



PLANNING COMMISSION AGENDA

April 12, 2023 at 6:00 PM

Wilsonville City Hall & Remote Video Conferencing

PARTICIPANTS MAY ATTEND THE MEETING AT:

City Hall, 29799 SW Town Center Loop East, Wilsonville, Oregon

YouTube: <https://youtube.com/c/CityofWilsonvilleOR>

Zoom: <https://us02web.zoom.us/j/87239032604>

TO PROVIDE PUBLIC TESTIMONY:

Individuals may submit a testimony card online:

<https://www.ci.wilsonville.or.us/PC-SpeakerCard>

or via email to Dan Pauly: Pauly@ci.wilsonville.or.us, 503-570-1536

by 2:00 PM on the date of the meeting noting the agenda item

for which testimony is being submitted in the subject line.

CALL TO ORDER - ROLL CALL [6:00 PM]

Olive Gallagher

Ron Heberlein

Nicole Hendrix

Andrew Karr

Kamran Mesbah

Kathryn Neil

Jennifer Willard

PLEDGE OF ALLEGIANCE

CITIZEN INPUT

This is the time that citizens have the opportunity to address the Planning Commission regarding any item that is not already scheduled for a formal Public Hearing tonight. Therefore, if any member of the audience would like to speak about any Work Session item or any other matter of concern, please raise your hand so that we may hear from you now.

ADMINISTRATIVE MATTERS

1. Consideration of the March 8, 2023 Planning Commission minutes

WORK SESSION [6:15 PM]

2. Transit Master Plan (Lewis)(30 Minutes)
3. Frog Pond East and South Implementation-Development Code (Pauly)(60 Minutes)

INFORMATIONAL [7:45 PM]

- [4.](#) City Council Action Minutes (March 6 & 20, 2023)(No staff presentation)
- [5.](#) 2023 PC Work Program (No staff presentation)

ADJOURN [7:55 PM]

Time frames for agenda items are not time certain (i.e. agenda items may be considered earlier than indicated). The City will endeavor to provide the following services, without cost, if requested at least 48 hours prior to the meeting by contacting Mandi Simmons, Administrative Assistant at 503-682-4960: assistive listening devices (ALD), sign language interpreter, and/or bilingual interpreter. Those who need accessibility assistance can contact the City by phone through the Federal Information Relay Service at 1-800-877-8339 for TTY/Voice communication.

Habr  interpretes disponibles para aqu llas personas que no hablan Ingl s, previo acuerdo. Comun quese al 503-682-4960.



PLANNING COMMISSION

WEDNESDAY, APRIL 12, 2023

ADMINISTRATIVE MATTERS

1. Consideration of the March 8, 2023 PC Meeting Minutes



PLANNING COMMISSION MEETING MINUTES

MARCH 8, 2023 at 6:00 PM

City Hall Council Chambers & Remote Video Conferencing

Draft PC Minutes are to be reviewed and approved at the April 12, 2023 PC Meeting.

CALL TO ORDER - ROLL CALL

A regular meeting of the Wilsonville Planning Commission was held at City Hall beginning at 6:00 p.m. on Wednesday, March 8, 2023. Vice Chair Willard called the meeting to order at 6:01 p.m., followed by roll call. Those present:

Planning Commission: Jennifer Willard, Andrew Karr, Kathryn Neil, Olive Gallagher, and Nicole Hendrix. Ron Heberlein and Kamran Mesbah were absent.

City Staff: Miranda Bateschell, Amanda Guile-Hinman, Daniel Pauly, Zach Weigel, and Mandi Simmons.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

CITIZEN INPUT

This is an opportunity for visitors to address the Planning Commission on items not on the agenda. There was none.

ADMINISTRATIVE MATTERS

1. Consideration of the February 8, 2023, Planning Commission minutes

The February 8, 2023, Planning Commission minutes were approved as presented.

PUBLIC HEARING

2. Frog Pond East and South Implementation-Transportation System Plan (Pauly)

Vice Chair Willard read the legislative hearing procedure into the record and opened the public hearing at 6:07 pm.

Daniel Pauly, Planning Manager, noted the Commission spent substantial time over the last two years on the Frog Pond East and South Master Plan, and one of the implementation steps was to integrate the projects from the Master Plan into the citywide Transportation System Plan (TSP) as discussed at the work session last month.

- He announced that the criteria applicable to the application were outlined in the Findings Report, which was Attachment 3 to the Staff report.

Jenna Bogert, DKS Associates, presented the proposed TSP amendments related to the Frog Pond East and South Master Plan via PowerPoint, describing the TSP and its purpose and reviewing Chapters 3 and 5 of the TSP, where the bulk of the revisions were contained. Her comments were as follows:

- The TSP is a citywide document that contains transportation policy and planning information, as well as transportation improvement projects. Having those projects identified in the TSP was important for the City to compete for federal, state, and regional funding, was integral to setting up the system development charges (SDCs) for development to contribute to those projects as well.
 - This TSP amendment was a required part of the Frog Pond East and South Master Plan, just like the TSP amendments made for other prior area plans the City had adopted, such as the Town Center Plan and Basalt Creek Concept Plan.
 - One thing to note about the proposed TSP amendment was that all the changes in the TSP focused on getting Frog Pond East and South transportation projects into the TSP. No other changes or updates were being made for other plans or projects.
- Chapter 3 contained the City's transportation standards, and several figures were revised and updated. On Figures 3-1, 3-2, and 3-5, the city limit boundary was updated, and the UGB boundary line was extended as well. Some of the figures had not been updated in the last three years, so the line work needed updated to match current boundaries. (Slide 4)
 - Figure 3-2: Functional Classification, showing the street network of arterials, collectors, and local streets within the city, was updated to include the future collector streets within the East and South Neighborhoods shown as dashed lines on the slide.
 - Figure 3-5: Bicycle Routes, showed the existing and future planned bike routes and would now include the future bike lanes and multi-use paths planned for the master planning area in the East and South Neighborhoods.
 - New Figure 3-14 was added to Chapter 3 to show the cross sections designed for the arterials, collectors, and local streets within the East and South Neighborhoods. These cross sections were pulled straight from the Master Plan and specifically called out in the TSP because they were slightly different than the standard arterial/collector cross section design. (Slide 5)
 - Cross section designs were shown for the Stafford Rd Arterial; Advanced Rd Collector; 60th Ave Collector North and South of Advanced Rd; the local street on the south side of Meridian Creek Middle School; and the Brisband Main Street running through the future commercial area in the East Neighborhood. (Slides 5 and 6)
- Chapter 5 contained the transportation improvement projects, which were categorized into two categories: high-priority projects and additional planned projects. All of the projects from the East and South Master Plan were added to the high-priority project list. (Slides 7 and 8) She highlighted the projects with these comments:
 - Project RE-12C, identified where future collector roads are desired to be located in the East Neighborhood.

- RE-17 was the alignment for Brisband Main Street through the East Neighborhood.
- Projects SI-12, SI-13, and SI-14 were the single-lane roundabout projects: two on Stafford Rd at Kahle and at Brisband, and a third on Advanced Rd at 60th Ave; both indicated by green circles on the map. (Slide 7)
- BW-21 was the Mid-block Pedestrian Crossing on Advance Rd located near the future community park in the South Neighborhood.
- BW-22, the Advanced Rd Rectangular Rapid Flashing Beacon (RRFB) will be located somewhere in the vicinity of the park, perhaps near the school, but definitely in that area on Advanced Rd to facilitate safe pedestrian crossings between the two neighborhoods.
- BW-23 is another RRFB on Stafford Rd at Frog Pond Lane indicated by the yellow diagonal pedestrian sign on the map.
- SR-05, which stood for Safe Routes, was an improved pedestrian school crossing at the middle school that might have high visibility crosswalk striping and improved signage to bring more visibility to school-aged children in that area.

Mr. Pauly entered into the record Staff's memorandum dated March 7, 2023 which noted the changes to the draft Frog Pond East and South TSP updates. The Commission received electronically an updated TSP document that reflected the changes, which he reviewed as follows:

- On Page 7, a disclaimer was added to explain how a lot of the maps, besides the ones specifically updated as Ms. Bogert mentioned, reflect 2013 conditions and should not be relied on to be up to date and where to go to find current city limits and UGB boundaries. Updating those images was not in the scope and it was somewhat costly to do so due to technical reasons. Those images would be updated when a wholesale update of the TSP was done in the coming years.
- On Page 51, a clarification was added to the map to address a gap regarding how the bike lane coming north on 60th Ave connects to the mixed-use path in the BPA easement.
- Page 60 included a clarification that not all cross sections specific to a master plan area were actually in the TSP and how essentially a master plan adopted earlier, such as for Town Center, Villebois, or Frog Pond West or East and South, was equivalent to the TSP in terms of the Comprehensive Plan. So, even if the cross section was not in the TSP, it had equal standing.
 - The added text explained that in about 2020, information from these Master Plans was shifted to the TSP, so the TSP could be a one-stop for all the information about transportation projects. This change clarified why Frog Pond East and South were in the TSP and not Frog Pond West, essentially.
- Page 95, Project RE-12B, a mixed-use trail, was updated to show that the intent was for the trail to go across Meridian Creek to connect to Boeckman Creek Primary.
- On Pages 103 and 111, and related to Project RE-12B, were images in the existing TSP that were a remnant of sketches from the 2015 Frog Pond Area Plan about potential connectivity for trails in Frog Pond South. The map did not get updated due to technology issues, but a call out was added on the map, stating that the alignment of these specific trails and connections should match the trail alignments shown in the Master Plan, and again with referencing, ensuring there was that

creek crossing to meet future connectivity goals as called out in the Frog Pond East and South Master Plan.

Vice Chair Willard called for questions from the Commission about the TSP amendments.

Commissioner Hendrix:

- Asked if the eight projects or so were all high priority and what that would mean for other projects that might have been in that high priority area. She also asked how the team prioritized all the high-priority projects.
 - Scott Mansur, DKS Associates, explained the reason the majority of these projects were identified as high priority was that many would get built as development occurred. This was different than a project, in an area that already had development on both sides, for example, but needed to add bike lanes, additional urban improvements, a roundabout, or an intersection, which were projects the City had to identify the funding for and then put in the Capital Improvement Program (CIP) and build those projects; whereas, the collectors and many of these streets would slowly get constructed as development occurred, similar to what was happening in the western portion of Frog Pond.
 - High-priority projects meant they would likely get constructed within the planning horizon of 20 years. For example, the frontage improvements on the north side of Advanced Rd would be built by the development as development occurred. It would not be likely a City project, but be slowly constructed, as well as the collectors and trails throughout the development.
- Stated she supported the efforts in the Master Plan and believed they all made sense as a next step, especially for funding and moving the project along.

Vice Chair Willard called for public testimony on the TSP amendment.

Dan Grimberg, West Hills Land Development ~~33~~, stated West Hills was working on a good-sized project within Frog Pond East and had a lot of good collaboration with Staff. West Hills has done a lot of residential development in Wilsonville, in Frog Pond West and Villebois off Wilsonville Rd, and had been in Wilsonville for at least 25 years. They really liked Wilsonville and wanted to be part of the Frog Pond East in the worst way. West Hills had a great plan and continually tried to be part of the process, and it was difficult. A lot was going on, City Staff was busy and had a lot of projects, and so it was hard to give input.

- West Hills met yesterday with Staff and reviewed the Infrastructure Funding Plan, which was not developed yet. They reviewed the items being added to the TSP, listed on Pages 29, 30, and 31 of the packet, which he would call the Frog Pond East and South specific projects with roundabouts, collector roads, etc. Yesterday, dollar amounts had been added to those projects, and while no total was provided, the project costs totaled \$55 million, which was a lot of money.

- West Hills was very concerned, and he knew Staff and the City's consultants were also concerned, about how the project would be paid for because that affects the viability of the project. Would it ever get off the ground? Who was paying for what?
 - Typically, developers with property fronting on the north side of Advance Rd pay for half-street frontage improvements. He heard development on the north side of Advanced Rd would pay for the cost of the very expensive Advanced Rd improvements, including a median. If that was the case, the developer needed to know.
- He understood the TSP needed to be amended, however, he asked that there be more collaboration, so everyone understood what West Hills was committing to. In talking with Mr. Pauly, he understood if the TSP was amended with these projects, they had to be implemented and had to be funded. Where would the funding come from?
- He stated there were options for some of the road improvements, which he would not get into now. One example, were three roundabouts needed, or one roundabout? There could be alternative traffic treatments on some of the intersections.
- He requested more time and more discussion so the TSP amendment did not lock everyone into something that may or may not be doable. He would appreciate the Commission's consideration.

Vice Chair Willard:

- Asked ~~the~~ Staff where the numbers came from; were they the expected range based on the quality of the improvement or a guideline for what Staff believed they would cost. What was the basis for the numbers?
 - Mr. Pauly replied the numbers were put together by the City's contract engineers. Mr. Mansur and Ms. Bogert developed the base, which was escalated by another engineering firm based on standard practice of the expected cost as could best be determined by cost estimating at different levels.
- Asked if the expectation was that whoever absorbed that project as part of their development would spend a minimum or maximum of that amount?
 - Mr. Pauly replied no, adding the cost could be more or less. The cost figures did not reflect what portion might be built or paid for by cities, the larger pool of SDCs, credits, or what could be paid through different mechanisms not paid by the developer, but a portion would be paid by the developer as well.
 - The cost estimates did not reflect what the actual developer would pay, but the total amount it would take the City to build the road, which would actually be more than if the developer built the road because of different rules cities had to follow over the private sector.
 - Mr. Mansur agreed with Mr. Pauly's comments.

Commissioner Gallagher:

- Confirmed there were three roundabouts within a very small area. In high traffic times, traffic would really be slowed down with those three roundabouts. She asked if three roundabouts were really necessary and whether there could be two instead.

- Mr. Pauly responded one of the three roundabouts was on a different road; the focus was on the two on Stafford Rd.
- Asked if there were other solutions to slow traffic, such as stop signs, noting this was not her area of expertise.
 - Mr. Pauly deferred to the City Engineer as to why roundabouts were the professional recommendation as the best solution.
 - Zach Weigel, City Engineer, noted Mr. Mansur and Ms. Bogert could provide all the technical details, but the City did look at what treatments were needed to support development and roundabouts were the best way to slow traffic coming into the city. Stop signs would not accommodate the level of service needed at those intersections. Two neighborhoods that both have schools were being connected and roundabouts also make it more pedestrian friendly to cross major streets. These were the reasons why the decisions and proposed recommendations were made during the master planning.
 - Mr. Mansur added the two roundabouts at Kahle and Brisband on Stanford Rd were needed for operational purposes to provide traffic to meet the City's level of service and operating standard at those two locations, as well as to slow traffic and make the neighborhoods better connected as Mr. Weigel had mentioned.
 - The roundabout at 60th Ave and Advance Rd was not needed operationally as the existing stop signs would be acceptable. However, with the high-speed traffic coming from the east on Advance Rd, he recommended a roundabout for safety purposes to slow traffic and give it an urban neighborhood feel, while creating important connectivity for pedestrians and motor vehicles between the East and South Neighborhoods.
 - Roundabouts are one of the safest traffic control devices, and when building new developments, traffic signals and roundabouts cost about the same amount.

Commissioner Karr asked if a project was put into the TSP without specifying who was going to pay for it, would that be done later in the infrastructure funding. Following Mr. Grimberg's comments, how could the City prevent the cost from becoming so onerous to the developer that a development wouldn't happen? He noted farther down on Advanced Rd were individual small lots that would have to potentially pay for the improvements.

- Mr. Pauly responded it did come down to the Infrastructure Plan. Generally, the City did not have the exact funding mechanisms in place for any TSP projects being adopted. He confirmed an Infrastructure Funding Plan would go into effect where the ability to pay was considered. This was not the first new growth area that was difficult to fund. Staff was interested in meeting the City's goals for Frog Pond East and South and were committed to finding the best way possible to pay for very expensive infrastructure through different mechanisms, even though it was limited.
- Miranda Bateschell, Planning Director, added it was important to note the TSP documented the needs for the citywide transportation system to function and meet all the different performance standards, which addressed what was needed to serve the volume and capacity needed on the roadway, as well as safety measures, multimodal connections, etc.
 - When added to the TSP, the source of funding was not needed and often, not known. Funding was considered after projects were added to the TSP, which was why Staff was working on the

Frog Pond Infrastructure Funding Plan for East and South. As done for Frog Pond West, Staff looked at what the different share of those projects would be, in terms of city share, development share, and the different potential funding sources.

- From a policy level perspective, it was important to get the projects in the TSP first, so the City could integrate those projects into CIP lists. Until that was done, the projects could not be system development charge (SDC) eligible and SDCs were one major component of how the City funded these projects. Sequentially, adopting projects into the TSP provided the City with the direction needed for integrating them into the Infrastructure Funding Plan as well as establishing and adopting that funding plan.
- Adopting projects into the TSP also helped set the foundation for the Development Code. She reminded how the Commission set some important policies at the end of the Master Plan process regarding the design for both Stafford and Advance Rds. Having those upgraded urban roads in the TSP would help inform the type of development and design standards the City wanted to see on those frontages.
- In thinking about all the different implementation projects being carried out, Staff was considering this sequence of how to adopt them.

Commissioner Hendrix requested more insight from Mr. Grimberg about what would change or be gained by having more time. It seemed more beneficial to keep moving forward instead of adding more time, since documenting and outlining the needs could lead to more opportunities for other funding.

Vice Chair Willard recognized Mr. Grimberg so he could address Commissioner Hendrix's question.

Mr. Grimberg thanked the Vice Chair. He reiterated West Hills understood the TSP needed to be amended; however, everyone needed to understand what they were committed to, part of which was the funding. While it could be said that these were not the real numbers and they would be refined, adding the projects to the TSP was a commitment that the projects would be built, as he understood it. No one knew who would pay for the projects, or how much they would cost, but they would cost a lot. Whether \$55 million, \$52 million, or \$60 million, it was a lot of money.

- West Hills has been doing this a long time, and each time the sources of money normally came down to the City, the SDC, and the developer. He hoped he was wrong, but normally, the City did not have a different bag of money to pay for these kinds of projects, so the developer had to contribute the lion's share since they were doing the projects and causing the impact.
- At \$55 million, the approximately 1800 units in Frog Pond East and South would cost over \$30,000 per dwelling unit. Frog Pond West started out at \$18,000 and was now over \$20,000. As a developer, he always wanted things to go fast and move ahead. He just wanted everyone to understand what they were doing. He did not want to slow things down, but to come up with a plan that was workable for the City, West Hills, and the people that would buy these houses. West Hills really wanted to create a great community in Wilsonville. Tonight's package had 444 pages; a lot of work went into these projects, and it would be terrible to have a plan that was not financially feasible.

Commissioner Neil asked if the roundabouts were Mr. Grimberg's only concerns.

- Mr. Grimberg replied he was concerned about an understanding of the improvements. He estimated the three roundabouts totaled about \$16 million. He has never seen a traffic signal cost \$6 million. He assured he was not trying to dispute any of that, he just wanted further discussion, so everyone understood what was being done. West Hills wanted to be part of the solution. He wanted to start building houses and West Hills wanted to create affordable or moderate priced housing, but there was no way to do that when looking at the costs. He believed the City's goal was great, but everyone needed to know what they were doing.

Vice Chair Willard stated she appreciated having a context of the implications.

Commissioner Karr understood from the engineer and Ms. Bateschell that this was not a list of wants, but a list of needs in order for the project to be viable. The infrastructure needed to be in place to support 1800 units in a safe and connected fashion and how it would be financed was part of the Infrastructure Funding Plan, which would be discussed in another work session. He was not qualified to contradict an engineer's professional recommendation for a roundabout and suggested going with the professionals.

Vice Chair Willard understood the concern differently. Frog Pond East was lagging West, and Frog Pond South would probably lag East, so the City was unfairly burdening the small development that is East with the lion share of the improvements. Was the City/Commission aware it was doing that and was the City/Commission okay with that? She understood the roundabouts, roads, and crosswalks would perhaps be burdening West Hills' development, since West Hills would be first once the transportation plan was implemented.

Amanda Guile-Hinman, City Attorney, advised that the Commission get back on track to the testimony portion and focus on asking the testifier questions. The implications would be discussed at a later point.

Mr. Grimberg stated he had an answer to the question posed.

Vice Chair Willard clarified the question was for Staff. She asked if Staff was open to collaborating and negotiating with the developer, so their one development was not overly burdened with too many of the transportation improvements.

- Ms. Bateschell responded that Staff was amenable to that process and had started to engage the developer as Staff began to evaluate the different options for the Infrastructure Funding Plan. As noted, there were not a lot of funding options and it was a challenge in every case, but Staff was working with the developer and talking through the options available.
 - In terms of unfair burden, every development needed to pay what was needed to serve their project and it also needed to be proportional. Staff would definitely be taking into consideration how development occurred over time to ensure they were not overburdening development.

Vice Chair Willard confirmed there was no further public testimony.

Ms. Guile-Hinman noted this would be the time for the Commissioners to indicate whether they wanted to leave the public hearing open and continue it; otherwise the Vice Chair could close the hearing.

Vice Chair Willard confirmed there were no strong opinions about a continuance and closed the public hearing at 6:49 pm and called for discussion by the Commission.

Ms. Guile-Hinman suggested a general discussion be held and if someone wanted to make a motion, further discussion could continue after the motion was made.

Vice Chair Willard believed that based on the clarifications received from Staff and from West Hills Land Development, the intent of the testimony was to make sure the intent to collaborate and discuss the improvement projects, as well as to understand the costs were noted. There were no specific changes needed to the TSP; it was really an awareness and a discussion opportunity for the Commission.

Vice Chair Willard moved to adopt Resolution No. LP22-0004 with the corrections as outlined in the March 7, 2023, memorandum from Planning Manager Daniel Pauly (Attachment 5). Commissioner Gallagher seconded the motion, which passed unanimously.

WORK SESSION

3. Frog Pond East and South Implementation – Development Code (Pauly)

Daniel Pauly, Planning Manager, believed Staff's third package of amendments was fairly light compared to the others, but it contained some pretty detailed standards around design. Staff would continue to bring in Development Code amendments in bits and pieces until they had all been discussed. As previously discussed, the idea was to extend or integrate novel concepts or other things that have worked elsewhere in the city into other existing standards or processes to avoid reinventing the wheel and make Code work well when implementing and building things in East and South.

- Tonight's discussion regarded the design standards specific to the Brisband Main Street, as well as multi-family design standards, based on the guidance given by the Commission and Council, and how the multi-family review process works.

Kate Rogers, MIG, and Mr. Pauly presented the Frog Pond East and South Development Code Amendments via PowerPoint, reviewing the design criteria, permitted uses, and the design and development standards for Brisband Main Street; the multi-family design standards and review process; and the Discretionary Alternative Path, which was proposed the form of Development Review Board (DRB) waivers.

Commissioner comments and Staff's responses to Commissioner questions on the topics of discussion were as follows:

Brisband Main Street Design Criteria

- The standards and plan would provide the feel the Planning Commission was looking for: ground floor commercial, shopping, pedestrian friendly. Features like the façade articulation were going in a good direction.
- In comparison to the Villebois Plaza where retail space had not been leased, Mr. Pauly replied that as discussed during the Master Plan, one difference was the Plaza was built in the middle of a neighborhood off any main street and Main Street would have more drive-by traffic here. Additionally, Staff would return with details about the flexibility of use of this space over time.
 - Commercial would be encouraged upfront, especially where there was existing drive-by traffic but the Code would also be flexible for live/work and other situations as more demand might occur over time. More construction north of Frog Pond West was anticipated over the next decades and other things that would add more rooftops to the area.
- Mr. Pauly clarified the proposed standards were more streamlined than Villebois, which was quite detailed and allowed a lot of discretion during review of the addresses, desired architectural type, the European feel, etc.
 - The proposed standards allowed for a variety of architecture and tried to get to a clear and objective type of standard, and reflected what was worked through by the Planning Commission and community for Town Center for the same sort of mixed-use Main Street type of feel. None of those had been built in Town Center yet, so there was no experience of how it works, but a number of types of projects were reviewed, including Villebois, when the Town Center standards were adopted.
- Vice Chair Willard confirmed the design standards were consistent with what the Commission expected.

Multi-Family Design Standards and Review Process

- Simplifying the multi-family process was good as the City was encouraging affordable housing and HB 2001, so making that more appealing was a long-term goal, and obviously making the process easier would help.
- The process was good. It allowed for public input, but it did make it faster.
- Mr. Pauly noted the verbiage “design of landscaping not part of required open space” on Slide 18 was not clear. He explained there were two classes of landscaping. A subdivision had a 25 percent open space requirement, half of which needed to be usable. The design review process for the subdivision included review of pocket parks, tot lots, picnic shelters, etc. and Staff reviewed those landscape plans, but landscaping on private lots was not reviewed. Staff ensured the required street trees were installed but did not look at which part of a private lot was shrubs versus grass. The desire was to make that equivalent for multi-family structures. On a 10 acre apartment complex, for example, the required formal open space or park areas would go through design review, as well as any screening of a parking area as part of a Stage II review, but landscaping that fills the area between a parking space and the front of the building, like between the sidewalk and front of the house, would not be reviewed.
- Mr. Pauly explained the removal of any significant trees would be reviewed concurrently with the Stage II. It could be reviewed later if one was forgotten or changes were made due to design

adjustments, an ice storm or climate changes, but it would still trigger at least a Type II or Type B review, which included notice of a removal of that tree and the opportunity for public input.

- The proposed review process was going in the right direction and reflected the Commissions conversations in January.
- Most entrances on multi-family properties were usually oriented to the pedestrian of somebody visiting or coming to the multi-family, not necessarily somebody on the pedestrian walkway of the main roadway. Could the orientation instruction be made more friendly to the visitor or the person arriving at the multi-family versus just a passerby.
 - Mr. Pauly replied oftentimes on multi-story, the door was to the side of the porch if units were on both sides or if four units shared a porch or a platform. The doors could still be oriented differently around that porch as long as there was that porch, and that porch was oriented towards the front.
 - Ms. Rogers added part of the intent of the standards was to make sure entries could be easily identified and found, so to orient visitors, the entries would be either visible from the street or a common space obviously leading to the entryway.
- Entries should be identifiable from the parking lot as well. People would be coming from the parking lot as well as the street, so did that matter/need to be included in the multi-family standards?
 - Mr. Pauly believed some of that occurred naturally, but the project team could think it through. The idea was for the entry to face the street and de-emphasize the parking lot. Naturally, one could see where things are and get in because generally, parking would be behind or to the side of the building, and not part of an enhanced elevation.
 - He agreed a walkway that was visible and lit would bring people safely to the entrance.
 - Ms. Bateschell noted the standards did not limit additional entrances, so additional entry points were quite possible for residents in that unit, as well as the primary front door entrance for visitors that would face the courtyard or the street and making sure there were eyes on those facilities as well.
 - Mr. Pauly added in the Villebois Village Center, where entries face the street, breezeways provided access to the units from the street and parking lot, which were on opposite sides.
- Vice Chair Willard believed the design standards were consistent with what the Commission had discussed as well.

Discretionary Alternative Path.

- Mr. Pauly clarified the specific factors referenced on Slide 20 were in the Frog Pond Code and had to be considered if a waiver was being requested in the RN zone. This was a similar structure that exists for the Sign Code. For example, if a sign waiver was being considered, a number of factors needed to be considered in addition to the general waiver criteria.
 - While the City was generally headed down the urban form and housing variety path in the future for other developments, whether those developments would be RN classified and the proposed variance rules applied was uncertain.

- Since this alternative path would apply more broadly to the city and to the design standards that apply throughout all the PDR zones and in Frog Pond West, should more general standards be added to the residential design standards when considering waivers for design standards?
 - If the rules/standards were made around variances specific to one development, then the Code starts growing. But if the Development Code was made more general, more citywide, then the standards only needed to be written once.
 - Mr. Pauly replied some specific objectives called out in the Frog Pond East and South Master Plan, for instance, would probably still want to be added, but there was an opportunity to consider adding some general considerations for resident waivers specifically from these types of design standards that really did not exist in the Code when all the other waiver criteria were written.
 - He confirmed the Commission was interested in exploring some of those standards, generally.

Vice Chair Willard called for public testimony.

Mimi Doukas, AKS Engineering, speaking on behalf of West Hills Development, said she did not have a lot to say but wanted to keep up her perfect record of participating in all the Frog Pond East and South hearings. Generally, the design guidelines matched what the developer expected for the West Hills property and the design shown to the Commission several times. She believed the developer could work within these parameters.

- As Commissioner Neil pointed out, she believed everybody needed to be continually reminded that the commercial component was going to be a challenge at the beginning. West Hills had discussions with Staff and were talking through what an interim transition design process might be. Live/work units were probably a very big component of that, but also to make sure the design allowed for the transition to become commercial someday in the future, and that in the short term, it still had a welcoming, inviting street facade for the streetscape the Commission aspired to. West Hills understood that and just wanted to manage expectations. Commercial was very hard before all the rooftops were in.
- West Hills did do early collaboration with Staff regarding the details of the proposal, providing some feedback on some numerical things that had been acknowledged within the draft which was really appreciated.
 - One technical detail regarded window area. The standards of wanting articulation and variation in the facades were understood, but the language in the draft stated the window area was essentially the area of glass, which included the mullions, grids, etc., but it was just the glass. West Hills requested the window area also include the frame and trim around it as these were aesthetic parts of the window and part of that articulation.
 - From a percentage standpoint, measuring only the glass made it really hard to meet the standards, and she believed articulation was the goal. West Hills asked that the definition be revisited.

Mr. Pauly asked if Ms. Rogers had any feedback regarding the window area including the frames.

Ms. Rogers stated she had no problems with modifying the definition as suggested. She agreed with Ms. Doukas' point that the City was not just wanting to regulate actual transparency into the building, it was really about the design feature that a window provided and that articulation and additional definition to a façade, so she was not opposed to the request.

Mr. Pauly understood parts of the door that were not glass also counted, which followed the same principle.

Vice Chair Willard confirmed the Planning Commission agreed that the definition as proposed by Ms. Rogers and Ms. Doukas was appropriate.

INFORMATIONAL

4. City Council Action Minutes (March 7 & 21, 2023) (No Staff presentation)

Daniel Pauly, Planning Manager, suggested that the Commission preview its future work program, noting Staff did a Council presentation on March 6, 2023 about the Climate-Friendly and Equitable Communities (CEFC) and how that impacts the City and future work programs.

5. 2023 PC Work Program (No Staff presentation)

Daniel Pauly, Planning Manager, noted the Annual Housing Report scheduled for April was not set in stone. The report was still in process, and he was not confident it would be completely done, but Staff wanted to get it in front of the Commission soon.

ADJOURNMENT

Commissioner Gallagher moved to adjourn the regular meeting of the Wilsonville Planning Commission at 7:42 p.m. Commissioner Hendrix seconded the motion, which passed unanimously.

Respectfully submitted,

By Paula Pinyerd of ABC Transcription Services, LLC. for
Mandi Simmons, Planning Administrative Assistant



PLANNING COMMISSION

WEDNESDAY, APRIL 12, 2023

WORK SESSION

2. Transit Master Plan (Lewis) (30 minutes)



**PLANNING COMMISSION
STAFF REPORT**

Meeting Date: April 12, 2023		Subject: Transit Master Plan- Draft Master Plan	
		Staff Member: Kelsey Lewis, Grants & Programs Manager	
		Department: SMART	
Action Required		Advisory Board/Commission Recommendation	
<input type="checkbox"/> Motion <input type="checkbox"/> Public Hearing Date: <input type="checkbox"/> Ordinance 1 st Reading Date: <input type="checkbox"/> Ordinance 2 nd Reading Date: <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Information or Direction <input type="checkbox"/> Information Only <input type="checkbox"/> Council Direction <input type="checkbox"/> Consent Agenda		<input type="checkbox"/> Approval <input type="checkbox"/> Denial <input type="checkbox"/> None Forwarded <input checked="" type="checkbox"/> Not Applicable	
		Comments: N/A	
Staff Recommendation: Review and provide comment on the 2023 draft Transit Master Plan.			
Recommended Language for Motion: N/A			
Project / Issue Relates To:			
<input type="checkbox"/> Council Goals/Priorities:	<input checked="" type="checkbox"/> Adopted Master Plan(s): Transit Master Plan	<input type="checkbox"/> Not Applicable	

ISSUE BEFORE PLANNING COMMISSION:

Staff and consultants will present the draft 2023 Transit Master Plan.

EXECUTIVE SUMMARY:

In Spring 2022, and while navigating the lingering effects of the COVID – 19 pandemic, the City began updating the 2017 Transit Master Plan to address changing conditions and engage with the community to consider transit service enhancements and new projects.

In the summer and fall of 2022, staff and consultants conducted community outreach including providing an updated project webpage on Let’s Talk Wilsonville, tabling at many community events, conducting a survey in English and Spanish, and holding a stakeholder workshop. The main themes we heard in public involvement include:

- Improving weekend service, especially Sundays
- Adding more early morning and late evening service
- Making better regional connections
- Maintaining coverage of Wilsonville neighborhoods

Through the winter of 2022/23 we developed service plans and new project ideas to draft the new Transit Master Plan for review, additional public engagement, and adoption. The core proposals in this master plan include:

- More frequency of service
- Better regional connections
- Improved customer service through a regional customer service center
- New connection points on the east side in or near Town Center
- Improved weekend service
- Bus fleet recommendations regarding low and no emissions buses

This draft Plan outlines specific capital projects and personnel requirements needed to support the new service recommendations. There is also a focus throughout the Plan on identifying how these service changes will be accessible to more members of the Wilsonville community.

EXPECTED RESULTS:

Presentation of the draft Transit Master Plan and feedback from the Planning Commission.

TIMELINE:

This is the third presentation of the Transit Master Plan Update to the Planning Commission. Staff introduced this project in August 2022 and tentatively plans to return for public hearing on May 10, 2023 for the adoption of the plan.

CURRENT YEAR BUDGET IMPACTS:

The development of this Transit Master Plan update is primarily funded by two State grants through the Oregon Department of Transportation. The remainder is funded by transit tax revenue.

COMMUNITY INVOLVEMENT PROCESS:

To ensure that the final document represents the diverse interests of the Wilsonville community, this Transit Master Plan process is intended to have an extensive and inclusive public engagement process. Outreach efforts are tailored to reach people in practical and convenient ways to reflect the perspectives of a wide spectrum of current and potential system users, the business community, and residents.

The draft Plan is now posted and open for public comment. There is a short survey about the draft Plan on Let's Talk Wilsonville to engage the community in this discussion.

POTENTIAL IMPACTS OR BENEFIT TO THE COMMUNITY:

When implemented, the new plan is expected to improve efficiencies, increase travel independence, and to reduce traffic congestion by providing travelers an alternative to travel in single-occupancy vehicles. A successful outreach strategy is a large part of a successful master plan.

ALTERNATIVES:

N/A

ATTACHMENTS:

1. Draft Transit Master Plan for Public Comment

DRAFT TRANSIT MASTER PLAN

Prepared by JARRETT WALKER + ASSOCIATES

2023 UPDATE

Draft for Public Review

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1. Introduction

This document is the first draft of an updated Transit Master Plan (TMP) for the City of Wilsonville. It lays out a set of improvements to the City's public transit system that respond to changes in demand brought on by the COVID-19 pandemic; City goals for mobility, economic opportunity and the environment; and priorities expressed by the public during outreach conducted in 2022.

About SMART

South Metro Area Regional Transit (SMART) is the City of Wilsonville's public transportation system. SMART is a department of the City that provides fixed-route and demand responsive transit service, both within Wilsonville and making connections to neighboring communities.

In addition to fixed-route and demand-response service, the SMART Options Program provides businesses, residents and visitors of Wilsonville with the resources to participate in various transportation options such as vanpooling, carpooling, bicycling, walking, and telework. This program promotes a robust set of travel options to give people more choices in how they travel while reducing the number of single-occupancy vehicles on the road.

SMART Vision & Mission

SMART's mission is to provide convenient, safe, and reliable transportation services in

a fiscally responsible manner to meet the needs of Wilsonville residents, employees, and visitors of all ages, ethnicities, and income levels.

SMART is dedicated to providing mobility for those who do not have access to a personal car, and to creating an attractive transportation option for those who do.

An Ambitious Plan

Public transit providers around the U.S. are in a period of great change. The lingering impacts of the COVID-19 pandemic have dramatically reshaped ridership, travel patterns, and expectations from the public about what transit service should do. Yet SMART's mission to provide an attractive mobility option and meet the needs of the community remain important guidance even as conditions change. This Transit Master Plan (TMP) update provides a roadmap for the development of SMART's network between 2023 and 2028, expressing the priorities of Wilsonville residents and workers for better connections within town and to other nearby cities.

This is a growth plan. This document describes an aspirational network for 2028 that would result in a bigger, more extensive fixed-route network, doubling-down on SMART's role as a regional mobility provider for the south metro area and the north Willamette valley. SMART is the largest transit provider in this part of the region, and located in a fairly central place

relative to other smaller providers. As such, SMART has a unique opportunity to knit together south metro area communities and serve trips among them that are not well-served by either TriMet's network to the north or the statewide POINT and Amtrak networks. This is a role no transit provider currently occupies.

Increases in state funding for transit are a major opportunity, and sure to make some of the service expansion described in this Plan possible. A major limitation is currently imposed by the difficulty in purchasing new transit buses, and the difficulty in hiring additional bus drivers. SMART is actively working around and through these two shortages.

Recent Changes

The past three years have presented major challenges for all transit agencies. Ridership declined at virtually all U.S. transit agencies, and many were forced to make service cuts as a result of either budget cuts or a shortage of drivers.

SMART was able to weather this period with more of its service intact than many other transit agencies.

Figure 1 shows how the amount of service and ridership on SMART services changed from January 2020 to December 2022. While ridership on SMART fell in March 2020, it has been steadily recovering since that time.

The fixed-route service level (at bottom) was held steady from early 2020 through December 2022, though in early 2023 some temporary service cuts were made due to the driver shortage. Because demand-response service is deployed in response to trip requests, the demand-response service level has tracked closely with demand-response ridership, which also fell early in the pandemic and has slowly recovered in the years since.

SMART has not made major changes to services in the past three years. It did limit the use of the demand-response services by non-ADA passengers for certain types of trips, and suspended the medical shuttle between Wilsonville and Legacy Meridian Medical Center.

SMART Ridership and Service 2019-2022
Demand-Response and Fixed-Route Service

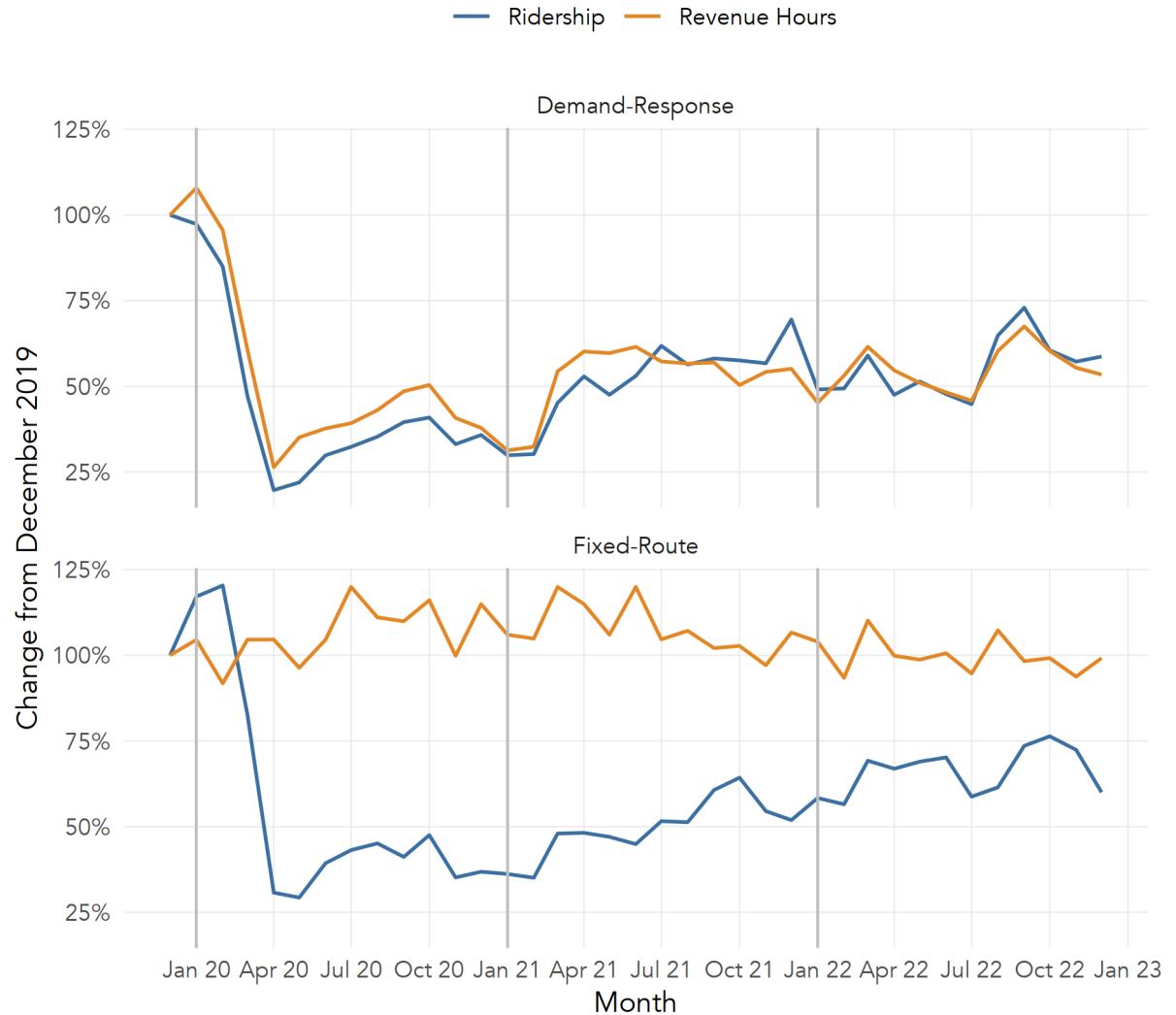


Figure 1: SMART ridership and service levels on fixed-route and demand-response services, 2020 - 2022.

Priorities from Public Input

The outreach process for this Plan shaped the recommended service and infrastructure improvements. Chapter 2 describes the public involvement process. Some of the priorities that emerged from public input are:

- **Improve weekend service, especially Sundays.** Both the survey and stakeholder input suggested that SMART should prioritize adding Sunday service, as well as making Saturday service available on more routes. The 2028 Network proposed in this Plan update would do both of these things.
- **Add more early morning and late evening service.**
- **Make better regional connections.** The top response in the community survey for where SMART should focus on improving its services was to bolster connections to neighboring cities. The 2028 Network would improve existing routes to Salem, Canby and Tualatin; and establish new connections to Tigard, West Linn, Oregon City, Clackamas Town Center and Woodburn.
- **Maintaining coverage of city neighborhoods.** Many people who provided input to this Plan expressed that maintaining all existing coverage inside the

City of Wilsonville was a high priority. The 2028 Network slightly increases service coverage within 1/2 mile by adding service along Canyon Creek and in Villebois, getting transit close to more residents and jobs.

Highlights of this Plan

The core of this Plan is a recommendation to improve SMART's fixed-route network by adding routes to new places and by adding service at new times. Related recommendations are also made for improvements to demand-response service, staffing, infrastructure and amenities.

There are several "big moves" in the 2028 Network that would work together to make the network more useful for a variety of trips:

- **More frequency.** Today, the only route that runs every 30 minutes all weekday long is Route 4 on Wilsonville Rd. The 2028 Network would add an additional all-day 30-minute route connecting the west side Transit Center, east side Town Center, Canyon Creek Road, Tualatin and Tigard.
- **Better regional connections.** In addition to the existing connections to Salem and Canby, the 2028 Network would have the all-day connection to Tigard described above, plus service every 60 minutes to West Linn, Oregon City and Clackamas Town Center all day long, with better frequencies during rush hours. Additional service would be added to Woodburn, Salem and Keizer as well.
- **Improved customer service.** A regional customer service center,

related electronic information and additional personnel will help people living and working in Wilsonville take advantage of improved routes connecting to neighboring cities.

- **New connection points.** Instead of all services connecting only at the existing Transit Center near the WES station, some routes would also connect at Wilsonville Town Center east of I-5. This would protect some routes and riders from delays associated with congestion around I-5, make Wilsonville Road service more direct, and support redevelopment of the Town Center area.
- **Improved weekend service.** With the 2028 Network, SMART fixed-route and demand-response services would run on Sundays for the first time, and more routes would operate on Saturdays.
- **Low- and no-emissions buses.** As the SMART fleet grows to support added service, low- and no-emissions buses will be added while the flexibility and resilience of the fleet is maintained.

Growing the SMART transit system to the degree foreseen by this Plan update will trigger increases in staffing, maintenance facilities, fleet and other infrastructure, which are described in this Plan.

Document Guide

The rest of this document is organized into six chapters.

- Chapter 2 provides a summary of public involvement in this Plan and how public input informed the Plan.
- Chapter 3 describes the 2028 Network and outcomes that relate to City goals.
- Chapter 4 describes the role of demand-response in the Plan. Changes to the fixed-route network will trigger additional needs for demand-response service.
- Chapter 5 describes the supporting physical infrastructure and fleet investments that would be needed to meet the goals of the Plan. It also covers some of the operational changes that would accompany the 2028 Network, and the non-transit programs SMART administers.
- Chapter 6 summarizes SMART's current financial forecast and describes the federal, state and local funding sources available for enhancing services and investing in infrastructure.

2. Public Involvement

Overview

SMART and the consulting team led an inclusive process to engage a diverse group of existing and potential transit users. This included historically underserved communities, seniors, people with disabilities and others who live in Wilsonville, people who travel for work, appointments, shopping, or to visit family and friends.

Outreach activities in 2022 included:

- Consistent, reliable, accessible information with an identified SMART contact person.
- Sharing information on the Let's Talk Wilsonville website.
- A Public Involvement Plan.
- Representative stakeholders individually invited to participate in a variety of ways.
- Special efforts to reach people in senior facilities, apartment complexes, schools, lower income residents & workers, and people who speak predominantly Spanish.
- Emails to an Interested Parties List to keep people informed about project updates.
- Updates to the Planning Commission and City Council.



Figure 2: Wilsonville community members attend an interactive stakeholder workshop in September 2022.

SMART conducted the following community engagement processes:

- **Project website development.** An inviting and accessible page on the Let's Talk Wilsonville website was provided for the SMART Plan update. It gave community members a way to learn about the project, see upcoming events, participate in the survey, and sign up for the Interested Parties List. The project page was published and updated in English and Spanish.
- **Community Survey.** An online survey was launched on August 12, 2022 and was available on the Let's Talk Wilsonville website for one month. A total of 210 responses were collected, 185 in English and 25 in Spanish.
- **Stakeholder Workshop.** Project staff hosted a workshop on September 20, 2022 to walk participants through the service planning decisions being considered in the Plan update. Staff invited around 150 participants by email or phone calls. A total of 18 people joined

the workshop held at the Wilsonville Library.

- **Tabling Events.** During the Summer of 2022 SMART staff attended eight community events to invite participation in the Plan update. They collected feedback using a dot exercise on maps which asked people where they thought SMART service should go at the regional and local levels. The dot map activity from a total of 32 participants resulting in 99 dots on maps.
- **Operator Survey.** A survey was offered to SMART operators to ask them what they had been hearing from riders about transit service and what ideas they had that could help the community. A total of 7 operators shared thoughts through the survey.

Survey Respondent Demographics

The survey was the vehicle through which the majority of participants shared input into the Plan.

In total, 210 people took the survey. The table in this page provides a summary of their demographics. While respondents were not required to complete a set of demographic questions, most did.

Most of the respondents (85%) live or work in Wilsonville, while 21% neither live nor work in Wilsonville but visit the city for

other reasons.

The largest response groups by age were people born between 1980 - 1999 (23-42 years old) and 1960 - 1979 (43 - 62), who made up 35% and 32% respectively.

91% of respondents provided their gender. 49% responded "female", 39% responded "male", 2% responded "non-binary" and 1% responded "transgender".

The survey also asked respondents to share their household income. About 76% of respondents answered this question. 21% of respondents reported an income at least 200% of the federal poverty level (\$26,500 for a four-person household).

Not shown in the table at right are responses related to transit use. About 30% of respondents had been regular transit riders over the last year (August 2021 - August 2022). A total of 26% of respondents said they were occasional riders.

Figure 3: Plan survey respondent characteristics

All responses	210	100%
By Connection to Wilsonville		
Resident	113	54%
Worker	66	31%
Business owner	7	3%
Visitor	45	21%
By Age (what decade were you born?)		
Before 1960	39	19%
1960-1979	67	32%
1980-1999	74	35%
2000 and After	16	8%
By Gender		
Female	103	49%
Male	81	39%
Transgender	2	1%
Non-binary	4	2%
By Race/Ethnicity		
People of Color	86	41%
White	117	56%
By Primary Language at home		
English	153	73%
Spanish	27	13%
Other	9	4%
By Income		
Less than \$25,000	44	21%
\$25,000 - \$49,999	35	17%
\$50,000 - \$99,999	32	16%
\$100,000 - \$149,999	20	10%
\$150,000 or more	25	12%

Survey Results

The survey asked respondents to share their views on a variety of future priorities for the development of SMART's network. These questions addressed topics about where and when service should be available. The survey was administered through the City of Wilsonville's "Let's Talk Wilsonville" online platform.

What do you think are the highest priorities for the TIMES when new service could be added to the SMART transit network?

This first asked respondents to share how they thought SMART should improve in terms of the days and hours that service is available. Respondents were able to select

from options for more service at midday, during rush hours, later in the evening, or on weekends. Respondents could also select an option for more frequency.

Figure 4 shows the breakdown of responses to this question. The top three priorities for new service added to the SMART transit network among community survey respondents were "More Saturday or Sunday service", "Longer hours of service each day – earlier morning and later evening", and "Better frequencies".

What do you think are the highest priorities for the PLACES where new service could be added to the SMART transit network?

This question was designed to discover whether respondents want SMART to invest in even more service inside Wilsonville, or in improving connections to other communities.

Figure 5 shows the responses to this question. A majority of respondents asked for more regional service for long trips to other cities, as opposed to short local trips within Wilsonville. The regional connections identified in open-ended comments were: Canby, Tualatin, Downtown Portland, Woodburn, Sherwood, Tigard, and Oregon City.

