Preliminary Drainage Report

For

Stodgy Brewing Co., LLC
1802 and 1804 Laporte Avenue, Fort Collins, Colorado

AGPROfessionals
3050 67th Avenue, Suite 200
Greeley, CO 80634
(970) 535-9318

10/3/2019

AGPROfessionals
DEVELOPERS OF AGRICULTURE

October 3, 2019

Mr. Dan Mogen
City of Fort Collins
281 North College Avenue
Fort Collins, Co 80521

RE: Stodgy Brewing Co, LLC. Preliminary Drainage Report

Dear Mr. Mogen,

Please accept the submittal of the Preliminary Drainage Report for Stodgy Brewing Co, LLC. The preliminary drainage report is to accompany the submittal of the Project Development Plan (PDP).

The Preliminary Drainage report was prepared in accordance with the City of Fort Collins Stormwater Criteria Manual (FCSCM) and the Urban Drainage and Flood Control District (UDFCD) Urban Storm Drainage Criteria Manual. We understand that the City of Fort Collins does not and will not assume liability for drainage facilities designed by others.

If you have any questions, please contact us at (970) 535-9318 or electronically at vlickley@agpros.com.

Sincerely,

Valene Lickley

Chad TeVelde, PE
AGPROfessionals

Valene Lickley, EIT
AGPROfessionals

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Certifications

I hereby attest that this report for the preliminary drainage design for Stodgy Brewing Co., LLC was prepared by me or under my direct supervision, in accordance with the provisions of the Fort Collins Stormwater Criteria Manual and Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual. I understand that the City of Fort Collins does not and will not assume liability for drainage facilities designed by others.

Chad TeVelde, P.E.
AGPROfessionals

Valene Lickley, EIT
AGPROfessionals

Introduction

1. Location

The proposed site is in part of the Southeast ¼ of the Northwest ¼ Section 10, Township 7 North, Range 69 West, of the 6th P.M., Larimer County, CO. This site is located on the north side of Laporte Avenue in Fort Collins, Colorado and directly across from Frey Avenue. Frey Subdivision and City Park North Subdivision are located directly south of the proposed development. Larimer County Canal Number 2 borders the east side of the proposed development. Salud Health Center borders the north and west side of the proposed site. A vicinity map is shown in **Appendix A.**

2. Description of Property

The applicant is proposing the development of 1802 and 1804 Laporte Avenue into a small brewery which will include the brewery, taproom, patio seating, on-site customer parking, food truck parking, landscaping, and employee parking. The total property acreage is 1.19. The proposed site is currently zoned Limited Commercial (C-L).

The existing site consists of a single-family residence located at 1804 Laporte Avenue, one multi-use building, with occupancy of F-2, B and A-2 at 1802 Laporte Avenue, and a commercial building, occupancy B at 1800 Laporte Avenue (which is located on the 1802 Laporte Ave Parcel). The single-family residence currently located at 1804 Laporte Ave. is going to be torn down and used for customer parking. The other buildings will be kept and renovated. The multi-use building will be renovated and used for the brewery and taproom. The commercial building will remain on-site for brewery office use. The two buildings will be connected. The existing asphalt at the customer parking will remain and trimmed to match the proposed site plan.

Currently there are no stormwater features on-site.

There is one main soil type: Nunn clay loam with 1 to 3 percent slope (see USDA-NRCS Custom Soil Resource Report in **Appendix A)**.

Larimer No. 2 irrigation canal borders the property on the east.

Drainage Basin and Sub-Basins

1. Major Basin Description

The proposed site is in the West Vine Basin Master Drainage Plan. The proposed site is currently not located within a proposed improvement or flood control and water quality area. West Vine Basin Plan with the project site labeled is shown in **Appendix A**.

The site has slopes ranging from approximately zero to five percent predominately towards the south. The majority of the stormwater appears to flow south. Due to the dense vegetation, runoff is dissipated either by interception from the large trees and/or a velocity reduction in the sheet flow. A topographic map was downloaded from the United States Geological Survey (USGS) website and is shown in **Appendix A**. The owners are not aware of any previous drainage issues and there was no visible sign of any previous drainage issues on site.

A Federal Emergency Management Administration (FEMA) map of the project area is included in **Appendix A**. The property is located on panel 08123C1575E and is not currently located within a 100-year floodplain.

No off-site flows are anticipated. Off-site flows from the east are intercepted by the Larimer No. 2 irrigation canal. Off-site flows from the south are intercepted and diverted by Laporte Avenue. Topography to the north is flat and off-site flows from the north appear to flow east to northeast toward the Larimer No. 2 irrigation canal. Off-site flows from the west flow south and bypass the site.

2. Sub-Basin Description

There are five sub-basin areas, Sub-basin A, Sub-basin B, Sub-basin C, Sub-basin D and Sub-basin E, that were considered for the drainage report. Sub-basin A, is the proposed customer parking, Sub-basin B is the proposed fire lane, handicap parking and trash enclosure, Sub-basin C is the front deck area, employee parking and front lawn/landscaping, Sub-basin D is the majority of the existing buildings and the northeast corner of the parcel that is densely vegetated, Sub-basin E is the sidewalk, parkway, and entrances. See the Drainage Plan for the Sub-basin delineation.

The customer parking area will include TrueGRID permeable pavers. The TrueGRID pavers are specified as 100% permeable on the surface and will include an underdrain for treatment. For overall pervious calculations, the TrueGRID was assumed to be 40% impervious. The permeable pavers will replace the existing residence, pavement and gravel located at the 1804 Laporte Ave address.

The Existing Features area includes the proposed brewery, taproom, commercial buildings, surrounding landscaping, employee parking, and patio seating. No additional development is being proposed in this area and therefore, the percent imperviousness will not change for this area.

The small area in the northeast corner of the parcel appears to ultimately flow to the canal. No development is proposed in this area and it consists only of vegetation. The vegetation includes large trees (cottonwoods and elms) and lilac bushes.

Sub-basin E sheet flows towards south to the curb and gutter on Laporte Ave.

Drainage Design Criteria

1. Development Criteria

The proposed site runoff was evaluated using the criteria set forth in the Fort Collins Stormwater Criteria Manual (FCSCM) and Urban Drainage and Flood Control District (UDFCD) Criteria Manual Volumes 1, 2, and 3.

2. Four Step Process

The Four Step Process recommended by UDFCD and City of Fort Collins was utilized to reduce runoff volumes and minimize impacts on receiving waters from smaller, more frequently occurring events.

Step 1. Employ Runoff Reduction Practices

To reduce runoff peaks, volumes, and pollutant loads, Stodgy Brewing is proposing to implement the following:

- TrueGRID Pro Plus Pavers (TrueGRID Pavers) are proposed in the customer parking area. The TrueGRID Pro Plus Pavers are 100% permeable and will be gravel filled. The TrueGRID Paver System will filter stormwater through the subbase. An underdrain will be installed and direct flows to the curb and gutter of Laporte Avenue. Specifications are in **Appendix B**.
- No additional permeable areas are being proposed. The existing site (excluding the proposed parking area that will use the TrueGRID Plus Pavers) will remain the same which includes vegetated patio space and landscaping. The patio space and landscaping areas reduce run-off and promote infiltration. The historical drainage pattern will be maintained.

Step 2. Implement BMPs That Provide a WQCV with Slow Release

The TrueGRID pavers will include an 8” subgrade with a 4” underdrain for treatment. The 8” subgrade was designed to hold the major storm event that falls on the parking lot. The water can be temporarily detained prior to draining either through the underdrain or through infiltration. The subgrade acts as a filter for the precipitation falling directly on the surface of the parking lot.

The trash enclosure, concrete apron and small area of proposed asphalt south of the concrete apron will be routed through the TrueGRID pavers system.

The site has existing and established vegetation around the site. The proposed development does not disturb any of the established vegetation on the eastern border, maintains the landscaped areas in front of the proposed brewery, and provides landscaped areas in the proposed customer parking area.

Step 3. Stabilize Stream

Larimer No. 2 Irrigation Canal borders the proposed site. Minimal run-off historically flows that direction. Vegetation bordering the canal includes large trees (cottonwoods and elms) and lilac bushes. This established vegetation will continue to promote stabilized

banks on the canal and will be maintained and kept throughout the development process. This area is within the Natural Habitat Buffer Zone.

Step 4. Implement Site Specific and Other Source Control BMPs

Site specific and other source control BMPs that will be implemented are:

- Trash enclosure is placed adjacent to the parking lot and is fully enclosed. It is not directly next to storm drains or surface water.
- Patio space is going to be maintained with the existing landscaping and will filter run-off from the paved area and roofs.

3. Hydrological Criteria

From FCSCM Chapter 5, Hydrology Standards, Table 3.4-1. the IDF (Intensity Duration Frequency) Table was used to determine the 2 Year, 10 Year and 100 Year Peak Flow Rate. The Table is in **Appendix A**.

Percentage of imperviousness was calculated for the existing site conditions and the proposed site using the recommended values from Table 4.1-3. Surface Type – Percent Impervious (FCSCM Chapter 5 Hydrology Standards). The overall percentage of imperviousness for the existing site is approximately 50 percent and for the proposed site is approximately 50 percent (see Percentage of Imperviousness Calculation in **Appendix A**).

The project size and sub-basins are less than 5 acres, therefore the runoff calculations were computed using the Rational Method. Table 1 summarizes the existing conditions and proposed development flowrates for the sub-basins. Calculations are in **Appendix A**. The total site runoff was calculated by adding the run-off of the sub-basins. Since the majority of the sub-basins are independent of each other and time of concentrations are close, the sum of the run-off of each basin was used.

Table 1: Peak Runoff Flowrates

Peak Runoff	% Imperviousness	2 Year Peak Flowrate (cfs)	10 Year Peak Flowrate (cfs)	100 Year Peak Flowrate (cfs)
Existing Conditions -Total	50%			
Proposed-Total	50%			
DB-A	30%	0.18	0.31	0.86
DB-B	72%	0.35	0.60	1.54
DB-C	15%	0.18	0.31	0.84
DB-D	47%	0.51	0.88	2.24
DB-E	60 %	0.28	0.48	1.22
Total Site Runoff		1.50	2.58	6.70

cfs = cubic feet per second

4. Hydraulic Criteria

The proposed site is not increasing the imperviousness. The proposed development is removing asphalt, gravel, and an existing building, and installing TrueGRID permeable pavers. Since the percentage of imperviousness is not increasing by 1000 square feet or more, a detention pond is not proposed as stated in Chapter 1: Drainage Principles & Policies, 2.3.2 Detention Basin of the Fort Collins Stormwater Criteria Manual (FCSCM). Best Management Practices (BMPs) are proposed which include TrueGRID Permeable Pavers system.

TrueGRID Pavers are proposed for the customer parking lot. The TrueGRID ProPlus Pavers are designed for commercial parking lots. The TrueGRID pavers are specified as 100% permeable on the surface and will include an underdrain for treatment. For overall pervious calculations, the TrueGRID was assumed to be 40% impervious. The Manufacturer's Product Specification Sheet is in **Appendix B**. 8" of subgrade is proposed under the TrueGRID Pavers to detain the major storm volume falling on the proposed parking lot prior to infiltrating into the native soils or draining through the underdrain. The underdrain is proposed on the east edge of the TrueGRID pavers. The underdrain will drain south toward the southern property boundary. There will be an inspection port at the end of the underdrain. The underdrain will be directed to a 4" PVC pipe and flow east under the main entrance. It will flow to a drainage swale for a short distance and then be directed to a sidewalk chase to the proposed curb and gutter on Laporte Avenue.

Drainage Facility Design

1. General Concept

The proposed brewery and site development do not increase the percentage of imperviousness. The proposed customer parking area is TrueGRID Permeable Pavers. The TrueGRID Pavers System treats stormwater falling on the customer parking area, the trash enclosure area and small amount of proposed asphalt.

The site does not alter historic flows. A general drainage plan, drainage and erosion control plan, and drainage and erosion control details are shown in **Appendix C**.

2. Specific Details

Installation and maintenance shall be in accordance with the manufacture's technical specifications in **Appendix B**.

Erosion Control

1. Compliance with Erosion Control Criteria

A comprehensive Erosion and Sediment Control Plan will be submitted with the Final Plan (FP). The Erosion and Sediment Control Plan will be consistent with the Fort Collins and State of Colorado's Stormwater Criteria Manual. Preliminary erosion control plans and details can be seen in **Appendix C**.

Conclusions

1. Compliance with Fort Collins Stormwater Criteria Manual

The drainage design of Stodgy Brewing Company on Laporte Avenue is consistent with the Fort Collins Stormwater Criteria Manual, the West Vine Basin Plan, and all state and federal regulations governing stormwater discharge. The proposed site does not have a mapped 100-year Floodplain.

2. Drainage Concept

Historical flow patterns and run-off amounts should be maintained in such a manner that should reasonably preserve the natural character of the area and prevent property damage of the type generally attributed to run-off rate and velocity increases, diversions, concentration and/or unplanned ponding of storm run-off for the 100-year storm event. The drainage design included in this report should be effective in controlling damage from the design storm runoff by detaining the 100-year, 1-hour storm event for the proposed customer parking area and releasing it through infiltration. The remainder of the site has not increased the percentage of imperviousness, and historical flow patterns to the Larimer No. 2 Irrigation Canal will be maintained.

The Low Impact Development (LID) Requirements are met through the TrueGRID Paver System. 80% of the stormwater created by the proposed development is treated. See **Appendix D** with the LID Exhibit and Table 2 below. The customer parking area within the proposed utility easement was removed from the treated area (net treated area). Sub-basin E, development proposed in the right of way, sheet flow north to south and away from the project site. The improvements and modification to Laporte Avenue are designed to direct stormwater east through the curb and gutter. It is not feasible to treat the stormwater generated from this area. This area is labeled as the R.O.W. Development on the LID Exhibit.

Table 2: LID Treatment Summary Table

Areas	**Total Sq. Ft.**
Total Developed Treated Area	6,251
Total Developed Untreated Area	856
Total On-Site Development	7,107
Developed Area in Utility Easement	937
Net Treated Area	5,695
% On-Site Treatment	80%
R.O.W. Development	11,002

List of References

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Appendices

A. Hydrologic Computations
   a. Vicinity Map
   b. USDA-NRCS Soil Report
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   f. FCSCM IDF Table
   g. Percentage of Imperviousness
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C. 24 x 36 Maps
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   c. Drainage and Erosion Control Details

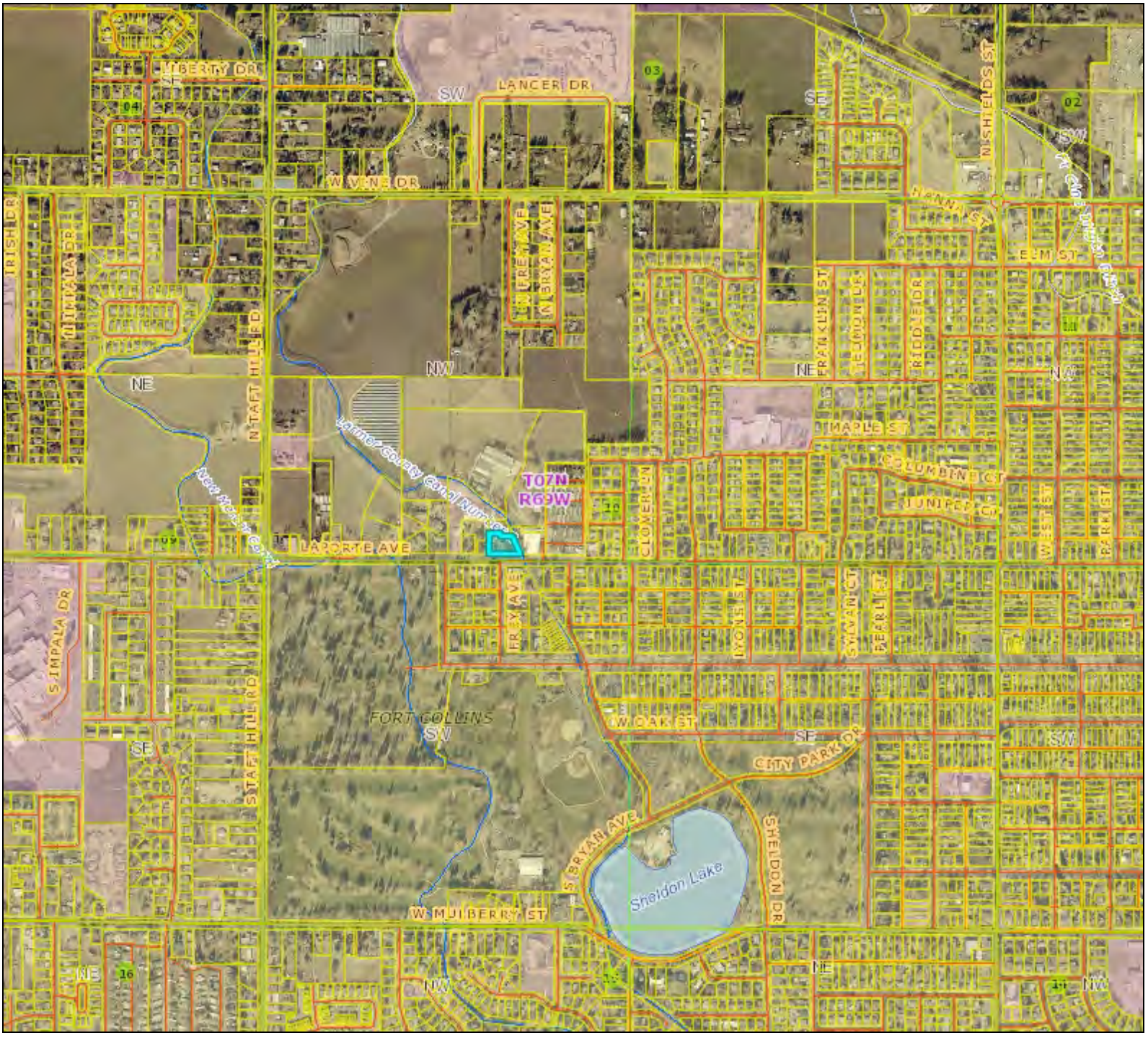
D. LID Treatment Exhibit

APPENDIX A

Hydrologic Computations

LARIMER COUNTY
COMMITTED TO EXCELLENCE
ENTERPRISE GIS

Vincity Map



Legend

- Tax Parcels
- PLSS Township and Range
- PLSS Sections
- PLSS Quarter Sections
- Railroads
- Rivers and Streams
- County Boundary
- Rocky Mountain National Park
- Incorporated Areas
- City or Town

Notes

0.1 0 0.1 Miles

Date Prepared: 8/12/2019 9:54:20 AM

Scale
1: 12,000

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Larimer County Area, Colorado

Stodgy Brewing Co

July 31, 2019

Preface

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

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

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

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

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

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

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

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

Soil Map

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

Custom Soil Resource Report
Soil Map

Map Scale: 1:648 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 30 60 120 180

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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: Aug 11, 2018—Aug 12, 2018

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
35	Fort Collins loam, 0 to 3 percent slopes	0.6	30.7%
74	Nunn clay loam, 1 to 3 percent slopes	1.5	69.3%
Totals for Area of Interest		**2.1**	**100.0%**

Map Unit Descriptions

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

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

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

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

onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Larimer County Area, Colorado

35—Fort Collins loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tlnc
Elevation: 4,020 to 6,730 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 143 to 154 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Fort collins and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fort Collins

Setting

Landform: Interfluves
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pleistocene or older alluvium derived from igneous, metamorphic and sedimentary rock and/or eolian deposits

