

**CITY OF FORT COLLINS
TYPE 1 ADMINISTRATIVE HEARING
FINDINGS AND DECISION**

HEARING DATE: January 30, 2014

PROJECT NAME: Waterfield 3rd Filing

CASE NUMBER: PDP130037

APPLICANT: Jim Dullea and Curly Risheill
Parker Land Investments, LLC
c/o Ripley Design
401 West Mountain Avenue
Fort Collins, CO 80521

OWNER: Parker Land Investments, LLC
9162 South Kenwood Court
Highlands Ranch, CO 80126

HEARING OFFICER: Kendra L. Carberry

PROJECT DESCRIPTION: This is a request for approval of 190 dwelling units (152 single-family detached homes, 22 single-family homes served by an alley and 16 single-family attached homes) on 74.59 acres on a parcel of land located generally at the northwest corner of East Vine Drive and North Timberline Road. Merganser Drive will be extended to serve the site. Access would also be gained from new streets that intersect with East Vine Drive and North Timberline Road.

SUMMARY OF DECISION: Approved

ZONE DISTRICT: Low Density Mixed-Use Neighborhood (L-M-N)

HEARING: The Hearing Officer opened the hearing at approximately 5:00 p.m. on January 30, 2014, in Conference Room A, 281 North College Avenue, Fort Collins, Colorado.

EVIDENCE: During the hearing, the Hearing Officer accepted the following evidence: (1) Planning Department Staff Report; (2) application, plans, maps and other supporting documents submitted by the applicant; and (3) an email from Don Homan dated January 30, 2014 (the Land Use Code (the "Code"), the Comprehensive Plan and the formally promulgated policies of the City are all considered part of the record considered by the Hearing Officer).

TESTIMONY: The following persons testified at the hearing:

From the City:	Ted Shepard, Ward Stanford
From the Applicant:	Linda Ripley, Cody Snowden
From the Public:	Kenneth Barker, Don Homan

FINDINGS

1. Evidence presented to the Hearing Officer established the fact that the hearing was properly posted, legal notices mailed and notice published.
2. A neighborhood meeting was held on May 30, 2013 for this PDP and the Waterfield Overall Development Plan ("ODP"). The residents that attended generally expressed concerns over wetlands, traffic and density.
3. The PDP complies with the ODP.
4. The PDP complies with the applicable General Development Standards contained in Article 3 of the Code.
 - a. The PDP complies with Section 3.2.1, Landscaping and Tree Protection, because all public streets will be landscaped with street trees.
 - b. The PDP complies with Section 3.2.2, Access, Circulation and Parking, because: the PDP includes construction of a segment of the City's future regional trail along the Eaton Ditch, which turns south and connects to the path system that accesses the future neighborhood center, the future public school, the future park and wetland open space; and a soft path will circumnavigate the wetlands.
 - c. The PDP complies with Section 3.2.3(F), Solar Orientation, because Waterfield 3rd Filing is designed in an alternative manner that enhances neighborhood continuity, fosters non-vehicular access and preserves existing natural conditions.
 - d. The PDP complies with Section 3.3.1(B)(C), Plat Standards, Lots and Public Dedications, because all lots gain access to a public street, and the general layout of lots, roads, driveways, utilities, drainage facilities and other services are designed to enhance an interconnected street system within and between future neighborhoods and to preserve natural features.
 - e. The PDP complies with Section 3.5.1, Project Compatibility, because Waterfield 3rd Filing adjoins a parcel identified on the ODP as multi-family and zoned M-M-N, and a buffer yard has been set aside to allow a landscape screen between the two uses.
 - f. The PDP complies with Section 3.6.2, Streets, Streetscapes, Alleys and Easements, because: the 24 double frontage lots along an arterial street will not take access from an arterial street; and the proposed lot depth, combined with fencing and landscaping, creates

an effective screen and protection from the noise, light and other negative impacts of the arterial street equally well or better than a plan which otherwise complies with the lot depth standard.

g. The PDP complies with Section 3.6.4, Transportation Level of Service Requirements, because: the Transportation Impact Study addresses plans for New Vine Drive, newly constructed and widened streets, impact on intersections in the area and the levels of service for bicycle and pedestrian traffic; and Waterfield 3rd Filing is served by a network of public streets which provide a high level of internal and external connectivity.

h. The PDP complies with Section 3.8.11, Fences and Walls, because: 24 lots will have a 6' high solid wood fence along the rear property line adjoining either New Vine Drive or North Timberline Road; these fences will feature a recess or projection of about 4' for a length not to exceed the width of two lots; and masonry columns will be provided at consistent intervals.

5. The PDP complies with the applicable Low Density Mixed-Use District standards contained in Article 4 of the Code.

a. The PDP complies with Section 4.5(B)(2), Permitted Uses, because both single family detached and single family attached residences are permitted uses in the L-M-N zone district subject to Administrative Review.

b. The PDP complies with Section 4.5(D)(1), Density, because the PDP features 190 dwelling units on 74.59 acres for a gross density of 2.56 dwelling units per gross acre; which is less than the maximum and more than minimum net density.

c. The PDP complies with Section 4.5(D)(2), Mix of Housing, because: a Modification of Standard was granted by the Planning and Zoning Board in Conjunction with the ODP on November 14, 2013, which allows the PDP to contain three housing types instead of four, and the PDP complies with the Standard that a single housing type not constitute more than 80% or less than 5% of the total number of dwelling units.

d. The PDP complies with Section 4.5(D)(3), Neighborhood Centers, because a neighborhood center is shown on the northwest corner of the ODP, within $\frac{3}{4}$ of a mile, as measured by street frontage, of 100% of the total number of dwelling units.

e. The PDP complies with Section 4.5(D)(6), Small Neighborhood Parks, because the ODP includes a future public neighborhood park of 8.1 acres, and at least 90% of the dwellings are within $\frac{1}{3}$ of a mile of the future public neighborhood park.

f. The PDP complies with Section 4.5(E)(1)(a), Streets and Blocks, Street System Block Size, because: the PDP features a network of streets including the shifting of East Vine Drive as an arterial road from the section line $\frac{1}{4}$ mile north, bisecting the property, with no block exceeding 12 acres; and the shifting will allow the existing East Vine Drive to be downgraded to a collector street.

g. The PDP complies with Section 4.5(E)(1)(b), Mid-Block Pedestrian Connections, because Blocks 5, 7, 8 and 9 exceed 700' in length along the street frontage or block face, and each of these blocks features a mid-block bicycle and pedestrian connection at intervals that do not exceed 650'.

DECISION

Based on the foregoing findings, the Hearing Officer hereby enters the following rulings:

1. The PDP is approved as submitted.

DATED this 11th day of February, 2014.



Kendra L. Carberry
Hearing Officer

PLANNING & ZONING BOARD

STAFF REPORT

PROJECT: Waterfield Project Development Plan #PDP130037

APPLICANT: Mr. Jim Dullea and Mr. Curly Risheill
Parker Land Investments, LLC
c/o Ripley Design
401 West Mountain Avenue
Fort Collins, CO 80521

OWNER: Parker Land Investments, LLC
9162 S. Kenwood Court
Highlands Ranch, CO 80126

PROJECT DESCRIPTION:

This is a request for a Project Development Plan for a parcel of land located generally at the northwest corner of East Vine Drive and North Timberline Road. The request is for 190 dwelling units on 74.59 acres. Merganser Drive will be extended to serve the site. Access would also be gained from new streets that intersect with East Vine Drive and North Timberline Road. As proposed, there would be 152 single family detached homes, 22 single family homes served by an alley and 16 single family attached homes. The parcel is zoned Low Density Mixed-Use Neighborhood, L-M-N.

RECOMMENDATION: Approval of the P.D.P.

EXECUTIVE SUMMARY:

Waterfield Third Filing represents phase one of the Waterfield Overall Development Plan approved in November of 2013. The P.D.P. complies with the Mountain Vista Sub-area Plan as amended in 2009 and the Master Street Plan including realigned "New Vine" Drive, an arterial roadway located parallel and about one-quarter mile north of existing East Vine Drive. This new alignment is designed to reduce congestion associated with the railroad crossings between North College Avenue and North Timberline Road particularly at the North Lemay Avenue intersection.

The P.D.P. includes a segment of the future City Trail along the Eaton Ditch as well as a trail around the wetland area. The P.D.P. is in compliance with the applicable General Development Standards and the L-M-N standards.

COMMENTS:

1. Background:

The surrounding zoning and land uses are as follows:

N: L-M-N; Eaton Ditch and vacant land
S: County; Burlington Northern and Santa Fe Railroad Switching Yard
E: M-M-N; Bull Run Apartments
E: L-M-N; Vacant
E: County; Farm and ranch
W: County; Existing Farm and ranch

The parcel was included within the 500-acre East Vine 7th Annexation annexed in 1983.

Waterfield P.U.D. First Filing was approved in 1997 and included 43 single family lots and 176 multi-family dwelling units known as Bull Run Apartments on a total of 27.5 acres. Only the apartments were developed and the single family lots have lapsed.

Waterfield P.U.D. Second Filing was approved in May of 2000 and consisted of 102 single family lots, a 6.17 acre park site and a 10.2 acre school site on 92.79 acres and a neighborhood center described as featuring a convenience store and child care facility. This entire project has since lapsed.

The Mountain Vista Sub-area Plan was approved in 1999 and amended in 2009. During the 2009 amendment process, the existing Bull Run Apartments and Parcel B of the O.D.P. were rezoned from Low Density Mixed Use Neighborhood, L-M-N, to Medium Density Mixed Use Neighborhood, M-M-N. In addition, the re-alignment of East Vine Drive, as an arterial street, approximately one-quarter mile north of the current location was incorporated into the Plan and Master Street Plan. In tandem with this shifting of the arterial, existing East Vine Drive was downgraded to a collector street. The O.D.P. reflects these amendments.

Waterfield Overall Development Plan was approved in November of 2013 and covered 116.89 acres and included two zone districts: L-M-N – 103.57 acres and M-M-N – 13.32 acres. Land uses consisted of residential (at a range of densities and housing types), neighborhood center, public neighborhood park, public elementary school and open space. (The O.D.P. did not include Bull Run Apartments and the former Plummer School.)

The O.D.P. was approved with a Modification to allow the L-M-N area to feature three housing types versus four.

2. Compliance with Article Four, Section 4.5, L-M-N Standards:

A. Section 4.5(B)(2) – Permitted Uses

The P.D.P. includes two land uses – single family detached and single family attached. Both are permitted in the L-M-N zone subject to Administrative (Type One) Review.

B. Section 4.5(D)(1) – Density

The P.D.P. features 190 dwelling units on 74.59 acres for a gross density of 2.56 dwelling units per gross acre. There are several parcels that are deducted from the gross acreage in accordance with *Section 3.8.18 (Residential Density Calculation)*. This includes the arterial streets, wetlands, buffer yards and stormwater detention ponds resulting in a net acreage of 47.5 acres and a net density of 4.02 dwelling units per net acre.

The gross density is well under the maximum allowed (9.00 d.u./a) and exceeds the required minimum net density (4.00 d.u./a) thus complying with the standard.

C. Section 4.5(D)(2) – Mix of Housing

The P.D.P. features the following three housing types:

Single Family	152	80%
Single Family – Alley	22	12%
Single Family – Attached	16	8%
Total	190	100%

The standard calls for four housing types on projects containing 30 acres or more. A Modification of Standard was granted by the Planning and Zoning Board in conjunction with the Overall Development Plan on November 14, 2013 to allow three housing types in accordance with *Section 2.3.2(H)(7) (O.D.P. Standards)*. The primary justification for this Modification is that the O.D.P. will gain a fourth housing type, multi-family, from a parcel zoned M-M-N rather than within the L-M-N area.

The standard also requires that a single housing type not constitute more than 80% or less than 5% of the total number of dwelling units. As can be seen, the P.D.P. complies with these parameters.

D. Section 4.5(D)(3) – Neighborhood Centers

This standard calls for at least 90% of the dwellings in development projects greater than 40 acres to be located within three-quarters of one mile (3,960 feet) of a neighborhood center.

A neighborhood center is indicated on the O.D.P. and is located in the northwest corner and is formed by the extension of Conifer Street (collector) and the Eaton Ditch. By being located internally to the square mile section and being along a future collector street, the neighborhood center has the potential to serve multiple neighborhoods. Mandarin Drive will intersect with the future Conifer Drive extension providing direct access to the neighborhood center.

The future neighborhood center is allowed to be phased in over time in accordance with *Section 2.3.2(H)(7) (O.D.P. Standards)*. The center is within three-quarters of a mile, as measured by street frontage, of 100% of the total dwellings thus complying with the standard.

E. Section 4.5(D)(6) – Small Neighborhood Parks

This standard requires that either a public neighborhood park or a private park, at least one acre in size, be located within one-third of a mile (1,760 feet), as measured along street frontage, of 90% of the dwellings, for development projects ten acres or larger.

The O.D.P. indicates a future public (City of Fort Collins Parks and Recreation Department) neighborhood park containing 8.1 acres. This park will adjoin a 10.74 acre site for a public elementary school (Poudre School District) and the 15.88 acre open space (future homeowner's association) set aside for the wetlands thereby creating opportunities for combining and sharing a contiguous open space area containing approximately 34 acres.

At least 90% (172) of the dwellings are within one-third of a mile of the future public neighborhood park.

F. Section 4.5(E)(1)(a) – Streets and Blocks – Street System Block Size

This standard requires that the local street system provide an interconnected network of streets such that blocks do not exceed 12 acres.

The P.D.P. features a network of streets including the shifting of East Vine Drive as an arterial road from the section line one-quarter mile north such that it bisects the site. The network results in no block exceeding 12 acres. This shifting will allow the existing East Vine Drive to be downgraded to a collector roadway.

G. Section 4.5(E)(1)(b) – Streets and Blocks – Mid-Block Pedestrian Connections

This standard requires that if any block face is over 700 feet long, then walkways connecting to other streets must be provided at approximately mid-block or at intervals of at least every 650 feet, whichever is less.

Blocks five, seven, eight and nine exceed 700 feet in length along the street frontage or block face. Each of these blocks features a mid-block bicycle and pedestrian connection at intervals that do not exceed 650 feet.

3. Compliance with Applicable Article Three General Development Standards:

A. Section 3.2.1 – Landscaping

All public streets will be landscaped with street trees, including the external streets, existing East Vine Drive and North Timberline Road.

B. Section 3.2.2 – Access, Circulation and Parking

The P.D.P. provides for an off-street circulation system primarily by constructing a segment of the City's future regional trail along the Eaton Ditch. This trail then turns south and connects to the path system that provides access to the future neighborhood center, the future public school, the future park and wetland open space. As mentioned, there are mid-block connections that supplement this network. A soft path will circumnavigate the wetlands.

C. Section 3.2.3(C)(F) – Solar Orientation

This standard requires that at least 65% of the lots (124) be oriented to within 30 degrees of an east-west line. Waterfield 3rd Filing provides 63% (120 lots) at this orientation thus short by four lots.

This standard allows for alternative compliance. Waterfield 3rd Filing is an "L" shaped parcel. This orientation governs the number of east-west streets which would normally allow for full compliance with the standard. The site constraints include preserving an existing wetland, preserving an existing stormwater detention pond at the south end and sharing a boundary with the existing Bull Run Apartments along the eastern edge. The Eaton Ditch and existing, high-voltage power lines form the north boundary.

In compliance with provision of Section 3.2.3(F), Waterfield 3rd Filing is designed in an alternative manner and meets the applicable review criteria:

- The subdivision enhances neighborhood continuity and connectivity by providing a segment of the City's Parks and Recreation Department regional trail. All connecting walkways linking to this regional trail are to be dedicated as public access easements.
- The subdivision fosters non-vehicular access and preserves existing natural conditions by the aforementioned walkways and continues to respect the established topography by preservation of the 15-acre wetland.

D. Section 3.3.1(B)(C) – Plat Standards – Lots and Public Dedications

All lots gain access to a public street. The general layout of lots, roads, driveways, utilities, drainage facilities and other services are designed in a way that enhances an interconnected street system within and between future neighborhoods and preserves natural features. As mentioned, Conifer Street is a future collector street that will serve the interior of the entire square mile section by featuring a bridge over the Eaton Ditch thus connecting future neighborhoods. Dedications are platted for drainage and utility easements as well as public access easements for the off-street walkways.

E. Section 3.5.1 – Project Compatibility

Waterfield 3rd Filing zoned L-M-N, will adjoin a parcel identified on the O.D.P. as multi-family and zoned M-M-N. With Block Six sharing a property line with this future multi-family parcel, a buffer yard has been set aside to allow a landscape screen between the two uses in anticipation pending development.

F. Section 3.5.2(C) – Housing Model Variety

For developments of 100 or more single family dwelling units, four different types of housing models are required. The housing models have not yet been selected at the P.D.P. stage. The standard acknowledges that for a P.D.P., such level of detail is not finalized and allows the enforcement to be at the building permit review stage in accordance with Section 3.8.15.

G. Section 3.5.2(F)(1) – Street Facing Garage Doors

This standard requires that street-facing garage doors must be recessed behind either the front façade of the ground floor living area portion of the dwelling or a covered porch that measures at least 6' x 8'. The plans contain a detail that indicates compliance with this standard. For individual lots, compliance will be evaluated at the time of building permit application.

H. Section 3.6.2(F)(G) – Double Frontage Lots Along an Arterial Street

This standard requires that lots along an arterial street cannot take access from such street and that lot depth must be at least 150 feet. The following blocks and lots have double frontage along an arterial street:

- Block One – Lots 8 – 17 along realigned “New Vine” Drive
- Block Two – Lots 1 – 9 along realigned “New Vine” Drive
- Block Nine – Lots 24 – 28 along North Timberline Road

These 24 lots will be prohibited from taking access from either arterial street. As to the 150 feet required minimum lot depth, an alternative compliance provision is allowed per Section 3.6.2(G) if the plan includes additional buffering or screening that will protect such lots from the noise, light and other negative impacts of the arterial street.

The 19 lots in Blocks One and Two that back onto “New Vine” Drive., have a depth ranging from 115 to 160 feet. Between the rear property lines and the “New Vine” Drive right-of-way, there would be a separate landscape tract that is 35 feet wide. This separate buffer will be set aside as Tract A and include a mix of deciduous and evergreen trees. In addition, the rear property lines will be provided with a six-foot high solid wood fence. Combined, the lots and tract provide for a minimum depth of 150 feet in compliance with the standard.

The five lots in Block Nine that back onto North Timberline Road have a depth ranging from 105 to 161 feet. Between the rear property lines and the North Timberline Road right-of-way, there would be a separate tract that is 45 feet wide. This separate buffer will be set aside as Tract K and be similarly landscaped as Tract A along “New Vine” Drive. Also, a six foot high solid wood fence will be installed along the rear property lines.

Staff finds that with the proposed depth provided by both the lots and the separate tracts, combined with the fencing and landscaping, that the alternative plan creates an effective screen and protection from the noise, light and other negative impacts of the arterial street equally well or better than a plan which otherwise complies. Further, the proposed design is aesthetically more pleasing than placing perimeter fencing at a theoretical lot depth of 150 feet which could be two to three feet behind the sidewalk along either arterial street.

I. Section 3.6.4 – Transportation Level of Service (LOS) Requirements

A Transportation Impact Study has been prepared based on Waterfield 3rd Filing, containing 190 single family dwellings. Further, the T.I.S. accounts for the development of a segment of the realigned “New Vine” Drive. This will be the arterial road that

bisects the site rather than being located along the southern edge on the section line as is typical for most subdivisions.

The P.D.P. will construct, widen or extend the following streets in compliance with the Master Street Plan and in accordance with the Larimer County Urban Area Street Standards:

- North Timberline Road – Interim widening and turn lanes “New Vine” Drive – four-lane arterial
- Existing Vine Drive – collector – two-lane
- All other internal streets – local street

The T.I.S. concludes:

- In the short range (year 2018), it is estimated that the number of new trips generated by 190 dwelling units in Waterfield 3rd Filing would be 2,010. There would be 153 morning peak hour trips and 201 afternoon peak hour trips.
- The Timberline / Vine intersection is currently unsignalized. Using the short range (2018) total peak hour traffic forecasts, the peak hour signal warrant will likely be met in the afternoon peak hour. However, it is unlikely that other signal warrants will be met in the short range. Typically a traffic control signal is not installed based solely upon the peak hour warrant and a traffic control signal isn't being considered at this location.
- In the long range (2035), the peak hour signal warrant is expected to be met at the following intersections:

Timberline / “New Vine”
Lemay / “New Vine”

- In the short range, the following intersections will operate acceptably:

Timberline / Vine
Vine / Merganser
Vine / Ouzel
Lemay / Vine
Timberline / “New Vine”
“New Vine” / Merganser
Timberline / Garganey

- At the Lemay / Vine intersection, the calculated delay for the afternoon peak hour westbound left-turn lane will experience delays that are commensurate

with level of service (LOS) F. A variance was submitted and approved to accept the LOS F for the westbound left-turn movement. This was based on the fact that there are not any acceptable improvements that will mitigate the LOS failure that is also reasonably proportionate to the level of impact the project contributes. The overall LOS of the intersection remains in compliance with LOS standards.

- At the Timberline / Vine intersection, the calculated delay for the afternoon peak hour northbound approach will also experience delays that are commensurate with level of service F. The F level of service is considered to be normal during the peak hours at stop sign-controlled intersections along arterial streets. These conditions are expected to be temporary with the construction of “New Vine” Drive.
- Acceptable level of service is achieved for bicycle and transit modes based upon the measures in the multi-modal transportation guidelines and future improvements to the street system in the area.
- Pedestrian level of service B is not achieved for all pedestrian destinations with regard to continuity. The practical limits of pedestrian improvements would be on the Waterfield site itself.
- At full development of the Waterfield Overall Development Plan, including 225 apartments, child care center and a public elementary school, the number of trips would be 4,842 with an estimated 612 in the morning peak and 523 in the afternoon peak.

In general, Waterfield 3rd Filing is served by a network of public streets which provide a high level of both internal and external connectivity.

J. Section 3.8.11 – Fences and Walls

This standard requires that fences along arterial streets be made visually interesting and shall avoid creating a tunnel effect and shall feature a varying alignment. As mentioned, 24 lots will have a six foot high solid wood fence along the rear property line adjoining either “New Vine” Drive or North Timberline Road. These fences will feature a recess or projection of about four feet for a length not to exceed the width of two lots. Masonry columns will be provided at consistent intervals. Staff finds that this fence complies with the standard.

4. **Neighborhood Meeting:**

A neighborhood meeting was held on March 19, 2012 and a summary is attached. In general, there were concerns about traffic and about the gaps in public improvements in the northeast area. Further, there remains a concern about how new development will blend in and become compatible with existing surrounding areas which have a semi-rural character.

(1.) Traffic

Chief among the neighborhood concerns are the traffic problems caused by the B.N.S.F. railroad switching yard and its proximity to existing East Vine Drive. North-south traffic on both North Lemay Avenue and North Timberline Road are congested causing traffic delays within the region. The ultimate improvement is identified on the Master Street Plan as two overpasses at North Lemay Avenue and North Timberline Road that would tie into realigned "New Vine." This comprehensive solution remains, at this time, an unfunded public capital improvement. Although generating additional trips, Waterfield is also contributing to the long range solution by dedicating and constructing their share of "New Vine". This segment is about one-half mile in length and will connect Timberline Road on the east to the future Turnberry Road on the west in fulfillment of both the Mountain Vista Sub-area Plan and the Master Street Plan.

(2.) Gaps in Public Improvements

Along those same lines, attendees at the neighborhood meeting expressed frustration with the general lack of public improvements in the northeast area especially when compared to the rest of the City. There is concern that there is a lag time between when new subdivisions are improved versus timely construction of necessary facilities to serve the new growth.

These growing pains are evidenced particularly when there are gaps in the public improvements. Since parcels in the northeast quadrant of the City are not developing in a sequential manner, there are always issues of balancing the need for regional streets, sidewalks, turn lanes and the like with the impact of the new subdivisions. While each new development is required to pay its own way, there will remain regional improvements that require participation from both subsequent development and a broader regional solution such as a City capital project or formation of a special improvement district.

(3.) Urban / Rural Conflicts

The other issue of concern is the interface between existing semi-rural homes, small farms and other agricultural activities and their relationship to new development at urban densities. There is a concern that there is built-in conflict between existing residents and future residents living within a subdivision at urban densities.

These issues are not unique to any one area of the City. Managing growth on the fringe of the City has been addressed on the macro level by the Intergovernmental Agreement with Larimer County. At the micro level, however, such issues are best addressed at the Project Development Plan stage by strategic use of buffer yards, fencing, landscaping and other provisions of the Land Use Code that address compatibility. Waterfield is in a position to mitigate, to a certain degree, the rural – urban conflict by virtue of the relatively large contiguous open space provided by the combination of the future public park, future public school and wetland area. These areas contain approximately 35 acres and are located along the west property line which is the area needing the most sensitivity due to existing cultivation on the farm to the west.

5. Findings of Fact/Conclusion:

In evaluating the request for the Waterfield 3rd Filing P.D.P., staff makes the following findings of fact:

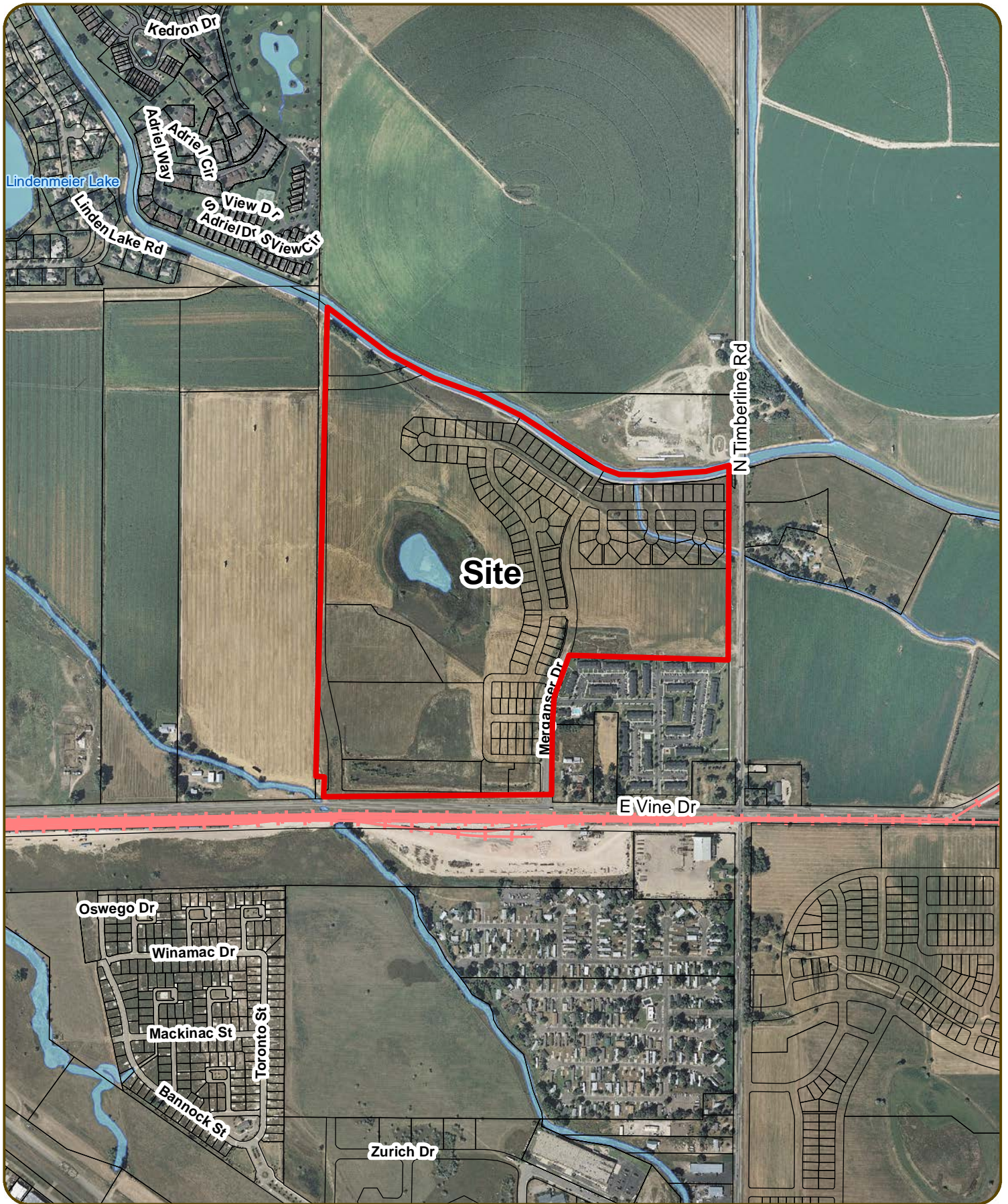
- A. Waterfield 3rd Filing P.D.P. is in compliance with Waterfield Overall Development Plan.
- B. The P.D.P. complies with the land use and applicable development standards of the L-M-N zone district as found in Article Four.
- C. The P.D.P. complies with the applicable General Development Standards as found in Article Three.

RECOMMENDATION:

Staff recommends approval of Waterfield 3rd Filing, P.D.P.,#130037.

ATTACHMENTS:

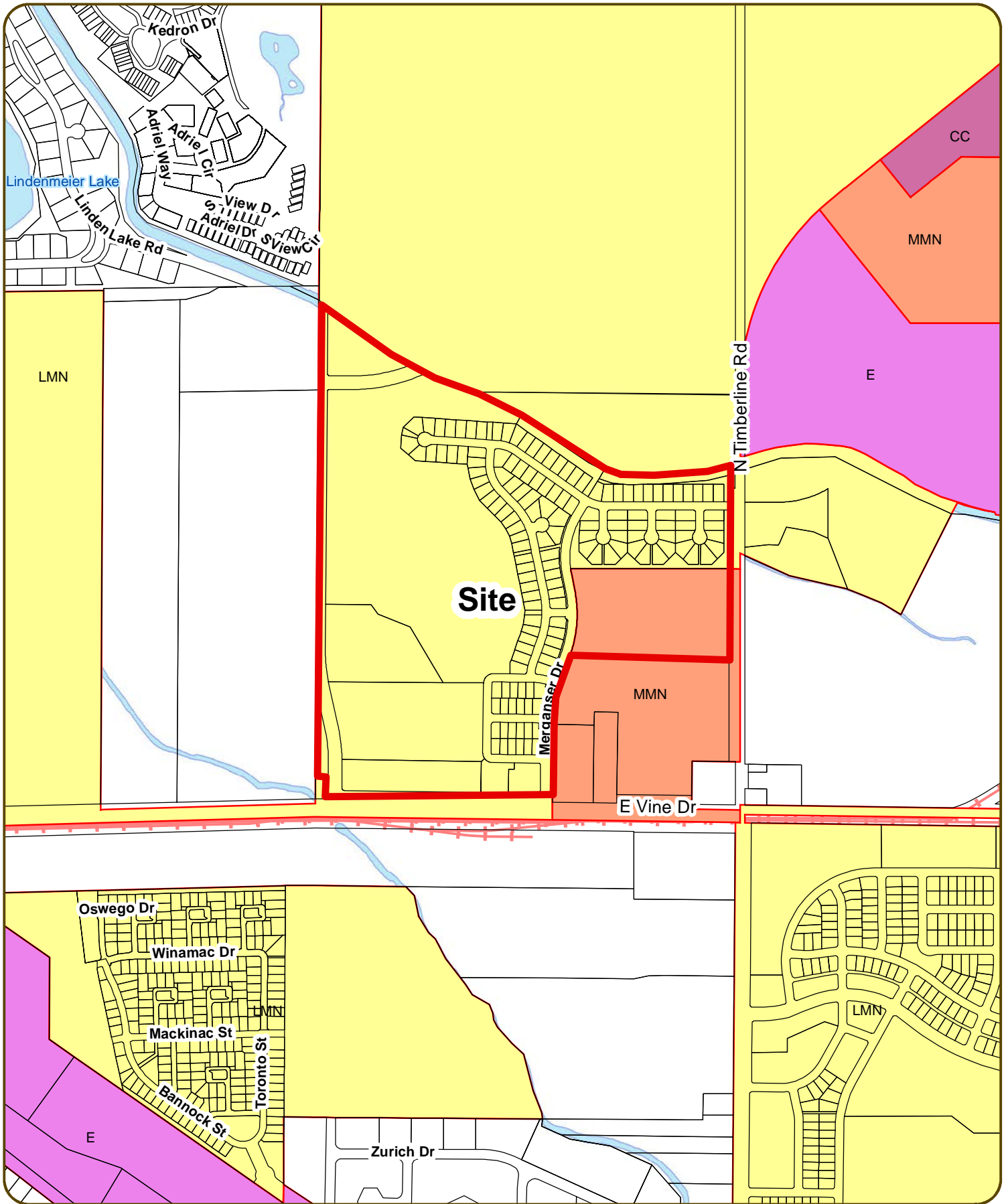
- 1. Aerial Map
- 2. Zoning Map
- 3. Mountain Vista Sub-area Map
- 4. Applicant's Planning Objectives
- 5. Site Plan, Landscape Plan, Plat
- 6. Site Plan Rendering
- 7. Neighborhood Meeting Summary
- 8. Traffic Impact Study



1 inch = 800 feet

Waterfield PDP



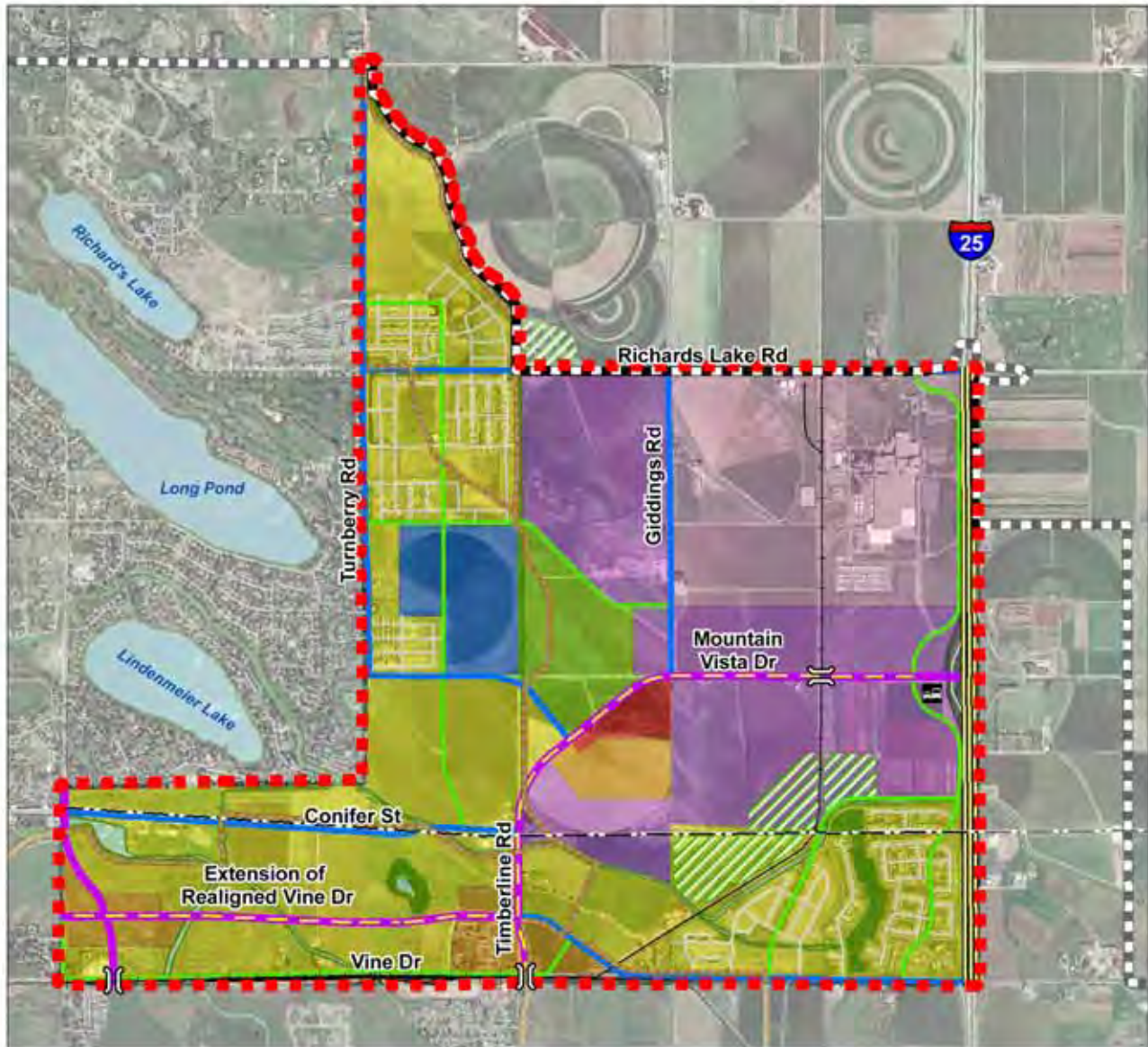


1 inch = 800 feet

Waterfield PDP



Figure 11 - 2009 Framework Plan



Legend

Land Use

- Community Commercial (CC)
- Employment (E)
- Industrial (I)
- Low Density Mixed-Use Neighborhood (LMN)
- Medium Density Mixed-Use Neighborhood (MMN)
- School (PSD)
- Community Park (POL)

Streets

- Local Road
- Collector
- 2-Lane Arterial
- 4-Lane Arterial
- Interstate 25

Other Features

- Mountain Vista Subarea Boundary
- Power Line
- Trail
- ++++ Railroad
- Enhanced Travel Corridor
- Growth Management Area
- } Grade-Separated Rail Crossing
- Regional Detention Pond
- Water
- Natural Areas/ Ditch Corridors
- Park and Ride



0 2,500 5,000 Feet

For a larger version of this map, please see the Plan Summary, a separate document, at fcgov.com/advanceplanning.

