



September 04, 2021

Antonio Benton II, Planner I  
City of Aurora Planning Department  
15151 East Alameda  
Parkway  
Aurora, CO 80012

**Re:**           **Second Submission Review:**   1900 S Chambers Community Lot 1 - Site Plan Amendment Amdt.  
                  **Application Number:**         DA-2105-01  
                  **Case Numbers:**             2018-6020-03

Dear Mr. Benton:

Please use this cover letter as a guide for the Second Submittal of 1900 S Chambers Community Lot 1 – Site Plan Amendment. The following pages detail the response to your comments, and no major changes have occurred since the previous submittal. If you have any comments or concerns, please give call or email me. I may be reached at 817.687.8846 or [gbogdanoff@pnt-llc.com](mailto:gbogdanoff@pnt-llc.com).

Sincerely,

*Gabriel James Bogdanoff*

*Initial Submission Review*



## **SUMMARY OF KEY ISSUES**

- Address neighborhood comments and update building elevations. (Planning)
  - **Response: Noted.**
- Address all Planning redlines and comments in your resubmittal. (Planning)
  - **Response: Addressed.**
- Acknowledge if there will be fence in addition to the retaining wall. (Landscaping)
  - **Response: Added fence to retaining wall**
- Site Plan won't be approved until the preliminary drainage report is approved. (Civil Engineering)
  - **Response: Noted**
- Traffic comments will be provided in the next review. (Traffic)
  - **Response: Received traffic comments and have submitted it with this second submittal**
- Address comments regarding Knox Boxes, Fire Lane, and FDC. (Life Safety)
  - **Response: Addressed.**
- Demonstrate how runoff from this area is conveyed to the area inlet. (Aurora Water)
  - **Response: Shown.**
- Begin easement release process. (Real Property)
  - **Response: Noted.**
- RTD and Arapahoe County have no comments regarding this project.
  - **Response: Noted.**

## **PLANNING DEPARTMENT COMMENTS**

### **1. Planning** (Antonnio Benton / 303-739-7209 / [abenton@auroragov.org](mailto:abenton@auroragov.org) / Comments in teal)

- A. In your comment response letter, adequately address all neighborhood comments. Staff will make a determination during the next review whether a neighborhood meeting will be required.
  - **Response: Noted.**
- B. Marsha Moss, [mossmarsha@aol.com](mailto:mossmarsha@aol.com) / 303-437-7549  
*Comment: My property is surrounded by this development. I need to talk to someone for a better understanding of the drawings and what is proposed to be done at my property lines. My main questions are about the 15' buffer and drainage. The buffer is on my property so what does that mean for me? As for drainage, the narrative for the plans indicates some drainage would be directed to my property. This past summer Miles Bruckal stopped by and proposed giving me some dirt for landscaping my property in such a way as to eliminate their need to build retaining walls around their property line. I have said neither yes nor no to this proposal since I haven't seen anything specific to agree to.*
  - **Response: Noted. We will continue to discuss with Marsha Moss to ensure her approval of the design.**
- C. Megan Youngblood, [megan.youngblood@rowcal.com](mailto:megan.youngblood@rowcal.com) / 720-774-4153  
*Comment: I personally would prefer the Memory Care center over a 56-unit apartment complex. I feel an apartment complex will potentially bring more issues to the area.*
  - **Response: Understood. The design remains as is.**
- D. A 30-foot setback from Chambers Road is required Please label all setbacks on the Site Plan.
  - **Response: A 27-foot setback from Chambers Road has been included and labeled on the Site Plan. We believe this to be a reasonable compromise from the original 20' setback requirements the city proposed and from which this project had operated from since inception.**
- E. The primary façade which is the west elevation should have main pedestrian entry per city code. Label on the Site Plan and elevation.
  - **Response: The main pedestrian entry on the primary façade has been enhanced per correction "F" and has been properly labeled on the site plan and elevations.**
- F. Add an enhanced entry design to the main entrance off of Chambers Road. There should be an accentuated entrance using one of the following methods – projected mass, recessed mass, corner entry, roof form variation, awning or sunshade device. This should be shown in updated elevations.





- Response: The entry has been enhanced with the addition of storefront glass on the exterior stair shaft wall, a metal awning above the door, and the addition of a wall bump out to create a recessed entry condition. These changes are reflected on the updated elevations.
- G. On-site outdoor space shall be a minimum of 20% of the site. The outdoor space should be usable green spaces for unstructured recreation, playgrounds, outdoor swimming pools, athletic courts, and common gathering spaces such as plazas and courtyards. A significant portion of the outdoor space should be consolidated in a centralized portion of the development. Currently this proposal doesn't meet this requirement. Label the open space so staff can determine if the 20% requirement is being met. Also, call out the dedicated amount of open space in your data table on the cover sheet.
  - Response: Per code Section 3.3.2.H.7, an Outdoor Space Credit is permitted for "Multifamily buildings located within 330 feet of a neighborhood or community park may reduce the outdoor space requirement by half for that portion of the site located within 330 feet of the park. To receive this credit, a direct pedestrian route to the park is required, which may not cross an arterial street or other roadway with a speed limit that is 40 mph or above." As the property directly south of the site is a regional trail that can be accessed via the sidewalk along Chambers, this site qualifies for an Outdoor Space Credit. The site contains the required 10% Outdoor Space.
- H. Identify the building length on your elevations. The maximum building length in Subarea B is 200 feet.
  - Response: The building length has been identified on the elevation sheet. The building's length is the result of siting requirements due to drainage and parking area restraints that restrict building width.
- I. Correct the maximum building height in Data Block – Lot 1 from 60' to 45' per city code for Subarea B. Add an Amendment Block to the cover sheet.
  - Response: Updated Cover Sheet to 45' and added Amendment Block
- J. Update the Letter of Introduction to add the number of units being provided and not just total bedrooms.
  - Response: Added total number of units to Letter of Introduction.
- K. The required number of accessible parking spaces is three (3). Update the data table and Site Plan to meet this requirement.
  - Response: Updated to 3.
- L. Add the number of required and provided bicycle parking spaces to the data table. Call out the number of bicycle parking spaces being provided on Sheet 2.
  - Response: Updated Sheet 2 and Cover Sheet with number of bicycle parking spots.
- M. The current elevations do not meet the building design standards for four-sided design. Incorporate more façade character elements, vertical and horizontal articulations into all the elevations. Refer to Table 4.8-1 for building design standards and Table 4.8-8 for required façade elements for elevations. Provide a matrix showing how the elevations meet design requirements.
  - Response: A matrix has been added to the elevation sheets describing conformity with the Mixed-Use Building Design Standards described in Table 4.8-1 and 4.8-8. Character elements and vertical/horizontal articulations have been included.
- N. Include fence elevations for the dog park in your next submission. Chain link fencing, with or without slats, is not a permitted material.
  - Response: Noted. There is a detail on the landscape details sheet.
- O. At least 40 percent of resident parking should be in garages or carports and at least 50 percent of those garages and carports should be attached to a primary residential structure, directly or through a roofed structure with partial sidewalls or without sidewalls, rather than freestanding garages or carports. Provide an explanation for staff regarding how this is being met and reflect the numbers and percentages in the data block.
  - Response: Noted. The parking meets these standards.
- P. The detached garages should be faced with the same mix and percentage of materials as the primary building.
  - Response: The detached garages have been updated to have a similar mix and percentage of materials as the primary building. Refer to garage elevation sheets for updates.
- Q. Identify material being used in "lap siding" on elevations.
  - Response: The "lap siding" being used consists of 8" and 4" horizontal fiber cement panels.
- R. Include an accessible route from the main building entry to the public way.
  - Response: An accessible route exists from the ROW to the building.



**7. Addressing** (Philip Turner / 303-739-7271 / [pturner@auroragov.org](mailto:pturner@auroragov.org))

A. Approved, no comments.

- Response: Noted.

**8. Landscaping Issues** (Kelly Bish / 303-739-7189 / [kbish@auroragov.org](mailto:kbish@auroragov.org) / Comments in bright teal)

Sheet LP-1

A. Do not include the interior of the building. Just a heavier building outline.

- Response: Landscape plan has been updated to show just the exterior of the building

B. The Site Plan calls out a fence in the same area as a retaining wall, but the landscape plan does not include that. Will there be a fence in addition to the retaining wall?

- Response: Landscape plan has been updated to show and callout fence along the retaining wall

C. Add the ornamental grass and perennial symbology to the legend.

- Response: Plant symbols have been moved to be together in one column

D. Ornamental trees shall be 2" diameter.

- Response: Tree diameters have been changed to show 2" diameters

E. The Plant List font is too small and light.

- Response: Plant list has been updated to show the correct font size

F. Please remove the boxwoods from the plant list as they don't perform well here.

- Response: Boxwoods have changed to another plant species that does better in the given environment

Sheet LD-1

G. Move the Key Map to the Landscape Plan sheet and hatch the plan area represented in the map.

- Response: Landscape plan has been updated to show the key plan with the hatched in site location

H. Update the notes provided based upon the comments.

- Response: Notes have been updated

I. While mulch treatments have been described, neither of the mulch treatments are specific to where they will be used.

- Response: Notes have been updated to specify where they are to be used

J. The table provided is too small and too light.

- Response: Font size has changed to be the correct size

K. Update the table per the comments provided.

- Response: Noted

Sheet LD-2

L. Provide a detail of the retaining wall including height, color and material.

- Response: Landscape details sheet has been updated to show this detail

**REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES**

**9. Civil Engineering** (Julie Bingham / 303-739-7304 / [jbingham@auroragov.org](mailto:jbingham@auroragov.org) / Comments in green)

Sheet 1:

A. The site plan will not be approved by public works until the preliminary drainage letter/report is approved.

- Response: Noted

Sheet 2:

B. Existing drainage easement needs to be vacated.

- Response: Noted.

C. Please label fire lane easement radii. (typ)

- Response: Added.

D. Please label curb return radii. (typ)

- Response: Added.

E. Label cross pan.

- Response: Labeled

Sheet 3:



- F. Label slope in concrete pan. Minimum slope for concrete is 0.5%  
- **Response: Labeled and is greater than 0.5%**
- G. Please add slope labels around building: minimum slope away from the building is 5% for 10' in landscape areas, minimum 2% for impervious areas.  
- **Response: All slopes for 10-feet are either greater than 5% for landscape or 2% for impervious areas.**
- H. Please label slopes. Max 3:1.  
- **Response: All slopes are less than 3:1**
- I. Minimum pavement slopes: 1% for asphalt.  
- **Response: all pavement is greater than 1%**
- J. Any permanent BMP requires a drainage easement and an access easement connecting to ROW - please show on this plan.  
- **Response: Noted. The permanent BMP is the same as the approved Construction Documents for Lots 1 and 2. The easement path to reach the manhole is shown and called out on the site plan.**
- K. Please show the Base Flood Elevations in the channel per the floodplain report/analysis. Lowest floor of residential units is required to be 2' above the base flood elevations.  
- **Response: Added BFE to sheet and all FFEs are above BFE+2'.**
- L. Please add railing to all walls greater than 30".  
- **Response: The entire wall along the tributary is to have railing. This is now shown on the plans.**
- M. Max 4% cross slope in proposed fire lane. (typ) Max 8% in parking areas.  
- **Response: Noted. Drive now meets this requirement.**
- N. Please include a typical section of the wall.  
- **Response: Added to the Landscape sheets.**
- O. Add a note indicating if the storm sewer system is public or private and who will maintain it.  
- **Response: Called out as private and to be maintained by owner**
- Sheet 4:
- P. Add a note indicating if the storm sewer system is public or private and who will maintain it.  
- **Response: Called out as private and to be maintained by owner**
- Sheet 5:
- Q. Please ensure trees are a minimum of 10' from storm sewer  
- **Response: All trees are at least 10' from storm lines.**

**10. Traffic Engineering** (Carl Harline / 303-739-7336 / [charline@auroragov.org](mailto:charline@auroragov.org) / Comments in orange)

- A. Traffic comments will be provided in the next review.  
- **Response: Traffic comments have actually been provided this second submittal shows the required changes.**

**11. Fire / Life Safety** Life Safety (Ted Caviness/ 303-739-7420 / [tcaviness@auroragov.org](mailto:tcaviness@auroragov.org) / See blue comments)

**SHEET 1:**

Sheet CS-1/Cover Sheet:

- A. See comment related to duplicate note.  
- **Response: Noted.**

Sheet SP-1/Site Plan:

- B. See comment related to Knox Box.  
- **Response: Noted.**
- C. See comment related to FDC.  
- **Response: Noted.**
- D. See comment related to fire lane signage spacing.  
- **Response: Noted.**
- E. See comment related to dead-end fire lane.  
- **Response: Noted.**
- F. See comment related to bold dashed line to delineate the fire lane.  
- **Response: Noted.**



G. See comment related to parking blocks.

- **Response: Noted.**

H. See comment related to duplicate note.

- **Response: Noted.**

Sheet UP-1/Utility Plan:

I. See comment related to Knox Box.

- **Response: Noted.**

J. See comment related to FDC.

- **Response: Noted.**

Sheet 8 of 11/Building Elevations:

K. See comment related to Knox Box.

- **Response: Noted.**

L. See comment related to FDC.

- **Response: Noted.**

SHEET 10 of 11/Photometric Plan:

M. See comment related to minimum illumination.

- **Response: Noted.**

**12. Forestry** (Jacque Chomiak / 303-739-7178 / [jchomiak@auroragov.org](mailto:jchomiak@auroragov.org) /)

A. Approved, no comments.

- **Response: Noted.**

**13. Aurora Water** (Ryan Tigera / (303) 326-8867 / [rtigera@auroragov.org](mailto:rtigera@auroragov.org) / Comments in red)

A. Demonstrate how runoff from this area is conveyed to the area inlet.

- **Response: Added flow arrows to show how runoff reaches inlets.**

B. Label storm sewer and water quality device as private. Provide access to manholes via a maintenance trail to the manholes.

- **Response: Labeled devices as private and showed access via easements and paths to reach manholes.**

**14. Real Property** (Maurice Brooks / 303-739-7294 / [mbrooks@auroragov.org](mailto:mbrooks@auroragov.org) / Comments in magenta)

A. See the Note change on the first page. There are several easements labeled to be vacated by separate document. Begin this easement release - contact Andy Niquette at [releaseeasement@auroragov.org](mailto:releaseeasement@auroragov.org) to start the process. If any easements need to be dedicated by separate document, then contact Andy Niquette [dedicationproperty@auroragov.org](mailto:dedicationproperty@auroragov.org) to start the processes.

- **Response: Noted.**

**15. Arapahoe County Planning Division** (Terri Maulik / 720-874-6650 / [tmaulik@arapahoegov.org](mailto:tmaulik@arapahoegov.org))

A. Thank you for the opportunity to review and comment on this project. The Arapahoe County Planning Division has no comments; however, other departments and/or divisions may submit comments.

- **Response: Noted.**

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**16. Regional Transportation District (RTD)** (Clayton Woodruff / 303-299-2943 / [clayton.woodruff@rtd-denver.com](mailto:clayton.woodruff@rtd-denver.com))

A. RTD has no comments for this project.

- **Response: Noted.**





# 1900 SOUTH CHAMBERS COMMUNITY LOT 1

## SITE PLAN

A SUBDIVISION OF A PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 20,  
TOWNSHIP 4 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN  
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO

Correct maximum  
building height from 60'  
to 45' per city code for  
Subarea B.

UPDATED.

### DATA BLOCK - LOT 1

LAND AREA WITHIN PROPERTY LINES	2.002 AC.
NUMBER OF BUILDINGS	1
NUMBER OF BEDROOMS	65 TOTAL
BUILDING HEIGHT	ALLOWED 60' (MAX) PROVIDED 37'-6" (MAX)
TOTAL BUILDING COVERAGE AND GFA	15,980 S.F. (18%)
HARD SURFACE AREA	36,135 S.F. (41%)
LANDSCAPE AREA	35,103 S.F. (40%)
PRESENT ZONING CLASSIFICATION	R-3
OCCUPANCY TYPE	R-3
CONSTRUCTION TYPE	V-B-SPK
BUILDING SPRINKLED	NFPA 13R
MAXIMUM PERMITTED/ALLOWABLE SIGN AREA	96 S.F.
PROPOSED TOTAL SIGN AREA	96 S.F.
PROPOSED NUMBER OF SIGNS	1
PROPOSED MONUMENT SIGN	1
PROPOSED MONUMENT SIGN AREA	96 S.F. PER SIDE
PARKING SPACES REQUIRED	62
PARKING SPACES PROVIDED	63
ACCESSIBLE SPACES REQUIRED	2
ACCESSIBLE SPACES PROVIDED	2
VAN ACCESSIBLE SPACE REQUIRED	1
VAN ACCESSIBLE SPACE PROVIDED	1
LOADING SPACES REQUIRED	2
LOADING SPACES PROVIDED	2

### SITE PLAN LEGEND

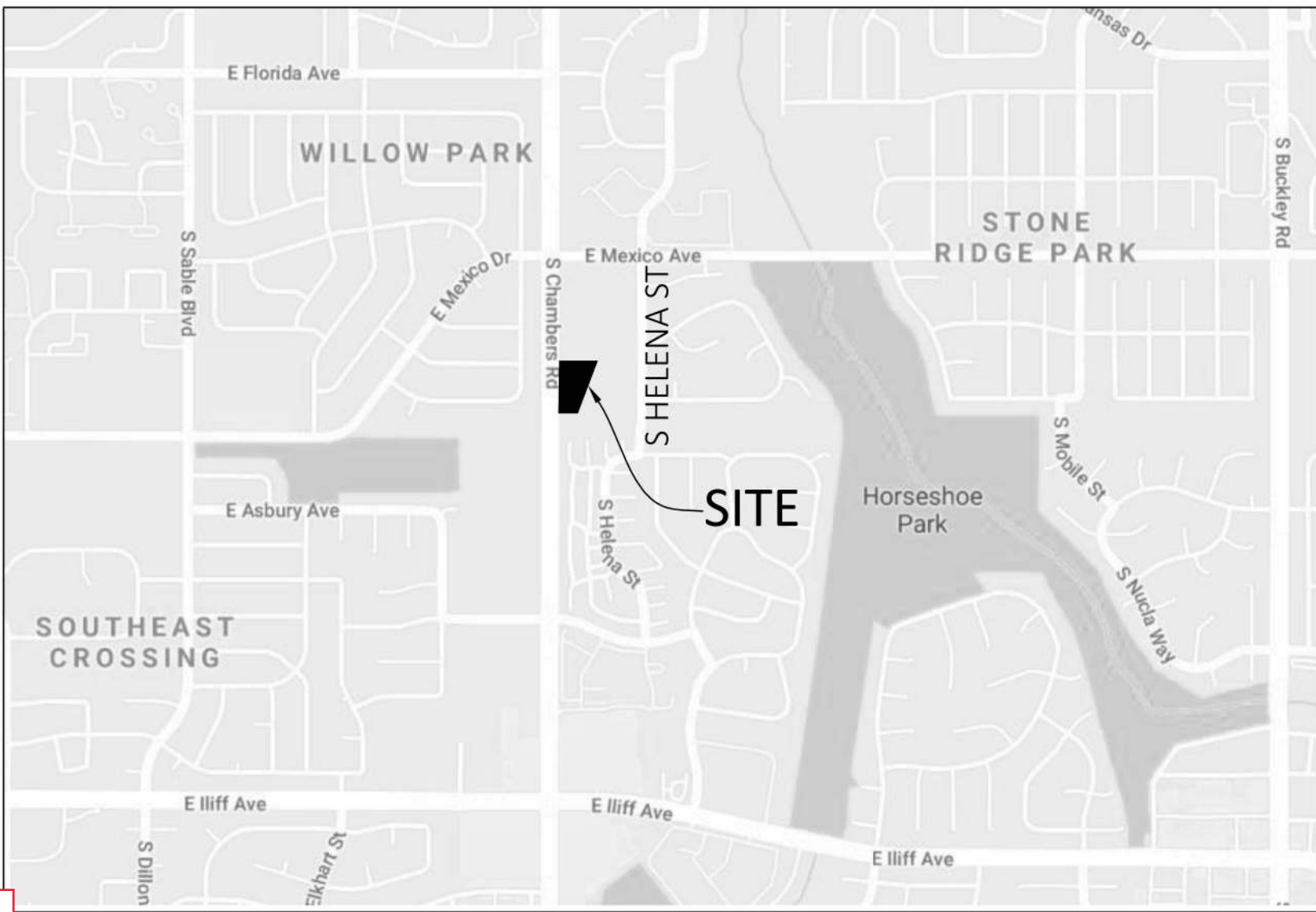
	PROPERTY LINE
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	LANDSCAPE AREA
	CONCRETE SIDEWALK
	PROPOSED SITE LIGHTING
	PROPOSED SIGN
	EXISTING FIRE HYDRANT

Required number of  
accessible parking spaces  
required is 3. Update to  
plan to meet this  
requirement

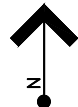
UPDATED.

Add the number  
required and  
number of bicycle  
parking spaces  
being provided to  
the data table.

ADDED BICYCLE  
REQUIREMENTS  
AND PROVISION.



VICINITY MAP  
NOT TO SCALE



The site plan will not be approved by  
public works until the preliminary  
drainage letter/report is approved  
NOTED.

### CITY OF AURORA APPROVALS

CITY ATTORNEY: \_\_\_\_\_ DATE: \_\_\_\_\_

PLANNING DIRECTOR: \_\_\_\_\_ DATE: \_\_\_\_\_

PLANNING COMMISSION: \_\_\_\_\_ DATE: \_\_\_\_\_  
(CHAIRPERSON)

CITY COUNCIL: \_\_\_\_\_ DATE: \_\_\_\_\_  
(MAYOR)

ATTEST: \_\_\_\_\_ DATE: \_\_\_\_\_  
(CITY CLERK)

DATABASE APPROVAL DATE: \_\_\_\_\_

RECORDER'S CERTIFICATE:  
ACCEPTED FOR FILING IN THE OFFICE OF THE CLERK AND RECORDER OF \_\_\_\_\_

COLORADO AT \_\_\_\_\_ O'CLOCK \_\_\_\_\_ M, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ AD, \_\_\_\_\_.

CLERK AND RECORDER: \_\_\_\_\_ DEPUTY: \_\_\_\_\_

### SIGNATURE BLOCK

\_\_\_\_\_  
1900 SOUTH CHAMBERS COMMUNITY LOT 1 SITE PLAN  
(OFFICIAL PROJECT NAME)

LEGAL DESCRIPTION: 1900 SOUTH CHAMBERS SUBDIVISION FILING NO. 1, LOT 1

THIS SITE PLAN AND ANY AMENDMENTS HERETO, UPON APPROVAL BY THE CITY OF AURORA AND RECORDING, SHALL BE BINDING UPON THE APPLICANTS THEREFORE, THEIR SUCCESSORS AND ASSIGNS. THIS PLAN SHALL LIMIT AND CONTROL THE ISSUANCE AND VALIDITY OF ALL BUILDING PERMITS, AND SHALL RESTRICT AND LIMIT THE CONSTRUCTION, LOCATION, USE, OCCUPANCY AND OPERATION OF ALL LAND AND STRUCTURES WITHIN THIS PLAN TO ALL CONDITIONS, REQUIREMENTS, LOCATIONS AND LIMITATIONS SET FORTH HEREIN. ABANDONMENT, WITHDRAWAL OR AMENDMENT OF THIS PLAN MAY BE PERMITTED ONLY UPON APPROVAL OF THE CITY OF AURORA.

IN WITNESS THEREOF, \_\_\_\_\_ HAS CAUSED THESE

BRUCKAL DEVELOPMENT INC.

PRESENTS TO BE EXECUTED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ AD, \_\_\_\_\_.

BY: \_\_\_\_\_  
MYLES BRUCKAL

STATE OF COLORADO  
COUNTY OF \_\_\_\_\_ ARAPAHOE

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ AD, BY

\_\_\_\_\_  
(PRINCIPLE OR OWNERS)

WITNESS MY HAND AND OFFICIAL SEAL

\_\_\_\_\_  
(NOTARY PUBLIC)

MY COMMISSION EXPIRES \_\_\_\_\_ NOTARY BUSINESS ADDRESS: \_\_\_\_\_

### IMPLEMENTATION PLAN - LOT 1

2015 INTERNATIONAL BUILDING CODE (R-2)		COLORADO STATE HOUSE BILL 03-1221 ARTICLE 5, C.R.S. 9-5-101	
ACCESSIBLE DWELLING UNITS		ACCESSIBLE DWELLING UNITS	
NUMBER OF TYPE A UNITS REQUIRED PER SECT. 1107.6.2.2	AT LEAST 2 PERCENT PER BUILDING	NO. OF ACCESSIBLE POINTS REQUIRED	24 POINTS FOR 51 UNITS
PROVIDED:	ONE UNIT	NO. OF ACCESSIBLE POINTS PROVIDED	4 PTS EACH TYPE B X 12 UNITS 6 PTS EACH TYPE A X 1 UNIT TOTAL: 54 POINTS
NUMBER OF "TYPE B" UNITS REQUIRED PER SECT. 1107.6.2.2	ALL GROUND FLOOR UNITS IN A NON-ELEVATOR BUILDING		
PROVIDED:	12		

### SHEET INDEX

1 OF 11	CS-1	COVER SHEET
2 OF 11	SP-1	SITE PLAN
3 OF 11	GP-1	GRADING PLAN
4 OF 11	UP-1	UTILITY PLAN
5 OF 11	LP-1	LANDSCAPE PLAN
6 OF 11	LD-1	LANDSCAPE NOTES & DETAILS
7 OF 11	LD-2	LANDSCAPE NOTES & DETAILS
8 OF 11		BUILDING ELEVATIONS
9 OF 11		GARAGE ELEVATIONS
10 OF 11		SITE LIGHTING PHOTOMETRIC PLAN
		SITE LIGHTING CUT SHEETS AND DETAILS

### CONTACTS

#### OWNER/DEVELOPER

BRUCKAL DEVELOPMENT INC.  
4500 N 32ND STREET, UNIT 100F  
PHOENIX, AZ 85018  
CONTACT: MYLES BRUCKAL  
TELEPHONE: 602.510.0381

#### ARCHITECT

GODDEN SUDIK ARCHITECTS  
5975 S. QUEBEC ST. STE 250  
CENTENNIAL, CO 80111  
CONTACT: PAUL BRADY, NCARB, AIA, LEED-AP  
TELEPHONE: 303.803.8897

#### SURVEYOR

POINT CONSULTING, LLC  
8460 W KEN CARYL AVE  
LITTLETON, CO 80128  
CONTACT: CAMERON WATSON, PLS  
TELEPHONE: 720.258.6836

#### BENCHMARK

AURORA BENCHMARK POINT NO. 09-0708, 3" DIAMETER BRASS CAP ATOP THE NORTH EDGE OF A CURB OPENING INLET & CENTERED THEREON BEING ON THE WEST SIDE OF S. CHAMBERS ROAD & 40' MORE/LESS NORTH OF THE JEWELL LANDLINE AS EVIDENCED BY THE RANGE BOX IN S. CHAMBERS ROAD. PUBLISHED ELEVATION = 5535.38'

#### BASIS OF BEARINGS

S 89°24'18" W BEING THE SOUTH LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 20, TOWNSHIP 4 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN AS MEASURED BETWEEN THE MONUMENTS FOUND AND SHOWN HEREON.