Typical profile

Ap - 0 to 4 inches: loam
Bt1 - 4 to 9 inches: clay loam
Bt2 - 9 to 16 inches: clay loam
Bk1 - 16 to 29 inches: loam
Bk2 - 29 to 80 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 12 percent
Salinity, maximum in profile: Nonsaline (0.1 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 0.5
Available water storage in profile: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: Loamy Plains (R067BY002CO)
Hydric soil rating: No

Minor Components

Nunn

Percent of map unit: 10 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Plains (R067BY002CO)
Hydric soil rating: No

Vona

Percent of map unit: 5 percent
Landform: Interfluves
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Sandy Plains (R067BY024CO)
Hydric soil rating: No

74—Nunn clay loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tlpl
Elevation: 3,900 to 5,840 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 135 to 160 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Nunn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nunn

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pleistocene aged alluvium and/or eolian deposits

Typical profile

Ap - 0 to 9 inches: clay loam
Bt - 9 to 13 inches: clay loam
Btk - 13 to 25 inches: clay loam
Bk1 - 25 to 38 inches: clay loam

Bk2 - 38 to 80 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 7 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.1 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 0.5
Available water storage in profile: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: Clayey Plains (R067BY042CO)
Hydric soil rating: No

Minor Components

Heldt

Percent of map unit: 10 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clayey Plains (R067BY042CO)
Hydric soil rating: No

Satanta

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Plains (R067BY002CO)
Hydric soil rating: No

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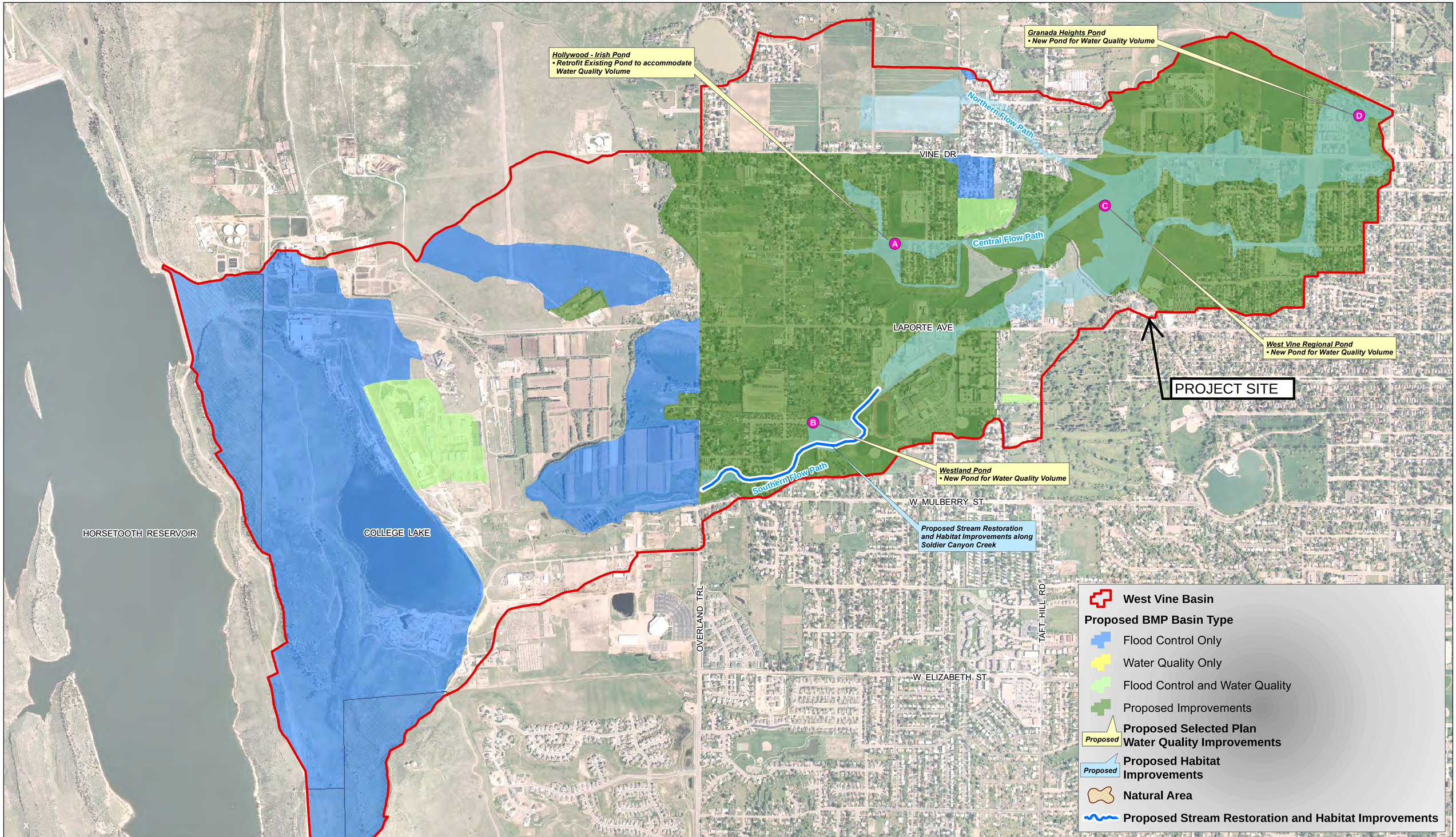

ICON ENGINEERING, INC.

City of Fort Collins

West Vine Basin
Selected Plan - Water Quality & Habitat Improvements

N W E S

0 1,320 2,640 Feet

1 inch = 0.125 miles

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

FORT COLLINS QUADRANGLE
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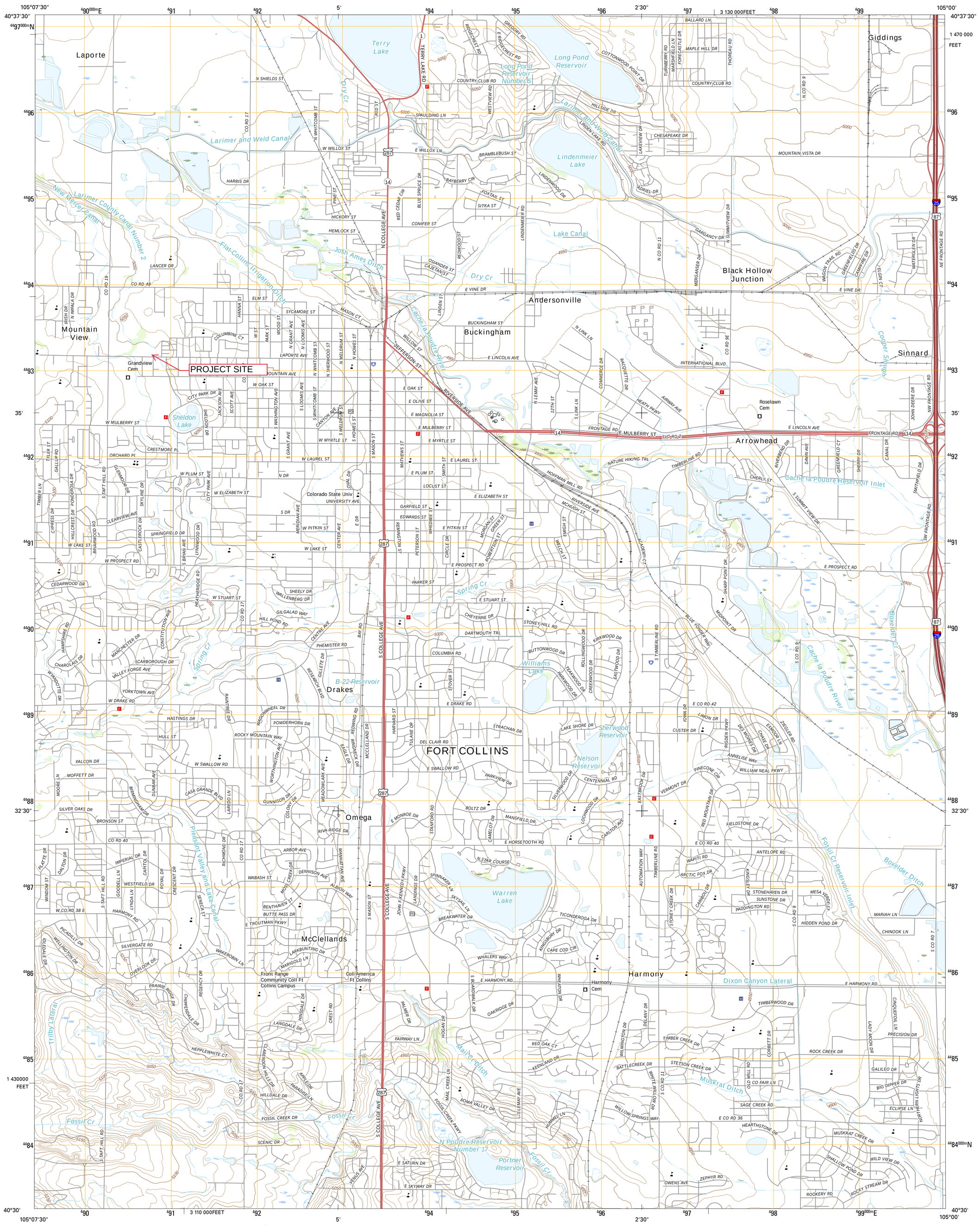
7.5-MINUTE SERIES



National Flood Hazard Layer FIRMette

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/31/2019 at 3:39:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Table 3.4-1. IDF Table for Rational Method

Duration (min)	Intensity 2-year (in/hr)	Intensity 10-year (in/hr)	Intensity 100-year (in/hr)
5	2.85	4.87	9.95
6	2.67	4.56	9.31
7	2.52	4.31	8.80
8	2.40	4.10	8.38
9	2.30	3.93	8.03
10	2.21	3.78	7.72
11	2.13	3.63	7.42
12	2.05	3.50	7.16
13	1.98	3.39	6.92
14	1.92	3.29	6.71
15	1.87	3.19	6.52
16	1.81	3.08	6.30
17	1.75	2.99	6.10
18	1.70	2.90	5.92
19	1.65	2.82	5.75
20	1.61	2.74	5.60
21	1.56	2.67	5.46
22	1.53	2.61	5.32
23	1.49	2.55	5.20
24	1.46	2.49	5.09
25	1.43	2.44	4.98
26	1.4	2.39	4.87
27	1.37	2.34	4.78
28	1.34	2.29	4.69
29	1.32	2.25	4.60
30	1.30	2.21	4.52
31	1.27	2.16	4.42
32	1.24	2.12	4.33
33	1.22	2.08	4.24
34	1.19	2.04	4.16
35	1.17	2.00	4.08
36	1.15	1.96	4.01
37	1.16	1.93	3.93
38	1.11	1.89	3.87

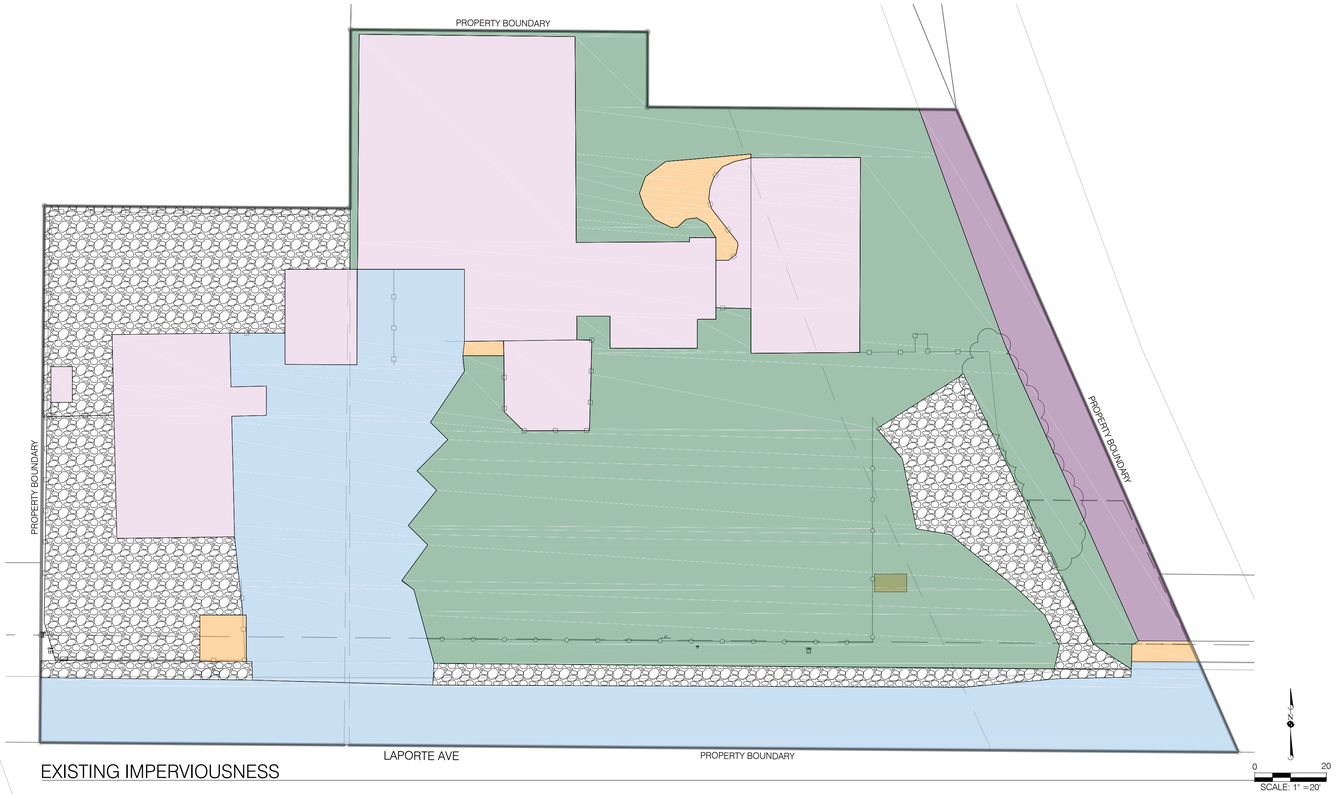
Duration (min)	Intensity 2-year (in/hr)	Intensity 10-year (in/hr)	Intensity 100-year (in/hr)
39	1.09	1.86	3.8
40	1.07	1.83	3.74
41	1.05	1.80	3.68
42	1.04	1.77	3.62
43	1.02	1.74	3.56
44	1.01	1.72	3.51
45	0.99	1.69	3.46
46	0.98	1.67	3.41
47	0.96	1.64	3.36
48	0.95	1.62	3.31
49	0.94	1.6	3.27
50	0.92	1.58	3.23
51	0.91	1.56	3.18
52	0.9	1.54	3.14
53	0.89	1.52	3.10
54	0.88	1.50	3.07
55	0.87	1.48	3.03
56	0.86	1.47	2.99
57	0.85	1.45	2.96
58	0.84	1.43	2.92
59	0.83	1.42	2.89
60	0.82	1.4	2.86
65	0.78	1.32	2.71
70	0.73	1.25	2.59
75	0.70	1.19	2.48
80	0.66	1.14	2.38
85	0.64	1.09	2.29
90	0.61	1.05	2.21
95	0.58	1.01	2.13
100	0.56	0.97	2.06
105	0.54	0.94	2.00
110	0.52	0.91	1.94
115	0.51	0.88	1.88
120	0.49	0.86	1.84

EXISTING VS PROPOSED IMPERVIOUS AREA

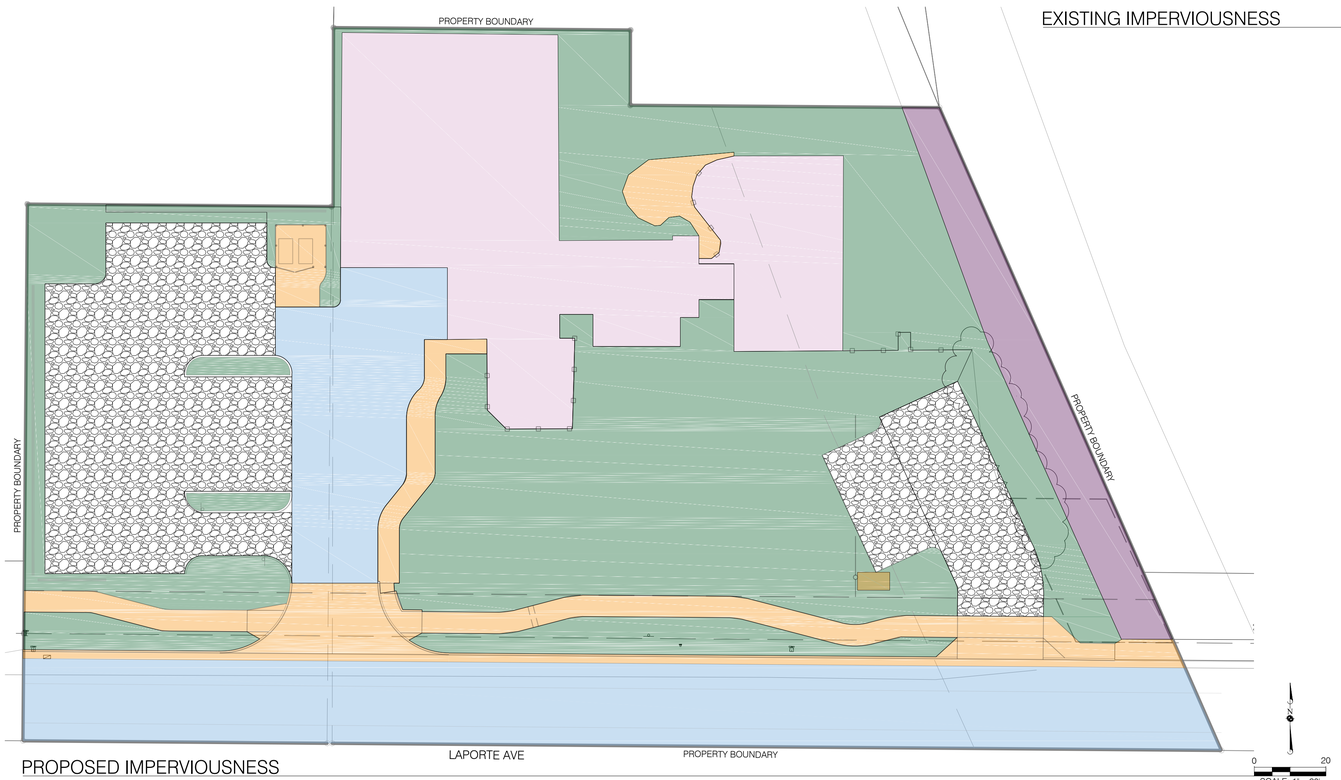
EXISTING IMPERVIOUS AREA

DESCRIPTION PER UDFCD TABLE 6-3		% IMPERVIOUS	TOTAL SQFT	ACRES IMPERVIOUS
ROOFS		90%	10, 822	0.22
PAVED STREETS		100%	11, 591	0.27
GREENBELTS, AGRICULTURE, LANDSCAPE		2%	18,425	0.01
GRAVEL ROAD		40%	8, 479	0.08
SIDEWALK / CONCRETE		100%	690	0.02
DITCH		0%	1, 829	0.00
		TOTAL	51, 836	0.59

TOTAL IMPERVIOUS ACRES	25, 781	0.59
TOTAL DEVELOPMENT ACRES	51, 836	1.19
DEVELOPMENT % ACTUAL DESIGN		50%



EXISTING IMPERVIOUSNESS



PROPOSED IMPERVIOUSNESS

PROPOSED IMPERVIOUS AREA

DESCRIPTION PER UDFCD TABLE 6-3		% IMPERVIOUS	TOTAL SQFT	ACRES IMPERVIOUS
ROOFS		90%	8, 258	0.17
PAVED STREETS		100%	12, 831	0.29
GREENBELTS, AGRICULTURE, LANDSCAPE		2%	18, 509	0.01
GRAVEL ROAD		40%	8, 296	0.08
SIDEWALK / CONCRETE		100%	2, 113	0.05
DITCH		0%	1, 829	0.00
		TOTAL	51, 836	0.60

