Prepared for

**Rogers Enterprises, LLC** 

Prepared by

**Parametrix** 150 NW Pacific Park Lane, Suite 110 Bend, OR 97701 T. 541.508.7710 F. 1.855.542.6353 www.parametrix.com

### CITATION

Parametrix, 2021. City of Prineville Subdivision - Tentative Plan Application Review. Parkview Estates Development Narrative and Burden of Proof. Prepared by Parametrix, Bend, Oregon. June 2021.

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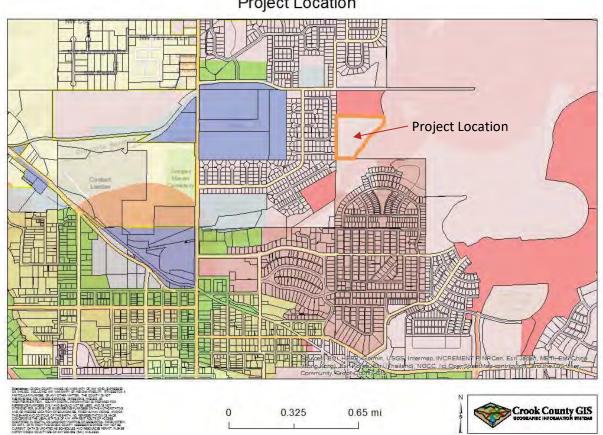
- A Application
- B Site Plan
- C House Plan Example
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### 1. **PROJECT OVERVIEW**

Applicant:	Rogers Enterprises, LLC
Representative:	Dave Munsell, Parametrix
Site Address/Location:	No Situs Address
	32T, 14S, R. 16E
	Prineville, Crook County
Tax Account No.:	141632AB-00100-17360
Zoning:	R2 – General Residential
Land Use Review:	Subdivision Development Application – Tentative Plan

### 2. **PROJECT DESCRIPTION**

The applicant is proposing a Tentative Plan for a residential subdivision located within the city limits of Prineville, Oregon in an R2 (General Residential) zoned area. The R2 zone allows "a variety of housing types in a more planned type of development design". The project site consists of 11.86 acres and is located south of NE Peters Road and east of the existing Stone Ridge subdivision, Phase 7 and Phase 8. The site is comprised of undeveloped land and adjacent to wetlands to the east. Development will avoid the wetland and not pose any adverse impacts. The applicant is proposing 39 single-family residential lots, a dedicated neighborhood park area, and a pedestrian connector trail to access existing City of Prineville recreation trails.



#### **Project Location**

#### 3. NARRATIVE

The proposed subdivision, Parkview Estates, will consist of single-family homes with three (3) or more bedrooms and two to three (2-3) car attached garages. Please see Appendix C for potential home floor plan examples.

The proposed building site contains downward sloping on the eastern side of the property descending to the adjacent wetlands.

Slopes will be mitigated through fill. Soil from site excavation will be added as necessary to level lots to provide a buildable footprint. The homes on the east side of N.E. Cobblestone are proposed to have daylight basements to make the best use of the natural contours of the property. By utilizing the natural slopes through the use of daylight basements, fill needed will be minimal. These homes will have a sloping downward driveway towards the home to complement the 3:1 slope from the property line.

Due to the amount of fill required for lots 2-5, foundation/stem walls will be engineered to retain and support this fill.

The 3:1 slope is a comfortable mow-able slope and will be easily maintained once planted with grass. This slope will be continued around the proposed building until it joins the natural ground.

The stormwater plan is designed for the 100-year flood event. The following design measures will be implemented:

- A proposed 23,225 square foot dedicated storm water facility to capture storm water run-off.
- Utilize erosion and sediment control measures including installing perimeter sediment control and storm drain inlet protection.
- Preserve existing vegetation as much as possible and re-vegetate open areas before and after construction.

The applicant proposes building a uniform perimeter fence along the eastern side of the property on the west side of the stormwater facility. The proposed fence is anticipated to be a chain link fence, or approved equal, that will be painted black and 4 feet in height. Please see the attached site plan (Appendix B) for location and Figure 1 for fence example.

A 10-foot-wide paved connector trail is proposed on the eastern side of the property, between lots 7 and 8, to provide pedestrian access from the neighborhood to nearby City of Prineville recreation trails. An additional 10-foot wide paved trail providing pedestrian access and utility easement is located to the southwest of the property adjacent to lot 1.

The applicant proposes dedicating 26,200 square feet of undeveloped land for the City to develop a park in the northeastern corner of the property. The City anticipates the park will provide trail connections and preserve an existing aspen grove.

Homes on the east side of N.E. Cobblestone will be served with individual sewer pumps due to the proposed finished grades preventing the use of gravity flow. The sewer will be pumped from the home to the property line, where it will connect to the City's gravity sewer system. These mini pump stations will be the responsibility of the homeowner to maintain and service.

The main gravity sewer line will outfall through an installed connection to Stoneridge Terrace running under the paved access trail/utility easement located at the southwest corner of the subdivision.

Figure 1



### 4. BURDEN OF PROOF

This application will address applicable codes from the Subdivisions – Applications Section 153.157 (I)(J).

(I) <u>Requirements for approval.</u> The reviewing authority shall not approve an outline development plan (ODP) or a tentative plan for a subdivision unless the reviewing authority finds, in addition to other requirements and standards set forth by this chapter and other applicable city ordinances, standards and regulation, the following:

(1) The proposal is in compliance with ORS Chapter 92, applicable goals, objectives and policies set forth by the city's Comprehensive Plan, Master Plans, Standards and Specifications and applicable zoning. (O.R.S. 197.175(2)(b) and 227.175 (4)) (O.R.S. 92.090(2)(C)

Response: The proposed residential subdivision is located in the R2 (General Residential) zone which is intended for residential purposes including a variety of housing types. The tentative plan includes family living environments and child-oriented amenities via a community park and trail connector to an existing City of Prineville recreation trail.

(2) Each lot is suited for the use intended or to be offered, including but not limited to sewage disposal, water supply, guaranteed public street access and utilities.

Response: The proposed project is in compliance with this criterion. Every buildable lot is sited for a residential home (except for the park), and will connect to City services including sewer, water, and City utilities. Guaranteed public street access will be provided via NE Peters Road and NE Mariposa Ave connecting to NE Cobblestone Court and Cobble Ridge Drive.

(3) The proposal is in compliance with the design and improvement standards and requirements set forth in 153.190 et seq. and the City's Standards and Specifications or as otherwise approved by the city, or that such compliance can be assured by conditions of approval.

### Response: The project is in compliance with the requirements set forth in 153.190. Please see the attached site plan for details.

(4) The subdivision will not create an excessive demand on public facilities and services required to serve the proposed development, or that the developer has proposed adequate and equitable improvements and expansions to the facilities with corresponding approved financing therefore to bring the facilities and services up to an acceptable capacity level (Goal 11).

### Response: The proposed project will not create an excessive demand on public facilities. This criterion is met.

(5) The development provides for the preservation of significant scenic, archaeological, natural, historic, and unique resources in accordance with applicable provisions of this chapter and the Comprehensive Plan (Goal 5).

# Response: The project area does not contain significant archaeological or historic resources. A wetland is located to the east of the project area which is designated a Natural Features Overlay District. The project will not adversely impact the adjacent wetlands.

(6) The proposed name of the subdivision is not the same as, similar to or pronounced the same as the name of any other subdivision in the city or within a 6 mile radius thereof, unless the land platted is contiguous to and platted as an extension of an existing subdivision. (O.R.S. 92.090)

## Response: The proposed name, Parkview Estates, is not the same as, similar to, or pronounced the same as the name of any other subdivision in the city or within a 6 mile radius.

(7) The streets and roads are laid out so as to conform to an adopted transportation system plan for the area, and to the plats of subdivisions and maps of major partitions already approved for adjoining property as to width, general direction and in all other respects unless the city determines it is in the public interest to modify the street or road pattern. (O.R.S. 92.090(2)(a))

# Response: The proposed subdivision's roads are laid out to conform to the adopted transportation system plan in the area. The existing NE Cobblestone Court will be extended through the neighborhood to connect to NE Peters Road. This criterion has been met.

(8) Streets and roads for public use are to be dedicated to the public without any reservation or restriction; and streets and roads for private use are approved by the city as a variance to public access requirements. (O.R.S. 92.090(2)(b))

### Response: The proposed streets will be for public use and will be dedicated as such without any reservations or restrictions.

(9) Adequate mitigation measures are provided for any identified and measurable adverse impacts on or by neighboring properties or the uses thereof or on the natural environment.

Response: No adverse impacts on neighboring properties have been identified. The project should not adversely impact the adjacent wetlands. A connecting trail is proposed on the east side of the neighborhood to allow pedestrian access to existing City of Prineville trails.

(10) Provisions are made for access to abutting properties that will likely need such access in the future, including access for vehicular and pedestrian traffic, public facilities and services and utilities.

Response: The existing NE Cobblestone Court will be extended from the neighborhood to the west, running northeast through the proposed neighborhood to connect to the adjacent neighborhood to the north and NE Peters Road. Sidewalks are proposed for the street extensions on NE Cobblestone and for proposed NE Cobble Ridge Drive.

