

Construction Stormwater Management Plan  
For

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*WILDCAT RESIDENCES APARTMENTS*

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*1807 Wildcat Avenue, Grand Junction, Colo 81501*

9-29-23

CSWMP Preparer: Mark Austin  
Austin Civil Group, Inc  
123 N 7<sup>th</sup> Street  
Grand Junction, CO 81501  
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**Introduction**

The following CSWMP is organized and presented as follows:

*Section 1: Qualified Stormwater Manager(s)*  
*Section 2: Spill Prevention and Response Plan*  
*Section 3: Materials Handling*  
*Section 4: Potential Sources of Pollution*  
*Section 5: Implementation of Control Measures*  
*Section 6: Site Description*  
*Section 7: Site Map*  
*Section 8: Final Stabilization and Long-Term Stormwater Management*  
*Section 9: Inspection Reports*  
*Section 10: CSWMP Preparer Signed Statement*  
*Appendix A: Site Aerial View*  
*Appendix B: Site Map*  
*Appendix C: Inspection Report*  
*Appendix D: Best Management Practices*

## **Section 1. Qualified Stormwater Manager**

Please list the individuals(s) by Title and Name who are designated as the site's Qualified Stormwater Manager(s) responsible for implementing the CSWMP in its entirety.

1. TBD
2. \_\_\_\_\_
3. \_\_\_\_\_

*Provide Name, Phone number and Email address and/or 3<sup>rd</sup> party inspection company contact information here, if applicable.*

Name: N/A

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

## **Section 2. Spill Prevention and Response Plan**

Briefly outline response procedures to a spill (e.g. fuels, oils, chemicals, paints, solvents, liquid admixtures, cement) by providing cleanup responsibilities and site contact information.

*Cleanup of spills should begin immediately. The spill shall be assessed and the severity determined. Contact the spill cleanup coordinator immediately. No emulsifier or dispersant should be used. On all units requiring refueling, absorbent materials should be packaged in small bags and stored in small drums or containers. Absorbent materials shall not be disposed into any drainage. It is the contractor's responsibility to make available all emergency phone number at the construction site and to notify the responsible agencies as soon as possible. It is the contractor's responsibility to ensure proper cleanup in a timely manner. All personnel should be trained in using the Spill Cleanup Kits.*

*For NON HAZARDOUS materials such as gasoline, diesel paint, or oil spilled in SMALL QUANTITIES that do not enter state water or threaten to do so, the following measures shall be implemented:*

- i. Use absorbent materials to contain spills and clean the area of residuals.*
- ii. Do not hose down spill area with water*
- iii. Dispose of the absorbent material properly.*

*For NON-HAZARDOUS materials that that qualify as a SIGNIFICANT SPILL, or spills of any size that enter state waters or have the potential to do so, the following measures shall be implemented:*

- i. Contact the CDPHE Environmental Emergency Spill Reporting Line (1-877-518-5608) within 24 hours of the spill event. A written notification of the CDPHE-EMP is necessary within 5 days.*
- ii. Contact the Colorado State Patrol 24-hour hotline (1-303-239-4501) if the spill is on a state highway.*
- iii. Report spill to foreman on site.*
- iv. Cleanup spill immediately. Use absorbent materials if the material is on an impermeable surface. Construct earthen dikes to contain spills on dirt areas. If rainfall is present, cover the spill with a tarp to prevent contaminated runoff.*

For spills involving HAZARDOUS MATERIALS, the following measures shall be implemented:

- i. Report spills to project foreman.
- ii. Contact the local emergency response team by dialing 911.
- iii. Contact the CDMPE-EMP Environmental Emergency Spill Reporting Line (1-877-518-5608) within 24 hours of the spill event.
- iv. Contact the Colorado State Patrol 24-hour hotline (1-303-239-4501) if the spill is on a state highway.
- v. Call the CDOT illicit discharge hotline if spilled material spreads to a CDOT storm drain or waterway adjacent to CDOT right-of-way.
- vi. Construction personnel shall not try to clean up the spill. A licensed contractor or HazMat team shall be used to properly clean up spills.

### **Section 3. Materials Handling**

Describe the control measures that will be used at the site to minimize impacts from handling, storing and disposing/ recycling of **significant materials**, which is any chemical or hazardous substance that exhibits ignitability, corrosivity, reactivity or toxicity characteristics that could potentially contribute pollutants to stormwater runoff.

#### **a. On-Site chemical storage:**

*The project does not anticipate mixing or handling of chemical or hazardous substances other than construction equipment fueling and servicing operations. Fueling operations shall only occur with physical observation and monitoring to avoid fuel overflow. Grease cartridges shall be properly disposed of in approved containers on the jobsite.*

#### **b. Label System:**

*This section applies only when chemicals are stored onsite during any portion of the project. If chemicals are stored onsite, MSDS Sheets for these will be completed and clearly labeled in a notebook. This notebook will be located onsite.*

#### **c. Maintenance and Inspection:**

*Areas shall be inspected every 14 days after a storm event. All equipment and vehicles will be inspected routinely for leaks. A sufficient supply of cleanup materials will be kept at all maintenance areas and areas where leaks or spills may occur.*

#### **d. Waste Handling**

*Portable concrete washout facilities will be provided to wash out concrete trucks at the project site. Remaining waste will be disposed of and/or recycled in the appropriate manner with daily oversight by a Site*

### **Section 4. Potential Sources of Pollution**

List and identify ALL potential pollutant sources that may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site.

#### **A. Disturbed and stored soils**

*Site Clearing and Grubbing, Site Grading and Haul Routes can pulverize native soils and create airborne sediment (dust) from disturbed soils. These areas shall be sprayed with a water truck as needed to prevent airborne sediment.*

*Stored stockpiles from utility trenches, building foundations and loose bank material is sediment shall be contained with down gradient earth berms at the downstream side or toe of slope on stockpiles.*

*Additional control measures may include dust suppression with a water truck, vehicle tracking controls and maintaining pre-existing vegetation. When stockpiles sit for more than 14 days, tarps, tackifier, hydro seed or other 'crusting' methods will be used as temporary stabilization to prevent windblown sediment.*

## B. Vehicle tracking of sediments

*Vehicle Tracking Control will be provided at the construction site entrance, and will be large clean angular rock. Control measures to mitigate off-site vehicle tracking include angular aggregate tracking pads at construction access points, operator awareness, exit surveys and street sweeping.*

*The project may be utilizing haul and access routes using existing asphalt paved driveways for interim access which may serve as a method for cleaning tires before exiting the project site and control measures.*

## C. Management of contaminated soils

*This project has the potential to contaminate soils with fuels, oils, grease, paints, solvents, dry mix chemical, tool cleaning waste and/or chemical, porta-john chemical, stucco and grout mixing operations, concrete washout waste, fertilizers, pesticides, detergents and/or industrial, municipal or agricultural waste. Petroleum products and liquid chemical over 55 gallons will have secondary containment. The site will provide a concrete washout for concrete trucks and other masonry waste. All other spills to the ground will be cleaned up according to the Spill Response procedures outlined in Section 2.*

## D. Loading and unloading operations

*This project has the potential for spills during material delivery while loading or unloading. Loading and unloading operations shall be within the limits of disturbance as outlined on the site plan. Site personnel will clean up spills by following the Spill Prevention and Response Plan in Section 2.*

## E. Outdoor storage activities

*All construction materials that pose a potential pollutant risk to ground or surface water when exposed to rainfall must be stored and protected from rainfall (trailer, zircon, or other approved equal) in the designated materials storage areas. All chemicals and fertilizers must be stored in weather proof containers or otherwise be protected from rainfall in the designated building materials storage areas.*

## F. Vehicle and equipment maintenance and fueling

*Vehicle fueling and equipment maintenance has the potential to spill fuel, oils and other fluids to the ground. Construction equipment will be fueled and maintained offsite, however, if mechanical failure does occur, clean-up will follow the Spill Prevention and Response Plan in Section 2.*

## G. Significant dust or particulate generating processes

*Haul road, earthwork operations and stockpile materials left unattended for any length of time has the potential to generate significant dust. Wood or concrete saw cutting can also generate airborne particulates. Control measures include surface roughening, moisture conditioning and parking and walking from paved surfaces. Saw cuttings will be swept and collected at regular intervals and not allowed to accumulate.*

## H. Routine maintenance activities involving fertilizers, pesticides, herbicides, fuels, solvents, oils, etc.

*There is a potential for a spill during routine maintenance activities. In the event of a spill, site personnel will follow the Spill Prevention and Response Plan in Section 2.*

I. On-site waste management practices (waste piles, liquid wastes, dumpsters)

*On site waste will be generated during all phases of construction. Potential pollutants include concrete wash water, tool cleaning, asphalt debris, worker trash, wind-blown debris, building construction materials to include paint, solvents, mortar, grout, masonry, stucco, punctured bags of dry mix chemicals or additives, leaking or uncapped liquid chemicals, saw cutting debris, drywall debris, roofing materials, and other loose building material hardware and plastic.*

*Control measures include good housekeeping procedures, removing waste before it is allowed to accumulate, secondary containment on all mixing operations and familiarity with site personnel responsible for spill response.*

J. Concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment

*Concrete waste and concrete wash water are potential pollutants that will be generated on-site. Control measures designed for concrete washout waste will be implemented. This could include a portable metal containment tank, or an impermeable synthetic liner designed to control seepage when site soils lack the buffering capacity needed prior to reaching groundwater*

K. Dedicated asphalt, concrete batch plants and masonry mixing stations

*No asphalt or concrete batch plants are anticipated.*

L. Non-industrial waste sources such as worker trash and portable toilets

*Worker trash and portable toilets have pollutant potential. The site will provide waste receptacles and portable toilets on the job site. Dumpsters will be routinely emptied or covered to prevent wind-blown debris and portable toilets will be staked down to prevent tipping during high winds.*

**Section 5. Implementation of Control Measures**

The CSWMP must include the design specifications of ALL control measures used on the project. Include applicable drawings, dimensions, installation, materials, implementation, control measure-specific inspection expectations and maintenance requirements.

