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12/21/23

ESC Plan Standard Notes (2021-03-24)

1.All Erosion and Sediment Control (ESC) work on these plans, except as otherwise stated or provided hereon shall be permitted, constructed, inspected, and maintained in accordance with:
a.The City Ordinance § 14-5-2-11, the ESC Ordinance,
b.The EPA's 2017 Construction General Permit (CGP), and
c.The City Of Albuquerque Construction BMP Manual.
2.All BMP's must be installed prior to beginning any earth moving activities except as specified hereon in the Phasing Plan. Construction of earthen BMP's such as sediment traps, sediment basins, and diversion berms shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3.Self-inspections - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined as stabilized by the city. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
4.Corrective action reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
5.Stabilization reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request. Reports should include records of weed removal per City Ordinance (§ 9-8-1), sterilization, soil test results and recommendation, materials and manufacturer's specifications for application rates, estimated functional longevity, methods of application, inspection and maintenance. The reduced self-inspection schedule in CGP 4.4.1 applies to stabilized area and any damaged or worn stabilization must be identified in the reports along with weed problems. Corrective actions for stabilization shall be documented in a stabilization report including actual rates and dates of stabilization, and the materials and manufacturer's specifications used.
6.BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (CGP 2.2.14.b). Generally, all disturbed areas, other than structures and impervious surfaces, must have uniform perennial vegetation that provides 70 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative mulch that provides cover for at least three years without active maintenance. Final stabilization must be approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.

Pond Stabilization Specifications

After constructed, ponds shall be seeded as per approved specifications (described below and attached) by the 14-day time period designated by the Construction General Permit. Ponds shall be inspected regularly as part of the project.

Flat Area: Areas less than 3:1

*Use one of the three specified seed mixes based on soil conditions
*Disc seed bed at 4-6" depth
*Drill seed specified seed mix
*Hydro mulch at 2000 lbs/ac with increased tackifier at 10% of wood fiber mulch dry weight (industry standard is 3-5% bulk dry weight of hydro mulch). We do this to help with better performance in dust stabilization for air quality.

Slopes: Areas 3:1 or steeper
*Use one of three specified seed mixes based on soil conditions. We double the application rate for better germination. In some instances we apply the specified rate with hydro mulch with tackifier on the slope prior to gravel mulch application.
*Apply 1-1.5" crushed stone at 300 tons per acre. This stone is larger than what is specified but we have found that the larger stone holds on the slopes better than the ¾" specified and isn't so easily covered in locations with what we call blow sand or sugar sand.
**If the full double application rate of seed is not applied in the initial application we will now apply the second (double seed rate) application of seed with only trace amounts (~500 lbs/ac) wood fiber mulch and tackifier. Since this second application will be at a diluted application rate, the seed will be washed down into all of the nooks and crannies of the gravel mulch to help protect it. Since this second application has tackifier added, it will help with final dust stabilization.

