



MEETING AGENDA

Southeast Area Plan Advisory Committee Meeting 6

MEETING DATE: September 26, 2019

MEETING TIME: 5:15 – 7:45 PM

LOCATION: Bend-La Pine School District Education Center
520 NW Wall Street, Room #314, Bend

Objectives

- Discuss and provide direction for land use and transportation concepts and the proposed alternative collector standard, and preliminary discussions for code concepts

Agenda

1. Welcome, Introductory Items (Chair Sharon Smith) – 5 min

- a. Introductions
- b. Conflict of interest disclosures
- c. Approval of minutes from last meeting

2. Public Comment (Chair Sharon Smith) – 10 min

The amount of time to provide comments may be limited to three minutes per person, depending on the number of people wishing to comment. Additional time for public comments is also provided at the end of the agenda under Item #7.

3. Agenda Overview, Where We Are in the Process, and Open House Debrief (Project Team) – 15 min

- a. Schedule review
- b. Where we've been, where we're going
- c. Feedback from the in-person and online open house
- d. Observations from August land use field trips

4. Land Use Plan (Project Team) – 40 min

The team is seeking SEAPAC approval of the refined land use concept (Option D, attached). Once approved, the land use concept will be used by the team for transportation and sewer modeling.

- a. Staff briefing

Accessible Meeting Information

This meeting/event location is accessible. Sign language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats and CD Formats, or any other accommodations are available upon advance request. Please contact Damian Syrnyk meeting at dsyrnyk@bendoregon.gov, 541-312-4919. Providing, at least, 3 days' notice prior to the event will help ensure availability.



- b. Committee discussion
- c. Committee action: approval of land use plan for use in modeling

5. Transportation Plans and Coordination with Bend Transportation Plan Update
(Project Team) – 40 min

The team is seeking SEAPAC approval of the refined transportation alignments (attached), which will be used for transportation modeling. Please see the attached transportation concept map and memo regarding coordination with the TSP effort.

- a. Staff briefing
- b. Committee discussion
- c. Committee action: approval of transportation plans for use in modeling
- d. Informational update on transportation project prioritization and funding under discussion by the TSP

6. Alternative Collector Standard (Project Team) – 30 min

The team is seeking SEAPAC input and direction regarding the proposed alternative collector standard, as presented in the attached memo.

- a. Staff briefing
- b. Committee discussion
- c. Committee action: feedback on alternative collector standard

7. Public Comment (Chair Smith) – 10 min

Like Item #2, depending on the number of people wishing to comment, the time may be limited to three minutes per person.

8. Next steps

- a. Announcements
- b. Next meeting dates:
 - SEAPAC Meeting #7 – December 3, 2019, 5:15 PM, BLSD Education Center Boardroom

Agenda Item No. 1:
Meeting Minutes from
SEAPAC #5

Minutes

Southeast Area Plan Advisory Committee Meeting #5

Southeast Area Expansion Plan

June 6, 2019

Bend-La Pine School District Education Center
520 NW Wall Street, Room 314, Bend, Oregon



CITY OF BEND

Committee Members

Ken Atwell, *Member*

Kip Barrett, *Member (absent)*

Casey Bergh, *Member*

Sarah Bodo, *Member*

Butch Hansen, *Member*

William Hubbert, *Member*

Anthony Oddo, *Member*

Jeff Reed, *Member*

Jacob Schumacher, *Member (absent)*

Sharon Smith, *Chair*

Rachel Strickland, *Member (absent)*

Dixon Ward, *Member*

Rick Williams, *Member*

Steve Wilson, *Member*

Rachel Zakem, *Member*

City Staff

Nick Arnis, *Growth Management Director*

Ben Hemson, *Business Advocate*

Ian Leitheiser, *Assistant City Attorney*

Justin Livingston, *City Councilor*

Damian Szyrnyk, *Senior Planner*

Jenny Umbarger, *Administrative Support Specialist*

Consultants

Joe Dills, *Angelo Planning Group*

Kyra Haggart, *Angelo Planning Group*

Ken Pirie, *Walker Macy*

1. Welcome, introductory items

Chair Smith called the meeting to order at 5:21pm.

Committee members and staff introduced themselves; committee members disclosed conflicts of interest.

Chair Smith disclosed her employment with Bend-La Pine School District (BLSD), and its ownership of property in the "Elbow";

Member Ward disclosed his employment with JL Ward Co. and its ownership of property in the "Elbow";

Member Atwell disclosed his position with the Southeast Bend Neighborhood Association;

Member Oddo disclosed he is a business and property owner in the "Elbow";

Member Hubbert disclosed he is a homeowner in the “Elbow”;
Member Bodo disclosed her employment with Bend Park and Recreation District (BPRD), and its ownership of property in the “Elbow”;
Member Wilson disclosed he is a property owner in the “Elbow”;
Member Williams disclosed his employment with Oregon Department of Transportation (ODOT);
Member Hansen disclosed his position with the Old Farm Neighborhood Association;
Member Reed disclosed he is a property owner in the “Elbow”, and his employment with NAI Cascade.

2. Public Comment

No public comment.

3. Approval of minutes from last meeting

Member Atwell requested “the Bridges” be replaced with “private development” in #3 under Transportation in Exhibit “A” of the May 2, 2019 meeting minutes. Chair Smith called for a motion to approve the minutes as amended. Member Atwell moved for a motion, Member Wilson seconded. Unanimous approval by present members. (Yes-11, No-0, and Abstain-0)

4. Agenda Overview and Where We Are in the Process

Mr. Dills reviewed the Work Plan and Process, as outlined in the presentation. Mr. Atwell expressed concern about the timing of modeling in the Southeast Area Plan (SEAP) in relationship to the work being done in the Transportation System Plan (TSP). Mr. Dills indicated the plans are parallel to each other, and the TSP will inform the SEAP.

5. Open Space Concepts

Mr. Pirie reviewed Open Space Concepts, as outlined in the presentation. Member Bodo indicated BPRD has identified a need for approximately four-acre parks, generally within ½ mile walking distance. Member Atwell expressed concern about the term ‘Areas of Special Interest’ (ASIs) and the rules associated with it. Members Reed and Oddo pointed out the amount of their respective properties covered by open space, as mapped in the presentation. Mr. Dills and Chair Smith clarified that the committee (SEAPAC) will identify any ASIs to be maintained (exempt from development). Member Bodo indicated BPRD may expand their search area in the “Elbow” dependent upon final land use designations. Mr. Dills summarized the discussion as follows:

- a. Open Space Concepts is an inventory of natural features in the area. It is not a regulation or proposal.
- b. The committee is interested in balance between natural features and development, with flexibility to implement.
- c. ASIs are not referenced in open house materials due to the specific meaning.

Mr. Dills indicated that at the July Open House, all materials developed to date regarding land use, transportation and open space will be shared. Following SEAPAC discussion, it was determined to refer to open spaces as Natural Features Inventory. There was general consensus to advance to the Open House.

6. Transportation Plan Update

Mr. Dills reviewed Draft Transportation Concepts, as outlined in the presentation. Chair Smith recommended considering the same collector street standard that is in the future high school's master plan. Mr. Dills indicated the funding work done in the TSP will determine how infrastructure costs are allocated. Mr. Syrnyk indicated that work done in the TSP and SEAP projects will determine standards for neighborhood collectors, and SEAPAC will discuss right of way (ROW) specifications for roads as SEAP progresses. Mr. Dills summarized the discussion as follows:

- a. For mapping clarity, use the same color to indicate collectors, and label the collector type as 'To be determined'.
- b. SEAPAC has expressed interest in a 70' neighborhood collector standard, similar to the collector that bisects the new high school property. This would be subject to modeling results.
- c. Emphasize proposed collectors are not site-specific.
- d. Maps showing trails and topography overlay will be included.

Mr. Dills indicated the previously suggested east-west frontage road beginning at 15th Street just north of Knott Road will not be modeled. There was general consensus to advance the Transportation Concepts to the Open House.

7. Land Use Plan Update

Mr. Syrnyk and Mr. Dills reviewed Land Use Concepts, as outlined in the presentation. Mr. Syrnyk indicated determining a plan designation for the Department of State Lands (DSL) property is out of SEAPAC's scope of work. Member Zakem recommended moving the Mixed Employment (ME) area immediately west of the BPRD park site in Option C to allow for some Residential Urban Standard Density (RS) to border the park. Chair Smith indicated that a future elementary school may be located somewhere other than on the BLSD's property along 27th Street.

8. Public Comment

Pat Schatz, a property owner in the "Elbow", expressed support for the progress SEAPAC has made.

Ken Granacki, a property owner in the "Elbow", recommended the BLSD property be redesignated as Light Industrial (IL).

9. Land Use Plan Update, cont.

Member Hansen expressed support for a pros and cons approach to presenting land use plan information at the Open House. Member Zakem recommended the proposed neighborhood collector between Ferguson Road and Knott Road be realigned to mitigate bisecting Mr. Granacki's property. Chair Smith recommended rezoning corners. Member Reed expressed support for exploring redesignating BLSD's property to IL. Member Bodo indicated construction of High Desert Park is not currently planned for construction within the next ten years. Mr. Dills summarized the discussion as follows:

- a. Present pros and cons at the Open House.
- b. Explore adjustments to the neighborhood collector between Ferguson Road and Knott Road.
- c. Explore redesignating BLSD's property as IL.
- d. Explore redesignating a portion of the land along Ferguson Road currently designated as Residential Urban High Density (RH).
- e. Explore adding a transitional designation between General Commercial (CG) and RS to Member Ward's property.

There was general consensus to advance to the Open House.

10. Next steps

Mr. Syrnyk indicated the Open House at Bend Municipal Court.

Mr. Dills adjourned the meeting at 7:57pm.

Respectfully submitted,

Damian Syrnyk
Jenny Umbarger
Growth Management Department

Accessible Meeting/Alternate Format Notification



This meeting/event location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats, language translations or any other accommodations are available upon advance request at no cost. Please contact Jenny Umbarger no later than 24 hours in advance of the meeting at jeumbarger@bendoregon.gov, 541-323-8509, or fax 541-385-6676. Providing at least 3 days' notice prior to the event will help ensure availability.

Agenda Item No. 3:
Summary of Open
House #2

Summary of Open House #2

PREPARED FOR: Southeast Area Plan Project Management Team
PREPARED BY: Kyra Haggart, APG
DATE: 7/24/2019

Introduction

This memorandum provides a summary of the information provided, and results from, the Southeast Area Plan community open house held on July 11, 2019.



Event Summary

Date: Thursday, July 11, 2019
Time: 6:30 p.m. – 8:30 p.m.
Location: Bend Municipal Court, 555 NE 15th Street, Bend

Attendance:
Approximately 28 community members attended the workshop.

Information Provided

Information about the following topics was presented on display boards, with staff available for discussion and to answer questions:

- Project overview, including a project schedule and study area maps
- Project vision and guiding principles
- Existing transportation conditions and background information about street classifications, street spacing standards, and safety issues
- Draft street and trails plans, including collector road alignment options
- Existing land uses and market analysis background

- Direction received from the City Council and State regarding comprehensive plan designations and employment land
- Three draft land use plan alternatives
- Land use transition information and site studies
- Principles for walkable areas
- Natural features inventory

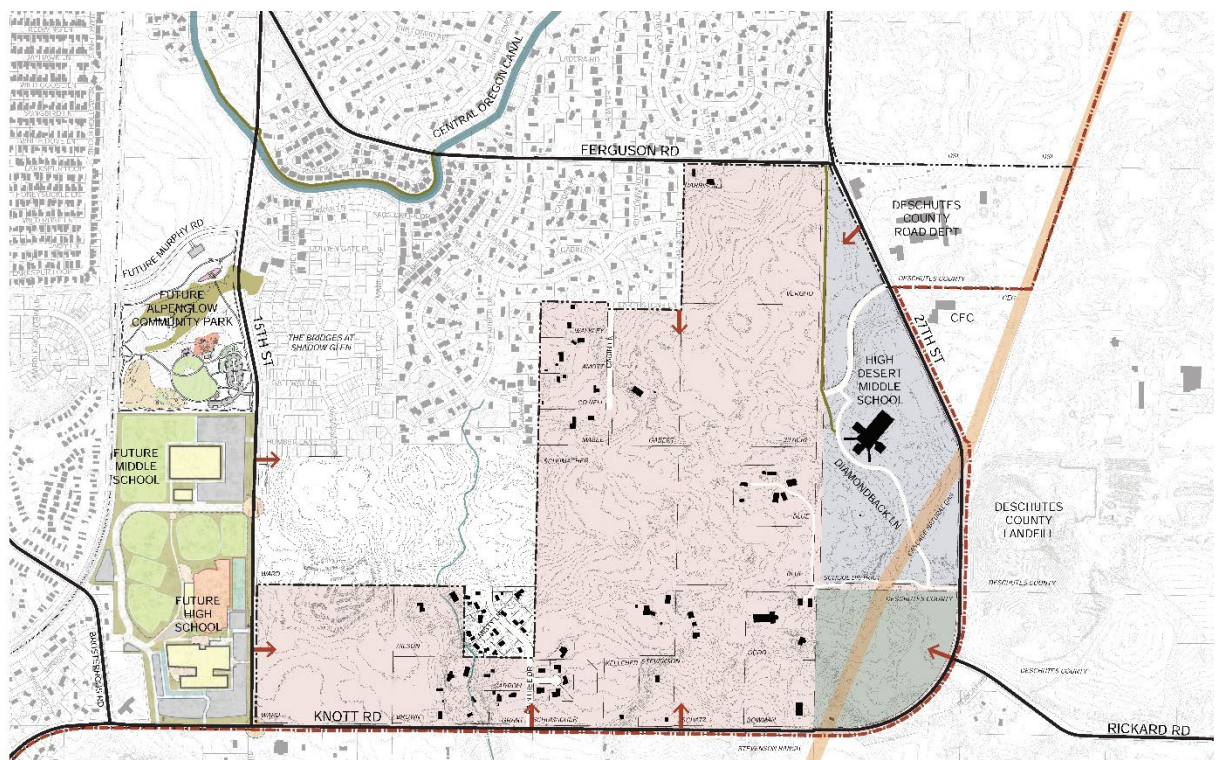
The information presented was organized into four stations:

1. Project Overview
2. Draft Streets & Trails Concepts
3. Draft Plan Concepts
4. Natural Features Inventory

The Southeast Area Plan study area is shown in Figure 1 below. A copy of the display boards are available in the “Meeting Schedules and Materials” section of the project website:

<https://www.bendoregon.gov/southeastareaplan>

Figure 1. Study Area



STUDY AREA



- | | | | | |
|--------------------|-----------------------------------|-----------------------------|----------------------------|--------------|
| — Railroad | --- Existing City Boundary | ■ Existing Buildings (2004) | --- Piped Canal | — Canal |
| — Utility Easement | - - - Urban Growth Boundary | → Proposed Road Connection | --- Contours 2 ft Interval | ■ Tax Lots |
| — Existing Trail | --- Existing Road in Project Area | — Existing Major Road | --- Property Owners | ■ Study Area |
| ■ Future Parks | ■ Area of Special Interest | ■ Existing School | | |

Workshop Results and Discussion

Attendees of the workshop were able to provide input on the project through several different methods:

- Four of the display boards included opportunities for attendees to provide topic-specific input by adding sticky dots or written notes.
- Comment forms were available to gather input on anything that was not covered at the open house, and to offer feedback of the overall effectiveness of the open house.
- Flip chart pads were placed around the room for attendees to write general comments about the project or the area.
- Staff were available at each display board station to have discussions with attendees, answer questions, and listen to input.