November 6, 2013

Waterfield

PROJECT DEVELOPMENT PLAN

Planning Objectives

The Waterfield development was initially planned in 1997 and at that time the entire site was zoned LMN. The Project Development Plan included a variety of housing types, a school site, a park site, a neighborhood center and a natural area around the wetland. In 2003, the Waterfield development plan was modified to eliminate lots proposed north and west of the wetland area to allow the City's Natural Resource Division to purchase the natural area. While the vesting for the 1997 and 2003 Project Development Plans have lapsed, many decisions regarding future development of the property have been made. A school site, a park site, and future street right-of-ways were dedicated in anticipation of developing a residential community in the future. Since 2003 several changes have occurred that affect the future development of the site. The most significant changes are:

- The alignment of Vine Drive on the Master Street Plan has shifted to the north, dividing the development plan with a four-lane arterial street with a 115-foot right-of-way and designated as an enhanced travel corridor.
- The City's Natural Resource Department is no longer interested in acquiring the existing wetland/natural area on the site.
- In 2009 the City changed the zoning on the existing Bull Run apartment site and approximately 11 acres north of it, to encourage multi-family housing at the intersection of the two enhanced travel corridors (Timberline and New Vine). The zoning was changed from LMN to MMN as part of the Mountain Vista Subarea planning process.

Despite these challenges, the current developers of the site are excited about the opportunities that exist and have worked to create an Overall Development Plan (ODP) that satisfies the land use objectives contained in City Plan, as well as the development objectives of the Poudre School District (PSD) and the City's Parks Department. *The Overall Development Plan was submitted on July 31st 2013 and is being reviewed concurrently with this Project Development Plan.*

This Project Development Plan proposes a ten foot wide, east-west, community multi-use concrete trail. North of the proposed cul-de-sac, the trail is designed to minimize removal when phase two is constructed. At this location, the trail will cross the road extension when the cul-de-sac is removed. Therefore, the trail crosses this future road at a 90 degree angle. The curves in the trail will act as a warning to slow down. The minimum curve radius designed is 60 feet which allows for a minimum design speed of 25 miles per hour per MUTCD standards. There is an area further east which becomes very restrictive between the lot lines, ditch access road, and ditch. The worst case scenario is shown as a section on the site plan. It preserves the user separation between the ditch company and the trail users by adding a landscaped buffer. The community trail will turn south and follow Timberline Road by

widening the existing sidewalk along Bull Run Apartments. Several 5' wide spur trails will lead residents onto the City trail system. There is also a 5' wide trail which runs around the wetland. This trail serves as the property line boundary between HOA owned land, City owned land, and Poudre School District land.

The PDP proposes to enhance the existing wetland/natural area so that it can be a valuable shared resource for the residential neighborhood, the park and the school. Observation wells drilled at the site in June of this year revealed that the depth to ground water ranged from 3.5 to 15.5 feet. Cedar Creek, environmental consultants hand drilled additional holes within the wetland area and found ground water closer to the surface but still at least 12 inches below grade. Cedar Creek concluded that the existing wetland is not being fed from ground water, but exists because of surface flows, from rainfall and irrigation of adjacent agricultural fields. The wetland is a low spot on the property with no existing outfall. The PDP proposes to direct storm water flows to the wetland area through a series of bio-swales. This strategy will provide water quality treatment of storm flows and help maintain the wetland. The proposed development is planned to encroach into the wetland on the southeast side, resulting in a loss of approximately .18 acres of low quality wetland habitat. In order to mitigate this loss, native plants will be added to the northeast side of the wetland to improve the quality and diversity of the wetland. peachleaf willows will be planted within the wet areas with serviceberry, cottonwood and chokecherry planted on the higher ground. The mitigation plan also proposes enhancement of the existing wetland. The three (3) small pockets of existing Russian olives will be removed and replaced with twenty five (25) Cottonwood, American plum, hackberry and junipers. One hundred (100) half-gallon native shrubs will be planted in clumped groupings within the wetland buffer zone. Along with the tree and shrub enhancement, weeds will be removed and upland weedy areas will be revegetated with a diverse native seed mix.

The private open space and wetland area shall be privately owned and maintained by the Home Owner's Association.



land planning ■ landscape architecture ■ urban design ■ entitlement

November 6, 2013

Waterfield Project Development Plan (PDP) is supported by the following Principles and Policies found in

City Plan

Fort Collins

Adopted February 15, 2011

STATEMENT OF APPROPRIATE CITY PLAN PRICIPLES AND POLICIES

ENVIRONMENTAL HEALTH

Principle ENV 1: Within the developed landscape of Fort Collins, natural habitat/ecosystems (wildlife, wetlands, and riparian areas) will be protected and enhanced.

Policy ENV 1.1 – Protect and Enhance Natural Features

Use regulatory powers to conserve, protect, and enhance the resources and values of high value biological resources such as wetlands, riparian areas, and wildlife habitat by directing development away from sensitive natural areas. When it is not possible to direct development away from sensitive natural resources the development will be integrated into these areas to minimize impacts and mitigate any losses.

Within this development there is a wetland which is not fed by ground water and is lacking in species diversity, habitat and quality. It is non-jurisdictional however we intend to mitigate and enhance the wetland and buffer area. The grading within the development will direct storm water flows into this wetland to maintain the inferred water source. The project will incorporate several water quality features to remove suspended solids from the water while allowing the water to flow into the wetland. The wetland/natural area will be enhanced through weed removal, diverse native plantings and long term maintenance. The three Russian Olive stands will be replaced by twenty five diverse trees and one hundred shrub plantings will add to the species diversity.

Policy ENV 1.2 –Regulate Development along Waterways

Use development regulations, such as setbacks from natural features and performance standards, to conserve and protect natural resources along the Poudre River, Spring Creek, Fossil Creek, Boxelder Creek and other waterways.

Thinking outside of the box for over two decades.

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www.ripleydesigninc.com

An average of a 100 foot buffer shall be enhanced along the perimeter of the wetland. Any impacts or encroachments by the development shall be mitigated above and beyond the baseline vegetation enhancement as shown on the mitigation plan.

Principle ENV 4: The City will pursue new opportunities to provide multifunctional open lands.

Policy ENV 4.1 – Improve Connectivity

Explore opportunities for land conservation partnerships between Stormwater, Parks and Recreation, Transportation, and Natural Areas departments to provide and enhance trail corridors to connect open lands, to enhance wildlife habitat and corridors, and to improve bicycle and pedestrian access to schools, parks, natural areas, rivers, shopping areas, and neighborhoods.

A multi-use recreation trail is planned adjacent to Timberline Road and along the northern boundary of the site eventually connecting to the community/regional trail system. Within the site there will be many smaller corridors to move people from the neighborhood into the future park, future school site, and opens space surrounding the wetland.

Policy ENV 4.3 – Improve Water Quality and Detention

Explore opportunities for Stormwater, Parks and Recreation and Natural Areas departments to partner on acquiring lands to incorporate stormwater systems that improve water quality and contribute to the ecological functioning of urban watersheds.

A focus of this development will be stormwater quality. The northeast portion of the site will drain into a ten foot wide planted median which will filter out the suspended solids from the water. Storm flows will then travel west through a series of open space areas into the wetland. The intent is to clean the water but not to infiltrate until it reaches the wetland in order to preserve the historical pattern. The south portion of the site will drain into a planted detention pond to the south.

Policy ENV 4.6 – Utilize Corridors

Provide public access, promote wildlife movement, and link neighborhoods, parks, and activity centers, commercial centers, and streets through a network of open lands and trails along streams, drainageways, and irrigation ditch corridors, where compatible with natural habitats, utilizing environmentally sensitive trail design.

A multi-use recreation trail is planned adjacent to Timberline Road and along the northern boundary of the site, eventually connecting to the community/regional trail system. Along with the pedestrian trail, a landscaped buffer along the ditch will provide habitat and a wildlife corridor. Native species will be planted within this buffer to promote species diversity which currently does not exist. The pedestrian trail is located close to the lot lines to allow the corridor to be as wide as possible. Within the site, there will be many smaller corridors to move people from the neighborhood into the park, school site and opens space surrounding the wetland.

Principle ENV 18: The City will minimize potentially hazardous conditions associated with flooding, recognize and manage for the preservation of floodplain values, adhere to all City mandated codes, policies, and goals, and comply with all State and Federally mandated laws and regulations related to the management of activities in floodprone areas.

Policy ENV 18.2 – Manage Risks

Seek to minimize risk to life and property by structural and non-structural design or modification of actions in the floodplain where it is not otherwise practical to place structures and human activities outside of the floodplain. Discourage new development in the 100-year floodplain to avoid additional modifications and structural controls.

This project is not within the floodplain.

Principle ENV 19: The City will pursue opportunities to protect and restore the natural function of the community's urban watersheds and streams as a key component of minimizing flood risk, reducing urban runoff pollution, and improving the ecological health of urban streams.

Policy ENV 19.1 – Employ a Watershed Approach to Stormwater Management

Design stormwater systems to minimize the introduction of human caused pollutants. Pursue educational programs and demonstration projects to enhance public understanding of pollution prevention efforts. Design tributary systems for water quality control with appropriate use of buffer areas, grass swales, detention ponds, etc. Include receiving water habitat restoration and protection in stormwater master plans in conjunction with habitat mapping efforts.

Policy ENV 19.2 – Pursue Low Impact Development

Pursue and implement Low Impact Development (LID) as an effective approach to address stormwater quality and impacts to streams by urbanization. Low Impact Development is a comprehensive land planning and engineering design approach with a goal of minimizing the impact of development on urban watersheds through the use of various techniques aimed at mimicking predevelopment hydrology.

Principle ENV 20: The City will develop an integrated stormwater management program that addresses the impacts of urbanization on the City's urban watershed. As part of that program, the City will implement requirements and strategies for multi-functional stormwater facilities that support density goals for development and redevelopment at a sub-watershed level.

Policy ENV 20.4 – Develop Public/Private Partnerships

Employ public/private partnerships to optimize the balance between stormwater management and compact development. Take advantage of opportunities to combine stormwater management needs from both public and private lands.

A focus of this development will be stormwater quality. The northeast portion of the site will drain into a ten foot wide planted median which will filter out the suspended solids from the water. It will then travel west through a series of open space areas into the wetland. The intent is to clean the water but not to infiltrate until it reaches the wetland. The south portion of the site will drain into a planted detention pond to the south.

COMMUNITY AND NEIGHBORHOOD LIVABILITY

Principle LIV 6: Infill and redevelopment within residential areas will be compatible with the established character of the neighborhood. In areas where the desired character of the neighborhood is not established, or is not consistent with the vision of *City Plan*, infill and redevelopment projects will set an enhanced standard of quality.

Policy LIV 6.2 – Seek Compatibility with Neighborhoods

Encourage design that complements and extends the positive qualities of surrounding development and adjacent buildings in terms of general intensity and use, street pattern, and any identifiable style, proportions, shapes, relationship to the street, pattern of buildings and yards, and patterns created by doors, windows, projections and recesses. Compatibility with these existing elements does not mean uniformity.

This project is located within the LMN zoning district. It is adjacent to the existing Bull Run Apartments and provides a transition from the higher density to the unincorporated Larimer County homes to the northwest. The PDP is consistent with the City's Structure Plan in terms of residential densities proposed for the future. It is also consistent with the City's Master Street Plan by installing a portion of New Vine and preparing for the re-alignment of Timberline.

Principle LIV 7: A variety of housing types and densities for all income levels shall be available throughout the Growth Management Area.

Policy LIV 7.1 – Encourage Variety in Housing Types and Locations

Encourage a variety of housing types and densities, including mixed-used developments that are well-served by public transportation and close to employment centers, shopping, services, and amenities.

This project proposes several different housing types. The development is proposed to include three housing types in the LMN area: paired homes, alley-loaded lots and single family lots. In addition, the ODP includes a multi-family site adjacent to the existing Bull Run apartments. With the proposed neighborhood center, residents of the project will be within a quarter of a mile of shopping, a school, park, and employment areas.

Principle LIV 10: The city's streetscapes will be designed with consideration to the visual character and the experience of users and adjacent properties. Together, the layout of the street network and the streets themselves will contribute to the character, form, and scale of the city.

Policy LIV 10.1 – Design Safe, Functional, and Visually Appealing Streets

Ensure all new public streets are designed in accordance with the City street standards and design all new streets to be functional, safe, and visually appealing, with flexibility to serve the context and purpose of the street corridor. Provide a layout that is simple, interconnected, and direct, avoiding circuitous routes. Include elements such as shade trees, landscaped medians and parkways, public art, lighting, and other amenities in the streetscape. Approve alternative street designs where they are needed to accommodate unique situations, such as "green" stormwater functions, important landscape features, or distinctive characteristics of a neighborhood or district, provided that they meet necessary safety, accessibility, and maintenance requirements.

A ten foot wide median is planned for a street running east and west. The curb shall be cut at regular intervals so that stormwater may enter the median freely. The median will be functional as well as visually appealing.

Policy LIV 10.2 – Incorporate Street Trees

Utilize street trees to reinforce, define and connect the spaces and corridors created by buildings and other features along a street. Preserve existing trees to the maximum extent feasible. Use canopy shade trees for the majority of tree plantings, including a mixture of tree types, arranged to establish urban tree canopy cover.

Street trees will line all of the local roads and additional plant material shall be located along open space corridors.

Principle LIV 14: Require quality and ecologically sound landscape design practices for all public and private development projects throughout the community.

Policy LIV 14.1 – Encourage Unique Landscape Features

In addition to protecting existing natural features, encourage integration of unique landscape features into the design and architecture of development and capital projects. These unique features may range from informal and naturalized to highly structured and maintained features. Some examples include tree groves within a project, stormwater facilities that become naturalized over time, walls with vines, drainageway enhancements, and other small, uniquely landscaped spaces.

Policy LIV 14.2 – Promote Functional Landscape

Incorporate practical solutions to ensure a landscape design is functional in providing such elements as natural setting, visual appeal, shade, foundation edge to buildings, screening, edible landscapes, buffers,

safety, and enhancement of built environment. Consider and address practical details such as sight distance requirements and long-term maintenance in landscape design.

Policy LIV 14.3 – Design Low Maintenance Landscapes

Design new landscaping projects based on maintainability over the life cycle of the project using proper soil amendment and ground preparation practices, as well as the appropriate use of hardscape elements, trees, mulches, turf grass, other plant materials, and irrigation systems. Low maintenance practices can be achieved in both turf and non-turf planting areas, provided these areas are designed and installed to minimize weeds, erosion and repairs.

Plant material will be selected based on water requirements, hardiness and ease of maintenance. Plants will consist of trees that the City forester approves, evergreen and deciduous shrubs and high performing grasses and perennials that require only seasonal maintenance. Turf areas are minimized. Xeriscape principles of utilizing soil amendments, mulches and efficient irrigation will be followed to ensure that the landscape is both attractive and sustainable.

Principle LIV 19: The City Structure Plan Map establishes the desired development pattern for the City, serving as a blueprint for the community's desired future.

Policy LIV 19.1 – Land Use Designations

Utilize the City Structure Plan Map to set forth a basic framework, representing a guide for future land use and transportation decisions.

The Waterfield Project Development Plan is consistent with the goals and objectives of the City's Structure Plan. This first phase will provide the housing which will later support the Neighborhood Center which will provide employment, retail and commercial opportunities within one-third mile of the housing.

PRINCIPLE LIV 21: New neighborhoods will be integral parts of the broader community structure, connected through shared facilities such as streets, schools, parks, transit stops, trails, civic facilities, and a Neighborhood Commercial Center or Community Commercial District.

Policy LIV 21.2 – Establish an Interconnected Street and Pedestrian Network

Establish an interconnected network of neighborhood streets and sidewalks, including automobile, bicycle and pedestrian routes within a neighborhood and between neighborhoods, knitting neighborhoods together and not forming barriers between them. Provide convenient routes to destinations within the neighborhood:

- Avoid or minimize dead ends and cul-de-sacs. The streets proposed within the Waterfield PDP all connect to the larger street network.
- Utilize multiple streets, sidewalks, and trails to connect into and out of a neighborhood. This project will construct a portion of the 4-lane arterial New Vine Street and plan for the future Timberline Road, Turnberry Road, and Conifer Street. Along with streets there will be a 10' wide community trail along the north and east sides of the property.
- Design neighborhood streets to converge upon or lead directly to the common areas in the neighborhood, avoiding routes onto arterial streets. Where ever possible streets have a direct view into common open space.
- Prohibit gated-street entryways into residential developments to keep all parts of the community accessible by all citizens. This development will not have any gated entryways.
- On long blocks, provide intermediate connections in the pedestrian network. There are intermediate connections for pedestrians mid block through a landscaped open space. These connections are also made between the development and school and wetland.
- Provide direct walkway and bikeway routes to schools. There is a mid-block open space to allow students direct access to the future school and park.
- Continue and extend established street patterns where they are already established. In the case of previously unplanned areas, establish a new pattern that can be continued and extended in the

future. This Project Development Plan follows the City's Master Street Plan to build portions of road within the site which will extend and connect the desired street pattern.

Policy LIV 21.2 – Design Walkable Blocks

While blocks should generally be rectilinear or otherwise distinctly geometric in shape, they may vary in size and shape to avoid a monotonous repetition of a basic grid pattern or to follow topography. In order to be conducive to walking, determine block size by frequent street connections within a maximum length of about 300 to 700 feet.

When the blocks become large due to site layout there are intermediate connections for pedestrians mid block through a landscaped open space. These connections are also made between the development and school and wetland.

Policy LIV 22.1 – Vary Housing Models and Types

Provide variation in house models and types in large developments, along with variations in lot and block sizes, to avoid monotonous streetscapes, increase housing options, and eliminate the appearance of a standardized subdivision.

This Project Development Plan proposed three housing types: single family detached, single family detached with alley loaded garages and single family attached. At the time of building permit the home builder will show specific elevations of various housing models to avoid monotonous streetscapes and will follow the Land Use Code.

Principle LIV 28: Low Density Mixed- Use Neighborhoods will provide opportunities for a mix of low density housing types in a setting that is conducive to walking and in close proximity to a range of neighborhood serving uses.

Policy LIV 28.1 – Density

Low Density Mixed-Use Neighborhoods will have an overall minimum average density of four (4) dwelling units per acre, excluding undevelopable areas. This minimum density for parcels 20 acres or less will be three (3) dwelling units per acre.

This project follows the LMN density requirements with a minimum overall average density of four (4) dwelling units per acre.

Principle LIV 43: Enhanced Travel Corridors will be strategic and specialized Transportation Corridors that contain amenities and designs that specifically promote walking, the use of mass transit, and bicycling. Enhanced Travel Corridors will provide high frequency/ high efficiency travel opportunities for all modes linking major activity centers and districts in the city.

This project has planned for the future Enhanced Travel Corridor of Timberline Road and will construct the portion of New Vine which traverses the site.

Policy LIV 44.5 – Interconnect Trails/Paths

Integrate a trail/path system that connects open lands, parks, and water corridor areas, excluding motorized vehicles (except emergency and maintenance vehicle access). Pay special attention to environmentally sensitive trail design, location, and construction.

A multi-use community trail is planned adjacent to Timberline Road and along the northern boundary of the site. It will eventually connect to the regional trail system. Along with the pedestrian trail, a landscaped buffer along the ditch will provide habitat and a wildlife corridor. Native species will be planted within this buffer to promote species diversity which currently does not exist. The pedestrian trail is located close to the lot lines to allow the corridor to be as wide as possible. A five foot wide trail meanders around the wetland and leads residents to the future park and school.

TRANSPORTATION

Principle T 2: Investments in Enhanced Travel Corridors and within Activity Centers will encourage infill and redevelopment.

Policy T 2.1 – Economic Opportunity and Development

Enhanced Travel Corridors will support expanded economic opportunity and development generally, as well as particularly in targeted redevelopment areas and activity centers within the city.

Development includes the New Vine Drive enhanced travel corridor helping the City meet its transportation objectives.

Principle T 3: Land use planning decisions, management strategies, and incentives will support and be coordinated with the City's transportation vision.

Policy T 3.1 – Pedestrian Mobility

Promote a mix of land uses and activities that will maximize the potential for pedestrian mobility throughout the community and minimize the distance traveled.

Policy T 3.2 – Bicycle Facilities

Encourage bicycling for transportation through an urban development pattern that places major activity centers and neighborhood destinations within a comfortable bicycling distance.

The Waterfield PDP is designed to be pedestrian friendly with street sidewalks, mid-block connections and recreation trails provided to encourage walking and bicycling between the various land uses in the neighborhood.

Policy T 4.3 – Interconnected Neighborhood Streets

Neighborhood streets will be interconnected, but designed to protect the neighborhood from excessive cut-through traffic.

Policy T 4.4 – Attractive and Safe Neighborhood Streets

Neighborhood streets will provide an attractive environment and be safe for pedestrians, bicyclists, and drivers as well as having a well-designed streetscape, including detached sidewalks, parkways, and well-defined crosswalks.

Proposed streets are all interconnected.

WATERFIELD THIRD FILING

PROJECT DEVELOPMENT PLAN

A TRACT OF LAND LOCATED IN THE WEST HALF OF SECTION 5, TOWNSHIP 7 NORTH, RANGE 68 WEST OF
THE 6TH PRINCIPLE MERIDIAN, CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

GENERAL NOTES

- REFER TO CIVIL ENGINEERING PLANS FOR LOCATIONS OF STORM DRAINAGE STRUCTURES, UTILITY MAINS AND SERVICES, FOR DETAILED INFORMATION OF PROPOSED TOPOGRAPHY, UTILITY, AND STREET IMPROVEMENTS.
- REFER TO THE PLAT FOR LOT AREAS, TRACT SIZES, EASEMENTS, LOT DIMENSIONS, UTILITY EASEMENTS, OTHER EASEMENTS, AND OTHER SURVEY INFORMATION.
- CONSTRUCTION WILL BE COMPLETED IN TWO TO THREE PHASES.
- STREET LIGHTING SHALL BE DESIGNED AND INSTALLED BY CITY LIGHT AND POWER.
- ALL SIGNS UTILIZED WILL COMPLY WITH THE CITY OF FORT COLLINS SIGN CODE.
- THE HOUSING MODELS SHALL VARY PER LUC 3.5.2 AND ELEVATIONS SHALL BE SUBMITTED AT TIME OF BUILDING PERMIT.
- LOTS WHICH ABUT THE ARTERIAL ROADS MAY NOT TAKE ANY ACCESS FROM THE ARTERIAL ROADS.
- WETLAND AND CANAL AREAS ARE MEANT TO BE MAINTAINED IN A NATURALISTIC LANDSCAPE.

SHEET INDEX

COVER SHEET	1
SITE PLAN NORTH	2
SITE PLAN SOUTH	3
SECTIONS AND DETAILS	4
LANDSCAPE PLAN	5
LANDSCAPE PLAN	6
WETLAND ENHANCEMENT & MITIGATION PLAN	7

EXISTING ZONING

LMN

GROSS AREA CALCULATION	ACRES	NET AREA CALCULATION	ACRES
PDP AREA	77.00 ACRES	GROSS AREA	75.84
NON RESIDENTIAL USES (PUBLIC SERVICE UTILITY EASEMENTS)	1.16 ACRES	ARTERIAL STREETS (NEW VINE)	(6.8)
GROSS AREA	75.84 ACRES	NATURAL HABITATS AND FEATURES (TRACT I)	(12.55)
		HOA OUTDOOR SPACES (TRACTS J, PART OF A, PART OF C)	(4.21)
		ALLEY	(0.28)
		PEDESTRIAN AND BIKE CONNECTIONS (TRACTS D, E, F, G, K)	(4.64)
		LANDSCAPED ISLANDS AND MEDIANS	(0.19)
		NET AREA	47.17

DENSITY CALCULATION

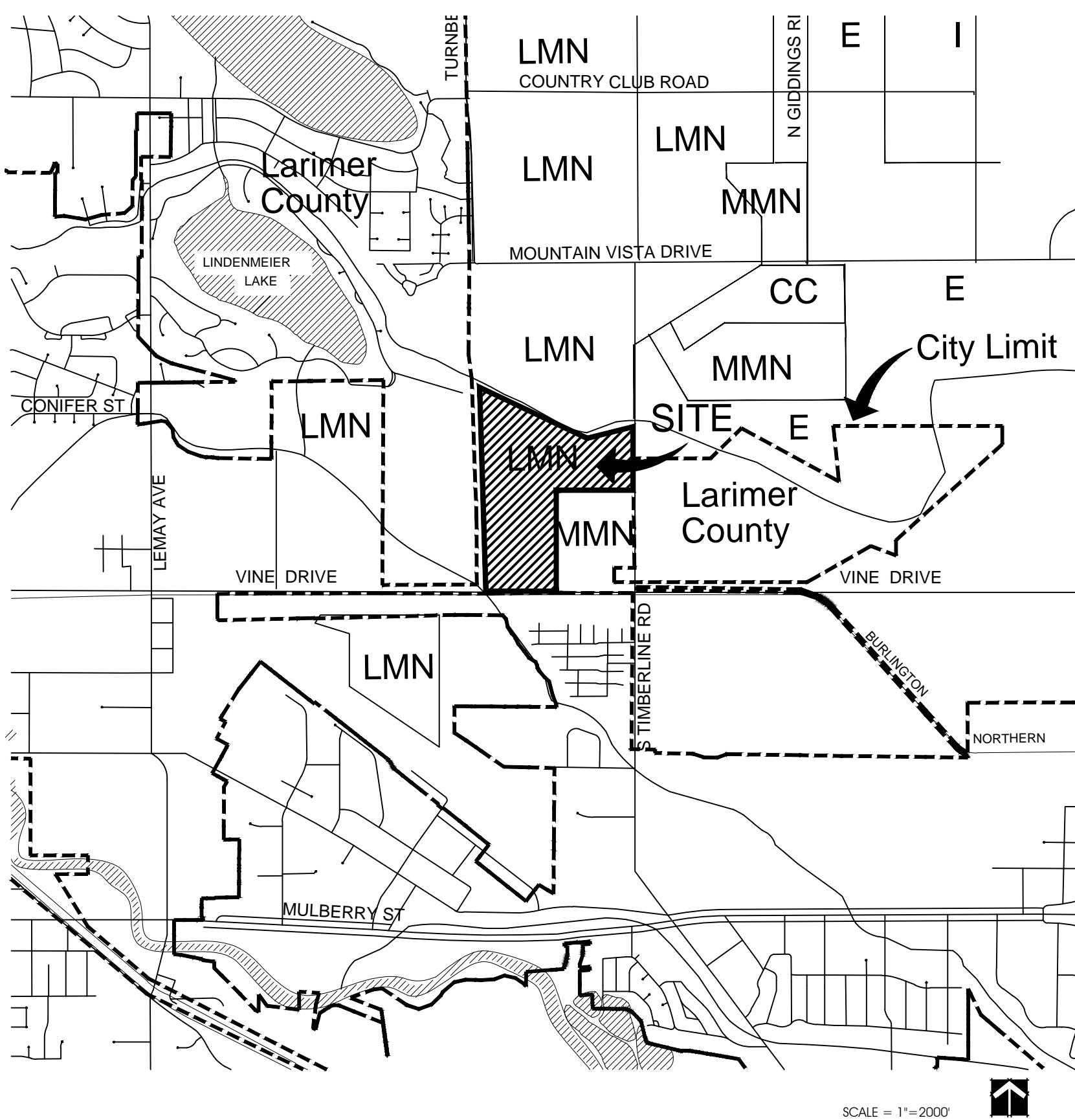
GROSS AREA	77.00 AC	NET AREA	47.17 AC
TOTAL DWELLING UNITS	190	TOTAL DWELLING UNITS	190
GROSS DENSITY	2.47 DU/AC	NET DENSITY	4.03 DU/AC

HOUSING TYPES*	DWELLING UNITS	PERCENTAGE
SINGLE FAMILY	152	80%
SINGLE FAMILY ALLEY LOADED	22	12%
SINGLE FAMILY ATTACHED	16	8%
TOTAL	190	100%

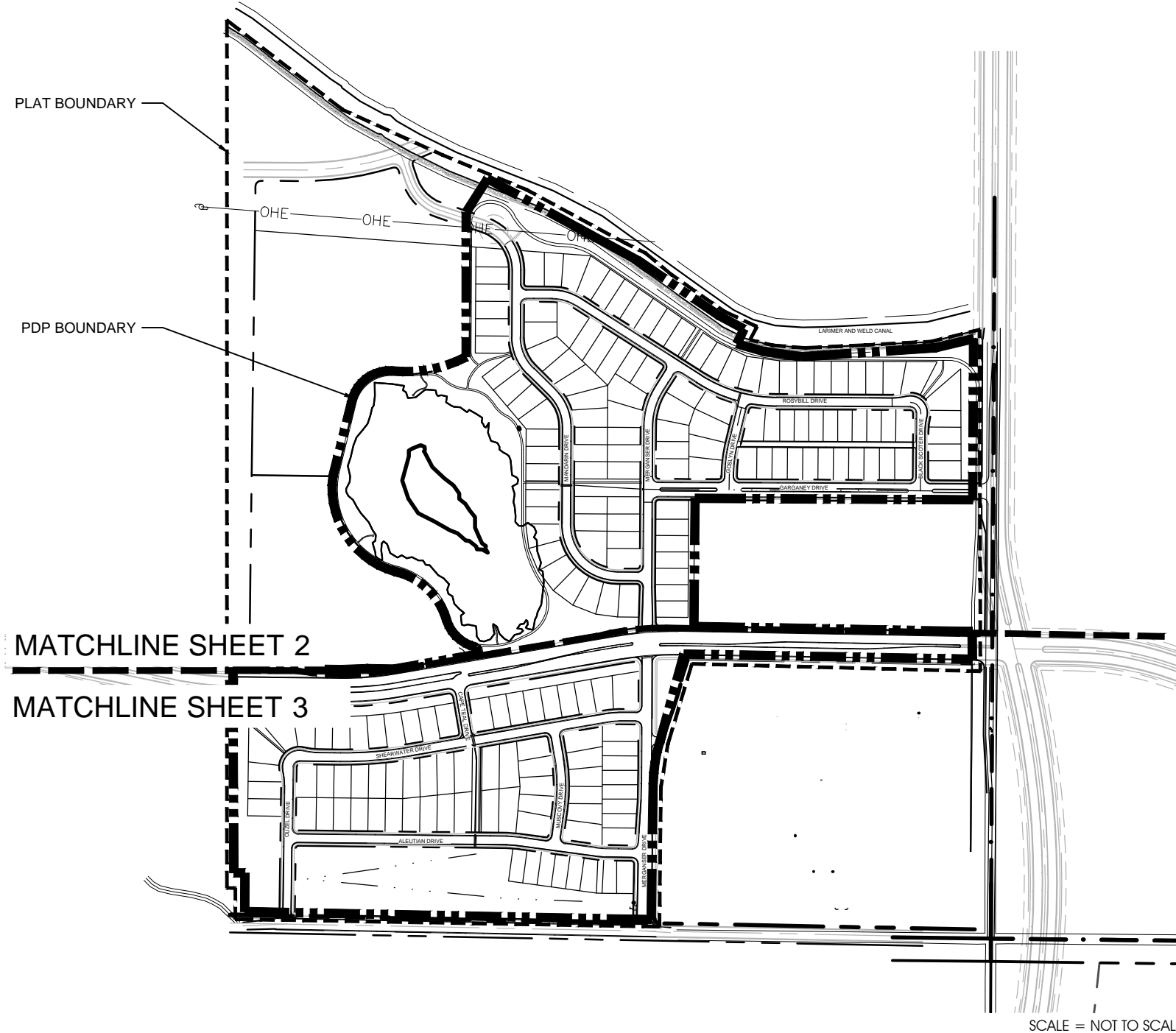
* A MODIFICATION FOR THREE HOUSING TYPES RATHER THAN FOUR WAS APPROVED WITH THE ODP

AREA COVERAGE	AREA IN ACRES	PERCENTAGE
LOTS	32.79	42%
DRIVES AND PARKING INCLUDING THE ALLEY	1.98	3%
OPEN SPACE AND LANDSCAPE (EXCLUDES PUBLIC ROW)	22.46	29%
PUBLIC STREET RIGHT-OF-WAY	19.77	26%
TOTAL GROSS COVERAGE	77 AC	100%

VICINITY MAP



KEY MAP



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.,

PRINT NAME: _____
AS _____
MY COMMISSION EXPIRES: _____ 20 _____ BY _____
WITNESS MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC: _____ ADDRESS: _____

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF PLANNING FOR THE CITY OF FORT COLLINS, COLORADO
ON THIS _____ DAY OF _____, 20____.

Director of Planning _____

WATERFIELD PROJECT DEVELOPMENT PLAN

FORT COLLINS, COLORADO

RIPLEY
DESIGN INC.

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

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IN ASSOCIATION WITH:

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STEVE NICHOLS
9162 S. KENWOOD COURT
HIGHLANDS RANCH, CO 80126
(303) 902-5400 (JIM DULLEA)

SITE ENGINEER AND SURVEYOR

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TRAFFIC

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970.669.2061

WILDLIFE BIOLOGIST

CEDAR CREEK ASSOCIATES, INC.
T. MICHAEL PHELAN
916 WILLSHIRE DR.
FORT COLLINS, CO 80521
970.493.4394

ISSUED

No.	DESCRIPTION	DATE
1	PDP	11.06.13
2		
3		
4		

REVISIONS

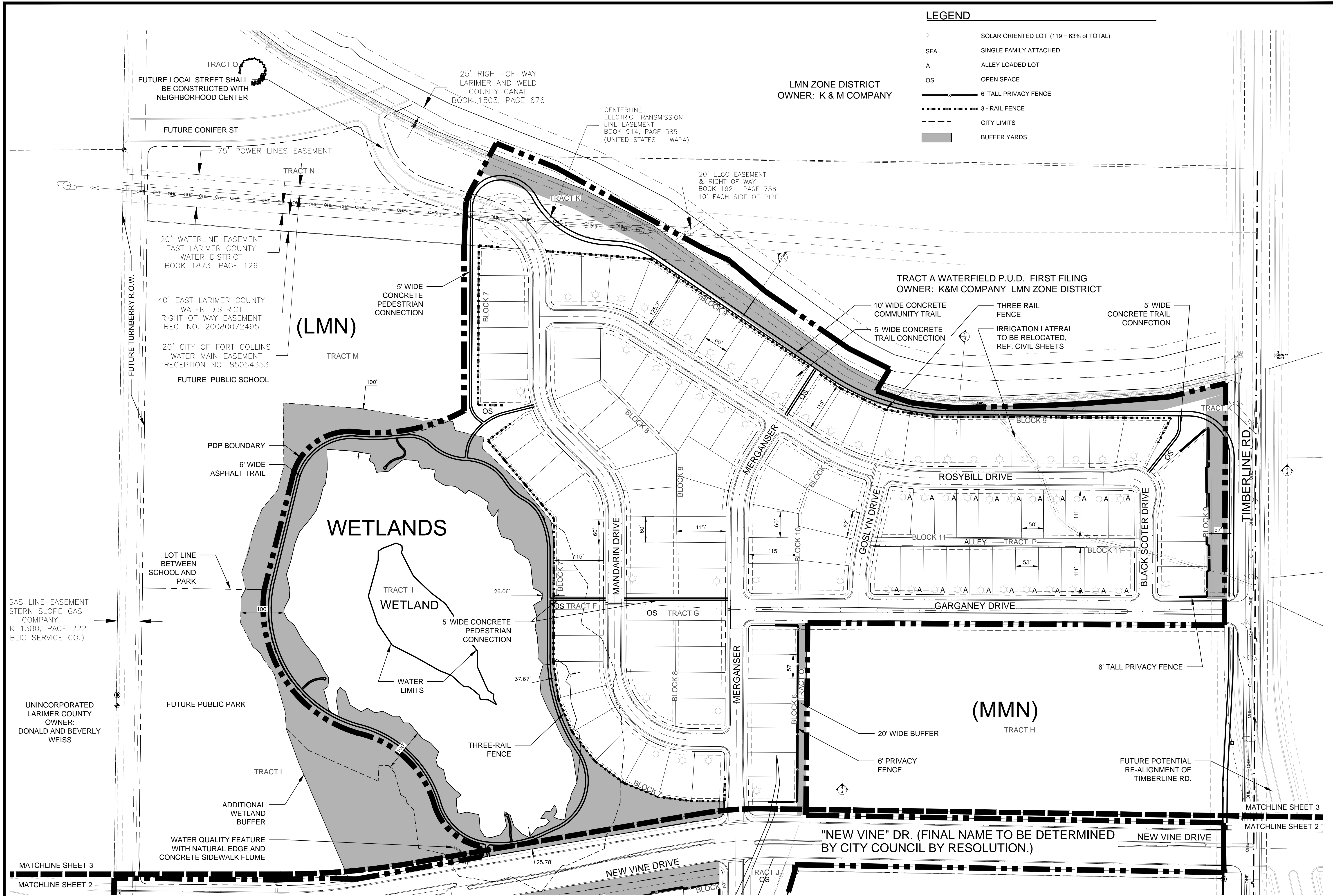
No.	DESCRIPTION	DATE
1	PDP REVISION 1	12/18/2013
2	PUBLIC HEARING	1/22/2014

PDP

SEAL:

PROJECT No.: R13-008
DRAWN BY: SS
REVIEWED BY: LR

COVER



WATERFIELD

PROJECT DEVELOPMENT PLAN

FORT COLLINS, COLORADO

RIPLEY
DESIGN INC.