EIGHT 14 SOLUTIONS
EROSION CONTROL & ENVIRONMENTAL CONSULTING

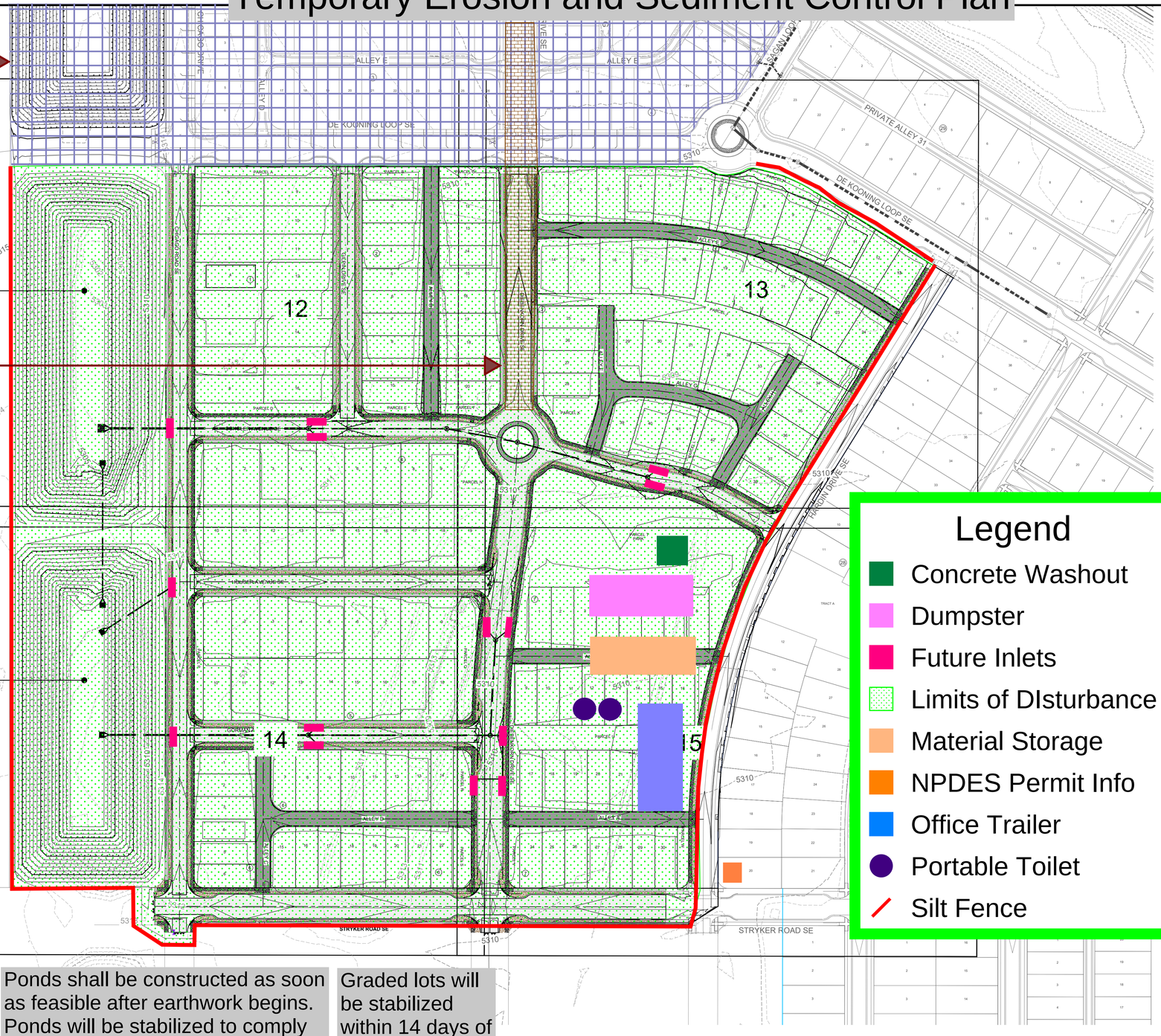
Project Name: Montage 5	NPDES Permit #: NMR10062N
Property Owner: Titan Montage 5, LLC.	Date: 12/21/2023
Operator: Titan Montage 5, LLC.	Sheet: 1 of 5

Temporary Erosion and Sediment Control Plan

This area is Montage 6 which will be developed concurrently with Montage 5 by Twilight Homes. The construction entrance used by both parties will be at the northern end of Diebenkorn Drive SE.
A stockpile currently exists within the Montage 6 boundary that will be used to fill areas in Montage 5 when earthwork begins.

POND B VOLUME
10-DAY 100 YEAR REQUIRED VOLUME = 145,728 CF
PROVIDED VOLUME = 1,210,661 CF
POND BOTTOM = 5298.00
POND RIM = 5312.00
MAX WATER SURFACE ELEVATION = 5300.20

Dirt haul road



Approximate Acres Disturbed: 43.5

Soil Information

100% Madurez-Wink Association, gently sloping

K-Factor: 0.24 (RUSLE)

Slope is 1-7%.
Classified as fine sandy loam to sandy loam.
Well drained with very low runoff potential.

