

GRADING AND EROSION CONTROL, AND STORMWATER MANAGEMENT  
NARRATIVE  
(GECSM)

FOR

**Villages at Waterview North**

El Paso County, Co

Prepared For:

PHI, Real Estate Services, LLC  
200 W City Center Dr., Suite 500  
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Prepared By:

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**EPC Project No. EGP-21-004**

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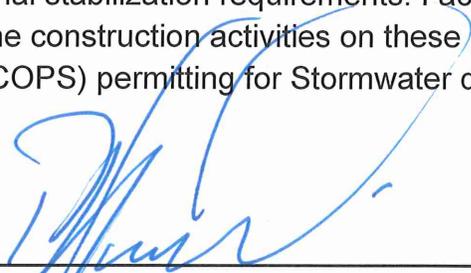
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"The owner will comply with the requirements of the Grading and Erosion Control and Stormwater Management Plan including temporary BMP inspection requirements and final stabilization requirements. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (COPS) permitting for Stormwater discharges associated with Construction Activity."

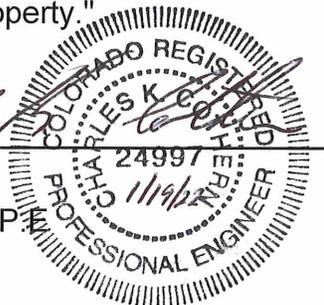
  
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P.A Koscielski  
CPR Entitlements, LLC.

Date 1/20/22

## ENGINEERS CERTIFICATION

"This Erosion and Stormwater Management/Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. If such work is performed in accordance with the grading and erosion control plan, the work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use, or stability of a public way, drainage channel, or other property."

  
\_\_\_\_\_  
Charles K. Cothorn, P.E.  
Colorado 24997



## **INTRODUCTION**

The purpose of this report is to outline the GECSM plan for the Villages at Waterview North (herein after the "Project") development located on three parcels at the northeast corner of S. Powers Blvd and Bradley Rd (the "Site"), El Paso County, Colorado (the "County"), El Paso County, Colorado.

## **GENERAL PROJECT DESCRIPTION**

The proposed project is located at the northeast corner of S. Powers Blvd and Bradley Rd, County of El Paso, State of Colorado. The subject site is approximately 116.5 acres of which 119.8 acres will be disturbed. 3.3 acres of said disturbed land will consist of off-site grading intended for future roadway connections along Bradley Rd. and proposed utility work done by others. The project consists of a combination of single and multi-family residential, industrial, and commercial uses. The project will also include construction of internal roadways and utility infrastructure.

The site is located within the Jimmy Camp Creek and the Crews Gulch/Big Johnson basins. The site is mostly vacant land and has no springs, streams wetlands or any other surface waters on or crossing the site. The site is surrounded by Peak Innovation Parkway and Lot 7 Colorado Springs Airport Filing No. 1D to the north. Bradley Road (public R-O-W) to the south. Colorado Centre Metro District and Lot 4 Colorado Centre Foreign Trade Zone & Business Park Filing No. 1 to the east. S. Powers Boulevard. (Public R-O-W) to the west.

## **EXISTING SITE CONDITIONS**

The existing Site is currently undeveloped consisting of on-site native vegetation (60%) and unvegetated (40%), determined by observation from site visit. Existing topography slopes to the southeast corner of the site toward Bradley Rd. at grades that range from 5 to 15 percent. Existing on-site flow is captured by the existing storm sewer within S. Powers Boulevard and Bradley Road. The runoff then continues east and eventually outfalls to the Jimmy Camp Creek.

There are no known irrigation facilities or wetlands located on this property.

## **RECEIVING WATERS**

Per the project's preliminary drainage report (Resubmitted December 2021, Kimley-Horn and Associates, LLC.) off-site basins sheet flow onto the site from the north. The offsite flow is within two separate basins: The Big Johnson Basin and the West Fork Jimmy Camp Creek Basin.

## **SOILS**

According to the projects soils report (May 2020, Entech Engineering, INC.) the soils on site consist of five types. In general, the soils classify as loamy sand, sandy loam, loam, and clay loam. From the NRCS soils data it is evident that the soils onsite are generally USCS Type A (66.8%) and B(33.2%). The soils on site are described to have moderate erosion potential that can be mitigated with vegetation and don't impact the historical discharge rates. The soil types are classified as below:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

## **POTENTIAL POLLUTANTS**

Sediment is a possible source of pollutants without the proper use and implementation of best management practices (BMPs). No chemical storage is allowed on site. Concrete washout will be conducted in a designated area and is to be established by the contractor. The washout area will be constructed such that there will be no runoff from the area. All concrete waste will be removed along with contaminated soil and disposed of offsite at the end of the construction period. Refueling of construction equipment will be completed in a designated area established by the contractor. Any spills will be immediately cleaned up and properly disposed of offsite. Construction debris will be removed from the site as it is accumulated and disposed of properly offsite.

The Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE) has passed air quality regulations consistent with Federal legislation. Regulation No. 3 requires submittal of an Air Pollutant Emission Notice (APEN) for sources of fugitive dust from construction sites, as well as other sources. Regulation No. 1 defines particulate emission control regulations for haul roads and roadways. Additional controls, such as road watering, may be necessary to fully comply with these regulations.

## **AREAS AND VOLUME STATEMENT**

The gross site area is approximately 116.5 acres with anticipation of 119.8 acres of disturbance. Over site grading will be limited to the construction of the primary street sections and sloping the site toward the detention basins to meet minimum design requirements. As the sites are developed by private builder's disturbance will be for building foundations, landscaping, roadways, and sidewalks. The earthwork volumes are as follows:

CUT 886,201 CY

FILL 954,669 CY (Adjusted for shrinkage)

NET 68,468 CY (Fill)

## **EROSION & SEDIMENT CONTROL MEASURES**

Construction operations including grading, hauling of soil, drainage, and final stabilization shall implement erosion and sediment control measures as described below and in the Timing section of this report. Additional measures shall be implemented as appropriate.

Erosion and sediment control measures shall be implemented prior to and during construction of the project. A Silt Fence (SF) shall be used for perimeter control and Rough-Cut Street control (RCS) where site conditions allow and if the onsite City inspector approves. Please see the Grading and Erosion Control and Stormwater Management Plans for locations and sizing of recommended erosion control measures.

All persons engaged in earth disturbances shall design, implement, and maintain acceptable soil erosion and sedimentation control measures, in conformance with the

erosion and sediment control technical standards adopted by the City. All temporary erosion and sediment control facilities, and all permanent facilities intended to control erosion of any earth disturbance operation shall be installed before any earth disturbance operations take place. Any earth disturbances shall be conducted in such a manner to effectively control runoff volumes, reduce accelerated soil erosion, sediment movement, and deposition off-site. All earth disturbances shall be completed in such a manner so that the total amount of soil exposed at any given time shall be minimized, and the exposed area of any disturbed land shall be limited to the shortest possible time. Temporary soil erosion control facilities shall be removed, and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to approved plans and specifications. Temporary BMP's will not be removed until final stabilization of the site has been achieved.

Permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or the final earth disturbances have been completed. When it is not possible to permanently stabilize a disturbed area after an earth disturbance has been completed or where significant earth disturbance activity ceases, temporary soil erosion control measures shall be implemented within fourteen (14) calendar days. All temporary soil erosion control measures shall be maintained until permanent soil erosion measures are implemented.

Paved and impervious surfaces which are adjacent to construction sites must be swept 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.

Throughout build-out, the developer shall be responsible for providing, implementing, and maintaining BMPs to control erosion and sediment problems on all idle lots. As well as responsible for updating revisions to the SWMP plans as needed. Marking and dating changes on the SWMP plans stored on site.

During over lot grading and construction of the public roadway the location of the permanent detention facilities shall be used as sedimentation basins (SB). The basin shall be constructed per the grading and erosion control (GEC) plan and shall be constructed prior to any other site grading activities. Refer to the GEC plans for sizing, details and outlet options.

## **TIMING & SCHEDULE**

The proposed project will begin in May 2022 and conclude in June 2022. The general sequence of the phasing of the related construction activities will occur according to the following anticipated sequence:

### Phased BMP Implementation - Initial and Interim Phase

The initial phase shall consist of the temporary construction BMPs to minimize potential for erosion and sediment transfer while mobilizing and preparing the site for construction activities. The Contractor shall complete the anticipated initial and interim phase sequencing as follows:

1. Install vehicle tracking control (VTC) as indicated on the GEC plans or as necessitated by field conditions.
2. Install silt fence (SF) as shown on the GEC plans.
3. Upon completion of the initial BMP installation the operator shall schedule a pre-construction meeting with the owner and the city erosion control inspector to confirm BMPs installed are adequate prior to proceeding with additional land disturbing activities.