TOTAL IMPERVIOUS ACRES	26, 065	0.60
TOTAL DEVELOPMENT ACRES	51, 836	1.19
DEVELOPMENT % ACTUAL DESIGN		50%

DATE: September 30, 2019 DRAWN BY: AGPRO

REVISIONS:

R1	DESC.	-/-/--
R2	DESC.	-/-/--
R3	DESC.	-/-/--
R4	DESC.	-/-/--
R5	DESC.	-/-/--

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FT COLLINS, CO

SHEET:
IA-1

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Checked By: CTV
Subject: DB-A (Proposed)
Date: 9/30/19 4:24 PM
Sheet: ____ of ____

= User Entry

Solving for the Percent Impervious (I):

Description per UDFCD Table 6-3	% Impervious	Runoff Coefficient	Total SqFt	Acres Impervious	Coefficient x Area (SqFt)
Roofs	90%	0.95	0	0.00	0
Asphalt, Concrete	100%	0.95	0	0.00	0
Lawns, Clayey Soil, Avg Slope 2-7%	2%	0.25	2,101	0.00	525
Gravel/Pavers	40%	0.50	5,740	0.05	2870
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
			7,841	0.05	3395

	Square Feet	Acres
Total Impervious Acres	2,338	0.05
Total Development Acres	7,841	0.18

Development %I Actual Design	**30%**

Composite Runoff Coefficient	**0.43**
2-year Composite Runoff Coefficient (Cf=1.00)	**0.43**
10-year Composite Runoff Coefficient (Cf=1.00)	**0.43**
100-year Composite Runoff Coefficient (Cf=1.25)	**0.54**

Overland Slope (percent)	1.9
Overland Length (ft)	72
Channelized Roughness Coefficient (manning's n)	0.15
Hydraulic Radius (feet)	0
Longitudinal Slope (feet/feet)	0
Length of channel (feet)	0
Channelized Velocity (ft/sec)	0.00

(area/wetted perimeter)

	2-year	10-year	100-year
Time of Concentration (Tc=Ti+Tt)	8.55	8.55	7.16
Overland Flow Time of Concentration (minutes)	8.54	8.54	7.16
Channelized Flow Time of Concentration (minutes)	0.00	0.00	0.00
Maximum Tc Allowed (L/180 +10)	10.40	10.40	10.40
Total Time of Concentration*	**8.55**	**8.55**	**7.16**
*If Tc is less than 5 minutes, Tc is equal to 5 minutes			
Intensity (in/hr) Table 3.4-1	**2.30**	**3.93**	**8.80**
Flow Rate (cfs)	**0.18**	**0.31**	**0.86**

Q=ciA

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Checked By: CTV
Subject: DB-B (Proposed)
Date: 9/30/19 4:26 PM
Sheet: ____ of ____

= User Entry

Solving for the Percent Impervious (I):

Description per UDFCD Table 6-3	% Impervious	Runoff Coefficient	Total SqFt	Acres Impervious	Coefficient x Area (SqFt)
Roofs	90%	0.95	2,104	0.04	1999
Asphalt, Concrete	100%	0.95	3,113	0.07	2957
Lawns, Clayey Soil, Avg Slope 2-7%	2%	0.25	1,753	0.00	438
Gravel/Pavers	40%	0.50	0	0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
			6,970	0.12	5394

	Square Feet	Acres
Total Impervious Acres	5,042	0.12
Total Development Acres	6,970	0.16

Development %I Actual Design	**72%**

Composite Runoff Coefficient	**0.77**
2-year Composite Runoff Coefficient (Cf=1.00)	**0.77**
10-year Composite Runoff Coefficient (Cf=1.00)	**0.77**
100-year Composite Runoff Coefficient (Cf=1.25)	**0.97**

Overland Slope (percent)	2.8
Overland Length (ft)	134
Channelized Roughness Coefficient (manning's n)	0.15
Hydraulic Radius (feet)	0
Longitudinal Slope (feet/feet)	0
Length of channel (feet)	0
Channelized Velocity (ft/sec)	0.00

(area/wetted perimeter)

	2-year	10-year	100-year
Time of Concentration (Tc=Ti+Tt)	5.01	5.01	2.04
Overland Flow Time of Concentration (minutes)	5.01	5.01	2.04
Channelized Flow Time of Concentration (minutes)	0.00	0.00	0.00
Maximum Tc Allowed (L/180 +10)	10.74	10.74	10.74
Total Time of Concentration*	**5.01**	**5.01**	**5.00**
*If Tc is less than 5 minutes, Tc is equal to 5 minutes			
Intensity (in/hr) Table 3.4-1	**2.85**	**4.87**	**9.95**
Flow Rate (cfs)	**0.35**	**0.60**	**1.54**

Q=ciA

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Telephone (970) 535-9318
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Project Number: 2769-02
Designed By: AGPROfessionals
Checked By: CTV
Subject: DB-C (Proposed)
Date: 9/30/19 4:28 PM
Sheet: ____ of ____

= User Entry

Solving for the Percent Impervious (I):

Description per UDFCD Table 6-3	% Impervious	Runoff Coefficient	Total SqFt	Acres Impervious	Coefficient x Area (SqFt)
Roofs	90%	0.95	600	0.01	570
Asphalt, Concrete	100%	0.95	45	0.00	43
Lawns, Clayey Soil, Avg Slope 2-7%	2%	0.25	6,884	0.00	1721
Gravel/Pavers	40%	0.50	1,619	0.01	810
Ditch	0%	0.00	0	0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
			9,148	0.03	3143

	Square Feet	Acres
Total Impervious Acres	1,370	0.03
Total Development Acres	9,148	0.21

Development %I Actual Design	**15%**

Composite Runoff Coefficient	**0.34**
2-year Composite Runoff Coefficient (Cf=1.00)	**0.34**
10-year Composite Runoff Coefficient (Cf=1.00)	**0.34**
100-year Composite Runoff Coefficient (Cf=1.25)	**0.43**

Overland Slope (percent)	7.7
Overland Length (ft)	95
Channelized Roughness Coefficient (manning's n)	0.15
Hydraulic Radius (feet)	0
Longitudinal Slope (feet/feet)	0
Length of channel (feet)	0
Channelized Velocity (ft/sec)	0.00

(area/wetted perimeter)

	2-year	10-year	100-year
Time of Concentration (Tc=Ti+Tt)	6.99	6.99	6.19
Overland Flow Time of Concentration (minutes)	6.98	6.98	6.19
Channelized Flow Time of Concentration (minutes)	0.00	0.00	0.00
Maximum Tc Allowed (L/180 +10)	10.53	10.53	10.53
Total Time of Concentration*	**6.99**	**6.99**	**6.19**
*If Tc is less than 5 minutes, Tc is equal to 5 minutes			
Intensity (in/hr) Table 3.4-1	**2.52**	**4.31**	**9.31**
Flow Rate (cfs)	**0.18**	**0.31**	**0.84**

Q=ciA

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Project Number: 2769-02
Designed By: AGPROfessionals
Checked By: CTV
Subject: DB-D (Proposed)
Date: 9/30/19 4:28 PM
Sheet: ____ of ____

= User Entry

Solving for the Percent Impervious (I):

Description per UDFCD Table 6-3	% Impervious	Runoff Coefficient	Total SqFt	Acres Impervious	Coefficient x Area (SqFt)
Roofs	90%	0.95	5,334	0.11	5067
Asphalt, Concrete	100%	0.95	638	0.01	606
Lawns, Clayey Soil, Avg Slope 2-7%	2%	0.25	5,477	0.00	1369
Gravel/Pavers	40%	0.50	1,619	0.01	810
Ditch	0%	0.00	0	0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
			13,068	0.14	7852

	Square Feet	Acres
Total Impervious Acres	6,196	0.14
Total Development Acres	13,068	0.30

Development %I Actual Design	**47%**

Composite Runoff Coefficient	**0.60**
2-year Composite Runoff Coefficient (Cf=1.00)	**0.60**
10-year Composite Runoff Coefficient (Cf=1.00)	**0.60**
100-year Composite Runoff Coefficient (Cf=1.25)	**0.75**

Overland Slope (percent)	5
Overland Length (ft)	83
Channelized Roughness Coefficient (manning's n)	0.15
Hydraulic Radius (feet)	0
Longitudinal Slope (feet/feet)	0
Length of channel (feet)	0
Channelized Velocity (ft/sec)	0.00

(area/wetted perimeter)

	2-year	10-year	100-year
Time of Concentration (Tc=Ti+Tt)	4.98	4.98	3.48
Overland Flow Time of Concentration (minutes)	4.97	4.97	3.48
Channelized Flow Time of Concentration (minutes)	0.00	0.00	0.00
Maximum Tc Allowed (L/180 +10)	10.46	10.46	10.46
Total Time of Concentration*	**5.00**	**5.00**	**5.00**

*If Tc is less than 5 minutes, Tc is equal to 5 minutes

Intensity (in/hr) Table 3.4-1	**2.85**	**4.87**	**9.95**
Flow Rate (cfs)	**0.51**	**0.88**	**2.24**

Q=ciA

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Project Number: 2769-02
Designed By: AGPROfessionals
Checked By: CTV
Subject: DB-E (Proposed)
Date: 10/1/19 3:04 PM
Sheet: ____ of ____

= User Entry

Solving for the Percent Impervious (I):

Description per UDFCD Table 6-3	% Impervious	Runoff Coefficient	Total SqFt	Acres Impervious	Coefficient x Area (SqFt)
Roofs	90%	0.95	0	0.00	0
Asphalt, Concrete	100%	0.95	3,795	0.09	3605
Lawns, Clayey Soil, Avg Slope 2-7%	2%	0.25	2,635	0.00	659
Gravel/Pavers	40%	0.50	0	0.00	0
Ditch	0%	0.00	0	0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
None	0%	0.00		0.00	0
			6,430	0.09	4264

	Square Feet	Acres
Total Impervious Acres	3,848	0.09
Total Development Acres	6,430	0.15

Development %I Actual Design	**60%**

Composite Runoff Coefficient	**0.66**
2-year Composite Runoff Coefficient (Cf=1.00)	**0.66**
10-year Composite Runoff Coefficient (Cf=1.00)	**0.66**
100-year Composite Runoff Coefficient (Cf=1.25)	**0.83**

Overland Slope (percent)	2
Overland Length (ft)	20
Channelized Roughness Coefficient (manning's n)	0.15
Hydraulic Radius (feet)	0
Longitudinal Slope (feet/feet)	0
Length of channel (feet)	0
Channelized Velocity (ft/sec)	0.00

(area/wetted perimeter)

	2-year	10-year	100-year
Time of Concentration (Tc=Ti+Tt)	2.90	2.90	1.80
Overland Flow Time of Concentration (minutes)	2.90	2.90	1.80
Channelized Flow Time of Concentration (minutes)	0.00	0.00	0.00
Maximum Tc Allowed (L/180 +10)	10.11	10.11	10.11
Total Time of Concentration*	**5.00**	**5.00**	**5.00**

*If Tc is less than 5 minutes, Tc is equal to 5 minutes

Intensity (in/hr) Table 3.4-1	**2.85**	**4.87**	**9.95**
Flow Rate (cfs)	**0.28**	**0.48**	**1.22**

Q=ciA

APPENDIX B

Hydraulic Computations

TRUEGRID®
True to your project. True to the environment.

1-855-355-GRID (4743)

TRUEGRID® PRO Plus

Manufacturer's Product Specification Sheet

Dimensions:	24" x 24" x 1.8" (4 sq/ft)
Pre-Assembled:	16 sq/ft per layer (4' x 4' sheet) (4 grids per layer)
Cell Width:	3-3/16"
Weight:	5.22 lbs
Permeability:	100% w/clean, uniform stone
Product Porosity:	90% open
Compressive strength:	Over 8000 psi filled
Material:	Recycled High Density Polyethylene (100% post-consumer)
Color:	Black with UV Stabilizer
Temperature Range:	Dimensionally Stable for -58F to 194F
Moisture Absorption:	.01%
Environmental Compatibility:	Nontoxic, harmless to plants, animals, and microorganisms. Inert material, groundwater neutral
Installation Speed:	1000 sq/ft per man hour

Other features of TRUEGRID

- Highly resistant to oils, gasoline, acids, salt, ammonia, and alcohol
- May be saw cut
- Patented design yields ultimate hoop strength
- Circular elements provide multi-directional crush and shear strength
- Flexible links allow expansion and contraction depending on environmental conditions
- Built in X-Anchors allows weight of filler to hold grid down without any extra staking
- Interlocking connectors

TRUEGRID Pavers: 2500 Summer St., # 3225, Houston, TX 77007

Ground Preparation: **Depends upon site condition and local conditions.**

Suggested Sub-base: 3/4" – 1" diameter clean/washed, angular gravel.
Depth of this layer should be a minimum of 6"- 8". Deeper for heavier loads.
For additional drainage, increase depth of sub-base.
Class 2 road base (crushed concrete) is also a typical sub-base material.
Gravel/sandy soil mix (60/40) is also common for grass fill applications.
Level sub-base before laying TrueGrid.

Installation: Layout and snap together pre-assembled sheets. (4 pcs per layer = 16 sq/ft)
If body weight does not level the grids, use plate vibrator or heavy cylinder to level.

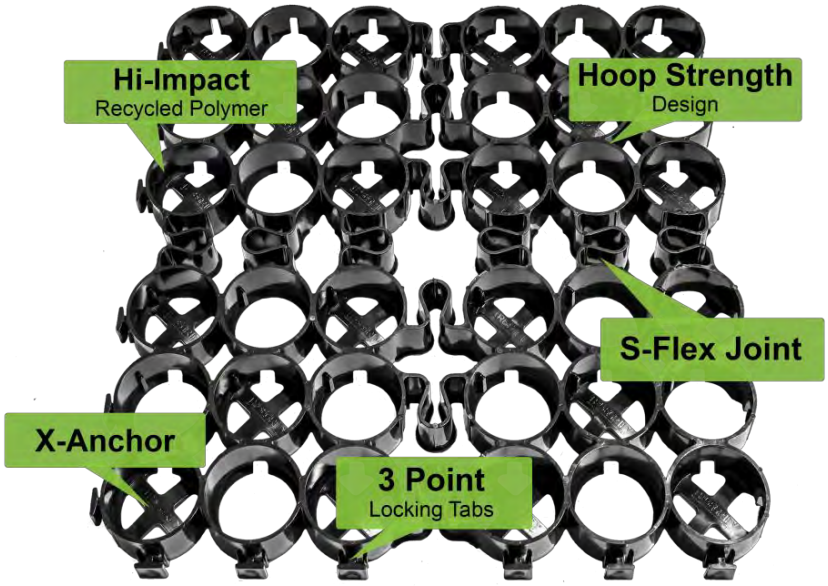
Backfill: Any angular or round medium may be used. Fill cells with filler of choice.
5/8" or 3/4" diameter typical.

- **TRUEGRID may be cut on site**
- **Pre-cutting is not required**

Angle grinder, circular saw, compass saw, or handsaw are all options for cutting TRUEGRID.

Delivery:

- **Pallet content:** 800 sq/ft = 50 layers per pallet = 200 pcs
- **Pallet dimensions:** 48" x 48" x 95"
- **Approximate pallet weight:** 1,050 lbs
- **Truckload:** 24 pallets or 19,200 sq/ft



For more info on TRUEGRID
Please visit our website:

www.truegridpaver.com

TRUEGRID Pavers: 2500 Summer St., # 3225, Houston, TX 77007

APPENDIX C

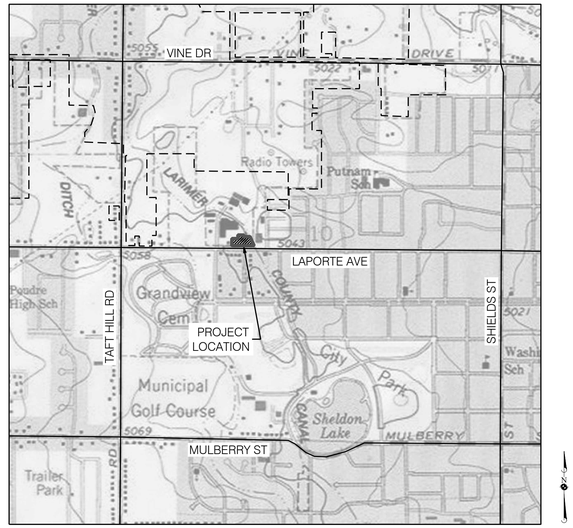
24 x 36 Maps

STODGY BREWING CO., LLC

BEING A PART OF THE SE 1/4 OF THE NW 1/4
SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST, OF THE 6TH P.M., LARIMER COUNTY, COLORADO

OVERALL PLAN

SCALE: 1" = 100'



VICINITY MAP

SCALE: 1" = 1000'

DRAINAGE PLAN COVER SHEET

DATE: October 3, 2019	DRAWN BY: AGPRO		
REVISIONS:			
R1	DESC.	-/-/--	
R2	DESC.	-/-/--	
R3	DESC.	-/-/--	
R4	DESC.	-/-/--	
R5	DESC.	-/-/--	

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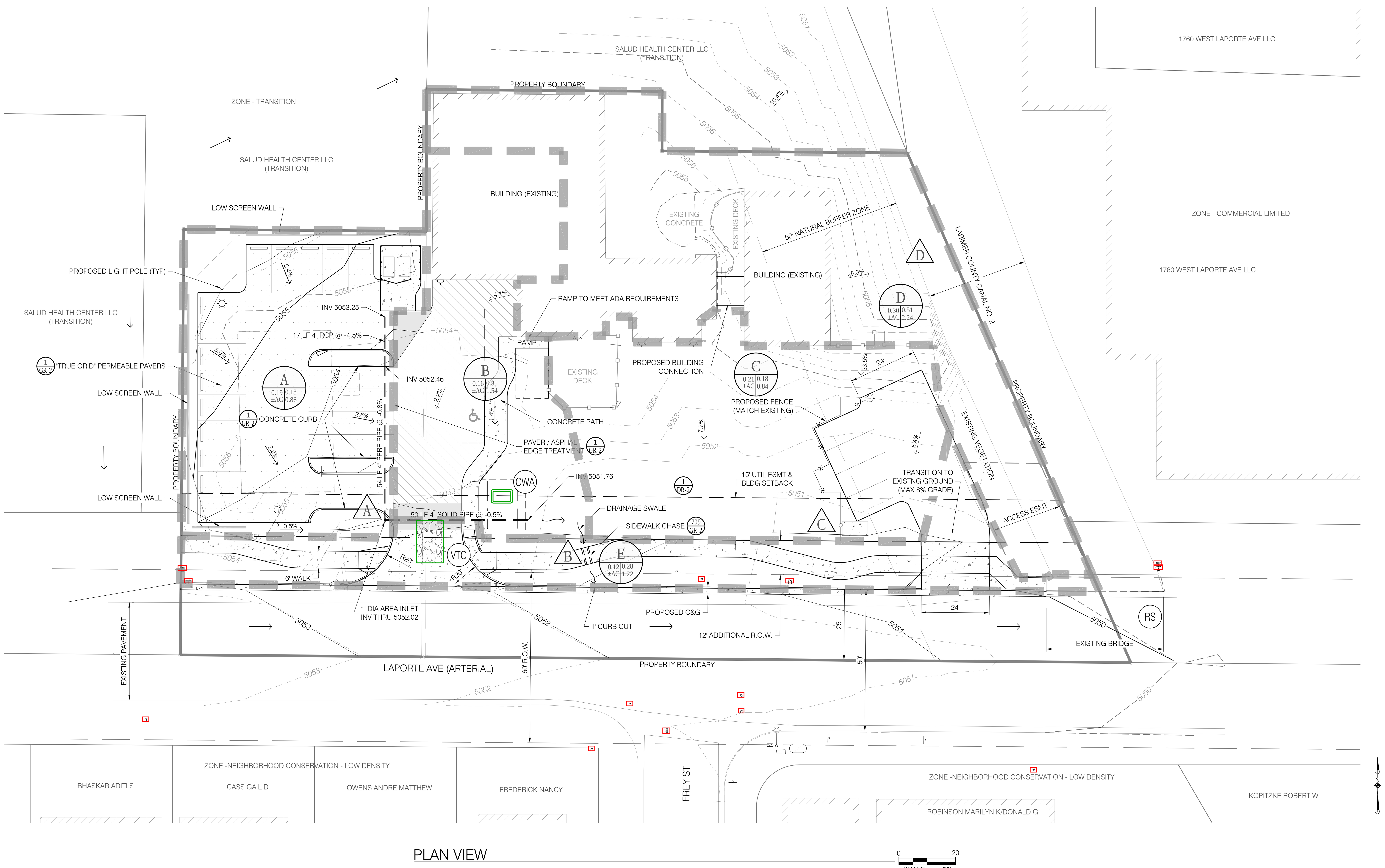
STODGY BREWING CO., LLC
DRAINAGE PLAN COVER SHEET
FT COLLINS, CO

