

PLANNING COMMISSION AGENDA
December 9, 2010
7:30 p.m. Regular Meeting
Newberg Public Safety Building
401 E. Third Street

**NOTE: THE MEETING START TIME HAS BEEN CHANGED
FROM 7:00 P.M. TO 7:30 P.M.**

- I. ROLL CALL**
- II. OPEN MEETING**
- III. CONSENT CALENDAR** (items are considered routine and are not discussed unless requested by the commissioners)
 - 1. Approval of November 10, 2010 Planning Commission Meeting Minutes
- IV. COMMUNICATIONS FROM THE FLOOR** (5 minute maximum per person)
 - 1. For items not listed on the agenda
- V. WORKSHOP: Street and Access Standards – Review of current standards & the recommendation of the Affordable Housing Action Committee. File no. DCA-10-002.**
- VI. ITEMS FROM STAFF**
 - 1. Update on Council items
 - 2. Other reports, letters, or correspondence
 - 3. Next Planning Commission Meeting: January 13, 2011
- VII. ITEMS FROM COMMISSIONERS**
- VIII. ADJOURN**

FOR QUESTIONS PLEASE STOP BY, OR CALL 503-537-1240, PLANNING & BUILDING DEPT. - P.O. BOX 970 - 414 E. 1ST STREET

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

In order to accommodate persons with physical impairments, please notify the City Recorder's office of any special physical accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact the city recorder at (503) 537-1283. For TTY service please call (503) 554-7793.

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PLANNING COMMISSION MINUTES

November 10, 2010

7 p.m. Regular Meeting

Newberg Public Safety Building

401 E. Third Street

TO BE APPROVED AT THE DECEMBER 9, 2010 PLANNING COMMISSION MEETING

I. ROLL CALL:

Present: Nick Tri, Chair Philip Smith, Vice Chair
Cathy Stuhr Thomas Barnes
Derek Duff Lon Wall Kale Rogers, Student PC

Staff Present: Barton Brierley, Planning & Building Director
Jessica Nunley, Assistant Planner
Steve Olson, Associate Planner
DawnKaren Bevill, Recording Secretary

Others Present: Larry Anderson

II. OPEN MEETING:

Chair Tri opened the meeting at 7:00 p.m. and asked for roll call.

III. CONSENT CALENDAR:

Chair Tri entertained a motion to accept the minutes of the October 14, 2010 meeting.

MOTION #1: Duff/Barnes to approve the minutes as corrected from the Planning Commission Meeting of October 14, 2010 as amended. (6 Yes/ 0 No/ 0 Absent/ 1 Vacant [Haug]) Motion carried.

IV. COMMUNICATIONS FROM THE FLOOR:

Chair Tri offered an opportunity for non-agenda items. None were brought forth.

V. QUASI-JUDICIAL PUBLIC HEARING

(continued from Oct. 14, 2010 at the point of deliberation)

APPLICANT: Housing Authority of Yamhill County

REQUEST: Change the Comprehensive Plan designation from LDR (Low Density Residential) to HDR (High Density Residential) and change the zoning from R-1 (low Density Residential) to R-3 (High Density Residential) for a 3.39-acre property.

LOCATION: 1103 N Meridian St.

TAX LOT: 3218DA-2100

FILE NO.: CPA-10-001/ZMA-10-001 RESOLUTION NO.: 2010-285

CRITERIA: Newberg Development Code § 151.122

Staff Summary:

Jessica Nunley gave a short summary of the proposal and reviewed the application and site information (See official meeting packet for details).

Staff Recommendation:

Staff recommends that the Planning Commission adopt Resolution 2010-285 with the findings contained in Exhibit A, recommending that the City Council approve the requested Comprehensive Plan map amendment from Low Density Residential (LDR) to High Density Residential (HDR) and Zoning map amendment from R-1 to R-3., for the property shown in Exhibit B and described by Exhibit C.

Chair Tri opened the hearing at the point of deliberation at 7:11 p.m.

Deliberation:

Commissioner Stuhr stated the application does meet the criteria although she is concerned about the traffic. There are some things we could look at such as restricting parking on the street where the driveways are located.

Commissioner Smith stated the Comprehensive Plan says to encourage affordable housing. Many who have testified said this property would make a great park and museum and although it would, the City does not have the authority to do that as the City does not own the property. There were questions about the suitability of this property for the use. The properties around it are zoned R-1, R-2, and R-3. Does the City need affordable housing more than it needs R-1? The answer is yes. The lack of R-3 land is much more severe. Concerning transportation, it is at level of service A and will remain that way. What about stormwater or other water? This property is more than equipped to handle the water. The list goes on and on. His friends from Spaulding Oaks do not want the Planning Commission to approve this but there is no criterion that supports their position.

Commissioner Wall stated this is a difficult decision for him but it is clear this vote is on a zone change. The design review will need to come back to the Planning Commission when the time comes. The Planning Commission has been directed by the City Council to find R-3 property and zone R-3. This property is located where the streets are not pushed to their maximum. There is no compelling reason to vote against it and he will vote yes.

Commissioner Duff stated when looking at the criteria there is nothing to dissuade the Planning Commission from voting to approve it. The Housing Authority's willingness to reach out to the public and have meetings with the public before bringing this application before the Commission shows trustworthiness. Those actions lead him to believe the Housing Authority will do what they have said.

Kale Rogers stated based on the need for R-3 housing he believes it should be passed.

Commissioner Barnes stated he had been concerned about the sewer line until the proponent explained it. He is in favor of the application.

Chair Tri said he agrees with what has been stated by the Commissioners.

Commissioner Smith moved to vote on the motion by Commissioner Barnes, seconded by Commissioner Stuhr, to approve Resolution 2010-285 at the October 14, 2010 Planning Commission meeting.

TIME: 7:29 PM

VI. LEGISLATIVE PUBLIC HEARING

APPLICANT: City of Newberg – Public Works: Engineering

REQUEST: Stormwater Management and Erosion Control Ordinance. Approve an Ordinance managing stormwater and establishing erosion control requirements. The Ordinance will fulfill requirements in the Willamette TMDL Implementation Plan (approved by DEQ) for controlling sediment in stormwater discharges to the Willamette River from construction sites and developed properties.

RESOLUTION NO.: 2010-284

Opening of the Hearing:

Chair Tri asked the Commissioners for any abstentions, conflicts of interest, or objections to jurisdiction. None were brought forward.

Sonja Johnson, Environmental Specialist with the City of Newberg Public Works Engineering Department, gave an overview of the proposed Stormwater Management and Erosion Control Code (see the October 14, 2010 official meeting packet for details). Currently there are no guidelines for applicants to follow regarding preconstruction stormwater management. The purpose for this proposed code is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the effects associated with increased sediment in stormwater cause by erosion. The provisions of this code shall apply to all development occurring within the City Limits. Erosion control is covered under the Department of Environmental Quality (DEQ). In 2011, DEQ will be finalizing the turbidity standard and the reason for this proposed code was due to an agreement with DEQ that was agreed to by the City Council in 2008 which stated there is an Ordinance in place by 2009 for stormwater management. The code is requiring the developer to submit an erosion control plan and a stormwater management plan. The types of erosion controls that will be required as part of this code are erosion controls that are already being used, such as stabilizing soil stock piles, providing silt fences, putting down new seeded straw and creating rock berms; straw bales for filtering capacity, as well as wattles. There is enforcement as always with any ordinance and one of the items brought to the Planning Commission's attention is a Voluntary Compliance Agreement; the City would work with the applicant to help determine appropriate erosion control and the timeline in which it needs to be completed. The stormwater facilities under this proposed code will have to control 40% of stormwater from the site, which will need to be controlled through swales, a greenway, pervious pavement, a series of flow through or infiltration planters; requiring maintenance agreements which will be attached to the deed so homeowners will know there is a facility on their property. The agreements are required in order to be sure timely maintenance is being done. There are several different kinds of maintenance organization such as private homeowners, non-profit organizations (HOAs), or they can apply to the City for a Special Assessment District. The maintenance organization will submit a report yearly to the City and update any contact information. If an applicant believes they cannot fulfill the intent of the code they can apply for a variance. There are various ways to mitigate the stormwater by nonprofit donation in the watershed, construct or upgrade stormwater facilities downstream of the project, or have a conservation easement downstream of the project.

Questions:

Commissioner Stuhr stated the establishment of the Total Maximum Daily Loading (TMDL) looks at this issue in a broad way without defining exactly what the problem is or how to solve it, which is difficult to enforce. Ms. Johnson stated the TMDL plan is geared more toward a non-point source. As Newberg grows to a Phase II City, there will be discharge limits to abide by. By allowing infiltration of the stormwater, limits should be met.

Commissioner Stuhr stated the whole plan seems to be driven by the summary statement with regard to the TMDL plan but it is hard to find purpose to each issue such as flooding. Does this become retroactive to developments that already exist? Ms. Johnson replied, no. Commissioner Stuhr believes the use of some of the terms can be too subjective and are not limited in any way. She referred to Section 13.25.22, (A); the size and type of development is not clear. It could be a very small site but have a great impact. Annette de Paz, City Surveyor, stated the specifics are in the design standards. It is not intended to have an ordinance that states the exact water quality since those standards may change over time. In the design standards there are still some generalities since each site has different characteristics that need to be addressed. However, staff will look at those areas brought up and see if they can be more objective. Commissioner Stuhr asked if the stormwater can be off-site on an adjacent parcel. Ms. de Paz replied yes, it depends on the property rights the developer has. Commissioner Stuhr asked how well does this plan transition to population growth. Ms. de Paz replied DEQ is currently working with the City to ensure the TMDL plan currently used is in preparation of the Phase II permit level, making the transition easier.

Chair Tri opened public testimony at 8:00 PM.

Opponents:

Larry Anderson understands the reason for the City adopting this code, but believes this is much stricter than is needed. He reviewed sections of the code he believes could be omitted or changed. DEQ wants the City to have local management of construction and stormwater runoff; the intent is to keep the larger developments over one acre getting DEQ 1200C permits and paying the nominal fee. DEQ has design templates so drawings are easy to put together. This Newberg plan will be a burden to those developments under one acre; any development above 500 square feet would have to meet the new standards. There is a lot of vagueness in the plan. Mr. Anderson referred to the exemptions on page five and the land disturbance definition – 500 square feet could be a homeowner putting in a patio in the back yard. On page six the definition for redevelopment, DEQ's definition is still one acre for development and redevelopment. On page nine, Section 13.25.10 (B-4); DEQ states that drawings and permits for less than one acre are not required. His observation is that most soil in streets is coming from new home construction yet that is exempt from this. As long as you are building a home in a subdivision, you are not regulated by the City under this. The two biggest contributors to runoff and erosion are exempt and the small homeowner is not covered under those exemptions. Mr. Anderson referred to Section 13.25.20 on page 10 (A – C); all are routine now with larger projects but not for someone building a carport or patio; there will be much expense to go through for something so small which is unnecessary. Section 13.25.23 on page 11 this is the same information provided on a permit drawing for a larger area, not what you want for a small development project. Section 13.25.24 there is a lot of discretion on additional requirements. Disturbances within 50 feet of a stream, as defined by this code, require additional unspecified requirements. The items on page 13 are seen on larger sites but not on smaller sites and are overdone. On page 14, (B) in regard to the erosion control inspector, in most cases a general contractor does that but a small homeowner cannot do that himself. This can be very expensive and that is why DEQ does not regulate less than one acre in that way. On page 15, Section 13.25.41 under control measures, he is in favor of low impact and controlled runoff although you really cannot control runoff on 500 square feet. On page 16, Section 13.25.50 under deed restrictions,

these are the type of things that are seen on a large development that is already covered in the Development Code under the stormwater design standards and should not apply to small development. Mr. Anderson referred to page 17 and stated that DEQ requires the City to file an annual report, but a property owner who has a facility on his property should not be required to do so. On page 19, Section 13.25.71, Mr. Anderson explained if you are for example adding an RV pad and the subdivision drains into a detention facility, even though you are not contributing stormwater, you still have to pay an application fee based on this code. On page 22, under Guarantees and Penalties, if you are a small business owner with a 10,000 square foot building, a performance bond will need to be calculated – paying 150% to the City in the form of a bond. Then the maintenance bond is 15%. Most people cannot be bonded so their choice is to write a check to the City to be sure what is being built will be held through the duration of the project. After completion of the project, it takes the City 60 days to return the money back, which is a long period of time. The maintenance bond on pages 22 – 23 is returned back two years after the project is complete. Holding a bond for two years after completion is excessive. This is very imposing on the community and is far more severe than what DEQ is requiring. Mr. Anderson urged the Planning Commission to not approve this code and suggested having staff come back with amended regulations and the cost to the property owner for the Planning Commission to review.

Commissioner Duff asked Mr. Anderson if he is not opposed to the sediment agreements but opposed to having them apply to developments of 500 square feet to an acre in size. Mr. Anderson replied that is correct, most of the code is fine for larger developments.

Commissioner Smith stated after hearing Mr. Anderson's testimony it seems the City could have a very short City Code to adopt and abide by DEQ requirements. Mr. Anderson agreed. Commissioner Smith thanked Mr. Anderson and stated this has been very significant testimony.

Sonja Johnson stated single-family homeowners were intended to be exempt from this code. The TMDL agreement specifically says the erosion and stormwater code has to apply to all sizes of development.

Commissioner Wall referred to single family residential structures and change of land contours of 500 square feet or more; suggesting a change in wording from "structure" to "all property."

Commissioner Duff asked if a small business does landscaping over 500 square feet, would they be required to go through the permitting process. Annette de Paz replied if changing the topography, yes.

Commissioner Stuhr suggested the Planning Commission have a workshop on this due to the massive amount of information. The Commission needs to be educated in order to make an informed decision.

Chair Tri closed the public testimony at 9:00 p.m.

MOTION #2: Smith/Barnes moved to not approve this recommendation but instead ask staff to continue work on it and bring a revised proposal back to the Planning Commission at a future meeting, as well as having a workshop if staff deems it necessary. (6 Yes/ 0 No/ 0 Absent/ 1 Vacant [Haug])
Motion carried.

Commissioner Stuhr stated consistency with wording regarding contaminants is important, and the definition of environmentally sensitive resources needs to be changed.

VII. ITEMS FROM STAFF:

Update on Council items:

Barton Brierley stated the City Council heard the Johnson Furniture Property historical designation application and it was approved. They also passed a resolution to dissolve the Newberg Downtown Revitalization Committee. In order to move the resources to the Newberg Downtown Coalition, \$7,500 funding was approved for the Coalition.