### Phased BMP Implementation - Final Phase

The final phase shall consist of the temporary construction BMPs to minimize potential for erosion and sediment transfer during construction of the proposed sites and associated limited site improvements. The Contractor shall complete the anticipated final phase sequencing as follows:

1. Confirm existing BMPs from the initial phases, which are to be maintained throughout construction, are in working order and compliant with applicable regulations.
2. Repair and/or replace any existing BMPs which are deemed inadequate.
3. Temporarily stabilize (TS) all areas of the site which will remain inactive for a period greater than 30 days. Temporary stabilization shall be implemented within 14 days of disturbance.

4. Complete required grading operations necessary for construction of the proposed sites and associated site improvements.
5. Complete fine grading and proceed with temporary stabilization (TS) and permanent stabilization (PS) practices in accordance with approved plans.
6. Achieve permanent stabilization in accordance with the El Paso County (EPC) and owner requirements.
7. Remove remaining BMPs once permanent stabilization (PS) has been achieved. Repair and stabilize areas disturbed through BMP removal.
8. Notify the EPC of the intent to file the notice of inactivation and receive EPC field acceptance prior to proceeding with filing the notice of inactivation with the EPC.
9. Proceed with filing the notice of inactivation with the EPC.
10. Provide the owner with a copy of all stormwater documentation (permits, inspection reports, logs, etc.). Upon completion of project, file the notice of inactivation.

## **PERMANENT STABILIZATION**

Permanent stabilization will be achieved by seeding of disturbed areas. Please reference the approved GEC plan standard notes for seeding of disturbed areas. Areas requiring seeding to provide stabilization to disturbed areas shall use the seed mix set forth in Chapter 14, Volume 1 of the Drainage Criteria Manual.

The site is subject to the NPDES permit program for both construction and post-construction activities. The owner shall obtain all pertinent permits required by controlling agencies including the El Paso County Health Department and the Colorado Department of Public Health & Environment

## **INSPECTION AND MAINTENANCE**

The contractor shall, at a minimum, make a thorough inspection at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the

minimum inspections described may be necessary to ensure that BMPs continue to operate as needed to comply with the plan. Self-inspection forms must be submitted electronically to the assigned City Engineering Inspector within 5 business days of the self-inspection.

All necessary maintenance and repair shall be completed immediately. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by the contractor's Storm Water Coordinator. Based on these inspections, it is the responsibility of the contractor to revise or implement additional Best Management Practices, repair erosion control measures, modify, maintain, supplement, or take additional steps as necessary to achieve effective pollutant control measures. Recording such revisions and modifications

Maintenance of BMP's shall be completed per the UDFCD I&M notes on details for each BMP.

All inspection logs and signatures shall be stored on site along with the SWMP records.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection, the inspector must evaluate overall pollutant control system performance as well as details of individual system components. Additional factors should be considered as appropriate to the circumstances.

A. Sediment barriers must be inspected, and they must be extended, repaired or cleaned at such time as their original capacity has been reduced by 33 percent. All material excavated from behind sediment barriers shall be stockpiled on the up-slope side. Additional sediment barriers must be constructed as needed.

B. Inspections shall evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas, and/or run-on.

C. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

## **CONCLUSIONS**

Temporary and permanent erosion control measures and BMPs will improve stormwater quality leaving the project area by capturing and detaining sediment-laden runoff prior to discharging off-site.

## **REFERENCES**

City of Colorado Springs Grading, Erosion and Stormwater Quality Control Plan Checklist

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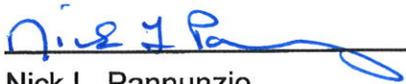
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### Phased BMP Implementation - Final Phase

The final phase shall consist of the temporary construction BMPs to minimize potential for erosion and sediment transfer during construction of the proposed sites and associated limited site improvements. The Contractor shall complete the anticipated final phase sequencing as follows:

1. Confirm existing BMPs from the initial phases, which are to be maintained throughout construction, are in working order and compliant with applicable regulations.
2. Repair and/or replace any existing BMPs which are deemed inadequate.
3. Temporarily stabilize (TS) all areas of the site which will remain inactive for a period greater than 30 days. Temporary stabilization shall be implemented within 14 days of disturbance.

4. Complete required grading operations necessary for construction of the proposed sites and associated site improvements.
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9. Proceed with filing the notice of inactivation with the EPC.
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The contractor shall, at a minimum, make a thorough inspection at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the

minimum inspections described may be necessary to ensure that BMPs continue to operate as needed to comply with the plan. Self-inspection forms must be submitted electronically to the assigned City Engineering Inspector within 5 business days of the self-inspection.

