Development Review Staff Report

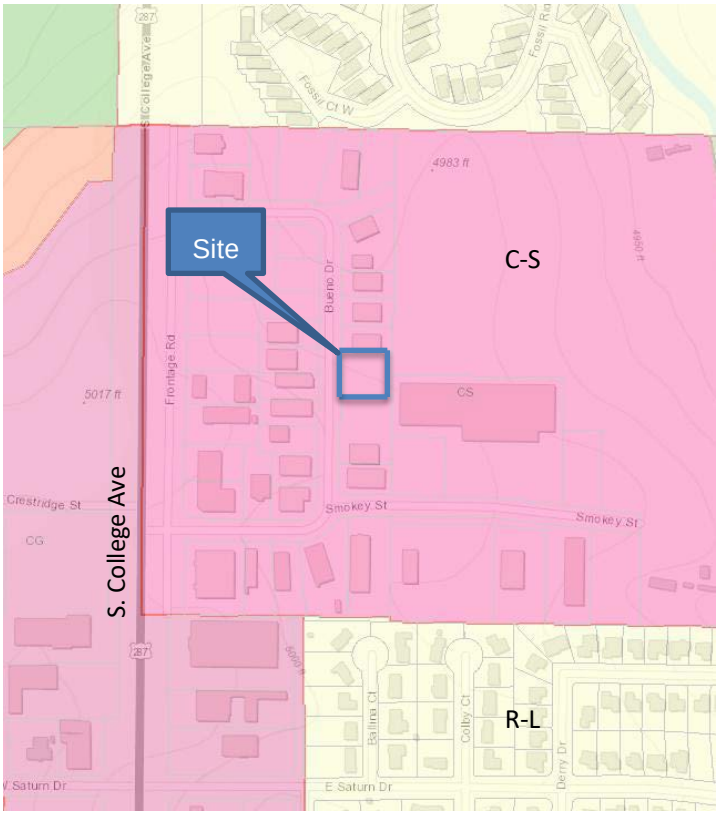
Administrative Hearing: June 17, 2019

Bueno Drive Condos – PDP190004

Summary of Request

This is a request for a Project Development Plan to develop a 6,000 square foot, single-story commercial condo building with three attached units on .37 acres. The project is located on Lot 13A at 5724 Bueno Drive (Parcel #9612231001). Access to the site is taken from Bueno Drive to the west, with six parking spaces provided. The request will require a modification of standards to meet minimum landscape requirements. The commercial retail and industrial uses included on site plan are subject to Administrative (Type I) Review.

Zoning Map



Next Steps

Upon approval from the Administrative Hearing Officer and after appeal period, the applicant will be eligible to submit Final Development Plan application with the Development Review Center. Once the FDP is approved and mylars are recorded, the permit application will be released to all reviewing departments.

Site Location

5724 Bueno Drive.

Zoning

The proposed project is located in the Service Commercial District (C-S).

Property Owner

5724 Bueno LLC c/o Barry Van Everen
2425 Camelback Rd., Suite 200
Phoenix, Arizona 85016

Applicant/Representative

Brian W. Shear
Shear Engineering Corp.
4836 S. College Ave, Suite 12
Fort Collins, CO 80525
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bshear@shearengineering.com

Staff

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Staff Recommendation

Approval

1. Project Introduction

A. SUMMARY OF PROJECT

- 6,000 sq. ft., single-story commercial condo building with 3 attached units
- .37-acre site located on Lot 13A at 5724 Bueno Drive (Parcel #9612231001)
- Access to the site is taken from Bueno Dr. to the west
- 6 parking spaces provided.
- Request will require a modification of standards to meet minimum landscape requirements. The commercial retail and industrial uses included on site plan are subject to Administrative (Type I) Review.
- If the PDP is approved by the decision maker, the next step in the process in for Final Development Plan (FDP) review, followed by building permit review.
- The site is included in the South 13 Subdivision, amended lots 13-16, annexed as part of the Southwest Enclave Annexation in 2006.

B. SITE CHARACTERISTICS

1. Current Conditions

The site is currently vacant.

2. Surrounding Zoning and Land Use

	North	South	East	West
Zoning	Service Commercial (C-S)	Service Commercial (C-S)	Service Commercial (C-S)	Service Commercial (C-S)
Land Use	Commercial	Commercial	Vacant, Commercial	Commercial

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C. OVERVIEW OF MAIN ISSUES

The first issue requiring a finding of support includes a request for modification required:

Modification Requested	Standard Requirement	Proposed Plan
Parking Lot Perimeter Landscaping - Screening	5' landscape setback along lot line	Along sough property boundary, 1.5' of planting adjacent to parking stall #6

Early in the review process, staff found that a unique set of circumstances warrants support of this modification. Circumstances include:

- The size of the lot and site area designated for parking and landscape treatments is limited.
- The location of existing parking lot to the south is a similar use and need to fully screen this area is not as essential as screening a different use.
- The slope along the south property boundary makes it difficult to accommodate full landscape planting within a 5' strip.

Other key issues that have been explored and addressed include street facing building façade architectural design, streetscape entry planting, and number of parking spaces for proposed commercial uses.

Staff has evaluated the request under the applicable sections of the Land Use Code and staff finds that all issues have been addressed in compliance with the code, including the one modification of standards.

2. Public Outreach

A. NEIGHBORHOOD MEETING

A neighborhood meeting is not required for Administrative (Type 1) projects, therefore, a neighborhood meeting was not held for this project.

B. PUBLIC COMMENTS:

No public comment has been received at this time. Any communication received between the public notice period and hearing will be forwarded to the Hearing Office to be considered when making a decision on the project.

3. Compatibility with Comprehensive Plan

A. SOUTH COLLEGE CORRIDOR PLAN

The Corridor will provide a broad, flexible mix of uses that accommodates highway users, neighborhood and community needs and supports the Mason Corridor. The Corridor's commercial areas should retain the eclectic business mix while supporting new uses to strengthen the South College market. Many of the existing service commercial and retail uses fill a niche that is becoming rarer in the city and region markets.

LU 1.3 - Service Commercial. Zoning will allow for new service commercial uses in the South 13 subdivision while buffering adjacent residential uses.

The proposed project is consistent with the vision, goals and policy direction of the South College Corridor Plan. The Service Commercial land use and zoning provides opportunities for small business start-ups and combination of commercial and light industrial uses acting as a transition from South College strip uses and existing neighborhoods further east.

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4. Article 2 – Applicable Standards

A. BACKGROUND

This section is to only provide a summary of procedural action as required by this section. This includes background on conceptual reviews, previous approvals, neighborhood meetings, and any other significant procedural events here.

B. PROJECT DEVELOPMENT PLAN PROCEDURAL OVERVIEW

1. Conceptual Review (January 10, 2019)

A conceptual review meeting was held on January 10, 2019. Any other pertinent information could go here?

2. Neighborhood Meeting (NA)

A neighborhood meeting was not held for this proposed project, subject to a Type I review, satisfying the applicable requirement of *2.4.2 – Project Development Plan Review Procedures*

3. Submittal (February 20, 2018)

The submittal of the project was completed on February 20, 2018 and deemed complete on February 23, 2018. The project was subsequently routed to all reviewing departments.

4. Notice (Posted, Written and Published)

Posted notice: March 4, 2019, Sign # 489

Written notice: June 3, 2019, 800-foot notification boundary, 79 letters sent

Published Notice: June 6, 2019, Coloradoan confirmation #0003612822

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5. Article 3 - Applicable Standards

Article 3 of the Land Use Code contains standards for all development citywide to be used in conjunction with zoning district standards. Staff finds that the project complies with all applicable General Development Standards, with one Modification. Staff evaluation below follows the order of Article 3.

A. DIVISION 3.2 - SITE PLANNING AND DESIGN

<table>
<tr><th>Applicable Code Standard</th><th>Summary of Code Requirement and Analysis</th><th>Staff Findings</th></tr>
<tr><td>3.2.1 Landscaping</td><td>This Code Section requires a fully developed landscape plan that addresses relationships of landscaping to the circulation system and parking, the building, abutting properties, and users of the site in a manner appropriate to the neighborhood context.

The plan provides the following key attributes:

▪ Street trees will be provided in the parkway along Bueno Dr within the parkway landscaping.
▪ Behind the sidewalk, between the walk and the building, additional landscaping is provided primarily in the form of shrub beds and foundation plantings.
▪ Along the south boundary, a minimum 5-foot landscape screening is provided, except adjacent to the proposed 6th parking space. A request for modification of this standard is evaluated below.</td><td>Modification Requested</td></tr>
<tr><td>3.2.2 Access Circulation and Parking</td><td>This Code Section requires secure, convenient, efficient parking and circulation improvements that add to the attractiveness of the development. The plan provides on-site walkways, curb-cuts, sidewalk ramps, and a clearly delineated parking lot layout in compliance with standards. Additional salient points in staff's evaluation under Section 3.2.2 follow.</td><td>Complies</td></tr>
<tr><td>3.2.2(C)(4) Bicycle Facilities</td><td><table><tr><th>Bicycle Parking</th><th>Required</th><th>Proposed</th></tr><tr><td>Total Spaces</td><td>Minimum of 4</td><td>4 Total</td></tr><tr><td>Enclosed</td><td>NA</td><td>NA</td></tr><tr><td>Fixed Racks</td><td>NA</td><td>NA</td></tr></table>The proposed 4 covered bicycle racks are located at front façade of building to serve all condo units on site.</td><td>Complies</td></tr>
<tr><td>3.2.2 (C) (5) Walkways</td><td>There is a direct connecting walkway that links the building entrances to the public sidewalk along Bueno Drive.</td><td>Complies</td></tr>
</table>

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<table>
<tr><td>3.2.2(K) Parking</td><td>This subsection requires a minimum number of parking spaces based on square footage of building.

The project proposes a 6,000 SF commercial building. Based on the applicable land use of low intensity retail, repair service, workshop and custom small industry the minimum off-street paqrking space requirement is 1/1000 SF (6 spaces), and 2/1000 SF maximum. The proposed project includes 5 standard spaces and 1 handicap space. Three additional parking spaces are available on adjacent existing parkin lot.
<table>
<tr><th>Parking Type</th><th>Required</th><th>Proposed</th></tr>
<tr><td>Low intensity retail, repair service, workshop and custom small industry</td><td>Min. 1/1000 SF (6 spaces), and 2/1000 SF (12 spaces) max</td><td>5 spaces</td></tr>
<tr><td>Handicap parking</td><td>1 space</td><td>1 space</td></tr>
<tr><td>Total</td><td>6</td><td>6</td></tr>
</table></td><td>Complies</td></tr>
<tr><td>3.2.4 Site Lighting</td><td>Code Section 3.2.4 requires all lighting to be down directional with sharp cutoff fixtures to ensure that the functional and security needs of a project are met in a way that does not adversely affect adjacent properties. Staff finds that the plan complies. Lighting fixtures in the plan are down-directional sharp cutoff fixtures and light is contained within the site.</td><td>Complies</td></tr>
<tr><td>3.2.5 Trash and Recycling Enclosure Standards</td><td>This Section requires trash and recycling enclosures to be adequate, convenient, and accessible as appropriate for the proposed use. A trash and recycling enclosure is located on side of entrance drive, with easy access to the parking lot for pickup services. Staff finds that the plan complies.</td><td>Complies</td></tr>
</table>

B. DIVISION 3.3 - ENGINEERING

The proposed project provides all required easements for utility infrastructure improvements, setbacks and right-of-way for public street standards. This parcel is included in the 1999 amended plat for Lots 13-16.

Applicable Code Standard	**Summary of Code Requirement and Analysis**	**Staff Findings**
3.3.1	Bueno Drive ROW and easements, and utility easements are included in plan set.	Complies
3.3.1	The plat for this property was amended in 1999 for Lots 13-16.	Complies
3.6.2	Bueno Drive is classified as a Commercial local street. The Plans incorporate the required street frontage improvements for ultimate cross-section of this street classification per LCUASS.	Complies

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C. DIVISION 3.5 - BUILDING

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.5.1(B) General Standards	This subsection requires developments to be compatible with the established architectural character of the area by using a design that is complementary. Staff finds that the proposed commercial/industrial condo building design is compatible with existing commercial buildings in the area along South College Avenue. The building design includes vertical metal siding, earth-tone colors and masonry base treatments, with pitched roof.	Complies
3.5.1(C) Building Size, Height, Bulk, Mass, Scale	This subsection requires that buildings shall either be similar in size and height, or, if larger, be articulated and subdivided into massing that is proportional to the mass and scale of other structures adjacent to the property. Staff finds that the proposed single-story building is similar to adjacent commercial buildings in size, height, bulk, mass and scale. This building is smaller than several existing buildings in area.	Complies
3.5.2(D) Relationship of Dwellings to Street and Parking	This subsection requires that dwellings be placed in direct relation to street sidewalks without intervening parking lots or drives. The building and its entrances are deliberately designed for relationship to the street sidewalks without intervening vehicle use areas.	Complies

D. DIVISION 3.6 - TRANSPORTATION & CIRCULATION

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.6.4 Transportation Level of Service	A Traffic Impact Analysis was waived by Traffic Operations staff die to low anticipated new trips generated by the proposed project.	N/A
3.6.6 Emergency Access	This Section requires that emergency vehicles can gain access to, and maneuver within, the project so that emergency personnel can provide fire protection and emergency services. This proposed building is approximately 60ft out of compliance with the required access as measured from Bueno Drive. However, the applicant has stated that the building will be designed with an approved fire sprinkler system. Therefore, this building will be considered in compliance and no fire lane will be required. No further action is required on access.	Complies

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6. Article 4 – Applicable Standards:

A. SUMMARY

Article 4 of the Land Use Code contains standards for the various zoning districts throughout the City. The subject property is zoned Service Commercial (C-S), Division 4.22 of the Land Use Code. Staff evaluation of applicable zoning standards below follows the order of the C-S zone in Article 4.

B. DIVISION 4.22 – SERVICE COMMERCIAL DISTRICT (C-S)

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
4.22(A) Purpose	Staff finds that the proposed project is consistent with the stated purpose of the zone district: "Purpose. The Service Commercial District is intended for high traffic commercial corridors where a range of uses is encouraged to create a transition from commercial operations on a highway, arterial street or rail spur, to less intensive use areas or residential neighborhoods. This designation is only for areas that have been designated under an adopted subarea plan as being appropriate for the C-S District." The project adds additional commercial and light industrial space consistent with existing commercial park in area and is designed with characteristics that are in harmony with the commercial corridor area.	Complies
4.5(B) Permitted Uses	The proposed 'commercial, retail and industrial uses are permitted, subject to an administrative (Type I) review.	Complies
4.22(C) Building Height	The maximum building height is three stories. The one-story building complies.	Complies

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7. Modification of Standards

A. MODIFICATION DESCRIPTION:

1. Compliance with Section 3.2.1 (E) (4) (b) of the Land Use Code

The applicant requests a modification to Section 3.2.1 (E) (4) (b) to reduce the minimum parking lot perimeter landscaping area from 5 feet to less than 2' adjacent to the proposed parking space #6 along the south lot edge.

2. Summary of Applicant's Justification

The Applicant requests that the Modification be approved and provides the following justification based upon Criterion 1 and 3 (that the proposed reduction in landscape area along south boundary is equal to or better than a plan that meets criteria, and due to exceptional difficulties or hardship of site ability to fully screen parking is challenging.

3. Applicant's Justification for Criterion 1 and 3:

(Criteria 1): In our opinion, the proposed plan for which the modification is requested will provide a product that is equal or better than a plan which complies with the standard. The landscape plan does propose a tree and large shrub at the West end of parking space #6 in the limited space available.

(Criteria 3): The adjacent lot to the South of the subject property has an existing parking lot at its North boundary. From the adjacent parking lot, there is a steep slope running North down to the South boundary of lot 13 and the proposed parallel parking space #6. The required screening is not possible with the sudden change of grade at the South boundary. In addition, any screening in this location would be screening the proposed parking lot from the adjacent parking lot which is at a higher elevation.

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Land Use Code Modification Criteria

"The decision maker may grant a modification of standards only if it finds that the granting of the modification would not be detrimental to the public good, and that:

(1) the plan as submitted will promote the general purpose of the standard for which the modification is requested equally well or better than would a plan which complies with the standard for which a modification is requested; or

(2) the granting of a modification from the strict application of any standard would, without impairing the intent and purpose of this Land Use Code, substantially alleviate an existing, defined and described problem of city-wide concern or would result in a substantial benefit to the city by reason of the fact that the proposed project would substantially address an important community need specifically and expressly defined and described in the city's Comprehensive Plan or in an adopted policy, ordinance or resolution of the City Council, and the strict application of such a standard would render the project practically infeasible; or

(3) by reason of exceptional physical conditions or other extraordinary and exceptional situations, unique to such property, including, but not limited to, physical conditions such as exceptional narrowness, shallowness or topography, or physical conditions which hinder the owner's ability to install a solar energy system, the strict application of the standard sought to be modified would result in unusual and exceptional practical difficulties, or exceptional or undue hardship upon the owner of such property, provided that such difficulties or hardship are not caused by the act or omission of the applicant; or

(4) the plan as submitted will not diverge from the standards of the Land Use Code that are authorized by this Division to be modified except in a nominal, inconsequential way when considered from the perspective of the entire development plan and will continue to advance the purposes of the Land Use Code as contained in Section 1.2.2.

Any finding made under subparagraph (1), (2), (3) or (4) above shall be supported by specific findings showing how the plan, as submitted, meets the requirements and criteria of said subparagraph (1), (2), (3) or (4)".

4. Staff Finding:

Staff finds that the request for the Modification of Standard to Section 3.2.1 (E) (4) (b) is justified by the applicable standards in 2.8.2(H)(3):

Staff acknowledges that the existing grade differential between lots is noticeable and ability to provide full landscape screening along the portion of the south site boundary is a challenge. The extent of reduction in planting space is approximately 20 feet in length. Beyond this section full landscaping is provided. The need to fully screen the proposed parking with existing parking lot to the south on adjacent lot is less essential with similar uses.

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8. Findings of Fact

In evaluating the request for the Bueno Drive Condos Project Development Plan, PDP190004, staff makes the following findings of fact:

- The P.D.P. is consistent with the policy direction of the *South College Corridor Plan*, an element of *City Plan*.
- The P.D.P. complies with process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.
- The P.D.P. complies with relevant standards located in Article 3 – General Development Standards, with the exception of Section 3.2.1 (E) (4) (b).
- The P.D.P. complies with relevant standards located in Division 4.22, C-S Service Commercial District of Article 4 – Districts.

9. Recommendation

Staff recommends approval of the Bueno Drive Condos Project Development Plan, PDP190004.

10. Attachments

1. Letter of Acceptance
2. Vicinity Map
3. Planning Set (site, and elevation plans)
4. Revised Landscape Plan
5. Revised Irrigation Plan
6. Utility Plans
7. Applicant request for modification of standards
8. Stormwater Variance Application
9. Stormwater Memo

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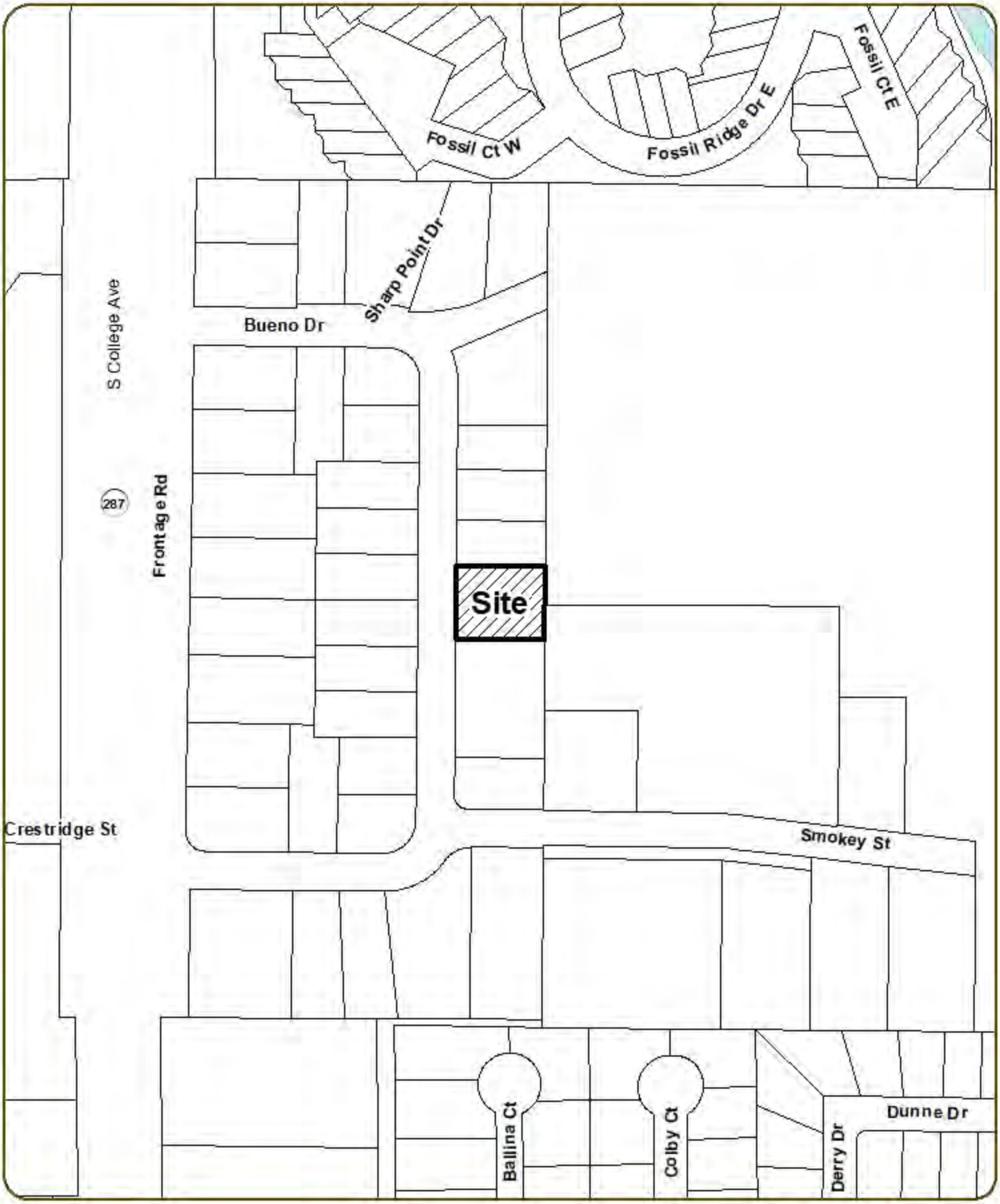


Bueno Drive Condos
Vicinity Map

IRRIGATION NOTES

1. SYSTEM DESIGN ASSUMES 65 PSI AND 15 GPM AT POINT OF CONNECTION. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
2. HAVE ALL UTILITIES LOCATED BEFORE CONSTRUCTION. COORDINATE ALL WORK WITH OTHER TRADES.
3. DRAWINGS ARE DIAGRAMMATIC. INSTALL ALL IRRIGATION COMPONENTS IN LANDSCAPED AREAS WHENEVER POSSIBLE. AVOID CONFLICTS WITH PLANT MATERIALS, ARCHITECTURAL FEATURES AND OBSTRUCTIONS ON SITE.
4. USE ONLY STANDARD TEE AND ELBOW FITTINGS - NO CROSS FITTINGS.
5. INSTALL BACKFLOW PREVENTION DEVICE PER LOCAL CODE.
6. USE 14 GAUGE DIRECT BURY SINGLE CONDUCTOR CONTROL WIRES. PROVIDE 2 ADDITIONAL CONTROL WIRES FROM CONTROLLER TO END OF MAINLINE FOR FUTURE EXPANSION.
7. ALL SHRUB AREAS SHALL BE IRRIGATED USING DRIP IRRIGATION. TREES SHALL BE IRRIGATED WITH 5 EMITTERS, AND 5 GALLON SHRUBS WITH 2 EMITTERS. PERENNIALS AND GROUNDCOVERS SHALL SHALL BE IRRIGATED WITH ONE EMITTER PER PLANT. EMITTERS SHALL BE 1 GALLON / HOUR.
8. A MASTER SHUT-OFF VALVE SHALL BE INSTALLED DOWNSTREAM OF THE BACKFLOW DEVICE TO SHUT OFF WATER TO THE SYSTEM WHEN NOT OPERATING.
9. IRRIGATION CONTROLLER SHALL BE "SMART" CONTROLLER, USING CLIMATE-BASED OR SOIL MOISTURE-BASED TECHNOLOGY, SELECTED FROM THE IRRIGATION ASSOCIATION'S CURRENT SMART WATER APPLICATION TECHNOLOGIES (SWAT) TESTED PRODUCTS LIST OR OTHER SIMILARLY TESTED PRODUCT LIST. CONTROLLERS SHALL BE INSTALLED AND PROGRAMMED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
10. A RAIN SENSOR SHALL BE INSTALLED ON IRRIGATION CONTROLLER AND INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
11. REMOTE CONTROL VALVES SHALL HAVE FLOW CONTROL.
12. COORDINATE FINAL LOCATION OF BACKFLOW PREVENTION DEVICE CONTROLLER AND RAIN SENSOR WITH GENERAL CONTRACTOR.
13. PROVIDE TEMPORARY IRRIGATION ON NATIVE SEEDING, UNTIL ESTABLISHED. SEE NATIVE SEEDING NOTES ON LANDSCAPE PLAN.

GENERAL NOTES

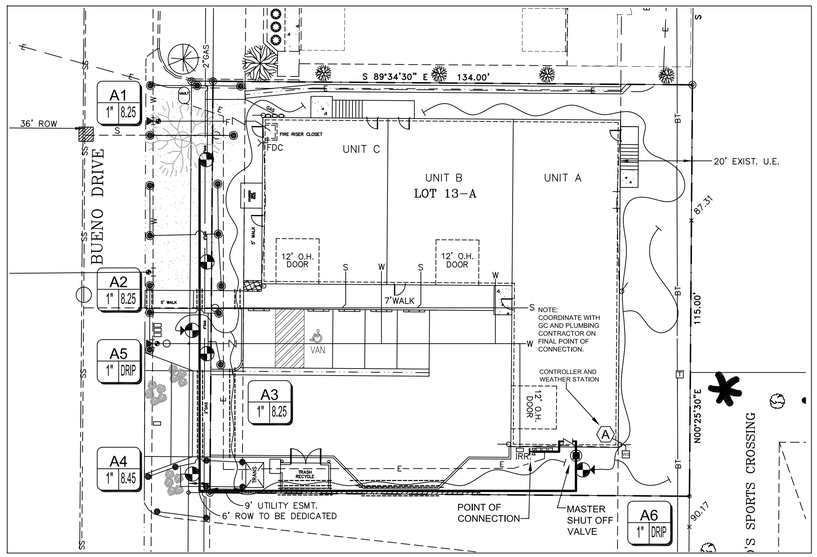
1. ANY FIELD ADJUSTMENT OR REDESIGN OF THIS IRRIGATION SYSTEM MUST CONFORM TO THE CITY OF FORT COLLINS IRRIGATION STANDARDS IN THE LAND USE CODE.
2. CONTRACTOR INSTALLING THE SYSTEM MUST PROVIDE FCU AND THE OWNER WITH "AS-BUILT" DRAWINGS AFTER INSTALLATION IS COMPLETE, INCLUDING UPDATED CHARTS WITH EXISTING FIELD CONDITIONS.
3. THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 65 PSI, AT A MINIMUM DISCHARGE OF 15 GPM AT THE 3/4" INCH POINT-OF-CONNECTION. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
4. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
5. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
6. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
7. ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
8. TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS AND ARCHITECTURAL FEATURES.
9. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
10. PROVIDE TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT: TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES AND TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT AND REPAIR OF SPRINKLERS
11. SELECT NOZZLES FOR SPRAYHEADS AND ROTORS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
12. INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
13. IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN THE IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
14. INSTALL A MINIMUM OF TWO (2) APPROPRIATELY SIZED CONTROL WIRES AND ONE (1) COMMON WIRE FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE FOR USE AS SPARES IN CASE OF CONTROL WIRE FAILURE. CAP END OF WIRES WITH WATER-PROOF WIRE CONNECTOR. WIRE TERMINATIONS MUST BE LOCATED IN A VALVE BOX. IN ADDITION, COIL THREE (3) FEET OF WIRE IN VALVE BOX.
15. WITHIN SIX (6) WEEKS OF THE INSTALLATION OF NEW LANDSCAPING, THE IRRIGATION SYSTEM INSTALLER SHALL RESET THE SMART CONTROLLERS TO THE NORMAL SEASONAL WATERING SCHEDULE.

LEGEND

- SLEEVING: CLASS 200 PVC PIPE, 2 SIZES LARGER THAN ENCLOSED PIPE
- MAINLINE : 1" CLASS 200 PVC PIPE
- LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC (1-INCH SIZE UNLESS OTHERWISE INDICATED)
- LATERAL PIPE TO EMITTERS: UV RADIATION RESISTANT POLYETHYLENE (1 INCH SIZE, ROUTING SHOWN IS DIAGRAMMATIC)
- UNCONNECTED PIPE CROSSING
- POINT-OF-CONNECTION (P.O.C.) ASSEMBLY
- 1" PRESSURE BACKFLOW PREVENTION DEVICE. CONFIRM LOCATION WITH GC FEBCO MODEL 765 OR APPROVED EQUIVALENT
- REMOTE CONTROL VALVE ASSEMBLY FOR DRIP LATERALS RAINBIRD XCZF 175 PRF IN 12" RECTAGULAR CARSON VALVE BOX
- REMOTE CONTROL VALVE RAINBIRD DVF IN 10" ROUND CARSON VALVE BOX
- POP-UP ROTOR SPRINKLER: RAIN BIRD 3500 W/ #1.5 NOZZLE
- POP-UP SPRAY SPRINKLER: RAIN BIRD 1804 W/ 12 SERIES NOZZLE
- GATE VALVE ASSEMBLY
- FLUSH CAP ASSEMBLY IN 6" ROUND CARSON VALVE BOX
- (A) SMART CONTROLLER WITH WEATHER STATION (REQUIRED) RAIN BIRD ESP4SMTEI (SMART CONTROLLER) AND 1 ESPSM3 MODULE AND RAIN SENSOR RSD-BEx (7 ZONES TOTAL) CONFIRM LOCATION WITH GC OR OWNER'S REPRESENTATIVE PROVIDE SMART CONTROLLER DATA INPUT CHART AT CONTROLLER MOUNT RAIN SENSOR IN OPEN AREA TO RECEIVE WEATHER FROM ALL DIRECTIONS
- MASTER SHUT OFF VALVE RAINBIRD DVF 1" IN 10" ROUND CARSON VALVE BOX
- A1 / 1-1/2" / 47.0 — INDICATES CONTROLLER AND CONTROLLER STATION NUMBER; INDICATES LATERAL DISCHARGE IN GPM (EXCEPT IN DRIP ZONES); INDICATES REMOTE CONTROL VALVE SIZE IN INCHES

PRESSURE CALCULATION WORKSHEET

A.	Pressure available at point of connection	65	psi
B.	Pressure loss through the meter	- 4.8	psi
C.	Pressure loss through backflow prevention device	- 12	psi
D.	Pressure loss in mainline pipe from backflow prevention device to remote control valve	- 3	psi
E.	Pressure loss through remote control valve	- 4.2	psi
F.	Pressure loss in lateral pipe from remote control valve to most remote sprinkler	- 5	psi
G.	Elevation change from point-of-connection to most remote sprinkler (0.43 psi per foot of elevation): pressure loss	- ____	psi
	or pressure gain	+ ____	psi
H.	Miscellaneous losses through other valves, strainers, etc. (in some cases this will not be applicable)	- ____	psi
I.	Total possible pressure loss (add B through H)	- 29.0	psi
J.	Remaining pressure (subtract I from A)	36.0	psi
K.	Minimum pressure required at sprinkler	25	psi
L.	Difference (Subtract K from J. If the value is negative, a booster pump may be needed. If the value is more than +15 psi, pressure reduction may be necessary for this zone, and /or other zones.) * Pressure regulator provided at zone.	9.0	psi



ANNUAL WATER USE CHART

ZONE I.D.	IRRIGATED AREA (SF)	HYDROZONE	WATER USE (GAL. PER S.F.)	TOTAL WATER (GAL.)
A1	572	HIGH	17.3	9,900
A2	690	HIGH	14.3	9,900
A3	443	HIGH	22.3	9,900
A4	371	HIGH	20.4	2,535
A5	753	MED	1.91	1,440
A6	949	MED	1.47	1,400
TOTAL	3,778	——	AVG : 9.28	35,075

SMART CONTROLLER DATA INPUT CHART

ZONE I.D.	SPRINKLER TYPE	PRECIP RATE GAL / HR	PLANT MATERIAL TYPE	SOIL TYPE	SLOPE	MICRO-CLIMATE SUN / SHADE
A1	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A2	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A3	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A4	SPRAY	507	TURF	CLAY	NONE	SUNNY ALL DAY
A5	DRIP	72	TREES / SHRUBS	CLAY	NONE	SUNNY ALL DAY
A6	DRIP	70	TREES / SHRUBS	CLAY	NONE	SUNNY ALL DAY

0 20 40 60

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SOUTH 13, LOT 13A
5724 BUENO DRIVE
FORT COLLINS, COLORADO

Preliminary
Not for Construction

Irrigation
Plan

Date: 2-19-19
Revised: 4-10-19
Revised: 5-21-19
Revised:
Scale: 1" = 20'

Sheet:
4

GENERAL LANDSCAPE NOTES

1. PLANT QUALITY: ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE – FREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. ALL TREES SHALL BE BALL AND BURLAP OR EQUIVALENT.
2. IRRIGATION: ALL LANDSCAPE AREAS WITHIN THE SITE INCLUDING TURF, SHRUB BEDS AND TREE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION PLAN MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS WATER UTILITIES DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. ALL TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN NATIVE SEED AREAS, SHALL BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR WITH AN ACCEPTABLE ALTERNATIVE APPROVED BY THE CITY WITH THE IRRIGATION PLANS. THE IRRIGATION SYSTEM SHALL BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL. IRRIGATION SYSTEMS TO BE TURNED OVER TO THE CITY PARKS DEPARTMENT FOR MAINTENANCE MUST BE APPROVED BY THE PARKS MANAGER AND MEET PARKS IRRIGATION STANDARDS. DESIGN REVIEW SHALL OCCUR DURING UTILITIES DEPARTMENT IRRIGATION REVIEW PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND CONSTRUCTION OBSERVATION AND INSPECTION BY PARKS SHALL BE INCORPORATED INTO THE CONSTRUCTION PROCESS.
3. TOPSOIL: TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
4. SOIL AMENDMENTS: SOIL AMENDMENTS SHALL BE PROVIDED AND DOCUMENTED
IN ACCORDANCE WITH CITY CODE SECTION 12-132. THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOUGHLY LOOSENED TO A DEPTH OF NOT LESS THAN EIGHT(8) INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST SIX(6) INCHES BY TILLING, DISCING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST THREE (3) CUBIC YARDS OF SOIL AMENDMENT PER ONE THOUSAND (1,000) SQUARE FEET OF LANDSCAPE AREA. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION MUST BE SUBMITTED TO THE CITY THAT ALL PLANTED AREAS, OR AREAS TO BE PLANTED, HAVE BEEN THOROUGHLY LOOSENED AND THE SOIL AMENDED, CONSISTENT WITH THE REQUIREMENTS SET FORTH IN SECTION 12-132.
5. INSTALLATION AND GUARANTEE: ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND HORTICULTURAL PRACTICES IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH. ALL LANDSCAPING FOR EACH PHASE MUST BE EITHER INSTALLED OR THE INSTALLATION MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE MATERIALS AND LABOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDING IN SUCH PHASE.
6. MAINTENANCE: TREES AND VEGETATION, IRRIGATION SYSTEMS, FENCES, WALLS
AND OTHER LANDSCAPE ELEMENTS WITH THESE FINAL PLANS SHALL BE CONSIDERED AS ELEMENTS OF THE PROJECT IN THE SAME MANNER AS PARKING, BUILDING MATERIALS AND OTHER SITE DETAILS. THE APPLICANT, LANDOWNER OR SUCCESSORS IN INTEREST SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL LANDSCAPING ELEMENTS IN GOOD CONDITION. ALL LANDSCAPING SHALL BE MAINTAINED FREE FROM DISEASE, PESTS, WEEDS AND LITTER, AND ALL LANDSCAPE STRUCTURES SUCH AS FENCES AND WALLS SHALL BE REPAIRED AND REPLACED PERIODICALLY TO MAINTAIN A STRUCTURALLY SOUND CONDITION.
7. REPLACEMENT: ANY LANDSCAPE ELEMENT THAT DIES, OR IS OTHERWISE REMOVED, SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS.
8. THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITIES:
40 FEET BETWEEN CANOPY TREES AND STREET LIGHTS
15 FEET BETWEEN ORNAMENTAL TREES AND STREETLIGHTS
10 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER MAIN LINES
6 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER SERVICE LINES.
4 FEET BETWEEN SHRUBS AND PUBLIC WATER AND SANITARY AND STORM SEWER LINES
4 FEET BETWEEN TREES AND GAS LINES
9. ALL STREET TREES SHALL BE PLACED A MINIMUM EIGHT (8) FEET AWAY FROM THE EDGES OF DRIVEWAYS AND ALLEYS PER LUC 3.2.1(D)(2)(a).
10. PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE SIGHT
DISTANCE CRITERIA AS SPECIFIED BY THE CITY OF FORT COLLINS. NO STRUCTURES OR LANDSCAPE ELEMENTS GREATER THAN 24" SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENTS WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDED THAT THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT MUST BE NOT MORE THAN 42" IN HEIGHT AND OF AN OPEN DESIGN.
11. THE FINAL LANDSCAPE PLAN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, AND OTHER DEVELOPMENT IMPROVEMENTS DO NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
12. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION – AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT MUST BE CONSISTENT WITH THE APPROVED PLANS. IN THE EVENT OF CONFLICT WITH THE QUANTITIES INCLUDED IN THE PLANT LIST, SPECIES AND QUANTITIES ILLUSTRATED SHALL BE PROVIDED. ALL CHANGES OF PLANT SPECIES AND LOCATION MUST HAVE WRITTEN APPROVAL BY THE CITY PRIOR TO INSTALLATION.
13. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.