This is National Planning Month so staff did a project with local middle schools where they engaged students with City planning, asking them to design projects for two pieces of vacant commercial property. Suggestions varied from a frozen yogurt shop, a dog park, regional mall, bowling alley, trails, homeless shelter, and food co-op. After a week’s time the students did a presentation which Mayor Andrews, Commissioner Stuhr, and Commissioner Barnes attended.

Since there is not enough money in the budget to hold the annual Planning Commission dinner, staff is suggesting gathering before the next meeting on December 9, 2010 at 6:30 p.m. to thank the Commissioners by serving appetizers and having a social hour to hopefully be held at the Cultural Center. The Commissioners were in agreement. Barton stated there are four positions up for appointment for the Planning Commission that will be considered by the Mayor. Thomas Barnes has reapplied; Nick Tri has not reapplied, Derek Duff has not reapplied, and Matson Haug’s position is vacant. Barton Brierley thanked Commissioner Tri for his many years of service; Mr. Tri is unable to attend the December meeting. Commissioner Tri stated he has enjoyed serving on the Planning Commission.

The next Planning Commission Meeting is scheduled on Thursday, December 9, 2010.

VIII. ITEMS FROM COMMISSIONERS:

None were brought forward.

IX. ADJOURN:

Chair Tri adjourned the meeting at 9:15 PM.

Approved by the Planning Commission on this 9th day of December, 2010.

AYES:

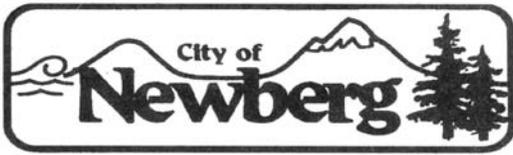
NO:

ABSENT:

ABSTAIN:

Planning Recording Secretary

Planning Commission Chair



MEMORANDUM

Date: December 2, 2010

To: Newberg Planning Commission

From: Barton Brierley, AICP
Planning and Building Director

RE: December 9, 2010 Workshop on Street and Access Standards

At your December 9, 2010 meeting, you will hold a workshop on street and access standards. The purpose of the workshop will be to review and discuss the recommendations of the Affordable Housing Action Committee. This is in preparation for a hearing to be held on these standards in January 2011.

Background

The City Council requested that the Planning Commission review and make recommendations on potential modifications to street and access standards as part of the last update of the Transportation System Plan. That plan recommended the following studies:

- 1. A study and public process to consider local street width standards, with the objective of considering whether the current standards should be retained or should be replaced with a narrower width standard. This study should include consideration of the recommendations of the Neighborhood Street Design Guidelines: An Oregon Guide for Reducing Street Widths.*
- 2. A study and public process to consider private street/common driveway standards. The objective should be to consider whether the current standards should be retained or should allow greater use of common driveways, such as to allow a common driveway to serve up to four lots.*
- 4. A study to consider allowing expanding the allowable use of cul-de-sacs.*

In addition, the Affordable Housing Action Plan, adopted by the City Council, recommends the following actions:

Action 4.2N Allow 28 foot local street widths and narrower right-of-ways. Explore narrower street widths and rights-of-way where emergency access and adequate parking can be maintained.

Narrower street widths may result in less land, money, and resources being used for streets, and potentially allow construction of more affordable housing. In determining appropriate street widths, the City should follow the process outlined in Neighborhood Street Design Guidelines: An Oregon

Guide for Reducing Street Widths. *City officials, including the Public Works Director, Fire Chief, Police Chief, Planning and Building Director, Building Official, should be consulted in recommending the standards. In addition, the City should convene a community stakeholders group, including a representative of the Affordable Housing Ad Hoc Committee, large vehicle users such as Newberg Garbage Service, engineers, and other groups suggested in the guide, to review and make recommendations. Recommendations for changes should undergo broad public review.*

Action 4.2L Modify driveway standard to allow more than two lots per driveway.

To implement these directives, the Affordable Housing Action Committee held a series of meeting to consider the recommended standards in the *Neighborhood Street Design Guidelines* and other design ideas. They solicited input from the Newberg Fire Department, Newberg Police Department, Newberg Public Works Department, Newberg Garbage Service, and various citizens. They also held a tour of streets in the community to visualize different street widths. Based on this research, the committee recommended approval of the attached draft.

Summary of Changes

Street Standards

The draft would adopt the recommended standards from *Neighborhood Street Design Guidelines*: a 28-foot wide street, or options for a 24-foot wide street with parking one side or 20-feet with no parking. The draft would call these “limited residential streets,” and would allow them only under certain circumstances: low-volume streets, low parking usage, short blocks, and so forth.

The draft also would allow curb-side sidewalks on these streets, with some caveats.

I have attached an aerial photo (not of Newberg) that shows scenarios where these might apply.

Access Standards for shared driveways/private streets

This recommendation comes from Action 4.2L of the *Newberg Affordable Housing Action Plan*. Prior to 1999, the City allowed 6 lots per driveway. The current standard was established because the Planning Commission felt that driveways connecting multiple lots often experienced issues with cars parking on the relatively narrow driveways. They felt that this situation created a safety issue by limiting the access width of the driveway for public safety vehicles to reach homes in need. By limiting the number of houses per driveway to two, rectification of any parking problem on with the driveway became much simpler: you only were dealing with one person and his neighbor. In addition to lowering the number lots allowed on a driveway, the City also eliminated the ability of developers to create new private streets. The Planning Commission felt that private streets projected exclusivity and did not promote a sense of community in Newberg.

However, the current standard has brought its own set of issues. Access to a piece of property can produce multiple parallel driveways, taking up additional land and therefore driving up cost of housing. Also, multiple parallel driveways require additional landscaping between them, taking up additional valuable land. In addition, these landscaped areas may be difficult to maintain.

Planning staff has solicited comments from the Police and Fire Departments regarding expanding the use of shared driveways. They expressed concerns in two areas. First, the Fire Department's main concern is maintaining adequate access for emergencies. Where multiple lots share common driveways, that driveway may be the only access for fire trucks, ambulances, and other emergency vehicles to reach the house. Fire access standards require a minimum 20 feet wide clear access where a home is more than 150 feet from the main street. While providing a 20-foot wide access is not usually an issue, keeping that access clear can be. Residents may see this fire access driveway as convenient place to park boats, RVs, or other equipment. When this occurs, emergency vehicles may be unable to immediately reach the location of the emergency, and those in the residence may have difficulty exiting the area. Second, the Police Department has expressed concerns that allowing shared driveways to access greater than two lots may potentially create more neighbor conflicts that would require police intervention. How shared driveways are to be used and maintained are not always fully understood or agreed upon by those using the driveway, creating the possibility of conflicts. In addition, police actions may be required to insure that designated fire lanes remain clear.

Driveways are often used where access to developable land is not large enough to accommodate a public street (private streets are no longer allowed in Newberg.) The use of driveways instead of public streets is one way to support affordable housing, as driveways are much cheaper to construct than public streets. In addition, private driveways do not have to be maintained by the city, funds that can be put to better use in the community.

The Affordable Housing Action Committee recommended increasing the standards to allow 3 lots to share one driveway instead of two. They also recommended allowing alley access as the sole access in certain limited circumstances with conditions, as spelled out in the draft.

Block Length Standards

The draft also would modify block length standards. Short block lengths are desirable in residential neighborhoods to promote walking, biking, and even short car trips within the neighborhood. Johnny shouldn't have to walk a mile around the neighborhood to play with the kid in the house over the back fence. On the other hand, requirements for short blocks require more street construction, which increases housing costs and limits the number of dwellings that can be in an area.

Newberg current block length standards are a strong "one-size fits all" approach. They require 500 foot maximum block lengths and 1500 foot maximum block perimeters. While these are good average numbers for typical single family developments, these maximums are inflexible for many developments that don't fit the mold: multi-family developments, institutional developments, commercial and industrial developments, and even single family developments that don't fit a perfect world.

The committee's recommendation would expand the maximum block length and perimeter standards. By raising the "maximum" block length to 800 feet and the "maximum" perimeter to 2,000 feet for single family, you will still end up with an "average" block length of no more than 500 feet. However, there will be much more flexibility to deal with real world situations.

Attached also are several diagrams that illustrate the concepts.

Attachments:

Street and access standards draft

Neighborhood Street Design Guidelines

Access standards illustration

Driveway examples

Block length examples

Street and Access Development Standards Amendment Legislation Subcommittee Recommended Draft May 12, 2010

Note: New text is shown in double underline
Deleted text is shown in ~~strikeout~~

SECTION 1: Newberg Development Code Section 151.685 shall be amended as follows:

151.685 STREET WIDTH AND DESIGN STANDARDS.

A) Design standards. All streets shall conform with the standards contained in Table 151.685.C. Where a range of values is listed, the Director shall determine the width based on a consideration of the total street section width needed, existing street widths, and existing development patterns. Preference shall be given to the higher value. Where values may be modified by the Director, the overall width shall be determined using the standards under divisions (B) through ~~(E)~~(I).

Table 151.685.C STREET DESIGN STANDARDS

Type of Street	Right of Way Width	Curb to Curb Pavement Width	Motor Vehicle Travel Lanes	Center Turn Lane	Striped Bike Lane (both sides)	On-Street Parking
Arterial Streets						
Expressway	**	**	**	**	**	**
Major Arterial	85-100 feet	74 feet	4 lanes	Yes	Yes	No*
Minor Arterial	60-80 feet	46 feet	2 lanes	Yes*	Yes	No*
Collectors						
Major	60-80 feet	34 feet	2 lanes	No*	Yes	No*
Minor	56-65 feet	34 feet	2 lanes	No*	No*	Yes*
Local Streets						
Local Residential	54-60 feet	32 feet	2 lanes	No	No*	Yes
<u>Limited Residential Parking both sides</u>	<u>44 - 50 feet</u>	<u>28 feet</u>	<u>2 lanes</u>	<u>No</u>	<u>No</u>	<u>Yes</u>
<u>Limited Residential, Parking one side</u>	<u>40-46 feet</u>	<u>24 feet</u>	<u>2 lanes</u>	<u>No</u>	<u>No</u>	<u>One side</u>

<u>Limited Residential, No Parking</u>	<u>36 – 42 feet</u>	<u>20 feet</u>	<u>2 lanes</u>	<u>No</u>	<u>No</u>	<u>No</u>
Local Commercial/Industrial	56-65 feet	34 feet	2 lanes	No*	No*	No*
* May be modified with approval of the Director. Modification will change overall curb-to-curb and ROW width.						
** All standards shall be per ODOT Expressway standards.						

(B) Motor vehicle travel lanes. Collector and arterial streets shall have a minimum width of 12 feet. Where circumstances warrant, the Director may allow a reduction of this width to 11 feet.

(C) Bike lanes. Striped bike lanes shall be a minimum of five feet wide. Where circumstances warrant, the Director may allow a reduction of this width to four feet. Bike lanes shall be provided where shown in the Newberg Transportation System Plan.

(D) Parking lanes. Where on-street parking is allowed on collector and arterial streets, the parking lane shall be a minimum of eight feet wide. Where circumstances warrant, the Director may allow a reduction of this width to seven feet.

(E) Center turn lanes. Where a center turn lane is provided, it shall be a minimum of 12 feet wide.

~~(F) Limited Residential Streets. Limited residential streets shall be allowed only at the discretion of the review body, and only in consideration of the following factors:~~

- ~~(1) The requirements of the fire marshal shall be followed.~~
- ~~(2) The estimated traffic volume on the street is low, and in no case more than 600 average daily trips.~~
- ~~(3) Use for through streets or looped streets is preferred over cul-de-sac streets.~~
- ~~(4) Use for short blocks (under 400 feet) is preferred over longer blocks.~~
- ~~(5) The total number of residences or other uses accessing the street in that block is small, and in no case more than 30 residences.~~
- ~~(6) On-street parking usage is limited, such as by providing ample off-street parking, or by staggering driveways so there are few areas where parking is allowable on both sides.~~
- ~~(7) Streets with no on-street parking or parking on one side will be allowed only where there is a strong likelihood the no parking area will be self-enforcing, such as where the street abuts the back sides of houses that access a different street. For parking one-side streets, the plans shall designate which side of the street is designated no-parking.~~

(GF) Sidewalks. Sidewalks shall be provided on both sides of all public streets. Minimum width is five feet.

(HG) Planter strip. ~~Except where infeasible, a~~ planter strip shall be provided between the sidewalk and the curb line. This strip shall be landscaped in accordance with the standards in § 151.581. ~~Curb-side sidewalks may be allowed on limited residential streets. Where curb-side sidewalks are allowed, the following shall be provided where possible:~~

- ~~(1) Additional reinforcement is done to the sidewalk section at corners.~~

(2) Sidewalk width is six feet.

(H) Slope easements. Slope easement shall be provided adjacent to the street where required to maintain the stability of the street.

(Ord. 96-2451, passed 12-2-96; Am. Ord. 98-2494, passed 4-6-98; Am. Ord. 99-2507, passed 3-1-99; Am. Ord. 2005-2619, passed 5-16-05) Penalty, see § 151.999

SECTION 2: The definitions in Newberg Development Code Section 151.003 shall be amended as follows:

ALLEY. A public way not over 30 feet wide providing a secondary means of access for vehicular or service access to properties otherwise abutting on a street, except as otherwise allowed.

PRIVATE DRIVE. A private way which affords principal means of access to ~~two~~three or fewer lots (see also service drive).

PRIVATE STREET. A private way which affords principal means of access to ~~three~~four or more lots (see also service drive).

SECTION 3: Newberg Development Code Section 151. 151.703 (F) Vehicular Access Standards, shall be amended as follows:

(D) *Alley access.* Where a property has frontage on an alley and the only other frontages are on collector or arterial streets, access shall be taken from the alley only. The review body may allow creation of an alley for access to lots that do not otherwise have frontage on a public street provided all of the following are met:

- (1) The review body finds that creating a public street frontage is not feasible.
- (2) The alley access is for no more than six dwellings and no more than six lots
- (3) The alley has through access to streets on both ends.
- (4) One additional parking space over those otherwise required is provided for each dwelling. Where feasible, this shall be provided as a public use parking space adjacent to the alley.