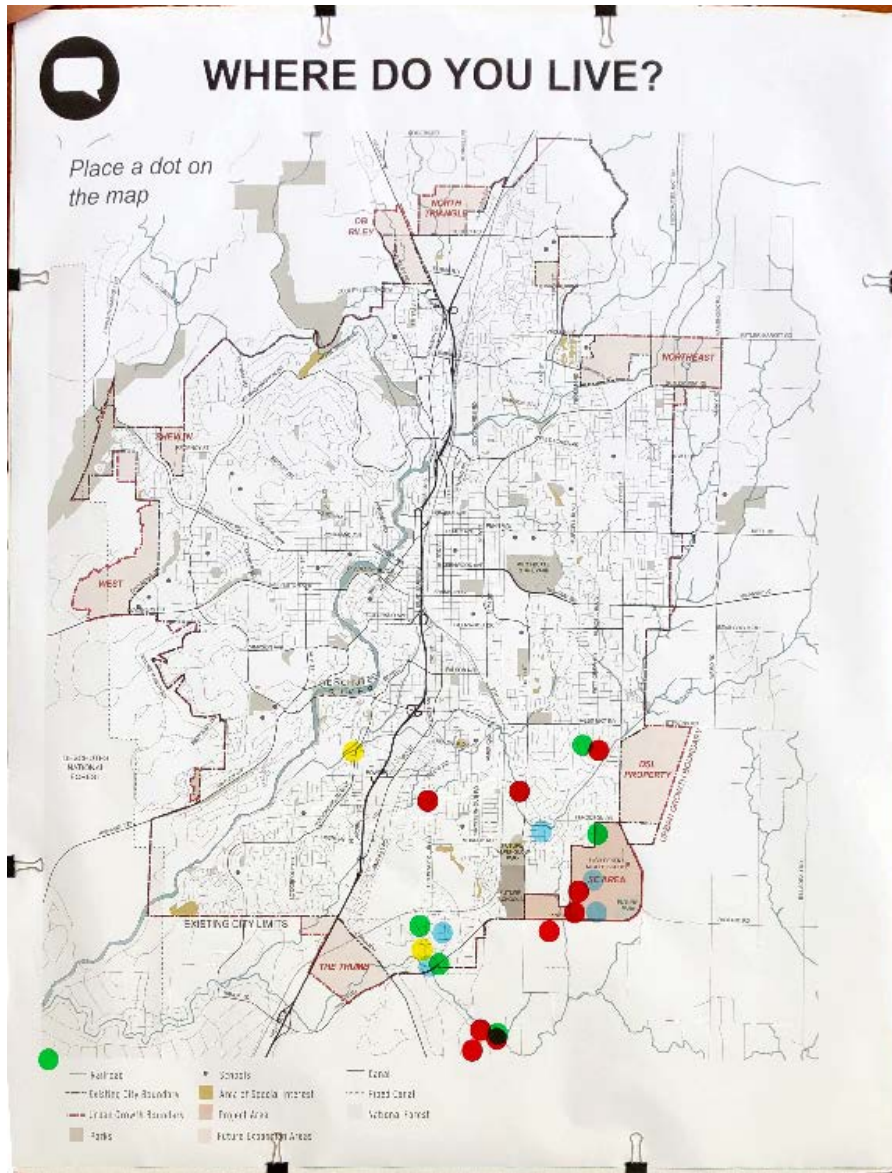


Engagement Boards

Where Do You Live?

A board at the entrance to the workshop invited attendees to place a dot on a map of the City to indicate where they live. A total of 22 dots were placed on the map. The results are shown in Figure 2 below.

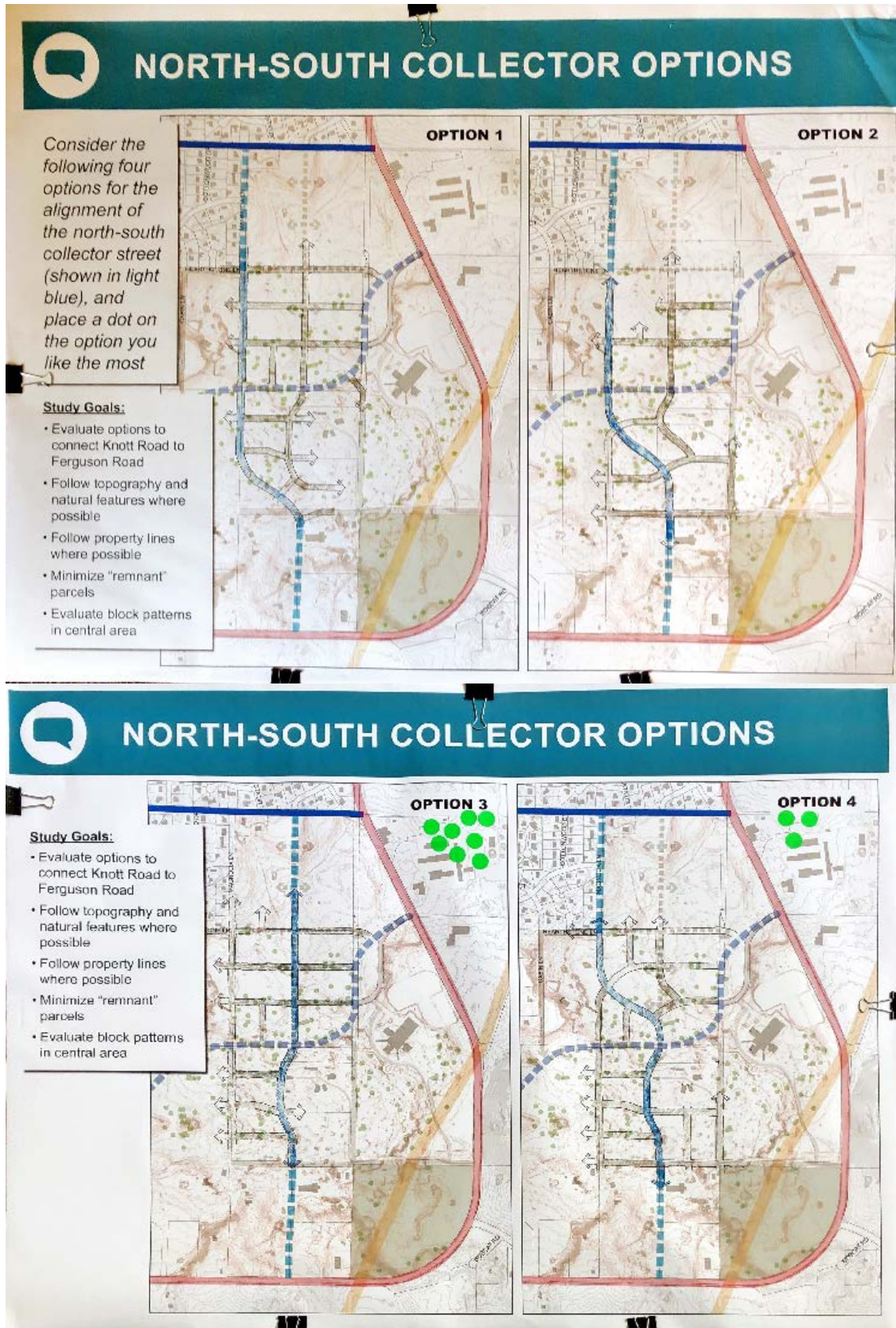
Figure 2. Results of the "Where Do You Live?" Board



North-South Collector Options

A set of two boards at the Draft Streets & Trails Concepts station invited attendees to consider four options for the alignment of a new collector street that would run north-south through the study area as part of the draft street plan. Attendees placed a dot on the image of the option that they liked the most. A total of 11 dots were placed on the map. Eight attendees voted for Option 3 and three attendees voted for Option 4. The results are shown in Figure 3 below. During discussion with attendees, the project team heard a strong preference for Option 3.

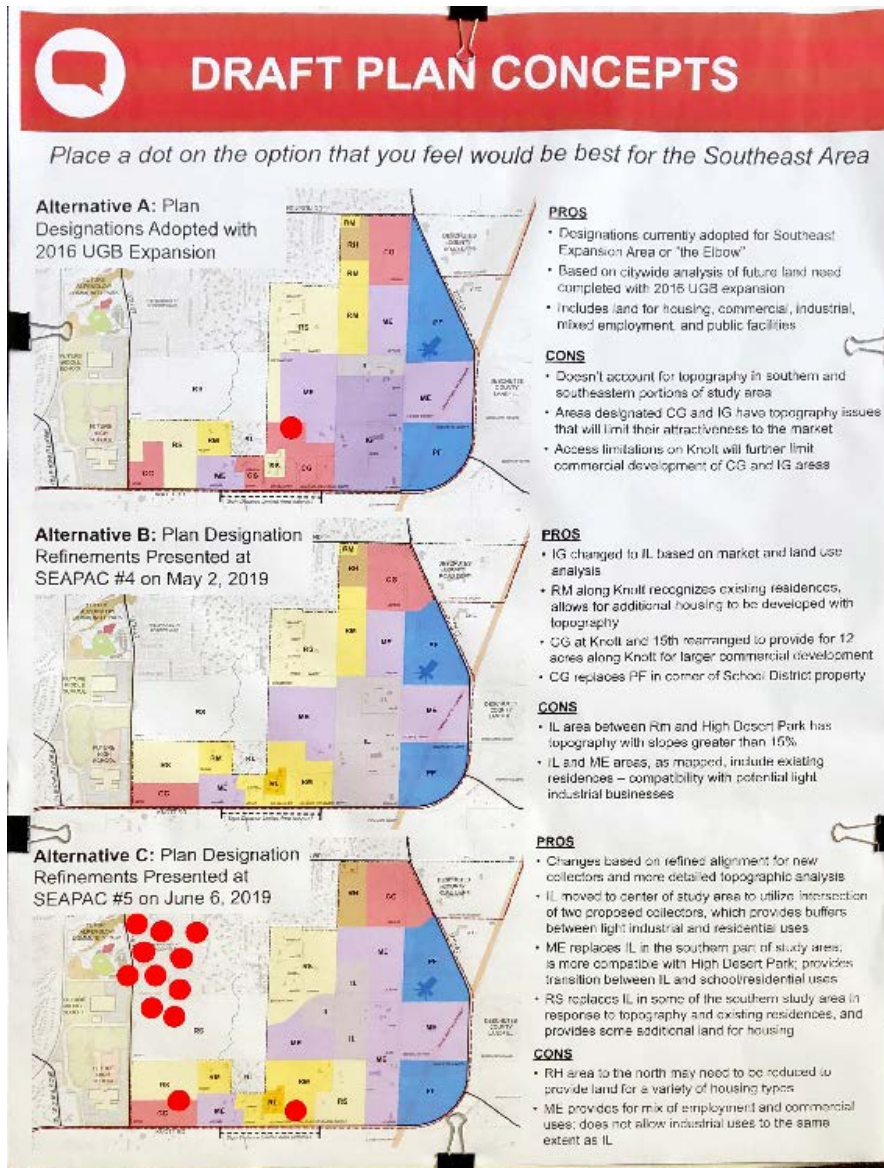
Figure 3. Results of the North-South Collector Options Boards



Draft Plan Concepts

A board at the Draft Plan Concepts station invited attendees to place a dot on the draft land use plan that they liked the most. The board included three alternatives for land use designations in the area, as well as pros and cons of each alternative. A total of 13 dots were placed on the map. 12 attendees voted for Alternative C, and one voted for Alternative A. The results are shown in Figure 4 below. During discussions with attendees, the project team heard generally positive comments about the “evolution” of the plan and how it addressed input and discussions to date.

Figure 4. Results of the Draft Plan Concepts Board



Comment Forms, Easel Pads, and Discussions with City Staff

A summary of the comments received through the voluntary comment forms, easel pads, and discussions with City staff is provided below:

- Landscaping and good design is essential to this area. It can make the ME and LI look good (like parts of American Lane).

- The transitions toolbox map should show a transition area along Knott at the residential properties.
- Look at RS on Knott with possible ME as a buffer.
- Desire for an east-west road north of Knott.
- Emergency evacuation of subdivisions and few exits/entrances is very slow and may be dangerous for fire location.
- Consider fewer “collectors” and more options for movement in four directions.
- Need good bike trails – require them.
- Follow City of Bend Exterior Lighting Code and ensure all new lighting is directed downward and no light pollution. Currently this is a nice dark sky friendly area, please keep it that way.
- Concern about fast food restaurants being allowed in CG zones.



Agenda Item No. 3:
Summary of Open House
#2 Online Survey



Summary of Open House #2 Online Survey

PREPARED FOR: Southeast Area Plan Project Management Team

PREPARED BY: Kyra Haggart, APG

DATE: 8/23/2019

Introduction

This memorandum provides a summary of the results from the Southeast Area Plan Southeast Area Plan Online Survey. The Online Survey was open for 20 days from Thursday, July 11, 2019 through Wednesday, July 31, 2019. The Online Survey coincided with the Southeast Area Plan Open House #2, which took place on Thursday, July 11, 2019 from 6:30 pm – 8:30 pm at the Bend Municipal Court. The Online Survey provided the opportunity to share project information with community members who were unable to attend the in-person event and solicit their feedback regarding the Southeast Area Plan. A link to the Online Survey was posted to the City's website and Facebook page, was advertised on NextDoor, and was sent to the project's interested parties email list. The Online Open House received a total of 63 responses.

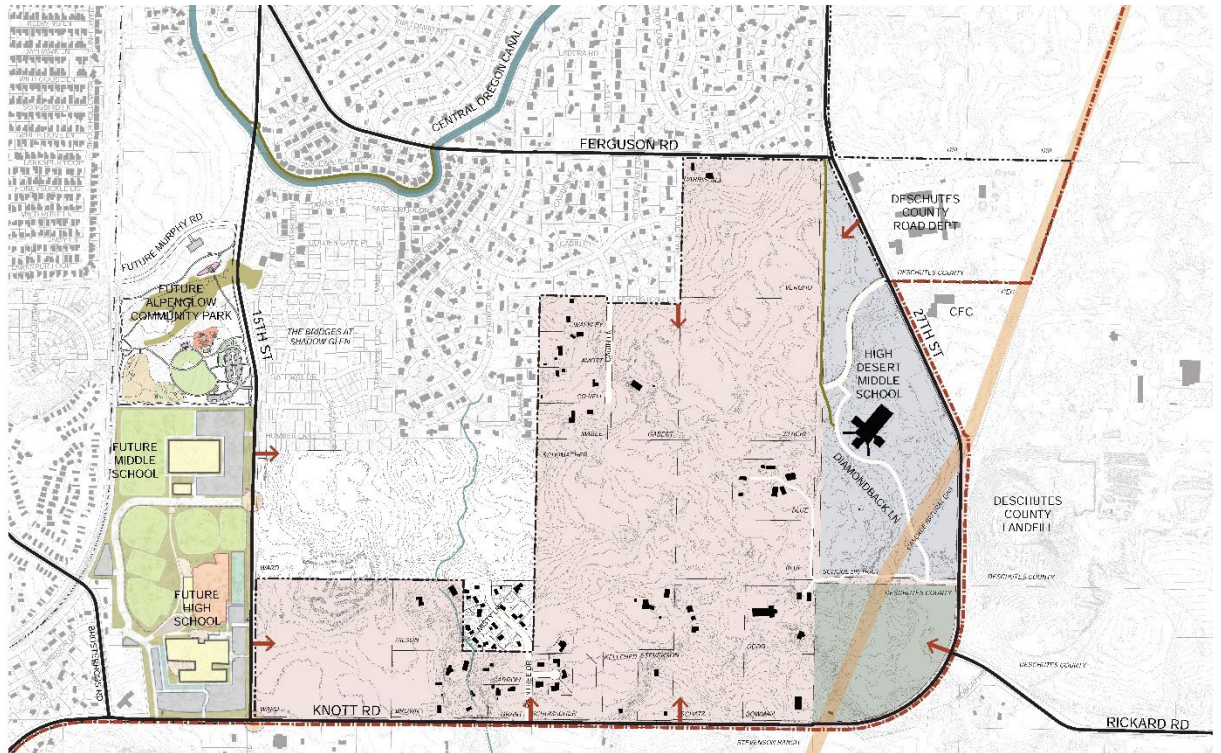
Information Provided

Information about the following topics was presented on display boards:

- Project overview, including a project schedule and study area maps
- Project vision and guiding principles
- Existing transportation conditions and background information about street classifications, street spacing standards, and safety issues
- Draft street and trails plans, including road alignment options
- Existing land uses and market analysis background
- Direction received from the City Council and State regarding employment land
- Three draft land use plan alternatives
- Land use transition information and site studies
- Principles for walkable areas
- Natural features inventory

The Southeast Area Plan study area is provided for reference in Figure 1 below.

