Exhibit D

Planning Department Issue-Response Packet

June 6, 2022

Title 21 Text Amendment to Off-Street Parking and Site Access Regulations

PZC Case No. 2022-0026

- **Staff Memorandum**
  - **Issue-Response Summary (Attachment 7)**
  - **Background Research (Attachment 6.3)**

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Municipality of Anchorage

Planning Department

Memorandum

Date: June 6, 2022

To: Planning and Zoning Commission

Thru: Craig Lyon, Planning Director

Thru: Kristine Bunnell, Long-Range Planning Manager

From: Tom Davis, AICP, Senior Planner

Subject: Case 2022-0026 Title 21 Text Amendment to Parking and Site Access Standards: Issue-Response Summary

The attached *Issue–Response Summary* provides Planning Department responses to comments and questions raised by the public and Planning and Zoning Commissioners regarding the Public Hearing Draft amendments to the parking and site access regulations in Title 21. The Planning and Zoning Commission closed the public hearing on April 11 and postponed deliberations until the Department could address the comments. These include:

- Comments received by March 31, as provided in *Attachment 5* in the April 11 case packet;
- Comments provided to the Commission in *Supplementary Packet #2* on April 11;
- The April 11 public hearing testimony; and
- Commissioners' questions at the March 14 and April 11 work sessions and April 11 meeting.

The *Issue–Response Summary* table documents each issue and provides the staff response and recommendation for each. The staff recommendations in the *Issue–Response Summary* supplement the Department's recommendation for approval of and recommended edits to the Public Hearing Draft, which are provided in the April 11 staff memorandum (pages 17-18) in the packet for Case 2022-0026. In addition to the April 11 packet attachments, *Background Information Attachment 6.3* is provided to support responses to some of the issue items, as referenced in the issue-responses.

The *Issue–Response* table is designed to support the Planning and Zoning Commission's deliberations. It could be used by the Commission to organize its discussion according to the main topic areas of the Title 21 parking and site access amendment. <u>The table includes a far right-hand column to document the action of the Planning and Zoning Commission on each issue.</u>

Upon completion of deliberations, staff will provide an updated version of the *Issue-Response Summary* reflecting the Commission's deliberations and action to the Assembly as an attachment to the Planning and Zoning Commission resolution.

Attachments: Issue-Response Summary (Attachment 7)
Background Research (Attachment 6.3)

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Attachment 7

Comment and Issue-Response Summary

Title 21 Text Amendment to Off-Street Parking and Site Access Regulations

Public Hearing Draft
PZC Case No. 2022-0026

Anchorage 2040 Land Use Plan
Implementation Actions 4-3 and 4-6

June 6, 2022

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Comment and Issue-Response Summary

Purpose

This *Comment and Issue-Response Summary* provides Planning Department responses to comments and questions raised by the public and Planning and Zoning Commissioners regarding the Public Hearing Draft amendments to the parking and site access regulations in Title 21. These include:

- The comments received by March 31, as provided in *Attachment 5* in the April 11 case packet;
- The comments provided to the Commission in *Supplementary Packet #2* on April 11;
- The April 11 public hearing testimony; and
- Commissioners' questions at the March 14 and April 11 work sessions and April 11 meeting.

The issue-response table on the following pages summarizes each issue raised, provides the staff response and recommendations for each issue, and documents the action by the Planning and Zoning Commission. For each issue, the table references the source of the comment/issue by the name of the commenter. An index to commenters appears on the next page.

Organization

The issue–response table is organized by topic into the seven main proposals of the public hearing draft amendments outlined on page 2 of the April 11 staff memorandum. These include:

A.	Streamlined Approvals for Administrative Parking Reductions	Issues #1-3	pages 1-2
B.	More Complete Menu of Parking Reduction Strategies	Issues #4-6	pages 3-4
C.	Area-Specific, Lower Minimum Parking Requirements	Issues #7-19	pages 5-19
D.	Improved Site Access for Pedestrians, Bicyclists, and Transit	Issues #20-26	pages 19-25
E.	Reforms to Driveway Standards	Issue #27	pages 25-27
F.	Provisions for Smaller Parking Dimensions	Issues #28-30	pages 28-30
G.	Consolidated, Simpler Regulations	Issues #27-33	pages 31-37

A detailed table of contents for the 38 issues begins on page iii.

The issues and responses in the issue-response table reference the Public Hearing Draft code amendment text in *Attachment 3: Annotated Zoning Code Amendment Language*, as provided in the April 11 packet for this Case 2022-0026.

Format of Proposed Code Text Changes

Some issue responses recommend additional changes to the public hearing draft code amendments. These are formatted in "tracked changes" text with a shaded background, as follows:

- Code language recommended to be added to the public hearing draft is underlined.
- Code language recommended to be deleted from the public hearing draft is in [ALL-CAPITALIZED TEXT IN BRACKETS].
- Code language without tracked-changes/shaded background is public hearing draft code language not being changed by the issue-response.

Index of Commenters (by Issue #)

Agencies and Commissions

Anchorage Public Transit Advisory Board……..……..3, 4, 20

Anchorage Traffic Engineering Department..... 1, 4, 18, 20, 22, 33, 36

Other Organizations and Individuals

Bike Anchorage.....16, 20, 22, 23, 24, 25

South Addition Community Council Neighborhood Plan Committee…….. 5, 7, 10, 21, 27

Turnagain Community Council……..…….....…...1, 3, 10, 11, 12, 19

University Area Community Council……..…….....…...1, 18

Steven Bridwell (public hearing testimony) 16

Donovan Camp (public hearing testimony) 16

Cathy Gleason (public hearing testimony representing Turnagain Community Council) 1, 10, 19

Marc Grober.....18, 24

Lindsey Hadjuk (public hearing testimony).....16

Connor Scher.....6, 7, 8, 10, 20, 21, 25, 28, 29, 30, 31, 32, 33, 34, 35, 37

Emily Weiser (public hearing testimony representing Bike Anchorage)……...…..16, 24

Planning and Zoning Commissioners

Commissioner Gardner……..……..……....14, 17

Commissioner Krishna.....9

Commissioner Raun.....10, 13, 16, 19

Commissioner Spinelli.....12, 19, 38

Commissioner Strike.……..…….…...….. 2, 10, 11, 12, 15, 24

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Item #	Comment or Issue	Page	Changes Recommended to the Public Hearing Draft? (Yes = change; blank = no change)
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2.	Alternative, Case-by-Case Approval Procedure for Large Reductions	2	
3.	Effectiveness of Parking Reduction Strategies in Reducing Parking Utilization Rates	2	
Part B: More Complete Menu of Parking Reduction Strategies			
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5	Elimination of Parking Reduction for On-Street Parking	4	
6.	Applicability of Parking Reduction for Transit Pass Benefits in Girdwood	4	Yes
Part C: Area-Specific, Lower Minimum Parking Requirements			
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8.	Map 21.07-3 of Edge Urban Neighborhood Areas	7	Yes
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16.	Removing Minimum Off-Street Parking Requirements	13	Yes
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Item #	Comment or Issue	Page	Changes Recommended to the Public Hearing Draft? (Yes = change; blank = no change)
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22.	Bike Parking Requirements for Existing Developments and Changes of Use	20	Yes
23.	Requiring at least Two Short-Term Bike Parking Spaces	21	Yes
24.	Effectiveness of Required Bike Parking Facilities for Increasing Bicycling	22	Yes
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32.	Descriptions of the Neighborhood Development Contexts	32	Yes
33.	Clarity of Maps and Graphics for the Neighborhood Development Context Areas	33	Yes
34.	Clarity of the Off-Street Parking Purpose Statement	33	Yes
35.	Clarity of Regulation of Parking Space Usage	34	
36.	Determining which Spaces on a Site Plan are Eligible for Small Dimensions	34	Yes
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Comment and Issue-Response Summary

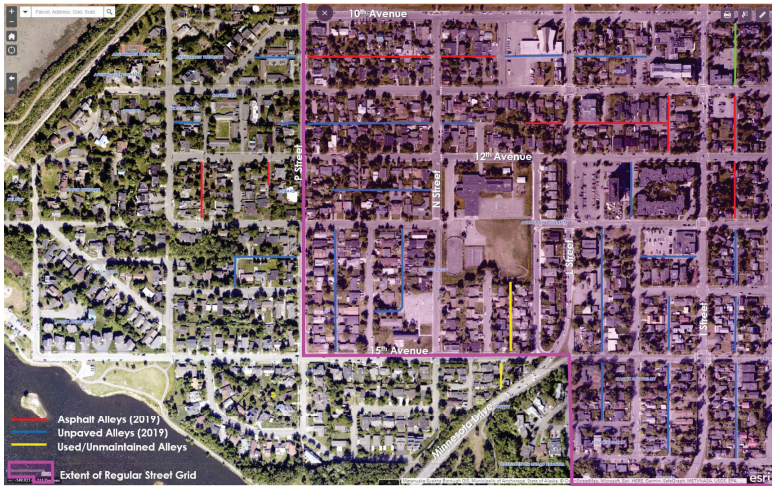
Issue–Response Table

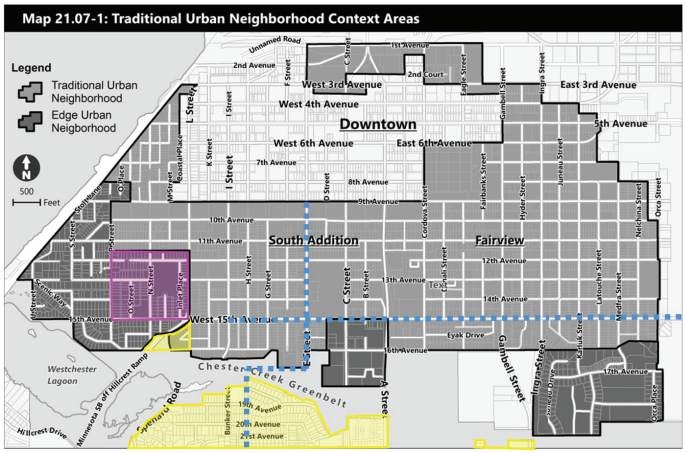
Item #	Comment/Question	Response and Recommendation	PZC Action
Part A: Streamlined Approvals for Administrative Parking Reductions			
1.	**As-of-Right Approval Process for Parking Reductions.** If public input is removed from the approval process for reduced parking and driveways and modified site access, it puts the burden on neighbors, community councils, and municipal enforcement to address parking violations. The proposed Title 21 changes to eliminate public notice/input and allow administrative and by-right approvals should be delayed for further public discussion. *(Turnagain Community Council)* If a discretionary, case-by-case review by the municipal Traffic Engineer is no longer required, and the property owner can get a parking reduction by right, what if members of the public later report parking problems after the development has been built? Even if the Municipality has the authority to review the development's parking after the fact, what good will that do? There will not be enough space on a built-out site to install more off-street parking spaces to resolve a parking problem. *(Cathy Gleason for Turnagain Community Council)* Traffic Engineering supports the amendments that clarify the level of reduction that can be granted without requiring approval by the Planning Director and Traffic Engineer. Defining which reductions are "by-right" and which require additional staff time to review and approve should improve the process and reduce costs. *(Traffic Engineering Department)* UACC supports the new neighborhood context areas and by-right parking reductions. These amendments simplify permitting, maintain green space, and encourage alternative modes of access. *(University Area Community Council)*	**Response:** Current Title 21 parking and driveway reductions are approved by the Traffic Engineer and Planning Director through an administrative approval process. No public notice or public comment opportunity would be taken away by the proposed amendments that streamline this administrative approval process. Applicants periodically request a parking requirement Variance, which is heard by a municipal board. The Variance process is not proposed to change. The administrative parking reductions currently done by discretionary review by the Traffic Engineer and Planning Director will become nondiscretionary, or "as-of-right," up to a certain percentage reduction in parking spaces. As-of-right approvals make it easier for developers, property owners, and municipal zoning administrators to understand the parking requirement. This provides certainty and reduces cost in the process, especially for applicants who may be considering whether to ask for parking reductions in return for development characteristics that reduce parking utilization rates. For all administrative parking reductions, Title 21 will continue to require the property owner and Municipality to enter into a recorded Parking Agreement. The proposed amendments to the Parking Agreement in 21.07.090F.2.d. (page 35, lines 38-46, in Attachment 3) will strengthen the ability of the Municipality to go back, reevaluate, and require changes to the Parking Agreement and reduction strategy if a parking problem emerges later. The Municipality could require the applicant to undertake additional parking reduction strategies that do necessarily include adding more parking supply. Reduction strategies such as those listed in proposed Table 21.07-9 (pages 32-34, in Attachment 3) are less costly that parking facilities and take little or no site area. Attachment 6.3: Background Research (Section 2.2) provides more details on this approval process. **RECOMMENDATION:** No change.	

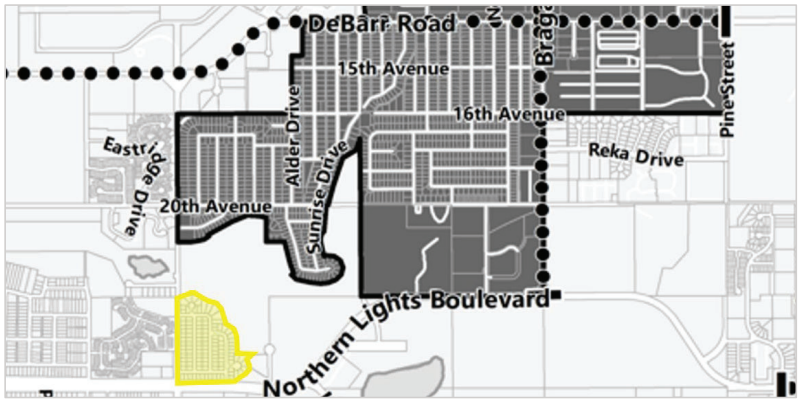
Item #	Comment/Question	Response and Recommendation	PZC Action
2.	**Alternative, Case-by-Case Approval Procedure for Large Reductions.** There may be a need for an alternative solution to the process for reviewing proposed parking reductions, other than the proposed by-right parking reductions and the administrative parking reductions. Planners should have a procedural tool available to allow more significant reductions or going as far as eliminating the parking requirement, on a case-by-case basis, that allows time to review the properties involved. Such would be preferable to ad hoc reductions or a wholesale change in the code allowing by-right reduced parking. We should give the developers requesting those parking reductions an avenue to be heard if they are being blocked through the administrative process. *(Commissioner Strike, April 11 PZC meeting)*	**Response:** The proposed amendments clarify and consolidate the existing discretionary review and approval process for large parking reductions, in 21.07.090F.8., *Discretionary Parking Reductions* (page 48 of Attachment 3). Through this reformatted section, the applicant may still request a bigger percentage reduction than will be allowed through a non-discretionary (as-of-right) approval. Title 21 does not limit to the size of the percentage reduction that may be granted through the discretionary approval process. The applicant may also propose a different kind of parking reduction strategy than those listed in the proposed table of parking reductions (Table 21.07-9 on pages 32-34 in Attachment 3). The applicant will be subject to the same discretionary review and approval involving the Traffic Engineer and Planning Director as under the current Title 21 parking reductions. Title 21 also provides procedures for obtaining relief from parking requirements which involve going to a board or commission and providing for public comment, such as the Variance, the Small Area Implementation Plan (SAIP) master planning process, and the Institutional Master Plan process. **RECOMMENDATION:** No changes.	
3.	**Effectiveness of Parking Reduction Strategies in Reducing Parking Utilization Rates.** Several of the proposed mechanisms for reducing parking demand, such as rideshare agreements, parking pricing, unbundled parking from rent, and free public transit passes have not likely been tried in Anchorage. They seem difficult to monitor and enforce, particularly in rental units with higher turnover. Reducing parking requirements to encourage enhanced pedestrian amenities and bicycle parking is admirable but creating more on-street parking problems without a demonstrated decrease in parking demand and adequate enforcement is not an acceptable tradeoff. *(Turnagain Community Council)* The Public Transportation Department offers a rideshare program and programs for organizations to offer transit benefits to their constituents. *(Public Transit Advisory Board)*	**Response:** Rideshare programs, parking pricing (i.e., unbundled parking), and free public transit pass programs have been used and continue to be in use today in Anchorage (Attachment 6.3, Section 2.1). The Public Transportation Department can track and document continued compliance with any Title 21 Parking Agreement with employers participating in its rideshare program and "U-Pass" free transit pass program. Bicycle parking has been one of the more popular Title 21 parking reductions and is rated highly in the research literature as among the most effective kinds of parking reduction strategies. Some sources indicate a direct correlation between perceived availability of bike parking and the likelihood of bicycling for trips. The *Anchorage 2040 Land Use Plan* calls for the Municipality to, "Amend Title 21 to allow parking reductions by right for residential uses; offer greater reductions in RFAs and other key development areas." Developments that employ parking reduction strategies tend to experience lower parking utilization rates. For such developments, the as-of-right percentage reductions yield a more accurate parking requirement. The parking reduction strategies in Table 21.07-9 (pages 32–34 in Attachment 3) refine the existing set of strategies for which applicants receive percentage reductions in required parking under current Title 21. The revised slate of strategies reflects updated research and recent trends and experiences, as documented in Attachment 6.3: Background Research (Section 2.1). **RECOMMENDATION:** No change.	

<table>
<tr><th>Item #</th><th>Comment/Question</th><th>Response and Recommendation</th><th>PZC Action</th></tr>
<tr><td colspan="3">Part B: More Complete Menu of Parking Reduction Strategies</td><td></td></tr>
<tr><td>4.</td><td>Parking Reductions for Shared Vehicle Programs.
Traffic Engineering is supportive of the revised menu of available parking alternative strategies to include the addition of newer rideshare programs. (MOA Traffic Engineering Department)
Whereas the amendments propose a 5% reduction in parking minimums if the property owner participates in a rideshare program, a 10% reduction if the owner includes free transit passes, and a 2% reduction if the owner provides a public transit stop or shelter, and whereas the Public Transportation Department offers rideshare and free transit pass programs for organizations to offer to their constituents, the Anchorage Public Transit Advisory Board supports the amendments as written. (Anchorage Public Transit Advisory Board)</td><td>Response: The project team appreciates these comments, resolution of support, and multiple consultations with Traffic Engineering and Public Transportation Departments that informed the updated menu of parking reductions in Table 21.07-9 for shared vehicle and high-occupancy vehicle (HOV) programs.
Public Transportation staff has requested that the Title 21 parking reduction for rideshare programs be offered to property owners and employers who participate in the program but may only partially subsidize the cost. Of the approximately 18 employers that participate in the municipal rideshare (vanpool) program, only one fully covers the cost for its employees to participate. Other employers partially subsidize, and the remainder is grant funded by the rideshare program.
RECOMMENDATION: Amend Table 21.07-9, Rideshare Program, (page 32 in Attachment 3) as follows:
<table>
<tr><th colspan="4">Table 21.07-9: Parking Reductions and Alternatives</th></tr>
<tr><th>Type of Reduction</th><th>Applicability</th><th>Additional Requirements</th><th>Reduction Amount</th></tr>
<tr><td colspan="4">*** *** ***</td></tr>
<tr><td>Rideshare Program</td><td>Non-residential uses</td><td>The employer or property owner participates in [SPONSORS] a rideshare program that is available to all employees at no cost and provides designated rideshare parking spaces that meet the passenger loading space dimensional standards of 21.07.090I.2. and are signed for exclusive use by the rideshare program.</td><td>Each rideshare space may count as six spaces toward meeting the minimum number of required parking spaces, up to a 5% reduction in the number of required parking spaces.</td></tr>
</table></td><td></td></tr>
</table>

Item #	Comment/Question	Response and Recommendation	PZC Action
5.	**Elimination of Parking Reduction for On-Street Parking.** The proposed parking reduction code changes in 21.07.090F. do not pose a significant concern for the SACC neighborhood. One comment is the proposed elimination of the existing Title 21 parking reduction for on-street parking. Currently, on-street parking may be counted toward the parking requirement. SACC committee wants to encourage Parking Reductions while also ensuring that the by-right reduction of off-street parking can be absorbed on surrounding streets. Additional reduction considered on a case-by-case basis to use on-street parking should still be available. New developments should not rely on the on-street spaces granted to another parcel. *(South Addition Community Council Planning Subcommittee)*	**Response:** The deletion of the current Title 21 parking reduction for on-street parking appears on page 49, lines 5-21, in Attachment 3. The annotation for page 49 in Attachment 3 provides the reasons for the recommended deletion of the parking reduction. In addition, there have been only two parking reductions approved for on-street parking since this option became available in 2014. Under the proposed amendments, if a future applicant wishes to propose counting nearby on-street parking (or any other strategy not listed in the proposed table of parking reductions) toward getting a reduction in the off-street parking requirement, the discretionary administrative approval process will remain available for the applicant to propose such under 21.07.090F.8. **RECOMMENDATION:** No change.	
6.	**Applicability of Parking Reduction for Transit Pass Benefits in Girdwood.** Free transit passes are currently a parking reduction option enjoyed by Girdwood. Girdwood Valley Transit is a free shuttle bus providing public transportation throughout the Girdwood Valley. Limiting the Transit Pass Benefits parking reduction to only the Neighborhood Development Context Areas in the Bowl would take this away, which would be unfortunate. There are at least three properties that have used this parking reduction in Title 21. Suggest changing the applicability to "Any use located in the Neighborhood Development Contexts or Girdwood." *(Connor Scher)*	**Response**: Staff finds no evidence of any recorded parking agreement for the Title 21 Transit Pass Benefits parking reduction (21.07.090F.10.) in Girdwood. There have been parking reductions for using the public parking in the Girdwood Town Center (GC-7 district). There are several pending parking agreements for off-site parking, reduced parking space dimensions, and other reduction strategies as conditions of approval for two development master plans and an amendment to a conditional use (See Attachment 6.3). Limiting the non-discretionary Parking Reduction for Transit Pass Benefits to the Urban Neighborhood Development Context Areas in Anchorage will not impact any current zoning entitlements, programs, or public transit shuttles in Girdwood. A property owner could propose a parking reduction to reflect fare-less public transit in Girdwood through the same process of discretionary approval under the current Title 21 parking reduction. It could be helpful to clarify that administrative parking reductions will be available through the discretionary approval process for parking reduction strategies not listed in Table 21.07-9. **RECOMMENDATION:** Clarify section 21.07.090F.1.e. (page 32, line 18, in Attachment 3) as follows: **e.** Proposals for larger percentage reductions than shown, that modify any of the provisions for the reductions shown, or that propose other types of parking reductions from those in table 21.07-9 may be approved[ARE] subject to a discretionary review and approval by the traffic engineer and director as provided in subsection 21.07.090F.8., *Discretionary Parking Reductions*.	

Item #	Comment/Question	Response and Recommendation	PZC Action
Part C: Area-Specific, Lower Minimum Parking Requirements			
7.	**Map 21.07-1 of Traditional Urban Neighborhood Areas.** SACC Planning Committee appreciates the amendments that establish the Traditional Urban Neighborhood Context Area to address the characteristics and context of older neighborhoods like South Addition, and the proposed boundaries generally define the subject area properly for South Addition, a few adjustments are necessary. The map should be revised to include all blocks north of Westchester Lagoon or at least the gridded blocks with alleys in the Traditional Urban Context Area. These are established, fully developed neighborhoods with characteristics more akin to that Context Area. *(South Addition Community Council Planning Subcommittee)* The Neighborhood Context Area maps are great; however, a specific comment that everything south of 15th Avenue should be "Edge Urban." Breaking out only the Eastchester Flats neighborhood (east of the Seward Highway) as "Edge Urban" recalls the tragic history of Urban Renewal in that area. Graphically it may improve the perception of these Edge Urban areas if there was a continuous "Edge Urban" area instead. *(Connor Scher)* Shouldn't the parts of the Edge Urban Neighborhoods from Map 21.07-2 that extend northward show up as Edge Urban in Map 21.07-1 too? Also, where does the E St./Arctic Transit-Supportive Development Corridor (dotted line) from Map 21.07-2 begin in Map 21.07-1? In Downtown? *(Connor Scher)*	**Response:** No objection to extending the boundaries of South Addition's Traditional Urban Neighborhood Context Area westward to include the regular gridded blocks with alleys west of L Street. Staff surveyed potential revised boundaries. The traditional urban neighborhood pattern with regular gridded blocks and maintained alleys, shaded purple in the map below, extends as far west as P Street. The grid/alley system breaks up west of P Street into irregular street patterns and individual subdivisions, with more changes in topography. This matches in the "Edge Urban" definition. Areas south of 15th Avenue west of L Street, including the Coffey Subdivision, also match the "Edge Urban" character. See map below.  In Fairview, the public hearing draft boundaries on Map 21.07-1 reflect the development pattern of Eastchester (east of Seward Highway, south of 15th Avenue), both historically and currently. Even prior to the 1960s Urban Renewal, Eastchester had a much more informal grid layout than Fairview's strict grid block pattern with alleys on the plateau north of 16th Avenue.	

Item #	Comment/Question	Response and Recommendation	PZC Action
		No objection to depicting the Transit-Supportive Development Corridor (TSDC) from Map 21.07-2 on E Street/Arctic Boulevard in Map 21.07-1. Per the *Anchorage 2040 Land Use Plan*, the TSDC begins at E Street's intersection with 10th Avenue. The *Anchorage 2040* TSDC on DeBarr Road/15th Avenue could also be extended into Map 21.07-1, to its western termination at 15th Avenue's intersection with I Street. **RECOMMENDATION:** Amend Map 21.07-1 (Section 21.07.015D., page 7 of Attachment 3) as follows: a. Transfer the area between 11th and 15th Avenues and L and P Streets, shown in purple in the map below, from the Edge Urban to the Traditional Urban Neighborhood. b. South of 15th Avenue, designate Coffey Subdivision east of Minnesota Drive and west of L Street, shown in the small yellow polygon below, as Edge Urban Neighborhood. c. Clarify that parts of South Addition and Fairview may be in the Edge Urban Neighborhood Context Area recommendation, as proposed in issue #32 recommendation b. d. Clarify that the portion of North Star Community Council south of Chester Creek Greenbelt is designated as Edge Urban Neighborhood, as shown in yellow below. e. Depict the Transit-Supportive Development Corridor on Arctic Boulevard/16th Avenue/E Street north to 10th Avenue, and on 15th Avenue east of I Street, as shown in the dotted lines in the map below.  	

Item #	Comment/Question	Response and Recommendation	PZC Action
8.	**Map 21.07-3 of Edge Urban Neighborhood Areas.** On Map 21.07-3 (Section 21.07.015D.2., on page 9 of Attachment 3, include the southern portion of the Anchor Park subdivision (on the northeast corner of Northern Lights Blvd. and Lake Otis Parkway) in the "Edge Urban Neighborhood" area. This area has the same development pattern as the northern portion of the same subdivision that is now part of Airport Heights north of the Chester Creek Greenbelt. Relatedly, the Transit-Supportive Development Corridor on Lake Otis Parkway should extend north from 36th up to the intersection with 15th/DeBarr Road. *(Connor Scher)*	**Response:** No objection to including the southern portion of the Anchor Park Subdivision (on northeast corner of Northern Lights Boulevard and Lake Otis Parkway) in the Edge Urban Neighborhood Context Area. It has the same Edge Urban development pattern as Airport Heights neighborhood north of Chester Creek Greenbelt: a grid pattern of streets, sidewalks, small driveways, and postwar era homes. The *Anchorage 2040 Land Use Plan* provides the basis for the Transit-supportive Development Corridors (TSDCs) in the proposed Title 21 amendments. TSDCs are *land use* corridors with compact development and redevelopment potential. *Anchorage 2040* does not extend the Lake Otis TSDC north of the 36th Avenue intersection; the uses along Lake Otis north of 36th Avenue are either schools or have low transit ridership and redevelopment potential. There is no transit service on Lake Otis north of Northern Lights Boulevard. However, recommendation c. in issue #9 below adds a parking reduction for properties within a half-mile of high-frequency bus routes that serve Transit-Supportive Development Corridors to address the comment. **RECOMMENDATION:** Amend Map 21.07-2 (in Section 21.07.015D.2., page 9 of Attachment 3) to include the Anchor Park Subdivision on the northeast corner of Northern Lights and Lake Otis, highlighted in yellow in the map at right, in the Edge Urban Neighborhood.  See also the recommendations in issue #9.	

Item #	Comment/Question	Response and Recommendation	PZC Action
9.	**Can All Areas Currently Eligible for Area-Specific Reductions Still Get Them?** The maps on page 8 of Attachment 1 indicate that some parts of town currently eligible for area-specific administrative parking reduction (upper left map) will not be included in the area-specific, by-right lower parking requirements (lower right map). Has there been feedback from any developers or property owners that currently would qualify for area-specific administrative parking reductions but under the proposed amendments would not? Or is it the Planning Department's belief that this is not likely to be an issue because there have been so few area-specific parking reductions? *(Commissioner Krishna, March 14 work session)*	**Response:** Staff has not heard concerns from developers or property owners. All properties in the Bowl will still have access to the same administrative parking reduction approval process as they do today. The current administrative parking reduction, including the area-specific reductions shown on the upper left map, is a discretionary approval process. Because of the uncertainty involved and other factors, few property owners have used the existing area-specific administrative parking reductions. The proposed amendment replaces area-specific parking reductions with by-right lower parking requirements for the areas shown in the lower right map (page 8 of Attachment 1). The rest of the properties will continue to be eligible to ask for discretionary approval of administrative parking reductions using locational rationale. The proposed slate of as-of-right parking reductions will also be available. In review of the comments in this issue and issue #8, staff finds that making more of the reductions available along *entire* transit routes with higher-frequency service (30-min. or better service) beyond the Transit-Supportive Development Corridors (TSDCs) that they serve would be more equitable, recognize lots near high levels of transit service, and respond to the concerns. In addition, developments located just outside a ¼-mile-wide TSDC but still within 10-minutes (1/2-mile) walking distance of the transit route line should be entitled to at least some parking reduction. This would be more consistent with the treatment of properties located just inside the ¼-mile TSDCs entitled to a 10% lower parking requirement. (See recommendation c. below.) **RECOMMENDATION:** Move forward with the clarification recommended in issue #6. Amend the maps in section 21.07.015D., and the Table 21.07-9 menu of parking reductions in 21.07.090F.1., as follows: a. Amend Maps 21.07-1 through 21.07-4 (pages 7-10 of Attachment 3), by adding a linear feature "*Public transit routes with frequent service*," to include the portions of People Mover Routes 10, 20, 30, 40, and 25 that extend beyond the Transit-Supportive Development Corridors that they serve. b. Amend section 21.07.090F.1., Table 21.07-9., (pages 32-33 of Attachment 3), by amending the "Applicability" column for the *Car-Share Program*, *Transit Pass Benefits*, *Enhanced On-Site Walkway*, *Enhanced Street Sidewalk*, and *Other Pedestrian Amenities* parking reductions as follows: Any development site[USE] in the Neighborhood Development Contexts[1] or within ¼-mile of the centerline of a right-of-way of a public transit route with frequent service mapped in 21.07.015D.	

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<tr><th>Item #</th><th>Comment/Question</th><th>Response and Recommendation</th><th>PZC Action</th></tr>
<tr><td></td><td></td><td>

c. Amend section 21.07.090F.1., Table 21.07-9., in part B of the table (page 33 of Attachment 3), as follows:

<table>
<tr><th colspan="4">Table 21.07-9: Parking Reductions and Alternatives</th></tr>
<tr><th>Type of Reduction</th><th>Applicability</th><th>Additional Requirements</th><th>Reduction Amount</th></tr>
<tr><td colspan="4">B. Pedestrian and Transit Amenities: Developments that provide improved conditions for walking and bicycling are eligible for reductions in the minimum number of required parking spaces, as provided below.</td></tr>
<tr><td colspan="4">*** *** ***</td></tr>
<tr><td>Transit Stop or Shelter</td><td>Any use in the Neighborhood Development Contexts[1] or on a public transit route with frequent service mapped in 21.07.015D.</td><td>Based on a determination of need by the public transportation department, the development provides a public use easement or transit stop improvements per 21.07.060G.7.</td><td>2% reduction in the number of required parking spaces</td></tr>
<tr><td>Nearby Public Transit Route with Frequent Service to a Transit-Supportive Development Corridor</td><td>Development sites located within one-half mile from the centerline a right-of-way of a transit-supportive development corridor or a public transit route with frequent service shown on maps 21.07-1 to 21.07-4 in section 21.07.015D. This distance shall be measured on publicly accessible streets or trails.</td><td>The development site is located outside of the ¼-mile radius of the Transit-Supportive Development Corridor and is not within any other Neighborhood Development Context[1]. The development meets the area-specific bicycle parking requirements in subsection 21.07.090K., Table 21.07-14.</td><td>10% reduction in the number of required parking spaces for sites located within 1,320 feet (1/4 mile) of the right-of-way centerline. 8% reduction for sites within 1,650 feet. 6% reduction for sites within 1,980 feet. 4% reduction for sites within 2,310 feet. 2% reduction for sites within 2,640 feet (half-mile).</td></tr>
<tr><td colspan="4">*** *** *** (no further changes)</td></tr>
</table>

</td><td></td></tr>
<tr><td>10.</td><td>Ensuring that the Lower, Area-Specific Parking Requirements Will Reflect Parking Utilization Rates.

SACC's committee concurs that proposed Table 21.07-7 may offer a simpler solution to off-street parking minimums in Traditional Urban Neighborhoods due to better developed street infrastructure and transportation choices in these areas. SACC is not equipped to verify the if the lower, area-specific parking requirement is best at 20% lower or at a different number for South Addition but want to ensure that the by-right lower minimum parking requirements reflect vehicle and</td><td>Response: This Title 21 amendment is intended to reduce the costs of construction, support housing and economic development, improve opportunities for good site design and pedestrian access, and reflect the character and aspirations of urban neighborhoods like South Addition, Fairview, and Spenard per adopted neighborhood and district plans. It is not set to increase spillover parking or require new investments in street maintenance. It does not change minimum parking requirements in suburban Anchorage.

The scope of changes in this amendment respects the commenters' concerns, and the intent of the current off-street parking regulations, to minimize spillover parking onto public streets and ensure the movement of traffic and service vehicles. It does so using the Current Title 21 method of requiring a supply of parking on</td><td></td></tr>
</table>

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	parking utilization. *(South Addition Community Council Planning Subcommittee)* Turnagain Community Council is concerned that some of the proposed changes could create additional on-street parking. Anchorage should delay the adoption of the proposed amendments to assess the potential to apply these code changes on a case-by-case basis; some situations, such as commercial parking, may have a clear excess of parking, whereas some residential situations may create safety issues without site-specific consideration. Or it should pick some target areas for initial implementation of these changes, where existing on-street parking problems are minimal, and the effects of implementation can be monitored. The consequences of the proposed code amendment to allow for increased housing density include that it creates additional on-street parking problems without regard to safety and snow removal. In many of our older residential neighborhoods, narrow streets are not built to accommodate on-street parking and do not have pedestrian amenities. There are already safety and snow removal issues where inadequate on-site parking has led to unsafe on-street parking, with ramifications for vehicle safety, emergency vehicle access, pedestrian and bicycle safety, and snow removal. This past winter has exemplified challenges with snow removal and on-street parking. In some of the older, narrower streets in Turnagain there were snow piles this past winter that reduced the travel way down to one lane. There would be no space for on-street parking if there are fewer off-street parking spaces required and more housing units developed. There is no way to get around Anchorage's winter snow conditions in relation to these changes increasing the demand for on-street parking. We have yet to find a solution to keeping sidewalks clear during the winter for safe pedestrian	each development site to meet anticipated parking utilization. This reasoning assumes that some developers would supply insufficient parking if not regulated. The proposed parking requirements are set to match forecast parking utilization in the Urban Neighborhood Contexts. If we reduce the parking requirement for urban neighborhoods where the parking utilization rate is lower, then the lower parking requirement should be able to accommodate the lower peak period parking demand in those neighborhoods. There will be less parking utilization on fewer parking spaces. These urban neighborhoods have lower automobile ownership rates, lower parking utilization rates, and a more compact and pedestrian-friendly urban development pattern that predates the imposition of suburban zoning requirements for off-street parking. Suburban parking requirements hamper investment in infill development and adaptive reuse of older buildings on the small sites and awkward lots that characterize the urban neighborhood contexts. These reforms move Title 21 toward once again allowing construction that retains and restores this desirable traditional urban development pattern. The vehicle ownership and parking utilization research that provided the technical basis for the recommended Title 21 area-specific urban parking ratios is provided in Attachment 6.3: Background Research (Section 1). The local parking utilization studies used followed the parking field survey methodology of the Institute of Transportation Engineers (ITE). The ITE method factors in the occupancy/vacancy rate of the survey sites. The area-specific parking requirements is based on this empirical data, a forward-looking orientation to forecast parking utilization during the life span of development projects, and linkages to the community goals in the *Comprehensive Plan* and neighborhood and district plans for the Urban Neighborhood Contexts. This information indicates that parking requirements should be responsive to the physical characteristics, transportation conditions, and preferences that vary across different neighborhoods. Title 21 should not apply suburban parking standards that induce higher parking utilization by overparking urban neighborhoods. Overparked site development induces more driving and depresses alternative transportation modes like walking, bicycling, and public transit. It spreads places further apart to increase vehicle miles travelled (VMT). Suburban zoning standards for parking increase housing costs and housing unit size. Wide front driveways take curb space away from on-street parking, pedestrian walkways, and street snow storage. In short, high parking requirements contribute to the problems that the commenters at left are concerned about. High off-street parking requirements that overpark most developments do not address the root cause of on-street parking behavior problems or street maintenance problems, nor are they the most effective treatment of the symptoms. On-street automobile parking (and storage) is going to occur even if there is enough off-street	

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	access. *(Turnagain Community Council; Cathy Gleason in public testimony representing Turnagain Community Council)* I am concerned that area-specific lower parking requirements will create hardship on persons with disabilities and households with large families that rely on multiple cars because the primary caregivers work jobs that do not allow them to transport other household members. *(Connor Scher)* Concerned that if a development's parking requirement is reduced to below how much parking is needed by a development--i.e., to below current parking utilization levels, there are fewer off-street parking spaces than cars, and where do those cars go? They will go to park on-street or in some other location. Has the department has done a sensitivity analysis to ensure that, within the areas to receive lower, area-specific parking requirements, there is enough parking on-street or elsewhere to accommodate the flow of that parking from one area to another? *(Commissioner Raun, April 11 Work session)* If the proposed amendments push parking utilization onto the street, it will create on-street parking problems. *(Commissioner Strike, March 14 work session)* In the parking survey measurement of actual parking utilization rates for developments, which was used to gauge the average parking utilization rate in urban neighborhoods, were those average utilization rates that we observed in the field predicated on an assumption that every dwelling unit or tenant space in the developments was fully occupied? If the local parking utilization survey assumed that every site tested was fully occupied, then it would not have considered vacancy rates and essentially undercounted potential parking utilization rate for a development. Apartment vacancy rates have been increasing, and occupancy rates falling, in the past two years, due to the economy. *(Commissioner Strike, March 14 worksession)*	parking. Some people prefer to park, store, or abandon vehicles in the street. Local field studies and observations indicate they do so even where off-street parking facilities have many empty parking spaces. **RECOMMENDATION:** No change.	

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11.	**Parking Impacts of Increasing the Number of Dwellings.** If we reduce the parking requirement, there will be more buildable area on the lot to increase the number of dwelling units. Won't increasing the number of dwelling units also increase parking demand and where will that go? *(Commissioner Strike, March 14 work session)* More people tend to live in rental housing units than originally intended when the units were built, which generates more parked cars than one might think, even if the residents of the rental unit own fewer cars per person or household, with associated larger numbers of vehicles being parked along streets. *(Turnagain Community Council)*	**Response:** The parking requirement accommodates the parking utilization regardless the size (or density) of a development. If the number of dwellings increases, the number of required parking spaces increases too. If we reduce the parking requirement for urban neighborhoods where the parking utilization rate is lower, the lower parking requirement should be able to accommodate the lower parking demand in those neighborhoods. There will be less parking utilization for fewer parking spaces. If high housing costs push more people to live in the same unit, the *Anchorage 2040 Land Use Plan* recommends strategies to reduce housing costs, rather than double-down on high parking requirements that contribute to the high housing costs. Anchorage parking studies indicate that some parkers prefer to park on the street, even when off-street parking is available. There may be a moderate increase in on-street parkers if there is a substantial increase in the number of housing units, but not because of a lack of off-street parking due to these amendments. **RECOMMENDATION:** No change.	
12.	**Parking Impacts of Accessory Uses.** Changes to increase housing density through Accessory Dwelling Units further restrict the ability to provide adequate residential on-site parking. *(Turnagain Community Council)* Also concerned about the on-street parking impacts of specific uses like short-term rentals (e.g., VRBOs, AirBnBs), such as in the Bootleggers Cove next to Downtown, especially during the snowy season. *(Commissioner Strike; April 11 Work session)*	**Response:** This ordinance does not amend the parking requirements for specific use types or accessory use types. If the parking requirement for a specific use is found to be either excessive or inadequate, other ordinances can be brought forward to address use-specific problems. The on-street parking problem is not use-specific to VRBOs or other particular use or accessory use type. A single-family household with more household members of driving age might park more vehicles than a smaller household with an ADU. On-street parking behavior problems or a lack of on-street parking can be addressed through on-street parking management and enforcement, as recommended in issues 18 and 19. **RECOMMENDATION:** No change.	
13.	**Estimated Development Cost of Parking Spaces.** Regarding the Planning Department's estimate of the cost of a parking space (e.g., $10,000 per surface space) in Attachment 6.1, page 9, bullet item #2 on slide 9), does that represent just the direct development construction costs or does that include other costs on the site including stormwater management for the impervious pavement and other externalities mitigating the parking space? *(Commissioner Raun, March 14 work session)*	**Response:** This is a general rule of thumb for the hard cost of developing a parking space. It does not include the peripheral environmental costs not directly a part of the parking facility, such as stormwater management, landscaping, snow storage areas. It does not include soft costs, such as design or permitting. It also does not include land costs or the broader impacts of parking on a city's transportation system. **RECOMMENDATION:** No changes.	