(F) *Shared driveways.*

(1) The number of driveways onto arterial streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The city shall require shared driveways as a condition of land division or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:

~~(1)~~ Where there is an abutting developable property, a shared driveway shall be provided. When shared driveways are required, they shall be stubbed to adjacent developable parcels to indicate future extension. "Stub" means that a driveway temporarily ends at the property line, but may be accessed or extended in the future as

the adjacent parcel develops. "Developable" means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).

(2) Access easements (i.e., for the benefit of affected properties) and maintenance agreements shall be recorded for all shared driveways, including pathways, at the time of final plat approval or as a condition of site development approval.

(3) No more than ~~two~~three lots may access one shared driveway.

(4) Shared driveways shall be posted as no-parking fire lanes where required by the fire marshal.

(4) Where three lots or three dwellings share one driveway, one additional parking space over those otherwise required shall be provided for each dwelling. Where feasible, this shall be provided as a common use parking space adjacent to the driveway.

SECTION 4: Newberg Development Code Section 151.695, Platting standards for Blocks, shall be amended as follows:

~~Block length and perimeter. Block length shall not exceed 500 feet. The average perimeter of blocks formed by streets shall not exceed 1,500 feet. Exceptions to the block length and perimeter standards shall only be granted where street location and design are restricted by controlled access streets, railroads, steep slopes, wetlands, water bodies, or similar circumstances.~~

(A) Purpose. Streets and walkways can provide convenient travel within a neighborhood and can serve to connect people and land uses. Large, uninterrupted blocks can serve as a barrier to travel, especially walking and biking. Large blocks also can divide rather than unite neighborhoods. To promote connected neighborhoods and to shorten travel distances, these following minimum standards for block lengths are established.

(B) Maximum Block Length and Perimeter. The maximum length and perimeters of blocks in the zones listed below shall be according to the following table. The review body for a subdivision, partition, conditional use permit, or a Type II design review may require installation of streets or walkways as necessary to meet the standards below.

<u>Zone (s)</u>	<u>Maximum Block Length</u>	<u>Maximum Block Perimeter</u>
<u>R-1</u>	<u>800 feet</u>	<u>2000 feet</u>
<u>R-2, R-3, RP, I,</u>	<u>1200 feet</u>	<u>3000 feet</u>

(C) Exceptions.

(1) If a public walkway is installed mid-block, the maximum block length and perimeter may be increased by 25 percent.

(2) Where a proposed street divides a block, one of the resulting blocks may exceed the maximum block length and perimeter standards provided the average block length and perimeter of the two resulting blocks does not exceed these standards.

(3) Blocks in excess of the above standards are allowed where access controlled streets, street access spacing standards, railroads, steep slopes, wetlands, water bodies, pre-existing development, ownership patterns or similar circumstances restrict street and walkway location and design. In these cases, block length and perimeter shall be as small as practical. Where a street cannot be provided because of these circumstances but a public walkway is still feasible, a public walkway shall be provided.

(4) Institutional campuses located in an R-1 zone may apply the standards for the Institutional zone.

(5) Where a block is in more than one zone, the standards of the majority of land in the proposed block shall apply.

(6) Where a local street plan, concept master site development plan, or specific plan has been approved for an area, the block standards shall follow those approved in the plan. In approving such a plan, the review body shall follow the block standards listed above to the extent appropriate for the plan area.

151.685 STREET WIDTH AND DESIGN STANDARDS.

(A) *Design standards.* All streets shall conform with the standards contained in Table 151.685.C. Where a range of values is listed, the Director shall determine the width based on a consideration of the total street section width needed, existing street widths, and existing development patterns. Preference shall be given to the higher value. Where values may be modified by the Director, the overall width shall be determined using the standards under divisions (B) through (E).

Table 151.685.C STREET DESIGN STANDARDS

Type of Street	Right of Way Width	Curb to Curb Pavement Width	Motor Vehicle Travel Lanes	Center Turn Lane	Striped Bike Lane (both sides)	On-Street Parking
Arterial Streets						
Expressway	**	**	**	**	**	**
Major Arterial	85-100 feet	74 feet	4 lanes	Yes	Yes	No*
Minor Arterial	60-80 feet	46 feet	2 lanes	Yes*	Yes	No*
Collectors						
Major	60-80 feet	34 feet	2 lanes	No*	Yes	No*
Minor	56-65 feet	34 feet	2 lanes	No*	No*	Yes*
Local Streets						
Local Residential	54-60 feet	32 feet	2 lanes	No	No*	Yes
Local Commercial/Industrial	56-65 feet	34 feet	2 lanes	No*	No*	No*
* May be modified with approval of the Director. Modification will change overall curb-to-curb and ROW width.						
** All standards shall be per ODOT Expressway standards.						

(B) *Motor vehicle travel lanes.* Collector and arterial streets shall have a minimum width of 12 feet. Where circumstances warrant, the Director may allow a reduction of this width to 11 feet.

(C) *Bike lanes.* Striped bike lanes shall be a minimum of five feet wide. Where circumstances warrant, the Director may allow a reduction of this width to four feet. Bike lanes shall be provided where shown in the Newberg Transportation System Plan.

(D) *Parking lanes.* Where on-street parking is allowed on collector and arterial streets, the parking lane shall be a minimum of eight feet wide. Where circumstances warrant, the Director may allow a reduction of this width to seven feet.

(E) *Center turn lanes.* Where a center turn lane is provided, it shall be a minimum of 12 feet wide.

(F) *Sidewalks.* Sidewalks shall be provided on both sides of all public streets. Minimum width is five feet.

(G) *Planter strip.* A planter strip shall be provided between the sidewalk and the curb line. This strip shall be landscaped in accordance with the standards in § [151.581](#).

(H) *Slope easements.* Slope easement shall be provided adjacent to the street where required to maintain the stability of the street.

(Ord. [96-2451](#), passed 12-2-96; Am. Ord. [98-2494](#), passed 4-6-98; Am. Ord. [99-2507](#), passed 3-1-99; Am. Ord. [2005-2619](#), passed 5-16-05) Penalty, see § [151.999](#)

APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are adopted by the State of Oregon.

SECTION D101 GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *International Fire Code*. The fire code official may be guided by the Oregon Department of Land Conservation and Development's Neighborhood Street Design Guidelines, June 2001.

SECTION D102 REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 60,000 pounds (27 240 kg).

Exception: The minimum weight specified in Section D102.1 may be increased by the fire code official based upon the actual weight of fire apparatus vehicles serving the jurisdiction which provides structural fire protection services to the location, including fire apparatus vehicles that respond under automatic and mutual aid agreements.

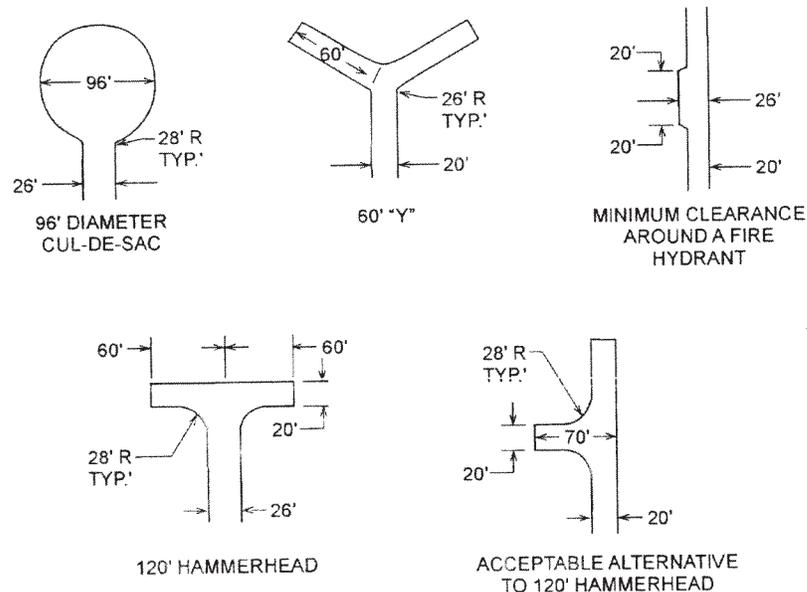
D102.1.1 Access in urban-wildland interface areas. For egress and access concerns in urban-wildland interface locations, the fire code official may be guided by the *International Wildland-Urban Interface Code*.

SECTION D103 MINIMUM SPECIFICATIONS

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm). See Figure D103.1.

Exceptions: The fire code official is authorized to modify the provisions of Section D103.1 when:

1. In accordance with OAR 918-480-0100, all buildings are completely protected with an approved automatic fire sprinkler system; or
2. Provisions are made for the emergency use of side-walks by such means as rolled or mountable curbs capable of supporting the fire department's apparatus; or
3. Streets or roadways are identified for one-way circulating flow of traffic or pullouts are provided every 150 feet (45 720 mm) on streets or roadways identified for two-way traffic; or



For SI: 1 foot = 304.8 mm.

FIGURE D103.1
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND

4. A grid system for traffic flow is provided and streets or roadways in the grid do not exceed 300 feet (91 400 mm) in length, but are accessible at each end from approved access roadways or streets.

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief.

D103.3 Turning radius. The minimum turning radius shall be determined by the fire code official.

D103.3.1 Angles of approach. The angles of approach and departure for any fire apparatus access roads shall not be less than the design limitations of the fire apparatus of the fire department, subject to the approval of the fire code official.

D103.3.2 Drainage. When subject to run-off damage, the fire code official is authorized to require approved drainage.

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

**TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE
APPARATUS ACCESS ROADS**

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required

For SI: 1 foot = 304.8 mm.

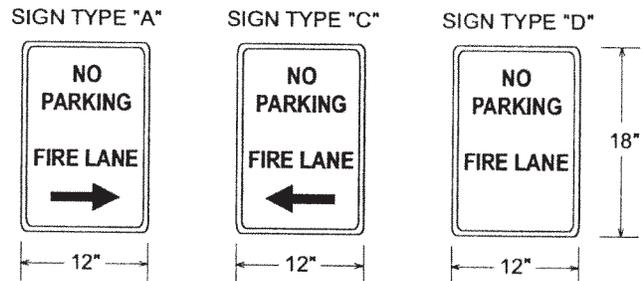
D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools or when a key

box containing the key(s) to the lock is installed at the gate location.

7. Locking device specifications shall be submitted for approval by the fire code official.

D103.6 Signs. Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.



**FIGURE D103.6
FIRE LANE SIGNS**

D103.6.1 Roads 20 to 26 feet in width. Fire apparatus access roads 20 to 26 feet wide (6096 to 7925 mm) shall be posted on both sides as a fire lane.

D103.6.2 Roads more than 26 feet in width. Fire apparatus access roads more than 26 feet wide (7925 mm) to 32 feet wide (9754 mm) shall be posted on one side of the road as a fire lane.

**SECTION D104
COMMERCIAL AND INDUSTRIAL DEVELOPMENTS**

D104.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least three means of fire apparatus access for each structure.

D104.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m²) shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet (11 520 m²) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

D104.3 Remoteness. Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION D105 AERIAL FIRE APPARATUS ACCESS ROADS

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet (9144 mm) in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

D105.2 Width. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm) in the immediate vicinity of any building or portion of building more than 30 feet (9144 mm) in height.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building.

ratus access roads will connect with future development, as determined by the fire code official.

SECTION D106 MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

D106.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2.

D106.2 Projects having more than 200 dwelling units. Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

SECTION D107 ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS

D107.1 One- or two-family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus access roads and shall meet the requirements of Section D104.3.

Exceptions:

1. Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire appa-

CHAPTER 5

FIRE SERVICE FEATURES

SECTION 501 GENERAL

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter. See also ORS 92.044, 203, 221, 195.065, 368.039, 478.920, OAR 918-480-0100 and Oregon State Fire Marshal Interpretation #94-02.

ORS Chapters 92.044, 203, 221, 368.039, 195.065 and 478.920 and OAR Chapter 918 are not a part of this code but are reproduced or paraphrased here for the reader's convenience.

ORS 92.044 is the adoption of standards and procedures governing approval of plats and plans; delegation to planning commission; fees.

ORS 203 is the county bodies; county home rule.

ORS 221 is the organization and government of cities.

ORS 368.039 allows road standards adopted by local government to supercede standards in fire codes and requires consultation with local fire agency.

ORS 195.065 requires local governments and special districts that provide urban service to enter into urban service agreements. For the purpose of this statute, "urban service" means: sanitary sewers, water, fire protection, parks, open space, recreation and streets, roads and mass transit.

ORS 478.920 describes elements that may be included in the scope of a fire prevention code adopted by a rural fire protection district, including but not limited to mobile fire apparatus means of approach to buildings and structures, and providing fire-fighting water supplies and fire detection and suppression apparatus adequate for the protection of buildings and structures.

OAR 918-480-0100 describes the procedure for approving the installation of automatic fire sprinklers where fire apparatus access or fire-fighting water supply do not meet local standards.

ORS 479.200 regulates water supply requirements for certain public buildings erected after July 1, 1967, as defined in ORS 479.010(1)(1).

OSFM Interpretation #94-02 recommends methods for calculating water supply requirements based on local conditions or ISO grading using Appendix B or NFPA 1142.

501.2 Permits. A permit shall be required as set forth in Sections 105.6 and 105.7.

501.3 Construction documents. Construction documents for proposed fire apparatus access, location of fire lanes and construction documents and hydraulic calculations for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

501.4 Timing of installation. When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.

SECTION 502 DEFINITIONS

502.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

NOTE: Specifications and standards for public streets are regulated by county or city governing bodies in accordance with ORS 368.039, wherein input from the fire service is required during planning for community development projects.

FIRE COMMAND CENTER. The principal attended or unattended location where the status of the detection, alarm communications and control systems is displayed, and from which the system(s) can be manually controlled.

FIRE DEPARTMENT MASTER KEY. A limited issue key of special or controlled design to be carried by fire department officials in command which will open key boxes on specified properties.

FIRE LANE. A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

KEY BOX. A secure device with a lock operable only by a fire department master key, and containing building entry keys and other keys that may be required for access in an emergency.



SECTION 503 FIRE APPARATUS ACCESS ROADS

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 (see Appendix D).

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or

within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exception: The fire code official is authorized to modify Sections 503.1 and 503.2 where any of the following applies:

1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
3. There are not more than two Group R-3 or Group U occupancies.

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.1.3 High-piled storage. Fire department vehicle access to buildings used for high-piled combustible storage shall comply with the applicable provisions of Chapter 23.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.7.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

503.2.2 Authority. The fire code official shall have the authority to modify the dimension specified in Section 503.2.1.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be determined by the fire code official.