Figure 1. Southeast Area Plan Study Area



STUDY AREA



Online Survey Results

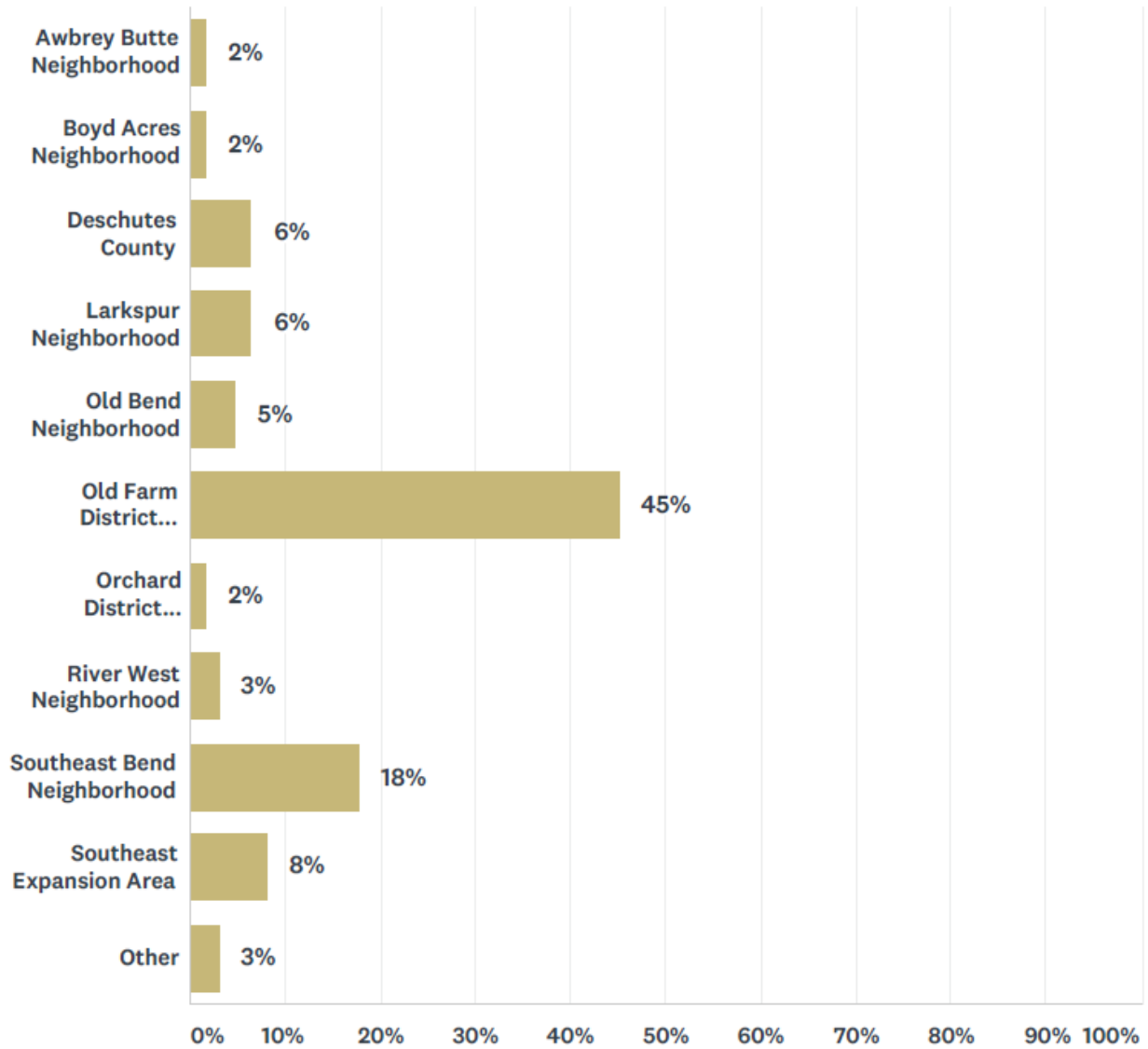
Respondents to the Online Survey were able to provide input regarding specific land use and transportation alternatives, as well as general open-ended feedback about the project.

Introduction Page

Where Do You Live?

Respondents were asked to select the neighborhood or area of Bend where they live. A map of the neighborhoods in Bend was provided for reference. The results are shown in Figure 2 below. Responses to the “Other” option included Woodside Ranch and Brightenwood Estates.

Figure 2. “Where do you live?” Results

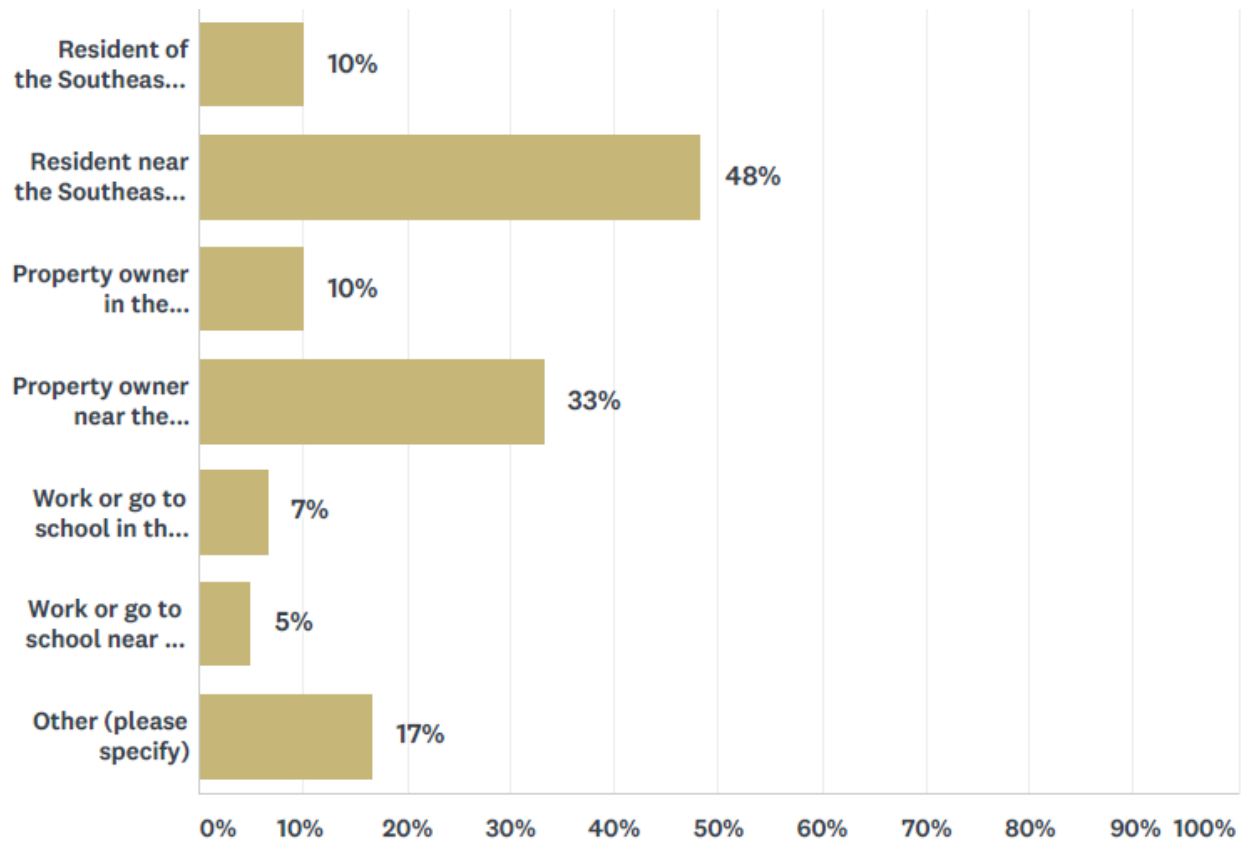


Why are you interested in this project?

Respondents were asked about their interest in the Southeast Area Plan. The results are shown in Figure 3 below. Responses to the “Other” option included the following:

- General interest in the growth of Bend
- Use Knott Road
- Realtor
- Interest in community involvement

Figure 3. Project Interest Results

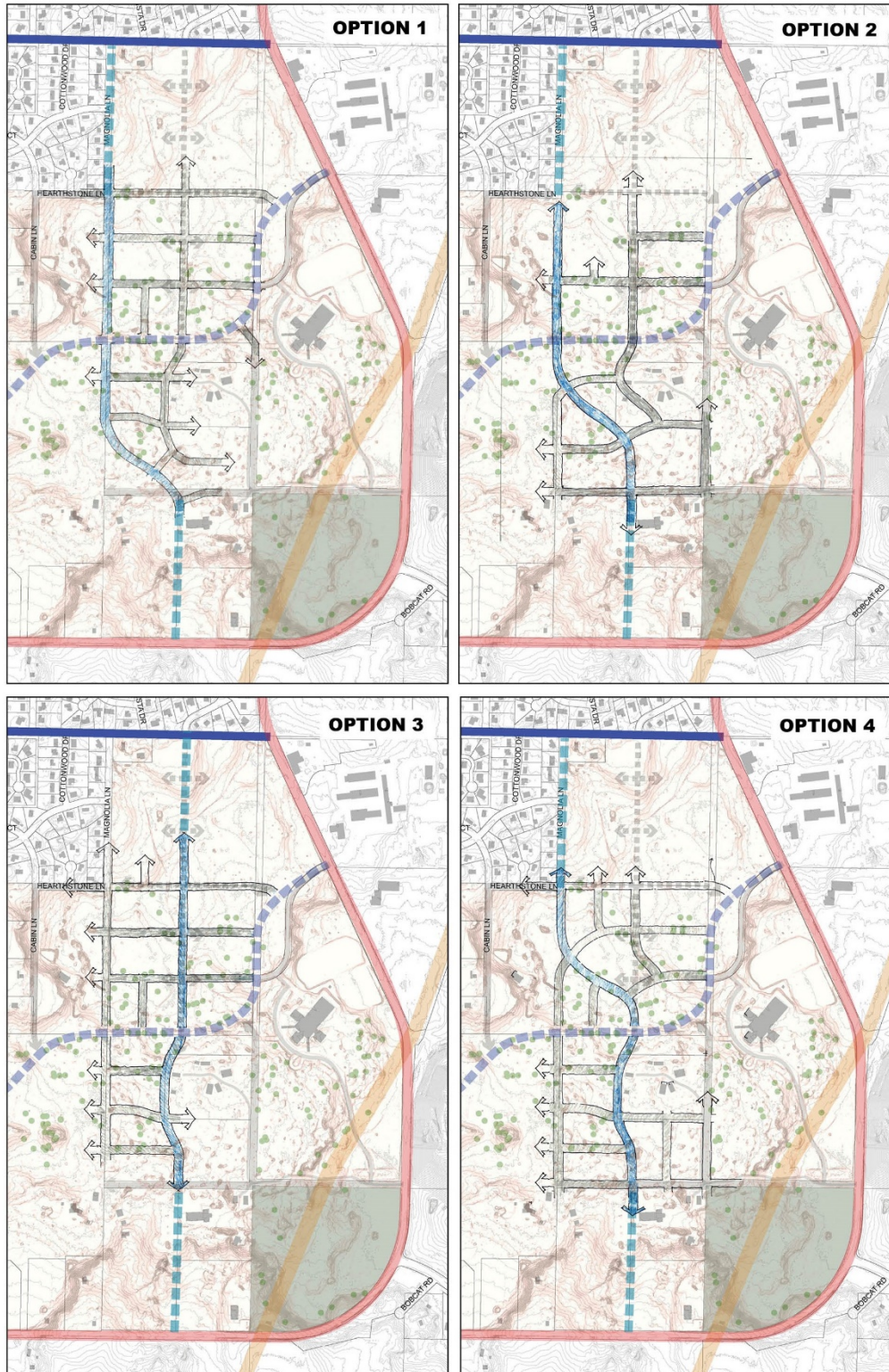


Draft Streets & Trails Concepts Page

North-South Collector Options

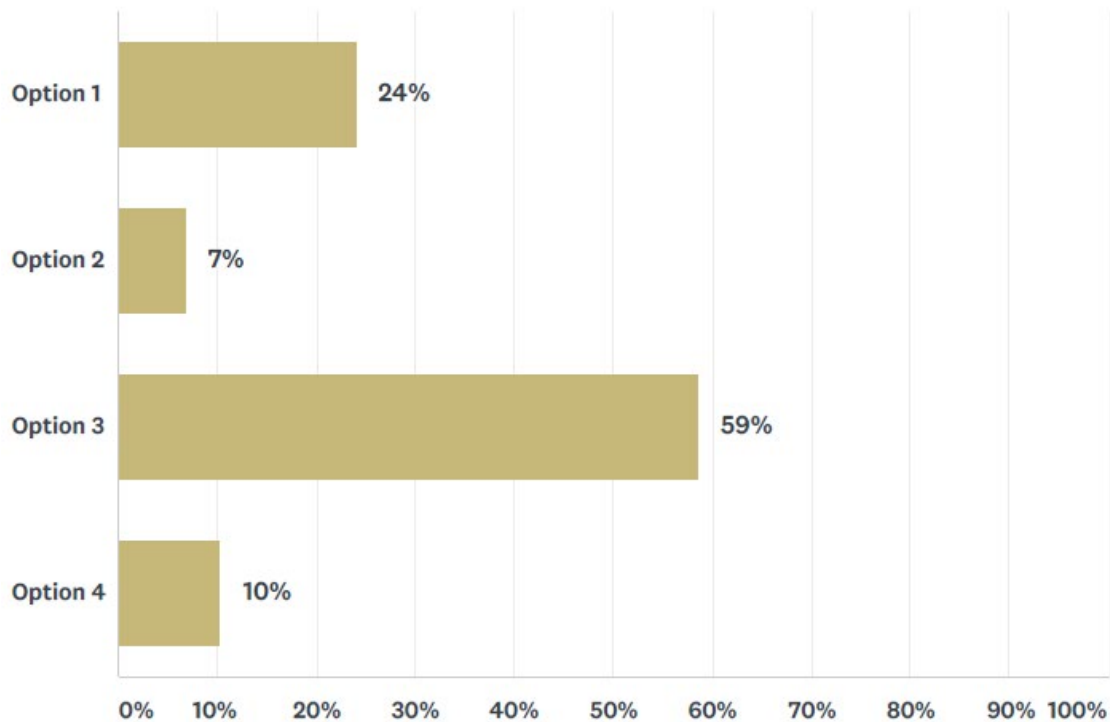
The Online Survey invited participants to consider four options for the alignment of a new collector street that would run north-south through the study area as part of the draft street plan. The four options are shown in Figure 4 below.

Figure 4. North-South Collector Options



A total of 29 survey participants responded to the question, with 17 of them (59%) indicating a preference for Option 3. Seven respondents voted for Option 1, two voted for Option 2, and three voted for Option 4. The results are shown in Figure 5 below.

Figure 5. North-South Collector Options Results



General Transportation Comments

Respondents were also asked if they had any other comments or suggestions about the options for the alignment of the new north-south collector street, or about transportation in the Southeast Expansion Area generally. Responses included:

- Support for Option 3 in order to prevent increased traffic on Magnolia Lane, which is currently a quiet residential street.
- Consider impacts to families that live on Magnolia Lane before making it a busy collector street.
- Desire to preserve the quiet neighborhood character without much traffic and with open spaces.
- Maintain Magnolia Street as a local street.
- Limit intersections on the new collector to increase traffic flow.
- Design the new collector with traffic calming as part of the original construction.
- Add a traffic circle on Ferguson Road at 15th Street and 27th Street.
- Add turn lanes, bike lanes, and safe sidewalks on Ferguson Road.
- Concern about the traffic heading toward Highway 97.
- Desire to see improvements and lower speed limits on Knott Road.
- New collector should be wide enough to accommodate buffered bike lanes on both sides.
- Need for designated walking and biking trails on the east side of Bend.

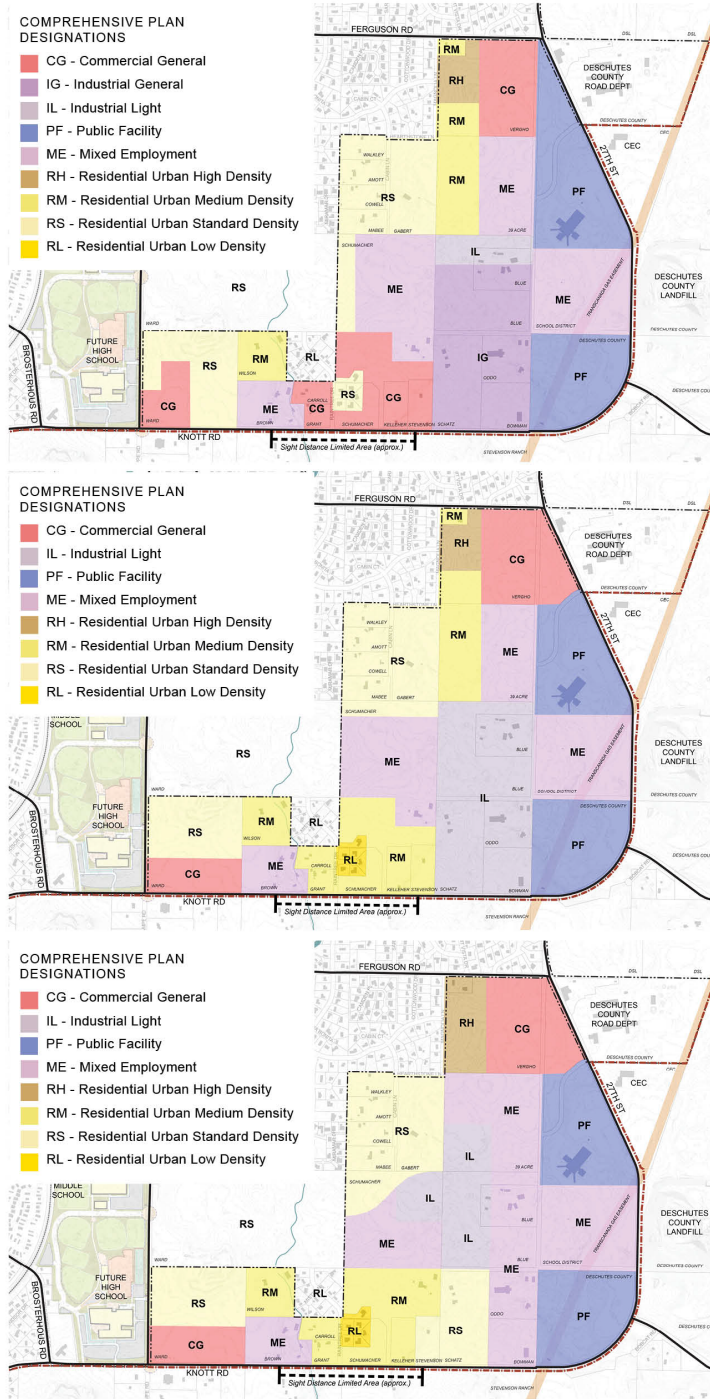
- Honor existing unpaved footpaths through the Southeast Expansion Area as rights-of-way in the plan.
- Desire for more gravel trails as opposed to paved trails.
- Desire to have public restrooms provided at new parks.
- Need for safe crosswalks across Ferguson Road.

