

448 E. 1st Street, Room 190 Salida, Colorado 81201 February 08, 2022 - 6:00 PM

#### **AGENDA**

Email public comments to: <a href="mailto:publiccomment@cityofsalida.com">publiccomment@cityofsalida.com</a>

Please register for the Planning Commission meeting: https://attendee.gotowebinar.com/rt/1909092342220683277

#### CALL TO ORDER BY CHAIRMAN - 6:00 PM

**ROLL CALL** 

**UNSCHEDULED CITIZENS** 

AMENDMENT(S) TO AGENDA

#### **PUBLIC HEARINGS**

Public Hearings will follow the following procedure:

A. Open Public Hearing E. Public Input

B. Proof of Publication
C. Staff Review of Application/Proposal
F. Close Public Hearing
G. Commission Discussion

D. Applicant's Presentation (if applicable) H. Commission Decision or Recommendation

### 1. Salida Bottling Company Planned Development and Major Subdivision (Continued from the January 24, 2022 meeting) -

The applicant (Salida Bottling Company, LLC) is requesting two actions related to a 0.60 ac. (26,112 SF) parcel at 323 West First Street, at the west corner of Hwy 291 and the Monarch Spur Trail. The property is split zoned, Commercial (C-1) and Industrial (I). The entire site is located within the Hwy 291 Established Residential Overlay. The requests are:

- A. Major Impact Review to approve a Planned Development Overlay .
- B. A Major Impact Review to approve a Major Subdivision to split the 0.6 acre parcel into 16 townhome lots and 1 out-lot.

**NEW BUSINESS** 

**COMMISSIONERS' COMMENTS** 

**ADJOURN** 



#### PLANNING COMMISSION STAFF REPORT

**MEETING DATE:** February 8, 2022

**AGENDA ITEM TITLE:** 1. A. Residences at Salida Bottling Company Planned Development; and

1. B. Residences at Salida Bottling Company Major Subdivision

**AGENDA SECTION:** Public Hearings

#### **REQUEST / BACKGROUND:**

This request has been continued from the January 24<sup>th</sup> Planning Commission meeting. All text that has been added or changed since the January 24<sup>th</sup> report is highlighted in blue. The applicant (Salida Bottling Company, LLC) is requesting a Major Impact Review for two actions related to a 0.60 ac. (26,112 SF) parcel at 323 West First Street, at the west corner of Hwy 291 and the Monarch Spur Trail (see subject property outlined below). The property is described as "Part of Lots 4 & 5, All of Lots 6-9, Block 19" and is split zoned, with the majority (76%) zoned Commercial (C-1) and the portion along the Spur Trail/abandoned D&RG right-of-way (24%) zoned Industrial (I). The entire site is located within the Hwy 291 Established Residential Overlay. The requests are:

#### A. A Planned Development request for:

- increased density
- increased building height
- additional modification to how building height is measured
- increased number of building stories (over that allowed in the Overlay zone)
- decreased front setback
- modified Schedule of Uses
- decreased required parking for the proposed future commercial condominium (deviation only necessary for an eating or drinking establishment tenant)
- deviation from requirement to provide municipal water and sewer facilities within the PD
- deviation from requirement to pave the alley

The applicant is also requesting to create for-sale townhome lots (i.e. units with shared common walls where the owner owns the building and land underneath) plus an HOA outlot for the common area and private drive, resulting in deviation requests that apply specifically to the individual lots:

- lot frontage off of a private drive instead of public street
- decreased minimum lot size
- decreased minimum lot frontage
- increased lot coverage for structures

- decreased minimum landscape area
- decreased setbacks
- increased maximum lot coverage for uncovered parking/access on the HOA outlot

B. A Major Subdivision request to split the 0.6 acre parcel into 16 townhome lots and 1 outlot, with the intention of 1 townhome lot to be split in the future into 1 residential condominium and 1 commercial condominium. This will result in a total of 16 residential units, 1 commercial unit, and an HOA owned and managed outlot for the common areas and shared private access drive, landscaping, pedestrian access, some of the parking, and a blanket private drainage and utility easement.

#### A. PROPOSED PLANNED DEVELOPMENT

A Planned Development is an overlay which allows flexibility in the underlying zoning district standards to "...permit the application of more innovative site planning and design concepts than may be possible under the application of standard zone districts."

The applicant is requesting Planned Development approval to a clustered, townhome development containing 16 residential units and a commercial unit on a 0.6 acre parcel. The applicant states, "sited adjacent to downtown, the plan's design emphasizes the pedestrian experience through walkable connections and an emphasis on the public realm."





View of site from 1st Street.

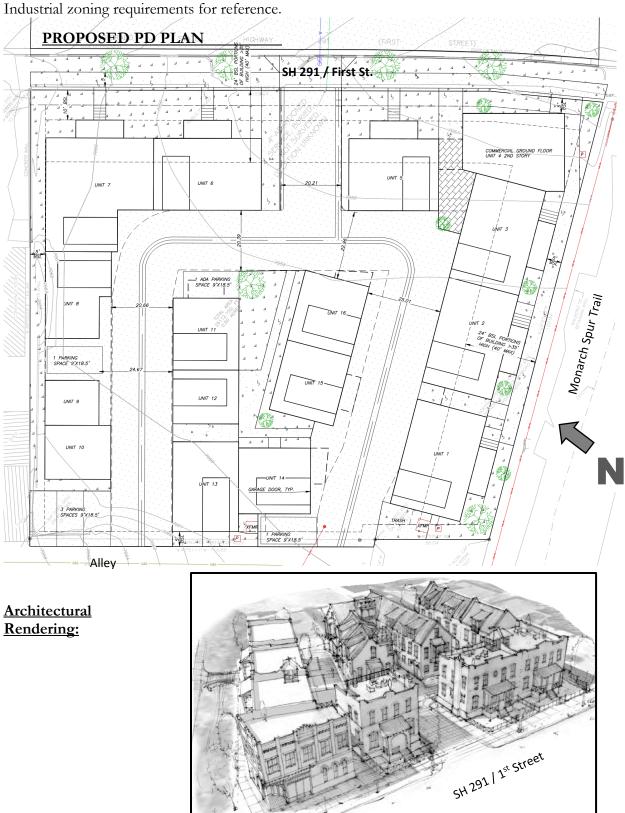
The lot is currently undeveloped. The applicant proposes that allowing the requested deviations to create 16 residential townhomes plus a commercial unit along 1<sup>st</sup> Street will create a transition between downtown and the surrounding residential area, and maximizes the use of existing infrastructure at the City center.

The 0.6 acre lot has 191 feet of frontage along State Highway 291. Under the Land Use Code standards, up to 10 units could be allowed given maximum density requirements and would require a public hearing for a limited impact review. The request for 16 units is a 60% increase in density.

A commercial component is proposed to be included in the development; Unit 4 at the corner of Hwy 291 and the Spur Trail is planned to be condominiumized into one ground-floor commercial unit and one second-level residential unit. This is the only planned commercial unit at this time, however the planned development does not restrict additional commercial uses on the site as long as they are allowed per the PD schedule of uses and can meet the parking requirements. Frontage onto a private access drive rather than a public street is necessary to achieve the clustered townhome plan. Four of the units will have public street frontage while the remaining 12 would have frontage off of the internal private drive.

Section 16-7-40 PD Development Plan Evaluation Criteria, (5) Residential Density, specifically states "...clustering is also intended to accommodate contemporary building types which are not spaced individually on their own lots but share common side walls...whether or not providing for separate

ownership of land and buildings." This proposal is for clustered buildings with shared common walls, and will be platted for individual townhome ownership. To achieve the desired architectural character, the requested density, and to create zero-lot line townhome lots, a number of deviations are requested. These are detailed in the Planned Development Standards section of the report. For clarity, this report discusses deviation requests based on the C-1 zone only. The Dimensional Standards tables still contain the Industrial zoning requirements for reference



Public Hearing Agenda Items 1. A. & 1. B.,, Pg. 3

#### THE CITY OF SALIDA COMPREHENSIVE PLAN:

Generally, zoning should be consistent with the community's comprehensive plan. The following policies and actions are most applicable to the proposal:

#### LAND USE & GROWTH:



Policy LU&G-I. 1: New development in the city shall make the most appropriate use of the land using design standards that enhance and complement the historic built environment of the city.

The proposed architectural design (previous page) is complementary to the historic architecture of the Salida Bottling Works, formerly located on this site.

Policy LU&G-I.2: Infill and redevelopment should be encouraged and will advance the objectives of this plan.

323 West 1st Street is a vacant lot surrounded by existing development and infrastructure.

Action LU&G-I.2a: Encourage projects to use maximum density allowances to make the best use of the available infrastructure.

The proposed project is requesting changes to the underlying dimensional standards in order to increase the residential density allowed on the site—16 units instead of the 9 townhomes or 10 multi-family units that would be allowed without a planned development.

#### **HOUSING:**

**Policy H-I.2**: The character of existing neighborhoods should be protected.

This is a transitional area between historic downtown, industrial, Highway 291 Commercial, and residential uses. The character of the development is in line with the character of the existing neighborhood by providing historically relevant and complementary architecture, enhancing the streetscape and pedestrian experience of the area, and providing a commercial space along with residential density appropriate to its location adjacent to downtown.

Action H-1.2.a: Design and construction standards should be reviewed so that infill development in existing neighborhoods is compatible with the valued character features.

The applicant is not requesting any deviations from design and construction standards. The City of Salida does not have architectural design standards that apply to this location, however the proposed architecture is intended to complement the existing, historic downtown in its building form, materials, and details. The siting of the building frontages as well as the architecture are meant to relate to the Salida Bottling Works building that was formerly on this site.

Action H-II.3.d: When affordable housing units are provided, ensure the city has a mechanism or partner organization to keep track of and enforce the deed restrictions or land ownership arrangements to ensure the housing remains attainable in the long-term for low and moderate income residents.

The Chaffee Housing Authority was recently formed to work with developers and help pair them with eligible individuals and families and to administer deed-restrictions on units. The CHA is still in the process of creating administrative guidelines and preparing the organization to handle such arrangements.

If the affordable units are constructed prior to the CHA being fully-operational, the City (or another organization) will be able to work with the developer on these requirements before such responsibilities are transferred to the CHA.

#### PLANNED DEVELOPMENT EVALUATION CRITERIA:

Section 16-7-40 (b) of the City of Salida Land Use and Development Code states "the PD Development Plan shall meet the following criteria...unless the applicant can demonstrate that one or more of them is not applicable or that another practical solution has been otherwise achieved." The applicant's requests and staff's comments are listed below.

With an underlying zoning of C-1, several of the deviations requested are logistical in nature, in order to accommodate clustered, for-sale townhomes. Therefore the deviations have been separated into 2 categories: those requested as part of the overall development of the lot (think of these as deviations that would be necessary even if the lot were not subdivided into individual townhome lots), and the deviations that are requested in order to accommodate subdividing the buildings into separate townhome lots.

1. <u>Minimum dimensional standards</u>: As discussed earlier, the Code encourages Planned Developments to accommodate clustered, shared common wall building types. Staff supports the increased density to accommodate the urban, clustered housing development style. The dimensional standards of C-1, the underlying zone, were not designed to accommodate this development type, so it leads to several deviation requests listed in the "PD/Townhome Lots" column below. The request to decrease the front setback of Unit 4, the corner unit which will have ground for commercial and second floor residential, will enhance the urban, pedestrian-oriented nature of that corner and more closely match the setback of the buildings across 1<sup>st</sup> Street.

The Hwy 291 Established Residential Overlay provides additional criteria regarding front setback. The Overlay recommends that front setbacks should be within 5 feet of historic setbacks along Hwy 291. The proposed setback deviation for Unit 4 allows a closer match to the setbacks of the historic buildings across Hwy 291.

Below are the details of the applicant's request; deviations that reduce minimums or increase maximums are highlighted. (Note: the deviations to the height standards are addressed under paragraph 8. Maximum Height).

Dimensional Standards	C-1	I	PD/Site as whole	PD/ Individual Lots	Notes
Min. lot size (sq. ft.)	5,625 5,063 3,750	5,625	N/A	350	
Density (Min. lot sq. footage per principal dwelling unit)	2,800 2,450	2,800	1,632	N/A	
Min lot size (sq. ft.)— attached units	2,800 2,520	2,800	N/A	350	
Min. lot frontage	37'-6" 25'	37'-6"	N/A	16'	Townhome lot frontage is measured on 1 <sup>st</sup> Street or interior access easement

Dimensional Standards	C-1	I	PD/Site as whole	PD/ Individual Lots	Notes
Min. lot frontage—attached units	20'	20'	N/A	16'	28' is narrowest residential building footprint facing 1st Street.
Max. lot coverage: structures (additive coverage for structures + uncovered parking cannot exceed 90% except C-2)	60% 66%	60%	66%	100%	This does include covered balconies. Additive coverage for structures and uncovered parking/access for the entire site will not exceed 90%
Max. lot coverage: uncovered prkg/access (additive coverage cannot exceed 90% except in C-2)	60%	30%	60%	80%	80% is for the HOA lot which is mainly vehicle access, with some landscaping.
Min. landscape area	10%	10%	10%	0%	
Min. setback from side lot line for a primary bldg.	5'	5'	5'	0,	
Min. setback side lot line for detached accessory bldg.	3', 5', or 10'	3', 5', or 10'	N/A	N/A	No accessory buildings allowed.
Min. setback from rear lot line: principal bldg.	5' <sup>2</sup>	5' <sup>2</sup>	5'	0,	
Min. setback from rear lot line: accessory bldg.	5'	5'	N/A	N/A	No accessory buildings allowed.
Min. setback from front lot line	10'	10'	5'	0'	Unit 4 building only at 5'. All other buildings along 1st Street have 10' porch front setback and 15' building front setback to 1st Street.

- 2. <u>Trails</u>: A sidewalk will be provided along Hwy 291. No other trails or sidewalks are required. The site is adjacent to the Monarch Spur Trail with sidewalk.
- 3. Ownership and Maintenance: The development will have a homeowner's association to maintain the outlot, which includes the private drive, pedestrian walkways, a common area, and some parking spaces. Staff notes that HOA assessments have the potential of putting a disproportionate burden upon owners of deed-restricted affordable units within such HOAs, sometimes leading to their inability to afford mortgage payments. In order to ensure the long-term viability of deed-restricted units within the HOA, the applicant has included the following note to the Planned Development document: Occupants of any deed-restricted units shall not be responsible for any assessments nor dues beyond those fairly-priced specifically for utilities, trash services, and the like.
- 4. <u>Water and Sewer</u>: Section 16-7-40 (b) (4) of the Land Use Code states: "The developer shall provide municipal water and sewer facilities within the PD as required by the City." The applicant is requesting a deviation from this requirement in order to provide private water and sewer lines beyond the connection within Hwy 291:

Standard:	Request per the PD
Lots must have direct access onto a public street, which typically reserves 32 feet for public utilities.	To provide private water and sewer facilities within the PD in a utility easement as narrow as 20 feet in locations.
Developer shall provide municipal water and sewer facilities within the PD.	To provide multiple individual private water lines in a common trench with a minimum offset of 4 feet from building foundations and no offset, or in locations underneath, overhanging balconies.

The deviation request to provide private water and sewer services rather than the required municipal water and sewer facilities has implications that affect the health, safety, and welfare of the future residents of this development. In lieu of a public street containing public utilities, the applicant is proposing a minimum 20 foot access and utility easement to accommodate private water and sewer service, as well as gas or electric (these services alternate use of the easement). See the Utility Plan on Page 10 of the Civil Drawings for details. Water service for those units not fronting First Street is proposed in a common trench containing individual water lines for each unit, up to 12 lines. Section 16-8-50, Undergounding of Utilities, (c) requires that utility easements within a public right-of-way be at least 20 feet, and that widths of utility easements on private property shall be determined by the utility provider. The Building Department regulates the separation requirements for private water and sewer lines and has provided those requirements to the applicant. JVA Consulting has reviewed the applicant's plans and determined they are in compliance with the separation requirements.

In order to waive the requirement for direct access onto a public street and the requirement for municipal water and sewer facilities, staff recommends ensuring that the private wet utilities being requested by the applicant can be reasonably serviced and replaced in a timely manner as necessary in the future. Staff has analyzed what the minimum requirement to do so would be, and has determined that a utility easement must extend a minimum of 5 feet from the edge of a wet utility line to allow for timely and reasonably appropriate equipment access, and that no structures, foundations, or architectural features may be located within a utility easement.

Upon receiving comments from the Chaffee County Building Official (detailed in the referral comments section), staff is modifying the previous recommendation that stated eaves would be allowed to encroach in utility easements if they were a minimum of 20 feet above grade and 20 inches in depth. The Building Official has stated that this should not be allowed and will cause building code compliance issues. Therefore, staff is recommending to remove that previously proposed exception and that no architectural encroachments shall be allowed in utility easements. All architectural features will need to be incorporated into the individual lots without exception. This may result in slight adjustments to the proposed townhome lot lines while still complying with all other requirements of the PD. The applicant may decide to modify the roofs of affected buildings to flat roofs with parapets, which are already proposed on units 1-7. Staff has incorporated slight modifications to building height and architectural conditions that would be affected by this option. Please reference conditions #4.d. and #10.

On the latest submittal, a blanket private drainage and utility easement has been provided over the outlot at the recommendation of staff and consultants. This blanket easement should be preserved, but to meet the requirement that architectural features shall not be allowed in utility easements, the outlot/blanket easement should be modified so that the balconies are no longer within the outlot, and rather become encapsulated within the individual lot lines. The balconies had already been adjusted to be outside of the required public utility and access easement, therefore incorporating the balconies into the lots will not have affect the public utility and access easement.

The above changes will require a change to the proposed Plat Note 6. The following are the recommended conditions:

- Building permits are required and the plan shall meet Building Department requirements.
- An Operations and Maintenance manual shall be subject to review by the City and recorded with the Plat.
- Plat Note 6 shall be modified to the following:
  - Architectural elements shall not encroach into utility easements and shall not extend off of the individual townhome lot.
- 5. Residential Density: The allowable density for this lot, based on C-1 zoning and lot size, is 10 units based on lot size and would require a public hearing for a limited impact review. The PD Development Plan requests density for 16 townhome units located around a private drive. Each unit has designated parking and ample access to light and air. Unit 4 is planned to be further subdivided into a residential condominium on the 2<sup>nd</sup> floor and a commercial condominium on the ground floor. A small common open space area is proposed in the center. The proposed density is appropriate for the lot size and location, and provides a better utilization of vacant land surrounded by existing infrastructure close to downtown.
- 6. <u>Relationship to the Subdivision Regulations</u>: The provisions of these regulations concerning a Planned Development will not eliminate or replace the requirements applicable to the subdivision of land or air space, as defined in state statures and the ordinances and regulations of the City.
- 7. <u>Improvement Standards</u>: The deviations requested specifically from the Design Standards of Article VIII of the Land Use and Development Code are as follows:

<u>Sec 16-8-20 – Road, driveway and sidewalk standards.</u> (a) Access to Roads. All lots and developments shall have direct access to a public street: See item 4. Water and Sewer above regarding deviation from this requirement and its effect on the utilities. As for the effect on vehicular access, the townhome lots in this proposed development will have access to a public street via an HOA owned and maintained private access easement, which will provide a single access to Hwy 291, and two access points to a public alley.

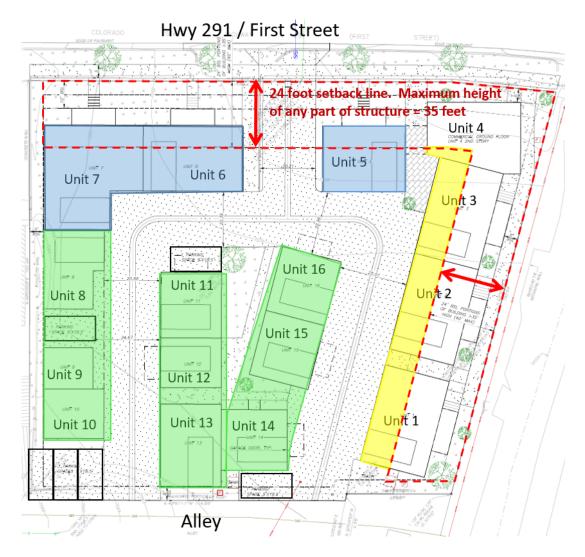
Sec 16-8-80 – Off-street parking standards: The required amount of parking will be provided for all 16 residential units and the commercial unit. Three parking spaces will be dedicated to the Unit 4 commercial condo, planned to be 700-725 sf. For the uses allowed, 3 parking spaces meets the requirement for office (1/400sf) and retail sales (1/250sf), and is one short of the requirement for an eating and drinking establishment (1/200sf). The applicant is requesting a deviation should an eating or drinking establishment tenant be located in that space. Staff supports this request. There is street parking along Hwy 291 adjacent to the commercial space and this is a pedestrian-friendly location adjacent to the Spur Trail. Any future residential business uses or commercial uses allowed on site must go through Administrative Review to determine if parking requirements can be met; this is a deviation that is stricter than the underlying zone district, C-1.

The applicant's request per the PD Development Plan:

Standard:	C-1	ı	PD/Site as whole	PD/ Individual Lots	Notes
Parking spaces, min.	19 or 20	19 or 20	19	1/3	1 per residential unit meets code for inclusionary housing development with site analyzed as a whole. 3 spaces for 700 square foot commercial.

All other improvements shall meet design standards required in Article VIII.

8. Maximum Height: The applicant is requesting a deviation from the maximum building height of 35 feet in C-1 to allow some of the structures to be a maximum of 40 feet. The applicant is also requesting a deviation to the maximum number of stories allowed in the Hwy 291 Existing Residential Overlay District, which is limited to 2 stories. However the limitation to 2 stories does not explicitly restrict the allowed building height to anything less than 35 feet. The request is to allow 3 stories for the green and blue buildings, plus rooftop access structures in certain locations.



The Overlay District states: "New infill development shall be similar to the size and scale of buildings adjacent to the development. The design of buildings shall look appropriate to and compatible with their surroundings and shall not exceed 2 stories." The size of the building footprints is compatible with surrounding buildings. The design of the buildings, as previously noted, is intended to be complementary to Salida's nearby historic buildings, including buildings formerly on this site.

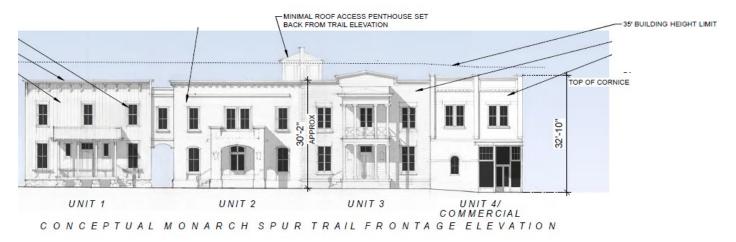
The applicant has proposed a minimum 24 foot setback along Hwy 291 and the Monarch Spur Trail for any part of a building that exceeds 35 feet in height. This is shown by the <u>red dashed line</u> below. Staff recommends the following condition of approval:

➤ On Units 1-7, no portion of the building nor architectural appurtenances can exceed 35 feet in height within 24 feet of the property line along Hwy 291 or the Monarch Spur Trail.

<u>Units 1-4</u> (illustrated below and in yellow on the site plan). Units 1-4 are proposed at the allowed 2 stories for the majority of the structures. A deviation is requested for the portions of Units 1-4 shown in yellow on page 8, in which the applicant is requesting the ability to locate a rooftop access structure, limited to 100 sf per unit, with a maximum height of 40 feet to the highest point of the structure.

Staff recommends that the request be limited to the minimum necessary to allow rooftop access and only where it will not potentially obstruct prominent view corridors from downtown. Therefore staff recommends that rooftop access on Units 2 & 3 be allowed only as one combined structure at a total of 100 sf for the two units, and recommends that no rooftop access structure be allowed on Unit 4 due to the higher visibility of that location from downtown and the potential obstruction of prominent viewsheds. Unit 1 would be limited to a single, 100 sf maximum, rooftop access structure. The recommended condition of approval is:

➤ Units 1-3 are allowed a rooftop access structure that cannot exceed 40 feet in height at its highest point. It may be up to 100 square feet on Unit 1. Units 2 & 3 are allowed a shared rooftop access structure up to 150 square feet (in total, not per unit). Shared structure can be greater than 150 square feet only if required by the Building Official, and shall be limited to the minimum required square footage. No rooftop access structure is allowed on Unit 4; this does not prohibit access to the roof.

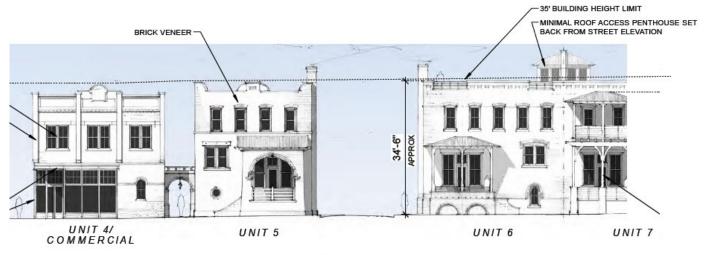


<u>Units 5-7</u> (illustrated below and in blue on the site plan). The applicant is requesting a deviation to allow Units 5-7 to be 3 story buildings. The proposed maximum height of the 3 stories is 35 feet, which does not require a deviation. However, a deviation is requested to allow a rooftop access structure, limited to 100 sf per unit, to be a maximum of 40 feet at its highest point. Additionally, the applicant has requested an allowance for chimneys up to 40 feet.

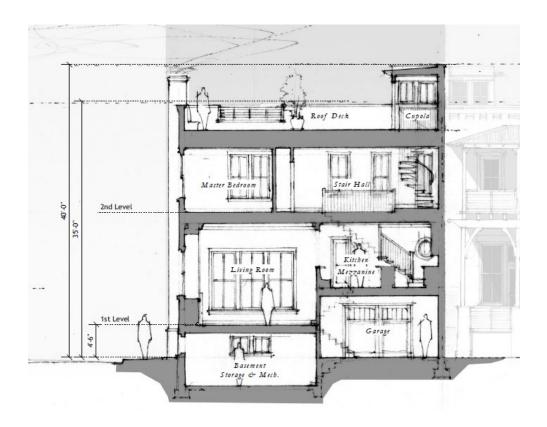
The request for 3 stories along 1<sup>st</sup> Street will allow for the accommodation of the proposed historically relevant architectural design that is unique for new construction. It is a design that, when viewing from 1<sup>st</sup> & F Street, reads as an extension of the historic downtown. The primary structure will be a maximum of 35 feet in height, which is allowed in the Overlay District. Therefore staff supports the request for 3 stories. Staff recommends that the rooftop access request be limited to the minimum necessary and only where it will not potentially obstruct prominent view corridors from downtown. For this reason, staff recommends that no rooftop access structure be allowed on Unit 5 and that rooftop access on Units 6 & 7 be allowed only as one combined structure at a total of 100 sf. The recommended condition of approval is:

Units 5-7 can be a maximum of 3 stories and 35 feet in height with the exception of chimneys and a rooftop access structure on Units 6 & 7. Units 6 & 7 are allowed a shared

rooftop access structure that cannot exceed 40 feet in height at its highest point, and can be up to 150 square feet (in total, not per unit). Shared structure can be greater than 150 square feet only if required by the Building Official, and shall be limited to the minimum required square footage. No rooftop access structure is allowed on Unit 5; this does not prohibit access to the roof. Chimneys shall not exceed 40 feet.

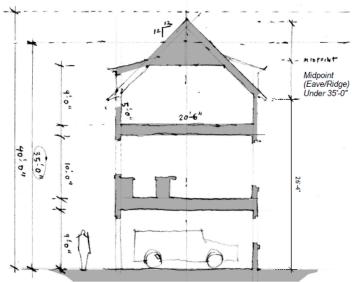


CONCEPTUAL FIRST STREET FRONTAGE ELEVATION



Concept of Unit 6 illustrating a portion at 2.5 story and a portion at 3 story

<u>Units 8 -16</u> (building section below, and shown in green on page 8). The applicant has requested a deviation to Units 8-16 to be 3 stories, and a deviation to allow 40 feet in height. As shown in the illustration below, the allowance for 40 feet would be to accommodate the peak of the gabled roof. These units do not front Hwy 291, are separated from the property to the south by an alley, and are adjacent to a gas station to the west. Staff supports the request for 3 stories off of Hwy 291. If the building height deviation to 40 feet is approved, staff recommends conditioning it to only accommodate a gabled roof and not a flat roof.



RIDGE WITH 40'-0" HEIGHT MAX

Example of rooftop decks on the gabled roof portion of the site, potentially Units 8-16.

The conceptual rendering below shows potential rooftop decks on this portion of the site. Specific details were not provided for these decks. Staff recommends that no portion of the deck (including railings, shade structures, etc) shall exceed 35 feet in height. This condition will ensure that a person standing on the deck will not be visible above a 40-foot peaked roof.



If the height deviations are approved, staff recommends the following condition of approval:

Units 8-16 can be a maximum of 3 stories. They can be a maximum of 40 feet in height only to accommodate the peak of a gabled roof. If a flat roof with parapet is proposed, building height, including parapets, cannot exceed 35 feet. No part of a rooftop deck, including railings or covers, can exceed 35 feet.

The Code states that increases in maximum height are allowed through a PD, but shall not result in:

- Adverse visual impacts on adjacent sites or other areas in the vicinity, including extreme contrast, interruption of vistas or scale that is disproportionate to surrounding development or natural features.
- Potential problems for adjacent sites caused by shadows, loss of air circulation or loss of view.
- Inability to provide adequate fire protection using equipment currently in use by the Fire Dept.

To determine the impact of the request on views of the Sawatch Range from the intersection of 1<sup>st</sup> and F Street, the applicant has provided a view corridor study. The corridor study illustrates that the development, and the requested height deviations, will be visible. However, being visible alone does not make the visual impacts "adverse". From this vantage point, it does not interrupt the mountain vista. It provides visual continuity of the downtown architecture and urban density as it transitions to a more residential use.

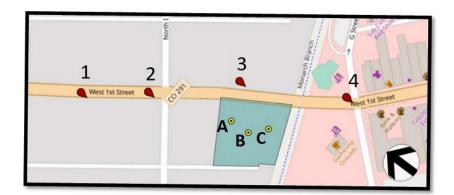
.

**VIEW CORRIDOR STUDY:** View from 1st Street, just west of F Street





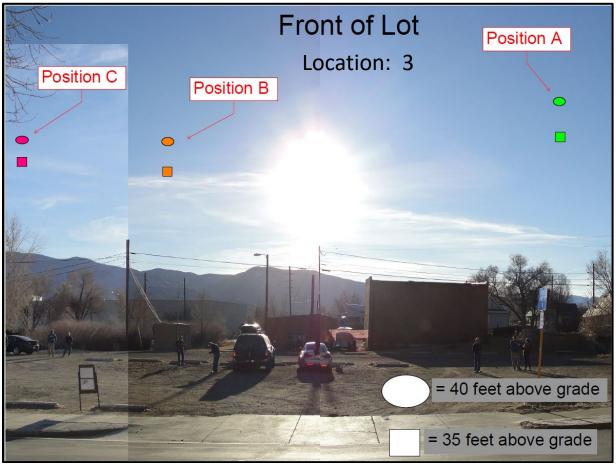
**PHOTO STUDY:** 35 feet and 40 feet at 3 Different Positions on the Site and 4 Different Locations Along on 1<sup>st</sup> Street.













The following dimensional standards table summarizes the applicant's deviation requests for height and building stories:

Standards	C-1	I	PD/Site as whole	PD/Individual Lots	Notes
Max. building height for a primary bldg.	35'	35'	40'	40'	Portions of buildings over 35' shall be setback 24' minimum from 1st St and Monarch Spur property lines Height shall be measured from finished floor of the unit.
Max. building height for a detached accessory bldg.	25'	25'	N/A	N/A	None allowed.
Maximum number of stories per Hwy 291 established	2	2	3	3	Lots 1-4: 2 story building; Limited Rooftop Access Lots 5-7: 3 story building; Limited Rooftop Access Lots 8-16: 3 story.

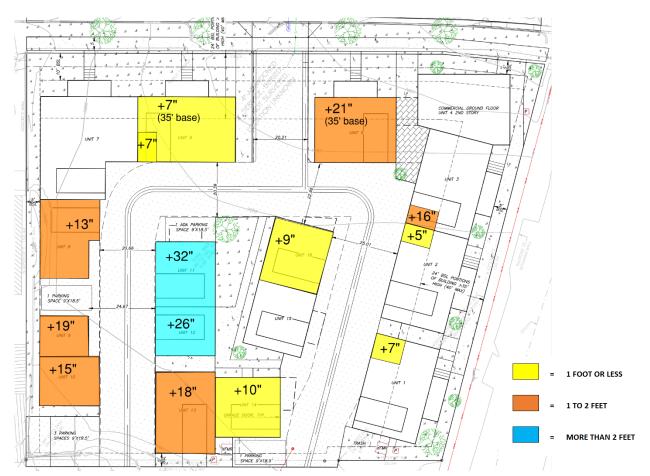
Article I of the Land Use Code defines the measurement of building height as follows: "the distance measured on a vertical plane from the <u>average preconstruction or post-construction grade</u> around the perimeter foundation of a building or structure, whichever is lower, to the highest point on the roof surface of the building or structure."

The applicant is requesting a deviation from how building height is measured, requesting to use the following formula: Height shall be measured from finished floor of the unit.

The site will be graded in conformance to the civil plans reviewed and approved by the City. On a development such as this infill lot that requires City approved plans for grading and drainage, and where multiple primary structures will be constructed, staff is supportive of the request to not use preconstruction grade as a factor in calculating building height.

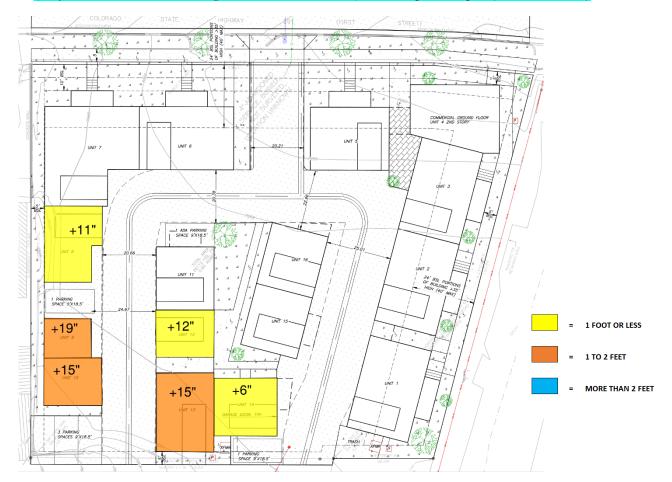
However, staff does not support a request to measure height solely from the finished floor (FF) elevation, which can vary greatly based on architectural plans and styles and are not necessarily contingent upon exterior conditions. Staff recommends that the building height measurement be taken from the lower of either the average post-construction grade or finished floor elevations. Examples of how the applicant's request, and how staff's recommendation, differentiate from the code requirement are illustrated below:

**EXHIBIT A**. Additional height above current code allowance that would be granted if the deviation allowed measurement from finished floor elevation only – illustrated below: (only instances where the height exceeds 35' or 40' (based on prior request) are illustrated)



**EXHIBIT B:** Additional height above current code allowance that would be granted if the deviation allowed measurement from the lower of post-construction grade or finished floor elevation – illustrated below:

(only instances where the height exceeds 35' or 40' (based on prior request) are illustrated)



The effects of this option are significantly more in line with the code requirement while still allowing the applicant the practical ease of not having to account for pre-construction grades. The area that is impacted is the area that has the least visual impact on the view corridor from 1<sup>st</sup> Street and downtown.

The measurements that were provided by the applicant in the packet, and that staff utilized to calculate the measurements for the above analysis, were done on a building -by-building basis. To allow for a common roof line between attached units, there will be a balancing out across the connected units when the averages are based on the entirety of the building. If using the lower of the post-construction grade or finished floor, the result will not differentiate significantly than using those same averages at preconstruction grade.

Staff recommends the following condition of approval be added to the PD Plan.

The measurement of building height shall use the lower base elevation of either the finished floor or the average post construction grade around building perimeter. On a multi-unit building with a singular roof line, the average of the entire perimeter shall be compared to the average of the finished floor elevations, and the lower average shall be used.

- 9. Gross Floor Area: Currently one 700-725 sf commercial unit is proposed. Staff recommends that potential additional commercial uses not be restricted, leaving open the possibility of future commercial uses on the site. The limited allowable commercial uses on the Schedule of Uses and the parking requirements, which will be evaluated during the administrative review of any commercial use, will limit the potential type and square footage of commercial that can be accommodated.
- 10. <u>Permitted Uses</u>: The PD Development Plan Proposed Schedule of Uses, with deviations from C-1 highlighted, is included here. Staff supports the requested deviations and the proposed uses, and recommends the following note be added to the Planned Development:
  - Uses not specified in the Use Table shall default to the underlying C-1 Zone requirements, with the following exceptions:
    - i. All Permitted uses that require parking shall undergo Administrative Review (AR).
    - ii. The following Permitted & AR uses in C-1 are not consistent with the intent of the Planned Development and would require a PD Amendment in order to be permitted:
      - 1. Commercial Lodging
      - 2. Clubs Operated by and for Members
      - 3. Mobile Home and Recreational Vehicle Sales and Services
      - 4. Automobile Sales Service and Repairs

Residential Uses	C-1	ı	PD	Standards <sup>1</sup>
Accessory buildings and structures.	Р	Р	Р	Sec. 16-4-190(c)
Multiple principal residential structures	Р	Р	Р	Sec. 16-4-190(b)
Accessory dwelling units	AR	AR	AR	Sec. 16-4-190(c)
Duplex dwelling units	P 3	LR <sup>3</sup>	Р	
Residential (3—4 units)*	AR <sup>3</sup>	AR <sup>3</sup>	AR	
Residential (5—19 units)	LR <sup>3</sup>	LR <sup>3</sup>	AR	
Residential (20 or more units)	MR <sup>3</sup>	MR <sup>3</sup>	MR	
Single-family dwelling units	AR <sup>3</sup>	AR <sup>3</sup>	AR	
One or more dwelling units on the same site as a commercial or industrial use	LR	LR	AR	
Residential Business Uses	C-1	I	PD	Standards <sup>1</sup>
Day care, home	Р	Р	Р	Sec. 16-4-190(f)
Home Occupations	Р	Р	Р	Sec. 16-4-190(g)
Home Businesses	Р	Р	AR	Sec. 16-4-190(g) AR to allow for review of required parking.
Short-term rental units	AR	AR	AR	Sec. 16-4-190(q) Subject to STR regulations in effect at time of STR license application.
Commercial, Personal Service and Office Uses	C-1	1	PD	Standards <sup>1</sup>
Eating and drinking establishments	Р	LR	AR	AR to allow for review of required parking.
Professional offices	Р	LR	AR	AR to allow for review of required parking.
Retail sales and rental establishments	Р	LR	AR	Sec. 16-4-190(m) AR to allow for review of required parking.

11. <u>Transportation Design</u>: The development provides direct access to State Highway 291, which is designed to support the anticipated additional traffic generated by the proposed number of units. Secondary access will be provided via the rear public alley. Public Works requires an access permit from CDOT for access onto Hwy 291, which has been obtained. A Utility Permit will need to be obtained from CDOT as well. Required sight triangles per Public Works Design and Construction Standards have been illustrated on Sheet 5 of the Civil Plans and show no encroachment of structures. The City shall review and approve landscaping within the sight triangles prior to installation.

Staff is requiring that the applicant upgrade the alley with paving and drainage improvements. The applicant is requesting a deviation to this requirement to not pave the alley, which staff does not support per Land Use Code Section 16-8-80 (e)(1) which requires that parking areas and access drives for 5 or more required parking spaces be paved. The applicant has provided the requested information to demonstrate compliance with Fire Code Section 503.2.1. regarding Fire Apparatus Access Roads. The development provides safe and adequate pedestrian access within the site and to nearby amenities.

Staff recommends the following conditions:

- Applicant shall obtain necessary CDOT utility permits.
- City shall review and approve landscaping within the sight triangles prior to installation.
- Applicant is required to pave and provide drainage improvements to alley, from I Street to the southeastern-most access drive.
- 12. <u>Development Standards</u>: See Item 7 above.
- 13. <u>Energy Efficient Design</u>: The construction of new buildings will have to meet the energy reducing standards of the building codes. The compact design of the townhomes should also contribute to energy efficiency.
- 14. <u>Variety in Housing Types</u>: Fifteen townhomes and one residential condominium are proposed, all forsale units. They range in size from approximately 800 -1400 square feet and from 1-3 bedrooms. Given the small size of the planned development and the architectural character proposed, staff feels this is sufficient variation that still allows for a cohesive character.

The applicant has proposed providing 2, 80% AMI deed-restricted affordable housing units as part of the 16-unit development. This is equal to the percentage required by the Inclusionary Housing standards of Article 13 of the Land Use Code. Applicant has noted on the Planned Development that both affordable units shall be built and receive certificate of occupancy (CO) prior to the eighth market rate unit receiving a certificate of occupancy.

Some of the deviations to the dimensional standards requested by this PD are to allow:

- A 60% increase in the density allowed on this site,
- An increase in the number of stories allowed, effectively increasing the square footage of 67% of the units.
- A 14% increase in the maximum height allowed on more than half of the buildings.
- The creation of for-sale townhome lots whose individual dimensional standards deviate significantly from the Code.

These deviations directly result in added value to the applicant in the form of:

• more units to sell,

- larger units to sell,
- units with unique amenities, such as the rooftop access,
- and fee-simple lots to sell, rather than condominiums.

The Code requires 12.5% of units be deed-restricted at 80% AMI; this equate to 2 units for this development. A Planned Development is a negotiated process. Given the deviations requested, staff feels that at least one additional deed-restricted unit is justified. One additional unit is one additional unit for perpetuity; it is important and significant over time to the workforce of Salida.

In determining the recommended % AMI, staff recommends utilizing a formula closer to what was discussed with Planning Commission at the January 11<sup>th</sup> work session for a revised IH ordinance. Those revisions recommend adjusting AMI targets to provide housing to a wider variety of income levels that are not currently provided in market-rate housing, and differentiates AMI levels based on whether the unit is for sale or for rent. The revised ordinance also proposes raising the required percentage of IH units to 1 out of 6 units, or 16.67%. According to a 2020 Chaffee County Income Level analysis prepared by the Housing Authority, over 26% of Chaffee County's workforce is in the 81% - 100% AMI range. Another 19% are in the 101% - 120% AMI range. Together these two groups represent 45% of the local workforce that under the current IH ordinance:

- earn too much to qualify for traditional deed-restricted housing,
- earn enough to potentially own and maintain a home, and have some down-payment savings,
- and for whom there is nothing available at for-sale market rates (see maximum sale prices below).

Staff feels this is an ideal project to request an adjustment to the proposed ordinance, rather than the current ordinance. This adjustment would increase the number of required built IH units to 3 (16.67% of 16 = 2.67 units) will add missing middle housing as well as blend the disparity of incomes between the market rate owners and the deed-restricted owners within the project. As a condition of approval:

- A minimum of 3 deed-restricted units shall be provided, if these units are for sale, they shall span the AMI requirements of 100%, 120%, 140% (excluding studios), and 160% (excluding studios and 1 bedrooms) with the average never going above 140% AMI. No AMI level shall be repeated.
  - If these units are for rent, a minimum of one-half (rounded up) of the units shall be at 80% AMI, and no unit shall exceed 100% AMI. If a for-rent unit converts to for-sale, its AMI shall adjust accordingly.
- 15. Fiscal Impacts: The private drive, utility easements, and common areas are to be owned and maintained by the homeowners association. The City will provide the police and fire protection and serve the project with water and sewer through public mains. Water and sewer tap fees will help offset long term costs of expanding those systems. The Fair Contributions for Public School Sites fees will be required per residential unit to help offset impacts on the school district, and open space fees will be required for each unit.
- 16. <u>Higher Levels of Amenities</u>: The project provides a common open space area. This would not be a requirement of the underlying zone district. The project also provides a higher quality architectural design than required by Code as the underlying zone district has no architectural design standards, and a design that creates a cohesive neighborhood that complements the historic architecture of Salida. As a condition of approval:
  - Final architectural plans shall substantially conform to the architectural character and design as submitted as part of the PD application. Applicant is encouraged to provide brick facades on the

units facing 1<sup>st</sup> Street to provide visual continuity with the several brick historical buildings along 1<sup>st</sup> Street in the historic district.

- 17. <u>Physical Conditions or Objective of Development</u>: The development provides a design that creates a cohesive neighborhood that complements the historic architecture of Salida.
- 18. Effect on Adjacent or Nearby Development: Immediately adjacent uses consist of a gas station, an industrial warehouse site, a duplex, a single family home, and a ditch and public trail corridor. These uses are all zoned either C-1 Commercial or Industrial. Nearby uses within the block and across the highway are residential uses: single-family, duplex and multi-family properties, as well as commercial uses and a skate park.

This project provides appropriate continuity of downtown architecture and urban density, transitioning to residential use. The residential on this site and the inclusion of a commercial unit would blend with the existing adjacent and nearby development. The development will utilize the alley as one of its vehicular access points, and the applicant will be responsible for improving the alley. Given the wide variety of existing uses in the area, the proximity to downtown, and the primarily residential nature of the proposal, there is no reason to believe that nearby or adjacent properties will be detrimentally affected.

#### EVALUATION STANDARDS FOR MINOR PLANNED DEVELOPMENTS

Section 16-7-40(d) states that "In addition to the above evaluation standards in Subsection (a) of this Section that apply to all PD applications, the following standards or requirements shall govern the application of a minor planned development and shall be utilized by the Planning Commission and the City Council in evaluating any minor PD plan:

- 1. <u>Staging of Development: There shall be no staging of development in a minor PD.</u> There shall be no staging (also called 'Phasing' in the Code) of infrastructure or public improvements. Staff recommends the following condition of approval, and to address a concern raised below in Atmos Energy's comments, additional language is recommended to this condition as follows:
  - There shall be no staging (i.e. phasing) of the infrastructure and public improvements. [Add:] This includes that all private gas lines must be installed in a common trench at the same time, and no additional private gas lines can be installed after the initial installation.

An Operations and Maintenance guide will be reviewed and recorded that shall ensure compliance with all relevant State Statutes, including but not limited to, Statutes regarding the obligations and procedures for owners of underground facilities to locate and excavate those facilities.

If the applicant does not agree to these conditions, then there shall be no private gas lines on site.

- 2. Types of Uses: A minimum of 25% of the floor area of the project is recommended for non-residential, commercial uses. Less than 5% of the floor area is planned for non-residential uses. Having additional ground floor commercial along Hwy 291 would be fiscally beneficial and provide a greater mix of uses and activity to the site. However, given the parking requirements that come with commercial uses, removing buildings to accommodate cars would be detrimental to the character of this proposed development and detract from the urban, pedestrian, and historically-referential design. Staff finds the current proposal is an acceptable balance of commercial and residential.
- 3. <u>Public Places. Public gathering places should be provided to reinforce community identity and support civic engagement.</u> There are no public gathering places proposed in the development, and

- given the size it would not be practical. The site is across the street from a public skate park and adjacent to a community trail. There is a small common open space proposed within the development, which would promote social interaction and engagement in a private gathering space for residents of the development, and a patio/courtyard area as part of the commercial space.
- 4. Economic Opportunity: The PD provides a unique economic opportunity or provides a service, industry, or housing type that will benefit the City and would not be possible under the existing zone districts or dimensional standards of the City. Townhomes are challenging to construct within most of Salida's zone districts because of the standards for minimum lot size, street frontage, and other requirements. This PD will allow the applicant to create numerous residential units on a site that, given the depth of the site and likely access restrictions along Hwy 291, would likely not develop as residential without the ability to increase the density and an allowance for frontage on a private road. Housing in this location will offer easy access to downtown businesses as well as potential housing for downtown workforce.
- 5. Open Space: A Minor PD is not required to provide a dedication of open space on the site, however, it is required that any PD contribute to meeting the goals for open space through a negotiated fee-in-lieu of open space or other contribution. No open space is dedicated through this development. The applicant acknowledges that required open space fees-in-lieu will be paid at time of building permit for each unit and has already noted this on the PD Development Plan.

#### B. MAJOR SUBDIVISION PLAT REVIEW

A major subdivision requires a recommendation from the Planning Commission and final approval by the City Council. The applicant is requesting that the Planning Commission recommend approval of a 16-lot residential subdivision, along with an outlot to be commonly-owned by the homeowners' association. The applicant plans to construct multiple residential buildings containing a total of 16 units, with the shared common wall on the platted property lines. After foundations are poured, the applicant will do slight lot line adjustments where necessary to align the lot lines with the shared common walls. The proposed subdivision must comply with the following standards:

- 1. <u>Comprehensive Plan.</u> The proposed subdivision is consistent with the Comprehensive Plan as detailed on pages 3 and 4 of this report. Staff finds that the development's use and design is compatible with surrounding land uses and will not create unreasonable adverse effects on neighboring properties.
- 2. <u>Zone District Standards</u>. The proposed subdivision and ultimate development of the lots will comply with the planned development standards outlined in this report, and where no deviation is requested, it will comply with the Land Use Code and the underlying C-1 zoning.
- 3. <u>Improvements</u>. The applicant will be required to comply with Code Section 16-2-60, Subdivision improvements agreements and development improvements agreements.

Public Works has noted the following which staff recommends as conditions of approval:

- Upsizing of the 4-inch water main in 1<sup>st</sup> St. anticipated to meet fireflow requirements.
- Pave south half of 1<sup>st</sup> Street where new water services are proposed.

Public Works noted to refer to JVA engineering review for additional requirements pertaining to the plan. JVA has reviewed the revised submittal and has determined that the revised submittal documents can proceed with a recommendation for Planning Commission approval. Outstanding comments regarding the SIA will continue to be worked through.

A landscape plan has been provided with sufficient details and notes to ensure compliance with Section 16-8-90. No new public streets are proposed. Atmos Energy, Xcel Energy, and Salida Utilities have provided comments; please refer to the Referral Agency Comments section for those specific comments.

- 4. <u>Natural Features</u>. The site is relatively flat and void of any trees. Staff is unaware of any extraordinary natural features on the site.
- 5. Floodplains. This property does not reside in the floodplain. This standard does not apply.
- 6. <u>Noise Reduction</u>. This property borders State Highway 291. In this location, it is known as First Street and is a single lane in each direction with on-street parking on each side. As such, the speed and noise level are not equivalent to typical highway noise and additional setbacks or landscaping are not being requested by staff, nor would they be practical in this location next to the downtown business district.
- 7. Future Streets. As addressed above in Paragraph 3. Improvements; there are no new streets.
- 8. <u>Parks, Trails and Open Space.</u> No public open space dedication is proposed nor desired within this development due to its small size. A fee-in-lieu for open space for each unit constructed on the property must be paid at time of building permit. This is already noted on the Plat.
- 9. <u>Common Recreation Facilities</u>. The private open space identified on the site plan will be easily and safely accessed by residents of the development. It is located internal to the development and will not impact any adjoining properties.
- 10. Lots and Blocks. This is a clustered townhome development with an internal private access drive for vehicular access. This is the type of development encouraged by the Land Use Code in a Planned Development, but as such, typical lot and block requirements are not applicable nor practical to this type of development.
- 11. <u>Architecture</u>. The architectural concept proposed for this site is intended to complement the historic architecture of downtown and the previous historic structure on this site. It meets or exceeds the architectural requirements of the Code.
- 12. <u>Codes.</u> The subdivision will comply with all applicable City building, fire and safety codes for the proposed development.
- 13. <u>Inclusionary Housing</u>. An Inclusionary Housing Agreement is required as part of the Subdivision Improvement Agreement and Development Improvement Agreement. See Item 14. Housing Variety, Under Planned Development Evaluation Criteria for staff's recommended condition of approval regarding provision of inclusionary housing.

#### RESPONSE FROM REFERRAL DEPARTMENTS AND AGENCIES:

Salida Fire Department: An emergency vehicle access plan (exhibit N of the application) was provided, and the balconies that had been encroaching on the 20 foot access lane were removed from the updated plans. Upon review of the updated information, Kathy Rohrich, Assistant Fire Chief, responded: "This is great and it all looks good to me." The previous comment remains: "We will follow up with fire sprinkler plans for commercial occupancy and include Colorado Division of Fire Prevention and Control."

Salida Public Works Department: Public Works Director, David Lady, submitted the following comments: Refer to JVA engineering review for additional requirements pertaining to plan. Upsizing of the 4-inch water main in 1<sup>st</sup> St. anticipated to meet fireflow requirements. Pave south half of 1<sup>st</sup> Street where new water services are proposed. JVA has reviewed the revised submittal and has determined that the revised submittal documents can proceed with a recommendation for Planning Commission approval. Outstanding comments regarding the SIA will continue to be worked through.

Salida Police Department: Russ Johnson, Police Chief responded "No issues from PD at this time."

<u>Salida Utilities:</u> Renee Thonhoff, Senior Accountant, stated "The property located at 323 West First Street is currently a commercial property with one 3/4" commercial tap (water \$8,512 & sewer \$7,808). Upon development, system development fees will be required for each unit (15)." [Note: the existing commercial tap will cover Unit 4, both the commercial and residential condo, leaving 15 remaining residential SDFs. Deed-restricted units will pay the "Legally-Restricted Affordable Housing" rate and the remainder will pay the "Residential Single-Family" rate].

<u>Chaffee County Building Department</u>: Dan Swallow, Building Official

Confirmation should be sought that the outlot incorporates the entirety of the larger parcel outside of what appears to be the platted townhouse lots and that this entire outlet is a private blanket drainage and utility easement upon which no building construction will be permitted. This is important to determine proper fire separation distances to all units. If this is the case, then no projections should be permitted to encroach into the easement. Two-hour fire resistance rated walls are required between attached townhouses and exterior walls of adjacent buildings that are within 10' of each other must be constructed of 1-hour fire resistance rated construction and openings must be protected per IRC Table R302.1(1) such as occurs between lots 1 & 2, 4 & 5, 12 & 13, and 14 & 15.

The only thing I would allow in an easement, private or public, is concrete flat work such as sidewalks and driveways and fences. The easement owner has the right to remove any encroachment if needed to perform whatever maintenance may be required and is not obligated to restore what they remove. In my opinion, it would be a mistake to allow any encroachments over or into an easement. So, allowing encroachments into the easement will cause building code compliance issues and I recommend that Salida never allow encroachments into easements and particularly utility easements.

It appears that there are lots that will be platted within one large outlot. The Plat does not define what the black squares are on the plat at the property corners. This symbol should be defined in the legend because it is not clear if these are individual lots within the larger outlot or building envelopes. If these black squares indicate monuments, then they should be defined on such in the legend.

I have no further comments regarding the private utilities beyond what I provided to Bill Hussey with Crabtree Group previously. Permits will be required for the private water and sewer lines unless they will be inspected by Salida Public Works. David Lady has previously indicated that he does not want to provide installation oversight on private lines.

Salida School District: David Blackburn, Superintendent responded "We will accept fees in lieu of land."

Atmos Energy: In a conversation with Dan Higgins of Atmos Energy on 2/1/22, staff discussed his concerns outlined in the bullet points below. Dan reiterated that Atmos energy is "willing to serve" the

site, however they have concerns about potential impacts to future residents. Those concerns were two-fold:

- 1) The danger of going in to install additional private lines after an initial install is complete.
- 2) The difficulty being placed on future residents to locate and maintain the private lines.

In response to these concerns, these conditions (also noted under item 1, Staging of Improvements, above) are recommended

There shall be no staging (i.e. phasing) of the infrastructure and public improvements. [Add:] This includes that all private gas lines must be installed in a common trench at the same time, and no additional private gas lines can be installed after the initial installation.

An Operations and Maintenance guide will be reviewed and recorded that shall ensure compliance with all relevant State Statutes, including but not limited to, Statutes regarding the obligations and procedures for owners of underground facilities to locate and excavate those facilities.

If the applicant does not agree to these conditions, then there shall be no private gas lines on site.

Dan Higgins & Mark Cristelli met with the developers and provided staff with the following summary of that meeting: "I expressed my concerns and we discussed some options. I have advised Eric and Bill [H.] as of this morning based on that conversation what Atmos will do to serve the subdivision. Their requested design for gas main won't work for us FYI. I notified them that Atmos will install a meter manifold on the Southern side of building 1 and they will pipe to that manifold with privately owned lines to the units they desire to serve."

And Atmos has provided the following general comments for subdivisions with reduced width utility easements:

"Streets/ROWs being too small to adequately accommodate buried facilities safely leads to design options that include utility providers not being willing to install underground utilities in them. Subsequently the only way they will serve these subdivisions is by providing service to the edge of the property and builders have to install private utilities to each unit within.

There are several reasons I believe this is unwise.

- Private utilities are not located by the utility providers and private locate firms don't exist that I'm aware of in Chaffee County which leaves other buried facilities at great risk of third party damage.
- The design and layout of the privately owned utilities could easily become a hodgepodge free-for all and therefore excavation and maintenance will be extremely difficult and the addition of each individual unit will make the problem continually worse.
- Several other less than desirable scenarios can easily be imagined if subdivisions proceed with privately owned utilities serving them like this one."

#### Xcel Energy:

Sterling Waugh responded "The customer will need at least a 2 hr firewall on all walls 10' or closer to the transformer locations. There cannot be any doors within 20' of the transformer locations. Operating windows should be 10' away from the transformer."

In a conversation with Sterling Waugh on 2/2/2022, Sterling explained that his previous comment below, specifically regarding 'this type of development makes it almost impossible to do any future undergrounding of existing utilities without stacking electric on other utilities which is bad practice and dangerous' is referencing that the City is creating a situation where they will likely be unable to underground the off-site electric service currently in the alley because it would be too dangerous due to the

# lack of space for an easement. These comments are meant as advisory to the City but do not affect Xcel's ability to serve this specific property.

Previous Comments: "For this project, Xcel has the very bare minimum needed to serve them power. It does not have the normal easements that Xcel would prefer. This would also make it very difficult to create a loop or install any power needs to HWY 291, ie a street light or stop light. If every lot had this bare minimum set up we would have to put more pad mount equipment in the ROW, so this should not be a trend. Also this type of development makes it almost impossible to do any future undergrounding of existing utilities without stacking electric on other utilities which is bad practice and dangerous."

#### STAFF RECOMMENDATIONS:

Staff recommends the Planning Commission recommend approval of the requests to City Council with the following conditions:

#### A. PROPOSED PLANNED DEVELOPMENT & MAJOR SUBDIVISION PLAT REVIEW

A Recommendation of Approval of the Planned Development and Major Subdivision Plat to City Council is subject to the following conditions of approval:

- 1. Building permits are required and the plan shall meet Building Department requirements.
- 2. An Operations and Maintenance manual shall be subject to review by the City and recorded with the Plat.
- 3. Plat Note 6 shall be modified to the following:
- Architectural elements shall not encroach into utility easements and shall not extend off of the individual townhome lot.
- 4. The following notes be added to the PD Plan regarding building height and story allowances, and any appropriate adjustments be made to the Dimensional Standards to align with these requirements:
  - a. On Units 1-7, no portion of the building nor architectural appurtenances can exceed 35 feet in height if within 24 feet of the property line along Hwy 291 or the Monarch Spur Trail.
  - b. Units 1-3 are allowed a rooftop access structure that cannot exceed 40 feet in height at its highest point. It may be up to 100 square feet on Unit 1. Units 2 & 3 are allowed a shared rooftop access structure up to 150 square feet (in total, not per unit). Shared structure can be greater than 150 square feet only if required by the Building Official, and shall be limited to the minimum required square footage. No rooftop access structure is allowed on Unit 4; this does not prohibit access to the roof.
  - c. Units 5-7 can be a maximum of 3 stories and 35 feet in height with the exception of chimneys and a rooftop access structure on Units 6 & 7. Units 6 & 7 are allowed a shared rooftop access structure that cannot exceed 40 feet in height at its highest point, and can be up to 150 square feet (in total, not per unit). Shared structure can be greater than 150 square feet only if required by the Building Official, and shall be limited to the minimum required square footage No rooftop access structure is allowed on Unit 5; this does not prohibit access to the roof. Chimneys shall not exceed 40 feet.
  - d. Units 8-16 can be a maximum of 3 stories. They can be a maximum of 40 feet in height only to accommodate the peak of a gabled roof. If a flat roof with parapet is proposed, building height, including parapets, cannot exceed 35 feet. No part of a rooftop deck, including railings or covers, can exceed 35 feet.

- e. The measurement of building height shall use the lower base elevation of either the finished floor or the average post construction grade around building perimeter on a multi-unit building shall apply either on a unit by unit basis, or if that is impractical, then the lowest measurement of finished floor or post-construction finished grade for the entire building shall be used.
- 5. Uses not specified in the Use Table shall default to the underlying C-1 Zone requirements, with the following exceptions:
  - a. All Permitted uses that require parking shall undergo Administrative Review (AR).
  - b. The following Permitted & AR uses in C-1 are not consistent with the intent of the Planned Development and would require a PD Amendment in order to be permitted:
    - 1. Commercial Lodging
    - 2. Clubs Operated by and for Members
    - 3. Mobile Home and Recreational Vehicle Sales and Services
    - 4. Automobile Sales Service and Repairs
- 6. Applicant shall obtain necessary CDOT utility permits.
- 7. City shall review and approve landscaping within the sight triangles prior to installation.
- 8. Applicant is required to pave and provide drainage improvements to alley, from I Street to the southeastern-most access drive.
- 9. A minimum of 3 deed-restricted units shall be provided, if these units are for sale, they shall span the AMI requirements of 100%, 120%, 140% (excluding studios), and 160% (excluding studios and 1 bedrooms) with the average never going above 140% AMI. No AMI level shall be repeated.
  - If these units are for rent, a minimum of one-half (rounded up) of the units shall be at 80% AMI, and no unit shall exceed 100% AMI. If a for-rent unit converts to for-sale, its AMI shall adjust accordingly.
- 10. Final architectural plans shall substantially conform to the architectural character and design as submitted as part of the PD application. If any of the buildings 8-16 are modified to flat roofs, they shall be similar to the roofs of Units 1-7. Applicant is encouraged to provide brick facades on the units facing 1st Street to provide visual continuity with the several brick historical buildings along 1st Street in the historic district.
- 11. There shall be no staging (i.e. phasing) of the infrastructure and public improvements. This includes that all private gas lines must be installed in a common trench at the same time, and no additional private gas lines can be installed after the initial installation.
  - The Operations and Maintenance guide shall ensure compliance with all relevant State Statutes, including but not limited to, Statutes regarding the obligations and procedures for owners of underground facilities to locate and excavate those facilities.
  - If the applicant does agree to these conditions, then there shall be no private gas lines on site.
- 12. Upsizing of the 4-inch water main in 1<sup>st</sup> St. anticipated to meet fireflow requirements.
- 13. Pave south half of 1<sup>st</sup> Street where new water services are proposed.

#### **RECOMMENDED MOTIONS:**

- A. "I make a motion to recommend the City Council approve the proposed Residences at Salida Bottling Company Planned Development subject to the conditions recommended by staff," and
- B. "I make a motion to recommend the City Council approve the Major Subdivision for Residences at Salida Bottling Company, subject to the conditions recommended by staff."

#### Attachments:

Proof of Publish

Table of Proposed Dimensional Standards & Schedule of Uses

Public Comment Letter

Residences at Salida Bottling Company PD & Major Subdivision Application Materials

# HRRMC reports six current hospitalizations from COVID-19

by D.J. DeJong
Mail Staff Writer

Heart of the Rockies Regional Medical Center reported six hospitalizations for COVID-19 as of Wednesday.

That brings the total of hospitalizations for patients suffering from the virus to 12 for the month, with nine in the past 14 days.

November ties with December, July and October for most hospital stays for those with COVID-19 since the pandemic started.

September saw the most hospitalizations with 14.

HRRMC reported that 72 percent of its capacity was filled as of Wednesday.

November has also seen a surge of cases within the

county to the highest number in one month at 376 cases.

Chaffee County Public Health reported 169 of those cases were detected in the last 14 days. No cases were added to the county's dashboard Thursday due to the holiday.

Of the pandemic total of 2,243 cases, 219 or about 9.76 percent have been breakthrough cases among those who had previously been vaccinated. That number falls within predictions of efficacy made by the Centers for Disease Control and Prevention.

Reinfections account for 14 cases or 0.62 percent of all cases in the county.

Colorado Department of Public Health and Environment stated, "Slowing the spread of COVID-19 will decrease the daily number of cases and hospitalizations that occur in Colorado. Preventing hospitalizations will help make sure our hospitals have the staff and equipment they need."

Top of the list of tips for prevention from the state health department is getting vaccinated, followed by nonpharmaceutical protocols such as masking, distancing and staying home if sick.

The fully vaccinated rate for the state is currently 73.23 percent.

Chaffee County is listed as 13th in the state for full vaccinations at a rate of 75.8 percent for those ages 12 and older. Data including ages 5-11 have not yet been reported by the state.

#### **Legal Notice**

PUBLIC NOTICE
Sangre de Cristo Electric Association, Inc.
29780 US Highway 24 N., P.O. Box 2013, Buena Vista,

Sangre de Cristo Electric Association's Wildfire Mitigation Rate Rider, approved by the board of directors October 29, 2020 to pay for costs associated with augmented vegetation management efforts to reduce the risk of wildfires near 80CEA power lines, will increase from \$6.00 per month to \$7.00 per month damaary 1, 2022 through December 2022. Rate Schedule No. 13 is available to members for examination by signing in to their respective account(s) on the SDCEA's website, myelectric.coop. Once signed in, visit My Porifle>Documents. The rate schedules and explanations are also available by calling toll-free during regular business hours, 844-395-2412.

PUBLIC NOTICE
ADVERTISEMENT FOR BIDS
Submit Bids To:
Town of Poncha Springs, Attn. Brian Berger
333 Burnett Avenue or P0 Box 190
Poncha Springs, C0 81242
Office Phone: (719) 539-6882

Sealed BIDS for construction of the 2022 East Poncha Avenue will be received at the Poncha Town Hall, 333 Burnett Avenue, Poncha Springs, CO until 1:30 PM, Date: January 19, 2022. At which time, they which time they will be open and read. The project consists of street rehalitation for East Poncha Avenue from Poncha Springs Lane to La Plata Street. The rehabilitation consists of removal of existing asphalt, new curb & gutter, sidewalk and

Bid Bond, Performance/Payment and Warranty Bonds are required. The project is tax-exempt; the contractor will be provided with the tax-exempt number for materials purchases.

A pre-lid conference call meeting will be held on Wednesday December 15<sup>th</sup>,2021 at 10:00 am Contractors requesting bid documents will be provided with a Zoom video/telephone conference call number and ID by email to join the call or may attend in person at the Poncha Springs Town Hall. Last day for bid questions is January 11, 2022, at 12:00 pm. All bid questions shall be submitted in writing by email to tyandayeer@crabtreegroupinc.com. Responses to questions and Addendums will be sent to all contractors who have

Contractors are required to have the capability to communicate via email and submit project documentation by Dropbox. The Town reserves the right to modify or cancel this bid process at any time.

Copies of the Plans and Specifications are available. Bectronic copies by email are available. Bectronic copies by email are available at no charge to qualified contractors registered in good standing with the Secretary of State. Qualified contractors' email requests for electronic copies shall use the subject line of 2022 East Poncha Avenue Project and must be sent to both of the following emails addresses: jdeluca@crabtreegroupinc.com, & tvandaver@crabtreegroupinc.com, All other requests for documents shall be to Poncha Springs via CORA public records request.

Administrator

Published in The Mountain Mail November 19, 23, 26, 30, 2021

PUBLIC NOTICE Notice of public Hearing before the Planning Commission for the City of Salida Concerning A

MAJOR IMPACT REVIEW APPLICATION

TO ALL MEMBERS OF THE PUBLIC AND INTERESTED PERSONS: PLEASE TAKE NOTICE: that on December 14, 2021 at or about the hour of 6:00 p.m., public hearings will be conducted by the City of Salida Planning Commission at City Council Chambers, 448 East First Street, Suite 190, Salida, Colorado and online at the following link: https://attendee.gotoweblinar.com/r/1909092342220683277. The hearing concerns Major Impact Review applications for the property described as "Part of Lots 4 & 5, All of Lots 6-9, Block 19, City of Salida", also known as 323 West First Street. The applications have been submitted by Salida Bottling Company, LLC represented by Frick Warner.

The applicant is requesting:

A. Approval of a Planned Development overlay zone for the above described 0.6 acres currently splitzoned Commercial (C-1) and Industrial (I) and in the Hwy 251 Established Residential Overlay. For the overall site, the purpose is to create a subdivision with townhome lots fronting off of a private drive, to increase allowed density, to increase allowed building heights, to increase allowed number of building stories and to decrease the front setback. On the individual townhome lots, the request also includes: to increase the maximum lot coverage for structures, to decrease minimum lot size, to decrease minimum lot size, to decrease estbacks. On the HOA owned outlot, the request is to increase the maximum lot coverage for uncovered

B. Approval of a Major Subdivision to split the above described 0.6 acre parcel into 16 townhome lots and 1 outlot, with the intention of 1 townhome lot

to be further split in the future into 1 residential condominium and 1 commercial condominium. This will result in a total of 16 residential units, , 1 commercial unit, and 1 NAO owned and managed outlot for the common areas containing the private drive, landscaping, pedestrian access and parking.

Any recommendations by the Planning Commission for the Planned Development and Major Subdivision shall be forwarded to the City Council for review and public beautions

Interested persons are encouraged to attend the public hearings. Further information on the application may be obtained from the Community Development Department, (719) 530-2631.

Please note that it is inappropriate to personally contact individual City Councilors or Planning Commissioners, outside of the public hearing, while an application is pending. Such contact is considered exparte communication and will have to be disclosed as part of the public hearings on the matter. If you have any questions/comments, you should email or write a letter to staff, or present your concerns at the public meeting via the above 60ToWebinar link so your comments can be made part of the record.

Published in The Mountain Mail Not 26, 2021

PUBLIC NOTICE

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING COMMISSION AND CITY COUNCIL FOR THE CITY OF SALIDA CONCERNING ANNEXATION AND ZONING APPLICATIONS

TO ALL MEMBERS OF THE PUBLIC AND INTERESTED PERSONS: PLEASE TAKE NOTICE: that on December 14, 2021 at or about the hour of 6:00 p.m., a public hearing will be conducted by the City of Salida Planning Commission at City Council Chambers, 448 East First Street, Suite 190, Salida, Colorado and online at the following link: https://attendee. gotovebinar.com/rt/1909092342220683277

The hearing is regarding applications for Annexation and Zoning submitted by and on behalf of Jeff Kriebel, Thomas Clegg, and Wendell Winger, for the properties located at 7543 County Road 141, 7547 County Road 141 and 7551 County Road 141.

The City is currently considering a petition to annex and zone the subject properties into the City. The general purpose of the application is to consider the applicant's request to zone the property Medium Density Residential (R-2).

Any recommendation by the Planning Commission for the Annexation and Zoning shall be forwarded to the City Council for review and a public hearing scheduled for February 01, 2022, at or about the hou of 6:00 p.m. at City Council Chambers and online at the following link: https://attendee.got/webinar.com/revister/838298528411204386.

Interested persons are encouraged to attend the public hearing. Further information on the applications may be obtained from the Community Development Department, (719) 530-2626.

"Please note that it is inappropriate to personally contact individual City Councilors or Planning Commissioners, outside of the public hearing, while an application is pending. Such contact is considered ex parte communication and will have to be disclosed as part of the public hearings on the matter. If you have any questions/comments, you should email or write a letter to staff, or present your concerns at the public meeting via the above CoToWebinar link so your comments can be made part of the record.

rue record.

Published in The Mountain Mail Nov. 26, 2021

PUBLIC NOTICE

NOTICE OF PUBLIC HEARING BEFORE THE CITY OF SALIDA PLANNING COMMISSION CONCERNING AN ORDINANCE TO Amend Chapters 6 and 16 of the Salida Municipal Code Regarding Adult Entertainment establishments and Sexually Oriented Businesses

TO ALL MEMBERS OF THE PUBLIC AND INTERESTED PERSONS: PLEASE TAKE NOTICE that a public hearing will be held on Tuesday, December 14th, 2021 at or about the hour of 6:00 p.m. by the City of Salida Planning Commission at City Council Chambers, 448 East First Street, Suite 190, Salida, CO and online at: https://register.gotowebinar.com/rt/1909092342220683277 to consider amendments to Chapter 16 of the Salida Municipal Code regarding adult entertainment establishments and sexually-oriented businesses. A subsequent hearing will also be heard by the Salida City Council at a later date to be determined and duly noticed, interested persons are encouraged to attend the public hearings online or in person. Further information on the application may be obtained from either the City Clerk's Office or the Community Development Department.

Published in The Mountain Mail Nov. 26, 2021



## Poncha Springs trustees approve budget

by D.J. DeJong Mail Staff Writer

Poncha Springs trustees approved the 2022 budget as presented by Town Administrative Officer Brian Berger at

their meeting Monday.

Total expenditures for 2022 are projected to be \$3,338,655.

The total amount breaks down to:

General fund \$912.246

Enterprise fund \$629.903

Conservation Trust Fund \$3,500

Capital projects fund \$1.828.655

Among items added to the draft budget were a public works truck, highway visu-

al and safety improvements

and \$2,000 to pay for parade expenses in expectation that the Fourth of July and Veterans Day parades in 2021 will be continued in the new year.

Following a public hearing, trustees approved a site plan for a building planned for Crossroads Retail Park Lot 10, which will include two retail spaces and three dwelling spaces.

Trustees recently adopted a measure in the land use code requiring a broken roof line for aesthetic reasons. The plan presented by Mark Bourget called for a flat facade.

The plan was approved with the proviso that the roof line on the front facade be elevated to conform to the land use

Trustees approved as pre-

sented a preliminary plat for Tailwind II Phase 1.

There was some discussion about possible inclusion of a park in the new development.

A limit of 1,000 people for special events in the town of Poncha Springs was set along with adoption of the Poncha Springs event center policy.

The policy aims to better document public safety for events in the town, including security, emergency plans and traffic control plans.

Trustees approved final payment to Electric Power and Process and acceptance of the water infrastructure improvement project, the well No. 7 addition.

Trustees also voted to move their next regular meeting from Dec. 27 to Dec. 13.



# Residences at Salida Bottling Company Planned Development & Major Subdivision

Revised 1/31/2022



#### Owner

Salida Bottling Company, LLC 9707 County Road 163 Salida, CO 81201

#### **Architecture/Planning**

Craft Design Studio 204 Spooner Lane Mount Pleasant, SC 29464

> Studio Mork Downingtown, PA

#### **Civil Engineer/Entitlement**

Crabtree Group, Inc. 325 D St Salida, CO

#### **Contents**

Introduction	1
Existing Conditions	1
Planned Development Narrative	2
Architecture	3
View Corridor Study	3
Major Subdivision Plat	4
Civil Engineering	4
Submittal Requirements Checklist	4

#### **Appendices**

- A: Land Survey
- B: Planned Development Plan
- C: Drainage Report
- D: Title Policy
- E: Geotechnical Report
- F: Limited Phase II Subsurface Investigation
- G: Projected water and sewer demand
- H: Architectural Character
- I: Subdivision Plat
- J: Civil Engineering Plans
- K: EOPC for Public Improvements
- L: Construction Schedule
- M: CDOT Access Permit
- N: Emergency Access
- O: Staff Comments with Responses
- P: Height Analysis

#### Introduction

Residences at Salida Bottling Company is a Planned Development and concurrent major subdivision of 16 residential units and 1 commercial unit on 0.60 acres at 323 W 1<sup>st</sup> Street in Salida.

#### **Existing Conditions**

The photo below shows existing conditions at the site.

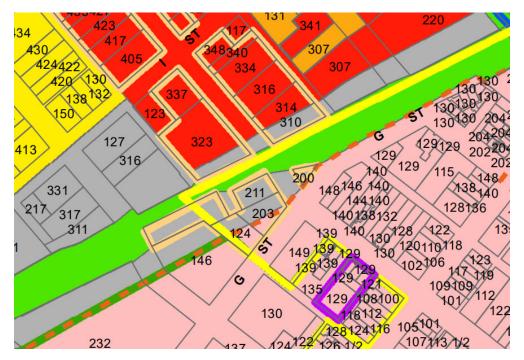


The subject parcel is currently an unpaved parking lot. As shown on the land survey in Appendix A, the subject parcel is made up of portions of lots 4 and 5 of block 19, all of lots 6 through 9 of block 19, abandoned Denver & Rio Grande Railroad right of way, and abandoned alley right of way, for a total of 8 existing lots as summarized below.

	Area	Area
	(SF)	(Acres)
Lot 4	997	0.02
Lot 5	3497	0.08
Lot 6	3750	0.09
Lot 7	3750	0.09

Lot 8	3750	0.09
Lot 9	3750	0.09
D&RG abandoned		
ROW	6322	0.15
Alley abandoned		
ROW	296	0.01
Total	26112	0.60

The property is currently split zoned. D&RG abandoned right of way, which makes up 24% of the property, is zoned industrial (gray). The remainder is zoned C-1 Commercial (red). The entire property is within the Highway 291 Established Residential Overlay. See excerpt from zoning map below.



Current vehicle access to the site is from one driveway on 1<sup>st</sup> Street, and from the public alley behind the site.

#### Planned Development Narrative

A planned development plan is included in appendix B. This plan, upon approval, will be recorded with the Chaffee County Clerk to provide a record of the planned development entitlement for the property.

**Sheet 1** of the planned development plan highlights changes to the use schedule and dimensional standards of the underlying zones required for the development. Sheet 1 also includes standard signature blocks for ownership, title report, survey by a professionally licensed surveyor, and city approval. Finally, this sheet includes the owner's method of meeting the inclusionary housing ordinance.

**Sheet 2** of the planned development plan is the site plan, showing 1<sup>st</sup> Street sidewalk, driveway, and curb and gutter improvements, building setbacks, parking, site dimensions, and ground cover. A table of unit square footage is provided on this sheet to give a general sense of unit size, but these shall not be

construed as minimum or maximum required unit sizes. Landscaping notes address the requirements of Salida Municipal Code section 16-8-90.

#### Architecture

The architectural character of the project intends to complement the existing, historic downtown through use of building form, the employment of materials and details consistent with and inspired by the downtown and immediate, adjacent context. Sited adjacent to the downtown, the plan's design emphasizes the pedestrian experience through walkable connections and an emphasis on the public realm.

**Sheets 1-3** of Appendix H shows urban and architectural precedent which balances both the use of the automobile and the pedestrian experience. Specifically, on Sheet 2, the historic Salida Bottling Works building formerly located on the site illustrates both the urban relationship of the historic building frontage as well as the traditional character of the architecture on the site.

**Sheets 4-6** show the building footprints and landscaping on the site. The frontages along First Street are set back slightly from the road, with porches presenting a pedestrian frontage. A ground floor commercial space is located in the south east corner of the site, proximate to the downtown business district. Park-under residences are located in the center and rear of the project site.

**Sheet 7** of Appendix H shows how buildings facing First Street and Monarch Spur Trail will have parapet wall roofs similar to those across First Street; buildings on the interior, towards the back of the development will have pitched roofs in character with the residential streets to the west and north of the site.

**Sheets 8-10** illustrate elevation concepts for the project frontages facing Monarch Spur Trail and First Street. The elevations show distribution of various exterior materials, general architectural character and details, and opening proportions.

Sheets 8-10 are not final architectural elevations and are subject to vary throughout the design process. Elevations shown are intended to give a sense for the character, detailing and height of the proposed project.

**Sheet 11-12** – Height Considerations – Two diagrams show an example of a pitched roof ( 3 story ) house with 35′-0″ Height Max. to Ridge. Proposed for Consideration, the Second diagram shows the same house with Ridge Height Max. at 40′-0″. This would only be proposed for "pitched roof" residential units tucked back into the block. Sheet 12 shows the "Flat Roof" (Parapeted) Residences proposed. Parapet falls under Max. height of 35′-0″. Requesting (with limitatations), Rooftop Access structures to be allowed to extend above 35′-0″. Proposed minimal footprint (max. 100 s.f.).

We are requesting that height be measured from the finished floor of the unit. A height analysis is provided in Appendix P.

#### View Corridor Study

**Appendix H, Sheets 14-15** In recognition of the significance of the view along First Street, viewing the Sawatch Range from the downtown, the view corridor study is intended to provide a sense for the scale

of the buildings and the extent to which the project obscures the view of the Conoco gas station from downtown.

### Major Subdivision Plat

See Appendix I for the major subdivision plat requested concurrently with the Planned Development. Note that the dimensional standards requested in the Planned Development are slightly more permissive than the subdivision plat. This is because lot line adjustments for design changes and/or construction tolerances are anticipated.

This subdivision plat does not include the condominium subdivision of two units on Lot 4. The condominium subdivision of two units will be platted after building construction. This is a permitted use per the Planned Development.

### Civil Engineering

Public Works has indicated that to provide adequate fire flow, the existing 4" water main in 1st Street will need to be replaced with an 8" line per city standards prior to any certificates of occupancy being issued in the planned development. This water main upsize will extend from the east end of the 1st Street property frontage, to the existing 8" water main in I Street. Sewer service will require installation of a manhole in the existing 1st Street sewer main. It is anticipated that the city's standard subdivision improvement agreement will be required prior to this work.

Gas, communications, and electric will be connected to existing mains in the public alley behind the site.

The following variances to City of Salida public works standards are requested for the subdivision:

- 1. In subdivisions, public sewer mains are required to extend to the end of the property and provide sewer service to each individual lot. Public works has requested private HOA-owned sewer mains inside the Salida Bottling Co. development because there is no public right of way in which to run the new mains. Also, because this is an infill development, there is no opportunity for extension of the city's sewer collection system. The HOA documents will provide for maintenance of the private sewer mains inside the development.
- 2. Standard water services run from the public right of way directly onto the lot they will serve. In this subdivision, water service lines will first run through the HOA-owned lot, and then onto the lot they serve. This is acceptable because the lot to be served has an ownership interest in the HOA lot.

Civil engineering plans are included as Appendix J. Engineer's Opinion of Probable Cost for public improvements is included as Appendix K. Construction schedule is included as Appendix L. CDOT access permit is included as Appendix M. CDOT utility permit is required prior to utility work in Highway 291, as noted on the civil engineering plans. City of Salida will be the permittee on the utility permit.

Additional discussion of civil engineering items is provided in Appendix O, Responses to Staff Comments.

### Submittal Requirements Checklist

The following items are required for planned development applications per Salida municipal code Section 16-7-90.

### (1) PD Development Plan

i-ix. See Appendix B Planned Development Plan.

### (2) Written Narrative

- i. See Appendix A Survey.
- ii. See Appendix D Title Policy.
- iii. The planning objective is to provide a high quality infill development which will add to the quality of Salida's downtown by providing excellent architecture, commercial space, deed restricted housing, market rate housing, and private open space.
- iv. Fee in lieu of parks, trails, and open space shall be paid at time of building permit for each unit. All private open space shall be maintained by the lot owner, which in some cases is the HOA.
- v. Phasing of private improvements shall not be restricted within the development. Safe access shall be provided to all occupied units during construction. Underground utilities for the entire site will need to be installed early in the construction process due to space constraints.
- vi. See Appendix E, Geotechnical Report, and Appendix F, Limited Phase II Subsurface Investigation.
- vii. See Architectural section above.
- viii. See Appendix C, Drainage Report.
- ix. See Appendix G, projected water and sewer demand.
- x. All utilities are available near the site, and the project is within city limits.
- xi. Trip generation from the site:

PROJECT: Residences at Salida E													₩ GR	CRABTREE GROUP INC.			
Summary of Trip Generation	mmary of Trip Generation											1851 1818 17					
	ITE				Daily		AM P	eak-Ho	ur Trip	Ends			PM P	eak-Ho	ur Trip	Ends	
Land Use	Code	Intensity Rate Tri		Rate	Trip			1	n	0	ut In				0	Out	
	Cour			Ends	Rate	Total	%	Trips	%	Trips	Rate	Total	%	Trips	%	Trips	
Single Family Detached Housing	210	0	DU	9.57	0	0.75	0	25%	0	75%	0	1.01	0	63%	0	37%	0
Apartments	220	0	DU	6.65	0	0.51	0	20%	0	80%	0	0.62	0	65%	0	35%	0
Condominiums/Townhouses	230	16	DU	5.81	93	0.44	7	17%	1	83%	6	0.52	8	67%	6	33%	3
Lodging (Hotel)	310	0	RM	8.17	0	0.56	0	61%	0	39%	0	0.59	0	53%	0	47%	0
Office (General)	710	0.7	GLA	11.01	8	1.55	1	88%	1	12%	0	1.49	1	17%	0	83%	1
Retail (Specialty)	814	0.7	GLA	44.32	32	6.84	5	48%	2	52%	3	2.71	2	44%	1	56%	1
Sub-Totals					133		13		5		9		11		7		5
Total					133		13		5		9		11		7		5

GLA = gross leasable area in KSF

DU = dwelling unit

RM = number of room

Source: ITE Trip Generation, 8th Edition

xii. The city's fiscal impacts will be very minor because development of empty lots near the middle of town is the most efficient kind of development. The city will collect sales tax from the commercial unit in the development. Construction of the project will provide sales tax to

the city. In addition, the development will provide two units of 80% AMI housing in downtown Salida, which will provide an opportunity for workers to live affordably, near downtown jobs.

Per staff request, an emergency vehicle access exhibit was added as Appendix N.

A TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER (NW1/4SW1/4) OF SECTION 32, TOWNSHIP 50 NORTH, RANGE 9 EAST OF THE NEW MEXICO PRINCIPAL MERIDIAN, WITHIN THE CITY OF SALIDA, CHAFFEE COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE POINT OF INTERSECTION OF THE NORTH BOUNDARY OF THE SAID NW¼SW¼ WITH THE WESTERLY BOUNDARY OF AN EXTENSION OF WEST THIRD STREET IN THE CITY OF SALIDA, FROM WHENCE THE WEST QUARTER CORNER (BRASS CAP) OF SAID SECTION 32 BEARS SOUTH 89°51'25" WEST 1160.51 FEET;

THENCE SOUTH 41°11'36" EAST ALONG SAID WESTERLY STREET BOUNDARY EXTENSION A DISTANCE OF 39.78 FEET TO THE POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED; THENCE PROCEEDING AROUND SAID TRACT SOUTH 41°11'36" EAST 41.31 FEET;

THENCE SOUTH 33.06.26" WEST 118.81 FEET; THENCE SOUTH 00°08'35" EAST 39.48 FEET;

THENCE SOUTH 89'51'25" WEST PARALLEL WITH THE SAID NORTH BOUNDARY OF THE

NW1/4SW1/4 A DISTANCE OF 88.17 FEET; THENCE NORTH 00°08'35" WEST (AT A RIGHT ANGLE TO SAID NORTH BOUNDARY OF THE NW1/4SW1/4) A DISTANCE OF 170.0 FEET TO THE SOUTHERLY BOUNDARY OF GRAND AVENUE EXTENDED/COLORADO STATE HIGHWAY NO.291;

<del></del>	
TATE OF COLORADO } SS	
OUNTY OF CHAFFEE }	
HE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS DAY OF	,
/ITNESS MY HAND AND OFFICIAL SEAL	
Y COMMISSION EXPIRES	
NOTARY PUBLIC	
PEDTIFICATE OF TITLE INCLIDANCE COMPANY.	
CERTIFICATE OF TITLE INSURANCE COMPANY:	
======; EPRESENTING TITLE	NSURANCE
OMPANY IN THE STATE OF COLORADO DO CERTIFY THAT I HAVE EXAMINED THE TITLE TO THE REAL PRICHOWN AND DESCRIBED ON THESE PLATS AND FOUND TITLE VESTED IN SALIDA BOTTLING COMPANY, LLC	OPERTY
OLORADO LIMITED LIABILITY COMPANY, FREE AND CLEAR OF ALL LIENS AND ENCUMBRANCES,	-, ··
XCEPT:	

3) SITE BENCHMARK IS AN 1 1/2" ALUMINIUM CAP ON NO. 5 REBAR STAMPED L.S. 37937, HAVING AN ELEVATION OF

4) UNDERGROUND UTILITIES SHOWN AS MARKED ON THE SURFACE BY UTILITY NOTIFICATION CENTER OF COLORADO AND OTHERS, LANDMARK SURVEYING AND MAPPING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF ANY UNDERGROUND UTILITIES DEPICTED HEREON.

5) FIELD WORK PERFROMED ON DECEMBER 21. SITE WAS SNOW COVERED AT TIME OF SURVEY. FEATURES MAY EXIST THAT WERE NOT VISIBLE AT THE TIME OF THE SURVEY.

## LAND SURVEYOR'S STATEMENT:

I, SYDNEY ARTHUR SCHIEREN, A REGISTERED LAND SURVEYOR LICENSED TO PRACTICE IN THE STATE OF COLORADO, DO HEREBY STATE THAT THE BOUNDARY SURVEY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLANNED DEVELOPMENT PLAN WERE PREPARED UNDER MY DIRECT SUPERVISION AND CHECKING, AND THAT THE SURVEY INFORMATION SHOWN ON THE PLAT CONTAINED HEREIN IS BASED ON A MONUMENTED LAND SURVEY AS SHOWN, AND THAT SAID SURVEYS AND THE KNOWLEDGE PERTAINING TO SAID SURVEYS ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

, 20

SIGNATURE

L.C.E. NO. \_\_\_\_\_56989\_\_\_\_

## RESIDENCES AT SALIDA BOTTLING COMPANY PLANNED DEVELOPMENT PLAN

PART OF LOTS 4 & 5, ALL OF LOTS 6-9, BLOCK 19, CITY OF SALIDA, COLORADO 81201

## CITY COUNCIL APPROVAL:

THIS PLANNED DEVELOPMENT PLAN IS APPROVED FOR FILING.

DATED:,	20
	BY:

## COUNTY CLERK AND RECORDER'S CERTIFICATE:

THIS PLANNED DEVELOPMENT PLAN WAS FILED FOR RECORD IN	THE OFFICE OF THE CLERK AND RECORDER OF CHAFFEE COUNTY,
COLORADO, ATM., ON THIS DAY OF	, A.D. 20, UNDER
RECEPTION NO.	

CHAFFEE COUNTY CLERK AND RECORDER

## INCLUSIONARY HOUSING

UNITS 9 AND 10, ON LOTS 9 AND 10, AS SHOWN ON SHEETS 2 AND 3 OF THIS PLANNED DEVELOPMENT PLAN, SHALL BE BUILT BY SALIDA BOTTLING COMPANY AND DEED RESTRICTED TO 80% OF AREA MEDIAN INCOME PER SALIDA MUNICIPAL CODE SECTION 16, ARTICLE 8, THUS SATISFYING THE INCLUSIONARY HOUSING REQUIREMENT FOR THE PLANNED DEVELOPMENT. NO MORE THAN 7 MARKET RATE RESIDENTIAL UNITS IN THE PLANNED DEVELOPMENT MAY RECEIVE CERTIFICATES OF OCCUPANCY PRIOR TO CERTIFICATES OF OCCUPANCY FOR UNITS 9 AND 10.







## SCHEDULE OF USES

PROPERTY IS CURRENTLY SPLIT ZONED C-1 AND INDUSTRIAL. USES PER THIS PD SHALL BE PER THE "PD" COLUMN BELOW. HIGHLIGHTED CELLS INDICATE DEVIATION FROM EITHER OF THE UNDERLYING ZONES.

Residential Uses	C-1	l l	PD	Standards <sup>1</sup>
Accessory buildings and structures.	Р	Р	Р	Sec. 16-4-190(c)
Multiple principal residential structures	Р	Р	Р	Sec. 16-4-190(b)
Accessory dwelling units	AR	AR	AR	Sec. 16-4-190(c)
Duplex dwelling units	P 3	LR <sup>3</sup>	P	
Residential (3—4 units)*	AR <sup>3</sup>	AR <sup>3</sup>	AR	
Residential (5—19 units)	LR <sup>3</sup>	LR <sup>3</sup>	AR	
Residential (20 or more units)		MR <sup>3</sup>	MR	
Single-family dwelling units	AR <sup>3</sup>	AR <sup>3</sup>	AR	
One or more dwelling units on the same site as a commercial or industrial use	LR	LR	AR	
Residential Business Uses	C-1	I	PD	Standards <sup>1</sup>
Day care, home	Р	Р	Р	Sec. 16-4-190(f)
Home Occupations	Р	Р	Р	Sec. 16-4-190(g)
Home Businesses	Р	Р	AR	Sec. 16-4-190(g) AR to allow for review of required parking.
Bed & Breakfast Inns	Р	AR	AR	AR to allow for review of required parking.
Short-term rental units	AR	AR	AR	Sec. 16-4-190(q) Subject to STR regulations in effect at time of STR license application.
Commercial, Personal Service and Office Uses	C-1	ı	PD	Standards <sup>1</sup>
		1	1	AR to allow for review of required
Eating and drinking establishments	Р	LR	AR	parking.
establishments  Professional offices	P P	LR LR	AR AR	·-

1 The standards referenced herein are in addition to all other applicable standards of this

B An existing dwelling can be modified or rebuilt as a matter of right provided it is in conformance with the dimensional standards of Table 16-F.

## The allowed use is conditional in the SH 291 Corridor Overlay (291 CO). Refer to Section 16-5-50 regarding the SH 291 Corridor (291 CO) District.

## SCHEDULE OF DIMENSIONAL STANDARDS

PROPERTY IS CURRENTLY SPLIT ZONED C-1 AND INDUSTRIAL. HIGHLIGHTED CELLS INDICATE WHERE PD EXCEEDS THE STANDARDS OF EITHER ZONE.

Dimensional Standards	C-1	I	PD/Site as whole	PD / Individual Lots	Notes
Min. lot size (sq. ft.)	5,625 5,063 <sup>6</sup> 3,750 <sup>7</sup>	5,625	N/A	350	
Density (Min. lot sq. footage per principal dwelling unit)	2,800 2,450 <sup>6</sup>	2,800	1,632	N/A	
Min lot size (sq. ft.)—attached units	2,800 2,520 <sup>6</sup>	2,800	N/A	350	
Min. lot frontage	37'-6" 25' 7	37'-6"	N/A	16'	Townhome lot frontage is measured on 1 <sup>st</sup> Street or interior access easement
Min. lot frontage—attached units	20'	20'	N/A	16'	28' is narrowest residential building footprint facing 1 <sup>st</sup> Street.
Max. lot coverage: structures (additive coverage total for structures uncovered parking cannot exceed 90% except C-2)	60% 66% <sup>6</sup>	60%	66%	100%	This does include covered balconies. Additive coverage for structures and uncovered parking/access for the entire site will not exceed 90%
Max. lot coverage: uncovered parking/access (additive coverage total for structures and uncovered parking cannot exceed 90% except in C-2) 5	60%	30%	60%	80%	80% is for the HOA lot which is mainly vehicle access, with some landscaping.
Min. landscape area	10%	10%	10%	0%	
Min. setback from side lot line for a primary bldg.	5'**	5'**	5'	0,	
Min. setback from side lot line for a detached accessory bldg.	3', 5', or 10' <sup>8</sup>	3', 5', or 10' <sup>8</sup>	N/A	N/A	No accessory buildings allowed
Min. setback from rear lot line: principal bldg.	5' <sup>2</sup>	5' <sup>2</sup>	5'	0'	
Min. setback from rear lot line: accessory bldg.	5'	5'	N/A	N/A	No accessory buildings allowed
Min. setback from front lot ine <sup>4</sup>	10'	10'	5'	0'	Unit 4 building only at 5'. All other buildings along 1st Street have 10' porch front setback and 15' building front setback to 1st Street.
Parking spaces, min.	19 or 20	19 or 20	19	1/3	1 per residential unit meets code for inclusionary housing development with site analyzed as a whole. 3 spaces for 700 square foot commercial.
Max. building height for a orimary bldg.	35'	35'	40'	40'	Portions of buildings over 35' shall be setback 24' minimum from 1st St and Monarch Spur property lines. Height measured from finished floor or average post-construction grade around building perimeter, whichever is lower.
Max. building height for a detached accessory bldg.	25'	25'	N/A	N/A	
Maximum number of stories per Hwy 291 established residential overlay district	2	2	3	3	Lots 1-4: 2 story building; 3rd story rooftop access only. Lots 5-7: 3 story building; 4th story for rooftop access only. Lots 8-16: 3 story.
Notes:				l	

2 If the property adjoins a residential zone district, setbacks on the side and rear lot line shall be the same as those in

4 A covered porch may encroach into the front yard setback by twenty-five (25) percent.

5 If a front-loaded garage is set back at least ten (10) feet behind the primary street-facing building façade, the lot coverage between the garage entrance and the primary, street-facing building façade shall not be included in the

calculation of lot coverage for uncovered parking/access. 6 Standards for inclusionary housing development per Section 16-13-50.

7 Fifteen (15) percent of the single-family lots within an inclusionary housing development may be twenty-five (25) feet by one hundred fifty (150) feet.

8 See Section 16-4-190(c) for a description of side lot line setbacks for all accessory buildings, including ADUs

Sec. 16-4-190(m) AR to allow for

- 1. LOT LINE ADJUSTMENTS FOR DESIGN CHANGES AND/OR CONSTRUCTION TOLERANCES ARE ANTICIPATED AND SHALL BE CONSIDERED "PRACTICAL NECESSITIES" PER SECTION 16-6-70 CITY OF SALIDA MUNICIPAL CODE.
- 2. FEES IN LIEU OF LAND DEDICATION FOR SCHOOL SITES, AND FEES IN LIEU OF OPEN SPACE, SHALL BE PAID AT TIME OF BUILDING PERMIT FOR EACH RESIDENTIAL UNIT.
- 3. OCCUPANTS OF ANY INCLUSIONARY HOUSING UNITS SHALL NOT BE RESPONSIBLE FOR HOMEOWNER'S ASSOCIATION ASSESSMENTS OR DUES BEYOND THOSE FAIRLY-PRICED SPECIFICALLY FOR UTILITIES, TRASH SERVICES, AND THE LIKE.
- 4. THE ACCESS EASEMENT SHOWN ON THE SUBDIVISION PLAT SHALL BE CONSIDERED "DIRECT ACCESS ONTO A PUBLIC STREET" PER CITY OF SALIDA MUNICIPAL CODE SECTION 16-8-20 (a).

SHEET INDEX COVER SHEET

2. SITE PLAN

PD PLAN 1/18/22

<u>PRIVATE ENGINEER'S NOTES TO CONTRACTOR</u> HE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR TRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE PECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS CHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY EASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR URTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OF RUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS INTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFET PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND F BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY. THE CITY. THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE

WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE

DAY OF

DATED THIS

SALIDA BOTTLING CO. 9707 CR 163 SALIDA, CO 81201 PHONE: ----

PREPARED UNDER THE DIRECTION OF: CRABTREE GROUP, IN WILLIAM B. HUSSEY

EXP. DATE <u>10/31/202</u>

325 D STREET Salida, CO 81201 918 CUYAMA ROAD OJAI, CA 93023 PH: 719-539-1675 PH: 719-221-1799

PREPARED BY:

						CI	TY OF SALIDA	
						DESIGNED BY WBH	APPROVED BY:	
						DRAWN BY WBH		
						CHECKED BY WBH	AGENCY HEAD DATE	
						SCALE NONE	BENCHMARK: 1 1/2" ALUM. CAP ON #5	OW
DATE ENGI	BY NEER	MARK	K F V I S I U N S	APPR. REVISIO	DATE ON AGENCY	DATE JAN. 2022	REBAR LS 37937 ELEV.=7059.64'	OW

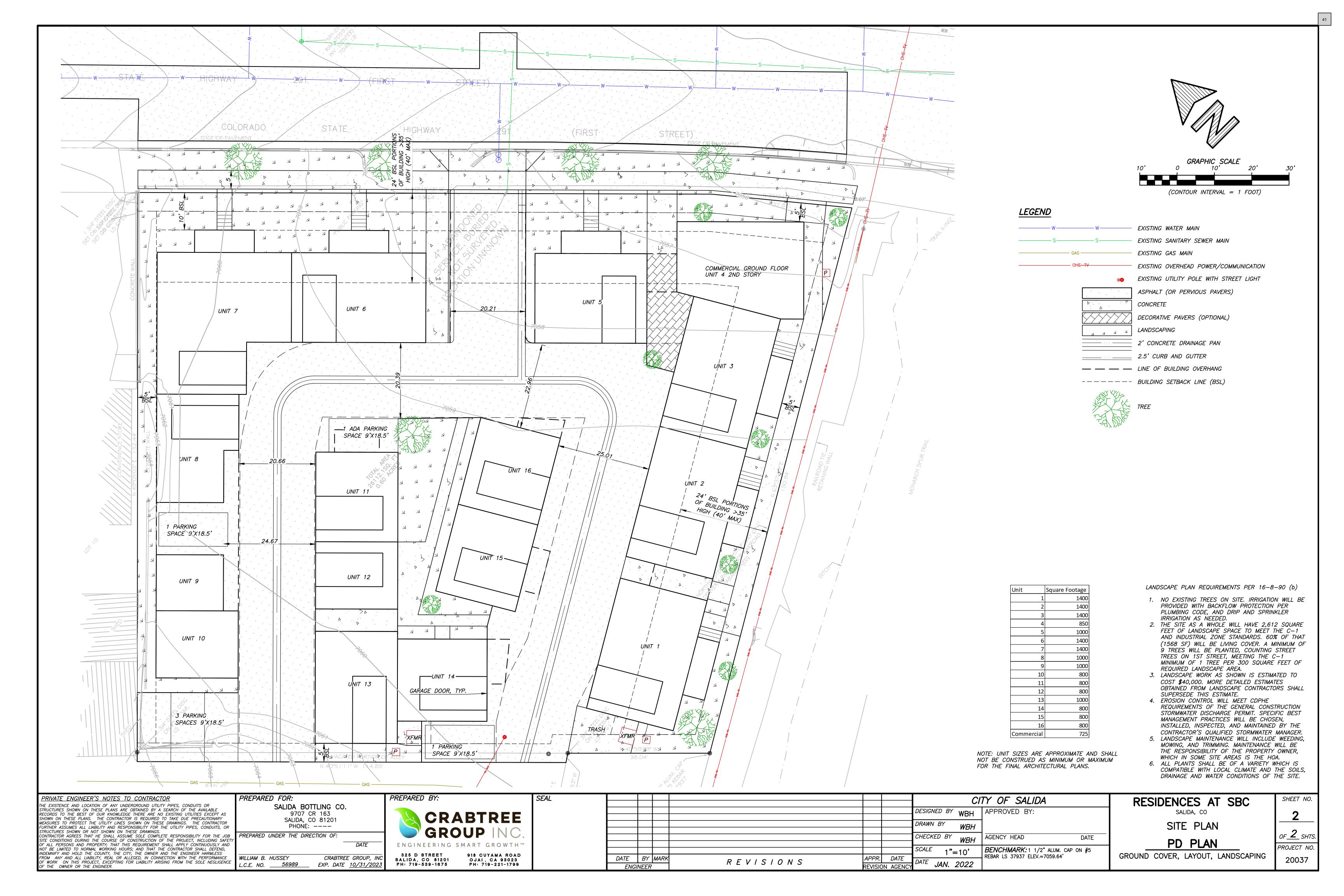
RESIDENCES AT SBC

**COVER SHEET** 

WNERSHIP, APPROVALS, CODE STUDY

PROJECT NO.

SHEET NO.









EARLS COURT - MT PLEASANT EARLS COURT - MT PLEASANT







BROOKLYN MEWS



BATHURST MEWS

URBAN DESIGN IMAGE BOARD PRINTED ON 11x17)



SALIDA BOTTLING WORKS SEEN FROM 1ST ST



1914 SANBORN SHOWING SALIDA BOTTLING WORKS; NTS







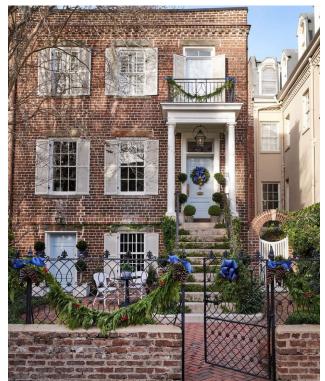
MASONRY DETAILING MASONRY DETAILING







URBAN FLOOR LEVEL RELATIONSHIP



URBAN FLOOR LEVEL RELATIONSHIP



LANE FRONTAGE FENESTRATION



### **UNIT DESCRIPTION**

UNIT # SQUARE FOOTAGE

1 1400 2 1400

3 1400

4\* 850

5 1000

6 1400

7 1400

8 1000

9\*\* 1000

10\*\* 800

11 800

12 800

13 1000

14 800 15 800

16 800

COMMERICAL\* 725

\* 2 STORY MIXED-USE BLDG

\*\*AFFORDABLE UNIT



SITE PLAN

SCALE: 1" = 30'-0" (PRINTED ON 11x17)

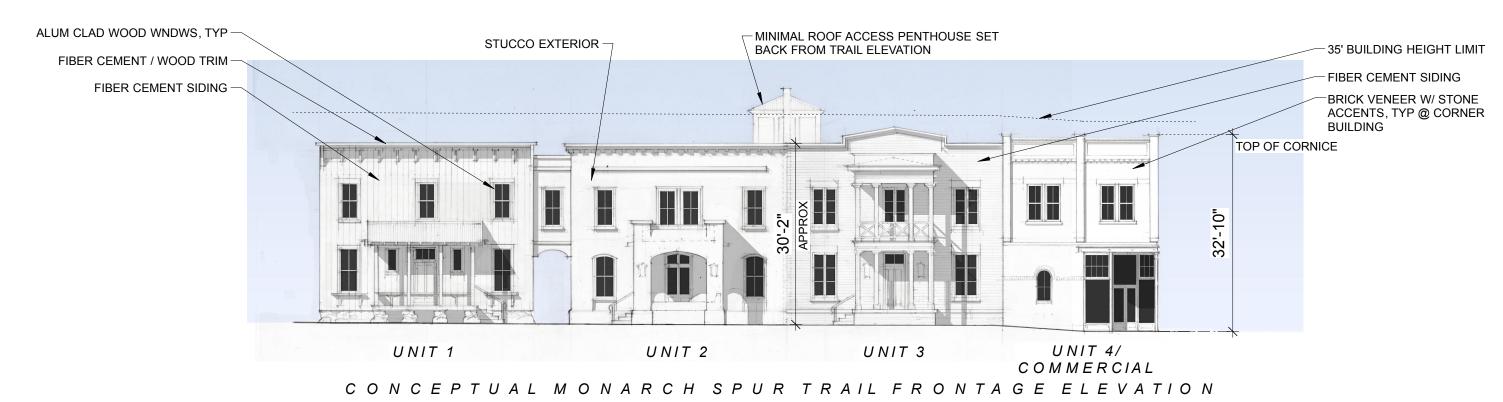


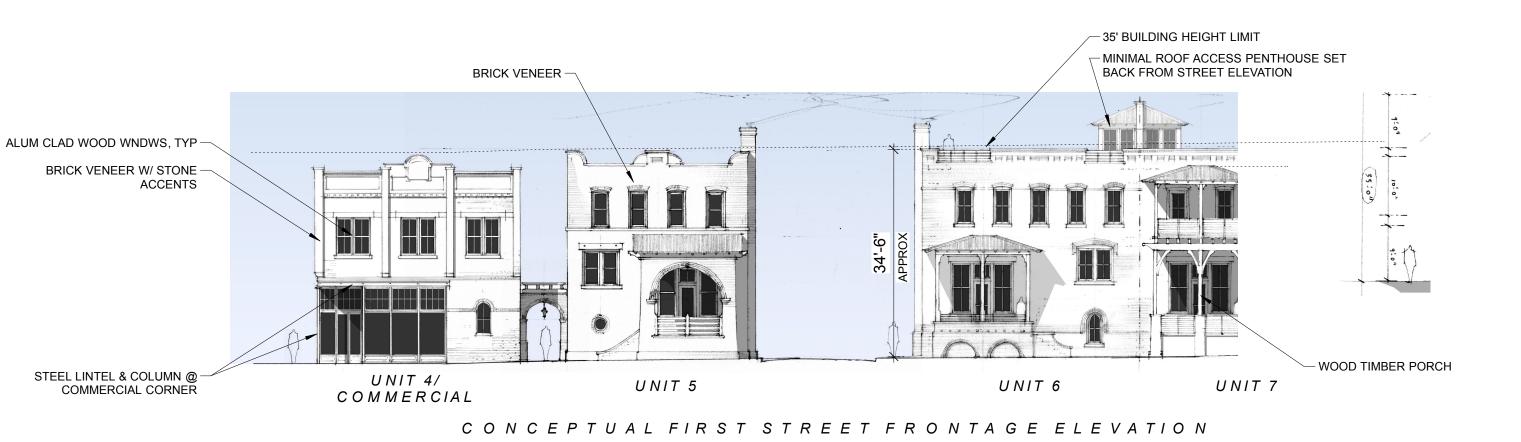


SITE PLAN - BUILDING FOOTPRINT SCALE: 1" = 30'-0" (PRINTED ON 11x17)



BIRD'S EYE PERSPECTIVE (PRINTED ON 11x17)



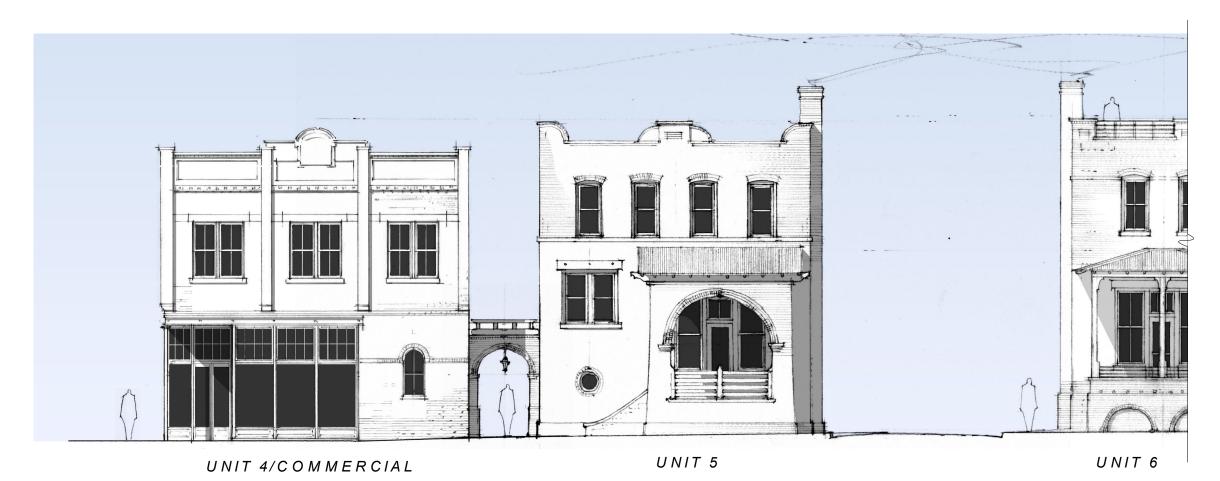


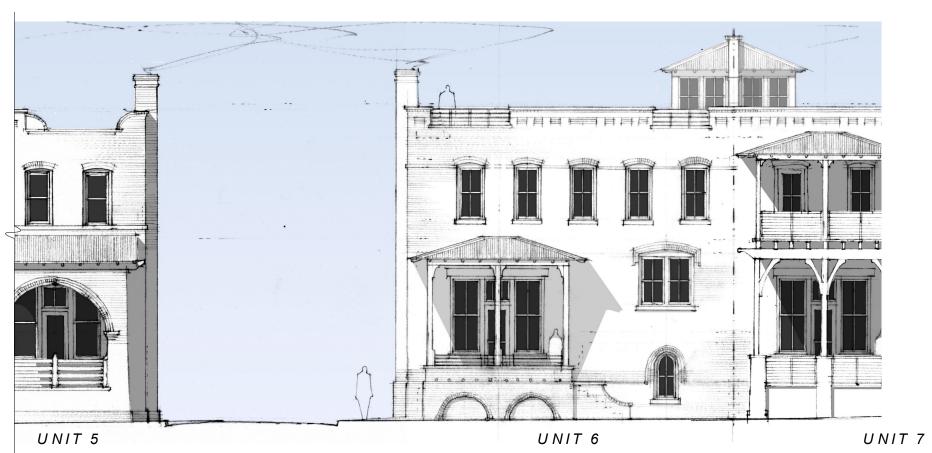
CONCEPTUAL FRONTAGE ELEVATIONS SCALE: 1/16" = 1'-0" (PRINTED ON 11x17)

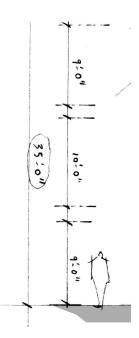




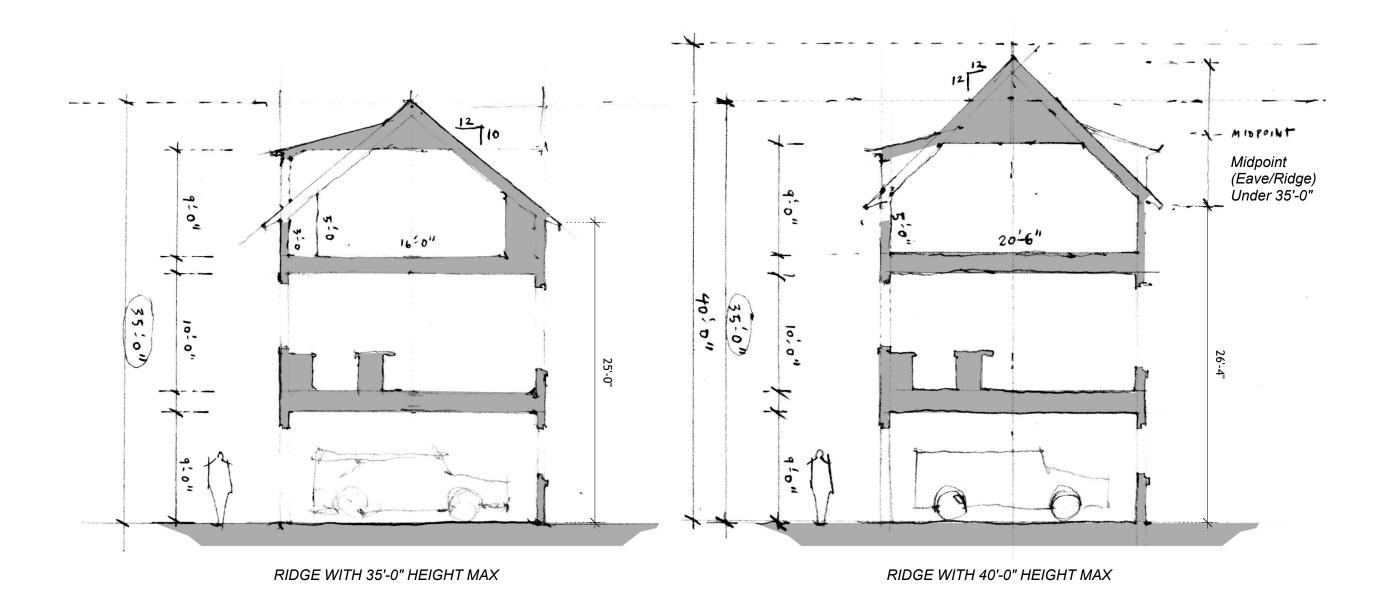
CONCEPTUAL MONARCH SPUR TRAIL FRONTAGE ELEVATION SCALE: 3/32" = 1'-0" (PRINTED ON 11x17)

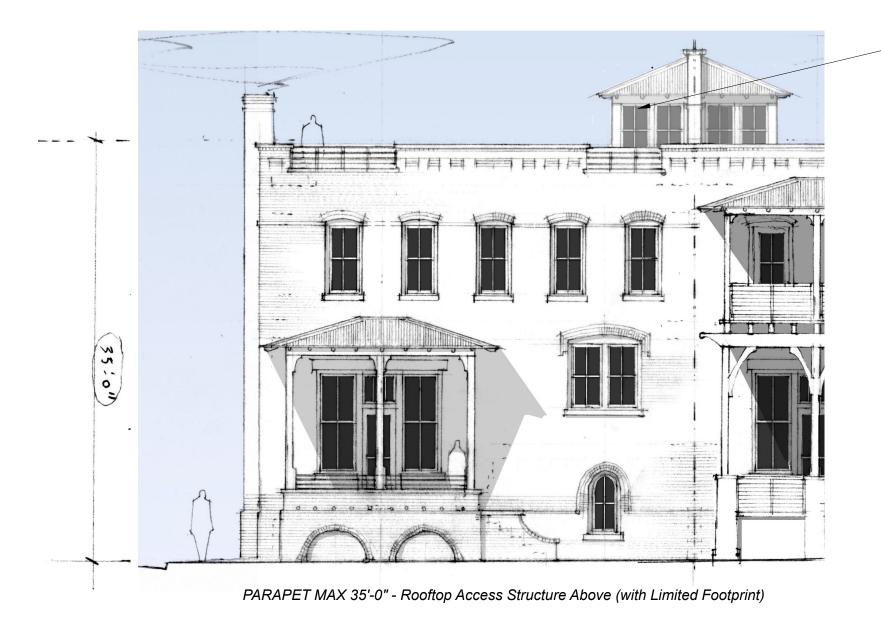






CONCEPTUAL FIRST STREET FRONTAGE ELEVATIONS SCALE: 3/32" = 1'-0" (PRINTED ON 11x17)





Small Footprint Rooftop Access Penthouse Structure ( Under 100 s.f.)

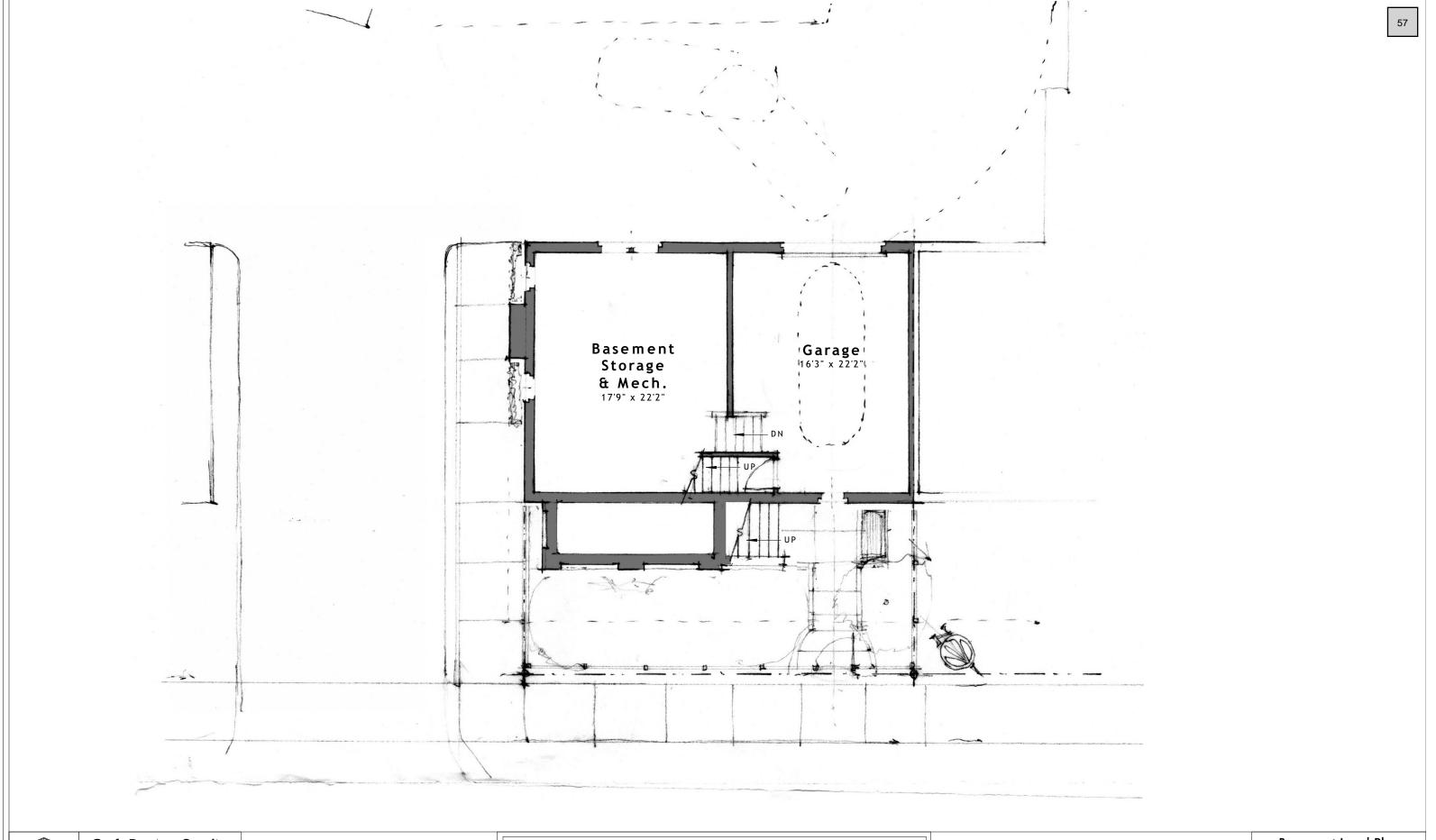
Face of Rooftop Structure 10-0" -12'-0" Behind Front Face of Building -Not Likely Visible from Frontage



SITE PLAN - AERIAL CONTEXT SCALE: 1" = 50'-0" (PRINTED ON 11x17)





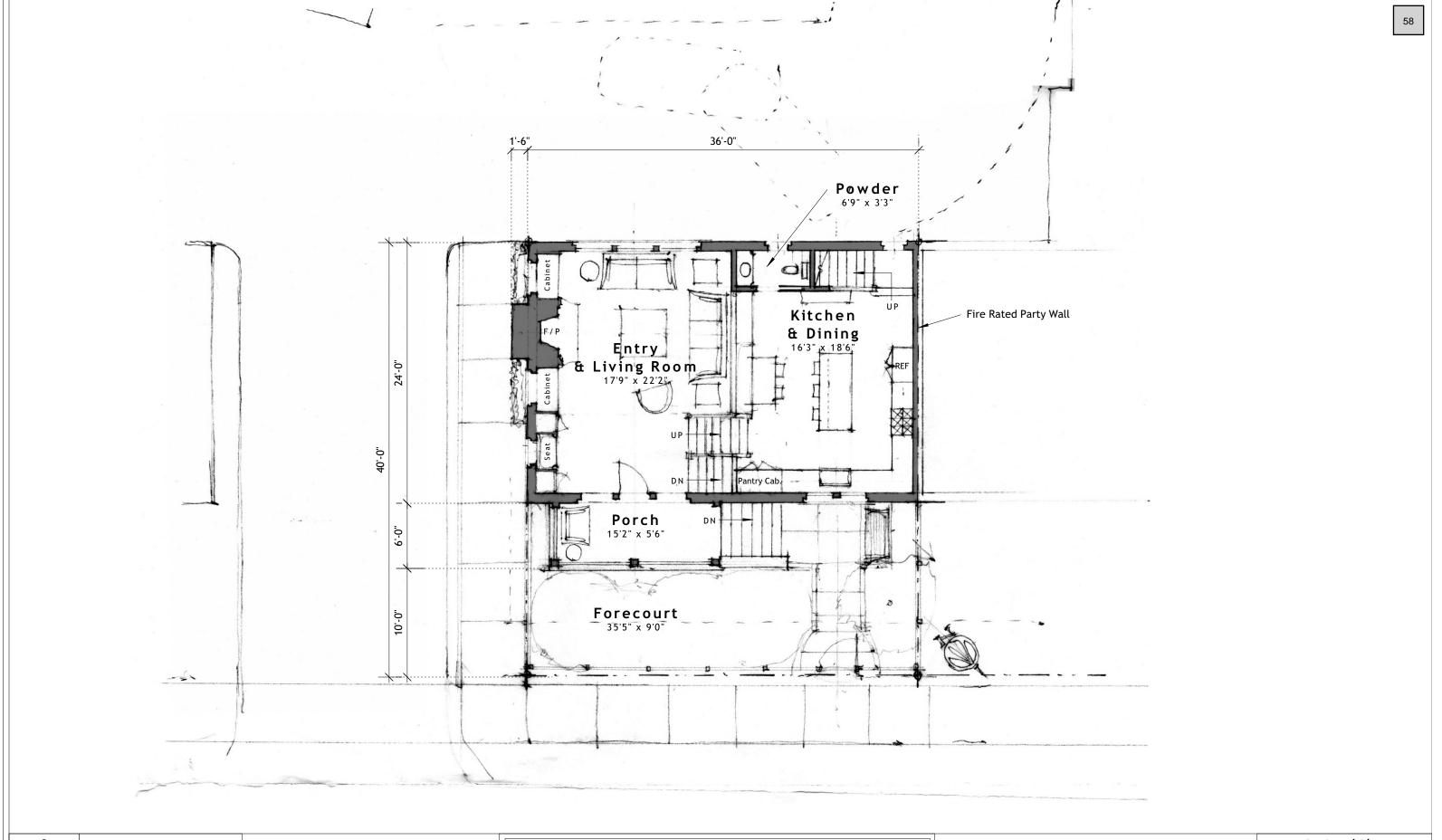




Lot 6 House - 1st Street

Bottling District
Salida - Colorado

Basement Level Plan 1/8" = 1'-0"

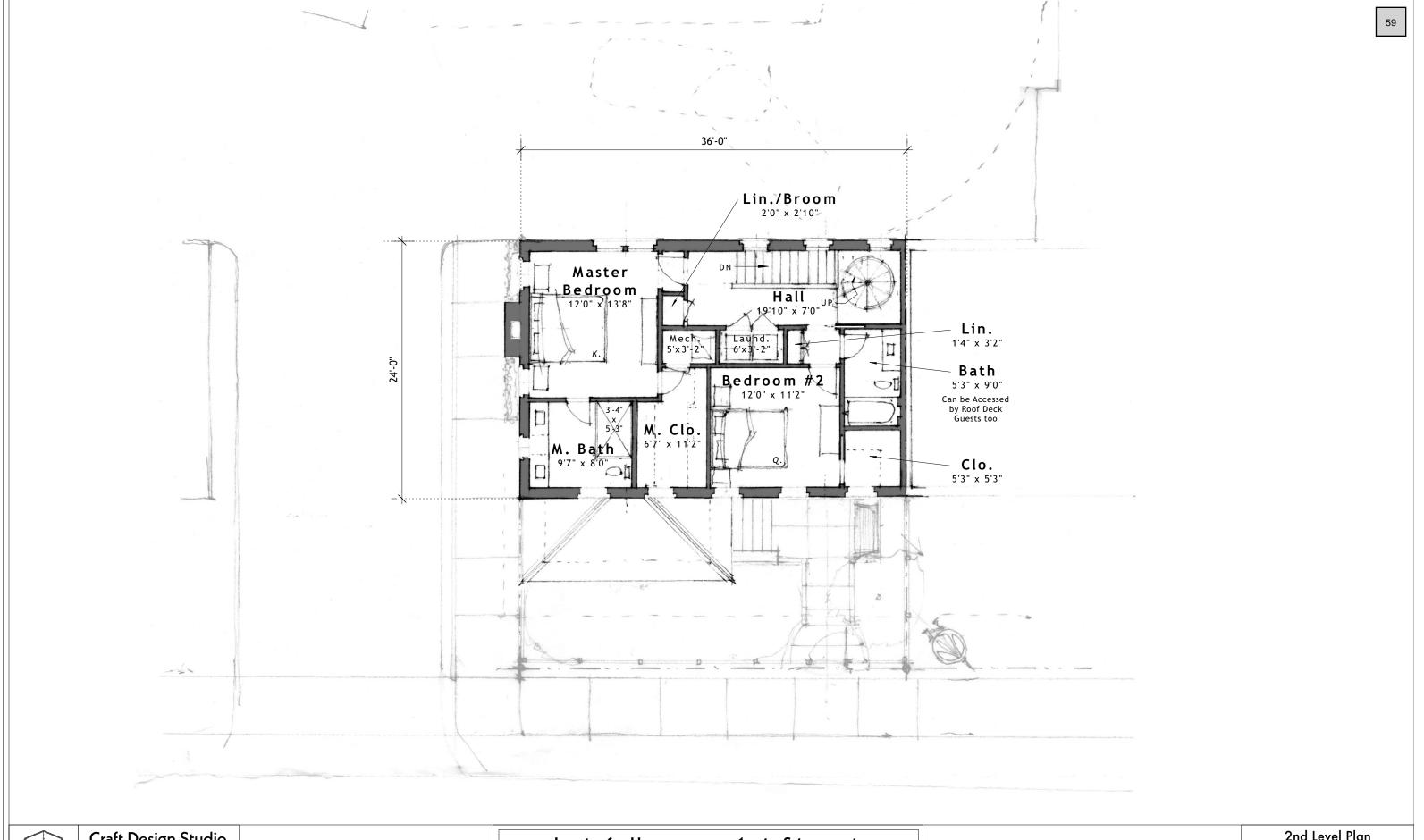




Lot 6 House - 1st Street

Bottling District
Salida - Colorado

1st Level Plan 1/8" = 1'-0"

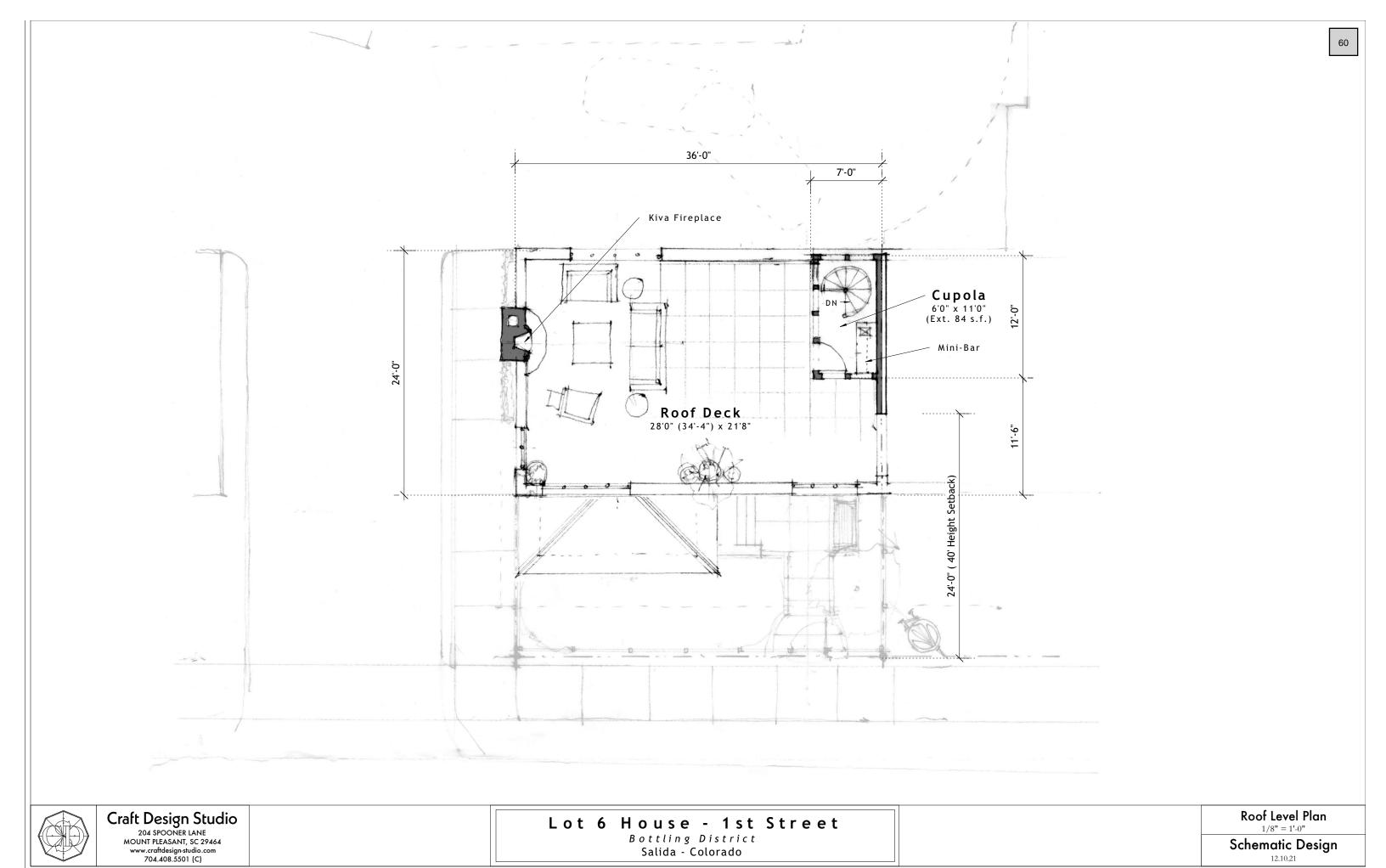


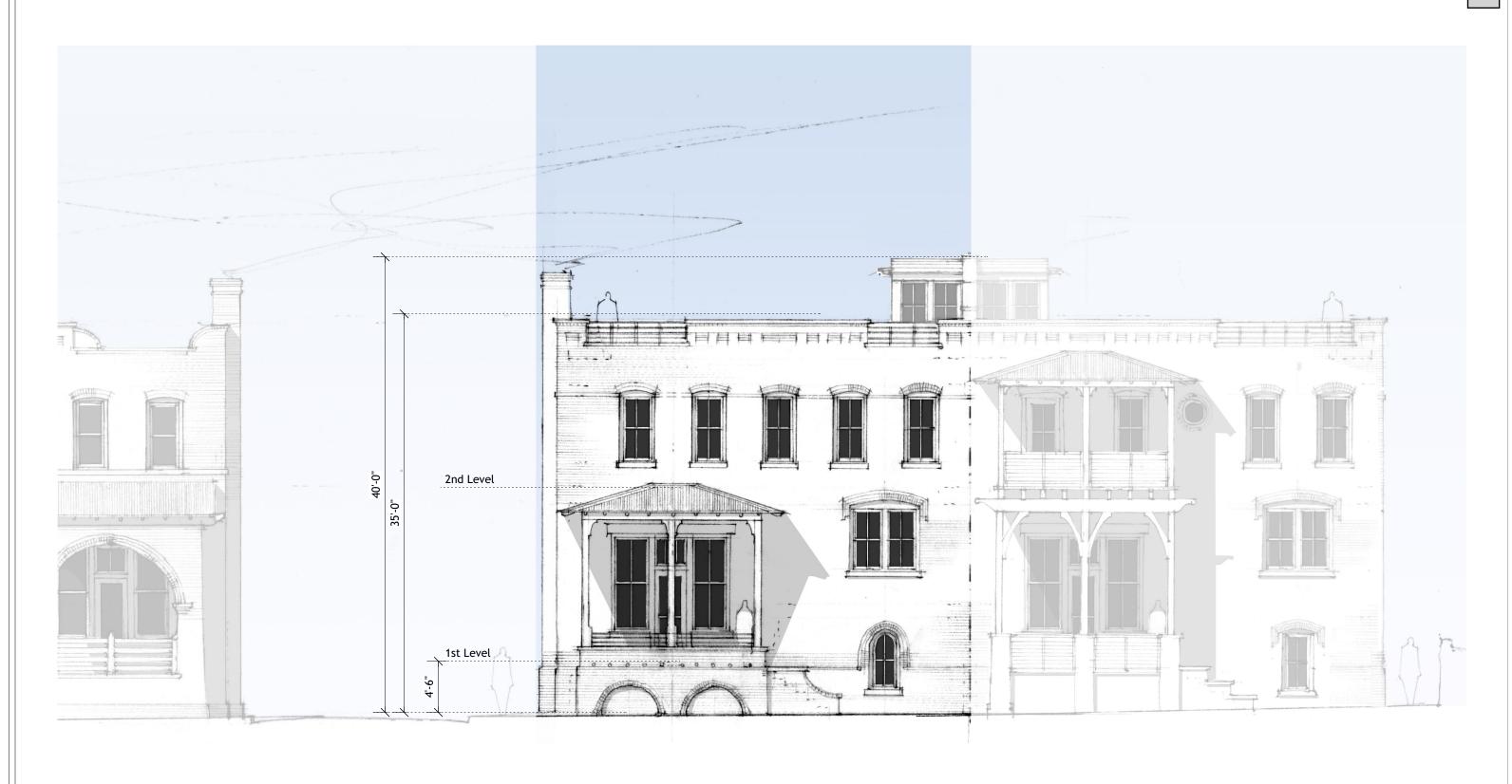


Lot 6 House - 1st Street

Bottling District
Salida - Colorado

2nd Level Plan 1/8" = 1'-0"







Lot 6 House - 1st Street

Bottling District
Salida - Colorado

Front Elevation 1/8" = 1'-0"

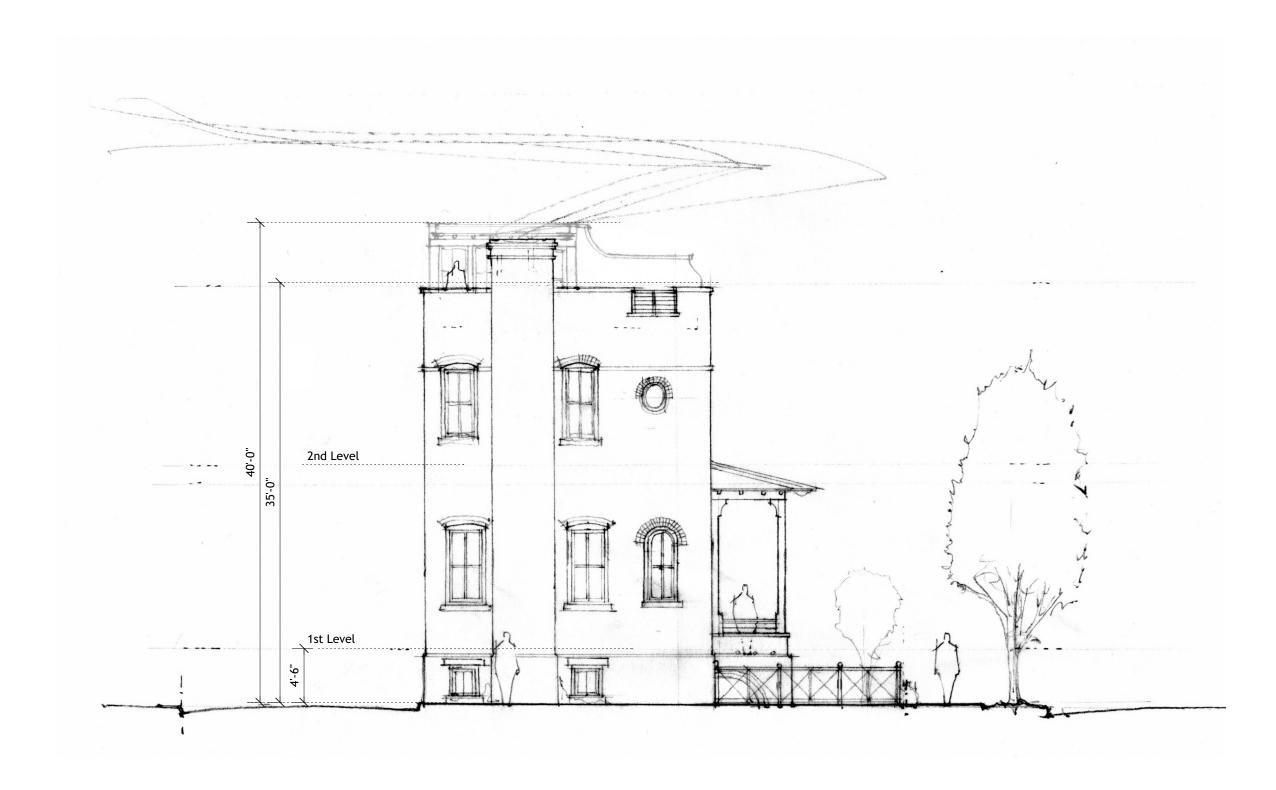




Lot 6 House - 1st Street

Bottling District
Salida - Colorado

Building Section
1/8" = 1'-0"





Lot 6 House - 1st Street

Bottling District
Salida - Colorado

Left Side Elevation 1/8" = 1'-0"

Salida Bottling Company Height Analysis 2/1/2022

All units are feet. First two digits of elevations are truncated for convenience. Add 7000' to all elevations to get actual elevations.

				Ms	mt C					Msmt D	Msmt E (D - C)	Msmt H			Msmt	Α					Msmt B			Msm	t F (B - A)	Msmt G - 1	the lower of E or F
	existing grade	e building co	rner elevati	ions		post-constru	uction grade	building cor	ner elevat	ions					finished floor to	)	average existing		average post-cons grade to	truction	Height Measurem existing Code Defi (height from lowe existing vs. post-co grade)	nition er of		based on prior re be granted if allo from Finished Flo	oor Elevation (Msmt A) rather than code	based on prior r granted if allow the <b>lower</b> of Fin construction Gra	
unit	1	2	3	4 ave	erage	1	2	3	4		Difference between post- construction grade to existing grade, in inches		top of roof/parapet el.	chimney/c		-	roof peak/parapet height		peak/parapet u	nimney/c pola eight	peak/parapet u	himney/c ipola leight	unit	roof peak/parape height	et chimney/ cupola height		chimney/ cupola height
	1 59.83	59.72	59.62	59.88	59.76	60.02	59.16	59.8	59.78	59.69	-1	60.3	3 90.3		30		30.54			40.61		40.61	1	N.A.	7	N.A.	N.A.
	2 59.68	58.98	59.84	59.11	59.40	58.96	58.1	59.64	58.82	58.88	-6	59.3		_	30.45	40	30.35			40.42		40.42	2	N.A.	5	N.A.	N.A.
	3 58.98	57.54	59.11	57.79	58.36	58.1	57.11	57.99	58.82	58.01	-4	59.3	89.75	5 99.3	30.45	40	31.40	40.95	31.75	41.30	31.75	41.30	3	N.A.	16	N.A.	N.A.
	4 57.56	56.67	57.76	56.1	57.02	57.01	56.26	57.87	55.55	56.67	-4	55.75	89.75	5	34		32.73		33.08		33.08		4	N.A.		N.A.	
	5 58.17	57.43	58.15	57.19	57.74	57.4	57.1	57.7	56.69	57.22	-6	62.5	5 94	4	31.5		36.27		36.78		36.78		5	21		N.A.	
	6 59.58	59.1	58.54	57.87	58.77	58.4	60.3	57.94	58.26	58.73	-1	62.8	94.3	3 99.3	31.5	36.5	35.53	40.53	35.58	40.58	35.58	40.58	6	7	7	N.A.	N.A.
	7 61.9	60.87	59.79	59.1	60.42	64.3	61.74	58.4	60.3	61.19	9	62.8	94.3	3 99.3	31.5	36.5	33.89	38.89	33.12	38.12	33.89	38.89	7	N.A.	N.A.	N.A.	N.A.
	8 62.23	61.9	59.91	59.79	60.96	64.3	64.3	60.01	58.8	61.85	11	62	2 102		40		41.04		40.15		41.04		8	13		11	
	9 60.86	60.65	60.21	59.99	60.43	64.72	64.5	61.77	60.7	62.92	30	62		_	40		41.57		39.08		41.57		9	19		19	
1	0 61.26	60.86	60.58	60.14	60.71	64.99	64.72	63.34	61.73	63.70	36	62	2 102		40		41.29		38.31		41.29		10	15		15	
1	1 59.84	59.66	59.72	59.49	59.68	60.49	58.77	59.86	58.23	59.34	-4	62	102		40		42.32		42.66		42.66		11	32		N.A.	
1	2 59.96	59.84	59.87	59.72	59.85	61.77	60.49	61.11	59.86	60.81	12	62			40		42.15		41.19		42.15		12	26		12	
1	3 61.64	60.05	60.41	59.91	60.50	63.37	62.2	60.41	61.13	61.78	15	62			40		41.50		40.22		41.50		13	18		15	
1	4 60.17	59.91	59.95	59.82	59.96	60.53	61.13	60.29	59.85	60.45	6	60.8			40		40.84		40.35		40.84		14	10		6	
1	5 59.79	59.52	59.78	59.54	59.66	60.58	59.19	59.45	58.88	59.53	-2	59.3			40		39.64		39.78		39.78		15	N.A.		N.A.	
1	6 59.52	59.01	59.54	59.09	59.29	59.19	57.8	58.88	58.3	58.54	-9	59.3	99.3	3	40		40.01		40.76		40.76		16	9		N.A.	

## RESIDENCES AT SALIDA BOTTLING COMPANY

LOCATED IN BLOCK 19 CITY OF SALIDA CHAFFEE COUNTY, COLORADO

## LOTS NO. 6, 7, 8 AND 9 BLOCK NO. 19 CITY OF SALIDA CHAFFEE COUNTY, COLORADO FRACTIONAL LOTS FOUR (4) AND FIVE (5) IN BLOCK 19 OF THE CITY OF SALIDA AND A STRIP OF LAND BETWEEN SAID BLOCK 19 AND THE RIGHT-OF-WAY OF THE DENVER AND RIO GRANDE WESTERN RAILROAD (MONARCH BRANCH) ALL OF WHICH IS MORE PARTICULARLY DESCRIBED AS A TRACT OF LAND LOCATED WITHIN THE CITY OF SALIDA, CHAFFEE COUNTY, COLORADO AND BEING PART OF FRACTIONAL BLOCK NO. 19 OF ORIGINAL SALIDA AND PART OF THE ADJOINING RAILROAD RESERVATION LAND BEING DESCRIBED AS FOLLOWS: BEGINNING AT THE COMMON CORNER OF LOTS 5 AND 6 OF SAID BLOCK NO. 19 LOCATED ON FIRST STREET; THENCE SOUTH 48°48'24" WEST ALONG THE COMMON LOT LINE OF SAID LOTS 5 AND 6 FOR A DISTANCE OF 150.00 FEET TO THE NORTHEASTERLY ALLEY BOUNDARY OF SAID BLOCK NO. 19; THENCE SOUTH 41°11'36" EAST ALONG SAID NORTHEASTERLY ALLEY BOUNDARY 53.76 FEET TO THE NORTHERLY BOUNDARY OF THE DENVER AND RIO GRANDE WESTERN RAILROAD-MONARCH BRANCH; THENCE NORTH 63° 13'57" EAST ALONG SAID RAILROAD BOUNDARY 154.88 FEET TO THE SOUTHWESTERLY BOUNDARY OF SAID FIRST STREET; THENCE NORTH 41°11'36" WEST ALONG SAID STREET BOUNDARY 92.34 FEET TO THE POINT OF BEGINNING. THAT PORTION OF THE FOLLOWING DESCRIBED ALLEY LOCATED WITHIN BLOCK 19, IN THE CITY OF SALIDA, CHAFFEE COUNTY, COLORADO, THAT ABUTS LOTS 5,6,7, 8 AND 9, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE NORTHEASTERLY RIGHT-OF-WAY OF SAID ALLEY IN BLOCK 19 AND THE SOUTHEASTERLY BOUNDARY OF SAID BLOCK 19, FROM WHENCE THE INTERSECTION OF SAID SOUTHEASTERLY BOUNDARY OF BLOCK 19 AND THE NORTHEASTERLY RIGHT-OF-WAY OF SECOND STREET BEARS SOUTH 60°24'50" WEST, A DISTANCE OF 178.58 FEET; THENCE SOUTH 60°24'50" WEST ALONG SAID SOUTHEASTERLY BOUNDARY OF BLOCK 19, A DISTANCE OF 2.69 FEET; THENCE NORTH 40°46'3 I" WEST, A DISTANCE OF 2 I 5.34 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY OF I STREET; THENCE NORTH 49° I 3'29" EAST ALONG SAID RIGHT-OF-WAY OF I STREET, A DISTANCE OF 2.42 FEET TO SAID NORTHEASTERLY RIGHT-OF-WAY OF THENCE SOUTH 40°49'58" EAST ALONG SAID NORTHEASTERLY ALLEY RIGHT-OF-WAY, A DISTANCE OF 215.86 FEET TO THE POINT OF BEGINNING HAS LAID-OUT, PLATTED AND SUBDIVIDED THE SAME INTO LOTS, OUTLOTS AND EASEMENTS, AS SHOWN ON THIS PLAT UNDER THE NAME AND STYLE OF: RESIDENCES AT SALIDA BOTTLING COMPANY IN WITNESS WHEREOF THE UNDERSIGNED HAS CAUSED THESE PRESENTS TO BE EXECUTED THIS\_\_\_\_\_ BY: ERIC WARNER MANAGER, SALIDA BOTTLING COMPANY, LLC COUNTY OF \_\_\_\_\_\_) STATE OF \_\_\_\_\_\_) THE FORGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_\_DAY OF \_\_\_\_\_\_2022, BY ERIC WARNER. WITNESS MY HAND AND SEAL. MY COMMISSION EXPIRES \_\_\_\_\_\_. NOTARY PUBLIC CERTIFICATION OF TITLE , A LICENSED TITLE INSURANCE AGENT IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I HAVE EXAMINED THE TITLE TO THE PROPERTY HEREBY DEDICATED AND AS SHOWN AND DESCRIBED ON THIS PLAT AND FOUND TITLE VESTED IN SALIDA BOTTLING COMPANY, LLC, FREE AND CLEAR OF ALL LIENS AND ENCUMBRANCES EXCEPT AS LISTED BELOW: DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_\_\_\_\_, 2022. TITLE AGENT

CERTIFICATE OF DEDICATION AND OWNERSHIP

PROPERTY:

KNOW ALL PERSONS BY THESE PRESENTS THAT SALIDA BOTTLING COMPANY, LLC, THE FEE OWNER OF THE FOLLOWING DESCRIBED

## ACKNOWLEDGMENT OF LIEN HOLDER

THE TERMS. CONDITIONS AND DEDICATION AS DISCLOSED UPON THIS PLAT.

REPRESENTATIVE STATE OF \_\_\_\_\_\_) THE FORGOING ACKNOWLEDGMENT OF LIEN HOLDER WAS ACKNOWLEDGED BEFORE ME THIS \_\_DAY OF \_\_\_\_\_\_. WITNESS MY HAND AND MY COMMISSION EXPIRES\_\_\_\_\_. NOTARY PUBLIC

## CLERK AND RECORDER'S CERTIFICATE

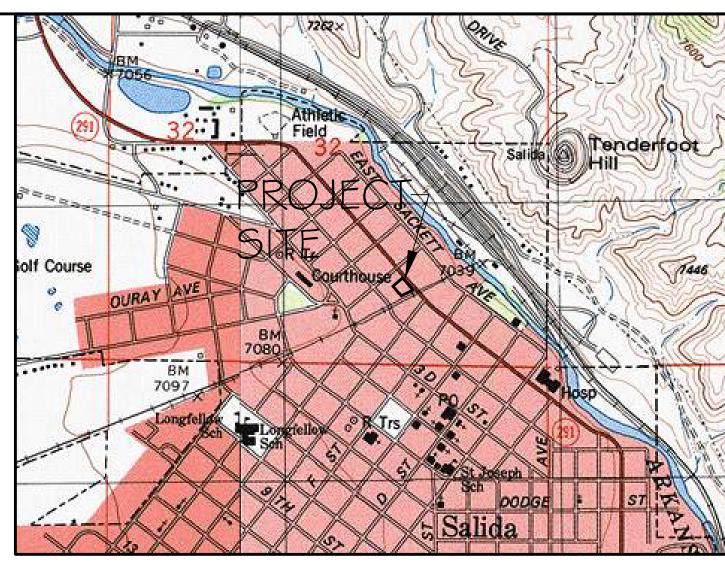
ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_\_, 2022 UNDER RECEPTION NUMBER \_\_\_\_ CHAFFEE COUNTY CLERK AND RECORDER

## CITY COUNCIL APPROVAL

THIS PLAT IS APPROVED FOR FILING AND THE CITY HEREBY ACCEPTS THE DEDICATION OF THE EASEMENTS SHOWN HEREON. SIGNED THIS \_\_\_\_\_DAY OF \_\_\_\_\_\_. 2022. CITY OF SALIDA

LAND SURVEYOR'S CERTIFICATE I, SYDNEY A. SCHIEREN, A REGISTERED LAND SURVEYOR LICENSED TO PRACTICE IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS LAND SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION, AND THAT THE PLAT REPRESENTS THE RESULTS OF SAID SURVEY AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

COLORADO PAGAS



VICINITY MAP NOT TO SCALE

## GENERAL NOTES

1) BASIS OF BEARING FOR THIS SURVEY IS GRID NORTH FROM COLORADO STATE PLANE COORDINATE SYSTEM CENTRAL ZONE, BASED ON G.P.S. OBSERVATIONS ALONG THE NORTH EASTERLY ALLEY RIGHT-OF-WAY IN BLOCK 19, HAVING A BEARING OF NORTH 40°51'11" WEST.

2) LOTS WITHIN "RESIDENCES AT SALIDA BOTTLING COMPANY" SUBJECT TO "RESIDENCES AT SALIDA BOTTLING COMPANY PLANNED DEVELOPMENT" RECORDED AT RECEPTION NO.

3) FEES-IN-LIEU FOR OPEN SPACE SHALL BE REQUIRED PRIOR TO ISSUANCE OF BUILDING PERMITS FOR EACH

4) AS REQUIRED UNDER SECTION 16.6.140 OF THE SALIDA MUNICIPAL CODE, A PAYMENT IN LIEU OF LAND DEDICATION FOR FAIR CONTRIBUTIONS FOR PUBLIC SCHOOL SITES SHALL BE PAID BY THE OWNER OF EACH LOT WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR ANY NEW RESIDENCE ON SUCH

5) THE SUBDIVISION HAS COMPLIED WITH CHAPTER 16 OF THE SALIDA MUNICIPAL CODE AND IS SUBJECT TO THE TERMS OF THE EXECUTED SUBDIVISION IMPROVEMENT AND INCLUSIONARY HOUSING AGREEMENT, AS RECORDED AT RECEPTION NO.

6) FOUNDATIONS, EAVES/SOFFITS, AND OTHER ARCHETECTURAL ELEMENTS, EXCEPT BALCONIES, SHALL NOT EXTEND MORE THAN 20" OFF THE PRIVATE LOT. WHERE THESE EXTENSIONS OCCUR, THEY SHALL BE EITHER BELOW GROUND OR A MINIMUM OF 20' ABOVE GROUND. BALCONIES ARE ALLOWED TO EXTEND OFF THE PRIVATE LOT IN THEIR OWN EASEMENT. BALCONY EASEMENTS SHALL HAVE 9.5' CLEAR FROM GROUND TO BOTTOM OF BALCONY. BALCONIES SHALL NOT BE WITHIN 5' HORIZONTALLY OF A PARALLEL UTILITY INSTALLATION. BALCONIES SHALL NOT ENCROACH ON THE 20' WIDE BY 13.5' HIGH FIRE APPARATUS ACCESS

7) A COMMON WALL MAINTENANCE AGREEMENT SHALL BE ESTABLISHED AND RECORDED TO RUN WITH THE LAND COMPRISING THE PROPOSED TOWNHOME LOTS.

8) THE PROPERTY H.O.A. SHALL OWN AND MAINTAIN ALL IMPROVEMENTS ON THE OUTLOT, INCLUDING PRIVATE UTILITIES.

REVISED: DECEMBER 7, 2021 DECEMBER 8, 2021 DECEMBER 20, 202 JANUARY 31, 2022

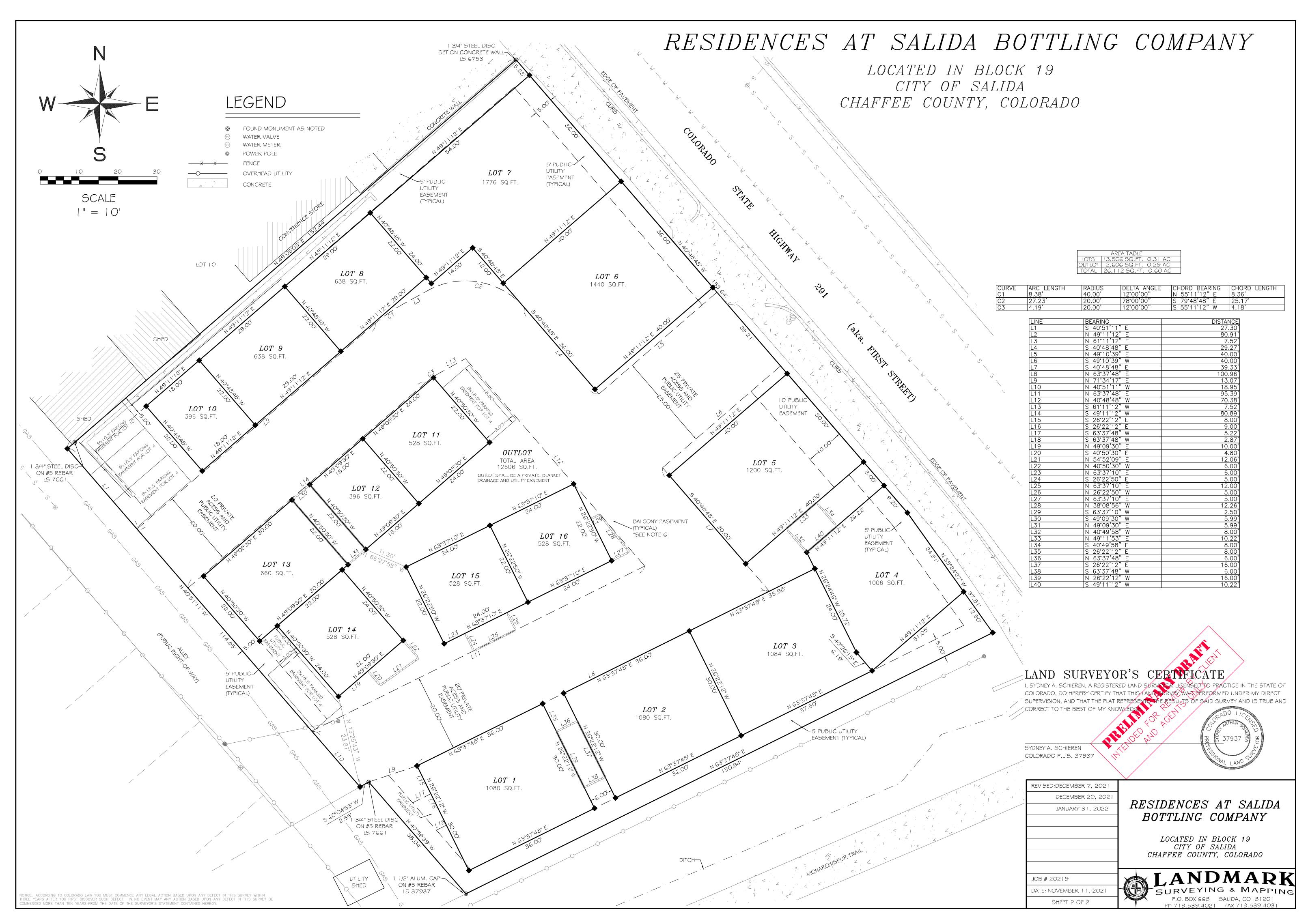
## RESIDENCES AT SALIDA BOTTLING COMPANY

LOCATED IN BLOCK 19 CITY OF SALIDA CHAFFEE COUNTY, COLORADO

PH 719 539 4021 FAX 719 539 4031

JOB # 20219 DATE: NOVEMBER 11, 2021 P.O. BOX 668 SALIDA, CO 81201 SHEET 1 OF 2

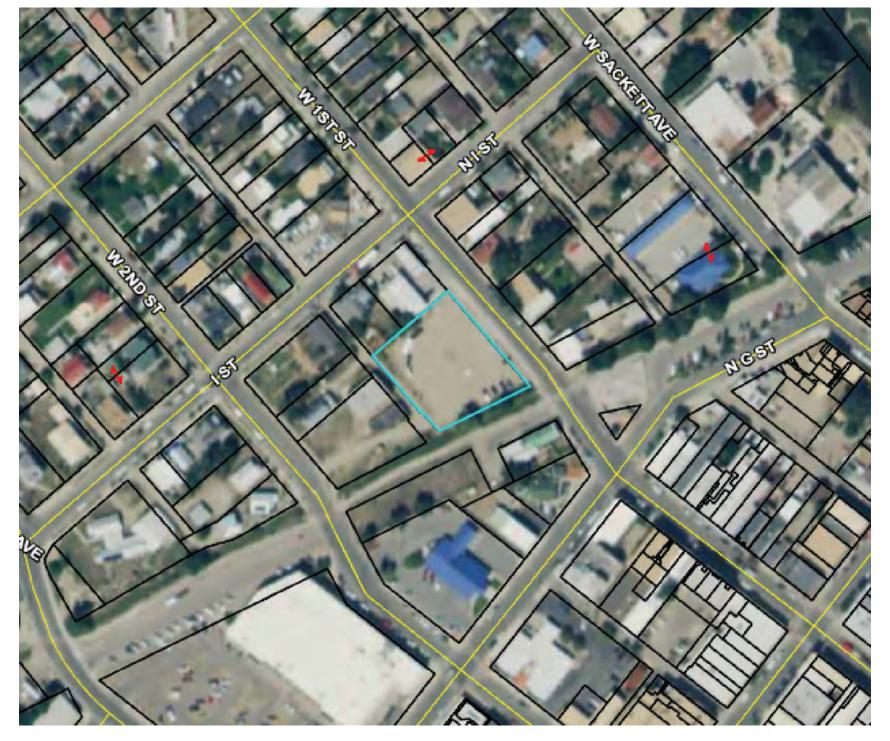
IOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN HREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE MMENCED MORE THAN TEN YEARS FROM THE DATE OF THE SURVEYOR'S STATEMENT CONTAINED HEREON.



# RESIDENCES AT SBC

# CIVIL ENGINEERING PLANS

## SALIDA, CO JANUARY, 2022



VICINITY MAP (NO SCALE)



SHEET NO.

## CIVIL ENGINEERING PLANS SHEET INDEX

DESCRIPTION

1.	CIVIL COVER SHEET
2.	DETAILS
3.	DETAILS
4.	DETAILS
5.	SITE PLAN
6.	GRADING PLAN
7.	SEWER LINE A
8.	SEWER LINE B
9.	WATER MAIN 1ST ST
10.	UTILITY PLAN
11-21	TEMPORARY EROSION CONTROL DETAILS (CDOT STANDARD M-208-1)
22-23	MAILBOX SUPPORTS (CDOT STANDARD M-210-1)

BEFORE YOU DIG, CALL: 811 WORKING DAYS PRIOR TO EXCAVATING UTILITY NOTIFICATION CENTER OF COLORADO FOR WATER EMERGENCIES, WATER LEAKS, OR DAMAGED PIPELINES, THE CONTRACTOR SHALL CALL: SALIDA PUBLIC WORKS - (719) 539-6257

ONTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB THE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY

ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND

F WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE

OT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY, THE CITY. THE OWNER AND THE ENGINEER HARMLESS

FROM ANY AND ALL LIABILITY. REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE

THE OWNER OR THE ENGINEER.

## **GENERAL NOTES:**

- 1. ANY CHANGES FROM THE PLAN, STANDARD NOTES, STANDARD DESIGNS, OR SPECIFICATIONS SHALL BE CONSIDERED NON-CONFORMING UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD. INSTALLATIONS NOT CONFORMING TO THE ABOVE SHALL BE REMOVED AND REPLACED AND/OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 2. THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL MATERIALS A MINIMUM OF 1 WEEK PRIOR TO START OF CONSTRUCTION FOR REVIEW AND APPROVAL BY THE ENGINEER. ANY MATERIALS NOT RECEIVING APPROVAL PRIOR TO INSTALLATION MAY BE DISALLOWED FOR PAYMENT AND/OR BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- 3. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING FOR ALL ALIGNMENTS AND GRADES BY A LICENSED SURVEYOR. CONSTRUCTION SURVEYING AND FIELD STAKES SHALL UTILIZE THE SAME HORIZONTAL AND VERTICAL DATUM AND BASIS OF BEARING AS THE DESIGN.
- 4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING EXISTING CONDITIONS WITH DIGITAL PICTURES, TO BE STORED IN THE PROJECT ELECTRONIC FILES.
- 5. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MONUMENTS OF EVERY NATURE, WHETHER SHOWN HEREON OR NOT, AND PROTECT THEM FROM DAMAGE. ALL UTILITIES AND MONUMENTS SHOULD BE FLAGGED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES AND MONUMENTS DAMAGED OR DESTROYED.
- 6. ANY MONUMENTS DISTURBED DURING CONSTRUCTION MUST BE RESET BY A LICENSED SURVEYOR. NOTE THAT RESETTING OF SURVEY MONUMENTS BY ANYONE OTHER THAN A LICENSED SURVEYOR IS A CRIME.
- 7. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS INCLUDING BUT NOT LIMITED TO: A. OSHA REGULATIONS
  - B. NPDES STORMWATER REGULATIONS
  - C. LOCAL, STATE, AND FEDERAL PERMITS
  - D. CLEAN WATER ACT
  - E. CITY OF SALIDA CONSTRUCTION STANDARDS AND SPECIFICATIONS.
  - F. LOCALLY ADOPTED BUILDING CODES
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR COMPLETION OF THE WORK, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 8. THE CONTRACTOR SHALL WARRANTY ALL WORK FOR A PERIOD OF ONE YEAR COMMENCING FROM THE TIME OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ALL FAILURES DETERMINED BY THE ENGINEER TO BE CAUSED BY DEFECTS IN MATERIAL OR WORKMANSHIP DURING THE WARRANTY PERIOD.
- 9. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SITE AT ALL TIMES AND PROVIDE SUBCONTRACTORS WITH A SET OF PLANS. THE CONTRACTOR SHALL MAINTAIN A RED-LINED SET OF PLANS, INDICATING ALL CONSTRUCTION CHANGES, AND KEEP IT UP TO DATE AT ALL TIMES. INCOMPLETE REDLINES SHALL BE SUFFICIENT CAUSE FOR REJECTION OF PAYMENT APPLICATIONS. A COMPLETED RED LINE SET SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO SUBSTANTIAL COMPLETION
- 10. ALL CONSTRUCTION SHALL COMPLY WITH THE CONSTRUCTION CONTRACT, THESE PLANS AND THE APPROVAL AGENCY CONSTRUCTION STANDARDS AND SPECIFICATIONS IN FORCE AT THE TIME OF THE BID AWARD. IN CASE OF CONFLICT THE FIRST LISTED IN THE ORDER ABOVE SHALL RULE.
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING WITH THE TESTING AGENCIES AND PROJECT ENGINEER TO ENSURE THAT ALL REQUIRED TESTING IS COMPLETED PRIOR TO PROCEEDING WITH THE WORK. RETESTING REQUIRED DUE TO FAILED MATERIAL TESTS AND/OR REQUESTS FOR TESTING OUTSIDE OF NORMAL BUSINESS HOURS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 12. CONTRACTOR SHALL PROVIDE BUSINESSES AND PRIVATE RESIDENCES NOTICE A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK THAT WILL IMPACT ACCESS OR SERVICES TO THEIR PROPERTIES.
- 13. CONTRACTOR SHALL PROVIDE THE APPLICABLE PUBLIC WORKS DEPARTMENT NOTICE A MINIMUM OF 7 DAYS PRIOR TO COMMENCING WORK THAT WILL IMPACT PUBLIC ACCESS OF SERVICES.
- 14. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN PROPER BARRICADING, DUST CONTROL, TRAFFIC CONTROL, SHORING AND SAFETY MEASURES OF EVERY NATURE. ALL EXCAVATIONS LEFT OPEN OVERNIGHT MUST BE BARRICADED TO PREVENT VEHICULAR AND PEDESTRIAN ACCESS.
- 15. THE CONTRACTOR SHALL OBTAIN WRITTEN AGREEMENT TO UTILIZE OFF-SITE PROPERTIES FOR STAGING OR STORAGE OF MATERIALS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MINIMIZE ANY NUISANCE CONDITIONS ARISING FROM THEIR STAGING AND
- 16. THE CONTRACTOR SHALL COORDINATE WITH THE APPLICABLE PUBLIC WORKS DEPARTMENT TO ARRANGE FOR ANY CONSTRUCTION WATER NEEDED PRIOR TO THE START OF CONSTRUCTION.
- 17. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL BY THE GOVERNING ENTITY, WHICH MUST BE APPROVED PRIOR TO COMMENCING WITH THE WORK.
- 18. CONTRACTOR SHALL KEEP WEIGHT TICKETS, BATCH TICKET, INVOICES, ETC. FOR ALL MATERIAL INCORPORATED INTO THE PROJECT. COPIES MUST BE SUBMITTED TO THE ENGINEER PRIOR TO PAYMENT FOR ITEMS.
- 19. THE CONTRACTOR SHALL SCHEDULE THE WORK TO MINIMIZE THE DISTURBANCE OF MAIL DELIVERY TO ALL AFFECTED ADDRESS. WHEN NECESSARY, CONTRACTOR SHALL NOTIFY EXISTING RESIDENCES OF IMPENDING DISTURBANCE A MINIMUM OF ONE WEEK PRIOR TO REMOVING/OBSTRUCTING MAILBOXES.
- 20. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING OR REPAIRING ANY DAMAGE TO PRIVATE PROPERTY IMPROVEMENTS AND FOR FINAL CLEAN UP AND STREET SWEEPING OF THE JOB SITE.