Legend

- Concrete Washout
- Dumpster
- Future Inlets
- Limits of DIsturbance
- Material Storage
- NPDES Permit Info
- Office Trailer
- Portable Toilet
- Silt Fence

GENERAL NOTES

1. ALL DISTURBED COMMERCIAL LOTS AND NON-RESIDENTIAL LOTS AREAS NOT PROPOSED TO BE IMPROVED SHALL BE STRAW CRIMPED W/ NATIVE SEEDING PER COA SPECIFICATION 1011 & 1012.
2. SEE PLAT FOR LOT DIMENSIONS.
3. SEE DETAIL 16 FOR TYPICAL LOT GRADING.
4. SUBDIVISION WILL NOT HAVE A PERIMETER WALL. INDIVIDUAL LOTS WILL HAVE GARDEN WALLS TO BE PERMITTED WITH HOME CONSTRUCTION.
5. EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT.
6. THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROJECT.
7. CONTRACTOR SHALL OBTAIN PERMISSION TO GRADE ON PRIVATE PROPERTY. CITY SHALL NOT BE RESPONSIBLE FOR CONTRACTOR TRESPASSING ON PRIVATE PROPERTY

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 12/5/2023
BY: Yeonsu Cho
HydroTrans # R16D006C

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR OMMISSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
12/21/23

0 100' 200'
SCALE: 1" = 100'

nm811 Know what's below. Call before you dig.
TWO WORKING DAYS BEFORE YOU DIG CALL 811 OR 260-1990

Designed By: HUITT ZOLLARS

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
AS-BUILTS MADE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

BENCH MARKS
FOUND MONUMENT "15-J12 1986"
STANDARD 3 1/4" ALUMINUM DISC
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE-N.A.D. 1983)
N=1,487,534.543
E=1,511,214.742
ELEV=4965.627 (NAVD 1988)
GROUND TO GRID FACTOR=0.999685508
MAPPING ANGLE=-0°14'53.77"

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
10/13/23

NO.	BY	DATE	REMARKS
			REVISIONS
			DESIGN
		DATE: Nov. 29, 2023	DESIGNED BY: SAE
		DATE: Nov. 29, 2023	DRAWN BY: LRT
		PROJ#: R3130315.01	DWG NAME: 11-GRAD COMP.dwg
		DATE: Nov. 29, 2023	CHECKED BY: SAE

MONTAGE UNIT 5
SC³ DEVELOPMENT

TITLE: OVERALL GRADING PLAN

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.

Project Name: Montage 5	NPDES Permit #: NMR10062N
Property Owner: Titan Montage 5, LLC.	Date: 12/20/2023
Operator: Titan Montage 5, LLC.	Sheet: 2 of 5

Sheet 11 Of 83

General notes:

814 Solutions did not create grading and drainage plan. Plan was edited by 814 Solutions to include stormwater best management practices.

Ponds shall be constructed as soon as feasible after earthwork begins. Ponds will be stabilized to comply with the CABQ Planning and Development Department Drainage Ponds: Slope Stabilization and Seeding Requirements(City Standard Specifications Section 1013) requirements.

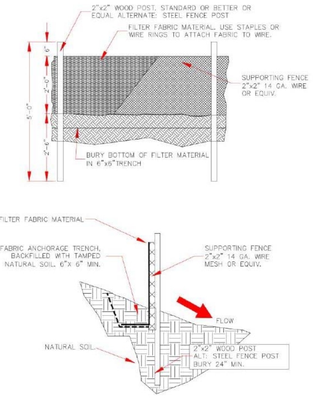
Graded lots will be stabilized within 14 days of last disturbance with a CABQ approved tackifier with a 6 month to 1 year life.

As inlets are constructed, inlet protection shall be installed.

BMPs shown are not to scale and have been enhanced for visual clarity.