(11) Provisions of the proposed development to provide for a range of housing needs, particularly those types identified as needed or being in demand. (Goal 10 and O.R.S. 197.303-307)

Response: The proposed residential development will consist of single family 3 or more-bedroom dwellings with 2 or 3 car garages, with possibility of parking adjacent to the garage. The tentative plan includes family living environments and child-oriented amenities via land dedicated for a community park and trail connector to an existing City of Prineville recreation trail.

(12) Provisions for open space, parks and recreational areas shall be provided for in accordance with Section 153.193 (Land for Public Purpose).

Response: In compliance with Section 153.193, a 26,200 square foot lot is proposed for dedicated use as a community park in the northeast corner of the subdivision. The City anticipates the park will retain its native vegetation and existing aspen grove and may provide additional trail connections. A pedestrian connector trail on the eastern side of the property is proposed to provide access from the neighborhood to nearby City recreational trails.

(J) Improvement requirements. In the approval of any subdivision, the need for a survey and the need for street and other public facility improvements shall be required as a condition of approval. Streets and roads for private use are approved by the city as a variance to public access requirements. (ORS 92.090(2)(b))

# Response: A boundary survey will be performed, and construction plans for the public infrastructure will be provided in accordance with the current City of Prineville standards and specifications. The proposed streets are intended to be public. No private roads are planned.

(1) Provisions are made for access to abutting properties that will likely need such access in the future, including access for vehicular and pedestrian traffic, public facilities and services and utilities.

Response: The existing NE Cobblestone Court will be extended from the neighborhood to the west, running northeast through the proposed neighborhood to connect to the adjacent neighborhood to the north and NE Peters Road. Sidewalks are proposed for the street extensions on NE Cobblestone Court and for proposed NE Cobble Ridge Drive.

(2) All required agreements shall be recorded at the Crook County Clerk's office at the same time of recording of the final subdivision plat.

### Response: The applicant will comply with this criterion and record all agreements at the Crook County Clerk's office.

(3) If the existing street right-of-way is not consistent with city standards or new rightof-way is required through a city master plan or "to and through" standard, street right-of-way shall be dedicated, in compliance with the City's Standards and Specifications and frontage requirements.

Response: The existing street right-of-way is consistent with City standards. The proposed public street extensions will also be consistent and will provide a "to and through" connection between the new and established neighborhoods. The subdivision will connect to the existing N.E. Cobblestone Ct. road and extend to the proposed NE Peters road extension being completed by the Housing Works Development immediately north and adjacent to NE Peters road.

(4) Public infrastructure including right-of-way, water, sewer, streets and sidewalks shall be extended and constructed, per the City's Standards and Specifications, "to and through" each lot created by the subdivision, unless otherwise approved by the city due to the following:

(a) Phased development.

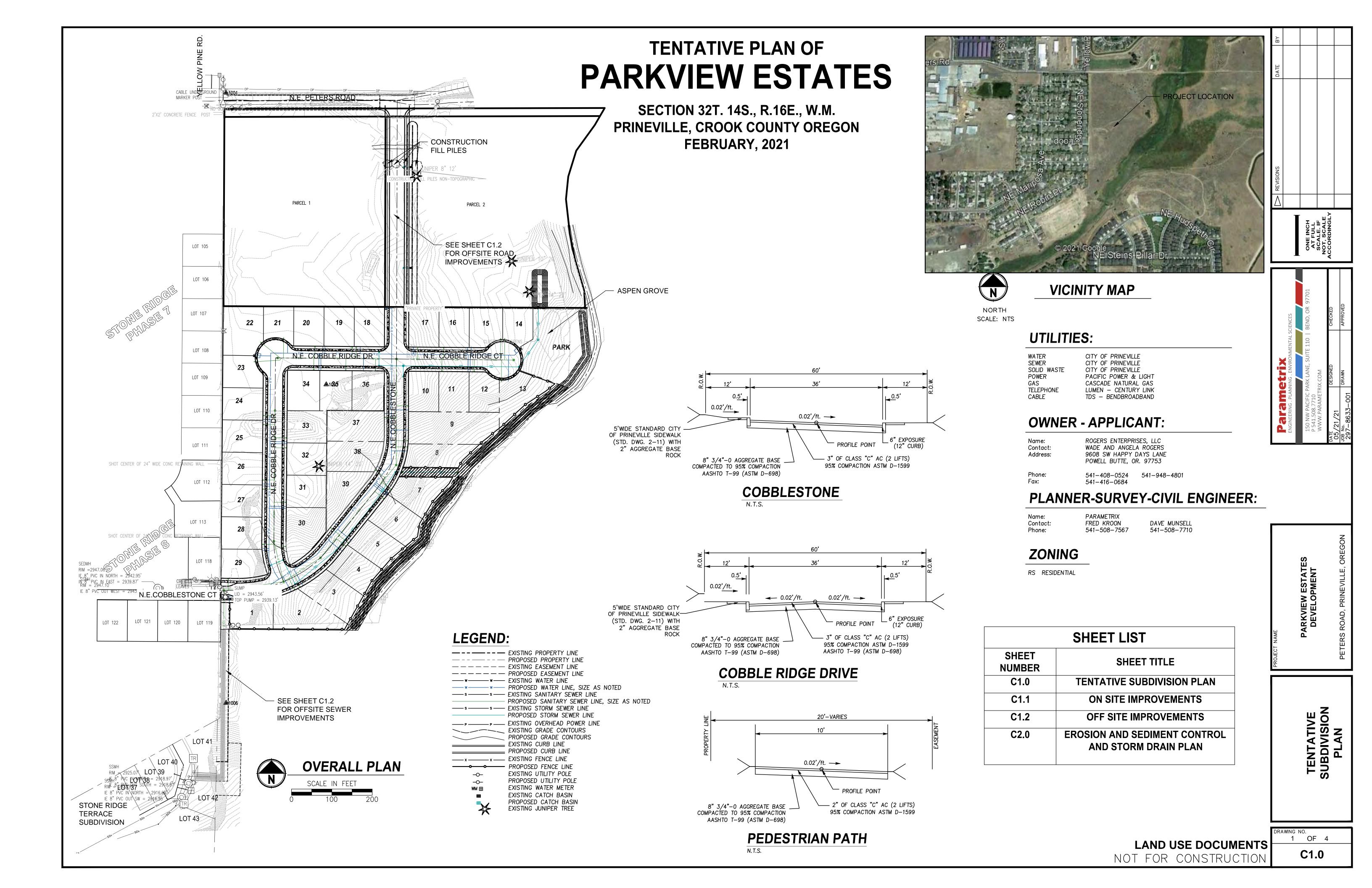
(b) Certain aspects of the "to and through" standard may be deferred for one clearly defined remainder lot of at least five acres where future development or division is likely and the infrastructure will be brought through the remainder lot at that time. Right-of-way shall be extended to and through but street, water and sewer infrastructure may be deferred until new development or division of the remainder lot.

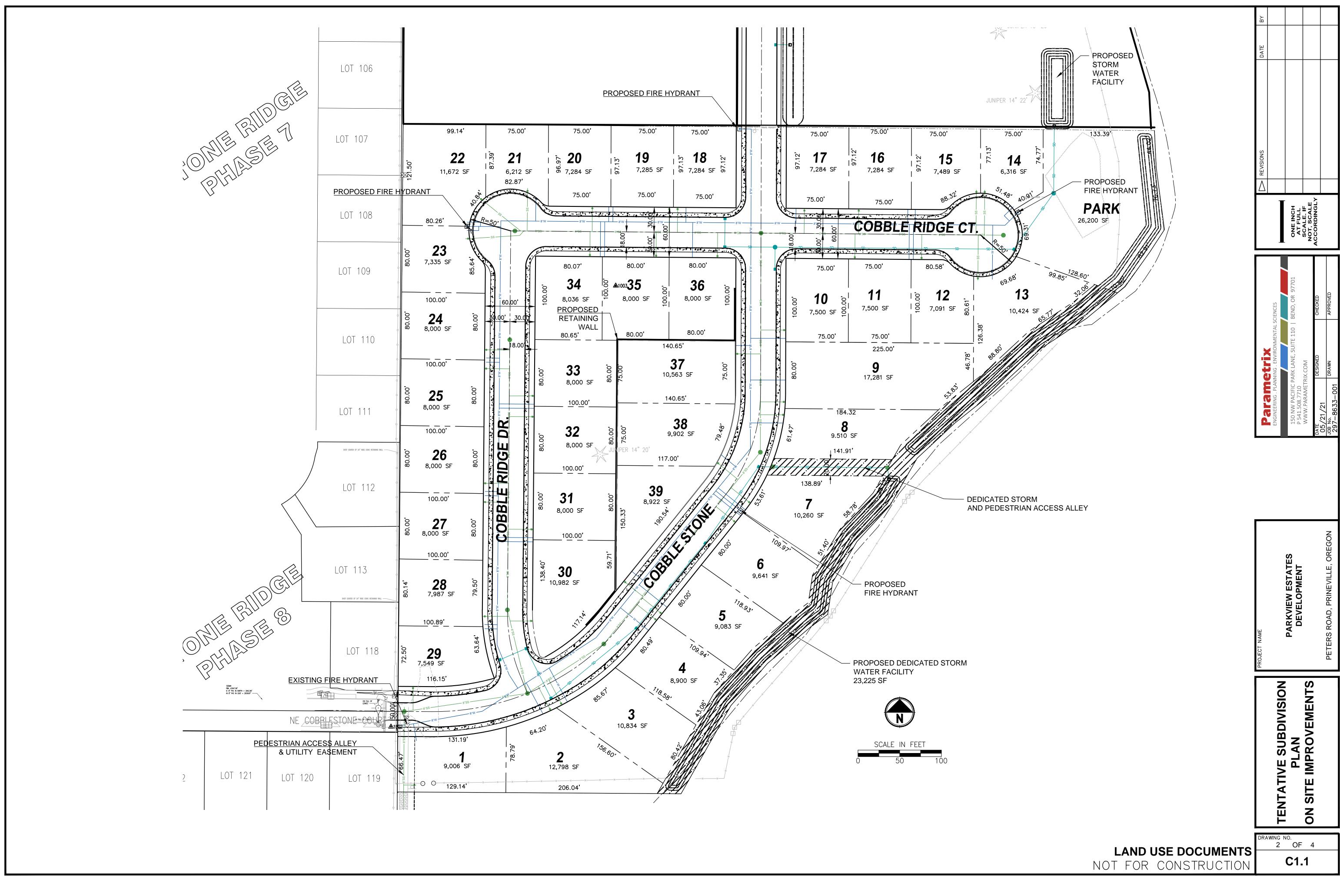
- (5) All public utilities are available to each lot line within an adjacent street or alley.
- (6) Paved access is guaranteed to each lot.
- (7) Future development is to be connected to the city's sewer and water