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

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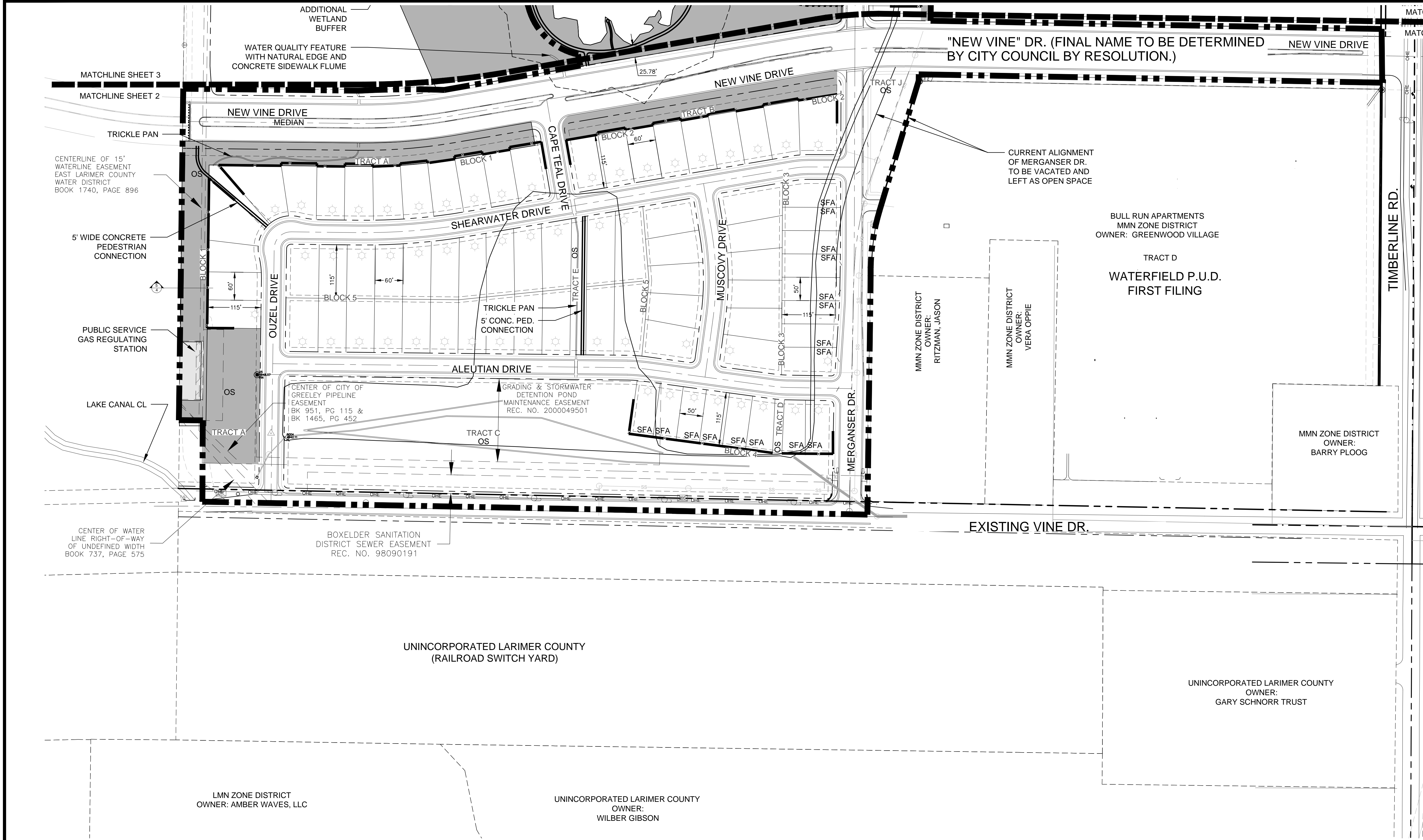
PDP

SEAL:

PROJECT No.:	R13-008
DRAWN BY:	SS
REVIEWED BY:	LR

SITE PLAN NORTH

2 OF 7



LEGEND

- ☆

SOLAR ORIENTED LOT (119 = 63% of TOTAL)
- SFA

SINGLE FAMILY ATTACHED LOT
- A

ALLEY LOADED LOT
- OS

OPEN SPACE
- 6' TALL PRIVACY FENCE
- 3 - RAIL FENCE
- CITY LIMITS
- BUFFER YARDS

TRACT	PURPOSE
A	BUFFER / OPEN SPACE / UTILITY EASEMENT / ACCESS EASEMENT
B	BUFFER / OPEN SPACE
C	OPEN SPACE / DETENTION
D	STORMWATER CONVEYANCE
E	PEDESTRIAN CONNECTION / STORMWATER CONVEYANCE
F	PEDESTRIAN CONNECTION / STORMWATER CONVEYANCE
G	OPEN SPACE / PEDESTRIAN CONNECTION / STORMWATER CONVEYANCE
H	FUTURE MMN
I	WETLAND / OPEN SPACE / STORMWATER INFILTRATION
J	OPEN SPACE
K	OPEN SPACE / COMMUNITY TRAIL / BUFFER
L	FUTURE PUBLIC PARK
M	FUTURE SCHOOL
N	FUTURE NEIGHBORHOOD CENTER
O	BUFFER
P	ALLEY

WATERFIELD
PROJECT DEVELOPMENT PLAN

FORT COLLINS, COLORADO

RIPLEY
DESIGN INC.

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

401 West Mountain Avenue, Suite 100 Fort Collins, CO 80521
fax 970/224.1662 phone 970/224.5828 www.vrdesigninc.com

IN ASSOCIATION WITH:

DEVELOPER / APPLICANT
PARKER LAND INVESTMENTS, LLC
JIM DULLEA, CURLY RISHEILL,
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WILDLIFE BIOLOGIST

CEDAR CREEK ASSOCIATES, INC.
T. MICHAEL PHELAN
916 WILSHIRE DR.
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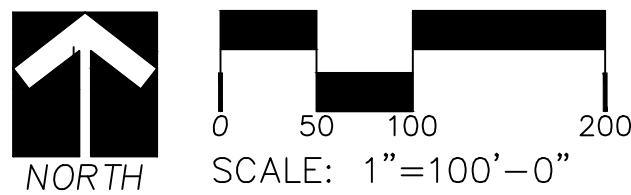
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2	PUBLIC HEARING	1/22/2014

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PROJECT No.: R13-008
DRAWN BY: SS
REVIEWED BY: LR

SITE PLAN SOUTH



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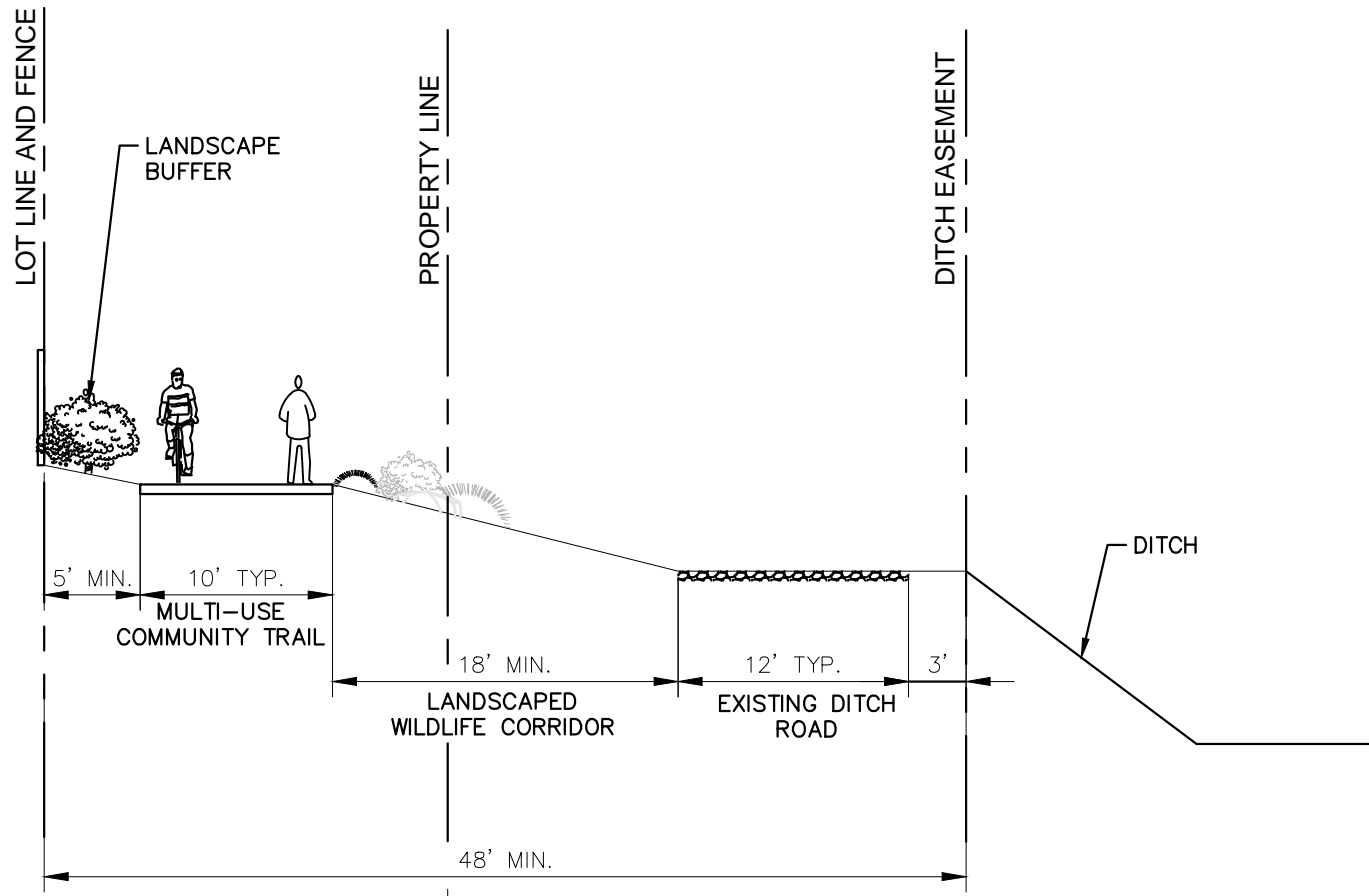
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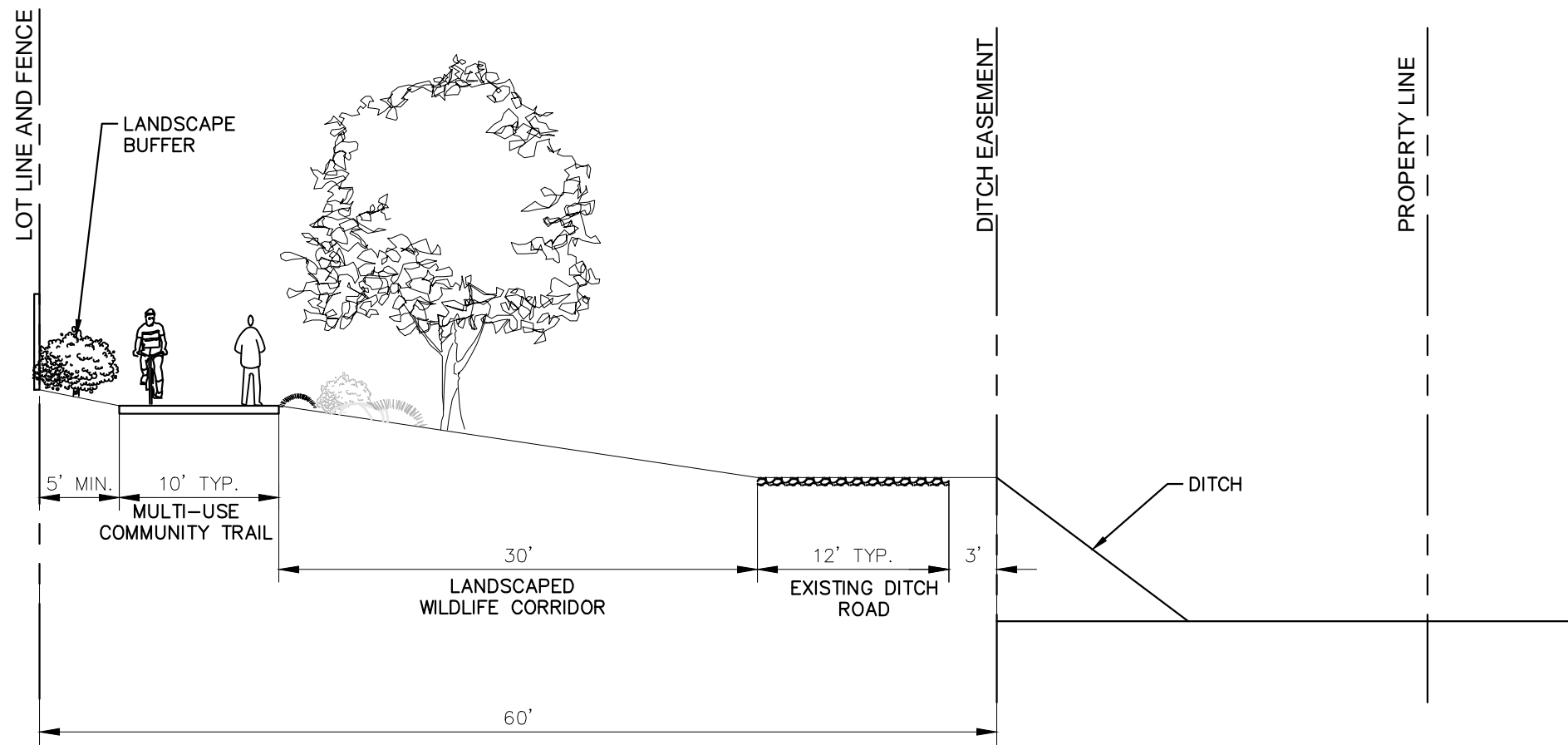
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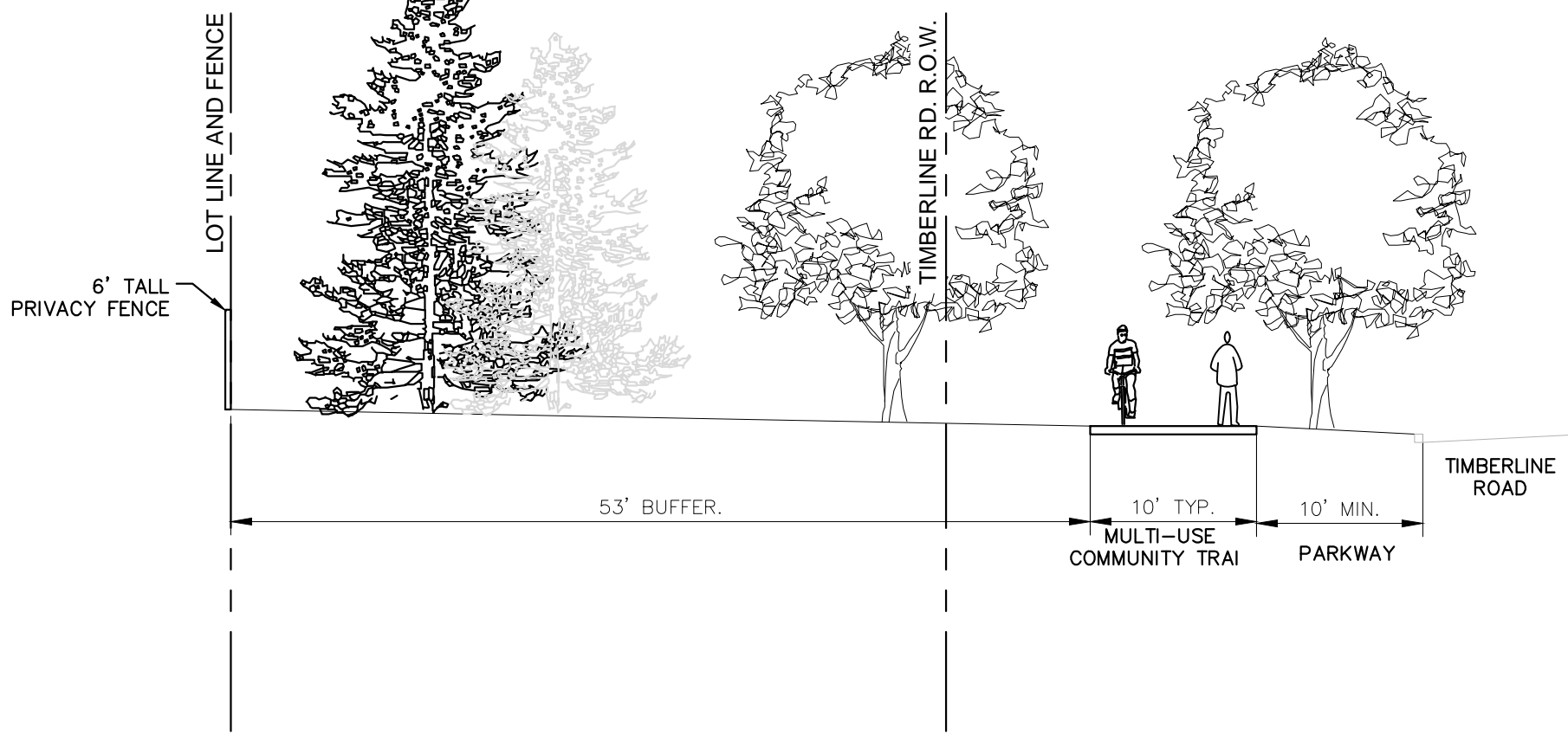
SECTIONS AND
DETAILS



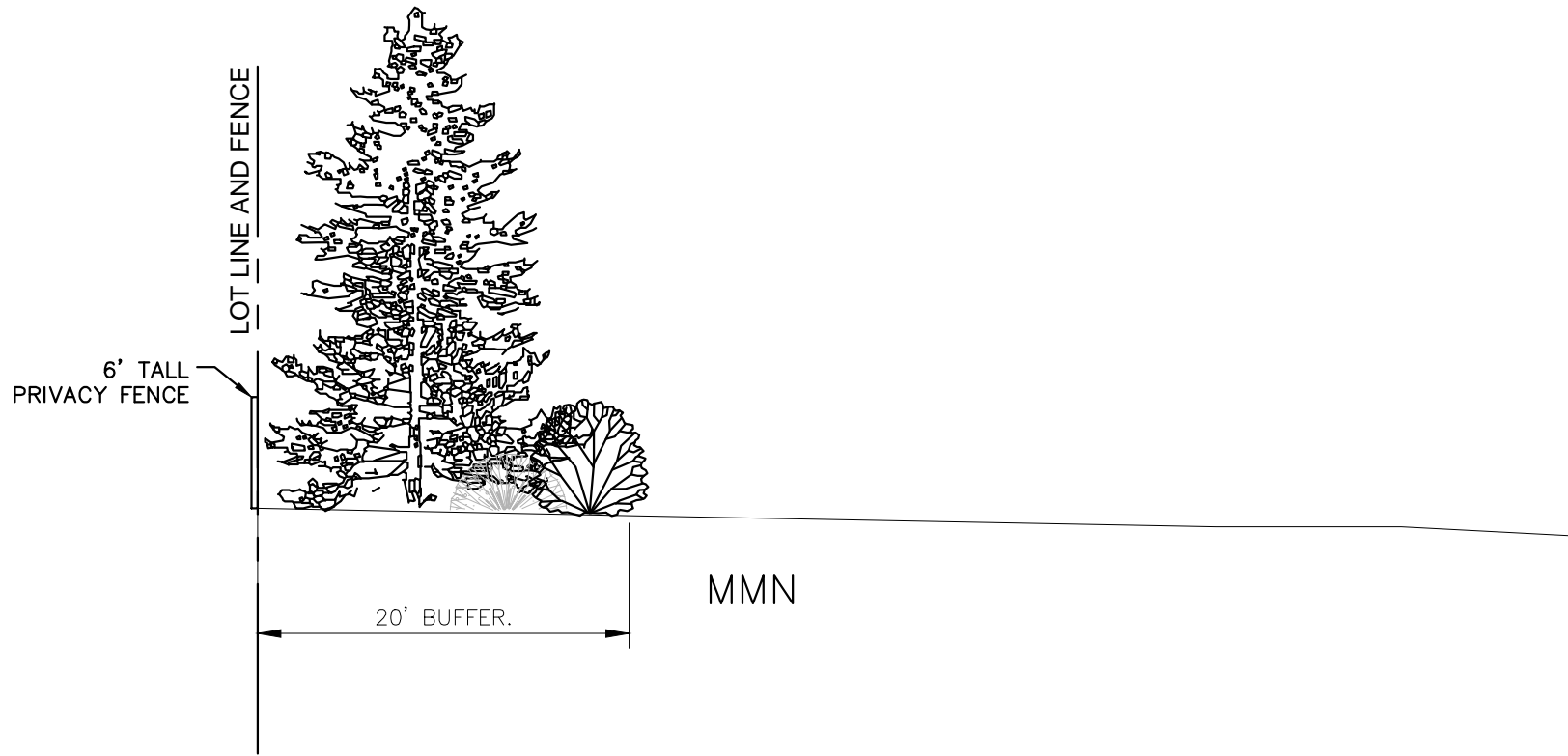
1 COMMUNITY TRAIL SECTION A
1" = 10'



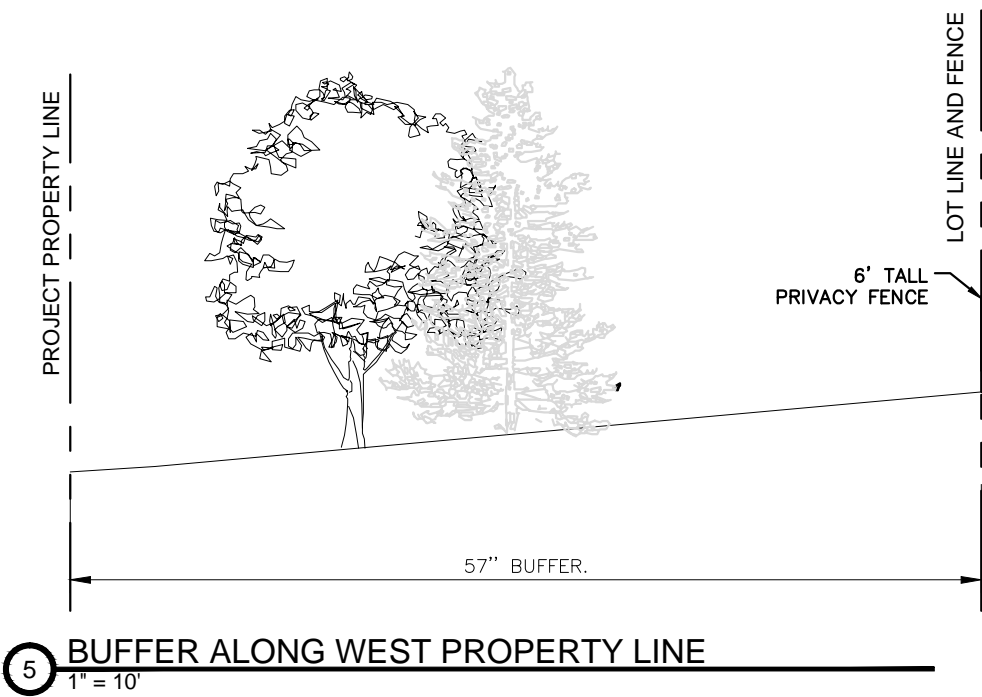
2 COMMUNITY TRAIL SECTION B
1" = 10'



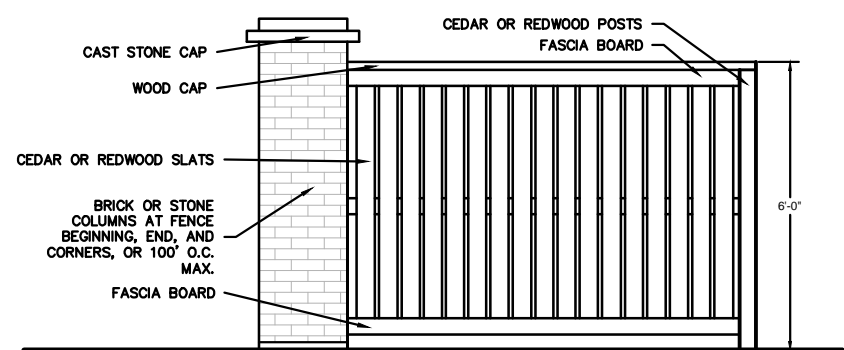
3 BUFFER ALONG ARTERIAL ROAD
1" = 10'



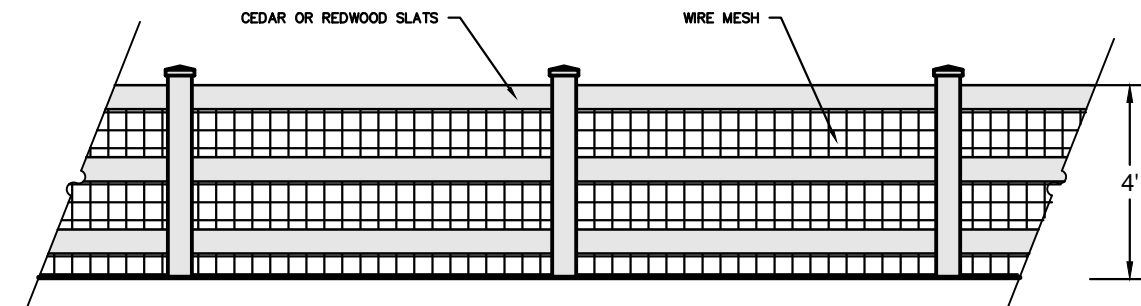
4 BUFFER ALONG MMN
1" = 10'



5 BUFFER ALONG WEST PROPERTY LINE
1" = 10'

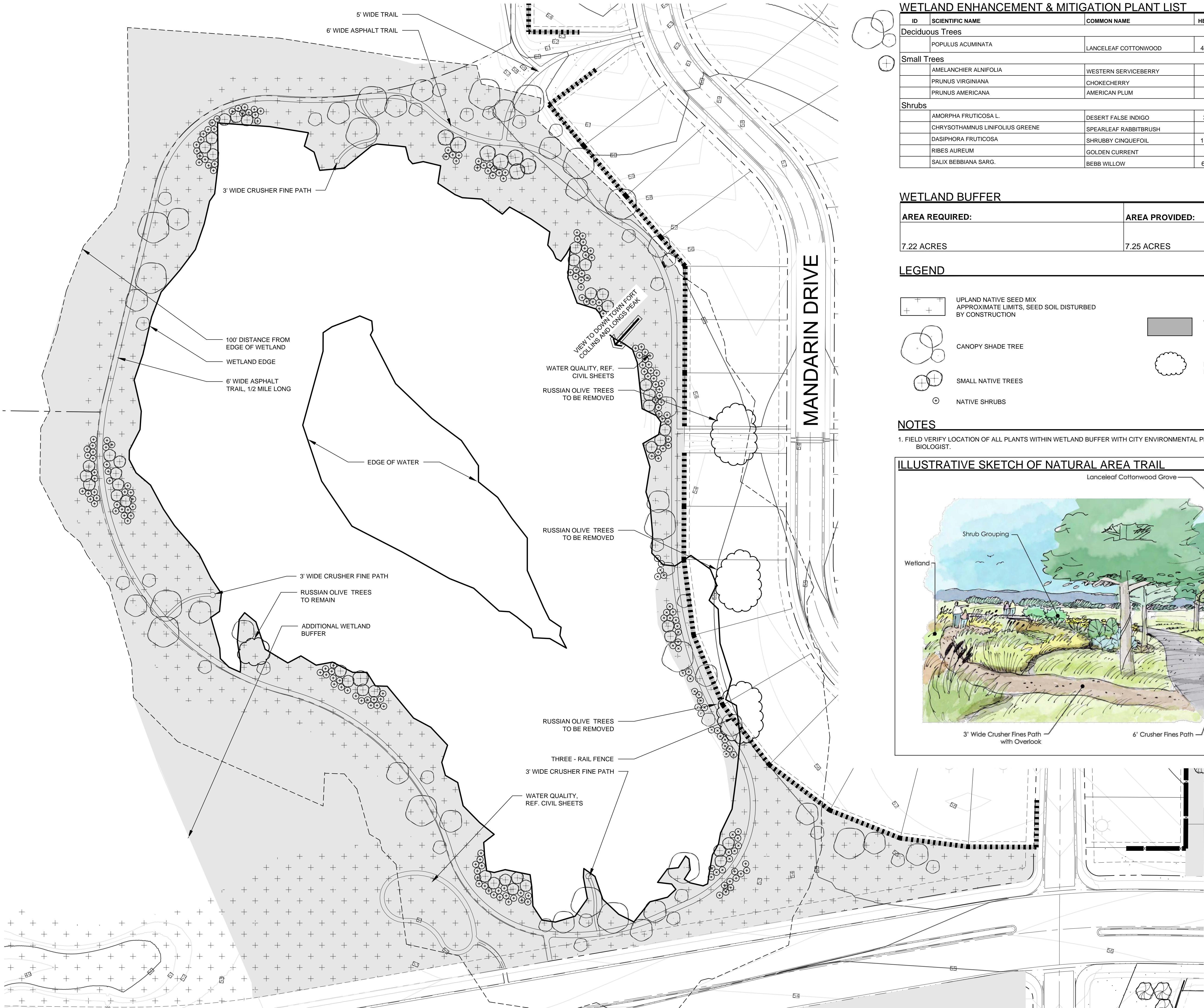


6 6' TALL PRIVACY FENCE
1'-0" = 3'-0"



7 THREE RAIL FENCE
1'-0" = 3'-0"





WETLAND ENHANCEMENT & MITIGATION PLANT LIST						
ID	SCIENTIFIC NAME	COMMON NAME	HEIGHT	SPREAD	CONDITION	
Deciduous Trees						
	POPULUS ACUMINATA	LANCELEAF COTTONWOOD	40-60'	30-40'	1 1/2", 1 3/4", 1"	B&B
Small Trees						
	AMELANCHIER ALNIFOLIA	WESTERN SERVICEBERRY	25'	20'	5 GAL.	
	PRUNUS VIRGINIANA	CHOCHECHERRY	25'	20'	5 GAL.	
	PRUNUS AMERICANA	AMERICAN PLUM	25'	20'	5 GAL.	
Shrubs						
	AMORPHA FRUTICOSA L.	DESERT FALSE INDIGO	3'-5'	3'-5'	1 GAL.	
	CHRYSOTHAMNUS LINIFOLIUS GREENE	SPEARLEAF RABBITBRUSH	25'	20'	1 GAL.	
	DASIPHORA FRUTICOSA	SHRUBBY CINQUEFOIL	1.5'-3'	3'	1 GAL.	
	RIBES AUREUM	GOLDEN CURRENT	3-6'	3-6'	1 GAL.	
	SALIX BEBBIANA SARG.	BEBB WILLOW	6'-10'	10'	1 GAL.	

WETLAND BUFFER	
AREA REQUIRED:	AREA PROVIDED:
7.22 ACRES	7.25 ACRES

LEGEND

UPLAND NATIVE SEED MIX
APPROXIMATE LIMITS, SEED SOIL DISTURBED
BY CONSTRUCTION

CANOPY SHADE TREE

SMALL NATIVE TREES

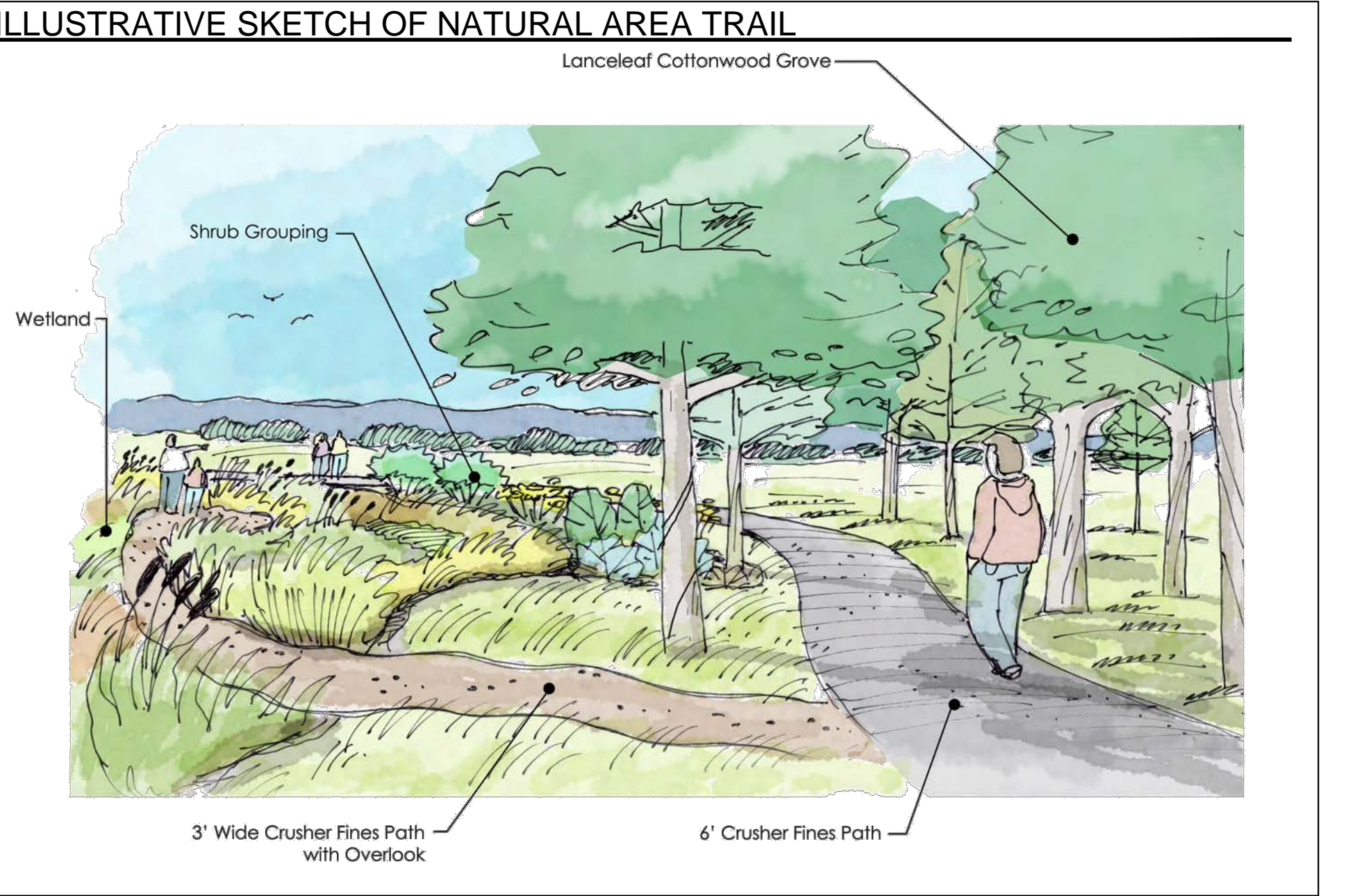
NATIVE SHRUBS

WETLAND BUFFER

EXISTING SCRUB TREE AREAS -
RUSSIAN OLIVES

NOTES

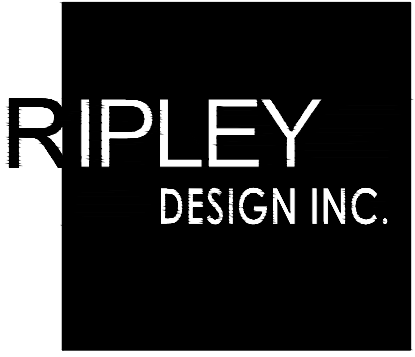
1. FIELD VERIFY LOCATION OF ALL PLANTS WITHIN WETLAND BUFFER WITH CITY ENVIRONMENTAL PLANNER, PARK PLANNING AND WILDLIFE BIOLOGIST.