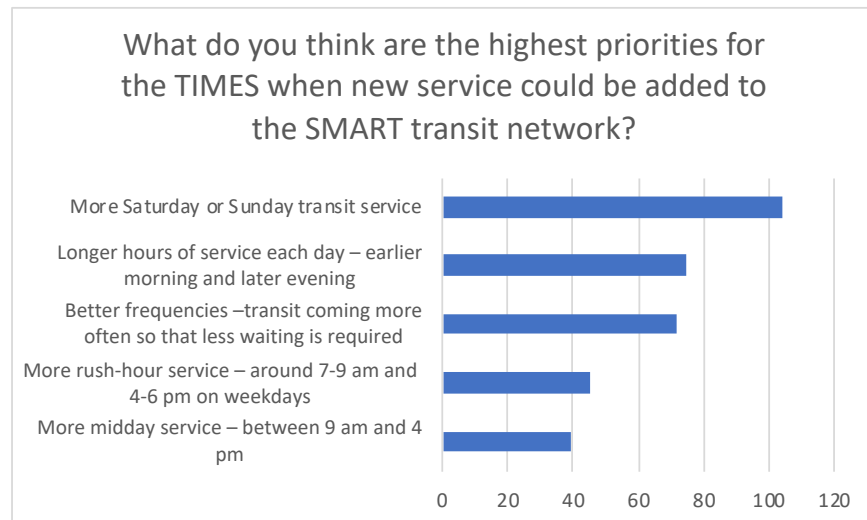


Figure 4: Plan Community Survey - Question 1

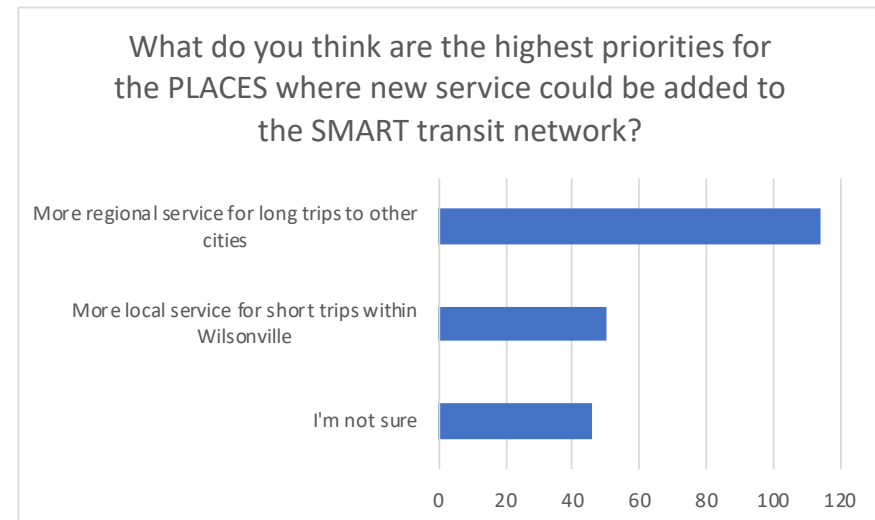


Figure 5: Plan Community Survey - Question 2

In general, INSIDE Wilsonville, what should SMART prioritize when adding new transit service over the next five years?

The third question asked respondents to share whether they think SMART should prioritize getting service close to more of the city, or invest more in the busy places within the city where people are already using transit.

Figure 6 shows the responses to question 3. The largest group of people (88 respondents) said it was more important for SMART to add service in new areas than to add more frequent service to areas already served. Sixty-nine respondents said SMART should add service to places where many people are using transit. Both goals were important to this group, but adding new coverage was slightly more important.

What places inside Wilsonville do you think are most important for SMART to serve?

The last survey question asked respondents to share their priorities for which types of places in Wilsonville SMART should focus on. Figure 7 shows the responses to question 4. The top four responses, each garnering over 100 responses, were “transit connections to other cities”, “shopping centers”, “places with many jobs”, and “places with many residents”.

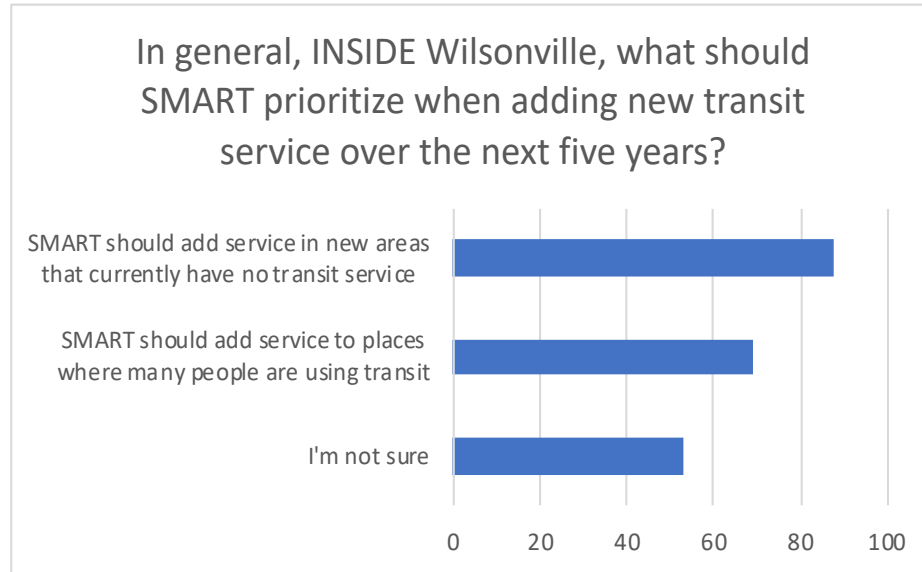


Figure 6: Plan Community Survey - Question 3

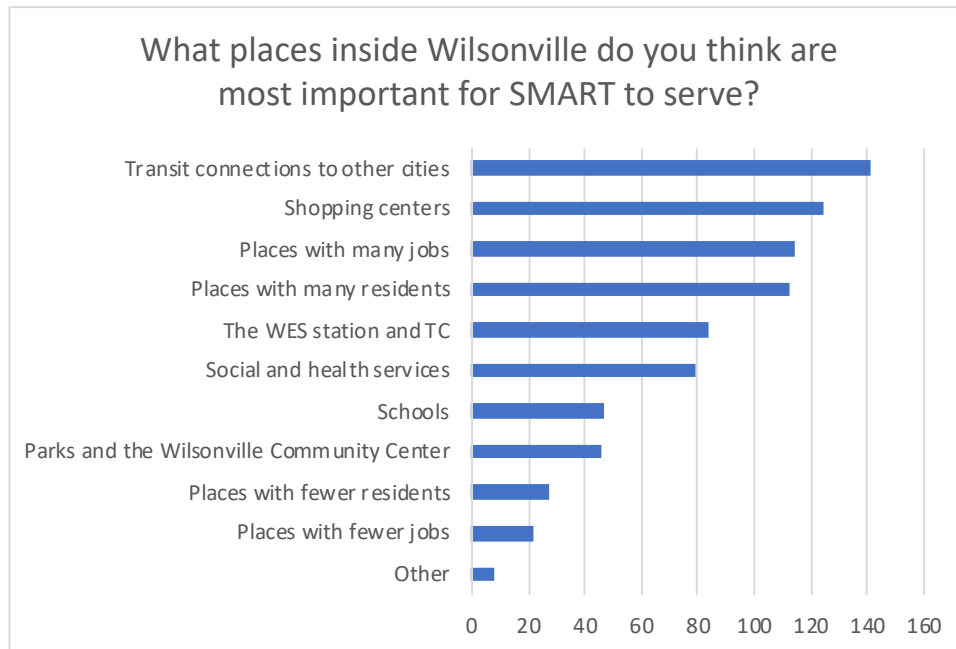


Figure 7: Plan Community Survey - Question 4

Stakeholder Workshop

In September 2022, SMART held a workshop focused on key questions about how future transit should be planned, both within Wilsonville and around our part of the region. The workshop was held in-person from 4:00 p.m. to 7:00 p.m. at the Wilsonville Library. Staff and consultants reached out to 150 stakeholders by email or phone to recruit them to this workshop. A total of 18 people attended.

The workshop included:

- A fun, interactive transit planning game introducing trade-offs and service considerations in and around Wilsonville
- Live polling about key questions
- A presentation about existing Wilsonville transit services and how they're performing.
- Questions and discussion.

The images on this page show some results of the first activity, an game where stakeholders worked in groups to design their own transit networks for Wilsonville. SMART staff and consultants assisted participants, and engaged in conversations about what types of trips and services participants hope to see in future SMART improvements.

After the planning game, the group discussed future priorities for SMART using a set of anonymous polling questions.

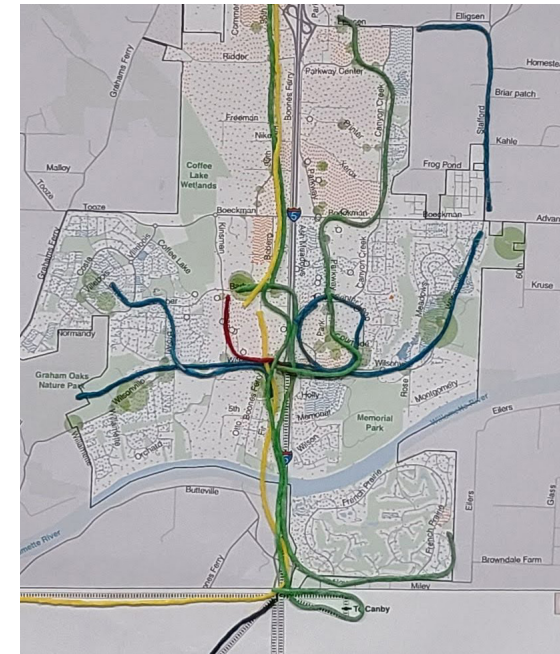
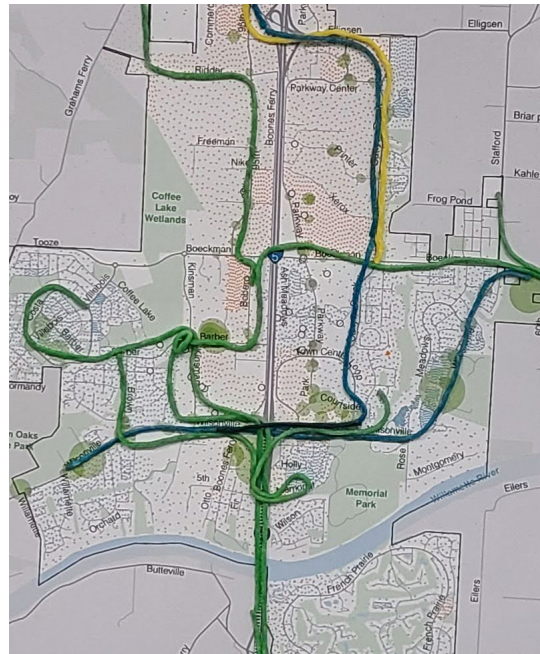


Figure 8: A close-up of two networks designed by participants in the stakeholder workshop. Different colors stand for different frequencies of service. This exercise gave participants a way to discuss and show their desired improvements to SMART service.

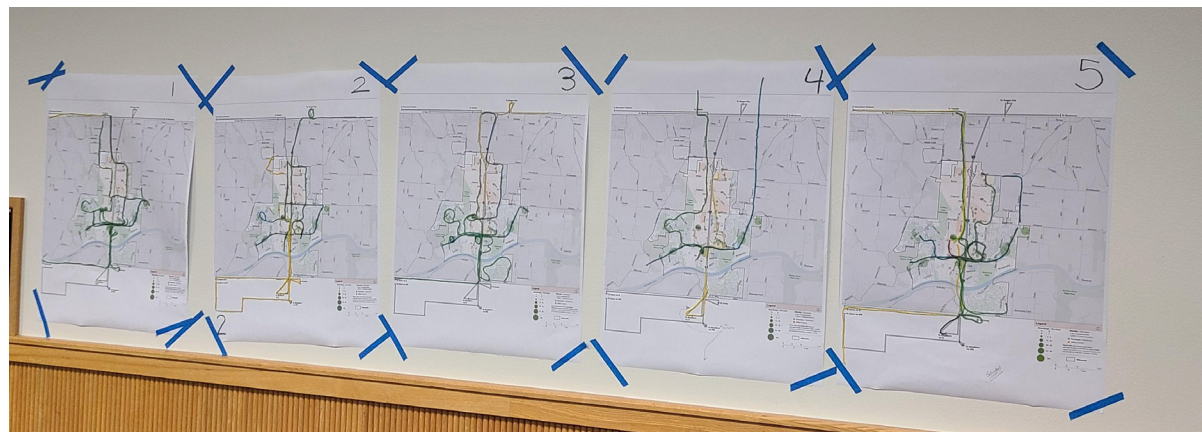


Figure 9: At the end of the exercise, stakeholders were able to compare and contrast the transit networks each group designed for Wilsonville.

Participants were able to respond to questions displayed on a screen using their phones (via text message or a web app).

The images on this page show the results of each of the polling questions asked to the stakeholders.

How important are rush hours?

Today, SMART's network is very oriented towards rush hour trips, in three senses:

- Routes are designed to focus on the station for the WES train, but WES only operates during weekday rush hours.
- Some routes only operate during rush hours.
- Other routes offer better frequencies at rush hours than at midday.

A majority of stakeholders at the workshop said that rush hours should not be the main priority, but that a little extra service made sense during those periods.

Weekend Service

The next two questions were about weekend service. The first was about the importance of weekends. Stakeholders split evenly on whether weekend service should be improved only with new funding, or whether some service should be taken from weekdays to improve weekends. Nobody said "weekends aren't very important".

Figure 10: Stakeholder workshop - Question 1

Poll: On weekdays, how important are rush hours?

017

Rush hours should be the priority.

12 %

A little extra service at rush hour makes sense.

59 %

Having consistent schedules all day long should be the priority.

29 %

Figure 11: Stakeholder workshop - Question 2

Poll: How important are weekends?

018

Weekends are so important that we should cut some weekday frequencies to offer more weekend service.

50 %

We should add weekend service only when new funding is available.

50 %

Weekends aren't very important.

0 %

Figure 12: Stakeholder workshop - Question 3

Poll: If you could add weekend service, what would you add first?

018

Longer Saturday hours for routes that already run on Saturdays.

28 %

More routes running on Saturdays.

28 %

Start running some routes on Sundays (as well as Saturdays).

44 %

The next question asked more specifically about when on the weekend should be the priority for new service. All three options garnered at least 1/4 of responses, but the top option with 44% was to start running some routes on Sunday (even before adding more service to Saturdays). Currently no SMART service operates on Sunday and adding Sunday fixed-route service would trigger numerous requirements and costs, which were discussed by the group.

Ridership or coverage?

The final polling question asked stakeholders to weigh the competing goals of attracting high ridership or providing wide (but minimal) service coverage.

Many people want service to run more often, and for more hours of the day and week. High frequency, all-week service is a proven way of increasing ridership, but it requires focusing buses into fewer routes on fewer streets. At the same time, many people want transit service to be available to as many people as possible, on all of the main streets in a city. This requires spreading service out into more routes, which means poorer frequencies and shorter hours of service. With a fixed budget, a transit agency cannot do both things at once: focus service to make it more frequent, and spread it out to cover more places.

A majority of stakeholders said that SMART should balance these goals about

Figure 13: Stakeholder workshop - Question 4

Poll: How should SMART balance the goals of high ridership and wide coverage?

017

The top priority is to run routes that many people use.

18 %

Use about half of SMART's budget on busy routes, and the other half covering areas that area important even if few people ride.

76 %

Spread service evenly across the entire city, so that every street has a little bit of service on it.

6 %

I'm not sure.

0 %

evenly. Currently, SMART provides extensive coverage within Wilsonville; there are only a few areas that are more than a short walk from service.

Only 6% of the stakeholders said that coverage should be prioritized more, while about 18% said that the top priority should be on running service that are used by many people.

The existing service standard for coverage, cited in SMART's 2020 Title VI policy, is that 85% of the city's residents should be within 1/3 mile walk of a bus stop.

For both the existing 2022 and proposed 2028 SMART networks, only 54% of residents are within a 1/3 mile walk of a bus stop at midday on weekdays, and 59%

during rush hours.

As a coverage standard, "85% within a 1/3 mile walk" is a very hard to meet, especially for a low-density city. With many residents living down cul de sacs or against barriers like the Willamette River and the I-5 freeway, for transit to be within 1/3 mile of so many people, buses would have to go down small neighborhood streets and cul de sacs. Adding this coverage – even if it were desired by those neighborhoods – would require either new funding, or cutting service on high-ridership routes like Wilsonville Road or Salem.

Tabling Events

SMART staff tabled at eight community events in summer 2022. At these events, people were able to place dots on a pair of maps to indicate which connections they thought SMART should focus on. There was one map focused on Wilsonville for local destinations, and a second map showing a range of regional destinations.

The top regional destinations in this activity were Sherwood, Tualatin, and Canby. The top three local destinations for SMART to serve were Argyle Square Shopping Center, Villebois, and the Town Center Loop area, Memorial Park area, & Old Town Square.

The events where this input was gathered were:

- Wilsonville Farmers Market on Thursday July 14th.
- Rotary Concert in the Park event Thursday July 21st.
- Wilsonville Farmers Market on Thursday August 4th.
- WLWV Family Empowerment Open House on August 17th, 2022.
- Bridging Cultures events on July 30th, 2022 and Saturday August 27th, 2022.
- City of Wilsonville’s Community Block Party on August 25th, 2022.

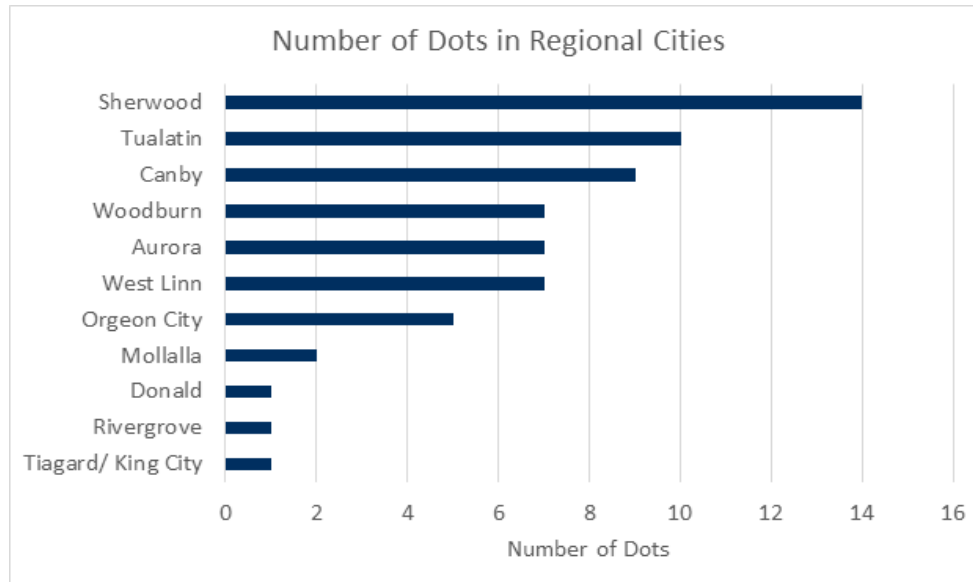


Figure 14: Results of Tabling Dot Exercise - Regional Destinations

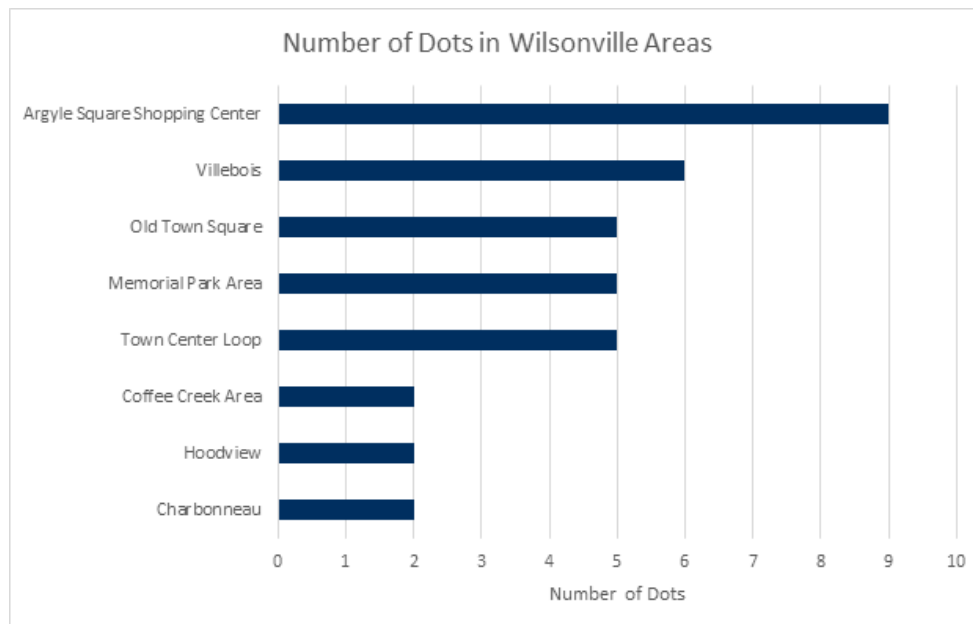


Figure 15: Results of Tabling Dot Exercise - Local Destinations

- Heart of the City's Gear Up 4 School on August 13th, 2022, from 9 a.m. to 12 p.m.

The dot map activity ended with a total of 32 participants and 99 total dots.

Operator survey results

Seven SMART bus drivers completed a short survey asking similar questions about which destinations the agency should prioritize for future service improvements. Drivers were asked to respond based on what they have heard from riders. They reported having heard from riders that SMART should serve Woodburn, Barbur Transit Center, Clackamas, Oregon City, East Portland and Canby.

Key Takeways

The Plan outreach process shaped the future network improvements that have been included in the plan. The 2028 Network described in this document is oriented towards these major priorities.

- **Adding weekend service, especially Sundays.** Both the community survey and stakeholder input suggested that SMART should prioritize adding Sunday service, as well as making Saturday service available on more routes. The 2028 Network would do both of these things.
- **Adding early morning and late**

evening service. This was the second highest priority, and is reflected in the 2028 Network as earlier starts and later ends to service on existing routes, and long hours of service on proposed new routes.

- **Better regional connections.** The top response in the community survey for **where** SMART should focus on improving its services was to bolster connections to neighboring communities. The 2028 Network enhances services to Salem and Tualatin, establishes new routes to Tigard, Oregon City and Clackamas Town Center, and retains the existing connection to Canby.
 - o Sherwood, the most-often requested location from the map-dot exercise, would be reachable via multiple TriMet routes from Tigard, as would Beaverton, downtown Portland and SW Portland.
- **Maintaining coverage.** Survey-respondents and stakeholders expressed that maintaining coverage within Wilsonville was important. The 2028 Network keeps the same number of residents within 1/2 mile of service, while improving slightly the number of lower-income and minority residents near service. The 2028 Network also provides shorter walks to service for residents along Canyon Creek Road and in Villebois.

3. Fixed-Route Services

This plan lays out a network of future SMART services oriented around the top priorities from public input:

- Additional regional connections.
- Higher frequency for regional and local routes.
- Weekend service, and longer hours of service.

The network described here is intended to make transit more useful to more people, for a greater variety of trips. It would give people more choice in when to travel within Wilsonville and between Wilsonville and neighboring cities.

Figure 16 maps how the proposed SMART network could look in 2028. On this map, the color of each route represents how frequently it would run:

- **Dark blue lines** (Routes B and F) would run every 30 minutes all weekday.
- **Light blue lines** (Routes A, C and D) would run every hour all weekday.
- The dashed line (Route G) would only run during rush hour.
- The **yellow line** (Route E) would offer trips every two hours, all day on weekdays.

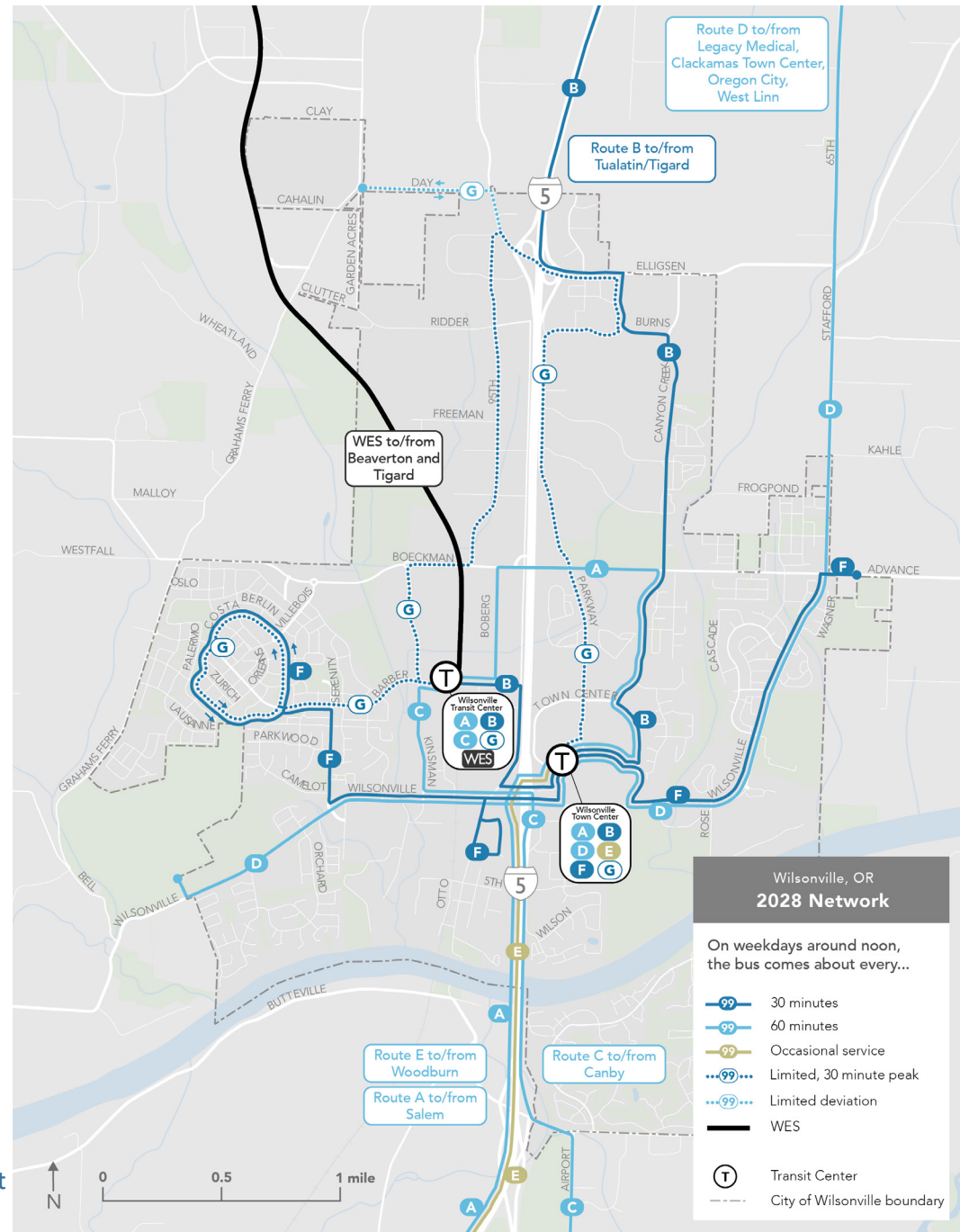


Figure 16: 2028 Transit Network - Wilsonville

There are several “big moves” in the 2028 Network that together make it more useful to more people, for more trips:

- **Shorter waits.** Today, the only route that runs every 30 minutes is Route 4 on Wilsonville Rd. The 2028 network would add a new 30 minute service (Route B) that would serve the Wilsonville Transit Center, Wilsonville Town Center, Canyon Creek Rd, and then continue north to Tualatin and Tigard via I-5.
- **Better regional connections.** In addition to the existing connections to Salem and Canby, the 2028 network would have service every 30 minutes to Tualatin and Tigard, and every 60 minutes to West Linn, Oregon City and Clackamas Town Center. Many of these places offer transfers to other transit routes going further. For example:
 - o Sherwood, Beaverton and Portland can be reached through Tigard;
 - o Milwaukie can be reached through Oregon City; and
 - o East Portland can be reached through Clackamas Town Center.
- **New connection points.** Instead of all services connecting only at the west side Transit Center / WES station, some routes would connect at the Town Center east of I-5.
- **Improved weekend service.** With the

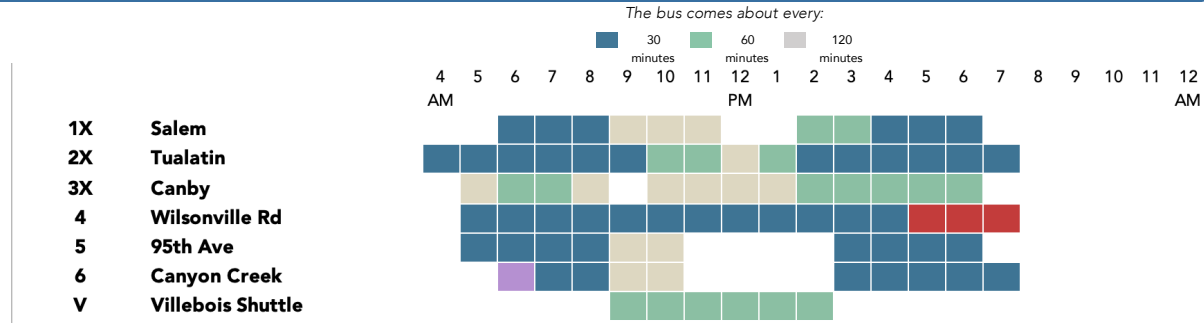


Figure 17: Weekday Frequency by Hour by Route - 2022 SMART Network

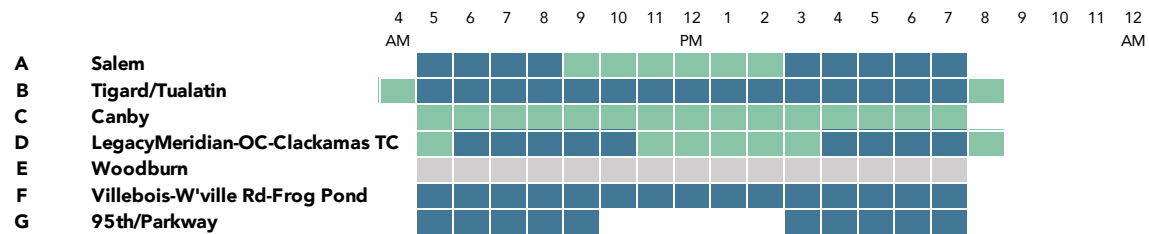


Figure 18: Weekday Frequency by Hour by Route - 2028 Network

2028 network, SMART service would run on Sundays for the first time, and more routes would operate on Saturdays.

This network plan is not achievable with SMART’s current resources, and especially not until constraints on the number of bus drivers and the number of transit buses are relieved. It is a ambitious plan, with the maps and tables here showing the end state of a five-year process of network improvement.

Better Frequencies, Close to More People

With today’s SMART network, the only route that runs every 30 minutes all day long is Route 4, the line serving Wilsonville Road. Most other routes run only every hour, but many have gaps in their schedule during the middle of the day that makes actual waiting times even longer.

Thirty-minute frequency throughout the whole day means that people traveling along Wilsonville Rd have more opportunities to make trips by transit, which makes it more likely that a transit trip will be an option that works for their daily schedule. It is therefore no surprise that Route 4 on

Wilsonville Road is SMART's most productive route.

Figure 17 shows the frequency on weekdays for SMART's 2022 routes, while **Figure 18** shows weekday frequencies for the 2028 Network.

In the 2028 Network, there would be two all-day 30-minute routes for local trips within Wilsonville.

- Route F would be an east-west service, running mostly on Wilsonville Road. Route F would connect Villebois, Fred Meyer, the Town Center and Frog Pond.
- Route B would be a north-south service. It would connect the west side Transit Center / WES station, the Town Center, Canyon Creek Road and Argyle Square. It would then continue north to Tualatin and Tigard.

Most other routes would offer consistent hourly frequencies all weekdays long, with extra rush-hour frequency on Routes A (Salem) and D (Legacy Medical-Oregon City-Clackamas).

Two routes would be nearly identical to existing routes:

- Route C, similar to the existing 3X (Canby), would offer a consistent hourly frequency all day, Monday-Saturday.
- Route A, similar to the existing 1X (Salem) would also offer a consistent

all-day hourly frequency Monday-Sunday, with extra frequency during weekday rush hours.

The increases in frequency on local and regional routes represented in the 2028 Network would address two important limitations of the existing network.

- First, more routes would run through the entire midday, making them useful for a wider range of trips than rush-hour commutes, especially the commutes of people working service, retail, hospitality or industrial jobs, and the commutes of people going to school or college.
- Second, the better frequencies would make many trips faster by reducing the waiting time required to use service.

SMART provides real-time arrival information about its routes, but frequency still has a big effect on how much time it takes to use transit, especially for local trips.

For example, a person wishing to travel from Villebois to an appointment at Wilsonville Town Center today would use the Villebois Shuttle, which runs every hour during weekday middays. Since they have to be on time for their appointment, they have to take the last bus that will get there early enough to be on time – which will often be painfully early. An hourly bus sometimes makes people arrive 50 minutes early to their destination. If a route offers just one opportunity to travel per hour,

then someone will wait an average of half an hour to use it – if not at the bus stop, then at their destination because they were forced to arrive too early.

In this example, in the 2028 Network, Route F would serve Villebois every 30 minutes. The average wait to use it would be just 15 minutes, with two opportunities to depart per hour. Saving people an average of 15 minutes waiting per one-way trip makes a big difference in busy people's days. By focusing on frequency with this Plan, SMART can reduce people's travel times and make its network much more useful to more people.

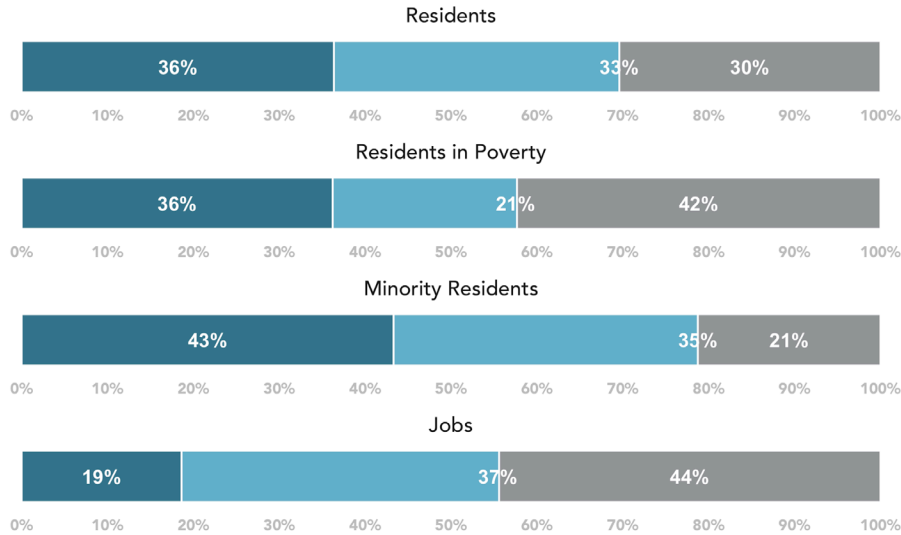
Note that the frequencies recommended in this Plan, as shown in the graphic on the previous page, are approximate. There is a value to providing a consistent frequency (for example, a bus that comes at 8:10, 8:40, 9:10, 9:40 and so on) as opposed to an ever-changing schedule (such as 8:10, 8:35, 9:05, 9:45, and so on). The frequencies that recur in memorable patterns are 15-, 20-, 30- and 60-minutes, and they are called "clockface."

However, in scheduling bus routes, there are also valuable reasons to deviate slightly from a "clockface" frequency. For example, a slight change to timing may allow for a connection to another bus route or train line. Changes to timing are also sometimes necessary to provide drivers with meal breaks, or adapt the schedule to afternoon congestion.

SMART 2022 - Weekday at noon

What percentage of the SMART service area is near transit that comes every

30 minutes 60 minutes Not within 1/2 mile



Note: Proximity is measured as being located within 1/2 mile of a bus stop.

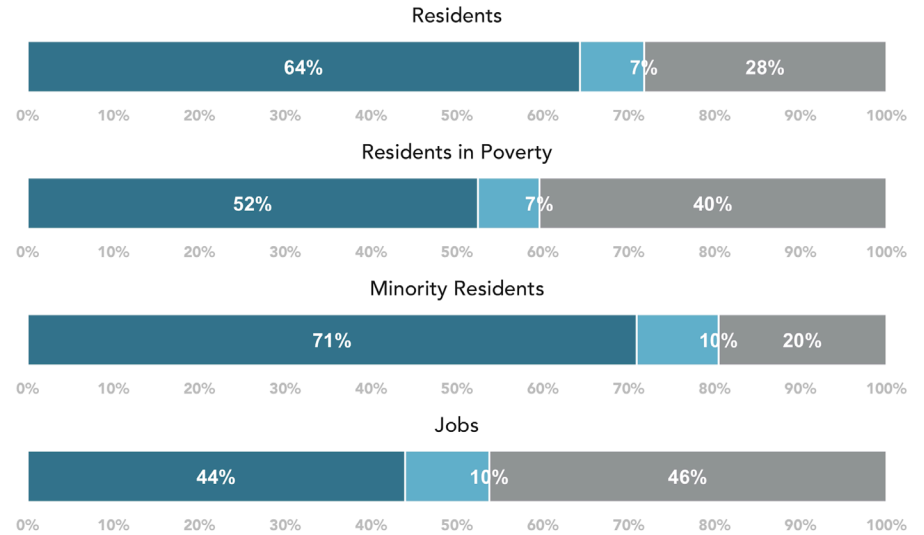
Figure 19: Proximity to Transit Service - SMART 2022 Network

The 2028 Network would put more residents near routes running all day, from early morning to late evening. It would especially put more Wilsonville residents near more frequent service. Today, only about 36% of Wilsonville residents are within a 1/2-mile walk of Route 4, the only 30 minute service, while about 33% are near a 60-minute service.

SMART 2028 - Weekday at noon

What percentage of the SMART service area is near transit that comes every

30 minutes 60 minutes Not within 1/2 mile



Note: Proximity is measured as being located within 1/2 mile of a bus stop.

Figure 20: Proximity to Transit Service - SMART 2028 Network

With 30-minute service extended to Brown Road, Villebois and Canyon Creek Road, the 2028 Network would put more people near a route coming more often. About 64% of residents would be near a 30-minute route.

Better Regional Connections

One of the priorities expressed by the public in 2022 was improving connections between Wilsonville and other communities. The 2028 Network includes three new routes designed that will make it easier to travel to or from other cities:

- Route B, a new service running every 30 minutes among Wilsonville, Tualatin and Tigard.
- Route D, a new service running every 60 minutes among Wilsonville, Legacy Meridian Medical Center (Tualatin), West Linn, Oregon City and Clackamas Town Center.
- Route E, a new service running every two hours among Wilsonville, Woodburn and Keizer.

These new routes would supplement SMART's existing regional connections to Salem (Route A) and Canby (Route C). The routes to Salem and Canby would both be improved with additional trips for a more consistent frequency throughout the day.

These routes are also designed around the principle that there need not be a categorical separation between "local" and "regional" or "express" routes. Rather, regional routes should enter Wilsonville along paths that get the service close to many residents, jobs and businesses. This

Wilsonville, OR 2028 Regional Network	
On weekdays around noon, the bus comes about every...	
	15 minutes
	30 minutes
	60 minutes
	Occasional service

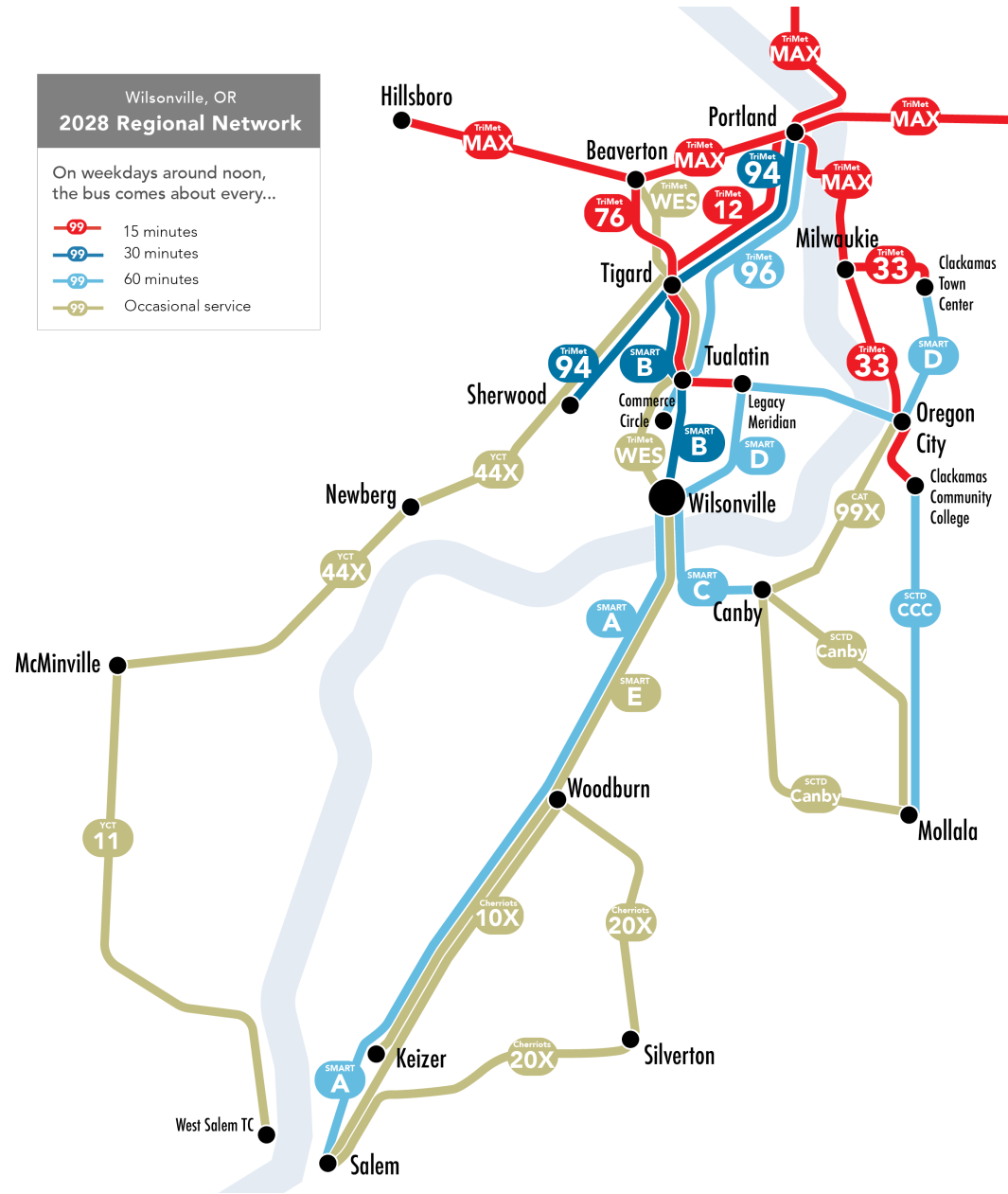


Figure 21: Regional Transit Network Operated by All Transit Agencies, with 2028 Recommended SMART Routes

3. FIXED-ROUTE SERVICE

is reflected in the existing SMART network, on which Route 2X provides both regional service (to Tualatin) and local service (in Wilsonville west of I-5). However Route 2X is the only existing route to combine regional and local service in this way. In the recommended 2028 network, Routes A, B and D would offer at least 1 mile of local stops in addition to regional connections. This will enable more people to use SMART to reach neighboring cities without having to make a transfer in Wilsonville, making SMART more useful for several different types of trips.

First, transit connections for the most common commute patterns would be improved. **Figure 22** charts the south metro area cities by the number of workers traveling between them each day (based on 2018 LEHD data). The largest south metro commuting partners with Wilsonville are Tualatin, Tigard, Woodburn, Canby and Oregon City.

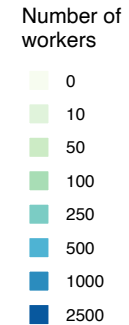
The **yellow highlights** on the table in **Figure 22** show the cities that would be directly connected to Wilsonville by routes in the 2028 network, making it easier or residents and workers to travel between Wilsonville and these other cities during more of the day and week.

Commuting trips only tell part of the story, because people travel for many other reasons. Prior to the pandemic, national research suggested that only 1 in 5 trips by Americans was a trip to work.

In Tualatin, Route B would serve Bridgeport Village and Nyberg Woods. By ending in Tigard, Route B would also connect to many TriMet and Yamhill County bus routes, making it easier to continue trips to Beaverton, Hillsboro, Sherwood, Newberg, or into Portland.

In fact, the trip to Portland would be very similar to the trip available years ago,

via the Barbur Transit Center: Wilsonville residents would ride a SMART bus north and transfer to TriMet's Line 12. By making that connection in Tigard instead of at Barbur TC, SMART can offer many other connections to more lines and places compared to what's available at Barbur TC.



South Metro Area Job Flows
Number of workers with paired home-work location by city

	Aurora	Barlow	Beavercreek	Butteville	Canby	Dayton	Donald	Dundee	Hubbard	Keizer	McMinnville	Molalla	Mulino	Newberg	Oregon City	Sherwood	St. Paul	Tigard	Tualatin	Wilsonville	Woodburn
Aurora	7				39		7	1	28	11	6	12	2	12	10	9	2	22	21	46	51
Barlow		0			4										1	4		4	4	10	2
Beavercreek			67		54		4		4	13	7	48	19	14	314	10		80	67	48	18
Butteville		1		2	15		4		2	6	3	5		5	4	3	1	6	7	15	7
Canby	39	4	54	15	1378		29	12	127	94	68	260	54	118	595	131	4	396	455	722	383
Dayton			1	1	3	61	2	10	1	4	267		1	96	11	13	5	34	37	17	16
Donald	7	0		4	29		12		18	18	22	13	2	40	21	16	4	22	28	45	41
Dundee			1		12	10	2	31	1	10	335	3		270	9	48	2	74	92	57	27
Hubbard	28	0	4	2	127		18	1	67	43	31	39	7	33	40	21	7	80	103	161	265
Keizer	11		13	6	94	4	18	10	43	1450	243	40	4	118	92	47	19	266	221	247	466
McMinnville	6		7	3	68	267	22	335	31	243	5894	28	3	1132	117	140	6	358	333	176	195
Molalla	12	1	48	5	260		13		39	40	28	572	82	51	304	32	2	152	138	158	162
Mulino	2		19	1	54		2		7	4	3	82	31	8	105	10	1	42	22	37	14
Newberg	12	3	14	5	118	96	40	270	33	118	1132	51	8	2226	156	537	24	822	887	509	181
Oregon City	10	1	314	4	595	11	21	9	40	92	117	304	105	156	2411	184	4	963	780	619	167
Sherwood	9	4	10	3	131	13	16	48	21	47	140	32	10	537	184	834	10	1022	1115	575	155
St. Paul				1	4		4		7	19	6			24	4	10	9	5	9	6	24
Tigard	22	4	80		396	34	22	74	80	266	358	152	42	822	963	1022	5	3587	2911	1364	432
Tualatin	21	4	67		455	37	28	92	103	221	333	138	22	887	780	1115	9	2911	2081	1560	736
Wilsonville	46	10	48	15	722	17	45	57	161	247	176	158	37	509	619	575	6	1364	1560	803	718
Woodburn	51	2	18	7	383	16	41	27	265	466	195	162	14	181	167	155	24	432	736	718	1866

Figure 22: South Metro Area cities by number of workers commuting

Route D would connect to Clackamas Town Center, a major employment and social destination, and also a hub for transit connections to many parts of Portland, Gresham and even (in the future) Sandy.

Rather than proceeding “express” all the way to Clackamas, Route D would stop at other busy places, in order to be useful for large numbers of people and justify the high frequency offered on the route. It would stop at Legacy Meridian Medical Center, West Linn and Oregon City.

Oregon City is important not only because it’s dense with residents and jobs, but also because as the county seat of Clackamas County, it is the location of important public and medical services. It is also where connections are available to the main Clackamas Community College (CCC) campus. From the envisioned Route D stop in downtown Oregon City, both CCC and the Providence Willamette Falls Medical Center would be reachable with a transfer to TriMet lines.

Less Reliance on WES for Regional Connectivity

One regional connection that would be de-prioritized in the 2028 Network is the timed connection between SMART bus routes and WES. All of the recommended routes in the 2028 Network have been presented here with “clockface” frequencies, which are frequencies that people can easily remember because they repeat their

pattern from one hour to the next. For example, a 30-minute route would pass someone’s bus stop at 7:07 a.m., 7:37 a.m., 8:07 a.m., and so on.

Clockface frequencies are easy for people to learn and remember. However, they trade-off against other scheduling details that can be valuable, such as scheduling buses to arrive at the right time for connections with other buses (for example in Canby or Salem) or with trains. In the past, when WES ridership was higher, there was an obvious value to making bus schedules time buses to meet WES trains.

However, WES trains are scheduled to come every 45 minutes. If local routes are scheduled to meet WES trains, then they must operate every 15-, 45- or 90- minutes (multiples of 45). But 15- or 90-minute frequencies are often wrong for local Wilsonville routes (unaffordably high or inadequately low), while a 45-minute frequency is not clockface and makes the schedule throughout the day hard to remember.

In addition, ridership on WES has been extremely low for many years, even predating the pandemic.

For these reasons, the frequencies and routes in the 2028 Network have been set to depend less on WES and operate more as a complete regional and local network. WES is one element of the regional network, but not the only and not the overriding priority.

Some route details that result from this decreased emphasis on WES are:

- Route frequencies of 30- or 60- minutes, rather than every 45 minutes.
- The terminating of a few routes (D, E and F) in the proposed east side Town Center facility rather than at the west side Transit Center / WES station.
- No deviation off of Wilsonville Road north to the WES station by the regional Route D or local Route F, making them more linear routes for people not traveling to or from WES.

Regional Routes Near Residents and Businesses

In public input, regional services were given high priority for SMART’s future network. Today, only a minority of residents live near one of SMART’s services that can take them beyond the Wilsonville city boundary. **Figure 23** shows that about 40% of residents live within a 1/2-mile walk of a regional route.

With the 2028 Network, not only would the range of destinations available via SMART regional services increase, but so would

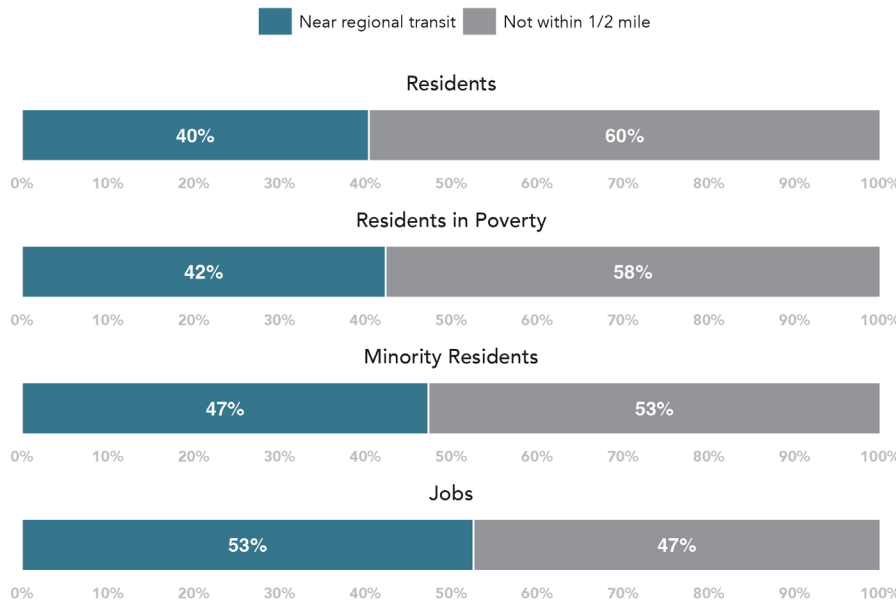
the number of residents living near those routes. As **Figure 24** shows, the percent of Wilsonville residents living near a regional route would increase to 53%. This is mainly a result of the new Routes B and D.

Route D would replace SMART’s temporarily suspended Medical Shuttle with a regular hourly route from Wilsonville to Clackamas Town Center. Within the City, it would run on Stafford Rd and Wilsonville Rd, and would terminate at Graham Oaks Park. That means that a large portion of the River Fox and Mayfield neighborhoods at the west end of Wilsonville Rd would

now be within walking distance of a route to Legacy Meridian, West Linn, Oregon City and Clackamas.