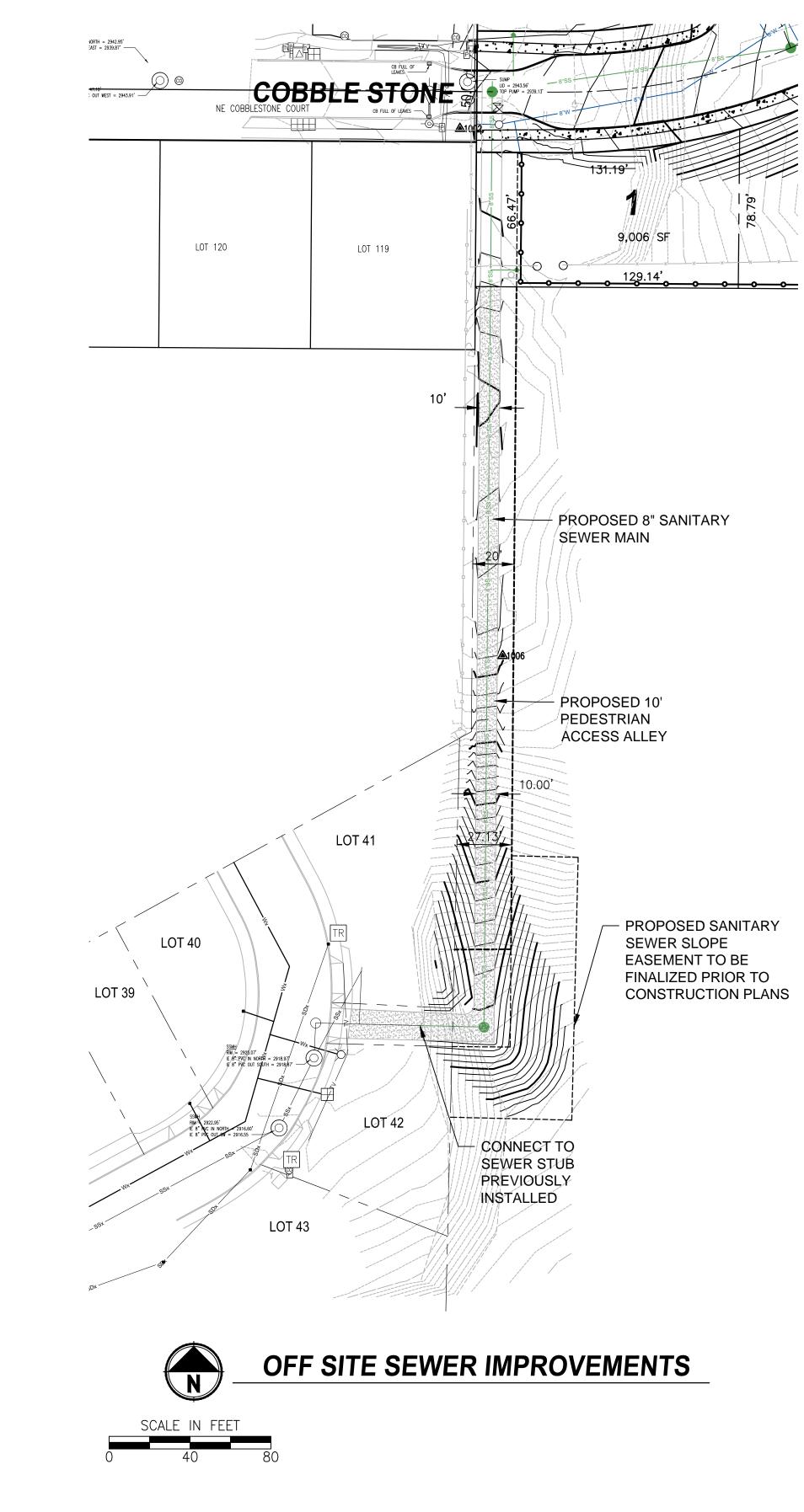
Response: Public infrastructure including, right-of-way, water, sewer, streets and sidewalks will be extended from the existing infrastructure located to the east off NE Cobblestone Court and constructed throughout the entirety of the neighborhood.