Draft Land Use Plan Concepts

Draft Plan Concepts

The Online Survey invited participants to consider three alternatives for the refinement of land use designations in the Southeast Expansion Area, shown in Figure 6 below.

Figure 6. Land Use Alternatives



PROS

- Designations currently adopted for Southeast Expansion Area or “the Elbow”
- Based on citywide analysis of future land need completed with 2016 UGB expansion
- Includes land for housing, commercial, industrial, mixed employment, and public facilities

CONS

- Doesn’t account for topography in southern and southeastern portions of study area
- Areas designated CG and IG have topography issues that will limit their attractiveness to the market
- Access limitations on Knott will further limit commercial development of CG and IG areas

PROS

- IG changed to IL based on market and land use analysis
- RM along Knott recognizes existing residences, allows for additional housing to be developed with topography
- CG at Knott and 15th rearranged to provide for 12 acres along Knott for larger commercial development
- CG replaces PF in corner of School District property

CONS

- IL area between Rm and High Desert Park has topography with slopes greater than 15%
- IL and ME areas, as mapped, include existing residences – compatibility with potential light industrial businesses

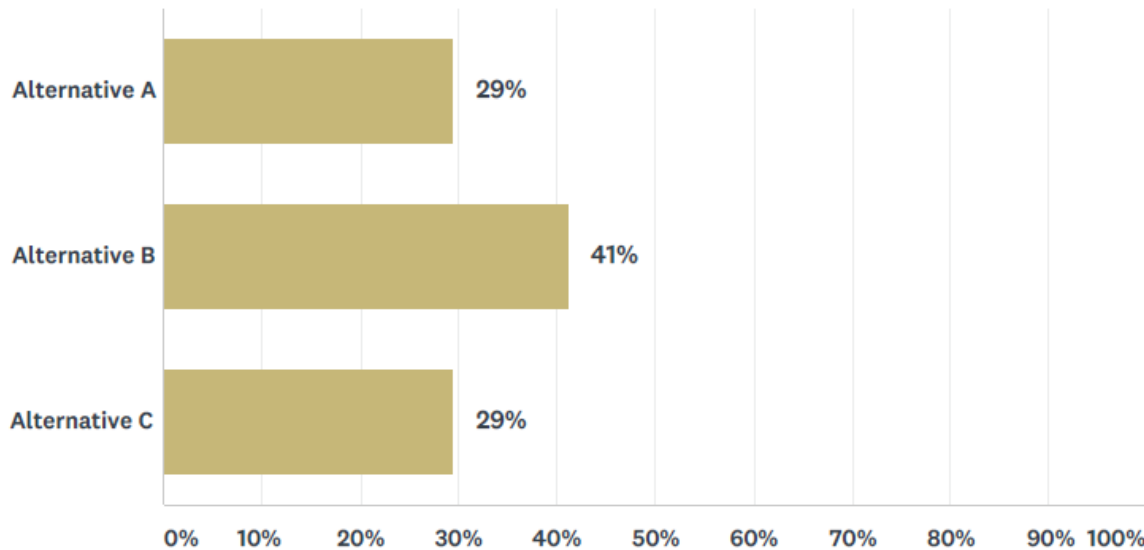
PROS

- Changes based on refined alignment for new collectors and more detailed topographic analysis
- IL moved to center of study area to utilize intersection of two proposed collectors, which provides buffers between light industrial and residential uses
- ME replaces IL in the southern part of study area; is more compatible with High Desert Park; provides transition between IL and school/residential uses
- RS replaces IL in some of the southern study area in response to topography and existing residences, and provides some additional land for housing

CONS

- RH area to the north may need to be reduced to provide land for a variety of housing types
- ME provides for mix of employment and commercial uses; does not allow industrial uses to the same extent as IL

A total of 17 survey participants responded to the question. Five respondents (29%) voted for Alternative A, seven (41%) voted for Alternative B, and five (29%) voted for Alternative C. The results are shown in Figure 7 below.

Figure 7. Land Use Alternatives Results

General Land Use Comments

Respondents were also asked if they had any other comments or suggestions about the land use alternatives, or about land use in the Southeast Expansion Area generally. Responses included:

- Concern that the future park should be adjacent to residential rather than industrial/mixed employment land uses so that it has a population to serve.
- Question regarding requirements for a buffer between high- and low-density residential uses.
- General dislike of commercial uses in the area.

Natural Features Inventory

Survey participants were asked if they had any comments or suggestions about the natural features inventory, or if there were any notable features the team missed. Responses included:

- There are many mature trees in the area between 27th Street, Ferguson Road, and Magnolia Lane that don't appear to be marked on the inventory map, but that should be preserved if possible.
- Support for considering the natural features in the planning process.
- The area is largely flat so topography should not be much of a concern.

General Comments

General comments included:

- Support for the new uses that will come to Southeast Expansion Area.
- Desire to maintain Magnolia Lane as a quiet residential street.
- Concern about the volume of vehicle traffic on surrounding roads.

Agenda Item No. 4:
Refined Land Use Plan



Refined Land Use Plan

PREPARED FOR: Southeast Area Plan Advisory Committee (SEAPAC)
COPY TO: Project Team
PREPARED BY: Joe Dills and Kyra Haggart, APG
DATE: September 12, 2019

Introduction

The purpose of this memorandum is to introduce the draft refined land use plan to be discussed by the Southeast Area Plan Advisory Committee (SEAPAC) on Thursday, September 26. The refined plan for land use designations in the Southeast Expansion Area is presented in Figure 4. The project team is seeking SEAPAC approval of the land use plan for use by the team in the next phase of analysis: transportation and sewer modeling, and funding plan analysis and development.

Concept Development

Figure 1 presents the land use designations that were adopted as part of the Bend Urban Growth Boundary (UGB) expansion process in 2016. The plan designations were established in the context of the citywide evaluation of land needs, UGB Remand compliance, and update of the City's Comprehensive Plan. In the Southeast Expansion Area, the designations were applied at a high level, with the intent to be refined. Through this area planning process, SEAPAC and the project team have had the opportunity to further analyze and refine these land use designations. Refinements to the land use plan have been made based on input and analysis from the following three areas:

- A more detailed analysis of physical conditions and constraints, including topography and transportation access and safety;
- Input from SEAPAC members and the broader community of southeast Bend; and
- Direction from the City Council and the State Department of Land Conservation and Development (DLCD).

The land use designations adopted for the Southeast Expansion Area in 2016 were intended to provide for a mix of employment and residential uses providing compatible transitions from the employment lands to the existing neighborhoods to the west and north. This intent is consistent with SEAPAC's vision and guiding principles for the area. Although the refinement process is flexible in terms of where the land use designations adopted in 2016 can be located within the Southeast Expansion Area, the ability to change the mix of uses is limited by both State requirements and policy direction from the City's Comprehensive Plan regarding the provision of a mix of housing types and employment opportunities.¹

Land Use Concept Alternatives

¹ For more information about Council and State direction regarding land use refinements, please refer to the memo beginning on page 29 of the meeting packet from SEAPAC #5: <https://www.bendoregon.gov/home/showdocument?id=41835>

Four alternatives for refining the adopted land use designations have been discussed to-date by the project team and SEAPAC. These alternatives do not represent four equal options; rather, they represent a progression of plan development through detailed site analysis and responsiveness to community feedback. The options are:

- **Option A (Figure 1)** – This option would retain the plan designations as adopted by the 2016 UGB expansion process.
- **Option B (Figure 2)** – This option, which was brought to SEAPAC at their meeting on May 2, changes General Industrial (IG) designations to Light Industrial (LI), without a reduction in the total amount of industrial land. It also converts the area along central Knott Road previously designated as General Commercial (CG) to residential in response to slope constraints and concerns about transportation access and safety.
- **Option C (Figure 3)** – This option was brought to SEAPAC at their meeting on June 6, as well as the subsequent community open house on July 11. It was developed as a compromise between resident concerns and wishes, and state and local requirements. The land use plan includes the minimum amount of industrial land allowed by DLCD (38 acres). It re-designates half of the Light Industrial (LI) acreage shown in Option B to other designations, including Mixed Employment (ME) and Standard and Medium Density Residential (RM and RS), in response to topographic constraints and community concerns about compatibility and walkability.
- **Option D (Figure 4)** – This option represents a refinement of Option C based on feedback received from residents of the area and community members at the in-person and online open house, while maintaining capacity for the mix of housing and employment uses identified in the City’s Comprehensive Plan. Key changes include lowering the density of residential designations adjacent to existing neighborhoods, including along Magnolia Way and Keller Court/central Knott Road, to address compatibility concerns and provide for smooth transitions between land uses and densities.

At this point, the project team recommends Option D, presented in Figure 4, as the refined plan showing the best balance of the various considerations and constraints. The refined land use plan will be used by the project team to model transportation impacts as well as sewer infrastructure. It will also be used for analyzing infrastructure funding and developing the funding plan.

Housing and Employment Capacity

The City’s Comprehensive Plan includes policies that guide land use planning in the Southeast Expansion Area.² These policies include metrics to ensure that the capacities for housing and jobs that were intended for the area are met during the area planning and refinement process. Table 1 lists the acres of each land use designation required by the comprehensive plan compared to the acres of each land use designation present in the refined plan (Option D).

² The Growth Management chapter (Chapter 11) of the Comprehensive Plan includes area-specific policies for land added to the UGB in 2016, including the Southeast Expansion Area (“the Elbow”). Policies 11-75 through 11-84 are specific to and guide the area planning process for the Southeast Expansion Area.

Table 1. Land Use Designation Acres

LAND USE DESIGNATION	COMPREHENSIVE PLAN GUIDANCE (GROSS ACRES)	OPTION D CAPACITY (GROSS ACRES)	REASON FOR DIFFERENCE
RESIDENTIAL (RL, RS, RM, RH)	122	153	Detailed slope analysis of the Southeast Expansion Area revealed numerous topographic constraints that would likely impact the feasibility of commercial and industrial uses. Residential development has more flexibility in areas with steep slopes. Additionally, SEAPAC members and residents of the area expressed concerns about compatibility with existing low-density residential neighborhoods, as well as planned and program uses for the area such as parks and schools.
<i>Low Density Residential (RL)</i>	n/a	10	The Comprehensive Plan does not cite a minimum requirement for low density residential land uses. The project team converted 10 acres of land to low density residential in several locations where existing homes have already been built in a low density residential land use pattern.
<i>Standard Density Residential (RS)</i>	77	97	After doing a detailed analysis of topography and site distance constraints it was determined that the area surrounding the Keller Court subdivision along Knott Road is more appropriately designated for residential land uses rather than commercial. The designation of standard density residential in the area is reflective of the team's consideration of slopes, transportation safety, and input from residents regarding compatibility with existing uses.
<i>Medium Density Residential (RM)</i>	36	36	The retention of 36 acres of medium density residential land is consistent with the original intention of the Southeast Expansion Area to provide for a mix of housing, as well as the City's intention to plan for needed housing.
<i>High Density Residential (RH)</i>	9	10	The retention of 10 acres of high density residential land uses is consistent with the original intention of the Southeast Expansion Area to provide for a mix of housing, as well as the City's intention to plan for needed housing.
COMMERCIAL (CG)	67	43	A detailed analysis of topography and site distance constraints along Knott Road revealed that the area surrounding the Keller Court subdivision is not a good location for commercial uses. Two steep ridgelines run through the area creating transportation safety, visibility, and access issues and limiting the capacity for a larger commercial development to occur. Guidance from DLCD indicated that they were not concerned with changes to commercial designations.

			Two commercial nodes are proposed in the southwest and northeast corners of the Southeast Expansion Area to provide capacity for commercial development and jobs. These locations are both relatively flat and have good existing transportation access and visibility, making them ideal locations for future commercial activity.
INDUSTRIAL (IL, IG)*	76	38	The reduction in land designated for industrial uses is consistent with the feedback from DLCD: (1) a minimum of 38 acres must be retained in the Southeast Expansion Area; and, (2) Bend is obligated to replace the amount of industrial land removed from the area in a future Comprehensive Plan update. The change is also reflective of the project team's detailed topography analysis, and feedback from SEAPAC, residents, and community members, and the results of the project's market analysis. The industrial land retained is designated as light industrial, which will allow for uses that are more compatible with the area's unique topography and existing land uses. The light industrial designation provides opportunities to meet the demand for "flex" development (a blend of office and industrial uses) that are seeing increasing demand in Bend.
MIXED EMPLOYMENT (ME)	103	140	In order to provide additional job capacity while addressing topography and compatibility constraints, much of the land previously designated for industrial uses was re-designated to mixed employment. Mixed employment uses have a more flexible development pattern that better suits the topography of the area and provide transitions from commercial and industrial land uses to residential ones.
PUBLIC FACILITIES (PF)	75	66	The reduction in land for public facilities is due to the re-designation of the northern 11 acres of the School District property for commercial uses.

* Per a communication with DLCD on May 24, 2019, the Southeast Expansion Area was included in the UGB in 2016 to provide for a number of land needs, including industrial land. DLCD's strong recommendation was to maintain a minimum of 38 acres of industrial land for jobs in the Southeast Expansion Area. This change is a reduction from the 76 acres required by the City's Comprehensive Plan policy adopted in 2016 during the UGB expansion process, which was approved by DLCD. This reduction includes a requirement that the City commit to replacing the loss of light industrial land elsewhere in the city in the near term (within three to five years).