## LEGEND

	<u>-GLND</u>
	PROJECT BOUNDARY/RIGHT-OF-WAY
	EXISTING/ADJACENT RIGHT-OF-WAY
	NEW PROPERTY LINE
	EXISTING LOT/PROPERTY LINE
	EDGE OF EXISTING ROADWAY
	EXISTING ROAD CENTERLINE
XX	EXISTING FENCE LINE
OE-T-TV	EXISTING OVERHEAD ELECTRIC/TELEPHONE/TV
UGT	EXISTING UNDERGROUND TELEPHONE
	EXISTING GAS LINE
———Е——	EXISTING ELECTRIC LINE
S	EXISTING SEWER MAIN
8"S	NEW 8" SEWER MAIN
<del></del>	NEW SEWER SERVICE LINE
W	EXISTING WATER MAIN
8"W	
	NEW WATER SERVICE LINE
	EXISTING MAJOR CONTOUR
7186	EXISTING MINOR CONTOUR
	PUBLIC UTILITY EASEMENT
	SAW-CUT LINE
	LIMITS OF REMOVAL
	NEW SEWER MANHOLE
ഥ	NEW WATER TEE
$\leftarrow$	NEW WATER BEND
$\otimes$	NEW WATER VALVE
ď,	NEW FIRE HYDRANT
$\otimes$	NEW CURB STOP (WATER)
$\mathbb{W}$	NEW METER BOX (WATER)
7-	CONSTRUCTION NOTE CALL-OUT
1.30%	NEW GRADIENT
D	DEPTH
R	RADIUS
PP	POWER POLE
TP	TOP OF PIPE
FH	FIRE HYDRANT
INV	INVERT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE

**OWNER:** 

SALIDA BOTTLING CO. 9707 CR 163 SALIDA, CO 81201

SURVEYOR: LANDMARK SURVEYING & MAPPING 202 N F ST SALIDA, CO 81201 PH: (719) 539-4021 CONTACT: SYD SCHIEREN

## BASIS OF BEARINGS:

GRID NORTH FROM COLORADO STATE PLANE COORDINATE SYSTEM CENTRAL ZONE

PREPARED BY: <u>PRIVATE ENGINEER'S NOTES TO CONTRACTOR</u> PREPARED FOR: HE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR SALIDA BOTTLING CO. TRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE ECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS CRABTREE 9707 CR 163 HOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SALIDA, CO 81201 URTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR TRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

PREPARED UNDER THE DIRECTION OF: WILLIAM B. HUSSEY CRABTREE GROUP, IN L.C.E. NO. 56989 EXP. DATE <u>10/31/202</u> PH: 719-539-1675

ENGINEERING SMART GROWTH 325 D STREET 918 CUYAMA ROAD SALIDA, CO 81201 OJAI, CA 93023 PH: 719-221-1799



ORADO LICENTO						CITY OF SALIDA					
ORADO LICENS							DESIGN	NED BY	WBH	APPROVED BY:	
1/31/20225							DRAWN	I BY	WBH		
56989 55							CHECK	ED BY	WBH	AGENCY HEAD DATE	
							SCALE	N	ONE	<b>BENCHMARK:</b> 1 1/2" ALUM. CAP ON #5 REBAR LS 37937 ELEV.=7059.64'	
NONAL ENGINE	DATE ENGI	NEER	MARK	REVISIONS	APPR. REVISIO	DATE ON AGENCY	DATE	JAN.	2022	0/30/ LLLV/003.07	

## REVIEW SET 1/31/22

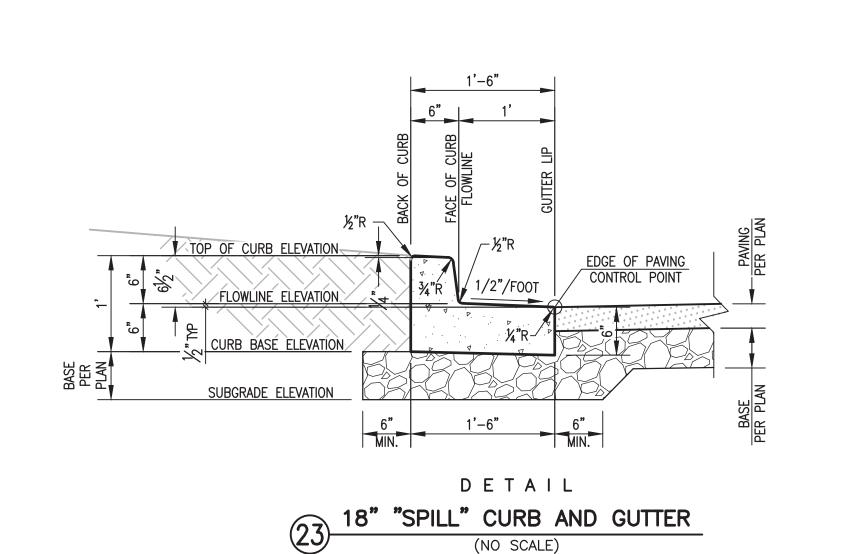
RESIDENCES AT SBC SALIDA, CO

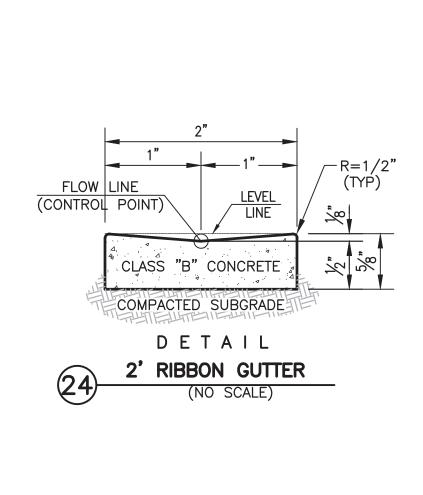
CIVIL ENGINEERING PLANS **COVER SHEET** 

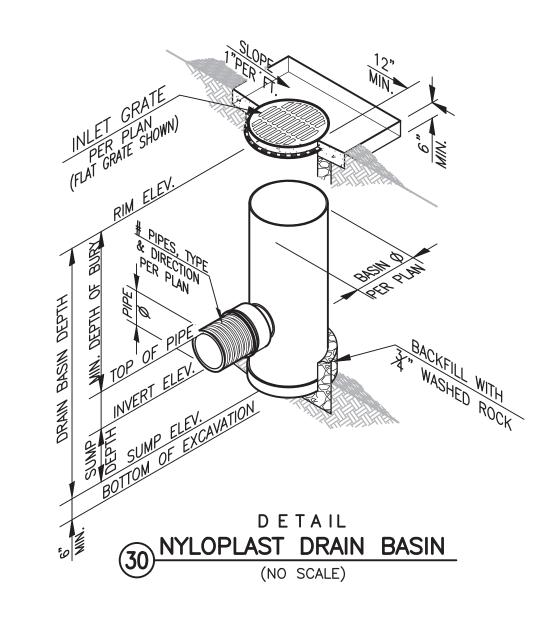
NOTES, LEGEND, VICINITY MAP, SHEET INDE>

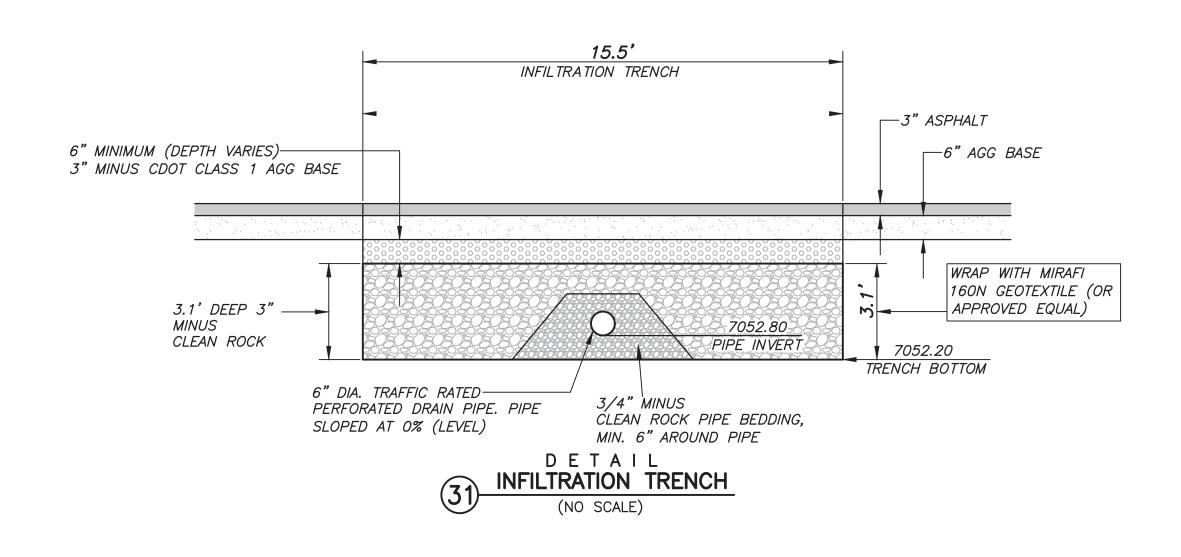
PROJECT NO. 20037

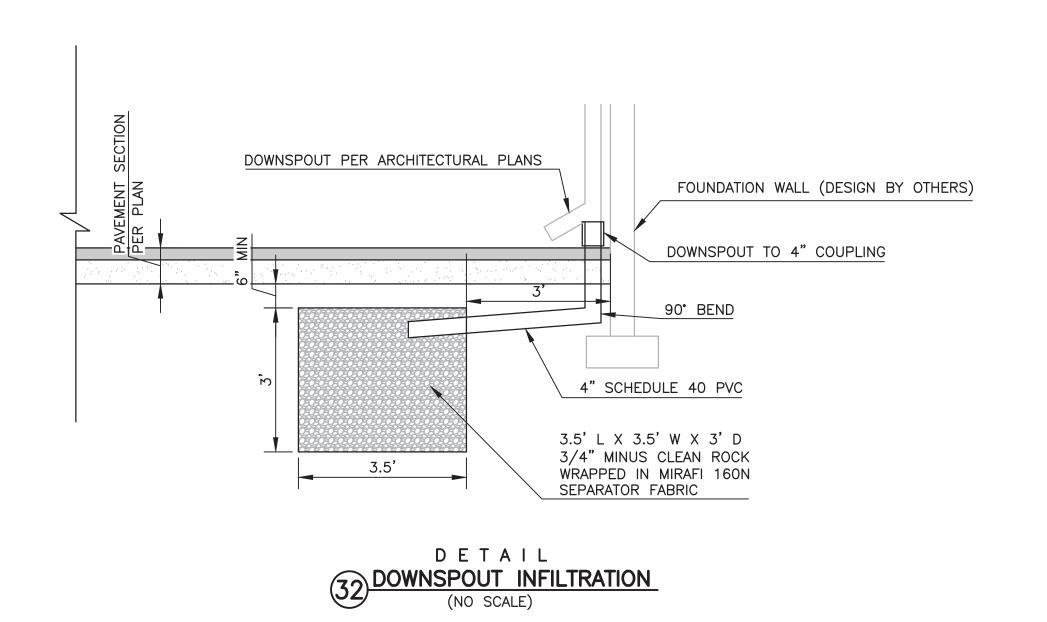
SHEET NO.

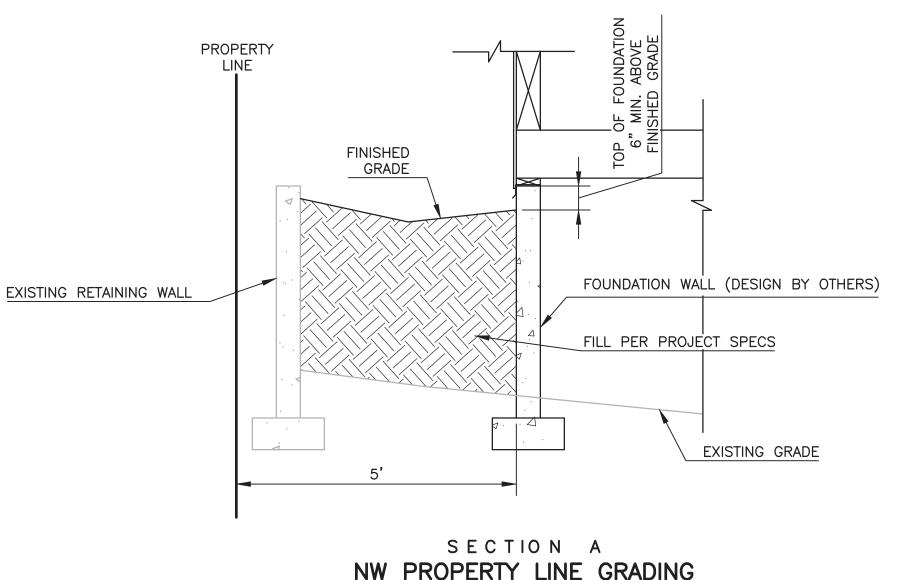


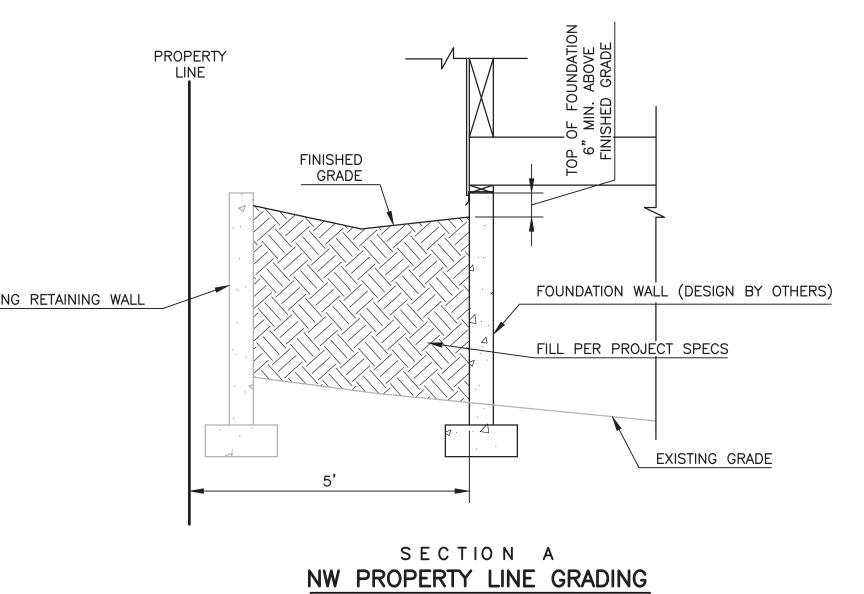




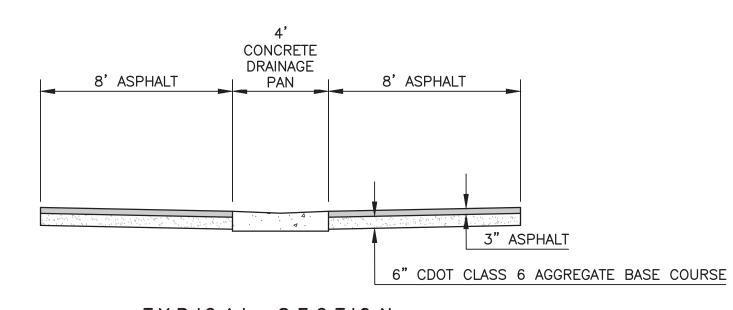








(NO SCALE)



TYPICAL SECTION PUBLIC ALLEY PAVING (NO SCALE)

ALLEY PAVING HAS BEEN RECOMMENDED BY SALIDA PUBLIC WORKS. IF REQUIRED IN THE FINAL PD, THIS TYPICAL SECTION IS PROPOSED.

## REVIEW SET 1/31/22

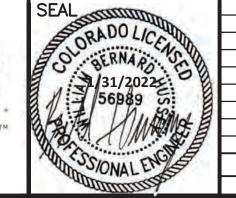
PRIVATE ENGINEER'S NOTES TO CONTRACTOR THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY, THE CITY, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER. L.C.E. NO. \_\_\_\_\_56989 F THE OWNER OR THE ENGINEER.

PREPARED FOR: SALIDA BOTTLING CO. 9707 CR 163 SALIDA, CO 81201 PHONE: ----PREPARED UNDER THE DIRECTION OF: WILLIAM B. HUSSEY CRABTREE GROUP, IN

EXP. DATE <u>10/31/202</u>

PREPARED BY: CRABTREE ENGINEERING SMART GROWTH™ 325 D STREET SALIDA, CO 81201 918 CUYAMA ROAD OJAI, CA 93023 PH: 719-221-1799 PH: 719-539-1675



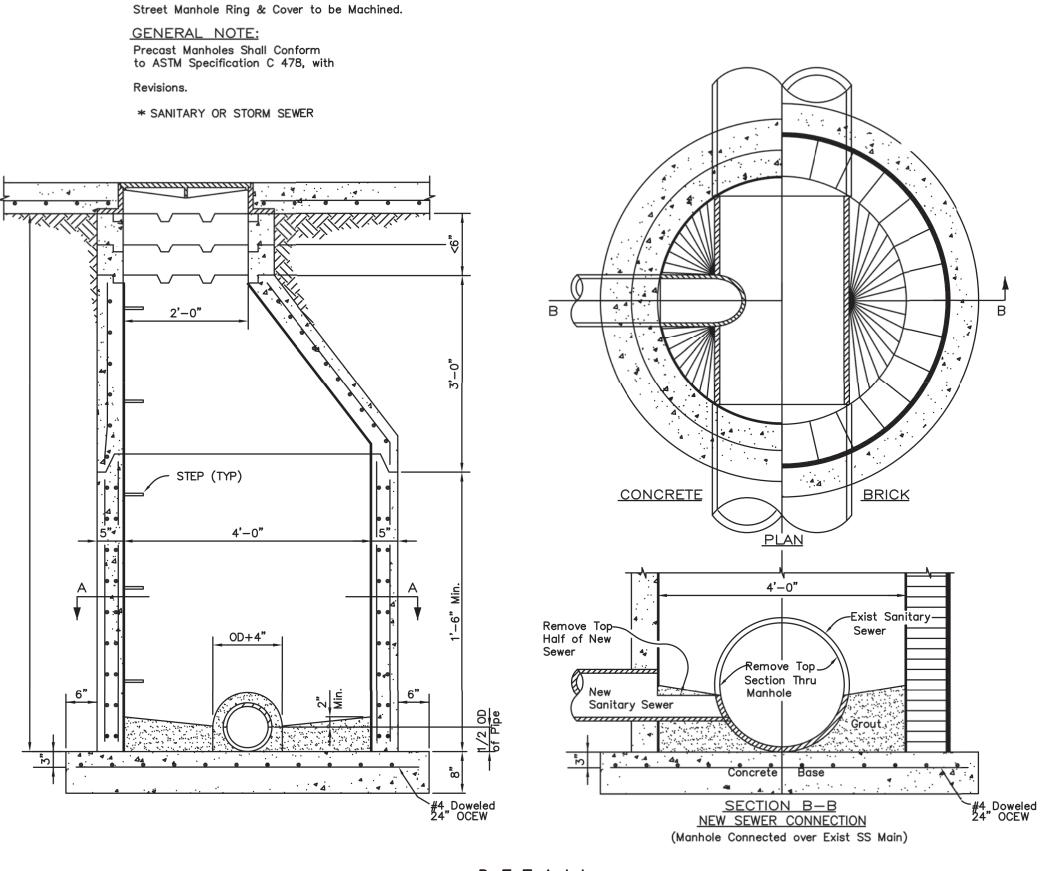
SEAL					Cl	TY OF SALIDA
ORADO LICENS					DESIGNED BY WBH	APPROVED BY:
31/20225					DRAWN BY WBH	
The think !					CHECKED BY WBH	AGENCY HEAD DATE
					SCALE NONE	<b>BENCHMARK:</b> 1 1/2" ALUM. CAP ON #5 REBAR LS 37937 ELEV.=7059.64'
ONAL ENGLIS	DATE BY MARK ENGINEER	REVISIONS	APPR. REVISIO	DATE N AGENCY	DATE LAND GOOD	- 3/93/ ELEV/039.04

SHEET NO. RESIDENCES AT SBC

SALIDA, CO CIVIL ENGINEERING PLANS

> **DETAILS** GRADING AND DRAINAGE

OF 10 SHTS PROJECT NO. 20037

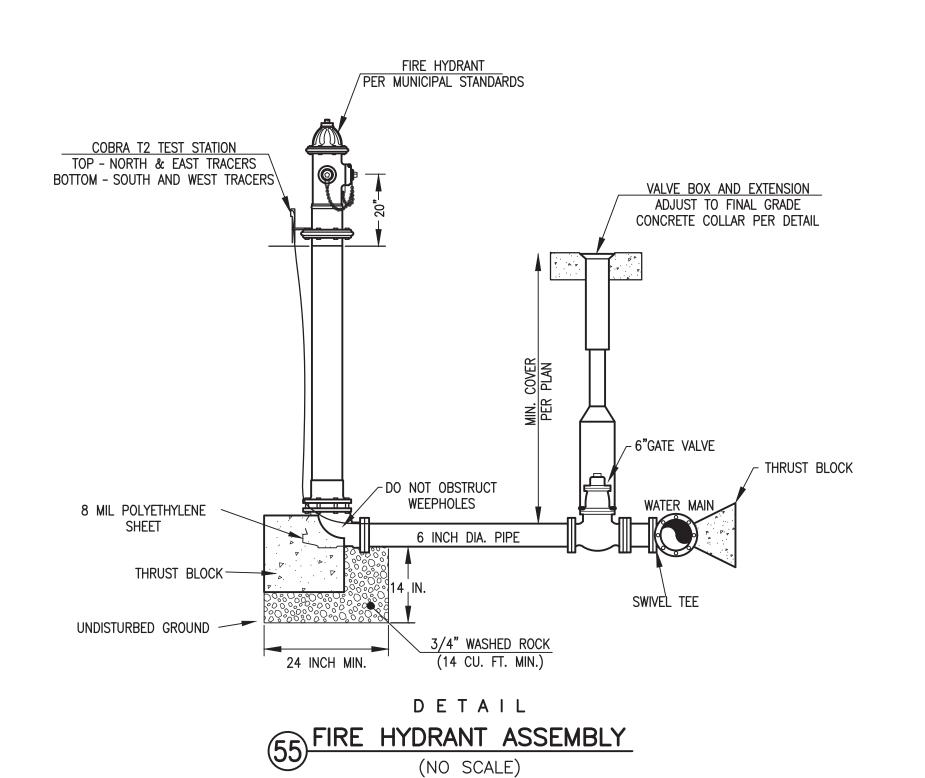


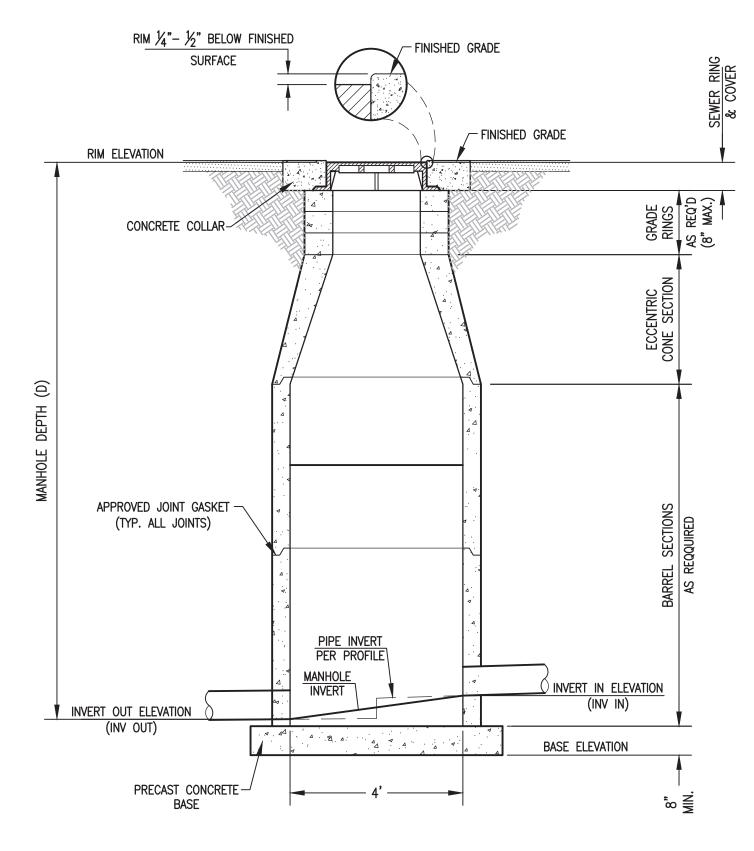
STREET MANHOLE RING & COVER:

DEETER 1266 OR APPROVED EQUAL

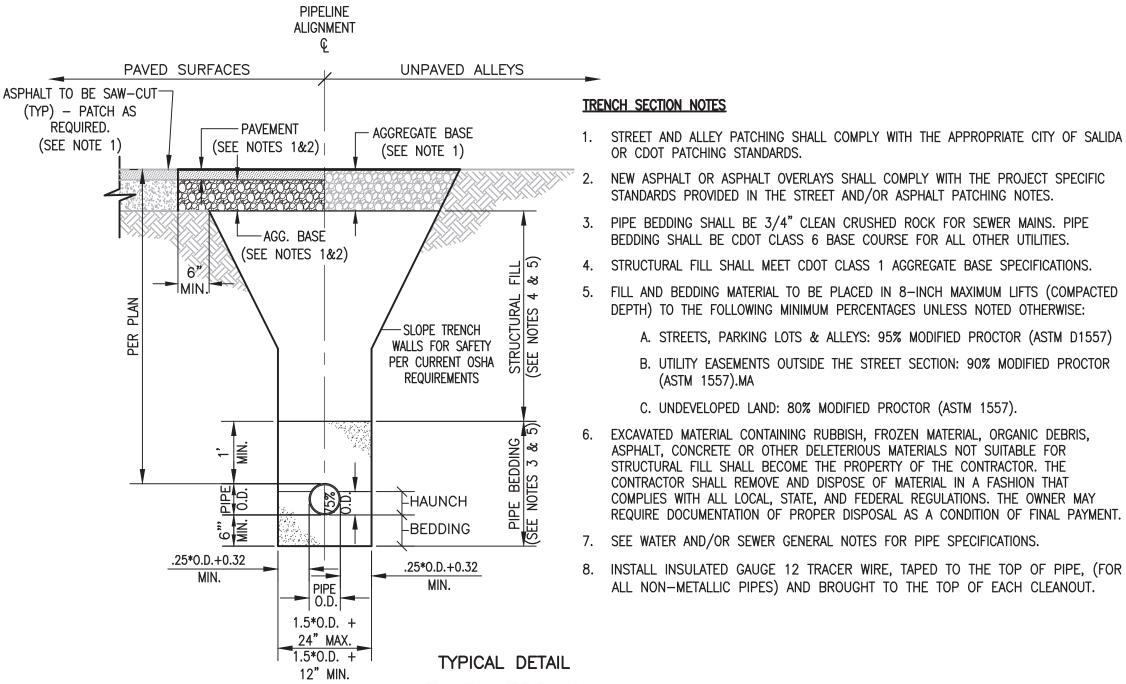
Street MH Ring & Cover 290 Lb. Min.

DETAIL SEWER MANHOLE (CITY OF SALIDA STANDARD S-1) (NO SCALE)

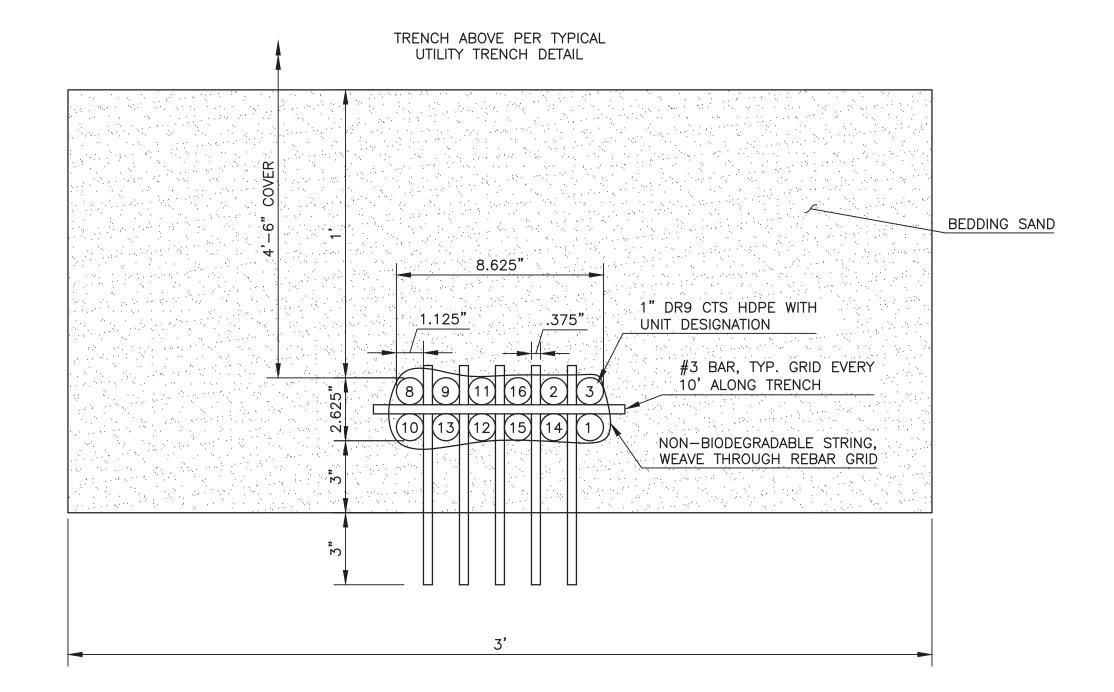




DETAIL (41) SEWER MANHOLE (NO SCALE)



UTILITY TRENCH (NO SCALE)



TRENCH SECTION B-B (LOOKING TOWARDS 1ST ST) (56) WATER SERVICES IN COMMON TRENCH

(NO SCALE)

PRIVATE ENGINEER'S NOTES TO CONTRACTOR HE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR URTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.
CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB
SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY
OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND OT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY, THE CITY, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE WILLIAM B. HUSSEY F WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE L.C.E. NO. <u>56989</u> THE OWNER OR THE ENGINEER.

PREPARED FOR: SALIDA BOTTLING CO. 9707 CR 163 SALIDA, CO 81201 PHONE: ----PREPARED UNDER THE DIRECTION OF:

CRABTREE GROUP, IN

EXP. DATE <u>10/31/202</u>

SEAL PREPARED BY: CRABTREE ENGINEERING SMART GROWTHTM 918 CUYAMA ROAD **SALIDA, CO 81201** OJAI, CA 93023 PH: 719-539-1675 PH: 719-221-1799

	S RADO LICADA					
	TO SERNAS VON					
	131/20226					
	1 56989 S					_
	State MUSING					
М	(A) (A) (A) (A)					
	E Por		_			
	SIONALE	DATE	BY	MARK		
	William S	ENGI				
	<u></u>	<u> </u>			·	

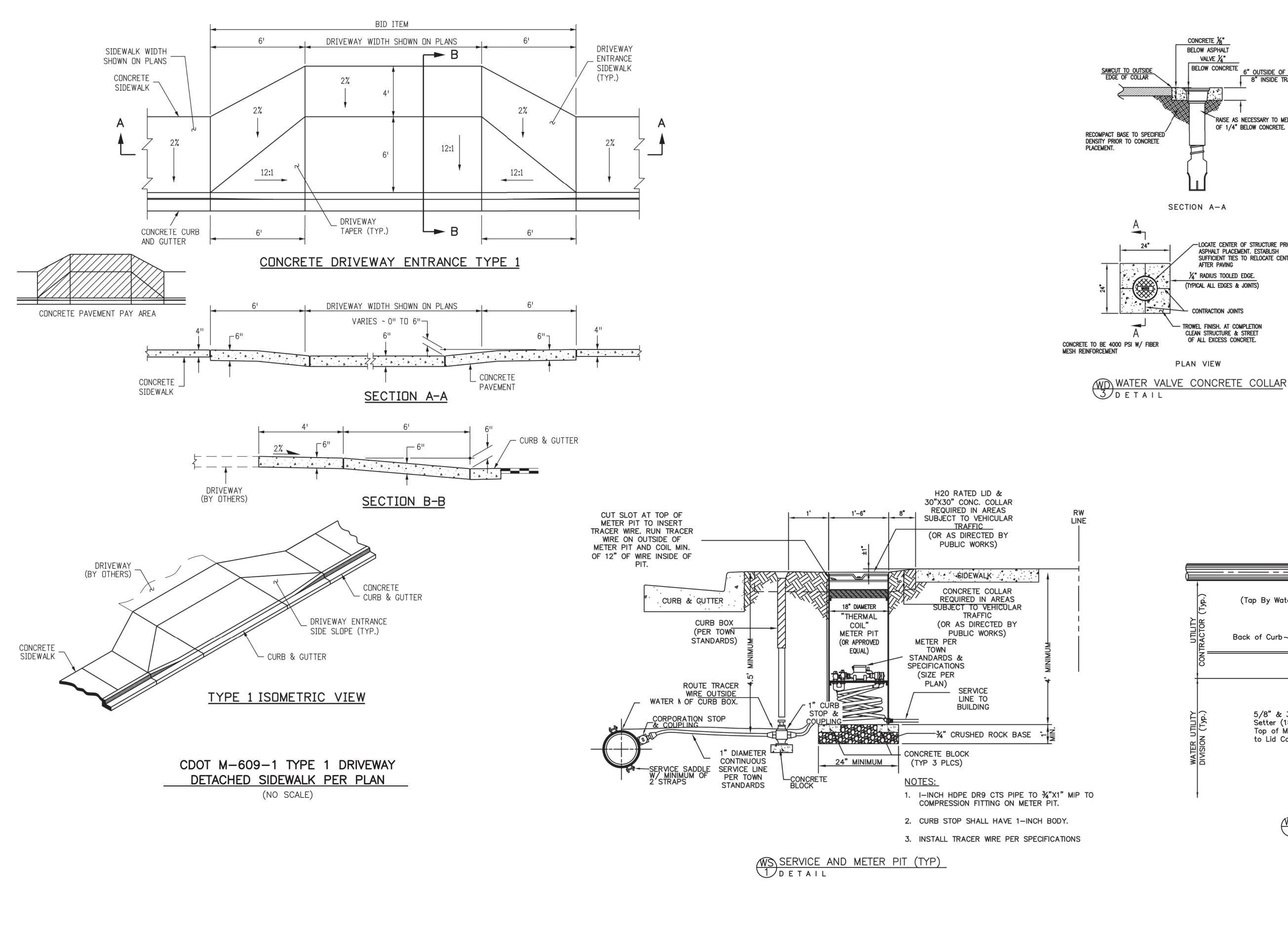
AL MANAGEMENT		+-1									CIT	TY OF SALIDA		Γ
AL STRADO LICENS		$\Box$					$\mp$		DESIGNE	D BY	WBH	APPROVED BY:		١
131/2022							#		DRAWN	BY	WBH			ı
56889 55 MANUAL ENGLISHED TO SOLONAL ENGLISHED TO S									CHECKE	D BY	WBH	AGENCY HEAD	DATE	ı
									SCALE	###	<del>!</del> ###	BENCHMARK: 1 1/2" ALUM.	CAP ON #5 REBAR LS	١
NALE VIEW	DATE FNG	BY BY BINEER	MARK	REVISI	ONS	AP REV		DATE AGENCY	DATE		2022	37937 ELEV.=7059.64'		

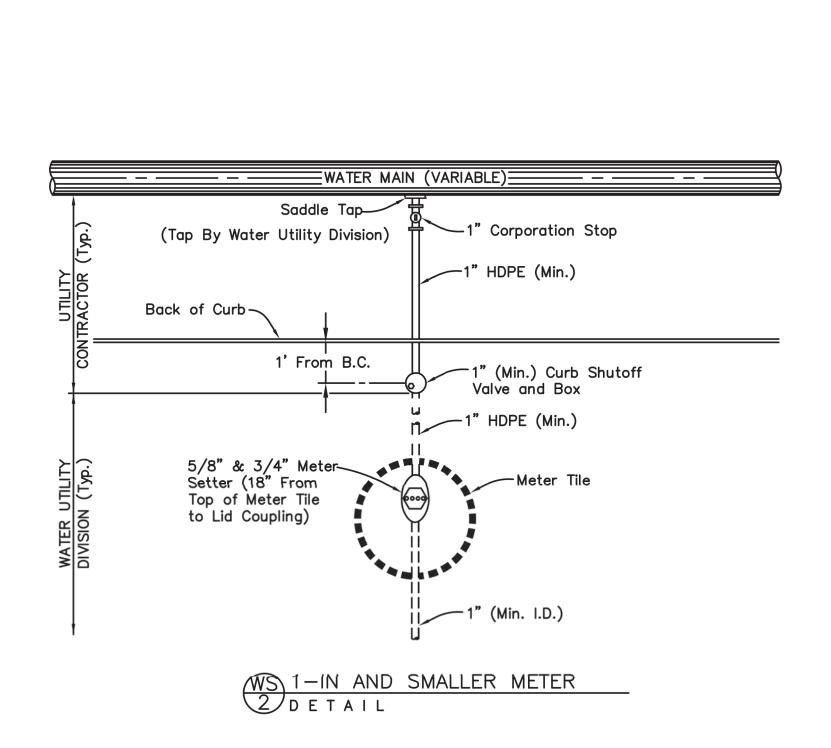
REVIEW SET 1/31/22 SHEET NO.

RESIDENCES AT SBC SALIDA, CO CIVIL ENGINEERING PLANS

**DETAILS** UTILITIES

OF 10 SHTS PROJECT NO 20037





**GENERAL NOTES** 

Or More As Shown On Profiles.

Installed With Valve Box Assemblies.

Water Lines Shall Have A Minimum Cover Of 4'-6"

2. All Valves On Mains & Fire Hydrant Leads Shall Be

3. The Size Of Valve Box Assembly To Be Installed

Shall Be Determined By The Type And Size Of

4. Valve Box Caps Shall Have The Word "water" Cast In The Top.

CONCRETE 1/8"

BELOW ASPHALT

SECTION A-A

AFTER PAVING

CONTRACTION JOINTS

TROWEL FINISH. AT COMPLETION CLEAN STRUCTURE & STREET

OF ALL EXCESS CONCRETE.

PLAN VIEW

1/4" RADIUS TOOLED EDGE. (TYPICAL ALL EDGES & JOINTS)

VALVE 1/4"

BELOW CONCRETE

6" OUTSIDE OF TRAFFIC AREAS 8" INSIDE TRAFFIC AREAS

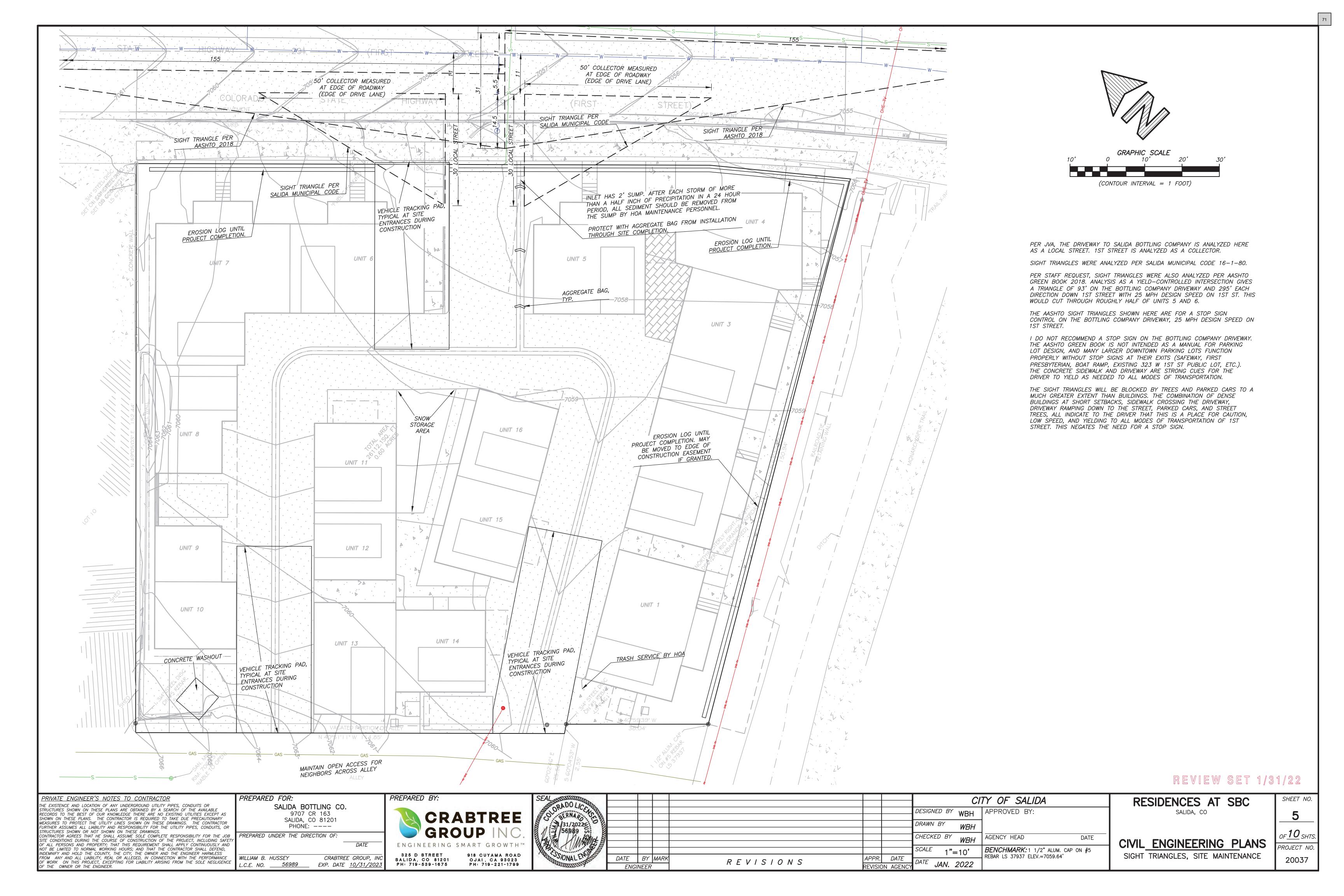
RAISE AS NECESSARY TO MEET FINISH GRADE

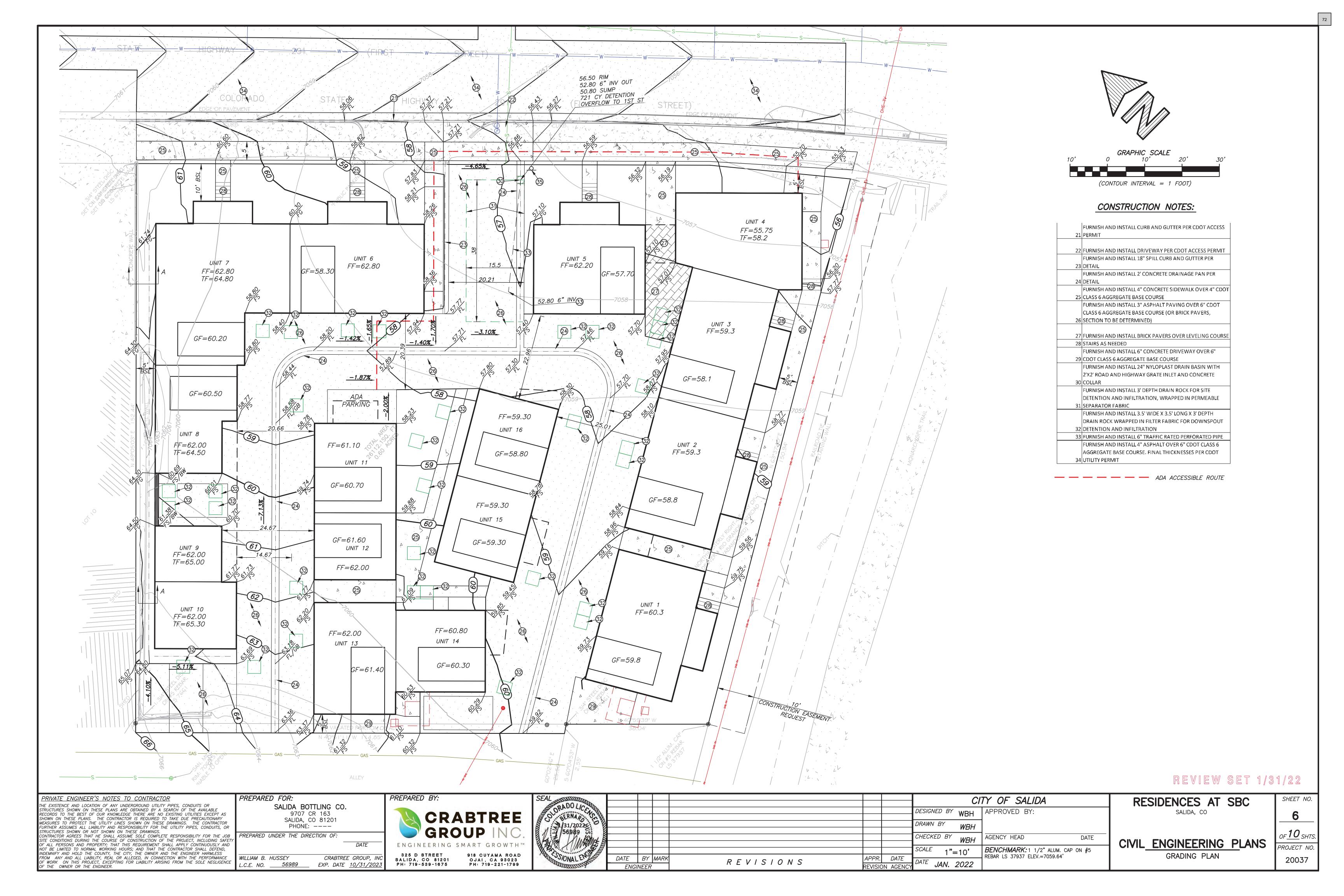
OF 1/4" BELOW CONCRETE.

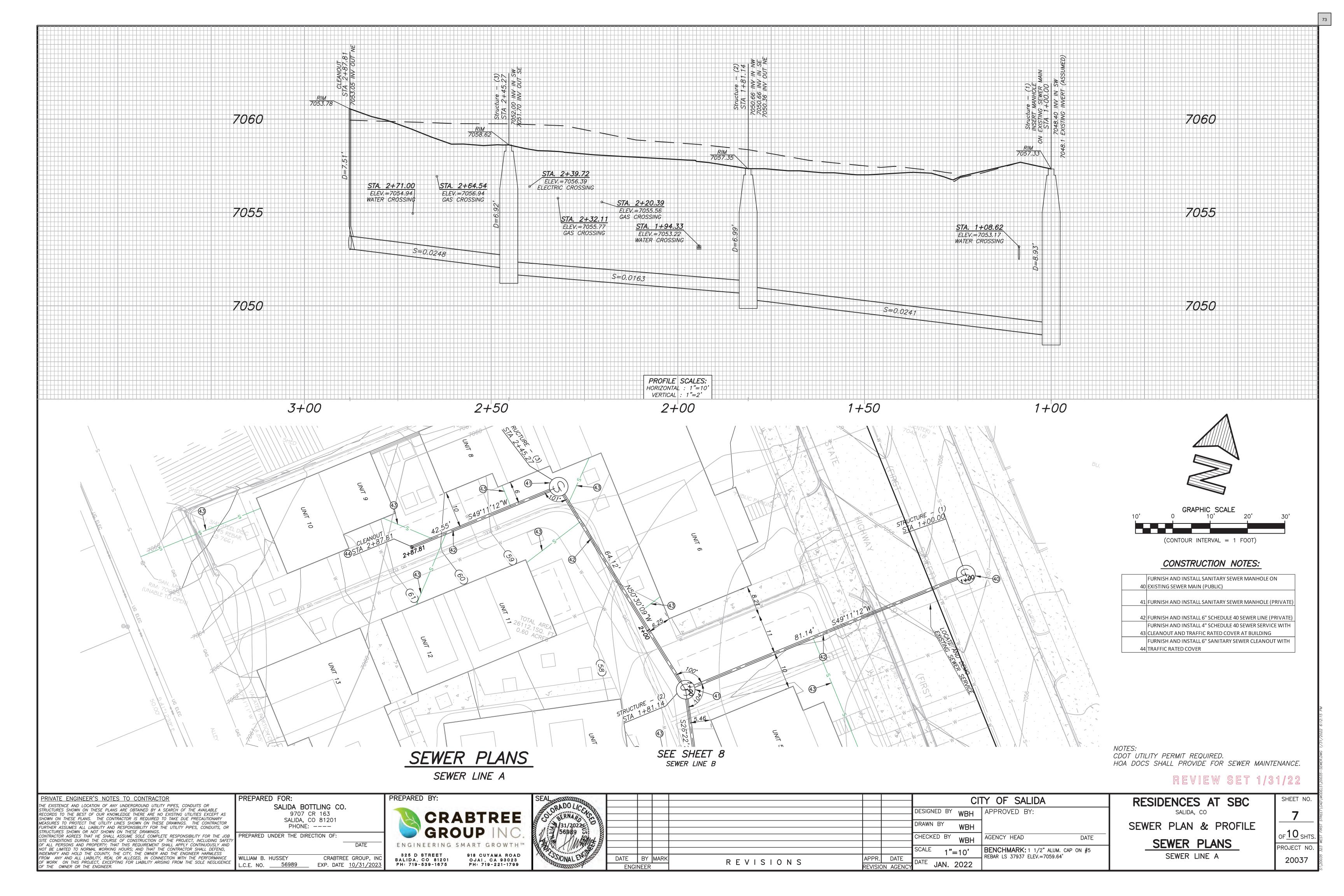
LOCATE CENTER OF STRUCTURE PRIOR TO ASPHALT PLACEMENT. ESTABLISH SUFFICIENT TIES TO RELOCATE CENTER

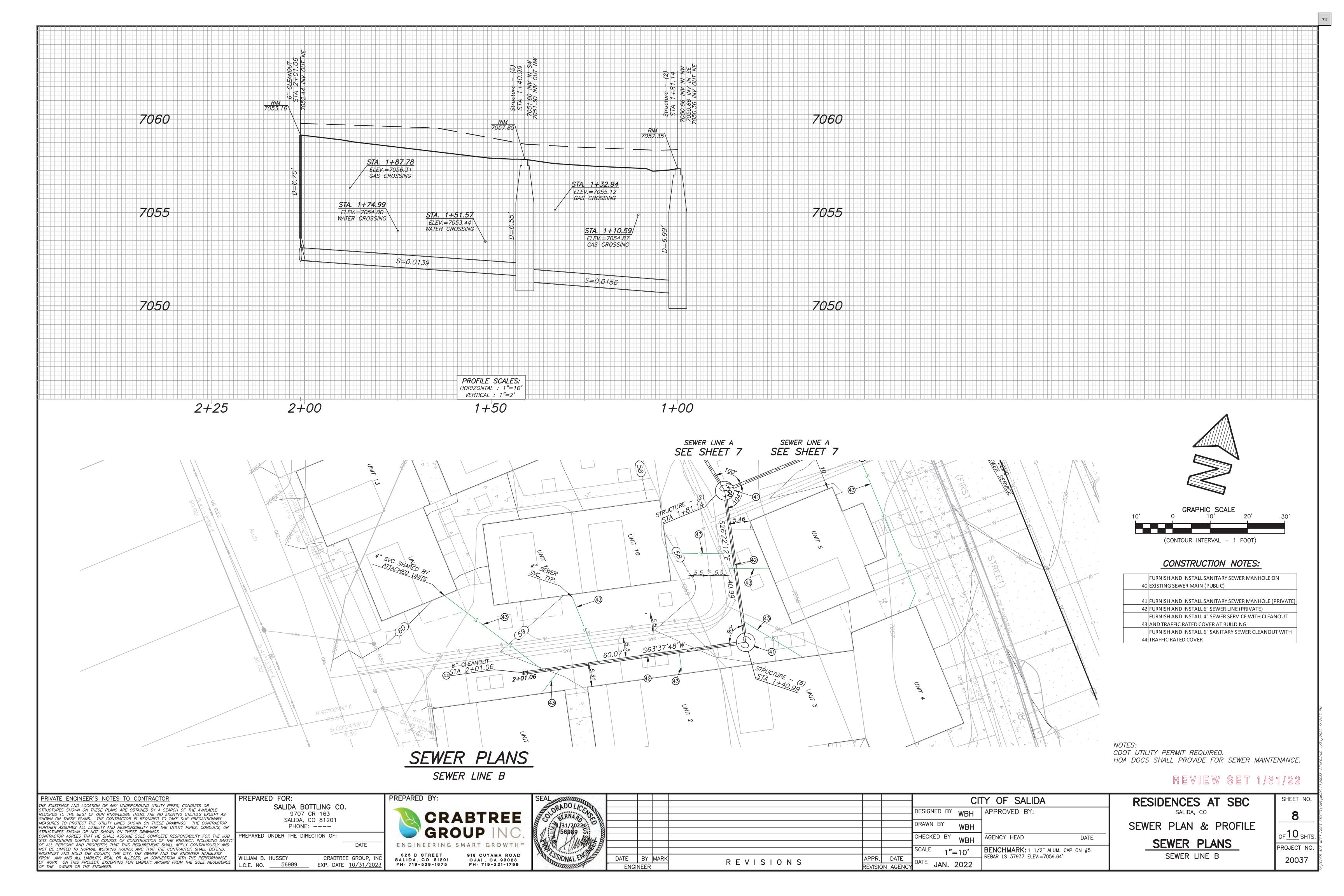
REVIEW SET 1/31/22

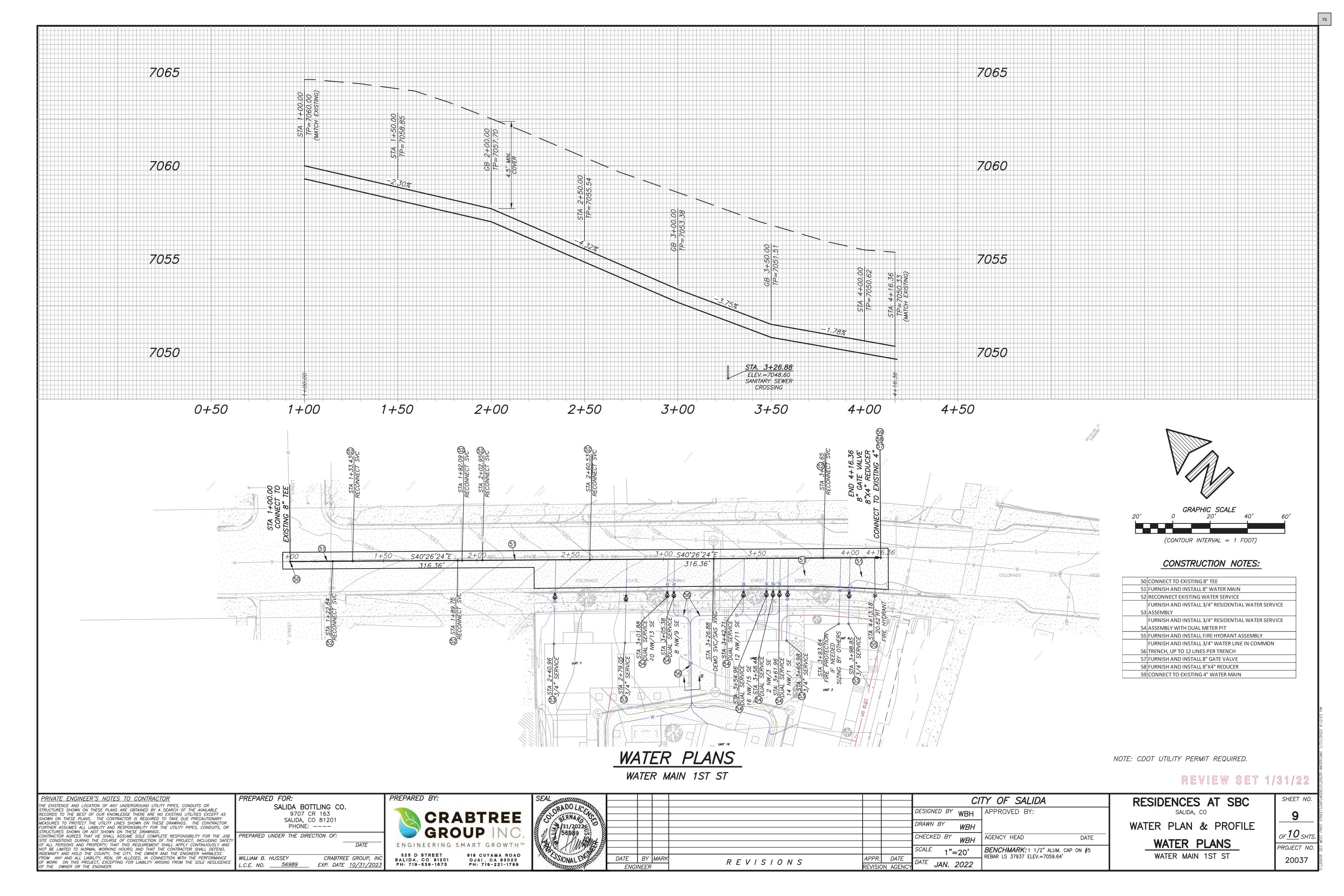
PREPARED BY: CITY OF SALIDA PRIVATE ENGINEER'S NOTES TO CONTRACTOR SHEET NO. RESIDENCES AT SBC THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. SALIDA BOTTLING CO. DESIGNED BY WBH APPROVED BY: SALIDA, CO 9707 CR 163 CRABTREE SALIDA, CO 81201 DRAWN BY CIVIL ENGINEERING PLANS MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.
CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY, THE CITY, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. SYCRETING FOR LIABILITY ARISING FROM THE SOLE NEGLICENCE. PHONE: ----OF 10 SHTS PREPARED UNDER THE DIRECTION OF: CHECKED BY AGENCY HEAD DATE **DETAILS** PROJECT NO. BENCHMARK: 1 1/2" ALUM. CAP ON #5 REBAR L 325 D STREET SALIDA, CO 81201 918 CUYAMA ROAD OJAI, CA 93023 PH: 719-221-1799 WATER SVC, DRIVEWAY 37937 ELEV.=7059.64' CRABTREE GROUP, IN WILLIAM B. HUSSEY DATE BY MARK APPR. DATE 20037 REVISIONS F WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE L.C.E. NO. \_\_\_\_\_56989 JAN. 2022 EXP. DATE <u>10/31/202</u> PH: 719-539-1675 THE OWNER OR THE ENGINEER. ENGINEER REVISION AGEN













PRIVATE ENGINEER'S NOTES TO CONTRACTOR THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR BEST OF THE UTILITY AND RESERVED TO THE UTILITY OF THE OWNERS OF THE UTILITY OF THE OWNERS OF THE O MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY, THE CITY, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE U.C.E. NO. 56989

SALIDA BOTTLING CO. 9707 CR 163 SALIDA, CO 81201 PHONE: ----PREPARED UNDER THE DIRECTION OF:

CRABTREE GROUP, IN

EXP. DATE <u>10/31/202</u>

PREPARED BY: CRABTREE ENGINEERING SMART GROWTH™ 325 D STREET SALIDA, CO 81201 918 CUYAMA ROAD OJAI, CA 93023 PH: 719-539-1675 PH: 719-221-1799

SSERADO LICADA	
ORADU LICENCIA	
01	
31/2022	
56989 55	
are the Williams &	
A CONTRACTOR	
SSIONAL ENGE	D,
The state of the s	

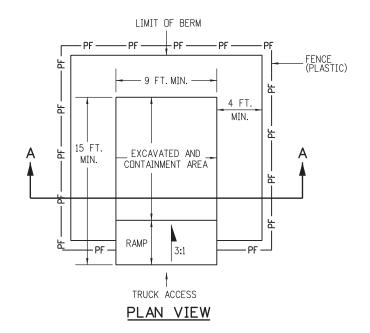
ADO LICENDA									CIT	Y OF SALIDA	
RNAD							DESIGNED	) BY	WBH	APPROVED BY:	
31/2022 56989							DRAWN E	3Y	WBH		
Musimot E							CHECKED	BY	WBH	AGENCY HEAD DATE	
X UNIVERSE							SCALE	1"=	10'	BENCHMARK: 1 1/2" ALUM. CAP ON #5	
ONAL ENGINEE	DATE	BY	MARK	R F V I \ I () N \	APPR.	DATE	DATE 1/	· ·		REBAR LS 37937 ELEV.=7059.64'	
many.	ENGI	NEER		R	REVISION	N AGENCY	J J.	AN. 2	.022		

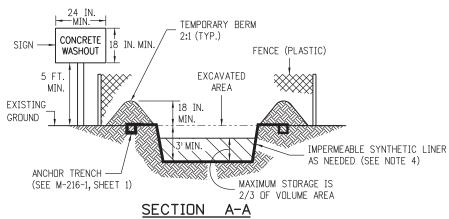
RESIDENCES AT SBC SALIDA, CO

CIVIL ENGINEERING PLANS

UTILITY LAYOUT UTILITY PLAN

OF 10 SHTS PROJECT NO. 20037

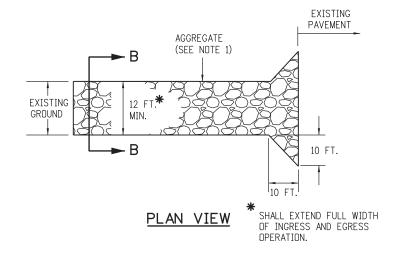


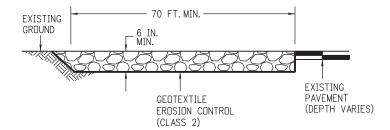


# NOTES:

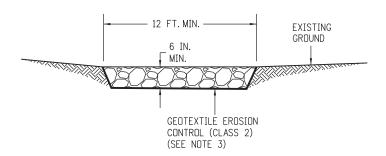
- A FENCE (PLASTIC) CONFORMING TO SECTION 607 SHALL BE INSTALLED AROUND THE CONCRETE WASHOUT AREA, EXCEPT AT THE OPENING.
- 2. THE CONCRETE WASHOUT SIGN SHALL HAVE LETTERS AT LEAST 3 INCHES HIGH AND CONFORM TO SUBSECTION 630.02.
- 3. ALL MATERIALS AND LABOR TO COMPLETE THE CONCRETE WASHOUT STRUCTURE SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 4. THE BOTTOM OF EXCAVATION SHALL BE A MINIMUM OF FIVE FEET ABOVE GROUND WATER. IF NOT, THE BOTTOM OF EXCAVATION SHALL BE IN ACCORDANCE WITH 208.02 (j).
- 5. THE PAY ITEM NUMBER FOR CONCRETE WASHOUT STRUCTURE (EACH) IS 208-00045.

# CONCRETE WASHOUT STRUCTURE





# **ELEVATION SECTION**



# SECTION B-B

#### NOTES:

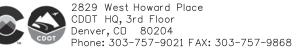
- 1. AGGREGATE SHALL CONFORM TO SUBSECTION 208.02 (I).
- 2. THE CONTRACTOR SHALL PROTECT CURB AND GUTTER THAT CROSSES THE ENTRANCE FROM DAMAGE, WHILE NOT BLOCKING FLOW OF WATER THRU STRUCTURE. PROTECTION OF THE CURB AND GUTTER SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 3. GEOTEXTILE SHALL CONFORM TO SUBSECTION 712.08.
- 4. ALL MATERIALS AND LABOR TO COMPLETE THE VEHICLE TRACKING PAD SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 5. THE PAY ITEM NUMBER FOR VEHICLE TRACKING PAD (EACH) IS 208-00070.

VEHICLE TRACKING PAD

Computer File Information
Creation Date: 07/31/19
Designer Initials: JBK
Last Modification Date: 07/31/19
Detailer Initials: LTA
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

	Sheet Revisions						
	Date:	Comments					
$\mathbb{R}$ -X							
$\overline{\mathbb{R}-X}$							
$\overline{R-X}$							
$\mathbb{R}$ -X							

# Colorado Department of Transportation



Project Development Branch

JBK

<b>TEMPORARY</b>
<b>EROSION CONTROL</b>

STANDARD PLAN NO. M-208-1

Issued by the Project Development Branch: July 31, 2019

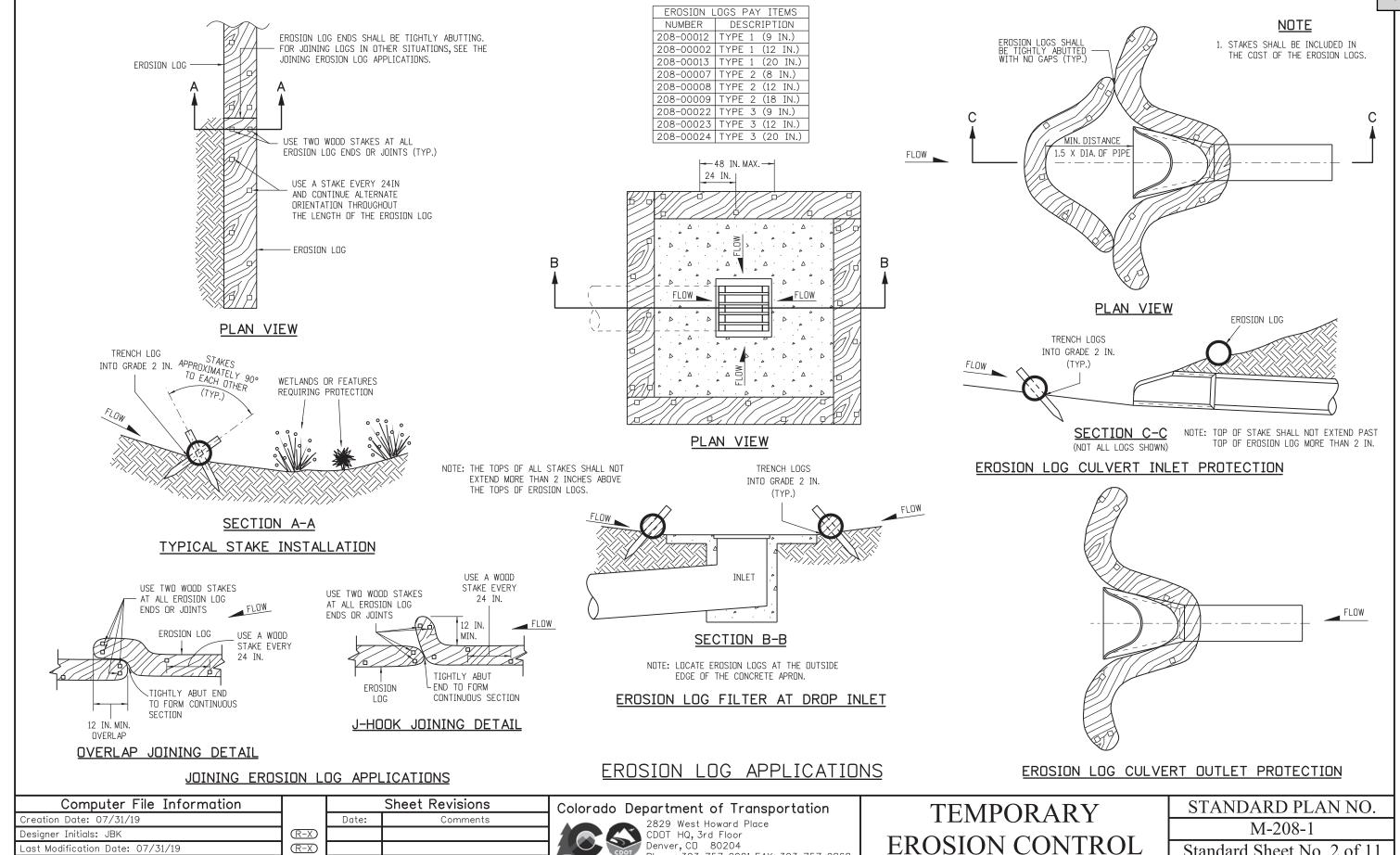
Standard Sheet No. 1 of 11

Project Sheet Number:



Standard Sheet No. 2 of 11

Project Sheet Number:



Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

JBK

Issued by the Project Development Branch: July 31, 2019

Project Development Branch

 $\mathbb{R}$ -X

 $\mathbb{R}$ -X

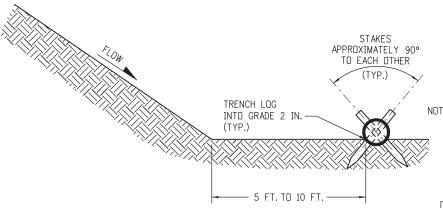
(R-X)

Last Modification Date: 07/31/19

CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Detailer Initials: LTA

## ISOMETRIC VIEW



NOTE: THE TOPS OF ALL STAKES SHALL NOT EXTEND MORE THAN 2 INCHES ABOVE THE TOPS OF EROSION LOGS.

# SECTION A-A

EROSION LOG TOE OF SLOPE PROTECTION

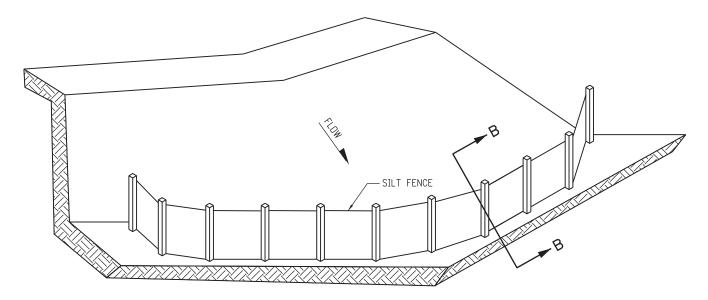
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

- 1. EROSION LOGS USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
- 2. EROSION LOGS SHALL BE PLACED ON THE CONTOUR WITH ENDS FLARED UP SLOPE.
- 3. SEE SHEET 2 OF 11 FOR JOINING LOGS DETAIL.

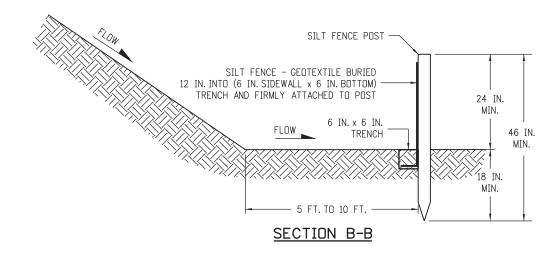
#### EROSION LOGS PAY ITEMS NUMBER DESCRIPTION 208-00012 208-00002 TYPE 1 (12 IN.) 208-00013 TYPE 1 (20 IN.) 208-00007 TYPE 2 (8 IN.) 208-00008 TYPE 2 (12 IN.) 208-00009 TYPE 2 (18 IN.) 208-00022 TYPE 3 (9 IN.) 208-00023 TYPE 3 (12 IN.) 208-00024 TYPE 3 (20 IN.)

# NOTES

- 1. SILT FENCE SHALL HAVE A MAXIMUM DRAINAGE AREA OF ONE-QUARTER ACRE PER 100 FEET OF SILT FENCE LENGTH; MAXIMUM SLOPE LENGTH BEHIND BARRIER
- 2. SILT FENCE USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
- 3. SILT FENCE SHALL BE PLACED PARALLEL TO THE CONTOUR WITH ENDS FLARED UP SLOPE.
- 4. THE MAXIMUM LENGTH OF EROSION LOGS OR SILT FENCES WITHOUT A FLARED END TURNING UPSLOPE IS 150 FEET.



# ISOMETRIC VIEW



# SILT FENCE TOE OF SLOPE PROTECTION

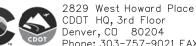
NOTE: THE PAY ITEM NUMBER FOR SILT FENCE (LF) IS 208-00020.

# TOE OF SLOPE PROTECTION APPLICATIONS

Computer File Information			Sheet Revisions
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK			
Last Modification Date: 07/31/19	$\mathbb{R}$ -X		
Detailer Initials: LTA	(R-X)		

(R-X)

# Colorado Department of Transportation



CDOT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

JBK

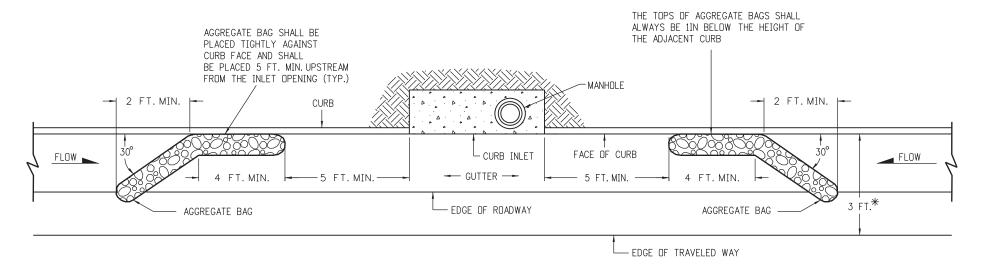
Project Development Branch

**TEMPORARY EROSION CONTROL** 

M-208-1Standard Sheet No. 3 of 11

STANDARD PLAN NO.

Issued by the Project Development Branch: July 31, 2019

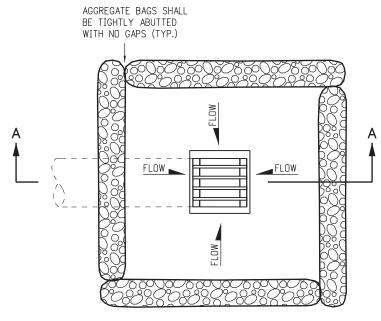


# PLAN VIEW

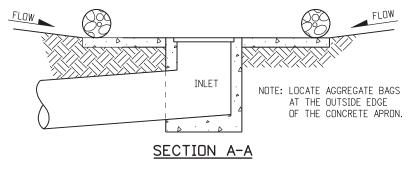
\* NOTE: USE AGGREGATE BAGS ONLY WHEN THERE IS A MINIMUM CLEARANCE OF 3 FEET FROM THE EDGE OF THE TRAVELED WAY (INCLUDING CONDITIONS DURING DETOURS) TO THE FACE OF CURB.

LENGTH (L) OF INLET FT.	NUMBER OF AGGREGATE BAGS UPSTREAM OF INLET
0 - 5	1
6 - 10	2
L > 10	3

AGGREGATE BAGS AT STORM DRAIN INLET (TYPE I)



# PLAN VIEW

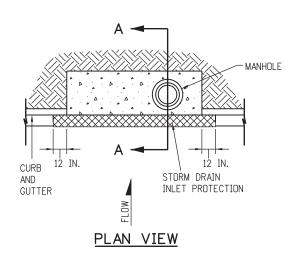


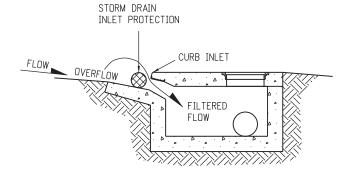
# AGGREGATE BAGS AT DROP INLET

# AGGREGATE BAG APPLICATIONS

NOTE: THE PAY ITEM NUMBER FOR AGGREGATE BAG (LF) IS 208-00035

L	Computer File Information	Į.		Sheet Revisions	Colorado Department of Transportation	TEMPORARY	STANDARD PLAN NO.
	Creation Date: 07/31/19	l	Date:	Comments	2829 West Howard Place		M-208-1
<u> </u>	Designer Initials: JBK	(R-X)			CDDT HQ, 3rd Floor	EDOCION CONTROL	
L	Last Modification Date: 07/31/19	(R-X)			Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868	EROSION CONTROL	Standard Sheet No. 4 of 11
	Detailer Initials: LTA	$\mathbb{R}$ -X					
	CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)			Project Development Branch JBK	Issued by the Project Development Branch: July 31, 2019	Project Sheet Number:



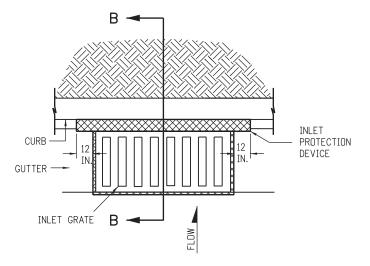


# STORM DRAIN INLET PROTECTION (TYPE I)

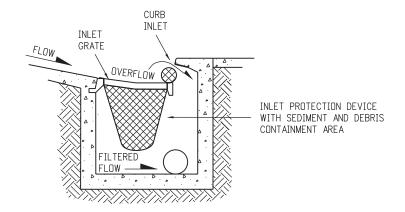
SECTION A-A

#### NOTES:

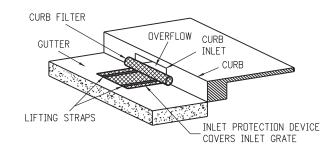
- 1. INLET PROTECTION DEVICE SHALL EXTEND 12 INCHES PAST EACH END
- 2. THE PAY ITEM NUMBERS FOR STORM DRAIN INLET PROTECTION (TYPE I) ARE 208-00051 (LF), 208-00053 84 INCHES (EACH), 208-00057 144 INCHES (EACH), AND 208-00058 204 INCHES (EACH).
- 3. FOR STORM DRAIN INLET TYPES I AND II, IF THERE IS A MINIMUM CLEARANCE OF 3 FEET FROM THE EDGE OF THE TRAVELED WAY TO THE FACE OF CURB, USE THE AGGREGATE BAGS AT STORM DRAIN INLET (TYPE I) DETAIL ON SHEET 4 INSTEAD.



# PLAN VIEW



# SECTION B-B OPTION A STORM DRAIN INLET PROTECTION (TYPE II)

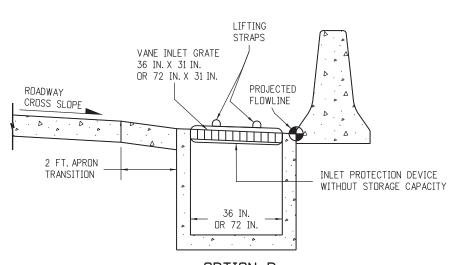


# ISOMETRIC VIEW OPTION B STORM DRAIN INLET PROTECTION (TYPE II)

NOTE: THE PAY ITEM NUMBERS FOR STORM DRAIN INLET PROTECTION (TYPE II) ARE 208-00054 (EACH).

#### VANE INLET GRATE 36 IN. X 31 IN. OR 72 IN. X 31 IN. PROJECTED ROADWAY FLOWLINE CROSS SLOPE 2 FT. APRON OVERFLOW TRANSITION OPENING INLET PROTECTION DEVICE 36 IN. WITH SEDIMENT AND DEBRIS OR 72 IN. CONTAINMENT AREA

# OPTION A STORM DRAIN INLET PROTECTION (TYPE III)



# OPTION B STORM DRAIN INLET PROTECTION (TYPE III)

NOTE: THE PAY ITEM NUMBER FOR STORM DRAIN INLET PROTECTION (TYPE III) (EACH) IS 208-00056.

# STORM DRAIN INLET PROTECTION TYPES

Computer File Information			Sheet Revisions
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK	(R-X)		
Last Modification Date: 07/31/19	$\overline{R-X}$		
Detailer Initials: LTA	$\overline{R-X}$		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)		

# Colorado Department of Transportation 2829 West Howard Place



CDOT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868 JBK

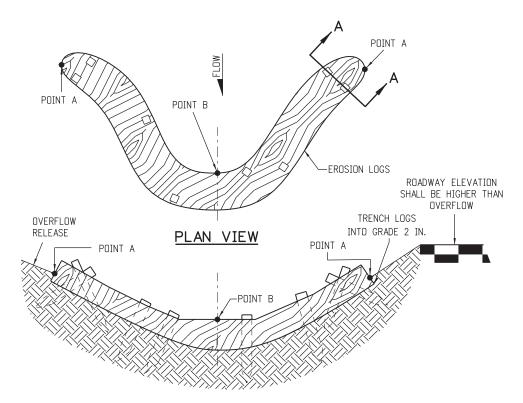
oject bevelopinent branch	oject	Development	Branch
---------------------------	-------	-------------	--------

TE	EMPORA.	RY
<b>EROS</b>	ION CON	ITROL

M-208-1Standard Sheet No. 5 of 11

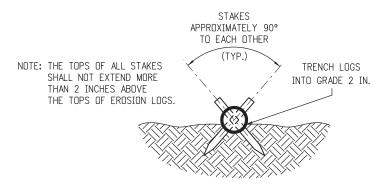
STANDARD PLAN NO.

Issued by the Project Development Branch: July 31, 2019



NOTE: POINTS "A" SHALL BE A MINIMUM 4 IN. HIGHER THAN POINT "B".

# **ELEVATION**

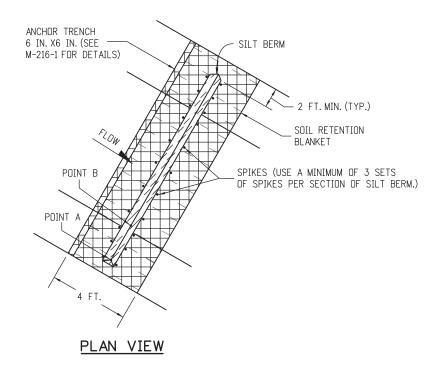


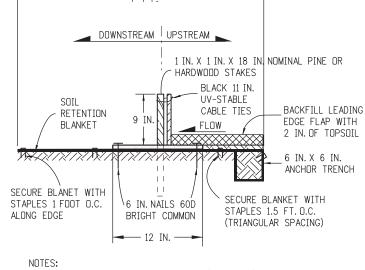
# SECTION A-A

#### NOTES:

- 1. EROSION LOGS SHALL BE EMBEDDED 2 INCHES INTO THE SOIL.
- 2. EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.
- 3. V-SHAPED TEMPORARY DITCHES SHALL NOT BE USED. DITCHES SHAL BE GRADED IN A PARABOLIC OR TRAPEZOIDAL SHAPE.

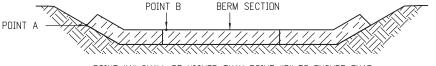
# EROSION LOG INSTALLATION





- 1. MINIMUM 4 NAILS PER SEGMENT (UPSTREAM).
- 2. MINIMUM 2 NAILS PER SEGMENT (DOWNSTREAM).
- 3. MINIMUM 2 WOOD STAKES PER SEGMENT.

# SILT BERM (2) SECTION VIEW



POINT "A" SHALL BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE BERM AND NOT AROUND THE ENDS.

## FRONT VIEW

#### NOTE

- ANCHOR SOIL RETENTION BLANKET INTO TRENCH WITH 8 INCHES MIN. STAPLES PLACED AT 1 FOOT INTERVALS ALONG EDGE.
- 2. FILL AND COMPACT TRENCH.
- 3. SECTIONS OF THE SILT BERM SHALL BE OVERLAPPED WITH NO GAPS.
- 4. FOR SLOPE AND CHANNEL SPACING SEE THE "SECTION VIEW ALONG DITCH FLOWLINE" DETAIL ON SHEET 11 OF 11.
- 5. SOIL RETENTION BLANKET SHALL ALWAYS BE REQUIRED.
- 6. THE PAY ITEM NUMBER FOR SILT BERM (LF) IS 208-00004.

# SILT BERM INSTALLATION

# DRAINAGE DITCH APPLICATIONS

SILT BERM (1) SECTION VIEW

0 1 50 11			0
Computer File Information			Sheet Revisions
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK	(R-X)		
Last Modification Date: 07/31/19	(R-X)		
Detailer Initials: LTA	$\overline{R-X}$		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)		

# Colorado Department of Transportation

SECURE SILT BERM WITH

SPIKES 10 - 12 IN. DEEP (TYP.)

SOIL RETENTION BLANKET



SECURE BLANKET

WITH STAPLES

(SEE M-216-1

FOR DETAILS)

ANCHOR TRENCH 6 IN. X 6 IN.

(SEE M-216-1 FOR DETAILS)

2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

JBK

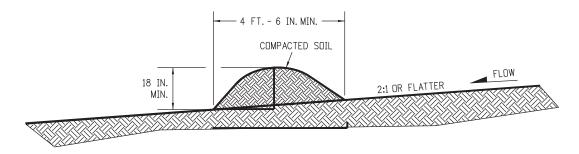
Project Development Branch

# TEMPORARY EROSION CONTROL

M-208-1 Standard Sheet No. 6 of 11

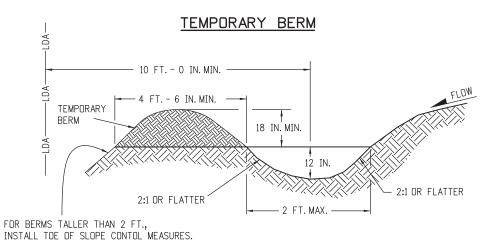
STANDARD PLAN NO.

Issued by the Project Development Branch: July 31, 2019



#### VITES:

- 1. BERMS SHALL HAVE A HEIGHT OF 18 INCHES, SIDE SLOPES OF 2:1 OR FLATTER AND A MINIMUM BASE WIDTH OF 4 FT.-6 IN.
- 2. BERMS SHALL BE USED TO INTERCEPT AND DIVERT DRAINAGE TO A DESIGNATED OUTLET.
- 3. BERMS SHALL NOT BE USED WHERE DRAINAGE AREA EXCEEDS 10 ACRES.
- 4. BERMS SHALL BE CONSTRUCTED OUT OF ACCEPTABLE MATERIAL THAT CAN BE COMPACTED AND RECEIVE AT A MINIMUM HEAVY EQUIPMENT WHEEL ROLLED COMPACTION.
- 5. TEMPORARY BERMS SHALL BE CONSTRUCTED OUT OF EMBANKMENT (SUBSOIL) AND IN NO CIRCUMSTANCE CONSTRUCTED OUT OF SALVAGED TOPSOIL.
- 6. THE PAY ITEM NUMBER FOR TEMPORARY BERM (LF) IS 208-00300.

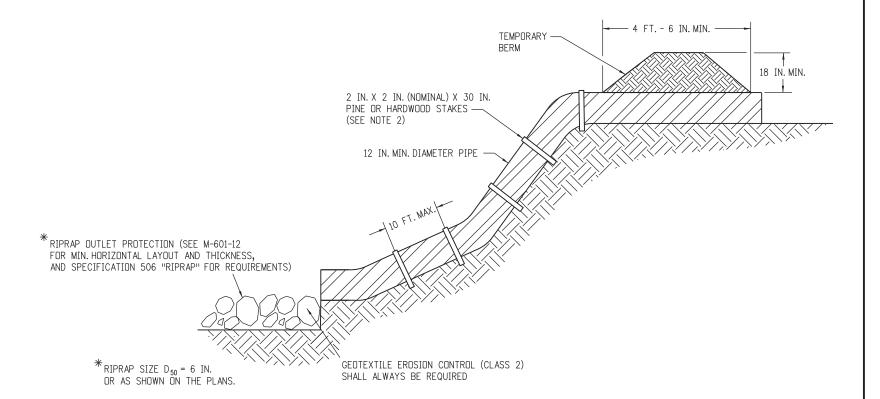


# NOTES:

SEE SHEET 3 OF 11 FOR DETAILS.

- 1. TEMPORARY DIVERSION DITCHES SHALL BE CONSTRUCTED ACROSS THE SLOPE TO INTERCEPT RUNOFF AND DIRECT IT TO A STABLE DUTLET OR SEDIMENT TRAP.
- 2. USE THE TEMPORARY DIVERSION DITCH IMMEDIATELY ABOVE A NEW CUT, FILL SLOPE, OR AROUND THE PERIMETER OF A DISTURBED AREA.
- 3. THE GRADIENT ALONG THE FLOW PATH SHALL HAVE A POSITIVE GRADE TO ASSURE DRAINAGE, BUT SHALL NOT BE SO STEEP AS TO RESULT IN EROSION DUE TO HIGH VELOCITY.
- 4. THE DIVERSION FLOWLINE SHALL ALWAYS BE LOCATED A MINIMUM 10 FEET FROM THE OUTSIDE LIMITS OF DISTURBED AREA BOUNDARY.
- 6. DIVERSION BERMS SHALL BE CONSTRUCTED OUT OF EMBANKMENT (SUBSOIL) AND IN NO CIRCUMSTANCE CONSTRUCTED OUT OF SALVAGED TOPSOIL.
- 5. THE PAY ITEM NUMBER FOR TEMPORARY DIVERSION (LF) IS 208-00301.

# TEMPORARY DIVERSION



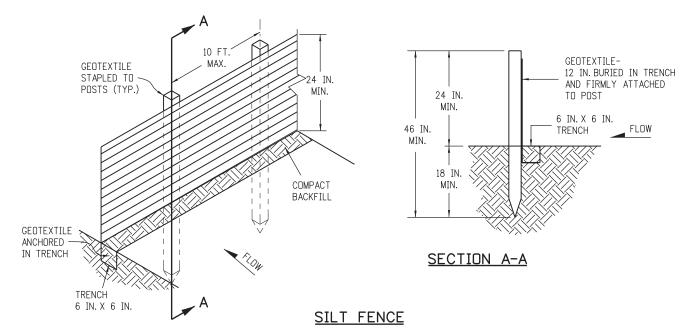
#### NOTES:

- 1. ANCHOR SIZE VARIES ACCORDING TO PIPE SIZE
- 2. TO SECURE THE PIPE, DRIVE STAKES INTO GROUND, THEN TIE A 12 GUAGE WIRE BETWEEN THEM ABOVE AND ACROSS THE PIPE'S WIDTH.
- 3. THE OUTLET SHALL BE ALIGNED WITH THE FLOW DIRECTION OF THE EXISTING GRADE. PERPENDICULAR DISCHARGE TO A CHANNEL SHALL NOT BE ACCEPTABLE.
- 4. THE GRADE AROUND THE INLET TO THE PIPE SHALL BE COMPACTED.
- 5. THE PAY ITEM NUMBER FOR TEMPORARY SLOPE DRAINS (LF) IS 208-00060.