All necessary maintenance and repair shall be completed immediately. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by the contractor's Storm Water Coordinator. Based on these inspections, it is the responsibility of the contractor to revise or implement additional Best Management Practices, repair erosion control measures, modify, maintain, supplement, or take additional steps as necessary to achieve effective pollutant control measures. Recording such revisions and modifications

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## **CONCLUSIONS**

Temporary and permanent erosion control measures and BMPs will improve stormwater quality leaving the project area by capturing and detaining sediment-laden runoff prior to discharging off-site.

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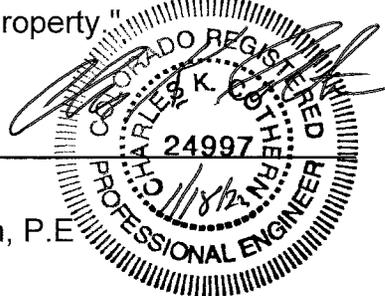
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Colorado 24997



## **INTRODUCTION**

The purpose of this report is to outline the GECSM plan for the Villages at Waterview North (herein after the "Project") development located on three parcels at the northeast corner of S. Powers Blvd and Bradley Rd (the "Site"), El Paso County, Colorado (the "County"), El Paso County, Colorado.

## **GENERAL PROJECT DESCRIPTION**

The proposed project is located at the northeast corner of S. Powers Blvd and Bradley Rd, County of El Paso, State of Colorado. The subject site is approximately 116.5 acres of which 119.8 acres will be disturbed. 3.3 acres of said disturbed land will consist of off-site grading intended for future roadway connections along Bradley Rd. and proposed utility work done by others. The project consists of a combination of single and multi-family residential, industrial, and commercial uses. The project will also include construction of internal roadways and utility infrastructure.

The site is located within the Jimmy Camp Creek and the Crews Gulch/Big Johnson basins. The site is mostly vacant land and has no springs, streams wetlands or any other surface waters on or crossing the site. The site is surrounded by Peak Innovation Parkway and Lot 7 Colorado Springs Airport Filing No. 1D to the north. Bradley Road (public R-O-W) to the south. Colorado Centre Metro District and Lot 4 Colorado Centre Foreign Trade Zone & Business Park Filing No. 1 to the east. S. Powers Boulevard. (Public R-O-W) to the west.

## **EXISTING SITE CONDITIONS**

The existing Site is currently undeveloped consisting of on-site native vegetation (60%) and unvegetated (40%), determined by observation from site visit. Existing topography slopes to the southeast corner of the site toward Bradley Rd. at grades that range from 5 to 15 percent. Existing on-site flow is captured by the existing storm sewer within S. Powers Boulevard and Bradley Road. The runoff then continues east and eventually outfalls to the Jimmy Camp Creek.

There are no known irrigation facilities or wetlands located on this property.

## **RECEIVING WATERS**

Per the project's preliminary drainage report (Resubmitted December 2021, Kimley-Horn and Associates, LLC.) off-site basins sheet flow onto the site from the north. The offsite flow is within two separate basins: The Big Johnson Basin and the West Fork Jimmy Camp Creek Basin.

## **SOILS**

According to the projects soils report (May 2020, Entech Engineering, INC.) the soils on site consist of five types. In general, the soils classify as loamy sand, sandy loam, loam, and clay loam. From the NRCS soils data it is evident that the soils onsite are generally USCS Type A (66.8%) and B(33.2%). The soils on site are described to have moderate erosion potential that can be mitigated with vegetation and don't impact the historical discharge rates. The soil types are classified as below:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

## **POTENTIAL POLLUTANTS**

Sediment is a possible source of pollutants without the proper use and implementation of best management practices (BMPs). No chemical storage is allowed on site. Concrete washout will be conducted in a designated area and is to be established by the contractor. The washout area will be constructed such that there will be no runoff from the area. All concrete waste will be removed along with contaminated soil and disposed of offsite at the end of the construction period. Refueling of construction equipment will be completed in a designated area established by the contractor. Any spills will be immediately cleaned up and properly disposed of offsite. Construction debris will be removed from the site as it is accumulated and disposed of properly offsite.

The Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE) has passed air quality regulations consistent with Federal legislation. Regulation No. 3 requires submittal of an Air Pollutant Emission Notice (APEN) for sources of fugitive dust from construction sites, as well as other sources. Regulation No. 1 defines particulate emission control regulations for haul roads and roadways. Additional controls, such as road watering, may be necessary to fully comply with these regulations.