SHEET:
DR-1
SHEET 1 OF 5



LEGEND

5296 (dashed)	EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FT
5296 (solid)	PROPOSED GROUND SURFACE CONTOUR AND ELEVATION, FT
4.0%	FLOW DIRECTION AND SLOPE
	DRAINAGE BASIN
182' @ 0.029 ft/ft	FLOW PATH, LENGTH & SLOPE

NOTES

1. NO 100 -YR FLOODPLAIN MAPPED IN THIS AREA.
2. SEE SHEET GR-2 FOR TYPICAL DETAILS.

DRAINAGE LEGEND

A — DESIGN POINT

AREA INDENTIFIER

Q_2 PEAK FLOW RATE (CFS)

AREA (ACRE)

Q_{100} PEAK FLOW RATE (CFS)

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 & Recreation	Date
CHECKED BY:	Traffic Engineer	Date
CHECKED BY:	Environmental Planner	Date

DRAINAGE PLAN

DRAWN BY: AGPRO
DATE: October 3, 2019
REVISIONS:
R1 DESC. --/--/--
R2 DESC. --/--/--
R3 DESC. --/--/--
R4 DESC. --/--/--
R5 DESC. --/--/--

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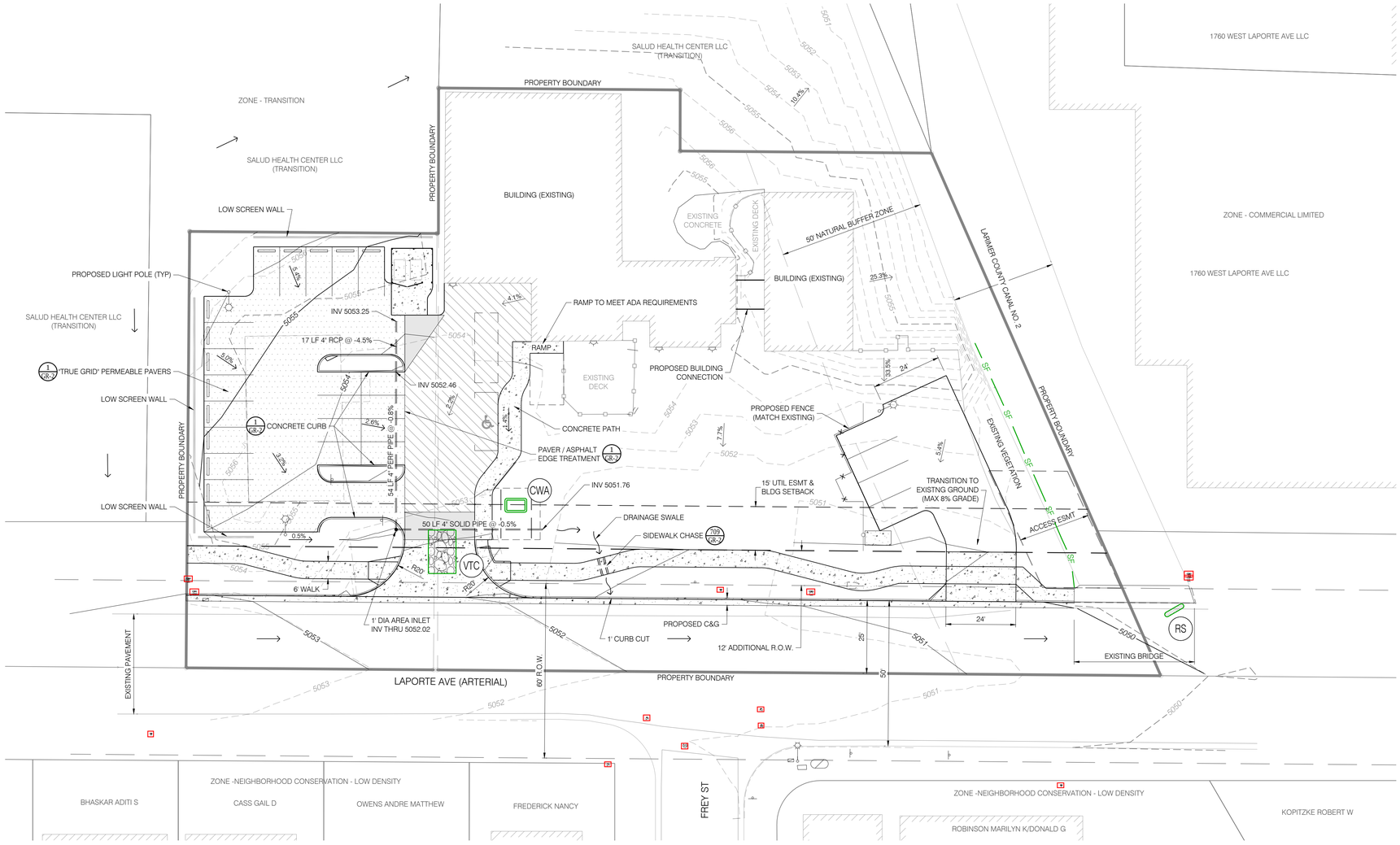
STODGY BREWING CO., LLC
DRAINAGE PLAN
FT COLLINS, CO

SHEET:
DR-2
SHEET 8 OF 10



PLAN VIEW

SCALE: 1" =20'

LEGEND

- EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FT
- PROPOSED GROUND SURFACE CONTOUR AND ELEVATION, FT
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED PAVERS
- SILT FENCE
- ROCK SOCK
- CONCRETE WASHOUT AREA
- VEHICLE TRACKING CONTROL
- FLOW DIRECTION AND SLOPE

NOTE

1. NO 100 -YR FLOODPLAIN MAPPED IN THIS AREA.
2. TRUEGRID MAINTENANCE NOTES:
   - SURFACE SHOULD BE INSPECTED TO IDENTIFY SIGNS OF SLIGHT CELL INFILL LOSS. A 0.5 INCH SURCHARGE OF AGGREGATE SHALL BE MAINTAINED AS A SURFACE WEAR COURSE.
   - ASPHALT ADJACENT TO THE TRUEGRID PAVERS WILL ROUTINELY BE INSPECTED FOR LOOSE GRAVEL AND SWEPT AS NEEDED TO REMOVE LOOSE GRAVEL.
   - MONITOR PAVEMENT TO ENSURE TRAFFIC FREQUENCY AND LOADING DOES NOT EXCEED THE PAVEMENT DESIGN.
   - WHEN SNOW REMOVAL IS REQUIRED, KEEP A METAL EDGED PLOW BLADE FROM COMING IN CONTACT WITH THE SURFACE DURING PLOWING OPERATIONS. USE A PLOW BLADE A MINIMUM OF 1 INCH ABOVE THE SURFACE AND WITH A FLEXIBLE RUBBER EDGE OR WITH SIDES ON THE LOWER OUTSIDE CORNERS SO THE PLOW BLADE DOES NOT COME IN CONTACT WITH THE PAVERS.
   - PONDING, RUTTING OR POOLING SHOULD NOT OCCUR. HOWEVER, ROUTINE INSPECTIONS SHOULD BE PERFORMED TO ENSURE THE TRUEGRID PAVERS ARE PERFORMING AS DESIGNED.
3. SEE SHEET GR-2 FOR TYPICAL DETAILS

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 & Recreation _____ Date

CHECKED BY: _____ Traffic Engineer _____ Date

CHECKED BY: _____ Environmental Planner _____ Date

GRADING & EROSION CONTROL PLAN

DATE: October 3, 2019
DRAWN BY - AGPRO

REVISIONS:

R1	DESC.	-/-/-
R2	DESC.	-/-/-
R3	DESC.	-/-/-
R4	DESC.	-/-/-
R5	DESC.	-/-/-

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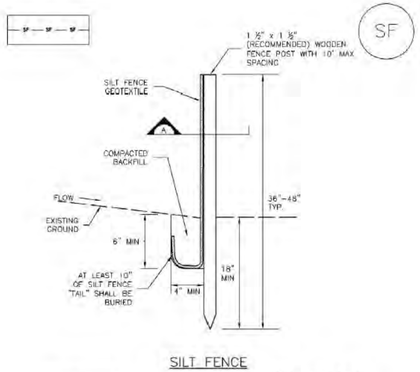
STODGY BREWING CO., LLC
GRADING & EROSION CONTROL PLAN
FT COLLINS, CO

SHEET:
GR-1
SHEET 4 OF 10

Silt Fence (SF) SC-1

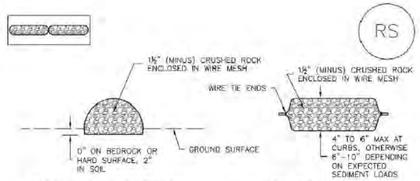


SILT FENCE

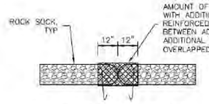
SECTION A

SF–1. SILT FENCE

SC-5 Rock Sock (RS)



ROCK SOCK SECTION ROCK SOCK PLAN



ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS.

ROCK SOCK JOINTING

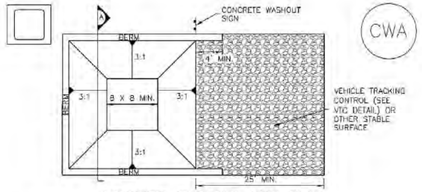
GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

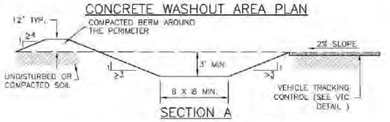
1. SEE PLAN VIEW FOR:
   -LOCATION(S) OF ROCK SOCKS.
2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½". RECOMMENDED MINIMUM ROLL WIDTH OF 48".
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

Concrete Washout Area (CWA) MM-1



CONCRETE WASHOUT AREA PLAN



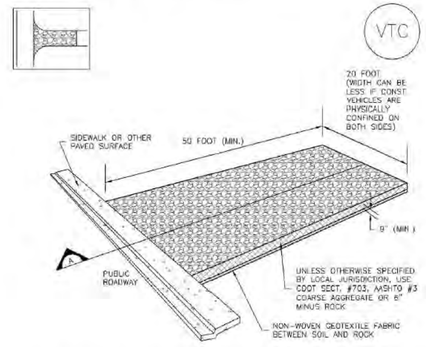
SECTION A

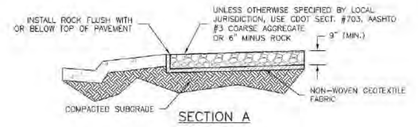
CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY, DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION

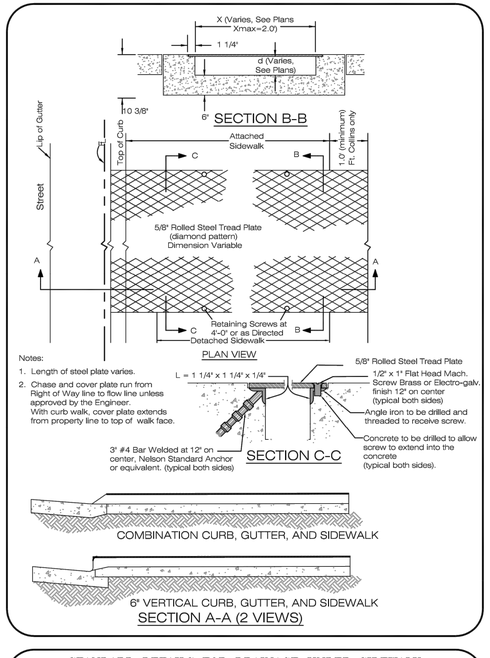
Vehicle Tracking Control (VTC) SM-4



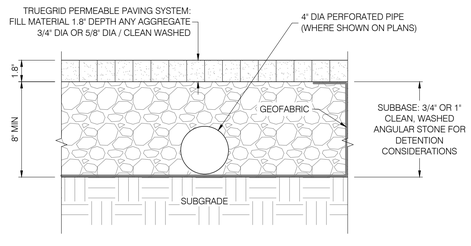


SECTION A

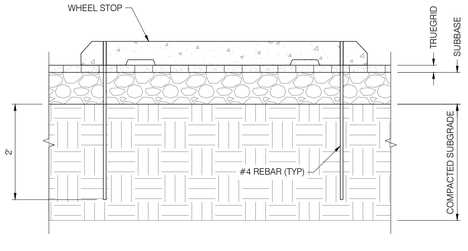
VTC–1. AGGREGATE VEHICLE TRACKING CONTROL



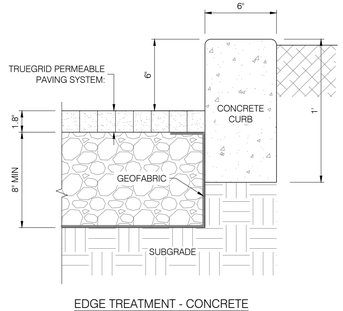
STANDARD DETAILS FOR DRAINAGE UNDER SIDEWALK			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1	DRAWING
		DATE: 04/01/07	709



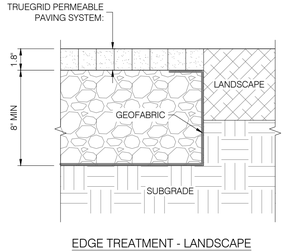
TYPICAL SECTION



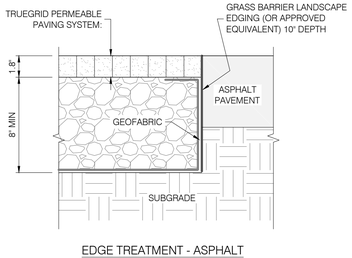
WHEEL STOP



EDGE TREATMENT - CONCRETE



EDGE TREATMENT - LANDSCAPE



EDGE TREATMENT - ASPHALT

1 GR-2 TRUE GRID DETAILS

NTS

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 & Recreation _____ Date
CHECKED BY: _____ Traffic Engineer _____ Date
CHECKED BY: _____ Environmental Planner _____ Date

GRADING DETAILS

DATE: October 3, 2019 DRAWN BY: AGPRO

REVISIONS:					
R1	DESC.	-/-/-	R2	DESC.	-/-/-
R3	DESC.	-/-/-	R4	DESC.	-/-/-
R5	DESC.	-/-/-			

AGPROfessionals
DEVELOPERS OF AGRICULTURE
3050 67th Avenue, Suite 200, Greeley, CO 80634
(970) 535-9318 • fax: (970) 535-9854

STODGY BREWING CO., LLC
GRADING DETAILS
FT COLLINS, CO

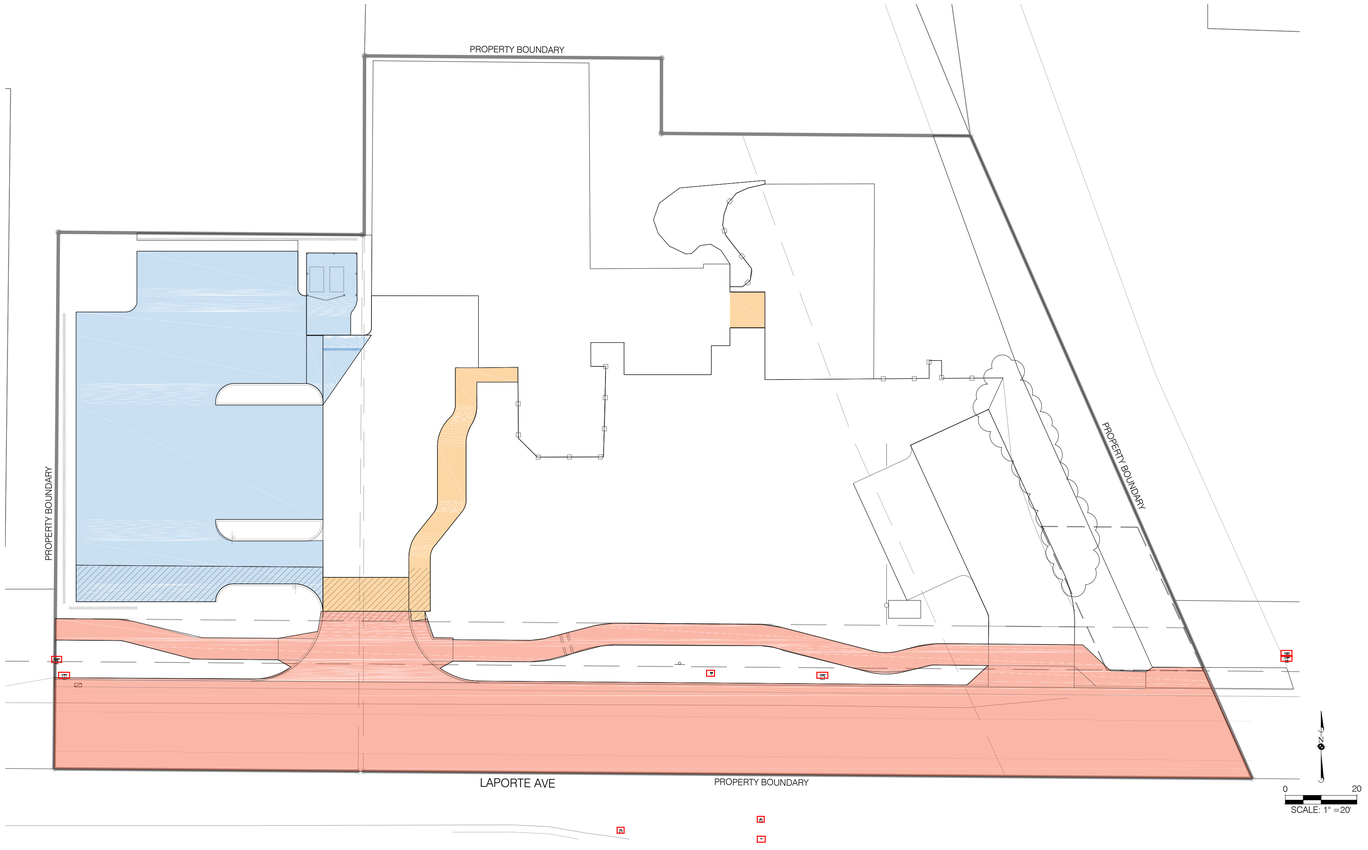
SHEET: GR-2

SHEET 5 OF 10

APPENDIX D

LID Treatment Exhibit

LID TREATMENT EXHIBIT



LID TREATMENT SUMMARY TABLE

AREAS		TOTAL SQFT
TOTAL DEVELOPED TREATED AREA		6,251
TOTAL DEVELOPED UNTREATED AREA		856
TOTAL ON-SITE DEVELOPMENT		7,107
DEVELOPED AREA IN UTILITY EASEMENT		937
NET TREATED AREA (MINUS UTILITY EASEMENT)		5,695
% ON-SITE TREATMENT (NET TREATED AREA/TOTAL ON-SITE DEVELOPMENT)		80%
R.O.W. DEVELOPMENT		11,002