Figure 1. Option A - Land Use Designations Adopted in 2016 UGB Expansion

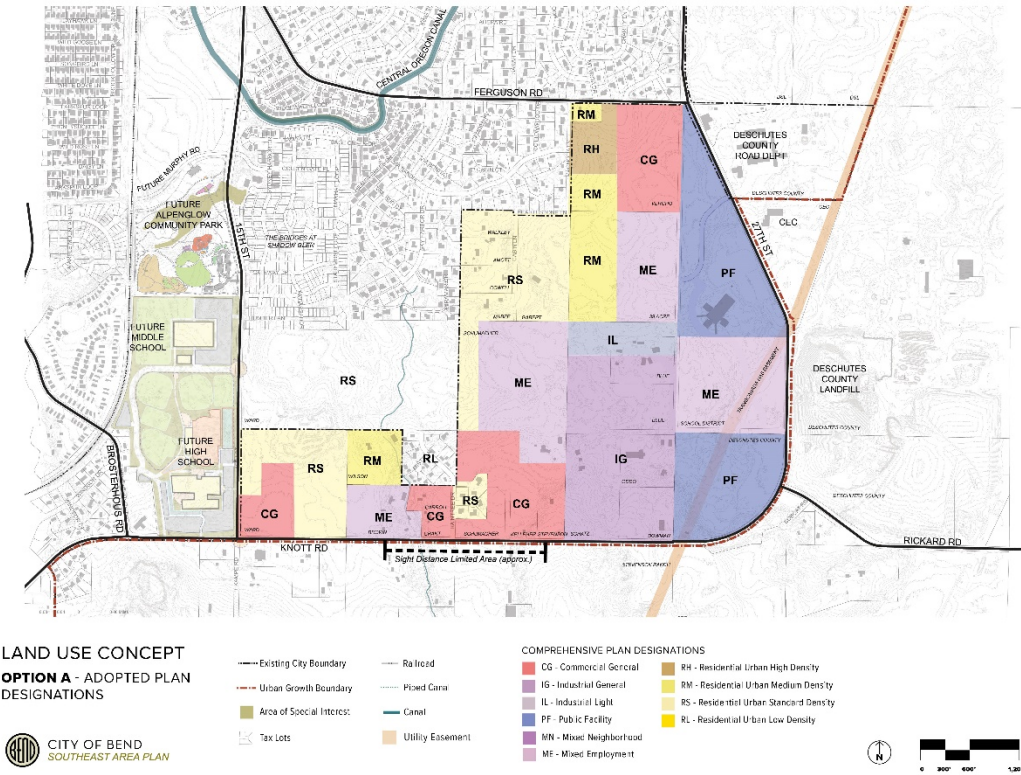


Figure 2. Option B - Land Use Designations Presented at SEAPAC #4 on May 2

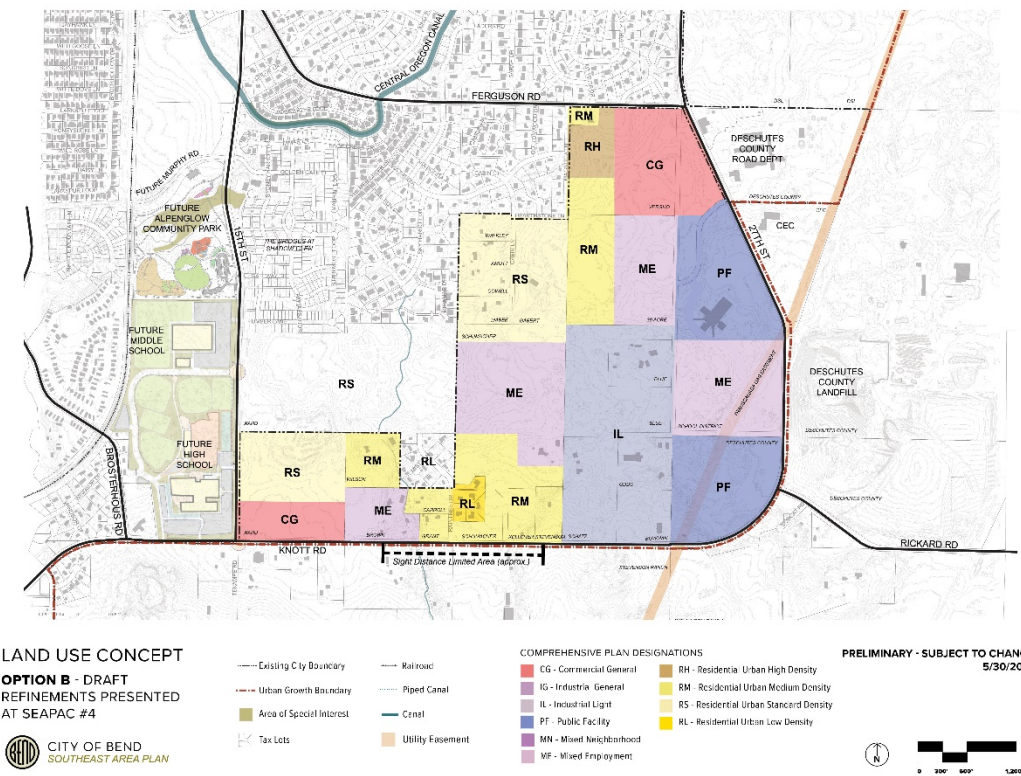
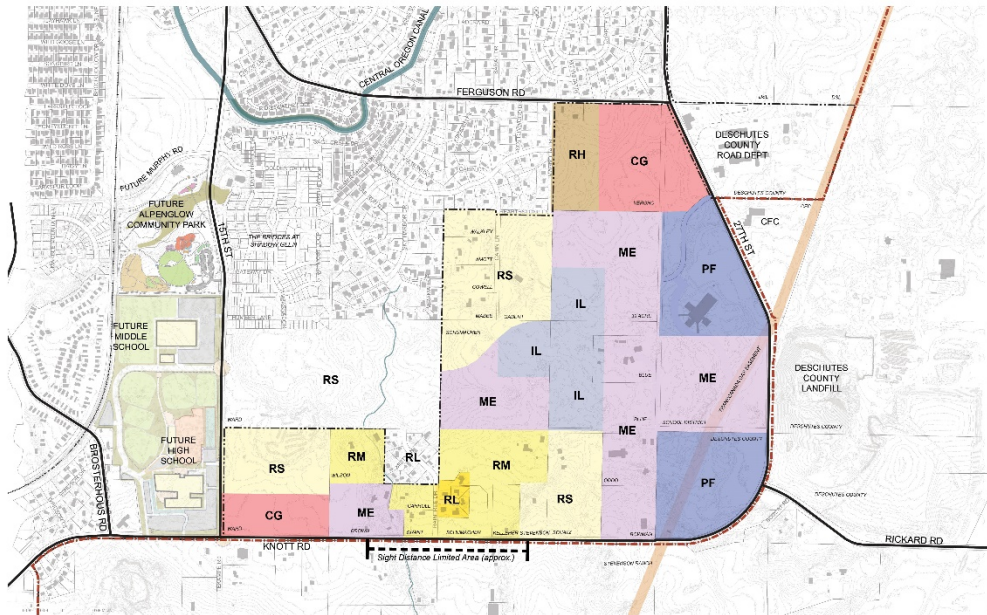


Figure 3. Option C - Land Use Designations Presented at SEAPAC #5 on June 6 and Community Open House on July 11



LAND USE CONCEPT

OPTION C - DRAFT
 REFINEMENTS BASED
 ON FEEDBACK AND SITE
 CONDITIONS



- Existing City Boundary
- Urban Growth Boundary
- Area of Special Interests
- ⊠ Tax Lots
- Railroad
- Pipe/Canal
- Canal
- Utility Easement

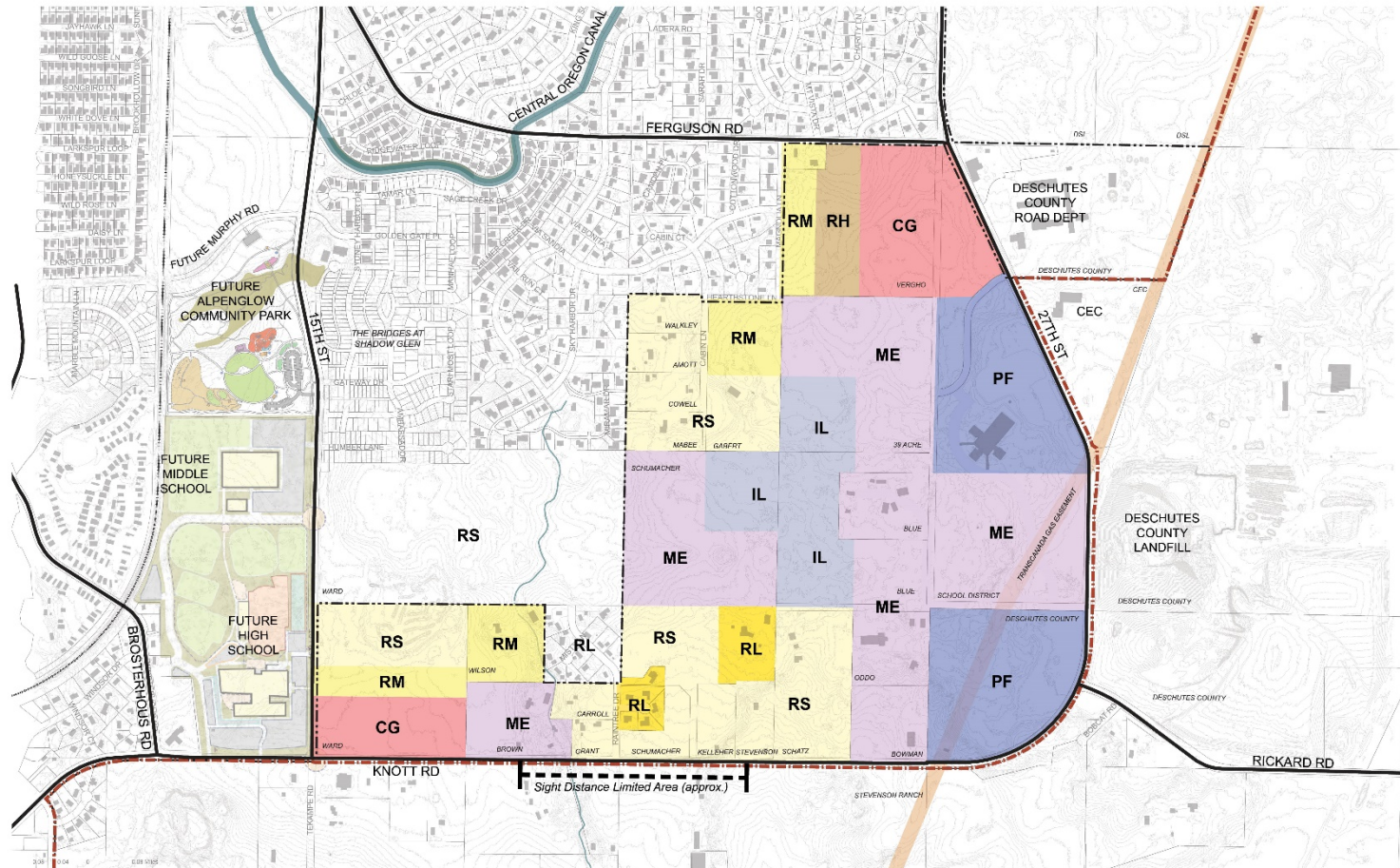
COMPREHENSIVE PLAN DESIGNATIONS

- CG - Commercial General
- IG - Industrial General
- IL - Industrial Light
- PF - Public Facility
- MN - Mixed Neighborhood
- ME - Mixed Employment
- RH - Residential Urban High Density
- RM - Residential Urban Medium Density
- RS - Residential Urban Standard Density
- RL - Residential Urban Low Density

PRELIMINARY - SUBJECT TO CHANGE
 5/30/2019



Figure 4. Option D – Refined Land Use Plan based on Site Analysis and Community Feedback



LAND USE CONCEPT

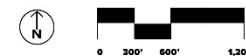
OPTION D - PREFERRED LAND USE REFINEMENT

- Existing City Boundary
- Railroad
- - - Urban Growth Boundary
- Piped Canal
- Area of Special Interest
- Canal
- ⊕ Tax Lots
- Utility Easement

COMPREHENSIVE PLAN DESIGNATIONS

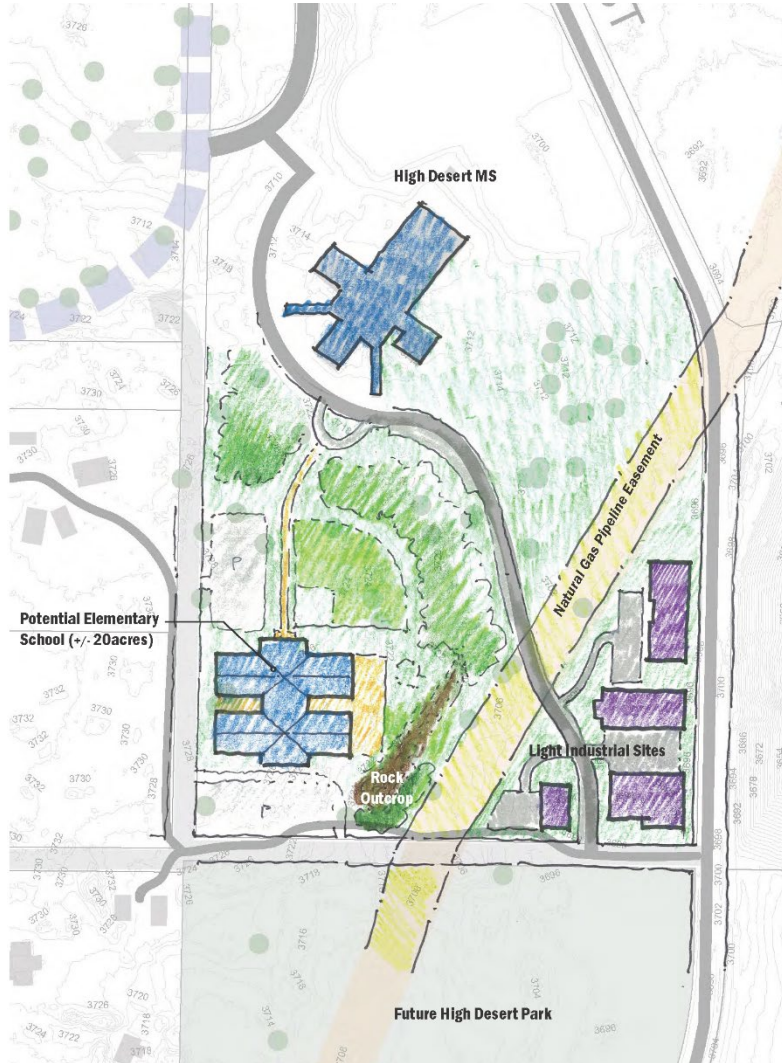
- CG - Commercial General
- RH - Residential Urban High Density
- IG - Industrial General
- RM - Residential Urban Medium Density
- IL - Industrial Light
- RS - Residential Urban Standard Density
- PF - Public Facility
- MN - Mixed Neighborhood
- ME - Mixed Employment
- RL - Residential Urban Low Density