### GENERAL NOTES

- THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, INCLUDING THE HOMEOWNERS OR MERCHANTS ASSOCIATION, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL FIRE LANE SIGNS AS REQUIRED BY THE CITY OF AURORA.
- ALL SIGNS MUST CONFORM TO THE CITY OF AURORA SIGN CODE.
- RIGHT OF WAY FOR INGRESS AND EGRESS FOR SERVICE AND EMERGENCY VEHICLES IS GRANTED OVER, ACROSS, ON AND THROUGH ANY AND ALL PRIVATE ROADS AND WAYS NOW OR HEREAFTER ESTABLISHED ON THE DESCRIBED PROPERTY, AND THE SAME ARE HEREBY DESIGNATED AS "SERVICE/EMERGENCY AND UTILITY EASEMENTS" AND SHALL BE POSTED "NO PARKING - FIRE LANE."
- "ACCESSIBLE EXTERIOR ROUTES" SHALL BE PROVIDED FROM PUBLIC TRANSPORTATION STOPS, ACCESSIBLE PARKING AND ACCESSIBLE PASSENGER LOADING ZONES AND PUBLIC SIDEWALKS TO 60% OF THE ACCESSIBLE BUILDING ENTRANCES THEY SERVE. THE ACCESSIBLE ROUTE BETWEEN ACCESSIBLE PARKING AND ACCESSIBLE BUILDING ENTRANCES SHALL BE THE MOST PRACTICAL DIRECT ROUTE. THE ACCESSIBLE ROUTE MUST BE LOCATED WITHIN A SIDEWALK. NO SLOPE ALONG THIS ROUTE MAY EXCEED 1:20 WITHOUT PROVIDING A RAMP WITH A MAXIMUM SLOPE OF 1:12 AND HANDRAILS. CROSSWALKS ALONG THIS ROUTE SHALL BE WIDE ENOUGH TO WHOLLY CONTAIN THE CURB RAMP WITH A MINIMUM WIDTH OF 36" AND SHALL BE PAINTED WITH WHITE STRIPES. THE CITY OF AURORA ENFORCES HANDICAPPED ACCESSIBILITY REQUIREMENTS BASED ON THE 2015 INTERNATIONAL BUILDING CODE, CHAPTER 11, AND THE INTERNATIONAL CODE COUNCIL (ICC) A117.1-2009.
- THE APPLICANT HAS THE OBLIGATION TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
- THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT. ALL LANDSCAPING WILL BE INSTALLED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
- ALL CROSSINGS AND ENCROACHMENTS BY PRIVATE LANDSCAPE IRRIGATION SYSTEMS OR PRIVATE UTILITIES INTO EASEMENTS AND STREET RIGHTS-OF-WAY OWNED BY THE CITY OF AURORA ARE ACKNOWLEDGED BY THE UNDERSIGNED AS BEING SUBJECT TO CITY OF AURORA'S USE AND OCCUPANCY OF THE SAID EASEMENTS OR RIGHTS-OF-WAY. THE UNDERSIGNED, THEIR SUCCESSORS AND ASSIGNS, HEREBY AGREE TO INDEMNIFY THE CITY OF AURORA FOR ANY LOSS, DAMAGE OR REPAIR TO CITY FACILITIES THAT MAY RESULT FROM THE INSTALLATION, OPERATION OR MAINTENANCE OF SAID PRIVATE IRRIGATION SYSTEMS OR PRIVATE UTILITIES.
- THE APPROVAL OF THIS DOCUMENT DOES NOT CONSTITUTE FINAL APPROVAL OF GRADING, DRAINAGE, UTILITY, PUBLIC IMPROVEMENTS AND BUILDING PLANS. CONSTRUCTION PLANS MUST BE REVIEWED AND APPROVED BY THE APPROPRIATE AGENCY PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
- ALL BUILDING ADDRESS NUMBERS SHALL COMPLY WITH AURORA CITY CODE OF ORDINANCE, CHAPTER 126 - ARTICLE VII - NUMBERING BUILDINGS.
- ALL ROOFTOP MECHANICAL EQUIPMENT AND VENTS GREATER THAN EIGHT (8) INCHES IN DIAMETER MUST BE SCREENED. SCREENING MAY BE DONE EITHER WITH AN EXTENDED PARAPET WALL OR A FREESTANDING SCREEN WALL. SCREENS SHALL BE AT LEAST AS HIGH AS THE EQUIPMENT THEY HIDE. IF EQUIPMENT IS VISIBLE BECAUSE SCREENS DON'T MEET THIS MINIMUM HEIGHT REQUIREMENT, THE DIRECTOR OF PLANNING MAY REQUIRE CONSTRUCTION MODIFICATIONS PRIOR TO THE ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY.
- NOTWITHSTANDING ANY SURFACE IMPROVEMENTS, LANDSCAPING, PLANTING OR CHANGES SHOWN IN THESE SITE OR CONSTRUCTION PLANS, OR ACTUALLY CONSTRUCTED OR PUT IN PLACE, ALL UTILITY EASEMENTS MUST REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH TO ALLOW FOR ADEQUATE MAINTENANCE EQUIPMENT. ADDITIONALLY, NO INSTALLATION, PLANTING, CHANGE IN THE SURFACE, ETC., SHALL INTERFERE WITH THE OPERATION OF THE UTILITY LINES PLACED WITHIN THE EASEMENT. BY SUBMITTING THESE SITE OR CONSTRUCTION PLANS FOR APPROVAL, THE LANDOWNER RECOGNIZES AND ACCEPTS THE TERMS, CONDITIONS AND REQUIREMENTS OF THIS NOTE.
- FINAL GRADE SHALL BE AT LEAST SIX (6) INCHES BELOW ANY EXTERIOR WOOD SIDING ON THE PREMISES.
- ALL INTERESTED PARTIES ARE HEREBY ALERTED THAT THIS SITE PLAN IS SUBJECT TO ADMINISTRATIVE CHANGES AND AS SHOWN ON THE ORIGINAL SITE PLAN ON FILE IN THE AURORA CITY PLANNING OFFICE AT THE MUNICIPAL BUILDING. A COPY OF THE OFFICIAL CURRENT PLAN MAY BE PURCHASED THERE. LIKEWISE, SITE PLANS ARE REQUIRED TO AGREE WITH THE APPROVED SUBDIVISION PLAT OF RECORD AT THE TIME OF A BUILDING PERMIT; AND IF NOT, MUST BE AMENDED TO AGREE WITH THE PLAT AS NEEDED, OR VICE VERSA.
- ERRORS IN APPROVED SITE PLANS RESULTING FROM COMPUTATIONS OR INCONSISTENCIES IN THE DRAWINGS MADE BY THE APPLICANT ARE THE RESPONSIBILITY OF THE PROPERTY OWNER OF RECORD. WHERE FOUND, THE CURRENT MINIMUM CODE REQUIREMENTS WILL APPLY AT THE TIME OF BUILDING PERMIT. PLEASE BE SURE THAT ALL PLAN COMPUTATIONS ARE CORRECT.
- ALL REPRESENTATIONS AND COMMITMENTS MADE BY APPLICANTS AND PROPERTY OWNERS AT PUBLIC HEARINGS REGARDING THIS PLAN ARE BINDING UPON THE APPLICANT, PROPERTY OWNER, AND ITS HEIRS, SUCCESSORS, AND ASSIGNS.
- ARCHITECTURAL FEATURES, SUCH AS BAY WINDOWS, FIREPLACES, ROOF OVERHANGS, GUTTERS, EAVES, FOUNDATIONS, FOOTINGS, CANTILEVERED WALLS, ETC., ARE NOT ALLOWED TO ENCROACH INTO ANY EASEMENT OR FIRE LANE.
- THE DEVELOPER, HIS OR HER SUCCESSORS, AND ASSIGNS SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REPLACEMENT OF THE ACCESS CONTROL GATE OR BARRIER SYSTEM TO ENSURE EMERGENCY VEHICLE ACCESS TO WITHIN THE SITE. IF THE ABOVE CONDITION ARE NOT MET, THE OWNER, HIS OR HER SUCCESSORS, AND ASSIGNS, SHALL BE REQUIRED BY FIRE DEPARTMENT ORDER NOTICE THAT ALL AFFECTED GATES WILL BE CHAINED AND LOCKED IN THE OPEN POSITION UNTIL REPAIRED OR REPLACED, AND RETESTED. IF THE GATING SYSTEM IS NOT MAINTAINED TO THE SATISFACTION OF THE FIRE DEPARTMENT, THE LICENSE AGREEMENT FOR THE EMERGENCY VEHICLE GATE OPENING SYSTEM WILL BE REVOKED AND THE GATING SYSTEM MUST BE REMOVED. THE GATING SYSTEM WILL INCLUDE AN EMERGENCY VEHICLE GATE OPENING SYSTEM UTILIZING A REDUNDANCY BACK-UP SYSTEM THAT CONSISTS OF: A) SIREN OPERATED SYSTEM; B) AUTOMATIC KNOX KEY SWITCH; AND C) MANUAL OVERRIDE (IN THE EVENT OF SYSTEM FAILURE). GATING SYSTEMS WILL BE INSTALLED IN ACCORDANCE WITH THE "GATING SYSTEMS CROSSING FIRE APPARATUS ACCESS ROADS CHECKLIST". A SEPARATE BUILDING PERMIT THROUGH THE BUILDING DIVISION IS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY GATING/BARRIER SYSTEM THAT CROSSES A DEDICATED FIRE LANE EASEMENT. EMERGENCY ACCESS EASEMENTS, STATING "KEEP DRIVE AISLE PASSABLE AT ALL TIMES".
- EMERGENCY RESPONDER RADIO COVERAGE: ALL NEW BUILDINGS; ADDITIONS TO EXISTING BUILDINGS; SHALL HAVE APPROVED BUILDING MUST BE ASSESSED TO DETERMINE ADEQUATE IN-BUILDING RADIO COVERAGE AT TIME OF FINAL FRAME AND ELECT OWNER/DEVELOPER EXPENSE. LACK OF ADEQUATE IN-BUILDING RADIO COVERAGE MAY DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE CITY OF AURORA ENFORCES HANDICAPPED ACCESSIBILITY REQUIREMENTS BASED ON 2009 IBC, CHAPTER 11, THE AMERICAN NATIONAL STANDARD FOR ACCESSIBLE HOUSING (C.R.S. 9-5-101 TO 9-5-106).
- THE CITY OF AURORA ENFORCES HANDICAPPED ACCESSIBILITY REQUIREMENTS BASED ON 2015 IBC, CHAPTER 11, THE ICC A117.1-2009, AND THE AMERICAN NATIONAL STANDARD FOR ACCESSIBLE HOUSING (C.R.S. 9-5-101 TO 9-5-106).
- THIS SHALL CONSTITUTE A CONTRACT THAT SHALL GUARANTEE TO THE GOVERNING BODY THAT BEFORE THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY THE OVERALL SITE WILL MEET THE ACCESSIBILITY REQUIREMENTS OF STATE HOUSE BILL 03-1221. THE SITE PLAN WILL REFLECT AN IMPLEMENTATION PLAN DEFINING THE APPROPRIATE NUMBER OF ACCESSIBILITY POINT VALUE PER DWELLING UNITS FOR PERSONS WITH DISABILITIES, AS PROVIDED IN C.R.S. 9-5-105. ACCESSIBLE UNITS SHALL BE CONSTRUCTED IN SUCH A MANNER AS TO BE EASILY ACCESSIBLE AND ADAPTABLE FOR PERSONS WITH DISABILITIES AND WILL COMPLY WITH THE MOST CURRENT VERSION OF THE AMERICAN NATIONAL STANDARD FOR THE BUILDING AND FACILITIES PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE, PROMULGATED BY THE AMERICAN NATIONAL STANDARD INSTITUTE, COMMONLY CITED AS ANSI A117.1 - 1998. OWNER OF PROPERTY FOR THE ABOVE PERMIT: MYLES BRUCKAL

Please add the following note:

In locations where utility easements overlap drainage easements, only subsurface utilities shall be permitted within the portion of the utility easement that overlaps the drainage easement. Installation of above ground utilities within a drainage easement requires prior written approval by the City Engineer.

ADDED.

Remove duplicate note #19

REMOVED.



Know what's below.  
Call before you dig.

SITE PLAN  
1900 SOUTH CHAMBERS  
COMMUNITY LOT 1  
AURORA, COLORADO

JOB NO. 21.048

DESCRIPTION  
1ST SITE PLAN AMENDMENT SUBMITAL

DATE  
09.03.2021

COVER SHEET  
CS-1 (1 OF 11)

POINT CONSULTING, LLC  
8460 W KEN CARYL AVE #101  
LITTLETON, CO 80128  
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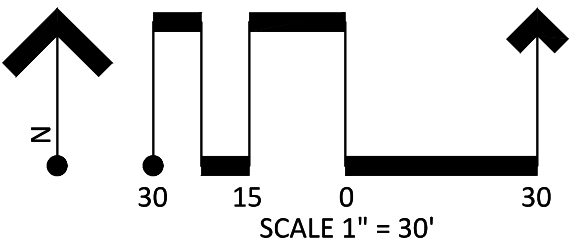




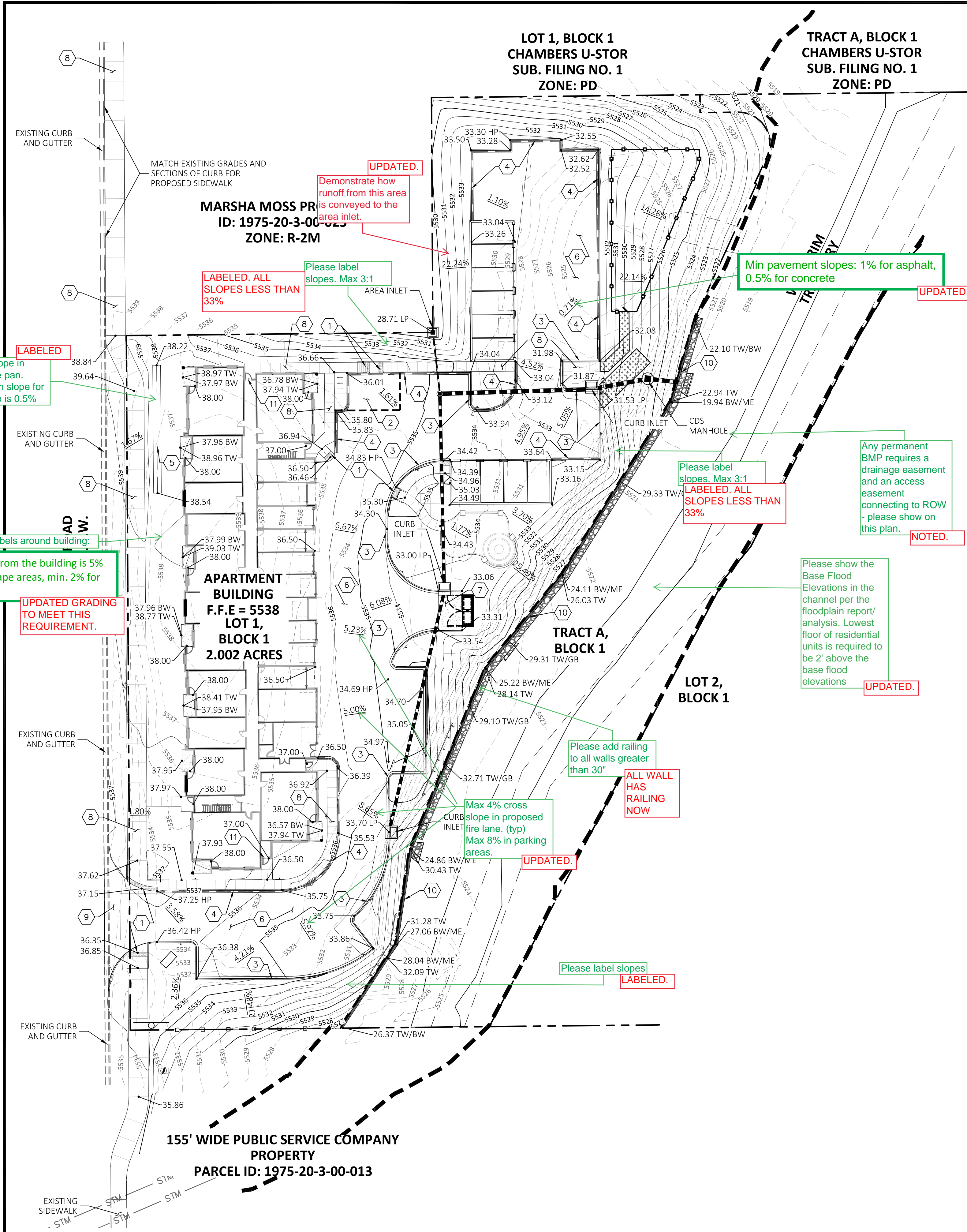
- 1 PROPOSED CROSSWALK STRIPING
- 2 PROPOSED PARKING STRIPING; 4-INCH WHITE
- 3 PROPOSED ACCESSIBLE PARKING
- 4 PROPOSED AMENITY AREA; SEE LANDSCAPE PLAN
- 5 PROPOSED CURB RAMP
- 6 PROPOSED 6-INCH VERTICAL CURB AND 1-FOOT GUTTER
- 7 PROPOSED CONCRETE SIDEWALK, SEE PLAN FOR WIDTH
- 8 PROPOSED CONCRETE DRIVEWAY FOR RIGHT IN RIGHT OUT ACCESS
- 9 PROPOSED ASPHALT DRIVE
- 10 PROPOSED CONCRETE PAD
- 11 PROPOSED TRASH ENCLOSURE
- 12 PROPOSED ACCESSIBLE PARKING SIGN
- 13 PROPOSED STOP SIGN
- 14 PROPOSED FIRE LANE SIGN
- 15 PROPOSED MONUMENT SIGN
- 16 EXISTING ELECTRIC EQUIPMENT TO REMAIN
- 17 PROPOSED LIGHT POLE
- 18 PROPOSED FENCE, SEE LANDSCAPE PLAN
- 19 PROPOSED DIAGONAL 4-INCH STRIPING; 2-FEET O.C
- 20 PROPOSED GUARDRAIL
- 21 PROPOSED DECOMPOSED GRANITE PATH, SEE LANDSCAPE PLAN
- 22 PROPOSED DOG PARK FENCING
- 23 PROPOSED MSE WALL
- 24 PROPOSED RIPRAP
- 25 PROPOSED LEVEL SPREADER
- 26 PROPOSED 2-FOOT CONCRETE PAN
- 27 PROPOSED BIKE PARKING
- 28 PROPOSED GARAGES

## GENERAL NOTES

1. THE DEVELOPER IS RESPONSIBLE FOR SIGNING AND STRIPING ALL PUBLIC STREETS. THE DEVELOPER IS REQUIRED TO PLACE TRAFFIC CONTROL, STREET NAME, AND GUIDE SIGNS ON ALL PUBLIC STREETS AND PRIVATE STREETS APPROACHING AN INTERSECTION WITH A PUBLIC STREET. SIGNS SHALL BE FURNISHED AND INSTALLED PER THE MOST CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CITY STANDARDS, AND SHOWN ON THE SIGNING AND STRIPING PLAN FOR THE DEVELOPMENT.







**LEGEND**

- MATCH LINE
- PROPERTY LINE
- LOT LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER WITH CATCH PAN
- PROPOSED CURB AND GUTTER WITH SPILL PAN
- LANDSCAPE AREA
- CONCRETE SIDEWALK
- PROPOSED STORM PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- EXISTING STORM PIPE
- PROPOSED SPOT ELEVATION

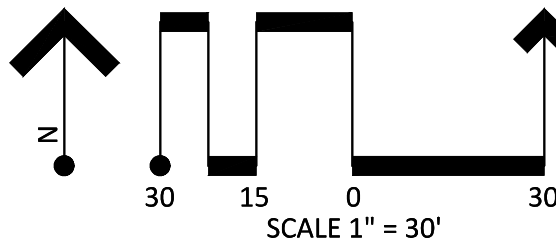
- KEY NOTES**
- 1 PROPOSED ADA RAMP
  - 2 PROPOSED ADA PARKING STALL
  - 3 PROPOSED 6-INCH CURB WITH 1-FOOT CATCH PAN
  - 4 PROPOSED 6-INCH CURB WITH 1-FOOT SPILL PAN
  - 5 PROPOSED TRICKLE PAN
  - 6 PROPOSED ASPHALT PAVEMENT
  - 7 PROPOSED CONCRETE PAVEMENT/PAD
  - 8 PROPOSED SIDEWALK
  - 9 PROPOSED DRIVEWAY
  - 10 PROPOSED MSE RETAINING WALL, SEE PLAN FOR TOP AND BOTTOM OF WALL AT FINISHED GRADE. ALL RETAINING WALLS AT 4-FEET AND HIGHER REQUIRE A DESIGN BY A STRUCTURAL ENGINEER.
  - 11 PROPOSED STAIRS UP TO BUILDING

- GENERAL NOTES**
- MAX SLOPE IN ACCESSIBLE PARKING IS 2.0% MAX IN ANY DIRECTION.
  - ALL SPOTS ARE FINISHED GRADE UNLESS OTHERWISE NOTED ON PLAN.
  - SPOT ELEVATIONS HAVE BEEN TRUNCATED. ADD 5500 TO ALL SPOTS.

**BENCHMARK**

AURORA BENCHMARK POINT NO. 456619SE004, 3" DIAMETER BRASS CAP ATOP THE NORTH EDGE OF A CURB OPENING INLET & CENTERED THEREON BEING ON THE WEST SIDE OF S. CHAMBERS ROAD & 40' MORE/LESS NORTH OF THE JEWELL LANDLINE AS EVIDENCED BY THE RANGE BOX IN S. CHAMBERS ROAD. PUBLISHED ELEVATION = 5535.38'

Add a note indicating if the storm sewer system is public or private and who will maintain it.



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SITE PLAN

**1900 SOUTH CHAMBERS**

**COMMUNITY LOT 1**

AURORA, COLORADO

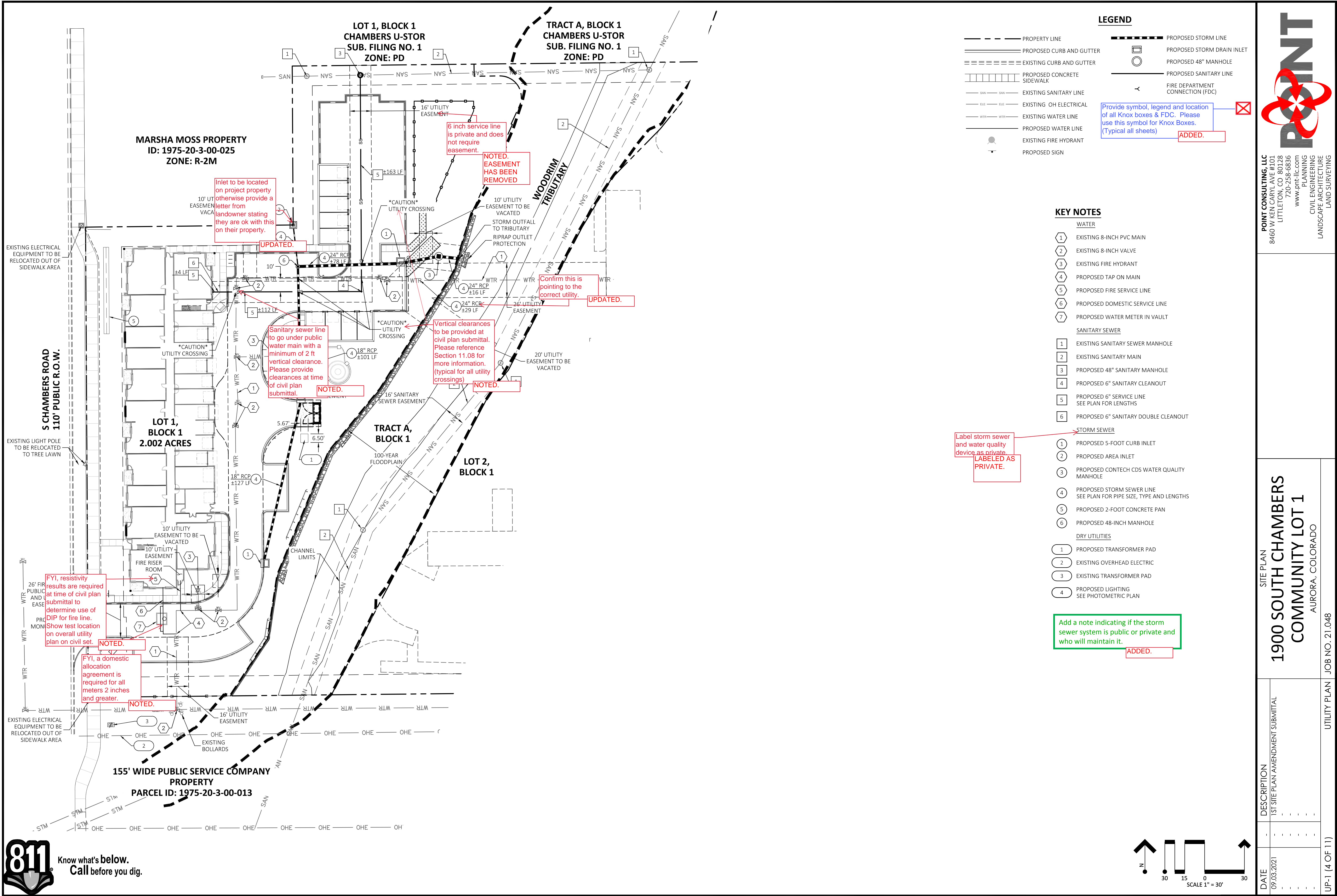
JOB NO. 21.048

DATE	DESCRIPTION
09.03.2021	1ST SITE PLAN AMENDMENT SUBMITAL

GRADING PLAN

GP-1 (3 OF 11)







Do not show the interior of the building. Only include the general outline.

Landscape plan has been updated to show just the exterior of the building

The Site Plan calls out a fence in the same area as the retaining wall, but the landscape plan does not include this. Which plan is correct.

Landscape plan has been updated to show and callout fence along the retaining wall

All ornamental trees shall be 2" diameter

Tree diameters have been changed to show 2" diameters

Font is too small an too light

Plant list has been updated to show the correct font size

Boxwood do not perform well here.