TESCP created 12/21/2023 by 814 Solutions

Plotted: 12/5/2023 12:17:03 PM, By:Eddings, Scott
H:\proj\R3130315.01 - Montage 5 Engineering\10 CADD & BIM\10.1 AutoCAD\Sheet Set\11-GRAD COMP.dwg

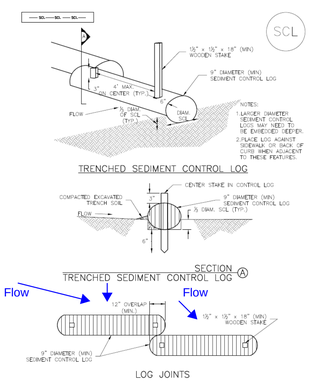


Notes:
1. Wire mesh is not required, but it is recommended as it will help prevent tearing due to increased wind speed or sediment/water load.
2. Pole spacing is not to exceed 10 feet between poles in straight-run sheet flow areas.
3. Pole spacing in a site's lower corners should be spaced approximately 6 feet apart or closer.
4. Silt fence is not created for use in high velocity situations, where flow is heavily concentrated. If concentrated flow does drain toward silt fence, then use additional BMPs to reduce the flow's velocity.
5. Silt fence fabric transition points should have posts interlocked with no gaps in the silt fence coverage.

Silt Fence

Source: City of Albuquerque Construction Site Manual 2018

Sediment Control Log (SCL) SC-2

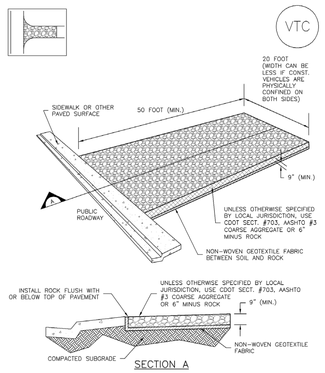


Notes:
1. It is recommended that wattles be trenched into the ground to a depth of approximately 1/3 of the diameter of the log. If trenching to this depth is not feasible or desirable, then a lesser trenching depth may be acceptable with more robust staking. Sandbags may be used on impervious surfaces.
2. Wattles that are 8 lb/ft or more do not need to be trenched.
3. Remove sediment from the upstream side of wattle when sediment accumulation is 1/2 the height of the wattle.
4. For parallel flow past the wattle joints, make sure the upstream wattle is on the interior side of the downstream wattle
5. Place wattle around stockpiles that are not being worked on or that are on impervious surfaces.

Wattle/ Filter Sock/ Sediment Control Log

Source: Urban Storm Drainage Criteria Manual Volume 3

Vehicle Tracking Control (VTC) SM-4



Notes:
1. A stabilized construction entrance/exit shall be located at all access points where vehicles access the construction site from paved right-of-ways.
2. Sediment tracked onto paved roads is to be removed throughout the day and at the end of the day by shoveling or sweeping. Sediment may not be washed down storm sewer drains.
3. Some Vehicle Tracking Controls may need a wheel wash station. When a wheel wash is available, make sure to direct wash water to a sediment trap prior to discharge from the site. Wash water may not contain soaps or chemicals, unless a separate permit is acquired.
4. A metal grate can be used in conjunction with an aggregate track-out pad. The grate should be regularly cleared of sediment, and help prevent track-out.
5. Make sure the Vehicle Tracking Control is not bypassed by the construction traffic.

Vehicle Tracking Control

Source: Urban Storm Drainage Criteria Manual Volume 3

Wash-out from curb-cutting operation.

Notes:
1. The preferred method to access a site is to cut the curb, so a ramp is not required. Placing curb cut in the same place as future entrance/exit can minimize work.

2. When cutting the curb, the cutting machine uses water, and the byproduct of the process is similar to concrete wash-out. Place byproduct in wash-out container.

Notes:
3. Laying lumber parallel to curb is an alternative, but this method is not be used on high speed (35 MPH and greater) roads due to it being a road hazard.

4. Adding cold-mix asphalt with a pipe in the gutter is acceptable, but do not extend asphalt past the gutter into the paved portion of the roadway.

5. Vehicle Tracking Controls are still needed if using a ramp over a curb.

Cold-mix asphalt ramp used for accessing the site.

Lumber laid parallel to the curb to create a ramp to access the site.

Notes:
6. Do not use dirt ramps to access sites with curbs, because the dirt can be easily washed to into storm drains.

7. WARNING! Any injury or property damage to a motorist, cyclist, or pedestrian due to the installation of a ramp is the responsibility of the contractor/property owner.