PRELIMINARY - SUBJECT TO CHANGE
9/10/2019

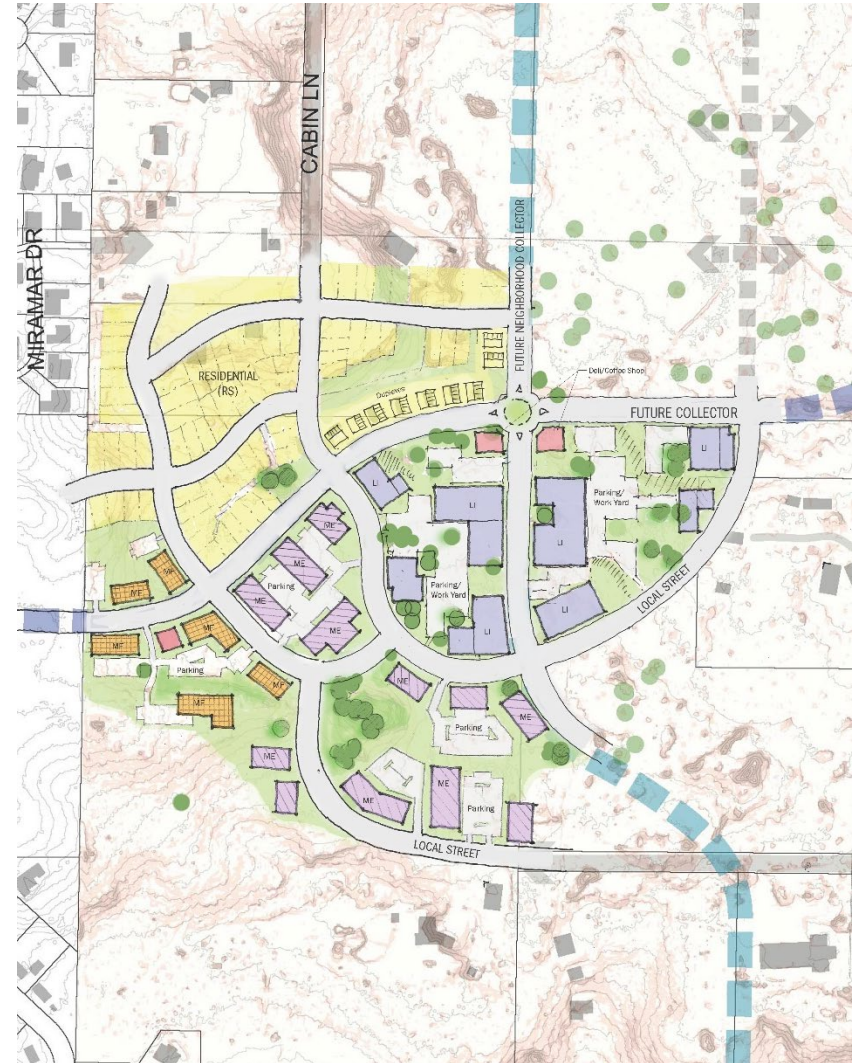


Agenda Item No. 4:
Southeast Expansion
Area Site Studies

Southeast Expansion Area Site Studies School District Property



Southeast Expansion Area Site Studies Light Industrial/Mixed Employment Area



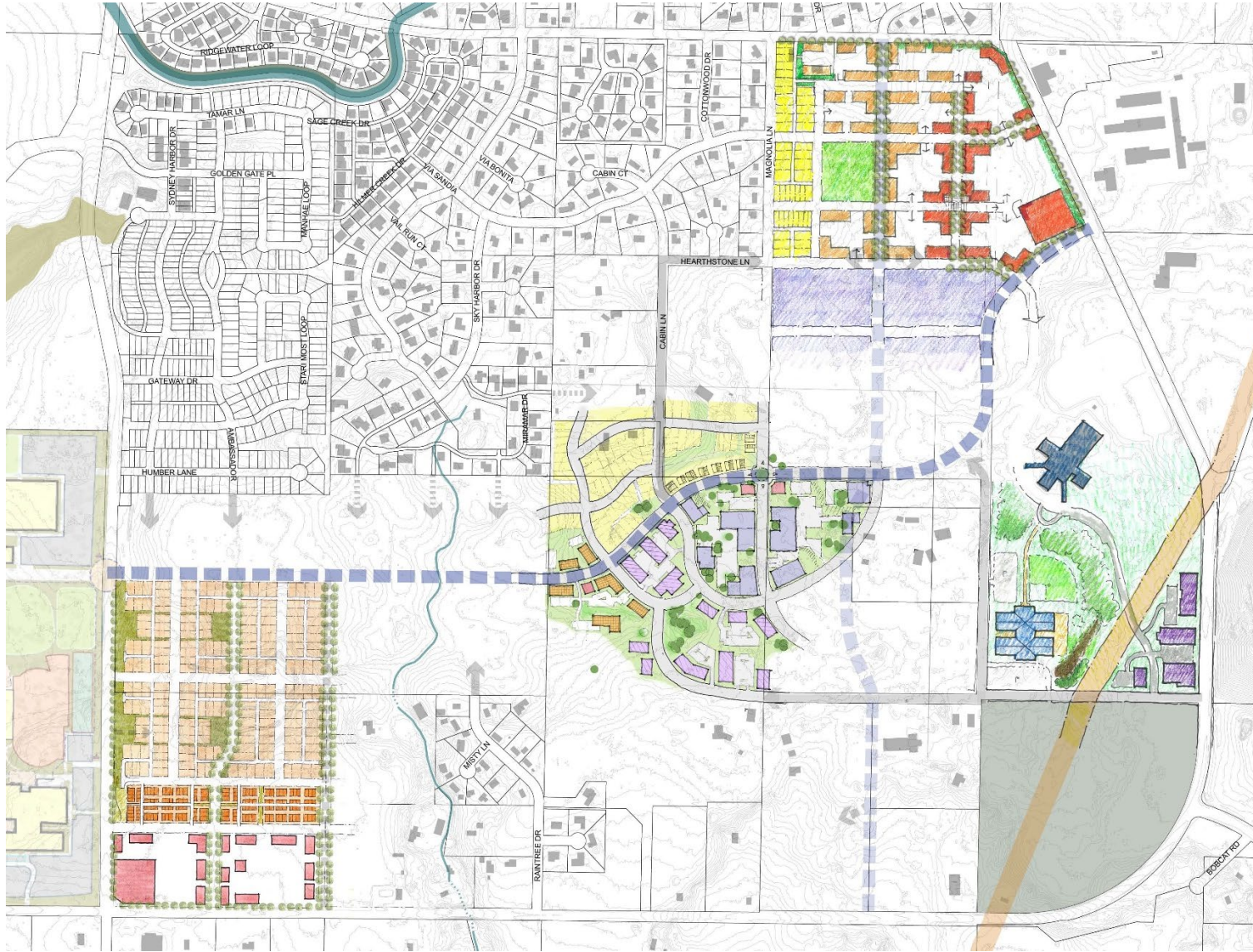
Southeast Expansion Area Site Studies Southwest Town Center and Ward Opportunity Site



Southeast Expansion Area Site Studies Northeast Town Center



Southeast Expansion Area Site Studies Composite Map



Agenda Item No. 5:
Refined Transportation
Plan

Refined Streets and Trails Plans

PREPARED FOR: Southeast Area Plan Advisory Committee (SEAPAC)
 COPY TO: Project Team
 PREPARED BY: Joe Dills and Kyra Haggart, APG
 DATE: September 12, 2019

Introduction

The purpose of this memorandum is to introduce the refined street plan to be discussed by the Southeast Area Plan Advisory Committee (SEAPAC) on Thursday, September 26. The refined plan for the transportation network in the Southeast Expansion Area is presented in Figure 1. The project team is seeking SEAPAC approval of the refined street plan for use by the team in the next phase of analysis: transportation and sewer infrastructure modeling, and funding plan analysis and development.

Plan Development

The street plan shown in Figure 1 has been refined based on feedback from SEAPAC members and area residents, existing and planned development adjacent to the Southeast Expansion Area, and a more detailed analysis of transportation issues. Key transportation issues and concerns considered include:

- High speeds on Knott Road and 27th Street.
- Limited sight distance in the central section of Knott Road. The mapped “Sight Distance Limited Area” is the approximate area between the two ridge lines, plus 500 additional feet to the west and east of the ridges.
- Sidewalks, bike lanes, proper drainage and other “urban upgrades” will be needed as development occurs adjacent to rural roads such as Knott Road and 27th Street.
- The basic collector-level roads needed are an east-west connection from 15th Street to 27th Street, and a north-south connection from Knott Road to Ferguson Road. The alignment of these roads should balance topography, creating reasonable development parcels, sight distance, and safety.

Key Concepts of the Refined Plan

- **Connection from 15th Street to 27th Street:** This new collector street provides a strong east-west route connecting all neighborhoods in the area and provides good connections between High Desert Middle School, the planned new middle and high schools west of 15th Street, and the future neighborhood commercial node at Ferguson Road and 27th Street.
- **Connection from Knott Road to Ferguson Road:** This collector provides a needed north-south connection through the area, providing access to new neighborhoods, commercial centers, and employment opportunities. The alignment has been refined since it was presented at the May 2 SEAPAC meeting to reflect feedback both from SEAPAC and from the community-wide open house on July 11. The refined alignment provides a more direct route from Ferguson Road in the north at the intersection with Ferguson Court south to

Knott Road. This location optimizes sight distance and is responsive to topography in the area. The route follows existing tax lot boundaries where possible.

- **Raintree Drive:** A right in/right out/left in intersection is recommended to improve safety, given the limited sight distance in this area. At the north end of Raintree Drive, the northbound vehicular connection would be made. The southbound connection would be limited to pedestrians, bicycles, and emergency access to minimize cut through traffic and turning movements on Knott Road.
- **Framework local streets and connections:** The framework local streets shown on the street plan are illustrative of future connectivity. The arrows indicate currently stubbed streets that would be connected in future development plans.

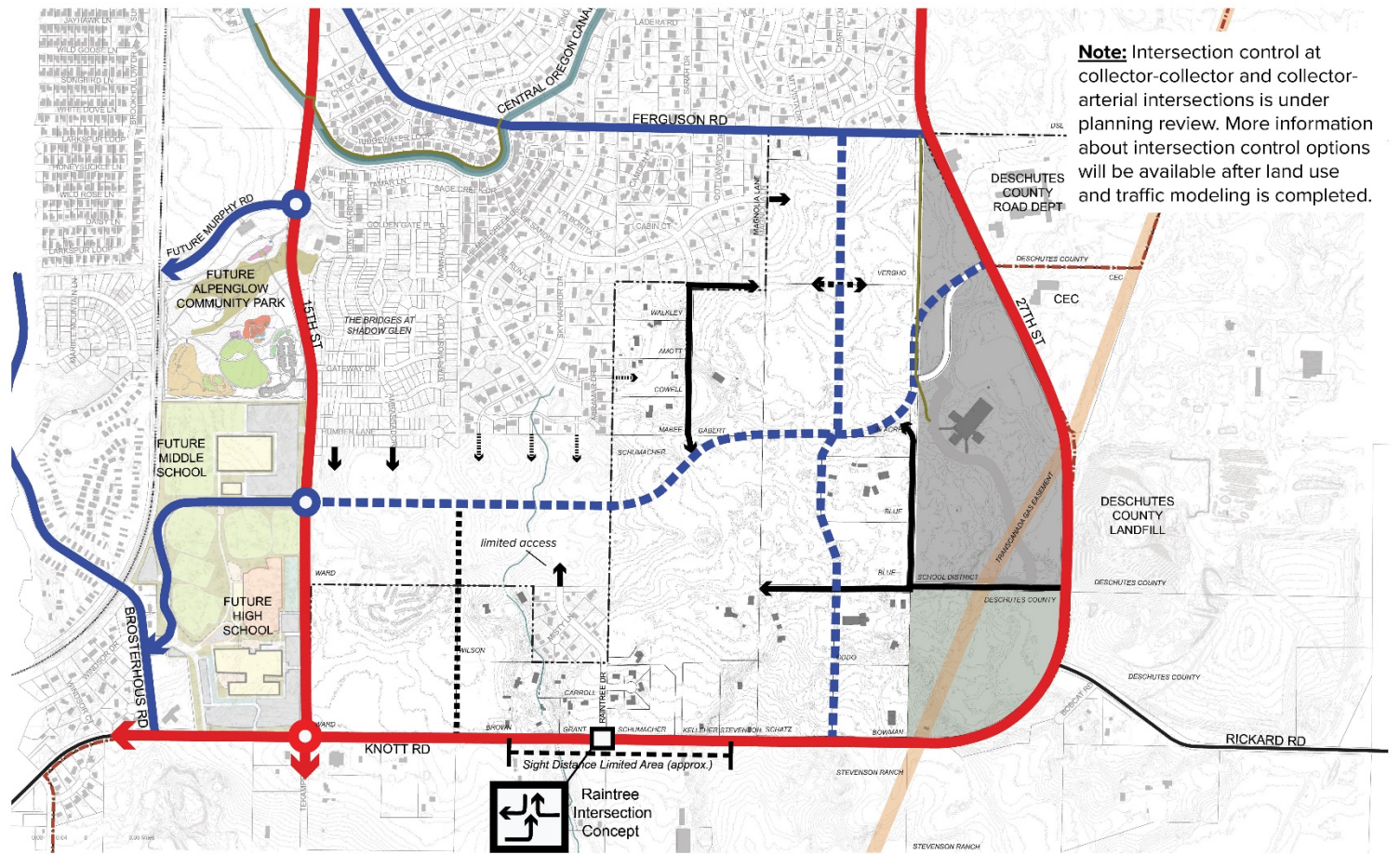
Intersection control at collector-collector and collector-arterial intersections is under planning review. More information about intersection control options will be available after transportation modeling is completed.

Trail Plan

The refined trail plan presented in Figure 2 is coordinated with the street plan and addresses pedestrian and bicycle needs previously documented for the study area. It includes:

- Paved multi-use trails along all new and existing arterial and collector streets.
- Implementation of the Bend Park and Recreation District's (BPRD) High Desert Park Trail, which connects the future middle and high schools and the future Alpenglow Park on SE 15th Street to High Desert Middle School, the future High Desert Park site, and Rickard Road to the east.
- Trails connecting High Desert Middle School to adjacent properties.
- A portion of the TransCanada Trail, a major regional trail, which runs through the High Desert Park Site. Two potential undercrossing for the trail are shown on 27th Street and Knott Road.
- Connections to existing trails in The Bridges development and along the Central Oregon Irrigation Canal.
- Connections to planned trails in the BPRD Comprehensive Plan, including the Arnold Canal Trail and the 15th Street Trail.
- All local streets will be developed to include low-stress bicycle facilities and sidewalks.

Figure 1. Refined Street Plan



Note: Intersection control at collector-collector and collector-arterial intersections is under planning review. More information about intersection control options will be available after land use and traffic modeling is completed.

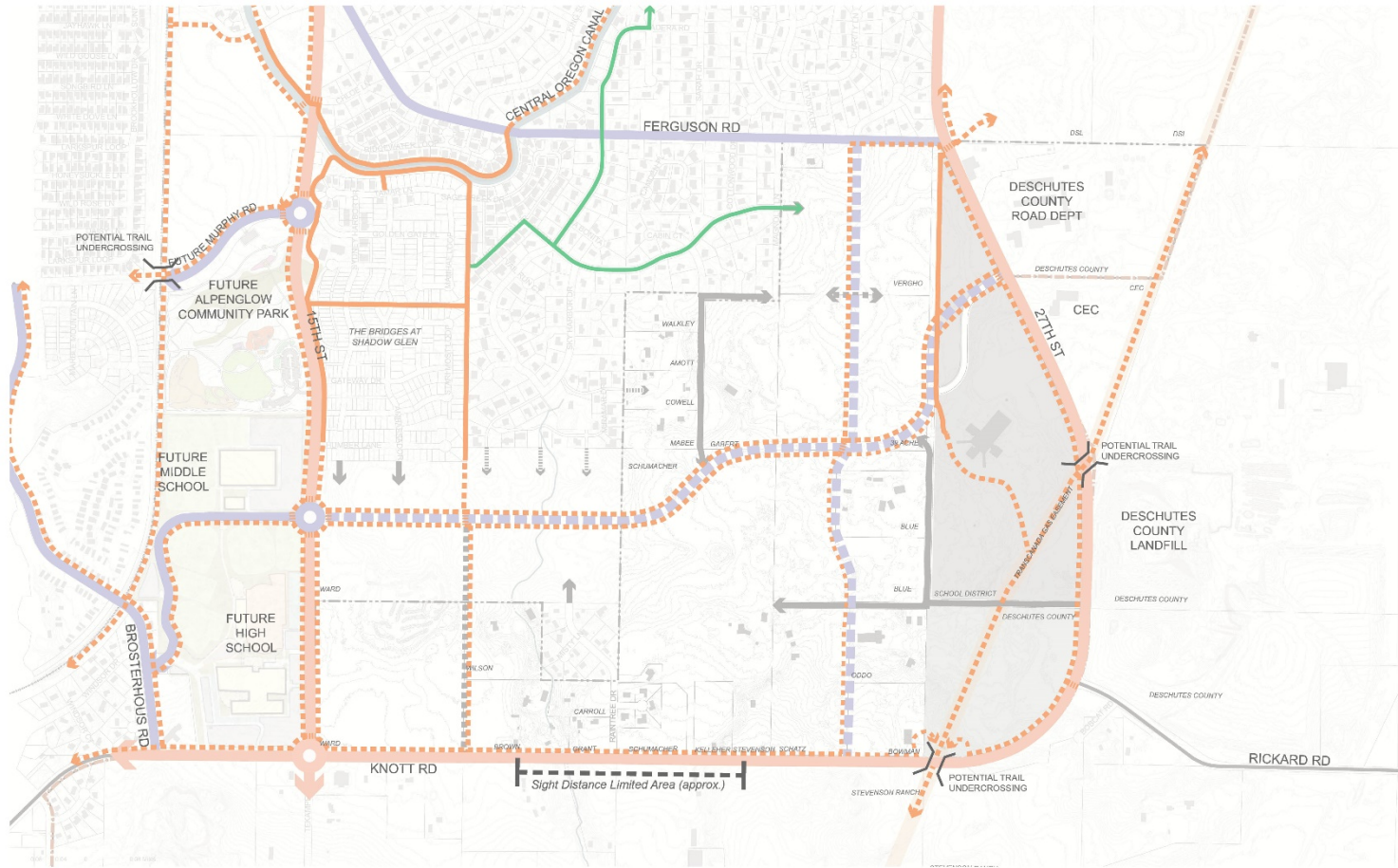
**STREETS CONCEPT
DRAFT STREET PLAN**

- Existing City Boundary
- - - Urban Growth Boundary
- Area of Special Interest
- Tax Lots
- Railroad
- Existing Trail
- Piped Canal
- Canal
- Utility Easement
- Existing School
- Future Park
- Existing Arterial
- Existing / Planned Collector
- Proposed Collector
- Proposed Neighborhood Collector
- Planned Roundabouts
- Framework Local (Location TBD)
- Framework Local (Existing ROW)
- Street Extension
- Street or Path Extension (TBD during development review)

**PRELIMINARY - SUBJECT TO CHANGE
9/10/2019**



Figure 2. Refined Trail Plan



TRAILS CONCEPT
 NEIGHBORHOOD GREENWAYS

- Existing City Boundary
- Piped Canal
- Urban Growth Boundary
- Canal
- Area of Special Interest
- Utility Easement
- Existing School
- Tax Lots
- Future Park
- Railroad
- Existing Trail
- Proposed Trail
- Proposed Pedestrian Crossing
- Neighborhood Greenway

PRELIMINARY - SUBJECT TO CHANGE
 9/10/2019



Agenda Item No. 5:
Bend Transportation
System Plan 2040
Project List



Bend Transportation System Plan 2040 Project List – Southeast Expansion Area Projects

PREPARED FOR: Southeast Area Plan Advisory Committee
COPY TO: Southeast Area Plan Project Team, Southeast Area Plan Project File
PREPARED BY: Damian Syrnyk, Senior Planner
DATE: September 3, 2019

The City of Bend has been engaged in a project to update the City's [Transportation System Plan](#) (TSP). The TSP Project has been running concurrently with the work on the Southeast Area Plan and has been informed by the work of the Southeast Area Plan Advisory Committee (SEAPAC). This memorandum identifies and describes the transportation projects included in the TSP 2040 Project List for the roads adjacent to and within the Southeast Expansion Area. The purpose of this memorandum is to summarize the relevant data and projects for the Southeast Expansion Area. There are no action items proposed for SEAPAC; this memorandum is informational and is intended to serve as a reference for the committee's ongoing work on transportation improvements for the Southeast Expansion Area.