LANDSCAPE NOTES

1. SOIL PREPARATION - ALL PLANTED AREAS (EXCEPT NATIVE SEEDING) SHALL BE AMENDED WITH 3 CUBIC YARDS OF COMPOST PER 1000 SQUARE FEET. THESE AREAS SHALL BE RIPPED AND ROTOTILLED TO A DEPTH OF 6-8". RESTORE SOIL TO ORIGINAL GRADE AS SHOWN ON THE GRADING PLAN AFTER SOIL PREPARATION IS COMPLETED.
2. EDGING - ALL PLANTING BEDS SHALL BE EDGED WITH ROLLED TOP STEEL EDGING. EDGING SHALL BE HELD IN PLACE WITH STEEL PINS INSTALLED APPROXIMATELY 3' APART.
3. SOD - AREAS INDICATED AS IRRIGATED TURF SHALL BE SODDED WITH A DROUGHT TOLERANT BLUEGRASS BLEND.
4. SEEDING - SEE SEEDING NOTES ON THIS SHEET.
5. WEED BARRIER - ALL SHRUB BEDS & GRAVEL AREAS SHALL RECEIVE DEWITT PRO-5 WEED BARRIER FABRIC OR APPROVED EQUIVALENT INSTALLED UNDER GRAVEL. OVERLAP SEAMS A MINIMUM OF 6". AT OVERLAP LOCATIONS AND EDGES OF CURBS, WALLS, STRUCTURES, PAVEMENTS, AND EDGING, WEED BARRIER SHALL BE SECURED WITH 11-GAUGE, 6-INCH LONG STAPLES AT 18 INCHES O.C. AT ALL EDGES.
6. TREE RINGS - ALL TREES IN LAWN AND SEEDED AREAS SHALL HAVE A 4-FOOT DIAMETER RING OF 4" DEEP SHREDDED REDWOOD MULCH OVER WEED BARRIER FABRIC.
7. ROCK MULCH - ALL SHRUB BEDS AND GRAVEL AREAS SHALL RECEIVE A 4" LAYER OF 1 1/2" TAN RIVER ROCK MULCH.
8. ANY SUBSTITUTE PLANT MATERIAL OR LANDSCAPE MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE. ALL PLANT MATERIAL MUST BE FIRST QUALITY AND SHALL COMPLY WITH THE MOST RECENT STANDARDS FOR NURSERY STOCK AS APPROVED BY THE AMERICAN STANDARDS INSTITUTE AND SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
9. PLANTING - FOLLOW PLANTING DETAILS CAREFULLY. ALL PLANTS SHALL BE PRUNED AS NEEDED IMMEDIATELY AFTER INSTALLATION TO PROMOTE VIGOROUS GROWTH. CONTRACTOR SHALL REMOVE TREE STAKING AND WRAP WITHIN 18 MONTHS OF INSTALLATION.
10. CONTRACTOR TO REVIEW AND VERIFY SITE CONDITIONS COMPARED TO PLANS. THESE ARE NOT ENGINEERED DRAWINGS, AND FIELD ADJUSTMENTS MAY BE NECESSARY DUE TO ACTUAL UTILITY LOCATIONS, STRUCTURES, OBJECTS OR CONDITIONS THAT ARE DIFFERENT THAN SHOWN ON THESE PLANS.
11. HAVE ALL UTILITIES LOCATED BEFORE CONSTRUCTION. COORDINATE ALL WORK WITH OTHER TRADES.

TREE PROTECTION NOTES

NO TREES SHALL BE REMOVED DURING THE SONGBIRD NESTING SEASON (FEBRUARY 1 TO JULY 31) WITHOUT FIRST HAVING A PROFESSIONAL ECOLOGIST OR WILDLIFE BIOLOGIST COMPLETE A NESTING SURVEY TO IDENTIFY ANY ACTIVE NESTS EXISTING ON THE PROJECT SITE. THE SURVEY SHALL BE SENT TO THE CITY ENVIRONMENTAL PLANNER. IF ACTIVE NESTS ARE FOUND, THE CITY WILL COORDINATE WITH RELEVANT STATE AND FEDERAL REPRESENTATIVES TO DETERMINE WHETHER ADDITIONAL RESTRICTIONS ON TREE REMOVAL AND CONSTRUCTION APPLY.

ALL PROTECTED EXISTING TREES SHALL BE PRUNED TO THE CITY OF FORT COLLINS FORESTRY STANDARDS. TREE PRUNING AND REMOVAL SHALL BE PERFORMED BY A BUSINESS THAT HOLDS A CURRENT CITY OF FORT COLLINS ARBORIST LICENSE WHERE REQUIRED BY CODE.

NATIVE SEEDING NOTES

AREAS DESIGNATED AS NATIVE GRASS SEED SHALL BE DRILLED WITH NATIVE PRAIRIE MIX @ 3# /1000 SF FROM PAWNEE BUTTES SEED CO. 970-356-7002.GROUND OF SEEDED AREA SHALL BE CULTIVATED LIGHTLY THEN SEEDED IN TWO DIRECTIONS TO DISTRIBUTE THE SEED EVENLY OVER ENTIRE AREA. AFTER SEEDING, THE AREA SHALL BE CRIMPED WITH STRAW AND PROVIDED WITH TEMPORARY IRRIGATION UNTIL GRASS IS ESTABLISHED. CONTRACTOR SHOULD MONITOR SEEDED AREA FOR PROPER IRRIGATION, EROSION CONTROL AND GERMINATION. RESEEDING AS NEEDED TO OBTAIN EVEN COVERAGE OF GRASS. CONTRACTOR TO REMOVE TEMPORARY IRRIGATION SYSTEM AFTER GRASSES ARE WELL ESTABLISHED.

NATIVE PRAIRIE MIX CONTENTS
(29%) BLUE GRAMA
(10%) BUFFALOGRASS
(20%) GREEN NEEDLEGRASS
(20%) SIDEOATS GRAMA
(20%) WESTERN WHEATGRASS
(1%) SAND DROPSEED

a. IF CHANGES ARE TO BE MADE TO SEED MIX BASED ON SITE CONDITIONS APPROVAL MUST BE PROVIDED BY CITY ENVIRONMENTAL PLANNER. SEED SHALL CONTAIN NAME; LOT NUMBER; NET WEIGHT; AND PERCENTAGES OF PURITY, GERMINATION, HARD SEED, AND MAXIMUM WEED SEED CONTENT CLEARLY MARKED.
b. PRIOR TO SEEDING SOIL WILL BE AERATED AND SOIL AMENDMENTS ADDED AS NECESSARY. APPROPRIATE NATIVE SEEDING EQUIPMENT WILL BE USED TO SEED. STANDARD TURF SEEDING EQUIPMENT SHALL NOT BE USED.
c. DRILL SEED APPLICATION RECOMMENDED PER SPECIFIED APPLICATION RATE TO NO MORE THAN 1 INCH DEPTH. FOR
BROADCAST SEEDING INSTEAD OF DRILL SEEDING METHOD _ DOUBLE SPECIFICIED APPLICATION RATE AND HAND RAKE INTO SOIL TO NO MORE THAN 1 INCH DEPTH.
d. TREAT NATIVE SEED MIX AREA PRIOR TO INSTALLATION OF SEED WITH APPROPRIATE HERBICIDE TO HELP CONTROL HERBACEOUS WEED SPECIES. ONLY AFTER APPROPRIATE TIME PERIOD THEN APPLY NATIVE SEED AS CALLED FOR ON APPROVED PLANS.
e. THE APPROVED SEED MIX AREA IS INTENDED TO BE MAINTAINED IN A NATURAL_LIKE LANDSCAPE AESTHETIC. IF AND WHEN MOWING OCCURS IN NATIVE GRASS SEED MIX AREAS DO NOT MOW LOWER THAN 3 INCHES IN HEIGHT TO AVOID INHIBITING NATIVE PLANT GROWTH.
f. NATIVE GRASSES SHALL BE CONSIDERED WELL ESTABLISHED WHEN THE ENTIRE SEEDED AREA CONTAINS NO BARE SPOTS LARGER THAN ONE SQUARE FOOT, TOTAL COVER OF GRASS, FORB (MINUS NOXIOUS WEEDS), SHRUB AND TREE SPECIES IS GREATER THAN OR EQUAL TO 80% WITH NOXIOUS WEEDS 10% OR LESS OF TOTAL COVER AND/OR THE AREA IS APPROVED AS ESTABLISHED BY CITY OF FORT COLLINS PLANNING SERVICES STAFF.
g. PROVIDE TEMPORARY IRRIGATION UNTIL THE GRASSES ARE WELL ESTABLISHED. GRASSES SHOULD BE WEENED FROM IRRIGATION ONCE SEED GERMINATES OTHERWISE GRASSES WILL BECOME DEPENDENT ON IRRIGATION.
h. MOW AT THE END OF THE GROWING SEASON, AND NOT MOWING MORE THAN TWICE PER YEAR OR DURING HOT AND DRY CONDITIONS.
i. SEEDING SHOULD OCCUR, LATE OCTOBER THROUGH EARLY MAY.
j. WEED CONTROL IS IMPORTANT DURING ESTABLISHMENT. SPOT SPRAY WEEDS WITH AN HERBICIDE.
k. DO NOT FERTILIZE PRIOR TO SEEDING.

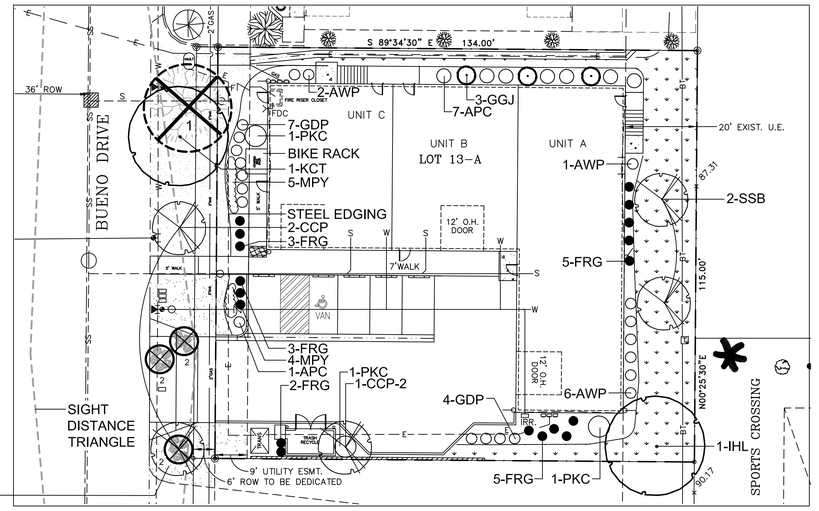
PLANT LIST

SYMBOL	NUMBER	MITIGATION	NAME	SIZE	TYPE
DECIDUOUS TREES					
IHL	1		IMPERIAL HONEYLOCUST Gleditsia triacanthos Inermis 'Imperial'	2" cal.	B&B
KCT	1	M(1)	KENTUCKY COFFEETREE (SEEDLESS) Gymnocladus dioicus 'Espresso'	3" cal.	B&B
ORNAMENTAL TREES					
CCP	2	M(1)	CHANTICLEER PEAR Pyrus calleryana 'Chanticleer'	2.5" cal.	B&B
CCP-2	1		CHANTICLEER PEAR Pyrus calleryana 'Chanticleer'	1.5" cal.	B&B
SSB	2		SASKATOON SERVICEBERRY Amelanchier alnifolia	1.5" cal.	B&B
EVERGREEN TREES					
GGJ	3		GRAY GLEAM JUNIPER Juniperus scopulorum 'Gray Gleam'	6'	B&B
SHRUBS					
APC	8		ALPINE CURRANT Ribes alpinum	5 gal.	container
GDP	11		GOLD DROP POTENTILLA Potentilla fruticosa 'Gold Drop'	5 gal.	container
PKC	3		PEKING COTONEASTER Cotoneaster lucidus	5 gal.	container
AWP	9		ABOTTSWOOD POTENTILLA Potentilla furticosa 'Abottswood'	5 gal.	container
ORNAMENTAL GRASSES					
FRG	18		FEATHER REED GRASS Calamagrostis acutiflora 'Karl Foerster'	5 gal.	container
PERENNIALS					
MPY	9		MIXED PASTELS YARROW Achillea 'Summer Pastels'	4 in.	container

CONTRACTOR TO VERIFY ALL PLANT COUNTS

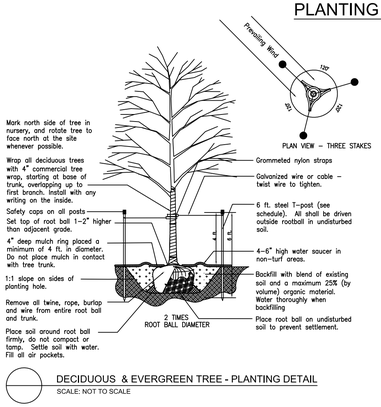
SYMBOLS

DECIDUOUS TREES
DECIDUOUS SHRUBS
EVERGREEN SHRUBS
EVERGREEN TREES
ORNAMENTAL GRASSES
ORNAMENTAL TREES
PERENNIALS / GROUNDCOVERS
EXISTING TREE TO BE REMOVED AND MITIGATED - MITIGATION #
NON IRRIGATED NATIVE SEEDING
EXISTING TREES TO BE REMOVED NO MITIGATION - MITIGATION #
IRRIGATED TURF

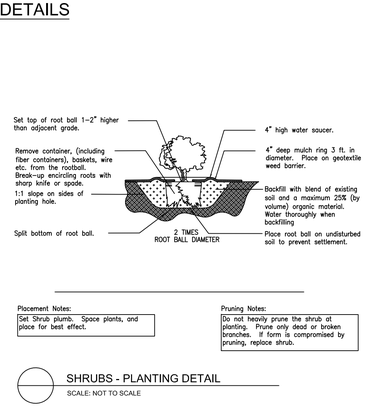


NOTE: ORNAMENTAL STREET TREES PROPOSED DUE TO RESTRICTED SPACE ON WEST SIDE OF SITE.

PLANTING DETAILS



DECIDUOUS & EVERGREEN TREE - PLANTING DETAIL
SCALE: NOT TO SCALE



Placement Notes:
Set Shrub plumb. Space plants, and place for best effect.

Pruning Notes:
Do not heavily prune the shrub at planting. Prune only dead or broken branches. If form is compromised by pruning, replace shrub.

SHRUBS - PLANTING DETAIL
SCALE: NOT TO SCALE

TREE INVENTORY AND MITIGATION

Tree Inventory and Mitigation Lot 13A - 5724 Bueno Drive (Tim Briggs - Site Design LLC)

#	Species	DBH	Condition	Mitigation Value	Status	Notes	Reason for Removal
1	Willow	38"	Poor	2.5 mitigation trees	REMOVE	City Forestry recommends removal due to poor health	
2	Siberian Elm	under 11"	Poor	0 mitigation trees	REMOVE	three tree clusters - seven stems	

STREET TREE PERMIT NOTE

A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

AREAS FOR LANDSCAPE WATER USAGE

HIGH WATER USAGE (IRRIGATED TURF)	2,076	SF
MEDIUM WATER USAGE (DRIP IRRIGATED BEDS)	1,702	SF
LOW WATER USAGE (NON-IRRIGATED NATIVE GRASSES)	2,078	SF

NOTE: ANY REQUIRED LANDSCAPE IRRIGATION SYSTEM PLANS MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

STREET TREE NOTES

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.
2. CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF EACH PHASE OF THE DEVELOPMENT. ALL MUST BE INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL OF EACH PHASE.
3. STREET LANDSCAPING, INCLUDING STREET TREES, SHALL BE SELECTED IN ACCORDANCE WITH ALL CITY CODES AND POLICIES. ALL TREE PRUNING AND REMOVAL WORKS SHALL BE PERFORMED BY A CITY OF FORT COLLINS LICENSED ARBORS WHERE REQUIRED BY CODE.STREET TREES SHALL BE SUPPLIED AND PLANTED BY THE DEVELOPER USING A QUALIFIED LANDSCAPE CONTRACTOR.
4. THE DEVELOPER SHALL REPLACE DEAD OR DYING STREET TREES AFTER PLANTING UNTIL FINAL MAINTENANCE INSPECTION AND ACCEPTANCE BY THE CITY OF FORT COLLINS FORESTRY DIVISION. ALL STREET TREES IN THE PROJECT MUST BE ESTABLISHED, WITH AN APPROVED SPECIES AND OF ACCEPTABLE CONDITION PRIOR TO ACCEPTANCE
5. SUBJECT TO APPROVAL BY THE CITY FORESTER -- STREET TREE LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE DRIVEWAY LOCATIONS, UTILITY SEPARATIONS BETWEEN TREES, STREET SIGNS AND STREET LIGHTS. STREET TREES TO BE CENTERED IN THE MIDDLE OF THE LOT TO THE EXTENT FEASIBLE. QUANTITIES SHOWN ON PLAN MUST BE INSTALLED UNLESS A REDUCTION IS APPROVED BY THE CITY TO MEET SEPARATION STANDARDS.

0 20 40 60

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SOUTH 13, LOT 13A
5724 BUENO DRIVE
FORT COLLINS, COLORADO

Preliminary
Not for Construction

Landscape Plan

Date: 2-19-19
Revised: 4-10-19
Revised: 5-21-19
Revised:
Scale: 1" = 20'

Sheet:
3

Community Development & Neighborhood Services
281 N. College Ave Fort Collins, CO 80524
970.221.6689 970.224.6134 - fax

Letter of Acceptance

February 22, 2019
Brian Shear
Shear Engineering Corp
4836 S College Ave, Suite 12
Fort Collins, CO 80525

Dear Brian,

Thank you for your submittal for Project Development Plan, Bueno Drive Condos. Your application has been determined to be complete and is accepted for formal review. Your project will be routed to appropriate departments to be reviewed, and draft comments will be provided one day prior to your first staff review meeting, scheduled for Wednesday, March 13th. The meeting time will be sent out in a separate email the week prior. Please plan to attend this meeting to discuss questions and comments with staff.

As your Development Review Coordinator, I am your primary point of contact during the Development Review process. Please do not hesitate to contact me with any questions.

Sincerely,

Brandy Bethurem Harras
970.416.2744
bbethuremharras@fcgov.com

May 23, 2019

Project No. 1757-03-18

City of Fort Collins Stormwater Engineering
700 Wood Street
Ft. Collins, Colorado 80521
Attn: Dan Mogen

Re: Lot 13-A, Amended plat of Lots 13-16, South 13 Subdivision (5724 Bueno Drive); Fort Collins, Colorado
Drainage Memo

Dear Mr. Mogen,

Lot 13-A, South 13 Subdivision is an existing 16,100 square foot undeveloped lot. A 6,000 square foot steel building will be constructed with associated utility and parking improvements.

Master South 13 Subdivision Drainage

This site was included in the South 13 basin defined in the Drainage and Erosion Control report prepared specifically for South 13 Subdivision by Shear Engineering Corporation and is titled "Final Drainage and Erosion Control Report for Storm Sewer Outfall for South 13 Subdivision; Larimer County, Colorado"; report dated September 2000; SEC Project No. 1738-01-99. All runoff is directed to the north to a storm sewer that was designed and constructed in association with the drainage report referenced here.

The entire South 13 basin, which included this lot, was designed for commercial development.

- From the 1999 report titled "Storm Sewer Outfall for South 13 Subdivision", the runoff coefficients assumed are 0.76 for the 2-year and the 10-year storm and 0.94 for the 100-year storm.

- The calculated runoff coefficients for this site are 0.73 for the 2-year and the 10-year storm and 0.81 for the 100-year storm.

The development of this lot will have no effect on the South 13 drainage system outfall.

Local neighboring Lots 10-12, South 13 Drainage

A Grading Plan for Lots 10-12, South 13 was prepared by Shear Engineering in 1999. The east side of Lots 10-12 was graded to function for the existing conditions at the time and conveys runoff from portions of Lots 10-12 and runoff from Lot 13-A to the north side of Lot 10. Runoff is then redirected westerly along the north side of Lot 10 to an existing storm sewer at Bueno Drive. It appears that there was never a drainage easement dedicated for the rear lot drainage on the east side of Lots 10-12, South 13 Subdivision.

Re: Lot 13-A, Amended plat of Lots 13-16, South 13 Subdivision (5724 Bueno Drive); Fort Collins, Colorado
Drainage Memo

The grading design for Lot 13-A directs runoff from a portion of the site to the Northeast corner of Lot 13-A (design point 4). A small portion of the Lot 15-A site, south of Lot 13-A, also contributes to this point. Refer to the Drainage plan, basin designations and summary of runoff coefficients and peak flows included on the Drainage Plan. The historic calculated 100-year runoff to design point 4 is 4.86 cfs. By redirecting a majority of developed runoff to Bueno Drive, the resultant developed 100-year runoff to design point 4 (historic design point 1) is 0.62 cfs.

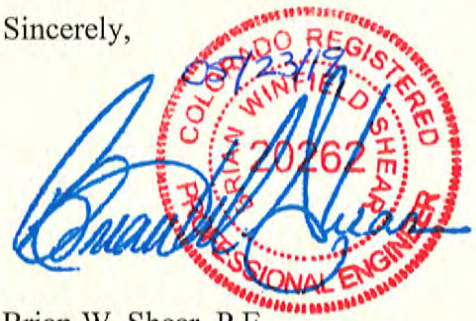
Low impact development (LID)

Due to justifiable engineering site constrains, LID devices will not be provided. A variance request from the *Four Step Process to Minimize Adverse Impacts of Urbanization* as outlined in Chapter 1, Section 4 of the Urban Storm Drainage Criteria Manual Volume 3 has been made.

The site has been designed to convey a majority of the developed runoff directly to Bueno Drive. Roof gutters will be oversized and designed with roof runoff exiting on the west side of the north leg of the building directly to Bueno Drive.

If you have any questions, please call (970) 226-5334.

Sincerely,



Brian W. Shear, P.E.
Shear Engineering Corporation

BWS / brb

attachments:

Hydrology
Hydrologic Soil Group
Erosion Control Security Deposit Estimate
Sediment and Erosion Control Plan / calculations
Drainage Plan
Historic Drainage Plan

cc: Barry Van Everen

Existing Condition Hydrology Summary Table

5724 Bueno Drive
Fort Collins, CO

Design Point	Basins	Area (ac)	%Imp	C_2	C_{100}	Q_2 (cfs)	Q_{100} (cfs)
1	E1	0.934	47.1%	0.52	0.65	1.08	4.75
2	E2	0.032	1.8%	0.14	0.17	0.01	0.04

Proposed Condition Hydrology Summary Table

5724 Bueno Drive
Fort Collins, CO

Design Point	Basins	Area (ac)	%Imp	C_2	C_{100}	Q_2 (cfs)	Q_{100} (cfs)
1	S1	0.125	91.4%	0.91	1.00	0.32	1.25
2	S2	0.043	90.0%	0.95	1.00	0.12	0.43
3	S3	0.053	90.0%	0.95	1.00	0.14	0.53
4	S4	0.152	22.2%	0.33	0.41	0.13	0.58
Site	**S1,S2,S3,S4**	**0.373**	**63.0%**	**0.68**	**0.76**	**0.72**	**2.79**

Runoff Coefficents and Site Percent Imperviousness Calculations

Existing Conditions

5724 Bueno Drive

Fort Collins, CO

Basin No.	Total Area (ft^2)	Total Area (ac.)	Paved Area (ft^2) C = 0.95 100% IMP	Roof (ft^2) C = 0.95 90% IMP	Lawns, Sandy Soil, Avg Slope 2-7% Area (ft^2) C = 0.15 2% IMP	Composite C	Composite C_{100}	Percent Impervious (%)	Net Impervious Area (ft^2)	Cummulative Impervious Area (ft^2)	Cummulative Site %IMP
E1	40,693	0.934	16,915	2,041	21,737	0.52	0.65	47.1%	19,187	19,187	99.9%
S2	1,400	0.032	0	0	1,263	0.14	0.17	1.8%	25	19,212	100%
Site	**42,093**	**0.966**				**0.51**	**0.64**	**45.6%**	**19,212**		

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Runoff Coefficents and Site Percent Imperviousness Calculations

Proposed Conditions

5724 Bueno Drive

Fort Collins, CO

Basin No.	Total Area (ft^2)	Total Area (ac.)	Paved Area (ft^2) C = 0.95 100% IMP	Roof (ft^2) C = 0.95 90% IMP	Lawns, Sandy Soil, Avg Slope 2-7% Area (ft^2) C = 0.15 2% IMP	Composite C	Composite C_{100}	Percent Impervious (%)	Net Impervious Area (ft^2)	Cummulative Impervious Area (ft^2)	Cummulative Site %IMP
S1	5,454	0.125	4,267	790	397	0.89	1.00	91.4%	4,986	4,986	49%
S2	1,877	0.043	0	1,877	0	0.95	1.00	90.0%	1,689	6,675	65%
S3	2,325	0.053	0	2,325	0	0.95	1.00	90.0%	2,093	8,768	86%
S4	6,601	0.152	442	1,025	5,134	0.33	0.41	22.2%	1,467	10,235	100%
Site	**16,257**	**0.373**				**0.68**	**0.85**	**63.0%**	**10,235**		

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5/22/2019

Rational Method

Existing Conditions

5724 Bueno Drive

Fort Collins, CO

$$T_i = \frac{1.87(1.1 - C_x C_f)\sqrt{L}}{\sqrt[3]{S}}$$

Sub-Basin Data								Initial Overland Time				Gutter Flow				Channel Flow	Pipe Flow	T_c 2yr			T_c 100yr			Intensity		Runoff		Street Capacity		Notes
Design Point	Basins	Area (ac)	C*	C_f (2yr)	C_f (100yr)	C_2	C_{100}	L (ft)	S (%)	t_i (2yr) (min)	t_i (100yr) (min)	L (ft)	S (ft/ft)	V (ft/s)	t_L (min)	t_L (min)	tL (min)	Computed T_c (min)	Max T_c (min)	Final T_c (min)	Computed T_c (min)	Max T_c (min)	Final T_c (min)	i_2 in/hr	i_{100} in/hr	Q_2 (cfs)	Q_{100} (cfs)	Minor (cfs)	Major (cfs)	
1	E1	0.934	0.52	1.0	1.25	0.52	0.65	145	1.7	10.9	8.4	0	0.000	0.0	0.0	1.4	0.0	12.3	10.1	**10.1**	9.8	10.1	**9.8**	2.20	7.78	**1.08**	**4.75**			
2	E2	0.032	0.14	1.0	1.25	0.14	0.17	109	2.8	13.4	12.9	0	0.000	0.0	0.0	0.0	0.0	13.4	10.1	**10.1**	12.9	10.1	**10.1**	2.20	7.70	**0.01**	**0.04**			

* Weighted-area average method used to calculate composite C for design points that have multiple tributary basins.

Travel Time Parameters

	Swale									Pan									Pipe				
Design Point	Lt S (ft/ft)	Rt S (ft/ft)	W (ft)	Slope (ft/ft)	"n"	Y (ft)	L (ft)	V (ft/s)	t_L (min)	Lt S (ft/ft)	Rt S (ft/ft)	W (ft)	S (ft/ft)	"n"	Y (ft)	L (ft)	V (ft/s)	t_L (min)	Dia (ft)	"n"	S (ft/ft)	L (ft)	V (ft/s)
1	10.0	10.0	0.0	0.044	0.035	0.23	174	2.09	1.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.00	n/a	n/a	n/a	n/a	0.0
2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.00	n/a	n/a	n/a	n/a	0.0

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5/22/2019

Rational Method

Proposed Conditions

5724 Bueno Drive

Fort Collins, CO

$$T_i = \frac{1.87(1.1 - CxC_f)\sqrt{L}}{\sqrt[3]{S}}$$

Design Point	Basins	Area (ac)	C*	C_f (2yr)	C_f (100yr)	C_2	C_{100}	L (ft)	S (ft/ft)	t_i (2yr) (min)	t_i (100yr) (min)	L (ft)	S (ft/ft)	V (ft/s)	t_L (min)	t_L (min)	tL (min)	T_c 2yr Computed T_c (min)	T_c 2yr Max T_c (min)	T_c 2yr Final T_c (min)	T_c 100yr Computed T_c (min)	T_c 100yr Max T_c (min)	T_c 100yr Final T_c (min)	Intensity i_2 in/hr	Intensity i_{100} in/hr	Runoff Q_2 (cfs)	Runoff Q_{100} (cfs)	Street Capacity Minor (cfs)	Street Capacity Major (cfs)	Notes
								Initial Overland Time				Gutter Flow				Channel Flow	Pipe Flow													
1	S1	0.125	0.91	1.0	1.25	0.91	1.00	44.9	2.9	1.7	0.9	0	0.000	0.0	0.0	0.8	0.0	2.5	10.2	**5.0**	1.7	10.2	**5.0**	2.85	9.95	**0.32**	**1.25**			
2	S2	0.043	0.95	1.0	1.25	0.95	1.00	22.4	8.0	0.7	0.4	0	0.000	0.0	0.0	0.0	0.0	0.7	10.1	**5.0**	0.4	10.1	**5.0**	2.85	9.95	**0.12**	**0.43**			
3	S3	0.053	0.95	1.0	1.25	0.95	1.00	23.3	8.0	0.7	0.5	0	0.000	0.0	0.0	0.0	0.0	0.7	10.1	**5.0**	0.5	10.1	**5.0**	2.85	9.95	**0.14**	**0.53**			
4	S4	0.152	0.33	1.0	1.25	0.33	0.41	17	20.0	2.2	2.0	0	0.000	0.0	2.0	2.0	0.0	6.2	10.1	**6.2**	6.0	10.1	**6.0**	2.64	9.33	**0.13**	**0.58**			

* Weighted-area average method used to calculate composite C for design points that have multiple tributary basins.

Travel Time Parameters

Design Point	Swale Lt S (ft/ft)	Swale Rt S (ft/ft)	Swale W (ft)	Swale Slope (ft/ft)	Swale "n"	Swale Y (ft)	Swale L (ft)	Swale V (ft/s)	Swale t_L (min)	Pan Lt S (ft/ft)	Pan Rt S (ft/ft)	Pan W (ft)	Pan S (ft/ft)	Pan "n"	Pan Y (ft)	Pan L (ft)	Pan V (ft/s)	Pan t_L (min)	Pipe Dia (ft)	Pipe "n"	Pipe S (ft/ft)	Pipe L (ft)	Pipe V (ft/s)	Pipe t_L (min)
1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	8.0	8.0	0.0	0.005	0.013	0.13	60	1.27	0.8	n/a	n/a	n/a	n/a	0.0	0.0
2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	n/a	n/a	n/a	n/a	0.0	0.0
3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.00	0.0	n/a	n/a	n/a	n/a	0.0	0.0
4	10.0	10.0	0.0	0.031	0.060	0.13	86.5	0.72	2.0	8.0	8.0	0.0	0.005	0.013	0.13	86	1.24	1.2	n/a	n/a	n/a	n/a	0.0	0.0

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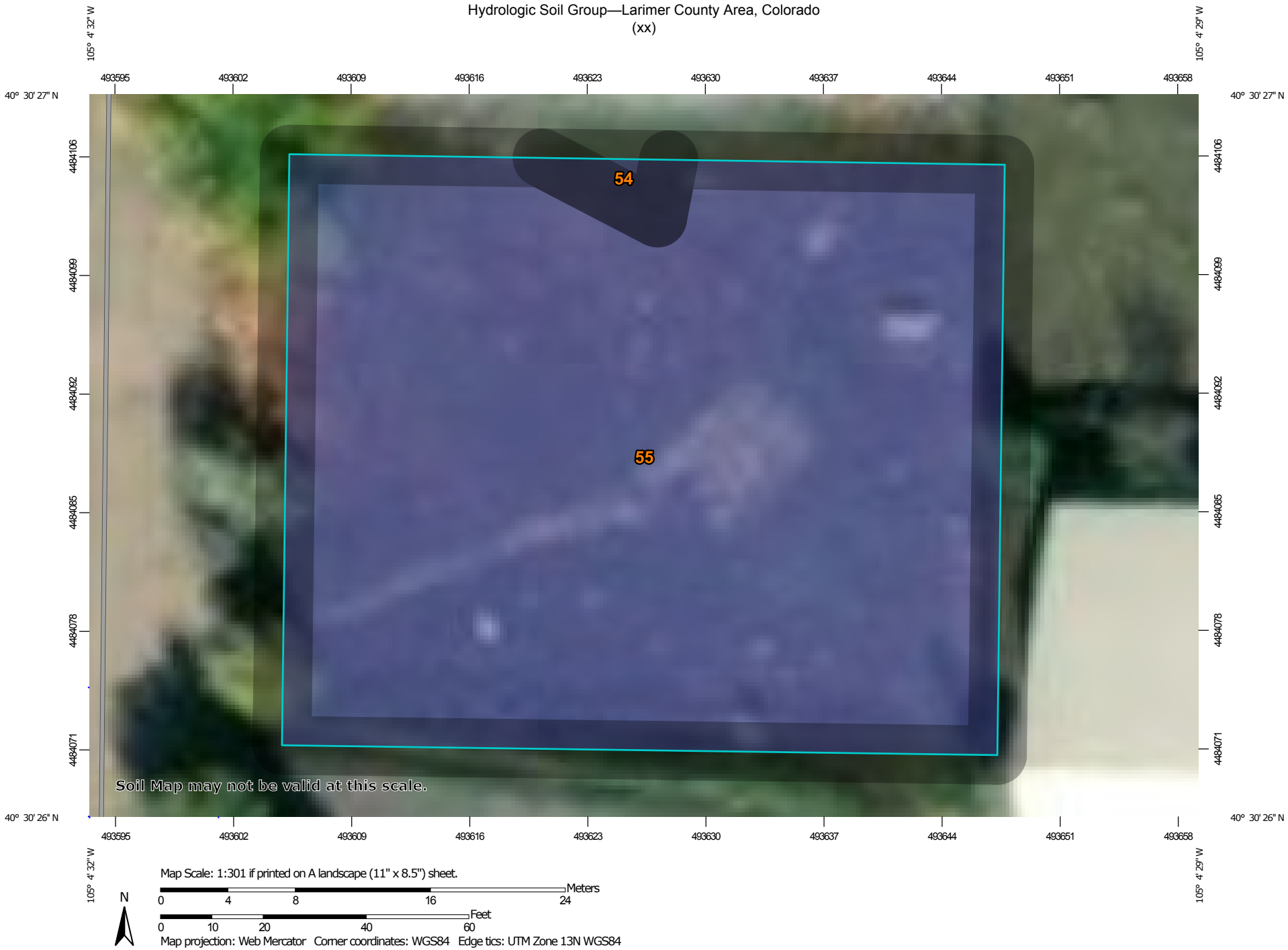
5/22/2019

Hydrologic Soil Group—Larimer County Area, Colorado
(xx)



Map Scale: 1:301 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 4 8 16 24

Feet
0 10 20 40 60

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

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: Larimer County Area, Colorado
Survey Area Data: Version 13, Sep 10, 2018

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

Date(s) aerial images were photographed: Sep 20, 2015—Oct 21, 2017

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
54	Kim loam, 3 to 5 percent slopes	B	0.0	0.9%
55	Kim loam, 5 to 9 percent slopes	B	0.4	99.1%
Totals for Area of Interest			**0.4**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

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

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

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Erosion and Sediment Control Escrow/Security Calculation for The City of Fort Collins

Project: Lot 13-A, Amended plat of Lots 13-16, South 13 Subdivision **Disturbed Acres:** 0.37

BMP Amount

EROSION CONTROL BMPs	Units	Estimated Quantity	Unit Price	Total Price
Concrete Washout (CW)	EA.	1	$825.00	$825.00
Construciton Fence	L.F.	80	$9.00	$720.00
Silt Fence (SF)	L.F.	324	$2.00	$648.00
Wattle (W)	LF	16	$2.75	$44.00
Curb Sock (CSP)	EA.	1	$150.00	$150.00
Rock Sock (RSP)	EA.	2	$150.00	$300.00
Vehicle Tracking Control (VTC)	EA.	1	$1,925.00	$1,925.00
			Sub-Total:	$4,612.00
			1.5 x Sub-Total:	$6,918.00
			Amount of security:	***$6,918.00***

Reseeding

		Total Acres x Price/acre:	362.6
Unit Price of Seeding per acre:	$980.00	Sub-Total:	$362.60
		1.5 x Sub-Total:	$543.90
		Amount to Re-seed:	***$543.90***

Minimum Escrow Amount

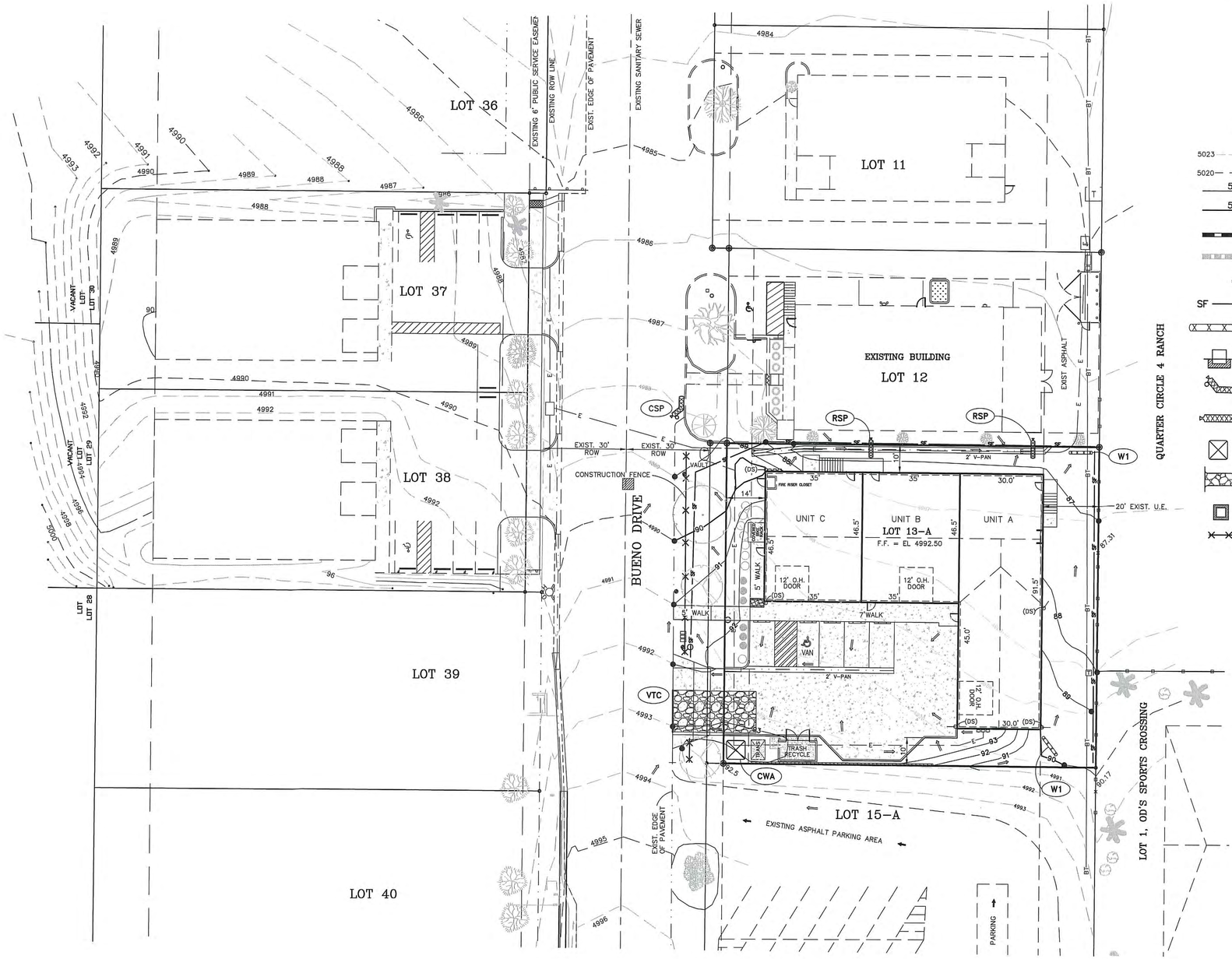
Minimum escrow amount:	***$3,000.00***

Final Escrow Amount

Erosion Control Escrow:	***$6,918.00***

Fields in yellow should be amended for this project.