DATE: October 3, 2019 DRAWN BY: AGPRO

REVISIONS:

R1	DESC.	-/-/--
R2	DESC.	-/-/--
R3	DESC.	-/-/--
R4	DESC.	-/-/--
R5	DESC.	-/-/--

STODGY BREWING CO., LLC

LID TREATMENT EXHIBIT

FT COLLINS, CO

SHEET:

LID

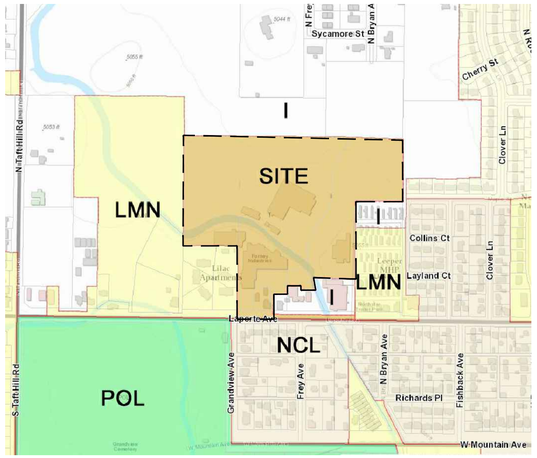
SALUD

OVERALL DEVELOPMENT PLAN

NOTES

1. THE PURPOSE OF THE OVERALL DEVELOPMENT PLAN IS TO ESTABLISH GENERAL PLANNING AND DEVELOPMENT CONTROL PARAMETERS FOR PROJECTS THAT WILL BE DEVELOPED IN PHASES WITH MULTIPLE SUBMITTALS WHILE ALLOWING SUFFICIENT FLEXIBILITY TO PERMIT DETAILED PLANNING IN SUBSEQUENT SUBMITTALS. APPROVAL OF AN OVERALL DEVELOPMENT PLAN DOES NOT ESTABLISH ANY VESTED RIGHT TO DEVELOP PROPERTY IN ACCORDANCE WITH THE PLAN.
2. THE SALUD OVERALL DEVELOPMENT PLAN IS PROPOSED TO BE MIXED USE DEVELOPMENT. PARCELS WITH LOW DENSITY MIXED-USE NEIGHBORHOOD DISTRICT ZONING (LMN) MAY INCLUDE: PARKS, OPEN SPACE, TRAILS, SINGLE FAMILY DETACHED OR ATTACHED DWELLINGS, TWO FAMILY DWELLINGS, GROUP HOMES, PLACES OF WORSHIP, COMMUNITY FACILITIES, RECREATION FACILITIES, CHILD CARE CENTERS, NEIGHBORHOOD CENTERS OR OTHER USES PERMITTED IN THE L-M-N DISTRICT; PARCELS WITH LIMITED COMMERCIAL DISTRICT ZONING (C-L) MAY INCLUDE: SINGLE-FAMILY DETACHED OR ATTACHED DWELLINGS, TWO-FAMILY DWELLINGS, MULTI-FAMILY DWELLINGS, MIXED-USE DWELLINGS, GROUP HOMES, PLACES OF WORSHIP, SCHOOLS, COMMUNITY FACILITIES, PUBLIC FACILITIES, CONVENIENCE RETAIL STORES, ARTISAN GALLERIES, CHILD CARE CENTERS ADULT DAY CARE CENTERS, RESTAURANTS, OR OTHER USES PERMITTED IN THE CL DISTRICT.
3. ALL DEVELOPMENT MUST COMPLY WITH THE APPLICABLE STANDARDS IN ARTICLE 4 OF THE LAND USE CODE. ALLOWED LAND USES IN EACH PARCEL ARE PER THE L-M-N AND C-L ZONE DISTRICTS AS APPLICABLE.
4. FIRE HYDRANTS WILL BE PROVIDED AS REQUIRED BY THE POUDRE FIRE AUTHORITY STANDARDS.
5. BOUNDARY CONNECTIONS SHALL BE IN COMPLIANCE WITH APPLICABLE LAND USE CODE AND LARIMER COUNTY URBAN AREA STREET STANDARDS IN PLACE AT THE TIME OF DEVELOPMENT APPLICATION SUBMITTAL
6. ALL DEVELOPMENT MUST COMPLY WITH APPLICABLE STANDARDS CONTAINED IN THE LAND USE CODE ARTICLE 3, CITY CODE CHAPTER 10 AT THE TIME OF APPLICATION FOR A PROJECT DEVELOPMENT PLAN UNLESS MODIFICATIONS AND/OR ENGINEERING VARIANCES ARE APPROVED.
7. THIS OVERALL DEVELOPMENT PLAN SHOWS THE GENERAL LOCATION AND APPROXIMATE SIZE OF ALL NATURAL AREAS, HABITATS AND FEATURES WITHIN ITS BOUNDARIES. DETAILED MAPPING OF A SITE'S NATURAL AREAS, HABITATS AND FEATURES WILL BE PROVIDED AT THE TIME INDIVIDUAL PROJECT DEVELOPMENT PLANS (PDP) ARE SUBMITTED FOR REVIEW. ALL DEVELOPMENT WITHIN THIS OVERALL DEVELOPMENT PLAN SHALL CONFORM TO APPLICABLE STANDARDS CONTAINED IN DIVISION 3.4, ENVIRONMENTAL, NATURAL AREA, RECREATIONAL AND CULTURAL RESOURCE, OF THE LAND USE CODE UNLESS MODIFICATIONS AND/OR ENGINEERING VARIANCES ARE APPROVED.
8. GENERAL BUFFER ZONES SHOWN ON THIS ODP MAY BE REDUCED OR ENLARGED BY THE DECISION MAKER DURING THE PDP PROCESS. REFERENCE SECTION 2.3.2(H)(3)(5)
9. EXISTING TREE GROVES A,C,D,E,K, AND I, AS WELL AS THE LARIMER NO. 2 DITCH AND ASSOCIATED WETLANDS ARE NATURAL HABITATS AND FEATURE BUFFERS RANGING FROM 25' - 100'. NATURAL HABITAT BUFFER ZONE BOUNDARIES AND MITIGATION, IF NEEDED, WILL BE ESTABLISHED AT TIME OF FUTURE PROJECT DEVELOPMENT PLANS. (PDP)
10. THE EXACT LOCATION AND TYPE OF ACCESS POINTS ONTO LOTS WILL BE DETERMINED AT THE TIME OF PDP SUBMITTALS. LOCATION AND TYPE OF ACCESS POINTS WITH PDP SUBMITTALS NEED TO COMPLY WITH THE CITY OF FORT COLLINS LAND USE CODE AND THE LARIMER COUNTY URBAN AREA STREET STANDARDS UNLESS A MODIFICATION IS GRANTED.
11. STREET STANDARDS WILL BE SUBJECT TO THE DESIGN STANDARDS IN EFFECT AT THE TIME OF APPLICATION FOR PROJECT DEVELOPMENT PLANS (PDP).
12. COMMON OPEN SPACE AREAS, STREETSCAPES, SIDEWALKS, AND BICYCLE/PEDESTRIAN TRAILS, OUTSIDE OF PUBLIC RIGHT-OF-WAYS WILL BE MAINTAINED BY THE OWNER/DEVELOPER INCLUDING SNOW REMOVAL.
13. OFF-SITE IMPROVEMENTS MAY BE REQUIRED AT THE TIME OF PDP IN ORDER TO MEET LEVEL OF SERVICE FOR ALL MODES OF TRANSPORTATION.
14. SIGHT DISTANCE EASEMENTS MAY BE REQUIRED ALONG THE PUBLIC ROADWAYS AT THE TIME OF PDP REVIEW.
15. AT THE TIME OF THIS ODP, THE DRAINAGE BASIN MASTER PLAN HAD NOT BEEN UPDATED FOR THIS DRAINAGE BASIN. THEREFORE, FLOODPLAIN AND FLOODWAY LOCATIONS ARE SUBJECT TO CHANGE. ANY DEVELOPMENT WITHIN THE FLOODPLAIN OR FLOODWAY SHALL COMPLY WITH ALL FLOODPLAIN REGULATIONS AT THE TIME OF THE PDP.
    a) PORTIONS OF THIS PROPERTY ARE LOCATED IN THE FLOODWAY AND HIGH-RISK FLOOD FRINGE.
    b) ALL DEVELOPMENT WITHIN THE FLOODPLAIN MUST COMPLY WITH THE FLOODPLAIN REGULATIONS OF CHAPTER 10 OF CITY OF FORT COLLINS MUNICIPAL CODE.
    c) CONSTRUCTION OF RESIDENTIAL STRUCTURES IS NOT ALLOWED IN THE 100-YEAR FLOODWAY.
    d) RESIDENTIAL STRUCTURES ARE ALLOWED IN THE 100-YEAR FLOOD FRINGE PROVIDED THEY MEET ALL ELEVATION REQUIREMENTS OF CHAPTER 10 OF CITY MUNICIPAL CODE.
16. TREE GROUPINGS K AND I WILL REQUIRE A HABITAT MITIGATION PLAN AND TREE MITIGATION TABLE. THESE SHALL BE DETERMINED AT TIME OF PDP IN EVALUATION WITH THE CITY OF FORT COLLINS FORESTRY AND ENVIRONMENTAL PLANNING STAFF.
17. "NATURAL HABITAT BUFFER ZONE PROPOSED ALTERNATIVE LIMITS OF DEVELOPMENT (LOD)" IS THE ANTICIPATED MITIGATION AREA OF THE NATURAL HABITATS AS REQUIRED BY CODE. ("NATURAL HABITAT BUFFER ZONE STANDARD LOD") THEY MAY BE ADJUSTED AT TIME OF FUTURE PDP'S
18. WITHIN THE NATURAL HABITAT BUFFER ZONES, ACCORDING TO ARTICLE 3.4.1.(E)(1)(G), THE CITY HAS THE ABILITY TO DETERMINE IF THE EXISTING LANDSCAPING WITHIN THE BUFFER ZONE IS INCOMPATIBLE WITH THE PURPOSE OF THE BUFFER ZONE.
19. PRIOR TO THE APPROVAL OF ANY PDP, THE PROPERTY OWNER OR APPLICANT SHALL COORDINATE ANY ROAD CROSSING, DISCHARGE, OR OTHER PROPOSED WORK REQUIRING APPROVAL FROM THE LARIMER COUNTY CANAL NO. 2, WITHIN THAT PDP BOUNDARY.

VICINITY MAP



LEGAL DESCRIPTION

PARCEL I:

CONSIDERING THE SOUTH LINE OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO AS BEARING N 89° 50' 30" E 2650.16 FEET, AND WITH ALL BEARINGS HEREIN RELATIVE THERETO: BEGINNING AT A POINT ON THE EAST LINE OF THE SW 1/4 OF THE NW 1/4 OF SAID SECTION 10, WHICH POINT BEARS N 00° 16' W 435.71 FEET FROM THE W 1/16 CORNER, ON THE CENTER LINE OF SAID SECTION 10, (WHICH W 1/16 CORNER BEARS N 89° 50' 30" E 1325.08 FEET FROM THE W 1/4 CORNER OF SAID SECTION 10); THENCE N 00° 16' W 890.51 FEET TO THE NW 1/16 CORNER OF SAID SECTION 10; THENCE ALONG THE NORTH LINE OF THE SW 1/4 OF THE NW 1/4 OF SAID SECTION 10, S 89° 40' W 329.81 FEET TO THE NW CORNER OF THE EAST 1/4 OF SAID SW 1/4 OF THE NW 1/4; THENCE ALONG THE WEST LINE OF SAID EAST 1/4, S 00° 12' E 889.51 FEET; THENCE N 89° 50' 30" E 330.79 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THAT PARCEL DESCRIBED IN DEED RECORDED FEBRUARY 27, 2012 AT RECEPTION NO. 20120012755

AND
CONSIDERING THE SOUTH LINE OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO, AS BEARING N 89° 50' 30" E 2650.16 FEET, AND WITH ALL BEARINGS HEREIN RELATIVE THERETO: BEGINNING AT A POINT ON THE WEST LINE OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 10, WHICH POINT BEARS N 00° 16' W 611.28 FEET FROM THE W 1/16 CORNER, ON THE CENTER LINE, OF SID SECTION 10, (WHICH W 1/16 BEARS N 89° 50' 30" E 1325.08 FEET FROM THE W 1/4 CORNER OF SAID SECTION 10); THENCE N 00° 16' W 714.94 FEET TO THE NW 1/16 CORNER OF SAID SECTION 10; THENCE ALONG THE NORTH LINE OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 10, N 89° 40' E 523.02 FEET; THENCE S 00° 23' E 246.09 FEET; THENCE N 89° 35' E 139.98 FEET; THENCE S 26° 20' W 240.25 FEET; THENCE S 04° 00' E 107.68 FEET; THENCE S 09° 10' W 84.79 FEET; THENCE S 30° 49' W 262.44 FEET; THENCE S 07° 11' E 110.60 FEET; THENCE N 57° 29' W 224.73 FEET; THENCE N 49° 30' W 189.01 FEET; THENCE N 75° 12' W 98.16 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THAT PARCEL DESCRIBED IN DEED RECORDED FEBRUARY 27, 2012 AT RECEPTION NO. 20120012755.

AND
CONSIDERING THE EAST LINE OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO, AS BEARING N 00° 31' W WITH ALL BEARINGS HEREIN RELATIVE THERETO; BEGINNING AT A POINT WHICH BEARS S 89° 40' W 796.70 FEET AND AGAIN S 00° 31' E 233.35 FEET FROM THE CN 1/16 CORNER OF SAID SECTION 10; THENCE N 89° 40' E 146.29 FEET; THENCE S 26° 20' W 14.02 FEET; THENCE S 89° 35' W 139.98 FEET; THENCE N 00° 23' W 12.74 FEET TO THE POINT OF BEGINNING.

PARCEL II:

THE WEST 3/4TH OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO
EXCEPT THAT PORTION LYING SOUTH AND WEST OF THAT CERTAIN EXISTING IRRIGATING CANAL REFERRED TO IN DEED RECORDED MARCH 27, 1946 IN BOOK 807 AT PAGE 562;
ALSO EXCEPT THOSE PARCELS CONVEYED BY DEEDS RECORDED DECEMBER 1, 1949 IN BOOK 883 AT PAGE 496 AND DECEMBER 7, 1955 IN BOOK 1008 AT PAGE 161 AND MARCH 23, 1955 IN BOOK 990 AT PAGE 194 AND AUGUST 7, 1956 IN BOOK 1024 AT PAGE 233 AND AUGUST 18, 1959 IN BOOK 1101 AT PAGE 124 AND SEPTEMBER 5, 1973 IN BOOK 1570 AT PAGE 546

PARCEL III:

BEGINNING AT THE SW CORNER OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO; THENCE EAST 100 FEET; THENCE NORTH 300 FEET; THENCE EAST 318 FEET, MORE OR LESS, TO THE CENTER OF THE EXISTING IRRIGATION CANAL; THENCE NORTHWESTERLY ALONG THE CENTER LINE OF SAID CANAL TO THE WEST LINE OF SAID SE 1/4 OF THE NW 1/4 OF SECTION 10; THENCE SOUTH ALONG SAID WEST LINE OF THE SE 1/4 OF THE NW 1/4 586 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

AND
THE WEST 15 FEET AND THE NORTH 150 FEET OF THE FOLLOWING:
BEGINNING AT A POINT 200 FEET EAST OF THE SW CORNER OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO; THENCE NORTH 300 FEET; THENCE EAST 100 FEET; THENCE SOUTH 300 FEET; THENCE WEST 100 FEET TO THE POINT OF BEGINNING.

PARCEL IV:

BEGINNING AT A POINT 150 FEET EAST OF THE SW CORNER OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO; THENCE EAST 50 FEET; THENCE NORTH 300 FEET; THENCE WEST 100 FEET; THENCE SOUTH 60 FEET; THENCE SOUTHEASTERLY TO A POINT 230 FEET NORTH OF THE POINT OF BEGINNING, AND 50 FEET FROM THE EAST BOUNDARY LINE; THENCE SOUTH 230 FEET TO THE POINT OF BEGINNING.
EXCEPTING THEREFROM THAT PARCEL DESCRIBED IN DEED RECORDED FEBRUARY 5, 1964 IN BOOK 1236 AT PAGE 446

AND
BEGINNING AT A POINT 150 FEET EAST OF THE SW CORNER OF THE SE 1/4 OF THE NW 1/4 OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF LARIMER, STATE OF COLORADO ; THENCE NORTH PARALLEL TO NORTH AND SOUTH CENTER LINE OF SECTION, 230 FEET; THENCE IN A NORTHWESTERLY DIRECTION TO A POINT 50 FEET WEST AND 240 FEET NORTH OF POINT OF BEGINNING; THENCE SOUTH 240 FEET; THENCE EAST 50 FEET TO POINT OF BEGINNING.
EXCEPTING THEREFROM THAT PARCEL DESCRIBED IN DEED RECORDED FEBRUARY 5, 1964 IN BOOK 1236 AT PAGE 446

SITE DATA*

LOT	ZONE DISTRICT	APPROXIMATE GROSS AREA (ACRES)
1	LIMITED COMMERCIAL (C-L)	.9
2	LOW DENSITY MIXED-USE NEIGHBORHOOD (LMN) / LIMITED COMMERCIAL (C-L)	1 (LMN) 1.2 (CL)
3	LIMITED COMMERCIAL (C-L)	3.4
4	LOW DENSITY MIXED-USE NEIGHBORHOOD (LMN) / LIMITED COMMERCIAL (C-L)	5.0 (LMN) 2.9 (CL)
5	LOW DENSITY MIXED-USE NEIGHBORHOOD (LMN)	2.4
6	LOW DENSITY MIXED-USE NEIGHBORHOOD (LMN)	4.0
CITY DEDICATED RIGHT-OF-WAY		1.8
	TOTAL:	12.5

* BUSINESS TYPES, HEIGHT AND FLOOR AREA SHALL COMPLY WITH CURRENT ZONING REGULATIONS AT TIME OF DEVELOPMENT. LAND USE ACREAGE MAY CHANGE BASED ON FUTURE PDP SUBMITTALS. OPEN SPACE AREA WILL CONFORM WITH CURRENT LAND USE CODE AND REGULATIONS AT TIME OF PROJECT DEVELOPMENT PLAN SUBMITTAL.