You will find enclosed excerpts from two memoranda prepared for the TSP Project. Each excerpt provides a list of the projects identified for improving existing roads or constructing new roads in or adjacent to the Southeast Expansion Area. The two documents referenced include: 1) the [June 20, 2019 Bend Transportation Plan 2040 Project List](#) approved by the Steering Committee for the TSP on July 1, 2019 with these [changes](#); and 2) the [August 22, 2019 Project and Program Evaluation and Preliminary Priorities](#) shared with the Citywide Transportation Advisory Committee (CTAC)¹.

Included are figures that display the locations of projects in the Southeast Expansion Area (Elbow) and tables that identify and describe the projects. You can view [an interactive map](#) that displays the current 2040 Project List at the [TSP project website](#). The enclosed materials describe projects for 15th Street, Knott Road, 27th Street, and the two new collectors intended to serve the lands within the Southeast Expansion Area. Two of the projects refer to intersection improvements where roads intersect with Ferguson Road.

Knott Road, 15th Street, and 27th Street are classified as Minor Arterials. An arterial is a restricted access street designed to move large volumes of traffic through the urban area or to different neighborhoods. The following tables present the minimum improvement standards for

¹ The August 22, 2019 memorandum starts at page 11 of the meeting packet.

Minor Arterials from the Bend Development Code (BDC) Chapter 3.4, Public Improvement Standards.

Table 1: Minimum Improvement Standards for Minor Arterials

Minimum Right-of-Way	Minimum Pavement Width	Planter Strips	Max. Grade	Sidewalks Both Sides	Bike Lanes	Curbs
100'	56'	5'	6%	Yes	Yes	Yes

For Minor Arterials constructed in commercial and industrial zones, the minimum turn lane/median island with is either 11' or 16'.

Ferguson Road and the main interior east-west and north-south roads for the Southeast Expansion are Collectors. Collectors are designed to serve the context of their land use, which may be commercial, residential, or employment areas. Collectors are designed as complete streets to serve all modes and all abilities along and across the street. Ferguson Road is designated a Major Collector on the adopted TSP Road System Map. The two new collectors proposed for the Southeast Expansion Area are under consideration for a new collector standard to be adopted either as part of the Southeast Area Plan or through the TSP update process².

Table 2: Minimum Improvement Standards for Collectors

Minimum Right of Way	Minimum Pavement Width	Planter Strip	Max Grade	Sidewalks on Both Sides	Bike Lanes	Curbs
80'	56'	5'	8%	6'	Yes	Yes

Similar to Minor Arterials, the minimum turn lane/median island width for collectors in commercial and employment zones is either 11' or 16'.

The 2040 Project List for the TSP includes several projects that will upgrade both 27th Street and Knott Road to urban standards for minor arterials. Four of these projects include upgrades to 27th Street from Ferguson Road south to Knott Road. Three are focused on improving the segment of Knott Road from 27th Street west to 15th Street. These projects include improvements of the paved surface of each road along with adding curbs and sidewalks to both sides of the roadway. Figure 1 identifies these projects by their project number; new road projects have a three-digit project number with projects for existing roads beginning with a capital "R." Figure 1 identifies several projects for Knott Road, 27th Street, and the two new

² The two collectors contemplated for the Southeast Expansion Area have been included in the work to date for both the TSP update and the Southeast Area Plan. The two projects are moving concurrently, with the first project to be heard and adopted by City Council likely to be the project in which the new collector standards are adopted.

collectors by their project number. Table 3 follows and provides the description and preliminary cost of each project.

Figure 1. Recommended Expansion Area Driven Projects for Southeast Expansion Area

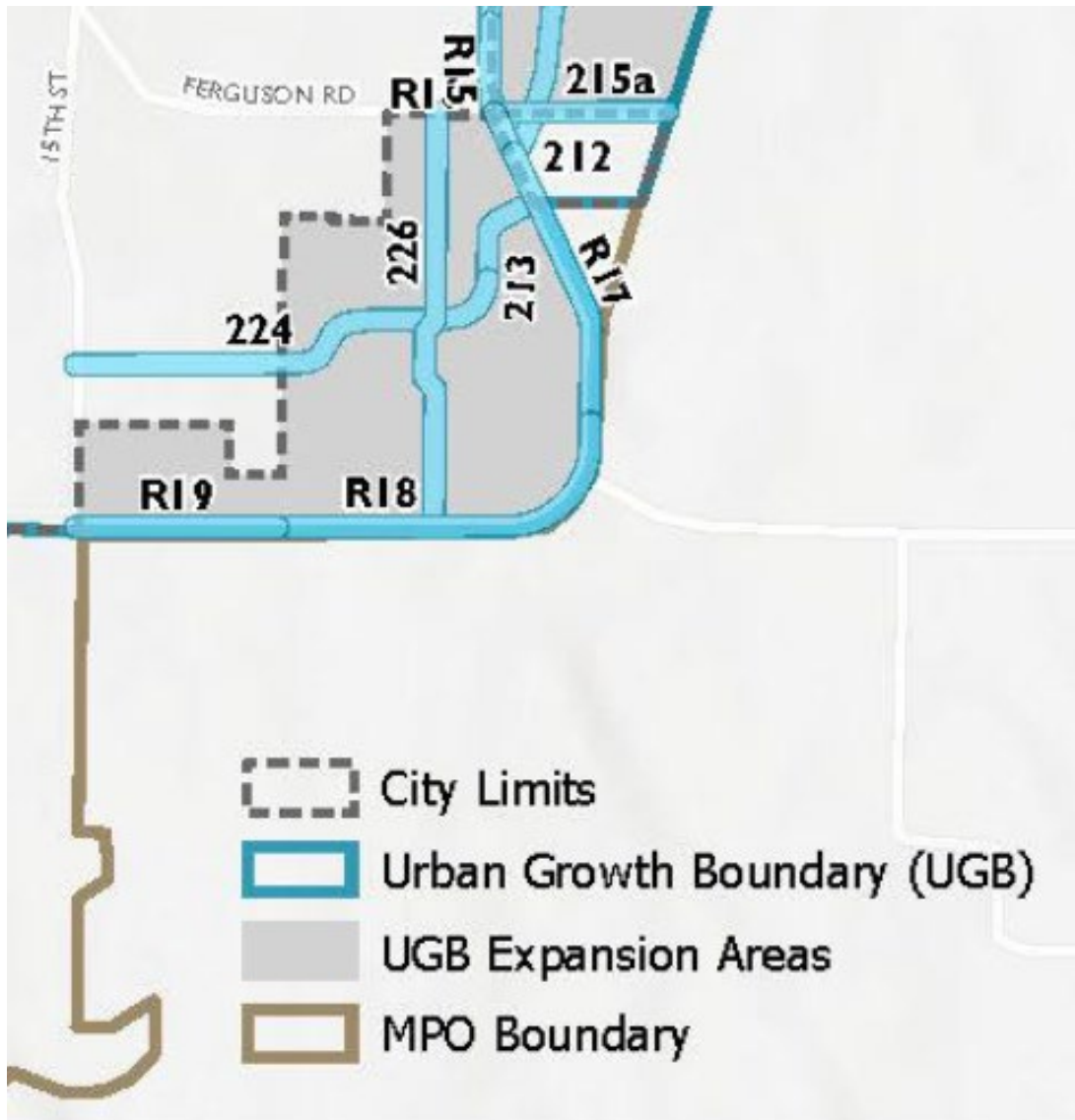


Table 3: Baseline Transportation Projects for Southeast Expansion Area

Project ID	Project	Description/Location	Total Cost	City Proportionate Cost	Addresses Near or Long Term Capacity Need	Notes
213	New Road in the Elbow UGB expansion area	Construct a two lane collector	\$4,000,000	\$4,000,000	Near	On LSN and Key Route 8, supports expansion area, improves connectivity and access.
224	New Road in the Elbow UGB expansion area	Construct a two lane collector	\$10,200,000	\$10,200,000	Long	Supports expansion area, improves connectivity and access.
226	New Road in the Elbow UGB expansion area	Construct a two lane collector	\$7,100,000	\$7,100,000	Near	Supports expansion area, improves connectivity and access.
R14	SE 27th Street rural Road upgrade from Stevens Road to Ferguson Road	Includes curb, sidewalk, and bike lane on east side of 27th Street	\$1,300,000	\$1,300,000	Near	On LSN, improves pedestrian safety, supports expansion area, improves functionality.
R15	SE 27th Street rural Road upgrade from Ferguson Road to Diamondback Lane	Includes curb and sidewalk on east side, bike lanes for both directions on 27th Street	\$600,000	\$600,000	Near	On LSN, improves pedestrian safety, supports expansion area, improves functionality.
R16	SE 27th Street rural Road upgrade from Diamondback Lane to access road	Includes curb and sidewalk on east side of 27th Street	\$100,000	\$100,000	Long	On LSN, improves pedestrian safety, supports expansion area, improves functionality.
R17	SE 27th Street rural Road upgrade from access road to Knott Road	Includes curbs and sidewalks on both sides of 27th Street	\$1,300,000	\$1,300,000	Long	On LSN, improves pedestrian safety, supports expansion area, improves functionality.
R18	Knott Road rural Road upgrade from 15th Street to Raintree Court	Includes curbs, sidewalks and bike lanes for both	\$500,000	\$500,000	Near	On LSN, improves pedestrian safety, supports expansion area, improves functionality.

		directions on Knott Road				
R19	Knott Road rural Road upgrade from Raintree Court to SE 27th Street	Includes curbs, sidewalks and bike lanes for both directions on Knott Road	\$5,500,000	\$5,500,000	Near	On LSN, improves pedestrian safety, supports expansion area, improves functionality
R14	SE 27th Street rural Road upgrade from Stevens Road to Ferguson Road	Includes curb, sidewalk, and bike lane on east side of 27th Street	\$1,300,000	\$1,300,000	Near	On LSN, improves pedestrian safety, supports expansion area, improves functionality.
Total Project Costs			\$30,600,000	\$30,600,000		

Figure 2 identifies a mid-term project that will support development in the Southeast Expansion Area. Project B-17 includes safety and corridor improvements for the 15th Street Corridor. Table 4 below provides more details on the project description.

Figure 2. Recommended Mid-term priorities for Southeast Expansion Area

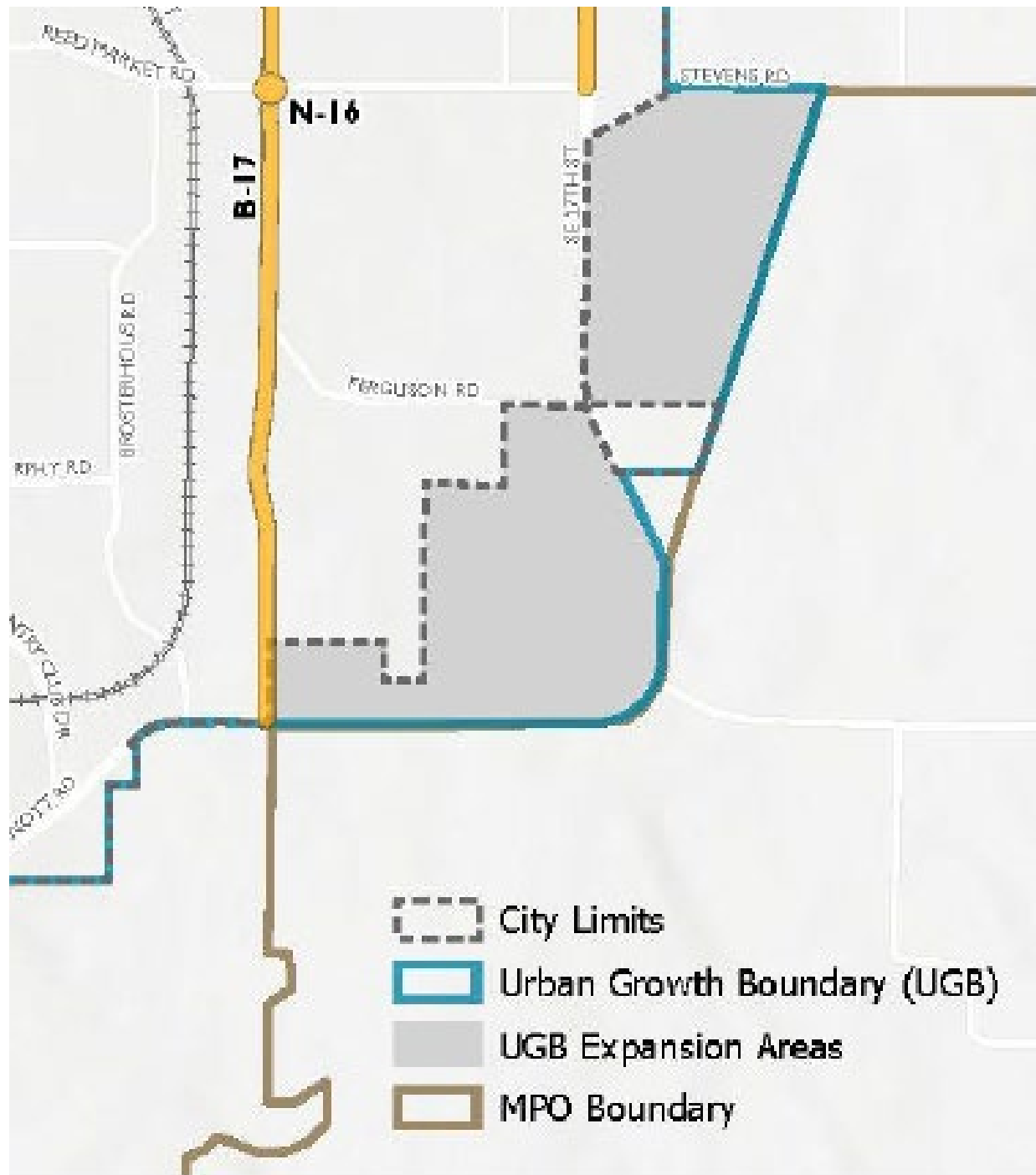


Table 4. 2040 Project List - Projects for the Southeast Expansion Area

Project Number	Project	Project Description	Total Cost	City Proportionate Cost	Addresses Near or Long Term Capacity need	Notes
B-17	15 th Street corridor safety and capacity improvements	From US 20 to Reed Market Road, Includes roundabouts at key intersections, including Wilson Avenue, Ferguson Road, and Knott Road	\$20,500,000	\$20,500,000	Long	On LSN and Key Route 1, improves safety, serves opportunity area, improves functionality and encourages alternative modes. Includes a segment of Key Route 1 (from SE 15th Knott to Reed Market).

Note: Please note that project B-17 includes an intersection improvement in the form of a roundabout where 15th Street intersects with Ferguson Road.

Table 5 identifies projects and programs that provide benefits citywide. These projects and programs are not geographically specific and therefore are not mapped. Programs for citywide pedestrian and bicycle facility development and maintenance are included in this list.

Table 5. 2040 Project List – Citywide Projects and Programs Not Mapped

Project IDs	Combined Program	Description	Funding Approach	Notes
T-1	Address Capital Needs backlog to maintain a state of Good Repair for New Capital Projects	City program to address capital needs backlog to maintain a state of good repair for new capital projects, including reconstruction of streets, signals, bridges, and other transportation infrastructure.	Reserved funding (Estimated at \$500k to \$1 million per year)	Program to ensure operation and maintenance funding associated with new capital projects.
C-16	TDM Program for major employers and institutions	TDM program for major employers and institutions.	To-be determined based on future FWG, CTAC, and City evaluation.	Travel demand modeling has shown TDM implementation to be an effective tool for addressing

				future and existing congestion by limiting demand on the transportation system.
N-7, T-4	Transportation Safety Action Plan (TSAP) implementation	Safety projects and programs as defined by the Transportation Safety Action Plan including street lighting.	To-be determined based on future FWG, CTAC, and City evaluation.	Improving transportation safety is a goal of the Bend TSP and has been continually highlighted as a priority among CTAC members. Incorporating a street lighting program into the TSAP implementation program is consistent with systemic countermeasure recommendations made by the TSAP effort.
T-2, LSN, 1TBKE	Bicycle Program	This includes implementing the bicycle Low Stress Network, Neighborhood Greenways, wayfinding, crossings, and traffic calming.	To-be determined based on future FWG, CTAC, and City evaluation.	This is a comprehensive program to facilitate bicycle travel within the city. Program would include implementation and updates to the bicycle Low Stress Network Plan.
T-3, P-1, P- 2, N-8	Pedestrian Program	This includes creating of a Pedestrian Master Plan to identify and prioritize pedestrian system improvements (local, collector, arterial sidewalk infill), transit access, safe routes to schools and parks, and wayfinding.	To-be determined based on future FWG, CTAC, and City evaluation.	This is a comprehensive pedestrian program to plan for and implement pedestrian infill and enhancement projects, including the Pedestrian System Master Plan and safe routes to school program. This may include enhanced access to transit facilities in collaboration with Cascades East Transit.
T-5	Bicycle and Pedestrian facility maintenance Program	City program to improve snow and debris clearing along key pedestrian and bicycle facilities.	To-be determined based on future FWG, CTAC, and City evaluation.	Program will require coordination with partner agencies, including the Bend Parks and Recreation District, which own and maintain key elements of the walking and biking system within Bend.