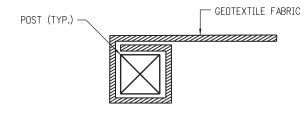
## TEMPORARY SLOPE DRAINS

# GRADING APPLICATIONS

L	Computer File Information			Sheet Revisions	Colorado Department of Transportation	TEMPORARY	STANDARD PLAN NO.
L	Creation Date: 07/31/19		Date:	Comments	2829 West Howard Place		M-208-1
L	Designer Initials: JBK	(R-X)			CDDT HQ, 3rd Floor	EDOCION CONTROL	171-200-1
L	Last Modification Date: 07/31/19	(R-X)			Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868	EROSION CONTROL	Standard Sheet No. 7 of 11
	Detailer Initials: LTA	(R-X)					
	CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)			Project Development Branch JBK	Issued by the Project Development Branch: July 31, 2019	Project Sheet Number:

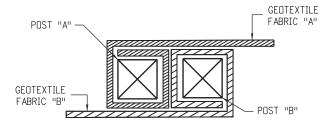


- 1. GEOTEXTILE SHALL BE ATTACHED TO WOOD POSTS WITH THREE OR MORE STAPLES PER POST. STAPLES SHALL BE HEAVY DUTY WIRE AND AT LEAST 1 INCH LONG.
- 2. WOOD POST SHALL BE 1 IN. X 1 IN. NOMINAL.
- 3. THE PAY ITEM NUMBER FOR SILT FENCE (LF) IS 208-00020.
- 4. THE SILT FENCE SHALL BE PLACED ON THE CONTOUR (AT THE SAME ELEVATION ±6 IN.). THE ENDS SHALL BE FLARED UP SLOPE (MINIMUM ELEVATION GAIN OF 18 IN.).



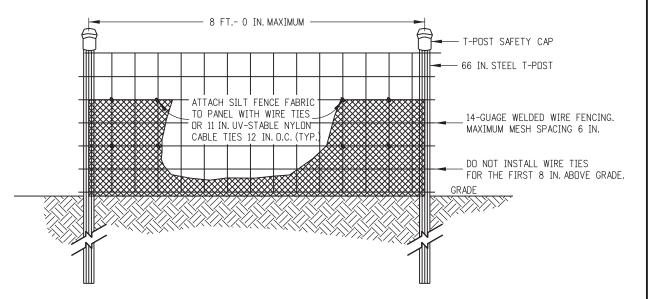
## END SECTION DETAIL (PLAN VIEW)

1. THE END OF THE SILT FENCE FABRIC SHALL BE WRAPPED APPROX. 6 INCHES AROUND A WOODEN POST ONE FULL TURN, THEN SECURED ALONG THE POST WITH 6 HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG.

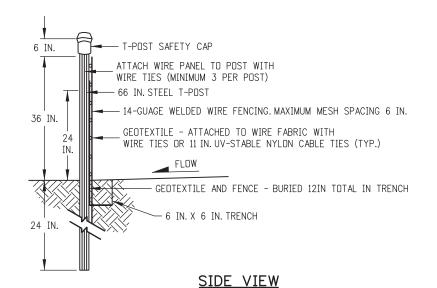


# JOINING SECTION DETAIL (PLAN VIEW)

- 1. THE ENDS OF THE SILT FENCE FABRIC SHALL BE JOINED TOGETHER BY WRAPPING APPROX. 6 INCHES OF EACH END AROUND A WOODEN POST ONE FULL TURN, THEN SECURED ALONG THE POST WITH 6 HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG.
- 2. POSTS SHALL BE TIGHTLY ABUTTED WITH NO GAPS TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.



# **ELEVATION VIEW**



- 1. THE ENDS OF THE SILT FENCE FABRIC SHALL BE JOINED TOGETHER BY WRAPPING APPROX. 6 INCHES OF EACH END AROUND A STEEL T-POST, THEN SECURED ALONG THE POST WITH WIRE TIES (MINIMUM 3 PER POST).
- 2. POSTS SHALL BE TIGHTLY ABUTTED WITH NO GAPS TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.
- 3. SILT FENCES SHALL NOT BE USED FOR CHECK DAMS.
- 4. THE PAY ITEM NUMBER FOR SILT FENCE (REINFORCED) (LF) IS 208-00021.

# SILT FENCE (REINFORCED)

# SILT FENCE APPLICATIONS

Computer File Information			Sheet Revisions
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK	(R-X)		
Last Modification Date: 07/31/19	R-X		
Detailer Initials: LTA	R-X		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	R-X		

# Colorado Department of Transportation



2829 West Howard Place CDDT HQ, 3rd Floor

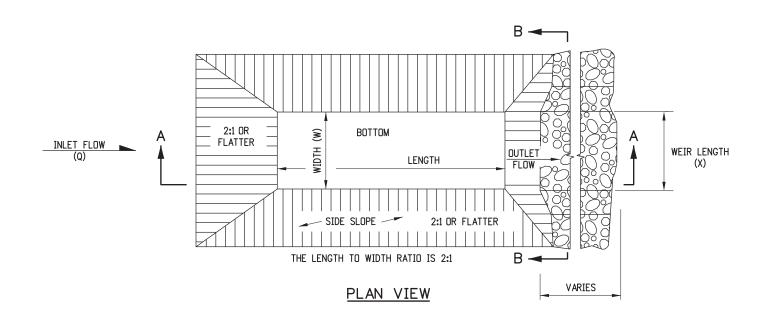
Project Development Branch

Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868 JBK

**TEMPORARY EROSION CONTROL** 

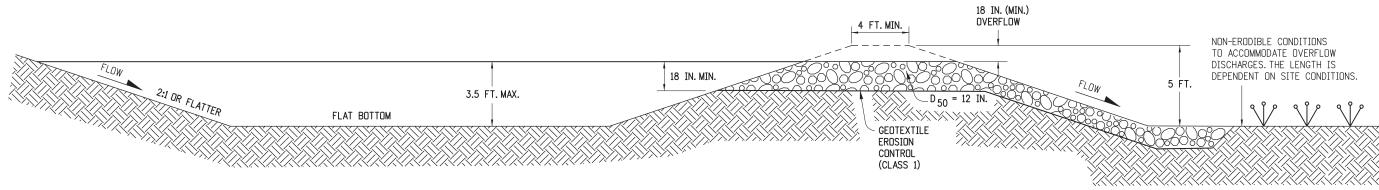
STANDARD PLAN NO. M-208-1Standard Sheet No. 8 of 11

Issued by the Project Development Branch: July 31, 2019

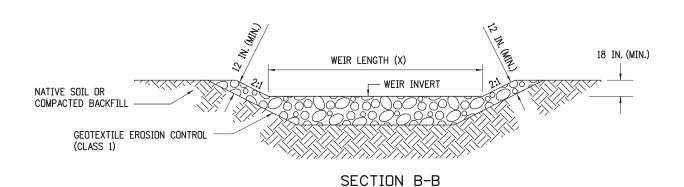


# NOTES

- 1. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.
- 2. THE MAXIMUM STRUCTURE LIFE IS 2 YEARS.
- 3. THE STORAGE AREA IS 1800 CUBIC FEET PER ACRE.
- 4. THE MAXIMUM EMBANKMENT HEIGHT SHALL BE 5 FT. MEASURED ON THE DOWNSTREAM SIDE.
- 5. THE LENGTH/WIDTH RATIO MAY BE ADJUSTED TO MEET SITE CONDITIONS WHEN APPROVED BY THE ENGINEER.
- 6. WIDTH (W) OF SEDIMENT TRAP IS APPROXIMATELY EQUAL TO THE WEIR LENGTH (X).
- 7. SEDIMENT TRAP DESIGN SHALL BE APPROVED BY THE ENGINEER.
- 8. THE DOWN GRADE FROM WEIR SHALL BE STABLE AND NON-ERODIABLE.
- 9. THE PAY ITEM NUMBER FOR SEDIMENT TRAP (LF) IS 208-00033.



# SECTION A-A



DRAINAGE AREA (ACRES)	WEIR LENGTH (FEET)
1	4
2	6
3	8
4	10
5	12

WEIR LENGTH TABLE

# SEDIMENT TRAP

Computer File Information			Sheet Revisions
Creation Date: 07/31/19		Date:	Comments
Designer Initials: JBK	$\mathbb{R}$ -X		
Last Modification Date: 07/31/19	R-X		
Detailer Initials: LTA	R-X		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	$\mathbb{R}$ -X		

# Colorado Department of Transportation



2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch JBK

TEMPO	DRARY
EROSION	CONTROL

M-208-1 Standard Sheet No. 9 of 11

STANDARD PLAN NO.

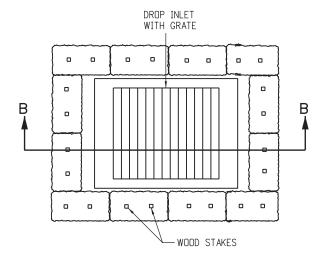
Issued by the Project Development Branch: July 31, 2019

# WOOD STAKE (TYP.) WEDGE LOOSE CERTIFIED WEED FREE STRAW BETWEEN EROSION BALES STEP 1. EXCAVATE THE TRENCH. TWINE OR WIRE WOOD STAKE (TYP.) END EROSION BALES TO BE KEYED INTO FILL SLOPE EROSION BALES TOE OF FILL— TWINE OR WIRE 00 00 00 0 FLOW FILTERED FLOW - PIPE END SECTION FLOW 12 IN. MIN. 4 IN. MIN. WOOD STAKE (TYP.) SECTION A-A 00 00 00 00 EROSION BALE TRENCHING AND STAKING PLAN VIEW

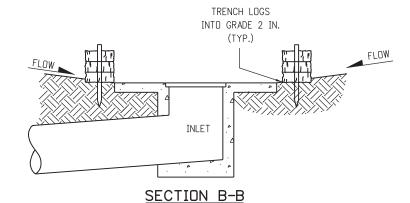
EROSION BALE CULVERT INLET PROTECTION

# <u>NOTES</u>

- 1. STAKES SHALL BE WOOD AND SHALL BE 2 IN. X 2 IN. X 30 IN. NOMINAL.
- 2. EROSION BALES SHALL BE 18 IN. X 18 IN. X 36 IN.
- 3. EROSION BALES SHALL BE ENTRENCHED 4 IN. MINIMUM INTO THE SOIL, THIGHTLY ABUTTED WITH NO GAPS, STAKED, AND BACKFILLED ARDUND THE ENTIRE OUTSIDE PERIMETER.
- 4. EROSION BALES CANNOT BE USED FOR CHECK DAMS.
- 5. EROSION BALE FILTER SHALL BE LOWER THAN BERM ELEVATION OR USED IN A SUMP CONDITION.
- 6. THE PAY ITEM NUMBER FOR EROSION BALES (WEED FREE) (EA) IS 208-00011.



# PLAN VIEW



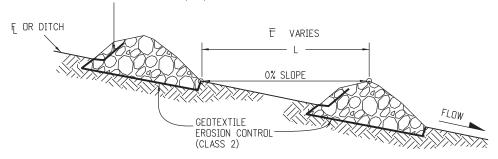
NOTE: LOCATE EROSION BALES AT THE OUTSIDE EDGE OF THE CONCRETE APRON.

EROSION LOG FILTER AT DROP INLET

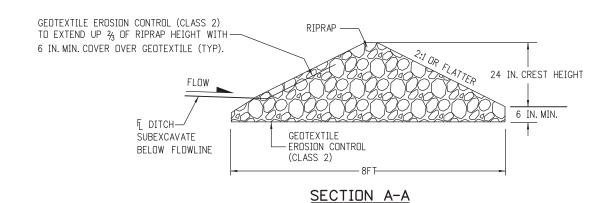
# EROSION BALE APPLICATIONS

	Computer File Information			Sheet Revisions	Colorado Department of Transportation	TEMPORARY	STANDARD PLAN NO.
С	reation Date: 07/31/19	. '	Date:	Comments	2829 West Howard Place	IEMPUKAKI	M-208-1
D	esigner Initials: JBK	(R-X)			CDOT HQ, 3rd Floor	EDOCION CONTROL	IVI-206-1
L	ast Modification Date: 07/31/19	R-X			Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868	EROSION CONTROL	Standard Sheet No. 10 of 11
D	etailer Initials: LTA	(R-X)				T T	D 1 10 1 1 1 1
С	AD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)			Project Development Branch JBK	Issued by the Project Development Branch: July 31, 2019	Project Sheet Number:

GEOTEXTILE EROSION CONTROL (CLASS 2)
TO EXTEND UP % OF RIPRAP HEIGHT WITH
6 IN. MIN. COVER OVER GEOTEXTILE (TYP).

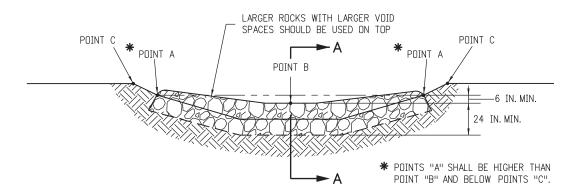


# SECTION VIEW ALONG DITCH FLOWLINE



#### NOTES:

- 1. RIPRAP SIZE  $D_{50} = 6$ IN OR AS SHOWN ON THE PLANS.
- 2. THE GEOTEXTILE EROSION CONTROL SHALL BE CLASS 2
  AND CONFORM TO THE REQUIREMENTS OF SUBSECTION 712.08.
- 3. THE ENDS OF RIPRAP CHECK DAM SHALL BE A MINIMUM OF 6 IN. HIGHER THAN CENTER OF CHECK DAM.
- 4. FOR USE AS TEMPORARY CHECK DAMS ONLY AND NOT FOR PERMANENT INSTALLATIONS.
- 5. THE PAY ITEM NUMBER FOR ROCK CHECK DAM (EA) IS 208-00041.

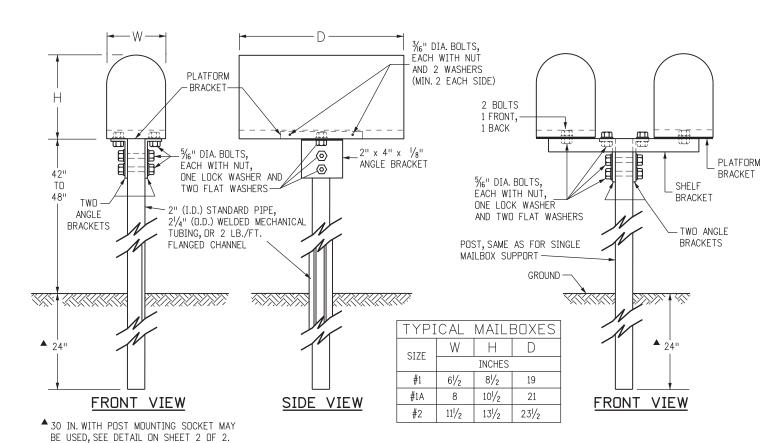


TYPICAL SECTION VIEW

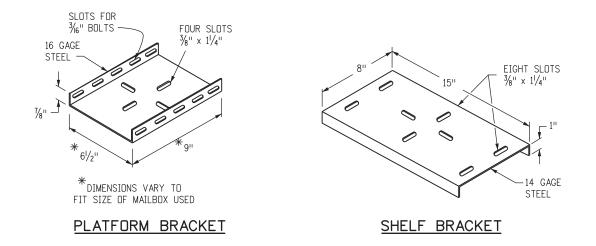
NOTE: ALL MATERIALS AND LABOR TO COMPLETE THE ROCK CHECK DAM SHALL BE INCLUDED IN THE COST OF WORK.

# ROCK CHECK DAM

	Computer File Information			Sheet Revisions	Colorado Department of Transportation	TEMPORARY	STANDARD PLAN NO.
	Creation Date: 07/31/19	l	Date:	Comments	2829 West Howard Place		M-208-1
L	Designer Initials: JBK	(R-X)			CDOT HQ, 3rd Floor	EDOCION CONTROL	IVI-200-1
L	ast Modification Date: 07/31/19	(R-X)			Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868	EROSION CONTROL	Standard Sheet No. 11 of 11
	Detailer Initials: LTA	$\mathbb{R}$ -X					
	CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)			Project Development Branch JBK	Issued by the Project Development Branch: July 31, 2019	Project Sheet Number:



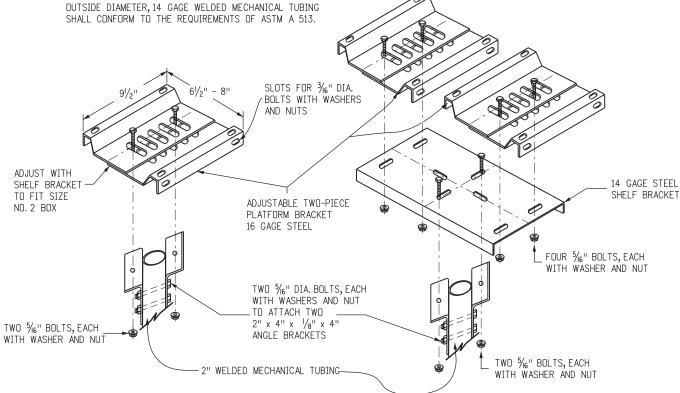
# SINGLE (TYPE 1) AND DOUBLE (TYPE 2) MAILBOX SUPPORTS



# GENERAL NOTES

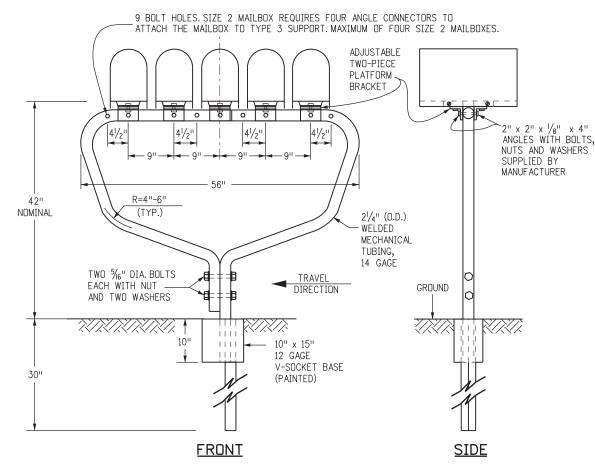
- 1. WHEN A MAILBOX TURNOUT IS REQUIRED, THE NECESSARY PAY QUANTITIES WILL BE SHOWN ON THE PLANS.
- 2. A SINGLE MAILBOX SHALL BE RESET AT THE FINAL DESIGNATED LOCATION ON A NEW TYPE 1 SUPPORT. TWO MAILBOXES RESET AT THE SAME LOCATION SHALL BE RESET ON ONE DOUBLE (TYPE 2) SUPPORT OR ON TWO SINGLE (TYPE 1) SUPPORTS AS DESIGNATED. THREE, FOUR, OR FIVE MAILBOXES SHALL BE RESET ON A MULTIPLE (TYPE 3) SUPPORT. AN EXISTING MAILBOX THAT IS MOUNTED ON A CANTILEVER SUPPORT SHALL BE RESET ON A CANTILEVER (TYPE 4) SUPPORT. ALL WORK AND MATERIALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "RESET MAILBOX STRUCTURE (TYPE \_)".
- 3. WHEN THE ENGINEER DETERMINES THAT THE EXISTING MAILBOX CAN NOT BE REUSED, A NEW METAL MAILBOX OF SIMILAR SIZE SHALL BE SUPPLIED AND ERECTED BY THE CONTRACTOR. A NEW PLASTIC MAILBOX CONFORMING TO POSTAL SERVICE SPECIFICATIONS MAY BE USED AS AN ALTERNATIVE WHEN APPROVED BY THE ENGINEER. AN EXISTING MAILBOX LARGER THAN A SIZE NO. 2 SHALL BE REPLACED WITH A NEW SIZE NO. 2 MAILBOX. THE COST OF SUPPLYING THE NEW MAILBOX WILL BE PAID FOR IN ACCORDANCE WITH SUBSECTION 109.04(b). EXCEPTION: A CUSTOM BUILT, RURAL-TYPE MAILBOX MAY BE RESET IF THE MAILBOX OWNER OBTAINS PRIOR WRITTEN APPROVAL FROM THE POSTMASTER.
- 4. THE ADDRESS INFORMATION THAT APPEARED ON THE ORIGINAL MAILBOX SHALL BE PLACED ON THE APPROACH SIDE OF THE REPLACEMENT MAILBOX. SIZE AND STYLE OF LETTERING AND MATERIALS ARE SUBJECT TO THE ENGINEER'S APPROVAL.
- 6. POSTS, BRACKETS, AND ALL MOUNTING HARDWARE SHALL BE GALVANIZED IN CONFORMANCE WITH AASHTO M 232 AND M 111, EXCEPT THE WELDED MECHANICAL TUBING COATING SHALL BE G-90 OR EQUIVALENT CONFORMING TO ASTM A 525. A 2 IN. DUTSIDE DIAMETER, 14 GAGE WELDED MECHANICAL TUBING

- 6. EXACT DIMENSIONS OF ANGLES, PLATFORM AND SHELF BRACKETS, BOLT HOLES, SLOTS AND MULTIPLE MAILBOX SUPPORT COMPONENTS MAY VARY FROM THOSE SHOWN OR IMPLIED HEREIN SO THAT ALL COMPONENTS WILL FIT TOGETHER PROPERLY.
- 7. PLASTIC NEWSPAPER RECEPTACLES MAY BE REMOUNTED BELOW THE MAILBOX ON THE SUPPORT. PLASTIC NEWSPAPER RECEPTACLES SHALL BE MOUNTED IN THEIR INTENDED ORIENTATION USING A GALVANIZED U-BOLT AND HARDWARE OR OTHER MOUNTING SYSTEM APPROVED BY THE ENGINEER. ASSOCIATED COSTS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE WORK.
- 8. ON ROADS WITH CURB AND GUTTER, THE MAILBOX SUPPORT SHALL BE LOCATED IN THE GROUND SO THE FRONT OF THE MAILBOX SHALL BE 8 IN. TO 12 IN. BACK FROM THE CURB FACE. THE HEIGHT SHALL BE 42 IN. TO 48 IN. MEASURED FROM THE GUTTER FLOW LINE TO THE BOTTOM OF THE MAILBOX.
- 9. ON ROADS WITH SIDEWALK ATTACHED TO CURB AND GUTTER, THE MAILBOX SUPPORT SHALL BE LOCATED IN THE GROUND BEHIND THE SIDEWALK. THE FRONT OF THE MAILBOX SHALL BE IN LINE WITH OR SLIGHTLY BEHIND THE EDGE OF THE SIDEWALK. THE MOUNTING HEIGHT SHALL BE 42 IN. TO 48 IN. ABOVE THE SIDEWALK
- 10. THE GROUND SURROUNDING THE MAILBOX SUPPORTS SHALL BE FIRM, UNDISTURBED GROUND, OR WELL COMPACTED REGRADED SOIL. THE SUPPORTS ARE NORMALLY DRIVEN, BUT THEY MAY BE PLACED IN A DUG HOLE WITH WELL COMPACTED BACKFILL
- 11. PROPRIETARY MAILBOX SUPPORT SYSTEMS LISTED ON THE CDOT APPROVED PRODUCTS LIST WILL BE ACCEPTED AS EQUIVALENT ALTERNATIVES.



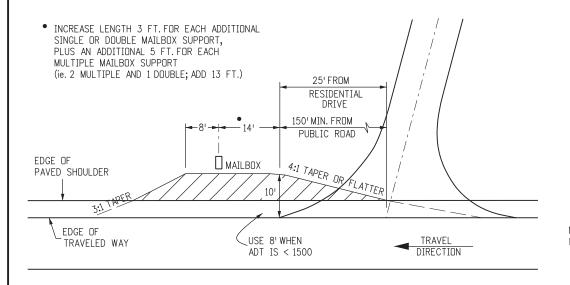
# SINGLE AND DOUBLE MAILBOX SUPPORTS ALTERNATIVE

	Computer File Information			Sheet Revisions	Colorado Department of Transportation	MAILBOX	STANDARD PLAN NO.
l.	Creation Date: 07/31/19	1 1	Date:	Comments	2829 West Howard Place	MAILDUA	M-210-1
L	Designer Initials: JBK	R-X			CDOT HQ, 3rd Floor	CIIDDODTC	1V1-210-1
L	Last Modification Date: 07/31/19	R-X			Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868	SUPPORTS	Standard Sheet No. 1 of 2
L	Detailer Initials: LTA	R-X			1		
[	CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)			Project Development Branch JBK	Issued by the Project Development Branch: July 31, 2019	Project Sheet Number:

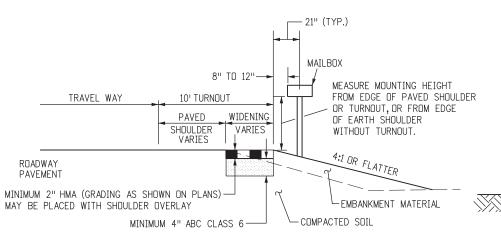


MULTIPLE (TYPE 3) MAILBOX SUPPORT FOR 3, 4, OR 5 MAILBOXES OR APPROVED EQUAL

FIVE SIZE 1 MAILBOXES SHOWN



MAILBOX TURNOUT



# PLASTIC NEWSPAPER RECEPTACLES (TYP.)

 $-1\frac{1}{4}$ " x 42 $\frac{1}{2}$ " STEEL PIPE

STEEL PIPE

1 ¼" STEEL PIPE →

36"

VARIES

NOMINAL

WOOD PLATFORM

 $1\frac{1}{2}$ " x 18" x MAILBOX WIDTH

CLAMP, SAME AS

-21/4" x 31/2" BOLTS

CANTILEVER (TYPE 4) MAILBOX SUPPORT

- AUTOMOBILE PIPE FITTINGS

 $-1\frac{1}{4}$ " x 5" STEEL PIPE

331/2"

1" x 9" PIPE SLEEVE (UNTHREADED)

√45° ELBOW (TYP.)

11/4" PIPE COUPLING

CLASS B

CONCRETE

BE THREADED)

(ALL OTHER PIPE CONNECTIONS SHALL

# SUPPORT SPACING

NOTE: SEE SHEET 1, GENERAL NOTE 7, FOR MOUNTING PLASTIC NEWSPAPER RECEPTACLES.

# Computer File Information Creation Date: 07/31/19 Designer Initials: JBK Last Modification Date: 07/31/19 Detailer Initials: LTA CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

		Sheet Revisions										
	Date:	Comments										
(R-X)												
(R-X)												
$\mathbb{R}$ -X												
(R-X)												

# Colorado Department of Transportation



2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868 JBK

TURNOUT TYPICAL SECTION

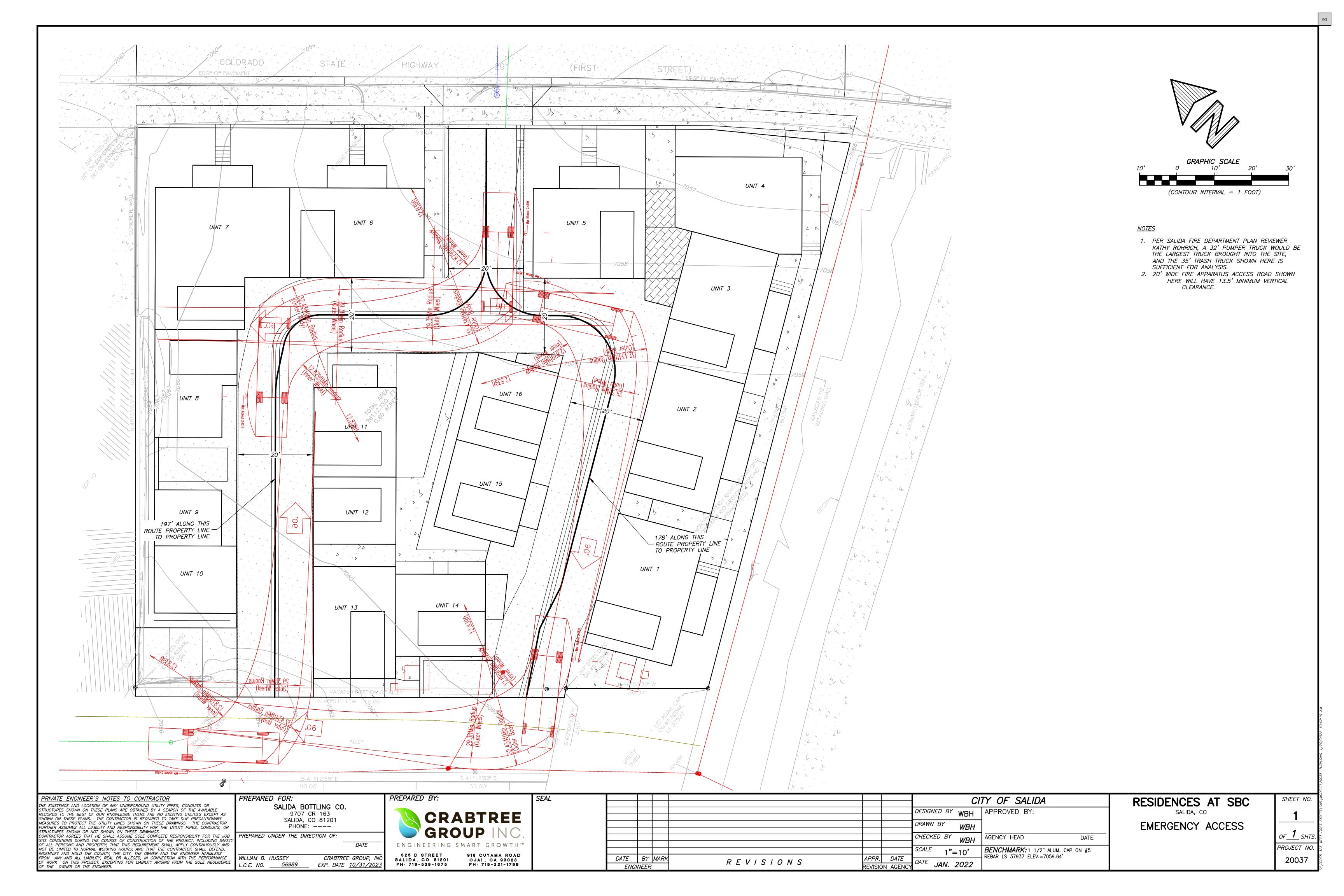
Project	Development	Branch
,	· · · · · · · · · · · · · · · · · ·	

MAILBOX
<b>SUPPORTS</b>

M-210-1 Standard Sheet No. 2 of 2

STANDARD PLAN NO.

Issued by the Project Development Branch: July 31, 2019



JANUARY 31, 2022

# DRAINAGE REPORT RESIDENCES AT SALIDA BOTTLING COMPANY



BILL HUSSEY, PE Crabtree Group Inc. Salida, Colorado Project #20037



# Contents

1	Introduction	1
2	Existing Conditions	1
3	Soils	1
4	Precipitation	1
	Runoff Analysis	
	Conclusion	

# 1 Introduction

Residences at Salida Bottling Company is a proposed development in the City of Salida, at the west corner of Highway 291 (1<sup>st</sup> Street) and the Monarch Spur Trail. Improvements to the site will include landscaping, pedestrian and vehicle access pavement, and buildings.

# **2 EXISTING CONDITIONS**

The subject site is currently a parking lot with road base surface. Existing stormwater flow on site consists of sheet flow from southwest to northeast. There is no evidence of significant off-site generated stormwater runoff entering the site. Runoff generated on site currently discharges to Highway 291, which slopes down from northwest to southeast, and the Salida Ditch, which slopes down from southwest to northeast.

# 3 Soils

Information for the on-site soils was obtained from the USDA Web Soil Survey (U.S. Department of Agriculture, n.d.). The soils consist of Dominson gravelly sandy loam, which is assigned to Hydrologic Soils Group A. Web Soil Survey data is included in Appendix A.

# 4 PRECIPITATION

Precipitation amounts for the Design Storms was obtained from the NOAA precipitation frequency estimates for the subject area. The Design Storms utilized in the analysis are summarized in 1 below.

TABLE 1

TABLE I						
Storm	24-hour					
Return Period	Rainfall					
(yr)	Amount (in.)					
2	1.34					
5	1.64					
10	1.89					
25	2.26					
50	2.55					
100	2.85					

1/31/2022 Page 1

# **5** Runoff Analysis

The runoff Analysis was performed utilizing the methods described in the Natural Resources Conservation Service (NRCS) Technical Release #55 (TR-55), with a Type II storm distribution. Predevelopment peak site runoff for the 25-year, 24 hour is 0.33 cfs. Postdevelopment peak site runoff for the 25-year, 24 hour storm is 1.304 cfs.

Therefore, per TR-55 Figure 6-1, a minimum of 1,191 cubic feet of stormwater detention is needed to mitigate the additional runoff caused by development of the site. Surface detention will be provided per the civil engineering plans.

TR-55 calculations are included in Appendix C.

# 6 CONCLUSION

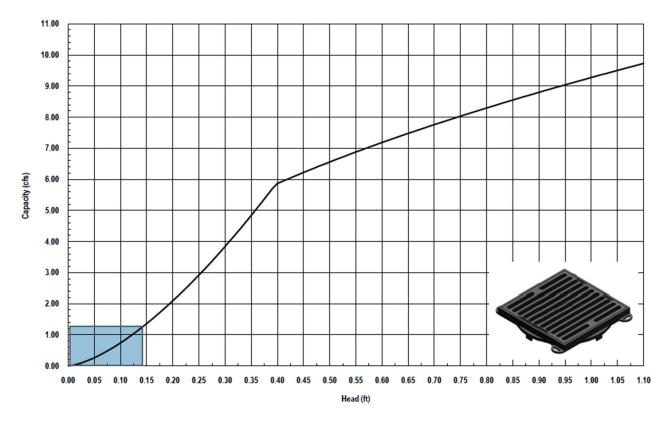
The development of the site is expected to increase the on-site generated stormwater flows after completion of construction. To mitigate this impact, a minimum of 1,191 cubic feet (CF) of on-site stormwater detention is incorporated in the site plan. Incorporation of the stormwater storage into the site design will mitigate the impact of the development to the stormwater flows in the area.

Since approximately half of the site impervious area is building roof, approximately half of the required detention was designed as downspout infiltration basins. Considering two downspouts per lot, a total volume (including rock) of 36.75 CF, and 40% voids in the drain rock, the total detention volume of the downspout infiltration basins is 470 CF. Downspout infiltration basins will have the added benefit of reducing ice buildup on the pavement during freeze/thaw cycles.

The remainder of the required detention, 721 CF, is provided at the low point of the private access drive. Dimensions are per the civil engineering plans, and 40% voids assumed in the drain rock.

Per the calculation in Appendix C, the 25-year, 24-hour storm will produce a maximum runoff of 1.3 cfs. Therefore, a 2'x2' Nyloplast Highway Inlet Grate with 0.15' sump is sufficient to accept the maximum runoff into the infiltration gallery at the bottom of the private access drive. Note that this is conservative because the site plan distributes detention among roof drain infiltration basins as well as the main infiltration basin.

1/31/2022 Page 2



Nyloplast 2' x 2' Road & Highway Grate Inlet Capacity Chart

Nyloplast
3130 Verona Avenue - Buford, GA 30518
(866) 888-8479 / (770) 932-2443 - Fax: (770) 932-2490
© Nyloplast Inlet Capacity Charts June 2012

Finally, exfiltration from the perforated pipe in the main infiltration basin is calculated in Appendix D. It is sufficient to pass the 25-year, 24-hour peak flow.

This analysis assumes that the vehicle access lane is asphalt. If pervious pavers are installed, less detention will be required.

Note that the deepest infiltration area is 4' deep. Per appendix A soil data, site soils infiltrate at 2 to 6 inches per hour under 1' of head. 48 inches divided by 2 inches/hour equals 24 hours to completely infiltrate the detained stormwater. Note that the site detention areas provide a total plan area of 877 square feet. If constantly saturated for 120 hours, at 2 inches/hour, the site would infiltrate 17,540 cubic feet of stormwater.

Because the site is located at the bottom of the Salida Ditch watershed, it may be beneficial to detain only the 2 year storm on site for water quality purposes, and avoid adding to the peak flow of the Salida Ditch in larger storms.

1/31/2022 Page 3

# APPENDIX A: SOILS REPORT

1/31/2022 Appendix A-1



Map projection: Web Mercator Comer coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

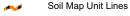
#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Points

#### **Special Point Features**

Blowout

Borrow Pit 

\* Clay Spot

Closed Depression

Gravel Pit

**Gravelly Spot** 

Landfill ۵

Lava Flow Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot Severely Eroded Spot 0

Slide or Slip

Sinkhole

Sodic Spot

â

Spoil Area

Stony Spot 00 Very Stony Spot

Wet Spot

Other Δ

Special Line Features

#### **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 1:20.000.

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

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: Chaffee-Lake Area, Colorado, Parts of Chaffee and Lake Counties

Survey Area Data: Version 14, Sep 2, 2021

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: May 18, 2020—May 21, 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.

# **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI					
DoD	Dominson gravelly sandy loam, 1 to 9 percent slopes	0.6	100.0%					
Totals for Area of Interest		0.6	100.0%					

# Chaffee-Lake Area, Colorado, Parts of Chaffee and Lake Counties

# DoD—Dominson gravelly sandy loam, 1 to 9 percent slopes

# **Map Unit Setting**

National map unit symbol: jq8d Elevation: 7,200 to 8,800 feet

Mean annual precipitation: 11 to 16 inches

Frost-free period: 75 to 100 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Dominson and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

**Description of Dominson** 

#### Setting

Landform: Alluvial fans, fan terraces

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium and/or moderately coarse-textured

gravelly outwash

#### Typical profile

H1 - 0 to 11 inches: gravelly sandy loam
H2 - 11 to 60 inches: very gravelly loamy sand

## Properties and qualities

Slope: 1 to 9 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High

(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 6s Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Ecological site: R048AY316CO - Dry Mountain Outwash

Hydric soil rating: No

# **Minor Components**

St. elmo

Percent of map unit: Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Chaffee-Lake Area, Colorado, Parts of Chaffee and Lake

Counties

Survey Area Data: Version 14, Sep 2, 2021

# APPENDIX B: NOAA PRECIPITATION ESTIMATES

1/31/2022 Appendix B-1



NOAA Atlas 14, Volume 8, Version 2 Location name: Salida, Colorado, USA\* Latitude: 38.5373°, Longitude: -105.9937° Elevation: 7059.85 ft\*\*

\* source: ESRI Maps \*\* source: USGS



#### POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF tabular | PF graphical | Maps & aerials

## PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) <sup>1</sup>										
Duration	Average recurrence interval (years)  1 2 5 10 25 50 100 200 500 10								1000	
	0.176	0.208	0.277	0.349	0.471	0.582	0.709	0.854	1.07	1.25
5-min			(0.216-0.361)							11
10-min	<b>0.257</b> (0.202-0.335)	<b>0.305</b> (0.239-0.396)	<b>0.405</b> (0.317-0.529)	<b>0.511</b> (0.397-0.671)	<b>0.689</b> (0.533-0.985)	<b>0.853</b> (0.636-1.22)	<b>1.04</b> (0.745-1.53)	<b>1.25</b> (0.858-1.89)	<b>1.57</b> (1.03-2.43)	<b>1.83</b> (1.16-2.84)
15-min	<b>0.314</b> (0.246-0.408)	<b>0.371</b> (0.291-0.483)	<b>0.494</b> (0.386-0.645)	<b>0.623</b> (0.484-0.818)	<b>0.841</b> (0.650-1.20)	<b>1.04</b> (0.775-1.49)	<b>1.27</b> (0.909-1.86)	<b>1.53</b> (1.05-2.31)	<b>1.91</b> (1.26-2.97)	<b>2.24</b> (1.41-3.47)
30-min	<b>0.398</b> (0.312-0.517)	<b>0.496</b> (0.389-0.645)	<b>0.683</b> (0.534-0.892)	<b>0.863</b> (0.670-1.13)	<b>1.15</b> (0.878-1.62)	<b>1.40</b> (1.04-1.99)	<b>1.67</b> (1.19-2.44)	<b>1.98</b> (1.35-2.97)	<b>2.42</b> (1.59-3.75)	<b>2.79</b> (1.77-4.33)
60-min	<b>0.461</b> (0.362-0.600)	<b>0.602</b> (0.472-0.783)	<b>0.850</b> (0.664-1.11)	<b>1.07</b> (0.834-1.41)	<b>1.41</b> (1.07-1.96)	<b>1.69</b> (1.24-2.37)	<b>1.99</b> (1.41-2.87)	<b>2.31</b> (1.57-3.44)	<b>2.76</b> (1.80-4.24)	<b>3.12</b> (1.98-4.84)
2-hr	<b>0.525</b> (0.417-0.674)	<b>0.708</b> (0.562-0.909)	<b>1.02</b> (0.805-1.31)	<b>1.29</b> (1.01-1.66)	<b>1.67</b> (1.27-2.27)	<b>1.98</b> (1.47-2.72)	<b>2.30</b> (1.64-3.25)	<b>2.63</b> (1.80-3.84)	<b>3.09</b> (2.04-4.66)	<b>3.45</b> (2.21-5.27)
3-hr	<b>0.574</b> (0.460-0.731)	<b>0.767</b> (0.613-0.977)	<b>1.09</b> (0.868-1.39)	<b>1.37</b> (1.08-1.75)	<b>1.76</b> (1.34-2.36)	<b>2.07</b> (1.54-2.82)	<b>2.39</b> (1.72-3.35)	<b>2.72</b> (1.88-3.93)	<b>3.17</b> (2.10-4.73)	<b>3.52</b> (2.27-5.33)
6-hr	<b>0.714</b> (0.579-0.896)	<b>0.905</b> (0.733-1.14)	<b>1.23</b> (0.989-1.55)	<b>1.50</b> (1.20-1.90)	<b>1.89</b> (1.46-2.50)	<b>2.19</b> (1.66-2.95)	<b>2.51</b> (1.83-3.46)	<b>2.84</b> (1.98-4.04)	<b>3.28</b> (2.21-4.82)	<b>3.63</b> (2.37-5.41)
12-hr	<b>0.929</b> (0.763-1.15)	<b>1.11</b> (0.908-1.37)	<b>1.41</b> (1.15-1.75)	<b>1.67</b> (1.35-2.08)	<b>2.04</b> (1.60-2.65)	<b>2.33</b> (1.79-3.09)	<b>2.64</b> (1.95-3.59)	<b>2.96</b> (2.10-4.15)	<b>3.40</b> (2.31-4.91)	<b>3.74</b> (2.48-5.49)
24-hr	<b>1.16</b> (0.966-1.42)	<b>1.34</b> (1.11-1.64)	<b>1.64</b> (1.36-2.01)	<b>1.90</b> (1.56-2.34)	<b>2.27</b> (1.80-2.90)	<b>2.56</b> (1.99-3.33)	<b>2.86</b> (2.14-3.82)	<b>3.18</b> (2.28-4.37)	<b>3.60</b> (2.49-5.12)	<b>3.94</b> (2.64-5.69)
2-day	<b>1.36</b> (1.14-1.63)	<b>1.57</b> (1.32-1.89)	<b>1.92</b> (1.61-2.32)	<b>2.22</b> (1.85-2.69)	<b>2.62</b> (2.11-3.29)	<b>2.93</b> (2.30-3.74)	<b>3.24</b> (2.46-4.25)	<b>3.56</b> (2.58-4.81)	<b>3.98</b> (2.77-5.54)	<b>4.30</b> (2.92-6.10)
3-day	<b>1.47</b> (1.25-1.75)	<b>1.71</b> (1.45-2.04)	<b>2.10</b> (1.77-2.51)	<b>2.42</b> (2.03-2.91)	<b>2.86</b> (2.31-3.55)	<b>3.19</b> (2.53-4.03)	<b>3.53</b> (2.69-4.58)	<b>3.87</b> (2.83-5.17)	<b>4.31</b> (3.03-5.95)	<b>4.65</b> (3.18-6.53)
4-day	<b>1.56</b> (1.33-1.85)	<b>1.81</b> (1.54-2.15)	<b>2.22</b> (1.89-2.64)	<b>2.56</b> (2.16-3.06)	<b>3.02</b> (2.46-3.73)	<b>3.38</b> (2.68-4.24)	<b>3.73</b> (2.86-4.81)	<b>4.09</b> (3.00-5.43)	<b>4.55</b> (3.21-6.24)	<b>4.91</b> (3.38-6.85)
7-day	<b>1.78</b> (1.54-2.09)	<b>2.05</b> (1.76-2.40)	<b>2.48</b> (2.13-2.92)	<b>2.84</b> (2.42-3.36)	<b>3.33</b> (2.74-4.07)	<b>3.72</b> (2.99-4.61)	<b>4.10</b> (3.18-5.22)	<b>4.49</b> (3.33-5.88)	<b>5.00</b> (3.57-6.76)	<b>5.39</b> (3.75-7.42)
10-day	<b>1.98</b> (1.72-2.31)	<b>2.27</b> (1.97-2.64)	<b>2.73</b> (2.36-3.18)	<b>3.11</b> (2.67-3.65)	<b>3.64</b> (3.01-4.40)	<b>4.04</b> (3.27-4.97)	<b>4.45</b> (3.48-5.62)	<b>4.86</b> (3.64-6.32)	<b>5.41</b> (3.89-7.24)	<b>5.82</b> (4.08-7.94)
20-day	<b>2.57</b> (2.26-2.95)	<b>2.94</b> (2.59-3.37)	<b>3.53</b> (3.10-4.07)	<b>4.02</b> (3.50-4.64)	<b>4.67</b> (3.92-5.55)	<b>5.17</b> (4.24-6.24)	<b>5.65</b> (4.47-7.01)	<b>6.14</b> (4.65-7.83)	<b>6.76</b> (4.92-8.89)	<b>7.23</b> (5.13-9.69)
30-day	<b>3.05</b> (2.71-3.47)	<b>3.50</b> (3.10-3.98)	<b>4.21</b> (3.72-4.80)	<b>4.78</b> (4.20-5.47)	<b>5.53</b> (4.67-6.49)	<b>6.09</b> (5.03-7.27)	<b>6.62</b> (5.28-8.11)	<b>7.15</b> (5.45-9.01)	<b>7.81</b> (5.72-10.1)	<b>8.28</b> (5.92-11.0)
45-day	<b>3.65</b> (3.27-4.11)	<b>4.18</b> (3.74-4.71)	<b>5.02</b> (4.47-5.67)	<b>5.68</b> (5.03-6.44)	<b>6.53</b> (5.55-7.57)	<b>7.14</b> (5.94-8.43)	<b>7.72</b> (6.20-9.34)	<b>8.27</b> (6.35-10.3)	<b>8.94</b> (6.60-11.5)	<b>9.41</b> (6.78-12.3)
60-day	<b>4.15</b> (3.74-4.64)	<b>4.75</b> (4.27-5.32)	<b>5.67</b> (5.08-6.37)	<b>6.39</b> (5.69-7.21)	<b>7.31</b> (6.24-8.40)	<b>7.96</b> (6.65-9.30)	<b>8.55</b> (6.90-10.3)	<b>9.11</b> (7.03-11.2)	<b>9.76</b> (7.24-12.4)	<b>10.2</b> (7.39-13.3)

<sup>&</sup>lt;sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

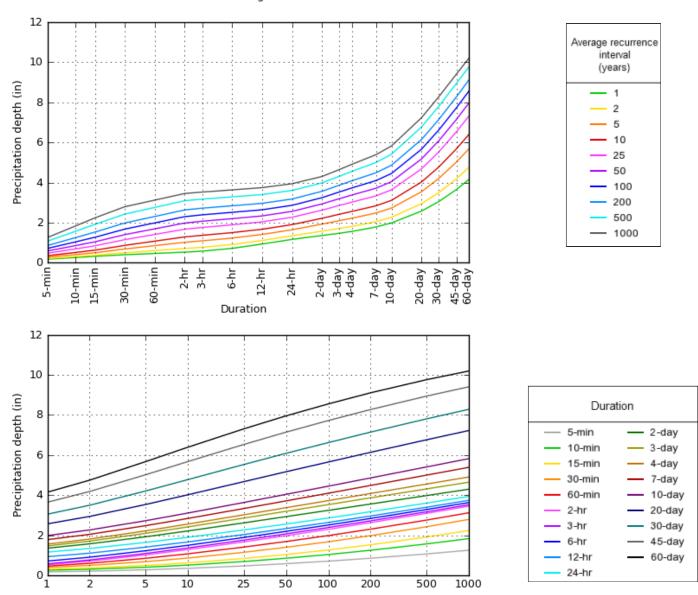
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

# PF graphical





NOAA Atlas 14, Volume 8, Version 2

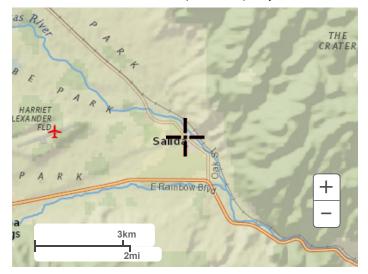
Created (GMT): Thu Oct 14 15:29:52 2021

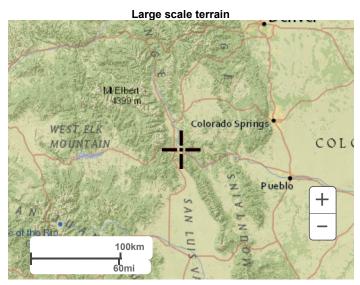
Back to Top

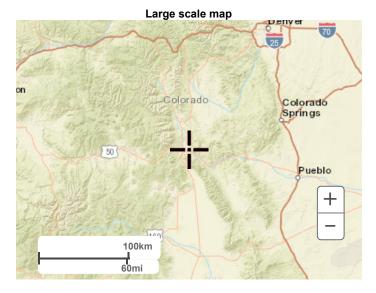
# Maps & aerials

Small scale terrain

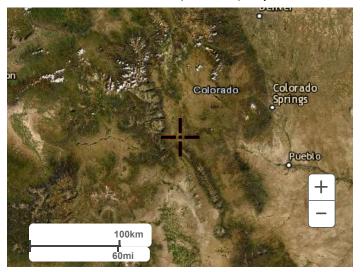
Average recurrence interval (years)







Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

**Disclaimer** 

## APPENDIX C: HYDROLOGIC ANALYSIS

1/31/2022 Appendix C-1



325 D Street Salida, CO 81201 (719) 539-1675 www.crabtreegroup.net

## DRAINAGE CALCULATIONS

<b>Project Name:</b>	Residences at Sal	ida Bottling Co	mpany	
Project #:	20037			
Location:	Salida, CO			
Client Name:	Salida Bottling Co	mpany		
Client Address:				
Client Phone #:				
Prepared By:	WBH		Date:	1/17/2022
Checked by:			Date:	
A No				
Area Name:				

Storm Return Period (yr)	24-hour Rainfall Amount (in.)
2	1.34
5	1.64
10	1.9
25	2.27
50	2.56
100	2.86

Source:

Rainfall Distribution:



## PRE-DEVELOPMENT RUNOFF CALCULATIONS

## **Pre-Developed Curve Number**

Land Use Description	HSG	Curve No.	Area (acres)	Area (%)
Gravel Road/Parking Lot	А	76	0.60	100%
1	•	Totals	0.60	100%

**Weighted Curve Number** 

76

### **Time to Concentration**

### **Sheet Flow**

Surface Cover	Length (ft)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	Manning's n	T <sub>t</sub> (hrs)
Range (natural)	100	0.020	0.130	0.225

### **Shallow Flow**

Surface Cover	Length (ft)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	Velocity Coefficient	T <sub>t</sub> (hrs)
Unpaved	100	0.020	16.135	0.012

#### **Channel Flow**

Length (ft.)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	n-Value	Flow Area (ft <sup>2</sup> )	Wetted Perimeter (ft)	Tt (hrs)

**Total Travel Time** 

0.237

## **Peak Discharge**

Storm	2-yr	10-yr	25-yr	50-yr	100-yr
24-hr Precipitation (P)	1.34	1.9	2.27	2.56	2.86
Initial Abstraction (I <sub>a</sub> )	0.632	0.632	0.632	0.632	0.632
I <sub>a</sub> /P	0.471	0.332	0.278	0.247	0.221
Unit Peak Discharge (q <sub>u</sub> )	386	597	630	649	666
Runoff (Q)	0.13	0.36	0.56	0.73	0.92
Peak Discharge (q <sub>p</sub> )	0.047	0.203	0.331	0.445	0.575



## POST-DEVELOPMENT RUNOFF CALCULATIONS

## **Post-Developed Curve Number**

Land Use Description	HSG	Curve No.	Area (acres)	Area (%)
Impervious	А	98	0.52	86%
Open space (grass cover>75%)	А	39	0.08	14%
	•	Totals	0.60	100%

**Weighted Curve Number** 

90

### **Time to Concentration**

### **Sheet Flow**

Surface Cover	Length (ft)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	Manning's n	T <sub>t</sub> (hrs)
Range (natural)	20	0.020	0.130	0.062

### **Shallow Flow**

Surface Cover	Length (ft)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	Velocity Coefficient	T <sub>t</sub> (hrs)

### **Channel Flow**

Length (ft.)	Slope ( <sup>ft</sup> / <sub>ft</sub> )	n-Value	Flow Area (ft <sup>2</sup> )	Wetted Perimeter (ft)	Tt (hrs)
180	0.03	0.012	0.05	2.00	0.027

**Total Travel Time (hrs)** 

0.089

## **Peak Discharge**

Storm	2-yr	10-yr	25-yr	50-yr	100-yr
24-hr Precipitation (P)	1.34	1.9	2.27	2.56	2.86
Initial Abstraction (I <sub>a</sub> )	0.222	0.222	0.222	0.222	0.222
I <sub>a</sub> /P	0.166	0.117	0.098	0.087	0.078
Unit Peak Discharge (q <sub>u</sub> )	981	1,026	1,045	1,055	1,064
Runoff (Q)	0.56	1.01	1.33	1.58	1.86
Peak Discharge (q <sub>p</sub> )	0.517	0.974	1.304	1.573	1.858



## MINIMUM DETENTION CALCULATIONS

1. Data:							
Data:     Drainage area	A <sub>m</sub> =	0.0009	mi. <sup>2</sup>	6. Vs/Vr	Γ	0.56	0.41
	A <sub>m</sub> =	0.0009	_mi.²	6. Vs/Vr (V <sub>s</sub> /V <sub>r</sub> =C <sub>0</sub> +C <sub>1</sub> (q <sub>0</sub> /q <sub>i</sub> )+C <sub>2</sub>	$(q_0/q_i)^2 + C_3$		0.41
Drainage area					(q <sub>0</sub> /q <sub>i</sub> ) <sup>2</sup> +C <sub>3</sub>		0.41
Drainage area		0.0009 1st Stage	mi. <sup>2</sup> 2nd Stage		$(q_0/q_i)^2 + C_3$		0.41
Drainage area Rainfall distribution		1st	2nd		$(q_0/q_i)^2 + C_3$		0.41
Drainage area		1st Stage	2nd Stage	$(V_s/V_r=C_0+C_1(q_0/q_i)+C_2)$	Γ	(q <sub>0</sub> /q <sub>i</sub> ) <sup>3</sup> )	
Drainage areaRainfall distribution  2. Frequency		1st Stage	2nd Stage	7. Runoff, Q  (from Post-Developed v	Γ	(q <sub>0</sub> /q <sub>i</sub> ) <sup>3</sup> )	1.33
Drainage area Rainfall distribution  2. Frequency 3. Peak Inflow discharge q <sub>i</sub>	II yr cfs	1st Stage	2nd Stage	(V <sub>s</sub> /V <sub>r</sub> =C <sub>0</sub> +C <sub>1</sub> (q <sub>0</sub> /q <sub>i</sub> )+C <sub>2</sub> 7. Runoff, Q (from Post-Developed village)  8. Runoff Vol. V <sub>r</sub>	Γ	(q <sub>0</sub> /q <sub>i</sub> ) <sup>3</sup> )	
Drainage area Rainfall distribution  2. Frequency 3. Peak Inflow discharge q <sub>i</sub> (from Post-Developed work	II yr cfs	1st Stage	2nd Stage	7. Runoff, Q  (from Post-Developed v	worksheet)	(q <sub>0</sub> /q <sub>i</sub> ) <sup>3</sup> )	1.33
Drainage area Rainfall distribution  2. Frequency 3. Peak Inflow discharge qi (from Post-Developed wood) 4. Peak outflow	yr cfs	1st Stage 2 0.517	2nd Stage 25	<ul> <li>(V<sub>s</sub>/V<sub>r</sub>=C<sub>0</sub>+C<sub>1</sub>(q<sub>0</sub>/q<sub>i</sub>)+C<sub>2</sub></li> <li>Runoff, Q         <ul> <li>(from Post-Developed v</li> </ul> </li> <li>Runoff Vol. V<sub>r</sub> <ul> <li>(V<sub>r</sub>=QA<sub>m</sub>53.33)</li> </ul> </li> </ul>	worksheet)	0.56	2,891
Drainage area Rainfall distribution  2. Frequency 3. Peak Inflow discharge qi (from Post-Developed wo) 4. Peak outflow discharge qp	yr cfs cfs	1st Stage	2nd Stage	(V <sub>s</sub> /V <sub>r</sub> =C <sub>0</sub> +C <sub>1</sub> (q <sub>0</sub> /q <sub>i</sub> )+C <sub>2</sub> 7. Runoff, Q (from Post-Developed village)  8. Runoff Vol. V <sub>r</sub>	worksheet)	(q <sub>0</sub> /q <sub>i</sub> ) <sup>3</sup> )	2,891
Drainage area Rainfall distribution  2. Frequency 3. Peak Inflow discharge qi (from Post-Developed wood) 4. Peak outflow	yr cfs cfs	1st Stage 2 0.517	2nd Stage 25	<ul> <li>(V<sub>s</sub>/V<sub>r</sub>=C<sub>0</sub>+C<sub>1</sub>(q<sub>0</sub>/q<sub>i</sub>)+C<sub>2</sub></li> <li>Runoff, Q         <ul> <li>(from Post-Developed v</li> </ul> </li> <li>Runoff Vol. V<sub>r</sub> <ul> <li>(V<sub>r</sub>=QA<sub>m</sub>53.33)</li> </ul> </li> </ul>	cu-ft	0.56	1.33

## APPENDIX D: MAIN INFILTRATION BASIN PIPE EXFILTRATION

1/31/2022 Appendix D-1

Flow through an orifice

V=12gh

h=1.5' is conservative, at the moment the infiltration basin is full

12.32.2.1.5 = 9.82 P/s = V

Area of 3/8" hole: 0.000767 ft = A

single hole: Q = VA = 0.00753 cfs

1.3 cfs = 173 holes, min.

6"ASTM F 758 pipe has (2) 3/8" holes every, 3 linear inches, or 8 holes per foot of

173 holes = 22 ft, min

Invoice

#### Remit payment to:

Central Colorado Title & Escrow 1055 East Highway 50 Salida, CO 81201

Billed to:

Wes Hill & Associates 129 E. U.S. Highway 50

Salida, CO 81201

Invoice number: 19-08153

Invoice date: January 24, 2019

Please pay before:

Our file number: 19-08153

Your reference number: 323 W 1ST/WARNER

Property:

323 West First Street Salida, CO 81201

**Chaffee County** 

Brief legal: PT LOTS 4 & 5 ALL LOTS 6-9 AND PT VAC ALLEY BLK 19

SALIDA

**DESCRIPTION AMOUNT** Owner's Policy (Coverage \$900,000.00) 1,295.00 Loan Policy (Coverage \$687,000.00) 150.00 CO-130 (Extended Coverage) 85.00 Tax Certificate 10.00 \$ 1,540.00 Invoice total amount due:

THIS INVOICE IS FOR INFORMATIONAL PURPOSES ONLY. THESE ITEMS WILL BE COLLECTED AT CLOSING FROM BUYER OR SELLER DEPENDING ON THE TERMS OF THE EXECUTED PURCHASE CONTRACT.

NOTES:

Owners Policy Reissue Rate



ISSUED BY

### First American Title Insurance Company

## Schedule A

Transaction Identification Data for reference only:

Issuing Agent: Brett Eakins Issuing Office: Central Colorado Title & Escrow

Issuing Office's ALTA® Registry ID: 1076574 Loan ID No.:

Commitment No.: 19-08153 Issuing Office File No.: 19-08153

Property Address: 323 West First Street, Salida, CO 81201

**SCHEDULE A** 

1. Commitment Date: January 11, 2019 at 07:45 AM

Policy or Policies to be issued:

(a) ALTA Owners Policy (06/17/06)

Proposed Insured: Eric Warner and Kristin Homer

Proposed Policy Amount: \$900,000.00

(b) **X** ALTA Loan Policy (06/17/06)

Proposed Insured: To Be Determined, its successors and/or assigns as their respective interests may appear.

Proposed Policy Amount: \$687,000.00

- 3. The estate or interest in the Land described or referred to in this Commitment is Fee Simple.
- 4. The Title is, at the Commitment Date, vested in:

323 W 1st, LLC, a Colorado limited liability company

5. The Land is described as follows:

SEE SCHEDULE C ATTACHED HERETO

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved.

The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.





ISSUED BY

**First American Title Insurance Company** 

## Schedule BI & BII

Commitment No: 19-08153

#### SCHEDULE B, PART I

#### Requirements

All of the following Requirements must be met:

- The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
- 2. Pay the agreed amount for the estate or interest to be insured.
- 3. Pay the premiums, fees, and charges for the Policy to the Company.
- 4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
- 5. Payment of all taxes and assessments now due and payable as shown on a certificate of taxes due from the County Treasurer or the County Treasurer's Authorized Agent.
- 6. Evidence that all assessments for common expenses, if any, have been paid.
- 7. Final Affidavit and Agreement executed by Owners and/or Purchasers must be provided to the Company
- 8. Warranty Deed sufficient to convey the fee simple estate or interest in the land described or referred to herein, to the Proposed Insured, Schedule A, Item 2A.
- 9. Deed of Trust sufficient to mortgage the fee simple estate or interest in the land described or referred to herein, to the Proposed Insured, Schedule A, Item 2B.
- 10. Deed from RJPA Holdings, LLC to 323 W 1st, LLC, a Colorado limited liability company, conveying that portion of subject property described in Quit Claim Deed recorded July 24, 2015 as Reception No. 421429.
- 11. Please be advised that our search did not disclose any open Deeds of Trust of Record. If you have knowledge of an outstanding obligation, please contact us immediately for further review prior to closing.
- 12. Recorded Statement of Authority signed by the member (s) of 323 W 1st, LLC, authorized to transact business on behalf of the company.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved.

The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.





ISSUED BY

First American Title Insurance Company

## Schedule BI & BII (Cont.)

13. A survey in form, content and certification acceptable to the Company as the basis for issuing endorsement Form 110.1, in connection with the Owner's policy to be issued hereunder.

NOTE: Upon issuance of the policy (following satisfaction of all requirements), exceptions identified in Schedule B.2 as items 1 through 4 will be deleted or insured over and, upon proof of payment of taxes and assessments due and payable, exception 5 will be revised to read: Taxes and assessments for the year 2019 and subsequent years, a lien not yet due and payable.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited.

Reprinted under license from the American Land Title Association.





ISSUED BY

**First American Title Insurance Company** 

## Schedule BI & BII (Cont.)

Commitment No.: 19-08153

#### SCHEDULE B, PART II

#### **Exceptions**

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

- 1. Any facts, rights, interests or claims which are not shown by the Public Records, but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
- 2. Easements, or claims of easements, not shown by the Public Records.
- 3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct land survey and inspection of the Land would disclose, and which are not shown by the Public Records.
- 4. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown in the Public Records.
- 5. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.

Note: Exception number 5. will be removed from the policy provided the Company conducts the closing and settlement service for the transaction identified in the commitment

- 6. Any and all unpaid taxes, assessments and unredeemed tax sales.
- 7. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof.
- 8. Any water rights, claims of title to water, in, on or under the Land.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.





ISSUED BY

### **First American Title Insurance Company**

## Schedule BI & BII (Cont.)

- 9. Subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws and decisions of Court and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law, in U.S. Patent issued February 12, 1881 and recorded August 4, 1881 in Book 19 at Page 130.
- 10. NOTE: The following notices pursuant to CRS 9-1.5-103 concerning underground facilities have been filed with the Clerk and Recorder. These statements are general and do not necessarily give notice of underground facilities within the subject property:
  - a) Mountain Bell Telephone Company filed October 2, 1981, Reception No. 211211;
  - b) Public Service Company of Colorado filed November 2, 1981, Reception No. 211929;
  - c) Western Slope Gas Company December 11, 1981, Reception No. 212569 and filed May 24, 1985, Reception No. 234357; (Company name amended to "Western Gas Supply Company" by certificates recorded June 27, 1988 in Book 497 at Page 103); merged with Public Service Company of Colorado per instrument recorded January 25, 1993 in Book 531 at Page 694.
  - d) Greeley Gas Company filed November 18, 1981, at Reception No. 212196.
  - e) Letter from Utility Notification Center of Colorado disclosing local facilities access through "One Call System" recorded September 14, 1988 in Book 498 at Page 950.
- 11. Any existing leases or tenancies.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.





ISSUED BY

**First American Title Insurance Company** 

## Schedule C

File No.: 19-08153

The Land referred to herein below is situated in the County of Chaffee, State of Colorado, and is described as follows:

Lots No. 6, 7, 8 and 9 Block No. 19 City of Salida Chaffee County, Colorado and

Fractional Lots Four (4) and Five (5) in Block 19 of the City of Salida and a strip of land between said Block 19 and the right-of-way of the Denver and Rio Grande Western Railroad (Monarch branch) all of which is more particularly described as a Tract of land located within the City of Salida, Chaffee County, Colorado and being part of fractional Block No. 19 of Original Salida and part of the adjoining railroad reservation land being described as follows:

Beginning at the common corner of Lots 5 and 6 of said Block No. 19 located on First Street;

Thence South 48°48'24" West along the common lot line of said Lots 5 and 6 for a distance of 150.00 feet to the Northeasterly alley boundary of said Block No. 19;

Thence South 41°11'36" East along said Northeasterly alley boundary 53.76 feet to the Northerly boundary of the Denver and Rio Grande Western Railroad - Monarch Branch;

Thence North 63°13'57" East along said railroad boundary 154.88 feet to the Southwesterly boundary of said First Street; Thence North 41°11'36" West along said street boundary 92.34 feet to the point of beginning.

#### TOGETHER WITH

THAT PORTION OF THE FOLLOWING DESCRIBED ALLEY LOCATED WITHIN BLOCK 19, IN THE CITY OF SALIDA, CHAFFEE COUNTY, COLORADO, THAT ABUTS LOTS 5,6,7, 8 AND 9, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTHEASTERLY RIGHT-OF-WAY OF SAID ALLEY IN BLOCK 19 AND THE SOUTHEASTERLY BOUNDARY OF SAID BLOCK 19, FROM WHENCE THE INTERSECTION OF SAID SOUTHEASTERLY BOUNDARY OF BLOCK 19 AND THE NORTHEASTERLY RIGHT-OF-WAY OF SECOND STREET BEARS SOUTH 60°24'50" WEST, A DISTANCE OF 178.58 FEET;

THENCE SOUTH 60°24'50" WEST ALONG SAID SOUTHEASTERLY BOUNDARY OF BLOCK 19, A DISTANCE OF 2.69 FEET;

THENCE NORTH 40°46'31" WEST, A DISTANCE OF 215.34 FEET TO THE SOUTHEASTERLY RIGHTOF-WAY OF I STREET:

THENCE NORTH 49°13'29" EAST ALONG SAID RIGHT-OF-WAY OF I STREET, A DISTANCE OF 2.42 FEET TO SAID NORTHEASTERLY RIGHT-OF-WAY OF THE ALLEY WITHIN BLOCK 19;

THENCE SOUTH 40°49'58" EAST ALONG SAID NORTHEASTERLY ALLEY RIGHT-OF-WAY, A DISTANCE OF 215.86 FEET TO THE POINT OF BEGINNING.

>

Form 5000000-C (7-1-14) Page 1 of 1 Schedule C



ISSUED BY

First American Title Insurance Company

## Commitment

#### COMMITMENT FOR TITLE INSURANCE

#### Issued By

### FIRST AMERICAN TITLE INSURANCE COMPANY

#### NOTICE

IMPORTANT—READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

#### **COMMITMENT TO ISSUE POLICY**

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, First American Title Insurance Company, a Nebraska Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within six months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

First American Title Insurance Company

Dennis J. Gilmore, President

Central Colorado Title & Escrow 1055 East Hwy 50 Salida, CO 81201

719.539.1001 719.539.1661 Fax

www.centralcoloradotitle.com

A Policy-Issuing Agent of First American Title Insurance Company

Jeffrey S. Robinson, Secretary

If this jacket was created electronically, it constitutes an original document.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II— Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and

ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.



#### **COMMITMENT CONDITIONS**

#### 1. DEFINITIONS

- (a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) "Title": The estate or interest described in Schedule A.
- 2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.
- 3. The Company's liability and obligation is limited by and this Commitment is not valid without:
  - (a) the Notice:
  - (b) the Commitment to Issue Policy;
  - (c) the Commitment Conditions;
  - (d) Schedule A;
  - (e) Schedule B, Part I—Requirements;
  - (f) Schedule B, Part II-Exceptions; and
  - (g) a counter-signature by the Company or its issuing agent that may be in electronic form.

#### 4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

#### 5. LIMITATIONS OF LIABILITY

- (a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
  - (i) comply with the Schedule B, Part I—Requirements;
  - (ii) eliminate, with the Company's written consent, any Schedule B, Part II—Exceptions; or
  - (iii) acquire the Title or create the Mortgage covered by this Commitment.
- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I—Requirements have been met to the satisfaction of the Company.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and

ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.



(g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

#### 6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

#### 7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

#### 8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

#### 9. ARBITRATION

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at <a href="http://www.alta.org/arbitration">http://www.alta.org/arbitration</a>.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

Copyright 2006-2016 American Land Title Association. All rights reserved. The use of this Form (or any derivative thereof) is restricted to ALTA licensees and ALTA members in good standing as of the date of use. All other uses are prohibited. Reprinted under license from the American Land Title Association.





#### **DISCLOSURE STATEMENT**

Pursuant to C.R.S. 30-10-406(3)(a) all documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section.

NOTE: If this transaction includes a sale of the property and the price exceeds \$100,000.00, the seller must comply with the disclosure/withholding provisions of C.R.S. 39-22-604.5 (Nonresident withholding).

NOTE: Colorado Division of Insurance Regulations 8-1-2 requires that "Every title insurance company shall be responsible to the proposed insured(s) subject to the terms and conditions of the title commitment, other than the effective date of the title commitment, for all matters which appear of record prior to the time of recording whenever the title insurance company, or its agent, conducts the closing and settlement service that is in conjunction with its issuance of an owner's policy of title insurance and is responsible for the recording and filing of legal documents resulting from the transaction which was closed.

Pursuant to C.R.S. 10-11-122, the company will not issue its owner's policy or owner's policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent; or until the Proposed Insured has notified or instructed the company in writing to the contrary.

The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor.

NOTE: Pursuant to CRS 10-11-123, notice is hereby given:

This notice applies to owner's policy commitments containing a mineral severance instrument exception, or exceptions, in Schedule B, Section 2.

- A. That there is recorded evidence that a mineral estate has been severed, leased, or otherwise conveyed from the surface estate and that there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property; and
- B. That such mineral estate may include the right to enter and use the property without the surface owner's permission.

NOTE: Pursuant to Colorado Division of Insurance Regulations 8-1-2, Affirmative mechanic's lien protection for the Owner may be available (typically by deletion of Exception no. 4 of Schedule B, Section 2 of the Commitment from the Owner's Policy to be issued) upon compliance with the following conditions:

- A. The land described in Schedule A of this commitment must be a single family residence which includes a condominium or townhouse unit.
- B. No labor or materials have been furnished by mechanics or material-men for purposes of construction on the land described in Schedule A of this Commitment within the past 6 months.
- C. The Company must receive an appropriate affidavit indemnifying the Company against un-filed mechanic's and material-men's liens.
- D. The Company must receive payment of the appropriate premium.

Form 50-CO-Disclosure (12-6-16)

E. If there has been construction, improvements or major repairs undertaken on the property to be purchased within six months prior to the Date of the Commitment, the requirements to obtain coverage for unrecorded liens will include: disclosure of certain construction information; financial information as to the seller, the builder and or the contractor; payment of the appropriate premium, fully executed Indemnity Agreements satisfactory to the company, and, any additional requirements as may be necessary after an examination of the aforesaid information by the Company.

No coverage will be given under any circumstances for labor or material for which the insured has contracted for or agreed to pay.

NOTE: Pursuant to C.R.S. 38-35-125(2) no person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawal as a matter of right.

NOTE: C.R.S. 39-14-102 requires that a real property transfer declaration accompany any conveyance document presented for recordation in the State of Colorado. Said declaration shall be completed and signed by either the grantor or grantee.

NOTE: Pursuant to CRS 10-1-128(6)(a), It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder or claimant for the purpose of defrauding or attempting to defraud the policyholder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado division of insurance within the department of regulatory agencies.

NOTE: Pursuant to Colorado Division of Insurance Regulations 8-1-3, notice is hereby given of the availability of an ALTA Closing Protection Letter which may, upon request, be provided to certain parties to the transaction identified in the commitment.

Nothing herein contained will be deemed to obligate the company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.



#### Privacy Information

#### We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

#### Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

#### Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

#### Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

#### **Former Customers**

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

#### Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

#### Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet. In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

#### Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

#### **Fair Information Values**

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

January 12, 2021

Mr. Paul Inge Paul Inge Custom Building 8315 CR 144 Salida, CO 81201

Subject: Geotechnical Engineering Study

323 West 1<sup>st</sup> Street, Salida, CO

Project No. 20-464

Dear Mr. Inge:

This geotechnical engineering study was performed to provide foundation recommendations for the subject project. As requested, representatives of Mountain Engineering and Testing (MET) visited the subject site on December 21, 2020 to record the subsurface conditions in two exploratory test pits at the site. The project was performed based on our proposal P-20-168 signed on December 17, 2020.

<u>Proposed Construction</u>: This report was compiled for the proposed construction of approximately 16-17 residential 3 story structures with a partial basement 4 to 6 feet deep, at the subject location. Construction of the structures is proposed along the entirety of the lot with parking in the cutting the lot in half (see Figure 1). Grading plans were not provided, however, no significant fills or cuts are anticipated aside from the excavation for the basements.

Foundation loads are anticipated to be light to moderate and typical for the type of construction. If loads, locations or conditions including fills or cuts are significantly different from those described above or depicted in this report, MET should be notified to reevaluate the recommendations contained herein.

<u>Site Conditions</u>: The 0.67 acre lot is located on 1<sup>st</sup> Street one block northeast of downtown Salida, Colorado. The lot is bordered by 1<sup>st</sup> Street to the northeast, residential and commercial lots to the northwest and southwest and the Monarch Spur trail to the southeast. The area of the proposed buildings footprints is on a graded gravel parking lot that slopes gently to the east (1%-2%). The site has been previously developed for various purposes previous to its current use as a gravel parking lot.

<u>Subsurface Conditions</u>: Subsurface conditions at the site were observed in five test pits dug just outside the proposed footprints of the structures provided on the site plan. The footprints of the structures were not staked in the field prior to MET's arrival on-site. The approximate locations of the test pits are shown on Figure 1. The test pit logs and legend are presented on Figures 2-6.

The density of the native soil was evaluated with a %-inch penetrometer driven into the various strata with blows from a 10-pound hammer falling 12 inches. This test is similar to the standard penetration test described by ASTM D 1586. Depths at which penetrometer testing were performed and the corresponding resistance values are shown on the test pit logs, Figures 2 and 3.

1537 G Street	$\rangle$	2035 1/2 Grande Avenue
Salida, CO 81201		Monte Vista, CO 81144
(719)539-2312	MOUNTAIN	(719)628-2069
Fax (719)530-9111	MOUNTAIN ENGINEERING AND TESTING, INC.	Fax(719)530-9111

The subsurface conditions encountered in Test Pits 1-4 consisted of between 0.5-3.5 feet of loose to medium dense manmade fill at the surface, containing various types of debris and rubble. The fill was underlain by brown medium dense to dense gravely sand with cobble to the end of excavation at 8 feet.

Subsurface conditions encountered in test pit 5 were similar with 2 feet of medium dense manmade fill at the surface underlain by brown medium dense sandy gravel with cobble to the end of excavation at 8 feet. Test pits 1-5 were concluded at depths of 8 feet due to the relative density of the soil and rock content encountered.

A sample of the native gravely sand with cobble was collected from Test Pit 1 at a depth of 4 feet. The results of gradation testing performed on the sample obtained from test pit Test Pit 1 are shown on Figure 7 and the Figure 2 test pit log.

Ground water was not encountered in the test pits at the time of excavation. Seasonal ground water was estimated at a depth greater than six feet. In the limited phase II subsurface investigation performed by AEI Consultants on March 19, 2019 four soil borings were completed. Groundwater was encountered at depth ranging from 18.5-20.5 feet in the 3 boring that depths exceeded 7.5 feet.

Ground water observations by MET and AEI Consultants are based on conditions current at the time of the fieldwork performed and may not be indicative of other times or locations. Ground water levels may fluctuate with varying seasonal and weather conditions. It should be expected that groundwater may be encountered for excavations deeper than explorations contained in this report, particularly on the southern edge of the property during annual high water runoff in the ditch located along the Monarch Spur Trail.

<u>Foundation Recommendations</u>: The presence of manmade fills, rubble, and debris is of particular importance to avoid placement of foundation elements. Foundation elements should only be placed on undisturbed, native soils or compacted structural fill to minimize the potential of differential or excessive settlement. The following design and construction criteria are recommended for a shallow foundation system bearing on the undisturbed, native, dense to very dense gravelly cobble with sand or structural fill with an estimated settlement of less than 0.60 inches. The following design and construction criteria are recommended for a spread footing foundation system.

- Footings (interior and exterior) should have a minimum embedment of 48 inches (minimum partial basement depth) from the native surface and bear on the dense gravelly sand, sandy gravel or on structural fill designed for:
  - An allowable soil bearing pressure of 3,000 psf.
  - An allowable coefficient of friction of 0.41.

1537 G Street	$\rangle$	2035 1/2 Grande Avenue
Salida, CO 81201		Monte Vista, CO 81144
(719)539-2312	MOUNTAIN	(719)628-2069
Fax (719)530-9111	MOUNTAIN ENGINEERING AND TESTING, INC.	Fax(719)530-9111

- Exterior footings and footings beneath unheated areas should be placed at least 24 inches below the exterior grade for frost protection.
- Spread footings should have a minimum width of 16 inches for continuous footings and 24 inches for isolated pads.
- Continuous foundations walls expected to span greater than 8 feet should have additional reinforcement top and bottom sufficient to achieve the expected span, under the maximum expected factored load.
- Subgrade soils disturbed by excavation operations should be re-compacted prior to placement
  of foundation elements. If the presence of large rocks makes disturbing the native soil below
  the footing elevation unavoidable, then the rocks should be removed and replaced with
  compacted structural fill.
- MET recommends a 4-6 inch layer of compacted structural fill be placed on native cobble soils to avoid point loading of rock or cobble on foundation elements.
- If fill material/soils, contaminated soils, rubble, soft or yielding soils, or any deleterious materials are encountered during excavation, MET should be contacted to assess the soil conditions and recommend remedial measures. At a minimum, those soils/materials should be completely removed to native subgrade soils and replaced with compacted structural fill. Any structural fill should be compacted in 6 inch lifts per the recommendations discussed in "Fill Materials" until the desired footing elevation is achieved.
- Compacted fill placed against the sides of the foundations to resist lateral loads should be a
  granular material. Requirements for fill placed and compacted to resist lateral loads are
  discussed below in <u>"Fill Materials, Placement and Compaction."</u>
- Once the excavation is exposed, but prior to placement of any fill or footing formwork, a
  representative of MET must be called out to verify the nature and density of the
  foundation excavations to ensure that relatively uniform soil conditions are present and
  to confirm that MET's recommendations are consistent with actual conditions. If MET is
  not able to verify the soil conditions, MET cannot be held responsible for
  recommendations that may be inconsistent with actual conditions.

<u>Lateral Earth Pressures:</u> The lateral equivalent fluid pressures for soils above a free water surface are recommended below:

Backfill Material	<u>Active</u>	<u>Passive</u>	At Rest
On-site Gravelly Sand	34 pcf	400 pcf	53 pcf
Imported Structural Fill	34 pcf	400 pcf	53 pcf

All foundation walls should be designed for appropriate surcharge pressures such as adjacent buildings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. If water or sloping backfill conditions occur, we should be contacted to reevaluate our recommendations.

The native on-site soils, exclusive of organic matter or other deleterious matter, can be used as foundation wall backfill. However, the on-site materials placed within 3 feet of foundation walls should **not** contain materials greater than 3 inches in diameter.

1537 G Street	$\rangle$	2035 1/2 Grande Avenue
Salida, CO 81201		Monte Vista, CO 81144
(719)539-2312	MOUNTAIN	(719)628-2069
Fax (719)530-9111	MOUNTAIN ENGINEERING AND TESTING, INC.	Fax(719)530-9111

<u>Floor Slabs</u>: A minimum depth of 6 inches of compacted structural fill or gravel is recommended below floor slabs placed in accordance with the recommendations in the "Fill Material, Placement and Compaction" section of this report. Topsoil, fills, and deleterious material; if encountered below slab areas, should be removed and replaced with the structural fill material recommended under the heading "Fill Materials, Placement and Compaction" in this report.

Floor slab control joints should be used to reduce damage due to shrinkage cracking. Joint spacing is dependent on slab thickness and aggregate size, and should be consistent with recognized guidelines such the Portland Cement Association (PCA) and the American Concrete Institute (ACI). A vapor retarder membrane is recommended for slabs with moisture sensitive floor coverings to reduce moisture in the concrete slab. Concrete placement and curing should be in accordance with the American Concrete Institute recommendations. Improper curing techniques and/or high slump concrete can cause excessive shrinkage, cracking and/or curling of the concrete slab. Floor slab control joints should be used to reduce damage due to shrinkage cracking.

Concrete placement and curing should be in accordance with the American Concrete Institute recommendations. Improper curing techniques and/or high slump concrete can cause excessive shrinkage, cracking and/or curling of the concrete slab.

<u>Site Clearing and Subgrade Preparation:</u> Strip and remove existing vegetation, debris, rubble, contaminated soils, and other deleterious materials from the proposed subgrade areas. All exposed surfaces should be free of mounds and depressions that could prevent uniform compaction.

Stripped materials consisting of vegetation and organic materials should be used to revegetate exposed areas after completion of grading operations. Organic materials should only be placed in non-structural areas. Onsite rounded or subrounded cobble is not suitable for stabilization aggregate or structural fill.

<u>Fill Materials, Placement and Compaction:</u> The on-site gravel, exclusive of topsoil and materials greater than 3 inches in diameter, will be suitable for use as fill. Only crushed aggregate should be placed below the ground water elevation. **Imported** structural fill should conform to the following:

Sieve Size	Percent Finer	<u>Plasticity</u>
2 inch	100	Liquid Limit 30 max.
No. 4 Sieve	30-70	Plasticity Index 10 max.
No. 50 Sieve	10-50	•
No. 200 Sieve	5-20	

Frozen soils should not be used as fill or backfill, and fill should not be placed over frozen ground. The subgrade preparation during winter should follow ACI 306 Chapter 6 when temperatures fall below freezing.

1537 G Street	$\rangle$	2035 1/2 Grande Avenue
Salida, CO 81201		Monte Vista, CO 81144
(719)539-2312	MOUNTAIN	(719)628-2069
Fax (719)530-9111	MOUNTAIN ENGINEERING AND TESTING, INC.	Fax(719)530-9111

The following compaction recommendations are provided for structural fill depths less than five (5) feet. If fill materials are placed in excess of five feet, we should be contacted to review the conditions and provide additional recommendations, if necessary. The compaction and moisture contents shown in the following table are recommended for granular soils.

FILL AREA	MIN. COMPACTION	MOISTURE CONTENT
Below Foundations	98% Std. Proctor (ASTM D698) or 93% Mod. Proctor (ASTM D1557)	Optimum Moisture, +/- 3%
Below Floor Slabs	95% Std. Proctor (ASTM D698) or 90% Mod. Proctor (ASTM D1557)	Optimum Moisture, +/- 3%
Landscape & Wall Backfill	90% Std. Proctor (ASTM D698)	Optimum Moisture, +/- 3%

<u>Compliance</u>: Performance of the foundations supported on compacted fills or prepared subgrade depend upon compliance with the above earthwork recommendations. To assess compliance, observation and testing of subgrade soils and fill materials should be performed under the direction of the geotechnical engineer.

<u>Surface Drainage</u>: The exterior ground surface within 10 feet of the building should have a minimum positive slope of 6 inches over 10 feet. A minimum slope of 2½ inches over 10 feet is recommended in paved areas. Drains and roof downspouts should discharge well beyond the limits of all backfill.

<u>Subsurface Drain System</u>: Increases in moisture of the subgrade soils increase the risk of foundation settlement, and therefore should be reduced or prevented. A perimeter drain system is recommended to reduce moisture seepage into the subgrade soils. The drain should consist of perforated 4-inch diameter, rigid PVC pipe surrounded with free-draining granular material. To prevent contamination of the free-draining granular material filter fabric consisting of Mirafi 140N or approved equal should be placed between the native soils and the gravel collector. The PVC pipe should have a minimum 1% grade and should be sloped to a sump and pump or to a suitable gravity outlet. Clean outs should be provided at minimum intervals of 50 feet.

<u>Concrete:</u> Based on the granular soils encountered in the test pits, we recommend a Type II cement type. Material testing of the foundation concrete for slump, air content and compressive strength is recommended during placement.

<u>Limitations</u>: This study has been conducted in accordance with generally accepted geotechnical engineering practices in this area for use by the client for design purposes. The conclusions and recommendations submitted in this letter are based upon the data obtained from the exploratory test pits and the proposed type of construction. The nature and extent of subsurface variations across the

1537 G Street Salida, CO 81201		2035 1/2 Grande Avenue Monte Vista, CO 81144
(719)539-2312	MOUNTAIN	(719)628-2069
Fax (719)530-9111	ENGINEERING AND TESTING, INC.	Fax(719)530-9111

site may not become evident until excavation is performed. If during construction, fill, soil, rock or water conditions appear to be different from those described herein, this office should be advised at once so reevaluation of the recommendations may be made. We recommend on-site observation of excavations by a representative of the geotechnical engineer.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g. mold, fungi, and bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential of such contamination or pollution, other studies should be undertaken.