WATERFIELD

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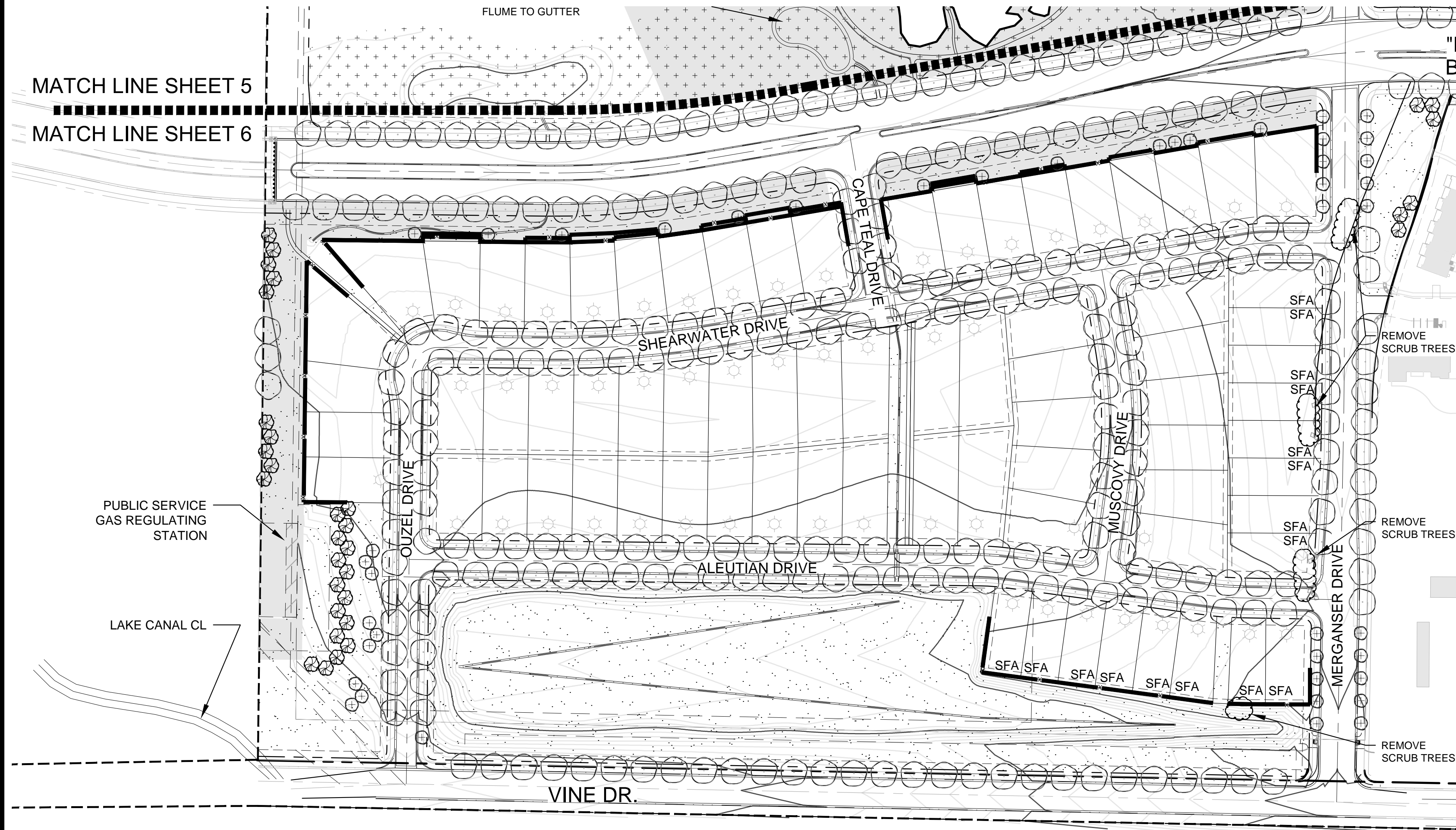
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WETLAND ENHANCEMENT & MITIGATION PLAN



LEGEND

DRYLAND SEED MIX
APPROXIMATE LIMITS, SEED SOIL DISTURBED
BY CONSTRUCTION

IRRIGATED TURF AREA
(TEXAS BLUEGRASS 'REVELLIE' OR EQUAL)

CANOPY SHADE TREE

ORNAMENTAL TREES

EVERGREEN TREE

SHRUBS

6' TALL PRIVACY FENCE

3 - RAIL FENCE

WETLAND BUFFER

EXISTING SCRUB TREE
AREAS - RUSSIAN
OLIVES

WATER BUDGET CHART

HYDROZONE	AREA	WATER NEEDED (GALLONS/SF)	ANNUAL WATER USE (GALLONS)
HIGH	0	18	0
MODERATE	0	10	0
LOW		3	0
VERY LOW	0	0	0
TOTAL	0	AVERAGE: 11.6	0

LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL MEET SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) FOR NUMBER ONE GRADE. ALL TREES SHALL BE BALLED AND BURLAPPED OR EQUIVALENT.
- TREES SHALL NOT BE PLANTED CLOSER THAN 4 FEET TO ANY GAS OR ELECTRIC LINE, NO CLOSER THAN 6 FEET TO ANY WATER OR SEWER SERVICE LINE, AND NO CLOSER THAN 10 FEET TO ANY WATER OR SEWER MAIN. TREE PLANTING SHALL BE COORDINATED WITH PUBLIC SERVICE COMPANY. A HORIZONTAL DISTANCE OF 40 FEET BETWEEN STREET TREES AND STREET LIGHTS AND 15 FEET BETWEEN ORNAMENTAL TREES AND STREET LIGHTS SHALL BE MAINTAINED. SHRUBS ARE NOT TO BE PLANTED WITHIN 4 FEET OF ANY WATER OR SEWER MAINS. PLANT MATERIAL SHALL BE ADJUSTED IN THE FIELD TO MAINTAIN THE ABOVE CLEARANCES.
- A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED ON 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 MAY RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.
- LANDSCAPING SHALL BE INSTALLED OR SECURED WITH A LETTER OF CREDIT, ESCROW, OR PERFORMANCE BOND FOR 125% OF THE VALUE OF THE LANDSCAPING AND INSTALLATION PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF EACH PHASE OF THE DEVELOPMENT. ALL TREES NEED TO HAVE BEEN INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL OF EACH PHASE.
- LANDSCAPING WITHIN PUBLIC RIGHT-OF-WAYS AND COMMON OPEN SPACE AREAS SHALL BE INSTALLED BY THE DEVELOPER AND MAINTAINED BY THE OWNER.
- DEVELOPER SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS DONE BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
- ALL TURF AREAS TO BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN DRYLAND AREAS, ARE TO BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR ACCEPTABLE ALTERNATIVE. THE IRRIGATION SYSTEM IS TO BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL.
- ALL SHRUB BEDS TO BE MULCHED WITH A MINIMUM THREE INCH (3") LAYER OF WOOD BARK MULCH OR COBBLE OVER WEED BARRIER.
- EDGING BETWEEN GRASS AND SHRUB BEDS SHALL BE 1/2" X 4" STEEL SET LEVEL WITH TOP OF SOD.
- IRRIGATED TURF SHALL BE TEXAS BLUEGRASS/KENTUCKEY BLUEGRASS HYBRID REVELLIE OR APPROVED EQUAL.
- TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE. THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOROUGHLY LOOSENEED 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.
- STREET LANDSCAPING, INCLUDING STREET TREES, SHALL BE SELECTED AND MAINTAINED IN ACCORDANCE WITH ALL CITY CODES AND POLICIES.
- 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 EASEMENT WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDING THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT SHALL BE NO MORE THAN 42" IN HEIGHT AND OF AN OPEN DESIGN.
- WETLAND AND CANAL AREAS ARE MEANT TO BE MAINTAINED NATURALIZED LANDSCAPES.
- STREET TREES SHALL BE SUPPLIED AND PLANTED BY THE DEVELOPER USING A QUALIFIED LANDSCAPE CONTRACTOR.
- STREET TREES SHALL BE INSTALLED BY RESIDENTIAL LOTS BY THE DEVELOPER AT TIME OF CO UNLESS SEASON OF YEAR LIMITS TREE PLANTING, IN WHICH CASE RESIDENTIAL STREET TREES SHALL BE PLANTED WITHIN 6 MONTHS OF CO.
- 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 MUST BE ESTABLISHED, OF AN APPROVED SPECIES AND OF ACCEPTABLE CONDITION PRIOR TO ACCEPTANCE.
- STREET TREE LOCATIONS AND NUMBERS 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 ON PLAN MUST BE INSTALLED UNLESS A REDUCTION OCCURS TO MEET SEPARATION STANDARDS.

PLANT LIST

	ID	SCIENTIFIC NAME	COMMON NAME	HEIGHT	SPREAD	CONDITION	
	Deciduous Trees						
	APC	ACER PLANTANOIDES 'CRIMSON SENTRY'	CRIMSON SENTRY NORWAY MAPLE	20-25'	12-15'	2" CAL.	B&B
	GTK	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	40-50'	30-40'	2" CAL.	B&B
	GTS	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	40-50'	30-40'	2" CAL.	B&B
	QCS	QUERCUS CRIMSON SPIRE	CRIMSON SPIRE OAK	40-60'	15-20'	2" CAL.	B&B
	QRP	QUERCUS ROBUR 'PYRAMICH'	SKYMASTER OAK	40-50'	25'	2" CAL.	B&B
	Ornamental Trees						
	MRB	MALUS X 'RED BARRON'	RED BARRON CRABAPPLE	15-20'	8'	1.5" CAL.	B&B
	PCC	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER PEAR	25-35'	15-20'	1.5" CAL.	B&B
	PM	PRUNUS MAACKII	AMUR CHOKECHERRY	15'-20'	15'-20'	1.5" CAL.	B&B
	Evergreen Trees						
	JSS	JUNIPERUS SCOPULORUM 'COLOGREEN'	COLOGREEN JUNIPER	12-15'	4-6'	6' HT	B&B
	PGP	PICEA GLAUCA 'PENDULA'	WEeping WHITE SPRUCE	15-25'	5-8'	6' HT	B&B
	PPG	PICEA PUNGENS 'ISELI FASTIGIATE'	FASTIGATE COLORADO SPRUCE	12-15'	5-6'	6' HT	B&B
	PSM	PINUS MUGO 'TANNENBAUM'	TANNENBAUM MUGO PINE	10-15'	6-8'	6' HT	CONT.
	Shrubs						
	ARA	AMELANCHIER ALNIFOLIA 'REGENT'	REGENT SERVICEBERRY	6-8'	6-8'	5 GAL.	CONT.
	CRA	COTONEASTER APICULATUS	CRANBERRY COTONEASTER	18-24"	4-6'	5 GAL.	CONT.
	CSI	CORNUS SERICEA 'ISANTI'	ISANTI DOGWOOD	4-5'	4'-6'	5 GAL.	CONT.
	EKM	EUONYMUS KIAUTSCHOVICA 'MANHATTAN'	MANHATTAN EUONYMUS	4-6'	6-8'	5 GAL.	CONT.
	JCA	JUNIPEROUS CHINENSIS 'ARMSTRONGII'	ARMSTRONG JUNIPER	3-4'	3-4'	5 GAL.	CONT.
	JHM	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	4"	8'	1 GAL.	CONT..
	HAM	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	3-5'	3-5'	5 GAL.	CONT.
	MAA	MAHONIA AQUIFOLIUM 'COMPACTA'	COMPACT OREGON GRAPE HOLLY	3'	3'	5 GAL.	CONT.
	RAG	RHUS TRILOBATA 'AUTUMN AMBER'	CREEPING THREE-LEAF SUMAC	12-18"	3-6'	5 GAL.	CONT.
	PFP	POTENTILLA FRUTICOSA 'PINK BEAUTY'	PINK BEAUTY POTENTILLA	2-3'	2-3'	5 GAL.	CONT.
	Ornamental Grasses						
	MSM	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT MAIDEN GRASS	4-5'	3-4'	5 GAL..	CONT.
	PMS	PANICUM VIRGATUM 'SHENANDOAH'	RED SWITCH GRASS	3-4'	18-24"	1 GAL.	CONT.
	Perennials						
	CGS	COREOPSIS GRANDIFLORA 'SUNRAY'	DWARF DOUBLE COREOPSIS	12-18"	12-18"	1 GAL.	CONT.
	HSR	HEMEROCALLIS 'RED MAGIC'	RED MAGIC DAYLILY	30-36"	24-36"	1 GAL.	CONT.
	AEC	AGASTACHE CORONADO RED	CORONADO RED HYSSOP	18-24"	18-24"	1 GAL.	CONT.

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LANDSCAPE PLAN

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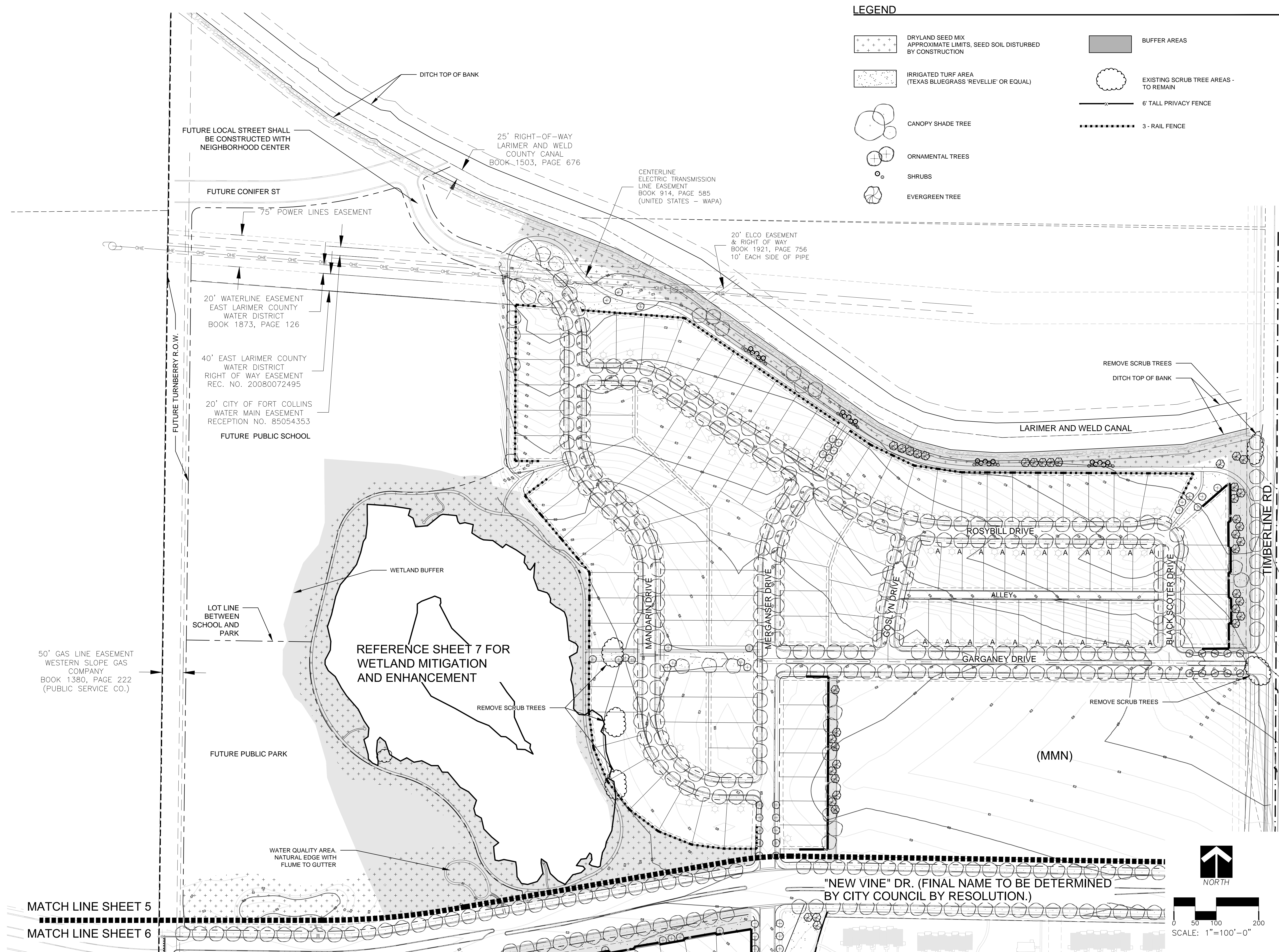
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5 OF 7



WATERFIELD THIRD FILING

A REPLAT OF A PORTION OF WATERFIELD SECOND FILING AND A PORTION OF WATERFIELD FIRST FILING, LOCATED IN THE WEST HALF OF SECTION 5, TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

STATEMENT OF OWNERSHIP AND SUBDIVISION:

Know all persons by these presents, that the undersigned owner(s) of the following described land: A replat of a portion of Waterfield Second Filing, except the South 36' of East Vine Drive Right of Way, and Waterfield First Filing except Tract A, Tract D and Timberline Road right-of-way all located in the West Half of Section 5, Township 7 North, Range 68 West, City of Fort Collins, County of Larimer, State of Colorado being more particularly described as follows:

Considering the South line of the Southwest Quarter of said Section 5 as bearing South 88°53'23" East and with all bearings contained herein relative thereto:

Commencing at the Southwest Corner of said Section 5; thence along the West line of said Southwest Quarter, North 00° 43' 26" East, 176.00 feet to the **POINT OF BEGINNING**; thence continuing along said West line, North 00° 43' 26" East, 2397.80 feet to the West Quarter corner of Section 5; thence along the West line of the Northwest Quarter of said Section 5, North 00° 43' 49" East, 559.61 feet to the Northwest corner of WaterfieldSecond Filing; thence along the Northerly line of said WaterfieldSecond Filing the following 7 courses and distances: South 52° 19' 39" East, 492.00 feet; thence, South 61° 27' 39" East, 418.00 feet; thence, South 70° 16' 39" East, 260.00 feet; thence, South 59° 46' 39" East, 389.00 feet; thence, South 53° 31' 39" East, 176.30 feet; thence, South 55° 39' 22" East, 234.78 feet; thence, South 63° 17' 47" East, 104.72 feet to the Northwest corner of Tract A, Waterfield P.U.D First Filing; thence along the West and Southerly lines of said Tract A the following 9 courses and distances: South 30° 54' 04" West, 58.92 feet; thence, South 71° 01' 19" East, 84.38 feet; thence, South 83° 24' 36" East, 102.53 feet; thence, North 88° 36' 19" East, 114.53 feet; thence, North 88° 26' 12" East, 91.49 feet; thence, North 87° 16' 49" East, 86.29 feet; thence, North 85° 50' 12" East, 97.00 feet; thence, North 85° 18' 13" East, 106.93 feet; thence, North 76° 29' 21" East, 134.67 feet to the West right-of-way line of Timberline Road; thence along said West line, South 00° 16' 52" West, 1146.29 feet to the Northeast corner of Tract D, WaterfieldFirst Filing; thence along the North line of said Tract D, North 88° 58' 20" West, 991.58 feet to the Northwest corner of said Tract D; thence along the West line of said Tract D the following 3 courses and distances beginning with a non-tangent curve concave to the southeast having a central angle of 04° 17' 22" with a radius of 1361.68 feet, an arc length of 101.94 feet and the chord of which bears South 17° 03' 36" West, 101.92 feet; thence along a curve concave to the northwest having a central angle of 04° 47' 14" with a radius of 1361.68 feet, an arc length of 113.77 feet and the chord of which bears South 17° 18' 32" West, 113.74 feet; thence along a curve concave to the southeast having a central angle of 18° 39' 58" with a radius of 662.94 feet, an arc length of 215.97 feet and the chord of which bears South 10° 22' 10" West, 215.02 feet; thence, South 01° 02' 11" West, 478.43 feet; thence, North 88° 53' 23" West, 1425.13 feet; thence, North 00° 43' 26" East, 140.34 feet; thence, North 89° 16' 22" West, 50.67 feet to the Point of Beginning.

The above described area contains 5,162,233 square feet or 118.509 acres more or less and is subject to all easements and rights-of-way now on record or existing.

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 WATERFIELD THIRD FILING (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.

CERTIFICATE OF DEDICATION:

The Owner does hereby dedicate and convey to the City of Fort Collins, Colorado (hereafter "City"), for public use, forever, a permanent right-of-way for street purposes and the "Easements" as laid out and designated on this Plat; provided, however, that (1) acceptance by the City of this dedication of Easements does not impose upon the City a duty to maintain the Easements so dedicated, and (2) acceptance by the City of this dedication of streets does not impose upon the City a duty to maintain streets so dedicated until such time as the provisions of the Maintenance Guarantee have been fully satisfied. The streets dedicated on this Plat are the fee property of the City as provided in Section 31-23-107 C.R.S. The City's rights under the Easements include the right to install, operate, access, maintain, repair, reconstruct, remove and replace within the Easements public improvements consistent with the intended purpose of the Easements; the right to install, maintain and use gates in any fences that cross the Easements; the right to mark the location of the Easements with suitable markers; and the right to permit other public utilities to exercise these same rights. Owner reserves the right to use the Easements for purposes that do not interfere with the full enjoyment of the rights hereby granted. The City is responsible for maintenance of its own improvements and for repairing any damage caused by its activities in the Easements, but by acceptance of this dedication, the City does not accept the duty of maintenance of the Easements, or of improvements in the Easements that are not owned by the City. Owner will maintain the surface of the Easements in a sanitary condition in compliance with any applicable weed, nuisance or other legal requirements.

Except as expressly permitted in an approved plan of development or other written agreement with the City, Owner will not install on the Easements, or permit the installation on the Easements, of any building, structure, improvement, fence, retaining wall, sidewalk, tree or other landscaping (other than usual and customary grasses and other ground cover). In the event such obstacles are installed in the Easements, the City has the right to require the Owner to remove such obstacles from the Easements. If Owner does not remove such obstacles, the City may remove such obstacles without any liability or obligation for repair and replacement thereof, and charge the Owner the City's costs for such removal. If the City chooses not to remove the obstacles, the City will not be liable for any damage to the obstacles or any other property to which they are attached.

The rights granted to the City by this Plat inure to the benefit of the City's agents, licensees, permittees and assigns.

MAINTENANCE GUARANTEE:

The Owner hereby warrants and guarantees to the City, for a period of two (2) years from the date of completion and first acceptance by the City of the improvements warranted hereunder, the full and complete maintenance and repair of the improvements to be constructed in connection with the Development which is the subject of this Plat. This warranty and guarantee is made in accordance with the City Land Use Code and/or the Transitional Land Use Regulations, as applicable. This guarantee applies to the streets and all other appurtenant structures and amenities lying within the rights-of-way, Easements and other public properties, including, without limitation, all curbing, sidewalks, bike paths, drainage pipes, culverts, catch basins, drainage ditches and landscaping. Any maintenance and/or repair required on utilities shall be coordinated with the owning utility company or department.

The Owner shall maintain said improvements in a manner that will assure compliance on a consistent basis with all construction standards, safety requirements and environmental protection requirements of the City. The Owner shall also correct and repair, or cause to be corrected and repaired, all damages to said improvements resulting from development-related or building-related activities. In the event the Owner fails to correct any damages within thirty (30) days after written notice thereof, then said damages may be corrected by the City and all costs and charges billed to and paid by the Owner. The City shall also have any other remedies available to it as authorized by law. Any damages which occurred prior to the end of said two (2) year period and which are unrepaired at the termination of said period shall remain the responsibility of the Owner.

OWNER:

By: _____

Title: _____

STATE OF COLORADO)
JSS
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by
_____ as _____ of _____.

Witness my hand and official seal

My commission expires: _____

Notary Public

LIENHOLDER:

By: _____

Title: _____

STATE OF COLORADO)
JSS
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by
_____ as _____ of _____.

Witness my hand and official seal

My commission expires: _____

Notary Public

OWNER:

By: _____

Title: _____

STATE OF COLORADO)
JSS
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by
_____ as _____ of _____.

Witness my hand and official seal

My commission expires: _____

Notary Public

OWNER:

By: _____

Title: _____

STATE OF COLORADO)
JSS
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by
_____ as _____ of _____.

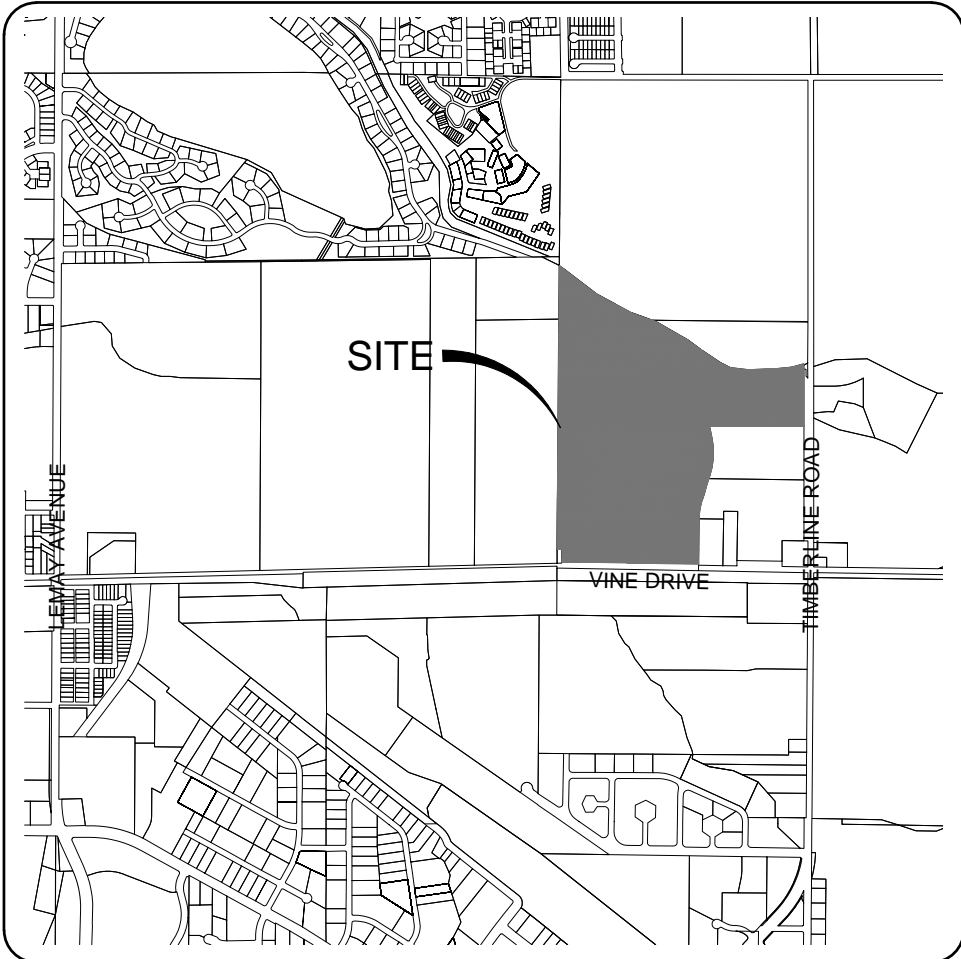
Witness my hand and official seal

My commission expires: _____

Notary Public

CITY OF GREELEY WATER PLAT APPROVAL
REVIEWED BY: _____
DATE: _____

BOXELDER SANITATION DISTRICT PLAT APPROVAL
REVIEWED BY: _____
DATE: _____ GENERAL MANAGER
REVIEW DOES NOT CONSTITUTE "APPROVAL" OF PLANS. PLAN ENGINEER IS RESPONSIBLE FOR ACCURACY AND COMPLETENESS OF PLANS.



NOTICE

ALL RESPONSIBILITIES AND COSTS OF OPERATION, MAINTENANCE AND RECONSTRUCTION OF THE PRIVATE STREETS AND/OR DRIVES LOCATED ON THE PRIVATE PROPERTY THAT IS THE SUBJECT OF THIS PLAT SHALL BE BORNE BY THE OWNERS OF SAID PROPERTY, EITHER INDIVIDUALLY, OR COLLECTIVELY, THROUGH A PROPERTY OWNERS' ASSOCIATION, IF APPLICABLE. THE CITY OF FORT COLLINS SHALL HAVE NO OBLIGATION OF OPERATION, MAINTENANCE OR RECONSTRUCTION OF SUCH PRIVATE STREETS AND/OR DRIVES NOR SHALL THE CITY HAVE ANY OBLIGATION TO ACCEPT SUCH STREETS AND/OR DRIVES AS PUBLIC STREETS OR DRIVES.

APPROVED AS TO FORM, CITY ENGINEER

By the City Engineer of the City of Fort Collins, Colorado this ____ day of _____ A.D., 20____.

City Engineer

PLANNING APPROVAL

By the Director of Planning the City of Fort Collins, Colorado this ____ day of _____ A.D., 20____.

Director of Planning

NOTES:

- The Basis of Bearings is the South line of the Southwest Quarter of Section 5 as bearing South 88°53'23" East (assumed bearing).
- All information regarding easements, right-of-way or title of record, Northern Engineering relied upon Order Number FCC25113662, dated January 14, 2013, prepared by Land Title Guarantee Company.
- The lineal unit of measurement for this plat is U. S. Survey Feet.
- Benchmark: City of Fort Collins Benchmark 92-1 - Located along East Vine Dr. at the Pleasant Valley and Lake Canal, on a bridge on the top of the northwest headwall.
Elevation = 4943.13 (NGVD 1929 Datum Unadjusted)

SURVEYOR'S STATEMENT

I, Gerald D. Gilliland, a Colorado Registered Professional Land Surveyor do hereby state that this Subdivision Plat was prepared from an actual survey under my personal supervision, that the monumentation as indicated hereon were found or set as shown, and that the foregoing plat is an accurate representation thereof, all this to the best of my knowledge, information and belief.

Gerald D. Gilliland
Colorado Registered Professional
Land Surveyor No. 14823

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

SECTION: 5
TOWNSHIP: 7N
RANGE: 68 W of the 6th PM

**NORTHERN
ENGINEERING**
PHONE: 970.221.4198 FAX: 970.221.4199
www.northernengineering.com
200 South College Avenue, Suite 10
Fort Collins, Colorado 80524

PROJECT: 889-001
DESIGNED BY: L. Smith
DATE: 12/18/13
SCALE: N/A
REVIEWED BY: G. Gilliland

WATERFIELD THIRD FILING
CITY OF FORT COLLINS
STATE OF COLORADO

Sheet
1
Of 10 Sheets

WATERFIELD THIRD FILING

A REPLAT OF A PORTION OF WATERFIELD SECOND FILING AND A PORTION OF WATERFIELD FIRST FILING, LOCATED IN THE WEST HALF OF SECTION 5, TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

REPAIR GUARANTEE:

In consideration of the approval of this final Plat and other valuable consideration, the Owner does hereby agree to hold the City harmless for a five (5) year period, commencing upon the date of completion and first acceptance by the City of the improvements to be constructed in connection with the development which is the subject of this Plat, from any and all claims, damages, or demands arising on account of the design and construction of public improvements of the property shown herein; and the Owner furthermore commits to make necessary repairs to said public improvements, to include, without limitation, the roads, streets, fills, embankments, ditches, cross pans, sub-drains, culverts, walls and bridges within the right-of-way, Easements and other public properties, resulting from failures caused by design and/or construction defects. This agreement to hold the City harmless includes defects in materials and workmanship, as well as defects caused by or consisting of settling trenches, fills or excavations.

Further, the Owner warrants that he/she owns fee simple title to the property shown hereon and agrees that the City shall not be liable to the Owner or his/her successors in interest during the warranty period, for any claim of damages resulting from negligence in exercising engineering techniques and due caution in the construction of cross drains, drives, structures or buildings, the changing of courses of streams and rivers, flooding from natural creeks and rivers, and any other matter whatsoever on private property. Any and all monetary liability occurring under this paragraph shall be the liability of the Owner. I further warrant that I have the right to convey said land according to this Plat.

NOTICE OF OTHER DOCUMENTS:

All persons take notice that the Owner has executed certain documents pertaining to this Development which create certain rights and obligations of the Development, the Owner and/or subsequent Owners of all or portions of the Development site, many of which obligations constitute promises and covenants that, along with the obligations under this Plat, run with the land. The said documents may also be amended from time to time and may include, without limitation, the Development Agreement, Site And Landscape Covenants, Final Site Plan, Final Landscape Plan, and Architectural Elevations, which documents are on file in the office of the clerk of the City and should be closely examined by all persons interested in purchasing any portion of the Development site.

BOXELDER SANITATION DISTRICT NOTES:

1) There shall be no erection or construction of any building or other structure, or any permanent obstruction, or decrease or substantial increase in ground level, from the finished elevations on this set of plans, in a manner that will interfere with use of the utility easement or impede access over and across the easement for purposes of operation, maintenance or future installation, repair or replacement of an existing or future sanitary sewer.

2) Landscaping in the area of the easement where a sanitary sewer is installed shall not create impediments to ingress and egress, nor shall landscaping material be installed or any trees or shrubs whose height is greater than 2-feet be planted in the easement area that may impinge on the overall operation and maintenance of the infrastructure placed in the easement. Driplines of all trees shall not extend over the sanitary sewer line(s).

3) No fence, which may impede access to and across the easement, shall be installed without prior approval from Boxelder Sanitation District. Any such fence, installed with the Boxelder Sanitation District's approval, must have gates to allow access to and across the easement of Boxelder Sanitation District's maintenance vehicles, and must be paid for by the developer or property owner.

4) Boxelder Sanitation District, which owns infrastructure installed in the utility easement, has the right from time to time to enlarge, improve, reconstruct, relocate and replace any underground utility lines, improvements or other appurtenance constructed hereunder with any other number or type of underground utilities and pipelines, or other structures either in the original location or at any alternate location or locations within said utility easement.

5) Boxelder Sanitation District shall have the right to mark the location of its infrastructure by suitable markers set in or on the ground; provided that permanent markers shall be placed in locations which will not interfere with any reasonable use of said utility easement.

6) Boxelder Sanitation District shall have the right to install and maintain a gravel access road within the utility easement for use by District personnel, equipment and vehicles.

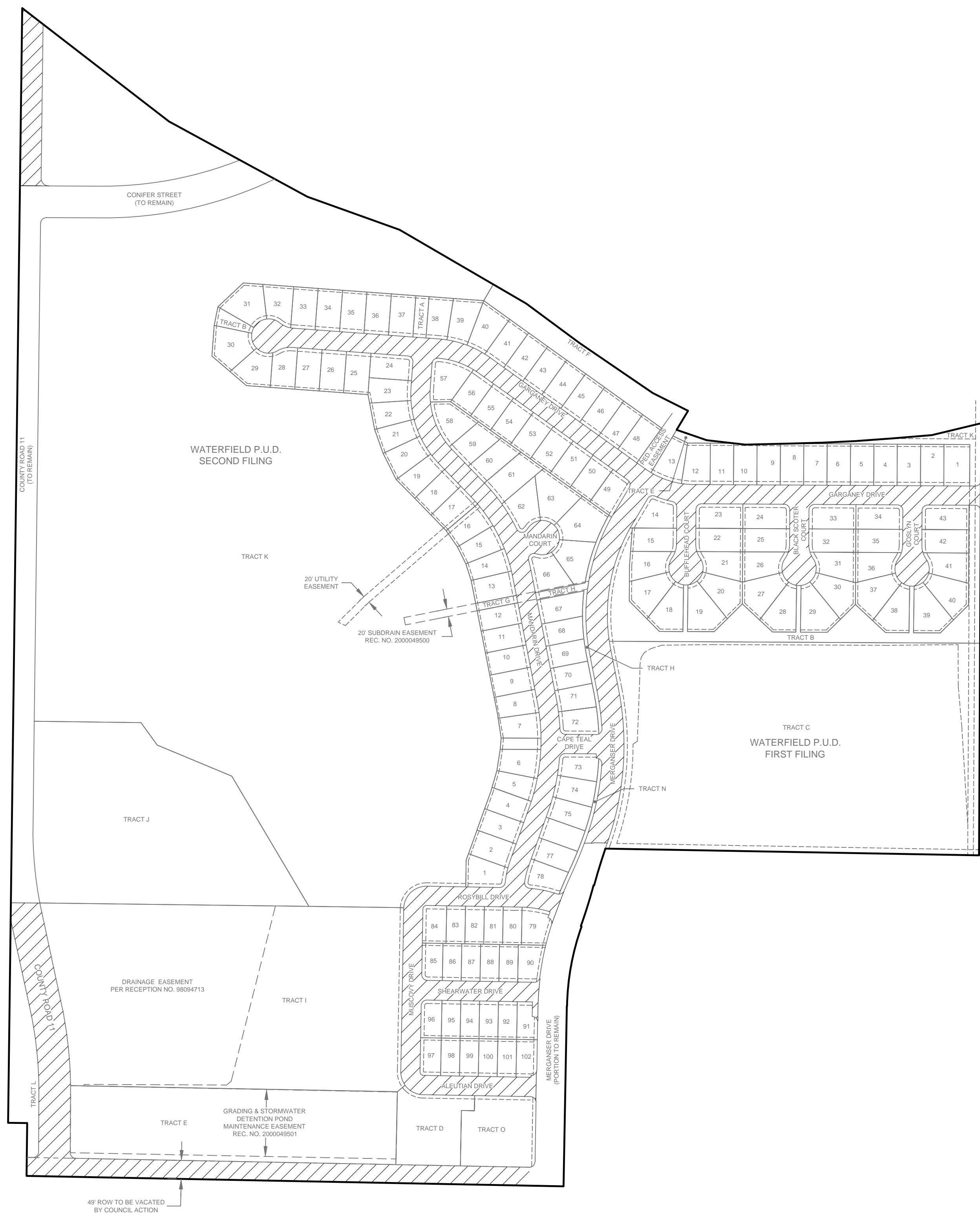
Curve Table					
CURVE	DELTA	RADIUS	LENGTH	BEARING	CHORD
C1	90°22'51"	10.00'	15.77'	S45°55'11"W	14.19'
C2	3°36'24"	189.50'	11.93'	S01°04'27"E	11.93'
C3	0°06'39"	1970.50'	3.81'	S00°15'09"W	3.81'
C4	18°00'37"	70.50'	22.16'	S04°30'56"E	22.07'
C5	36°30'00"	70.50'	44.91'	S22°44'23"W	44.16'
C6	7°55'46"	70.50'	9.76'	S44°57'16"W	9.75'
C7	36°59'14"	70.50'	45.51'	S67°24'46"W	44.72'
C8	18°59'04"	70.50'	23.36'	N84°36'06"W	23.25'
C9	14°15'00"	189.50'	47.13'	N82°14'04"W	47.01'
C10	3°08'34"	189.50'	10.39'	N87°47'17"W	10.39'
C11	1°28'14"	1282.50'	32.92'	S89°54'19"W	32.92'
C12	2°53'42"	1282.50'	64.80'	S87°43'21"W	64.80'
C13	10°20'29"	1282.50'	231.48'	S85°28'12"W	231.17'
C14	2°53'43"	1282.50'	64.81'	S81°55'56"W	64.80'
C15	0°11'07"	1282.50'	4.15'	S80°23'31"W	4.15'
C16	90°00'00"	9.50'	14.92'	N35°17'57"E	13.44'
C17	1°29'41"	1167.50'	30.46'	N89°53'36"E	30.46'
C18	2°53'43"	1167.50'	59.00'	N87°41'54"E	58.99'
C19	10°26'44"	1167.50'	212.85'	N85°25'04"E	212.55'
C20	2°53'43"	1167.50'	59.00'	N81°54'28"E	58.99'
C21	0°15'54"	1167.50'	5.40'	N80°19'39"W	5.40'
C22	90°00'00"	15.00'	23.56'	S54°42'03"E	21.21'
C23	90°00'00"	15.00'	23.56'	N35°17'57"E	21.21'
C24	90°00'00"	9.50'	14.92'	N54°42'03"W	13.44'
C25	5°00'10"	191.50'	16.72'	S82°48'02"W	16.72'
C26	9°53'53"	191.50'	33.08'	S85°14'53"W	33.04'
C27	90°00'00"	8.50'	13.35'	S45°11'50"W	12.02'
C29	97°50'10"	15.00'	25.61'	S48°43'15"E	22.61'
C30	2°03'43"	1017.50'	36.62'	N81°19'48"E	36.61'
C31	90°05'19"	9.50'	14.94'	N44°18'54"W	13.45'
C32	89°54'41"	9.50'	14.91'	N45°41'06"E	13.42'
C33	1°36'15"	1335.50'	37.39'	N89°50'19"E	37.39'
C34	2°34'40"	1335.50'	60.09'	N87°44'51"E	60.08'
C35	10°20'29"	1335.50'	241.05'	N85°28'12"E	240.72'
C36	2°36'02"	1335.50'	60.62'	N82°34'19"E	60.61'
C37	0°58'20"	1335.50'	22.66'	N80°47'07"E	22.66'
C38	90°00'00"	9.50'	14.92'	S54°42'03"E	13.44'
C39	17°26'44"	573.50'	174.62'	S00°58'41"E	173.95'
C40	7°11'02"	573.50'	71.91'	S00°00'12"W	71.86'
C41	4°08'58"	573.50'	41.53'	S05°40'12"W	41.52'
C42	90°00'00"	9.50'	14.92'	S52°44'41"W	13.44'
C43	2°37'56"	326.50'	15.00'	N83°34'17"W	15.00'
C44	7°06'15"	326.50'	40.48'	N85°48'27"W	40.46'
C45	89°54'41"	9.50'	14.91'	S45°41'06"W	13.42'
C46	4°22'30"	273.50'	20.88'	N87°10'19"W	20.88'
C47	1°38'54"	326.50'	9.39'	S83°04'46"E	9.39'
C48	6°42'26"	326.50'	38.22'	S85°36'32"E	38.20'
C49	1°32'49"	326.50'	8.82'	S88°11'21"E	8.81'
C50	89°59'57"	10.00'	15.71'	S43°57'47"E	14.14'
C51	21°52'34"	991.00'	378.37'	S79°21'54"W	376.08'
C53	19°29'54"	1033.00'	351.54'	N80°33'13"E	349.85'
C54	90°00'00"	9.50'	14.92'	N35°17'57"E	13.44'
C55	9°53'53"	138.50'	23.93'	N85°14'53"E	23.90'
C56	90°00'00"	8.72'	13.70'	S46°00'50"E	12.33'
C57	0°43'43"	1970.50'	25.05'	S00°40'20"W	25.05'
C58	2°43'45"	273.50'	13.03'	S83°37'12"E	13.03'
C59	91°23'58"	8.50'	13.56'	S45°20'16"W	12.17'
C60	6°42'26"	273.50'	32.02'	N85°36'32"W	32.00'
C61	3°23'48"	273.50'	16.21'	N83°57'13"W	16.21'
C62	90°00'00"	9.50'	14.92'	N37°15'19"W	13.44'
C63	2°04'51"	626.50'	22.75'	N06°42'15"E	22.75'
C64	5°29'26"	626.50'	60.04'	N02°55'07"E	60.01'
C65	17°26'44"	626.50'	190.76'	N00°58'41"W	190.02'
C66	4°34'28"	626.50'	50.02'	N07°24'49"W	50.01'
C67	118°24'41"	70.50'	145.70'	S45°41'06"W	121.12'
C68	14°15'00"	189.50'	47.13'	S06°23'45"E	47.01'
C69	10°38'36"	189.50'	35.20'	S08°11'57"E	35.15'
C70	89°54'41"	36.00'	56.49'	N45°41'06"E	50.87'
C71	10°20'29"	1309.00'	236.26'	N85°28'12"E	235.94'