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14.	**Development Size Threshold for Applying the Lower, Area-Specific Parking Requirements.** Is there a minimum size of building or number of dwelling units that the area-specific lower parking requirements would apply to in the urban neighborhoods? *(Chair Gardner, March 14 work session)*	**Response:** There is no minimum or maximum development size, or limitation on use type. The area-specific lower parking requirements would apply to all development regardless of building size, use, or number of dwellings. The proposed applicability of the area-specific parking requirements is set forth in section 21.07.090E.2., Table 21.07-1, second column, as shown on page 27 of Attachment 3. It is important for small infill development projects to be eligible for the lower area-specific parking requirements in urban areas because so much of it occurs on small lots or in small existing buildings in which the development project involves renovations and additions with relatively little floor area. **RECOMMENDATION:** No change.	
15.	**Providing Excess Off-Street Parking Spaces as Snow Storage Areas.** What impacts will the lower parking requirement have on on-site snow storage? On many properties the excess parking spaces required by Title 21 today tend to be used for snow storage in the wintertime. That is evident around town where some of the parking spaces are being used to store plowed snow from the rest of the parking lot. Would each proposed development need to demonstrate where the snow will go? *(Commissioner Strike, March 14 work session)*	**Response:** The snow storage area required by current Title 21 Section 21.07.040F., *Snow Storage and Disposal*, will still be required. The size of the required snow storage area is proportionate to the size of the parking lot surface area to be plowed. Applicants may provide extra parking spaces beyond the minimum number of required parking spaces and designate those extra spaces to be used as snow storage. Or the applicant may instead designate landscaped areas for snow storage. Developments with lower minimum parking requirements will continue to be required to identify on-site snow storage. Developments with fewer parking spaces and narrower driveways will have less paved area that needs to be plowed, and therefore need less snow storage area. **RECOMMENDATION:** No change.	
16.	**Removing Minimum Off-Street Parking Requirements** Consider removing Title 21 car-parking minimums entirely. By continuing to set minimum car-parking requirements for new development, the revised Title 21 Parking and Site Access Regulations still prioritize car parking over housing, businesses, or community services. This prioritization increases housing and development costs, reduces the supply of housing, limiting small businesses, and leads to a car-centric way of life in our city. Eliminating car-parking requirements would be a simpler and more effective approach than just decreasing the parking requirements. Eliminating the requirements and has been supported throughout the comment process by a broad	**Response:** The project team appreciates these comments and has heard similar from several developers and others. A growing number of North American cities are removing or severely reducing parking requirements. A combination of feedback from many participants during the public process, the analysis of local parking utilization trends and Anchorage's urban context, and the assessment of current limitations in Anchorage's right-of-way management capabilities have directed this amendment project toward *a strategic, stepped approach*: to tailor lower, area-specific parking requirements for urban neighborhoods, allow by-right site-specific parking reductions area-wide, and a establish regulatory foundations for future reforms. This project carries out specific action items adopted in the *Comprehensive Plan*. The scope of its public process focuses on relatively easy code changes which yield significant gains for developments and the public, at low cost. The proposed code changes do not necessitate additional investments in public	

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	range of Anchorage residents, from housing advocates to developers. A major argument that has been presented for maintaining car-parking minimums is that on-street parking can interfere with snow clearing. However, effective management of on-street parking (e.g., alternate-side parking, as implemented by many other winter cities) would be a more effective solution than to continue requiring off-street parking, as street management would improve the current effectiveness of snow clearing as well as preventing additional problems in the future. Eliminating car-parking minimums would make snow removal more affordable by increasing tax revenue per foot of road. In addition, while entirely removing parking requirements may seem dramatic, the revision would apply only to new development or redevelopment, not for most existing development. So changes in car-parking patterns would occur gradually, piecemeal, and in sparse locations over time. Anchorage will have time to figure out how to best manage on-street parking and snow removal. The gradual, piecemeal rate of the effects is a reason to make sure these amendments are forward-looking to reflect what our city will need decades from now in the future when the effects of these changes will finally be realized. If car-parking minimums are carried forward in the Title 21 revision, we support the proposed reductions in the minimum requirements for car parking. *(Bike Anchorage; Donovan Camp; Emily Weiser for Bike Anchorage)* Lift Anchorage's minimum parking requirements as these rules cause harm to our community's financial strength and resilience. These minimums have filled our city with empty and unproductive parking spaces that push homes and businesses farther apart, impede the walkability of our neighborhoods, and raise the cost of housing. In the absence of minimums, we could build more housing or businesses. In my	infrastructure or changes to municipal street management or on-street parking enforcement operations. These amendments create a regulatory framework to enable further efficiencies in parking utilization. These amendments do eliminate minimum parking requirements wherever the Municipality manages and prices on-street parking in *parking benefit districts* (see issues #18 and #19 below). Even outside of parking benefit districts, the proposed amendments will have significant, immediate, positive impacts. They yield a *by-right* parking ratio low enough to enable infill development, adaptive reuse, and redevelopment that elements of the *Comprehensive Plan* call for (See site examples in Attachment 6.2, slides 19-25). Most public feedback from public meetings and consultations, as documented in Attachment 6.3, supported *reducing* urban neighborhood parking requirements to either (a) match average peak-hour parking usage rates or (b) somewhat lower than average peak-hour parking utilization levels to allow a shift in new development toward community goals (Attachment 1, page 14 of 360 in April 11 case packet). Some participants called for eliminating parking requirements. Others did not support reducing or allowing by-right reductions. Even participants in urban neighborhoods like South Addition and Fairview expressed concerns about reducing parking requirements in context of unmanaged on-street parking, poor sidewalk facilities, wide driveways, snow storage, and worries that some developers would take advantage of public street space. Consultations with municipal Street Maintenance and other ROW agencies document (in Attachment 6.3) problems with unmanaged on-street parking, limited operational resources, zoning entitlements that allow wide driveways, balkanized ROW agency management responsibilities, and street facilities configured without space for winter snow storage or separated sidewalks. Most cities that remove parking requirements have more sidewalks, public transit, neighborhoods that predate automobiles, on-street parking enforcement, stricter controls on front yard driveways, and fewer challenges with seasonal street maintenance. Few cities have the length and severity Anchorage's winter with snow accumulating or glaciating in freeze-thaw cycles for the duration the season. These challenges are visualized on slides 31 through 34 in Attachment 6.1. These challenges constrain how low this amendment project could propose to reduce urban neighborhood parking requirements while still having a response with operational solutions to concerns such as those raised in issue #10 above. Strategic management of public ROWs and on-street parking appears to be essential before removing off-street parking requirements. In response to the commenters at left, staff has re-examined the draft amendments for further opportunities to reduce, simplify, and support forward-looking parking regulations. Staff finds there is empirical and forecast data in Attachment 6.3 (Section 1), adopted policies, and documented public feedback to support adjusting the area-specific parking requirements. First, parking utilization data and forecasts indicate that the proposed area-specific residential parking requirements could be decreased 5%-10%. This would reflect public support	

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	recent personal experience moving to Anchorage and finding housing, I looked for a year before finding an affordable place by chance. My experience is not unique, as an article published in tonight's Alaska Public Media about the housing market documents. Had there never been parking minimums there might be more housing available and my long search would not have occurred. If we remove minimum parking requirements, we will still have parking--but that which is determined by the real estate professionals and businesses that are building on our finite land. *(Steven Bridwell)* I support the public hearing draft recommendations to reduce and, in some cases, eliminate the parking requirements, and the idea of going further by eliminating parking requirements. I support the overall goals of the amendments as stated in the materials. Within my neighborhood of Spenard and in other neighborhoods, citizens have been working hard to create neighborhoods that are easier to navigate on foot, with transit, or by bicycle. In Spenard we are working to promote reinvestment and redevelopment. I want to see people-focused instead of car-focused developments in my neighborhood. Much of Spenard is along a Transit-Supportive Development Corridor, where we seek less single-occupancy vehicle use by promoting alternatives. Reducing parking requirements encourages people to use other forms of transportation and reduces the footprint of parking lots. As a result parking will not go away, but it will better needs of the property and the community. These changes support a more resilient community in the face of climate change, and since they will take effect over a long period of time it is important to start making them now. *(Lindsey Hajduk)* To acknowledge all the testimony the Commission has heard asking to do away with off-street parking minimums, I would like to enable the Planning Department to continue moving in	for forward-looking requirements that reflect forecast parking utilization. South Addition's residential parking requirement could also be decreased to match the rest of the Traditional Urban Neighborhood. Secondly, non-residential parking requirements could be decreased in the Traditional Urban and Edge Urban Neighborhoods. The *Fairview Neighborhood Plan* and *Spenard Corridor Plan* envision reducing and eliminating parking requirements in their mixed-use corridors. Attachment 6.3: Background Research (Section 1) provides the analysis and references public feedback. These changes could simplify the parking requirements for all development in the urban neighborhood contexts in Table 21.07-7 to the following: • Traditional Urban Neighborhoods: 65% of the area-wide parking requirement • Edge Urban Neighborhoods: 75% of the area-wide parking requirement • Transit-Supportive Corridors: 90% of the area-wide parking requirement **RECOMMENDATION:** Amend proposed subsection 21.07.090E.2., Table 21.07-7 (Page 27, lines 10-14 in Attachment 3) as follows: **TABLE 21.07-7: AREA-SPECIFIC PARKING REQUIREMENTS** **Areas** / **Applicability** / **Minimum Spaces Required** Downtown (DT) zoning districts / All Developments / No off-street parking is required, as provided in 21.11.070F. Traditional Urban Neighborhood Context (Section 21.07.015D., Map 21.07-1.) / All Developments [RESIDENTIAL USES EAST OF C STREET] / 65[70]% of the minimum spaces required in table 21.07-8. [ALL OTHER DEVELOPMENTS] / [80% OF THE MINIMUM SPACES REQUIRED IN TABLE 21.07-8.] Edge Urban Neighborhood Context (Section 21.07.015D., Maps 21.07-1 thru -3.) / All Developments [RESIDENTIAL USES] / 75[80]% of the minimum spaces required in table 21.07-8. [ALL OTHER DEVELOPMENTS] / [90% OF THE MINIMUM SPACES REQUIRED IN TABLE 21.07-8.] Transit-Supportive Development Corridors outside of Traditional Urban and Edge Urban Neighborhood Context areas (Section 21.07.015D., Maps 21.07-1[2] thru -4.) / All Developments / 90% of the minimum spaces required in table 21.07-8. *** *** *** *(No further changes)*	

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	that direction if the Commission approves the public hearing draft amendments. What may be good here in the draft amendments should not get in the way of, or pause, movement in that greater direction. Therefore, I recommend adding a sentence to Recommendation #2 on page 11 of the April 11 staff memorandum, to read, "The Planning Department should work with other municipal agencies in evaluating the elimination of on-site parking minimums per Code." *(Commissioner Raun)*		
17.	**Additional Information Resources Regarding Reforming Minimum Off-street Parking Requirements.** Footnote 7 on page 15 of the April 11 staff report memorandum for this case references some articles on www.planning.org, the website of the American Planning Association. The reference is made from a statement in the staff memorandum indicating there is a growing number of reports, articles, and other information from the American Planning Association and other organizations regarding the problems with off-street minimum parking requirements. However, it looks like an account is required to retrieve the articles. Does the public and Planning and Zoning Commission have access to an account or, alternatively, can the Planning Department make available particularly relevant articles contemplated by the footnote? *(Commissioner Gardner)*	**Response:** The referenced web page highlights four resources: • Two are PDF articles that are provided in Attachment 6.3: Research (Appendices). • The third resource is a web article that should be accessible at https://www.planning.org/planning/2021/winter/3-zoning-changes-that-make-residential-neighborhoods-more-affordable/. • The fourth resource is a webinar called "From the Trenches: Abolishing Parking Minimums" that costs $15 or $30 depending on APA membership status. A free (no cost) alternative/equivalent webinar is "Parking Reform Made Easy," which may be accessible at either https://smartgrowth.org/parking-reform-made-easy/ or https://www.youtube.com/watch?v=tRXk9JEJwH8. **RECOMMENDATION:** No change.	
18.	**Clarification of the Creation of On-Street Parking Management Districts.** The proposed Open Option Parking District (21.07.090E.7.) may need modifications to other municipal code sections, such as Title 9, to develop a more comprehensive process of establishing and defining a district within the Municipality, identifying the responsible agency for managing and enforcing	**Response:** As discussed on pages 15 and 16 of the April 11 staff report memorandum, staff reevaluated the public hearing draft Open Option Parking District in 21.07.090E.7. and determined that changes should be made to clarify the code amendments. The public hearing draft provisions in 21.07.090E.7. for establishing new parking districts should be moved to AMC Title 9, *Traffic*. Instead of creating new regulations in Title 21 to manage street rights-of-way, it is better to revise and improve the street management regulations that already exist in Title 9. For more information, see pages 15 and 16 of the April 11 staff report memorandum.	

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	regulations within these specific districts, and determining the cost and impact to operations and management of street maintenance due to implementing these proposed parking reduction strategies. *(MOA Traffic Engineering)* Clarify the proposed one new district that would eliminate required off-street parking, the Open Option Parking District. Its proposed Section 21.07.090E.7 establishes two options for creating an Open Option Parking District. However, the process does not clearly identify the conditions for approval. It is unclear how on-street parking would be managed and/or enforced in these Open Option Parking Districts, including measures for street maintenance and snow removal. The amendments to Section 21.07.090E7 should include specific criteria that would be used to evaluate the adequacy of the on-street parking management and ROW maintenance plans. *(University Area Community Council)* The most effective strategy is to make it more expensive and less convenient to own or drive a car, prohibit on-street parking, and provide higher levels of public transit service. For example, off Pembroke Street(?) there is a PUD where residents shut down Pembroke because residents parking their cars on the road instead of parking in garages and driveways. *(Marc Grober)*	**RECOMMENDATION:** Move forward with the recommended additional amendments #1 and #2 on pages 17 and 18 of the April 11 staff report memorandum.	
19.	**Timing of Amending Title 9 On-Street Parking Management Regulations.** The April 11 staff memorandum recommended edit #2 (page 18) regarding amending Title 9 to create on-street parking management districts, does not seem to have enough teeth. The second sentence, which states that, "The Planning Department should work with other municipal departments to prepare the Title 9 amendment text for Assembly review and action..."	**Response:** Title 21 off-street parking amendments and Title 9 parking district amendments are independent of each other. There is no harm in moving forward with adopting the draft Title 21 amendments, before a Title 9 amendment is completed. The Title 21 amendments provide significant public benefit on their own. Parking management districts can help build the institutional capacity to manage and enforce parking in more public ROWs. If the community aspires to eliminate off-street parking requirements, it should first figure out appropriate street design, on-street parking management, and ROW maintenance/management. Agencies like EasyPark (ACDA) would be candidate institutions for running manage on-street parking districts.	

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	could be strengthened by changing the word "should" to "shall." *(Commissioner Raun, April 11 PZC meeting)* Since Title 9 is not under the purview of PZC, is PZC just recommending that the Title 9 amendment process be put into place so that those change in Title 9 can be made? My concern is that in the meantime until Title 9 is amended to provide on street parking management that there will be on-street parking problems. What is going on with management of the public street ROW? Some areas that either TCC or the public hearing draft urban neighborhoods are already under-parked, the street infrastructure is not up to current code, and there is no on-street parking enforcement. Curb spaces are being rented by property owners for vans and motor homes, and other cars are abandoned in street. Is Planning Department discussing the on-street parking management problem with the municipal ROW agencies? What organization would be responsible for operating a parking management district, would it be like a LRSA Board or a Community Council? *(Commissioner Spinelli; April 11 Work session)* If the parking management district is an important part of the equation for reducing or eliminating parking requirements, then why is the parking management district part of all this not as evolved as the rest of the draft Title 21 amendments? Do we need to act on Title 21 amendments before the Title 9 parking management districts are realized, or should one wait for the other? *(Commissioner Raun, April 11 Work session)* The adoption of the proposed code changes to Title 21 should be delayed to assess the needed companion Title 9 changes to on-street parking management and enforcement regulations, among other reasons. Or the companion amendments to Title 9 should get underway now to reduce the duration of unresolved on-street parking problems. The concern is about when, and if,	**RECOMMENDATION:** Move forward with the recommended additional amendments #1 and #2 on pages 17 and 18 of the April 11 staff report memorandum, per the Planning and Zoning Commission (PZC) deliberations at the April 11 PZC meeting.	

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	these companion changes to the code will occur, and what sort of parking problems will be created by the proposed Title 21 text amendments to parking and site access standards in the meantime. *(Turnagain Community Council)* TCC is concerned that the proposed amendments to Title 9 to improve Anchorage's on-street parking management are not being prepared concurrently with the Title 21 parking amendments and encourages the Title 9 amendments to be done concurrently. *(Cathy Gleason for Turnagain Community Council)*		
Part D: Improved Site Access for Pedestrians and Bicyclists			
20.	**General Support for Pedestrian Provisions.** Traffic Engineering concurs with the proposed amendments that support non-motorized modes of transportation. These amendments will provide greater assurance that developments have all required amenities to support these alternative transportation strategies. *(Traffic Engineering Department)* Bike Anchorage strongly supports the proposed code changes to increase the baseline requirements for bike parking in new development, require secure parking for long-term bike storage, and ensure usability of bike parking facilities, as well as the option to replace required car-parking with additional bike parking. *(Bike Anchorage)* Support for the proposed updates that clarify and consolidate design standards for sidewalks and on-site pedestrian walkways, increasing bicycle parking space requirements. *(Anchorage Public Transit Advisory Board)* The bicycle parking requirement changes are exciting, and I look forward to implementing them. *(Connor Scher)*	**Response:** Staff appreciates the comments of support. These comments are consistent with feedback in staff heard at public meetings and consultations support of improving pedestrian facilities. **RECOMMENDATIONS:** No changes.	

<table>
<tr><th>Item #</th><th>Comment/Question</th><th>Response and Recommendation</th><th>PZC Action</th></tr>
<tr><td>21.</td><td>Maximum Front Setbacks.

Table 21.07-2 sets the proposed Pedestrian Frontage Standards for Traditional Urban Neighborhood Contexts including South Addition. The maximum setback in the table is a tenuous concept for South Addition, for several reasons. It does not provide specific exemptions for properties. It does not address existing, older residential buildings that may be remodeled. It does not address lots that are located along the Chester Creek bluff in South Addition and Fairview, especially lots without alley access. Similar bluff conditions exist in Mountain View and Government Hill as well. The lots in Traditional Urban Neighborhoods are smaller and need to allow the designers to use their best judgement to locate buildings on the lot. For example, a west or south facing frontage may want to pull the building back all the way towards the back where garage access exists from the alley. Such building can still have "eyes on the street" (i.e., street-facing windows, entries, and living spaces) even if it is set back farther. The most important feature to avoid on the street is large garage frontages. (South Addition Community Council Planning Subcommittee)

Will a porch, stoop, or landing sheltered by a roof count towards meeting the maximum front setback requirements? Will the porch be allowed to project into the minimum front setback? (Connor Scher)</td><td>Response: No objection to removing the maximum setback from the low- to medium-density residential zoning districts. The maximum setback is more important in the urban commercial districts, mixed-use corridors, and high-density R-4 residential district. (Maximum setbacks in the R-4A district are addressed in the R-4A district-specific standards.) The proposed maximum setbacks are carried over from current code for mixed-use development in the commercial districts, as well as from the current Title 21 approval criteria for area-specific parking reductions. Fairview Community Council in consultations emphasized that buildings should be required to be set close to the street, as called for in the Fairview Neighborhood Plan. The Spenard Corridor Plan also calls for pedestrian-oriented building placement.

Maximum setback regulations in Title 21 address existing buildings. The general provisions for maximum setbacks in Section 21.06.030C.5. recognize that existing buildings may remain legally out of compliance.

The maximum front setback applies to the building elevation wall. Covered entry porches but not stoops or landings may also count toward meeting a maximum front setback. Because the maximum front setback is 10 to 20 feet larger than the minimum front setback and applies to no more than 50% of the building façade width, there is plenty of space between the max. and min. to avoid a “catch-22” situation for front stoops.

RECOMMENDATION: Amend Section 21.07.060F.3, Table 21.07-2 (page 14 of Attachment 3), in row “A,” and delete footnote 4, as shown below. (Also delete the references to footnote 4 from rows B and G.)

<table>
<tr><th colspan="3">Table 21.07-2: Pedestrian Frontage Standard for Urban Neighborhood Contexts and Parking Reductions</th></tr>
<tr><th>Building and Parking Placement [1]</th><th>Primary Frontage</th><th>Secondary Frontage</th></tr>
<tr><td>A. Maximum front setback (ground-floor only) in the R-4 and non-residential zoning districts [1, 4]</td><td>30 feet in Traditional Urban, and 60 feet in other areas</td><td>90 feet</td></tr>
<tr><td colspan="3">*** *** ***

[4 DEVELOPMENT IN THE R-4A ZONING DISTRICT IS EXEMPT FROM THE MAXIMUM SETBACK RELATED STANDARDS A, B, AND G.]</td></tr>
</table></td><td></td></tr>
<tr><td>22.</td><td>Bike Parking Requirements for Existing Developments and Changes of Use.

Bike Anchorage supports the proposed changes to Title 21 that will increase availability of bicycle parking, including secure long-term storage. However, because the revised requirements would apply only to new development, the availability of bike parking will increase slowly and may not be balanced across</td><td>Response: A requirement for bike parking in Title 21 ensures that future developments will consistently add bike parking. Not all property owners would take advantage of grant funding or tax exemptions for bike parking facilities to build the bike parking if there was no Title 21 requirement.

Bicycle parking requirements for changes of use or building expansions on existing sites will apply the same way that automobile parking requirements apply to such developments. Per Title 21 section 21.13.060B., Parking Out of Compliance, if a change of use or a building expansion does not result in an increase in the bike parking requirement, then no new bike spaces will be required, provided the lot has legal nonconforming</td><td></td></tr>
</table>

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	the city. Directly funding bicycle parking would be more effective than making bike parking a part of the complex car-parking regulations. Funding would encourage developers to add bike parking to current development. *(Bike Anchorage)* Traffic Engineering supports the changes to the bicycle parking requirements which address both long and short terms needs for non-motorized users. Traffic Engineering has some concerns on how this will be implemented and managed on some developments that are changing the use but are modifying only the building and not the site. An example of this would be a change of use with strip mall type developments where the new use will trigger improvements, but the site has inadequate space to support the requirement. *(MOA Traffic Engineering)*	rights for its lack of bike spaces. If a change of use or building expansion results in an increase in the minimum number of required bicycle spaces, then the number of bike spaces related to the increase must be provided. A tech edit to the parking *Applicability* section could help clarify (See recommendation a. below). A bike space is easier to add to an existing site than a car parking space. Proposed section 21.07.090K.3., *Administrative Adjustments* (page 63, line 15 in Attachment 3) provides relief if adding a bike space is a practical difficulty on an existing site. This administrative relief provision could be clarified (see below). **RECOMMENDATION:** a. Amend the first sentence in Section 21.07.090B.2. (page 24, lines 12-13, in Attachment 3) as follows: **2. Expansions, Relocations, and Enlargements** A site to which a building is relocated shall provide required parking and loading spaces per tables 21.07-7, 21.07-8, [and]21.07-11, and 21.07-14. b. Amend Section 21.07.090K.3. (page 63, line 15, in Attachment 3) as follows: **3. Administrative Adjustments** The director may approve administrative relief or adjustments to the bicycle parking requirement for changes of use or modifications to existing developments, provided the applicant demonstrates the adjustment is necessary to compensate for a practical difficulty of the site. The department shall keep record of the approved adjustment with written findings supporting the adjustment on file and available for public inspection.	
23.	**Requiring at least Two Short-Term Bike Parking Spaces.** Add a minimum requirement for outdoor (non-secure) bike parking. For development where most parking is required to be secure (e.g., multifamily housing), it may become more cost-effective to implement the full bike-parking requirement as secure parking. However, limited-access parking would not be available to guests or customers, or residents making a quick stop at home. Requiring a minimum of 2 bike parking spaces outdoors (unsecured) per developed property would provide the best flexibility for all those traveling by bike. *(Bike Anchorage)*	**Response:** No objection to the commenter's suggestion or rationale. The AMATS Nonmotorized Transportation Plan supports ensuring that developments include accessible short-term bike parking (e.g., a U-rack outside a main building entrance) for building and site visitors, customers, and others who intend only a brief stay. Some cities specify a portion of required bike parking be short-term spaces (Attachment 6.3, Section 3). Short-term spaces are generally not required for industrial uses or for residential 3- or 4-plexes. **RECOMMENDATION:** Amend section 21.07.090K.1.a. (page 62, line 13, Attachment 3) as follows: a. A minimum of two bicycle parking spaces shall be provided for each use in Table 21.07-14. For commercial and community uses, group living uses with 10 or more beds, and household living uses with 10 or more dwellings, the two spaces shall be located outdoors and publicly accessible for customers and short-term visitors.	

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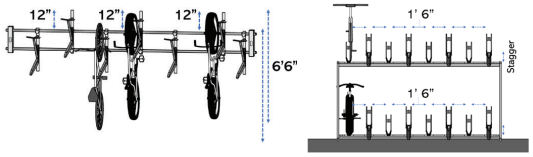
24.	**Effectiveness of Required Bike Parking Facilities for Increasing Bicycling.** Bike Anchorage supports the proposed changes to the bicycle parking requirements. These do a good job of providing usable, convenient, safe, and secure bicycle parking. Bike Anchorage hears from bicyclists about the importance of such facilities at destinations, especially workplaces and at home, where the bicycle will be parked for a longer period. If there is not a safe place to store the bicycle, it is a real hurdle for bicycling more, and is in some cases a factor in deciding whether to eliminate a car from the household in favor of replacing the car with a bicycle. *(Emily Weiser for Bike Anchorage)* It is questionable that bicycle U-racks and easing minimum parking requirements are going to do anything for bicyclists or pedestrians. Bicyclists do not use bike U-racks because no locks are secure. Make it easy to offer surveilled bike parking and put more police officers [sic.] on foot or bike. *(Marc Grober)* Secure, common-use bike parking rooms, as pictured in the lower right corner on page 5 of Attachment 1 and as proposed in the draft standards, will not work because of bike theft. Bike theft is a big problem even in secure, common-use bicycle parking rooms with key card access limited to the residents or employees. In two large apartment complexes in Downtown Anchorage vicinity bikes were stolen and vandalized in common bicycle parking rooms such that residents would not use the parking. A more secure set up would be needed for it to be used. For example, there are examples in the Lower 48 of secure rooms providing compartmentalized, individually secure cubicles for individual bicycles, stacked two high. *(Commissioner Strike, March 14 work session)*	**Response:** The Title 21 amendments seek to provide reasonable bicycle parking accommodation without excessive cost, and U-racks meet this objective. The priority is to ensure access to a variety of modes of transportation. Beyond that it is impossible to eliminate all risk of loss of personal property. Although secure compartments within a secure bike storage room and/or video surveillance monitoring could be encouraged, it would be difficult to enforce continued maintenance and operation of security cameras or personnel. Staff reexamined the draft bicycle parking design standards for security, accessibility, and usability, using information from field visits, and other experts, relative to bikes commonly used for commuting in Anchorage and the practicality of getting a bicycle into and out of a space, or fitting the bike in the space. The staff found that several of the draft design standards should be adjusted. A field visit to a local bicycle store provided information on real-world conditions; The store hangs bikes vertically with wall hooks spaced about 19 inches apart with a 12-inch vertical stagger, placed at 6'5" or 7'5" height on the wall. **RECOMMENDATION:** Amend proposed subsection 21.07.090K.4.c., as follows: **c.** A required bicycle parking space shall be a minimum of six feet long and two feet wide, with the following exceptions: **i.** Vertical bicycle parking spaces (securing the bicycle perpendicular to the ground) shall be a minimum of three feet six inches deep measured from the wall and six feet six inches tall. Vertical parking spaces placed side-by-side shall be a minimum of one foot six inches wide, with a vertical stagger of one foot[EIGHT INCHES] between side-by-side spaces, as shown in the first set of figures below. *** *** *** **Dimensions for Horizontal/Side-by-Side and Vertical/Wall-Mounted Bicycle Spaces:** *(Note to PZC: The two figures below include changes to the dimensional standards from the public hearing draft figures. No other figures from the public hearing draft are changed.)* 	

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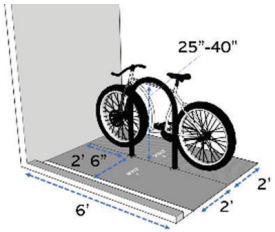
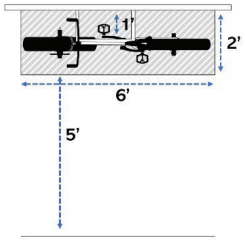
		d. Bicycle parking spaces shall be designed so that the bicycle may be added or removed without having to move another bicycle. i. There shall be a minimum of five feet of clear space inclusive of a walkway, behind the [TWO-BY-SIX-FOOT (OR ALTERNATIVE DIMENSIONED)] parking space to allow room for bicycle maneuvering. ii. There shall be a minimum of two-foot six-inch clearance from all sides of the bicycle rack to walls, fences, curbs, and vehicle parking and circulation areas, or other obstructions, except [THAT] for racks provided in iii. iii. Horizontal bike parking spaces (securing the bicycle horizontal to the ground) with racks attached to walls shall have a minimum one-foot clearance from the rack to the wall, as shown in the second figure below. Vertical and stacked spaces have no required wall clearance. *(Note to PZC: The right-hand figure below is proposed to be added. It was not in the public hearing draft. The left-hand figure is in the public hearing draft and is not changed.)*  	
25.	**Long-Term Bike Spaces Located inside Dwelling Units.** Do not allow in-dwelling parking to count toward the parking minimum in 21.07.090K4.g.ii. (page 65, lines 27-32, in Attachment 3). Residents will likely prefer to use space inside a dwelling unit as living space or to store other belongings and may not want to deal with the mess or hassle of moving a bike	**Response:** In reexamining this issue, staff mostly agrees. Requirements for long-term bike parking should: • Ensure that residents in all dwelling units will have access to the bike parking in a secure, accessible room or enclosure. • Accommodate bicyclists who prefer to park their bikes in a secure common bike parking room outside the dwelling unit, understanding that the most bicyclists who prefer to store their bikes in their dwelling will do so anyway, with or without a designated alcove space.	

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	indoors after every use. Instead, requiring bike parking to be provided in a dedicated communal space will make it most usable and accessible for most residents. In-dwelling bike storage could be provided but should not count toward the bike parking minimum requirement. *(Bike Anchorage)*	• Ensure that all long-term bike parking is in an accessible location without need to navigate stairs. In-dwelling bicycle parking is a challenging issue. It is often awkwardly located and easily removed by building managers. Many people end up storing other belongings in the in-dwelling designated bike space. Many people prefer to park their bikes in a secure bicycle parking room when they have a choice. Common, dedicated, secure bike rooms or enclosures are more likely to remain utilized for bike parking. Common use parking areas allow more efficient use of the pool of bike parking spaces, because when a space is not being used by one resident, it is available for use by another. As a result, most cities do not allow required bicycle parking spaces to be located within an apartment unit or on a unit's balcony. The public hearing draft provision to allow required bike spaces within the dwelling unit living space was intended to provide flexibility, accommodate different user preferences, and reduce development costs. However, because the public hearing draft requires only one bike space per two dwelling units at best, there will not be enough bike spaces for in-dwelling bike spaces to be distributed fairly. The residents of the units without bike spaces will not have access to bike parking at all. Developments up to a four-plex in size can probably get by with in-dwelling bike parking and no common bike room, without taking away from what bike parking other residents will have available—but only if each unit has at least one in-dwelling bike space, and there are standards that ensure the designated bike space is functional, including a bike rack for holding the bicycle. **RECOMMENDATION:** Amend Section 21.07.090K.4.g.ii. (page 65, lines 27-32, in Attachment 3) as follows: **ii.** Long-term bicycle parking spaces shall be located where bicyclists are not required to carry bicycles on stairs to access the parking. **iii.** Long-term bicycle parking spaces for residential uses with fewer than five dwellings may be located within dwelling units, provided each dwelling unit has at least one bike parking space[FOR FIRST-FLOOR DWELLING UNITS ONLY UNLESS THE UNIT IS ON A FLOOR WITH AN ACCESSIBLE ELEVATOR]. Bicycle parking in the dwelling shall be located within 15 feet of the dwelling's primary entrance and in a closet or three-sided alcove which includes a rack and meets the development standards of this subsection 21.07.090K.4.[ALLOWS A SPACE 2 FEET WIDE AND 6 FEET LONG]. Long-term spaces shall not be located on a balcony, deck, or patio area accessory to an individual dwelling unit.	

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26.	**Bicycle Parking Access Route.** What does a "bicycle parking access route" look like on the parking facility layout and design plan, in section 21.07.090D.2.b.xii. (Page 26, lines 27-28, in Attachment 3)? What are its development standards? The section makes it seem like these need to be painted or separated, which should not be necessary. Is the intent in Title 21 is to have the bicyclist remain in the vehicle circulation lane as they enter the property and find the bicycle parking, or is it to have the bicyclist move onto the site's pedestrian circulation system? *(Connor Scher)* Is the intent of section 21.07.0909K.4.a. to have the bicycle parking on an accessible pedestrian route? Bike parking should not need to be on an accessible (ADA) pedestrian route to the building entry. This has a specific definition in the Building Code and may become a hindrance to some development. Most people who bicycle do not have accessibility issues and could navigate stairs. *(Connor Scher)*	**Response:** The intent of "bicycle parking access routes" mentioned in 21.07.090D.2.b.xii. would be that a bicycle parking access route is the same as any accessible walkway, and that cyclists and pedestrians may mix around destinations. There shouldn't be any need for additional striping or delineation. Therefore, the public hearing draft addition of "bicycle parking access route" in the submittal requirements in 21.07.090D.2.b.xii. is probably unnecessary and confusing and could be deleted. Staff recommends retaining the standard for an accessible pedestrian route from the bike parking to the primary entrance in section 21.07.0909K.4.a. (page 63, lines 24-27, in Attachment 3), to reduce barriers for all bicycle users including both those able to walk or carry belongings up flights of stairs and those who cannot. Accessibility standards should serve both those with mobility needs who are able to drive and those with mobility needs who are not able to drive. **RECOMMENDATION:** Amend proposed subsection 21.07.90.D.2.b.xii. (page 26, lines 27-28, in Attachment 3), as follows: xii. Number, location and dimensions of bicycle parking spaces if required per 21.07.090K. [,INCLUDING BICYCLE PARKING ACCESS ROUTES]. No other changes.	
Part E:	**Reforms to Driveway Standards**		
27.	**Driveway Width and Alley Access in Traditional Urban Neighborhoods.** SACC has expressed its concerns regarding how its neighborhood character relates to the regulation of driveways. There have been problems with developments that have been granted wide front driveways that access double-wide garages that take up the frontage of the redeveloped lots, instead of providing driveway access from the alley. Such developments have completely changed the streetscape and character of their area. The proposed amendments make improvements to existing code under 21.07.090H.9.b.ii. especially by setting a	**Response:** Staff acknowledges the importance of requiring site access to be from the rear alley in the Traditional Urban Neighborhoods. Fairview Community Council has also emphasized the need for alley access and to prohibit driveways from breaking up block frontages. Driveways take away from on-street parking, street snow storage, separated sidewalks, and the ability to reduce off-street parking requirements. No objection to tightening up the entitlement for a second driveway on the secondary street frontage of corner lots (Subsections 21.07.090H.9.b.i. and ii., page 52, lines 15-19, in Attachment 3). The provisions could clarify that the second driveway be no wider than 12 feet, and that the entitlement is for multi-unit development (i.e., more than just a homeowner who wants two driveways to their house). The administrative relief provision in 21.07.090H.9.b.iii. (page 52, lines 20-26, in Attachment 3) revises the current Title 21 alley access exception (in 21.07.110F.4., being deleted on page 78 of Attachment 3). Title 21	

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	maximum 12-foot width for front driveways in Traditional Urban Neighborhoods. However, it does not make sense to allow wider than 12-foot driveways on both frontages on a corner lot. Both frontages area on a street and have the same neighborhood character issue. In addition, the proposed inclusion of the exception to the alley access requirement in traditional urban neighborhoods (in 21.07.090H.9.b.iii.) ignores the issue that SACC has been raising for years. This exception relies on the discretion of the municipal Traffic Engineer to allow projects to deviate from the proposed rules for properties that have alley access but choose to pursue an alternative driveway configuration from the street for any reason. SACC committee recommends there be a higher bar by requiring a public process, like a Variance. There should be no circumstance where a multi-family or townhouse development in South Addition is exempted from alley access or driveway width requirements, except that perhaps in the R-3 or R-4 districts such exemption could be more easily warranted. *(South Addition Community Council Planning Subcommittee)*	gives the Traffic Engineer administrative authority to grant exceptions where the alley is unimproved, unmaintained, or physically inaccessible, or if use of the alley would create a traffic hazard on the streets. (For reference, the Title 21 definition for "alley" is provided on page 82, line 4, in Attachment 3. A 20-foot-wide right-of-way meeting this definition is generally considered to be an alley instead of a street.) The public hearing draft amendment tightens up the administrative relief provision. It restricts availability to multifamily and townhouse developments because homes and duplexes can more easily use a single 12-foot-wide front driveway. It clarifies that the alley must be unmaintained or impassable AND the Traffic Engineer determines that improvement and vehicle access is not feasible. This change prioritizes alley access in urban neighborhoods. The draft provision could be made clearer by adding wording to explain that "unimproved" means unbuilt (e.g., still vegetated) and does not refer to the unpaved gravel alleys that are in use. The commenter advocates for using Variance process instead to provide transparency, public input, and stronger approval criteria. The commenter opposes the neighborhood impacts of allowing a low bar for relief just for an occasional exception in the Traditional Urban Context Area. However, the proposed amendments tighten up the exception limiting it to multifamily projects on impassable alleys. Requiring a Variance just to recognize that an alley is impassable and unbuildable seems like an unnecessary level of process and a barrier for infill projects. However, a requirement for documentation of the administrative approval would improve transparency. Staff has also found another administrative approval from pedestrian-oriented frontage standards, in public hearing draft section 21.07.060F., Pedestrian Frontage Standard, that would similarly benefit from documentation, per recommendation a. below. **RECOMMENDATION:** Amend the public hearing draft as follows: a. Amend 21.07.060F.2.f. (page 13, lines 35-36, in Attachment 3) as follows: **f.** The director shall approve administrative relief provided the applicant demonstrates it is necessary to compensate for some practical difficulty of the site. The department shall keep record of the approved exception with written findings supporting the approval on file. b. Amend 21.07.090H.9.b. (page 52, lines 11-26, in Attachment 3) as follows:	

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		b. ***Alley Access Requirement (in Urban Neighborhood Context Areas)*** Where a residential use is served by an alley in a Traditional Urban or Edge Urban Neighborhood Context (21.07.015), direct vehicle access to the street shall be limited to the following: **i.** [DRIVEWAY ACCESS TO THE SECONDARY STREET FRONTAGE ON CORNER LOTS, PROVIDED THE DRIVEWAY IS NOT LOCATED WITHIN THE PRIMARY FRONT SETBACK;] [II.] Residential driveway access [TO THE PRIMARY STREET FRONTAGE] not exceeding one driveway no wider than 12 feet at any point [THAT 12 FEET], except that lot frontages 100 feet or wider on a primary street frontage may have one driveway per 50 feet of lot frontage on that street. **ii.** One additional driveway no wider than 12 feet providing access to the secondary street frontage on corner lots for multifamily, townhouse, or two-family developments. **iii.** Additional driveway access to the primary street frontage for multifamily or townhouse developments may be allowed if the alley is unimproved (i.e., vegetated, no built accessway), unmaintained, or [PHYSICALLY] inaccessible, and the traffic engineer determines that improvement and vehicle access is not feasible, or that use of the alley for access would create a substantial traffic impact or safety hazard. The additional driveway access shall be the minimum the traffic engineer determines is necessary to provide access for the development. The Planning Department shall keep record of the approved additional driveway access with written findings supporting the approval on file and available for public inspection.	

