

Case File L2400001-D(IND)

My name is Lindsey McClendon. I live at 24415 SW Boones Ferry Rd with my husband Eric, my two daughters, and our three dogs. My mother-in-law also resides on the property in an ADU. We share our entire southern property line with Brown Contracting/Emrick Investments.

I am writing to oppose the current land used permit, or at least ask for restrictions that will protect our family and neighbors. This situation is not complicated. Brown Contracting has gone from a small operation to a massive construction yard over the past several years. They make noise and vibrations that bother the residents around them. It's frustrating that all these lawyers and engineers cannot acknowledge these simple facts and work to solve the problem.

I notice that the City of Wilsonville and the County had the opportunity to meet with Brown Contracting's representatives to resolve their issues. Instead of doing that with the neighbors, including us, Mr. Stamp came prepared to fight us and demean us for living here. We were hoping things would get better but listening to the hearing it leads us to believe that they feel that the noise is ok and everyone needs to deal with it including Sundays and early mornings. If this permit doesn't include restrictions then I'm afraid all our work and communication will go away and further disruptions will occur causing more harm emotionally and financially to my family.

My hope was that Stamp would have communicated specific changes that have been implemented that would be enforced by Brown Contracting as a solution for moving forward, for example not developing in front of us and keeping heavy vibrating vehicles a certain distance from our fence and most importantly, limiting access to the area by our fence before 7am. Seems like he glossed over specifics intentionally, to ensure it wasn't enforced in this permit.

We do not live in an industrial area. We live in a beautiful neighborhood with tons of trees and wildlife. There are deer, coyotes, and all types of birds. We have a parade with our neighbors on our lawn mowers on the 4th of July. We share eggs and fire starters. We help each other and discuss common problems, including the noise and disruption caused by Brown Contracting. We are not unreasonable or over-sensitive people. There are other neighbors with concerns who did not feel comfortable submitting statements, so I am also speaking on their behalf.

The noise and disruption from next door are out of hand especially in the early morning hours. We are frequently awoken by beeping, slamming of materials, and heavy machines being operated anywhere from 4:00am - 6:00am on some days. Mr. Stamp's statement that they pre-load and stage gear ahead of time is simply not true much of the time. Otherwise, we would not be waking up so frequently.

If they are allowed to continue expanding, I'm afraid we can only expect these problems to increase. They need to have hours of operation that can be enforced, and they need to abide by the noise ordinance.

I don't think the southern fence line was ever adequately screened and buffered due to the height difference between our lots. This is something you should also consider. Not only would it help with noise, but it would also prevent their lights from shining into our home, as their large driveway directly faces our home. We have planted over \$20,000 worth of trees along this border, but they have little to no impact due to the elevation gain, and volume of noise next door.

Please do not allow them to develop the lot directly in front of us. That would cause us and our neighbors a lot of problems and would further destroy wildlife habitat.

Based on our history with Brown Contracting, the permit needs to be very specific about what they are allowed to do next door. More importantly, they need clear restrictions on what they *are not allowed to do*. Otherwise, I'm afraid any ambiguity will be exploited to our detriment.

I have read my husband's statement and I agree with everything he says. We need protection from the noise, vibration and lights created next door. Please use your authority to save our neighborhood from further disturbances. This is our forever home, and we must protect it.

Thank you,
Lindsey

My name is Tina McClendon. My address is 24415 SW Boones Ferry Road. I reside in a permitted ADU on the property with my son, Eric McClendon, and his family. Eric and his wife Lindsey have accurately described the situation with Brown Construction that we have dealt with for the past several years.

We looked for months for a property suitable to our needs – a rural location close to schools and yet in close proximity to population centers, schools and the freeway. My desire was for a rural setting for my grandchildren to grow up in, as had my own children. We also wanted a property with either an existing ADU, or the ability to place an ADU on site as I am in my 70's and anticipate needing the assistance of family in the not too distant future.

We visited this property several times before purchasing. It was perfect – secluded, yet close, good schools, and a quiet environment. At no time were there any indications that there would be a full scale concrete operation with the attendant noise and destruction of the environment.

Months after we moved in, Brown Construction commenced enlarging its operation. The number of vehicles and the volume of noise and vibrations quickly escalated. We tried to informally resolve the issues but Brown was reluctant to take any measures to reduce noise. He and his employees were belligerent and intentionally created more noise and disturbances.

Although the hours of operation were clearly set forth in the permit, Brown Construction continued to operate outside of those hours. They began arriving at 4 to 5 a.m. and continued working until 9 or 10 p.m. They worked on Sundays in violation of the permit, as well as on holidays. Headlights shone directly onto our property and interrupted sleep. The noises were not just from the trucks. They were power washing cement trucks with the runoff going directly into the wetlands because they have no catch basins, constantly using some type of wood chipper, grinding metal, and banging signs and tools around. The noise they generate is incessant. Calling the operation a storage yard would be laughable if it weren't such a blatant untruth.

It is clear from what has been reported by neighbors and by Washington County that Mr. Brown does not feel obligated to follow permitting conditions. He apparently feels he is entitled to do whatever he wants with no regard to surrounding residences, or the environment. His unpermitted clear cutting of a grove of old growth trees destroyed the habitat of numerous species and endangered the wetland.

If he is allowed to go forward with the expansion of the business, the most stringent conditions must be imposed, as he will continue to step over the line.

Case File L2400001-D(IND) [See attachments: https://www.dropbox.com/scl/fo/9fzahpetzks89px1hinp/ACovlrQH3IYoydDeYTdzr1M?rlkey=g250qo6u9545x4zxdymf451jn&st=c38rx3cw&dl=0](https://www.dropbox.com/scl/fo/9fzahpetzks89px1hinp/ACovlrQH3IYoydDeYTdzr1M?rlkey=g250qo6u9545x4zxdymf451jn&st=c38rx3cw&dl=0)

My name is Eric McClendon. I own and reside on the property at 24415 SW Boones Ferry Road, Tualatin, OR 97062. My wife, two daughters and three dogs also reside here. My mother lives on the property in a permitted ADU. We share our entire southern property line with Brown Contracting/Emrick Investments (“Brown”). I am a licensed attorney, Marine veteran, and a member of the Washington County Planning Commission.

I appreciate you taking the time to read my testimony. I apologize for the length of my submission, but a full background is warranted given the impact this decision will have on my family, neighbors, community and the wildlife habitat in the area.

I am here to oppose the current application and provide some relevant factual background and legal reasoning for my opposition. I would be happy to answer any questions, allow a site visit, or provide any additional information you deem necessary in making your decision.

Background Summary:

Brown obtained a conditional use permit for 9675 SW Day Rd in 2014 to convert an existing residence into a contractor’s establishment. At the time, there were many restrictions including daily trip count, vehicle height, hours of operation, etc. The permit anticipated up to 13 employees total during “busy times.” Brown’s current operation today so far exceeds the current 2014 permit they were forced to submit a new land use permit based on a “Final Notice” sent by Washington County in January of 2023 (Dropbox Attachment). This final notice was sent after multiple attempts to reign in the operations at 9675 SW Day Rd, prevent unlawful use of adjacent lots, and mitigate the tree loss on the adjacent residential lots as described below.

At some point after 2014, Brown obtained additional, neighboring residential lots by “door-knock” purchase offers. Some of these lots contain SNR areas. In April of 2022, Brown logged these additional lots without the required approval. Brown immediately began developing these lots without the required approval (Dropbox Attachment).

The noise and activity continually increased over the next few years as Brown added many additional vehicles, employees, and features to their current lot. They also began working all hours of the day, including very early in the mornings, throughout the daytime, into the evenings, up to seven days per week.

In 2022, we filed a civil lawsuit against Brown for nuisance, negligence, and intentional infliction of emotional distress due to the constant noise emanating from 9675 SW Day Rd (Dropbox Attachment).

It should be noted at the outset that the sound study conducted on my property and submitted by Mr. Stamp in this land use proceeding is subject to a protective order in that case and was not allowed to be used outside of Washington County Circuit Court Case No. 22CV23711. We object to the submission of the study and ask that it be removed from the record and given no consideration. Mr. Stamp stated it “took an act of congress” to “get the report released” and acknowledged it was “created for something else.” Submitting the study was a violation of a stipulated agreement ordered by the Honorable Judge Erwin and entered under the direction of our respective lawyers. Mr. Stamp should

be required to explain how he came into possession of the study and what legal grounds he believes he had to submit it without our consent or a court order (Dropbox Attachment).

Brown is now asking for an expansive land use permit allowing him to convert additional residential lots into one large contractor's establishment over the objections of Wilsonville and all the residential neighbors to the north.

Expanded Background:

We purchased our property in April of 2019 after viewing several other properties with acreage and the ability to construct an ADU. We selected it in part due to the long private driveway, the layout, and the beautiful SNR wetland area to the west of the property. Our house was originally constructed in 1969, so it has been here for 55 years. Most houses in the area, including those owned by Brown, were residential properties for many decades before FD20 zoning or Brown Contracting existed.

At the time we purchased our property, Brown had a gravel driveway and several small utility trucks on their lot. Their land use permit contained many restrictions on their operation, including hours of operation, vehicle height requirements, screening and buffering, noise, and vibration restrictions etc. Within three months of us moving here, around June of 2019, Brown paved their driveway and gradually began adding numerous heavy vehicles, including concrete trucks, dump trucks, hydraulic excavators, volumetric trucks, bobcats, tanker trucks, etc.

Brown also started working longer and longer hours. It became routine for them to arrive between 4:00am – 5:00am, causing noise and vibrations of all types, and working well into the evening, sometime as late as 10:00pm. They also started working weekends (Saturday and Sunday) and some holidays.

In April of 2022, Brown began clearing the residential lots that are the subject of this hearing. Our neighbor initiated a complaint with WACO and found that they did not have the required permits and that part of the cut was in an SNR area.

As part of the complaint process and investigation of the trees, we asked the County to review Brown's land use permit as we were witnessing many violations of its conditions of approval. These violations included hours of operation, noise, vibration, daily trips, lack of adequate screening and buffering, vehicle height requirements, storage of hazardous materials, signage, etc. In January of 2023, the County, after its own investigation, sent Brown a "Final Notice" asking him to make certain changes to his operations, and to apply for a new land use permit since they were "no longer operating within the 2014 parameters." (Dropbox Attachment) Despite this notice, the noise and disturbances continued.

I do not have the space to write out the entire history of noise concerns with Brown, but I will outline a few examples below. I have also attached a link to some photos and videos that are examples of our concerns.

In December of 2022, Brown was working 24/7 while working at Lincoln High School in Portland. After about a week of them getting dump truck loads of materials around the clock, we reached out to Brown's attorneys to hopefully resolve the issue. They denied our claims of noise and asked for proof. We sent them 5-6 videos of dump trucks and hydraulic excavators operating at various hours of the night (One in Dropbox Attachment). They replied by denying our "characterization" of the videos and continued their behavior.

We then attempted to contact the noise complaint folks at WACO. We were basically told that due to the hours during which the noise was occurring, we needed to call non-emergency because WACO staff were unavailable at those times. The first occasion we did this was Sunday, December 11th, 2022. Brown was operating dump trucks and hydraulic excavators at approximately 7:00pm. It took deputy Howell almost thirty minutes to respond. He called us after the site visit and was surprised by the size of Brown's operations. He remarked that "this was not a contractor establishment, but a full-blown industrial operation." He told the on-sight manager to pack up and leave, and that they were not allowed to operate heavy machinery on Sundays.

On Sunday, December 18th, we had the same problem. We finally called the non-emergency line again around 7:00pm. This time deputy Kibble responded in approximately 30 minutes. Luckily for us, he had over 20 years of previous experience in heavy equipment sales. He witnessed multiple dump trucks being loaded and unloaded with a heavy hydraulic excavator (Dropbox Attachment). He issued Brown a citation for violating the noise ordinance. Washington County sent one of their lawyers to prosecute the case, showing they had a solid belief the ordinance had been violated. Unfortunately, deputy Kibble cited the foreman and not the company itself, so Brown was able to get the citation dismissed on procedural grounds – not the merits. Because Brown had the case set over three times, Washington County was unable to re-issue the citation due to the statute of limitations expiring just days prior to the hearing.

During April and May of 2023, Brown employees worked every single day for almost two months. We finally called non-emergency again on Sunday, May 21st. They had been using power tools all day but eventually fired up a Bobcat and began moving materials around 5:00pm. This time it took Deputy Kibble almost an hour to respond. When he arrived, he was greeted by Brown's attorneys, who argued with him about the noise ordinance. Since they were not operating the Bobcat at the time he finally arrived, Deputy Kibble declined to issue a citation.

Again, these are but a few of examples of our years-long struggle for peace in the neighborhood.

Despite these visits from law enforcement, repeated letters from the county and a civil lawsuit, Brown continues working off-hours and weekends and making unreasonable noise during the day. It is unsustainable for us to continue calling law enforcement, especially considering response times and that now they have their lawyers show up. The current operation is so large it is unrecognizable from what it looked like only a couple of years ago. We are extremely concerned about our quality of life should this permit be granted. Based on their history of non-compliance, and the history described above, we believe Brown will only continue to exponentially expand in size and scope if given these extra lots.

Therefore:

- 1) **We object to the issuance of a new land use permit. Brown should be restricted to the property, scope, equipment, and conditions of its original 2014 permit. If Brown cannot meet these conditions, they should not be located in a mixed-use area next to residences.**
- 2) **If the permit is granted, we insist on the following conditions that are supported by the Community Development Code, including Sections 207-1 and 207-5.1.**
 - a. **No grading or development past the northern boundary of 9675 SW Day Road on any new tax lots. This is the most crucial term and is a non-negotiable "poison pill" as Mr. Stamp would say.** Despite arguments that this condition must be tied to section 4-22,

WACO staff correctly points out that the Hearings Officer has the authority to order this condition under both 207-1 and 207-5.1 *and* the code sections on environmental standards. Due to the mixed-use nature of the area, WACO uses the type III procedure to ensure the area is protected for *everyone*, not just developers. A type III procedure is only used when there are “possible significant impacts to surrounding properties.” Therefore, the hearings officer has broad authority and discretion to impose conditions that would mitigate harm to surrounding properties.

- a. **Preventing this additional grading would have a minimal effect on Brown’s business.** This area covers less than 15% of the proposed expansion. Since Brown has not claimed they will be adding additional vehicles or features to this area, they have not expressed a business impact that would outweigh neighborhood and environmental concerns. Additionally, if Brown requires more graded area for their operations, they are already planning to demolish and grade several other areas on these tax lots, which would cover the lost area in controversy here.
 - b. **If this area is developed, we would be surrounded on two sides by Brown.** If this occurs, the noise, vibration, lights, and vehicle exhaust fumes from this new area would emanate directly into our front yard, our living room, my home office, and our bedroom windows. It would also allow noise and vibrations to echo up the canyon to all our neighbors as supported by the testimony of multiple neighbors to the north. Allowing Brown to “creep” this far north would erode the residential nature of the area and undoubtedly cause future land use disputes.
 - c. **A site obstructing fence would not adequately protect us.** As evidenced by the ineffectiveness of current fencing due to height differences between lots, unless the fence is tailored properly, it will have little to no effect. The fact that Mr. Stamp stated they will build some sort of “noise fence” belies the fact that they plan to make noise in this area, which is very problematic. We absolutely need that area as a buffer between the neighborhood and Brown’s activities.
 - d. **Due to proximity to the wetland, it is also important as a protective buffer to protect the adjacent riparian area from damage and runoff.** The wetland boundary is not static, and we have seen portions of the currently proposed grading area underwater during the winter. Finally, there are numerous trees and other plant life that would be destroyed by this grading. Brown has already cleared multiple acres of all plant life, destroying crucial wildlife habitat. This area should be left alone to ensure WACO is meeting its obligations under Goal 5.
- 2) **The northern boundary of the new operation should be completely screened and buffered according to the highest applicable CDC 411 and 207 standards.** This includes finishing the buffering that was supposed to have occurred in the original permit on 9675 SW Day. Screening and buffering should tie-in to the new restricted graded area on the adjacent tax lots and continue all the way to Pattie’s property at 9825 SW Day. This screening and buffering should consist of both fencing and trees, trees and shrubs tall enough to block Brown’s activities. Due to the topography of that boundary, Brown may need to apply for a

variance to create an effective barrier. My guess is that any variance would be supported by WACO staff due to the history of this case file.

- 3) **Brown's stated hours of operation of 8:00am – 5:00pm, Monday – Friday, should be their permitted operating hours.** This would give a bright-line rule for when they can operate without anyone having to parse the noise ordinance, DEQ standards, or bother law enforcement. Since these are Brown's stated hours of operations, they should be held to them. No heavy vehicles or equipment should be operated outside these hours, **especially on Sundays and prior to 7:00am.**
 - a. **As conceded by Brown, the noise ordinance is the applicable noise standard, not the DEQ standard.** Brown argues about the higher standard while conceding it does not apply. Although arguably less objective, the noise ordinance isn't hard to interpret.
 - b. **Brown's attorney presents an inaccurate legal analysis of the noise ordinance.** Mr. Stamp's broad overview omits key elements of the noise control ordinance, although he concedes that the ordinance prohibits unreasonable noise and admits that the prohibition is "problematic" for the applicant. Washington County Code Section 8.24.030 makes it "unlawful for any person to make, continue or cause to be made or continued, any noise, which unreasonably annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of any person of normal sensitivity in a [home, apartment, nursing home, or trailer]."
 - i. **This general prohibition is not limited in terms of time and applies at all hours of every day.** The ordinance expressly lists as violations, without limitation, various construction-related activities between the hours of 7:00 p.m. and 7:00 a.m. during weekdays and from 7:00 p.m. Saturday to 7:00 a.m. the following Monday. WCC § 8.24.040.F. The prohibition on unlawful noise between 10:00 p.m. and 7:00 a.m. and all day on Sundays for any "construction noise" is further embodied in the opening paragraph of the official WACO Noise Complaint Form. Contrary to Mr. Stamp's argument, no authority limits the noise restrictions to "active" construction. Instead, the ordinance establishes a very low threshold for violations, as any noise that unreasonably "annoys" or "disturbs" a person of normal sensitivity constitutes a violation. As multiple neighbors have stated, Brown does far more than just "annoy" residential neighbors in the area. Brown's operations completely dominate surrounding residents' early mornings, days, evenings, and weekends and directly interfere with the "public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the county and its inhabitants." WCC § 8.24.010.C.
 - ii. **Brown easily violates the "enumerated acts" of the noise ordinance.** WCC § 8.24.040 enumerates various acts that violate the noise ordinance (e.g., A. Horns, Signaling Devices, etc.; C. Exhaust Brakes, Yelling, Shouting, etc.; G. Piledrivers, Hammers, etc.; H. Blowers.) All these activities occur at Brown's property during regular and off-hours. As conceded by Brown and stated in

the code, the activities are prima facie evidence of a violation, and the enumerated list is not exhaustive.

- iii. **Brown violates the reasonable person standard for non-enumerated acts.** The code provides some guidance on factors to be relied upon in establishing a violation, including, but not limited to:
 - A. The volume of the noise;
 - B. The intensity of the noise;
 - C. Whether the nature of the noise is usual or unusual;
 - D. Whether the origin of the noise is natural or unnatural;
 - E. The volume and intensity of the background noise, if any;
 - F. Whether the noise is plainly audible within a noise sensitive unit;
 - G. The nature and zoning of the area within which the noise emanates;
 - H. The density of the inhabitation of the area within which the noise emanates;
 - I. The time of day or night the noise occurs;
 - J. The duration of the noise;
 - K. Whether the noise is recurrent, intermittent, or constant.

Every factor supports the finding of a noise ordinance violation by Brown's operations, even during their stated hours of operation and definitely outside of them.

