license. Upon termination of this Agreement, the use of the Property shall be controlled by the City's Charter, ordinances, regulations, and any other easements, licenses, permits or any other agreements between the Parties to the MFDA.

**12. RESTORATION.** Upon termination of this Agreement as provided in Paragraph 10 for breach, or non-use or abandonment, or termination of the MLDA, Grantee shall vacate the Property and restore the Property to a condition satisfactory to the Aviation Manager, including, as may be determined necessary by the Aviation Manager, the removal of any fill material placed thereon.

The area to be restored shall be resampled and tested for the presence of Stapleton Numeric Criteria ("SNC") constituents according to the sampling plan attached as **Exhibit E** hereto. Results of such sampling and testing shall be provided to Project Manager, Greg Holt, or his successor. In the event that some of these soils do not meet the SNC, the City and Grantee will meet no later than five (5) business days following receipt of sampling results to determine responsibility for remediation pursuant to Paragraphs 13 and 15 of this Agreement and the schedule for such remediation. Upon completion of remediation by the responsible party, confirmation sampling will be performed to demonstrate the impacted area(s) meets SNC.

**13. DAMAGE TO CITY PROPERTY.** Any property of the City damaged or destroyed by the Grantee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Grantee to the satisfaction of the Aviation Manager, or in lieu of such repair or replacement, Grantee shall, if so required by the Aviation Manager, at his option, pay to the City, money in an amount sufficient to compensate for the loss sustained by the City by reason of damage to or destruction of City property. Any such obligations of the District are subject to appropriation by the District, if required; FCS agrees to fully compensate the City if the District fails to appropriate sufficient funds.

Any property of the Grantee damaged or destroyed by the City incident to the City's exercise of its rights reserved hereunder shall be promptly repaired or replaced by the City, subject to appropriation if required, or in lieu of such repair or replacement, City shall pay to Grantee, money in an amount sufficient to compensate for the loss sustained by the Grantee by reason of damage to or destruction of Grantee property.

**14. COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS.** Grantee, in conducting any activity on the Property, shall comply with all applicable local, state or federal environmental rules, regulations, statutes, laws or orders (collectively "Environmental Requirements"), including but not limited to Environmental Requirements regarding the storage, use and disposal of Hazardous Materials and regarding releases or threatened releases of Hazardous Materials to the environment. For purposes of this Agreement, the term "Hazardous Materials" means substances, materials or waste, the generation, handling, storage, treatment or disposal of which is regulated by any local, state or federal government authority or laws, as a "hazardous waste," "hazardous material," "hazardous substance," "pollutant" or "contaminant" and including, without limitation, those designated as a "hazardous substance" under Section 311 or listed pursuant to Section 307 of the Clean Water Act (33 U.S.C. Secs. 1321, 1317), defined as a "hazardous waste" under Section 1004 of the Resource Conservation and Recovery Act (42 U.S.C. Sec. 6903), or defined as a "hazardous substance" under Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Sec. 9601), and, including, without limitation, petroleum products and byproducts, PCBs and asbestos.

Grantee shall acquire all necessary federal, state, and local environmental permits and comply with all applicable federal, state, and local environmental permit requirements relating to Grantee's use of the Property. The Grantee agrees to notify the Manager of Aviation, Airport Office Building, 8500 Pena Boulevard, Denver, Colorado 80249-6340, (303) 342-2200, immediately if during the course of the Work pursuant to this Agreement, if Grantee encounters any visible, odorous, or otherwise recognizable contamination of the Property ("Existing Contamination"). The City will, upon notification, perform at its cost, all reasonable and appropriate sampling, and analysis of such Existing Contamination. The Grantee shall proceed with the Permitted Activities at other locations on the Property until the City has completed testing and/or remediation, if any, of the area in question. "Existing Contamination" shall include without limitation "Hazardous Materials" as defined above, and implementing regulations and correlative Colorado laws; petroleum or refined petroleum products and their constituents; waste oils; natural gas; radioactive source material; and de-icing chemicals, existing

on the Stapleton Site, as defined in Section 2.59 of the Master Lease and Disposition Agreement between the City and County of Denver and Stapleton Development Corporation dated July 21, 1998, as a result of the actions or omissions of any party except the Grantee.

**15. INSURANCE.** The Grantee shall obtain and keep in force during the entire term of this Agreement, insurance policies as described in the City's form of insurance certificate, attached to this Agreement as **Exhibit D** and incorporated herein. The certificate specifies the minimum insurance requirements the Grantee and any of its contractors must satisfy in order to perform work under this Agreement. The original of such certificate shall be executed before a notary by the authorized party as specified on the certificate.

Each such policy or certificate shall contain a valid provision or endorsement that states:

“This policy will not be canceled, or materially changed or altered, without first giving 45 days prior written notice thereof (10 days for nonpayment of premium) referring to the Stapleton Site, to the City Attorney's Office, Airport Legal Services, 8500 Pena Boulevard, 9<sup>th</sup> Floor, Denver, Colorado 80249-6340, sent by certified mail, return receipt requested.”

Except as otherwise provided herein with respect to Pollution Legal Liability Insurance, each such policy or certificate shall contain a waiver of subrogation in favor of the City and further provide that any coverage afforded to the City as additional insured shall apply as primary insurance and other insurance issued to the City shall apply as excess and noncontributing insurance. Grantee shall be solely responsible for payment of any and all deductibles on issued policies. City shall have the right to verify or confirm, at any time, all coverages, information or representations contained herein and the insured and its undersigned agent shall promptly and fully cooperate in any such confirmation or verification the City may elect to undertake. Advice of renewal is required. Unless a period is specified, the City requires that the insured keep all covenants herein in full force and effect until this Agreement is terminated or expires.

The above referenced insurance may be increased in the reasonable judgment of the City's Risk Administrator.

**16. INDEMNIFICATION BY GRANTEE.**

a. **General.** To the extent permitted by Colorado law, Grantee shall indemnify, protect, hold harmless the City, its officers, agents and employees from and against all claims, damages, losses and expenses caused by, arising out of, or resulting from bodily injury and property damage or arising out of or in any way related to any claim made regarding Grantee or any of Grantee's Responsible Parties as a result of this Agreement. Grantee's obligation to defend and indemnify the City shall only extend to the percentage of negligence of Grantee in contributing to such claims, damages, losses and demands or expenses. Nothing herein shall be construed as a waiver of the protections afforded to the City and the District by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 *et seq.*, as amended.

b. **Environmental.** In the case of the release, spill, discharge, leak, disturbance or disposal of Hazardous Materials as a result of Grantee's or its contractor's, subcontractor's, agent's and representative's activities at the Stapleton Site and/or Property, Grantee shall immediately control and diligently remediate all contaminated media to applicable federal, state and local standards. Grantee shall reimburse the City for any penalties and all reasonable cost and expense, including without limitation reasonable attorney's fees, incurred by the City as a result of the release or disposal by Grantee or its contractors, subcontractors, agents and representatives of any Hazardous Materials on the Stapleton Site and/or Property. Grantee shall also immediately notify the City in writing of the release, spill, leak, discharge or disturbance of Hazardous Materials and the control and remediation response actions taken by Grantee, and any responses, notifications actions taken by any federal, state, or local agency with regard to such release, spill, or leak. Grantee shall make available to the City for inspection and copying, upon reasonable notice and at reasonable times, any requirement under this Section. If there is a requirement to file any notice or report of a release or threatened release of any Hazardous Materials at, on, under, or migrating from the Stapleton Site and/or Property, Grantee shall provide copies of all results of such report or notice to City. The provisions of this section shall expressly survive termination of this Agreement.

c. **Existing Contamination.** In no event shall Grantee be obligated to indemnify, release, reimburse or save harmless the City, its officers, agents and employees, from any claims, damages, suits, costs, expenses, liability actions or proceedings of any kind or nature related to Existing Contamination and the City covenants not to sue Grantee with respect to such Existing Contamination, unless Grantee's acts or omissions, without regard to negligence, caused or exacerbated a release of such Existing Contamination.

At the City's reasonable request, Grantee shall conduct testing and monitoring as is necessary to determine whether any Hazardous Materials have entered the soil, groundwater, or surface water on or under the Property due to Grantee's use or occupation of the Property. Grantee shall provide copies of all results of such testing and monitoring to the City.

17. **NOTICES.** Any notices or demands provided for herein shall be in writing and shall be deemed effectively given or made (i) immediately when served personally upon the party to be notified, (ii) immediately upon confirmation of facsimile transmission to the party to be notified if on a business day and given before 5:00 p.m. local time in the time zone of the recipient (or on the next business day if given after 5:00 p.m. on a business day), (iii) three (3) business days after being sent to the party to be notified by United States registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) business day after being sent to the party to be notified by reputable overnight courier, prepaid, return receipt acknowledged, all of the foregoing (i) through (iv) to the address, or facsimile number, as applicable, of such party set forth below or to such other address as such party may last have designated by notice hereunder:

City: Chief Executive Officer  
Denver International Airport  
8500 Pena Boulevard, Ninth Floor  
Denver, Colorado 80249-6340



with a copy to: Airport Legal Services  
Denver, International Airport  
8500 Pena Boulevard, Ninth Floor  
Denver, Colorado 80249-6340

to the District: Ms. Tammi Holloway  
Park Creek Metropolitan District  
Stapleton Development Corporation  
7350 E. 29<sup>th</sup> Avenue, Ste. 200  
Denver, Colorado 80238

with a copy to: Paul Cockrel, Esq.  
Collins, Cockrel & Cole  
390 Union Blvd., #400  
Lakewood, Colorado 80228

and: John S. Lehigh  
Forest City Stapleton, Inc.  
7351 East 29<sup>th</sup> Avenue  
Denver, Colorado 80238  
Attention: Assistant General Counsel  
Fax No.: (303) 996-5959

Rejection or refusal to accept delivery or the inability to deliver because of changed address of which no notice was given shall be deemed to be receipt of notice as of the date such notice was deposited in the mail or delivered to the courier or transmitted via confirmed facsimile. When used in this Agreement, a “business day” shall mean a weekday which is not a federal or State of Colorado holiday.

**18. COMPLIANCE WITH LAWS.** All persons or entities utilizing the Property pursuant to this Agreement must observe and comply with any applicable provisions of the Charter, ordinances and rules and regulations of the City, including, to the extent they apply to Grantee’s activities on City property: the City’s Prevailing Wage Ordinance, Section 20-76 et seq. of the Denver Revised Municipal Code, and the City’s small Business Enterprise ordinance, Section 280205 et seq. of the Denver Revised Municipal Code, and with all applicable Colorado and federal laws. Grantee agrees to pay any and all fines, assessments, and fees related to its work under this Agreement.

**19. PERSONAL GRANT.** The rights of the Grantee hereunder are personal to the Grantee and may not be assigned by Grantee, shall not constitute an interest in real property and shall not run with the land. Subject to the foregoing, this Agreement shall be binding on the parties hereto and their successors and assigns and Grantor shall convey the Property subject to the rights granted herein.

**20. VENUE.** This Agreement shall be deemed to have been made in, and shall be construed in accordance with the laws of the State of Colorado and the Charter and Ordinances

of the City and County of Denver. For the resolution of any dispute arising hereunder, venue shall be in the courts of the City and County of Denver, State of Colorado.

21. **SEVERABILITY.** In case any one or more of the provisions contained in the Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

22. **AGREEMENT SUBORDINATE TO AGREEMENTS WITH UNITED STATES.** This Agreement is subject and subordinate to terms, reservations, restrictions and conditions of any existing or future agreements between the City and the United States, the execution of which has been or may be required as a condition precedent to the transfer of federal rights or property to the City for airport purposes and the expenditure of federal funds for the development of the City's airport system.

23. **BOND ORDINANCES.** This Agreement is in all respects subject and subordinate to any and all City applicable bond ordinances for the City's airport system and to any other bond ordinances which should amend, supplement, or replace such bond ordinances.

24. **SUBORDINATION.** This Agreement is subordinate to the Stipulated Agreement Relating to Disposition of Stapleton International Airport entered into between the City and certain air and cargo carriers with an effective date of January 1, 1999, and any obligations of the City under this Agreement are limited by the provisions therein.

25. **NONDISCRIMINATION.** In connection with the performance of Work under this Agreement, Grantee agrees not to refuse to hire, discharge, promote, or demote or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color or mental disability; and Grantee further agrees to insert the foregoing provisions in all subcontracts hereunder.

26. **ENTIRE AGREEMENT.** The parties agree that the provisions herein constitute the entire agreement and that all representations made by any officer, agent or employee of the respective parties unless included herein are null and void and of no effect. No amendments, unless expressly reserved to the Aviation Manager herein, shall be valid unless executed by an instrument in writing by all the parties with the same formality as this Agreement.

27. **FINAL APPROVAL.** This Agreement is expressly subject to and shall not be or become effective or binding on the City until approved by the City Council and fully executed by all signatories of the City and County of Denver.

28. **SUBJECT TO APPROPRIATION.** Any obligation of the City under this Agreement shall extend only to monies appropriated for the purpose of this Agreement by the City's Board of Councilmen and encumbered for the purposes of this Agreement.

29. **RECORDING.** Neither this Agreement nor any memorandum thereof may be recorded in the real property records of the City and County of Denver.

**30. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS.** Grantee consents to the use of electronic signatures by the City. This Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of this Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of this Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

**END OF LICENSE; EXHIBITS AND SIGNATURE PAGES FOLLOW**

**WAIVER AGREEMENT AND JOINDER**  
[SAMPLE ONLY – DO NOT SIGN]

The City entered into that certain Master Lease and Disposition Agreement for Stapleton International Airport dated July 21, 1998 as amended March 14, 2000, April 20, 2000, July 23, 2001 and December 31, 2002 (collectively, the “**MLDA**”) between and STAPLETON DEVELOPMENT CORPORATION, a Colorado nonprofit corporation (the “**SDC**”).

SDC then entered into that certain Amended and Restated Stapleton Purchase Agreement with FOREST CITY ENTERPRISES, L.P. (successor to FOREST CITY ENTERPRISES, INC.) (“**Forest City**”), dated February 15, 2000, for the purchase and sale of the Option Property as defined in the Lease (the “Purchase and Sale Agreement”). Forest City assigned its rights to acquire the Option Property to FC Stapleton I, LLC, a Colorado limited liability company (“**FCI**”).

SDC joins in this Agreement solely to waive those requirements to complete Environmental Remediation pursuant to Section 11.01 and 11.02 of the MLDA related to environmental conditions in, on, or under the Property to the extent such conditions are a result of the Permitted Activities under the Agreement.

Forest City and FCI join in this Agreement solely to waive those conditions to closing related to environmental conditions in, on, or under the Property pursuant to Section 4.1(D) of the Purchase and Sale Agreement, to the extent such conditions are a result of the Permitted Activities under the Agreement.

THIS WAIVER AGREEMENT is made to be effective as of the date of execution hereof by the undersigned in favor of the City and County of Denver and Purchaser, for itself and its successors and assigns.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed to be effective as of \_\_\_\_\_, 2017.

STAPLETON DEVELOPMENT CORPORATION, a Colorado nonprofit corporation

FOREST CITY ENTERPRISES, L.P., a Delaware limited Partnership

By: Forest City Realty Trust, Inc., a Maryland corporation, its General Partner

By: \_\_\_\_\_SAMPLE\_\_\_\_\_

By: \_\_\_\_\_SAMPLE\_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**Contract Control Number:**

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

**CITY AND COUNTY OF DENVER**

ATTEST:

By \_\_\_\_\_

\_\_\_\_\_

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_



**Contract Control Number:**

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)

**ATTEST: [if required]**

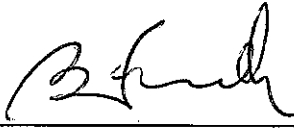
By: \_\_\_\_\_

Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)



**FOREST CITY STAPLETON, INC.,**  
a Colorado corporation

By: 

Name: Brian Fennelly

Title: Vice president

PCMD signature page precedes this signature page; SDC follows

**Multi-Purpose License – Northwest Corner of CPB & I-70 - 201732790-00**

**Contract Control Number:** PLANE-201732790-00

**Contractor Name:** Park Creek Metropolitan District

By: 

Name: Tammie T. Holloway  
(please print)

Title: Assistant Secretary  
(please print)

**ATTEST: [if required]**

By: \_\_\_\_\_


Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)





**STAPLETON DEVELOPMENT  
CORPORATION,**  
a Colorado non-profit corporation

By: 

Name: Tammi T. Holloway

Title: President

Forest City signature page precedes this signature page

**Multi-Purpose License – Northwest Corner of CPB & I-70 - 201732790-00**







**DENVER**  
THE MILE HIGH CITY

**CITY AND COUNTY OF DENVER**  
Department of Public Works/Development Services  
201 W Colfax Ave, Dept 202, Denver, Colorado 80202  
(720) 865-2982

**CONSTRUCTION ACTIVITIES STORMWATER DISCHARGE,  
EROSION AND SEDIMENT CONTROL PERMIT**

<b>Project Name:</b> 46th Place Stockpile	<b>Permit Number:</b> EC-2015-045
<b>Project Address:</b> Southeast corner of 46th Place and Xenia Street	
<b>Site Supervisor: Name and Company (please print)</b> Kerry O'Connell, Mortenson Construction	<b>Site Supervisor Cell Phone:</b> 720-820-4300

Permittee shall install initial BMPs then schedule and pass an initial inspection prior to any site demolition clearing, grubbing, grading or excavation activity. For initial EC inspection contact Wastewater Management Division at (303) 446-3659 at least 2 business days prior to desired inspection. This permit expires if initial inspection and start of construction has not commenced within six (6) months of issuance.

Contact the Right-of-Way Services Construction Inspector PRIOR to starting construction if any activities will impact the public Right-of-Way adjacent to this site. Call 303-446-3469 for the name and number of the area inspector. Any work within the public Right-of-Way or use of the public Right-of-Way (including Staging, parking of vehicles or stockpiling of materials) will require a Street Cut, Construction, and/or Street Occupancy Permit(s) from Public Works Permit Operations, located at 2000 W. 3rd Ave., Room 107, phone number 303-446-3759. The owner/developer is responsible for improvements/repairs in the right-of-way adjacent to this site. No Certificate of Occupancy will be validated by Public Works Construction until these improvements/repairs are complete. It is the Licensed Contractor's responsibility to obtain the proper permit(s).

Failure to comply with this Permit may result in the imposition of civil penalties (up to \$10,000 per day) pursuant to Denver Revised Municipal Code (DRMC) 56-107. Disputes regarding this permit shall be resolved by administrative hearing pursuant to DRMC 56-106.

Any work within the Regulatory Floodplain requires a floodplain permit: See <http://www.denvergov.org/Portals/696/documents/SUDP/floodplain.pdf>.

All groundwater discharges require a CCD Wastewater review and may require a CCD and/or State discharge permit. Contact Darren Mollendor (303-446-3588) at CCD Wastewater for additional details.

All construction activities associated with this project shall be subject to the conditions and requirements of the approved SWMP; and shall be in compliance with the Revised Municipal Code of the City and County of Denver and all applicable Department of Public Works Rules and Regulations including Chapter 10, City and County of Denver, Department of Public Works "Rules and Regulations Governing Sewerage Charges and Fees and Management of Wastewater".

Upon completion of construction and final stabilization of the construction site, the permit holder shall submit an "Inactivation Request for Construction Activities Stormwater Discharge Permit" form to the Wastewater Management Division, City and County of Denver

As the Applicant/Permittee, I hereby certify that I have read and understand the Conditions listed herein and within the CASMP.

Signature:  Date: 4/29/15

Name (Please Print) Tammi Holloway Phone # 303-393-7700

Company (Please Print) Park Creek Metropolitan District



 P

May 2015

# **Construction Activities Stormwater Management Plan**

## **Stapleton 46<sup>th</sup> Place Stockpile**

**AECOM Project # 22243325**

**CCD#2014-0206**

**EC-2015-045**

Prepared for:

Park Creek Metropolitan District  
7351 East 29<sup>th</sup> Avenue, Suite 300  
Denver, CO 80238

Prepared by:



AECOM Corporation  
8181 East Tufts Avenue  
Denver, Colorado 80237

**April 2015**

## **Introduction**

This Construction Activities Stormwater Management Plan (CASWMP) is for Stapleton 46<sup>th</sup> Place Stockpile, located west of Central Park Boulevard and south of 46<sup>th</sup> Place. This plan has been prepared for the site-specific stormwater erosion controls in conjunction with the site stormwater controls.

This report was prepared in compliance with the Denver Wastewater Department requirements for a Stormwater Management Plan. The essential data is tabulated in the City worksheet format. Narrative sections are included where required. Stormwater Management Plan drawings are included with this report to describe the site-specific Best Management Practices (BMPs).

Supplemental information is provided in accordance with Denver Wastewater Management criteria as described in the “Construction Activities Stormwater Manual (SWMP) Guide” dated June 2010. The following information was used to complete this report:

1. North Stapleton IMP and GDP Major Amendment #2, Matrix Design Group Inc., 2012
2. Stapleton Filing 25 Construction Plans, DES Project No. 2007-0721, SP-2007-064, by Matrix Design Group, 2008.
3. 46<sup>th</sup> Place Roadway Improvement, DS Project No. 2010D00173, by Matrix Design Group, 2010
4. 46<sup>th</sup> Place Stormwater Improvement Plans, DS Project No. 2010D00173,/SP-2010-030, by Matrix Design Group, 2011
5. CPB Construction Drawings, PCO PILAR 2009-0059-30, by URS, 2009.