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Part F: Provisions for Smaller Parking Dimensions			
28.	**Allowing Compact-Car-Only Parking Spaces in Traditional Urban Neighborhoods.** Consider including Traditional Neighborhood Context Areas in the entitlement for up to 30% of parking spaces to be "Compact" size parking spaces. *(Connor Scher)*	**Response:** The draft Title 21 amendments reformat and carry forward the current Title 21 provision for compact-car-only spaces in Downtown Anchorage. The compact space entitlement is limited to Downtown and dates from the 1970s. The amendments avoid expanding the entitlement for compact spaces because of problems with modern-size vehicles and enforcement of the compact-only rules, as reported by ACDA. The Dimensions of Parking (5th Ed., 2010) by the Urban Land Institute (ULI) establishes recommendations for parking geometrics, including for smaller-than-standard parking spaces. The ULI publication is an industry standard for development of parking facilities. ULI recommends against installing compact-car-only spaces. When the small-vehicle-only parking space was introduced in the 1970s, the car fleet consisted of very large and very small cars, and the "compact only" rule was self-enforcing. Since then, however, the size of smaller vehicles has increased, and some of the medium-size vehicles has decreased. The boundary between small and large cars has blurred and more large cars can be shoe-horned into compact spaces. Larger vehicles parked in compact spaces sometimes encroach into the adjacent spaces, which negates the improved efficiency offered by compact-car-only spaces. **RECOMMENDATION:** No change.	
29.	**Allow Historic Landmarks to Have Small Parking Spaces.** Consider allowing a historic Landmark property to use the "Small" parking space dimensions, like in the Downtown zoning districts and Traditional Neighborhood areas. The intent of the Anchorage Local Landmarks Register is to protect and encourage use of historic properties. Even historic properties located outside Downtown and the traditional urban neighborhoods have small parking lots that do not easily accommodate the "Standard" parking space size. Many of these older properties have had their parking areas reduced over time with the widening of road rights-of-way. The smaller parking space dimensions would allow their parking areas to function safely. Requiring such spaces to be Landmarks would highlight the Local Landmarks Register. *(Connor Scher)*	**Response:** No objection to allowing historic properties on the Municipality's Local Landmarks Register to use the "Small" parking space and aisle dimensions. Before the current Title 21 standard parking space dimensions were established in the late 1970s, most developments used a smaller parking space dimension. As a result, properties eligible for listing on local, state, or national historic registers tend to have grandfathered, legally nonconforming parking space sizes. **RECOMMENDATION:** Amend proposed subsection 21.07.090H.12.a., (page 58, after line 31, in Attachment 3), by adding a subsection iii. just above Table 21.07-13, to read as follows: **iii.** Any use that involves the preservation of a landmark listed in the Anchorage local landmarks register may also meet the SMALL parking space and aisle dimensions in table 21.07-13.	

Item #	Comment/Question	Response and Recommendation	PZC Action
30.	**Reducing the Minimum Standard Parking Space Length.** In Table 21.07-13, reduce the Standard 90-degree parking space depth to 19'0" and track that change down through the other angles (75, 60, and 45 degrees) for the Standard parking space size. For example, the City of Homer requires a 9-foot by 19-foot parking space size (essentially), and this is adequate for most cars. Further down in the table, parallel parking spaces are 9-feet by 23 feet, which accommodates 19 feet plus 4 feet for maneuvering, so it seems logical to change the Standard 90-degree parking space depth to 19 feet. Later in the section, the proposed tandem parking space depth is 38 feet, which is twice 19 feet. *(Connor Scher)*	**Response:** No objection to reducing the minimum length to 19 feet—at least in the urban contexts, where space is at a premium and the *Comprehensive Plan* calls for compact, pedestrian-oriented redevelopment. Engineering publications and zoning codes historically recommended an 18-foot parking stall length. The 18-foot standard was based on the dimensions of design vehicles, such as the Ford Expedition, a large SUV which was 17 feet, 3 inches long in the 2010 model year. Research of three dozen zoning ordinances finds that most cities (including Fairbanks, AK) have a minimum standard parking stall length of 18 feet or less. Only two of the cities require a 20-foot stall, and two others (including Homer, AK) require a 19-foot stall. Vehicle sizes have grown since most of these standards were written. According to a J.D. Power website, the average new large pickup is 18 feet 4 inches long. The 2022 Ford Expedition SUV is 18 feet 6 inches long. Even a 19-foot minimum stall length would leave less-than-optimal extra space for large vehicles. It would result in more vehicles overhanging into the drive aisle, particularly in the wintertime. On the other hand, a 19-foot minimum length would provide ample space for most of the automobile fleet. Medium-size SUVs and small-to-medium-size pickups range from 15 to 17 feet in length. The extra foot for 20-foot spaces comes at a cost, as the Urban Land Institute states: > Parking ordinances that require excessively generous parking geometrics waste land and other resources, and stymie development. Such ordinances are also often in conflict with other community goals, such as green space and reducing stormwater runoff. (*The Dimensions of Parking*, ULI, 5th Ed., page 64) Choosing a 19-foot or 20-foot minimum parking stall length seems to come down to policy priorities. This Title 21 amendment project creates the Urban Neighborhood Development Contexts to allow tailoring zoning regulations to reflect differing priorities across neighborhoods. Prioritizing compact, pedestrian-friendly development with less impervious paved area seems appropriate in the urban neighborhoods seeking to redevelop in a way that is consistent with their historical development pattern. For the Traditional and Edge Urban Neighborhood Contexts, staff has recalculated the geometric formulae for all angles of Standard parking space based on a 19-foot vehicle projection length for the 90-degree angle. **RECOMMENDATION:** Amend Section 21.07.090H.12.a., Table 21.07-13 space depths (pages 58-59 of Attachment 3) as follows:	

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TABLE 21.07-13: PARKING ANGLE, STALL, AND AISLE DIMENSIONS

Parking Angle (Degrees)	Parking Space Size	Space Width	Curb Length (Width Projection)	Space Depth (Vehicle Projection)	Aisle Width 1-way	Aisle Width 2-way	Typical Parking Bay Width (Module)	Interlock Reduction	Overhang Allowance
90	STANDARD	9' 0"	9'0"	20' 0"[1]	23' 0"	24'	64' 0"	0' 0"	2' 0"
	SMALL	8' 6"	8' 6"	18' 0"	23' 6"	24'	60' 0"	0' 0"	
	COMPACT	8' 0"	8' 0"	16' 0"	23' 6"	24'	56' 0"	0' 0"	
75	STANDARD	9' 0"	9' 4"	21' 8"[1]	19' 0"	24'	67' 4"	1' 2"	1' 11"
	SMALL	8' 6"	8' 10"	19' 7"	19' 6"	24'	63' 2"	1' 11"	
	COMPACT	8' 0"	8' 3"	19' 5"	19' 6"	24'	62' 11"	0' 6"	
60	STANDARD	9' 0"	10' 5"	21' 10"[1]	18' 0"	24'	67' 8"	2' 3"	1' 8"
	SMALL	8' 6"	9' 10"	19' 10"	18' 6"	24'	63' 8"	2' 2"	
	COMPACT	8' 0"	9' 3"	17' 10"	18' 6"	24'	59' 9"	1' 0"	
45	STANDARD	9' 0"	12' 9"	20' 6"[1]	12' 0"	24'	65' 0"	3' 2"	1' 5"
	SMALL	8' 6"	12' 0"	18' 9"	12' 6"	24'	61' 6"	3' 0"	
	COMPACT	8' 0"	11' 4"	16' 12"	12' 6"	24'	57' 11"	1' 5"	
0 (parallel)	STANDARD	9' 0"	23' 0"	9' 0"	12' 0"	24'	42' 0"	0' 0"	0' 0"
	SMALL	8' 6"	23' 0"	8' 6"	12' 6"	24'	41' 0"	0' 0"	
	COMPACT	8' 0"	23' 0"	8' 0"	12' 6"	24'	40' 0"	0' 0"	

[1] Developments in the Traditional Urban and Edge Urban Neighborhood Development Context Areas may use the following alternative STANDARD parking space depth (Vehicle Projection): 19' 0" for 90-degree parking angle; 20' 8" for 75-degree parking angle; 20' 11" for 60-degree parking angle, and 19' 6" for 45-degree parking angle. Parking bay width may decrease as a result.

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Part G: Consolidated, Simpler Regulations			
31.	**Clarification of Mixed-use Design Standards Amendments.** Is this amendment removing all mixed-use design standards from Chapter 21.04, or just replacing and combining those related to pedestrian amenities into a new section? *(Connor Scher)*	**Response:** It is primarily doing the latter: replacing, simplifying, and consolidating the district-specific standards for mixed-use developments (being deleted on pages 1-3 of Attachment 3). The references to reduced parking ratios on pages 1 and 3 are being deleted because these parking reductions are being replaced by lower, area-specific parking requirements in 21.07.090E.2. (page 27 of Attachment 3). The mixed-use development standards on pages 2 and 3 are replaced by proposed Section 21.07.060F., *Pedestrian Frontage Standards* (pages 13-15). See the annotation for pages 1-3, 13-15, and 27 in Attachment 3 for more details. **RECOMMENDATION:** No change.	
32.	**Descriptions of the Neighborhood Development Contexts.** Generally supportive of the proposed section establishing Neighborhood Development Context areas, however the paragraphs describing each of the three proposed neighborhood development contexts areas seem wordy and include repeated phrases and commentary. The function of these paragraphs in the code is unclear. Specific comments follow: • Traditional Urban Neighborhood Context: Suggested edit to reword the paragraph: "Traditional urban neighborhood contexts feature development features including a regular street grid, sidewalks, buildings with moderate front setbacks oriented toward the street, and parking located to the side or rear of principal buildings. There is a balance of pedestrian, bicycle, public transit, and automobile reliance." • Edge Urban Neighborhood Context: Rephrase "early post-war" to "post-war". The second paragraph is unnecessary commentary. These areas were originally homestead plats of 5 to 160 acres instead of being based on strict street grids. As a result, they were subdivided and sold at various times with various development patterns that remained consistent within original parcels (frequently). Applying	**Response:** The draft provision in 21.07.015C.1. (page 5, line 9, in Attachment 3) explains that the Neighborhood Context descriptions are intent statements providing a basis for area-specific development standards elsewhere in this chapter 21.07. This should resolve most of the commenter's concerns. Statements of purpose or intent in Title 21 are provided to guide interpretation and understanding of the legislative intent behind the substantive regulations of the code. Intent statements are not substantive, regulatory requirements for developments. They instead provide a context whereby the regulations are understood. Intent statements may have additional wording not included in the regulations (21.15.020B.). In addition, some of the content in these draft descriptions is informed by public comments from the public process (e.g., Government Hill residents emphasized that western Government Hill neither has nor should have sidewalks). However, staff reexamination of the Neighborhood Context descriptions wording does find opportunities for simplification and clarification, including some edits suggested by the commenter. **RECOMMENDATION:** Clarify the last sentence of 21.07.015C. (page 5, line 9, in Attachment 3) to read, "The descriptions below are intent statements…" Then edit the individual descriptions as follows: a. Edit the fourth, fifth and sixth sentences of proposed subsection 21.07.015C.2. (page 5, lines 17-21, in Attachment 3) as follows: Traditional urban neighborhood contexts feature a regular street grid [DEVELOPMENT PATTERN] of city blocks [SURROUNDED BY STREETS], which provide pedestrian and vehicular connections at frequent, regular intervals. Block and lot sizes are small and block shapes are consistent and often the same size. Sidewalks are present on most streets, with few exceptions such as[EXCEPT IN LIMITED PARTS OF SOUTHERN SOUTH ADDITION AND] in western Government Hill.	

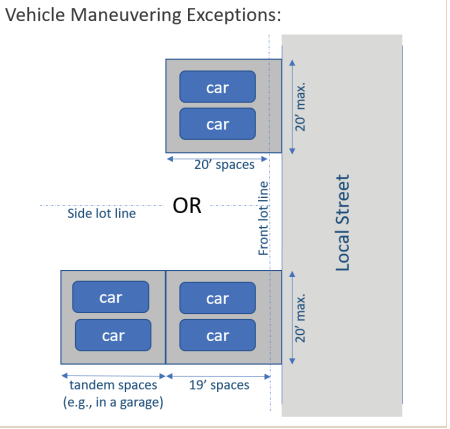
Item #	Comment/Question	Response and Recommendation	PZC Action
	these general statements to these areas is not an effective means of describing them. These areas share a period of development, and perhaps defining them by the period or plat number versus the improved infrastructure is more effective. Alternatively, describing the infrastructure allows a more comprehensive and fluid understanding of subject area. Suggested edit to reword the description: "Edge urban neighborhoods feature smaller lot and block sizes than later subdivisions with a mix of street grids and development patterns. Some areas have alleys and sidewalks. Generally, the edge urban areas support transit and enhanced pedestrian facilities." • Transit-Supportive Development Corridors: This paragraph is also slightly wordy. Suggest moving the last sentence to the second sentence and leaving only those first three sentences. *(Connor Scher)*	b. Edit proposed subsection 21.07.015C.3. (page 6, lines 8 – 18, in Attachment 3), as follows: The edge urban neighborhood context includes properties generally identified in the Comprehensive Plan, Land Use Plan Map, as traditional neighborhood design areas in Anchorage's [EARLY]post-war era (1950s-1960s) neighborhoods, such as Spenard, North Star, Midtown, Rogers Park, Airport Heights, Russian Jack Park, and University Area. Parts of South Addition, Fairview, and other neighborhoods also match this context. Edge urban neighborhoods feature a variety of interconnected street systems with smaller lot and block sizes than later subdivisions in [THE]more suburban parts of the Anchorage Bowl. Some edge urban areas feature a regular street grid [DEVELOPMENT PATTERN]of city blocks and others have[PROVIDE] a more relaxed and irregular street grid. Some neighborhoods have[THERE IS AN INCONSISTENT PRESENCE OF] alleys and [LOCAL STREET] sidewalks. Buildings typically have moderate to somewhat deeper front setbacks. Buildings tend to orient toward the public street, although some front setbacks are deep enough to allow for a mix of landscaping and parking. Some edge urban neighborhood context areas include transit-supportive development corridors with[WHERE THE MUNICIPALITY HAS INVESTED IN] elevated levels of public transportation service and enhanced pedestrian facilities. c. Edit proposed subsection 21.07.015C.4. (page 6, lines 22-30, in Attachment 3), as follows: Transit-supportive development corridors designated by the *Comprehensive Plan* extend through and outward from the edge urban neighborhood contexts. Transit-supportive development corridors are a half-mile wide, extending ¼-mile (approximately 5 to 10 minutes walking distance) on each side the public transit route. These corridors feature[ARE WHERE PEDESTRIAN FACILITIES AND FREQUENT PUBLIC TRANSPORTATION SERVICE INTERACT WITH] a compact, pedestrian-friendly pattern of land use[COMMERCIAL, RESIDENTIAL, AND MIXED-USE] development[WITHIN WALKING DISTANCE OF THE PUBLIC TRANSIT ROUTE]. These corridors have elevated levels of municipal public transportation service with frequent headways between buses and higher ridership demand. These transit routes connect local and regional town centers, city centers, and other service/employment centers, such as the UMED District. [TRANSIT-SUPPORTIVE DEVELOPMENT CORRIDORS ARE A HALF-MILE WIDE, EXTENDING ¼-MILE (APPROXIMATELY 5 TO 10 MINUTES WALKING DISTANCE) ON EACH SIDE THE PUBLIC TRANSIT ROUTE.]	

Item #	Comment/Question	Response and Recommendation	PZC Action
33.	**Clarity of Maps and Graphics for the Neighborhood Development Context Areas.** Traffic Engineering recommends the geographical areas defined in the new maps (in Section 21.07.015) be added to the online, user-interactive map layers on the municipal Geographic Information Systems (GIS) so that code users can readily identify if a proposed development site is within these defined areas. *(Traffic Engineering Department)* In the graphics comprising a set of 3 images below the descriptions of each of the Neighborhood Development Context Areas, add a call-out to the middle image to clarify that the right-most image is a blown-up (larger scale) version of the other two images. *(Connor Scher)*	**Response:** No objection to the suggested clarifications. The project objectives include to provide the online, user-interactive map layers for the public as part of implementing the amendments. Arrangements have been made with municipal GIS staff to create, post, and maintain these upon adoption of the Title 21 amendments. **RECOMMENDATION:** Amend proposed subsection 21.07.015, as follows: a. Subsections 21.07.015C.1. and C.2. (pages 5 and 6 of Attachment 3), in the graphics comprising a set of 3 images below the descriptions of each of the Traditional and Edge Urban Neighborhood Development Context Areas, add a call-out to the middle image to clarify that the right-most image is a blown-up (larger scale) version of the other two images. b. Subsection 21.07.015D.2., Neighborhood Context Area Boundaries, in each of the Maps 21.07-1 through 21.07-4 (pages 7-10 of Attachment 3), include a disclaimer that online interactive maps are available.	
34.	**Clarity of Off-Street Parking Section's Purpose Statement.** In subsection 21.07.090A.4. of the purpose statement for the Title 21 parking requirements, rephrase to eliminate "walkable" as an ableist term. *(Connor Scher)*	**Response:** No objection to replacing "walkable" with a more generic term. In reexamining the purpose language, staff has identified additional clarifications to suggest regarding the following: • Minimum parking requirements are intended only for areas that do not have adequate on-street parking supply in parking management districts (e.g, Downtown) with on-street parking enforcement. • The primary impacts to nearby streets that are of concern include the flow of vehicle traffic, pedestrians, and service vehicles such as street maintenance, public transit, and emergency services. **RECOMMENDATION:** Amend proposed subsection 21.07.090A., *Off-Street Parking and Loading—Purpose*, (page 23 in Attachment 3) as follows: **A. Purpose** This section establishes off-street parking and loading requirements to accommodate anticipated parking utilization in areas without public on-street parking management, and to ensure that parking facilities are designed to perform in a safe, efficient manner. It is also the intent of this section to attenuate the adverse visual, environmental, and economic impacts of parking lots, and to balance the provision of adequate off-street parking with other modes of site access that promote[IN ORDER TO ACHIEVE AREA-WIDE OBJECTIVES FOR] a compact and efficient land use pattern, affordable housing, pedestrian-friendly environments, and other area-wide objectives[USE OF MULTIPLE MODES OF TRANSPORTATION]. Specific objectives of this section include:	

Item #	Comment/Question	Response and Recommendation	PZC Action
		1. Ensure that off-street parking, loading, and access demands will be met without impacting adjoining and nearby [STREETS,] properties, land uses, and neighborhoods; **2.** Ensure the safe and adequate flow of traffic, pedestrians, and service vehicles in adjoining streets; *** *** *** **5**[4]. Recognize, through parking reductions and lower parking requirements, the parking efficiencies of mixed-use development, mixed-income housing, pedestrian-friendly[WALKABLE] development patterns, proximity to public transportation, and other area-specific neighborhood characteristics; *** *** ***	
35.	**Clarity of Regulation of Parking Space Usage.** Support the amendment to 21.07.090B.4. (page 24, lines 29-34 in Attachment 3) to allow for private sector decisions to charge for parking spaces. Would it be helpful to add a provision that maintains a certain minimum number of parking spaces for a single use in a mixed-use development? For example, if a restaurant and apartments are in the same building, the restaurant will have higher parking turnover, but will need fewer parking spaces. If there is a parking reduction applied to the property, whose parking gets reduced? *(Connor Scher)*	**Response:** Title 21 requires only that the total number of parking spaces on a mixed-use development site be equal to the sum of the number of parking spaces required for each use. The Municipality avoids regulating how property owners assign individual parking spaces on the site to the individual uses. Doing so would be unnecessary to carry out the objectives of the zoning regulations. It would complicate matters for applicants and property managers, and involve Municipal staff in private matters involving internal parking agreements, etc. It would also complicate changes of use and the expansion or contraction of business tenants. Parking reductions for a mixed-use development are applied to each use individually, and then aggregated into a total combined parking reduction. In doing so the parking reduction operates the same way as the basic minimum parking requirement: the parking requirement for each individual use is aggregated to yield the total parking requirement for the site. **RECOMMENDATION:** No change.	
36.	**Determining which Parking Spaces on a Site Plan are Eligible for Small Dimensions.** Traffic Engineering is appreciative of the changes made to the parking angle, stall, and aisle dimensions, however has concerns with proposed exception 21.07.090H12.a.ii. (Page 58 in Attachment 3) that allows for 50% of spaces to be smaller dimensions for employee only, structured parking facilities, and low parking uses. This provision may need additional	**Response:** The comment comprises three main questions: 1. What defines low turnover uses; 2. How are the spaces for low turnover uses to be identified; and 3. Can the Municipality require them to be called out in a parking study on the plan? The second and third questions are addressed during the permitting approval process for the site plan. The proposed parking layout site plan should identify which spaces serve low-turnover uses and have smaller dimensions. If the low-turnover parking spaces are not shown on the site plan, and the parking study (if there	

Item #	Comment/Question	Response and Recommendation	PZC Action
	clarification regarding which spaces on a site plan are designated as either employee only or low turnover for both municipal staff who review plans and design professional that develop the site plan. *(MOA Traffic Engineering Department)*	is one) does not address the number of spaces, then that should be a permit reviewer comment. Asking for clarification on a parking layout plan or site plan is common practice by zoning plan reviewers. The answer to question 1 above seems apparent in the second sentence in 21.07.090H12.a.ii. (Attachment 3, page 58, lines 27-30). However, perhaps a simple word change, as provided below, could make it clearer. **RECOMMENDATION:** Clarify proposed subsection 21.07.090H12.a.ii. (Page 58, lines 27-30, in Attachment 3) as follows: Uses with a low parking turnover rate are[COMPRISE] multifamily and mixed-use household living uses, office uses, and educational facility uses other than instructional services.	
37.	**Clarity of Exempted Use Types.** Subsection 21.07.090K.2.g. (page 63, line 14 in Attachment 3) which exempts "Any other non-residential use which has no regular employees or people on premises," seems vague and hard to define or enforce. *(Connor Scher)*	**Response:** This exemption is for a variety of uses, such as unstaffed utility substations that will have no on-site employees, users, or visitors. Title 21 Land Use Review staff with experience in zoning plan review and land use enforcement find that this language does not seem vague or hard to define for Title 21. During plan review the zoning plan reviewer would ask for a statement from the applicant about the employees or people on the premises. That statement would be used if needed for enforcement. **RECOMMENDATION:** No change.	
38.	**Ordinance Length, Complexity, and Transparency Regarding its Effects on Development Projects.** The draft ordinance is long and complicated, and it is probably confusing for most people to understand what is being proposed. Entire sections were deleted out and moved to new sections. It is difficult to determine what the final impact would be on a building permit for a single family, duplex, triplex, or multiple townhome unit project, because the format only shows the sections that were deleted or added without having the context of the surrounding code. Has anything changed that would make things more restrictive, difficult to permit, or other negative impact? *(Commissioner Spinelli, March 14 worksession, April 11 PZC meeting, and follow-up email correspondence)*	**Response:** In response to this comment, staff reviewed the entire amendment and a checklist of the proposed changes to development standards for residential projects. This review re-confirmed that the nearly all the public hearing draft changes will relax, simplify, or clarify development standards and approval processes for development projects. A few changes increased a pedestrian-oriented standard in the urban neighborhood contexts however these were paired with reductions in required car parking or driveway width to ultimately reduce development costs and land needs by supporting more efficient transportation alternatives. Staff did find several of the draft amendments that did not reduce or simplify an entitlement enough to meet the project objectives. These could be simplified or made more flexible, as follows: • The *Pedestrian Frontage Standard for Urban Neighborhood Contexts* in 21.07.060F.3. should not be a pre-requisite for receiving an administrative parking reduction. This standard goes beyond the basic pedestrian access facilities needed to justify a parking reduction and could deter applicants from seeking reductions. (See recommendations a, b, and c. below.)	

Item #	Comment/Question	Response and Recommendation	PZC Action
		• The minimum walkway clear width of an *Enhanced On-Site Walkway* (a menu choice in section 21.07.060G., *Pedestrian Amenities*) should be reduced from 8 to 6 feet for 3- and 4-plex developments, to be more in scale with these developments. (See recommendation d. below) • In subsection 21.07.090H.10.d.ii., *Vehicle Maneuvering*, the exception allowing one or two parking spaces to back out into the street should allow for additional tandem spaces and Traffic Engineer discretionary approval of further exceptions for 3- and 4-plexes. (See recommendation e. below.) • In subsection 21.07.090H.11.d.ii., the Minimum driveway width for small multifamily projects should be 10 feet not 12 feet on straight driveway segments. (See recommendation f. below.) **RECOMMENDATION:** Amend the public hearing draft as follows: a. Amend subsection 21.07.060F.2. (page 13, lines 23-24, in Attachment 3) as follows: **2. Applicability** Subsection 3. applies to development in the traditional urban and edge urban neighborhood context areas established in 21.07.015[, AND TO DEVELOPMENTS THAT RECEIVE REDUCTIONS TO REQUIRED PARKING IN 21.07.090F]. Subsection 4. applies to development in the other areas of the municipality. Exceptions and exemptions from this section 21.07.060F. include: *** *** *** b. Amend subsection 21.07.060F.3. (page 14, line 6, in Attachment 3) by deleting the words "[AND PARKING REDUCTIONS]" from the header of subsection 21.07.060F.3. and title of Table 21.07-2. c. Delete subsection 21.07.090F.4.b., *Pedestrian Frontage Standard*, (page 37, lines 23-25, in Attachment 3), and re-number subsequent subsections. d. Amend the first sentence of 21.07.060G.3.a. (page 17, lines 23-25, in Attachment 3) as follows: An enhanced on-site walkway shall have a pedestrian movement zone with a continuous, unobstructed walkway clear width of at least eight feet, or six feet where providing access only to four or fewer residential dwelling units.	

Item #	Comment/Question	Response and Recommendation	PZC Action
		e. Amend and illustrate subsection 21.07.090H.9.d.ii. (page 54, line 13, in Attachment 3), as follows: **ii.** For other developments, parking areas comprising only one or two parking spaces whose only access is to a local street, provided that the paved vehicle area(s) occupy no more than 20 feet of the width of the lot frontage in the front setback. The number of spaces may be increased to four spaces if arranged in tandem for residential dwellings as provided in 21.07.090K.12.k. Additional spaces for multifamily developments with up to four dwelling units may be approved by the Traffic Engineer in appropriate circumstances such as lots on dead-end streets, cul-de-sacs, or other local streets with low traffic volumes.  f. Amend subsection 21.07.090H.11.d.ii. (page 56, line 14, in Attachment 3) as follows: **ii.** The minimum width of a driveway providing access for up to 10 parking spaces serving a townhouse or multifamily residential use from a local street or alley is 12 feet (e.g., one lane for two-way traffic), except that straight (non-curving) driveway segments on the development property (i.e., not in the driveway approach) may be 10 feet.	

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Attachment 6.3

Background Research

Title 21 Text Amendment to Off-Street Parking and Site Access Regulations

Public Hearing Draft

PZC Case No. 2022-0026

Anchorage 2040 Land Use Plan
Implementation Actions 4-3 and 4-6

Updates in the 6/2 version from the 5/25 version of this document:

- Technical edits to grammar, sentences, and page and table numbers and references.
- Addition of a general introduction (page 1).
- Additional information and graphic in the conclusion to Section 1.3 (page 17).
- Additional documentation of research about parking reduction strategies (Section 2.1).
- Updated Census data and corrected table in Section 3.1 (pages 47-48).
- Addition of a conclusion for Section 4.1 (page 64).
- Addition of summary notes from a fourth agency consultation meeting (Section 5.1).
- Addition of a 2021 resolution of support from the HHAND Commission (Section 5.1).
- Addition of bibliographic information (Section 5.2).

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Introduction

This Attachment 6.3: *Background Research*, provides supporting information for the June 6, 2022 Issue-Response Summary. It also documents more of the data research, analysis, and stakeholder consultations that informed the project overall.

Section 1 documents the empirical data, analytical steps, and policy options that underly the recommended area-specific parking requirements for the urban neighborhood contexts. Section 2 provides an assessment of site-specific parking utilization management strategies and the Title 21 review and approval process for reductions in required parking. Section 3 provides the background data and analysis of bicycle parking needs and requirements. Section 4 documents some of the analysis behind proposed amendments to driveway and parking dimensional standards. Section 5 is an appendix collecting additional data and references.

This background document is informational only. It provides additional details and supporting analysis. See the staff report memorandum, issue-response summary, and other attachments for the recommendations as to Title 21 amendments.

Section 1: Parking Utilization Rate for Parking Requirements

Introduction

Section 1 documents research about existing and future parking utilization levels in the Anchorage urban neighborhood context areas, and the policy choices for using this information to reform the Title 21 minimum parking requirement specific to these areas. It uses a process of 3 steps for recommending an empirically supported, policy-responsive, and transparent parking requirement, including:

1. Estimating existing parking utilization levels;
2. Forecasting a future baseline parking utilization rate; and
3. Basis for measuring utilization rates to determine minimum parking requirements.

This section shows how the parking ratios in the development regulations relate to existing parking utilization and community and neighborhood aspirations for future development. Parking ratios used in zoning regulations were historically developed by traffic engineers and city planners based on the evidence at hand. The steps outlined below document the process of demystifying and changing these requirements in response to evolving development conditions, the adopted goals in the Comprehensive Plan, and the public feedback received during the *Title 21 Parking and Site Access Amendment* project.

The steps in setting the basis for parking ratios focus on the development of minimum parking ratios for urban neighborhood development contexts. Each step affects and further refines the parking ratios as a documented technical finding or explicit policy choice, adjusting an empirically based existing utilization rate upward or downward from the previous step to reach a policy-justified parking ratio.

Several assumptions underly this process:

1. **Area-Specific Focus.** The objective of this process is to determine whether or how much the parking ratio should differ in response to the urban geographic areas that the *Comprehensive Plan* variously defines as traditional urban neighborhoods, transit-supportive development corridors, mixed-use corridors, reinvestment focus areas, major employment centers, town centers, and area-specific designations in adopted neighborhood and district plans. It also includes determining the specific areas/boundaries where there should be lower parking requirements. Because parking minimums have such a big impact on urban form and redevelopment, the *Anchorage 2040 Land Use Plan* and individual area-specific plans indicate that it would be desirable to tailor the parking requirements to different urban neighborhood contexts. This process does not include:
    - Does not include reassessing parking ratios for the entire Municipality.
    - Does not include reassessing parking ratios for individual use types.

2. **Measurement of Building Size.** This process continues to use the existing Title 21 unit of the parking ratio. This includes the number of spaces per residential unit and bedroom, and spaces per square feet of floor area or per seat (e.g., in auditoriums). This current system continues to provide a convenient and easily quantifiable way to relate the parking ratio to building size and size/number of dwellings. These provide a clearer and unambiguous calculation than attempting to estimate the number of employees, customers, or residents in a proposed building in a development application.

3. **Free Parking.** This process also remains in context of existing and planned transportation infrastructure, services, and right-of-way management, as well as the prevailing public and private practice of providing both on-street and off-street parking free of charge. It does not transform the current situation in which on-street curb parking continues to have a constrained level of management, enforcement, and pricing for most areas outside of Downtown. It does not transform street maintenance and snow clearing operations with new strategies or resources. This project does not propose to require property owners to price or limit parking. It therefore assumes that, for most areas, parking will remain free or bundled. Parking "demand" (utilization rates) will reflect that parking is free (unpriced), and that parkers will continue to be subsidized indirectly by all other travelers, property owners, business establishments, and public policy. However, the project does recommend creating parking management benefit districts where parking will be priced according to its market value, such that minimum off-street parking requirements can be further relaxed or eliminated in such districts. This project also includes an as-of-right reduction to site-specific parking requirements to account for when an individual property owner provides off-street parking pricing strategies such as unbundled parking and parking cash-outs.

1.1. Step 1: Estimate Existing Parking Utilization

The first step toward developing area-specific parking requirements was to estimate existing parking utilization rates and trends. The existing parking utilization rate draws on Anchorage local parking utilization studies, U.S. Census data for household vehicle availability and use, and compendia of U.S. studies of parking utilization. Extensive data from a local Anchorage residential and commercial parking utilization study conducted in the late 2000s provided the primary basis for this estimation. This study included 30 multifamily apartment sites, 10 townhouse/site condominium sites, and approximately two dozen commercial sites (primarily office, medical office, and restaurants). The study used ITE (Institute of Transportation Engineers) methods to determine weekly peak utilization rates by day of the week and time of day.

The Anchorage parking utilization study was an extensive project involving multiple staff on all-night surveys through the course of a season and resulted in an excellent trove of data that was used as a foundation of the Current Title 21 area-wide (all-Municipality) parking requirement for residential, office, and other uses. However, with the passage of time, the primary potential limitation of usability of the Anchorage utilization study is its age. If vehicle ownership, availability, and usage patterns have changed since the late 2000s, the study would be primarily historical in nature. Limitations to the Title 21 Parking and Site Access amendment project scope and resources, and the onset of the COVID-19 pandemic in early 2020, limited opportunities for updating the Anchorage parking utilization study. In lieu of re-doing or partially updating the local parking study, the project team sought to determine if vehicle ownership, availability, and utilization has changed since the late 2000s, or if it has been stable. If stable, the 2000s survey would still be usable.

Most recent available data from the U.S. Census and Alaska Department of Motor Vehicles (DMV) showed that vehicle ownership from the time of the residential parking utilization study has remained steady over time. The most recent available U.S. Census data was primarily from the American Community Survey (ACS) 5-year summaries. The 2019 ACS 5-year summary data covers the period of 2015-2019. Staff compared this to the 2010 ACS 5-year summary data which covered 2006-2010, which was the general period of the extensive local Anchorage parking utilization study. Data from the 2020

Census was unavailable when staff was conducting project research. Comparisons to updated national parking utilization studies also provided context as a secondary data source. These updated sources indicated that the findings of Anchorage parking utilization study were likely still relevant and remained useful as a starting place in determining parking utilization, for the purposes of the limited scope of the reform to area-specific parking requirements. The following subsections document the findings from the DMV and U.S. Census data.

Vehicle Ownership Rate: Trend from 2008 to 2020

Vehicle registration data is available from the Alaska DMV. In 2008, the total number of vehicle registrations[1] within the Anchorage Municipality was 253,528. In 2020, the total number of vehicle registrations within the Anchorage Municipality was 253,204. Vehicle registrations have remained steady with a slight decrease from the late 2000s to present day.

Estimates of the number people of driving age (aged 15 years or older) have also remained relatively steady with a slight increase over the last decade. The U.S. Census 5-Year American Community Survey (ACS) estimates are approximately 223,000 people aged 15 years or older in 2010 for the Anchorage Municipality and approximately 233,097 people aged 15 years or older in 2020 for the Anchorage Municipality. This means that the rate of registered vehicles per driving-aged person has remained steady with a slight decrease from the late 2000s to 2010, with a change from approximately 1.14 vehicle registrations per person aged 15 years or older in the late 2000s to approximately 1.09 vehicle registrations per person aged 15 years or older in 2020. Appendix A shows the original data from the Alaska DMV.

U.S. Census collects data on vehicle ownership by housing tenure. This data can be used to evaluate vehicle ownership trends as well as different patterns in vehicle ownership among renters vs. owners, older vs. younger people, etc. Vehicle ownership data for occupied households within the Anchorage Municipality from the U.S. Census 5-Year American Community Survey (ACS) estimates from 2010 and those for 2019 show generally steady numbers with a slight increase in the number of vehicles available per occupied housing units. The aggregate number of vehicles for all occupied housing units within the Anchorage Municipality was 189,927 vehicles in 2010 and 191,745 vehicles in 2019. When converted to a rate, this equates to approximately 1.81 vehicles per occupied household in 2010 and **1.85** vehicles per occupied household in 2019, according to U.S. Census 2019 ACS 5-Year data[2].

Table 1-1 estimates household vehicle ownership for renters and owners. Table 1-2 converts these numbers into a percentage for ease of comparison. Renting households are more likely to have no vehicle or 1 vehicle compared to owner households. Owner households have greater percentages of 3 vehicles, 4 vehicles, or 5 or more vehicles.

[1] Registrations included were for passenger and pickup vehicles. Registrations for motorcycle, commercial trailer, trailer, commercial truck, bus, or snowmobile were not included in the total registrations considered for 2008 or 2020.

[2] This may be slightly undercounting car ownership since households with 4 or more vehicles were assumed to own 4 vehicles in this calculation. However, they may have more than 4 vehicles.

Table 1-1. Vehicle Ownership for Renters and Owners within the Anchorage Municipality: 2010 and 2019

Aggregate number of vehicles available	2010	2019	Change
Owner occupied	64,368 households	65,367 households	+1,000 households
No vehicle available	2.2%	2.2%	0%
1 vehicle available	23.9%	23.5%	- 0.4%
2 vehicles available	46.0%	45.1%	- 0.9%
3 vehicles available	19.8%	19.7%	- 0.1%
4 vehicles available	6.1%	6.8%	+ 0.7%
5 or more vehicles available	2.0%	2.7%	+ 0.7%
Renter occupied	39,947 households	41,200 households	+1,253 households
No vehicle available	12.0%	12.2%	+ 0.2%
1 vehicle available	47.6%	44.0%	- 3.6%
2 vehicles available	32.4%	33.5%	+ 1.1%
3 vehicles available	5.9%	8.0%	+ 2.1%
4 vehicles available	1.5%	1.4%	- 0.1%
5 or more vehicles available	0.6%	0.9%	+ 0.3%

Source: Table B25044 U.S. Census American Community Survey 2019 and 2010 5-Year Estimates

Table 1-2. Vehicle Ownership Rates for All Households within the Anchorage Municipality: 2010 and 2019

	2010[1]	2019[2]
Total occupied households	1.81 vehicles per household	1.85 vehicles per household
1-person household	1.09 vehicles per household	1.13 vehicles per household
2-person household	1.87 vehicles per household	1.90 vehicles per household
3-person household	2.09 vehicles per household	2.21 vehicles per household
4-or-more-person household	2.25 vehicles per household	2.33 vehicles per household

Source: Table B08201 U.S. Census American Community Survey 2019 and 2010 5-Year Estimates

In summary, the DMV car registration data and U.S. Census vehicles-per-household data indicates that vehicle ownership rates have remained relatively steady since the extensive Anchorage survey of on-site parking counts collected in the late 2000s, increasing by approximately 2 percent. These sources suggest that the local parking utilization data collected in the late 2000s is likely representative of residential parking utilization and relevant as a data source for estimating parking utilization as of the year 2020. A 2 percent upward adjustment of the Anchorage utilization parking counts could help account for the apparent increase in vehicles available per household overall.

Trends in Commute Trip Mode Share

The project team also researched trends in trip mode share since 2010. U.S. Census data table B08541 estimates the means of transportation to work for workers 16 years and over in households. Table 1-3 converts these numbers into a mode share, which gives the percentage of people who used the mode of transportation. Most commuters travel mode was to drive alone. The ACS 5-Year data for 2010 and 2019 shows a decrease in the mode share of solo drivers and carpooling drivers and an increase in mode

share for worked from home and for taxicab, motorcycle, bicycle, or other means. The share of workers who drove alone also slightly increased. Overall, there does not seem to be a major change in mode share between 2010 and 2019. The ACS mode share data, like the vehicle registration and vehicle ownership data, points to stability in vehicle utilization trends since 2010, when the Anchorage parking utilization study was completed.

Table 1-3. Mode Share of Workers 16 Years and Over within the Anchorage Municipality: 2010 and 2019

	2010 Mode Share	2019 Mode Share
Car, truck, or van - drove alone	76.6%	77.3%
Car, truck, or van – carpooled	13.6%	11.8%
Public transportation (excluding taxicab)	1.4%	1.3%
Walked	2.1%	2.1%
Taxicab, motorcycle, bicycle, or other means	3.1%	3.7%
Worked from Home	3.3%	3.7%

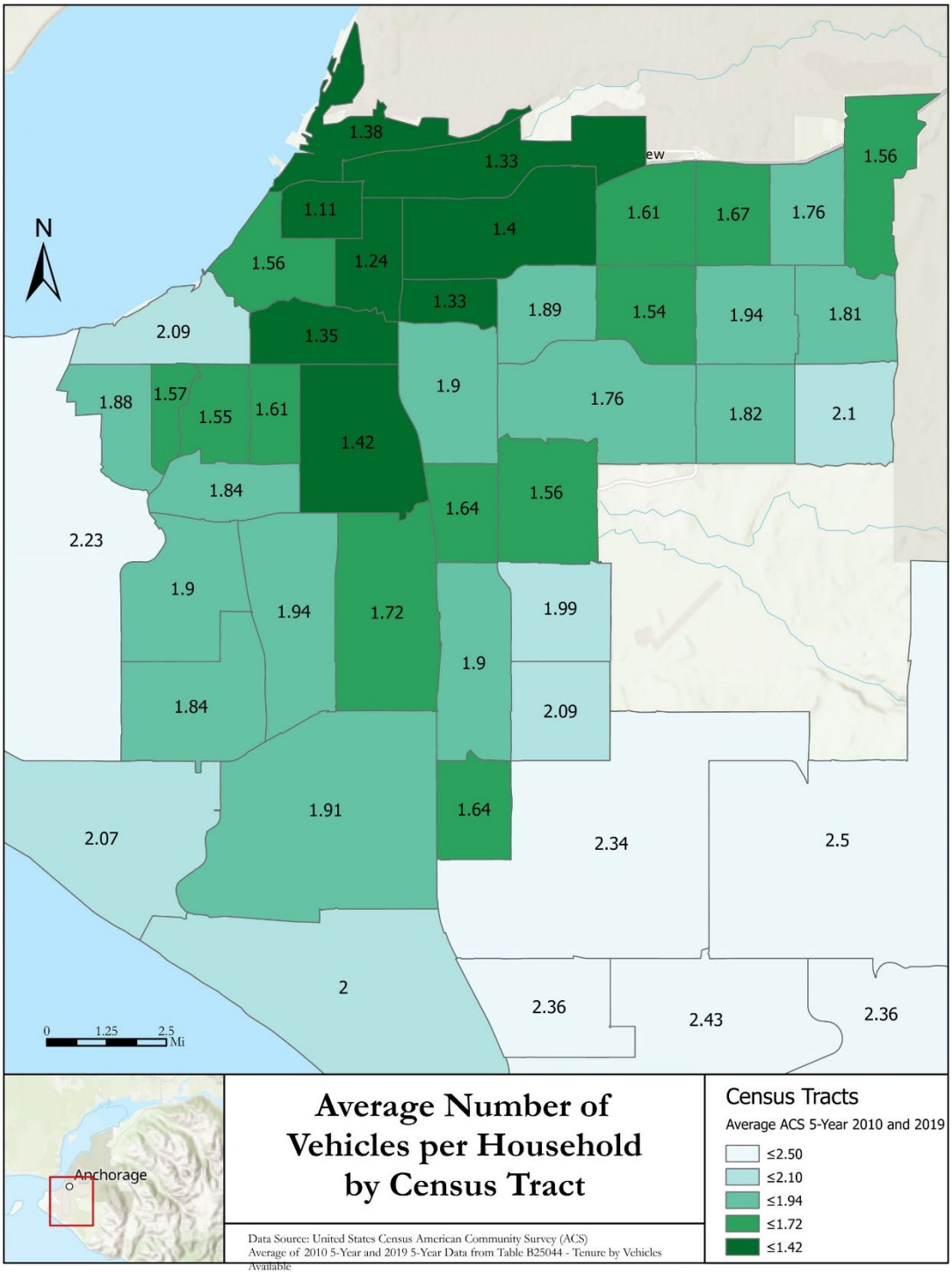
[1] Table B08541 U.S. Census American Community Survey 2019 and 2010 5-Year Estimates

Geographic Differences in Parking Utilization and Vehicle Ownership

Vehicle ownership has local geographic variations within Anchorage. The project team explored was whether there have been area-specific changes in vehicle ownership or utilization rates since 2010, such that the lower vehicle ownership and parking utilization rates that provided a basis for the Current Title 21 area-specific parking reductions have changed significantly.