Access onto Curbed Sites

Source: City of Albuquerque Construction Site Manual 2018

Notes:
1. Regularly collect and dispose of garbage and waste material into designated collection areas.

2. Cover and maintain dumpsters and waste receptacles. Add additional dumpster or increase frequency of waste collection if overflowing conditions occur. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.

3. Routinely inspect containers and equipment to ensure that it is functioning properly without leaking.

4. Promptly clean up leaks, drips, and other spills. Train employees on proper clean up and spill response procedures.

5. Store containers, drums, and bags away from direct traffic routes to reduce container damage.

6. Store materials in accordance with directions in Material Safety Data Sheets (MSDSs).

7. Store container s on pallets or similar devices to prevent corrosion of containers that results from containers coming into contact with moisture on the ground.

8. Store toxic or hazardous liquids within curbed areas or secondary containments.

9. Frequent and proper training in good housekeeping techniques reduces the likelihood that chemicals or equipment will be mishandled.

10. Segregate and provide proper disposal options for hazardous material wastes.

11. Make sure the site has a Spill Protection Plan, Spill kit, and individuals trained on the location and workings of the plan and kit.

12. Create a designated on-site fueling and maintenance area that is clean and dry, has a spill kit, and ideally in a covered area.

13. Locate toilet facilities away from storm drain inlets and waterways to prevent accidental contamination of stormwater.

14.or outdoor painting and sanding; conduct these operations in designated areas that are paved or have a secondary containment in place. Clean up and dispose of excess paint, paint chips, protective coatings, grit waste, etc.

15. Provide tie-downs or stake downs for portable toilets.

16. For vehicle and equipment washing: ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water.

17. Recycle materials whenever possible (e.g. paper, wood, concrete, oil).

Good Housekeeping

Source: Urban Storm Drainage Criteria Manual Volume 3

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER

12/21/23

One-piece inlet protection BMP for an inlet with a grate and a throat.

Notes:
1. The proper inlet protection shall be used and maintained to prevent sediment and wastes from entering a stormwater drainage system and shall minimize the risk of flooding.

2. The type of inlet protection utilized shall depend on the inlet type, slope, and volume of flow.

Notes:
3. For inlets with a throat opening and a grate, the inlet shall be protected with a BMP that covers the throat and the grate.

4. For throat type of inlet protection, sediment shall not be higher than halfway up the BMP.

5. For mat type and one-piece style of BMP, more than 50% of the inlet protection must be clear of sediment and debris.

Cocoa mat used for grate and throat.

Mulch sock used for inlet protection.

Notes:
6. The inlet protection shall be able to let water drain through.

7. WARNING! Any injury or property damage to a motorist, cyclist, or pedestrian due to the installation of inlet protection is the responsibility of the contractor/property owner. Try using a mat-type inlet protection to reduce possible road hazards.

8. Make sure inlet protection is secured in place, and will not be moved by stormwater.

Inlet Protection Part 1

Source: City of Albuquerque Construction Site Manual 2018

Rock bags used for inlet protection. Photo was taken during a rain event.

Notes:
9. In residential subdivisions where there are inlets internal to the construction site, the style should change as the site is developed. When the site is mostly dirt, use a BMP that protects throat and grate. When the site has built more and less dirt is exposed, then a less restrictive style can be used to catch sediment in the gutter.

Notes:
10. Inlet protection constructed of silt fence surrounding the inlet may be used when the inlet is surrounded by stake-able dirt.

11. Inlet protection should be used for inlets/storm drains within the construction site/disturbed area, AND any inlets/storm drains outside the project area that may receive stormwater discharges from the construction site/disturbed area.

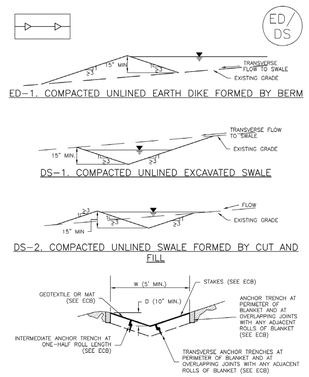
Another application of using silt fence for inlet protection.

Notes:
12. Open storm drains are considered an inlet and require protection. This also includes drains that are not actively being worked on.