Boxwoods have changed to another plant species that does better in the given environment

LEGEND

LANDSCAPE EDGER	DECIDUOUS SHRUBS
SOD	EVERGREEN SHRUBS
DECIDUOUS TREE	ORNAMENAL GRASSES
EVERGREEN TREE	PERENNIAL FLOWERS
ORNAMENTAL TREE	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED FENCE
	PROPOSED RETAINING WALL
	DECOMPOSED GRANITE PATHWAY
	MONUMENT SIGN
	PROPOSED SITE LIGHTING

PLANT LIST

Qty.	Sym.	Scientific/Botanical	Size	Notes	Habit	Water Usage
DECIDUOUS TREES						
3	AGG	AUTUMN BLAZE MAPLE Acer x freemanii 'Autumn Blaze'	2.5" CAL.	STRAIGHT TRUNK, B&B	50X40 FEET	MED.
4	BTM	BIGTOOTH MAPLE Acer grandidentatum	2.5" CAL.	STRAIGHT TRUNK, B&B	30X30 FEET	LOW
1	GSL	GREENSPIRE LINDEN Tilia Cordata 'Greenspire'	2.5" CAL.	STRAIGHT TRUNK, B&B	40X30 FEET	MED.
5	RDL	REDMOND LINDEN Tilia americana 'Redmond'	2.5" CAL.	SPECIMEN QUALITY, STAKED	70X45 FEET	MED.
3	RRM	ROYAL RED NORWAY MAPLE Acer platanoides 'Royal Red'	2.5" CAL.	STRAIGHT TRUNK, B&B	40X30 FEET	MED.
2	SMH	SHADEMASTER HONEYLOCUST Gleditsia tria. inermis 'Shademaster'	2" CAL.	FULL CROWN, B&B, STAKED	45X35 FEET	LOW
ORNAMENTAL TREES						
10	ABS	AUTUMN BRILL. SERVICEBERRY Amelanchier grand. 'Autumn Brilliant'	1 1/2" CAL.	STRAIGHT TRUNK, B&B	20X15 FEET	LOW
3	CCP	CHANTICLEER PEAR Pyrus calleryana 'Chanticleer'	1 1/2" CAL.	SPECIMEN QUALITY, STAKED	20X10 FEET	LOW
2	HWM	HOT WINGS TATARIAN MAPLE Acer tataricum 'Hot Wings'	2" CAL.	STRAIGHT TRUNK, B&B	20X20 FEET	LOW
16	SSC	SPRING SNOW CRABAPPLE Malus sp. 'Spring Snow'	1 1/2" CAL.	SPECIMEN QUALITY, STAKED	20x15 FEET	MED.
EVERGREEN TREES						
6	BNP	BOSNIAN PINE Pinus heldreichii	6' MIN.	STRAIGHT TRUNK, B&B	25X12 FEET	LOW
7	HPS	HOOPSII SPRUCE Picea pungens 'Hoopsii'	6' MIN.	SPECIMEN QUALITY, STAKED	25X12 FEET	MED.
4	OGP	OREGON GREEN AUSTRIAN PINE Pinus nigra 'Oregon Green'	6' MIN.	SPECIMEN QUALITY, STAKED	20X15 FEET	LOW
DECIDUOUS SHRUBS						
13	SJB	SUNJOY GOLD PILLAR BARBERRY Berberis thunbergii 'Maria'	5 GAL.	SPACING 6' O.C.	5X6 FEET	LOW
48	CPB	CRIMSON PYGMY JAPANESE BARBERRY Berberis thunbergii 'Crimson Pygmy'	36"-48" HT	5 CANES MIN.	2X2 FEET	LOW
27	FBS	FROEBEL SPIREA Spiraea japonica 'froebeli'	18"-24" HT	5 CANES MIN.	4X4 FEET	MED.
12	GLS	DWARF FRAGRANT SUMAC Rhus aromatica 'Gro-Low'	5 GAL.	SPACING 6' O.C.	3X6 FEET	LOW
21	GMS	GOLDMOUND SPIREA Spiraea x 'Goldmound'	18"-24" HT	5 CANES MIN.	2X3 FEET	MED.
22	GNB	GOLDEN NUGGET JAPANESE BARBERRY Berberis thunbergii 'Golden Nugget'	24"-36" HT	5 CANES MIN.	2X2 FEET	LOW
14	GVP	GOLDEN VICARY PRIVET Ligustrum x 'Vicaryi'	18"-24" HT	5 CANES MIN.	6X5 FEET	MED.
5	IDW	ISANTI DOGWOOD Cornus Sericea 'Isanti'	36"-48" HT	5 CANES MIN.	5X6 FEET	MED.
17	MHE	MANHATTAN EUONYMUS Euonymus kiautschovica 'Manhattan'	24"-36" HT	5 CANES MIN.	6X6 FEET	MED.
10	MKL	MISS KIM LILAC Syringa patula 'Miss Kim'	5 GAL.	SPACING 6' O.C.	6X6 FEET	MED.
20	ORB	ORANGE COLUMNAR BARBERRY Berberis thunbergii 'ORANGE ROCKET'	24"-36" HT	5 CANES MIN.	2X4 FEET	LOW
EVERGREEN SHRUBS						
19	BFJ	BUFFALO JUNIPER Juniperus sabina 'Buffalo'	5 GAL.	SPACING 6' O.C.	18"X6 FEET	LOW
22	EGA	EMERALD GREEN ARBORVITAE Thuja occidentalis 'Emera'	36"-48" HT	5 CANES MIN.	12X3 FEET	MED.
9	GMB	GREEN MOUNTAIN BOXWOOD Buxux 'Green Mountain'	5 GAL.	SPACING 3' O.C.	3X3 FEET	LOW
5	WBM	WHITE BUD MUGO PINE Pinus mugo 'White Bud'	24"-36" HT	5 CANES MIN.	3X3 FEET	LOW
34	WGB	WINTER GEM BOXWOOD Buxus microphylla insularis 'Winter Gem'	5 GAL.	SPACING 3' O.C.	3X3 FEET	MED.
ORNAMENTAL GRASSES						
23	DFG	DWARF FOUNTAIN GRASS Pennisetum alopecuroides 'Hameln'	1 GAL.	SPACING 17" O.C.	2X1.5 FEET	LOW
58	KFG	KARL FOERSTER FEATHER REED GRASS Calamagrostis x acutiflora 'Karl Foerster'	1 GAL.	SPACING 24" O.C.	4X2 FEET	LOW
PERENNIALS						
38	HRD	HAPPY RETURNS DAYLILY Hemeocalis 'Happy Returns'	1 GAL.	SPACING 17" O.C.	1.5X1.5 FEET	LOW
32	LDD	LAVENDER DAYLILY Hemeocalis 'Prairie Blue Eyes'	1 GAL.	SPACING 17" O.C.	1.5X1.5 FEET	LOW

NOT FOR CONSTRUCTION



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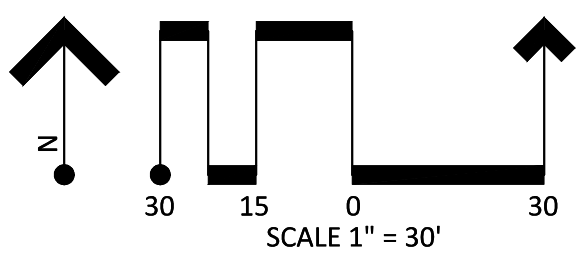
SITE PLAN  
1900 SOUTH CHAMBERS  
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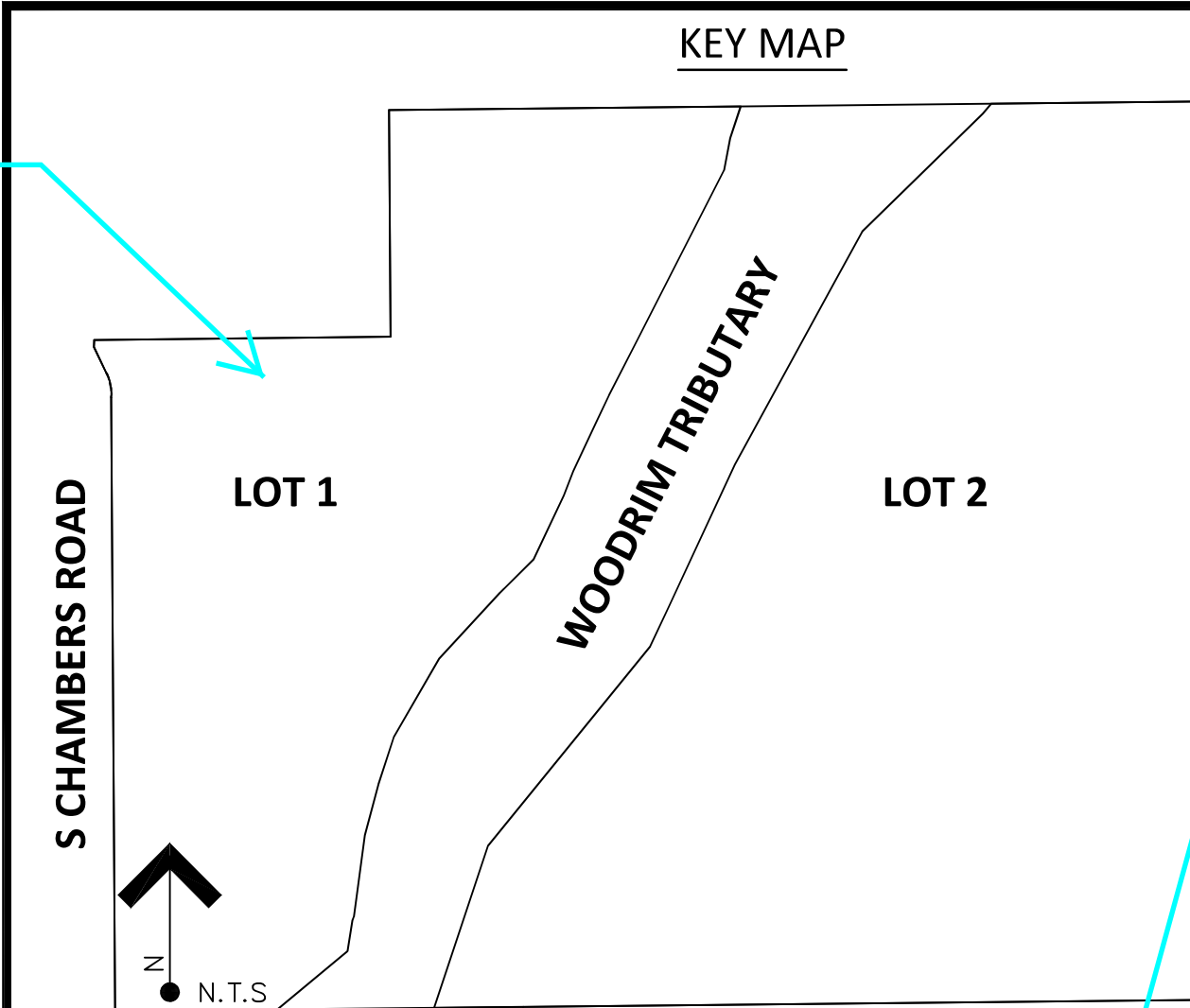
LANDSCAPE PLAN JOB NO. 21.048

LP-1 (5 OF 11)





Landscape plan has been updated to show the key plan with the hatched in site location



1. SOIL PREPARATION: MIX THE FOLLOWING SOIL AMENDMENTS AND APPLY TO SOD AND SHRUB BED AREAS.
- 1.1. ASPEN RICH COMPOST -- FOUR (4) CUBIC YARDS OF ORGANIC MATERIAL PER 1,000 SF OF AREA
- 1.2. COMMERCIAL FERTILIZER (20-10-5): 10 LBS. PER 1,000 S.F.
- 1.3. SUPERPHOSPHATE: 10 LBS. PER 1,000 S.F.
2. SEE PHOTOMETRIC PLAN FOR INFORMATION REGARDING FREESTANDING LIGHTS.
3. SURFACE MATERIALS ARE CITY STANDARD GREY CONCRETE FOR SIDEWALKS, CONCRETE PAVEMENT FOR DRIVEWAYS, AND COMPOSED GRANITE FOR TRAIL PATHWAYS.
4. ALL UTILITY EASEMENT SHALL BE FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR UTILITY EQUIPMENT ENTRY.
5. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNEES SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED SITE PLAN OR LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT. ALL LANDSCAPING WILL BE INSTALLED AS DELINEATED ON THE PLAN, PRIOR TO ISSUANCE OF CERTIFICATES OF OCCUPANCY.
6. ALL LANDSCAPED AREAS AND PLANT MATERIAL, EXCEPT FOR NON-IRRIGATED NATIVE, RESTORATIVE, AND DRYLAND GRASS AREAS, SHALL COMPLY WITH REQUIREMENTS FOUND IN SEC. 140-142B AND/OR SEC. 146-143B MUST BE WATERED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. IRRIGATION SYSTEM DESIGN, INSTALLATION, OPERATION, AND MAINTENANCE SHALL CONFORM TO REQUIREMENTS FOUND IN THE CITY OF AURORA IRRIGATION ORDINANCE
7. ALL PROPOSED LANDSCAPING WITHIN THE SIGHT TRIANGLE SHALL BE IN COMPLIANCE WITH COA ROADWAY SPECIFICATION, SECTION 4.04.2.10.
8. ALL BELGARD CONCRETE PAVEMENT AND WALL PRODUCTS WILL COME FROM SYSTEM PAVERS 10515 E 40TH AVE UNIT 109 DENVER, CO 80239 (303) 412-5999

1. SOD: SHALL BE KENTUCKY BLUEGRASS SOD PER THE SOD GUY AURORA, CO 80014, (303)841-7575
2. LANDSCAPE EDGING SHALL BE GREEN PAINTED EDGING W/ STAKES - 1/8"x4"x10" PER JENSEN SALES COMPANY 8980 SOUTH SANTA FE DR, HIGHLANDS RANCH, CO 80125 (303) 791-4250.
3. WOOD MULCH SHALL BE BARK MOUNTAIN MULCH PER JENSEN SALES COMPANY 8980 SOUTH SANTA FE DR, HIGHLANDS RANCH, CO 80125 (303) 791-4250 (MINIMUM 3" DEPTH).
3. ROCK MULCH SHALL BE TWO (2) INCH MOUNTAIN COBBLE ROCK PER JENSEN SALES COMPANY 8980 SOUTH SANTA FE DR, HIGHLANDS RANCH, CO 80125 (303) 791-4250 (MINIMUM 3" DEPTH).
4. SEE SITE DETAILS SHEET (SD-1) FOR ALL FENCING, RETAINING WALLS, AND SIGNAGE.
5. SEE ARCHITECT PLANS FOR TRASH ENCLOSURE DETAILS.
6. SEE PHOTOMETRIC PLAN FOR ALL SIGHT LIGHTING.
7. ALL PLANTINGS WITHIN SIGHT DISTANCE TRIANGLES SHALL COMPLY WITH CITY OF AURORA ROADWAY SPECIFICATIONS, SECTION 4.04.2.10.
8. PATIO PAVING: SHALL BE BELGARD CONCRETE PRODUCTS (SEE PLAN).
9. FIRE HYDRANTS PLACED IN LANDSCAPE ISLANDS MUST MAINTAIN A 3' MINIMUM CLEARANCE TO THE FACE OF ALL ADJACENT CURBS.
10. THE SEPARATION REQUIREMENTS FROM FIRE DEPARTMENT CONNECTIONS AND FIRE HYDRANTS MUST MEET BOTH LIFE SAFETY (TYPICALLY 3 FEET AND NO MATERIAL GREATER THAN 2 FEET IN HEIGHT) AND LANDSCAPING REQUIREMENTS.
11. LANDSCAPING MATERIAL CANNOT BE OMITTED OR REDUCED BASED ON THE INSTALLATION OF A FIRE HYDRANT WITHIN A PARKING LOT ISLAND OR PLANT BED. IT IS RECOMMENDED THAT THE ISLAND OR PLANT BED BE CONSTRUCTED LARGE ENOUGH TO ADEQUATELY ACCOMMODATE BOTH LANDSCAPING MATERIAL AND FIRE HYDRANTS IN ORDER TO COMPLY WITH ALL CITY STANDARDS.

SITE DATA - LOT 1		
	AREA IN S.F.	PERCENTAGE (%)
LOT 1 TOTAL SITE AREA: (2.002 AC)	87,218	100.0%
BUILDING COVERAGE:	15,980	18.3%
HARDSURFACE AREA:	36,449	41.8%
LANDSCAPE AREA	34,789	39.9%
COOL SEASON GRASSES (MAX. 33%)	18,772	21.5%
NON-WATER USING AREA <b>ROCK</b> MULCH	95	0.1%
NON-WATER USING AREA <b>WOOD</b> MULCH	15,922	18.3%

STREET LANDSCAPE SIDE	ROW AT FL/W/O DRIVE ENTRY	WIDTH REQ.	WIDTH PROV.	TREES/SHRUBS REQ. (1 T/5 S PER 25 LF)	TREES/SHRUBS EXISTING	TREES PROV.	SHRUBS PROV.	GRASS PROV.	PERENNIALS PROV.
CHAMBERS ROAD	316	10'	10'	16.5/83	0/0	12	0	0	0
STREET PERIMETER BUFFER SIDE	LENGTH	WIDTH REQ.	WIDTH PROV.	TREES/SHRUBS REQ. (1 T/5 S PER 25 LF)	TREES/SHRUBS EXISTING	TREES PROV.	SHRUBS PROV.	GRASS PROV.	PERENNIALS PROV.
CHAMBERS ROAD	327	20'	20'	16.5/83	0/0	12	88	51	44
NON-STREET FRONTAGE BUFFER SIDE	LENGTH	WIDTH REQ.	WIDTH PROV.	TREES/SHRUBS REQ. (1 T/5 S PER 25 LF)	TREES/SHRUBS EXISTING	TREES PROV.	SHRUBS PROV.	GRASS PROV.	PERENNIALS PROV.
NORTH BOUNDARY	413	20'	20'	16.5/83	0/0	20	116	0	8
SPECIAL LANDSCAPE BUFFER SIDE	LENGTH	WIDTH REQ.	WIDTH PROV.	TREES/SHRUBS REQ. (1 T/5 S PER 25 LF)	TREES/SHRUBS EXISTING	TREES PROV.	SHRUBS PROV.	GRASS PROV.	PERENNIALS PROV.
SOUTH BOUNDARY	107	25'	25'	4/21	0/0	6	71	0	0
EAST BOUNDARY	540	25'	25'	22/110	Apr-00	20	63	30	18

WATER USE TABULATION		
AREA TYPE	ZONE (WATER USE)	AREA IN S.F.
SHRUBS, TREES, NATIVE SEED MIX, & MULCHED	WATER	21,856
PLANTING BEDS	CONSERVING	
SOD (on site)	NON-WATER CONSERVING	0
SITE LANDSCAPE DATA		

	TOTAL AREA	LANDSCAPE AREA	PERCENT REQ.	PERCENT PROVIDED.
LOT TOTAL	87,218	34,789	45%	40%

Building perimeter landscaping for multifamily buildings is based upon 1.25 plants per 5 linear feet. At least 5% should be a mixture of evergreen and deciduous trees, 15% tall shrubs and 80% a mixture of evergreen and deciduous shrubs.

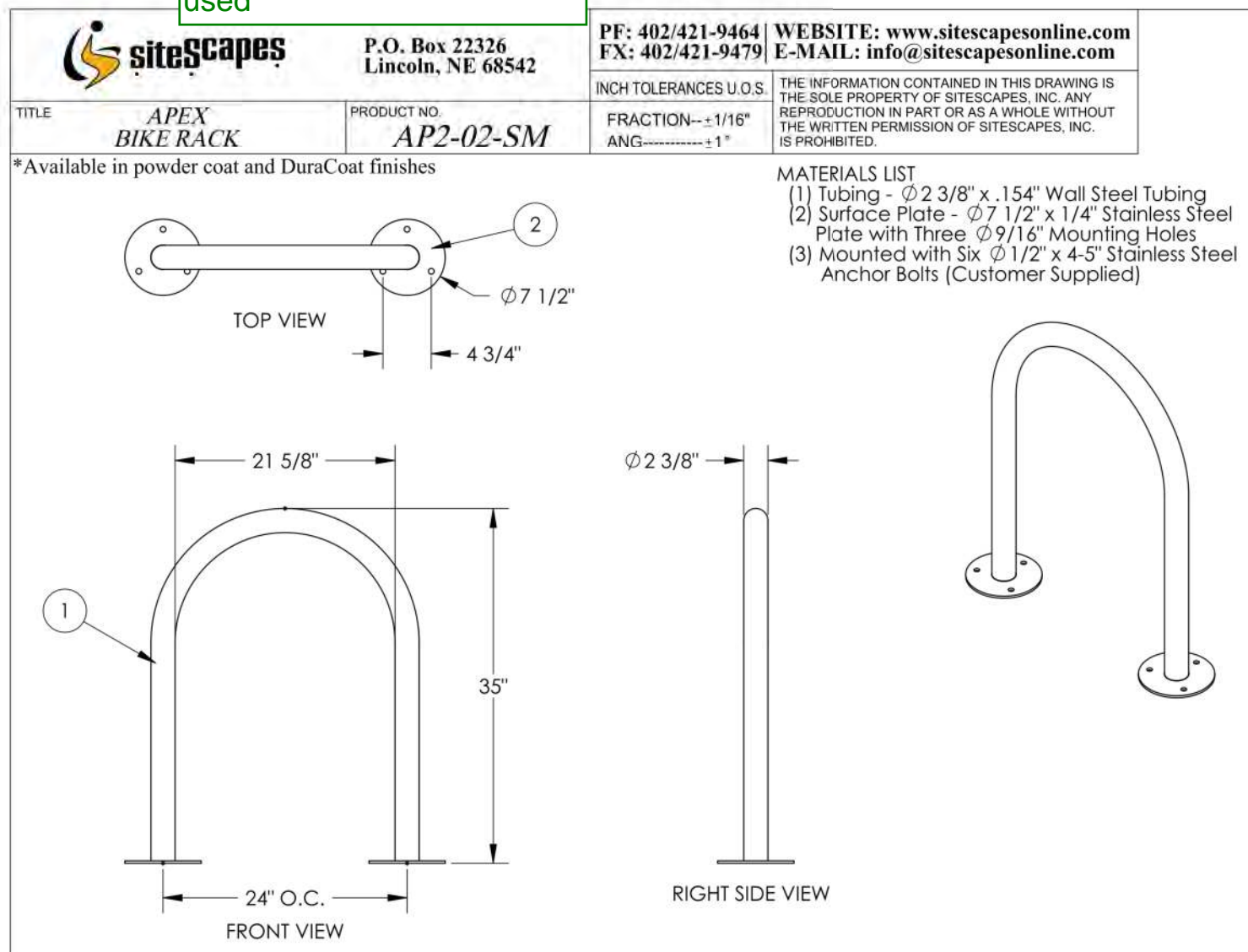
Not needed

Removed

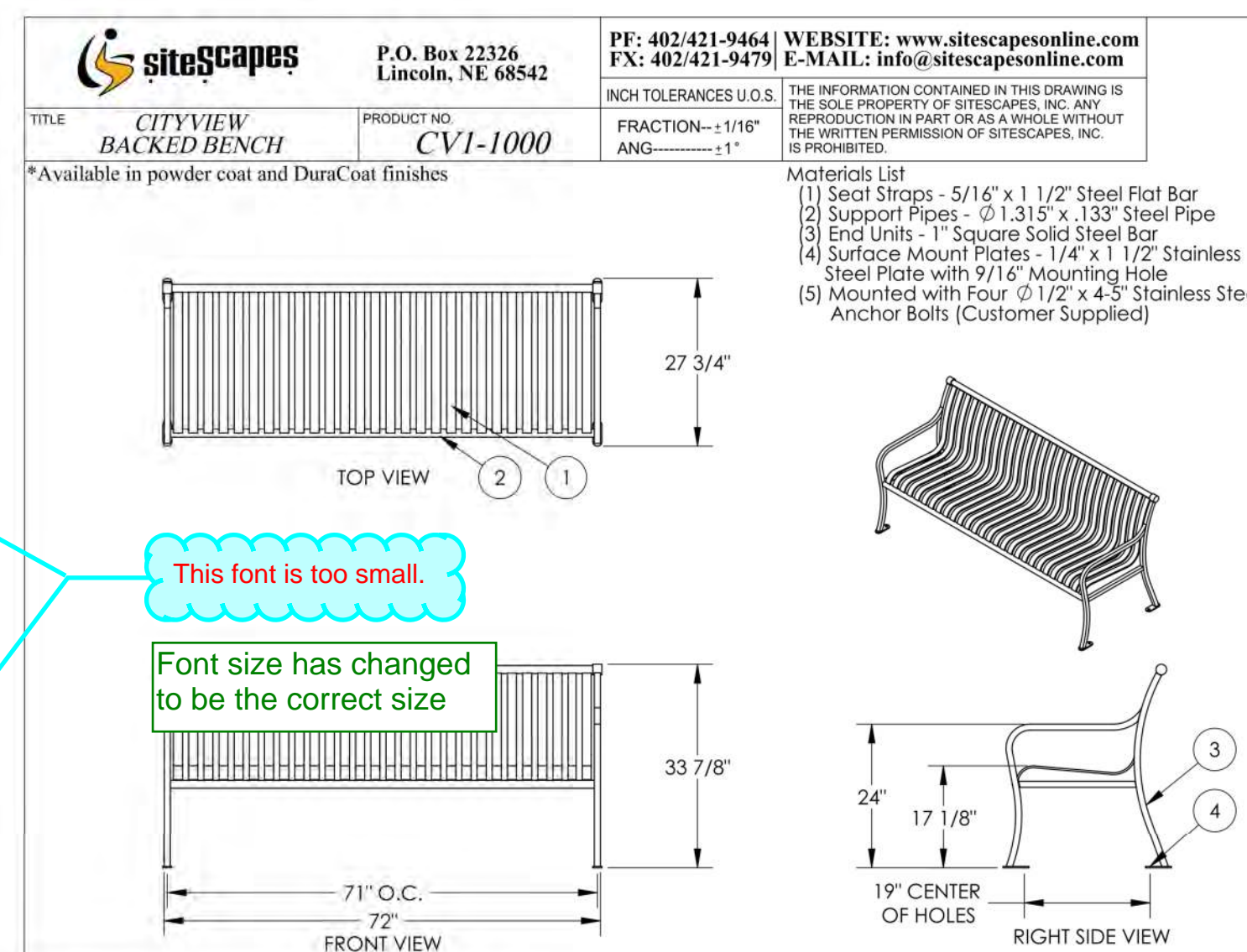
TREES PROV.	SHRUBS PROV.	GRASSE S PROV.	PERRI NIAL PROV.
66	298	81	70

BUILDING	BUILDING PERIMETER LANDSCAPE DESCRIPTION	LENGTH (L.F.)	T.E. REQUIRED	TREES PROV.	SHRUBS PROV.	PERENNIAL / GRASS PROV.	TOTAL T.E. PROV.
<b>A</b>	<b>BUILDING A</b>	<b>1 T.E. / 40 L.F.</b>					
	NORTH	65'	2	3	19	8	5
	SOUTH	65'	2	2	15	0	3.5
	WEST	258'	6	9	68	41	16
	EAST	89	2	1	15	0	2.5