*Please see Control Measures in Appendix D.*

**Section 6. Site Description**

A. Provide a description of the construction activity that is planned, to include the physical location, address and cross streets, type of project, and a summary of the work

*The Junction project has a total disturbance of 4.1- acres. The project is located at 1807 Wildcat Avenue in Fruita, Colorado. The project includes construction of two 20-plex apartment buildings, five "row home" apartment buildings and two storage unit facilities. See Appendix A for an aerial view of the project.*

*Land disturbing activities at the site will consist of clearing and grubbing, earthwork cut/fill, material stockpiling, site grading, excavations, cuts and fills, utility installation, concrete work, building foundations, building construction, asphalt pavement, and final landscaping.*

*Construction activities may include, but are not limited to, material import/export, concrete and asphalt placement, underground utility installation, vertical construction and landscaping.*

**B. The proposed sequence for major activities and the planned implementation of control measures for each phase**

- 1) Installation of site access points, perimeter sediment control measures and offsite control measures.*
- 2) Clearing and Grubbing*
- 3) Installation of temporary, interior control measures, such as a concrete washout area.*
- 4) Earthwork Cut/fill*
- 5) Building Foundation Excavation*
- 6) Building Foundation*
- 7) Underground utility installation*
- 8) Site Grading.*
- 9) Building Construction*
- 10) Fine Grading*
- 11) Concrete and Asphalt placement.*
- 12) Construction of permanent stormwater control measures, such as a water quality pond.*
- 13) Revision of temporary control measures to accommodate final landscaping.*
- 14) Final landscaping.*
- 15) Removal of temporary control measures and final cleaning of permanent control measures.*

**C. Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, and any other construction activities**

*Entire lot: 3.6 -acres. Area to be disturbed: 4.1 acres.*

**D. A summary of any existing data used in the development of the construction site plans or CSWMP that describe the soil or existing potential for soil erosion**

*The project geotechnical report prepared by Huddleston-Berry Engineering & Testing, LLC report, titled "Geotechnical and Geological Hazards Investigation 1807 Wildcat Avenue" indicates soils are generally of native clays and sand soils above dense gravel and cobble soil, with groundwater at 3- to 8-ft below the ground surface.*

*All surface soils on the site are Fruitland-Sandy Clay Loam, 0-2% slopes hydrologic group "B". Topsoil material on the site is typically around 12" thick. These soils have slow infiltration rates when thoroughly wet and have slow rates of water Transmission.*

*The NRCS Whole Soil "K Factor" was determined to be 0.17.*

**E. A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover**

*The existing site has sparse vegetative cover consisting of primarily noxious weeds with some native grasses. The estimated ground cover is 15% based on air photo review. Listed below is a current site photo from Google Earth:*



F. A description of any allowable non-stormwater discharges at the site, including those being discharged under a low risk discharge guidance policy

*The following non-stormwater discharges are allowed under this permit if they are identified in the CSWMP and they have appropriate control measures in place:*

- 1. Discharges from uncontaminated springs that do not originate from an area of land disturbance*
- 2. Discharges to the ground of concrete washout water to include the washing of concrete tools and mixer chutes*
- 3. Discharges of irrigation return flow*
- 4. Emergency fire-fighting activities*

*It is understood that this permit does not authorize the discharge of non-storm water except those allowed above and it is understood that the project will need a separate de-watering permit to discharge groundwater off-site or to the MS4 (Municipal Separate Storm Sewer System) infrastructure.*

G. A description of areas receiving discharge from the site, including a description of the immediate source receiving the discharge. If the stormwater discharge is to a MS4 (Municipal Separate Storm Sewer System), provide the name of the entity owning that system, the location of the storm sewer discharge, and the ultimate receiving water(s)

*Stormwater from the site drains south west to adjacent public street curb and gutter systems which discharge to storm inlets and City of Fruita storm sewer system which ultimately discharge to the Colorado River.*

*The ultimate receiving waters is the Colorado River.*

H. A description of all stream crossings located within the construction site boundary

*The site does not have any stream crossings within the construction site boundary.*

## Section 7. Site Map

The CSWMP must include a site map showing the entire area, control measures and runoff direction flow arrows:

A. Construction site boundaries;

*The site map clearly identifies the boundaries of the property. Please see Appendix B.*

B. Flow arrows that depict stormwater flow directions on-site and runoff direction;

*The site map clearly identifies on-site and runoff direction with flow arrows. Please see Appendix B.*

C. All areas of ground disturbance including areas of cut and fill;

*The existing contours are depicted on the SWMP map in Appendix B and the proposed finish contours are provided on additional drawings in Appendix B. Please see Appendix B*

D. Areas used for storage of soil;

*The site map includes all areas used for storage of soil. Please See Appendix B.*

*\*Since this determination is often made by the contractor just prior to construction, a note to that effect on the map along with the symbol to be used by the contractor to indicate those areas in the legend will be sufficient at the time of submittal. The contractor must make the requisite changes on the map before storing materials on the site.*

E. Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;

*The site map includes all areas for liquid, concrete, masonry, and asphalt. Please see Appendix B.*

F. Locations of all dedicated asphalt, concrete batch plants and masonry mixing stations;

*There are no asphalt, concrete, or masonry mixing stations or batch plants.*

G. Locations of all structural control measures;

*The site map includes all structural control measures. Please see Appendix B.*

*\*These include, but are not limited to, straw wattles/sediment control logs, silt fence, vehicle tracking controls, compacted earthen berms, erosion control blankets, drainage swales, sediment traps, inlet protection, outlet protection, gabions, cutback curbs, etc. The map must clearly show the specific locations of each individual structural control measure implemented on the project. Please remember, that every control measure selected for your project must have a corresponding design and maintenance specification included in Section 5 Implementation of Control Measures.*

H. Locations of all non-structural control measures;

*The site map includes all non-structural control measures. Please see Appendix B.*

*\*These include, but are not limited to, surface roughening, temporary or permanent vegetation, mulching, sod stabilization, vegetative buffer strip, etc. Please remember that every control measure selected for your project must have a corresponding design and maintenance specification included in Section 5 Implementation of Control Measures.*



- I. Locations of springs, streams, wetlands, and other state waters; including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, unless infeasible, must be documented;

*There are no springs, streams, wetlands or state waters on the project site.*

- J. Locations of all stream crossings located within the construction site boundary;

*The project does not have any stream crossings within the site boundaries.*

## **Section 8: Final Stabilization and Long-Term Stormwater Management**

Describe the practices used to achieve final stabilization of all disturbed areas at the site and any planned practices to control pollutants in stormwater discharges that will occur after construction operations are completed

*Final Stabilization will be achieved when all ground surface disturbing activities at the construction site are complete, through either a uniform cover of an individual plant density of at least 70% of pre-disturbance levels or equivalent permanent pavement, hardscape, xeriscape or stabilized driving surface. Temporary CM's will remain in place until final stabilization has been reached, but will be removed once final stabilization has been achieved.*

*Final stabilization will be designed, installed and approved by a Professional Engineer through a final drainage report where an appropriately sized, permanent water quality control measure may be implemented to control the discharge of pollutants to the MS4 or any unnamed waterway in the state of Colorado, after construction.*

*Through an Operations and Maintenance Agreement with the Mesa County Stormwater Division, the permittee or designee, agrees to conduct a yearly inspection of any permanent water quality control measure in the permitted area and ensure that it continues to operate and function as designed.*

## **Section 9. Inspection Reports**

Does the CSWMP include documented inspection reports in accordance with the permit?

- A. Is the inspector a Qualified Stormwater Manager?

*The qualified stormwater Manager is designed in Section 1 of this report.*

- B. Do inspection records meet the minimum required frequency?

*Site inspections will start within 7 days of the start of construction. Inspections will be done once every 7 calendar days or once every 14 calendar days with post-storm event inspections conducted within 24 hours of any precipitation or snow melt event that causes erosion.*

- C. What areas will be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state water?

*Inspections will include the site perimeter, all disturbed areas, designated haul routes, material and waste storage areas exposed to precipitation and locations where stormwater has the potential to discharge offsite.*

#### D. Additional inspection report requirements

*All implemented control measures will be visually verified to be in effective operational condition and to work as designed to minimize pollutant discharges, identify new potential sources of pollutants and notify the permittee of any corrective actions that are necessary.*

*\*The inspection report will include the date, Name and Title of the person conducting the inspection, weather conditions, phase of construction, estimated acreage of disturbance, location(s) of discharges of sediment or other pollutants from the site, location(s) of control measures requiring routine maintenance, location(s) and identification of additional control measures needed that were not in place at the time of inspection, a description of the minimum inspection frequency and any deviations from the minimum inspection schedule. Each report will conclude with the Qualified Storm water Manager signing and dating below the following statement:*

*"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."*

#### **Section 10. CSWMP Preparer Statement**

*"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

CSWMP Preparer: \_\_\_\_\_

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

*Appendix A: Site Aerial View*

*Appendix B: Site Map*

*Appendix C: Inspection Report*

*Appendix D: Best Management Practices*

APPENDIX A  
SITE AERIAL VIEW

# APPENDIX A - PROJECT LOCATION MAP 1807 WILDCAT AVE

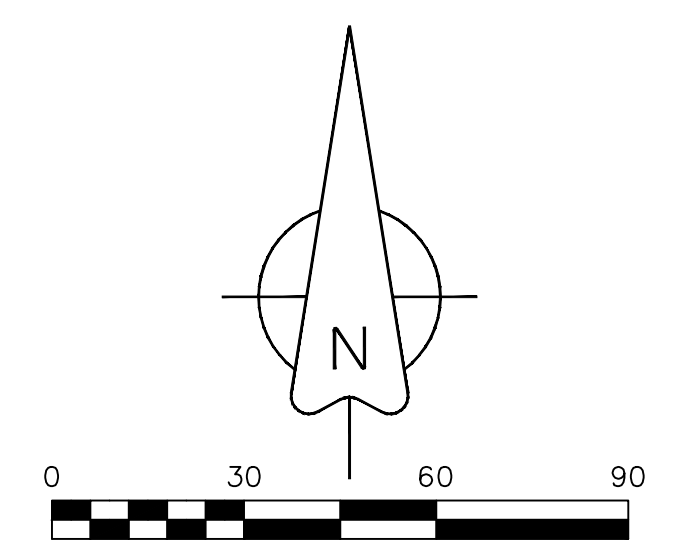
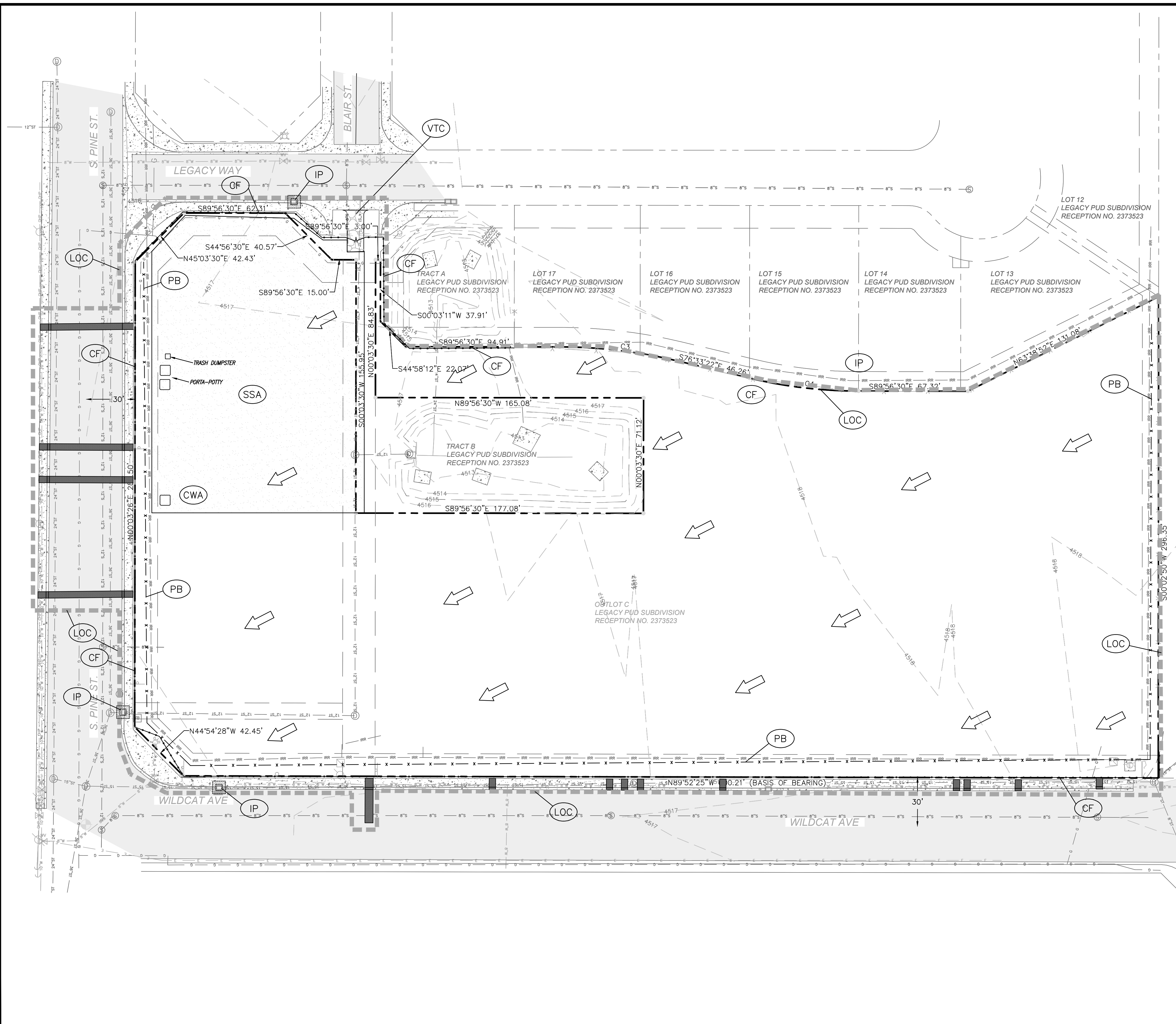