## **AREAS AND VOLUME STATEMENT**

The gross site area is approximately 116.5 acres with anticipation of 119.8 acres of disturbance. Over site grading will be limited to the construction of the primary street sections and sloping the site toward the detention basins to meet minimum design requirements. As the sites are developed by private builder's disturbance will be for building foundations, landscaping, roadways, and sidewalks. The earthwork volumes are as follows:

CUT 886,201 CY

FILL 954,669 CY (Adjusted for shrinkage)

NET 68,468 CY (Fill)

## **EROSION & SEDIMENT CONTROL MEASURES**

Construction operations including grading, hauling of soil, drainage, and final stabilization shall implement erosion and sediment control measures as described below and in the Timing section of this report. Additional measures shall be implemented as appropriate.

Erosion and sediment control measures shall be implemented prior to and during construction of the project. A Silt Fence (SF) shall be used for perimeter control and Rough-Cut Street control (RCS) where site conditions allow and if the onsite City inspector approves. Please see the Grading and Erosion Control and Stormwater Management Plans for locations and sizing of recommended erosion control measures.

All persons engaged in earth disturbances shall design, implement, and maintain acceptable soil erosion and sedimentation control measures, in conformance with the

erosion and sediment control technical standards adopted by the City. All temporary erosion and sediment control facilities, and all permanent facilities intended to control erosion of any earth disturbance operation shall be installed before any earth disturbance operations take place. Any earth disturbances shall be conducted in such a manner to effectively control runoff volumes, reduce accelerated soil erosion, sediment movement, and deposition off-site. All earth disturbances shall be completed in such a manner so that the total amount of soil exposed at any given time shall be minimized, and the exposed area of any disturbed land shall be limited to the shortest possible time. Temporary soil erosion control facilities shall be removed, and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to approved plans and specifications. Temporary BMP's will not be removed until final stabilization of the site has been achieved.

Permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or the final earth disturbances have been completed. When it is not possible to permanently stabilize a disturbed area after an earth disturbance has been completed or where significant earth disturbance activity ceases, temporary soil erosion control measures shall be implemented within fourteen (14) calendar days. All temporary soil erosion control measures shall be maintained until permanent soil erosion measures are implemented.

Paved and impervious surfaces which are adjacent to construction sites must be swept 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.

Throughout build-out, the developer shall be responsible for providing, implementing, and maintaining BMPs to control erosion and sediment problems on all idle lots. As well as responsible for updating revisions to the SWMP plans as needed. Marking and dating changes on the SWMP plans stored on site.

During over lot grading and construction of the public roadway the location of the permanent detention facilities shall be used as sedimentation basins (SB). The basin shall be constructed per the grading and erosion control (GEC) plan and shall be constructed prior to any other site grading activities. Refer to the GEC plans for sizing, details and outlet options.

## **TIMING & SCHEDULE**

The proposed project will begin in May 2022 and conclude in June 2022. The general sequence of the phasing of the related construction activities will occur according to the following anticipated sequence:

### Phased BMP Implementation - Initial and Interim Phase

The initial phase shall consist of the temporary construction BMPs to minimize potential for erosion and sediment transfer while mobilizing and preparing the site for construction activities. The Contractor shall complete the anticipated initial and interim phase sequencing as follows:

1. Install vehicle tracking control (VTC) as indicated on the GEC plans or as necessitated by field conditions.
2. Install silt fence (SF) as shown on the GEC plans.
3. Upon completion of the initial BMP installation the operator shall schedule a pre-construction meeting with the owner and the city erosion control inspector to confirm BMPs installed are adequate prior to proceeding with additional land disturbing activities.

### Phased BMP Implementation - Final Phase

The final phase shall consist of the temporary construction BMPs to minimize potential for erosion and sediment transfer during construction of the proposed sites and associated limited site improvements. The Contractor shall complete the anticipated final phase sequencing as follows:

1. Confirm existing BMPs from the initial phases, which are to be maintained throughout construction, are in working order and compliant with applicable regulations.
2. Repair and/or replace any existing BMPs which are deemed inadequate.
3. Temporarily stabilize (TS) all areas of the site which will remain inactive for a period greater than 30 days. Temporary stabilization shall be implemented within 14 days of disturbance.