Curve Table					
CURVE	DELTA	RADIUS	LENGTH	BEARING	CHORD
C72	9°53'53"	165.00'	28.50'	N85°14'53"E	28.47'
C73	11°06'27"	189.50'	36.74'	N80°39'47"W	36.68'
C74	2°53'43"	1282.50'	64.80'	S84°49'38"W	64.80'
C75	2°35'12"	1335.50'	60.29'	N85°09'56"E	60.28'
C77	10°20'29"	1075.00'	194.03'	N85°28'12"E	193.77'
C78	10°20'29"	1132.50'	204.41'	N85°28'12"E	204.13'
C79	4°53'43"	191.50'	16.36'	S87°44'59"W	16.36'
C80	7°06'15"	300.00'	37.20'	S85°48'27"E	37.17'
C81	6°42'26"	300.00'	35.12'	S85°36'32"E	35.10'
C82	17°26'44"	600.00'	182.69'	S00°58'41"E	181.98'
C83	0°50'22"	2000.00'	29.30'	N00°37'01"E	29.30'
C84	6°06'43"	573.50'	61.18'	S06°38'41"E	61.15'
C85	5°17'59"	626.50'	57.95'	N02°28'36"W	57.93'
C86	3°18'38"	273.50'	15.80'	N87°16'26"W	15.80'
C87	3°30'43"	326.50'	20.01'	S85°39'35"E	20.01'
C88	4°17'52"	1033.00'	77.49'	N68°39'20"E	77.47'
C89	4°28'19"	326.50'	25.48'	N87°07'24"W	25.48'
C90	89°34'44"	15.00'	23.45'	N45°30'48"E	21.14'
C91	17°46'54"	1045.54'	324.48'	N81°39'27"E	323.18'
C92	89°37'09"	10.00'	15.64'	N44°04'49"W	14.10'
C93	87°47'32"	15.00'	22.98'	S63°05'30"E	20.80'
C94	52°40'03"	191.50'	176.03'	S45°31'45"E	169.90'
C97	90°01'00"	10.00'	15.71'	S45°17'30"W	14.14'
C98	4°58'44"	1075.00'	93.41'	N82°47'19"E	93.39'
C99	5°44'59"	1075.00'	107.88'	N88°09'11"E	107.84'
C100	3°03'44"	1132.50'	60.53'	S81°49'49"W	60.52'
C101	83°04'41"	15.00'	21.75'	S41°49'21"W	19.89'
C103	90°00'00"	9.50'	14.92'	N45°17'00"E	13.44'
C104	40°46'51"	138.50'	98.58'	S51°28'21"E	96.51'
C105	67°47'01"	138.50'	163.85'	S37°58'16"E	154.46'
C106	4°22'46"	138.50'	10.59'	S01°53'23"E	10.58'
C107	15°51'29"	191.50'	53.00'	S07°37'45"E	52.83'
C108	4°53'52"	191.50'	16.37'	S18°00'25"E	16.36'
C109	16°28'50"	191.50'	55.68'	S28°41'46"E	54.89'
C110	8°25'31"	153.50'	22.57'	S03°55'54"E	22.55'
C111	89°59'52"	153.50'	241.11'	S44°43'04"E	217.08'
C112	14°32'17"	153.50'	38.95'	S82°26'52"E	38.84'
C113	52°40'03"	165.00'	151.67'	S45°31'45"E	146.39'
C116	32°13'30"	165.00'	92.80'	S73°35'15"E	91.58'
C117	19°15'54"	503.00'	169.13'	S67°06'27"E	168.33'
C118	12°57'36"	503.00'	113.78'	S83°13'12"E	113.53'
C119	89°59'00"	36.00'	56.54'	S44°42'30"E	50.90'
C120	32°14'30"	250.00'	140.68'	S16°24'15"W	138.83'
C121	71°08'56"	10.00'	12.42'	N70°41'36"W	11.64'
C122	8°30'02"	191.50'	28.41'	S41°11'12"E	28.39'
C123	45°43'05"	138.50'	110.51'	S22°34'41"E	107.60'
C124	15°19'29"	206.50'	55.23'	S07°22'52"E	55.07'
C125	15°13'21"	206.50'	54.86'	S22°39'17"E	54.70'
C126	19°03'09"	138.50'	46.06'	S09°13'35"E	45.64'
C127	45°44'13"	138.50'	110.56'	S22°34'07"E	107.65'
C128	12°20'24"	191.50'	41.24'	S39°16'01"E	41.16'
C129	45°43'05"	191.50'	152.80'	S22°34'41"E	148.78'
C130	17°43'59"	191.50'	59.27'	S08°35'07"E	59.03'
C131	15°13'21"	206.50'	54.86'	S37°52'38"E	54.70'
C132	15°13'21"	206.50'	54.86'	S53°05'58"E	54.70'
C133	90°00'00"	9.50'	14.92'	N44°42'00"W	13.44'
C134	8°44'36"	191.50'	29.22'	N85°19'42"W	29.19'
C135	90°00'00"	9.50'	14.92'	S45°18'00"W	13.44'
C136	32°13'30"	191.50'	107.71'	N73°35'15"W	106.29'
C137	6°47'33"	191.50'	22.70'	N60°52'16"W	22.69'
C138	6°40'12"	138.50'	55.47'	N60°48'36"W	55.44'
C139	6°14'13"	138.50'	15.08'	N86°34'53"W	15.07'
C140	32°13'30"	138.50'	77.90'	N73°35'15"W	76.87'
C141	90°00'00"	9.50'	14.92'	N12°28'30"W	13.44'
C142	8°34'34"	276.50'	41.39'	N28°14'13"E	41.35'
C143	32°14'30"	276.50'	155.59'	N16°24'15"E	153.55'
C144	11°32'05"	276.50'	55.67'	N06°03'03"E	55.57'
C145	90°00'00"	9.50'	14.92'	S77°31'30"W	13.44'
C146	32°14'30"	223.50'	125.77'	S16°24'15"W	124.12'

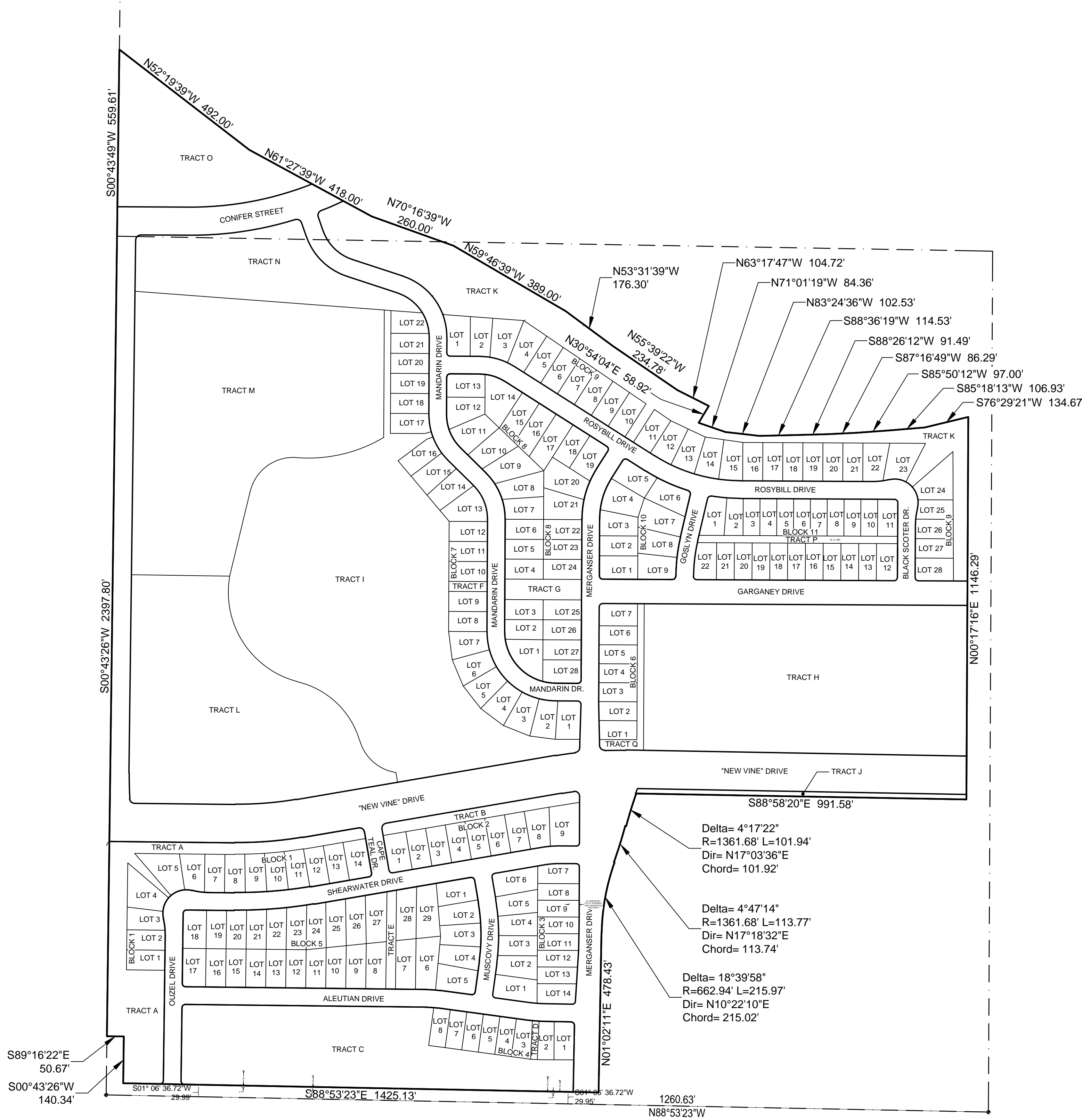
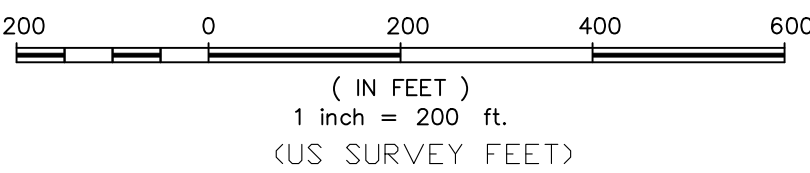
Curve Table					
CURVE	DELTA	RADIUS	LENGTH	BEARING	CHORD
C147	6°31'20"	223.50	25.44'	S03°32'40"W	25.43
C148	89°59'00"	10.00	15.71'	S44°42'30"E	14.14
C149	32°13'30"	476.50	268.00	N73°35'15"W	264.48
C150	9°02'03"	476.50	75.13'	N77°41'52"W	75.05
C151	7°29'07"	476.50	62.25'	N85°57'27"W	62.21
C152	14°15'00"	189.50	47.13'	S83°10'30"W	47.01
C153	15°13'21"	206.50	54.86	S68°19'19"E	54.70
C154	13°47'01"	206.50	49.68'	S82°49'30"E	49.56
C155	90°00'00"	9.50	14.92	S44°43'00"E	13.44
C156	86°10'13"	9.50	14.29	N29°49'31"W	12.98
C157	15°26'08"	529.50	142.65	N65°11'34"W	142.22
C158	4°31'32"	529.50	41.82	N59°44'16"W	41.81
C159	0°06'06"	526.50	0.93	N13°12'33"E	0.93
C160	12°58'36"	526.50	119.24	N06°46'18"E	118.99
C161	6°05'24"	526.50	55.96	N03°19'42"E	55.94
C162	89°47'38"	10.00	15.67	N44°42'30"E	14.12
C163	0°42'20"	473.50	5.83	N12°54'26"E	5.83
C164	5°46'59"	719.31	72.60	N06°42'51"E	72.57
C165	81°55'59"	15.00	21.45	N27°40'55"E	19.67
C166	5°37'52"	189.50	18.62	S78°51'56"W	18.62
C167	42°33'36"	70.50	52.37	N82°40'12"W	51.67
C168	118°29'00"	70.50	145.79	N44°42'30"W	121.17
C169	21°15'02"	70.50	26.15	N03°54'29"E	26.00
C170	14°15'00"	189.50	47.13	N07°24'30"E	47.01
C171	4°20'29"	189.50	14.36	N02°27'14"E	14.35
C172	89°59'00"	10.00	15.71	N44°42'30"W	14.14
C173	86°10'13"	9.50	14.29	N56°20'42"E	12.98
C174	90°01'00"	10.00	15.71	N45°17'31"E	14.14
C175	5°07'43"	529.50	47.38	S83°08'03"E	47.38
C176	4°00'06"	529.50	36.90	S87°41'57"E	36.97
C177	67°02'04"	153.50	179.59	N41°39'41"W	169.52
C178	52°40'03"	138.50	127.31	N45°31'45"E	122.88
C179	15°38'43"	191.50	52.29	N55°16'28"W	52.13
C180	26°41'04"	138.50	64.50	N32°05'41"W	63.92
C181	89°59'00"	9.50	14.92	S44°42'30"E	13.43
C182	25°59'17"	138.50	62.82	S70°28'08"E	62.28
C183	90°03'51"	10.00	15.72	N44°40'07"W	14.15
C184	10°54'33"	529.50	100.82	S67°20'20"E	100.67
C185	12°16'16"	473.50	101.41	N6°25'08"E	101.22
C186	20°01'41"	70.50	24.64	N51°22'34"W	24.52
C187	34°38'41"	70.50	42.63	N24°02'23"W	41.98
C188	12°58'36"	500.00	113.24	S06°46'18"W	113.00
C189	9°54'32"	189.50	32.77	N09°34'44"E	32.73
C190	6°47'05"	526.50	62.35	S09°45'57"W	62.31
C191	25°43'10"	223.50	100.33	N19°39'55"E	99.49
C192	12°07'51"	276.50	58.54	S17°50'31"W	58.47
C193	72°29'47"	165.00	207.81	S35°46'53"E	194.35
C194	45°44'13"	165.00	131.71	S22°34'07"E	128.24
C195	45°43'05"	165.00	131.66	S22°34'41"E	128.19
C196	89°59'52"	180.00	282.74	N44°43'04"E	254.55
C197	8°37'08"	189.50	28.51	S85°59'26"W	28.48
C198	9°02'08"	476.50	75.15	N63°36'46"W	75.07
C199	16°41'21"	191.50	55.78	N27°36'44"W	55.58
C200	72°09'47"	191.50	241.19	N35°46'53"W	225.56
C201	27°00'10"	138.50	65.27	N17°34'51"E	64.67
C202	20°42'50"	191.50	69.03	N20°23'15"W	68.86
C203	295°56'54"	60.00	309.92	N41°42'23"E	63.64
C204	49°37'00"	10.00	8.86	S15°07'40"E	8.39
C205	2°53'43"	1167.50	59.60	N84°48'11"E	58.99
C206	92°27'43"	10.00	24.21	N45°56'52"W	21.66
C207	3°12'23"	1132.50	63.38	S88°25'29"W	63.37
C208	85°47'14"	15.00	22.46	N46°42'57"E	20.42
C211	85°15'54"	259.53	412.18	N32°7'02"W	375.18
C212	60°52'28"	274.57	270.43	N46°44'16"W	257.89
C213	65°36'07"	133.55	152.91	N48°28'48"W	144.70
C214	4°17'47"	1032.00	77.38	N01°25'27"W	77.37
C215	4°02'13"	138.50	9.78	S33°06'02"E	9.76
C216	19°31'20"	191.50	65.25	S30°10'30"E	64.49

WATERFIELD THIRD FILING

A REPLAT OF A PORTION OF WATERFIELD SECOND FILING AND A PORTION OF WATERFIELD FIRST FILING, LOCATED IN THE WEST HALF OF SECTION 5,
TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO



EASEMENTS & LOT LINES TO BE VACATED BY THIS PLAT
(All street right-of-ways, depicted by hatching, to be vacated by Council Action)



PROPOSED LOT LINES & RIGHT OF WAY

WATERFIELD THIRD FILING
CITY OF FORT COLLINS
STATE OF COLORADO

Sheet
3
Of 10 Sheets

PROJECT: 889-001
DESIGNED BY:
DRAWN BY: L. Smith
DATE: 12/18/13
SCALE:
REVIEWED BY: G. Gilliland

N
E
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ENGINEERING
200 South College Avenue, Suite 10
Fort Collins, Colorado 80524
PHONE: 970.221.4198 FAX: 970.221.4199
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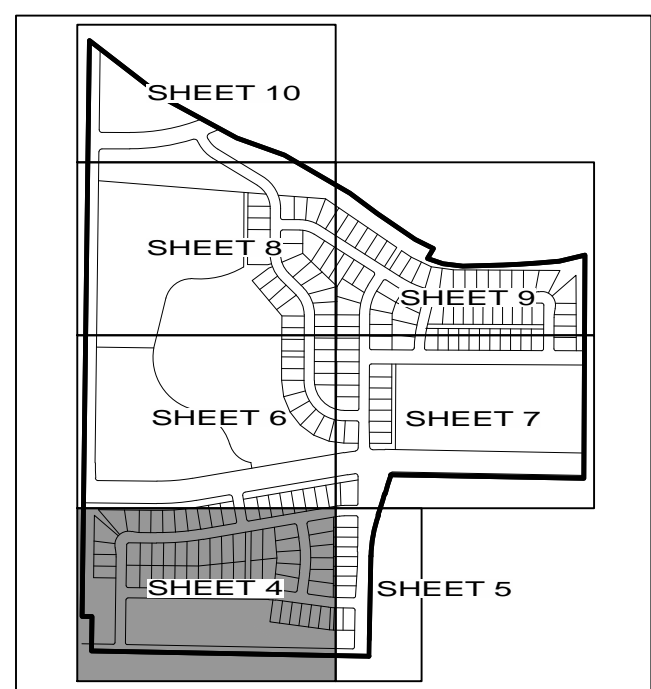
SECTION: 5
TOWNSHIP: 7N
RANGE: 68 W of the 6th PM

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SEE SHEET 6

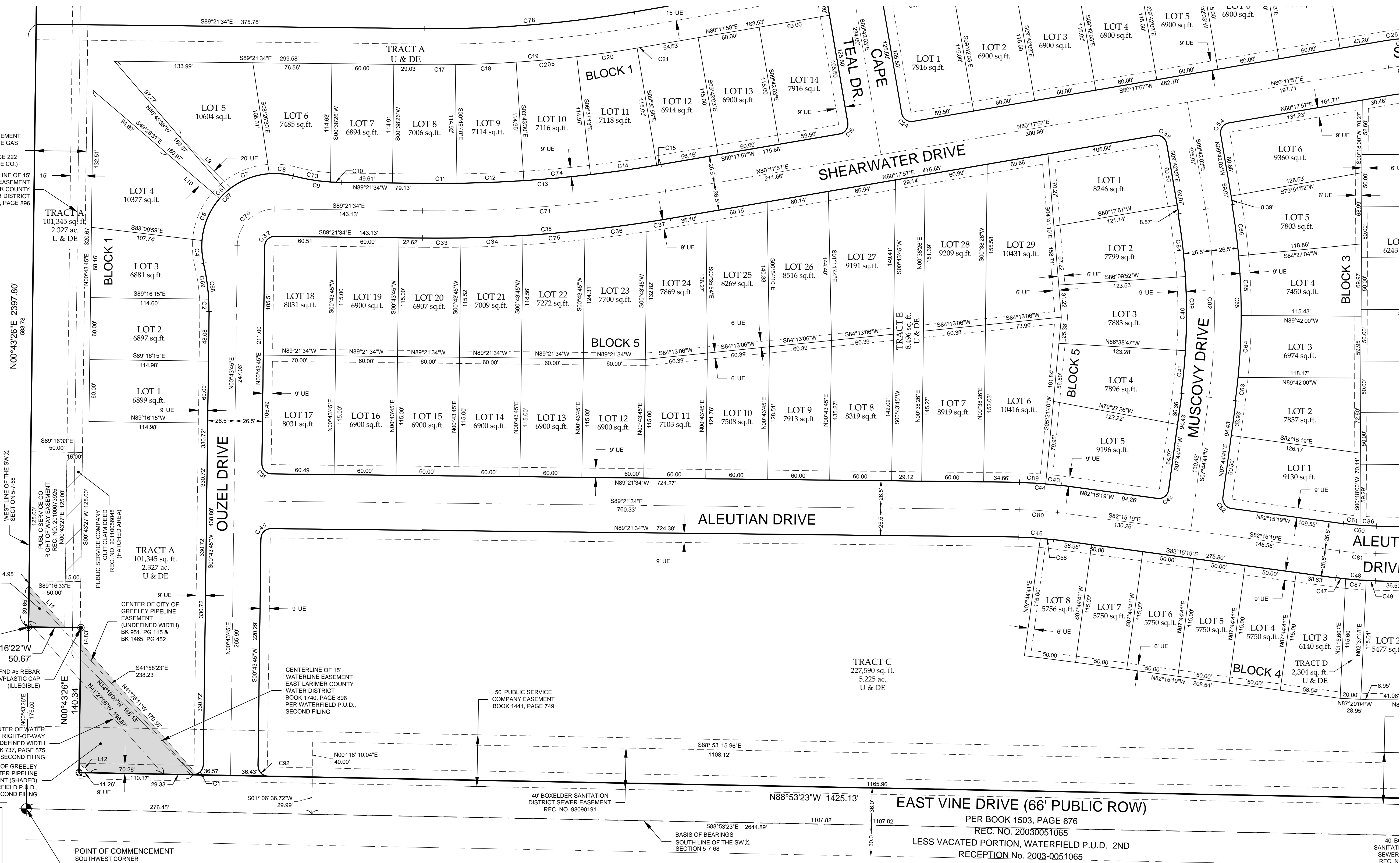


KEYMAP

50' GAS LINE EASEMENT
WESTERN SLOPE GAS
COMPANY
BOOK 1380, PAGE 222
(PUBLIC SERVICE CO.)

CENTERLINE OF 15'
WATERLINE EASEMENT
EAST LARIMER COUNTY
WATER DISTRICT
BOOK 1740, PAGE 886

UNPLATTED
OWNER: WEISS



LEGEND

- EASEMENT LINE
- CENTERLINE
- BOUNDARY LINE
- RIGHT-OF-WAY
- LOT LINE
- SECTION LINE

- FOUND PROPERTY CORNER
AS DESCRIBED
- SET #4 REBAR WITH
PLASTIC CAP, LS 14823
- SET PK NAIL & SHINER
- FOUND SECTION CORNER
AS DESCRIBED
- UTILITY EASEMENT
- UTILITY & DRAINAGE EASEMENT



50 0 50 100 150 Feet
(IN FEET)
1 inch = 50 ft.
(U.S. SURVEY FEET)

SEE SHEET 5

WATERFIELD THIRD FILING
CITY OF FORT COLLINS
STATE OF COLORADO

Sheet
4
Of 10 Sheets

NORTHERN
ENGINEERING

200 South Collins Avenue, Suite 10
Fort Collins, Colorado 80524

PROJECT: 889-001
DESIGNED BY:
DRAWN BY: L. Smith
DATE: 12/18/13
SCALE: 1"=50'
REVIEWED BY: G. Gilliland

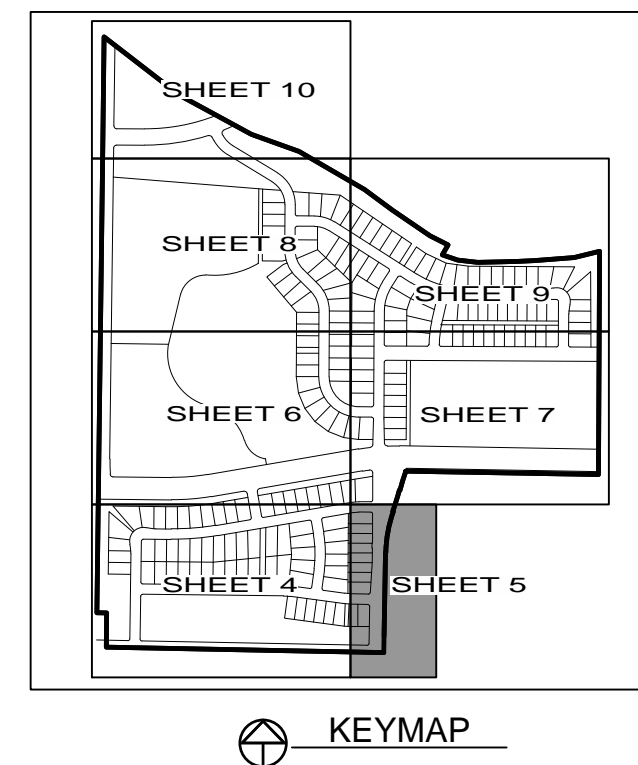
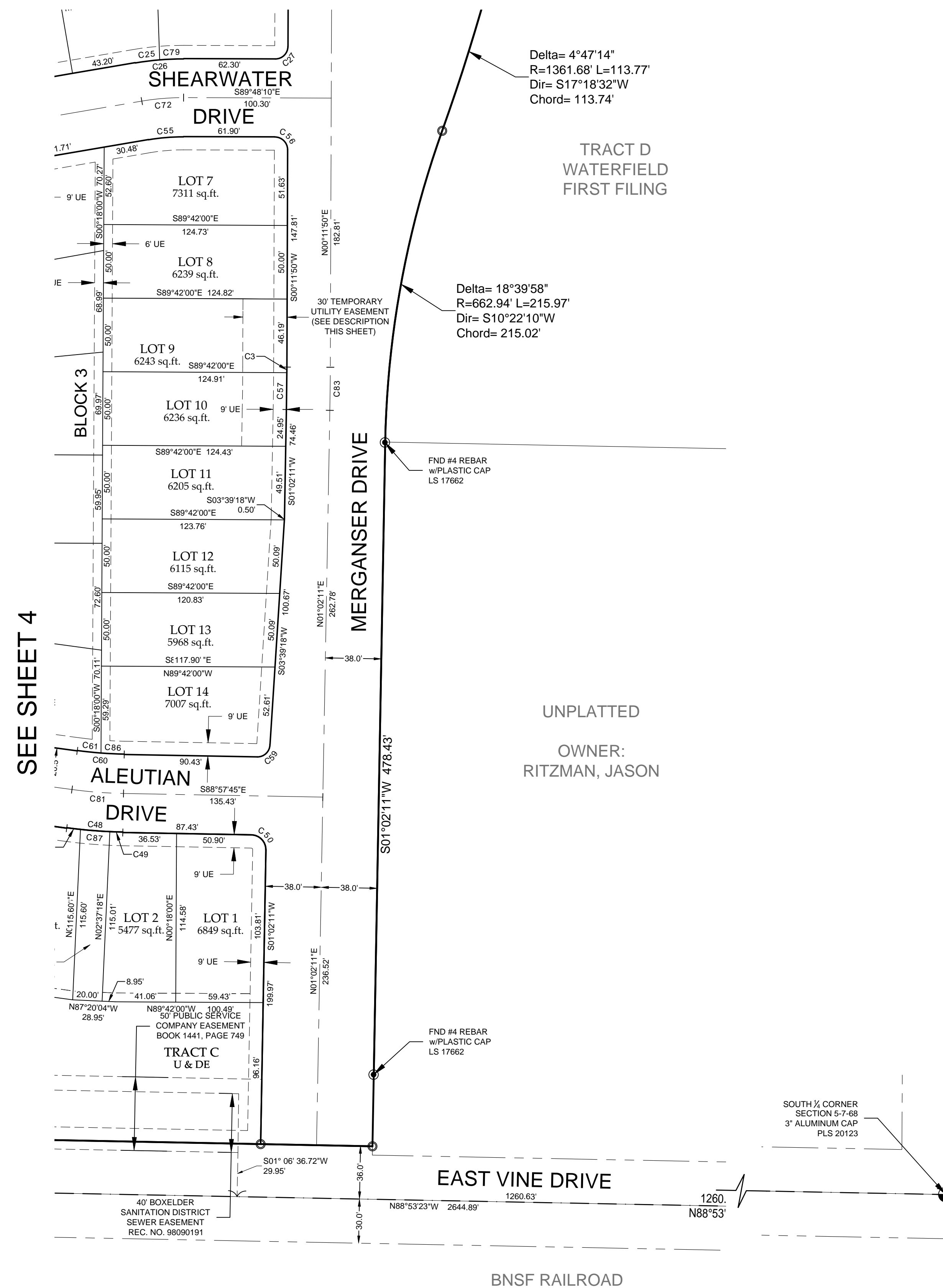
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SECTION:
TOWNSHIP:
RANGE:

WATERFIELD THIRD FILING

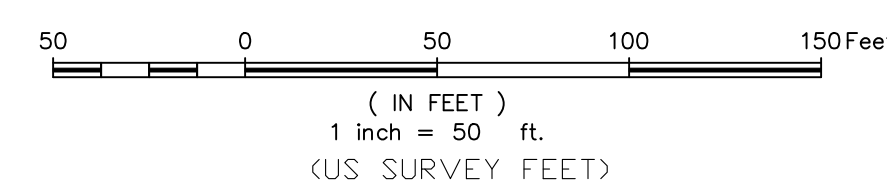
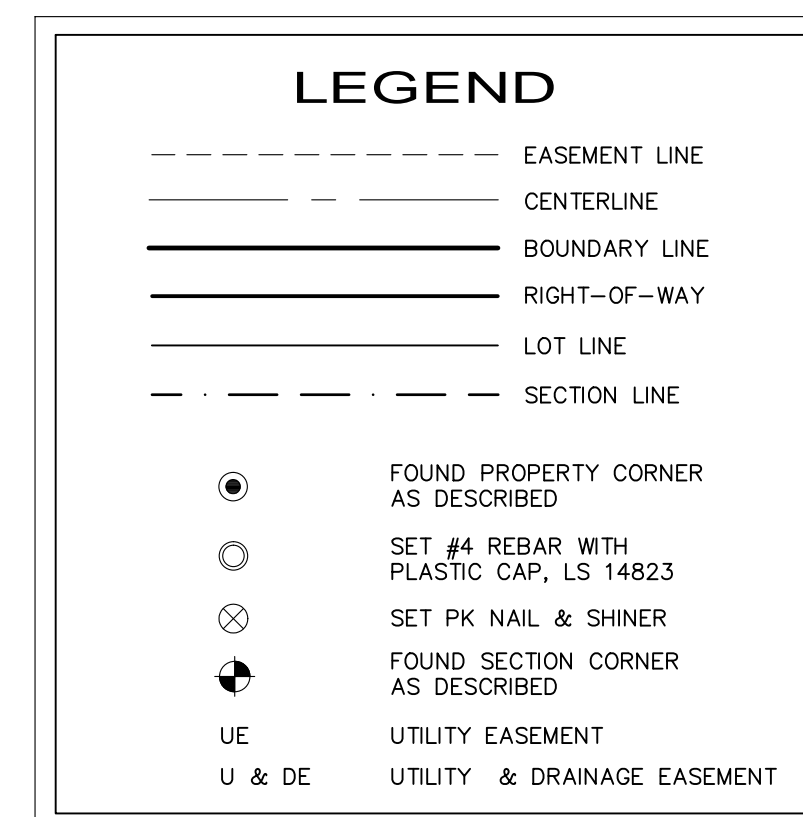
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SEE SHEET 7



TEMPORARY UTILITY EASEMENT:


A Temporary Utility Easement being the front 30 feet of Lots 9 & 10, Block 3 as shown on this plat. This Temporary Utility Easement shall expire upon complete and final signoff on all construction improvements to the existing portion of Merganser Drive.