LAND USES*

LOT #	LAND USE POSSIBILITIES
1, 2, 3, 4	MIXED USE DWELLING, SHELTERS, PLACES OF WORSHIP, PUBLIC AND PRIVATE SCHOOLS, MINOR PUBLIC FACILITIES, MINOR OR MAJOR VEHICLE REPAIR, VEHICLE SALES, CHILD CARE CENTER, ENTERTAINMENT FACILITIES, OFFICES, SERVICE SHOPS, RESTAURANTS, RETAIL, FROZEN FOOD LOCKERS, DOG DAYCARE FACILITIES, PRINT SHOPS, EXHIBIT HALLS, BARS AND TAVERNS, FUNERAL HOMES, FOOD CATERING, INDOOR KENNELS, ARTISAN STUDIO AND GALLERIES, MICROBREWERY/DISTILLERY/WINERY, FOOD TRUCK RALLY, WORKSHOPS, WAREHOUSES, MEDICAL AND RETAIL MARIJUANA OPTIONAL PREMISES CULTIVATION OPERATIONS, MEDICAL AND RETAIL MARIJUANA-INFUSED PRODUCT MANUFACTURERS, RETAIL AND MEDICAL MARIJUANA TESTING FACILITY, SOLAR ENERGY SYSTEMS, WIRELESS TELECOMMUNICATIONS EQUIPMENT AND FACILITIES
2,4,5,6	SINGLE FAMILY, TWO FAMILY, MIXED-USE DWELLINGS, PLACES OF WORSHIP, MINOR PUBLIC FACILITIES, PARKS, CEMETERIES, COMMUNITY FACILITIES, NEIGHBORHOOD SUPPORT/RECREATIONAL FACILITIES, BED AND BREAKFAST, CHILD CARE CENTERS, NEIGHBORHOOD CENTER, PUBLIC AND PRIVATE SCHOOLS, LONG-TERM FACILITIES, OFFICES, FINANCIAL SERVICES, CLINICS AND ARTISAN AND PHOTOGRAPHY STUDIOS AND GALLERIES, WORKSHOPS AND CUSTOM SMALL INDUSTRY, LIGHT INDUSTRIAL, SMALL SCALE AND MEDIUM SCALE SOLAR ENERGY SYSTEMS, AND WIRELESS TELECOMMUNICATION EQUIPMENT

* OR OTHER USES PERMITTED BY THE LAND USE CODE WITHIN THE ZONE DISTRICTS

OWNER'S CERTIFICATION

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 (SIGNED) Date

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS

_____ DAY OF _____ 20___ A.D.,

BY_____
(PRINT NAME)

AS _____

MY COMMISSION EXPIRES: _____

WITNESS MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC ADDRESS

(SEAL)

PLANNING & ZONING CERTIFICATE

APPROVED BY THE COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES DIRECTOR OF

THE CITY OF FORT COLLINS, COLORADO ON THIS_____DAY OF _____,

20_____.

_____
DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES

ALTERNATIVE COMPLIANCE

LAND USE CODE

3.6.3(F) "Utilization and Provision of Sub-Arterial Street Connections to and From Adjacent Developments and Developable Parcels. All development plans shall incorporate and continue all sub-arterial streets stubbed to the boundary of the development plan by previously approved development plans or existing development. All development plans shall provide for future public street connections to adjacent developable parcels by providing a local street connection spaced at intervals not to exceed six hundred sixty (660) feet along each development plan boundary that abuts potentially developable or redevelopable land."

DUE TO UNUSUAL EXISTING DEVELOPMENT AND NATURAL AREAS IT IS NOT POSSIBLE AT THIS TIME TO PROVIDE LOCAL STREET CONNECTIONS AT 660 FOOT INTERVALS ALONG THE NORTHERN PROPERTY LINE. THERE IS A LARGE, CENTRALLY LOCATED EXISTING BUILDING THAT WILL REMAIN ON SITE WHICH MINIMIZES VEHICULAR CIRCULATION OPPORTUNITIES. THERE IS ALSO A PROPOSED REGIONAL DETENTION AREA ADJACENT TO THE PROPERTY. THE CITY HAS PLANNED THE WEST VINE REGIONAL POND TO BE LOCATED NORTH AND WEST OF THIS SITE FOR STORM WATER DETENTION AND WATER QUALITY. A LOCAL STREET CONNECTION IS PROPOSED WHERE THE REGIONAL DETENTION WON'T BE IMPACTED ON THE EASTERN SIDE OF THE PROPERTY.

INSTEAD OF TWO LOCAL STREET CONNECTIONS ALONG APPROXIMATELY 1,320 LINEAR FEET OF PROPERTY BOUNDARY, ONE LOCAL STREET AND TWO PEDESTRIAN/BICYCLE TRAIL CONNECTIONS ARE PROPOSED.

SALUD

ODP SUBMITTAL

FORT COLLINS, CO

PREPARED BY:

RIPLEY DESIGN INC.

■ land planning ■ landscape architecture ■
■ urban design ■ entitlement ■

419 Canyon Ave. Suite 200 Fort Collins, CO 80521
phone 970.224.5828 | fax 970.225.6657 | www.ripleydesigninc.com

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Fort Collins, CO 80521
p. 970.224.5828
f. 970.225.6657

OWNER
SALUD FAMILY HEALTH CENTERS
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Fort Lupton, CO 80621
p. 720.322.9402

ARCHITECT
THOMAS BECK ARCHITECTS
Thomas Beck
170 South St. Vrain Ave.
PO Box 57
Estes Park, CO 80517
p. 970.586.3913

ENGINEER
NORTHERN ENGINEERING
Cody Snowden
301 N. Howes St. Suite #100
Fort Collins, CO 80521
p. 970.221.4158

NORTH SCALE: 1"=10'-0" (0, 05, 10, 20)

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE
01	ODP	11/18/2015

REVISIONS

No.	DESCRIPTION	DATE
01	CITY COMMENTS	3/8/2016
2	P&Z	4/15/2016

COVER SHEET

SEAL:

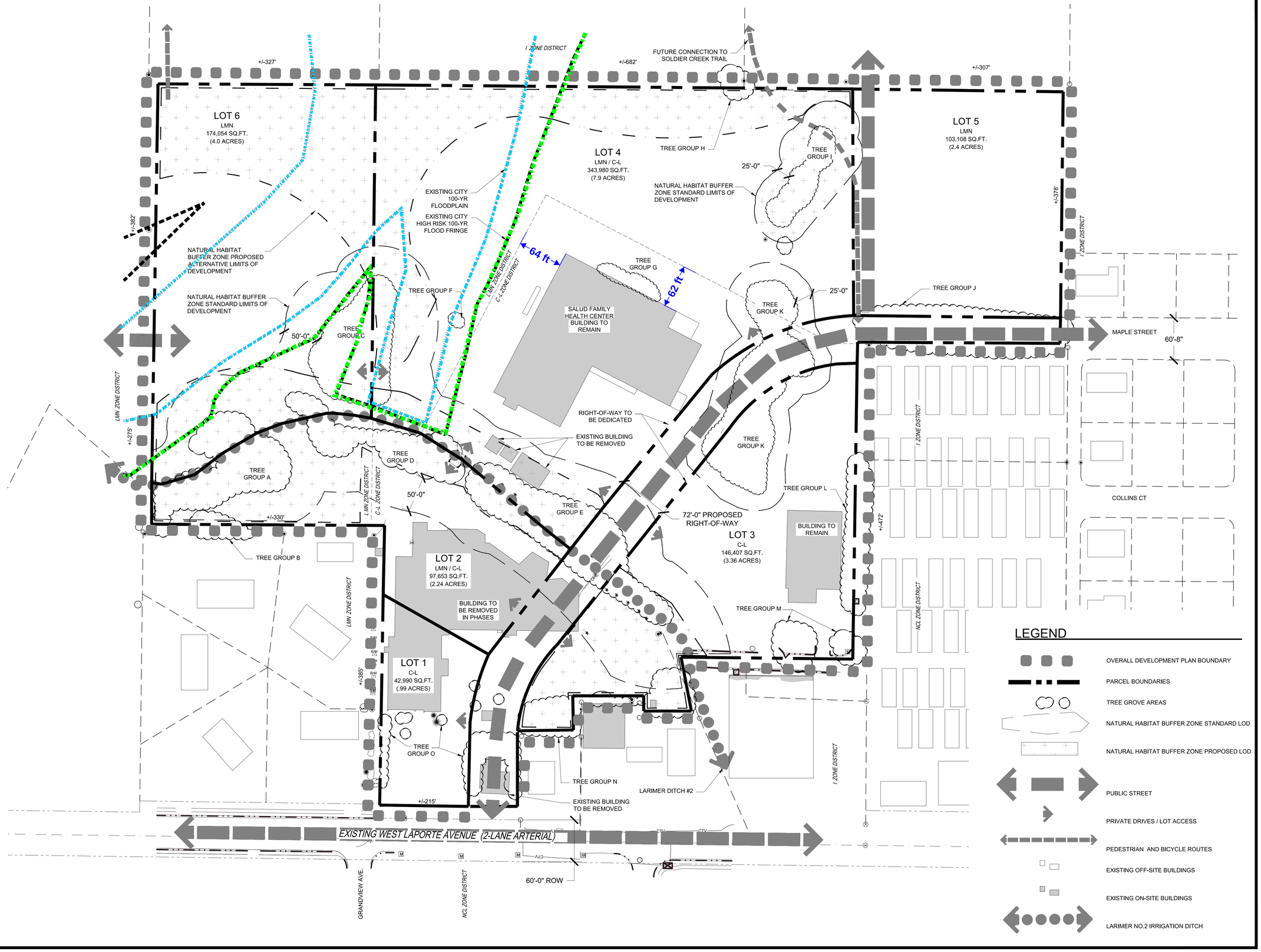
ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT No.:	R15-024
DRAWN BY:	SV
REVIEWED BY:	RL

DRAWING NUMBER:

1

Plotted By: Stephanie Van Dyken **Layout:** 1 Cover Sheet **Printed On:** 4/27/2016 4:13 PM **File Name:** 1 Cover Sheet.dwg



LEGEND

- OVERALL DEVELOPMENT PLAN BOUNDARY
- PARCEL BOUNDARIES
- TREE GROVE AREAS
- NATURAL HABITAT BUFFER ZONE STANDARD LOD
- NATURAL HABITAT BUFFER ZONE PROPOSED LOD
- PUBLIC STREET
- PRIVATE DRIVES / LOT ACCESS
- PEDESTRIAN AND BICYCLE ROUTES
- EXISTING OFF-SITE BUILDINGS
- EXISTING ON-SITE BUILDINGS
- LARIMER NO.2 IRRIGATION DITCH

SALUD

ODP SUBMITTAL

FORT COLLINS, CO

PREPARED BY:

RIPLEY DESIGN INC.

■ land planning ■ landscape architecture ■
■ urban design ■ entitlement ■

419 Canyon Ave. Suite 200 Fort Collins, CO 80521
phone 970.224.5828 | fax 970.225.6657 | www.ripleydesigninc.com

APPLICANT

RIPLEY DESIGN INC.
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Fort Collins, CO 80521
p. 970.224.5828
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OWNER

SALUD FAMILY HEALTH CENTERS
John Santistevan
203 S. Rollie Ave.
Fort Lupton, CO 80621
p. 720.322.9402

ARCHITECT

THOMAS BECK ARCHITECTS
Thomas Beck
170 South St. Vrain Ave.
PO Box 67
Estes Park, CO 80517
p. 970.586.3913

ENGINEER

NORTHERN ENGINEERING
Cody Snowden
301 N. Howes St. Suite #100
Fort Collins, CO 80521
p. 970.221.4158

NORTH SCALE: 1"=60'-0" (0 30 60 120)

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE
01	ODP	11/18/2015

REVISIONS

No.	DESCRIPTION	DATE
01	CITY COMMENTS	3/8/2016
2	P&Z	4/15/2016

ODP

SEAL:

PROJECT No.:	R15-024
DRAWN BY:	SV
REVIEWED BY:	RL

DRAWING NUMBER:

2

Plotted By: Stephanie Van Dyken **Layout:** 2 ODP **Printed On:** 4/27/2016 4:13 PM **File Name:** 2 Overall Development Plan.dwg

SALUD FAMILY HEALTH CENTER

Project Development Plan

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 CERTIFICATION

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 (SIGNED) Date

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

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

_____
(PRINT NAME)

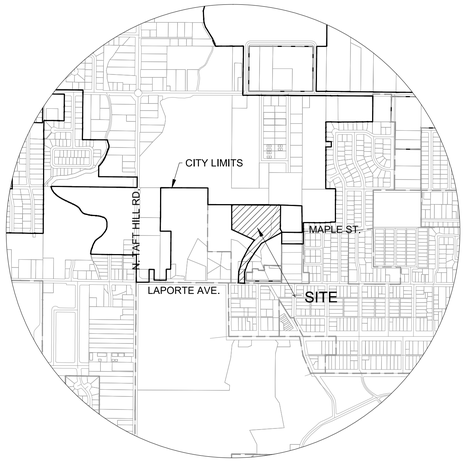
AS _____.

MY COMMISSION EXPIRES: _____

WITNESS MY HAND AND OFFICIAL SEAL.

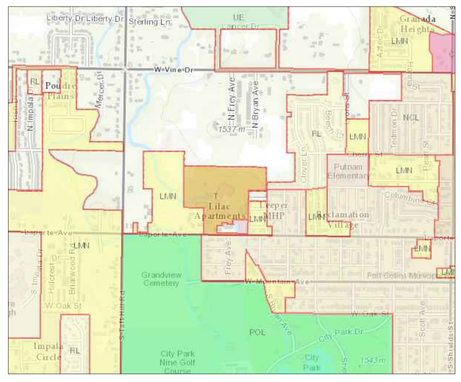
_____ _____
NOTARY PUBLIC ADDRESS

Sheet List Table	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	SITE PLAN
3	NATURAL HABITAT BUFFER ZONES
4	TREE MITIGATION
5	LANDSCAPE PLAN
6	LANDSCAPE DETAILS



LOCATION MAP

ZONING MAP



LEGAL DESCRIPTION

A tract of land located in the Northwest Quarter of Section 10, Township 7 North, Range 69 West of the 6th Principal Meridian, City of Fort Collins, County of Larimer, State of Colorado being more particularly described as follows:

Considering the South line of the Northwest Quarter of Section 10, Township 7 North, Range 69 West of the 6th P.M., City of Fort Collins, County of Larimer, State of Colorado, as bearing South 89° 14' 44" East, and with all bearings herein relative thereto:

Commencing at the West Quarter corner of said Section 10; thence along the South line of said Northwest Quarter, South 89° 14' 44" East, 1325.02 feet; thence, North 00° 42' 01" East, 30.00 feet to the POINT OF BEGINNING;
thence, North 00° 38' 41" East, 405.71 feet; thence, North 89° 14' 49" West, 330.72 feet; thence, North 00° 42' 46" East, 656.12 feet; thence, South 89° 24' 33" East, 1320.17 feet; thence, South 00° 23' 46" West, 377.97 feet; thence, North 89° 14' 44" West, 285.00 feet; thence, South 00° 23' 46" West, 472.81 feet; thence, North 87° 54' 20" West, 249.40 feet; thence, South 07° 37' 19" East, 72.44 feet; thence, North 89° 14' 44" West, 86.39 feet; thence, North 00° 23' 46" East, 21.00 feet; thence, North 89° 14' 44" West, 83.00 feet; thence, South 00° 23' 46" West, 50.00 feet; thence, North 89° 14' 30" West, 85.50 feet; thence, South 00° 45' 13" West, 120.00 feet; thence, North 89° 14' 44" West, 215.03 feet to the Point of Beginning, contains 987,453 square feet or 22.669 acres, more or less.

For themselves and their successors in interest (collectively "Owner") have caused the above described land to be surveyed and subdivided into lots, tracts and streets as shown on this Plat to be known as Salud Family Health Center (the "Development"), subject to all easements and rights-of-way now of record or existing or indicated on this Plat. The rights and obligations of this Plat shall run with the land.

LAND USE CHART

EXISTING ZONING	LMN-CL

AREA COVERAGE

GROSS	AREA (SF)	%
BUILDING COVERAGE	38,550	9.28
DRIVES AND PARKING (EXCLUDES PUBLIC ROW)	59,277	14.27
OPEN SPACE AND LANDSCAPE (EXCLUDES PUBLIC ROW)	239347	57.64
HARDSCAPE (EXCLUDES PUBLIC ROW)	7,093	1.71
**PUBLIC STREET RIGHT-OF-WAY	71,012.00	17.10
DRIVES AND PARKING	62,757	
LANDSCAPE	8,255	
TOTAL GROSS COVERAGE	**415,279.00 SF (9.53 AC)**	**100.00**

NET	AREA (SF)	%
BUILDING COVERAGE	38,550	11.20
DRIVES AND PARKING	59,227	17.21
OPEN SPACE AND LANDSCAPE	239,347	69.53
HARDSCAPE (WALKS & PLAZAS)	7,093	2.06
TOTAL NET COVERAGE	**344,217.00 SF (7.90 AC)**	**100.00**

FLOOR AREA RATIO	
LOT 4	
BUILDING AREA (SF)	38,550
LOT AREA (SF)	344,515
FLOOR AREA RATIO	0.11

BUILDING HEIGHT	MAXIMUM HEIGHT	STORIES
BUILDING 01	30	1

PROJECT PARKING	PROVIDED	REQUIRED MIN.	REQUIRED MAX.
STANDARD PARKING STALLS	160	78	174
HANDICAP	6		
TOTAL	**166**	**78**	**174**

* REQUIRED SPACES ARE CALCULATED AS FOLLOWED:
1 SPACE PER 1,000 SQ.FT. MINIMUM AND 4.5 SPACES PER 1,000 SQ.FT. MAXIMUM

BICYCLE PARKING	PROVIDED	REQUIRED *
BICYCLE SPACES	**10**	10

* REQUIRED BICYCLE SPACES ARE CALCULATED AS FOLLOWED:
1 SPACE PER 4,000 SQ.FT. OF MEDICAL OFFICE. 20% REQUIRED TO BE ENCLOSED, 80% FIXED.