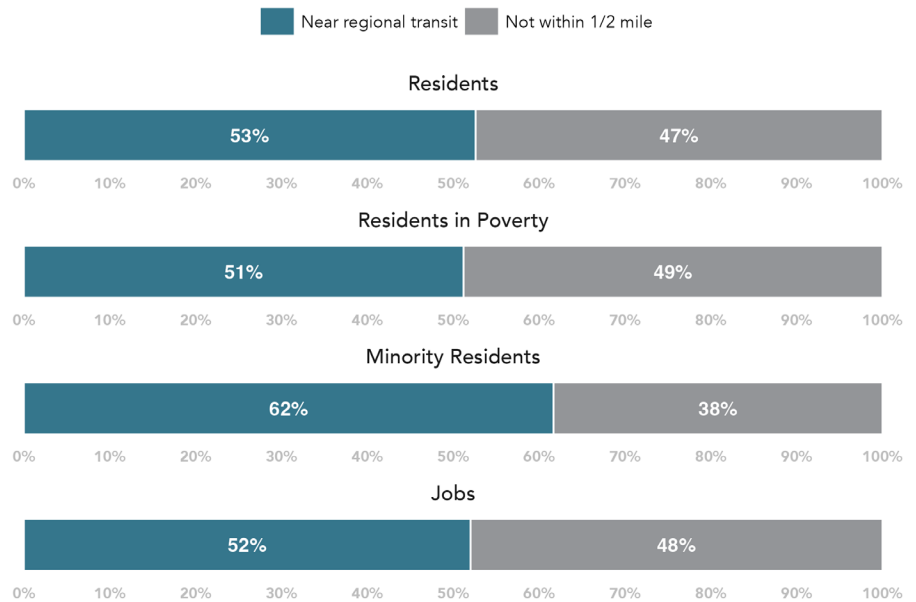
Route B would replace the existing 2X, but it would also serve a longer segment of Canyon Creek Rd. Canyon Creek Road has some dense apartment neighborhoods along it, as well as low-density employment campuses. South of Boeckman Road Canyon Creek Road is separated from Wilsonville Road by the creek, making walks for some residents to existing service rather long.

Proximity to Regional Transit
2022 - Weekday at noon



te: Proximity to a regional route is measured as being located within 1/2 mile of a bus stop along Routes 1x, 2x, 3x, 80x, and M.

Proximity to Regional Transit
2028 - Weekday at noon



te: Proximity to a regional route is measured as being located within 1/2 mile of a bus stop along Routes A, B, C, D, and E.

Figure 23: Proximity to Transit Service - SMART 2022 Network

Figure 24: Proximity to Transit Service - SMART 2028 Network

Adding service on Canyon Creek Road, and all-day regional service, would put many more residents and jobs in Wilsonville one bus away from Tualatin and Tigard.

New Transfer Points Inside Wilsonville

In the existing SMART network, most routes come together at the Wilsonville Transit Center on the west side, adjacent to the TriMet WES station. WES connects to Tualatin and Tigard, but since its inception it has only operated during rush hours, and its high cost of operation and low ridership has made it difficult for TriMet to justify longer hours of service. Mixed use development is being added near the Transit Center, but the area surrounding it is foreseen to be fairly low-density industrial and open space for years to come, land uses that don't generate much transportation demand.

On the other hand, Wilsonville Town Center east of I-5 has a combination of retail and service businesses, a community college campus, public services and offices, and nearby apartments. The City of Wilsonville has an ambitious plan to redevelop portions of this area in the future. In this Plan, the Town Center is foreseen as an important node with fairly high demand for transit. Establishing a small transit center there would also help SMART avoid some congestion around I-5, and make some bus

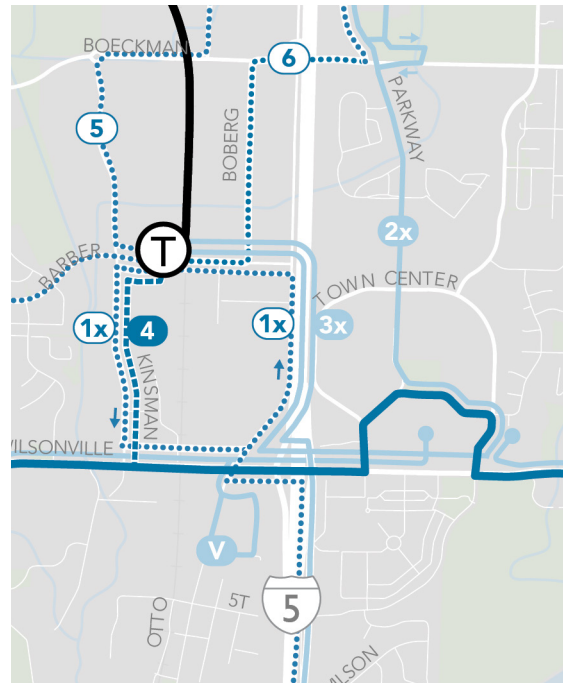


Figure 25: SMART Existing Network - Central Wilsonville

routes more linear and direct by relieving them of the need to deviate north to the west side Transit Center.

Figure 25 and Figure 26 compare the existing and 2028 networks in the central area of Wilsonville. In the existing network, every route goes to the Wilsonville Transit Center. In the 2028 network, this will work a little differently. Of the two connection points:

- Routes A, B, and G will serve both the west side Transit Center and the east side Town Center. Route B will connect the two centers every 30 minutes.

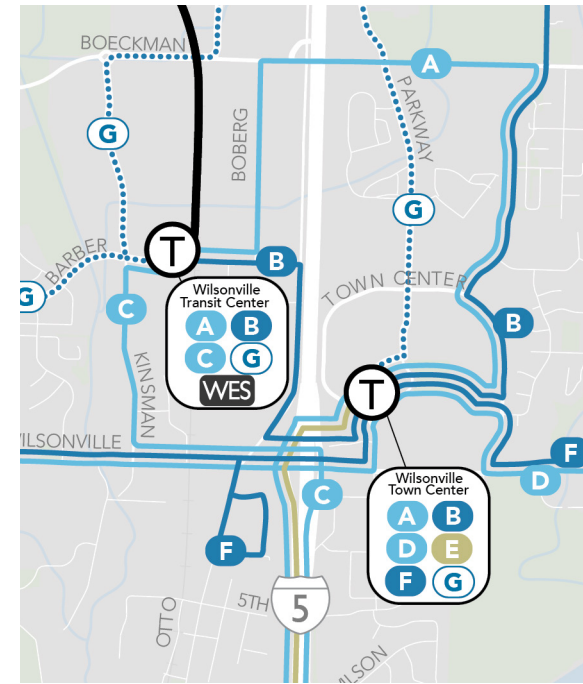


Figure 26: SMART 2028 Network - Central Wilsonville

- Routes D, E and F will only serve the east side Town Center.
- Route C will only serve the west side Transit Center.

Both locations are important as places where riders can transfer between routes, and as places where layover can take place. However, these centers are not the only places where transfers can be made – transfers between most routes will still be possible elsewhere in the city.

Transfer from route...

	A	B	C	D	E	F	G
A		Both	W. TC	E. TC	E. TC	E. TC	Both
B	Both		Both	E. TC	E. TC	E. TC	Both
C	W. TC	Both		OS		OS	W. TC
D	E. TC	E. TC	OS		E. TC	E. TC	E. TC
E	E. TC	E. TC		E. TC		E. TC	E. TC
F	E. TC	E. TC	OS	E. TC	E. TC		E. TC
G	Both	Both	W. TC	E. TC	E. TC	E. TC	

Road. **Figure 28** shows an example of a potential transfer using Routes C and D.

Because some routes would pass through the east side Town Center before terminating at the west side Transit Center, more transfers would be possible at the east side location than the west side location. However, depending on scheduling, the timing of transfers might mean that some

passengers prefer to use one transit center or the other, when they have the option to use either.

The only routes that wouldn't connect easily with one another would be Route C (Canby) and Route E (Woodburn/Keizer). However, the towns of Woodburn and Canby are already connected to one another by CAT's Route 99 service on Highway 99E, so there is unlikely to be much demand for this transfer in Wilsonville.

Figure 27: Locations for potential transfers among routes in the 2028 Network

Figure 27 shows where transfers between pairs of routes could take place.

- "W. TC" means a rider could transfer at the west side Transit Center (also known as Wilsonville Transit Center or the WES station).
- "E. TC" means a rider could transfer at the new east side Town Center facility, which will be on or near Park Place.
- "Both" means that a transfer would be possible in either place.
- The transfers marked "OS" would take place on-street away from either facility.

Connections between Routes C and D, and between Routes C and F, would happen along Wilsonville Road, at stops at either Boones Ferry Road or Kinsman

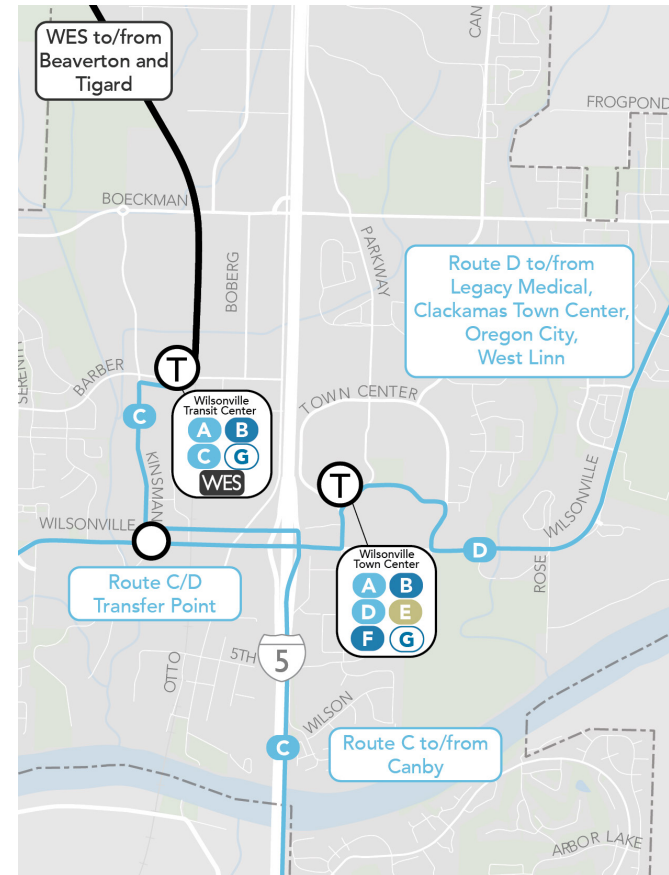


Figure 28: Example of a transfer between Routes C and D along Wilsonville Road in the 2028 Network.

Better Weekend Service

Saturday Service

Figure 29 and Figure 30 compare the frequency of each route on Saturdays between the 2022 and proposed 2028 networks.

As of 2022, only three routes were running on Saturdays:

- Route 4 on Wilsonville Road, every 30 minutes with some longer waits at midday.
- Route 2X between Wilsonville and Tualatin, every 30 minutes with some longer waits at midday.
- The Villebois Shuttle, which made just three trips per Saturday.

Demand-response service (“Dial-a-ride”) is currently offered on Saturdays over the same hours as fixed-routes.

Limited weekend service severely limits the usefulness of transit for most people. A person who works on weekends can’t chose transit if it is barely there or not there at all on Saturdays.

With the 2028 network, the amount of service available on Saturdays would increase dramatically. All of the regional routes would run on Saturdays, making it possible to travel among Wilsonville

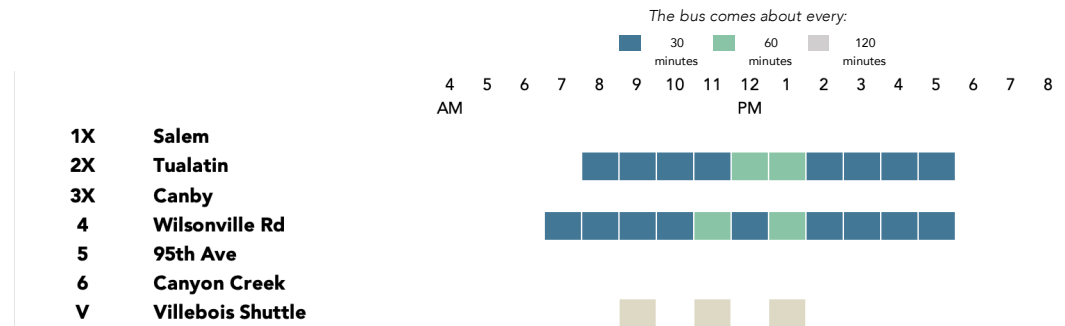


Figure 29: Saturday Frequency by Hour by Route - Existing SMART Network

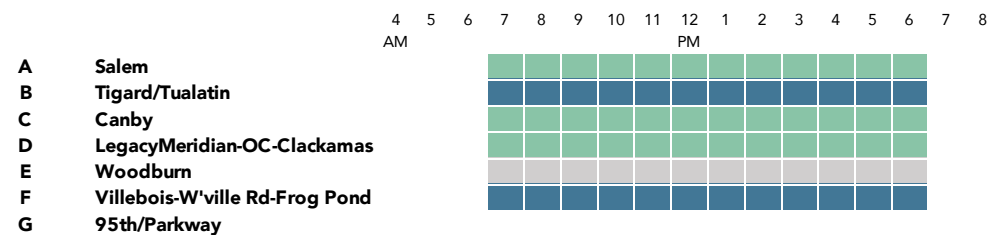


Figure 30: Saturday Frequency by Hour by Route - 2028 Network

and Salem, Tualatin, Tigard, Canby and Woodburn 6 days of the week. Except for Route E to Woodburn, all of these routes would run at least every hour, with the Tigard/Tualatin and Wilsonville Rd routes running every 30 minutes.

The only parts of Wilsonville that would not have Saturday service with the 2028 network are those served by Route G at rush hour only; these are also mainly employment and industrial areas, and service designed for them is particularly adapted for a 9-5 commute.

Sunday Service

Today, no SMART routes run on Sundays. That means that transit is not an option for

people in Wilsonville who need to travel on Sundays, and once someone purchases a car to solve their Sunday transportation problem they are likely to use it for the rest of their week.

The 2028 Network establishes a basic level of SMART service on Sundays. This service level would actually exceed what is currently provided on Saturdays by the existing network. The Sunday network would be:

- Route F - Wilsonville Rd would run every 60 minutes.
- Route A - Salem would run every 60 minutes.
- Route B - Tigard / Tualatin would run

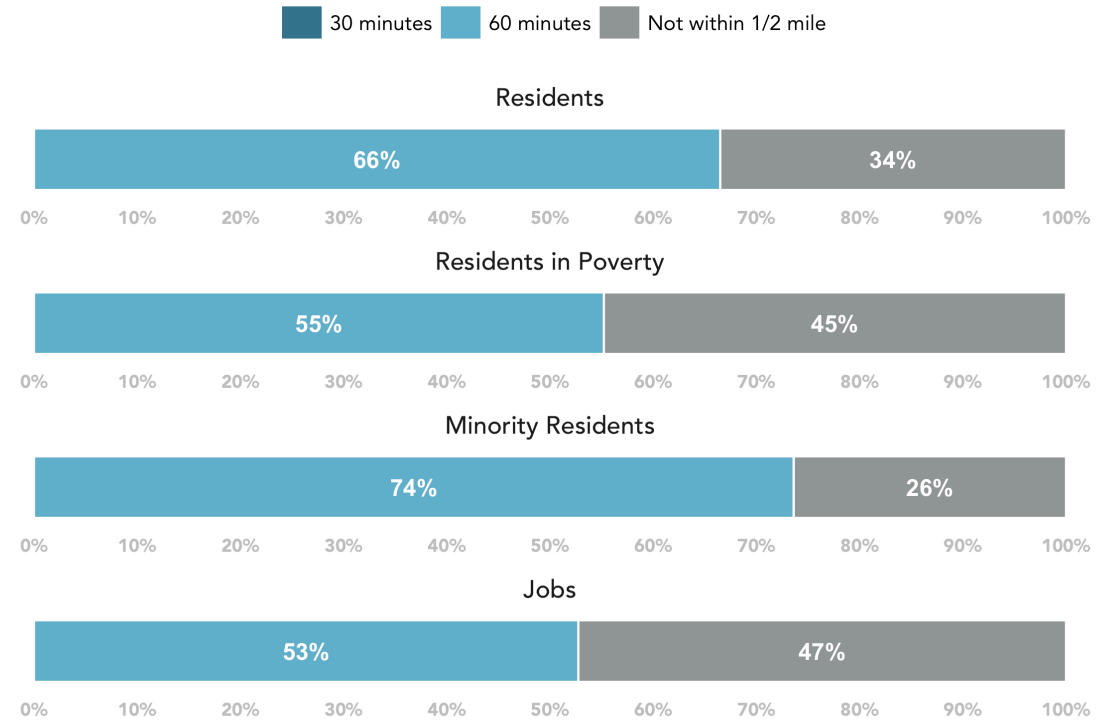
every 60 minutes.

With this structure, the most productive local and regional services (based on recent and historical ridership) would be available every day of the week. That means that a person who wants to travel from a home along the east end of Wilsonville Rd to Fred Meyer could do that by transit every day. Similarly, a person who lives along Canyon Creek Rd and works at Bridgeport Village could easily make that trip by transit every day with Route B. A resident of Tigard who wants to work at a Wilsonville business could accept a weekend shift.

Figure 31 shows how many residents in Wilsonville would be near transit with the 2028 Network’s Sunday service. A majority (66%) of all residents would be within a 1/2 -mile walk of a route running all seven days of the week.

SMART 2028 - Sunday at noon

What percentage of the SMART service area is near transit that comes every



Note: Proximity is measured as being located within 1/2 mile of a bus stop.

Figure 31: Wilsonville residents and jobs near SMART service on Sundays in the 2028 Network

Route Details

This section describes each route in the 2028 Network in detail.

Route A - Salem

Route A is the 2028 Network’s new version of SMART’s existing Route 1X between Wilsonville and Salem. This is a very important connection and would be maintained similar to today’s route, but with added trips during the midday.

The main change with Route A is in how the route would circulate through Wilsonville. Today, coming from Salem, Route 1X gets off I-5 at the Wilsonville Rd exit and makes a one-way loop of Boones Ferry Rd and Kinsman to reach the Wilsonville Transit Center. This is an industrial area, which means that almost no Wilsonville residents actually live near the 1X. Most people wishing to use it will need to reach the west side Transit Center first, which adds to their journey time.

In the 2028 Network, the new Route A would instead travel east from the I-5 through Wilsonville Town Center, and then continue along Canyon Creek, Boeckman and Boberg to end at the west side TC. This routing would bring the bus to Salem within a 10 minute walk of about 4,600 residents. Today’s Route 1X service to Salem is walking distance from only about 400 Wilsonville residents.

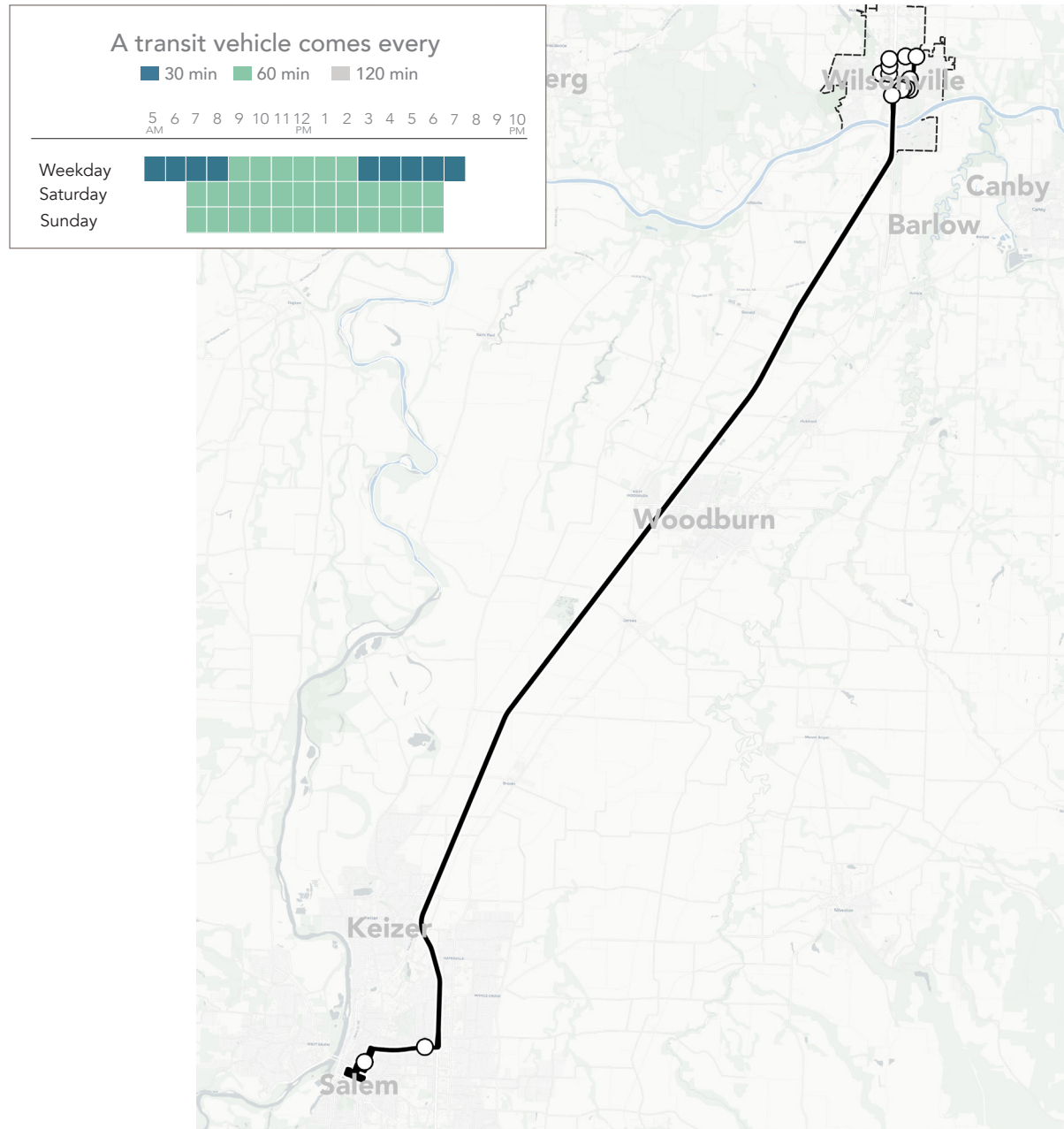


Figure 32: 2028 Network - Route A

Route B - Tigard/Tualatin

Route B replaces SMART’s current 2X service to Tualatin, with a route that continues north to Tigard.

Running every 30 minutes, Route B effectively plugs SMART into one of the most important connection points in the metro area’s west side network, the Tigard Transit Center. Today, Tigard can be reached using WES during weekday rush hours only, or with an additional transfer between SMART’s 2X and TriMet routes in Tualatin.

Tigard is served by routes running every 15 minutes that continue to Downtown Portland and Beaverton, as well as other routes to most parts of the west side of the metro area and Yamhill County. **By bringing people to (or from) Tigard, SMART can connect Wilsonville to numerous places that are also connected to Tigard - such as Beaverton, Washington Square Mall, Sherwood, Tualatin and Portland.**

The existing SMART Route 2X ends at the Tualatin Park & Ride near Bridgeport Village, missing an important activity center near the Nyberg Road I-5 exit. There are two major grocery stores, retailers and apartments located in this development area, known as Nyberg Rivers. Route B would get off I-5 at Nyberg (rather than at the Lower Boones Ferry Rd exit as 2X does today), and then use Nyberg, Martinazzi, Boones Ferry and Lower Boones Ferry to reach Bridgeport

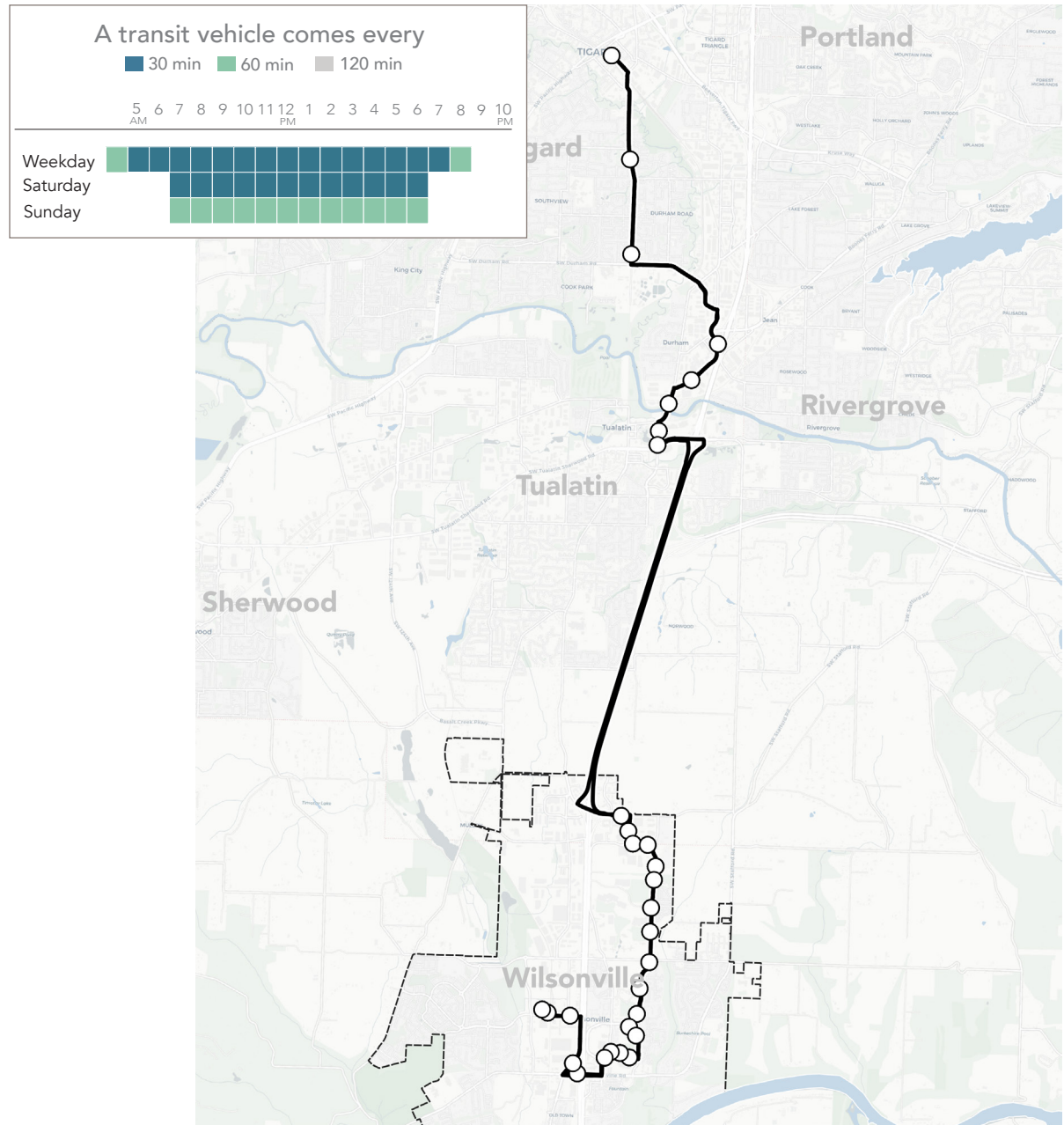


Figure 33: 2028 Network - Route B

Village.

Instead of ending at Tualatin Park & Ride, Route B would then continue north to Tigard via 72nd, Durham Rd and Hall Blvd. It would not make all local (TriMet) stops along the way, instead making widely-spaced stops in order to avoid competing with TriMet services for any trips that are not leaving the TriMet service area. Since this is TriMet's service territory, the details of this arrangement will need to be worked out with TriMet.

Route C - Canby

The 2028 Network's Route C is the new version of the existing Route 3X between Wilsonville and Canby. This route would change very little from the existing design. The only change to routing compared to the existing 3X is that Route C would use Airport Rd rather than Highway 551 between Charbonneau and the Aurora State Airport.

The most meaningful improvement to Route C compared to the existing 3X is that it would operate more frequently throughout the day. Route C would run every 60 minutes all day long; today's 3X runs about this often during the morning and afternoon, but with long gaps in the middle of the day that make waiting times longer and connections to CAT's 99X service difficult. Hourly service would also be offered on Saturdays.

Connections would be available in downtown Canby to CAT's 99X route going south and north on Highway 99E, to Salem in the south and Oregon City in the north.

Route 3X buses are affected by unpredictable delays and regular congestion on I-5 across the Willamette River. ODOT and Wilsonville have studied improvements to the I-5 bridge, and rulemaking for bus use on shoulders is underway. In the future, SMART could consider using the Canby Ferry or applying to use the shoulders of I-5 in order to improve reliability and shorten transit travel times on this route.

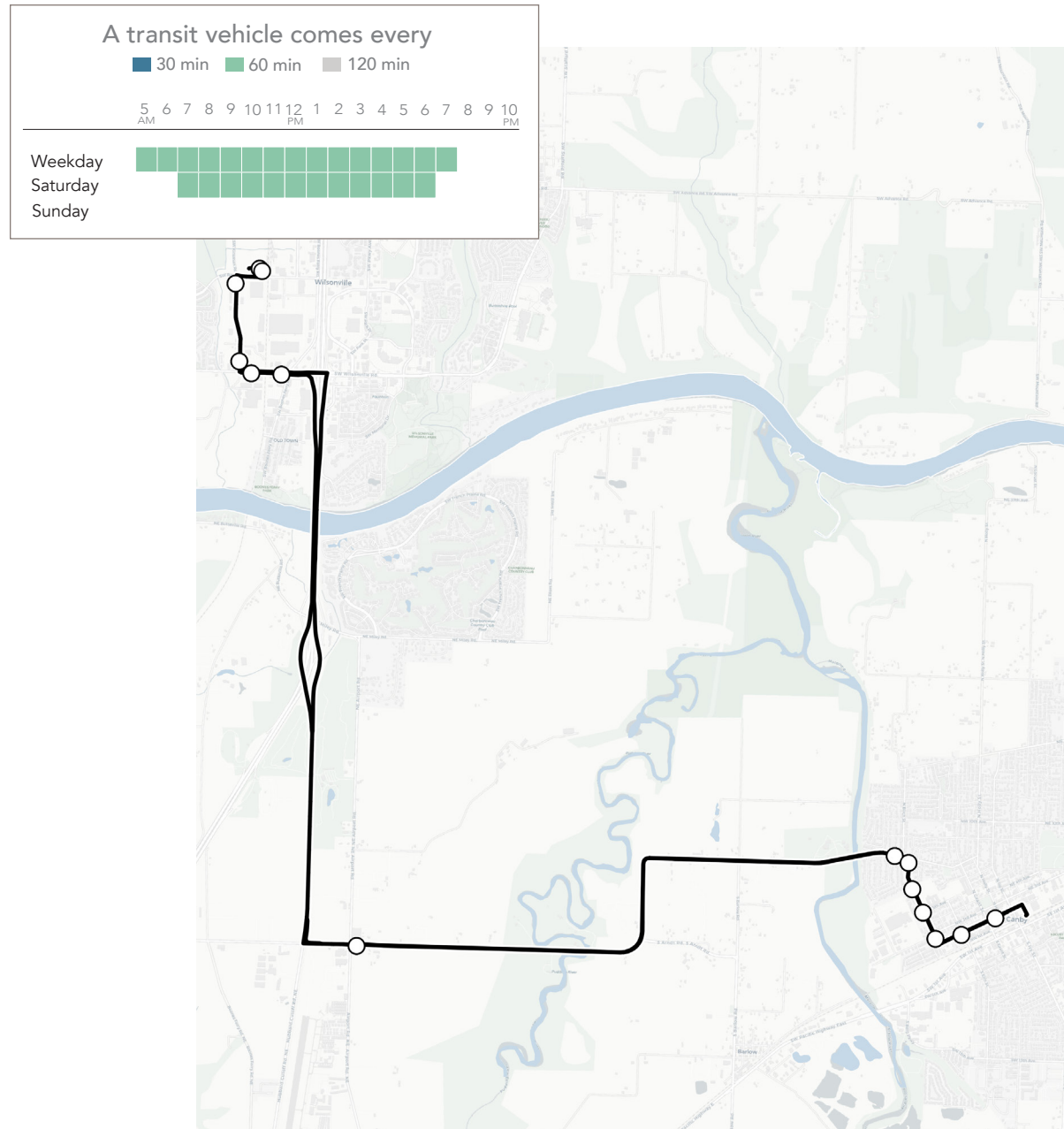


Figure 34: 2028 Network - Route C

Route D - Legacy Meridian/ Oregon City/Clackamas

Route D is an important new regional connection for SMART that fills an gap in connectivity in the south metro area. Today, trips across the Willamette River are not possible without either going through Downtown Portland or Canby. Traveling through Downtown Portland involves copious out-of-direction miles, and while traveling through Canby is more direct the route frequencies mean a fairly long wait is required to transfer in Canby.

Route D would establish a new service from Wilsonville to Clackamas Town Center (TC) using I-205, stopping along the way in West Linn and Oregon City. It would operate at least once per hour, all day long, weekdays and Saturdays, with some additional frequency during rush hours. It would take advantage of SMART’s ability to run buses on the shoulders of I-205 to get around congestion.

Connections to TriMet services would be available at Legacy Meridian, Oregon City Transit Center, and Clackamas TC. Connections to shuttles operated by RideConnection would be available at Legacy Meridian as well. Sandy Area Metro plans to serve Clackamas TC in the future.

Route D would enter Wilsonville via Stafford Rd in the east, and use Wilsonville Rd to reach its western terminus at Graham Oaks. (Example trips involving Route D are shown starting on page 45.)

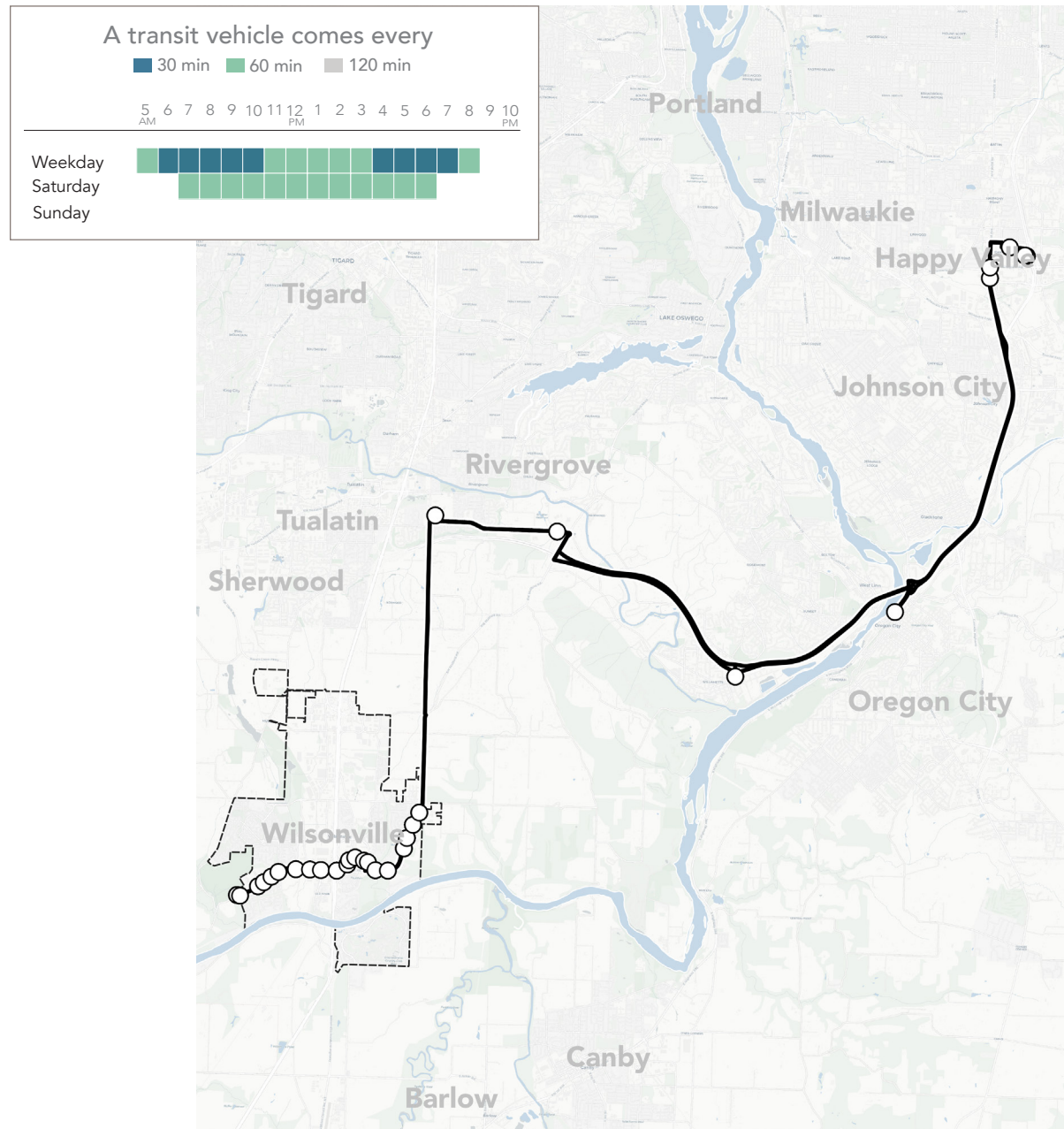


Figure 35: 2028 Network - Route D

Route E - Woodburn/Keizer

As of 2018, Woodburn was comparable to Canby in terms of the number of people commuting between Woodburn and Wilsonville (per the table on page 24). And yet, as of 2023 reaching Woodburn by transit is quite difficult. While it is possible via a connection to CAT's 99E route, this route deposits riders on the east edge of the city, and misses both the downtown core and the outlet mall to the west of I-5.

The 2028 Network would establish a connection between Wilsonville and the eastern side of Woodburn with Route E. Route E would run from Wilsonville to Keizer (benefiting from any potential bus priority treatments on I-5, like Route C).

It would stop at the Memorial Transit Center in Woodburn just east of I-5. Connections to Woodburn's local bus route are available at the transit center, to help riders continue on to the developments west of I-5 (some are a 15-20 minute walk away, and some are farther) or to downtown Woodburn and other parts of the city to east of the transit center.

Route E would be operated as a shared service with Cherriot's Route 80x. However, at the frequency shown above (every two hours) the route would cycle efficiently with one bus, which means that SMART could operate it independently, or could skip some trips when the Cherriots vehicle is scheduled to make the trip.

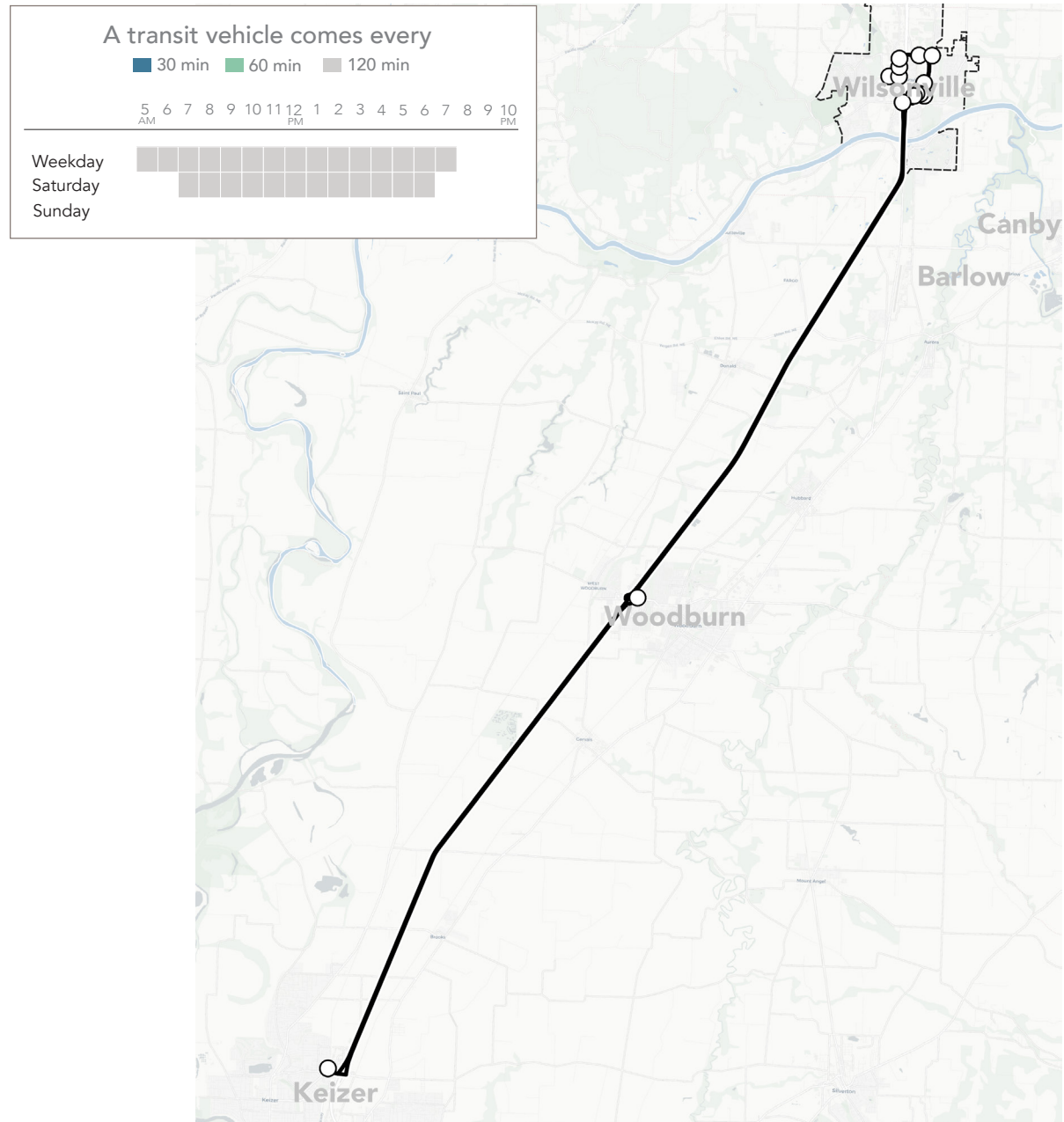


Figure 36: 2028 Network - Route E

Route F - Villebois/Wilsonville Rd/ Frog Pond

Route F has some similarities to the existing Route 4 and the existing Villebois Shuttle, also known as Route V.

Like Route 4, Route F would serve a long section of Wilsonville Road, which is SMART's busiest corridor due to its concentration of shopping, commercial buildings, apartment housing and multiple schools.

Route F would connect Villebois, Brown Road, the Fred Meyer, the eastern Town Center, and new residential development in Frog Pond. It would be more direct than the existing Route 4 due to the elimination of the deviation north to the west side Transit Center / WES station. (Most of the areas connected to the WES station by the existing Route 4 would, in the 2028 network, be connected by other routes, allowing Routes D and F to be more linear.) Route F would be longer, and much more frequent, than the existing Villebois Shuttle which offers quite minimal frequencies in the existing network.

Meanwhile, residents on Wilsonville Road west of Brown Road who are *not* on this new Route F would instead be on the new regional Route D, enjoying a more linear route along Wilsonville Road and a one-seat-ride to Legacy Meridian Medical Center, West Linn, Oregon City and Clackamas TC.

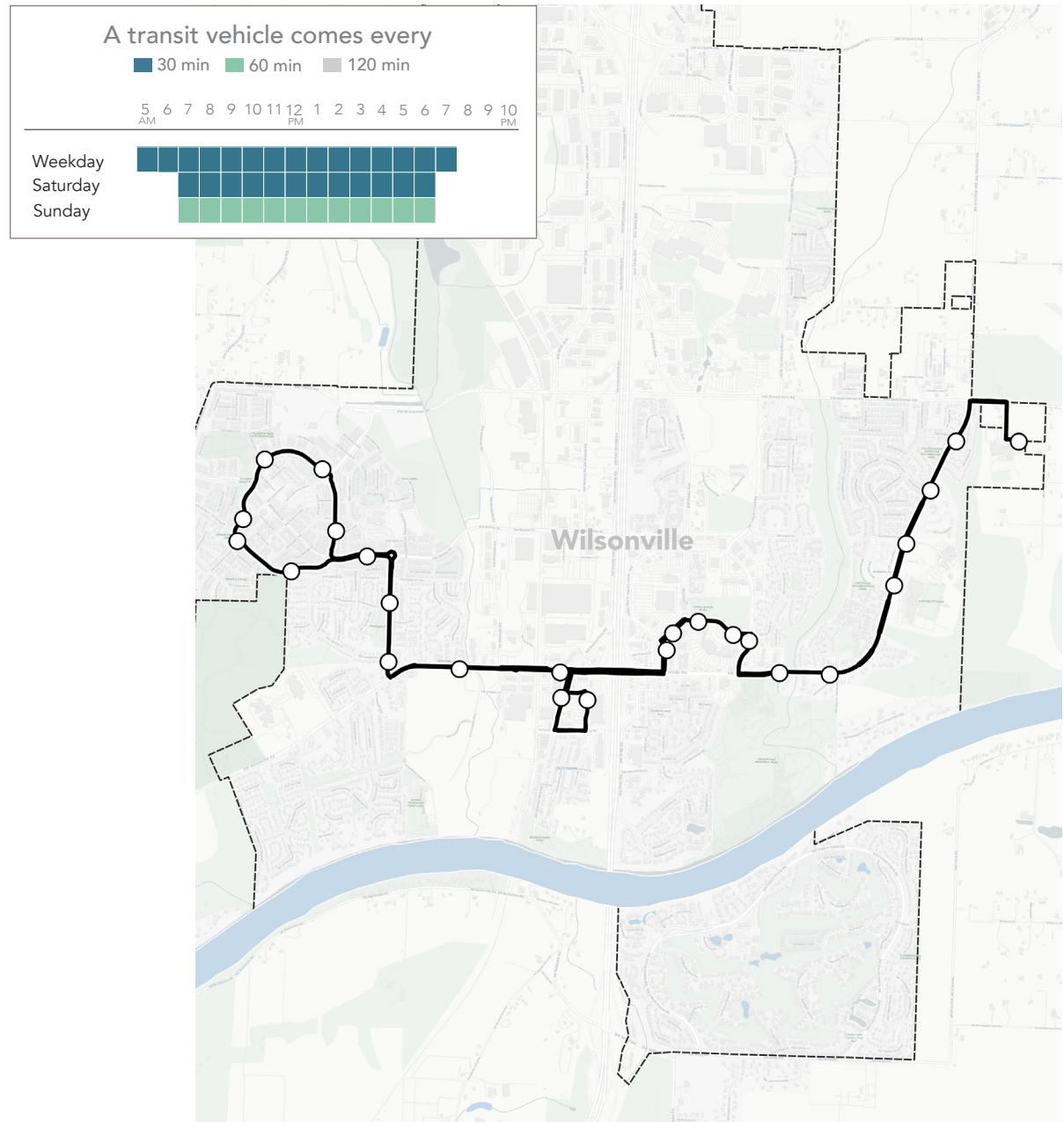


Figure 37: 2028 Network - Route F

Route G - Parkway/95th St./ Villebois

Route G is designed to serve employment areas east and west of I-5 in the northern portions of Wilsonville and connect them to the west side Transit Center / WES station and the east side Town Center.

Today, the areas Route G would serve are on Routes 5 and 6, both of which run only during rush hours (while WES is operating). Route G would maintain a similar schedule, operating only during the morning and afternoon rush hours on weekdays, but with a consistent 30-minute frequency.

Route G differs from SMART’s existing 6 and 5 in that it is designed to serve a wider variety of trip purposes, and make it easier to access jobs in the industrial areas of Wilsonville from more places. Unlike the existing routes, Route G’s east end is at the Town Center, where it would connect to many other regional routes besides WES, and be within walking distance to nearby residents.

In the west, Route G would end in Villebois, and act as the rush-hour service connecting Villebois to WES. However, because Villebois is fairly close to the WES station (about 1.1 miles from the center), and the biking and walking conditions are very good, an alternative plan could be to instead send this “tail” of Route G down Brown Road to the western end of Wilsonville Road instead, where residents are 1/2 mile farther and a more difficult

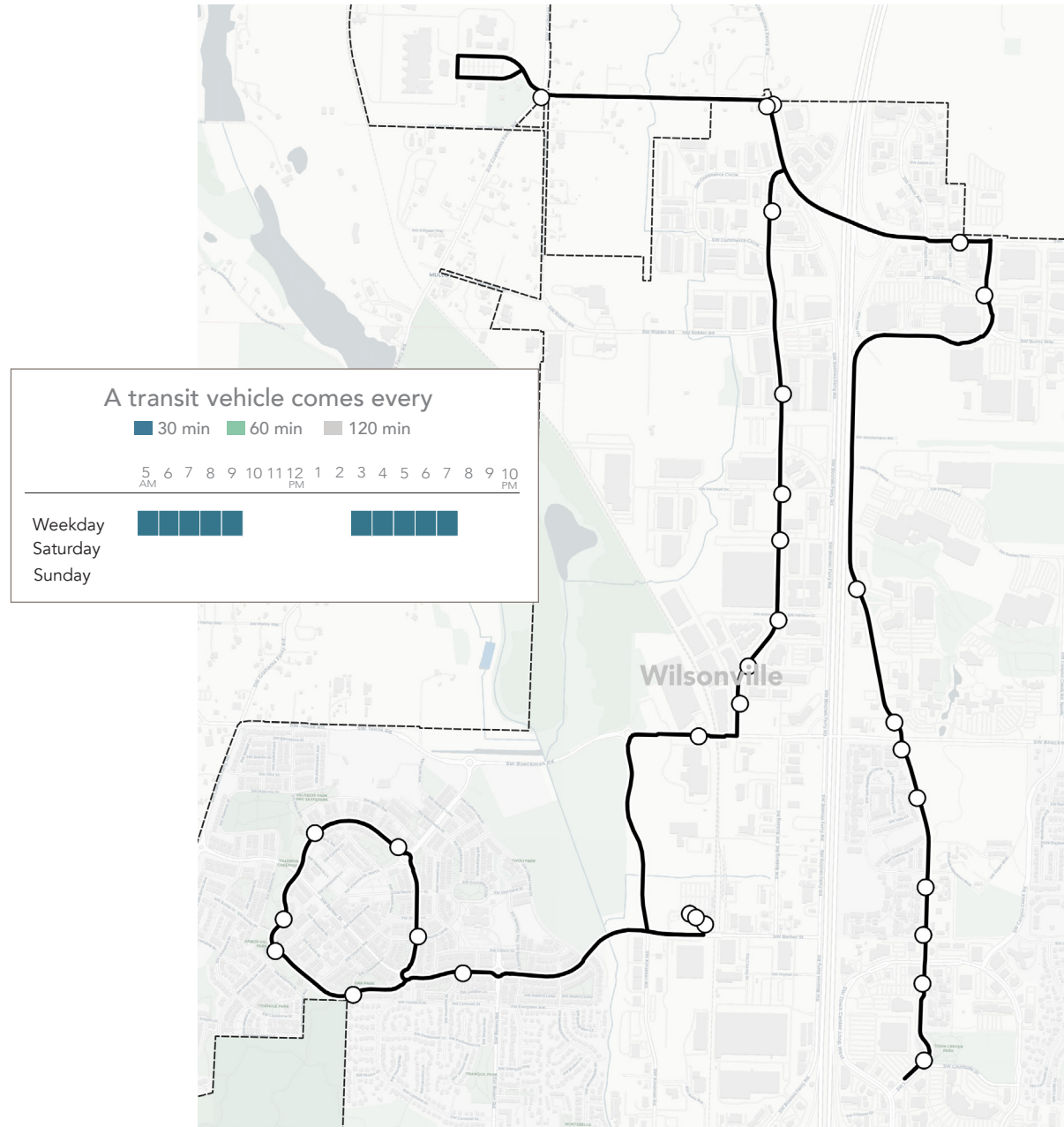


Figure 38: 2028 Network - Route G

bike ride away from the WES station.