Please contact me at 719-539-2312 at your convenience if you have any questions of if we can be of further assistance.

Sincerely,

MOUNTAIN ENGINEERING AND TESTING, INC.



Frank J Block, P.E. Project Engineer

#### Attachments:

Figure 1 Test Pit Location Plan

Figures 2 - 6 Logs of Exploratory Test Pits

Figure 7 Legend of Test Pit Log Figure 8 Gradation Test Results

Appendix A General Fill Recommendations

GES 20-464

1537 G Street 2035 1/2 Grande Avenue Monte Vista, CO 81144

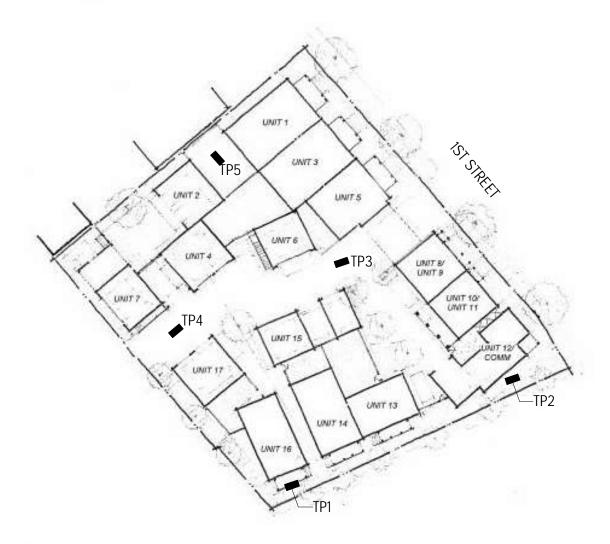
(719)539-2312 MOUNTAIN (719)530-9111

Fax (719)530-9111

Fax (719)530-9111

Fax (719)530-9111





### **SYMBOLS**

■ TP1 TEST PIT NUMBER AND APPROXIMATE LOCATION

GEOTECHNICAL ENGINEERING STUDY PROPOSED HOUSING DEVELOPMENT 323 WEST 1ST STREET, SALIDA, CO

TEST PIT LOCATION PLAN

1537 G Street Salida, CO 81201 (719) 539-2312 Fax (719) 530-9111



2035 1/2 Grande Avenue Monte Vista, CO 81144 ( 719) 628-2069 Fax (719) 530-9111 FIGURE: 1

	AME GEOT PROPOSED ONDITIONS	TECHNICAL E HOUSING D	NGINEERIN DEVELOPME	NT   <b>COORDINATE</b>		323 WEST	1ST STREET, SA ELEVATION	ALIDA, CO   <b>TOTAL DEPTH</b>	PRO	20-464 WATER DEPTH
	GRAI	DED LOT			268' 105°59		7069 FT	8 FT		+8 FT CHECKED BY
ETHOD OF	CAT 209	<b>n</b> Excavator		CONTRACTO	r «K excavatio	NI	<b>DATE</b> 12/21/20	GEOLOGIST STEFAN WHI	TINIC	FRANK BLOCK
SAMPLE TYPE & NUMBER	PENETROMETER BLOW COUNTS	DEPTH IN FEET			CLASSIFIC			ION OF MATERIA		
	50/12"					CONSISTI GRAVELL VERY DEN GRAVEL	NG OF WOOD, E Y SAND WITH C NSE, WELL GRA	ADE FILL, BROWN, L BRICK AND LUMBER OBBLE AND SILT (S DED, FINE GRAINEI NDED COBBLE TO 1 MOIST.	, DRY  SM), E D SAN	'-MOIST. BROWN, DENSE T ND, SUB-ROUNDE
	(N=8) 100/3" (N=61)						%; LL = NV 5%; PI = NP			
						WC = 5.3%				
			$K \cap O = \cap K \cap O = \cap K \cap O$			END AT 8	B' (REFUSAL)			
		14								

	PROPOSEI ONDITIONS	TECHNICAL E D HOUSING E	NGINEERIN DEVELOPME	NT   <b>COORDINATE</b>		23 WEST 1	ST STREET, HOW.	ARD, CO TOTAL DEPTH	PROJECT NUMBER 20-464 WATER DEPTH
	GRA	DED LOT		38 32.2	2411' 105° 59.		7069 FT	8 FT	+8 FT CHECKED BY
ETHOD OF	CAT 209	<b>N</b> EXCAVATOR	)	CONTRACTOR	r &K excavatioi	M	12/21/20	GEOLOGIST STEFAN WHITIN	
SAMPLE TYPE & NUMBER	PENETROMETER BLOW COUNTS	DEPTH IN FEET			CLASSIFICA			ON OF MATERIAL	E, VARIOUS DEBRIS
						GRAVELL MEDIUM I ROUNDEL	ING OF WOOD, BR Y SAND WITH CO DENSE, WELL GR ) GRAVEL TO 3", S	ICK AND LUMBER, D BBLE AND SILT (SM ADED FINE GRAINEI SUB-ROUNDED COB	ORY-MOIST. ), Līght brown, — <sup>-</sup> D Sand, Sub-
	95/12" (N=15)					DRY-MOIS	ST.		
	48/12" (N=7)	4							
					7 12 7 12 7 12 7 12 7 12 7 12 7 12 7 12				
		8							
						END AT 8	3' (REFUSAL)		
		10							
		12							

FIGURE 4

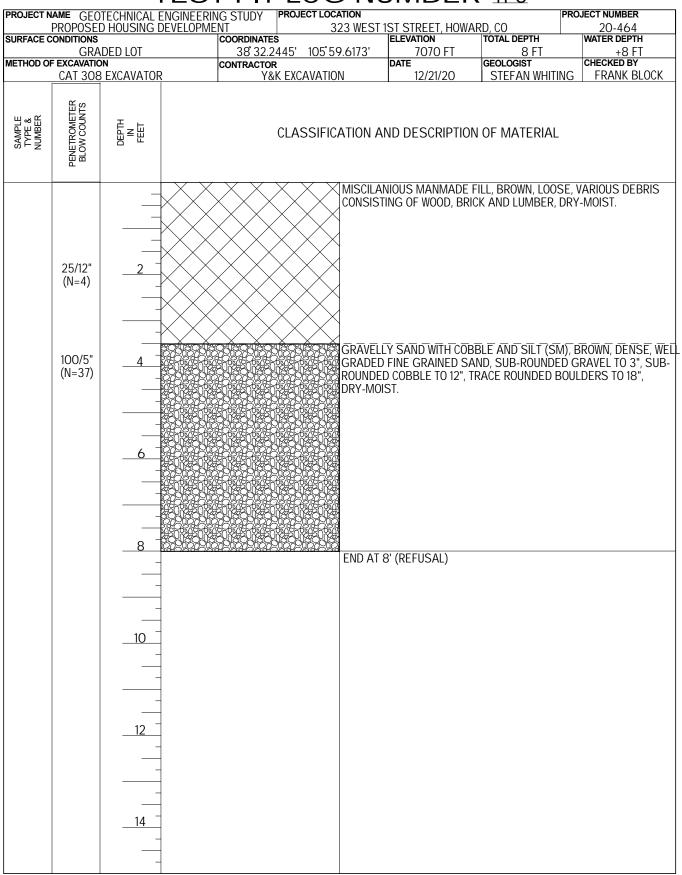


FIGURE 5

				I PI			JIVIDE		
PROJECT NA	ME GEO	TECHNICAL E	ENGINEERIN	IG STUDY	PROJECT LOC		1CT CTDEET LIOW		DJECT NUMBER
SURFACE CO	NDITIONS	) HOUSING [	<u>JEVELUPIVIE</u>	COORDINATES			IST STREET, HOW,   <b>ELEVATION</b>	TOTAL DEPTH	20-464 WATER DEPTH
GRADED LOT					2.2371' 105° 5'	9.6291'	7070 FT	8 FT	+8 FT CHECKED BY
METHOD OF E			)	CONTRACT	OR	M	<b>DATE</b> 12/21/20	GEOLOGIST STEFAN WHITING	
	CAT 308	EXCAVATOR		<u> </u>	Y&K EXCAVATIO	JIN	12/21/20	STEFAN WHITING	FRANK BLOCK
SAMPLE TYPE & NUMBER	PENETROMETER BLOW COUNTS	DEPTH IN FEET			CLASSIFIC			N OF MATERIAL	
	100/11" (N=17) 100/5" (N=37)					GRAVELI DENSE, V GRAVEL	CONSISTING OF W TY SAND WITH COI WELL GRADED, FIN	FILL, BROWN, MEDIUM OOD, BRICK AND LUME BBLE AND SILT (SM), L NE GRAINED SAND, SL DED COBBLE TO 12", DE	BER, DRY-MOIST. IĞHT BRÖWN, — — — IB-ROUNDED

1537 G S tree t Sa lida ,CO 81201		2035 1/2 G rande Avenue Monte Vista, CO 81144
~719 539-2312	MOUNTAIN	~719 628-2069
Fax ~719 530-9111	ENGINEERING AND TESTING, INC.	Fax 719 530-9111

			ıLJ									
PROJECT N		TECHNICAL E	ENGINEERIN DEVIELODME		ROJECT LOCA		ST STDEET HOW		DJECT NUMBER 20-464			
PROPOSED HOUSING DEVELOPME SURFACE CONDITIONS				COORDINATES	J.	ZJ WLJI I	ST STREET, HOWA ELEVATION	TOTAL DEPTH	WATER DEPTH			
	GRA	DED LOT		38 32.2565' 105 59.6372'			7071 FT	8 FT	+8 FT CHECKED BY			
METHOD O	F EXCAVATION	<b>on</b> Bexcavator	)	CONTRACTOR	EXCAVATIO	NI	DATE 12/21/20	GEOLOGIST				
SAMPLE TYPE & NUMBER	PENETROMETER BLOW COUNTS	E E E				ation ai	N AND DESCRIPTION OF MATERIAL  CILANIOUS MANMADE FILL, BROWN, MEDIUM DENSE, VARIOUS					
	100/7" (N=26)  100/8" (N=23)					SANDY G DENSE, W GRAVEL	ONSISTING OF W RAVEL WITH COBI JELL GRADED, FIN	PILL, BROWN, MEDION OOD, BRICK AND LUM BLE AND (GW), LIGHT IE GRAINED SAND, SI DED COBBLE TO 10", D	BER, DRY-MOIST.  BROWN, MEDIUM  JB-ROUNDED			

## LEGEND AND NOTES

### PARTICLE SIZE IDENTIFICATION

Clay - Particles finer than 0.005 millimeters.

Silt - Particles finer than 0.074 millimeters and larger than 0.005 millimeters.

Sand - Particles finer than No. 4 Sieve and larger than the No. 200 Sieve .

Gravel - From 1/4-inch to 3 inches in diameter.

Cobble - From 3 to 12 inches in diameter.

Boulder - Larger than 12 inches in diameter.

### SOIL DESCRIPTION MODIFIERS

Trace - Represents 0 to 5 percent by weight.

With (Coarse Grained Material) - Represents 15 to 29 percent by weight.

With (Fine Grained Material) - Represents 5 to 12 percent by weight.

### NOTES

100/6" - Indicates the number of blows required to drive a 5/8-inch penetrometer into the various strata with blows from a 10-pound hammer falling 12 inches. Number in parenthesis represents our calculated N-Value.

--- Dashed line between materials shown on the test pit logs are approximate and the transitions may be gradual.



Groundwater level and the date of measurement.

The exploratory test pits were located based on the features shown on site plan.

Test pits are drawn to depth.

The exploratory test pit locations and elevations should be considered accurate only to the degree implied by the method used.

### LABORATORY TEST RESULTS

+4 = Percent retained on No. 4 sieve;

-200 = Percentage passing the No. 200 sieve;

LL = Liquid Limit;

PI = Plasticity Index;

NP = Non-plastic;

MC = Moisture Content (%);

WSS = Water Soluble Sulfates (ppm);

DD = Dry Density (pcf);

FIGURF: 7

# Gradation Test Results ASTM C136



 $D_{10} = 0.06$ Date: 12/28/20 USCS Classification (ASTM D2487) Gravel  $D_{30} = 0.28$ Sample #: 1 30.3% SM, Silty Sand with Gravel  $D_{60} = 2.08$ **AASHTO Classification** Sample Use: Classification Sand  $C_C = 0.68$ Source: Test Pit A-1-b 56.2%  $C_{U} = 37.37$ Client: Paul Inge **Atterberg Classification** Silt & Clay Project Location: Salida, CO Liquid Limit= NV NP, Non-Plastic 13.5% Test Pit #: 1 Plastic Limit= NP Water Soluble Sulfates **Moisture Content** Plasticity Index= NP Depth: 4 Feet N/A 5.3%

Deptii.	+ 1 cct			1 Ius	ticity mack-	111	14/21				3.370
Coarse Sect	ion					Fines	Section				
		Cumulative	Cumulative					Cumulative	Cumulative		
Sieve Siz	Sieve Size Per		Percent	Percent Specs Specs		Sieve Size		Percent	Percent	<u>Specs</u>	Specs
US (in.)	Metric (mm)	Retained	Passing	Max	Min	US (in.)	Metric (mm)	Retained	Passing	Max	Min
1.50"	37.50	0%	100%			#8	2.360	38%	62%		
1.00"	25.00	3%	97%			#16	1.180	46%	54%		
3/4"	19.00	5%	95%			#30	0.600	57%	43%		
3/8"	9.50	19%	81%			#50	0.300	69%	31%		
#4	4.75	30%	70%			#100	0.150	78%	22%		
						#200	0.075	86.5%	13.5%		
	0001111101									EL 0	
Project Name: 3	Project Name: 323 W 1st Street				Project Number: 20-464			Figure: 8			

1537 G Street Salida, CO 81201 (719)539-2312



2035 1/2 Grande Avenue

Monte Vista, CO 81144

(719)628-

2069

# Appendix A General Engineered Fill Recommendations

#### A. Clearing and Grubbing

a. Areas where excavation or fill placement will be undertaken shall be cleared of all trees, stumps, roots, brush, rubbish, organic soil, or other objectionable matter as determined by the Soil Engineer. Organic soil which is suitable for topsoil shall be stockpiled for later use in landscaping,

#### B. Preparation of Area to be Filled

- a. <u>Scarification:</u> After vegetation and other unsuitable material have been removed, the ground surface of the area to be filled shall be scarified to a depth of at least six (6) inches, and the ground surface is free from ruts, ridges and other uneven features.
- b. <u>Benching:</u> Where fills are placed upon hillsides or slopes where the slope ratio of the original ground exceeds 5 horizontal to 1 vertical (20%), the original ground slope shall be stepped or benched, and the surfaces of benches scarified to a depth of at least six (6) inches. Ground slopes which are flatter than 5 horizontal to 1 vertical shall be benched when considered necessary by the Soil Engineer.
- c. <u>Subgrade Compaction</u>: After the foundation for the fill has been scarified and benched as necessary, the ground surface shall be bladed until it is uniform size and brought to the proper moisture content for compaction. The ground surface shall then be compacted to the densities recommended in the geotechnical report.
- d. Existing Earth Fill: Any unsuitable existing fill on the site shall be removed until undisturbed native soil is exposed. The native soil shall then be scarified, prepared, and compacted and suitable structural fill shall be placed, in accordance with these guidelines.

#### C. Compacted Fill

- a. <u>Fill Materials:</u> Material for fill shall consist of suitable soil as identified in soil reports and/or approved by the Soil Engineer. The fill materials used shall be free of vegetation, frozen material, or other deleterious material. The fill shall no contain particles having a diameter greater than three (3) inches.
- b. Rock: The maximum rock size in fill materials shall be three (3) inches. Large rocks shall not be allowed to nest and voids between rocks shall be carefully filled with properly compacted soil. No large rocks will be permitted within twelve (12) inches of finished grade.
- c. <u>Fill Placement:</u> Fill shall be placed in uniform, level layers which do not exceed six (6) inches thickness after compaction. Each layer shall be placed, mixed, and spread in such a manner as to insure uniformity of each layer, and to prevent the formation of layers or zones of material which differ significantly in characteristics from the surrounding fill.

- d. Moisture Control: Prior to compaction, the fill material shall be brought to its Proctor optimum moisture content, plus or minus 3% to insure even and uniform moisture conditions within the layer. The contractor may be required to add water to material in the excavation or borrow areas prior to transporting to the fill if, in the opinion of the Soil Engineer, proper moisture control cannot be obtained by adding water directly to the fill surface.
- e. <u>Compaction Procedure:</u> After each layer has been spread, mixed, and brought to the proper moisture content, it shall be mechanically compacted to the recommended density. Other levels of compaction may also be specified by the Soil Engineer depending upon the type of soil encountered. Compaction of each layer shall be continuous over the entire area of the layer, and compaction equipment shall make sufficient passes to insure uniform and adequate compaction of each layer.
- f. <u>Compaction of Slopes:</u> The face slopes of fills shall be properly compacted. Compaction on face slopes of fills may be accomplished progressively in increments of three (3) to five (5) feet in fill height, or may be done after the fill is brought to its total height.

#### D. Quality Control

- a. Moisture Density Tests: Prior to commencement of fill operations, a Proctor test, shall be made for each soil material anticipated in the excavation and borrow areas. Additional Proctor tests shall be made during construction if different materials are encountered, or if soil mixtures on the fill warrant additional testing. Occasional single-point density tests shall be performed if necessary to verify the appropriateness of the Proctor values being used.
- b. <u>Density Testing:</u> Field density tests shall be made by the Soil Engineer of the compaction of each layer of fill. At least one test shall be made for each layer of fill, and sufficient suitable compaction of each layer has been achieved. Density tests shall be taken in the compacted material below the disturbed surface. When these tests indicate that the density of any layer of fill or portion thereof has not been properly compacted, the particular layer or portion shall be reworked until the required density has been obtained.

#### E. Seasonal Limits

a. No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable weather conditions. When fill operations are interrupted by weather conditions, fill operations shall not be resumed until the moisture content and density of the previously placed fill are tested for density. March 19, 2019

# LIMITED PHASE II SUBSURFACE INVESTIGATION

**Property Identification:** 

323 West 1<sup>st</sup> Street Salida, Colorado 81201

AEI Project No. 400082

**Prepared for:** 

High Country Bank 7360 West Highway 50 Salida, Colorado 81201

Prepared by:

AEI Consultants 2420 West 26<sup>th</sup> Avenue, Suite 400D Denver, Colorado 80211 (720) 238-4582 Environmental & Engineering Due Diligence

Site Investigation & Remediation

Energy Performance & Benchmarking

Industrial Hygiene

Construction Consulting

Construction, Site Stabilization & Stormwater Services

Zoning Analysis Reports & ALTA Surveys

**National Presence** 

**Regional Focus** 

Local Solutions

# **TABLE OF CONTENTS**

	SCRIPTION	т
2.0 BACKGR	OUND	1
3.0 INVESTI	GATION EFFORTS	3
<ul><li>3.2 Permitting</li><li>3.3 Geophysica</li><li>3.4 Drilling and</li><li>3.5 Groundwat</li><li>3.6 Boring Aba</li><li>3.8 Laboratory</li></ul>	Safety Plan	33455
4.0 FINDING	S	5
<ul><li>4.2 Soil Sample</li><li>4.3 Groundwat</li></ul>	nd Hydrogeologye Analytical Resultser Sample Analytical Results	6 6
6.0 REPORT	LIMITATIONS AND RELIANCE	8
Figure 1 Figure 2	FIGURES Site Location Map Site Map	
	Site Location Map	



March 19, 2019

Mr. Joe Smith High Country Bank 7360 West Highway 50 Salida, Colorado 81201

**Subject:** Limited Phase II Subsurface Investigation

323 West 1<sup>st</sup> Street Salida, Colorado 81201 AEI Project No. 400082

AEI Consultants (AEI) prepared the following report to document the results of a Limited Phase II Subsurface Investigation (Phase II) performed at the above referenced property, hereafter referred to as the "Site" (See Figure 1). The investigation was completed in general accordance with the authorized scope of services outlined in AEI's proposal 62462, signed February 21, 2019.

#### 1.0 SITE DESCRIPTION

The Site consists of a vacant 0.64-acre gravel-surfaced parking lot. The Site is located on the west side of the intersection of West 1<sup>st</sup> Street and the Monarch Spur Trail in a mixed commercial and residential area of Salida, Colorado (Figure 2).

The Site is slopes gently to the east with elevations ranging between 7,065 to 7,070 feet above mean sea level. Based on the regional topographic gradient, the direction of groundwater flow beneath the Site is inferred to be to the northeast. The Arkansas River is located approximately 678 feet to the northwest.

Based on a review of the Geologic Map of Colorado, the Site is underlain by the Dry Union Formation, which is comprised of sedimentary deposits of the Tertiary Period. According to the United States Department of Agriculture (USDA) Soil Survey, soils at the Site are described as the Dominson Series. Soils from this series are classified as gravelly sandy loam.

Refer to Section 4.1 below for additional information on the site geology and groundwater conditions.

#### 2.0 BACKGROUND

According to a February 4, 2019 Phase I Environmental Site Assessment (ESA) completed by AEI, the Site was developed with several buildings that included warehousing, livery, blacksmiths, outbuilding storage, and a dwelling along West First Street from 1886 through 1904. From 1909 through 1945, the Site was occupied by an auto wrecking business (315 West First Street), the Salida Street Department warehouse (323-327 West First Street), and a beverage bottling operation (309 West First Street). By 1950, with the exception of the auto wrecking and bottling buildings, all of the former structures on the Site had been demolished and replaced with a garage

323 West 1<sup>ST</sup> Street Salida, Colorado 81201

building occupied by the City of Salida Public Works Department (Salida PWD) (323 West First Street). The two remaining commercial buildings (309 and 315 West First Street) were demolished sometime between 1979 and 1984 and the Site was solely occupied by Salida PWD garage (323 West First Street). The Salida PWD continued to operate on the Site until 2009, when the last remaining building was demolished. The Site has been used as a surface parking lot since that time.

During the Phase I ESA, AEI identified the following concerns:

According to a 1945 Sanborn map, a former commercial building with frontage along West First Street (315 West First Street), was occupied at the time by an auto wrecking business. The same Sanborn map also depicted two gasoline underground storage tanks (USTs) within the street in front of this building. While the noted location on the map may not correlate to their actual location, the USTs are presumed to have been associated with this former building and business its operations. AEI cannot rule out the possibility that USTs were historically present on the Site as early as 1945. By 1950, a portion of the Site was redeveloped with a commercial garage building. This building was occupied by the Salida PWD until 2009. According to interviews conducted during this AEI assessment and information from prior reports, operations conducted within the former garage building included fleet vehicle/equipment repair, storage, and offices. In particular, Mr. Kevin Nelson, Inspector with the City of Salida, stated that there were no in-ground features present, such as oil change pits, hydraulic lifts, floor drains/trench drains, or oil/water separators within the garage/repair area of the building. However, Mr. Nelson did state that a concrete sump was present in one of the newer (1995) additions to the building that was used to collect snow melt/wash water from any vehicles or equipment brought in to the building. The sump was reported to be connected to the municipal sewer system and no other inline debris collection system (e.g., separator) was reported to be in use with the sump.

AEI did not uncover any other records regarding the disposition of any former building features during building demolitions. Further, AEI did not uncover any records regarding the removal of the two tanks associated with the former 315 West First Street building. Therefore, based on the unconfirmed disposition of past features of concern, length of time the Site was occupied for automotive wrecking (in at least 1945) and fleet maintenance by the City of Salida (more than 55 years), further investigation of the sump was recommended.

The Site is listed as a UST site in the regulatory database report and within Colorado Division
of Labor and Employment (CDLE) Division of Oil and Public Safety (OPS) records. According
to the regulatory database report, the Site is reported to have utilized three galvanized steel
USTs that have been permanently closed. The three UST capacities and contents were noted
to include the following: one 1,000-gallon gasoline, one 1,000-gallon diesel fuel, and one 500gallon gasoline.

Records reviewed from OPS included a two-page UST Notification Form from 1986 noting that the three USTs were still in use at that time, did not contain any internal or external protection, and were owned by the City of Salida. No additional details were reported on the 1986 form. However, a one-page letter enclosed in the OPS files that was sent from the City of Salida to



323 West 1<sup>ST</sup> Street Salida, Colorado 81201

the OPS noted that the City of Salida has discontinued the use of all three USTs effective March 16, 1990 and that the USTs were planned for removal as soon as possible. However, no additional records were identified during this assessment which confirmed the UST removal date(s), the condition of the USTs at the time of removal, or any subsurface sampling at the time of removal to confirm no release had occurred. Based on the unconfirmed disposition of the USTs and undocumented analysis of the subsurface conditions at the time, AEI recommended additional investigation.

#### 3.0 INVESTIGATION EFFORTS

AEI was requested to perform additional investigation, including the collection of soil and groundwater samples in the area of the former USTs and the repair shop, to evaluate if the former operations had adversely impacted the property.

#### 3.1 Health and Safety Plan

A site-specific health and safety plan was prepared, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork.

#### 3.2 Permitting and Utility Clearance

Drilling permits were not required for this investigation. The public underground utility locating service Colorado 811 was notified to identify public utilities in the work area. Private utility locating was conducted by Ground Penetrating Radar Systems (GPRS) of Denver, Colorado to identify underground utilities on the subject property.

#### 3.3 Geophysical Survey

On February 28, 2019, a geophysical survey was conducted by GPRS (Appendix A). The purpose of the survey was to determine if any USTs remain on the Site or to locate disturbed soils that may represent former UST basins. The geophysical survey was conducted using ground penetrating radar (GPR). The geophysical survey did not identify any anomalies indicative of USTs or disturbed soils indicative of a former UST basin.

The client should be aware of the inherent limitations of geophysical surveying methods and that above and underground utilities and other man-made or natural features (i.e. automobiles, debris piles, tree roots, reinforced concrete, certain soil conditions, etc.), if in the area of the survey, may decrease the effectiveness of the survey. The client should be aware that the lack of a detection of a feature from a geophysical survey does not mean that the feature does not exist, only that it was not detected.

#### 3.4 Drilling and Soil Sample Collection

On February 28, 2019, four soil borings (SB-1 through SB-4) were advanced by Site Services of Golden, Colorado using a truck-mounted hollow stem auger. The borings were advanced to depths between 14 and 28 feet below ground surface (bgs). The location and purpose of each boring are listed below:



323 West 1<sup>ST</sup> Street Salida, Colorado 81201

- Boring SB-1 was advanced near the location of the former Salida PWD UST for the collection of soil and groundwater samples.
- Boring SB-2 was advanced near the location of the former UST identified in Sanborn Maps for the collection of soil and groundwater samples.
- Boring SB-3 was advanced near the southern portion of the former Salida PWD building for the collection of soil and groundwater samples.
- Boring SB-4 was advanced near the former Salida PWD UST for the collection of soil samples.

The borings were advanced using 6 5/8-inch outer diameter auger. Soil samples were collected by advancing a five-foot long California split spoon. After each interval, the spoon was retrieved, the spoon barrel disassembled, and the sample liner transferred to the onsite geologist.

Soils from borings SB-1 through SB-4 were evaluated for the purposes of lithologic logging, headspace testing, and sample collection for laboratory analyses. Soil samples were obtained by removing the soil from the split-spoon, placed in four-ounce glass jars, and capped. Upon collection, each sample was labeled with the project name, boring number, sample depth, and date/time of sampling. After labeling, each sample was entered onto chain-of-custody documentation and placed into an iced cooler for transportation to a State of Colorado-certified laboratory for analyses.

Soils were visually inspected for the potential presence of impacted soils. Recovered soils were described on detailed boring logs in general conformance with the United Soil Classification System (USCS). The boring logs for borings SB-1 through SB-4 are presented in Appendix B.

Headspace field measurements were measured with a photoionization detector (PID) equipped with an electrodeless 10.6 eV ultraviolet lamp for detecting the potential presence of organic vapors in the soil samples. To initiate the headspace testing procedure, soil samples were removed from the spoon, placed into labeled, plastic bags, and sealed for conducting the tests. Due to the weather conditions at the time of sampling the plastic bags were placed on the dashboard with the defrost running to assist with the volatilization of any contaminants in the sample. After a sufficient duration of time had elapsed for vapor build-up inside the bags, each bag was then punctured with the PID probe tip to measure the concentration of any gases in the headspace. Measurements of the headspace were obtained in the parts per million (ppm) range for total organic vapors. The results of the headspace tests (PID readings) for borings SB-1 through SB-4 were recorded on the boring logs, presented in Appendix B.

Down-hole equipment was decontaminated prior to drilling and between successive boring locations.

#### 3.5 Groundwater Sample Collection

On February 28, 2019, groundwater samples were collected from borings SB-1, SB-2 and SB-3 by inserting temporary PVC casing into the boreholes and collecting the samples using a new PVC tubing and a foot valve.



#### 3.6 Boring Abandonment

Following completion of sample collection and removal of tooling, the borings were backfilled with soil cuttings and hydrated bentonite chips and completed at the surface to match the surrounding conditions.

#### 3.8 Laboratory Analyses

The soil and groundwater samples were labeled and placed into a cooler with ice following sampling. The samples were transferred under appropriate chain-of-custody documentation to SGS Accutest of Wheat Ridge, Colorado. Laboratory analytical documentation is provided in Appendix C.

Two soil samples from borings SB-1 and SB-4 were analyzed for:

- Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260
- Polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270

Two soil samples from borings SB-2 and SB-3 were analyzed for:

- Volatile organic compounds (VOCs) by EPA Method 8260
- PAHs by EPA Method 8270

One groundwater sample from boring SB-1 was analyzed for:

- BTEX by EPA Method 8260
- PAHs by EPA Method 8270

Two groundwater samples from borings SB-2 and SB-3 were analyzed for:

- VOCs by EPA Method 8260
- PAHs by EPA Method 8270

#### 3.9 Investigation Derived Wastes

No investigation derived waste was created during this investigation.

#### 4.0 FINDINGS

The Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division has the responsibility for overseeing soil and groundwater cleanups in Colorado.

The soil analytical results were compared with the Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for Residential sites and the EPA's RSLs for Worker Protection (Commercial sites) (both dated November of 2017), and the CDPHE Groundwater Protection Values Soil Cleanup Table (CGWPVSC) dated March of 2014.

The Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division has the responsibility for overseeing soil and groundwater cleanups



323 West 1<sup>ST</sup> Street Salida, Colorado 81201

in Colorado under a variety of regulatory programs. Soil sampling results were compared to the Soil Remediation Objectives (SROs) listed in the CDPHE's Dry Cleaner Remediation Guidance Document, dated March 2006.

The groundwater analytical results were compared to the Colorado Basic Standards for Groundwater (CBSGW), which were issued by the CDPHE's Water Quality Control Commission (WQCC) in January of 1987, with amended rules taking effect in December of 2016.

The OPS has established the Tier 1 Risk Based Screening Levels (Tier 1 RBSL) for UST-related volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs). The Tier 1 RBSLs were revised in October of 2005 and published in the Petroleum Storage Tank Owner/Operator Guidance Document to assist owners and/or operators in conducting release investigations, performing initial response actions, preparing site characterization reports, and preparing and implementing corrective action plans.

#### 4.1 Geology and Hydrogeology

Unconsolidated sediment encountered in each of the borings generally consisted of sands with gravel, cobble and boulders (Appendix B). AEI attempted to collect blow counts in the borings, however due to cobbles and boulders in the subsurface, blow counts exceeded 50 after two to four inches. In boring SB-2 a six-inch thick concrete pad was encountered at 0.4 feet bgs.

Saturated soils were encountered at 19 feet bgs in borings SB-1, SB-2 and SB-3. Groundwater was measured in boring SB-1, SB-2 and SB-3 at depths ranging between 18.5 and 20.5 feet bgs. Groundwater was not encountered in boring SB-4.

#### 4.2 Soil Sample Analytical Results

The following information is a summary of the soil sample analytical test results (Appendix C). This information has also been included in Table 1.

- Toluene was reported at a concentration of 0.0019 in boring SB-2. The concentration does not exceed the regulatory screening levels.
- All 18 PAHs were reported in the soil sample collected from boring SB-2. Of the PAHs, only benzo(a)pyrene exceeded any of the regulatory screening levels. The reported concentration of benzo(a)pyrene at 0.159 milligrams per kilogram (mg/kg) exceeded the OPS Tier 1 RBSL for soil exposure of 0.062 mg/kg and the EPA RBSL for residential exposure of 0.11 mg/kg; however, it was below the OPS Groundwater Protection Level of 4.8 mg/kg.
- The reported concentrations of all remaining VOCs and PAHs in the samples from borings (SB-1, SB-3 and SB-4) were below the laboratory method detection limits.

#### 4.3 Groundwater Sample Analytical Results

The following information is a summary of the groundwater sample analytical test results (Appendix C). This information has also been included in Table 2.



323 West 1<sup>ST</sup> Street Salida, Colorado 81201

- Methyl ethyl ketone (MEK) was reported in borings SB-2 and SB-3 at 22.2 and 9.9 micrograms per liter ( $\mu$ g/L), respectively, which do not exceed the regulatory screening levels.
- The remaining VOCs and PAHs were not reported above the laboratory method detection limits.

#### 5.0 SUMMARY AND CONCLUSIONS

AEI has completed a Phase II at the Site. The purpose of the Phase II at the Site was to assess the potential for USTs at the Site and to evaluate current conditions related to the former operation of USTs and repair operations associated with the DPW. A total of four borings (SB-1 through SB-4) were advanced at the Site for the collection of soil and groundwater samples. A geophysical survey using GPR was conducted at the site in an attempt to locate any USTs that may remain on the Site or locate disturbed soils indicative of former UST basins.

A summary of the investigation findings includes:

- The geophysical survey did not identify any anomalies indicative of USTs at the Site.
- Toluene was reported at a concentration of 0.0019 mg/kg in the soil sample collected at 8.5 feet bgs in boring SB-2. The concentration of toluene does not exceed any of the regulatory screening levels.
- The remaining VOCs were not reported in soil samples collected from the remaining borings above the laboratory method detection limits.
- All 18 PAHs were reported in boring SB-2, completed at the reported location of the former UST identified in Sanborn Maps from 1945. Of the reported PAHs in boring SB-2, only benzo(a)pyrene exceeded any of the regulatory screening levels. The reported concentration of benzo(a)pyrene at 0.159 mg/kg exceeded the OPS Tier 1 RBSL for soil exposure of 0.062 mg/kg and the EPA RBSL for residential exposure of 0.11 mg/kg but was below the OPS Tier 1 Groundwater Protection Level of 4.8 mg/kg.
- PAHs were not reported in soil samples collected from the remaining borings above the laboratory method detection limits.
- Methyl ethyl ketone was reported in the groundwater samples from borings SB-2 and SB-3 at 22.2 and 9.9 μg/L, respectively, which do not exceed the regulatory screening levels.
- The remaining VOCs and PAHs in groundwater were not reported above the laboratory method detection limits

Although benzo(a)pyrene was reported in boring SB-2 at concentrations exceeding the regulatory levels for soil exposure, this concentration is below the OPS Tier 1 screening level based on groundwater protection. Based on the depth of the impacted soils at 8.5 feet bgs and the lack of groundwater impacts, the only potential exposure route would be to workers during excavation or utility construction. Direct contact with the soil at 8.5 feet bgs appears unlikely. Based on the depth of the impacts and lack of groundwater impacts AEI does not recommend any additional investigation. However it is recommended that a Material Management Plan (MMP) be created for the Site so workers are aware of potential exposure to impacted soils and proper soil management, sampling and disposal protocols are established if the soils are disturbed.



# **Limited Phase II Subsurface Investigation** 323 West 1<sup>ST</sup> Street

Salida, Colorado 81201

#### 6.0 REPORT LIMITATIONS AND RELIANCE

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of High Country Bank. All reports, both verbal and written, whether in draft or final, are for the benefit of High Country Bank. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by High Country Bank. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

If there are any questions regarding our investigation, please do not hesitate to contact AEI at 720.238.4582.

Sincerely,

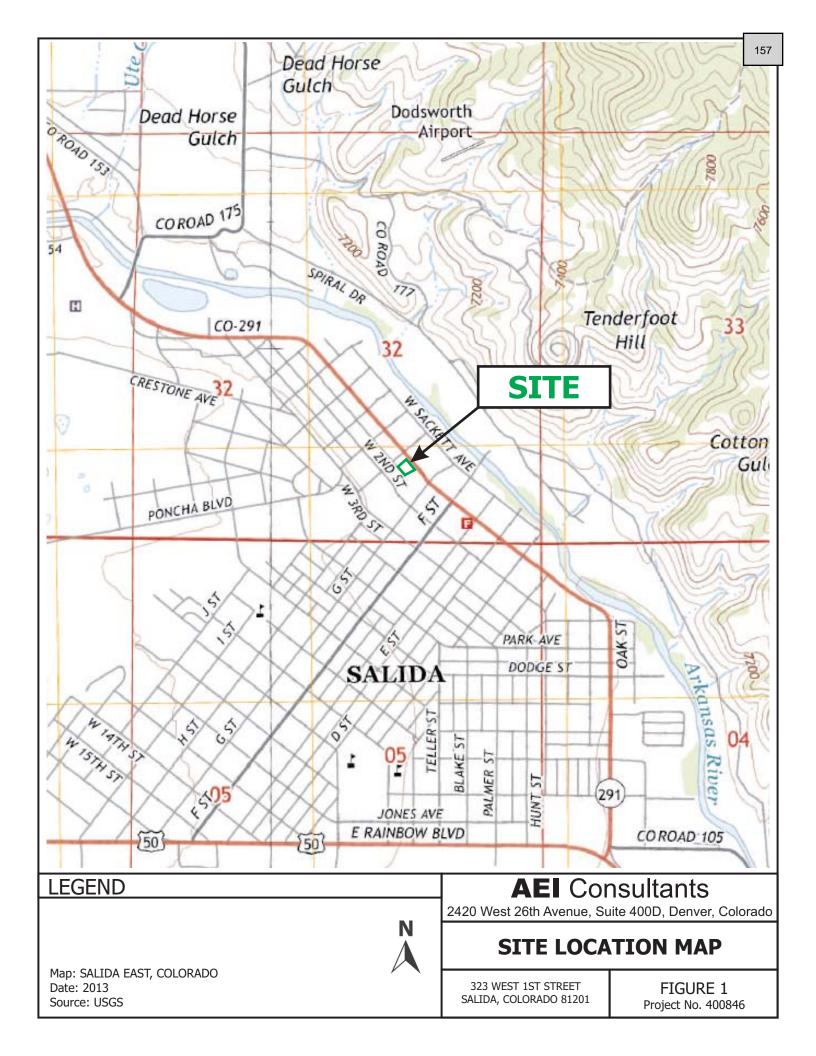
**AEI Consultants** 

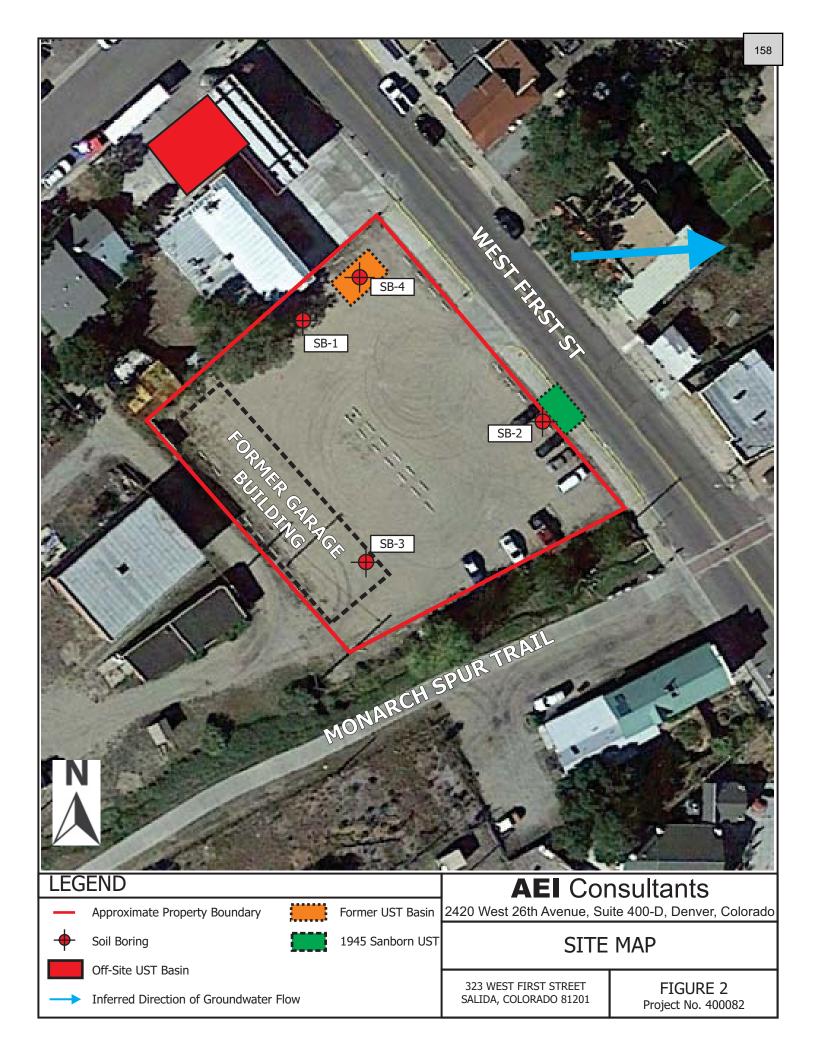
Jason Grubb, PG Senior Geologist David Provance, PG Senior Author



## **FIGURES**







## **TABLES**



# TABLE 1: SOIL SAMPLE DATA SUMMARY 323 West First Street, Salida, Colorado 81201

		SB-1 2/28/2019	SB-2 2/28/2019	SB-3 2/28/2019	SB-4 2/28/2019		Com	parision Val	ues	
Analysis	Units	14	8.5	9 (feet bgs)	7.5	OPS Tie	OPS Tier 1 RBSL		EPA	PA RSL
,		(feet bgs)	(feet bgs)			Soil Exposure	GW Protection	GWPVSC	Residential	Commercia
		VOCs								
Toluene	mg/kg	< 0.001	0.0019 J	< 0.001	< 0.001	4000	140	50	490	4,700
Remaining VOCs	mg/kg	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>varies</td><td>varies</td><td>varies</td><td>varies</td><td>varies</td></mdl<></td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>varies</td><td>varies</td><td>varies</td><td>varies</td><td>varies</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>varies</td><td>varies</td><td>varies</td><td>varies</td><td>varies</td></mdl<></td></mdl<>	<mdl< td=""><td>varies</td><td>varies</td><td>varies</td><td>varies</td><td>varies</td></mdl<>	varies	varies	varies	varies	varies
		PAHs								
Acenaphthene	mg/kg	< 0.017	0.0659 J	< 0.017	< 0.017	3,600	> Sat	N/A	360	4,500
Acenaphthylene	mg/kg	< 0.017	0.0788	< 0.017	< 0.017	N/A	N/A	N/A	N/A	N/A
Anthracene	mg/kg	< 0.017	0.115	< 0.017	< 0.017	18,000	> Sat	N/A	1,800	23,000
Benzo(a)anthracene	mg/kg	< 0.017	0.157	< 0.017	< 0.017	0.62	1.6	1,000	1.1	21
Benzo(b)fluoranthene	mg/kg	< 0.017	0.245	< 0.017	< 0.017	0.62	4.5	1,000	1.1	21
Benzo(k)fluoranthene	mg/kg	< 0.017	0.0842	< 0.017	< 0.017	6.2	4.4	1,000	11	210
Benzo(g,h,i)perylene	mg/kg	< 0.017	0.136	< 0.017	< 0.017	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	mg/kg	< 0.017	0.159	< 0.017	< 0.017	0.062	4.8	1,000	0.11	2.1
Chrysene	mg/kg	< 0.017	0.238	< 0.017	< 0.017	62	1.5	1,000	110	2,100
Dibenzo(a,h)anthracene	mg/kg	< 0.017	0.0302 J	< 0.017	< 0.017	0.062	14	1,000	0.11	2.1
Fluoranthene	mg/kg	< 0.017	0.435	< 0.017	< 0.017	2,300	> Sat	1,000	240	3,000
Fluorene	mg/kg	< 0.017	0.0868	< 0.017	< 0.017	2,400	> Sat	N/A	240	3,000
ndeno(1,2,3-cd)pyrene	mg/kg	< 0.017	0.147	< 0.017	< 0.017	0.62	> Sat	1,000	1.1	21
1-Methylnaphthalene	mg/kg	< 0.024	0.11	< 0.024	< 0.024	N/A	N/A	N/A	18	73
2-Methylnaphthalene	mg/kg	< 0.031	0.115	< 0.030	< 0.031	N/A	N/A	N/A	24	300
Naphthalene	mg/kg	< 0.024	0.087	< 0.024	< 0.024	850	> Sat	23	3.8	17
Phenanthrene	mg/kg	< 0.017	0.354	< 0.017	< 0.017	N/A	N/A	N/A	N/A	N/A
Pyrene	mg/kg	< 0.017	0.382	< 0.017	< 0.017	1,800	> Sat	1,000	180	2,300

#### Notes:

mg/kg milligrams per kilogram

<MDL less than the method detection limit

NA not analyzed

bgs below ground surface

N/A not applicable

VOCs volatile organic compounds

PAHs polynuclear aromatic hydrocarbons

> Sat denotes that even at a concentration equal to the saturation of the chemical, a hazard quotient of 1 and a concer risk of 1<sup>E-6</sup>

is not exceeded

**Bold** Result exceeds applicable Comparision Value

J estimated value, analyte detected below the quantitation limit

#### Comparision Values:

OPS: Colorado Department of Labor and Employment Division of Oil and Public Safety

Tier 1 RBSL: Tier 1 Risk Based Screening Levels

CDPHE: Colorado Department of Public Health and Environment

GWPVSC: Groundwater Protection Values Soil Cleanup

EPA: Environmental Protection Agency RSL: Risk Based Screening Levels

# TABLE 2: GROUNDWATER SAMPLE DATA SUMMARY 323 West First Street, Salida, Colorado 81201

Analysis	Units	SB-1 2/28/2019 20.1 (feet bgs)	SB-2 2/28/2019 18.5 (feet bgs)	SB-3 2/28/2019 20.55 (feet bgs)	Comparision OPS Tier 1 RBSL	on Values CDPHE CBSGW
MEK Remaining VOCs	<b>V</b> μg/L μg/L	OCs NA <mdl< td=""><td>22.2 <mdl< td=""><td>9.9 J <mdl< td=""><td>N/A varies</td><td>N/A varies</td></mdl<></td></mdl<></td></mdl<>	22.2 <mdl< td=""><td>9.9 J <mdl< td=""><td>N/A varies</td><td>N/A varies</td></mdl<></td></mdl<>	9.9 J <mdl< td=""><td>N/A varies</td><td>N/A varies</td></mdl<>	N/A varies	N/A varies
PAHs	<b>P</b> . μg/L	<b>AHs</b> <mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>varies</td><td>varies</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>varies</td><td>varies</td></mdl<></td></mdl<>	<mdl< td=""><td>varies</td><td>varies</td></mdl<>	varies	varies

#### Notes:

μg/L micrograms per liter

<MDL less than the method detection limit

NA not analyzed

bgs below ground surface

N/A not applicable MEK methyl ethyl ketone

VOCs volatile organic compounds

PAHs polynuclear aromatic hydrocarbons

**Bold** Result exceeds applicable Comparision Value

J estimated value, analyte detected below the quantitation limit

#### Comparision Values:

OPS: Colorado Department of Labor and Employment Division of Oil and Public Safety

Tier 1 RBSL: Tier 1 Risk Based Screening Levels

CDPHE: Colorado Department of Public Health and Environment

CBSGW: Colorado Basic Standards for Groundwater

# APPENDIX A GEOPHYSICAL SURVEY REPORT





# Subsurface Investigation for Storage Tanks/Utilities

**Prepared For: AEI Consultants** 

Prepared By:
Jordan Bradish
Project Manager-CO/WY
3/6/2019



March, 6, 2019

AEI Consultants Attn: Jason Grubb

Site: 323 West First St., Salida, CO

We appreciate the opportunity to provide this report for our work completed on 2/28/2019 at the above address in Salida, CO.

#### **PURPOSE**

The purpose of this project was to search for underground storage tanks (USTs), UST-related piping and/or underground utilities prior to drilling three soil boring locating. The interior of the buildings on site were excluded from the scope of this project.

#### **EQUIPMENT**

- 400 MHz GPR Antenna. The antenna is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the conductivity of the materials. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator.** The EM locator can detect the electromagnetic fields from live power or radio frequency signals. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes, risers, or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. The receiver is moved over the surface without coming in contact with the ground so it is not affected by terrain. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. Depths achieved can be as much as 20' depending on the type of signal being traced or methods used. For more information, please visit: <u>Link</u>

#### **PROCESS**

The EM pipe locator was used to connect to accessible, traceable pipes that may be tank-related such as vent pipes or product lines. A current is induced onto the pipe which creates an electromagnetic field that can be traced using the receiver. We can then attempt to trace these pipes to their origin or end point and paint or flag their locations.

Initial GPR scans were collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 3'-5' scan spacing in order to locate any potential UST's that may remain at the site. With this site, due to obstructions, some area's were limited to shorter scans. The GPR data is interpreted in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

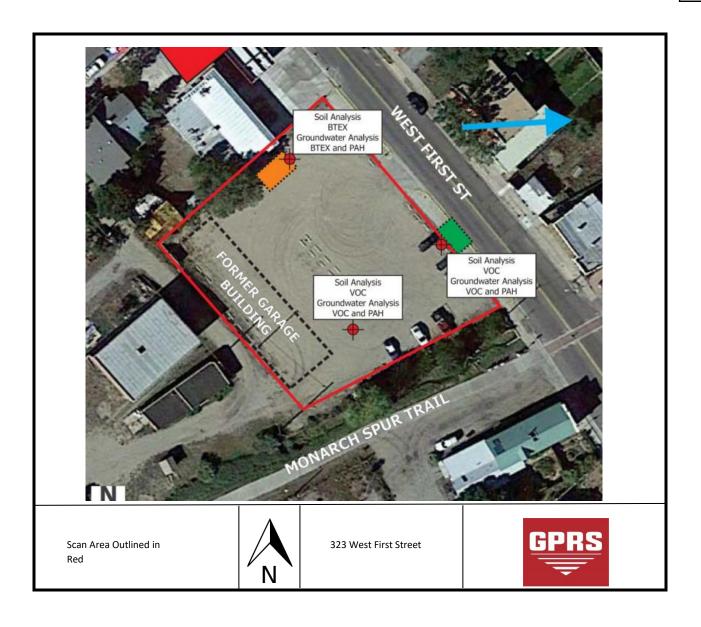
#### **LIMITATIONS**

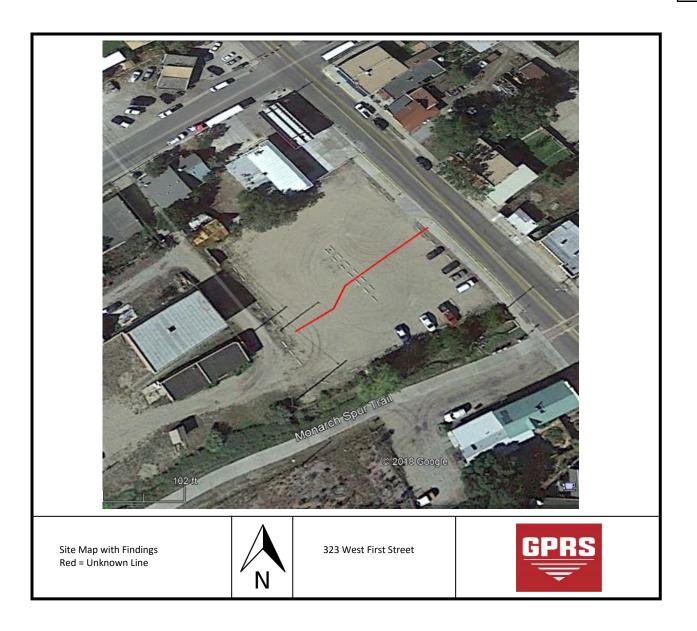
Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above ground features, and utilization of services such as One Call/811.

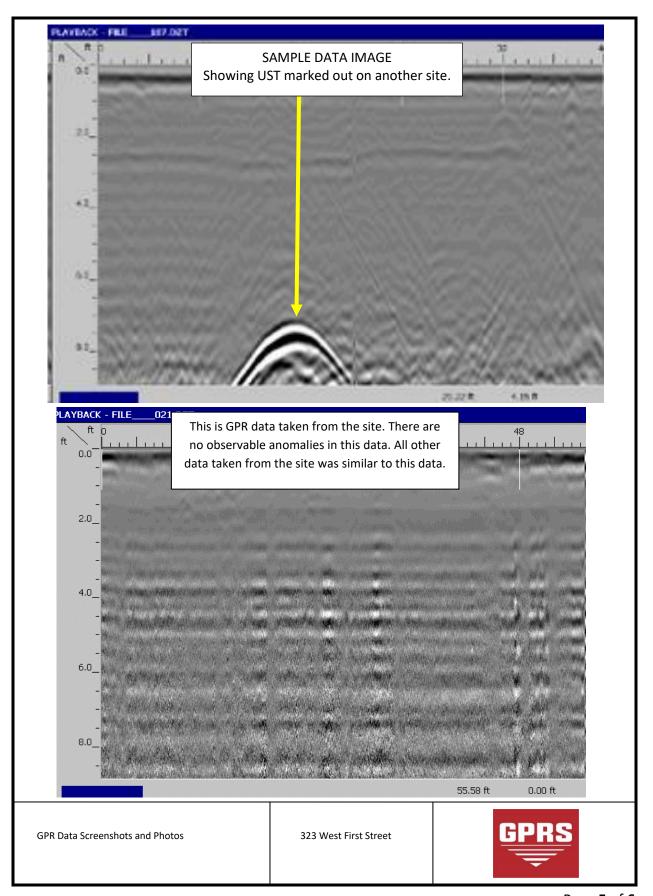
#### **FINDINGS**

We found that the soil allowed for maximum GPR depth penetration of 2'-3' in most areas. We were able to locate one unknown line with the RD. We were not able to locate any known utilities on site. The data seen on site wasn't consistent with UST data signatures

The following pages will provide photos and further explanation of our findings.







#### **CLOSING**

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (<a href="https://www.gprsinc.com">www.gprsinc.com</a>) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Jordan Bradish

Jordan Bradish

Project Manager – CO/WY



Direct: 720.340.6200

jordan.bradish@gprsinc.com

www.gprsinc.com

# APPENDIX B

# **BORING LOGS**





AEI CONSULTANTS 2420 West 26th Avenue, Suite 400D Denver, Colorado 80211 BORING NUMBER

Telephone: 720-238-4582 CLIENT High Country Bank PROJECT NAME Eric Warner PROJECT NUMBER 400082 PROJECT LOCATION Salida, CO DATE STARTED 2/28/19 COMPLETED 2/28/19 GROUND ELEVATION HOLE SIZE 6.25 inches **DRILLING CONTRACTOR** Site Services **GROUND WATER LEVELS:** DRILLING METHOD Hollow Stem Auger AT TIME OF DRILLING \_---LOGGED BY Jason Grubb CHECKED BY David Provance AT END OF DRILLING ---**▼ AFTER DRILLING** 20.10 ft NOTES PID DATA (ppm) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW DEPTH (ft) MATERIAL DESCRIPTION COMPLETION 0 (SW) Very fine to coarse sand with sub-angular to sub-round gravel Moist AEI BORING - GINT STD US LAB GDT - 3/18/19 13:58 - C:USERS\JGRUBB\DESKTOP\PROJECTS\400082 PHII W 1ST SALIDA, CO\APPENDIX\400028 SALIDA CO.GPJ (SW) Very fine to coarse sand with sub-angular to sub-round 0.0 gravel and cobbles 5 Moist 0.0 10 Gravel, cobble and boulders with sand SB-1 14' (SW) Very fine to coarse grained sand and rounded gravel and 0.2 cobble Wet (SW) Very fine to coarse grained sand and rounded gravel and cobble Saturated Bottom of borehole at 24.0 feet.



AEI BORING - GINT STD US LAB GDT - 3/18/19 13:58 - C:USERS\JGRUBB\DESKTOP\PROJECTS\400082 PHII W 1ST SALIDA, CO\APPENDIX\400028 SALIDA CO.GPJ

CLIENT High Country Bank

**AEI CONSULTANTS** 2420 West 26th Avenue, Suite 400D Denver, Colorado 80211

**BORING NUMBER** 172

Telephone: 720-238-4582

PROJECT NAME Eric Warner

PROJECT NUMBER 400082 PROJECT LOCATION Salida, CO DATE STARTED 2/28/19 **COMPLETED** 2/28/19 GROUND ELEVATION HOLE SIZE 6.25 inches **DRILLING CONTRACTOR** Site Services **GROUND WATER LEVELS:** DRILLING METHOD Hollow Stem Auger AT TIME OF DRILLING \_---LOGGED BY Jason Grubb CHECKED BY David Provance AT END OF DRILLING ---**▼ AFTER DRILLING** 18.50 ft NOTES PID DATA (ppm) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW DEPTH (ft) MATERIAL DESCRIPTION COMPLETION 0 0.4 (SW-SM) Very fine to coarse grained silty sand 1.0.8 Moist Concrete (SW) Very fine to coarse grained sand with sub-rounded to rounded gravel Moist 0.2 5 SB-2 8.5' 1.8 (SW) Very fine to coarse grained sand with sub-rounded to 10 rounded gravel Moist 0.9 15 (SW) Very fine to coarse grained sand with sub-rounded to rounded gravel Saturated

Bottom of borehole at 24.0 feet.



CLIENT High Country Bank

PROJECT NUMBER 400082

DATE STARTED 2/28/19

NOTES

**AEI CONSULTANTS** 2420 West 26th Avenue, Suite 400D Denver, Colorado 80211

**BORING NUMBER** 

173

Telephone: 720-238-4582 PROJECT NAME Eric Warner PROJECT LOCATION Salida, CO GROUND ELEVATION HOLE SIZE 6.25 inches COMPLETED 2/28/19 **DRILLING CONTRACTOR** Site Services **GROUND WATER LEVELS:** 

DRILLING METHOD Hollow Stem Auger AT TIME OF DRILLING \_---LOGGED BY Jason Grubb CHECKED BY David Provance AT END OF DRILLING ---**▼ AFTER DRILLING** 20.55 ft

PID DATA (ppm) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW DEPTH (ft) MATERIAL DESCRIPTION COMPLETION

0 (SW-SM) Very fine to coarse grained silty sand with subangular to subrounded gravel Moist AEI BORING - GINT STD US LAB.GDT - 3/18/19 13:58 - C.\USERS\JGRUBB\DESKTOP\PROJECTS\400082 PHII W 1ST SALIDA, CO\APPENDIX\400028 SALIDA CO.GPJ 0.0 5 (SW) Very fine to coarse grained sand with subrounded to rounded gravel, cobbles and boulders Moist SB-3 9' 0.1 10 0.0 15 0.0 (SW) Very fine to coarse grained sand with subrounded to rounded gravel, cobbles and boulders

Saturated Bottom of borehole at 24.0 feet.



AEI CONSULTANTS 2420 West 26th Avenue, Suite 400D Denver, Colorado 80211 Telephone: 720-238-4582 BORING NUMBER

CLIENT High Country Bank PROJECT NAME Eric Warner PROJECT NUMBER 400082 PROJECT LOCATION Salida, CO DATE STARTED 2/28/19 GROUND ELEVATION HOLE SIZE 6.25 inches **COMPLETED** 2/28/19 **DRILLING CONTRACTOR** Site Services **GROUND WATER LEVELS:** DRILLING METHOD Hollow Stem Auger AT TIME OF DRILLING \_---LOGGED BY Jason Grubb CHECKED BY David Provance AT END OF DRILLING ---**NOTES** AFTER DRILLING ---PID DATA (ppm) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW DEPTH (ft) MATERIAL DESCRIPTION COMPLETION 0 (SP-SM) Very fine to medium grained silty sand Moist (SW) Very fine to coarse grained sand with subangular to 0.2 4.5 subrounded gravel and cobble 5 (SW) Very fine to coarse grained sand with subrounded to rounded gravel, cobble and boulders SB-4 7.5'

Refusal at 7.5 feet. Bottom of borehole at 7.5 feet.

AEI BORING - GINT STD US LAB GDT - 3/18/19 13:58 - C:USERS\JGRUBB\DESKTOP\PROJECTS\400082 PHII W 1ST SALIDA, CO\APPENDIX\400028 SALIDA CO.GPJ

# APPENDIX C LABORATORY ANALYTICAL REPORTS





#### Wheat Ridge, CO

03/07/19

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

#### **Technical Report for**

**AEI Consultants** 

Vacant Lot

400082 PO#186735

SGS Job Number: DA13922

**Sampling Date: 02/28/19** 



AEI Consultants
2500 Camino Diablo,
Walnut Creek, CA 94597
jgrubb@aeiconsultants.com; jsmith@aeiconsultants.com;
bcampbell@aeiconsultants.com
ATTN: Jason Grubb

Total number of pages in report: 58



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman Laboratory Director

Seed walk

Client Service contact: Carissa Cumine 303-425-6021

Certifications: CO (CO00049), ID (CO00049), NE (NE-OS-06-04), ND (R-027), NJ (CO007), OK (D9942) UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L)

This report shall not be reproduced, except in its entirety, without the written approval of SGS. Test results relate only to samples analyzed.

SGS North America Inc. • 4036 Youngfield St. • Wheat Ridge, CO 80033-3862 • tel: 303-425-6021 • fax: 303-425-6854 authorizing edits or modifications to this document.

1 of 58

# **Table of Contents**

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
<b>3.1:</b> DA13922-1: SB-1 14'	6
<b>3.2:</b> DA13922-2: SB-1 GW	8
<b>3.3:</b> DA13922-3: SB-2 8.5'	10
<b>3.4:</b> DA13922-4: SB-2 GW	14
<b>3.5:</b> DA13922-5: SB-3 9'	18
<b>3.6:</b> DA13922-6: SB-3 GW	22
<b>3.7:</b> DA13922-7: SB-4 7.5'	26
Section 4: Misc. Forms	28
4.1: Chain of Custody	29
Section 5: MS Volatiles - QC Data Summaries	31
5.1: Method Blank Summary	32
5.2: Blank Spike Summary	38
5.3: Matrix Spike/Matrix Spike Duplicate Summary	45
Section 6: MS Semi-volatiles - QC Data Summaries	52
6.1: Method Blank Summary	53
6.2: Blank Spike Summary	55
6.3: Matrix Spike/Matrix Spike Duplicate Summary	57

## **Sample Summary**

**AEI Consultants** 

**Job No:** DA13922

Vacant Lot

Project No: 400082 PO#186735

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
DA13922-1	02/28/19	10:38 JG	03/01/19	SO	Soil	SB-1 14'
DA13922-2	02/28/19	11:38 JG	03/01/19	AQ	Ground Water	SB-1 GW
DA13922-3	02/28/19	12:12 JG	03/01/19	so	Soil	SB-2 8.5'
DA13922-4	02/28/19	13:25 JG	03/01/19	AQ	Ground Water	SB-2 GW
DA13922-5	02/28/19	14:22 JG	03/01/19	SO	Soil	SB-3 9'
DA13922-6	02/28/19	15:54 JG	03/01/19	AQ	Ground Water	SB-3 GW
DA13922-7	02/28/19	17:03 JG	03/01/19	SO	Soil	SB-4 7.5'

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Page 1 of 1

#### **Summary of Hits**

Job Number: DA13922

Account: AEI Consultants

Project: Vacant Lot
Collected: 02/28/19

Lab Sample ID	Client Sample ID	Result/				
Analyte		Qual	RL	MDL	Units	Method

#### DA13922-1 SB-1 14'

No hits reported in this sample.

#### DA13922-2 SB-1 GW

No hits reported in this sample.

#### DA13922-3 SB-2 8.5'

1.9 J	2.2	1.1	ug/kg	SW846 8260B		
65.9 J	72	18		SW846 8270C		
78.8	72	18		SW846 8270C		
115	72	18	~ ~	SW846 8270C		
157	72	18	~ ~	SW846 8270C		
245	72	18		SW846 8270C		
84.2	72	18	ug/kg	SW846 8270C		
136	72	18	ug/kg	SW846 8270C		
159	72	18	ug/kg	SW846 8270C		
238	72	18	ug/kg	SW846 8270C		
30.2 J	72	18	ug/kg	SW846 8270C		
435	72	18	ug/kg	SW846 8270C		
86.8	72	18	ug/kg	SW846 8270C		
147	72	18	ug/kg	SW846 8270C		
110	72	25	ug/kg	SW846 8270C		
115	72	32	ug/kg	SW846 8270C		
87.0	72	25	ug/kg	SW846 8270C		
354	72	18	ug/kg	SW846 8270C		
382	72	18	ug/kg	SW846 8270C		
22.2	10	5.0	ug/l	SW846 8260B		
No hits reported in this sample.						
0.01	10	5.0	/1	CW046 0260D		
	65.9 J 78.8 115 157 245 84.2 136 159 238 30.2 J 435 86.8 147 110 115 87.0 354	65.9 J 72 78.8 72 115 72 157 72 245 72 84.2 72 136 72 159 72 238 72 30.2 J 72 435 72 86.8 72 147 72 110 72 115 72 87.0 72 354 72 382 72	65.9 J 72 18 78.8 72 18 115 72 18 157 72 18 245 72 18 84.2 72 18 136 72 18 159 72 18 238 72 18 30.2 J 72 18 435 72 18 147 72 18 110 72 25 115 72 32 87.0 72 25 354 72 18 382 72 18	65.9 J 72 18 ug/kg 78.8 72 18 ug/kg 115 72 18 ug/kg 157 72 18 ug/kg 245 72 18 ug/kg 84.2 72 18 ug/kg 136 72 18 ug/kg 159 72 18 ug/kg 238 72 18 ug/kg 30.2 J 72 18 ug/kg 435 72 18 ug/kg 86.8 72 18 ug/kg 147 72 18 ug/kg 110 72 25 ug/kg 115 72 32 ug/kg 87.0 72 25 ug/kg 354 72 18 ug/kg 382 72 18 ug/kg		

Methyl ethyl ketone 9.9 J 10 5.0 ug/l SW846 8260B

#### DA13922-7 SB-4 7.5'

No hits reported in this sample.



# Wheat Ridge, CO

Section 3

Sample Results
Report of Analysis
Report of Analysis

Page 1 of 1

Client Sample ID: SB-1 14'
Lab Sample ID: DA13922-1
Matrix: SO - Soil
Method: SW846 8260B
Project: Vacant Lot

 Date Sampled:
 02/28/19

 Date Received:
 03/01/19

 Percent Solids:
 97.9

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch
Run #1 5V51526.D 1 03/05/19 16:01 MB n/a n/a V5V2714

Run #2

Run #1 5.05 g 5.0 ml
Run #2

### **Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	1.0 2.0 2.0 2.0 2.0	0.51 1.0 0.51 1.0	ug/kg ug/kg ug/kg ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2 Limits		its	
1868-53-7 2037-26-5 460-00-4	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene	102% 97% 99%	70-131% 70-130% 70-130% 70-130%			

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



### d

# **Report of Analysis**

Page 1 of 1

**Date Sampled:** 02/28/19

Client Sample ID: SB-1 14'
Lab Sample ID: DA13922-1

 Matrix:
 SO - Soil
 Date Received:
 03/01/19

 Method:
 SW846 8270C
 SW846 3546
 Percent Solids:
 97.9

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 1G141565.D
 1
 03/05/19 20:31 DC
 03/05/19
 OP17541
 E1G2414

 Run #2
 E1G2414
 E1G2414
 E1G2414
 E1G2414

Run #1 30.1 g 1.0 ml

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	$\mathbf{RL}$	MDL	Units	Q
83-32-9	Acenaphthene	ND	68	17	ug/kg	
208-96-8	Acenaphthylene	ND	68	17	ug/kg	
120-12-7	Anthracene	ND	68	17	ug/kg	
56-55-3	Benzo(a)anthracene	ND	68	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	17	ug/kg	
218-01-9	Chrysene	ND	68	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	17	ug/kg	
206-44-0	Fluoranthene	ND	68	17	ug/kg	
86-73-7	Fluorene	ND	68	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	17	ug/kg	
90-12-0	1-Methylnaphthalene	ND	68	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	68	31	ug/kg	
91-20-3	Naphthalene	ND	68	24	ug/kg	
85-01-8	Phenanthrene	ND	68	17	ug/kg	
129-00-0	Pyrene	ND	68	17	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
321-60-8	2-Fluorobiphenyl	60%		23-1	30%	
4165-60-0	Nitrobenzene-d5	55%		12-1	31%	
1718-51-0	Terphenyl-d14	88%	29-141%			

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



3.2

### Page 1 of 1

Client Sample ID: SB-1 GW

Lab Sample ID: DA13922-2 **Date Sampled:** 02/28/19 **Date Received:** 03/01/19 Matrix: AQ - Ground Water Method: SW846 8260B **Percent Solids:** n/a

**Project:** Vacant Lot

	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	7V59020.D	1	03/05/19 20:53	CH	n/a	n/a	V7V3009
Run #2							

**Report of Analysis** 

**Purge Volume** Run #1 5.0 mlRun #2

### **Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	1.0 1.0 1.0 1.0	0.50 0.50 0.50 1.0	ug/l ug/l ug/l ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2 Limits		its	
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	107% 101% 99% 105%	70-130% 70-130% 70-130% 70-130%			

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: SB-1 GW

 Lab Sample ID:
 DA13922-2
 Date Sampled:
 02/28/19

 Matrix:
 AQ - Ground Water
 Date Received:
 03/01/19

 Method:
 SW846 8270C
 SW846 3510C
 Percent Solids:
 n/a

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 1G141533.D
 1
 03/04/19 21:00 DC
 03/04/19
 OP17533
 E1G2412

 Run #2
 E1G2412
 E1G2412
 E1G2412
 E1G2412

Run #1 1020 ml Final Volume 1.0 ml

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.69	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.59	ug/l	
120-12-7	Anthracene	ND	2.0	0.69	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.69	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.88	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.88	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.98	ug/l	
218-01-9	Chrysene	ND	2.0	0.69	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.88	ug/l	
86-73-7	Fluorene	ND	2.0	0.59	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.69	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.69	ug/l	
91-20-3	Naphthalene	ND	2.0	0.78	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.59	ug/l	
129-00-0	Pyrene	ND	2.0	0.69	ug/l	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	ts	
4165-60-0	Nitrobenzene-d5	47%		19-13	30%	
321-60-8	2-Fluorobiphenyl	49%		20-13	30%	
1718-51-0	Terphenyl-d14	27%		13-14	19%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



Page 1 of 3

Client Sample ID: SB-2 8.5' Lab Sample ID: DA13922-3 Matrix: SO - Soil

**Project:** Vacant Lot

**Date Sampled:** 02/28/19 **Date Received:** 03/01/19 Method: SW846 8260B **Percent Solids:** 92.8

DF **Analytical Batch** File ID Analyzed By **Prep Date Prep Batch** Run #1 5V51527.D 03/05/19 16:25 MB V5V2714 n/an/aRun #2

**Report of Analysis** 

**Final Volume Initial Weight** Run #1 5.0 ml 5.00 g Run #2

#### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	54	24	ug/kg	
107-02-8	Acrolein	ND	22	16	ug/kg	
107-13-1	Acrylonitrile	ND	11	8.6	ug/kg	
71-43-2	Benzene	ND	1.1	0.54	ug/kg	
108-86-1	Bromobenzene	ND	2.2	0.54	ug/kg	
74-97-5	Bromochloromethane	ND	2.2	0.65	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.54	ug/kg	
75-25-2	Bromoform	ND	2.2	1.1	ug/kg	
104-51-8	n-Butylbenzene	ND	2.2	0.54	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.2	0.54	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.2	0.54	ug/kg	
75-15-0	Carbon disulfide	ND	2.2	0.54	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.54	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.54	ug/kg	
75-00-3	Chloroethane	ND	2.2	0.86	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	4.3	1.4	ug/kg	
67-66-3	Chloroform	ND	2.2	0.54	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.2	0.54	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.2	0.54	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	11	7.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.65	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	0.54	ug/kg	
95-50-1	o-Dichlorobenzene	ND	2.2	0.54	ug/kg	
541-73-1	m-Dichlorobenzene	ND	2.2	0.54	ug/kg	
106-46-7	p-Dichlorobenzene	ND	2.2	0.54	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	0.54	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.54	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.54	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	2.2	0.54	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	2.2	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	2.2	0.54	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.54	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

# **Report of Analysis** Page 2 of 3

Client Sample ID: SB-2 8.5'
Lab Sample ID: DA13922-3

Matrix: SO - Soil
Method: SW846 8260B
Project: Vacant Lot

**Date Sampled:** 02/28/19 **Date Received:** 03/01/19 **Percent Solids:** 92.8

### **VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	2.2	0.54	ug/kg	
594-20-7	2,2-Dichloropropane	ND	2.2	0.54	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.2	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.54	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.54	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.54	ug/kg	
87-68-3	Hexachlorobutadiene	ND	2.2	0.59	ug/kg	
591-78-6	2-Hexanone	ND	11	5.4	ug/kg	
98-82-8	Isopropylbenzene	ND	2.2	0.54	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2.2	0.54	ug/kg	
74-83-9	Methyl bromide	ND	2.2	0.54	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.54	ug/kg	
74-87-3	Methyl chloride	ND	2.2	0.97	ug/kg	
74-95-3	Methylene bromide	ND	2.2	0.65	ug/kg	
75-09-2	Methylene chloride	ND	4.3	3.2	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	5.4	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	5.4	ug/kg	
91-20-3	Naphthalene	ND	4.3	3.2	ug/kg	
103-65-1	n-Propylbenzene	ND	2.2	0.54	ug/kg	
100-42-5	Styrene	ND	2.2	0.54	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.2	0.54	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.54	ug/kg	
127-18-4	Tetrachloroethylene	ND	2.2	0.54	ug/kg	
108-88-3	Toluene	1.9	2.2	1.1	ug/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	2.2	1.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.54	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.54	ug/kg	
79-01-6	Trichloroethylene	ND	2.2	0.54	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	1.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	2.2	0.54	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.2	0.54	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.2	0.54	ug/kg	
108-05-4	Vinyl Acetate	ND	11	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	2.2	1.1	ug/kg	

CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

1868-53-7 Dibromofluoromethane 101% 70-131%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



Page 3 of 3

Client Sample ID: SB-2 8.5' Lab Sample ID: DA13922-3 Matrix: SO - Soil Method: SW846 8260B **Project:** Vacant Lot

**Date Sampled:** 02/28/19 **Date Received:** 03/01/19 **Percent Solids:** 92.8

#### **VOA 8260 List**

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	101%		70-130%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



SGS North America Inc.

# **Report of Analysis**

Page 1 of 1

**Date Sampled:** 02/28/19

Client Sample ID: SB-2 8.5'
Lab Sample ID: DA13922-3

 Matrix:
 SO - Soil
 Date Received:
 03/01/19

 Method:
 SW846 8270C
 SW846 3546
 Percent Solids:
 92.8

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 1G141568.D
 1
 03/05/19 21:56 DC
 03/05/19
 OP17541
 E1G2414

Run #2

Initial Weight Final Volume

Run #1 30.0 g 1.0 ml

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	65.9	72	18	ug/kg	J
208-96-8	Acenaphthylene	78.8	72	18	ug/kg	
120-12-7	Anthracene	115	72	18	ug/kg	
56-55-3	Benzo(a)anthracene	157	72	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	245	72	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	84.2	72	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	136	72	18	ug/kg	
50-32-8	Benzo(a)pyrene	159	72	18	ug/kg	
218-01-9	Chrysene	238	72	18	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	30.2	72	18	ug/kg	J
206-44-0	Fluoranthene	435	72	18	ug/kg	
86-73-7	Fluorene	86.8	72	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	147	72	18	ug/kg	
90-12-0	1-Methylnaphthalene	110	72	25	ug/kg	
91-57-6	2-Methylnaphthalene	115	72	32	ug/kg	
91-20-3	Naphthalene	87.0	72	25	ug/kg	
85-01-8	Phenanthrene	354	72	18	ug/kg	
129-00-0	Pyrene	382	72	18	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	ts	
321-60-8	2-Fluorobiphenyl	72%		23-13	30%	
4165-60-0	Nitrobenzene-d5	61%		12-13	31%	
1718-51-0	Terphenyl-d14	91%	29-141%			

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



Page 1 of 3

Client Sample ID: SB-2 GW

 Lab Sample ID:
 DA13922-4
 Date Sampled:
 02/28/19

 Matrix:
 AQ - Ground Water
 Date Received:
 03/01/19

 Method:
 SW846 8260B
 Percent Solids:
 n/a

**Project:** Vacant Lot

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch
Run #1 7V59021.D 1 03/05/19 21:17 CH n/a n/a V7V3009

Run #2

**Purge Volume** 

Run #1 5.0 ml

Run #2

#### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
107-02-8	Acrolein	ND	10	7.0	ug/l	
107-13-1	Acrylonitrile	ND	5.0	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.50	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/l	
75-25-2	Bromoform	ND	2.0	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.50	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.70	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.70	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.50	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.50	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	3.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.80	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Methodological Model Model

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 2 of 3

**Client Sample ID:** SB-2 GW

Lab Sample ID: DA13922-4 **Date Sampled:** 02/28/19 Matrix: AQ - Ground Water **Date Received:** 03/01/19 Method: SW846 8260B **Percent Solids:** 

**Project:** Vacant Lot

#### **VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	2.0	0.50	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.60	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.50	ug/l	
74-83-9	Methyl bromide	ND	4.0	2.0	ug/l	
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.5	ug/l	
78-93-3	Methyl ethyl ketone	22.2	10	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
91-20-3	Naphthalene	ND	4.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.50	ug/l	
100-42-5	Styrene	ND	1.0	0.50	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	3.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.50	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	10	5.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	

1868-53-7 Dibromofluoromethane 111% 70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

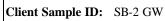
J = Indicates an estimated value

B = Indicates analyte found in associated method blank





Page 3 of 3



 Lab Sample ID:
 DA13922-4
 Date Sampled:
 02/28/19

 Matrix:
 AQ - Ground Water
 Date Received:
 03/01/19

 Method:
 SW846 8260B
 Percent Solids:
 n/a

**Project:** Vacant Lot

#### **VOA 8260 List**

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	101%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 

 $N = \ Indicates \ presumptive \ evidence \ of \ a \ compound$ 



Page 1 of 1

Client Sample ID: SB-2 GW

 Lab Sample ID:
 DA13922-4
 Date Sampled:
 02/28/19

 Matrix:
 AQ - Ground Water
 Date Received:
 03/01/19

 Method:
 SW846 8270C
 SW846 3510C
 Percent Solids:
 n/a

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 1G141534.D
 1
 03/04/19 21:28 DC
 03/04/19
 OP17533
 E1G2412

Run #2

Initial Volume Final Volume

Run #1 1020 ml 1.0 ml

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.69	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.59	ug/l	
120-12-7	Anthracene	ND	2.0	0.69	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.69	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.88	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.88	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.98	ug/l	
218-01-9	Chrysene	ND	2.0	0.69	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.88	ug/l	
86-73-7	Fluorene	ND	2.0	0.59	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.69	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.69	ug/l	
91-20-3	Naphthalene	ND	2.0	0.78	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.59	ug/l	
129-00-0	Pyrene	ND	2.0	0.69	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
4165-60-0	Nitrobenzene-d5	60%		19-13	80%	
321-60-8	2-Fluorobiphenyl	59%		20-13	80%	
1718-51-0	Terphenyl-d14	22%		13-14	19%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



3.5

### Page 1 of 3

**Report of Analysis** 

Date Sampled: 02/28/19

**Date Received:** 03/01/19 **Percent Solids:** 98.4

Client Sample ID: SB-3 9' Lab Sample ID: DA13922-5 Matrix: SO - Soil Method: SW846 8260B **Project:** Vacant Lot

File ID

DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5V51528.D 03/05/19 16:48 MB V5V2714 n/a n/a

Run #2

**Final Volume Initial Weight** 

Run #1 5.0 ml 5.00 g

Run #2

#### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	51	22	ug/kg	
107-02-8	Acrolein	ND	20	15	ug/kg	
107-13-1	Acrylonitrile	ND	10	8.1	ug/kg	
71-43-2	Benzene	ND	1.0	0.51	ug/kg	
108-86-1	Bromobenzene	ND	2.0	0.51	ug/kg	
74-97-5	Bromochloromethane	ND	2.0	0.61	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.51	ug/kg	
75-25-2	Bromoform	ND	2.0	1.0	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.51	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.51	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.51	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.51	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.51	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.51	ug/kg	
75-00-3	Chloroethane	ND	2.0	0.81	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	4.1	1.3	ug/kg	
67-66-3	Chloroform	ND	2.0	0.51	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.0	0.51	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.0	0.51	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	7.1	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.61	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	0.51	ug/kg	
95-50-1	o-Dichlorobenzene	ND	2.0	0.51	ug/kg	
541-73-1	m-Dichlorobenzene	ND	2.0	0.51	ug/kg	
106-46-7	p-Dichlorobenzene	ND	2.0	0.51	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.51	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.51	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.51	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.51	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.51	ug/kg	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 2 of 3

Client Sample ID: SB-3 9'

Lab Sample ID:DA13922-5Matrix:SO - SoilMethod:SW846 8260BProject:Vacant Lot

**Date Sampled:** 02/28/19 **Date Received:** 03/01/19 **Percent Solids:** 98.4

#### **VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	2.0	0.51	ug/kg	
594-20-7	2,2-Dichloropropane	ND	2.0	0.51	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.0	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.51	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.51	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.51	ug/kg	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/kg	
591-78-6	2-Hexanone	ND	10	5.1	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.51	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2.0	0.51	ug/kg	
74-83-9	Methyl bromide	ND	2.0	0.51	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.51	ug/kg	
74-87-3	Methyl chloride	ND	2.0	0.91	ug/kg	
74-95-3	Methylene bromide	ND	2.0	0.61	ug/kg	
75-09-2	Methylene chloride	ND	4.1	3.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	5.1	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	5.1	ug/kg	
91-20-3	Naphthalene	ND	4.1	3.0	ug/kg	
103-65-1	n-Propylbenzene	ND	2.0	0.51	ug/kg	
100-42-5	Styrene	ND	2.0	0.51	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.51	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.51	ug/kg	
127-18-4	Tetrachloroethylene	ND	2.0	0.51	ug/kg	
108-88-3	Toluene	ND	2.0	1.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.51	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.51	ug/kg	
79-01-6	Trichloroethylene	ND	2.0	0.51	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	1.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.51	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.51	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.51	ug/kg	
108-05-4	Vinyl Acetate	ND	10	5.1	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.51	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	1.0	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	its	

ND = Not detected MDL = Meth

MDL = Method Detection Limit

99%

RL = Reporting Limit

1868-53-7

E = Indicates value exceeds calibration range

Dibromofluoromethane

J = Indicates an estimated value

70-131%

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 3 of 3

Client Sample ID: SB-3 9'

 Lab Sample ID:
 DA13922-5
 Date Sampled:
 02/28/19

 Matrix:
 SO - Soil
 Date Received:
 03/01/19

 Method:
 SW846 8260B
 Percent Solids:
 98.4

**Project:** Vacant Lot

#### **VOA 8260 List**

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%
17060-07-0	1,2-Dichloroethane-D4	98%		70-130%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 





Page 1 of 1

Client Sample ID: SB-3 9'

Lab Sample ID: DA13922-5 **Date Sampled:** 02/28/19 Matrix: SO - Soil **Date Received:** 03/01/19 **Percent Solids:** 98.4

Method: SW846 8270C SW846 3546

**Project:** Vacant Lot

File ID DF **Prep Date Analytical Batch** Analyzed By **Prep Batch** 03/05/19 Run #1 1G141562.D 1 03/05/19 19:07 DC OP17541 E1G2414

Run #2

**Initial Weight Final Volume** 

Run #1 1.0 ml 30.0 g

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	68	17	ug/kg	
208-96-8	Acenaphthylene	ND	68	17	ug/kg	
120-12-7	Anthracene	ND	68	17	ug/kg	
56-55-3	Benzo(a)anthracene	ND	68	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	17	ug/kg	
218-01-9	Chrysene	ND	68	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	17	ug/kg	
206-44-0	Fluoranthene	ND	68	17	ug/kg	
86-73-7	Fluorene	ND	68	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	17	ug/kg	
90-12-0	1-Methylnaphthalene	ND	68	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	68	30	ug/kg	
91-20-3	Naphthalene	ND	68	24	ug/kg	
85-01-8	Phenanthrene	ND	68	17	ug/kg	
129-00-0	Pyrene	ND	68	17	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Lim	its	
321-60-8	2-Fluorobiphenyl	68%		23-1	30%	
4165-60-0	Nitrobenzene-d5	61%		12-1	31%	
1718-51-0	Terphenyl-d14	90%		29-1	41%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



3.6

### Page 1 of 3

Percent Solids: n/a

Report of Analysis

Client Sample ID: SB-3 GW
Lab Sample ID: DA13922-6
Matrix: AQ - Ground Water

Date Sampled: 02/28/19
Date Received: 03/01/19

Method: SW846 8260B
Project: Vacant Lot

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch
Run #1 7V59022.D 1 03/05/19 21:40 CH n/a n/a V7V3009

Run #2

**Purge Volume** 

Run #1 5.0 ml

Run #2

#### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	20	ug/l	
107-02-8	Acrolein	ND	10	7.0	ug/l	
107-13-1	Acrylonitrile	ND	5.0	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.50	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.50	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/l	
75-25-2	Bromoform	ND	2.0	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.50	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.50	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.50	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.70	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.70	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.50	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.50	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	3.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.50	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.80	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



### Page 2 of 3

**Report of Analysis** 

Client Sample ID: SB-3 GW Lab Sample ID: DA13922-6

Matrix: AQ - Ground Water
Method: SW846 8260B

Vacant Lot

**Date Received:** 03/01/19 **Percent Solids:** n/a

**Date Sampled:** 02/28/19

#### **VOA 8260 List**

**Project:** 

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	2.0	0.50	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.60	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.50	ug/l	
74-83-9	Methyl bromide	ND	4.0	2.0	ug/l	
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l	
74-95-3	Methylene bromide	ND	2.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.5	ug/l	
78-93-3	Methyl ethyl ketone	9.9	10	5.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
91-20-3	Naphthalene	ND	4.0	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.50	ug/l	
100-42-5	Styrene	ND	1.0	0.50	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	3.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.50	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	10	5.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	
CACNO	S	D# 1	D# 2	т :	•4-	

CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

1868-53-7 Dibromofluoromethane 107% 70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



Page 3 of 3

Client Sample ID: SB-3 GW

 Lab Sample ID:
 DA13922-6
 Date Sampled:
 02/28/19

 Matrix:
 AQ - Ground Water
 Date Received:
 03/01/19

 Method:
 SW846 8260B
 Percent Solids:
 n/a

**Project:** Vacant Lot

#### **VOA 8260 List**

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	98%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





SGS North America Inc.