"The amount of the security must be based on one and one-half times the estimate of the cost to install the approved measures, or one and one-half times the cost to re-vegetate the disturbed land to dry land grasses based upon unit cost determined by the City's Annual Revegetation and Stabilization Bid, whichever is greater. In no instance, will the amount of security be less than one thousand five hundred dollars ($1,500) for residential development or three thousand dollars ($3,000) for commercial development"



LEGEND

- EXIST. WATER LINE
- WATERLINE W/T.B.,TEE,VALVE,SERVICE
- EXIST. SEWER LINE
- SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
- EXIST.FIRE HYDRANT
- FIRE HYDRANT ASSEMBLY
- BORING HOLE LOCATION
- STREET LIGHTS
- IRRIGATION VAULT
- CABLE PEDESTAL
- (DS) EXISTING DOWN SPOUTS
- 5023 EXISTING 1' CONTOUR
- 5020 EXISTING 5' CONTOUR
- 5024 PROPOSED 1' CONTOUR
- 5020 PROPOSED 5' CONTOUR
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- FLOW DIRECTION
- SF SILT FENCE
- W1 WATTLES
- CIP CURB INLET BLOCK/GRAVEL FILTER
- CSP CURB SOCK PROTECTION
- RSP ROCK SOCK PROTECTION
- CWA CONCRETE WASHOUT AREA
- VTC VEHICLE TRACKING CONTROL PAD
- AIP AREA INLET PROTECTION
- CONSTRUCTION FENCE

NOTE: Symbols shown in this Legend may or may not have been used for the preparation of this project.

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

CONSTRUCTION SEQUENCE

STANDARD FORM C

PROJECT: LOT 13-A, AMENDED PLAT OF LOTS 13-16, SOUTH 13 SUBDIVISION

MAY 2019

Indicate by use of a bar line or symbols when erosion control measures will be installed. Major modifications to an approved schedule may require resubmitting a new schedule for approval by the City Engineer.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12
Mobilization/Utilities												
Grading												
Foundation/Vertical												
Wind Erosion Control:												
Soil Roughing												
Perimeter Barrier												
Additional Barriers												
Vegetative Methods												
Soil Sealant												
Water Truck												
Rainfall Erosion Control												
Structural:												
Curb Inlet Filter												
Wattles Barrier												
Silt Fence Barriers												
Curb and Rock Socks												
Bare Soil Preparation												
Contour Furrows												
Terracing												
Asphalt/Concrete												
VTC/Concrete Washout												
Porta Jons												
Material Storage												
Vegetative:												
Permanent Seed Planting												
Mulching/Sealant												
Temporary Seed Planting												
Sod Installation												
Nettings/Mats/Blankets												
Soil Amending												

STRUCTURES: INSTALLED BY: CONTRACTOR MAINTAINED BY: DEVELOPER

VEGETATION/MULCHING CONTRACTOR: TO BE DETERMINED BY BID

DATE SUBMITTED:_____ APPROVED BY CITY OF FORT COLLINS ON: _____

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED:_____ CITY ENGINEER _____ DATE

CHECKED BY:_____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY:_____ STORMWATER UTILITY _____ DATE

CHECKED BY:_____ PARKS AND RECREATION _____ DATE

CHECKED BY:_____ TRAFFIC ENGINEER _____ DATE

CHECKED BY:_____ LIGHT AND POWER _____ DATE

CHECKED BY:_____ ENVIRONMENTAL PLANNER _____ DATE

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Futhermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

REVISIONS
Date _____ By _____ Description _____
Date _____ By _____ Description _____
Date _____ By _____ Description _____

Date MAY 2019 Drawn B.R.B. / D.M.C.
Field Book _____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

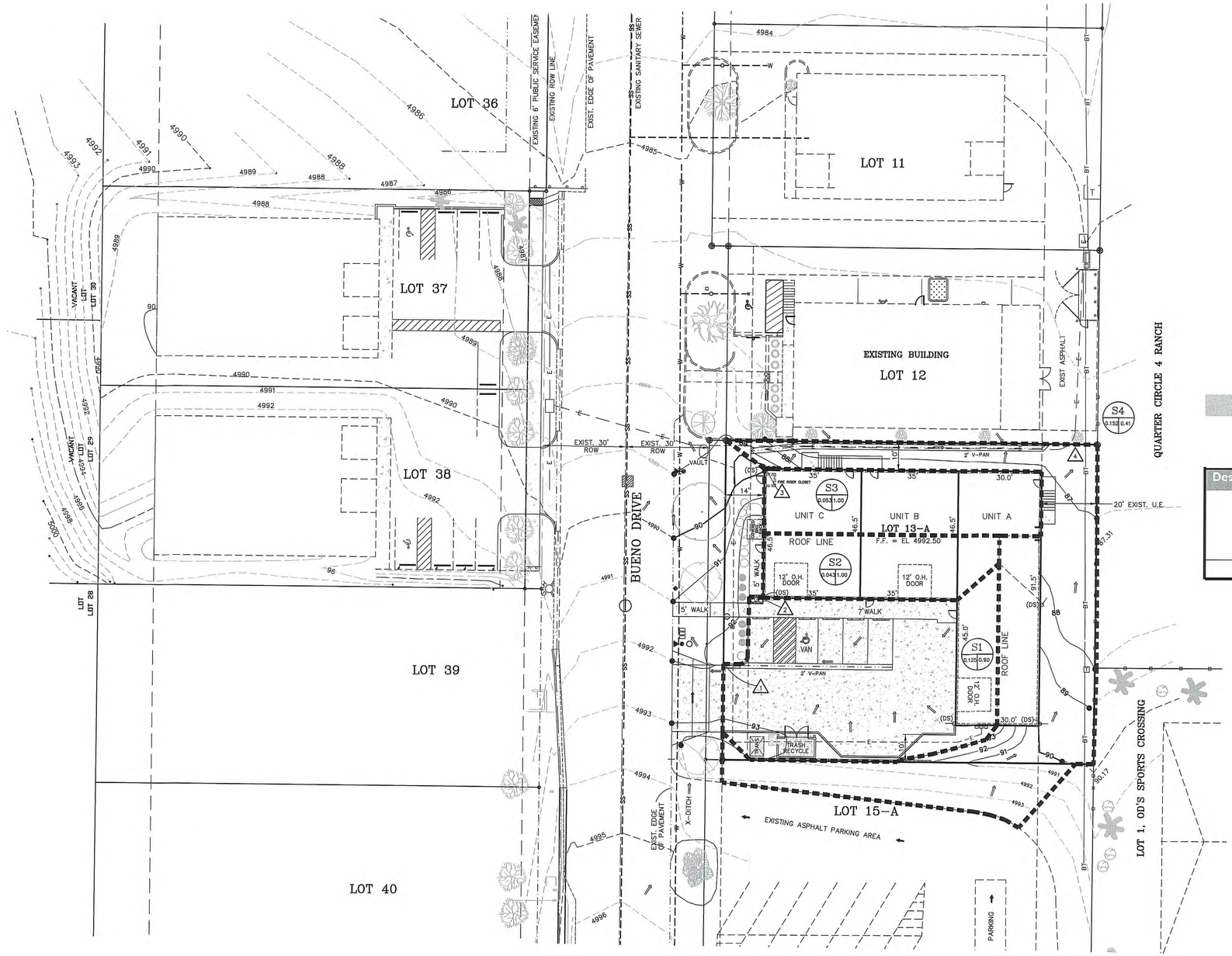
TITLE SEDIMENT/EROSION CONTROL AND WATER QUALITY PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 8

NO. OF SHEETS 11

May 22, 2019 - 3:34pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\08 EROSION.dwg Brent



GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

LEGEND

- 5023 — EXISTING 1' CONTOUR
- 5020 — EXISTING 5' CONTOUR
- 5024 — PROPOSED 1' CONTOUR
- 5020 — PROPOSED 5' CONTOUR
- RAIN GARDEN BASIN BOUNDARY
- FLOW DIRECTION
- SCOURSTOP
- A = BASIN DESIGNATION
  B = AREA IN ACRES
  C = COMPOSITE RUNOFF COEFFICIENT (100 YR. EVENT)
- D = DESIGN POINT DESIGNATION
- PROPOSED STORM SEWER
- EXISTING STORM SEWER

Proposed Condition Hydrology Summary Table

5724 Bueno Drive
Fort Collins, CO

Design Point	Basins	Area (ac)	%Imp	C_2	C_{100}	Q_2 (cfs)	Q_{100} (cfs)
1	S1	0.217	91.4%	0.91	1.00	0.56	2.16
2	S2	0.043	90.0%	0.95	1.00	0.12	0.43
3	S3	0.053	90.0%	0.95	1.00	0.14	0.53
4	S4	0.152	22.2%	0.33	0.41	0.14	0.62
Site	**S1,S2,S3,S4**	**0.465**	**68.6%**	**0.73**	**0.81**	**0.96**	**3.74**

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE
CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE
CHECKED BY: _____ STORMWATER UTILITY _____ DATE
CHECKED BY: _____ PARKS AND RECREATION _____ DATE
CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE
CHECKED BY: _____ LIGHT AND POWER _____ DATE
CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

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REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 Drawn B.R.B. / D.M.C.
Field Book ____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

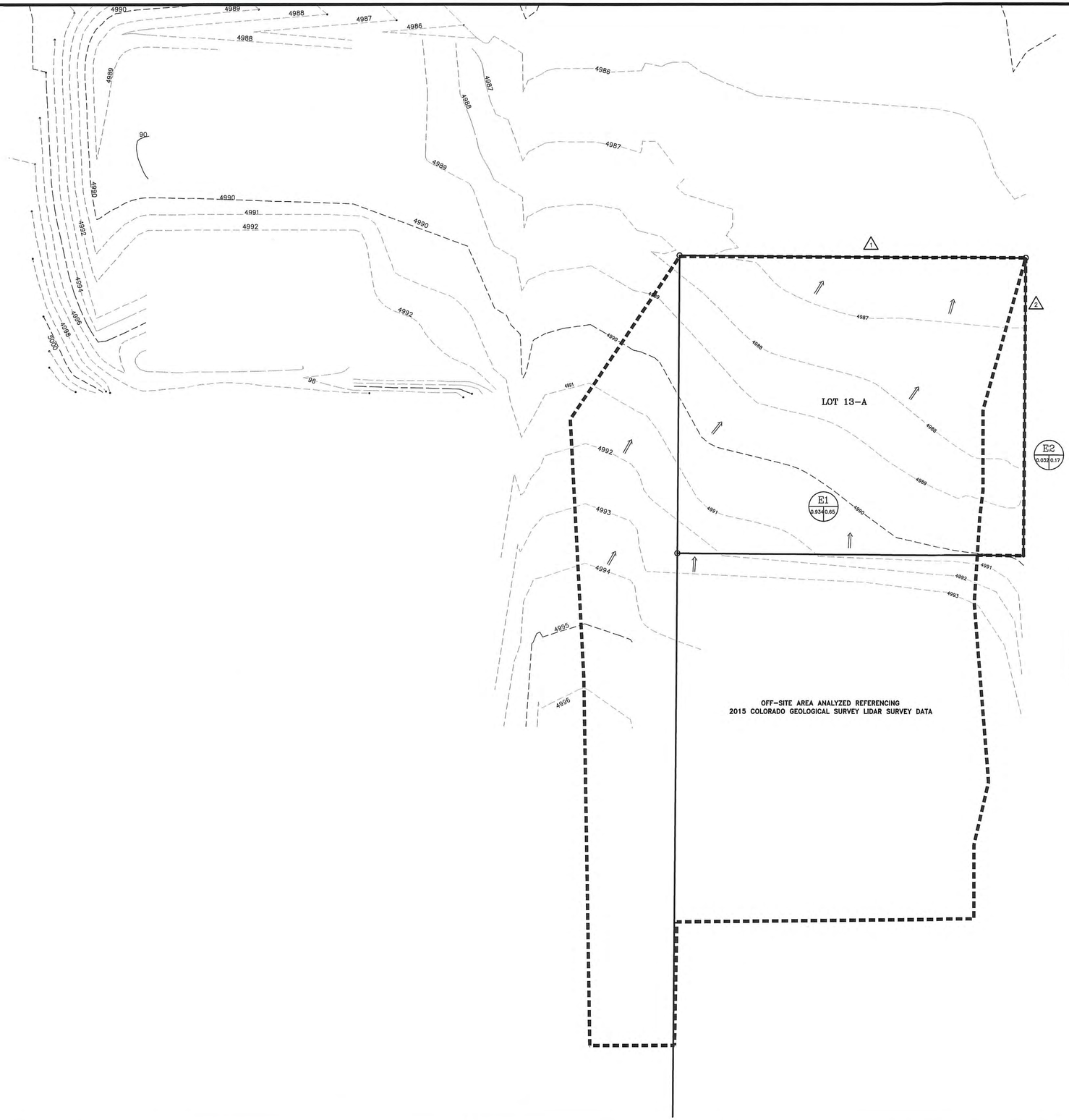
CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: DRAINAGE PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18
SHEET NO. 7
NO. OF SHEETS 11

May 22, 2019 - 3:31pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\07 DRAIN.DWG Brent



GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

LEGEND

- 5023 — EXISTING 1' CONTOUR
- 5020 — EXISTING 5' CONTOUR
- BASIN BOUNDARY
- FLOW DIRECTION
- A = BASIN DESIGNATION
  B = AREA IN ACRES
  C = COMPOSITE RUNOFF COEFFICIENT (100 YR. EVENT)
- D = DESIGN POINT DESIGNATION

Existing Condition Hydrology Summary Table

5724 Bueno Drive
Fort Collins, CO

Design Point	Basins	Area (ac)	%Imp	C_2	C_{100}	Q_2 (cfs)	Q_{100} (cfs)
1	E1	0.934	47.1%	0.52	0.65	1.08	4.86
2	E2	0.032	1.8%	0.14	0.17	0.01	0.05

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE

CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY: _____ STORMWATER UTILITY _____ DATE

CHECKED BY: _____ PARKS AND RECREATION _____ DATE

CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE

CHECKED BY: _____ LIGHT AND POWER _____ DATE

CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Futhermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 Drawn B.R.B.
Field Book ____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: HISTORIC DRAINAGE PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 1 NO. OF SHEETS 1

May 21, 2019 - 1:58pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\Existing Drainage.dwg Brent

Request for Modification of Standard LUC Section 3.2.1 (E) (4)

Project No. PDP 190004

City of Fort Collins Planning
281 North College Avenue
Ft. Collins, Colorado 80524
Attn: Pete Wray, Planning Services

Re: Lot 13, South 13 Subdivision (5724 Bueno Drive); Fort Collins, Colorado
Request for Modification of Section 3.2.1 (E) (4) (b) of the Land Use Code

Background

The adjacent lot to the South of the subject property has an existing parking lot at its North boundary. From the adjacent parking lot, there is a steep slope running North down to the South boundary of lot 13 and the proposed parallel parking space #6. The Code requires a minimum of 5' landscape screen on this side boundary. See # 4 (b) below:

From Section 3.2.1 (E) (4) of LUC:

(4) Parking Lot Perimeter Landscaping. Parking lot perimeter landscaping (in the minimum setback areas required by Section 3.2.2(J) (Access, Circulation and Parking) shall meet the following minimum standards:
(a) Trees shall be provided at a ratio of one (1) tree per twenty-five (25) lineal feet along a public street and one (1) tree per forty (40) lineal feet along a side lot line parking setback area. Trees may be spaced irregularly in informal groupings or be uniformly spaced, as consistent with larger overall planting patterns and organization. Perimeter landscaping along a street may be located in and should be integrated with the streetscape in the street right-of-way.
(b) Screening. Parking lots with six (6) or more spaces shall be screened from abutting uses and from the street. Screening from residential uses shall consist of a fence or wall six (6) feet in height in combination with plant material and of sufficient opacity to block at least seventy-five (75) percent of light from vehicle headlights. Screening from the street and all nonresidential uses shall consist of a wall, fence, planter, earthen berm, plant material or a combination of such elements, each of which shall have a minimum height of thirty (30) inches*. Such screening shall extend a minimum of seventy (70) percent of the length of the street frontage of the parking lot and also seventy (70) percent of the length of any boundary of the parking lot that abuts any nonresidential use.* Openings in the required screening shall be permitted for such features as access ways or drainage ways. Where screening from the street is required, plans submitted for review shall include a graphic depiction of the parking lot screening as seen from the street. Plant material used for the required screening shall achieve required opacity in its winter seasonal condition within three (3) years of construction of the vehicular use area to be screened.

The required screening is not possible with the sudden change of grade at the South boundary. In addition, any screening in this location would be screening the proposed parking lot from the adjacent parking lot which is at a higher elevation.

The landscape plan does propose a tree and large shrub at the West end of parking space #6 in the limited space available.

Justification

The justification for this modification request is found in LUC Section 2.8.2 (H) (1) & (3):

(H)
Step 8 (Standards): Applicable, and the decision maker may grant a modification of standards only if it finds that the granting of the modification would not be detrimental to the public good, and that:
(1)
the plan as submitted will promote the general purpose of the standard for which the modification is requested equally well or better than would a plan which complies with the standard for which a modification is requested; or
(2)
the granting of a modification from the strict application of any standard would, without impairing the intent and purpose of this Land Use Code, substantially alleviate an existing, defined and described problem of city-wide concern or would result in a substantial benefit to the city by reason of the fact that the proposed project would substantially address an important community need specifically and expressly defined and described in the city's Comprehensive Plan or in an adopted policy, ordinance or resolution of the City Council, and the strict application of such a standard would render the project practically infeasible; or
(3)
by reason of exceptional physical conditions or other extraordinary and exceptional situations, unique to such property, including, but not limited to, physical conditions such as exceptional narrowness, shallowness or topography, or physical conditions which hinder the owner's ability to install side yard screening, the strict application of the standard sought to be modified would result in unusual and exceptional practical difficulties, or exceptional or undue hardship upon the owner of such property, provided that such difficulties or hardship are not caused by the act or omission of the applicant; or
(4)
the plan as submitted will not diverge from the standards of the Land Use Code that are authorized by this Division to be modified except in a nominal, inconsequential way when considered from the perspective of the entire development plan, and will continue to advance the purposes of the Land Use Code as contained in Section 1.2.2.
Any finding made under subparagraph (1), (2), (3) or (4) above shall be supported by specific findings showing how the plan, as submitted, meets the requirements and criteria of said subparagraph (1), (2), (3) or (4).

Approval of This Request

In our opinion, the proposed plan for which the modification is requested will provide a product that is equal or better than a plan which complies with the standard (1).
In addition, the physical conditions described above would present practical difficulties or hardship to meet the Code requirement. (4) The approval of this request for modification shall have no impact on the general health, safety and welfare of the general public.

Please call with any questions. Thank you,

Tim Briggs, RLA
Site Design LLC
970-217-9169

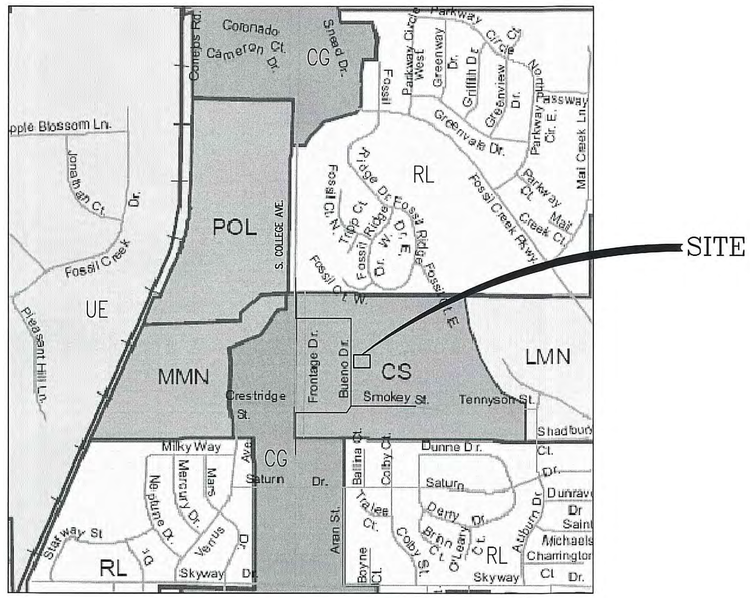
PROJECT DEVELOPMENT PLAN

LOT 13-A, AMENDED LOTS 13-16, SOUTH 13 SUBDIVISION

(5724 BUENO DRIVE)
FORT COLLINS, COLORADO

SITE PLAN NOTES

1. The project shall be constructed in accordance with the final plans. Amendments to the plans must be reviewed and approved by the City prior to the implementation of any changes to the plans.
2. Refer to Final Utility Plans for exact locations and construction information for storm drainage structures, utility mains and services, proposed topography, street improvements.
3. Refer to the Subdivision Plat and Utility Plans for exact locations, areas and dimensions of all easements, lots, tracts, streets, walks and other survey information.
4. All rooftop and ground mounted mechanical equipment must be screened from view from adjacent property and public streets. In cases where building parapets do not accomplish sufficient screening, then free-standing screen walls matching the predominant color of the building shall be constructed. Other minor equipment such as conduit, meters and plumbing vents shall be screened or painted to match surrounding building surfaces.
5. All construction with this development plan must be completed in one phase unless a phasing plan is shown with these plans.
6. All exterior lighting provided shall comply with the foot-candle requirements in Section 3.2.4 of the Land Use Code and shall use a concealed, fully shielded light source with sharp cut-off capability so as to minimize up-light, spill light, glare and unnecessary diffusion.
7. Signage and addressing are not permitted with this planning document and must be approved by separate City permit prior to construction. Signs must comply with City Sign Code unless a specific variance is granted by the City.
8. Fire hydrants must meet or exceed Poudre Fire Authority Standards. All buildings must provide an approved fire extinguishing system.
9. All bike racks provided must be permanently anchored to concrete and not interfere with landscaping and walkways.
10. All sidewalks and ramps must conform to City standards. Accessible ramps must be provided at all street and drive intersections and at all designated accessible parking spaces. Accessible parking spaces must slope no more than 1:48 in any direction. All accessible routes must slope no more than 1:20 in direction of travel and with no more than 1:48 cross slope.
11. Common open space areas and landscaping within Right-of-Ways, street medians, and traffic circles adjacent to common open space areas are required to be maintained by a Property Owners' Association. The Property Owners' Association is responsible for snow removal on all adjacent street sidewalks and sidewalks in common open space areas.
12. Design and installation of all parkway/tree lawn and median areas in the right-of-way shall be in accordance with City Standards. Unless otherwise agreed to by the City with the final plans, all ongoing maintenance of such areas is the responsibility of the owner/developer.
13. Snow removal is the responsibility of the commercial property owner.
14. Private conditions, covenants, and restrictions (CC&R's), or any other private restrictive covenant imposed on landowners within the development, may not be created or enforced having the effect of prohibiting or limiting the installation of xeriscape landscaping, solar/photo-voltaic collectors (if mounted flush upon any established roof line), clothes lines (if located in back yards), odor controlled compost bins, or which have the erect of requiring that a portion of any individual lot be planted in turf grass.
15. Any damaged curb, gutter and sidewalk existing prior to construction, as well as streets, sidewalks, curbs and gutters, destroyed, damaged or removed due to construction of this prior, shall be replaced or restored to City of Fort Collins Standards at the Developer's expense prior to the acceptance of completed improvements and/or prior to the issuance of the First Certificate of Occupancy.
16. Fire lane marking: A fire lane marking plan must be reviewed and approved by the Fire Official prior to the issuance of any Certificate of Occupancy. Where required by the Fire Code Official, approved signs or other approved notices that include the words No Parking Fire Lane shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.
17. Premise identification: an addressing plan is required to be reviewed and approved by the City and Poudre Fire Authority prior to the issuance of any Certificate of Occupancy. All buildings shall have address numbers, building numbers or approved building identification placed in a position that is plainly legible, visible from the street or road fronting the property, and posted with a minimum of six-inch numerals on a contracting background. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Addresses shall be posted on each structure and where otherwise needed to aid in wayfinding. Address numerals shall be posted on the front and back side of every unit. The full street name shall be posted on the opposite side of the building fronting the street.



VICINITY MAP

OWNER:	5724 BUENO LLC 2425 E CAMELBACK ROAD, SUITE 200 PHOENIX, ARIZONA PHONE: (970) 635-0836
DEVELOPER:	BARRY VAN EVEREN 938 PTARMIGAN RUN LOVELAND, COLORADO 80538 PHONE: (970) 635-0836
CIVIL ENGINEER:	SHEAR ENGINEERING CORPORATION 4836 SOUTH COLLEGE AVENUE, SUITE 12 FORT COLLINS, COLORADO 80525 PHONE: (970) 226-5334
SURVEYOR:	PLS CORPORATION 532 WEST 66TH STREET LOVELAND, COLORADO 80538 PHONE: (970) 669-2100
GEOTECHNICAL ENGINEER:	EARTH ENGINEERING COMPANY, LLC 4396 GREENFIELD DRIVE WINDSOR, COLORADO 80550 PHONE: (970) 545-3908

LAND USE CHART
LEGAL DESCRIPTION: LOT 13-A, AMENDED LOTS 13-16, SOUTH 13 SUBDIVISION PARCEL NUMBER: 9612231001
ZONE DISTRICT: C-S; SERVICE COMMERCIAL DISTRICT
PROPOSED USES:
Commercial/Retail Uses: 1. Personal and business service shops. 2. Retail stores with vehicle servicing. 3. Vehicle minor repair, servicing and maintenance establishments. 4. Major vehicle repair, servicing and maintenance establishments. 5. Recreational uses. 6. Plumbing, electrical and carpenter shops. 7. Microbrewery/distillery/winery. 8. Music studios. 9. Equipment rental establishment (without outdoor storage). **Industrial Uses:** 1. Warehouses if located at least two hundred (200) feet from North College Avenue or one hundred fifty (150) feet from South College Avenue. 2. Light industrial uses. 3. Research Laboratories. 4. Workshop and custom small industry uses. 5. Wholesale distribution facilities if located at least two hundred (200) feet from North College Avenue or one hundred fifty (150) feet from South College Avenue. 6. Small-scale and medium-scale solar energy systems. 7. Medical marijuana option premises cultivation operations. 8. Medical marijuana research and development cultivation. 9. Medical marijuana infused product manufactures. 10. Facility for medical marijuana research development cultivation. 11. Medical marijuana testing facility. 12. Retail marijuana product manufacturing facility. 13. Retail marijuana testing facility. 14. Retail marijuana cultivation facility.

AREA COVERAGE: GROSS			
	SQUARE FEET	ACRES	PERCENTAGE
BUILDING COVERAGE:	6,000.00 SF	0.13	38.94%
DRIVES & PARKING COVERAGE:	3,608.74 SF	0.08	23.41%
OPEN SPACE & LANDSCAPE:	4,828.41 SF	0.11	31.34%
WALKS	759.67 SF	0.02	4.93%
CONCRETE PADS	213.18 SF	0.01	1.38%
HARDSCAPE TOTAL:	972.85 SF	0.03	6.31%
TOTAL GROSS COVERAGE:	15,410 SF	0.35	100%

NET			
	SQUARE FEET	ACRES	PERCENTAGE
EXISTING BUILDING COVERAGE:	6,000.00 SF	0.13	38.94%
DRIVES & PARKING COVERAGE:	3,608.74 SF	0.08	23.41%
OPEN SPACE & LANDSCAPE:	4,828.41 SF	0.11	31.34%
HARDSCAPE:	972.85 SF	0.03	6.31%
TOTAL NET COVERAGE:	15,410 SF	0.35	100%

PARKING			
	PROVIDED	HC	REQUIRED
PARKING STALLS	5	1	6
OFF-SITE BUENO DR. PARKING STALLS	3		

BICYCLE PARKING:			
	PROVIDED		REQUIRED
FIXED COVERED BICYCLE SPACES	4		3

INDEX OF SHEETS

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO

ON THIS _____ DAY OF _____, 20_____

_____
DIRECTOR SIGNATURE

OWNER'S CERTIFICATE

THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE THE LAWFUL OWNERS OF THE REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN.

_____ _____
OWNER SIGNATURE DATE

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

THIS _____ DAY OF _____ A.D., 20_____ BY

_____
PRINT NAME

AS_____

MY COMMISSION EXPIRES:_____

WITNESS MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC ADDRESS

REVISIONS
Date _____ By _____ Description _____
Date _____ By _____ Description _____
Date _____ By _____ Description _____

Date APRIL 2019 Drawn D.M.C. / B.R.B.
Field Book _____ Checked B.W.S.
Scale 1" = 1' Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: COVER SHEET
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 1

NO. OF SHEETS 7

Apr 10, 2019 - 9:42am Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft. Collins\Civil\dwg\501 PDP Cover Sheet.dwg Brent

LOT 37

LOT 38

LOT 39

EXISTING BUILDING

LOT 12

EXIST. 30' ROW

EXIST. 30' ROW

BUENO DRIVE

9' UTILITY ESMT.

6' ROW TO BE DEDICATED

FIRE RISER CLOSET

COVERED BIKE PARKING FOR FOUR BIKES

14'

UNIT–C
1627.50 SF

UNIT–B
1627.50 SF

UNIT–A
2745.00 SF

LOT 13–A

10'

20'

BT

12' O.H. DOOR

12' O.H. DOOR

12' O.H. DOOR

5' WALK

7' WALK

5' WALK

9'

VAN

16'
TWO 8' X 17'
1 SPACE

27'
9' X 17'
3 SPACES

1 SPACE
9' X 17'

24' DRIVE

1 SPACE
8.5' X 21'

3' WALK

TRASH RECYCLE
7.50'
14.00'

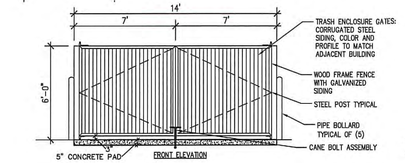
10'

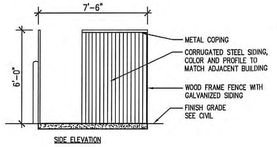
9' UTILITY ESMT.

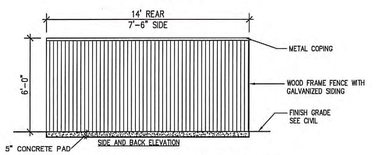
6' ROW TO BE DEDICATED

LOT 15–A

EXISTING ASPHALT PARKING AREA

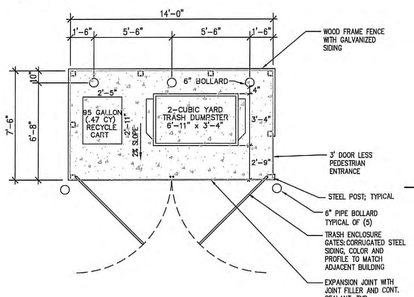






TRASH ENCLOSURE ELEVATION

SCALE: NTS



TRASH & RECYCLING ENCLOSURE PLAN

SCALE: NTS

GRAPHIC SCALE

10 0 5 10 20

1 inch = 10 ft.

LEGEND

- 4971 EXISTING 1' CONTOUR
- 4970 EXISTING 5' CONTOUR
- 4971 PROPOSED 1' CONTOUR
- 4970 PROPOSED 5' CONTOUR
- W EXIST. WATER LINE
- W WATERLINE W/T.B.,TEE,VALVE,SERVICE
- SS EXIST. SEWER LINE
- S SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
- EXIST.FIRE HYDRANT
- FIRE HYDRANT ASSEMBLY
- BORING HOLE LOCATION
- STREET LIGHTS
- IRRIGATION VAULT
- C CABLE PEDESTAL
- (DS) EXISTING DOWN SPOUTS
- OHP EXISTING OVERHEAD POWER W/POLE
- FO EXISTING FIBER OPTIC LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE & TRANSFORMER
- BT T EXISTING BURIED TELEPHONE & PEDESTAL
- E PROPOSED ELECTRIC LINE & TRANSFORMER

NOTE: Symbols shown in this Legend may or may not have been used for the preparation of this project.

REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date APRIL 2019 Drawn B.R.B. / D.M.C.
Field Book ____ Checked B.W.S.
Scale 1" = 10' Approved B.W.S.