- c. **Brown admits they make noise.** Unlike the current 2014 permit which states that no noise or vibration will be felt on adjacent properties, this current application basically states that they have made, and will continue to make noise, but somehow "topography" will protect neighboring properties. As outlined by myself and other neighbors, we can currently feel vibration from heavy equipment. We can also currently hear construction noise. We cannot rely on "topography" to protect us from future development that has not occurred yet on lots even closer than the current operation.
- d. **FD20 zoning is not conducive to industrial operations.** The applicable FD-20 zoning, which allows only "limited interim uses until the urban comprehensive planning for future urban development of these areas is complete" (Cmty. Dev. Code § 308-1 (emphasis added)) does not permit unfettered or long-term land use and contemplates that non-residential uses will give way to expanding residential uses. Brown's expanding industrial operations conflict with the increasingly residential nature of the area, including the construction of a 400-home development ¼ of a mile north on SW Boones Ferry Rd. The City of Wilsonville, who has jurisdiction over SW Day Rd, has stated their opposition to this expansion and should be deferred to.
- e. **Oregon case law on nuisance also cuts against Brown's zoning assertions.** Lunda v. Matthews 46 Or App 701 shows that a concrete company, even in an industrial area, can be sued and punished for nuisance. See defendant's argument that was rejected by the court: "They next argue that the operation of their plant was not unreasonable because it was operated as any other cement plant. This argument was rejected in Kramer v. Sweet, 179 Or. 324, 328, 169 P.2d 892 (1946). They also

contend that the use of their property was reasonable as a matter of law because it was in an area zoned for that type of *67 business. **Zoning legislation only permits certain general classifications of uses of property. Zoning is not an approval of the manner of conducting a business which causes a private nuisance.** (emphasis added) E.g., Richards v. Washington Terminal Co., 233 U.S. 546, 553, 34 S. Ct. 654, 58 L. Ed. 1088, L.R.A. 1915A 887 (1914); Commerce Oil Refining Corp. v. Miner, 281 F.2d 465, 468, 86 A.L.R.2d 1307 (1st Cir.1960) (construing R.I. Law); Hobbs v. Smith, 177 Colo. 299, 493 P.2d 1352, 1354 (1972); Bauman v. Piser Undertakers Co., 34 Ill. App.2d 145, 180 N.E.2d 705, 708 (1962); Schlotfeld v. Vinton Farmers' Supply Co., 252 Iowa 1102, 109 N.W.2d 695 (1961); Weltshe v. Graf, 323 Mass. 409, 82 N.E.2d 795 (1948); Urie v. Franconia Paper Corp., 107 N.H. 131, 218 A.2d 360, 362 (1966); Sakler v. Huls, Ohio Com.Pl., 20 Ohio Op.2d 283, 183 N.E.2d 152 (1961); Barnes v. Quarries, Inc., 204 Va. 414, 132 S.E.2d 395 (1963); Turner v. Spokane, 39 Wash. 2d 332, 235 P.2d 300, 302 (1951).”

- f. **If Brown wishes to work outside of permitted hours, they should seek a variance through the process outlined in the noise code (Chapter 8.24.025).** There is a reason WACO adopted a detailed variance procedure. Brown should be required to follow it just as every other citizen. While claiming they only operate at reasonable hours, (addressed multiple times above) this is factually incorrect. Brown’s lawyers admit they believe they have the right to work whenever they want as long as its’ not “active construction.” As addressed above, they base these claims on their inaccurate analysis of the noise ordinance.
- g. **As stated above, the sound “study” must be stricken from the record due to a protective order violation and other flaws.** As stated above, Brown should not be rewarded for violating this agreement. Additionally, it should be inadmissible because it was created for the purpose of litigation, not a land use permit. Brown had a team of attorneys coordinate with walkie-talkies while they ran a dozen highly scripted “scenarios” multiple times until the desired reading was obtained. The study was also conducted over 125 feet from the fence, not 25 as represented by Mr. Stamp.
 - i. **The sound “study” left out the noisiest and worst vibration-causing machines and tools.** The “study” included zero cement trucks, volumetric trucks, tankers, impact wrenches or woodchippers. This is deceptive considering those machines are the cause of the most noise and vibration, hence the County’s suggested limitation on the operation of these machines near the fence.
 - ii. **The sound “study” tested each piece of machinery in isolation.** It is common for most of the noises cited in the “study” to occur simultaneously, especially during busy times. Testing in isolation created very misleading measurements.
 - iii. **We have many decibel readings in the 60s, 70s 80s** (Dropbox Attachment). This shows once again how biased Brown’s “study” was. I have provided a few examples for your review. As stated by Brown’s attorney, anything over 55 is problematic, and we agree. Again, we can feel the vibration of heavy

trucks from every room in the house. The noise and vibration are much greater than the “whisper from five feet away” described by Mr. Stamp.

- iv. **Other than Brown Contracting, the area is relatively quiet.** Mr. Stamp argues that “background noise” and traffic are the true culprits here, along with the Amazon parking lot on SW Day and SW Boones Ferry. The truth is that the area is mostly large-lot residential, with a PGE substation in the distance that makes no noise. Amazon has installed a large earthen berm along their boundary with the neighborhood which protects us from noise and light. Brown is the only property causing unreasonable noise and vibration.
 - h. **The only “neighbors” “in favor” of the development are either employees, tenants, or business partners of Brown with one exception.** The “approving” properties cited by Brown’s advocates are either owned by Brown and rented to employees or owned by their business partner Bob Jonas (Amazon lot). Of course they are not opposed to their boss/landlord’s plans. Neighbor Pattie is apparently the only “real” neighbor not opposed to the development, although this is not the impression she gave me during our most recent conversation. I would hope that conditions are implemented to protect her, because I don’t think she fully understands the scope of Brown’s proposal and its possible impact on her.
 - i. **Brown was required to consult with Wilsonville and WACO, but not the neighbors.** Although not required, a neighborhood meeting would have allowed us all to express our concerns to Brown and possibly reach some compromises. When actually given the opportunity to respond to neighbor concerns during the May 16th hearing, Mr. Stamp instead used it as an opportunity to belittle them. We cannot help but feel that Brown contracting does not care about our legitimate concerns, and hence why we need enforceable protection from their activities.
 - j. **“Testimony” from Brown’s attorneys should be given no weight.** No explanation necessary.
- 4) **No idling or revving vehicles that require a CDL north of their office building on 9675 SW Day. No release of air brakes in the same area.** This would end most noise and vibration concerns for us and neighboring residential properties by confining the loudest activities to areas the furthest away from residential neighbors. “Revving” is defined as “increase the running speed of (an engine) or the engine speed of (a vehicle) by pressing the accelerator, especially while the clutch is disengaged.” Concrete trucks must rev their engines at a sustained rate for long periods of time to keep the roller moving and prevent the concrete from hardening. They frequently do this right on the fence line as they load, unload, wash, and service their concrete trucks. This revving and idling can last hours and is also accompanied by the constant release of air brakes. We can feel the vibration from our living room, bedroom, children’s rooms, etc.
- 5) **No storage of fuel or chemicals within 100 feet of the fence line.** Brown’s original permit did not contemplate the storage of chemicals or hazardous materials. At the present, Brown has much more than “a gallon of gas on the fence line” as stated by Mr. Stamp. They have installed three 550-gallon fuel tanks near our fence line that are not addressed in either

permit (see photos). Brown should be required to obtain the proper permits from the fire marshal (and anyone else required) for this fuel station. They also store other types of fuel including gas and propane, and hazardous chemicals such as hydrochloric acid and sulfuric acid, among others, in dozens of 5-gallon buckets staged near our fence. These chemicals cause safety and fire concerns, especially since Brown is not connected to city water supplies and is fighting the request from Wilsonville to do so.

- 6) **No washing vehicles out into the storm drain.** We are all on well water and there are major pollution concerns due to the stormwater drain being utilized to wash out concrete trucks and other work vehicles. If appropriate, DEQ should be consulted to ensure adequate water quality is being maintained.
- 7) **No blowing of concrete dust into the air or wetland.** We have observed Brown employees blowing concrete dust onto adjacent lots, including the wetland area to our west. Sometimes they wear masks to protect them from the chemicals. If appropriate, DEQ should be consulted to ensure air and water quality compliance.
- 8) **No additional vehicles should be allowed.** The 25% standard proposed by the county is too loose and unenforceable. It basically gives Brown wiggle room to add a significant number of new vehicles, causing additional noise and daily trips. Who will keep track of the additional vehicles? The County? Me? Other neighbors? A practical condition would be to restrict them to their current vehicle inventory and have them re-apply for *any* additions.
 - a. **Brown's average daily trip (ADT) numbers are inaccurate.** There are days when 60-70 vehicles arrive and depart *prior to 7:00am*. This is causing major traffic issues on SW Day Rd. and adds to the noise and activity that disturbs neighbors. The accurate ADT number is more likely around 180-200. A full traffic study should be conducted by an independent or governmental entity to determine the correct ADT. Any recommendations made by Wilsonville should be included in the final order.

Conclusion:

I wish to reiterate my appreciation of the hearings officer once again for reading and considering my concerns. This hearing will determine the future of our neighborhood and I understand what a difficult decision you have. I would also like to thank the hard-working staff at WACO Land Use for attempting to work through our concerns over the past few years. They have worked hard to find solutions for both the applicant and the neighborhood, and their recommendations should be strongly considered. The same goes for the City of Wilsonville. They are only trying to do their jobs and protect the future of our community. This process has been physically, emotionally, and financially draining to our little family. We are asking that the permit be denied, or in the alternative, the conditions described above be required and enforced.

May 30, 2024

Re: Statement for County Hearing

Dear Mr. Turner,

My name is Jackie Mathys, and this is a follow up to my spoken comments on the May 24 hearing on Zoom. I'm the one who provided the aerial photo of the homes to the north of the Brown Construction site.

My written comments today include:

1. Reiterating my verbal comments from the hearing
2. Response to a subsequent comment by Andrew Stamps
3. Appendix A: Definition of FD-20 zoning
4. Aerial photo of our home in relation to the Brown site.

Comments from Zoom hearing

I would like to provide a broader perspective on this case. The current comments imply that the property owners on Lot 306 (Eric and Lindsey McClendon) are the only ones affected by the noise from the Brown contractor establishment, but this is not accurate.

My husband and I have submitted numerous noise complaints to the county, and other neighbors have done the same. Our house, just left of the house in the photo (last page) with the red roof, along with the houses to the left of us, are situated at the top of a canyon.

The canyon below us acts as a natural amplifier for noise generated from the direction of the Brown property. The equipment noise from the Brown site impacts us significantly, and we hear the noises loudly and clearly.

Additionally, we've had a preview of what increased heavy equipment noise will sound like due to the construction of a substation by PGE on Day Road, just west of the lots acquired by Brown. Over the past few months, we have endured the sounds of dump trucks, backup beeping, and other heavy equipment. The loudest and most noticeable noise comes from dump trucks dumping and their gates slamming shut, which is amplified up to our house and our neighbors to the north due to the canyon's acoustics.

The noise from the PGE site is acceptable because it's temporary. But it does highlight how equipment noise carries up the canyon, especially since Brown unlawfully cut down the trees on the lots they acquired. This has increased the noise level noticeably.

Contrary to the statements made by Brown and his attorneys, this noise issue affects more than just the next-door neighbors. Every neighbor in the photo I provided has experienced problems with the contractor establishment on the property.

We are strongly opposed to any expansion that would increase equipment, idling, and noise from this contractor.

This property is our retirement home, a beautiful place, but the noise is significantly impacting its livability. I appreciate the opportunity to share this perspective.

RESPONSE TO ANDREW STAMP AND AKS ENGINEERING COMMENT

Andrew Stamp's Comment:

“They talked about how they bought \$1 million houses in an FD-20 zone. And I'm thinking, why would you do that? It's a future industrial zone, as the city of Wilsonville pointed out. In some areas, such as those devoted to industry, you have to expect more noise.”

Response:

FD-20, by definition (see Appendix A below), is not “future industrial.” It is “future development.”

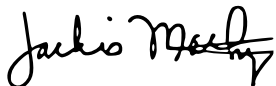
When we purchased our property in 2019, the cities of Wilsonville and Tualatin were still determining the new urban growth boundaries and future zoning. We were aware that the area surrounding our property would eventually be developed.

However, this does not imply that we must tolerate a contractor establishment that disregards zoning laws and tree removal regulations and operates heavy equipment in what remains a residential area.

The current operations of Brown Construction have outgrown their initial location. It is now necessary for them to relocate to a properly zoned area that accommodates their business activities and the associated noise levels.

Thank you.

Jackie Mathys



Jackie Mathys, Property Owner and Resident

24305 SW Boones Ferry Rd.

Tualatin, OR 97062

503-781-2872

jackiemathys@gmail.com

APPENDIX A: Definition of FD-20 Zoning

The FD-20 zoning designation in Washington County, Oregon, stands for "Future Development – 20 acre." It is an interim zoning classification used for areas that are planned for future urban development but are currently outside the city boundaries. This zoning is applied until a detailed Concept Plan is created and the land is annexed into a city, such as Tualatin or Wilsonville.

Key points about FD-20 zoning:

- **Purpose**: FD-20 is intended to manage and limit development in areas designated for future urban growth. It helps ensure that land use decisions are consistent with long-term planning goals and regional growth strategies.
- **Interim Designation**: This zoning is a temporary measure that remains in place until a comprehensive Concept Plan is completed and the land is officially annexed into a city. Once annexed, the land will be rezoned according to the city's comprehensive plan.
- **Permitted Uses**: While the specific permitted uses under FD-20 can vary, generally, this zoning restricts intensive development to maintain the land's readiness for future urbanization. Typically, it might allow for some agricultural or low-density residential uses until urban infrastructure and services are available.

For detailed information, you can refer to Washington County's land use documents and planning resources.

Sources:

- Washington County Urban & Rural Land Use Districts
- City of Wilsonville Basalt Creek FAQs





May 30, 2024

Paul Schaefer
Senior Planner
Washington County Department of Land Use & Transportation
Planning and Development Services
Current Planning
155 N. First Avenue, #350-13
Hillsboro, OR 97124- 3072

**Subject: Casefile L240001-D(IND)
9675, 9775, 9779, and 9805 SW Day Road**

Dear Mr. Schaefer:

The City of Wilsonville appreciates the opportunity to provide additional testimony in the above-referenced Casefile as allowed by the Hearings Officer at the May 16, 2024 hearing. Please provide this letter and attachments to the Hearings Officer for inclusion in the hearings record.

Request

At the May 16, 2024 hearing, the Hearings Officer held the record open until May 23, 2024 at 4pm for the County staff and applicant to provide agreed upon revised conditions of approval. Additionally, the record was held open for other parties to provide new testimony until May 30, 2024 at 4pm. The record was held open until June 6, 2024 at 4pm for anyone to respond to the testimony received by May 30, 2024.

The City was provided a copy of the applicant's pre-hearing exhibit (PH6), an email from the applicant containing a link to documents placed in the record and staff's recommended changes to come of the original conditions of approval supported by staff and the applicant on Tuesday, May 28, 2024. The City's recommended conditions of approval were not included in these revised conditions of approval. Additional modifications to City-related conditions were not coordinated with the City and the City does not support the revised conditions of approval as drafted. The City requests that the County provide copies of all additional testimony received by the May 30, 2024 deadline by May 31, 2024 at 4pm to allow the City adequate time to review and respond to that new testimony.

The City again requests the Hearings Officer deny the application due to lack of evidence the applicant can meet all standards and regulations that apply to this site and inadequacy of service provider letters needed to ensure proper standards can be met and services provided. Of note, the City is a key service provider as the road authority for SW Day Road, where public stormwater system facilities are also located, and water provider for nearby fire hydrants and the adjacent water line. Since the hearing,

RE: Case File L2400001-D(IND) - 9675, 9775, 9779, and 9805 SW Day Road

May 30, 2024

there continues to be no communication from the applicant or the County with the City regarding these services and applicable City standards for any property that accesses and utilizes such services.

Response to additional testimony

The City would like to add the following to the City's prior testimony:

Water. At the May 16, 2024 hearing, the applicant testified that Tualatin Valley Fire and Rescue (TVF&R) fire fighters would utilize the City's hydrant in Day Road should an incident occur onsite, even if the requirement is for TVF&R to provide a water truck in response. Washington County does not have an agreement with the City to provide extraterritorial water for fire response outside of City limits. Wilsonville Code Chapter 3.100(13) prohibits the extension of water outside of City limits unless specifically approved by the City Council. Specifically, Chapter 3.100(13) states "water service lines shall not be extended outside the City limits and water shall not be metered or sold outside the City limits, except however, when the Council may approve and authorize, by motion, the extension of a line or lines for the purpose of furnishing City water or sewer to any property or facility which is owned, used, occupied, leased or operated by any agency or department of Federal, State, County or special district; or a public entertainment facility that is privately owner, or **privately-owned property where extension of service is required to alleviate a clearly-defined health, safety or fire condition**" (emphasis added). In this instance, the fire condition is established by the applicant's proposal to construct an open-air storage facility that requires fire protection. As stated in the City's prior testimony, the applicant should be required to annex into the City for fire protection services or be prohibited from constructing the open air storage building.

Transportation. At the May 16, 2024 hearing, the applicant testified that the City could not exact frontage improvements without providing a Nollan-Doland findings. Said findings are attached in Exhibit A.

City Proposed Conditions of Approval

The City maintains its request that the application be denied, based on sufficient evidence in the record that the applicant does not meet applicable regulations. If the Hearings Officer finds substantial evidence and grounds that the application can be approved with conditions of approval, then the City requests inclusion of the following conditions of approval as identified below:

- a. County staff and the applicant proposed removal of prior condition of approval II.G that addressed fire protection. Add as a new condition of approval: Use of City of Wilsonville water for fire protection is prohibited. Therefore, the open-air storage building is prohibited and shall be removed.
- b. To replace County Conditions of Approval COA II.B: As found in the DKS traffic analysis, the location of the five driveway access points to the applicant's proposed contractor's establishment do not meet the City's minimum site distance requirements, creating a safety hazard. Additionally, the locations of the five driveway access points do not meet the City's minimum access spacing standard. Access consolidation to comply with City access standards is required and shall be done in conjunction with obtaining a Public Works Permit with the City for the street improvements.

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May 30, 2024

- c. To replace County Condition of Approval III.A: SW Day Road is presently an unimproved Major Arterial. The applicant shall widen SW Day Road to accommodate an additional travel lane, curb, planter strip, street trees, bike lane, sidewalk, streetlights, and consolidated driveway approaches in accordance with the City of Wilsonville's Transportation System Plan (TSP) along the entire frontage from the eastern boundary of Tax Lot 3S102B000309 to the western boundary of Tax Lot 3S102B000311. Street improvements shall be constructed under a Public Works Permit issued by the City of Wilsonville.
- d. To replace County Conditions of Approval III.A.2 and III.A.3: Dedication of an additional 16-feet of right-of-way to the City of Wilsonville, using City of Wilsonville dedication forms, along the SW Day Road frontages of Tax Lots 3S102B000310, 3S102B000302, and 3S102B000311 is required to provide 53.5 feet from centerline of the right-of-way. If City public facility standards are not met, such as dedication of sufficient future right-of-way to match the City's Transportation System Plan (TSP) and associated frontage improvements, the City will not allow site access via SW Day Road.
- e. To replace County Condition of Approval II.E: Submit for review and approval to the City a drainage analysis report stamped by a civil engineer licensed in the State of Oregon that shows how stormwater will be managed in accordance with the Clean Water Services Standards and ODOT Hydraulics Manual. The drainage analysis shall include a downstream analysis.

The City appreciates the opportunity to be part of this important decision and looks forward to continued communication, as necessary. The City is concerned about the lack of transparency in providing timely information for this application as it is not posted to the County's website. The City requests to receive a copy of all public testimony received by the County by May 31, 2024 at 4pm so that the City has adequate time to review and respond to new information presented during this open record time period. This letter is submitted for purpose of establishing standing for appeal. The City, therefore, requests to receive the Notice of Decision and conditions of approval rendered on this application.

Respectfully submitted,



Amy Pepper, PE
Development Engineering Manager

cc: Chris Neamtzu, Community Development Director
Zach Weigel, City Engineer
Miranda Bateschell, Planning Director
Daniel Pauly, Planning Manager
Amanda Guile-Hinman, City Attorney

Enclosures:

Exhibit A: Nollan-Doland Findings and Attachments



MEMORANDUM

TO: Washington County Hearings Officer

FROM: City of Wilsonville

DATE: May 30, 2024

RE: Washington County Case File No. L2400001-D(IND)

I. INTRODUCTION

This memorandum provides initial findings by the City of Wilsonville (“City”) regarding certain public improvements that the City will require the Applicant to construct due to Applicant utilizing the City transportation facility, SW Day Road, for its development located at 9675, 9775, 9779, and 9805 SW Day Road (tax lot nos. 3S1 02 B0 00302, 00303, 00309, 00310, 00311) (“Development”).