Printed: 10/1/2023  
1 inch equals 376 feet  
Scale: 1:4,514

# APPENDIX B

## SITE MAP





**BMP LEGEND**

- |  |       |                             |
|--|-------|-----------------------------|
|  | (CD)  | CHECK DAM                   |
|  | (CB)  | COMPOST BLANKET             |
|  | (CWA) | CONCRETE WASHOUT AREA       |
|  | (CF)  | CONSTRUCTION FENCE          |
|  | (CM)  | CONSTRUCTION MARKER         |
|  | (DW)  | DEWATERING                  |
|  | (DD)  | DIVERSION DITCH             |
|  | (ECB) | EROSION CONTROL BLANKET     |
|  | (IP)  | INLET PROTECTION            |
|  | (RCD) | REINFORCED CHECK DAM        |
|  | (RRB) | REINFORCED ROCK BERM        |
|  | (RRC) | RRB FOR CULVERT PROTECTION  |
|  | (SB)  | SEDIMENT BASIN              |
|  | (SCL) | SEDIMENT CONTROL LOG        |
|  | (PB)  | PERIMETER BERM / SILT FENCE |
|  | (SFB) | SEDIMENT FILTER BERM        |
|  | (SM)  | SEEDING AND MULCHING        |
|  | (SR)  | SURFACE ROUGHENING          |
|  | (SSA) | STABILIZED STAGING AREA     |
|  | (ST)  | SEDIMENT TRAP               |
|  | (TSD) | TEMPORARY SLOPE DRAIN       |
|  | (TSC) | TEMPORARY STREAM CROSSING   |
|  | (TER) | TERRACING                   |
|  | (VTC) | VEHICLE TRACKING CONTROL    |
|  | (WW)  | VTC WITH WHEEL WASH         |
|  | (LOC) | LIMITS OF CONSTRUCTION      |
|  |       | DRAINAGE FLOW DIRECTION     |
- CONTOUR INTERVAL:  
 EXISTING GROUND: 1'  
 FINISH GRADE: 1'  
 EXISTING GROUND: 4580  
 FINISH GRADE: 4580
- AREA OUTSIDE LIMITS OF CONSTRUCTION  
 AREA TO BE SEEDED

**NOTES:**  
 1.) SEE STORM WATER MANAGEMENT PLAN REPORT FOR DETAILS.  
 2.) SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINAGE AND INLET AND OUTLET PROTECTION.

		<b>AUSTIN CIVIL GROUP, INC.</b> Land Planning • Civil Engineering • Development Services 123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501 (970) 242-7540	
<b>WILDCAT RESIDENCES</b>	<i>description</i>	<b>WILDCAT AVE</b>	
<b>EXISTING CONDITIONS &amp; DEMO PLAN</b>		prepared for <b>Wildcat Acquisition LLC</b>	
DRAWN BY: JWC	DESIGNED BY: JWC	CHECKED BY: MRA	APPROVED BY: MRA
JOB NUMBER: 1456.0003			
DATE: 9-21-2023			
SCALE: 1"=30'			
SHEET NO: C-3			

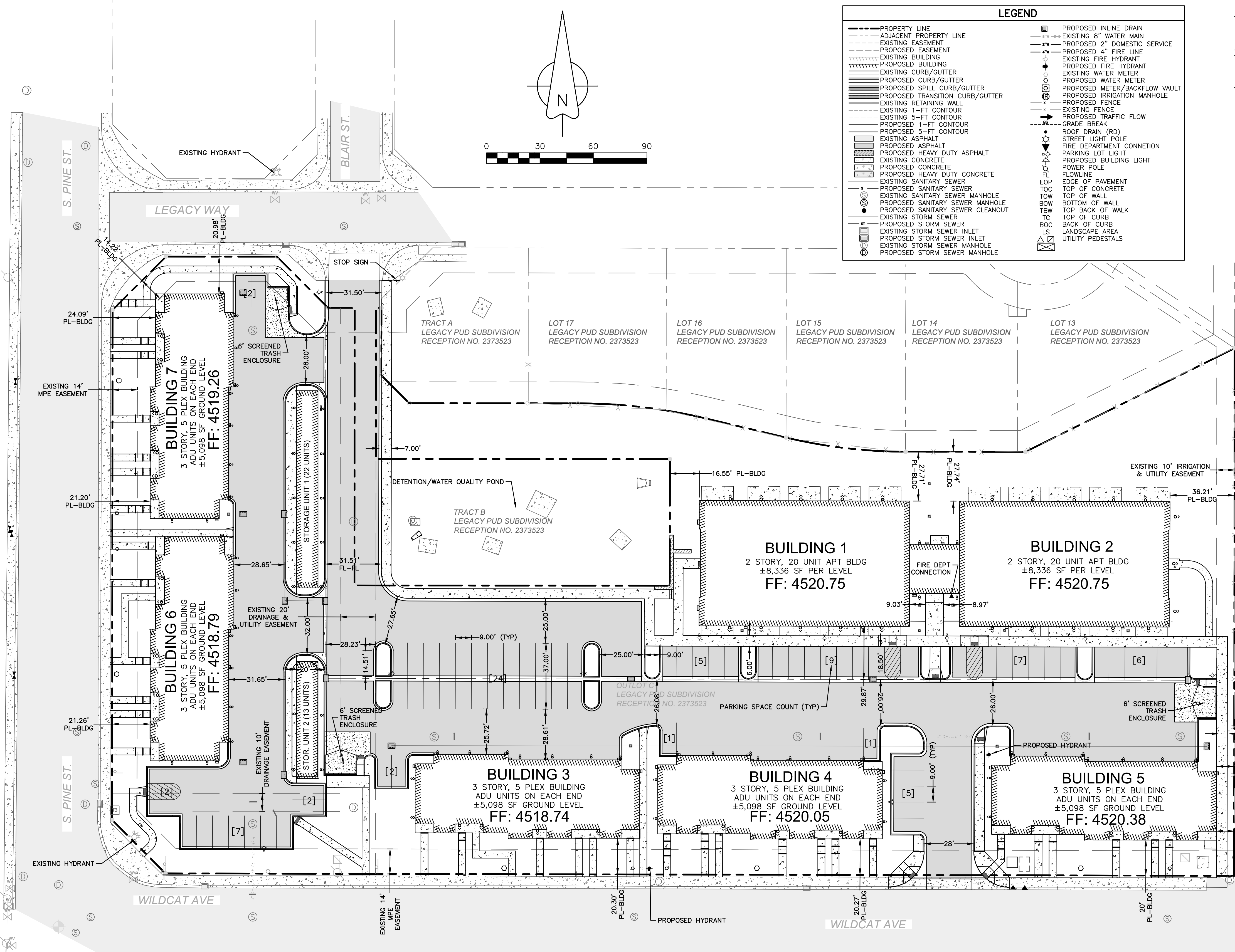
REVISIONS

NO.	DESCRIPTION	DATE	BY

Know what's below. Call before you dig.

**SCALE VERIFICATION**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 IF NOT ONE INCH ON THIS SHEET  
 ADJUST SCALES ACCORDINGLY





### LEGEND

---	PROPERTY LINE	---	PROPOSED INLINE DRAIN
- - -	ADJACENT PROPERTY LINE	---	EXISTING 8" WATER MAIN
---	EXISTING EASEMENT	---	PROPOSED 2" DOMESTIC SERVICE
---	PROPOSED EASEMENT	---	PROPOSED 4" FIRE LINE
---	EXISTING BUILDING	---	EXISTING FIRE HYDRANT
---	PROPOSED BUILDING	---	PROPOSED FIRE HYDRANT
---	EXISTING CURB/GUTTER	---	EXISTING WATER METER
---	PROPOSED CURB/GUTTER	---	PROPOSED WATER METER
---	PROPOSED SPILL CURB/GUTTER	---	PROPOSED METER/BACKFLOW VAULT
---	PROPOSED TRANSITION CURB/GUTTER	---	PROPOSED IRRIGATION MANHOLE
---	EXISTING RETAINING WALL	---	PROPOSED FENCE
---	EXISTING 1'-FT CONTOUR	---	EXISTING FENCE
---	EXISTING 5'-FT CONTOUR	---	PROPOSED TRAFFIC FLOW
---	PROPOSED 1'-FT CONTOUR	---	GRADE BREAK
---	PROPOSED 5'-FT CONTOUR	---	ROOF DRAIN (RD)
---	EXISTING ASPHALT	---	STREET LIGHT POLE
---	PROPOSED ASPHALT	---	FIRE DEPARTMENT CONNECTION
---	PROPOSED HEAVY DUTY ASPHALT	---	PARKING LOT LIGHT
---	EXISTING CONCRETE	---	PROPOSED BUILDING LIGHT
---	PROPOSED CONCRETE	---	POWER POLE
---	PROPOSED HEAVY DUTY CONCRETE	---	FLOWLINE
---	EXISTING SANITARY SEWER	---	EOP EDGE OF PAVEMENT
---	PROPOSED SANITARY SEWER	---	TOC TOP OF CONCRETE
---	EXISTING SANITARY SEWER MANHOLE	---	TOW TOP OF WALL
---	PROPOSED SANITARY SEWER MANHOLE	---	BOW BOTTOM OF WALL
---	PROPOSED SANITARY SEWER CLEANOUT	---	TBW TOP BACK OF WALK
---	EXISTING STORM SEWER	---	TC TOP OF CURB
---	PROPOSED STORM SEWER	---	BOC BACK OF CURB
---	EXISTING STORM SEWER INLET	---	LS LANDSCAPE AREA
---	PROPOSED STORM SEWER INLET	---	UTILITY PEDESTALS
---	EXISTING STORM SEWER MANHOLE		
---	PROPOSED STORM SEWER MANHOLE		

- GENERAL NOTES:
- ALL PARKING SPACES ARE 9-FT WIDE X 18.5-FT LONG UNLESS OTHERWISE NOTED.
  - ALL ADA PARKING SPACES SHALL BE SIGNED AND STRIPED PER DETAIL \_\_\_ ON DRAWING C-02.
  - THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE CITY OF FRUITA PRIOR TO ANY WORK ON THE SITE & TO ALSO MAKE SURE AND OBTAIN ALL CONSTRUCTION STORMWATER PERMITS & BMPS.