CLIENT
BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE
SITE PLAN
LOT 13–A, AMENDED LOTS 13 – 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 2

NO. OF SHEETS 7

GENERAL LANDSCAPE NOTES

1. PLANT QUALITY: ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE – FREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. ALL TREES SHALL BE BALL AND BURLAP OR EQUIVALENT.
2. IRRIGATION: ALL LANDSCAPE AREAS WITHIN THE SITE INCLUDING TURF, SHRUB BEDS AND TREE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION PLAN MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS WATER UTILITIES DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. ALL TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN NATIVE SEED AREAS, SHALL BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR WITH AN ACCEPTABLE ALTERNATIVE APPROVED BY THE CITY WITH THE IRRIGATION PLANS. THE IRRIGATION SYSTEM SHALL BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL. IRRIGATION SYSTEMS TO BE TURNED OVER TO THE CITY PARKS DEPARTMENT FOR MAINTENANCE MUST BE APPROVED BY THE PARKS MANAGER AND MEET PARKS IRRIGATION STANDARDS. DESIGN REVIEW SHALL OCCUR DURING UTILITIES DEPARTMENT IRRIGATION REVIEW PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND CONSTRUCTION OBSERVATION AND INSPECTION BY PARKS SHALL BE INCORPORATED INTO THE CONSTRUCTION PROCESS.
3. TOPSOIL: TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
4. SOIL AMENDMENTS: SOIL AMENDMENTS SHALL BE PROVIDED AND DOCUMENTED
IN ACCORDANCE WITH CITY CODE SECTION 12-132. THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOUGHLY LOOSENED TO A DEPTH OF NOT LESS THAN EIGHT(8) INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST SIX(6) INCHES BY TILLING, DISCING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST THREE (3) CUBIC YARDS OF SOIL AMENDMENT PER ONE THOUSAND (1,000) SQUARE FEET OF LANDSCAPE AREA. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION MUST BE SUBMITTED TO THE CITY THAT ALL PLANTED AREAS, OR AREAS TO BE PLANTED, HAVE BEEN THOROUGHLY LOOSENED AND THE SOIL AMENDED, CONSISTENT WITH THE REQUIREMENTS SET FORTH IN SECTION 12-132.
5. INSTALLATION AND GUARANTEE: ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND HORTICULTURAL PRACTICES IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH. ALL LANDSCAPING FOR EACH PHASE MUST BE EITHER INSTALLED OR THE INSTALLATION MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE MATERIALS AND LABOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDING IN SUCH PHASE.
6. MAINTENANCE: TREES AND VEGETATION, IRRIGATION SYSTEMS, FENCES, WALLS
AND OTHER LANDSCAPE ELEMENTS WITH THESE FINAL PLANS SHALL BE CONSIDERED AS ELEMENTS OF THE PROJECT IN THE SAME MANNER AS PARKING, BUILDING MATERIALS AND OTHER SITE DETAILS. THE APPLICANT, LANDOWNER OR SUCCESSORS IN INTEREST SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL LANDSCAPING ELEMENTS IN GOOD CONDITION. ALL LANDSCAPING SHALL BE MAINTAINED FREE FROM DISEASE, PESTS, WEEDS AND LITTER, AND ALL LANDSCAPE STRUCTURES SUCH AS FENCES AND WALLS SHALL BE REPAIRED AND REPLACED PERIODICALLY TO MAINTAIN A STRUCTURALLY SOUND CONDITION.
7. REPLACEMENT: ANY LANDSCAPE ELEMENT THAT DIES, OR IS OTHERWISE REMOVED, SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS.
8. THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITIES:
40 FEET BETWEEN CANOPY TREES AND STREET LIGHTS
15 FEET BETWEEN ORNAMENTAL TREES AND STREETLIGHTS
10 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER MAIN LINES
6 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER SERVICE LINES.
4 FEET BETWEEN SHRUBS AND PUBLIC WATER AND SANITARY AND STORM SEWER LINES
4 FEET BETWEEN TREES AND GAS LINES
9. ALL STREET TREES SHALL BE PLACED A MINIMUM EIGHT (8) FEET AWAY FROM THE EDGES OF DRIVEWAYS AND ALLEYS PER LUC 3.2.1(D)(2)(a).
10. PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE SIGHT
DISTANCE CRITERIA AS SPECIFIED BY THE CITY OF FORT COLLINS. NO STRUCTURES OR LANDSCAPE ELEMENTS GREATER THAN 24" SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENTS WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDED THAT THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT MUST BE NOT MORE THAN 42" IN HEIGHT AND OF AN OPEN DESIGN.
11. THE FINAL LANDSCAPE PLAN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, AND OTHER DEVELOPMENT IMPROVEMENTS DO NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
12. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION -- AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT MUST BE CONSISTENT WITH THE APPROVED PLANS. IN THE EVENT OF CONFLICT WITH THE QUANTITIES INCLUDED IN THE PLANT LIST, SPECIES AND QUANTITIES ILLUSTRATED SHALL BE PROVIDED. ALL CHANGES OF PLANT SPECIES AND LOCATION MUST HAVE WRITTEN APPROVAL BY THE CITY PRIOR TO INSTALLATION.
13. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.

LANDSCAPE NOTES

1. SOIL PREPARATION - ALL PLANTED AREAS (EXCEPT NATIVE SEEDING) SHALL BE AMENDED WITH 3 CUBIC YARDS OF COMPOST PER 1000 SQUARE FEET. THESE AREAS SHALL BE RIPPED AND ROTOTILLED TO A DEPTH OF 6-8". RESTORE SOIL TO ORIGINAL GRADE AS SHOWN ON THE GRADING PLAN AFTER SOIL PREPARATION IS COMPLETED.
2. EDGING - ALL PLANTING BEDS SHALL BE EDGED WITH ROLLED TOP STEEL EDGING. EDGING SHALL BE HELD IN PLACE WITH STEEL PINS INSTALLED APPROXIMATELY 3' APART.
3. SOD - AREAS INDICATED AS IRRIGATED TURF SHALL BE SODDED WITH A DROUGHT TOLERANT BLUEGRASS BLEND.
4. SEEDING - SEE SEEDING NOTES ON THIS SHEET.
5. WEED BARRIER - ALL SHRUB BEDS & GRAVEL AREAS SHALL RECEIVE DEWITT PRO-5 WEED BARRIER FABRIC OR APPROVED EQUIVALENT INSTALLED UNDER GRAVEL. OVERLAP SEAMS A MINIMUM OF 6". AT OVERLAP LOCATIONS AND EDGES OF CURBS, WALLS, STRUCTURES, PAVEMENTS, AND EDGING, WEED BARRIER SHALL BE SECURED WITH 11-GAUGE, 6-INCH LONG STAPLES AT 18 INCHES O.C. AT ALL EDGES.
6. TREE RINGS - ALL TREES IN LAWN AND SEEDED AREAS SHALL HAVE A 4-FOOT DIAMETER RING OF 4" DEEP SHREDDED REDWOOD MULCH OVER WEED BARRIER FABRIC.
7. ROCK MULCH - ALL SHRUB BEDS AND GRAVEL AREAS SHALL RECEIVE A 4" LAYER OF 1 1/2" TAN RIVER ROCK MULCH.
8. ANY SUBSTITUTE PLANT MATERIAL OR LANDSCAPE MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE. ALL PLANT MATERIAL MUST BE FIRST QUALITY AND SHALL COMPLY WITH THE MOST RECENT STANDARDS FOR NURSERY STOCK AS APPROVED BY THE AMERICAN STANDARDS INSTITUTE AND SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
9. PLANTING - FOLLOW PLANTING DETAILS CAREFULLY. ALL PLANTS SHALL BE PRUNED AS NEEDED IMMEDIATELY AFTER INSTALLATION TO PROMOTE VIGOROUS GROWTH. CONTRACTOR SHALL REMOVE TREE STAKING AND WRAP WITHIN 18 MONTHS OF INSTALLATION.
10. CONTRACTOR TO REVIEW AND VERIFY SITE CONDITIONS COMPARED TO PLANS. THESE ARE NOT ENGINEERED DRAWINGS, AND FIELD ADJUSTMENTS MAY BE NECESSARY DUE TO ACTUAL UTILITY LOCATIONS, STRUCTURES, OBJECTS OR CONDITIONS THAT ARE DIFFERENT THAN SHOWN ON THESE PLANS.
11. HAVE ALL UTILITIES LOCATED BEFORE CONSTRUCTION. COORDINATE ALL WORK WITH OTHER TRADES.

TREE PROTECTION NOTES

NO TREES SHALL BE REMOVED DURING THE SONGBIRD NESTING SEASON (FEBRUARY 1 TO JULY 31) WITHOUT FIRST HAVING A PROFESSIONAL ECOLOGIST OR WILDLIFE BIOLOGIST COMPLETE A NESTING SURVEY TO IDENTIFY ANY ACTIVE NESTS EXISTING ON THE PROJECT SITE. THE SURVEY SHALL BE SENT TO THE CITY ENVIRONMENTAL PLANNER. IF ACTIVE NESTS ARE FOUND, THE CITY WILL COORDINATE WITH RELEVANT STATE AND FEDERAL REPRESENTATIVES TO DETERMINE WHETHER ADDITIONAL RESTRICTIONS ON TREE REMOVAL AND CONSTRUCTION APPLY.

ALL PROTECTED EXISTING TREES SHALL BE PRUNED TO THE CITY OF FORT COLLINS FORESTRY STANDARDS. TREE PRUNING AND REMOVAL SHALL BE PERFORMED BY A BUSINESS THAT HOLDS A CURRENT CITY OF FORT COLLINS ARBORIST LICENSE WHERE REQUIRED BY CODE.

NATIVE SEEDING NOTES

AREAS DESIGNATED AS NATIVE GRASS SEED SHALL BE DRILLED WITH NATIVE PRAIRIE MIX @ 3# /1000 SF FROM PAWNEE BUTTES SEED CO. 970-356-7002.GROUND OF SEEDED AREA SHALL BE CULTIVATED LIGHTLY THEN SEEDED IN TWO DIRECTIONS TO DISTRIBUTE THE SEED EVENLY OVER ENTIRE AREA. AFTER SEEDING, THE AREA SHALL BE CRIMPED WITH STRAW AND PROVIDED WITH TEMPORARY IRRIGATION UNTIL GRASS IS ESTABLISHED. CONTRACTOR SHOULD MONITOR SEEDED AREA FOR PROPER IRRIGATION, EROSION CONTROL AND GERMINATION, RESEEDING AS NEEDED TO OBTAIN EVEN COVERAGE OF GRASS. CONTRACTOR TO REMOVE TEMPORARY IRRIGATION SYSTEM AFTER GRASSES ARE WELL ESTABLISHED.

NATIVE PRAIRIE MIX CONTENTS
(29%) BLUE GRAMA
(10%) BUFFALOGRASS
(20%) GREEN NEEDLEGRASS
(20%) SIDEOATS GRAMA
(20%) WESTERN WHEATGRASS
(1%) SAND DROPSEED

a. IF CHANGES ARE TO BE MADE TO SEED MIX BASED ON SITE CONDITIONS APPROVAL MUST BE PROVIDED BY CITY ENVIRONMENTAL PLANNER. SEED SHALL CONTAIN NAME; LOT NUMBER; NET WEIGHT; AND PERCENTAGES OF PURITY, GERMINATION, HARD SEED, AND MAXIMUM WEED SEED CONTENT CLEARLY MARKED.
b. PRIOR TO SEEDING SOIL WILL BE AERATED AND SOIL AMENDMENTS ADDED AS NECESSARY. APPROPRIATE NATIVE SEEDING EQUIPMENT WILL BE USED TO SEED. STANDARD TURF SEEDING EQUIPMENT SHALL NOT BE USED.
c. DRILL SEED APPLICATION RECOMMENDED PER SPECIFIED APPLICATION RATE TO NO MORE THAN 1 INCH DEPTH. FOR
BROADCAST SEEDING INSTEAD OF DRILL SEEDING METHOD _ DOUBLE SPECIFICIED APPLICATION RATE AND HAND RAKE INTO SOIL TO NO MORE THAN 1 INCH DEPTH.
d. TREAT NATIVE SEED MIX AREA PRIOR TO INSTALLATION OF SEED WITH APPROPRIATE HERBICIDE TO HELP CONTROL HERBACEOUS WEED SPECIES. ONLY AFTER APPROPRIATE TIME PERIOD THEN APPLY NATIVE SEED AS CALLED FOR ON APPROVED PLANS.
e. THE APPROVED SEED MIX AREA IS INTENDED TO BE MAINTAINED IN A NATURAL_LIKE LANDSCAPE AESTHETIC. IF AND WHEN MOWING OCCURS IN NATIVE GRASS SEED MIX AREAS DO NOT MOW LOWER THAN 3 INCHES IN HEIGHT TO AVOID INHIBITING NATIVE PLANT GROWTH.
f. NATIVE GRASSES SHALL BE CONSIDERED WELL ESTABLISHED WHEN THE ENTIRE SEEDED AREA CONTAINS NO BARE SPOTS LARGER THAN ONE SQUARE FOOT, TOTAL COVER OF GRASS, FORB (MINUS NOXIOUS WEEDS), SHRUB AND TREE SPECIES IS GREATER THAN OR EQUAL TO 80% WITH NOXIOUS WEEDS 10% OR LESS OF TOTAL COVER AND/OR THE AREA IS APPROVED AS ESTABLISHED BY CITY OF FORT COLLINS PLANNING SERVICES STAFF.
g. PROVIDE TEMPORARY IRRIGATION UNTIL THE GRASSES ARE WELL ESTABLISHED. GRASSES SHOULD BE WEENED FROM IRRIGATION ONCE SEED GERMINATES OTHERWISE GRASSES WILL BECOME DEPENDENT ON IRRIGATION.
h. MOW AT THE END OF THE GROWING SEASON, AND NOT MOWING MORE THAN TWICE PER YEAR OR DURING HOT AND DRY CONDITIONS.
i. SEEDING SHOULD OCCUR. LATE OCTOBER THROUGH EARLY MAY.
j. WEED CONTROL IS IMPORTANT DURING ESTABLISHMENT. SPOT SPRAY WEEDS WITH AN HERBICIDE.
k. DO NOT FERTILIZE PRIOR TO SEEDING.

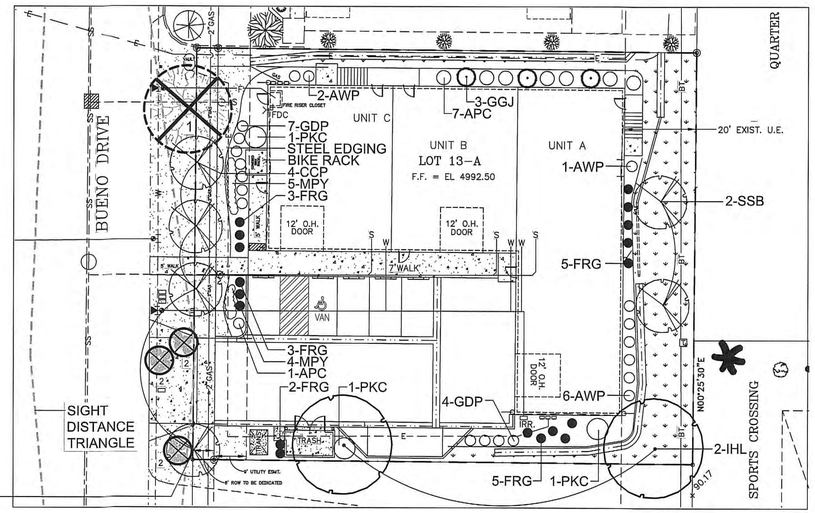
PLANT LIST

SYMBOL	NUMBER	MITIGATION	NAME	SIZE	TYPE
DECIDUOUS TREES					
IHL	2		IMPERIAL HONEYLOCUST Gleditsia triacanthos inermis 'Imperial'	2" cal.	B&B
ORNAMENTAL TREES					
CCP	3	M(1)	CHANTICLEER PEAR Pyrus calleryana 'Chanticleer'	2.5" cal.	B&B
SSB	2		SASKATOON SERVICEBERRY Amelanchier alnifolia	1.5" cal.	B&B
EVERGREEN TREES					
GGJ	3		GRAY GLEAM JUNIPER Juniperus scopulorum 'Gray Gleam'	6'	B&B
SHRUBS					
APC	8		ALPINE CURRANT Ribes alpinum	5 gal.	container
GDP	11		GOLD DROP POTENTILLA Potentilla fruticosa 'Gold Drop'	5 gal.	container
PKC	3		PEKING COTONEASTER Cotoneaster lucidus	5 gal.	container
AWP	8		ABOTTSWOOD POTENTILLA Potentilla furticosa 'Abottswood'	5 gal.	container
ORNAMENTAL GRASSES					
FRG	18		FEATHER REED GRASS Calamagrostis acutiflora 'Karl Foerster'	5 gal.	container
PERENNIALS					
MPY	9		MIXED PASTELS YARROW Achillea 'Summer Pastels'	4 in.	container

CONTRACTOR TO VERIFY ALL PLANT COUNTS

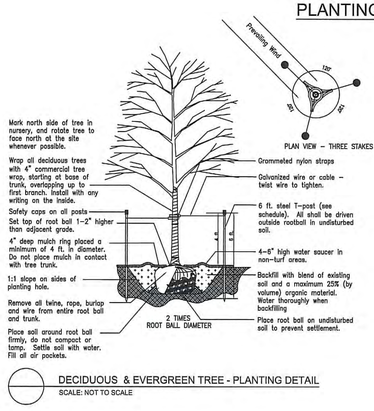
SYMBOLS

- DECIDUOUS TREES
- DECIDUOUS SHRUBS
- EVERGREEN SHRUBS
- EVERGREEN TREES
- ORNAMENTAL GRASSES
- ORNAMENTAL TREES
- PERENNIALS / GROUNDCOVERS
- EXISTING TREE TO BE REMOVED AND MITIGATED - MITIGATION #
- NON IRRIGATED NATIVE SEEDING
- EXISTING TREES TO BE REMOVED NO MITIGATION - MITIGATION #
- IRRIGATED TURF

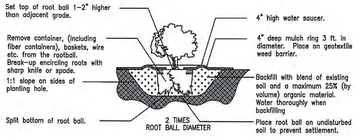


NOTE: ORNAMENTAL STREET TREES PROPOSED DUE TO RESTRICTED SPACE ON WEST SIDE OF SITE.

PLANTING DETAILS



DECIDUOUS & EVERGREEN TREE - PLANTING DETAIL
SCALE: NOT TO SCALE



Placement Notes:
Set Shrub plumb. Space plants, and place for best effect.

Pruning Notes:
Do not heavily prune the shrub at planting. Prune only dead or broken branches. If form is compromised by pruning, replace shrub.

SHRUBS - PLANTING DETAIL
SCALE: NOT TO SCALE

TREE INVENTORY AND MITIGATION

Tree Inventory and Mitigation Lot 13A - 5724 Bueno Drive (Tim Briggs - Site Design LLC)

#	Species	DBH	Condition	Mitigation Value	Status	Notes	Reason for Removal
1	Willow	38"	Poor	2.5 mitigation trees	REMOVE	City Forestry recommends removal due to poor health	
2	Siberian Elm	under 11"	Poor	0 mitigation trees	REMOVE	three tree clusters - seven stems	

STREET TREE PERMIT NOTE

A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC/RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

AREAS FOR LANDSCAPE WATER USAGE

HIGH WATER USAGE (IRRIGATED TURF)	2,076	SF
MEDIUM WATER USAGE (DRIP IRRIGATED BEDS)	1,702	SF
LOW WATER USAGE (NON-IRRIGATED NATIVE GRASSES)	2,078	SF

NOTE: ANY REQUIRED LANDSCAPE IRRIGATION SYSTEM PLANS MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

STREET TREE NOTES

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.
2. CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF EACH PHASE OF THE DEVELOPMENT. ALL MUST BE INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL OF EACH PHASE.
3. STREET LANDSCAPING, INCLUDING STREET TREES, SHALL BE SELECTED IN ACCORDANCE WITH ALL CITY CODES AND POLICIES. ALL TREE PRUNING AND REMOVAL WORKS SHALL BE PERFORMED BY A CITY OF FORT COLLINS LICENSED ARBORS WHERE REQUIRED BY CODE.STREET TREES SHALL BE SUPPLIED AND PLANTED BY THE DEVELOPER USING A QUALIFIED LANDSCAPE CONTRACTOR.
4. THE DEVELOPER SHALL REPLACE DEAD OR DYING STREET TREES AFTER PLANTING UNTIL FINAL MAINTENANCE INSPECTION AND ACCEPTANCE BY THE CITY OF FORT COLLINS FORESTRY DIVISION. ALL STREET TREES IN THE PROJECT MUST BE ESTABLISHED, WITH AN APPROVED SPECIES AND OF ACCEPTABLE CONDITION PRIOR TO ACCEPTANCE
5. SUBJECT TO APPROVAL BY THE CITY FORESTER -- STREET TREE LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE DRIVEWAY LOCATIONS, UTILITY SEPARATIONS BETWEEN TREES, STREET SIGNS AND STREET LIGHTS. STREET TREES TO BE CENTERED IN THE MIDDLE OF THE LOT TO THE EXTENT FEASIBLE. QUANTITIES SHOWN ON PLAN MUST BE INSTALLED UNLESS A REDUCTION IS APPROVED BY THE CITY TO MEET SEPARATION STANDARDS.

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SOUTH 13, LOT 13A
5724 BUENO DRIVE
FORT COLLINS, COLORADO

Preliminary
Not for Construction

Landscape
Plan

Date: 2-19-19
Revised: 4-10-19
Revised:
Revised:
Scale: 1" = 20'

Sheet:
3

IRRIGATION NOTES

1. SYSTEM DESIGN ASSUMES 65 PSI AND 15 GPM AT POINT OF CONNECTION. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
2. HAVE ALL UTILITIES LOCATED BEFORE CONSTRUCTION. COORDINATE ALL WORK WITH OTHER TRADES.
3. DRAWINGS ARE DIAGRAMMATIC. INSTALL ALL IRRIGATION COMPONENTS IN LANDSCAPED AREAS WHENEVER POSSIBLE. AVOID CONFLICTS WITH PLANT MATERIALS, ARCHITECTURAL FEATURES AND OBSTRUCTIONS ON SITE.
4. USE ONLY STANDARD TEE AND ELBOW FITTINGS - NO CROSS FITTINGS.
5. INSTALL BACKFLOW PREVENTION DEVICE PER LOCAL CODE.
6. USE 14 GAUGE DIRECT BURY SINGLE CONDUCTOR CONTROL WIRES. PROVIDE 2 ADDITIONAL CONTROL WIRES FROM CONTROLLER TO END OF MAINLINE FOR FUTURE EXPANSION.
7. ALL SHRUB AREAS SHALL BE IRRIGATED USING DRIP IRRIGATION. TREES SHALL BE IRRIGATED WITH 5 EMITTERS, AND 5 GALLON SHRUBS WITH 2 EMITTERS. PERENNIALS AND GROUNDCOVERS SHALL SHALL BE IRRIGATED WITH ONE EMITTER PER PLANT. EMITTERS SHALL BE 1 GALLON / HOUR.
8. A MASTER SHUT-OFF VALVE SHALL BE INSTALLED DOWNSTREAM OF THE BACKFLOW DEVICE TO SHUT OFF WATER TO THE SYSTEM WHEN NOT OPERATING.
9. IRRIGATION CONTROLLER SHALL BE "SMART" CONTROLLER, USING CLIMATE-BASED OR SOIL MOISTURE-BASED TECHNOLOGY, SELECTED FROM THE IRRIGATION ASSOCIATION'S CURRENT SMART WATER APPLICATION TECHNOLOGIES (SWAT) TESTED PRODUCTS LIST OR OTHER SIMILARLY TESTED PRODUCT LIST. CONTROLLERS SHALL BE INSTALLED AND PROGRAMMED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
10. A RAIN SENSOR SHALL BE INSTALLED ON IRRIGATION CONTROLLER AND INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
11. REMOTE CONTROL VALVES SHALL HAVE FLOW CONTROL.
12. COORDINATE FINAL LOCATION OF BACKFLOW PREVENTION DEVICE CONTROLLER AND RAIN SENSOR WITH GENERAL CONTRACTOR.
13. PROVIDE TEMPORARY IRRIGATION ON NATIVE SEEDING, UNTIL ESTABLISHED. SEE NATIVE SEEDING NOTES ON LANDSCAPE PLAN.

GENERAL NOTES

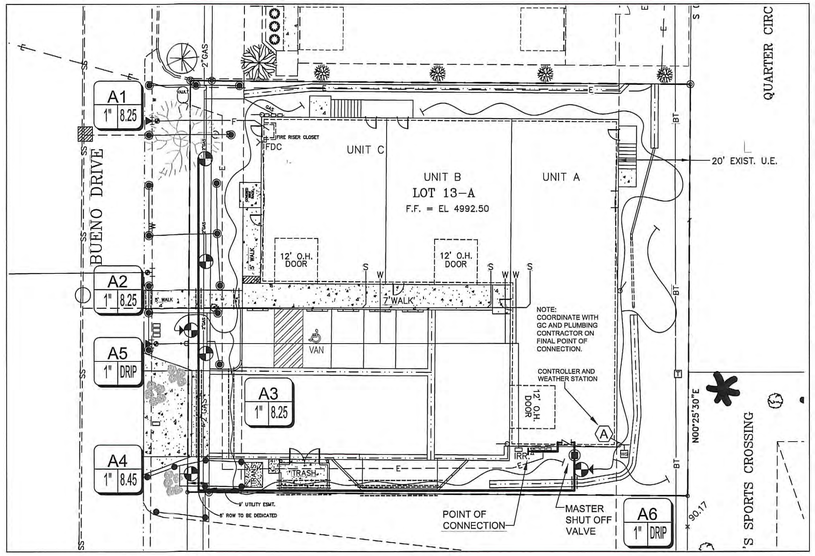
1. ANY FIELD ADJUSTMENT OR REDESIGN OF THIS IRRIGATION SYSTEM MUST CONFORM TO THE CITY OF FORT COLLINS IRRIGATION STANDARDS IN THE LAND USE CODE.
2. CONTRACTOR INSTALLING THE SYSTEM MUST PROVIDE FCU AND THE OWNER WITH "AS-BUILT" DRAWINGS AFTER INSTALLATION IS COMPLETE, INCLUDING UPDATED CHARTS WITH EXISTING FIELD CONDITIONS.
3. THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 65 PSI, AT A MINIMUM DISCHARGE OF 15 GPM AT THE 3/4" INCH POINT-OF-CONNECTION. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
4. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
5. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
6. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
7. ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
8. TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS AND ARCHITECTURAL FEATURES.
9. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.
10. PROVIDE TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT: TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES AND TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT AND REPAIR OF SPRINKLERS
11. SELECT NOZZLES FOR SPRAYHEADS AND ROTORS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
12. INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
13. IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN THE IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
14. INSTALL A MINIMUM OF TWO (2) APPROPRIATELY SIZED CONTROL WIRES AND ONE (1) COMMON WIRE FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE FOR USE AS SPARES IN CASE OF CONTROL WIRE FAILURE. CAP END OF WIRES WITH WATER-PROOF WIRE CONNECTOR. WIRE TERMINATIONS MUST BE LOCATED IN A VALVE BOX. IN ADDITION, COIL THREE (3) FEET OF WIRE IN VALVE BOX.
15. WITHIN SIX (6) WEEKS OF THE INSTALLATION OF NEW LANDSCAPING, THE IRRIGATION SYSTEM INSTALLER SHALL RESET THE SMART CONTROLLERS TO THE NORMAL SEASONAL WATERING SCHEDULE.

LEGEND

- SLEEVING: CLASS 200 PVC PIPE, 2 SIZES LARGER THAN ENCLOSED PIPE
- MAINLINE : 1" CLASS 200 PVC PIPE
- LATERAL PIPE TO SPRINKLERS: CLASS 200 PVC (1-INCH SIZE UNLESS OTHERWISE INDICATED)
- LATERAL PIPE TO EMITTERS: UV RADIATION RESISTANT POLYETHYLENE (1 INCH SIZE, ROUTING SHOWN IS DIAGRAMMATIC)
- UNCONNECTED PIPE CROSSING
- POINT-OF-CONNECTION (P.O.C.) ASSEMBLY
- 1" PRESSURE BACKFLOW PREVENTION DEVICE. CONFIRM LOCATION WITH GC FEBCO MODEL 765 OR APPROVED EQUIVALENT
- REMOTE CONTROL VALVE ASSEMBLY FOR DRIP LATERALS RAINBIRD XCZF 175 PRF IN 12" RECTAGULAR CARSON VALVE BOX
- REMOTE CONTROL VALVE RAINBIRD DVF IN 10" ROUND CARSON VALVE BOX
- POP-UP ROTOR SPRINKLER: RAIN BIRD 3500 W/ #1.5 NOZZLE
- POP-UP SPRAY SPRINKLER: RAIN BIRD 1804 W/ 12 SERIES NOZZLE
- GATE VALVE ASSEMBLY
- FLUSH CAP ASSEMBLY IN 6" ROUND CARSON VALVE BOX
- SMART CONTROLLER WITH WEATHER STATION (REQUIRED) RAIN BIRD ESP4SMTEI (SMART CONTROLLER) AND 1 ESPSM3 MODULE AND RAIN SENSOR RSD-BEx (7 ZONES TOTAL) CONFIRM LOCATION WITH GC OR OWNER'S REPRESENTATIVE PROVIDE SMART CONTROLLER DATA INPUT CHART AT CONTROLLER MOUNT RAIN SENSOR IN OPEN AREA TO RECEIVE WEATHER FROM ALL DIRECTIONS
- MASTER SHUT OFF VALVE RAINBIRD DVF 1" IN 10" ROUND CARSON VALVE BOX
- A1 / 1-1/2" / 47.0 — INDICATES CONTROLLER AND CONTROLLER STATION NUMBER; INDICATES LATERAL DISCHARGE IN GPM (EXCEPT IN DRIP ZONES); INDICATES REMOTE CONTROL VALVE SIZE IN INCHES

PRESSURE CALCULATION WORKSHEET

A.	Pressure available at point of connection	65	psi
B.	Pressure loss through the meter	- 4.8	psi
C.	Pressure loss through backflow prevention device	- 12	psi
D.	Pressure loss in mainline pipe from backflow prevention device to remote control valve	- 3	psi
E.	Pressure loss through remote control valve	- 4.2	psi
F.	Pressure loss in lateral pipe from remote control valve to most remote sprinkler	- 5	psi
G.	Elevation change from point-of-connection to most remote sprinkler (0.43 psi per foot of elevation): pressure loss	- ____	psi
	or pressure gain	+ ____	psi
H.	Miscellaneous losses through other valves, strainers, etc. (in some cases this will not be applicable)	- ____	psi
I.	Total possible pressure loss (add B through H)	- 29.0	psi
J.	Remaining pressure (subtract I from A)	36.0	psi
K.	Minimum pressure required at sprinkler	25	psi
L.	Difference (Subtract K from J. If the value is negative, a booster pump may be needed. If the value is more than +15 psi, pressure reduction may be necessary for this zone, and /or other zones.) * Pressure regulator provided at zone.	9.0	psi



ANNUAL WATER USE CHART

ZONE I.D.	IRRIGATED AREA (SF)	HYDROZONE	WATER USE (GAL. PER S.F.)	TOTAL WATER (GAL.)
A1	572	HIGH	17.3	9,900
A2	690	HIGH	14.3	9,900
A3	443	HIGH	22.3	9,900
A4	371	HIGH	20.4	2,535
A5	753	MED	1.91	1,440
A6	949	MED	1.47	1,400
TOTAL	3,778	——	AVG : 9.28	35,075

SMART CONTROLLER DATA INPUT CHART

ZONE I.D.	SPRINKLER TYPE	PRECIP RATE GAL / HR	PLANT MATERIAL TYPE	SOIL TYPE	SLOPE	MICRO-CLIMATE SUN / SHADE
A1	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A2	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A3	SPRAY	495	TURF	CLAY	NONE	SUNNY ALL DAY
A4	SPRAY	507	TURF	CLAY	NONE	SUNNY ALL DAY
A5	DRIP	72	TREES / SHRUBS	CLAY	NONE	SUNNY ALL DAY
A6	DRIP	70	TREES / SHRUBS	CLAY	NONE	SUNNY ALL DAY

0 20 40 60

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SOUTH 13, LOT 13A
5724 BUENO DRIVE
FORT COLLINS, COLORADO

Preliminary
Not for Construction

Irrigation Plan

Date: 2-19-19
Revised: 4-10-19
Revised:
Revised:
Scale: 1" = 20'

Sheet: 4

Schedule

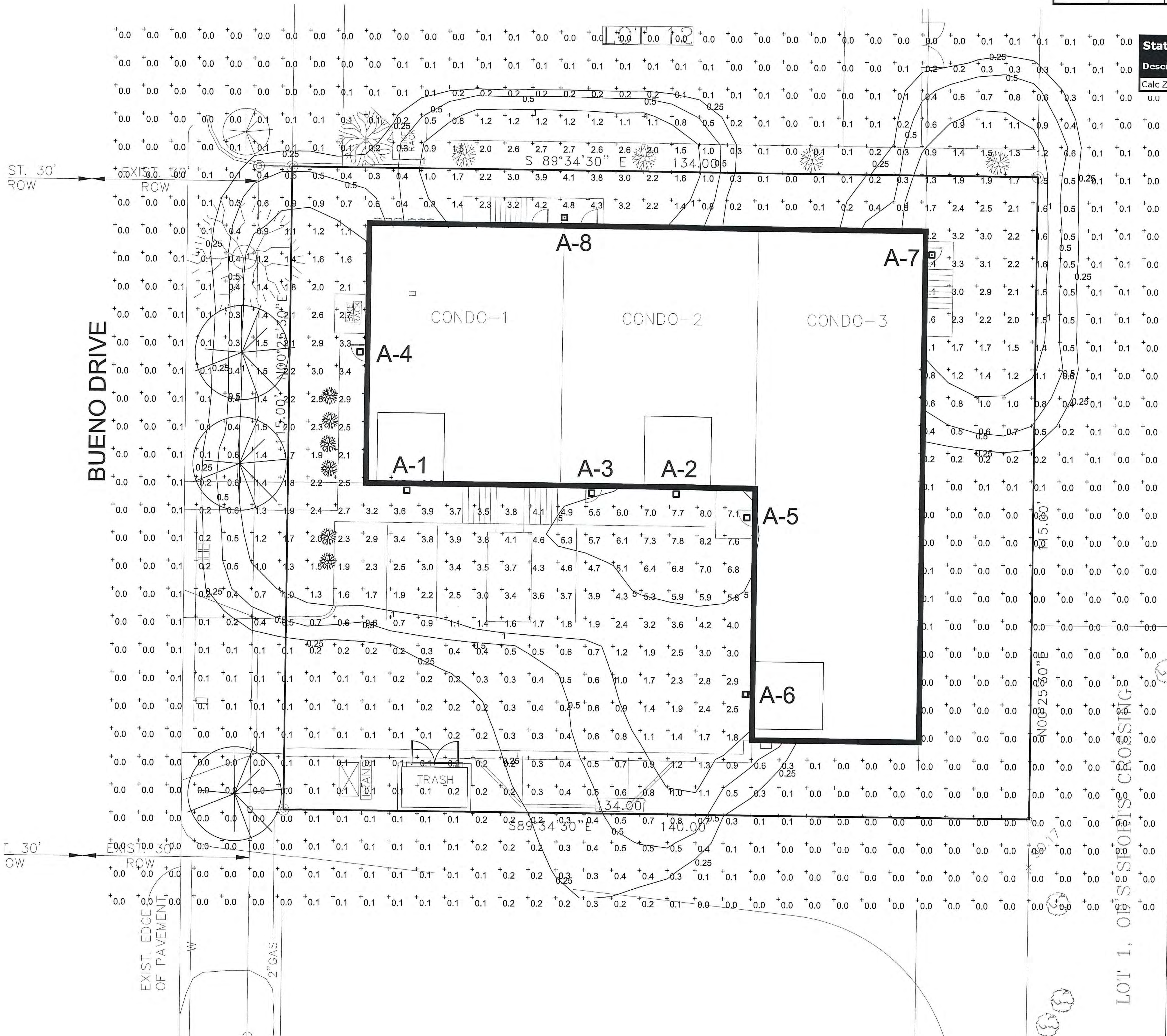
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage	Efficiency	Distribution
☐	A	8	Lithonia Lighting	OLW 31	Outdoor LED Wallpack with Type III optics	Nichia 219A 5000K	1	OLW_31.ies	3073	1	48.2	100%	TYPE III, MEDIUM, CUTOFF, BUG RATING: B1 - U1 - G1

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #4	+	0.8 fc	8.2 fc	0.0 fc	N/A	N/A

Luminaire Locations

		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	1027.30	942.64	12.00	12.00	180.00	0.00	1027.30	942.64	0.00
2	A	1075.54	942.13	12.00	12.00	180.00	0.00	1075.54	942.13	0.00
3	A	1060.43	942.24	12.00	12.00	180.00	0.00	1060.43	942.24	0.00
4	A	1019.06	966.56	12.00	12.00	270.00	0.00	1019.06	966.56	0.00
5	A	1088.85	937.24	12.00	12.00	270.00	0.00	1088.85	937.24	0.00
6	A	1088.35	905.60	12.00	12.00	284.22	21.31	1083.81	906.75	0.00
7	A	1120.68	984.40	12.00	12.00	90.00	0.00	1120.68	984.40	0.00
8	A	1054.96	990.17	10.00	10.00	0.00	0.00	1054.96	990.17	0.00



CS CONTRACTOR SELECT™

LITHONIA LIGHTING

Catalog Number
Notes
Type

Contractor Select™

OLWX LED

Wall Pack

The OLWX LED wall packs are energy-saving, long-life replacements for traditional metal halide wallpacks. The OLWX family is compact and powerful, delivering up to 18,200 lumens. The OLWX1 and OLWX2 offer several mounting options that provide versatility to meet your applications' needs.