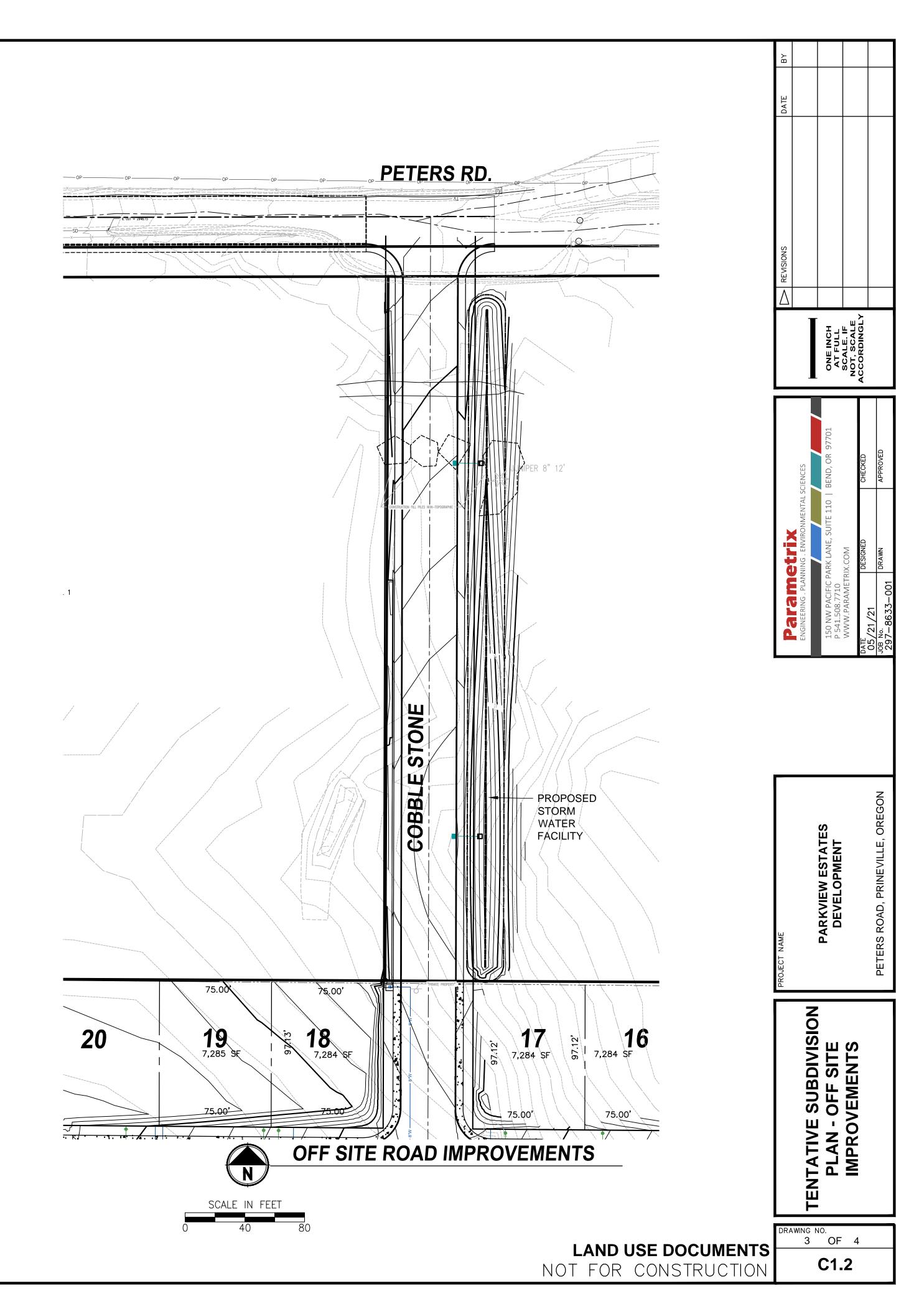
### Appendix A

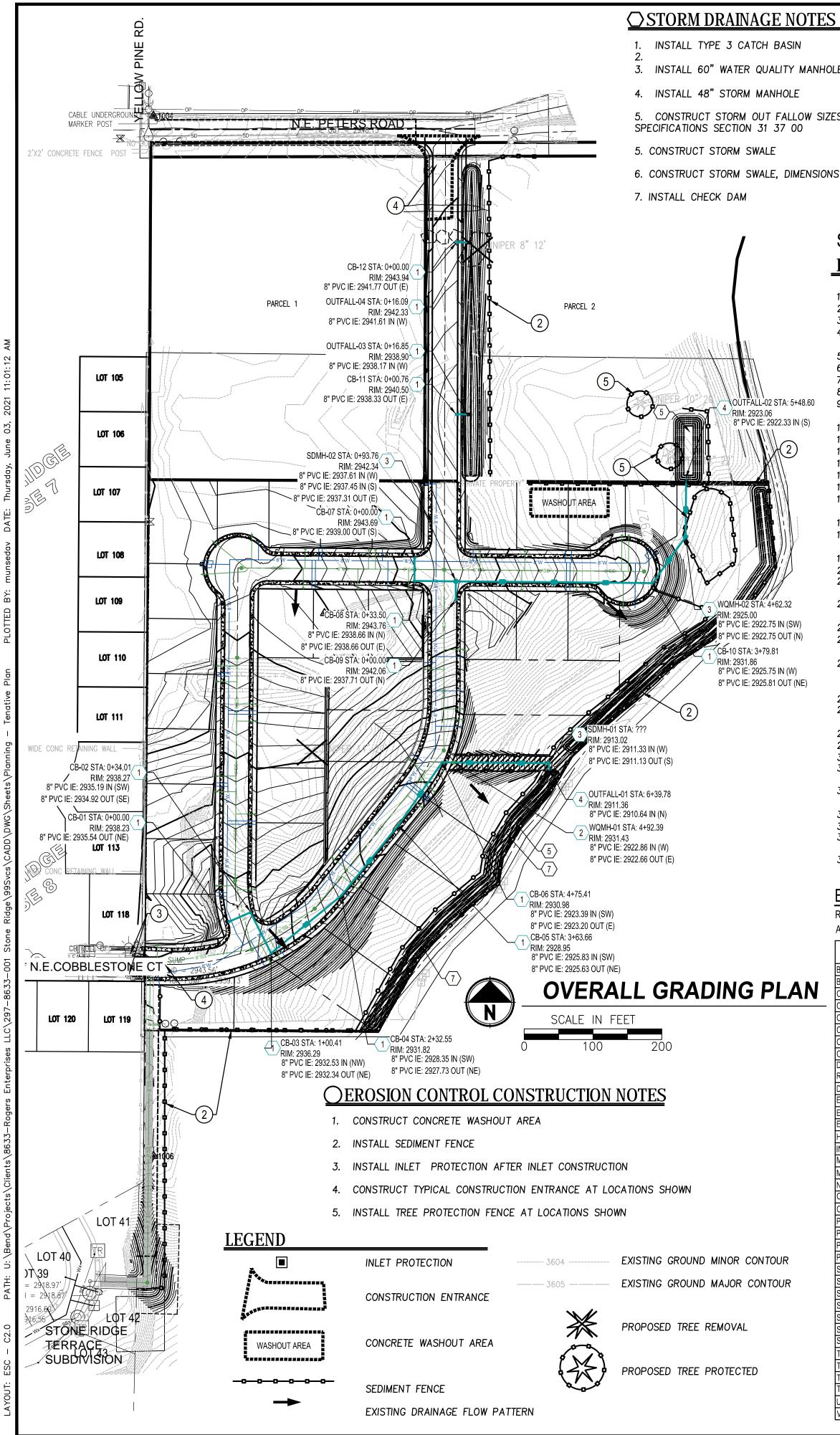
Appendix B



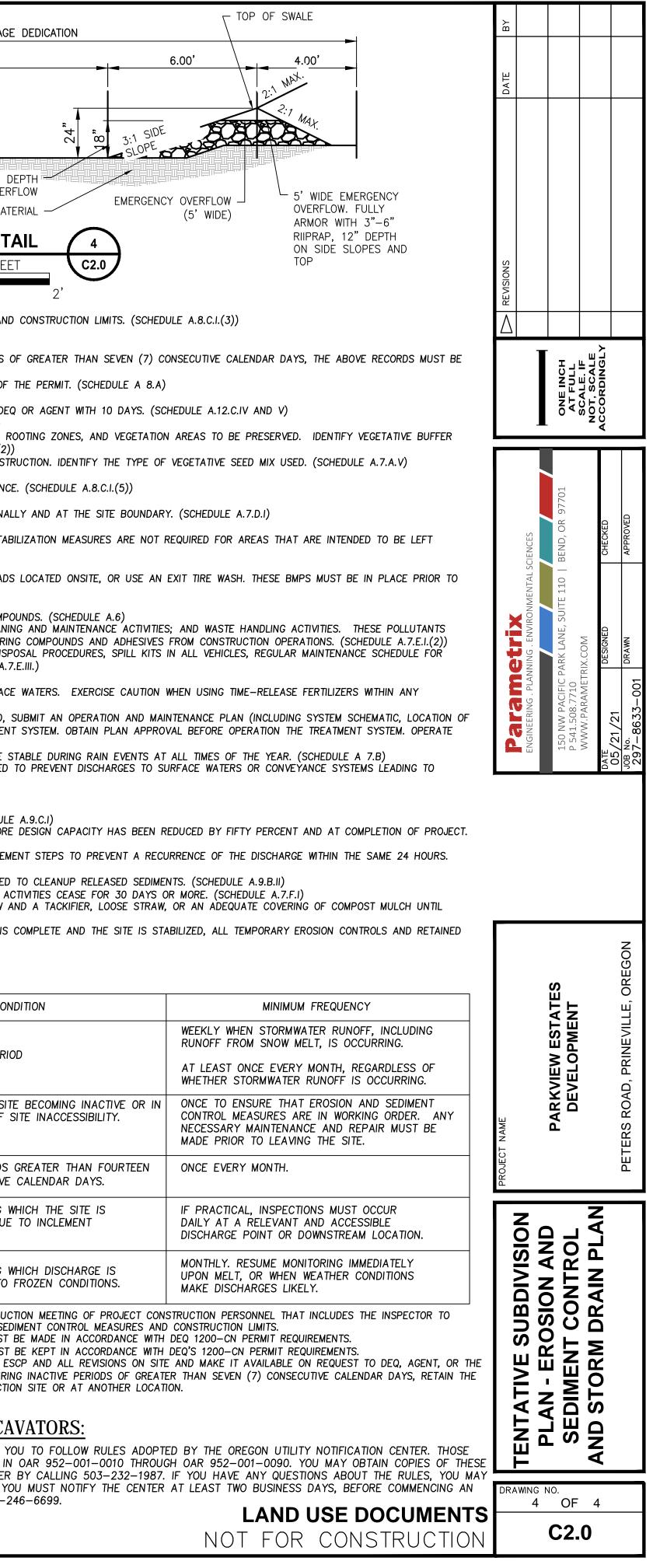




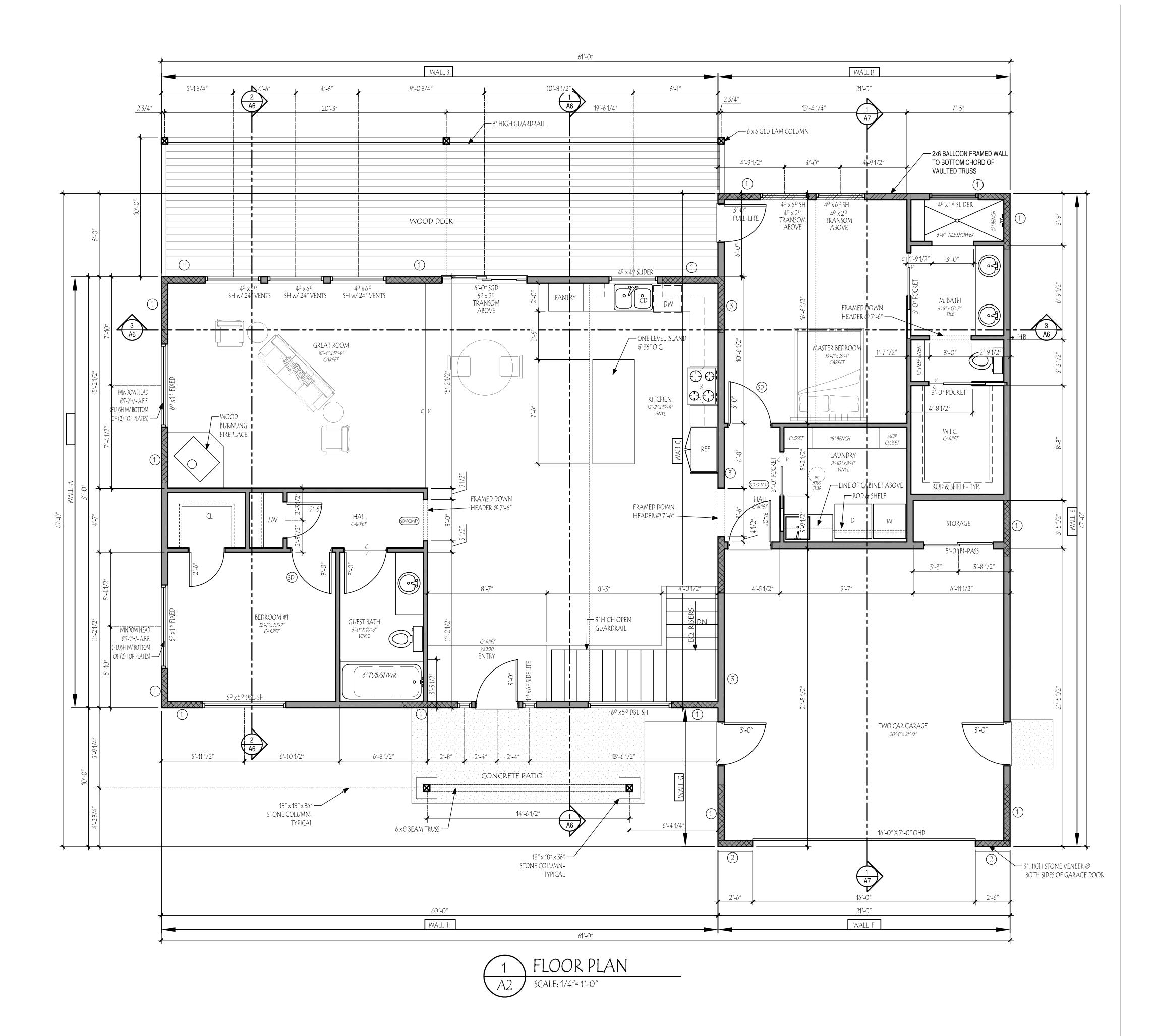


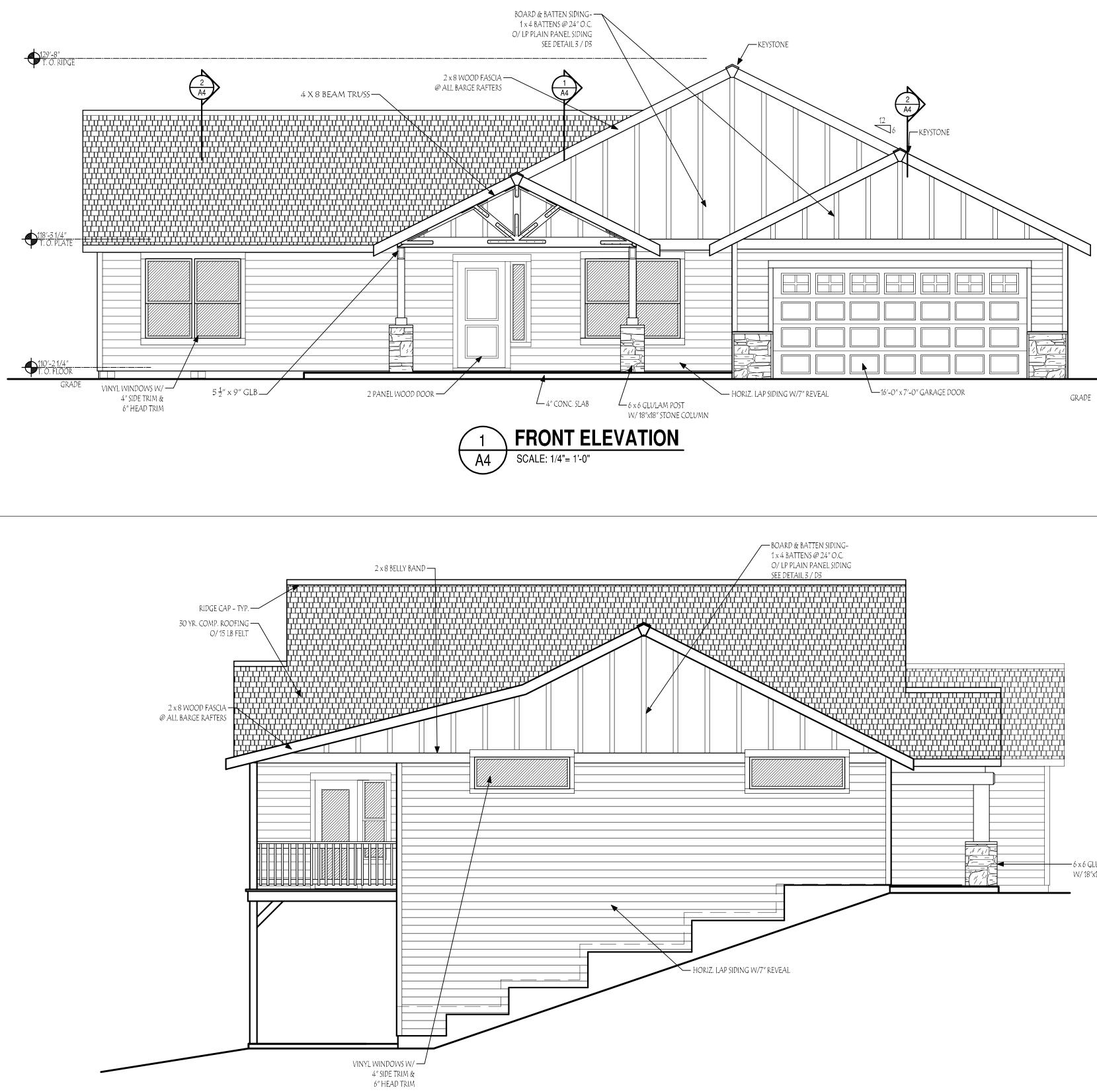


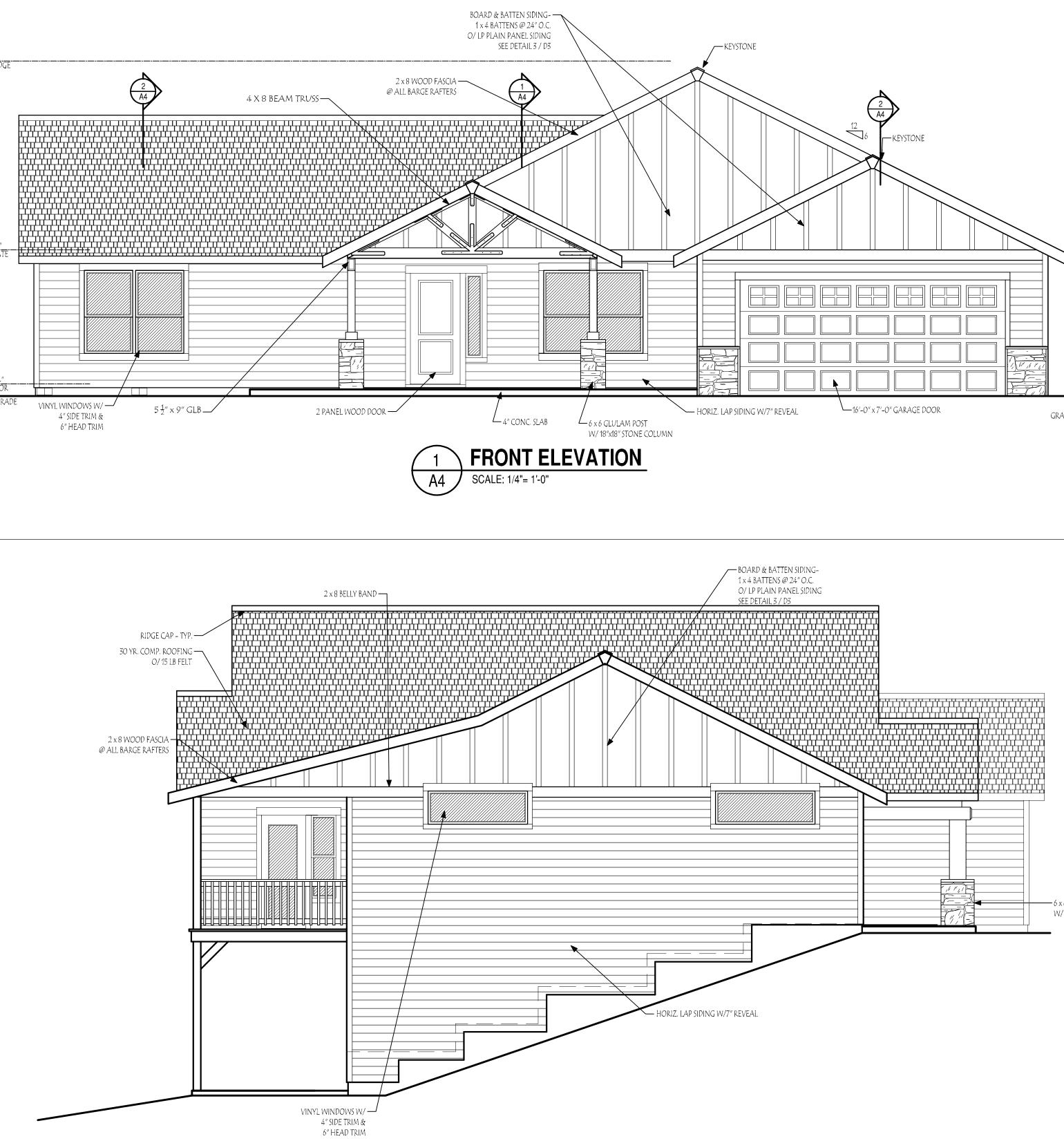
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### Appendix C







------ 6 x 6 GLULAM POST W/ 18"x18" STONE COLUMN

### Appendix D

	TING, LLG	TERED PROFESSO
Date:	May 21, 2021	70661PE
То:	Eric Klann, PE, City of Prineville	Junde w Besson
From:	Joe Bessman, PE	OREGON
Project Reference No.:	1575	St PH 14, 20 55
Project Name:	Stone Ridge Phases 9 through 11	EXPIRES: 12/31/2.021

This memorandum provides a Transportation Impact Analysis for the Stone Ridge Subdivision, Phases 9 through 11. This report was prepared in compliance with the Transportation Impact Analysis Requirements in Appendix 1 of the City of the Prineville's 2013 Transportation System Plan (TSP). The Stone Ridge Development is located in northeastern Prineville, with vehicular access provided through local street connection at Cobblestone Court. The site vicinity is illustrated in Figure 1 below.