II. THE TRANSPORTATION FACILITY

SW Day Road is designated in the City’s Transportation System Plan (“TSP”) as a Major Arterial. *See* Attachment 1 (TSP Figure 3-2). It is also identified as a freight route. *Id.* (TSP Figure 3-4). SW Day Road was initially a county road¹ and, for the majority of the road, consists of a single travel lane in each direction and a median lane. On the northern side of SW Day Road, there is no sidewalk. Portions of the southern side of SW Day Road have some sidewalks and bicycle lanes as properties have been redeveloped and annexed into the City.

The City has adopted Public Works Standards (“PW Standards”) and detail drawings of the cross-section for Major Arterials. *See* Attachment 2 (Drawing No. RD-1040). From curb-to-curb, the cross-section is 74 feet. *Id.* The City will require Applicant to construct less than half of the curb-to-curb cross-section – only one travel lane and a buffered bicycle lane. This part of the cross-section equals 19 feet (11 feet for the travel lane and 8 feet for the buffered bicycle lane).

III. DEVELOPER RESPONSIBILITY

Of the 19 feet that the City will require Applicant to construct, 17 feet is the financial responsibility of Applicant. The two-foot buffer for the bicycle lane is not the Applicant’s financial responsibility. Therefore, the proportionality analysis focuses on the 11-foot travel lane and the 6-foot bicycle lane.

¹ Ownership and control over SW Day Road transferred from Washington County to the City in 2001.

IV. ROUGH PROPORTIONALITY ANALYSIS

Applicant has requested the City demonstrate that the potential public improvement requirements would comply with applicable law, particularly the Fifth Amendment of the US Constitution and Article I, Section 18 of the Oregon Constitution. These federal and state constitutional provisions, generally referred to as the “Takings Clause,” prohibit government from exacting property from private property owners without just compensation. Because “the basic thrust of the fifth amendment [of the U.S. Constitution] and art. I, § 18 [of the Oregon Constitution], is generally the same . . .” in this context (*Suess Builders Co. v. City of Beaverton*, 294 Or. 254, 259 n. 5 (1982)), this analysis will focus on the federal Takings Clause. As will be explained more fully below, federal and state case law explain that, when a government requires a property owner to dedicate property or construct off-site public improvements as a condition of development, those requirements must have an “essential nexus” to a legitimate government interest and must be “roughly proportional” to the particular development’s impacts. These concepts are referred to as *Nollan/Dolan* findings based on the US Supreme Court cases from which they are derived.

The federal Fifth Amendment Takings Clause and Article I, section 18 of the Oregon Constitution prohibit government from taking private property for public use without paying the property owner just compensation for the property taken. However, when new or enhanced private development impacts public systems, such as streets, sewer systems, water systems, etc., government may require private development to construct, at private development’s cost, the needed public improvements. The two seminal US Supreme Court cases that establish the framework for evaluating whether a government-required public improvements by private development is a taking and requires just compensation to the property owner are *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987) and *Dolan v. City of Tigard*, 512 U.S. 374 (1994). The key considerations when such requirements are placed on private development are: (1) whether the requirements bear an “essential nexus” to a legitimate governmental interest (*Nollan*); and (2) whether the requirements are “roughly proportional” to the developmental impacts to the public system(s) (*Dolan*). See *Art Piculell Group v. Clackamas County*, 142 Or App 327, 330 (1996).

A. Essential Nexus (*Nollan*)

In *Nollan*, a property owner with a beachfront lot sought to demolish a rundown bungalow and replace it with a three-bedroom house. 483 U.S. at 827-28. As a condition of the proposed redevelopment, the California Coastal Commission required the property owner to provide a public access easement across a portion of the property, which would make it easier for the public to get to a nearby county park and cove. *Id.* at 828. The question examined by the US Supreme Court was whether requiring land to be conveyed for the public as condition of a land use permit constitutes a taking. *Id.* at 834. The Court explained:

“We have long recognized that land-use regulation does not effect a taking if it substantially advances legitimate state interests and does not deny an owner economically viable use of his land.” *Id.* (internal quotation and citation omitted).

The Court further noted that, if a condition of approval “serves the same legitimate police-power purpose as a refusal to issue the permit[, it] should not be found to be a taking if the refusal to issue the permit would not constitute a taking.” *Id.* at 836. The Court held that, while what constitutes a legitimate governmental interest is broad, it is limited if the condition required does not further the governmental interest. *Id.* at 837. Ultimately, the Court did not decide “what constitutes a ‘legitimate state interest’ or what type of connection between the [condition] and the state interest . . .” is sufficient, but it noted that long-standing precedent had established that “a broad range of governmental purposes and regulations satisfies these requirements.” *Id.* at 834-35. The purported state interest at issue in *Nollan*, the Court decided, “did not meet even the loosest standard.” *Id.* at 838.

After *Nollan*, courts further analyzed its meaning. In *Pengilly v. Multnomah County*, 810 F. Supp. 1111 (D. Or. 1992), homebuilders challenged a county requirement to dedicate several feet of additional right-of-way along a road as a condition of issuing a building permit for construction of their home. *Id.* at 1112. The Oregon federal district court explained the meaning of the *Nollan* decision:

“Though a condition promotes a legitimate government interest, the Court reasoned, unless it serves a purpose that would justify prohibiting the proposed development—*i.e.* one directly related to the development—the condition becomes merely a means of obtaining private property for government purposes without compensation.” *Id.* at 1112 (citing *Nollan*, 483 U.S. at 837) (emphasis in original).

The federal district court found that the county’s requirement was not a taking like the one in *Nollan*. The Court held:

“County’s right-of-way dedication requirement mitigates the cumulative impact of residential development on McNamee Road. *Nollan* recognizes the validity of basing land use regulations on the cumulative impact of regulated construction.” 810 F Supp at 1113.

Because the county’s requirement for right-of-way dedication served as a link between new private development and the need to avoid declines in the road efficiency by traffic increases caused by the cumulative effect of new development, the right-of-way dedication requirement was upheld.

Here, the “essential nexus” is clear. The City requirements are based on legitimate City Council-approved policies, and the required improvements by the Development will further these legitimate governmental interests. The requirements are found in the Wilsonville Code (“WC”), TSP, and PW Standards.

Furthermore, the potential requirements would all pertain to the rights-of-way directly adjacent to the applicant’s property and are intended to mitigate the impacts of development at that

location and the effects of Applicant's industrial development (*see Dolan* and *Koontz* discussions below).

The potential requirements satisfy the *Nollan* "essential nexus" requirement.

B. Rough Proportionality (*Dolan*)

In *Dolan v. City of Tigard*, 512 U.S. 374 (1994), the US Supreme Court reviewed conditions of approval that the City of Tigard imposed on a business owner who sought to expand the building and parking lot on the property. The conditions included a requirement that the property owner dedicate the portion of her property that was within the 100-year flood plain for improvement of the storm drainage system along Fanno Creek and that she dedicate a 15-foot strip of land for pedestrian and bicycle pathway. *Id.* at 380. The dedication encompassed approximately 10% of the property, but the owner could use the dedicated property to meet the city's open space and landscaping requirement. *Id.*

The Court observed that the larger building and paved parking area would increase the stormwater runoff into Fanno Creek. *Id.* at 382. However, with regard to the required dedication for the pathway, the Court also noted the dueling issues at play were: (1) the private property owner's right to exclude others as "one of the most essential sticks in the bundle of rights that are commonly characterized as property;" and (2) "the authority of state and local governments to engage in land use planning [that] has been sustained against constitutional challenge" since the *Village of Euclid* decision. *Id.* at 384 (internal quotation and citations omitted).

The Court explained a distinction between prior cases and the one before it in *Dolan*:

"First, they involved essentially legislative determinations classifying entire areas of the city, whereas here the city made an adjudicative decision to condition petitioner's application for a building permit on an individual parcel. Second, the conditions imposed were not simply a limitation on the use petitioner might make of her own parcel, but a requirement that she deed portions of the property to the city." *Id.* at 385.

In reviewing the *Nollan* decision, the Court noted that it previously did not need to decide the "required degree of connection between the exactions and the projected impact of the proposed development" because the California Coastal Commission failed to show that an essential nexus existed at all between the legitimate government interest and the required dedication. *Id.* at 386.

Thus, when the essential nexus does exist, the Court held that requirements imposed on a development must be "roughly proportional" to the impacts of that development. *Dolan* at 391. That standard, the Court wrote, is an "intermediate standard" between "very generalized statements as to the necessary connection . . . ," on one hand, and, on the other, a requirement that the government "demonstrate that its exaction is directly proportional to the specifically created need" *Id.* at 389-90.

“Rough proportionality” lies somewhere between those extremes of “too lax” and a level of “exacting scrutiny” that the Constitution does not require. *Id.* As the Court explained, “[n]o precise mathematical calculation is required, but the city must make some sort of individualized determination that the required [exaction] is related both in nature and extent to the impact of the proposed development.” *Id.* at 391. In addition, benefits that will accrue to a development as a result of government-imposed requirements need not be ignored.

As with *Nollan*, many courts interpreted the meaning of *Dolan*, working to determine whether certain exactions were “roughly proportional” to private development impacts. One such case is *Schultz v. Grants Pass*, 131 Or App 220 (1994), decided by the Oregon Court of Appeals. In that case, the Court analyzed the city’s requirement that the property owner dedicate extensive portions of property for street widening as part of a partition approval. *Id.* at 222. The city attempted to justify the dedication because of the potential future development on the partitioned tract. *Id.* at 224. The Court distinguished broad legislative or quasi-legislative land use decisions from particular sets of conditions that are imposed on a particular property. *Id.* at 227. The Court explained:

“As the Supreme Court noted in *Dolan*, the presumption to which the city refers attaches only when a petitioner challenges the validity of a zoning ordinance or similar legislative or quasi-legislative enactment that is applied generally to all similarly-situated properties.” *Id.*

The Court held that the city’s justification, based on potential development of the partitioned tract, failed to meet the *Dolan* requirement of demonstrating a relationship to the proposed development, which, in that case, only involved partitioning the property, not developing on it. *Id.*

In *J.C. Reeves Corp. v. Clackamas County*, 131 Or App 615 (1994), the Court of Appeals examined whether county requirements to eliminate a one-foot “spite strip” on a proposed subdivision plat separating a street from another property and to construct certain street improvements were valid conditions of approval for a 21-lot residential subdivision. While the Court remanded back to the county for further findings regarding the street improvement requirement, the Court upheld the requirement to remove the “spite strip.” The Court found that the condition was appropriate “for providing the adjacent property owner with the access that the proposed development would otherwise eliminate or impair.” *Id.* at 624. The developer had contended that the effect of removing the “spite strip” was a benefit to the adjacent property owner at the developer’s expense. *Id.* The Court disagreed, relying on LUBA’s holding that financial advantage to an adjacent property owner “is irrelevant to taking analysis.” *Id.* at 624.

The Oregon Court of Appeals again considered the implications of *Nollan* and *Dolan* in *Art Piculell Group v. Clackamas County*, 142 Or App 327 (1996). That case involved a request to construct a 19-lot subdivision. Evidence shows that approximately 81% of the projected traffic from the proposed subdivision would use one road – Summers Lane. *Id.* at 329. The county approved the subdivision, with the condition that the developer dedicate 10 feet of property and perform certain street improvements. *Id.* at 330. The decision is helpful in understanding the breadth of considerations that may be weighed in determining rough proportionality. The Court

of Appeals was supportive of evidence that not only established a development's detrimental impact on public systems, but also evidence that shows the benefits to the development by performing the public improvement. *Id.* at 337. The Court stated in a footnote as well:

“[T]he *Dolan* analysis allows consideration and appropriate weighing of whether and to what extent a condition serves needs of the development upon which it is imposed, as distinct from serving *only* general public needs in response to the public impacts of the development.” *Id.* at 337 n.4, 922 P.2d 1227 (1996).

The Court reiterated that *Dolan* does not limit the analysis for road improvement requirements “to any extent that correlates exactly with the traffic the development will generate, that there can be other kinds of developmental impacts that residential developments can have on street systems, and that *all* of the impacts appropriately enter into the analysis.” *Id.* at 338 (emphasis in original).

In *McClure v. City of Springfield*, 174 Or App 425 (2001), McClure sought to divide the subject property into three lots, each of which would take access from 8th Street, but the two new parcels would do so through 20-foot panhandle accesses. The city approved the application with conditions to dedicate: (1) 20 feet of right-of-way along the south portion of the property for a future road; (2) a 10-foot by 10-foot triangular area to ensure adequate sight visibility and turn radius at street intersection; and (3) a five-foot strip along the 8th Street frontage to widen 8th Street for a sidewalk and street lighting. *Id.* at 428. The Court found that there was not sufficient justification by the city for the dedications for the sidewalk and clipped corner. However, the Court did find sufficient justification for the five-foot dedication along 8th Street. *Id.* at 434-35. The city addressed the “essential nexus” by showing the safety hazards through studying conflict points related to the development. *Id.* at 434. The city further established “rough proportionality” by comparing the number of vehicle trips generated with the total daily trips on the two local roads that would be used by the proposed lots. *Id.* at 435. That percentage (1.86%) was compared to the percentage of square footage of right-of-way exacted with the total right-of-way area on the two local streets (1.59%). *Id.* Since the exaction percentage (1.59%) was less than the impact percentage (1.86%), the Court determined that the exaction was roughly proportional. *Id.* The Court further noted that the rough proportionality test requires comparing different kinds of things, such as vehicle trips versus street area. *Id.* at 435-36. The Court reiterated *Dolan*'s holding that precise mathematical calculations are not required to meet “rough proportionality.” *Id.* at 436. Thus, the city's analysis with regard to the 8th Street dedication met the *Dolan* standard.

Another Court of Appeals case where the Court determined that the city had established an “essential nexus” and “rough proportionality” is *Hallmark Inns & Resorts, Inc. v. City of Lake Oswego*, 193 OR App 24 (2004). In that case, the property owner sought a modification of a prior land use decision by the city to eliminate the requirement for a public pedestrian pathway across the property. *Id.* at 26. The Court upheld LUBA's finding of an essential nexus between the impact of the development on the area's pedestrian and bicycle transportation system and the requirement for the pathway. *Id.* at 34. LUBA had found that the development would impede access between employees and visitors of the property and a nearby park and residential area. *Id.*

at 33. The Court also found that the requirement for the pathway was roughly proportional to the impacts of the development. The city asserted projections of users of the pathway based on permitted uses onsite and the number of vehicle spaces provided. The Court held that the city's findings were "reasonable projected impacts from the permitted uses of the development" (id. at 37) and that the findings demonstrated that, without the pathway, "the development would impede the flow of pedestrian and bicycle traffic from an adjoining residential area to an adjoining shopping center." *Id.* at 40. The Court also pointed out the particular development covered six lots, potentially contributing to the need for the bicycle and pedestrian system at least as much as neighboring properties, which had actually contributed more to the system than Hallmark had. *Id.*

Dolan thus requires that the City (1) enumerate the potential impacts of the development here and (2) demonstrate that the potential requirements would be related to those impacts "in nature and extent."

V. OFF-SITE PUBLIC IMPROVEMENTS AND THE DEVELOPMENT'S IMPACTS

The City requires any development and the related City facilities it utilizes to comply with the Wilsonville Code ("WC"), Wilsonville PW Standards, and Wilsonville's TSP. These are legislative enactments that apply broadly for connection to and use of City facilities. Unlike the financial responsibility component of the required improvements (discussed in Section V(E) below), these generally applicable standards are legislative policies of the City that are not subject to *Nollan/Dolan* analysis. The United States Supreme Court has explained that local governments have the right to set policies, such as establishing zoning regulations that limit areas where certain types of uses may be constructed, as well as the size, proximity, and materials and methods of construction, without violating a private property owner's constitutional protections against government regulation. *See Village of Euclid, Ohio v. Ambler Realty Co.*, 272 US 365 (1926).

A. Wilsonville Code Requirements

Under the general development regulations in the WC² (WC 4.154 through 4.199.60), the specific street improvement standards are found in WC 4.177. As stated in the opening paragraph of WC 4.177, the purpose of WC 4.177 "is to ensure that development, including redevelopment, provides transportation facilities that are safe, convenient, and adequate in rough proportion to their impacts." The particular details of required street improvements is further explained in WC 4.177(.01):

“(01) Development and related public facility improvements shall comply with the standards in this section, the Wilsonville Public Works Standards, and the Transportation System Plan, in rough proportion to the potential impacts of the development. Such improvements shall be constructed at the time of development or as provided by Section 4.140, except as modified or waived by the City Engineer for reasons of safety or traffic operations.”

² The City of Wilsonville Code is available at:
https://library.municode.com/or/wilsonville/codes/code_of_ordinances

The Wilsonville Code thus requires those developments connecting to City streets to meet the standards set forth in the PW Standards and the TSP.

B. Transportation System Plan Requirements

The TSP identifies SW Day Road as having cross-section deficiencies because it is a street built to then-current county standards prior to transfer of ownership to the City. *See* Attachment 1 (TSP Figure 4-1). The TSP explains that the City has adopted cross-section standards to guide roadway design based on the street's functional classification to provide safe transportation choices for users. Building cross-sections to appropriate standards "is critical to assure a safe and well connected transportation system. If bike lanes and sidewalks are missing, the users of these facilities are likely using other portions of the roadway (motor vehicle travel lanes or shoulders) that may be unsafe." Attachment 1 (TSP, p. 4-4).

The TSP includes standards for the cross-section of a Major Arterial. The TSP requires the cross-section to include bicycle lanes, planter strips, and sidewalks. Attachment 1 (TSP Figure 3-7). As noted above, it also lists Day Road as a freight route. *Id.* (TSP Figure 3-4). The TSP provides standards related to freight routes in Chapter 3, particularly pages 3-8 and 3-9. It notes that roadway and intersection improvements should be designed for freight vehicles with adjustments for turn radii, sight distance, lane widths, turn pocket lengths, and pavement design. Attachment 1 (TSP, p. 3-8).

The TSP also explains as one of its goals (Goal 3) is to provide for sufficient transportation infrastructure and services to ensure functional and reliable multimodal and freight operations as development occurs. *See* Attachment 1 (TSP Executive Summary, p. ii and TSP p. 2-2). Coordination between freight routes and other travel modes is necessary due to the inherent danger of other transportation modes (bicycles and pedestrians) utilizing the same travel lanes as freight traffic. *See id.* (TSP Executive Summary, p. iii and TSP p. 2-8). Thus, the TSP directs consideration of buffered bicycle lanes, as is required for Day Road, to protect bicyclists from freight traffic and thus increase confidence amongst bicyclists that biking to and from work on the Property will be safe. *See id.* (TSP p. 3-8).

The TSP includes several policy statements and implementation measures designed to create a robust, multi-modal transportation system. Policy 4 and related Implementation Measure 4.a. state:

"Policy 4. Provide a robust transportation system that provides all members of the community access to multiple travel mode choices.

Implementation Measures (Policy 4):

4.a. Provide pedestrian and bicycle connections between residential neighborhoods and major commercial, industrial, and recreational activity centers throughout the city, as shown in the Bicycle and Pedestrian Master Plan. Coordinate the system of

pathways planned by adjacent jurisdictions to allow for regional travel.” Attachment 1 (TSP p. 2-4).

Additional policies in the TSP further identified the need for safe bicycle facilities as part of the larger multi-modal transportation system, particularly where freight travel occurs (such as on Day Road):

“Policy 24. Ensure that the needs of other transportation users are considered in the design and construction of freight improvements. Improvements that reduce freight vehicle impacts to bicyclists and pedestrians (particularly along identified bikeways and walkways) will be considered, including buffered bike lanes, enhanced pedestrian crossings, and other safety improvements.” Attachment 1 (TSP p. 2-8).