To the north, Route G would serve Commerce Circle in both directions. Existing Route 5 serves Commerce Circle only southbound, so people coming from the south have to ride around the loop of Ridder, Grahams Ferry and Day in order to reach their Commerce Circle destination. This would improve the legibility of the service and save people some travel time.

Route G would stop at the Coffee Creek Correctional Facility when requested in advance, and consistently on the first trips of the morning when inmates are released and need transit to return home. By making that stop request-only for most of the day, SMART would avoid hauling passengers a long distance out of their way to pick up or drop off no one, while still providing an essential connection when it is needed.

Residents' Proximity to Service

The number of residents within 1/2 mile of transit would increase slightly with the 2028 Network. Where would coverage change?

The map on the left in **Figure 39** shows the existing SMART service extent in Wilsonville. Each dot represents 5 people. Blue dots are within a 1/2-mile walk of transit (transit that is operating at noon on weekdays), red dots are outside of that distance. The 1/2-mile walking buffer from each SMART stop is shown as a blue line.

In the existing network, a few places with lots of residents stand out as lacking access to transit. The most notable gap in the central area of Wilsonville is the cluster of dots along Canyon Creek Road south of Boeckman.

The entirety of Charbonneau, as well as some areas immediately north of the Willamette River, are also far from transit, but they are much less transit-oriented in their design than Canyon Creek Road, and much more costly for SMART to reach with transit service. There are no viable transit routes through the neighborhoods near Memorial Park or along the Willamette River (where a bus would have to wiggle down small streets and then turn around in cul de sacs), and these were not areas that public input suggested as high priorities

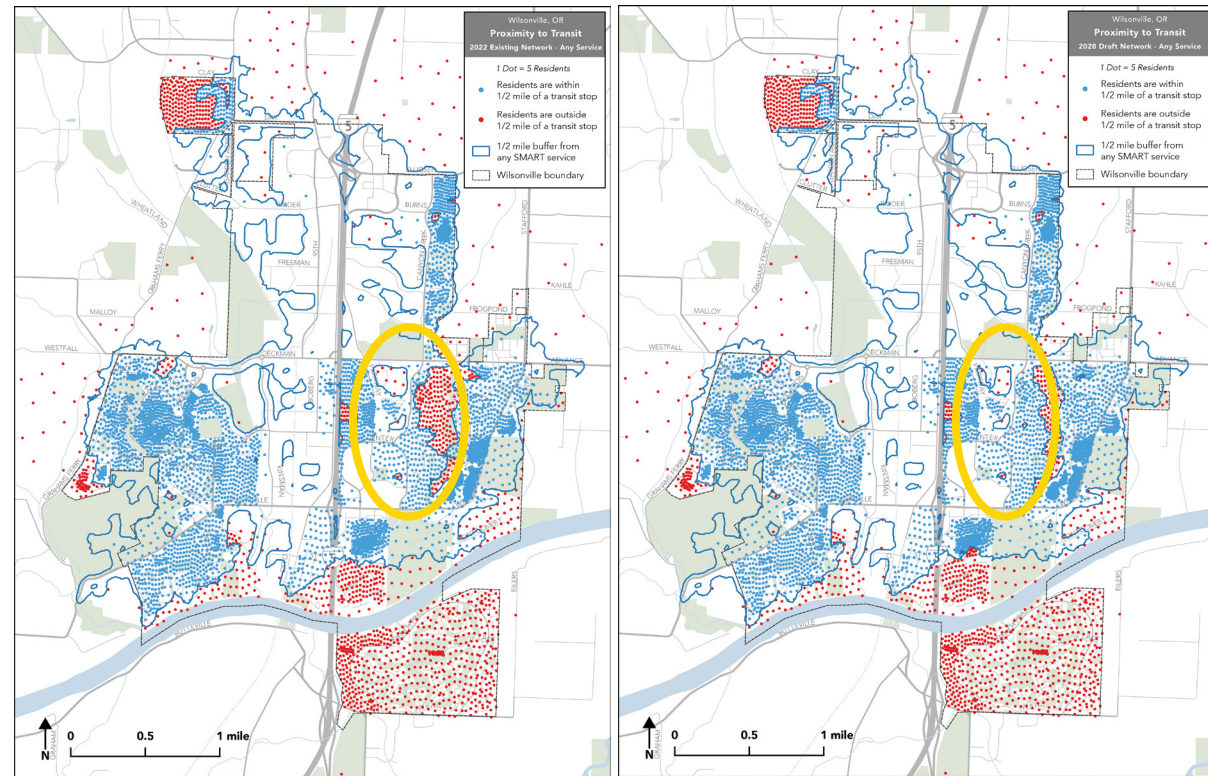


Figure 39: Residents within 1/2 mile walk of a bus stop in the 2022 network (at left) and in the 2028 Network (at right).

for network expansion. The 2028 Network does not reach any more people near the river.

Canyon Creek Road is on the way to other destinations, and can be served by SMART buses on their way north to Argyle Square without requiring them to deviate or discourage through-riding passengers. In the 2028 Network, it is served by Route B that continues on beyond Argyle Square to Tualatin and Tigard.

The area circled in yellow on these maps would be newly covered by Route B.¹

¹ In fact, the remaining red dots west of Canyon Creek Road are an artifact of the way the U.S. Census draws the Census blocks to in the Boeckman Creek area. Those red dots represent residents who actually live within 1/2 mile of Canyon Creek Road, not in the creek, and they would therefore be covered thanks to the new Route B.

Fixed Route Operating Increases

Using the frequencies, spans, lengths and assumed speeds of each of the proposed routes, we can estimate the number of vehicles and drivers required in-service, and the number of hours of each, required for each route. We can also estimate the miles of distance vehicles will have to travel to deliver each route. These are the basic components of operating cost: Revenue Hours in service, Revenue Miles in service, and Peak Vehicles required to deliver the service at its peak frequency.

(A “revenue hour” is one hour of a bus and driver on the road, providing service to passengers. A “revenue mile” is a mile driven on a route, in service. “Peak vehicles” are the greatest number of vehicles required at any one time to deliver service during the week, which is normally during rush hours. Revenue hours, revenue miles and peak vehicles define most of an agency’s costs to provide fixed-route transit.)

Figure 40 on the next page reports these cost elements along with the proposed frequency of each 2028 route.

These cost elements are used to generate dollar estimates of operating cost starting on page 85.

The 2028 Network represents a substantial expansion in service above the existing SMART network, befitting its role as the

endpoint of an ambitious 5-year improvement program. The 2028 Network would require about 252 revenue hours of service each weekday, approximately 71% more than SMART’s current weekday service.

However, the more substantial ongoing expenditure would come from the expansion of weekend service. The 2028 network would improve Saturday service on most routes, more than tripling Saturday service. It would also turn on three routes on Sunday for the first time.

As a result, the total annual cost of fixed-route service in the 2028 Network is about 75,000 revenue hours, an 89% increase compared to the existing service level. This does not account for the cost of adding demand-response service and other personnel on weekends as well. The nature of those costs are described in chapter 5, and estimated costs are presented starting on page 85.

Shared Operations with Cherriots

Today SMART and Cherriots (the transit provider for Salem, Keizer, and Marion and Polk Counties) share the cost of providing Route 1X. The cost share is simple: each agency runs some of the daily trips using its own vehicles.

In calculating the costs of future services on Route A, which would replace Route 1X, and on Route E, a new connection among Wilsonville, Woodburn and Keizer, we have assumed that this arrangement

would continue on weekdays. The Revenue Hours, Revenue Miles and Peak Vehicles given in the table on the next page only include one-half of those cost elements on weekdays.

However, we have not assumed that this cost sharing would apply on weekends (when Route 1X does not run today). All of the costs that arise from Saturday and Sunday service, for Routes A and E, have been included in the table on the next page.

Route E (Wilsonville-Woodburn-Keizer) would require only one bus to operate at the recommended frequency (120 mins). In practice, this means that the two agencies could not split costs by alternating trips with their own buses. A different method of cost sharing could be developed for this route alone, or perhaps for both of the routes (A and E) that the two agencies would be scheduling, marketing and operating together.

		Frequency		Two way length (miles)	Round-trip cycle time with layover		Layover time (including excess time)		Weekday Revenue Hours	Saturday Revenue Hours	Sunday & Holiday Revenue Hours	Revenue Hours per year	Revenue Miles per year	Peak vehicles required
		a.m. peak	mid-day		a.m. peak	mid-day	a.m. peak	mid-day						
A	Salem ¹	30	60	68	120	120	20	40	24 ¹	24 ¹	24 ¹	7,428	231,345	2
B	Tigard-Tualatin	30	30	25	120	120	29	28	64	36	24	19,556	233,823	4
C	Canby	60	60	17	60	60	22	22	15	12		4,446	77,271	1
D	Legacy Meridian-OC-Clackamas TC	30	60	50	210	240	30	57	91	36		24,006	334,109	7
E	Woodburn-Keizer ¹	120	120	56	120	120	29	34	8 ¹	12 ¹		2,223	56,687	1
F	Villebois-Frog Pond	30	30	11	60	60	13	12	30	24	12	9,588	99,236	2
G	95th/Parkway	30		14	60		19		20			5,080	70,409	2
Total - all proposed 2028 fixed routes									252	144	60	75,000	1,481,000	19
Total - 2021 ² fixed routes									147	44	0	39,600 ²	557,000 ³	15
Ratio of 2028 to 2021 Fixed Route service									171%	327%		189%	266%	

1 For Routes A and E we assume that weekday service would be split equally between SMART and Cherriots (with RH divided equally), but that Saturday and Sunday service would be provided entirely by SMART.

2 2021 annual Revenue Hours is an annualized number calculated based on the typical weekly schedule of service in 2021. This is a slightly lower number than the Revenue Hours that were actually delivered in calendar year 2021.

3 2021 annual Revenue Miles is taken from the National Transit Database.

Figure 40: Recommended 2028 fixed route operating parameters and estimated Revenue Hours, Revenue Miles and Peak Vehicles.


Sample Trips

On this and the following pages, example trips are described as they would be made using the best combination of transit services in 2022 compared to in the proposed 2028 Network.




In most cases, the 2028 Network results in shorter travel times. This is generally due to the shorter waits required to use routes (or, put another way, the more times that people can choose to start their trip). In some cases it is also due to a more linear and direct route which saves people in-vehicle riding time.

When SMART implements elements of the 2028 Network, comparisons like these can help communicate the value of service changes. Service changes are normally disruptive to at least a small number of existing riders, even when they are beneficial to a large number of potential future riders. Demonstrating travel time savings for trips that many people make can help overcome the bias against change and inertia that tend to discourage or prevent service changes.

On the 2022 Existing Network, what is the trip like from an apartment on Park Place to a medical appointment at Sunnyside Medical Center at noon on a weekday?




Total Travel Time: 2 hours 41 minutes




-  16 minutes walking
-  53 minutes average wait
-  1 hour 32 minutes riding

Depart at 9:00 am.
 Arrive at 11:41 am.
 Use Routes 2x, 96, and MAX
 2 Transfers.

On the 2028 Network, what is the trip like from an apartment on Park Place to a medical appointment at Sunnyside Medical Center at noon on a weekday?




Total Travel Time: 1 hour 57 minutes

-  19 minutes walking
-  15 minutes average wait
-  1 hour 23 minutes riding




Depart at 10:00 am.
 Arrive at 11:57 am.
 Use Route D.
 No Transfers.

Figure 41: Comparing a trip between Wilsonville and Sunnyside Medical Center, on the 2022 network (at top) and the 2028 Network (at bottom).

On the 2022 Existing Network, what is the trip like from an apartment near the Wilsonville Community Center to Fred Meyer on a Saturday afternoon?




Total Travel Time: 42 minutes




-  5 minutes walking
-  30 minutes average wait
-  7 minutes riding

Depart at 12:34 pm.
 Arrive at 1:16 pm.
 Use Route 4.
 No Transfers.

On the 2028 Network, what is the trip like from an apartment near the Wilsonville Community Center to Fred Meyer on a Saturday afternoon?



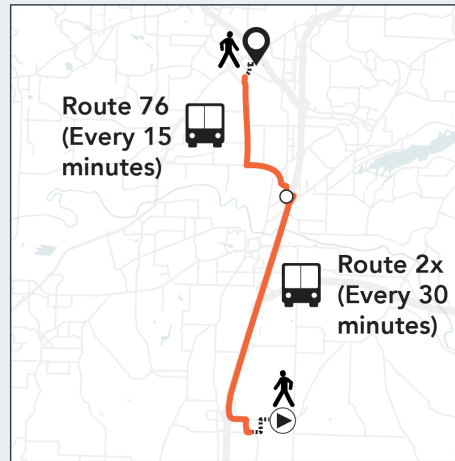
Total Travel Time: 27 minutes

-  5 minutes walking
-  15 minutes average wait
-  7 minutes riding

Depart at 12:30 pm.
 Arrive at 12:57 pm.
 Use Route F.
 No Transfers.

Figure 42: Comparing a trip between an east side residence and Fred Meyer on the 2022 network (at top) and the 2028 Network (at bottom).

On the 2022 Existing Network, what is the trip like from an industrial job on Burns Way to an apartment in Tigard on a weekday evening?



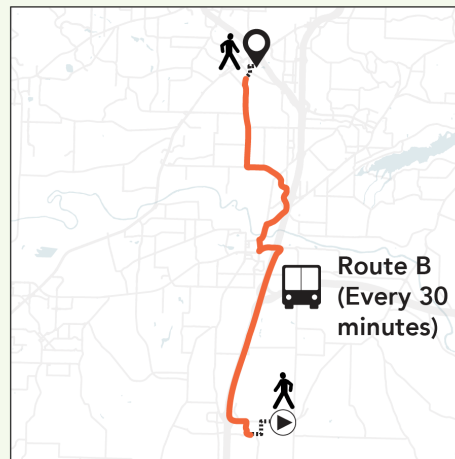
Total Travel Time: 58 minutes

- 8 minutes walking
- 23 minutes average wait
- 27 minutes riding

Depart at 4:45 pm.
 Arrive at 5:43 pm.
 Use Route 2x and Route 76.*
 1 Transfer.

* This trip is also possible using WES, but on average it would take 26 more minutes to complete, compared to this trip.

On the 2028 Network, what is the trip like from an industrial job on Burns Way to an apartment in Tigard on a weekday evening?




Total Travel Time: 55 minutes

- 8 minutes walking
- 15 minutes average wait
- 32 minutes riding




Depart at 4:45 pm.
 Arrive at 5:40 pm.
 Use Route B.
 No Transfers.

Figure 43: Comparing a trip between a Wilsonville job and a Tigard residence, on the 2022 network (at top) and the 2028 Network (at bottom).

On the 2022 Existing Network, what is the trip like from an apartment on Wilsonville Road to Wilsonville High School on a weekday morning?

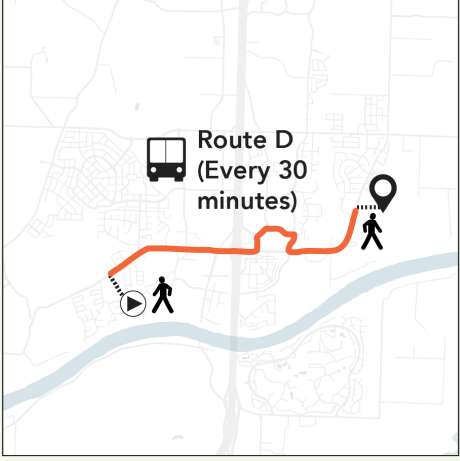


Total Travel Time: 41 minutes




-  3 minutes walking
-  15 minutes average wait
-  23 minutes riding

Depart at 7:40 am.
 Arrive at 8:21 pm.
 Use Route 4.
 No Transfers.

On the 2028 Network, what is the trip like from an apartment on Wilsonville Road to Wilsonville High School on a weekday morning?



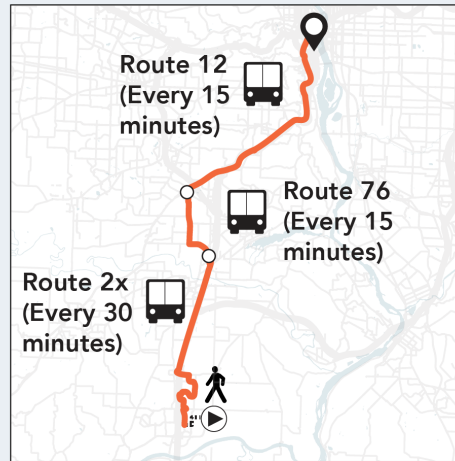
Total Travel Time: 28 minutes

-  3 minutes walking
-  15 minutes average wait
-  10 minutes riding

Depart at 8:00 am.
 Arrive at 8:28 am.
 Use Route D.
 No Transfers.

Figure 44: Comparing a trip between a west side residence and Wilsonville High School, on the 2022 network (at top) and the 2028 Network (at bottom).

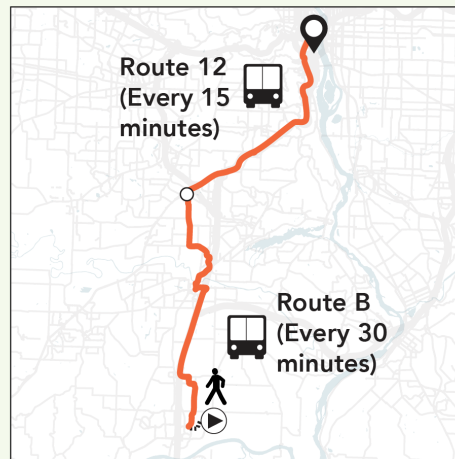
On the 2022 Existing Network, what is the trip like from an apartment near Canyon Creek to downtown Portland on a Saturday afternoon?



Total Travel Time: 1 hour 53 minutes

- 12 minutes walking
 - 30 minutes average wait
 - 1 hour 11 minutes riding
- Depart at 12:18 pm.
 Arrive at 2:11 pm.
 Use Routes 2x, 76, and 12.
 2 Transfers.

On the 2028 Network, what is the trip like from an apartment near Canyon Creek to downtown Portland on a Saturday afternoon?



Total Travel Time: 1 hour 42 minutes

- 7 minutes walking
 - 23 minutes average wait
 - 1 hour 12 minutes riding
- Depart at 12:00 pm.
 Arrive at 1:42 pm.
 Use Routes B and 12.
 1 Transfer.

Figure 45: Comparing a Saturday trip from Wilsonville to downtown Portland on the 2022 network (at top) and the 2028 Network (at bottom).

City Growth Areas

The map at right highlights the areas where the City of Wilsonville will eventually expand and grow at urban densities.

The 2028 Network was drawn with an awareness of the growth that will happen in the next five years, which is located in Frog Pond.

Routes F and D can be lengthened northwards along Stafford Road to new stops adjacent to Frog Pond developments. They could also branch away from one another, with one turning east to end at Meridian Creek Middle School while the other continues north on Stafford Road. Sidewalks must be added to both sides of Stafford Road to allow residents of new developments to walk out to and along Stafford Road to reach a bus stop.

Once Basalt Creek, in the northwest of the city, is developed, a reasonable transit route could run on either Grahams Ferry or Boones Ferry Roads. Detail of the street network in the area is shown on the next page.

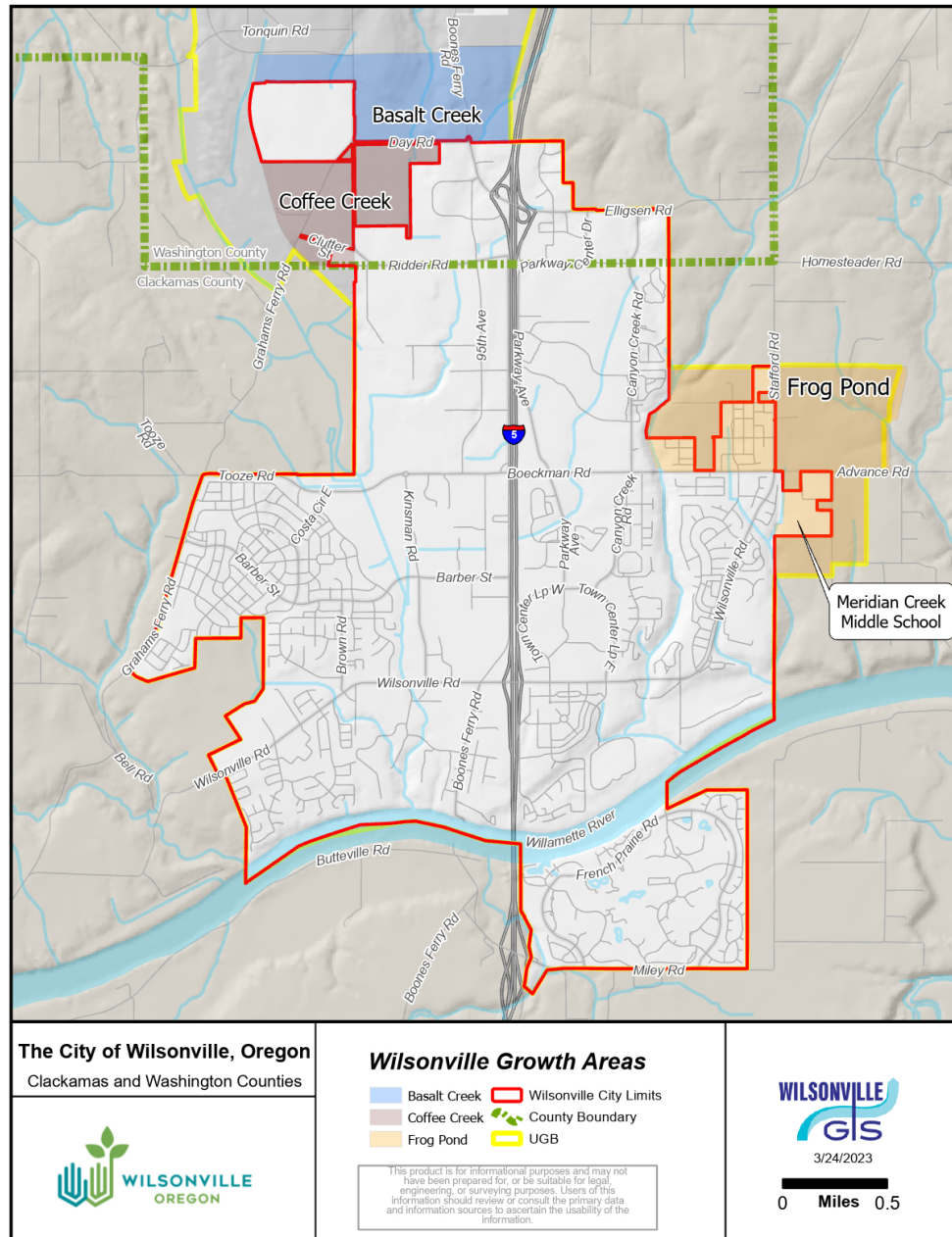


Figure 46: The next anticipated growth areas in the City of Wilsonville are Frog Pond, Coffee Creek and Basalt Creek.

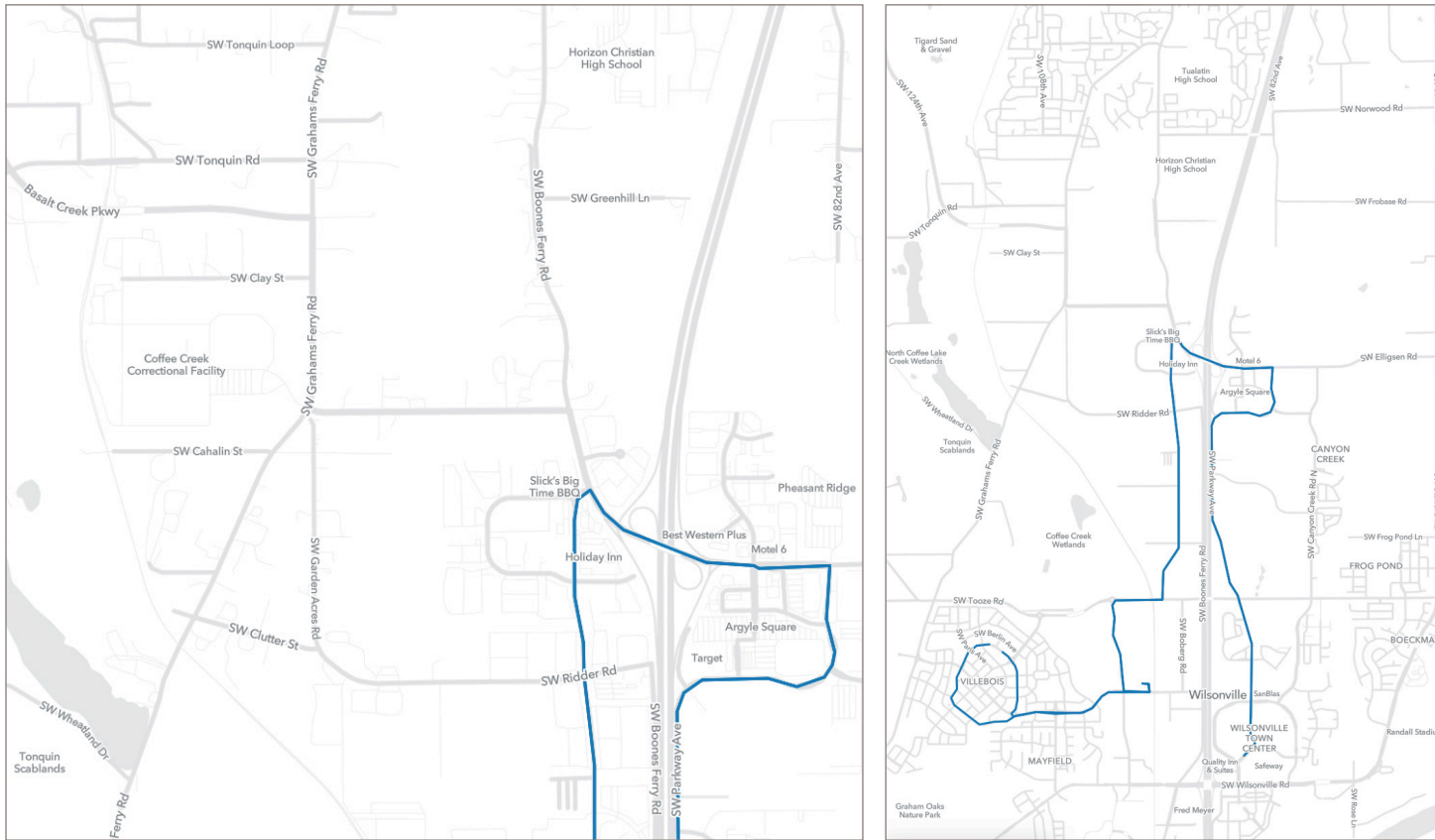


Figure 47: The City is expected to grow into the Basalt Creek area, along Grahams Ferry and Boones Ferry Roads, as shown in the street map at left. It will be important to concentrate transit-appropriate development along one, but not both, of these roads, as the Route G loop (shown in blue) could not be stretched any further north without making trips between the east and west sides of the city terribly circuitous.

Existing streets in the Basalt Creek area are shown above. The two main roads heading north from the existing developed area of Wilsonville into the new development areas are Grahams Ferry and Boones Ferry Roads.

We recommend that the City identify **one** of these roads as the priority for transit, and organize denser development around it, rather than expect that transit service can be provided on both roads in the near future. If development is planned with an

expectation of service on **both** roads, then the provided frequencies will be one-half as good as they could be if all of the transit-oriented and transit-needing developments were organized along one of the roads. It will also be essential to provide good pedestrian connections between the two roads, so that transit on one road is reachable from the other road.

Also, the simplest way to serve Basalt Creek – and to get service on both roads – would be to stretch northwards the loop

made by Route G. However, the further north that loop is stretched, the less useful Route G is for connecting people and destinations on the east and west sides of I-5, since most passengers would be taken very far out of direction. A different service design would need to be developed. One possibility is that Route G could be broken into two routes, one that stays on the west side of the city and continues north into Basalt Creek, and the other that connects the east side to a terminus at or near Commerce Circle.

4. Demand-Response Services

Dial-a-Ride (DAR) is a door-to-door demand-response transportation service for passengers within the City of Wilsonville. People who are eligible based on the Americans with Disabilities Act (ADA) are given priority scheduling, but Wilsonville residents and workers of all ages are also welcome to utilize the Dial-a-Ride program. This Plan update does not recommend any substantial changes to the existing structure or delivery of SMART’s demand-response programs.

Background

SMART is required by the Americans with Disabilities Act (ADA) of 1990 to provide a paratransit service to persons who are unable to use fixed-route transit, as a complement to local (non-express) fixed-routes, in the places and at the times when local fixed-routes are operating.

SMART offers this complementary paratransit through its Dial-a-Ride program, which includes 4 separate service categories:

- ADA Complementary Paratransit.
- General Public. Provides in-town transportation for anyone under 60.
- Seniors. Provides in-town transportation for people ages 60 and older.
- Out-of-Town. Provides trips to destinations outside of the City of Wilsonville for ADA enrolled residents or people

	ADA	Senior	General Public	Out-of-Town
Eligibility	Limited to persons with disabilities, as determined by SMART’s Eligibility Committee.	Anyone age 60+.	Anyone.	Anyone enrolled in ADA, or anyone age 60+.
Cost	No fare.	No fare.	No fare.	\$3.00 per one-way trip.
Hours of Operation	All hours during which SMART fixed-route network operates.	M-F, 8:00 am - 5:00pm.	M-F, 8:00 am - 5:00pm.	M-F, 8:00 am - 5:00pm.
Trip purpose restrictions	None.	None.	None.	Medical appointments only.
Scheduling Principle	Priority.	Space-available basis.	Space-available basis.	Space-available basis.
% of SMART Demand-Response Ridership	54%	29%	<1%	16%

Figure 48: SMART Demand-Response Program Categories

age 60 or older, with a higher required fare payment and allowing a reservation be made further in advance.

Figure 48 summarizes the key attributes of each program category.

Minimum Required Paratransit Area

SMART is required by law to provide paratransit service within 3/4-mile of all local fixed-route lines (not stops), during times when fixed-route service is operating. Any time an agency makes major changes to routes, it is changing the area in which it must offer paratransit.

Figure 49 compares the required minimum paratransit service for the 2022 network and the proposed 2028 Network. The area that is 3/4 mile from local bus routes in both networks is shown in dark green; the light blue area would be added to the paratransit service area with the 2028 Network, while the light green area would drop out of the paratransit service area.

The blue area that would be newly included in the minimum required paratransit area is around the intersection of SW 14th and Tonkin Roads.

The green area that would no longer be within the paratransit service envelope covers the area outside of Wilsonville City limits, along Coffee Creek from Wheatland Drive and continuing about 1/3-mile south. This is mainly a natural area with only a few residents. In the review of April 2022 demand-response trips included in this Plan's Existing Conditions analysis, no demand-response trips began or ended

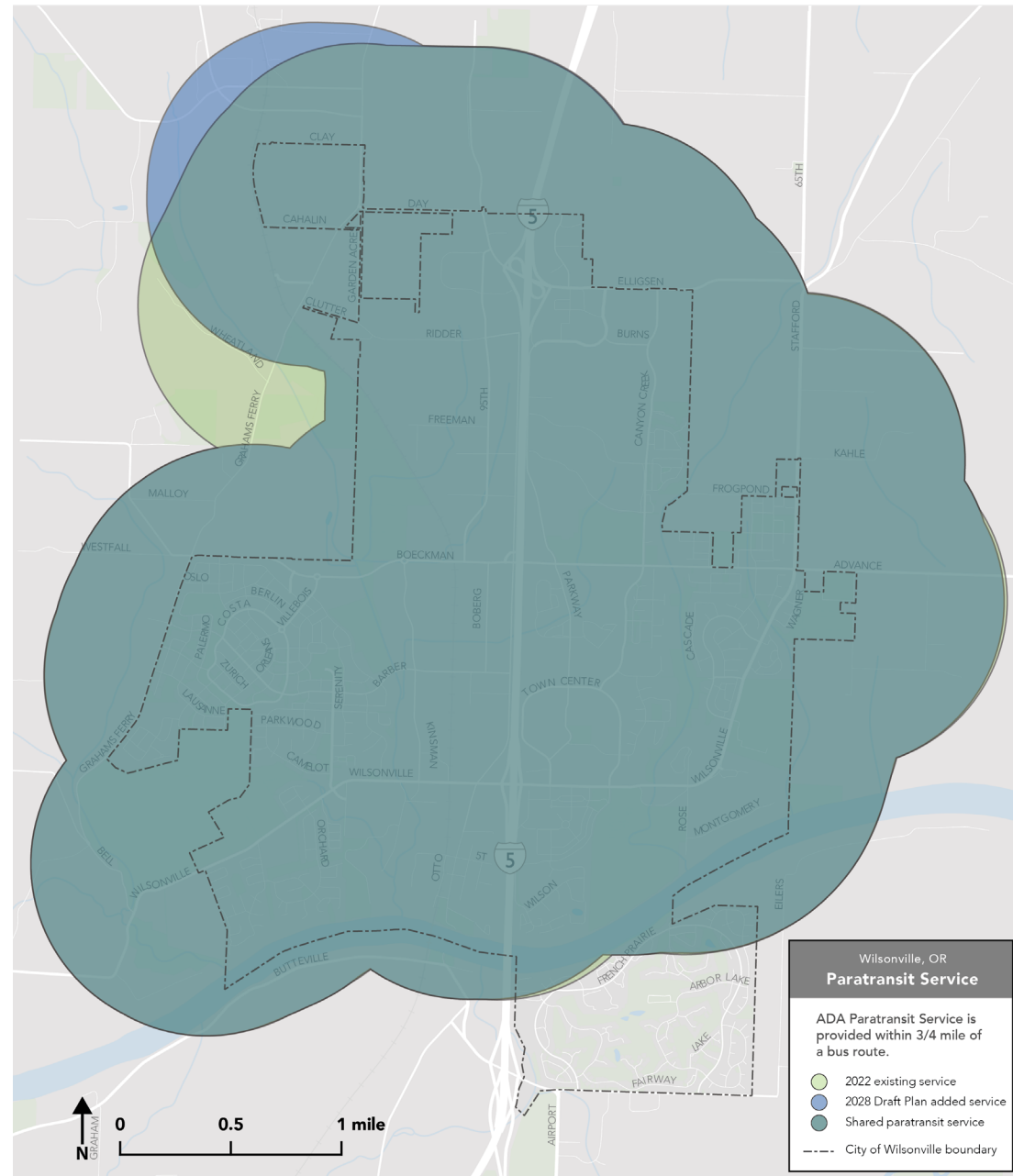


Figure 49: Required ADA Paratransit Areas for the 2022 and 2028 Networks

within this light green area.

“Express” Routes and Segments

Express routes, which generally have long distances between stops and travel long distances, do not trigger a paratransit requirement. This is also true of express segments of routes that may also have a local segment.

Because the 2028 Network is explicitly designed to integrate local and regional service, many routes have local segments and express segments. For example, Route D would be a local route along Wilsonville Road but would run express along Stafford Road from the City boundary (at Frog Pond) to Legacy Meridian Medical Center). SMART would not be required to provide paratransit service to residents within 3/4 mile of this segment of Stafford Road. As another example, the existing Route 2X has a local segment within Wilsonville and an express segment between Wilsonville and Tualatin.

SMART has an established practice for helping ADA paratransit passengers transfer to TriMet’s paratransit service if they are traveling between the two service areas. Regardless of the “express” or “local” nature of the routes connecting the SMART and TriMet service areas, which may change over time, SMART intends to continue facilitating paratransit transfers between them.

Required Paratransit Days and Times

Because ADA paratransit must be offered on the days and at the times when local fixed-routes are operating, the schedules of fixed-routes govern the minimum size and operating cost of the ADA paratransit program.

The actual size and shape of the paratransit service area can grow and shrink throughout a day or week, as the obligation to complement a fixed-route with paratransit begins when that fixed-route begins service, and ends when that fixed-route ends service.

For the purposes of the map shown on the previous page, the paratransit service area was defined using the maximum network in service in 2028, which would be the network offered at rush hours. The minimum paratransit area at nights or on weekends could be smaller, when fewer local fixed-routes would be operating.

A transit provider can define the paratransit service area with this degree of precision by time of day and day of week. Because paratransit has a very high operating cost per ride, there is a reasonable motivation for adhering strictly to the minimum required service area. However, most agencies find that it is both too frustrating for their ADA passengers and too complex for their staff to administer a

dynamically-changing paratransit service area throughout each day. More often, agencies define a small set paratransit areas, such as one for weekdays, one for Saturdays and one for Sundays. The span (hours) of paratransit in those areas must match the span of time from the earliest to the latest local fixed-route bus service.

The required span of paratransit service would change greatly within Wilsonville with the implementation of the 2028 Network, compared to the minimum requirement in 2022:

- On weekdays, the span of paratransit service would be required to increase by one hour at night (until 9 p.m).
- On Saturdays, the span would be required to increase by one hour at night (until 7 p.m.).
 - The minimum required paratransit area would also increase slightly.
- On Sundays, no paratransit is required or offered today. In the 2028 Network, the span would be 12 hours.
 - The minimum required area would be similar to what is required today on Saturdays, chiefly the places within 3/4 mile of Wilsonville Road and Canyon Creek Road.

Adding fixed-route and demand-response services on Sundays would require “turning on” the entire SMART operation for an additional day per week.

Recommended Paratransit Service Increases

The service increases described on the previous page are the minimum required by law in order to match paratransit availability to local fixed route availability.

In addition, we recommend that SMART be prepared to fund more paratransit capacity during times when paratransit is offered today, as growth in Wilsonville's population, and particularly its senior population, are likely to increase demand for the service.

Improved frequencies on SMART intercity fixed routes may also increase demand for paratransit as the intercity routes become more appealing and useful to customers with disabilities. Some of these customers may be able to use the intercity routes but unable to use a local route due to their disability and they will be entitled use paratransit for their local connection.

The cost estimates for service increases presented on [page X] include an assumed increase in SMART's paratransit (Dial-a-Ride) capacity at these times:

- A DAR vehicle and driver available two hours earlier and three hours later than DAR is currently offered on weekdays.
- One additional DAR vehicle and driver

in service during the 12 hours DAR is offered today, on weekdays.

- A DAR vehicle and driver available one hour earlier and one hour later than DAR is currently offered on Saturdays.
- One to two additional DAR vehicles and drivers in service during the times DAR is offered today, on Saturdays.
- One to two DAR vehicles and drivers available for 12 hours on Sundays (when no DAR or fixed route service is offered today).

These additions would sum to 117 additional hours when DAR vehicles and drivers are in service per week, over what is provided today. The actual labor hours for DAR drivers may be higher, depending on how efficiently work schedules can be created around the DAR and fixed route transit schedule.

These increases in paratransit service come with costs not only for direct operation of the vehicles and for employing drivers to provide service for those 117 hours a week, but also for dispatchers who communicate with customers and drivers; staff who supervise the service; and staff who maintain the vehicles.

5. Capital Infrastructure, Programs and Operations

Overview

This chapter provides an outline of key capital investments necessary to deliver the Transit Master Plan. There are three types of major investments that would be required:

- Transit Vehicles
- Maintenance
- Town Center Terminal Facility

In addition to these capital investments, there are ongoing operational needs – especially increases in personnel – that

would be required to implement and support the larger system described in this Plan. These operating and personnel needs are also summarized in this chapter.

The end of this chapter describes some of the existing SMART programs that will continue in the future, which support the City’s transportation-related goals and complement the transit services described in this Plan.

Transit Vehicles

Existing Fleet

As of 2022 (before temporary service reductions due to an operator shortage) there were 18 peak vehicles in revenue service, for fixed route and demand response services combined. **Figure 50** shows that the morning rush-hour pullout (18) is larger than the afternoon rush-hour (15). In the midday, 12-13 vehicles are in service. More than a quarter of the vehicles in service each day (five of 18) are required only for one or the other rush hour periods.

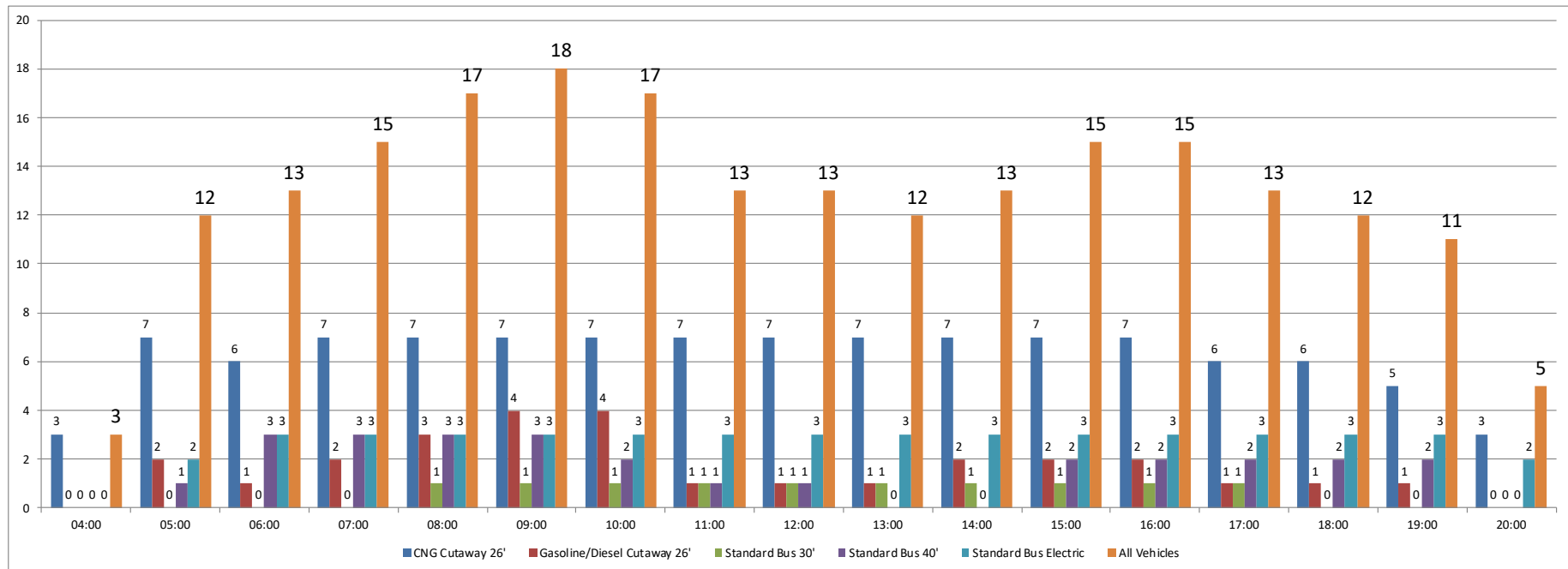


Figure 50: 2022 vehicle requirement by hour on weekdays. Orange bars represent all vehicle types, for both fixed route and Dial-a-Ride.

SMART uses five fuel types for revenue service: CNG, diesel, diesel/hybrid, gasoline, and electric. Most of the vehicles in service at most times of day are 26 foot long compressed natural gas (CNG) buses. They carry 21 seated passengers when the wheelchair positions are not in use, or 15 when both are deployed. Larger 30- and 40-foot buses are a mix of diesel, diesel hybrid, and electric.

Fixed-Route Vehicles

Growing the transit fleet is currently constrained by delayed delivery times for vehicles and parts from manufacturers. As a demonstration, at time of writing SMART is still waiting on delivery of three vehicles ordered before the pandemic.

Due to uncertainty in the transit vehicle supply chain over recent years, SMART has kept more spare vehicles than are required by regulation. However, even with those extra spare vehicles, growth in transit service would be constrained by fleet size (as well as a driver shortage).

The variety of bus types in the SMART fleet, and the fact that SMART has chosen to avoid relying on a single technology or fuel type, has allowed for flexibility while the supply chain is unreliable. For example, when a part needed to be replaced on an electric bus charging station in 2022, the charging station was out of service for 75 days. But transit service was not disrupted because SMART was able to deploy spare vehicles that did not require charging.

At time of writing, ridership has been and continues to be low since the Covid-19 pandemic. Crowding is not currently a recurring problem on any route, and so SMART has had the flexibility to assign buses with various seating capacity and fuel types to any route or type of service. Length of route or length of block (the amount of time a bus is out on the road, between visits to the garage) can inform the type of fuel or propulsion used by the vehicles – for example, if a bus can only run so many miles before needing a charge or a refueling, it may not be possible to use it on longer routes. This may be a limitation around which SMART needs to work in the future, especially with the longer routes included in the 2028 Network, but SMART has been able to manage this limitation without difficulty so far.

Prior to the Covid-19 pandemic, Routes 2X, 4, and 1X had the highest ridership and were therefore the most likely to become crowded and require or benefit from larger vehicles. Route 2X is currently using cut-aways, and Route 4 is using larger buses at rush hours and smaller vehicles outside of rush hours. Ridership on the 1X has not rebounded, for a variety of reasons: since the route was introduced, State workers in Salem offices have a hybrid-remote work schedule, car ownership and fuel costs are low, and parking cost and supply remain ample in Salem. Route 1X has therefore been operable with a 35-foot bus.

Thus with neither a requirement to put

larger buses on any routes due to crowding, nor a requirement to avoid putting certain buses on longer routes, SMART has had maximum flexibility in vehicle assignments in recent years. This could change between now and 2028 if ridership increases, and if SMART introduces longer (or slower) routes with more time between charging/fueling buses.

Demand-Response Vehicles

SMART's demand-response service uses four dedicated vehicles today and another four as spares. Eight additional vehicles used for regular fixed-route service are also used at times for demand-response. Ultimately, SMART staff intend to separate vehicle assignments to the fixed-route and demand-response modes for more transparency and easier reporting.

General Fleet Recommendations

The recommendations of this Plan, if implemented in full by 2028, would increase the peak vehicles in-service for both fixed routes and demand response to 23 (from 18 in 2022). In addition to the growth in the size of the fleet to accomplish the service increases shown in this Plan, SMART would need to add at least one spare vehicle, and continue to replace aging vehicles in the existing fleet.

Today, SMART operates compressed

natural gas (CNG), battery-electric buses (BEB), diesel-electric hybrid, gasoline, and diesel buses. SMART's goal is for its fleet to be free of diesel- or gasoline-powered vehicles by 2028. The diesel, gas and hybrid vehicles in the fleet will be used until the ends of their lives but they will not be replaced with the same types of vehicles.

The emergence of major economic, environmental, social, and other disruptive events outside of SMART's control will likely continue to create challenges to maintaining capital assets in the years to come. Although using multiple fuels (CNG, diesel, gasoline, electric) creates redundancy and flexibility for the agency, variety in a fleet typically also increases operational complexity. For example, if a route experiences crowding and only a subset of buses in the fleet are large enough to handle it, that subset of buses almost needs its own spare ratio to ensure that the route can reliably be assigned a large-enough bus. This has not been the case recently because there have not been pressures from either high ridership (crowding) or from route length (due to electrical charging), but as those constraints appear in the future the fleet variety may become a hindrance more than a help.

It may be worth exploring what has worked best over the past decade, consider what routes are likely to be changed or added in the next decade, and then narrow

down the variety of the SMART fleet to the fewest different types of vehicles that could reliably operate most of SMART's fixed-routes. This simplification of the fleet could be implemented slowly, as vehicles are replaced at the end of their useful lives. For example, if the decision is made to plan on delivering fixed-route services all with 30- to 35-foot buses in the future, SMART could continue reduce its spare parts inventory, minimize the amount of training for staff to stay current, and reduce its spare ratio over time. Unfortunately, an additional limitation on this decision is what types of vehicles can be purchased, as manufacturing is highly limited and wait times for new vehicles extremely long.

Bus Procurement

As SMART has diversified its fleet over the past decade, it has gained experience working through the trade-offs of purchasing, operating and maintaining different types of vehicles. Technology continues to advance in vehicles of all fuel and propulsion types. Many transit agencies around the country are transitioning to cleaner fuel types to reduce emissions, and as part of that transition there are costs beyond vehicle price that must be clearly understood. Considering start up investments, maintenance, and how the operating environment might affect the stated lifespan of a vehicle are key to understanding the true cost.

SMART should focus on its own goals in order to prioritize the most important features of a bus. Environmental impact, fuel efficiency, operating and staffing resources needed, driver and customer comfort, space needs, and capital infrastructure needs are all important considerations.

Because bus propulsion technology has changed so rapidly in the past 20 years, many of the currently-available data about fuel efficiency, emissions reductions, and costs (operating, maintenance, capital, total) are conflicting. Published studies from the U.S. Department of Energy and transit agencies around the country over the past 15 years show a wide range of outcomes across a variety of metrics and vehicle fuel types. Some information about lifecycle costs and maintenance challenges is still evolving, as new vehicle technologies remain on the roads for enough years to be well-understood by transit agencies. SMART already has years of experience purchasing and maintaining alternative-fueled vehicles. The Wilsonville fleet manager, as well as fleet managers at peer agencies in Oregon, will be key people to rely on for knowledge about how emerging and improving technologies have worked in the recent past.

SMART aims to replace diesel, diesel hybrid, electric and CNG vehicles over the next five years. Here is some guidance to consider during future vehicle purchases.

Compressed Natural Gas (CNG)

CNG-powered buses can reduce emissions by up to 90 percent compared to diesel-powered buses. CNG buses may also provide lower operational costs per mile compared to diesel buses and fuel costs can be much lower. CNG requires significant initial investments in fueling infrastructure and upgrades to maintenance facilities, such as natural gas detectors and ventilation systems, but SMART already has what it needs and can accommodate growth in this equipment in its maintenance yard.

SMART has experience maintaining diesel-hybrid buses, which will not be replaced as they come to the ends of their useful lives. CNG vehicles have been found to have higher or lower maintenance costs than diesel-hybrids, depending on the study.

Range between refueling: Around 220 miles

Battery Electric Buses (BEB)

Electric buses operate solely on electric power from a lithium-ion battery pack. Charging can occur either at route termini or on-route. Currently, all SMART charging occurs at the maintenance yard. Electric buses can be zero-emissions (depending on the source of the electricity) and their fueling costs depend on electricity costs. Both carbon emissions and costs from electricity have been lower in the Pacific

Northwest than in other parts of the U.S. due to our abundant hydro power.

Despite recent improvements in battery capacity, electric buses have shorter ranges than diesel or gasoline vehicles. And despite improvements in charging speeds, electric buses generally still require more time to reach a full charge than diesel vehicles require to refuel. Vehicle ranges and vehicle charging/refueling time can affect the design and efficiency of routes, or constrain which vehicles can operate which routes. Deployment of electric buses therefore requires careful consideration of charging needs, route lengths and speeds, and operating conditions including weather. Air conditioning and heating can reduce an electric bus' battery span by as much as 30%.

SMART will soon have four charging stations at the maintenance yard. Technology continues to evolve with electric buses and charging capabilities, but many agencies have found that the limited range between charges has caused an increase in the number of buses and operators needed to provide the same level of service, compared to the number of vehicles previously required with other fuel types. Though we can imagine a role for electric buses in the SMART fleet, growing this type of fuel system at SMART will require a realistic look at the implied operating and capital cost increases over the life of the vehicle.

Electric cutaway vehicles are less tested

than full-sized electric transit buses. Though smaller vehicles have now been Altoona tested and FTA approved, there is far less peer experience and fewer long-term takeaways that SMART can use to make educated decisions for bus purchases. In addition, some important features such as easy and fast wheelchair boarding may be compromised in electric cutaway buses. In the coming years, it will be best to keep any electric bus purchases to more standard 35- and 40-foot buses that have more vendor support and that require SMART to stock fewer unique parts and supplies for maintenance.