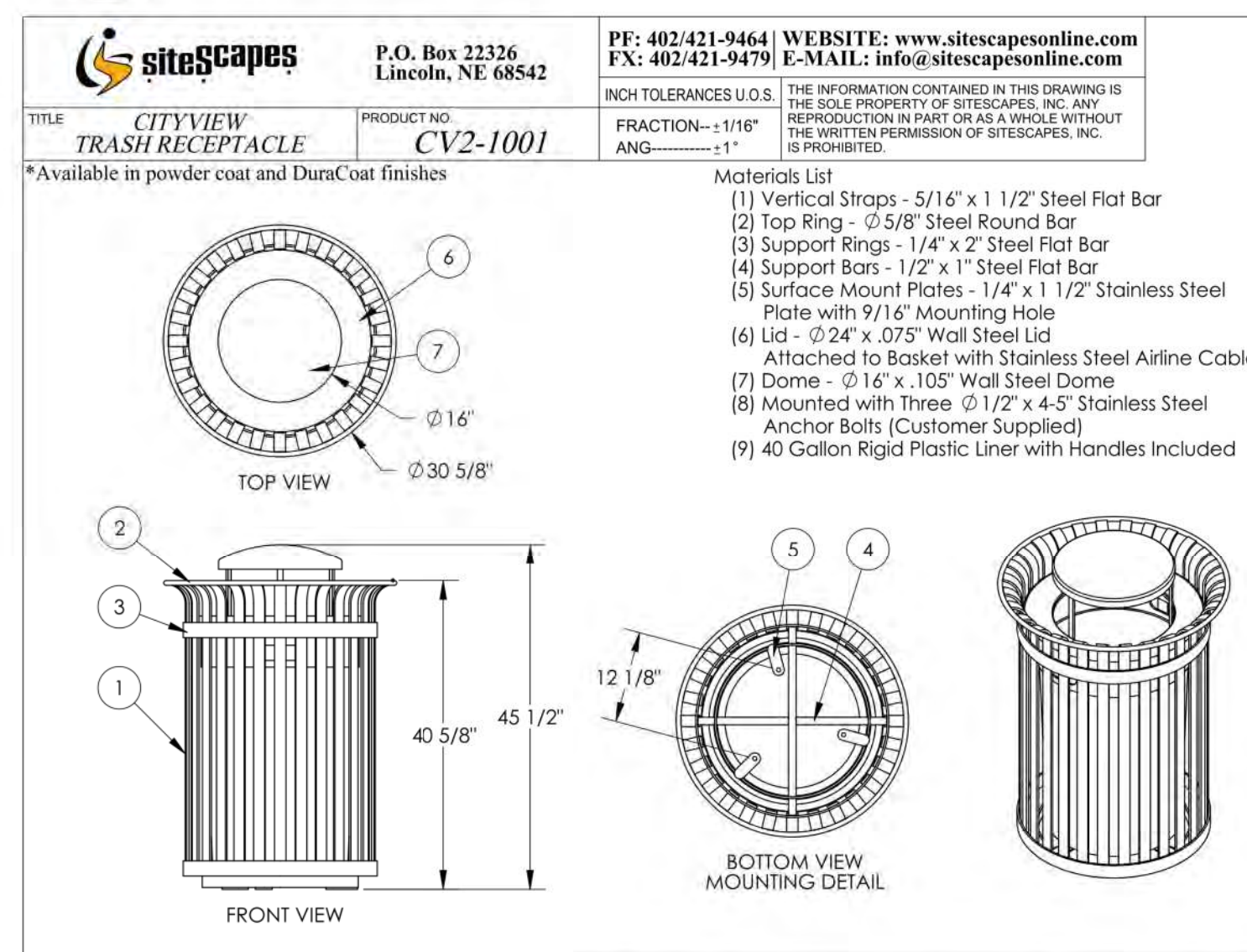
Notes have been updated to specify where they are to be used



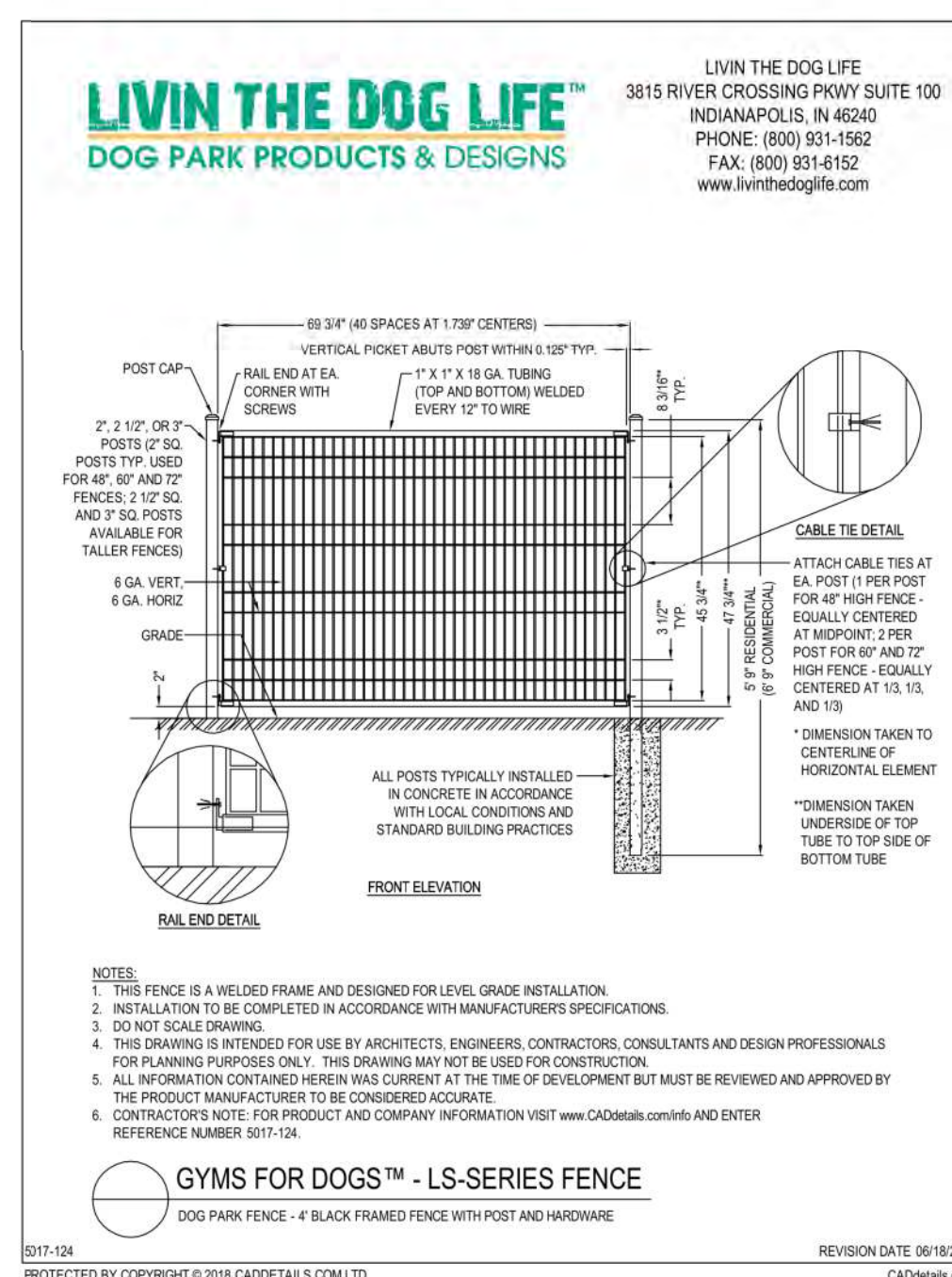
## C SITE SCAPES APEX BIKE RACK



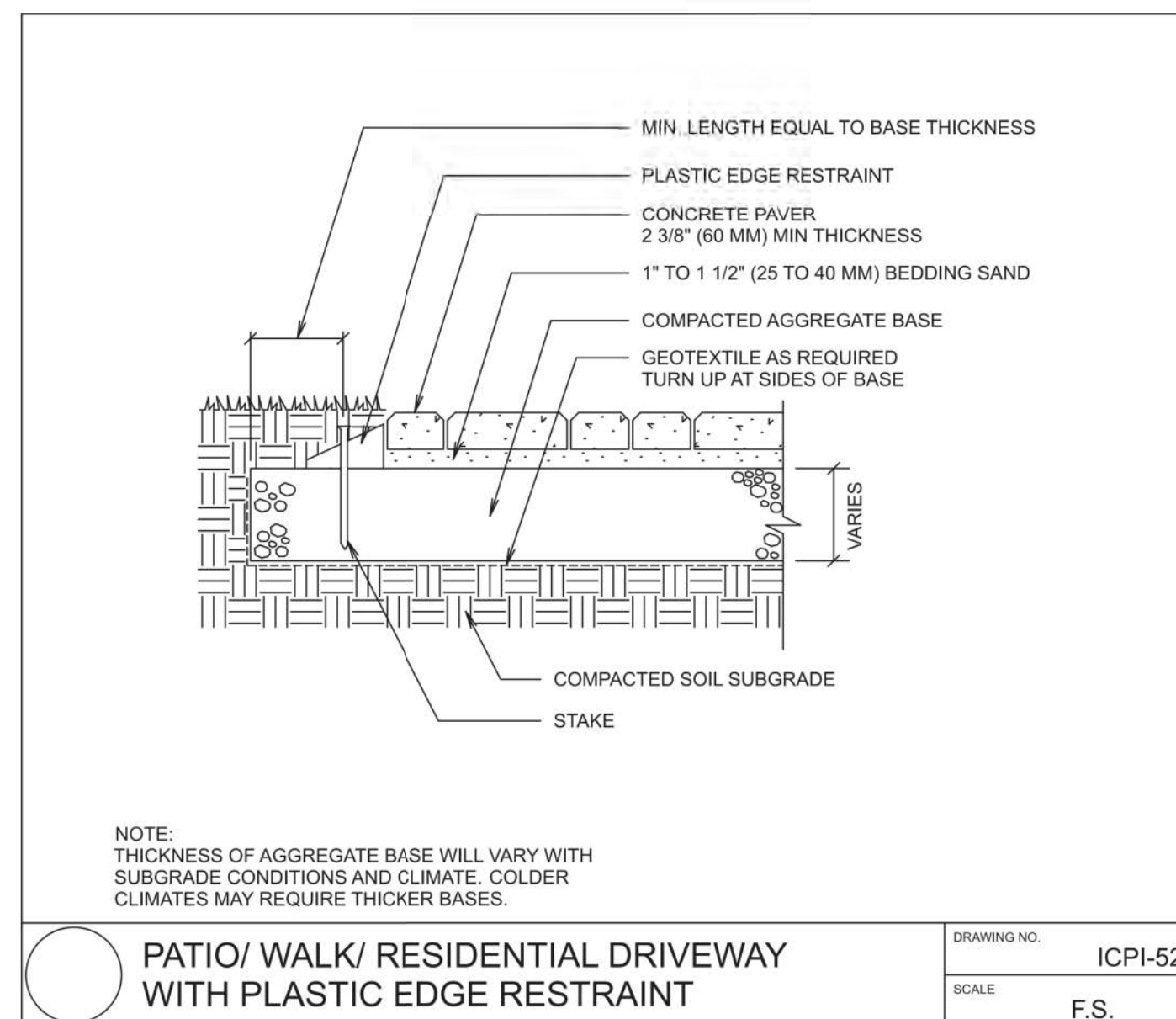
## A SITE SCAPES CITYVIEW BENCH



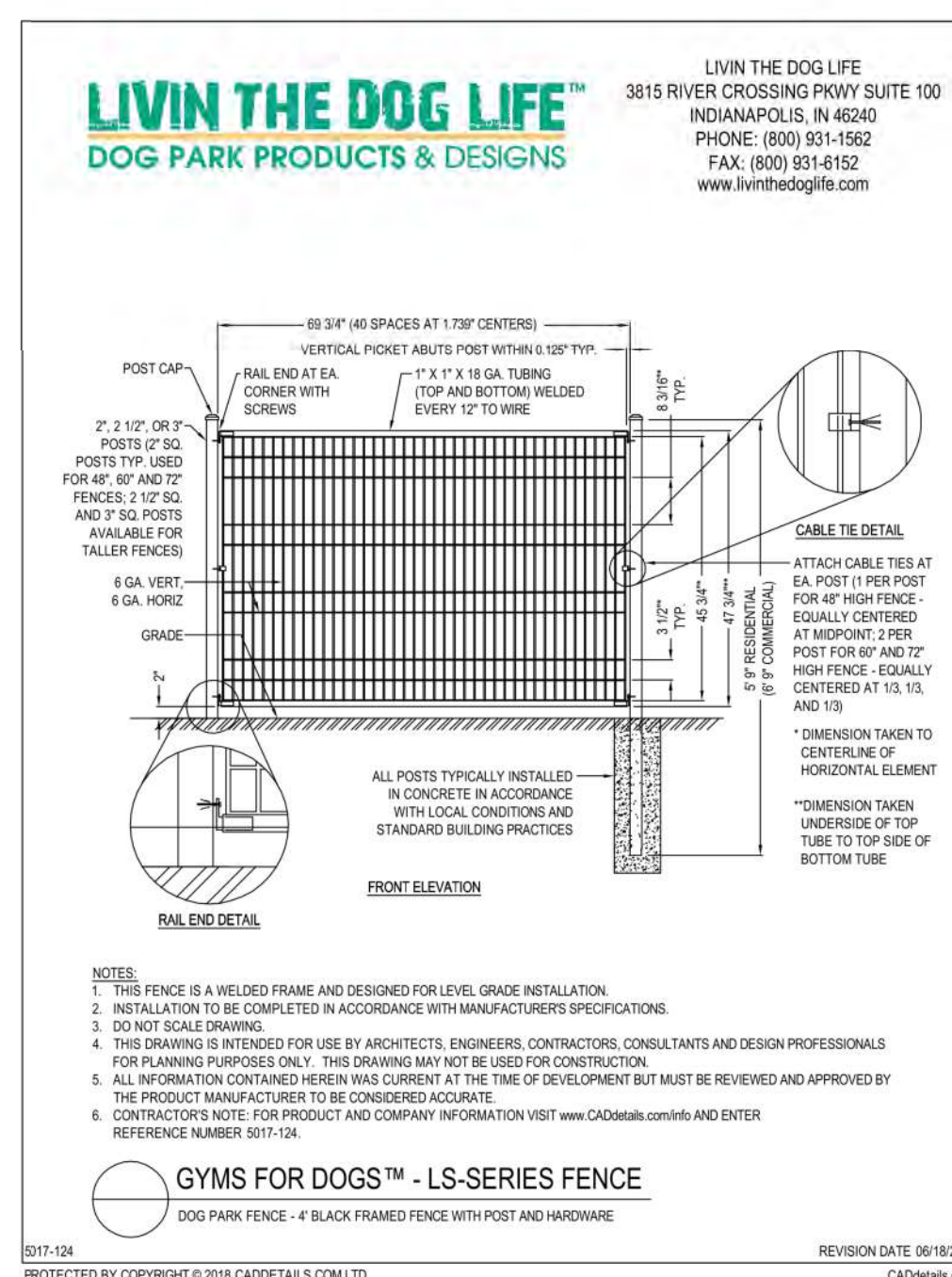
## B SITE SCAPES CITYVIEW TRASH RECEPTACLE



**E** DOG PARK FENCE



## D PAVER PATIO EDGING



**E** DOG PARK FENCE





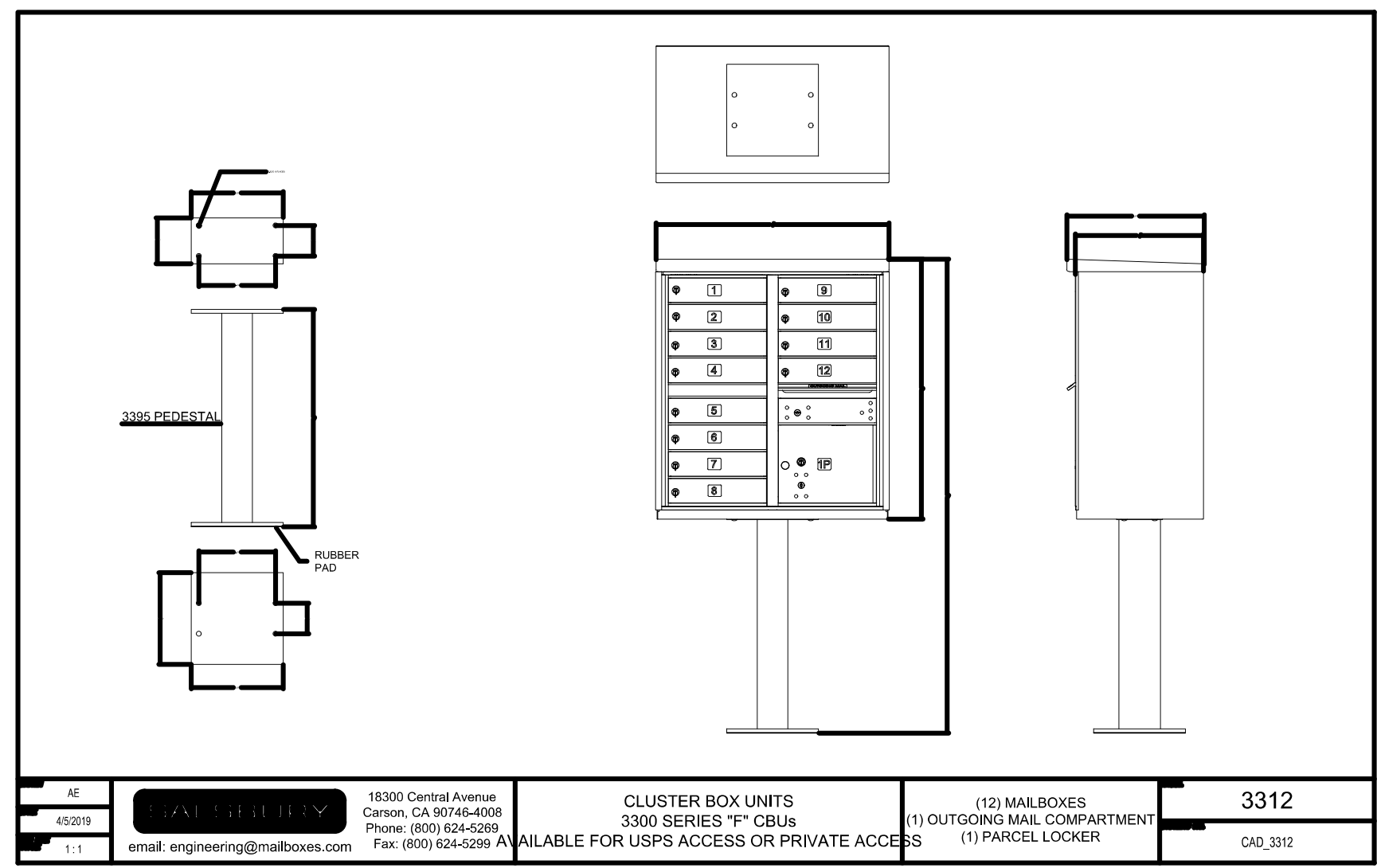
F ASPEN TEAK ADIRONDACK CHAIR  
COUNTRYCAUSALTEAK.COM



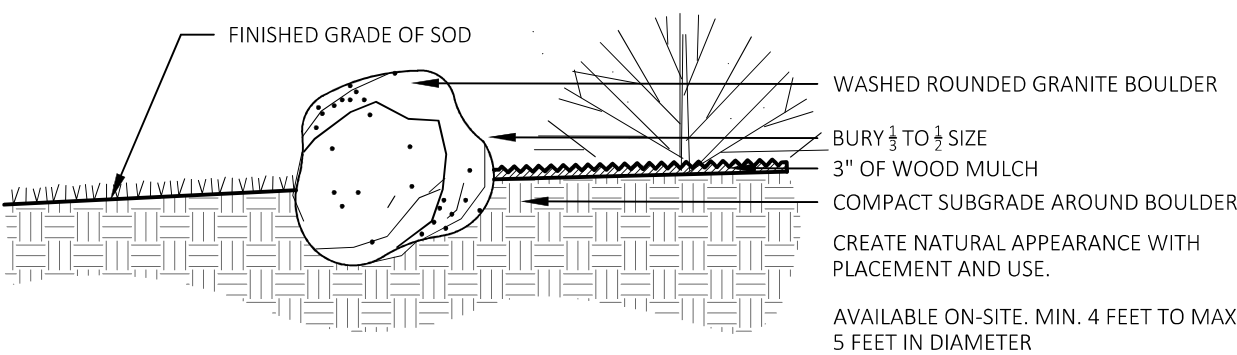
G BERWICK HIGH NESTING TABLE  
COUNTRYCAUSALTEAK.COM



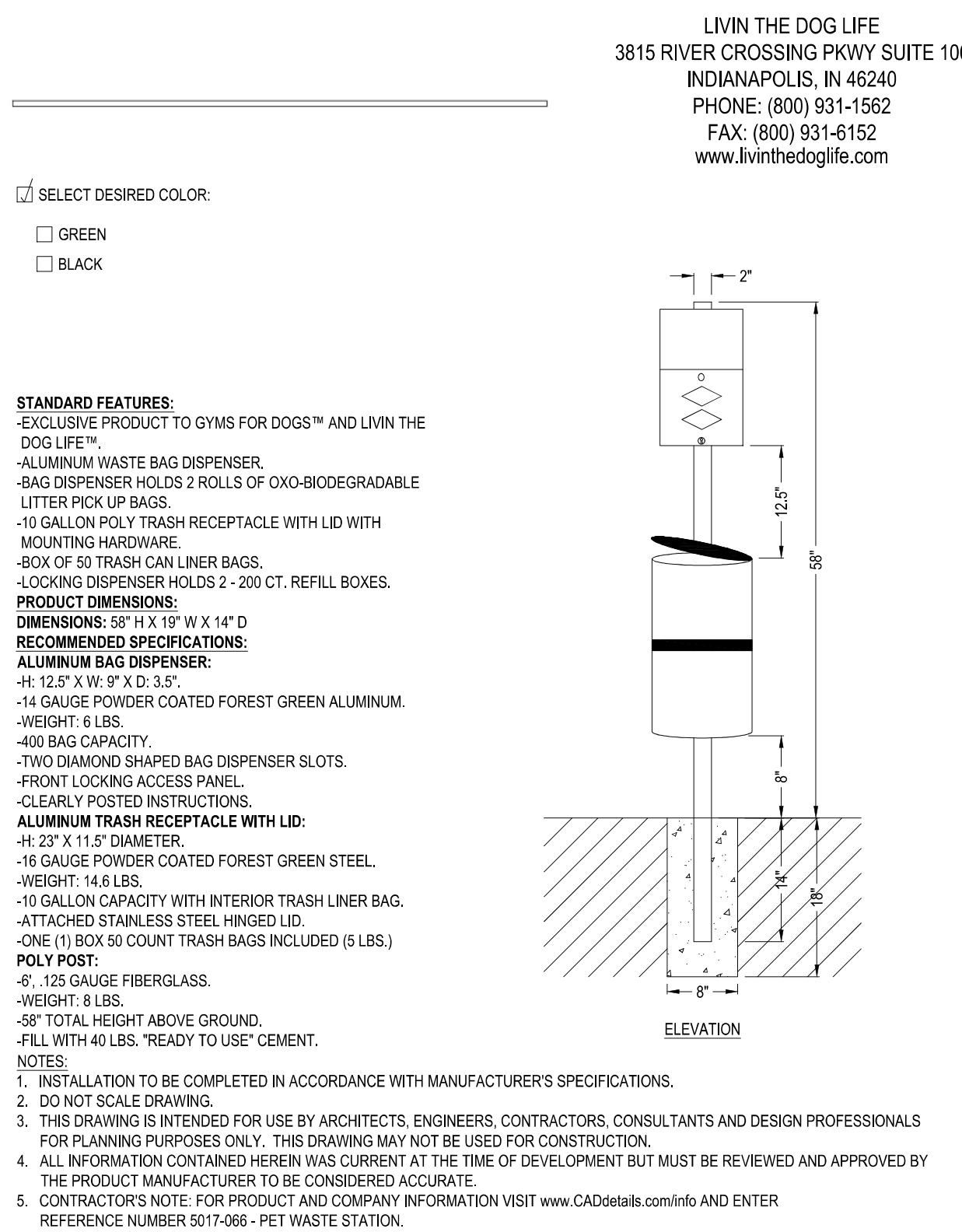
H PYRAMID 22 IN. SQUARE RECEPTACLE  
COUNTRYCAUSALTEAK.COM



I CLUSTER BOX UNIT (F SERIES)  
MAILBOXES.COM

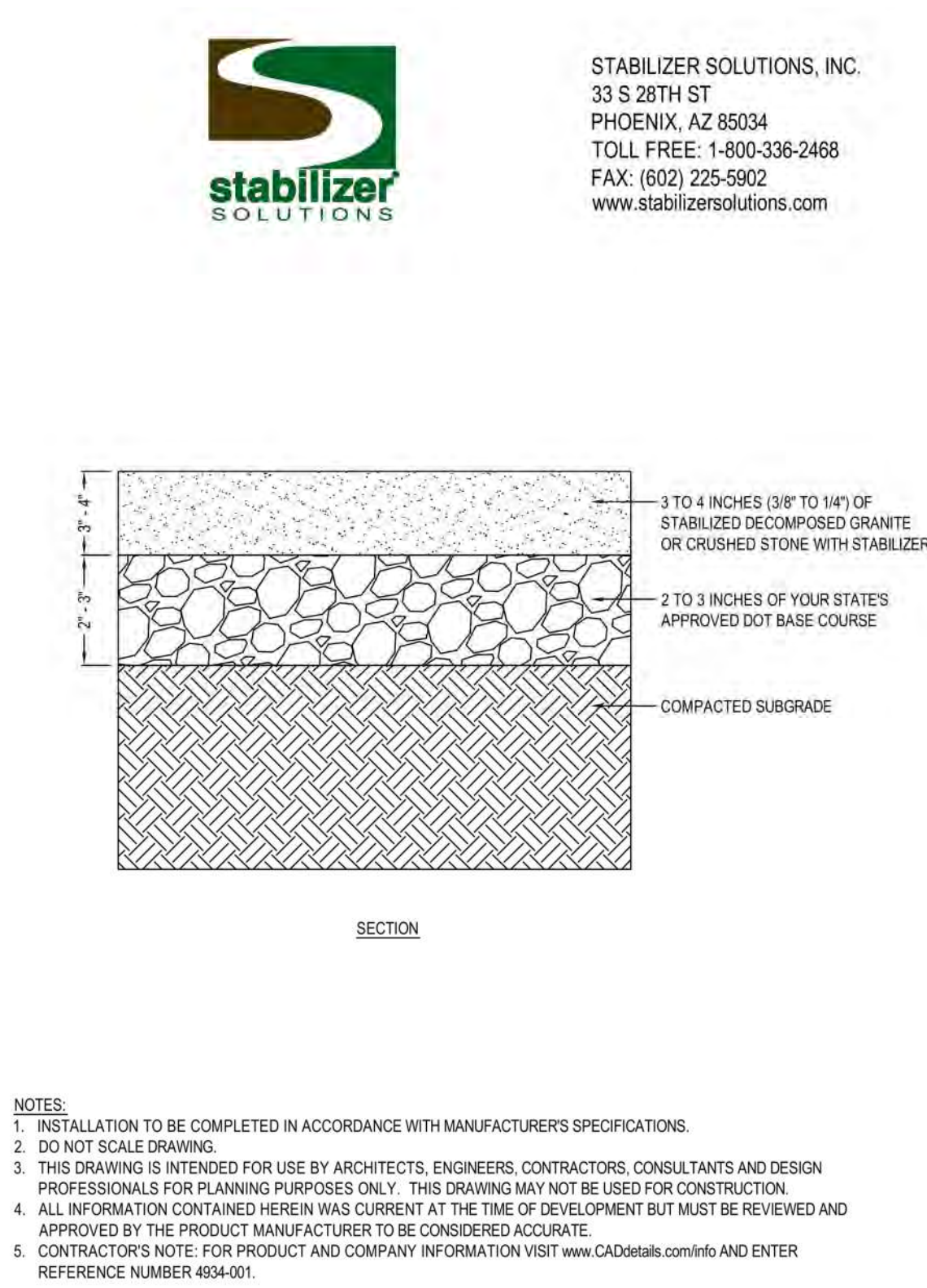


J BOULDER INSTALLATION  
NOT TO SCALE



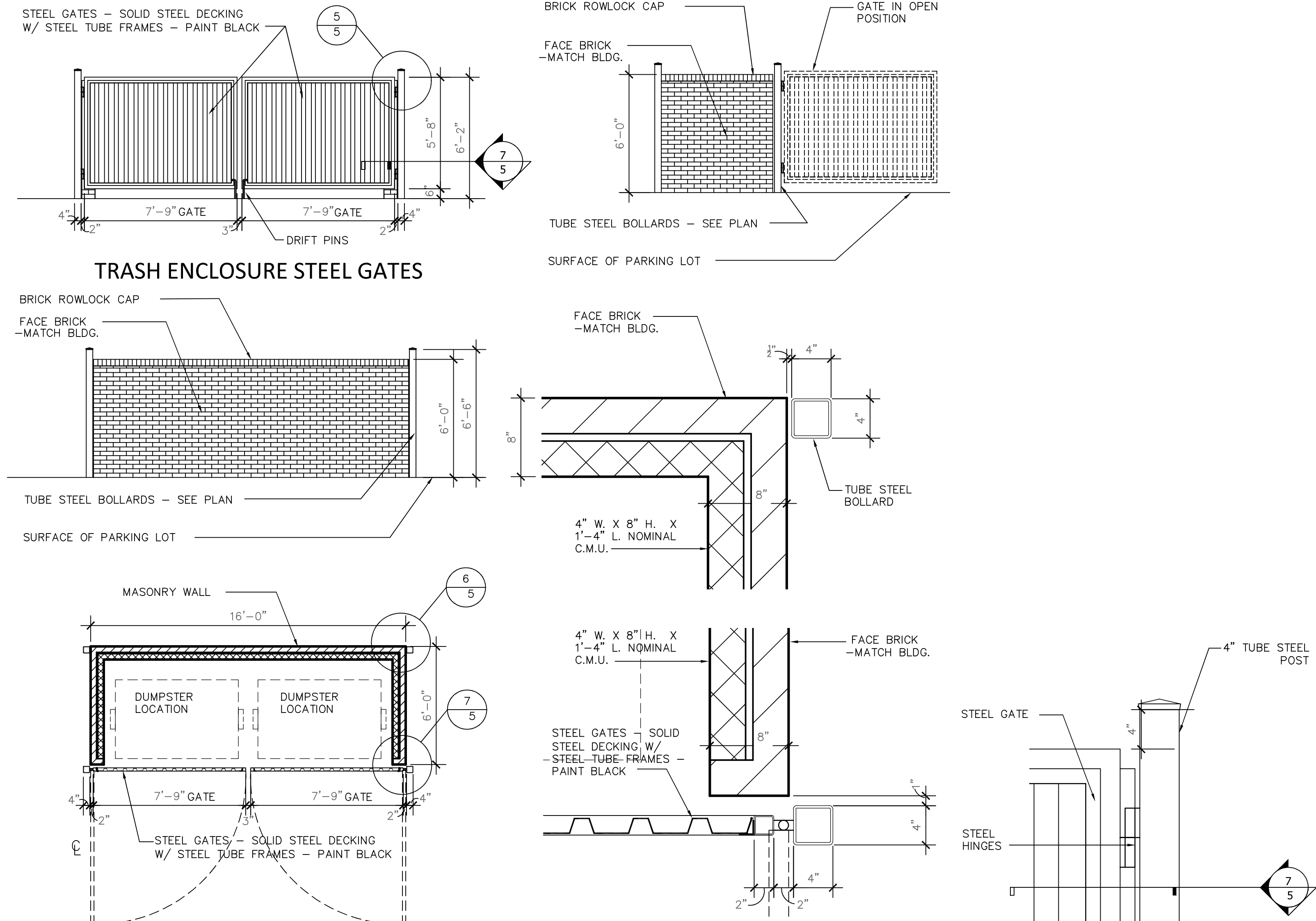
K NATURAL DOG PARK - PET WASTE STATION  
GYMS FOR DOGS™ - ECO DOG STATION™ ALUMINUM - EXCLUSIVE SIGNATURE  
DECORATIVE PET WASTE STATION W/ STARTER KIT OF 400 BAGS

PET WASTE STATION



L STABILIZED DECOMPOSED GRANITE  
PEDESTRIAN ACCESS DETAIL

DECOMPOSED GRANITE PATHWAY



M

TRASH ENCLOSURE DETAIL

Provide a detail of the retaining wall including height, color and material.