### Engineer's Certification:

I hereby certify that this Construction Activities Stormwater Management Plan for Stapleton 46<sup>th</sup> Place Stockpile, Project # EC-2015-045 was prepared by me (or under my direct supervision) in accordance with the provisions of the Construction Activities Stormwater Discharge Permit for the City and County of Denver. I understand that the City and County of Denver does not and will not assume liability for drainage facilities design.

---

Trevor S. Greco, P.E.  
Colorado Registered PE# 46315  
Project Manager  
trevor.greco@aecom.com

---

Date

### Owner's Certification:

This Construction Activities Stormwater Management Plan has been submitted as the application for a Construction Activities Stormwater Discharge Permit filed with the Wastewater Management Division of the City and County of Denver. I understand that additional erosion control, sediment control and water quality enhancing measures may be required of the owner and his or her agents due to unforeseen pollutant discharges or if the submitted plan does not function as intended. The requirements of this plan shall be the obligation of the land owner and/or his successors or heirs; until such time as the plan is properly completed, modified, or voided.

---

Tammi Holloway  
Owner or Authorized Agent

---

Date

Representing Owner: Park Creek Metro District  
7350 East 29<sup>th</sup> Ave, Suite 200  
Denver, Colorado 80238  
tholloway@SDCdenver.org

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### References

1. CCD Construction Activities Stormwater Manual (SWMP) Guide; June 2010.
2. Colorado General Permit: Stormwater discharges associated with Construction Activity; July 2007
3. Urban Drainage & Flood Control District – Urban Drainage Criteria Manual – Volume 3 – Best Management Practices (BMP); November 2010
4. USDA Predicting Rainfall Erosion Losses, A Guide to Conservation Planning, Agricultural Handbook No. 537 (AH-537); December 1978

### Attachments

1. Project Location Map – Coversheet of SWMP Plans
2. Overlot Grading and Erosion Control Plan (SWMP Plans)

## Project Data

### A. Project Location

Name of Project or Development:

Stapleton 46<sup>th</sup> Place Stockpile

CCD Master No. (if known): 2014-0206 CCD EC No. (If known): EC-2015-045

Street Address\*: West of Central Park Boulevard & South of 46<sup>th</sup> Place

\*\*Township: 03S Range: 67W Section: 21 Quarter Section: NE

\*\*Latitude (+/15"): 39.78° N Longitude (+/15"): 104.884° W

Metropolitan District: Park Creek Metropolitan District

\*Submission of an Address Assignment Slip issued by the City Engineer's Office is required.

\*\* Required if Street Address is unavailable.

### B. Permittee

**(Responsible party for day to day supervision and control of the MANAGEMENT PLAN)**

Company Name: Mortenson Construction

Mailing Address: 8650 Northfield Blvd, Suite 1920

City, State, Zip Code: Denver, CO 80238

Phone Number: (720) 920-4300 FAX Number: (720) 920-4301

Name of Contact: Kerry O'Connell

Email: Kerry.OConnell@mortenson.com

### C. Owner

Company Name: Park Creek Metropolitan District

Mailing Address: 7350 East 29<sup>th</sup> Avenue, Suite 200

City, State, Zip Code: Denver, CO 80238

Phone Number: (303) 393-7700 FAX Number: (303) 393-6805

Name of Contact: Tammi Holloway

Email: tholloway@SDCdenver.org



**D. Plan Engineer (Prepared Management Plan)**

Company Name: AECOM

Mailing Address: 8181 East Tufts Avenue

City, State, Zip Code: Denver, CO 80237

Phone Number: (303) 740-3820 FAX Number: (303) 694-3946

Name of Contact: Trevor Greco, P.E.

Email: Trevor.Greco@aecom.com

**E. Site Supervisor (If Known)**

Company Name: Mortenson Construction

Mailing Address: 8650 Northfield Blvd, Suite 1920

City, State, Zip Code: Denver, CO 80238

Phone Number: ( 720 ) 920-4300 FAX Number: ( 720 ) 920-4301

Name of Contact: Kerry O'Connell

Email: Kerry.OConnell@mortenson.com

**F. Type of Construction**

Check the appropriate description(s) or provide a brief description that indicates the general nature of the proposed construction. A full description of activities must be included in the Stormwater Management Plan. (see Section G below)

- Single Family Residential Development
- Multi-Family Residential Development
- Commercial Development
- Oil and Gas Production and/or Exploration (including pad sites and associated infrastructure)
- Highway/Road Development (not including roadways associated with commercial or residential development)
- Other, Describe: Stockpile Construction

**G. Site Description**

**1. Acreage**

- a. Total Site Acreage: 14.4+/- ac
- b. Acreage Subject to Disturbance: 4.8+/- ac
- c. Acreage Determination (Public Utility Projects): N/A
- d. Area bounded by predefined construction limits: 14.4+/- ac

*Calculations include all areas proposed for contractor laydown, materials storage, equipment storage, areas where equipment repair and fueling will occur, ingress, and egress (include haul roads and borrow pits.)*

**2. Site Conditions:**

- a. Historical Land Use: (may be for partial site)

Known Landfill site:	YES	_____	NO	_____	X	_____
Has any of the following activities occurred onsite:						
Metal Refining	YES	_____	NO	_____	X	_____
Petroleum Refining	YES	_____	NO	_____	X	_____
Petroleum Storage	YES	_____	NO	_____	X	_____
Chemical Manufacturing	YES	_____	NO	_____	X	_____
Pesticide/Fertilizer Manufacture/Storage	YES	_____	NO	_____	X	_____
Rail Yard	YES	_____	NO	_____	X	_____

If the response to any of the above is YES, Please describe:

\_\_\_\_\_ *N/A* \_\_\_\_\_  
 \_\_\_\_\_

- b. Possible Site Contamination: Is the site part of any of the following:

Known Denver Radium Site	YES	_____	NO	_____	X	_____
Known Denver LUST Site	YES	_____	NO	_____	X	_____
Known Superfund Site	YES	_____	NO	_____	X	_____
Known CERCLA Site	YES	_____	NO	_____	X	_____
Known RCRA Site	YES	_____	NO	_____	X	_____

If the response to any of the preceding is YES, Please describe:

\_\_\_\_\_ *N/A* \_\_\_\_\_  
 \_\_\_\_\_

Describe any other known site contamination:

\_\_\_\_\_ *N/A* \_\_\_\_\_  
 \_\_\_\_\_

- c. Current Land Use:

Describe existing use: *Vacant – lightly vegetated with grasses and weeds.*

Are there any building/structures onsite? YES \_\_\_\_\_ NO  x

d. Existing and Proposed Topography (minimum 2 foot contours)

Description: Generally slopes from East to West

Highest Elevation: 5260 Lowest Elevation: 5245

Steepest Slope: 25% Average Slope: 1%

Direction: East to West

e. Vegetation:

Identify the types of vegetation found onsite:

*Majority of the project site is sparsely vegetated and consists of native grasses and weeds.*

Estimate the existing density of vegetation:

*<20%*

*Submittal of Photographs is not required but highly recommended.*

f. Drainage:

Identify all adjacent surface water flows (run-on) that may impact and/or runoff from the subject site:

*The site is bordered by existing roadways and undeveloped land. Run-on from offsite areas will be captured by the existing storm sewer systems that exist in the adjacent roadways.*

Identify the State Receiving Waters:

*Stormwater from the site is conveyed via overland and by storm drain to Sand Creek which ultimately discharges to the South Platte River.*

Describe the flow routing from the site to the Receiving Waters:

*Flows from the site remain on site in sediment basins or run off site and are captured by existing storm sewers west of the site where they travel west and ultimately outfall to Sand Creek.*

Are there any springs or seeps located onsite? YES \_\_\_\_\_ NO  x

Are there any defined drainage channels onsite? YES \_\_\_\_\_ NO  x

Does the site fall within a Regulatory Floodplain? YES \_\_\_\_\_ NO  x

*If the answer is YES, a Floodplain Development Permit issued by the Public Works Department may be required.*

g. Wetlands:

Define the dimensions/surface areas for each identified wetland and its location relative to the site.

Identify all onsite wetlands/wetland channels:

1. N/A
2. \_\_\_\_\_
3. \_\_\_\_\_

Tributary or adjacent Wetlands Areas:

Upstream of the site? YES \_\_\_\_\_ NO  x

Downstream of the site? YES \_\_\_\_\_ NO  x

Will the proposed construction work impact any of the onsite wetland areas? YES \_\_\_\_\_ NO  x



a. Clearing and Grubbing	YES	X	NO	
b. Mass Overlot Grading	YES	X	NO	
c. Cut Operations	YES		NO	X
If YES, estimate volume of cut (cubic yards)				
d. Fill Operations	YES	X	NO	
If YES, estimate volume of fill (cubic yards) ±40,000 CY				
e. Building Demolition	YES		NO	X
f. Foundation Excavation	YES		NO	X
g. Utility Construction	YES		NO	X
h. Street Construction and Paving	YES		NO	X
i. Building Construction	YES		NO	X
j. Parking Lot Construction/Paving	YES		NO	X
k. Landscaping	YES		NO	X
Will Private Storm Sewer systems be constructed?	YES		NO	X
Will Private Sanitary Sewer systems be constructed?	YES		NO	X

If YES, identify the SP or PR Project Numbers assigned\* by WMD for each project.

*Not assigned*

---

If sewers are private or being constructed by a governmental agency other than Public Works, list the agency and associated Project number(s).

*N/A*

---

*\*if Public Works Project Numbers have not been assigned but will be in the future, please indicate as "Not Assigned."*

**2. Construction Scheduling (Corresponds with Construction Phasing below)**

a. Site Preparation / Grading Operations

Proposed Start Date: *May 2015*  
 Proposed Completion Date: *September 2016*

b. Utility / Infrastructure / Building Construction

Utilities:

Proposed Start Date: *N/A*  
 Proposed Completion Date: *N/A*

Infrastructure Construction:

Proposed Start Date: *N/A*  
 Proposed Completion Date: *N/A*

Building Construction:

Proposed Start Date: N/A

Proposed Completion Date: N/A

c. Landscaping/Site Stabilization

Proposed Start Date: N/A

Proposed Completion Date: N/A

**3. Construction Phasing**

a. Site Preparation/Grading

- i. Describe the types and placements of proposed BMPs for use during clearing, grubbing, demolition, and grading operations.

Prior to the commencement of clearing and grubbing construction, perimeter control of silt fence will be installed; vehicle tracking control will be placed at all access points.

Throughout construction all existing downstream storm sewer facilities will be monitored for sediment and be cleared of any excess sediment as needed. All impervious surfaces adjacent to the construction site will be swept on a daily basis and as needed during the day when sediment and other materials are tracked or discharged onto them in accordance with Standard Note #10 on Sheet ECGN of the project SWMP Permit Plans. Rock socks will be placed within existing adjacent curb and gutter.

The proposed stockpile will be approximately 40,000 CYDS. The existing site is generally flat, but is lower than the adjacent roadways that are constructed. The stockpile will be approximately 15-feet higher than the adjacent grades and will be setback from the right of ways by a minimum of 12-feet, but is generally set back much farther.

The soil will be imported by truck from two sites within Stapleton. Sheet EC01 shows the anticipated haul routes from Source 1 (Stapleton Filing 48) and Source 2 (Stapleton Filing 47). Source 1 will be from mass excavation and grading, while Source 2 will be from individual home excavations. The timing of the import will begin in May 2015 and is anticipated to be complete by September 2016. If the stockpile becomes inactive or is anticipated to be inactive for greater than 60-days, the stockpile shall be seeded and mulched per Phase 3 of the plans. The stockpile is anticipated to remain in its Phase 3 permanent stabilized condition until which the site is developed and the stockpile will be used to grade the site to developed conditions.

- ii. Describe all measures proposed for interim site stabilization.

The measures above will be maintained throughout the interim site stabilization. In addition, a concrete washout facility will be installed and maintained before any concrete is placed on site. See SWMP plans for location(s). The exact location of the concrete washout is subject to construction phasing, but will be provided prior to any concrete pouring. All areas that have been disturbed will have surface roughening and/or mulching and seed applied as shown on the SWMP plans.

- iii. Describe the inspection and maintenance schedule proposed for BMPs onsite.

The Park Creek Metropolitan District, as well as representatives from governing agencies, shall make routine checks of all control measures. A designated representative from the General Contractor's staff shall inspect BMPs every 7 days and within 24 hours following all precipitation events. Maintenance or modification to sediment and erosion control measures shall be

implemented in a timely manner, but in no case more than seven (7) calendar days after the inspection. Additional information regarding inspection and maintenance is present within the BMP Maintenance section of the Construction Activities Stormwater Management Plan attachment of this document. A sample form to be used for inspections is provided in the appendix.

b. Utility/Infrastructure/Building Construction

- i. Describe the types and placements of proposed BMPs for use during utility construction, roadway construction, building construction and paving operations.

No utility construction, roadway construction, building construction or paving is anticipated.

- ii. Describe all measures proposed for interim site stabilization.

N/A

- iii. Describe the inspection and maintenance schedule proposed for BMPs onsite.

N/A

c. Permanent Site Stabilization/Landscaping

- i. Describe the types and placements of BMPs proposed for use during site stabilization and landscaping, as well as describing all permanent water quality enhancement facilities.

Perimeter controls shall remain in place at the limits of all the disturbed areas. Inlet protection shall remain in place on all inlets surrounding and within the construction site. Seeding and mulching shall be used for all disturbed areas with the construction site.

- ii. Describe all measures proposed for final site stabilization.

Permanent seeding and re-introduction of existing native plants shall be used to stabilize the construction site.

- iii. Describe the inspection and maintenance schedule proposed for BMPs onsite.

The Park Creek Metropolitan District, as well as representatives from governing agencies, shall make routine checks of all control measures. A designated representative from the General Contractor's staff shall inspect BMPs every 7 days and within 24 hours following all precipitation events. Maintenance or modification to sediment and erosion control measures shall be implemented in a timely manner, but in no case more than seven (7) calendar days after the inspection. Additional information regarding inspection and maintenance is present within the BMP Maintenance section of the Construction Activities Stormwater Management Plan attachment of this document. A sample form to be used for inspections is provided in the appendix.

- iv. Identify any annual grasses proposed for use in stabilizing the site.

Refer to attached seed mix design.

- v. List the perennial grasses seed mix proposed for site stabilization.

Refer to attached seed mix design.

- vi. Identify the estimated date for seeding.

The estimated date for seeding is September 2016.

**I. Required Best Management Practices (BMP)**

*As listed, under Section 4 of Information Guide document*

1. Vehicle Tracking Control (See Erosion Control Detail)
2. Inlet Protection (See Erosion Control Detail)
3. Site Stabilization (Sediment Control Narrative)
4. Spill Prevention/Containment (Sediment Control Narrative)
5. Street Sweeping (See Standard Note #10)
6. Perimeter Control (See Erosion Control Details)
7. Portable Toilets – Contractor shall provide and install overturn protection for on-site portable toilet facilities

**J. Maintenance, Inspections & Record Keeping (See Standard Note #7)**

Additional Maintenance, Inspection & Record Keeping Instructions:

*Permittee or contractor shall produce written inspection records every seven (7) days and after precipitation events. All necessary maintenance and report shall be completed immediately. See appendix for sample inspection form, available electronically upon request.*

**K. Post Construction Permanent Water Quality**

Identify permanent water quality BMPs proposed for site sediment control:

1. Grass Buffer	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
2. Grass Swale	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
3. Modular Block Porous Pavement	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
4. Porous Pavement Detention	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
5. Porous Landscape Detention	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
6. Extended Detention Basin	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
7. Sand Filter Extended Detention Basin	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
8. Constructed Wetlands Basin	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
9. Retention Pond	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
10. Constructed Wetlands Channel	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
11. Innovative/Proprietary Technology *	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

*\*Use of Innovative/Proprietary Technology will require the submission of the technology developer’s technical data, specifications, design criteria and installation requirements for review.*

**L. Required Drawing Plans for each phase (See attached SWMP Plans)**

- a. Demolition (if applicable)



- b. Site Preparation/Grading
- c. Utility/Infrastructure/Building Construction
- d. Permanent Site Stabilization/Landscaping

## Appendix A

### A. TYPICAL STAPLETON REDEVELOPMENT SEED MIX DESIGN - *TEMPORARY*

#### 1. Temporary Seed Mix – TYPE 1

Temporary Seed Mix – Type 1 shall be applied to areas, as shown on the plans, where upon completion of grading, a cover crop will be required until future development occurs (more than 2 years out). This seed mix shall consist of the following varieties broadcast seeded and hydro-mulched:

**Seed Mix**

Dry land pasture Mix (as supplied by Arkansas Valley Seed Company)

**Application Rate**

25 lbs PLS/ Acre

**Blend**

20% Lincoln Smooth Brome  
Hycrest Crested wheatgrass  
Tetraploid Perennial Ryegrass  
Paiute Orchardgrass  
Intermediate Wheatgrass  
Slender Wheatgrass  
Sodar Streambank Wheatgrass

#### 2. Temporary Seed Mix – TYPE 2

Temporary Seed Mix – Type 2 shall be applied to areas that are to receive future development in less than two years after application. This mix consists of a sterile annual hybrid wheat that shall be applied to open soil areas that cannot be seeded, planted, or sodded (due to the time of year, drought restrictions or pending development), within 1 week of grading. Drill seed into the topsoil ¼-inch to ½-inch and then apply hydro-mulch. This seed shall be applied to areas that are not ready to receive permanent landscape improvements due to drought restrictions or other phasing requirements.

**Seed Mix**

Regreen Mix (as supplied by Arkansas Valley Seed Company)

**Application Rate**

30 lbs PLS/ Acre

**Blend**

Triticum aestivum x Elytrigia elongata

#### 3. Hydro-mulch:

Hydraulically applied wood cellulose fiber mulch shall be applied to all seeded areas immediately after seed application. Hydro-seeding or broadcast seed application is not permitted. Hydro-mulching incorporates cellulose fiber materials and a tackifier to form a homogeneous slurry. Hydro-mulching shall be applied evenly in a minimum of two (2) passes over the desired areas. The first pass shall apply 50% of material from the bottom of the slope, directed upward on the slope. The second pass shall apply 50% of material from the top of the slope, directed downward on the slope. Fiber shall not contain germination or growth inhibiting factors. It shall be dyed a green color to allow visual metering of its application in order to avoid ‘shadows’

and bare spots. The fiber shall be sprayed uniformly on the soil surface in accordance with the manufacturer's instructions, providing a cover that readily absorbs water and infiltration to the soil below. Suppliers shall be prepared to certify that laboratory and field testing of their product has been accomplished, and that it meets all of the foregoing requirements:

1. Hydro-Mulch: Eco Aegis Bonded Fiber Matrix: 2,500 lbs/acre on slopes 4:1 and less, and 3,000lbs/acre on slopes greater than 4:1.

Hydro-mulching shall not be performed in the presence of surface water. Thoroughly clean site amenities after mulching.

## Appendix B

### A. Soil Loss Calculations

#### STAPLETON FILING No. 47

Revised Universal Soil Loss Equation -  $A = R * K * LS * C * P$

Where:

A = estimated average soil loss (tons/acre/year)

R = rainfall runoff erosivity factor

K = soil erodibility factor

LS = slope length/steepness factor

C = cover management factor 0.45 (Unprotected Site), 0.013 (Protected Site)

P = support practice factor

Rs = Rainfall Subfactor for Snowmelt and Thaw

R	K	LS	C	P	A (unprotected)	A (protected)
50	0.24	0.3037	above	1.0	1.64	0.05

<b>Tons/Acre/Year (Unprotected site):</b>	<b>1.64</b>
<b>Tons/Acre/Year (Protected site):</b>	<b>0.05</b>

K - Obtained from Natural Resources Conservation Service (NRCS) Web Soil Survey

R - Figure 1 of Agricultural Handbook Number 537

C - Used Table 10 of Agricultural Handbook Number 537

LS - Calculated below

P - Always 1

#### Wind Erosion

Per the NRCS Web Soil Survey, the area within the general vicinity of the project site has an average **Wind Erodibility Index = 86 tons/acre/year**

LS

Factor

Top Elevation	Bottom Elevation	Length	Slope %	$\Theta$	l	m	LS Factor
5260	5245	700	2.0	0.0349	700	0.3	0.3037

$$LS = (l/72.6)^m * (65.41 \sin^2 Q + 4.56 \sin \Theta + 0.065)$$

Where: l = slope length in feet

$\Theta$  = Angle of slope in Radians

m = 0.2 for gradients < 1 %, 0.3 for 1 to 3 % slopes, 0.4 for 3.5 to 4.5 % slopes and 0.5 for slopes of 5 % or steeper.

## Appendix C

### A. Best Management Practices (B.M.P.'s)

The following site BMP's are required by the City and shall be in place prior to beginning site preparation and grading operations. Refer to the details included on the plan sheets and to the Urban Drainage and Flood Control District (UDFCD) Criteria Manual, Volume 3 for more information on individual BMP's.