SALUD FAMILY HEALTH CENTER

PDP SUBMITTAL

FORT COLLINS, CO

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NORTHERN ENGINEERING
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NORTH SCALE: 1"=10'-0"
0 05 10 20

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE
1	PROJECT DEVELOPMENT PLAN	5/18/2016

REVISIONS

No.	DESCRIPTION	DATE
02	CITY COMMENTS	5/31/2017

COVER SHEET

SEAL:

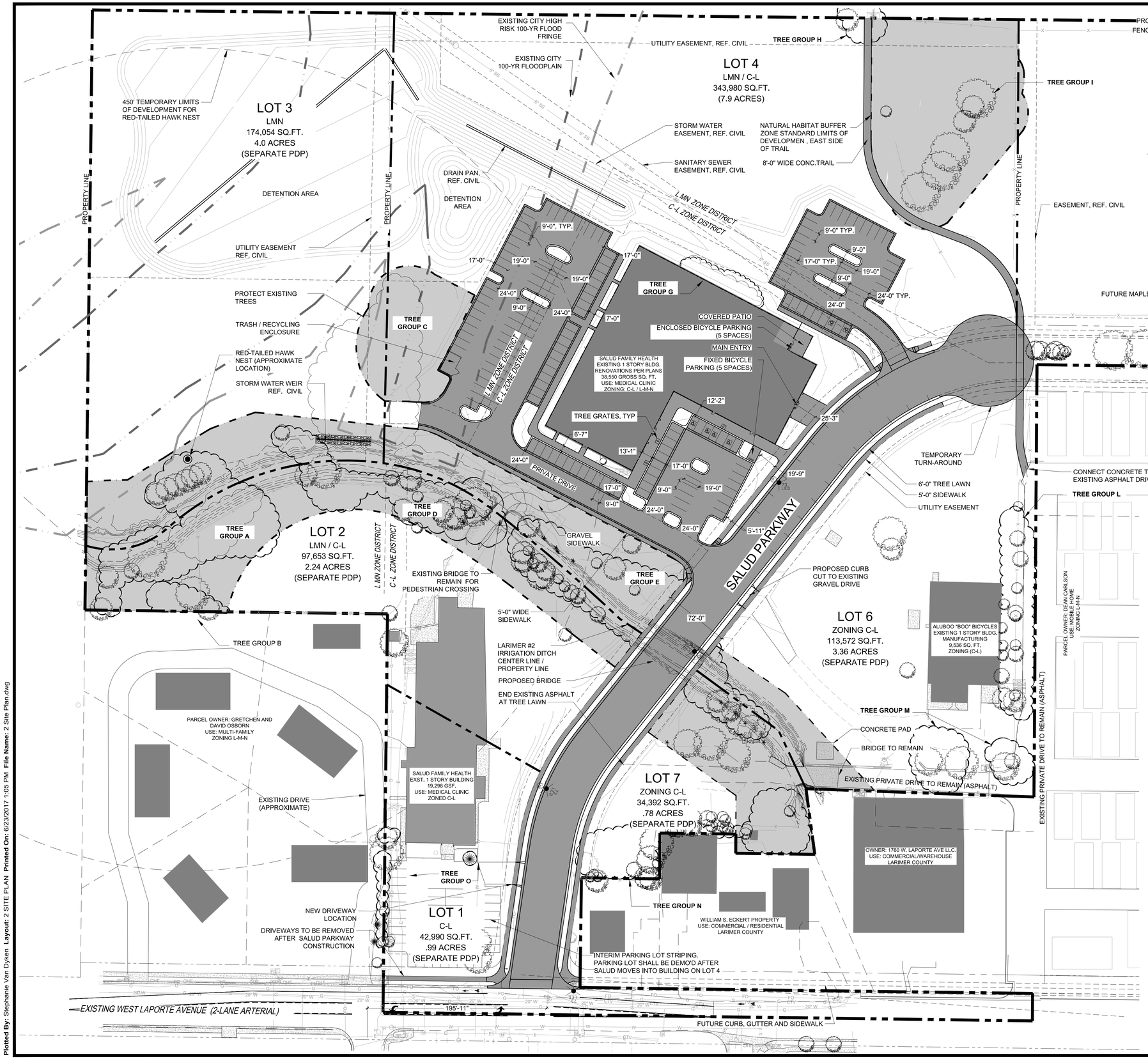
ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT No.:	R15-024
DRAWN BY:	DS/SV
REVIEWED BY:	SV

DRAWING NUMBER:

1 OF 5

Plotted By: Stephanie Van Dyken **Layout:** 1 COVER SHEET **Printed On:** 6/23/2017 1:02 PM **File Name:** 1 COVER SHEET.dwg



LEGEND

- = STORM DRAIN MANHOLE
- = SANITARY SEWER CLEAN-OUT
- = SANITARY SEWER MANHOLE
- = FIRE HYDRANT
- = ELECTRIC VAULT
- = WATER VALVE
- = AIR CONDITIONING UNIT
- = GAS METER
- = EXISTING TREES
- = POWER POLE
- = PROPERTY BOUNDARY
- = DRAINAGE OR UTILITY EASEMENT
- = EXISTING FENCE
- = RETAINING WALL
- = FIBER OPTIC UTILITY
- = GAS UTILITY
- = LIGHTING UTILITY
- = STORM DRAIN UTILITY
- = SANITARY SEWER UTILITY
- = TELEPHONE UTILITY
- = CABLE UTILITY
- = WATER LINE UTILITY

NOTES

1. THE NATURAL HABITAT BUFFER ZONES ARE INTENDED TO BE MAINTAINED IN A NATIVE LANDSCAPE. PLEASE SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE NATURAL HABITAT BUFFER ZONES.

NORTH

SCALE: 1"=50'-0"

0 25 50 100

ORIGINAL SIZE 24X36

SALUD FAMILY HEALTH CENTER

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REVISIONS		
No.	DESCRIPTION	DATE
02	CITY COMMENTS	5/31/2017

SITE PLAN

SEAL:

ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

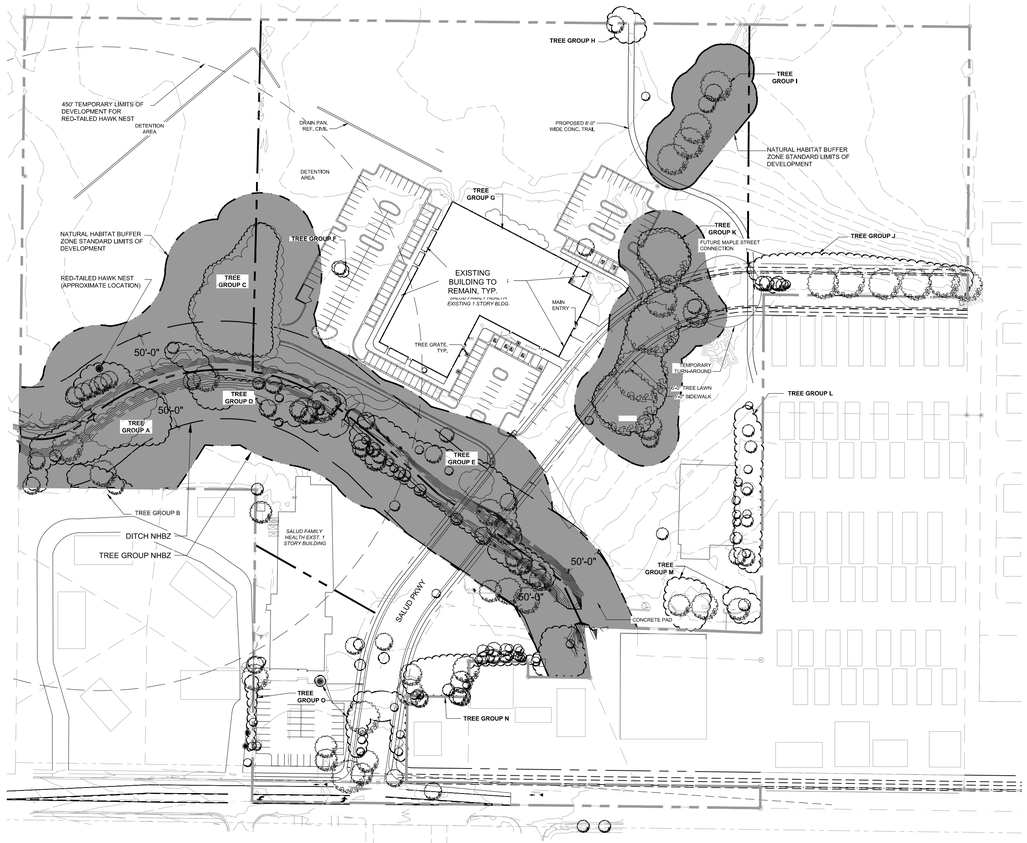
PROJECT No.:	R15-024
DRAWN BY:	DS/SV
REVIEWED BY:	SV

DRAWING NUMBER:

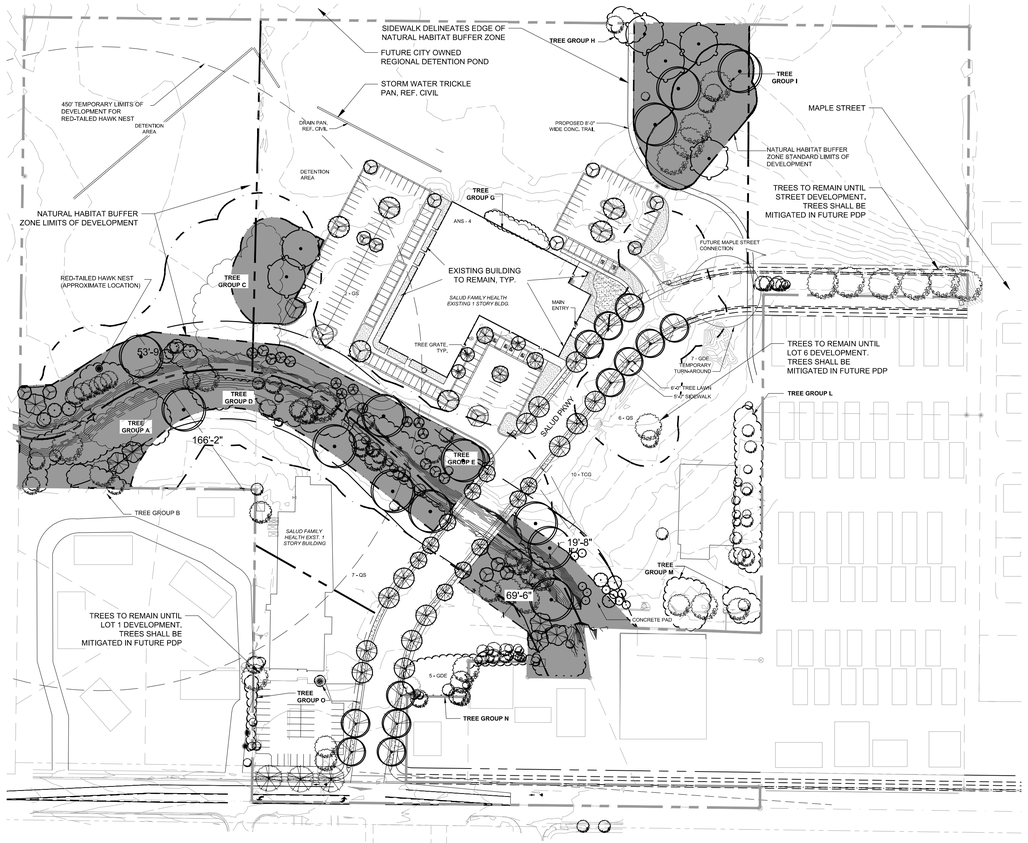
2 OF 5

Plotted By: Stephanie Van Dyken **Layout:** 2 SITE PLAN **Printed On:** 6/23/2017 1:05 PM **File Name:** 2 Site Plan.dwg

NATURAL HABITAT BUFFER ZONES (NHBZ) BASED ON CODE REQUIREMENTS



PROPOSED NATURAL HABITAT BUFFER ZONES (NHBZ)



TREE PROTECTION NOTES

1. ALL EXISTING TREES WITHIN THE LIMITS OF THE DEVELOPMENT AND WITHIN ANY NATURAL AREA BUFFER ZONES SHALL REMAIN AND BE PROTECTED UNLESS NOTED ON THESE PLANS FOR REMOVAL.
2. WITHIN THE DRIP LINE OF ANY PROTECTED EXISTING TREE, THERE SHALL BE NO CUT OR FILL OVER A FOUR-INCH DEPTH UNLESS A QUALIFIED ARBORIST OR FORESTER HAS EVALUATED AND APPROVED THE DISTURBANCE.
3. 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.
4. PRIOR TO AND DURING CONSTRUCTION, BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED EXISTING TREES WITH SUCH BARRIERS TO BE OF ORANGE FENCING A MINIMUM OF FOUR (4) FEET IN HEIGHT, SECURED WITH METAL T-POSTS, NO CLOSER THAN SIX (6) FEET FROM THE TRUNK OR ONE-HALF (½) OF THE DRIP LINE, WHICHEVER IS GREATER. THERE SHALL BE NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS OR FILL WITHIN THE FENCED TREE PROTECTION ZONE.
5. DURING THE CONSTRUCTION STAGE OF DEVELOPMENT, THE APPLICANT SHALL PREVENT THE CLEANING OF EQUIPMENT OR MATERIAL OR THE STORAGE AND DISPOSAL OF WASTE MATERIAL SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MOTOR OIL OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES.
6. NO DAMAGING ATTACHMENT, WIRES, SIGNS OR PERMITS MAY BE FASTENED TO ANY PROTECTED TREE.
7. LARGE PROPERTY AREAS CONTAINING PROTECTED TREES AND SEPARATED FROM CONSTRUCTION OR LAND CLEARING AREAS, ROAD RIGHTS-OF-WAY AND UTILITY EASEMENTS MAY BE "RIBBONED OFF," RATHER THAN ERECTING PROTECTIVE FENCING AROUND EACH TREE AS REQUIRED IN SUBSECTION (G)(3) ABOVE. THIS MAY BE ACCOMPLISHED BY PLACING METAL T-POST STAKES A MAXIMUM OF FIFTY (50) FEET APART AND TYING RIBBON OR ROPE FROM STAKE-TO-STAKE ALONG THE OUTSIDE PERIMETERS OF SUCH AREAS BEING CLEARED.
8. THE INSTALLATION OF UTILITIES, IRRIGATION LINES OR ANY UNDERGROUND FIXTURE REQUIRING EXCAVATION DEEPER THAN SIX (6) INCHES SHALL BE ACCOMPLISHED BY BORING UNDER THE ROOT SYSTEM OF PROTECTED EXISTING TREES AT A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES. THE AUGER DISTANCE IS ESTABLISHED FROM THE FACE OF THE TREE (OUTER BARK) AND IS SCALED FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART BELOW:

TREE DIAMETER AT BREAST HEIGHT (INCHES)	AUGER DISTANCE FROM FACE OF TREE (FEET)
0-2	1
3-4	2
5-9	5
10-14	10
15-19	12
OVER 19	15

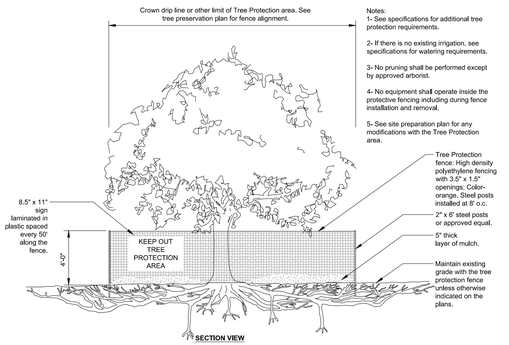
9. ALL TREE REMOVAL SHOWN SHALL BE COMPLETED OUTSIDE OF THE SONGBIRD NESTING SEASON (FEB 1 - JULY 31) OR CONDUCT A SURVEY OF TREES ENSURING NO ACTIVE NESTS IN THE AREA.

NATURAL AREA BUFFER NOTES

1. STANDARDS FOR PROTECTION DURING CONSTRUCTION - THE DIRECTOR SHALL ESTABLISH A "LIMITS OF DEVELOPMENT" ("LOD") LINE(S) TO ESTABLISH THE BOUNDARY OF THE PROJECT OUTSIDE OF WHICH NO LAND DISTURBANCE ACTIVITIES WILL OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
2. SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.
3. CONSTRUCTION SHALL BE ORGANIZED AND TIMED TO MINIMIZE THE DISTURBANCE OF SENSITIVE SPECIES OCCUPYING OR USING ON-SITE AND ADJACENT NATURAL HABITATS OR FEATURES.
4. CONSTRUCTION OF BARRIER FENCING SHALL BE PROVIDED AT THE LIMITS OF THE DEVELOPMENT DURING CONSTRUCTION.
5. TREE GROUP LETTERS ARE BASED ON ECOLOGICAL CHARACTERIZATION STUDY REPORT DATED AUGUST 26, 2015

NATURAL HABITAT BUFFER ZONES	REQUIRED			
TYPE	AREA (SQ.FT.)	TREE CANOPY TO BE REMOVED (SQ.FT.)	TREE CANOPY PROPOSED (SQ.FT.)	DIFFERENCE
TREE GROUP A	17,447			
TREE GROUP B	2,087			
TREE GROUP C	16,314	9,066	5,654	-3412
TREE GROUP D	12,581			
TREE GROUP E	22,639	6,353		-6353
TREE GROUP F	408	408		-408
TREE GROUP G	2,041			
TREE GROUP H	2,011			
TREE GROUP I	5,989	0	19789	19789
TREE GROUP J	16,091	16091		-16091
TREE GROUP K	22,241	21185		-21185
TREE GROUP L	8,323			
TREE GROUP M	5,933			
TREE GROUP N	10,487			
TREE GROUP O	7,606	5583		
LARIMER #2 IRRIGATION DITCH	133,126	5099	40489	35390
TOTAL	**285,324**	**63,785**	**65,932**	2147

NATURAL HABITAT BUFFER ZONES HAVE BEEN MITIGATED FOR LOTS 1-7 WITH THIS PDP. MITIGATION FOR INDIVIDUAL TREES TO BE REMOVED WITH FUTURE PDP'S SHALL BE REQUIRED AT TIME OF FUTURE PDPD'S.



1 PROTECTION FENCING

NOT TO SCALE L-PL-ISA-PROT-02

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.

SALUD FAMILY HEALTH CENTER

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FORT COLLINS, CO

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ORIGINAL SIZE 24X36

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1	PROJECT DEVELOPMENT PLAN	5/18/2016

REVISIONS

No.	DESCRIPTION	DATE
02	CITY COMMENTS	5/31/2017

NATURAL HABITAT BUFFER ZONES

SEAL:

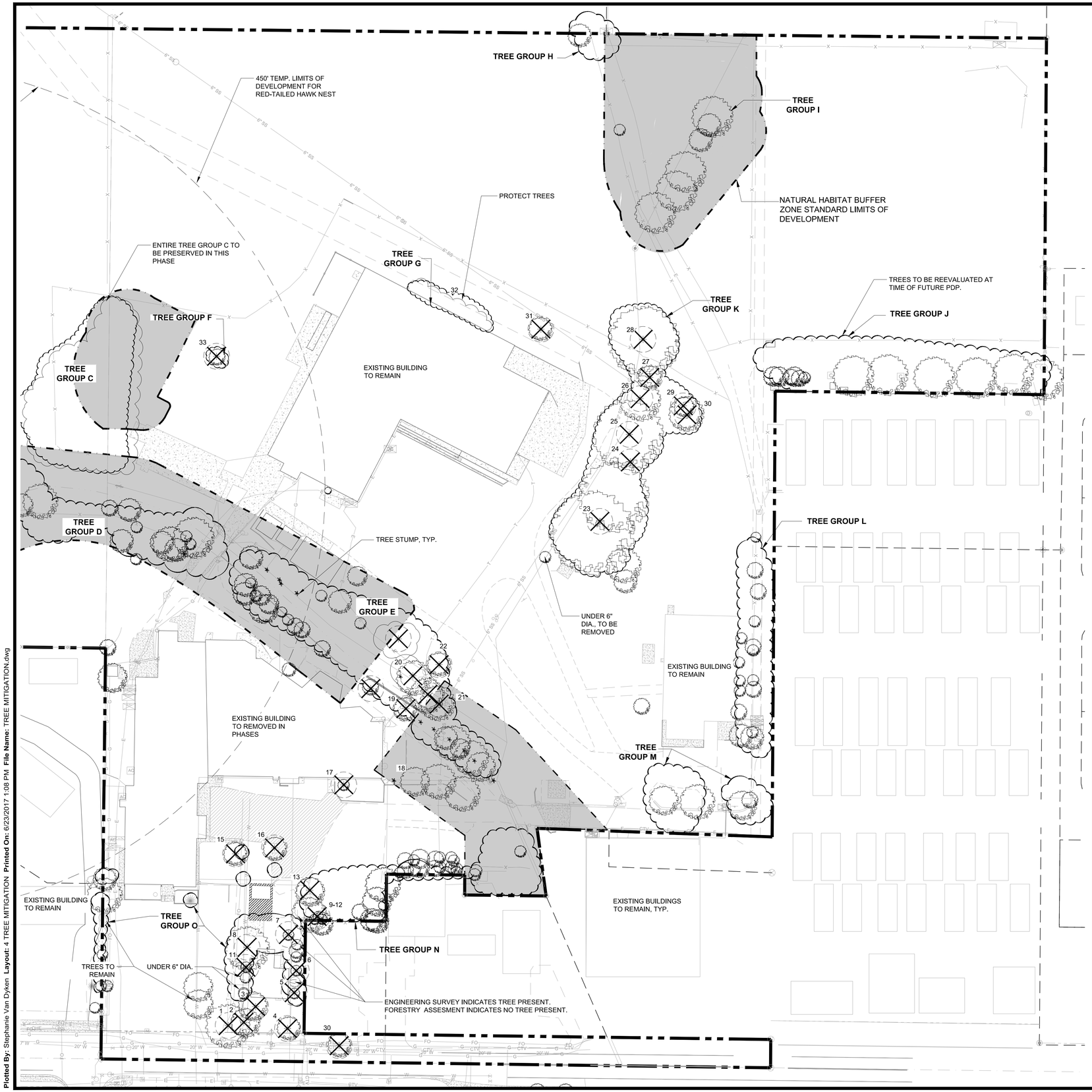
ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT No.:	R15-024
DRAWN BY:	DS/SV
REVIEWED BY:	SV

DRAWING NUMBER:

3 OF 5

Plotted By: Stephanie Van Dyken **Layout:** 3 NATURAL HABITAT BUFFER ZONES **Printed On:** 6/23/2017 1:07 PM **File Name:** 3 NATURAL HABITAT BUFFER ZONES.dwg



TREE MITIGATION LEGEND

XXX EXISTING TO SAVE IN PLACE

XXX EXISTING TO BE REMOVED

NATURAL HABITAT BUFFER ZONES (PROPOSED)

TREE GROUP LIMITS PER ENVIRONMENTAL CHARACTERIZATION STUDY

PROVIDED TREE MITIGATION

LOCATION	COUNT
MITIGATION TREES PROPOSED TO BE PLANTED *ON-SITE*	23
MITIGATION TREES PROPOSED TO BE PLANTED *OFF-SITE*	0
PAYMENT IN LIEU (ASSUMES $450 PER TREE)	-
TOTAL REMAINING REQUIRED	**0**

NOTES
TREE REPLACEMENT VALUES WHERE DETERMINED DURING A SITE VISIT BY CITY ARBORIST ON 12/29/15.