Figure 1. Site Vicinity Map. Source: Crook County GIS.

The location of the site within the City's *Functional Classification Map* is included in Figure 2, illustrating the higher order roadway system around the site.

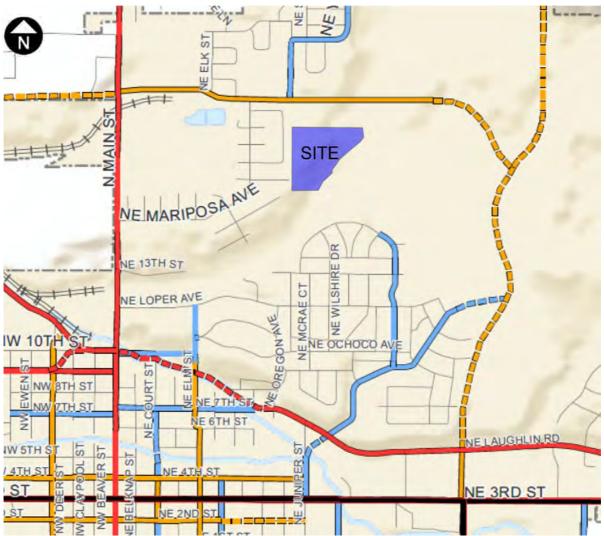


Figure 2. Functional Classification Map. (Source: City of Prineville Transportation System Plan)

### DESCRIPTION OF THE PROPOSED DEVELOPMENT

The site of the proposed development is an 11.86-acre vacant parcel zoned R-2 *General Residential*. Directly west of the site is a neighborhood of single-family homes, while lands directly north, east, and south of the parcel are currently vacant. The parcel due north of the site was recently approved for development by Housing Works as an affordable housing project. The proposed development plan includes subdivision into 40 new single-family home sites, along three new local street segments providing vehicular access to the new parcels. Cobble Stone Court is planned to extend from the southwest corner of the parcel to the north property line, providing local street connection for future development.

The preliminary site plan is included in Figure 3, illustrating the proposed street orientation and parcel lot lines.



Figure 3. Preliminary Site Plan. Source: Parametrix Engineering, dated 2/20/21. Map Source: Crook County GIS.

The proposed subdivision plans include 60-foot right-of-way for the new streets, with Brook Stone Drive and Cobble Stone Court each providing a 36-foot pavement width to support on-street parking on both sides of the street. A standard curb-tight five-foot wide sidewalk is also proposed throughout, with accessible crossings at all internal intersections.

### SURROUNDING TRANSPORTATION INFRASTRUCTURE

The *local street* Mariposa Avenue is the current vehicular route from the site to higher order roadways. The posted speed limit is 25 miles per hour. It offers a two-lane pavement cross section and allows for on-street parking. Sidewalks are in place within the newer residential neighborhoods but missing along the 800-foot segment closest to N Main Street.

N Main Street provides a major north-south route through the City connecting the north end of the City to the City core and 3<sup>rd</sup> Street (US 26/OR 126), continues south as OR 27 along the Crooked River, ultimately connecting to US 20 east of Bend. North of NE Peters Road, N Main Street is a two-lane roadway. South of NE Peters Road, the roadway widens to three lanes with paved shoulders and no curbs or sidewalks until it reaches the downtown core area.

Page 3

Almost a mile south of the site along Main Street are two east-west streets that will support a significant number of the trips as they distribute to various destinations within the City of Prineville: NE 10<sup>th</sup> Street and NE 9<sup>th</sup> Street. NE 10<sup>th</sup> Street is a *Minor Arterial* to the west and a *Minor Collector* to the east and is minimally developed with a paved cross-section but no curbs or sidewalks. There is no on-street parking, rather the gravel shoulders are utilized for this purpose. This road extends west as Lamonta Road, serving industrial lands to the west. One block south is NE 9<sup>th</sup> Street, which is designated as a *Minor Arterial*. NE 9<sup>th</sup> Street contains a 3-lane cross-section with a two-way center turn-lane, bicycle lanes, curbs, sidewalks, and a posted speed limit of 25 mph. This facility provides a connection to the US 26 corridor at the west edge of Prineville.

Farther south is NE 7<sup>th</sup> Street, which is classified as a *Minor Collector* and turns into NE Laughlin Road, a *Minor Arterial*, to the east to serve the commercial areas on NE 3<sup>rd</sup> Street – US 26 on the east side of the City. It is a two-lane roadway with curbs, intermittent sidewalks, no bicycle lanes, and on-street parking. Table 1 summarizes area roadway characteristics.

Roadway	Functional Classification	Number of Lanes, Posted Speed	Sidewalks?	Bicycle Lanes?	Parking?
NE Cobblestone Ct	Local Street	Not posted	Yes	No	Yes
NE Mariposa Ave	Local Street	25 mph	Yes, east of Lisa Court	No	Yes
N Main Street	Minor Arterial	3-Lanes 35 mph	No	Yes, south of Peters Road	No
NE 10 <sup>th</sup> Street	Minor Arterial <sup>(W of Main)</sup> Minor Collector (E of Main)	2-Lanes Not Posted	No	No	No
NE 9 <sup>th</sup> Street	Minor Arterial	3-Lanes 25 mph	Yes, both sides	Yes	No
NE 7 <sup>th</sup> Street	Minor Collector 2-Lanes Not Posted		Partial	No	Yes

**Table 1. Area Roadway Characteristics** 

### TRIP GENERATION

Trip generation estimates for the site were prepared based on the most current edition of the Institute of Transportation Engineers' (ITE) standard reference *Trip Generation*, 10<sup>th</sup> Edition. The land use category that applies to the proposed single-family home development is land use category 210: *Single-Family Detached Housing*. The ITE manual category description is included below:

• Land Use 210: Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

ITE manual average data was applied to the proposed development, and the resultant trip generation is shown in Table 2.

Page 4

	ITE		Daily	Weekd	ay PM Peak	k Hour	
Land Use	Code	Size	Trips	Total	In	Out	
Single-Family Detached Housing	210	40 Units	<b>378</b> 9.44/Unit	<b>40</b> 0.99/Unit	25 63%	15 37%	

#### Table 2. Trip Generation Estimates (ITE 10<sup>th</sup> Edition)

### TRIP DISTRIBUTION AND ASSIGNMENT

Trips were assigned to the transportation network based on historical traffic counts and the locations of attractions and destinations. With the site location on the north side of Prineville, the majority of trips will distribute south along the Main Street corridor, and then distribute through town along other main routes such as Lamonta Road, NE 9<sup>th</sup> Street, NE 7<sup>th</sup> Street, and the NE 3<sup>rd</sup> Street corridor. The distribution and assignment of site-generated trips are shown in Figure 4.

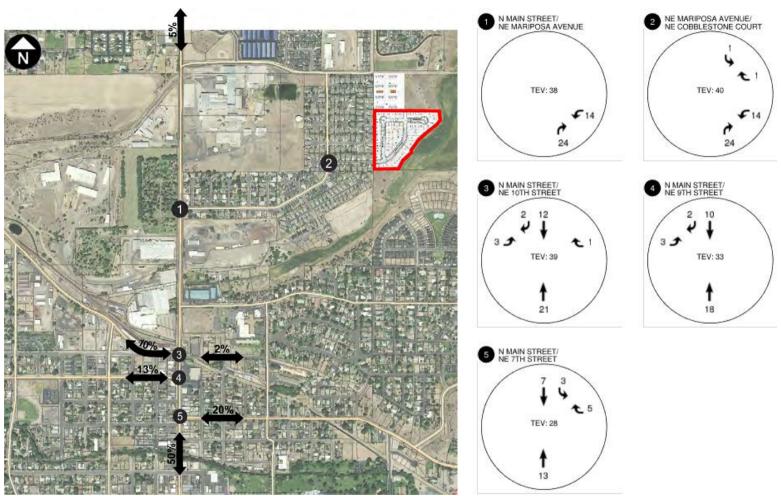


Figure 4. Estimated Trip Distribution and Assignment, Weekday PM Peak Hour.

### STUDY AREA

The City of Prineville Transportation System Plan, Appendix 1 details the requirements for a Transportation Impact Analysis. Section 2.1 requires the *study area* to include:

... collector and arterial intersections affected by 25 or more weekday p.m. peak hour trips and those adjacent to the property frontage. The inclusion or exclusion of additional intersections shall be at the discretion of the City engineer.