The project team extracted the percentage of households without a vehicle or with 0 or 1 vehicle available in each of the 55 census tracts within the Anchorage Municipality. The census tracts with the highest percent of households with no vehicles are West Fairview (Census Tract 10) and Downtown Anchorage with 26.9% and 23.6% of household having no vehicle available. Those two census tracts also have a high percentage of households with 0 or 1 vehicle available: 81% for West Fairview and 75.6% for Downtown Anchorage. The following census tracts have over half of households with 0 or 1 vehicle available: West Fairview (Census Tract 10), Downtown Anchorage (Census Tract 11), Mountain View/Ship Creek (Census Tract 6), Chester Creek (Census Tract 9.02), Government Hill (Census Tract 5), Fireweed (Census Tract 14), Merrill Field Vicinity (Census Tract 9.01), Northeast Muldoon (Census Tract 7.03), Midtown (Census Tract 19), Spenard (Census Tract 20), East Turnagain/Fish Creek (Census Tract 22.02), Campbell Park East (Census Tract 18.02), Northwood (Census Tract 24), and Woodland Park/Spenard (Census Tract 21).

The aggregate number of vehicles also tends to be lower in areas with fewer vehicles per household. Downtown Anchorage (Census Tract 11) has only 427 aggregate vehicles available to occupied households. West Fairview (Census Tract 10) has 1,651 aggregate vehicles available to occupied households. In contract, Lower Eagle River Valley (Census Tract 2.03) has 8,155 aggregate vehicles available to occupied households. In general, census tracts with higher percentages of households with 0 or 1 vehicle tended to have lower numbers of aggregate vehicles as well.



Existing Parking Utilization Rate: Urban Neighborhood Contexts

The most effective method for determining existing parking utilization in a community is to count the number of vehicles parked a regular, recurring peak parking demand periods as well as other periods of the day, for a survey sample of developments across the community.

The Municipality of Anchorage Planning and Traffic Engineering Departments conducted a substantial parking utilization study of the late 2000s that included approximately 50 multifamily and site condominium residential developments in the Anchorage Bowl and Chugiak-Eagle River. This study was able to determine the 50th and 85th percentile peak period parking utilization rates for several important use types including residential multifamily, which became a basis for the area-wide minimum parking requirements in use under Current Title 21.

The Anchorage parking utilization study used the parking count methods of the Institute of Transportation Engineers (ITE). In summary, these rules included:

- Selecting a broad range of study sites across the geographic study area, and obtaining the permission and participation of property owners
- Defining the times and duration of the parking counts, including the peak parking period for the use type, in part through exploratory parking surveys
- Determining the use characteristics, such as the number of dwellings and bedrooms per dwelling unit
- Obtaining the occupancy (vacancy) rate of each study site
- Counting all parking associated with each study site, including on-site, in garages, and off-site on shared or remote lots or on-street curb parking.
- Conduct the count visually, usually through field observations.
- Vehicle counts do not include trailers, trash compactors, or other non-vehicle objects that consume a parking space.
- Vehicle counts do include illegally parked vehicles, parked motorcycles, and vehicles parked off-site such as nearby on the street curb.

For the present Title 21 Parking and Site Access amendment project, the staff team identified and extracted the parking counts for 25 multifamily sites from the former study that were in the proposed urban neighborhood development contexts, in order to isolate the parking utilization rates from those areas.

Parking Utilization in Traditional Urban Neighborhoods.

The parking utilization study results for approximately 10 sites located in the proposed Traditional Urban Neighborhood Development contexts appear below. The study found that, in round numbers, the existing peak-period parking utilization rate at all but one of the sites was significantly less than the minimum by-right parking requirement in Title 21. The average peak parking utilization as a percentage of the minimum parking requirement, when weighted by number of dwellings per development, is approximately 70 percent. This means that the very minimum number of parking spaces required by Title 21 is 30 percent more than the average peak-nighttime parking utilization rate of developments in the urban contexts—i.e., 30 of every 100 parking spaces being required in the urban contexts is, on average, never used. The parking utilization rate is even lower during the other six evenings of the week. In recognition of this lower area-specific utilization, Current Title 21 gave the Traffic Engineer and

Planning Director the discretion to approve an administrative reduction of up to 25 percent. However, as discussed in Section 2.1. below, few applicants request the area-specific discretionary parking reduction.

Table 1-4. Peak-Period Parking Utilization (2007-2009) as a Percentage of Required Parking Spaces (1): Multifamily Developments in Traditional Urban Neighborhood Context Areas

Development	Dwelling Units	Total Required Parking Spaces	Total Parked Vehicles	Peak Parking Utilization as a Percentage of Required Spaces (2)
901 Medfra Street	8	13	7	71%
900 Medfra Street	4	7	7	110%
230 West 10th Avenue	6	8	5	68%
232 West 10th Avenue	6	7	6	88%
929/939 West 12th Avenue	12	13	8	62%
4211 Mountain View (4)	14	12	7	56%
Subtotal (6 smaller sites)	36	48	33	69% (3)
City View I	91	108	48	46%
Park Plaza I	102	119	110	79%
Park Plaza II	100	120	91	77%
The Outlook	65	80	64	81%
Total (including larger sites)	394	475	346	73% (3)

Table Notes:

(1) Parking Requirement under Current Title 21 (as of 2022).

(2) Peak Parking Utilization as a Percentage of Total Required Spaces is adjusted upward to account for vacancy/occupancy rate. Occupancy rate sometimes varied from week to week during the study.

(3) Weighted average based on number of dwellings in each development.

(4) Parking requirement for Mountain View Mixed-use is adjusted downward by 25% to account for the as-of-right parking reduction for affordable housing that would apply to this development under the proposed Title 21 amendments.

Census Tract data regarding the average number of vehicles available per household seem to corroborate the lower utilization rate found in the Anchorage parking utilization study. Census Tracts mostly or wholly within the proposed Traditional Urban Neighborhood Context areas have a significantly lower number of vehicles available per household than the citywide average of 1.85 vehicles per household (Table 1-2 above). The six Census Tracts making up Fairview, Mountain View, Government Hill, and South Addition (pictured on the map on page 6) have average numbers of vehicles per household of 1.24, 1.33, 1.33, 1.38, 1.40, and 1.56 vehicles per household, or between 67% and 84% of the citywide average.

Parking Utilization in Edge Urban Neighborhoods.

The parking utilization study results for approximately 17 sites located in the proposed Edge Urban Neighborhood Development contexts appear below. This table also includes three sites in the Transit-Supportive Development Corridors just outside of the Edge Urban Neighborhood Development Contexts. It also includes two sites located just inside a proposed Traditional Urban Neighborhood Development area next to the Edge Urban area boundary, Park Plaza I and II on 16th Avenue.

As with the Traditional Urban Neighborhood Development Context sites above, the study found that, in round numbers, the existing average peak-period parking utilization rate for the Edge Urban sites was significantly lower than the area-wide minimum parking requirement—an average of approximately 80 percent of the required number of spaces when weighted by number of dwellings per development. This means that, for every 100 parking spaces required by Title 21, on average 20 spaces will be unused even on the busiest night of the week.

Table 1-5. Peak-Period Parking Utilization (2007-2009) as a Percentage of Required Parking Spaces (1): Multifamily Developments in Edge Urban Neighborhood Context Areas

Development	Dwelling Units	Total Required Parking Spaces	Total Parked Vehicles	Peak Parking Utilization as a Percentage of Required Spaces (2)
805 West 23rd Avenue	6	8	6	75%
1082 West 26th Avenue	21	28	19	72%
Admirals Cove	180	288	235	83%
Arbor Pointe	20	23	20	87%
Bragaw Square (Site Condo)	52	109	111	107%
Brighton Park (4)	80	129	89	69%
Buttercrest (Site Condo)	12	20	15	81%
The Club Apartments	288	318	220	75%
Duben Place	16	30	24	81%
Eastridge A Condominiums	108	173	175	104%
La Maisonette	40	57	44	81%
Ladera Villa	55	83	47	56%
Park Plaza I	102	119	110	79%
Park Plaza II	100	120	91	77%
Taiga Twins	60	82	43	53%
Town Square Manor	90	139	109	79%
Woronzof Tower	34	45	29	64%
Total (Average)	1,264	1,771	1,387	78% (3)

Table Notes:

(1) Parking Requirement under Current Title 21 (as of 2022).

(2) Peak Parking Utilization as a Percentage of Total Required Spaces is adjusted upward to account for vacancy/occupancy rate. Occupancy rate sometimes varied from week to week during the study.

(3) Weighted average based on number of dwellings in each development.

(4) Parking requirement for Brighton Park is adjusted downward by 25% to account for the as-of-right parking reduction for affordable housing that would apply to this development under the proposed Title 21 amendments.

As with the Traditional Urban Neighborhoods, U.S. Census Tract data regarding the average number of vehicles available per household seem to corroborate the lower utilization rate found in the Edge Urban Neighborhoods. Census Tracts mostly or wholly within the proposed Edge Urban Neighborhood Context

areas trend toward a lower number of vehicles available per household than the citywide average of 1.85 vehicles per household (Table 1-2 above, as pictured on the map on page 6).

Non-Residential Parking Utilization Rates

Data from the Anchorage parking utilization study provided was more limited for non-residential uses, and primarily focused on office, restaurant, industrial, and grocery store uses. The project team extracted the parking utilization study results for eight office and medical office sites located in the proposed Edge Urban Neighborhood Development Context for which the gross floor area was readily available and applied an assumed occupancy rate of 90% to each site except 94% at Denali Towers. Parking counts were taken during daily peak parking utilization periods for these use types as suggested by ITE, primarily during mid-morning and mid-afternoon for office/medical office uses.

Table 1-6. Peak-Period Parking Utilization (2007-2009) as a Percentage of Required Parking Spaces (1): Commercial Developments in Edge Urban Neighborhood Development Context Area

Developments	Gross Floor Area	Total Required Parking Spaces	Total Parked Vehicles	Peak Period Parking Utilization as a Percentage of Required Spaces
Medical Offices (Lake Otis vicinity)				
Lake Otis Medical Plaza	115,956	387	292	84%
Lake Otis Professional and Medical Center	33,190	111	57	57%
Orthopedic Physicians Anchorage	64,366	214	140	73%
Alaska Women's Health Services	14,290	48	36	84%
Commercial Offices (Midtown vicinity)				
3000 C Street	109,569	365	220	67%
Northrim Bank	83,530	278	180	72%
Denali Towers	175,380	584	385	70%
2600 Cordova St.	15,182	51	75	165%

Table Notes:
(1) Parking Requirement under Current Title 21 (as of 2022).
(2) Peak Parking Utilization as a Percentage of Total Required Spaces is adjusted upward to account for occupancy rate.
(3) Weighted average based on the size (measured in number of required parking spaces) of each development.

Unweighted averages among the study sites shown in the table suggest an average peak period parking utilization of 84% of the Current Title 21 parking requirement for medical office and office uses, or 75% after removing the highest and lowest outlier sites (one of which being a smaller office with 165%). The limited sample size and range of use types covered creates a large margin of error for these findings. However, the limited findings do indicate a pattern of lower parking utilization in the Edge Urban Neighborhood that resembles that of the residential multifamily uses in the Edge Urban Context.

Most commercial uses in the Traditional Urban Neighborhood Context are concentrated along the Gambell-Ingra corridor in Fairview and on Mountain View Drive. The remainder are generally

neighborhood-scale developments in isolated business districts in South Addition and Government Hill. These locations suggest a lower parking requirement to non-residential uses in the Traditional Urban Neighborhood Context areas than in the Edge Urban Neighborhood Context areas in the employment centers in Midtown and U-MED.

1.2. Step 2: Forecast the Future Parking Utilization Rate

Having estimated the existing parking utilization rate, the analysis' second step is to develop a forecast of the future baseline parking utilization rate. This involves setting the target year for the parking requirement. If Anchorage's policy were that the parking requirement should match current/historical parking utilization, then there would be no need to adjust the parking requirement. However, if Anchorage's policy is to be forward-looking and recognize trends, the appropriate decision is to base parking requirements on the expected parking utilization in a defined future target year/timeframe. This latter policy choice is less concerned about the potential for a modest undersupply of parking on the opening day of a near-term development because that is compensated by the advantage of building less parking that is better matched for most of the building's life cycle.

Once the target date is determined, the main task is to assess future trends that seem most likely to affect parking utilization rates for that timeframe. Adjusting the "existing" parking utilization data from section 1.1 to account for future trends in travel behavior is important in context of this amendment project because the U.S. Census data that supports the "existing" parking utilization data in section 1.1 was collected before the COVID-19 pandemic. The pandemic sped up trends toward telecommuting, remote online meetings, and bicycling for necessary trips. But it also affected public transit ridership.

These trends should support a guesstimate percentage reduction from existing/historical parking utilization. This is the percentage reduction factor to apply to the existing parking utilization rate estimated in step 1 (Section 1.1 above), to create a future baseline parking utilization rate.

Target Year

There are several considerations for setting how far into the future the parking requirements should anticipate. These can include:

- Expected life span of building construction, expansions—this consideration could support a long-term futures perspective.
- Level of certainty about trends—if the factors that affect future parking utilization are unstable or difficult to predict, a more short-term futures perspective may be appropriate.
- The neighborhood or district's level of tolerance and capacity to address spillover parking in the near-term—considerations include how much supply of public or on-street parking there is, and if there is management and enforcement on-street parking behavior to protect street maintenance, access, and pedestrian facilities. Rights-of-way may have more capacity for informal on-street parking in traditional urban neighborhoods than in edge urban neighborhoods.
- The expected rate of urban transformation to denser, mixed-use development patterns with higher levels of transit service and year-round pedestrian facilities—if the city's rate of growth or transformation will take decades, with changes primarily occurring gradually via infill development and individual transportation facility improvements, a more distant future target year could lead to more parking spillover problems to manage for a longer interim period.

- Community plans and desired development types—Anchorage's most recent group of adopted *Comprehensive Plan* elements call for meeting development goals over a 20-year timeframe, generally to the year 2040 or shortly beyond.

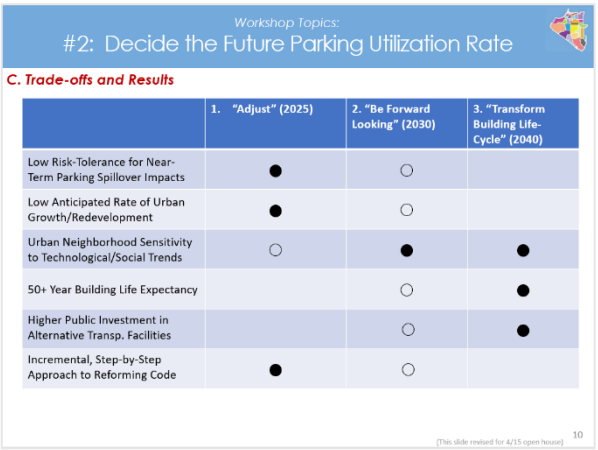
During the public process for the Title 21 Parking and Site Access update, participants at public meetings and in the online questionnaire supported a forward-looking approach. In Attachment 6.2 in the April 11 case packet, the meeting summaries for the March 31 and April 29, 2021, workshops documents support for looking at least a decade ahead, or even further. The Survey Questionnaire Results, also documented in Attachment 6.2, respond to the following questions:

- Question 2: How much forward-looking should the urban neighborhood parking requirements be? Half of respondents supported being more forward looking such as to 2030. One-third of respondents supported a shorter time frame, such as to the year 2025. A little more than 10% supported reflecting current parking utilization levels.
- Question 2a: What should be Anchorage's risk tolerance for addressing any parking spillover impacts in the near term? Two-thirds of respondents supported accompanying forward-looking reductions with changes to street-management practices and other strategies to mitigate near-term parking spillover. One-fourth of respondents supported just reducing the parking requirement to future, lower utilization levels and dealing with any parking spillover problems case-by-case as they arise. A little more than 10% supported avoiding near-term spillover problems by setting parking requirements to current or near-term parking utilization levels.

The responses in the questionnaire and public meetings reflected the range in responses received in stakeholder and agency consultation meetings. Some members of the public advocated for a long-term, visionary approach, while other members of the public raised concerns about limited capacity and management of on-street parking in their neighborhood or operational areas.

- Support for forward-looking regulations anticipating lower parking demand in future.
- Technological changes in AVs and telecommuting etc. will reduce parking demand.
- Some comments suggested looking up to 15 years into the future, others less.

In the case of Anchorage, the forecast slow rate of growth and change, the state of Anchorage's ROW design and management, and the range of public feedback expressing some level of concern for near-term parking spillover support a forward-looking parking requirement but with a relatively near-term target date. Vehicle ownership and trip mode share data from the Census do not indicate there has been a substantial reduction in single-occupancy vehicle travel or parking in progress, at least prior to the pandemic, and the project has a high level of uncertainty about future trends. Setting the target date too far into the future, such as 2040 or 2050, could lead to near-term parking spillover for which there are limits to tolerance or capacity to manage. The workshop slide at right indicates the kinds of factors that staff considered.


Workshop Topics:
#2: Decide the Future Parking Utilization Rate

C. Trade-offs and Results

	1. "Adjust" (2025)	2. "Be Forward Looking" (2030)	3. "Transform Building Life-Cycle" (2040)
Low Risk-Tolerance for Near-Term Parking Spillover Impacts	●	○	
Low Anticipated Rate of Urban Growth/Redevelopment	●	○	
Urban Neighborhood Sensitivity to Technological/Social Trends	○	●	●
50+ Year Building Life Expectancy		○	●
Higher Public Investment in Alternative Transp. Facilities		○	●
Incremental, Step-by-Step Approach to Reforming Code	●	○	

(This slide revised for 4/15 open house)

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Therefore, this project suggests a five- to ten-year time horizon of 2028-2032 for a baseline future parking utilization rate in the urban neighborhood contexts. This somewhat conservative approach seems appropriate given the factors above, in-scale with the scope of this Title 21 amendment project, and in context of anticipated future opportunities to reform municipal street management and zoning regulations as next steps in the coming years.

Trend Factors

In the early public workshops and the online questionnaire, the project team members asked participants for feedback on trend factors, and a set of three scenarios for how much those factors would change parking utilization. The three scenarios were to guestimate relative impacts over three alternative time horizons:

- "Adjust" (2025)
- "Be Forward Looking" (2030)
- "Transform/Building Life-Cycle (2040)

A slide depicting some trends and their relative impacts on parking utilization was presented:

Workshop Topics:

#2: Decide the Future Parking Utilization Rate

B. Alternative Scenarios for Deciding the Future Percentage Reduction in Utilization

Trend Factors	1. "Adjust" (2025)	2. "Be Forward Looking" (2030)	3. "Transform Building Life-Cycle" (2040)
Muni. Transportation/Land Use Plans			↓↓
Denser, Mixed-use Development Trends		↓	↓↓
Changes in Intensity of Building Occupancy	↑	↑	↑
Demographic/Household Changes	↓	↓↓	↓↓↓
Cultural/Generational Preferences	↓	↓↓	↓↓↓
Public Transit/Nonmotorized Transportation		↓	↓↓
Ride-Hailing/Carsharing/AV Services	↓	↓↓↓	↓↓↓↓
Road Congestion as a Travel Disincentive			↓
Telecommunication Replacing Travel	↓↓	↓↓↓	↓↓↓↓
Sum of All Factors	*- 5% ?*	*- 10% ?*	*- 20% ?*

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The up and down arrows summarize the Planning staff assessment of how much these factors would be expected to affect parking utilization within the timeframes. Highlights include:

- Municipal transportation and land use plans indicate a policy direction but will take time to implement, so will affect rates only in the longer term.
- Denser, mixed-use development patterns will begin to have a minor effect in the 2030 horizon, given Anchorage's anticipated moderate growth rate.
- Changes in the intensity of building occupancy, such as rental apartments, will have a minor upward impact.

- Demographic/household changes such as declining household sizes and increasing average age will have a minor effect in the 5-year horizon and an increasing effect within 10 years.
- Public transit/Nonmotorized transportation will begin to have an effect within 10 years. This may underestimate the effect of increased bicycling, but the cultural/generational preferences factor in the table accounts for some of the expected impact of preference for car-free lifestyles.
- Ride-hailing, car-sharing programs, and autonomous vehicle services will have a minor effect within 5 years but a significant effect in the 10-year horizon.
- Road congestion as a disincentive to driving will not be a factor until the long term.
- Telecommunication replacing travel is having a moderate effect that will continue to increase.

Another factor more specific to Anchorage is whether parking management and pricing will occur in Anchorage, and whether snow removal strategies can be coordinated with on-street parking and pedestrian access.

Considering the factors above, the Planning staff recommends applying a 10-year (2032) time horizon forecast of a 10% decrease in parking utilization in traditional urban neighborhoods, and a 5-year (2028) time horizon forecast of a 5% in parking utilization in the edge urban neighborhoods, because of future trends.

Table 1-7. Future Parking Utilization Rate

Neighborhood Contexts:	Existing Peak Parking Utilization as a Percentage of Current Title 21 Required Spaces	Future Utilization Reduction Percentage Factor (Estimate)	Future Peak Parking Utilization Rate as a Percentage of Current Title 21 Parking Requirement
Traditional Urban	73%	10%	**65.7%**
Edge Urban	78%	5%	**74.1%**

As a result of the future utilization reduction factors, in the table above, staff believes there is a basis for setting area-specific lower parking requirements as follows:

Table 1-8. Recommended Area-Specific Parking Requirement, as a Percentage of Current Title 21 Parking Requirement

	Policy Options for Area-Specific Parking Requirements:	
Neighborhood Contexts:	Area-specific Parking Requirements Based on Historical/Current Parking Utilization Levels	Area-specific Parking Requirements Based on Anticipated Future Parking Utilization Levels
Traditional Urban	70%	**65%**
Edge Urban	80%	**75%**

These numbers are not so much a certain prediction as they are a tool for considering anticipated future changes to parking utilization relative to Current Title 21 parking requirements. This analysis finds that the right-hand column is most responsive to public feedback and adopted planning goals. Project staff believe that this estimate of change is conservative enough to avoid significant parking spillover, even during the peak parking hours of the week, for a majority of uses.

1.3. Step 3: Determine the Basis for Measuring the Utilization Rate for Purposes of Setting Parking Requirements

Once the future baseline parking utilization rate is estimated, the third step is to make decisions involved in translating the expected future baseline utilization into a minimum parking requirement. There are two elements in the decision about the basis for the rate:

1) Whether to consider the day of the week or seasonal peak utilization periods or typical utilization levels
2) Whether to select the "worst case" (highest level) utilization rates from all the available development sites or use an average or percentile values from those data sources.

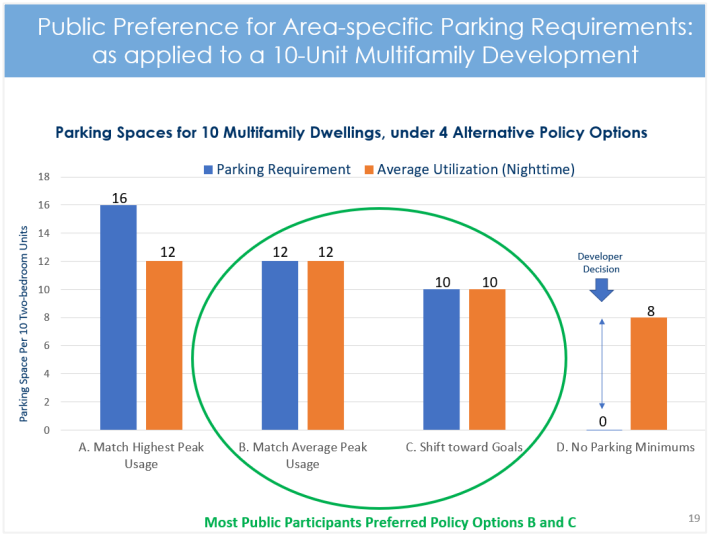
For example, if Anchorage wants to be sure that parking utilization will not ever exceed the required supply, it will base its parking requirements on measurements of utilization on the peak time of day, day of the week, and seasonal period for the land use, and it would select among the data sources the sites with the highest measured peak utilization.

Type of Peak Parking Utilization Period

The general approach of Title 21 parking requirements has been to use weekly or daily peak utilization periods. For example, Section 1.1 above focuses on the weekly peak parking utilization rate found on Sunday nights for multifamily uses, and weekday morning/afternoon peak parking utilization for office uses. This approach ensures that the parking requirements consider the regular day-to-day or week-to-week peak parking utilization. This approach reflects public comments concerned about parking spillover.

Method of Aggregating Observations

The general approach here is to use rates that represent the average of the data sources available, rather than picking the highest or 85th percentile site or data source. This helps avoid over requiring parking for most developments.



This method of aggregating parking counts represents a policy choice. It seeks to accommodate the existing peak period parking utilization rate at 50% or more of developments, rather than require so much parking that it accommodates peak utilization at all or nearly all (85%+) establishments. For example, some restaurants are more successful than others. Some residential apartment complexes offer lower-rent units than others. The chosen method uses the peak period utilization rate for the *average* restaurant or apartment. Public comments received support this policy direction, as documented in Attachment 6.1 (slide above) Attachment 6.2 meeting summaries for the April 29 and June 29, workshop summaries. This basis for measuring the utilization rate is reflected in Tables 1-7 and 1-8 at the end of Section 1.2.

Section 2: Site-Specific Parking Reductions

2.1. Assessment of Individual Parking Reduction Strategies

Section 1 outlined the steps for determining the baseline parking utilization rate for establishing a minimum parking requirement in urban neighborhood contexts. The next steps involve site-specific project adjustments, or *reductions*, to the parking requirement. These adjustments are specific to the expected characteristics of the development site, its site location, or parking management strategies that property owners may carry out.

This section evaluates the various kinds of strategies that property owners and developers can take to reduce motor vehicle parking utilization rates on individual development sites. It summarizes research findings regarding each type of strategy and serves as technical justification for the recommended menu of strategies available in Title 21 that developments may employ for entitlement reductions in required parking. Its assessment of the potential parking reduction strategies and measures in context of Comprehensive Plan goals and policies reviewed in Section 1 supporting economic growth, housing opportunities, and neighborhood quality of life through infill, redevelopment, pedestrian-oriented development patterns, and more efficient use of urban zoned land and public infrastructure.

This section describes strategies and measures that encourage alternative transportation options for making trips between land uses. These tools make it easier and more advantageous for individuals to take advantage of transportation options to shift trips from driving alone in single-occupancy vehicles to shared vehicles and public transportation, walking and bicycling, or other more efficient trip choices.

These are strategies under the control of the property owner for a development project that reduce the rate of parking space utilization and AMATS Vehicle Miles Travelled by residents, tenants, employees, and visitors to the development site. Title 21 Section 21.07.090F. refers to these strategies and measures as parking reduction and alternatives.

They are related and may overlap with the kinds of measures that may be included in Transportation Demand Management (TDM) per Title 21 Section 21.07.060. However, unlike Title 21 TDM requirements they are not intended to require a special review process or overall traffic impact analysis. Instead, they are used as individual or combined strategies to gain entitlement to parking reductions.

Selection of Parking Reduction Measures

The project team used a literature review, research of other cities' codes and studies, and research of local data and parking agreements to identify and assess the effectiveness of various parking reduction strategies.

The following subsections evaluate candidate parking utilization reduction measures by five categories: shared vehicle programs; active transportation (i.e., pedestrian amenities); parking pricing programs; housing-specific strategies; and shared and off-site parking facilities. It then evaluates a sixth category, which comprises desired development characteristics that, although not anticipated to directly reduce parking utilization, may be important enough to merit parking reductions.

Shared Mobility (Shared Vehicle) Programs

Shared vehicle programs encourage people to use a shared-occupancy vehicle or shared-ownership vehicle to make a trip. When vehicles are shared by more than one person, road congestion and parking space utilization rates fall. There are several different formats for shared mobility, including roundtrip (station- based), one-way (free-floating), peer-to-peer, or fractional ownership. This report recommends the following shared vehicle programs for selection to be a part of the updated menu of Title 21 parking reduction measures: rideshare (vanpool) programs, carpool programs, car-share programs, and public transit pass programs.

Carpool Program

A property owner or employer sponsors a carpool program that is available to all employees. The employees use their own vehicles rather than the program owning or leasing the vehicles for employees. The property owner or employer makes information regarding the availability of the carpool available to all employees. The carpool program helps connect employees who wish to participate. The property owner or employer provides designated parking spaces signed for exclusive use by participants in the carpool program and offers parking discounts if the site has unbundled (paid) parking. The employees in the carpool are responsible for the vehicle and financial cost of the carpool.

- Forecast Impact on Parking Utilization: Buffalo, NY, offers credit for 2% of forecast trips to the development site.
- Local Precedent: Current Title 21 includes carpool program as a parking reduction measure (AMC 21.07.090F.9.a.) and offers up to a 5% reduction in parking requirements. However, no Title 21 development project applicant has yet used rideshare programs to get a reduction in Title 21 parking requirements. The Anchorage Public Transportation Department no longer sponsors a carpool program. This project did not determine if employers in Anchorage sponsor their own carpool programs.
- Applicability and Practicality: Carpool programs would seem to have potential in Anchorage and be applicable to employers. These programs offer ease of implementation for employers, although it can incur direct costs to employees using their personal vehicles. Title 21 development review administration would rely on evidence or affidavits from the property owner that demonstrate how the development is incorporating the program.

These factors support retaining carpool programs as a parking reduction menu choice in Title 21 and allowing reductions of up to 2% of required parking spaces if the carpool program meets the description above.

Rideshare Program

The property owner or employer sponsors employee participation in a rideshare program, such as a vanpool. The rideshare program primarily provides service between the development project site and the rideshare users' homes. The rideshare program owns or leases the vehicles for employees to use and pays for the mileage and maintenance of the vehicles. The property owner or employer designates parking spaces that meet passenger loading zone accessibility standards for the exclusive use of the rideshare vehicles, and posts information about the rideshare program in a location that is visible to all employees. The property owner or employer provides a subsidy to participating employees to cover the cost to the employee of participating in the rideshare program.

- Forecast Impact on Parking Utilization: Several sources identify a reduction in Vehicle Miles Traveled and parking utilization rates for providing a rideshare program. There is no Anchorage local data on impact of rideshare program's impact on parking demand or VMT for participating employers. Research from CAPCOA report suggested a 1% to 7% reduction in VMT. Buffalo, NY, offers credit for 5% of forecast trips to the development site. Staff believes a 2% reduction in parking utilization could be expected, while a 5% reduction would be aspirational or a high-end forecast. Each rideshare vehicle/parking space could be expected to replace a number of parking spaces equal to the typical ridership in a vanpool vehicle, if all riders are leaving/arriving at the development site.

- Local Precedent: Current Title 21 includes vanpool as a parking reduction measure (AMC 21.07.090F.9.b.) and offers a 5% reduction in parking requirements. However, no Title 21 development project applicant has yet used rideshare programs to get a reduction in Title 21 parking requirements. The Anchorage Public Transportation Department has a longstanding rideshare program. Public Transportation currently contracts with the Enterprise Rent-A-Car Corporation to operate the program and contributes a portion of the cost per rideshare participant ($500 per month in 2020). As of the end of 2020, there were approximately 75 rideshare vehicles operate in this program. About 75% of the rideshare vehicles were for Joint-Base Elmendorf Richardson (JBER), and approximately 18 vanpools for other employers such as UAA, Providence Hospital, and ASD. Enterprise Rent-A-Car rideshare vehicles are not necessarily full-sized vans: the company right-sizes the vehicle to match the number of participants—i.e., rideshare does not necessarily mean a "vanpool". The Public Transportation Department and Enterprise Rent-A-Car intend to grow the rideshare program, as they see market growth potential and this more vanpools could increase federal grant funding for the public transportation system. Enterprise in 2020 hired a position to reach out to businesses and inform them of federal tax benefits.

- Applicability and Practicality: Rideshare is applicable to non-residential uses only. Its potential benefits extend to employers throughout the Municipality, not just in Downtown or urban neighborhood contexts. Rideshare usage has potential for expansion in Anchorage, at least among larger employers. Federal funding for the local Public Transit system (including bus service on 2040 LUP designated Transit-Supportive Development Corridors) could increase substantially if rideshare participation increases.

These factors support retaining the vanpool parking reduction in Title 21 while renaming it to the more inclusive term "rideshare." Available evidence would support allowing a nondiscretionary reduction of to 2% to 4% of required parking spaces reflecting actual site-specific impacts on parking utilization and VMT. However, allowing a 5% reduction would be more meaningful in Anchorage because most establishments and their parking facilities are relatively small and expansion of the local rideshare program supports increased federal funding for Anchorage's public transit.

Car-Share Program

Car share programs differs from traditional car rentals, carpools, or individual car ownership. In car sharing programs, the property owner offers memberships to an active car-share program (e.g., a company like ZipCar) to each household (one per household), group living resident, or employee, for the life of the development project, and provides on-site car-share parking spaces for the car share program/organization, which provides the car share vehicles located in these parking spaces.

Members of the car-share program are permitted to use vehicles from the car share program fleet on an hourly basis or even smaller time intervals. The car share vehicles are available for reservation and pick up by eligible members 24 hours per day. Reservation and pickup are self-service and not limited by the hours and location of traditional car rental facilities. Automobile insurance and maintenance are covered by the car share program. Individual members typically pay for usage and mileage fees.

- Forecast Impact on Parking Utilization: Several sources identify a reduction in Vehicle Miles Traveled and parking utilization rates for providing a car-share program, primarily in urban neighborhood contexts where public transportation and pedestrian trip choices complement car-share services as an alternative to owning a first or second car. Data shows that car sharing programs reduce vehicle ownership, mostly in single-car households becoming carless or two-car households becoming one-car households. Research from CAPCOA report suggested a 1% to 7% reduction in VMT. Buffalo, NY, offers credit for 5% of forecast trips to the development site. Current Title 21 offers a 5% reduction in parking requirements. A 2% reduction in parking utilization could be expected, while a 5% reduction would be aspirational or a high-end forecast.

- Local Precedent: Current Title 21 lists "car sharing" among its examples of "other eligible" parking management strategies that applicants might propose for a parking reduction subject to discretionary review and approval (AMC 21.07.090F.23.). However, Current Title 21 does not establish car sharing as a separate, individually described parking reduction strategy for which it allows a specific percentage parking reduction. It does not define car sharing, and car sharing does not have its own standards for approval in Title 21. There is no car sharing program yet in Anchorage. No local development project applicant has yet proposed a car-sharing service to get a Title 21 parking reduction.

- Applicability and Practicality: Car-share programs are most applicable to multi-dwelling and group housing residential developments in urban neighborhood contexts. Car share programs co-relate with a high density of households living within walking distance of shared car parking spaces: The higher urban density provides a resident market for the service; and the service supports higher density development by reducing need for parking spaces. Therefore, its potential is probably limited to the more urban, denser parts of Anchorage. Car-share programs are most likely to become feasible first in parts of Downtown, South Addition, Fairview, Spenard, North Star, and Midtown, as these areas redevelop with more housing.

  Larger housing developers in Anchorage are generally aware of car share programs. One of the larger apartment developers, Weidner Apartment Homes, has car-share in its South 48 developments, and in the past has indicated it as a possibility for incorporating into future housing projects in Anchorage. Other companies, such as U-Haul and Enterprise Rent-A-Car, are aware of this service and may be entering this type of market in the future. Car-sharing is a common service in parts of the U.S. with proven track-record for reducing rates of private automobile ownership, parking demand, and vehicle miles travelled. It is probably a matter of "when" not "if" car-sharing enters the Anchorage market. It would seem to be relatively easy to replace several parking stall with one car-share parking space on a development site. Offering memberships in a car-share program could be less costly than providing more re.

Including car-sharing in Title 21 now will help prepare Anchorage for car-sharing locally, and possibly encourage introduction of this service in the local market. The factors above support elevating car-sharing to become a parking reduction menu choice in Title 21 with a definition in the glossary and clear standards for approval and allowing nondiscretionary approval for reductions of up to 10% of required parking spaces for residential developments that provide car-share programs.

Public Transit Pass Benefit Programs

The property owner or employer proactively offers a monthly or annual contribution to each household, group living resident, and employee, equivalent to the full cost of a monthly (or 30-day) or Annual Pass on People Mover. For lodging (e.g., hotel) guests, the contribution is the equivalent to the cost of a Day Pass or Week Pass on People Mover. The property owner or employer offers the contribution continuously for the life of the development project. The recipient uses the contribution on public transportation purposes (i.e., People Mover fare). The property owner or employer provides information about the program to all residents, employees, and lodging guests.

- Forecast Impact on Parking Utilization: Several sources identify a reduction in Vehicle Miles Traveled and parking utilization rates for providing a free transit pass program. Research from CAPCOA report identifies a maximum 20% reduction in VMT, while a San Francisco-specific study indicated maximum 8% reduction in VMT for providing a public transit subsidy. Buffalo, NY, offers credit for one trip per free pass.

- Local Precedent: Current Title 21 includes "transit pass benefits" as a parking reduction measure (AMC 21.07.090F.10.) and offers up to a 5% reduction in parking requirements. A handful of employers in Anchorage participate in free transit pass programs. However, no Title 21 development project applicant has yet used free transit pass programs to get a reduction in Title 21 parking requirements.

- Applicability and Practicality: Free transit pass programs appear to be most relevant to larger multifamily developments, employers, and hotels, but could be used by smaller properties. Currently, annual, monthly, weekly, and daily transit passes are offered by People Mover, and free transit pass employee incentive programs are operational among employers in Anchorage. There is potential for expansion and broader applicability. Potential effectiveness for encouraging high participation rates and reducing parking utilization and VMT is greatest in urban contexts and transit-supportive development corridors with bus headways of 30 minutes or less.

The Public Transportation Department is preparing a study of taking the People Mover bus system fare-free. However, Public Transportation staff believes that the most likely action in the near-term would be to implement a reduced fare program for a specific group (e.g., youth, people with low income, or elders). Taking People Mover fare-free would create a funding gap that would need to be filled. This suggests that the current "U-Pass" program for employers to sponsor free transit passes for employees will continue to provide a basis for the Title 21 parking reduction for "Transit Pass Benefits." Employers who participate in the "U-Pass" pay an annual fee for all employees to ride free.

These factors support retaining the parking reduction in Title 21 for free transit pass programs in the urban Neighborhood Contexts and Transit-Supportive Development Corridors, where there is likelier to be stable, elevated levels of People Mover transit service. Available evidence would support allowing a reduction of to 8%-10% of required parking spaces.

Active Transportation (Pedestrian Facilities)

This category of strategies encourages active modes of transportation, including walking and bicycling. It includes pedestrian amenities to make walking and bicycling safer and more convenient. Encouraging trips by active modes can also encourage trips by public transportation, which incorporate a walking or bicycling portion at the beginning and end of the trip.

Bicycle Parking

- Forecast Impact on Parking Utilization: Literature sources rathe bicycle parking highly among the most effective kinds of parking utilization reduction strategies. Some studies indicate a direct correlation between perceived availability of parking and the likelihood of bicycling for trips. Reductions in the amount of parking range from 5% to 10% in the lower-medium range of examples. Many cities allow non-discretionary approval for up to a 10% reduction.