# **Report of Analysis**

Page 1 of 1

Client Sample ID: SB-3 GW

Lab Sample ID: DA13922-6 **Date Sampled:** 02/28/19 Matrix: AQ - Ground Water **Date Received:** 03/01/19 Method: SW846 8270C SW846 3510C Percent Solids: n/a

**Project:** Vacant Lot

File ID DF **Prep Date Analytical Batch** Analyzed By **Prep Batch** Run #1 1G141561.D 1 03/05/19 18:39 DC 03/04/19 OP17533 E1G2414 Run #2

**Final Volume Initial Volume** 

Run #1 1050 ml 1.0 ml

Run #2

#### **BN PAH List**

	Q
ug/l	
nits	
-130%	
-130%	
-149%	
	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 1

Client Sample ID: SB-4 7.5'
Lab Sample ID: DA13922-7
Matrix: SO - Soil
Method: SW846 8260B
Project: Vecent Let

Date Sampled: 02/28/19
Date Received: 03/01/19
Percent Solids: 97.3

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 5V51529.D
 1
 03/05/19 17:12 MB
 n/a
 n/a
 V5V2714

Run #2

Run #1 5.02 g Final Volume Run #2

### **Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	1.0 2.0 2.0 2.0 2.0	0.51 1.0 0.51 1.0	ug/kg ug/kg ug/kg ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	its	
1868-53-7			70-131% 70-130% 70-130%			
2037-26-5 460-00-4	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene	100% 98% 99%		70-1	30%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 1

**Date Sampled:** 02/28/19

# **Report of Analysis**

Client Sample ID: SB-4 7.5'
Lab Sample ID: DA13922-7

 Matrix:
 SO - Soil
 Date Received:
 03/01/19

 Method:
 SW846 8270C
 SW846 3546
 Percent Solids:
 97.3

**Project:** Vacant Lot

 File ID
 DF
 Analyzed
 By
 Prep Date
 Prep Batch
 Analytical Batch

 Run #1
 1G141566.D
 1
 03/05/19 21:00 DC
 03/05/19
 OP17541
 E1G2414

 Run #2
 E1G2414
 E1G2414
 E1G2414
 E1G2414

Run #1 Initial Weight Final Volume
1.0 ml

Run #2

#### **BN PAH List**

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	68	17	ug/kg	
208-96-8	Acenaphthylene	ND	68	17	ug/kg	
120-12-7	Anthracene	ND	68	17	ug/kg	
56-55-3	Benzo(a)anthracene	ND	68	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	17	ug/kg	
218-01-9	Chrysene	ND	68	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	17	ug/kg	
206-44-0	Fluoranthene	ND	68	17	ug/kg	
86-73-7	Fluorene	ND	68	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	17	ug/kg	
90-12-0	1-Methylnaphthalene	ND	68	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	68	31	ug/kg	
91-20-3	Naphthalene	ND	68	24	ug/kg	
85-01-8	Phenanthrene	ND	68	17	ug/kg	
129-00-0	Pyrene	ND	68	17	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
321-60-8	2-Fluorobiphenyl	81%		23-1	.30%	
4165-60-0	Nitrobenzene-d5	74%		12-1	31%	
1718-51-0	Terphenyl-d14	93%		29-1	41%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





# Wheat Ridge, CO

# Section 4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

· Chain of Custody

# SGS

### CHAIN OF CUSTODY

SGS North America Inc. - Wheat Ridge 4036 Youngfield Street, Wheat Ridge, CO 80033

Page	1	of	1
-			

					36 Young										Dotte	Older C	JI (10) #					Trackii	-		
					TEL: 30:				AX: n/eh:		425-	-6854	1		SGS	Quote #					sgs .	Job#	DA	130	922
Client / Reporting Information				Pro	ject Info	rmat	ion									Req	uested	Analy	sis (se			DE st			Matrix Codes
Company: AEJ Consulte	nds	Project Name:	Vac	ant	Lot	<u> </u>					POSTAL VACIO		enstruct												DW - Drinking Water GW - Ground Water WW - Water
Street: 24ZOWZ6thA4	9	Street: 323	w	157 5	<del>i+</del>	Billin	g Info	rmati	on (if	differ	ent fro	om Re	por	to)											SW - Surface Water SO - Soil
City, State: Denver, CO		City, State: S.	alid	<u>a, C</u>	0	Comp	any:/	₹E	I									ĺ		1					SL- Sludge SED-Sediment
Project Contact: Jason Gn	de	Project#: H	aoc	982		Stree	t Addr	ess:															,		O! - OII LIQ - Other Liquid AIR - Air
Phone:		Client Purchase			_	Q#.	04-4-	71D.			١.	_			╗╮	4				ı					SOL - Other Solid WP - Wipe
Email:		l. 1	9G -	135	5	City,	Sidle .	"L	Jal	Inc	· fe	Cr.	K	<u>.C</u> /	?) [£	()	I	- 1				. [			FB - Field Blank
Sampler(s) Name(s): Jacon Gruk	de	Project Manage				Atten								100	1 1- 1-	Ö	Ä							ŀ	EB-Equipment Blank RB - Rinse Blank TB - Trip Blank
-		Collection				$\vdash$	T NI	mbero	1.	erved B	u R	ाना	1	П	ہے' ⊢	>	(2								TO - THP OIGH
Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	NONE	Na A	HNO3	DI Water	MEOH	ENCOP Na2S20	Na2SO			ŗ										LAB USE ONLY
SB-1 14'	2/28	10:38	r C	SO	Ż	2				П	I			П	×		Х								01
5B-1 GW	_[_	11:38	JG	GW	5		3		$\perp$			Ш	⊥	Ш	$\perp$ ×		X			_					02
SB-2 8.51		12:12	36	50	2	2				Ц	_	Щ	$\perp$	Ш		X	X								03
5B-2 GW		13:25	_	GW	5	2 3	3	1	<u> </u>	Ш	_	4	4	$\perp \downarrow$		X	メ								04
SB-3 91			2C	50	2	2		4		Ш	1	Ш	1	11		×	X					$\sqcup \sqcup$			15
SB-3 GW		15:54	JG	<u>GW</u>	5	2	3_	Ц	_	Ш	$\perp$	Ш	1	$\coprod$		<u>×</u>	X			_					06
SB-4 7.51	<u> </u>	17:03	JG	50	2	2	1	Ц	┸	Ш	_	Ш	4	$\downarrow \downarrow$	<u> </u> *	<u> </u>	X								07
						Ш	1	1	╀	Ш	4	44	4	11	_	<u> </u>				_		$\sqcup$			
in the same of the						Ш	_	Ц	1	Ш	1	4	4	11	4			$\Box$		$\dashv$		$ldsymbol{\sqcup}$			
						1	$\perp$	Ц	1	Ш	$\bot$	44	4	$\sqcup$				$\Box$		_		$\square$			TB-08
						$\sqcup$	$\bot$	Ц	+	$\sqcup$	4	44	4	$\bot$						_		$\sqcup$			
			L			l		Щ	<u> </u>	Ш	Ц.	Ш		Ш					يلـــــــــــــــــــــــــــــــــــــ			لب			
Turnaround Time (Business days)	-3-									ivera			mat	on						omm	ents /	Бресіа	Instru	ctions	
Standard 10 Business Days Sou 5 Business Days RUSH	cia  Repo Report in F		ns			merci merci					-		nmai	y)											
	Report in F				COV	MBN	(Rest	ilts/Q	C/Nar	rative	)														
	Report MD	Ls			-		+ [Re:	ults/0	QC/Na	arrativ	e (+ c	hrom	atog	rams)]											
1 Business Day EMERGENC' Emergency & Rush T/A data available via L	abLink, RU	SH TAT approva	al needed.		RED						⊒ E	DD F	orma	t											
	Samı	ole Custody n	nust be o	locumer	ted belo	w eac	h tin	e sa	mple	s cha	nge	poss	<b>ess</b>	on, in	cluding	courier	delive								
Relinquished by Samplek	Date/Time:	15.0	8	Received,	B9 ///	1/			Rei	linquis	hed By	y:						Date/Tim	e:	Ţ	Receive 2	d By:			
	Date/Time:	10.0		Received	Ey:				Re	linquis	hed By	y:						Date/Tim	e:		Receive	d By:			
Custody Seal # Intact Not	intact 🔲	Absent			where app	licable	K		Co	oler Te	mp. °C	:5			Therm. ID:	1136		On Ice			4				
,				1 114			_											/ ~			http://	www.s	as.com	/en/term	s-and-conditions

DA13922: Chain of Custody Page 1 of 2

# 205

### SGS Accutest Sample Receipt Summary

Job Number: DA13922	Client: AEI	Project: VACANT LOT	
Date / Time Received: 3/1/2019 3:	08:00 PM Delivery Metho	d: Airbill #'s: HD	
Cooler Temps (Initial/Adjusted): #	1: (5.7/5.7);		
Cooler Security Y or N		or N Sample Integrity - Documentation	Y or N
1. Custody Seals Present:   ✓  2. Custody Seals Intact:   ✓		1. Sample labels present on bottles:     2. Container labeling complete:	
		<ul><li>2. Container labeling complete:</li><li>3. Sample container label / COC agree:</li></ul>	
<ol> <li>Temp criteria achieved:</li> <li>Cooler temp verification:</li> </ol>	or N  Therm; ce (Bag)  1	Sample Integrity - Condition  1. Sample recvd within HT:  2. All containers accounted for:  3. Condition of sample:	Y or N  ✓ □  Intact
Quality Control Preservation Y	or N N/A	Sample Integrity - Instructions	Y or N N/A
<ol> <li>Trip Blank present / cooler: ✓</li> <li>Trip Blank listed on COC: ✓</li> </ol>		Analysis requested is clear:     Bottles received for unspecified tests	
3. Samples preserved properly:		3. Sufficient volume recvd for analysis:	
4. VOCs headspace free:   ✓		4. Compositing instructions clear:	
		5. Filtering instructions clear:	
Comments			

**DA13922:** Chain of Custody

Page 2 of 2



# Wheat Ridge, CO

# **Section 5**

# MS Volatiles

QC Data Summaries

### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Page 1 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V2714-MB	5V51520.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	Result	RL	MDL	Units Q
67-64-1	Acetone	ND	50	22	ug/kg
107-02-8	Acrolein	ND	20	15	ug/kg
107-13-1	Acrylonitrile	ND	10	8.0	ug/kg
71-43-2	Benzene	ND	1.0	0.50	ug/kg
108-86-1	Bromobenzene	ND	2.0	0.50	ug/kg
74-97-5	Bromochloromethane	ND	2.0	0.60	ug/kg
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/kg
75-25-2	Bromoform	ND	2.0	1.0	ug/kg
104-51-8	n-Butylbenzene	ND	2.0	0.50	ug/kg
135-98-8	sec-Butylbenzene	ND	2.0	0.50	ug/kg
98-06-6	tert-Butylbenzene	ND	2.0	0.50	ug/kg
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/kg
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/kg
108-90-7	Chlorobenzene	ND	2.0	0.50	ug/kg
75-00-3	Chloroethane	ND	2.0	0.80	ug/kg
110-75-8	2-Chloroethyl vinyl ether	ND	4.0	1.3	ug/kg
67-66-3	Chloroform	ND	2.0	0.50	ug/kg
95-49-8	o-Chlorotoluene	ND	2.0	0.50	ug/kg
106-43-4	p-Chlorotoluene	ND	2.0	0.50	ug/kg
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	7.0	ug/kg
124-48-1	Dibromochloromethane	ND	2.0	0.60	ug/kg
106-93-4	1,2-Dibromoethane	ND	2.0	0.50	ug/kg
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/kg
541-73-1	m-Dichlorobenzene	ND	2.0	0.50	ug/kg
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/kg
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/kg
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/kg
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/kg
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/kg
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/kg
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/kg
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/kg
142-28-9	1,3-Dichloropropane	ND	2.0	0.50	ug/kg
594-20-7	2,2-Dichloropropane	ND	2.0	0.50	ug/kg
563-58-6	1,1-Dichloropropene	ND	2.0	0.50	ug/kg
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/kg

Page 2 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
V5V2714-MB	5V51520.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	Result	RL	MDL	Units Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/kg
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/kg
87-68-3	Hexachlorobutadiene	ND	2.0	0.55	ug/kg
591-78-6	2-Hexanone	ND	10	5.0	ug/kg
98-82-8	Isopropylbenzene	ND	2.0	0.50	ug/kg
99-87-6	p-Isopropyltoluene	ND	2.0	0.50	ug/kg
74-83-9	Methyl bromide	ND	2.0	0.50	ug/kg
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.50	ug/kg
74-87-3	Methyl chloride	ND	2.0	0.90	ug/kg
74-95-3	Methylene bromide	ND	2.0	0.60	ug/kg
75-09-2	Methylene chloride	ND	4.0	3.0	ug/kg
78-93-3	Methyl ethyl ketone	ND	10	5.0	ug/kg
108-10-1	4-Methyl-2-pentanone	ND	10	5.0	ug/kg
91-20-3	Naphthalene	ND	4.0	3.0	ug/kg
103-65-1	n-Propylbenzene	ND	2.0	0.50	ug/kg
100-42-5	Styrene	ND	2.0	0.50	ug/kg
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.50	ug/kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.50	ug/kg
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/kg
108-88-3	Toluene	ND	2.0	1.0	ug/kg
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/kg
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/kg
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/kg
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.50	ug/kg
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/kg
75-69-4	Trichlorofluoromethane	ND	2.0	1.0	ug/kg
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.50	ug/kg
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.50	ug/kg
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.50	ug/kg
108-05-4	Vinyl Acetate	ND	10	5.0	ug/kg
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/kg
1330-20-7	Xylene (total)	ND	2.0	1.0	ug/kg

Page 3 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample V5V2714-MB	<b>File ID</b> 5V51520.D	<b>DF</b> 1	<b>Analyzed</b> 03/05/19	By MB	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch V5V2714

### The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>		Limits
1868-53-7	Dibromofluoromethane	99%	70-131%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%
17060-07-0	1,2-Dichloroethane-D4	101%	70-130%

Page 1 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
V7V3009-MB	7V59006.D	1	03/05/19	СН	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

DA13922-2, DA13922-4, DA13922-6

CAS No.	Compound	Result	RL	MDL	Units Q
67-64-1	Acetone	ND	50	20	ug/l
107-02-8	Acrolein	ND	10	7.0	ug/l
107-13-1	Acrylonitrile	ND	5.0	4.0	ug/l
71-43-2	Benzene	ND	1.0	0.50	ug/l
108-86-1	Bromobenzene	ND	1.0	0.50	ug/l
74-97-5	Bromochloromethane	ND	2.0	0.50	ug/l
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/l
75-25-2	Bromoform	ND	2.0	0.50	ug/l
104-51-8	n-Butylbenzene	ND	1.0	0.50	ug/l
135-98-8	sec-Butylbenzene	ND	1.0	0.50	ug/l
98-06-6	tert-Butylbenzene	ND	1.0	0.50	ug/l
75-15-0	Carbon disulfide	ND	2.0	0.70	ug/l
56-23-5	Carbon tetrachloride	ND	2.0	0.70	ug/l
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l
75-00-3	Chloroethane	ND	2.0	0.50	ug/l
110-75-8	2-Chloroethyl vinyl ether	ND	2.0	0.50	ug/l
67-66-3	Chloroform	ND	2.0	0.50	ug/l
95-49-8	o-Chlorotoluene	ND	1.0	0.50	ug/l
106-43-4	p-Chlorotoluene	ND	1.0	0.50	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	3.0	ug/l
124-48-1	Dibromochloromethane	ND	2.0	0.50	ug/l
106-93-4	1,2-Dibromoethane	ND	1.0	0.50	ug/l
95-50-1	o-Dichlorobenzene	ND	1.0	0.50	ug/l
541-73-1	m-Dichlorobenzene	ND	1.0	0.50	ug/l
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/l
75-71-8	Dichlorodifluoromethane	ND	2.0	0.80	ug/l
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l
142-28-9	1,3-Dichloropropane	ND	2.0	0.50	ug/l
594-20-7	2,2-Dichloropropane	ND	2.0	1.0	ug/l
563-58-6	1,1-Dichloropropene	ND	2.0	0.60	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.50	ug/l

Page 2 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
V7V3009-MB	7V59006.D	1	03/05/19	СН	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

DA13922-2, DA13922-4, DA13922-6

CAS No.	Compound	Result	RL	MDL	Units Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/l
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l
87-68-3	Hexachlorobutadiene	ND	4.0	2.0	ug/l
591-78-6	2-Hexanone	ND	10	2.5	ug/l
98-82-8	Isopropylbenzene	ND	1.0	0.50	ug/l
99-87-6	p-Isopropyltoluene	ND	1.0	0.50	ug/l
74-83-9	Methyl bromide	ND	4.0	2.0	ug/l
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l
74-95-3	Methylene bromide	ND	2.0	1.0	ug/l
75-09-2	Methylene chloride	ND	4.0	2.0	ug/l
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.5	ug/l
78-93-3	Methyl ethyl ketone	ND	10	5.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l
91-20-3	Naphthalene	ND	4.0	2.0	ug/l
103-65-1	n-Propylbenzene	ND	1.0	0.50	ug/l
100-42-5	Styrene	ND	1.0	0.50	ug/l
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.50	ug/l
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.50	ug/l
127-18-4	Tetrachloroethylene	ND	1.0	0.50	ug/l
108-88-3	Toluene	ND	1.0	0.50	ug/l
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.0	ug/l
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l
79-01-6	Trichloroethylene	ND	1.0	0.50	ug/l
75-69-4	Trichlorofluoromethane	ND	4.0	3.0	ug/l
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.0	ug/l
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.50	ug/l
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.50	ug/l
108-05-4	Vinyl Acetate	ND	10	5.0	ug/l
75-01-4	Vinyl chloride	ND	2.0	0.50	ug/l
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l

Page 3 of 3

**Method:** SW846 8260B

# Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample V7V3009-MB	<b>File ID</b> 7V59006.D	<b>DF</b> 1	<b>Analyzed</b> 03/05/19	By CH	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch V7V3009

### The QC reported here applies to the following samples:

DA13922-2, DA13922-4, DA13922-6

CAS No.	<b>Surrogate Recoveries</b>		Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
17060-07-0	1,2-Dichloroethane-D4	97%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

Page 1 of 3

**Method:** SW846 8260B

# Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
V5V2714-BS	5V51517.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	224	90	30-198
107-02-8	Acrolein	250	198	79	66-137
107-13-1	Acrylonitrile	125	125	100	70-130
71-43-2	Benzene	50	47.9	96	68-130
108-86-1	Bromobenzene	50	45.3	91	70-130
74-97-5	Bromochloromethane	50	50.5	101	70-130
75-27-4	Bromodichloromethane	50	48.8	98	70-130
75-25-2	Bromoform	50	50.0	100	68-130
104-51-8	n-Butylbenzene	50	48.0	96	68-130
135-98-8	sec-Butylbenzene	50	46.7	93	69-130
98-06-6	tert-Butylbenzene	50	45.8	92	70-130
75-15-0	Carbon disulfide	50	54.8	110	67-130
56-23-5	Carbon tetrachloride	50	49.3	99	67-130
108-90-7	Chlorobenzene	50	45.6	91	70-130
75-00-3	Chloroethane	50	50.5	101	69-130
110-75-8	2-Chloroethyl vinyl ether	50	47.0	94	68-130
67-66-3	Chloroform	50	48.1	96	70-130
95-49-8	o-Chlorotoluene	50	45.3	91	67-130
106-43-4	p-Chlorotoluene	50	45.7	91	68-130
96-12-8	1,2-Dibromo-3-chloropropane	50	47.0	94	68-130
124-48-1	Dibromochloromethane	50	48.0	96	70-130
106-93-4	1,2-Dibromoethane	50	46.7	93	70-130
95-50-1	o-Dichlorobenzene	50	46.0	92	70-130
541-73-1	m-Dichlorobenzene	50	46.3	93	69-130
106-46-7	p-Dichlorobenzene	50	45.0	90	69-130
75-71-8	Dichlorodifluoromethane	50	48.4	97	33-173
75-34-3	1,1-Dichloroethane	50	49.7	99	70-130
107-06-2	1,2-Dichloroethane	50	46.8	94	70-130
75-35-4	1,1-Dichloroethylene	50	51.9	104	70-130
156-59-2	cis-1,2-Dichloroethylene	50	49.9	100	70-130
156-60-5	trans-1,2-Dichloroethylene	50	50.1	100	69-130
78-87-5	1,2-Dichloropropane	50	47.9	96	70-130
142-28-9	1,3-Dichloropropane	50	46.2	92	70-130
594-20-7	2,2-Dichloropropane	50	50.3	101	67-130
563-58-6	1,1-Dichloropropene	50	49.3	99	70-130
10061-01-5	cis-1,3-Dichloropropene	50	49.7	99	70-130

<sup>\* =</sup> Outside of Control Limits.

Page 2 of 3

**Method:** SW846 8260B

# Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
V5V2714-BS	5V51517.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	48.7	97	68-130
100-41-4	Ethylbenzene	50	46.6	93	69-130
87-68-3	Hexachlorobutadiene	50	47.7	95	67-130
591-78-6	2-Hexanone	250	240	96	58-130
98-82-8	Isopropylbenzene	50	46.5	93	70-130
99-87-6	p-Isopropyltoluene	50	46.7	93	70-130
74-83-9	Methyl bromide	50	45.2	90	57-130
1634-04-4	Methyl Tert Butyl Ether	50	49.1	98	70-130
74-87-3	Methyl chloride	50	45.9	92	51-137
74-95-3	Methylene bromide	50	50.3	101	70-130
75-09-2	Methylene chloride	50	50.0	100	69-130
78-93-3	Methyl ethyl ketone	250	269	108	61-136
108-10-1	4-Methyl-2-pentanone	250	248	99	69-130
91-20-3	Naphthalene	50	48.8	98	70-130
103-65-1	n-Propylbenzene	50	46.1	92	68-130
100-42-5	Styrene	50	48.2	96	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	47.0	94	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	46.6	93	68-130
127-18-4	Tetrachloroethylene	50	47.7	95	68-130
108-88-3	Toluene	50	45.7	91	65-130
87-61-6	1,2,3-Trichlorobenzene	50	47.5	95	70-130
120-82-1	1,2,4-Trichlorobenzene	50	46.9	94	70-130
71-55-6	1,1,1-Trichloroethane	50	48.3	97	68-130
79-00-5	1,1,2-Trichloroethane	50	47.2	94	70-130
79-01-6	Trichloroethylene	50	48.6	97	70-130
75-69-4	Trichlorofluoromethane	50	50.8	102	70-130
96-18-4	1,2,3-Trichloropropane	50	43.3	87	68-130
95-63-6	1,2,4-Trimethylbenzene	50	46.4	93	66-130
108-67-8	1,3,5-Trimethylbenzene	50	46.2	92	68-130
108-05-4	Vinyl Acetate	250	268	107	70-130
75-01-4	Vinyl chloride	50	48.3	97	65-130
1330-20-7	Xylene (total)	150	139	93	69-130

<sup>\* =</sup> Outside of Control Limits.

Page 3 of 3

**Method:** SW846 8260B

# Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample V5V2714-BS	<b>File ID</b> 5V51517.D	<b>DF</b> 1	<b>Analyzed</b> 03/05/19	By MB	Prep Date n/a	Prep Batch n/a	Analytical Batch V5V2714

The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>	BSP	Limits
2037-26-5 460-00-4	Dibromofluoromethane Toluene-D8 4-Bromofluorobenzene 1,2-Dichloroethane-D4	101% 98% 98% 102%	70-131% 70-130% 70-130% 70-130%

<sup>\* =</sup> Outside of Control Limits.

Page 1 of 1

**Method:** SW846 8260B

# **Blank Spike Summary Job Number:** DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample V7V3009-BS	<b>File ID</b> 7V59004.D	<b>DF</b> 1	<b>Analyzed</b> 03/05/19	By CH	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch V7V3009

The QC reported here applies to the following samples:

DA13922-2, DA13922-4, DA13922-6

**BSP BSP** Spike CAS No. Compound ug/l ug/l **%** Limits

CAS No.	<b>Surrogate Recoveries</b>	BSP	Limits
1868-53-7	Dibromofluoromethane	111%	70-130%
17060-07-0	1,2-Dichloroethane-D4	96%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8260B

## Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
V7V3009-BS	7V59009.D	1	03/05/19	СН	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	250	189	76	70-130
107-02-8	Acrolein	250	165	66	10-281
107-13-1	Acrylonitrile	125	136	109	58-136
71-43-2	Benzene	50	49.9	100	70-130
108-86-1	Bromobenzene	50	47.7	95	70-130
74-97-5	Bromochloromethane	50	53.7	107	70-130
75-27-4	Bromodichloromethane	50	51.0	102	70-130
75-25-2	Bromoform	50	47.6	95	61-130
104-51-8	n-Butylbenzene	50	53.2	106	69-130
135-98-8	sec-Butylbenzene	50	50.2	100	70-130
98-06-6	tert-Butylbenzene	50	49.4	99	70-130
75-15-0	Carbon disulfide	50	56.8	114	67-130
56-23-5	Carbon tetrachloride	50	54.5	109	70-130
108-90-7	Chlorobenzene	50	49.7	99	70-130
75-00-3	Chloroethane	50	57.0	114	64-138
110-75-8	2-Chloroethyl vinyl ether	50	48.1	96	68-130
67-66-3	Chloroform	50	55.5	111	70-130
95-49-8	o-Chlorotoluene	50	49.3	99	70-130
106-43-4	p-Chlorotoluene	50	50.1	100	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	52.4	105	65-130
124-48-1	Dibromochloromethane	50	48.8	98	65-130
106-93-4	1,2-Dibromoethane	50	50.0	100	70-130
95-50-1	o-Dichlorobenzene	50	51.7	103	63-130
541-73-1	m-Dichlorobenzene	50	49.8	100	65-130
106-46-7	p-Dichlorobenzene	50	49.9	100	68-130
75-71-8	Dichlorodifluoromethane	50	54.9	110	10-200
75-34-3	1,1-Dichloroethane	50	54.1	108	70-130
107-06-2	1,2-Dichloroethane	50	53.2	106	67-131
75-35-4	1,1-Dichloroethylene	50	56.4	113	70-130
156-59-2	cis-1,2-Dichloroethylene	50	56.4	113	70-130
156-60-5	trans-1,2-Dichloroethylene	50	55.9	112	70-130
78-87-5	1,2-Dichloropropane	50	51.2	102	70-130
142-28-9	1,3-Dichloropropane	50	48.8	98	70-130
594-20-7	2,2-Dichloropropane	50	53.9	108	32-148
563-58-6	1,1-Dichloropropene	50	54.3	109	70-130
10061-01-5	cis-1,3-Dichloropropene	50	50.3	101	68-130

<sup>\* =</sup> Outside of Control Limits.

Page 2 of 3

**Method:** SW846 8260B

## Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

	Sample V7V3009-BS	File ID 7V59009.D	<b>DF</b> 1	<b>Analyzed</b> 03/05/19	<b>Ву</b> СН	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V7V3009
--	----------------------	----------------------	----------------	--------------------------	-----------------	----------------------	-----------------------	-----------------------------

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	49.1	98	64-130
100-41-4	Ethylbenzene	50	49.5	99	69-130
87-68-3	Hexachlorobutadiene	50	55.0	110	51-134
591-78-6	2-Hexanone	250	219	88	69-130
98-82-8	Isopropylbenzene	50	51.9	104	70-130
99-87-6	p-Isopropyltoluene	50	51.6	103	70-130
74-83-9	Methyl bromide	50	59.2	118	56-136
74-87-3	Methyl chloride	50	59.4	119	48-147
74-95-3	Methylene bromide	50	53.3	107	70-130
75-09-2	Methylene chloride	50	55.2	110	70-130
108-10-1	4-Methyl-2-pentanone	250	234	94	70-130
78-93-3	Methyl ethyl ketone	250	248	99	69-130
1634-04-4	Methyl Tert Butyl Ether	50	54.4	109	70-130
91-20-3	Naphthalene	50	56.7	113	61-130
103-65-1	n-Propylbenzene	50	48.7	97	70-130
100-42-5	Styrene	50	53.0	106	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	51.2	102	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	49.1	98	60-130
127-18-4	Tetrachloroethylene	50	50.8	102	70-130
108-88-3	Toluene	50	48.8	98	70-130
87-61-6	1,2,3-Trichlorobenzene	50	55.9	112	55-130
120-82-1	1,2,4-Trichlorobenzene	50	55.0	110	65-130
71-55-6	1,1,1-Trichloroethane	50	54.5	109	70-130
79-00-5	1,1,2-Trichloroethane	50	49.1	98	68-130
79-01-6	Trichloroethylene	50	51.6	103	70-130
75-69-4	Trichlorofluoromethane	50	54.3	109	68-146
96-18-4	1,2,3-Trichloropropane	50	51.0	102	70-130
95-63-6	1,2,4-Trimethylbenzene	50	50.0	100	70-130
108-67-8	1,3,5-Trimethylbenzene	50	51.6	103	70-130
108-05-4	Vinyl Acetate	250	268	107	49-131
75-01-4	Vinyl chloride	50	60.8	122	57-144
1330-20-7	Xylene (total)	150	151	101	70-130

<sup>\* =</sup> Outside of Control Limits.

Page 3 of 3

**Method:** SW846 8260B

## Blank Spike Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b> 03/05/19	<b>By</b>	Prep Date	Prep Batch	Analytical Batch
V7V3009-BS	7V59009.D	1		CH	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>	BSP	Limits
17060-07-0 2037-26-5	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	110% 99% 99% 96%	70-130% 70-130% 70-130% 70-130%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8260B

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
DA13920-1MS	5V51523.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1MSD	5V51524.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1	5V51522.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	DA13920 ug/kg	)-1 Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		277	364	131	279	327	117	11	5-239/30
107-02-8	Acrolein	ND		277	174	63	279	152	54	13	5-183/30
107-13-1	Acrylonitrile	ND		139	140	101	140	128	92	9	37-162/30
71-43-2	Benzene	ND		55.5	50.2	90	55.8	45.6	82	10	48-130/30
108-86-1	Bromobenzene	ND		55.5	41.5	75	55.8	38.6	69	7	27-136/30
74-97-5	Bromochloromethane	ND		55.5	54.5	98	55.8	48.1	86	12	58-130/30
75-27-4	Bromodichloromethane	ND		55.5	50.0	90	55.8	45.3	81	10	47-130/30
75-25-2	Bromoform	ND		55.5	48.4	87	55.8	44.8	80	8	33-130/30
104-51-8	n-Butylbenzene	ND		55.5	30.3	55	55.8	30.1	54	1	5-168/30
135-98-8	sec-Butylbenzene	ND		55.5	33.2	60	55.8	32.4	58	2	12-149/30
98-06-6	tert-Butylbenzene	ND		55.5	34.9	63	55.8	34.3	61	2	20-147/30
75-15-0	Carbon disulfide	ND		55.5	56.0	101	55.8	49.8	89	12	37-143/30
56-23-5	Carbon tetrachloride	ND		55.5	48.3	87	55.8	43.6	78	10	37-136/30
108-90-7	Chlorobenzene	ND		55.5	42.8	77	55.8	40.9	73	5	26-130/30
75-00-3	Chloroethane	ND		55.5	54.8	99	55.8	54.2	97	1	43-148/30
110-75-8	2-Chloroethyl vinyl ether	ND		55.5	53.1	96	55.8	53.9	97	1	56-134/30
67-66-3	Chloroform	ND		55.5	51.1	92	55.8	46.5	83	9	56-130/30
95-49-8	o-Chlorotoluene	ND		55.5	39.0	70	55.8	36.7	66	6	5-202/30
106-43-4	p-Chlorotoluene	ND		55.5	37.7	68	55.8	36.7	66	3	5-227/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		55.5	45.9	83	55.8	43.1	77	6	7-187/30
124-48-1	Dibromochloromethane	ND		55.5	47.3	85	55.8	44.8	80	5	41-130/30
106-93-4	1,2-Dibromoethane	ND		55.5	51.1	92	55.8	47.2	85	8	51-132/30
95-50-1	o-Dichlorobenzene	ND		55.5	36.7	66	55.8	35.4	63	4	12-139/30
541-73-1	m-Dichlorobenzene	ND		55.5	37.0	67	55.8	35.9	64	3	13-139/30
106-46-7	p-Dichlorobenzene	ND		55.5	35.5	64	55.8	35.2	63	1	13-136/30
75-71-8	Dichlorodifluoromethane	ND		55.5	51.0	92	55.8	49.5	89	3	26-173/30
75-34-3	1,1-Dichloroethane	ND		55.5	54.0	97	55.8	48.5	87	11	58-130/30
107-06-2	1,2-Dichloroethane	ND		55.5	51.1	92	55.8	46.4	83	10	59-130/30
75-35-4	1,1-Dichloroethylene	ND		55.5	54.1	97	55.8	48.6	87	11	55-130/30
156-59-2	cis-1,2-Dichloroethylene	ND		55.5	53.1	96	55.8	48.6	87	9	55-130/30
156-60-5	trans-1,2-Dichloroethylene	ND		55.5	54.3	98	55.8	48.6	87	11	49-130/30
78-87-5	1,2-Dichloropropane	ND		55.5	51.4	93	55.8	46.0	82	11	59-130/30
142-28-9	1,3-Dichloropropane	ND		55.5	49.5	89	55.8	46.2	83	7	55-130/30
594-20-7	2,2-Dichloropropane	ND		55.5	54.0	97	55.8	47.6	85	13	43-136/30
563-58-6	1,1-Dichloropropene	ND		55.5	49.4	89	55.8	45.8	82	8	42-132/30
10061-01-5	cis-1,3-Dichloropropene	ND		55.5	50.4	91	55.8	45.5	81	10	40-133/30

<sup>\* =</sup> Outside of Control Limits.

Page 2 of 3

**Method:** SW846 8260B

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

**Account: AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA13920-1MS	5V51523.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1MSD	5V51524.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1	5V51522.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	Compound	DA13920-1 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
10061 02 6	trans-1,3-Dichloropropene	ND	55.5	49.0	88	55.8	45.8	82	7	40-130/30
		ND ND		42.9	77	55.8	40.1	72		
100-41-4 87-68-3	Ethylbenzene Hexachlorobutadiene	ND ND	55.5 55.5	20.4	37	55.8	40.1 19.9	36	7	25-144/30 5-153/30
	2-Hexanone	ND ND	33.3 277	20.4		279		95	2	
591-78-6 98-82-8				39.0	105 70	55.8	266 37.6	93 67	9	43-149/30
	Isopropylbenzene	ND ND	55.5						4	21-143/30
99-87-6	p-Isopropyltoluene	ND	55.5	33.9	61	55.8	32.5	58	4	12-151/30
74-83-9	Methyl bromide	ND	55.5	51.6	93	55.8	51.4	92	0	5-167/30
1634-04-4	Methyl Tert Butyl Ether	ND	55.5	55.1	99	55.8	50.1	90	10	66-130/30
74-87-3	Methyl chloride	ND	55.5	48.1	87	55.8	48.6	87	1	34-162/30
74-95-3	Methylene bromide	ND	55.5	52.1	94	55.8	47.7	85	9	55-130/30
75-09-2	Methylene chloride	ND	55.5	54.0	97	55.8	49.2	88	9	58-130/30
78-93-3	Methyl ethyl ketone	ND	277	324	117	279	303	109	7	41-169/30
108-10-1	4-Methyl-2-pentanone	ND	277	275	99	279	251	90	9	54-147/30
91-20-3	Naphthalene	ND	55.5	33.7	61	55.8	33.5	60	1	5-164/30
103-65-1	n-Propylbenzene	ND	55.5	37.2	67	55.8	36.1	65	3	21-144/30
100-42-5	Styrene	ND	55.5	43.6	79	55.8	41.2	74	6	12-159/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	55.5	46.0	83	55.8	42.6	76	8	38-131/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	55.5	48.4	87	55.8	44.1	79	9	33-149/30
127-18-4	Tetrachloroethylene	ND	55.5	43.2	78	55.8	39.6	71	9	27-134/30
108-88-3	Toluene	4.3	55.5	48.4	79	55.8	45.1	73	7	34-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	55.5	25.4	46	55.8	25.8	46	2	5-157/30
120-82-1	1,2,4-Trichlorobenzene	ND	55.5	27.5	50	55.8	28.2	51	3	5-164/30
71-55-6	1,1,1-Trichloroethane	ND	55.5	49.8	90	55.8	45.6	82	9	45-130/30
79-00-5	1,1,2-Trichloroethane	ND	55.5	49.5	89	55.8	46.4	83	6	30-152/30
79-01-6	Trichloroethylene	ND	55.5	47.6	86	55.8	43.3	78	9	31-147/30
75-69-4	Trichlorofluoromethane	ND	55.5	51.0	92	55.8	50.0	90	2	55-133/30
96-18-4	1,2,3-Trichloropropane	ND	55.5	48.1	87	55.8	43.4	78	10	51-134/30
95-63-6	1,2,4-Trimethylbenzene	ND	55.5	38.8	70	55.8	36.1	65	7	5-174/30
108-67-8	1,3,5-Trimethylbenzene	ND	55.5	38.0	68	55.8	35.9	64	6	26-138/30
108-05-4	Vinyl Acetate	ND	277	136	49	279	112	40	19	5-158/30
75-01-4	Vinyl chloride	ND	55.5	53.8	97	55.8	52.7	94	2	55-138/30
1330-20-7	Xylene (total)	ND	166	129	77	167	120	72	7	24-143/30

<sup>\* =</sup> Outside of Control Limits.

Page 3 of 3

**Method:** SW846 8260B

Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA13920-1MS	5V51523.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1MSD	5V51524.D	1	03/05/19	MB	n/a	n/a	V5V2714
DA13920-1	5V51522.D	1	03/05/19	MB	n/a	n/a	V5V2714

The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>	MS	MSD	DA13920-1	Limits
1868-53-7	Dibromofluoromethane	103%	104%	99%	70-131%
2037-26-5	Toluene-D8	98%	100%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	100%	101%	70-130%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	98%	70-130%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8260B

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
DA12204-5MS	7V59007.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5MSD	7V59008.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5	7V59012.D	1	03/05/19	CH	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

		DA12204	<b>I-5</b>	Spike	MS	MS	Spike	MSD	MSD		Limits
CAS No.	Compound	ug/l	Q	ug/l	ug/l	<b>%</b>	ug/l	ug/l	<b>%</b>	RPD	Rec/RPD
67-64-1	Acetone	ND		250	302	121	250	286	114	5	60-133/30
107-02-8	Acrolein	ND ND		250	158	63	250	178	71	12	10-281/30
107-02-8	Acrylonitrile	ND ND		125	128	102	125	134	107	5	47-151/30
71-43-2	Benzene	ND ND		50	51.6	102	50	49.8	107	4	67-130/30
108-86-1	Bromobenzene	ND ND		50	49.3	99	50	48.2	96	2	70-130/30
74-97-5	Bromochloromethane	ND ND		50	54.5	109	50	51.5	103	6	70-130/30
74-97-3 75-27-4	Bromodichloromethane	8.6		50	57.5	98	50	58.2	99	1	70-130/30
75-27- <del>4</del> 75-25-2	Bromoform		J	50	47.3	93	50	47.8	94	1	60-130/30
104-51-8	n-Butylbenzene	ND	J	50	52.2	104	50	49.3	99	6	51-143/30
135-98-8	sec-Butylbenzene	ND ND		50	49.4	99	50	48.7	97	1	69-130/30
98-06-6	tert-Butylbenzene	ND ND		50	49.4 49.1	98	50	48.1	96	2	47-158/30
75-15-0	Carbon disulfide	ND ND		50	52.7	105	50	56.0	112	6	64-130/30
56-23-5	Carbon tetrachloride	ND ND		50	52.7	105	50	53.9	108	3	70-130/30
108-90-7	Chlorobenzene	ND ND		50	50.1	103	50	48.1	96	4	70-130/30
75-00-3	Chloroethane	ND ND		50	58.8	118	50	57.8	116	2	58-139/30
110-75-8	2-Chloroethyl vinyl ether	ND ND		50	36.6 49.7	99	50	51.8	104	4	10-174/30
67-66-3	Chloroform	6.3		50	58.7	105	50	59.6	104	2	70-130/30
95-49-8	o-Chlorotoluene	ND		50	50.2	100	50	47.9	96	5	70-130/30
		ND ND		50	50.4		50	47.9	98	2	70-130/30
106-43-4 96-12-8	p-Chlorotoluene			50	48.8	101 98	50	49.2 47.8	98 96	2	62-130/30
90-12-8 124-48-1	1,2-Dibromo-3-chloropropane Dibromochloromethane	5.7		50	54.5	98	50	53.9	96	1	65-130/30
		ND		50	50.2		50	33.9 49.9		1	
106-93-4 95-50-1	1,2-Dibromoethane o-Dichlorobenzene	ND ND		50	50.2	100 101	50	49.9 48.4	100 97	4	70-130/30 63-130/30
541-73-1	m-Dichlorobenzene	ND ND		50	30.3 49.4	99	50	48.4	97	2	65-130/30
106-46-7	p-Dichlorobenzene	ND ND		50	49.4	99	50	46.4 47.7	95	4	66-130/30
75-71-8	Dichlorodifluoromethane	ND ND		50	49.3 54.9	110	50	54.0	108	2	10-200/30
75-71-8 75-34-3	1,1-Dichloroethane	ND ND		50	55.8	110	50	54.0 54.7	108	2	
107-06-2	1,2-Dichloroethane	ND ND		50	33.8 47.4	95	50	54.7 51.8	109	9	61-130/30 63-135/30
75-35-4				50	50.5		50	55.0	110	9	
156-59-2	1,1-Dichloroethylene	ND ND		50 50	50.5 54.7	101 109	50	52.8	106	4	67-130/30
	cis-1,2-Dichloroethylene										70-130/30
156-60-5	trans-1,2-Dichloroethylene	ND		50	53.0	106	50	55.7	111	5	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	49.5	99	50	51.9	104	5	70-130/30
142-28-9	1,3-Dichloropropane	ND ND		50	50.6	101	50	49.0	98	3	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	51.3	103	50	53.7	107	5	32-153/30
563-58-6	1,1-Dichloropropene	ND		50	53.8	108	50	53.9	108	0	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		50	52.0	104	50	52.2	104	0	68-130/30

<sup>\* =</sup> Outside of Control Limits.

Page 2 of 3

**Method:** SW846 8260B

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
DA12204-5MS	7V59007.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5MSD	7V59008.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5	7V59012.D	1	03/05/19	CH	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

CAS No.	Compound	DA12204-5 ug/l Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	trans-1,3-Dichloropropene	ND	50	51.8	104	50	50.4	101	3	64-130/30
100-41-4	Ethylbenzene	ND	50	49.9	100	50	47.8	96	4	69-130/30
87-68-3	Hexachlorobutadiene	ND	50	51.2	102	50	49.0	98	4	41-140/30
591-78-6	2-Hexanone	ND	250	245	98	250	256	102	4	69-130/30
98-82-8	Isopropylbenzene	ND	50	51.6	103	50	48.9	98	5	70-130/30
99-87-6	p-Isopropyltoluene	ND	50	51.7	103	50	49.2	98	5	70-130/30
74-83-9	Methyl bromide	ND	50	64.8	130	50	61.1	122	6	47-147/30
74-87-3	Methyl chloride	ND	50	60.8	122	50	60.3	121	1	48-147/30
74-95-3	Methylene bromide	ND	50	50.6	101	50	52.0	104	3	70-130/30
75-09-2	Methylene chloride	ND	50	50.5	101	50	53.8	108	6	70-130/30
108-10-1	4-Methyl-2-pentanone	ND	250	248	99	250	257	103	4	70-130/30
78-93-3	Methyl ethyl ketone	ND	250	275	110	250	295	118	7	69-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	50	51.9	104	50	53.1	106	2	69-130/30
91-20-3	Naphthalene	ND	50	51.0	102	50	50.6	101	1	55-130/30
103-65-1	n-Propylbenzene	ND	50	49.9	100	50	48.3	97	3	62-132/30
100-42-5	Styrene	ND	50	50.3	101	50	48.6	97	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	49.9	100	50	47.9	96	4	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	48.2	96	50	48.4	97	0	60-130/30
127-18-4	Tetrachloroethylene	ND	50	51.5	103	50	49.3	99	4	67-130/30
108-88-3	Toluene	ND	50	47.0	94	50	47.8	96	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	50	51.8	104	50	49.9	100	4	52-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	52.2	104	50	49.5	99	5	60-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	52.0	104	50	53.7	107	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	50	51.0	102	50	49.3	99	3	68-130/30
79-01-6	Trichloroethylene	ND	50	51.4	103	50	51.9	104	1	70-130/30
75-69-4	Trichlorofluoromethane	ND	50	55.9	112	50	53.6	107	4	54-157/30
96-18-4	1,2,3-Trichloropropane	ND	50	50.4	101	50	52.1	104	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	50	51.4	103	50	48.7	97	5	65-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	50	50.7	101	50	49.0	98	3	44-155/30
108-05-4	Vinyl Acetate	ND	250	277	111	250	285	114	3	47-133/30
75-01-4	Vinyl chloride	ND	50	60.8	122	50	59.7	119	2	55-144/30
1330-20-7	Xylene (total)	ND	150	147	98	150	143	95	3	67-130/30

<sup>\* =</sup> Outside of Control Limits.

Page 3 of 3

**Method:** SW846 8260B

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
DA12204-5MS	7V59007.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5MSD	7V59008.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5	7V59012.D	1	03/05/19	CH	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>	MS	MSD	DA12204-5	Limits
1868-53-7	Dibromofluoromethane	106%	108%	102%	70-130%
17060-07-0	1,2-Dichloroethane-D4	102%	101%	103%	70-130%
2037-26-5	Toluene-D8	100%	100%	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	100%	100%	70-130%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8260B

Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
DA12204-5MS	7V59010.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5MSD	7V59011.D	1	03/05/19	CH	n/a	n/a	V7V3009
DA12204-5	7V59012.D	1	03/05/19	CH	n/a	n/a	V7V3009

The QC reported here applies to the following samples:

		DA1220	04-5	Spike	MS	MS	Spike	MSD	MSD		Limits
CAS No.	Compound	ug/l	Q	ug/l	ug/l	%	ug/l	ug/l	%	RPD	Rec/RPD

CAS No.	Surrogate Recoveries	MS	MSD	DA12204-5	Limits
1868-53-7	Dibromofluoromethane	105%	104%	102%	70-130%
17060-07-0	1,2-Dichloroethane-D4	102%	103%	103%	70-130%
2037-26-5	Toluene-D8	96%	102%	98%	70-130%
460-00-4	4-Bromofluorobenzene	101%	98%	100%	70-130%

<sup>\* =</sup> Outside of Control Limits.



### Wheat Ridge, CO

Section 6

### MS Semi-volatiles

QC Data Summaries

### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

**Method:** SW846 8270C

Method Blank Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
OP17533-MB	1G141528.D	1	03/04/19	DC	03/04/19	OP17533	E1G2412

Limits

### The QC reported here applies to the following samples:

DA13922-2, DA13922-4, DA13922-6

CAS No.	Compound	Result	RL	MDL	Units Q
83-32-9	Acenaphthene	ND	2.0	0.70	ug/l
208-96-8	Acenaphthylene	ND	2.0	0.60	ug/l
120-12-7	Anthracene	ND	2.0	0.70	ug/l
56-55-3	Benzo(a)anthracene	ND	2.0	0.70	ug/l
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.90	ug/l
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.90	ug/l
191-24-2	Benzo(g,h,i)perylene	ND	2.0	1.0	ug/l
50-32-8	Benzo(a)pyrene	ND	2.0	1.0	ug/l
218-01-9	Chrysene	ND	2.0	0.70	ug/l
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	1.3	ug/l
206-44-0	Fluoranthene	ND	2.0	0.90	ug/l
86-73-7	Fluorene	ND	2.0	0.60	ug/l
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	1.4	ug/l
90-12-0	1-Methylnaphthalene	ND	2.0	0.70	ug/l
91-57-6	2-Methylnaphthalene	ND	2.0	0.70	ug/l
91-20-3	Naphthalene	ND	2.0	0.80	ug/l
85-01-8	Phenanthrene	ND	2.0	0.60	ug/l
129-00-0	Pyrene	ND	2.0	0.70	ug/l

### CAS No. **Surrogate Recoveries**

4165-60-0	Nitrobenzene-d5	79%	19-130%
321-60-8	2-Fluorobiphenyl	73%	20-130%
1718-51-0	Terphenyl-d14	86%	13-149%

**Method:** SW846 8270C

## **Method Blank Summary Job Number:** DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

OP17541-MB 1G141557.D 1 03/05/19 DC 03/05/19 OP17541 E1G2414	Sample OP17541-MB	<b>File ID</b> 1G141557.D	<b>DF</b> 1		By DC	<b>Prep Date</b> 03/05/19	Prep Batch OP17541	Analytical Batch E1G2414
--	----------------------	------------------------------	----------------	--	----------	---------------------------	-----------------------	-----------------------------

Limits

### The QC reported here applies to the following samples:

DA13922-1, DA13922-3, DA13922-5, DA13922-7

CAS No.	Compound	Result	RL	MDL	Units Q
83-32-9	Acenaphthene	ND	67	17	ug/kg
208-96-8	Acenaphthylene	ND	67	17	ug/kg
120-12-7	Anthracene	ND	67	17	ug/kg
56-55-3	Benzo(a)anthracene	ND	67	17	ug/kg
205-99-2	Benzo(b)fluoranthene	ND	67	17	ug/kg
207-08-9	Benzo(k)fluoranthene	ND	67	17	ug/kg
191-24-2	Benzo(g,h,i)perylene	ND	67	17	ug/kg
50-32-8	Benzo(a)pyrene	ND	67	17	ug/kg
218-01-9	Chrysene	ND	67	17	ug/kg
53-70-3	Dibenzo(a,h)anthracene	ND	67	17	ug/kg
206-44-0	Fluoranthene	ND	67	17	ug/kg
86-73-7	Fluorene	ND	67	17	ug/kg
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	17	ug/kg
90-12-0	1-Methylnaphthalene	ND	67	23	ug/kg
91-57-6	2-Methylnaphthalene	ND	67	30	ug/kg
91-20-3	Naphthalene	ND	67	23	ug/kg
85-01-8	Phenanthrene	ND	67	17	ug/kg
129-00-0	Pyrene	ND	67	17	ug/kg

### **Surrogate Recoveries** CAS No.

321-60-8	2-Fluorobiphenyl	82%	23-130%
4165-60-0	Nitrobenzene-d5	76%	12-131%
1718-51-0	Terphenyl-d14	93%	29-141%

**Method:** SW846 8270C

## **Blank Spike Summary Job Number:** DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
OP17533-BS	1G141529.D	1	03/04/19	DC	03/04/19	OP17533	E1G2412

The QC reported here applies to the following samples:

		Spike	BSP	BSP	
CAS No.	Compound	ug/l	ug/l	%	Limits
	_		_		
83-32-9	Acenaphthene	50	34.3	69	48-130
208-96-8	Acenaphthylene	50	39.1	78	48-130
120-12-7	Anthracene	50	40.9	82	64-130
56-55-3	Benzo(a)anthracene	50	42.5	85	68-130
205-99-2	Benzo(b)fluoranthene	50	43.5	87	68-130
207-08-9	Benzo(k)fluoranthene	50	43.4	87	67-130
191-24-2	Benzo(g,h,i)perylene	50	42.3	85	66-130
50-32-8	Benzo(a)pyrene	50	43.6	87	66-130
218-01-9	Chrysene	50	42.4	85	65-130
53-70-3	Dibenzo(a,h)anthracene	50	44.3	89	64-130
206-44-0	Fluoranthene	50	42.4	85	63-130
86-73-7	Fluorene	50	39.8	80	57-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.6	89	64-130
90-12-0	1-Methylnaphthalene	50	32.5	65	36-130
91-57-6	2-Methylnaphthalene	50	31.4	63	32-130
91-20-3	Naphthalene	50	30.3	61	29-130
85-01-8	Phenanthrene	50	40.5	81	64-130
129-00-0	Pyrene	50	42.0	84	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	73%	19-130%
	2-Fluorobiphenyl	74%	20-130%
1718-51-0	Terphenyl-d14	81%	13-149%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8270C

## **Blank Spike Summary Job Number:** DA13922

**AEICCOD AEI Consultants** Account:

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
OP17541-BS	1G141558.D	1	03/05/19	DC	03/05/19	OP17541	E1G2414

### The QC reported here applies to the following samples:

		Spike	BSP	BSP	
CAS No.	Compound	ug/kg	ug/kg	%	Limits
83-32-9	Acenaphthene	1670	1570	94	55-130
208-96-8	Acenaphthylene	1670	1600	96	55-130
120-12-7	Anthracene	1670	1550	93	70-130
56-55-3	Benzo(a)anthracene	1670	1600	96	70-130
205-99-2	Benzo(b)fluoranthene	1670	1610	97	70-130
207-08-9	Benzo(k)fluoranthene	1670	1630	98	70-130
191-24-2	Benzo(g,h,i)perylene	1670	1680	101	70-130
50-32-8	Benzo(a)pyrene	1670	1620	97	70-130
218-01-9	Chrysene	1670	1620	97	70-130
53-70-3	Dibenzo(a,h)anthracene	1670	1740	104	70-130
206-44-0	Fluoranthene	1670	1590	95	70-130
86-73-7	Fluorene	1670	1590	95	62-130
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1710	103	70-130
90-12-0	1-Methylnaphthalene	1670	1510	91	47-130
91-57-6	2-Methylnaphthalene	1670	1510	91	46-130
91-20-3	Naphthalene	1670	1500	90	45-130
85-01-8	Phenanthrene	1670	1530	92	70-130
129-00-0	Pyrene	1670	1550	93	70-130

CAS No.	<b>Surrogate Recoveries</b>	BSP	Limits
	2-Fluorobiphenyl Nitrobenzene-d5	85% 77%	23-130% 12-131%
1718-51-0	Terphenyl-d14	92%	29-141%

<sup>\* =</sup> Outside of Control Limits.

### 232

Page 1 of 1

**Method:** SW846 8270C

### Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA13922

Account: AEICCOD AEI Consultants

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
OP17533-MS	1G141531.D	1	03/04/19	DC	03/04/19	OP17533	E1G2412
OP17533-MSD	1G141532.D	1	03/04/19	DC	03/04/19	OP17533	E1G2412
DA12204-4	1G141530.D	1	03/04/19	DC	03/04/19	OP17533	E1G2412

The QC reported here applies to the following samples:

		DA12204-4	Spike	MS	MS	Spike	MSD	MSD		Limits
CAS No.	Compound	ug/l Q	ug/l	ug/l	%	ug/l	ug/l	<b>%</b>	RPD	Rec/RPD
02.22.0	4 1.1	MD	<b>7</b> 0	22.1		<b>50</b>	27.6	7.5	10	21 120/20
83-32-9	Acenaphthene	ND	50	33.1	66	50	37.6	75	13	31-130/30
208-96-8	Acenaphthylene	ND	50	38.0	76	50	43.2	86	13	31-130/30
120-12-7	Anthracene	ND	50	39.9	80	50	43.7	87	9	38-140/30
56-55-3	Benzo(a)anthracene	ND	50	41.3	83	50	43.5	87	5	44-149/30
205-99-2	Benzo(b)fluoranthene	ND	50	42.6	85	50	44.6	89	5	44-153/30
207-08-9	Benzo(k)fluoranthene	ND	50	42.4	85	50	45.0	90	6	44-151/30
191-24-2	Benzo(g,h,i)perylene	ND	50	42.1	84	50	44.5	89	6	45-149/30
50-32-8	Benzo(a)pyrene	ND	50	42.5	85	50	45.3	91	6	40-148/30
218-01-9	Chrysene	ND	50	42.3	85	50	44.3	89	5	40-153/30
53-70-3	Dibenzo(a,h)anthracene	ND	50	43.4	87	50	46.6	93	7	43-153/30
206-44-0	Fluoranthene	ND	50	42.0	84	50	44.5	89	6	42-148/30
86-73-7	Fluorene	ND	50	38.2	76	50	42.6	85	11	34-134/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	43.7	87	50	45.9	92	5	42-153/30
90-12-0	1-Methylnaphthalene	ND	50	32.2	64	50	37.3	75	15	25-130/30
91-57-6	2-Methylnaphthalene	ND	50	31.6	63	50	36.7	73	15	23-130/30
91-20-3	Naphthalene	ND	50	29.6	59	50	34.8	70	16	21-130/30
85-01-8	Phenanthrene	ND	50	39.2	78	50	42.9	86	9	42-140/30
129-00-0	Pyrene	ND	50	41.8	84	50	43.3	87	4	46-148/30
CAS No.	Surrogate Recoveries	MS	MSD	DA	12204-4	Limits				

CAS No. Surrogate Recoveries MS	MSD	DA12204-4	Limits
4165-60-0 Nitrobenzene-d5 66% 321-60-8 2-Fluorobiphenyl 68% 1718-51-0 Terphenyl-d14 79%	77%	74%	19-130%
	79%	73%	20-130%
	82%	78%	13-149%

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8270C

# Matrix Spike/Matrix Spike Duplicate Summary Job Number: DA13922

Account: **AEICCOD AEI Consultants** 

**Project:** Vacant Lot

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
OP17541-MS	1G141563.D	1	03/05/19	DC	03/05/19	OP17541	E1G2414
OP17541-MSD	1G141564.D	1	03/05/19	DC	03/05/19	OP17541	E1G2414
DA13922-5	1G141562.D	1	03/05/19	DC	03/05/19	OP17541	E1G2414

The QC reported here applies to the following samples:

CAC N-	C1	DA13922-5	Spike	MS	MS	Spike	MSD	MSD	DDD	Limits		
CAS No.	Compound	ug/kg Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%	RPD	Rec/RPD		
83-32-9	Acenaphthene	ND	1690	1270	75	1690	1280	76	1	10-167/30		
208-96-8	Acenaphthylene	ND	1690	1440	85	1690	1440	85	0	10-167/30		
120-12-7	Anthracene	ND	1690	1510	89	1690	1510	89	0	22-143/30		
56-55-3	Benzo(a)anthracene	ND	1690	1620	96	1690	1580	93	3	15-152/30		
205-99-2	Benzo(b)fluoranthene	ND	1690	1660	98	1690	1630	96	2	17-155/30		
207-08-9	Benzo(k)fluoranthene	ND	1690	1600	94	1690	1620	96	1	10-172/30		
191-24-2	Benzo(g,h,i)perylene	ND	1690	1670	99	1690	1680	99	1	10-153/30		
50-32-8	Benzo(a)pyrene	ND	1690	1650	97	1690	1660	98	1	19-151/30		
218-01-9	Chrysene	ND	1690	1640	97	1690	1610	95	2	21-147/30		
53-70-3	Dibenzo(a,h)anthracene	ND	1690	1740	103	1690	1740	103	0	16-152/30		
206-44-0	Fluoranthene	ND	1690	1610	95	1690	1590	94	1	14-151/30		
86-73-7	Fluorene	ND	1690	1440	85	1690	1460	86	1	10-196/30		
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1690	1690	100	1690	1730	102	2	15-153/30		
90-12-0	1-Methylnaphthalene	ND	1690	1300	77	1690	1300	77	0	10-199/30		
91-57-6	2-Methylnaphthalene	ND	1690	1310	77	1690	1300	77	1	10-188/30		
91-20-3	Naphthalene	ND	1690	1260	74	1690	1280	76	2	10-194/30		
85-01-8	Phenanthrene	ND	1690	1500	89	1690	1490	88	1	22-144/30		
129-00-0	Pyrene	ND	1690	1560	92	1690	1540	91	1	16-152/30		
CAS No.	Surrogate Recoveries	MS	MSD	DA	13922-5	Limits						
321-60-8	2-Fluorobiphenyl	73%	73%	68%	, 0	23-1309	6					
4165-60-0	5-60-0 Nitrobenzene-d5 66% 67%		67%	61%	ó	12-131%						
1718-51-0	Terphenyl-d14	92%	90%	90%	ó	29-1419	6					

<sup>\* =</sup> Outside of Control Limits.

## Water Demand Estimate and Meter Sizing Using Fixture Values (Based on AWWA M22 Manual, Second Edition)

Project	CHT River Ridge Lot 1		
Residential, Non-Residential, M.F.	Residential Multi-Fa	mily	
Pressure Zone at Project	60	•	
Fixture or Appliance	Fixture Value (at 60 psi)	Number of Fixtures	Subtotal Fixture Value
Toilet (tank) Toilet (flush valve) Urinal (wall or stall) Urinal (flush valve) Shower (single head) Sink (lavatory) Kitchen Sink Utility Sink Dishwasher Bathtub Clothes Washer Hose connections (with 50 ft of hose)	4 35 16 35 2.5 1.5 2.2 4 2 8 6	30 0 0 0 16 30 16 1 17 9	120 0 0 0 40 45 35.2 4 34 72 96
1/2 in. 5/8 in. 3/4 in.	5 9 12		0 0 0
Miscellaneous Bedpan washers Drinking fountains Dental units	10 2 2		0 0 0
Combined Fixture Value			446.2
Demand (gpm) - See Curves			43
Pressure Adjustment Factor			1
Total Adjusted demand (gpm)			43
Minimum Meter Size			1"
Service Line Velocity (fps)			6.4
Minimum Service Size (HDPE)			2"

calculated user inputted

UPC DFU	DFU Total					
		800 SF	1000 SF	1400 SF	COMME	RCIAL
4	120	1	2	2	3	1
	0					
	0					
	0					
2	32	1		1	1	
1	30	1	2	2	3	1
2	32	1	•	1	1	
2	2					1
2	34	1	•	1	1	1
2	18		•	1	1	
3	48	1		1	1	

6" sewer at 1% OK up to 700 DFU

316

## Engineer's Opinion of Probable Cost Salida Bottling Co. - Public Infrastructure

Prepared by: Crabtree Group, Inc.

Owner: Salida Bottling Co., LLC January 18, 2020 **Unit Cost** Description **Total Cost** Qnty Unit **BASE ITEMS** LF 1 193 FURNISH AND INSTALL CURB AND GUTTER PER CDOT ACCESS PERMIT \$ 60.00 11,580.00 2 31 SY FURNISH AND INSTALL DRIVEWAY PER CDOT ACCESS PERMIT \$ 80.00 \$ 2,480.00 FURNISH AND INSTALL 4" CONCRETE SIDEWALK OVER 4" CDOT CLASS 6 3 107 SY AGGREGATE BASE COURSE 70.00 7.490.00 4 EΑ PLUG EXISTING SEWER SERVICE LINE AT MAIN 1,000.00 \$ 1,000.00 1 FURNISH AND INSTALL SANITARY SEWER MANHOLE ON EXISTING 5 1 EΑ SEWER MAIN (PUBLIC) 8,000.00 8,000.00 6 40 LF FURNISH AND INSTALL 6" SEWER LINE (PRIVATE, TO PROPERTY LINE) 80.00 3,200.00 \$ 7 EΑ REMOVE AND DISPOSE OF EXISTING WATER SERVICE ASSEMBLY 1,000.00 \$ 1,000.00 1 REMOVE AND DISPOSE OF EXISTING 8"X4" REDUCER \$ 500.00 8 1 EΑ 500.00 \$ \$ **CONNECT TO EXISTING 8" TEE** 1,000.00 1,000.00 9 1 EΑ 10 318 LF FURNISH AND INSTALL 8" WATER MAIN \$ 75.00 23,850.00 \$ 11 EΑ RECONNECT EXISTING WATER SERVICE 800.00 5,600.00 4 12 EΑ FURNISH AND INSTALL 3/4" RESIDENTIAL WATER SERVICE ASSEMBLY 2,000.00 8,000.00 FURNISH AND INSTALL 3/4" RESIDENTIAL WATER SERVICE ASSEMBLY 13 6 EΑ WITH DUAL METER PIT 3,000.00 18,000.00 EΑ FURNISH AND INSTALL FIRE HYDRANT ASSEMBLY \$ 7,000.00 \$ 7,000.00 14 1 \$ 15 FURNISH AND INSTALL 8" GATE VALVE 1,200.00 1,200.00 1 EΑ EΑ FURNISH AND INSTALL 8"X4" REDUCER \$ 1,000.00 1,000.00 16 1 CONNECT TO EXISTING 4" WATER MAIN \$ 800.00 17 1 EΑ 800.00 \$ 570 ASPHALT PATCHING PER CDOT STANDARDS 50.00 28,500.00 18 SY TRAFFIC CONTROL \$ 25,000.00 25,000.00 19 LS SUBTOTAL 155,200.00 WITH 25% CONTINGENCY 194,000.00 ALLEY PAVING 20 225 FURNISH AND INSTALL 4' CONCRETE DRAINAGE PAN 65.00 14,625.00 LF 6" CONCRETE DRIVEWAY OVER 6" CDOT CLASS 6 AGGREGATE BASE 21 30 SY COURSE \$ 80.00 2,400.00 FURNISH AND INSTALL 3" ASPHALT OVER 6" CDOT CLASS 6 AGGREGATE 22 400 SY 35.00 14,000.00 SUBTOTAL 31,025.00

WITH 25% CONTINGENCY

38,781.25

Salida Bottling Co - Public Improvements Schedule Prepared 12/21/21

1100010012/21/21			Week Starting:	5/2/2022	5/8/2022	/17	5/20/2022	5/26/2022	6/1/2022	6/7/2022	6/13/2022	6/19/2022	6/25/2022	7/1/2022	7/7/2022	7/13/2022	7/19/2022	7/25/2022	7/31/2022	8/6/2022
Item	Notes	Start	End		Ν	May-2	22			J	un-2					Jul	-22			
Sanitary sewer	Manhole and 6" pipe into site	5/2/2022	5/7/2022	Χ																
Water main upsize and services		5/8/2022	5/22/2022		Х	х	Х													
Concrete	Curb, driveway, and sidewalk in highway right of way	5/23/2022	6/3/2022					Х	Х											
asphalt patching		6/4/2022	6/20/2022								Х	X								
	Add one month for alley paving if required																			

Region 5 Traffic Section 3803 North Main Avenue, Suite 100 Durango, Colorado

Permit No. 521066

November 30, 2021

Eric Warner Salida Bottle Company, LLC 777 Dunlavy Street, Apt 8204 Houston, Texas 77019

### Dear Permittee:

- 1. Please review the attached State Highway Access Permit (Form #101) and all enclosed attachments.
- 2. If you choose NOT to act on the permit, please return the permit unsigned.
- 3. If you wish to APPEAL the Terms and Conditions of the permit, please refer to the attached Form 101, Pages 2 and 3 for an explanation of the appeal procedures.
- 4. If you ACCEPT the Permit and its Terms and Conditions and are authorized to sign as legal owner of the property or as an authorized representative, please sign and date the Access Permit form on the line marked "PERMITTEE". Your signature confirms your agreement to all the listed Terms and Conditions.
- 5. Provide a check or money order made payable to CDOT for the total amount due of \$100.00.
- 6. You must return the signed Access Permit signature pages, including the permit face page (Form #101) and the final page of the terms and conditions, with your payment to the Colorado Department of Transportation (CDOT) at the address noted below. The Department will return an executed copy of this permit.
- 7. If you fail to sign and return the attached Access Permit within 60 days of the date of this transmittal letter, Colorado Department of Transportation will consider this permit withdrawn.
- 8. As described in the attached Terms and Conditions, you must make a written request to obtain a Notice to Proceed. DO NOT begin any work within the State Highway Right-of-Way without a validated Access Permit and Notice to Proceed. Use of this permit without the Colorado Department of Transportation's validation shall be considered a violation of State Law.

If you have any questions, please call Randee Reider at (970) 385-3626.

Please return Access Permit and attachments to:

Region 5 Traffic Section 3803 North Main Avenue, Suite 100 Durango, Colorado

STATE HIGHWAY	521066	238								
					State Highway No / Mp / Si 291A / 1.237 / Let					
Permit Fee \$100.00	Dat	e of Transmittal 11/30/21	Region / Section / Patrol / 5 / 07 / 17	/ Name	Local Jurisdiction Salida					
The Permittee(s):		7	Γhe Applicant(s):							
Eric Warner Salida Bottle Company, LLC 777 Dunlavy Street Apt 8204 Houston, Texas 77019 (832) 294-1354										
is hereby granted permission to have an access to the state highway at the location noted below. The access shall be constructed, maintained and used in accordance with this permit, including the State Highway Access Code and any attachments, terms, conditions and exhibits. This permit may be revoked by the Issuing Authority if at any time the permitted access and its use violate any parts of this permit. The issuing authority, the Department and their duly appointed agents and employees shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise of the permit.										
Location: 240 feet south of "I" S	treet and 1,′	120 feet north of milepo	st 1.							
Access to Provide Service to:	(Land Use C	ode)	(	(Size)	(Units)					
	814 - Var	iety Store	;	740	SQ. FT.					
	220 - Mul	tifamily Housing (Low	r-Rise)	16	EACH					
	TOTAL:		•	13	DHV					
Additional Information:  * See attached pages 2-3 of Form 101, and all other attachments, enclosures, and exhibits for additional terms and conditions. *										
MUNICIPALITY OR COUNTY Required only when the appro			uing authority.							
Signature N/A	Print N	Name	Date		Title					
Upon the signing of this permit the permittee agrees to the terms and conditions and referenced attachments contained herein. All construction shall be completed in an expeditious and safe manner and shall be finished within 45 days from Initiation. The permitted access shall be completed in accordance with the terms and conditions of the permit prior to being used.										
The permittee shall contact the Region 5 Access Manager with the Colorado Department of Transportation, at (970) 385-3626 at least thirty (30) days prior to beginning any work within the CDOT right-of-way or beginning the permitted use(s).										
The person signing as the permittee must be the owner or legal representative of the property served by the permitted access and have full authority to accept the permit and its terms and conditions.										
Permittee Signature  Encountry  Encountry  Print Name  Encountry  Encountry				Date 12/8/2021   5:22 PM CST						
Applicant Signature		Print Name		Date						
This permit is not valid until sig			sentative of the Depar	rtment.						
Signature	Print Name		Title		Date (of issue)					

CDOT Permit No.

### State Highway Access Permit Form 101, Page 2

The following paragraphs are excerpts of the State Highway Access Code. These are provided for your convenience but do not alleviate compliance with all sections of the Access Code. A copy of the State Highway Access Code is available from your local issuing authority (local government) or the Colorado Department of Transportation (Department). When this permit was issued, the issuing authority made its decision based in part on information submitted by the applicant, on the access category which is assigned to the highway, what alternative access to other public roads and streets is available, and safety and design standards. Changes in use or design not approved by the permit or the issuing authority may cause the revocation or suspension of the permit.

### **APPEALS**

- 1. Should the permittee or applicant object to the denial of a permit application by the Department or object to any of the terms or conditions of a permit placed there by the Department, the applicant and permittee (appellant) have a right to appeal the decision to the [Transportation] Commission [of Colorado]. To appeal a decision, submit a request for administrative hearing to the Transportation Commission of Colorado within 60 days of transmittal of notice of denial or transmittal of the permit for signature. Submit the request to the Transportation Commission of Colorado, 4201 East Arkansas Avenue, Denver, Colorado 80222-3400. The request shall include reasons for the appeal and may include changes, revisions, or conditions that would be acceptable to the permittee or applicant.
- 2. Any appeal by the applicant or permittee of action by a local issuing authority shall be filed with the local authority and be consistent with the appeal procedures of the local authority.
- 3. In submitting the request for administrative hearing, the appellant has the option of including within the appeal a request for a review by the Department's internal administrative review committee pursuant to [Code] subsection 2.10. When such committee review is requested, processing of the appeal for formal administrative hearing, 2.9(5) and (6), shall be suspended until the appellant notifies the Commission to proceed with the administrative hearing, or the appellant submits a request to the Commission or the administrative law judge to withdraw the appeal. The two administrative processes, the internal administrative review committee, and the administrative hearing, may not run concurrently.
- 4. Regardless of any communications, meetings, administrative reviews or negotiations with the Department or the internal administrative review Committee regarding revisions or objections to the permit or a denial, if the permittee or applicant wishes to appeal the Department's decision to the Commission for a hearing, the appeal must be brought to the Commission within 60 days of transmittal of notice of denial or transmittal of the permit.

### PERMIT EXPIRATION

1. A permit shall be considered expired if the access is not under construction within one year of the permit issue

date or before the expiration of any authorized extension When the permittee is unable to commence construction within one year after the permit issue date, the permittee may request a one year extension from the issuing authority. No more than two one-year extensions may be granted under any circumstances. If the access is not under construction within three years from date of issue the permit will be considered expired. Any request for an extension must be in writing and submitted to the issuing authority before the permit expires. The request should state the reasons why the extension is necessary, when construction is anticipated, and include a copy of page 1 (face of permit) of the access permit. Extension approvals shall be in writing. The local issuing authority shall obtain the concurrence of the Department prior to the approval of an extension, and shall notify the Department of all denied extensions within ten days. Any person wishing to reestablish an access permit that has expired may begin again with the application procedures. An approved Notice to Proceed, automatically renews the access permit for the period of the Notice to Proceed.

### CONSTRUCTION

- 1. Construction may not begin until a Notice to Proceed is approved. (Code subsection 2.4]
- 2. The construction of the access and its appurtenances as required by the terms and conditions of the permit shall be completed at the expense of the permittee except as provided in subsection 2.14. All materials used in the construction of the access within the highway right-of-way or on permanent easements, become public property. Any materials removed from the highway right-of-way will be disposed of only as directed by the Department. All fencing, guard rail, traffic control devices and other equipment and materials removed in the course of access construction shall be given to the Department unless otherwise instructed by the permit or the Department inspector.
- 3. The permittee shall notify the individual or the office specified on the permit or Notice to Proceed at least two working days prior to any construction within state highway right-of-way. Construction of the access shall not proceed until both the access permit and the Notice to Proceed are issued. The access shall be completed in an expeditious and safe manner and shall be finished within 45 days from initiation of construction within the highway right-of-way. A construction time extension not to exceed 30 working days may be requested from the individual or office specified on the permit.
- 4. The issuing authority and the Department may inspect the access during construction and upon completion of the access to ensure that all terms and conditions of the permit are met. Inspectors are authorized to enforce the conditions of the permit during construction and to halt any activities within state right-of-way that do not comply with the provisions of the permit, that conflict with concurrent highway construction or maintenance work, that endanger highway property, natural or cultural resources protected by law, or the health and safety of workers or the public.
- 5. Prior to using the access, the permittee is required to complete the construction according to the terms and conditions of the permit. Failure by the permittee to abide

by all permit terms and conditions shall be sufficient cause for the Department or issuing authority to initiate action to suspend or revoke the permit and close the access. If in the determination of the Department or issuing authority the failure to comply with or complete the construction requirements of the permit create a highway safety hazard, such shall be sufficient cause for the summary suspension of the permit. If the permittee wishes to use the access prior to completion, arrangements must be approved by the issuing authority and Department and included in the permit. The Department or issuing authority may order a halt to any unauthorized use of the access pursuant to statutory and regulatory powers. Reconstruction or improvement of the access may be required when the permittee has failed to meet required specifications of design or materials. If any construction element fails within two years due to improper construction or material specifications, the permittee shall be responsible for all repairs. Failure to make such repairs may result in suspension of the permit and closure of the access.

- 6. The permittee shall provide construction traffic control devices at all times during access construction, in conformance with the M.U.T.C.D. as required by section 42-4-104, C.R.S., as amended.
- 7. A utility permit shall be obtained for any utility work within highway right-of-way. Where necessary to remove, relocate, or repair a traffic control device or public or private utilities for the construction of a permitted access, the relocation, removal or repair shall be accomplished by the permittee without cost to the Department or issuing authority, and at the direction of the Department or utility company. Any damage to the state highway or other public right-of-way beyond that which is allowed in the permit shall be repaired immediately. The permittee is responsible for the repair of any utility damaged in the course of access construction, reconstruction or repair.
- 8. In the event it becomes necessary to remove any rightof-way fence, the posts on either side of the access shall be securely braced with an approved end post before the fence is cut to prevent any slacking of the remaining fence. All posts and wire removed are Department property and shall be turned over to a representative of the Department.
- 9. The permittee shall ensure that a copy of the permit is available for review at the construction site at all times. The permit may require the contractor to notify the individual or office specified on the permit at any specified phases in construction to allow the field inspector to inspect various aspects of construction such as concrete forms, subbase, base course compaction, and materials specifications. Minor changes and additions may be ordered by the Department or local authority field inspector to meet unanticipated site conditions.
- 10. Each access shall be constructed in a manner that shall not cause water to enter onto the roadway or shoulder, and shall not interfere with the existing drainage system on the right-of-way or any adopted municipal system and drainage plan..
- 11. By accepting the permit, permittee agrees to save, indemnify, and hold harmless to the extent allowed by law,

the issuing authority, the Department, its officers, and employees from suits, actions, claims of any type or character brought because of injuries or damage sustained by any person resulting from the permittee's use of the access permit during the construction of the access.

### CHANGES IN ACCESS USE AND PERMIT VIOLATIONS

- 1. It is the responsibility of the property owner and permittee to ensure that the use of the access to the property is not in violation of the Code, permit terms and conditions or the Act. The terms and conditions of any permit are binding upon all assigns, successors-in-interest, heirs and occupants. If any significant changes are made or will be made in the use of the property which will affect access operation, traffic volume and or vehicle type, the permittee or property owner shall contact the local issuing authority or the Department to determine if a new access permit and modifications to the access are required.
- 2. When an access is constructed or used in violation of the Code, section 43-2-147(5)(c), C.R.S., of the Act applies. The Department or issuing authority may summarily suspend an access permit and immediately order closure of the access when its continued use presents an immediate threat to public health, welfare or safety. Summary suspension shall comply with article 4 of title 24, C.R.S.

### **MAINTENANCE**

1. The permittee, his or her heirs, successors-in-interest, assigns, and occupants of the property serviced by the access shall be responsible for meeting the terms and conditions of the permit, the repair and maintenance of the access beyond the edge of the roadway including any cattle guard and gate, and the removal or clearance of snow or ice upon the access even though deposited on the access in the course of Department snow removal operations. Within unincorporated areas the Department will keep access culverts clean as part of maintenance of the highway drainage system. However, the permittee is responsible for the repair and replacement of any accessrelated culverts within the right-of-way. Within incorporated areas, drainage responsibilities for municipalities are determined by statute and local ordinance. The Department will maintain the roadway including auxiliary lanes and shoulders, except in those cases where the access installation has failed due to improper access construction and/or failure to follow permit requirements and specifications in which case the permittee shall be responsible for such repair. Any significant repairs such as culvert replacement, resurfacing, or changes in design or specifications, requires authorization from the Department.

Form 101, Page 3

### **State Highway Access Permit**

Page - 101a

### **Worker Safety and Health**

All workers within the State Highway right of way shall comply with their employer's safety and health policies/procedures, and all applicable U.S. Occupational Safety and Health Administration (OSHA) regulations – including, but not limited to the applicable sections of 29 CFR Part 1910 – Occupational Safety and Health Standards and 29 CFR Part 1926 – Safety and Health Regulations for Construction.

Personal protective equipment (e.g. head protection, footwear, high visibility apparel, safety glasses, hearing protection, respirators, gloves, etc.) shall be worn as appropriate for the work being performed, and as specified in regulation. At a minimum, all workers in the State Highway right of way, except when in their vehicles, shall wear the following personal protective equipment:

- Head protection that complies with the ANSI Z89.1-1997 standard;
- At all construction sites or whenever there is danger of injury to feet, workers shall comply with OSHA's PPE requirements for foot protection per 29 CFR 1910.136, 1926.95, and 1926.96;
- High visibility apparel as specified in the Traffic Control provisions of this permit (at a minimum, ANSI/ISEA 107-1999, Class 2).

Where any of the above-referenced ANSI standards have been revised, the most recent version of the standard shall apply.

### **Environmental Clearance**

It is the applicant's responsibility to contact the appropriate agencies and obtain all environmental clearances that apply to their activities. Such clearances may include but are not limited to Corps of Engineers 404 Permits or Colorado Discharge Permit System permits, or ecological, archeological, historical, or cultural resource clearances. The CDOT Environmental Clearances Information Summary presents contact information for agencies administering certain clearances and information about prohibited discharges; copy attached.

## $\frac{\text{LEVEL 2 - ACCESS PERMIT TERMS \& CONDITIONS}}{FULL\text{-}MOVEMENT ACCESS}$

### A. PERMIT REQUIREMENTS SPECIFIC TO THIS ACCESS:

- 1. <u>Permit Number 521066</u> is issued by the Colorado Department of Transportation (CDOT) in accordance with the 1998 Access Code and is based upon the information submitted by the Permittee.
  - a. Any changes in the herein permitted type and use and/or volume of traffic using the access, drainage, or other operational aspects shall render this permit void, requiring that a new application be submitted for review based upon currently existing and anticipated future conditions.
  - b. Upon completion of the improvements identified in this permit, Permit Number 521066 shall replace and void all previous access permits for this location.
  - c. If the requirements of this Permit are not satisfied or this Permit expires, the access rights will revert to the access permit issued prior to this permit. If there is no valid prior permit then the access rights and uses shall revert to the historic use.
  - d. This permit is not valid unless the land uses enumerated herein have been approved by the local (City/County) Planning Authority.
- 2. Permit Number <u>521066</u> is issued for the <u>reconstruction and continued use</u> of:
  - a. A <u>Paved full-movement</u> access to <u>State Highway 291</u> for <u>Salida Bottle Company</u>, <u>LLC at approximate mile marker 1.237 Right</u>
- 3. The access shall be <u>Paved a distance of 20 feet</u> from the edge of traveled way and gravel surfaced any remaining distance within State Highway ROW. The access shall have a width of <u>24 feet</u> and be <u>constructed according to M-609-1, Type 3, see attached</u>.
- 4. The access shall be <u>perpendicular</u> to the travel lanes of the State Highway for a minimum distance of <u>40 feet from the edge of pavement or to the ROW</u>, <u>whichever is furthermost</u>, and beyond the back of sidewalk shall not exceed <u>eight percent (8%)</u> grade up or down to the ROW line.
- 5. <u>Temporary Traffic Control, with prior written approval by CDOT,</u> is required at all times during construction of the access in accordance with a <u>Traffic Control Plan (TCP)</u>. The TCP <u>shall be developed and implemented</u> by a <u>Traffic Control Supervisor (TCS) certified</u> by the <u>American Traffic Safety Services Association (ATSSA)</u> or the <u>Colorado Contractors Association (CCA).</u>
- 6. The category for this section of <u>SH 291</u> is <u>NR-C.</u> The access shall be in conformance with the State of Colorado State Highway Access Code, Volume Two, Code of Colorado Regulations 601-1, August 31, 1998 as amended.

- 7. The access shall serve a tract of land located at street address 323 West First Street, Salida, Colorado, 81201, parcel number 368132419160. The location of the access is shown in **EXHIBIT "A" (Location Map)**.
- 8. Incorporated as part of this permit are the following:
  - a. State Highway Access Permit pages 1-3 and Page 101a
  - b. Access Permit Terms and Conditions Pages 1 through 12
  - c. **EXHIBIT "A,"** (Location Map)
  - d. **EXHIBIT "B,"** (Traffic Control Typical Application)
  - e. CDOT M&S Standards M-208-1, M-210-1, M-608-1, and M-609-1, <u>Type 3</u>.
  - f. CDOT Late Fall, Winter and Spring Special Provisions for Access Construction and Utility Installations
  - g. CDOT Environmental Clearances Information Summary
  - h. Water Quality Program Summary
  - State Highway Access Permit Application (CDOT Form No. 137) received <u>November 2</u>, 2021
- 9. This Permit describes the access and improvements that will serve the following land uses:
  - a. 16 Townhomes (ITE Code 220)
  - b. 740 sq. ft. General Retail (ITE Code 814)

### Total – 13 DHV

- 10. For the Access Category of **NR-C**, the vehicular volumes using this access shall not exceed the following:
  - a. An average Peak Hour Volume of <u>25 left-turning entrance movements</u> from the State Highway into the access.
  - b. An average Peak Hour Volume of **50 right-turning entrance movements** from the State Highway into the access.
- 11. A passenger car equivalent of <u>two (2)</u> for <u>each vehicle or combination at or over 20 feet in length but less than 40 feet</u> and a passenger car equivalent of <u>three (3)</u> shall be used for <u>each bus and all trucks and combination at or over 40 feet in length or longer</u> when determining the volumes listed above.
- 12. Any changes in the type, use and/or volume of traffic using the access in excess of the values stated above will require a new permit and will require the installation of warranted access improvements within the earliest construction season. Such improvements include but are not limited to:
  - a. Increasing the access width
  - b. Increasing the access radii
  - c. Improving the access surfacing
  - d. Installing acceleration and deceleration lanes
  - e. A full width overlay of the State Highway corresponding to the start and end of the acceleration and deceleration lanes

- 13. Any future warranted highway improvements shall be designed and constructed by the Permittee or the property owner at no cost to CDOT.
- 14. Under no circumstances will the access be allowed to continue operation in an unsafe manner. Failure to provide the warranted improvements will result in closure of the access.
- 15. At the access location, <u>SH 291</u> has a posted speed limit of <u>25 mph</u> with less than approximate <u>6:1 foreslopes</u> and an Average Daily Traffic of <u>4,300</u> which correlates to a minimum Clear Zone of <u>14</u> feet from the edge of traveled way. The Permittee/Contractor shall take the minimum Clear Zone into consideration during the design and construction of the access.
- 16. Any damaged curb and gutter, sidewalk and abandoned curb cuts along the property adjacent to the State Highway shall be replaced as part of this project.
- 17. "Right-of-Way" means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel or the entire width of every way declared to be a public highway by any law of this state.
- 18. Internal site circulation and parking must be adequate to serve the land uses described here.
- 19. No backing into the Right-of-Way will be allowed under any circumstances.
- 20. No parking within the Right-of-Way will be allowed under any circumstances.
- 21. Both backing into the Right-of-Way and parking within the Right-of-Way are considered to be traffic offenses and can be ticketed by any law enforcement officer of the jurisdiction in which the access is located.
- 22. Any violation of the above provisions may be grounds for revocation by the Department of this access permit and may result in physical closure of the access.