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at

both entrances to bridges when required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the fire code official.

503.2.7 Grade. The grade of the fire apparatus access road shall be within the limits established by the fire code official based on the fire department's apparatus.

503.3 Marking. Where required by the fire code official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs or notices shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times.

503.5 Required gates or barricades. The fire code official is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways.

503.5.1 Secured gates and barricades. When required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section 503.5 shall not be trespassed on or used unless authorized by the owner and the fire code official.

Exception: The restriction on use shall not apply to public officers acting within the scope of duty.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times.

SECTION 504

ACCESS TO BUILDING OPENINGS AND ROOFS

504.1 Required access. Exterior doors and openings required by this code or the *International Building Code* shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

504.2 Maintenance of exterior doors and openings. Exterior doors and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words THIS DOOR BLOCKED. The sign shall consist of letters having a principal stroke of not less than 0.75 inch (19.1 mm) wide and at least 6 inches (152 mm) high on a contrasting



NEIGHBORHOOD STREET DESIGN GUIDELINES

*An Oregon Guide
for Reducing Street Widths*

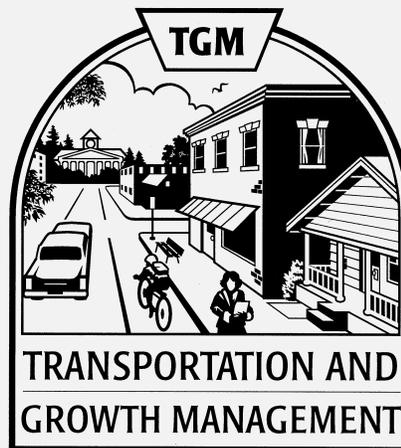
**A Consensus Agreement
by the Stakeholder Design Team**

**November
2000**

**Prepared by the
Neighborhood Streets
Project Stakeholders**

*This guidebook is dedicated to the memory of
Joy Schetter
who passed away before she could see the
remarkable success of this project.*

*Joy's leadership, hard work, calm manner, and
ability to work with all of the stakeholders
were key factors in that success.*



*Funding for this project was provided from
two State of Oregon programs:*

the Public Policy Dispute Resolution Program
and
the Transportation and Growth Management
(TGM) Program.

TGM is a joint program between the
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Department of Land Conservation and Development.

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and the State of Oregon.

2nd Printing - June 2001

Includes minor clarifications to the sections on residential fire sprinklers (pages 9 and 16.)

JOHN A. KITZHABER, M.D.
GOVERNOR



February 16, 2001

To the Citizens of Oregon:

I am pleased to present to Oregon's communities a new publication called *Neighborhood Street Design Guidelines*. This handbook is a valuable tool for local governments. In workbook style, it recommends a process for development of street standards, provides important information to help communities consider and decide on the standards, and includes model designs as a starting point.

Street design, in particular street width, has been an important issue in Oregon for the past decade. Oregon's award-winning Transportation Planning Rule, adopted in 1991, requires local governments to minimize street width considering the operational needs of the streets. Also, citizens and planners in many Oregon communities, as well as towns across the country, have advocated for narrower streets as part of a larger movement to build more livable neighborhoods.

The desire to reduce the standards for street widths raises concerns about large vehicle access, especially emergency service providers who need to reach their destinations fast. The issue has resulted in heated debate in some communities and among state agencies and statewide organizations.

This document is the result of hard work and commitment of individuals who joined in a collaborative process to reconcile the multiple uses of our neighborhood streets. Many thanks to the Neighborhood Streets Project Stakeholders, Design Team members, and reviewers for the time and expertise they contributed to this effort.

A handwritten signature in black ink, appearing to read "John A. Kitzhaber".

John A. Kitzhaber, M.D.
Governor

PROJECT STAKEHOLDERS

These Guidelines have been endorsed by . . .

- Office of the State Fire Marshal
- Oregon Fire Chiefs Assoc.
- Oregon Fire Marshal's Assoc.
- Oregon Chiefs of Police Assoc.
- Oregon Refuse and Recycling Assoc.
- Oregon Building Industry Assoc.
- Oregon Chapter of the American Planning Assoc.
- Oregon Chapter of the American Public Works Assoc.
- Assoc. of Oregon City Planning Directors
- Livable Oregon, Inc.
- 1000 Friends of Oregon
- Oregon Department of Land Conservation & Development
- Oregon Department of Transportation

- Metro also supports the guidelines and has adopted a specific set of guidelines for the Portland metropolitan region.

*** Design Team Members**

The Design Team was responsible for the overall collaborative process with assistance from a facilitator and DLCD staff. The Design Team vested themselves with responsibility for negotiating the issues and guiding the development of this agreement.

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- * Jeff Grunewald (Tualatin Valley Fire & Rescue)
- * Burton Weast (Oregon Fire District Directors' Association)
Gary Marshall (City of Bend Fire Marshal)
Ken Johnson (for Michael Sherman, Oregon Fire Chiefs Association)
Debbie Youmans (Oregon Chiefs of Police Association)

Service Providers

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- Kristan Mitchell (Oregon Refuse and Recycling Association)
- John Fairchild (School Board Association)

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- Rod Tomcho (Tennant Developments)
- Ryan O'Brien (LDC Design Group)

Transportation Engineers/Planners

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Peter Fernandez (City of Salem)

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- * Byron Meadows (American Public Works Association, Oregon Chapter; Marion County Public Works Operations Supervisor)

Non-Profit Groups

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Lynn Petersen (1000 Friends of Oregon)

City Representatives

- * John McLaughlin (City Planning Directors' Association; Community Development Director, City of Ashland)
Cameron Gloss (City of Klamath Falls)
Jan Fritz (City Councilor of Sublimity)
Allen Lowe (City of Eugene Planning)
John Legros (City of Central Point Planning Commissioner)
Bob Dean (City of Roseburg Planning Commission Chair)
Margaret Middleton (for Randy Wooley, City of Beaverton Engineering)

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*Many thanks to the
Neighborhood Streets Project Stakeholders,
Design Team Members, and the
Community of Reviewers
for the time and expertise
they contributed to this effort.*

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I. Introduction

The standards for the design of local streets, in particular the width of streets, has been one of the most contentious issues in local jurisdictions in Oregon for the past decade. The disagreements have also been fought at the state level among state agencies and advisory, advocacy, and professional groups that have sought to influence decisions made at the local level. Previous efforts of these groups to provide guidance have failed because of lack of consensus.

This document is the result of the hard work of a group of diverse stakeholders that finally developed that consensus. *Neighborhood Street Design Guidelines* was developed to help local governments consider and select neighborhood street standards appropriate for their communities. As the title attests, the handbook provides guidelines and is not prescriptive. The authors hope that the consideration of the guidelines and examples will stimulate creative ideas for street designs in local communities.

This guidebook explains the issues surrounding the width of neighborhood streets with respect to livability and access for emergency and other large vehicles. It recommends a community process for developing neighborhood street width standards, a checklist of factors that should be addressed in that process, street cross-sections, and a list of resources that provide additional information. The guidelines are intended for *local* jurisdiction streets that carry limited traffic, not collectors or arterials. They are not intended, nor are they to be used on state highways.

II. The Issues

Why Narrow Streets?

Streets are key determinants of neighborhood livability. They provide access to homes and neighborhood destinations for pedestrians and a variety of vehicle types, from bicycles and passenger cars to moving vans and fire apparatus. They provide a place for human interaction: a place where children play, neighbors meet, and residents go for walks and bicycle rides. The design of residential streets, together with the amount and speed of traffic they carry, contributes significantly to a sense of community, neighborhood feeling, and perceptions of safety and comfort. The fact that these may be intangible values makes them no less real, and this is often reflected in property values.

The width of streets also affects other aspects of livability. Narrow streets are less costly to develop and maintain and they present less impervious surface, reducing runoff and water quality problems.

The topic of automobile speeds on neighborhood streets probably tops the list of issues. Where streets are wide and traffic moves fast, cities often get requests from citizens to install traffic calming devices, such as speed humps. However, these can slow response times of emergency service vehicles creating the same, or worse, emergency response concerns than narrow streets.

Oregon's Land Conservation and Development Commission recognized the values associated with narrow street widths when it adopted the Transportation Planning Rule. The rule requires local governments to establish standards for local streets and accessways that minimize pavement width and right-of-way. The rule requires that the standards provide for the operational needs of streets, including pedestrian and bicycle circulation and emergency vehicle access.

Why Are Emergency Service Providers Concerned?

Street width affects the ability of emergency service vehicles to quickly reach a fire or medical emergency. Emergency service providers and residents alike have an expectation that neighborhood streets provide adequate space for emergency vehicles to promptly reach their destination and for firefighters to efficiently set up and use their equipment.

Fire equipment is large and local fire departments do not have full discretion to simply "downsize" their vehicles. Efforts by some departments to do this have generally not been successful, since these smaller vehicles did not carry adequate supplies for many typical emergency events.

The size of fire apparatus is driven, in part, by federal Occupational Health and Safety Administration (OSHA) requirements and local service needs. The regulations require that fire trucks carry considerable equipment and that firefighters ride completely enclosed in the vehicle. In addition, to save money, fire departments buy multi-purpose vehicles that can respond to an emergency like a heart attack or a traffic accident, as well as a fire. These vehicles typically provide the

first response to an emergency. An ambulance will then provide transport to a hospital, if needed. To accommodate the need to move the vehicles and access equipment on them quickly, the Uniform Fire Code calls for a 20-foot wide clear passage.

The risk of liability also raises concerns about response time and the amount of equipment carried on trucks. A successful lawsuit in West Linn, Oregon found that a response time of eight minutes was inadequate. The National Fire Protection Association, which is the national standard-setting body for the fire service, is proposing new rules that would require a maximum four-minute response time for initial crews and eight-minute response for full crews and equipment for 90% of calls. Fire departments have also been sued for not having the proper equipment at the scene of an accident. This puts pressure on departments to load all possible equipment onto a vehicle and increases the need to use large vehicles.

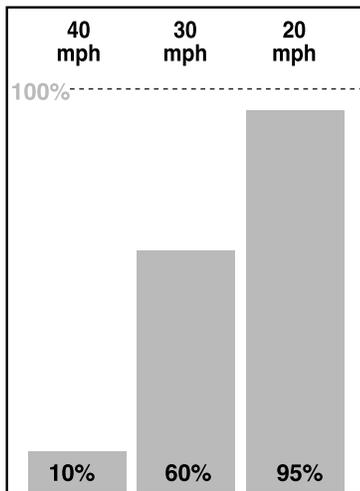
III. Background

Residential streets are complex places that serve multiple and, at times, competing needs. Residents expect a place that is relatively quiet, that connects rather than divides their neighborhood, where they can walk along and cross the street relatively easily and safely, and where vehicles move slowly. Other street users, including emergency service providers, solid waste collectors, and delivery trucks, expect a place that they can safely and efficiently access and maneuver to perform their jobs. Clearly, balancing the needs of these different users is not an easy task.

Oregon's cities reflect a variety of residential street types. In many older and historic neighborhoods built between 1900 and 1940, residential streets typically vary in width in relation to the length and function of the street. In many cases, a typical residential street may be 24 feet to 28 feet in width with parking on both sides. However, it is not uncommon to find streets ranging from 20 feet to 32 feet in width within the same neighborhood. Newer subdivisions and neighborhood streets built since 1950 tend to reflect a more uniform design, with residential streets typically 32 feet to 36 feet in width with parking on both sides and little or no variation within a neighborhood.

Designs For Livability. Over the last decade, citizens, planners, and public officials throughout the United States have expressed increased interest in development of compact, pedestrian-friendly neighborhoods. The design of neighborhood streets is a key component in this effort. Nationally, the appropriate width and design of neighborhood streets has been the subject of numerous books and articles targeted not just to the planning and development community, but also the general population. In May 1995, *Newsweek* magazine featured an article on neotraditional planning that listed reducing the width of neighborhood streets as one of the “top 15 ways to fix the suburbs.” In addition, developments such as Kentlands in Maryland and Celebration in Florida have gained fame by incorporating many of the features of traditional, walkable neighborhoods and towns, including narrow neighborhood streets.

Chances of a Pedestrian Surviving a Traffic Collision



Survival Rates

Graphic adapted from “Best Management Practices,” Reid Ewing, 1996; data from “Traffic Management and Road Safety,” Durkin & Pheby, 1992.

Safe and Livable. There is growing appreciation for the relationship between street width, vehicle speed, the number of crashes, and resulting fatalities. Deaths and injuries to pedestrians increase significantly as the speed of motor vehicles goes up. In 1999, planner Peter Swift studied approximately 20,000 police accident reports in Longmont, Colorado to determine which of 13 physical characteristics at each accident location (e.g., width, curvature, sidewalk type, etc.) accounts for the crash. The results are not entirely surprising: the highest correlation was between collisions and the width of the street. A typical 36-foot wide residential street has 1.21 collisions/mile/year as opposed to 0.32 for a 24 foot wide street. The safest streets were narrow, slow, 24-foot wide streets.

Award-Winning Neighborhoods. In Oregon, citizens, non-profit organizations, transportation advocates, and state agencies interested in the livability of our communities have advocated reducing the width of neighborhood streets. Several new developments that include narrow neighborhood streets such as Fairview Village in Fairview, West Bend Village in Bend, and Orenco Station in Hillsboro have received *Governor’s Livability Awards* (See Appendix A for contact

information). Although cited as models of livable communities, the narrow street widths included in these developments are not allowed in many of Oregon's cities, often because of concerns about emergency service access.

Emergency Response. The movement to reduce street standard widths raised concerns with emergency service providers. Thus, the most controversial issue facing Oregon's fire departments in the past decade has been street width. Fire departments must move large trucks, on average, 10 feet wide mirror-to-mirror.

Response times can be slowed depending upon the amount of on-street parking and traffic encountered. Narrow streets lined with parked cars may not provide adequate space for firefighters to access and use their equipment once they have reached the scene of an emergency. In addition, emergency vehicle access can be completely blocked on streets that provide less than 10 feet of clear travel width.

Authority to Establish Standards. Prior to 1997, there had been some confusion over who had the authority to establish street standards. Oregon's land use laws grant local governments the authority to establish local subdivision standards, which include street widths (ORS 92.044). However, the *Uniform Fire Code*, which was adopted by the State Fire Marshal and is used by many local governments to establish standards for the prevention of and protection from fires, includes standards which affect the width and design of streets. The *Uniform Fire Code* is published by the Western Fire Chiefs and the International Congress of Building Officials as partners.