Based on the trip assignment illustrated in Figure 4, the following intersections meet the requirements for inclusion as *study intersections*:

- Intersection 1: N Main Street / NE Mariposa Avenue (>25 trips)
- Intersection 3: N Main Street / NE 10<sup>th</sup> Street (>25 trips)
- Intersection 4: N Main Street / NE 9<sup>th</sup> Street (>25 trips)
- Intersection 5: N Main Street / NE 7<sup>th</sup> Street (>25 trips)

### SAFETY REVIEW

Crash records were obtained for all of Crook County from the ODOT crash database between January 2014 and December 2018. Crashes required for reporting during this period include those involving any level of personal injury or property damage exceeding \$1,500 for crashes before 2018 and \$2,500 for crashes during 2018. Table 3 summarizes the reported number of crashes at each intersection, the severity, and crash types.

	Intersection # of Crashes		erity	Crash Type			Intersection
Intersection			Non- Injury	Turning/ Angle	Rear-End	Fixed Object	Crash Rate per MEV*
1: N Main Street/ NE Mariposa Avenue	3	2	1	2	0	1	0.17 0.293
3: N Main Street/ NE 10 <sup>th</sup> Street	6	4	2	1	3	1	0.24 0.860
4: N Main Street/ NE 9 <sup>th</sup> Street	2	0	2	2	0	0	0.08 0.293
5: N Main Street/ NE 7 <sup>th</sup> Street	6	2	4	2	2	2	<b>0.27</b> <i>0.293</i>

#### Table 3. Crash History (January 2014 through December 2018)

\*Million Entering Vehicles

#### N Main Street / NE 7th Street

The unsignalized intersection of N Main Street and NE 7th Street provides a critical extension to the east side of Prineville. The intersection is slightly offset between the east and west side of N Main Street, with stop-sign control in the east-west directions. The eastern leg forms a parallel route to the NE 3rd Street corridor, continuing east toward the edge of the City as Laughlin Road.

The crash records indicate that there were six reported collisions in the past five years.

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- Two fixed object collisions were reported in the last five years. One occurred in icy conditions and involved a northbound right-turning vehicle. The crash was attributed to driving too fast for the conditions and involved hitting a utility pole. No injuries were reported. The other fixed object crash occurred on a clear, dry day in the westbound direction. The records indicate the driver was physically ill and the crash resulted in injury.
- One rear-end crash was reported at the N Main Street/NE 7<sup>th</sup> Street intersection which occurred in the westbound direction on the east leg during daylight hours. Property damage only resulted from this crash. A second rear-end crash was reported to have occurred in the eastbound direction on the west leg approach to the intersection. Again, the weather was clear and dry, and no personal injury occurred.
- One reported turning collision involved an eastbound vehicle driven by a 19-year-old male turning to the north onto Main Street (left) and crashing into a northbound vehicle. No injuries were reported. The second turning movement collision was a left turn from the eastern leg into the intersection colliding with a northbound vehicle. The cause cited was inattention, and minor injuries were reported.

No patterns were identified within these reported crashes that would require additional mitigation.

#### Intersection Sight Distance

Intersection sight distance was field reviewed at the existing intersection of NE Mariposa Avenue / NE Cobblestone Court, which will serve as the access intersection for the vehicles exiting the new development. The purpose of sight distance analysis is to ensure an adequate view of conflicting traffic is provided to drivers exiting the site.

The City of Prineville applies the minimum recommended sight distance criteria based on the standard reference *A Policy on Geometric Design of Highways and Streets*, 7<sup>th</sup> *Edition* published by the American Association of State Highway and Transportation Officials (AASHTO) in 2018 (commonly referred to as the *Green Book*). This reference provides the recommended sight distances as measured from a height of 3.5 feet 14.5 feet from the edge of travel way, based on the speed of the roadway (see Figure 5). The AASHTO reference is based on conflicts between motorists traveling along the roadway and motorists completing movements at the intersection.

The posted speed along NE Mariposa Avenue is 25 miles per hour, and the two-lane roadway is generally flat, with a horizontal curvature south of the intersection. The site was visited and inventoried in May 2021, and adequate sight distance are available in both directions for vehicles exiting NE Cobblestone Court, as illustrated in Figures 6 through 8. It was noted that adjacent shrubs does partially occlude views, but adequate views can be obtained by pulling forward.

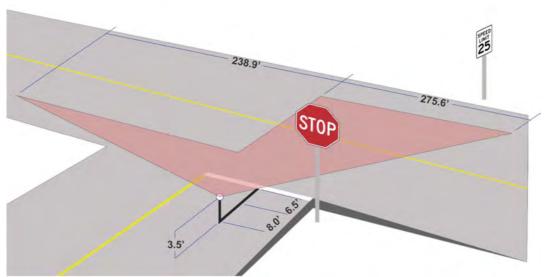


Figure 5. Intersection Sight Distance Requirements along NE Mariposa Avenue at the NE Cobblestone Court intersection.



Figure 6. Facing south (left) along NE Mariposa Avenue from the NE Cobblestone Court intersection.

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Figure 7. Facing north (right) along NE Mariposa Avenue from the NE Cobblestone Court intersection.



Figure 8. Facing west across the NE Mariposa Avenue / NE Cobblestone Court intersection.

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### TRAFFIC OPERATIONS

The traffic operations analysis was prepared at each of the study intersections during the weekday p.m. peak hour. The Transportation System Plan requires that traffic studies analyze the existing traffic, the background traffic at the projected year of project completion, and the traffic with the project at the year of project completion. This project is anticipated to be completed in the year 2023. A two-percent annual growth rate was applied to traffic volumes, a more aggressive annual growth rate than what was found in the TSP, which ranged from 0.6% to 1.1% for the NE 9<sup>th</sup> Street and NE 10<sup>th</sup> Street intersections with N Main Street.

Historical traffic counts were obtained for the N Main Street/NE 10<sup>th</sup> Street and N Main Street/NE 9<sup>th</sup> Street intersections from September 19, 2019. These are reflective of traffic volumes when school was in session and during pre-COVID conditions. The same two-percent adjustment factor was applied to the 2019 counts to reflect typical 2021 volumes.

Additional traffic counts were collected at N Main Street/NE 7<sup>th</sup> Street on January 20, 2021, and at N Main Street/NE Mariposa Avenue on May 12, 2021. These traffic counts include the impact of reduced travel due to COVID-19. To account for the reduced travel, ODOT's regional statewide traffic counts from permanent count stations were reviewed between 2019, 2020, and 2021. The *Observed Statewide Traffic Volume Patterns: Related to COVID-19 Monitoring* report dated January 15, 2021, reports that on US 26 "weekday volumes have largely remained within 10% of previous year levels since December." A review of the average weekday volumes for US 26 for the week of January 4<sup>th</sup> to 10<sup>th</sup> between 2020 (pre-COVID) and 2021 shows only a 5% decrease in volumes. To compensate, the traffic volumes at N Main Street/NE 7<sup>th</sup> Street were increased by 5% to reflect what would otherwise be more typical conditions. Within the May reports the discrepancies appear negligible, so adjustments to the more current count at Mariposa Avenue were not included.

The existing travel patterns identified through review of these traffic counts reflect the residential land uses that surround the property and mimic the trip distribution patterns provided in Figure 4.

Table 4 summarizes the date of each traffic count and the adjustments applied to each intersection to estimate typical 2021 weekday peak hour traffic volumes. The existing traffic conditions were analyzed using Synchro analysis software with the Highway Capacity Manual 6<sup>th</sup> Edition methodology. The following scenarios were analyzed:

- Existing Conditions: This analysis reflects traffic conditions during the peak fifteen-minutes of the peak morning and evening commute hour. This scenario is used to calibrate the analysis models to current conditions.
- Year 2023 "Without Project" Conditions: This analysis identifies how the area transportation
  system will operate in the build-out year of the proposed subdivision without the project. This
  includes a two-percent annual growth rate to account for area development that is likely to occur
  within the next two years, as well as inclusion of trips from the multifamily development on NE
  Blackbear Street (which was partially built-out and occupied when the counts were collected), the
  approved Housing Works project, and the pending Smith Landing project.
- Year 2023 "With Project" Conditions: This analysis includes area growth and adds estimated trips from the proposed 40-lot subdivision.

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Intersection	Count Date	COVID-19 Adjustment	Growth Adjustment
1: N Main Street/NE Mariposa Avenue	05/12/2021	1.00	n/a (current)
3: N Main Street/NE 10 <sup>th</sup> Street	9/19/2019	n/a (pre-COVID)	1.04
4: N Main Street/NE 9 <sup>th</sup> Street	9/19/2019	n/a (pre-COVID)	1.04
5: N Main Street/NE 7 <sup>th</sup> Street	1/20/2021	1.05	n/a (current)

#### **Table 4. Traffic Count Volume Adjustments**

The City's 2013 Transportation System Plan identifies the City's adopted performance standards. As identified within the TSP, for roadways within City jurisdiction the City of Prineville considers intersections to operate acceptably if they operate at Level of Service "E" or better during the peak hour, if they remain below their carrying capacity at two-way stop-controlled intersections and below a volume-to-capacity ratio of 0.90 at traffic signals, and if the 95<sup>th</sup> percentile vehicular queues can be contained within the available storage.

Figure 9 illustrates the weekday p.m. peak hour volumes throughout the study area during the respective study years. Table 5 summarizes the results of the transportation analysis and shows that all intersections currently meet operation standards, with the Main Street/9<sup>th</sup> Street intersection operating at the boundary of acceptable. In the future without the new subdivision, the N Main Street/NE 9<sup>th</sup> Street intersection is expected to exceed the City's standards. It will continue to degrade with the proposed subdivision. This intersection is discussed further below.