REPLACEMENT TREES SHALL MEET THE FOLLOWING REQUIREMENTS:
A. CANOPY SHADE TREES: 3.0" CALIPER BALLED AND BURLAP OR EQUIVALENT.
B. ORNAMENTAL TREES: 2.5" CALIPER BALLED AND BURLAP OR EQUIVALENT.
C. EVERGREEN TREES: 8' HEIGHT BALLED AND BURLAP OR EQUIVALENT.

TREE INVENTORY WAS FOR POTENTIAL IMPACTS OF LOT 4 CONSTRUCTION. ALL OTHER LOTS SHALL COMPELTE A TREE INVENTORY AND PROVIDE MITIGATION AT TIME OF FUTURE PDP'S.

#	TYPE	DBH (INCHES)	CONDITION	REQUIRED MITIGATION TREES IF REMOVED	REASON FOR REMOVAL
1	SIBERIAN ELM	31	FAIR	2.0	ROADWAY
2	SIBERIAN ELM	31	FAIR	2.0	ROADWAY
3	WHITE POPLAR	18	FAIR -	2.0	ROADWAY
4	SIBERIAN ELM	22	POOR	0.0	ROADWAY
5	GREEN ASH	7	POOR	0.0	ROADWAY
6	SIBERIAN ELM	15	POOR	0.0	ROADWAY
7	SIBERIAN ELM / MULTISTEM	14 18	POOR	0.0	ROADWAY
8	WHITE POPLAR	70	HAZARD	0.0	ROADWAY
9	SIBERIAN ELM	17	POOR	0.0	ROADWAY
10	SIBERIAN ELM	18	POOR	0.0	ROADWAY
11	SIBERIAN ELM	5	POOR	0.0	ROADWAY
12	SIBERIAN ELM	5	POOR	0.0	ROADWAY
13	SIBERIAN ELM	17	POOR	0.0	ROADWAY
14	BOXELDER	7	FAIR	1.0	ROADWAY
15	SIBERIAN ELM	13	POOR	0.0	
16	BOXELDER	8	FAIR -	1.0	ROADWAY
17	ASPEN	7	FAIR -	1.0	ROADWAY
18	SIBERIAN ELM	24	POOR	0.0	ROADWAY
19	BOXELDER / MULTISTEM	16 14	FAIR -	1.5	ROADWAY
20	COTTONWOOD / MULTISTEM	37 27	FAIR	3.5	ROADWAY
21	BLACK LOCUST	15	FAIR	2.0	ROADWAY
22	COTTONWOOD / MULTISTEM	25 22	FAIR -	2.0	ROADWAY
23	CRACKED WILLOW / MULTISTEM	88 60 120	HAZARD	0.0	HAZARD
24	CRACKED WILLOW / MULTISTEM	9 12	HAZARD	0.0	ROADWAY
25	NAT. COTTONWOOD	74	HAZARD	0.0	ROADWAY
26	CRACKED WILLOW / MULTISTEM	37 22	HAZARD	0.0	HAZARD
27	SIBERIAN ELM	11	FAIR	0.0	ROADWAY
28	CRACKED WILLOW	40	HAZARD	0.0	HAZARD
29	SIBERIAN ELM	21	FAIR -	1.0	ROADWAY
30	SIBERIAN ELM	37	FAIR -	2.0	ROADWAY
31	SIBERIAN ELM	13	DEAD	0.0	PARKING
32	SIBERIAN ELM / 25-30 STEMS	4-11	DEAD - FAIR	1.5	PARKING
33	GREEN ASH	8	FAIR	0.0	ROADWAY
			REQUIRED TREES	22.5	

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NORTH SCALE: 1"=50'-0" (0, 25, 50, 100)

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE
1	PROJECT DEVELOPMENT PLAN	5/18/2016

REVISIONS

No.	DESCRIPTION	DATE
02	CITY COMMENTS	5/31/2017

TREE MITIGATION

SEAL:

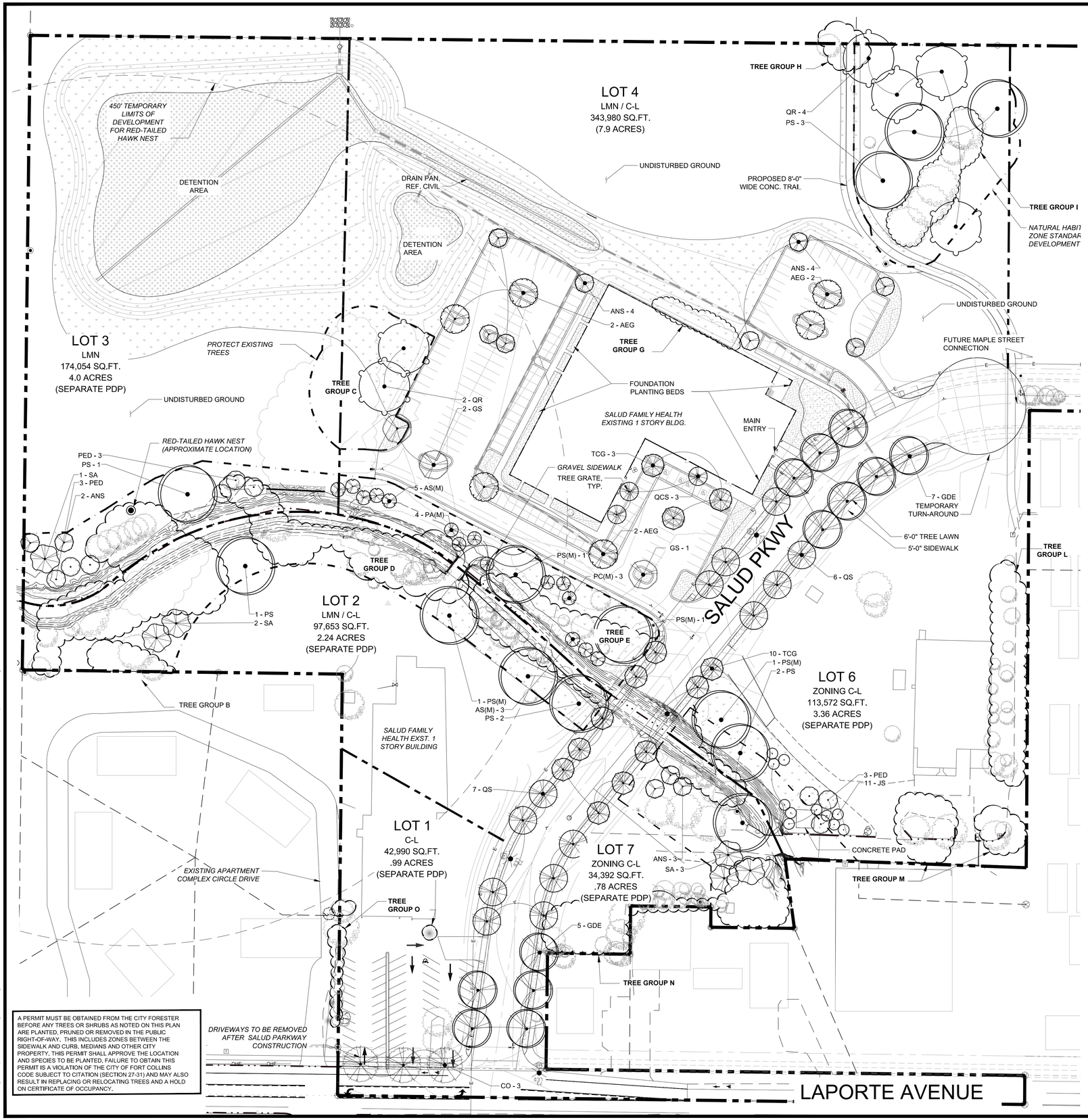
ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT No.:	R15-024
DRAWN BY:	DS/SV
REVIEWED BY:	SV

DRAWING NUMBER:

4 OF 5

Plotted By: Stephanie Van Dyken **Layout:** 4 TREE MITIGATION **Printed On:** 6/23/2017 1:08 PM **File Name:** TREE MITIGATION.dwg



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.

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.

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: 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.

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. 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. LANDSCAPING WITHIN RIGHT OF WAYS, STREET MEDIANS AND TRAFFIC CIRCLES ADJACENT TO RESIDENTIAL LOTS ARE REQUIRED TO BE MAINTAINED BY THE PROPERTY OWNER OF THE RESIDENTIAL LOT, AND THE PROPERTY OWNER IS RESPONSIBLE FOR SNOW REMOVAL ON ALL ADJACENT STREET SIDEWALKS.

13. THE DEVELOPER SHALL ENSURE THAT THE FINAL LANDSCAPE PLAN IS 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.

14. 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.

15. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.

16. IRRIGATED TURF SHALL BE TEXAS BLUEGRASS/KENTUCKY BLUEGRASS HYBRID REVEILLE OR APPROVED EQUAL.

17. EDGING BETWEEN GRASS AND SHRUB BEDS SHALL BE 18" X 4" ROLLED TOP STEEL SET LEVEL WITH TOP OF SOD OR APPROVED EQUAL.

18. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RE-SEEDED TO ESTABLISHMENT

NATURAL AREA BUFFER NOTES

1. STANDARDS FOR PROTECTION DURING CONSTRUCTION - THE DIRECTOR SHALL ESTABLISH A "LIMITS OF DEVELOPMENT" ("LOD") LINE(S) TO ESTABLISH THE BOUNDARY OF THE PROJECT OUTSIDE OF WHICH NO LAND DISTURBANCE ACTIVITIES WILL OCCUR DURING THE CONSTRUCTION OF THE PROJECT.

2. SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.

3. CONSTRUCTION SHALL BE ORGANIZED AND TIMED TO MINIMIZE THE DISTURBANCE OF SENSITIVE SPECIES OCCUPYING OR USING ON-SITE AND ADJACENT NATURAL HABITATS OR FEATURES.

4. CONSTRUCTION OF BARRIER FENCING SHALL BE PROVIDED AT THE LIMITS OF THE DEVELOPMENT DURING CONSTRUCTION.

LEGEND

SYMBOL	DESCRIPTION
	SHREDDED CEDAR MULCH. 3" AVERAGE DEPTH WITH PINNED WEED BARRIER FABRIC.
	NRCS STREAMBANK MIX
	PICKSEED MFG. FLOWERS N' GRASS MIX
	NATURAL AREA BUFFER ZONE
73 LED	STREET LIGHT

SALUD FAMILY HEALTH CENTER

PDP SUBMITTAL

FORT COLLINS, CO

PREPARED BY:

RIPLEY DESIGN INC.

■ land planning ■ landscape architecture ■ ■ urban design ■ entitlement ■

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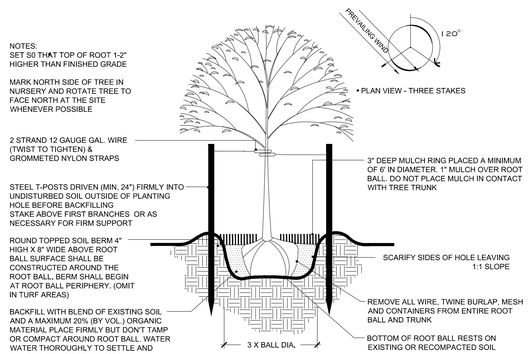
Plotted By: Stephanie Van Dyken **Layout:** 5 LANDSCAPE PLAN **Printed On:** 6/23/2017 1:09 PM **File Name:** 4 Landscape Plan.dwg

PLANT SCHEDULE

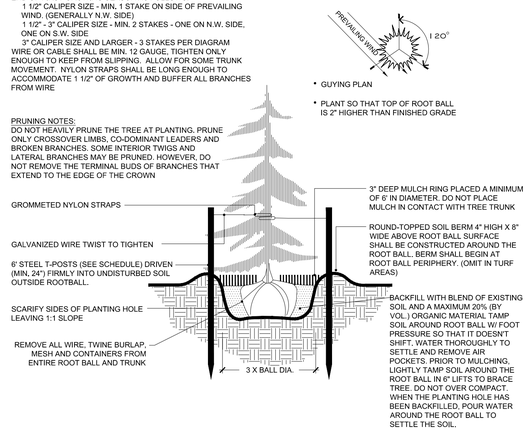
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
	JS	11	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER	-	-	6` HT.
	PED	9	PINUS EDULIS / PINON PINE	-	-	6` HT
ORNAMENTAL TREE	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**CAL**	**SIZE**
	AS(M)	8	AMELANCHIER ALNIFOLIA / SERVICEBERRY	CONTAINER		15 GAL. MULTI-STEM
	PA(M)	4	PRUNUS AMERICANA / AMERICAN PLUM	B & B	2.5"CAL	
	PC(M)	3	PRUNUS VIRGINIANA / CHOKECHERRY	CONTAINER		15 GAL. MULTI-STEM
	SA	6	SALIX AMYGDALIODES / PEACH LEAF WILLOW	B & B	2"	
SHADE TREE	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**CAL**	**SIZE**
	ANS	13	ACER NEGUNDO `SENSATION` / SENSATION BOXELDER	B & B	2"	-
	AEG	6	AESCULUS GLABRA / OHIO BUCKEYE	B & B	2"	
	CO	3	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2"	
	GS	3	GLEDITSIA TRIACANTHOS `SKYLINE` / SKYLINE HONEY LOCUST	B & B	2"	
	GDE	12	GYMNOCLADUS DIOICA `ESPRESSO` / SEEDLESS KENTUCKY COFFEETREE	B & B	2"	-
	PS	9	POPULUS SARGENTII / PLAINS COTTONWOOD	B & B	2"	
	PS(M)	4	POPULUS SARGENTII / PLAINS COTTONWOOD	B & B	3"	
	QR	6	QUERCUS RUBRA / NORTHERN RED OAK	B & B	2"	
	QS	13	QUERCUS SHUMARDII / SHUMARD RED OAK	B & B	2"	
	QCS	3	QUERCUS `CRIMSON SPIRE` / CRIMSON SPIRE OAK	-	2"	-
	TCG	13	TILIA CORDATA `GREENSPIRE` / GREENSPIRE LINDEN	B & B	2"	-
SEED & WILDFLOWER	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**		
		55,193 SF	DETENTION BASIN SEED MIX SEE SEED MIX SHEET	FLAT		
	SMI	16,974 SF	NRCS STREAMBANK MIX / NRCS STREAMBANK MIX (SEE PLANT SCHEDULE FOR TYPES)	SEED		
	FNG	132,597 SF	PICKSEED MFG / FLOWERS `N` GRASS MIX MAY-JUNE, 2LB/1000, 14-30 DAYS	SEED		
SOD/SEED	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**		
	PPL	10,727 SF	POA PRATENSIS / LOLIUM PERENNE / BLUEGRASS / PERENNIAL RYE MIX EVERGREEN	SOD		

NOTE: ALL PLANT CODES FOLLOWED BY AN (M) IS A MITIGATION TREE AND SHALL BE SIZED AS SHOWN



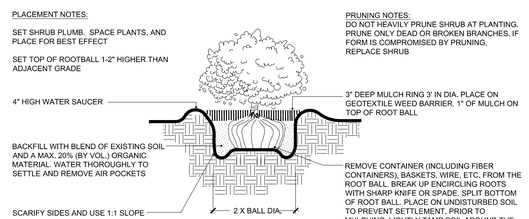
1 TREE PLANTING DETAIL - STEEL POSTS

SCALE: NTS L-PL-12



2 CONIFER TREE PLANTING DETAIL - STEEL POSTS

SCALE: NTS L-PL-13



3 SHRUB PLANTING DETAIL

SCALE: NTS L-PL-14

TREE SPECIES DIVERSITY

PER CITY OF FORT COLLINS 3.2.1(D)3 PROPOSED PLAN MUST HAVE A SPECIES DIVERSITY OF (10-19 TREES > 50%, 20-39 TREES > 33%, 40-59 TREES > 25%, 60+ TREES > 15%), OF THE XX TOTAL TREES SURVEYED AND PROPOSED ON SITE, NO SPECIES MAY HAVE MORE THAN XX QUANTITY.

*TYPE (PROPOSED & EXISTING TO REMAIN)	COUNT	60+ TREES > 15%
Juniperus scopulorum	11	10
Pinus edulis	9	8
Amalanchier alnifolia	8	8
Prunus americana	4	4
Prunus virginiana	3	3
Salix amygdaloises	6	6
Acer negundo 'Sensation'	13	12
Aesculus glabra	6	6
Celtis occidentalis	3	3
Gleditsia triacanthos 'Skyline'	3	3
Glymnocladus dioica 'Espresso'	12	11
Populus sargentii	13	12
Quercus rubra	6	6
Quercus shumardii	13	12
Quercus 'Crimson Spire'	3	3
Tilia cordata 'Greenspire'	13	12
TOTAL TREES	106	
*CITY OF FORT COLLINS CODE SECTION 3.2.1(D)3 MINIMUM SPECIES DIVERSITY		

WATER USE TABLE

HYDROZONE	AREA (SF)	WATER NEEDED (GALLONS/SF)	ANNUAL WATER USE (GALLONS)
HIGH	10727.00	18	193,086.00
MODERATE	13428.00	10	134,280.00
LOW	0.00	3	0.00
TOTAL	24,155	13.5527	327,366
ANNUAL WATER USE NOT TO EXCEED 15 GAL./SF. AVERAGE OVER THE SITE			

STREET TREE NOTES

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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.

LANDSCAPE CONCEPT STATEMENT

THE INTENT OF THE PLANTING DESIGN IS TO FOCUS LOW WATER USE NATIVE ENHANCEMENT ALONG THE IRRIGATION DITCH CORRIDOR, POCKETS OF LAYERED VEGETATION: SEED, SHRUBS AND TREES, WILL PROVIDE HABITAT ALONG THE BANKS. MORE FORMAL PLANTINGS SHALL SURROUND BUILDINGS, CANOPY TREES WILL FRAME THE PROPOSED STREET AND DIVERSE FOUNDATION PLANTINGS WILL SOFTEN THE ARCHITECTURE.

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Plotted By: Stephanie Van Dyken **Layout:** 6 LANDSCAPE DETAILS **Printed On:** 6/23/2017 1:10 PM **File Name:** LANDSCAPE DETAILS.dwg