Inlet Protection Part 2

Source: City of Albuquerque Construction Site Manual 2018

Earth Dikes and Drainage Swales (ED/DS) EC-10



Notes:
1. Earth dikes and drainage swales are typically used for controlling the flow path of runoff at a constructions site; sometimes by diverting water away from sensitive areas, or by conveying water to treatment BMPs (sediment traps or basins).
2. Unlined berms/dikes or swales need to be compacted, and should only be used for intercepting sheet flow runoff (not intended for diversion of concentrated flows.
3. If there is reoccuring damage, consider installing rock check dams or lining with riprap.
4. If berms/dikes or swales are not permanent, then remove berms/dikes and fill channels when upstream area is stabilized. Immediately stabilize the disturbed area after the BMP removal.

Earth Berms/ Dikes/ Drainage Swales

Source: Urban Storm Drainage Criteria Manual Volume 3

Energy dissipator for large storm drains

Notes:
1. When working in or adjacent to an arroyo or concrete channel, loose soil shall not be stockpiled or left in the low-flow area of the arroyo or channel. A berm or a similar BMP is to be constructed to diver flow into a low-flow area.
2. When working in or adjacent to an arroyo or concrete channel, pollutants (chemicals, debris, waste, etc.) shall not be left in the low-flow area of the arroyo or channel.
3. If there are active storm drains in the work zone, an energy dissipator is to be constructed at the pipe outfall to slow the velocity of the stormwater to less than 3 ft/sec at the end of the dissipater. A plunge pool constructed of large aggregate is the most common energy dissipator.
4. If there is an arroyo or channel draining into the work zone, and energy dissipator is to be constructed upstream of the confluence to slow the velocity of the stormwater to less than 3 ft/sec at the end of the dissipator. There are equations provided by the United States Bureau of Reclamation (USBR) and the Federal Highway Administration (FHWA) for sizing the energy dissipator and the aggregate.
5. If working adjacent to an arroyo or concrete channel, install BMPs to protect against or filter stormwater entering the drainage.

Arroyo and Channel Construction

Source: City of Albuquerque Construction Site Manual 2018

These roll-off wash-out containers were lowered for easier access.

Notes:
1. Designated wash-out areas shall be provided for any concrete, stucco, mortar, or paint operations. Wash-outs should be as far away as possible from waters of the U.S., stormwater inlets, or conveyances.

2. "Wash-out shall be directed to leak-proof containers or leak proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation." -CGP 2022

Notes:
3. If the concrete/stucco/mortar is firm when it contacts the soil, then it is not considered wash-out (not wet enough to infiltrate into the soil).

4. A centralized wash-out may be effective for concrete trucks. For stucco, mortar, and paint wash-outs, a local wash-out and wash-out education has been more successful in avoiding improper wash-outs.

Mortar towers with plastic beneath as a BMP.

Notes:
5. Mortar towers shall have a plastic liner beneath them to prevent the wet mortar from contacting the soil. If wet stucco or mortar contacts the ground due to mixing, it would be a compliance issue.

6. If a wash-out occurs on bare soil, the Operator is expected to remove it same day. The wash-out material, as well as the wetted soil, are to be removed and disposed of appropriately.

Wash-outs

Source: City of Albuquerque Construction Site Manual 2018

BMP Information Sheet

EIGHT 14 SOLUTIONS
EROSION CONTROL & ENVIRONMENTAL CONSULTING

Project Name: Montage 5	NPDES Permit #: NMR10062N
Property Owner: Titan Montage 5, LLC.	Date: 12/21/2023
Operator: Titan Montage 5, LLC.	Sheet: 3 of 5

Project Roles and Responsibilities

Site Owner: Titan Montage 5, LLC
Contact: Brian Patterson
505 980-1650
bpatterson@titan-development.com

Site Operator: Titan Montage 5, LLC
Contact: Brian Patterson
505 980-1650
bpatterson@titan-development.com

Stormwater Team: 814 Solutions

Contact: Gaylen Barnett (Environmental Compliance Manager)
505 382-4828
gaylen@814solutions.com

2nd Contact: Eric Maez (Inspector)
505 401-7843
eric@814solutions.com

3rd Contact: Zak Burton (Inspector)
505 426-7715
Hannah@814solutions.com

BMP Installation: 814 Solutions
Contact: Sergio Lozoya
505 250-3734
sergio@814solutions.com

Daily sediment removal from public streets (when needed):
TBD a representative from Titan Montage 5, LLC.