Most significantly, the TSP includes several policies and implementation measures under “Active Transportation: Pedestrians and Bicyclists.” Attachment 1 (TSP pp. 2-10 to 2-11). The TSP explains the need to include space for other transportation modes, such as bicycle lanes and sidewalks:

“Building roads that provide facilities for all travel modes and meet applicable cross-section standards is critical to assure a safe and well connected transportation system. If bike lanes and sidewalks are missing, the users of these facilities are likely using other portions of the roadway (motor vehicle travel lanes or shoulders) that may be unsafe.” Attachment 1 (TSP p. 4-4).

The TSP also lists Day Road as a future bicycle facility location, as noted in Figure 3-5 of the TSP. *See* Attachment 1. Figure 4-1 of the TSP identifies Day Road as having deficient cross-sections and thus does not provide adequate bicycle facilities consistent with the requirements of the TSP. The TSP establishes the following requirements for bicycle lanes:

“Bike Lanes are provided on Arterial and Collector streets throughout Wilsonville. They are usually 6-feet wide and adjacent to motor vehicle travel lanes (cross-section standards shown in Figures 3-6, 3-7, and 3-8). Buffered bike lanes and one-way or two-way cycle tracks may be used instead of bike lanes and include buffers between the bike and motor vehicle travel lanes (cross-section standards shown in Figure 3-12).” Attachment 1 (TSP p. 3-10).

Figure 3-12 (TSP, page 3-19) provides the design options for buffered bicycle lanes. *See* Attachment 1. Based on the Major Arterial cross-section requirements in the TSP, bicycle lanes are needed on Day Road to provide multi-modal transportation and connectivity, particularly to protect multimodal traffic from freight traffic (which Applicant utilizes). These facilities are currently deficient and the needed upgrades will encourage safe, convenient access to the Development through different modes of transportation.

C. Public Works Standards

The general requirements for City streets are found in Section 201.1.04 of the PW Standards³, and state as follows:

Section 201.1.04 General Requirements:

- a. **Functional Classification:** The functional classification of existing and proposed roads is established by the City of Wilsonville's Transportation Systems Plan (TSP). Where the functional classification of a road is not defined by the TSP, the existing land use and existing operational characteristics shall be used by the City's authorized representative to determine the functional classification of the road in question.
- b. **Access:** Access to city, county, and public roads shall conform to the City of Wilsonville TSP and Section 201.2.23, "Driveways."
- c. **Width:** The width of the streets shall be in compliance with the City of Wilsonville TSP.
- d. **Number of Lanes:** The number of lanes for each class of road is defined by the City of Wilsonville TSP.
- e. **On-Street Parking:** Streets shall be provided with on-street parking strips as specified in the City of Wilsonville TSP and Section 201.2.26, "On-Street Parking."
- f. **Sidewalks and Planter Strips:** Streets shall be provided with sidewalks and planter strips as specified in the City of Wilsonville TSP and Section 201.2.25, "Sidewalks."

The particular requirement that developers are responsible to construct half-street improvements in accordance with City cross-section standards is found in Section 201.2.18, and states:

Section 201.2.18 Half-Streets:

To allow for reasonable development, half-street improvements may be approved by the Planning Commission and the Development Review Board. Whenever a half-street improvement is approved, it shall conform to the following:

³ The City's Public Works Standards are available at:
https://www.ci.wilsonville.or.us/sites/default/files/fileattachments/engineering/page/11761/public_works_construction_standards_2017.pdf

a. Street section design and construction shall be in conformance with these standards

b. Minimum pavement width shall be 24 feet for arterial and collector streets, and 20 feet for residential and rural streets as measured from face of curb.

c. Intersectional improvements shall be adequate to provide turn lanes.

1. Arterials and collectors: 40 feet paved for 250 feet as measured from centerlines of intersecting streets.

The PW Standards also provide minimum design requirements for bicycle lanes, including the requirement that bicycle lanes be six (6) feet:

h. Bicycle Facility Design: The following specify the minimum design requirements for bicycle facilities.

1. Bike Lanes

(a) Bike lanes shall be one-way facilities and carry bicycle traffic in the same direction as adjacent motor vehicle traffic.

(b) Bike lanes shall be 6 feet in width. In alterations of existing streets, the City's authorized representative may reduce the required bike lane width to 5 feet when the existing street is physically constrained or when a bike buffer line is added.

(c) A minimum clear riding zone width of 4-feet shall be maintained between the longitudinal joint of the asphalt pavement and concrete gutter. In alterations of existing streets, the City's authorized representative may reduce the required clear riding zone width to 3 feet when the existing street is physically constrained or when a bike buffer line is added.

The detail drawing in the PW Standards for Major Arterials, like Day Road, is found in RD-1040. *See* Attachment 2.

D. Applicant's Essential Nexus

The above-described requirements are applicable to the Development because the Development is an industrial development utilizing freight and other vehicle traffic to travel to and from Wilsonville with convenient access to Interstate 5 ("I-5"). The amount of traffic, particularly industrial freight traffic, documented in the DKS Memorandum (Attachment 3), needs improved roads for safe transportation. Since the Development is a contractor's establishment with heavy

equipment and vehicles, several of the projected trips for the Development will be freight trips. Trucks with trailers or other contractor equipment require a larger turning radius, take more time to complete a turn, and require more time to react to stopping and turning. Freight crashes also have the propensity to be more serious as to personal injury and property damage. Thus, when discussing vehicle trips below and safety concerns at specific intersections, the City places particular emphasis on safety considerations with freight trips utilizing and turning onto/off of Day Road.

According to the DKS Memorandum (Attachment 3), the Development adds 23 PM peak hour trips on Day Road. It will also impact the intersections at SW Grahams Ferry Road and SW Boones Ferry Road (the two intersections along Day Road), and the North Wilsonville (Elligsen) I-5 interchange to the south.

Day Road only has two (2) travel lanes and the Development has driveways that are too close to the Boones Ferry Road intersection. Day Road also has a higher speed limit of 45 mph. Thus, it has a higher risk of safety issues and more severe crashes due to the following factors: (1) lack of adequate spacing between the Development's driveways and between its driveways and SW Boones Ferry Road; (2) no separation of different modes of transportation; (3) higher speed limit; and (4) high level of freight due to freight route designation.

Given that: (1) the Development takes access from multiple driveways on Day Road; (2) the Development already exceeds the amount of trips it is allowed to generate; (3) Day Road is a 45 mph street; (4) other developments along Day Road are industrial uses that generate significant freight and vehicle traffic on Day Road; (5) Day Road is designated as a freight route and Major Arterial; and (6) Day Road's cross-section is currently deficient as a Major Arterial and freight route, the City has established an essential nexus between the Development and the required Day Road improvements.

E. Applicant's Financial Responsibility

The City is not requiring Applicant to construct the 24-foot half-street improvement from face-of-curb as stated in Section 201.2.18 of the PW Standards. Instead, the City is requiring construction of 19 feet, which includes a six-foot bicycle lane, a two-foot buffer, and an eleven-foot vehicle travel lane. Applicant is not financially responsible for the cost of the two-foot buffer.

Applicant's frontage along Day Road is approximately 500 linear feet. The length of Day Road is approximately 3000 linear feet between SW Grahams Ferry Road and SW Boones Ferry Road. Thus, Applicant's frontage represents 8.33% of the northern and southern frontage along Day Road ($3000 \text{ lf} \times 2 = 6000 \text{ lf}$ of north and south frontage; $500/6000 \times 100 = 8.33\%$). Applicant's driveways also account for 20.83% of all driveways along Day Road. There are 13 driveways on the north side and 11 on the south side of Day Road, for a total of 24 driveways. Applicant currently has 5 driveways. Thus, Applicant accounts for over 20% of the driveway access points along Day Road ($5/24 \times 100 = 20.83\%$). Even if Applicant consolidated the driveways down to one access point, Applicant's access would still account for 5% of all driveway accesses along Day Road ($1/20 \times 100 = 5\%$).

The City also examined the total PM peak hour trips of through traffic along SW Day Road to be 1,144, provided from a traffic study conducted for an industrial development across the street from the Development. *See* Attachment 4. Applicant’s PM peak hour trips account for 23 of the trips. *See* Attachment 3. Thus, compared to other traffic, Applicant adds 2.05% trips on Day Road ($1,144 - 23 = 1,121$; $23/1121 \times 100 = 2.05\%$).

The cross-section of Day Road as a Major Arterial from face-of-curb to face-of-curb is 74 feet. The City is only requiring Applicant to construct 19 feet of the 74 feet along its frontage, and only requiring financial responsibility by Applicant of 17 feet. Thus, Applicant is only financially responsible for 3.83% of the Day Road cross-section ($74 \text{ ft} \times 3,000 \text{ lf} = 222,000 \text{ sf}$; $17 \text{ ft} \times 500 \text{ lf} = 8,500 \text{ sf}$; $8500/222000 \times 100 = 3.83\%$).

Applicant’s responsibility of 3.8% of the improvements to Day Road is significantly less than Applicant’s comparative frontage along Day Road (8.33%) and its proportional share of the access points along Day Road (currently, over 20%; prospectively, no less than 5%) and is roughly proportional to its PM peak hour trips. As explained above, the City is not required to demonstrate that the mathematical calculations between the impact and the exaction is equal. As the Court explained in *Dolan*, “[n]o precise mathematical calculation is required, but the city must make some sort of individualized determination that the required [exaction] is related both in nature and extent to the impact of the proposed development.” *Dolan*, 512 U.S. at 391.

VI. CONCLUSION

The City has submitted evidence sufficient to demonstrate that: (1) an essential nexus exists between the City’s interest in an efficient, safe, convenient, and connected transportation system and the required public improvements; and (2) the required public improvements are roughly proportional to the Development’s impacts. The City recommends that the County Hearings Officer find that the City has made sufficient findings to establish the essential nexus and rough proportionality requirements to justify the required public improvements of Day Road.

ATTACHMENTS:

Attachment 1: Excerpt of 2023 Update to City of Wilsonville Transportation System Plan⁴

Attachment 2: Major Arterial,” City of Wilsonville Public Works Standards, Drawing No. RD-1040

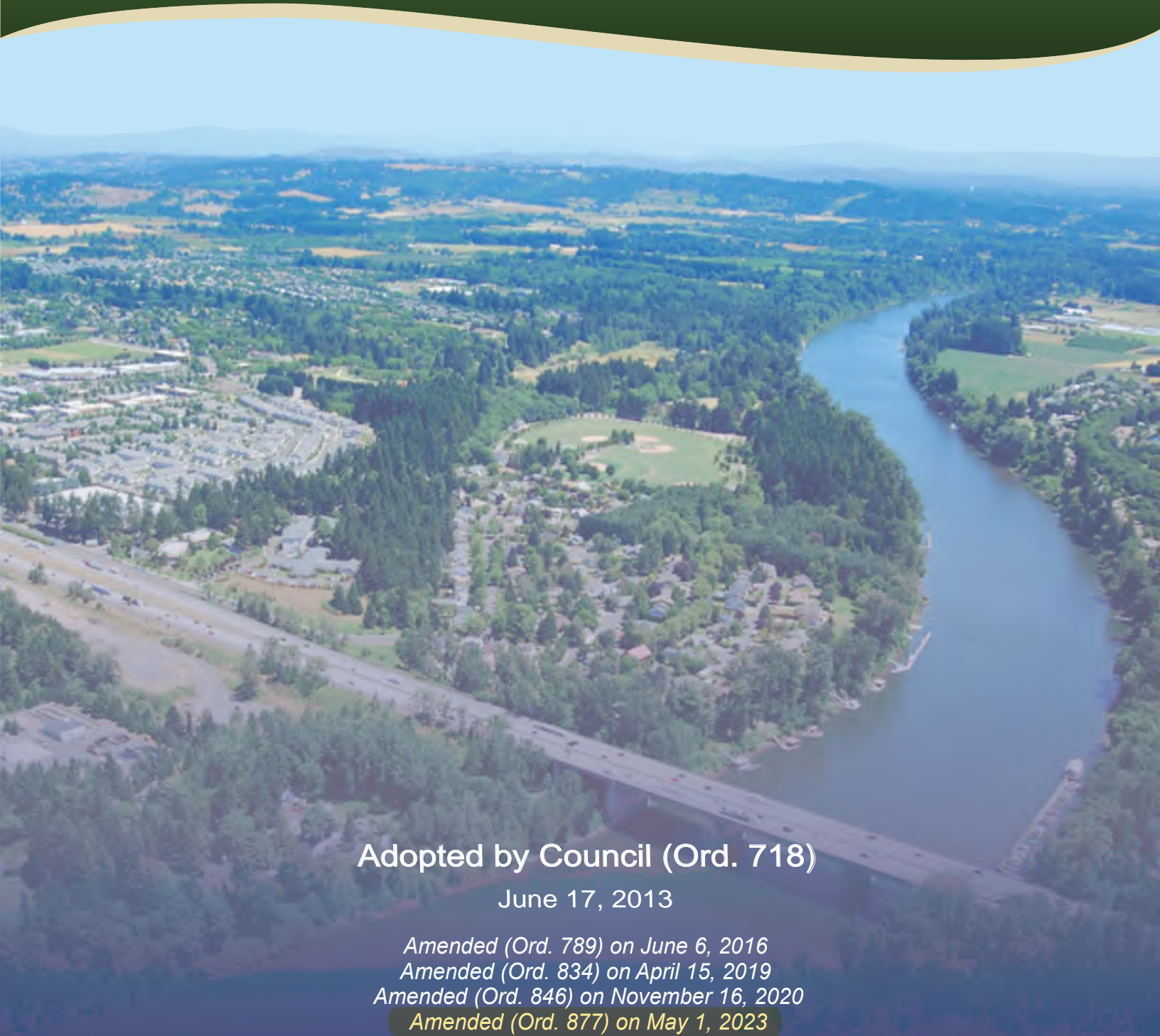
Attachment 3: May 9, 2024 Technical Memorandum, DKS Associates

Attachment 4: Excerpt, Delta Logistics Annex Transportation Impact Analysis, DKS Associates

⁴ The entirety of the 2023 Update to the City of Wilsonville Transportation System Plan is available at: https://www.ci.wilsonville.or.us/sites/default/files/fileattachments/ordinance/126442/ordinance_no.877.pdf



Wilsonville Transportation System Plan



Adopted by Council (Ord. 718)

June 17, 2013

Amended (Ord. 789) on June 6, 2016

Amended (Ord. 834) on April 15, 2019

Amended (Ord. 846) on November 16, 2020

Amended (Ord. 877) on May 1, 2023

Executive Summary



INTRODUCTION

The Wilsonville Transportation System Plan (TSP) is the City's long-term transportation plan and is an element of its Comprehensive Plan. It includes policies, projects, and programs that could be implemented through the City's Capital Improvement Plan, development requirements, or grant funding. The TSP's transportation planning story is outlined in the box at right, and the key findings of each TSP chapter are highlighted below.

THE CONTEXT (SEE CHAPTER 1)

The 2013 TSP process built upon two decades of community planning to create a complete community transportation plan that integrates all travel modes. This update is needed to account for changing economic and social circumstances and to ensure consistency with state and regional planning policies. It also ensures the City will be prepared to support land use growth within the urban growth boundary through the 2035 planning horizon.

Most of the policies and projects come from prior adopted plans, including the Comprehensive Plan, 2003 TSP, 2006 Bicycle and Pedestrian Master Plan, and 2008 Transit Master Plan. While the TSP replaces the 2003 TSP in its entirety, it updates and builds upon the 2006 Bicycle and Pedestrian Master Plan and 2008 Transit Master Plan. Where these documents may be in conflict, the new TSP takes precedence.

The City's future financial outlook was also evaluated to identify the City's forecasted resources and financial limitations. The City draws upon multiple funding sources to manage, operate, and improve its transportation system. For capital improvement projects, the City relies heavily on developer contributions and fees (including system development charges) and urban

A TRANSPORTATION PLANNING STORY

The TSP chapters tell a story of how the City's planning efforts are helping the community achieve its desired transportation system:

- **Chapter 1: The Context** provides the background of the City's transportation planning efforts.
- **Chapter 2: The Vision** shares the City's visions of its desired transportation system.
- **Chapter 3: The Standards** outlines the standards the City is implementing to ensure ongoing progress towards its vision.
- **Chapter 4: The Needs** identifies the existing and anticipated needs of the transportation system through the 2035 planning horizon.
- **Chapter 5: The Projects** explains the transportation improvement projects that will allow the City to meet its infrastructure needs.
- **Chapter 6: The Programs** describes the ongoing transportation programs that help the City manage its transportation system.
- **Chapter 7: The Performance** lists the performance measures to be considered in subsequent TSP updates to determine if its planning efforts are leading to the desired outcomes.

renewal funds, which are primarily associated with new growth areas. With ongoing planning and investment in its transportation system, the City can continue to serve its residents, businesses, and the region.

THE VISION (SEE CHAPTER 2)

As Wilsonville grows, it is essential for the community to work collaboratively toward its shared vision, which is summarized in the call-out box at right.

Transportation goals and policies form the bases for how the local transportation system will be developed and maintained through the TSP’s 2035 horizon year. Wilsonville’s seven transportation goals are identified in the table below. The City’s vision and goals support a multimodal approach to transportation, which means that the system accommodates users of all travel modes.

WILSONVILLE’S TRANSPORTATION VISION

Wilsonville’s coordinated multimodal transportation system is strategically designed and collaboratively built. Our system provides mode and route choices, delivering safe and convenient local accessibility to assure that Wilsonville retains its high levels of quality of life and economic health. Neighborhoods, employment centers, schools, shopping, and parks are connected by a network of streets and pathways that give residents options to easily get around town.

Our local accessibility is further enhanced through arterial connectivity with our neighboring communities, thereby providing excellent intercity and interstate mobility serving our residential and business needs. The system is designed, built and maintained to be cost effective and to maximize the efficient utilization of public and private funding.

Wilsonville’s Transportation Goals

Goals	Description
1 Safe	Follow current safety practices for design, operations, and maintenance of transportation facilities.
2 Connected and Accessible	Provide all users with access to integrated facilities and services that connect Wilsonville’s neighborhoods, parks, schools, employment centers, and retail areas to each other and to the surrounding region.
3 Functional and Reliable	Provide, manage, and maintain sufficient transportation infrastructure and services throughout Wilsonville to ensure functional and reliable multimodal and freight operations as development occurs.
4 Cost Effective	Utilize diverse and stable funding sources to implement transportation solutions that provide the greatest benefit to Wilsonville residents and businesses, while mitigating impacts to the city’s social, economic, and environmental resources.
5 Compatible	Develop and manage a transportation system that is consistent with the City’s Comprehensive Plan and coordinates with other local, regional, and state jurisdictions.
6 Robust	Encourage and support the availability of a variety of transportation choices for moving people and goods.
7 Promotes Livability	Design and construct transportation facilities in a manner that enhances the livability of Wilsonville and health of its residents.

THE STANDARDS (SEE CHAPTER 3)

Wilsonville's transportation standards ensure the City develops and operates consistent with its goals and vision. Wilsonville's six types of transportation standards are listed in the call-out box at right.

How well a street serves its users ultimately depends upon which elements are included, their dimensions, and how they relate to each other (all of which are informed by the City's standards). For example, streets designed consistent with adjacent land uses can contribute to the identity and character of a neighborhood and increase property values. They can also affect traffic speeds, reduce environmental impacts, and allow for safe multimodal use.

THE NEEDS (SEE CHAPTER 4)

Wilsonville's transportation standards and policies serve as a benchmark for determining what needs exist throughout the city. The city's needs are categorized as gaps (missing connections or barriers in the transportation network) or deficiencies (shortcomings of the existing system). The TSP identifies the gaps and deficiencies that currently exist or are anticipated to arise through the 2035 horizon year as additional local and regional development occurs.

THE PROJECTS (SEE CHAPTER 5)

Many of the city's existing and future transportation needs can be addressed through capital improvement projects. The projects needed through 2035 were principally based on prior City plans.