4. Complete required grading operations necessary for construction of the proposed sites and associated site improvements.
5. Complete fine grading and proceed with temporary stabilization (TS) and permanent stabilization (PS) practices in accordance with approved plans.
6. Achieve permanent stabilization in accordance with the El Paso County (EPC) and owner requirements.
7. Remove remaining BMPs once permanent stabilization (PS) has been achieved. Repair and stabilize areas disturbed through BMP removal.
8. Notify the EPC of the intent to file the notice of inactivation and receive EPC field acceptance prior to proceeding with filing the notice of inactivation with the EPC.
9. Proceed with filing the notice of inactivation with the EPC.
10. Provide the owner with a copy of all stormwater documentation (permits, inspection reports, logs, etc.). Upon completion of project, file the notice of inactivation.

## **PERMANENT STABILIZATION**

Permanent stabilization will be achieved by seeding of disturbed areas. Please reference the approved GEC plan standard notes for seeding of disturbed areas. Areas requiring seeding to provide stabilization to disturbed areas shall use the seed mix set forth in Chapter 14, Volume 1 of the Drainage Criteria Manual.

The site is subject to the NPDES permit program for both construction and post-construction activities. The owner shall obtain all pertinent permits required by controlling agencies including the El Paso County Health Department and the Colorado Department of Public Health & Environment

## **INSPECTION AND MAINTENANCE**

The contractor shall, at a minimum, make a thorough inspection at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the

minimum inspections described may be necessary to ensure that BMPs continue to operate as needed to comply with the plan. Self-inspection forms must be submitted electronically to the assigned City Engineering Inspector within 5 business days of the self-inspection.

All necessary maintenance and repair shall be completed immediately. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by the contractor's Storm Water Coordinator. Based on these inspections, it is the responsibility of the contractor to revise or implement additional Best Management Practices, repair erosion control measures, modify, maintain, supplement, or take additional steps as necessary to achieve effective pollutant control measures. Recording such revisions and modifications

Maintenance of BMP's shall be completed per the UDFCD I&M notes on details for each BMP.

All inspection logs and signatures shall be stored on site along with the SWMP records.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection, the inspector must evaluate overall pollutant control system performance as well as details of individual system components. Additional factors should be considered as appropriate to the circumstances.

A. Sediment barriers must be inspected, and they must be extended, repaired or cleaned at such time as their original capacity has been reduced by 33 percent. All material excavated from behind sediment barriers shall be stockpiled on the up-slope side. Additional sediment barriers must be constructed as needed.

B. Inspections shall evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas, and/or run-on.

C. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

## **CONCLUSIONS**

Temporary and permanent erosion control measures and BMPs will improve stormwater quality leaving the project area by capturing and detaining sediment-laden runoff prior to discharging off-site.

## **REFERENCES**

City of Colorado Springs Grading, Erosion and Stormwater Quality Control Plan Checklist

GRADING AND EROSION CONTROL, AND STORMWATER MANAGMENT  
NARRATIVE  
(GECSM)

FOR

**Villages at Waterview North**

El Paso County, Co

Prepared For:

Veterans Villa Operating, LLC

31 N. TEJON ST., SUITE 500

Canton, SD 57013

Kim Kuhle

Prepared By:

Dakota Springs Engineering

31 N Tejon St., Suite 518

Colorado Springs, CO 80903

**EPC Project No. EGP-21-004**

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**OWNER'S CERTIFICATION**

"The owner will comply with the requirements of the Grading and Erosion Control and Stormwater Management Plan including temporary BMP inspection requirements and final stabilization requirements. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (COPS) permitting for Stormwater discharges associated with Construction Activity."

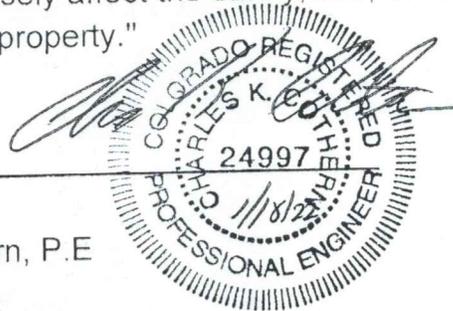
*Kim Kuhle*

Kim Kuhle  
Veterans Villa Operating, LLC

31 Jan 2022  
Date

**ENGINEERS CERTIFICATION**

"This Erosion and Stormwater Management/Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. If such work is performed in accordance with the grading and erosion control plan, the work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use, or stability of a public way, drainage channel, or other property."



Charles K. Cothorn, P.E  
Colorado 24997

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