Vehicle Tracking Control will be installed at all construction entrances. Stabilized construction site access should be created for any sites where mud or dirt can be tracked onto public roads, where dust can be problematic during dry weather and on site adjacent to water bodies. The purpose is to reduce or eliminate sediment being tracked onto public roadways by construction vehicles.

Inlet Protection will be installed on all existing storm sewer inlets in the vicinity of the construction site that may receive site runoff. Inlet protection consists of temporary devices constructed around storm drains to improve the quality of water being discharged to inlets by ponding sediment laden runoff and increasing settling time. Inspection should be done after all rainfall events and once every 24 hours during extended rainfall events.

Site Stabilization will take place both during and after construction. Before work begins, efforts should be made to preserve existing vegetation and designated areas should be outlined to restrict access. Landscape management can reduce erosion, decrease sediment runoff and prevent pollution. Reseeding, landscaping, and planting will occur as construction ceases in each area.

Concrete Chute Washout will take place in designated areas noted on the plans or as approved by the engineer. Concrete washout activities must be conducted in a manner that does not contribute pollutants to surface waters or stormwater runoff. The area shall be bermed to totally contain wash water. Water is allowed to infiltrate in the ground or evaporate and the dried concrete waste shall be properly disposed.

Existing public street entrances to the construction site will be swept clean when required. All onsite and offsite paved surfaces adjacent to construction site will be swept in a timely manner when sediment and other materials are tracked or discharged onto them.

Perimeter control in the form of silt fence will be installed along the disturbed areas of the construction site to prevent or filter surface runoff leaving the site. Silt fencing intercepts and slows the flow of sediment laden runoff. Silt fences serve as a filter to slowly release filtered water. Urban drainage standards of installation should be followed closely to ensure the silt fencing adequately performs and minimizes non-source pollution events. Silt fencing should be monitored on a daily basis and corrected immediately if damaged or if sediment build-up reaches one-third of the fence height. Refer to the plan sheets for specific locations of perimeter controls.

Soil stockpiles may be located on site and the contractor may choose an appropriate location based on current conditions, with the approval of the engineer. Protection of stockpiles is described in the Standard Notes on the erosion control plans.

Maintenance of erosion control measures shall comply with the criteria set forth in the Colorado Department of Public Health and Environmental Guidelines.

All structural practices will be inspected once every week and after significant rainfall/snowmelt events. Any degradation of structures described in the plan or excessive accumulation of sediments will be remedied immediately upon discovery.

## **B. BMP Maintenance**

Throughout the construction process erosion control monitoring will be maintained. If any part of the erosion control system is found to be deteriorating it will be repaired immediately, so as not to delay upcoming schedules. This plan will implement the following general requirements for construction:

1. The Park Creek Metropolitan District, contractor, as well as representatives from governing agencies shall make routine checks of all erosion control measures (listed above) to determine if repairs or sediment removal are necessary. Due to conditions that may arise in the field, additional control measures may be determined to be necessary but they shall be reasonable and comply with standard engineering practices.
2. After each significant rainfall, erosion control measures are to be checked. If repairs are needed, they shall be completed immediately.
3. At all times during construction, erosion and sediment control shall be furnished and maintained by the Park Creek Metropolitan District.
4. During construction, all structural practices will be inspected regularly, not exceeding 14 days. Any degradation of structures described in the plan or excessive accumulation of sediments will be remedied immediately upon discovery.

## **C. Potential Pollutant Sources**

The possible pollutants that could be introduced to the stormwater are typical of an infrastructure construction project. These include sediment in runoff from disturbed and stored soils, vehicle tracking of sediment, fuels, grease or oil from construction vehicles, materials generated from concrete washing operations, trash generated by workers on site, or leakage or spills from chemical toilets.

Measures will be taken on the site to prevent these potential pollutants from being discharged to the stormwater. Structural BMP's will be in place as shown on the plans to help prevent erosion and sedimentation and should be maintained as discussed above. Minimizing exposed surfaces, enclosing within silt fence, and watering will limit runoff from disturbed and stored soils. Vehicle tracking control will limit tracking of sediment off the site. Concrete washouts will be installed per detail and utilized to contain materials from concrete and washing operations.

Several nonstructural BMP's will be utilized to reduce or eliminate the pollutants at their source to prevent adverse impacts to water quality. Waste materials shall be disposed of properly as addressed with current City ordinances. Litter on site should be kept to a minimum by providing waste containers where appropriate. Good housekeeping measures should be used on site, such as keeping material storage areas clean and orderly. Vehicles should be kept in good working order and inspected regularly. Materials should be stored properly and away from direct traffic routes. Portable toilets shall be secured from overturning on the site.

## **D. Groundwater**

Construction dewatering water shall not be discharged to the storm sewer or surface waters without first obtaining separate permit coverage from the State of Colorado. Discharging water to the ground may be allowed under certain conditions and with appropriate BMP's, in accordance with the State CDPHE Permit Unit.

Stormwater pumped from excavations may be discharged to the storm sewer system or surface waters only if the dewatering activity and associated BMP's are included in the SWMP and BMP's are implemented accordingly.

## Appendix D

### A. Spill Prevention and Management Plan

#### 1. List of Potential Construction Site Pollutants

Source	Pollutants
Adhesives	Phenols, Formaldehydes, Asbestos, Benzene, Naphthalene
Cleaners	Metals, Acidity, Alkalinity, Chromium
Plumbing	Lead, Copper, Zinc, Tin
Painting	VOCs, Metals, Phenolics, Mineral Spirits
Woods	BOD, Formaldehyde, Copper, Creosote
Masonry/Concrete	Acidity, Sediments, Metals, Asbestos
Demolition	Asbestos, Aluminum, Zinc, Dusts
Material Storage	Spills, Leaks, Dusts, Sediments
Equipment	Oils, grease, coolants, etc.

#### 2. Procedures

##### a. Spill Prevention

- Keep work areas neat and well organized.
- Maintain a Material Safety Data Sheet (MSDS) for each hazardous chemical.
- Follow proper materials storage procedures.
- Provide tight fitting lids for all containers.
- Keep containers clearly labeled. Labels should provide name and type of substance, stock number, expiration date, health hazards, handling suggestions, and first aid information.
- Store containers, drums, and bags away from direct traffic routes to prevent accidental spills.
- Inspect storage containers regularly for signs of leaking or deterioration.
- Replace or repair leaking storage containers.
- Use care to avoid spills when transferring materials from one container to another.
- Use powered equipment or get assistance when moving materials to and from a storage area. Use care to prevent puncturing containers with the equipment.
- Do not wash down or hose down any outdoor work areas or trash/waste container storage areas except where wash water is captured and discharged into the sanitary sewer (if approved).
- Conduct periodic inspections to ensure that materials and equipment are being handled, disposed/recycled, and stored correctly.
- Dispose of all waste materials properly, according to Waste Management procedure.
- Provide adequate spill kits or lockers with sufficient equipment and supplies necessary for each work area where the potential for spills or leaks exists.

- Inspect each spill kit or locker regularly and after each spill response. Replace any spent supplies or repair any equipment that is worn or not suitable for service.
- Stock adequate personal protective equipment.

## Spill Response

### Safety

Consider safety at all times. Anticipate and avoid all likely hazards. Never approach, contact, or sample an unknown substance. If a highly toxic or flammable substance is discovered, staff should leave the immediate area and contact the City fire department (720-913-3473 or 911). If there is any question about a substance, contact the appropriate identified response authority or other designated representative.

### Procedures

- Stop the leading edge of the spill. Block or divert the spill to avoid discharge to the storm sewer system and to minimize the area requiring cleanup. Small spills should be wiped up with rags and disposed of properly. Medium sized spills can be contained with absorbent materials such as cat litter or sawdust. Larger spills should be contained with inflatable berms or man-made earth berms or depressions. Downstream storm inlets should be blocked also.
- Determine the source of the spill and stop the spill at its source by closing a valve, plugging a leak, or setting a container upright. Transfer material from a damaged container.
- Identify the material and volume spilled. Contact the appropriate identified response authority or other designated representative if you cannot identify the material and its properties.
- Refer to the MSDS to determine appropriate personal protective equipment, such as gloves and safety glasses and appropriate cleanup methods.
- Clean up spills immediately to prevent spreading of wastes by wind, rain, and vehicle traffic and potential safety hazards.
- Use sand absorbents or socks, pillows, or pads to quickly capture spilled liquid and properly dispose of all clean-up materials. Use dry clean-up methods only.
- Report the spill by calling the Stormwater Quality Hot Line (303) 446-3700.
- Complete all necessary follow-up documentation and reports through Public Works Permit Operations.

### Spill Reporting

- A spill of any chemical, oil, petroleum product, or sewage that enters waters of the state of Colorado (that include surface water, ground water, and dry gullies and storm sewers leading to surface water) must be reported immediately to the Colorado Department of Public Health and Environment (CDPHE).
- Release of a substance into a storm drain, or onto a parking lot or roadway as part of a storm sewer leading to surface water, is reportable. However, if the material can be contained and cleaned within the storm sewer system to the degree that a subsequent flow in the storm sewer will not flush the substance to waters of the State, it may not need to be reported.
- Contact the appropriate identified response authority within the municipality or other designated representative and be prepared to provide details needed to report the spill to the necessary agencies.



- Detailed spill reporting guidance can be found at <http://www.cdphe.state.co.us/op/wqcc/Resources/Guidance/spillguidance.pdf> and <http://www.cdphe.state.co.us/hm/spillsandreleases.htm>

### 3. Spill prevention and response

If hazardous materials are used onsite, the following practices will be observed to reduce the risk of spills:

- Products will be kept in re-sealable containers.
- Original labels and material safety data sheets will be retained for the duration of the permit.
- If surplus products are disposed of, manufacturer's or State recommended methods would be followed.

During construction, every effort will be made to prevent debris, refuse and chemicals from entering the receiving waters. All refueling activities will be conducted in a controlled manner away from drainages.

#### Spill Control Practices

CDPHE Water Quality Rules and Regulations requires any spill or other release of hazardous substances, fuels, oils or other petroleum product to be contained and cleaned up in a timely and diligent manner. The following types of spills/releases are considered reportable in the State of Colorado. Refer to the end of this section for definitions of key terms.

- Releases of "oil" and "hazardous substances" which enter waters of the state.
- Suspected releases from above or underground storage tanks are regulated by Colorado Water Quality Rules and Regulations.

The following types of releases are not required to be reported to the division provided the release does not physically enter waters of the state, and it is immediately contained, removed, and disposed of in a timely and diligent manner.

- 10 barrels (420 gallons) or less of crude oil, petroleum condensate, produced water, or a combination thereof;
- 25 gallons or less of refined crude oil products, including but not limited to, gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil, and derivatives of mineral, animal, or vegetable oils.

These non-reportable releases shall be recorded and routed to all interested parties.

The following spill prevention and cleanup practices will be utilized:

- Material and equipment for cleanup will be kept in a materials storage area.
- All spills will be cleaned up immediately, following discovery.
- Spill areas will be well ventilated and personnel will wear appropriate protective clothing.
- Spills of hazardous or toxic substances will be reported to the appropriate authorities.
- Spill incident reports will be prepared and the spill prevention plan will be modified as necessary.

For small spills, manual clean-up techniques will be employed, including sweeping and shoveling. Larger spills will require removal of contaminated materials by excavation or vacuum and pump systems.

**The following steps should be taken if a reportable spill occurs:**

- Immediately take appropriate action to stop and contain the release.
- Immediately notify the CDPHE Water Quality Division (1-877-518-5608) of the type, quantity and location of the release, and of the response, containment and cleanup actions that have been taken or are proposed to be taken. Immediately proceed to correct the cause of the release.
- Within seven (7) days following a release, submit a complete written report to the CDPHE Water Quality Division describing the reportable release and steps taken to prevent a reoccurrence.

The written report should include:

- Description of the release/discharge
- Date of the release
- Method used to clean up and dispose of contaminated material
- Circumstances leading to the release
- Measures taken to prevent the recurrence of the release

Records of reportable spills or releases must be maintained for at least three years.

Federal spill reporting requirements may also apply. Information on federal reporting requirements can be obtained by calling:

- National Response Center at 1-800-424-8802, or
- US. EPA Region VIII at 303-293-1788.

Definitions

A "**release**" is defined as, but is not limited to, any sudden spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition of, escaping, leaching or unauthorized disposal of any oil or hazardous substance which enters or threatens to enter waters of the state. Intentional discharges of oil or hazardous substances are regulated by CDPHE permits.

"**Oil**" means insoluble or partially soluble oil of any kind including, but not limited to, crude or fuel oil, lubricating oil, oily sludge, asphalt, crude oil condensate, gasoline, diesel fuel, aviation fuel, kerosene, road oil, waste oil, oil mixed with federally defined, non-hazardous wastes and derivatives of mineral, animal or vegetable oils.

"**Hazardous substance**" means any substance or water, which after release, constitutes a threat to public health or welfare, or other aquatic life or wildlife because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious, or radioactive characteristics. The term also includes all substances so designated by the United States Environmental Protection Agency (EPA). The term does not include oil.

"**Waters of the state**" means all surface and groundwater, including waters associated with wetlands, within Colorado.

## **Appendix E**

### **A. SWMP Inspection Form**



# Stormwater Inspection Form

General Information			
Name of Project & Job #	City Permit # State Permit #	Inspection Date	
Inspector Name, Title & Contact Information			
Present Phase of Construction			
<p>Inspection Frequency</p> <p>Standard Frequency:   <input type="checkbox"/> Weekly   <input type="checkbox"/> Every 14 days and within 24 hours of a precipitation event ( precipitation that has the potential to transport sediment).</p> <p>Increased Frequency:   <input type="checkbox"/> Every 7 days and within 24 hours of a precipitation event (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3)</p> <p>Reduced Frequency:</p> <ul style="list-style-type: none"> <li>-   <input type="checkbox"/> Once per month (for stabilized areas)</li> <li>-   <input type="checkbox"/> Once per month and within 24 hours of a precipitation event (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)</li> <li>-   <input type="checkbox"/> Once per month (for frozen conditions where earth-disturbing activities are being conducted)</li> </ul>			
<p>Was this inspection triggered by a precipitation event?   <input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>If yes, how did you determined whether a precipitation event has occurred?</p> <p><input type="checkbox"/> Rain gauge on site   <input type="checkbox"/> Visual confirmation of rain or melting snow that has the potential to erode</p> <p>Total rain or snow amount that triggered the inspection (in inches):</p>			

Condition and Effectiveness of Erosion and Sediment Controls

Type of BMP (Best Management Practice)	Repairs or Other Maintenance Needed?	Corrective Action Required?	Date on Which Maintenance or Corrective Action First Identified?	Notes and date corrected
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Inspection Completed

I certify this Stormwater Management Plan Field Inspection Report is complete and accurate.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name and Affiliation: \_\_\_\_\_

Certification and Signature by Permittee

I certify that the site is in compliance with the permit to the best of my knowledge and believe that adequate corrective actions have been taken or that no incidents requiring corrective actions were identified.

Signature of Permittee or "Duly Authorized Representative": \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name and Affiliation: \_\_\_\_\_

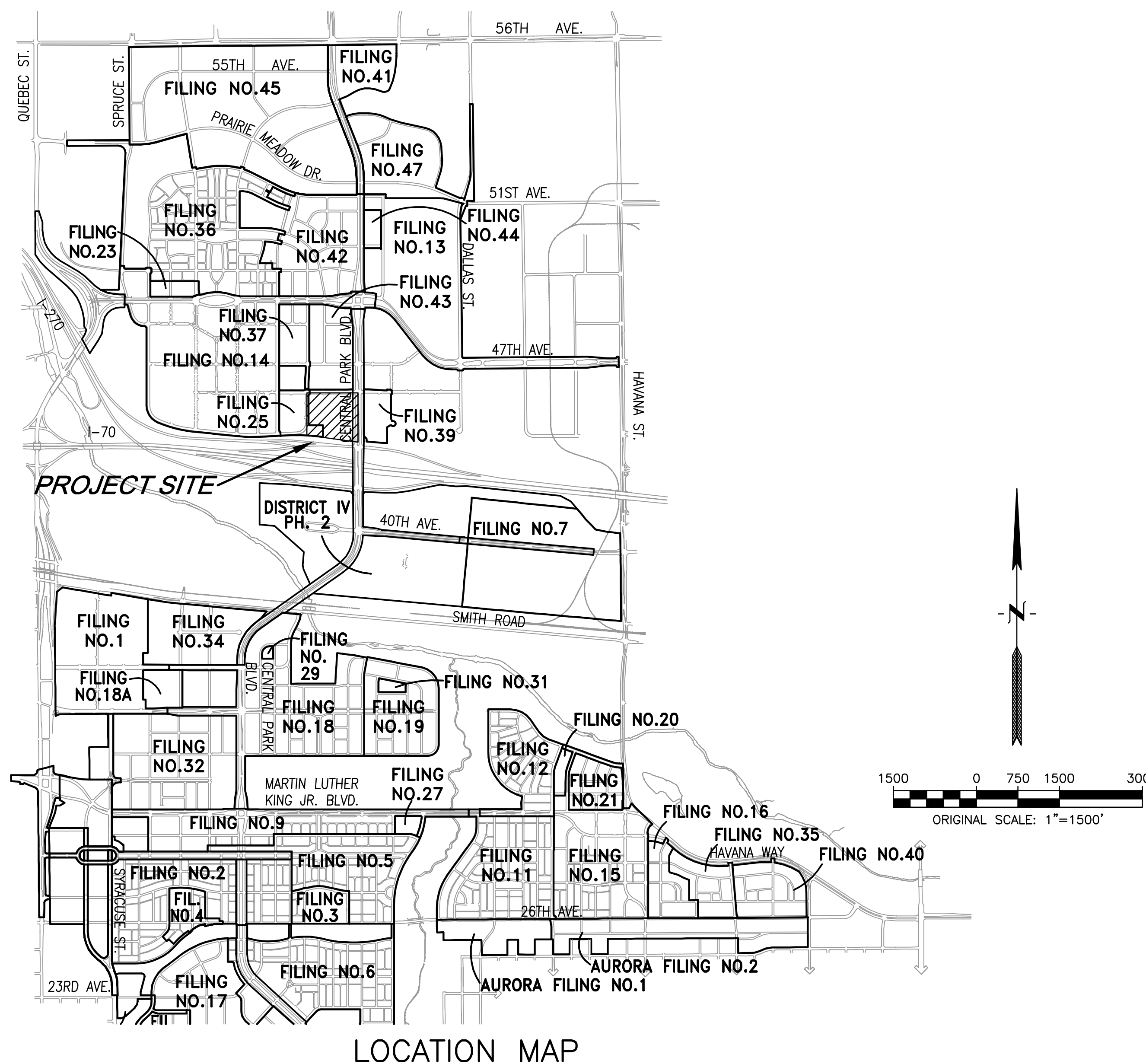




# STAPLETON 46th PLACE STOCKPILE OVERLOT GRADING AND EROSION CONTROL PLAN APRIL 2015 PARK CREEK METROPOLITAN DISTRICT

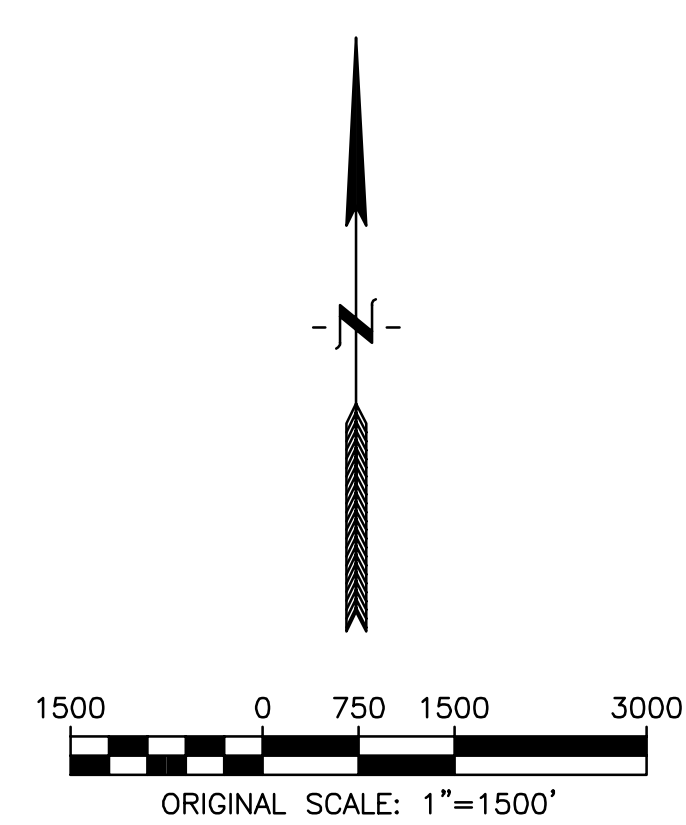
### INDEX OF SHEETS

DRAWING NO.	DRAWING DESCRIPTION	SHEET NO.
ECTS	TITLE SHEET	1
ECGN	GENERAL NOTES	2
EC01	PHASE 1 & 2 - SITE PREP AND GRADING	3
EC02	PHASE 3 - PERMANENT SITE STABILIZATION	4
ECDT01-ECDT02	EROSION CONTROL DETAILS	5-6



**BENCHMARK:** NGS U 392: A STANDARD NATIONAL GEODETIC SURVEY STAINLESS STEEL DEEP ROD IN MONUMENT BOX WITH LOGO CAP APPROXIMATELY 442.9 FT SOUTH OF THE SOUTHERLY RIGHT-OF-WAY FENCE FOR 56TH AVENUE, 393.7 FT EAST OF AN OFFICE BUILDING, 155.8 FT NORTH OF A PAVED ACCESS ROAD. ELEVATION = 5238.40' NAVD 88.