Constructing all identified transportation projects would cost approximately \$263.6 million, which exceeds the \$123.4 million forecasted to be available through 2035. Therefore, the transportation projects were separated into two lists:

- The "Higher Priority" project list includes the recommended projects reasonably expected to be funded through 2035. These are the highest priority projects and will inform the City's yearly

WILSONVILLE'S TRANSPORTATION STANDARDS

Wilsonville's six types of transportation standards support its management of an effective multimodal transportation system:

- **Functional Classifications** provide a hierarchy for determining how streets should function and which street design elements to include.
- **Connectivity and Facility Spacing Standards** ensure that direct routes and travel options are available for all transportation users.
- **Freight Routes** connect the city's industrial and commercial sites with I-5 and other regional facilities and improve coordination between freight and other travel modes.
- **Bicycle Routes** connect neighborhoods, schools, parks, community centers, business districts, and natural resource areas to support bicycle travel by residents of varying physical capabilities, ages, and skill levels.
- **Cross-Section Standards** provide guidance for selecting and sizing various design elements to serve intended users' needs.
- **Access Management** balances the transportation system's need to provide safe, efficient, and timely travel with the need to allow access to individual properties.

budget and 5-year Capital Improvement Plan (CIP). These projects are identified in the following figure (page v) and table (page vi).

- The "Additional Planned" project list includes those projects that would contribute to the City's desired transportation system through 2035 but that are not considered "Higher Priority" projects due to estimated funding limitations. These projects are identified in Chapter 5 and should be pursued as funding opportunities are available.

The Vision

Chapter 2



As Wilsonville grows, it will be essential for the community to work collaboratively toward a shared vision. Understanding the goals, and specific steps to achieve them, is the best and most cost-effective way to create a beautiful, functional transportation system.

To guide Wilsonville’s transportation planning and investment decisions, the community has developed a new vision statement, transportation goals, policies, and implementation measures.

WILSONVILLE’S TRANSPORTATION VISION

Wilsonville’s coordinated multimodal transportation system is strategically designed and collaboratively built. Our system provides mode and route choices, delivering safe and convenient local accessibility to assure that Wilsonville retains its high levels of quality of life and economic health. Neighborhoods, employment centers, schools, shopping, and parks are connected by a network of streets and pathways that give residents options to easily get around town.

Our local accessibility is further enhanced through arterial connectivity with our neighboring communities, thereby providing excellent intercity and interstate mobility serving our residential and business needs. The system is designed, built and maintained to be cost effective and to maximize the efficient utilization of public and private funding.

Wilsonville envisions a transportation system that is . . .

- *Strategically designed,*
- *Collaboratively built,*
- *Safe,*
- *Convenient, and*
- *Cost effective.*

The result will be . . .

- *Mode and route choices,*
- *Quality of life,*
- *Economic health,*
- *Neighborhood connectivity, and*
- *Mobility.*



TRANSPORTATION GOALS

The City of Wilsonville is responsible for managing a transportation system that efficiently and effectively transports people and goods within the city. This system should support the quality of life of residents and the economic vitality of businesses.

The City can best fulfill its responsibilities by working collaboratively with local and regional partners in developing a transportation system that achieves its seven goals, listed in Table 2-1.



Wilsonville Road’s landscaping and streetscape provides an attractive environment for all users.

Table 2-1. Wilsonville’s Transportation Goals

Goals	Description
1 Safe	Follow current safety practices for design, operations, and maintenance of transportation facilities.
2 Connected and Accessible	Provide all users with access to integrated facilities and services that connect Wilsonville’s neighborhoods, parks, schools, employment centers, and retail areas to each other and to the surrounding region.
3 Functional and Reliable	Provide, manage, and maintain sufficient transportation infrastructure and services throughout Wilsonville to ensure functional and reliable multimodal and freight operations as development occurs.
4 Cost Effective	Utilize diverse and stable funding sources to implement transportation solutions that provide the greatest benefit to Wilsonville residents and businesses, while mitigating impacts to the city’s social, economic, and environmental resources.
5 Compatible	Develop and manage a transportation system that is consistent with the City’s Comprehensive Plan and coordinates with other local, regional, and state jurisdictions.
6 Robust	Encourage and support the availability of a variety of transportation choices for moving people and goods.
7 Promotes Livability	Design and construct transportation facilities in a manner that enhances the livability of Wilsonville and health of its residents.

POLICIES AND IMPLEMENTATION MEASURES

Wilsonville’s transportation policies serve as a blueprint for the City’s investment in its transportation system. These policies cover a variety of areas, including how the system is designed, constructed, operated, and maintained.

The following policies all support the seven Transportation Goals. Each of the policy statements are supported by implementation measures that will guide City actions related to the development code, capital project investment, and other investments.

System Design

Policy 1. Provide a safe, well-connected, and efficient system of streets and supporting infrastructure for all travel modes.

RELATIONSHIP OF POLICIES AND IMPLEMENTATION MEASURES

The City’s policies support its seven Transportation Goals. Each policy statement may be supported by several implementation measures that will guide City actions relative to the development code, capital project investment, and other investments. Specific implementation measures, requirements, or standards will be included either in the TSP, the Development Code, Public Works Standards, or other implementing documents.

Implementation Measure (Policy 1):

1.a. Create a comprehensive signage and wayfinding system to assist all modes of transportation with navigating around the community.

Policy 2. Develop and maintain a transportation system that balances land use and transportation needs in a manner that enhances the livability and economic vitality of the city.

Implementation Measures (Policy 2):

- 2.a. Establish and maintain design standards for each arterial and collector street, in accordance with the Functional Street Classification System.
- 2.b. Refine the conceptual location of proposed new major streets identified in the TSP based on detailed engineering specifications, design considerations, and consideration of local impacts.
- 2.c. Evaluate the alignment and design of local streets on a project-by-project basis in coordination with the overall purposes of the TSP.
- 2.d. Dedicate all arterial and collector streets as public streets.

POLICY AREAS

- **System Design (Policies 1-9)**
- **Connectivity (Policy 10)**
- **Transportation System Management (Policies 11-14)**
- **Land Development Coordination (Policies 15-16)**
- **Agency Coordination (Policies 17-21)**
- **Goods Movement (Policies 22-28)**
- **Public Transit (Policies 29-36)**
- **Active Transportation: Pedestrians and Bicyclists (Policies 37-42)**
- **Interchange Management Areas (Policy 43)**
- **Transportation Funding (Policies 44-46)**

Policy 3. Support the use of alternative fuels by providing, or encouraging the provision of, needed infrastructure.

Implementation Measure (Policy 3):

3.a. *Facilitate private sector exploration of alternative fuel technologies, including shared use of compressed natural gas fueling stations, and electric vehicle charging stations.*

Policy 4. Provide a robust transportation system that provides all members of the community access to multiple travel mode choices.

Implementation Measures (Policy 4):

4.a. *Provide pedestrian and bicycle connections between residential neighborhoods and major commercial, industrial, and recreational activity centers throughout the city, as shown in the Bicycle and Pedestrian Master Plan. Coordinate the system of pathways planned by adjacent jurisdictions to allow for regional travel.*

4.b. *Fill gaps in the existing sidewalk and off-street pathway systems to create a continuous network of safe and accessible bicycle and pedestrian facilities.*

Policy 5. Design and manage the city street system to meet Level of Service (LOS) standard D. As may be approved by the City Council, possible exceptions to the LOS D standard are a change to LOS E on Boones Ferry Road and/or Elligsen Road, and on Wilsonville Road between and including the intersections with Boones Ferry Road and Town Center Loop West. Other capacity improvements intended to allow continued development without exceeding LOS E may also be approved by the City Council.

Policy 6. Evaluate, minimize, and balance the environmental impacts of new transportation projects.

Policy 7. Design the transportation system to be multifunctional by integrating stormwater management into the design of transportation facilities, as described in the Stormwater Master Plan.

Policy 8. Consider the needs of traditionally underserved citizens when planning and designing the transportation system, and identify targets and improvements to meet the specific needs of these populations.

Policy 9. Enhance transportation connections and choices in and between all parts of the city as a means for preserving the function and capacity of the existing system.



The recent Fred Meyer near the I-5/Wilsonville Road Interchange provides two electric vehicle charging stations for patrons to use for free to charge their vehicles while shopping.

Goods Movement

- Policy 22. Provide an adequate motor vehicle system that serves commercial vehicle/truck traffic to and from the land uses they serve.
- Policy 23. Consider the requirements for truck movement when designing all improvements in the public right of way on designated truck routes. Requirements include turn radii, sight distance, lane widths, turn pocket lengths, and pavement design.



Located along Interstate-5 just south of the Interstate-205 junction, Wilsonville is ideally situated as a freight hub in the region. The city is home to multiple distribution, manufacturing, and warehouse facilities.

- Policy 24. Ensure that the needs of other transportation users are considered in the design and construction of freight improvements. Improvements that reduce freight vehicle impacts to bicyclists and pedestrians (particularly along identified bikeways and walkways) will be considered, including buffered bike lanes, enhanced pedestrian crossings, and other safety improvements.
- Policy 25. Maintain access to the Willamette River so that the river may be used for transportation purposes in the future. Acquire or improve access to Willamette River for public docking purposes and consider the potential development of a new port or ports.
- Policy 26. Assist with efforts to improve the viability of the railroad for freight.
- Policy 27. Upgrade and/or complete the street network on the west side of I-5, including in the Coffee Creek and Basalt Creek areas, to serve the warehousing, distribution, and other industrial uses located there.
- Policy 28. Coordinate with adjacent jurisdictions and the freight community to ensure that regional freight traffic is directed only toward the city's freight routes.

“A number of the companies that operate here in Wilsonville export outside the United States . . . that’s why it is so important that we get to market as effectively and efficiently as possible as we can, but at the same time, our goal is to make it so transparent that the local residents are aware of it, but don’t really have to deal with it.”

*Ray Phelps
Planning Commission*

Active Transportation: Pedestrians and Bicyclists

Policy 37. Provide facilities that allow more people to walk and bike, not only as low-impact transportation choices, but also to benefit the health and economy of the community.

Implementation Measures (Policy 37):

- 37.a. *Encourage a balance between housing, employment, and commercial activities within the city so more people desire to live and work within Wilsonville, thereby reducing cross-jurisdictional commuting.*
- 37.b. *Increase densities and intensities of development in or near the Town Center area and in other locations where a multimodal transportation system can meet those needs.*
- 37.c. *Continue use of the Planned Development/Master Plan process to encourage developments that make it more convenient for people to use transit, walk, bicycle, and to drive less to meet daily needs.*
- 37.d. *Provide more and better options for travel between both sides of the freeway, the railroad, and the Willamette River.*
- 37.e. *Assist with efforts to improve the viability of rail for passenger service.*



Bike lockers at the SMART Central at Wilsonville Station transit center provide secure storage for transit riders who use their bikes to complete a leg of their trip.



Pedestrians enjoy a casual stroll around the Villebois Sunday Market. The market uses Villebois Drive, which functions as a street when not being used for the market.

- 37.f. *Consider reducing parking requirements where it can be shown that transit and/or bicycle pedestrian access will reduce vehicular trips.*
- 37.g. *Require new development to include sufficient and convenient bicycle parking, and encourage improvements to bicycle parking facilities throughout the community. Allow a range of bicycle parking solutions to address the specific needs of different users.*
- 37.h. *Construct stand-alone improvements to fill key gaps in the pedestrian and bicycle network, including Safe Routes to School projects and connections to transit stops, prioritizing low-cost and safety-related projects.*
- 37.i. *Improve the quality of the pedestrian environment by ensuring new public and private development meets a pedestrian quality standard that encourages walking for short trips and is fitting for the specific location.*

Policy 38. Establish a Pedestrian and Bicycle Advisory Board comprised of interested stakeholders, including residents and employers, to guide future planning and decision-making regarding pedestrian and bicycle facilities.



Bicyclists riding north on Brown Road approach the Barber Street roundabout as they enter Villebois Village.

- Policy 39. Improve and expand pedestrian and bicycle facilities throughout the community, with a focus on improved connectivity within the city and with the Regional bicycle and trails systems.
- Policy 40. Ensure that pedestrian and bicycle networks provide direct connections between major activity centers (e.g., civic, recreation, employment, and retail centers) and minimize conflicts with other modes of transportation.
- Policy 41. The planning, design, and construction of transportation projects should maintain or improve the accessibility and quality of existing and planned pedestrian and bicycle facilities.
- Policy 42. Provide more enhanced pedestrian crossings (which may include pedestrian flashers, a median refuge, or other treatments) as a way to improve safety and connectivity in Wilsonville’s transportation system.
- Policy 43. Develop more transportation options within the city, increasing transportation demand management programming and improving walking, biking, and transit facilities.

Interchange Management Areas

Policy 44. Provide for an adequate system of local roads and streets for access and circulation within I-5 Interchange Management Areas (IMAs) that minimize local traffic through the interchanges and on the interchange cross roads.

Implementation Measures for I-5/Wilsonville Road IMA, subject to Interchange Area Master Plan (IAMP) (Policy 43) :

- 44.a. *Require future development to plan for and develop local roadway connections consistent with the I-5/Wilsonville Road IAMP as part of the development permit approval process.*
- 44.b. *Require bicycle and pedestrian connections within the IMA for new development consistent with the City’s Bicycle and Pedestrian Plan.*
- 44.c. *Implement system operational improvements, including signal synchronization, transportation demand management measures and incident management within the vicinity of the interchange to maximize the efficiency of the local street network and minimize the impact of local traffic on the interchange.*



The Interstate-5/Wilsonville Road interchange serves as a key regional connection while also providing connectivity between east and west Wilsonville.

The Standards

Chapter 3



Wilsonville's transportation standards ensure the city develops consistent with its vision of supporting a multimodal transportation system that is strategically designed for optimum community function and benefit. A street's design determines how it will look and function. How a street looks and functions is ultimately dependent upon which street elements are included, their dimensions, and how they relate to each other.

The standards are intended to ensure appropriate design and create a consistent approach throughout the city as development and redevelopment occurs. Since the design of a street is so closely tied to how it performs and how people experience the city, it is important for Wilsonville to carefully consider how it wants its streets to look and function and then to design them accordingly.

OTHER CITY DOCUMENTS WITH TRANSPORTATION STANDARDS

The transportation standards in this chapter cover a variety of areas that help inform other City documents:

- Standard Detail Drawings
- Public Works Standards
- Planning and Land Development Ordinance

Standards support the vision of a multimodal transportation system that is . . .

- *Strategically designed and*
- *Collaboratively built,*

Resulting in . . .

- *Mode and route choices,*
- *Safe and convenient local accessibility, and*
- *Quality of life and economic health.*



HOW STANDARDS BENEFIT THE TRANSPORTATION SYSTEM

The transportation standards included in this chapter support the City's management of an effective multimodal transportation system:

- **Functional Classifications** provide a hierarchy for managing public roadways practically and cost effectively. They provide a framework for identifying which street elements to include in a street's design.
- **Connectivity and Facility Spacing Standards** ensure that direct routes and travel options are available for all transportation users.
- **Freight Routes** connect the city's industrial and commercial sites with I-5 and other regional facilities and improve the coordination between freight and other travel modes.
- **Bicycle Routes** connect neighborhoods, schools, parks, community centers, business districts, and natural resource areas to support bicycle travel by residents of varying physical capabilities, ages, and skill levels.
- **Cross-Section Standards** provide guidance for selecting and sizing various design elements to serve intended users' needs.
- **Access Management** balances the transportation system's need to provide safe, efficient, and timely travel with the need to allow access to individual properties.

Looking north at Boones Ferry Road north of Day Road. Washington County recently received jurisdiction of this roadway from ODOT and will be constructing improvements that include roadway widening, bike lanes, and sidewalks.

ROADWAY JURISDICTION

A roadway's jurisdiction affects who will have the ultimate authority over improvements and what standards apply. In the Wilsonville vicinity, there are four agencies with jurisdiction:

- **City of Wilsonville** has the majority of roadways within City limits.
- **Washington County** roadways are on the outskirts to the north of the city.
- **Clackamas County** roadways are on the outskirts to the east, west, and south of the city.
- **ODOT** has jurisdiction of Interstate-5, the corresponding interchange ramps, the portions of Elligsen Road and Boones Ferry Road between the Parkway Avenue and Day Road, and Wilsonville Road between Town Center Loop West and Boones Ferry Road.

As the City expands, it is expected that the county roadways in the immediate vicinity of the city will transfer jurisdictions to the City of Wilsonville. These roadways include Stafford Road, Advance Road, Elligsen Road, Frog Pond Lane, Clutter Street, and Grahams Ferry Road.



FIGURE 3-1. ROADWAY JURISDICTION

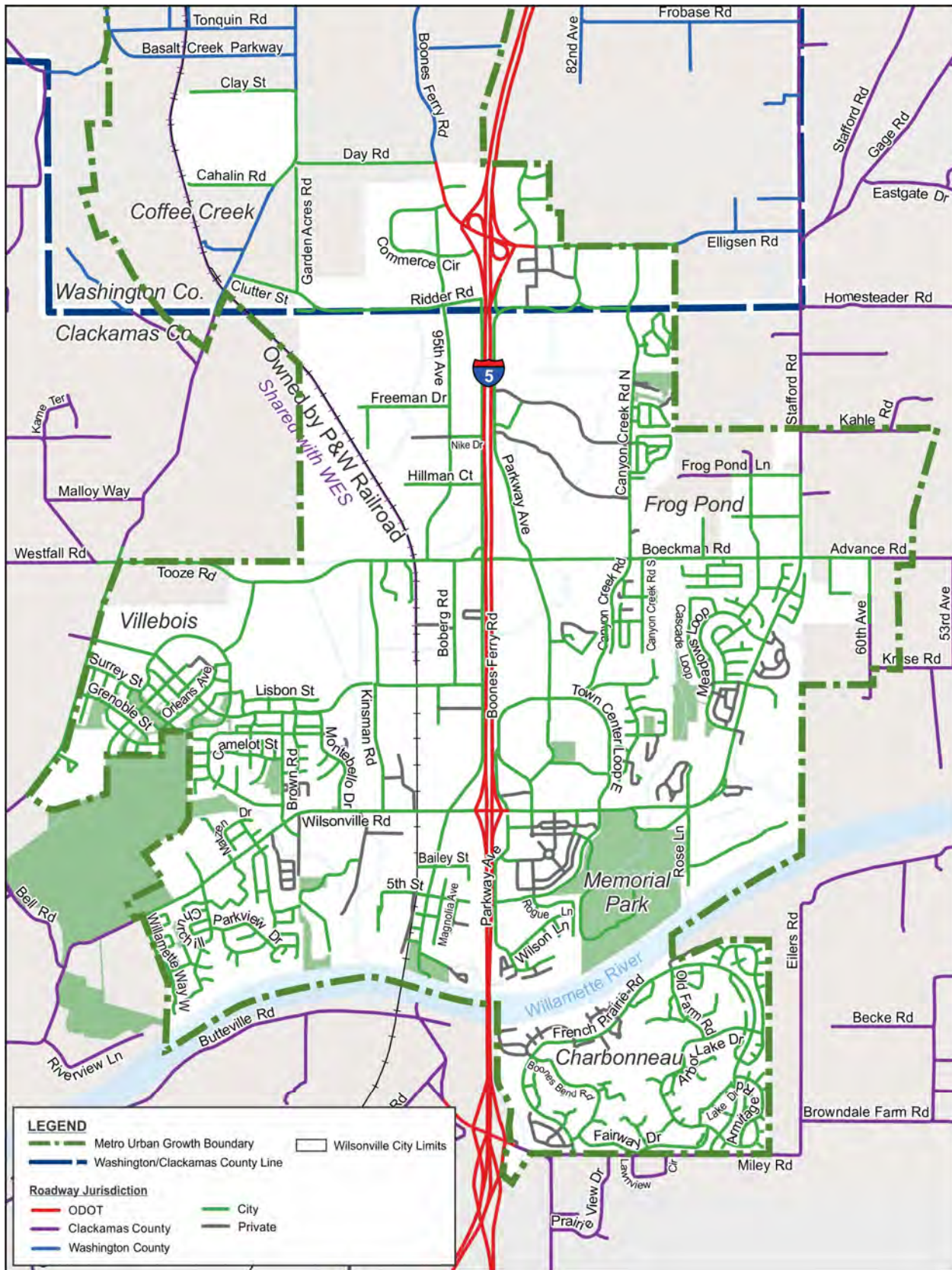
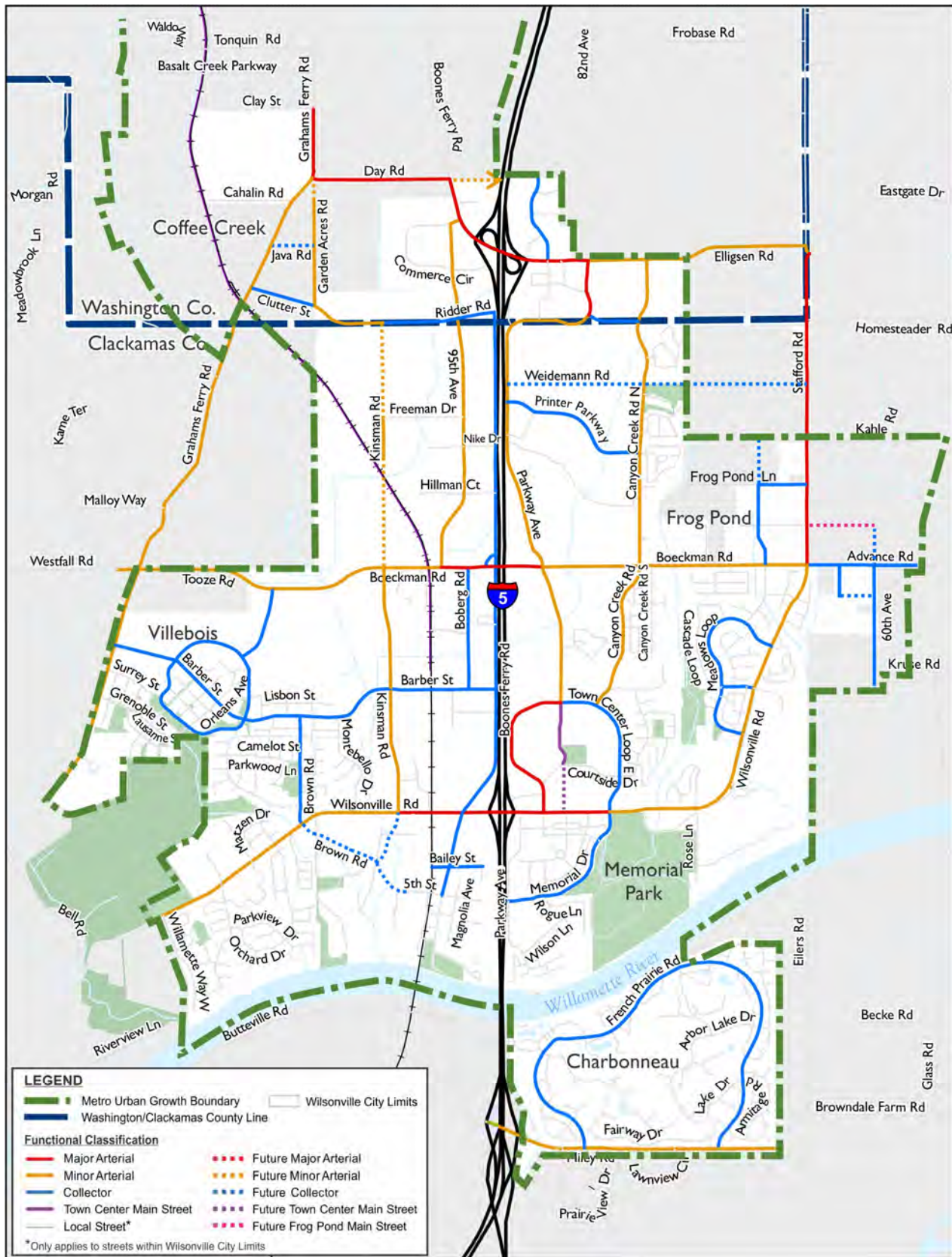