- Local Precedent: Current Title 21 allows a parking reduction for development projects that provide more parking spaces than required (AMC 21.07.090F.15.). There is no maximum percentage reduction specified in the code. Each motor vehicle parking space removed must be replaced by at least 6 bicycle parking spaces. Because the baseline bicycle parking requirement in Current Title 21 is so low (and for small developments is not required at all), extra bicycle parking has been a relatively easy option for developments to receive minor parking reductions. At least 9 commercial and 2 housing developments have utilized the bicycle parking reduction in Title 21—nearly all since 2018. All but one of these involved a parking reduction of only one motor vehicle parking space. Most resulted in only 1%-2% reductions, except that on several small sites the removal of only one motor vehicle parking space resulted in a 17% to 20% reduction in the total number of parking spaces.

- Applicability and Practicality: Bicycling continues to grow as a year-round alternative transportation choice among Anchorage residents. Winter cities in North America, Europe, and Japan demonstrate that bike technology and winter bicycle infrastructure maintenance can be a year-round viable transportation alternative. Parking reductions for additional bicycle parking is applicable to a wide variety of uses and sizes of development, and throughout the Municipality. It is appropriate for household living uses with four or more dwelling units but allowing a parking reduction of even one motor vehicle space for a home, duplex, or triplex would potentially eliminate parking spaces for a unit.

  Bicycle parking takes relatively little space and can be installed on converted automobile parking stalls or scattered into smaller areas. Long-term bicycle parking, which is sheltered, can be more costly to provide.

  Current Title 21 baseline parking requirements are very low. There is not enough bike parking required in the first place to accommodate or encourage bicycling to most developments in Anchorage. The baseline standard is so low (or not applicable at all) that it is too easy to meet the minimum bike parking threshold for receiving a parking reduction for providing “extra” bike spaces. Therefore, for the provision of additional bicycle parking to be effective as a motor vehicle parking utilization reduction strategy, there should be a greater amount of bike parking and sheltered bicycle spaces required as a generally applicable standard for most developments.

The evidence above supports strengthening the generally applicable baseline bicycle parking requirements in Title 21, including establishing a minimum bike space requirement (such as one U-rack) for most development projects, and increasing the number of required bike parking spaces in the urban Neighborhood Development Contexts. These changes help justify lower, area-specific automobile parking requirements.

Stronger baseline bicycle parking requirements can provide the basis for retaining and augmenting the motor vehicle parking reduction for providing additional bicycle parking and allowing non-discretionary approval for reductions of up to 10%--while continuing to allow a minimum reduction of one automobile parking space even if such exceeds 10% of the required spaces. Conformity with minimum bicycle parking requirements should become mandatory prerequisite to receiving a parking reduction for adding extra bike parking, even for adaptive reuse or expansions of older buildings that might be legal nonconformities.

There should be consideration for decreasing the number of bicycle parking spaces required to replace each one motor vehicle parking space, from 6 bike spaces to 4 bike spaces. 4 bike spaces (e.g., 2 U-shaped bike racks) could be considered to accommodate a fully occupied private automobile and would help incentivize the continued use of this parking reduction strategy available in Title 21.

Other Pedestrian Amenities in 21.07.060.

Key pedestrian amenities of interest for parking reductions include:

- **Public Transit Stop or Shelter** – Enhanced transit facilities can consist of bus shelters, seating, lighting or other improvements meeting municipal standards. They could also mean public use easements (PUE) to provide more space. These enhancements increase the comfort, convenience, and safety of transit riders.
- **Enhanced On-Site Walkways** – Wider walkways designed to improve pedestrian convenience, comfort, and accessibility with wider dimensions, "pedestrian features," and greater protection from vehicle parking and circulation.
- **Enhanced Street Sidewalks** – Wider sidewalks with streetscape enhancement to support higher levels of pedestrian activity, comfort, interest, and safety along the street frontage.
- **Site and Building Layouts that Welcome Pedestrian Access** – Sites with smaller front setbacks and parking facilities located beside, behind, or below the building (rather than in front of the building) in the site plan. Buildings that feature active uses or living spaces with windows and entries facing the street, rather than blank walls or garage-facades.

Following is a summary assessment of these amenities:

- Forecast Impact on Parking Utilization: Victoria Policy Institute documents that the built environment influences trip mode choices. Improved walking facilities also opens up opportunities for shared parking or walking between nearby destinations such within a business district.
- Local Precedent: Enhanced walkways and sidewalks are a listed density bonus incentive and design standards menu choice in current Title 21. Likewise, provision of a transit stop/shelter is a density bonus incentive and design standard menu choice in current Title 21 and references Public Transportation Department standards. Providing a PUE and a stop/shelter is also a mandatory

prerequisite in one of the other current parking reductions: Transit Pass Benefits. These amenities have not been used by applicants for a density bonus or a parking reduction. However, some developments may meet the standards for this enhanced form of pedestrian access, perhaps inadvertently. Public Transit Department supports incentivizing PUEs for public transit stops where needed by the People Mover system.

- Applicability and Practicality of Pedestrian Amenities: Pedestrian amenities could have merit as an option for requesting a minor parking reduction or helping to justify a parking reduction for another TDM measure, by emphasizing pedestrian access and comfort. Enhanced on-site walkways would be practical to provide in some cases, but not others. The current Title 21 standards for enhanced on-site walkways and street sidewalks may be impractical and confusing and they may overlap one another. Simplifying these standards and providing a non-discretionary (as-of-right) parking reduction for them may boost their usage by developers.
- Applicability and Practicality of Transit Amenities: An incentive for providing public transit stops is considered applicable and practical in Anchorage and addresses the need for space set-asides in some situations. Space for existing bus stops is needed along Anchorage ROWs that often do not have enough space for safe, comfortable pedestrian facilities next to the roadway. This would apply only in limited circumstances where there is a bus stop and more space or improvements are warranted. Where an applicant is requesting a parking reduction that is based on lower parking utilization rates and higher rates of pedestrian/transit access, and there is a need for more space for an adequate bus stop or bus shelter abutting the site, the provision of adequate bus stop facilities would contribute to transit ridership.

These factors support expanding the applicability of pedestrian and transit amenities for getting parking reductions beyond the existing Bicycle Parking and Transit Pass Benefits reductions. Consider carrying forward the current code's 2 percent parking reduction credit for developments that provide transit stops and providing a small parking reduction of 1 or 2 percent for pedestrian amenities described in Title 21 Section 21.07.060F., *Pedestrian Amenities*.

Parking Pricing Measures

Parking pricing measures are programmatic parking utilization management strategies rather than physical site features. These focus on encouraging trips made by other means than privately owned single-occupancy vehicles by making parking users pay the cost the parking stall. This creates the opportunity for an individual resident, employee, or site visitor to weigh the cost of parking against the cost of taking other transportation modes daily. Common parking pricing measures include: unbundling the cost of a parking space from the cost of housing or tenant space; providing a financial incentive as an alternative to a free parking space; or not providing free parking at all.

Unbundled Parking

Parking costs are not included in rental, purchase, or condominium fees. All accessory parking spaces are leased or sold separately from the rental or purchase fees for the residential dwellings and commercial spaces on the site. Residents or tenants have the option of renting or buying a parking space at an additional cost. They experience a cost savings if they opt not to rent or purchase parking. The rental or purchase of a parking space is at the discretion and direct cost of the tenant and buyer.

- Forecast Impact on Parking Utilization: Literature and studies indicate that unbundled parking is one of the more effective ways to reduce parking utilization and allow lower-income (carless) households a cost-savings from no longer having to subsidize parking spaces they don't use. Several sources identify a 4% to 13% reduction in VMT because of unbundled parking. Victory Policy Institute suggests a 5% - 15% parking reduction for unbundled parking, with 10% being a low starting place or introducing the strategy. The higher percentages apply to use types and urban contexts that tend to experience lower parking utilization rates, less perceived auto parking supply, and greater usage of alternative modes of travel. Effects on parking utilization will be much less in suburban environments in which there are fewer alternative transportation options. Buffalo, NY, offers a 10% residential parking reduction. San Francisco, CA, does not require off-street parking but requires residential developments over certain size to unbundle parking. Buffalo specifies that the unbundled spaces be rented separately at market rate. Buffalo also states that the rental be at the discretion and direct cost of the tenant or resident.

- Local Precedent: Unbundled parking is suggested as a parking reduction strategy that applicants may propose in Current Title 21 section 21.07.090F.23. and is defined in section 21.15.040. However, Title 21 does not provide approval standards or suggest an allowed percentage reduction. There is no record of a T21 parking reduction agreement for unbundled parking. However, limited forms of unbundled parking already occur around Anchorage. Local apartment owners such as Weidner Apartment Homes charge rental household tenants for use of second or third parking spaces.

- Applicability and Practicality: High potential applicability for residential multifamily developments. It seems practical in Anchorage for residential apartment uses, at least for rental properties, as a locally proven way to price parking. Generally applicable portions of current Title 21 code will need to be amended to no longer require Traffic Engineer approval of developments that propose to charge for parking, to remove a current code barrier. Standards, expectations, and definition of unbundled parking may need to be clarified. Need to clarify what would be the basis for the parking rental rate--what is the market rate or cost of parking?

The factors above support promoting "unbundled parking" from the Current Title 21 list of potential additional reductions to be on the main menu of parking reductions and allowing up to a 10% reduction in urban development contexts. Consider a lower percentage or keeping this as a discretionary reduction elsewhere in Anchorage. Consider clarifying that the full cost of providing the parking must be separated from rent--all parking and all costs are included.

Parking Cash-Out (Non-residential uses)

Parking cash-out involves offering cash alternatives to subsidized parking for employees. A property owner or tenant establishment that subsidizes parking for employees provides all employees with a choice of forgoing any subsidized/free parking for a cash payment equivalent to the cost of the parking space to the owner or employer. Employers promote the program to all employees eligible to receive subsidized/free parking. The cash-out value of the parking space is allowed to be up to one year in duration.

- Forecast Impact on Parking Utilization: Parking cash-out is one of the more common types of reductions in researched city codes. Several sources identify that parking cash-out for non-

residential tenants can result in up to 8% - 10% reduction in VMT in urban development contexts. Effects on parking utilization will be much less in suburban environments in which there are fewer alternative transportation options.

- Local Precedent: Currently listed as a discretionary parking reduction in Title 21 section 21.07.090F.22. and defined in 21.15.040. There is no record of this kind of reduction being used in a parking agreement. Staff is not aware if parking cash-out is used by UAA, Providence, or any other major employer in Anchorage.
- Applicability and Practicality: The technique appears to be applicable primarily for larger non-residential uses with employees. May be most attractive in employment centers where parking and land availability are most limited. May not be attractive or relevant for most businesses or employers. There do not seem to be barriers to practicability in Anchorage. The current Title 21 provisions describing the amount of cash value and guidance for documenting the cost of parking and compliance may need to be clarified.

The factors above support retaining parking cash-out as a parking reduction applicable to non-residential uses and allowing reductions of up to 10%. Consider clarifying its definition and standards for cash payment being equivalent to the cost of developing and maintaining the parking space.

Parking Reductions for Certain Land Use and Housing Types

Land use is a factor that can affect travel behavior. A mix or diversity of land uses can reduce VMT and parking utilization, in addition to creating opportunities for shared/off-site parking (see next subsection). There is some literature discussion of how the location of healthy food retail options, childcare, or other daily retail sales and service destinations in neighborhoods without nearby access to these destinations can reduce vehicle usage. However, there is little data or study of these impacts of strategic land use location. This Title 21 amendment focused on individual, stand-alone use characteristics with well-documented, substantial impacts on parking utilization. Most important are housing development types with household characteristics that reduce parking utilization which merit a reduction in required parking. Demographics and household income influence vehicle ownership rates and travel behavior.

Affordable Housing

A housing unit is “affordable” if its rent is low enough to be affordable to a low-moderate income household. Affordable housing is defined in Title 21 Section 21.15.040 as housing that has a sales price or rental amount that is within the means of a household with a low or moderate income as defined by federal code. In the case of dwelling units for rent, affordable housing units are unit for which the rent (not including utilities) constitutes no more than 30 percent of the gross annual income of households earning less than 80 percent of the median annual income adjusted for household size. In the case of dwelling units for sale, affordable housing means housing for which principal, interest, taxes, insurance, homeowners association feeds, and assessments are no more than 30 percent of the gross annual income of households earning less than 80 percent of the median annual income, adjusted for household size.

- Forecast Impact on Parking Utilization: Affordable housing units generate fewer vehicle trips and lower parking utilization rates than market-rate housing units, by double-digit percentages. Nearly 1/3 of all cities studied allow parking reductions for affordable housing. Research from California in 2014 indicated affordable housing units (with rents affordable to households with “Low” or “Very

Low" incomes as defined by HUD) within ¼ mile of high-quality public transportation have a 20 to 30 percent lower VMT rate than units occupied by moderate/middle income households. In less intense urban areas without high-quality public transit, the reduction in VMT may be 10 to 15 percent. The Anchorage local parking utilization field study included several affordable housing sites that showed significantly lower than average parking utilization. Two of the affordable housing sites appear in Section 1.1, Tables 1-5 and 1-6 with a parking utilization rate 56 and 69 percent of the Title 21 area-wide minimum parking requirement.

- Local Precedent: Affordable housing is currently a discretionary parking reduction in Title 21 section 21.07.090F.13. and defined in 21.15.040. The parking reduction is either 15 or 30 percent depending on whether the rent is affordable to households having an income either more or less than 60 percent of the median household income. Two affordable rental housing developments in Anchorage have used the Title 21 affordable housing parking reduction to get a lower minimum parking requirement. Most affordable housing developments have not used this reduction (some used other kinds of Title 21 parking reductions instead).

- Applicability and Practicality: The affordable housing incentives are highly applicable to Anchorage. Issues of practicality focus primarily on the mechanics of administering and enforcing the affordable housing sales/rental price. Current code does not address reporting requirements. It leaves uncertainty about what a housing provider would need to do to certify the housing as Affordable: What would be the frequency and scope in which compliance reports would need to be submitted, to certify that the housing unit meets the affordable housing criteria? The complexity of HUD program type reporting requirements would be too much for private developers as well as land use reviewers. Previous consultations with AHFC and housing providers about Title 21 density bonuses in 2014 suggest that a submittal or reporting requirement in which the housing provider submits a simple affidavit in a format provided by the Planning Department, could be adequate to document compliance. A simple form signed by the owner that is legally binding and a part of the Title 21 Parking Agreement could certify the standard is met. The Municipality can avoid administering annual audits of rental rates but reserve the right to audit. The Title 21 Parking Agreement provides framework language to affect a simple reporting requirement, supplemented by clarifying submittal and reporting forms with the Parking Agreement.

  Administrative practicalities are more difficult for owner-occupied/for-sale affordable housing units. The 2014 consultations with Affordable Housing agencies including the local HOME program and AHFC made it evident that the Municipality does not have adequate resources to administer an Affordable Housing requirement for *owner-occupied/for-sale* units. Title 21 land use permit reviewers and planners do not have the capacity to administer and verify compliance with affordable sale price limits on pending sales of housing units. Professional expertise and staff would need to be added, or a term contract with a provider of such expertise and/or assistance from housing agencies would need to be always available on call to confirm if a proposed/pending sale price meets the restrictions. AHFC advised that the Municipality simplify its Title 21 bonus and parking incentives by focusing on affordable *rental* units.

These factors support retaining, simplifying, and strengthening the parking reduction for affordable housing, by increasing the allowed percentage reduction to 25% by-right, and leaving open the possibility for higher percentage reductions through discretionary administrative reviews. However, the

information indicates that, because the Municipality has no way to administer or enforce zoning incentives for low-income for-sale/owner-occupied housing units, that it narrows the focus of the parking reduction incentive to just rental housing units.

Senior Housing

A housing unit is "senior housing" if specifically for elders. Senior housing is defined in Title 21 Section 21.15.040 as housing that HUD determines is designed and operated to assist elderly persons; or is intended for and solely occupied by persons 62 years of age or older; or is intended for occupancy by persons 55 years of age or older and at least 80 percent of the occupied units are occupied by at least one person who is 55 years of age or older.

- Forecast Impact on Parking Utilization: Age of householders can affect vehicle ownership and access. Some sources suggest reducing parking requirements for senior housing. Three out of nearly 40 cities studied provided parking reductions for senior housing. For Example, Denver, CO, reduces the parking requirement to 0.25 per senior housing unit. Staff has not collected empirical data on parking utilization rates at senior housing facilities. ITE has limited data documenting a significantly lower parking utilization rate (0.61 parked vehicles per dwelling) in senior adult housing units. Staff assumes that senior housing for residents older than 62 years of age is more likely than housing for residents older than 55 years of age to have a downward effect on parking utilization. Recent changes in AV technology may also be dampening the effect of age on automobile access and ownership.

- Local Precedent: Senior housing is currently a discretionary parking reduction in Title 21 section 21.07.090F.14. and defined in 21.15.040. The parking reduction is either 15 or 25 percent depending on whether the minimum householder age threshold is 55 or 62 years. Two senior housing developments in Anchorage have used the Title 21 senior housing parking reduction to get a lower minimum parking requirement.

- Applicability and Practicality: Dwelling units dedicated to elders is a niche land use for which a parking reduction seems applicable and practical to administer. It is questionable if senior housing for adults 55 and older with households potentially including members younger than 55 will see a much lower than average parking utilization rate. Focusing the eligibility for a parking reduction on senior housing with a higher age threshold and restrictions against younger than 62 age residents seems more appropriate and applicable. There are similar administrative challenges and solutions as discussed above for affordable housing.

The factors above suggest retaining the senior housing parking reduction, which has been used by several developments. Without significant research and analysis, the suggested approach would be to carry forward the current 25 percent reduction for housing units restricted to elders aged 62 and over and removing the 15 percent reduction for housing units for residents 55 to 61 years in age.

Shared and Off-Site Parking Facilities

Off-Site Parking

Off-site parking is the most common alternative parking strategy. This parking strategy comprises more than half of all parking reductions approved since 2000. The off-site parking strategy does not reduce the number of required parking spaces for a use but is a parking strategy wherein the minimum parking requirements are met on an abutting lot, or a nearby lot within 800 feet of the primary entrance to the use requiring the parking spaces. Off-site parking that meets the minimum parking requirements, or that meets all the code provisions for other non-discretionary parking reductions are proposed to be processed as a non-discretionary parking reduction strategy.

An off-site parking strategy provides flexibility for the location of parking spaces which allows developers to utilize creative development strategies for more than one lot, without requiring a replat to combine lots to accommodate on-site parking. A recorded agreement for off-site parking is required to assure that the lot used for parking cannot be sold or established for a different use without maintaining the required parking for the use on the lot within the agreement.

This parking strategy was first implemented in 1978 with the general overhaul of the parking section in Title 21 and the implementation of the first parking design standards. At that time, parking was allowed to be on an abutting lot under the same ownership, without any type of formal agreement or documentation. In 2006 the parking regulations were amended to require a parking agreement approved by the Municipality of Anchorage for all off-site parking on abutting lots. This change may have been in response to parking issues that would arise when a lot formerly under the same ownership as the lot with the use being served was sold to a new owner. The required parking agreement assures that required parking is provided for the lifetime of the use requiring the parking. The Title 21 Rewrite project which became effective in 2016 2016 eliminated non-discretionary approvals for off-site parking for abutting lots.

Shared Parking Reductions

Since 2000, the number of use categories in shared parking agreements has been as follows:

- 10 parking agreements involved uses from only 1 use category (these were under old Title 21)
- 15 parking agreements involved uses from 2 use categories
- 18 shared parking agreements involved uses from 3 use categories
- 4 shared parking agreements involved uses from 4 use categories

Table 2-1. Shared Parking Agreements in Municipality of Anchorage, 2000-2021

Use Types	Number of Shared Parking Agreements	Addressed in Current Title 21 Shared Parking Table?
Retail	31	Yes
Office	17	Yes
Restaurant	15	Yes
Health services	7	Yes
Religious	7	Yes
Warehouse and storage uses	5	**Not addressed**
Residential (including 1 group living)	4	Yes
Marijuana cultivation or testing	2	**Not addressed**
Childcare	2	**Not addressed**
School	2	**Not addressed**
Entertainment (nightclub, bar)	2	**Not addressed**
Commercial food production	1	**Not addressed**
Fitness	1	Yes
Community center	1	**Not addressed**
Lodging	1	Yes
Instructional services	1	**Not addressed**
Assemblies	1	Yes
Total	100	--

Parking Reductions for Other Development Characteristics

Following are additional site-specific characteristics and strategies considered to have public benefits that merit the parking reduction.

Land Banking (Deferred Parking)

On-site land area that would otherwise be needed to accommodate up to 25 percent of the required parking spaces is set aside as landscaping or pedestrian amenity space to remain available for future construction of the parking if parking utilization rates exceed the built parking supply. The applicant provides an alternative site plan showing the deferred parking spaces if/when they are needed to be constructed.

- Forecast Impact on Parking Utilization: A half-dozen cities studied provide this parking reduction. This title 21 parking reduction does not necessarily reduce parking utilization rates however it allows enhanced site design and amenities by deferring construction of a portion of the required parking that the property owner does not believe is needed for the development. There is relatively little risk for the public because if there is a parking spillover problem that emerges, the Municipality can require the applicant to implement the alternative site plan and construct the deferred parking.

- Local Precedent: Land banking is an existing parking reduction in current code (21.07.090F.12.). Five developments have received a parking reduction for land banking, beginning in 2018. The approved parking reduction amounts have ranged from 21 percent to 56 percent.
- Applicability and Practicality: This seems to be primarily used by industrial or commercial uses. Could be applicable to residential uses as well. It has a proven record in Anchorage and other jurisdictions and is implementable. The current requirement for the applicant to submit a parking demand study is an unnecessary cost and regulatory barrier to wider usage of this reduction. It is unnecessary because it provides space, a site plan, and a guarantee by the property owner that the deferred parking will be built if a parking problem emerges that cannot be addressed in another way.

These factors support carrying forward the land banking parking reduction and streamlining the review and approval.

Adaptive Reuse

Adaptive reuse involves the rehabilitation or a change of use of existing, older buildings. Typically, it applies to buildings in older, central city districts often with small lot sizes. Adaptive reuse can jump-start local business investment, attract new businesses that serve the neighborhood, generate more revenue, and be a catalyst for more redevelopment envisioned by adopted plans. It is an incremental process that results in a "blended" build-out of older commercial corridors that includes older buildings, not just new buildings, and that reflects individual owners' objectives and redevelopment capacities. Examples of adaptive reuse in other cities include conversion of older bank branches to restaurants, or older offices to housing. A local example that received permit approval but that was held up by the COVID-19 pandemic is the proposed conversion of the old La Mex restaurant in Spenard to a multi-tenant food hall (See Attachment 6.1 slides 28-29), which needed a parking variance.

Rehabilitation and reuse of existing, older buildings typically triggers requirements to meet current codes. Current codes can stymie reinvestment in older buildings in existing urban districts. Requesting a board or commission to grant relief through Variances is a costly and uncertain challenge for applicants. Providing administrative flexibility and relief for these older buildings while maintaining public welfare and safety can facilitate "adaptive reuse" as a transitional step toward the mixed-use main streets and town centers envisioned in adopted plans. The *Anchorage 2040 Land Use Plan* identifies the preservation and re-use of older buildings as one of its 12 implementation strategies. Action 2-6 of Anchorage 2040 is to "adopt and apply an adaptive reuse ordinance to promote reuse of older structures, consistent with life safety standards."

- Forecast Impact on Parking Utilization: Staff has no data indicating that adaptive reuse affects parking utilization rates, only general indication from research literature that the evolution of older commercial corridors through infill and redevelopment into a more compact, intensive, mixed-use pattern of activity can create a land use context which can reduce parking utilization in general. Cities such as Phoenix and Chandler, AZ, have employed adaptive reuse ordinances along public transit corridors including relief from parking requirements. Denver, Milwaukee, and Minneapolis (which has since moved to abolish its parking requirements) provide parking relief for older buildings on small sites. Denver provides broader exceptions and exemptions from required parking for the reuse of pre-existing small lots (LE 6,250 sf) in commercial zones.

- Local Precedent: Adaptive reuse is a forward-looking planning strategy that the Anchorage 2040 Land Use Plan and the Spenard Corridor Plan call for the Municipality to carry out. The concept of granting administrative relief from current codes specifically to facilitate adaptive reuse is new to Anchorage. The former Spenard La Mex site, which underwent a parking Variance just prior to the COVID-19 pandemic, is an example of the challenges that adaptive reuse of older buildings face with current parking and building codes.

- Applicability and Practicality: This strategy seems primarily applicable to older commercial buildings on designated mixed-use corridors in Spenard, Midtown, Fairview, and Mountain View, and in other older urban contexts such as in the Government Hill neighborhood commercial district.

Historic Landmark Preservation

This parking reduction is like adaptive reuse, in that it recognizes and allows reinvestment in older buildings that predate modern parking requirements. It focuses on officially recognized historic landmark structures. In 2021 the Municipality established its Local Landmark Register (AO 2021-32; PZC Case No. 2021-0005). This is a new, Anchorage-wide historic resources inventory managed by the municipal Historic Preservation Officer (Planning Department) and Anchorage Historic Preservation Commission (AHPC). The AHPC can designate properties as eligible for being listed on the Register. Individual property owners decide if they wish their eligible property to be listed on the Register.

- Forecast Impact on Parking Utilization: Eight out of approximately 36 cities studied provide parking reductions or exemptions of different kinds for historic structures. One of the more extensive is Cheyenne, WY, which exempts much of its historic section of the city from parking requirements.

- Local Precedent: One of the functions of the recently adopted Local Landmark Register is to help make properties eligible for federal, state, and local incentives for reinvestment and reuse in a manner consistent with their preservation. The Municipality's Original Neighborhoods Historic Preservation Plan identifies that zoning incentives can include density bonuses and relief from parking requirements.

- Applicability and Practicality: Although most of Anchorage's original historic landmarks are concentrated in Downtown Anchorage where there are no minimum parking requirements, a growing number of structures in Midtown and elsewhere are reaching age thresholds to become eligible for recognition as historic landmarks. Beloved historic landmarks that Anchorage has lost provide a motivation for the community to continue to develop and prioritize its arsenal of incentives to encourage preservation of landmark buildings that still exist.

The factors above would not support a significant parking reduction based on any anticipated effect on parking utilization. A parking reduction for historic preservation of properties listed on the Local Landmarks Register would be primarily based on the community prioritizing the preservation of its historic and cultural resources above parking utilization and spillover concerns, as called for in the *Comprehensive Plan*.

Strategies Considered but Not Selected for Title 21 Parking Reductions

The project analysis considered other potential strategies to include as Title 21 parking reductions receiving non-discretionary approval for parking reductions. These strategies were rejected because they did not appear to reduce parking demand or vehicle miles travelled or did not seem likely to be

used in Anchorage within the 2030 timeframe or seemed difficult to monitor or implement as a land use regulation. These measures included: Transportation Network Services, Bicycle-Share Programs, On-street Parking in ROW, Fee-in-lieu, High-Density Housing, and Landmark Tree Preservation. Discussion of a few of these follows.

Transportation Network Services / Transportation-As-A-Service (e.g., ride-hailing and taxi)

A stakeholder suggested that there should be a parking reduction available for developments based on parking and loading spaces for ride-hailing, or "transportation network services." Staff investigated this possibility. Ride-hailing connects passengers to drivers through a website or mobile app. Examples already in operation in Anchorage are Uber and Lyft. Like taxicabs, customers pay a driver to transport them as a passenger for each segment of travel. Taxicabs may be legally hailed from the street, but ride-sharing services may not.

Research indicates that ride-hailing does not necessarily reduce Vehicle Miles Travelled (VMT), or motor vehicle traffic congestion on public streets. Ride-hailing may increase motor vehicle traffic in areas with other suitable modes of transit, such as public transit. Ride-hailing and taxi vehicles tend to have "dead mileage" where there are lengths of time without passengers. Ride-hailing services may also compete with public transit services and alternative transportation programs that are more likely to reduce VMT.

Additionally, ride-hailing is less of a site-specific strategy that a property owner can take than an across-the-board type of phenomenon that impacts parking utilization rates in general throughout a district or city. A passenger loading zone style parking space can provide a designated place for ride-hail services, however it is just as likely that ride-hail services will be used and viable for residents and employees whether the property owner provides a specific passenger loading space for the taxi or ride-hail service.

This evidence supports incorporating the parking utilization impacts of forecast growth of ride-hail and other transportation network services into the overall minimum parking requirement, as done in Section 1.2 above. This would support slightly reducing the baseline area-specific minimum parking requirement for all uses, rather than address the impacts of ride-hailing as a site-specific parking reduction strategy. Furthermore, the data supports adjusting the passenger loading zone regulations for larger developments to ensure that ride-hailing services like are accommodated and not just taxis.

Public Transit Pass Benefit Programs in Outlying Communities: Girdwood

A public commenter suggested that there should be a parking reduction available for developments in Girdwood based on the publicly available free transit in Girdwood, and that there have been in fact parking reductions awarded to developers in Girdwood.

In response, staff finds no evidence of any recorded parking agreement for the current Title 21 Transit Pass Benefits parking reduction (21.07.090F.10) in Girdwood. There have been parking reductions for using the public parking in the Girdwood Town Center (GC-7 district), and several pending parking agreements as conditions of approval for two recent development master plans and an amendment to an approved conditional use. These cases are documented in Attachment 6.3.

A recent development master plan in PZC Case 2022-0017 includes a condition of approval to obtain a parking agreement for locating some of the required parking spaces off-site in a community parking facility. Another recent development master plan in PZC Case 2022-0015 includes a condition of approval to resolve with Traffic Engineering the need for a parking reduction. Page 42 of the staff report

for this case describes a parking reduction for Bike Parking, Transit Service, and Transit Pass Benefits in calculating the numbers of spaces needed for the development master plan, but reductions must be finalized with a Parking Agreement that has not yet been signed. A recent conditional use amendment in PZC Case 2020-0012 includes a condition that the applicant get approval from the Municipal Traffic Engineer and Planning Director for the location of employee parking with smaller parking space dimensions. Reduced dimensions for employee parking is a parking reduction under current Title 21 which requires a recorded parking reduction agreement, per section 21.07.090F., Parking Reductions and Alternatives. These conditions of approval reflect that conditional use and development master plan land use entitlements cannot grant parking reductions. Parking reductions must go through the administrative approval process in 21.07.090F.

A parking reduction to reflect fare-less public transit in Girdwood may be obtained through the same process of discretionary approval with a parking agreement from the Traffic Engineer and Parking Director, under the proposed amendments. The proposal to limit the applicability of the as-of-right, non-discretionary Parking Reduction for Transit Pass Benefits to the Anchorage Bowl's Neighborhood Development Context Areas will not impact any current zoning entitlements, programs, or public transit shuttles in Girdwood.

Comparison with Administrative Parking Reductions in Other Cities

The project team reviewed approximately the parking ordinances of 30 North American cities in 2018-2019 for provisions allowing administrative parking reductions. Staff has since then monitored news from the urban planning field as cities reformed their parking requirements. Because parking regulation is in an era of change, some of the information below is outdated. For example, Minneapolis has since moved to eliminate parking minimums, and Honolulu recently reformed its parking requirements for areas near central Honolulu. Cities were selected for a variety of characteristics, such similarities to Anchorage or its climate. Some cities were selected because of recent code amendments to parking ordinances representing efforts by the cities at parking reform. Cities included:

- Anchorage, AK
- Bellevue, WA
- Boise, ID
- Bozeman, MT
- Buffalo, NY
- Burlington, VT
- Calgary, AB
- Chandler, AZ
- Cheyenne, WY
- Denver, CO
- Duluth, MN
- Edmonton, AB
- Gresham, OR
- Iowa City, IA
- Madison, WI
- Milwaukee, WI
- Minneapolis, MN
- Missoula, MT
- Nashville, TN
- Philadelphia, PA
- Phoenix, AZ
- Portland, ME
- Portland, OR
- Rochester, NY
- San Diego, CA
- San Francisco, CA
- Seattle, WA
- Shoreline, WA
- Spokane, WA
- Tacoma, WA
- Vancouver, WA
- W. Hollywood, CA

Table 2-2 provides a summary of findings regarding trends in the kinds of parking reductions and exceptions allowed in the cities studied. In addition to the specific types of parking reductions below, 16 cities gave general discretionary authority to code administrators for granting parking reductions. Several of the cities require Transportation Demand Management (TDM) strategies instead of parking. Where a parking management strategy appears in their menu of TDM options, it is included in Table 2-2.

Table 2-2. Types of Parking Reductions in Comparison Cities, 2018-19

Type of Administrative Parking Management Strategy or Parking Reduction	Number of Cities	Example Cities
Shared Parking	27	Philadelphia, Tacoma
Area-Specific Minimum Parking Requirements (or Exemptions)	22	Duluth, Seattle, San Diego
Off-site Parking	22	Anchorage
Public Transit Access (Area-specific Reductions)	16	Portland (OR)
Bicycle Parking	15	Cheyenne, Minneapolis
Area-Specific or Zoning District-Specific Parking Reductions	13	
Affordable Housing	10	Denver, Portland (ME)
Public Parking or Parking District	10	
Exceptions or Credits for Changes of Use	9	Denver
Use of Nearby On-Street Parking Spaces	8	
Preservation of Historic Resources	8	Cheyenne, Seattle
Car Sharing Programs	7	Denver
Bicycle Sharing Programs	2	Denver, Portland (OR)
Motorcycle, Moped, or Motor Scooter Parking	7	
Adaptive Reuse of Smaller or Older Properties	7	
Exceptions or Credits for Minor Expansions/Additions	7	
Land Banking, Deferred Parking	6	
Pedestrian-Oriented Buildings/Site Frontages	6	
Mixed-use or Ground-Floor Retail	5	
Rideshare Programs and Spaces (Vanpool, Carpool)	5	
Parking Demand Management	4	
Tree Preservation	4	
Special Uses (e.g., Schools, Emergency Shelters, Groceries)	4	San Francisco
Senior Housing	3	
Transit Plaza, Bike Commuter Facilities, Pedestrian Amenities	3	
Payment of Fee in Lieu of Providing Parking	3	
Parking Pricing, Cash-Outs, and/or Unbundled Parking	3	Buffalo, San Francisco
Small Dwelling Units	2	
AV, Ride hailing services, or EV charging station parking	2	
Miscellaneous Other Development Characteristics	6	

2.2. Assessment of Title 21 Administrative Parking Reductions

Minimum off-street parking requirements are applicable to all developments in the Municipality except for developments within the Downtown (DT) Districts and in the Girdwood New Townsite's commercial districts. The number of parking spaces required varies by use type and size of the proposed development. The same amount of parking is required across the Municipality for any given type of use and building size.

Title 21 provides for flexibility, reductions, and some exemptions from these generally applicable minimum off-street parking requirements. Examples include but are not limited to:

- **Flexibility:** Title 21 provides a way for applicants to locate required parking off-site on a neighboring property.
- **Reductions:** Title 21 provides a way for multiple use types that have different periods of peak parking utilization (e.g., offices and residences) to share the same parking spaces.
- **Alternatives:** Title 21 provides options to replace some required parking spaces with site-specific programs or facilities that support alternative transportation, such as rideshare programs or extra bike racks.
- **Exemptions:** Title 21 exempts lots in Downtown Anchorage from minimum off-street parking requirements. Title 21 prohibits off-street parking in Girdwood New Townsite's gC-7 zoning district (AMC 21.09.070L.3.), where property owners are expected to rely on public on-street curb parking.

The following subsections of this supplementary report provide an overview and assessment of Title 21 flexibility and relief from minimum parking requirements. It includes findings and recommendations for amending the current provisions.

History of Title 21 Parking Reductions

Old Title 21: Variances Required.

Under the old version of the Title 21 zoning ordinance that applied until 2014, reductions or exemptions from the minimum number of required parking spaces could only be approved through the Variance review and approval procedure. A Variance requires a public hearing and deliberations in front of a municipal board. There was no administrative relief provision in old Title 21 for receiving parking reductions, with two exceptions: off-site parking on neighboring lots and joint use (i.e., shared parking).

Old Title 21: Off-site Parking on Abutting Lot(s).

From the early 1970's through 2006, old Title 21 allowed required parking spaces to be located on abutting lot(s). No formal parking agreement was required if the abutting lot was under the same ownership as the use being served. Off-site parking on an abutting lot not under the same ownership was allowed if the owners of the lots entered into a parking agreement approved by the Municipality. No review or approval by the municipal Traffic Engineer was required for off-site parking on abutting lots, because the minimum number pf required parking spaces was provided.

In 2006 the parking regulations were amended (AO 2006-87[S-1]) to require a parking agreement approved by the Municipality for all off-site parking on abutting lots. This change may have been in response to parking issues that would arise when a lot formerly under the same ownership as the lot

with the use being served was sold to a new owner. Required parking for an establishment on an abutting lot without a parking agreement would be lost to the establishment when the abutting lot is sold to a new owner. The required parking agreement assured that required parking would remain provided for the lifetime of the use needing the parking.

Old Title 21 Joint Use (Shared) Parking.

In 1978 the Municipality began allowing joint use parking for uses with hours of operation that do not overlap. In 2006 (AO 2006-87[S-1]) joint use parking was amended with revised standards and renamed "shared parking." Under the revision, shared parking facilities could support two or more land uses with hours of operation that may overlap, but that have different periods of peak parking demand. The amendments included development standards and parking ratios for shared parking. The Municipality carried these provisions forward with no substantive changes into the new Title 21 that became effective in 2014.

Current Title 21 Parking Reductions and Alternatives.

The Municipality adopted a comprehensive revision and update to the Title 21 land use regulations in 2013 (AO 2012-124[S]). A "new" Title 21 replaced the old Title 21 code book ("Old Title 21") and has since become referred to as the current version of Title 21 ("Current Title 21"). Current Title 21 became available for use in new development applications as an option in 2014 and mandatory in 2016. Current Title 21 included substantial changes in the parking requirements. It reduced the minimum parking requirements for many uses, such as multifamily residential, commercial offices and retail, industrial uses. It also established a new menu of administrative parking reduction options, to support more efficient land use and infill/redevelopment projects as called for in the *Anchorage 2020 Comprehensive Plan* (adopted in 2001). It also created an expanded and clarified version of the parking agreement provisions of old Title 21. This menu of available parking reduction strategies and other provisions of Section 21.07.090F., *Parking Reductions and Alternatives* is still in use today under Current Title 21.

Assessment of Parking Reductions and Parking Agreements, 2000-2021

Parking Reductions and Alternatives

The generally applicable Title 21 minimum parking requirement is calibrated to accommodate average peak hour parking utilization rates experienced across the Municipality. Because it is a one-size-fits-all standard based on average utilization area-wide, the minimum parking requirement is higher than some developments need to accommodate parking utilization at their sites. For example, developments in older, traditional urban parts of town often experience lower parking utilization rates. Separately, some individual developments incorporate special characteristics or strategies that decrease their off-street parking utilization rates.

In recognition of the types of neighborhoods and development projects that experience lower than average parking utilization, current Title 21 section 21.07.090F., *Parking Reductions and Alternatives*, provides administrative flexibility and relief from minimum parking requirements. Administrative approval means that municipal staff in the Traffic Engineering and Planning Departments can approve the applicant's request, without the requirement for a board or commission approval or a Title 21 Variance. Title 21 subsection 21.07.090F. offers a list of administrative parking reductions and alternatives. Applicants have the option to select a parking reduction strategy, or combination of strategies, that fits their project.

Title 21 requires that developments meet a set of prerequisite standards to be eligible for parking reductions. Currently, administrative parking reductions must undergo a discretionary review and receive approval by the municipal Traffic Engineer and Planning Director. Discretionary review means that approvals are case-by-case and situational. The departments may request more information, allow less of a reduction than proposed, or direct the applicant to employ a different strategy than proposed. Sometimes the departments require the applicant to submit a site-specific parking utilization study.

The time requirements and uncertainty of this discretionary approval process contributes to a low usage of these parking reductions. Few developments take advantage of the available administrative parking reductions in comparison to the number of developments that could be eligible to utilize them. There have been, on average, fewer than two dozen parking agreements per year since 2016 when the Current Title 21 became mandatory. This indicates that only a fraction of permitted development projects that could merit a reduced number of required parking spaces have used and received parking reductions offered under the current Title 21. The result is that the development process is overparking many new homes and businesses—particularly in the urban neighborhood context areas that the Municipality has prioritized for compact, pedestrian-oriented housing and mixed-use development.

Table 2-3 below lists the available parking reductions in Title 21 in order from most to least commonly used. Between the years 2000 and 2020 the Municipality approved 263 parking agreements comprising a total of 275 individual reductions. The number of parking agreements per year increased somewhat when the current Title 21 became available in 2014, from a little more than 12 per year to approximately 21 per year on average since 2016.

Proposed administrative parking reductions have a high approval rate. Since 2016, parking reductions have been approved for 98% of developments that have requested reductions. However, the amount of reduction or type of parking reduction strategy is negotiated with the Traffic Engineer. Therefore, in some cases the amount or type of reduction finally approved was different from what the applicant originally proposed. The discretionary review and negotiation process takes applicant and municipal staff time and creates uncertainty and extra costs for applicants.