FEATURES:

- Replaces 70W - 400W HID lamps, saves 85% energy
- IP65 rated - perfect for outdoor environments even when shining upward or downward. Back box accessory available for conduit wiring
- Yoke and slip fitter accessories - can be used as a wall pack or flood light

c UL us LISTED · LED · 5 YEAR warranty · WET LOCATION™ · DLC · NIGHTTIME FRIENDLY

Catalog Number	UPC	Description	Replaces Up To	Lumens	Wattage	CCT	Voltage	Finish	Pallet qty.
OLWX1 LED 13W 40K M4	888791000115	WALL PACKS	70W METAL HALIDE	1,289	14W	4000K	120-277V	DARK BRONZE	60
OLWX1 LED 20W 40K M4	888791000184	WALL PACKS	175W METAL HALIDE	2,663	20W	4000K	120-277V	DARK BRONZE	60
→ OLWX1 LED 40W 40K M4	888791000696	WALL PACKS	250W METAL HALIDE	4,079	37W	4000K	120-277V	DARK BRONZE	60
OLWX2 LED 90W 40K DDB M2	888791000818	WALL PACKS	400W METAL HALIDE	10,000	78W	4000K	120-277V	DARK BRONZE	60

More configurations are available. Click here or visit www.acuitybrands.com and search for OLWX LED.

Accessories: *Order as separate catalog number.*

OLWX1TS	Slipfitter – size 1
OLWX1YK	Yoke – size 1
OLWX1THK	Knuckle – size 1
OLWX2TS	Slipfitter – size 2
OLWX2YK	Yoke – size 2

CONTRACTOR SELECT OLWX LED   Page 1 of 2

WALL MOUNTED FULL CUTOFF FIXTURE "A"

REVISIONS		
Date	By	Description
Date	By	Description
Date	By	Description

Date FEBRUARY 2019 · Drawn W.W.G.
Field Book · Checked B.W.S.
Scale 1"=10'-0" · Approved B.W.S.

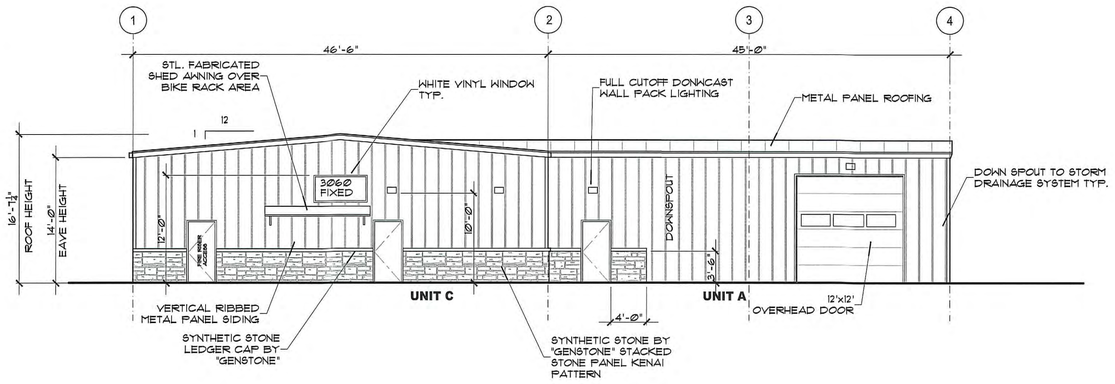
CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

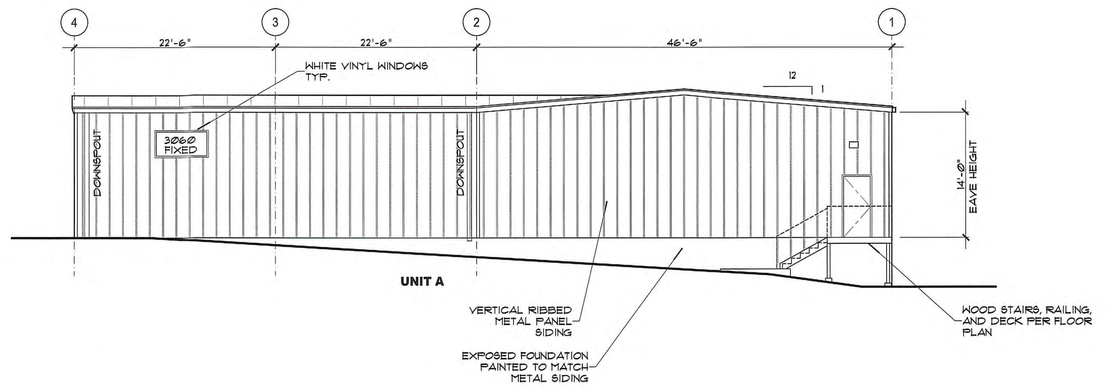
TITLE: SITE LIGHTING PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FT COLLINS, COLORADO

PROJECT NO. 1757-03-18

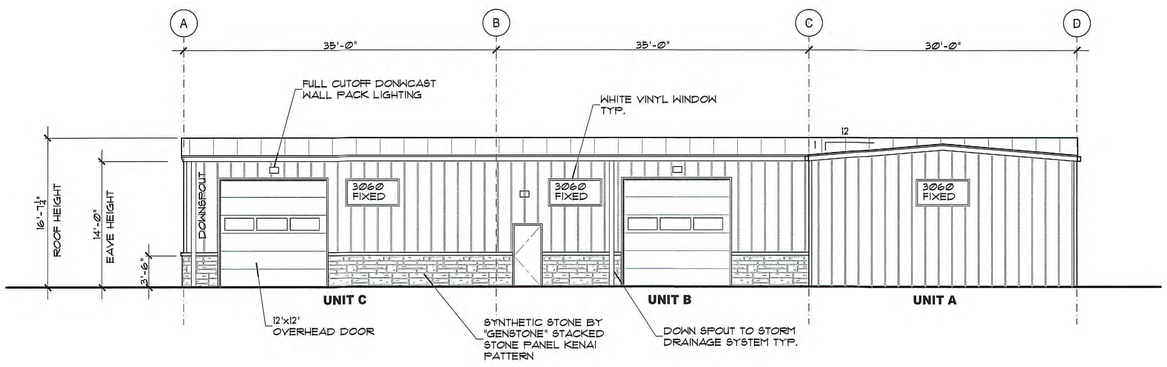
SHEET NO. 5 · NO. OF SHEETS 7



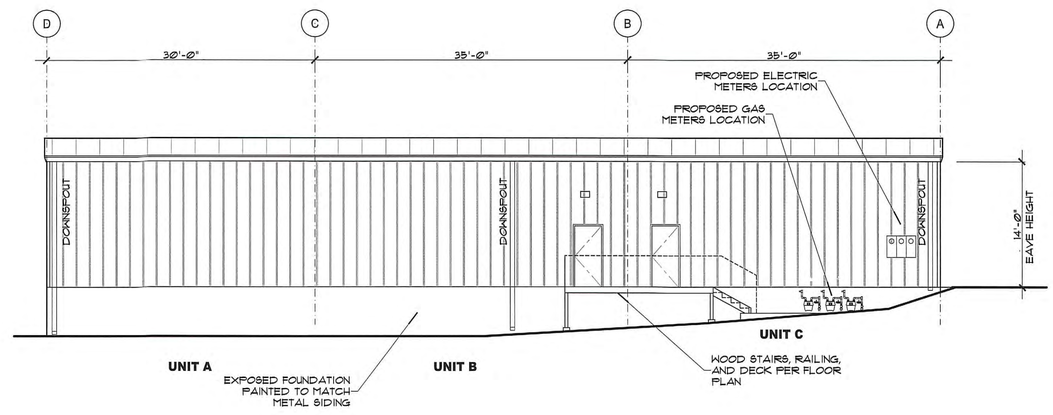
1 WEST FACING EXTERIOR ELEVATION
1/8" = 1'-0"



2 EAST FACING EXTERIOR ELEVATION
1/8" = 1'-0"



3 SOUTH FACING EXTERIOR ELEVATION
1/8" = 1'-0"



4 NORTH FACING EXTERIOR ELEVATION
1/8" = 1'-0"

REVISIONS							
Date	By	Description	Date	FEBRUARY 2019	Drawn		
Date	By	Description	Field Book		Checked	B.W.S.	
Date	By	Description	Scale		Approved	B.W.S.	

CLIENT: BARRY VAN EVEREN

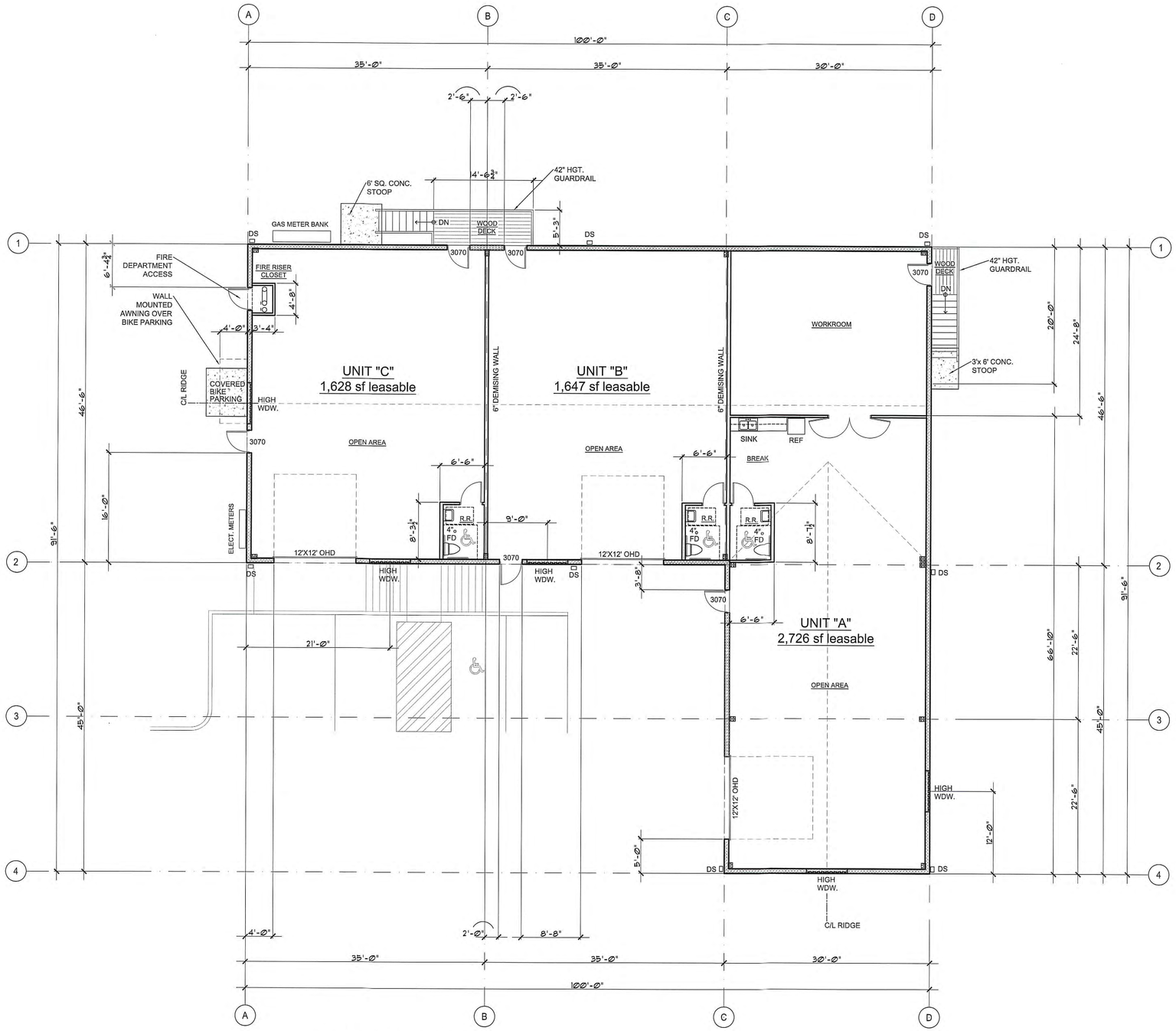
SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: EXTERIOR ELEVATIONS
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 6

NO. OF SHEETS 7



1 FLOOR PLAN
1/8" = 1'-0"

REVISIONS					
Date	By	Description	Date	FEBRUARY 2019	Drawn
Date	By	Description	Field Book		Checked B.W.S.
Date	By	Description	Scale		Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: FLOOR PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 7

NO. OF SHEETS 7

Stormwater
Alternative Compliance/Variance Application

City of Fort Collins Water Utilities Engineering

Section A: Engineer/Owner Information

Engineer Name Shear Engineering Corporation Phone (970) 226-5334

Street Address 4836 South College Avenue, Suite 12

City Fort Collins State CO Zip 80525-3745

Owner Name Barry Van Everen Phone (970) 635-0836

Street Address 938 Ptarmigan Run

City Loveland State CO Zip 80538

Section B: Proposed Project Information

Project Name Bueno Drive Condos

Project/Application Number from Development Review (i.e. FDP123456) PDP190004

Legal description and/or address of property Lot 13-A, Amended Plat of Lots 13-16, South 13 Subdivision (5724 Bueno Drive); Fort Collins, Colorado

Description of Project One-story steel building with 3 commercial condo units

Existing Use (*check one*): ○ residential ○ non-residential ○ mixed-use ◉ vacant ground

Proposed Use (*check one*): ○ residential ◉ non-residential ○ mixed-use ○ other

If non-residential or mixed use, describe in detail Zone District: C-S; Commercial Service District Commercial/Retail Use, Industrial Use

Section C: Alternative Compliance/Variance Information

State the requirement from which alternative compliance/variance is sought. (Please include applicable Drainage Criteria Manual volume, chapter and section.)

See attached

What hardship prevents this site from meeting the requirement?

See attached

Attach separate sheet if necessary

What alternative is proposed for the site?

See attached

Attach separate sheet if necessary

The owner agrees to comply with the provisions of the zoning ordinance, building code and all other applicable sections of the *City Code, Land Use Code, City Plan* and all other laws and ordinances affecting the construction and occupancy of the proposed building that are not directly approved by this variance. The owner understands that if this variance is approved, the structure and its occupants may be more susceptible to flood or runoff damage as well as other adverse drainage issues.

Signature of owner: _____ Date: 5/22/19

The engineer hereby certifies that the above information, along with the reference plans and project descriptions is correct.

Signature of engineer: _____ Date: 5/22/19

COLORADO REGISTERED
BRIAN WINFIELD SHEAR
20262
PROFESSIONAL ENGINEER

PE STAMP

Office use only

Date complete application submitted: _____

Date of approval/denial: _____ Variance: ☐ approved ☐ denied

Staff justification/notes/conditions: _____

Approved by: _____

Entered in UtilityFile Database? ☐ yes ☐ no

If you have questions or need assistance filling out forms, contact Fort Collins Utilities at:
Phone: 970-221-6700 · TDD 970-224-6003
Web: *fcgov.com/stormwater* · Email: *WaterUtilitiesEng@fcgov.com*

City of Fort Collins Utilities

Stormwater
Alternative Compliance/Variance Application

Section C Alternative compliance / Variance Information

State the requirement from which alternative compliance/variance is sought. (Please include applicable Drainage Criteria Manual volume, chapter and section.)

Four Step Process to Minimize Adverse Impacts of Urbanization as outlined in Chapter 1, Section 4 of the Urban Storm Drainage Criteria Manual Volume 3

a. Step 1: Employ Runoff Reduction Practices
b. Step 2. Implement BMPs That Provide a Water Quality Capture Volume with Slow Release
c. Step 3. Stabilize Streams
d. Step 4. Implement Site Specific and Other Source Control BMPs

What hardship prevents this site from meeting the requirement?

The primary hardships are justifiable engineering site restraints

a. South 13 Subdivision was originally platted and developed in the County in 1977 and annexed in 2006.

b. Lots 10-12, South 13 were developed in 1999, prior to annexation of the South 13 Subdivision. The Grading Plan for Lots 10-12 resulted in rear lot drainage with runoff contribution from the south through the rear of Lots 10-12. There was apparently, no drainage easement dedicated at that time.

c. Runoff from Lot 13-A has historically been directed to the northeast corner of Lot 13-A. This runoff was accommodated with the final grading for Lots 10-12, South 13.

d. At the front (west side) of Lot 13-A, there is limited available area for LID applications due to utility and landscaping separations requirements. Right-of-way and easement dedications for Bueno Drive has reduced the lot size by six feet (6')

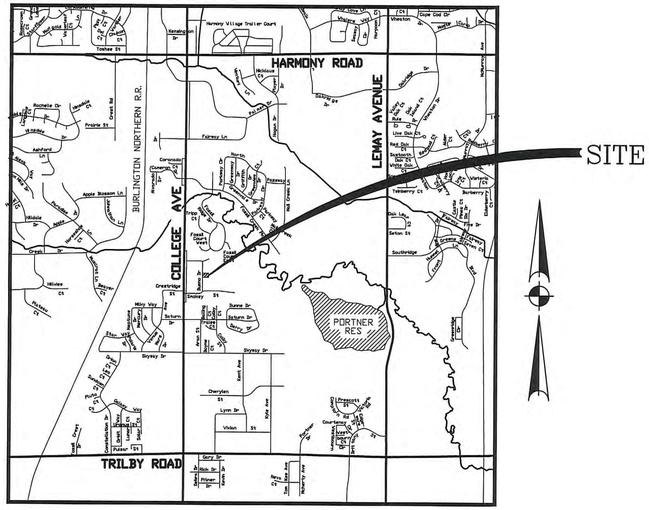
What alternative is proposed for the site?

The site has been redesigned to convey a majority of the developed runoff directly to Bueno Drive. Roof gutters will be oversized and designed with roof runoff exiting on the west side of the north leg of the building directly to Bueno Drive.

UTILITY PLANS
FOR
LOT 13-A, AMENDED LOTS 13-16, SOUTH 13 SUBDIVISION
(5724 BUENO DRIVE)
FORT COLLINS, COLORADO
MAY 2019

SUPPLEMENTAL GENERAL NOTES:

1. All street construction shall conform to the Larimer County Urban Area Street Standards (LCUASS) repealed and reenacted April 1, 2007.
2. All water distribution system construction shall conform to the most current Fort Collins - Loveland Water District Construction Specifications and requirements.
3. All sanitary sewer construction shall conform to the most current South Fort Collins Sanitation District Construction Specifications and requirements.
4. See Sheet 2 for the Larimer County Urban Area Street Standards Standard General Notes and Standard Construction Notes.
5. See Sheet 2 for Fort Collins - Loveland Water District and South Fort Collins Sanitation District General Notes.
6. See Master Utility Plan for Water and Sewer Construction Notes.
7. A geotechnical subsurface exploration report has been prepared for this site by Earth Engineering Company, LLC and is titled "Geotechnical Subsurface Exploration; Lot 13-A, South 13 Subdivision"; EEC Project No. 1192010 report dated February 15, 2019. All recommendations included in the geotechnical subsurface exploration report shall be considered a part of these general notes and specifications and shall be followed during construction. Contractor and all subcontractors shall familiarize themselves with all recommendations presented in the geotechnical subsurface exploration report.
8. A Drainage and Erosion Control report has been prepared specifically for South 13 Subdivision by Shear Engineering Corporation and is titled "Final Drainage and Erosion Control Report for Storm Sewer Outfall for South 13 Subdivision; Larimer County, Colorado"; report dated September 2000; SEC Project No. 1738-01-99.
9. All fill associated with overlot grading shall conform to the requirements of Data Sheet 79G (FHA) and the recommendations provided in the geotechnical investigation reports noted.
10. All site work construction must conform to ADA (American Disabilities Act) requirements for handicap access in accordance with Chapter 10 - *Means of Egress*, Chapter 11 - *Accessibility,* and Appendix E - *Supplementary Accessibility Requirements* of the 2012 International Building Code, ICC/ANSI A117.1 - *Accessible and Usable Buildings and Facilities*, and the 2010 ADA Standards for Accessible Design. Contractor and all subcontractors shall familiarize themselves with all ADA specifications for handicap access.
11. All new handicap ramps shall be constructed according to City standards.
12. Any discrepancies found in these plans shall be immediately brought to the attention of the engineer.
13. The public right-of-way shall not be used for staging or storage of materials or equipment associated with the Development, nor shall it be used for parking by any contractors, subcontractors, or other personnel working for or hired by the Developer to construct the Development. The Developer will need to find a location(s) on private property to accommodate any necessary staging and/or parking needs associated with the completion of the Development. Information on the location(s) of these areas will be required to be provided to the City as a part of the Development Construction Permit application.



VICINITY MAP
SCALE: 1"=2000'

INDEX OF SHEETS

OWNER: 5724 BUENO LLC, 2425 E CAMELBACK ROAD, SUITE 200, PHOENIX, ARIZONA, PHONE: (970) 635-0836

DEVELOPER: BARRY VAN EVEREN, 938 PTARMIGAN RUN, LOVELAND, COLORADO 80538, PHONE: (970) 635-0836

CIVIL ENGINEER: SHEAR ENGINEERING CORPORATION, 4836 SOUTH COLLEGE AVENUE, SUITE 12, FORT COLLINS, COLORADO 80525, PHONE: (970) 226-5334

SURVEYOR: PLS CORPORATION, 532 WEST 66TH STREET, LOVELAND, COLORADO 80538, PHONE: (970) 669-2100

GEOTECHNICAL ENGINEER: EARTH ENGINEERING COMPANY, LLC, 4396 GREENFIELD DRIVE, WINDSOR, COLORADO 80550, PHONE: (970) 545-3908

PREPARED FOR:
BARRY VAN EVEREN
938 PTARMIGAN RUN
LOVELAND, COLORADO 80538
(970) 635-0836

PROJECT BENCHMARKS:

PROJECT DATUM: NAVD88

BENCHMARK Y-401 – 8.8 KM (5.45 MI) SOUTH FROM FORT COLLINS. 8.8 KM (5.45 MI) SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 14 IN FORT COLLINS, NEAR THE CENTER OF THE SOUTHERN 1/4 OF A 10- BY 68-FOOT EXPOSED AREA OF OUT CROPPING BEDROCK, 23.8 METERS (78.1 FT) NORTH OF THE CENTER OF A GATE AND DIRT ROAD LEADING EAST, 21.0 METERS (68.9 FT) EAST OF THE CENTERLINE OF THE NORTH BOUND LANES OF THE HIGHWAY, AND 3.5 METERS (11.5 FT) WEST OF A FENCE. THE MARK IS 0.3 METERS N FROM A WITNESS POST THE MARK IS 1.9 M ABOVE THE HIGHWAY.
ELEVATION: 4971.96

BENCHMARK Y-402 – 7.8 KM (4.85 MI) SOUTH FROM FORT COLLINS. 7.8 KM (4.85 MI) SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 14 IN FORT COLLINS, 71.9 METERS (235.9 FT) SOUTH OF THE CENTER OF PALMER DRIVE, 32.0 METERS (105.0 FT) EAST OF THE CENTERLINE OF THE NORTH BOUND LANES OF THE U.S. HIGHWAY, 12.6 METERS (41.3 FT) EAST OF THE CENTER OF A PAVED ROAD, AND 0.3 METER (1.0 FT) WEST OF THE CENTER OF THE WEST END OF A 4- BY 4-FOOT BRICK SIGN. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.
ELEVATION: 5018.96

PLEASE NOTE: THIS PLAN SET IS USING NAVD88 FOR A VERTICAL DATUM. SURROUNDING DEVELOPMENTS HAVE USED NGVD29 UNADJUSTED (PRIOR CITY OF FORT COLLINS DATUM) FOR THEIR VERTICAL DATUMS.

IF NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) IS REQUIRED FOR ANY PURPOSE, THE FOLLOWING EQUATION SHOULD BE USED: NGVD29 UNADJUSTED (PRIOR CITY OF FORT COLLINS DATUM) = NAVD88 – 3.18'

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

5724 BUENO DRIVE

Engineer Affirmation Statement

I hereby affirm that these final construction plans were prepared under my direct supervision, in accordance with all applicable City of Ft. Collins and State of Colorado standards and statutes, respectively; and that I am fully responsible for the accuracy of all design, revisions, and record conditions that I have noted on these plans.

Brian W. Shear, P.E. — DATE

FORT COLLINS - LOVELAND WATER DISTRICT
SOUTH FORT COLLINS SANITATION DISTRICT

District Engineer — Date

All changes, addendums, additions, deletions and modifications to these drawings must be approved, in writing, by the Fort Collins-Loveland Water District and the South Fort Collins Sanitation District.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: CITY ENGINEER — DATE
CHECKED BY: WATER & WASTEWATER UTILITY — DATE
CHECKED BY: STORMWATER UTILITY — DATE
CHECKED BY: PARKS AND RECREATION — DATE
CHECKED BY: TRAFFIC ENGINEER — DATE
CHECKED BY: LIGHT AND POWER — DATE
CHECKED BY: ENVIRONMENTAL PLANNER — DATE

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Futhermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 | Drawn D.M.C. / B.R.B.
Field Book ____ | Checked B.W.S.
Scale 1" = 1' | Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: COVER SHEET
LOT 13-A, AMENDED LOTS 13 – 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

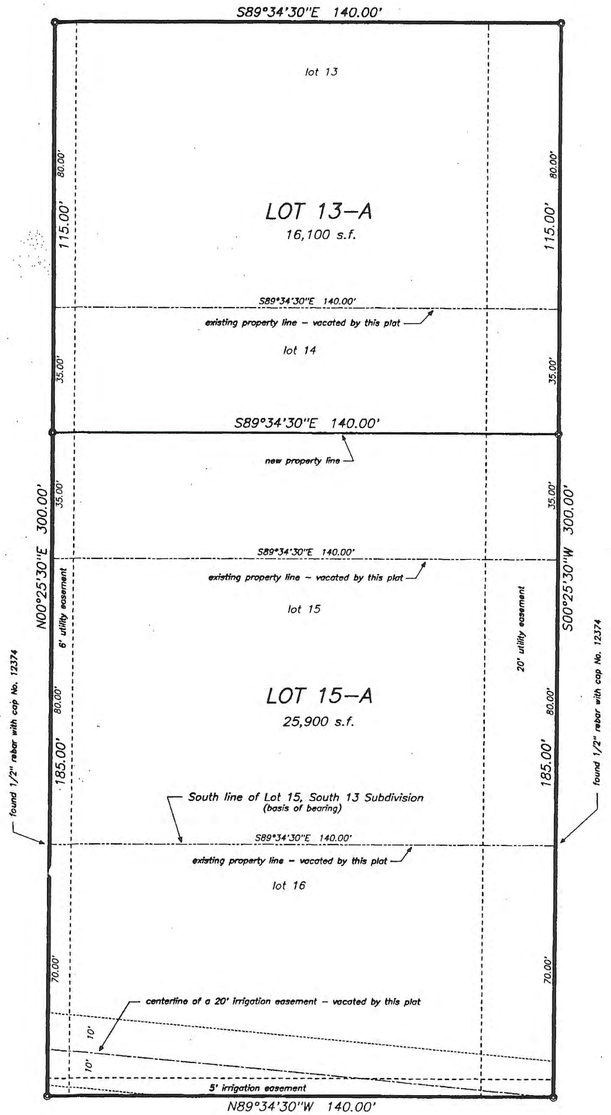
PROJECT NO. 1757-03-18 | SHEET NO. 1 | NO. OF SHEETS 11

May 22, 2019 - 3:16pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\01 Cover Sheet.dwg Brent

RCPTN # 99031782 04/14/99 14:36:00 # PAGES - 1 FEE - $11.00
ROBENBERGER RECORDER, LARIMER COUNTY CO STATE DOC FEE - $.00

S-271 2569

AMENDED PLAT OF
LOTS 13, 14, 15 AND 16, SOUTH 13 SUBDIVISION
SITUATE IN THE NORTHWEST 1/4 OF SECTION 12, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE SIXTH P.M., COUNTY OF LARIMER, STATE OF COLORADO



SCALE – 1"=20'
MARCH 8th, 1999

20 0 20 40 60
GRAPHIC SCALE – FEET

NOTES:

Bearings are in reference to a recorded survey plat and are based on the South line of Lot 15, South 13 Subdivision as bearing S89°34'30"E.

● – Indicates set 1/2" rebar with cap No. 4502 unless otherwise shown.

The new lots created by this action are subject to the same restrictions, covenants and regulations as set forth in the plat of record of South 13 Subdivision.

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

STATEMENT OF OWNERSHIP, SUBDIVISION AND DEDICATION:

KNOW ALL MEN BY THESE PRESENTS: That the undersigned, being the owners and proprietors of Lots 13, 14, 15 and 16, South 13 Subdivision, situate in the Northwest 1/4 of Section 12, Township 6 North, Range 69 West of the Sixth P.M., County of Larimer, State of Colorado, containing 42,000 square feet, more or less, have caused the above described land to be surveyed and subdivided into lots to be known as the AMENDED PLAT OF LOTS 13, 14, 15 AND 16, SOUTH 13 SUBDIVISION, and do hereby dedicate and convey to and for public use forever hereafter the streets as are laid out and designated on this plat, and do also reserve perpetual easements for the installation and maintenance of utilities and for irrigation and drainage facilities as are laid out and designated on this plat.

Witness our hands and seals this 11 day of March A.D., 1999.

TOM F. LUEVANE

DAVID ROY
Notary Public
State of Colorado

State of Colorado } S.S.
County of Larimer }
The foregoing dedication was acknowledged before me this 11th day of March A.D., 1999 by Tom F. Luevane.

My notarial commission expires 11/05/01 NOTARY PUBLIC

RON GRANT

CHRISTINA M. GRANT

State of Colorado } S.S.
County of Larimer }
The foregoing dedication was acknowledged before me this 13th day of March A.D., 1999 by Ron Grant and by Christina M. Grant.

My notarial commission expires My Comm. Expires 10/18/2000 NOTARY PUBLIC

MYKEL G. THAYNE
NOTARY PUBLIC
STATE OF COLORADO

DONA L. HAHN

State of Colorado } S.S.
County of Larimer }
The foregoing dedication was acknowledged before me this 15th day of March A.D., 1999 by Dona L. Hahn.

My notarial commission expires 08/20/2002 NOTARY PUBLIC

JESSICA M. WILLHARM
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 08/20/2002

SURVEYOR'S CERTIFICATE:

I, Phillip I. Robinson, a duly registered Professional Engineer and Land Surveyor in the State of Colorado, do hereby certify that this AMENDED PLAT OF LOTS 13, 14, 15 AND 16, SOUTH 13 SUBDIVISION truly and correctly represents the results of a survey made by me or under my direct supervision.

PHILLIP I. ROBINSON
Colorado registered P.E. & L.S. No. 4502

PHILLIP I. ROBINSON
REGISTERED
4502
3/8/99
P.E. & L.S.
STATE OF COLORADO

APPROVED:

By the Larimer County Board of County Commissioners this 30th day of March A.D., 1999. All dedications are hereby accepted on behalf of the public. This approval does not constitute acceptance of responsibility by the County for construction, repair or maintenance of any streets, highways, alleys, bridges, rights–of–way or other improvements designated on this plat.

BY CHAIRMAN ATTEST CLERK OF THE BOARD

APPROVED:

By the Larimer County Health Authority this 16th day of February A.D., 1999. All construction on this subdivision, or any lot therein, including the development of domestic water, and the provision of sewage treatment, shall be done in a manner which will meet all of the requirements of the Colorado Department of Health, and the Larimer County Public Health Department, and the officers authorized to enforce such requirements.

Doug Ryan
LARIMER COUNTY HEALTH AUTHORITY

APPROVAL OF SURVEY PLAT:

This final plat has been reviewed and is hereby approved as to form as complying with all current survey requirements of Larimer County and of State law pertaining to platting and monumentation. This approval constitutes neither a warranty by Larimer County concerning such compliance, nor a release or indemnity of the subdivider and his/her surveyor concerning any noncompliance of this plat with current survey requirements.

DATED 3/18/99 BY Dale V. Greer Colorado P.L.S. No. 16404

Dale V. Greer
LARIMER COUNTY ENGINEERING DEPARTMENT

REVISIONS

NO.	DATE	BY	REMARKS

APPROVED FOR CONSTRUCTION:

STEWART & ASSOCIATES
CONSULTING ENGINEERS AND SURVEYORS
103 S. MELDRUM STREET, FORT COLLINS, COLORADO 80521 (970)482-9331

DRAWN:	CHECKED:	SURVEY:	SCALE:
J.S.R.		B.W.N.	1"=20'

DESIGNED:	ENGINEER:
	P.I.R.

CLIENT: TOM LUEVANE
PROJECT: LOTS 13, 14, 15 & 16, SOUTH 13 SUBDIVISION LARIMER COUNTY, COLORADO
UNIT:
AMENDED PLAT

JOB NUMBER SOUTH–13 disk 74
DATE

SHEET NUMBER ONE OF ONE

2916

S-271 2569

General Notes
(LCUASS – REPEALED AND REENACTED APRIL 1, 2007)

1. All materials, workmanship, and construction of public improvements shall meet or exceed the standards and specifications set forth in the Larimer County Urban Area Street Standards and applicable state and federal regulations. Where there is conflict between these plans and the specifications, or any applicable standards, the most restrictive standard shall apply. All work shall be inspected and approved by the City of Fort Collins.

2. All references to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.

3. These public improvement construction plans shall be valid for a period of three years from the date of approval by the City of Fort Collins. Use of these plans after the expiration date will require a new review and approval process by the City of Fort Collins prior to commencement of any work shown in these plans.

4. The engineer who has prepared these plans, by execution and/or seal hereof, does hereby affirm responsibility to the City of Fort Collins, as beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the City of Fort Collins Engineer shall not relieve the engineer who has prepared these plans of all such responsibility. Further, to the extent permitted by law, the engineer hereby agrees to hold harmless and indemnify the City of Fort Collins, and its officers and employees, from and against all liabilities, claims, and demands which may arise from any errors and omissions contained in these plans.

5. All sanitary sewer, storm sewer, and water line construction, as well as power and other "dry" utility installations, shall conform to the City of Fort Collins and Fort Collins – Loveland Water District standards and specifications current at the date of approval of the plans by the City of Fort Collins Engineer.

6. The type, size, location and number of all known underground utilities are approximate when shown on the drawings. It shall be the responsibility of the Developer to verify the existence and location of all underground utilities along the route of the work before commencing new construction. The Developer shall be responsible for unknown underground utilities.

7. The Engineer shall contact the Utility Notification Center of Colorado (UNCC) at 1–800–922–1987, at least 2 working days prior to beginning excavation or grading, to have all registered utility locations marked. Other unregistered utility entities (i.e. ditch / irrigation company) are to be located by contacting the respective representative. Utility service laterals are also to be located prior to beginning excavation or grading. It shall be the responsibility of the Developer to relocate all existing utilities that conflict with the proposed improvements shown on these plans.

8. The Developer shall be responsible for protecting all utilities during construction and for coordinating with the appropriate utility company for any utility crossings required.

9. If a conflict exists between existing and proposed utilities and/or a design modification is required, the Developer shall coordinate with the engineer to modify the design. Design modification(s) must be approved by the City of Fort Collins prior to beginning construction.

10. The Developer shall coordinate and cooperate with the City of Fort Collins, and all utility companies involved, to assure that the work is accomplished in a timely fashion and with a minimum disruption of service. The Developer shall be responsible for contacting, in advance, all parties affected by any disruption of any utility service as well as the utility companies.

11. No work may commence within any public storm water, sanitary sewer or potable water system until the Developer notifies the utility provider. Notification shall be a minimum of 2 working days prior to commencement of any work. At the discretion of the water utility provider, a pre–construction meeting may be required prior to commencement of any work.

12. The Developer shall sequence installation of utilities in such a manner as to minimize potential utility conflicts. In general, storm sewer and sanitary sewer should be constructed prior to installation of the water lines and dry utilities.

13. The minimum cover over water lines is 5.0 feet and the maximum cover is 6.0 feet unless otherwise noted in the plans and approved by the Fort Collins – Loveland Water District.

14. A State Construction Dewatering Wastewater Discharge Permit is required if dewatering is required in order to install utilities or water is discharged into a storm sewer, channel, irrigation ditch or any waters of the United States.