FIGURE 3-2. FUNCTIONAL CLASS DESIGNATIONS



FREIGHT ROUTES

Wilsonville’s freight routes connect the city’s industrial and commercial sites with I-5 and other regional facilities. Figure 3-4 identifies the City’s freight routes, which include truck routes, railroads, and waterways. Improvement projects should be coordinated to facilitate freight needs while balancing the needs of other users.

Some of the key truck routes that provide important truck connections to Washington County include Boones Ferry Road, Kinsman Road, and Tonquin Road. In addition, the Portland and Western Railroad runs through Wilsonville and serves freight traffic, and the Willamette River has the potential for handling barge traffic. These routes are identified in Metro’s *Regional Freight Plan* (June 2010).

As a major employment center and industry hub along I-5, Wilsonville will benefit from ensuring that its freight routes are designed to accommodate the needs of its industrial and commercial sites. At the same time, Wilsonville’s residential neighborhoods should be protected from freight traffic. The call-out box at right lists multiple freight coordination improvements resulting from having freight routes.

IMPROVED FREIGHT COORDINATION

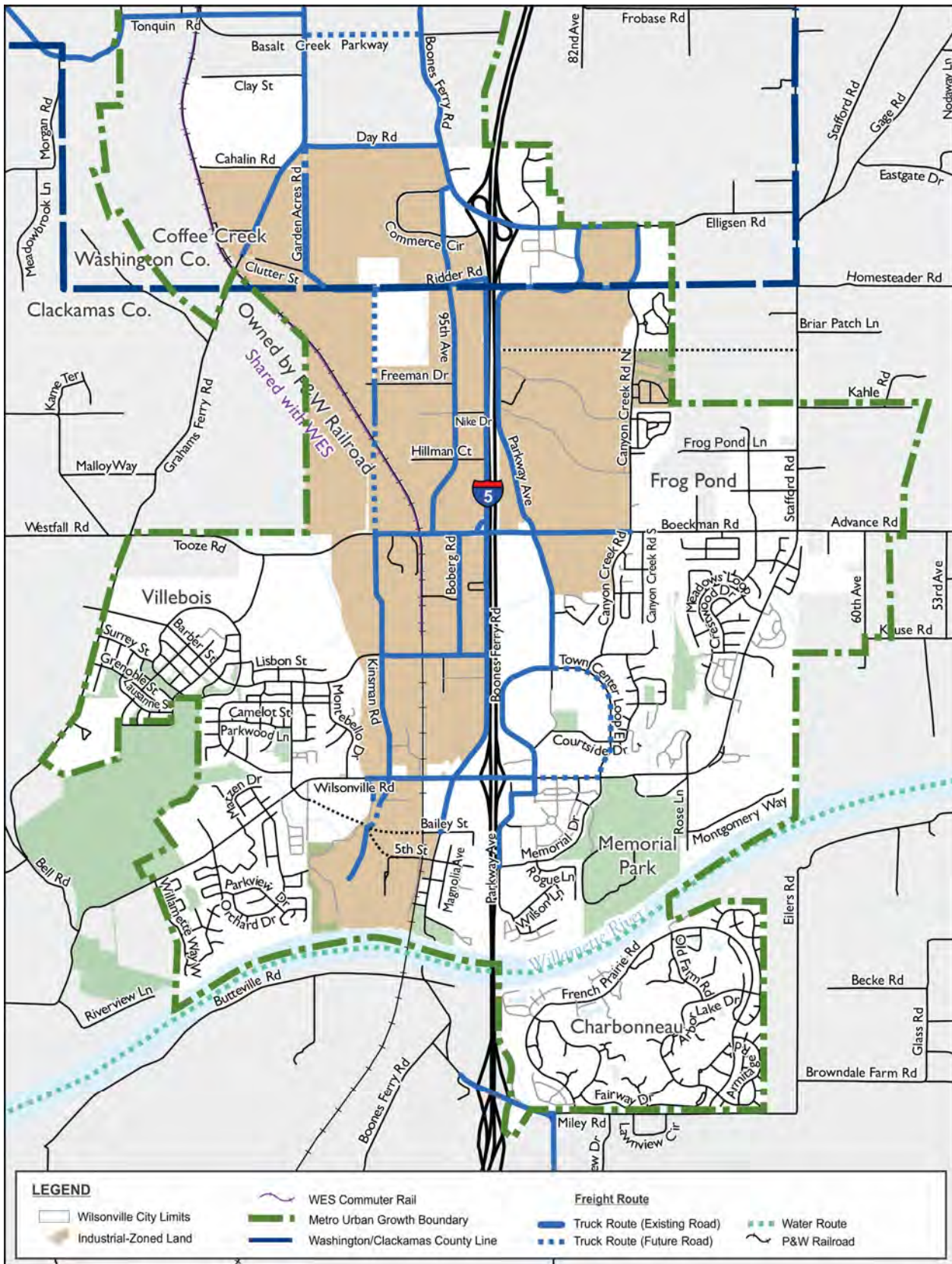
By having designated freight routes, various City efforts regarding freight and non-freight users will be improved:

- **Roadway and Intersection Improvements** can be designed for freight vehicles with adjustments for turn radii, sight distance, lane widths, turn pocket lengths, and pavement design.
- **Bicycle and Pedestrian Improvements**—such as buffered bike lanes, enhanced pedestrian crossings, and other safety improvements—can be identified to reduce freight impacts to other users (particularly along bikeways and walkways).
- **Roadway Durability** can be increased by using concrete instead of asphalt.
- **Railroad Connections** can be coordinated to support businesses that ship goods by rail, particularly in areas where railroad sidings can be provided along the Portland and Western Railroad track.
- **Willamette River Port** can be considered to support businesses that ship goods using barges on the Willamette River.
- **Coordination with Businesses and Adjacent Jurisdictions** can ensure that local and regional freight traffic uses the City’s freight routes to travel within the city.

“We have a significant number of large manufacturing companies because we have an efficient freight mobility process where our trucks can get in and out of town with the least amount of interference from local traffic. For the part of the transporter, that’s very important in as much as it costs money for these trucks, even when they are not moving. Secondly, the local resident doesn’t want to have to be disrupted by freight transportation.”

*Ray Phelps
Planning Commission*

FIGURE 3-4. FREIGHT ROUTES



BICYCLE ROUTES

Bicycle routes are provided throughout Wilsonville and connect to neighborhoods, schools, parks, community centers, business districts, and natural resource areas. The City's bicycle network serves multiple users of varying physical capabilities, ages, and skill levels.

Figure 3-5 identifies the City's bicycle routes, which include three facility types:

- **Shared-Use Paths** are 10-foot to 12-foot wide pathways that have minimal conflicts with automobile traffic and may have their own right-of-way (cross-section standards shown in Figure 3-11). Shared-use paths serve multiple non-motorized users: bicyclists, pedestrians, wheelchair users, skaters, and others. Many of the shared-use paths throughout Wilsonville are part of the regional trail network, which traverses large sections of the city and connects to neighboring jurisdictions and regionally significant destinations. These regional trails are designed to meet state and federal guidelines, which make them eligible for state and federal transportation funding.
- **Bike Lanes** are provided on Arterial and Collector streets throughout Wilsonville. They are usually 6-foot wide and adjacent to motor vehicle travel lanes (cross-section standards shown in Figures 3-6, 3-7, and 3-8). Buffered bike lanes and one-way or two-way cycle tracks may be used instead of bike lanes and include buffers between the bike and motor vehicle travel lanes (cross-section standards shown in Figure 3-12).
- **Local Street Bikeways** are streets designated as important bicycle connections where bicyclists share the travel lane with motor vehicle traffic. Even though all Local Streets allow bicyclists to share the travel lane (cross-section standards shown in Figures 3-9 and 3-10), Local Street Bikeways are intended to serve a greater number

of bicyclists. They typically are provided on low-volume, low-speed residential streets that serve as important connections to nearby bike lanes, shared-use paths, and key destinations.

Modifications—such as sharrows, traffic calming devices, or wayfinding signage—may be made to these streets to emphasize their use as bicycling facilities and increase the comfort and confidence of bicyclists.

KEY BICYCLE FACILITIES

The following existing and future bicycle facilities (which are included in Figure 3-5) provide important connections throughout the city:

Regional Trails

- Ice Age Tonquin Trail (through West Wilsonville with connections to Tualatin and Sherwood)
- Waterfront Trail (along the Willamette River)
- Boeckman Creek Trail (along Boeckman Creek in East Wilsonville)
- Stafford Spur Trail (connecting to regional destinations in Northeast Wilsonville)

Shared-Use Paths

- Primarily near schools, parks, transit hubs, retail centers, and other pedestrian areas

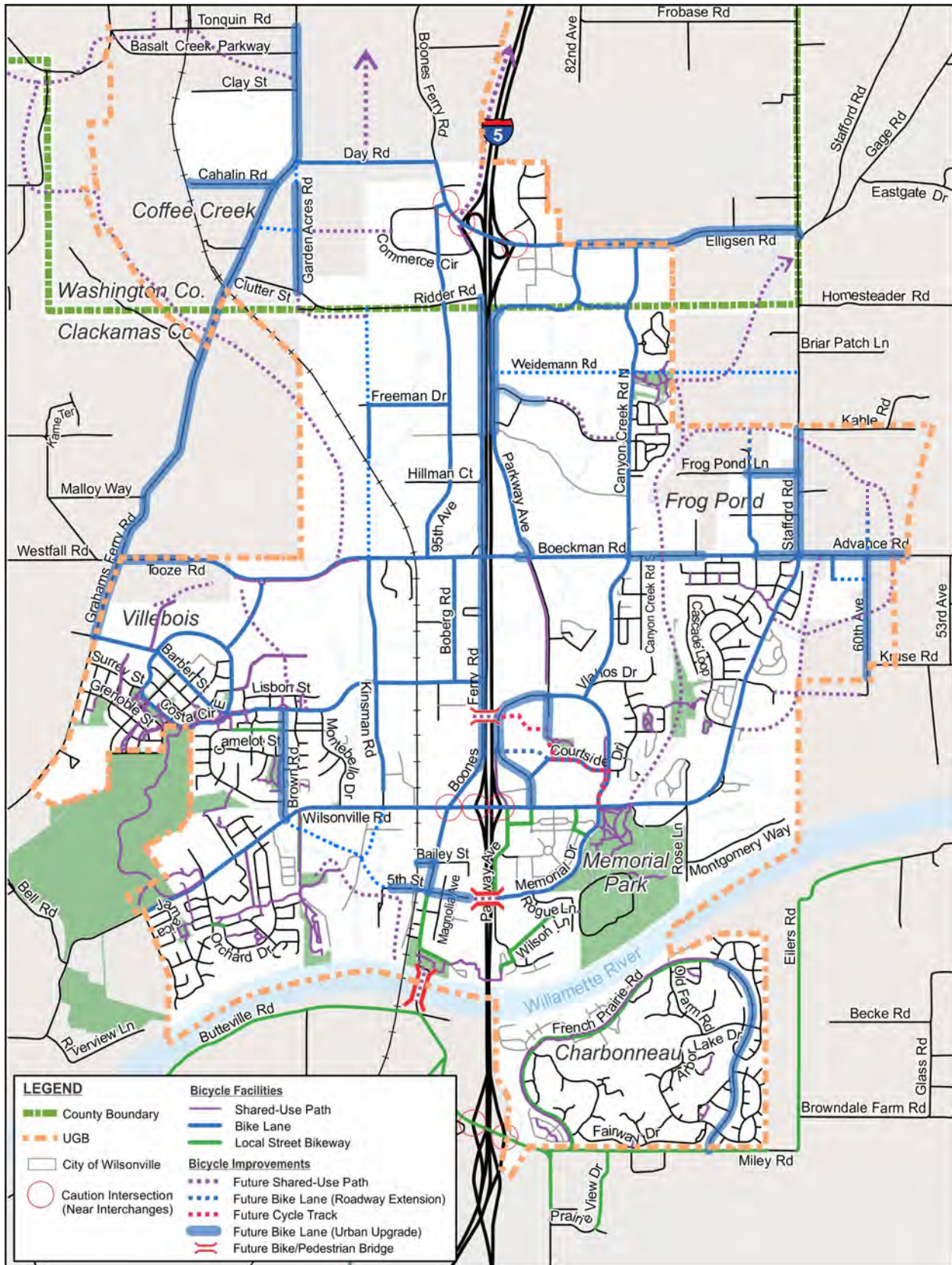
Bike Lanes

- On Arterial and Collector streets

Local Street Bikeways

- Boones Ferry Road south of 5th Street to connect to future Willamette River bridge
- Parkway Avenue connecting to Wilsonville Road to the nearby neighborhood
- Wilson Lane, Metolius Lane, and Kalyca Drive connecting Memorial Park to the Waterfront Trail near where it passes underneath the I-5 Boone Bridge

FIGURE 3-5. BICYCLE ROUTES



STREET CROSS-SECTION DESIGN

Since different streets serve different purposes, a functional classification system—which is a hierarchy of street designations—provides a framework for identifying the size and type of various street elements to consider including in a street's design. Not all elements are included on all streets and so they must be carefully selected based on multimodal needs.

While a street's functional classification does not dictate which street elements to include, it does facilitate the selection of multimodal facilities and widths that will help ensure the roadway can meet its intended multimodal function. Adjacent land uses and available right-of-way width also influence which elements are included in a specific segment.

Roadway cross-section design elements include travel lanes, curbs, planter strips, sidewalks on both sides of the road, and bicycle facilities consistent with designated bikeways, walkways, and shared-use trails. Low impact development (LID) standards may also be used throughout the City at the City's discretion.

FACILITY TYPES

Cross-section standards are provided for the following facilities:

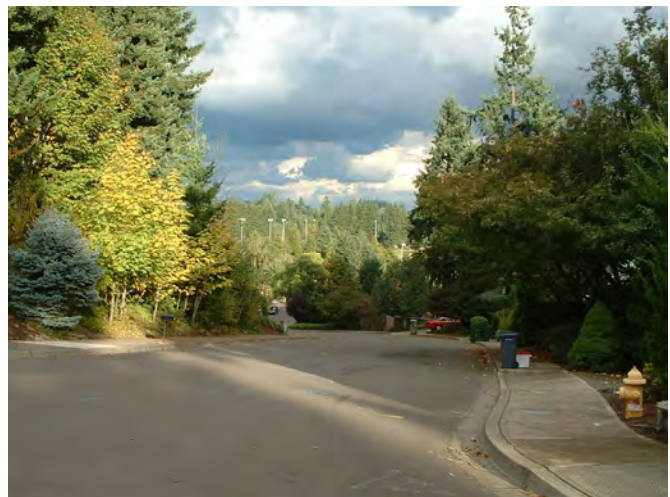
- Major Arterials
- Minor Arterials
- Collectors
- Local Streets
- Low Impact Development (LID) Local Streets (similar modifications may be made to other streets regardless of classification)
- Shared-Use Paths and Trails
- Bicycle Facility Design Options
- Town Center Plan
- Frog Pond East and South Master Plan



Example of a Major Arterial - Boeckman Road looking west towards Boberg Road and 95th Avenue

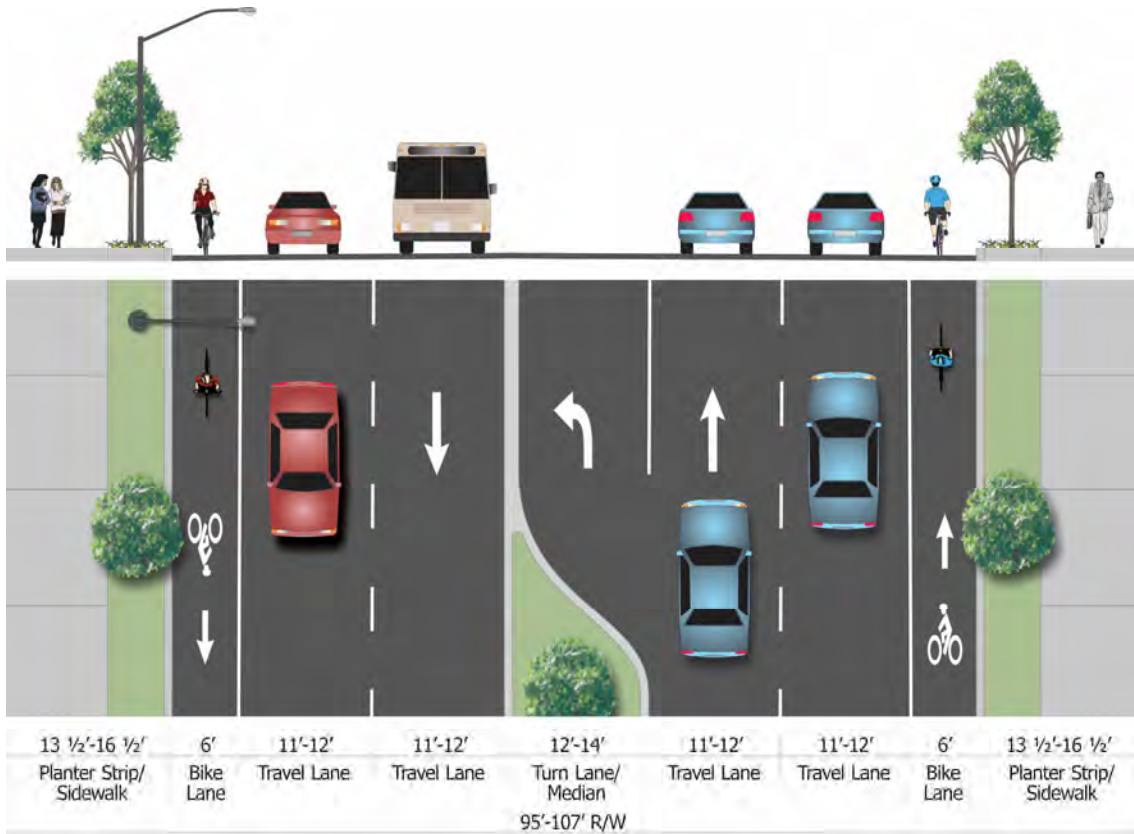


Example of a Collector - Barber Street looking east near SMART Central at Wilsonville Station transit center



Example of a Local Street - Rogue Lane looking east near Memorial Park

FIGURE 3-6. MAJOR ARTERIAL CROSS-SECTION



Notes:

1. Travel lane and turn lane/median widths as determined by Community Development Director.
2. Minimum sidewalk width is 5 feet; actual sidewalk width as determined by Community Development Director. Width of sidewalk/planting strip may be combined in commercial/retail areas for a total width of 13½ to 16½ feet; street trees shall be located in minimum 4-foot tree wells.
3. Curb width of ½-foot is included in the sidewalk/planter strip width.
4. Street lights shall be located within the planter strip, center landscape median, or sidewalk as determined by Community Development Director.
5. Striping and signage as required in the PW Standards.
6. On-street parking is not allowed.
7. Transit stop locations to be determined by Transit Director.
8. When not needed as a left-turn lane, median may be provided to serve safety, stormwater, or aesthetic objectives.
9. New streets shall incorporate low impact development design as practicable.
10. Allow for separation for bikes on major arterials (especially freight routes).