Table 2-3 indicates that some parking reduction strategies have been relatively popular, while other strategies that Current Title 21 offers have been used only a few times or not at all. The most common type of parking reduction utilized is the “off-site parking” reduction. This parking alternative is not actually a reduction in the number of required parking spaces but allows required parking to be located on a lot separate from the lot with the use requiring the parking. Shared parking is the second most common type of parking reduction used. In the shared parking scenario, two or more uses that have different peak hours of operation can utilize some of the same parking spaces during different hours of the day, reducing the overall parking on the lot. Off-site and shared parking are involved in nearly three-quarters of all Title 21 parking agreements for the past 20 years.

Other, unclassified parking reductions comprise the third most common grouping of parking reductions utilized over the past 20 years, according to the table. These include multiple types of parking strategies, typically involving a parking utilization study, and negotiations with the municipal Traffic Engineer to devise a site-specific strategy for a unique use of the property. Most parking agreements in this catch-all category were approved and documented prior to 2016, before the current Title 21 menu categorization of parking strategies came into use.

The current Title 21 parking reductions for bicycle parking, adjacency to public transit routes, and land banking have also been periodically utilized as Title 21 parking reductions, together accounting for more than 20 parking agreements. Affordable housing and senior housing have each been used a few times.

Table 2-3. Approved Parking Reductions in Municipality of Anchorage, 2000-2021

Parking Reduction (with applicable or equivalent current Title 21 parking section in parentheses)	Number of Parking Reductions	Category of Parking Reduction
Off-site Parking (21.07.090F.17.)	150	Shared and off-site facilities
Shared Parking (21.07.090F.16.)	43	Shared and off-site facilities
Other/Unclassified (21.07.090F.23.)	42	Unclassified
Additional Bicycle Parking (21.07.090F.22.)	9	Active Transportation
Adjacent to Public Transit Route (21.07.090F.8.)	9	Area-specific reductions
Land Banking (21.07.090F.12.)	5	Efficient facilities
Smaller Parking Spaces (21.07.090F.21.)	4	Efficient facilities
Residences in Walking Distance to Downtown (21.07.090F.5.)	2	Area-specific reductions
Residences in City Center Neighborhoods (21.07.090F.7.)	2	Area-specific reductions
Affordable Housing (21.07.090F.13.)	2	Housing
Senior Housing (21.07.090F.14.)	2	Housing
On-Street Parking (21.07.090F.19.)	2	Area-specific reductions
Stacked and Tandem Parking (21.07.090F.20.)	1	Efficient facilities
Community Parking Facility in Girdwood (21.09.070L.2.)	2	Shared and off-site facilities
Accessory Dwelling with No-Vehicle Covenant (21.05.070D.1.)	0	Housing
Zoning Districts that Promote Mix of Uses (21.07.090F.6)	0	Area-specific reductions
Carpool and Vanpool Rideshare Programs (21.07.090F.9.)	0	Shared-vehicle programs
Transit Pass Benefits (21.07.090F.10.)	0	Shared-vehicle programs
Parking Cash-outs (21.07.090F.11.)	0	Shared-vehicle programs
Housing Density (21.07.090F.15.)	0	Housing
District Parking (21.07.090F.18.)	0	Shared and off-site facilities
Total	275	

The table also shows some parking reduction strategies in Title 21 that have been used little or not at all. There have been only 15 area-specific parking reductions addressing the lower parking utilization rates possible in urban neighborhoods, transit, corridors, and mixed-use centers. Nine of these area-specific reductions have been for developments located adjacent to a public transit route. Only 5 have been approved for being in urban neighborhoods near Downtown or Midtown, or in mixed-use districts. Additionally, there were only 4 shared parking reductions that included housing, and only 4 additional reductions specifically for housing types known to have lower parking utilization. This indicates that most development projects in urban contexts, and especially housing projects, have not taken advantage of opportunities to reduce required parking through administrative reviews. Feedback from the development community indicates that the extra uncertainty, time, regulations, and resources

involved in the discretionary review and approval involving the municipal Traffic Engineer and Planning Director is a primary reason.

This information indicates that cutting out the subjectivity of the approval—granting automatic approval if code standards are met—would be an important step toward increasing participation and reducing administrative costs. By comparison, the requirement for a recorded parking agreement is not a primary problem for applicants.

Many parking reductions arise from the applicant just needing to reduce the parking requirement by a few spaces to fit the development on the property. Many have been in older developments and strip malls involving changes of use. Parking reductions that involve a low percentage parking reduction could become non-discretionary.

In addition to introducing as-of-right approvals of administrative parking reductions, area-specific parking reductions could be converted into by-right lower minimum parking requirements for urban neighborhood contexts. Area-specific parking reductions generally do not have approval criteria other than for the development site to be in a particular area of town. If an area could be mapped, having a lower area-specific minimum parking requirements would be easier for applicants and code administrators. It could be a more effective way to encourage developers to provide the lower amount of parking, as compared to making them go through an administrative approval to get lower parking requirement.

Recorded Parking Agreements.

Parking reductions and alternatives require the property owner(s) and the Municipality to sign a *parking agreement*. The parking agreement is a legal agreement between the parties that describes the type of parking reduction strategy and defines the property owner's entitlement (property right) to provide less than the minimum number of required parking spaces. Once signed, the parking agreement is recorded with the State Recorders Office by the municipal Planning Department staff, added to municipal electronic records (City View), and the original document is kept on file in the Planning Department.

Parking reduction strategies and minimum parking requirements are unique to each individual site. A parking agreement that is recorded with the State Recorder's office ensures a permanent, and easily accessible record of the special entitlement and requirements. Recording the parking agreement ensures the development will continue to provide the parking management strategy that justifies the lower minimum parking requirement. Having the document on file with the State Recorder's office also allows all interested parties to access it through a property title search. Property owners or potential buyers will know and can document that they have legal rights to the agreed-upon reduction of required parking. Developers and designers working on future additions or other physical changes to the property will be aware of which, if any amenities on the property (e.g., extra bicycle parking) were put in place to qualify for a parking reduction. Parking reduction programs such as rideshare, parking pricing, and employee incentives to use public transit will be more likely to remain in place when the agreement is recorded and attached to the property.

Parking agreements must last only so long as the property owner does not provide the required parking spaces. The property owner(s) and Municipality may release and replace the agreement if a different parking reduction strategy becomes necessary, or if the property owner provides the parking spaces

that Title 21 requires. Most recorded agreements are effective for a minimum of 10 years and expire when the use of the property is changed, or the parking strategy is no longer effective.

Retain, Simplify, and Clarify Recorded Parking Agreements

Recorded parking agreements have been found to be beneficial to all parties and remain an essential way to memorialize approved parking reductions. Property owners and buyers who are unaware of the existence of parking requirements, and possible parking reductions, can easily access the information through a title search when a parking agreement is recorded with the State of Alaska Recorder's office. Design teams working on additions or other physical changes to the property can access information about which, if any, amenities on the property (e.g., extra bike racks) were put in place to qualify for a parking reduction. Recording the document with the property means the public can be more assured that the parking reduction strategy agreed to (e.g., rideshare or parking pricing programs) will continue to be provided.

The recommendations on the previous page will streamline and reduce uncertainty in the parking reduction approval process. Many parking reductions will become nondiscretionary, cutting out the subjectivity and making the approval automatic when code requirements are met. Signing and recording the parking agreement itself takes little time as it occurs after the reduction is approved, and documents are recorded within one day of being submitted with the final signatures.

There are several ways to simplify Title 21 requirements for the content of parking agreements. These include:

- Simplify and clarify recordation requirements by requiring only the property owner and Planning Director's representative (not the tenant or business, and not the Traffic Engineer) to sign, and clarify the existing expectation that a copy of the approved site plan accompany the recorded agreement.
- For parking reductions that will receive non-discretionary approval, a contingency plan for mitigating any spillover parking problem is no longer required. This will condense the content of most parking agreements to a simple agreement to reduce the amount of parking in return for providing a parking reduction strategy. Instead, clarify in the Title 21 code the existing right of the Municipality to terminate the parking agreement or require a future change in the parking reduction strategy in the event a parking spillover problem results from the parking reduction.
- In the past parking agreements have always been tied to the use of the property and, property owners have had to negotiate and sign a new parking agreement with every change in use. The proposed non-discretionary parking reductions that involve providing physical amenities to the site such as additional bike racks or pedestrian facilities will allow code administration to change so that the parking agreement runs with the land and is not required to be reevaluated or revised with changes of use. In such a scenario, the only way the parking agreement changes is if the bike parking or other pedestrian facility required for the parking reduction strategy changes.

Table 2-4 compares the advantages of recorded parking agreements in comparison to simply memorializing the agreement in the Municipality's in-house building permit file system. The table describes the characteristics of the parking agreement as amended by the Public Hearing Draft Title 21 Parking amendments.

Table 2-4. Comparison of Recorded Parking Agreements and In-House Agency Documentation

	Recorded Parking Agreement (as amended by the Public Hearing Draft Parking ordinance)		**MOA In-House Documentation Only** memorialized within the Building Permit and/or a CityView document	
	Pros	**Cons**	**Pros**	**Cons**
Approval Process	No extra review process needed. There is certainty of approval if code is met. Traffic Eng. no longer needs to sign. *(These are changes from current T21.)*	$235 recording fee per agreement	No extra process. There is certainty if code is met. No extra fee.	
Code Requirements	NO additional requirements, parking studies, or contingency plans needed. *(This is a change from current T21.)*		No additional requirements, parking studies, contingency plans needed	
Title Searches	Permanent record of the reduction is easily located with a title search if a property is going to change ownership, tenants, or develop. The permanent record is available to owner and developer.			Title searches have no info about the parking reduction or required bike parking. Owners or buyers would need to know to come to the Muni to request permit records.
Nonconforming Rights	Owners know they have nonconforming right to have less parking.			Owners will likely not know if they are legally nonconforming. If they request a determination, it may be the best guess of the reviewer what happened during permitting and development, depending on recordkeeping.
Changes of Use, Additions, etc.	Agreement can run with the land, no matter if there is a change of use. The only way the agreement changes is if bike parking facility changes. Property owners do not have to renegotiate an agreement with each change of use. *(This is a change from current T21 administration)*			The parking will be reevaluated each time a permit is requested for the site, such as a change of use. The property owner will need to show evidence of the bike facility and reestablish they are eligible for the reduction.
Site Development Planning	Developers and designers are aware of which existing bicycle parking is required to stay or not, from the outside of their design planning.			Development applicants and design teams may not become aware of a requirement to keep the extra bike parking or add parking spaces until at zoning counter.
Sites w/Multiple Reductions	All types of reductions used on a site development are in one document.			Documentation of bike parking reduction will be separate from shared parking, etc.

Fees for Parking Reductions and Agreements

AMCR 21.20.007 establishes fees for review and approval of a variety of zoning entitlements, including those related to parking site plan approvals. The section has a fee of $235.00 for recording parking agreements and/or access agreements with the municipality. This fee covers the cost of the review of parking reduction strategies, the review of the parking agreement document for accuracy, the administration of the paperwork and the recording of the document.

Establish a Fee for Discretionary Parking Reductions

The proposed code amendments would convert most parking reduction approvals to a non-discretionary approval process that no longer requires site-specific studies and negotiation with applicants. For the remaining parking reductions that will still require discretionary review, study, and approval by the Traffic Engineering Department, the addition of a fee to cover at least a portion of the cost in municipal staff time that it takes to review proposed reductions is recommended.

Traffic Engineering typically needs two to four hours of staff time to review a discretionary parking reduction. The proposed review fee for discretionary parking reductions is recommended to be $135.00 per hour with a minimum review time of 2 hours. For more complicated reductions that take more than 2 hours of staff time, the hourly fee would reflect the actual cost to the Municipality in staff time.

The discretionary review fee does not apply to non-discretionary parking reductions listed in 21.07.090F or to area-specific requirements in the proposed Table 21.07-7.

On-Street Parking Enforcement

The Municipality does not manage public rights-of-way to address on-street parking behavior or parking spillover onto rights-of-way, where on-street parking could inhibit flow of traffic, neighboring property access, emergency response, other municipal and utility vehicles, or street maintenance. Parked or abandoned cars are especially problematic for snow clearing operations.

The only agency with on-street parking enforcement powers outside Downtown Anchorage is the Anchorage Police Department (APD). Parking enforcement is a relatively low priority for APD, and APD has limited parking enforcement resources. It has three community service officers (CSOs) assigned to on-street parking enforcement for the entire Municipality outside of Downtown. The CSOs operate only during the day shift. The CSOs prioritize removal of junked and abandoned vehicles parked more than 72 hours, rather than writing citations for illegal on-street parking. It typically takes at least a day after an illegal parking event is reported for CSOs to follow up on the call. Removal of abandoned or parked vehicles also takes time, after a CSO tags them. In winter, it is sometimes 7 to 10 days before APD can follow up to remove a vehicle because of time spent on additional calls.

Inside Downtown, EasyPark provides parking enforcement (writing tickets and citations for illegal parking and parking without paying meters), however it does not carry out the removal of abandoned, junked, or illegally parked vehicles. If a vehicle needs to be removed, APD is responsible for removing the vehicle including in Downtown where EasyPark conducts parking enforcement.

The municipal Traffic Engineering Department does not have on-street parking enforcement powers. It can install and maintains No Parking signage, however enforcement of parking violations in the ROW falls to the APD and/or EasyPark. For areas outside Downtown with on-street parking problems, the only recourse is to prohibit on-street parking and install No Parking signs.

For these reasons, the Municipality of Anchorage ROW agencies and operations that involve the usage, maintenance, and snow clearance of street ROWs are sensitive to potential parking spillover effects from sites that do not accommodate typical parking utilization rates. Potentially effected operations include: Fire and emergency response; Snow clearing and removal; Solid Waste Services; Public Transportation; ROW and Land Use Enforcement; and Traffic related operations.

Section 3: Bicycle Parking

3.1. Bicycle Parking Utilization and Needs

Amendments to Title 21 propose to require at a minimum two bicycle parking spaces (a single U-rack) per use, and to increase bicycle parking requirements within the urban neighborhood context. The proposal also calls for some uses to provide long-term bicycle parking spaces to address the lack of secure long-term bicycle storage for commuters and residents, as well as design requirements which will be updated and relocated to the same sub-section as the bicycle space number requirements. These changes were made with consideration of the current and future mode share of cyclists, directives in planning documents for bicycle infrastructure, stakeholder comments, research on comparable winter communities, and consideration of the role of infrastructure in shaping travel behavior.

Bicycle Utilization Rates and Mode Share Targets

The Municipality of Anchorage and other transportation agencies in the region have traditionally spent most transportation funding facilitating the use of motor vehicles. As a result, most travel behavior in the region ends up being primarily by vehicle rather than other less expensive mode. This situation impacts both observations of travel behavior in the existing environment and projections based on those observations; setting driving as the default mode of travel for the present and assuming that it will remain the default mode in the future as well. Transportation access does not necessarily mean access by motor vehicle, although traditionally the two have been considered synonymous. Given a completely objective environment with equal infrastructure for all modes, people may still strongly prefer driving, but there is no way of knowing what an organic breakdown of mode choices might be. For Anchorage of today, most of the existing infrastructure makes driving the easiest choice to make.

Considering this context, staff explored how to measure and predict the need for bicycle infrastructure in a built environment where bike infrastructure has never been a priority. Local and census data show that Anchorage has both many cyclists and many households without access to a motor vehicle, but it is impossible to know how many more (or fewer) non-driving households there might have been given a different set of infrastructural investments over the past 50-100 years. Staff's starting point for developing bicycle parking or access standards began with adopted planning documents, existing mode share data, and comments from stakeholders in the community. Current adopted and draft policy documents provide clear support for the development of additional bicycle infrastructure and transportation choices.

U.S. Census Mode Share Data

2020 ACS Five Year Tables (S0801) from the US Census indicate that bicycling as a percentage of mode share has not changed significantly since 2010:

	2010 5 Year ACS	2020 5 Year ACS
Percentage of workers who commuted by bicycle	1.0%	1.1%
Number of workers who commuted by bicycle	1,460	1,661
Percentage of workers who walked	2.6%	2.6%
Percentage of workers who took public transit	1.5%	1.5%
Worked from home	3.7%	5.5%

The 2014 Anchorage Metropolitan Area Transportation Solutions (AMATS) Regional Household Travel Survey found that 2.4% of commuting trips were made by bicycle, and 1.5% of all trips were made by bicycle.

U.S. Census 5-Year ACS data from 2020 (B08201) show that approximately 5.4% of households (5,828 of 106,970 total households) have no vehicle. An additional 6.6% of households (7,143 of 106,970 total households) have three or more members but only one vehicle. This data could suggest that there could be around 10-11% of households in Anchorage that could benefit from additional forms of access.

Plan Mode Share Data

The AMATS 2040 *MTP* states that, "In the Anchorage region, bicycling and walking to work are 3.1% and 1.2%, respectively, lower than the statewide averages. Based on the AMATS regional household travel survey for all trips, including running errands and recreational travel, bicycling is used for 1.5% of all trips and walking is used for 8.2% of trips".

Bike Anchorage Bicycling Data

Bike Anchorage has submitted comments supporting additional bicycle parking and infrastructure in Anchorage. From 2007 to 2017, Anchorage Bike to Work Day saw a 260% increase in ridership, despite a general population decrease during the same period.

Bicycle Parking Guidance from Plans

- **2010 Anchorage Bicycle Plan:** "Double the amount of utility bicycling while reducing the number of bicycle crashes by one third.
- **Anchorage 2040 LUP:**
  - LUP 3.2. Promote the development of main street, transit-oriented, and mixed-use corridors that help meet the city's needs for retail, services, jobs, and housing; and that support these uses and adjoining neighborhoods with access to multiple modes of travel and attractive pedestrian environments. LUP Policies 2.1, 2.2, 2.3, 5.2, 5.3, 5.4, 6.1, 6.2, 6.3, and 8.3 are also integral to this Goal.
  - LUP 5.4. Incentivize developments to incorporate "low-impact development" techniques, such as reuse or filtration and use of on-site storm water and wastewater, energy efficiency and renewable energy, urban agriculture, and parking and congestion management strategies, and protection of riparian corridors and natural open spaces.
  - LUP 8.2. Provide new and improved trails, greenbelts, and other pedestrian facilities as alternative travel ways connecting open spaces, neighborhoods, and centers.
- **Spenard Corridor Plan (2020)**
  - Policy 2.8: To the extent feasible, walkability should be maximized along all public streets by decreasing the amount of right-of-way dedicated to vehicular travel.
  - Policy 2.12: Efficient multi-modal transportation systems in the Spenard Corridor (bicycle, pedestrian, transit, freight and motor vehicles) should enhance Anchorage's regional circulation network.
  - Policy 2.13: Providing a safe, clear and interconnected pedestrian and bicycle circulation system that is integrated with public transit should be a high priority for all investment in the area.

  - Policy 2.25: All projects should consider opportunities to reduce energy consumption, conserve resources and minimize negative environmental impacts.

- **MTP 2040 (2020):** Objective 3I - Reduce the passenger vehicle miles traveled (VMT) and passenger vehicle hours traveled (VHT) per capita.
  - Policy 3I-2 Support initiatives that increase bicycle, pedestrian, and transit mode share.
- **MTP 2040 (2020):** Objective 3I - Reduce the passenger vehicle miles traveled (VMT) and passenger vehicle hours traveled (VHT) per capita.
  - Policy 3I-2 Support initiatives that increase bicycle, pedestrian, and transit mode share.
- **AMATS 2050 MTP (Draft)**
  - **Goal 3: Improve Mobility Options:** Support an efficient, reliable and connected transportation system that allows people to succeed by equitably improving access and mobility to all activities.
    - 3B. Provide transportation facilities to encourage and accommodate pedestrian and bicycle travel.
    - 3D. Enhance the connectivity of the existing street network, minimizing barriers and disconnections of the existing roadways, and improve multi-modal access to activity centers.
    - 3H. Design and maintain multimodal facilities to accommodate winter mobility.
  - **Goal 5: Promote a Healthy Environment:** Protect, preserve, and enhance the natural environment to promote sustainability and public health.
    - 5C. Coordinate transportation and land use planning to support intermodal connections that reduce reliance on auto trips and encourage active transportation.
    - 5E. Promote healthy lifestyles through increased active transportation.

Increased bicycle parking and bicycle infrastructure play a significant factor in encouraging bicycling activity. The degree to which bicycle infrastructure should implement this planning guidance is a policy decision and ultimately rests with policy makers.

Bicycle Parking Benefits and Importance

Bicycle parking facilities improve convenience and safety for cyclists, which makes cycling a more attractive travel means. An analysis of peer-reviewed papers found that bicycle parking supply and quality is a determinant of cycling as a travel for both current and potential cyclists.[3] A greater number of people traveling to destinations by bicycle can reduce automotive traffic congestion and make the existing road infrastructure more efficient. More cyclists also mean fewer emissions for better air quality and less traffic noise. In addition, there are physical health and mental health benefits from the activity of cycling, which has direct and indirect benefits to public health costs and well-being.

[3] Eva Heinen & Ralph Buehler (2019) Bicycle Parking: A Systematic Review of Scientific Literature on Parking Behaviour, Parking Preferences, and Their Influence on Cycling and Travel Behaviour, Transport Reviews, 39:5, 630-656, DOI: 10.1080/01441647.2019.1590477.

Facilities that increase cyclist use of an area can have economic benefits for businesses. Cyclists tend to shop closer to home (support local businesses) and have a greater number of shopping trips. When conditions exist for active travel, more people pass by businesses and become aware of them. Cyclists also help create a lively streetscape, which create a feeling of safety through natural surveillance.

Bicycle parking spaces are less expensive to install than automobile parking spaces that take up more space. Replacing some automobile spaces with bicycle spaces within urban contexts is a costs savings. Bicycles are less expensive to own and maintain than vehicles. Improving access to bicycle parking to facilitate cycling as a convenient mode choice will address some disparate inequities in reliable transportation across different household incomes.

The *2010 Anchorage Bicycle Plan* calls for long-term bicycle parking spaces. Long-term bicycle parking spaces provide protection from the elements and greater security to meet the needs of commuters and residents.

Basis for Proposed Bicycle Parking Requirements

The Role of Infrastructure in Shaping Travel Behavior

Every travel trip requires a beginning point, an end point, and travel infrastructure in between. What communities require to each point and in the space that connects them are the community's statement about what kinds of travel it would like to facilitate and which way it would prefer to provide access. By enhancing the bicycle parking requirements in Title 21, the community is establishing that bicycle usage is important to the municipality and thus that bicycling should be encouraged through code.

The starting point for bicycle parking requirements can be a complicated issue. Motor vehicle parking requirements, which have existed for decades, are often based off national publications or local observations of built environments designed for driving and free parking[4]. Observations like these often fail to account for the role that existing conditions play in shaping travel behavior, and thus observed parking demand in existing environments is often less a reflection of how much people value vehicle storage than how much people value *free* vehicle storage. Bicycle parking, if available, is also generally free throughout the city, but lacks the same robust travel infrastructure in between starting and end points. This means that observations of low amounts of bicycle travel appear to suggest low interest in bicycle use, when in fact there is no way of knowing with certainty how people might behave in different infrastructural conditions. However, despite the lack of supportive infrastructure, data does indicate that there are still some people and households traveling regularly by means other than motor vehicle. These citizens can be at the very least accommodated and could also be indicators of more interest in bicycling given sufficient infrastructure.

Secure, convenient bicycle parking is a powerful encouragement to ride a bicycle, and its absence at the trip destination is a powerful deterrent. For example, a study of New York City bicycle utilization factors found that a lack of bicycle parking in that city is the second largest barrier to more people bicycling for their trips (the largest barrier being road traffic). There are 1.5 automobile parking spaces for every car in New York City, but only 1 bike space for every 116 bikes in the city. Lack of bike parking precludes more people from riding bicycles.

[4] Shoup, D. (2018). *Truth in Transportation Planning* (pp. 59-73). Routledge.

Lack of safe, secure bike parking has become a leading deterrent to potential bicycle commuters with the rise in bike theft According to mobilitylab.org, 1 in 4 active cyclists have experienced theft. A bike locked to a fence, tree, parking meter, or sign is a much more likely target of theft than a bike locked to a properly designed and located bicycle rack, locker, or secure bike shelters/rooms.

What Is the Starting Point for Predicting Travel?

Travel decisions are made by people and predicting human behavior in advance can be very difficult. Although motor vehicle parking requirements are traditionally based off land use, land use is not a reliable predictor of travel behavior because (with some exceptions) there is no clear causal relationship between land use and travel activity. Land uses can attract travel activity, but not physically generate it; it remains the starting point largely because from the perspective of enforcement and regulation it is standardized and convenient.[5]

In predicting the need for bicycle facilities, staff sought a hybrid approach of considering local data, community values as directed in planning documents, reasonableness of application, and federal guidelines for space usage based on land use. Staff assumed that planning documents would support the requirement of at least one bicycle parking space per use, and infrastructure requirements which would accommodate up to a 10% mode share. In some cases rounding standards to a whole number aid in implementation as well. This approach yielded some parameters for setting rules which are both enforceable and linked to existing conditions on the ground. Based on the understanding that surrounding context plays a significant role in shaping travel behavior, staff also varied parking requirements depending on a land use's location within a larger area-specific context. For this reason, areas with more bicycle infrastructure are likely to see more biking activity while places with more driving infrastructure are likely to see less biking activity. The differences between long- and short-term spaces are based on assumptions about mode share and behavior.

A Specific Example

For a hypothetical office use, the code amendments propose 1 bicycle space per 5,000 square feet of gross floor area in area-specific contexts, and 1 space per 10,000 square feet of gross floor area everywhere else in the city. This compares with the existing vehicle parking requirements, which mandate 1 vehicle parking space per 350 square feet of gross floor area. Under the proposed code and existing code, a 100,000 square foot office space in south Anchorage would require 10 bike parking spaces and 286 car parking spaces.

Where Does this Number Come from?

Based on census data and MTP 2040 plan data, staff assumed that 2-3 of every 100 workers commute to work by bicycle under existing conditions. From this starting point, staff assumed that regulations might require a new office development to accommodate anywhere between 2-3% of bicycle commuting trips to meet current need to 10% of bicycle commuting trips to reach an aspirational target. These percentages provide a useful number to apply to employees at a given use, but are still difficult to implement because at the permitting stage developers generally don't know employee numbers but they do know square footage. As mentioned previously, using land use as a primary variable for setting regulatory standards can be problematic if there is no causal relationship established, but it is also fixed and relatively simple to regulate.

[5] Goodman, W. I., & Freund, E. C. (1968). Principles and practice of urban planning.

To establish a link between employees and land use, staff turned to the US Department of Energy's Commercial Buildings Energy Consumption Survey (CBECS)[6], which provides an estimate that office uses generally have about 508 square feet of space per worker. This provides a link between the number of workers or commuters with the land use of a number of different types of buildings, thus offering a nexus for the planning department to tie infrastructure needs to the permitting process. Using this CBECS data, a 100,000 square foot development might be expected to host about 197 workers, and 2-3% of 197 is 4-6, or 10% of 197 is 20---meaning between 4 and 20 bicycle spaces could be required for this development.

As noted above, this code proposal offers a bike parking requirement of between 1 space per 5,000 SF gfa and 1 space per 10,000 SF gfa. According to CBECS data, a 5,000 sf gfa office could be expected to have about 10 workers, and trying to accommodate 2-3% of 10 workers would mean requiring either zero bicycle parking spaces or one, and this code proposal aims to accommodate the latter. The table below compares different requirements and methods for calculation:

Table 3-1. Methods for Calculating Bicycle Parking Requirements

Potential predictive measure	Hypothetical 5,000 sf gfa office	Hypothetical 100,000 sf gfa office
Number of workers for this square footage, according to Commercial Buildings Energy Consumption Survey (CBECS)	10 workers	197 workers
Number of spaces needed to accommodate 2-3% bicycle mode share (rounding up)	1 bicycle space	4-6 bicycle spaces
Number of spaces needed to accommodate 10% bicycle mode share	1 bicycle space	20 bicycle spaces
Number of car spaces mandated by code	14 car spaces	286 car spaces
Number of bicycle spaces required by this code proposal (Area specific contexts)	1 bicycle space	20 bicycle spaces
Number of bicycle spaces required by this code proposal (all other areas of the city)	1 bicycle space	10 bicycle spaces

One shortcoming of this approach is that it only looks at workers rather than customers, students, or other visitors. As mentioned above, MTP 2040 data suggests that around 1.5% of all trips (not just commuting) in Anchorage are completed by bicycle, and this aligns with the worker-based assumption that new development should accommodate about 2-3% of trips. The code proposal requires that nearly all uses shall provide some amount of bicycle parking in order to always accommodate even a small proportion of bicycle travelers throughout the city.

[6] https://www.eia.gov/consumption/commercial/data/2018/bc/html/b1.php

Variations by Urban Neighborhood Context

The proposed bicycle parking requirements vary based on context, based on the assumption that land use and infrastructural context is one of the biggest variables in shaping travel behavior. One exception to this is group living uses, Rooming houses, and homeless and transient shelters, which are proposed to have the same requirement in all areas across the city. This is due to the assumption that income also plays a role in travel behavior, and those with the lowest incomes are more likely to use less expensive forms of transportation.

Comparison of Current Title 21 and Recommended Bicycle Parking Requirements

The following table provides a comparison between the current and recommended bicycle parking requirements for example development scenarios.

Table 3-2. Comparison of Current and Proposed Bike Parking Requirements

Use Type	Bicycle Parking Required under Current Title 21	Bicycle Parking Required under Proposal: Area-Specific Contexts	Bicycle Parking required under Proposal: All Other Areas
Multifamily 4 units	none	2 spaces	2 spaces
Multifamily 10 units	none	5 spaces (3 long-term)	2 spaces
Multifamily 100 units (studio/1-BR apartments)	4 spaces	50 spaces (45 long-term)	10 spaces (8 long-term)
Office with 20 parking spaces (7,000 sf)	none	2 spaces	2 spaces
Office with 40 parking spaces (14,000 sf)	4 spaces	3 spaces (1 long-term)	2 spaces
Office with 100 parking spaces (35,000 sf)	4 spaces	7 spaces (4 long-term)	4 spaces (2 long-term)
4,000 SF Restaurant (40 car parking spaces)	4 spaces	2 spaces	2 spaces
Retail with 20 parking spaces (7,000 sf)	none	2 spaces	2 spaces
Retail with 40 parking spaces (14,000 sf)	4 spaces	2 spaces	2 spaces
Retail with 80 parking spaces (28,000 sf)	4 spaces	2 spaces	2 spaces
High School with 20 classrooms	4 spaces	80 spaces (20 long-term)	40 spaces (10 long-term)

How Does This Compare to Other Cities?

The majority of comparable cities require a general minimum of two bicycle spaces and a few require a general minimum of one, three, or five spaces. Tables 3-3 and 3-4 compare bicycle parking requirements for 10 cities as of 2018-19.

Table 3-3. Bicycle Parking Space Requirements for Residential Multi-Family in Ten Comparable Cities

City	General Minimum	Residential Multi-Family
Ann Arbor, MI	N/A	1 per 5 dwelling units (50% long-term)
Boise, ID	One bicycle parking space within an approved rack shall be required for each 10 required automobile parking spaces. If more than 10 bicycle parking spaces are required, 25% of the required bicycle parking spaces shall be covered. Any fractional bike space requirement will be rounded up.	1 per dwelling unit
Buffalo, NY	For new construction, expansion by 2,500 square feet or more, or substantial renovation: A minimum of 2 for each use where bike parking is required; After the first 20 bicycle parking spaces no additional bicycle parking is required for a principal use. If the principal use is not listed, no bicycle parking is required.	1 per 5 dwelling units (90% long-term)
Burlington, VT	Where no requirement is designated, and the use is not comparable to any of the listed uses, bicycle parking requirements shall be determined by the DRB upon recommendation of the city's bicycle and pedestrian planner based upon the capacity of the facility and its associated uses. When the calculation yields a fractional number of required spaces, the number of spaces shall be rounded to the nearest whole number. Where bicycle parking is required, the minimum number of bicycle parking spaces at each site shall be two (2), not including long-term parking.	1 short-term space per 10 dwellings; 1 long-term space per 2 bedrooms
Edmonton, AB, Canada	For all other Uses the minimum number of Bicycle Parking spaces shall be one Bicycle Parking space per 140 m2 of Floor Area. At least 10% of Bicycle Parking spaces shall be short term spaces.	1 space per two dwellings For Duplex Housing, Garden Suite, Mobile Home, Multi-unit Housing in the form of Row Housing, Secondary Suite, Semi-detached Housing, Single Detached Housing, no bicycle parking is required.
Madison, WI	A minimum of 2 spaces is required per non-residential use.	1 per unit to 2 bedrooms, 1/2 space per additional bedroom; 1 guest space per 10 units (90% long-term)
Minneapolis, MN	Non-residential uses having one thousand (1,000) square feet or less shall be exempt from minimum bicycle parking requirements. Multiple-tenant or multiple-use buildings may exempt no more than four (4) uses of one thousand (1,000) square feet or less from the minimum off-street bicycle parking requirement.	For 4 or more dwellings: 1 per dwelling unit
Missoula, MT	A minimum of 2 short-term spaces and 1 long-term space for most uses where bicycle parking is required.	Short-term 1 space for every 4 units, with a minimum of 2 spaces, and long-term 1 space for every unit
Portland, OR	For most uses where either short-term or long-term spaces are required, the development shall provide a minimum of 2 spaces.	1 short-term space per 20 units and 1.1 long-term spaces per unit
Spokane, WA	In form-based or mixed-use districts, the number of required bicycle spaces shall be either (a) or (b): (a) 5% of off-street auto spaces being provided, whether the auto spaces are required or not, or (b) 1 space per 10,000 SF GFA and at least one 1 bicycle space for buildings less than 10,000 SF.	

Table 3-4. Bicycle Parking Requirements for Non-Residential Uses in Ten Comparable Cities

City	Retail	Restaurants, Bars	Community and Institutional Buildings	Office and Health Services	Industrial
Ann Arbor, MI	1 per 3,000 square feet (sf)	1 per 750 sf		Varies: 1 per 1,500 sf to 3,000 sf (30% long-term)	Varies: 1 per 25,000 sf to 30,000 sf for most uses
Boise, ID	1 for every 10 auto spaces; if more than 10 bike spaces, 25% shall be covered				
Buffalo, NY	1 per 3,000 sf	1 per 3,000 sf	1 per 10,000 SF (25% long-term)	1 per 10,000 sf (75% long-term)	1 per 25,000 sf; except 1 per 10,000 sf for artisan (75% long-term)
Burlington, VT	1 short-term space per 2,000 sf and 1 long-term space per 12,000 sf	1 short-term space per 500 sf of seating; 1 long-term space per 1,000 sf	1 short-term space per 1,500 sf; 1 long-term space per 20,000 sf	1 short-term space per 8,000 sf (health) or 10,000 sf (office) and 1 long-term space per 5,000 sf	1 short-term space per 25,000 sf (at least 2 per primary entrance); 1 long-term space per 20,000 sf
Edmonton, AB, Canada	5% of required vehicle parking spaces	5% of required vehicle parking spaces	10% of required vehicle parking spaces	5% of required vehicle parking spaces	5% of required vehicle parking spaces
Madison, WI	1 per 2,000 sf	5% of capacity of persons	Library or museum: 1 per 2,000 sf	1 per 2,000 sf (office); 1 per 5 employees (health)	1 per 10 employees
Minneapolis, MN	Varies; most retail is 1 space per 5,000 sf	3 spaces	6 spaces, or 1 space per 2,000 sq. ft. of GFA, whichever is greater	Varies: 1 space per 4,000 sq. ft. of gross floor area	Varies. 1 space per 20,000, 30,000, or 40,000 SF (50% long-term)
Missoula, MT	Commercial and civic uses shall provide long term bike spaces at a rate of 20% of the number of employees at peak shift, with a minimum of 1 bicycle space.	Commercial and civic uses shall provide short term bike spaces at a rate of 10% of the number of required off-street automobile parking spaces, with a minimum of 2 bicycle spaces. This includes the Central Business District where automobile parking is not required.	Commercial and civic uses shall provide long term bike spaces at a rate of 20% of the number of employees at peak shift, with a minimum of 1 bicycle space.	Commercial and civic uses shall provide long term bike spaces at a rate of 20% of the number of employees at peak shift, with a minimum of 1 bicycle space.	1 short-term space per 20 automobile spaces, and 1 long-term space per 5 employees.
Portland, OR	1 short-term space per 5,000 sf and 1 long-term space per 12,000 sf	Varies - same as retail or new requirement.	1 short-term space and 1 long-term space per 10,000 sf	1 short-term space per 40,000 sf and 1 long-term space per 10,000 sf	Manufacturing and production: 1 long-term space per 15,000 sf. Warehouse and freight movement: 1 long-term space per 40,000 sf.
Spokane, WA	In form-based or mixed-use districts, either: (a) 5% of off-street auto spaces being provided, or (b) 1 space per 10,000 SF GFA and at least one 1 bicycle space for buildings less than 10,000 SF				

3.2. Bicycle Rack Design Specifications

Bicycle Design Guidance

Municipal Plans

The *2010 Anchorage Bicycle Plan* covers bicycle facility design guidelines. The plan references industry bicycle parking design standards for a typical bicycle parking space dimension being 2 feet by 6 feet with an aisle at least 5 feet behind such that a bike may be removed without moving another bicycle. For improved safety, the plan also calls for bicycle parking to be separated from car parking. The inverted "U" style bicycle rack is the recommended style in the *2010 Anchorage Bicycle Plan*.

- NMTP (page 230) recommends spacing horizontal bike racks 3 feet apart to provide adequate handlebar space and maneuvering room. Other codes also reflect this spacing. This suggests that the minimum bike space width could be reduced from the public hearing draft width of 2 feet to 1 foot six inches. However, feedback from the bicycle community indicates that 1.5 feet, although mostly usable, is inconveniently tight even with narrow bars and normal-sized pedals. Standing next to a summer bike while parking it in that space, which allows best access for secure locking, would require bicyclists to remove their pannier to let themselves out from between the two bikes. That's manageable for some but inconvenient and would be worse with a fat-tire bike or mountain bike. The 2-ft width can also be a little tight sometimes but is more usable. Although this presents a tradeoff with the space and cost of installing bike parking, specifying a 2-foot width meets the objective to make the bicycle facilities to meet the intended purpose and be useful to a variety of people with a variety of bikes.
- NMTP (page 230) recommends bike racks should be located 3 feet minimum from vehicle parking spaces to avoid the door zone of parked cars. Staff believes that 2 feet six inches as proposed in the public hearing draft should be adequate as a minimum standard.
- NMTP (page 230) recommends 6 feet of parallel clearance space between bike racks to allow for the length of a bicycle if that space is being used for accessing the bike racks. It also recommends 6 feet of clearance space in front of bike lockers and 7 feet of clearance between facing lockers. Staff tests however indicated that a minimum of 5 feet of clearance as proposed in the public hearing draft should be adequate.
- A field visit to the Anchorage Trek bicycle store provided information on real-world conditions. The Trek Store generally stores racked bikes at 2 feet apart, with 44 inches of space between levels, hanging bikes with hooks spaced about 19 inches apart with a 12-inch vertical stagger, placed at 6'5" or 7'5" height on the wall.

How Does This Compare to Other Cities?

Table 3-5. Bicycle Parking Design Requirements in Ten Comparable Cities

City	Bike Space Dimensions	Location, Access Aisles, Signs/Visibility
Ann Arbor, MI	N/A	Exterior bicycle parking facilities shall be placed in close proximity to main building entrance. Bicycle parking in Parking Structures shall be located on the Street level and near an entrance and Public Sidewalk. Must be in a location that is visible and easily accessible.
Boise, ID	2.5-feet wide and 6-feet long; 7-feet overhead clearance	Within 50 feet of the main entrance from the building. 4-foot-wide aisle between rows of bike spaces or nearby walls
Buffalo, NY	2-feet wide and 6-feet long	Short-term bicycle parking must be placed within 100 feet of and clearly visible from the main entrance of the use served. Required bicycle parking not visible from the street or public entrance, a sign at the public entrance must indicate the location of the parking.

City	Bike Space Dimensions	Location, Access Aisles, Signs/Visibility
Burlington, VT	Shall be sufficient dimension to accommodate a full-sized bicycle, including space for access and maneuvering.	Short-term bicycle parking or a sign leading thereto shall be visible from the main entrance.
Edmonton, AB, Canada	N/A	N/A
Madison, WI	2-feet wide and 6-feet long	Access aisle a minimum of 5 feet in width. Must be accessible without moving another bicycle and its placement shall not result in obstruction of a required walkway. Short-term bicycle parking spaces shall be located in a convenient and visible area within 100 feet of a primary entrance.
Minneapolis, MN	Bicycle parking spaces must be accessible without moving another bicycle and its placement shall not result in a bicycle obstructing a required walkway.	Bicycle parking spaces must be accessible without moving another bicycle and its placement shall not result in a bicycle obstructing a required walkway. Bicycle racks shall be installed to the manufacturer's recommended specifications. Accommodation of varied bicycle sizes and styles, including electric bicycles and cargo bicycles, is encouraged. Required short-term bicycle parking spaces shall be located in a convenient and visible area within fifty (50) feet of a principal entrance. Required long-term bicycle parking spaces shall be located in enclosed and secured or supervised areas providing protection from theft, vandalism and weather and shall be accessible to intended users. With permission of the zoning administrator, long-term bicycle parking spaces for non-residential uses may be located off-site within three hundred (300) feet of the site.
Missoula, MT	2-feet wide and 6-feet long; minimum of 7 feet of vertical clearance (unless storage is a locker)	A parked bicycle occupies a space of 24" x 60". Rack design and location must accommodate this space and allow a person to park her bike without moving another bike. If required short-term spaces are not visible from the street or main entrance, signs must indicate their location.
Portland, OR	The standard required bicycle space is 2 feet wide, 6 feet long and 3 feet 4 inches tall.	There must be at least 5 feet behind all bicycle parking spaces to allow room for bicycle maneuvering. A wall clearance of 2 feet 6 inches must be provided. If bicycle parking is not visible from the streets or main building entrances, a sign must be permanently posted at the main entrance indicating the location of the bicycle parking.
Spokane, WA	All bicycle parking facilities in the street right-of-way shall conform to City engineering services department standards.	