This question of authority was clarified in 1997 when ORS 92.044 was amended to state that standards for the width of streets established by local governments shall *"supersede and prevail over any specifications and standards for roads and streets set forth in a uniform fire code adopted by the State Fire Marshal, a municipal fire department or a county firefighting agency."* ORS 92.044 was also amended to establish a consultation requirement for the local governments to *"consider the needs of the fire department or fire-fighting agency when adopting the final specifications and standards."*

IV. Collaborative Process

This project was undertaken to:

“Develop consensus and endorsement by stakeholders on a set of flexible guidelines for neighborhood street designs for new developments that result in reduced street widths.”

The collaborative process relied on two groups of stakeholders. A larger group was comprised of a broad cross-section of interest groups and numbered about thirty people from around the state. A core team of nine members, a subset of the larger group, was convened to guide the collaborative problem-solving process, working in conjunction with the consultant and staff. This “Design Team” consisted of representatives from these groups: special districts, fire service, state fire marshal, non-profit advocacy, traffic engineering, builder/developer, city planner, public works, and a representative from the Department of Land Conservation and Development.

The Design Team’s responsibilities were to recommend participants for the larger collaborative working group, determine the priority interests, recommend a statewide endorsement and implementation process, and provide input on technical presentations required. At the Design Team’s first meeting, they decided to assign themselves the task of creating the draft street design guidelines. They would take their products to the larger group for input, recommendations, and eventual endorsement. Consensus would be sought within the Design Team before going to the large group. Likewise, consensus at the large group would be fundamental to achieving the project’s goals.

The large group was instrumental in providing actual scenarios of community experiences to the Design Team. They also helped enlarge the scope of affected parties and corresponding issues by including other service providers that use large vehicles, such as school busses and solid waste haulers. Members of the large group provided valuable reference materials to the Design Team. They provided substance that had been over-looked on more than one occasion. Large group members were pleased to know that a core team of well-respected stakeholders was representing their interests. The Design Team engaged the large group at significant junctures in its work.

V. A Community Process for Adopting Standards

Unique issues will arise in each community, whether related to hills, higher density neighborhoods, or existing street patterns. Close collaboration with fire and emergency service providers, public works agencies, refuse haulers, and other neighborhood street users must be maintained throughout the process. This will ensure that the standards developed to meet the general goals of the community will also meet the specific needs of different stakeholder groups.

Through broad-based involvement, educational efforts, and sensitive interaction with stakeholders, a community can adopt new street standards that will meet the transportation needs of the citizens, while providing and encouraging a very livable residential environment.

The following steps reflect a realistic process development and local government adoption of standards for narrow neighborhood streets.

- Steps for Local Government Consideration and Adoption of Neighborhood Street Standards
1. Determine stakeholders
 2. Inform/Educate: What is the value of narrow residential street standards?
 3. Ensure dialogue among stakeholders
 4. Identify specific issues, such as seasonal needs and natural features
 5. Prepare draft standards
 6. Review draft with stakeholders/officials /public
 7. Revise, conduct public review, and adopt standards
 8. Implement and ensure periodic evaluation

Determine stakeholders. There are many benefits to a community adopting narrow street standards. Many stakeholders share an interest in residential transportation issues. These stakeholders must be included from the outset of any new street standard adoption process.

Inform and Educate. A community or jurisdiction considering the adoption of narrow residential street standards must conduct an open and information-intensive process. Narrow streets have many advantages for a community, including slower traffic speeds and increased neighborhood livability. But there are some access trade-offs. A strong educational component involving city council members, planning commissioners, community groups, developers and emergency service providers must be conducted at the beginning of the process. Agreement about the value of narrow streets, i.e., slow speeds, safer pedestrian environments, and more livable neighborhoods must be understood and agreed to prior to beginning to develop specific standards. There are many educational resources available including printed materials, videos, and professional speakers willing to share their experience.

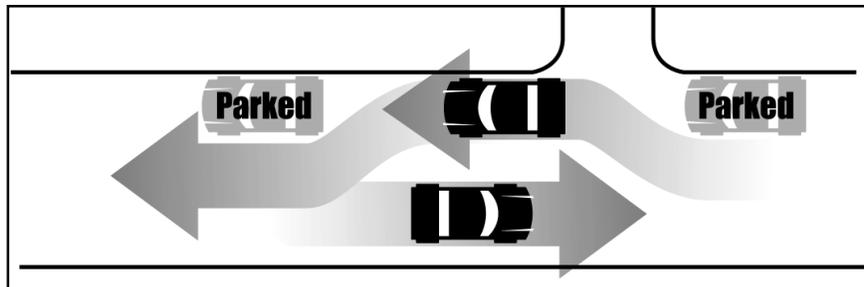
Develop standards that reflect local concerns. Once a jurisdiction has determined that more narrow street standards will be beneficial, the development of specific standards, unique to the community where they will be implemented, is the next step. Many cities and counties have adopted narrow street standards, and their efforts can provide a model for the initial drafts. Review and input from stakeholders, the public, and community officials will help identify local issues and provide the opportunity to tailor standards to local needs.

VI. Checklist for Neighborhood Streets

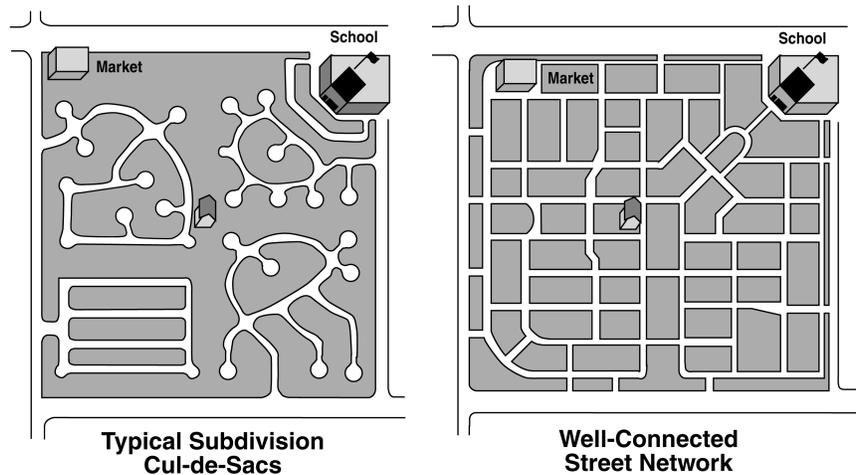
Key Factors

The checklist is based on five key factors listed below:

- ✓ **Queuing.** Designing streets so that moving cars must occasionally yield between parked cars before moving forward, as shown below, permits development of narrow streets, encourages vehicles to move slower, and allows for periodic areas where a 20-foot wide clear area is available for parking of fire apparatus.



- ✓ **Connected Street Networks.** Connected street networks provide multiple ways for emergency response vehicles to access a particular location and multiple evacuation routes. In addition, a connected street system encourages slow, cautious driving since drivers encounter cross traffic at frequent intervals.



- ✓ **Adequate Parking.** When parking opportunities are inadequate, people are more likely to park illegally in locations that may block access by emergency service vehicles. Communities need to review their parking standards when they consider adopting narrow street standards to make sure that adequate on-street and off-street parking opportunities will be available.

- ✓ **Parking Enforcement.** The guidelines are dependent on strict enforcement of parking restrictions. Communities must assure an on-going commitment to timely and effective parking enforcement by an appropriate agency. In the absence of such a commitment, these narrow street standards should not be adopted.

- ✓ **Sprinklers Not Required.** The checklist and model cross-sections provided in this guidebook do not depend upon having fire sprinklers installed in residences. More flexibility in street design may be possible when sprinklers are provided. However, narrow streets still need to accommodate fire apparatus that respond to non-fire, medical emergencies. Other types of vehicles (such as moving vans, public works machinery, and garbage/recycling trucks) also need to be able to serve the neighborhood.

The Checklist



Community stakeholder groups should systematically proceed through the checklist below as part of their decision making process. Also, your community may wish to add to this checklist. The format of the checklist includes room for comments: encourage stakeholders to make notes regarding their concerns and record decisions about how the items in the checklist have been addressed.

The factors are interrelated and are best considered together. The items are grouped by category in a logical order, but are not weighted.

Community Process/Decision-Making		<i>Notes</i>
<input type="checkbox"/>	<p>Good City Department Working Relations</p> <p>Develop good, close working relationships between the fire/emergency response professionals, public works, building officials, land use and transportation planners, engineers, and other large vehicle operators. The goal is to achieve trusting working relationships that lead to effective accommodation of each other's needs related to agreements about neighborhood street standards.</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<input type="checkbox"/>	<p>Consistency of Ordinances</p> <p>Review all applicable codes and ordinances and make them consistent with the narrow neighborhood street standards you are adopting. Consider performance-based codes and ordinances to address the larger development issues, of which street design is just one part. Amend ordinances only when you have the concurrence of emergency and large service vehicle providers.</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<input type="checkbox"/>	<p>Uniformly Allowed</p> <p>Uniformly allow narrow neighborhood streets by code and ordinance rather than requiring a special process, such as a variance or planned unit development. Or consider a modification process similar to the City of Beaverton's that uses a multi-disciplinary committee review and approval process during the development review process. <i>See Appendix A for more info.</i></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<input type="checkbox"/>	<p>Community Process</p> <p>Determine what your community process will be for developing and adopting neighborhood street standards including following legal requirements, gaining political support, and encouraging public education and involvement. Teamwork and involvement of all large vehicle service providers is a critical component for success. Consider the potential benefits of narrow streets, such as slower traffic, less stormwater runoff, and lower costs. Look for ways to minimize the risk that fire apparatus will not be able to quickly access an emergency and minimize possible inconvenience for other large vehicles. <i>For more information see Chapter V, "A Community Process for Adopting Standards."</i></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Users of the Street

Notes

Use of Street

Recognize the needs of all of the “everyday” users of the street, including autos, pedestrians, and bicycles. Street standards typically provide for easy maneuverability by autos. It is very important that neighborhood streets also provide a comfortable and safe environment for pedestrians. Consideration should be given to pedestrians both moving along and crossing the street.

Fire/Emergency Response and Large Service Vehicle Access

Provide access to the street for Fire/Emergency Response and large service vehicles to meet their main objectives. Consider the maneuvering needs of all large vehicles such as fire/emergency response, refuse/recycling trucks, school buses, city buses, delivery vehicles, and moving trucks. Fire trucks are generally 10-feet wide from mirror to mirror and room adjacent to a truck is necessary to access equipment from the truck. Recognize that for some service providers, the federal government has requirements that affect vehicle size such as fire trucks, school buses, and ambulances.

Utility Access

Provide utility access locations regardless of whether utilities are in the street, the right-of-way adjacent to the street, utility easements, or some combination thereof. Consider utility maintenance requirements.

Street Design

Traffic Volume and Type

Relate street design to the traffic that will actually use the street and the expected demand for on-street parking. Generally, on streets that carry less than 1,000 vehicles per day, a clear lane width of 12 to 14 feet is adequate for two-way traffic, if there are frequent pull-outs to allow vehicles to pass. Where there is on-street parking, driveways typically provide gaps in parking adequate to serve as pull-outs. If there is a high percentage of trucks or buses, wider streets or longer pull-outs may be needed. For street design, consider both the current traffic volume and the projected long-term traffic volume.

Provision for Parking

Make sure that adequate parking is provided so that on-street parking is not the typical primary source of parking. The objective is to have space between parked cars so that there are queuing opportunities. Also, parking near intersections on narrow streets should not be permitted because it can interfere with the turning movements of large vehicles (*see illustration at the end of the checklist*). This can be accomplished by a lack of demand for on-street parking or by design. The design option requires place-

ment of no-parking locations (i.e., driveways, fire hydrants, mailboxes) at appropriate intervals to provide the needed gaps.

Notes

Parking (con't)

When determining the number of parking spaces required, consider adjoining land uses and the availability of off-street parking. Parking demand is likely to be less where an adjoining land use is one that will create little or no parking demand (e.g., wetlands, parks, floodplains) or if adjoining development will provide off-street parking adequate for residents and guests. On-street parking demand may be affected by recreational vehicle/equipment if parking of such equipment is allowed. Parking availability will be affected by whether a neighborhood has alleys, if parking is allowed in the alley, or if visitor parking bays are provided in the area.

Self-Enforcing Design....perceptions count!

The design of the street should encourage the desired speed, traffic flow, parking, and use of the street. When this is the case, a design is said to be self-enforcing. This means that a driver would discern an implied prohibition against parking by the visual appearance of the street. A self-enforcing design intended to reduce speed might, for example, use trees in parkrows or strategically placed curb extensions.

- Unless traffic volumes are very low, 21 to 22-foot streets with parking on one side can be problematic for large vehicles.
- 21 to 24-foot streets with no on-street parking should not be considered because they invite parking violations.
- 26 and 27-foot streets where parking is permitted on one side can result in chronic violations because the street will look wide enough for parking on both sides.

Parking Enforcement

With adequate parking and proper street design, enforcement should not be a problem. Where parking is prohibited, provide signs that clearly indicate this, even on streets with a self-enforcing design. Enforcement is essential and can be done in a variety of ways. Consider tow zones or using volunteers to write parking tickets. (The City of Hillsboro allows both police and fire personnel to write traffic tickets.)

Public and Private Streets

Build public and private streets to the same standard. The need for access by emergency and other large vehicles is the same on private streets as for public. (In addition, private streets not built to the same construction standards may end up being a maintenance problem later if the local jurisdiction is forced to assume maintenance because homeowners do not fulfill their responsibilities.)

Block Length

Design block length to enhance street connectivity. Block lengths should generally not exceed 600 feet. As block lengths increase from 300 feet, attention to street width and other design features becomes more important. This is because fire apparatus preconnected hoses are 150 feet in length. With a connected street system and 300-foot block lengths, the fire apparatus can be parked at the end of the block where a fire is located and the hose can reach the fire.

Coordinate block length requirements with spacing requirements for connection to arterial streets. Preserve integrity, capacity, and function of the neighborhood's surrounding arterials and collectors by adhering to access management standards.

Notes

Local Issues**Evacuation Routes for Wildfire Hazard and Tsunami Zones**

Designated wildfire hazard or tsunami zones may need wider streets to provide for designated evacuation routes, including 20 feet of clear and unobstructed width. Different communities may have different street standards depending on whether a neighborhood is located in one of these zones or is in a designated evacuation route.