FIGURE 3-12. BICYCLE FACILITY DESIGN OPTIONS

BUFFERED BIKE LANES AND CYCLE TRACKS

Buffered bike lanes (buffer between travel lane and bike lane) and cycle tracks (parking and/or other buffer between travel lane and one- or two-way bike facility) are two alternate bicycle facility options that are gaining popularity throughout the United States and have been implemented in other parts of the Portland Metro area. Therefore, the design options shown below have been provided to allow the City flexibility to consider these bicycle treatments on their Arterial and Collector streets in place of typical bike lanes.

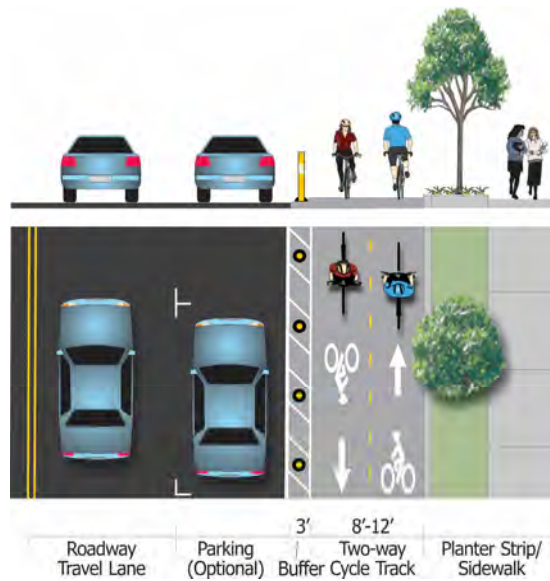


One-Way Cycle Track on Cully Boulevard in Northeast Portland. Cycle tracks are typically protected from motor vehicle traffic by parked cars, raised curbs, or other physical buffers.

BUFFERED BIKE LANE OR ONE-WAY CYCLE TRACK



TWO-WAY CYCLE TRACK



Notes:

1. Design option locations, widths, separation buffer features, and adjacent parking as approved by Community Development Director.
2. Additional design guidance can be obtained from the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide

CROSS-SECTION DEFICIENCIES

To ensure Wilsonville’s roadways adequately serve all modes, the City has cross-section standards that guide roadway design based on the street’s functional classification with the acknowledgement that design elements shall be matched with the adjacent land use to provide safe transportation choices for users. The functional classifications and cross-section standards include number of motor vehicle travel lanes, sidewalks on both sides of the street, planter strips, and curbs (see Chapter 3: The Standards). In addition, the higher classification roadways also include bicycle facilities.

Building roads that provide facilities for all travel modes and meet applicable cross-section standards is critical to assure a safe and well connected transportation system. If bike lanes and sidewalks are

missing, the users of these facilities are likely using other portions of the roadway (motor vehicle travel lanes or shoulders) that may be unsafe.

Figure 4-1 shows which City roadways do not meet their applicable cross-section standards. In some instances, all that is needed are sidewalks for improved pedestrian connectivity. In other instances, roadways may need to be widened to include center turn lanes or bike lanes. Many of these roads are adjacent to rural areas and will be brought up to meet standards as adjacent parcels develop. Others will require standalone improvement projects. Depending on the situation, these roadway sections will require urban upgrades, sidewalk infill, or bike lane infill improvements.

Freeman Drive between 95th Avenue and businesses lacks sidewalks on the south side.



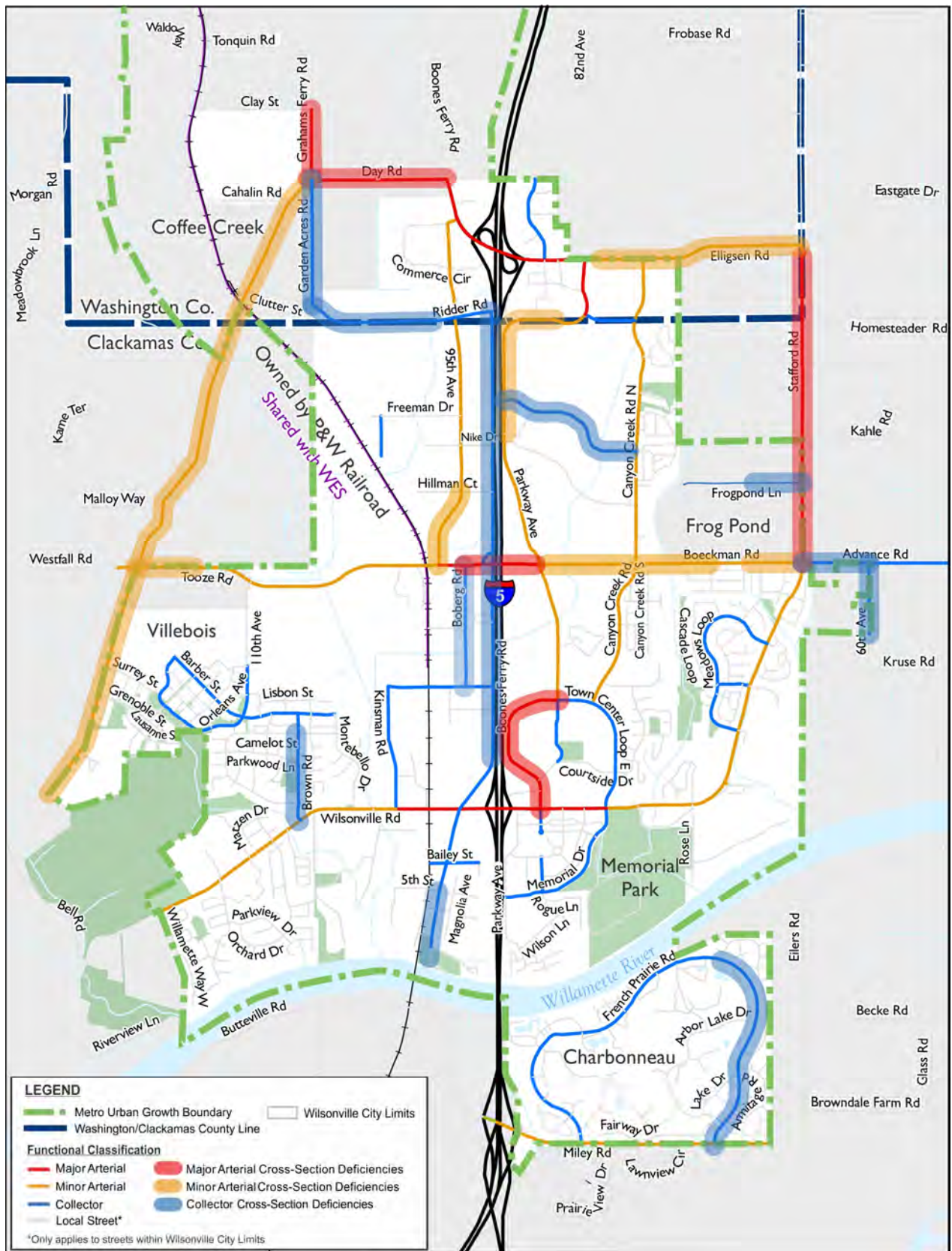
Parkway Avenue near the Xerox campus is a Minor Arterial but does not include bike lanes. There is a sidewalk on the east side, but it ends at the boundary with the vacant parcel to the north.



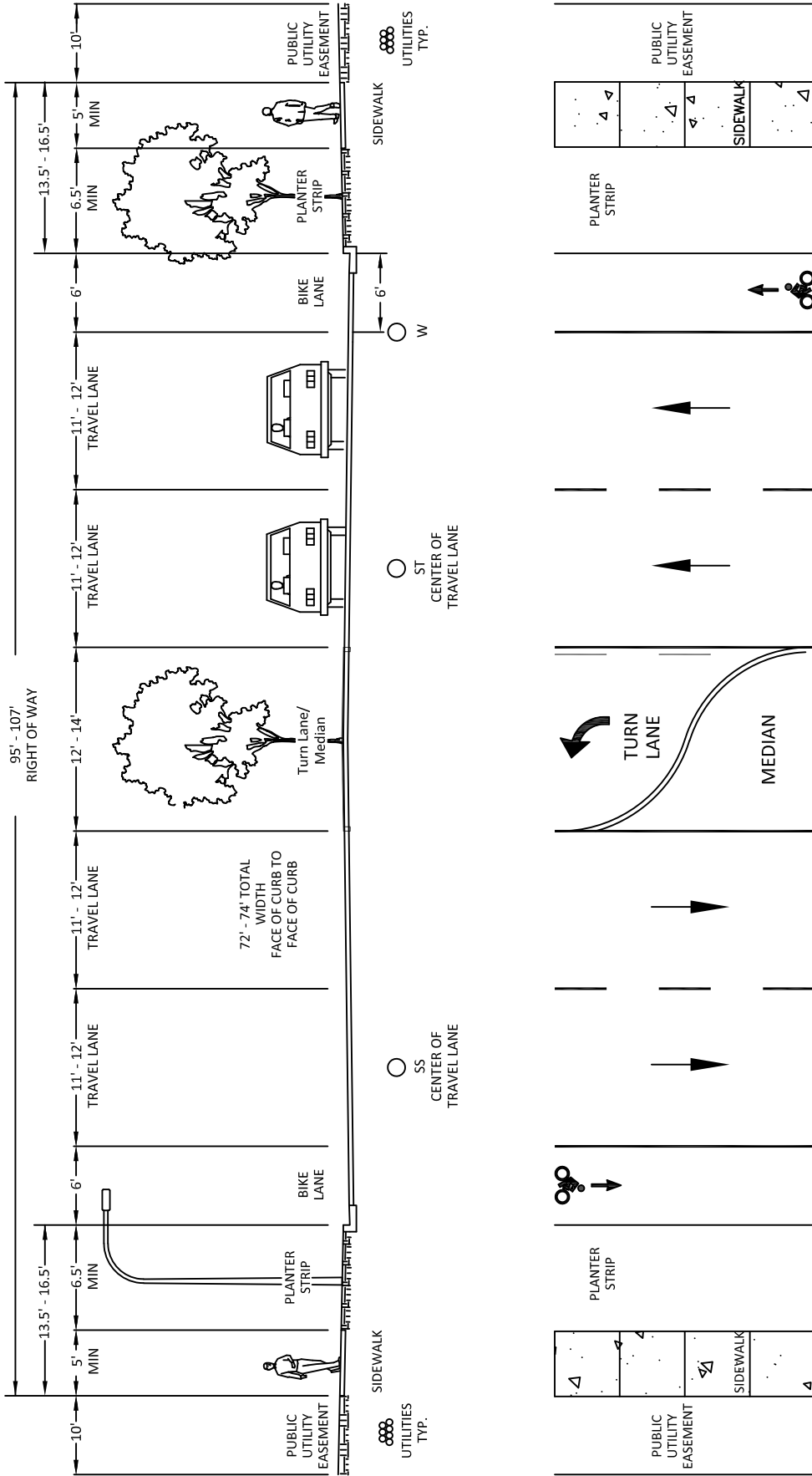
“I-5 poses some challenges because it serves as a barrier in between the east and west sides of town. This puts a lot of pressure on the few existing connections that make it harder for people to walk between one place and another.”

*Katie Mangle
Long Range Planning Manager*

FIGURE 4-1. ROADWAY CROSS-SECTION DEFICIENCIES



MAJOR ARTERIAL
VIEW LOOKING NORTH OR EAST



NOTES:

1. THE SIDEWALK AND PLANTER STRIP WIDTH SHALL BE DETERMINED BY THE CITY ENGINEER. THE COMBINATION OF THE SIDEWALK WIDTH AND PLANTER STRIP WIDTH SHALL NOT BE LESS THAN 13.5'. WIDTH OF SIDEWALK AND PLANTER STRIP MAY BE COMBINED IN COMMERCIAL/RETAIL AREAS. STREET TREES SHALL BE IN 4' TREE WELLS ONLY AND ADJACENT TO CURB A MINIMUM OF 9' CLEAR SIDEWALK.
2. WIDTH OF CURB IS INCLUDED IN SIDEWALK OR PLANTER STRIP WIDTH.
3. STREET LIGHTS SHALL BE LOCATED WITHIN PLANTER STRIP, MEDIAN OR, IF COMMERCIAL/RETAIL AREA, SIDEWALK AS REQUIRED.
4. STRIPING AND SIGNAGE AS REQUIRED.
5. ON-STREET PARKING IS NOT ALLOWED. TRANSIT STOP LOCATIONS TO BE DETERMINED BY TRANSIT DIRECTOR.
6. MEDIAN SHALL BE LANDSCAPED WHEN NOT NEEDED AS A LEFT-TURN LANE.
7. SEE SPECIAL SETBACK REQUIREMENTS FOR MAJOR ARTERIAL STREET SECTIONS.
8. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 1600 FEET WITH THREE FLOW THRU INLETS EVENLY SPACED BETWEEN EACH MANHOLE.
9. ALTERNATIVE BIKE FACILITIES SHALL BE CONSIDERED FOR INCORPORATION INTO DESIGN ON MINOR ARTERIAL STREETS, PARTICULARLY FREIGHT ROUTES.
10. BICYCLE FACILITY DESIGN OPTIONS, SUCH AS BUFFERED BIKE LANES AND CYCLE TRACKS, SHALL BE DETERMINED BY THE CITY ENGINEER.

Major Arterial

DRAWING NUMBER: RD-1040

DRAWN BY: SR

SCALE: N.T.S.

FILE NAME: RD-1040.DWG

APPROVED BY: NK

DATE: 1/10/17

CITY OF
WILSONVILLE

PUBLIC WORKS STANDARDS
Attachment 2, Page 1 of 1



TECHNICAL MEMORANDUM

DATE: May 9, 2024
TO: Amy Pepper, P.E. | City of Wilsonville
FROM: Jenna Bogert, P.E. | DKS Associates
Scott Mansur, P.E., PTOE, RSP₁ | DKS Associates

SUBJECT: Brown Contracting – Traffic Impact Study Criteria

P21123-033

This memorandum provides an evaluation of the site access spacing and intersection sight distance at the Brown Contracting site located along Day Road in Washington County. The memorandum also evaluates the proposed project to determine if it meets any of the City of Wilsonville Transportation Impact Analysis (TIA) criteria as identified in the city’s development code.

This property is located outside of City of Wilsonville limits, but has access to SW Day Road, which is under City of Wilsonville jurisdiction. Tax Lot 309 contains an existing office space and shops for Brown Contracting. The proposed project consists of constructing a covered / open air storage building on Tax Lot 309 as well as installing gravel on portions of the other four tax lots to the west, which are also owned by Brown Contracting, to use for expanded vehicle and equipment storage.

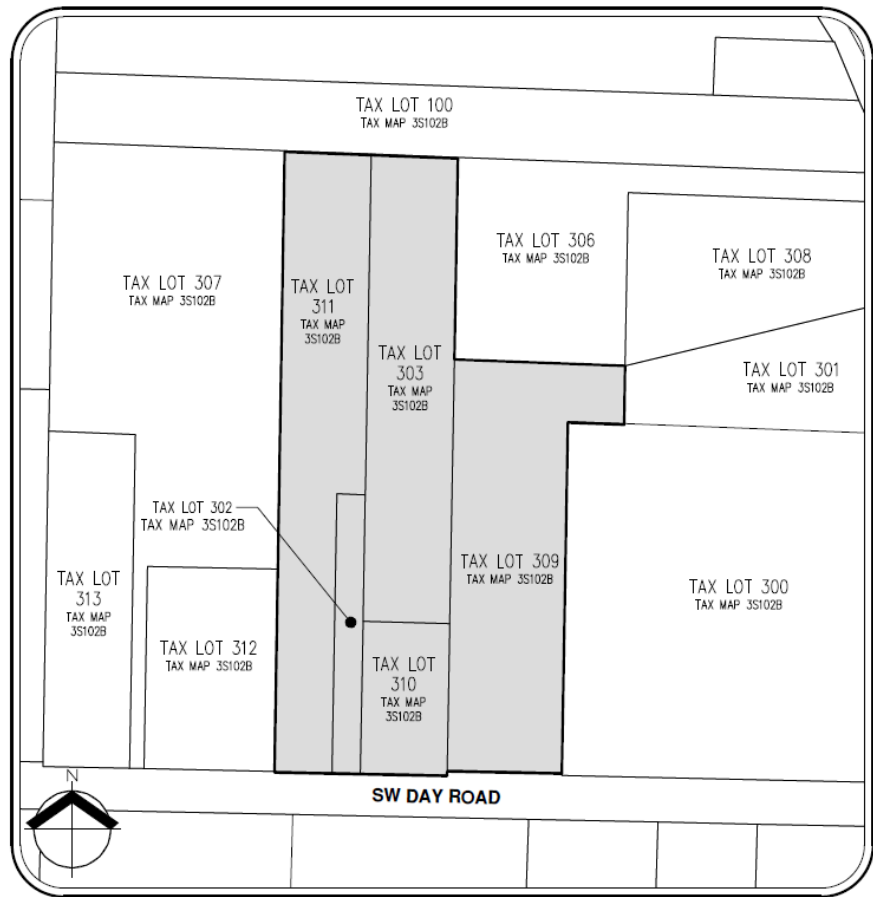


FIGURE 1: STUDY AREA

TRAFFIC IMPACT ANALYSIS (TIA) CRITERIA

The Wilsonville Development Code¹ lays out the criteria when a full TIA is required and submitted to the City of Wilsonville. Section 4.113.05.C contains the following:

A TIA shall be required to be submitted to the City with a land use application, when the following conditions apply:

1. The development application involves one or more of the following actions:
 - a. A change in zoning or a plan amendment designation; or **[criteria not met]**
 - b. The development requires a Development Permit pursuant to Section 4.004; or **[criteria not met]**
 - c. The development may cause one or more of the following effects to access or circulation, which can be determined by site observation, traffic impact analysis or study, field measurements, and information and studies provided by the local reviewing jurisdiction and/or ODOT:
 - i. The location of the access driveway does not meet minimum intersection sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate, creating a safety hazard; or **[criteria met]**
 - ii. The location of the access driveway does not meet the access spacing standard of the roadway on which the driveway is located; or **[criteria met]**
 - iii. The location of the access driveway is inconsistent with the Wilsonville Road Interchange Area Management Plan Access Management Plan. **[criteria not met]**
 - iv. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area. **[criteria not met]**

Based on this criterion, a full TIA would be required as the site accesses do not meet criteria c.i and c.ii. See the following sections for evaluations of the intersection sight distance and access spacing.