Landscape details sheet has been updated to show this detail

NOT FOR CONSTRUCTION



MASONRY PERCENTAGES

AURORA DESIGN STANDARDS REQUIREMENTS FOR MASONRY:  
MULTI-FAMILY RESIDENTIAL

- 60 PERCENT SHALL BE CLAD IN BRICK OR STONE, OR  
80 PERCENT SHALL BE CLAD IN STUCCO, OR  
80 PERCENT SHALL BE CLAD IN A COMBINATION OF STUCCO AND  
BRICK, OR STUCCO AND STONE

\*NET FAÇADE AREA MEANS THE TOTAL AREA OF ALL EXTERIOR WALLS FOR ALL STORIES ABOVE GRADE PLANE ON ANY RESIDENTIAL DESIGN PLAN ELEVATIONS, MINUS THE AREA OF ANY WINDOWS, DOORS (INCLUDING GARAGE DOORS), ROOF GABLE ENDS, AND ROOF DORMERS WITH A NET WALL AREA OF LESS THAN 100 SQUARE FEET, FOR PURPOSES OF THIS DEFINITION, "WALLS" SHALL MEAN THE VERTICAL SURFACES OR SURFACES WITHIN 15 DEGREES OF VERTICAL ON A BUILDING'S EXTERIOR, INCLUDING COLUMNS, FOR PURPOSE OF COMPLIANCE WITH THIS SECTION, THE PERCENTAGE OF NET FAÇADE AREA COVERAGE MAY VARY ON EACH ELEVATION SO LONG AS THE TOTAL NET FAÇADE AREA COVERAGE OF ALL ELEVATIONS OF THE STRUCTURE MEETS THE REQUIRED MINIMUM COVERAGE PERCENTAGE.

PROVIDED MASONRY:

EAST ELEVATION:  
MASONRY = 4,028 S.F.  
SIDING = 2,735 S.F.  
TOTAL = 6,763 S.F.

WEST ELEVATION:  
MASONRY = 4,110 S.F.  
SIDING = 3,273 S.F.  
TOTAL = 7,383 S.F.

SOUTH ELEVATION:  
MASONRY = 2,051 S.F.  
SIDING = 0 S.F.  
TOTAL = 2,051 S.F.

NORTH ELEVATION:  
MASONRY = 1,167 S.F.  
SIDING = 723 S.F.  
TOTAL = 1,890 S.F.

TOTAL BUILDING  
MASONRY = 11,356 S.F. = 62%  
SIDING = 6,741 S.F. = 38%  
TOTAL = 18,097 S.F.

# 1900 SOUTH CHAMBERS LOT 1 SITE PLAN

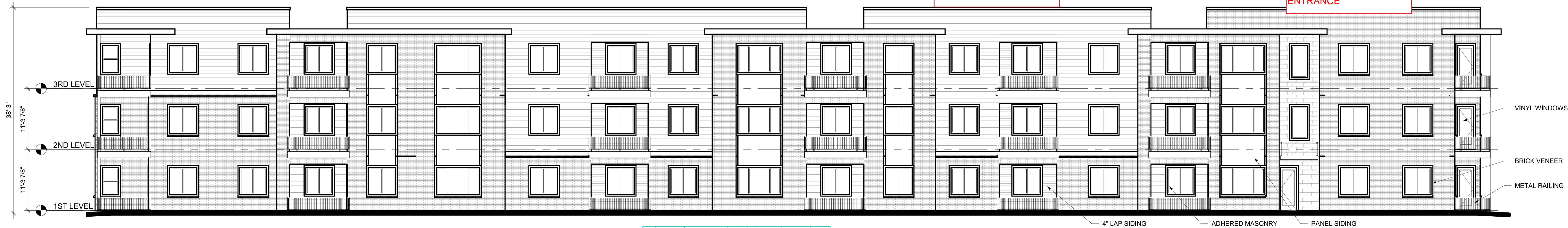
A SUBDIVISION OF A PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 20,  
TOWNSHIP 4 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN  
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO

The primary façade which is the west elevation should have  
a main pedestrian entry per city code.

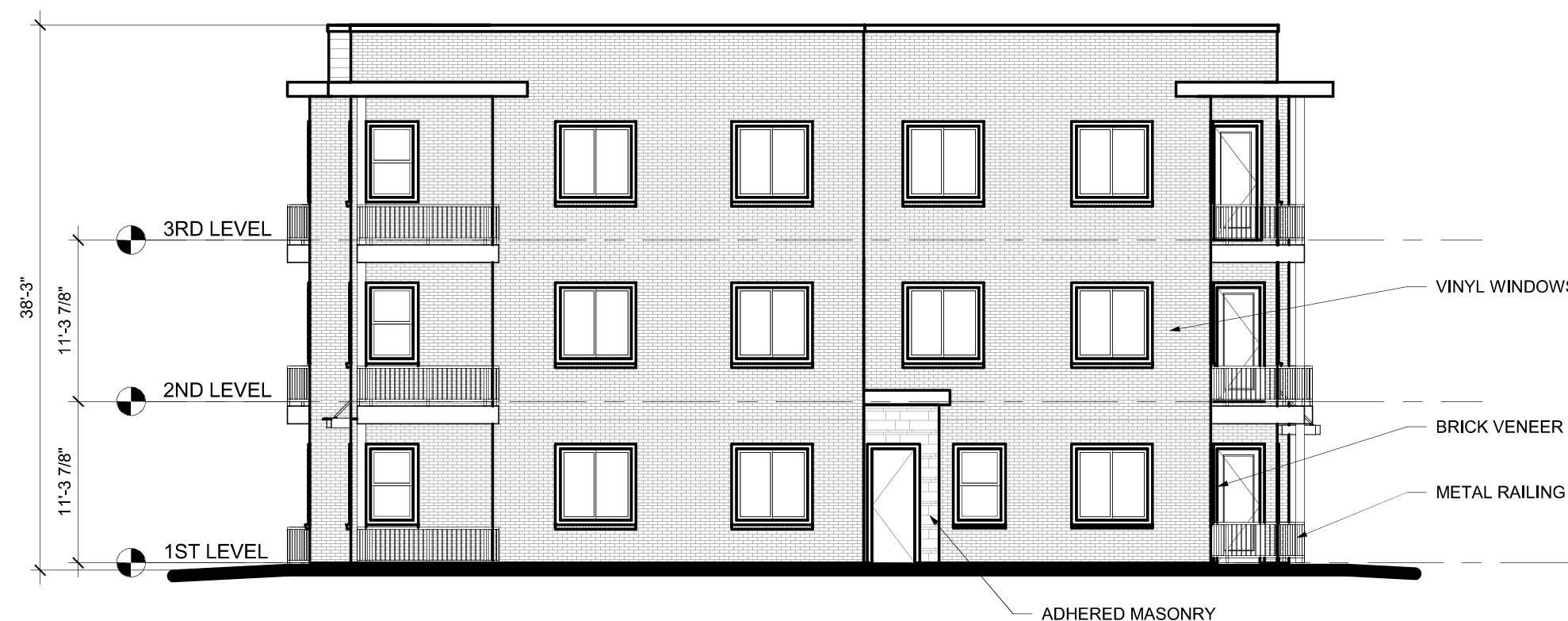
NOTED. EMPHASIZED  
ENTRANCE

Add an enhanced entry to design to a  
main entrance off of Chambers Road.  
There should be accentuated entrance  
using one of the following methods -  
projected mass, recessed mass, corner  
entry, roof form variation, awning or  
sunshade device. This should be shown  
in updated elevations.

NOTED. EMPHASIZED  
ENTRANCE



4 WEST ELEVATION  
3/32" = 1'-0"



3 SOUTH ELEVATION  
3/32" = 1'-0"



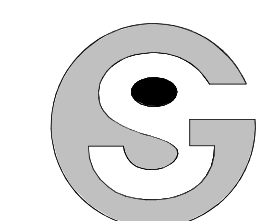
2 NORTH ELEVATION  
3/32" = 1'-0"



1 EAST ELEVATION  
3/32" = 1'-0"

Provide symbol, legend and location  
of all Knox boxes & FDC. Please  
use this symbol for Knox Boxes.  
(Typical all sheets)

ADDED.

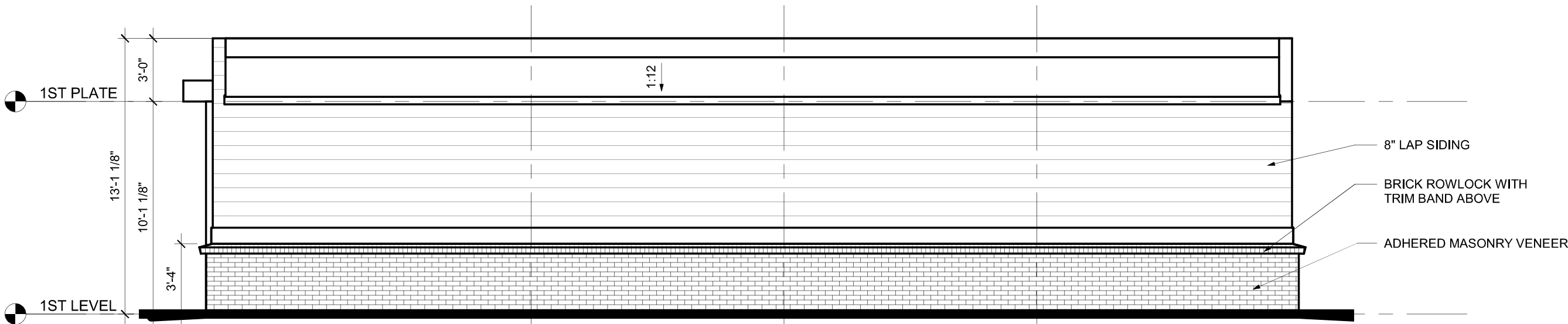


Godden|Sudik  
ARCHITECTS  
SEE WHAT COULD BE  
303.455.4437  
www.goddensudik.com

5975 S. Quebec Street  
Suite 250  
Centennial, CO 80111

# 1900 SOUTH CHAMBERS LOT 1 SITE PLAN

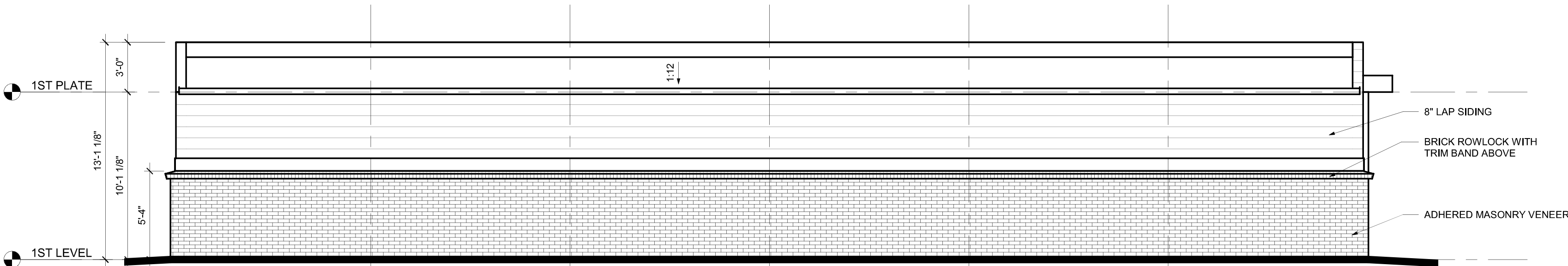
A SUBDIVISION OF A PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 20,  
TOWNSHIP 4 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN  
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO



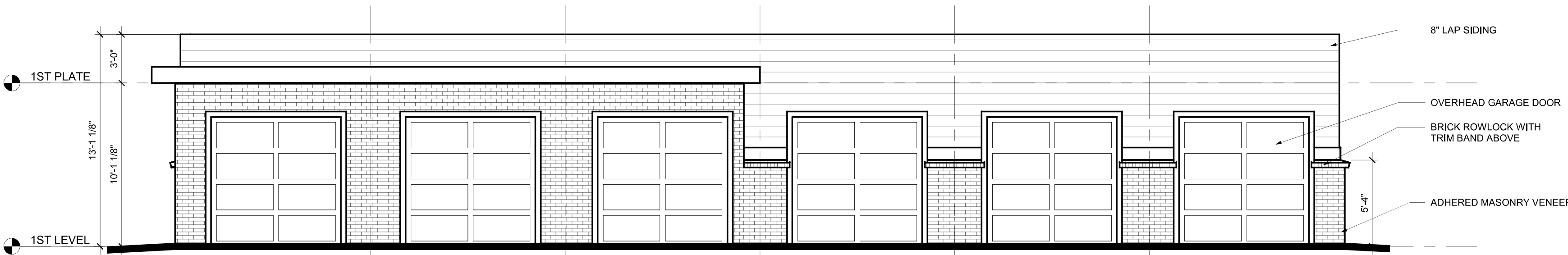
8 4-BAY GARAGE REAR ELEVATION  
3/16" = 1'-0"



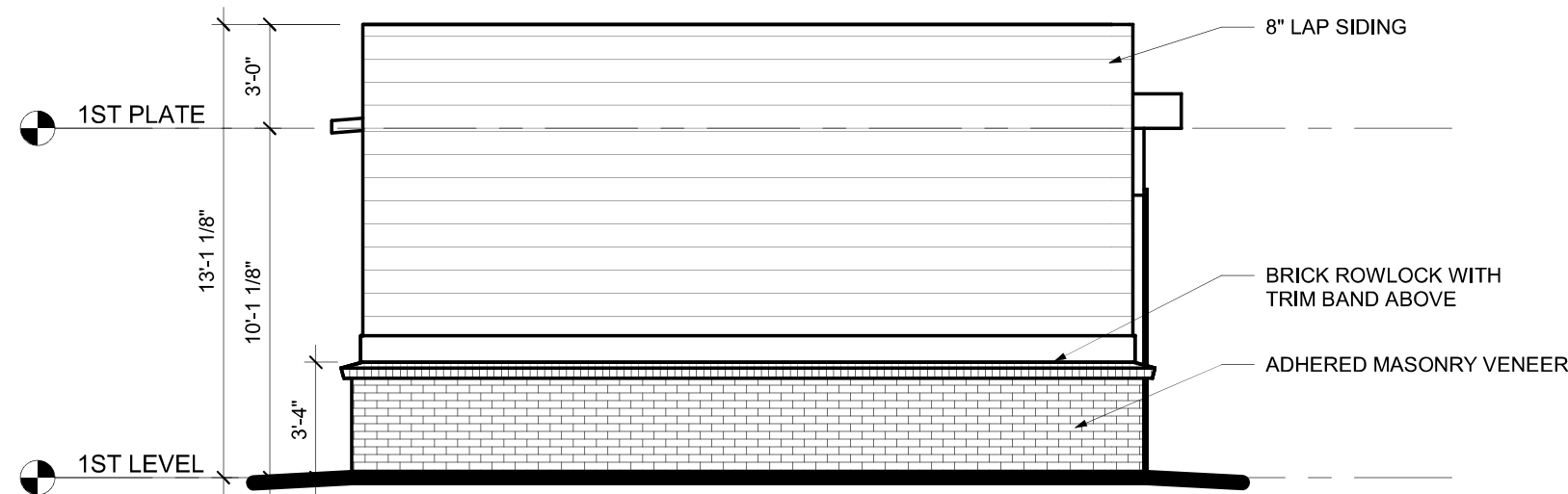
6 4-BAY GARAGE FRONT ELEVATION  
3/16" = 1'-0"



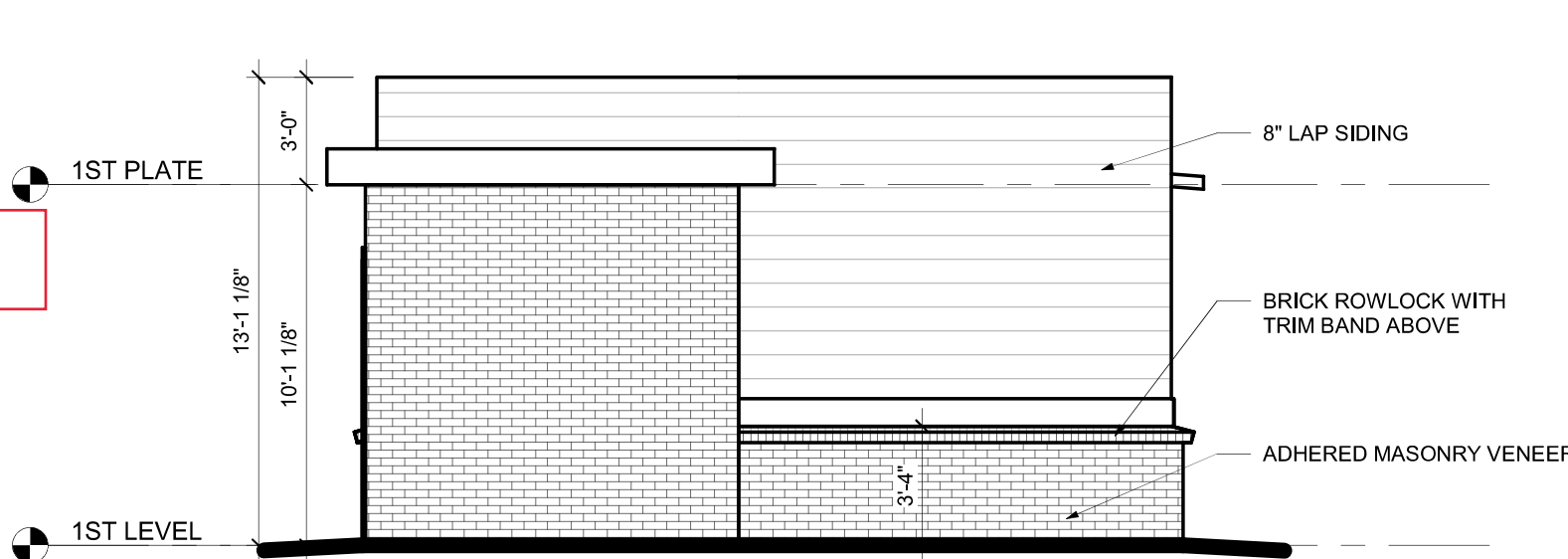
4 6-BAY GARAGE REAR ELEVATION  
3/16" = 1'-0"



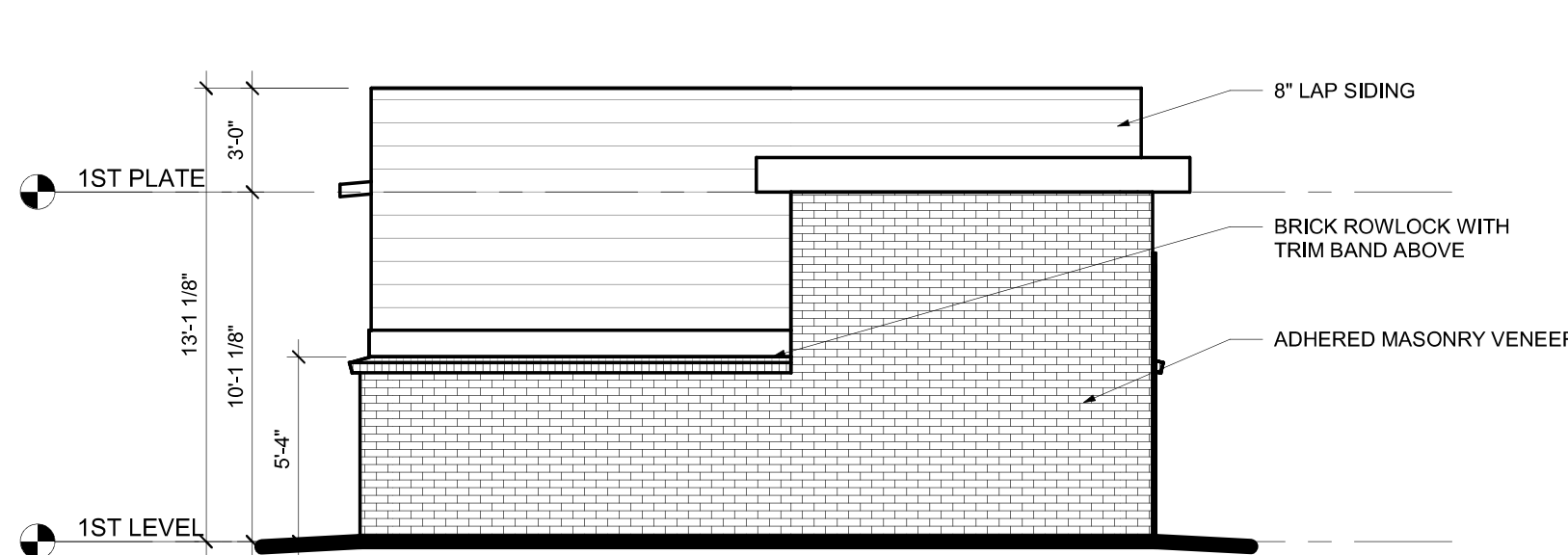
2 6-BAY GARAGE FRONT ELEVATION  
3/16" = 1'-0"



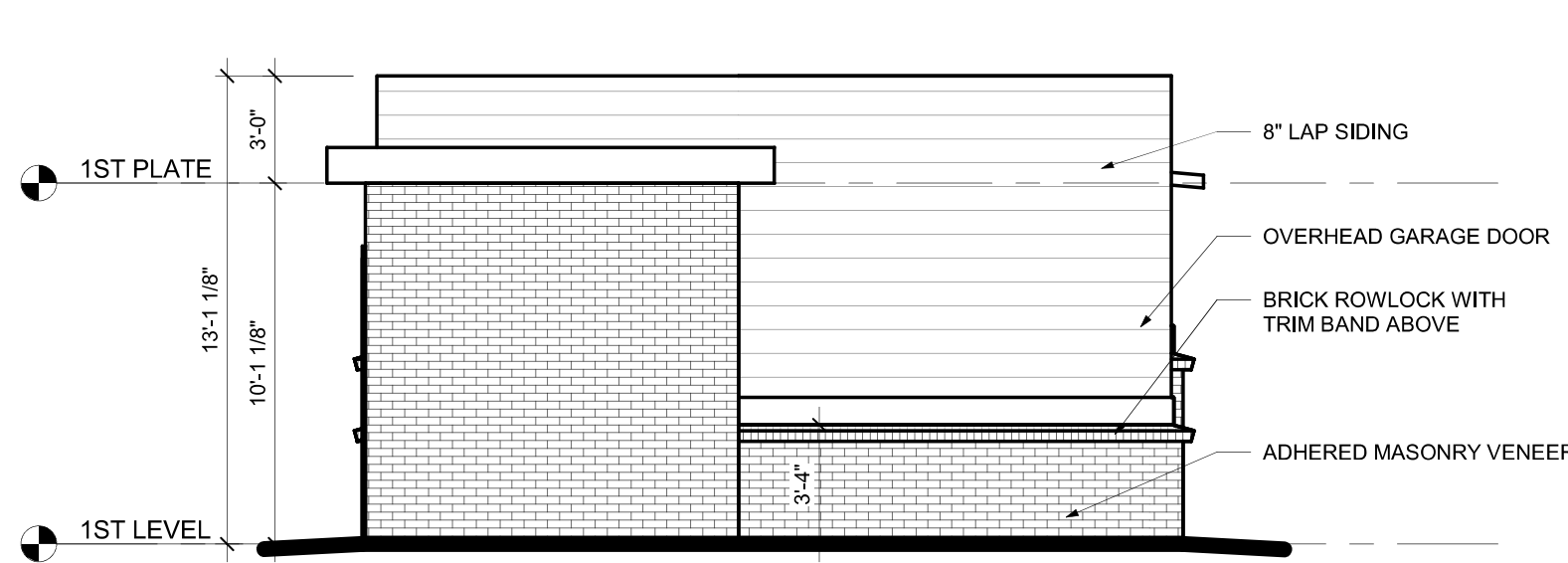
7 4-BAY GARAGE LEFT ELEVATION  
3/16" = 1'-0"



5 4-BAY GARAGE RIGHT ELEVATION  
3/16" = 1'-0"



3 6-BAY GARAGE LEFT ELEVATION  
3/16" = 1'-0"



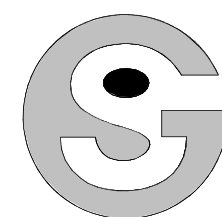
1 6-BAY GARAGE RIGHT ELEVATION  
3/16" = 1'-0"

The detached garages should  
be faced with the same mix  
and percentage of materials as  
the primary building.