C-20	Parking pricing and management in downtown Bend	Implement the 2017 Downtown Parking Plan.	To-be determined based on future FWG, CTAC, and City evaluation.	Program will be coordinated with other City of Bend parking efforts and may be consolidated within a citywide program, as appropriate.
C-19, N-6	Traffic Signal Coordination improvements along signalized corridors, including freight and transit Signal Priority	Includes US 97 (mainline and ramp terminals), 3rd Street, 27th Street, Colorado/Arizona couplet, and US 20 (3rd Street and Greenwood) corridors.	To-be determined based on future FWG, CTAC, and City evaluation.	Program will require coordination with partner agencies, especially ODOT, which maintains traffic signals within the city

Figure 3 and Table 6 identify the Key Routes for bicycle and pedestrian travel through the Southeast Expansion Area. Figure 3 identifies the Key Routes by color. Key Routes in the Southeast Expansion Area include 15th Street, the approximate location of the new east-west collector, and the approximate location of the new north-south collector. Table 6 describes the Key Routes and critical projects needed to complete these routes.

Figure 3. Key Walking and Bicycling Routes for Southeast Expansion Area

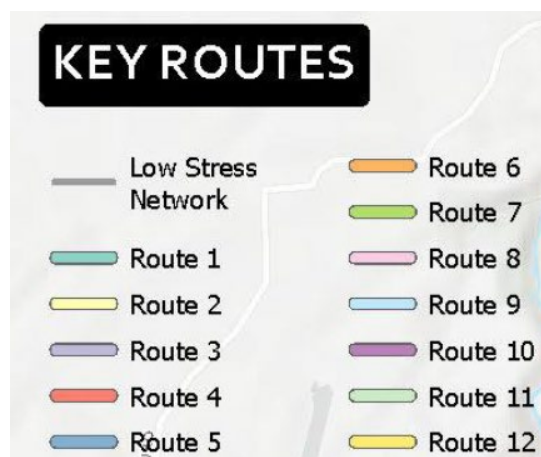
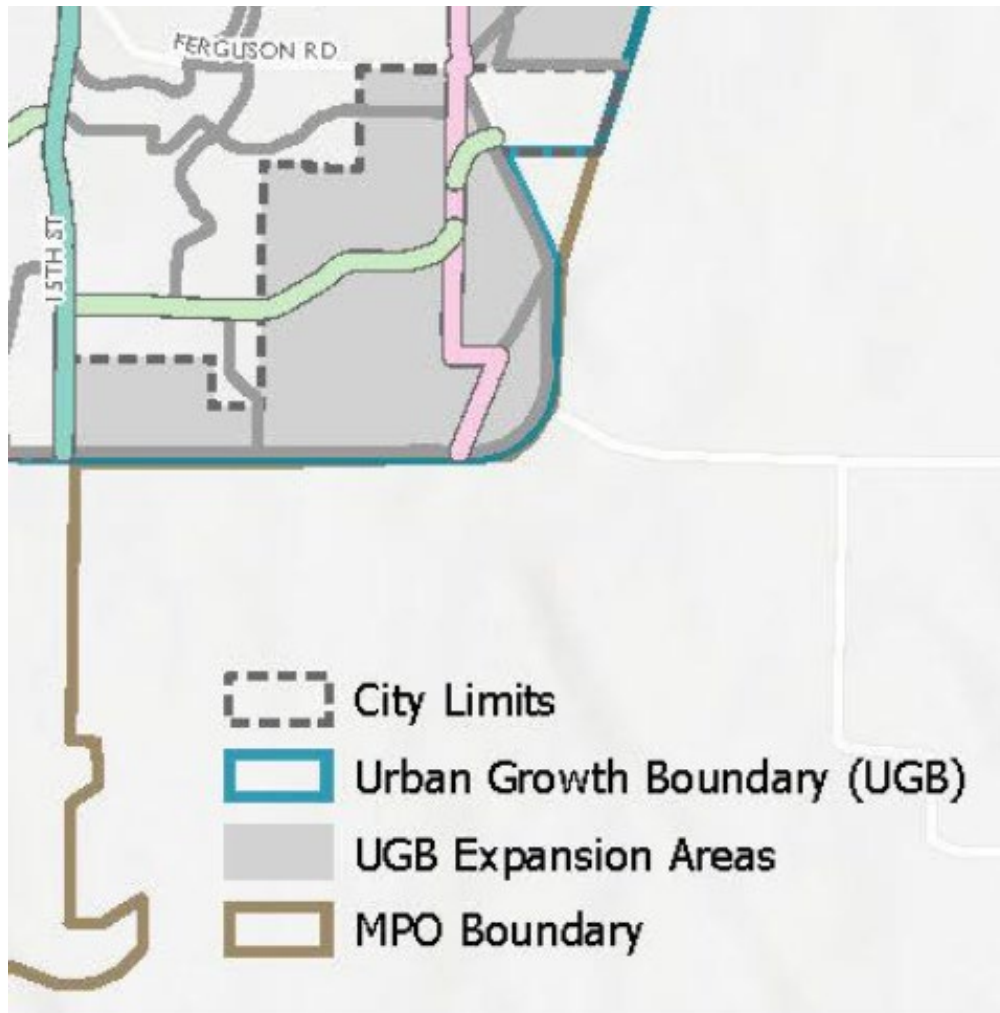


Table 6. Recommended Low-Stress Bicycle Network Projects on Key Routes – Southeast Expansion Area

Key Routes and Projects	Project Extents	Facility Type & Description	Cost Projection
<i>ROUTE 1: Juniper Ridge to SE Elbow: Route runs north-south through the central portion of Bend connecting SE 15th Shared Use Path, 6th Street Neighborhood Greenway, Boyd Acres Shared Use Path</i>			
R1-D	SE 15 th Street: Reed Market Road to 300' south of King Hezekiah	Shared use path adjacent to roadway: Convert an existing curb-tight sidewalk to a separated shared use path.	\$930,000
<i>ROUTE 8: 27th St: Route runs north-south connecting neighborhoods to services and transit</i>			
R8-A	27th St: Hwy 20 to Reed Mkt Rd	Shared use path adjacent to road: Close sidewalk gap along 27th Street and create a low-stress bikeway.	\$2,020,000
<i>ROUTE 11: Route runs east-west primarily on CIP Project Murphy Road connecting Elbow across 3rd Street and Parkway (continuous route uses parts of Route 1 and Route 9)</i>			

There are no critical projects identified for Route 11 because this route is being developed through (1) the Murphy Corridor Improvement project, and (2) the planning for the new east-west collector in the Southeast Expansion Area. This project improves Murphy Road between Parrell Road and Brosterhous Road and extends Murphy from Brosterhous to 15th Street from 3rd Street to a new intersection of Murphy Road with 15th Street. This project includes construction of a shared use path on the north side of Murphy that will be eight to ten feet in width and five foot bike lanes and six foot sidewalks on the south side. Between 15th Street and 27th Street, Route 11 follows the direction of the proposed east-west collector.

Agenda Item No. 6:
Collector Street Design
Elements for the
Southeast Area Plan



Collector Street Design Elements for Southeast Area Plan

PREPARED FOR: Southeast Area Plan Advisory Committee
COPY TO: Southeast Area Plan Project Team, Southeast Area Plan Project File
PREPARED BY: Damian Syrnyk, Senior Planner
DATE: September 12, 2019

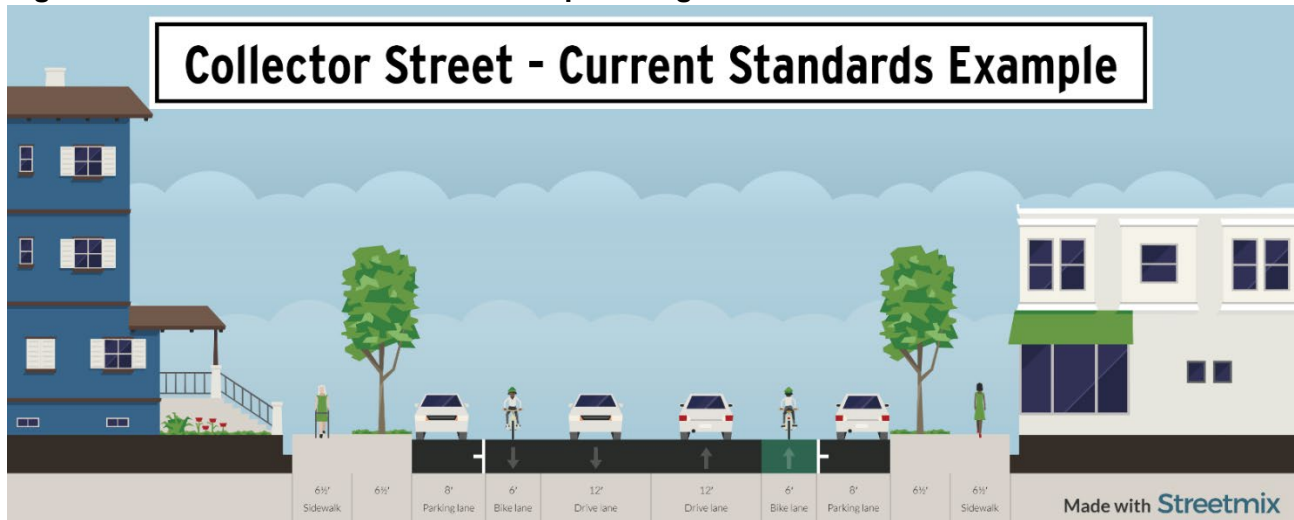
This memorandum outlines a transportation issue for SEAPAC's consideration and direction at the September 26, 2019 meeting. The Project Team requests SEAPAC's direction and feedback on a proposed alternative collector standard that can be implemented for the new collectors in the Southeast Expansion Area.

To date, SEAPAC has considered the alignments of two new collector streets within the Southeast Expansion Area. In Bend, streets fall into one of three Functional Classifications for design and construction, including collectors¹. Streets classified as a "collector" are those that are intended to be used for the movement of traffic, bicycles, and pedestrians between arterials and local streets. Collectors are designed to serve the context of their land use, which may be commercial, residential, or employment. They are designed as complete streets to serve all modes and all abilities along and across the street. Most collectors in Bend will have two travel lanes and may have a center turn lane or median, depending on land use context and access needs. The abutting land use directs the main design elements of the street, such as access, posted speed, inclusion of on-street parking, sidewalk width, and bikeway design treatment.

The City's existing collector standards are addressed in both the City's [Development Code](#) and in the [Standards and Specifications](#).

¹ The functional classification of a road is the class or group of roads to which the road belongs. There are three main functional classes as defined by the United States Federal Highway Administration: arterial, collector, and local.

Figure 1. Collector Cross Section Example using StreetMix



The example in Figure 1 uses a right of way width of 80 feet, and includes sidewalks, bike lanes, and on-street parking on both sides. The travel lanes are 12 feet each, and planting strips with street trees are 6.5 feet wide. As labeled, this example would have 52 feet of curb-to-curb pavement—a very wide street. The City’s Development Code includes improvement standards for public roadways, including collectors. The current improvement standards for collectors are summarized below from Chapter 3.4, Public Improvement Standards.

Table 1: Minimum Improvement Standards for Collectors in Residential Zones

Minimum Right of Way	Minimum Pavement Width	Planter Strip	Max Grade	Sidewalks on Both Sides	Bike Lanes	Curbs
80'	56'	5'	8%	6'	Yes	Yes

Table 2: Minimum Improvement Standards for Collectors in Commercial, Employment Zones

Minimum Right of Way	Minimum Pavement Width	Planter Strips	Minimum Turn Lane/Median Island Width	Maximum Grade	Direct Site Access	Sidewalks Both Sides	Curbs
80'	56'	5'	11'/16'	6%	Yes	6'	Yes

The City’s Development Code also includes different cross sections for collector roads in some Special Planned Districts². In these areas, a “neighborhood collector” is allowed. The cross section for this type of collector varies by district. The following table summarizes neighborhood collector standards in comparison to those for a standard collector. The neighborhood collector standards are currently only allowed within Special Planned Districts, not citywide.

Table 3: Comparison of Existing Major Collector and Example Special Planned District “Neighborhood” Collector

	Major Collector	“Neighborhood Collector”

² See Chapter 2.7 of the Bend Development code, Special Planned Districts.

Right of Way (ROW)	80 feet	70 feet
Pavement width	56 feet	36 feet
Travel lane width	14 to 16 feet	11 to 12 feet
Median/Center Turn Lane	11'/16' (for commercial, employment areas)	Not included in current special planned district street standards (turn "pockets" may be provided as needed)
Sidewalks	6 feet	6 feet or provided through 10 foot path
Bike Lanes	6 feet	6 feet or provided through 10 foot path
Path	N/A	10 feet
Planting Strip	6 feet	4 to 6 feet

Through the update of the Transportation System Plan (TSP), the City is reviewing its existing Functional Classifications and cross sections. It is likely that the "major collector" designation will be replaced by a single "collector" designation, with alternative cross sections available, depending on context.

If SEAPAC is interested in providing direction to the TSP process on a new collector design that could be applied to the Southeast Expansion Area, there are several factors to consider that are consistent with the SEAP vision, guiding principles, and discussions to-date:

- **Narrower travel lanes.** For example, an 11-foot-wide travel lane encourages slower speeds for traffic flows and provides additional room for sidewalks and bicycle facilities.
- **Traffic calming.** One of the concerns we have heard at both SEAPAC meetings and open houses is traffic speeds and taking steps to slow traffic. A narrower travel lane width, along with other traffic calming techniques such as roundabouts, buffered bike lanes, curb extensions, and special crosswalk treatments, can help to keep motor vehicle speeds within the desired limits.
- **Separated Multi-Use Path.** One of the benefits of providing a 10-foot multi-use path, even on one side, is that it provides a connection to existing and planned trails. In the Southeast Expansion Area, the Bend Park & Recreation District (BPRD) has planned for the High Desert Park Trail between 15th Street and the High Desert Park site on 27th Street and Knott Road. A 10-foot paved path adjacent to and within the ROW for the planned east-west collector could provide that connection.
- **On street parking.** Allowing on street parking may require additional right of way or an easement for parking. SEAPAC may wish to consider allowing on-street parking in commercial or employment areas (e.g. CG, ME, IL).
- **Land use compatibility.** The above tables show that the standards for a collector built through residential zones is different from the standard when a collector is built through commercial or employment zones. All of the design elements discussed above (parking, traffic calming, narrower lanes, etc.) could be applied to specific land use contexts and contribute to the SEAP vision for a walkable community.

- **Stormwater considerations.** Best practices for enhancing stormwater retention are to encourage narrower roadways with less impermeable surfaces and/or to include bioswales and other low impact development features within the right of way to capture and treat stormwater runoff.

For Discussion – Potential Design Elements for an Alternative Collector Standard

The new alternative collector design could be incorporated in the Development Code and in the Standards and Specifications as one of the allowed design configurations for a collector, serving as the alternate to the traditional collector standard. Certain elements would remain constant, such as right of way and travel lane widths, with other components flexing to best suit the surrounding land use context.

- **Right of Way (ROW)** – Keep at 80 feet to allow for flexing of elements described below
- **Travel Lane Width** – Reduce to 11 feet
- The following elements may flex depending on land use context (e.g. more residential vs. more commercial/employment)
 - **Sidewalk** – from 6 feet to up to 12 feet.
 - **Bike Lane** – 6 feet plus two (2) feet for a buffer
 - **Path** – 10 to 12 feet if located on the side of a street without sidewalk and bike lane, separated from travel lanes and for two-way pedestrian and bicycle travel
 - **Planting Strip** – 4 to 6 feet on each side to include street trees, bioswales, and/or landscaping; street trees could be planted in tree wells in areas with narrower sidewalk widths or in areas where sidewalk space wants to be maximized
- **On Street Parking** – along the entire street or only in areas where on-street parking may be needed, e.g. commercial, employment areas; curb-extensions are features that would be considered with the design for on street parking
- **Median/Turn Lane** – consider including for intersections that are not controlled with a stop sign or roundabout, e.g. turning movements to and from one street instead of a four-way intersection