### BUILDING UNIT SUMMARY

UNIT	LEVELS	GROUND LEVEL SF	TOTAL SF	4 BED	1 BED/STUDIO	2 BED	ADU
BUILDING 1	2	8,336	16,672	--	18	2	--
BUILDING 2	2	8,336	16,672	--	18	2	--
BUILDING 3	3	5,089	12,996	5	--	--	2
BUILDING 4	3	5,089	12,996	5	--	--	2
BUILDING 5	3	5,089	12,996	5	--	--	2
BUILDING 6	3	5,089	12,996	5	--	--	2
BUILDING 7	3	5,089	12,996	5	--	--	2
TOTALS				25	36	4	10

### LAND USE SUMMARY

USE	ACRES	PERCENT
BUILDINGS	0.99	27%
LANDSCAPE	1.03	28%
ASPHALT/PKG/CONC	1.64	45%
ROW DEDICATION	0	0%
TOTAL	3.66	100%

### PARKING SUMMARY

REQUIRED PARKING: 113 SPACES

- 2 ea 20 PLEX BUILDING REQUIREMENTS = 42
- 36 1 Bed/Studios @ 1 Space Ea = 36
- 4 2 Bed/Studios @ 1.5 Space Ea = 6
- 5 ea ROW APARTMENT BUILDING REQUIREMENTS = 60
- 5ea 4 Bed/Apts @ 2 Space Ea = 50 Spaces
- 2ea ADUs @ 1 Space Ea = 10 Spaces
- Additional: 1 sp/ 6 DU = 65 units / 6 = 11
- 5ea 4 Bed/Apts @ 2 Space Ea = 50 Spaces

PARKING PROVIDED: 143 SPACES

- 73 SURFACE PARKING SPACES
- 50 INTERIOR GARAGE SPACES (10 spaces per Bldg)
- 20 EXTERIOR GARAGE SPACES (Bldg 4 & 5)

KEVIN LEE SWITZER  
1821 J 1/3 ROAD  
PARCEL NO. 2697-163-00-093  
RECEPTION NO. 2816357

Know what's below.  
Call before you dig.

SCALE VERIFICATION  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET  
ADJUST SCALES ACCORDINGLY

NO.	REVISIONS	DESCRIPTION	DATE	BY

**A C G**  
**AUSTIN CIVIL GROUP, INC.**  
Land Planning • Civil Engineering • Development Services  
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501  
(970) 242-7540

**WILDCAT RESIDENCES**  
SITE PLAN  
**WILDCAT AVE**  
prepared for  
**Wildcat Acquisition LLC**

DRAWN BY: JWC  
DESIGNED BY: JWC  
CHECKED BY: MRA  
APPROVED BY: MRA

JOB NUMBER: 1456.0003  
DATE: 9-21-2023  
SCALE: 1"=30'  
SHEET NO: C-4

### UTILITIES AND AGENCIES

CITY OF FRUITA SANITARY SEWER	SAM ATKINS	856-6177
LIFE WATER	JIM DALCHERRY	242-7491
CITY OF FRUITA IRRIGATION	SAM ATKINS	856-6177
CITY OF FRUITA STORM SEWER	SAM ATKINS	856-6177
JOEL ENERGY - GAS & ELECTRIC	MIKE CASTRO	260-6904
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOAN WILTZ	245-8750
MESA COUNTY STORMWATER	JOSH MARTINEZ	883-4206

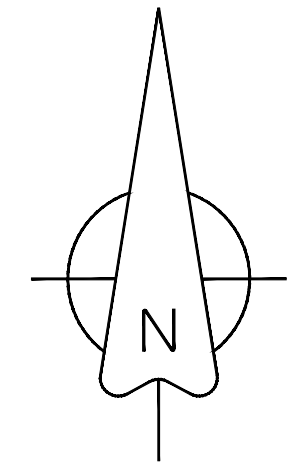
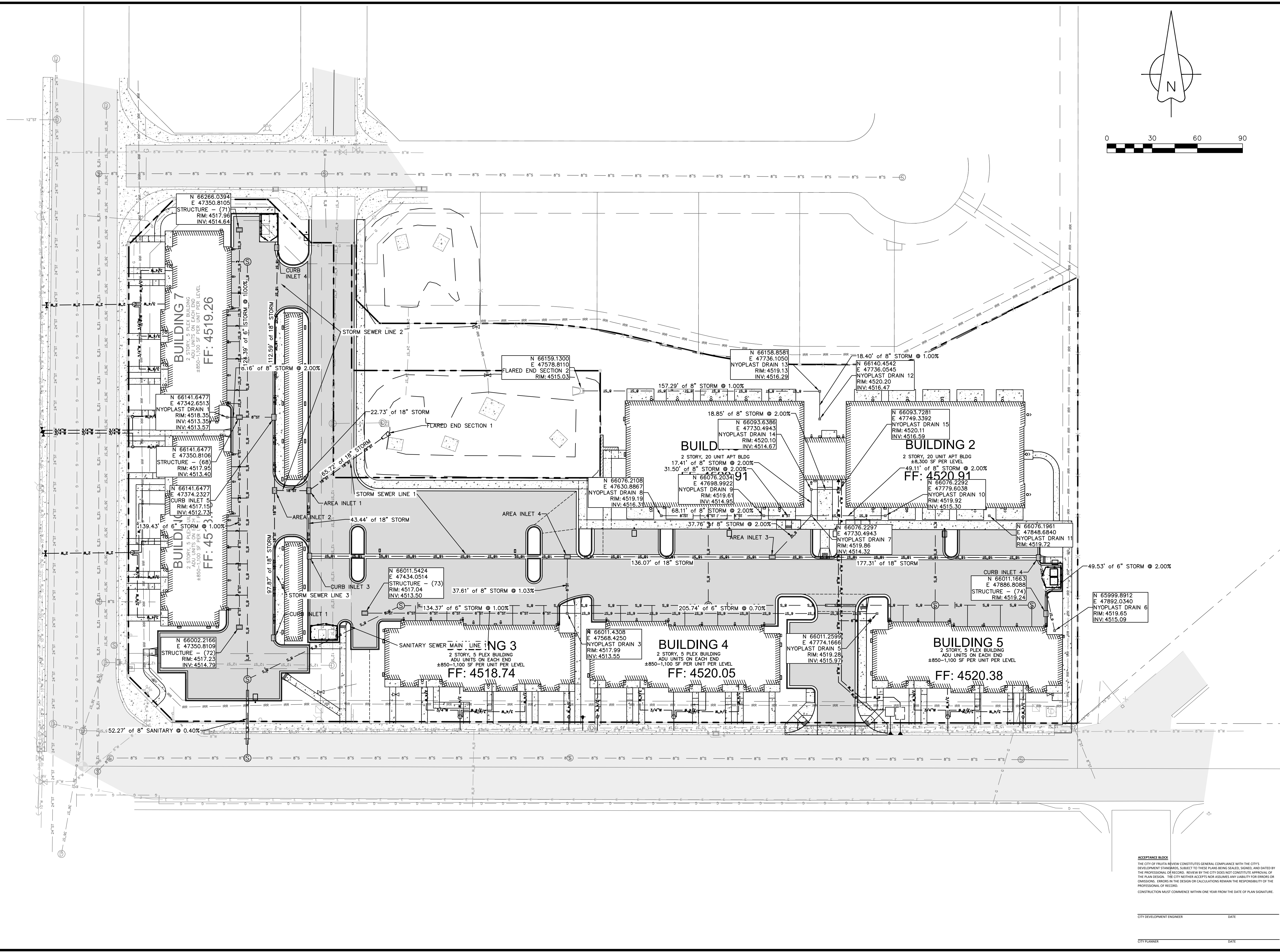
ACCEPTANCE BLOCK

THE CITY OF FRUITA REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
CITY PLANNER \_\_\_\_\_ DATE \_\_\_\_\_



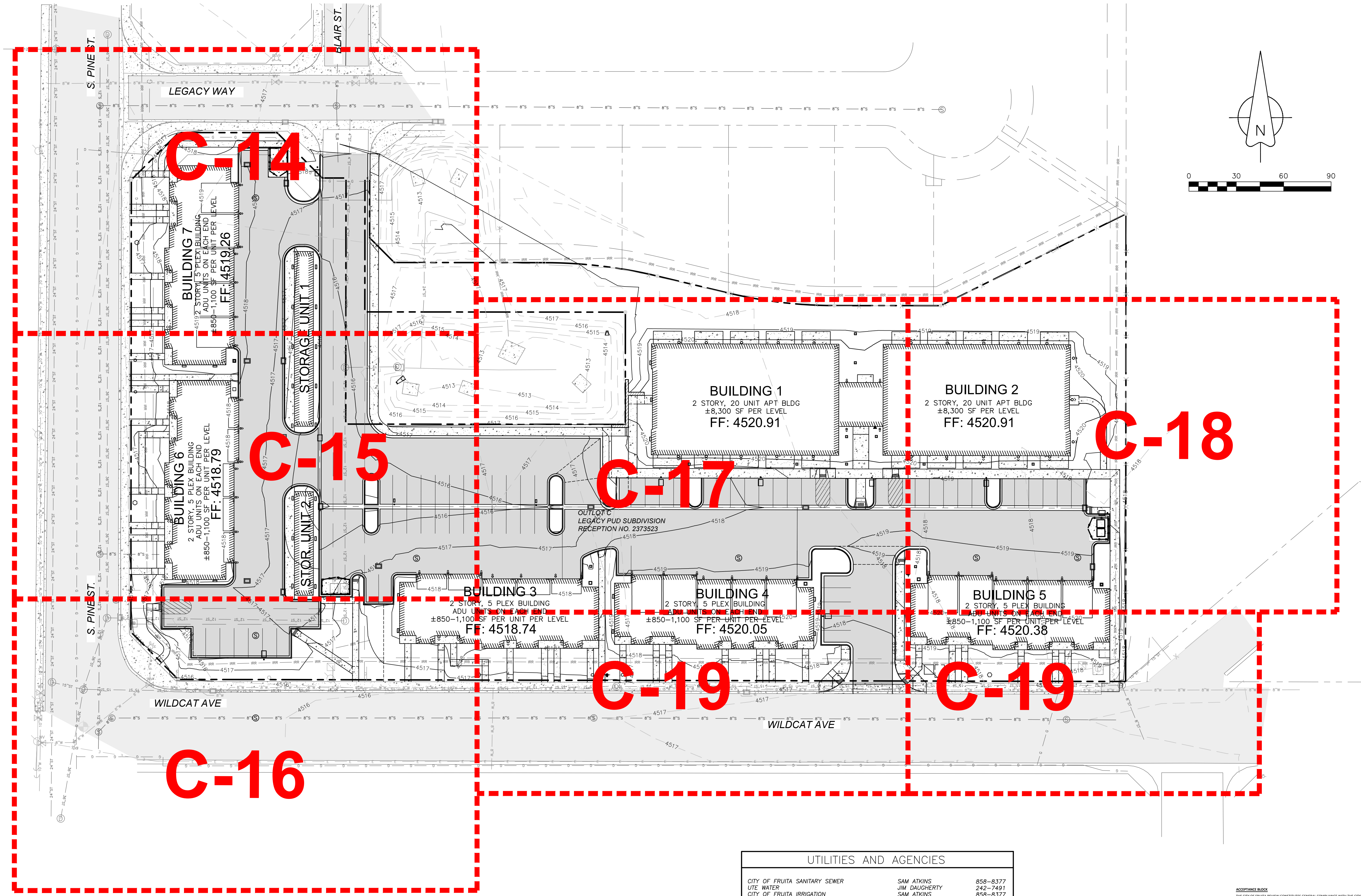


**ACCEPTANCE BLOCK**  
 THE CITY OF BURLA REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.  
 CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY PLANNER \_\_\_\_\_ DATE \_\_\_\_\_