Range between charges: 70 – 300 miles between depot charges

Hydrogen Fuel Cell

Hydrogen fuel cell electric buses (FCEBs) are hybrid vehicles powered by hydrogen fuel cells and an electric battery, providing flexibility to be deployed on longer routes. FCEBs can be zero-emission (depending on the energy source for the creation of the hydrogen fuel) and have a better fuel economy compared to conventional buses. However, fueling costs are high for hydrogen and it is not yet readily available as a vehicle fuel. Transitioning to FCEBs would therefore require investments in new fueling infrastructure and updates to SMART's maintenance yard.

SMART does not currently have any FCEBs and they are not currently recommended for SMART, based on the size of the

agency, the amount and type of service operated, and considering the other types of vehicles available in the fleet.

Range between refueling: Typically between 200 and 325 miles

Fleet to Support 2028 Service

As noted above, the number of vehicles required at peak times in-service would increase by 5 with implementation of this Plan. As SMART continues following its existing fleet replacement plan, these additional acquisitions will need to be accounted for.

The question arises what types of vehicles to add to maintain some flexibility in the fleet (with regards to route assignment); resilience in case of disruptions to fuels, supplies or parts; and to meet SMART's goal of phasing-out all gas and diesel vehicles by 2028. Major delays in the manufacture of vehicles also need to be taken into account.

Vehicle Type Considerations

This Plan calls for services in 2028 that would require an increase of 5 peak in-service buses, going from the 18 buses that were required to operate maximum fixed route and DAR service in 2021, to 23 buses

required in 2028. During the peak in fixed route operations (6-9 a.m. and 4-8 p.m.) 19 vehicles would be needed to operate fixed routes. During the peak in DAR operations (11 a.m. to 3 p.m.) 7 vehicles would be needed to operate DAR.

Some vehicles could perform both functions, if they are suitable for both. However:

- A vehicle that provides DAR may be too small to handle the passenger load on a fixed route (especially if it passes a school).
- A vehicle that is large enough to support a fixed route's passenger loads may be too small to drive down and turn around on every residential street in the city, in order to provide the door-to-door service required for some DAR customers with disabilities.

Every size and type of vehicle are not available with every fuel type, and not with the same quality of design, comfort for passengers, reliability and availability for purchase.

Given the types of services the SMART fleet would need to operate in 2028 according to this Plan, we recommend that buses purchased primarily to operate fixed routes be battery-electric (BEBs), and that buses purchased primarily to operate Dial-a-Ride service or very low-ridership fixed routes be CNG.

Vehicle Fuel Type Recommendations

For fixed routes, we recommend that SMART purchase the largest vehicles that will be needed to accommodate potential passenger loads and wheelchair boardings per trip.

Understanding that today ridership is very low, it is possible and likely that it will increase by 2028.

The investments recommended on inter-city routes will increase their usefulness and therefore are likely to increase their ridership.

Fixed routes that pass by middle and high schools can experience high passenger loads twice a day, and if a too-small vehicle is assigned to the route it can cause passengers to be left behind at stops, or force SMART to deploy a second bus and driver during that period.

For long fixed routes, especially those traveling on I-5 and I-205, it is valuable for comfort and safety that all passengers have seats.

Wheelchair boardings are faster and more comfortable on some bus designs than on others. In general, larger and low-floor vehicles offer a better wheelchair loading and unloading experience than smaller and high-floor vehicles. However, the quality and reliability of designs for smaller

vehicles may improve in this regard in future years.

For all of these reasons, SMART should err on the side of procuring larger rather than smaller fixed route vehicles.

Battery Electric or Compressed Natural Gas Vehicles

Large fixed route vehicles, 35- or 40 feet long, are available with Battery Electric (BEB) or Compressed Natural Gas (CNG) propulsion. (SMART's 35' and 40' buses are currently a mix of BEB, diesel and diesel-hybrid.) BEBs are appealing given their potential for lower carbon impacts, depending on the source of the electricity that powers them (which in the Pacific Northwest consists partly of hydropower and is therefore relatively low in carbon emissions).

However, BEBs increase operational complexity. The increase in peak vehicle requirement for implementing the 2028 recommended services was calculated based on needed layover time for driver breaks and reliability, but no additional layover time for battery charging or for deadheading buses to a site where the battery can be charged. The current rule-of-thumb among transportation planners and schedulers working on fleet electrification is that a purely BEB fleet would need to be 20-50% larger than a fleet using diesel, gas or CNG, because of the added cycle time and deadhead (time spent

driving to and from the maintenance yard, without passengers) required for charging.

The 2028 fixed routes as described in this Plan include some schedule inefficiencies, meaning extra time that the vehicle is not on the road, in excess of the time needed for the driver's break and as padding to protect reliability. There are multiple ways this extra time can be used in scheduling:

- It can allow for the route to arrive a little earlier or later in order to make a timed connection with another route.
- It can be used for driver meal breaks or driver shift changes.
- It can be eliminated by interlining multiple routes which have extra time, so as to require one fewer buses over the set of interlined routes.
- It can be used to charge BEBs.

With an increase in BEBs in the SMART fleet, more of this extra time will be needed for charging. Overall, with a large enough increase in BEBs within the fleet, SMART should expect a related increase in its peak fleet requirement.

For routes on which BEBs would replace standard diesel or diesel-hybrid buses, an iterative planning-scheduling step should be taken before detailed scheduling is performed and a final vehicle requirement is calculated. In that process schedulers would identify inefficiencies caused by the need to charge vehicles between trips.

Planners would identify available charging locations and charging locations that are not available but that would decrease deadhead time to charge. Fast on-route charging might be considered as an alternative, representing an increased capital expense but a decreased operating

Depending on the location and availability of chargers, the lengths of routes, and the speeds of routes, this planning-scheduling exercise might result in a higher vehicle requirement than we have estimated in this Plan. It could also contribute to longer-range planning to invest in on-route charging, rather than at the SMART maintenance yard, for example at the recommended Town Center terminal facility where some routes are recommended to terminate.

Additional factors can affect the time and distance that BEBs can be driven between charges. One of the biggest factors is hills, which are not a major issue in the Wilsonville or north valley topography. Weather, heating and air conditioning use, the age of the battery, and operating conditions could all affect the peak fleet requirement if the proportion of BEBs are increased in the fleet.

We also recommend that SMART not eliminate the possibility purchasing large CNG vehicles for its fixed routes. While CNG vehicles have a higher carbon impact than BEBs, they are simpler to operate and do not increase the overall required fleet size as BEBs do. There are also

unanswered questions about the durability and environmental sustainability of the batteries that power BEBs, which may be better understood in the coming years as widespread global use of electric vehicles puts pressure on battery manufacturing and disposal. The lifecycle durability and environmental impacts of CNG buses, on the other hand, are well-understood as they have been in use for thirty years.

Compressed Natural Gas Vehicles

Local DAR vehicles can be smaller than most fixed route vehicles. This is because only a few passengers' trips can be delivered by one vehicle in an hour while still being reasonably direct for the passengers. Thus DAR vehicles rarely need to fit more than a few passengers.

40' and 35' BEBs have a longer track-record and a more robust market in the United States compared to 30' and smaller BEBs, which are new to the market. Purchasing smaller BEB vehicles for its DAR service would put SMART in the position of being a "guinea pig" for a relatively new and complex product.

Smaller CNG transit vehicles are available with better designs and a longer track record than small BEB vehicles. Therefore while we recommend BEBs for larger fixed route vehicles, we do not recommend them for the small vehicles that can be used (or are in some cases required) for DAR.

SMART has been using CNG propulsion as well as diesel and gasoline propulsion for smaller DAR vehicles (mostly 26' "cut-aways," which are high-floor buses built on a truck chassis). We recommend that SMART continue to use CNG for smaller vehicles rather than BEB. These new, small CNG vehicles are likely to be used mostly on DAR but could also be used on low-ridership fixed routes or on certain fixed routes at times of day when ridership (and wheelchair boardings) are reliably low.

By 2028, the market for smaller BEBs may be more established, and the appropriateness of then-available small BEB transit vehicles, either on lower-ridership fixed routes or DAR, can be reevaluated.

Current Vehicle Prices

The most recent vehicle cost estimates available in the Pacific Northwest are from the State of Washington price agreement which applied through March 2023. The table in **Figure 51** gives average prices for each size and fuel category, plus 10% for contract and delivery related costs.

These prices are only valid through the end of March 2023, and prices are likely to increase in the next State price agreement. (The State of Oregon offers similar guidance on prices, but it dates to 2020.) Actual purchase prices will depend on contract terms, timing of the purchase and the specifications of the vehicle.

For smaller buses (such as 26' long),

appropriate to SMART's DAR service and low-ridership fixed routes, the State of Oregon has negotiated a base price range \$107,990 to \$181,129 depending on the fuel type. The lowest-cost options in this size are diesel, and so SMART should expect to pay higher prices for CNG.

The state of Oregon offers a [Transit Vehicle Lifecycle Cost Analysis Tool](#), developed by the Oregon Department of Energy, the Department of Environmental Quality, and Zero Emission Vehicle Interagency Working Group, to help agencies predict the total life cost of a vehicle by fuel type and operating conditions. The tool is focused on 35- and 40-foot buses. SMART could use this tool to tailor inputs such as fully burdened labor costs, inflation rate, fuel costs, annual vehicle miles traveled per bus, infrastructure, and operations and maintenance inputs. However, SMART already has experience purchasing, operating and maintaining both BEB and CNG vehicles, and may find its own local

Length	CNG	BEB
30'	\$467,047	\$524,305
35'	\$547,904	\$680,397
40'	\$614,277	\$878,567

Average prices for heavy- and medium-duty buses in each length category, plus 10% for delivery and other small charges, taken from the Washington State vehicle price agreement, which is valid through March 2023.

Figure 51: Sample prices for CNG and BEB vehicles.

data and experience to be as good a basis for future planning as any statewide tool.

Vehicle Delivery Delays

Price is but one barrier to procuring new buses. Wait times are, at time of writing, a bigger barrier. Some types and sizes of buses are in very short supply due to the shuttering of some manufacturers, consolidation of others, and supply chain disruptions. Transit agencies are waiting years to take delivery of ordered vehicles.

This is one of the reasons that SMART has kept some of its older vehicles in operation longer, and kept a diverse fleet in terms of fuel and body types. With so much uncertainty about how long it will take to procure replacement vehicles, it is important that SMART keep in its fleet vehicles that can operate its longest routes reliably and efficiently, and that can handle its peak passenger loads comfortably. This may result in some older, diesel, or diesel-hybrid vehicles being kept in the fleet for longer than they otherwise would given SMART's goal of having a 100% alternative-fueled fleet by 2028.

Given that SMART is likely to maintain some diesel and diesel-hybrid vehicles in its fleet for additional years, it may be worth considering using renewable diesel to fuel those vehicles.

Charging Infrastructure

SMART needs one electrical charger per BEB vehicle, as all BEB vehicles are currently charged overnight. SMART also needs a spare charger, as the chargers occasionally go out of service or require maintenance.

SMART currently has three chargers installed in its maintenance yard and will install a fourth in 2023 at the cost of approximately \$80,000. This will meet the minimum requirement for charging the three BEBs currently in SMART's fleet.

The cost of installing chargers depends greatly on the state of the electrical system to which the charger is connected. If a new transformer is required then the cost for electrical upgrades can be many times the cost of the charger itself. For the 2023 installation, the electrical system is already up to standards. Future installations in the maintenance yard may require additional electrical work and therefore cost more than \$80,000.

In the future SMART can consider the addition of one or more fast chargers. Fast chargers are used on routes so that BEB buses running long routes do not necessarily have to return to the maintenance yard to be charged during the day. The recommended Town Center terminal facility is a place where a fast charger could be

installed to support electric operations of Routes D, E and F, which are not designed to serve the west side Transit Center adjacent to the maintenance yard.

Fast chargers themselves currently cost between \$65,000 and \$150,000, depending on the number of vehicles to be charged. However the electrical upgrades necessary to install any charger at a new facility would be considerable, likely far more than the cost of the fast charger itself. Fast chargers can also be installed at depots to allow for a higher ratio of buses-to-chargers and this may be worth considering in the design of SMART's expanded maintenance yard.

Administrative Investments

The improvements in the 2028 Network will require a set of accompanying changes to SMART's operation, maintenance and administration.

Longer Spans of Service

The increase in service proposed in this Plan would obviously trigger a need for more fixed-route and Dial-a-Ride bus drivers. This relates to the increase in the amount of fixed route and Dial-a-Ride service offered on all days, but it also specifically relates to early morning and later evening service:

- While the first and last fixed route bus in service would not be earlier or later than today, there would be many more buses on the road earlier.
- The Dial-a-Ride service day would be longer by 2 hours in the morning and 3 hours in the evening on weekdays (and one hour in the morning and one in the evening on Saturdays). This would be required because the fixed route service provided at that times would be “local” rather than “express” and would therefore require paratransit.
- The early morning and later evening service increases would trigger a need for additional supervisor hours at those times, on weekdays as well as Saturdays.
- A Dial-a-Ride dispatcher would be required for 4 additional hours of the day on weekdays, 13 additional hours on Saturdays.
- At least one supervisor and one dispatcher would be required on Sundays as well.

With the increases in span of service, the increases in quantity of service (and therefore drivers and vehicles on the road), and the additional of Sundays, the recommended 2028 service would trigger the need for:

- As many as 123 new supervisor hours per week.

- As many as 44 new Dial-a-Ride dispatcher hours per week.
- A full-time (40 hours per week) customer service staff person.
- A full-time (40 hour per week) maintenance staff person. (In fact, any increase in service at all, let alone an increase to the level of the 2028 recommendation, will trigger the need for an additional maintenance staff person.)

Operations Personnel

Adding more fixed route and Dial-a-Ride service on weekdays would not only require more drivers, it would increase the daytime work load for operations staff such as supervisors and dispatchers.

It would also lengthen the operating work day, adding hours to shifts in the mornings and evenings, as the fixed route and Dial-a-Ride spans of service would get longer.

A major increase in staffing would be required on weekends, when both fixed route and Dial-a-Ride increases would trigger additional weekend shifts for staff and a larger team of staff in total.

In addition, the work of administering, managing and communicating about SMART service will increase as the size and usefulness of the system increases.

Administrative Personnel & Facility

With a nearly two-fold increase in fixed route service (as shown in the table on page 44), and with further increases in DAR service, SMART will need to grow its administrative team.

Administrative personnel support passengers, service and operations by providing planning, marketing, financial management, staff management, procurement, and more.

With growth of the administrative team, more space will be needed for their work, both office spaces and flexible space such as training rooms. The SMART administrative facility is currently at capacity so an expansion would be needed in order to provide space for this growth.

Maintenance Personnel

The planned increase in service hours, service miles and peak vehicles will require additional maintenance staff and supporting equipment, supplies and infrastructure.

The staff who maintain SMART vehicles work on all City of Wilsonville vehicles. There are four mechanics who work Monday through Friday in five 8-hour shifts.

These maintenance staff are at capacity today. Hiring and retaining mechanics has been a challenge, similar to the nationwide and local challenge of hiring and retaining transit operators. SMART currently has an

open position listed for a maintenance service worker. If filled, that will help provide currently-needed maintenance capacity.

The service increases described in this Plan would modestly increase the size of the fleet, which on its own would trigger a need for more maintenance staff, and may also trigger increases in required equipment, storage space, supplies and other infrastructure that supports maintenance. However, the service increases described in this Plan would greatly increase mileage and hours per vehicle, which would trigger more frequent preventative and reactionary maintenance per vehicle and would also increase needed maintenance capacity.

Additional maintenance staff would be needed to support the larger fleet and the greater wear-and-tear on the fleet. Those positions would be:

- Maintenance Hostler
- Equipment Mechanic
- Shop Foreperson

These positions cannot be added smoothly, one hour at a time, as service increases are implemented. The need for an additional full- or part-time position may be triggered by a small increase in service.

Regional Customer Service Center

SMART is currently in the planning stages of developing a regional customer service center that will handle customer service requests across multiple south metro transit providers. When the regional customer service center opens at the earliest in 2025, SMART will need to add more staff to operate the customer service center. The service increases recommended for 2028 would also trigger a need for additional customer service staff. The addition will relieve SMART's current dispatchers to focus solely on dial-a-ride scheduling and not general customer service as well.

An associated project, a trip planning tool at rideclackamas.org, will be connected to the regional customer service center and maintained by the same agency partners. It will provide one-stop-shop for information about service, fares, rules and trip planning for all of the small Clackamas County transit providers.

Maintenance Yard

SMART’s fleet and administrative facility was built in 2012 to match the funding available at the time. It is near the Wilsonville Transit Center.

Planning is underway to improve the circulation for fueling, vehicle storage, and system growth in general. There is enough land to expand bus storage by about 40%, which is sufficient to accommodate the service increases and fixed-route peak fleet increase proposed by this Plan.

In the yard, there are currently three chargers for the electric buses. A fourth charger will be installed in FY 2023.

In addition, the administrative building will need to be evaluated for space and potential expansion as personnel and service expands.

Preliminary design and cost estimates for the maintenance yard expansion are currently in development and expected to be complete in 2023.

Technology and Public Information

SMART staff are satisfied with most of the software used on-board transit vehicles, as well as software for operations and planning. SMART uses the vendor GMV for automatic vehicle locators (AVL), automatic

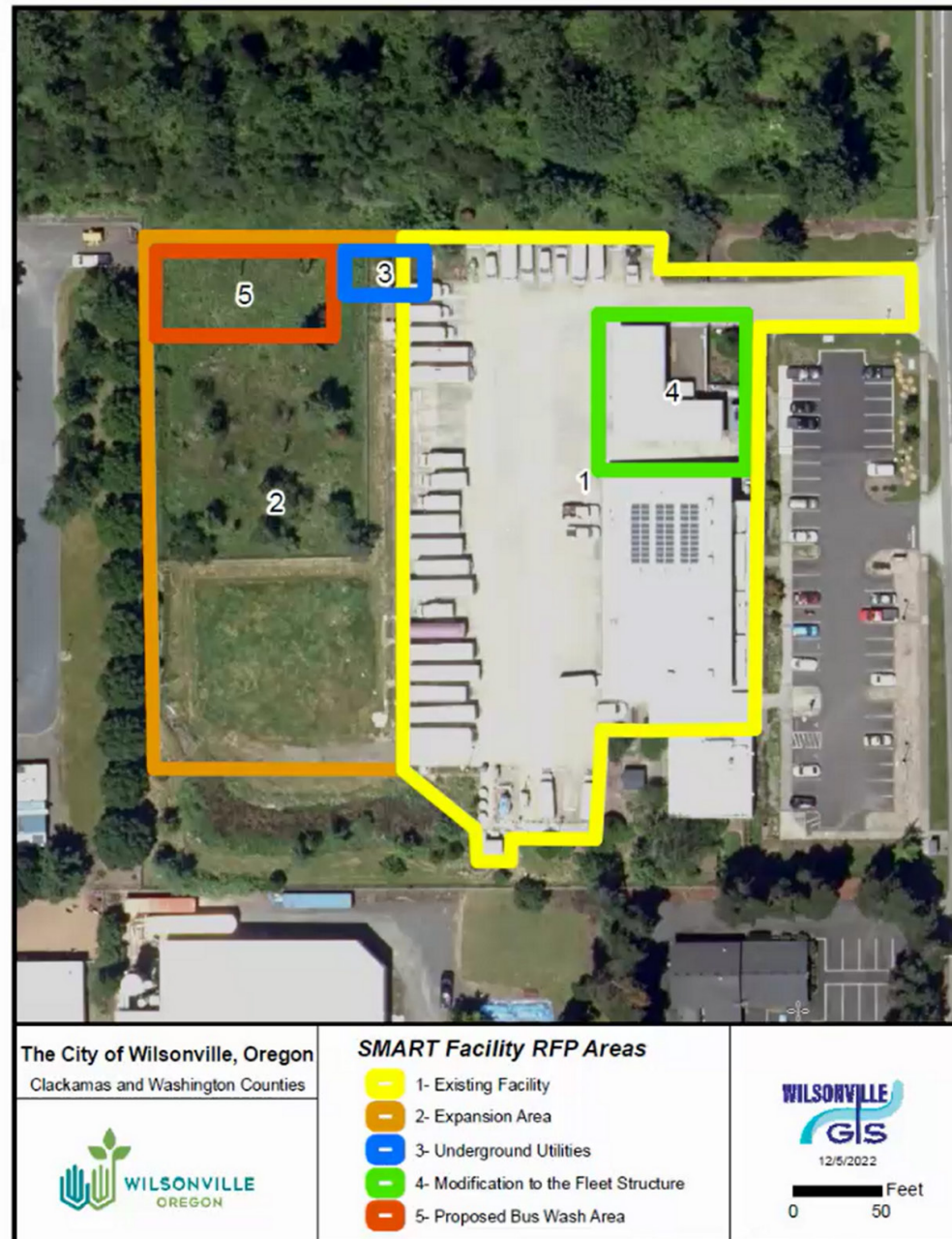


Figure 52: SMART Maintenance Yard Future Site Plan

passenger counters (APC) and mobile data terminals (MDT) on buses. GMV also provides real-time bus arrival information and can be used for booking subscription riders, paratransit dispatching, and driver logs. Staff use Optibus for fixed-route scheduling and mapping.

SMART is ordering digital displays to provide next bus information at the busiest bus stops. SMART also plans to replace its on-board surveillance system.

Real Time Bus Tracking

SMART currently has a bus tracking app, mySMARTbus, which is available to download for free from the Apple Store or Google Play. Real time bus information is also accessible on the [mySMARTbus](#) website.

Most smartphone users rely on navigation apps to provide them with information when they travel or move to a new city, such as Google Maps, Apple Maps, Transit App or Moovit. In the future, we recommend that SMART focus on providing reliable open data on its services via GTFS and GTFS-realtime feeds, so that people do not need to discover and download an additional app to find transit information.

Small Terminal Facility in Town Center

The 2028 network in this Plan includes two routes (E and G) that would have one terminus in the Town Center east of I-5 (Route E's other end would be in Keizer, and Route G's other end would be in Villebois). Routes A, B, D and F would pass through the Town Center. This area is shown in the excerpted map of the 2028 network in **Figure 53**.

The area marked on the map in **Figure 53** with a "T", representing the place where Routes E and G would end and other routes would pass through, is approximately at the intersection of Park Place and Courtside Drive. It is a 1.5 mile walk from the existing Transit Center / WES station on the west side of I-5.

Plans for a pedestrian and bicycle bridge over I-5 would shorten the walk from the Town Center to the west side Transit Center to a little less than one mile. SMART also plans to offer a small autonomous shuttle vehicle over the pedestrian bridge to help those who have difficulty walking connect between the Town Center and the west side transit center. However, engineering and construction of the pedestrian bridge are unfunded and it may not be built for years to come.

Normally a transit agency would not want two transit centers so close to one another.

However, the severely divided nature of Wilsonville – with I-5 acting as a barrier between the two sides of the city – makes it an unusual case in which transit centers that allow routes to terminate, and passengers to transfer, on either side of the barrier could make the transit network simpler and more reliable.

The purpose of this small east side facility would be to:

- Eliminate the obligatory passage of all buses under I-5 on Wilsonville Road, regardless of whether that movement is useful to passengers, simply because they need to reach the Wilsonville Transit Center. Wilsonville Road at I-5 is extremely congested and causes delay.
- Make the Wilsonville Road route (currently called Route 4, or proposed

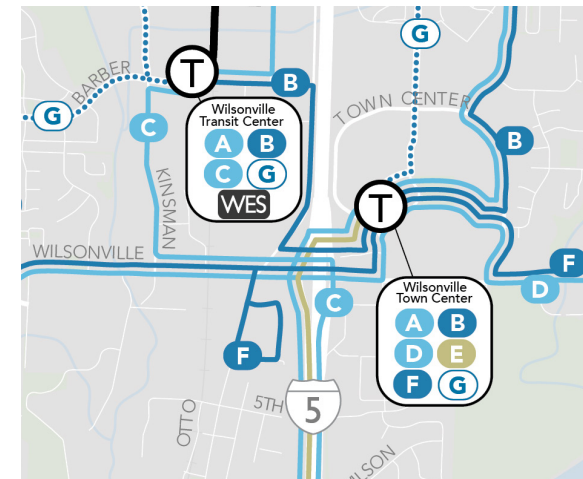


Figure 53: Central Wilsonville excerpt of the 2028 Network Map

Routes D and F in this Plan) more direct by replacing the time-consuming deviation to the west side Transit Center with a smaller deviation onto Park Place. Wilsonville Road travelers bound for places in north Wilsonville, Tualatin or Tigard could transfer to Routes G or B at the Town Center.

- Provide shelters and seating where passengers can transfer from a local bus trip to a regional bus trip.
- Create a terminus for certain routes where bus drivers could take breaks, and passengers could make transfers.

Site Guidelines

While the precise site can be determined in a later process, the appropriate site should be:

- On or very close to Wilsonville Road, to minimize out-of-direction travel for passengers using the Wilsonville Road bus route.
 - The ideal, unconstrained location would in fact be on Wilsonville Road itself, between Memorial Drive and Town Center Loop W. This would allow all bus routes to be as linear as possible while still connecting. However, it seems unlikely that the City of Wilsonville would be able to dedicate the necessary amount of road width to laying-over buses, sidewalk

width for passenger shelters, and adjacent land for the operator facility. The second-best location, in terms of route directness, is along Park Place or Courtside Drive, where more land is currently used as surface parking and where curb lines are planned to change anyway.

- In the middle of the Town Center, to minimize walking distances to people and destinations in every direction.
- Not directly adjacent to I-5 (such as on Town Center Loop W), for two reasons:
 - To maximize the number of destinations within walking distance (the freeway acting as both a barrier

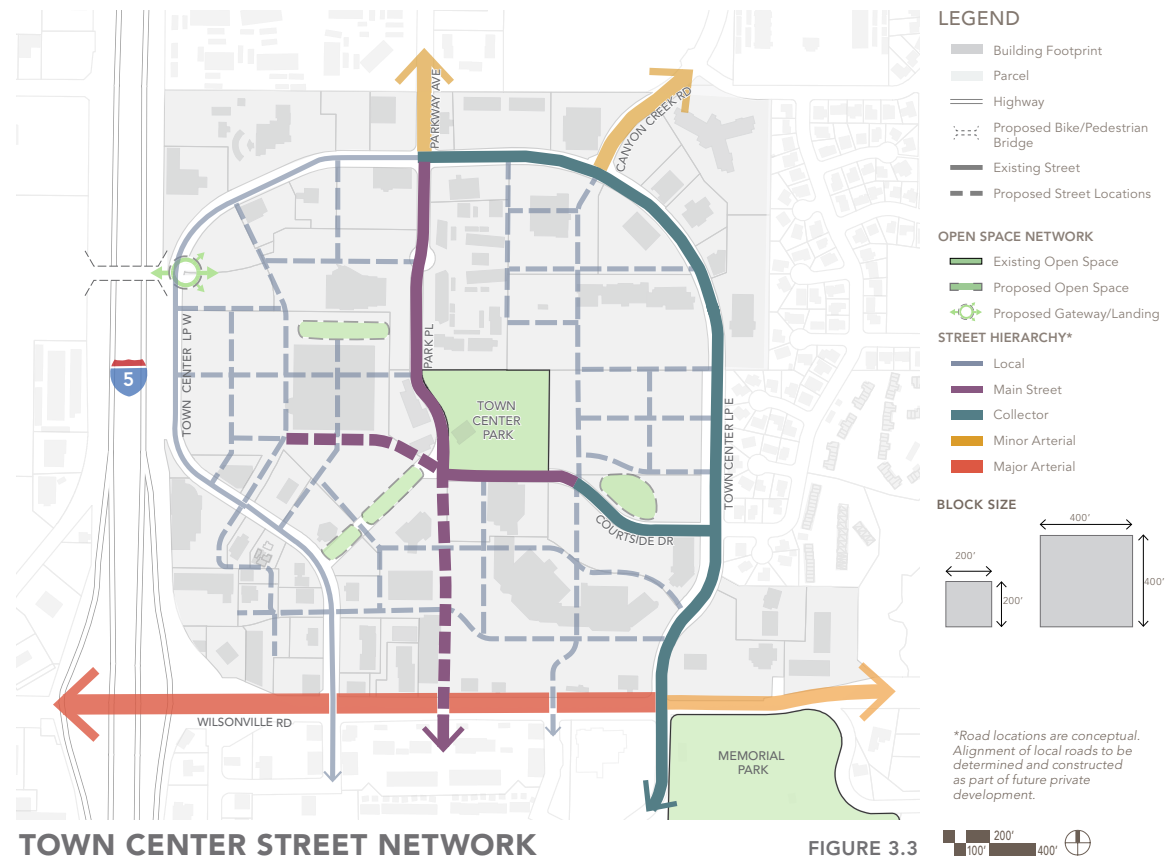


Figure 54: Planned Street Network from the City of Wilsonville’s Town Center Plan 2021

and an empty area in a bus stop's walkshed) and

- o To avoid duplicating service provided to the west side of I-5. (Once a pedestrian bridge is added over the freeway, the west side of the Town Center will be walking distance from SW Boones Ferry Road).

Many changes to the Town Center are contemplated by the City's Town Center Plan, last updated in 2021 (the planned street network is shown in **Figure 54**). The implementation of that plan should take into account the need for a small bus route terminus in the Center, and the guidelines given above for choosing its precise location.

Two Centers

The names of the existing (west side) and new (east side) transit centers should be carefully considered.

- "Wilsonville Transit Center" and "Wilsonville Town Center" are easy to misread at a glance, and have the same abbreviation.
- "SMART Central Station," is the old name for what is now called the Transit Center, but it is not very "Central."
- The "Station" refers to WES, but the future of WES is uncertain, so a long-lasting name should not depend on it.

- If there are two places in a city that an ordinary person would describe as "transit centers" then neither should be given the name "Wilsonville Transit Center" as it fails to differentiate them.

For now, in planning work, we suggest distinguishing the two facilities by referring to their respective locations, on the west and east sides of the city.

Where in the Town Center?

The best location for this site would be either on Wilsonville Road, just south of the Town Center, or along the street currently known as Park Place. (The hypothetical site has been marked along Park Place on maps of the 2028 network.) The site would be small, just large enough for a few routes to terminate and for a modular break room.

If the site is off-street, the needed infrastructure and bus movements could be accommodated in a site as small as 10'x32'. If the site is on-street, then linear space in the right-of-way would be used to lay-over (park) buses, while a smaller space outside of the right-of-way would be needed for the modular break room only.

Consideration for how operators would access the locked facility, and whether and how any operator reliefs (with one operator replacing another on the same route/vehicle) would happen there, should also be a part of the planning and costing process.

Off-Street Facility Near Park Place & Courtside Drive

If the site is off street, along Park Place or Courtside Drive (shown on the next page in **Figure 55**) then the bus stops on those two streets could mostly remain in place.

The off-street site would need to be configured so that two buses could occupy it at the same time, and pass one another if necessary. The layover spaces for the two buses would be close to the operator break room. The buses would need to be able to turn around on the site, and exit in either direction (since Route G

heads north, and Route E heads south). A drawing of an example bus turn-around and layover area is shown in **Figure 56**, drawn for a site that is approximately 350 feet long (including the driveway at the top of the drawing) by 140 feet wide.

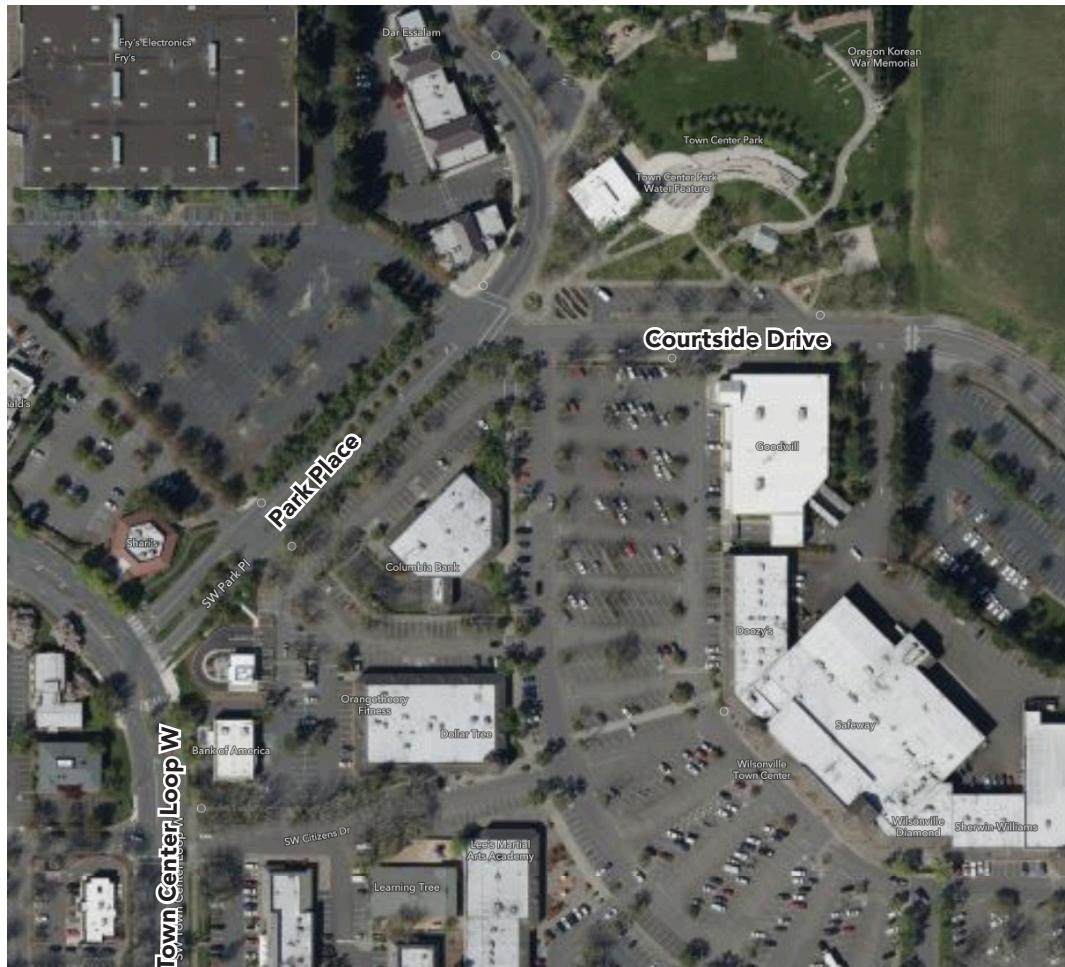


Figure 55: Potential Area for an East Side Terminal Facility in the Town Center

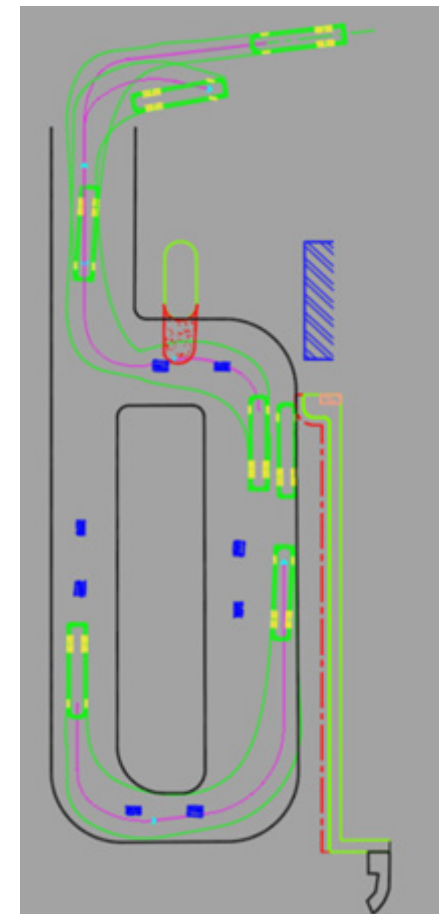


Figure 56: Bus circulation allowing for turn-around and layover in an example off-street terminal site.

For an off-street site in this area, the existing on-street bus stops could be maintained as the places where passengers would board and alight from buses, rather than in the terminal facility itself.

- Route A, B, D and F buses would run through and make stops on Park Place/ Courtside Drive, and would not enter the facility at all.
- Route E buses would make stops on Park Place before turning into the facility to terminate and turn around.
- Route G buses could serve new stops on Park Place, close to the intersection with Courtside Drive, before pulling into the facility to terminate and turn around.

While the existing stop locations could be retained, the stops would need be improved based on SMART's usual standards for providing amenities at bus stops. We expect that shelters, benches and trash cans would be justified by ridership within a few years of introducing the 2028 network routes.

Ideally, the bus stops on these streets would also be closer to one another, to facilitate easy transfers. However, the current configuration of the area makes this difficult to change:

- The current design of the Park Place/ Courtside Drive intersection seems to preclude placing bus stops close to the intersection on Courtside Drive, for

both directions.

- The wide driveway at that same intersection, into the Goodwill parking lot, eliminates a possible location for an eastbound stop.
- The angled parking at Town Center Park eliminates the possibility of stops on Courtside Drive that are closer to Park Place.

In consultation with City planners, SMART should evaluate the best potential sites for this terminal facility, and how bus stops served by buses in both directions (whether on Courtside Drive and Park Place, or other streets) could be moved close together to facilitate easy and intuitive transfers by passengers.

On-Street Facility on Wilsonville Road

If the goal is to make transit as useful as possible to the maximum number of people, then the ideal location for this terminal facility is not off of Park Place or Courtside Drive, but rather on Wilsonville Road itself (shown below in **Figure 57**) between Town Center Loop W and Memorial Drive.

This would make it possible for bus routes to be more linear and faster, especially routes that would *not* terminate in the Town Center.

Routes could stay on Wilsonville Road, rather than deviating to the north to serve Courtside Drive and Park Place. This would save passengers time, and also make the routes more efficient to operate for



Figure 57: Potential Area for an East Side Terminal Facility in the Town Center

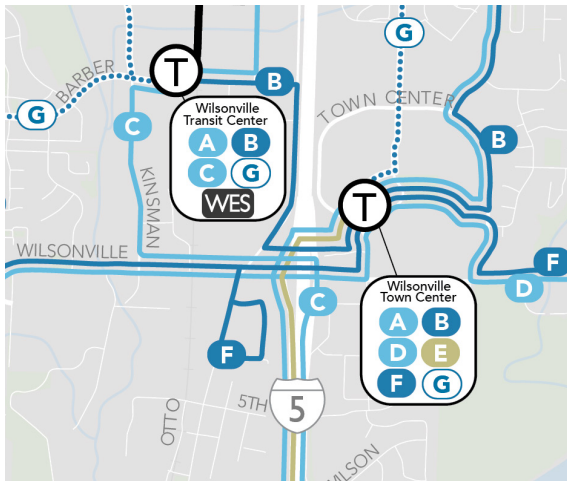


Figure 58: Central Wilsonville Excerpt of the 2028 Network Map

SMART, which in the long run supports higher frequencies.

Buses would still use the local streets of the town center in order to turn around, but the bus stops for terminating routes would be on Wilsonville Road.

In this case, spaces on both sides of Wilsonville Road would be needed for buses to layover (park) while drivers took a break. Improved bus stops for passengers would be needed on the sidewalks near these layover spaces. And, crucially, a nearby break room would be needed for bus operators so that they would have a short walk to and from their break. The break room may need to be on private property, or on City property, but regardless it would not fit in the right-of-way of Wilsonville Road itself.



Figure 59: Example of a Modular Break Room, 10' x 36'

Modular Building

Most of the costs of a terminal facility are likely to arise from changes to the streetscape or traffic controls, rather than from the facility itself. SMART will need to work with City planners and engineers to identify and evaluate possible locations, and estimate costs for both the terminus infrastructure and any needed street or engineering changes.

The facility would not necessarily require substantial construction and could be physically small, but it should be built with basic comforts that allow SMART to use it

for driver meal breaks rather than returning to the Wilsonville Transit Center break room. To that end, it should include:

- A restroom. If vehicles are scheduled with overlapping layover at the Town Center, then two small restrooms may be important for operator comfort and health.
- A small break space, with seating, a table, and access to potable water, electricity and a way to warm food.
- Electricity for air conditioning and heating and plumbing for the

bathroom and potable water for drinking would be needed.

- Wifi connectivity.
- Cleaning, first aid, and bathroom supplies.

Recognizing that the utility hookups have a one-time cost, the building itself could be a modular one to minimize construction costs. An example of the type of modular building that could be used as an operator break site is shown in **Figure 59**.

Modular buildings come in many configurations that can be plumbed with septic underneath. Electricity will require a tie in, and the best precise location for the facility may be influenced by where on the property is the closest junction, pedestal, or transformer box. Inside the modular building, a pre-fab wall for a separate quiet area or field supervisor office could be included.

Approximate costs for this facility would be \$124,000. This includes the modular building, minor sidewalk improvements, moving and reinstallation of bus stops, a new bus shelter, minor asphalt striping, and other miscellaneous labors. This would include electrical and water hook-up but not sewer hook up. Additional costs would occur for operation and maintenance of the building.

The actual cost to create this facility will obviously vary greatly depending on where exactly the facility is located, whether

there are property leasing or acquisition costs, how suitable the streetscape is for bus stops and passenger transfers, and whether any traffic engineering changes are needed to allow for new bus movements at intersections.

Using a lower-cost modular building for this facility, rather than building a permanent structure, would be especially prudent if the best terminal site that can be developed by 2028 is not the same as the best site in the long-term Town Center Plan. Rather than wait to offer the service improvements described in this Plan until the Town Center Plan is built out, which could take decades, SMART could move forward with an interim, lower-cost but still comfortable facility.

Future Town Center Redevelopment

Much larger changes to this site example will need to be discussed once the Town Center Plan is implemented at the very least because “Park Place” will become a directly north-south street (shown in dashed purple on the map at right, which is repeated from an earlier page for easy reference).

The example location we have identified on the current, diagonal “Park Place” is planned to become a parkway for walking and cycling only (shown in green on this map).

Many European cities have incorporated

buses into such car-free parkways. The possibility of continuing to run bus service on the diagonal, old “Park Place” should not be dismissed out of hand.

However, the north-south “Park Place” would also be a suitable alignment for the proposed 2028 bus routes, especially if priority is given to buses turning on and off of Wilsonville Road. The new north-south “Park Place” would also be an appropriate site for passenger transfers and the terminal facility.

Finally, as mentioned above, if all of these improvements (layover spaces for buses, shelters and benches for passengers, and an operator break room) could be placed on Wilsonville Road and adjacent property, between Memorial Drive and Town Center Loop W, that would be ideal to support the 2028 Network and maximize potential ridership and access to transit. That idea may be worth considering in the context of the Town Center Plan as well, depending on the scale of change City staff expect will result from this Plan.

The recommendation for a small Town Center terminal facility, and more generally for improved transit service to and through the Town Center, is supportive of the Town Center Plan overall. The two Plans will need to be further harmonized and implemented together.

Transportation Options, Marketing & Information

SMART does more than just operate fixed-route and demand-response transit services. This section describes some of the other programs SMART administers that would continue through the period of this Plan.

SMART supports the statewide “Get There Challenge,” which incentivizes non-single-occupancy-vehicle use. People who use other modes, such as vanpooling, carpooling, cycling or transit, can qualify for rewards, during two weeks in October.

Vanpool

Vanpool options are available to commuters who begin or end their trips in Wilsonville.

SMART offers up to a \$500 per van/per month subsidy to help start more vanpools coming into and out of Wilsonville. Vanpools with at least five passengers in the group can lease a vehicle from Commute with Enterprise, with no long term commitment required.

Safe Routes to School (SRTS)

SMART delivers SRTS programming. SRTS is a nation-wide program that encourages and educates children and parents on the

benefits and safety knowledge of walking and rolling (skateboard, bike, scooter, carpool, and school or SMART bus) to and from school. SMART hosts Walk+Roll to School Day events and challenges to promote active transportation.

The SRTS program improves transportation for students, parents, and staff and also reduces the number of driving trips to and from schools to improve air quality and congestion. SMART is working to ensure safe, healthy, and equitable outcomes for all participants including historically marginalized group

Travel Training

SMART has partnered with Ride Connection’s RideWise Travel Training Program to provide information and training to support independent public transit use at no cost. The program is aimed at training older adults and people with disabilities to inform them about their transit options, and help participants feel comfortable with using SMART.

The RideWise Program offers personal, one-on-one travel training and group transit trips to help participants learn about fares, trip planning, accessibility, and how to use trip planning apps.

RideConnection also provides specialized shuttle services. One such shuttle serving Clackamas County near West Linn could connect with the proposed Route D at one of multiple places along the route, for

example Legacy Meridian Medical Center or downtown West Linn.

Transit Service Marketing

Marketing and public information are key elements in maintaining and increasing ridership. SMART can provide service that effectively meets passengers’ needs, but if people don’t know it’s there, they won’t use it. As Wilsonville continues to grow, there are also many new residents and employees who may not have previously heard about SMART. There is great opportunity to leverage outreach efforts through coordination with other providers and existing resources. The actions that need to be taken in order to get the information to the intended audience are often very inexpensive and represent a good value in terms of increased ridership.

SMART services are marketed through various efforts, including through printed informational materials, social media, attending community events, and providing information on the SMART website.

Safety and Enforcement

While SMART’s services and facilities are generally safe and without patterns of concerning incidents or behaviors, SMART should continue to pursue trainings, best practices, policies and procedures to maintain a high level of safety on buses, around

bus stops and at SMART facilities.

Special attention should be paid to providing a safe environment for women and young people. A [study](#) completed in 2019 for Metro, in Los Angeles, made the case that “women tend to bear outsized burdens and risks in the course of their daily travel. Being cognizant of how women travel can help ensure SMART provides a welcoming environment at all hours of operation. For example, women tend to take more trips than men, which means there is a greater chance of exposure to travel incidents. They are also more likely to be traveling with children. Service design that helps minimize time, cost, and physical burdens of travel will improve the travel experience for all, not just women and children.

Signage at major transit stops should instruct people in how to make transfers to other transit vehicles or how to walk to major destinations. Such signage reduces the vulnerability of occasional or first-time travelers, and improves their comfort and confidence in their trip. The real-time arrival boards that SMART is planning to install at major bus stops can also help with this.

Additional signage at major transit facilities should instruct people how to call for help, and should be visible, current, and translated into Spanish, at a minimum.

The routes proposed in the 2028 Network extend far into other agencies’ service

areas, and far beyond the immediate reach of Wilsonville Police and other City staff who could help respond to emergencies or provide aid to passengers and operators. SMART, TriMet, Canby Area Transit, Woodburn Transit and Cherriots should have recent agreements in place at shared stop locations indicating the protocol for a safety incident or threat.

SMART has been fortunate not to have experienced an increase in challenging interactions since the pandemic, as have many other urban transit agencies. The 2028 Network is expected to be more useful to a greater number of people, and would naturally therefore bring SMART staff in contact with safety and social challenges that have been uncommon on more specialized, lower-ridership routes in the past. Additional training and support for SMART staff would be appropriate as part of implementing the 2028 Network.

We recommend that SMART review studies published by the Federal Transit Administration and other transit agencies to continue staying informed on current safety strategies. SMART and TriMet staff should routinely discuss and collaborate on safety approaches, especially in the “border” areas where the two agencies’ routes overlap and where they share facilities.

Additional resources for SMART staff are the [Transit Cooperative Research Program Synthesis 121: Transit Agency Practices in Interacting with People Who Are](#)

[Homeless](#), and ongoing training and discussions organizing by the American Public Transit Association (APTA) and Oregon Transit Association.

Human trafficking is a crime in which someone is coerced or forced to work, and this criminal activity is known to be concentrated along the I-5 corridor in Oregon, Washington and California.

SMART signed onto the USDOT’s Initiative against Human Trafficking in 2021 and conducted all-staff training in 2022. Ongoing training and awareness campaigns should be supported. SMART could develop materials for riders on how to identify and report potential risks, and promote an awareness campaign during National Human Trafficking Prevention Month in January.

Other Oregon transit agencies also located along I-5 (such as TriMet, Cherriots, Lane Transit District and Rogue Valley Transit District) may have information to share as well.

6. Financial Context and Project Costs

There are a number of funding sources available for the various types of improvements recommended in this plan. Since many people throughout Oregon enjoy the amenities of the greater Wilsonville region, the City has taken a financial approach that spreads the costs of public transit among property owners, businesses, overnight and day visitors, transportation systems users, and local, state, and federal governments.

The five major available funding categories are federal funding (formula and discretionary grant programs), state funding, regional/local funding, and private funding sources/partnerships. The most relevant and promising sources to fund improvements proposed in this Plan Update for 2023-2028 are described below.

Capital rolling stock, such as vehicles and equipment replacement, can be purchased with a match of up to 85% of the cost by Federal and state sources.

Federal, State, Private/Partnership and Local sources of transit funding are described in turn by the tables on the following pages.

Federal Funding (Discretionary Grant Programs)

The Infrastructure, Investment, and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL), was signed in November of 2021 and is the current federal transportation funding bill. The law replaced Fixing America's Surface Transportation Act (FAST) and will add an additional \$550 billion to transportation, broadband, and utility investments across the United States. This funding will be distributed from FY 2022 through FY 2026 via a competitive grant application process. Several of the most relevant funding sources are described in the following sections.

Funding Source	Amount	Match Required	Eligible Projects	Notes
5339(b) Federal Transit Administration Discretionary Buses and Bus Facilities Infrastructure Investment Program	Varies based on year. No current update for 2023.	15% for vehicles; 10% for bus-related equipment and facilities.	<ul style="list-style-type: none"> Capital projects to replace, rehabilitate, purchase, or lease buses, vans, and related equipment. Capital projects to rehabilitate, purchase, construct, or lease bus-related facilities. 	Recipients of 5307 funding may apply directly to the Federal Transit Administration.
5339(c) Federal Transit Administration Discretionary Low or No Emission Program	Varies based on year. No current update for 2023.	15% for vehicles; 10% for bus-related equipment and facilities.	<ul style="list-style-type: none"> Purchasing or leasing low- or no-emission buses. Acquiring low- or no-emission buses with a leased power source. Constructing or leasing facilities and related equipment (including intelligent technology and software) for low- or no-emission buses. Constructing new public transportation facilities to accommodate low- or no-emission buses. Rehabilitating or improving existing public transportation facilities to accommodate low- or no-emission buses. 	Recipients of 5307 funding may apply directly to the Federal Transit Administration.
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Minimum award is \$5 million in urban areas. No more than \$345 million per state.	20% excluding local areas.	<ul style="list-style-type: none"> Highway, bridge, or other road projects eligible under title 23, United States Code. Public transportation projects eligible under chapter 53 of title 49, United States Code. Passenger and freight rail transportation projects. Planning, preparation, or design of eligible transportation capital projects. 	Funding is obtained via an application to USDOT.
Safe Streets and Roads for All (SS4A)	FY 2023 Notice of Funding Opportunity to open in spring 2023.	20%.	<ul style="list-style-type: none"> Creating action plan to prevent roadway fatalities and serious injuries. Funding and implementing specific projects previously identified in the action plan. 	Funding is obtained via an application to USDOT.