### B. REQUIREMENTS PRIOR TO NOTICE-TO-PROCEED (NTP) FOR CONSTRUCTION:

- 1. The Permittee/Contractor must contact Ms. Randee Reider at phone number 970-385-3626 or via email at randee.reider@state.co.us to schedule a meeting with one of our inspectors thirty (30) working days prior to beginning any access improvements or construction of any kind within the highway Right-of-Way (ROW). Failure to comply with this condition may result in revocation of this permit.
- 2. It is the responsibility of the Permittee/Applicant to determine which <u>environmental</u> <u>clearances</u> and/or regulations apply to the project, and to obtain any clearances that are required directly from the appropriate agency. Please refer to "CDOT Environmental Clearance Information Summary" for details. <u>FAILURE TO COMPLY WITH REGULATORY</u>

## REQUIREMENTS MAY RESULT IN SUSPENSION OR REVOCATION OF THE CDOT ACCESS PERMIT, OR ENFORCEMENT ACTIONS BY OTHER AGENCIES.

- 3. A <u>written request for a Notice to Proceed</u> must be submitted to this issuing office along with the following items:
  - a. The Permittee shall provide <u>written approval</u> from the Local Authority for the proposed land use that will be served by the access. Granting of an access permit in no way implies CDOT concurrence or non-concurrence with the Permittee's proposed land use.
  - b. The Permittee/Contractor is required to provide comprehensive general liability and property damage insurance naming the Department (CDOT) as an additional insured party in the amounts of not less than \$1,000,000 per occurrence and automobile liability insurance of \$1,000,000 combined single limit bodily injury and property damage for each accident, during the period of access construction. By accepting the permit, Permittee agrees to save, indemnify, and hold harmless to the extent allowed by law, the Department, its officers, and employees from suits, actions, claims of any type or character brought because of injuries or damage sustained by any person resulting from the Permittee's use of the access permit during the construction of the access. CDOT shall be listed as "Additional Insured", and CDOT shall be listed as "Certificate Holder" on the Certificate of Insurance (COI). Copies of insurance coverage shall be submitted to the Region 5 Access Manager prior to the issuing of the NTP. A copy of the insurance policy is required to be available at the construction site at all times for inspection.
  - c. The <u>Traffic Control Supervisor (TCS)</u> shall provide a <u>Traffic Control Plan (TCP)</u> in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD). The <u>TCP shall be submitted</u> to the Region 5 Access Manager for review and acceptance <u>a minimum of ten (10) working days prior to the desired implementation date. Exhibit "C,"</u> provides a typical application from the MUTCD as a basis for developing the TCP. If construction of the access improvements involves a Traffic Control application that differs from <u>Exhibit "C,"</u> the <u>TCS</u> shall submit a new TCP for review and acceptance. Traffic Control of any nature will not be allowed unless authorized in writing by CDOT.

### C. GENERAL DESIGN REQUIREMENTS:

- 1. **<u>Design of improvements</u>** within the highway ROW shall be in compliance with the most current editions of the following manuals and documents except as indicated:
  - a. CDOT Design Guide
  - b. CDOT Drainage Design Manual
  - c. CDOT Standard Plans M&S Standards
  - d. AASHTO Roadside Design Guide
  - e. AASHTO Policy on Geometric Design of Highways and Streets
  - f. CDOT Standard Specifications for Road and Bridge Construction

- g. CDOT Standard Special Provisions
- h. Manual on Uniform Traffic Control Devices (MUTCD)
- i. 1998 State Highway Access Code, Volume 2, Code of Regulations 601-1, as amended
- j. ITE Traffic Engineering Handbook
- k. ITE Trip Generation Manual, 6th Edition
- 1. 2011 CDOT CAD Manual

## 2. No grading, construction, structures or toes of slopes necessary for site development shall be placed within CDOT ROW.

- 3. Permittee is required to comply with the <u>Americans with Disabilities Act Accessibility Guidelines (ADAAG)</u> that have been adopted by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), and incorporated by the U.S. Attorney General as a federal standard. These guidelines are defining traversable slope requirements and prescribing the use of a defined pattern of truncated domes as detectable warnings at street crossings. The current Standard Plans reflect these requirements.
- 4. It is the responsibility of the Permittee/Applicant to determine which <u>environmental clearances</u> and/or regulations apply to the project, and to obtain any clearances that are required directly from the appropriate agency. Please refer to "CDOT Environmental Clearance Information Summary" for details. <u>FAILURE TO COMPLY WITH REGULATORY REQUIREMENTS MAY RESULT IN SUSPENSION OR REVOCATION OF THE CDOT ACCESS PERMIT, OR ENFORCEMENT ACTIONS BY OTHER AGENCIES.</u>
- 4. ALL discharges are subject to the provisions of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations. Prohibited discharges include substances such as: wash water, paint, automotive fluids, solvents, oils or soaps.
- 5. Unless otherwise identified by CDOT or the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD) as not being a source of pollutants to the waters of the State, the following discharges to storm water systems are allowed without a Colorado Discharge Permit System permit: landscape irrigation, diverted stream flows, uncontaminated ground water infiltration to separate storm sewers, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, footing drains, water line flushing, flows from riparian habitats and wetlands, and flow from fire fighting activities, and water incidental to street sweeping (including associated sidewalks and medians) and that is not associated with construction. Discharges from these sources may still require separate CDPS permit coverage to be obtained by the discharger.
- 6. ANY OTHER DISCHARGES may require Colorado Discharge Permit(s) or separate permits from CDPHE or the appropriate agency before work begins. For additional information and forms, go to the CDPHE website at: <a href="http://www.cdphe.state.co.us/wq/PermitsUnits/wqcdpmt.html">http://www.cdphe.state.co.us/wq/PermitsUnits/wqcdpmt.html</a> or contact the CDOT Water Quality Program Manager at 303-757-9343.

7. Discharges may also be subject to additional State and Local restrictions, such as MS4 (Municipal Separate Storm Water Sewerage Systems) requirements for permanent sediment control, TMDL (Total Maximum Daily Limit), TMAL (Total Maximum Annual Limit) or discharge.

### D. DRAINAGE DESIGN REQUIREMENTS:

- 1. No site drainage from the constructed access shall enter onto the traveled way of the highway.
- 2. Drainage to the State Highway Right-of-Way shall not exceed the historical undeveloped rate of flow.
- 3. If the State Highway includes a drainage ditch at the proposed access location, the Permittee shall install a minimum of an 18" Corrugated Steel Pipe side drain culvert for drainage. The side drain culvert shall include steel end sections at both ends. The access drainage requirements to include the required side drain culvert size shall be discussed with the CDOT Maintenance representative prior to any construction of the access.
- 4. Required Cross Culverts under the State Highway, Side Drain Culverts under the Access, Curb, Gutter, Inlets, Sidewalk and Driveways shall conform to CDOT Standards and facilitate proper drainage along the State Highway.

### E. PAVEMENT DESIGN REQUIREMENTS:

- 1. Materials shall conform with:
  - a. Section 304 Aggregate Base Course (ABC) Class 6, with resistance values of at least 70 and 76 respectively when tested by the Hveem Stabilometer method.
  - b. Section 403 Hot Mix Asphalt Grading S or SX, PG 58-28.
  - c. Section 412 & 601 Concrete Pavement Class P or D = 4,500 psi
- 2. Unless a pavement design is submitted, pavements shall conform to the following compacted thicknesses:
  - a. Hot Mix Asphalt (HMA) Pavement
    - i. HMA- 4 inches on the Access. Any pavement replaced on the State Highway shoulder shall match the existing pavement thickness.
    - ii. ABC (Class 6)- 6 inches
  - iii. ABC (Class 1 or 2)- 12 inches
  - b. Concrete Pavement
    - i. Concrete- 6 inches
    - ii. ABC (Class 6)- 6 inches

### F. GENERAL CONSTRUCTION REQUIREMENTS:

- 1. A COPY OF THIS PERMIT AND THE VALIDATED NOTICE TO PROCEED MUST BE ON THE JOB WITH THE CONTRACTOR AT ALL TIMES OR ANY WORK ONSITE AND OFFSITE WILL BE ORDERED TO BE IMMEDIATELY SUSPENDED UNTIL THIS TERM IS COMPLIED WITH.
- 2. <u>Construction Activities</u> within the highway ROW shall be in compliance with the most current editions of the following manuals:
  - a. CDOT Standard Specifications for Road and Bridge Construction
  - b. CDOT Standard Special Provisions
  - c. CDOT Standard Plans M&S Standards
  - d. CDOT Construction Manual
  - e. CDOT Field Materials Manual
  - f. CDOT Laboratory Manual of Test Procedures
  - g. Manual on Uniform Traffic Control Devices (MUTCD) Part IV and the Colorado Supplement
  - h. **EXHIBIT "B,"** (Traffic Control Typical Application)
- 3. The Permittee/Contractor is responsible for obtaining any necessary additional <u>Federal, State</u> <u>and/or City/County permits or clearances</u> required for construction of the access. Approval of this access permit does not constitute verification of this action by the Permittee.
- 4. Any removal of existing fence, in excess of opening required for the access, or installation of a fence that is erected adjacent to the highway ROW requires a separate CDOT Fencing Agreement.
- 5. **Any landscaping** within CDOT ROW requires a separate **CDOT Landscaping Permit**.
- 6. **Any Utility work** within CDOT ROW requires a separate **CDOT Utility Permit**.
- 7. The Permittee will be responsible for <u>verification of existing utility locations</u>. The Permittee must notify owners or operators of <u>underground utility facilities</u> at least two (2) business days prior to beginning excavation in the vicinity of such facilities, as required under Section 9-1.5-103, Colorado Revised Statutes. <u>Call Utility Notification Center of Colorado</u> (UNCC), <u>811</u> or 1-800-922-1987 for marking of member utilities. Call non-member utilities directly.
- 8. The Permittee/Contractor shall coordinate access construction with any utility installations.
- 9. Any damage to utilities during construction shall be the Permittee's responsibility to repair or replace the utility at no cost to CDOT.
- 10. The Permittee/Contractor shall not make any changes to the access design without prior approval from the Region 5 Access Manager or other authorized Region 5 CDOT representative. If necessary, minor changes, corrections, and/or additions to this permit will be ordered by CDOT to meet unanticipated site conditions.

11. Any damage to any existing highway facilities shall be repaired by the Permittee prior to continuing other work.

### G. <u>SAFETY, WORKING TIMES AND</u> TRAFFIC CONTROL:

- 1. CDOT reserves the right to suspend any construction activities, to include Traffic Control, that interfere with the safe operation of the State Highway. Any such suspensions shall require a written plan of action detailing how the Permittee/Contractor will prevent further safety infractions prior to recommencing construction activities.
- 2. All equipment, materials or any other non-crashworthy item shall be stored outside the clear zone during non-working times.
- 3. Existing highway signs requiring removal within the limits of the construction activities shall be removed and delivered to the CDOT Maintenance Shop for storage and future replacement by the Permittee unless otherwise agreed to by CDOT and Permittee. Installation shall be as directed by CDOT.
- 4. The Permittee/Contractor will be responsible for keeping the State Highway travel lanes and shoulders clear of any mud or debris tracked onto it throughout construction of the access on a daily basis or as otherwise directed by CDOT.
- 5. The existing paved shoulder edge shall not be saw cut back until the future pavement is ready to be installed.
- 6. Any pavement drop-offs that will be left overnight shall be delineated with appropriate channelizing devices and any reasonably obtained lateral buffer space.
- 7. The Permittee/Contractor shall comply with Revision of Section 107.06 of the CDOT Specifications regarding Safety, Health, and Sanitation Provisions.
- 8. No work within the highway ROW will be allowed on Saturdays, Sundays, legal holidays, or during periods of adverse weather conditions.
- 9. All construction activities within the state highway ROW will not be allowed to begin before sunrise and shall be required to cease prior to sunset. Traffic Control operations may begin one half hour before sunrise and continue until one half hour after sunset.
- 10. No disruption of traffic flow will be allowed during the morning (7:00 AM to 8:30 AM) and evening (4:30 PM to 6:00 PM) peak hour traffic flows, unless otherwise authorized in writing by CDOT.

### H. <u>SPECIFIC CONSTRUCTION REQUIREMENTS:</u>

- 1. All existing ROW and survey control markers shall be protected during construction of this access. Any damage to these markers shall require resetting by a Colorado Professional Land Surveyor.
- 2. All <u>erosion control devices</u> shall be in place prior to the start of construction. Typical erosion control devices are shown in M-208-1.
- 3. For any **ROW fence** that must be removed, the posts on either side of the entrance must first be braced with an end post prior to cutting the fence as shown in M-607-1. Removed fencing material shall remain the property of CDOT and shall be given to the CDOT Maintenance representative.
- 4. If livestock animals roam freely within the property served by the access, the access shall close the break in the ROW fence with a gate conforming to CDOT Standard Plan M-607-1 or a Cattle Guard conforming to M-611-1. Gates shall be located so that the longest vehicle using the access can completely clear the highway when the gate is closed.
- 5. The Permittee/Contractor shall remove obstructions, clear and grub the proposed access location to the toe of fill or the top of cut. Cleared topsoil shall be stockpiled for final stabilization.
- 6. Prior to the placement of any fill, the surface to receive the fill shall be scarified a depth of 6 inches and compacted with moisture and density control. Any cut that shall subsequently receive Aggregate Base Course shall also be scarified and compacted in the same manner. Subsequent Fill shall also be constructed with moisture density control. The compaction shall conform to AASHTO T99 or AASHTO T180 as shown in the following table:

	AASHTO T99	AASHTO T180
Soil Classification	Percent Min.	Percent Min.
(AASHTO M 145)	Relative Compaction	Relative Compaction
A-1 through A-2-5	100	95
All others	95	90

- 7. Fill placed on slopes steeper than 4:1 shall be continuously benched into the existing slope.
- 8. Fill shall be placed in layers not to exceed 8 inches of loose material prior to compaction.
- 9. Fill material shall not have rock larger than 6 inches in diameter.
- 10. If a side drain culvert is required under the access fill, the fill shall first be constructed full width to a height of 1/3 the diameter of the culvert. The fill shall then be trenched for installation of the culvert. The trench width shall be the culvert diameter 18 inches on both sides. If the bottom of the trench is in rock, loose bedding material shall be 12 inches of Structure Backfill (Class I).

- 11. The culvert shall be installed with steel end sections and will connect the flowline of the roadside ditch crossing the access.
- 12. The culvert shall be backfilled with the same material and the same moisture density control as the rest of the fill. Backfill shall be brought up equally on both sides using 6 inch lifts of loose material prior to compaction.
- 13. Aggregate Base Course (ABC) shall be placed in layers not to exceed 6 inches once compacted. Compaction shall be 95% of AASHTO T180.
- 14. The final ABC shall have a smooth surface free of irregularities and any substance other than ABC.
- 15. The existing State Highway shoulder at the access location shall be saw cut a minimum of one (1) foot from the existing pavement edge to assure a straight edge for placement of adjacent pavement. If using asphalt pavement, the exposed vertical edge of the existing asphalt shall be coated with Emulsified Asphalt (Slow Setting).
- 16. For Hot Mix Asphalt (HMA) Pavement the following applies:
  - a. The ABC shall not be frozen and the air and ABC surface temperatures shall be 50 degrees Fahrenheit and rising.
  - b. The HMA shall be placed in layers not to exceed 2 inches compacted thickness.
  - c. Longitudinal joints between layers shall be offset by 6 inches and shall not be in the wheel path.
  - d. Any segregated areas shall be removed and replaced.
  - e. The Permittee/Contractor shall use rolling equipment to compact the HMA immediately after placement.
  - f. Compaction shall be 92 to 96 percent maximum theoretical density determined according to Colorado Procedure 51.
  - g. The finished surface shall be smooth and conform to the lines and grades shown in M-609-1.
- 17. For Concrete Pavement the following applies:
  - a. The ABC shall not be frozen and Concrete shall not be placed if the temperature is expected to fall below 45 degrees Fahrenheit or if the temperature of the delivered concrete is above 90 degrees.
  - b. The concrete shall conform to the approved mix design and additional water added at the delivery site shall not exceed the maximum water cement ratio.
  - c. The concrete shall be free of any foreign material.
  - d. Concrete shall be placed on the ABC to require as little rehandling as possible and vibrated to insure consolidation.
  - e. Concrete shall be struck off, screed, floated and finished in a manner that will leave a uniform surface of gritty texture. Additional water applied to the surface for finishing is not allowed.

- f. The finished surface shall be smooth and conform to the lines and grades shown in M-609-1.
- g. Immediately after finishing the entire concrete surface shall be cured by being kept moist with water and protected from the sun or sprayed uniformly with a membrane forming curing compound that is VOC compliant and meets AASHTO M148, Type 2.
- h. The curing period shall be a minimum of 120 hours (5 days). If the forms are removed prior to the end of the curing period, the exposed concrete sides shall be cured for the remainder of the curing period in the same manner as the rest of the concrete.
- i. Joints shall be constructed during the curing period to control cracking.
- j. The concrete shall not be subjected to traffic until it has reached a compressive strength of 3,000 psi.
- 18. Shouldering material shall be placed to eliminate any vertical edges upon completion of the paving.
- 19. If a <u>mailbox</u> is to be installed, it shall be crashworthy and conform to M-210-1. The mailbox shall be located as far from the edge of travel way as possible and allow for mail delivery vehicles to stop completely outside of the traveled way.

### I. FINAL STABILIZATION REQUIREMENTS:

- 1. <u>All areas disturbed</u> during the construction of the access <u>shall be immediately stabilized</u> upon completion of the access.
- 2. Break points at the top of cut slopes and in the bottom of ditches shall be rounded on construction for a pleasing appearance.
- 3. A minimum of 4 inches of topsoil shall be placed on all slopes which are to be seeded and mulched.
- 4. Soil preparation, seeding, and mulching shall be required within the ROW limits on all disturbed areas not surfaced. The following types and rates shall be used unless a separate Landscaping Permit states otherwise:

### **Seed Requirements:**

COMMON NAME	<b>BOTANICAL NAME</b>	LBS.
<u>PLS\ACRE</u>		
Western Wheatgrass (V. Arriba)	Pascopyrum Smithii	16
Slender Wheatgrass (V. San Luis)	Elymus Trachycaulus	6
Indian Ricegrass (V. Paloma)	Oryzopsis Hymenoides	6
Hard Fescue (V. Durar)	Festuca Ovina Duriuscula	6
Alsike Clover	Trifolium Hybridium	4
Sand Dropseed	Sporobolus Cryptandrus	0.50
Total lbs/acre		38.50

Permit Number 521066 State Highway 291 Milepost 1.237 Right Salida Bottle Company, LLC Access

Seed shall be mechanically drilled to a depth of 0.25 or 0.5 inches into the soil on slopes flatter than 3:1. Seed shall be broadcast on slopes 3:1 or steeper and raked into soil.

#### 5. Fertilizer Requirements:

Nutrient Type	<u>% AVAILABLE</u>	<u>LBS\ACRE</u>
Nitrogen:	18	45
Phosphorus:	46	115
T 1 11 1 1	1 1 000 401 1	

Fertilizer shall be incorporated to a depth of 2" to 4" into the topsoil.

6. <u>Mulching Requirements and Application:</u> 2 tons/acre straw mechanically crimped into soil on slopes flatter than 3:1. Place a soil retention blanket consisting of woven wood or straw coconut material on slopes 3:1 or steeper.

#### J. FINAL PROJECT ACCEPTANCE:

- 1. **<u>Final Project Acceptance</u>** will be by the Regional Transportation Director (RTD) or their authorized designee.
- 2. **Reconstruction or improvements** to the access will be required when the Permittee fails to meet the required design and/or materials specifications. If any construction element fails within two years of CDOT's final acceptance due to improper construction or materials, the Permittee is responsible for all such repairs.





#### 2003 Edition

#### 255

#### Notes for Figure 6H-6—Typical Application 6 Shoulder Work with Minor Encroachment

#### Guidance:

- 1. All lanes should be a minimum of 3 m (10 ft) in width as measured to the near face of the channelizing devices.
- 2. The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used.

#### Option:

- 3. For short-term use on low-volume, low-speed roadways with vehicular traffic that does not include longer and wider heavy commercial vehicles, a minimum lane width of 2.7 m (9 ft) may be used.
- 4. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely spaced channelizing devices, provided that the minimum lane width of 3 m (10 ft) is maintained.
- 5. Additional advance warning may be appropriate, such as a ROAD NARROWS sign.
- 6. Temporary traffic barriers may be used along the work space.
- 7. The shadow vehicle may be omitted if a taper and channelizing devices are used.
- 8. A truck-mounted attenuator may be used on the shadow vehicle.
- 9. For short-duration work, the taper and channelizing devices may be omitted if a shadow vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
- 10. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

#### **Standard:**

11. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

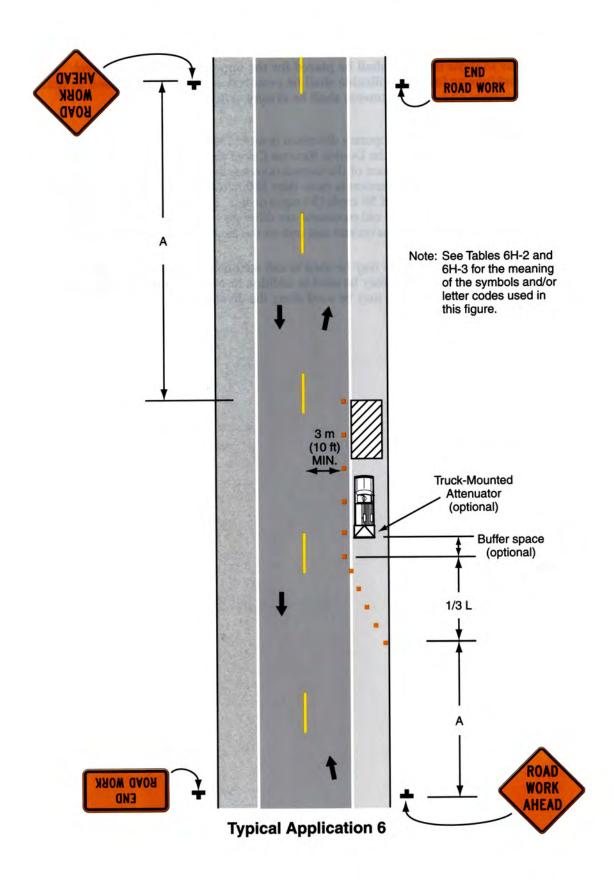
Sect. 6H.01 November 2003

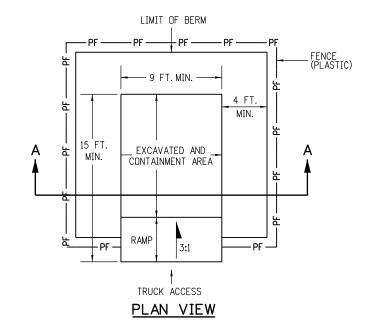
2003 Edition

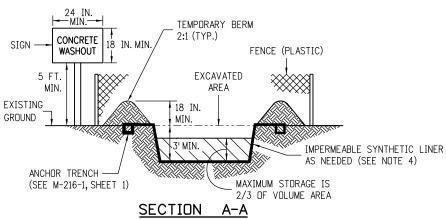
Traffic Control Typical Application - Exhibit "B"

Page 6H-17 256

#### Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)







#### NOTES:

Computer File Information

Full Path: www.codot.gov/business/designsupport

CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Initials: JBK

Initials: LTA

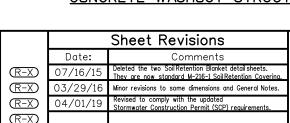
Creation Date: 07/04/12

Last Modification Date: 04/01/19

Drawing File Name: 2080101011.dgr

- 1. A FENCE (PLASTIC) CONFORMING TO SECTION 607 SHALL BE INSTALLED AROUND THE CONCRETE WASHOUT AREA, EXCEPT AT THE OPENING.
- 2. THE CONCRETE WASHOUT SIGN SHALL HAVE LETTERS AT LEAST 3 INCHES HIGH AND CONFORM TO SUBSECTION 630.02.
- 3. ALL MATERIALS AND LABOR TO COMPLETE THE CONCRETE WASHOUT STRUCTURE SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 4. THE BOTTOM OF EXCAVATION SHALL BE A MINIMUM OF FIVE FEET ABOVE GROUND WATER. IF NOT, THE BOTTOM OF EXCAVATION SHALL BE IN ACCORDANCE WITH 208.02 (j).
- 5. THE PAY ITEM NUMBER FOR CONCRETE WASHOUT STRUCTURE (EACH) IS 208-00045.

#### CONCRETE WASHOUT STRUCTURE



#### Colorado Department of Transportation



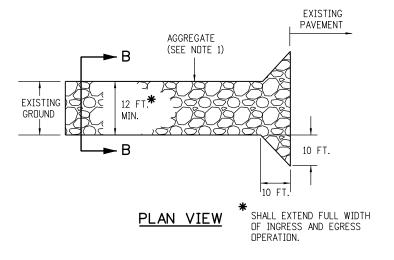
JBK/LTA Division of Project Support

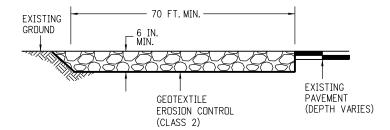
# **TEMPORARY**

STANDARD PLAN NO.

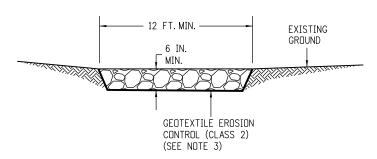
M-208-1

Sheet No. 1 of 11





#### **ELEVATION SECTION**



#### SECTION B-B

- 1. AGGREGATE SHALL CONFORM TO SUBSECTION 208.02 (1).
- 2. THE CONTRACTOR SHALL PROTECT CURB AND GUTTER THAT CROSSES THE ENTRANCE FROM DAMAGE, WHILE NOT BLOCKING FLOW OF WATER THRU STRUCTURE. PROTECTION OF THE CURB AND GUTTER SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 3. GEOTEXTILE SHALL CONFORM TO SUBSECTION 712.08.
- 4. ALL MATERIALS AND LABOR TO COMPLETE THE VEHICLE TRACKING PAD SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- 5. THE PAY ITEM NUMBER FOR VEHICLE TRACKING PAD (EACH) IS 208-00070.

VEHICLE TRACKING PAD

EROSION CONTROL
Issued By: Project Development Branch July 4, 2012

 $\mathbb{R}$ -X

 $\mathbb{R}$ -X

(R-X)

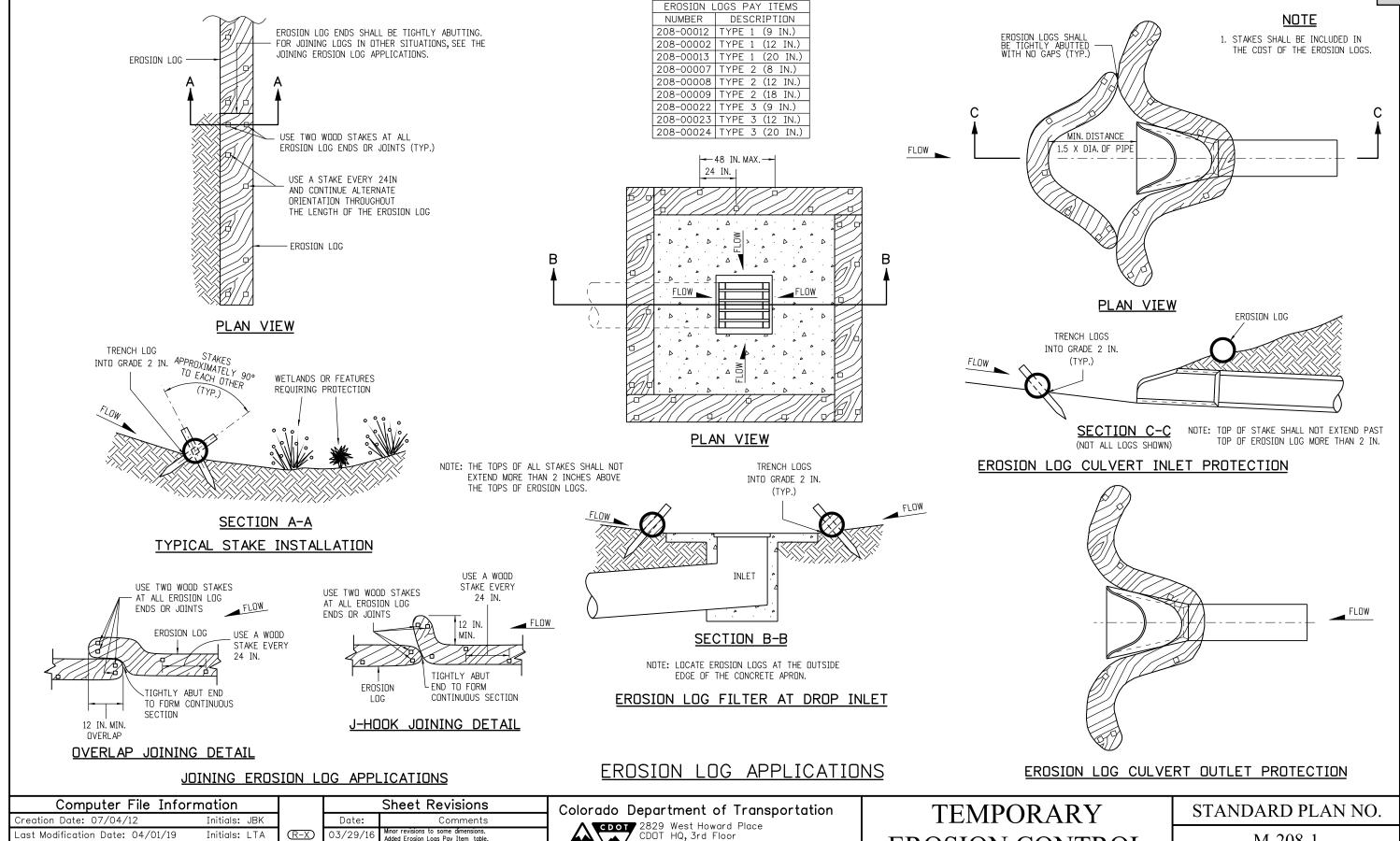
Full Path: www.codot.gov/business/designsupport

CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Drawing File Name: 2080102011.dgn

04/01/19





Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support

JBK/LTA

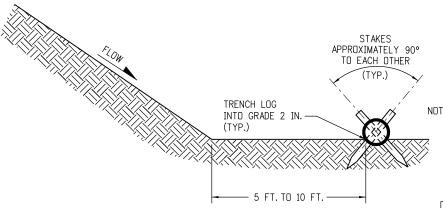
**EROSION CONTROL** 

Issued By: Project Development Branch July 4, 2012

M-208-1

Sheet No. 2 of 11

#### ISOMETRIC VIEW



NOTE: THE TOPS OF ALL STAKES SHALL NOT EXTEND MORE THAN 2 INCHES ABOVE THE TOPS OF EROSION LOGS.

#### SECTION A-A

EROSION LOG TOE OF SLOPE PROTECTION

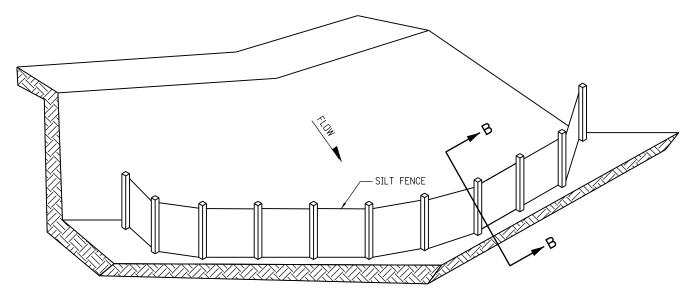
#### NUTES.

- 1. EROSION LOGS USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
- 2. EROSION LOGS SHALL BE PLACED ON THE CONTOUR WITH ENDS FLARED UP SLOPE.
- 3. SEE SHEET 2 OF 11 FOR JOINING LOGS DETAIL.

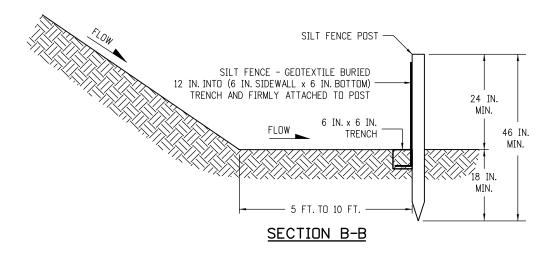
# EROSION LOGS PAY ITEMS NUMBER DESCRIPTION 208-00012 TYPE 1 (9 IN.) 208-00002 TYPE 1 (12 IN.) 208-00013 TYPE 1 (20 IN.) 208-00007 TYPE 2 (8 IN.) 208-00008 TYPE 2 (12 IN.) 208-00009 TYPE 2 (18 IN.) 208-00021 TYPE 3 (9 IN.) 208-00023 TYPE 3 (12 IN.) 208-00024 TYPE 3 (20 IN.)

#### <u>NOTES</u>

- 1. SILT FENCE SHALL HAVE A MAXIMUM DRAINAGE AREA OF ONE-QUARTER ACRE PER 100 FEET OF SILT FENCE LENGTH; MAXIMUM SLOPE LENGTH BEHIND BARRIER IS 100 FEET.
- 2. SILT FENCE USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
- 3. SILT FENCE SHALL BE PLACED PARALLEL TO THE CONTOUR WITH ENDS FLARED UP SLOPE.
- 4. THE MAXIMUM LENGTH OF EROSION LOGS OR SILT FENCES WITHOUT A FLARED END TURNING UPSLOPE IS 150 FEET.



#### ISOMETRIC VIEW



#### SILT FENCE TOE OF SLOPE PROTECTION

NOTE: THE PAY ITEM NUMBER FOR SILT FENCE (LF) IS 208-00020.

#### TOE OF SLOPE PROTECTION APPLICATIONS

Computer File Information		
Creation Date: 07/04/12 Initials: JBK		
Last Modification Date: 04/01/19 Initials: LTA		
Full Path: www.codot.gov/business/designsupport		
Drawing File Name: 2080103011.dgn		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English		

	Sheet Revisions		
	Date:	Comments	
(R-X)	03/29/16	Minor revisions to some dimensions. Added Erosion Logs Pav Item table.	
$\mathbb{R}$ -X	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
$\mathbb{R}$ -X			
(R-X)			

#### Colorado Department of Transportation



Division of Project Support JBK/LTA

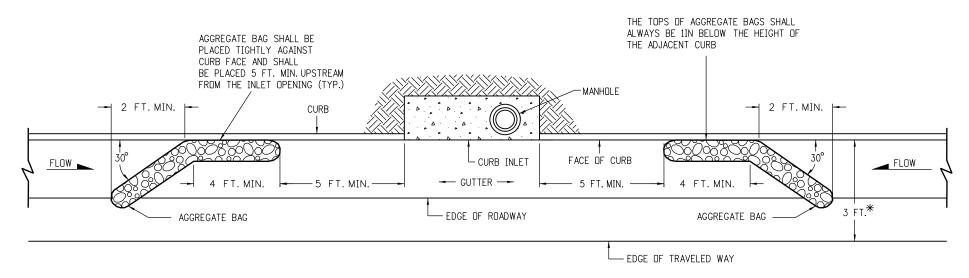
<b>TEMPORARY</b>
<b>EROSION CONTROL</b>

STANDARD PLAN NO.

M-208-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 3 of 11

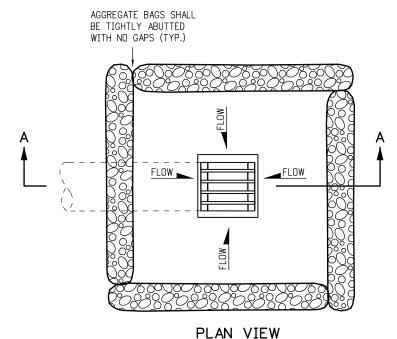


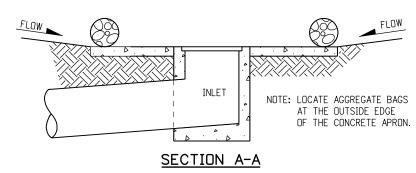
#### PLAN VIEW

\* NOTE: USE AGGREGATE BAGS ONLY WHEN THERE IS A MINIMUM CLEARANCE OF 3 FEET FROM THE EDGE OF THE TRAVELED WAY (INCLUDING CONDITIONS DURING DETOURS) TO THE FACE OF CURB.

LENGTH (L) OF INLET FT.	NUMBER OF AGGREGATE BAGS UPSTREAM OF INLET
0 - 5	1
6 - 10	2
L > 10	3

AGGREGATE BAGS AT STORM DRAIN INLET (TYPE I)





AGGREGATE BAGS AT DROP INLET

#### AGGREGATE BAG APPLICATIONS

NOTE: THE PAY ITEM NUMBER FOR AGGREGATE BAG (LF) IS 208-00035

Computer File Information		
Creation Date: 07/04/12 Initials: JBK		
Last Modification Date: 04/01/19 Initials: LTA		
Full Path: www.codot.gov/business/designsupport		
Drawing File Name: 2080104011.dgn	] (	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English		

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	03/29/16	Added some dimensions and Note.	
$\overline{R-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
$\overline{R-X}$			
$\overline{R-X}$			

#### Colorado Department of Transportation

JBK/LTA

CDOT 2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support

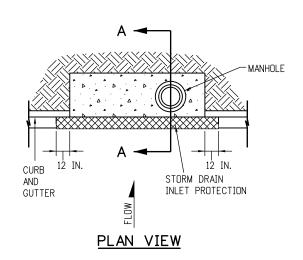
<b>TEMPORARY</b>
<b>EROSION CONTROL</b>

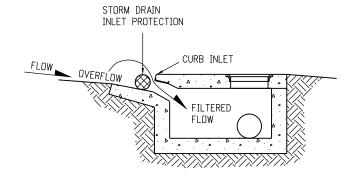
M-208-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 4 of 11

STANDARD PLAN NO.

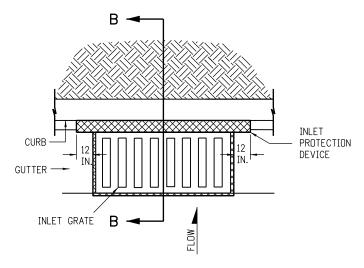




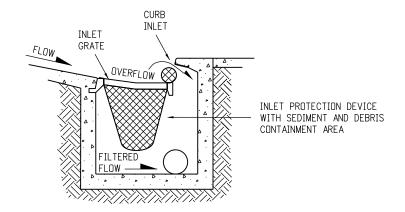
#### SECTION A-A STORM DRAIN INLET PROTECTION (TYPE I)

#### NOTES:

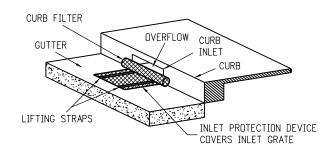
- 1. INLET PROTECTION DEVICE SHALL EXTEND 12 INCHES PAST EACH END
- 2. THE PAY ITEM NUMBERS FOR STORM DRAIN INLET PROTECTION (TYPE I) ARE 208-00051 (LF), 208-00053 84 INCHES (EACH), 208-00057 144 INCHES (EACH), AND 208-00058 204 INCHES (EACH).
- 3. FOR STORM DRAIN INLET TYPES I AND II, IF THERE IS A MINIMUM CLEARANCE OF 3 FEET FROM THE EDGE OF THE TRAVELED WAY TO THE FACE OF CURB, USE THE AGGREGATE BAGS AT STORM DRAIN INLET (TYPE I) DETAIL ON SHEET 4 INSTEAD.



#### PLAN VIEW



#### SECTION B-B OPTION A STORM DRAIN INLET PROTECTION (TYPE II)

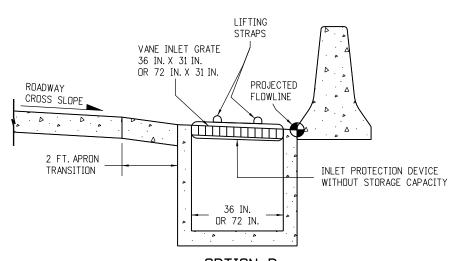


#### ISOMETRIC VIEW OPTION B STORM DRAIN INLET PROTECTION (TYPE II)

NOTE: THE PAY ITEM NUMBERS FOR STORM DRAIN INLET PROTECTION (TYPE II) ARE 208-00054 (EACH).

	VANE INLET GRATE 36 IN.X 31 IN. OR 72 IN.X 31 IN.		> .
ROADWAY CROSS SLOPE		PROJECTED FLOWLINE	> .
2 FT. APRON TRANSITION			OVERFLOW OPENING
INLET PROTECTION DEVICE WITH SEDIMENT AND DEBRIS CONTAINMENT AREA	36 II OR 72		
CTODM	OPTION IN ET D	<u>N A</u>	/TVDE II

STORM DRAIN INLET PROTECTION (TYPE III)



OPTION B STORM DRAIN INLET PROTECTION (TYPE III)

NOTE: THE PAY ITEM NUMBER FOR STORM DRAIN INLET PROTECTION (TYPE III) (EACH) IS 208-00056.

#### STORM DRAIN INLET PROTECTION TYPES

Computer File Information		
Creation Date: 07/04/12	Initials: JBK	
Last Modification Date: 04/01/19	Initials: LTA	
Full Path: www.codot.gov/business/de	ignsupport	
Drawing File Name: 2080105011.dgn		
CAD Ver.: MicroStation V8 Scale: Not to Sca	e Units: English	

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	03/29/16		
$\overline{R-X}$	08/10/17	Added new Pay Item numbers for Type I and II.	
$\overline{R-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
R-X			

Colorado Department of Transportation CDOT 2829 West Howard Place



CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868 JBK/LTA

Division of Project Support

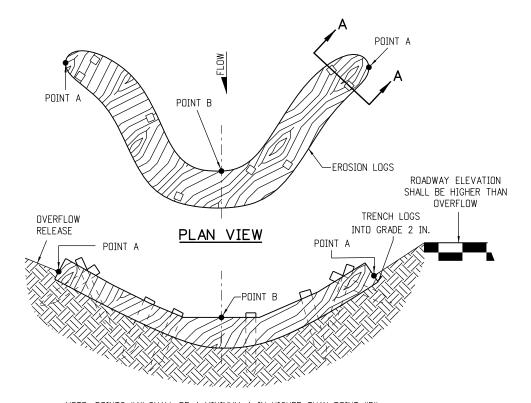
**TEMPORARY EROSION CONTROL** 

STANDARD PLAN NO.

M-208-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 5 of 11



NOTE: POINTS "A" SHALL BE A MINIMUM 4 IN. HIGHER THAN POINT "B".

#### ELEVATION

STAKES
APPROXIMATELY 90°
TO EACH OTHER

NOTE: THE TOPS OF ALL STAKES
SHALL NOT EXTEND MORE
THAN 2 INCHES ABOVE
THE TOPS OF EROSION LOGS.

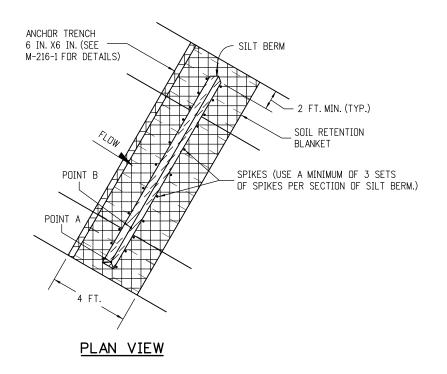
TRENCH LOGS
INTO GRADE 2 IN.

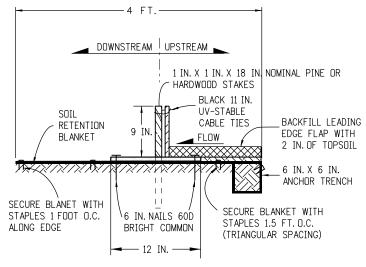
#### SECTION A-A

#### NOTES:

- 1. EROSION LOGS SHALL BE EMBEDDED 2 INCHES INTO THE SOIL.
- 2. EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.
- 3. V-SHAPED TEMPORARY DITCHES SHALL NOT BE USED. DITCHES SHAL BE GRADED IN A PARABOLIC OR TRAPEZOIDAL SHAPE.

#### EROSION LOG INSTALLATION

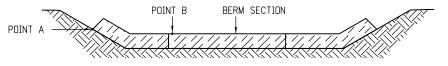




#### NULES.

- 1. MINIMUM 4 NAILS PER SEGMENT (UPSTREAM).
- 2. MINIMUM 2 NAILS PER SEGMENT (DOWNSTREAM).
- 3. MINIMUM 2 WOOD STAKES PER SEGMENT.

#### SILT BERM (2) SECTION VIEW



POINT "A" SHALL BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE BERM AND NOT AROUND THE ENDS.

#### FRONT VIEW

#### NOTE

- ANCHOR SOIL RETENTION BLANKET INTO TRENCH WITH 8 INCHES MIN. STAPLES PLACED AT 1 FOOT INTERVALS ALONG EDGE.
- 2. FILL AND COMPACT TRENCH.
- 3. SECTIONS OF THE SILT BERM SHALL BE OVERLAPPED WITH NO GAPS.
- 4. FOR SLOPE AND CHANNEL SPACING SEE THE "SECTION VIEW ALONG DITCH FLOWLINE" DETAIL ON SHEET 11 OF 11.
- 5. SOIL RETENTION BLANKET SHALL ALWAYS BE REQUIRED.
- 6. THE PAY ITEM NUMBER FOR SILT BERM (LF) IS 208-00004.

#### SILT BERM INSTALLATION

#### DRAINAGE DITCH APPLICATIONS

SILT BERM (1) SECTION VIEW

SECURE BLANKET

WITH STAPLES

(SEE M-216-1

FOR DETAILS)

ANCHOR TRENCH 6 IN. X 6 IN.

(SEE M-216-1 FOR DETAILS)

Computer File Info	ormation		
Creation Date: 07/04/12	Initials: JBK		D
Last Modification Date: 04/01/19	Initials: LTA	$\overline{\mathbb{R}-X}$	04/
Full Path: www.codot.gov/business,	/designsupport	$\overline{R-X}$	
Drawing File Name: 2080106011.dg	jn	$\overline{R-X}$	
CAD Ver.: MicroStation V8 Scale: Not to	Scale Units: English	(R-X)	

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
$\overline{R-X}$			
$\overline{R-X}$			
(R-X)			

Charle Davids

#### Colorado Department of Transportation

SECURE SILT BERM WITH

SPIKES 10 - 12 IN. DEEP (TYP.)

SOIL RETENTION BLANKET



Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support JBK/LTA

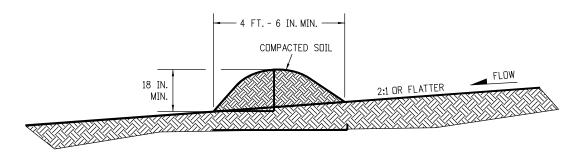
# TEMPORARY EROSION CONTROL

STANDARD PLAN NO.

M-208-1

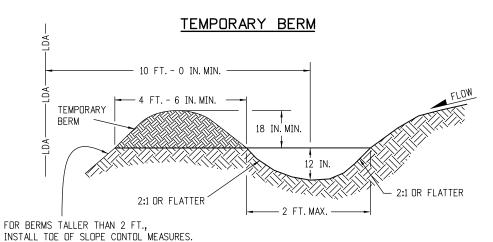
Issued By: Project Development Branch July 4, 2012

Sheet No. 6 of 11



#### NOTES:

- 1. BERMS SHALL HAVE A HEIGHT OF 18 INCHES, SIDE SLOPES OF 2:1 OR FLATTER AND A MINIMUM BASE WIDTH OF 4 FT.-6 IN.
- 2. BERMS SHALL BE USED TO INTERCEPT AND DIVERT DRAINAGE TO A DESIGNATED OUTLET.
- 3. BERMS SHALL NOT BE USED WHERE DRAINAGE AREA EXCEEDS 10 ACRES.
- 4. BERMS SHALL BE CONSTRUCTED OUT OF ACCEPTABLE MATERIAL THAT CAN BE COMPACTED AND RECEIVE AT A MINIMUM HEAVY EQUIPMENT WHEEL ROLLED COMPACTION.
- 5. TEMPORARY BERMS SHALL BE CONSTRUCTED OUT OF EMBANKMENT (SUBSOIL) AND IN NO CIRCUMSTANCE CONSTRUCTED OUT OF SALVAGED TOPSOIL.
- 6. THE PAY ITEM NUMBER FOR TEMPORARY BERM (LF) IS 208-00300.

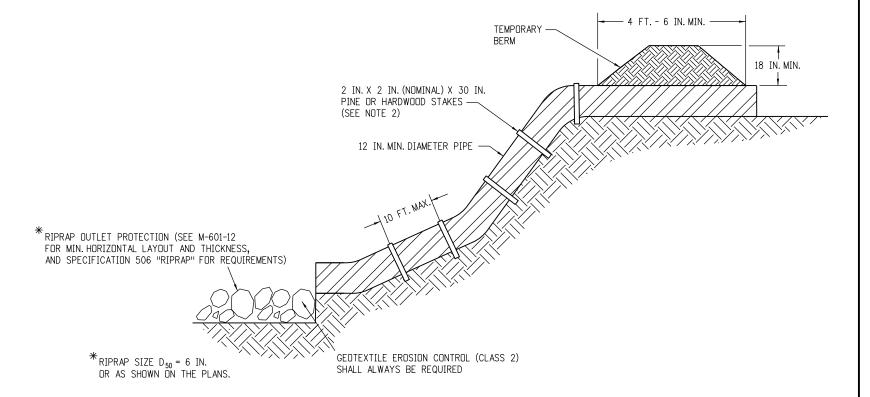


#### NOTES:

SEE SHEET 3 OF 11 FOR DETAILS.

- 1. TEMPORARY DIVERSION DITCHES SHALL BE CONSTRUCTED ACROSS THE SLOPE TO INTERCEPT RUNOFF AND DIRECT IT TO A STABLE DUTLET OR SEDIMENT TRAP.
- 2. USE THE TEMPORARY DIVERSION DITCH IMMEDIATELY ABOVE A NEW CUT, FILL SLOPE, OR AROUND THE PERIMETER OF A DISTURBED AREA.
- 3. THE GRADIENT ALONG THE FLOW PATH SHALL HAVE A POSITIVE GRADE TO ASSURE DRAINAGE, BUT SHALL NOT BE SO STEEP AS TO RESULT IN EROSION DUE TO HIGH VELOCITY.
- 4. THE DIVERSION FLOWLINE SHALL ALWAYS BE LOCATED A MINIMUM 10 FEET FROM THE OUTSIDE LIMITS OF DISTURBED AREA BOUNDARY.
- 6. DIVERSION BERMS SHALL BE CONSTRUCTED OUT OF EMBANKMENT (SUBSOIL) AND IN NO CIRCUMSTANCE CONSTRUCTED OUT OF SALVAGED TOPSOIL.
- 5. THE PAY ITEM NUMBER FOR TEMPORARY DIVERSION (LF) IS 208-00301.

#### TEMPORARY DIVERSION



#### NOTES:

- 1. ANCHOR SIZE VARIES ACCORDING TO PIPE SIZE
- 2. TO SECURE THE PIPE, DRIVE STAKES INTO GROUND, THEN TIE A 12 GUAGE WIRE BETWEEN THEM ABOVE AND ACROSS THE PIPE'S WIDTH.
- 3. THE OUTLET SHALL BE ALIGNED WITH THE FLOW DIRECTION OF THE EXISTING GRADE. PERPENDICULAR DISCHARGE TO A CHANNEL SHALL NOT BE ACCEPTABLE.
- 4. THE GRADE AROUND THE INLET TO THE PIPE SHALL BE COMPACTED.
- 5. THE PAY ITEM NUMBER FOR TEMPORARY SLOPE DRAINS (LF) IS 208-00060.

#### TEMPORARY SLOPE DRAINS

#### GRADING APPLICATIONS

Computer File Information			Sheet Revisions
Creation Date: 07/04/12 Initials: JBK		Date:	Comments
Last Modification Date: 04/01/19 Initials: LTA			Revisions to some dimensions and Notes.
Full Path: www.codot.gov/business/designsupport		04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.
Drawing File Name: 2080107011.dgn	R-X		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	R-X		

#### Colorado Department of Transportation

2829 West Howard Place CDOT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support JBK/LTA

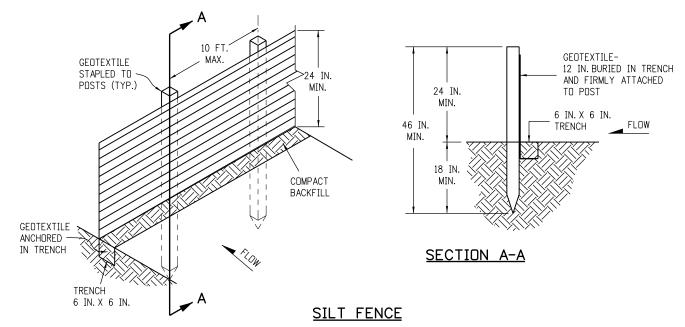
<b>TEMPORARY</b>
<b>EROSION CONTROL</b>

Issued By: Project Development Branch July 4, 2012

STANDARD PLAN NO.

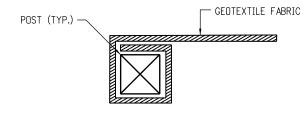
M-208-1

Sheet No. 7 of 11



NOTES:

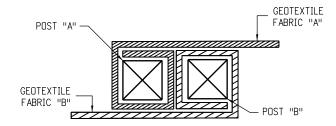
- 1. GEOTEXTILE SHALL BE ATTACHED TO WOOD POSTS WITH THREE OR MORE STAPLES PER POST. STAPLES SHALL BE HEAVY DUTY WIRE AND AT LEAST 1 INCH LONG.
- 2. WOOD POST SHALL BE 1 IN. X 1 IN. NOMINAL.
- 3. THE PAY ITEM NUMBER FOR SILT FENCE (LF) IS 208-00020.
- 4. THE SILT FENCE SHALL BE PLACED ON THE CONTOUR (AT THE SAME ELEVATION ±6 IN.). THE ENDS SHALL BE FLARED UP SLOPE (MINIMUM ELEVATION GAIN OF 18 IN.).



#### END SECTION DETAIL (PLAN VIEW)

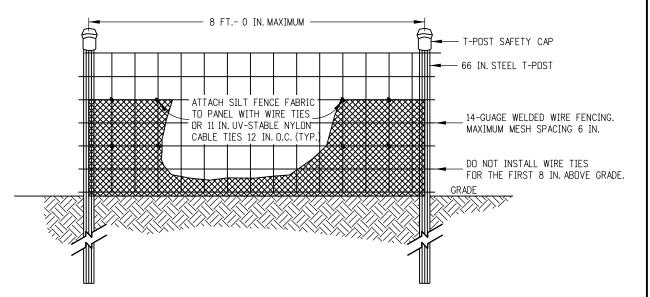
#### NOTE:

1. THE END OF THE SILT FENCE FABRIC SHALL BE WRAPPED APPROX. 6 INCHES AROUND A WOODEN POST ONE FULL TURN. THEN SECURED ALONG THE POST WITH 6 HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG.

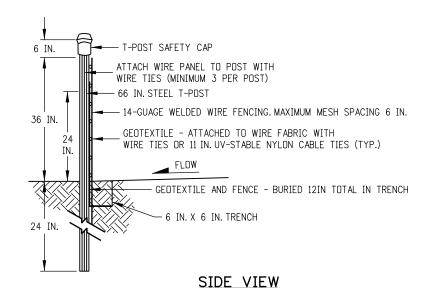


#### JOINING SECTION DETAIL (PLAN VIEW)

- 1. THE ENDS OF THE SILT FENCE FABRIC SHALL BE JOINED TOGETHER BY WRAPPING APPROX. 6 INCHES OF EACH END AROUND A WOODEN POST ONE FULL TURN, THEN SECURED ALONG THE POST WITH 6 HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG.
- 2. POSTS SHALL BE TIGHTLY ABUTTED WITH NO GAPS TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.



#### **ELEVATION VIEW**



- 1. THE ENDS OF THE SILT FENCE FABRIC SHALL BE JOINED TOGETHER BY WRAPPING APPROX. 6 INCHES OF EACH END AROUND A STEEL T-POST, THEN SECURED ALONG THE POST WITH WIRE TIES (MINIMUM 3 PER POST).
- 2. POSTS SHALL BE TIGHTLY ABUTTED WITH NO GAPS TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.
- 3. SILT FENCES SHALL NOT BE USED FOR CHECK DAMS.
- 4. THE PAY ITEM NUMBER FOR SILT FENCE (REINFORCED) (LF) IS 208-00021.

#### SILT FENCE (REINFORCED)

#### SILT FENCE APPLICATIONS

Computer File Information			
Creation Date: 07/04/12 Initials: JBK			
Last Modification Date: 04/01/19 Initials: LTA	] (		
Full Path: www.codot.gov/business/designsupport	] (		
Drawing File Name: 2080108011.dgn	] (		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English			

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	03/29/16	Minor revisions to some dimensions and Notes.	
$\overline{R-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
$\mathbb{R}$ -X			
$\mathbb{R}$ -X			

Colorado Department of Transportation



CDOT 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868 JBK/LTA

Division of Project Support

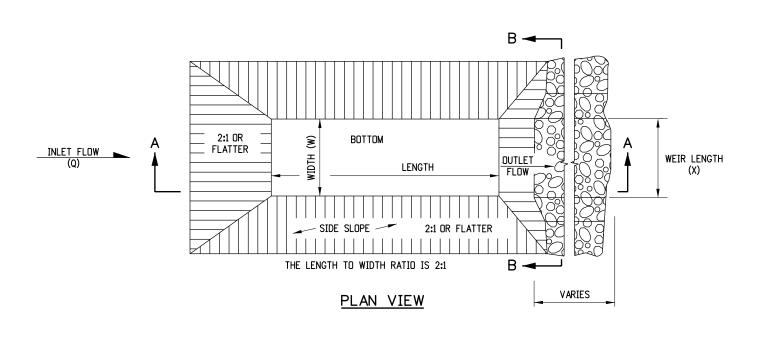
<b>TEMPORARY</b>
<b>EROSION CONTROL</b>

STANDARD PLAN NO.

M-208-1

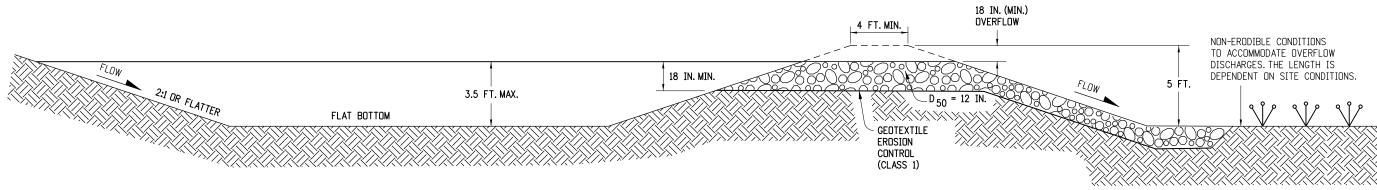
Issued By: Project Development Branch July 4, 2012

Sheet No. 8 of 11

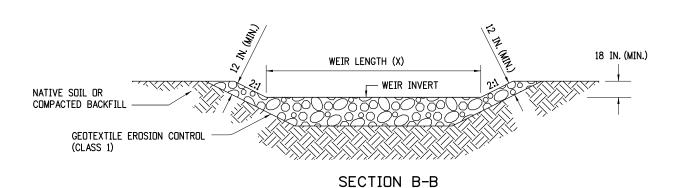


#### NOTES

- 1. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.
- 2. THE MAXIMUM STRUCTURE LIFE IS 2 YEARS.
- 3. THE STORAGE AREA IS 1800 CUBIC FEET PER ACRE.
- 4. THE MAXIMUM EMBANKMENT HEIGHT SHALL BE 5 FT. MEASURED ON THE DOWNSTREAM SIDE.
- 5. THE LENGTH/WIDTH RATIO MAY BE ADJUSTED TO MEET SITE CONDITIONS WHEN APPROVED BY THE ENGINEER.
- 6. WIDTH (W) OF SEDIMENT TRAP IS APPROXIMATELY EQUAL TO THE WEIR LENGTH (X).
- 7. SEDIMENT TRAP DESIGN SHALL BE APPROVED BY THE ENGINEER.
- 8. THE DOWN GRADE FROM WEIR SHALL BE STABLE AND NON-ERODIABLE.
- 9. THE PAY ITEM NUMBER FOR SEDIMENT TRAP (LF) IS 208-00033.



#### SECTION A-A



DRAINAGE AREA (ACRES)	WEIR LENGTH (FEET)
1	4
2	6
3	8
4	10
5	12

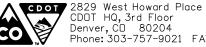
WEIR LENGTH TABLE

#### SEDIMENT TRAP

Computer File Information	n	
Creation Date: 07/04/12 Initial	ls: JBK	
Last Modification Date: 04/01/19 Initial	ls: LTA	
Full Path: www.codot.gov/business/designsup	port	
Drawing File Name: 2080109010.dgn		
CAD Ver.: MicroStation V8 Scale: Not to Scale Uni	ts: English	

	Sheet Revisions		
	Date:	Comments	
$\mathbb{R}$ -X	03/29/16	Minor revisions to some dimensions.	
$\overline{R-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.	
$\overline{R-X}$			
(R-X)			

#### Colorado Department of Transportation



TEMPO	JRARY
<b>EROSION</b>	CONTROL

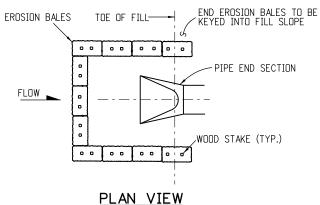
STANDARD PLAN NO	١.
3.6.000.4	

M-208-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 9 of 11

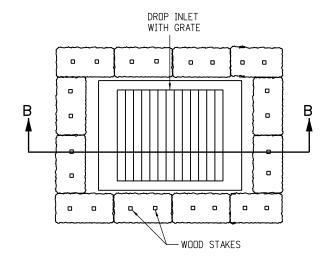
# STEP 1. EXCAVATE THE TRENCH. 4 IN. MIN. FROS INT. RAFE WIDTH



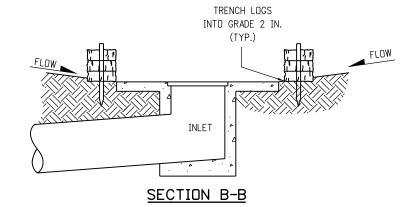
EROSION BALE CULVERT INLET PROTECTION

# NOTES AND SHALL E

- 1. STAKES SHALL BE WOOD AND SHALL BE 2 IN. X 2 IN. X 30 IN. NOMINAL.
- 2. EROSION BALES SHALL BE 18 IN. X 18 IN. X 36 IN.
- 3. EROSION BALES SHALL BE ENTRENCHED 4 IN MINIMUM INTO THE SOIL, THIGHTLY ABUTTED WITH NO GAPS, STAKED, AND BACKFILLED AROUND THE ENTIRE OUTSIDE PERIMETER.
- 4. EROSION BALES CANNOT BE USED FOR CHECK DAMS.
- 5. EROSION BALE FILTER SHALL BE LOWER THAN BERM ELEVATION OR USED IN A SUMP CONDITION.
- 6. THE PAY ITEM NUMBER FOR EROSION BALES (WEED FREE) (EA) IS 208-00011.



#### PLAN VIEW



NOTE: LOCATE EROSION BALES AT THE OUTSIDE EDGE OF THE CONCRETE APRON.

EROSION LOG FILTER AT DROP INLET

#### **EROSION BALE APPLICATIONS**

WOOD STAKE (TYP.)

SECTION A-A

EROSION BALE TRENCHING AND STAKING

WOOD STAKE

WEDGE LOOSE CERTIFIED

BETWEEN EROSION BALES

TWINE OR WIRE

TWINE OR WIRE

12 IN. MIN.

FILTERED FLOW

WEED FREE STRAW

(TYP.)

Computer File Information		
Creation Date: 07/04/12 Initials: JBK		
Last Modification Date: 04/01/19 Initials: LTA	$\overline{\mathbb{R}-X}$	C
Full Path: www.codot.gov/business/designsupport	$\overline{R-X}$	(
Drawing File Name: 20801010011.dgn	$\overline{R-X}$	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)	

		Sheet Revisions				
	Date:	Date: Comments				
(R-X)		Minor revisions to some dimensions.				
R-X	04/01/19 Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.					
R-X						
$\mathbb{R}$ -X						

Colorado Department of Transportation

2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868

4 IN. MIN.

Division of Project Support JBK/LTA

TEMPO	DRARY
<b>EROSION</b>	CONTROL

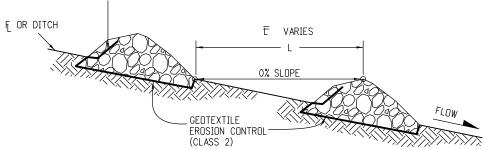
Issued By: Project Development Branch July 4, 2012

STANDARD PLAN NO.

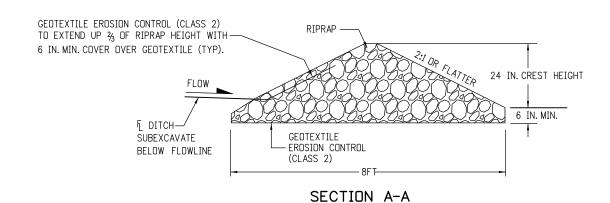
M-208-1

Sheet No. 10 of 11

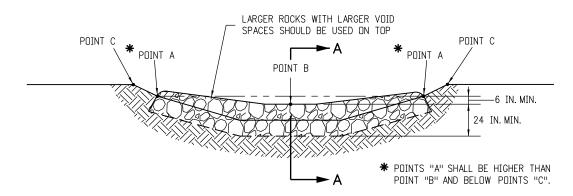
GEOTEXTILE EROSION CONTROL (CLASS 2) TO EXTEND UP 3 OF RIPRAP HEIGHT WITH 6 IN. MIN. COVER OVER GEOTEXTILE (TYP).



#### SECTION VIEW ALONG DITCH FLOWLINE



- 1. RIPRAP SIZE  $D_{50}$  = 6IN OR AS SHOWN ON THE PLANS.
- 2. THE GEOTEXTILE EROSION CONTROL SHALL BE CLASS 2 AND CONFORM TO THE REQUIREMENTS OF SUBSECTION 712.08.
- 3. THE ENDS OF RIPRAP CHECK DAM SHALL BE A MINIMUM OF 6 IN. HIGHER THAN CENTER OF CHECK DAM.
- 4. FOR USE AS TEMPORARY CHECK DAMS ONLY AND NOT FOR PERMANENT INSTALLATIONS.
- 5. THE PAY ITEM NUMBER FOR ROCK CHECK DAM (EA) IS 208-00041.



TYPICAL SECTION VIEW

NOTE: ALL MATERIALS AND LABOR TO COMPLETE THE ROCK CHECK DAM SHALL BE INCLUDED IN THE COST OF WORK.

#### ROCK CHECK DAM

Computer File Inform	nation	
Creation Date: 07/04/12	Initials: JBK	
Last Modification Date: 04/01/19	Initials: LTA	(
Full Path: www.codot.gov/business/des	signsupport	(
Drawing File Name: 20801011011.dgn		(
CAD Ver.: MicroStation V8 Scale: Not to Sca	lle Units: English	

	Sheet Revisions			
	Date:	Comments		
$\overline{\mathbb{R}-X}$	03/29/16	Minor revisions to some Notes.		
$\overline{R-X}$	04/01/19	Revised to comply with the updated Stormwater Construction Permit (SCP) requirements.		
$\mathbb{R}$ -X				
$\mathbb{R}$ -X				

Colorado Department of Transportation



CDOT 2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

JBK/LTA

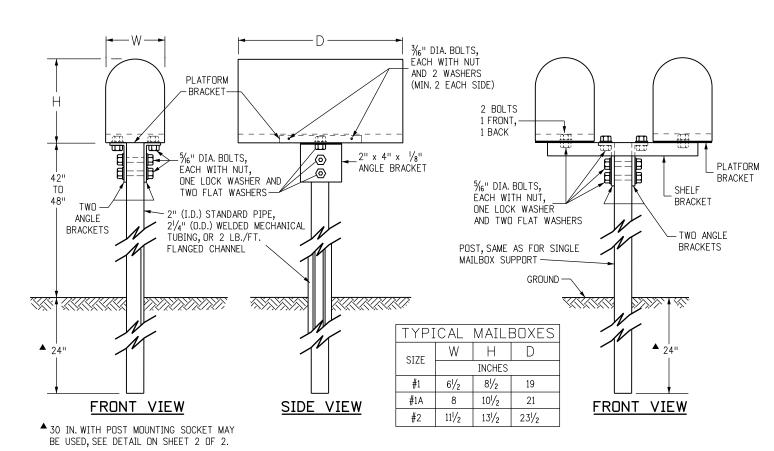
Division of Project Support

**TEMPORARY EROSION CONTROL**  STANDARD PLAN NO.

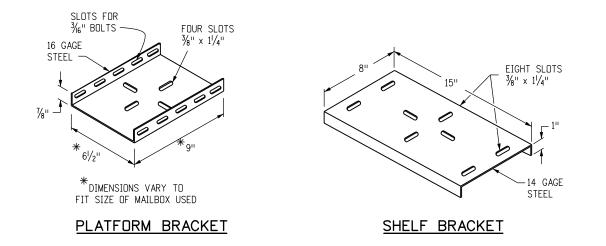
M-208-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 11 of 11



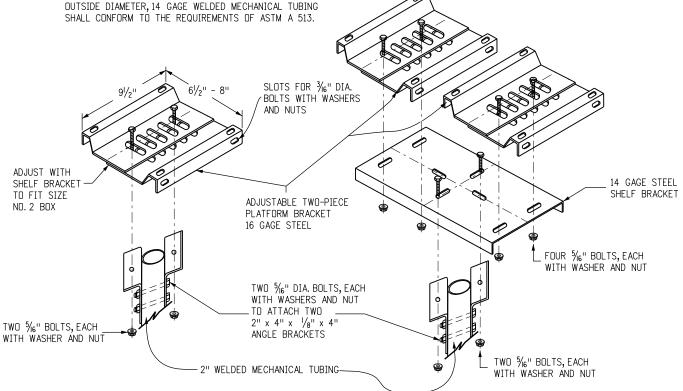
#### SINGLE (TYPE 1) AND DOUBLE (TYPE 2) MAILBOX SUPPORTS



#### GENERAL NOTES

- WHEN A MAILBOX TURNOUT IS REQUIRED, THE NECESSARY PAY QUANTITIES WILL BE SHOWN ON THE PLANS.
- 2. A SINGLE MAILBOX SHALL BE RESET AT THE FINAL DESIGNATED LOCATION ON A NEW TYPE 1 SUPPORT. TWO MAILBOXES RESET AT THE SAME LOCATION SHALL BE RESET ON ONE DOUBLE (TYPE 2) SUPPORT OR ON TWO SINGLE (TYPE 1) SUPPORTS AS DESIGNATED. THREE, FOUR, OR FIVE MAILBOXES SHALL BE RESET ON A MULTIPLE (TYPE 3) SUPPORT. AN EXISTING MAILBOX THAT IS MOUNTED ON A CANTILEVER SUPPORT SHALL BE RESET ON A CANTILEVER (TYPE 4) SUPPORT. ALL WORK AND MATERIALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "RESET MAILBOX STRUCTURE (TYPE \_)".
- 3. WHEN THE ENGINEER DETERMINES THAT THE EXISTING MAILBOX CAN NOT BE REUSED, A NEW METAL MAILBOX OF SIMILAR SIZE SHALL BE SUPPLIED AND ERECTED BY THE CONTRACTOR. A NEW PLASTIC MAILBOX CONFORMING TO POSTAL SERVICE SPECIFICATIONS MAY BE USED AS AN ALTERNATIVE WHEN APPROVED BY THE ENGINEER. AN EXISTING MAILBOX LARGER THAN A SIZE NO. 2 SHALL BE REPLACED WITH A NEW SIZE NO. 2 MAILBOX. THE COST OF SUPPLYING THE NEW MAILBOX WILL BE PAID FOR IN ACCORDANCE WITH SUBSECTION 109.04(b). EXCEPTION: A CUSTOM BUILT, RURAL-TYPE MAILBOX MAY BE RESET IF THE MAILBOX OWNER OBTAINS PRIOR WRITTEN APPROVAL FROM THE POSTMASTER.
- 4. THE ADDRESS INFORMATION THAT APPEARED ON THE ORIGINAL MAILBOX SHALL BE PLACED ON THE APPROACH SIDE OF THE REPLACEMENT MAILBOX, SIZE AND STYLE OF LETTERING AND MATERIALS ARE SUBJECT TO THE ENGINEER'S APPROVAL.
- 6. POSTS, BRACKETS, AND ALL MOUNTING HARDWARE SHALL BE GALVANIZED IN CONFORMANCE WITH AASHTO M 232 AND M 111, EXCEPT THE WELDED MECHANICAL TUBING COATING SHALL BE G-90 OR EQUIVALENT CONFORMING TO ASTM A 525. A 2 IN. DUTSIDE DIAMETER, 14 GAGE WELDED MECHANICAL TUBING

- 6. EXACT DIMENSIONS OF ANGLES, PLATFORM AND SHELF BRACKETS, BOLT HOLES, SLOTS AND MULTIPLE MAILBOX SUPPORT COMPONENTS MAY VARY FROM THOSE SHOWN OR IMPLIED HEREIN SO THAT ALL COMPONENTS WILL FIT TOGETHER PROPERLY.
- 7. PLASTIC NEWSPAPER RECEPTACLES MAY BE REMOUNTED BELOW THE MAILBOX ON THE SUPPORT. PLASTIC NEWSPAPER RECEPTACLES SHALL BE MOUNTED IN THEIR INTENDED ORIENTATION USING A GALVANIZED U-BOLT AND HARDWARE OR OTHER MOUNTING SYSTEM APPROVED BY THE ENGINEER. ASSOCIATED COSTS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE WORK.
- 8. ON ROADS WITH CURB AND GUTTER, THE MAILBOX SUPPORT SHALL BE LOCATED IN THE GROUND SO THE FRONT OF THE MAILBOX SHALL BE 8 IN. TO 12 IN. BACK FROM THE CURB FACE. THE HEIGHT SHALL BE 42 IN. TO 48 IN. MEASURED FROM THE GUTTER FLOW LINE TO THE BOTTOM OF THE MAILBOX.
- 9. ON ROADS WITH SIDEWALK ATTACHED TO CURB AND GUTTER, THE MAILBOX SUPPORT SHALL BE LOCATED IN THE GROUND BEHIND THE SIDEWALK. THE FRONT OF THE MAILBOX SHALL BE IN LINE WITH OR SLIGHTLY BEHIND THE EDGE OF THE SIDEWALK. THE MOUNTING HEIGHT SHALL BE 42 IN. TO 48 IN. ABOVE THE SIDEWALK
- 10. THE GROUND SURROUNDING THE MAILBOX SUPPORTS SHALL BE FIRM, UNDISTURBED GROUND, OR WELL COMPACTED REGRADED SOIL. THE SUPPORTS ARE NORMALLY DRIVEN, BUT THEY MAY BE PLACED IN A DUG HOLE WITH WELL COMPACTED BACKFILL.
- PROPRIETARY MAILBOX SUPPORT SYSTEMS LISTED ON THE CDOT APPROVED PRODUCTS LIST WILL BE ACCEPTED AS EQUIVALENT ALTERNATIVES.



SINGLE AND DOUBLE MAILBOX SUPPORTS ALTERNATIVE

Computer File Inforr	nation
Creation Date: 07/04/12	Initials: DD
Last Modification Date: 07/04/12	Initials: LTA
Full Path: www.coloradodot.info/busines	s/designsupport
Drawing File Name: 210010102.dgn	
CAD Ver.: MicroStation V8 Scale: Not to Sc	le Units: English

		Sheet Revisions
	Date:	Comments
$\mathbb{R}$ -X		
$\mathbb{R}$ -X		
R-X		
R-X		

Charle Davida

Colorado Department of Transportation



4201 East Arkansas Avenue Denver, Colorado 80222 Phone: (303) 757-9083 Fax: (303) 757-9820

Project Development Branch

DD/LTA

MAILBOX SUPPORTS

STANDARD PLAN NO.

M-210-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 1 of 2

Initials: DD

Initials: LTA

(R-X)

(R-X)

 $\mathbb{R}$ -X

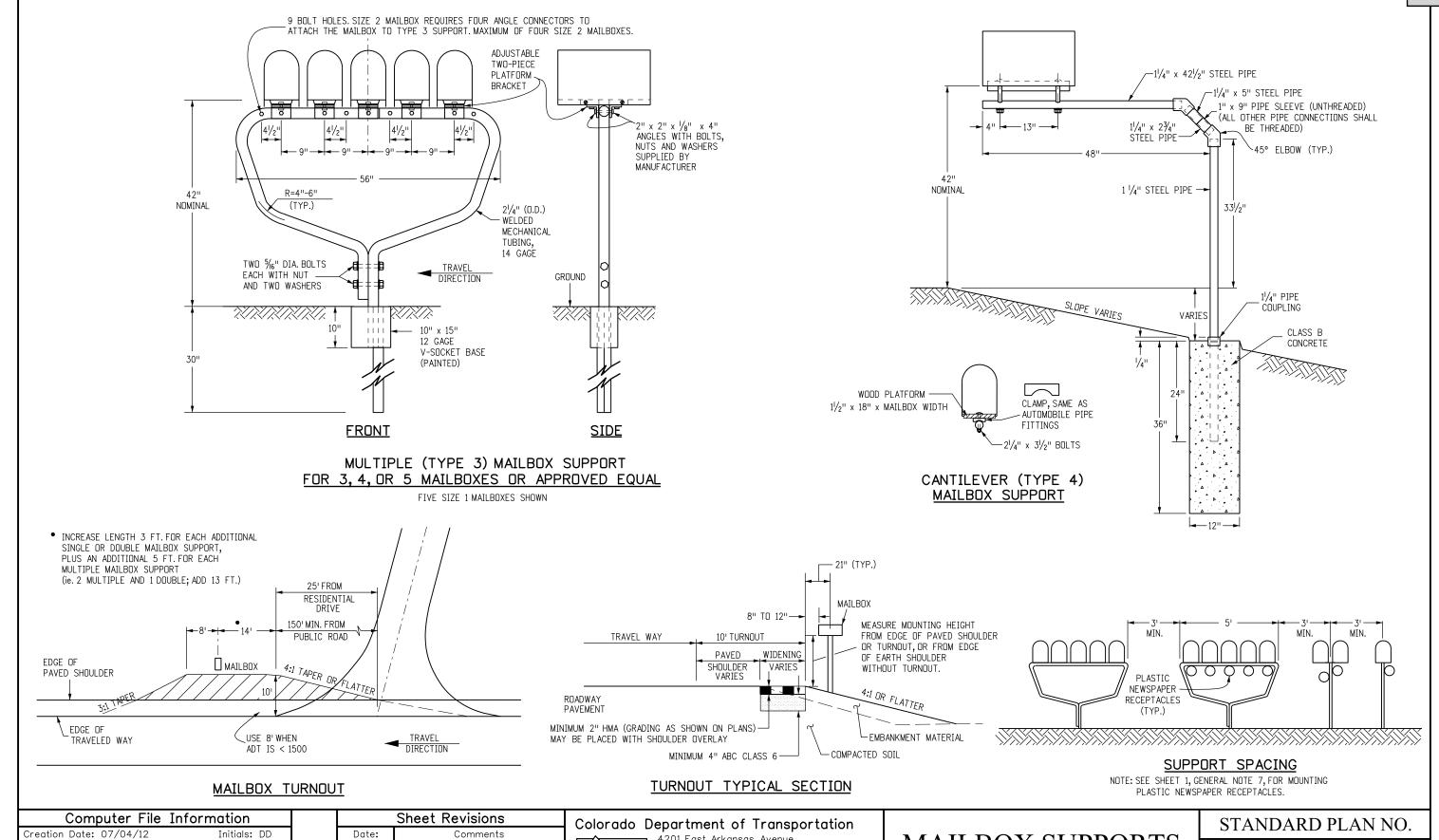
(R-X)

Last Modification Date: 07/04/12

Drawing File Name: 210010202.dgr

Full Path: www.coloradodot.info/business/designsuppo

CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English



4201 East Arkansas Avenue

DD/LTA

Denver, Colorado 80222

Phone: (303) 757-9083

Fax: (303) 757-9820

Project Development Branch

MAILBOX SUPPORTS

Issued By: Project Development Branch July 4, 2012

M-210-1

Sheet No. 2 of 2

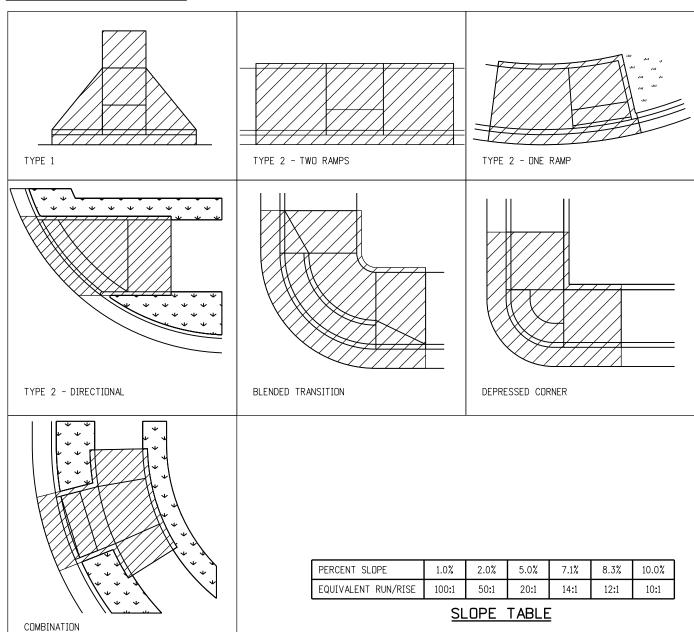
#### **CURB RAMP GENERAL NOTES:**

- 1) IN NEW CONSTRUCTION OR FULL-DEPTH RECONSTRUCTION, PROVIDE A SEPARATE CURB RAMP FOR EACH MARKED OR UNMARKED PEDESTRIAN STREET CROSSING. CURB RAMPS SHALL BE CONTAINED WHOLLY WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING OR CROSSWALK THEY SERVE, OR AS SHOWN ON THE
- ② ALTERATIONS ARE DEFINED AS CHANGES TO AN EXISTING HIGHWAY THAT AFFECT PEDESTRIAN ACCESS, CIRCULATION, OR USE. ALTERATIONS INCLUDE, BUT ARE NOT LIMITED TO, RESURFACING, REHABILITATION, RECONSTRUCTION, CURB RAMP RETROFITS, HISTORIC RESTORATION, OR CHANGES OR REARRANGEMENT TO STRUCTURAL PARTS OR ELEMENTS OF A PEDESTRIAN FACILITY.
- (3) A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP OR TURNING SPACE, WITHOUT RAISED OBSTACLES, THAT COULD BE MISTAKENLY TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- (4) IN ALTERATIONS, WHERE AN EXISTING PHYSICAL CONSTRAINT PREVENTS PROVIDING A SEPARATE CURB RAMP FOR EACH PEDESTRIAN STREET CROSSING, A SINGLE DIAGONAL RAMP (ON THE APEX) SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS. THE USE OF A SINGLE DIAGONAL RAMP SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. DIAGONAL RAMPS ARE NOT ACCEPTABLE IN NEW CONSTRUCTION OR FULL-DEPTH
- (5) DETECTABLE WARNINGS SURFACES (DWS) ARE INTENDED TO INDICATE THE BOUNDARY BETWEEN A PEDESTRIAN ROUTE AND VEHICULAR ROUTE WHERE THERE IS A FLUSH RATHER THAN CURBED CONNECTION. DWS ARE NOT INTENDED TO PROVIDE WAYFINDING. DWS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS;
  - 1. CURB RAMPS, BLENDED TRANSITIONS, AND DEPRESSED CORNERS AT PEDESTRIAN STREET CROSSINGS; 2. PEDESTRIAN REFUGE ISLANDS (6 FEET IN WIDTH OR GREATER);
  - 3. BOARDING PLATFORMS AT TRANSIT STOPS WHERE THE EDGE OF THE PLATFORM IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC; AND
  - 4. BOARDING AREAS AT SIDEWALK OR STREET LEVEL TRANSIT STOPS WHERE THE AREA IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC.
- 6 DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT GUTTER, HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. FEDERAL YELLOW COLOR IS PREFERRED, HOWEVER, OTHER COLORS MAY BE USED IF APPROVED BY THE ENGINEER.
- (7) IN ALTERATIONS, TO AVOID CHASING GRADE INDEFINITELY ON STEEP ROADWAYS, A CURB RAMPS LENGTH IS NOT REQUIRED TO EXCEED 15 FEET REGARDLESS OF THE RESULTING RAMP RUNNING SLOPE.
- (8) ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE.
- (9) DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT, OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED ON THE CURB RAMP, OR TURNING SPACE AREAS.
- (10) IN NEW CONSTRUCTION, PULL BOXES, METER BOXES, MAINTENANCE HOLE COVERS, VAULT LIDS, OR SIMILAR, SHALL NOT BE CONSTRUCTED WITHIN ANY PART OF CURB RAMP OR TURNING SPACE. IN ALTERATIONS, WHERE THESE ITEMS CANNOT BE RELOCATED OUTSIDE OF THE CURB RAMP OR TURNING SPACE, THEY MUST NOT CREATE A VERTICAL DISCONTINUITY GRATER THAN 1/2 INCH. ANY VERTICAL DISCONTINUITY BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1V:2H. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE SURFACE DISCONTINUITY.
- (11) CONSTRUCTION OF ANY REQUIRED PEDESTRIAN CURB SHALL BE INCLUDED IN THE BID PRICE OF THE CONCRETE CURB RAMP AND WILL NOT BE PAID FOR SFPARATFI Y
- (12) ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH (0'-1/8"). THE JOINT BETWEEN THE ROADWAY SURFACE AND THE GUTTER PAN SHALL BE FLUSH.
- ③ THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE, MAINTAIN EXISTING DRAINAGE PATTERNS, AND AVOID PONDING IN THE FINAL CONFIGURATION.
- (14) FLARED SIDE SLOPES MAY EXCEED 10.0% ONLY WHERE THEY ABUT A NON-WALKABLE SURFACE, OR WHERE THE ADJACENT RAMP SURFACE IS BLOCKED TO PEDESTRIAN TRAFFIC.
- (15) THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER AT THE FOOT OF A RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL NOT EXCEED 5.0%.
- (6) GRADE BREAKS AT THE TOP AND BOTTOM OF RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF THE RAMP RUN OR TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- (17) A BROOM FINISH, WITH SWEEPS PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAFFIC, SHALL BE APPLIED TO ALL RAMP AND TURNING SPACE SURFACES.
- (18) IN ALTERATIONS, WHERE A RAMP OR TURNING SPACE MUST TIE INTO AN EXISTING GRADE THAT CANNOT BE ALTERED, THE RAMP OR TURNING SPACE MAY BE WARPED TO TRANSITION TO THE REQUIRED CROSS SLOPE. THE TRANSITION TO THE REQUIRED CROSS SLOPE SHALL BE SPREAD EVENLY OVER THE LENGTH OF THE RAMP OR TURNING SPACE TO MINIMIZE THE DEGREE OF WARPING. THE RATE OF CHANGE ON A RAMP OR TURNING SPACE SHALL NOT EXCEED 3% PER LINEAR FOOT.
- (19) DESIGN AND CONSTRUCT CURB RAMPS, TURNING SPACES, AND FLARE SLOPES WITH THE FLATTEST SLOPES POSSIBLE. THE SLOPES INDICATED IN THESE DETAILS SHOW THE MAXIMUM SLOPES ALLOWABLE. PREFERRED VALUES TO BE USED DURING DESIGN, LAYOUT, AND CONSTRUCTION ARE:
  - RAMP RUNNING SLOPE 7.5%
  - RAMP CROSS SLOPE 1.5%
  - TURNING SPACE RUNNING SLOPE 1.5%
  - TURNING SPACE CROSS SLOPE 1.5%
  - FLARE SLOPE 8.0-9.0%

GENERAL NOTES & PAY AREAS

- WHERE SNOW REMOVAL EQUIPMENT WILL BE USED TO CLEAR THE PEDESTRIAN ACCESS ROUTE, CONSULT THE ENGINEER PRIOR TO CONSTRUCTION TO ENSURE THE WIDTH AND THICKNESS OF CURB RAMPS IS SUFFICIENT TO ACCOMODATE SUCH EQUIPMENT.
- 21) PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMPS ADJOIN ANY RIGID PAVEMENT, OR STRUCTURE. THE TOP OF THE JOINT FILLER MATERIAL SHALL BE FLUSH WITH ADJOINING CONCRETE SURFACES. THE EXPANSION JOINT MATERIAL SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE SURFACE.
- (2) PROVIDE TIE BAR REINFORCING BETWEEN INDEPEDENTLY POURED CONCRETE CURB RAMPS OR TURNING SPACES AND CURB AND GUTTER. DRILL AND GROUT NO. 4 12 INCH LONG REINFORCEMENT BARS (EPOXY COATED) AT 18 INCHES CENTER TO CENTER MINIMUM.