		Know what's below. Call before you dig.
SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY		
REVISIONS NO. DESCRIPTION	DATE BY	
<b>A • C • G</b> <b>AUSTIN CIVIL GROUP, INC.</b> Land Planning • Civil Engineering • Development Services 123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501 (970) 242-7540		
<b>LEGACY PUD FILING 3</b> UTILITY COMPOSITE SHEET - STORM WILDCAT AVE prepared for <b>Wildcat Acquisition LLC</b>		DRAWN BY: JWC DESIGNED BY: JWC CHECKED BY: MRA APPROVED BY: MRA
JOB NUMBER: 1456.0003		DATE: 9-21-2023
SCALE: 1" = 30'		SHEET NO: C-7





**C-14**

**C-15**

**C-17**

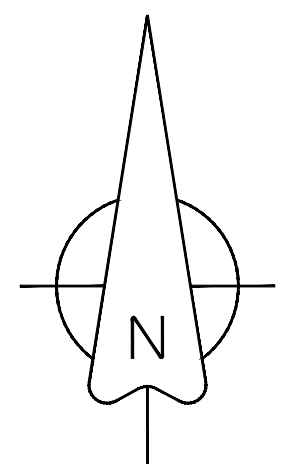
**C-18**

**C-16**

**C-19**

**C-19**

UTILITIES AND AGENCIES		
CITY OF FRUITA SANITARY SEWER	SAM ATKINS	858-8377
UTE WATER	JIM DAUGHERTY	242-7491
CITY OF FRUITA IRRIGATION	SAM ATKINS	858-8377
CITY OF FRUITA STORM SEWER	SAM ATKINS	858-8377
XCEL ENERGY - GAS & ELECTRIC	MIKE CASTRO	260-6804
CENTURY LINK	CHRIS JOHNSON	244-4333
CHARTER	JOHN VALDEZ	245-8750
MESA COUNTY STORMWATER	JOSH MARTINEZ	683-4206



Know what's below.  
Call before you dig.

SCALE VERIFICATION  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET  
ADJUST SCALES ACCORDINGLY

NO.	REVISIONS	DESCRIPTION	DATE	BY

**A · C · G**  
**AUSTIN CIVIL GROUP, INC.**  
 Land Planning · Civil Engineering · Development Services  
 123 North 7th Street, Suite 300 · Grand Junction, Colorado 81501  
 (970) 242-7540

**LEGACY PUD FILING 3**  
 GRADING INDEX SHEET  
 WILDCAT AVE  
 prepared for  
**Wildcat Acquisition LLC**

DRAWN BY:	JWC
DESIGNED BY:	JWC
CHECKED BY:	MRA
APPROVED BY:	MRA
JOB NUMBER:	1456.0003
DATE:	9-21-2023
SCALE:	1" = 30'
SHEET NO.:	C-13

ACCEPTANCE BLOCK  
 THE CITY OF FRUITA REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.  
 CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY DEVELOPMENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

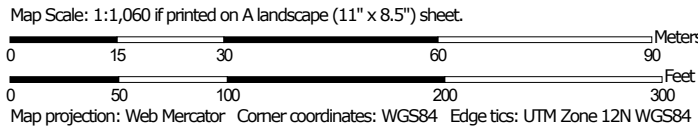
CITY PLANNER \_\_\_\_\_ DATE \_\_\_\_\_



K Factor, Whole Soil—Mesa County Area, Colorado  
(K- Value - Whole Soil - 1807 Wildcat Avenue)




Soil Map may not be valid at this scale.


















### MAP LEGEND

**Area of Interest (AOI)**







 Area of Interest (AOI)










**Soils**

**Soil Rating Polygons**
















-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Soil Rating Lines**








-  .02
-  .05
-  .10
-  .15
-  .17
-  .20

-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Soil Rating Points**

-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Water Features**

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.  
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado  
Survey Area Data: Version 14, Aug 22, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 24, 2020—Jul 8, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Rc	Fruitland sandy clay loam, 0 to 2 percent slopes	.17	3.8	98.9%
Tr	Turley clay loam, 0 to 2 percent slopes	.28	0.0	1.1%
<b>Totals for Area of Interest</b>			<b>3.8</b>	<b>100.0%</b>

### Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

APPENDIX C  
INSPECTION REPORT

# CONSTRUCTION STORMWATER SITE INSPECTION REPORT

Facility Name		Permittee					
Date of Inspection		Weather Conditions					
Permit Certification #		Disturbed Acreage					
Phase of Construction		Inspector Title					
Inspector Name							
Is the above inspector a qualified stormwater manager? (permittee is responsible for ensuring that the inspector is a qualified stormwater manager)			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO						
<input type="checkbox"/>	<input type="checkbox"/>						

INSPECTION FREQUENCY					
Check the box that describes the minimum inspection frequency utilized when conducting each inspection					
At least one inspection every 7 calendar days	<input type="checkbox"/>				
At least one inspection every 14 calendar days, with post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosions	<input type="checkbox"/>				
<ul style="list-style-type: none"> <li>• This is this a post-storm event inspection. Event Date: _____</li> </ul>	<input type="checkbox"/>				
Reduced inspection frequency - Include site conditions that warrant reduced inspection frequency	<input type="checkbox"/>				
<ul style="list-style-type: none"> <li>• Post-storm inspections at temporarily idle sites</li> </ul>	<input type="checkbox"/>				
<ul style="list-style-type: none"> <li>• Inspections at completed sites/area</li> </ul>	<input type="checkbox"/>				
<ul style="list-style-type: none"> <li>• Winter conditions exclusion</li> </ul>	<input type="checkbox"/>				
Have there been any deviations from the minimum inspection schedule? If yes, describe below.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO				
<input type="checkbox"/>	<input type="checkbox"/>				

INSPECTION REQUIREMENTS*
i. Visually verify all implemented control measures are in effective operational condition and are working as designed in the specifications
ii. Determine if there are new potential sources of pollutants
iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges
iv. Identify all areas of non-compliance with the permit requirements, and if necessary, implement corrective action
*Use the attached <b>Control Measures Requiring Routine Maintenance</b> and <b>Inadequate Control Measures Requiring Corrective Action</b> forms to document results of this assessment that trigger either maintenance or corrective actions

AREAS TO BE INSPECTED			
Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations?			
	NO	YES	If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate control measures and corrective actions <b>Inadequate Control Measures Requiring Corrective Action</b> form
Construction site perimeter	<input type="checkbox"/>	<input type="checkbox"/>	
All disturbed areas	<input type="checkbox"/>	<input type="checkbox"/>	
Designated haul routes	<input type="checkbox"/>	<input type="checkbox"/>	
Material and waste storage areas exposed to precipitation	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where stormwater has the potential to discharge offsite	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where vehicles exit the site	<input type="checkbox"/>	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	







## REPORTING REQUIREMENTS

The permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances. The division may waive the written report required if the oral report has been received within 24 hours.

<b>All Noncompliance Requiring 24-Hour Notification per Part II.L.6 of the Permit</b>
<p><b>a. Endangerment to Health or the Environment</b>          Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit)  <i>This category would primarily result from the discharge of pollutants in violation of the permit</i></p>
<p><b>b. Numeric Effluent Limit Violations</b></p> <ul style="list-style-type: none"> <li>o Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit)</li> <li>o Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit)</li> <li>o Daily maximum violations (See Part II.L.6.d of the Permit)</li> </ul> <p><i>Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.</i></p>

Has there been an incident of noncompliance requiring 24-hour notification?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	If "YES" document below

Date and Time of Incident	Location	Description of Noncompliance	Description of Corrective Action	Date and Time of 24 Hour Oral Notification	Date of 5 Day Written Notification *

\*Attach copy of 5 day written notification to report. Indicate if written notification was waived, including the name of the division personnel who granted waiver.

After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the individual(s) designated as the Qualified Stormwater Manager, shall sign and certify the below statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

\_\_\_\_\_  
Name of Qualified Stormwater Manager

\_\_\_\_\_  
Title of Qualified Stormwater Manager

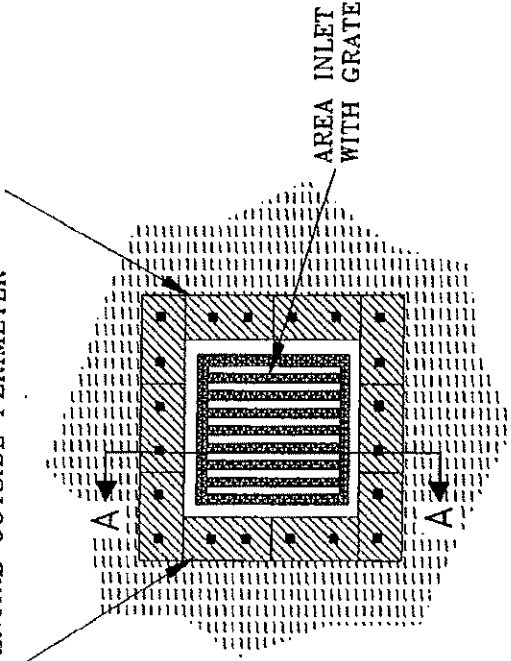
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Signature of Qualified Stormwater Manager

\_\_\_\_\_  
Date

Notes/Comments

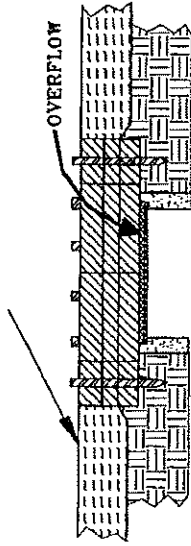
APPENDIX D  
BMP DETAILS

BALES ARE TO BE PLACED 100-MM (4-IN.) IN THE GROUND, TIGHTLY ABUTTING WITH NO GAPS, STAKED, AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER



PLAN VIEW

WHEN PROPERLY INSTALLED AND MAINTAINED, WATER WILL POND AROUND THE BALES AND MAY CAUSE LOCAL FLOODING



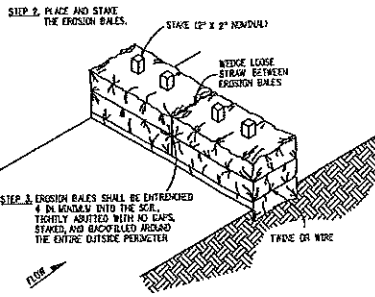
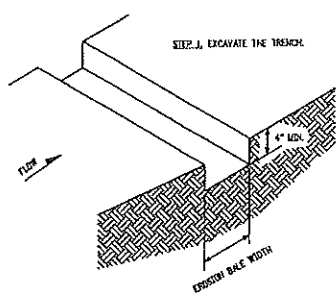
SECTION AA

1. BALES MUST BE PROPERLY INSTALLED IN SOIL AND NOT PLACED ON TOP OF CONCRETE OR PAVEMENT.
2. SINCE 1992, THE USEPA HAS NOT RECOGNIZED BALE BARRIERS AS AN APPROPRIATE STRUCTURAL METHOD TO REDUCE SEDIMENT IN RUNOFF WATERS.