Agricultural Equipment

If your community is a regional agricultural center, consider adequate passage for agricultural equipment. Discourage passage on residential streets.

Preserving Natural Features

If your community has sensitive natural features, such as steep slopes, waterways, or wetlands, locate streets in a manner that preserves them to the greatest extent feasible. Care should be taken to preserve the natural drainage features on the landscape. Street alignments should follow natural contours and features, whenever possible, so that visual and physical access to the natural feature is provided as appropriate.

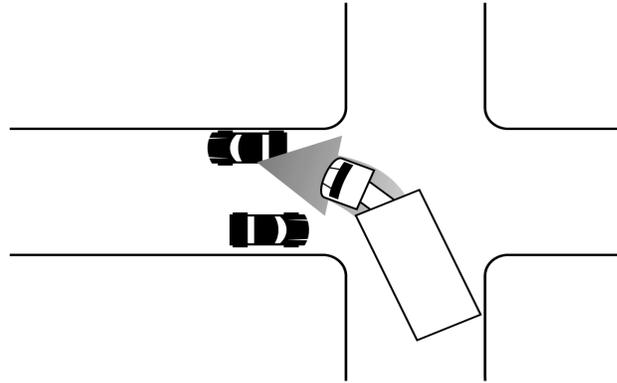
Snow

If snow removal and storage is an issue in your community, consider snow storage locations, and whether temporary parking restrictions for snow plowing or storage will be required. Some communities may consider providing auxiliary winter parking inside neighborhoods (though not on residential collectors). Work with your public works and engineering departments to see if any adjustments may be made in terms of operations or street design that would make narrow neighborhood streets work better for your community (wider parkrows to store snow, for instance).

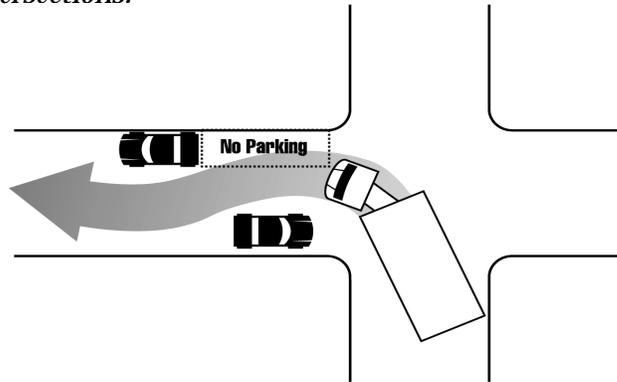
		<i>Notes</i>
<input type="checkbox"/>	<p>Ice If maneuvering on icy roads is an issue in your community, consider parking restrictions near street corners, auxiliary winter parking at the base of hills, wider street cross-sections on hills, or seasonal parking restrictions on hills.</p>	<hr/> <hr/> <hr/>
<input type="checkbox"/>	<p>Sloping or Hilly Terrain If your community has steep slopes, make special design provisions. This can be done through utility placement, connected streets, sidewalk placement, provision of one-way streets, property access, and minimizing cut and fill slopes.</p>	<hr/> <hr/> <hr/> <hr/>
<input type="checkbox"/>	<p><i>Other Community Concerns?</i></p>	<hr/>

No Parking At Intersections

On narrow streets, parked cars near the intersection can interfere with the turning movements of large vehicles.



The solution is to prohibit on-street parking within 20 - 50 feet of intersections.



VII. Model Cross-Sections

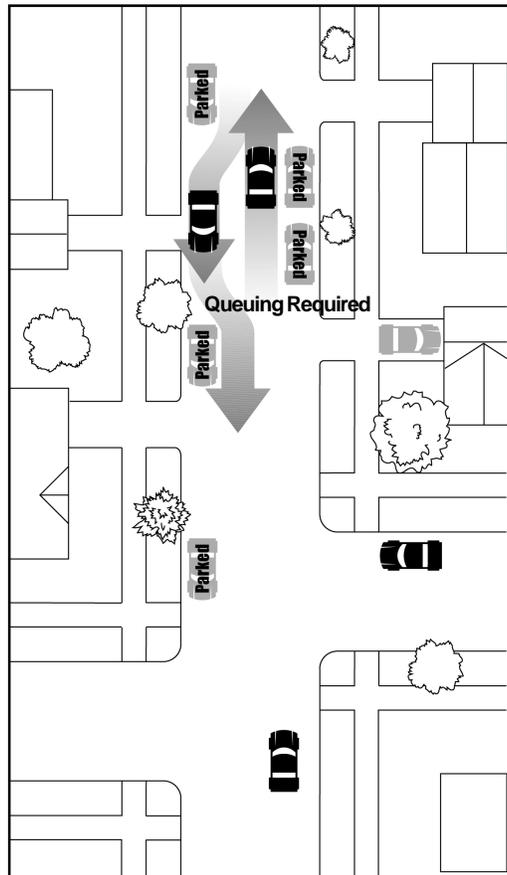
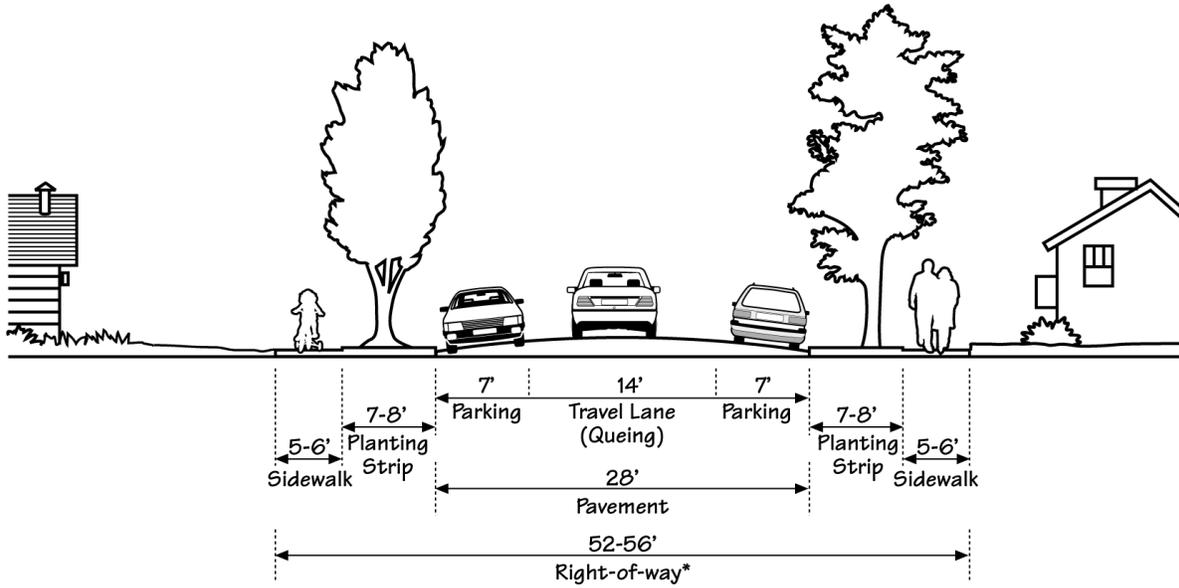
The following three scenarios are presented as “model standards.” However, ***they do not represent the full range of possible solutions.*** Communities are encouraged to use these as a starting point; innovative solutions can be designed for local situations. Here are a few key points to keep in mind:

- ✓ Streets **wider than 28 feet** are NOT, by definition, a “narrow street.”
- ✓ **Two-way streets under 20 feet** are NOT recommended. If, in a special circumstance, a community allows a street **less than 20 feet**, safety measures such as residential sprinklers*, one-way street designations, and block lengths less than 300 feet may be needed.

* Fire sprinklers in one and two family structures must be approved by the local building department in accordance with standards adopted by the Building Codes Division under ORS 455.610.

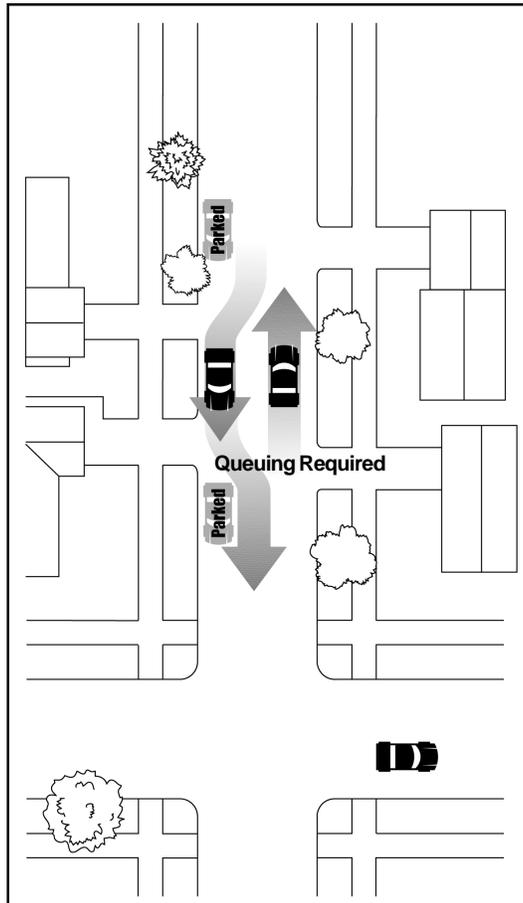
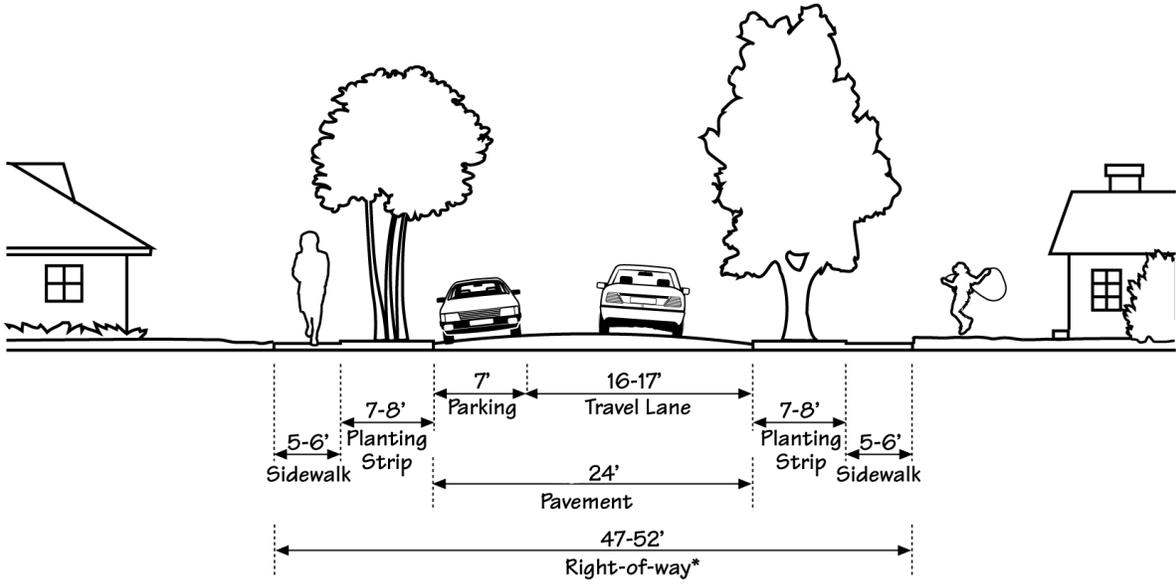
Scenario 1

28 Ft. Streets Parking on both sides



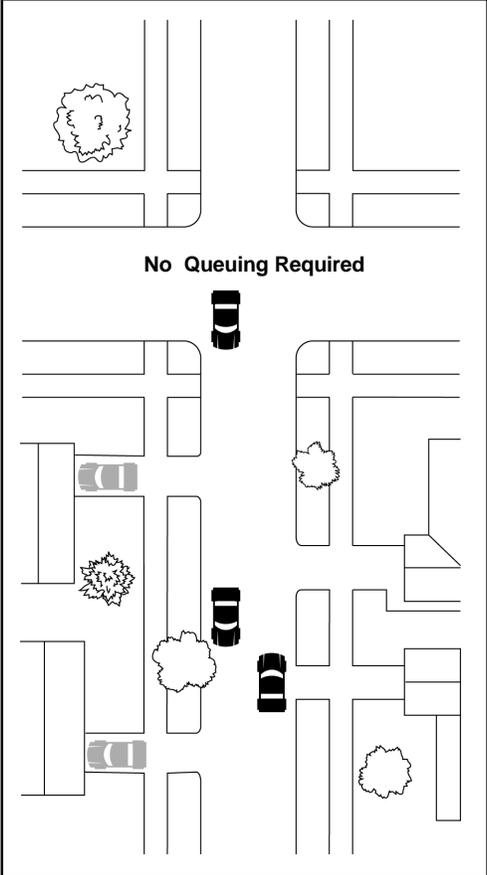
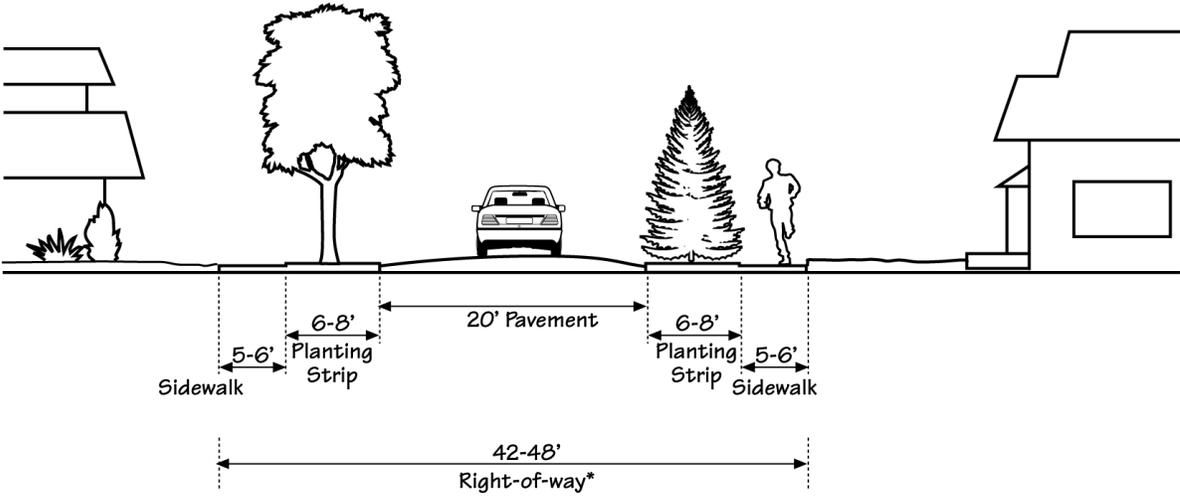
Scenario 2