**BASIS OF BEARING:** BEARINGS ARE BASED ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 15, TOWNSHIP 3 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, STATE OF COLORADO, BEARING NORTH 00°24'43" WEST BASED ON NAD 83/92 COLORADO CENTRAL ZONE STATE PLANE COORDINATES. THE WEST QUARTER CORNER OF SAID SECTION 15 IS A FOUND 3-1/4" ALUMINUM CAPS STAMPED: URS CORP PLS 20683 AND THE SOUTHWEST CORNER OF SAID SECTION 15 IS A FOUND 3-1/4" ALUMINUM CAPS STAMPED: ZBS INC PLS 11434.



*Philp Kim*

May 2015

NO.	DATE	DESCRIPTION	BY
REVISIONS			

CITY AND COUNTY OF DENVER  
201 W. COLFAX  
DENVER, COLORADO  
80202  
720-913-4500

8181 E. TUFTS AVE.  
DENVER, COLORADO 80237  
T. 303-740-2600, F. 303-694-3946



FOR AND ON BEHALF OF  
URS CORPORATION  
PROJECT No. 22243325

**CITY AND COUNTY OF DENVER**  
DEVELOPMENT SERVICES - SITE ENGINEERING

DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**PARK CREEK** METROPOLITAN DISTRICT  
7350 E. 29TH AVE. SUITE 200  
DENVER, CO 80238

STAPLETON 46th PL. STOCKPILE

**TITLE SHEET**  
OVERLOT GRADING AND EROSION CONTROL PLAN

DESIGNED BY: JW	SCALE: N/A	DATE ISSUED: 4/29/15	DRAWING NO. ECTS
DRAWN BY: JW	HORIZ: N/A	VERT: N/A	SHEET 1 OF 6 SHEETS
CHECKED BY: TG			

XREFS: S:\000\comp\_05018BREC  
 FILE NAME: \PROJECTS\_INF\22241109\_Stapleton\_Master\6.0 Projects\22243325\_IDM\_Introct\_Title\_32\6.0 Projects\05018 SWMP South 46th Place\7.0\_05018ECTS.dwg May 05, 2015 - 11:26am





**PROJECT SPECIFIC NOTES:**

- OVERLOT GRADING COMPACTION REQUIREMENTS SHALL BE 95% OF THE STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT WITHIN ±2% OF THE STANDARD PROCTOR OPTIMUM MOISTURE CONTENT, REGARDLESS OF THE SOIL TYPE
- SEE THE STORMWATER MANAGEMENT PLAN FOR STAPLETON 46th PLACE STOCKPILE FOR EROSION CONTROL REQUIREMENTS.
- CONTRACTOR AND CONSTRUCTION MANAGER SHALL VERIFY EXISTING TOPOGRAPHY AND ESTIMATED EARTHWORK QUANTITIES PRIOR TO EXECUTING WORK.
- ADDITIONAL FINE GRADING WILL BE REQUIRED PRIOR TO ROADWAY CONSTRUCTION. EARTHWORK SEQUENCING AND METHODOLOGY SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE CONSTRUCTION MANAGER.
- UTILITY NOTIFICATION CENTER – CONTRACTOR SHALL CONTACT UTILITY NOTIFICATION CENTER FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. PHONE 1-800-922-1987.
- EXISTING TOPOGRAPHY SHOWN IS THE ANTICIPATED POST REMEDIATION GRADING.
- ESTIMATED EARTHWORK QUANTITIES PROVIDED HEREIN DO NOT INCLUDE EARTHWORK FOR FOUNDATION AND BASEMENT EXCAVATION.
- ESTIMATED EARTHWORK QUANTITIES ARE TO FINISH GRADE. NO ALLOWANCE HAS BEEN MADE FOR STRIPPING, EXISTING PAVEMENT THICKNESS, FUTURE PAVEMENT THICKNESS, UTILITY SPOILS, NOR SHRINKAGE DUE TO SCARIFICATION/COMPACTION.
- NO ALLOWANCE HAS BEEN MADE FOR TOPSOIL IMPORT.
- AREAS OUTSIDE OF RIGHT-OF-WAYS ARE STRAIGHT GRADED. NO ATTEMPT HAS BEEN MADE TO INCLUDE SITE SPECIFIC GRADING. LOT OWNERS/BUILDERS WILL BE RESPONSIBLE FOR DETAILED GRADING AND FOUNDATION EXCAVATION ON THEIR LOTS.
- THE ENGINEER MAY REQUIRE SILT FENCING AS NECESSARY TO RETARD SEDIMENT TRANSPORT ON OR OFF THE PROJECT SITE. SILT FENCE SHALL BE INSTALLED ALONG THE EXISTING BACK OF CURB OR SIDEWALK. SILT FENCE SHALL BE REMOVED AND REPLACED AS CONSTRUCTION PHASING PROGRESSES.
- FINAL LOCATION OF STAGING AREA (SSA) AND SITE ENTRANCE (VTC) MAY BE DETERMINED AT THE SITE BY THE CONTRACTOR.
- INLET PROTECTION FOR PROPOSED STORM SEWER SHALL BE INSTALLED UPON CONSTRUCTION OF THE INLET.

**CONSTRUCTION PHASING NOTES:**

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING REASONABLE AND PRUDENT EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE DOWNSTREAM FACILITIES AND WHICH ARE RELEVANT TO THE CURRENT CONSTRUCTION ACTIVITY. AT A MINIMUM THE FOLLOWING BMP'S SHALL BE INSTALLED FOR EACH PHASE:

- & 2. DEMO AND GRADING
  - VEHICLE TRACKING CONTROL
  - STABILIZED STORAGE AREA
  - SILT FENCE
  - INLET PROTECTION
  - SURFACE ROUGHENING
- PAVING AND STABILIZATION
  - SEEDING & MULCHING
  - REMOVE BMP'S AS SITE IS ESTABLISHED

**BMP MAINTENANCE NOTE:**

ALL EROSION AND SEDIMENT CONTROL PRACTICES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWMP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. PROPER SELECTION AND INSTALLATION OF BMP'S AND IMPLEMENTATION OF COMPREHENSIVE INSPECTION AND MAINTENANCE PROCEDURES, IN ACCORDANCE WITH THE SWMP, SHOULD BE ADEQUATE TO MEET THIS CONDITION. BMP'S THAT ARE NOT ADEQUATELY MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES, INCLUDING REMOVAL OF COLLECTED SEDIMENT OUTSIDE THE ACCEPTABLE TOLERANCES OF THE BMP'S, ARE CONSIDERED TO BE NO LONGER OPERATING EFFECTIVELY AND MUST BE ADDRESSED.

**CCD STANDARD EROSION CONTROL NOTES:**

**STANDARD NOTE # 1**

THE PERMITTEE AND/OR CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO OR, ACCUMULATE IN, THE FLOWLINES, STORM DRAINAGE APPURTENANCES, AND PUBLIC RIGHTS OF WAYS OF THE CITY AND COUNTY OF DENVER AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER.

**STANDARD NOTE # 2**

THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, BORING, GRADING, OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM, RECEIVING WATERS, WATERWAYS, WETLANDS, AND OR OTHER PUBLIC OR PRIVATE PROPERTIES, RESULTING FROM WORK DONE AS PART OF THIS PROJECT.

**STANDARD NOTE # 3**

SOIL STABILIZATION MEASURES SHALL BE IMPLEMENTED WITHIN FOURTEEN (14) DAYS FOLLOWING COMPLETION OF GRADING ACTIVITIES. STABILIZATION OF DISTURBED AREAS ADJACENT TO RECEIVING WATERS OR WITH SLOPES 3 TO 1 OR GREATER SHALL BE COMPLETED WITHIN SEVEN (7) DAYS FOLLOWING COMPLETION OF GRADING ACTIVITIES. NOTE: FEDERAL AND STATE REGULATIONS MAY SOON REQUIRE STABILIZATION WITHIN SEVEN (7) DAYS OF COMPLETION OF GRADING ACTIVITIES. IN SUCH CASES, THE SHORTER TIMEFRAME SHALL APPLY TO PROJECTS WITHIN DENVER AS WELL.

**STANDARD NOTE # 4**

THE DEVELOPER, GENERAL CONTRACTOR, GRADING CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL INSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC RIGHTS OF WAY. (SEC.49-552; REVISED MUNICIPAL CODE)

**STANDARD NOTE # 5**

THE USE OF REBAR TO ANCHOR BEST MANAGEMENT PRACTICES IS PROHIBITED. STEEL FENCE POSTS MAY BE USED ON A CASE BY CASE BASIS AND REQUIRES APPROVAL FROM THE CITY AND COUNTY OF DENVER SWMP REVIEWER OR THE STORMWATER ENFORCEMENT INVESTIGATOR PRIOR TO INSTALLATION.

**STANDARD NOTE # 6**

SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. STABILIZATION OF STOCKPILES LOCATED WITHIN 100 FEET OF RECEIVING WATERS, OR WITH SLOPES 3 TO 1 OR GREATER SHALL BE COMPLETED WITHIN SEVEN (7) DAYS FOLLOWING STOCKPILE CONSTRUCTION. STABILIZATION AND PROTECTION OF THE STOCKPILE MAY BE ACCOMPLISHED BY ANY OF THE FOLLOWING: MULCHING, TEMPORARY/PERMANENT REVEGETATION OPERATIONS, CHEMICAL SOIL STABILIZER APPLICATION (REQUIRES DENVER PUBLIC WORKS APPROVAL), OR EROSION CONTROL MATTING/GEOTEXTILES. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF RECEIVING WATERS, A DRAINAGEWAY OR THE SITE PERIMETER, ADDITIONAL SEDIMENT CONTROLS SUCH SHALL BE REQUIRED.

**STANDARD NOTE # 7**

APPROVED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE PERMITTEE OR CONTRACTOR SHALL PRODUCE AND RETAIN WEEKLY WRITTEN INSPECTION RECORDS FOR ALL BMP'S AND AFTER SIGNIFICANT PRECIPITATION EVENTS. ALL NECESSARY MAINTENANCE AND REPAIR SHALL BE COMPLETED IMMEDIATELY. ADDITIONALLY, STREET SWEEPING IS TO BE COMPLETED BY THE CLOSE OF THE BUSINESS DAY OR (AND) ON AN AS NEEDED BASIS THROUGHOUT THE DAY.

**STANDARD NOTE # 8**

WATER USED IN THE CLEANING OF CEMENT TRUCK DELIVERY CHUTES SHALL BE DISCHARGED INTO A PREDEFINED, CONCRETE WASHOUT AREA ON THE JOB SITE. BERMED CONTAINMENT OR COMMERCIALY AVAILABLE CONCRETE WASHOUT DEVICES THAT FULLY CONTAIN ALL WASH WATER ARE ACCEPTABLE. WASH WATER DISCHARGED INTO THE CONTAINMENT AREA OR DEVICE SHALL BE ALLOWED TO INFILTRATE, EVAPORATE, AND OR BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. DRIED CEMENT WASTE IS TO BE REMOVED FROM THE CONTAINMENT AREA AND PROPERLY DISPOSED. SHOULD THE USE OF A PREDEFINED BERMED CONTAINMENT AREA OR APPROVED WASHOUT DEVICE BE TECHNICALLY INFEASIBLE DUE TO THE PROJECT SIZE, OR LACK OF AN AREA WITH A SUITABLE GROUND SURFACE FOR ESTABLISHING CONTAINMENT, PROPER DISPOSAL OF CONCRETE WASHOUT AND WASH WATER AT THE JOB SITE SHALL CONFORM TO THE APPROVED TECHNIQUES AND PRACTICES IDENTIFIED IN THE COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT'S TRAINING VIDEO ENTITLED BUILDING FOR A CLEANER ENVIRONMENT, READY MIX WASHOUT TRAINING AND ITS ACCOMPANYING MANUAL ENTITLED, READY MIX WASHOUT GUIDEBOOK, VEHICLE AND EQUIPMENT WASHOUT AT CONSTRUCTION SITES. THE DIRECT OR INDIRECT DISCHARGE OF WATER CONTAINING WASTE CEMENT TO THE STORM SEWER SYSTEM IS PROHIBITED. (SEC.56-102A, C; REVISED MUNICIPAL CODE, CITY AND COUNTY OF DENVER).

**STANDARD NOTE # 9**

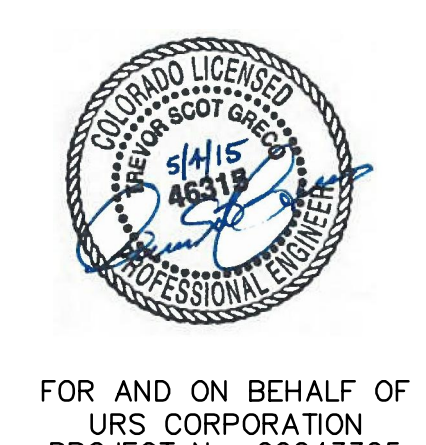
THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING, OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS OR AS NEEDED THROUGHOUT THE WORK DAY. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED. (SEC.56-102A, C; REVISED MUNICIPAL CODE, CITY AND COUNTY OF DENVER)

**STANDARD NOTE # 10**

PAVED AND IMPERVIOUS SURFACES WHICH ARE ADJACENT TO CONSTRUCTION SITES MUST BE SWEEPED ON A DAILY BASIS AND AS NEEDED DURING THE DAY WHEN SEDIMENT AND OTHER MATERIALS ARE TRACKED OR DISCHARGED ONTO THEM. EITHER SWEEPING BY HAND OR USE OF STREET SWEEPERS IS ACCEPTABLE. STREET SWEEPERS USING WATER WHILE SWEEPING IS PREFERRED IN ORDER TO MINIMIZE DUST. FLUSHING OFF PAVED SURFACES WITH WATER IS PROHIBITED. (SEC.56-102A, C; REVISED MUNICIPAL CODE, CITY AND COUNTY OF DENVER)

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NO.	DATE	DESCRIPTION	BY
REVISIONS			



**CITY AND COUNTY OF DENVER**  
DEVELOPMENT SERVICES - SITE ENGINEERING

DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**PARKCREEK** METROPOLITAN DISTRICT  
7350 E. 29TH AVE. SUITE 200 DENVER, CO 80238  
STAPLETON 46th PL. STOCKPILE

**GENERAL NOTES**  
OVERLOT GRADING AND EROSION CONTROL PLAN

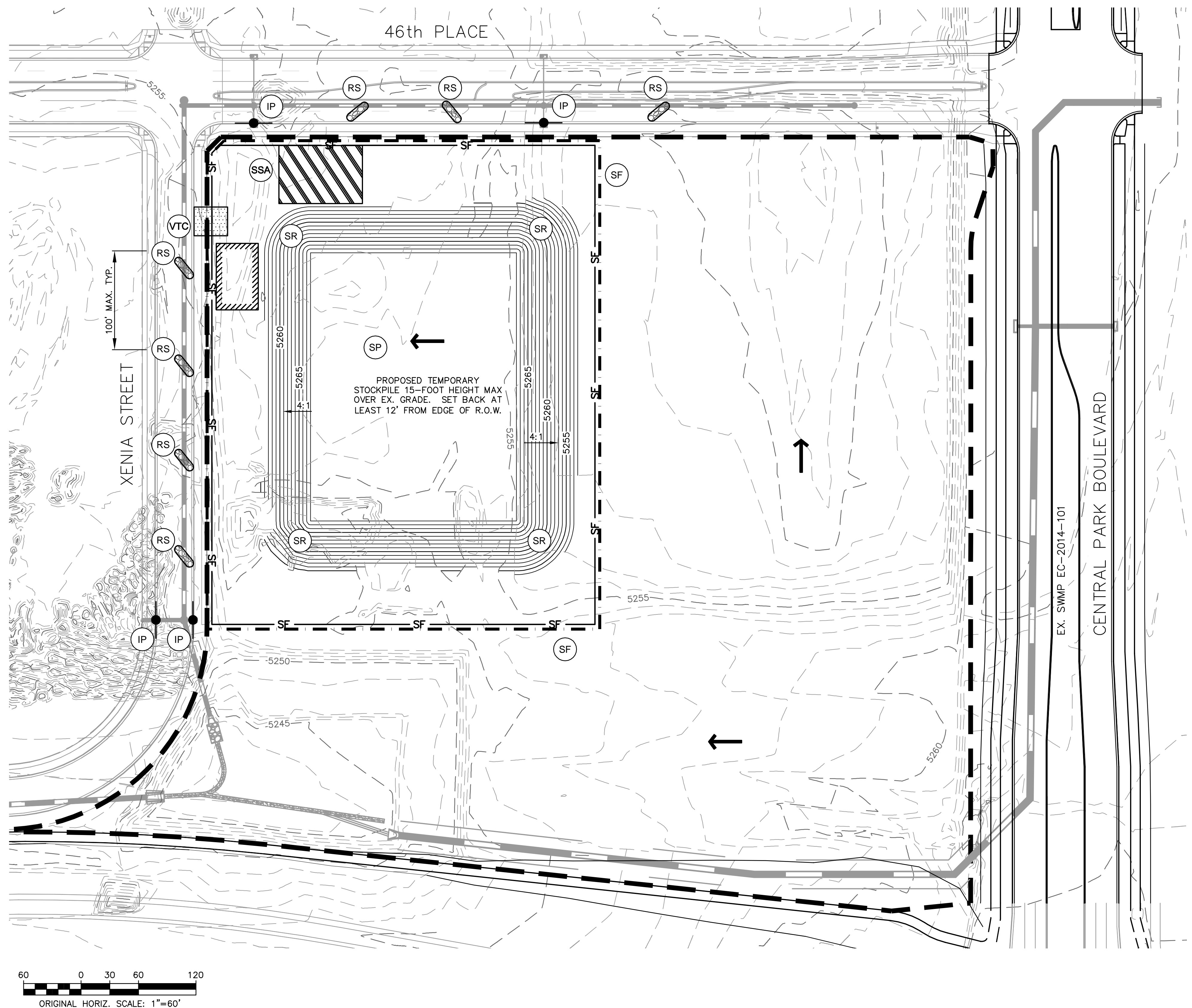
DESIGNED BY: JW	SCALE: N/A	DATE ISSUED: 4/29/15	DRAWING NO. ECGN
DRAWN BY: JW	HORIZ: N/A		
CHECKED BY: TG	VERT: N/A	SHEET 2 OF 6 SHEETS	

FOR AND ON BEHALF OF  
URS CORPORATION  
PROJECT No. 22243325

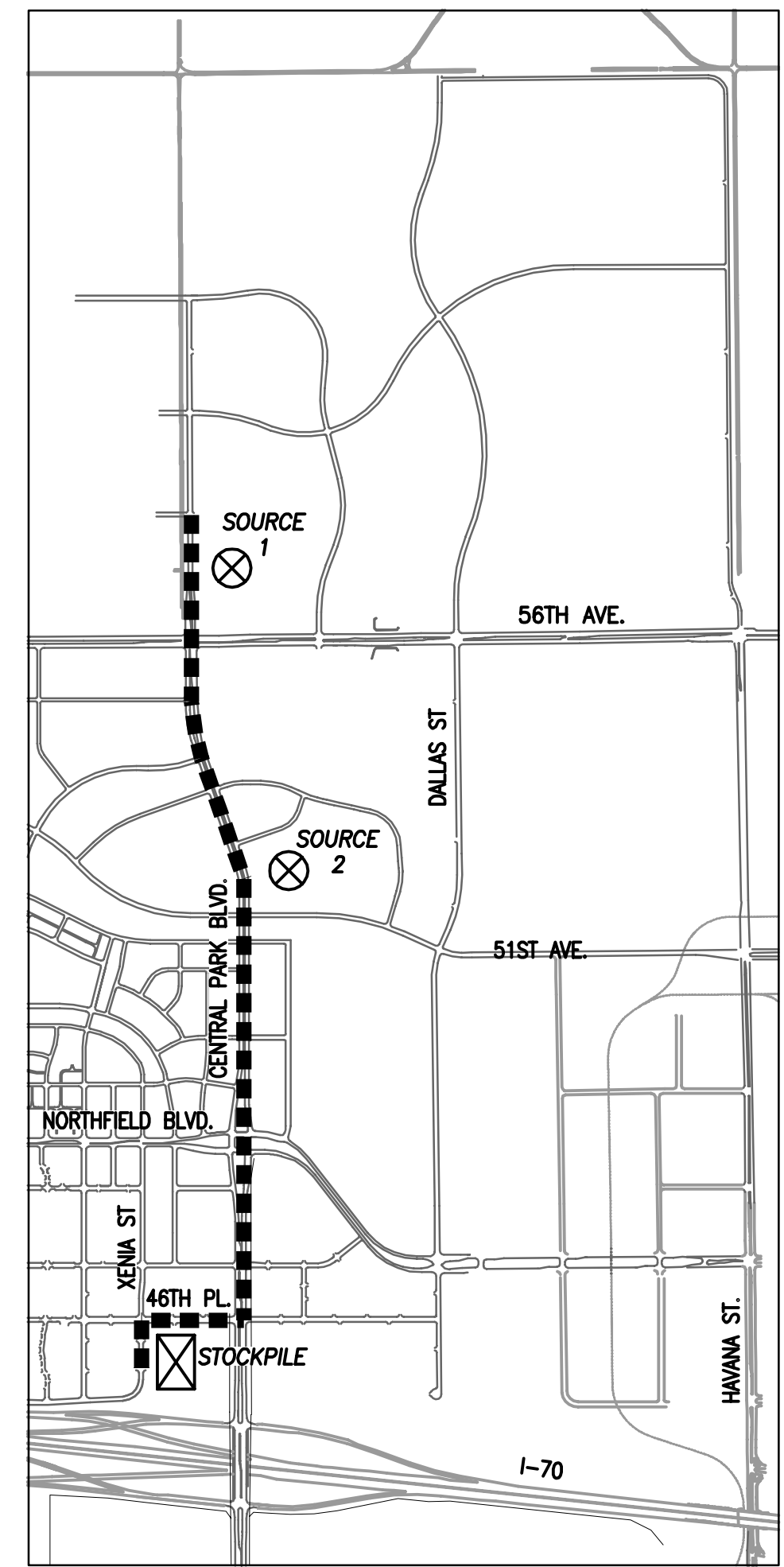




Know what's below.  
Call before you dig.