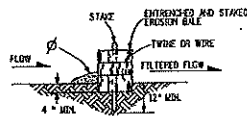
© 2001 

BALE BARRIER FOR AREA DRAINS

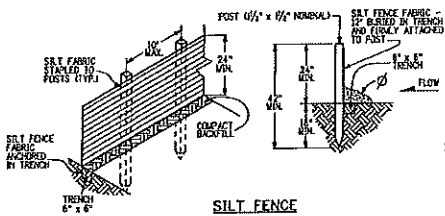
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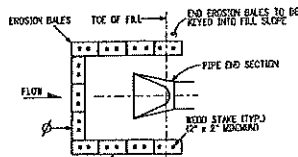
STEP 3. EROSION BALES SHALL BE ENTRENCHED 4 IN MINIMUM INTO THE SOIL, TIGHTLY ADJUSTED WITH NO GAPS, STAKED AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.



TYPICAL EROSION BALE TRENCHING AND STAKING



SILT FENCE

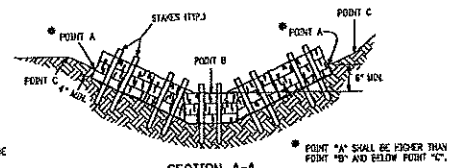
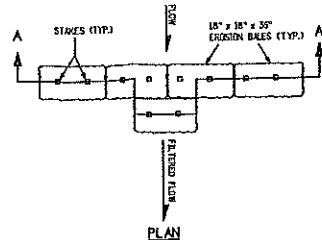


EROSION BALES SHALL BE ENTRENCHED 4 IN MINIMUM INTO THE SOIL, TIGHTLY ADJUSTED WITH NO GAPS, STAKED AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.

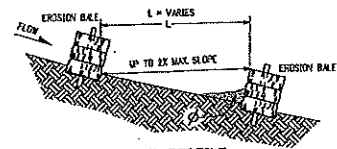
PLAN VIEW

CULVERT EROSION BALE INLET PROTECTION

REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF EROSION SILT FENCE OR BALE HEIGHT. INSPECTION SHALL BE PERFORMED CONTINUOUSLY FOR PROPER FUNCTION.



\* POINT "A" SHALL BE HIGHER THAN POINT "B" AND BELOW POINT "C".




CHANNEL PROFILE SPACING BETWEEN EROSION BALES

NOTE: EROSION BALES SHALL BE ENTRENCHED 4 IN MINIMUM INTO THE SOIL, TIGHTLY ADJUSTED WITH NO GAPS, STAKED AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.

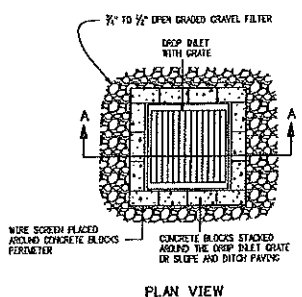
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Sheet Revisions	
Date:	Comments:

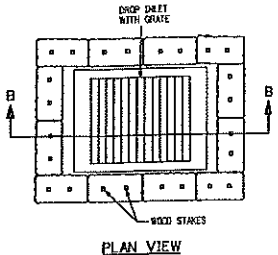
Colorado Department of Transportation  
  
 4201 East Arkansas Avenue  
 Denver, Colorado 80222  
 Phone: (303) 757-9003  
 Fax: (303) 757-8800  
 Project Development Branch SRJ/LTA

**TEMPORARY  
 EROSION CONTROL**  
 Issued By: Project Development Branch, July 04, 2008

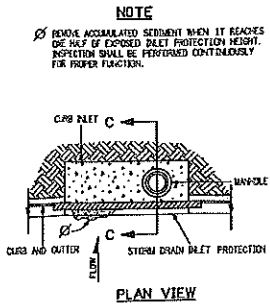
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 M-208-1  
 Sheet No. 1 of 7



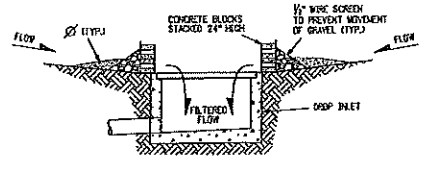
PLAN VIEW



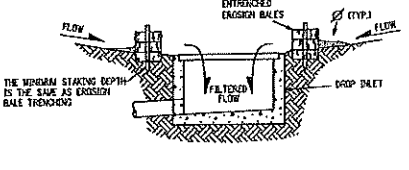
PLAN VIEW



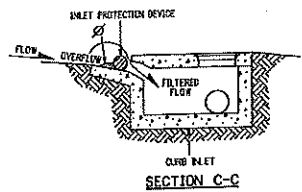
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

STORM DRAIN INLET PROTECTION (TYPE R)

**NOTE**  
 REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF EXPOSED INLET PROTECTION HEIGHT. INSPECTION SHALL BE PERFORMED CONTINUOUSLY FOR PROPER FUNCTION.

STORM DRAIN INLET PROTECTION (TYPE C OR D)

INLET EROSION BALE FILTER (TYPE C OR D)

NOTE: EROSION BALES ARE TO BE ENTRENCHED 4 IN. INTO THE SOIL, TIGHTLY ADJUTING WITH NO GAPS. STAKES AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER OF GRADE OR SLOPE AND DITCH PAVING.

- NOTES:**
1. INLET PROTECTION SHALL EXTEND 12 IN. PAST EACH END OF THE INLET AND BE 4 IN. TO 6 IN. IN DIAMETER.
  2. INLET PROTECTION MAY CONSIST OF CONTINUOUS FILTER TUBING FILLED WITH GRAVEL OR PREMANUFACTURED DEVICE.

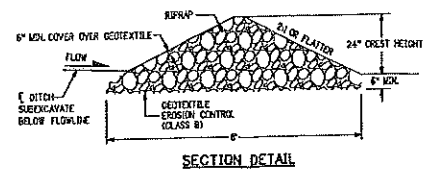
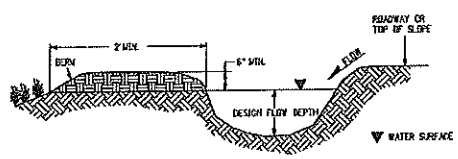
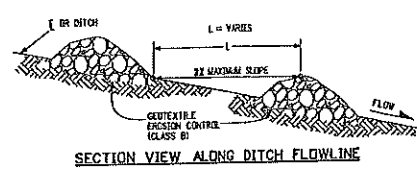
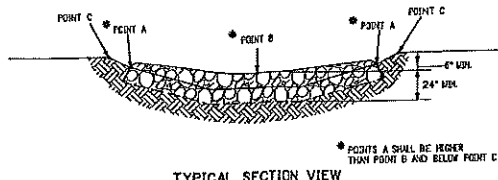
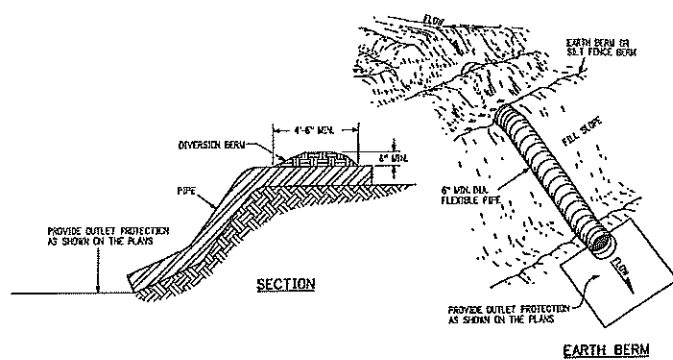
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Sheet Revisions	
Date:	Comments

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**TEMPORARY EROSION CONTROL**  
 Issued By: Project Development Branch July 04, 2006

STANDARD PLAN NO.  
 M-208-1  
 Sheet No. 3 of 7



- NOTES:
1. RIPRAP SIZE 0550 = 6 IN. OR AS SHOWN ON THE PLANS.
  2. THE EDGES OF RIPRAP CHECK DAM SHALL BE A MINIMUM OF 6 IN. HIGHER THAN CENTER OF CHECK DAM.
  3. SEDIMENT SHALL BE REMOVED WHEN THE DEPTH UPSTREAM FROM CHECK DAM IS 1/2 THE CREST HEIGHT.
  4. CHECK DAMS MAY BE TEMPORARY OR PERMANENT AS SHOWN ON THE PLANS.

Computer File Information	
Creation Date: 07/04/06	In/Iss: S/R
Last Modification Date: 07/04/06	In/Iss: LTA
File Path: www.dcl.state.co.us/Dev/ps/Support/V	
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	Unit: English

Sheet Revisions	
Date:	Comments:

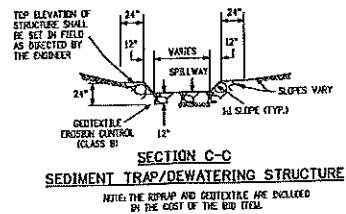
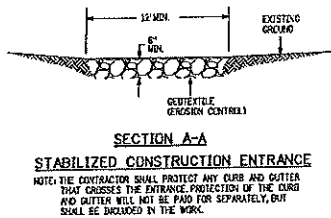
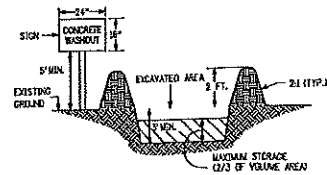
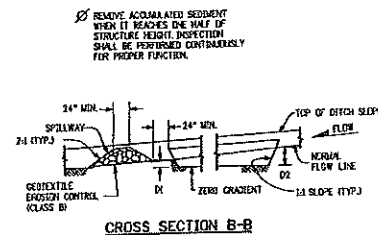
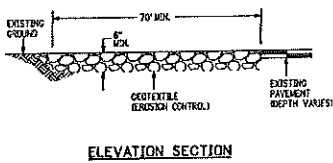
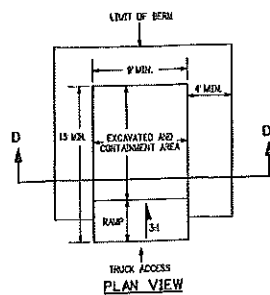
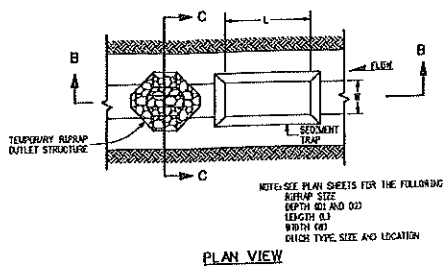
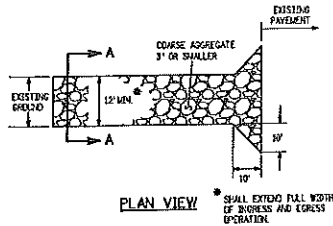
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**TEMPORARY EROSION CONTROL**

Issued By: Project Development Branch July 04, 2006

STANDARD PLAN NO.  
 M-208-1  
 Sheet No. 4 of 7



- NOTES:**
1. SIGN MATERIAL, EXCAVATION AND RESTORATION ARE INCLUDED IN THE COST OF THE CONCRETE WASHOUT STRUCTURE.
  2. EROSION BATES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

Computer File Information	
Creation Date: 07/04/06	Initiator: SJR
Last Modification Date: 07/04/06	Initiator: LTA
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	Units: English

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Date:	Comments:

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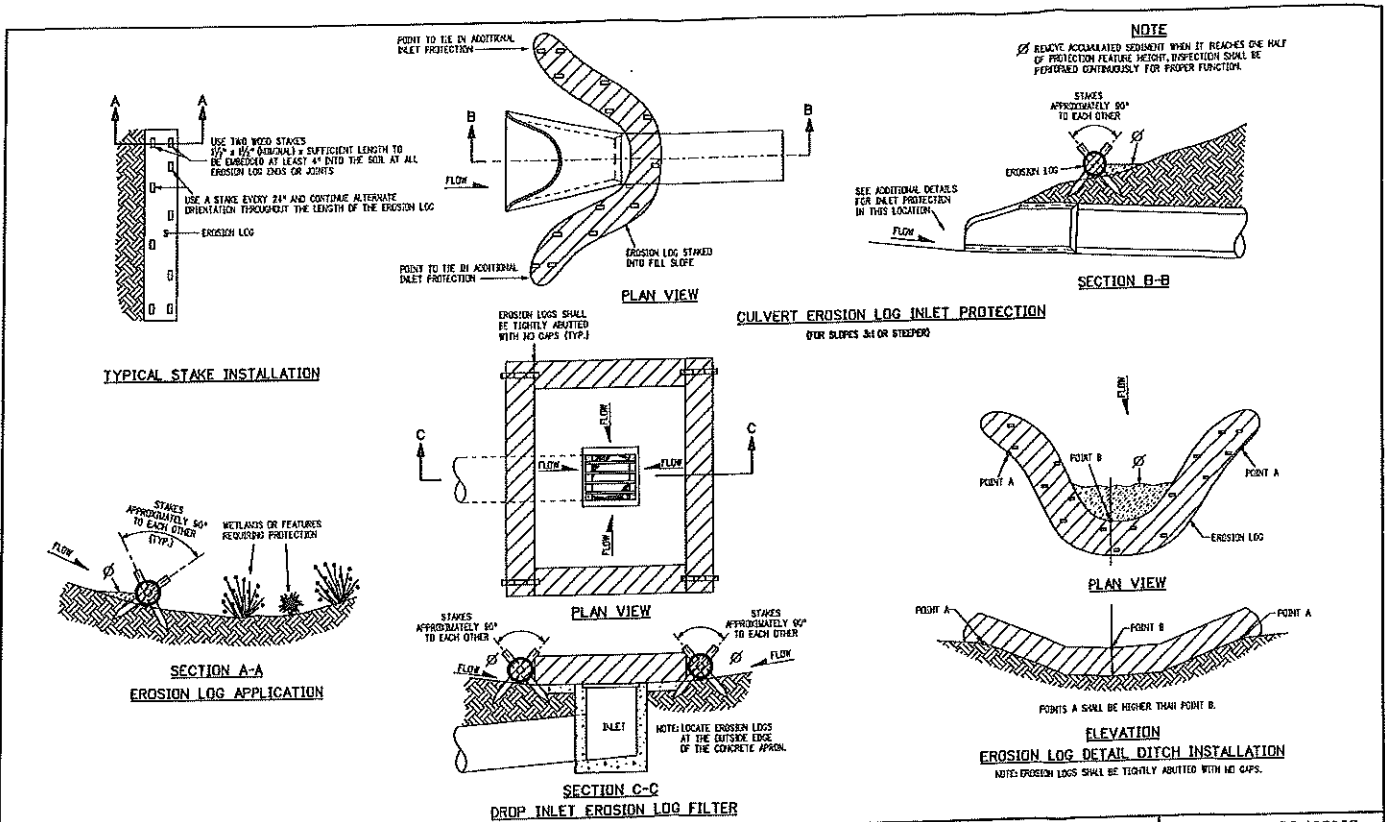
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**TEMPORARY EROSION CONTROL**

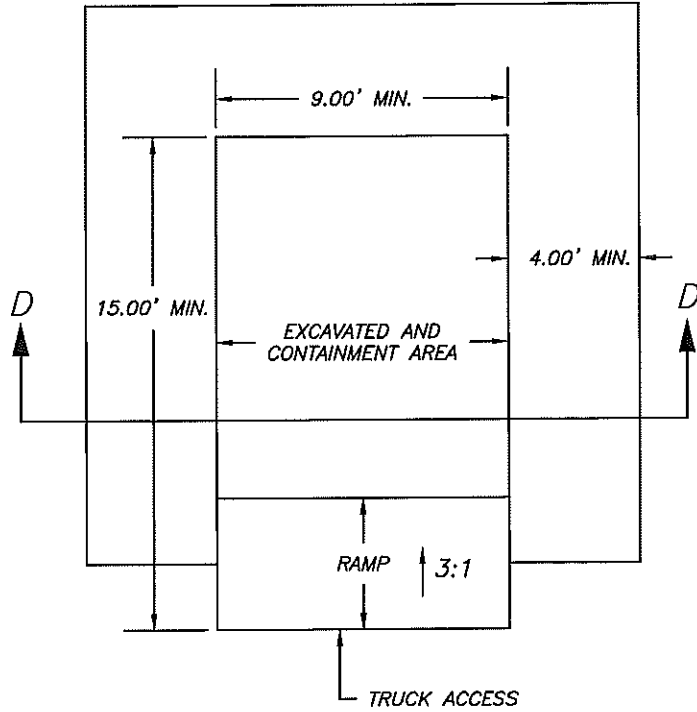
Issued By: Project Development Branch, July 04, 2006

**STANDARD PLAN NO.**  
 M-208-1  
 Sheet No. 5 of 7

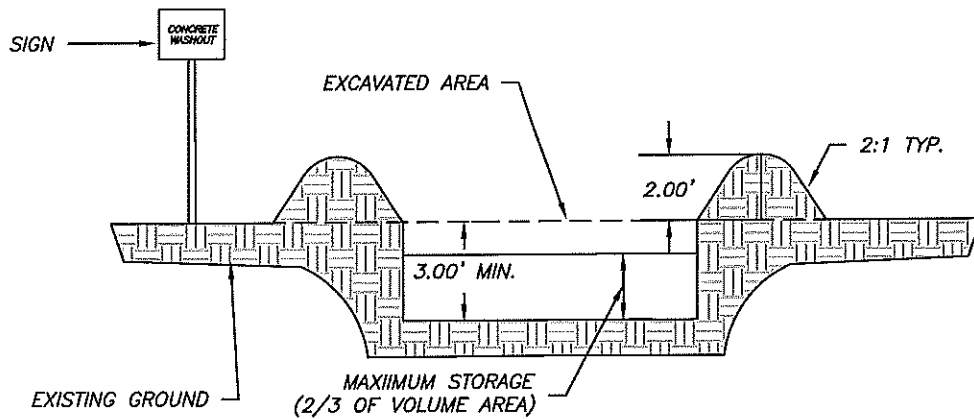




<b>Computer File Information</b>		<b>Sheet Revisions</b>		Colorado Department of Transportation 4201 East Arkansas Avenue Denver, Colorado 80222 Phone: (303) 759-8053 Fax: (303) 757-9920	<b>TEMPORARY</b> <b>EROSION CONTROL</b> Issued By: Project Development Branch, July 04, 2006	<b>STANDARD PLAN NO.</b> M-208-1 Sheet No. 7 of 7
Creation Date: 07/04/06 Last Modification Date: 07/04/06 Full Path: www.dot.state.co.us/dmisp/SuperV/ Drawing File Name: 208010707.dgn CAD Ver: MicroStation V8 Scale: Not to Scale Units: English	Database: SUR Designer: LTA (R)	(R)	(R)			



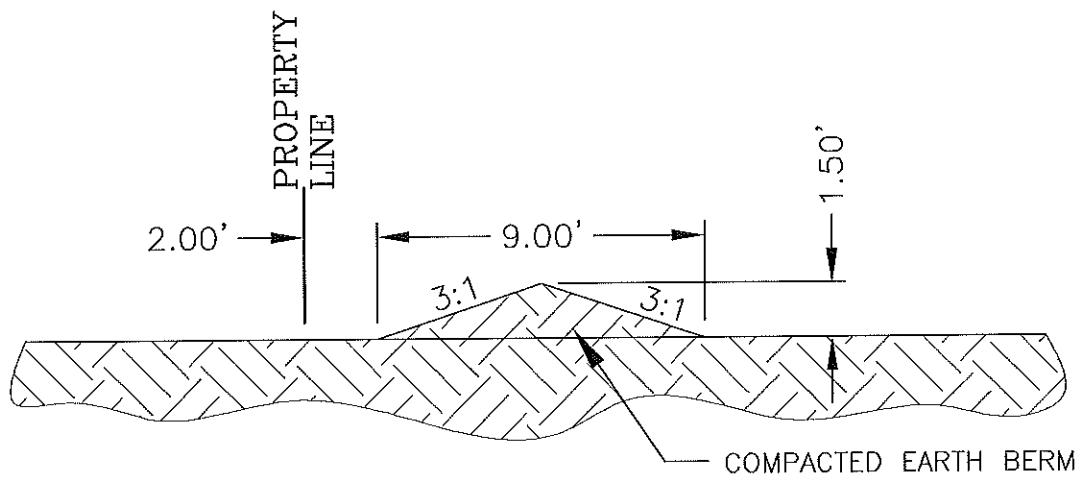
PLAN VIEW



SECTION D-D

CONCRETE WASHOUT STRUCTURE

NOTE:  
1. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.



TYPICAL EROSION CONTROL BERM SECTION

NTS

# BEST MANAGEMENT PRACTICES FOR CONTRACTORS AND INSPECTORS

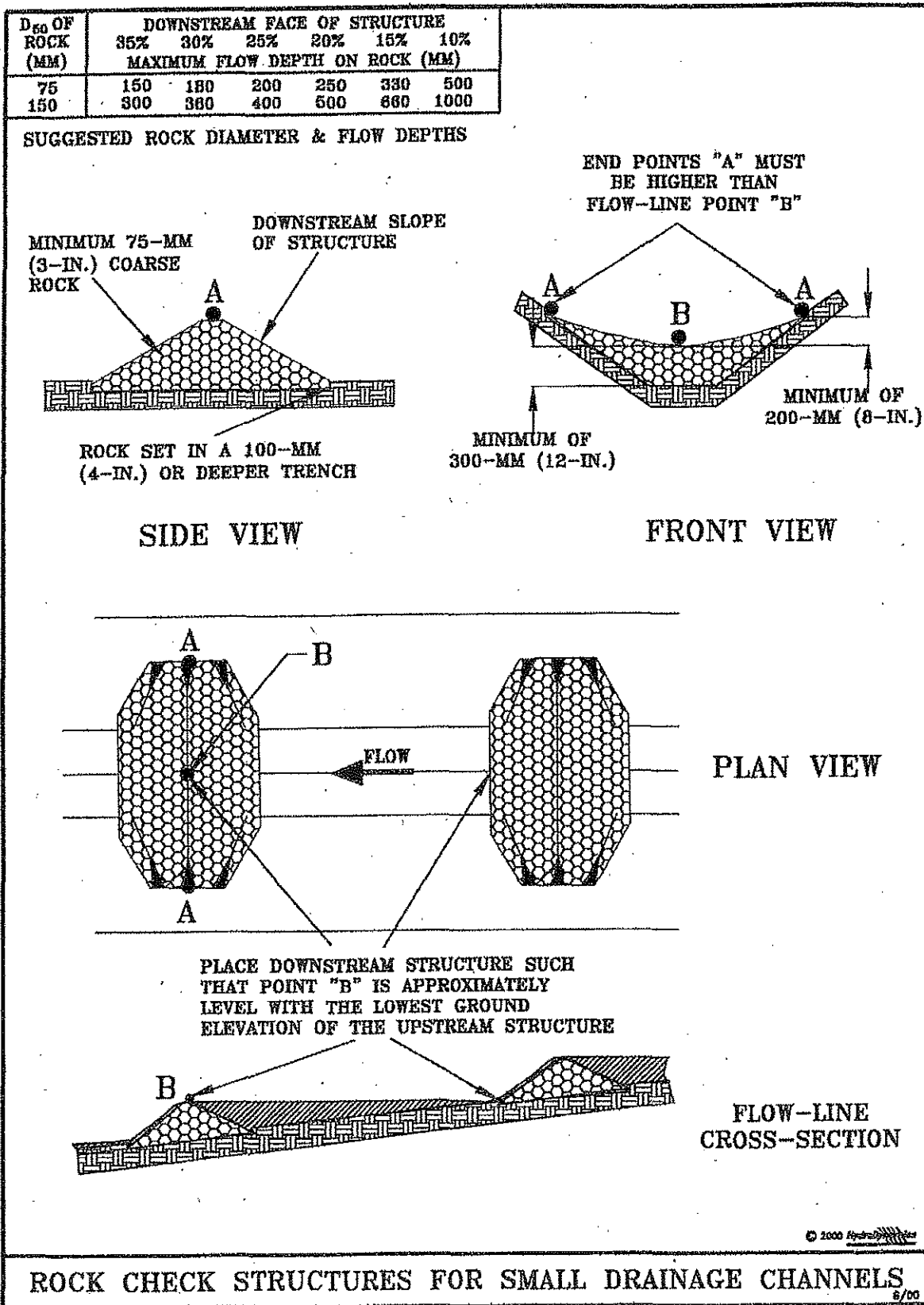


Figure 31. Rock Check Structures for Small Drainage Channels

## Description

A rock sock is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock socks are typically used either as a perimeter control or as part of inlet protection. When placed at angles in the curb line, rock socks are typically referred to as curb socks. Rock socks are intended to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities.