Figure 60: Federal Discretionary Grant Funding Programs

Funding Source	Amount	Match Required	Eligible Projects	Notes	
STBG Discretionary Bus Replacement Program	Funding varies based on solicitation year. No current update for 2025 – 2027 solicitation.	10.27% for STBG.	<ul style="list-style-type: none"> Vehicle replacements that were purchased through ODOT Public Transportation Division and have ODOT on the title as first security interest holder. 	ODOT receives funds from the FHWA's STBG program, then allocates those funds to agencies via a competitive application process. The funds are transferred into FTA Sections 5310, 5311, or 5307.	
Statewide Transportation Improvement Fund Discretionary	Varies based on Oregon payroll tax revenue. Revenues stream from 5% of Statewide Transportation Improvement Fund.	20% of project's total costs. Eligible for 10% match if project meets certain characteristics.	<ul style="list-style-type: none"> Vehicle purchase. Equipment purchase. Facility purchase. Signs/shelters purchase. Planning. 	<ul style="list-style-type: none"> Project administration. Operating. Preventive maintenance. Mobility management. 	Funding is obtained via an application to a Qualified Entity (TriMet), then to ODOT.
Statewide Transit Network Program	Varies based on Oregon payroll tax revenue. Revenues stream from 4% of Statewide Transportation Improvement Fund and FTA 5311(f).	20% of project's total costs. Eligible for 10% match if project meets certain characteristics. If receiving 5311(f) funds, must provide 50% match for operations projects and 20% match for capital projects and project administration.	<ul style="list-style-type: none"> Vehicle purchase. Equipment purchase. Facility purchase. Signs/shelters purchase. Planning. Project administration. Operating. Preventive maintenance. Mobility management. 		Funding is obtained via an application to ODOT.

Figure 61: State Discretionary Grant Funding Programs (continued on next page)

Funding Source	Amount	Match Required	Eligible Projects	Notes
Transportation and Growth Management (TGM) Program	Varies based on formula that considers number of cities and the population within a region. Common award amounts are \$100,000 to \$250,000.	12%.	<ul style="list-style-type: none"> Planning work leading to local policy decisions. Projects should result in the development of an adoption-ready plan or land use regulation or amendments to an existing plan or land use regulation. 	Funding is obtained via an application to ODOT / Oregon Department of Land Conservation and Development (DLCDC).

Partners	Eligible Projects	Notes
Developers / Transportation System Development Charges	<ul style="list-style-type: none"> Infrastructure within or related to new developments which improves transit usefulness and accessibility. 	<p>Opportunity to incorporate desired transit facilities into new developments to improve transit amenities on existing or planned routes.</p> <p>For example, sidewalks and bus pads on Stafford Road would allow SMART to place bus stops to serve residents of new Frog Pond developments.</p>
Local school district	<ul style="list-style-type: none"> Safe Routes to School (SRTS) plans. 	Opportunity to meld transit with SRTS planning and collaborate with the West Linn-Wilsonville school district to expand transit access to students, for example by deviating proposed Route D to serve a new district high school at times that suit the school schedule.

Figure 62: Potential Partnerships or Other Sources of Support

Local Wilsonville Funding

The City of Wilsonville funds transit service chiefly through a local payroll tax and self-employment tax, also called the “transit tax.” It is applied at a rate determined by the City Council and the rate has been set at 0.5% of wages.

The amount of money available is directly linked to the total wages earned each year. According to the Wilsonville 2022-23 Adopted Budget, the wage base growth has grown an average of 4.3% each year since FY 2008-09. The budget for future years has payroll tax receipts set to increase at 2%, a conservative assumption.

Transit Fund Forecast 2023-2028

The table on the following page summarizes the Wilsonville Transit Fund recent Actuals and Forecasts. It shows Revenues (“Resources”) and Requirements (“Expenditures” and “Transfers to other funds”) for the Transit Fund over the past three and coming five fiscal years, through FY 2026-27. This forecast was prepared in the first half of 2022 and is part of the adopted FY 2022-23 budget.

The Transit Fund in Wilsonville is made up of three main revenue sources: the local payroll tax, intergovernmental revenue (which includes grants from Federal and State sources described on previous pages), and charges for services. The local payroll tax and the intergovernmental revenue together represented 99% of the

Funding Source	Amount	Eligible Projects	Notes
Transit payroll and self-employment tax	\$0.005 rate on gross payroll earnings.	<ul style="list-style-type: none"> • Transit capital projects. • Transit operations. 	Funds are raised through payroll taxes paid by businesses in the City.

Figure 63: Wilsonville’s Local Payroll Tax

total funding, approximately 55%, and 44%, respectively.

sources start at \$750,000 in 2022-2023 and grow gradually in future years, but are forecast to be considerably lower than actual received grant amounts in prior years.

Statewide Funding

Intergovernmental revenue includes state and federal grants and contracts, especially the Statewide Transportation Improvement Fund (STIF). Enacted by the State Legislature as HB2017 “Keep Oregon Moving,” STIF provides a dedicated source of funding to expand public transportation through a 0.1% statewide payroll tax on employees. The Oregon Department of Transportation disperses STIF funds through formula and competitive grants. Thanks to this funding source, the SMART Transit Fund is keeping up with expenditures and offers potential to expand service in coming years.

In FY 2022-23, SMART forecasted \$1,428,000 from formula funds and an award of \$300,000 in competitive STIF funds. SMART has forecasted \$300,000 annual revenue from competitive grants each year beginning in FY 2023-24, which is lower than actual competitive grant receipts from STIF from 2020-2022. Forecast grants from Federal and other

TABLE 5 - Transit Fund Forecast

	Actual 2018-19	Actual 2019-20	Budget 2020-21	Proposed 2021-22	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27
Beginning fund balance	3,592,929	4,595,626	5,084,730	7,505,702	\$ 7,536,271	\$ 7,263,781	\$ 6,973,383	\$ 6,707,951	\$ 6,422,500
RESOURCES									
Revenues:									
Transit tax	\$ 5,026,869	\$ 4,902,080	\$ 5,050,000	\$ 5,000,000	\$ 5,100,000	\$ 5,202,000	\$ 5,306,040	\$ 5,412,161	\$ 5,520,404
Intergovernmental:									
STIF Formula	-	-	1,800,000	1,400,000	1,428,000	1,456,560	1,485,690	1,515,400	1,545,710
STIF (competitive)	-	-	1,300,000	530,000	300,000	300,000	300,000	300,000	300,000
Grants (#5307, TDM, Ot)	3,381,180	3,463,450	2,196,588	2,034,104	750,000	757,500	765,075	772,726	780,453
Intergovernmental Total	3,381,180	3,463,450	5,296,588	3,964,104	2,478,000	2,514,060	2,550,765	2,588,126	2,626,163
Charges for services	206,399	140,935	170,000	-	-	-	-	-	-
Investment income	106,952	134,123	31,100	75,000	37,681	36,319	34,867	33,540	32,113
Miscellaneous	47,061	177,415	21,000	21,000	15,000	15,000	15,000	15,000	15,000
Revenue Total	\$ 8,768,461	\$ 8,818,003	\$ 10,568,688	\$ 9,060,104	\$ 7,630,681	\$ 7,767,379	\$ 7,906,672	\$ 8,048,826	\$ 8,193,680
REQUIREMENTS									
Expenditures:									
Personnel services	\$ 3,384,655	\$ 3,736,261	\$ 4,106,110	\$ 4,251,900	\$ 4,336,938	\$ 4,467,046	\$ 4,556,387	\$ 4,693,079	\$ 4,786,940
Materials & services	1,732,360	2,416,826	2,268,268	2,118,188	2,120,306	2,122,426	2,124,549	2,126,673	2,128,800
Capital outlay	2,071,020	69,667	2,629,941	1,990,000	787,500	793,125	798,806	804,544	810,340
Expenditures Subtotal	7,188,035	6,222,754	9,004,319	8,360,088	7,244,744	7,382,598	7,479,742	7,624,296	7,726,080
Transfers to other funds:									
General Fund	543,250	567,310	594,370	585,240	599,871	614,868	630,239	645,995	662,145
Building Capital Fund	34,479	58,608	214,493	84,207	58,556	60,312	62,122	63,985	64,625
Transfers Subtotal	577,729	625,918	808,863	669,447	658,427	675,180	692,361	709,980	726,770
Expenditures Total	\$ 7,765,764	\$ 6,848,672	\$ 9,813,182	\$ 9,029,535	\$ 7,903,171	\$ 8,057,777	\$ 8,172,104	\$ 8,334,277	\$ 8,452,850
<i>NET (Revenues less Expenditures)</i>	<i>1,002,697</i>	<i>1,969,331</i>	<i>755,506</i>	<i>30,569</i>	<i>(272,490)</i>	<i>(290,399)</i>	<i>(265,432)</i>	<i>(285,451)</i>	<i>(259,171)</i>
Ending fund balance	\$ 4,595,626	\$ 6,564,957	\$ 5,840,236	\$ 7,536,271	\$ 7,263,781	\$ 6,973,383	\$ 6,707,951	\$ 6,422,500	\$ 6,163,329
Financial Policy Minimum	1,023,403	1,230,617	1,274,876	1,274,100	1,291,500	1,317,900	1,336,200	1,364,000	1,383,200

Figure 64: City of Wilsonville Transit Fund Actuals and Forecasts, FY 2018-19 through FY 2026-27

Service and Capital Projects

This section provides cost estimates for investments that could be made towards implementation of the 2028 recommendation.

This cost estimates are approximate. Actual cost estimates will be developed at the time, based on resolved details related to scheduling of transit services, vehicles and staff, and then-current costs for labor, materials and/or construction.

“Table 1: Service Increases” on page 86 describes potential marginal increases to service frequency, span or capacity as SMART works to implement the full 2028 service vision. This table covers both fixed route (FR) improvements and Dial-a-Ride (Demand Response, DR) improvements. Some DR improvements would be required to complement fixed route improvements, per the American’s with Disabilities Act.

The costs in Table 1 are estimated based on the hours that buses and drivers would be in service, Revenue Hours (RH). Actual labor hours will be longer, and the number of full-time drivers hired to provide this service would not be so simple as the total RH divided by 40 hours per week. Operating costs are calculated based on estimated Revenue Hours of service and the average operating costs for 2022,

which differ for fixed route and demand response. Costs per RH will change over future years.

Table 1 indicates when one or more additional vehicles may be needed, and when overhead positions may need to be added due to a change or increase in service.

“Table 2: Assumed Costs per Service Revenue Hour” on page 88 shows the average costs per Revenue Hour of service which were used to estimate operating costs in Table 1.

“Table 3: Costs for New Overhead Personnel” on page 89 shows the fully-loaded annual 2023 salaries of full-time overhead personnel. These personnel cannot be added incrementally as service is increased incrementally. Service increases may trigger the need for one or more additional personnel, at part- or full-time.

“Table 4: Capital Projects and Investments” on page 90 provides rough estimated 2023 costs for the major capital projects recommended by this Plan.

Table 1: Service Increases	Estimated Change in Fixed Route Operating Costs					Likely Additions of Operations Personnel Hours?				
	2021 RH ¹	2028 RH	Approx. Increase in RH	Direct Operating Cost Estimate ²	Fully-Loaded Operating Cost Estimate	Additional vehicles likely required?	Maintenance? (H=Hostler, M=Mechanic, F=Foreman)	Supervisor?	Dispatcher?	Customer Service?
Additions to service frequencies (fixed route) or capacity (DAR) to 2028 recommended levels:										
Upgrade 1X to recommended A ³	8200	8800	600	\$64,000	\$111,000					
Upgrade 2X to recommended B	8600	19600	11000	\$1,175,000	\$2,030,000	X	H, M, F	X		X
Upgrade 3X to recommended C	3000	4400	1400	\$150,000	\$258,000		H			X
Upgrade 4 and M to recommended D	12500	25000	12500	\$1,335,000	\$2,306,000	X	H,M,F	X		X
Launch E ³		2500	2500	\$267,000	\$461,000	X	H			X
Upgrade V to recommended F	1800	9600	7800	\$833,000	\$1,439,000	X	H,M,F	X		X
Change 5, 6 & 7 to recommended G	5500	5100	-400	\$(43,000)	\$(74,000)					
Add DR capacity and span on weekdays			4320	\$542,000	\$1,056,000	X	H,M,F	X	X	X
Add DR capacity and span on Saturdays			3300	\$414,000	\$806,000	X	H,M,F	X	X	X

1 RH stands for Revenue Hour. One Revenue Hour represents one hour of a driver and vehicle on the road providing service (or, in the case of Dial-a-Ride, available to respond to requests for service).

2 For information about sources of operating cost estimates, see the table following.

3 For Routes A and E we assume that weekday service would be split equally between SMART and Cherriots (with RH divided equally), but that Saturday and Sunday service would be provided entirely by SMART.

	2021		2028		Estimated Change in Fixed Route Operating Costs			Likely Additions of Operations Personnel Hours?			
	RH ¹	RH	Approx. Increase in RH	Direct Operating Cost Estimate ²	Fully-Loaded Operating Cost Estimate	Additional vehicles likely required?	Maintenance? (H=Hostler, M=Mechanic, F=Foreman)	Supervisor?	Dispatcher?	Customer Service?	
Lengthening of spans to 2028 recommended levels:											
Weekdays											
Earlier morning spans by one hour, for FR and DR ⁴			1800	\$248,000	\$436,000		H	X	X	X	
Earlier morning spans by two hours, for FR and DR			2800	\$417,000	\$734,000		H,M,F	X	X	X	
Later evening spans by one hour, for FR and DR			1800	\$248,000	\$436,000		H	X	X	X	
Later evening spans by two hours, for FR and DR			3800	\$525,000	\$921,000		H,M,F	X	X	X	
Later evening spans by three hours, for FR and DR			4100	\$611,000	\$1,076,000		H,M,F	X	X	X	
Saturdays											
Upgrade Saturday FR service level to recommended	2300	7600	5300	\$566,000	\$978,000		H,M,F	X		X	
Upgrade Saturday DR service level to recommended			690	\$87,000	\$169,000		H,M,F	X	X	X	

⁴ FR = Fixed Route. DR = Demand Response = SMART Dial-a-Ride

Table 1: Service Increases	Estimated Change in Fixed Route Operating Costs					Likely Additions of Operations Personnel Hours?				
	2021 RH ¹	2028 RH	Approx. Increase in RH	Direct Operating Cost Estimate ²	Fully-Loaded Operating Cost Estimate	Additional vehicles likely required?	Maintenance? (H=Hostler, M=Mechanic, F=Foreman)	Supervisor?	Dispatcher?	Customer Service?
Sundays										
Launch Sunday & Holiday FR service as recommended		3500	3500	\$374,000	\$646,000		H,M,F	X		
Launch Sunday & Holiday DR service as recommended			1100	\$138,000	\$269,000		H,M,F	X	X	
							The additions of operations personnel marked above, plus the additions of drivers, would trigger a need for administrative staff and administrative space.			

Table 2: Assumed Costs per Service Revenue Hour	Direct Operating Cost Per Vehicle Revenue Hour	Fully-Loaded Operating Cost Per Vehicle Revenue Hour
Fixed Route (FR)	\$106.81	\$184.51
Demand Response (DR, DAR)	\$125.51	\$244.32

Estimated operating costs in Table 1 are calculated based on the estimated number of Revenue Hours required to provide the service, and SMART's estimated operating cost per Revenue Hour which is taken from SMART's submission of 2022 service data to the National Transit Database. "Direct costs" are only those that relate to the driving and operation of vehicles. "Fully-loaded" costs include vehicle maintenance, facility maintenance and administration.

Table 3: Costs for New Overhead Personnel	Annual Fully-Loaded Salary for a Full-Time Position
Transit Supervisor	\$152,000
Transit Dispatcher	\$112,000
Transit Customer Service	\$95,000
Maintenance Worker/Hostler	\$84,000
Maintenance Equipment Mechanic	\$99,000
Maintenance Shop Foreperson	\$134,000

While the “fully loaded” operating costs in the previous two tables do include the per-hour average cost of supervision, dispatching, customer service and maintenance, those functions cannot in fact be added incrementally. The per-hour average cost of these overhead functions over a year of operations is not the same as the marginal cost of adding these functions each time an hour of service is added. Personnel costs are somewhat “lumpy” and a small increase in service can trigger the need for a new position. The 2023 annual, fully-loaded salaries for new full time positions that may be triggered by service increases as the 2028 network is implemented are therefore given in this table.

Table 4: Capital Projects and Investments	Approximate 2023 Capital Cost (if known)	Notes
Each additional BEB vehicle (40')	~\$879,000	A 40' heavy-duty Battery Electric Bus (BEB) would be appropriate for SMART's high-ridership routes and any routes that pass by a middle or high school and are subjected to crowding. The State of Oregon provided \$838,000 as an estimated cost for a 40' BEB vehicle in 2020. A more recent estimate is available from the State of Washington negotiated price agreement, which is the price given at left for a 40' BEB vehicle plus 10% for miscellaneous contract and delivery-related costs.
Each addition CNG vehicle (30' - 40')	\$467,000 – \$614,000	CNG vehicles would be appropriate for SMART's high-ridership, long distance routes, as well as for in-town routes, lower ridership routes and Dial-a-Ride. For Dial-a-Ride, CNG vehicles of 26' or less would be needed, but they are not available for reference as part of the Oregon or Washington State negotiated vehicle price agreements. Larger 30' and 40' CNG vehicles are covered by these price agreements. The range of average costs for CNG vehicles under the Washington State price agreement, as of March 2023, is given at left.
Each additional electrical charger	\$80,000	Additional chargers will be needed for each BEB vehicle added to the fleet to deliver the planned 2028 services, plus a spare charger.
Maintenance yard expansion	TBD	Preliminary design and a cost estimate for the yard expansion are underway.
Administrative building	TBD	Growth in service levels, span, and operations and maintenance staff would trigger a need for additional administrative staff. The current administrative facility would need to be expanded to add offices, training rooms, and other shared areas.
Town Center terminal facility (off-street)	\$124,000	The capital costs of starting service to a new Town Center facility would include the purchase price of the break room and rest room (a modular building), a bus shelter and bench, small sidewalk modifications, minor changes to street striping and signage, and electrical/water hook-up of the modular building.
Town Center bus stop improvements	\$120,000	Bus stop, amenity and sidewalk investments to improve bus stops around the new Town Center terminal facility, in particular to make transfers between routes there easier and more accessible.
Stafford Road sidewalks	TBD	Sidewalks will make it possible for SMART to install bus stops on Stafford Road adjacent to new Frog Pond developments. Sidewalks could be constructed by developers or funded for city construction through System Development Charges (SDCs).
Autonomous shuttle and pilot service	TBD	When the pedestrian bridge over I-5, foreseen as part of the Town Center Plan, is funded and constructed, SMART is interested in piloting a small autonomous shuttle over the bridge. This shuttle could be used to connect the existing west side Transit Center and the recommended east side facility, especially for those passengers who have difficulty walking.

Appendix

Resources for Vehicle and Fuel Comparison

[New York City Transit Hybrid and CNG Transit Buses: Interim Evaluation Results.](#) National Renewable Energy Laboratory (NREL) Technical Report, 2006.

[Comparison of Modern CNG, Diesel and Diesel Hybrid-Electric Transit Buses: Efficiency & Environmental Performance.](#) MJB & A. November, 2005.

[Electric vs. Diesel vs. Natural Gas: Which Bus is Best for the Climate?](#) Jimmy O'Dea. July 19, 2015.

[U.S. DOE. New York City Transit Diesel Hybrid-Electric Buses: Final Results.](#) DOE/NREL Transit Bus Evaluation Project. July 2002.

[EESI Hybrid Buses Costs and Benefits.](#) March 2007.

[The Transit Bus Niche Market for Alternative Fuels. Module 6: Overview of Biodiesel as a Transit Bus Fuel.](#) Clean Cities Coordinator Toolkit. December 2003.

[Proterra vendor infographics comparing CNG, Diesel, Hybrid, and Proterra mile per gallon and cost per mile.](#)

[Zero-Emission Bus Evaluation Results: King County Metro Battery Electric Buses.](#) FTA Report 0118, February 2018.

[Fuel savings of STM's hybrid buses less](#)

[than half what was promised, documents show.](#) Madger, J. Montreal Gazette, June 2019.

[Reduced Engine Idle Load \(REIL\) System for Conventional Propulsion Diesel & CNG Buses: Development, Validation & Market Study Program.](#) FTA Research.

[Washington State Transit Buses Contract,](#) Washington State Department of Enterprise Services. 2020-2023

[Oregon Transit Fleet Electrification Guide and Lifecycle Cost Analysis Tool,](#) Oregon Department of Transportation. 2020.

2022 Existing Conditions Report

Prior to the drafting of this Plan, an Existing Conditions Report documented the transit system and its performance as of 2022. It is available in the Documents area of the [project website](#).

Public Involvement Summary

Public input guided the major features of this Plan, as summarized above. In the Documents area of the [project website](#) a Public Engagement Summary Report describes public input received in greater detail.



PLANNING COMMISSION

WEDNESDAY, APRIL 12, 2023

WORK SESSION

3. Frog Pond East and South Implementation-Development Code (Pauly)
(60 minutes)



PLANNING COMMISSION MEETING STAFF REPORT

Meeting Date: April 12, 2023		Subject: Frog Pond East and South Master Plan Development Code	
		Staff Member: Daniel Pauly, Planning Manager	
		Department: Community Development	
Action Required		Advisory Board/Commission Recommendation	
<input type="checkbox"/> Motion <input type="checkbox"/> Public Hearing Date: <input type="checkbox"/> Ordinance 1 st Reading Date: <input type="checkbox"/> Ordinance 2 nd Reading Date: <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Information or Direction <input type="checkbox"/> Information Only <input type="checkbox"/> Council Direction <input type="checkbox"/> Consent Agenda		<input type="checkbox"/> Approval <input type="checkbox"/> Denial <input type="checkbox"/> None Forwarded <input checked="" type="checkbox"/> Not Applicable	
		Comments:	
Staff Recommendation: Provide requested input on draft Development Code amendments for Frog Pond East and South Implementation.			
Recommended Language for Motion: N/A			
Project / Issue Relates To:			
<input checked="" type="checkbox"/> Council Goals/Priorities: Expand home ownership	<input checked="" type="checkbox"/> Adopted Master Plan(s): Frog Pond East and South Master Plan	<input type="checkbox"/> Not Applicable	

ISSUE BEFORE COMMISSION

An important next step in realizing the vision of the Frog Pond East and South Master Plan is to write implementing Development Code amendments. This work session is the fourth in a series of work sessions for the Commission to work through the details of these Development Code amendments. This work session will both introduce a couple new Code amendments, as well as

revisit a couple Code amendments the Commission has previously provided comment and direction on.

EXECUTIVE SUMMARY:

In late 2022, the City Council, on recommendation from the Planning Commission, adopted the Frog Pond East and South Master Plan. The Master Plan identifies the types and locations of the homes, commercial development, parks, open spaces, streets, trails, and infrastructure to be built over the next 10-20 years in an area on the east side of Wilsonville added to the Metro Urban Growth Boundary in 2018. The Master Plan focuses on providing for the community's future housing needs, including providing diverse housing opportunities.

The Master Plan provides clear policy direction and guidance for future development in Frog Pond East and South. However, an important implementation step is to develop a detailed set of Development Code standards consistent with the Master Plan. These standards will be relied on by developers to plan and design development. These standards will also be relied on by City reviewers to ensure development meets City expectations.

This work session is the fourth in the series of work sessions for the Planning Commission to review and guide the drafting of these Development Code amendments. This work session will bring a couple previously reviewed Code amendments back for the Commission's further review. These include open space requirements and standards for waivers to residential design standards. The work session will also introduce a couple new Code amendments. The new amendments address a couple site-specific directives from the Master Plan, including for the Frog Pond Grange site and a forested area on the south side of SW Kahle Rd. Draft language and explanations of all four amendments being discussed in the work session can be found in Attachment 1.

Attachment 2 includes, for ease of reference, excerpts from the Frog Pond East and South Master Plan that give specific direction for implementing Development Code.

For the Planning Commission's reference, Attachment 3 and 4 are copies of the current Wilsonville Code Section 4.127 and excerpts from Section 4.113.

The project team invites the Planning Commission to review the draft code amendments and supporting information, ask any clarifying questions, and provide feedback. At the work session the project team requests the Planning Commission provide one of the following for each presented draft code amendment.

1. Confirmation that the draft code amendment is ready for finalization before being brought forward for a public hearing; or
2. Direction on next steps to further develop or refine the presented draft code amendment.

EXPECTED RESULTS:

Feedback from the meeting will guide completion of a package of Development Code amendments for adoption in the coming months.

TIMELINE:

Following additional work sessions, a public hearing on the Code amendments are expected this summer. City Council action on the Planning Commission's recommendation is planned for summer or early fall.

CURRENT YEAR BUDGET IMPACTS:

The Development Code implementation work is funded by remaining funds from the \$350,000 Metro grant for the Frog Pond East and South Master Plan and matching City funds in the form of staff time. \$311,000 total is budgeted in FY 22/23 including the adoption of the Master Plan and follow up implementation, including this Development Code work and the infrastructure funding implementation work.

COMMUNITY INVOLVEMENT PROCESS:

During this implementation phase the primary focus is on honoring past input. However, the project team will engage key stakeholders for input on draft Development Code amendments.

POTENTIAL IMPACTS OR BENEFIT TO THE COMMUNITY:

Realization of the policy objectives set out in the Frog Pond East and South Master Plan to create Wilsonville's next great neighborhoods. This includes furthering of the City's Equitable Housing Strategic Plan and Council's goal of affordable home ownership.

ALTERNATIVES:

The project team prepared draft amendments to help implement the Frog Pond East and South Master Plan. A number of alternative amendments can be considered to meet the same intent.

ATTACHMENTS:

1. Draft Development Code Amendments with Supporting Information (April 2023)
2. Excerpts from Frog Pond East and South Master Plan related to Development Code Implementation
3. Wilsonville Development Code Section 4.127 Residential Neighborhood Zone
4. Excerpts of Wilsonville Development Code Section 4.113 Residential Development in Any Zone

Frog Pond East and South Implementation

Draft Development Code Amendments for April 2023 Work Session

1. Discretionary alternative path standards

- **Intent:** Provide guidance to both applicants and decision-makers for waivers that are sought through the discretionary review process.
- **Explanation:** Provide factors for DRB to consider during discretionary review. The changes since the March work session is to show the language from other zones and make update to this language to ensure the review process is consistent citywide.
- **Code Reference:** Subsection 4.118 (.03) A List of Development Standards Typically Subject to Waivers. Add new subsection 4.127 (.23).
- **Draft Code Amendment:**

Modified language (changes ~~struckthrough~~ or **bold underlined**)

EDITS THAT HAVE NOT CHANGED SINCE MARCH

4.118 Standards Applying to all Planned Development Zones

(.03) Notwithstanding the provisions of Section 4.140 to the contrary, the Development Review Board, in order to implement the purposes and objectives of Section 4.140, and based on findings of fact supported by the record may:

A. Waive the following typical development standards:

. . . .

13. Architectural design standards, **including residential design standards;**

Note: More extensive proposed amendments to Section 4.420 are shown below for context, with the portion specifically related to alternative review process highlighted.

Section 4.420. Jurisdiction and Powers of the Board **Review Authority for Site Design Review**

(.01) ~~Application of Section. Except for single-family and middle housing dwellings in any residential zoning district, and apartments in the Village zone,~~

A. **Unless exempt as noted in 1.-2. below,** no building permit shall be issued for a new building or major exterior remodeling of an existing building **unless the building architecture and siting is approved by the Development Review Board (Board) through Site Design Review.**

1. **Residential structures in residential zones are exempt from Site Design Review as long as they meet established clear and objective design and siting standards. This exemption does not apply to mixed-use residential structures. However, an applicant may elect to have residential structures approved by the Board through Site Design Review in association with waivers from specific standards.**
 2. **Minor building modifications to non-residential structures are reviewed under the authority of the Planning Director as established in Section 4.030.**
- B. **Unless exempt as noted in 1.-2. below, no building permit within an area covered by a Stage II Planned Development, or PDP in the Village Zone, shall be granted unless landscaping plans are reviewed and approved by the Board through Site Design review, or FDP in the Village Zone.**
1. **Landscaping on residential lots in residential zones is exempt from Site Design Review unless it is part of the open space required under Subsection 4.113 (.01).**
 2. **Minor modifications to landscape plans subject to Site Design Review can be reviewed by the Planning Director as established in Section 4.030.**
- C. No Sign Permit, except as permitted in Sections 4.156.02 and 4.156.05, shall be issued for the erection or construction of a sign relating to such new building or major remodeling, until the plans, drawings, sketches and other documents required for a Sign Permit application have been reviewed and approved by the Board.

The following is proposed new language:

Section 4.127 Residential Neighborhood Zone

- (.23) *Consideration of Waivers in the Frog Pond East and South Neighborhoods.*
- A. Applicants for development in the Frog Pond East and South neighborhoods may request waivers to applicable development and design standards in Section 4.127, provided the criteria in subsection B. are met.

- B. In addition to the waiver criteria in Sections 4.118 and 4.140 and applicable Site Design Review standards, when reviewing a waiver for development within the Frog Pond East and South Neighborhoods the Development Review Board's decision shall be based on the following criteria, which reflects guidance in the Frog Pond East and South Master Plan.
1. The development enabled by the waiver is complementary and compatible with development that would typically be built within the subject Urban Form Type as described in Chapter 6 of the Frog Pond East and South Master Plan.
 2. The waiver supports a wide variety of housing or at least does not reduce the level of housing variety within a Stage I Master Plan Area.

NEW EDITS SINCE MARCH

Note: Update existing alternative discretionary review language in 4.113 (.14) to clarify it is a waiver as part of Site Design Review consistent with other language in Section 4.420 and 4.127.

Section 4.113 (.14) J. Alternative Discretionary Review for Residential Design Standards

- J. Alternative Discretionary Review: As an alternative to meeting one or more design standards of this subsection an applicant may request **a waiver as part of** Site Design Review by the Development Review Board of a proposed design. In addition to the **waiver criteria in Sections 4.118 and 4.140 and applicable** Site Design Review Standards, affirmative findings shall be made that the following standards are met:
1. The request is compatible with existing surrounding development in terms of placement of buildings, scale of buildings, and architectural design;
 2. The request is due to special conditions or circumstances that make it difficult to comply with the applicable Design Standards, or the request would achieve a design that is superior to the design that could be achieved by complying with the applicable Design Standards; and
 3. The request continues to comply with and be consistent with State statute and rules related to Middle Housing, including being consistent with State definitions of different Middle Housing types.
 - 4. The request remains substantially consistent with any legislative master plan the property is included in.**

Note: Similar to Subsection 4.113 (.14) J., update language regarding design standards in the Old Town Residential Zone in 4.123 (.06) C. to be consistent with waiver and site design review language elsewhere in the Development Code.

(.06) Design and Siting Standards:

- C. Rather than meet the standards prescribed above, applicants may request a waiver and elect to go through a Site Design review process before the Development Review Board for any housing type. In addition to waiver criteria in Sections 4.118 and 4.140, additional residential design standard waiver criteria in Subsection 4.113 (.14) J., waiver requests must ~~which include requirements to meet standards in Subsection 4.138(.05).~~

2. Standards for Green Focal Points in Each Subdistrict

- **Intent:** To establish clear and objective standards for green focal points such as small playgrounds, gardens, or plazas, which will be an important urban design focus of each subdistrict, as identified in the Master Plan. See page 79 of the Master Plan.
- **Explanation:** The draft Code amendment generally applies the same open space standards as apply to other residential developments in the City's PDR zones. Specific language is added to require green focal points in each subdistrict, with reference to specific guidance as shown in the Master Plan. The green focal point size is based on existing open space requirements in Section 4.113 *Standards Applying to Residential Development in Any Zone*. See further explanation below.

With the provision of green focal points in each subdistrict, standards need to also be put in place for surrounding development in subdistricts to treat them as a focal point. Standards include how direct the path is to the focal point and the orientation of surrounding buildings.

In addition, a purpose statement is added to the open space section of the Residential Neighborhood Zone reflecting the intent of green focal points in the Master Plan for Frog Pond East and South.

Since January with the Planning Commission last discussed Green Focal Points, City staff simplified and removed the previous table. The previous table tried to apply the open space standards in 4.113 to the Master Plan area as a whole. The revised language essentially allows the existing standards for open space to be applied to the Stage I Area just like any other residential development, with specific provision that each subdistrict does have the green focal point with some specific guidance.

- **Code Reference:** Standards added as Subsection C. to 4.127 (.09) *Open Space*. Purpose statement added to Subsection A. of this *Open Space* subsection.
- **Draft Code Amendment:**

4.127 (.09) *Open Space*. [...]

C. Within the Frog Pond East and South Master Plans open space shall be provided consistent with the requirements in Subsection 4.113 (.01) C. - F., and designed and located according to the following criteria:

1. Green Focal Points. For the East and South Neighborhoods, Green Focal Points are intended to serve as central neighborhood destinations or gathering places that contribute to neighborhood character and identity. Green Focal Points can take a variety of forms, including community garden plots, small playgrounds or splash pads, nature play areas, pocket parks or plazas, and central green courtyards within housing developments. As part of meeting the open space requirements in Subsection 4.113 (.01) C. – F. for Stage I Master Plan Area, each subdistrict shall have at least one Green Focal Point meeting the 2,000 square foot size requirement in Subsection 4.113 (.01) D. 1. Even if the required usable open space requirement is otherwise met, each subdistrict shall still have the minimum 2,000 square foot green focal point. In addition to the standards in Subsection 4.113 (.01) C.-F., the following requirements apply:

a. Location requirements by subdistrict, if subdistrict not listed, a Green Focal Point is still required, but there is no special locational requirements:

- Subdistrict E1: Green focal point to be located north of grange building or in tree grove near the existing home at 27480 SW Stafford Road.
- Subdistrict E3: A green focal point to be located at trailhead adjacent to SROZ leading to the south.
- Subdistrict E4: A plaza space is to be integrated with the Brisband Street Main Street mixed-use development.
- Subdistrict S2: A green focal point to be located and aligned with terminus of future extension of SW Hazel Street.
- Subdistrict S3: A green focal point to be located near northern end of Kruse Creek.

- b. Direct access to one or more green focal points shall be provided from each residential lot in the neighborhood. Direct access, for the purpose of this requirement, means: a pedestrian would need to travel on no more than two different streets to reach a green focal point from the lot frontage of the home to an open space frontage..

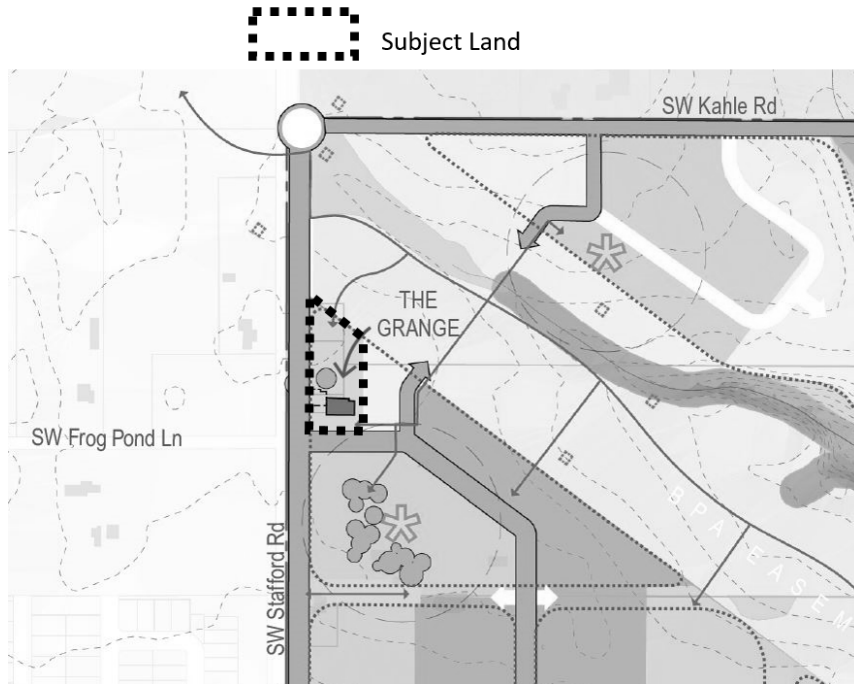
3. Treatment of Unknown Future Land Uses

- **Intent:** To provide clarity for two specific uncertainties called out in the Master Plan. First, the future use of the land occupied by the Frog Pond Grange. Second, the question of whether a tract of land south of SW Kahle Road will qualify as SROZ upon more detailed examination. In the Master Plan see item 5 on page 107, item 10 on page 108 of Master Plan, and discussion of Grange under parks and open space on page 75.
- **Explanation:** Add specific language reflecting Master Plan implementation language, items 5 and 10 on pages 107-108.
- **Code Reference:** New Subsection 4.127 (.25) *Residential Neighborhood Zone- Special, Specific Land Use Considerations*
- **Draft Code Amendment:**

(.25) Special, Specific Land Use Considerations

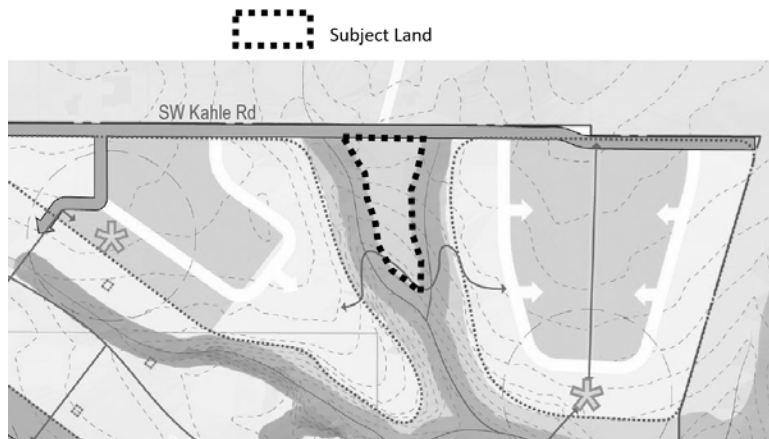
- A. *Frog Pond Grange Property.* The community supported preservation, reuse, and adjacent uses supportive of the current Frog Pond Grange building. The land outlined in Figure X below highlights this property and identifies the long-term use maintaining the existing civic/meeting/event space use or substantially similar use with surrounding open space as shown in the Frog Pond East and South Master Plan. Any substantial change of use shall require an amendment to the Frog Pond East and South Master Plan. Preservation of the existing building, substantially similar in design to that existing as of the 2022 adoption of the Frog Pond East and South Master Plan, is required on the site unless approved by the Development Review Board with findings providing substantial evidence that preservation is not feasible due to structural issues with the building that are not feasible, either economically or technically, to repair.

Figure X



- B. *Treed area on south side of SW Kahle Road. An applicant may request the area shown in Figure X. below not be included in the SROZ based on findings made, a part of a SROZ Map Verification, that the area does not meet the standard to be included in the SROZ. If it is found the area is not to be in the SROZ the Type 3 Urban Design standards shall apply.*

Figure X



FROG POND EAST & SOUTH MASTER PLAN



**A VISION AND IMPLEMENTATION PLAN FOR TWO NEW
NEIGHBORHOODS IN EAST WILSONVILLE**



**ADOPTED BY WILSONVILLE CITY COUNCIL
ORDINANCE NO. 870**

DECEMBER 19 2020

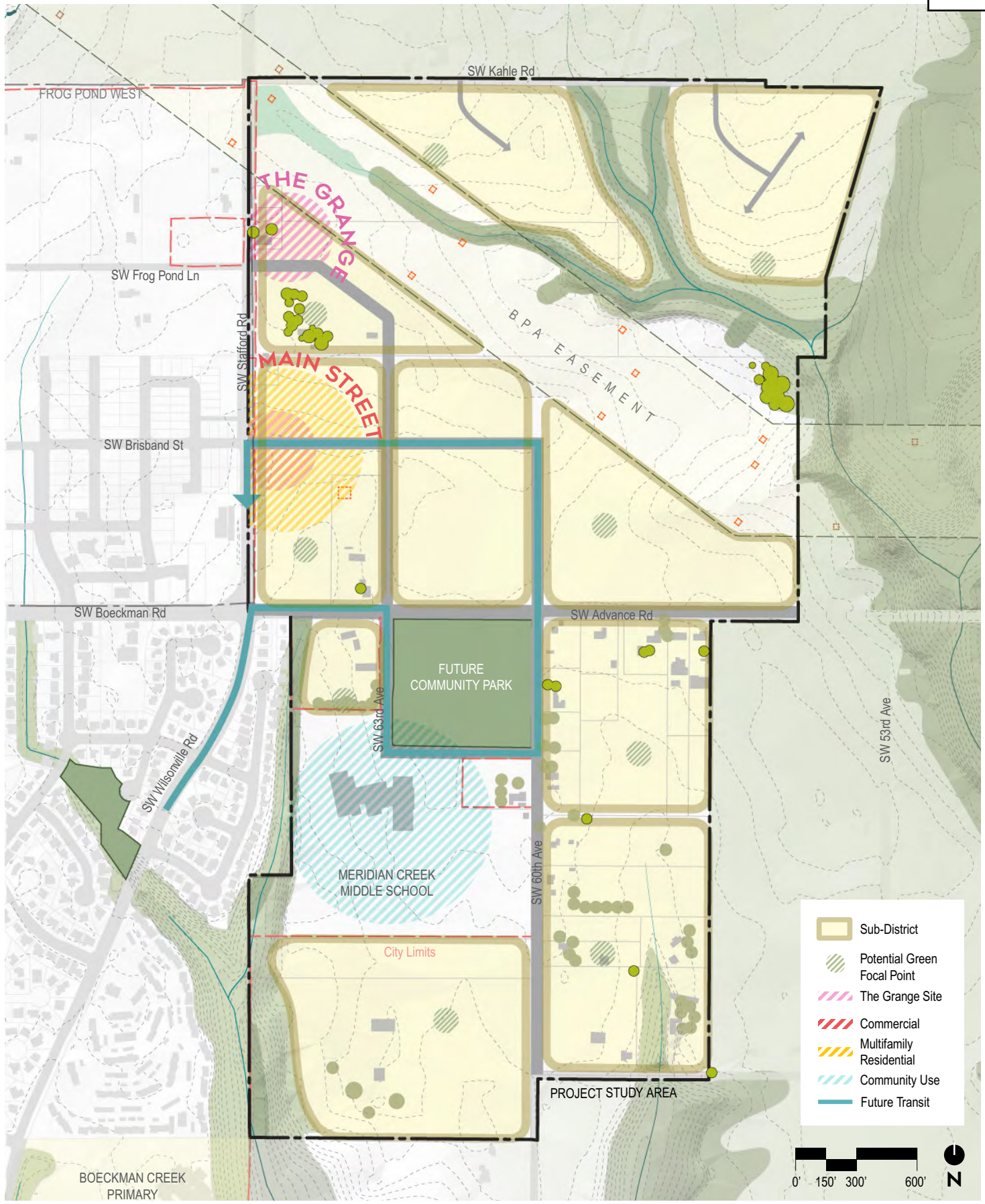


COMMUNITY DESIGN CONCEPTS

SUBDISTRICTS

Figure 14 shows the concept of “subdistricts” within Frog Pond East and South. The subdistricts are intended as “neighborhoods within neighborhoods” – areas with cohesive building form, public realm features, and other characteristics that give them identity. There are ten subdistricts planned for Frog Pond East and South. Each will have a “green focal point” that is central in the subdistrict and/or aligned with a key feature such as a tree grove. The focal points, together with the neighborhood destinations, will provide many community gathering places in Frog Pond East and South.







COMMUNITY DESIGN CONCEPTS

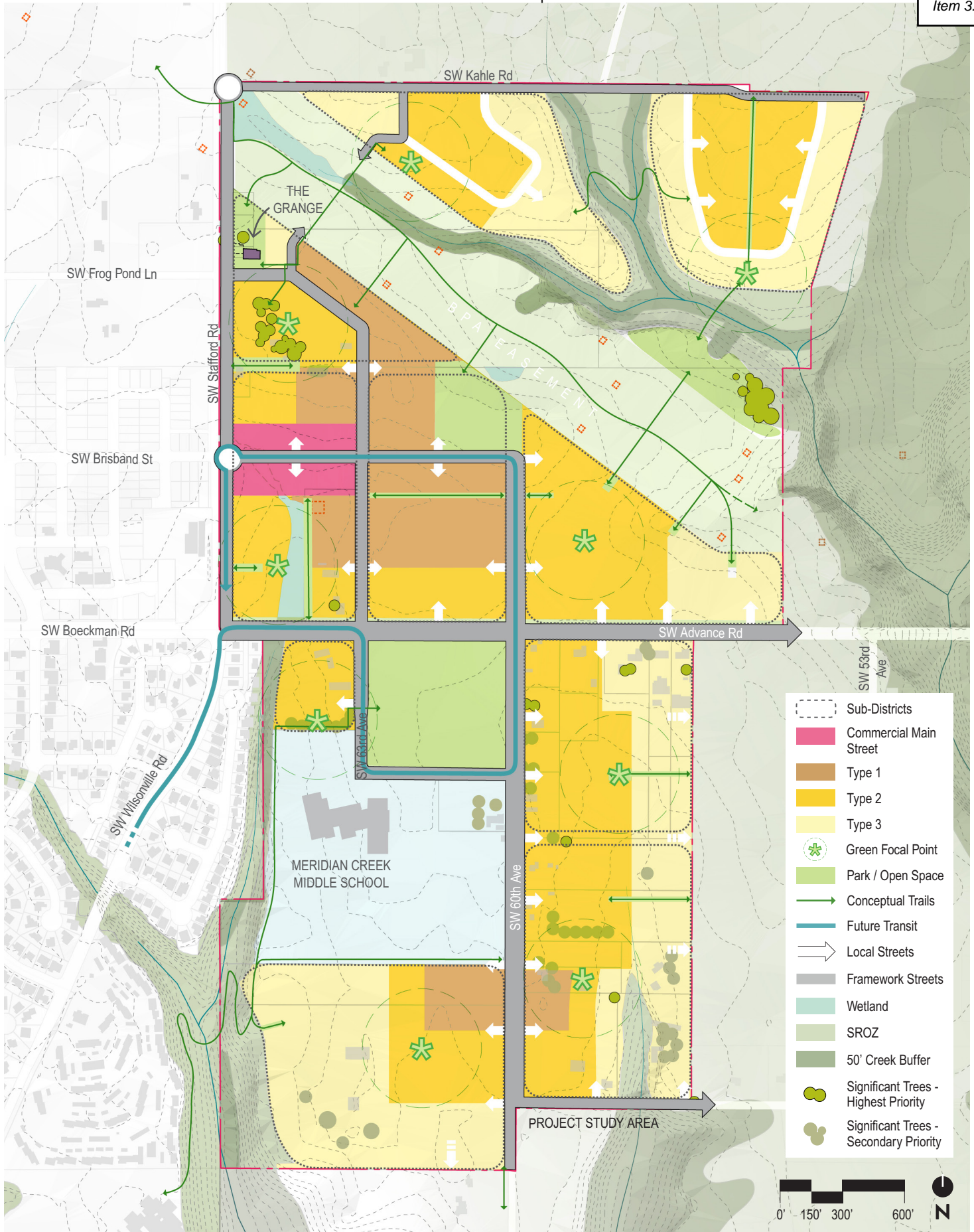
IMPLEMENTING THE DESIGN CONCEPTS

The design concepts discussed above are the foundation of the Master Plan's intent to create a strong sense of place and identity in Frog Pond East and South. The Master Plan's Land Use and Urban Form Plan is shown on Figure 15. The following section summarizes how the Master Plan's key features and intended outcomes implement the design concepts. Additional descriptions are provided in the Land Use and Public Realm chapters of this report.

NEIGHBORHOOD DESTINATIONS WITHIN FROG POND EAST AND SOUTH

- Park/gathering space at the Frog Pond Grange
- A Future Frog Pond East Neighborhood Park
- The SW Brisband Main Street as a neighborhood-scale commercial and mixed-use center
- The Frog Pond South Community Park
- Meridian Creek Middle School
- "Green focal points" within each subdistrict
- Meridian Creek and Newland Creek natural areas
- Significant tree groves







COMMUNITY DESIGN CONCEPTS

FORM BASED DESIGN AND TRANSECT

- More compact housing is in “Type 1” urban form areas (see Chapter 6 for more description of the urban form types)
- Adjacent areas are less compact and result in a transect or transition to even less compact housing form
- The East Neighborhood has its Type 1 housing in the central area adjacent to the Brisband Main Street, future Frog Pond East Neighborhood Park and BPA Easement
- The South Neighborhood has a small node of Type 1 housing located south of the Meridian Middle School property.
- In both neighborhoods, Type 2 and 3 housing form “feathers out” from the Type 1 areas.

A WIDE VARIETY OF HOUSING CHOICES

- Opportunities for a wide spectrum of housing choices: townhomes, quadplexes, tri-plexes, duplexes, cottage clusters, cottage developments, small-lot detached homes, medium and larger lot detached homes, accessory dwelling units, apartments/condos, tiny homes and co-housing
- Requirements for a mix of housing choices in each subdistrict
- Housing capacity for an estimated minimum of 1587 dwellings (See Chapter 6 for housing and land use metrics)





LAND USE

RESIDENTIAL LAND USE AND URBAN FORM

KEY OUTCOMES

The Land Use and Urban Form Plan includes residential areas intended to create three key outcomes:

- **A variety of housing choices** throughout the East and South Neighborhoods
- **Opportunities for affordable housing choices** integrated into the neighborhoods
- A planned **“transect”** of housing form in order to create a cohesive neighborhood that maximizes the amenities available to residents while creating an urban form sensitive to the local context.

VARIETY THROUGHOUT

The Master Plan creates opportunities for a wide variety of housing choices in each neighborhood and subdistrict. This concept focuses on mixing and integrating different housing choices throughout each subdistrict and block rather than having separate areas for separate types of housing units.

The plan defines and maps three types of urban form for housing – Types 1, 2, and 3 – that define the look and feel of the different subdistricts within the neighborhoods. The focus of this typology is urban form: the bulk, height and spacing of buildings. Each urban form type allows for a full array of housing choices.

For example, a detached home may exist in any of the urban form types, but for Type 1 it would have a smaller footprint and, be closer to adjoining homes, and for Type 3 it would have a larger footprint and be farther apart from adjoining homes. Building height will also tend to be taller where Type 1 is designated with height trending down in areas with Type 2 and Type 3 building form. A multi-family building also may exist in any of the urban forms, but for Type 1 the building would be taller and wider with more units per building and closer to adjoining buildings. For Type 3, a multi-family building would be shorter and smaller (similar to the size of a larger single-family home) with fewer units per building, and buildings would be further apart, likely interspersed with single-family homes.



LAND USE

TYPE 1 RESIDENTIAL URBAN FORM

Type 1 residential urban form is the most compact and urban of the three forms:

- Buildings 2-4 stories tall close to the street
- Buildings are closely spaced from each other
- Townhouse, condo/apartment buildings, and similar are not limited in width allowing larger buildings that may even occupy an entire block face
- Lot area per building for detached homes will be small with less yard space than in Type 2 and Type 3
- Townhouses, closely spaced detached homes, and multi-family buildings are expected to be common housing choices provided; cottages or similar small-unit housing is also likely to be built





LAND USE

TYPE 2 RESIDENTIAL URBAN FORM

Type 2 residential urban form is less compact than Type 1 but more compact than Type 3:

- Buildings are intended to be 2 stories, with 3 stories allowed under applicable State law for certain housing categories
- Moderate setbacks from the street
- Building separation is generally 10 feet,
- Building width is moderately limited, to maintain a building bulk consistent among multi-family, middle housing, and single-family detached housing choices
- Detached home lot size is approximately double that of Type 1 allowing for larger home footprints and larger yards than Type 1
- Small to medium sized single-family detached homes and townhouses are expected to be common housing choices, with duplexes, triplexes, quadplexes, cottage clusters, and smaller multi-family buildings also likely to be built.