24 Ft. Streets Parking on one side only



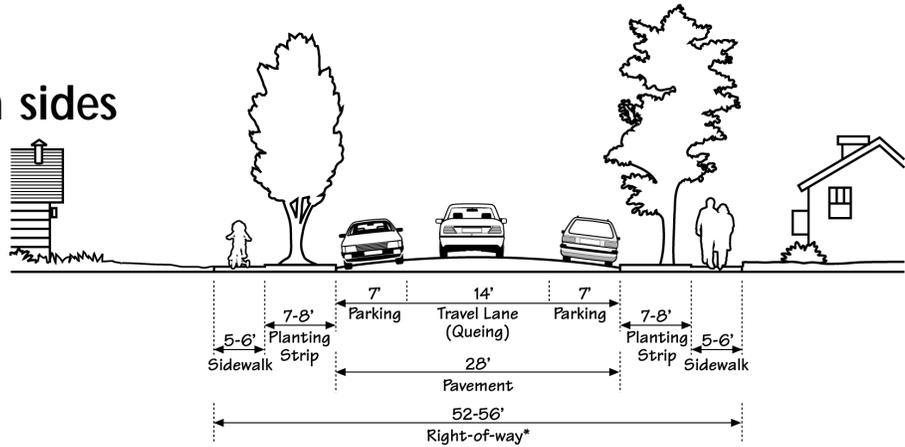
Scenario 3

20 Ft. Streets No parking allowed

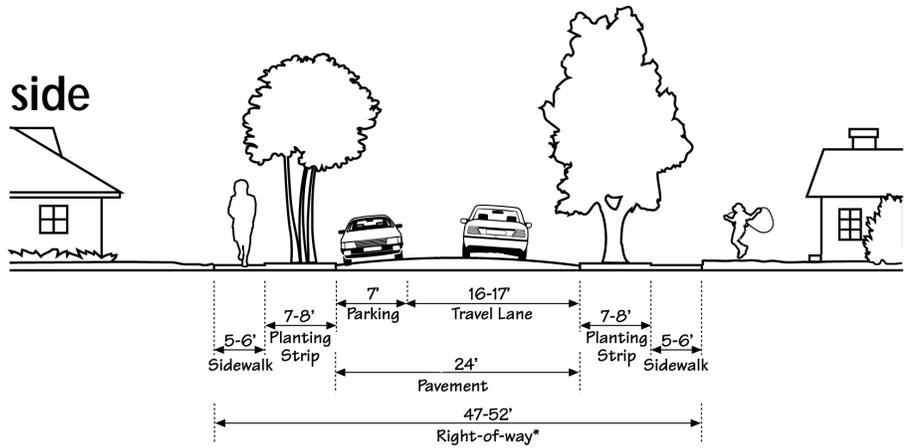


Summary of Three Potential Scenarios

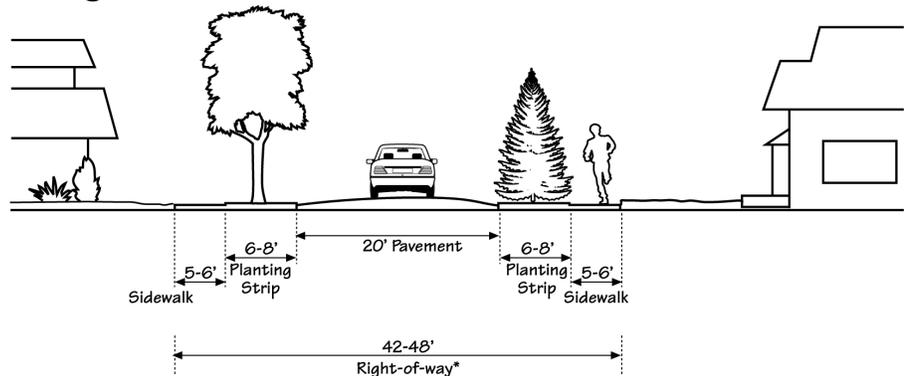
28 Ft Street Parking on both sides



24 Ft Street Parking on one side



20 Ft Street No on-street parking allowed



Appendix A - References and Resources

Annotated References

AASHTO - The *Policy on Geometric Design of Highways and Streets*, also known as the “*Green Book*,” is published by the American Association of State Highway and Transportation Officials (AASHTO) and is considered to be the principle authority on street geometrics. Narrow streets are sometimes cited as being contrary to traffic engineering practices because they may hinder the free-flowing movement of vehicular traffic. However, the *Green Book* supports the notion of using narrow residential streets. For example, the *Green Book* states: “On residential streets in areas where the primary function is to provide land service and foster a safe and pleasant environment, at least one unobstructed moving lane must be ensured even where parking occurs on both sides. The level of user inconvenience occasioned by the lack of two moving lanes is remarkably low in areas where single-family units prevail...In many residential areas a 26-ft.-wide roadway is typical. This curb-face-to-curb-face width provides for a 12-ft. center travel lane and two 7-ft. parking lanes. Opposing conflicting traffic will yield and pause on the parking lane area until there is sufficient width to pass.”

Residential Streets – *Residential Streets* is published jointly by the American Society of Civil Engineers, the National Association of Homebuilders, and the Urban Land Institute. This book was published to encourage a flexible approach to designing residential streets to respond to the street’s function in the transportation system as well as part of the community’s living environment. *Residential Streets* is a hierarchy of residential streets, including 22’-24’ access streets with parking on both sides, 26’ subcollector street with parking on both sides, and a 28’ subcollector with parking on both sides where “on-street parking lines both sides of the street continuously.”

ITE – The Institute of Transportation Engineers (ITE) has published several documents that refer to the recommended width of neighborhood streets. The 1993 publication *Guidelines for Residential Subdivision Street Design* states that a 28-foot curbed street with parking on both sides is an acceptable standard “based upon the assumption that the community has required adequate off-street parking at each dwelling unit.” In addition, the 1994 publication *Traffic Engineering for Neo-Traditional Neighborhood Design, (NTND)*, states that the recommended width of a basic NTND residential street “may be as narrow as 28 to 30 feet.”

Street Design Guidelines for Healthy Neighborhoods – Published by the Local Government Commission’s Center for Livable Communities, *Street Design Guidelines for Healthy Neighborhoods* was developed by a multi-disciplinary team based upon field visits to over 80 traditional and 16 neo-traditional neighborhoods. When combined with other features of traditional neighborhoods, the guidelines recommend neighborhood streets ranging from 16-26 feet in width. The team found 26-foot-wide roadways to be the most desirable, but also “measured numerous 24-foot and even 22-foot wide roadways, which had parking on both sides of the street and allowed delivery, sanitation and fire trucks to pass through unobstructed.”

Oregon Resources

Fairview Village. Holt & Haugh, Inc., phone: 503-222-5522, fax: 503-222-6649, www.fairviewvillage.com

West Bend Village. Tennant Developments, 516 SW 13th St., Suite A, Bend, Oregon 97702, phone: 541-388-0086

Orenco Station. Mike Mehaffy, Pac Trust, 15350 SW Sequoia Pkwy, Suite 300, Portland, Oregon 97224, 503-624-6300, www.orencostation.com

Street Standard Modification Process. The City of Beaverton has a modification process similar to an administrative variance procedure. If you would like information on this process contact: Margaret Middleton, City of Beaverton, Engineering Department, P.O. Box 4755, Beaverton, Oregon 97076-4755, 503-526-2424, mmiddleton@ci.beaverton.or.us

Additional References

Street Design Guidelines for Healthy Neighborhoods. Dan Burden with Michael Wallwork, P.E., Ken Sides, P.E., and Harrison Bright Rue for Local Government Commission Center for Livable Communities, 1999.

A Policy on Geometric Design of Highways and Streets. American Association of State Highway and Transportation Officials (AASHTO), 1994.

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Livable Neighborhoods Community Design Code. A Western Australian Government Sustainable Cities Initiative. Ministry for Planning.

Woonerf. Royal Dutch Touring Club, 1980.

Creating Livable Streets: Street Design Guidelines for 2040. Prepared by Fehr & Peers Associates, Inc. Calthorpe Associates, Kurahashi & Associates, Julia Lundy & Associates for Metro, 1997.

Model Development Code & User's Guide for Small Cities. Transportation and Growth Management Program by Otak, 1999.

APA Recommendations for Pedestrians, Bicycle and Transit Friendly Development Ordinances. TPR Working Group Oregon Chapter APA, 1993.

Residential Street Typology and Injury Accident Frequency. Swift & Associates, Longmont, CO, Peter Swift, Swift and Associates, Longmont, CO., 1998.

Appendix B

Oregon Community Street Widths

City/County	No Parking	Parking One Side	Parking Both Sides	Contact Information
Ashland		22'	25'-28'	Maria Harris, Associate Planner, 541-552-2045
Albany		28'		Rich Catlin, Senior Planner, Albany Community Development, 541-917-7564
Beaverton	20'	25.5' "infill option," with rolled curb on other	28'	Margaret Middleton, Engineering Department, 503-526-2424
Brookings			30'	John Bischoff, Planning Director, 541-469-2163,x237
Clackamas County			28'	Joe Marek, County Engineer, 503-650-3452
Coburg			28'	Harriet Wagner, City Planner, 541-682-7858
Corvallis			28'	Kelly Schlesener, Planning Manager - Community Development, 541-766-6908
Eugene		24'	28'	Allen Lowe, Eugene Planning, 541-682-5113
Forest Grove			26'	Jon Holan, Community Dev. Director, 503-992-3224
Gresham			26'	Brian Shetterly, Long Range Planner, 503-618-2529; Ronald Papsdorf, Lead Transportation Planner, 503-618-2806
Happy Valley			26'	Jim Crumley, Planning Director, 503-760-3325
Lincoln City			28'	Richard Townsend, Planning Director 541-996-2153
McMinnville			26'	Doug Montgomery, Planning Director, 503-434-7311
Milton-Freewater		28'		Gina Hartzheim, City Planner, 503-938-5531
Portland		20'	26'	Steve Dotterer, Portland Department of Transportation, 503-823-7731
Redmond			28'	Bob Quitmeier, Community Development Director, 541-923-7716
Seaside		20'	26'	Kevin Cupples, Planning Director, 503-738-7100
Sherwood			28'	John Morgan, City Manager, 503-625-5522
Washington County		24'	28'	Tom Tushner, Principal Engineer, 503-846-7920
Wilsonville		28'		Stephan Lashbrook, Planning Director, 503-682-1011.

Street and Access Development Standards Amendment Discussion Draft May 4, 2010

Note: New text is shown in double underline
Deleted text is shown in ~~strikeout~~

SECTION 1: Newberg Development Code Section 151.685 shall be amended as follows:

151.685 STREET WIDTH AND DESIGN STANDARDS.

A) Design standards. All streets shall conform with the standards contained in Table 151.685.C. Where a range of values is listed, the Director shall determine the width based on a consideration of the total street section width needed, existing street widths, and existing development patterns. Preference shall be given to the higher value. Where values may be modified by the Director, the overall width shall be determined using the standards under divisions (B) through ~~(E)~~(I).

Table 151.685.C STREET DESIGN STANDARDS

Type of Street	Right of Way Width	Curb to Curb Pavement Width	Motor Vehicle Travel Lanes	Center Turn Lane	Striped Bike Lane (both sides)	On-Street Parking
Arterial Streets						
Expressway	**	**	**	**	**	**
Major Arterial	85-100 feet	74 feet	4 lanes	Yes	Yes	No*
Minor Arterial	60-80 feet	46 feet	2 lanes	Yes*	Yes	No*
Collectors						
Major	60-80 feet	34 feet	2 lanes	No*	Yes	No*
Minor	56-65 feet	34 feet	2 lanes	No*	No*	Yes*
Local Streets						
Local Residential	54-60 feet	32 feet	2 lanes	No	No*	Yes
<u>Limited Residential Parking both sides</u>	<u>42 - 50 feet</u>	<u>28 feet</u>	<u>2 lanes</u>	<u>No</u>	<u>No</u>	<u>Yes</u>
<u>Limited Residential, Parking one side</u>	<u>38-46 feet</u>	<u>24 feet</u>	<u>2 lanes</u>	<u>No</u>	<u>No</u>	<u>One side</u>



Main street access,
higher traffic volumes,
high parking usage -
poor candidate for
limited street width

Three houses on one
access

Five houses on one
access

No access on south
side, good candidate
for parking one-side

Short block, through
street, good candidate
for limited street width

Short block, through
street, good candidate
for limited street width



0 15 30 60
Feet

E. Edgewood Drive
PC Page 2 of 469





0 15 30 60
Feet

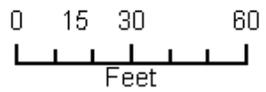
Edgewood Drive
PC Page 38 of 469





MAIN ST

WASHINGTON ST



Illinois St.
PC Page 48 of 469





0 15 30 60
Feet

N. Main St.
PCP Page 50 of 469

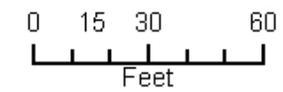




0 15 30 60
Feet

Paradise Dr.
PCP Agg 60 of 469





Trestle View Ct.
PCP 11/11/16 10/1/16/169



Block Length Standards

Discussion of Examples

June 4, 2003 - Newberg Planning Staff

The attached examples were intended to illustrate how the proposed block length and perimeter standards could be modified. There is no intention to retrofit these existing blocks, they are being used for illustration purposes only. They show how current block patterns would or would not meet the proposed standards, and also show suggestions on how they could have been platted to meet the standards.

Example 1: Haworth/Hulet/Oak/Sitka

This block exceeds both the proposed block length standard (890 feet as opposed to 800 feet) and the proposed block perimeter standard (2230 feet as opposed to 2000 feet).

This block could meet the standards if Cherry Street were extended through the block, or if a public walkway were extended at Cherry Street.

Note that this is one of the smallest blocks in the neighborhood. Also note that this neighborhood is very poorly connected.

Example 2: Crestview/Hoskins/Sierra Vista/Meridian

This block exceeds both the proposed block length standard (1516 feet as opposed to 800 feet) and the proposed block perimeter standard (3885 feet as opposed to 2000 feet).