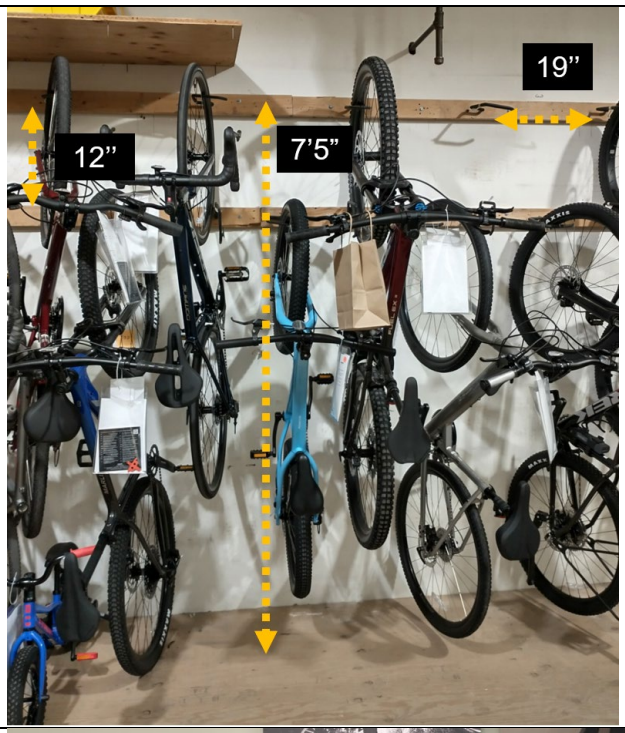
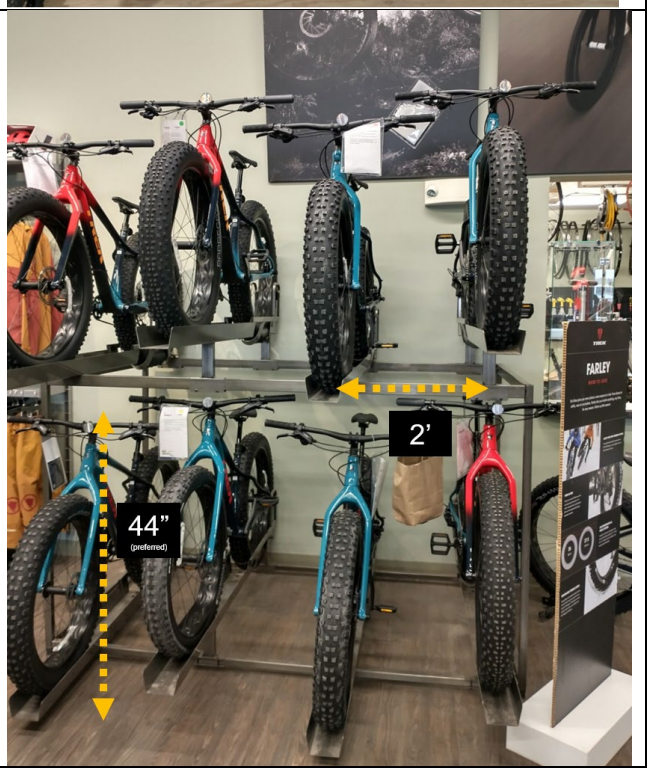
Long-Term Bicycle Parking Design Specifications

Planning staff researched comparable winter-city community requirements and looked into codes recommended by Bike Anchorage. Most of the differences for Anchorage from other communities relate to the higher usage of fat bikes for winter riding in Anchorage, which sometimes require wider bicycle parking facilities to accommodate the greater wheel width. Standards are intended to be as flexible as possible while also providing secure bicycle storage for residents, employees, or anyone else who needs to store their bike under higher security for a longer time period.

Long-Term Bicycle Parking In Use at Anchorage Bike Businesses

Staff visited the Trek store in Anchorage for additional information about how bike professionals store and use large volumes of bikes in an indoor setting. Annotated images of current conditions can be found in the table below. These data are useful for this project because they:

- Demonstrate how a business seeking to both preserve bikes and maximize space makes decisions about space utilization
- Offer a wide range of bicycle shapes and sizes in hanging and standing positions

Wall rack with staggered hanging bikes: • 12” vertical space between hooks • 19” horizontal space between hooks • 7’5” between the floor and the top bar for hooks.	
Fat Bike Horizontal Rack: • 2’ separation between tire trays • Both levels should accommodate a bike up to 44” tall	

Road/Regular Bike Horizontal Rack: • 17” separation between tire trays • Both levels should accommodate a bike up to 44” tall	
Cramped Horizontal Bike Rack: • Wheel trays at 14” apart are two close together. Requires touching multiple bikes to remove one, or layering bikes based on height.	

Diagonal Stagger rack: • 15-16” between diagonal trays	

Section 4: Driveway and Parking Dimensions

4.1. Driveway Dimensions

Single-Lane Driveways

Currently, Title 21 and the Municipal Driveway Standards require two-lane access driveways into off-street parking facilities for multifamily developments. This Title 21 amendment includes the concept of allowing as-of-right single-lane driveways for smaller parking facilities for multi-unit residential developments, up to a certain number of dwelling units or parking spaces, in certain situations. Examples of potentially acceptable situations could be as follows:

- Unit Threshold: Up to possibly 6 or 8 units
- Parking Space Threshold: up to 8 or 10 parking spaces.
- Situation Threshold: Access is from a local street, not on a collector or arterial.

This section establishes the basis for the what multifamily parking facilities that are proposed receive access from a one-lane driveway. The primary basis is forecast vehicle traffic volumes on the access driveway. If a development has low trip volumes, then a single-lane, two-way access driveway could be adequate, because cars will rarely have to wait for one another.

The Trip Generation Manual breaks trips down to average daily trips as well as peak hour trips. The staff used the peak hour trips to guide the recommended threshold for when a two-way driveway should be required. The number of trips during the peak hour was used as an indicator of the number of conflicts that could occur at a one-way driveway. Staff used judgement call to determine how many conflicts are acceptable. Staff determined to use a threshold of 4 vehicles per hour, or an average vehicle per every 15 minutes, as a threshold. The typical number of dwelling units

The other thing to consider is that there's almost certainly a threshold beyond where a project can be developed without an on-sight fire access road. A structure can only have a footprint as large as the hose-lay distance from the fire access road. It would be counterproductive to allow one-way driveways in AMC when Fire Code would ultimately override Title 21 and require at least a 20-foot-wide driveway.

I suppose some consideration should also be given to trash pickup on these sites. I'm not sure if there's a threshold where a dumpster becomes required over standard curbside pickup, but garbage vehicle access could also drive a need to have a larger driveway.

The following tables, compiled by municipal Public Works, indicates the estimated average daily trips and peak hour volumes for small multifamily developments. The data is from the ITE Trip Generation Manual, 12th Edition. This is not most current edition of the manual however Traffic Engineering staff has found that not much has changed in the new edition.

The ITE Trip Generation Manual includes a low, average, and high rate along with a fitted curve for each set of data. Where the fitted curve provided an estimate that fell within the low-high rate range staff provided an estimate based on the fitted curve. Where the fitted curve estimate fell outside of the low-high rate range staff provided an estimate based on the average rate. The tables indicate if the estimates are from the average rate or the fitted curve.

Peak Hour Trip Estimates

The following tables focus on housing types most likely in Anchorage where we might see occurrences of between 3 and 10 units:

- Apartment
- Low-Rise Apartment
- Mid-Rise Apartment *(Note: A majority of sites in this type probably have more than 10 units, but there are also some 8 or 9 plex type 3-story buildings.)*
- Residential Condominium/Townhouse
- Low-Rise Residential Condominium/Townhouse

The following subsections use data from ITE Trip Generation Manual 9th Edition (2012):

Apartment

Description: Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example. Quadraplexes and all types of apartment buildings. The sites were surveyed between the late 1960s and the 2000s throughout the United States and Canada.

Weekday ADT	
Dwelling Units	Trips Average Rate
3	20
4	27
5	34
6	40
7	47
8	54
9	60
10	67

Weekday, P.M. Peak Hour	
Dwelling Units	Trips Average Rate
3	3
4	3
5	4
6	5
7	5
8	6
9	7
10	7

Low-Rise Apartment

Description: Low-rise apartments (rental dwelling units) are units located in rental buildings that have one or two levels (floors), such as garden apartments. The sites were surveyed between the early 1970s and the late 1990s throughout the United States and Canada.

Saturday ADT	
Dwelling Units	Trips Average Rate
3	22
4	29
5	36
6	43

Weekday, P.M. Peak Hour	
Dwelling Units	Trips Fitted Curve
3	4
4	5
5	6
6	7

Saturday ADT	
7	51
8	58
9	65
10	72

Weekday, P.M. Peak Hour	
7	8
8	9
9	10
10	11

Mid-Rise Apartment

Mid-rise apartments are apartments (rental dwelling units) in rental buildings that have between three and 10 levels (floors). The sites were surveyed in the late 1980s in Montgomery County Maryland.

Weekday ADT	
Dwelling Units	No Data
3	
4	
5	
6	
7	
8	
9	
10	

Weekday, P.M. Peak Hour	
Dwelling Units	Trips Average Rate
3	2
4	2
5	3
6	3
7	4
8	4
9	4
10	5

Residential Condominiums/Townhouse

Residential condominiums/townhouses are defined as ownership units that have at least one other owned unit within the same building structure. **Both condominiums and townhouses are included in this land use.** The sites were surveyed between the mid 1970s and the 2000s throughout the United States and Canada.

Weekday ADT	
Dwelling Units	Trips Fitted Curve
3	31
4	40
5	48
6	56
7	64
8	72
9	80
10	87

Weekday, P.M. Peak Hour	
Dwelling Units	Trips Fitted Curve
3	4
4	5
5	6
6	6
7	7
8	8
9	9
10	10

Low-Rise Residential Condominium/Townhouse

Low-rise residential condominiums/townhouses are units located in buildings that have one or two levels (floors). **Both condominiums and townhouses are included in this land use.** The sites were surveyed between the late 1970s and the 2000s throughout the United States.

Weekday ADT	
Dwelling Units	No Data
3	
4	
5	
6	
7	
8	
9	
10	

Weekday, P.M. Peak Hour	
Dwelling Units	Trips Average Rate
3	3
4	4
5	4
6	5
7	6
8	7
9	8
10	8

Conclusions and Recommendations

Staff used this data to determine what volumes of driveway vehicle traffic a given number of dwelling units might generate. Small developments can get by with a single-lane, two-way driveway. The larger the development, the more likely a two-lane, two-way driveway would become more appropriate. To avoid any potential conflicts between arriving and departing vehicles on one-lane, two-way driveways, staff set a target threshold of no more than four trips per peak hour. In the tables above, this threshold tended to occur in developments having between 3 and 7 dwelling units, depending on the housing type.

Based on the age and source of the data, the project team believes that this data includes a built-in assumption that each dwelling had 2 parking spaces and the trip generation reflects a suburban, automobile-focused land use context. This assumption may not hold well in older, urban neighborhood contexts with lower average household incomes. Therefore, staff converted the 3 to 7 dwelling unit threshold into a threshold of 6 to 14 parking spaces. Staff averaged this range to arrive at a recommended threshold size of 10 parking spaces. A single-lane, two-way driveway can be appropriate access to residential parking facilities with 10 or fewer spaces. A two-lane, two-way driveway is recommended for access to residential parking facilities with more than 10 spaces.

4.2: Parking Space Dimensions

Most publications and zoning codes written before 2010 recommended an 18-foot parking stall length. The Dimensions of Parking (5th Ed., 2010) by ULI indicates common parking dimensions of 9'x18' (width x depth) for standard spaces (Figure 7-3, p. 62). The 18-foot dimension was based on the dimensions of a design vehicle—17 feet, 3 inches—plus 9 inches to account for the typical distance from the front bumper of a parked vehicle to the end of the stall. The ULI design vehicle was a popular medium-to-large size SUV, the Ford Expedition. By 2022, the Ford Expedition had grown to 18 feet 6 inches in length, reflecting the upward trends in vehicle sizes since 2010. According to J.D. Power (www.NADAguides.com), the average large SUV length is now 16 feet 9 inches, and the average large pickup length is 18 feet 4 inches.

Other historical sources corroborated the 2010 ULI dimensions. Transportation and Land Development (2nd Ed., 2006) by ITE indicated "desirable dimensions for standard parking stalls" in Table 9-4 (p. 9-26). It specified a 90-degree stall depth of 18 feet, regardless of stall width. The ITE Traffic Engineering Handbook (5th Edition, 1999) "Large-Size Parking Layout Dimension Guidelines" (Table 14-6, page 537) set a minimum stall depth of 17.5 feet. The ULI minimum dimensions assumed no physical barriers such as walls or curb stops between abutting rows of parking stalls. Curb stops or walls give parkers cues, especially in wintertime, help avoid pulling too far or not far enough into the stall and could justify smaller dimensions.

Staff research from approximately three dozen cities' zoning code parking dimensional standards dating from 2018-2022 found that only two cities studied (Shoreline, WA and Milwaukee, WI) require 20-foot minimum parking space depth. Seattle requires a percentage of spaces to be "large" with a 19-foot depth. Gresham, OR was next largest, requiring an 18'6" depth. All other cities researched, in cities as varied as Boise, Burlington, Cheyenne, Rochester, Edmonton, or Madison, required standard size parking stalls to have a minimum length of 18 feet or less, as documented in Attachment 6.3. Staff verified that the City of Homer code sets a minimum width of 9.0 feet and stall depth of 19.0 feet. The Fairbanks North Star Borough zoning code requires a minimum stall width of 9.0 feet and stall depth of 18.0 feet. However, staff team experience in visits to Fairbanks indicate that parking and maneuvering in Fairbanks' parking lots is tight in that city.

A 19-foot minimum length would accommodate the typical 18'4" to 18'6" length of large 2022 SUVs and pickups and leave an extra 6 to 8 inches distance from the front bumper to the end of the stall. This is a few inches less than the optimal 9 to 12 inches of extra distance. Some trucks in Anchorage have plows on the front, and many have trailer hitches. Therefore, because of the length of a portion of Anchorage's vehicle fleet, reducing the minimum stall length to 19 feet would increase the problem of vehicles overhanging into the parking bay drive aisle affecting maneuvering space, particularly in the wintertime where visibility and snow accumulation may decrease the used stall length. Reducing to 19 feet could also cause further overhanging into landscaping or walkways at the end of parking stall.

A 19-foot minimum length would provide ample space for most of the rest of Anchorage's vehicle fleet including medium-sized SUVs, full-sized cars, and small-to-medium-sized pickups which range from 15 to 17 feet in length. For example, the best-selling Toyota RAV4 2022 model is just over 15 feet in length.

Requiring a 20-foot parking space dimension where a 19-foot dimension would be adequate for most vehicles may seem a small difference, and come at cost of less parking convenience, maneuverability, and increased vehicle overhang into drive aisles, landscaping, and walkways. In addition, Title 21 already allows parking spaces with raised barrier curbs to incorporate the 2 feet at the end of the stall into abutting landscaping or walkways. This effectively already allows the paved portion of the stall

length to be 18 feet, and the remaining 2 feet added to the width of adjoining landscape beds and walkways.

However, the extra foot used by 20-foot spaces, when multiplied across a site or district it comes at a dollar cost, loss of land, and incremental degradation of site and urban design quality. Less parking surface could mean an incremental reduction in impervious surfaces, runoff, and snow storage piles. The savings would accumulate in large parking lots and may help small infill developments fit on tight sites. As the Urban Land Institute states in The Dimensions of Parking (page 64):

> Parking ordinances that require excessively generous parking geometrics waste land and other resources, and stymie development. Such ordinances are also often in conflict with other community goals, such as green space and reducing stormwater runoff. Instead, parking geometrics should reflect the requirements of the vehicles themselves, and those of users.

A 19-foot versus 20-foot STANDARD parking stall length is a choice between policy priorities. Should the standard accommodate the larger percentile vehicles common in Anchorage and continue to maximize parking convenience and maneuvering? Or reduce to encourage pedestrian-scale infill and redevelopment on smaller, urban lots in neighborhoods platted when vehicles were smaller and less common? The policy priority tilts one way or the other depending on the part of town. The proposed Urban Neighborhood Development Contexts were created to resolve just this kind of conundrum.

For the Traditional and Edge Urban Neighborhood Context Areas, staff team has recalculated the geometric formulae for all angles of parking for the Standard parking space size, based on a 19-foot minimum vehicle projection length for the 90-degree angle, tracking that change down through the 75- 60- and 45-degree angles, as suggested by the commenter. Prioritizing compact, pedestrian-friendly development with less impervious paved area seems appropriate in the urban neighborhoods seeking to redevelop in a way consistent with their historical development pattern.

Section 5. Appendices

5.1. Additional Consultations Stakeholders and Agencies

Agency Consultations

The following notes document agency feedback received at four consultations with right-of-way agencies in 2021. These consultations included:

- 3/2/2021 consultation with representatives from six ROW agencies (identified in notes)
- 3/2/2021 consultation with ROW enforcement and land use enforcement staff
- 6/1/2021 consultation with four ROW agencies (identified in notes)
- 7/22/2021 follow-up consultation with Street Maintenance

Initial Consultation Meeting with Municipal ROW Agencies: Planning Staff Notes
3/2/2021

Attending:
Traffic Engineering: John Crapps, Kris Langley, Randy Ribble
Street Maintenance: Paul Vanlandingham
ROW Enforcement: Lynn McGee
Fire Department: Brian Dean
Public Transit Department: Bart Rudolph
Planning Department: Michelle McNulty, Tom Davis, Rick Novy, Elizabeth Appleby

Notes/Feedback:

1. Planning staff presented 3-2-2021 "Parking_Project_Consultation _ MOA ROW Mgmnt and Street User Agencies.ppt"
2. Agency comments/feedback regarding On-street Parking
    a. Parking enforcement is the lowest APD priority, not following up until at least day after event. In an area w/o Downtown style parking management, only recourse is to prohibit on-street parking, very problematic. If parking becomes safety issue in a street segment then Municipal Traffic Engineering restrict parking: No Parking Signs. Spillover parking induced by reduced or deleted parking requirement will create snow berms plowed around parked cars, which becomes an emergency access issue. So a scenario is an area w/o parking requirements inducing on-street parking which gets restricted and then there is no parking at all in that area. Then there becomes an enforcement issue. Traffic Engineer suggests looking at ADP and ACDA/EasyPark (Parking Authority) managing parking as examples, so we are not relying on APD, etc. to manage parking issues.
    b. There are some kinds of on-street parking that are illegal in current muni code (e.g., parking near stop signs, in front of mail boxes, parking for more than 24-hours.)
    c. Over-development of lots over the past 70-odd years has forced people to park in ROW, affecting Fire, Police, snow removal, CSOs (w/APD).
    d. Sidewalks covered in snow in winter—so more vehicle usage/parking seasonally. We should not just expect to be able to shift off-street parking to on-street.
    e. Traffic Engineer: ADA accessible parking spaces are still needed and should be required on-site—including in any areas where we propose to reduce/waive parking requirements.

3. Agency comments/feedback regarding on-site maneuvering:
    a. We can't have multi-unit housing projects with vehicles backing out into ROW. Backing out across sidewalk/bike facilities is also bad idea. Concerns with a blanket one-size fits-all waiver from maneuvering based on a code standard. Discretionary approval reflects that there are a lot of situational factors. Traffic Engineer needs ability to avoid/stop negative effects, e.g., in school zone.

4. Street Maintenance comments/feedback:
    a. Moving in the direction proposed—if off-street parking requirements are lowered shifting parkers to on-street parking—will increase costs for street maintenance. If we allow any

more on-street parking than currently allowed there will be a need to increase budgets/resources to deal with the additional parking.

b. More on-street parking eliminates snow storage along street for plows. 90%+ of all residential sidewalks in city are snow storage for plows in winter—that is just the reality of the situation with our ROWs as they exist. At current funding levels, Street Maintenance plows snow piles from sidewalks only periodically. Currently Street Maintenance has one 10-hour shift for all of the Downtown area. Street Maintenance could not meet timeframe with the current situation, if we expand the area of no or low parking requirements. Traffic Engineer: Muni would need to (1) expand ACDA-like parking enforcement, and (2) require prop owners to clear their sidewalks, like happens downtown.

5. Brian Dean/Paul Vanlandingham: Suggest follow up meeting regarding problem neighborhoods where parking has an issue.
    a. Paul/Traffic: There was a pilot program in Mt. View w/allowing parking on one side of street while plowing the other side. That has not been successful, especially since neighborhood involvement has declined. There is no enforcement. We have tried parking on one side of street and then the other, but it did not work. It will not work w/o enforcement and an active community council that is facilitating getting cars off the street.

Initial Consultation Meeting with Municipal ROW Agencies: Planning Staff Notes
3/2/2021

Attending:
ROW Enforcement:

Notes/Feedback:

Driveway width maximums are too narrow. People need to be able to have wider driveways.
2/5 is too narrow.

Not functional
Not enforceable; not enough resources to enforce in consistent fair manner based on what property owners are doing.

This is what the public wants; the code does not match what people want/are doing with their property.

People are widening their driveways after the fact through pavers, rocks, etc.
People also will drive across the grass, causing more stormwater quality problems by turning grass area into dirt driveway.

Snow storage: Lot frontage width is finite. The snow removal snow storage can occur on the part of the driveway beyond the 20 feet or so.

Taper: Require on property?

Fairfax county virginia allows on-site turnaround, RV/boat storage. in front yard (total area between front of building and the front property line) – on improved/paved surface. Issues w/parking rec vehicles/boats in front yards.

Outcome of code amendment:

- Equitable
- Enforceable in a consistent, fair manner.

2nd Consultation Meeting with Municipal ROW Agencies: Planning Staff Notes
6/1/2021

Agencies Attending:
Street Maintenance: Paul VanLandingham
ROW Enforcement: Jack Frost, Frank Kelly
Police Department: Officer Tim McCulley
Traffic Engineering: Randy Ribble
Planning: Michelle McNulty, Carol Wong, Tom Davis, Elizabeth Appleby

Meeting Slides:
T21_Parking_Amendment_Street_ROW_Agency_consult_2.pdf

Notes/Feedback:

1. Requirement for Property Owners to Clear Sidewalks (Jack Frost): Definition for public sidewalk is in Title 24. This requirement applies only in commercial and RO zoning district and is being enforced only in CBD under direction of successive Muni Administrations for a long time. Enforcement is a resource challenge. There is no Title 24 requirement for sidewalk clearing in residential districts.

2. Use of Sidewalks to Store Plowed Snow (Jack Frost and Paul VanLandingham): We must use sidewalks for long-term storage of snow plowed from streets because street maintenance budget keeps decreasing. Do not have the resources to haul snow away. Over past 15 years the snow hauling budget has been halved and we have lost 3 snow storage sites. There is a lack of funding and storage site capacity to haul the snow. Barely have resources to keep clear the 200 miles of sidewalks that we do maintain. We still operate on goals set 20 years ago but with diminishing funding. Need a revamp of street maintenance operations to modify how we remove snow.

3. APD Parking Enforcement (Tim McCulley): APD has only 3 community service officers (CSOs) for parking enforcement for entire city. CSO parking enforcement occurs only during the day shift. APD Patrol is busy with other priorities. The 3 CSOs each focus on different parts of town. Officer McCulley operates in Fairview, Mt. View, and Muldoon, areas with households primarily in rental units and scarcer parking. By contrast, in Hillside there is plenty of off-street parking. In Downtown vicinity people are already parking on the street because more people are living in apartment complexes than there is existing, available off-street parking on those properties. CSO priority is removal of junked and abandoned (for more than 72 hr.) vehicles, not writing citations for illegal parking. Street Maintenance contacts APD to remove vehicles. Removal of abandoned vehicles takes time, even after CSO tags them. In winter, it could be 7-10 days before APD can follow-up to remove vehicle because of time spent on additional calls.

4. Off-Street Parking Needs and Livability (Jack Frost): Jack has not seen where parking facility under-utilization exists in Anchorage. Instead, his team runs into what Tim McCulley described – multiple people living in a housing unit with only 2 parking spaces so some of them park on the street. Further reduction in parking requirements will just create parking congestion. If people receive citations, where will they go with their cars? This was an issue even before economy affected by COVID. Need to better define storage of cars on properties because is an aesthetic issue. Need to find a balance between accommodating development projects versus post-development livability. It

is better for developers to use increased living space on property, but if livability is decreased with fewer parking spaces then we have done a disservice to the citizens of anchorage (congestion, etc).

5. Junked Vehicles (Tim McCulley): Landlords have broken-down vehicles on their parking lots and are not dealing with their tenants. Tenants sometimes then put the beater car on the street so they can park and then Muni has to deal with the broken-down vehicles problem.

6. Example Development (Tim McCulley): The new housing development on 12th and Cordova has very little off-street parking. So that will add to on-street parking utilization in that area near Downtown.

7. Costs of Revamping Parking Enforcement/Street Maintenance Operations (Paul VanLandingham): When we consider more on-street parking to support growth in downtown and other dense areas, we will need to revamp enforcement and street maintenance operations. Could start to use Lower 48 models of parking on each side of street only on certain days of the week, etc. to allow for snow clearing, but it would take parking enforcement to make it work. It would also take more snow removal and hauling equipment and personnel. The costs would be in the millions of dollars. By comparison, for example, this year Street Maintenance is 2.5 million short of budget from day one. Costs must be made up somewhere and would be on property taxes to support the effort of street maintenance to give this level of service. The goal is reachable, but we need to know at what cost to get there. There would need to be more funding coming to code enforcement, APD, street maintenance, and traffic. It is not just about money, but also removal response times, equipment, and people. Need updated models and resources to carry out changes. Street Maintenances seeks improvements and efficiencies already, such as AVL (automated vehicle location) so can track on a map when things are done to eliminate duplication of efforts. But efficiencies alone will be nowhere near enough. (Jack:) The Title 21 amendment project should provide a Summary of Economic Effects (SEE) on all agencies/departments to implement whatever changes are proposed.

8. Expansion of Downtown Parking Enforcement Area (Jack Frost and Tim McCulley): We already learned a lesson in expanding the Parking Authority beyond what the community found acceptable. In 1996, their authority was included writing tickets on expired vehicle registration tags in outlying shopping malls. Community backlash included a charter amendment to limit enforcement of vehicle regulations only to sworn officers. An area-specific approach to expanding downtown parking authority to limited areas may be a similar situation as with secure trash regulation zones (AM 115 I believe). In those zones, they must have bear-proof trash cans. Community councils approved of this. (Tim McCulley:) The Parking Authority only does parking enforcement. It does not carry out removal of abandoned or junked vehicles. If a vehicle needs to be impounded, the removal is still the responsibility of APD even in areas where the parking authority does parking enforcement.

9. Snow Removal Routes and Subareas (Paul VanLandingham): We have built our snowplow routes around garbage routes. To revamp snow removal to alternating sides of the street, there will be a need to coordinate on-street parking management and garbage removal on alternating sides of the street. May be beneficial if Street Maintenance were to show Planning Department maps of different ways of snowplowing in different areas, relative to sidewalks, parking, and other issues.

10. Meeting Follow-up (Planning): Planning to provide meeting notes from today; follow up with Paul VanLandingham regarding the maps he mentioned today; keep agencies appraised as we go; provide an agency review draft of amendments prior to public release of Community Discussion Draft.

Additional Consultation Meeting with Municipal Street Maintenance: Planning Staff Summary Notes
7/22/2021

Attending:
Tom Davis
Elizabeth Appleby
Randy Ribble, Traffic Engineering

Paul VanLandingham, Street Maintenance
Jim Brickhouse, Street Maintenance

Notes/Feedback:

On-street parking is more difficult for Street Maintenance at night. Street Maintenance has mapped street segments in blue as being where it is easier to plow at night.

South Addition and Fairview are areas in which (a) there is less off-street parking per dwelling unit and creating more on-street parking that is a problem for Street Maintenance and (b) need more frequent hauling of plowed snow than other areas because there are more pedestrians/walking trips. Neighborhoods in north Anchorage have a walking mail deliverer.

Street Maintenance places temporary no parking signs out in order to haul snow in South Addition. Street Maintenance must also place signs in the Anchor Park Subdivision on the northeast corner of Northern Lights and Lake Otis, and in City(?) View between 15th and 20th Avenues. The need to place temporary no parking signs takes staff away from plowing and hauling operations.

Street Maintenance has anecdotally observed a trend toward multigenerational households with more automobiles in the past 10 years, such that one dwelling sometimes produces more parked cars. There is a trend toward more residents, more pedestrians, and more parked cars on the street, although snow removal staff size has fallen.

Street Maintenance operations maps shown at the consultation meeting indicate:

- Street Maintenance must plow 10th Avenue in South Addition at night and push the snow to the south side of the street. They try to haul most times that they plow.
- In the CBD, the ADP clears the sidewalks the first night, and then Street Maintenance clears it, and then Street Maintenance comes back and clears a second time. CBD streets a mapped in blue because they are easier to plow at night. There is no on-street parking allowed between 2 a.m. and 6 a.m. APD and tow trucks accompany the snow removal crews and will remove vehicles as Street Maintenance gets to each part of Downtown. ROW Enforcement will go out earlier and warn people at 10 pm on the night of plowing.
- UAA and the hospitals do a lot of their own snow plowing, as indicated by the cross-hatched streets on the maps.

There would be logistics and parking enforcement needed in order to make a strategy of hauling one side of the street at a time, with people parking on the opposite side of the street each night. Parking enforcement tickets and removal of vehicles could create push-back from the public. Street Maintenance has experience with this kind of program in Mountain View, where snow removal crews push snow to one side of the street for pedestrian safety reasons. There is no parking allowed on that side of the street because there is snow in the parking lane. However, people are still parking on that wrong side of the street.

It takes Street Maintenance 76 to 84 hours to clear the streets if things go well. More on-street parking with going to alternative sides of the street would probably double those times for the areas affected.

There must also be snow removal coordination with trash collection sectors, by day of the week. Automated trash collection has eliminated the "swamper" who would put the trash bin back behind the street curb. Neighborhoods with alleys no longer have trash collection on the alley. These factors have changed the situation for Street Maintenance in Fairview and similar neighborhoods.

Driveways: For snow removal operations, the maximum ratio of driveway versus non-driveway frontage length is 1:1. If less, then the snow berm gets wider into the street. If an area gets 8" of snow, the current plows have a maximum distance of 15 to 18 feet that they can hold snow in the blade, if the blade starts empty. If an area gets 4" of snow, the blade can hold the snow for 25 feet before lifting.

Given current resources, Street Maintenance suggests considering fewer but better-maintained pedestrian routes, instead of a lot of pedestrian routes with marginal maintenance. Prioritize pedestrian facilities.

A big challenge with current street design is when there is on-street parking and a sidewalk that needs clearing. There is no place to deposit the snow. A separated sidewalk with 7 to 10 feet of street lawn is needed to stage snow for a 5-foot sidewalk plus a 12-foot street lane, with hauling after every two or three snowfall events.

It is better to haul on a more frequent cycle, especially for streets with "zero lot lines" style party-wall neighborhoods because the developments are so tight.

Street Maintenance emphasized the following factors:

1. Parking enforcement
2. Service response times
3. Resources (people and equipment)
4. Logistics and coordination with other services such as garbage trucks
5. Street design with space for snow storage and separated sidewalks
6. Funding for hauling snow away

Additional Resolutions from Municipal Boards and Commissions

The following resolutions of support for this project in general were provided by the Housing, Homelessness, and Neighborhood Development (HHAND) Commission in 2021 and the AMATS Policy Committee in 2022.

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Municipality of Anchorage
Housing, Homeless, and Neighborhood Development Commission
HHAND Resolution 2021-02
April 27, 2021

HHAND Commission Resolution 2021-02

A resolution providing comments on Title 21 Amendment for Residential & Mixed-use Parking

Whereas Tom Davis from Long Range Planning presented to the HHAND Commission about proposed changes to parking requirements on March 3, 2021.

THEREFORE BE IT RESOLVED, that the HHAND Commission wishes to express the following:

The Commission recognizes and supports the benefits of promoting reduced parking for residential and mixed use developments.
We agree with the rational of the proposed changes to Title 21: space devoted to parking involves high opportunity cost for developments and developers; has a critical impact from a sustainability outlook; and affects the vitality of the urban texture.
Below are some comments that the Commission would like to present as part of the dialogue to support this important initiative and avoid oversupply of parking:

- Promote parking agreements that are applicable to the Municipality of Anchorage. For example, conduct studies to see that strategies like shared parking, bicycle parking, and use of public transit are realistic applications. The goal here is to implement strategies that are successful with our climate and community. As an option, a backcheck on the success of the most common parking reduction agreement in the past five years could be conducted.
- Strongly promote and market parking agreements not only for affordable housing, but also for other developments.
- Work with public transportation so that alternate travel modes can be an effective means for lowering parking requirements (walking distance from bus route less than ¼ mile combined with wait time).
- The HHAND commission would like to review the results of any study that has been conducted on the area-specific lower parking requirement.
- Parking requirements should not be reduced by rights. This will shift the cost of parking from the developer to the neighborhood. The plan should require site-specific justification for the reductions, with amenities that benefit the neighborhood, such as green space, bicycle parking, etc. Especially in situations where developers are maximizing occupancy, there's a risk of congestion of cars onto the street to the detriment of the neighborhood. If a by-rights parking reduction is considered, it would only apply where less than the maximum number of dwelling units are developed for a site.
- All parking should go on the alley when alleys are available. The goal is to reduce the impact of parking on the streetscape.

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- Strategies that allow more dense parking or reduce the footprint but retain the same number of parking spaces should be considered: double parking, allowing turnaround on alleys, narrower spaces and causeways all reduce the square footage without reducing the total number of parking spaces.
- Reducing setbacks on the street side for porches or gardens should be considered. This will allow more parking on the alley and will engage new developments with the streetscape.
- Many of the neighborhoods under consideration do not have the infrastructure to support reduced parking requirements: Specifically; parking structures and metered or permitted street parking. Parking lots, parking garages, and permitted or metered parking are necessary to enable shifting parking off site. Otherwise, the older neighborhoods will have problems for pedestrians, bicycles, emergency access and snow removal.
- Encourage development that complements existing structures and land uses, and encourages community.

PASSED AND APPROVED BY THE HHAND COMMISSION THIS 5TH OF MAY, 2021.

07-Jun-2021

S J Klein, Chair
HHAND Commission

April 28, 2022

ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS (AMATS)
POLICY COMMITTEE
RESOLUTION #2022-01

A RESOLUTION OF THE ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS (AMATS) POLICY COMMITTEE SUPPORTING THE MUNICIPALITY OF ANCHORAGE (MOA) PUBLIC HEARING DRAFT TEXT AMENDMENTS TO TITLE 21 PARKING AND SITE ACCESS REGULATIONS

WHEREAS, the MOA Planning Department has presented a Public Hearing Draft of updates to *Anchorage Municipal Code Title 21 – Land Use Planning* for parking and site access requirements, and

WHEREAS, the code amendments reduce off-street parking requirements in urban neighborhoods and transit corridors, incentivize parking and transportation demand management strategies for developers, and strengthen provisions for pedestrian site access and bicycle parking, and

WHEREAS, the code amendments implement strategies that support multi-modal transportation options and may reduce surface parking, which is consistent with actions and policies under Goal 3: Improve Travel Conditions, Goal 5: Promote Environmental Sustainability, and Goal 6: Quality Decision-Making in the *AMATS 2040 Metropolitan Transportation Plan (MTP)*, and

WHEREAS, the code amendments help to implement the *AMATS 2040 MTP* action item 3E-5 to support the MOA Planning and Traffic departments on parking strategies that support multi-modal transportation options; and

WHEREAS, the code amendments are consistent with the objectives 1-I and 1-V under Goal 1 in the *AMATS Non-Motorized Transportation Plan*, to increase the number of pedestrians and bicyclists using the non-motorized transportation network, and to reduce car use on roadways by providing incentives for non-motorized transportation, and

WHEREAS, the code amendments are consistent with Goal 5 from the former *Anchorage Bicycle Plan* that has been integrated into the *AMATS Non-Motorized Plan*, to: "provide support facilities and amenities designed to enhance the bicycle network and encourage the use of bicycling as a practical transportation system", and to "review zoning codes for bicycle parking to include parking requirements for bicycle parking in well-monitored, lit, secure areas that are protected from the elements and are convenient to the entrances of buildings", and

WHEREAS, the code amendments move Title 21 toward conformance with the bicycle parking facility design guidelines in Section 7.5 of the *AMATS Non-Motorized Plan*, and

WHEREAS, the code amendments are consistent with Section 6 of the *Congestion Management Process Update & Status of the System Report* describing congestion management strategies,

including land use strategies that promote mixed-use and transit-oriented development and allow for reduced use of motor vehicles for some discretionary trips.

NOW, THEREFORE, BE IT RESOLVED that the AMATS Policy Committee supports the Title 21 parking and site access amendments public hearing draft.

PASSED AND APPROVED by the AMATS Policy Committee
this 28th day of April 2022.

Wolfgang Junge, Chair

5.2. Additional Resources and Data

Additional Information Resources Regarding Reforming Parking Requirements

Information Resources Referenced from Page 15 of the April 11 Staff Report Memorandum

The following pages contain two PDF articles that were referenced in footnote 7 on page 15 of the April 11 staff report memorandum.

The third resource referenced is a web article that should be accessible at https://www.planning.org/planning/2021/winter/3-zoning-changes-that-make-residential-neighborhoods-more-affordable/ .

The fourth resource is a webinar called "From the Trenches: Abolishing Parking Minimums" that costs $15 or $30 depending on APA membership status. A free (no cost) alternative/equivalent webinar is "Parking Reform Made Easy," which may be accessible at either https://smartgrowth.org/parking-reform-made-easy/ or https://www.youtube.com/watch?v=tRXk9JEJwH8.

Partial Bibliography

Several reports, publications, seminars, and other sources informed this project. Many of these are referenced in the sections of this report. Several other publications that were important to this project included:

- Institute of Transportation Engineers (2019), *Parking Generation Manual, 5th Edition*
- Institute of Transportation Engineers (2006), *Transportation and Land Development, 2nd Edition*
- Litman, Todd (2006), *Parking Management Best Practices*
- Shoup, Donald C. (2005), *The High Cost of Free Parking*, American Planning Association
- Urban Land Institute (2010), *The Dimensions of Parking, 5th Edition*
- Willson, Richard W. (2013), *Parking Reform Made Easy*, Island Press
- Willson, Richard W. (2015), *Parking Management for Smart Growth*, Island Press

ZONING **PRACTICE** JUNE **2017**

AMERICAN PLANNING ASSOCIATION

ISSUE NUMBER 6

PRACTICE PARKING REFORM

6

Eliminating Parking Minimums

By Ben LeRoy

For decades, many American planners unquestioningly applied minimum off-street parking requirements to projects of every conceivable size, type, and context.

Whether drawn from the quasi-scientific findings of the Institute of Transportation Engineers' *Parking Generation* report or simply borrowed whole cloth from other cities' zoning codes, minimum parking requirements continued to grow more onerous and complex. Communities across the nation watched as formerly walkable neighborhoods were hollowed out by parking. Even as planners crafted complete streets policies and rejiggered tax incentives for infill redevelopment, minimum parking requirements were largely ignored, taken on faith as a necessity for any well-planned city.

But many planners have woken up. A wealth of data-oriented research—from *Parking Reform Made Easy* by Richard Willson, FAICP, to the work of Chuck Marohn, AICP's Strong Towns organization, to the seminal *The High Cost of Free Parking* by Donald Shoup, FAICP—has produced a growing consensus within the planning profession that the traditional approach to requiring automobile parking produces more harm than good. In response, cities and counties have begun chipping away at their parking requirements with a variety of techniques, offering urban-minded developers the opportunity to reduce their parking burden through shared parking, payments in lieu of parking, and smarter management of the public parking supply.

While these incremental steps have generally proven popular with developers, relatively few communities have taken the bolder step of eliminating parking requirements in part or in full. The following sections lay out the case for parking reform, profile recent reform efforts in three cities, and present a series of strategies to help planners make the case for eliminating off-street parking requirements to residents and elected officials.

THE CASE FOR PARKING REFORM

The case for parking reform is not self-evident in our auto-dominated society, especially to those not trained as urban planners. Residents and business owners alike have legitimate concerns about ever-increasing congestion levels. Accordingly, a discussion of *how* to achieve parking reform would be lacking if it did not include a summary of the top reasons *why* parking reform is a worthwhile goal. Although parking requirements are well-intentioned, they raise housing prices, induce automobile traffic, and degrade the built environment.