HAUL ROUTE MAP

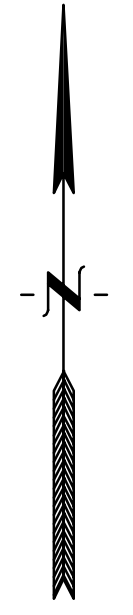


LEGEND

- 5300 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 5300 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STORM DRAIN
- E-SD
- LIMITS OF CONSTRUCTION
- FLOW ARROW
- SF SILT FENCE
- VTC VEHICLE TRACKING CONTROL
- SP STOCKPILE MANAGEMENT
- SR SURFACE ROUGHENING
- IP INLET PROTECTION
- SSA STORAGE/STAGING AREA
- RS ROCK SOCK
- CONSTRUCTION PARKING

NOTE:

1. CONTRACTOR TO APPLY SURFACE ROUGHENING, MULCHING AND EROSION CONTROL SEEDING AS SOON AS PRACTICAL. SEE PHASE 2 AND PHASE 3 DRAWINGS FOR LOCATIONS.
2. STOCKPILE STABILIZATION NOTE: SOIL STOCKPILES THAT WILL REMAIN FOR MORE THAN THIRTY (30) DAYS NEED TO HAVE PERIMETER CONTAINMENT MEASURES INSTALLED PRIOR TO BEGINNING STOCKPILE CONSTRUCTION AND REQUIRE STABILIZATION WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. ALL STOCKPILE AREAS SHALL BE SHOWN ON THE FIELD MANAGEMENT PLAN. ADEQUATE "FOOTPRINTS" FOR TOPSOIL STOCKPILES, STOCKPILES OF EXCESS EXCAVATED MATERIAL, AND STOCKPILES FOR IMPORTED MATERIALS SHALL BE SHOWN ON FIELD MANAGEMENT PLANS. PERIMETER CONTROLS ARE NOT REQUIRED IF STOCKPILE SLOPES ARE LESS THAN 3 TO 1 AND AREA MORE THAN 100 FEET FROM THE PROTECTED PERIMETER OF THE PROJECT BOUNDARY. STOCKPILES SHALL NOT BE SHOWN OUTSIDE THE LIMITS OF CONSTRUCTION



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NO.	DATE	DESCRIPTION	BY
REVISIONS			

CITY AND COUNTY OF DENVER  
 201 W. COLFAX  
 DENVER, COLORADO  
 80202  
 720-913-4500

**STAPLETON**  
 DEVELOPMENT TEAM

8181 E. TUFTS AVE.  
 DENVER, COLORADO 80237  
 T. 303-740-2600, F. 303-694-3946



FOR AND ON BEHALF OF  
URS CORPORATION  
PROJECT No. 22243325

**CITY AND COUNTY OF DENVER**  
 DEVELOPMENT SERVICES - SITE ENGINEERING  
 DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**PARKCREEK**
7350 E. 29TH AVE.  
SUITE 200  
DENVER, CO 80238
STAPLETON 46th PL. STOCKPILE

**PHASE 1 & 2 - SITE PREP & GRADING  
OVERLOT GRADING AND EROSION CONTROL PLAN**

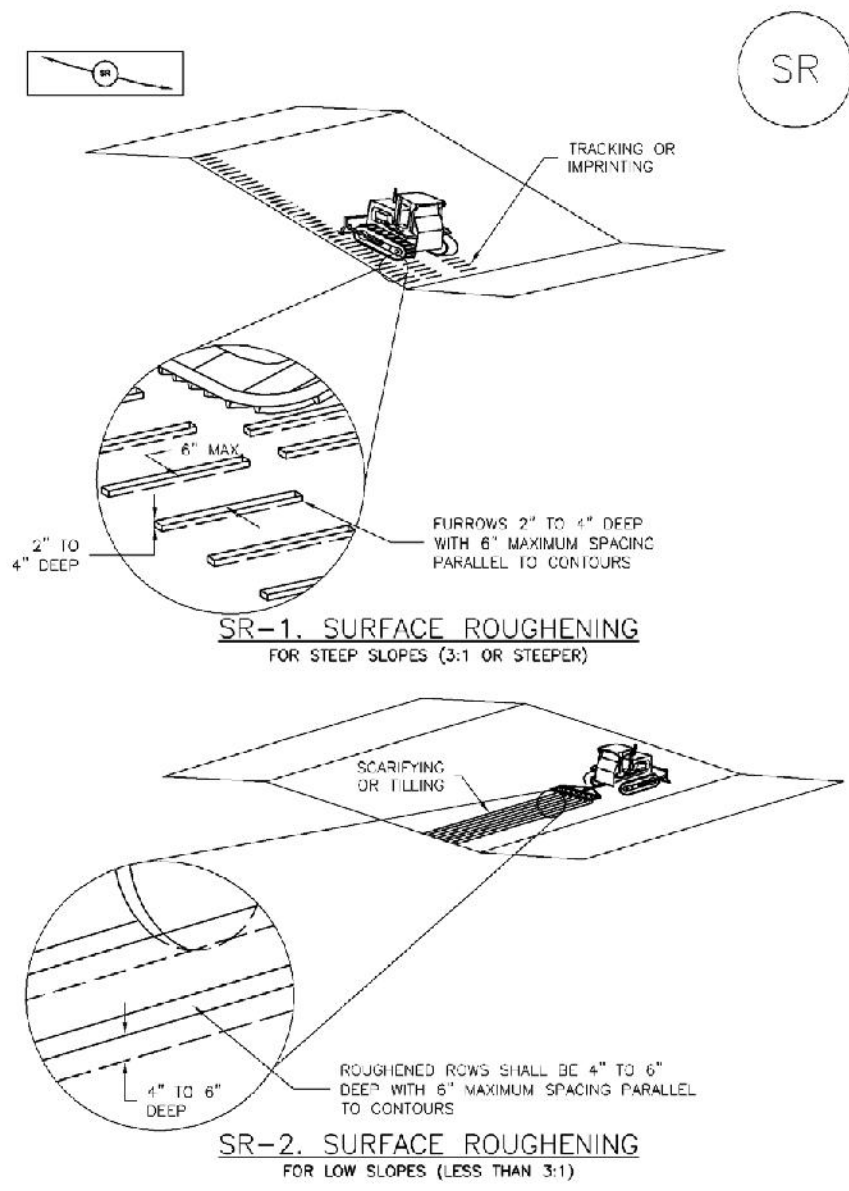
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CHECKED BY: TG			SHEET 3 OF 6 SHEETS







**Surface Roughening (SR) EC-1**



**EC-1 Surface Roughening (SR)**

**SURFACE ROUGHENING INSTALLATION NOTES**

- SEE PLAN VIEW FOR:
  - LOCATION(S) OF SURFACE ROUGHENING.
- SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED MAIN EVENT.
- AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOIL WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.
- DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.
- A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.

**SURFACE ROUGHENING MAINTENANCE NOTES**

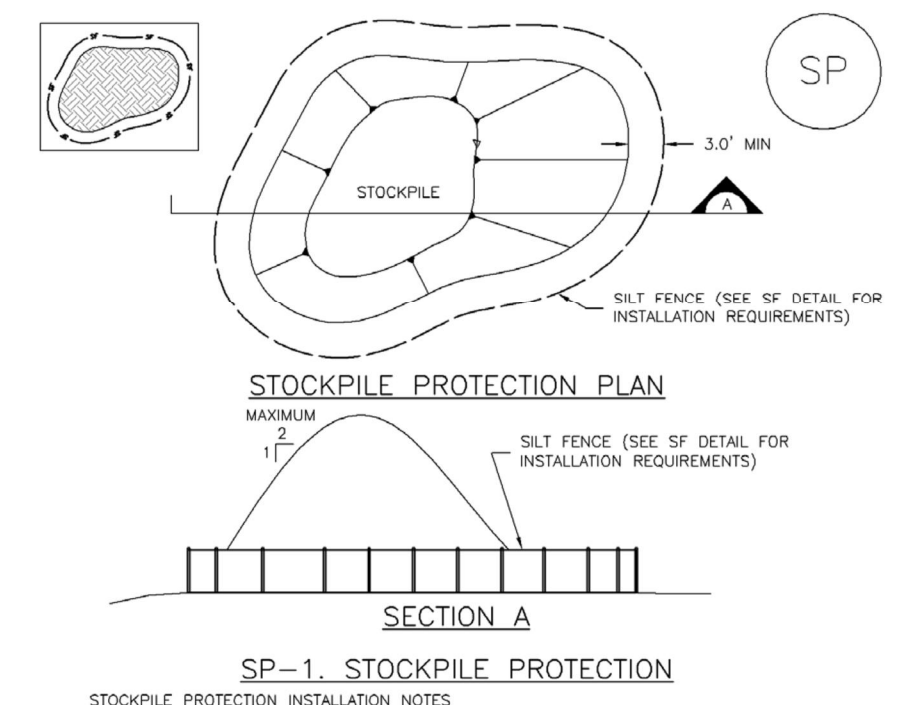
**REGULARLY, NOT EXCEEDING 7 DAYS (SEE SWMP NARRATIVE SECTION H)**

- INSPECT BMPs PROMPTLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACE UPON DISCOVERY OF THE FAILURE.
- VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
- IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
- IN AREAS NOT SEEDING AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL EROSION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**Stockpile Management (SP) MM-2**



**STOCKPILE PROTECTION INSTALLATION NOTES**

- SEE PLAN VIEW FOR:
  - LOCATION OF STOCKPILES.
  - TYPE OF STOCKPILE PROTECTION.
- INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
- STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDING AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
- FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

**MM-2 Stockpile Management (SM)**

**STOCKPILE PROTECTION MAINTENANCE NOTES**

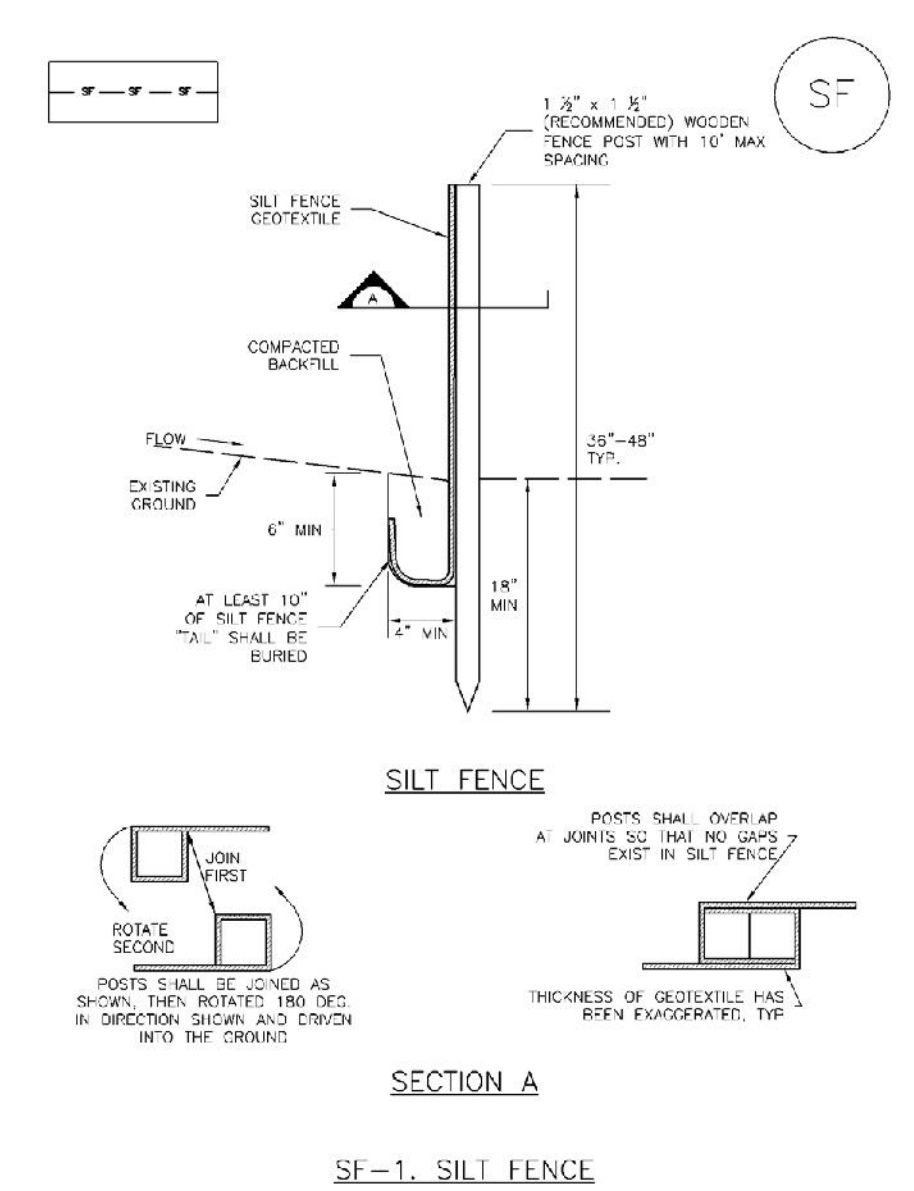
**REGULARLY, NOT EXCEEDING 7 DAYS (SEE SWMP NARRATIVE SECTION H)**

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- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
- STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**Silt Fence (SF) SC-1**



**SC-1 Silt Fence (SF)**

**SILT FENCE INSTALLATION NOTES**

- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER RUNDOWN. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
- A UNIFORM 6" x 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- CONCRETE ANCHOR TRENCH BY HAND WITH A TAMING JACK OR BY WHEEL ROLLING. CONSTRUCTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICIBLE GAP BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STEEL OR GALV. W/ 1" HOLE. STAKES AND W/LS SHOULD BE PLACED 3' ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK". THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM "DRIVING" AROUND THE TOE OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

**SILT FENCE MAINTENANCE NOTES**

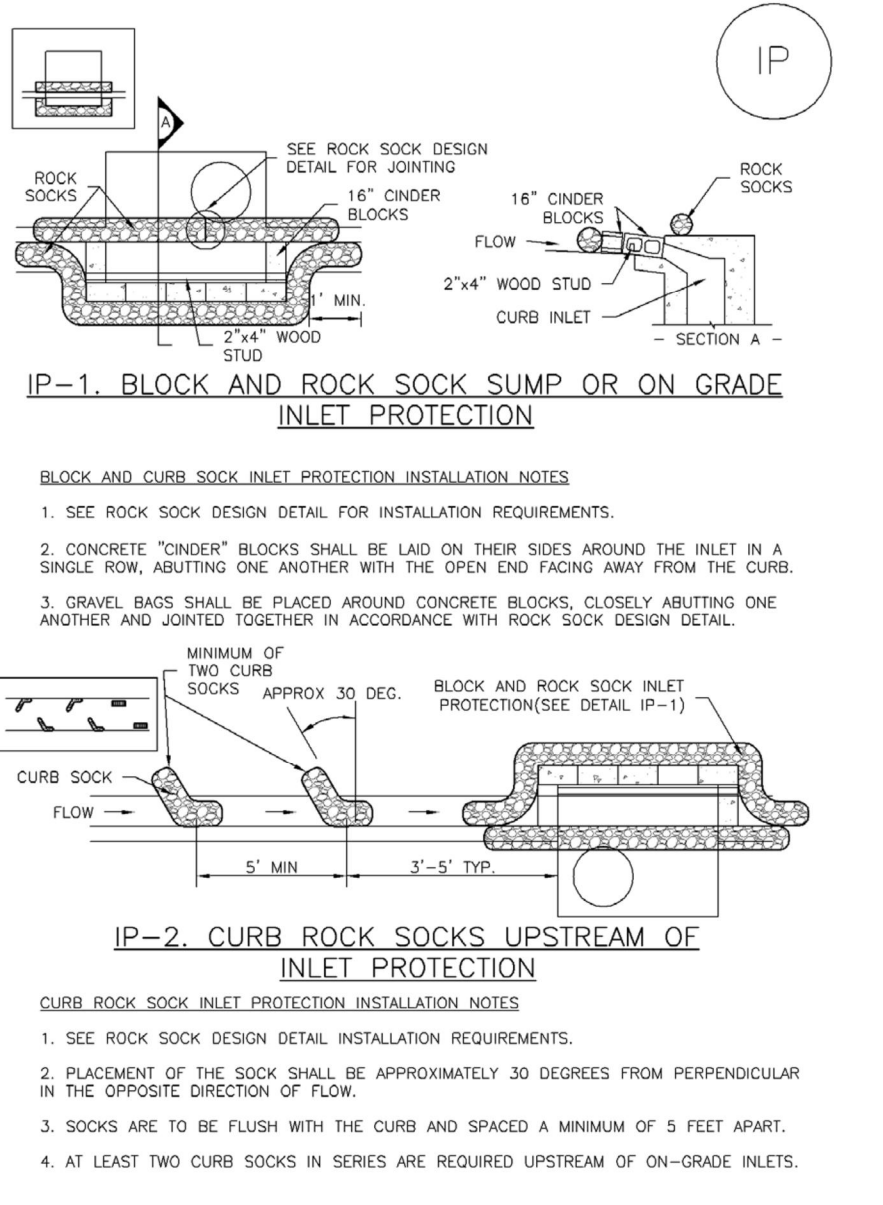
**REGULARLY, NOT EXCEEDING 7 DAYS (SEE SWMP NARRATIVE SECTION H)**

- INSPECT BMPs PROMPTLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**SC-6 Inlet Protection (IP)**



**SC-6 Inlet Protection (IP)**

**BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES**

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
- GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

**BLOCK AND CURB SOCK INLET PROTECTION (SEE DETAIL IP-1)**

**CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES**

- SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
- SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
- AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

**ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES**

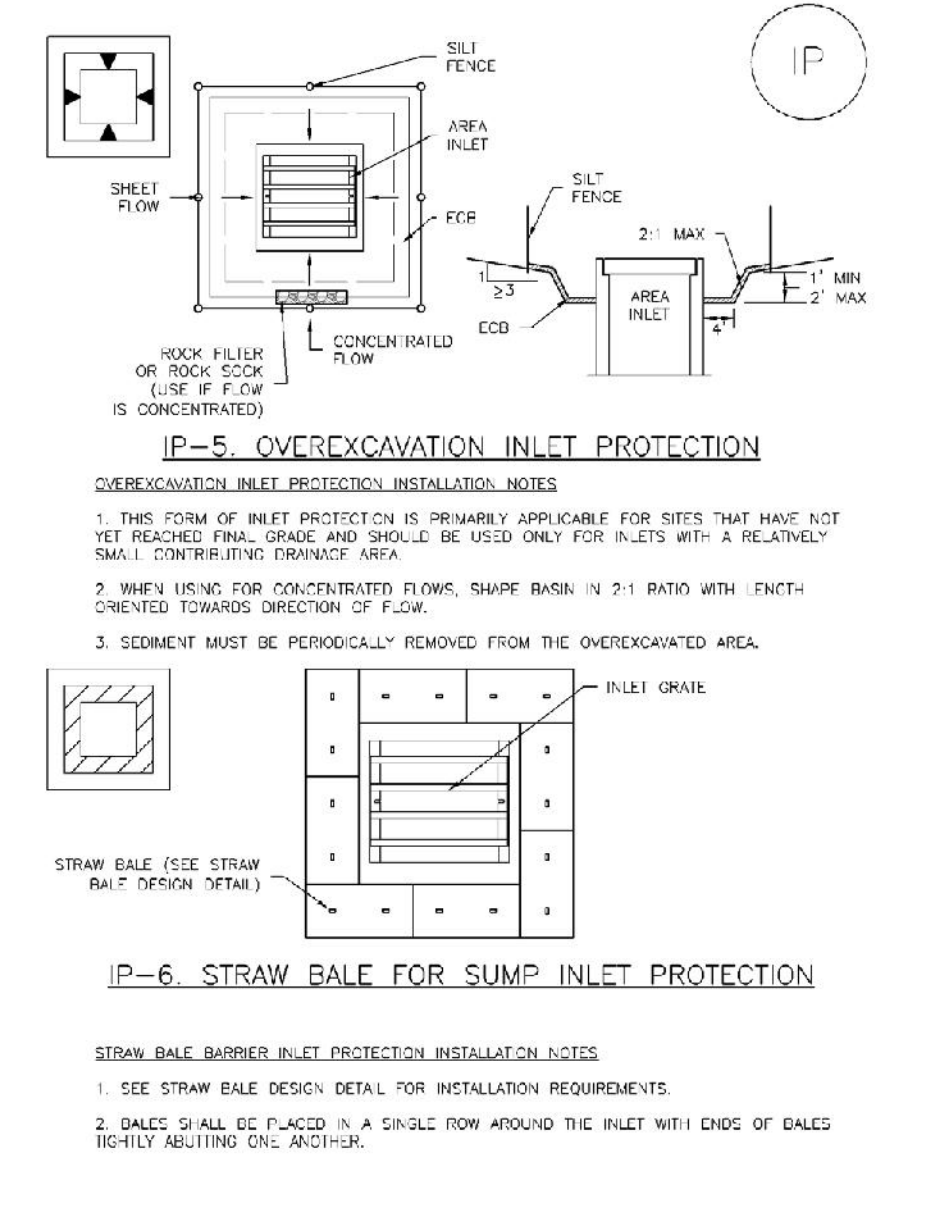
- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- STRAW WATLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

**SILT FENCE FOR SUMP INLET PROTECTION**

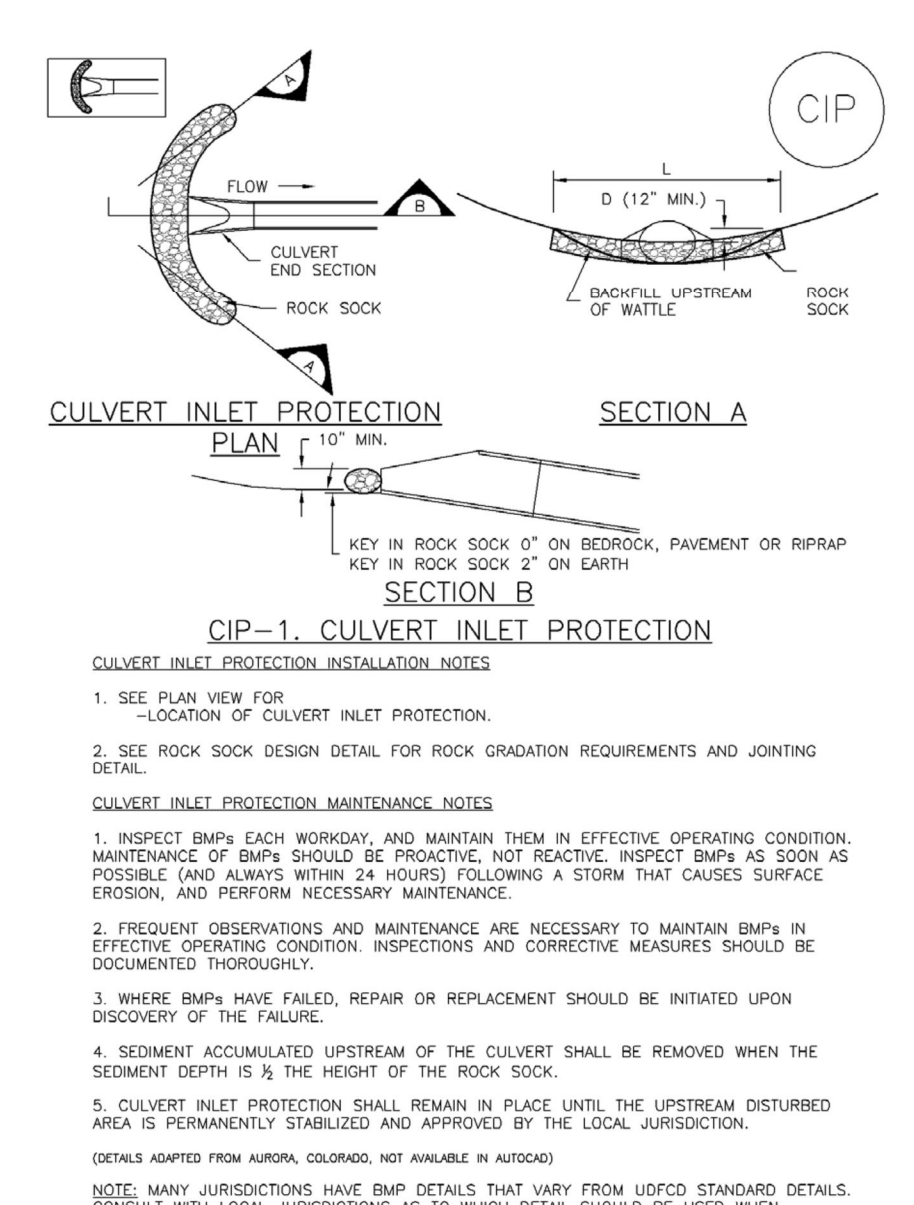
**SILT FENCE INLET PROTECTION INSTALLATION NOTES**

- SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
- STRAW WATLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

**SC-6 Inlet Protection (IP)**



**SC-6 Inlet Protection (IP)**



NO.	DATE	DESCRIPTION	BY
REVISIONS			

**DENVER**  
THE MILE HIGH CITY

CITY AND COUNTY OF DENVER  
201 W. COLFAX  
DENVER, COLORADO  
80202  
720-913-4500

**CITY AND COUNTY OF DENVER**  
DEVELOPMENT SERVICES - SITE ENGINEERING

DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**ParkCreek** 7350 E. 29TH AVE. SUITE 200 STAPLETON 46th PL. STOCKPILE  
METROPOLITAN DISTRICT DENVER, CO 80238

**EROSION CONTROL DETAILS**  
OVERLOT GRADING AND EROSION CONTROL PLAN

DESIGNED BY: JB  
DRAWN BY: JB  
CHECKED BY: TG

SCALE: HORIZ. N/A  
VERT. N/A

DATE ISSUED: 4/29/15  
SHEET 5 OF 6 SHEETS

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**SC-6 Inlet Protection (IP)**

**GENERAL INLET PROTECTION INSTALLATION NOTES**

1. SEE PLAN VIEW FOR:
  - LOCATION OF INLET PROTECTION
  - TYPE OF INLET PROTECTION (P.1, P.2, P.3, P.4, P.5, P.6)
2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS) BY A RAINFALL/RUNOFF EVENT IS FORECAST. INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**INLET PROTECTION MAINTENANCE NOTES**

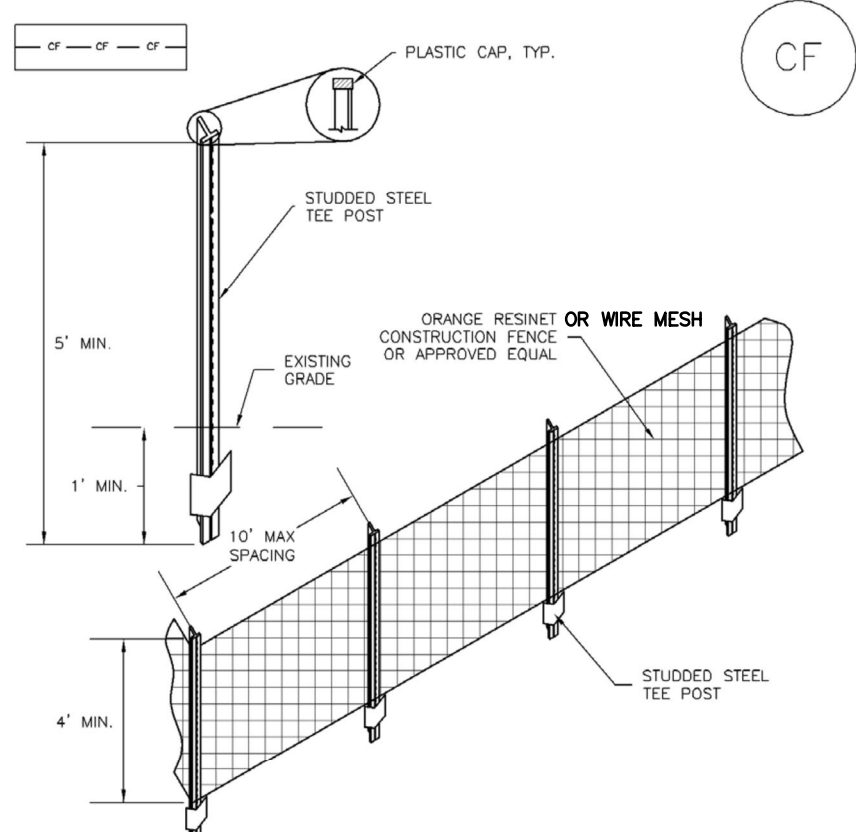
1. INSPECT BMPs REGULARLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS. TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 5" WHEN Silt FENCE IS USED, OR 1/4 OF THE HEIGHT FOR STRAW BALES.
5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED. UNLESS THE LOCAL JURISDICTION APPROVES EARLY REMOVAL OF INLET PROTECTION IN STREETS.
6. WHEN INLET PROTECTION AT AREA "LEAKS" IS RETURNED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDS, AND MULCH, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM FORM OF PAPER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)  
 NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW CONVENTIONALLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. LOCAL AGENCIES, ENGINEERS, AND DISCOUNTERS USE OF PROPRIETARY INLET PROTECTION, HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

**SM-3 Construction Fence (CF)**



CF-1. PLASTIC MESH CONSTRUCTION FENCE

**CONSTRUCTION FENCE INSTALLATION NOTES**

1. SEE PLAN VIEW FOR:
  - LOCATION OF CONSTRUCTION FENCE
2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4" HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.
4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

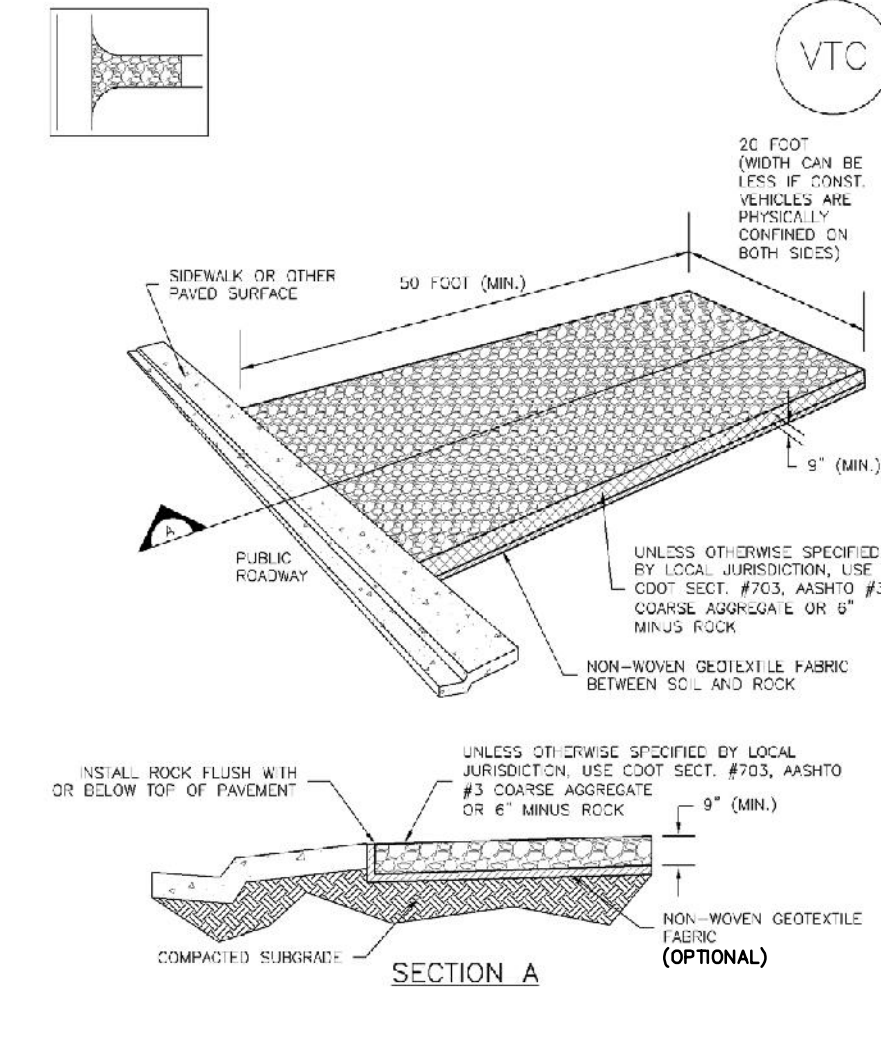
**Construction Fence (CF) SM-3**

**CONSTRUCTION FENCE MAINTENANCE NOTES**

1. INSPECT BMPs REGULARLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAG. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDS, AND MULCH, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

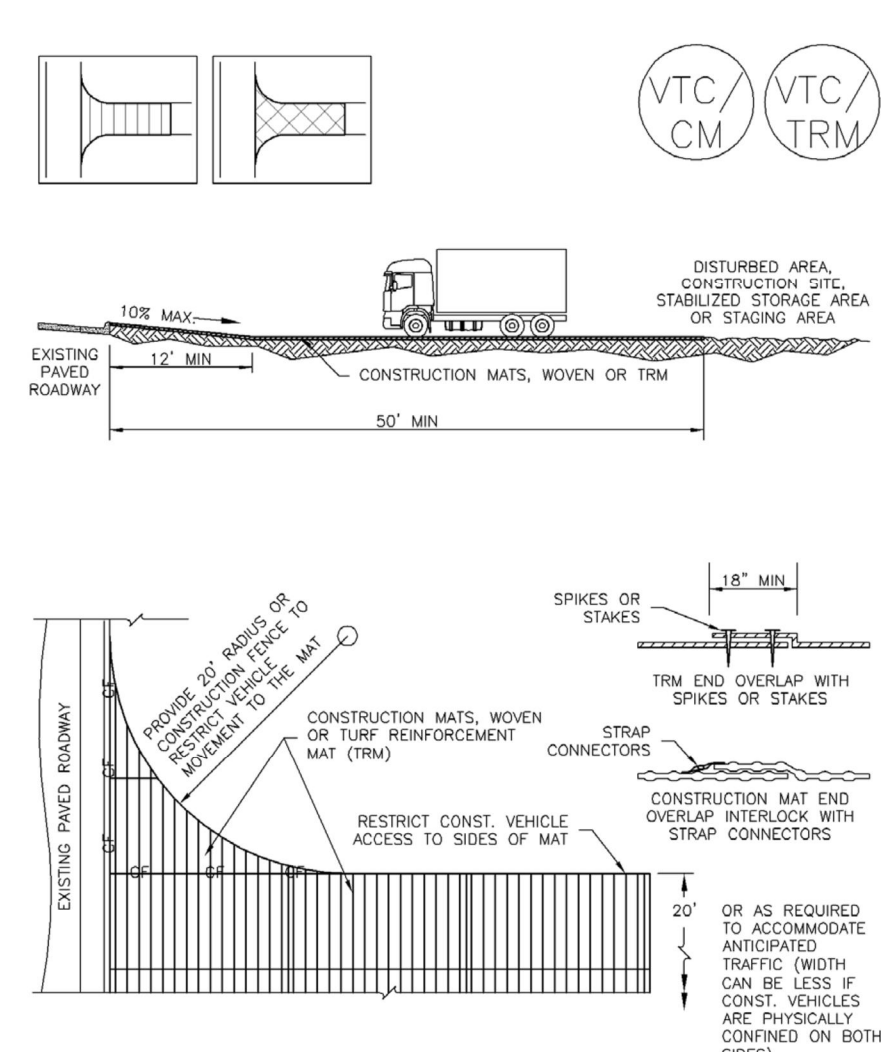
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.  
 (DETAIL ADAPTED FROM FORM OF PAPER, COLORADO, NOT AVAILABLE IN AUTOCAD)

**Vehicle Tracking Control (VTC) SM-4**



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

**Vehicle Tracking Control (VTC) SM-4**



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

**SM-4 Vehicle Tracking Control (VTC)**

**STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES**

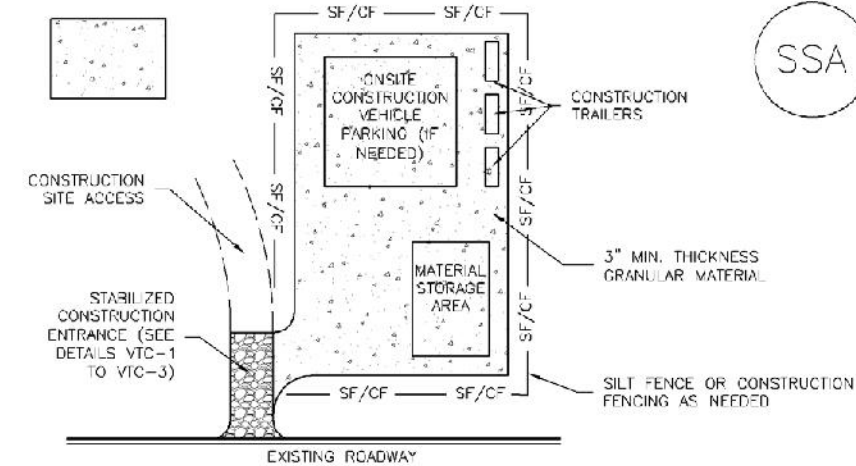
1. SEE PLAN VIEW FOR:
  - LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S)
  - TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/OUT "W" WHEEL WASH, CONSTRUCTION MAT OR TRM)
2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURABLE PROJECTS (TYPICALLY RANGING FROM 1 WEEK TO 1 MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED STREETWAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

**STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES**

1. INSPECT BMPs REGULARLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REPLACED OR REGRANULATED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT SECTION.
5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SUFFLING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.  
 (DETAILS ADAPTED FROM FORM OF PAPER, COLORADO, NOT AVAILABLE IN AUTOCAD)

**Stabilized Staging Area (SSA) SM-6**



SSA-1. STABILIZED STAGING AREA

**STABILIZED STAGING AREA INSTALLATION NOTES**

1. SEE PLAN VIEW FOR:
  - CONTRACTOR MATERIAL LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO Silt FENCE AND CONSTRUCTION FENCING.