#### **CURB RAMP PAY AREAS**

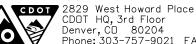


Computer File Inforr	mation
Creation Date: 07/04/12	Initials: JBK
Last Modification Date: 05/03/19	Initials: LTA
Full Path: www.codot.gov/business/de	esignsupport
Drawing File Name: 6080101010 dan	

ull Path:	www.cod	ot.gov/bu	siness/de	esignsuppo	rt
awing F	ile Name:	6080101	010.dgn		
ND Ver.: N	/licroStation	V8 Scale:	Not to Sc	cale Units:	English

	Sheet Revisions			
	Date:	Comments		
$\overline{\mathbb{R}-X}$	05/03/19	Completely revised every sheet.		
$\overline{\mathbb{R}-X}$				
$\overline{R-X}$				
(R-X)				

Colorado Department of Transportation



Division of Project Support

Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

JBK/LTA

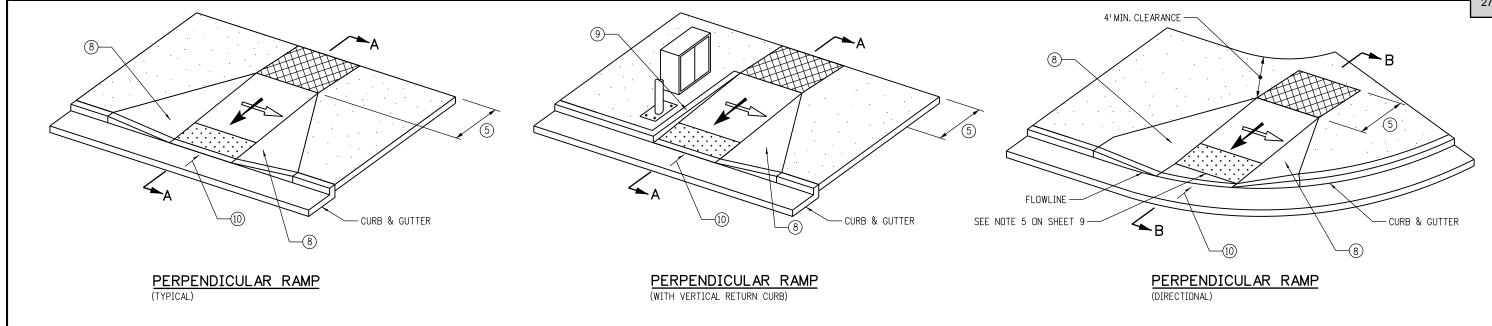
**CURB RAMPS** 

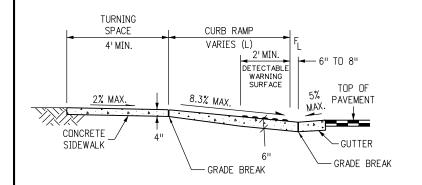
STANDARD PLAN NO.

M-608-1

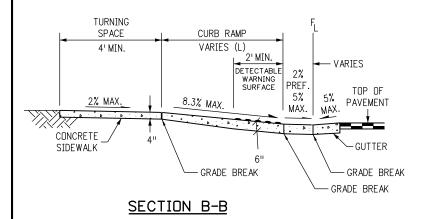
Issued By: Project Development Branch July 4, 2012

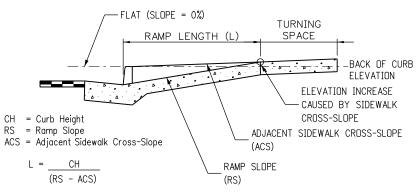
Sheet No. 1 of 10





#### SECTION A-A





EXAMPLE: CH = 6'' (0.5 ft.), RS = 7.5% (0.075), ACS = 1.5% (0.015) L = 0.5/(0.075-0.015) = 8.3 ft.

#### DETAIL A - RAMP LENGTH

SIDEWALK TURNING SPACE (3)(4)(5)

DETECTABLE WARNING SURFACE (DWS)

#### TYPE 1 PERPENDICULAR CURB RAMPS

Computer File Information				S
Creation Date: 07/04/12	Initials: JBK		Date:	
Last Modification Date: 05/03/19	Initials: LTA	$\overline{\mathbb{R}-X}$	05/03/19	C
Full Path: www.codot.gov/business/designsupport				
Drawing File Name: 6080102010.dgn				
CAD Ver.: MicroStation V8 Scale: Not to Sc	cale Units: English	(R-X)		

	Sheet Revisions		
	Date:	Comments	
<u>-X</u> )	05/03/19	Completely revised every sheet.	
<u>-X</u> )			
<u>-X</u> )			
$\overline{-X}$			

#### Colorado Department of Transportation



Division of Project Support

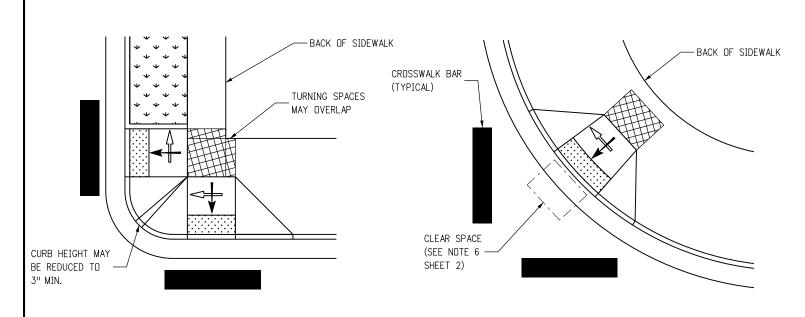
JBK/LTA

#### PERPENDICULAR RAMP NOTES

- (1) RAMP WIDTH PROVIDE 5 FT.OR GREATER WHERE POSSIBLE.IF SITE CONSTRAINTS DO NOT PERMIT, PROVIDE 4 FT. MINIMUM. RAMPS SERVICING SHARED USE PATHS SHALL MATCH THE WIDTH OF
- RAMP RUNNING SLOPE 8.3% MAX.
  - TURNING SPACE RUNNING SLOPE 2.0% MAX. TURNING SPACE RUNNING SLOPE IS MEASURED IN THE SAME DIRECTION AS THE RAMP RUNNING SLOPE.
- (4) RAMP AND TURNING SPACE CROSS SLOPE 2.0% TYPICAL. AT CROSSINGS WITHOUT YIELD OR STOP CONTROL, OR WITH A SIGNAL WHERE VEHICLES CAN PROCEED THROUGH THE INTERSECTION WITHOUT SLOWING OR STOPPING, THE CROSS SLOPE OF RAMPS AND TURNING SPACES MAY EQUAL THE HIGHWAY GRADE. AT MIDBLOCK PEDESTRIAN STREET CROSSINGS THE RAMP AND TURNING SPACE CROSS SLOPE MAY EQUAL THE HIGHWAY GRADE
  - TURNING SPACE DIMENSIONS PROVIDE A TURNING SPACE AT THE TOP OF PERPENDICULAR RAMPS WITH A WIDTH EQUAL TO THE WIDTH OF THE CURB RAMP. TURNING SPACE LENGTH MUST BE 4 FT. MINIMUM, MEASURED IN THE DIRECTION OF THE RAMP RUN. WHEN A TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, INCREASE LENGTH TO 5 FT. MINIMUM IN THE DIRECTION OF THE RAMP RUN.
  - (6) RAMP ALIGNMENT RAMPS SHALL BE ALIGNED TO BE FULLY CONTAINED WITHIN THE CROSSWALK OR STREET CROSSING THEY SERVE. PROVIDE ONE RAMP FOR EACH STREET CROSSING DIRECTION. IN ALTERATIONS, WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT PROVIDING ONE CURB RAMP FOR EACH CROSSING DIRECTION, A SINGLE DIAGONAL CURB RAMP (ON THE APEX OF A CORNER) SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS. IF A DIAGONAL RAMP IS USED, A CLEAR SPACE 4 FT. X 4FT. MUST BE PROVIDED AT THE BASE OF THE RAMP. THE CLEAR SPACE MUST BE WITHIN BOTH CROSSWALKS AND WHOLLY OUTSIDE OF ANY ADJACENT VEHICULAR TRAVEL LANES. DIAGONAL RAMPS ARE NOT ACCEPTABLE IN NEW CONSTRUCTION, OR FULL-DEPTH RECONSTRUCTION.
  - (7) RAMP LENGTH PERPENDICULAR RAMP LENGTH IS DEPENDENT UPON THE RAMP SLOPE, HEIGHT OF CURB, AND ADJACENT SIDEWALK CROSS-SLOPE WHICH MUST BE INTERCEPTED. SEE DETAIL A FOR CALCULATING RAMP LENGTH WHEN CHASING SIDEWALK CROSS-SLOPE. WHERE TERRAIN IS SLOPING A RAMP IS NOT REQUIRED TO CHASE GRADE MORE THAN 15 FT. REGARDLESS OF THE RESULTING RAMP SLOPE.
  - (8) RAMP FLARES WHERE A RAMP EDGE ABUTS A WALKABLE SURFACE, A FLARED SIDE SHALL BE PROVIDED. RAMP FLARE SLOPES SHALL NOT EXCEED 10.0%.
  - VERTICAL CURB RETURNS VERTICAL CURB RETURNS MAY BE USED ONLY WHERE A RAMP ABUTS A NON-WALKABLE SURFACE, OR WHERE A RAMP IS PROTECTED FROM PEDESTRIAN CROSS TRAFFIC (FOR EXAMPLE BY A SIGNAL CABINET OR UTILITY POLE WHICH BLOCKS PASSAGE).
  - GUTTER COUNTER SLOPE 5.0% MAX.

CLIDD DANADC	STANDARD PLAN NO.	
CURB RAMPS	M-608-1	
By: Project Development Branch July 4, 2012	Sheet No. 2 of 10	

Issued By: Project Development Branch July 4, 2012



-BACK OF SIDEWALK

BACK OF SIDEWALK

TURNING SPACE
(SEE NOTES 3, 4, 5 - SHEET 2)

• • DETECTABLE WARNING SURFACE (DWS)

RAMP RUNNING SLOPE

RAMP CROSS SLOPE

#### NOTE

PLACEMENTS SHOWN ARE TYPICAL CONFIGURATIONS ONLY AND NOT INDICATIVE OF ALL OPTIONS. OTHER RAMP CONFIGURATIONS MAY BE ACCEPTABLE AS LONG AS THEY CONFORM TO THE CRITERIA IN THESE STANDARDS, AND ARE APPROVED BY THE ENGINEER.

SEE DWS SHEETS FOR PLACEMENT DETAILS

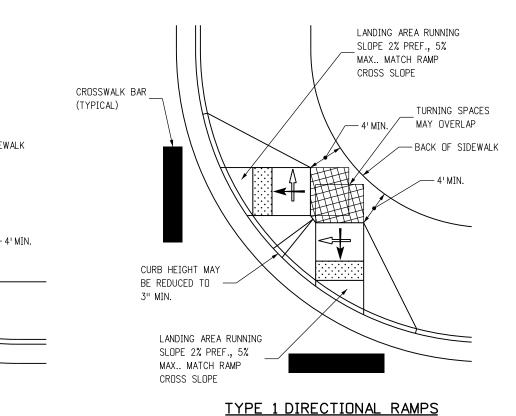
#### TYPE 1 RAMPS FOR WIDE SIDEWALK

4' MIN.

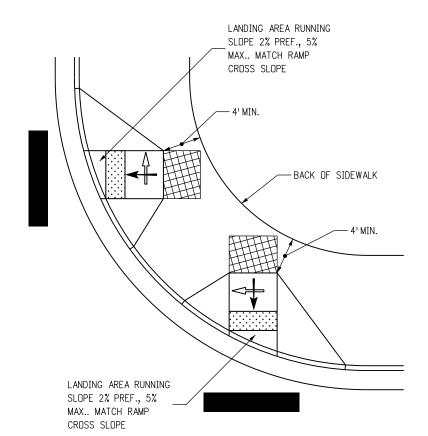
(3" REDUCED CURB)

TYPE 1 RAMP
(DIAGONAL)

NOT ALLOWABLE IN NEW CONSTRUCTION/FULL DEPTH RECONSTRUCTION SEE GENERAL NOTE  $\,4\,$ 



#### TYPE 1 RAMPS FOR WIDE SIDEWALK



TYPE 1 DIRECTIONAL RAMPS
(LARGE RADIUS)

#### TYPE 1 PERPENDICULAR RAMPS

#### TYPE 1 CURB RAMPS TYPICAL CONFIGURATIONS

Computer File Inform	nation	
Creation Date: 07/04/12	Initials: JBK	
Last Modification Date: 05/03/19	Initials: LTA	(R-X
Full Path: www.codot.gov/business/de	signsupport	(R-X
Drawing File Name: 6080103010.dgn		(R-X
CAD Ver.: MicroStation V8 Scale: Not to Sca	ale Units: English	R-X

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	05/03/19	Completely revised every sheet.	
$\overline{R-X}$			
$\overline{R-X}$			
$\mathbb{R}$ -X			

Colorado Department of Transportation

2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support

JBK/LTA

#### **CURB RAMPS**

STANDARD PLAN NO.

M-608-1

Issued By: Project Development Branch July 4, 2012

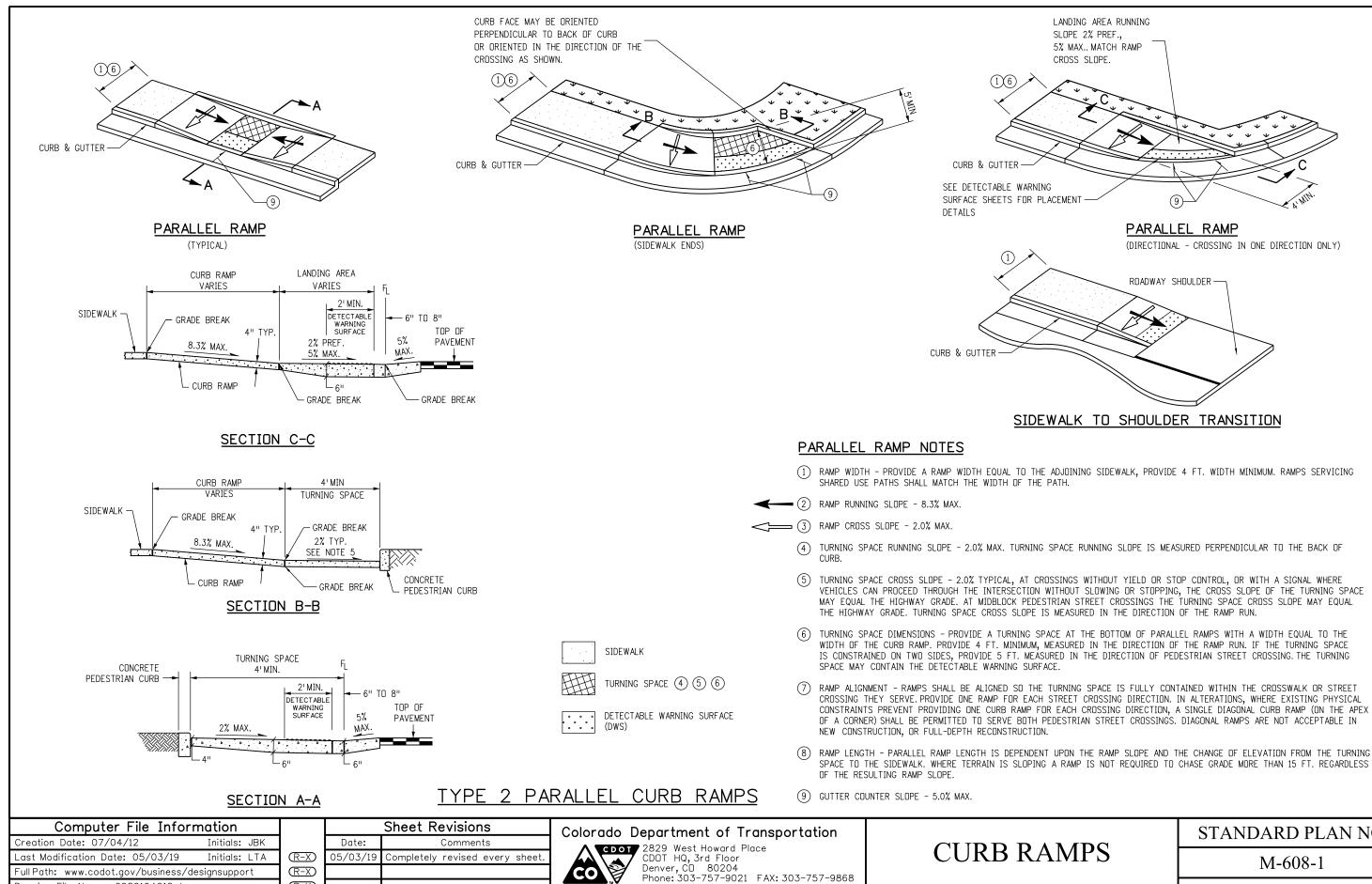
Sheet No. 3 of 10

Drawing File Name: 6080104010.dgn

CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

 $\mathbb{R}$ -X

(R-X)



**CURB RAMPS** 

LANDING AREA RUNNING

5% MAX.. MATCH RAMP

PARALLEL RAMP

ROADWAY SHOULDER -

(DIRECTIONAL - CROSSING IN ONE DIRECTION ONLY)

SLOPE 2% PREF.,

CROSS SLOPE.

STANDARD PLAN NO.

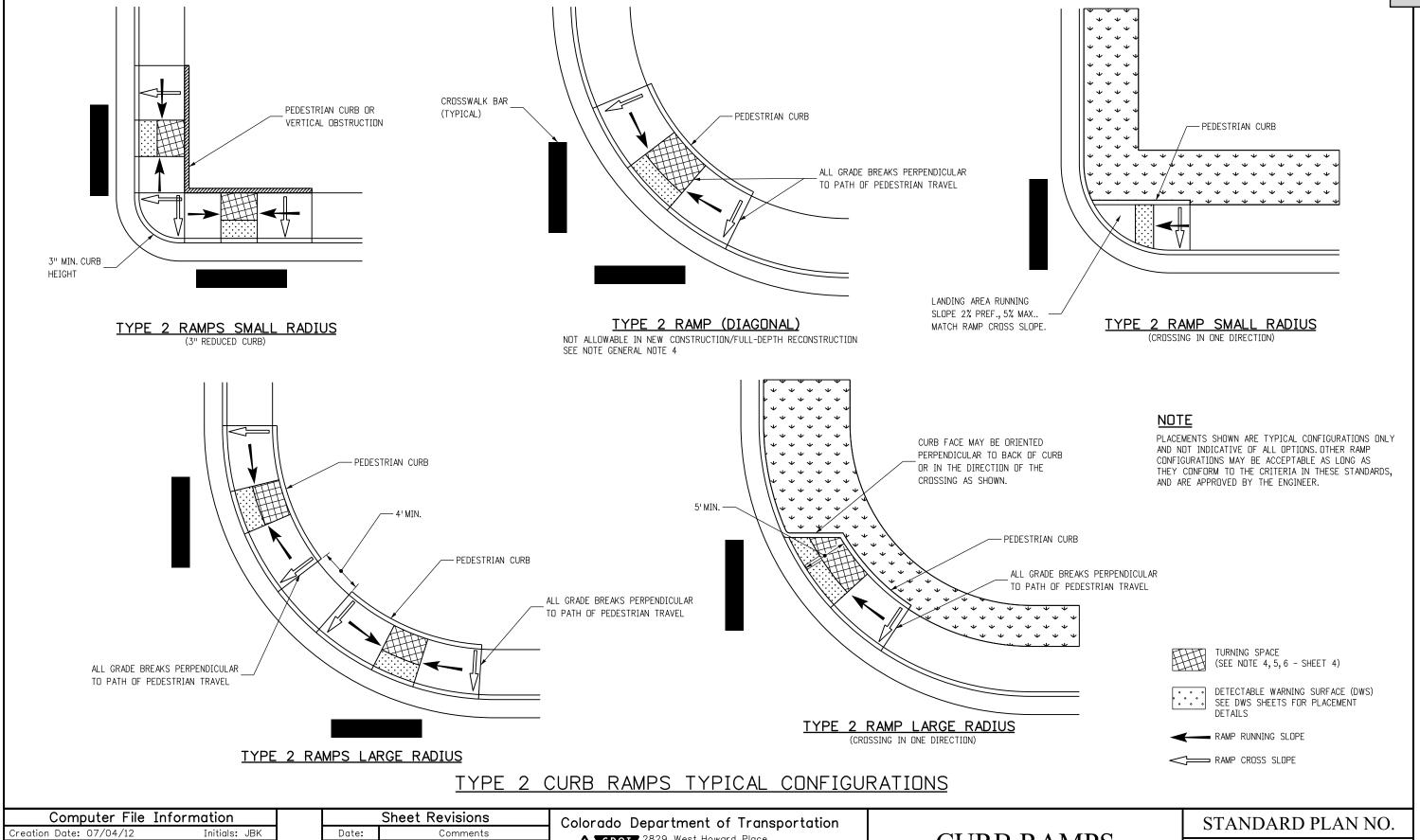
M-608-1

Issued By: Project Development Branch July 4, 2012

JBK/LTA

Division of Project Support

Sheet No. 4 of 10



Computer File Inform	ation
Creation Date: 07/04/12	Initials: JBK
Last Modification Date: 05/03/19	Initials: LTA
Full Path: www.codot.gov/business/des	ignsupport
Drawing File Name: 6080105010.dgn	
CAD Ver.: MicroStation V8 Scale: Not to Sca	e Units: English

	Sheet Revisions		
	Date:	Comments	
$\overline{R-X}$	05/03/19	Completely revised every sheet.	
$\overline{R-X}$			
$\mathbb{R}$ -X			
(R-X)			

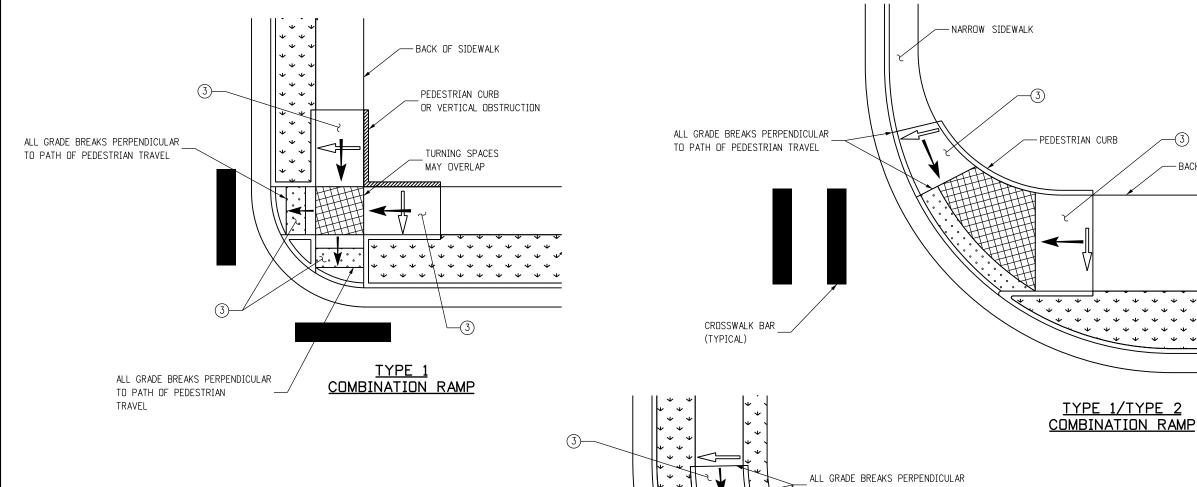
CDOT 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX

10 T	Phone: 303-757-9021	FAX: 303-757-986
Division of	Project Support	JBK/LT

M-608-1

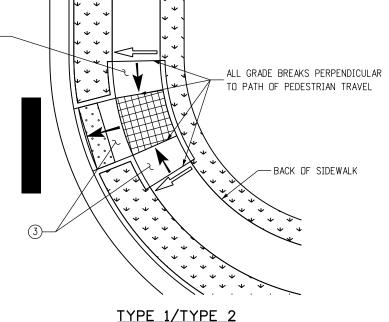
Issued By: Project Development Branch July 4, 2012

Sheet No. 5 of 10



#### COMBINATION CURB RAMP NOTES:

- 1 THE CURB RAMP PLACEMENTS SHOWN ARE TYPICAL CONFIGURATIONS ONLY AND NOT INDICATIVE OF ALL OPTIONS. OTHER CURB RAMP CONFIGURATIONS MAY BE ACCEPTABLE AS LONG AS THEY CONFORM TO THE CRITERIA IN THESE STANDARDS, AND ARE APPROVED BY THE ENGINEER.
- (2) RAMP AND TURNING SPACE CROSS SLOPE 2.0% TYPICAL. AT CROSSINGS WITHOUT YIELD OR STOP CONTROL, OR WITH A SIGNAL WHERE VEHICLES CAN PROCEED THROUGH THE INTERSECTION WITHOUT SLOWING OR STOPPING, THE CROSS SLOPE OF THE RAMP AND TURNING SPACE MAY EQUALTHE HIGHWAY GRADE. AT MIDBLOCK PÉDESTRIAN STREET CROSSINGS THE RAMP AND TURNING SPACE CROSS SLOPE MAY EQUAL THE HIGHWAY GRADE.
- (3) WHERE IT IS ACCEPTABLE FOR A RAMP OR TURNING SPACE CROSS SLOPE TO EXCEED 2.0% AND MATCH THE HIGHWAY GRADE, THE RAMP ABOVE THE TURNING SPACE MAY BE WARPED TO TIE INTO THE ADJOINING SIDEWALK CROSS SLOPE. THE TRANSITION TO THE SIDEWALK CROSS SLOPE SHALL BE SPREAD EVENLY OVER THE LENGTH OF THE RAMP TO MINIMIZE WARPING. THE RATE OF CHANGE IN CROSS SLOPE MAY NOT EXCEED 3.0% PER LINEAR FOOT.

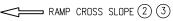


-BACK OF SIDEWALK

TURNING SPACE (2) (3)

DETECTABLE WARNING SURFACE (DWS) SEE DWS SHEETS FOR PLACEMENT DETAILS

RAMP RUNNING SLOPE



## COMBINATION CURB RAMPS TYPICAL CONFIGURATIONS

Computer File Informa	tion	
Creation Date: 07/04/12	nitials: JBK	
Last Modification Date: 05/03/19 I	nitials: LTA	(R-
Full Path: www.codot.gov/business/desig	nsupport	R-
Drawing File Name: 6080106010.dgn		R-
CAD Ver.: MicroStation V8 Scale: Not to Scale	Units: English	R-

	Sheet Revisions		
	Date:	Comments	
$\overline{\mathbb{R}-X}$	05/03/19	Completely revised every sheet.	
$\overline{R-X}$			
$\overline{R-X}$			
(R-X)			

#### Colorado Department of Transportation

JBK/LTA

COMBINATION RAMP

CDOT 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support

#### **CURB RAMPS**

STANDARD PLAN NO.

M-608-1

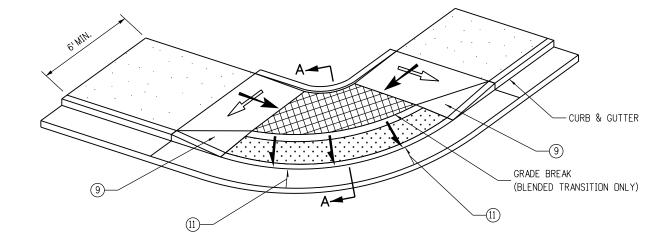
Issued By: Project Development Branch July 4, 2012

Sheet No. 6 of 10

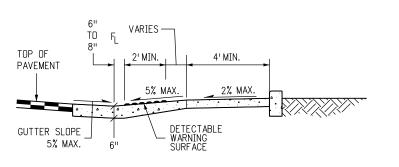
CURB & GUTTER

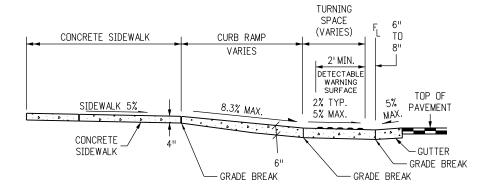
TURNING SPACE (4) (5) (6)

SIDEWALK



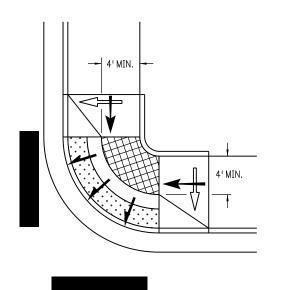
#### BLENDED TRANSITION

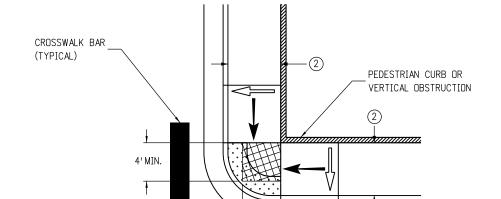




SECTION B-B

#### SECTION A-A





**BLENDED TRANSITION** 

#### DEPRESSED CORNER

#### TYPE 5 - DEPRESSED CORNER/BLENDED TRANSITION

-- 4' MIN.

Computer File Inform	nation	
Creation Date: 07/04/12	Initials: JBK	
Last Modification Date: 05/03/19	Initials: LTA	
Full Path: www.codot.gov/business/designsupport		
Drawing File Name: 6080107010.dgn		
CAD Ver.: MicroStation V8 Scale: Not to Sca	ıle Units: English	

	Sheet Revisions		
	Date:	Comments	
(R-X)	05/03/19	Completely revised every sheet.	
$\overline{R-X}$			
$\overline{R-X}$			
$\overline{R-X}$			

#### Colorado Department of Transportation

JBK/LTA



Division of Project Support

STANDARD PLAN NO.

DETECTABLE WARNING SURFACE BLENDED TRANSITION & DEPRESSED CORNER NOTES PERPENDICULAR AND PARALLEL RAMP CONFIGURATIONS ARE PREFFERED. BLENDED TRANSITIONS AND DEPRESSED CORNERS SHOULD ONLY BE USED WHERE SITE CONDITIONS MAKE THEM A MORE APPROPRIATE OPTION, OR WHERE PERPENDICULAR OR PARALLEL RAMPS CANNOT BE INSTALLED DUE TO A PHYSICAL SITE CONSTRAINT.

DEPRESSED CORNER

RAMP WIDTH - PROVIDE 5 FT. OR GREATER WHERE POSSIBLE. IF SITE CONSTRAINTS DO NOT PERMIT, PROVIDE 4FT. WIDTH MINIMUM. RAMPS SERVICING SHARED USE PATHS SHALL MATCH THE WIDTH OF THE PATH.

RAMP RUNNING SLOPE - 8.3% MAX.

4) BLENDED TRANSITION RUNNING SLOPE - 5.0% MAX.

RAMP AND TURNING SPACE CROSS SLOPE - 2.0% TYPICAL. AT CROSSINGS WITHOUT YIELD OR STOP CONTROL, OR WITH A SIGNAL WHERE VEHICLES CAN PROCEED THROUGH THE INTERSECTION WITHOUT SLOWING OR STOPPING, THE CROSS SLOPE OF RAMPS AND TURNING SPACES MAY EQUAL THE HIGHWAY GRADE.

TURNING SPACE DIMENSIONS - PROVIDE A 4 FT. X 4 FT. MIN. TURNING SPACE AT THE BOTTOM OF RAMP RUNS. THE TURNING SPACE MAY CONTAIN THE DETECTABLE WARNING SURFACES.

RAMP ALIGNMENT - TURNING SPACE SHALL BE ALIGNED TO BE FULLY CONTAINED WITHIN THE CROSSWALK OR STREET CROSSING(S) THEY SERVE.

(8) RAMP LENGTH - RAMP LENGTH IS DEPENDENT UPON THE RAMP SLOPE AND THE CHANGE OF ELEVATION FROM THE TURNING SPACE TO THE SIDEWALK. WHERE TERRAIN IS SLOPING A RAMP IS NOT REQUIRED TO CHASE GRADE MORE THAN 15 FT. REGARDLESS OF THE RESULTING RAMP SLOPE.

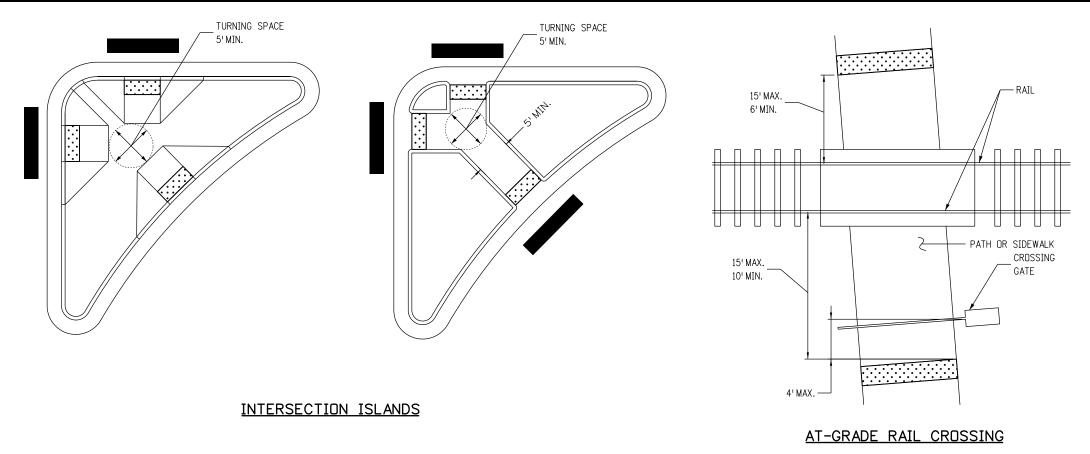
(9) RAMP FLARES - WHERE A RAMP EDGE ABUTS A WALKABLE SURFACE, A FLARED SIDE MUST BE PROVIDED. RAMP FLARE SLOPES SHALL NOT EXCEED 10.0%.

VERTICAL CURB RETURNS - VERTICAL CURB RETURNS MAY BE USED ONLY WHERE A RAMP ABUTS A NON-WALKABLE SURFACE, OR WHERE A RAMP IS PROTECTED FROM PEDESTRIAN CROSS TRAFFIC (FOR EXAMPLE BY A SIGNAL CABINET OR UTILITY POLE WHICH BLOCKS PASSAGE).

GUTTER COUNTER SLOPE - 5.0% MAX.

DWS PLACEMENT - DWS SHALL BE PLACED AROUND THE RADIUS AND LOCATED AT THE BACK OF CURB ON BLENDED TRANSITION AND DEPRESSED CORNER RAMPS.

**CURB RAMPS** M-608-1Sheet No. 7 of 10 Issued By: Project Development Branch July 4, 2012



MEDIAN

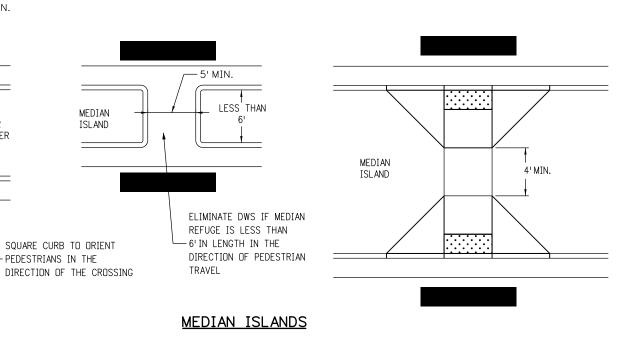
ISLAND

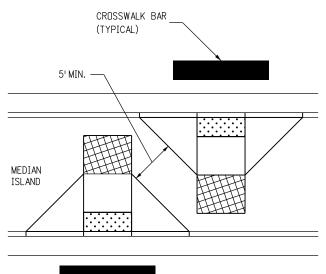
SQUARE CURB TO ORIENT

- PEDESTRIANS IN THE

#### NOTES:

- 1) DETECTABLE WARNING SURFACES SHALL BE PLACED IN ALIGNMENT WITH THE BACK OF CURB.
- 2) FLARED SIDES ARE PREFERENTIAL ON RAISED INTERSECTION ISLANDS AND SHOULD BE PROVIDED ON ISLANDS WHICH SERVE SHARED USE PATHS, OR AT LOCATIONS WHERE BICYCLE USE IS EXPECTED.
- 3 FOR CUT-THROUGH MEDIAN ISLANDS, DETECTABLE WARNING SURFACES SHALL BE PLACED IN ALIGNMENT WITH THE BACK OF CURB AND BE SEPARATED BY A MINIMUM 2 FOOT SPACE WITHOUT DWS. IF A 2 FOOT SEPARATION BETWEEN DETECTABLE WARNING SURFACES CANNOT BE PROVIDED NO DETECTABLE WARNING SURFACE SHALL BE INSTALLED.
- (4) CURB RAMP AND CUT-THROUGH WIDTHS SHOULD BE THE SAME WIDTH AS ANY SIDEWALK OR SHARED USE PATH WHICH THEY SERVE.





TURNING SPACE

## MEDIANS / RAILROADS / ISLANDS

Computer File Information	
Creation Date: 07/04/12 Initials: JBK	
Last Modification Date: 05/03/19 Initials: LTA	(
Full Path: www.codot.gov/business/designsupport	(
Drawing File Name: 6080108010.dgn	(
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	

MEDIAN

**ISLAND** 

SQUARE CURB TO ORIENT

MEDIAN

ISLAND

PEDESTRIANS IN THE DIRECTION OF THE CROSSING

6' OR

GREATER

5' MIN.

		Sheet Revisions
	Date:	Comments
(R-X)	05/03/19	Completely revised every sheet.
(R-X)		
$\overline{R-X}$		
(R-X)		

-5' MIN.

6' OR

GREATER

#### Colorado Department of Transportation

CDOT 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FA

1V	Phone: 303-757-9021	FAX: 303-757-9868
Division of	Project Support	JBK/LTA

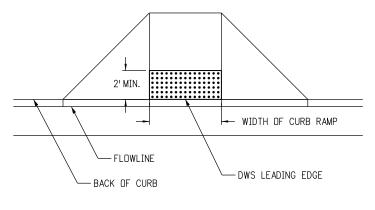
STANDARD PLAN NO.
M-608-1

Issued By: Project Development Branch July 4, 2012

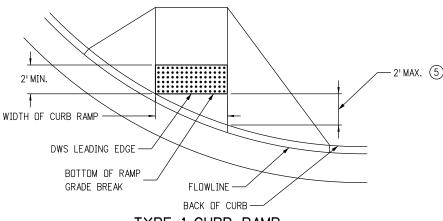
Sheet No. 8 of 10

BOTTOM OF RAMP GRADE BREAK

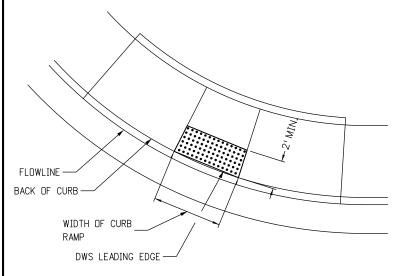
SHARED USE PATH / SIDEWALK



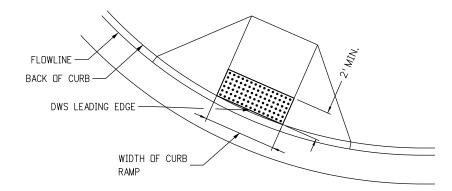
#### TYPE 1 CURB RAMP (PERPENDICULAR ON TANGENT)



TYPE 1 CURB RAMP (DIRECTIONAL ON RADIUS)



TYPE 2 CURB RAMP



#### TYPE 1 CURB RAMP (PERPENDICULAR ON RADIUS) EDGE OF PAVEMENT 2' MIN. I ANF LINE WIDTH OF SHARED DWS LEADING USE PATH EDGE -SHARED USE PATH

#### SHARED USE PATH CROSSING

#### DETECTABLE WARNING SURFACE NOTES:

- DETECTABLE WARNING SURFACES (DWS) SHALL BE INSTALLED AT SIDEWALK, OR SHARED USE PATH, TO STREET TRANSITIONS, AND SHALL CONSIST OF TRUNCATED DOME SURFACES. ANY TRUNCATED DOME PANELS OR PAVERS WHICH ARE USED MUST BE ON THE CDOT APPROVED PRODUCTS LIST (APL).
- THE DETECTABLE WARNING SURFACE SHALL SPAN THE FULL WIDTH OF THE CURB RAMP, SHARED USE PATH, OR OTHER ROADWAY ENTRANCE AS APPLICABLE. A GAP OF 2 INCHES FROM THE EDGE OF THE DETECTABLE WARNING SURFACE TO THE EDGE OF THE CURB RAMP OR SHARED USE PATH IS PERMITTED.
- WHEN DETECTABLE WARNING SURFACES ARE PLACED ON A SLOPE GREATER THAN 5.0% TRUNCATED DOMES SHOULD BE ALIGNED IN THE DIRECTION OF THE RAMP RUN; OTHERWISE DOMES ARE NOT REQUIRED TO BE ALIGNED. TRUNCATED DOMES SHALL BE IN A SQUARE GRID OR RADIAL PATTERN. WHEN PLACED RADIALLY, PLACE ADJACENT DWS PLATES EDGE TO EDGE. EDGES OF CUT PLATES SHALL BE STRAIGHT.
- LOCATE ONE CORNER OF THE DWS LEADING EDGE AT THE BACK OF CURB. NO POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 5 FT. FROM THE BACK OF CURB. WHEN ANY POINT OF THE LEADING EDGE OF THE DWS WILL BE GREATER THAN 5 FT. FROM THE BACK OF CURB, PLACE THE DWS RADIALLY AT THE BACK OF CURB.
- WHERE PERPENDICULAR DIRECTIONAL RAMPS ABUT A WALKABLE SURFACE, THE LEADING EDGE OF THE DWS SHALL NOT BE PLACED FURTHER THAN 2 FEET FROM THE BACK OF CURB. IF THE RADIUS OF A CORNER MAKES THIS IMPOSSIBLE, ORIENT THE CURB RAMP PERPENDICULAR TO THE CURB AND GUTTER.
- IF THE DETECTABLE WARNING SURFACE IS CUT, GRIND OFF THE REMAINING PORTION OF ANY CUT TRUNCATED DOMES. SEAL ALL CUT PANEL EDGES WITH AN APL SEALANT TO PREVENT WATER DAMAGE.
- TRUNCATED DOME PLATES SHALL BE EMBEDED IN THE CONCRETE CURB RAMP WHILE THE CONCRETE IS PLASTIC.
- (8) DWS SHALL NOT BE PLACED OVER GRADE BREAKS.

#### DETECTABLE WARNING SURFACE PLACEMENT

Computer File Inform	nation		Sheet Revisions	
Creation Date: 07/04/12	Initials: JBK		Date:	Comments
Last Modification Date: 05/03/19	Initials: LTA	$\overline{\mathbb{R}-X}$	05/03/19	Completely revised every sheet.
Full Path: www.codot.gov/business/de	signsupport	$\overline{R-X}$		
Drawing File Name: 6080109010.dgn		$\overline{R-X}$		
CAD Ver.: MicroStation V8 Scale: Not to Sc	ale Units: English	(R-X)		

# Colorado Department of Transportation

CDOT 2829 West Howard Place CDOT HQ, 3rd Floor Denver CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support	JBK/LTA	Issued
-----------------------------	---------	--------

**CURB RAMPS** 

FLOWLINE

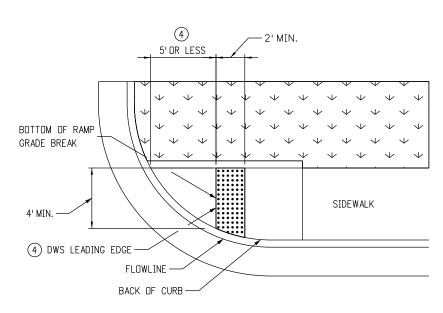
BACK OF CURB-

3 4 DWS LEADING EDGE

STANDARD PLAN NO. M-608-1

Sheet No. 9 of 10

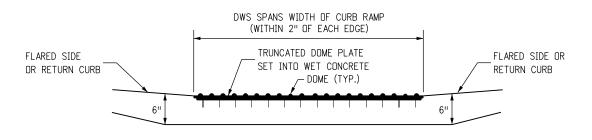
By: Project Development Branch July 4, 2012



TYPE 2 - DIRECTIONAL RAMP

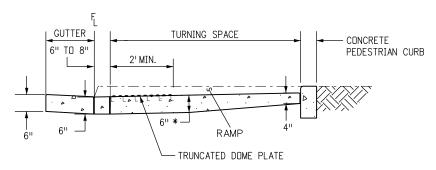
TYPE 2 - DIRECTIONAL RAMP

DETECTABLE WARNING SURFACE (DWS)



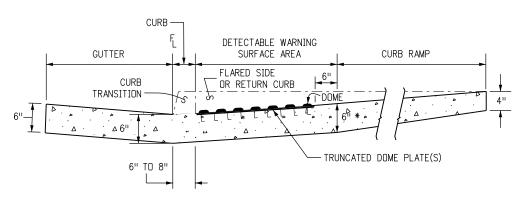
#### SECTION VIEW OF DETECTABLE WARNING SURFACE PLATE

(LOOKING AT PERPENDICULAR RAMP RUN FROM STREET)



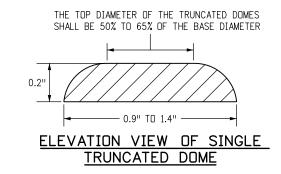
#### SECTION VIEW FOR PARALLEL CURB RAMP TYPES

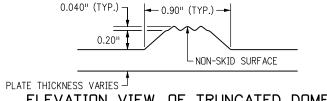
(LOOKING PERPENDICULAR TO TURNING SPACE)



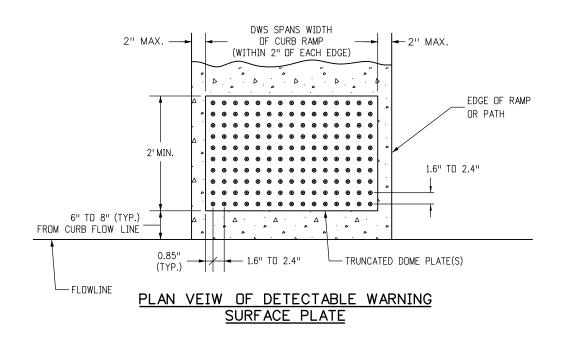
#### SECTION VIEW FOR PERPENDICULAR CURB RAMP TYPES

(LOOKING PERPENDICULAR TO RAMP RUN)





#### ELEVATION VIEW OF TRUNCATED DOME FOR DETECTABLE WARNING PLATE



#### DETECTABLE WARNING SURFACE DETAILS

Computer File Infori	mation
Creation Date: 07/04/12	Initials: JBK
Last Modification Date: 05/03/19	Initials: LTA
Full Path: www.codot.gov/business/d	esignsupport
Drawing File Name: 60801010010.dgr	n
CAD Ver.: MicroStation V8 Scale: Not to Sc	cale Units: English

		Sheet Revisions
	Date:	Comments
$\mathbb{R}$ -X	05/03/19	Completely revised every sheet.
$\mathbb{R}$ -X		
$\mathbb{R}$ -X		
(R-X)		

Colorado	Department	of	Transportation
A =====	2820 Woot H	wara	l Digoo

CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868

Division	of	Project	Support
----------	----	---------	---------

JBK/LTA

CURB RAMPS
------------

STANDARD PLAN NO. M-608-1

Issued By: Project Development Branch July 4, 2012

Sheet No. 10 of 10



#### DEPARTMENT OF TRANSPORTATION

Region 5, Traffic and Safety Unit 3803 N. Main Avenue, Suite 100 Durango, CO 81301 (970) 385-8360 (970) 385-8361 Fax



# LATE FALL, WINTER AND SPRING SPECIAL PROVISIONS FOR ACCESS CONSTRUCTION AND UTILITY INSTALLATIONS

It's that time of year again when work within the Right of Way (ROW) becomes a special concern. Due to Southwest Colorado's unpredictable weather, utility work in the ROW can create several types of hazards for the traveling public, contractors and their personnel. The condition of the highway can change quickly. Mud tracked onto the highway by equipment, or ice and snowpack are just a few of the conditions that make the roadway more hazardous for all concerned. The terrain within the ROW must be kept clear of hazards as well. Holes, trenches, equipment and materials can make the terrain "unrecoverable" for a driver should his/her vehicle leave the highway. Activities must be shut down when the roadway is other than dry. The use of frozen materials for backfilling will only lead to settlement. The contractor must make extra effort to compact the excavation. In the spring, any settlement of backfill shall be repaired. The re-vegetation shall take place yet this fall or early next spring.



# COLORADO DEPARTMENT OF TRANSPORTATION Environmental Clearances Information Summary

**PURPOSE** - This summary is intended to inform entities external to CDOT that may be entering the state highway right-of-way to perform work related to their own facilities (such as Utility, Special Use or Access Permittees), about some of the more commonly encountered environmental permits/clearances that may apply to their activities. This listing is not all-inclusive—additional environmental or cultural resource permits/clearances may be required in certain instances. Appropriate local, state and federal agencies should be contacted for additional information if there is any uncertainty about what permits/clearances are required for a specific activity. **IMPORTANT: Please Review The Following Information Carefully – Failure to Comply With Regulatory Requirements May Result In Suspension or Revocation of Your CDOT Permit, Or Enforcement Actions By Other Agencies.** 

**CLEARANCE CONTACTS** - As indicated in the permit/clearance descriptions listed below, the following agencies may be contacted for additional information:

- Colorado Department of Public Health and Environment (CDPHE): General Information (303) 692-2000
   Water Quality Control Division (WQCD): (303) 692-3500
   Environmental Permitting Website https://www.colorado.gov/pacific/cdphe/all-permits
- CDOT Water Quality Program Manager: (303) 512-4053 https://www.codot.gov/programs/environmental/water-quality
- CDOT Asbestos Project Manager: (303) 512-5519
- Colorado Office of Archaeology and Historic Preservation: (303) 866-5216
- U.S. Army Corps of Engineers, District Regulatory Offices:

Omaha District (Northeastern CO), Denver Office (303) 979-4120

http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Colorado.aspx

Sacramento District (Western CO), Grand Junction Office (970) 243-1199

http://www.spk.usace.army.mil/Missions/Regulatory.aspx

Albuquerque District (Southeastern CO), Pueblo Office (719) 543-9459

http://www.spa.usace.army.mil/Missions/RegulatoryProgramandPermits.aspx

CDOT Utilities, Special Use and Access Permitting: (303) 757-9654 https://www.codot.gov/business/permits

<u>Wildlife Resources</u> - Disturbance of wildlife shall be avoided to the maximum extent practicable. Entry into areas of known or suspected threatened or endangered species habitat requires special authorization from the CDOT permitting office. If any threatened or endangered species are encountered during the progress of the permitted work, work in the subject area shall be halted and the CDOT Regional Permitting Office and Region Planning and Environmental Manager shall be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Information about threatened or endangered species may be obtained from the CDOT website, <a href="http://www.codot.gov/programs/environmental/wildlife/guidelines">http://www.codot.gov/programs/environmental/wildlife/guidelines</a>, or the Colorado Parks and Wildlife (CPW) website, <a href="http://www.cpw.state.co.us/learn/Pages/SOC-ThreatenedEndangeredList.aspx">http://www.cpw.state.co.us/learn/Pages/SOC-ThreatenedEndangeredList.aspx</a>. Additional guidance may be provided by the appropriate Region Planning and Environmental Manager (RPEM).

<u>Cultural Resources</u> - The applicant must request a file search of the permit area through the Colorado Office of Archaeology and Historic Preservation (OAHP), Denver, to ascertain if historic or archaeological resources have previously been identified (<a href="https://www.historycolorado.org/file-access">https://www.historycolorado.org/file-access</a>; 303-866-5216). Inventory of the permit area by a qualified cultural resources specialist may be necessary, per the recommendation of CDOT. If archaeological sites/artifacts or historic resources are encountered as the project progresses, all work in the subject area shall be halted and the CDOT Regional Permitting Office and Region Planning and Environmental Manager shall be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Additional guidance may be provided by the Regional Permitting Office and RPEM.

<u>Paleontological Resources</u> - The level of effort required for paleontological resources is dependent on the amount of ground disturbance, including rock scaling, digging, trenching, boring, ground leveling, and similar activities.

- If the permit will involve extensive ground disturbance (generally involving more than one mile of CDOT ROW), a full review will be required by a qualified paleontologist, including map, file, and locality searches, with final recommendations provided by the CDOT paleontologist upon receipt of the report. Based on results of the review, a survey or inventory of the permit area may be necessary.
- If the permit will involve a small amount of ground disturbance (less than one mile of ROW), the applicant must request a fossil locality search through the University of Colorado Museum of Natural History (<a href="https://www.colorado.edu/cumuseum/research-collections/paleontology/policies-procedure">https://www.colorado.edu/cumuseum/research-collections/paleontology/policies-procedure</a>) and the Denver Museum of Nature and Science (<a href="https://www.cmns.org/science/earth-sciences/earth-sciences-collections/">https://www.cmns.org/science/earth-sciences/earth-sciences-collections/</a>). The museum collections manager will provide information about localities in the project area. If there are no known localities, the permit requirement for paleontology is complete upon submitting that information to CDOT. If there are known localities, the CDOT paleontologist will be contacted by the museum with details, and additional recommendations will be made if necessary. Note that museum staff are not required to disclose the details of fossil localities to the permit applicant, nor is detailed locality information required for the permit application to proceed.
- If the permit involve no ground disturbance, no action is required for paleontological resources. If fossils are encountered during the permitted action, all work in the immediate area of the find should stop and the CDOT Staff Paleontologist and the Region Environmental Manager should be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Additional guidance may be provided by the Regional Permitting Office in the Permit Special Provisions. Contact Information: See the museum websites listed above. The CDOT Paleontologist is not able to conduct locality searches independently. For further information contact CDOT Paleontologist Nicole Peavey at <a href="mailto:nicole.peavey@state.co.us">nicole.peavey@state.co.us</a> or (303)757-9632.

Hazardous Materials, Solid Waste - The Solid Wastes Disposal Sites and Facilities Act C.R.S. 30-20-100, et al, and Regulation Pertaining to Solid Waste Disposal Sites and Facilities (6 CCR 1007-2), prohibit solid waste disposal without an approved Certificate of Designation (a landfill permit). The Colorado Hazardous Waste Act C.R.S. 25-15-301 et al, and the Colorado Hazardous Waste Regulations (6 CCR 1007-3) prohibit the transfer, storage or disposal (TSD) of hazardous waste except at permitted TSD sites. There are no permitted landfills or TSD sites within the State Highway Right of Way. Therefore, all solid or hazardous wastes that might be generated by the activities of entities entering the State Highway Right of Way must be removed from the ROW and disposed of at a permitted facility or designated collection point (e.g., for solid waste, a utility or construction company's own dumpster). If pre-existing solid waste or hazardous materials contamination (including oil or petroleum contaminated soil, asbestos, chemicals, mine tailings, etc.) is encountered during the performance of work, the permittee shall halt work in the affected area and immediately contact the CDOT Regional Permitting Office for direction as to how to proceed.

Contact Information: Theresa Santangelo-Dreiling, CDOT Hazardous Materials Management Supervisor: (303) 512-5524.

Asbestos Containing Materials, Asbestos Contaminated Soil - All work on asbestos containing materials (ACM) must comply with the applicable requirements of the CDPHE Air Pollution Control Division's (APCD) Regulation 8. Disposal of ACM, and work done in asbestos-contaminated soil, must comply with the CDPHE Hazardous Materials and Waste Management Division's (HMWMD) Solid Waste Regulations. The application for any CDOT permit must specifically identify any ACM involved in the work for which authorization is being requested. Additional guidance or requirements may be specified in the permit special provisions. Contact Info: CDPHE APCD and HMWMD Regulations can be accessed via the CDPHE Environmental Permitting Website listed above. Additional information concerning clearance on CDOT projects is available from the CDOT Asbestos Project Manager (303) 512-5519, or Theresa Santangelo-Dreiling, Hazardous Materials Management Supervisor: (303) 512-5524.

<u>Transportation of Hazardous Materials</u> - No person may offer or accept a hazardous material for transportation in commerce unless that person is registered in conformance with the United States Department of Transportation regulations at 49 CFR, Part 171. The hazardous material must be properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by applicable requirements, or an exemption, approval or registration has been issued. Vehicles requiring a placard, must obtain authorization and a State HAZMAT Permit from the Colorado Public Utilities Commission. *Contact Information:* For authorization and more info call the Federal Motor Safety Carrier Administration, US DOT for inter- and intrastate HAZMAT Registration (303) 969-6748. Colorado Public Utilities Commission: (303) 894-2868.

Discharge of Dredged or Fill Material – 404 Permits Administered By the U.S. Army Corps of Engineers, and Section 401 Water Quality Certifications Issued by the CDPHE WQCD - Clean Water Act section 404 permits are often required for the discharge of dredged or fill material into waters of the U.S., including wetlands. Several types of section 404 permits exist, including nationwide, regional general, and individual permits. Nationwide permits are the most commonly authorized type for activities with relatively minor impacts. If an individual 404 permit is required, section 401 water quality certification from the CDPHE WQCD is also required. Contact the appropriate Corps District Regulatory Office for information about what type of 404 permit may be required (contact information above). Contact the CDPHE Water Quality Control Division at (303) 692-3500.

Working on or in any stream or its bank - In order to protect and preserve the state's fish and wildlife resources from actions that may obstruct, diminish, destroy, change, modify, or vary a natural existing stream or its banks or tributaries, it may be necessary to obtain a Senate Bill 40 certification from the Colorado Department of Natural Resources. A stream is defined as 1) represented by a solid blue line on USGS 7.5' quadrangle maps; and/or 2) intermittent streams providing live water beneficial to fish and wildlife; and/or 3) segments of streams supporting 25% or more cover within 100 yards upstream or downstream of the project; and/or 4) segments of streams having wetlands present within 200 yards upstream or downstream of the project measured by valley length. The CPW application, as per guidelines agreed upon by CDOT and CPW, can be accessed at <a href="https://www.codot.gov/programs/environmental/wildlife/guidelines">https://www.codot.gov/programs/environmental/wildlife/guidelines</a>.

Erosion and Sediment Control Practices - Any activities that disturb one or more acres of land require a Stormwater Construction Permit (SCP) from the CDPHE-WQCD. Erosion & sediment control requirements will be specified in that permit. In situations where a stormwater permit is *not* required, all reasonable erosion and sediment control measures should be taken to minimize erosion and sedimentation. Control practices should be in accordance with CDOT Standard Specifications 107.25, 208, 213 and 216 (<a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications">https://www.codot.gov/business/designsupport/cdot-construction-specifications</a>). The CDOT Erosion Control and Stormwater Quality Guide (website: <a href="https://www.codot.gov/programs/environmental/landscape-architecture/erosion-storm-quality">https://www.codot.gov/pacific/cdphe/wq-construction-general-permits</a>

<u>Site Stabilization</u> - All disturbances require a stabilization plan, native seeding or landscape design plan according to applicable CDOT Standard Specifications 212-217 and 623. The CDOT Erosion Control and Stormwater Quality Guide should also be used to plan restoration of disturbed vegetation. Website: <a href="https://www.codot.gov/programs/environmental/landscape-architecture/erosion-storm-quality">https://www.codot.gov/programs/environmental/landscape-architecture/erosion-storm-quality</a>

Stormwater Discharge From Industrial Facilities - Discharges of stormwater runoff from certain types of industrial facilities, such as concrete batch plants - require a CDPS Stormwater Permit. *Contact Information:* Contact the CDPHE-WQCD at (303) 692-3500. Website: https://colorado.gov/pacific/cdphe/wg-commerce-and-industry-permits

<u>Concrete Washout</u> - Waste generated from concrete activities shall NOT be allowed to flow into the drainage ways, inlets, receiving waters, or in the CDOT ROW. Concrete waste shall be placed in a temporary concrete washout facility and must be located a minimum of 50 feet from state waters, drainageways, and inlets. Concrete washout shall be in accordance to CDOT specifications and guidelines at <a href="https://www.codot.gov/business/designsupport/cdot-construction-specifications">https://www.codot.gov/business/designsupport/cdot-construction-specifications</a> and refer to the specifications and their revisions for sections 101, 107 and 208.

<u>Construction Dewatering (Discharge or Infiltration) and Remediation Activities</u> - Discharges of water encountered during excavation or work in wet areas may require a Construction Dewatering or Remediation Activities Discharge Permit. *Contact* 

*Information:* Contact the CDPHE-WQCD at (303) 692-3500. For Applications and Instructions: https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits.

Municipal Separate Storm Sewer System (MS4) Requirements - When working in a MS4 area, discharges to the storm sewer system are subject to CDOT's or other municipalities' MS4 Permit. For activities within the boundaries of a municipality that has a MS4 permit, the owner of such activity should contact the municipality regarding stormwater related requirements. All discharges to the CDOT highway drainage system or within the Right of Way (ROW) must comply with the applicable provisions of the Colorado Water Quality Control Act, the Water Quality Control Commission (WQCC) Regulations (<a href="https://www.colorado.gov/pacific/cdphe/wqcc-regulations-and-policies-and-water-quality-statutes">https://www.colorado.gov/pacific/cdphe/wqcc-regulations-and-policies-and-water-quality-statutes</a>) and the CDOT MS4 Permit #COS-000005 (<a href="https://www.codot.gov/programs/environmental/water-quality/documents">https://www.codot.gov/programs/environmental/water-quality/documents</a>). Discharges are subject to inspection by CDOT and CDPHE. For CDOT-related MS4 programs and requirements, go to: <a href="https://www.codot.gov/programs/environmental/water-quality/stormwater-programs">https://www.codot.gov/programs/environmental/water-quality/stormwater-programs</a>.

<u>Post-Construction Permanent Water Quality</u> - When working in a CDOT MS4 area and the activity disturbs one or more acres, permanent water quality control measures may be required. Information on the requirements can be found under the CDOT Permanent Water Quality MS4 Program at: <a href="https://www.codot.gov/programs/environmental/water-quality/stormwater-programs/pwq-permanent-water-quality">https://www.codot.gov/programs/environmental/water-quality/stormwater-programs/pwq-permanent-water-quality</a>

#### **Discharges to Storm Sewer Systems**

<u>Prohibited Discharges</u> - All discharges are subject to the provisions of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations. Prohibited discharges include, but are not limited to, substances such as wash water, paint, automotive fluids, solvents, oils or soaps and sediment.

Allowable Discharges - The following discharges to stormwater systems are allowed without a permit from the CDPHE-WQCD: landscape irrigation, diverted stream flows, uncontaminated ground water infiltration to separate storm sewers, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, uncontaminated springs, footing drains, water line flushing, flows from riparian habitats and wetlands, and flow from firefighting activities. *Contact Information:* Contact the CDPHE-WQCD at (303) 692-3500. Information can also be found in the CDOT Illicit Discharge MS4 Program PDD at: https://www.codot.gov/programs/environmental/water-quality/stormwater-programs/idde.html.

<u>Spill Reporting</u> - Spills shall be contained and cleaned up as soon as possible. Spills shall NOT be washed down into the storm drain or buried. All spills shall be reported to the CDOT Illicit Discharge Hotline at (303) 512-4426 (4H20), as well as the Regional Permitting Office and Regional Maintenance Supervisor. Spills on highways, into waterways, any spill in the highway right-of-way exceeding 25 gallons, or that may otherwise present an immediate danger to the public shall be reported by calling 911, and shall also be reported to the CDPHE at 1-877-518-5608. More information can be found at <a href="https://www.colorado.gov/pacific/cdphe/emergency-reporting-line">https://www.colorado.gov/pacific/cdphe/emergency-reporting-line</a>.

<u>Disposal of Drilling Fluids</u> - Drilling fluids used in operations such as Horizontal Directional Drilling may be classified as "discharges" or "solid wastes," and in general, should be pumped or vacuumed from the construction area, removed from the State Highway Right of Way, and disposed of at permitted facilities that specifically accept such wastes. Disposal of drilling fluids into storm drains, storm sewers, roadside ditches or any other type of man-made or natural waterway is prohibited by Water Quality Control and/or Solid Waste regulations. Small quantities of drilling fluid solids (less than 1 cubic yard of solids) may be left on-site after either being separated from fluids or after infiltration of the water, provided: 1) the drilling fluid consists of only water and bentonite clay, or, if required for proper drilling properties, small quantities of polymer additives that are approved for use in drinking water well drilling; 2) the solids are fully contained in a pit, and are not likely to pose a nuisance to future work in the area, 3) the solids are covered and the area restored as required by CDOT permit requirements (Utility, Special Use, or Access Permits, etc.). **Contact Information:** Contact CDPHE (telephone #'s listed above).

Noxious Weeds and Invasive Species Management Plan - Noxious Weeds and Invasive Species guidance can be found by contacting the Colorado Department of Agriculture (<a href="https://www.colorado.gov/pacific/agconservation/noxiousweeds">https://www.colorado.gov/pacific/agconservation/noxiousweeds</a>) and the Colorado Division of Parks and Wildlife (<a href="https://cpw.state.co.us/aboutus/Pages/RS-NoxiousWeeds.aspx">https://cpw.state.co.us/aboutus/Pages/RS-NoxiousWeeds.aspx</a>). In either case, management plans involving the control of noxious weeds associated with the permitted activity and cleaning of equipment will be required.





#### What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like roads and sidewalks prevent stormwater from naturally soaking into the ground

#### Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt and other pollutants and flow into CDOT's storm drain system or directly into a stream, river, lake, wetland or reservoir. Anything that enters CDOT's storm drain system is discharged untreated into the waterways we use for fishing, swimming, and providing drinking water.



**Dredged spoil, dirt, slurry**, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, pH, wrecked or discarded equipment, **rock**, **sand**, any industrial, municipal, or agricultural waste.

#### Tips for Reporting an Illicit Discharge

Call the illicit discharge hotline at **(303) 512-4426** From a safe distance try to estimate the amount of the discharge.

Identify characteristics of the discharge (color, odor, algae, etc.).

Obtain information on the vehicle dumping the waste (if applicable).

Do not approach!
Call \*CSP for illicit dumping.
If possible, take a photo, record a license plate.

REMEMBER:

Never get too close to the illicit discharge, it may be dangerous!!!

For more information on CDOT Utility Permits:

<u>https://www.codot.gov/business/permits/utilitiesspecialuse</u>

For more information on CDOT Access Permits:

https://www.codot.gov/business/permits/access permits

For more information on CDOT Water Quality Program:

Water Quality Program Manager 4201 E. Arkansas Ave. Shumate Building Denver, Colorado 80222 303-757-9343

#### Water Quality Program Industrial Facilities Program

CDOT has a Municipal Separate Storm Sewer System permit, otherwise known as (MS4) from the Colorado Department of Public Health and Environment. The permit states that only stormwater can be discharged from CDOT's storm drain system



As part of the permit, CDOT has several different programs to prevent pollutants from entering into the storm drain system:

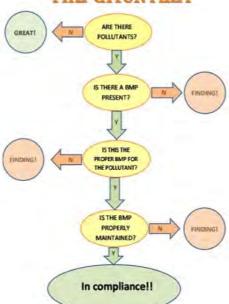
- Construction Site Program
- New Development Redevelopment Program
- Illicit Discharge Program
- Industrial Facilities Program
- Public Education and Outreach Program
- Pollution Prevention and Good Housekeeping Program
- Wet Weather Monitoring Program



#### Control Measures for Industrial Facilities

Industrial facilities can use control measures (CM) otherwise known as Best Management Practices (BMP) during the construction of a facility and when operating the facility. Control measures are schedules of activities, maintenance procedures, and other management practices to prevent and reduce pollution entering into CDOT's storm drain system. Control Measures also include treatment, operating procedures, and practices to control site run off which can include structural and non-structural controls.

#### THE GAUNTLET



CDOT defines a utility, or utility facility as any privately, publicly, or cooperatively owned line, facility, or system producing, transmitting or distributing the following:

- √ Communications
- ✓ Cable television
- ✓ Power
- ✓ Electricity
- ✓ Light
- ✓ Heat Gas
- √ Oil
- ✓ Crude Products
- √ Water
- √ Stream
- ✓ Waste
- ✓ Stormwater not connected with highway drainage
- ✓ Similar Commodity





#### **Industrial Facilities Program Elements:**

- Educate and outreach to owners or operators that have potential to contribute substantial pollutant to water.
- Report and include information on discharge and water quality concerns. Provide written notification within 15 days of discovery to CDPHE.
- Submit an annual report to CDPHE containing the number of informational brochures distributed; name and title of each individual trained.

#### Education

There are instances when a utility company or other entity doing work in the state highway right-of-way will require some type of environmental permit or clearance for that work. CDOT has put together an Environmental Clearances Information Summary for those applying for a CDOT Utility and Special Use Permit or Access Permit to obtain all required clearances. This fact sheet is given to each permittee and is available at: http://www.coloradodot.info/programs/

http://www.coloradodot.info/programs/ environmental/resources/guidancestandards/Environmental%20Clearances% 20Info%20Summary.pdf

# COLORADO DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ACCESS PERMIT APPLICATION

Issuing authority application acceptance date:

Instructions:  - Contact the Colorado - Contact the issuing at - Complete this form (so - Submit an application - If you have any quest - For additional informal	thority to determine ome questions may for each access aff ons contact the issu	what plans not apply to lected. uing authorit	and other docu you) and attac y.	ments are red h all necessa	quired to be submitted ry documents and Su	d with your app ubmit it to the is	lication. ssuing authority.
1) Property owner (Permittee) Salida Bottling Company, Li	C		2) Applicant	or Agent for	permittee (if differen	t from property	owner)
Street address 777 Dunlavy Street, Apt 820	2		Mailing addre	ess			
City, state & zip	one#		City, state &	zip	P	hone # (require	:d)
Houston, TX 77019 832-294-1354 E-mail address			E-mail addre	ss if available			
ewarner497@gmail.com  3) Address of property to be served by permit (rec 323 W 1st Street, Salida, (							
Legal description of property: If within jurisdict county subdivision		lot	500	noite	township	range	
Chaffee  5) What State Highway are you requesting acces 291	19 s from?	4-9	6) What side	of the highwa	50N 1y? □ E ■ W	9E	
7) How many feet is the proposed access from the 1120 feet NSSEW) from 8) What is the approximate date you intend to be 4/1/2022	1: 1	How many 240			s from the nearest cro		
new access	or public payaccess permits se	arking.	operty, or adjac	relocat	in which you have a	access to	SH 291.
12) Does the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner own or have any interpretation of the property owner	be:	100000	e assaments ha	ardoring or wit	hin the property?		
no yes, if yes - list them on y	our plans and indica	ate the propo	osed and existi				
15) If you are requesting commercial or industrial				f businesses	and provide the floor	area square fo	otage of each.
business/land use	squa	are footage		busine			square footage
General Commercial	725	5					
16) If you are requesting residential developement type		e type (single per of units	l e family, apartm	ient, fownhou type	se) and number of un	nits?	number of units
townhouse 16							
17) Provide the following vehicle count estimates	for vehicles that will	l use the acc	ess. Leaving th	ne property th	en returning is two co	ounts.	
Indicate if your counts are peak hour volumes or average daily volume	# of passenger cars	- A			# of multi unit trucks at pe	7.5%	
# of single unit vehicles in excess of 30 ft.	# of farm vehicles (field equipment)  Total count of all vehicles  13						

181	Charle with the ice.	ing authority to determi	on which of the following	documents are required	to complete the review	of your application
101	Grieck with the isst	ania eminority to determi	IE WHICH OF THE TOROWING	i documents are reduited	LO COMDIBLE THE FEVIEW	DEVOLUE SEDENCISHOEF

- a) Property map indicating other access, bordering roads and streets.
- b) Highway and driveway plan profile.
- c) Drainage plan showing impact to the highway right-of-way.
- d) Map and letters detailing utility locations before and after development in and along the right-of-way.
- e) Subdivision, zoning, or development plan.
- f) Proposed access design
- g) Parcel and ownership maps including easements.
- h) Traffic studies.
- i) Proof of ownership.
- 1- It is the applicant's responsibility to contact appropriate agencies and obtain all environmental clearances that apply to their activities. Such clearances may include Corps of Engineers 404 Permits or Colorado Discharge Permit System permits, or ecological, archeological, historical or cultural resource clearances. The CDOT Environmental Clearances Information Summary presents contact information for agencies administering certain clearances, information about prohibited discharges, and may be obtained from Regional CDOT Utility/Special Use Permit offices or accessed via the CDOT Planning/Construction-Environmental-Guidance webpage: <a href="https://www.codot.gov/programs/environmental/resources/guidance-standards/environmental-clearances-info-summary-august-2017/view">https://www.codot.gov/programs/environmental/resources/guidance-standards/environmental-clearances-info-summary-august-2017/view</a>
- 2- All workers within the State Highway right of way shall comply with their employer's safety and health policies/ procedures, and all applicable U.S. Occupational Safety and Health Administration (OSHA) regulations - including, but not limited to the applicable sections of 29 CFR Part 1910 - Occupational Safety and Health Standards and 29 CFR Part 1926 - Safety and Health Regulations for Construction.

Personal protective equipment (e.g. head protection, footwear, high visibility apparel, safety glasses, hearing protection, respirators, gloves, etc.) shall be worn as appropriate for the work being performed, and as specified in regulation. At a minimum, all workers in the State Highway right of way, except when in their vehicles, shall wear the following personal protective equipment: High visibility apparel as specified in the Traffic Control provisions of the documentation accompanying the Notice to Proceed related to this permit (at a minimum, ANSI/ISEA 107-1999, class 2); head protection that complies with the ANSI Z89.1-1997 standard; and at all construction sites or whenever there is danger of injury to feet, workers shall comply with OSHA's PPE requirements for foot protection per 29 CFR 1910.136, 1926.95, and 1926.96. If required, such footwear shall meet the requirements of ANSI Z41-1999.

Where any of the above-referenced ANSI standards have been revised, the most recent version of the standard shall apply.

3- The Permittee is responsible for complying with the Revised Guidelines that have been adopted by the Access Board under the American Disabilities Act (ADA). These guidelines define traversable slope requirements and prescribe the use of a defined pattern of truncated domes as detectable warnings at street crossings. The new Standards Plans and can be found on the Design and Construction Project Support web page at:

https://www.codot.gov/business/civilrights/ada/resources-engineers

If an access permit is issued to you, it will state the terms and conditions for its use. Any changes in the use of the permitted access not consistent with the terms and conditions listed on the permit may be considered a violation of the permit.

The applicant declares under penalty of perjury in the second degree, and any other applicable state or federal laws, that all information provided on this form and submitted attachments are to the best of their knowledge true and complete.

I understand receipt of an access permit does not constitute permission to start access construction work.

Applicant or Agent for Permittee signature	Print name	July 16,2021	
5-7-	Bric Warner		
their legally authorized representative (or	perty, we require this application also to be other acceptable written evidence). This significant	signed by the property owner or quature shall constitute agreement.	
with this application by all owners-of-inter- cases, will be listed as the permittee.	est unless stated in writing. If a permit is is	sued, the property owner, in most	

Dimensional Standards	C-1	1	PD/Site as whole	PD/ Individual Lots	Notes	288
Min. lot size (sq. ft.)	5,625 5,063 <sup>6</sup> 3,750 <sup>7</sup>	5,625	N/A	350		
Density (Min. lot sq. footage per principal dwelling unit)	2,800 2,450 <sup>6</sup>	2,800	1,632	N/A		
Min lot size (sq. ft.)—attached units	2,800 2,520 <sup>6</sup>	2,800	N/A	350		
Min. lot frontage	37'-6" 25' 7	37'-6"	N/A	16'	Townhome lot frontage is measured on 1st Street or interior access easement	d
Min. lot frontage—attached units	20'	20'	N/A	16'	28' is narrowest residential building footprint facing 1st Street.	
Max. lot coverage: structures (additive coverage total for structures uncovered parking cannot exceed 90% except C-2)	60% 66 % <sup>6</sup>	60%	66%	100%	This does include covered balconie Additive coverage for structures and uncovered parking/access for the entire site will not exceed 90%	
Max. lot coverage: uncovered parking/access (additive coverage total for structures and uncovered parking cannot exceed 90% except in C-2) 5	60%	30%	60%	80%	80% is for the HOA lot which is mai vehicle access, with some landscaping.	nly
Min. landscape area	10%	10%	10%	0%		
Min. setback from side lot line for a primary bldg.	5'**	5'**	5'	0'		
Min. setback from side lot line for a detached accessory bldg.	3', 5', or 10' <sup>8</sup>	3', 5', or 10' <sup>8</sup>	N/A	N/A	No accessory buildings allowed	
Min. setback from rear lot line: principal bldg.	5' <sup>2</sup>	5' <sup>2</sup>	5'	0'		
Min. setback from rear lot line: accessory bldg.	5'	5'	N/A	N/A	No accessory buildings allowed	
Min. setback from front lot line <sup>4</sup>	10'	10'	5'	0'	Unit 4 building only at 5'. All buildin along 1st Street have 10' porch fror setback and 15' building front setbato 1st Street.	nt
Parking spaces, min.	19 or 20	19 or 20	19	1/3	1 per residential unit meets code fo inclusionary housing development with site analyzed as a whole. 3 spaces for 700 square foot commercial.	
Max. building height for a primary bldg.	35'	35'	40'	40'	Portions of buildings over 35' shall lesetback 24' minimum from 1st St an Monarch Spur property lines.  Height measured from finished floor	d
Max. building height for a detached accessory bldg.	25'	25'	N/A	N/A	Height measured from limstied from	ı <mark>.</mark>
Maximum number of stories per Hwy 291 established	2	2	3	3	Lots 1-4: 2 story building; 3rd story rooftop access only. Lots 5-7: 3 story building; 4th story rooftop access only. Lots 8-16: 3 story.	

289

Proposed Schedule of Uses:

Proposed Schedule of Uses:					
Residential Uses	C-1	1	PD	Standards <sup>1</sup>	
Accessory buildings and structures.	Р	Р	Р	Sec. 16-4-190(c)	
Multiple principal residential structures	Р	Р	Р	Sec. 16-4-190(b)	
Accessory dwelling units	AR	AR	AR	Sec. 16-4-190(c)	
Duplex dwelling units	P 3	LR <sup>3</sup>	Р		
Residential (3—4 units)*	AR <sup>3</sup>	AR <sup>3</sup>	AR		
Residential (5—19 units)	LR <sup>3</sup>	LR <sup>3</sup>	AR		
Residential (20 or more units)	MR <sup>3</sup>	MR <sup>3</sup>	MR		
Single-family dwelling units	AR <sup>3</sup>	AR <sup>3</sup>	AR		
One or more dwelling units on the same site as a commercial or industrial use	LR	LR	AR		
Residential Business Uses	C-1	I	PD	Standards <sup>1</sup>	
Day care, home	Р	Р	Р	Sec. 16-4-190(f)	
Home Occupations	Р	Р	Р	Sec. 16-4-190(g)	
Home Businesses	Р	Р	AR	Sec. 16-4-190(g) AR to allow for review of required parking.	
Bed & Breakfast Inns	Р	AR	AR	AR to allow for review of required parking.	
Short-term rental units	AR	AR	AR	Sec. 16-4-190(q) Subject to STR regulations in effect at time of STR license application.	
Commercial, Personal Service and Office Uses	C-1	1	PD	Standards <sup>1</sup>	
Eating and drinking establishments	Р	LR	AR	AR to allow for review of required parking.	
Professional offices	Р	LR	AR	AR to allow for review of required parking.	
Retail sales and rental establishments	Р	LR	AR	Sec. 16-4-190(m) AR to allow for review of required parking.	

January 4, 2022

Mr. Bill Almquist Salida Community Development Director The Touber Building 448 E 1<sup>st</sup> Street, Suite 112 Salida, CO 81201

Dear Mr. Almquist,

The purpose of this letter is to share with you our concerns and make suggestions regarding the planned development of the 323 West 1<sup>st</sup> Street property.

We have made our home for twenty years at 211 West 1<sup>st</sup> Street in the historic Adolph Coors, Golden Beer Depot, Salida Bottling Company Agents Building, which is a contributing structure within the Salida Downtown Historic District. The building was purchased by our family from the City of Salida in 1989. For your information, we have included photos of our building from the 1890s, 1980s (when the City sold it to our family) and today. We have always strived to be responsible property owners and good citizens of historic Salida and Chaffee County.

We love living in downtown Salida and have learned over the years that we need to be flexible to enjoy it. Traffic, people, bars, noise, crowds, etc., are all part of the downtown lifestyle. If either of us complains about a minor downtown annoyance, we remind ourselves that we chose "to live in the hood, so suck it up buttercup."

In 2004, the City sold us a second parcel of land on which we constructed an addition to the back of our building. At the same time the City also sold us a parking easement to park three vehicles in the small public lot directly behind our building, and the access easements we needed to access our building and property.

We watched the Planning & Zoning Commission hearing held on December 14, 2021 about the plans for the development of 323 West 1<sup>st</sup> Street. After watching that meeting, it occurred to us that we are likely to see some changes if the development is approved with height increases and with such limited parking, as your staff recommended. We have identified several concerns to share with you and the P & Z Commission.

Our concerns are as follows:

1. The new construction will effectively swamp the view of our historic building from the east (i.e., 1<sup>st</sup> Street in downtown) as well as from the west, rising high over our roof line and historic Western false front.

- 2. The new construction will eliminate any views we have of the mountains to the west of our historic building, and our views will likely be replaced with people on rooftop decks, as well as the buildings.
- 3. The new construction, when occupied, will put a substantial strain on the already very limited public parking in the neighborhood. The small lot behind our home, being the closest to the development, most likely will be impacted first.

We appreciate that time marches on and that the views of and from our actually historic home may not be of concern to you. But we wanted to mention it because we have always enjoyed seeing the mountains from our west-facing windows and property and we think our building adds character to the historic downtown.

Parking in the lot directly behind our building is of greater concern to us. We believe that by approving this development with such limited parking, the City will effectively devalue the parking easement that was sold to us by the City in 2004. In addition, parking along the west side of our building, at least partly on our private property, is already a problem during busy times (Thanksgiving, Brewfest, FIBArk, Artwalk, July 4th, etc.). People park on our property; often parking and walking on top of our landscaping and flowers.

The lot behind our home holds about 8 to 10 vehicles, depending on the vehicle size and care taken when parking. We suspect that the fourteen new 2+ bedroom units across the trail will likely require 2+ parking places per unit. Because the lot directly behind our building is the closest parking to the new development, we suspect that as regards to parking, every day will be FIBArk at our house.

We would like to propose a solution that would satisfy us by eliminating the effective devaluation of the parking easement sold to us by the City in 2005 and eliminating, as well, our issues with people parking on our private property, landscaping and plants.

If you agree, we would like to propose that we work with Public Works Director David Lady to install signage designating our three parking spots as reserved for our building, and to get his advice on how best to sign our private property as unavailable for public parking. We would be willing to work with Mr. Lady to cover the cost of any sign purchases that are found to be necessary.

Thank you in advance for considering our input. We look forward to hearing from you.

Xittein

Sincerely.

Earle & Judith Kittleman

#### 292

# Photos of 211 West 1st Street

1890s







2022