UPDATED.



Know what's below.  
Call before you dig.



Godden|Sudik  
ARCHITECTS  
SEE WHAT COULD BE  
303.455.4437  
www.goddensudik.com

5975 S. Quebec Street  
Suite 250  
Centennial, CO 80111

**POINT**  
POINT CONSULTING, LLC  
8460 W. KEN CARYL AVE #101  
LITTLETON, CO 80128  
720-258-6836  
www.prc-llc.com  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
LAND SURVEYING

SITE PLAN  
1900 SOUTH CHAMBERS  
LOT 1  
AURORA, COLORADO

DESCRIPTION  
1ST SITE PLAN AMENDMENT SUBMITAL

DATE  
09.03.2021

JOB NO. 21.048

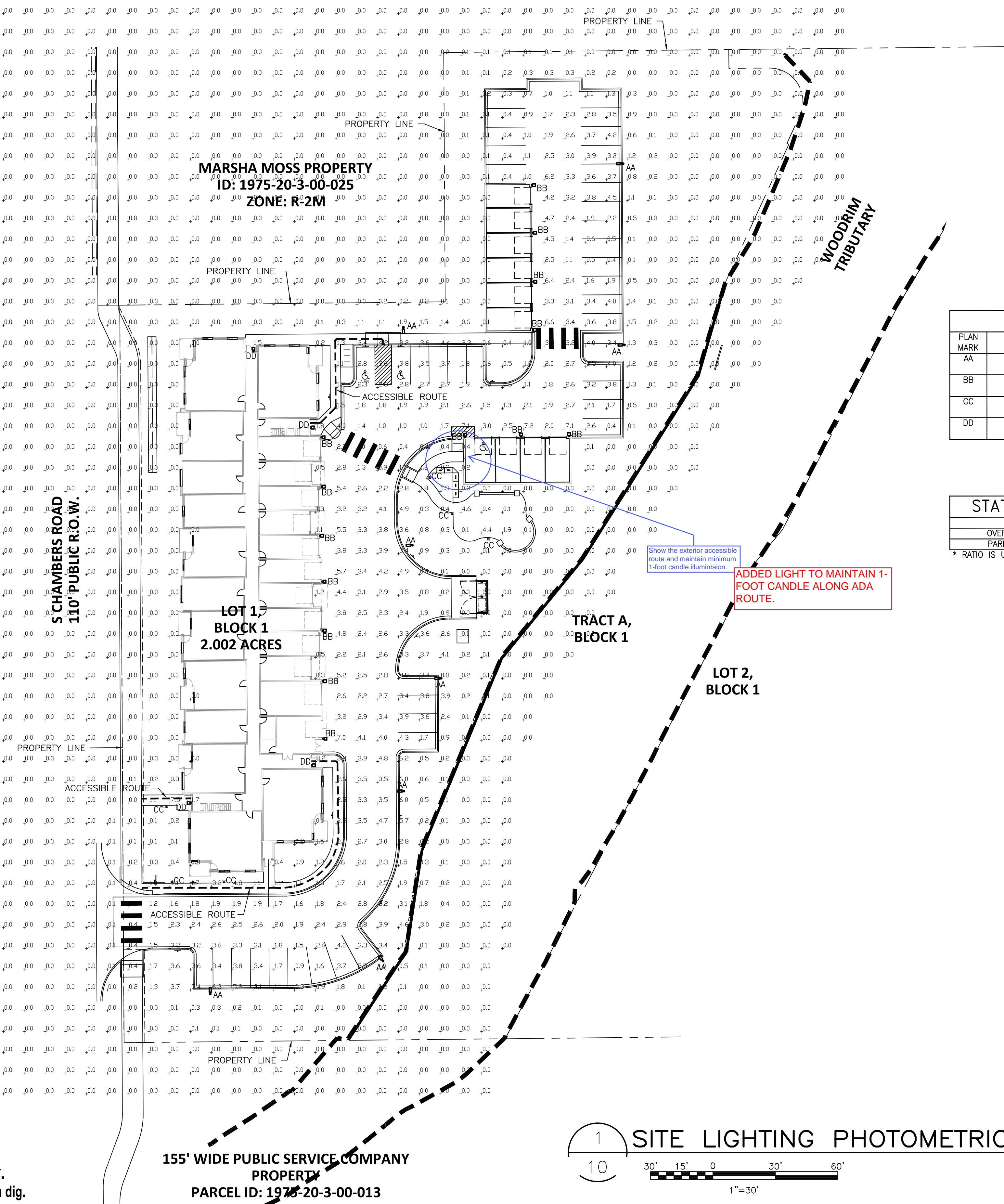
GARAGE ELEVATIONS

SHEET 9 OF 11



# 1900 SOUTH CHAMBERS LOT 1 SITE PLAN

A SUBDIVISION OF A PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 20,  
TOWNSHIP 4 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN  
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO



## GENERAL NOTES:

- ILLUMINATION WITHIN THE SITE MUST COMPLY WITH THE 2015 INTERNATIONAL BUILDING CODE REQUIREMENT FROM SECTION 1006 - MEANS OF EGRESS ILLUMINATION. SECTION 1006. ILLUMINATION REQUIRED: THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING IS OCCUPIED. SECTION 1006.2 ILLUMINATION LEVEL: THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-CANDLE (11 LUX) AT THE FLOOR LEVEL AND CONTINUING TO THE "PUBLIC WAY"

## LUMINAIRE SCHEDULE

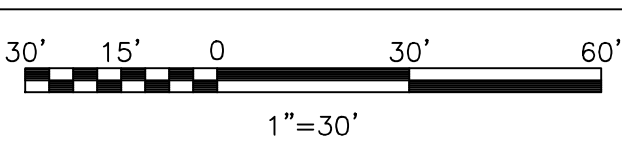
PLAN MARK	MOUNTING	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	VOLTAGE	LAMP TYPE	REMARKS
AA	POLE	16' HEIGHT	COOPER LIGHTING GLAN-SA2C-740-U-T4FT--HSS	MVOLT	108W LED	WET LOCATION
BB	WALL MOUNT	WALLPACK	COOPER LIGHTING XTOR 1B-W	MVOLT	12W LED	WET LOCATION
CC	GROUND	BOLLARD DOWNLIGHT	MCGRAW EDISON BRT6-A1-740-U-T3-XX-BK	MVOLT	5W LED	WET LOCATION
DD	WALL MOUNT	EGRESS WALLPACK	ELED EM ** MB HX	MVOLT	11W LED	WET LOCATION BATTERY BACK-UP

## STATISTICS

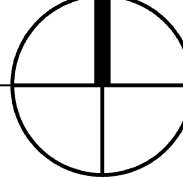
	AVERAGE	MAXIMUM	MINIMUM	MAX/MIN	AVG/MIN
OVERALL SITE	0.6	9.1	0	N/A *	N/A *
PARKING LOT	2.7	7.2	0.3	24.0 : 1	9.0 : 1

\* RATIO IS UNDEFINED SINCE MINIMUM LEVEL IS ZERO

## SITE LIGHTING PHOTOMETRIC PLAN



NORTH



Know what's below.  
Call before you dig.

155' WIDE PUBLIC SERVICE COMPANY  
PROPERTY  
PARCEL ID: 1975-20-3-00-013

**GIVEN**  
& ASSOCIATES INC  
MECHANICAL & ELECTRICAL ENGINEERS  
735 S. Xenon Ct. #201  
Lakewood, Colorado 80228  
Ph: 303.716.1270  
Fax: 303.716.1272  
www.givenandassociates.com  
Project # 21104



POINT CONSULTING, LLC  
8460 W KEN CARY LANE #101  
LITTLETON, CO 80128  
720-258-6836  
www.pnt-llc.com  
CIVIL ENGINEERING  
PLANNING  
LANDSCAPE ARCHITECTURE  
LAND SURVEYING

SITE PLAN  
1900 SOUTH CHAMBERS

LOT 1

AURORA, COLORADO

DESCRIPTION  
1ST SITE PLAN AMENDMENT SUBMITTAL

DATE  
09/03/2021

SITE LIGHTING PHOTOMETRIC PLAN

10 OF 11



**A SUBDIVISION OF A PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 20,  
TOWNSHIP 4 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN  
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO**

FIXTURE TYPE "DD"

Catalog #		Type
Project		
Comments		Date
Prepared by		



**Product Certifications**

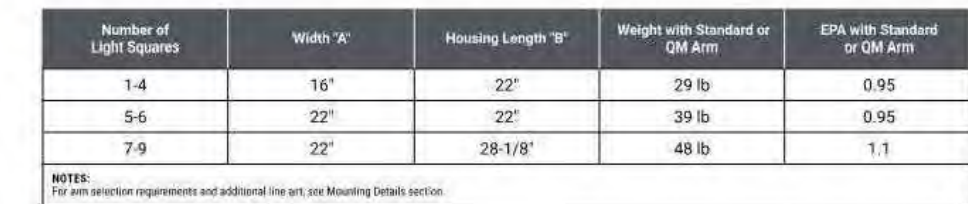
       

**Resources**

LaunchLab Technology | Light Advantage™

- WaveLinux Lite
- WaveLinux



PS506077EN page

The patented Luminaire Crosstour LED Wall Pack Series of luminaires provides an architectural style with built-in energy efficient LEDs. The luminaire's rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed output compartment make the Crosstour impervious to contaminants. The Crosstour luminaire is ideal for wall surface, inverted mount for facade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

[illegible]

**Optical**  
Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Available in seven lumen packages; 5000K, 4000K and 3000K CCT.

**Electrical**  
LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source, 12W, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 85% of initial light output after 72,000 hours of operation. Three half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized

electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

**Finish**  
CrossTour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

**Warranty**  
Five-year warranty.



**XTOR**  
CROSSTOUR LED

APPLICATIONS  
WALL / SURFACE  
POST / BOLLARD  
LOW LEVEL  
FLOODLIGHT  
INVERTED  
SITE LIGHTING

**CERTIFICATION DATA**  
Dark Sky Approved (Fixed mount, Full  
cutoff) and 3000K CCT only  
UL/cUL, Wet Location Listed  
LM 79 / LM80 Compliant  
ROHS Compliant  
ADA Compliant  
NOM Compliant Models  
IP66 Ingressed Protection Rated  
Title 24 Compliant  
DesignLights Consortium® Qualified+

**TECHNICAL DATA**  
50°C Maximum Ambient Temperature  
Extended Supply Wiring 90°C Minimum

**SHIPPING DATA:**  
Approximate Net Weight:  
3.7 - 5.25 lbs. (1.7 - 2.4 kgs.)

TD51401387  
March 12, 2020 9:33 AM

\*[www.designlights.org](http://www.designlights.org)



**Product Certifications**

SYSTEM  
**ISU**  
CERTIFIED

3G  
VIB

IP66

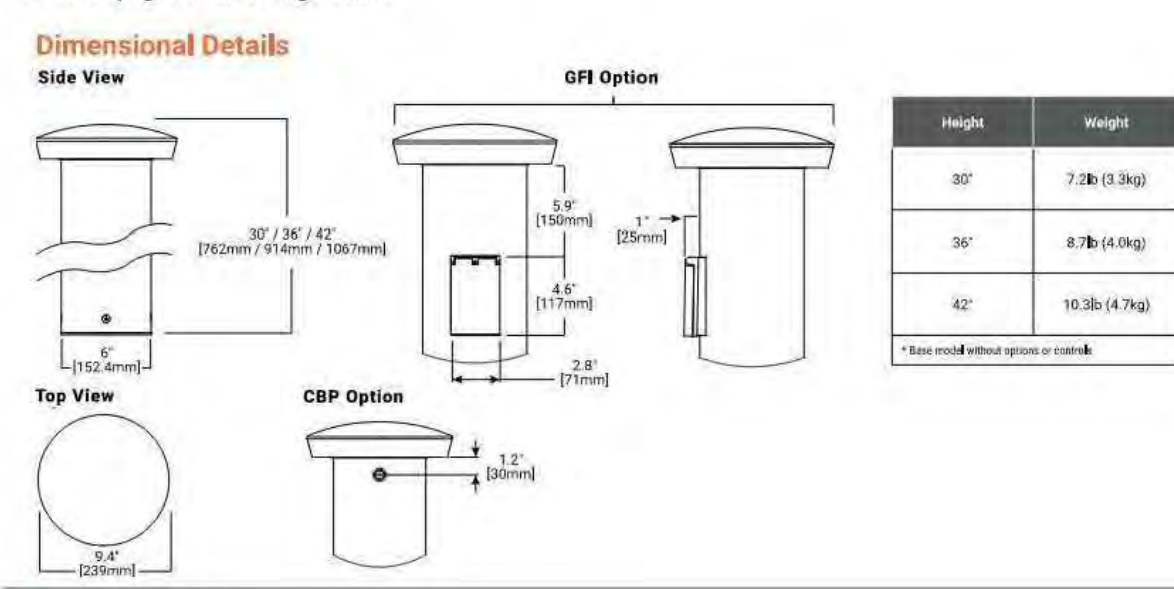
IK10

UL  
LISTED

ida  
INTEGRATED DATA  
ANALYSIS

5 YEAR  
WARRANTY

- 4 Optical Distributions
- Available in 30°, 36°, and 42°
- Lumen packages range from 560 - 4400 (5W - 49W)
- Efficacy up to 122 lumens per watt
- Zero uplight on all configurations



PS50048EN page 1



**ELED**  
Architectural Outdoor LED Light

DATE:	COMMENTS:
PROJECT:	

- Architecturally appealing wet location LED light for indoor and outdoor applications
- Suitable for NEMA 4X applications
- Cold Weather Option makes the ELED ideal for outdoor applications to -41° F
- Self Test / Self-Heal circuit makes standard replacement manual testing obligations
- Brief self-tests of lamp, battery, and electronic circuitry automatically run every 28 days
- Extended, 30-minute emergency duration tests automatically run every 28 days
- External test switch for manual diagnostic operation
- Photocell activation for nighttime/economy lighting or switch controlled for normal lighting conditions on both AC and EM models
- 100° C ambient temperature
- 11 watt high output LED module for superior illumination providing 1050 lumens and 50,000 hour lamp life
- UL listed 30 minute run-time
- Self-compensating solid state Constant Current Charge provides extended float life and 50 plus run-time
- Brownout detection ensures emergency Nickel Cadmium battery during periods of low line voltage
- Proven long life high temperature Nickel Cadmium battery
- Integral push-to-test switch with easily visible bi-color LED diagnostic indicator
- Gasket sealed to suit universal junction boxes
- Cord entry on top of unit
- 120/277 VAC field-selectable inputs
- Available as an AC only fixture



**ORDERING INFORMATION** ELED-AC-BZ-MB

1. SERIES	2. OPERATION	3. FRAME COLOR	4. MOUNTING	5. OPTIONS
ELED			MB	
	AC AC Only EM Ni-Cad Battery Backup	BZ Bronze Frame WH White Frame	MB Back Mount	BLANK = NO OPTION HX Internal Heater (120/277 VAC) (EM Only)

**ACCESSORIES: ORDER SEPARATELY**

- WG 2 = Wire guard 14.0" X 10.0" X 4.5"

**ISOLITE • WWW.ISOLITE.COM**  
ISOLITE HEADQUARTERS • 800.888.5483 • 31 WATERLOO AVENUE, BERWYN, PA 19312  
ISOLITE WEST • 800.799.5343 • 3563 RUELDO SUITE M, SAN LUIS OBISPO, CA 93401

© 7.2.3.01.27 + Rev 7 + 200011  
SPECIFICATIONS AND DETAILS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION  
CONTACT MOORE FOR UP TO DATE DATA





Advisory note: PDR approval is required prior to Civil Plan Approval.

NOTED.

1st Review - please contact Rifka Wine with questions.  
RWine@bhinc.com

NOTED.

Please do not resubmit until MHFD comments (attached) have been addressed. Please include responses to MHFD comments in appendix.



NOTED.



**PRELIMINARY DRAINAGE REPORT  
FOR  
1900 SOUTH CHAMBERS COMMUNITY LOT 1  
AURORA, CO**

Approved For One Year From This Date

\_\_\_\_\_  
City Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Water Department

Page 1 (page numbers must match PDF page numbers)

NOTED. ADDED PAGE NUMBER TO PAGE 1. ALL SHEETS PRIOR TO APPENDIX ARE NUMBERED CORRECTLY

**PRELIMINARY DRAINAGE REPORT**

**1900 SOUTH CHAMBERS COMMUNITY LOT 1  
AURORA, CO**

Prepared For:

**Bruckal Development**  
4500 N 3<sup>rd</sup> Street, Unit 100F  
Phoenix, AZ 85018  
Contact: Myles Bruckal  
(602) 510-0381

Prepared By:

**Point Consulting**  
8460 W Ken Caryl Avenue, #101  
Littleton, CO, 80128  
Contact: Tiffany D. Watson, PE.  
(303)-258-6836

Job No.: 21.048  
September 2021

## ENGINEER'S CERTIFICATION

"I hereby certify that this study for 1900 South Chambers Community Lot 1 as prepared by me (or under my direct supervision) is in accordance with the provisions of the City of Aurora Storm Drainage & Technical Criteria Manual for the owners thereof."

---

Tiffany D. Watson, PE  
Colorado Registration No. 40360  
For and on behalf of Point Consulting, LLC

Please see SDDTC Section  
2.30 for required report outline/  
TOC

## TABLE OF CONTENTS

I. INTRODUCTION	5
II. HISTORIC	5
III. DESIGN	6
IV. DRAINAGE PLAN	6
V. CONCLUSIONS	8
VI. REFERENCES	8
VII. APPENDIX	
A. Vicinity Map	
B. Hydrologic Calculations	
a. Imperviousness Calculations	
b. UD-Rational 2.00 Calculations	
C. Preliminary Drainage Map	
D. Design and Technical Criteria	
a. Fema Firm Map	
b. Storm Drainage and Technical Criteria	
c. Rainfall Figures RA-1 to RA-6	
d. Soils Report	

PER SECTION  
2.30, THE LAYOUT  
FOR THE REPORT  
HAS BEEN  
UPDATED.

## **INTRODUCTION**

### **Location**

1900 South Chambers Community Lot 1 (project), consists of a 2.00-acre site. The existing site is currently vacant and sparsely vegetated. The site is located west of Woodrim Tributary, which is a tributary to West Tollgate Creek, the site slopes from west to east at a range from 4.5% to 9.0%. The overall site varies in elevation from a low elevation of 5520 to a high elevation of 5537. The site is a portion of the Southwest ¼ of Section 20, T4S, R66W of the 6<sup>th</sup> PM, County of Arapahoe, State of Colorado.

See Appendix A for vicinity map.

The proposed development is located at South Chambers between South Chambers Road and South Helena Street. It is bounded on the north by CubeSmart Self Storage, on the east by Woodrim Tributary, the south by Chambers Ridge Townhomes, and to the west by South Chambers Road.

### **Proposed Development**

Currently the site is undeveloped with vegetation consisting of native grass and trees with the Woodrim Tributary flowing from southwest to northeast to the west of the site. Existing soils consists mostly of Renohill-Buick loams, Hydrological Soil Group D. The proposed development is not located within the 100-year floodplain of the Woodrim Tributary.

According to the FEMA Flood map 08005C0191L, this site is not within a designated floodplain and is within Zone X. Refer to Appendix D for Firm Map.

The proposed development is three story apartment building with garages on the first floor. The site will also feature a driveway that runs thru the site and will feature garages and uncovered parking stalls, a dog park and an amenity area. The composite percent of imperviousness of the site is 59.0%.

## **HISTORIC DRAINAGE**

### **Overall Basin Description**

The Woodrim Tributary runs along the east side of the site and is tributary to the West Tollgate Creek. Existing drainage west of the tributary (on site) overland flows from west to east into the tributary at approximately 4.5% - 9.0%. The 155' wide Public Service Company Property to the south drains through the site and into the tributary.

### **Drainage Patterns Through Property**

The existing site drains into the Woodrim Tributary that runs from southwest to northeast located east of the site.

### Outfalls Downstream from Property

The Woodrim Tributary is tributary to West Toll Gate

Please list previous studies for site and surrounding development and include pertinent pages from previous studies for site in appendix.

Sand Creek.

### DESIGN CRITERIA

A Hydrologic and Hydraulic Report was completed August 14, 2019, and prepared by Action Civil Engineering. The report includes a 100-year floodplain limit for Woodrim Tributary as well as proposed channel shear in accordance with recommendations provided in the report. The floodplain limit is shown on the Drainage Map.

ADDED DISCUSSION OF PREVIOUS STUDIES AND ADDED TRIBUTARY INAL DRAINAGE REPORT AS APPENDIX D.

dated August 14, 2019, and prepared by Action Civil Engineering. The report includes a 100-year floodplain limit for Woodrim Tributary as well as proposed channel shear in accordance with recommendations provided in the report. The floodplain limit is shown on the Drainage Map.

The criteria used for this study is from the City of Aurora "Storm Drainage Design and Criteria," dated September 2010, which refers to the "Urban Storm Drainage Criteria Manual" prepared by the Urban Drainage and Flood Control District (UDFCD).

Please include pertinent pages from this report in the appendix.

### Hydrologic Criteria

Runoff coefficient values "C", Time of Concentration (Tc) and the peak runoff (Q) were determined using the Rational Method. The 1-hour rainfall depths are taken from the IDF manual. See the Appendix B for these calculations.

ADDED TRIBUTARY INAL DRAINAGE REPORT AS APPENDIX D.

The Water Quality Pond volumes were determined using the UDFCD manual:

There is no water quality pond shown on the drainage plan. A WQ manhole is shown.

ing equations as specified in

$$WQCV = a(0.91I^3 - 1.19I^2 + 0.78I)$$

a = coefficient corresponding to WQCV drain time (Table 3-2 of the UDFCF manual)

I = Imperviousness (%/100)

MHFD (typ.)

UPDATED.

UPDATED.

The 2-year rainfall event was used for the minor storm and the 100-year rainfall event was used for the major storm to determine pond volumes and pipe capacities.

### DRAINAGE PLAN

#### General Concepts

The existing off-site drainage on the northwest side of the site will flow through the property via an inlet and storm network, and into the Woodrim Tributary. The off-site flows are consistent with the historic drainage pattern.

There are no major offsite flows produced by the proposed site, and the development does not adversely affect the adjacent properties.

The proposed storm sewer inlets and pipe systems are designed to capture and convey the major storm event, 100-year.

### Specific Details

There are 8 proposed basins on the site (A, B, C, D, E, F, G, H) and one offsite basin, OS-1. All inlets and storm sewer pipe are designed for the 100-year storm capacity. See Drainage Map for basin locations.

1. Basin A is 0.49-acres and consists of roofs, concrete sidewalks, asphalt drives and a small portion of landscape area. The storm water will flow to design point 1. The storm water will then be discharged into the Woodrim Tributary after passing thru a CDS water quality manhole. The minor storm, 2-year, coefficient is 0.78 and the major storm, 100-year, coefficient is 0.87 with an imperviousness of 93.8%. Basin A's flows are 1.12 cfs and 3.49 cfs for the minor and major storm, respectively.
2. Basin B is 0.23-acres and consists roof areas and paved asphalt drive. The storm water will flow to design point 2. The storm water will then flow through the storm network and be discharged into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.78 and the major storm, 100-year, coefficient is 0.87 with an imperviousness of 94.2%. Basin B's flows are 0.53 cfs and 1.66 cfs for the minor and major storm, respectively.
3. Basin C is 0.36-acres and consists of concrete sidewalks, roof areas, asphalt drives and a small portion of landscape area. The storm water will flow to design point 3, located on the east side of the drive. The storm water will then flow through the storm network and be discharged into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.75 and the major storm, 100-year, coefficient is 0.86 with an imperviousness of 91.2%. Basin C's flows are 0.78 cfs and 2.50 cfs for the minor and major storm, respectively.
4. Basin D is 0.43-acres and consists of mostly landscape with a small portion of concrete sidewalks and gravel. The storm water will be collected at design point 4. The storm water will immediately flow into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.10 and the major storm, 100-year, coefficient is 0.54 with an imperviousness of 14.5%. Basin D's flows are 0.10 cfs and 1.53 cfs for the minor and major storm, respectively.
5. Basin E is 0.10-acres and consists of entirely of landscape. The storm water will be collected at design point 5. The storm water will then flow into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.03 and the major storm, 100-year, coefficient is 0.50 with an imperviousness of 5.0%. Basin E's flows are 0.01 cfs and 0.31 cfs for the minor and major storm, respectively.
6. Basin F is 0.16-acres and consists of concrete sidewalks and landscape. The storm water will be collected at design point 6. The storm water will discharge into a storm sewer pipe and directed into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.09 and the major storm, 100-year, coefficient is 0.54 with an imperviousness of 13.4%. Basin F's flows are 0.03 cfs and 0.56 cfs for the minor and major storm, respectively.

7. Basin G is 0.16-acres and consists of concrete sidewalks and landscape. The storm water will be collected at design point 7. The storm water collected at design point 7 will enter a storm main located beneath S Chambers Road and released into the Woodrim Tributary. The minor storm, 2-year, coefficient is 0.40 and the major storm, 100-year, coefficient is 0.70 with an imperviousness of 52.5%. Basin G's flows are 0.19 cfs and 0.92 cfs for the minor and major storm, respectively.
8. Basin H is 0.08-acres and consists of entirely landscape. The storm water will be collected at design point 8. The storm water will immediately flow into the Woodrim Tributary. The minor storm, 2-year, coefficient 0.03 and the major storm, 100-year, coefficient is 0.50 with an imperviousness of 5%. Basin H's flows are 0.01 cfs and 0.26 cfs for the minor and major storm, respectively.
9. Basin OS-1 is a 0.26 acre offsite basin located northwest of the property. This basin consists of a single-family home and landscape area. Storm water from this basin will flow into a drain in the southeast portion of the basin, which will then flow through the storm system into a CDS structure. The minor storm, 2-year, coefficient is 0.03 and the major storm, 100-year, coefficient is 0.50 with an imperviousness of 5.0%. Basin OS-1's flows are 0.02 cfs and 0.85 cfs for the minor and major storms, respectively.

The overall on-site imperviousness is 59.0%. See Appendix B for calculations.

## **CONCLUSIONS**

### **Compliance with Standards**

This report has been prepared in accordance with the City of Aurora Standards for Preliminary Drainage Report.

### **Summary of Concept**

Storm sewer inlets and pipes are located throughout the site to provide adequate drainage to the Woodrim Tributary.

## **REFERENCES**

City of Aurora Storm Drainage Design & Technical Criteria, Revised October 2010.