LAND USE

TYPE 3 RESIDENTIAL URBAN FORM

Type 3 is the least compact residential urban form, characteristics include:

- Buildings primarily 1-2 stories in height, with 3 stories allowed for certain housing categories consistent with applicable State law
- Buildings are set back from the street
- Width of buildings is limited to create smaller buildings, which limits the number of units in multifamily or middle housing structures
- Building separation generally more than 10 feet
- Lot size for detached single-family homes generally 1.5 times that of Type 2 and 3 times that of Type 1, allowing for larger homes and yards
- Medium to large single-family detached homes along with smaller townhouse and duplex buildings are expected to be common housing choices, cottage clusters would be well-suited to this Type, and triplexes, quadplexes, and small multi-family buildings may also be built





PUBLIC REALM

GREEN FOCAL POINTS

In addition to the planned Community Park in Frog Pond South and the Neighborhood Park in Frog Pond East, several “green focal points” are identified in central locations within each walkable subdistrict of the planning area. These are flexible in location and size but are intended to serve as central neighborhood destinations or gathering places that contribute to neighborhood character and identity. In addition to being centrally located, these focal points will be integrated into the neighborhood with front doors facing them, where possible, and provide clear and inviting access for public use.

Many different kinds of uses and activities are envisioned for the green focal points. Examples include community garden plots, small playgrounds or splash pads, nature play areas, pocket parks or plazas, and central green courtyards within housing developments. These smaller open spaces also provide opportunities to preserve mature and significant trees and provide visible stormwater treatment.





IMPLEMENTATION

IMPLEMENTATION MEASURE 4.1.7.D

Implementation of the Frog Pond East & South Master Plan will include the following:

1. Designation and mapping of subdistricts. Subdistricts are smaller geographic areas within each neighborhood where specific regulations may be applied to implement the Master Plan.
2. Clear and objective Development Code standards that:
 - a. Set minimum number of units at the subdistrict or tax lot level.
 - b. Establish height, setback and other development standards for the Type 1, Type 2, and Type 3 Urban Forms described and mapped in the Frog Pond East & South Master Plan.
 - c. Require a variety of housing and include minimum and maximum amounts of specific housing types at the subdistrict or tax lot level.
 - d. Require middle housing.
3. Zoning provisions that provide an alternative path of discretionary review to provide flexibility for development while still achieving the intent of the Master Plan and Development Code.
 - a. The alternative path will include criteria to guide flexibility from the clear and objective height, setback, and other similar development standards for buildings in specific urban design contexts.
4. Define categories of housing for use in implementing housing variety standards.
5. Coordination with the owners of the Frog Pond Grange to coordinate and support continued use and development of the Grange as a community destination. Any future public ownership or use of the Grange building is dependent on future funding not yet identified.
6. Coordination with the Bonneville Power Administration (BPA) on land use and development within their easement in the East Neighborhood.
7. A future study of design options for the creek crossings shown on the Park and Open Space plan in this Master Plan. This work will address potential structured crossings.
8. The City may initiate a Main Street study to evaluate specific designs and implementation for the SW Brisband Main Street.
9. Special provisions will be in place for design of both the public realm and private development along the east side of SW Stafford Road and SW Advance Road and surrounding the East Neighborhood Park.



IMPLEMENTATION

- a.** On the east side of SW Stafford Road provisions will combine blending the brick wall design used in Frog Pond West and the desire to have structures have a presence fronting SW Stafford Road with access to the protected sidewalk and bicycle path. These provisions will include:
 - i.** Requiring structures, besides those fronting the SW Brisband Main Street, to have pedestrian access and entrances facing SW Stafford Road;
 - ii.** Requiring courtyard-style brick fences matching the materials used along the edges of Frog Pond West, except being approximately half the height, with buildings setback to create usable courtyard areas;
 - iii.** Requiring three-story structures, or two-story equivalent to three story-height, along Stafford Road between SW Advance Road and the SW Brisband Main Street and for one block north of the SW Brisband Main Street. This will ensure structures have a visual presence on SW Stafford Road while not dominating the streetscape and provide a gradual design transition from the four-story structures on SW Brisband.
 - b.** SW Advance Road provisions will be added to require residential structure orientation, including main entrance, to SW Advance Road. This provision intends to ensure SW Advance is integrated into the design of the development like other collectors in the area such as SW Willow Creek Drive in Frog Pond West. The provisions also ensure homes on the north side of SW Advance across from the community park face the community park.
 - c.** Provisions will require development around the East Neighborhood Park to orient as to have an active side of the development facing the park.
- 10.** The Master Plan shows the entire area between streams just below where SW Kahle Road forks as SROZ based on existing tree canopy. According to the property owner a portion of this area may have been planted as agricultural trees and may not meet criteria to be SROZ. The City will coordinate with the property owner to further evaluate if a portion of this area is developable or if it should remain in the SROZ. If it is found to be developable, code provisions will allow it to be developed consistent with Type 3 Urban Design standards.
- 11.** Standards that ensure private yard spaces, particularly for closely spaced detached homes, are of a size and design that are usable, accessible, and practical to maintain.



IMPLEMENTATION

ZONING IMPLEMENTATION

ZONING MAP AMENDMENTS AND IMPLEMENTATION

Table 7 lists the zone districts that will implement each of the Comprehensive Plan designations identified within the planning area.

Table 7. Implementing Zoning Designations

COMPREHENSIVE PLAN DESIGNATION	IMPLEMENTING ZONE
Residential Neighborhood	Residential Neighborhood (RN)
Commercial	Planned Development Commercial (PDC)
Public	Public Facilities (PF)
All, where applicable	Significant Resource Overlay Zone (SROZ)

Zoning will be applied concurrent with the annexation and development review process for individual properties.

CODING FOR VARIETY AND PRIORITY HOUSING TYPES

Providing a variety of housing types, and particular housing types, throughout the East and South neighborhoods are important intended outcomes for the Master Plan. There are many examples of how variety and specific housing is designed and delivered in master planned communities such as Northwest Crossing in Bend and like Villebois here in Wilsonville. In those communities, a master developer defines and maps the planned housing types at a very site-specific level such as individual lots or blocks. Master planned communities can also implement specific and strategic phasing of infrastructure and housing types.

The Frog Pond East & South Master Plan aspires to have the detailed variety of a master planned community like Villebois even though it does not have the oversight of a single master developer. There is an opportunity to require and encourage housing that is a priority for the City. Examples include: home ownership opportunities for households of modest income (80-120% of AMI), middle housing units, dwellings that provide for ground floor living (full kitchen, bath and master bedroom on the main floor), and dwellings that provide for ADA³ accessibility.

The standards for Frog Pond’s housing variety will also recognize and accommodate several development realities:

3 Americans with Disabilities Act (1990).



IMPLEMENTATION

- The neighborhoods will develop incrementally. There may be several larger projects where a developer prepares a coordinated plan for relatively large areas (e.g. 20+ acres). However, there will also be many smaller developments that will occur by different developers, on varied parcel sizes, and at different points of time. The code’s variety standards must work for the likely range of differently scaled projects.
- Flexibility will be needed for evolving market and housing needs over time, including to reflect the City’s future Housing Needs Analyses and Housing Production Strategies..
- All standards that address housing must be clear and objective. A discretionary review path can be provided as an alternative to provide additional flexibility.

Below is a list of potential strategies for requiring variety throughout Frog Pond East and South. These show the intent of the implementing standards and are subject to refinement or change as the development code is prepared.

Strategy 1: Permit a wide variety of housing types.

Amend the RN Zone to allow the following types in Frog Pond East and South:

- Single-Family Dwelling Units⁴
- Townhouses
- Duplex, Triplex, and Quadplex
- Cluster Housing
- Multiple-Family Dwelling Units
- Cohousing
- Manufactured Dwellings⁵
- Accessory Dwelling Units

Strategy 2: Define “categories” of housing units to be used for implementing variety standards.

Each category would provide a range of housing units to choose from when meeting the variety standards. The categories will be based on the policy objectives of the Council for equitable housing opportunities. They will also include specific housing types desired by the City (e.g. accessory dwelling units). The categories will be defined as part of the development code.

4 Tiny homes are included in this use type
5 Manufactured dwellings are subject to the definitions and requirements of ORS 443.



IMPLEMENTATION

Strategy 3: Establish minimum dwelling unit requirements

Establish the minimum number of dwelling units required in each subdistrict (or on each pre-existing tax lot). The minimum number of required dwellings will help ensure the provision of attached housing forms.

Minimum number of dwelling unit requirements helps ensure variety by preventing a lower production of units than anticipated by the Master Plan. The unit count anticipated in the Master Plan assumes a variety of housing and meeting the minimum is not anticipated to be met without provision of a variety of housing.

Note: The housing capacity estimates prepared for the Master Plan could be used as the basis for the minimums.

Strategy 4: Create development standards for lots and structures that regulate built form according to the mapped Type 1, Type 2, and Type 3 urban form typologies.

This strategy uses form-based standards to create the transect of most compact urban form in Type 1 areas to least compact urban form in Type 3 areas. For each of the Urban form types, define standards for:

- Minimum lot size
- Minimum lot width/street frontage
- Maximum height setbacks for front, side, and rear yards, and garages
- Minimum building spacing
- Maximum lot coverage
- Maximum building width

Strategy 5: Establish minimum housing variety standards by subdistrict and development area.

For each subdistrict (or existing tax lots within subdistricts), define:

- The minimum number of categories required. This standard ensures variety at the subdistrict or tax lot level.
- The maximum percent of net development area for a category. This standard ensures no single category dominates a subdistrict.
- The minimum percent of net development area for categories that represent more affordable and/or accessible housing choices not traditionally provided by the private market and meeting City housing objectives..

Strategy 6: Encourage variety at the block level



IMPLEMENTATION

Housing variety on the block level prevents segregation of housing types that often subsequently segregates populations by economic status. Code provisions, likely incentives but potentially requirements, related to the percent of net area of blocks by housing category will help ensure a fine grained variety of housing type and integration of lower cost housing.

CODING FOR MAIN STREET

The Brisband Main Street received very strong support in open houses, focus groups, tabling events and surveys for the Master Plan. Community members were excited that Main Street could become a walkable and attractive destination with restaurants, shops and services.

Wilsonville has existing and future models of the type of pedestrian-oriented commercial center envisioned for the Frog Pond's Main Street. The village center in Villebois is an anchor point for that community with its well-designed public realm, higher density housing, mixed-use, and strong connections to the adjacent neighborhoods. Wilsonville's Town Center Main Street is a central element of the Town Center Plan and will include attractive streetscapes, mixed-use buildings, and three-to-four story building form.

To achieve the vision for the Brisband Main Street, the following design and development strategies for the Brisband Main Street will be implemented:

- Permit neighborhood-scale retail, services, mixed-use, multi-family residential
- Prohibit drive-through uses and facilities
- Adopt development standards such as:
 - › Shallow setbacks to bring buildings close to Main Street's sidewalks
 - › Up to 4-story building height

"The overall vision for the neighborhood commercial center is that it is a place that provides local goods and services within easy access of the local neighborhoods, has a high quality and pedestrian-oriented design, and serves as a gathering place for the community. Due to its small scale and local orientation, it will not compete with other commercial areas in Wilsonville."

— Frog Pond Area Plan





IMPLEMENTATION

- › Tall ground floors to emphasize storefront character
- › Building frontages that occupy a high percentage of the block faces along Main Street
- Adopt design standards such as:
 - › Primary entrances oriented to Brisband or its intersections
 - › Front setback areas designed for pedestrian use
 - › Parking to the sides or rears of buildings
 - › Small plazas designed as an accessible amenity
 - › Weather protection (awnings and/or canopies) along sidewalks
 - › Building articulation, fenestration, and materials that make Main Street an attractive place and contribute to the vitality of the street environment

The City may initiate a design study for Main Street to evaluate detailed public realm improvements and coordinate them with private development.



Section 4.127. Residential Neighborhood (RN) Zone.

(.01) *Purpose.* The Residential Neighborhood (RN) zone applies to lands within Residential Neighborhood Comprehensive Plan Map designation. The RN zone is a Planned Development zone, subject to applicable Planned Development regulations, except as superseded by this section or in legislative master plans. The purposes of the RN Zone are to:

- A. Implement the Residential Neighborhood policies and implementation measures of the Comprehensive Plan.
- B. Implement legislative master plans for areas within the Residential Neighborhood Comprehensive Plan Map designation.
- C. Create attractive and connected neighborhoods in Wilsonville.
- D. Regulate and coordinate development to result in cohesive neighborhoods that include: walkable and active streets; a variety of housing appropriate to each neighborhood; connected paths and open spaces; parks and other non-residential uses that are focal points for the community; and, connections to and integration with the larger Wilsonville community.
- E. Encourage and require quality architectural and community design as defined by the Comprehensive Plan and applicable legislative master plans.
- F. Provide transportation choices, including active transportation options.
- G. Preserve and enhance natural resources so that they are an asset to the neighborhoods, and there is visual and physical access to nature.
- H. Create housing opportunities for a variety of households, including housing types that implement the Wilsonville Equitable Housing Strategic Plan and housing affordability provisions of legislative master plans.

(.02) *Permitted uses:*

- A. Open Space.
- B. Single-Family Dwelling Unit.
- C. Townhouses. During initial development in the Frog Pond West Neighborhood, a maximum of two townhouses may be attached, except on corners, a maximum of three townhouses may be attached.
- D. Duplex.
- E. Triplex and quadplex. During initial development in the Frog Pond West Neighborhood, triplexes are permitted only on corner lots and quadplexes are not permitted.
- F. Cluster housing. During initial development in the Frog Pond West Neighborhood, only two-unit cluster housing is permitted except on corner lots where three-unit cluster housing is permitted.
- G. Multiple-Family Dwelling Units, except when not permitted in a legislative master plan, subject to the density standards of the zone. Multi-family dwelling units are not permitted within the Frog Pond West Master Plan area.
- H. Cohousing.
- I. Cluster Housing (Frog Pond West Master Plan).
- J. Public or private parks, playgrounds, recreational and community buildings and grounds, tennis courts, and similar recreational uses, all of a non-commercial nature, provided that any principal building or public swimming pool shall be located not less than 45 feet from any other lot.

K. Manufactured homes.

(.03) *Permitted accessory uses:*

- A. Accessory uses, buildings and structures customarily incidental to any of the principal permitted uses listed above, and located on the same lot.
- B. Living quarters without kitchen facilities for persons employed on the premises or for guests. Such facilities shall not be rented or otherwise used as a separate dwelling unless approved as an accessory dwelling unit or duplex.
- C. Accessory Dwelling Units, subject to the standards of Section 4.113 (.10).
- D. Home occupations.
- E. A private garage or parking area.
- F. Keeping of not more than two roomers or boarders by a resident household.
- G. Temporary buildings for uses incidental to construction work, which buildings shall be removed upon completion or abandonment of the construction work.
- H. Accessory buildings and uses shall conform to front and side yard setback requirements. If the accessory buildings and uses do not exceed 120 square feet or ten feet in height, and they are detached and located behind the rear-most line of the main buildings, the side and rear yard setbacks may be reduced to three feet.
- I. Livestock and farm animals, subject to the provisions of Section 4.162.

(.04) *Uses permitted subject to Conditional Use Permit requirements:*

- A. Public and semi-public buildings and/or structures essential to the physical and economic welfare of an area, such as fire stations, sub-stations and pump stations.
- B. Commercial Recreation, including public or private clubs, lodges or meeting halls, golf courses, driving ranges, tennis clubs, community centers and similar commercial recreational uses. Commercial Recreation will be permitted upon a finding that it is compatible with the surrounding residential uses and promotes the creation of an attractive, healthful, efficient and stable environment for living, shopping or working. All such uses except golf courses and tennis courts shall conform to the requirements of Section 4.124(.04)(D) (Neighborhood Commercial Centers).
- C. Churches; public, private and parochial schools; public libraries and public museums.
- D. Neighborhood Commercial Centers limited to the provisions of goods and services primarily for the convenience of and supported by local residents. Neighborhood Commercial Centers are only permitted where designated on an approved legislative master plan.

(.05) *Residential Neighborhood Zone Sub-districts:*

- A. RN Zone sub-districts may be established to provide area-specific regulations that implement legislative master plans.
 - 1. For the Frog Pond West Neighborhood, the sub-districts are listed in Table 1 of this Code and mapped on Figure 6 of the Frog Pond West Master Plan. The Frog Pond West Master Plan Sub-District Map serves as the official sub-district map for the Frog Pond West Neighborhood.

(.06) *Minimum and Maximum Residential Lots:*

- A. The minimum and maximum number of residential lots approved shall be consistent with this Code and applicable provisions of an approved legislative master plan.

1. For initial development of the Frog Pond West Neighborhood, Table 1 in this Code and Frog Pond West Master Plan Table 1 establish the minimum and maximum number of residential lots for the sub-districts.
 2. For areas that are a portion of a sub-district, the minimum and maximum number of residential lots are established by determining the proportional gross acreage and applying that proportion to the minimums and maximums listed in Table 1. The maximum density of the area may be increased, up to a maximum of ten percent of what would otherwise be permitted, based on an adjustment to an SROZ boundary that is consistent with 4.139.06.
- B. The City may allow a reduction in the minimum density for a sub-district when it is demonstrated that the reduction is necessary due to topography, protection of trees, wetlands and other natural resources, constraints posed by existing development, infrastructure needs, provision of non-residential uses and similar physical conditions.

Table 1. Minimum and Maximum Residential Lots by Sub-District in the Frog Pond West Neighborhood			
Area Plan Designation	Frog Pond West Sub-district	Minimum Lots in Sub-district ^{a,b}	Maximum Lots in Sub-district ^{a,b}
R-10 Large Lot	3	26	32
	7	24	30
	8	43	53
R-7 Medium Lot	2	20	25
	4	86	107
	5	27	33
	9	10	13
	11	46	58
R-5 Small Lot	1	66	82
	6	74	93
	10	30	38
Civic	12	0	7 ^a
Public Facilities (PF)	13	0	0

- a. Each lot must contain at least one dwelling unit but may contain additional units consistent with the allowance for ADUs and middle housing.
- b. For townhouses, the combined lots of the townhouse project shall be considered a single lot for the purposes of the minimum and maximum of this table. In no case shall the density of a townhouse project exceed 25 dwelling units per net acre.
- c. These metrics apply to infill housing within the Community of Hope Church property, should they choose to develop housing on the site. Housing in the Civic sub-district is subject to the R-7 Medium Lot Single Family regulations.

(.07) Development Standards Generally:

- A. Unless otherwise specified by this the regulations in this Residential Development Zone chapter, all development must comply with Section 4.113, Standards Applying to Residential Development in Any Zone.

(.08) Lot Development Standards:

- A. Lot development shall be consistent with this Code and applicable provisions of an approved legislative master plan.
- B. Lot Standards Generally. For the Frog Pond West Neighborhood, Table 2 establishes the lot development standards unless superseded or supplemented by other provisions of the Development Code.
- C. Lot Standards for Small Lot Sub-districts. The purpose of these standards is to ensure that development in the Small Lot Sub-districts includes varied design that avoids homogenous street frontages, creates active pedestrian street frontages and has open space that is integrated into the development pattern.

Standards. Planned developments in the Small Lot Sub-districts shall include one or more of the following elements on each block:

- 1. Alleys.
- 2. Residential main entries grouped around a common green or entry courtyard (e.g. cluster housing).
- 3. Four or more residential main entries facing a pedestrian connection allowed by an applicable legislative master plan.
- 4. Garages recessed at least four feet from the front façade or six feet from the front of a front porch.

Neighborhood Zone Sub-District	Min. Lot Size (sq. ft.) ^{A,B}	Min. Lot Depth (ft.)	Max. Lot Coverage (%)	Min. Lot Width ^{J, N} (ft.)	Max. Bldg. Height ^H (ft.)	Setbacks ^{K, L, M}				
						Front Min. (ft.)	Rear Min. (ft.)	Side Min. (note)	Garage Min Setback from Alley (ft.)	Garage Min Setback from Street ^{O,P} (ft.)
R-10 Large Lot	8,000	60'	40% ^E	40	35	20 ^F	20	^M	18 ^G	20
R-7 Medium Lot	6,000 ^C	60'	45% ^E	35	35	15 ^F	15	^M	18 ^G	20
R-5 Small Lot	4,000 ^{C,D}	60'	60% ^E	35	35	12 ^F	15	^M	18 ^G	20

Notes:

- A. Minimum lot size may be reduced to 80% of minimum lot size for any of the following three reasons: (1) where necessary to preserve natural resources (e.g. trees, wetlands) and/or provide active open space, (2) lots designated for cluster housing (Frog Pond West Master Plan), (3) to increase the number of lots up to the maximum number allowed so long as for each lot reduced in size a lot meeting the minimum lot size is designated for development of a duplex or triplex.
- B. For townhouses the minimum lot size in all sub-districts is 1,500 square feet.
- C. In R-5 and R-7 sub-districts the minimum lot size for quadplexes and cottage clusters is 7,000 square feet.
- D. In R-5 sub-districts the minimum lot size for triplexes is 5,000 square feet.
- E. On lots where detached accessory buildings are built, maximum lot coverage may be increased by 10%. Cottage clusters are exempt from maximum lot coverage standards.
- F. Front porches may extend 5 feet into the front setback.

- G. The garage setback from alley shall be minimum of 18 feet to a garage door facing the alley in order to provide a parking apron. Otherwise, the rear or side setback shall be between 3 and 5 feet.
 - H. Vertical encroachments are allowed up to ten additional feet, for up to 10% of the building footprint; vertical encroachments shall not be habitable space.
 - I. For townhouses in all sub-districts minimum lot width is 20 feet.
 - J. May be reduced to 24' when the lot fronts a cul-de-sac. No street frontage is required when the lot fronts on an approved, platted private drive or a public pedestrian access in a cluster housing (Frog Pond West Master Plan) development.
 - K. Front Setback is measured as the offset of the front lot line or a vehicular or pedestrian access easement line. On lots with alleys, Rear Setback shall be measured from the rear lot line abutting the alley.
 - L. For cottage clusters all setbacks otherwise greater than 10 feet for other housing types is reduced to 10 feet
 - M. On lots greater than 10,000 SF with frontage 70 ft. or wider, the minimum combined side yard setbacks shall total 20 ft. with a minimum of 10 ft. On other lots, minimum side setback shall be 5 ft. On a corner lot, minimum side setbacks are 10 feet.
 - N. For cluster housing (Frog Pond West Master Plan) with lots arranged on a courtyard, frontage shall be measured at the front door face of the building adjacent to a public right-of-way or a public pedestrian access easement linking the courtyard with the Public Way.
 - O. All lots with front-loaded garages are limited to one shared standard-sized driveway/apron per street regardless of the number of units on the lot.
 - P. The garage shall be setback a minimum of 18 feet from any sidewalk easements that parallels the street.
- D. Lot Standards Specific to the Frog Pond West Neighborhood.
- 1. Lots adjacent to Boeckman Road and Stafford Road shall meet the following standards:
 - a. Rear or side yards adjacent to Boeckman Road and Stafford Road shall provide a wall and landscaping consistent with the standards in Figure 10 of the Frog Pond West Master Plan.
 - 2. Lots adjacent to the collector-designated portions of Willow Creek Drive and Frog Pond Lane shall not have driveways accessing lots from these streets, unless no practical alternative exists for access. Lots in Large Lot Sub-districts are exempt from this standard.

(.09) *Open Space:*

- A. *Purpose.* The purposes of these standards for the Residential Neighborhood Zone are to:
 - 1. Provide light, air, open space, and useable recreation facilities to occupants of each residential development.
 - 2. Retain and incorporate natural resources and trees as part of developments.
 - 3. Provide access and connections to trails and adjacent open space areas.

For Neighborhood Zones which are subject to adopted legislative master plans, the standards work in combination with, and as a supplement to, the park and open space recommendations of those legislative master plans. These standards supersede the Open Space requirements in WC Section 4.113(.01).
- B. *Within the Frog Pond West Neighborhood, the following standards apply:*
 - 1. Properties within the R-10 Large Lot sub-districts and R-7 Medium Lot sub-districts are exempt from the requirements of this section. If the Development Review Board finds, based upon substantial evidence in the record, that there is a need for open space, they may waive this exemption and require open space proportional to the need.
 - 2. For properties within the R-5 Small Lot sub-districts, Open Space Area shall be provided in the following manner:

- a. Ten percent of the net developable area shall be in open space. Net developable area does not include land for non-residential uses, SROZ-regulated lands, streets and private drives, alleys and pedestrian connections. Open space must include at least 50 percent usable open space as defined by this Code and other like space that the Development Review Board finds will meet the purpose of this section.
- b. Natural resource areas such as tree groves and/or wetlands, and unfenced low impact development storm water management facilities, may be counted toward the ten percent requirement at the discretion of the Development Review Board. Fenced storm water detention facilities do not count toward the open space requirement. Pedestrian connections may also be counted toward the ten percent requirement.
- c. The minimum land area for an individual open space is 2,000 square feet, unless the Development Review Board finds, based on substantial evidence in the record, that a smaller minimum area adequately fulfills the purpose of this Open Space standard.
- d. The Development Review Board may reduce or waive the usable open space requirement in accordance with Section 4.118(.03). The Board shall consider substantial evidence regarding the following factors: the walking distance to usable open space adjacent to the subject property or within 500 feet of it; the amount and type of open space available adjacent or within 500 feet of the subject property, including facilities which support creative play.
- e. The Development Review Board may specify the method of assuring the long-term protection and maintenance of open space and/or recreational areas. Where such protection or maintenance are the responsibility of a private party or homeowners' association, the City Attorney shall review any pertinent bylaws, covenants or agreements prior to recordation.

(.10) *Block, access and connectivity standards:*

- A. *Purpose.* These standards are intended to regulate and guide development to create: a cohesive and connected pattern of streets, pedestrian connections and bicycle routes; safe, direct and convenient routes to schools and other community destinations; and, neighborhoods that support active transportation and Safe Routes to Schools.
- B. *Blocks, access and connectivity shall comply with adopted legislative master plans:*
 1. Within the Frog Pond West Neighborhood, streets shall be consistent with Figure 18, Street Demonstration Plan, in the Frog Pond West Master Plan. The Street Demonstration Plan is intended to be guiding, not binding. Variations from the Street Demonstration Plan may be approved by the Development Review Board, upon finding that one or more of the following justify the variation: barriers such as existing buildings and topography; designated Significant Resource Overlay Zone areas; tree groves, wetlands or other natural resources; existing or planned parks and other active open space that will serve as pedestrian connections for the public; alignment with property lines and ownerships that result in efficient use of land while providing substantially equivalent connectivity for the public; and/or site design that provides substantially equivalent connectivity for the public.
 2. If a legislative master plan does not provide sufficient guidance for a specific development or situation, the Development Review Board shall use the block and access standards in Section 4.124(.06) as the applicable standards.

(.11) *Signs.* Per the requirements of Sections 4.156.01 through 4.156.11 and applicable provisions from adopted legislative master plans.

(.12) *Parking.* Per the requirements of Section 4.155 and applicable provisions from adopted legislative master plans.

(.13) *Corner Vision Clearance.* Per the requirements of Section 4.177.

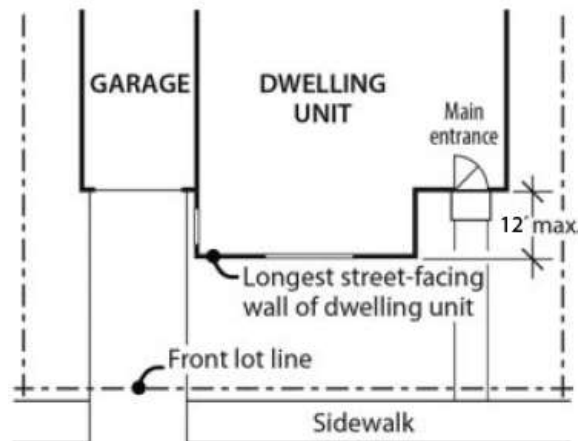
(.14) *Main Entrance Standards:*

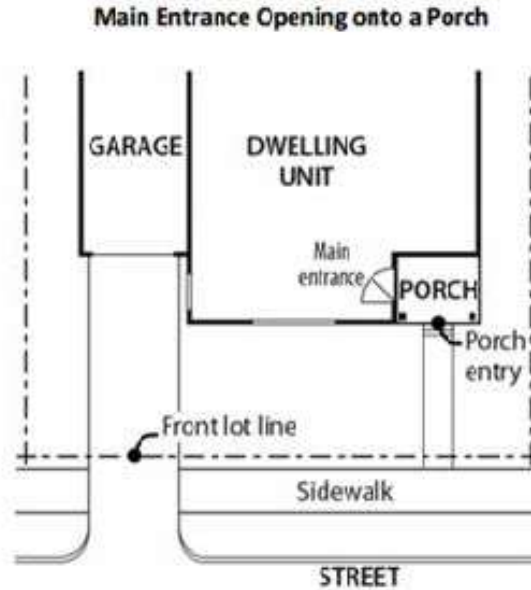
A. *Purpose.* These standards:

1. Support a physical and visual connection between the living area of the residence and the street;
2. Enhance public safety for residents and visitors and provide opportunities for community interaction;
3. Ensure that the pedestrian entrance is visible or clearly identifiable from the street by its orientation or articulation; and
4. Ensure a connection to the public realm for development on lots fronting both private and public streets by making the pedestrian entrance visible or clearly identifiable from the public street.

B. *Location.* At least one main entrance for each structure must:

1. Be within 12 feet of the longest street-facing front wall of the dwelling unit; and
2. Either;
 - a. Face the street;
 - b. Be at an angle of up to 45 degrees from the street; or
 - c. Open onto a porch. The porch must:
 - (i) Be at least six feet deep;
 - (ii) Have at least one entrance facing the street; and
 - (iii) Be covered with a roof or trellis.





- C. *Distance from grade.* Main entrances meeting the standards in subsection B., above, must be within four feet of grade. For the purposes of this Subsection, grade is the average grade measured along the foundation of the longest street-facing wall of the dwelling unit.

(.15) *Garage Standards:*

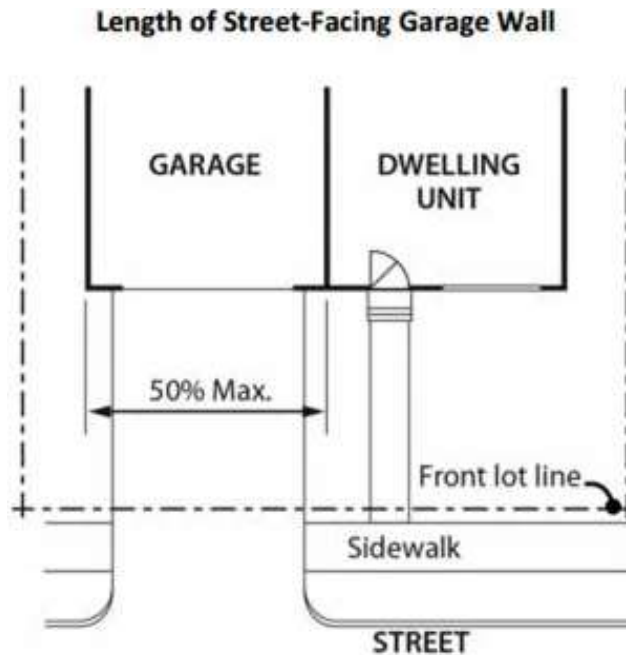
A. *Purpose.* These standards:

1. Ensure that there is a physical and visual connection between the living area of the residences and the street;
2. Ensure that the location and amount of the living area of the residence, as seen from the street, is more prominent than garages;
3. Prevent garages from obscuring the main entrance from the street and ensure that the main entrance for pedestrians, rather than automobiles, is the prominent entrance;
4. Provide for a pleasant pedestrian environment by preventing garages and vehicle areas from dominating the views of the neighborhood from the sidewalk; and
5. Enhance public safety by preventing garages from blocking views of the street from inside the residence.

B. *Street-Facing Garage Walls:*

1. Where these regulations apply. Unless exempted, the regulations of this subsection apply to garages accessory to residential units.
2. *Exemptions:*
 - a. Garages on flag lots.
 - b. Development on lots which slope up or down from the street with an average slope of 20 percent or more.
3. *Standards:*

- a. The length of the garage wall facing the street may be up to 50 percent of the length of the street-facing building façade. For middle housing, this standard applies to the total length of the street-facing façades. For detached single-family and accessory structures, the standards apply to the street-facing façade of each unit. For corner lots, this standard applies to only one street side of the lot. For lots less than 50 feet wide at the front lot line, the standard in (b) below applies.
- b. For lots less than 50 wide at the front lot line, the following standards apply:
 - (i) The width of the garage door may be up to 50 percent of the length of the street-facing façade.
 - (ii) The garage door must be recessed at least four feet from the front façade or six feet from the front of a front porch.
 - (iii) The maximum driveway width is 18 feet.
- c. Where a dwelling abuts a rear or side alley or a shared driveway, the garage shall orient to the alley or shared drive.
- d. Where three or more contiguous garage parking bays are proposed facing the same street, the garage opening closest to a side property line shall be recessed at least two feet behind the adjacent opening(s) to break up the street facing elevation and diminish the appearance of the garage from the street. Side-loaded garages, i.e., where the garage openings are turned away from the street, are exempt from this requirement.
- e. A garage entry that faces a street may be no closer to the street than the longest street facing wall of the dwelling unit. There must be at least 20 feet between the garage door and the sidewalk. This standard does not apply to garage entries that do not face the street.



(.16) Residential Design Standards:

- A. Purpose. These standards:

1. Support consistent quality standards so that each home contributes to the quality and cohesion of the larger neighborhood and community.
 2. Support the creation of architecturally varied structures, blocks and neighborhoods, whether a neighborhood develops all at once or one lot at a time, avoiding homogeneous street frontages that detract from the community's appearance.
- B. *Applicability.* These standards apply to all façades facing streets, pedestrian connections, parks, open space tracts, the Boeckman Trail, or elsewhere as required by this Code or the Development Review Board. Exemptions from these standards include: (1) Additions or alterations adding less than 50 percent to the existing floor area of the structure; and, (2) Additions or alterations not facing a street, pedestrian connection, park, or open space tract.
- C. *Windows.* The standards for minimum percentage of façade surface area in windows are below. These standards apply only to facades facing streets, pedestrian connections, parks, and open space tracts.
1. For two-story structures:
 - a. 15 percent front facades.
 - b. 12.5 percent—front facades if a minimum of six design elements are provided per Section 4.127(0.15)E., Design Menu.
 - c. Ten percent—front facades facing streets if a minimum of seven design elements are provided per Section 4.127(0.15)E., Design Menu.
 2. For one-story structures:
 - a. 12.5 percent—front facades.
 - b. Ten percent—front facades if a minimum of six design elements are provided per Section 4.127(0.15)E., Design Menu.
 3. For all structures: Five percent for street-side facades.
 4. Windows used to meet this standard must provide views from the building to the street. Glass block does not meet this standard. Windows in garage doors and other doors count toward this standard.
 5. Street-facing facades along Boeckman Road and Stafford Road must meet the standards for front facades.
- D. *Articulation.* Plans for residential buildings shall incorporate design features such as varying rooflines, offsets, balconies, projections (e.g., overhangs, porches, or similar features), recessed or covered entrances, window reveals, or similar elements that break up otherwise long, uninterrupted elevations. Such elements shall occur at a minimum interval of 30 feet on façades facing streets, pedestrian connections, parks, open space tracts, or elsewhere as required by this Code or the Development Review Board. Where a façade governed by this standard is less than 30 feet in length, at least one of the above-cited features shall be provided.
- E. *Residential Design Menu.* Residential structures shall provide a minimum of five of the design elements listed below for front façades and façades facing Boeckman Road and Stafford Road, unless otherwise specified by the code. For side façades facing streets, pedestrian connections, parks, open space tracts, a minimum of three of the design elements must be provided. Where a design feature includes more than one element, it is counted as only one of the five required elements.
1. Dormers at least three feet wide.

2. Covered porch entry—minimum 48 square foot covered front porch, minimum six feet deep and minimum of a six foot deep cover. A covered front stoop with minimum 24 square foot area, four foot depth and hand rails meets this standard.
 3. Front porch railing around at least two sides of the porch.
 4. Front facing second story balcony - projecting from the wall of the building a minimum of four feet and enclosed by a railing or parapet wall.
 5. Roof overhang of 16 inches or greater.
 6. Columns, pillars or posts at least four inches wide and containing larger base materials.
 7. Decorative gables - cross or diagonal bracing, shingles, trim, corbels, exposed rafter ends or brackets (does not include a garage gable if garage projects beyond dwelling unit portion of street façade).
 8. Decorative molding above windows and doors.
 9. Decorative pilaster or chimneys.
 10. Shakes, shingles, brick, stone or other similar decorative materials occupying at least 60 square feet of the street façade.
 11. Bay or bow windows - extending a minimum of 12 inches outward from the main wall of a building and forming a bay or alcove in a room within the building.
 12. Sidelight and/or transom windows associated with the front door or windows in the front door.
 13. Window grids on all façade windows (excluding any windows in the garage door or front door).
 14. Maximum nine foot wide garage doors or a garage door designed to resemble two smaller garage doors and/or windows in the garage door (only applicable to street facing garages).
 15. Decorative base materials such as natural stone, cultured stone or brick extending at least 36 inches above adjacent finished grade occupying a minimum of ten percent of the overall primary street facing façade.
 16. Entry courtyards which are visible from, and connected directly to, the street. Courtyards shall have a minimum depth of ten feet and minimum width of 80 percent of the non-garage/driveway building width to be counted as a design element.
- F. *House Plan Variety.* No two directly adjacent or opposite residential structures may possess the same front or street-facing elevation. A structure containing multiple middle housing units shall be considered a single residential structure for the purpose of house plan variety. This standard is met when front or street-facing elevations differ from one another due to different materials, articulation, roof type, inclusion of a porch, fenestration, and/or number of stories. Where façades repeat on the same block face, they must have at least three intervening residential structures between them that meet the above standard. Small Lot developments over ten acres shall include duplexes and/or two-unit townhouses comprising ten percent of the homes—corner locations are preferred.
- G. *Prohibited Building Materials.* The following construction materials may not be used as an exterior finish:
1. Vinyl siding.
 2. Wood fiber hardboard siding.
 3. Oriented strand board siding.
 4. Corrugated or ribbed metal.

5. Fiberglass panels.

(.17) *Fences:*

- A. Within Frog Pond West, fences shall comply with standards in 4.113 (.07) except as follows:
 1. Columns for the brick wall along Boeckman Road and Stafford Road shall be placed at lot corners where possible.
 2. A solid fence taller than four feet in height is not permitted within eight feet of the brick wall along Boeckman Road and Stafford Road, except for fences placed on the side lot line that are perpendicular to the brick wall and end at a column of the brick wall.
 3. Height transitions for fences shall occur at fence posts.

(.18) *Residential Structures Adjacent to Schools, Parks and Public Open Spaces.*

- A. *Purpose.* The purpose of these standards is to ensure that development adjacent to schools and parks is designed to enhance those public spaces with quality design that emphasizes active and safe use by people and is not dominated by driveways, fences, garages, and parking.
- B. *Applicability.* These standards apply to development that is adjacent to or faces schools and parks. As used here, the term adjacent includes development that is across a street or pedestrian connection from a school or park.
- C. *Development must utilize one or more of the following design elements:*
 1. Alley loaded garage access.
 2. On corner lots, placement of the garage and driveway on the side street that does not face the school, park, or public open space.
 3. Recess of the garage a minimum of four feet from the front façade of the home. A second story above the garage, with windows, is encouraged for this option.
- D. Development must be oriented so that the fronts or sides of residential structures face adjacent schools or parks. Rear yards and rear fences may generally not face the schools or parks, unless approved through the waiver process of 4.118 upon a finding that there is no practicable alternative due to the size, shape or other physical constraint of the subject property.

(Ord. No. 806, 7-17-2017)

Section 4.113. Standards Applying to Residential Developments in any Zone.

(.01) *Open Space:*

- A. *Purpose.* The purposes of the following standards for open space are to provide adequate light, air, open space and usable recreational facilities to occupants of each residential development.
- B. *Applicability.*
 - 1. The open space standards of this subsection shall apply to the following:
 - a. Subdivisions.
 - b. Planned Developments.
 - c. Multi-family Development.
 - 2. These standards do not apply to the following:
 - a. Partitions for non-Multi-family development. However, serial or adjacent partitions shall not be used to avoid the requirements.
 - b. Middle Housing Land Divisions.
- C. *Area Required.* The minimum open space area required in a development is an area equal to 25 percent of the size of the Gross Development Area except if reduced for shared parking pursuant to Subsection 4.155(.03)S.
- D. *Required Open Space Characteristics:*
 - 1. *Size of Individual Open Spaces.* For developments with ten or more lots buildable with dwelling units (or ten or more multi-family units) an open space area must be at least 2,000 square feet to be counted towards the 25 percent open space requirement. For developments with less than ten lots buildable with dwelling units (or less than ten multi-family units) an open space area must be at least 1,000 square feet to be counted towards the 25 percent open space requirement.
 - 2. *Types of Open Space and Ownership.* The following types of areas count towards the minimum open space requirement if they are or will be owned by the City, a homeowners' association or similar joint ownership entity, or the property owner for Multi-family Development.
 - a. Preserved wetlands and their buffers, natural and/or treed areas, including those within the SROZ
 - b. New natural/wildlife habitat areas
 - c. Non-fenced vegetated stormwater features
 - d. Play areas and play structures
 - e. Open grass area for recreational play
 - f. Swimming and wading areas
 - g. Other areas similar to a. through f. that are [publicly] accessible
 - h. Walking paths besides required sidewalks in the public right-of-way or along a private drive.
 - 3. *Usable open space requirements.* Half of the minimum open space area, an area equal to 12.5 percent of the size of the Gross Development Area, shall be located outside the SROZ and be

usable open space programmed for active recreational use. Any open space considered usable open space programmed for active recreation use shall meet the following requirements.

- a. Be designed by a registered professional landscape architect with experience designing residential park areas. An affidavit of such professional's credentials shall be included in the development application material.
 - b. Be designed and programmed for a variety of age groups or other user groups.
4. *Enhancing Existing Wildlife Habitat through Design of Open Space:*
- a. Open space designed, as wildlife habitat shall be placed adjacent to and connect to existing, preserved wildlife habitat to the extent feasible.
 - b. To the extent feasible, open space shall create or enhance connections between existing wildlife habitat.
- E. Any dedication of land as public park land must meet City parks standards. The square footage of any open space land outside the SROZ and BPA easements, whether dedicated to the public or not, shall be considered part of the Gross Development Area.
- F. Approval of open space must ensure the long-term protection and maintenance of open space and/or recreational areas. Where such protection or maintenance are the responsibility of a private party or homeowners' association, the City Attorney shall review any pertinent bylaws, covenants, or agreements prior to recordation.
- G. The open space requirements of this subsection are subject to adjustments in PDR zones pursuant to Subsection 4.124(.08).

(.14) Design Standards for Detached Single-family and Middle Housing.

- A. The standards in this subsection apply in all zones, except as indicated in 1.—2. below:
 1. The Façade Variety standards in Subsection C.1. do not apply in the Village Zone or Residential Neighborhood Zones, as these zones have their own variety standards, except that the standards do apply within middle housing development with multiple detached units on a single lot which the standards of these zones do not address;
 2. The entry orientation and window standards for triplexes, quadplexes, and townhouses in Subsections D.1-2. and E. 2-3. do not apply in the Village Zone or Residential Neighborhood Zone as these zones have their own related standards applicable to all single-family and middle housing.
- B. For the purpose of this subsection the term "residential structure" is inclusive of a series of structures that are attached to one another such as a grouping of townhouses.
- C. Standards applicable to all residential structures except as noted in I. below.
 1. *Façade Variety:*
 - a. Each public-facing façade of a residential structure shall differ from the public-facing façades of directly adjacent residential structures in at least one of the three ways listed in Subsection d. below.
 - b. Where public-facing façades repeat on the same block, at least two residential structures with different public-facing façades shall intervene between residential structures with the same public-facing façades, with sameness defined by not differing in at least one of the three ways listed in Subsection d. below.

- c. For façades of residential structures facing a public street, the façade of any residential structures directly across the street shall differ in at least one of the three ways listed in Subsection d. below. Directly across means any residential structure façade intersected by imaginary lines extending the shortest distance across the street from the mid-point of a façade and from the edges of a façade. See Figure 1 below.
- d. A façade shall be considered different if it differs from another façade in at least one of the following ways:
- i. Variation in type, placement, or width of architectural projections (such as porches, dormers, or gables) or other features that are used to meet the Articulation standards in Subsection (.14)C.2.b or Subsection (.14)E.4. If adjacent or opposite façades feature the same projection type, the projections on adjacent/opposite façades must differ in at least one of the following ways:
 - At least 20 percent difference in width; or
 - Horizontally offset by at least five feet. For the purposes of this standard, "offset" means a measurable difference of at least five feet from the left edge of the projection to the left edge of the front façade or at least five feet from the right edge of the projection to the right edge of the front façade.
 - ii. At least 20 percent of the façade (excluding glazing) is covered by different exterior finish materials. The use of the same material in different types of siding (e.g., cedar shingles vs. cedar lap siding) shall be considered different materials for the purpose of this standard.
 - iii. Variation in primary paint color as determined by a LRVR (Light Reflectance Value) difference of at least 15 percent.

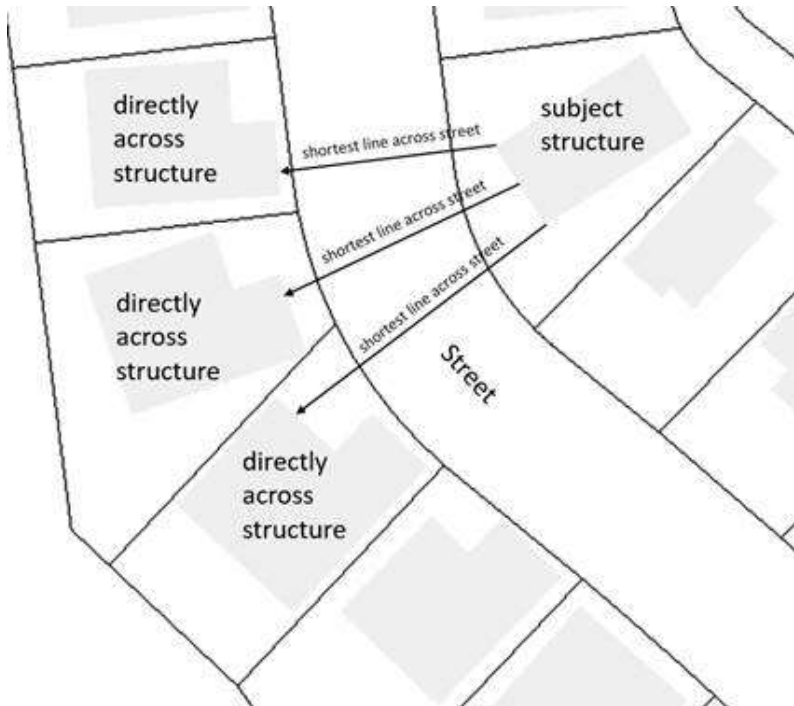


Figure 1. Determining If A Residential Structure is Directly Across the Street from Another

2. *Architectural Consistency and Interest.*
 - a. Architectural styles shall not be mixed within the same residential structure (a series of attached structures is one structure for the purpose of these standards). Architectural style consistency is defined by adherence to all of the following:
 - i. Use of the same primary and supporting façade materials throughout the structure.
 - ii. Use of no more than two roof pitch angles.
 - iii. Use of the same door size for each primary entrance in the structure.
 - b. Articulation. All public-facing façades of residential structures, other than townhouses, shall incorporate the following design elements at a minimum interval of every 30 feet, except as noted in 2.c. below. The minimum number of design elements is determined by dividing the façade length by 30 and rounding up to the nearest whole number. For townhouse articulation standards, see subsection (.14)E.4.
 - i. varying rooflines.
 - ii. offsets of at least 12 inches.
 - iii. balconies.
 - iv. projections of at least 12 inches and width of at least three feet.
 - v. porches.
 - vi. entrances that are recessed at least 24 inches or covered.
 - vii. dormers at least three feet wide.
 - c. For structures with two or more dwelling units, a single design element that spans at least 50 percent of the façade of two adjacent units can count as two articulation elements to meet the standard in subsection b. and can meet the standard for 60 feet of façade width (two adjacent 30 foot intervals). Such elements may overlap horizontally with other required design elements on the façade.
 - d. Articulation Element Variety: Different articulation elements shall be used as provided below. For the purpose of this standard, a "different element" is defined as one of the following: a completely different element from the list in subsection 2.b above; the same type of element but at least 50 percent larger; or for varying rooflines, vertically offset by at least three feet.
 - i. Where two to four elements are required on a façade, at least two different elements shall be used.
 - ii. Where more than four elements are required on a façade, at least three different elements shall be used.
 - e. Reductions to required windows percentage: The required percent of façade of a residential structure in the public-facing façade covered by windows or entry doors for single-family or middle housing in any zone may be reduced to the percentages that follows:
 - i. For of 1.5 or 2-story façades facing the front or rear lot line:

- 12.5 percent if six of the design features in Subsection e.v. below are used.
- Ten percent if seven or more of the design features in Subsection e.v. below are used.
- ii. For 1-story façades facing the front or rear lot line;
 - 12.5 percent if less than six design features in Subsection e.v. are used
 - ten percent if six or more design features in Subsection e.v. are used
- iii. For façades facing a side lot line:
 - Five percent regardless of the number of design features
- iv. Glass block does not count towards meeting window and entry percentage
- v. Window reduction design features:
 - Dormers at least three feet wide.
 - Covered porch entry—minimum 48 square foot covered front porch, minimum six feet deep and minimum of a six foot deep cover. A covered front stoop with minimum 24 square foot area, four foot depth and hand rails meets this standard.
 - Front porch railing around at least two sides of the porch.
 - Second story balcony—projecting from the wall of the building a minimum of four feet and enclosed by a railing or parapet wall.
 - Roof overhang of eight inches or greater.
 - Columns, pillars or posts at least four inches wide and containing larger base materials.
 - Decorative gables—cross or diagonal bracing, shingles, trim, corbels, exposed rafter ends or brackets (does not include a garage gable if garage projects beyond dwelling unit portion of street façade).
 - Decorative molding above windows and doors.
 - Decorative pilaster or chimneys.
 - Bay or bow windows—extending a minimum of 12 inches outward from the main wall of a building and forming a bay or alcove in a room within the building.
 - Sidelight and/or transom windows associated with the front door or windows in the front door.
 - Window grids on all façade windows visible from behind fences (excluding any windows in the garage door or front door).
 - Maximum nine foot wide garage doors or a garage door designed to resemble two smaller garage doors and/or windows in the garage door (only applicable to street facing garages).
 - Decorative base materials such as natural stone, cultured stone or brick extending at least 36 inches above adjacent finished grade occupying a

minimum of ten percent of the overall primary street facing façade. This design element does not count if behind a site-obscuring fence.

- Entry courtyards which are visible from, and connected directly to, the street. Courtyards shall have a minimum depth of ten feet and minimum width of 80 percent of the non-garage/driveway building width to be counted as a design element.

D. Standards applicable to Triplexes and Quadplexes except as noted in I. below.

1. *Entry Orientation.*

- a. At least one main entrance for each triplex or quadplex must meet the standards in subsections b. and c. below.
- b. The entrance must be within eight feet of the longest street-facing exterior wall of the dwelling unit or if no exterior wall faces a street the front of the dwelling unit facing a common drive or open space as designated by the applicant; and
- c. The entrance must either:
 - i. Face the street (see Figure 2. Main Entrance Facing the Street);
 - ii. Be at an angle of up to 45 degrees from the street (see Figure 3. Main Entrance at 45 degree angle from the street); or
 - iii. Open onto a porch (see Figure 4. Main Entrance Opening onto a Porch). The porch must:
 - Be at least 25 square feet in area; and
 - Have at least one entrance facing the street or have a roof.