**STABILIZED STAGING AREA MAINTENANCE NOTES**

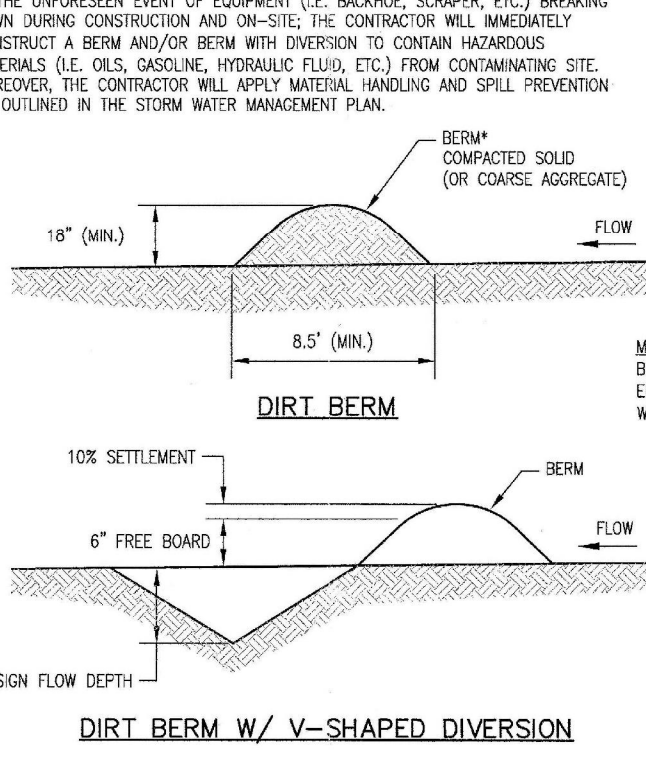
1. INSPECT BMPs REGULARLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REPLACED OR REGRANULATED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

**SM-6 Stabilized Staging Area (SSA)**

**STABILIZED STAGING AREA MAINTENANCE NOTES**

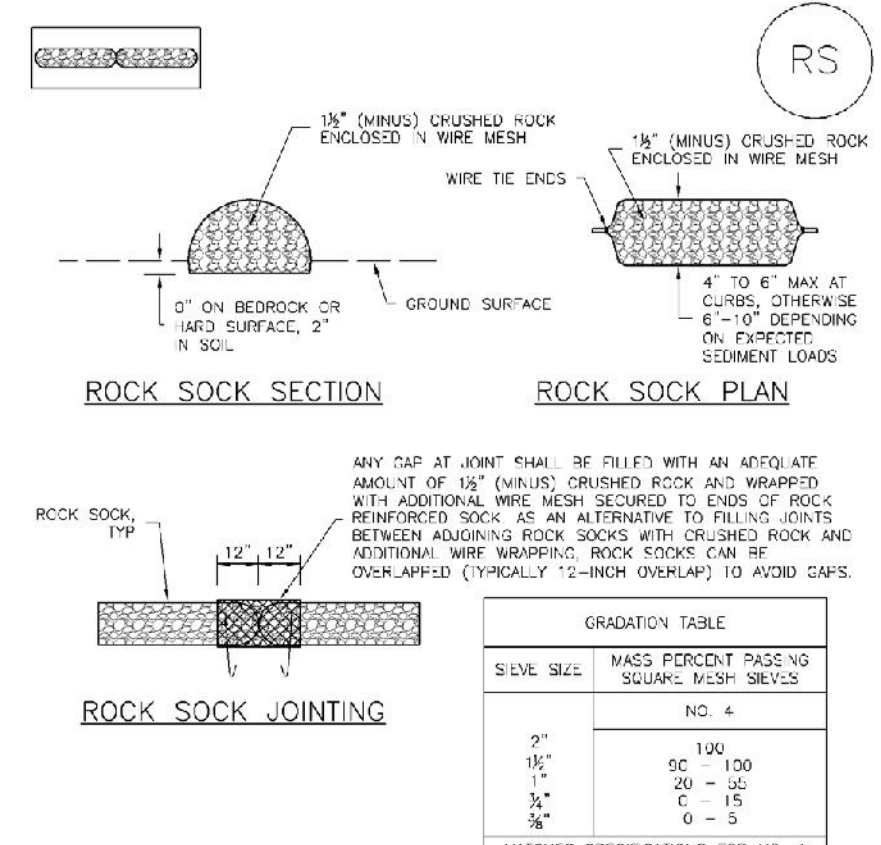
5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
  6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDS, AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.  
 (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

**NOTE: IN THE UNFORESEEN EVENT OF EQUIPMENT (E.G. BACKHOE, SCRAPER, ETC.) BREAKING DOWN DURING CONSTRUCTION AND ON-SITE, THE CONTRACTOR WILL IMMEDIATELY CONSTRUCT A BERM AND/OR BERM WITH DIMENSION TO CONTAIN HAZARDOUS MATERIALS (E.G. OILS, GASOLINE, HYDRAULIC FLUIDS, ETC.) FROM CONTAMINATING SITE. MOREOVER, THE CONTRACTOR WILL APPLY MATERIAL, HANDLING AND SPILL PREVENTION AS OUTLINED IN THE STORM WATER MANAGEMENT PLAN.**



DIRT BERM W/ V-SHAPED DIVERSION

**SC-5 Rock Sock (RS)**



RS-1. ROCK SOCK PERIMETER CONTROL

**Rock Sock (RS) SC-5**

**ROCK SOCK MAINTENANCE NOTES**

1. INSPECT BMPs REGULARLY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BERM. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENT IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDS, AND MULCH, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM FORM OF PAPER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)  
 NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW CONVENTIONALLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY PROTECTION PRODUCTS ON THE MARKET. LOCAL AGENCIES, ENGINEERS, AND DISCOUNTERS USE OF PROPRIETARY PROTECTION PRODUCTS, HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NO.	DATE	DESCRIPTION	BY
REVISIONS			

CITY AND COUNTY OF DENVER  
 201 W. COLFAX  
 DENVER, COLORADO 80202  
 720-913-4500

**STAPLETON DEVELOPMENT TEAM**

**AECOM** 8181 E. TUFTS AVE.  
 DENVER, COLORADO 80237  
 T: 303-740-2600, F: 303-694-3946

FOR AND ON BEHALF OF  
**URS CORPORATION**  
 PROJECT No. 22243325

CITY AND COUNTY OF DENVER  
 DEVELOPMENT SERVICES - SITE ENGINEERING

DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**ParkCreek** 7350 E. 29TH AVE.  
 SUITE 200 DENVER, CO 80238

STAPLETON 46th PL. STOCKPILE

**EROSION CONTROL DETAILS**  
**OVERLOT GRADING AND EROSION CONTROL PLAN**

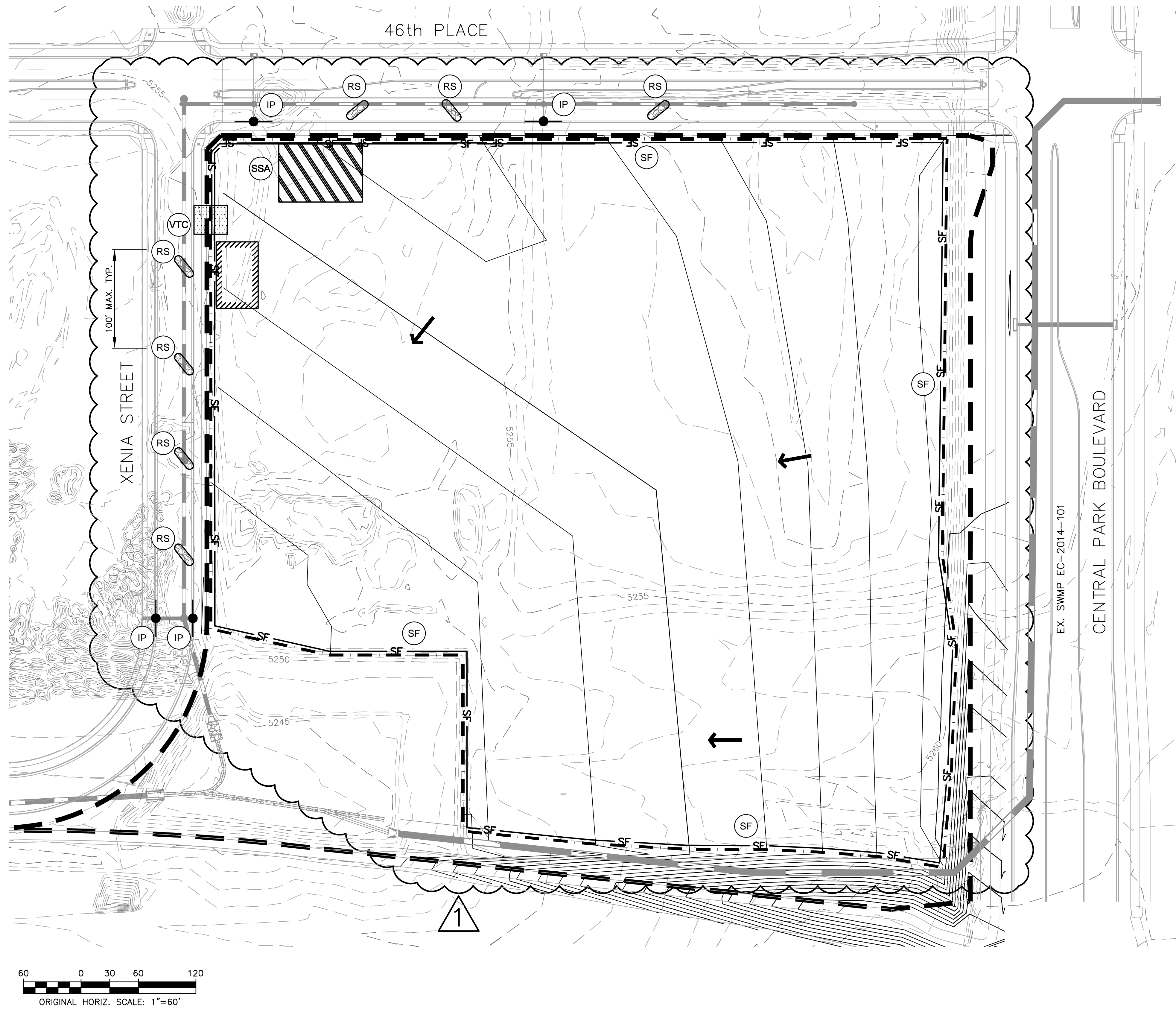
DESIGNED BY: JB	SCALE:	DATE ISSUED: 4/29/15	DRAWING NO. ECDT02
DRAWN BY: JB	HORIZ. N/A		
CHECKED BY: TG	VERT. N/A	SHEET 6 OF 6 SHEETS	

XREFS: 05010BREC  
 FILE NAME: \\PROJECTS\_INF\22241109\_Signleton\_Master\6.0 Projects\22243325\_DWG\_Introct\_Tile\_32\6.0 Projects\05010BREC\05010BREC.dwg May 05, 2015 - 11:26am





Know what's below.  
Call before you dig.



**LEGEND**

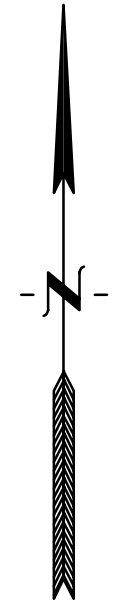
- 5300 — PROPOSED MAJOR CONTOUR
- 5300 — PROPOSED MINOR CONTOUR
- - - 5300 - - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- E-SD — EXISTING STORM DRAIN
- - - - - LIMITS OF CONSTRUCTION
- - - - - SWMP BOUNDARY
- ← FLOW ARROW
- (SF) — SF SILT FENCE
- (VTC) VEHICLE TRACKING CONTROL
- (SP) STOCKPILE MANAGEMENT
- (SR) SURFACE ROUGHENING
- (IP) INLET PROTECTION
- (SSA) STORAGE/STAGING AREA
- (RS) ROCK SOCK
- ▨ CONSTRUCTION PARKING



08/18/2016

**NOTE:**

1. CONTRACTOR TO APPLY SURFACE ROUGHENING, MULCHING AND EROSION CONTROL SEEDING AS SOON AS PRACTICAL. SEE PHASE 2 AND PHASE 3 DRAWINGS FOR LOCATIONS.
2. STOCKPILE STABILIZATION NOTE: SOIL STOCKPILES THAT WILL REMAIN FOR MORE THAN THIRTY (30) DAYS NEED TO HAVE PERIMETER CONTAINMENT MEASURES INSTALLED PRIOR TO BEGINNING STOCKPILE CONSTRUCTION AND REQUIRE STABILIZATION WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. ALL STOCKPILE AREAS SHALL BE SHOWN ON THE FIELD MANAGEMENT PLAN. ADEQUATE "FOOTPRINTS" FOR TOPSOIL STOCKPILES, STOCKPILES OF EXCESS EXCAVATED MATERIAL, AND STOCKPILES FOR IMPORTED MATERIALS SHALL BE SHOWN ON FIELD MANAGEMENT PLANS. PERIMETER CONTROLS ARE NOT REQUIRED IF STOCKPILE SLOPES ARE LESS THAN 3 TO 1 AND AREA MORE THAN 100 FEET FROM THE PROTECTED PERIMETER OF THE PROJECT BOUNDARY. STOCKPILES SHALL NOT BE SHOWN OUTSIDE THE LIMITS OF CONSTRUCTION



NO.	DATE	DESCRIPTION	BY
1	8/6/2016	DC #1 - REVISE TO SHOW OVERLOT GRADING INSTEAD OF STOCKPILE	DS
REVISIONS			

CITY AND COUNTY OF DENVER  
201 W. COLFAX  
DENVER, COLORADO 80202  
720-913-4500

8181 E. TUFTS AVE.  
DENVER, COLORADO 80237  
T 303-740-2600, F 303-694-3946



FOR AND ON BEHALF OF  
URS CORPORATION  
PROJECT No. 22243325

**CITY AND COUNTY OF DENVER**  
DEVELOPMENT SERVICES - SITE ENGINEERING

DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

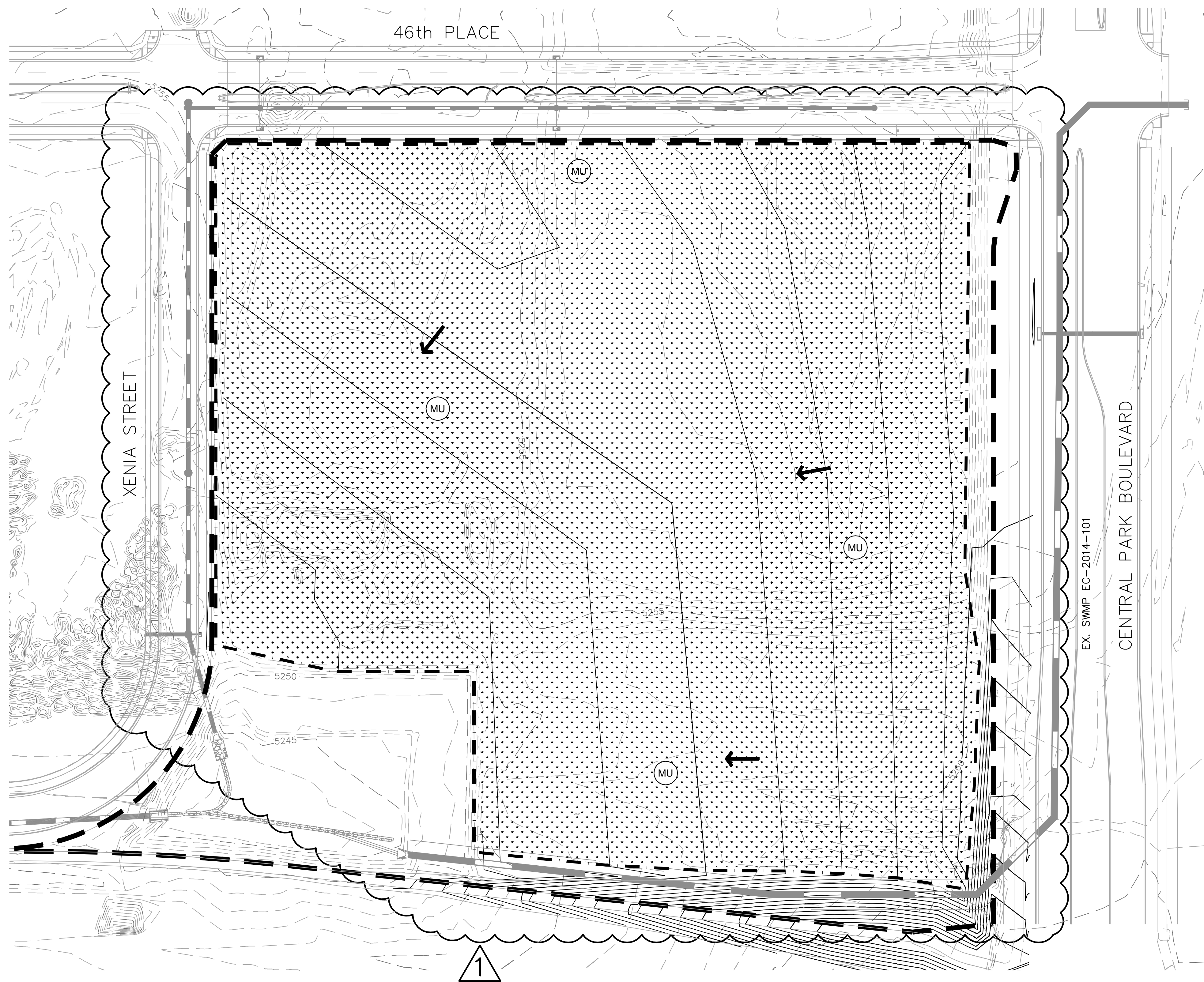
**PARKCREEK** 7350 E. 29TH AVE. SUITE 200 DENVER, CO 80238  
STAPLETON 46th PL. STOCKPILE

**PHASE 1 & 2 - SITE PREP & GRADING OVERLOT GRADING AND EROSION CONTROL PLAN**

DESIGNED BY: JW	SCALE: 1"=60'	DATE ISSUED: 8/5/2016	DRAWING NO. EC01
DRAWN BY: JW	HORIZ: NA	VERT: NA	
CHECKED BY: TG			SHEET 3 OF 6 SHEETS

XREFS: S1787RFR1 S3255r11 050188REC S40183 RF R01 S3255r101 S1787RFR1 s333r101 PH\_1 s333r101 PH\_1 AM1 Site-Location  
 FILE NAME: \\PROJECTS\_INF\22241109\_Stapleton\_Master\6.0 Projects\22243325\_IDM\_Introct\_Title\_32\6.0 Projects\05018 SWMP South 46th Place\7.0\_05018EC01-03.dwg Aug 04, 2016 - 10:04am





**LEGEND**

- 5300 — PROPOSED MAJOR CONTOUR
- 5300 — PROPOSED MINOR CONTOUR
- 5300 — EXISTING MAJOR CONTOUR
- 5300 — EXISTING MINOR CONTOUR
- E-SD — EXISTING STORM DRAIN
- - - - - LIMITS OF CONSTRUCTION
- - - - - SWMP BOUNDARY
- ← FLOW ARROW
- (MU) [Stippled Box] MULCHING (TACKED, MULCHED & SEEDED)

**NOTE:**

1. CONTRACTOR TO APPLY SURFACE ROUGHENING, MULCHING AND EROSION CONTROL SEEDING AS SOON AS PRACTICAL. SEE PHASE 2 AND PHASE 3 DRAWINGS FOR LOCATIONS.
2. STOCKPILE STABILIZATION NOTE: SOIL STOCKPILES THAT WILL REMAIN FOR MORE THAN THIRTY (30) DAYS NEED TO HAVE PERIMETER CONTAINMENT MEASURES INSTALLED PRIOR TO BEGINNING STOCKPILE CONSTRUCTION AND REQUIRE STABILIZATION WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. ALL STOCKPILE AREAS SHALL BE SHOWN ON THE FIELD MANAGEMENT PLAN. ADEQUATE "FOOTPRINTS" FOR TOPSOIL STOCKPILES, STOCKPILES OF EXCESS EXCAVATED MATERIAL, AND STOCKPILES FOR IMPORTED MATERIALS SHALL BE SHOWN ON FIELD MANAGEMENT PLANS. PERIMETER CONTROLS ARE NOT REQUIRED IF STOCKPILE SLOPES ARE LESS THAN 3 TO 1 AND AREA MORE THAN 100 FEET FROM THE PROTECTED PERIMETER OF THE PROJECT BOUNDARY. STOCKPILES SHALL NOT BE SHOWN OUTSIDE THE LIMITS OF CONSTRUCTION

XREFS: S1787FR1 S325F11 050188REC S40183 RF R01 S325F11 S1787FR1 S333FR01 PH\_1 AM1 Site-Location  
 FILE NAME: \PROJECTS\_INF\22241109\_Stapleton\_Master\6.0 Projects\22243325\_IDM\_Introct\_Tile\_32\6.0 Projects\05018 SWMP South 46th Place\7.0\_05018EC01-03.dwg Aug 04, 2016 - 10:04am

0 30 60 120  
ORIGINAL HORIZ. SCALE: 1"=60'

NO.	DATE	DESCRIPTION	BY
1	8/5/2016	DC #1 - REVISE TO SHOW OVERLOT GRADING INSTEAD OF STOCKPILE	DS
REVISIONS			

CITY AND COUNTY OF DENVER  
 201 W. COLFAX  
 DENVER, COLORADO 80202  
 720-913-4500

8181 E. TUFTS AVE.  
 DENVER, COLORADO 80237  
 T. 303-740-2600, F. 303-694-3946



FOR AND ON BEHALF OF  
URS CORPORATION  
PROJECT No. 22243325

**CITY AND COUNTY OF DENVER**  
 DEVELOPMENT SERVICES - SITE ENGINEERING  
 DS PROJECT NO. 2014-0206/CASDP-EC-2015-045

**PARKCREEK**  
 METROPOLITAN DISTRICT

7350 E. 29TH AVE.  
 SUITE 200  
 DENVER, CO 80238

STAPLETON 46th PL. STOCKPILE

**PHASE 3 - PERMANENT SITE STABILIZATION**  
**OVERLOT GRADING AND EROSION CONTROL PLAN**

DESIGNED BY: JW	SCALE: 1"=60'	DATE ISSUED: 8/5/2016	DRAWING NO. EC02
DRAWN BY: JW	HORIZ. NA	VERT. NA	
CHECKED BY: TG			

SHEET 4 OF 6 SHEETS



## EXHIBIT C

### Former Stapleton International Airport Site Import Soils Protocol

Soils from on-site or off-site borrow sources or other fill sources identified for potential use on property owned by the City and County of Denver (CCoD) within the Former Stapleton International Airport (SIA) are to be screened for environmental and geotechnical suitability using the protocols set out in this memorandum to ensure that such soils are suitable for unrestricted residential use.

#### Evaluation of Soil Source

Prior to initiating any soils sampling and testing, the history of the site from which the subject soils are being generated shall be assessed to determine whether the soils originate from an appropriate source and to prepare an appropriate screening approach and analytical suite to use during soil sampling and testing. Any contractor proposing the use of soils shall provide the location and history of the source to CCoD. CCoD shall determine if the history of the source makes the soils acceptable or precludes the soils as a viable fill source (e.g., a site with a heavy industrial history that has documented soil contamination or a site where leaking underground tanks were removed would be eliminated as a potential borrow source). If the source is generally acceptable, CCoD shall develop a soil screening and sampling approach and analytical suite for soil sampling. Analytical testing shall include assessment of geotechnical properties to determine if the soils are acceptable as fill on the SIA site for the intended purpose.