**Photograph RS-1.** Rock socks placed at regular intervals in a curb line can help reduce sediment loading to storm sewer inlets. Rock socks can also be used as perimeter controls.

## Appropriate Uses

Rock socks can be used at the perimeter of a disturbed area to control localized sediment loading. A benefit of rock socks as opposed to other perimeter controls is that they do not have to be trenched or staked into the ground; therefore, they are often used on roadway construction projects where paved surfaces are present.

Use rock socks in inlet protection applications when the construction of a roadway is substantially complete and the roadway has been directly connected to a receiving storm system.

## Design and Installation

When rock socks are used as perimeter controls, the maximum recommended tributary drainage area per 100 lineal feet of rock socks is approximately 0.25 acres with disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. A rock sock design detail and notes are provided in Detail RS-1. Also see the Inlet Protection Fact Sheet for design and installation guidance when rock socks are used for inlet protection and in the curb line.

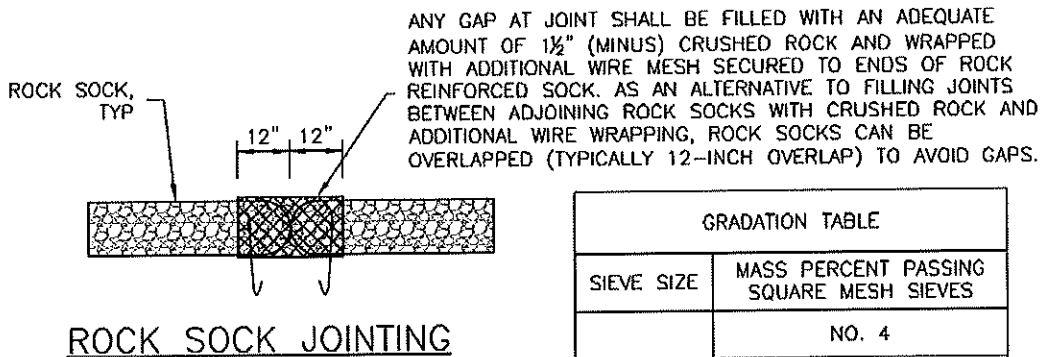
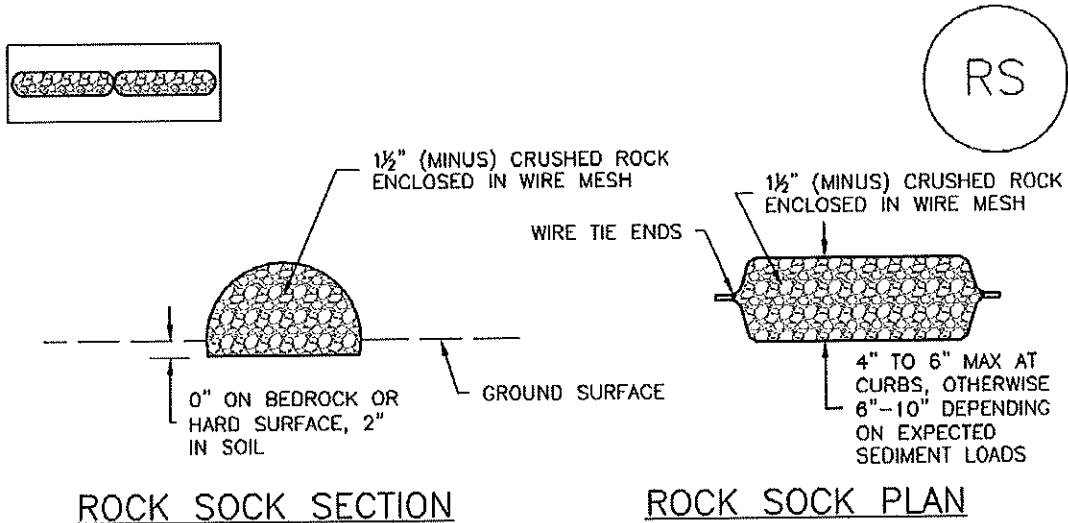
When placed in the gutter adjacent to a curb, rock socks should protrude no more than two feet from the curb in order for traffic to pass safely. If located in a high traffic area, place construction markers to alert drivers and street maintenance workers of their presence.

## Maintenance and Removal

Rock socks are susceptible to displacement and breaking due to vehicle traffic. Inspect rock socks for damage and repair or replace as necessary. Remove sediment by sweeping or vacuuming as needed to maintain the functionality of the BMP, typically when sediment has accumulated behind the rock sock to one-half of the sock's height.

Once upstream stabilization is complete, rock socks and accumulated sediment should be removed and properly disposed.

Rock Sock	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No



GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0 - 15
3/8"	0 - 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

- SEE PLAN VIEW FOR:  
-LOCATION(S) OF ROCK SOCKS.
- CRUSHED ROCK SHALL BE 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1 1/2" MINUS).
- WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/2", RECOMMENDED MINIMUM ROLL WIDTH OF 48"
- WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
- SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS-1. ROCK SOCK PERIMETER CONTROL

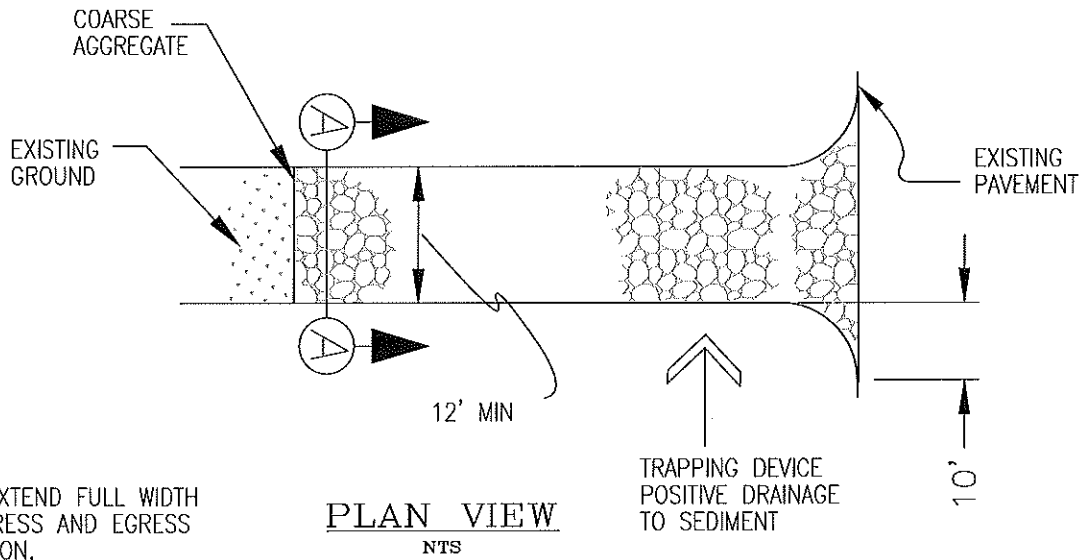
## ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, 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 BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY  $\frac{1}{2}$  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, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

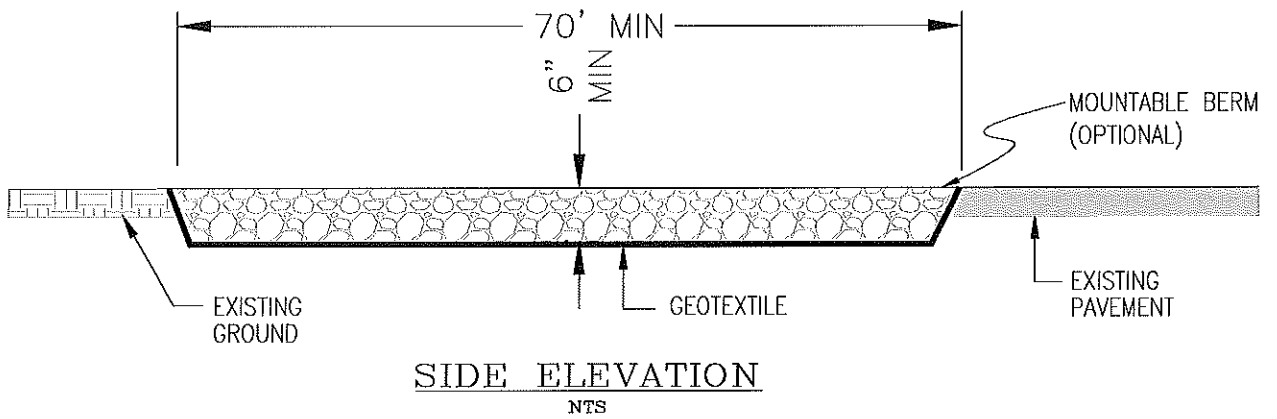
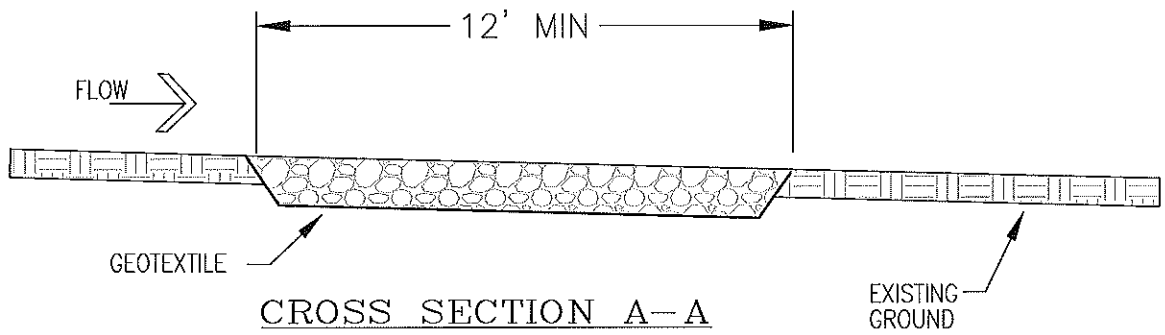
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES 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.



\* MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION.



VEHICLE TRACKING PAD  
NTS