15. The Developer shall comply with all terms and conditions of the Colorado Permit for Storm Water Discharge (Contact Colorado Department of Health, Water Quality Control Division, (303) 692–3590), the Storm Water Management Plan, and the Erosion Control Plan.

16. The City of Fort Collins shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of onsite drainage facilities shall be the responsibility of the property owner(s).

17. Prior to final inspection and acceptance by the City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.

18. The City of Fort Collins shall not be responsible for any damages or injuries sustained in this Development as a result of groundwater seepage, whether resulting from groundwater flooding, structural damage or other damage unless such damage or injuries are sustained as a result of the City of Fort Collins failure to properly maintain its water, wastewater, and/or storm drainage facilities in the development.

19. A Drainage Plan was prepared by Advanced Engineering, LLC. This Drainage Plan was referenced to establish the finished floor elevation for the proposed single family residence and is titled "Gulley Drainage Plan," plan dated July 23, 2018; Advanced Project No: 3185–01–01B.

20. Temporary erosion control during construction shall be provided as shown on the Grading and Erosion Control Plan. All erosion control measures shall be maintained in good repair by the Developer, until such time as the entire disturbed areas are stabilized with hard surface or landscaping.

21. The Developer shall be responsible for insuring that no mud or debris shall be tracked onto the existing public street system. Mud and debris must be removed within 24 hours by an appropriate mechanical method (i.e. machine broom sweep, light duty front–end loader, etc.) or as approved by the City of Fort Collins street inspector.

22. No work may commence within any improved or unimproved public Right–of–Way until a Right–of–Way Permit or Development Construction Permit is obtained, if applicable.

23. The Developer shall be responsible for obtaining all necessary permits for all applicable agencies prior to commencement of construction. The Developer shall notify the City of Fort Collins Engineering Inspector (Fort Collins – 221–6605) and the City of Fort Collins Erosion Control Inspector (Fort Collins – 221–6700) at least 2 working days prior to the start of any earth disturbing activity, or construction on any and all public improvements. If the City of Fort Collins Engineer is not available after proper notice of construction activity has been provided, the Developer may commence work in the Engineer absence. However, the City of Fort Collins reserves the right not to accept the improvement if subsequent testing reveals an improper installation.

24. The Developer shall be responsible for obtaining soils tests within the Public Right–of–Way after right of way grading and all utility trench work is complete and prior to the placement of curb, gutter, sidewalk and pavement. If the final soils/pavement design report does not correspond with the results of the original geotechnical report, the Developer shall be responsible for a re–design of the subject pavement section or, the Developer may use the City of Fort Collins' default pavement thickness section(s). Regardless of the option used, all final soils/pavement design reports shall be prepared by a licensed Professional Engineer. The final report shall be submitted to the inspector a minimum of 10 working days prior to placement of base and asphalt. Placement of curb, gutter, sidewalk, base and asphalt shall not occur until the City of Fort Collins Engineer approves the final report.

25. The contractor shall hire a licensed engineer or land surveyor to survey the constructed elevations of the street subgrade and the gutter flowline at all intersections, inlets, and other locations requested by the City of Fort Collins inspector. The engineer or surveyor must certify in a letter to the City of Fort Collins that these elevations conform to the approved plans and specifications. Any deviations shall be noted in the letter and then resolved with the City of Fort Collins before installation of base course or asphalt will be allowed on the streets.

26. All utility installations within or across the roadbed of new residential roads must be completed prior to the final stages of road construction. For the purposes of these standards, any work except o/g above the subgrade is considered final stage work. All service lines must be stubbed to the property lines and marked so as to reduce the excavation necessary for building connections.

27. Portions of Larimer County are within overlay districts. The Larimer County FloodPlain Resolution should be referred to for additional criteria for roads within these districts.

28. All road construction in areas designated as Wild Fire Hazard Areas shall be done in accordance with the construction criteria as established in the Wild Fire Hazard Area Mitigation Regulations in force at the time of final plat approval.

29. Prior to the commencement of any construction, the contractor shall contact the City of Fort Collins Forester to schedule a site inspection for any tree removal requiring a permit.

30. The Developer shall be responsible for all aspects of safety including, but not limited to, excavation, trenching, shoring, traffic control, and security. Refer to OSHA Publication 2226, Excavating and Trenching.

31. The Developer shall submit a Construction Traffic Control Plan, in accordance with MUTCD, to the appropriate Right–of–Way authority, City of Fort Collins, Colorado, for approval, prior to any construction activities within, or affecting, the Right–of–Way. The Developer shall be responsible for providing any and all traffic control devices as may be required by the construction activities.

32. Prior to the commencement of any construction that will affect traffic signs of any type, the contractor shall contact the City of Fort Collins Traffic Operations Department, who will temporarily remove or relocate the sign at no cost to the contractor; however, if the contractor moves the traffic sign then the contractor will be charged for the labor, materials and equipment to reinstall the sign as needed.

33. The Developer is responsible for all costs for the initial installation of traffic signing and striping for the Development related to the Development's local street operations. In addition, the Developer is responsible for all costs for traffic signing and striping related to directing traffic access to and from the Development.

34. There shall be no site construction activities on Saturdays, unless specifically approved by the City of Fort Collins Engineer, and no site construction activities on Sundays or holidays, unless there is prior written approval by the City of Fort Collins.

35. The Developer is responsible for providing all labor and materials necessary for the completion of the intended improvements, shown on these drawings, or designated to be provided, installed, or constructed, unless specifically noted otherwise.

36. Dimensions for layout and construction are not to be scaled from any drawing. If pertinent dimensions are not shown, contact the Designer for clarification, and annotate the dimension on the as–built record drawings.

37. The Developer shall have, onsite at all times, one (1) signed copy of the approved plans, one (1) copy of the appropriate standards and specifications, and a copy of any permits and extension agreements needed for the job.

38. If, during the construction process, conditions are encountered which could indicate a situation that is not identified in the plans or specifications, the Developer shall contact the Designer and the City of Fort Collins Engineer immediately.

39. The Developer shall be responsible for recording as–built information on a set of record drawings kept on the construction site, and available to the City of Fort Collins Inspector at all times. Upon completion of the work, the contractor(s) shall submit record drawings to the City of Fort Collins Engineer.

40. The Designer shall provide, in this location on the plan, the location and description of the nearest survey benchmarks (2) for the project as well as the basis of bearings.

PROJECT DATUM: NAVD88

CITY OF FORT COLLINS BENCHMARK 41–94
SOUTH SHIELDS STREET AT BRIDGE OVER FOSSIL CREEK (300 FEET NORTH OF FOSSIL CREEK DRIVE), ON THE EAST PARAPET WALL OF THE BRIDGE
ELEVATION = 5008.63

BENCHMARK # 10–13
SOUTHEAST CORNER OF SHIELDS STREET AND TRILBY ROAD ON A CONCRETE TRAFFIC SIGNAL BASE
ELEVATION = 5066.93

Please note: this plan set is using NAVD88 for a vertical datum. Surrounding developments have used NGVD29 unadjusted (prior City of Fort Collins Datum) for their vertical datums.

If NGVD29 unadjusted datum (prior City of Fort Collins Datum) is required for any purpose, the following equation should be used: NGVD29 unadjusted (prior City of Fort Collins Datum) = NAVD88 – 3.18'

BASIS OF BEARINGS: GPS DERIVED BEARINGS BASED ON A BEARING OF N00°18'23"E ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SECTION 10, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M., BETWEEN A FOUND 3" ALUMINUM CAP MARKED "LARIMER COUNTY, T6N, R69W, ¼, S10, S15, 2008, LS 20123" IN RANGE BOX (PER MONUMENT RECORD DATED 01/31/2018) AT THE SOUTH QUARTER CORNER OF SAID SECTION 10 AND A FOUND #6 REBAR WITH 3" ALUMINUM CAP MARKED "C1/4 COR, SEC 10–6–69, LS 12374" (PER MONUMENT RECORD DATED 12/26/1986) AT THE CENTER QUARTER CORNER OF SAID SECTION 10 AS SHOWN HEREON. COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM 1983 (NAD83). ALL BEARINGS SHOWN HEREON ARE RELATIVE THERETO.

41. All stationing is based on centerline / flowline of roadways unless otherwise noted.

42. Damaged curb, gutter and sidewalk existing prior to construction, as well as existing fences, trees, streets, sidewalks, curbs and gutters, landscaping, structures, and improvements destroyed, damaged or removed due to construction of this project, shall be replaced or restored in like kind at the Developer's expense, unless otherwise indicated on these plans, prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.

43. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the City of Fort Collins Construction Inspector before any cuts are made. Patching shall be done in accordance with the City of Fort Collins Street Repair Standards. The finished patch shall blend in smoothly into the existing surface. All large patches shall be paved with an asphalt lay–down machine. In streets where more than one cut is made, an overlay of the entire street width, including the patched area, may be required. The determination of need for a complete overlay shall be made by the City of Fort Collins Engineer and/or the City of Fort Collins Inspector at the time the cuts are made.

44. Upon completion of construction, the site shall be cleaned and restored to a condition equal to, or better than, that which existed before construction, or to the grades and condition as required by these plans.

45. Standard Handicap ramps are to be constructed at all curb returns and at all "T" intersections.

46. After acceptance by the City of Fort Collins, public improvements depicted in these plans shall be guaranteed to be free from material and workmanship defects for a minimum period of two years from the date of acceptance.

47. The City of Fort Collins shall not be responsible for the maintenance of roadway and appurtenant improvements, including storm drainage structures and pipes, for the private streets shown on the plan.

48. No variances are required for this project.

Construction Notes
(LCUASS – REPEALED AND REENACTED APRIL 1, 2007)

A. Standard Grading and Erosion and Sediment Control Construction Plan Notes

1. The erosion control inspector must be notified at least twenty–four (24) hours prior to any construction on this site.

2. There shall be no earth–disturbing activity outside the limits designated on the accepted plans.

3. All required perimeter silt and construction fencing shall be installed prior to any land disturbing activity (stockpiling, stripping, grading, etc). All other required erosion control measures shall be installed at the appropriate time in the construction sequence as indicated in the approved project schedule, construction plans, and erosion control report.

4. At all times during construction, the Developer shall be responsible for preventing and controlling on–site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer shall also be responsible for installing and maintaining all erosion control facilities shown herein.

5. Pre–disturbance vegetation shall be protected and retained wherever possible. Removal or disturbance of existing vegetation shall be limited to the area(s) required for immediate construction operations, and for the shortest practical period of time.

6. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition by ripping or disking along land contours until mulch, vegetation, or other permanent erosion control BMPs are installed. No soils in areas outside project street rights–of–way shall remain exposed by land disturbing activity for more than thirty (30) days before required temporary or permanent erosion control (e.g. seed/mulch, landscaping, etc.) is installed, unless otherwise approved by the City of Fort Collins.

7. In order to minimize erosion potential, all temporary (structural) erosion control measures shall:
   a. Be inspected at a minimum of once every two (2) weeks and after each significant storm event and repaired or reconstructed as necessary in order to ensure the continued performance of their intended function.
   b. Remain in place until such time as all the surrounding disturbed areas are sufficiently stabilized as determined by the erosion control inspector.
   c. Be removed after the site has been sufficiently stabilized as determined by the erosion control inspector.

8. When temporary erosion control measures are removed, the Developer shall be responsible for the clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.

9. The contractor shall clean up any inadvertent deposited material immediately and make sure streets are free of all materials by the end of each working day.

10. All retained sediments, particularly those on paved roadway surfaces, shall be removed and disposed of in a manner and location so as not to cause their release into any waters of the United States.

11. No soil stockpile shall exceed ten (10) feet in height. All soil stockpiles shall be protected from sediment transport by surface roughening, watering, and perimeter silt fencing. Any soil stockpile remaining after thirty (30) days shall be seeded and mulched.

12. The stormwater volume capacity of detention ponds will be restored and storm sewer lines will be cleaned upon completion of the project and before turning the maintenance over to the City of Fort Collins or Homeowners Association (HOA).

13. City Ordinance and Colorado Discharge Permit System (CDPS) requirements make it unlawful to discharge or allow the discharge of any pollutant or contaminated water from construction sites. Pollutants include, but are not limited to discarded building materials, concrete truck washout, chemicals, oil and gas products, litter, and sanitary waste. The developer shall at all times take whatever measures are necessary to assure the proper containment and disposal of pollutants on the site in accordance with any and all applicable local, state, and federal regulations.

14. A designated area shall be provided on site for concrete truck chute washout. The area shall be constructed so as to contain washout material and located at least fifty (50) feet away from any waterway during construction. Upon completion of construction activities the concrete washout material will be removed and properly disposed of prior to the area being restored.

15. To ensure that sediment does not move off of individual lots one or more of the following sediment/erosion control BMPs shall be installed and maintained until the lots are sufficiently stabilized, as determined by the erosion control inspector, (Within Loveland GMA and City Limits Only).
   a. Below all gutter downspouts.
   b. Out to drainage swales.
   c. Along lot perimeter.
   d. Other locations, if needed.

16. Conditions in the field may warrant erosion control measures in addition to what is shown on these plans. The Developer shall implement whatever measures are determined necessary, as directed by the City of Fort Collins / Larimer County.

17. A vehicle tracking control pad shall be installed when needed for construction equipment, including but not limited to personal vehicles exiting existing roadways. No earthen materials, i.e. stone, dirt, etc. shall be placed in the curb & gutter or roadway as a ramp to access temporary stockpiles, staging areas, construction materials, concrete washout areas, and/or building sites.

B. Street Improvements Notes

1. All street construction is subject to the General Notes on the cover sheet of these plans as well as the Street Improvements Notes listed here.

2. A paving section design, signed and stamped by a Colorado licensed Engineer, must be submitted to the City of Fort Collins Engineer for approval, prior to any street construction activity, (full depth asphalt sections are not permitted at a depth greater than 8 inches of asphalt). The job mix shall be submitted for approval prior to placement of any asphalt.

3. Where proposed paving adjoins existing asphalt, the existing asphalt shall be saw cut, a minimum distance of 12 inches from the existing edge, to create a clean construction joint. The Developer shall be required to remove existing pavement to a distance where a clean construction joint can be made. Wheel cuts shall not be allowed unless approved by the City of Fort Collins Engineer.

4. Street subgrades shall be scarified the top 12 inches and re–compacted prior to subbase installation. No base material shall be laid until the subgrade has been inspected and approved by the City of Fort Collins Engineer.

5. Ft. Collins only. Valve boxes and manholes are to be brought up to grade at the time of pavement placement or overlay. Valve box adjusting rings are not allowed.

6. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the inspector before any cuts are made. Cutting and patching shall be done in conformance with Chapter 25, Reconstruction and Repair. The finished patch shall blend smoothly into the existing surface. The determination of need for a complete overlay shall be made by the City of Fort Collins Engineer. All overlay work shall be coordinated with adjacent landowners such that future projects do not cut the new asphalt overlay work.

7. All traffic control devices shall be in conformance with these plans or as otherwise specified in M.U.T.C.D. (including Colorado supplement) and as per the Right–of–Way Work Permit traffic control plan.

8. The Developer is required to perform a gutter water flow test in the presence of the City of Fort Collins Inspector and prior to installation of asphalt. Gutters that hold more than ¼ inch deep or 5 feet longitudinally, of water, shall be completely removed and reconstructed to drain properly.

9. Prior to placement of H.B.P. or concrete within the street and after moisture/density tests have been taken on the subgrade material (when a full depth section is proposed) or on the subgrade and base material (when a composite section is proposed), a mechanical "proof roll" will be required. The entire subgrade and/or base material shall be rolled with a heavily loaded vehicle having a total GVW of not less than 50,000 lbs. and a single axle weight of at least 18,000 lbs. with pneumatic tires inflated to not less than 90 p.s.i.g. "Proof roll" vehicles shall not travel at speeds greater than 3 m.p.h. Any portion of the subgrade or base material which exhibits excessive pumping or deformation, as determined by the City of Fort Collins Engineer, shall be reworked, replaced or otherwise modified to form a smooth, non–yielding surface. The City of Fort Collins Engineer shall be notified at least 24 hours prior to the "proof roll." All "proof rolls" shall be performed in the presence of an Inspector.

C. Traffic Signing and Pavement Marking Construction Notes

1. All signage and marking is subject to the General Notes on the cover sheet of these plans, as well as the Traffic Signing and Marking Construction Notes listed here.

2. All symbols, including arrows, ONLYS, crosswalks, stop bars, etc. shall be pre–formed thermo–plastic.

3. All signage shall be per the City of Fort Collins Standards and these plans or as otherwise specified in MUTCD.

4. All lane lines for asphalt pavement shall receive two coats of latex paint with glass beads.

5. All lane lines for concrete pavement should be epoxy paint.

6. Prior to permanent installation of traffic striping and symbols, the Developer shall place temporary tabs or tape depicting alignment and placement of the same. Their placement shall be approved by the City of Fort Collins Engineer prior to permanent installation of striping and symbols.

7. Pre–formed thermo–plastic applications shall be as specified in these Plans and/or these Standards.

8. Epoxy applications shall be applied as specified in CDOT Standard Specifications for Road and Bridge Construction.

9. All surfaces shall be thoroughly cleaned prior to installation of striping or markings.

10. All sign posts shall utilize break–away assemblies and fasteners per the Standards.

11. A field inspection of location and installation of all signs shall be performed by the City of Fort Collins Engineer. All discrepancies identified during the field inspection must be corrected before the 2–year warranty period will begin.

12. The Developer installing signs shall be responsible for locating and protecting all underground utilities.

13. Special care shall be taken in sign location to ensure an unobstructed view of each sign.

14. Signage and striping has been determined by information available at the time of review. Prior to initiation of the warranty period, the City of Fort Collins Engineer reserves the right to require additional signage and/or striping if the City of Fort Collins Engineer determines that an unforeseen condition warrants such signage according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the 2–year warranty period for new construction (except fair wear on traffic markings).

15. Sleeves for sign posts shall be required for use in islands/medians. Refer to Chapter 14, Traffic Control Devices, for additional detail.

D. Storm Drainage Notes

1. The City of Fort Collins shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of onsite drainage facilities shall be the responsibility of the property owner(s).

2. A Drainage Plan was prepared by Advanced Engineering, LLC. This Drainage Plan was referenced to establish the finished floor elevation for the proposed single family home, and is titled "Gulley Drainage Plan," plan dated July 23, 2018; Advanced Project No: 3185–01–01B.

3. Prior to final inspection and acceptance by The City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall by submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.

E. Water Line and Sewer Line Notes

1. All sanitary sewer construction shall conform to the most current South Fort Collins Sanitation District Construction Specifications and requirements.
   - There are two (2) existing 4 inch PVC sewer services to this lot. One will be abandoned at the main.
   - Sewer services to buildings shall be 4 inch PVC. The slope on the sewer service shall be no less than 2.0%

2. All water distribution system construction shall conform to the most current Fort Collins – Loveland Water District Construction Specifications and requirements.
   - All water mains to be PVC, CLASS C900 (DR 18 max.) with tracer wire.
   - Water service shall be 1" copper from the main to the meter, 1" copper from the meter to the stop box and Three 3/4" copper from the stop box to the building.
   - Irrigation sleeving size and location requirements shall be coordinated with irrigation system and landscape plan requirements.
   - All water services shall be made with tapping saddles.
   - Fire line shall be 4" high pressure PVC with tracer wire.
   - Reduced pressure Back–Flow–Prevention assembly required on the fire line, water service and irrigation service.
   - The minimum cover over water lines is 5.0 feet and the maximum cover is 6.0 feet unless otherwise noted in the plans and approved by the Fort Collins – Loveland Water District.
   - No trees shall be located closer than 10 feet from any water service or sewer service or mains.
   - No shrubs shall be located closer than 4 feet away from any water service

3. See Landscape Plans for additional plan information.

4. No trees are to be planted within four (4') feet of gas lines.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE

CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY: _____ STORMWATER UTILITY _____ DATE

CHECKED BY: _____ PARKS AND RECREATION _____ DATE

CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE

CHECKED BY: _____ LIGHT AND POWER _____ DATE

CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Futhermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

May 22, 2019 – 3:05pm Z:\V–Clients\Van Everen Barry\1757–03–18 Lt. 13–A, South 13 Subdivision Ft. Collins\Civil\dwg\02 PROJ NOTES.dwg Brent

REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 | Drawn B.R.B. & D.M.C.
Field Book ____ | Checked B.W.S.
Scale 1" = 10' | Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226–5334 (970) 226–4451 FAX: (970) 282–0311

TITLE: PROJECT NOTES
LOT 13–A, AMENDED LOTS 13 – 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757–03–18 | SHEET NO. 2 | NO. OF SHEETS 11

City of Fort Collins standard erosion and sediment control notes:

General Erosion Control Requirements

These notes are a summary for the legal requirements, that are set forth in the Fort Collins Stormwater Criteria Manual (FCSCM), and that any conflict is resolved by the more stringent requirement controlling.

1. The Property Owner, Owner's Representative, Developer, Design Engineer, General Contractor, Sub-contractors, or similar title for the developing entity (here after referred to as the Developer) has provided these Erosion Control Materials in accordance with Erosion Control Criteria set forth in the Manual as an attempt to identify erosion, sediment, and other potential pollutant sources associated with these Construction Activities and preventing those pollutants from leaving the project site as an illicit discharge. Full City requirements and are outlined and clarified in the Manual under Chapter 4: Construction Control Measures and should be used to identify and define what is needed on a project.

2. The Developer shall make themselves thoroughly familiar with the provisions and the content of the specifications laid out in the Manual, the Development Agreement, the Erosion Control Materials compiled for this project, and the following notes as all these materials are applicable to this project.

3. The Developer shall implement and maintain Control Measures for all potential pollutants from the start of land disturbing activities until final stabilization of the construction site.

4. The City Erosion Control Inspector shall be notified at least twenty-four (24) hours prior to the desired start of any construction activities on this site to allow adequate time for on-site confirmation (initial inspection which can take up to two business days after receiving the request) that the site is in fact protected from sediment and pollutants discharges off site. Please contact erosion@fcgov.com early to schedule those initial Erosion Control Inspections well in advance so that demolition, clearing, grubbing, tree removal, and scraping may begin without delay. Failure to receive an on-site confirmation before construction activities commence is an automatic "Notice of Violation" and can result in further enforcement actions.

5. The Developer shall proactively provide all appropriate Control Measures to prevent damage to adjacent downstream and leeward properties. This includes but is not limited to: trees, shrubs, lawns, walks, pavements, roadways, structures, creeks, wetlands, streams, rivers, and utilities that are not designed for removal, relocation, or replacement in the course of construction.

6. At all times the Developer shall be responsible to ensure adequate Control Measures are designed, selected, installed, maintain, repaired, replaced, and ultimately removed in order to prevent and control erosion suspension, sediment transportation, and pollutant discharge as a result of construction activities associated with this project.

7. All applicable Control Measures based upon the sequencing and/or phasing of the project shall be installed prior to those construction activities commencing.

8. As dynamic conditions (due to the nature, timing, sequence, and phasing of construction) in the field may warrant Control Measures in addition, or different, to what is shown on these plans, the Developer shall at all times be responsible to implement the Control Measures that are most effective with the current state and progress of construction. The Developer shall implement whatever measures are determined necessary, and/or as directed by the City Erosion Control Inspector. The Developer shall insure that all Erosion Control Plans (Maps) or SWMP documents are updated to reflect the current site conditions, with updates being initialed and dated. These site inspections and site condition updates shall be made available upon request by the City.

9. All listings, provisions, materials, procedures, activities, site work and the like articulated in this or other written site-specific documents (including but not limited to the erosion control reports, development agreements, landscape, and drainage materials) shall meet or exceed the most restrictive language for City, County, State, and Federal regulations with regards to erosion, sediment, pollutant, and other pollution source Control Measures. The Developer shall be responsible to comply with all of these aforementioned laws and regulations.

10. The Developer shall ensure that all appropriate permits (CDPS General Permit Stormwater Discharges Associated with Construction Activity, Dewatering, Clean Water Act, Army Corps of Engineers' 404 Wetlands Mitigation Permit, etc.) have been attained prior to the relevant activity has begun. These permits or copies shall be made available upon request by the City.

11. The Developer shall furnish all conveniences and assistances to aid the Erosion Control Inspectors of materials, workmanship, records, and self-inspections, etc. of the Control Measures involved in the construction activities.

12. The Developer shall request clarification of all apparent site construction issues that may arise due to inconsistencies in construction plans for the site or site conditions around the selected Control Measures by contacting the Erosion Control Inspector. The Erosion Control Inspector will not be responsible for any explanations, interpretations, or supplementary data provided by others.

13. All Control Measures shall be installed in accordance with the Manual.

14. The City reserves the right to require additional Control Measures as site conditions warrant, to the extent authorized by relevant legal authority.

15. As with any construction standards, occasions may arise where the minimum erosion control standards are either inappropriate or cannot be justified. In these cases, a variance to these standards may be applied for pursuant to the terms, conditions, and procedures of the Manual.

16. Inspection. The contractor shall inspect site pollutant sources and implement Control Measures at a minimum of once every two weeks during construction and within 24 hours following a precipitation event. Documentation of each inspection shall be recorded and retained by the contractor.

17. All temporary Control Measures shall be cleaned, repaired, or reconstructed as necessary in order to assure continual performance of their intended function. All retained sediments, particularly those on paved roadway surfaces, shall be removed and disposed of in a manner and location so as not to cause their release into any drainage way.

18. Any Control Measure may be substituted for another standard Control Measure so long as that Control Measure is equal to, or of greater protection than the original Control Measure that was to be used in that location. (ex. silt fence, for wattles, or for compact berms) Wattle alone on commercial construction sites have shown to be an ineffective substitute for silt fence or compact berms unless it is accompanied by a construction fence to prevent vehicle traffic.

19. Any implementation or replacement of existing Control Measures for a non-standard control, or alternative Control Measure, shall require the review and acceptance by the City erosion control staff before the measure will be allowed to be used on this project. These Control Measures' details shall be submitted, reviewed and accepted to be in accordance with the Erosion Control Criteria based upon the functionality and effectiveness in accordance with sound engineering and hydrological practices.

Land disturbance, Stockpiles, and Storage of Soils

20. There shall be no earth-disturbing activity outside the limits designated on the accepted plans. Off road staging areas or stockpiles must be preapproved by the City. Disturbances beyond these limits will be restored to original condition.

21. Pre-disturbance vegetation shall be identified, protected, and retained wherever possible. Removal or disturbance of existing vegetation shall be limited to the area required for immediate construction operations, and for the shortest practical period of time. This should include sequencing and phasing construction activities in a way so that the soil is not exposed for long periods of time by schedule or limit grading to small areas. This should also include when practical advancing the schedule on stabilization activities such that landscaping takes place shortly if not immediately after grading has occurred. Vegetation efforts shall start as soon as possible to return the site to a stabilized condition. Sensitive areas should avoid clearing and grading activities as much possible.

22. All exposed soils or disturbed areas are considered a potential pollutant and shall have Control Measures implemented on the site to prevent materials from leaving the site.

23. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition at all times by equipment tracking, scarifying or disking the surface on a contour with a 2 to 4 inch minimum variation in soil surface until mulch, vegetation, and/or other permanent erosion control is installed.

24. No soil stockpile shall exceed ten (10) feet in height. All soil stockpiles shall be protected from sediment transport through the use of surface roughening, watering, and down gradient perimeter controls. All soil stockpiles shall be protected from sediment transport by wind in accordance with Municipal Code §12-150. All stockpiles shall be flattened to meet grade or removed from site as soon as practical, and no later than the completion of construction activities or abandonment of the project. All off-site stockpile storage locations in City limits shall have a stockpile permit from the City Engineering Department prior to using the area to store material. If frequent access from hardscape to the stockpile is needed a structural tracking Control Measure shall be implemented.

25. All required Control Measures shall be installed prior to any land disturbing activity (stockpiling, stripping, grading, etc.). All of the required erosion Control Measures must be installed at the appropriate time in the construction sequence as indicated in the approved project schedule, construction plans, and erosion control report.

26. All inlets, curb-cuts, culverts, and other storm sewer infrastructure which could be potentially impacted by construction activities shall be protected with Control Measures. Material accumulated from this Control Measure shall be promptly removed and in cases where the protection has failed, the pipes shall be thoroughly cleaned out.

27. All streams, stream corridors, buffers, woodlands, wetlands, or other sensitive areas shall be protected from impact by any construction activity through the use of Control Measures.

28. All exposed dirt shall have perimeter control. Any perimeter controls that drain off or has the ability to be tracked onto the nearby hardscape shall have some form of effective sediment control as the, or as part of the, perimeter control.

29. All exposed slopes should be protected. All exposed steep slopes (Steeper than 3:1 H:V) shall be protected from erosion and sediment transport through use of Control Measures.

30. No soils shall remain exposed by land disturbing activity for more than thirty (30) days after activity has ceased before required temporary seeding or permanent erosion control (e.g. seed/mulch, landscaping, etc.) is installed. This is not just limited to projects that are abandoned; this includes any project that is temporarily halted and no immediate activity is to resume within the next thirty (30) days, unless otherwise approved by the City Erosion Control Inspector. During a season when seeding does not produce vegetative cover, another temporary erosion control shall be implemented with or until temporary seeding or permanent erosion control can be performed.

31. All individual lots shall have effective sediment controls located on the street side and any down gradient side. Typically most lots drain to the front yet on those cases where houses are along a pond or drainage swale have the lot drain in a different direction than the street, those individual lots will need protection on that down gradient side to prevent sediment from leaving the lot. See the individual Lot Details for further clarification.

Vehicle Tracking

32. At all points where vehicles exit or leave the exposed dirt area on to a hardscape or semi hardscape (concrete, asphalt, road base, etc.) shall have installed at least one structural tracking Control Measure to prevent vehicle tracking. All areas not protected by an adequate perimeter control shall be considered a point where vehicles exit the site. Access points should be limited to as few entrances as possible (All perimeter areas shall be protected from tracking activities).

33. In all areas that the structural tracking Control Measures fail to prevent vehicle tracking, collection and proper disposal of that material is required. All inlets located near access points and affected by tracking activities shall be prevented from the introduction of sediment into the drainage system.

34. City Municipal Code §20-62, among other things, prohibits the tracking, dropping, or depositing of soils or any other material onto city streets by or from any source. City Municipal Code, §26-498, among other things, prohibits the discharge of pollutants on public or private property if there is a significant potential for migration of such pollutant. Therefore, all tracked or deposited materials (intentional or inadvertent) are not permitted to remain on the street or gutter and shall be removed and legally disposed of by the Developer in a timely and immediate manner. Dirt ramps installed in the curb-lines are not exempt to these sections of code and shall not be permitted in the street right of way (public or private).

35. If repeated deposit of material occurs on a site, additional structural tracking controls may be required of the Developer by the City Erosion Control Inspector.

Loading and Unloading Operations

36. The Developer shall apply Control Measure to limit traffic (site worker or public) impacts and proactively locate material delivered to the site in close proximity to the work area or immediately incorporated in the construction to limit operational impacts to disturbed areas, vehicle tracking, and sediment deposition that could impact water quality.

Outdoor Storage or Construction Site Materials, Building Materials, Fertilizers, and Chemicals

37. Any materials of a non-polluting nature (steel, rock, brick, lumber, etc.) shall be inspected for any residue coming off the material during routine inspection and will generally be located where practical at least fifty (50) feet from any permanent or interim drainage ways.

38. Any high environmental impact pollutant materials that have a high likelihood to result in discharge when in contact with stormwater (lubricants, fuels, paints, solvents, detergents, fertilizers, chemical sprays, bags of cement mix, etc.) should not be kept on site where practical. When not practical, they should be stored inside (vehicle, trailer, connex, building, etc.) and out of contact with stormwater or stormwater runoff. Where not available, they shall be stored outside in a raised (high spots or on pallets), covered (plastic or tarped), and sealed (leak proof container) in secondary containment location. The secondary containment or other Control Measure shall be adequately sized, located, where practical, at least fifty (50) feet from any permanent or interim stormwater structures or drainage ways and shall be monitored as part of the routine inspections.

Vehicle and equipment maintenance and fueling

39. Parking, refueling, and maintenance of vehicles and equipment should be limited in one area of the site to minimize possible spills and fuel storage areas. This area shall be located, where practical, at least fifty (50) feet from any permanent or interim stormwater structures or drainage ways and shall be monitored as part of the routine inspections. All areas shall keep spill kits and supplies close.

Significant Dust or Particulate generating Process

40. The property must be actively preventing the emission of fugitive dust at all times during construction and vegetation activities. All land disturbing activities that result in fugitive dust shall be in accordance with Municipal Code §12-150 to reduce the impacts to adjacent properties and community health. All required practices shall be implemented and additional ones shall be followed. These practices include watering the sites and discontinuing construction activities until the wind subsides as determined by any City inspectors.

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

41. All concrete and equipment washing shall use structural Control Measures appropriate to the volume of wash and frequency of use. These Control Measures shall be located, where practical, at least fifty (50) feet from any permanent or interim stormwater structures or drainage ways and shall be monitored as part of the routine inspections. These areas shall be clearly identified and protected from any wash from leaving the Control Measure. If frequent access from hardscape to the Control Measure is to occur, a structural tracking Control Measure shall be implemented. These Control Measures shall be frequently cleaned out.

42. The Developer is responsible for ensuring washing activity is taking place at the appropriate Control Measure and site workers are not washing or dumping wash water on to the dirt or other uncontrolled locations.

Dedicated Asphalt and concrete batch plants

43. Dedicated asphalt and concrete batch plants are not acceptable on construction sites within the City of Fort Collins without an expressed written request and plan to reduce pollutants associated with that type of activity and approval by the City of Fort Collins specifically the Erosion Control Inspector. The Developer shall inform the erosion control inspection staff of any dedicated asphalt, or concrete batch plants that is to be used on site.

Concrete Saw Cutting Materials

44. Saw cutting material shall be in accordance with Municipal Code §12-150 for air emissions and all water applications to the saw cutting shall prevent material from leaving the immediate site and collected. These cutting locations, once dried, shall be swept and scraped of all material and shall have proper and legal disposal.

Waste Materials Storage and Sanitary Facilities

45. Trash, debris, material salvage, and/or recycling areas shall be, where practical, at least fifty (50) feet from any permanent or interim stormwater structures or drainage ways and shall be monitored as part of the routine inspections. These facilities should be located out of the wind and covered as able. Where not able to cover, locating said areas on the side of other structures to reduce exposure to winds, and follow maximum loading guidelines as marked on the container. The Developer is required to practice good housekeeping to keep the construction site free of litter, construction debris, and leaking containers.

46. Sanitary facilities shall be prevented from tipping through the use of anchoring to the ground or lashing to a stabilized structure. These facilities shall also be located as far as practical from an inlet, curb cut, drainage swale or other drainage conveyances to prevent material transport from leaving the local area. This consists of the facility being located, where practical, at least fifty (50) feet from any permanent or interim drainage ways.

Other Site Operations and Potential Spill Areas

47. Spills: For those minor spills that; are less than the State's reportable quantity for spills, stay within the permitted area, and in no way threaten any stormwater conveyance, notify the City of Fort Collins Utilities by email at erosion@fcgov.com or phone (970) 817-4770. For any significant, major, or hazardous spills, notify the City of Fort Collins Utilities by phone only after Emergency Response (911) has been notified and is on route, County Health Department (LCDHE) has been notified through Larimer County Sheriff Dispatch (970) 416-1985, and the State Spill Hotline Incident Reporting have been contacted 1-877-518-5608. Written documentation shall be provided to the City within 5 days of the event. All spills shall be cleaned up immediately.

48. Selection of "plastic welded" erosion control blankets shall not be used in areas that wildlife, such as snakes, are likely to be located as these have proven to cause entrapment issues.

Final stabilization and project completion

49. Any stormwater facilities used as a temporary Control Measure will be restored and storm sewer lines will be cleaned upon completion of the project and before turning the maintenance over to the Owner, Homeowners Association (HOA), or other party responsible for long term maintenance of those facility.

50. All final stabilization specifications shall be done in accordance with the Manual, Chapter 4: Construction Control Measures.

51. All disturbed areas designed to be vegetated shall be amended, seeded & mulched, or landscaped as specified in the landscape plans within 14 working days of final grading.

52. Soil in all vegetated (landscaped or seeded) areas, including parkways and medians shall comply with all requirements set forth in Sections 12-130 through 12-132 of the City Municipal Code, as well as Section 3.8.21 for the City Land Use Code.

53. All seeding shall refer to landscaping plans for species mixture and application rates and depths requirements.

54. All seed shall be drilled where practical to a depth based upon the seed type. Broadcast seeding shall be applied at double the rate as prescribed for drill seeding and shall be lightly hand raked after application. Hydroseeding may be substituted for drill seeding on slopes steeper than 3(H):1(V) or on other areas not practical to drill seed and crimp and mulch. All hydroseeding must be conducted as two separate processes of seeding and tackification.