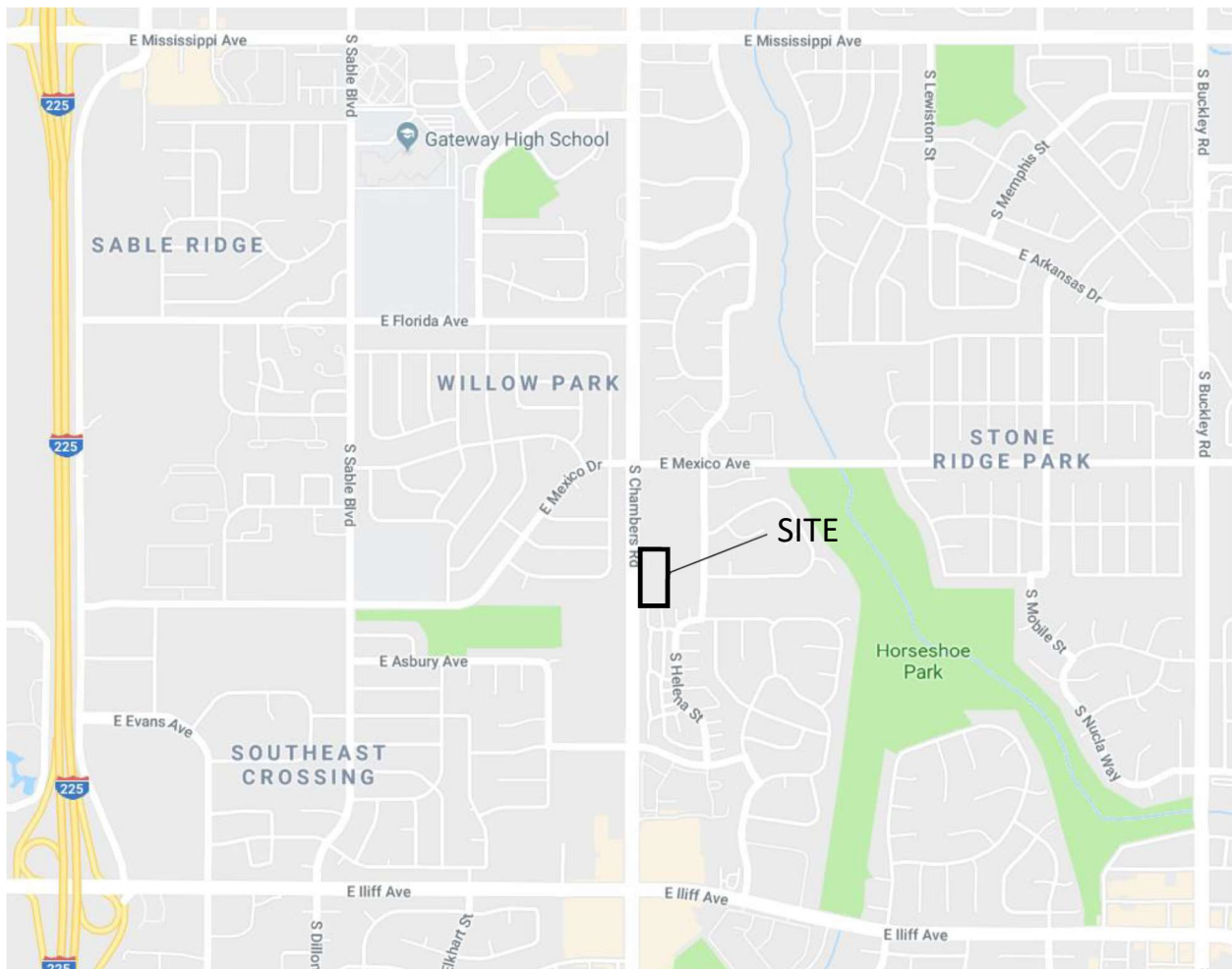
Urban Drainage and Flood Control District, Denver, Colorado, *Urban Storm Drainage Criteria Manual, Volumes 1, 2 (updated 2016) & 3 (updated November 2015)*.

Please list previous studies for site and adjacent sites.

ADDED DISCUSSION OF PREVIOUS STUDIES AND ADDED TRIBUTARY INAL DRAINAGE REPORT AS APPENDIX D.



**APPENDIX A**  
**VICINITY MAP**



**VICINITY MAP**  
**NTS**

**APPENDIX B**

**HYDROLOGIC CALCULATIONS**

**PROJECT:** 1900 S Chambers Rd - Lot 1  
**PROJECT NO.** 21.048  
**DESIGN BY:** GJB  
**DATE:** 8/25/2021

	IMP%
Roof	90
Concrete Drive/Walk	96
Landscaping	5
Paved Streets	100
Gravel	40

**Proposed Basins (proposed conditions) Land Use (Acres)**

Basin	Total Area	Roof	Concrete Drive/Walk	Landscape	Paved Streets	Gravel	%Imp
A	0.490	0.168	0.021	0.013	0.288	0.000	93.81
B	0.233	0.133	0.006	0.000	0.094	0.000	94.18
C	0.355	0.127	0.023	0.017	0.187	0.000	91.62
D	0.429	0.000	0.029	0.378	0.011	0.011	14.54
E	0.095	0.000	0.000	0.095	0.000	0.000	5.00
F	0.160	0.000	0.015	0.145	0.000	0.000	13.42
G	0.160	0.000	0.075	0.077	0.008	0.000	52.48
H	0.080	0.000	0.000	0.080	0.000	0.000	5.00
<b>Total:</b>	<b>2.002</b>	<b>TOTAL ON SITE IMPERVIOUSNESS (%):</b>					<b>58.96</b>

**Offsite Basins**

OS-1	0.256	0	0	0.256	0	0	5.00
------	-------	---	---	-------	---	---	------

Designer: GJB  
Company: POINT CONSULTING, LLC  
Date: 8/25/2021  
Project: 1900 SOUTH CHAMBERS  
Location: AURORA, CO

Version 2.00 released May 2017

Cells of this color are for required user-input  
Cells of this color are for optional override values  
Cells of this color are for calculated results based on overrides

$$t_i = \frac{0.395(1.1 - C_s)\sqrt{L_i}}{S^{0.33}}$$
$$t_t = \frac{L_t}{60K\sqrt{S_t}} = \frac{L_t}{60V_t}$$

Computed  $t_c = t_i + t_t$   
  
Regional  $t_c = (26 - 17i) + \frac{L_t}{60(14i + 9)\sqrt{S_t}}$

$t_{\text{minimum}} = 5$  (urban)  
 $t_{\text{minimum}} = 10$  (non-urban)  
  
Selected  $t_c = \max(t_{\text{minimum}}, \min(\text{Computed } t_c, \text{Regional } t_c))$

COA Equation Use required.

UTILIZED NEW SPREADSHEET TO MEET COA STANDARDS

Select UDFCD location for NOAA Atlas 14 Rainfall Depths from the pulldown list OR enter your own depths obtained from the NOAA website (click this link)

rainfall depth, P1 (in) =  
2-yr 5-yr 10-yr 25-yr 50-yr 100-yr 500-yr  
0.87 1.14 1.39 1.76 2.08 2.42 3.30  
a b c  
28.50 10.00 0.786

$I(in/hr) = \frac{a * P_1}{(b + t_c)^c}$

$Q(cfs) = CIA$

Subcatchment Name	Area (ac)	NRCS Hydrologic Soil Group	Percent Imperviousness	Runoff Coefficient, C							Overland (Initial) Flow Time				Channelized (Travel) Flow Time						Time of Concentration			Rainfall Intensity, I (in/hr)								Peak Flow, Q (cfs)							
				2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	Overland Flow Length L <sub>i</sub> (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Overland Flow Slope S <sub>i</sub> (ft/ft)	Overland Flow Time t <sub>i</sub> (min)	Channelized Flow Length L <sub>i</sub> (ft)	U/S Elevation (ft) (Optional)	D/S Elevation (ft) (Optional)	Channelized Flow Slope S <sub>i</sub> (ft/ft)	NRCS Conveyance Factor K	Channelized Flow Velocity V <sub>i</sub> (ft/sec)	Channelized Flow Time t <sub>i</sub> (min)	Computed t <sub>c</sub> (min)	Regional t <sub>c</sub> (min)	Selected t <sub>c</sub> (min)	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
A	0.49	D	93.8	0.78	0.80	0.82	0.84	0.86	0.87	0.88	50.00			0.012	3.61	120.00			0.310	20	11.14	0.18	3.79	10.21	5.00	2.93	3.87	4.71	5.97	7.06	8.21	11.19	1.12	1.51	1.90	2.47	2.96	3.49	4.85
B	0.23	D	94.2	0.78	0.80	0.82	0.85	0.86	0.87	0.88	45.00			0.055	2.05	30.00			0.034	20	3.69	0.14	2.19	10.11	5.00	2.93	3.87	4.71	5.97	7.06	8.21	11.19	0.53	0.72	0.91	1.18	1.41	1.66	2.31
C	0.36	D	91.2	0.75	0.78	0.80	0.83	0.84	0.86	0.88	100.00			0.340	1.81	45.00			0.027	20	3.29	0.23	2.04	10.71	5.00	2.93	3.87	4.71	5.97	7.06	8.21	11.19	0.78	1.07	1.34	1.76	2.11	2.50	3.48
D	0.43	D	14.5	0.10	0.15	0.24	0.40	0.46	0.54	0.63	25.00			0.620	2.19	20.00			0.300	7	3.83	0.09	2.28	23.58	10.00	2.34	3.08	3.76	4.76	5.63	6.55	8.93	0.10	0.20	0.39	0.82	1.12	1.53	2.43
E	0.10	D	5.0	0.03	0.08	0.17	0.35	0.42	0.50	0.60	20.00			0.230	2.94	10.00			0.290	7	3.77	0.04	2.98	25.18	10.00	2.34	3.08	3.76	4.76	5.63	6.55	8.93	0.01	0.02	0.06	0.16	0.22	0.31	0.51
F	0.16	D	13.4	0.09	0.14	0.23	0.39	0.46	0.54	0.63	30.00			0.017	7.93	80.00			0.014	7	0.83	1.61	9.54	24.75	10.00	2.34	3.08	3.76	4.76	5.63	6.55	8.93	0.03	0.07	0.14	0.30	0.41	0.56	0.90
G	0.16	D	52.5	0.40	0.46	0.52	0.61	0.65	0.70	0.75	20.00			0.020	4.09	10.00			0.017	7	0.91	0.18	4.28	17.16	5.00	2.93	3.87	4.71	5.97	7.06	8.21	11.19	0.19	0.29	0.39	0.59	0.74	0.92	1.35
H	0.08	D	5.0	0.03	0.08	0.17	0.35	0.42	0.50	0.60	15.00			0.210	2.62	20.00			0.240	10	4.90	0.07	2.69	25.22	10.00	2.34	3.08	3.76	4.76	5.63	6.55	8.93	0.01	0.02	0.05	0.13	0.19	0.26	0.43
OS-1	0.26	D	5.0	0.03	0.08	0.17	0.35	0.42	0.50	0.60	50.00			0.050	7.69	65.00			0.050	7	1.57	0.69	8.38	25.65	10.00	2.34	3.08	3.76	4.76	5.63	6.55	8.93	0.02	0.06	0.16	0.42	0.60	0.85	1.38
H-1 (Historical)	2.00	D	5.0	0.03	0.08	0.17	0.35	0.42	0.50	0.60	200.00			0.050	15.38	100.00			0.050	7	1.57	1.06	16.44	25.92	16.44	1.88	2.48	3.02	3.82	4.52	5.26	7.17	0.11	0.38	1.02	2.66	3.78	5.31	8.67

COA Values required in overrides.

UTILIZED NEW SPREADSHEET TO MEET COA STANDARDS

**APPENDIX C**

**PRELIMINARY DRAINAGE MAP**



Drainage plan must be uploaded as separate 24x36 PDF.

NOTED.

Based on these contours and approved DP 220098, it appears that more of this area is draining to the site.

UPDATED.

Add flow direction arrows for offsite flows.

ADDED.

Required drainage plan items missing (See SDDTC Section 2.34 for more information):  
1. Reference COA NAVD88 Benchmark  
2. Note: "City of Aurora plan review is only for general conformance with City of Aurora design criteria and the City Code. The City is not responsible for the accuracy and adequacy of the design, of dimensions and elevations which shall be confirmed and correlated at the job site. The City of Aurora, through the approval of this document, assumes no responsibility for the completeness and/or accuracy of this document.  
3. Indicate public or private maintenance for all storm infrastructure.  
4. Note design storm recurrence interval for storm sewer.

1. ADDED BENCHMARK TO SHEET
2. ADDED NOTE.
3. ADD NOTE STATING ALL STORM IS PRIVATE AND MAINTAINED BY OWNER.
4. ADDED STORM RECURRENCE TO BASIN CALLOUT IN LEGEND.

Show/label all easements and ROW. Dimension easements and ROW w/ arrows.

ALL EASEMENTS AND ROW ARE CALLED OUT.

S CHAMBERS ROAD  
110' PUBLIC R.O.W.

G  
0.16 0.40  
0.70

MARSHA MOSS PROPERTY  
ID: 1975-20-3-00-025

OS-1  
0.26 0.03  
0.50

Labels required for building FFEs. Residential FFEs required to be 2 ft min above BFE.

NOTED. FFEs ARE ABOVE THE BFE+2'

Label slopes throughout. 3:1 max

NOTED. ALL SLOPES ARE WITHIN THE REQUIRED RANGE.

LOT 1, BLOCK 1 CHAMBERS U-STOR  
SUB. FILING NO. 1  
EDN 980143

E  
0.10 0.03  
0.50

Label slopes throughout site. Min. slope away from buildings is 5% for 10' for landscape areas, min. 2% for impervious areas.

NOTED. ALL SLOPES ARE WITHIN THE REQUIRED RANGE.

Cut sheets required showing 2 yr treatment capacity, 100 yr bypass capacity, 80% TSS removal required w/ supporting case studies.

ADDED DETAILS OF MANHOLE TO APPENDICES

WOODRIM TRIBUTARY

D  
0.43 0.10  
0.54

Label retaining walls, including their height. Preliminary section and material not required.

CALLED OUT WALLS AND ADDED ELEVATIONS FOR TOP AND BOTTOM OF WALL

Double-check that wall is in same location.

WALL IS IN THE SAME LOCATION

Work in 100-yr floodplain requires floodplain development permit.

NOTED.

Label all sump inlets and include arrow showing location and direction of emergency overflow. Building FFEs must be 1' min above emergency overflow WSEL.

ADDED LINEWORK TO SHOW THE OVERFLOW PATHS OF THE INLETS. ALL ARE LABELED. FFEs ARE ABOVE REQUIRED LIMIT.

include photos in appendix to document vegetation management. Please coordinate w/ MHFD.

PHOTOS INCLUDED THE REFERENCE D FINAL DRAINAGE REPORT IN APPENDIX D

155' WIDE SERVICE COMPANY PROPERTY  
PARCEL ID: 1975-20-3-00-013

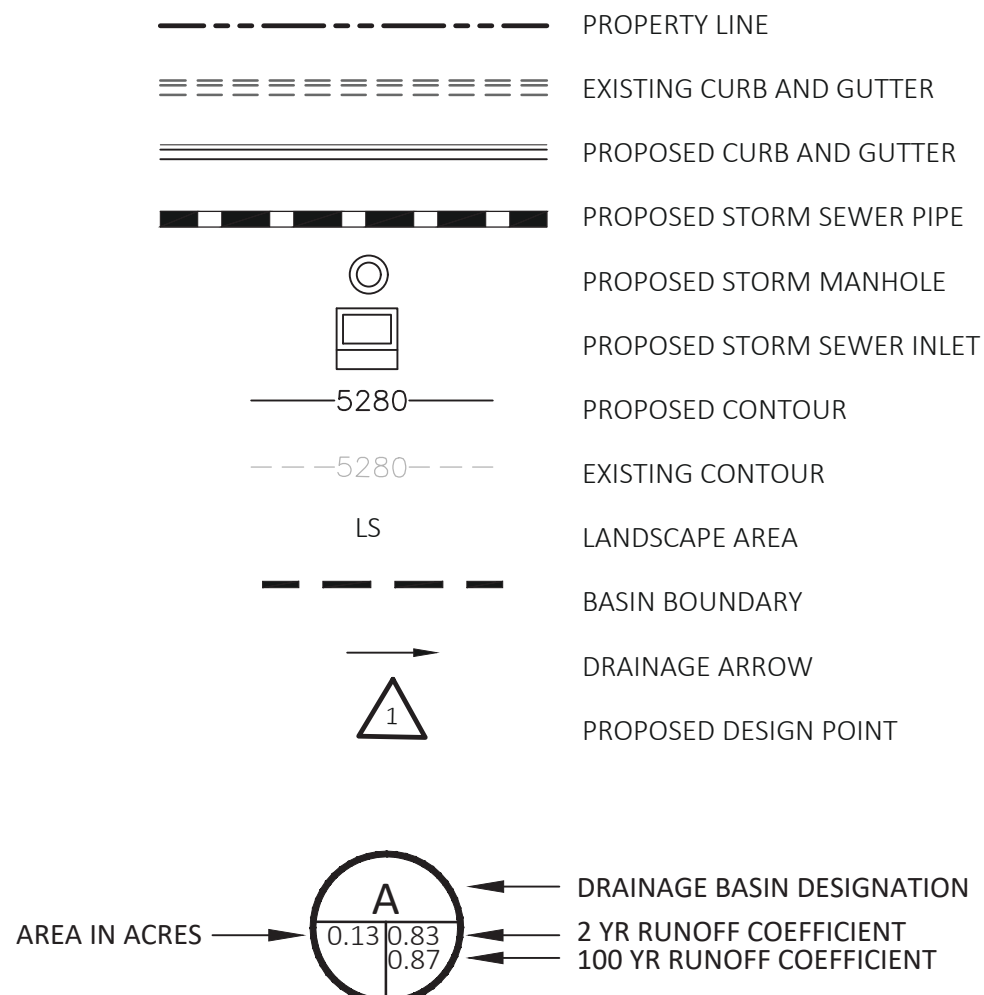
Please include EDN for surrounding sites (typ.)

ADDED EDN FOR SITES.

Please add vicinity map w/ arterial roads labeled.

ADDED VICINITY MAP.

#### LEGEND



#### SUMMARY RUNOFF TABLE

BASIN	AREA (ACRES)	Q 2-YR (CFS)	Q 100-YR (CFS)
A	0.49	1.12	3.49
B	0.23	0.53	1.66
C	0.36	0.78	2.50
D	0.43	0.10	1.53
E	0.10	0.01	0.31
F	0.16	0.03	0.56
G	0.16	0.19	0.92
H	0.08	0.01	0.26
OS-1	0.26	0.02	0.85

Include % impervious for each basin.

ADDED.

Add table with routed flows at design points.

ADDED DESIGN POINTS TO TABLE SHOWING FLOWS

Drainage Plan  
UPDATED.



Know what's below.  
Call before you dig.

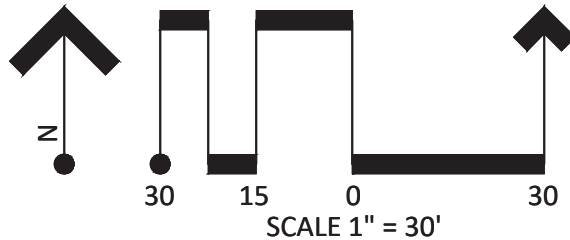
UPDATED THE FLOODPLAIN MAX ELEVATION, WHICH DOES NOT OVERTOP THE ROAD.

Please extend floodplain delineation to show overtopping extents over Chambers.

Reference report where this delineation came from. Show and label BFEs and cross sections on this drainage plan. If retaining wall location has changed at all since approval of 220098, updated HEC-RAS analysis required to be provided in Final Drainage Report. Otherwise, please include previously approved HEC-RAS analysis in the appendix to this PDR.

ADDED CHANNEL'S REPORT TO THE APPENDIX OF THIS DRAINAGE REPORT.

APPROVED FOR ONE YEAR FROM THIS DATE	
_____	
CITY ENGINEER	DATE
_____	_____
WATER DEPARTMENT	DATE
_____	_____





## **APPENDIX D**

### **DESIGN AND TECHNICAL CRITERIA**

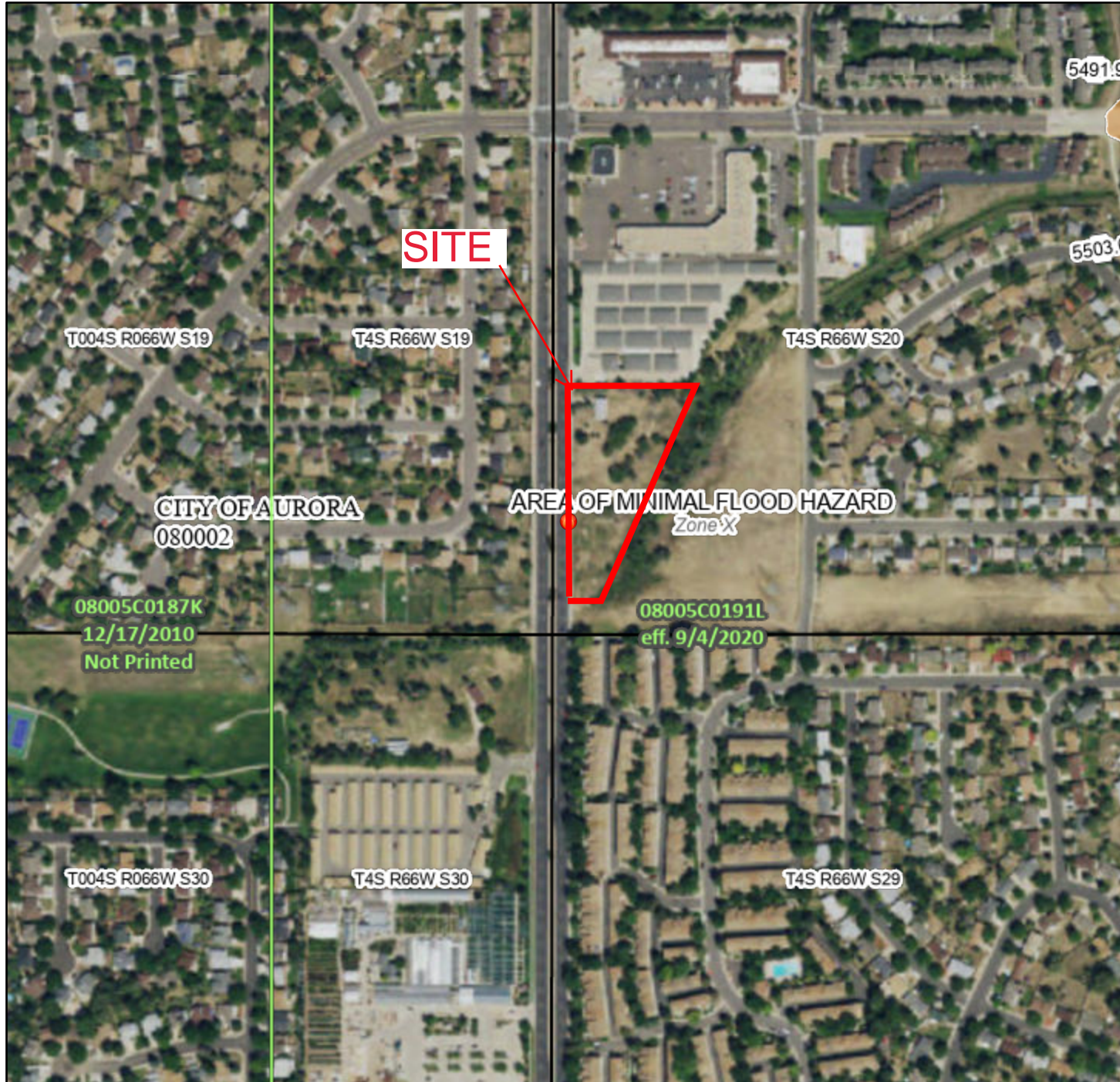
- **FEMA FIRM MAP**
- **STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA**
- **RAINFALL FIGURES RA-1 TO RA-6**
- **SOILS REPORT**



# National Flood Hazard Layer FIRMMette



104°48'54"W 39°41'12"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/16/2021 at 1:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

**TABLE 1**  
**RUNOFF COEFFICIENTS AND PERCENTS IMPERVIOUS**

LAND USE OR SURFACE CHARACTERISTICS	PERCENT IMPERVIOUS	FREQUENCY			
		2	5	10	100
<u>Business:</u>					
Commercial Areas	95	.87	.87	.88	.89
Neighborhood Areas	85	.60	.65	.70	.80
<u>Residential:</u>					
Single-Family (**)	(*)	.40	.45	.50	.60
Multi-Unit (detached)	60	.45	.50	.60	.70
Multi-Unit (attached)	75	.60	.65	.70	.80
1/2 Acre Lot or Larger	(*)	.30	.35	.40	.60
Apartments	80	.65	.70	.70	.80
<u>Industrial:</u>					
Light Areas	80	.71	.72	.76	.82
Heavy Areas	90	.80	.80	.85	.90
<u>Parks, Cemeteries</u>	5	.10	.10	.35	.60
<u>Playgrounds</u>	10	.15	.25	.35	.65
<u>Schools</u>	50	.45	.50	.60	.70
<u>Railroad Yard Areas</u>	15	.40	.45	.50	.60
<u>Undeveloped Areas:</u>					
Historic Flow Analysis, Greenbelts, Agricultural	2	(See "Lawns")			
Off-Site Flow Analysis (when land use not defined)	45	.43	.47	.55	.65

**TABLE 1** (continued)

**RUNOFF COEFFICIENTS AND PERCENTS IMPERVIOUS**

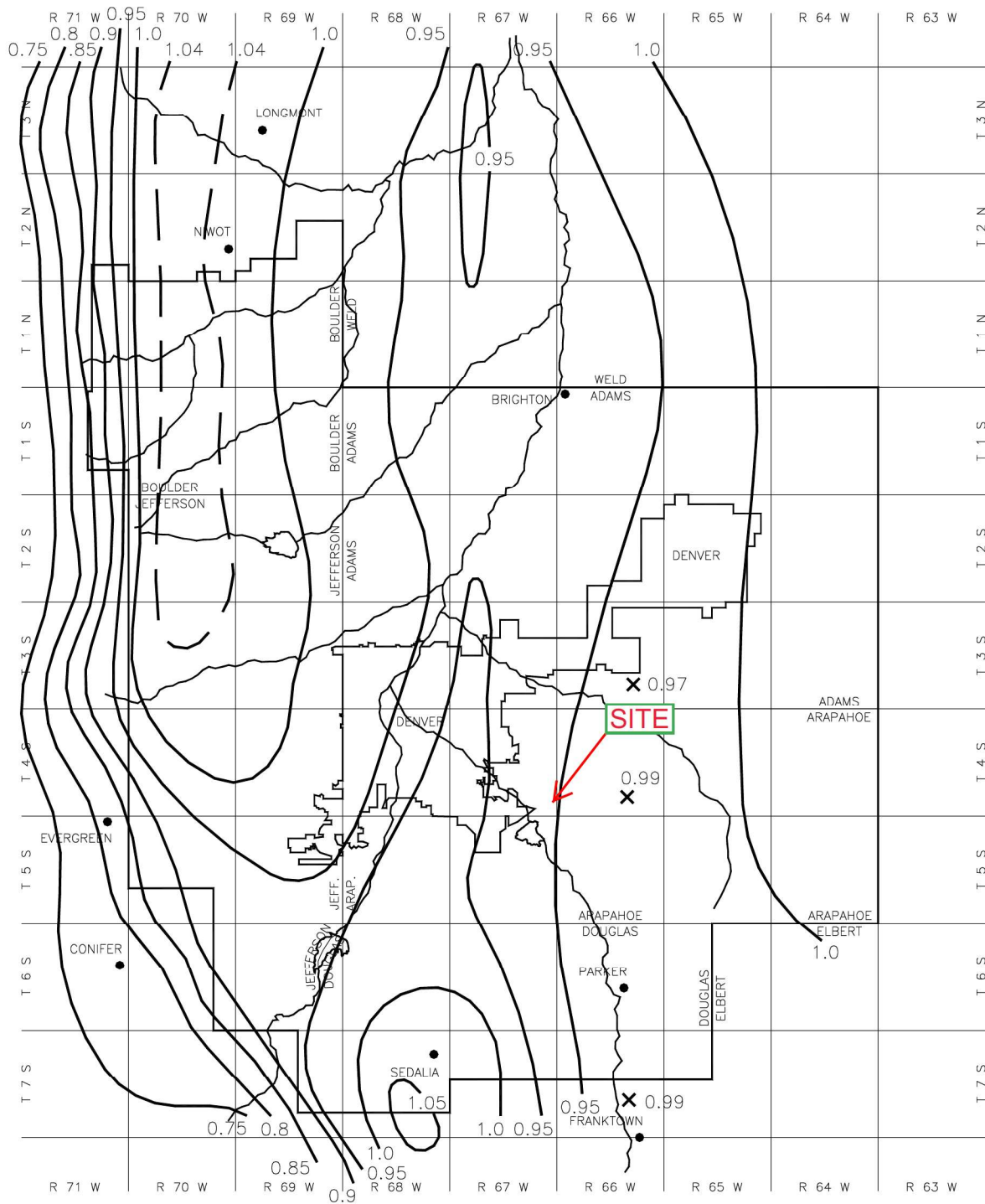
LAND USE OR SURFACE CHARACTERISTICS	PERCENT IMPERVIOUS	FREQUENCY			
		2	5	10	100
<u>Streets:</u>					
Paved	100	.87	.88	.90	.93
Gravel	40	.15	.25	.35	.65
<u>Concrete Drive and Walks</u>	96	.87	.87	.88	.89
<u>Roofs</u>	90	.80	.85	.90	.90
<u>Lawns, Sandy Soil (A and B Soils):</u>	2				
2% Slope		.05	.06	.08	.10
2-7% Slope		.10	.11	.13	.15
>7% Slope		.15	.16	.18	.20
<u>Lawns, Clay Soil (C and D Soils):</u>	5				
2% Slope		.13	.14	.15	.17
2-7% Slope		.18	.19	.20	.22
>7% Slope		.25	.27	.30	.35