Project Information:

Expected activities (including but not limited to):
•Clearing and grubbing
•Excavation
-Pond construction
•Grading
•Utility installation
•General development activities
•Stabilization activities (hydroseeding/tackifier)

Clearing, grubbing, pond construction, and earthwork/grading are expected for the first 6-8 weeks after project begins. Stabilization shall be applied to all disturbed areas within 14 calendar days of last disturbance. After grading is completed, development activities including curb and gutter, pavement, sidewalk, and utility installation shall commence. As inlets are constructed they shall be protected with BMPs. SWPPP inspections shall continue until all disturbed areas have been stabilized to meet CABQ specifications.

BMP information:

The project will have silt fence surrounding the perimeter of the project to mitigate dust and water runoff. Ponds will be constructed as soon as feasible after earthwork commences and are designed to capture stormwater runoff. A stabilized construction entrance shall be utilized, cleaned, and maintained throughout the project. Water trucks shall be operational throughout the project for dust mitigation. The project shall be monitored daily to ensure BMPs are functional. If sediment trackout is observed, street sweeping shall be implemented. No significant slopes/drop-offs exist other than pond slopes when constructed.

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
12/21/23

EIGHT 14 SOLUTIONS
EROSION CONTROL & ENVIRONMENTAL CONSULTING

Project Name: Montage 5	NPDES Permit #: NMR10062N
Property Owner: Titan Montage 5, LLC.	Date: 12/21/2023
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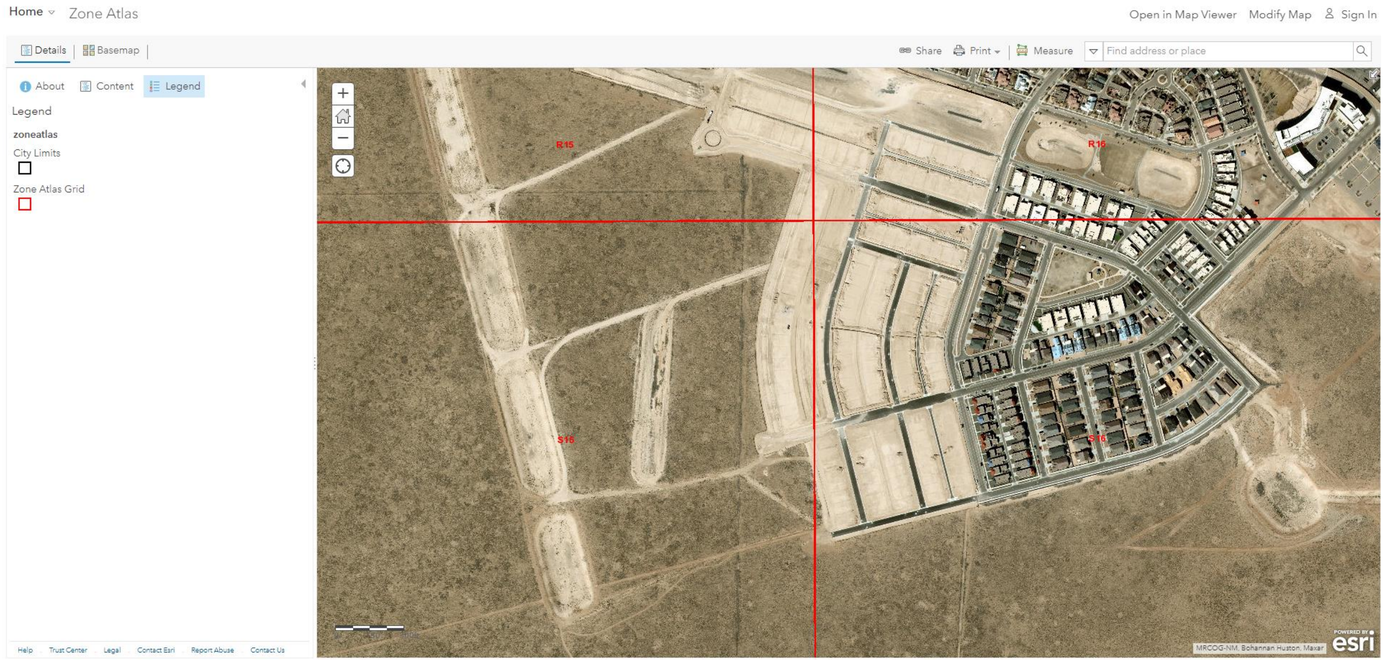
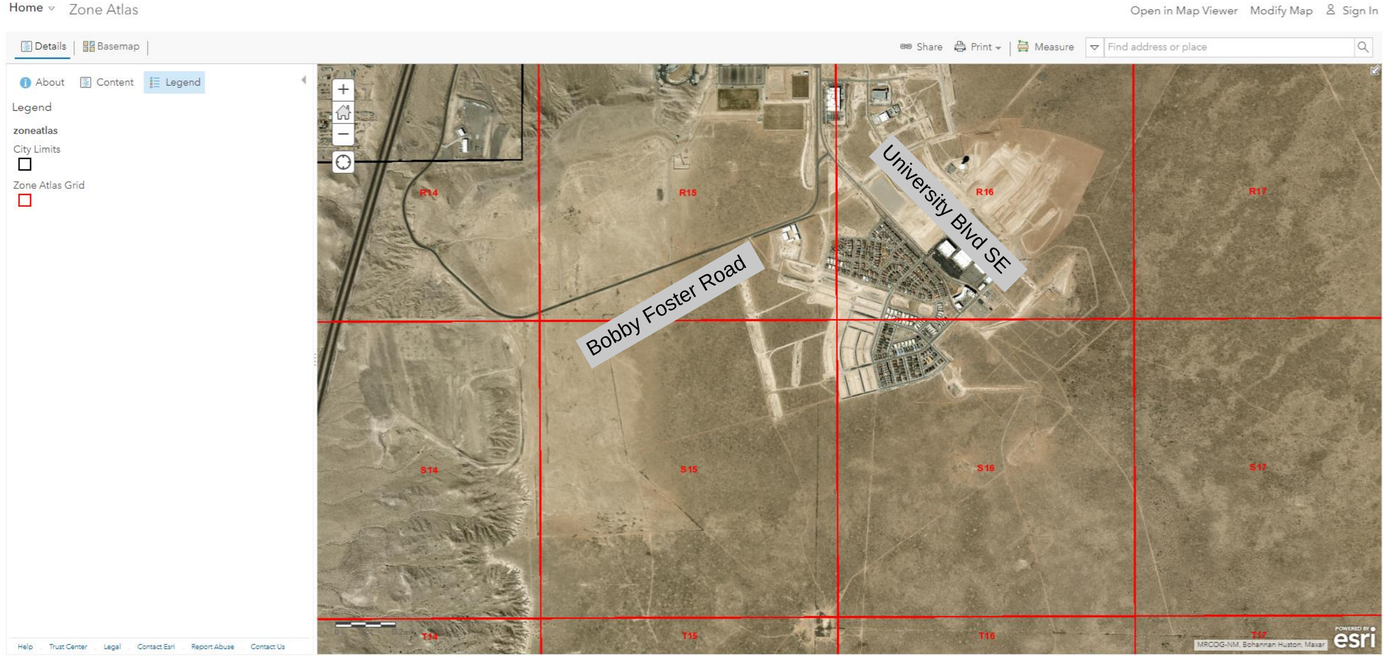
Zone Atlas Map





SCOTT A. EDDINGS
NEW MEXICO
12856
REGISTERED PROFESSIONAL ENGINEER

12/21/23

EIGHT 14 SOLUTIONS
EROSION CONTROL & ENVIRONMENTAL CONSULTING

Project Name: Montage 5	NPDES Permit #: NMR10062N
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