55. All seeded areas must be mulched within twenty-four (24) after planting. All mulch shall be mechanically crimped and or adequately applied tackifier. The use of crimped mulch or tackifier may require multiple re-applications if not properly installed or have weathered or degraded before vegetation has been established. Areas of embankments having slopes greater than or equal to 3H:1V shall be stabilized with an erosion mat or approved equal to ensure seed will be able to germinate on the steep slopes. During a season when seeding does not produce vegetative cover, another temporary erosion control shall be implemented along with, or until, temporary seeding or permanent erosion control can be performed.

56. The Developer shall warranty and maintain all vegetative measures for two growing seasons after installation or until seventy percent (70%) vegetative cover has been established, whichever is longer and meets all the Criteria outlined in the Fort Collins Stormwater Criteria Manual Chapter 4: Construction Control Measures.

57. The Developer shall maintain, monitor, repair, and replace any and all applicable Control Measures until final stabilization has been obtained. All Control Measures must remain until such time as all upstream contributing pollutant sources have been vegetated or removed from the site. When any Control Measure is removed, the Developer shall be responsible for the cleanup and removal of all sediment and debris from that Control Measure. At the point at which the site has been deemed stabilized and verified by City Erosion Control Inspector, all temporary Control Measures can then be fully removed. All measures shall be removed within 30 days after final stabilization is achieved.

58. The responsible party must maintain and keep current all payments or related forms of security for the Erosion Control Escrow until 1) stabilization has been reached and 2) all Control Measures and/or BMPs have sediment materials collected and the Control Measure removed from the site. At that time the site will be considered completed and any remaining Erosion Control Escrow shall be returned to the appropriate parties.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE

CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY: _____ STORMWATER UTILITY _____ DATE

CHECKED BY: _____ PARKS AND RECREATION _____ DATE

CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE

CHECKED BY: _____ LIGHT AND POWER _____ DATE

CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

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May 22, 2019 - 3:20pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\03 EROSION NOTES.dwg Brent

REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

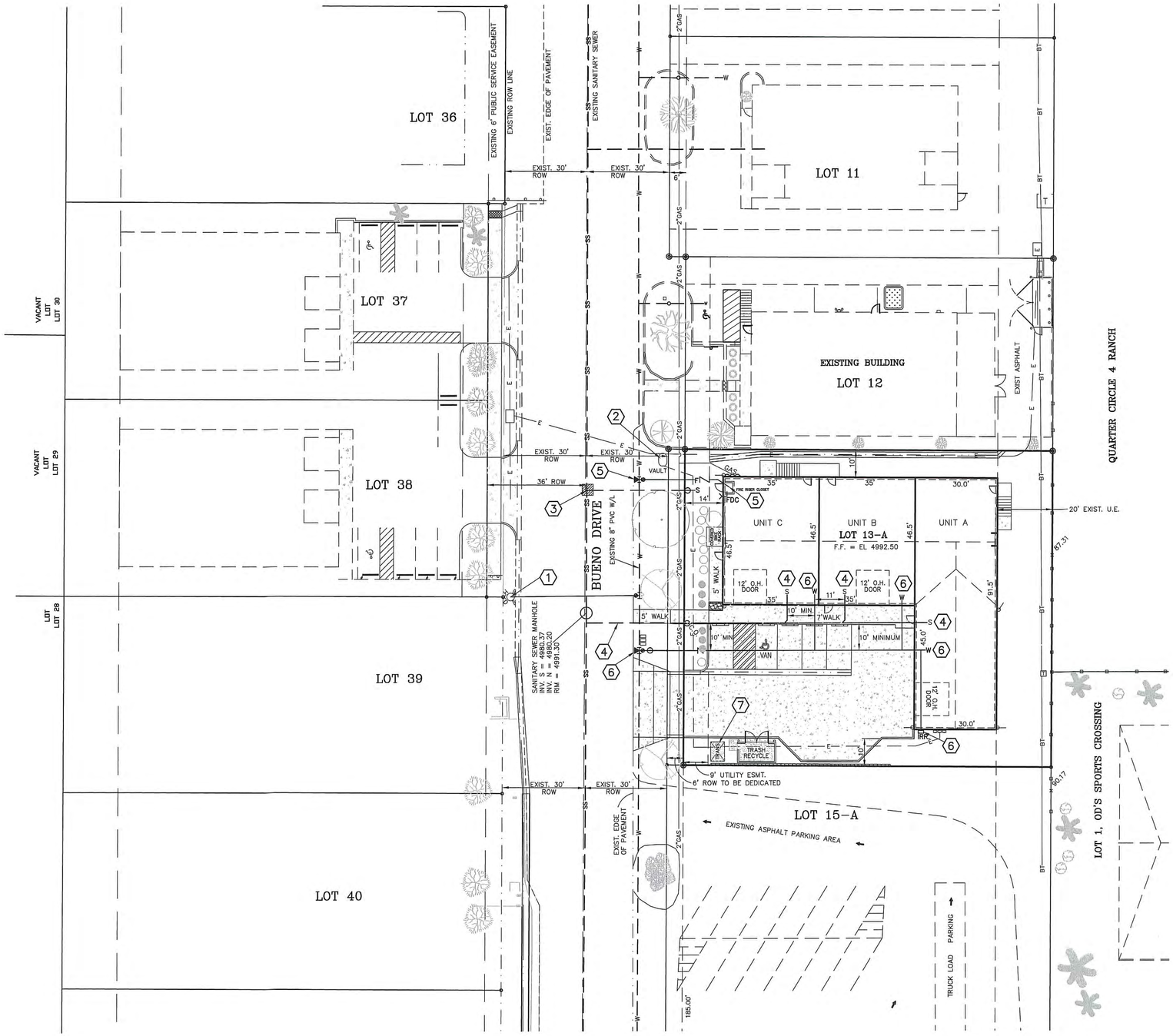
Date MAY 2019 | Drawn B.R.B. & D.M.C.
Field Book ____ | Checked B.W.S.
Scale 1" = 10' | Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: STANDARD EROSION CONTROL NOTES
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18 | SHEET NO. 3 | NO. OF SHEETS 11



MASTER UTILITY PLAN GENERAL NOTES:

1. All water distribution system construction shall conform to the most current Fort Collins - Loveland Water District Construction Specifications and requirements.
2. All sanitary sewer construction shall conform to the most current South Fort Collins Sanitation District Construction Specifications and requirements.
3. See Sheet 2 for Fort Collins - Loveland Water District and South Fort Collins Sanitation District General Notes.
4. Reduced pressure Back-Flow-Prevention assembly required on the fire line, water service and irrigation service.

MASTER UTILITY PLAN CONSTRUCTION NOTES:

(1) **Existing:**
- Fire hydrant assembly to remain
- 6" gate valve

(2) **Furnish and Install (by City of Fort Collins Light and Power):**
- Electric vault at the N.W. corner.

NOTE: Place vault behind future curb and gutter at the top of curb elevation based on the Bueno Drive Plan and Profile and the Bueno Drive typical street section. Vault should be staked for proper horizontal and vertical location.

(3) **Existing:**
- 4" PVC sanitary sewer service with 4" plug

Verify:
- Exact horizontal and vertical location of sanitary sewer service

Sawcut, remove and haul:
- Approximately 16 SF of existing asphalt at sewer main; haul

Abandon:
- Existing sewer service at the main

Furnish and Install:
- Approximately 16 SF of asphalt patch

(4) **Existing:**
- 4" PVC sanitary sewer service with 4" plug

Verify:
- Exact horizontal and vertical location of sanitary sewer service

Furnish and Install:
- Continue the 4" PVC sanitary sewer service to building w/clean outs

NOTE: Place individual services off the main service as directed based on floor plan and plumbing requirements.

(5) **Existing:**
- 8" PVC water line

Verify:
- Exact horizontal and vertical location of existing 8" PVC water line

Furnish and Install:
- 1 - 8x4 tapping saddle and 4" tapping valve with Megalug joint restraint and thrust block
- Approximately 32 LF of 4" high pressure PVC fire service line tracer wire
- Reduced pressure Back-Flow-Prevention assembly in the 9' Utility Easement
- Fire Department Connection (FDC) from building (see note below)
- See **TRENCH and BEDDING TYPICAL** detail

NOTE: Fire Department Connection (FDC) shown for clarity. FDC will be installed from building fire line riser. FDC may run parallel to the fire service main in the same trench.

(6) **Furnish and Install:**
- 1 - 1" water service, meter pit and stop box
- Reduced pressure Back-Flow-Prevention assembly in the 9' Utility Easement, 3 - 3/4" water service lines and 1 - 3/4" irrigation line from 1" line
  - See **TRENCH and BEDDING TYPICAL** detail
  - See **TYPICAL UTILITY SERVICE and METER PIT** detail

(7) **Furnish and Install (by City of Fort Collins Light and Power):**
- Electric transformer pad and transformer at the S.W. corner.
- See Light and Power detail **ESS-8.1** on detail sheet

NOTE: Transformer shall be within 10' of a drivable surface with 10' minimum clearance from the front and 3' around the back and sides of the unit

NOTE: Our electrician will connect to the transformer and run electric service lines to the electric meters.

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

LEGEND

- EXIST. WATER LINE
- WATERLINE W/T.B.,TEE,VALVE,SERVICE
- EXIST. SEWER LINE
- SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
- EXIST.FIRE HYDRANT
- FIRE HYDRANT ASSEMBLY
- REDUCED PRESSURE BACK-FLOW-PREVENTION ASSEMBLY
- BORING HOLE LOCATION
- STREET LIGHTS
- IRRIGATION VAULT
- CABLE PEDESTAL
- (DS) EXISTING DOWN SPOUTS
- OHP EXISTING OVERHEAD POWER W/POLE
- FO EXISTING FIBER OPTIC LINE
- G EXISTING GAS LINE
- E EXISTING ELECTRIC LINE & TRANSFORMER
- BT EXISTING BURIED TELEPHONE & PEDESTAL
- E PROPOSED ELECTRIC LINE & TRANSFORMER

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Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 | Drawn B.R.B. / D.M.C.
Field Book ____ | Checked B.W.S.
Scale 1" = 20' | Approved B.W.S.

CLIENT: BARRY VAN EVEREN

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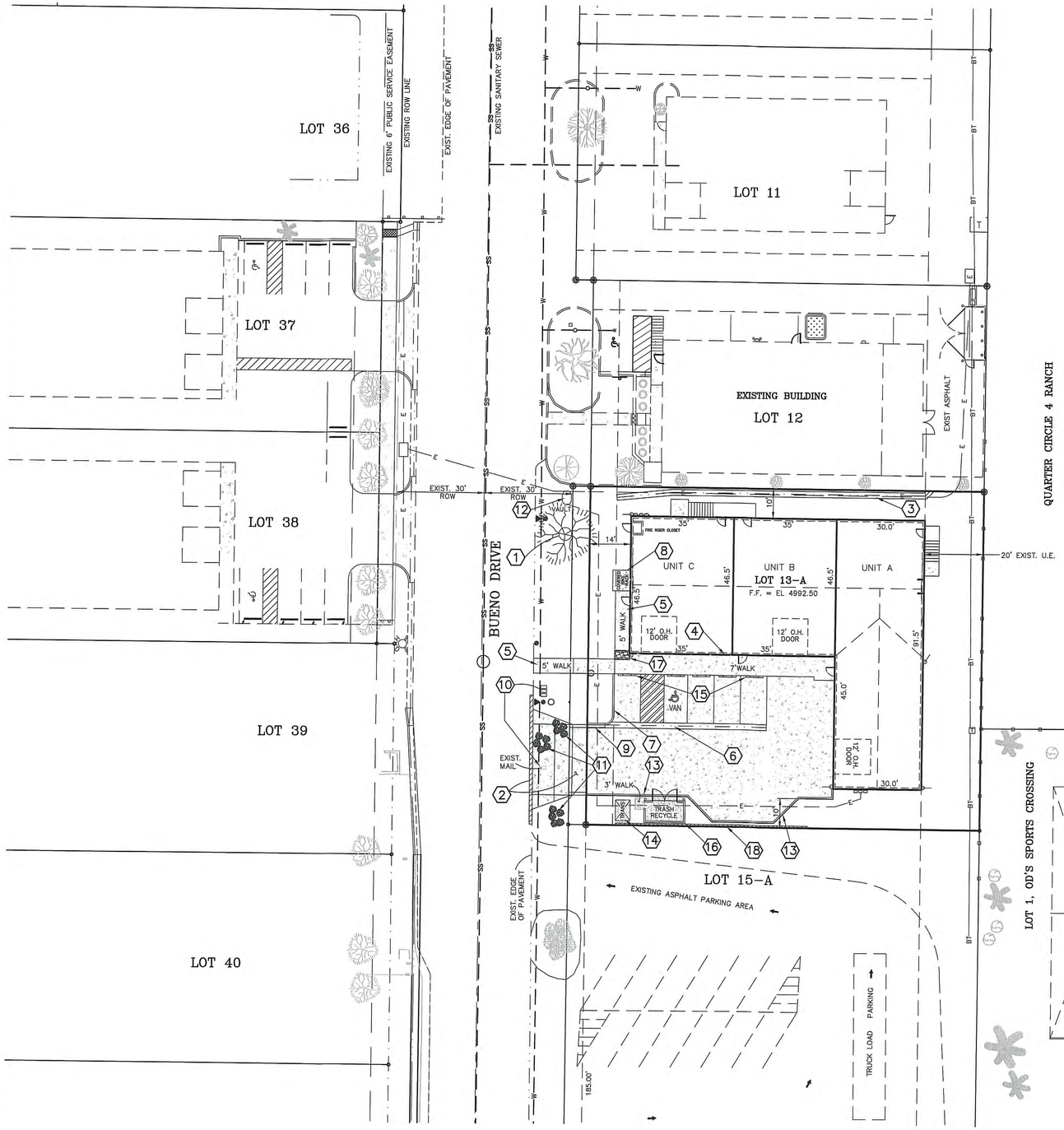
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: MASTER UTILITY PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18 | SHEET NO. 4 | NO. OF SHEETS 11



MASTER IMPROVEMENTS PLAN CONSTRUCTION NOTES:

1 **Existing:**
- Existing 30" Willow

Remove and Haul:
- Willow at the N.W. corner of the property.

NOTE: New trees will be installed per the Landscape Plans

2 **Existing:**
- Asphalt Road (Bueno Dr.)

Remove and Haul:
- Saw cut 12" wide and 44 L.F. long.
- Approximately 44 Sq. Ft. of asphalt and base remove.

Furnish and Install:
- Install new 8" Concrete Driveway Approach and 5' new walk.
- **See STANDARD DRIVEWAY APPROACH DETACHED WALK (Type 10) DETAIL 706.1 ON DETAIL SHEET**

NOTE: Construct the 5' wide detached walk (8" thick) per the Master Grading Plan then form and pour the driveway approach down to the existing Bueno Drive.

3 **Furnish and Install:**
- 108 L.F. of 2 foot wide V-pan along the north property as shown.
- **See 2 FOOT V-PAN DETAIL ON DETAIL SHEET**

4 **Furnish and Install:**
- 75 L.F. of 7' wide sidewalk from the 9' utility easement east to Unit A.
- **See SIDEWALK ON DETAIL SHEET**

5 **Furnish and Install:**
- 48 L.F. 5' wide sidewalk.
- **See SIDEWALK ON DETAIL SHEET**

6 **Furnish and Install:**
- 55 L.F. of 2' V-pan along the parking area.
- **See DETAIL ON DETAIL SHEET**

7 **Furnish and Install:**
- 19 L.F. of Barrier curb along the west side of parking area.
- **See DETAIL ON DETAIL SHEET**

8 **Furnish and Install:**
- Concrete pad and covered bike parking for four bikes.
- **See DETAILS ON DETAIL SHEET**

9 **Furnish and Install:**
- 6 L.F. of infall curb and gutter.
- **See DETAIL ON DETAIL SHEET**

10 **Existing:**
- 1 Mail box

Remove & Haul & Install:
- 3 New boxes, place them on the north side of the new drive entrance, per plan.

11 **Existing:**
- 3 Clumps of scrub Elm trees.

Remove & Haul & Install:
- Grub and clear the 3 existing clumps of Elm trees.

NOTE: New trees will be installed per the Landscape Plans.

12 **Furnish and Install (by City of Fort Collins Light and Power):**
- Oval Electric Vault at N.W. corner.
- **See Light and Power DETAIL ESS-8.1 on DETAIL SHEET**

NOTE: Oval Electric Vault shall be placed in the future parkway area.

13 **Furnish and Install:**
- 91 L.F. of Barrier curb along the south parking area.
- **See BARRIER CURB DETAIL ON DETAIL SHEET**

14 **Furnish and Install:**
- Electric Transformer by City Light and Power at the S.W. corner.
- **See Light and Power DETAIL ESS-8.1 on DETAIL SHEET**

NOTE: Transformer location will need to be coordinated with Light and Power. Transformer must be placed within 10 ft of a drivable surface for installation and maintenance purposes. The transformer must also have a front clearance of 10 ft and side/rear clearance of 3 ft minimum.

15 **Furnish and Install:**
- 5 Parking Blocks
- **See PARKING BLOCK DETAIL ON DETAIL SHEET**

16 **Furnish and Install:**
- Concrete pad and trash enclosure.
- Depress curb for trash enclosure access
- **See TRASH AND RECYCLING DETAIL ON SITE PLAN**

17 **Furnish and Install:**
- 5LF Metal sidewalk chase at the S.W. corner of Unit C.
- **See METAL SIDEWALK CHASE DETAIL ON DETAIL SHEET**

18 **Furnish and Install:**
- 65 LF of short retaining wall.

GRAPHIC SCALE

20 0 10 20 40

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LEGEND

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- WATERLINE W/T.B.,TEE,VALVE,SERVICE
- EXIST. SEWER LINE
- SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
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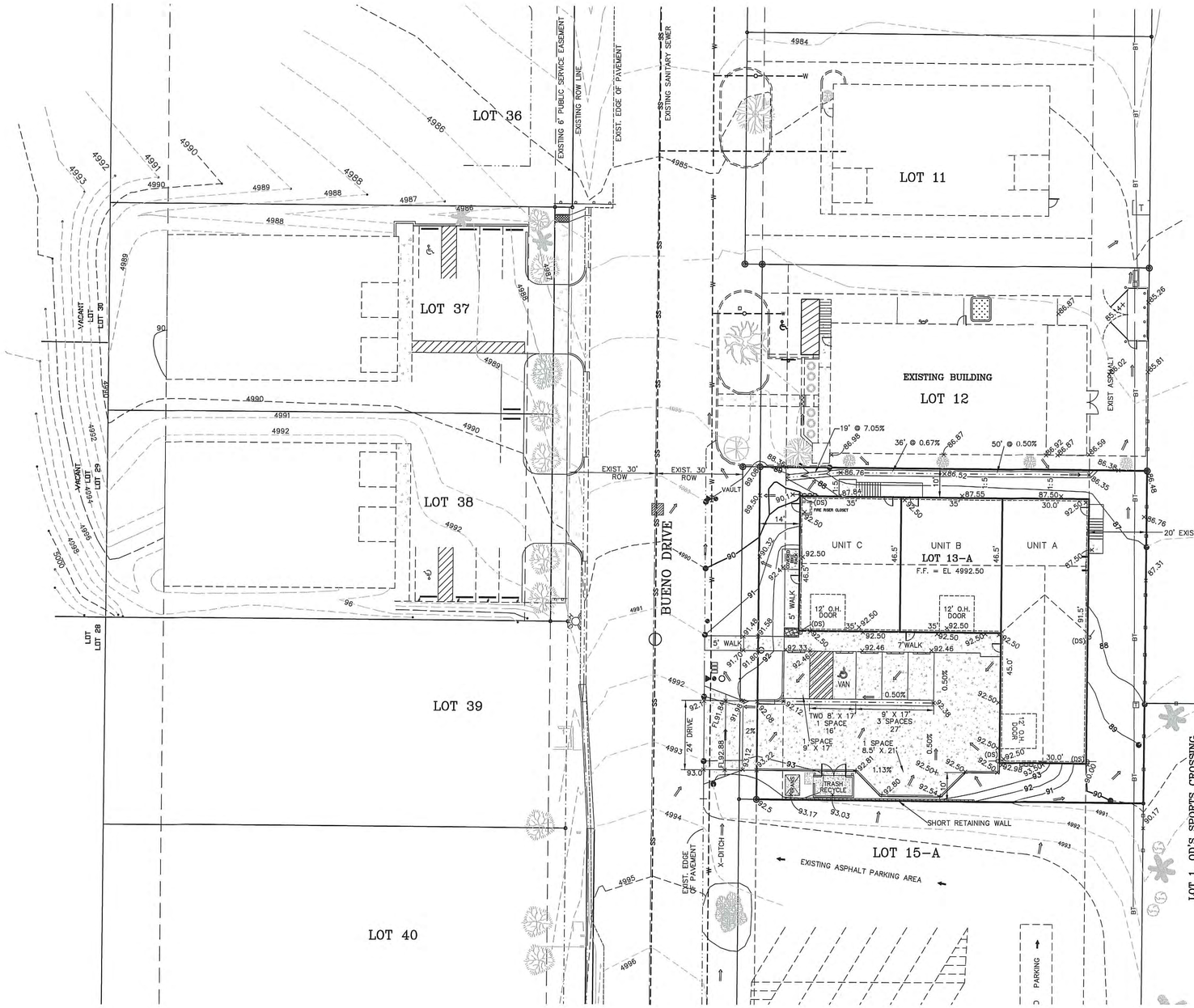
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: MASTER IMPROVEMENTS PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18 | SHEET NO. 5 | NO. OF SHEETS 11

May 22, 2019 - 3:24pm Z:\V-Clients\Von Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\05 M-IMPROVEMENTS.dwg Brent



LEGEND

- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- EXIST. WATER LINE
- WATERLINE W/T.B.,TEE,VALVE,SERVICE
- EXIST. SEWER LINE
- SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
- EXIST.FIRE HYDRANT
- FIRE HYDRANT ASSEMBLY
- BORING HOLE LOCATION
- STREET LIGHTS
- IRRIGATION VAULT
- CABLE PEDESTAL
- (DS) EXISTING DOWN SPOUTS
- OHP EXISTING OVERHEAD POWER W/POLE
- FO EXISTING FIBER OPTIC LINE
- g EXISTING GAS LINE
- e EXISTING ELECTRIC LINE & TRANSFORMER
- BT EXISTING BURIED TELEPHONE & PEDESTAL
- E PROPOSED ELECTRIC LINE & TRANSFORMER

NOTE: Symbols shown in this Legend may or may not have been used for the preparation of this project.

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE

CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY: _____ STORMWATER UTILITY _____ DATE

CHECKED BY: _____ PARKS AND RECREATION _____ DATE

CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE

CHECKED BY: _____ LIGHT AND POWER _____ DATE

CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

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REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

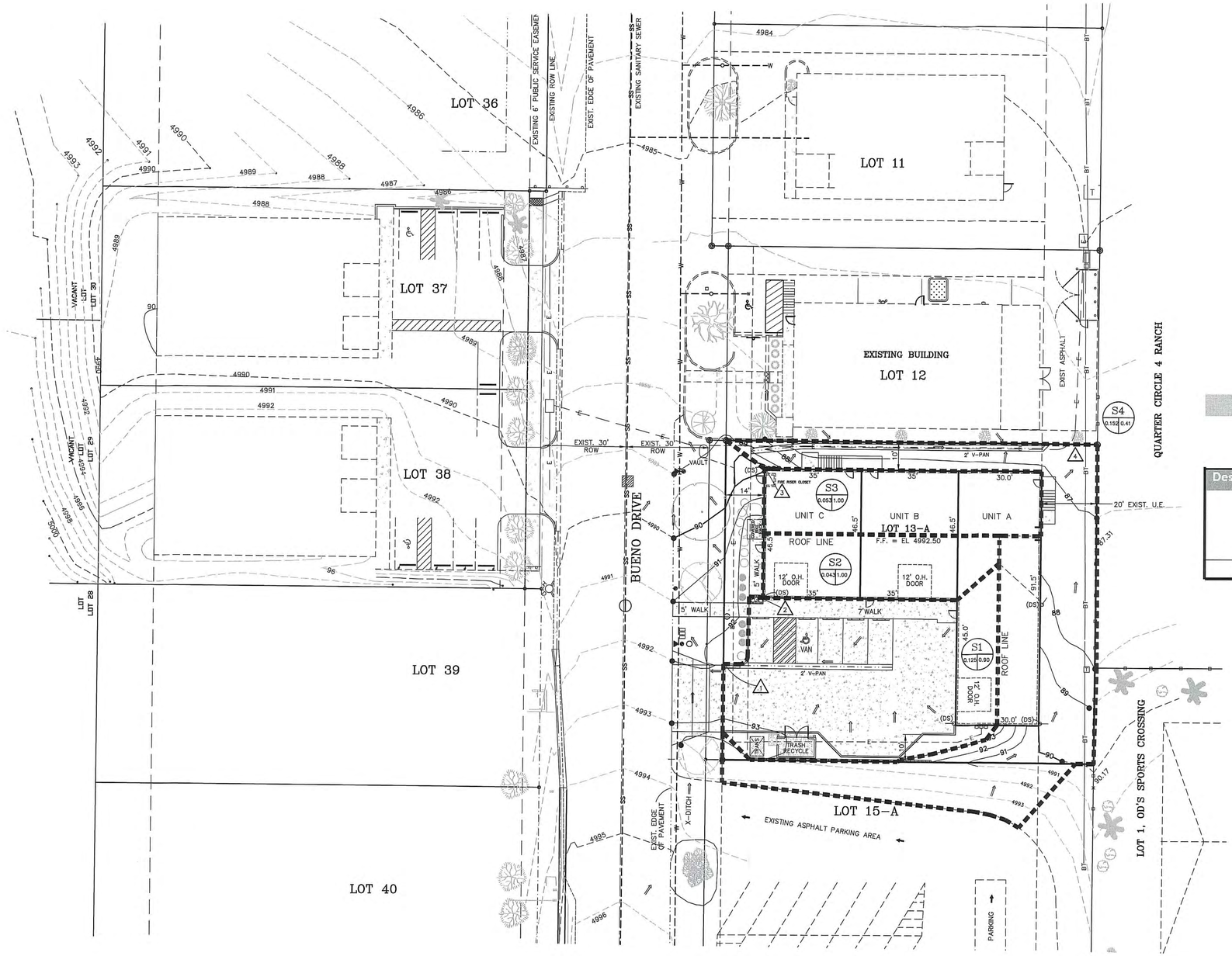
Date MAY 2019 Drawn B.R.B. / D.M.C.
Field Book ____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

CLIENT
BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE
MASTER GRADING PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18
SHEET NO. 6
NO. OF SHEETS 11



GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

LEGEND

- 5023 — EXISTING 1' CONTOUR
- 5020 — EXISTING 5' CONTOUR
- 5024 — PROPOSED 1' CONTOUR
- 5020 — PROPOSED 5' CONTOUR
- RAIN GARDEN BASIN BOUNDARY
- FLOW DIRECTION
- SCOURSTOP
- A = BASIN DESIGNATION
  B = AREA IN ACRES
  C = COMPOSITE RUNOFF COEFFICIENT (100 YR. EVENT)
- D = DESIGN POINT DESIGNATION
- PROPOSED STORM SEWER
- EXISTING STORM SEWER

Proposed Condition Hydrology Summary Table

5724 Bueno Drive
Fort Collins, CO

Design Point	Basins	Area (ac)	%Imp	C_2	C_{100}	Q_2 (cfs)	Q_{100} (cfs)
1	S1	0.217	91.4%	0.91	1.00	0.56	2.16
2	S2	0.043	90.0%	0.95	1.00	0.12	0.43
3	S3	0.053	90.0%	0.95	1.00	0.14	0.53
4	S4	0.152	22.2%	0.33	0.41	0.14	0.62
Site	**S1,S2,S3,S4**	**0.465**	**68.6%**	**0.73**	**0.81**	**0.96**	**3.74**

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE
CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE
CHECKED BY: _____ STORMWATER UTILITY _____ DATE
CHECKED BY: _____ PARKS AND RECREATION _____ DATE
CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE
CHECKED BY: _____ LIGHT AND POWER _____ DATE
CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

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REVISIONS
Date ____ By ____ Description ____
Date ____ By ____ Description ____
Date ____ By ____ Description ____

Date MAY 2019 Drawn B.R.B. / D.M.C.
Field Book ____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

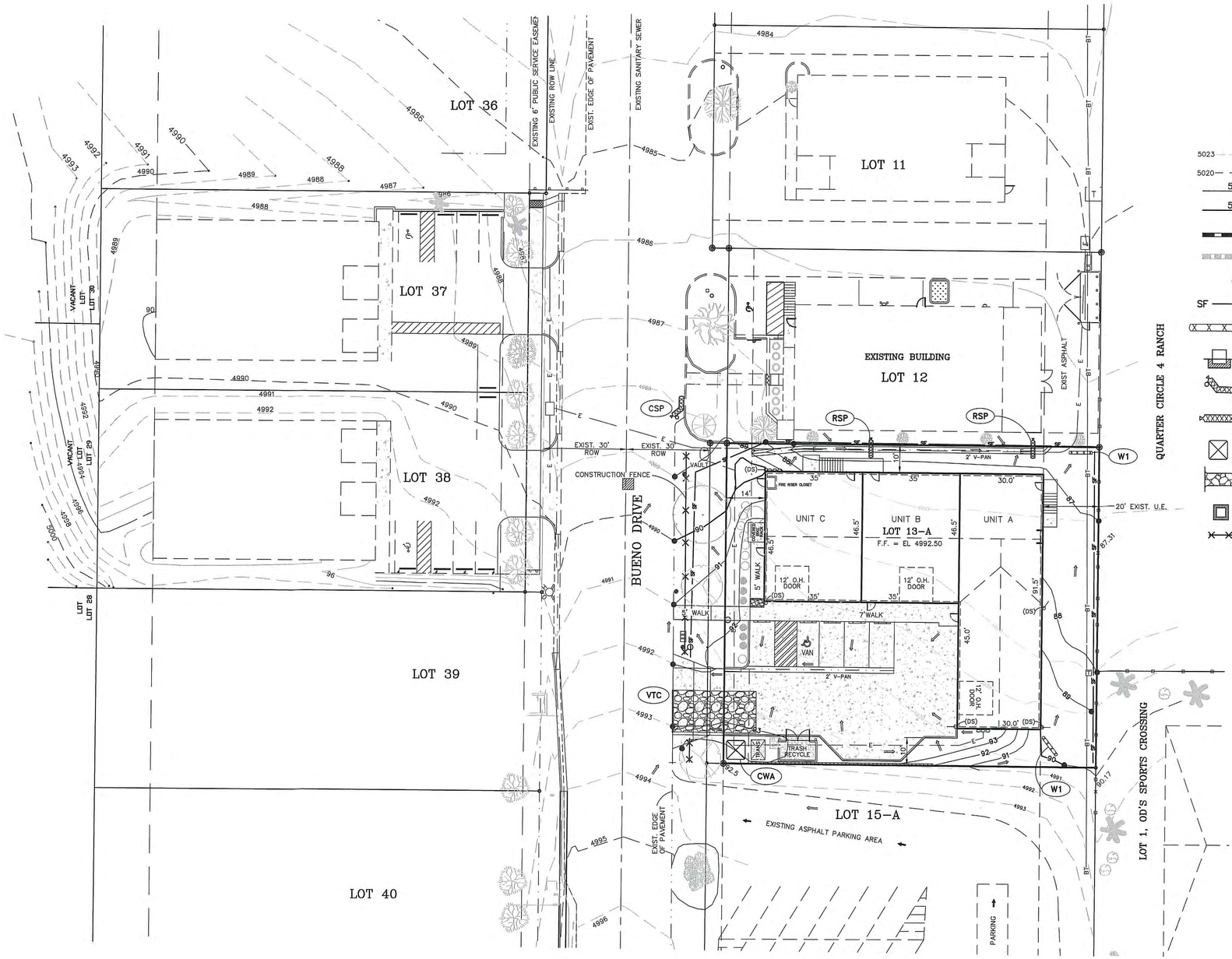
CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE: DRAINAGE PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18
SHEET NO. 7
NO. OF SHEETS 11

May 22, 2019 - 3:31pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\07 DRAIN.DWG Brent



LEGEND

- EXIST. WATER LINE
- WATERLINE W/T.B.,TEE,VALVE,SERVICE
- EXIST. SEWER LINE
- SANITARY SEWER W/ FLOW ARROW, MH,SERVICE
- EXIST.FIRE HYDRANT
- FIRE HYDRANT ASSEMBLY
- BORING HOLE LOCATION
- STREET LIGHTS
- IRRIGATION VAULT
- CABLE PEDESTAL
- (DS) EXISTING DOWN SPOUTS
- 5023 EXISTING 1' CONTOUR
- 5020 EXISTING 5' CONTOUR
- 5024 PROPOSED 1' CONTOUR
- 5020 PROPOSED 5' CONTOUR
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- FLOW DIRECTION
- SF SILT FENCE
- W1 WATTLES
- CIP CURB INLET BLOCK/GRAVEL FILTER
- CSP CURB SOCK PROTECTION
- RSP ROCK SOCK PROTECTION
- CWA CONCRETE WASHOUT AREA
- VTC VEHICLE TRACKING CONTROL PAD
- AIP AREA INLET PROTECTION
- CONSTRUCTION FENCE

NOTE: Symbols shown in this Legend may or may not have been used for the preparation of this project.

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

CONSTRUCTION SEQUENCE

STANDARD FORM C

PROJECT: LOT 13-A, AMENDED PLAT OF LOTS 13-16, SOUTH 13 SUBDIVISION

MAY 2019

Indicate by use of a bar line or symbols when erosion control measures will be installed. Major modifications to an approved schedule may require resubmitting a new schedule for approval by the City Engineer.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12
Mobilization/Utilities												
Grading												
Foundation/Vertical												
Wind Erosion Control:												
Soil Roughing												
Perimeter Barrier												
Additional Barriers												
Vegetative Methods												
Soil Sealant												
Water Truck												
Rainfall Erosion Control												
Structural:												
Curb Inlet Filter												
Wattles Barrier												
Silt Fence Barriers												
Curb and Rock Socks												
Bare Soil Preparation												
Contour Furrows												
Terracing												
Asphalt/Concrete												
VTC/Concrete Washout												
Porta Jons												
Material Storage												
Vegetative:												
Permanent Seed Planting												
Mulching/Sealant												
Temporary Seed Planting												
Sod Installation												
Nettings/Mats/Blankets												
Soil Amending												

STRUCTURES: INSTALLED BY: CONTRACTOR MAINTAINED BY: DEVELOPER

VEGETATION/MULCHING CONTRACTOR: TO BE DETERMINED BY BID

DATE SUBMITTED:_____ APPROVED BY CITY OF FORT COLLINS ON: _____

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED:_____ CITY ENGINEER _____ DATE

CHECKED BY:_____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY:_____ STORMWATER UTILITY _____ DATE

CHECKED BY:_____ PARKS AND RECREATION _____ DATE

CHECKED BY:_____ TRAFFIC ENGINEER _____ DATE

CHECKED BY:_____ LIGHT AND POWER _____ DATE

CHECKED BY:_____ ENVIRONMENTAL PLANNER _____ DATE

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REVISIONS
Date _____ By _____ Description _____
Date _____ By _____ Description _____
Date _____ By _____ Description _____

Date MAY 2019 Drawn B.R.B. / D.M.C.
Field Book _____ Checked B.W.S.
Scale 1" = 20' Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

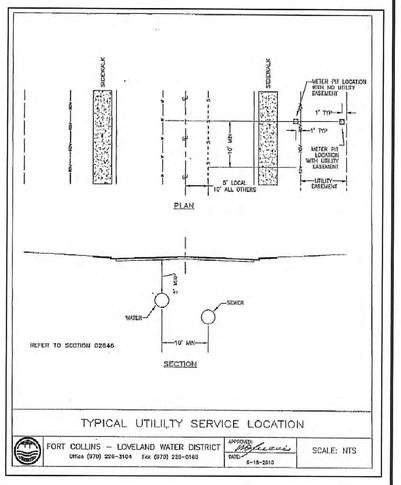
TITLE SEDIMENT/EROSION CONTROL AND WATER QUALITY PLAN
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18

SHEET NO. 8

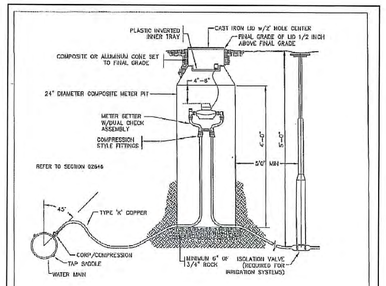
NO. OF SHEETS 11

May 22, 2019 - 3:34pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\08 EROSION.dwg Brent



TYPICAL UTILILTY SERVICE LOCATION

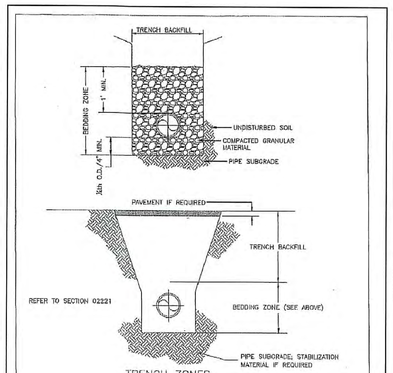
FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0160 | APPROVED: [signature] DATE: 6-18-2010 | SCALE: NTS



GENERAL NOTES:
1. Meter Pits are to be installed at center of lot unless otherwise approved by the District. Meter Pits shall not be located in areas subject to traffic of pedestrian walkways.
2. No landscaping (trees, shrubs, boulders, etc.) is to be within 5 feet of meter pit.
3. Ground surrounding meter pit shall slope away from lid.
4. No plumbing connections are to be made in meter pit.
5. Lawn sprinkler connections are to be at least 5 feet from meter pit on the outlet side.
6. Irrigation systems require an isolation valve downstream of the pit, minimum of 5 feet.
7. Valves to be operated by District personnel only, with exception to the irrigation isolation valves.