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

5
TOWNSHIP:
7N
RANGE:
68 W of the 6th PM

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200 South College Avenue, Suite 10
Fort Collins, Colorado 80524

DESIGNED BY:	SCALE: 1"=50'
DRAWN BY: L. Smith	REVIEWED BY: G. Gilliland

CITY OF FORT COLLINS
STATE OF COLORADO

Sheet
5
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TOWNSHIP 7 NORTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

TRACT M
469,007 sq. ft.
10.767 ac.
(FUTURE SCHOOL)

TRACT L
351,426 sq. ft.
8.068 ac.
(FUTURE PARK)

TRACT I
547,253 sq. ft.
12.563 ac.
DE

TRACT A
U & DE

TRACT B
20,936 sq. ft.
0.481 ac.
U & DE

TRACT F
3,450 sq. ft.
U & DE

TRACT G
14,093 sq. ft.
U & DE

TRACT U & D

BLOCK 1

BLOCK 2

BLOCK 7

BLOCK 8

LOT 1

LOT 2

LOT 3

LOT 4

LOT 5

LOT 6

LOT 7

LOT 8

LOT 9

LOT 10

LOT 11

LOT 12

LOT 13

LOT 14

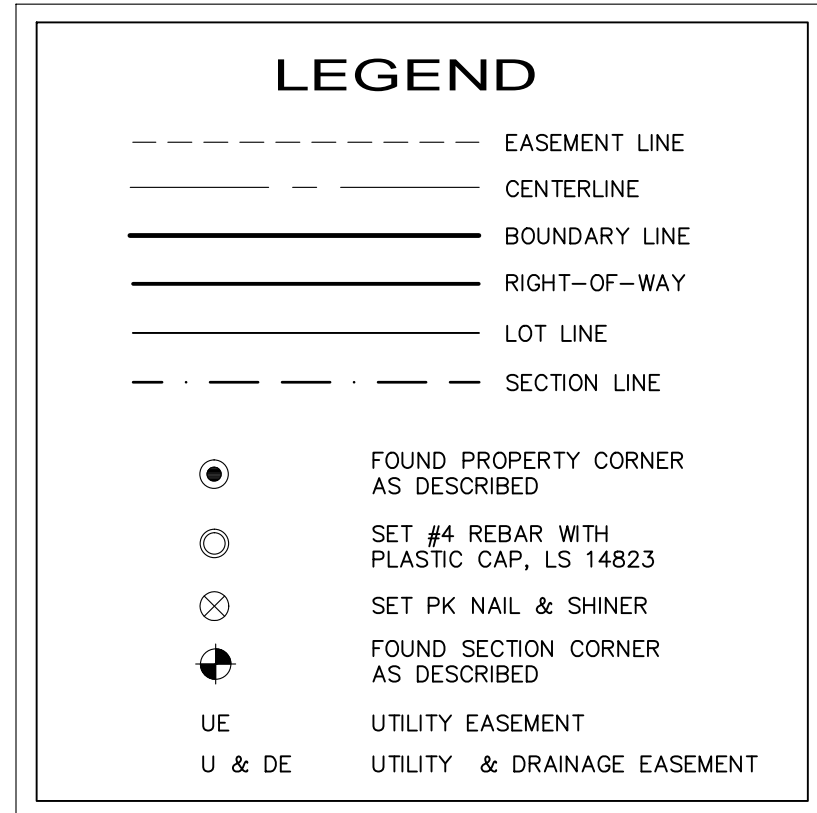
COUNTY ROAD 11

MANDARIN DRIVE

"NEW VINE" DRIVE

UNPLATTED

SEE SHEET 4

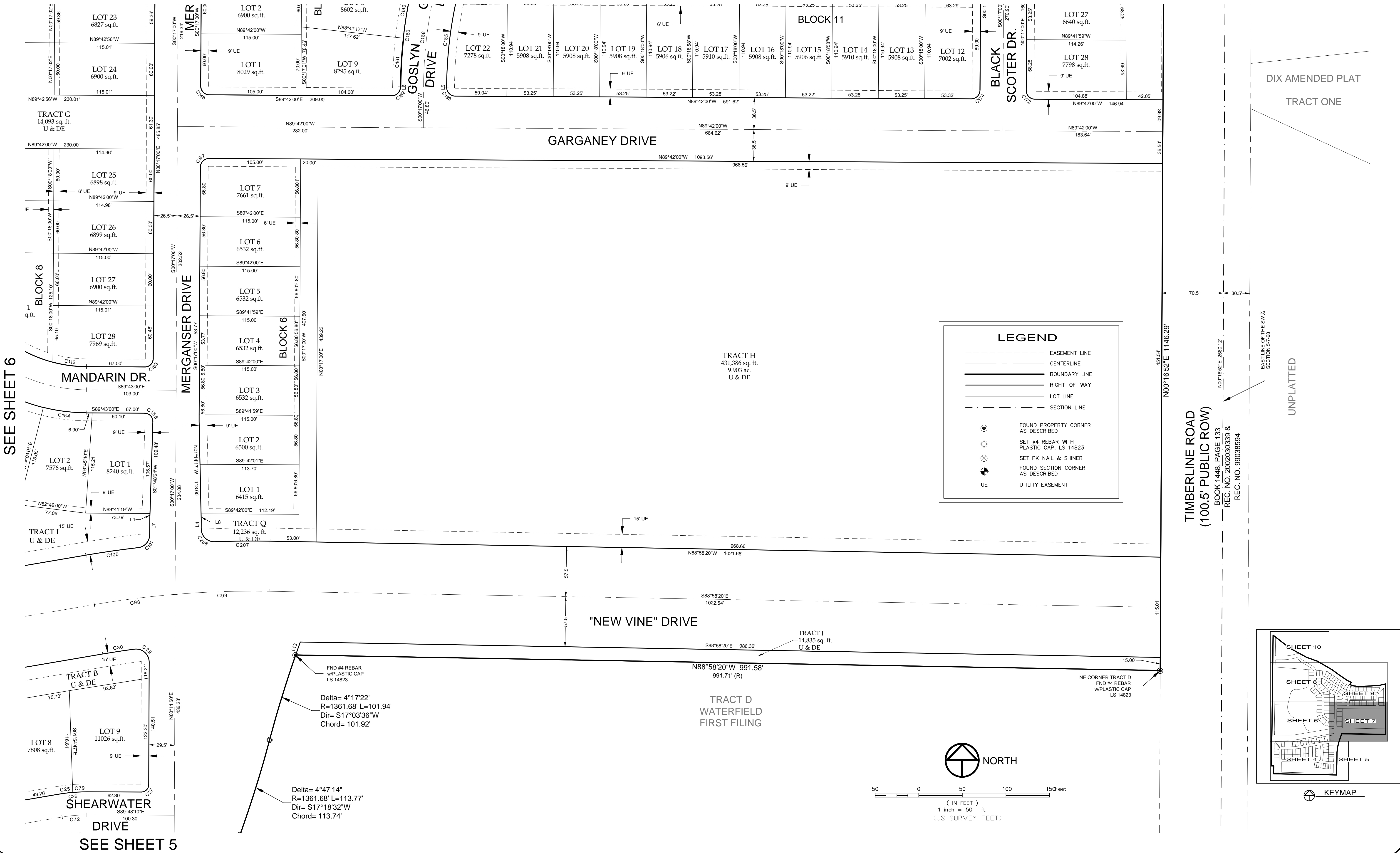


Sheet
6
Of 10 Sheets

WATERFIELD THIRD FILING

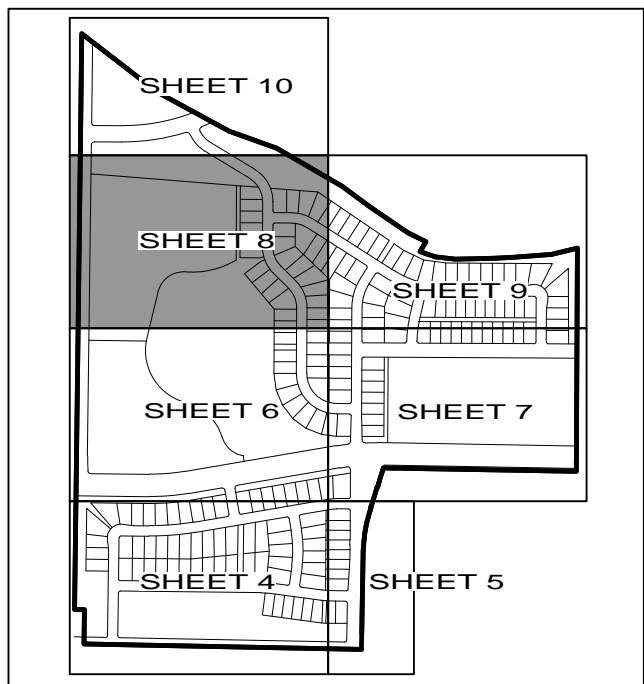
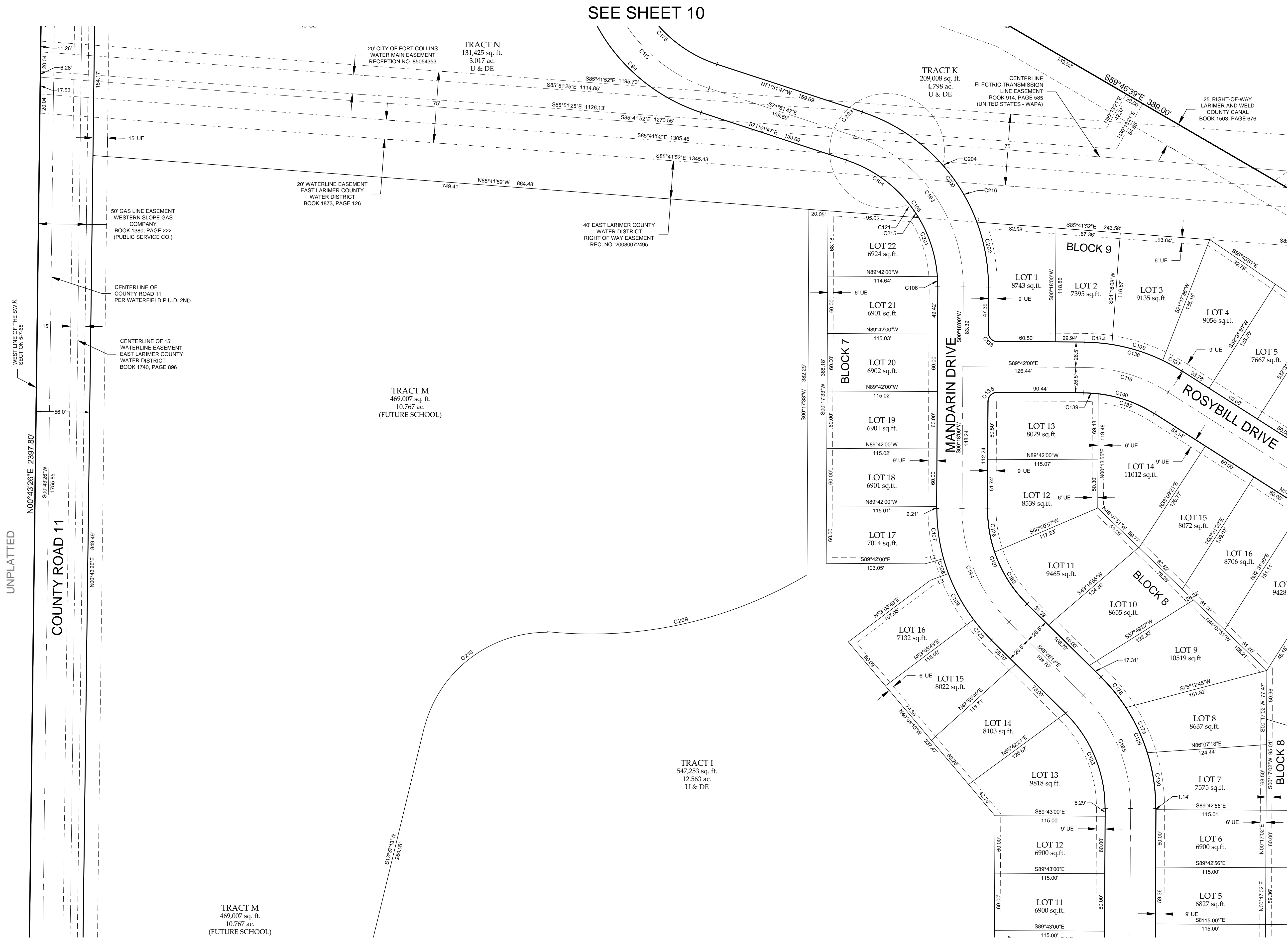
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SEE SHEET 9

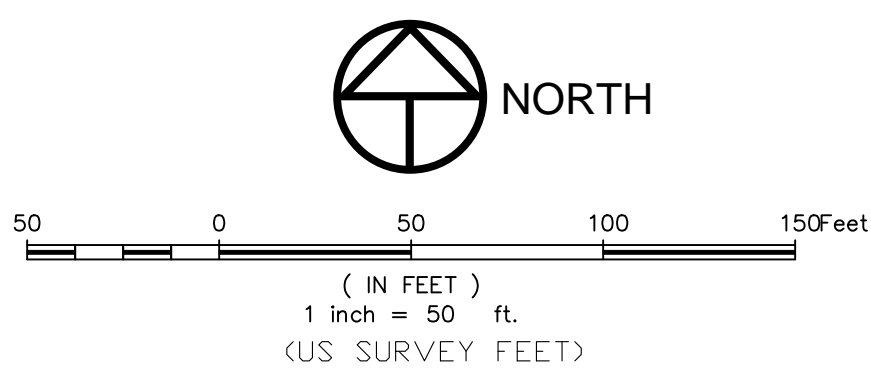


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KEYMAP



LEGEND	
	EASEMENT LINE
	CENTERLINE
	BOUNDARY LINE
	RIGHT-OF-WAY
	LOT LINE
	SECTION LINE
	FOUND PROPERTY CORNER AS DESCRIBED
	SET #4 REBAR WITH PLASTIC CAP, LS 14823
	SET PK NAIL & SHINER
	FOUND SECTION CORNER AS DESCRIBED
	UTILITY EASEMENT
	U & DE UTILITY & DRAINAGE EASEMENT

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SECTION: 5
TOWNSHIP: 7N
RANGE: 68 W of the 6th PM

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200 South College Avenue, Suite 10
Fort Collins, Colorado 80524
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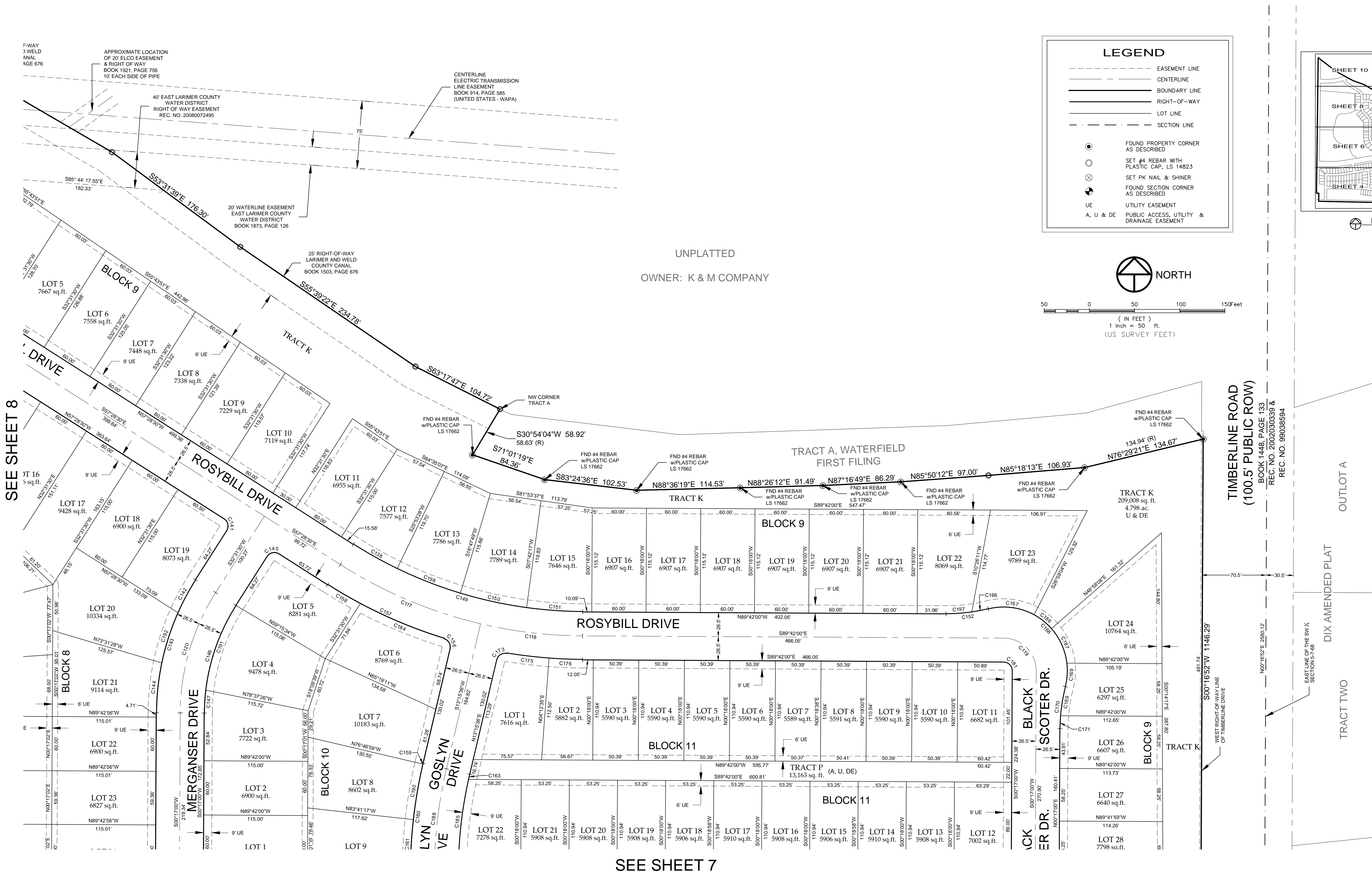
DATE: 12/18/13
PROJECT: 889-001
DESIGNED BY: L. Smith
DRAWN BY: G. Gilliland
REVIEWED BY: G. Gilliland

WATERFIELD THIRD FILING
CITY OF FORT COLLINS
STATE OF COLORADO

Sheet
8
Of 10 Sheets

WATERFIELD THIRD FILING

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LEGEND

- EASEMENT LINE
- CENTERLINE
- BOUNDARY LINE
- RIGHT-OF-WAY
- LOT LINE
- SECTION LINE

● FOUND PROPERTY CORNER AS DESCRIBED

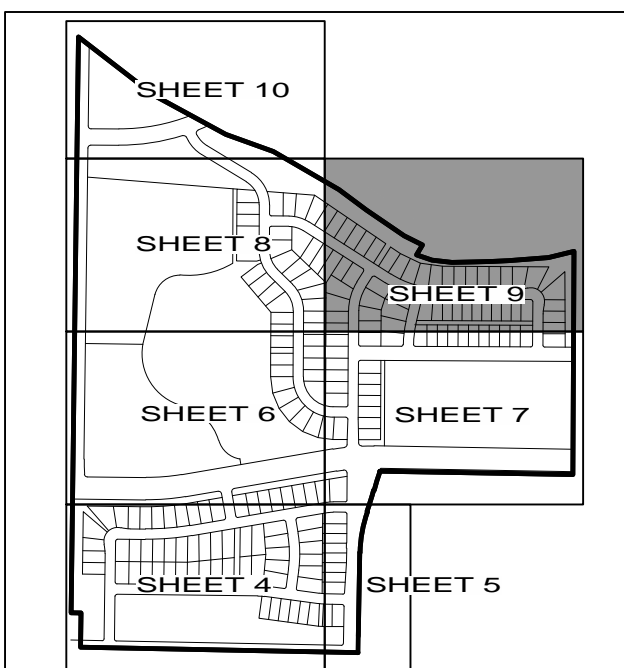
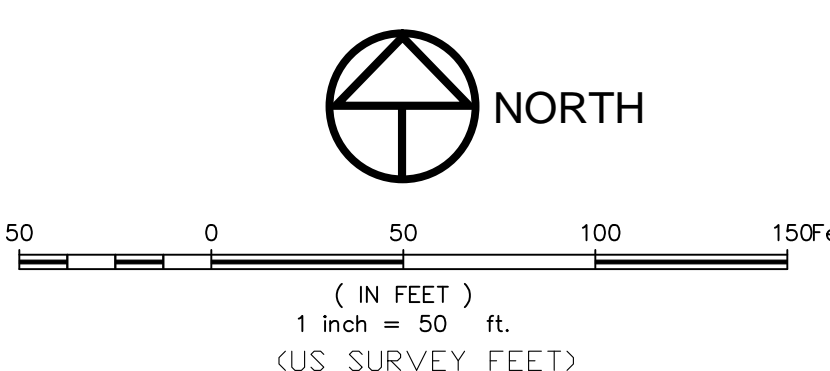
○ SET #4 REBAR WITH PLASTIC CAP, LS 14823

⊗ SET PK NAIL & SHINER

● FOUND SECTION CORNER AS DESCRIBED

UE UTILITY EASEMENT

A, U & DE PUBLIC ACCESS, UTILITY & DRAINAGE EASEMENT



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SECTION: 5

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200 South College Avenue, Suite 10 Fort Collins, Colorado 80524

DATE: 12/18/13

PROJECT: 889-001

DESIGNED BY:

REVIEWED BY: L. Smith

DRAWN BY:

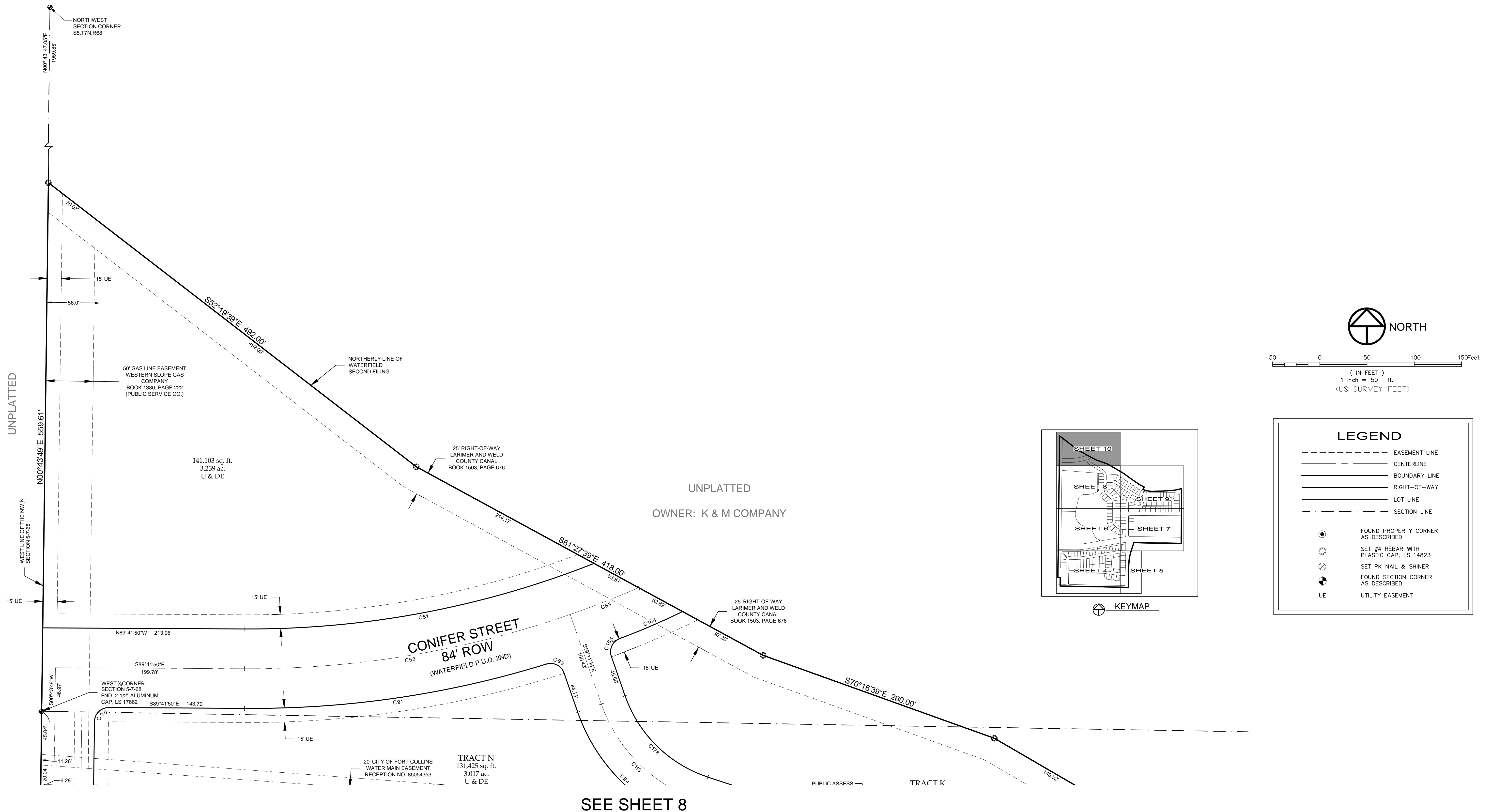
WATERFIELD THIRD FILING

CITY OF FORT COLLINS

STATE OF COLORADO

WATERFIELD THIRD FILING


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200 South College Avenue, Suite 10
Fort Collins, Colorado 80524

12/18/13

SCALE:
1"=50'

REVIEWED BY:
G. Gilliland

889-001

DESIGNED BY:

DRAWN BY:
L. Smith

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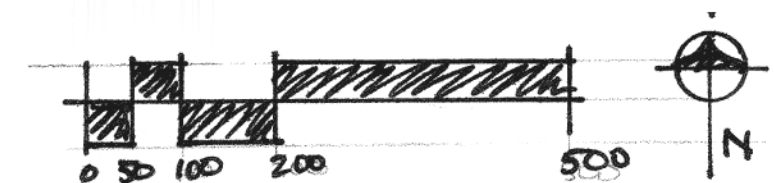
Sheet

10
Of 10 Sheets

Waterfield PDP

Site Plan

01.30.14



Neighborhood Meeting Summary

Project: Waterfield Overall Development Plan and Phase One P.D.P.

Date: May 30, 2013

Applicant: Curly Rishell, Parker Land Investments
Jim Dullea, Parker Land Investments

Consultant: Linda Ripley, Ripley Design
Matt Delich, Delich and Associates
Cody Snowden, Northern Engineering

Planner: Ted Shepard, Chief Planner, C.D.N.S.

The meeting began with a description of the proposed project. This is a request to subdivide the 117 acres located generally on the northwest corner of East Vine Drive and Timberline Road. The project would wrap around the north and west sides of the existing Bull Run Apartments. The project does not include the Plummer School.

The site contains two zone districts. The Low Density Mixed-Use Neighborhood zone contains approximately 38 acres and is proposed for 178 single family detached homes and 16 single family attached homes. The Medium Density Mixed-Use Neighborhood contains approximately 13 acres and is planned for multi-family housing with an estimated number of 216 dwelling units.

The overall site also contains land area for a future public elementary school (approximately ten acres) and a future public neighborhood park (approximately six acres). There are existing wetlands on the parcel. Waterfield was originally approved in 1997 and amended in 2003. Both of these plans have expired. The project would be developed in phases.

Questions, Concerns, Comments

1. What about the wetlands? I have lived in the area and seen the wetlands range in size from small to large depending on whether it's a dry year or a wet year. During the wet years, the wetlands provide a wildlife benefit. The size of the wetlands should be indicated on your plans.
- A. We will have the wetland boundary delineated by a professional ecologist, Cedar Creek and Associates, using the most sound scientific criteria. The size of the wetland will indeed be indicated because its size forms the basis for establishing

the extent of the 100-foot buffer. Please note that we do not intend to fill the wetland but rather enhance the quality with additional plants to promote wildlife habitat.

2. Traffic is an issue in this part of town primarily due to the congestion caused by the railroad crossings at Lemay/Vine and Timberline/Vine. You can't count on the future easterly extension of Conifer to relieve this congestion because Conifer would have to cross the Weiss's property and the horse pasture and the Weiss's are not planning on developing their land anytime soon.
 - A. You are correct. The two north – south streets that you mention are impacted by the train crossings. And, there is no definite timeframe for the extension of Conifer. These conditions will be factored into the Transportation Impact Study that will be required to be submitted to the City for evaluation. Part of the solution to the train crossings is to construct "New Vine" about one-quarter mile north of existing Vine Drive which will have the effect of pulling the intersections further away from the railroad tracks.
3. The Timberline crossing of the railroad tracks is very rough and needs to be improved. Its present condition is unacceptable and in no shape to handle the new Waterfield traffic.
 - A. That is correct, the crossing is very rough. The City has made the railroad aware of the problem and the railroad indicated they would make the necessary improvements.
4. Will there be a traffic study?
 - A. Response from Matt Delich: Yes, the traffic study will begin with obtaining traffic counts on the affected roads. The counts will be taken while school is in session. The City requires a study to include two projections – one for the short term (2018) and one for the long term (2035). The study will analyze the impact at the following intersections:
 - East Vine and Timberline
 - East Vine and Lemay
 - East Vine and Merganser
5. Until "New Vine" is constructed and Conifer is extended, what are the access points for this project?
 - A. Regardless of the timing of these future roads, there will be four points of access; two on East Vine and two on Timberline.
6. How far west will Waterfield extend "New Vine"?

- A. "New Vine would be extended to the west property line.
7. Obviously traffic will increase due to this project. Are there any plans to install a traffic signal at East Vine and Timberline? It seems as if the congestion level calls for a new signal.
- A. Part of our Transportation Impact Analysis will be to estimate the number of trips generated by this project and the direction these trips will go and the impact on the roadways at the peak times of day. We will evaluate whether or not a signal is warranted at this intersection and make a finding accordingly.
8. Will there be turn lanes on Timberline north of East Vine Drive?
- A. The necessity of turn lanes will be a part of our analysis. Just like traffic signals, turn lanes need to meet established criteria in order to be recommended for installation.
9. What is the significance of the year 2018 in terms of the traffic study?
- A. This is a design year specified by the City Traffic Operations Department and considered to be a short term analysis. For each of the five years, the background traffic is adjusted based on projected increase in surrounding area.
10. When will "New Vine" be fully constructed?
- A. Since this road is planned to be built by developers as growth occurs instead of one, single, City-funded capital project, there really is no time table.
11. As to growth in general and new residential subdivisions in particular, I'm very concerned about the shifting of water from agriculture to domestic water taps. This area is part of Northern Colorado that benefits from a reliable water supply and an existing network of irrigation ditches. Not all of our region enjoys these attributes. It seems like a misallocation of resources, therefore, to remove irrigated crop land and replace with a subdivision. Water is needed for agriculture which produces food. Houses, on the other hand, simply consume water for the life of the house. We should be building up our urban area and not out into the farm land.
12. What about the vacant land to the west? It seems we are leap-frogging over vacant land as growth approaches the fringe of the city.
13. What about design? Are the multi-family buildings designed?
- A. No, these buildings will be designed by the multi-family developer at a future phase. The maximum height is three stories.

14. What is the maximum height of the single family houses?

A. These houses can be up to 2.5 stories in height.

15. When do you plan on beginning the project?

A. We anticipate that it will take about 9 – 12 months to complete the City's entitlement process and then we would begin with earth work.

16. What is the average lot size?

A. We are looking at lots that would be around 7,000 (plus or minus) square feet. There would be some variety due to the lots where the streets curve. Lot widths would be around 60 feet and lot depth would vary. We are seeking to provide a versatile lot size that is desired by the area builders that would accommodate most of the popular house models.

17. What about average selling price?

A. The selling price has not been determined yet.

18. What about drainage? Where does the water go?

A. Originally, with the previously approved plan, most of the stormwater drained to the southwest into the wetlands. This may still be the case but now, water quality measures must be installed to pre-treat the runoff before entering the wetlands.

19. What about the existing ditch on the west side of Merganser?

A. This ditch is not needed and we plan on filling it.

20. What do you estimate the build-out period to be?

A. We think a project of this size would take two to three years to complete.

21. Can we object to the number of proposed houses?

A. We are required by the L-M-N zoning to provide a minimum of four dwelling units per acre. We are required by the M-M-N zoning to provide a minimum of seven units per acre.

22. We farm the property to the west and we are very concerned about having a residential subdivision next to our farming operation. We are concerned that there may be complaints about use of our tractors, dust, aerial spraying, use of pesticides and other aspects of farming. We are concerned about trespassing onto our property. We are concerned about loose dogs. We would like the

developer to provide a fence along our east property line so these issues can be addressed. We agree with the previous comment about desiring fewer homes.

A. We are willing to discuss providing a fence.

23. Will there be any type of subsidy for low income persons or families?

A. No. the homes will be priced at the prevailing market rate.

24. Remind me again why "New Vine" is shifted about one-quarter mile north from then present alignment?

A. This proposed alignment is to pull the road away from the railroad tracks. And, if overpasses are constructed for Lemay and Timberline to go over the tracks, the new alignment is far enough north for these roads to come back down to grade level.

WATERFIELD
TRANSPORTATION IMPACT STUDY

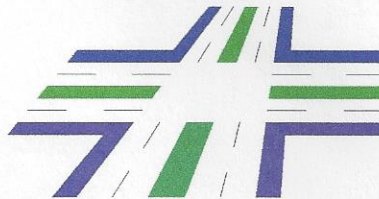
FORT COLLINS, COLORADO

DECEMBER 2013

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Project # 1334

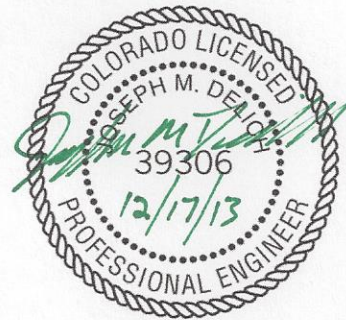


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APPENDICES

- A. Base Assumptions Form
- B. Peak Hour Traffic Counts
- C. Current Peak Hour Operation/Level of Service Descriptions/Fort Collins Motor Vehicle LOS Standards (Intersections)
- D. Signal Warrants
- E. Short Range (2018) Background Peak Hour Operation
- F. Long Range (2035) Background Peak Hour Operation
- G. Short Range (2018) Total Peak Hour Operation
- H. Long Range (2035) Total Peak Hour Operation
- I. Pedestrian/Bicycle Level of Service Worksheets

I. INTRODUCTION

This transportation impact study (TIS) addresses the capacity, geometric, and control requirements at and near the proposed Waterfield development. The proposed Waterfield site is located north of Vine Drive and east of Timberline Road in Fort Collins, Colorado. Waterfield is a residential development with a neighborhood park, school, and neighbor center.

During the course of the analysis, numerous contacts were made with the owner (Parker Land Investors), the project engineer (Northern Engineering), the project planning consultant (Ripley Design), Fort Collins Traffic Engineering, and Fort Collins Transportation Planning. The Transportation Impact Study Base Assumptions form and related documents are provided in Appendix A. This study generally conforms to the format set forth in the Fort Collins TIS Guidelines in the “Larimer County Urban Area Street Standards” (LCUASS). Due to the trip generation, this is a full transportation impact study. The study involved the following steps:

- Collect physical, traffic, and development data;
- Perform trip generation, trip distribution, and trip assignment;
- Determine peak hour traffic volumes;
- Conduct capacity and operational level of service analyses on key intersections;
- Analyze signal warrants;
- Conduct level of service evaluation of pedestrian, bicycle, and transit modes of transportation

This TIS is a revision of the “Waterfield Transportation Impact Study” dated November 2013. The revised TIS addresses Fort Collins staff comments.

II. EXISTING CONDITIONS

The location of the Waterfield development is shown in Figure 1. It is important that a thorough understanding of the existing conditions be presented.

Land Use

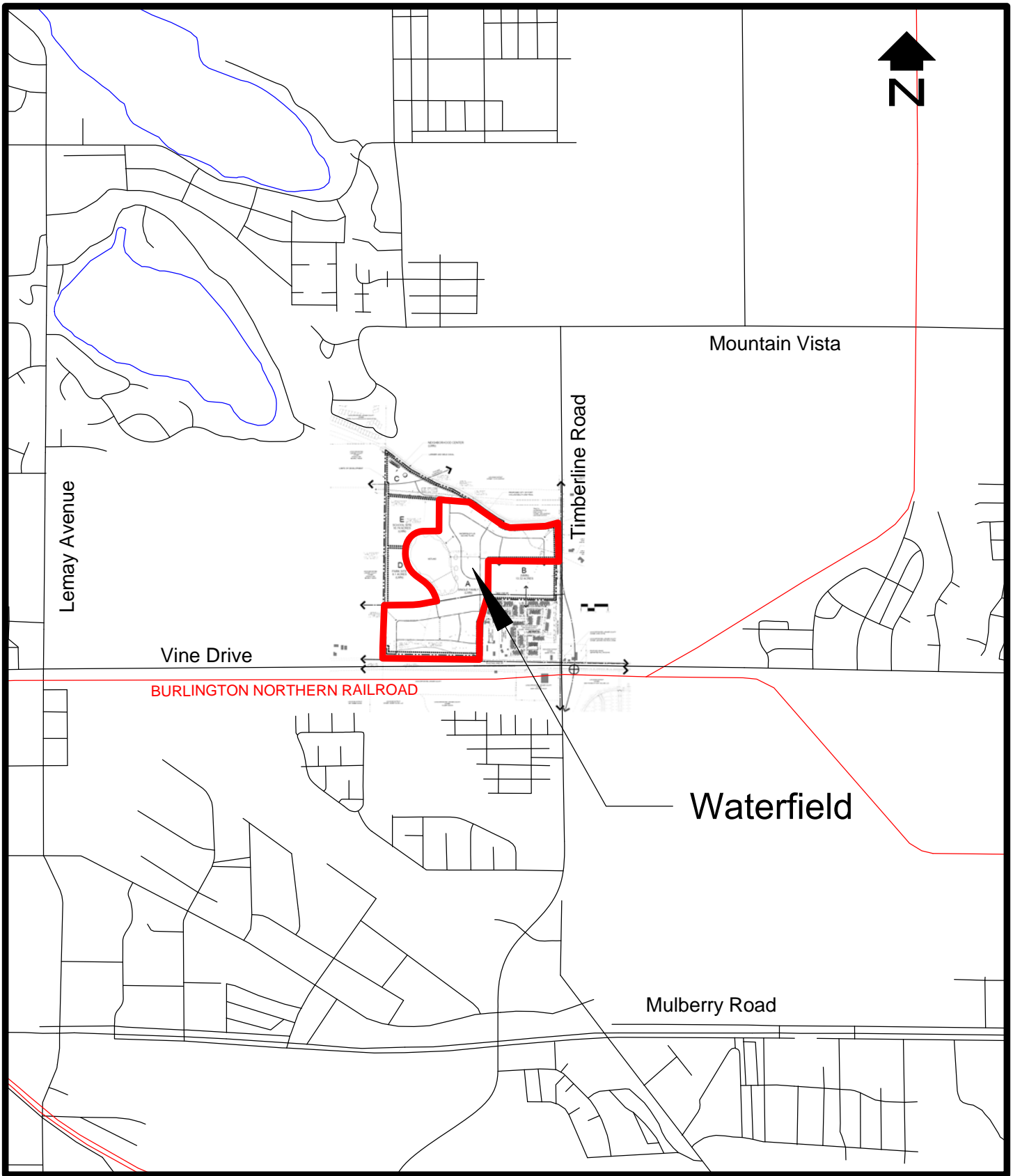
Land uses in the area are primarily residential, industrial, and agricultural/open. There are residential uses to the south and southeast of the site. There are industrial uses to the south of the site. There are agricultural/open space uses to the west, east, and north of the site. The proposed Waterfield site is currently vacant. The center of Fort Collins lies to the southwest of the proposed Waterfield site.

Streets

The primary streets near the Waterfield site are Timberline Road, Vine Drive, Lemay Avenue, and Merganser Drive. Figure 2 shows a schematic of the existing geometry at the Timberline/Vine, Vine/Bull Run Access, Vine/Merganser, and Lemay/Vine intersections. Timberline Road is to the east of (adjacent to) the proposed Waterfield site. It is a north-south street classified as a four-lane arterial according to the Fort Collins Master Street Plan. Currently, Timberline Road has a two-lane cross section in this area. At the Timberline/Vine intersection, Timberline Road has all movements combined into a single lane. The Timberline/Vine intersection has all-way stop control. The posted speed limit in this area of Timberline Road is 35 mph, south of Vine Drive, and 45 mph, north of Vine Drive.