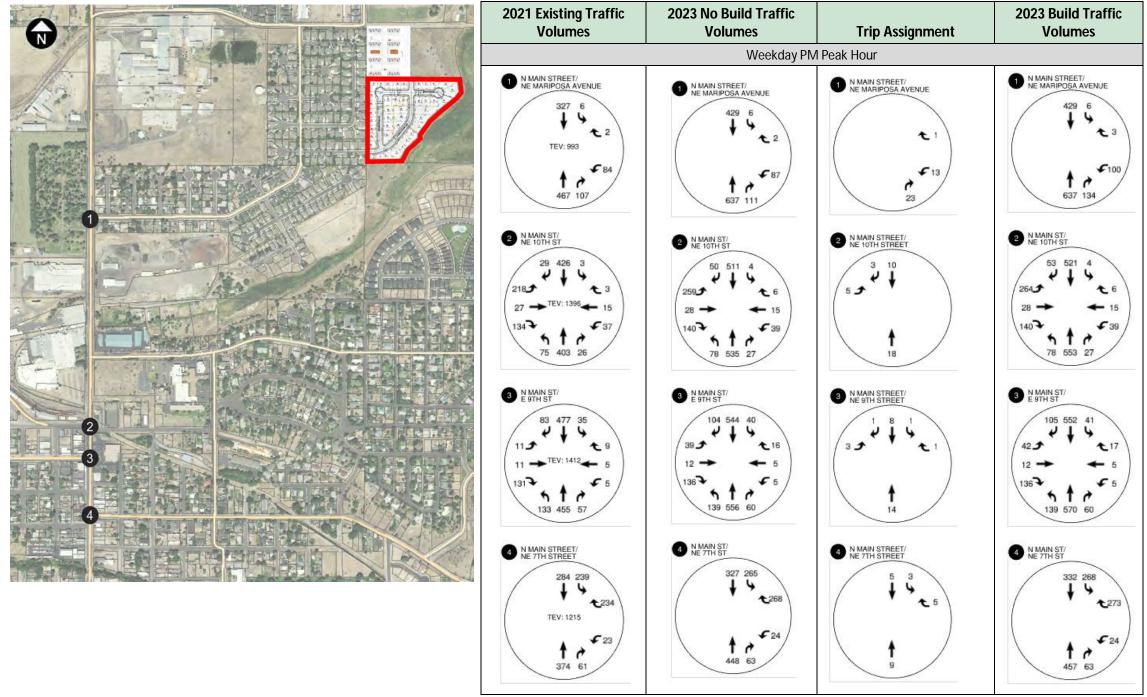


Figure 9. Trip Assignment by Analysis Year, weekday p.m. peak hour

	Operation	Existing Conditions			Year 2023 Without Project Conditions			Year 2023 With Project Conditions			Acceptable?
Intersection	Standard	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	
1: N Main Street/ NE Mariposa Avenue	LOS E v/c ≤ 1.00 Delay ≤ 50	WB LR LOS C	15.3 s	0.20	WB LR LOS C	19.0 s	0.26	WB LR LOS C	20.0 s	0.31	Yes
2: N Main Street/ NE 10 <sup>th</sup> Street	LOS E v/c ≤ 0.90 Delay ≤ 80	LOS B	15.4 s	0.65	LOS C	24.7 s	0.78	LOS C	27.6 s	0.80	Yes
3: N Main Street/ NE 9 <sup>th</sup> Street	LOS E v/c ≤ 1.00 Delay ≤ 50	WB LTR LOS E	49.0 s	0.21	EB LTR LOS F	>100 s	>1.00	EB LTR LOS F	>100 s	>1.00	No
4: N Main Street/ NE 7 <sup>th</sup> Street	LOS E v/c ≤ 1.00 Delay ≤ 50	WB LR LOS C	19.0 s	0.53	WB LR LOS D	26.6 s	0.68	WB LR LOS D	28.1 s	0.70	Yes

 Table 5. Summary of Intersection Operations Analysis, Weekday PM Peak Hour

LOS: Level of Service; Delay: Critical Movement Delay; v/c: Volume-to-Capacity Ratio

WB: Westbound; EB: Eastbound; L: Left-turn; T: Through; R: Right-turn

#### N Main Street / NE 9th Street

The unsignalized intersection of Main Street/9<sup>th</sup> Street is shown to experience high eastbound and westbound left-turn delays in the future, with the eastbound movement also exceeding capacity. The eastbound left-turn movement currently serves 11 vehicles during the peak hour, which is projected to increase to 39 left-turns in the future without the project and 42 left-turns with the project. The westbound movements, exiting the grocery store parking lot, are expected to remain stable but also operate at Level of Service "F".

Improvements are identified within the City's 2013 Transportation System Plan to better link 9<sup>th</sup> and 10<sup>th</sup> Streets so that the eastbound left-turns could use the signalized route. The following is text from the adopted Transportation System Plan:

#### Main Street

Future modifications to the Main Street corridor can help ease traffic congestion near 3<sup>rd</sup> Street, enhance safety, and address pedestrian and bicycle connectivity needs. These modifications may include:

- Development of parallel north-south routes to reduce reliance on Main Street. The Peters Road
  and Combs Flat connections will form a new route connecting into US 26 at the eastern and
  western edges of the City.
- Restriping Main Street to a three-lane cross-section from Peters Road south to 9<sup>th</sup> Street. The
  narrowing of the road will allow larger shoulder areas for bicycles and pedestrians.
- Construction of improvements at the Main Street/10<sup>th</sup> Street/Lamonta Road traffic signal to realign the intersection, provide pedestrian accommodations, and accommodate truck turns.
- A phased approach to provide an eastern continuation of the 9<sup>th</sup>/10<sup>th</sup> Street corridor will help relieve the volume of traffic currently using 7<sup>th</sup> Street to access Laughlin Road. Initially, truck traffic on the 9<sup>th</sup> Street corridor should be directed to use Deer Street to connect to Lamonta Road. As funding is available, a new connection between 9<sup>th</sup> Street and 10<sup>th</sup> Street should be made between Deer Street and Claypool Street. The rerouting to 10<sup>th</sup> Street, west of Main Street, aligns traffic to the Main Street/10<sup>th</sup> Street intersection where signal improvements are planned. The specific alignment of the roadway extension is also dependent on the impacts to the Price Slasher and associated mitigations. Therefore, the final alignment should be determined as part of future redevelopment opportunities or when funding becomes available for planning/construction.

The traffic counts show that there are currently only 11 eastbound left-turns occurring at the NE 9<sup>th</sup> Street intersection and 218 at the signalized intersection with NE 10<sup>th</sup> Street. The traffic counts indicate that drivers are aware of the delays experienced turning left onto N Main Street and are currently using the local street network to connect to the NE 10<sup>th</sup> Street alignment.

While the transportation system has reserve capacity at the NE 10<sup>th</sup> Street intersection, the increasing travel demands on NE 9<sup>th</sup> Street will continue to increase the priority to make functional intersection and system improvements. Many of the local street intersections along the N Main Street corridor are slightly offset, and the major through routes to the west (NW 10<sup>th</sup> Street – Lamonta Road and 9<sup>th</sup> Street) are offset from the NE 7<sup>th</sup> Street – Laughlin Road alignment that connects east. This continues to show the on-going need to address conditions at NE 7<sup>th</sup> Street with capacity improvements, and to also improve either NW

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9<sup>th</sup> or NW 10<sup>th</sup> Street with better connectivity between the two parallel routes (likely along the more major streets such as Deer Street).

No mitigation measures are recommended in the interim period to address the left-turn delays at NE 9<sup>th</sup> Street. While this study shows the projected eastbound left-turn volume demand exceeding capacity, many of these vehicles will reroute to NE 10<sup>th</sup> Street to avoid the long delays. When system improvements are in place the movements at 9<sup>th</sup> Street could even be limited to a right-turn only to further encourage use of the signalized connection to turn left onto Main Street.

#### FINDINGS AND RECOMMENDATIONS

Based on this review, the proposed 40-lot subdivision is forecast to generate 378 daily trips (including 40 trips during the weekday p.m. peak hour). The majority of these trips are expected to travel south along Main Street toward the City's commercial and employment areas.

Major intersections along the primary access route can accommodate the additional trips, with the exception of the eastbound approach at the N Main Street/NE 9<sup>th</sup> Street intersection. Improvements are already identified in the City's 2013 Transportation System Plan to address this noted issue. Eastbound left-turning vehicles at NE 9<sup>th</sup> Street will reroute to NE 10<sup>th</sup> Street as is already being observed within the existing conditions traffic counts.

The primary access to the new subdivision is provided from a stubbed street connection at Cobblestone Court, with future connections planned to the north that will connect into Peters Road. To minimize impact on neighbors it is recommended that the primary construction activity access the site from Peters Road if possible through a temporary road. It is recommended that Cobbe Stone Court be designed as the "through" route within the neighborhood, with intersecting street approaches containing stop-control. In addition, the subdivision project will be required to pay SDC fees toward regional system impacts.

Thank you for the opportunity to provide this transportation study in support of the Stone Ridge Subdivision Phases 9 through 11. Please let me know if you have any questions on this analysis at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- Traffic Count Worksheets
- Existing Conditions LOS Worksheets
- Year 2023 Without Project LOS Worksheets
- Year 2023 With Project LOS Worksheets

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