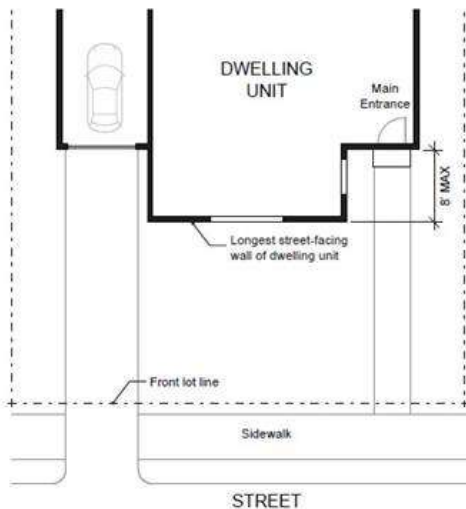


Figure 2. Main Entrance Facing the Street

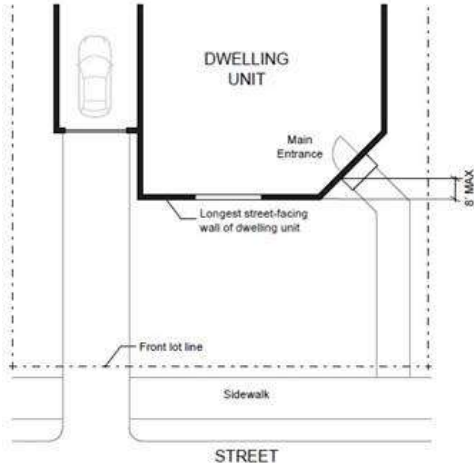


Figure 3. Main Entrance at 45° Angle from the Street

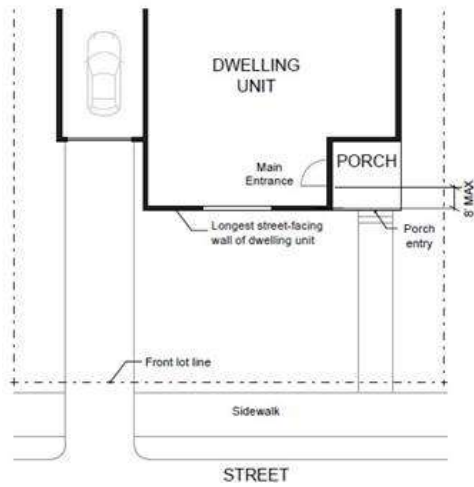


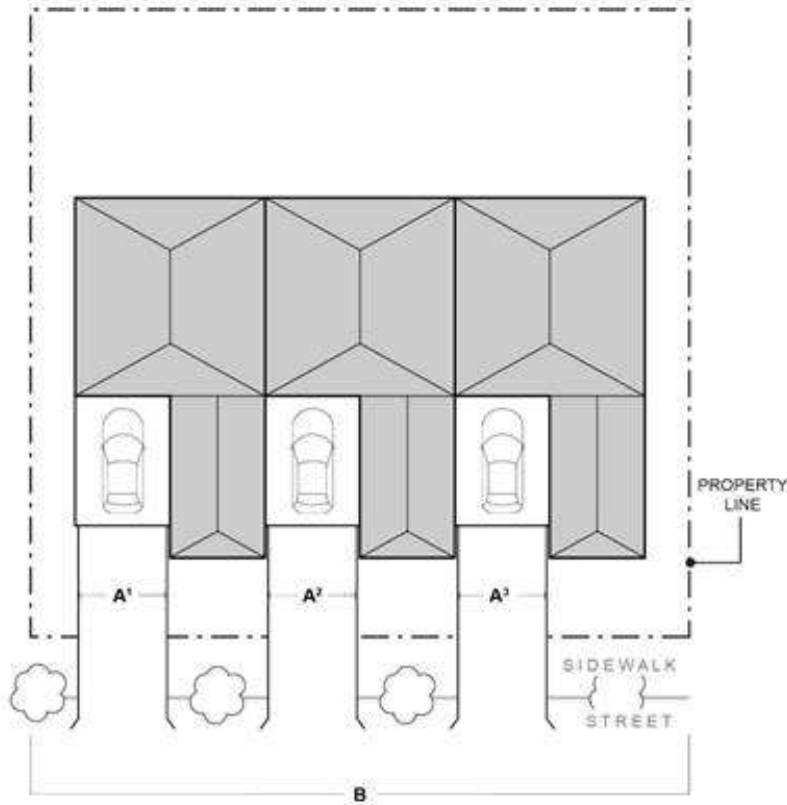
Figure 4. Main Entrance Opening onto a Porch

2. *Windows.* A minimum of 15 percent of the area of all street-facing façades must include windows or entrance doors. Façades separated from the street property line by a dwelling are exempt from meeting this standard. See Figure 5. Window Coverage.



Figure 5. Window Coverage

3. *Garages and Off-Street Parking Areas.* The combined width of all garages and outdoor on-site parking and maneuvering areas shall not exceed a total of 50 percent of any street frontage (other than an alley) (see Figure 6. Width of Garages and Parking Areas).



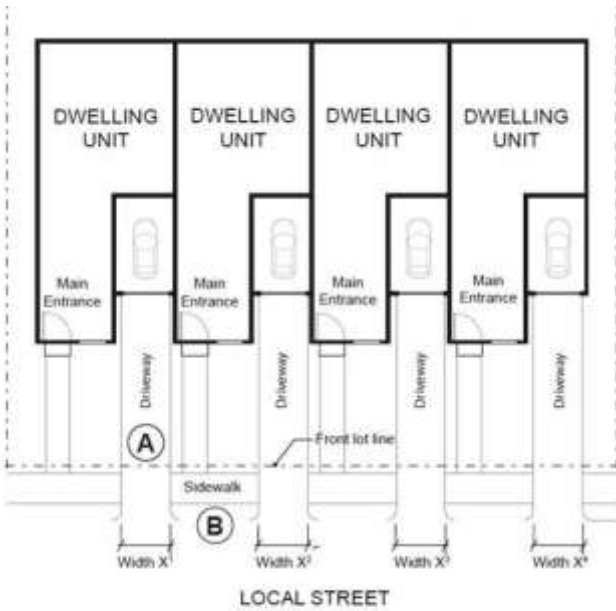
- (A) Garage and on-site parking and maneuvering areas
- (B) Total street frontage

$$\frac{A^1 + A^2 + A^3}{B} \leq 50\%$$

Figure 6. Width of Garages and Parking Areas

4. *Driveway Approach.* Driveway approaches must comply with all of the following:
 - a. The total width of all driveway approaches must not exceed 32 feet per frontage, as measured at the property line (see Figure 7. Driveway Approach Width and Separation on Local Street). For lots or parcels with more than one frontage, see subsection c.
 - b. Driveway approaches may be separated when located on a local street.
 - c. In addition, lots or parcels with more than one frontage must comply with the following:
 - i. Lots or parcels must access the street with the lowest transportation classification for vehicle traffic. For lots or parcels abutting an alley that is improved with a paved surface, access must be taken from the alley (see Figure 8. Alley Access).
 - ii. Lots or parcels with frontages only on collectors and/or arterial streets must meet the access standards in the Wilsonville Public Works Standards.

- iii. Lots or parcels with frontages only on local streets may have either:
 - Two driveway approaches not exceeding 32 feet in total width on one frontage; or
 - One maximum 16-foot-wide driveway approach per frontage (see Figure 9. Driveway Approach Options for Multiple Local Street Frontages).



- (A) $X^1 + X^2 + X^3 + X^4$ must not exceed 32 feet per frontage.
- (B) Driveway approaches may be separated when located on a local street

Figure 7. Driveway Approach Width and Separation on Local Street

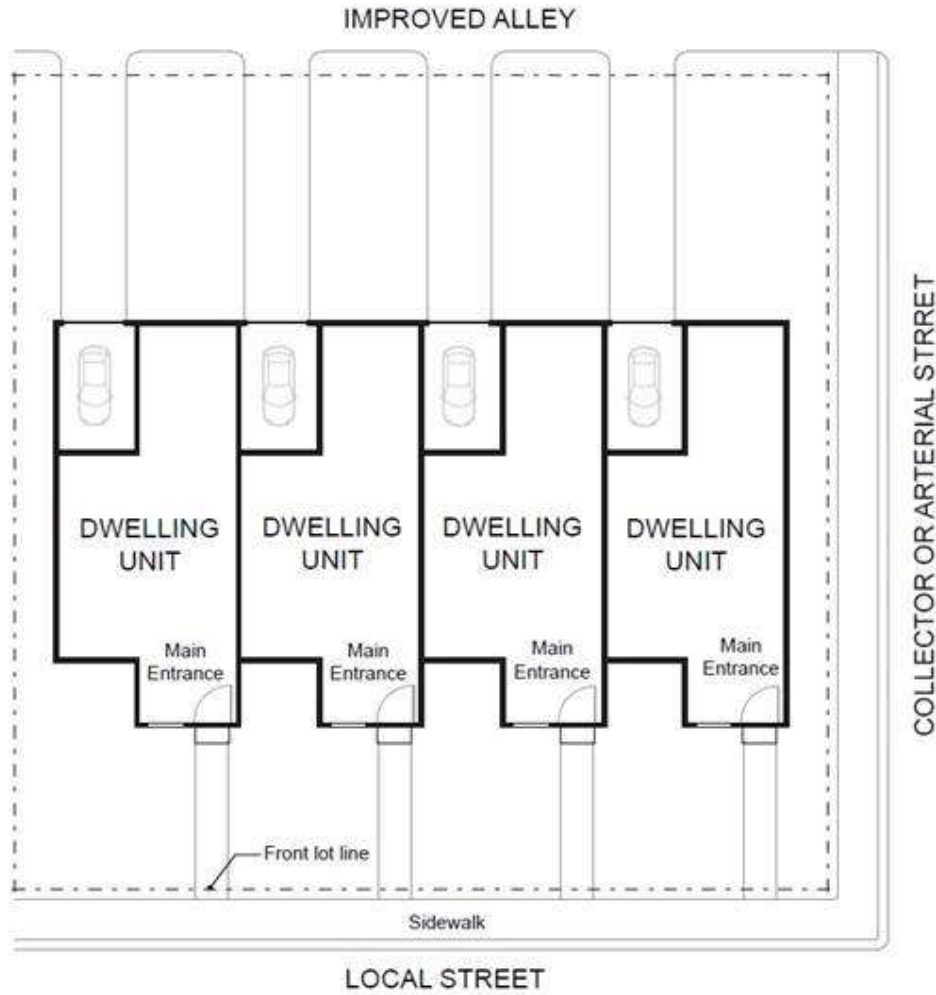
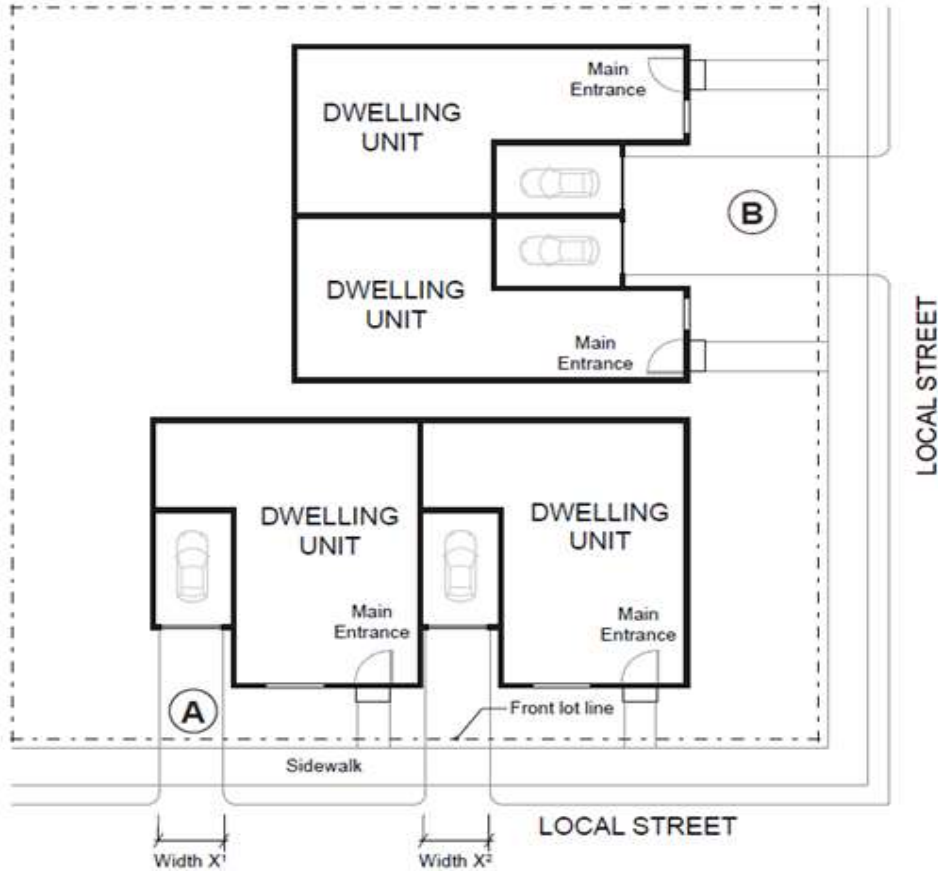


Figure 8. Alley Access



Options for site with more than one frontage on local streets:

- (A)** Two driveway approaches not exceeding 32 feet in total width on one frontage (as measured $X1 + X2$); or
- (B)** One maximum 16-foot-wide driveway approach per frontage.

(Note: Both options are depicted here for illustrative purposes only. The standards do not allow both Options A and B on the same site.)

Figure 9. Driveway Approach Options for Multiple Local Street Frontages

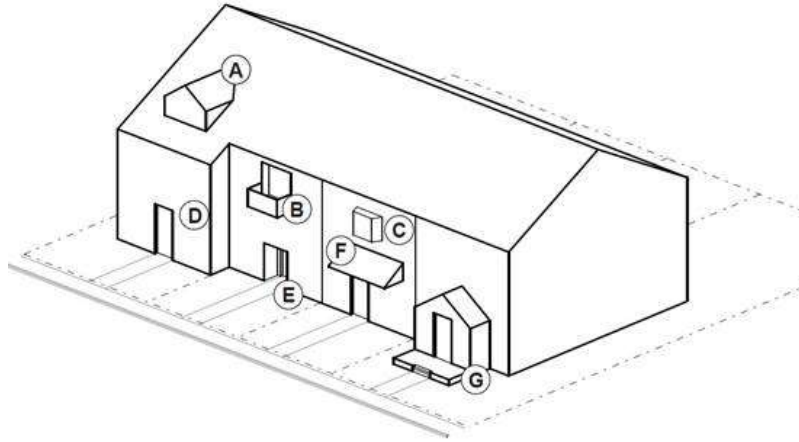
E. Standards applicable to Townhouses.

1. *Number of Attached Dwelling Units.*

- a. Minimum. A townhouse project must contain at least two attached units.
- b. Maximum. The maximum number of townhouse units that may be attached together to form a group is specified below.
 - R, OTR, PDR-1—PDR-3 Zones: maximum four attached units per group
 - RN, V, PDR-4—PDR-7 Zones: maximum eight attached units per group, except for initial development in Frog Pond West per Section 4.124.

2. *Entry Orientation.* The main entrance of each townhouse unit must:

- a. Be within eight feet of the longest wall of the dwelling unit facing a street or private drive;
and
 - b. Either:
 - i. Face the street or private drive (see Figure 2. Main Entrance Facing the Street);
 - ii. Be at an angle of up to 45 degrees from the street or private drive (see Figure 3. Main Entrance at 45° Angle from the Street);
 - iii. Face a common open space or private access or driveway that is abutted by dwellings on at least two sides; or
 - iv. Open onto a porch (see Figure 4. Main Entrance Opening onto a Porch). The porch must:
 - A. Be at least 25 square feet in area; and
 - B. Have at least one entrance facing the street or private drive or have a roof.
3. *Windows.* A minimum of 15 percent of the area of all public-facing façades on each individual unit must include windows or entrance doors. Half of the window area in the door of an attached garage may count toward meeting this standard. See Figure 5. Window Coverage.
4. *Unit definition.* Each townhouse unit must include at least one of the items listed in a. through g. below on at least one public-facing façade (see Figure 10. Townhouse Unit Definition). Alternatively, if a single item from the list below spans across at least 50 percent of two adjacent townhouse units, it can meet the standard for two units.
- a. A roof dormer a minimum of four feet in width, or
 - b. A balcony a minimum of two feet in depth and four feet in width and accessible from an interior room, or
 - c. A bay window that extends from the façade a minimum of two feet, or
 - d. An offset of the façade of a minimum of two feet in depth, either from the neighboring townhouse or within the façade of a single townhouse, or
 - e. An entryway that is recessed a minimum of three feet, or
 - f. A covered entryway with a minimum depth of four feet, or
 - g. A porch meeting the standards of subsection (.14)E.2.b.iv.
- Balconies and bay windows may encroach into a required setback area, pursuant to Section 4.180.



- A** Roof dormer, minimum of 4 feet wide
- B** Balcony, minimum 2 feet deep and 4 feet wide. Accessible from interior room.
- C** Bay window extending minimum of 2 feet from facade
- D** Facade offset, minimum of 2 feet deep
- E** Recessed entryway, minimum 3 feet deep
- F** Covered entryway, minimum of 4 feet deep
- G** Porch, meets standards of subsection (1)(b)(iv) of section (C)

Figure 10. Townhouse Unit Definition

5. **Driveway Access and Parking.** Townhouses with frontage on a street or private drive shall meet the following standards:
 - a. **Alley Access.** Townhouse project sites abutting an alley that is improved with pavement shall take access to the rear of townhouse units from the alley rather than the public street.
 - b. **Front Access.** Garages on the front façade of a townhouse, off-street parking areas in the front yard, and driveways in front of a townhouse are allowed if they meet the following standards (see Figure 11. Townhouses with Parking in Front Yard).
 - i. Each townhouse lot has a street frontage of at least 20 feet on a local street.
 - ii. A maximum of one driveway approach is allowed for every townhouse. Driveway approaches and/or driveways may be shared.
 - iii. Outdoor on-site parking and maneuvering areas do not exceed 12 feet wide on any lot.

- iv. The garage width does not exceed 12 feet, as measured from the inside of the garage door frame.

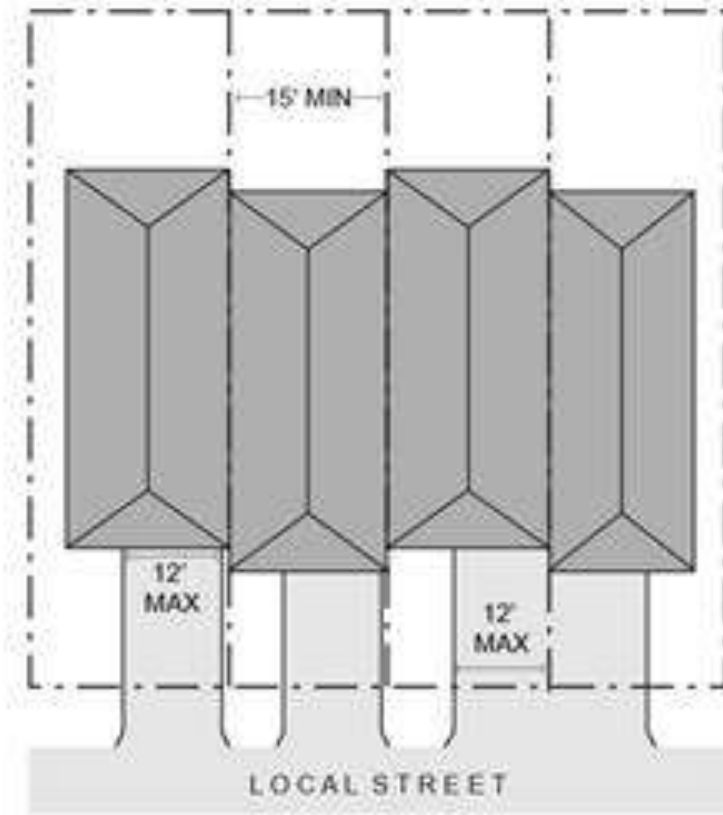


Figure 11. Townhouses with Parking in Front Yard

- c. *Shared Access.* The following standards apply to driveways and parking areas for townhouse projects that do not meet all of the standards in subsections a. or b.
 - i. Off-street parking areas shall be accessed on the back façade or located in the rear yard. No off-street parking shall be allowed in the front yard or side yard of a townhouse.
 - ii. A townhouse project that includes a corner lot shall take access from a single driveway approach on the side of the corner lot. See Figure 12. Townhouses on Corner Lot with Shared Access.

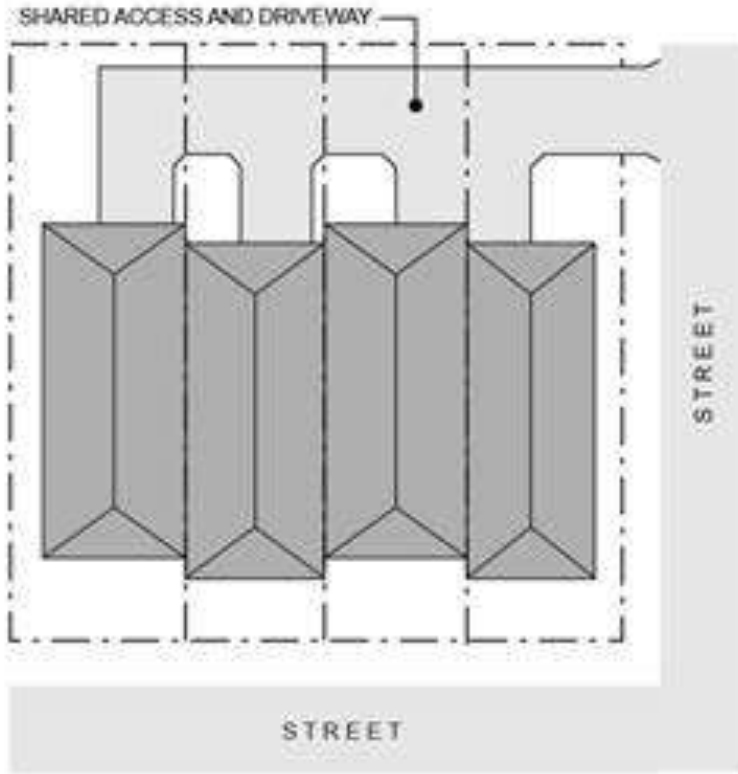


Figure 12. Townhouses on Corner Lot with Shared Access

- iii. Townhouse projects that do not include a corner lot shall consolidate access for all lots into a single driveway. The driveway and approach are not allowed in the area directly between the front façade and front lot line of any of the townhouses. See Figure 13. Townhouses with Consolidated Access.

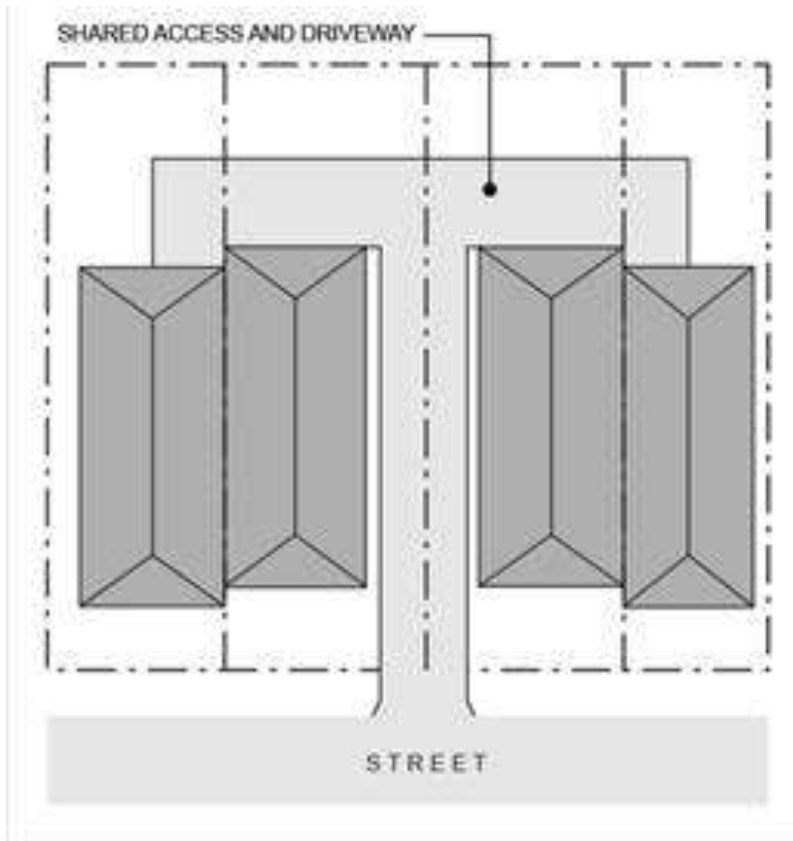
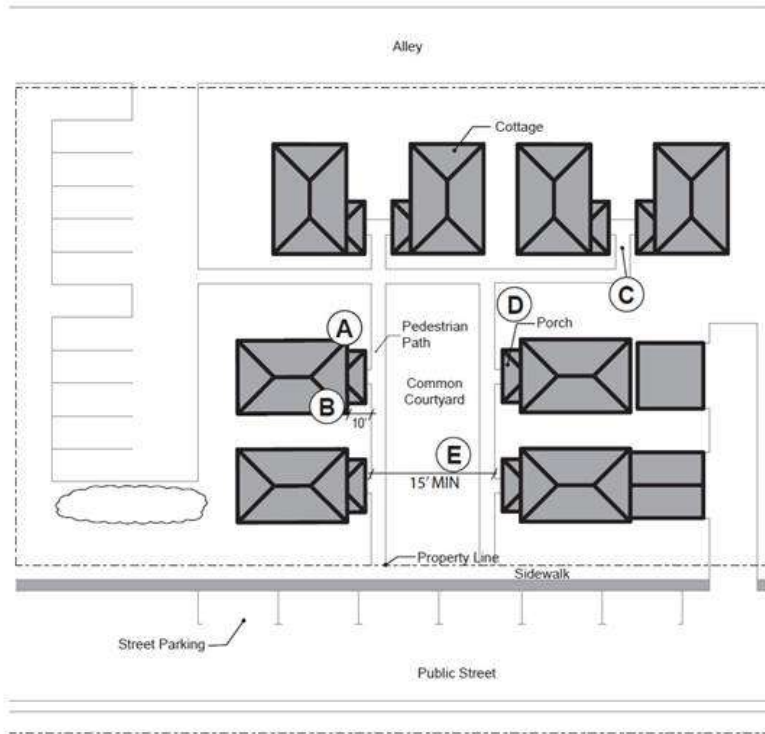


Figure 13. Townhouses with Consolidated Access

- iv. A townhouse project that includes consolidated access or shared driveways shall grant access easements to allow normal vehicular access and emergency access.
- F. Standards applicable to Cottage Clusters.
- 1. *Courtyard Required.* All cottages within a single cottage cluster must share a common courtyard. A cottage cluster project may include more than one cluster and more than one common courtyard.
 - 2. *Number of Dwellings.*
 - a. A single cottage cluster shall contain a minimum of four and a maximum of eight cottages.
 - 3. *Setbacks.*
 - a. *Building Separation.* Cottages shall be separated by a minimum distance of six feet. The minimum distance between all other structures, including accessory structures, shall be in accordance with building code requirements.
 - b. All other setbacks are provided in section (.02) or in the applicable base zone.
 - 4. *Building Height.* The maximum building height for all structures is 25 feet.

5. *Footprint.* The maximum building footprint for each cottage is 900 square feet. Individual attached garages up to 200 square feet shall be exempted from the calculation of maximum building footprint.
6. *Maximum Habitable Floor Area.* The maximum habitable floor area of each cottage is 1,400 square feet.
7. *Cottage Orientation.* Cottages must be clustered around a common courtyard and must meet the following standards (see Figure 14. Cottage Cluster Orientation and Common Courtyard Standards):
 - a. Each cottage within a cluster must either abut the common courtyard or must be directly connected to it by a pedestrian path.
 - b. A minimum of 50 percent of cottages within a cluster must be oriented to the common courtyard and must:
 - i. Have a main entrance facing the common courtyard;
 - ii. Be within ten feet from the common courtyard, measured from the façade of the cottage to the nearest edge of the common courtyard; and
 - iii. Be connected to the common courtyard by a pedestrian path.
 - c. Cottages within 20 feet of a street property line may have their entrances facing the street.
 - d. Cottages not facing the common courtyard or the street must have their main entrances facing a pedestrian path that is directly connected to the common courtyard.
8. *Common Courtyard Design Standards.* Each cottage cluster must share a common courtyard in order to provide a sense of openness and community of residents. Common courtyards must meet the following standards (see Figure 14. Cottage Cluster Orientation and Common Courtyard Standards):
 - a. The common courtyard must be a single, contiguous piece.
 - b. Cottages must abut the common courtyard on at least two sides of the courtyard.
 - c. The common courtyard must contain a minimum of 150 square feet per cottage within the associated cluster.
 - d. The common courtyard must be a minimum of 15 feet wide at its narrowest dimension.
 - e. The common courtyard shall be developed with a mix of landscaping, lawn area, pedestrian paths, and/or paved courtyard area, and may also include recreational amenities. Impervious elements of the common courtyard shall not exceed 75 percent of the total common courtyard area.
 - f. Pedestrian paths must be included in a common courtyard. Paths that are contiguous to a courtyard shall count toward the courtyard's minimum dimension and area. Parking areas, required setbacks, and driveways do not qualify as part of a common courtyard.



- A** A minimum of 50% of cottages must be oriented to the common courtyard.
- B** Cottages oriented to the common courtyard must be within 10 feet of the courtyard.
- C** Cottages must be connected to the common courtyard by a pedestrian path.
- D** Cottages must abut the courtyard on at least two sides of the courtyard.
- E** The common courtyard must be at least 15 feet wide at its narrowest width.

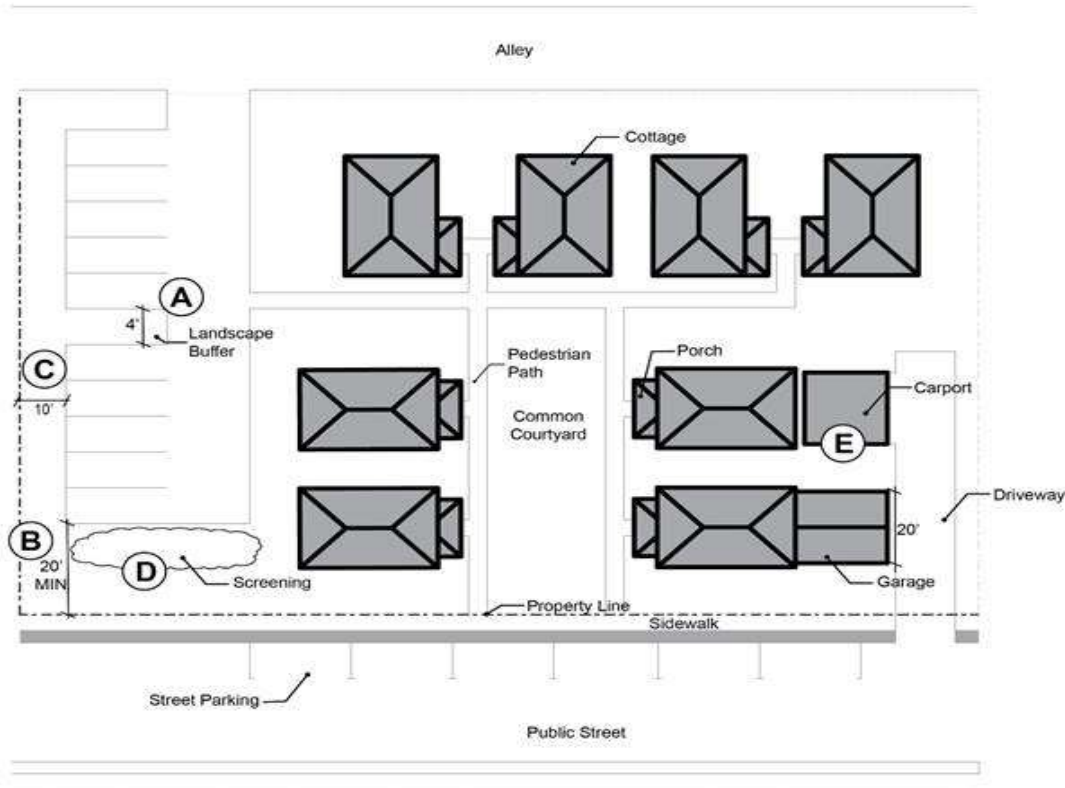
Figure 14. Cottage Cluster Orientation and Common Courtyard Standards

9. *Community Buildings.* Cottage cluster projects may include community buildings for the shared use of residents that provide space for accessory uses such as community meeting rooms, guest housing, exercise rooms, day care, or community eating areas. Community buildings must meet the following standards:
 - a. Each cottage cluster is permitted one community building.
 - b. The community building shall have a maximum floor area of 1,400 sf.
 - c. A community building that meets the definition of a dwelling unit must meet the maximum 900 square foot footprint limitation that applies to cottages (pursuant to subsection (.14)(F.5.)), unless a covenant is recorded against the property stating that the structure is not a legal dwelling unit and will not be used as a primary dwelling.
10. *Pedestrian Access.*

- a. An accessible pedestrian path must be provided that connects the main entrance of each cottage to the following:
 - i. The common courtyard;
 - ii. Shared parking areas;
 - iii. Community buildings; and
 - iv. Sidewalks in public rights-of-way abutting the site or rights-of-way if there are no sidewalks.
 - b. The pedestrian path must be hard-surfaced and a minimum of four feet wide.
11. *Windows.* Cottages within 20 feet of a street property line must meet any window coverage requirements of the applicable base zone.
12. *Parking Design (see Figure 15. Cottage Cluster Parking Design Standards).*
- a. *Clustered parking.* Off-street parking may be arranged in clusters, subject to the following standards:
 - i. A parking cluster must not exceed five contiguous spaces.
 - ii. Parking clusters must be separated from other spaces by at least four feet of landscaping.
 - iii. Clustered parking areas may be covered.
 - iv. Parking areas must also meet the standards in Subsections 4.155(.02)—(.03), except where they conflict with these standards.
 - b. *Parking location and access.*
 - i. Off-street parking spaces and vehicle maneuvering areas shall not be located between a street property line and the front façade of cottages located closest to the street property line. This standard does not apply to alleys.
 - ii. Off-street parking spaces shall not be located within ten feet of any property line, except alley property lines.
 - iii. Driveways and drive aisles are permitted within ten feet of property lines.
 - c. *Screening.* Landscaping, fencing, or walls at least three feet tall shall separate clustered parking areas and parking structures from common courtyards and public streets.
 - d. *Garages and carports.*
 - i. Garages and carports (whether shared or individual) must not abut common courtyards.
 - ii. Individual attached garages up to 200 square feet shall be exempted from the calculation of maximum building footprint for cottages.
 - iii. Individual detached garages must not exceed 400 square feet in floor area.
 - iv. Garage doors for attached and detached individual garages must not exceed 20 feet in width.
13. *Accessory Buildings.* Accessory buildings must not exceed 400 square feet in floor area.
14. *Existing Structures.* On a lot or parcel to be used for a cottage cluster project, an existing detached single-family detached dwelling on the same lot at the time of proposed development

of the cottage cluster may remain within the cottage cluster project area under the following conditions:

- a. The existing dwelling may be nonconforming with respect to the requirements of this subsection (.14)F.
- b. The existing dwelling may be expanded up to a maximum height of 25 feet or a maximum building footprint of 900 square feet; however, existing dwellings that exceed these maximum height and/or footprint standards may not be expanded.
- c. The existing dwelling shall be excluded from the calculation of orientation toward the common courtyard, per subsection (.14)F.7.b.



- A** Parking allowed in clusters of up to 5 spaces. Clusters separated by minimum 4 feet of landscaping.
- B** No parking or vehicle area within 20 feet from street property line (except alley).
- C** No parking within 10 feet from other property lines (except alley). Driveways and drive aisles permitted within 10 feet.
- D** Screening required between clustered parking areas or parking structures and public streets or common courtyards.
- E** Garages and carports must not abut common courtyards. Garage doors for individual garages must not exceed 20 feet in width.

Figure 15. Cottage Cluster Parking Design Standards

G. Standards applicable to Cluster Housing besides Cottage Clusters.

1. *Architectural Consistency.* Architecture shall be consistent within the same two-unit, three-unit, or four-unit cluster. However, facade variety standards in Subsection (.14)C.1. shall continue to apply. Architectural consistency is defined by adherence to all of the following:
 - a. Use of the same primary and supporting façade materials throughout the cluster.
 - b. Use of no more than two roof pitch angles.
 - c. Use of the same door size for each primary entrance in the structures.
2. *Entry Orientation.*
 - a. The entry orientation standards apply as follows:
 - i. At least one main entrance for each cluster home must meet the standards in subsections b and c below.
 - b. The entrance must be within eight feet of the longest street-facing exterior wall of the dwelling unit or if no exterior wall faces a street the front of the dwelling unit, facing a common drive or open space as designated by the applicant; and
 - c. The entrance must either:
 - i. Face the street (see Figure 2. Main Entrance Facing the Street);
 - ii. Be at an angle of up to 45 degrees from the street (see Figure 3. Main Entrance at 45° Angle from the Street); or
 - iii. Open onto a porch (see Figure 4. Main Entrance Opening onto a Porch). The porch must:
 - Be at least 25 square feet in area; and
 - Have at least one entrance facing the street or have a roof.
3. *Windows.* A minimum of 15 percent of the area of all street-facing facades must include windows or entrance doors. Facades separated from the street property line by a dwelling are exempt from meeting this standard. See Figure 5. Window Coverage.
4. *Garages and Off-Street Parking Areas.* The combined width of all garages and outdoor on-site parking and maneuvering areas shall not exceed a total of 50 percent of any street frontage (other than an alley). Garages and off-street parking areas that are separated from the street property line by a dwelling are not subject to this standard. (See Figure 6. Width of Garages and Parking Areas).
5. *Driveway Approach.* Driveway approaches must comply with all of the following:
 - a. The total width of all driveway approaches must not exceed 32 feet per frontage, as measured at the property line (see Figure 7. Driveway Approach Width and Separation on Local Street). For lots or parcels with more than one frontage, see subsection c.
 - b. Driveway approaches may be separated when located on a local street.
 - c. In addition, lots or parcels with more than one frontage must comply with the following:
 - i. Lots or parcels must access the street with the lowest transportation classification for vehicle traffic. For lots or parcels abutting an alley that is improved with pavement access must be taken from the alley (see Figure 8. Alley Access).

- ii. Lots or parcels with frontages only on collectors and/or arterial streets must meet the access standards in the Wilsonville Public Works Standards.
 - iii. Lots or parcels with frontages only on local streets may have either:
 - Two driveway approaches not exceeding 32 feet in total width on one frontage; or
 - One maximum 16-foot-wide driveway approach per frontage (see Figure 9. Driveway Approach Options for Multiple Local Street Frontages).
6. *Setbacks.*
- a. **Building Separation.** Cluster housing structures shall be separated by a minimum distance of six feet. The minimum distance between all other structures, including accessory structures, shall be in accordance with building code requirements.
 - b. All other setbacks are provided in the applicable base zone.
7. *Pedestrian Access.*
- a. An accessible pedestrian path must be provided that connects the main entrance of each unit to the following:
 - i. Shared open space;
 - ii. Shared parking areas; and
 - iv. Sidewalks in public rights-of-way abutting the site or rights-of-way if there are no sidewalks.
 - b. The pedestrian path must be hard-surfaced and a minimum of four feet wide.
- H. **Combining Unit Types in One Development.**
- 1. If a project proposes a mix of middle housing types which creates a conflict with various standards, the more restrictive standards shall apply.
- I. **Existing Structures and Conversions:**
- 1. Where a residential structure is converted from one type of dwelling unit to another without any additions, the design standards in C.—H. do not apply.
 - 2. Where a residential structure is added on to, the design standards in C.—H. only apply if the footprint is expanded by 25 percent or more.
- J. **Alternative Discretionary Review:** As an alternative to meeting one or more design standards of this subsection an applicant may request Site Design Review by the Development Review Board of a proposed design. In addition to the Site Design Review Standards, affirmative findings shall be made that the following standards are met:
- 1. The request is compatible with existing surrounding development in terms of placement of buildings, scale of buildings, and architectural design;
 - 2. The request is due to special conditions or circumstances that make it difficult to comply with the applicable Design Standards, or the request would achieve a design that is superior to the design that could be achieved by complying with the applicable Design Standards; and
 - 3. The request continues to comply with and be consistent with State statute and rules related to Middle Housing, including being consistent with State definitions of different Middle Housing types.

(Ord. No. 677, 3-1-2010; Ord. No. 682, 9-9-2010; Ord. No. 704, 6-18-2012; Ord. No. 806, 7-17-2017; Ord. No. 825, 10-15-2018; Ord. No. 841, eff. 6-4-2020)



PLANNING COMMISSION

WEDNESDAY, APRIL 12, 2023

INFORMATIONAL

4. City Council Action Minutes (March 6 & 20, 2023) *(No staff presentation)*

City Council Meeting Action Minutes
March 6, 2023

COUNCILORS PRESENT

Mayor Fitzgerald
Council President Akervall
Councilor Linville
Councilor Berry
Councilor Dunwell

Amanda Guile-Hinman, City Attorney
Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Beth Wolf, Senior Systems Analyst
Katherine Smith, Assistant Finance Director
Dan Pauly, Planning Manager
Zach Weigel, City Engineer
Scott Simonton, Fleet Services Manager
Chris Neamtzu, Community Development Director

STAFF PRESENT

Bryan Cosgrove, City Manager

AGENDA ITEM	ACTIONS
WORK SESSION	START: 5:01 p.m.
<p>A. Transportation System Plan Amendments for Frog Pond East and South</p> <p>B. Prohibited Camping Code Update Project</p>	<p>Council heard a review and provided feedback on the draft amendments to the City’s Transportation System Plan to integrate the Frog Pond East and South Master Plan transportation projects.</p> <p>Staff continued discussion with Council on the prohibited camping code project.</p>
REGULAR MEETING	
<u>Mayor’s Business</u>	
<p>A. Upcoming Meetings</p>	<p>Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.</p>
<u>Communications</u>	
<p>A. Climate-Friendly and Equitable Communities Overview</p>	<p>Staff provided a presentation on the Climate-Friendly and Equitable Communities (CFEC), which addresses climate change with land use and transportation strategies aimed at reducing greenhouse gas emissions.</p>
<u>Consent Agenda</u>	
<p>A. Resolution No. 3040 A Resolution Of The City Of Wilsonville Granting An Exemption From Property Taxes Under ORS 307.540 To ORS 307.548 For Autumn Park Apartments, A Low-Income Apartment Development Owned And Operated By Northwest Housing Alternatives, Inc.</p>	<p>The Consent Agenda was approved 5-0.</p>

B. Resolution No. 3041

A Resolution Of The City Of Wilsonville Granting An Exemption From Property Taxes Under ORS 307.540 To ORS 307.548 For Charleston Apartments, A Low-Income Apartment Development Owned And Operated By Northwest Housing Alternatives, Inc.

C. Resolution No. 3042

A Resolution Of The City Of Wilsonville Granting An Exemption From Property Taxes Under ORS 307.540 To ORS 307.548 For Creekside Woods LP, A Low-Income Apartment Development Owned And Operated By Northwest Housing Alternatives, Inc.

D. Resolution No. 3043

A Resolution Of The City Of Wilsonville Granting An Exemption From Property Taxes Under ORS 307.540 To ORS 307.548 For Rain Garden Limited Partnership, A Low-Income Apartment Development Owned And Operated By Caritas Community Housing Corporation.

E. Resolution No. 3044

A Resolution Of The City Of Wilsonville Granting An Exemption From Property Taxes Under ORS 307.540 To ORS 307.548 For Wiedemann Park, A Low-Income Apartment Development Owned And Operated By Accessible Living, Inc.

F. Resolution No. 3048

A Resolution Of The City Of Wilsonville Supporting A 2023 Grant Application To The Oregon State Parks, Local Government Grant Program For The Boones Ferry Restroom Replacement Project.

G. Resolution No. 3049

A Resolution Of The City Of Wilsonville Authorizing The Purchase Of One 40' Bucket Truck From Global Rental Co.

New Business

A. None.

Continuing Business

A. None.

<p><u>Public Hearing</u> A. None.</p>	
<p><u>City Manager's Business</u></p>	<p>Council was shown a video on the City of Wilsonville that was created August 7, 1984. The video was entitled "City With A Lot Growing On."</p> <p>The City Manager reminded Council of the process for adopting Council Goals.</p>
<p><u>Legal Business</u></p>	<p>No report.</p>
<p>ADJOURN</p>	<p>8:16 p.m.</p>

City Council Meeting Action Minutes
March 20, 2023

COUNCILORS PRESENT

Mayor Fitzgerald
Council President Akervall
Councilor Linville
Councilor Berry
Councilor Dunwell

Kimberly Veliz, City Recorder
Jeanna Troha, Assistant City Manager
Beth Wolf, Senior Systems Analyst
Keith Katko, Assistant Finance Director
Katherine Smith, Assistant Finance Director
Zach Weigel, City Engineer
Delora Kerber, Public Works Director
Kris Ammerman, Parks and Recreation Director
Andrea Villagrana, Human Resource Manager

STAFF PRESENT

Bryan Cosgrove, City Manager
Amanda Guile-Hinman, City Attorney

AGENDA ITEM	ACTIONS
WORK SESSION	START: 5:00 p.m.
<p>A. Prohibited Camping Code Update Project</p> <p>B. City Council Work Plan Goal 5/Strategy 5.1</p>	<p>Council provided feedback on draft revisions to the City’s prohibited camping code.</p> <p>Staff provided guidance for the Council on alternative funding mechanisms that the City might consider for funding several planned future Parks and Facilities infrastructure projects Council then directed staff to gather additional public input to inform the funding priorities.</p>
REGULAR MEETING	
<p><u>Mayor’s Business</u></p> <p>A. Upcoming Meetings</p>	<p>Upcoming meetings were announced by the Mayor as well as the regional meetings she attended on behalf of the City.</p>
<p><u>Communications</u></p> <p>A. None.</p>	
<p><u>Consent Agenda</u></p> <p>A. <u>Resolution No. 2989</u> A Resolution of the City of Wilsonville Authorizing the City Manager to Enter into a Master License and Right-of-Way Use Agreement for Small Wireless Facilities in the Public Rights-of-Way with New Cingular Wireless PCS, LLC.</p>	<p>The Consent Agenda was approved 5-0.</p>

B. Resolution No. 3035

A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute An Intergovernmental Agreement For The Lending Of Personnel Within Clackamas County When Personnel Are Unable To Get To Their Normal Reporting Location.

C. Resolution No. 3051

A Resolution Of The City Of Wilsonville Authorizing The City Manager To Execute A Professional Services Agreement With Water Systems Consulting, Inc. To Provide Capital Project Engineering Services Assistance To The Wilsonville Engineering Division.

D. Minutes of the February 23, 2023 and March 6, 2023 City Council Meeting.

New Business

A. Resolution No. 3055

A Resolution of the City of Wilsonville Authorizing the Mayor to Execute an Intergovernmental Agreement between the City of Wilsonville and the Tri-County Metropolitan Transportation District of Oregon for the Adjustment of TriMet District Boundaries and an Associated Memorandum of Understanding between the City of Wilsonville and the Tri-County Metropolitan Transportation District of Oregon Regarding Future Adjustment of TriMet District Boundaries.

Resolution No. 3055 was adopted 5-0.

Continuing Business

A. None.

Public Hearing

B. Resolution No. 3045

A Resolution Of The City Of Wilsonville Authorizing A Supplemental Budget Adjustment For Fiscal Year 2022-23.

After a public hearing was conducted, Resolution No. 3045 was adopted 5-0.

C. Ordinance No. 875

An Ordinance of the City of Wilsonville Annexing Approximately 9.63 Acres of Property Located at 25540 SW Garden Acres Road for Development of a Corporate Headquarters/Fabrication Facility and Associated Site Improvements.

After a public hearing was conducted, Ordinance No. 875 was adopted on first reading by a vote of 5-0.

<p>D. Ordinance No. 876 An Ordinance of the City of Wilsonville Approving a Zone Map Amendment from the Washington County Future Development - 20 Acre (FD-20) Zone to the Planned Development Industrial - Regionally Significant Industrial Area (PDI-RSIA) Zone on Approximately 9.63 Acres Located at 25540 SW Garden Acres Road for Development of a Corporate Headquarters/Fabrication Facility and Associated Site Improvements.</p>	<p>After a public hearing was conducted, Ordinance No. 876 was adopted on first reading by a vote of 5-0.</p>
<p><u>City Manager's Business</u></p>	<p>No report.</p>
<p><u>Legal Business</u></p>	<p>The City Attorney publically appreciated those assisting the Legal Department with the Prohibited Camping Code Update Project.</p>
<p>EXECUTIVE SESSION</p>	<p>Executive Session held pursuant to:</p> <ul style="list-style-type: none">• ORS 192.660(2)(h) Legal Counsel/Litigation• ORS 192.660(2)(i) Performance Evaluations of Public Officer and Employees
<p>ADJOURN</p>	<p>9:59 p.m.</p>



PLANNING COMMISSION

WEDNESDAY, APRIL 12, 2023

INFORMATIONAL

5. 2023 PC Work Program (*No staff presentation*)

2023 DRAFT PC WORK PROGRAM SCHEDULE

Item 5.

Updated 12/14/2022

AGENDA ITEMS			
Date	Informational	Work Sessions	Public Hearings
JANUARY 11		<ul style="list-style-type: none"> Frog Pond E+S Implementation 	
FEBRUARY 8		<ul style="list-style-type: none"> Frog Pond E+S TSP Frog Pond E+S Implementation 	
MARCH 8		<ul style="list-style-type: none"> Frog Pond E+S Implementation 	<ul style="list-style-type: none"> Frog Pond E+S TSP
APRIL 12		<ul style="list-style-type: none"> Transit Master Plan Frog Pond E+S Implementation 	
MAY 10		<ul style="list-style-type: none"> Frog Pond E+S Implementation 	<ul style="list-style-type: none"> Transit Master Plan Wastewater Treatment Plant Master Plan
JUNE 14	<ul style="list-style-type: none"> Annual Housing Report 	<ul style="list-style-type: none"> Housing Needs & Capacity Analysis Frog Pond E+S Implementation 	
JULY 12		<ul style="list-style-type: none"> Frog Pond E+S Implementation 	
AUGUST 9	<ul style="list-style-type: none"> Frog Pond E+S Infrastructure Financing Plan and Policy 	<ul style="list-style-type: none"> Stormwater System Master Plan 	<ul style="list-style-type: none"> Frog Pond E+S Implementation
SEPTEMBER 13		<ul style="list-style-type: none"> Stormwater System Master Plan 	
OCTOBER 11	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Stormwater System Master Plan
NOVEMBER 8	HOLD for public event on housing		
DECEMBER 13			
JAN. 10, 2024			
2023 Projects		Future (2024)/Potential Fill In Projects	
<ul style="list-style-type: none"> Annual Housing Report Housing Needs Analysis Housing Production Strategy Transit Center TOD Transit Master Plan Update 		<ul style="list-style-type: none"> Frog Pond E&S TSP Ammend. Frog Pond E&S Devt. Code TC Programming Plan TC Ec Dev/Business Retention Mobile Food Vendor Standards Basalt Creek Zoning Basalt Creek Infrastructure CFEC Parking Code Updates & TC Parking Study CFEC Transportation Model Update CFEC TSP Update (2025) 	

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