Vine Drive is to the south of (adjacent to) the proposed Waterfield site. It is an east-west street classified as a two-lane collector according to the Fort Collins Master Street plan. Currently, Vine Drive has a two-lane cross section. At the Timberline/Vine intersection, Vine Drive has all movements combined into a single lane. At the Vine/Bull Run Access intersection, Vine Drive has all movements combined into a single lane. At the Vine/Merganser intersection, Vine Drive has all movements combined into a single lane. At the Lemay/Vine intersection, Vine Drive has an eastbound and a westbound left-turn lane and a through/right-turn lane in each direction. The Vine/Bull Run Access and Vine/Merganser intersections have stop sign control on the Bull Run Access and Merganser Drive, respectively. The Lemay/Vine intersection has signal control. The posted speed limit in this area of Vine Drive is 45 mph, east of Lemay Avenue and 35 mph, approaching the Lemay/Vine intersection.

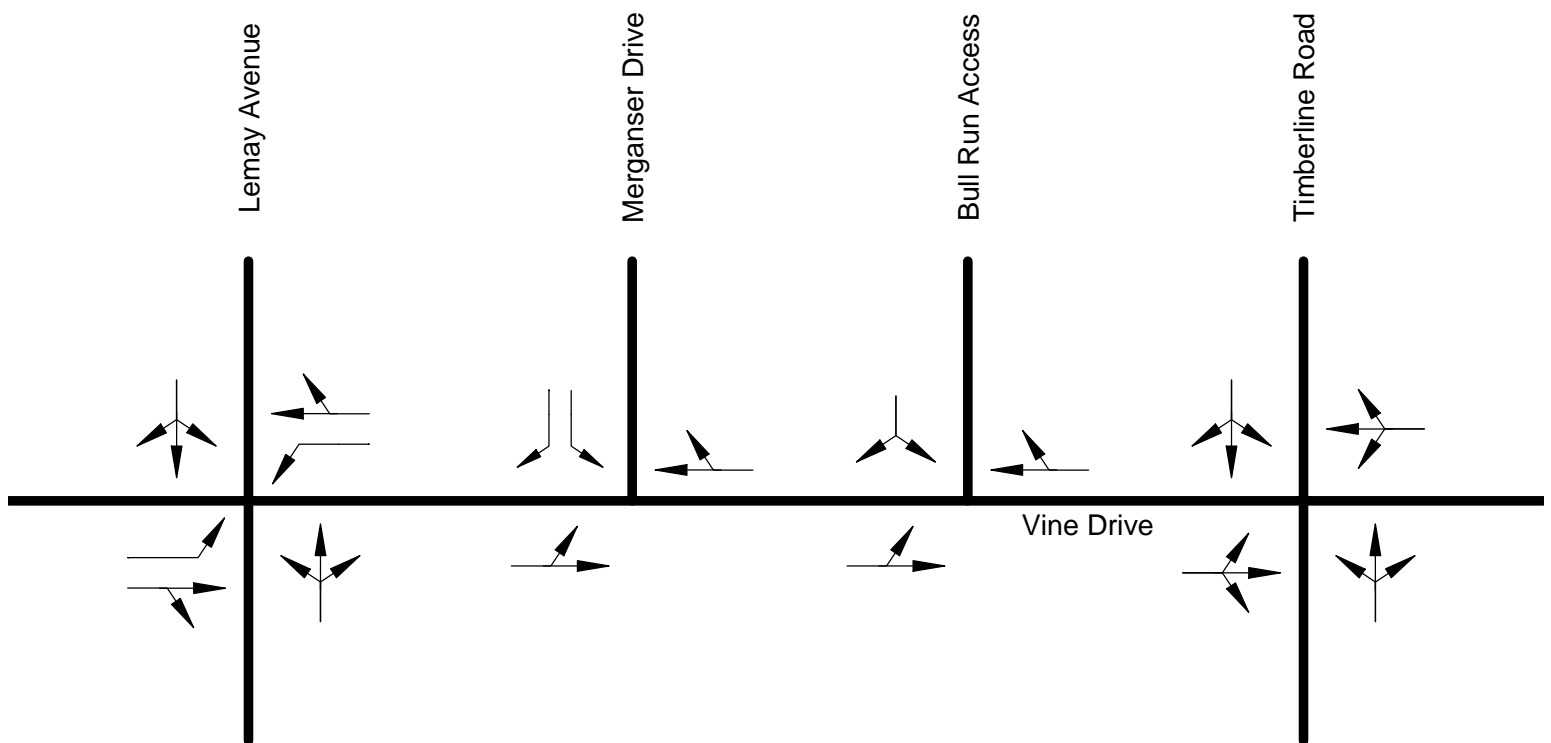
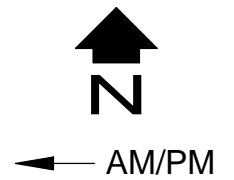
Merganser Drive is to the east of (adjacent to) the proposed Waterfield site. It is a north-south street classified as a local according to the Fort Collins Master Street plan. Merganser Drive only has a north leg at the Vine/Merganser intersection. Currently, Merganser Drive has a two-lane cross section with parking on both sides of



SCALE: 1"=2000'

SITE LOCATION

Figure 1



EXISTING GEOMETRY

Figure 2

the street. At the Vine/Merganser intersection, Merganser Drive has no striping. However, it was observed to operate as a southbound left-turn lane and southbound right-turn lane. The posted speed limit in this area on Merganser Drive is 25 mph.

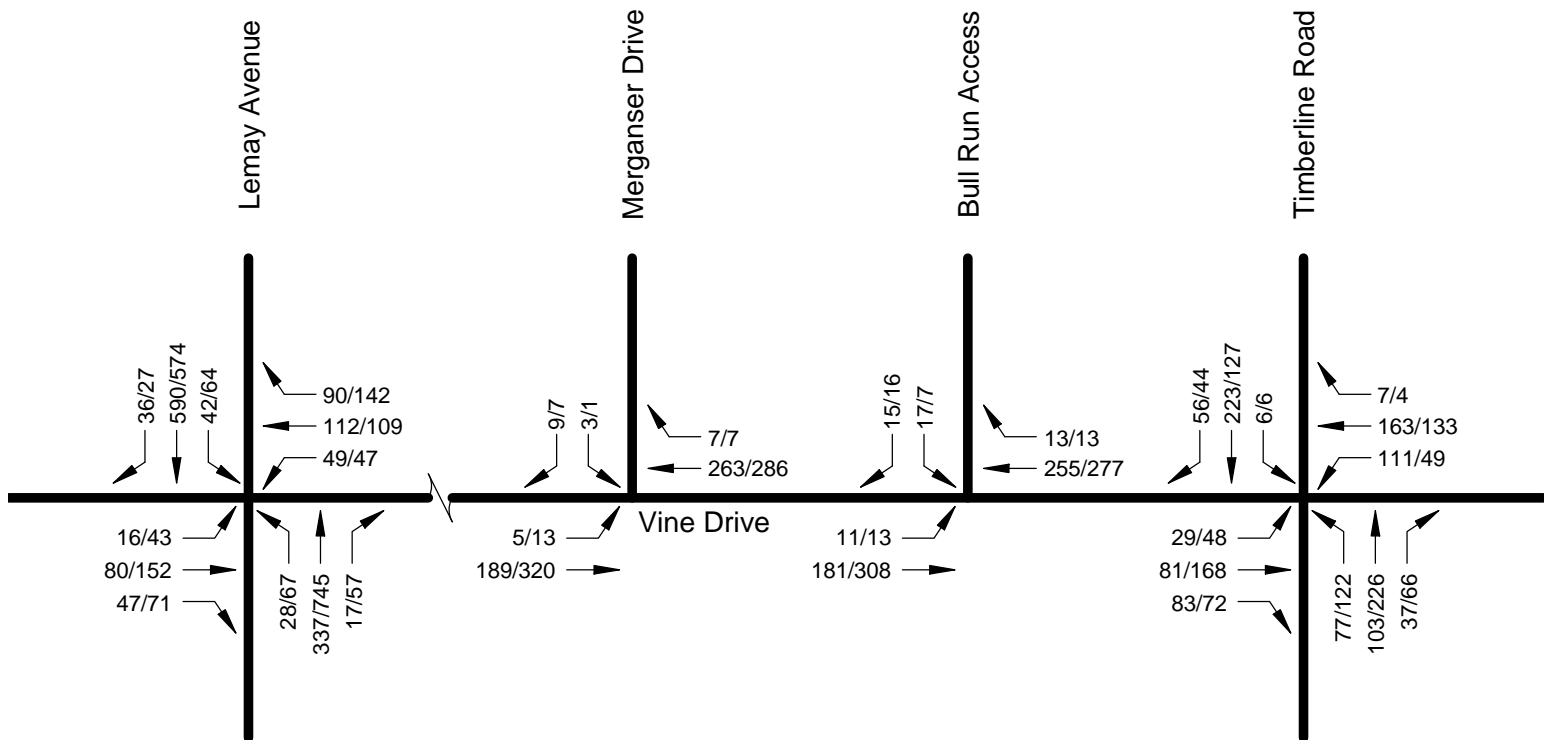
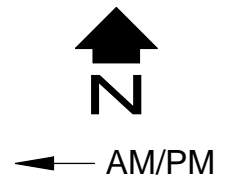
Lemay Avenue is to the west of the proposed Waterfield site. It is a north-south street classified as a four-lane arterial according to the Fort Collins Master Street plan. Currently, Lemay Avenue has a two-lane cross section. At the Lemay/Vine intersection, Lemay Avenue has all movements combined into a single lane. The posted speed limit in this area of Lemay Avenue is 35 mph, north of Vine Drive and 30 mph, south of Vine Drive.

Existing Traffic

Recent morning and afternoon peak hour traffic volumes are shown in Figure 3. The traffic counts at the Timberline/Vine, Vine/Bull Run Access, and Vine/Merganser intersections were obtained in May 2013 while school was in session. The traffic counts at the Lemay/Vine intersection were obtained in August 2012 by the City of Fort Collins. Raw traffic count data are provided in Appendix B. Since the counts were done on different days, the counts were adjusted/balanced. The adjusted/balanced recent peak hour traffic is shown in Figure 4.

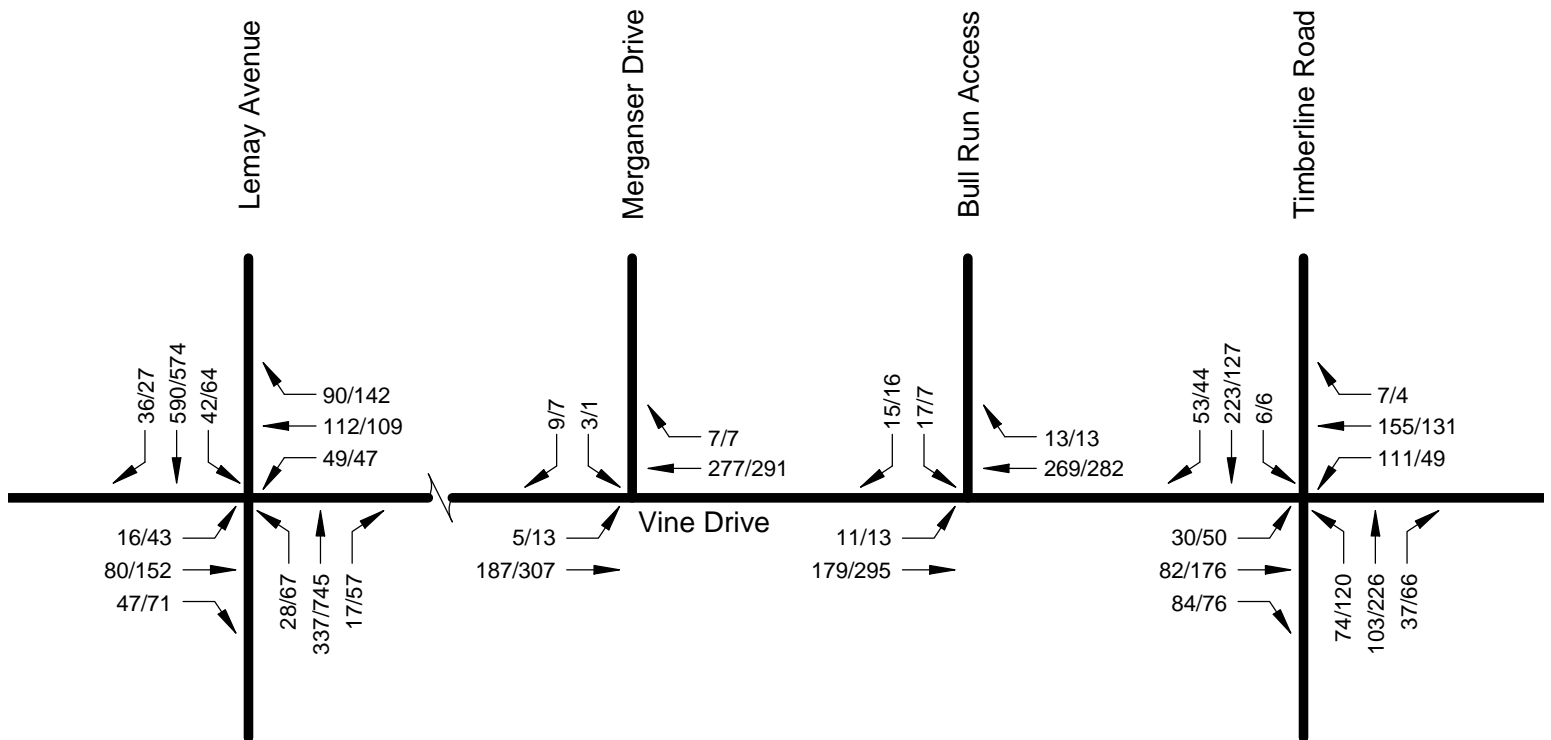
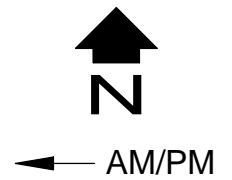
Existing Operation

The Timberline/Vine, Vine/Bull Run Access (for information only), Vine/Merganser, and Lemay/Vine intersections were evaluated using techniques provided in the 2010 Highway Capacity Manual and 2000 Highway Capacity Manual. Using the morning and afternoon peak hour traffic shown in Figure 4, the peak hour operation is shown in Table 1. Calculation forms are provided in Appendix C. The key intersections are currently operating acceptably with existing control and geometry in the morning and afternoon peak hours. A description of level of service for signalized and unsignalized intersections from the 2010 Highway Capacity Manual and a table showing the Fort Collins Motor Vehicle LOS Standards (Intersections) are also provided in Appendix C. This site is in an area termed “low density mixed use residential” on the Fort Collins Structure Plan. In areas termed “low density mixed use residential,” acceptable overall operation at signalized intersections during the peak hours is defined as level of service D or better. At signalized intersections, acceptable operation of any leg and any movement is level of service D. At arterial/collector and arterial/local stop sign controlled intersections, acceptable operation is considered to be at level of service F for any approach leg, which is considered to be normal in an urban environment. At collector/local stop sign controlled intersections, acceptable operation is considered to be at level of service C for any approach leg. The Lemay/Vine intersection is in an area termed “commercial corridor” on the Fort Collins Structure Plan. In this area, acceptable operation at signalized intersections during the peak hours is defined as level of service D or better for the overall intersection, and level of service E or better for any leg or movement.



RECENT PEAK HOUR TRAFFIC

Figure 3



ADJUSTED/BALANCED RECENT PEAK HOUR TRAFFIC

Figure 4

TABLE 1 Current Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Timberline/Vine (stop sign)	EB LT/T/RT	B	C
	WB LT/T/RT	C	B
	NB LT/T/RT	B	D
	SB LT/T/RT	C	B
Vine/Bull Run (stop sign)(For information only)	EB LT/T	A	A
	SB LT/RT	B	B
Vine/Merganser (stop sign)	EB LT/T	A	A
	SB LT	B	B
	SB RT	B	A
	SB APPROACH	B	B
Lemay/Vine (signal)	EB LT	D	D
	EB T/RT	D	D
	EB APPROACH	D	D
	WB LT	D	D
	WB T/RT	D	D
	WB APPROACH	D	D
	SB LT/T/RT	A	A
	NB LT/T/RT	A	A
	OVERALL	B	B

Pedestrian Facilities

There are sidewalks along Timberline Road and Vine Drive along the Bull Run development. There are sidewalks along both sides of Merganser Drive. It is expected that as properties in this area are developed or redeveloped, sidewalks will be installed as part of the street/property infrastructure.

Bicycle Facilities

Bicycle lanes exist along Timberline Road, Vine Drive, and Lemay Avenue within the study area.

Transit Facilities

Currently, this area of Fort Collins is not served by Transfort. The closest routes are Route 8, at the Lemay/Vine intersection and Route 4, at the Timberline/Donella intersection.

III. PROPOSED DEVELOPMENT

The Waterfield is a mixed use development with 191 single family dwelling units, 225 apartments, a school, park, and a neighborhood commercial center. Figure 5 shows a site plan of the Waterfield development. The short range analysis (Year 2018) includes the development of the 191 single family dwelling units (the area outlined in Figure 5) and an appropriate increase in background traffic due to normal growth and other potential developments in the area. This development will build the future realigned Vine Drive from Timberline Road to the west edge of the property. The long range future analysis year is considered to be 2035 and reflects the future realigned Vine Drive from North College Avenue to the existing Vine Drive to the east. The site plan shows that the residential area north of New Vine Drive will have access to New Vine Drive via Merganser Drive and access to Timberline Road. The residential area south of New Vine Drive will have one access to existing Vine Drive, two accesses to existing Merganser Drive, and one access to New Vine Drive.

Trip Generation

Trip generation is important in considering the impact of a development such as this upon the existing and proposed street system. Trip generation for Single Family Home (Code 210) in Trip Generation, 9th Edition, ITE was used to estimate the trips that would be generated by the proposed Waterfield development in the short range (2018) future. A trip is defined as a one-way vehicle movement from origin to destination. The short range (2018) calculated trip generation is 2010 daily trip ends; 153 morning peak hour trip ends; and 201 afternoon peak hour trip ends. In the long range (2035) trip generation for Elementary School (Code 520), City Park (Code 412), Apartments (Code 220), Day Care (Code 565), and Office (Code 710) in Trip Generation, 9th Edition, ITE was used to estimate the trips that would be generated by the remaining Waterfield development. The long range (2035) calculated trip generation is 4842 daily trip ends; 612 morning peak hour trip ends; and 523 afternoon peak hour trip ends. Table 2 shows the expected trip generation on a daily and peak hour basis.

Trip Distribution

Trip distribution for the Waterfield was based on existing/future travel patterns, land uses in the area, consideration of trip attractions/productions in the area, and engineering judgment. Figure 6 shows the trip distribution for the short range (2018) and long range (2035) analysis futures. The trip distribution was agreed to by City of Fort Collins staff in the scoping meeting.

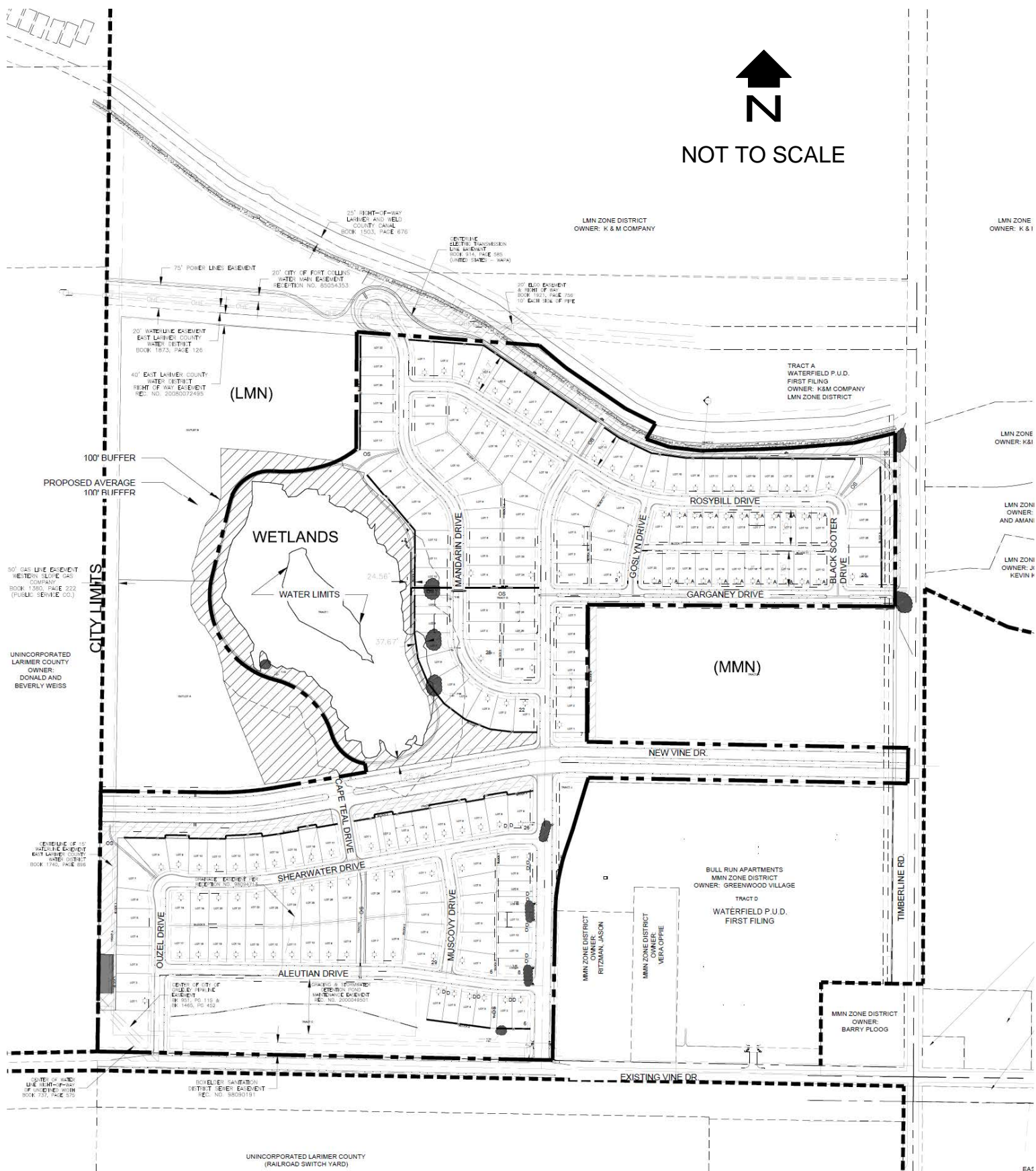
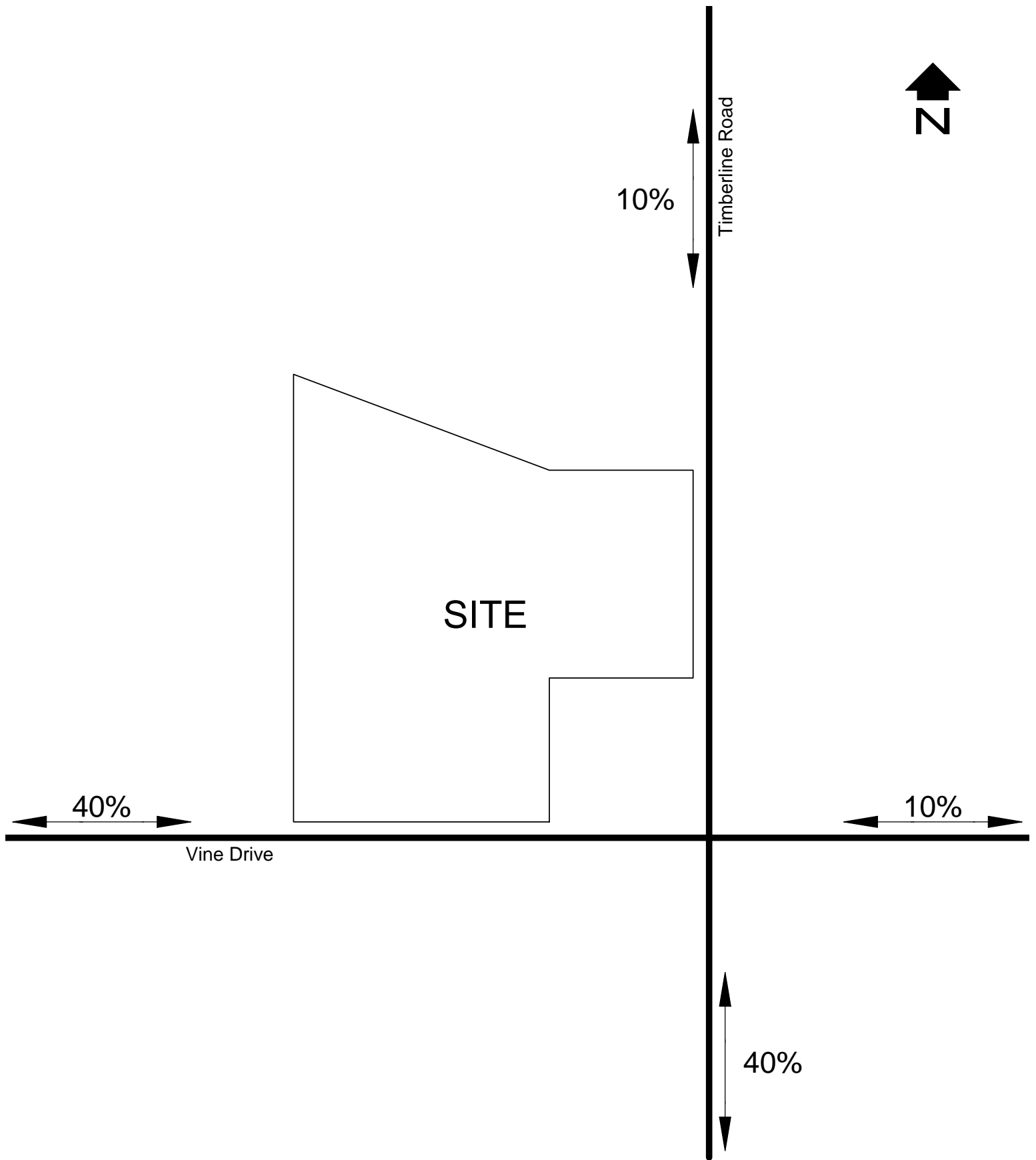


TABLE 2 Trip Generation												
Code	Use	Size	AWDTE		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Rate	Out	Rate	In	Rate	Out
Short Range (Phase 1)												
North of New Vine Drive												
210	Single Family	116 D.U.	Eq.	1204	Eq.	23	Eq.	68	Eq.	76	Eq.	44
South of New Vine Drive												
210	Single Family	75 D.U.	Eq.	806	Eq.	15	Eq.	47	Eq.	51	Eq.	30
Short Range Total				2010		38		115		127		74
Long Range												
520	Elementary School	500 Students	1.29	646	0.25	125	0.20	100	0.07	35	0.08	40
412	City Park	8.1 Acres	2.28	18	0.012	0	0.008	0	0.055	1	0.035	0
220	Parcel B -Apartments	225 D.U.	Eq.	1488	Eq.	23	Eq.	91	Eq.	81	Eq.	43
565	Parcel C –Day Care	130 Students	4.38	570	0.42	55	0.38	49	0.38	49	0.43	56
710	Parcel C -Office	10.0 KSF	11.03	110	1.37	14	0.19	2	0.25	3	1.24	12
Long Range Total				2832		217		242		169		151
Total				4842		255		357		296		225



TRIP DISTRIBUTION

Figure 6

Background Traffic Projections

Figure 7 shows the short range (2018) background peak hour traffic projections. These forecasts assume that the current street network exists in this area. Background traffic projections for the short range were obtained by reviewing the North Front Range Regional Transportation Plan, engineering judgment, and various traffic studies prepared for this area of Fort Collins. Based upon these sources, it was determined that the traffic volumes would increase by approximately 1.5 percent per year. The Lemay/Vine intersection was increased by added to traffic from approved projects in the area that have yet to be built or built out. This data was provided us by Fort Collins City staff.

Figure 8 shows the short range (2018) background peak hour traffic with the connection of New Vine Drive to the Bull Run Development. This graphic reflects a reassignment of selected movements that would likely use New Vine Drive due to an additional access to Bull Run on the north side of that development.

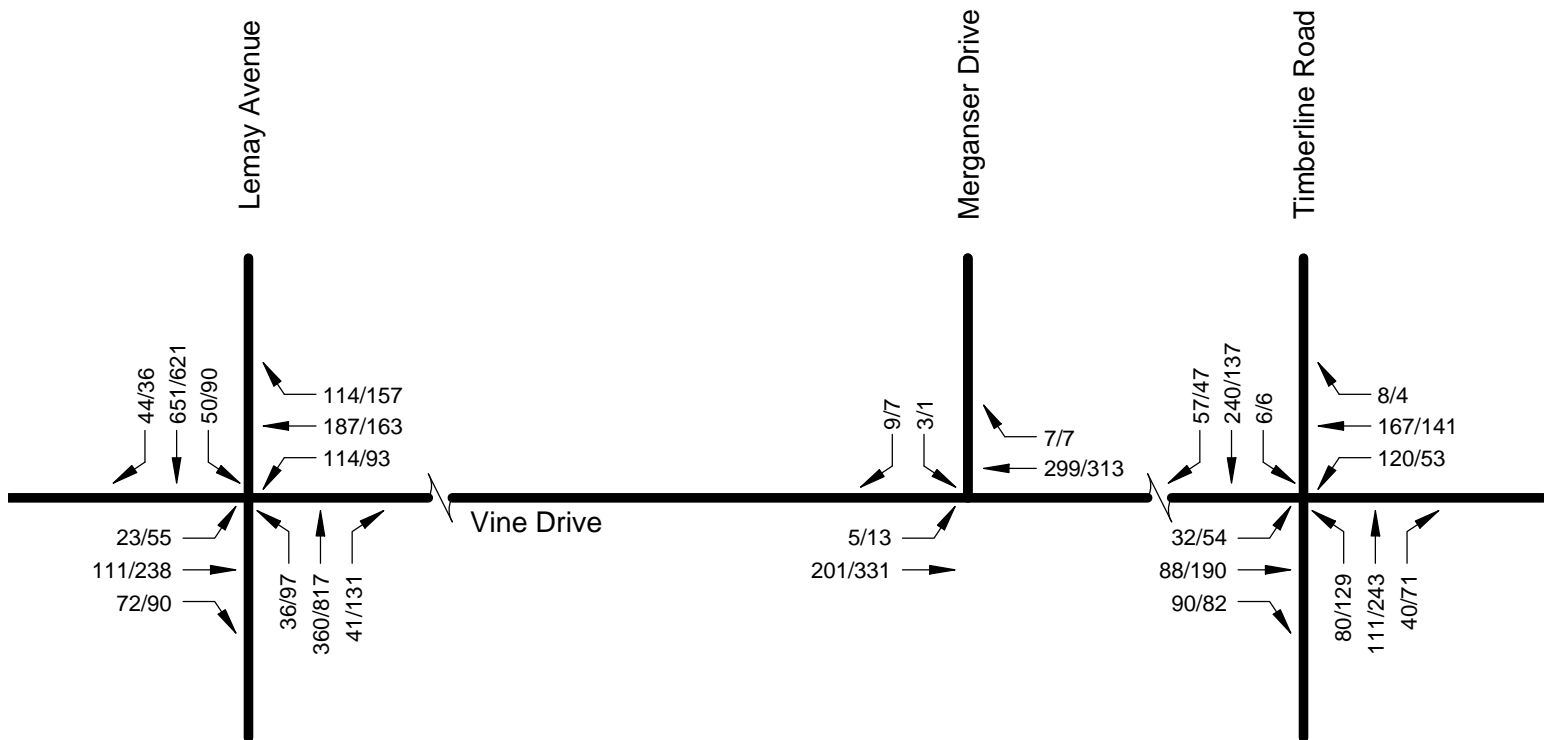
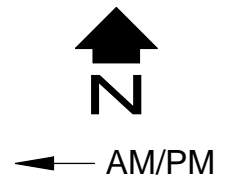
Figure 9 shows the long range (2035) background peak hour traffic projections. This reflects completion of the future Vine Drive, as shown in the Fort Collins Master Street Plan. The Fort Collins Master Street Plan shows Vine Drive as a four-lane arterial street. The traffic forecasts shown in Figure 9 do not indicate the need for a four-lane arterial street by the year 2035. The four-lane arterial street, shown on the Master Street Plan, is due to a potential interchange with I-25 at Vine Drive or other significant development east of I-25. In discussions with various Fort Collins staff, this interchange is not likely to occur by the year 2035, if at all. Significant development, east of I-25, is not likely to occur by 2035.

Trip Assignment

Trip assignment is how the generated and distributed trips are expected to be loaded on the street system. The assigned trips are the resultant of the trip distribution process. Figures 10 and 11 show the respective short range (2018) and long range (2035) site generated peak hour traffic assignment. Figures 12 and 13 show the respective short range (2018) and long range (2035) total (site plus background) peak hour traffic assignment.