This block would have to have at least two through connections to meet the standards. For example, if Aldercrest were extended through the block and Pinehurst was extended to Arabian Court/Pennington Drive, it would meet the standards.

Example 3: Edgewood/College/Oxford/Cambridge/Princeton

This block exceeds both the proposed block length standard of the R-1 zone (875 feet as opposed to 800 feet) and the proposed block perimeter standard (2650 feet as opposed to 2000 feet).

However, because of church campus, in the block, it would be allowed to use the Institutional zone standards of 1200 feet block length and 3000 feet block perimeter. Thus it would meet the standards.

Example 4: Douglas/Cedar/Springbrook/Haworth/Deborah

This block exceeds both the proposed block length standard of the R-2 zone (1675 feet as opposed to 1200 feet) and the proposed block perimeter standard (4840 feet as opposed to 3000 feet). To meet the standard would require two public street connections through the block, such as providing a public street through the mobile home park, and extending Aquarius through the apartment complex. Note that Haworth and Springbrook are major collector streets, both with access issues.

Example 5: Crestview/Meridian/Aldercrest/College

This block meets the proposed block length standard of the R-1 zone (667 feet, which is less than 800 feet), but does not meet the proposed block perimeter standard (2310 feet as opposed to 2000 feet).

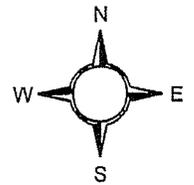
Because College Street is a State Highway, access spacing standards would not allow another street connection. The standard could be met by providing a public walkway from the end of Fircrest Drive to College Street.

Block Length Example #1



Zone: R-1
 Block Length
 (Longest)
 890 feet
 Block Perimeter
 2230 feet

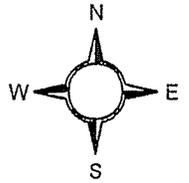
Scale
 1 in : 300 ft.



Block Length Example #2

Zone: R-1
Block Length
(Longest)
1516 feet
Block Perimeter
3885 feet

Scale
1 in : 300 ft.



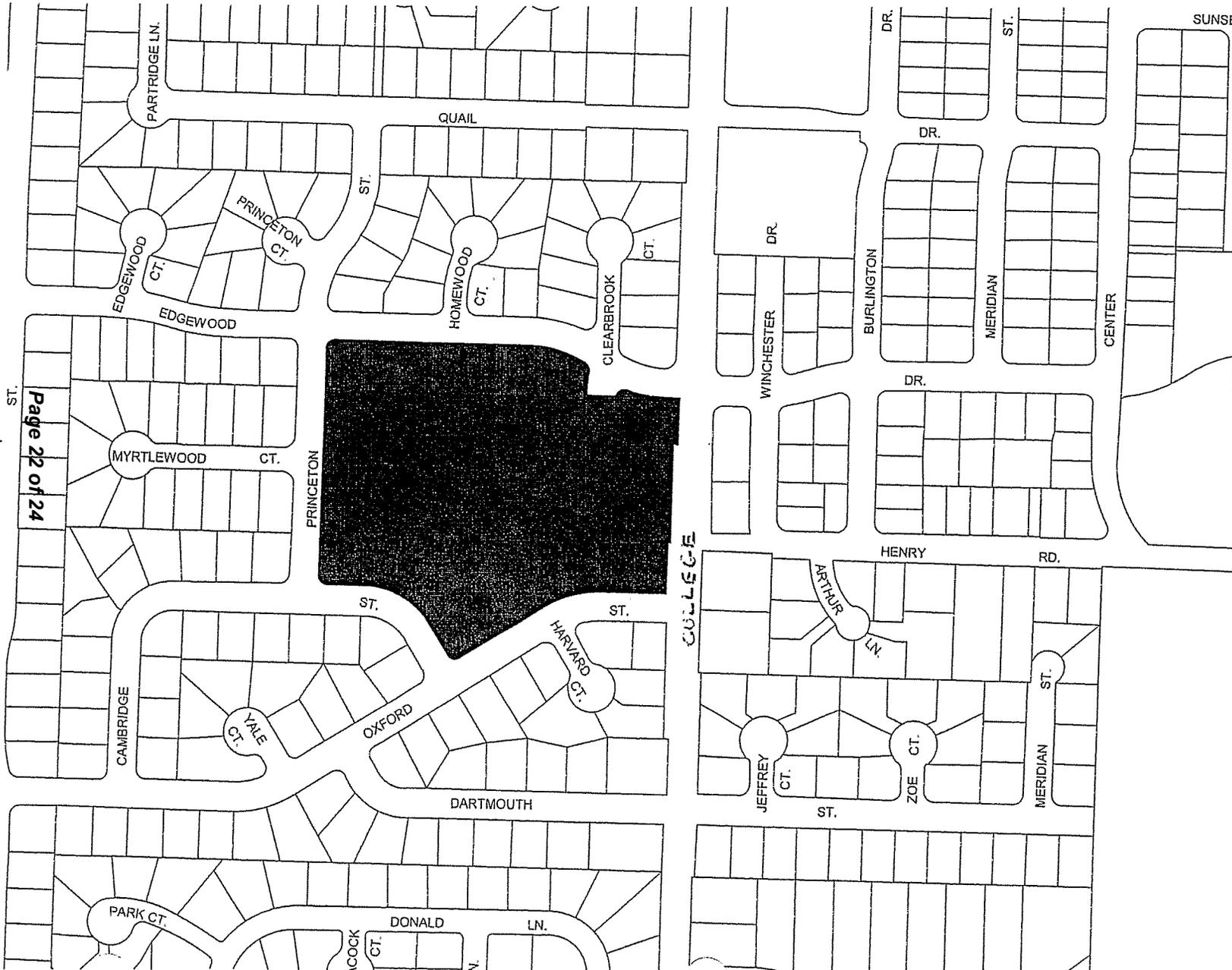
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1-31

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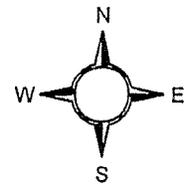
Block Length Example #3

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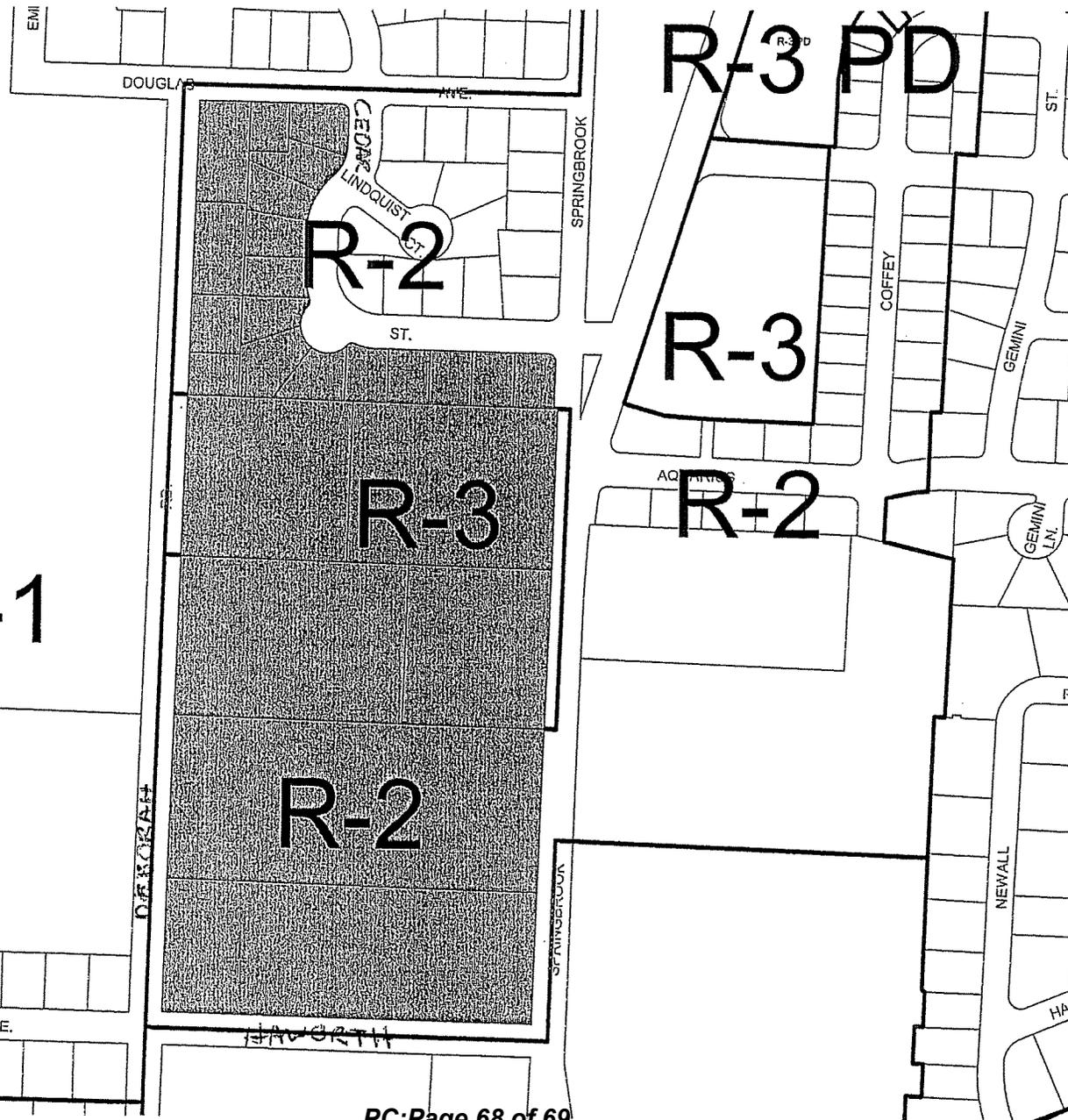
Zone: R-1
Block Length
(Longest)
875 feet
Block Perimeter
2650 feet
(contains church)

Scale
1 in : 300 ft.



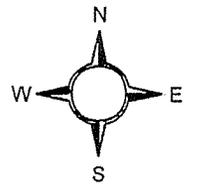
11-32
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Block Length, Example #4



- Zone: R-2/R-3
 Block Length
 (Longest)
 1675 feet
 Block Perimeter
 4840 feet
 Block contains
 mobile home park
 and apartments

Scale
 1 in : 300 ft.

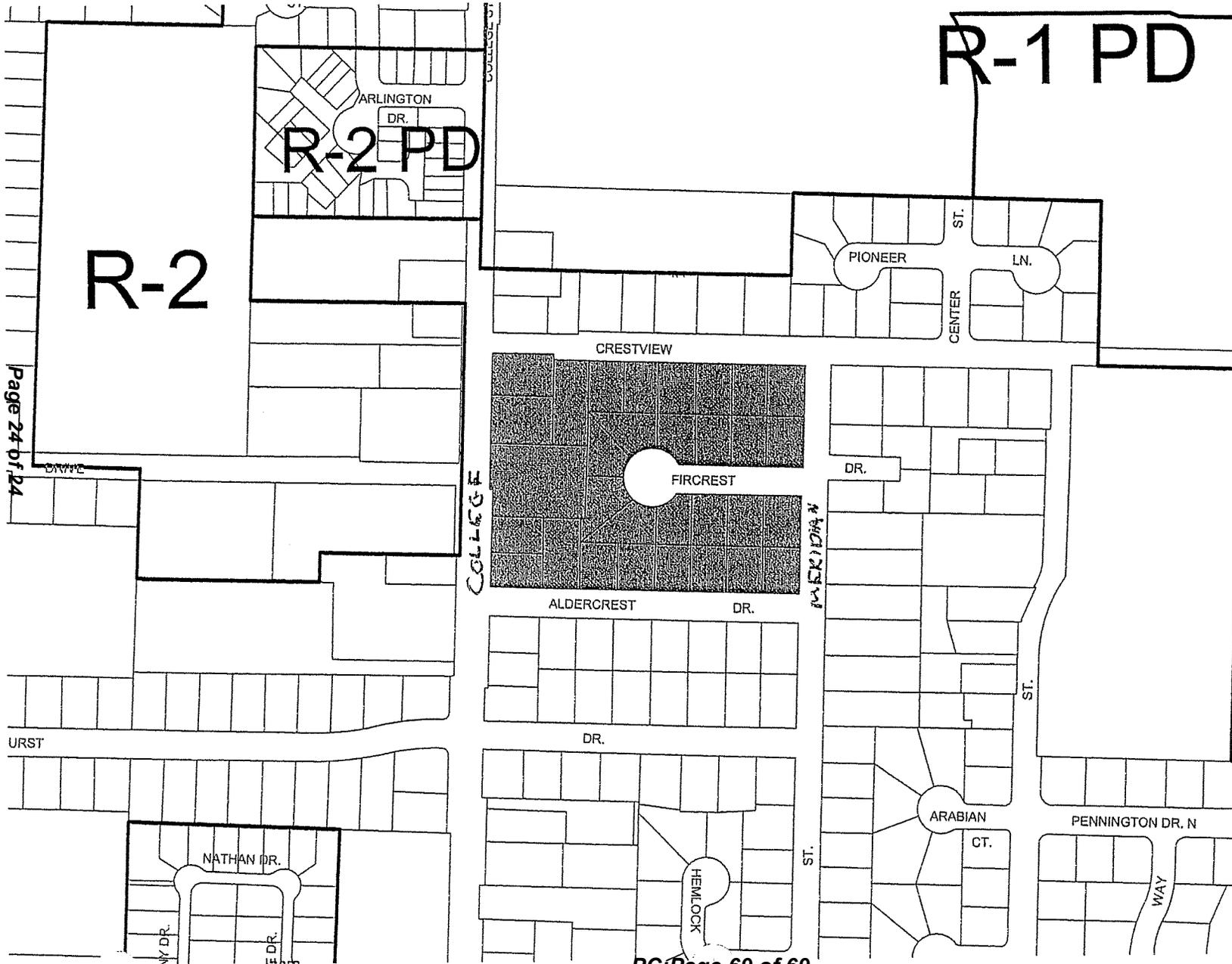


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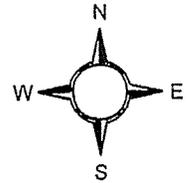
Block Length Example #5

P104



Zone: R-1
Block Length
(Longest)
667 feet
Block Perimeter
2310 feet

Scale
1 in : 300 ft.



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