NOTE:       These Rational Formula coefficients may not be valid for large basins

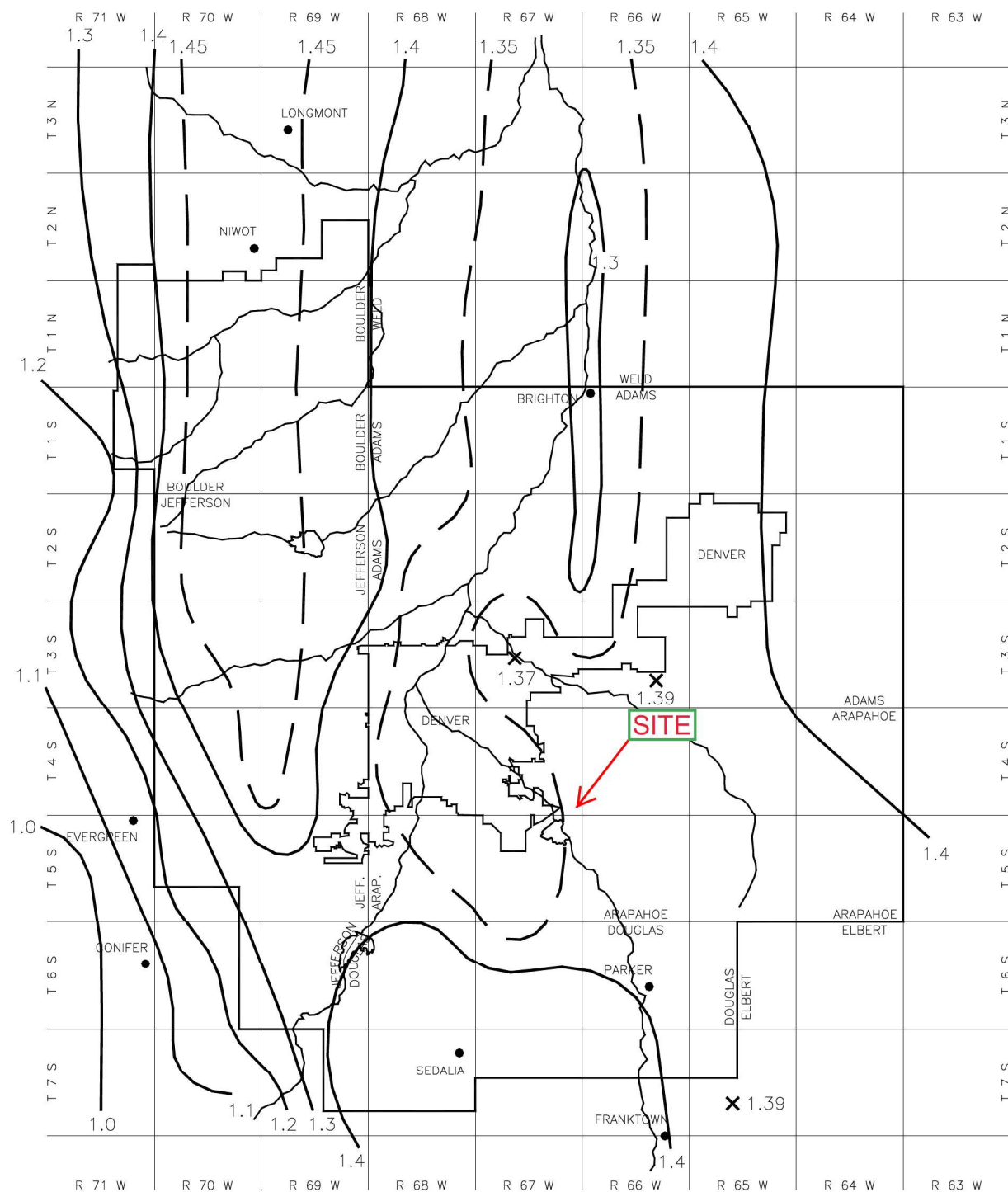
(\*)See Figures RO-3 through RO-5 of USDCM Volume 1 for percent impervious.

(\*\*)Up to 5 units per acre. Single-family with more than 5 units per acre, use values for multi-unit/detached





**Figure RA-1—Rainfall Depth-Duration-Frequency: 2-Year, 1-Hour Rainfall**



**Figure RA-2—Rainfall Depth-Duration-Frequency: 5-Year, 1-Hour Rainfall**

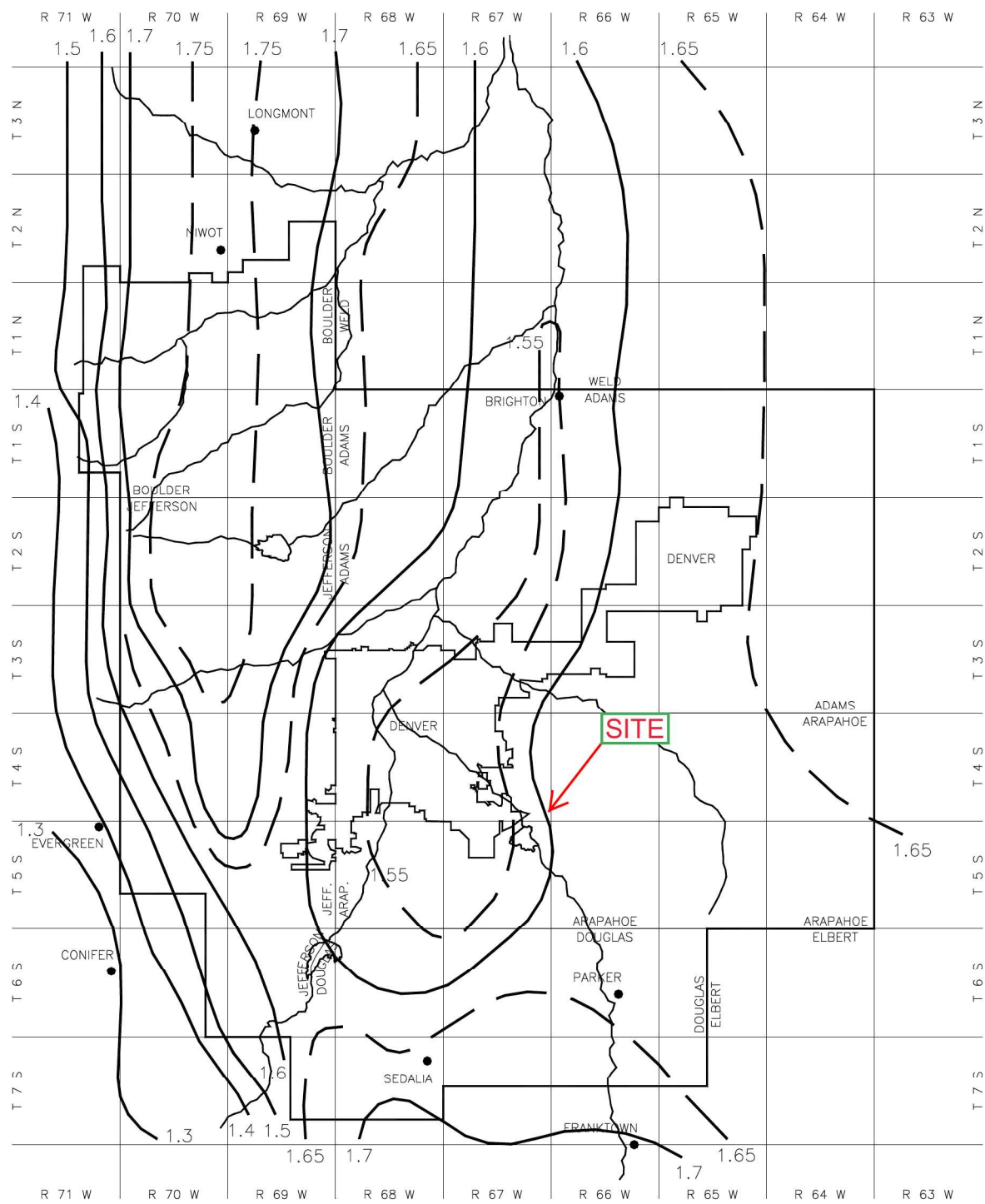
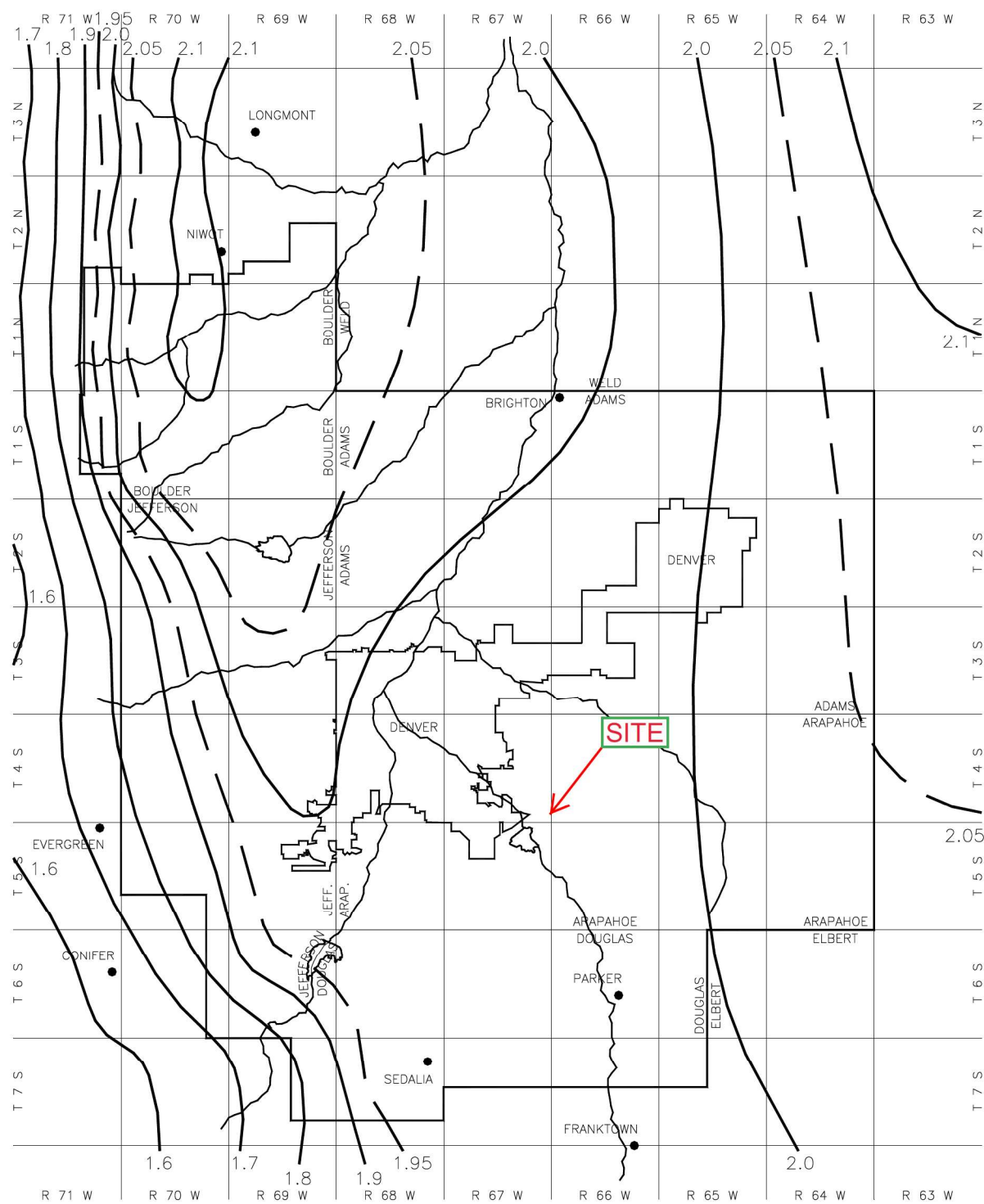
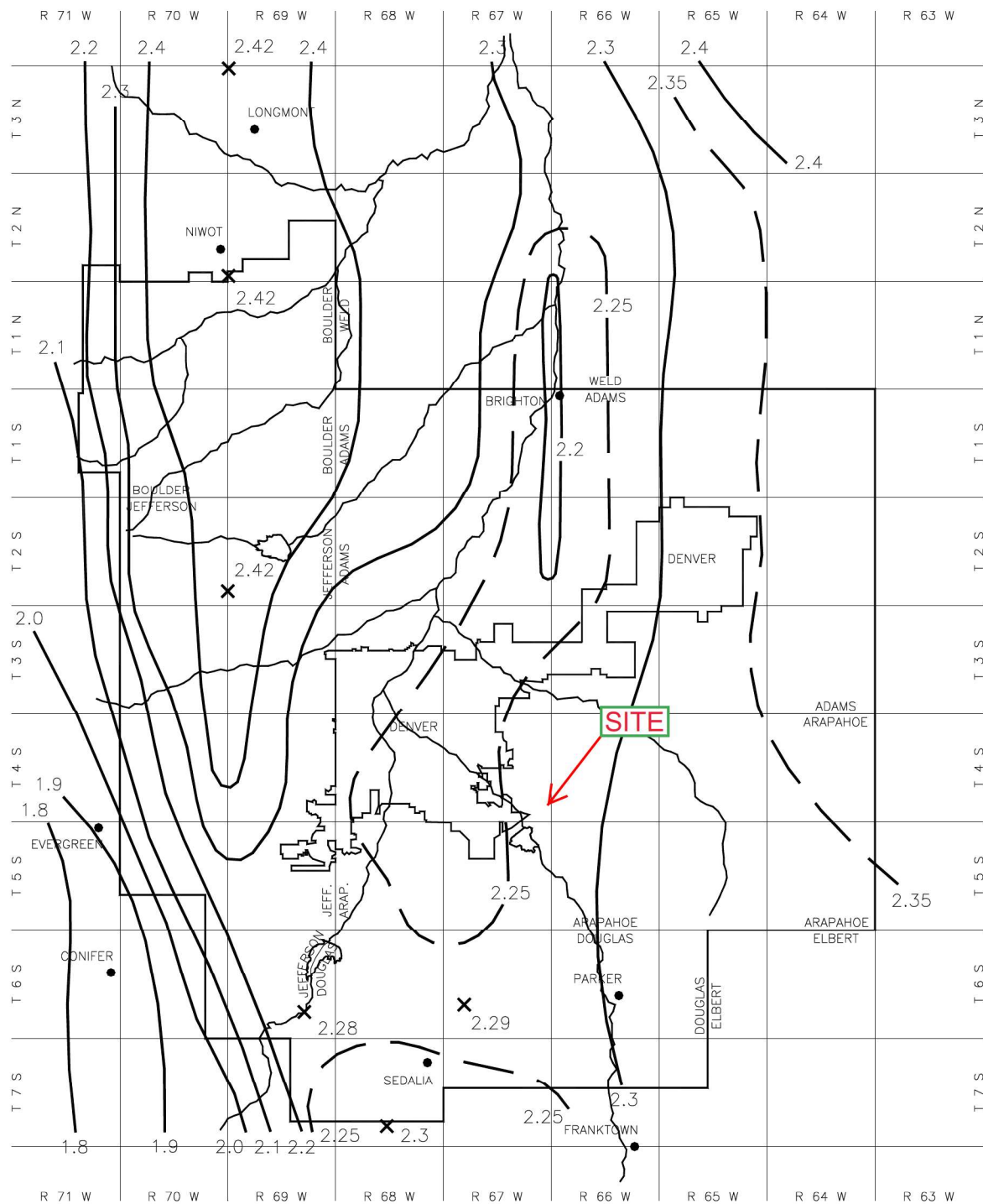


Figure RA-3—Rainfall Depth-Duration-Frequency: 10-Year, 1-Hour Rainfall

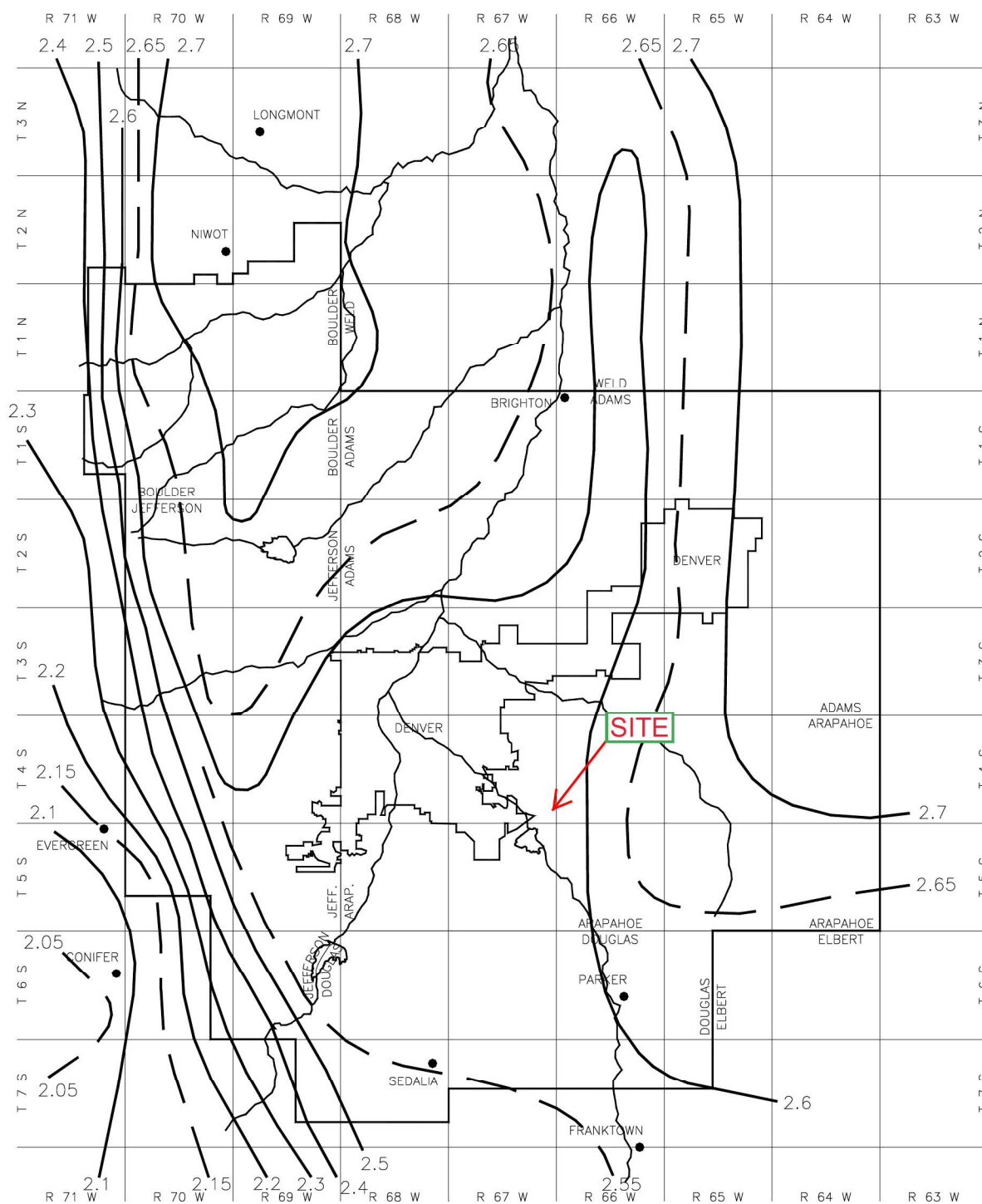


**Figure RA-4—Rainfall Depth-Duration-Frequency: 25-Year, 1-Hour Rainfall**



**Figure RA-5—Rainfall Depth-Duration-Frequency: 50-Year, 1-Hour Rainfall**





**Figure RA-6—Rainfall Depth-Duration-Frequency: 100-Year, 1-Hour Rainfall**



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Arapahoe County, Colorado**



July 15, 2021

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

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<b>Preface</b> .....	2
<b>How Soil Surveys Are Made</b> .....	5
<b>Soil Map</b> .....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Arapahoe County, Colorado.....	13
RhD—Renohill-Buick loams, 3 to 9 percent slopes.....	13
<b>References</b> .....	15

# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and



## Custom Soil Resource Report

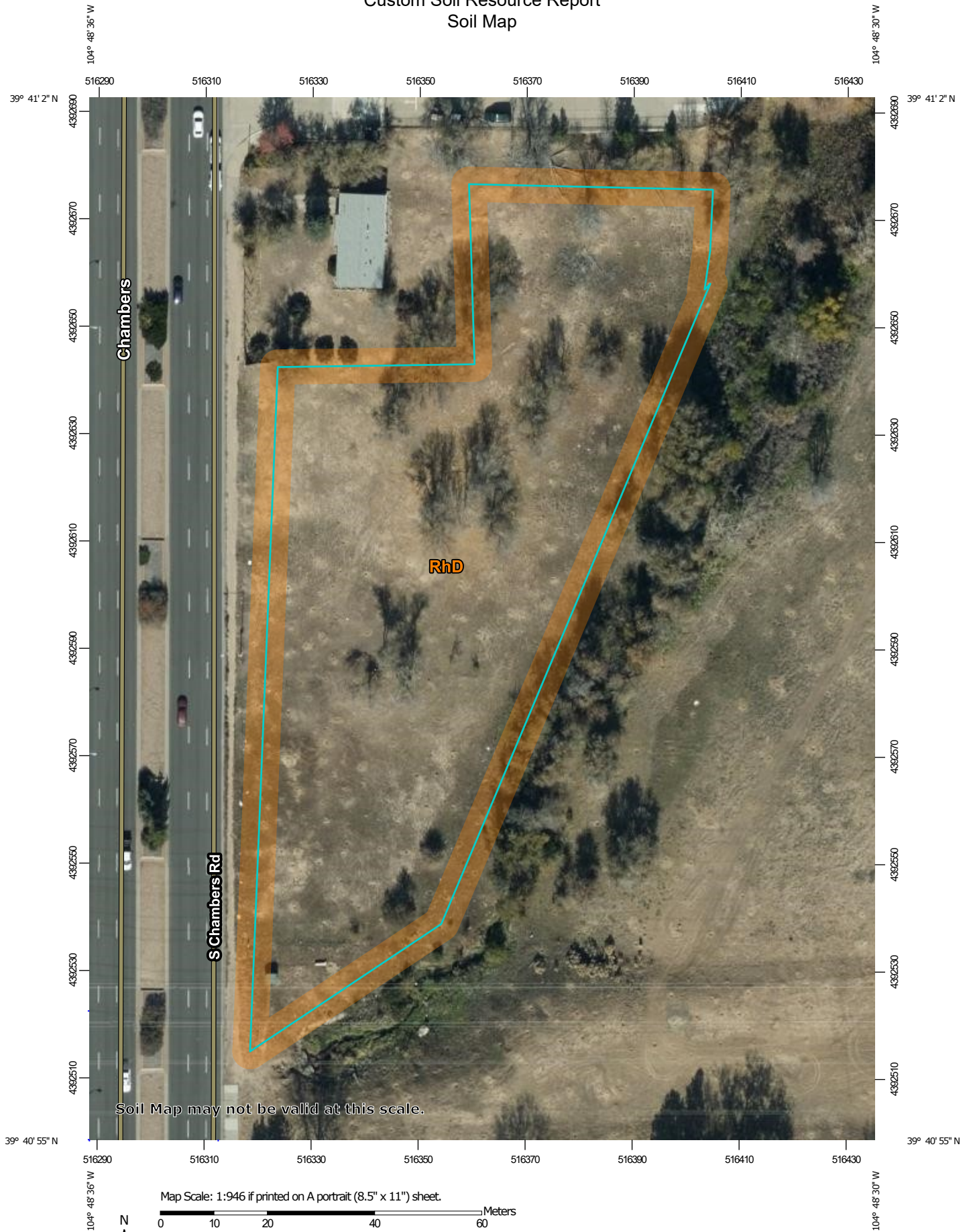
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

---

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map




# Custom Soil Resource Report


## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 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 scale.

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

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

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

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

Soil Survey Area: Arapahoe County, Colorado  
Survey Area Data: Version 16, Jun 4, 2020

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

Date(s) aerial images were photographed: Oct 3, 2018—Dec 4, 2018

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
RhD	Renohill-Buick loams, 3 to 9 percent slopes	1.9	100.0%
<b>Totals for Area of Interest</b>		<b>1.9</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.



## Arapahoe County, Colorado

### RhD—Renohill-Buick loams, 3 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 34z0  
*Elevation:* 3,600 to 6,200 feet  
*Mean annual precipitation:* 11 to 16 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 100 to 170 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Renohill and similar soils:* 65 percent  
*Buick and similar soils:* 25 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Renohill

##### Setting

*Landform:* Drainageways  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Loam silty and clayey alluvium

##### Typical profile

*H1 - 0 to 4 inches:* loam  
*H2 - 4 to 18 inches:* clay loam, clay  
*H2 - 4 to 18 inches:* loam, clay loam  
*H3 - 18 to 30 inches:* unweathered bedrock  
*H3 - 18 to 30 inches:*  
*H4 - 30 to 34 inches:*

##### Properties and qualities

*Slope:* 3 to 9 percent  
*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water capacity:* High (about 9.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* D  
*Ecological site:* R067BY002CO - Loamy Plains  
*Hydric soil rating:* No

## **Description of Buick**

### **Setting**

*Landform:* Ridges  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium and/or eolian deposits

### **Typical profile**

*H1 - 0 to 4 inches:* loam  
*H2 - 4 to 20 inches:* clay loam  
*H3 - 20 to 60 inches:* sandy clay loam, clay loam  
*H3 - 20 to 60 inches:*

### **Properties and qualities**

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 15 percent  
*Available water capacity:* Very high (about 17.2 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4c  
*Hydrologic Soil Group:* C  
*Ecological site:* R067BY002CO - Loamy Plains  
*Hydric soil rating:* No

## **Minor Components**

### **Litle**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

### **Fondis**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

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