¹ Wilsonville Development Code Section 4.133.05 – Administration

SITE ACCESS SPACING

Access spacing was measured during a field visit on February 29th, 2024, at all 5 driveways to the tax lots owned by Brown Contracting. All access spacing measurements are shown in Attachment A. Based on the City's standards², the minimum access spacing on SW Day Rd (Major Arterial) is 1,000 feet and the desired spacing is 1,320 feet. None of the site access to the Brown Contracting properties meet the City's access spacing requirements.

The applicant should work with the City to consolidate and/or remove access points, especially to the single-family residences on Tax Lots 310 and 311, to improve safety, minimize ingress and egress points to the site, and provide conformance as much as possible with the City's spacing standards.

INTERSECTION SIGHT DISTANCE

The American Association of State Highway and Transportation Officials (AASHTO) outlines the required sight distance at intersections for various traffic control and turning maneuvers³. Given the existing road configuration at the access points to the Brown Contracting site, Case B1 and Case B2 are applicable to this study.

Case B1 represents the sight distance required for vehicles making left turns from the minor road onto the major road and Case B2 represents vehicles making right turns from the minor road onto the major road. The required sight distance for single-unit trucks is longer compared to passenger cars as trucks have slower acceleration and need more gap time to perform a turning maneuver. Table 1 shows the AASHTO sight distance requirements.

Table 1 also shows the preliminary measured sight distances as captured during a field visit at two of the access points, access to Tax Lot 309 (main site access) and access to Tax Lot 302. These measurements were based on the passenger car driver eye height of 3.5 feet. To determine the sight distance for a single-unit truck turning out of a driveway, the driver eye height would need to be measured from a higher location, e.g., 6 feet. This measurement was not collected.

² Table 2.12 Access Spacing Standards, Public Works Standards, City of Wilsonville, 2017.

³ Section 9.5.3 – Intersection Control

TABLE 1: INTERSECTION SIGHT DISTANCE REQUIREMENT & MEASUREMENTS

CASE B1 – LEFT TURN			CASE B2 – RIGHT TURN	
DESIGN SPEED = 40 MPH				
	PASSENGER CAR	SINGLE-UNIT TRUCK	PASSENGER CAR	SINGLE-UNIT TRUCK
REQUIRED INTERSECTION SIGHT DISTANCE	445 feet (left and right)	560 feet (left and right)	385 feet (left and right)	500 feet (left and right)
ACCESS TO TAX LOT 309 (MAIN ACCESS)				
MEASURED DISTANCE LOOKING LEFT	~ 405 feet	Unknown	~ 405 feet	Unknown
MEASURED DISTANCE LOOKING RIGHT	>1,000 feet	>1,000 feet	Not Applicable	Not Applicable
ACCESS TO TAX LOT 302				
MEASURED DISTANCE LOOKING LEFT	~ 500 feet	Unknown	~ 500 feet	Unknown
MEASURED DISTANCE LOOKING RIGHT	>1,000 feet	>1,000 feet	Not Applicable	Not Applicable

Based on the preliminary field measurements at the access point to Tax Lot 309, it does not appear that there is adequate intersection sight distance for passenger cars making a left turn from the access.

Based on the preliminary field measurements at the access point to Tax Lot 302, the sight distance for passenger cars is met, but the sight distance for single-unit trucks was not measured and is unknown.

The applicant should confirm the sight distance measurements for both passenger cars and trucks. If sight distance is confirmed to be inadequate, the applicant should provide mitigation measures to improve sight distance at the proposed access points.

Prior to occupancy, sight distance at any existing modified access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

VEHICLE TRIP GENERATION

Based on recent traffic counts collected at the five site driveways, there is a total of 19 AM peak hour trips, 23 PM peak hour trips, and 184 weekday trips. This is very similar to what was reported in the previously submitted *Trip Generation Analysis Memo*⁴. In that memorandum, the driveway to Brown Contractors is reported to generate 18 AM peak hour trips and 22 PM peak hour trips and 109 weekday trips.

TABLE 2: TRIP GENERATION BY DRIVEWAY (MAY 1, 2024)

	AM PEAK HOUR (7-8AM)	PM PEAK HOUR (4-5PM)	DAILY
DRIVEWAY 1 (LOT 311)	1	0	11
DRIVEWAY 2 (LOT 302)	0	1	17
DRIVEWAY 3 (LOT 310)	0	0	16
DRIVEWAY 4 (LOT 310)	0	0	2
DRIVEWAY 5 (LOT 309)	18	22	138
TOTAL	19	23	184

The City of Wilsonville does not currently have any TIA criteria that involve an increase in vehicle trip generation.

Based on the trip generation analysis memorandum⁵ provided in the land use application, the applicant does not anticipate the hiring of additional employees as part of the expansion, nor will the square footage of the contractor’s establishment building be increased.

However, multiple acres of the four western tax lots are being converted from green space to gravel storage for equipment, machinery, excavators, vehicles (e.g. trucks, trailers, and vans), tools, and materials (e.g. rock, gravel, soil, piping, concrete blocks, etc.). This expansion of storage could have the potential to increase activity on-site and generate additional daily vehicle trips as additional machinery, excavators, and vehicles will be moved on and off on-site creating additional trips.

The additional trips expected from the on-site modifications will change the current use at the site driveways and City/County intersections in the vicinity of the site. We don’t expect the additional trips to result in capacity issues at City off-site intersections, however, the site accesses could see a significant increase in project trips. This increase in use is concerning with the safety issues previously identified related to access spacing and sight distance.

⁴ Brown Contracting, Inc. – Trip Generation Analysis, Lancaster Mobley, August 2, 2023.

⁵ Brown Contracting, Inc. – Trip Generation Analysis, Lancaster Mobley, August 2, 2023.

FINDINGS & RECOMMENDATIONS

The proposed project consists of constructing a covered / open air storage building on Tax Lot 309 as well as installing gravel on portions of the other four tax lots to the west, which are also owned by Brown Contracting, to use for vehicle and equipment storage.

The five site access points to the project parcels do not meet the City of Wilsonville access spacing standards for Major Arterials (Day Road), which is a minimum 1,000 feet. See Attachment A.

Currently, two of the site accesses do not meet the required AASHTO intersection sight distance requirements for vehicles turning out onto Day Road.

The lack of adequate sight distance and access spacing qualifies the site for providing a full traffic impact analysis (TIA) per the City's development code. However, a traffic impact study primarily focuses on evaluating vehicle operations and identifying capacity deficiencies on the nearby transportation network. Although an expected increase in activity is expected with the proposed changes, there are no major off-site vehicle operations capacity concerns from DKS, and a full traffic impact study is not necessary.

Because the site accesses are expected to see an increase in vehicle trips due to the proposed changes, DKS does have safety concerns with the increased number of slower, larger vehicles turning out of the project site onto Day Road, which is a high-speed arterial.

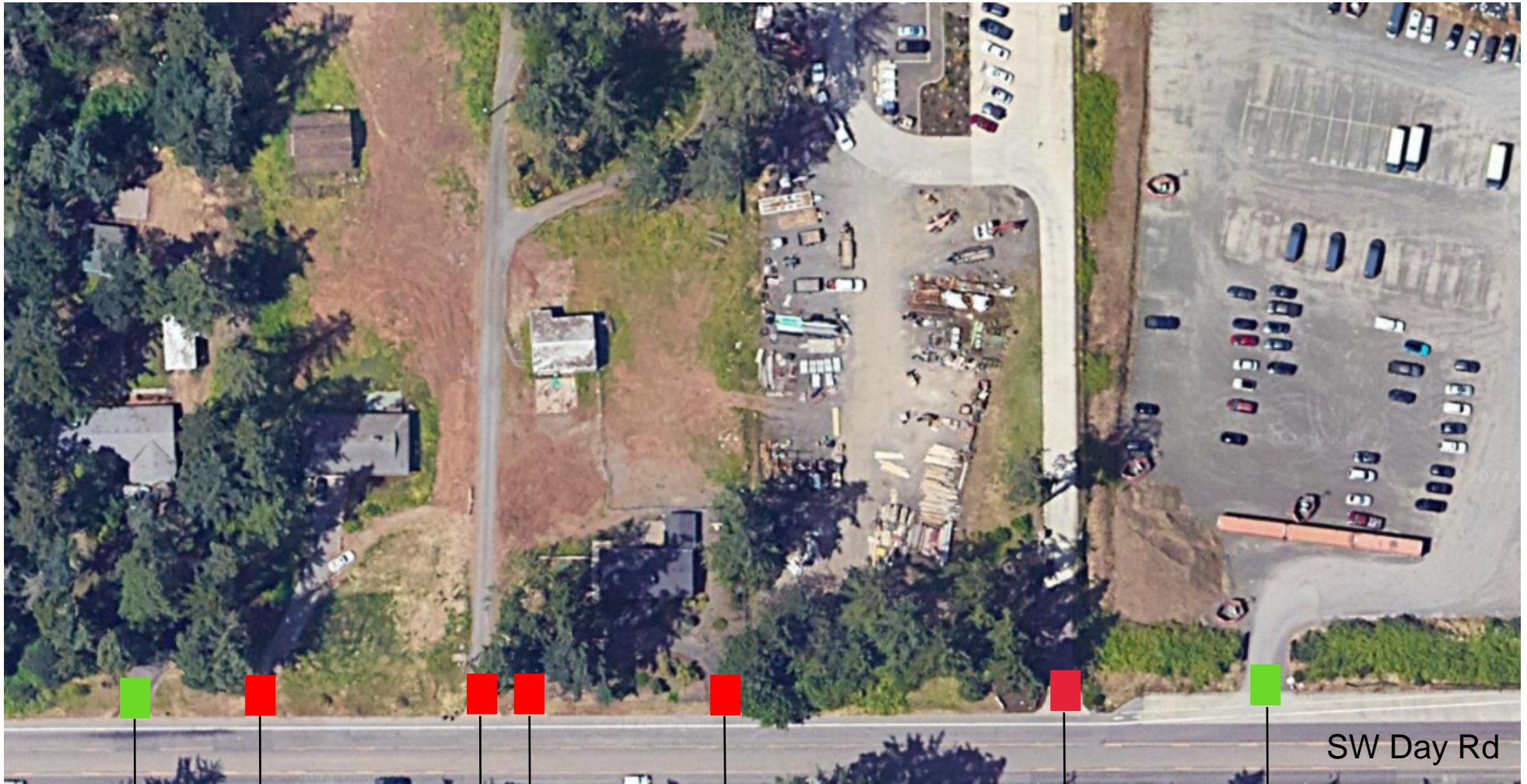
Based on the findings in this memorandum, the following is recommended.

- The applicant should work with the City to consolidate and/or remove some of the existing access points (particularly to the single-family residences) to improve safety and move closer to conformance with the City's access spacing standards.
- The applicant shall confirm the existing sight distance at the project access points for both left turns and right turns exiting the site and left turns turning into the site, and provide mitigations for locations with inadequate sight distance.
- Prior to occupancy, sight distance at any existing or modified access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

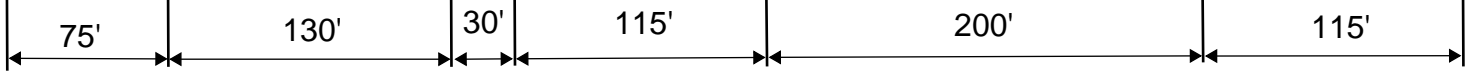
ATTACHMENTS

A: Access Spacing Figure

B: Driveway Traffic Counts



SW Day Rd



Adjacent Driveway

Subject Properties Driveway

File Name: Day Rd - Brown Contracting
 Start Date: 5/1/2024
 Start Time: 12:00 AM

Time	Dwy 1			Dwy 2			Dwy 3			Dwy 4			Dwy 5		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	1	7
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
7:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	3	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6
8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10:30 AM	0	0	0	0	1	1	1	0	1	0	0	0	0	2	2
10:45 AM	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	0	0	0	1	1	1	0	1	1	0	1	0	0	0
11:30 AM	1	1	2	0	0	0	0	0	0	1	1	1	1	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
12:30 PM	1	0	1	0	0	0	0	1	2	0	0	0	0	0	0
12:45 PM	0	1	1	0	0	0	0	0	0	0	0	0	3	0	3
1:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	1	3	4
1:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	2	1	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
1:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	2	1	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
2:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	3	0	3
2:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1	2
3:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	3
3:15 PM	0	2	2	0	0	0	0	0	0	0	0	0	1	1	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
3:45 PM	1	0	1	1	0	1	0	0	0	0	0	0	1	1	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	6	12
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	7	8
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
6:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2
6:15 PM	0	0	0	1	0	1	0	1	1	0	0	0	0	1	1
6:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	1	2
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
10:15 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	6	11	9	8	17	7	9	16	1	1	2	72	66	138



DELTA LOGISTICS ANNEX TRANSPORTATION IMPACT ANALYSIS

FEBRUARY 2022

PREPARED FOR:



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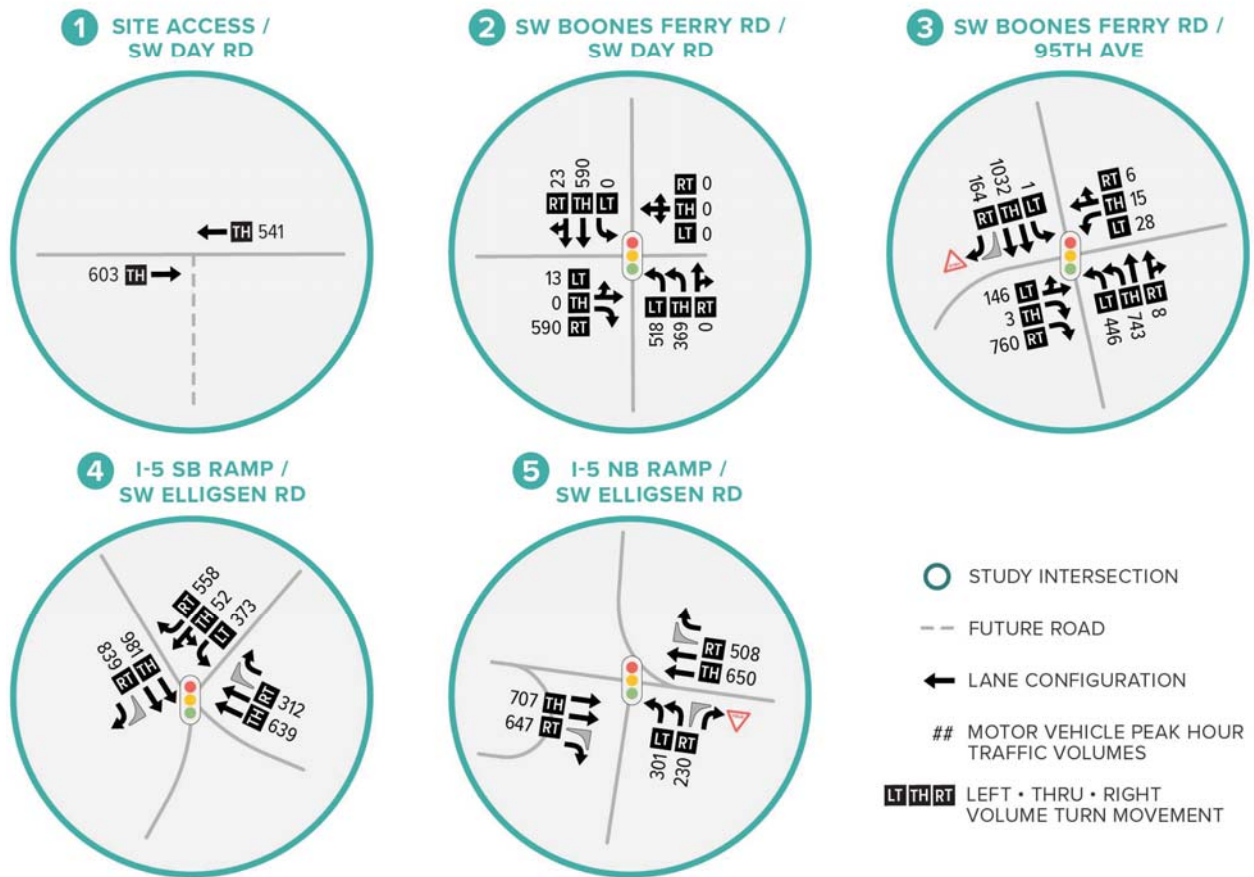
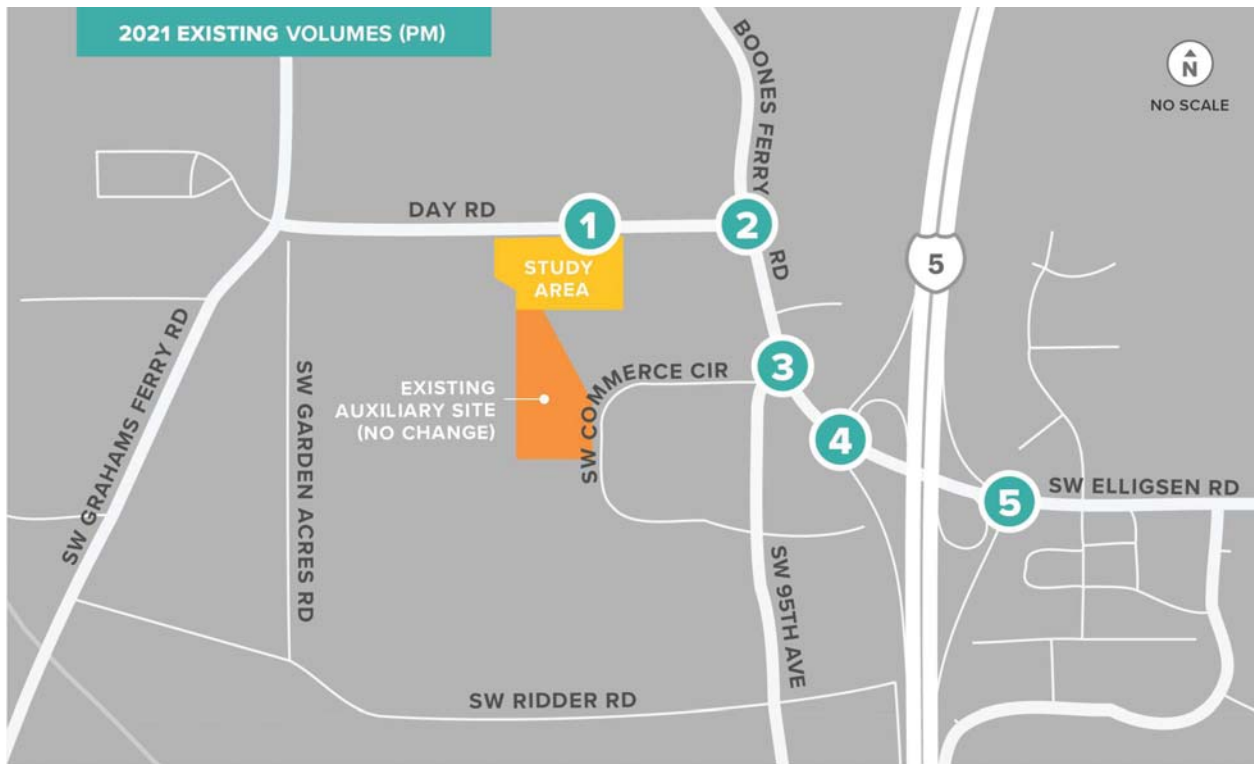


FIGURE 2: EXISTING PM PEAK HOUR TRAFFIC VOLUMES