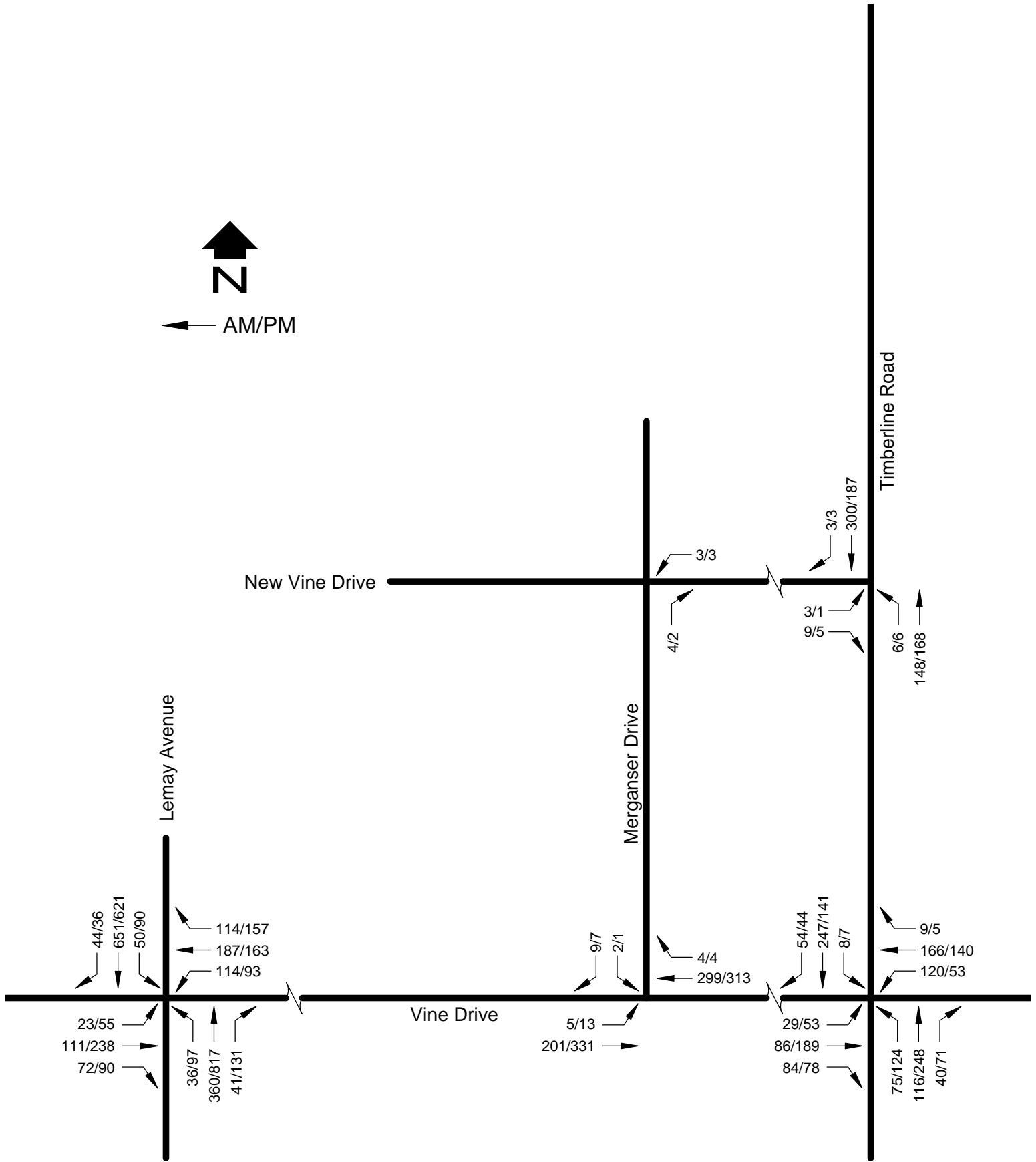
Signal Warrants

As a matter of policy, traffic signals are not installed at any location unless warrants are met according to the Manual on Uniform Traffic Control Devices. For the roads in the vicinity of the Waterfield development, four hour and/or eight hour signal warrants are applicable. These warrants require much data and are applied when the traffic is actually on the area road system. It is acknowledged that peak hour signal warrants should not be applied, but since the peak hour forecasts are readily available in a traffic impact study, it



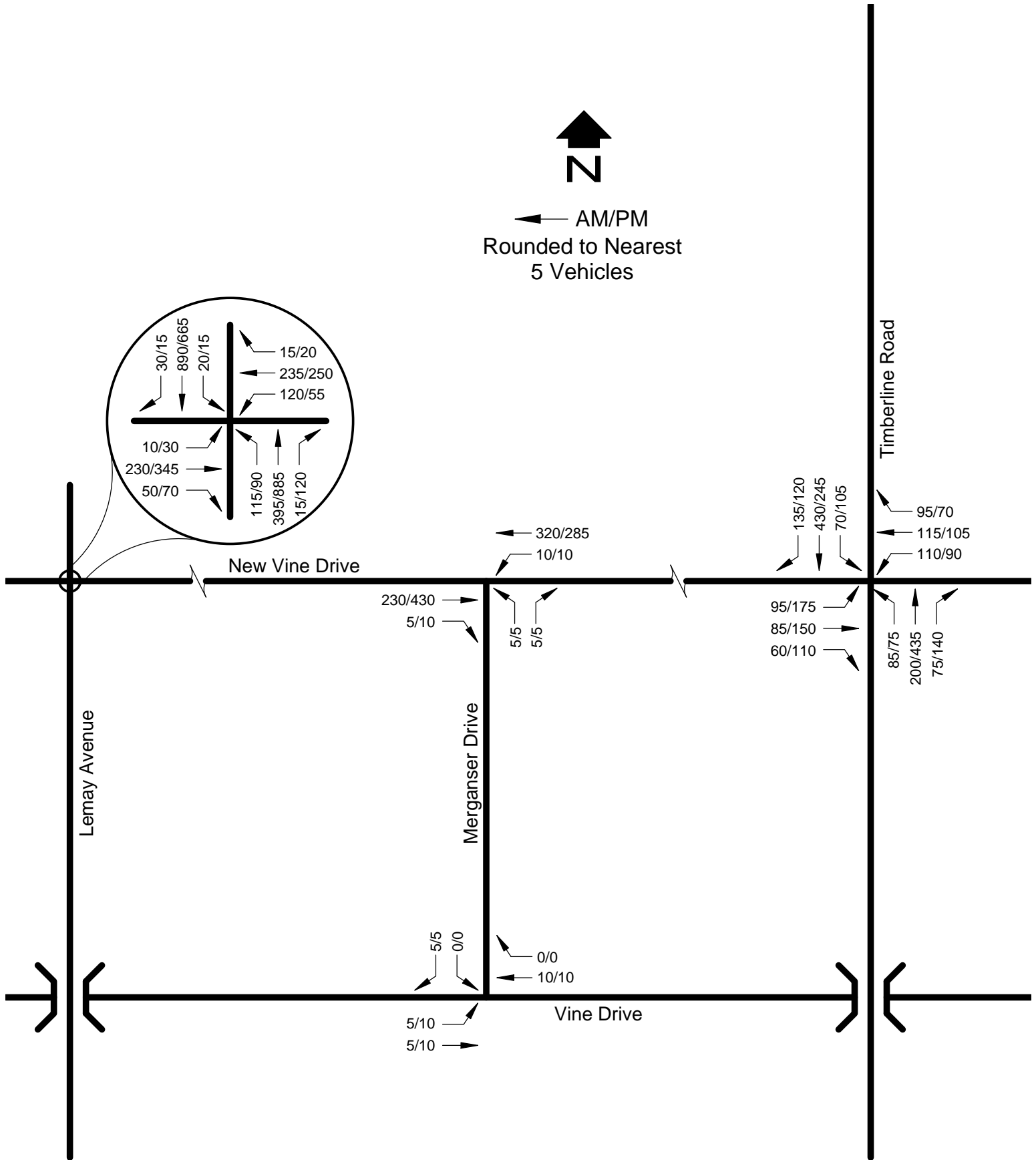
SHORT RANGE (2018) BACKGROUND PEAK HOUR TRAFFIC

Figure 7



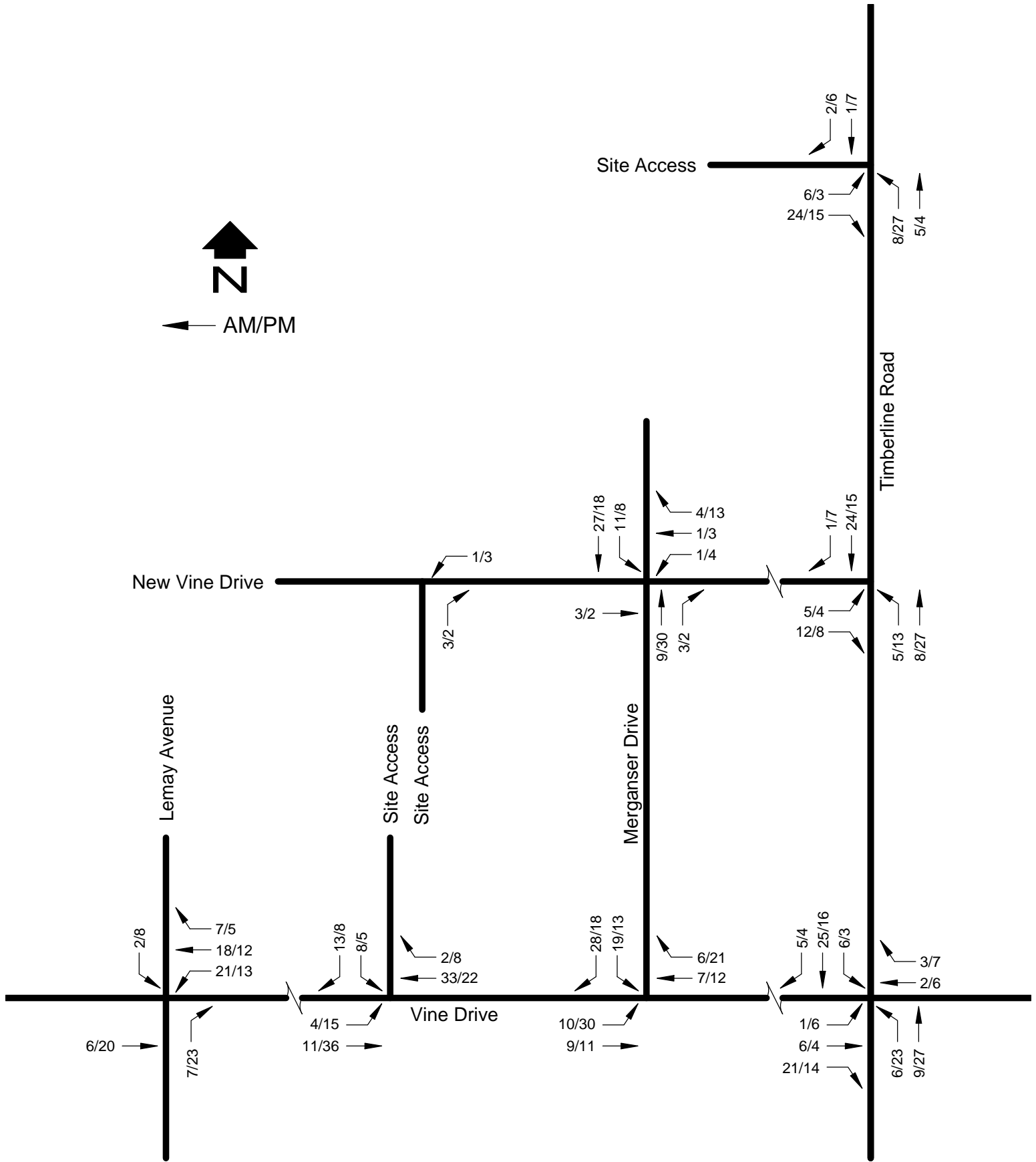
SHORT RANGE (2018) BACKGROUND
 PEAK HOUR TRAFFIC WITH NEW VINE

Figure 8



LONG RANGE (2035) BACKGROUND
PEAK HOUR TRAFFIC

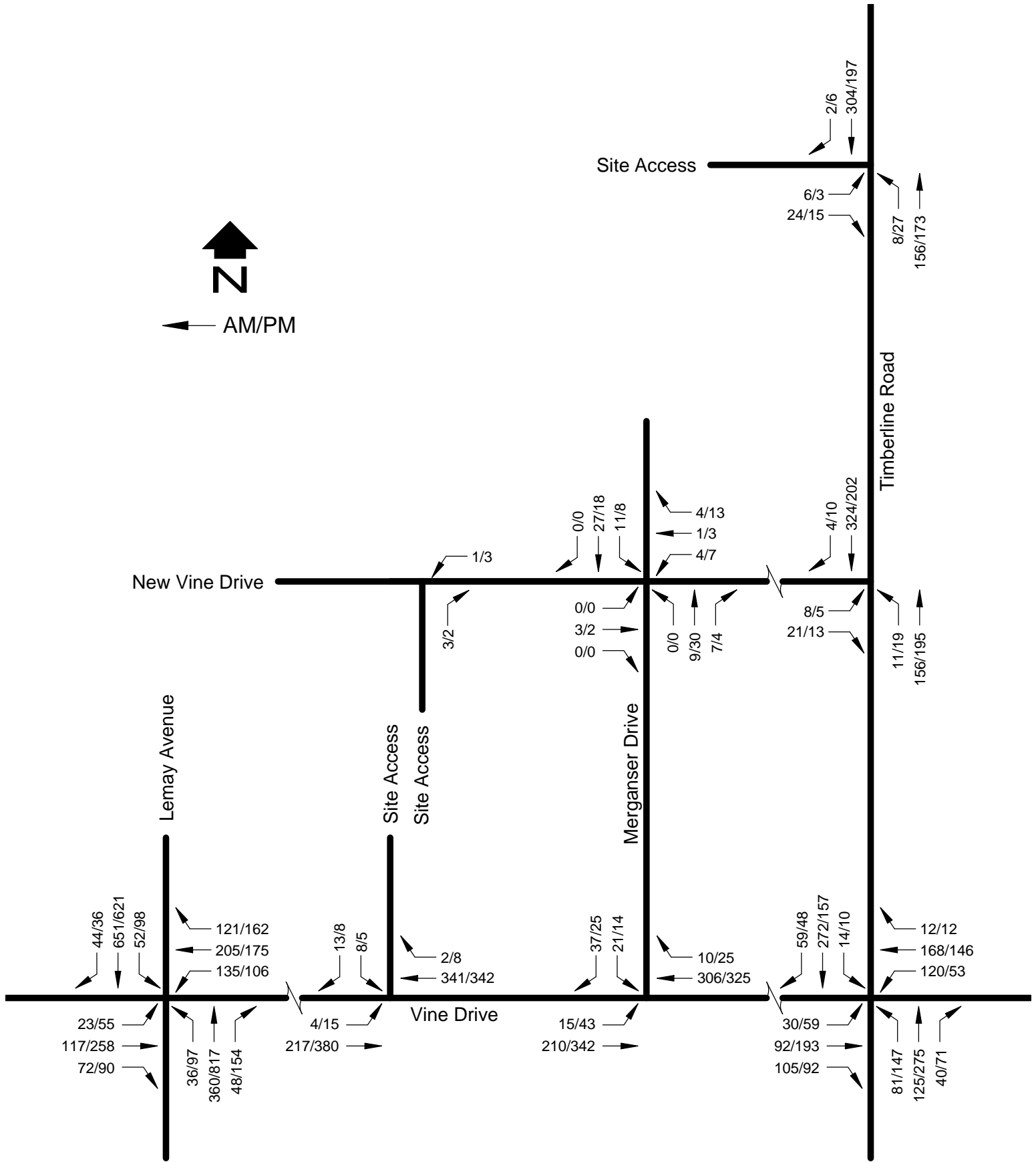
Figure 9



SHORT RANGE (2018) SITE
GENERATED PEAK HOUR TRAFFIC

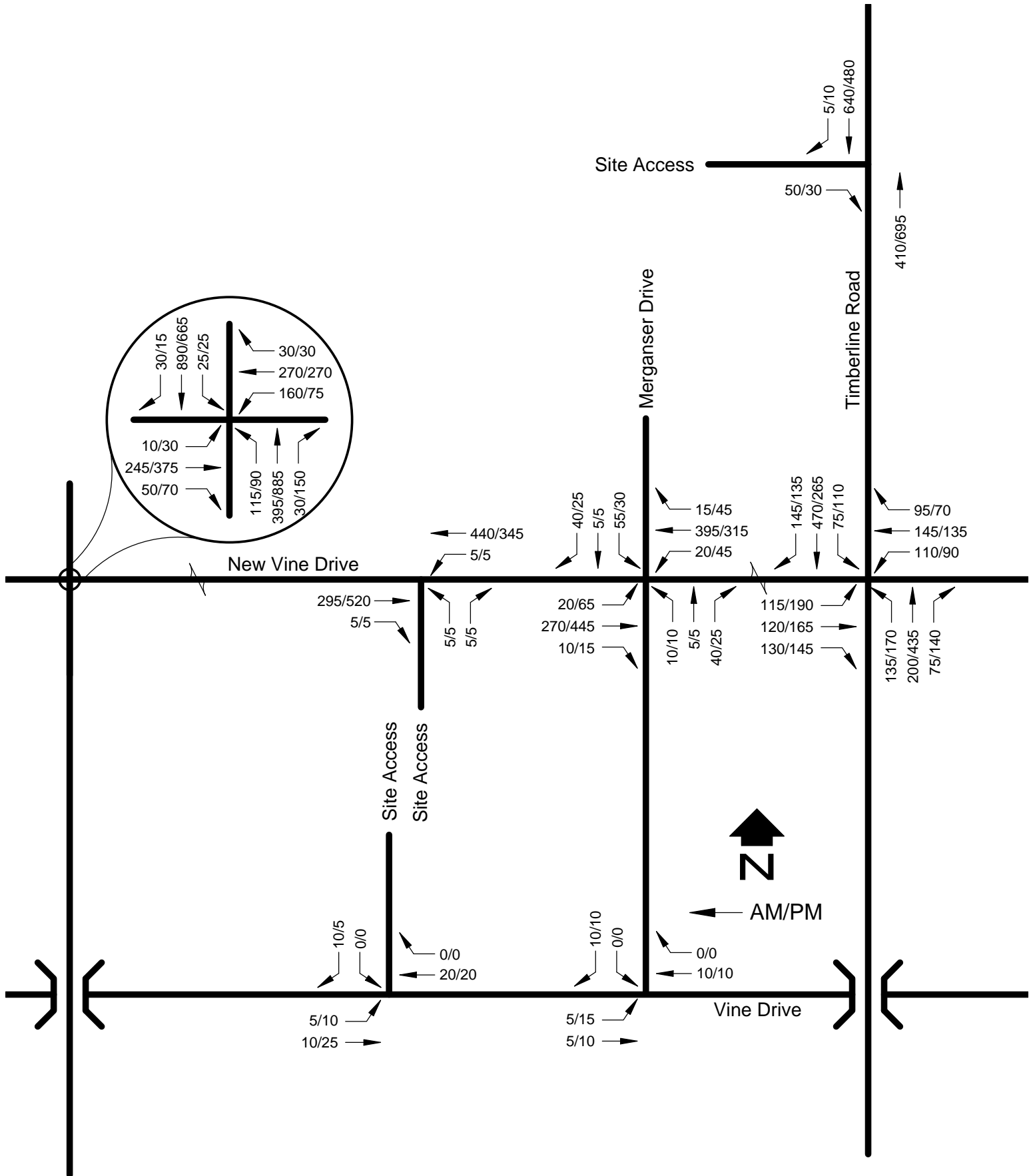
Figure 10

Figure 11



SHORT RANGE (2018) TOTAL
PEAK HOUR TRAFFIC

Figure 12



LONG RANGE (2035) TOTAL
PEAK HOUR TRAFFIC

Figure 13

is reasonable to use them to get an idea whether other signal warrants may be met. If peak hour signal warrants will not be met at a given intersection, it is reasonable to conclude that it is not likely that other signal warrants would be met. If peak hour signal warrants are met, it merely indicates that further evaluation should occur in the future as the development occurs. However, a judgment can be made that some intersections will likely meet other signal warrants.

Using the short range (2018) total peak hour traffic (Figure 12), the peak hour signal warrant will only be met in the afternoon peak hour at the existing Timberline/Vine intersection. However, it is unlikely that other signal warrants will be met in the short range (2018) future. In discussions with City staff, a signal at the existing Timberline/Vine intersection is not desired. Other key unsignalized intersections do not meet signal spacing and will not be signalized. The peak hour signal warrant analyses are provided in Appendix D.

Using the long range (2035) total peak hour traffic (Figure 13), the peak hour signal warrant will likely be met in the morning and afternoon peak hours at the Timberline/New Vine intersection. Based on the peak hour signal warrant, it is likely that other volume based signal warrants would be met at the Timberline/New Vine and the Lemay/New Vine intersections. Therefore, the Timberline/New Vine and the Lemay/New Vine intersections were analyzed with signal control in the long range (2035) future. Other key unsignalized intersections do not meet signal spacing and will not be signalized. The peak hour signal warrant analyses are provided in Appendix D.

Operation Analysis

Capacity analyses were performed at the Timberline/Vine, Vine/Merganser, Vine/Site Access, Timberline/New Vine, Timberline/Site Access, New Vine/Merganser, and New Vine/Site Access intersections. The operations analyses were conducted for the short range and long range futures, reflecting year 2018 and 2035 conditions, respectively.

Using the traffic volumes shown in Figure 7, the Timberline/Vine, Vine/Merganser, and Lemay/Vine intersections operate in the short range (2018) background traffic future as indicated in Table 3. Calculation forms for these analyses are provided in Appendix E. The key intersections will operate acceptably with the existing control and geometry, except for one movement at the Lemay/Vine intersection in the afternoon peak hour. At the Lemay/Vine intersection, the calculated delay for the afternoon peak hour westbound left-turn will be commensurate with level of service F. At the Timberline/Vine intersection, the calculated delay for the afternoon peak hour northbound approach was commensurate with level of service E. This is considered to be normal during the peak hours at stop sign controlled intersections along arterial streets.

Using the traffic volumes shown in Figure 9, the Timberline/New Vine, New Vine/Merganser, Timberline/New Vine, Lemay/New Vine, and Vine/Merganser intersections operate in the long range (2035) background traffic future as indicated in Table 4. Calculation forms for these analyses are provided in Appendix F. The key intersections will operate acceptably.

TABLE 3
Short Range (2018) Background Peak Hour Operation

Intersection	Movement	Level of Service	
		AM	PM
Timberline/Vine (stop sign)	EB LT/T/RT	C	C
	WB LT/T/RT	C	C
	NB LT/T/RT	C	E
	SB LT/T/RT	C	C
Vine/Merganser (stop sign)	EB LT/T	A	A
	SB LT	B	B
	SB RT	B	B
	OVERALL	B	B
Lemay/Vine (signal)	EB LT	D	D
	EB T/RT	D	D
	EB APPROACH	D	D
	WB LT	D	F
	WB T/RT	D	D
	WB APPROACH	D	E
	NB LT/T/RT	A	D
	SB LT/T/RT	B	C
	OVERALL	C	D

TABLE 4 Long Range (2035) Background Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Timberline/New Vine (signal)	EB LT	C	C
	EB T	D	C
	EB RT	A	A
	EB APPROACH	D	C
	WB LT	C	C
	WB T	D	D
	WB RT	A	A
	WB APPROACH	D	C
	NB LT	A	B
	NB T	A	B
	NB RT	A	B
	NB APPROACH	A	B
	SB LT	A	B
	SB T	B	B
	SB RT	A	B
	SB APPROACH	A	B
	OVERALL	B	B
New Vine/Merganser (stop sign)	WB LT	A	A
	NB LT/RT	B	B

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TABLE 4 Long Range (2035) Background Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Lemay/New Vine (signal)	EB LT	D	C
	EB T	D	D
	EB RT	D	C
	EB APPROACH	D	D
	WB LT	C	C
	WB T	D	C
	WB RT	C	C
	WB APPROACH	D	C
	NB LT	B	B
	NB T	B	B
	NB RT	B	B
	NB APPROACH	B	B
	SB LT	B	B
	SB T	B	B
	SB RT	B	B
	SB APPROACH	B	B
	OVERALL	C	C
Vine/Merganser (stop sign)	EB LT/T	A	A
	SB LT	A	A
	SB RT	A	A
	SB APPROACH	A	A

Using the traffic volumes shown in Figure 12, the Timberline/Vine, Vine/Merganser, Vine/Site Access, Lemay/Vine, Timberline/New Vine, New Vine/Merganser, and Timberline/Site Access intersections operate in the short range (2018) total traffic future as indicated in Table 5. Calculation forms for these analyses are provided in Appendix G. The key intersections will operate acceptably with the existing control, except for one movement at the Lemay/Vine intersection in the afternoon peak hour. At the Lemay/Vine intersection, the calculated delay for the afternoon peak hour westbound left-turn will be commensurate with level of service F. A variance request will be submitted with the Waterfield Transportation Impact Study. At the Timberline/Vine intersection, the calculated delay for the afternoon peak hour northbound approach will be commensurate with level of service F. This is considered to be normal during the peak hours at stop sign controlled intersections along arterial streets. Since Future Vine Drive will remove much of the traffic from this intersection, it is recommended that F at the Timberline/Vine intersection be accepted in the short range future. This will be a temporary condition.

Using the traffic volumes shown in Figure 13, the Timberline/New Vine, New Vine/Merganser, New Vine/Site Access, Lemay/New Vine, Vine/Merganser, Vine/Site Access, and Timberline/Site Access intersections operate in the long range (2035) total traffic future as indicated in Table 6. Calculation forms for these analyses are provided in Appendix H. The key intersections will operate acceptably.

Vine/Lemay Adequate Public Facilities

Proposed developments in Northeast Fort Collins are required to address the operation at the Vine/Lemay intersection. This intersection has operational and geometric constraints that may create an adequate public facilities (APF) issue. Succinctly, if this intersection does not meet the overall level of service (LOS) criteria, then a development may add traffic such that the overall intersection delay is not increased by more than 2 percent over the base condition. The intersection falls under the operational criteria of “commercial corridor.” In this area, acceptable operation at signalized intersections during the peak hours is defined as level of service D or better for the overall intersection.

City of Fort Collins Traffic Operations staff has developed the base condition. The base condition is described as the current traffic (2012) plus traffic from those development projects that have a commitment at this intersection. Figure 8 shows the base condition peak hour traffic. Table 3 shows the operation at the Vine/Lemay intersection using the base condition traffic and the 2000 Highway Capacity Manual techniques. In the morning and afternoon peak hours, this intersection meets the overall level of service criteria. Therefore, under the base condition, there is not an APF issue at this intersection.

Figure 12 shows the base condition plus the site traffic at the Vine/Lemay intersection. Table 5 shows the base condition plus site traffic operation at the Vine/Lemay intersection. In the morning and afternoon peak hours, this intersection continues to meet the overall level of service criteria. Therefore, there is not an APF issue at this intersection.

TABLE 5 Short Range (2018) Total Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Timberline/Vine (stop sign)	EB LT/T/RT	C	D
	WB LT/T/RT	D	C
	NB LT/T/RT	C	F
	SB LT/T/RT	D	C
Vine/Merganser (stop sign)	EB LT/T	A	A
	SB LT	B	C
	SB RT	B	B
	OVERALL	B	B
Vine/Site Access (stop sign)	EB LT/T	A	A
	SB LT/RT	B	B
Lemay/Vine (signal)	EB LT	D	D
	EB T/RT	D	D
	EB APPROACH	D	D
	WB LT	D	F
	WB T/RT	D	D
	WB APPROACH	D	E
	NB LT/T/RT	A	D
	SB LT/T/RT	B	C
	OVERALL	C	D
Timberline/New Vine (stop sign)	EB LT	B	B
	EB RT	B	A
	EB APPROACH	B	B
	NB LT	A	A
New Vine/Merganser (stop sign)	EB LT	A	A
	WB LT	A	A
	NB LT	A	A
	NB T/RT	A	A
	NB APPROACH	A	A
	SB LT	A	A
	SB T/RT	A	A
	SB APPROACH	A	A
Timberline/Site Access (stop sign)	EB LT/RT	B	B
	NB LT	A	A

TABLE 6 Long Range (2035) Total Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Timberline/New Vine (signal)	EB LT	C	C
	EB T	D	C
	EB RT	A	C
	EB APPROACH	D	C
	WB LT	C	C
	WB T	D	D
	WB RT	A	A
	WB APPROACH	D	D
	NB LT	A	B
	NB T	B	B
	NB RT	B	B
	NB APPROACH	B	B
	SB LT	B	B
	SB T	B	B
	SB RT	B	B
	SB APPROACH	B	B
	OVERALL	C	C
New Vine/Merganser (stop sign)	EB LT	A	A
	WB LT	A	A
	NB LT	C	D
	NB T/RT	B	B
	NB APPROACH	B	C
	SB LT	C	D
	SB T/RT	B	C
	SB APPROACH	C	C

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TABLE 6 Long Range (2035) Total Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
Lemay/New Vine (signal)	EB LT	D	C
	EB T	D	D
	EB RT	D	C
	EB APPROACH	D	D
	WB LT	C	C
	WB T	D	C
	WB RT	C	C
	WB APPROACH	D	C
	NB LT	B	B
	NB T	B	C
	NB RT	B	B
	NB APPROACH	B	C
	SB LT	B	B
	SB T	B	C
	SB RT	B	B
	SB APPROACH	B	C
	OVERALL	C	C
Vine/Merganser (stop sign)	EB LT/T	A	A
	SB LT	A	A
	SB RT	A	A
	SB APPROACH	A	A
Vine/Site Access (stop sign)	EB LT/T	A	A
	SB LT/RT	A	A
Timberline/Site Access (stop sign)	EB RT	B	B

Geometry

Figure 14 shows a schematic of the short range (2018) geometry. This is existing geometry at the Timberline/Vine and Vine/Merganser intersections. At the Timberline/New Vine intersection and the Timberline/Site Access intersection, left-turn lanes are required on arterials streets.

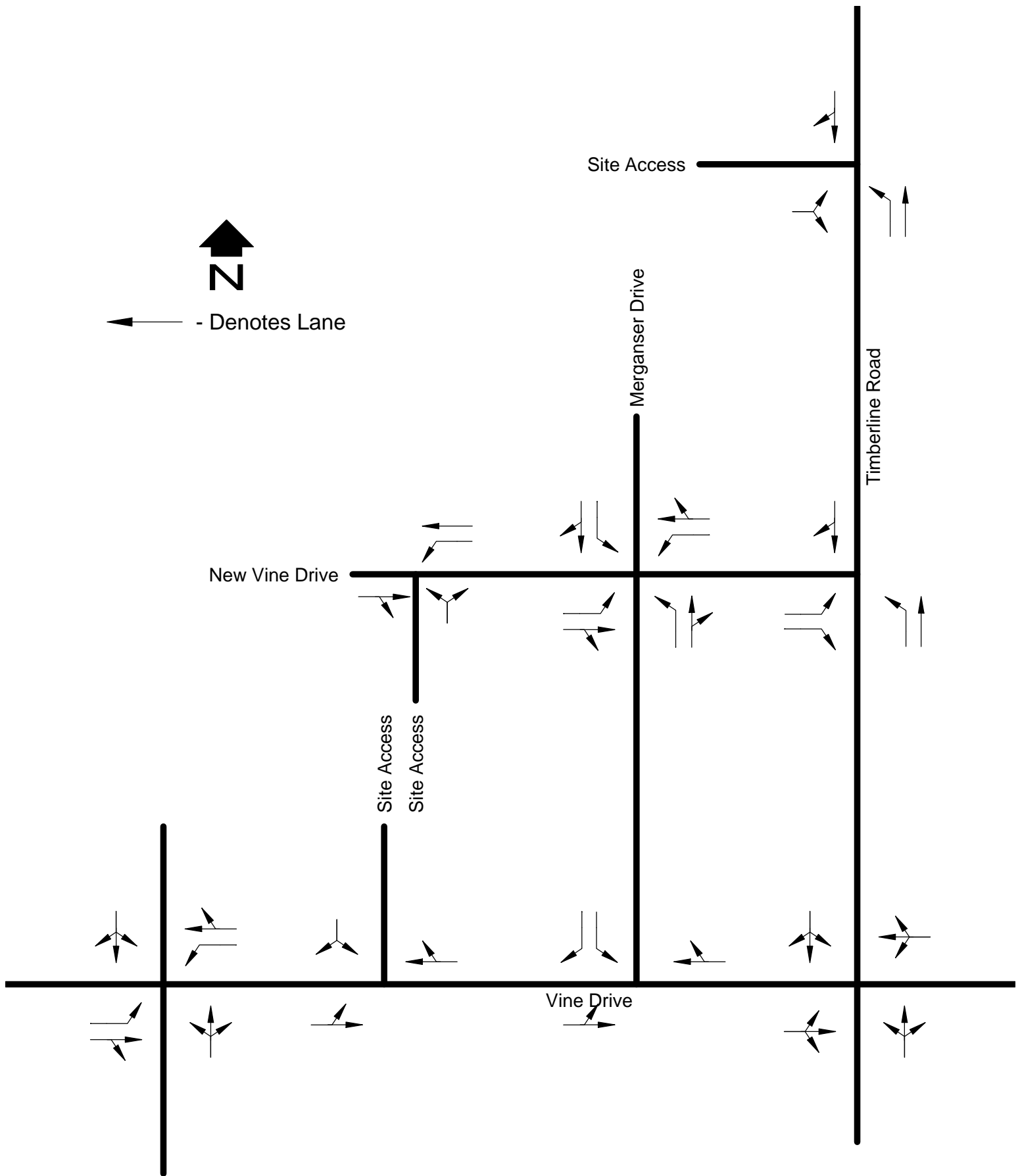
Figure 18 shows a schematic of the long range (2035) geometry. It was assumed that the future New Vine Drive will have a two-lane cross section with a center turn lane since the volumes do not support a four-lane cross section given the 2035 forecasts in this TIS. It is acknowledged that the Fort Collins Master Street Plan shows future New Vine Drive to be a 4-lane arterial street. Daily traffic forecasts from Fort Collins Transportation Planning indicate a daily volume of 17,000, between North College Avenue and Redwood Street; and a daily volume of 24,000, east of Redwood Street. These forecasts were developed with an interchange at I-25/Vine Drive. As mentioned earlier, this interchange may not be built or it may occur after 2035. It is recommended that the right-of-way for future New Vine Drive be dedicated, however, an interim 2-lane arterial cross section be developed that will accommodate the forecasted traffic plus a 1.3-1.5 times volume contingency.

Pedestrian Level of Service

Appendix I shows a map of the area that is within 1320 feet of the Waterfield development. There are two pedestrian destinations within 1320 feet of the Waterfield development. These are: 1) the residential area to the southeast (Bull Run) and 2) the residential area to the south of this site. The Waterfield site is located within an area termed as “transit corridor,” which sets the level of service threshold at LOS B for directness and security and LOS C for all other measured categories. Pedestrian level of service is not achieved for pedestrian destination two with regard to continuity. The Pedestrian LOS Worksheet is provided in Appendix I. Timberline Road does not have a sidewalk. The practical limits of pedestrian improvements would be on the Waterfield site itself.

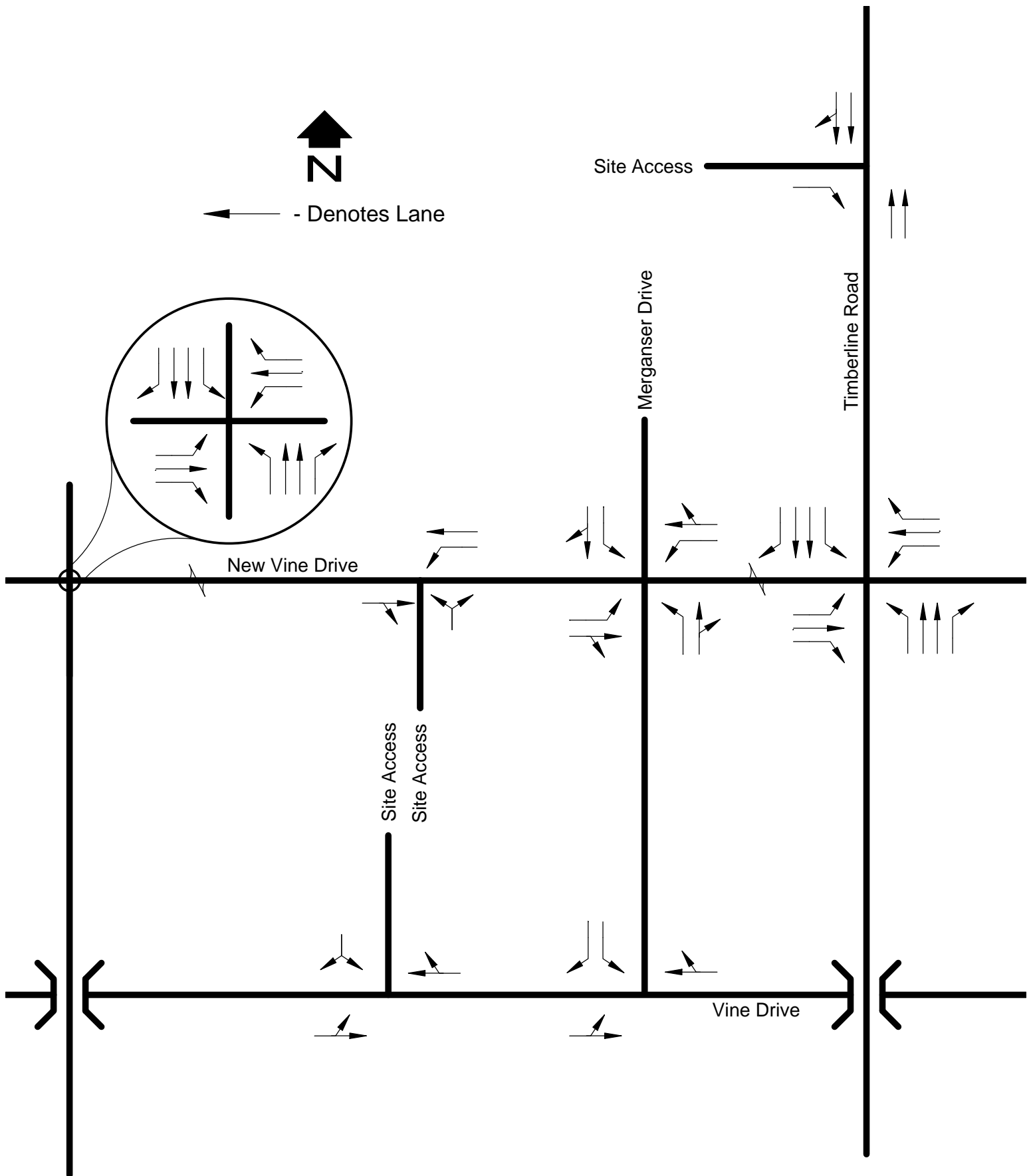
Bicycle Level of Service

Appendix I shows a map of the area that is within 1320 feet of the Waterfield development. There are no bicycle destinations within 1320 feet of the Waterfield development. The Bicycle LOS Worksheet is provided in Appendix I. The minimum level of service for this site is C. This site is connected to bike lanes on Vine Drive and Timberline Road. Therefore, it is concluded that level of service A can be achieved.



SHORT RANGE (2018) GEOMETRY

Figure 14



LONG RANGE (2035) GEOMETRY

Figure 15

Transit Level of Service

This area of Fort Collins is served by Transfort Routes 8 and 81. There are bus stops near the Conifer/Blue Spruce, Conifer/Redwood, and Vine/Redwood intersections. There are also bus stops along North College Avenue.

IV. CONCLUSIONS

This study assessed the impacts of the Waterfield on the street system in the vicinity of the proposed development in the short range (2018) and long range (2035) futures. As a result of this analysis, the following is concluded:

- The development of the Waterfield is feasible from a traffic engineering standpoint. In the short range (2018) future the Waterfield development will generate approximately 2010 daily trips, 153 morning peak hour trip ends, and 201 afternoon peak hour trip ends. At full development, the Waterfield development will generate approximately 4842 daily trip ends, 612 morning peak hour trip ends, and 523 afternoon peak hour trip ends.
- Current operation at the Timberline/Vine, Vine/Merganser, and Lemay/Vine intersections is acceptable.
- The Timberline/Vine intersection is currently unsignalized. Using the short range (2018) total peak hour traffic forecasts, the peak hour signal warrant will likely be met in the afternoon peak hour at the existing Timberline/Vine intersection. However, it is unlikely that other signal warrants will be met in the short range (2018) future. In discussions with City staff, a signal at the existing Timberline/Vine intersection is not desired. Using the long range (2035) total peak hour traffic forecasts, the peak hour signal warrant will likely be met in the morning and afternoon peak hours at the Timberline/New Vine and the Lemay/New Vine intersections. Based on the peak hour signal warrant, it is likely that other volume based signal warrants would be met at the Timberline/New Vine and the Lemay/New Vine intersections.
- In the short range (2018) future, given development of the Waterfield and an increase in background traffic, the Timberline/Vine, Vine/Merganser, Vine/Site Access, Lemay/Vine, Timberline/New Vine, New Vine/Merganser, and Timberline/Site Access intersections will operate acceptably, except for one movement at the Lemay/Vine intersection in the afternoon peak hour. At the Lemay/Vine intersection, the calculated delay for the afternoon peak hour westbound left-turn lane will experience delays that are commensurate with level of service F. A variance request will be submitted with the Waterfield Transportation Impact Study. At the Timberline/Vine intersection, the calculated delay for the afternoon peak hour northbound approach will experience delays that are commensurate with level of service F. This is considered to be normal during the peak hours at stop sign controlled intersections along arterial streets. This will be a temporary condition.
- In the long range (2035) future, given development of the Waterfield and an increase in background traffic, the Timberline/New Vine, New Vine/Merganser, New Vine/Site Access, Lemay/New Vine, Vine/Merganser, Vine/Site Access, and Timberline/Site Access intersections will operate acceptably.

- The short range (2018) geometry is shown in Figure 14. The long range (2035) geometry is shown in Figure 15.
- Acceptable level of service is achieved for bicycle and transit modes based upon the measures in the multi-modal transportation guidelines and future improvements to the street system in the area. Pedestrian level of service B is not achieved for all pedestrian destinations with regard to continuity. The practical limits of pedestrian improvements would be on the Waterfield site itself.