TYPICAL METER PIT INSTALLATION

FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0160 | APPROVED: [signature] DATE: 6-18-2010 | SCALE: NTS

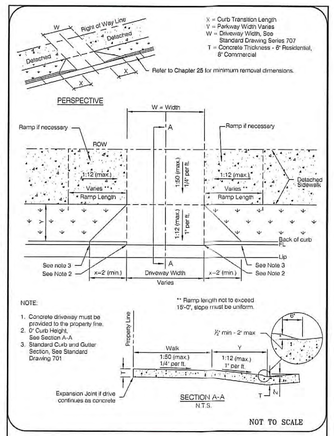


TRENCH ZONES

TRENCH AND BEDDING TYPICAL

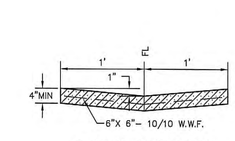
FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0160 | APPROVED: [signature] DATE: 6-18-2010 | SCALE: NTS

FOR REFERENCE ONLY

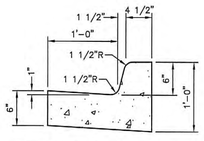


STANDARD DRIVEWAY APPROACH DETACHED WALK (Type I)

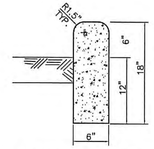
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1	DRAWING
		DATE: 02/17/15	706.1



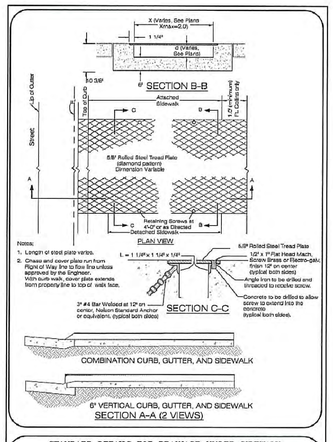
2 FT V-PAN DETAIL
NTS



INFLOW CURB AND GUTTER
N.T.S.

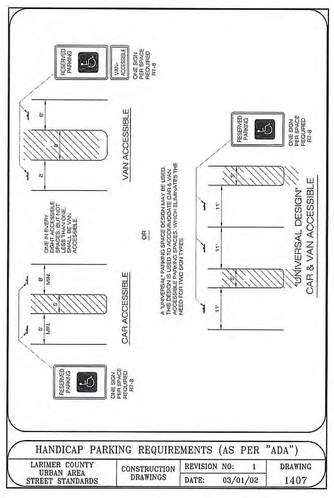


BARRIER CURB DETAIL
N.T.S.



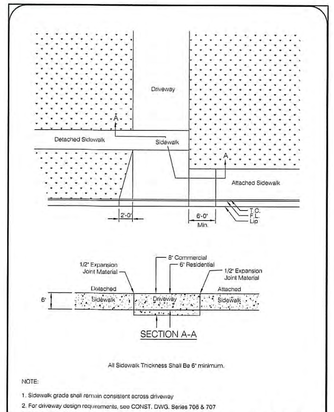
STANDARD DETAILS FOR DRAINAGE UNDER SIDEWALK

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1	DRAWING
		DATE: 04/01/07	709



HANDICAP PARKING REQUIREMENTS (AS PER "ADA")

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1	DRAWING
		DATE: 03/01/02	1407



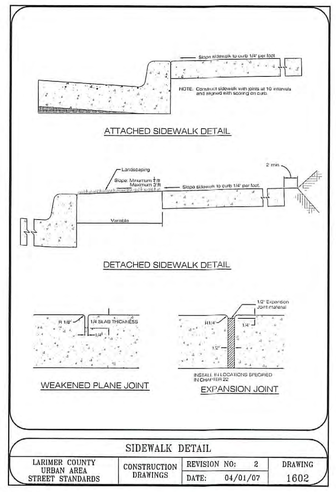
All Sidewalk Thickness Shall Be 6" minimum.

NOTE:
1. Sidewalk grade shall remain consistent across driveway
2. For driveway design requirements, see CONST. DWG. Series 706 & 707
3. This detail applies to Residential & Commercial driveways.

NOT TO SCALE

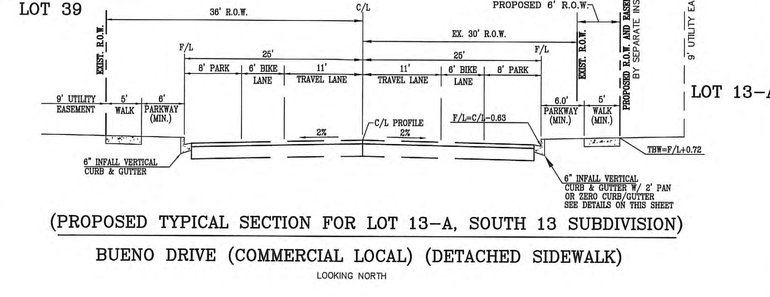
STANDARD SIDEWALK

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 4	DRAWING
		DATE: 02/17/15	1601



SIDEWALK DETAIL

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2	DRAWING
		DATE: 04/01/07	1602

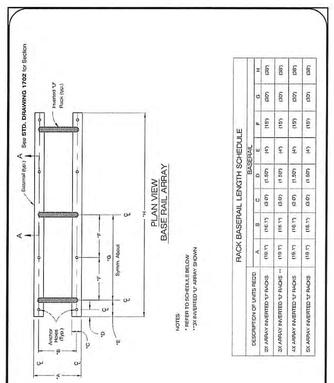


(PROPOSED TYPICAL SECTION FOR LOT 13-A, SOUTH 13 SUBDIVISION)

BUENO DRIVE (COMMERCIAL LOCAL) (DETACHED SIDEWALK)

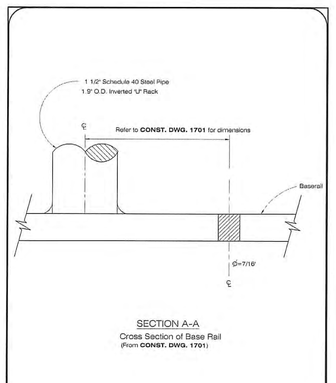
LOOKING NORTH

FOR REFERENCE ONLY



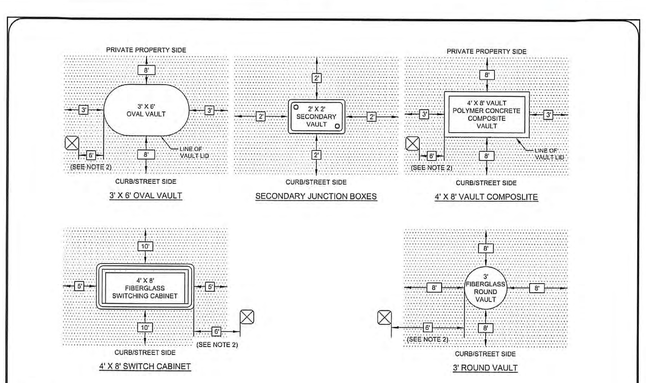
BICYCLE RACK DETAILS

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO:	DRAWING
		DATE: 08/07/00	1701



BICYCLE RACK DETAILS

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO:	DRAWING
		DATE: 08/07/00	1702

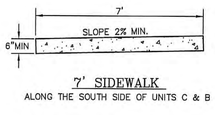


NOTES:

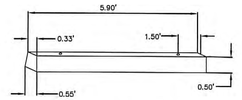
1. In the event of an equipment failure or power outage, it is necessary for utility crews to have adequate access to vaults and padmount equipment for safe operation and repair work. Minimum clearance to the operating sides shall be 8 feet; access to the non-operating sides/rear shall be maintained in accordance with dimensions shown above. No trees, shrubs, fences, large landscape rocks, or other obstructions shall be permitted in access area.
2. NESC (C2-2012) Rule 384C: Bond all above ground metallic power and communication cases or pedestals that are separated by 6 feet or less; use minimum #6 bare copper direct buried a minimum of 18" below grade.

City of Fort Collins Light & Power | ESS-8.1

Date: 04/05/2013	Rev No: 001
Drawn By: J Spaulding	Appr by:
Specification No: 008.1	



7' SIDEWALK
ALONG THE SOUTH SIDE OF UNITS C & B



PARKING BLOCK
N.T.S.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: _____ CITY ENGINEER _____ DATE

CHECKED BY: _____ WATER & WASTEWATER UTILITY _____ DATE

CHECKED BY: _____ STORMWATER UTILITY _____ DATE

CHECKED BY: _____ PARKS AND RECREATION _____ DATE

CHECKED BY: _____ TRAFFIC ENGINEER _____ DATE

CHECKED BY: _____ LIGHT AND POWER _____ DATE

CHECKED BY: _____ ENVIRONMENTAL PLANNER _____ DATE

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REVISIONS
Date _____ By _____ Description _____
Date _____ By _____ Description _____
Date _____ By _____ Description _____

Date MAY 2019 | Drawn D.M.C. & B.R.B.
Field Book _____ | Checked B.W.S.
Scale 1" = 1' | Approved B.W.S.

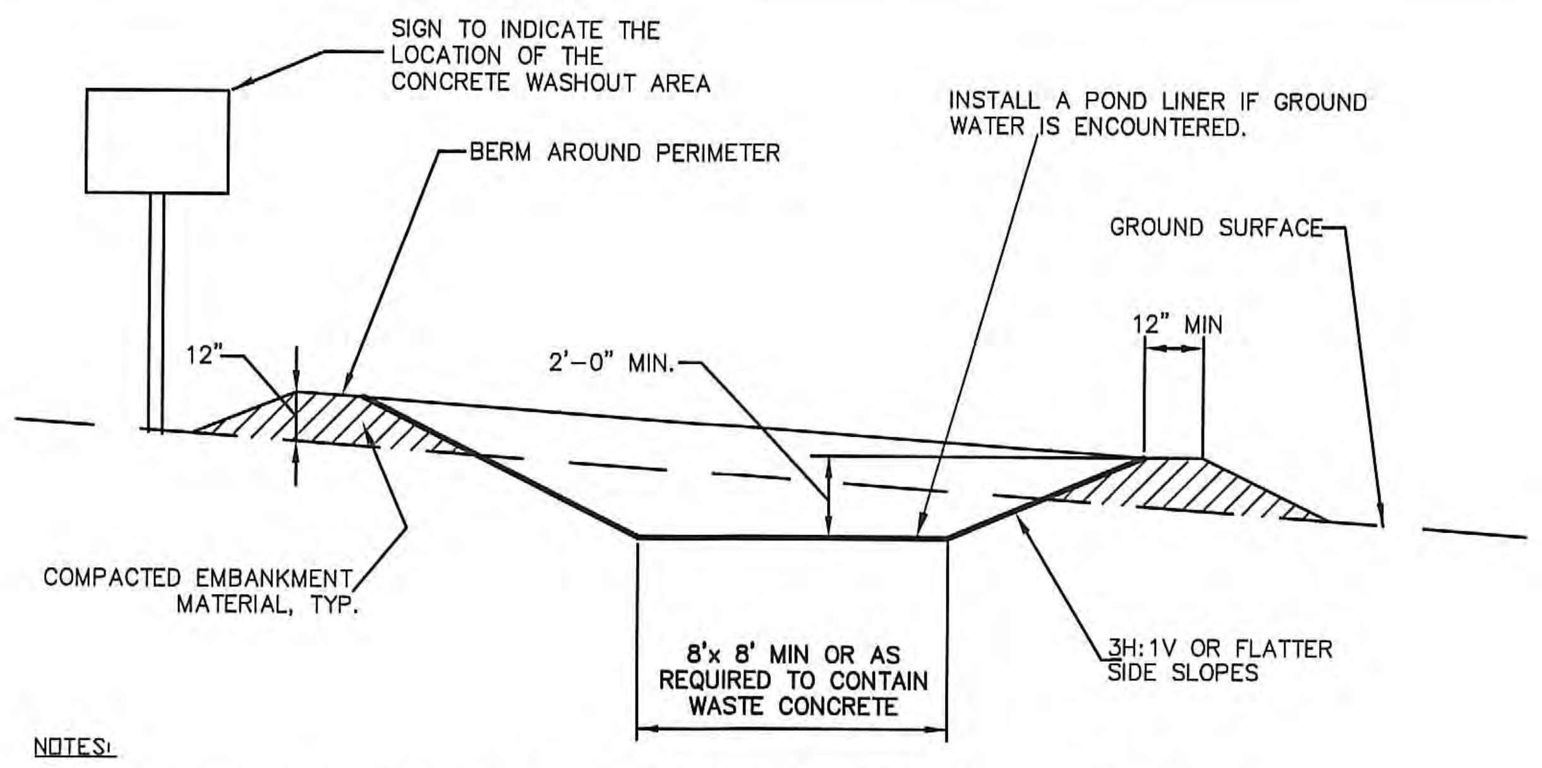
CLIENT
BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE
DETAILS (UTILITIES AND STREETS)
LOT 13-A, AMENDED LOTS 13 – 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO.	SHEET NO.	NO. OF SHEETS
1757-03-18	9	11

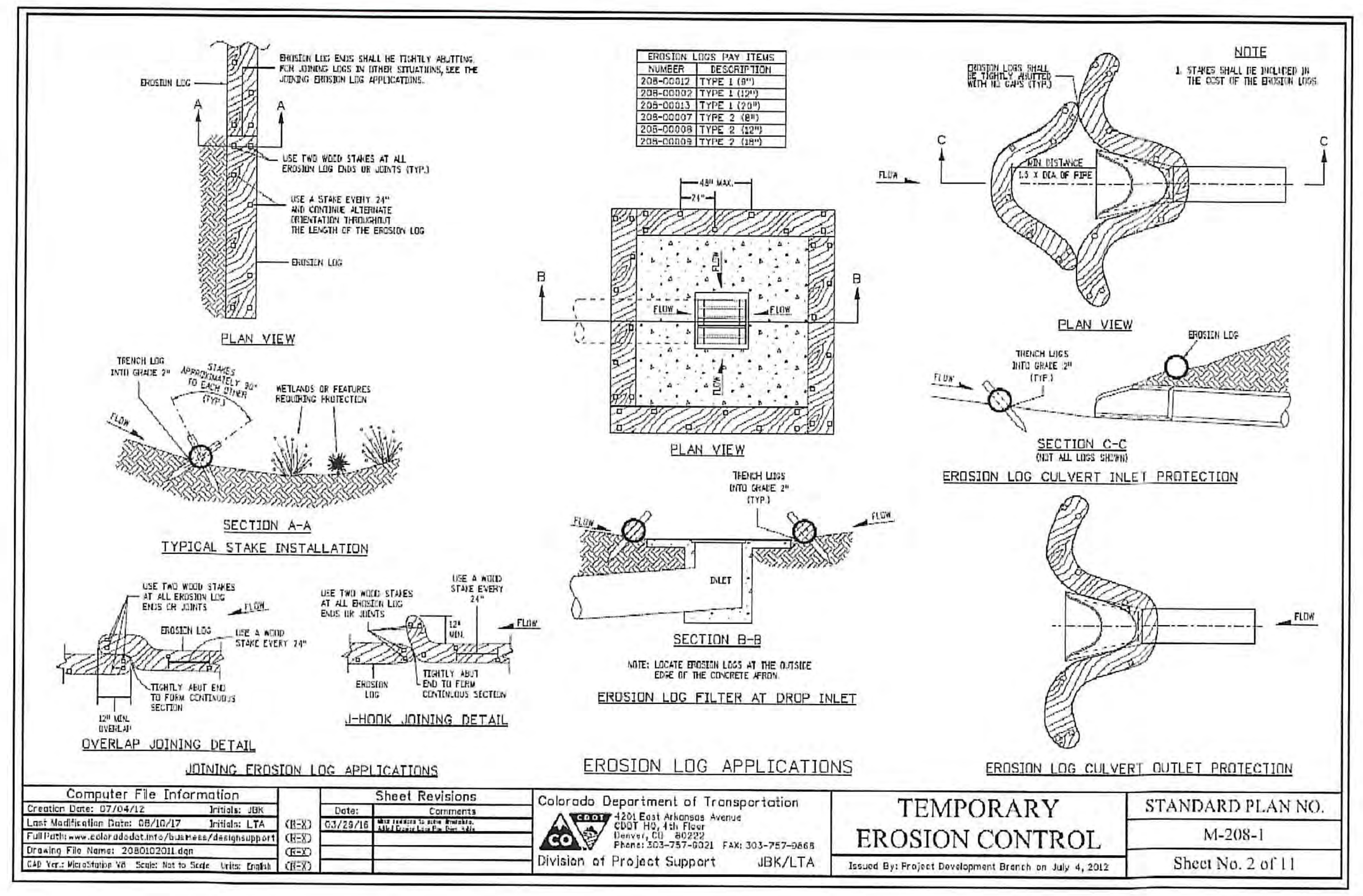
May 22, 2019 – 3:46pm Z:\V-Clients\Van Everen Barry\1757-03-18 Lt 13-A South 13 Subdivision Ft Collins\Civil\dwg\09 DET STREETS-UTILS.dwg Brent

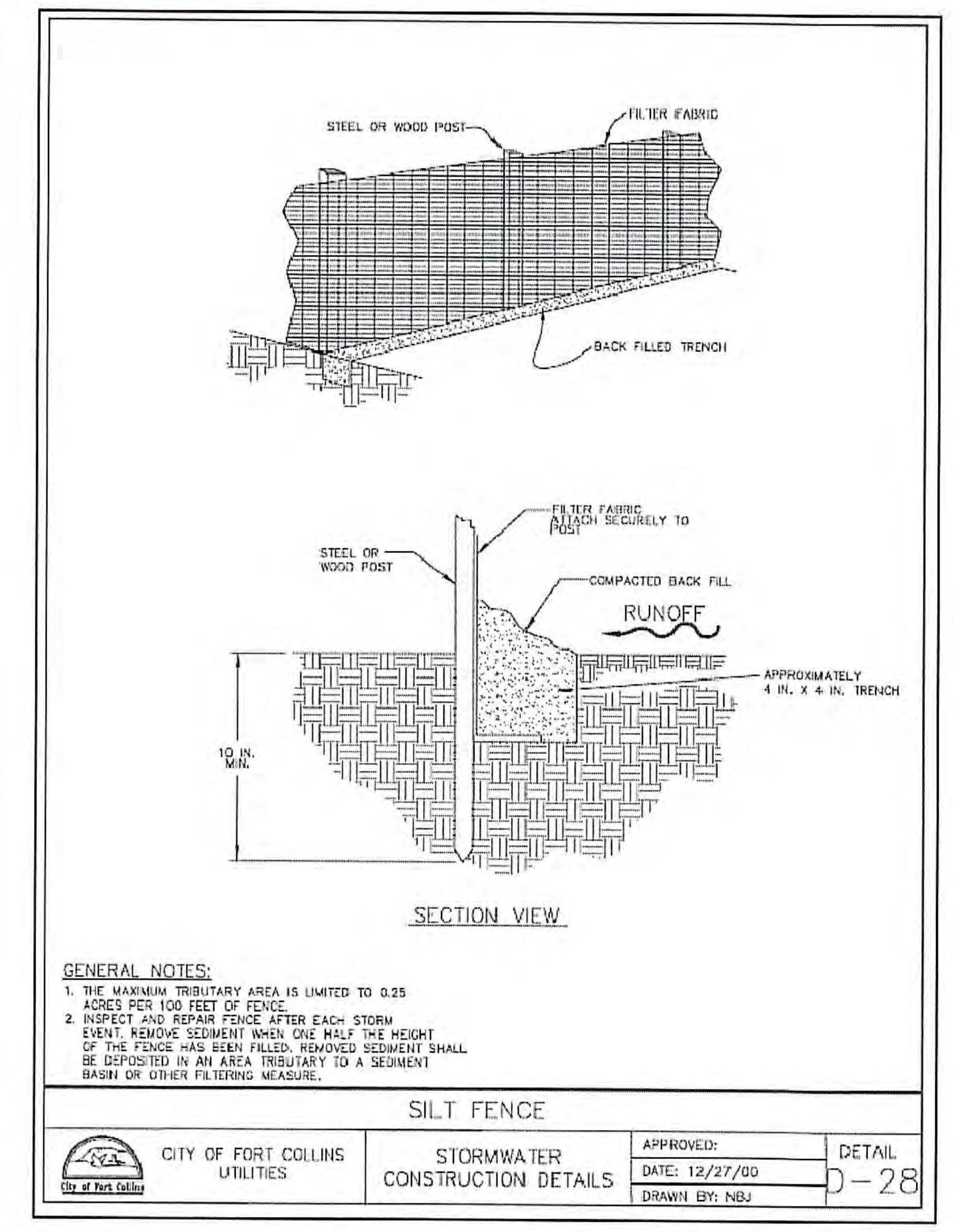


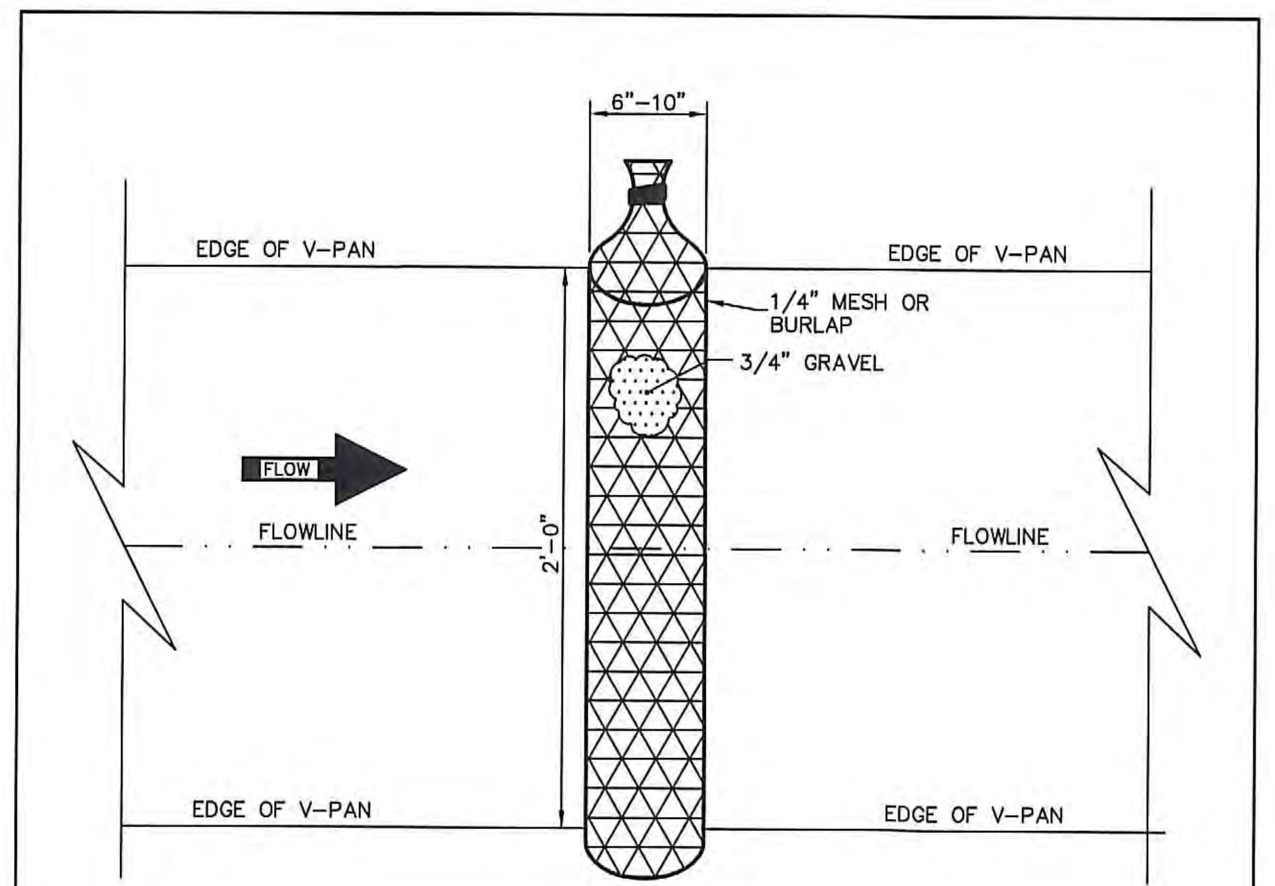
NOTES:

1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. VEHICLE TRACKING CONTROL IS REQUIRED IF ACCESS TO CONCRETE WASHOUT AREA IS OFF PAVEMENT.
3. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
4. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
5. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN ACCEPTED WASTE SITE.
6. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER ACCEPTED BY THE CITY.

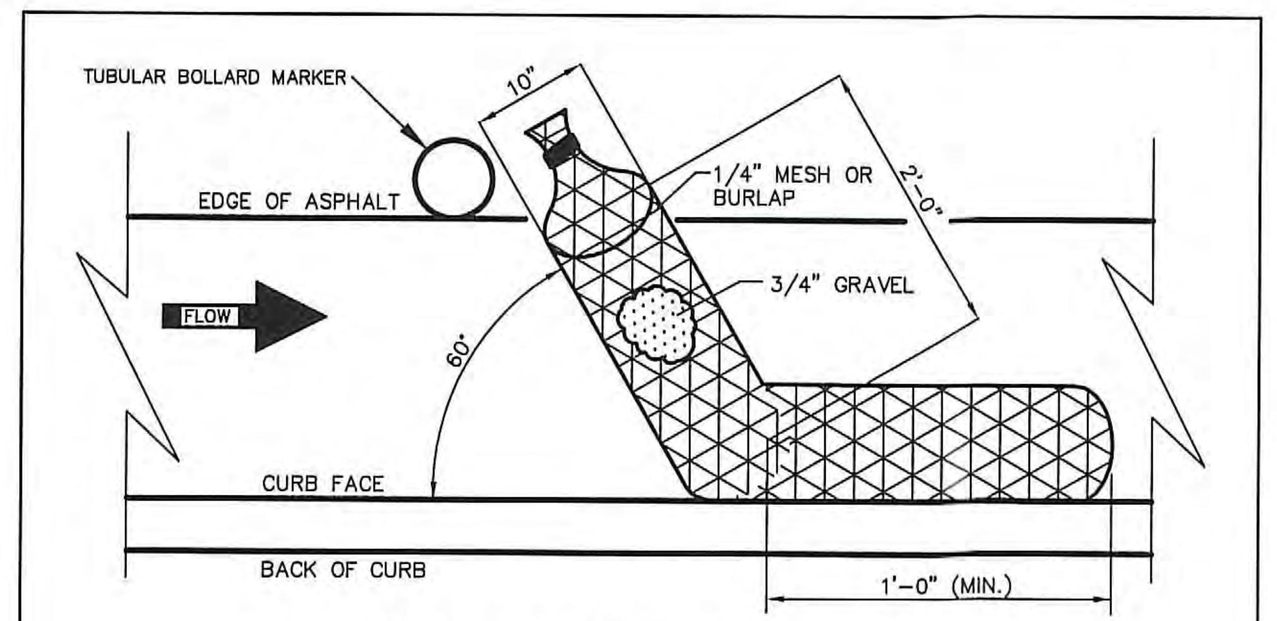
CONCRETE WASHOUT AREA







ROCK SOCK AT V-PAN
N.T.S.

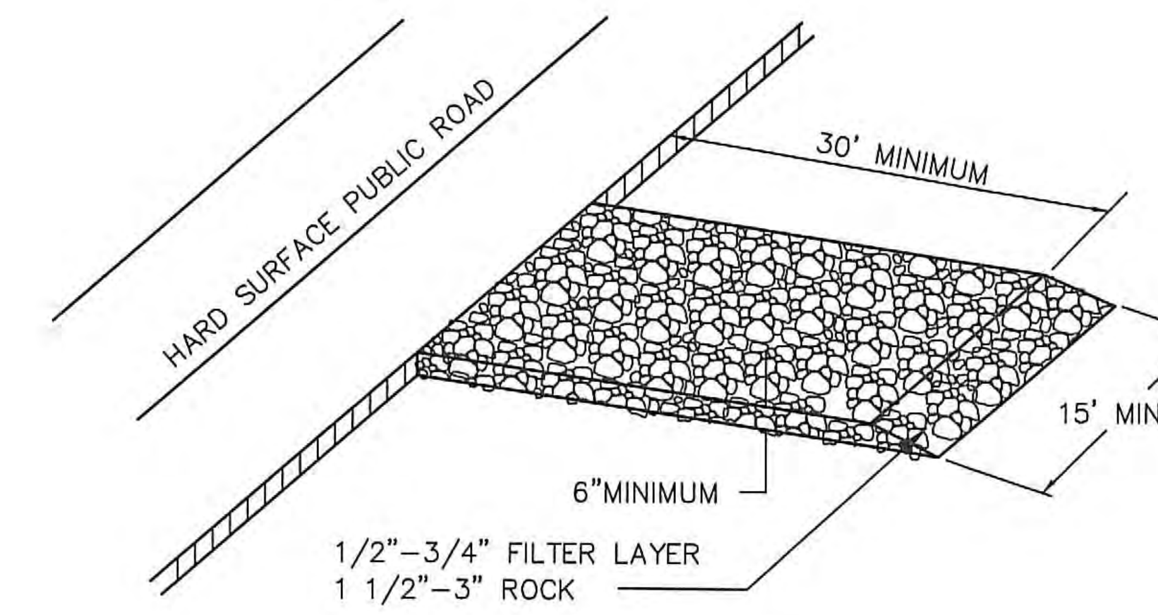


CURB SOCK AT GUTTER
N.T.S.

1.) Socks will be used upgradient of inlet perpendicular to and flush with curb.
2.) No less than two 10-inch diameter socks must be used in sequence, spaced no more than five feet apart, upgradient of inlet.

No less than six socks shall be used if the 4-inch sock is used, also spaced at no more than 5 feet apart.

3.) Incline at 60 degrees from parallel, opposite the direction of flow (as shown above)
4.) Erosion control measures shall be maintained at all times as directed by the local jurisdiction.



TEMPORARY VEHICLE TRACKING CONTROL
NTS

EROSION CONTROL GENERAL NOTES:

1. INSPECT AND REPAIR GRAVEL FILTERS AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE HALF OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA TRIBUTARY TO A SEDIMENT BASIN OR OTHER FILTERING MEASURE.
2. EROSION CONTROL MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: ________ CITY ENGINEER ________ DATE

CHECKED BY: ________ WATER & WASTEWATER UTILITY ________ DATE

CHECKED BY: ________ STORMWATER UTILITY ________ DATE

CHECKED BY: ________ PARKS AND RECREATION ________ DATE

CHECKED BY: ________ TRAFFIC ENGINEER ________ DATE

CHECKED BY: ________ LIGHT AND POWER ________ DATE

CHECKED BY: ________ ENVIRONMENTAL PLANNER ________ DATE

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Futhermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

REVISIONS		
Date ________	By ________	Description ________
Date ________	By ________	Description ________
Date ________	By ________	Description ________

Date MAY 2019 Drawn D.M.C. & B.R.B.
Field Book ________ Checked B.W.S.
Scale 1" = 1' Approved B.W.S.

CLIENT: BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE DETAILS (DRAINAGE, SEDIMENT/EROSION CONTROL AND WATER QUALITY PLAN)
LOT 13-A, AMENDED LOTS 13 - 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757-03-18 | SHEET NO. 10 | NO. OF SHEETS 11

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

LOT 9

LOT 10

LOT 11

EXISTING BUILDING
LOT 12

LOT 13–A
F.F. = EL 4992.50

LOT 15–A

LOT 8
(RAM WASTE SYSTEMS)

CAJI DRIVE

EXISTING PARKING

EXIST. AREA INLET
STA: 7+79.66 INLET

EXISTING

EXISTING ASPHALT PARKING AREA

134.00'

S89°34'30"E

20' & L

ELEC

TELEP

5' WALK

VAN

TRANS

STA: 6+08.27
CL 24' DRIVE

BUENO DRIVE

8+00 7+00 6+00 5+00 4+00

MATCH EXISTING CURB & GUTTER

LOT 34 LOT 35 LOT 36 LOT 37 LOT 38 LOT 39 LOT 40

PVI STA = 2+95
PVI ELEV = 4997.15
A.D. = −1.80
K = 30.56
55.00' VC

5000 4995 4990 4985 4980 4975 4970 4965 4960

EXIST INLET
STA: 7+79.66 INLET

EXIST ASPHALT CL

STA: 7+00 ELEV: 4981.00

GRADE BREAK
STA: 6+63 ELEV: 4982.00

STA: 6+08.27 ELEV: 4983.58
START ULTIMATE IMPROVEMENTS

STA: 5+68.27 ELEV: 4984.97

STA: 5+29.27 ELEV: 4985.34
END ULTIMATE IMPROVEMENTS

PROPOSED CL

STA: 4+94 ELEV: 4987.58

STA: 4+55 ELEV: 4989.12

STA: 4+31 ELEV: 4990.12

STA: 3+43 ELEV: 4993.95
CROSS SECT F–F

STA: 3+63 ELEV: 4993.10

LOT 13–A
24'
DRIVEWAY

PROPOSED CL
EXIST ASPHALT CL

STA: 3+22.50
ELEV: 4995.98

STA: 2+67.50
ELEV: 4997.82

EXIST GROUND 25' RIGHT

PROPOSED FL 25' RIGHT

TRANSITION FL FROM 25'
RIGHT TO EXISTING INLET FL

STA: 7+49.66 ELEV: 4979.20

PROPOSED FL 25' RIGHT

GRADE BREAK
STA: 6+42.88 ELEV: 4981.90

GRADE BREAK
STA: 6+22.88 ELEV: 4982.49

GRADE BREAK
STA: 6+08.27 ELEV: 4982.94

GRADE BREAK
STA: 5+68.27 ELEV: 4984.24

GRADE BREAK
STA: 5+48.27 ELEV: 4984.84

GRADE BREAK
STA: 5+38.27 ELEV: 4985.17

GRADE BREAK
STA: 5+28.27 ELEV: 4985.54

GRADE BREAK
STA: 4+88.99

GRADE BREAK
STA: 4+69.99

GRADE BREAK
STA: 3+92.47

STA: 4+88 ELEV: 4987.18
CROSS SECT D–D

STA: 4+58.20 ELEV: 4988.36
CROSS SECT E–E

STA: 3+77.09 ELEV: 4991.84
END 24' DRIVEWAY

STA: 3+43 ELEV: 4993.31
CROSS SECT F–F

STA: 3+53.09 ELEV: 4992.88
START 24' DRIVEWAY

PROPOSED FL 25' RIGHT

EXIST GROUND 25' RIGHT

94.44'

CURB, GUTTER AND SIDEWALK
84.07'
CONCRETE ONLY

END CONSTRUCTION
AT STA: 5+42.27

START CONSTRUCTION
AT STA: 4+58.20

−2.70% −2.63% −2.95% 3.11% 3.25% −3.01% −3.29% −3.69% −4.09% −3.95% −4.17% −4.38% −4.25%

60.38' 81.38' 82.52' 83.11' 85.46' 85.79' 86.99' 88.50' 89.49'

(FOR REFERENCE ONLY)

C/L STATIONING 8+00 7+00 6+00 5+00 4+00 3+00 C/L STATIONING

REVISIONS			
Date	By	Description	
Date	By	Description	
Date	By	Description	

Date MAY 2019 Drawn D.M.C.
Field Book Checked B.W.S.
Scale H: 1"=20' & V: 1"=05' Approved B.W.S.

CLIENT
BARRY VAN EVEREN

SHEAR ENGINEERING CORPORATION
4836 SO. COLLEGE AVE, SUITE 12, FORT COLLINS, COLORADO 80525
PHONE: (970) 226-5334 (970) 226-4451 FAX: (970) 282-0311

TITLE BUENO DRIVE PRELIMINARY PLAN & PROFILE (ULTIMATE)
LOT 13–A, AMENDED LOTS 13 – 16, SOUTH 13 SUBDIVISION
FORT COLLINS, COLORADO

PROJECT NO. 1757–03–18

SHEET NO. 11

NO. OF SHEETS 11

May 22, 2019 – 3:56pm Z:\V–Clients\Van Everen Barry\1757–03–18 Lt 13–A South 13 Subdivision Ft Collins\Civil\dwg\11 BUENO DR P&P (ULTIMATE).DWG Brent