#### Frequency of Testing

The contractor shall collect a sample from the proposed source soils at a minimum frequency of one in every 2,000 cubic yards. If the borrow source is less than 2,000 cubic yards, a minimum of three soil samples shall be collected. Samples shall be a representative composite sample of each 2,000 cubic yard increment of soil. Method of sample collection will be approved by CCoD; sampling and analysis must occur prior to the import of any borrow source to SIA.

If during the screening of the borrow soils, the contractor observes continuing consistency from an appearance perspective, the contractor may request from CCoD a decrease in the frequency of testing while maintaining adequate documentation of the material being imported. Frequency may not be less than 1 in 5,000 cubic yards.

#### Analysis to be Conducted

Soil samples shall be analyzed, at a minimum, for the following analytes and corresponding analytical methodology.

Total Petroleum Hydrocarbons (Method 8015)

Volatile Organic Compounds (Method 8260)

Poly Aromatic Hydrocarbons (Method 8270)

RCRA Metals List of 8 (Method 6010)

Ethylene Glycol and Propylene Glycol (Method 8015B)

**Polychlorinated Biphenyls (Aroclor 1016 and 1254) (Method 8082)**

**Pesticides (Method 8081A)**

Concentrations of any contaminants detected in soil samples must be less than those concentrations enumerated in the Stapleton Numeric Criteria (SNC). CCoD will determine if the source history suggests that the analyte list be expanded to include additional SNC compounds. All analytical results must exhibit detection limits that are below the SNC for a given analyte/compound.

**Screening Protocol**

If determined to be appropriate by CCoD based on the history of the source and sample results, soil shall be screened by the contractor during placement at the SIA Site. Such screening shall include, at a minimum, screening for visual and olfactory indications of contamination. If the sampling results or source history indicates that further screening is appropriate, the contractor shall supplement the screening protocol to include use of mechanical screening devices (such as PID or other field screening devices). Soils that show signs of contamination shall be segregated and disposed of according to the our Materials Management Plan.

**Documentation**

Following completion of soil placement, the contractor shall prepare a letter report documenting the location where any source soils were placed, the quantity of soil placed, the source, the history of the source, the sampling and screening protocol implemented, and the analytical results of the sampling performed. The contractor shall submit a copy of the report to CCoD.



emailed to Jim Ladwin & Derek Brown  
5-29-08

EARTHWORK SPECIFICATION INSERTS  
STAPLETON FILING 16  
KUMAR & ASSOCIATES PROJECT NO. 08-1-260

**MATERIALS**

- A. **Suitability.** All fill materials shall be free of vegetation, brush, sod, and other deleterious substances and shall not contain rocks or lumps larger than 6 inches in greatest dimension. Organic content of all fill materials shall be less than 3%.
- B. **Select Granular Fill.** Select granular fill shall consist of suitable Stapleton area granular soil or similar material containing 100% minus 6-inch material, no more than 10% plus 2-inch material, containing less than 50% passing the No. 200 sieve, and having a maximum plasticity index of 10.
- C. **Overlot Fill.** Overlot fill shall consist of suitable Stapleton area soil or similar material containing 100% minus 6-inch material, no more than 10% plus 2-inch material, containing less than 80% passing the No. 200 sieve, and having a maximum liquid limit of 40 and a maximum plasticity index of 20.

**PLACEMENT AND COMPACTION**

- A. **Preparation of Embankment Areas.** In areas of proposed embankment, remove all pre-existing fill material, disturbed material, and any unsuitable material down to suitable undisturbed natural soil as determined by a representative of the third party geotechnical engineer. Also flatten any existing excavation slopes to no steeper than 2:1 (horizontal:vertical). Prepare the base of the excavation by scarifying to a minimum depth of 8 inches, moisture conditioning to within 2 percentage points of optimum, and compacting to provide a stable, uniform base for fill placement. Rework any excessively moist or unstable areas as necessary to allow for proper compaction of embankment fill. Where fill is to be placed on slopes steeper than 4:1, excavate 2-foot to 4-foot high horizontal benches to allow fill placement in horizontal lifts. A representative of the third party geotechnical engineer shall be given the opportunity to observe all prepared embankment areas prior to fill placement.
- B. **Material Zones and Compaction Requirements.** Fill placed more than 8 feet below final grade shall consist of Select Granular Fill compacted to at least 100% of the ASTM D 698 (Standard Proctor) maximum dry density. Fill placed within 8 feet of final grade shall consist of Overlot Fill compacted to at least 95% of the ASTM D 698 maximum dry density. All fill placed to within 3 feet of final grade shall be placed at moisture contents between 1 percentage below and 3 percentage points above the ASTM D 698 optimum

moisture content. The moisture content shall be reduced to between plus/minus 2 percentage points of optimum in the upper 3 feet.

#### COMPACTION CONTROL AND QUALITY ACCEPTANCE

- A. **Material Conformance.** Suitability and material conformance of all fill materials will be checked by the third party geotechnical engineer prior to fill placement. The Contractor shall submit samples of all proposed fill materials to the third party geotechnical engineer for approval at least 48 hours prior to placement. Once material sources are initially approved, the third party geotechnical engineer's on-site representative will obtain a sample for conformance testing for at least every 25,000 cubic yards of fill placed, or when a change in material type occurs.
  
- B. **Compaction Testing.** In compacted fills, the representative of the third party geotechnical engineer will perform in-place nuclear moisture-density tests at a frequency of at least one test for each 2,000 cubic yards of fill placed, with at least one test performed at elevation increments of 1 to 1.5 feet for each day's work in each general work area. No layer of fill shall be covered by another layer until the proper moisture and compaction have been achieved and the area approved by the third party geotechnical engineer's representative.

**Compaction Table:**

	<b>Deep Zone (Fill &gt; 8-ft BFG*)</b>	<b>Middle Zone (8-ft &lt; Fill &lt; 3-ft BFG*)</b>	<b>Upper Zone (Fill &lt; 3-ft BFG*)</b>
<b>Preparation</b>	Scarify bottom of excavation to 8" minimum depth, moisture condition to optimum moisture content +/- 2% and recompact to provide uniform stable base for fill placement. Verify by 3 <sup>rd</sup> party geotechnical engineer.		
<b>Soil Type</b>	Select Granular (100% minus 6-inch, ≤10% plus 2-inch, <50% passing #200, Plasticity Index ≤10	Overlot Fill (100% minus 6-inch, ≤10% plus 2-inch, <80% passing #200, Liquid Limit ≤40, Plasticity Index ≤20	Overlot Fill (100% minus 6-inch, ≤10% plus 2-inch, <80% passing #200, Liquid Limit ≤40, Plasticity Index ≤20
<b>Compaction Standard</b>	100% Std Proctor in 8" Lifts	95% Std Proctor in 8" Lifts	95% Std Proctor in 8" Lifts
<b>Moisture Content</b>	-1% < MC < 3%	-1% < MC < 3%	-2% < MC < 2%

**Notes:**

\* BFG denotes below finished grade

3<sup>rd</sup> party testing required for moisture and compaction at a rate of 1 test per 2000 cubic yards with at least one test performed at elevation increments of 1-1.5 ft for each day's work in each general work area.



AGENCY CUSTOMER ID: 385367  
LOC #: Cleveland



### ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY MARSH USA INC.		NAMED INSURED Forest City Stapleton, Inc. 7351 E. 29th Avenue Denver, CO 80238	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

#### ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Umbrella/Excess Liability  
12/31/16 - 12/31/17

National Fire & Marine Insurance Company  
Policy No. 42-UMC-303180-01  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

American Guarantee and Liability Insurance Company (2nd Layer - \$25M xs \$25M)  
Policy No. AEC9301539-15  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

Allied World National Assurance Company (3rd Layer - \$25M xs \$50M)  
Policy No. 0306-0700  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

Great American Insurance Company of NY (4th Layer - \$25M xs \$75M)  
Policy No. EXC4101592  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

Federal Insurance Company (5th Layer - \$25M plo \$50M xs \$100M)  
Policy No. 9384-19-81  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

Crum & Forster (5th Layer - \$25M plo \$50M xs \$100M)  
Policy No. 5228004159  
Limits: \$25,000,000 Each Occurrence / \$25,000,000 Aggregate

**CERTIFICATE OF COVERAGE**

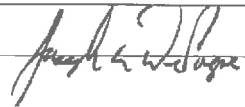
Certificate #: 1957

<b>Administrator</b> Colorado Special Districts Property and Liability Pool PO Box 1539 Portland, OR 97207-1539	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER OTHER THAN THOSE PROVIDED IN THE COVERAGE DOCUMENT. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE COVERAGE DOCUMENTS LISTED HEREIN.
<b>COMPANIES AFFORDING COVERAGE</b>	
<b>NAMED MEMBER</b>	COMPANY A Colorado Special Districts Property and Liability Pool
Park Creek Metropolitan District 7350 East 29th Avenue, Suite 300 Denver, CO 80238	COMPANY B General Reinsurance Corporation
	COMPANY C Colorado Special Districts Property and Liability Pool
	COMPANY D

This is to certify that coverage documents listed herein have been issued to the Named Member herein for the Coverage period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which the certificate may be issued or may pertain, the coverage afforded by the coverage documents listed herein is subject to all the terms, conditions and exclusions of such coverage documents.

CO LTR	Type of Coverage	Coverage #	Effective Date	Expiration Date	Limits	
A, B	<b>General Liability</b>	30C60311-976	1/1/2017	1/1/2018	General Aggregate	Unlimited
	<input checked="" type="checkbox"/> Commercial General Liability	* Except that for claims, occurrences or suits to which the monetary limits of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et. seq., as amended, apply, there shall be a further sublimit of (a) \$350,000 for an injury to any one person in any single occurrence; and (b) \$990,000 for an injury to two or more persons in any single occurrence; but in the event of an injury to two or more persons in any single occurrence, the sublimit shall not exceed \$350,000 for each injured person.	Each Occurrence *	\$2,000,000		
	<input checked="" type="checkbox"/> Public Officials Liability					
	<input checked="" type="checkbox"/> Employment Practices					
	<input checked="" type="checkbox"/> Occurrence					
A, B	<b>Automobile Liability</b>	30C60311-976	1/1/2017	1/1/2018	Each Occurrence *	\$2,000,000
	<input type="checkbox"/> Scheduled Autos					
	<input checked="" type="checkbox"/> Hired Autos					
	<input checked="" type="checkbox"/> Non-Owned Autos					
A, C	<b>Auto Physical Damage</b>	30C60311-976	1/1/2017	1/1/2018	See below if applicable.	
	<input type="checkbox"/> Scheduled Autos					
	<input checked="" type="checkbox"/> Hired Autos					
B	<b>Excess Liability</b>	30C60311-976	1/1/2017	1/1/2018	General Aggregate	Unlimited
	<input checked="" type="checkbox"/> Other Than Umbrella Form				Each Occurrence *	\$5,000,000
C	<b>Property</b>	30C60311-976	1/1/2017	1/1/2018	See below if applicable.	
	<input checked="" type="checkbox"/>					

**DESCRIPTION:**  
 Certificate Holder is an additional covered Member for coverages noted hereunder but only with respect to liabilities that are covered by the Pool's coverage document for the Member District arising out of License Agreement Ref. No. 219: Sanitary Sewer/ Storm Sewer subject to the provisions and limitations contained in C.R.S. 24-10-101. The Pool will limit any amounts to the monetary limits and sublimits of the Colorado Governmental Immunity Act, C.R.S. 24-10-101 et. Seq., as amended, would apply to the Covered Member.

<b>CERTIFICATE HOLDER</b> City and County of Denver, Manager of Aviation Denver International Airport 8500 Pena Blvd., 9th Floor Denver, CO 802496340	<b>CANCELLATION: SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</b>
	By: Joseph E. DePaepe  Date: 1/4/2017

**CERTIFICATE OF COVERAGE**

Certificate #: 1379

**Administrator**

Colorado Special Districts Property and Liability Pool  
 PO Box 1539  
 Portland, OR 97207-1539

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER OTHER THAN THOSE PROVIDED IN THE COVERAGE DOCUMENT. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE COVERAGE DOCUMENTS LISTED HEREIN.

**COMPANIES AFFORDING COVERAGE**

**NAMED MEMBER**

Park Creek Metropolitan District  
 7350 East 29th Avenue, Suite 300  
 Denver, CO 80238

- COMPANY A Colorado Special Districts Property and Liability Pool
- COMPANY B General Reinsurance Corporation
- COMPANY C Colorado Special Districts Property and Liability Pool
- COMPANY D

This is to certify that coverage documents listed herein have been issued to the Named Member herein for the Coverage period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which the certificate may be issued or may pertain, the coverage afforded by the coverage documents listed herein is subject to all the terms, conditions and exclusions of such coverage documents.

CO LTR	Type of Coverage	Coverage #	Effective Date	Expiration Date	Limits	
A, B	<b>General Liability</b>	30C60311-976	1/1/2017	1/1/2018	General Aggregate	Unlimited
	<input checked="" type="checkbox"/> Commercial General Liability	* Except that for claims, occurrences or suits to which the monetary limits of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et. seq., as amended, apply, there shall be a further sublimit of (a) \$350,000 for an injury to any one person in any single occurrence; and (b) \$990,000 for an injury to two or more persons in any single occurrence; but in the event of an injury to two or more persons in any single occurrence, the sublimit shall not exceed \$350,000 for each injured person.			Each Occurrence *	\$2,000,000
	<input checked="" type="checkbox"/> Public Officials Liability					
	<input checked="" type="checkbox"/> Employment Practices					
	<input checked="" type="checkbox"/> Occurrence					
A, B	<b>Automobile Liability</b>	30C60311-976	1/1/2017	1/1/2018	Each Occurrence *	\$2,000,000
	<input type="checkbox"/> Scheduled Autos					
	<input checked="" type="checkbox"/> Hired Autos					
	<input checked="" type="checkbox"/> Non-Owned Autos					
A, C	<b>Auto Physical Damage</b>	30C60311-976	1/1/2017	1/1/2018	See below if applicable.	
	<input type="checkbox"/> Scheduled Autos					
	<input checked="" type="checkbox"/> Hired Autos					
B	<b>Excess Liability</b>	30C60311-976	1/1/2017	1/1/2018	General Aggregate	Unlimited
	<input checked="" type="checkbox"/> Other Than Umbrella Form				Each Occurrence *	\$5,000,000
C	<b>Property</b>	30C60311-976	1/1/2017	1/1/2018	See below if applicable.	
	<input checked="" type="checkbox"/>					

**DESCRIPTION:**

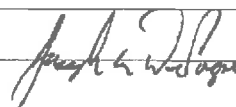
Certificate Holder is an additional covered Member for those coverages noted hereunder but only with respect to those liabilities that are covered by the Pool's coverage document for the Member District arising from Multi-Purpose License - Ref. No. Filing 17 Tract C Stapleton Site Agreement. Subject to the provisions and limitations contained in C.R.S. 24-10-101. The Pool will limit any amounts to the monetary limits and sublimits of the Colorado Governmental Immunity Act, C.R.S. 24-10-101 et. Seq., as amended, would apply to the Covered Member. Waiver of subrogation applies.

**CERTIFICATE HOLDER**

City and County of Denver, Manager of Aviation  
 Denver International Airport  
 8500 Pena Blvd., 9th Floor  
 Denver, CO 802496340

**CANCELLATION: SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.**

By: Joseph E. DePaepe



Date: 1/4/2017

## EXHIBIT E

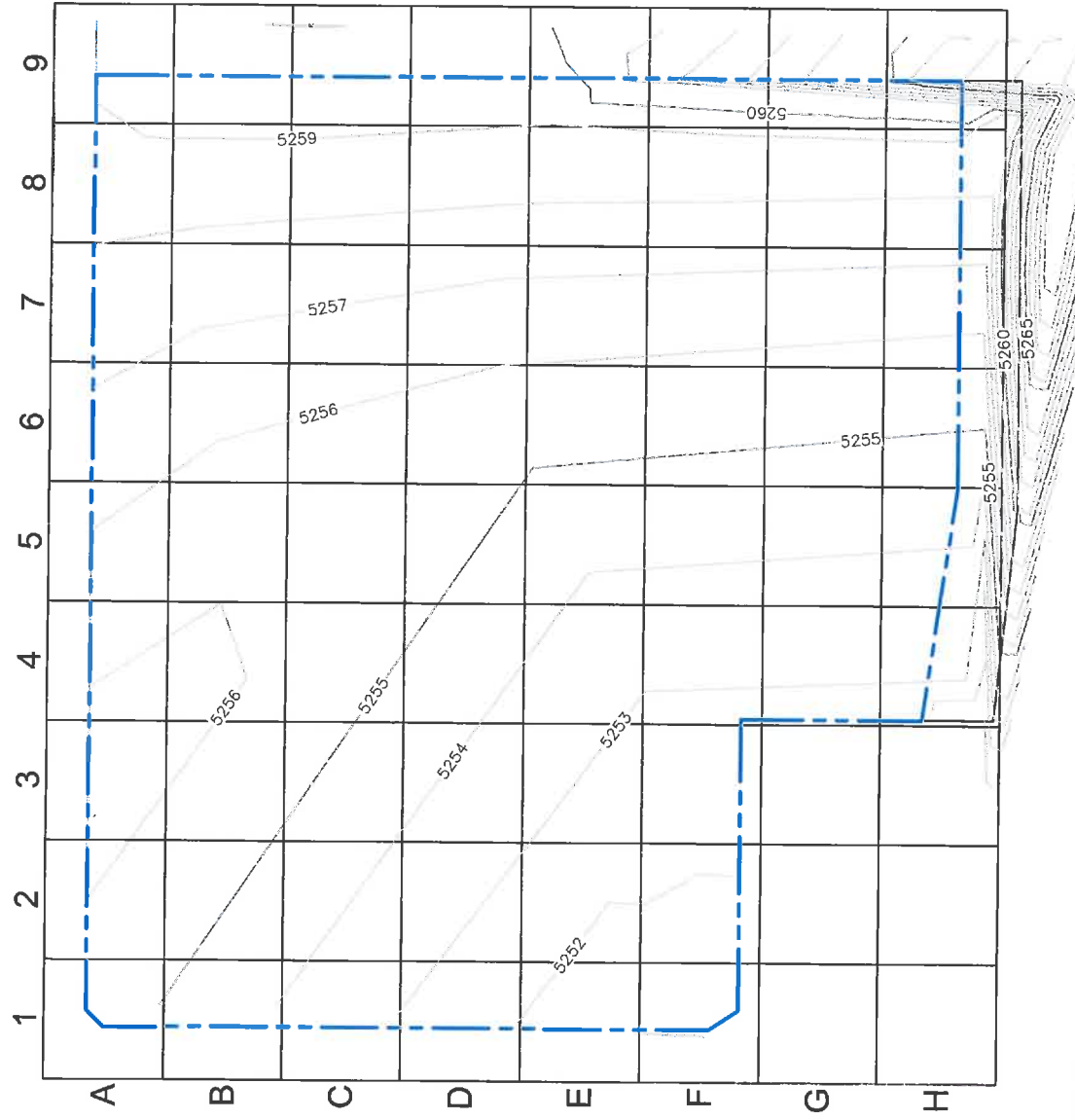
### Sampling Plan

The following provides a description of required sampling and analysis of subsurface soils of the Property to insure that these soils meet the Stapleton Numeric Criteria (SNC). These soils will be sampled and analyzed in accordance with the following procedure and the results of this confirmation sampling program documented and transmitted to the City & County of Denver Department of Aviation.

The Property will be divided into to approximate 100 x 100 foot grids as illustrated in the attached Figure 1. A discrete sample will be collected from the center of each grid location. Each sample shall be placed in the plastic bag which represents the particular grid being sampled. Mixing of the sample shall be minimized. Samples will be generated, packaged, and sent to an approved laboratory under manifest. Soil samples will be collected at the surface within the top four inches of the soil column using a sterile shovel. The shovel shall be decontaminated between sample locations. The samples will be analyzed for the following constituents:

- Volatile organic compounds (EPA Method 8260)
- RCRA Metals (EPA Method 6010)
- Poly Aromatic Hydrocarbons (EPA Method 8270)
- Total Petroleum Hydrocarbons (EPA Method 8015)
- Pesticides (EPA Method 8081A)
- Ethylene Glycol and Propylene Glycol (Method 8015B)





**LEGEND**

Parcel Boundary

PROJECT:	0135-08
DATE:	10/21/2016
DRAWN:	J.G.M.
CHECKED:	P.L.C.

FIGURE NO.

**FOREST CITY - STAPLETON  
SAMPLING GRID LAYOUT**

STREET  
CITY, STATE ZIP



NOTE: Final Grading Plan Based On URS Grading Plan for Site

4890 Kipling Street • Wheat Ridge, Colorado 80033 • 303.940.7800 • www.caseyresourceinc.com