Increased Housing Prices

Because Americans often park for free, they could be forgiven for thinking that parking is free to build and maintain. Unfortunately, nothing could be further from the truth. It turns out that parking—and more specifically, parking produced as a result of minimum parking requirements—is a significant contributor to unaffordable housing.

The construction of parking carries substantial costs. Surface parking consumes valuable land that could otherwise be used for productive buildings, while structured parking costs average nearly $19,000 per space (Cudney 2016). With parking requirements elevating parking supplies beyond what the market would normally produce, parkers often do not directly cover the cost of their own parking. Instead, the cost of parking is tucked into rent, hiding the true allocation of the burden. Non-parkers often end up subsidizing parkers, producing a more expensive and less fair result than allowing developers to build only as much parking as parkers are willing to pay for.

Induced Automobile Traffic

Intended to mitigate congestion, minimum parking requirements have unfortunately produced the opposite effect. By hiding the true cost of automobile ownership and spreading out destinations, minimum parking requirements create the very traffic burden they were created to contain. A recent analysis by the

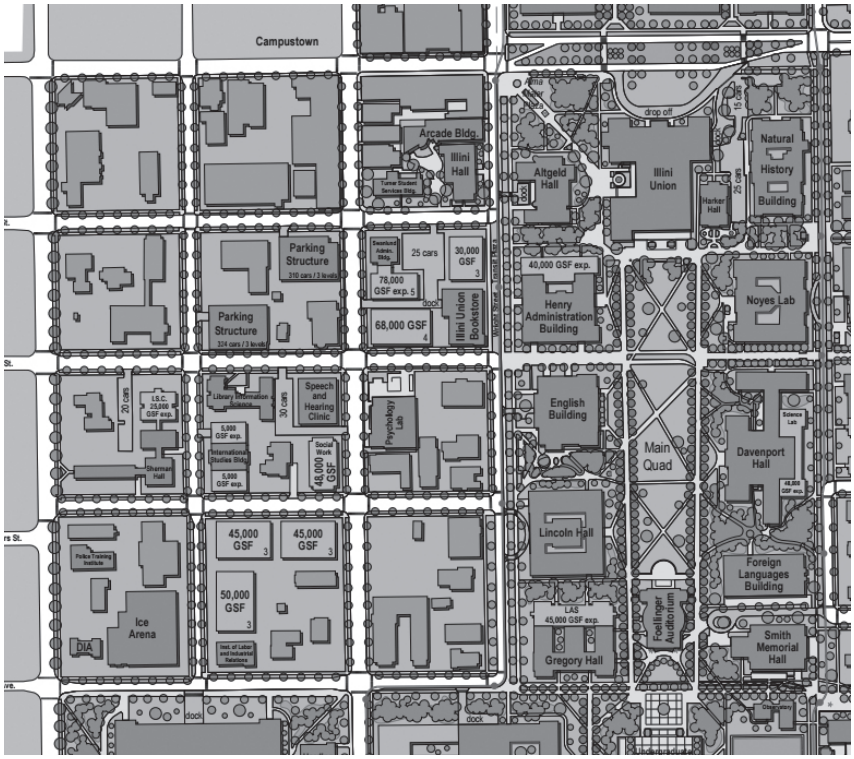
Ben LeRoy

In dense urban areas with high land values, many developers choose to build parking at surface level and elevate the building on stilts. The effect at street level is unpleasant, especially for pedestrians.

State Smart Transportation Initiative and the University of Connecticut found substantial association between increases in a city's parking supply and subsequent increases in car commuting (McCahill 2016). Planners are unable to conduct a controlled experiment to test this phenomenon in the real world, but a wealth of evidence suggests that the relief that parking requirements supposedly buy from traffic congestion is temporary at best.

A Degraded Built Environment

Ask the residents of your community whether they would prefer to spend their time in the city's most walkable district or its largest parking lot, and you will hear nearly unanimous acclaim for the former (a few people are born contrarians). Julie Campoli's excellent *Made for Walking* examines 12 unusually walkable neighborhoods across North America. While these neighborhoods vary in many respects, they share the theme of possessing a limited and carefully managed parking supply. As the author notes, "Rather than feeding auto-dependency, smarter parking policies help initiate a cycle of urban pedestrianism. . . . Replacing surface lots and street-level garages with homes or businesses improves the quality of the street and encourages trips by bike or on foot."



University of Illinois Wright

The University of Illinois *Campus Master Plan* shows several potential future buildings (denoted by lighter coloration and anticipated GSF), some of which are sited on existing private land that the University does not currently own.

PARKING REFORM IN PRACTICE

While many cities have eliminated nonresidential minimum off-street parking requirements in their central business districts, very few have removed parking minimums entirely. For communities contemplating more dramatic reform, the cities of Champaign, Illinois; Fayetteville, Arkansas; and Buffalo, New York, illustrate three distinct models.

Champaign, Illinois

The college town of Champaign, Illinois, has seen substantial reinvestment in its core neighborhoods over the past 15 years. Spurred on by growing enrollment at the University of Illinois, local developers have engaged in a building boom in the high-density residential neighborhood (known as the University District) adjacent to campus. At the same time, a greater number of all sorts of residents—graduate students, young professionals, empty nesters, and even families—have driven a smaller boom in Champaign's vibrant downtown. With space at a premium and walkability in high demand, developers have frequently sought (and been granted) relief from the generally applicable parking requirements.

Over the same period, Champaign's policy makers have recognized a change in community attitudes toward transportation. Between 2000 and 2012, nearly a dozen text amendments reduced parking requirements for particular land uses or overlay zones. The *Champaign Tomorrow* comprehensive plan, adopted in 2011, acknowledges the importance of balancing the parking supply against other transportation and urban design concerns to enhance walkability in core neighborhoods. With a comprehensive update to the zoning ordinance following on the heels of *Champaign Tomorrow* and Champaign's minimum parking requirements experiencing death by a thousand cuts, the city's planning staff began to consider the possibility of taking a bold step: eliminating parking requirements in the core neighborhoods of the community.

A quirk of geography and demography made Champaign's University District an attractive test case. Surrounded by railroad tracks to the east, a busy arterial street to the north, and the University of Illinois campus to the east and south, the University District is almost an island of student housing. These barriers largely prevent the commingling of student housing with nearby neighborhoods composed of home owners, a typical source of NIMBY sentiment in many college towns. Furthermore, the University District's robust transit network, its proximity to campus, and the lack of on-campus student parking combined to keep daily driving demand among the University District's (mostly student) residents at a minimum. Extensive interviews of University District landlords confirmed staff observations that the residential parking supply was experiencing a vacancy rate of approximately 30 percent. At study sessions with the plan commission and city council, elected and appointed officials expressed their openness to further reductions in parking requirements. With no opposition arising from home owners (who were indifferent) or the development

community (which was eager for parking reform), Champaign staff anticipated smooth passage of a proposal to eliminate all parking requirements within the University District.

However, the proposal hit an unexpected speed bump at the plan commission meeting. The University of Illinois sent a representative to the meeting to register the university's opposition. Citing the university's master plan, the university's director of real estate planning and services expressed concern over the impact the proposal would have on privately held surface parking lots adjacent to campus: "Once this law is eliminated those parking lots will become the hottest commodity in Champaign County for high-density development. It turns out that some of those that are preserved right now for parking for the private sector are locations where we have proposed future academic buildings" (Champaign 2015). The commission was unmoved by this line of dissent, but nevertheless continued the hearing to another date. At that meeting, the university abandoned its original argument, suggesting instead that a tightening of the residential parking supply could lead to overflow and enforcement impacts on the university's parking supply. Staff countered, noting that the university's parking supply is largely controlled by a combination of meters and permits, making it highly unlikely that University District residents would try to use university parking as long-term parking.

Ultimately, both the planning commission and city council approved the proposal, and in October 2015 Champaign eliminated parking requirements within the University District. As predicted, a number of student housing developments submitted permit applications shortly afterwards, as developers were waiting to make use of the lower parking requirements. These developments all provide parking at different rates, but none of them provides as much parking as was previously required. As the Fall 2017 semester approaches, these developments will be opening their doors for the first time. Others are in the pipeline right now. In the meantime, the city expanded parking reform to the nearby Midtown and Downtown areas, eliminating parking requirements in core areas that serve a much less student-oriented population. It is possible—even likely—that some of the developments built in the wake of this reform will find that they have underbuilt or overbuilt their parking supply, and the city plans to monitor private parking demand and pricing over the coming years. Staff anticipates that the findings will show that any concerns were largely unfounded: The market will value parking appropriately for the first time in decades, and Champaign's core neighborhoods will continue to mature into more walkable areas as the effects of a one-size-fits-all parking policy begin to fade.

Andrew Garner, City of Fayetteville

The second floor of Fayetteville's Nelson's Crossing Shopping Center sat vacant for years as it was "underparked" according to the city's parking requirements table. Once nonresidential parking requirements were repealed, businesses could occupy the second floor, improving the development's financial productivity.

Fayetteville, Arkansas

Fayetteville, Arkansas, is similar to Champaign, Illinois, in many ways. Both are college towns with approximately 80,000 residents. Both host a flagship state university. Both recognized a problem with their existing parking regulations. While Champaign has eliminated all parking minimums in select areas, in 2015 Fayetteville eliminated all nonresidential parking requirements citywide, leaving parking requirements for residential uses in place.

As in Champaign, Fayetteville's parking reform efforts were built on the foundation of a comprehensive plan commitment to reducing automobile dependence. The *Fayetteville Downtown Master Plan* expanded on this idea, recommending a "Smart Parking" approach including the adoption of shared parking standards and revised minimum parking requirements. But change began slowly. While the city amended its downtown parking regulations to allow changes in land use without the provision of new parking, new construction and building expansion still triggered the standard parking requirements. A separate amendment allowed bike parking spaces to be substituted for automobile parking spaces. Nevertheless, most projects in downtown Fayetteville (and everywhere else) were still subject to minimum parking requirements.

The impetus to completely eliminate nonresidential parking requirements came from the community's commercial real estate brokers. Planning staff noted the frustration many brokers expressed in trying to fill vacant commercial spaces with new uses required to provide more parking than the original use. This issue was not limited to downtown, but extended even into the city's most automobile-oriented districts. Noting the constraining effect parking requirements were having on the local economy, staff proposed cutting all nonresidential parking requirements.

To the surprise of many, the adoption of such sweeping parking reform went relatively smoothly. Fayetteville's planning director, Andrew Garner, AICP, recounts that staff framed the proposal to tick many boxes for both liberal and conservative community members and elected officials. Parking reform in Fayetteville found bipartisan support in its projected sustainability improvements, reduced burden on small business owners, and individual property rights. While some mild opposition arose, enthusiastic support from several planning commissioners assured passage. Tracy Hoskins, a businessman and developer who sits on the planning commission, acknowledged that while the parking reform experiment might create a few negative

VIEW FROM ACROSS THE STREET

Andrew Garner, City of Fayetville

The proposed Lumiere Theatre in downtown Fayetteville would not provide any parking of its own, relying instead on the private and public supply on surrounding streets and lots.

impacts, "the question is does this cure more problems than it creates? And absolutely, it does" (Gill 2015).

As Fayetteville's parking reform approaches its second anniversary, Garner reports that results have been as expected so far. In more auto-oriented districts, businesses continue to provide ample parking. Some sites exceed the old minimum requirements, while others have made use of the increased flexibility to fill spaces previously kept vacant due to code requirements. Meanwhile, downtown Fayetteville is making room for a pair of theater projects that planners anticipate will make the area even more vibrant. One of the theaters proposes no parking at all, while the other (which includes a small number of on-site dwelling units) proposes a small lot for staff and residents. No matter the location, Fayetteville businesses are now free to provide as much—or as little—parking as they need to become successful contributors to the community.

Buffalo, New York

Parking reform in Champaign and Fayetteville may seem like a leap to planners in communities still nipping and tucking their parking codes, but their partial parking repeals are downright modest compared to Buffalo, New York. That city closed out 2016 by adopting a sweeping new unified development ordinance that, among other things, eliminated parking requirements almost universally.

Having grown to over 550,000 residents before World War II, Buffalo has spent the last several decades shrinking to approximately half its peak population. Buffalo's population decline has been accompanied by a hollowing out of its many prewar neighborhoods by parking lots. As one civic booster quipped about downtown Buffalo in 2003, "If you look very closely, there are still some buildings that are standing in the way of parking progress" (Shoup 2005).

Not content to idly watch the city continue to slide, the city's strategic planning office launched the Buffalo Green Code planning effort in April 2010. This project stripped the city's existing unified development ordinance down to the studs, replacing its standard use-based zoning with a form-based code, retooling street design standards, and severely curtailing parking requirements. As one project consultant put it, the Green Code represents "a radical reimagining of how they were going to do every facet of the development controls in the city of Buffalo" (Strungys 2017).

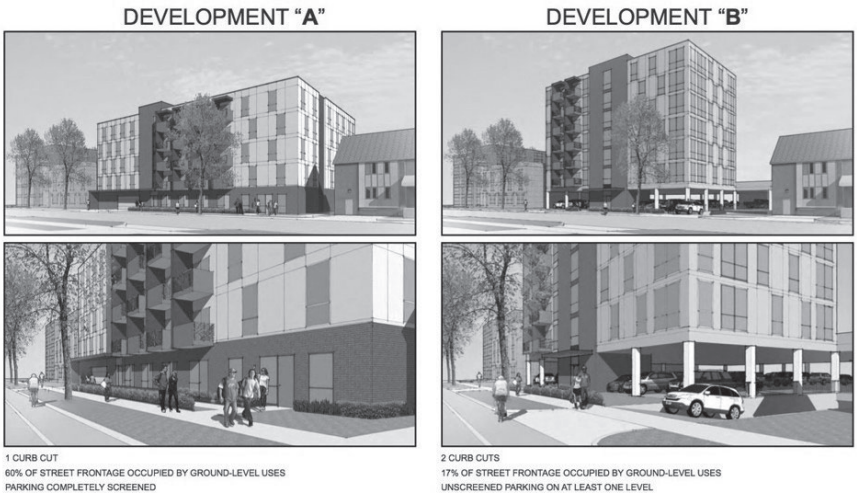
The sheer scope of the Green Code project necessitated an extremely robust public input process, with over 240 community meetings attracting over 6,500 participants. With every element of the development control process up for review, parking received substantial emphasis during these meetings but did not lead the agenda. As project manager John Fell, AICP, recalls, "parking was probably a top five important issue to the public," but people were equally or more concerned with building height and materials, site design, and the redevelopment of large vacant institutional sites. The project also recruited a citizen advisory committee, composed of representatives from every city neighborhood, to both act as a sounding board and recruit neighbors to public meetings.

The input process gave the planning team opportunities to urge concerned residents to consider a more comprehensive transportation demand management (TDM) approach to congestion, rather than clinging to an outdated system of parking requirements that had only managed to degrade the urban environment while doing little to mitigate congestion. Under the new code, projects consisting of (a) 5,000 square feet of new construction or (b) 50,000 square feet of a renovation involving a change of use must prepare a TDM plan. While each project must accommodate the travel demand it generates, developers may employ a host of demand management tools ranging from bicycle parking to subsidized transit passes to alternative work schedules.

The full impact of Buffalo's parking reform will not be felt for several years, but things are already starting to change. Staff members report fielding interest from a few developers in adding dwelling units without additional parking to small projects already under way. Though many of Buffalo's walkable neighborhoods currently bear the scars of required parking lots, look for these areas to mature and thrive as the city's residents rediscover the value of urban-style developments in their urban neighborhoods.

STRATEGIES FOR SELLING PARKING REFORM

The context for parking reform in each of the preceding examples was unique, as it is for every community. The elected officials and citizens in these cities may have shared a willingness to listen, learn, and experiment with parking reform in a way that other communities are not quite ready for. Nevertheless, some of the strategies employed are transferrable to municipalities of every type and size. Consider trying the following strategies when pursuing parking reform in your community.



Tim Kirkby

Two projects, one profit margin: A developer expects the same return from either building, but the one granted parking flexibility presents a much more welcoming face to the street.

Employ Scenarios and Alternatives

Parking requirements have been the law of the land for so long that many people have trouble envisioning how a newly constructed building with little or no parking might function in their city. The local development community can show the impact of parking requirements on both the design and finances of a proposed project.

In Champaign, architect Tim Kirkby, AICP, demonstrated to the plan commission how one of his projects would change if parking requirements were eliminated (Champaign 2015). Kirkby presented two alternatives side by side. While both alternatives projected an expected return of 7.5 percent, their form and finances differed dramatically. The "required parking" alternative was two stories taller than the "flexible parking" alternative, and was largely lifted up on stilts to accommodate ground-floor parking. In contrast, the "flexible parking" alternative had one fewer curb cut and presented ground-level dwelling units facing the street. Perhaps more compelling was the financial comparison of the two buildings. The cost of building required parking was projected to increase rents by approximately 33 percent! This real-life example of a building that would be made both more attractive and more affordable was very compelling evidence of the wisdom of eliminating parking requirements in the University District.

The development community is already a natural ally of any planner seeking to ease parking requirements, although care must be taken to avoid stirring up legitimate concerns that parking reform is simply a giveaway of the city's regulatory power to enhance the private sector's bottom line. Asking developers to compare "required" and "flexible" parking alternatives that project the same profit margin can mitigate these concerns.

Put the Focus on Residents, Not Drivers

Many parking reform efforts are stalled by neighboring residents and businesses sounding the alarm about parking congestion. Even if these concerns are overblown (as they are in many cases), parking congestion proves to be a difficult ground on which to do battle. Instead, consider shifting the conversation to the positive impact that parking reform has on the wallets of residents.

As discussed above, overly burdensome parking requirements raise the cost of construction and building maintenance. These costs are tucked into the rent and purchase price of building, needlessly raising the price on every activity conducted within those buildings. Invite concerned neighbors and elected officials to speculate on what it could mean for the city coffers if residents, no longer tied up by unnecessary parking costs, found themselves with a greater disposable income.

A common rejoinder to this argument raises the specter that developers will simply keep rents the same and pocket the cost savings as extra profit. Fortunately, a couple of rebuttals address this line of attack. First, in a competitive housing market tenants will generally select the housing option with greater amenities (including parking) if rent is the same, providing a strong economic incentive for landlords with less parking to lower their rents to remain competitive. Additionally, even if prices do not drop for some reason, it is hard to argue in favor of forcing tenants to waste money on unused parking simply to spite developers and reduce their profits.

Fairness arguments can be very powerful in these situations. Is it good city policy to make people pay for parking they don't use? Depending on the community, appealing to housing affordability can be a powerful argument.

Substitute Local Examples for National Studies

The field of parking policy research has produced extensive data about nearly every aspect of parking, from vacancy rates to supply/demand models to land consumption. Unfortunately, these studies may be of limited use in front of elected officials disinclined to look to national trends for local decisions. Instead, generate your own local data and examples to create a compelling narrative that parking reform is a unique solution for your unique city's unique problems.

In Fayetteville, planners could point to buildings in otherwise busy commercial districts that were being left vacant due to excessive parking requirements. In Buffalo, staff successfully argued that residential parking requirements were excessive in a community where 30 percent of households did not own a single car. In Champaign, questionnaires sent to landlords revealed that most apartment buildings had parking occupancy rates of only 60 to 80 percent, even at reduced rental rates. These findings mirrored numbers from the city's own public parking permits in the area, which had cut rates in an attempt to preserve the 70 percent occupancy rate. In all these cases, the local story told the tale of why parking reform was important.

Remember, too, that the story does not end upon the successful adoption of new parking regulations. As the built environment changes over the years, consider tracking building permits to see how much parking developers are providing. In Champaign, staff projected that most future buildings would likely provide parking at 50 to 75 percent of

the rate formerly required, promising to return to the plan commission with an update in a few years. One and a half years later, this projection has been borne out by the building permits received for review. Tracking data both before and after adoption of parking reform reassures elected officials that they can always change the rules back if an unforeseen negative trend arises.

SHARING THE STORY

Perhaps your community will be the next to make waves in the planning world by adopting sweeping parking reforms. Or perhaps your community is still testing the waters with incremental tweaks to the system. Whatever position you find yourself in, remember to share the story with the world! Parking reform is still a relatively nascent movement, and practitioners around the country benefit from seeing what their colleagues in other cities and states have accomplished.

Strong Towns maintains a user-updated map of communities that have or are considering reducing their parking requirements. Visit this site to gain ideas for your community, and update the map once you have made progress toward your goals. The planning trade press is also very receptive to stories about parking reform.

Don't hesitate to contact publications like *Planning* magazine, *Streetsblog*, *CityLab*, or your favorite planning blog. You may be surprised at their willingness to shine a spotlight on your unique efforts.

Finally, consider submitting a session proposal to a conference. Parking sessions are often standing room only at APA conferences, but other connected professional organizations such as the International City/County Management Association, the American Public Works Association, and the Government Finance Officers Association can benefit from learning about parking reform as well.

It is an exciting time to be working in the field of parking reform. Most cities employed the same parking policy playbook through much of the 20th century, but cities are beginning to experiment with individualized solutions.

No single parking policy will be the right choice for every city, but the examples recounted in this article may provide a road map for your community to rethink how parking fits in with other planning goals.

Explore the Strong Towns parking reform map (strongtowns.org/parking) to see how communities around the country are updating their parking requirements.

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Ben LeRoy is an associate planner for Champaign, Illinois, and a 2013 graduate of the University of Illinois at Urbana-Champaign. His master's capstone analyzed the impacts of minimum parking requirements on the city's rental housing supply. He has also drafted new infill-friendly zoning districts in the city's core neighborhoods and rewritten the planned development ordinance.

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DOES YOUR ZONING STILL REQUIRE OFF-STREET PARKING?

6

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PRACTICE PARKING REFORM

The Pseudoscience of Parking Requirements

Donald Shoup, FAICP

At the dawn of the automobile age, suppose Henry Ford and John D. Rockefeller had asked how city planners could increase the demand for cars and gasoline. Consider three options. First, divide the city into separate zones (housing here, jobs there, shopping somewhere else) to create travel between the zones. Second, limit density to spread everything apart and further increase travel. Third, require ample off-street parking everywhere so cars will be the easiest and cheapest way to travel.

American cities have unwisely adopted these three car-friendly policies. Separated land uses, low density, and ample free parking create drivable cities but prevent walkable neighborhoods. Although city planners did not intend to enrich the automobile and oil industries, their plans have shaped our cities to suit our cars.

Parking requirements are particularly ill-advised because they directly subsidize cars. We drive to one place to do one thing and then to another place to do another thing and then drive a long way back home, parking free everywhere. In *The High Cost of Free Parking*, published by the American Planning Association in 2005, I argued that parking requirements increase traffic congestion, pollute the air, encourage sprawl, raise housing costs, degrade urban design, prevent walkability, damage the economy, and penalize everyone who cannot afford a car. Since then, to my knowledge, no member of the planning profession has argued that parking requirements do not cause these harmful effects. Instead, a flood of recent research has shown that parking requirements are poisoning our cities with too much parking.

Despite all the harm off-street parking requirements cause, they are almost an established religion in zoning practice. One should not criticize anyone else's religion, but I'm a protestant when it comes to parking requirements. And I believe zoning needs a reformation.

THREE PARKING REFORMS

Reform is difficult because parking requirements do not exist without a reason. If on-street parking is free, removing off-street parking requirements will overcrowd the on-street parking and everyone will complain. Therefore, to distill 800 pages of *The High Cost of Free Parking* into three bullet points, I recommended three parking reforms that can improve cities, the economy, and the environment:

- **Remove off-street parking requirements.** Developers and businesses can then decide how many parking spaces to provide for their customers.
- **Charge the right prices for on-street parking.** The right prices are the lowest prices that will leave one or two open spaces on each block, so there will be no parking shortages. Prices will balance the demand and supply for on-street space.
- **Spend the parking revenue to improve public services on the metered streets.** If everybody sees their meter money at work, the new public services can make demand-based prices for on-street parking politically popular.

Each of these three policies supports the other two. Spending the meter revenue to improve neighborhood public services can create political support to charge the right prices for curb parking. If cities charge the right prices to produce one or two open spaces on every block, no one can say there is a shortage of curb parking. If there is no shortage of curb parking, cities can then remove their off-street parking requirements. Finally, removing off-street parking requirements will increase the demand for curb parking, which will increase the revenue to pay for public services.

THE MOST EMOTIONAL TOPIC IN TRANSPORTATION

Everyone wants to park free, and most people consider parking a personal issue, not a policy problem. Rational people quickly become emotional about parking, and staunch conservatives turn into ardent communists. Thinking about parking seems to take place in the reptilian cortex, the most primitive part of the brain responsible for snap judgments about urgent fight-or-flight issues, such as how to avoid being eaten. The reptilian cortex is said to govern instinctive behavior like aggression, territoriality, and ritual display, which all play a role in parking.

Parking clouds people's minds, shifting analytic faculties to a lower level. Some strongly support market prices—except for parking. Some strongly oppose subsidies—except for parking. Some abhor planning regulations—except for parking. Some insist on rigorous data collection and statistical tests—except for parking. This parking exceptionalism has impoverished thinking about parking policies, and ample free parking is seen as a goal that planning should produce. If drivers paid the full cost of their parking, it would seem too expensive, so we expect someone else to pay for it. But a city where everyone happily pays for everyone else's free parking is a fool's paradise.

Few people are interested in parking itself, but parking strongly affects issues people do care strongly about, such as affordable housing, climate change, economic development, public transportation, traffic congestion, and urban design. For example, parking requirements reduce the supply and increase the price of housing. Parking subsidies lure people into cars from public transportation, bicycles, or their own two feet. Cruising for free curb parking congests roads, pollutes the air, and adds greenhouse gases. Do people really want a drive-in dystopia more than they want affordable housing, clean air, walkable neighborhoods, good urban design, and a sustainable planet?

Reforms in planning for parking may be the cheapest, quickest, and most politically feasible way to achieve many social, economic, and environmental goals.

THE EFFECTS OF PARKING REQUIREMENTS

Cities have parking requirements for every art gallery, bowling alley, dance hall, fitness club, hardware store, movie theater, night club, pet store, tavern, and zoo without knowing the demand for parking at any of

them. Despite a lack of theory and data, planners set parking requirements for hundreds of land uses in hundreds of cities—the 10,000 commandments of planning for parking. Planners have adopted a veneer of professional language to justify the practice, but planning for parking is learned only on the job and it is more a political activity than a professional skill.

Consider what planners do not know when they set parking requirements:

- How much the required parking spaces cost
- How much drivers are willing to pay for parking
- How parking requirements increase the price of everything except parking
- How parking requirements affect architecture and urban design
- How parking requirements affect travel choices and traffic congestion
- How parking requirements affect air pollution, fuel consumption, and CO_2 emissions

Stuart Cohen, TransForm

Figure 1. An office park on the border of Milpitas and San Jose, California.

The High Cost of Parking Requirements

Cost is an especially important unknown. A recent study found that the parking spaces required for shopping centers in Los Angeles increase the cost of building a shopping center by 67 percent if the parking is in an aboveground structure and by 93 percent if the parking is underground (Shoup 2014). Retailers pass this high cost on to all shoppers, regardless of how they travel. People who cannot afford a car pay more for their groceries so richer people can park free when they drive to the store.

Without knowing how much the required parking spaces cost to build, planners cannot know how parking requirements increase the cost of housing. Small, spartan apartments cost less to build than large, luxury apartments, but their parking spaces cost the same. Because many cities require the same number of spaces for every apartment regardless of its size or quality, the required parking disproportionately increases the cost of low-income housing. One study found that minimum parking requirements raise housing costs by 13 percent for families without cars (Gabbe and Pierce 2017).

Drivers pay for their cars, fuel, tires, maintenance, repairs, insurance, and registration fees, but they usually don't pay for parking. Who does pay for the parking? Everyone, including people who cannot afford a car. All of life's necessities cost more in order to provide free parking.

America is a free country, and many people seem to think that means parking should be free. Parking requirements enable everyone to park free at everyone else's expense, and no one knows that anyone is paying anything. Parking is free, however, only because everything else is more expensive. Parking requirements are well-intentioned, but good intentions do not guarantee good results or mitigate unintended harm.

The required parking takes up a lot of space. Parking lots typically have about 330 square feet per space. Because there are at least three off-street parking spaces per car in the United States, there are at least 990 square feet of off-street parking space per car. In comparison, there are about 800 square feet of housing space per person in the United States. The area of off-street parking per car is thus larger than the area of housing per human.

In astronomy, dark energy is a force that permeates space and causes the universe to expand. Similarly, in urban planning, parking requirements are a force that causes cities to expand. The higher the parking requirements, the stronger the dark energy that spreads cities out and rips them apart. Typically, the process of setting the parking requirements is closer to astrology than astronomy.

Parking Requirements in Practice

When I am invited speak in a city, I start with an aerial view of a site in the city with too much parking, such as this photo of an office park in San Jose, California (Figure 1). It looks like a giant parking lot with a few buildings.

I then show a page from the city's parking requirements, which are so precise and so specific for so many land uses that most people probably assume planners carefully study parking (Table 1). Instead, planners are winging it. Planners are not oracles who can divine the demand for parking. I have never met a city planner who could explain why any parking requirement should not be higher or lower. To set parking requirements, planners usually take instructions from elected officials, copy other cities' parking requirements, or rely on unreliable surveys. Parking requirements are closer to sorcery than to science.

Next, I show the size of the parking lots resulting from the city's parking

TABLE 1. SELECT PARKING REQUIREMENTS FOR "ENTERTAINMENT AND RECREATION" USES IN SAN JOSE, CALIFORNIA

Use	Vehicle Parking Required
Arcade, amusement game	1 per 200 sq. ft. of floor area
Batting cages	1 per station, plus 1 per employee
Bowling establishment	7 per lane
Driving range	1 per tee, plus 1 per employee
Golf course	8 per golf hole, plus 1 per employee
Health club, gymnasium	1 per 80 sq. ft. recreational space
Miniature golf	1.25 per tee, plus 1 per employee
Performing arts rehearsal space	1 per 250 sq. ft. of floor area
Poolroom/billiards establishment	1 per 200 sq. ft. of floor area
Private club or lodge	1 per 4 fixed seats on the premises, or 1 per 6 linear feet of seating, plus 1 per 200 square feet of area without seating but designed for meeting or assembly by guests, plus 1 per 500 sq. ft. of outdoor area developed for recreational purposes
Recreation, commercial (indoor)	1 per 80 sq. ft. of recreational area
Recreation, commercial (outdoor)	20 per acre of site
Skating rink	1 per 50 sq. ft. of floor area
Swim and tennis club	1 per 500 sq. ft. of recreation area

requirements. For many land uses, the parking lots are bigger than the buildings they serve (Figure 2). There is more space for parking than for people. For example, San Jose, California, requires a restaurant to provide a parking lot that is more than eight times the size of the restaurant itself. The requirements provide parking everywhere anyone wants to go, but they also create places where few people want to be.

Most people think parking behaves like a liquid. If the parking supply is squeezed in one place, cars will park somewhere else. But parking behaves more like a gas. The number of cars expands to fill the available space, and more parking leads to more cars. Nevertheless, planners usually assume that cars and people come in fixed proportions, and they often require parking in proportion to people: per beautician, dentist, mechanic, nun, student, teacher, or tennis player. If parking were priced to cover its cost, people would own fewer cars and drive less.

Parking requirements are not only ridiculous but also dangerous. They make cities friendly to cars but not to people—drivable but not walkable. As Jane Jacobs wrote, "The more downtown is broken up and interspersed with parking lots and garages, the duller and deader it becomes, and there is nothing more repellent than a dead downtown." We want more out of our streets than traffic and free parking. We also want safety, health, walkability, prosperity, and pleasure.

The Unequal Burden of Parking Requirements

Cities require parking for every building without considering how the required spaces place a heavy burden on poor people. A single parking space, however, can cost more than the net worth of many U.S. households. One study found that in 2015 the average construction cost (excluding land cost) for parking structures was about $24,000 per space for aboveground parking and $34,000 per space for underground parking.

By comparison, the U.S. Census of Wealth and Asset Ownership in 2015 found that the median net worth (the value of assets minus debts) was $110,500 for white households, $19,990 for Hispanic households and $12,780 for black households. One space in a parking structure, therefore, costs more than the entire net worth of more than half of all Hispanic and black households in the country.

Free curb parking and off-street parking requirements have spread the city out so that most people need a car to get a job, go to school, and shop. In a misguided attempt to provide free parking for everyone, cities encourage poor people to buy cars they can ill afford, often financing them by subprime loans at high interest rates. Free parking has the veneer of equality, but it increases inequality. It is enormously wasteful and grossly unfair.

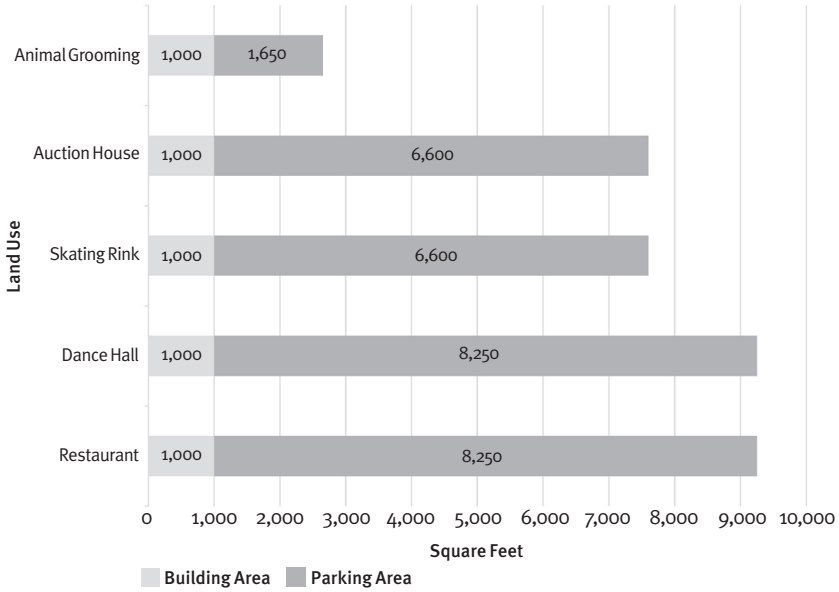
Assumptions and Parking Requirements

Parking requirements resemble what engineers call a "kludge"—an awkward but temporarily effective solution to a problem, with many moving parts that are clumsy, inefficient, hard to understand, and expensive to maintain. Off-street parking requirements are a kludge designed to prevent a shortage of free on-street parking. Parking requirements are superficially plausible but fundamentally wrong.

Parking requirements are like barnacles on a ship, accumulating one at a time and slowing the ship's progress. They have severed the link between the cost of providing parking and the price that drivers pay for it. They increase the demand for cars, and when citizens object to the resulting traffic congestion, cities respond by restricting development to reduce traffic. That is, cities require parking and then limit the density of people to limit the density of cars. Free parking has become the arbiter of urban form, and cars have replaced people as zoning's real density concern.

Parking requirements create many disputes about how many parking spaces a building "needs," with each side making solemn claims backed by dubious evidence. Consider the opposite approaches in the Los Angeles and San Francisco central business districts. For a concert hall downtown, Los Angeles requires, as a minimum, 50 times more parking spaces than San Francisco allows as its maximum. This difference helps to explain why downtown San Francisco is much more exciting than downtown Los Angeles.

If physicians in one city prescribed bloodletting and physicians in another city prescribed blood transfusion to treat the same disease, everybody would demand to know what is going on. Nobody notices when Los Angles requires parking and San Francisco restricts it. Ultimately, minimum parking requirements increase traffic



Donald Shoup, FAICP

Figure 2. Required ratios of building-to-parking area for select uses in San Jose, California.

because all the cars drawn to the required parking spaces clog the roads. Los Angeles has more parking spaces per square mile and worse traffic congestion than any other city in the United States. Minimum parking requirements began as a solution but have become the problem, a disease masquerading as a cure.

If planners assume that every new resident will come with a car, they require developers to provide enough off-street parking to house all the cars. Ample free parking then ensures that most residents do want a car. Parking requirements thus result from a self-fulfilling prophecy. Parking requirements increase the number of cars, and planners then use the large number of cars to justify the need for higher parking requirements.

Planners often use "motivated reasoning" to justify the parking requirements required by elected officials who want enough parking to ensure that citizens won't yell about a shortage of free parking. Planners must then fashion arguments for conclusions already reached. Assumptions are the starting point of most parking requirements, and the person who makes the assumptions determines the outcome. Instead of reasoning about parking requirements, planners rationalize them and feign expertise they do not have.

When it comes to parking requirements, planners have used Pandora's box as their toolkit. These requirements result from complex political and economic forces, and planners are not in full control. But they do enable the pseudoscience, and the public bears the cost.

Every Sin Is Forgiven if It Is Done With Our Permission

When a city requires off-street parking, city officials have something to offer developers—a planning variance that reduces the parking requirement. The city can then allow a business to provide fewer than the required number of parking spaces because of special circumstances. Some planners may believe that minimum parking requirements are needed as a bargaining chip because they enable cities to reduce the parking requirements in exchange for community benefits, such as affordable housing. For example, California requires cities to reduce the parking requirements for residential developments that include a specific share of affordable housing units. Reducing parking requirements as an inducement to provide affordable housing shows how unnecessary the parking requirements are in the first place. Cities would never reduce the code requirements for safe electrical wiring or fire escapes in exchange for affordable housing units, but they can easily bargain away parking because it is obviously not necessary.

Just as the medieval Catholic Church sold indulgences for the remission of sins, cities can sell planning variances for the remission of parking requirements. In Dostoyevsky's *The Brothers Karamazov*, the Grand Inquisitor of Seville explained why the Church was popular even though it threatened Hell as the punishment for minor sins: "Every sin will be forgiven if it is done with our permission." Removing minimum parking requirements will remove the temptation to sell variances that allow sinfully few parking spaces.

How can cities remove their minimum parking requirements and still have the bargaining power the requirements provide? They can establish maximum parking limits and allow developers to provide more spaces if they pay a fee for every space they provide above the limit. I do not recommend establishing parking maximums to use as a bargaining tool with developers. Nevertheless, if cities want to use parking as a bargaining tool, it is much better to bargain from the starting point of maximum limits than of minimum requirements.

THE UPSIDE OF MINIMUM PARKING REQUIREMENTS

The upside of parking requirements is that removing them can do so much good. Figure 1 showed the asphalt desert created by excessive parking in Silicon Valley. What would happen if San Jose removed off-street parking requirements, charged demand-based prices for on-street parking, and used the resulting revenue to improve neighborhood public services? Property owners might decide their land is more valuable for housing than for parking. If a city wants more housing and less traffic, removing off-street parking requirements will help.

Everyone in Silicon Valley complains about expensive housing, long commutes, congested traffic, and polluted air. Building housing on the periphery of parking lots would help to solve all these problems. Figure 3 suggests what could happen if San Jose removed parking requirements and allowed housing on the periphery of

Stuart Cohen, TransForm

Figure 3. The same office park from Figure 1, digitally altered to illustrate how removing parking requirements could result in liner apartment buildings on previously developed sites.

parking lots. A parking lot can easily be redeveloped because it has a single owner, has no demolition costs, does not require new infrastructure, and is near both jobs and shopping. If apartment buildings fronted the sidewalks, anyone walking, biking, or driving by would see a real city. The smartest way to travel is to be near your destination already, and this job-adjacent housing would allow commuters to walk to work—a rare out-of-car experience.

The housing can be built without new parking because the existing spaces can be shared between office buildings and apartments. To avoid a parking shortage, the cost of parking will have to be separated from the rent for apartments and offices, so only drivers pay for parking. Residents who work in a nearby office building may find they can live with only one or even no car. They will have the option to rent an apartment without paying for two parking spaces, an option that parking requirements now forbid. The new housing cannot cause gentrification or displacement because no one lives on the parking lots now. Converting parking spaces into housing sites will also reduce traffic congestion because more people will walk, bike, carpool, or ride transit to their destinations. Oversized parking lots offer the possibility of something much better, but parking requirements prevent anything else. The asphalt landscape in too much of America is not walkable, beautiful, or sustainable, but it can be reformed and transformed.

Removing parking requirements can produce a cascade of benefits: shorter commutes, less traffic, a healthier economy, a cleaner environment, and more affordable housing. If we reform our misguided planning, vast parking lots can evolve into real communities. Economic objectives often conflict with environmental objectives, but parking reforms can serve both.

The money we now spend on cars and fuel can be spent on other things. Cars and fuel are often imported, but we cannot import apartment buildings. Spending less for cars, fuel, and parking and spending more for housing will increase the demand for labor in a host of professions, such as architects, carpenters, electricians, plumbers, and roofers. Importing fewer cars and hiring more people to build infill development will boost the whole economy.

Some critics argue that removing an off-street parking requirement amounts to "social engineering" and a "war on cars." Instead, off-street parking requirements are a war for cars. All the required parking spreads buildings apart so more people need cars to get around. Removing a requirement that restaurants provide 10 parking spaces per 1,000 square feet of floor area is no more a war on cars than removing a requirement that everyone must eat in restaurants 10 times a month would be a war on restaurants.

When it comes to off-street parking, I'm pro-choice. Cities should not require developers to provide unwanted parking spaces. Parking requirements were a bad idea, poorly executed, and they prevent many good results. Figure 3 shows that an upside of the mess we have made is an accidental land reserve available for job-adjacent housing. If cities remove their unwise parking requirements, we can reclaim land on a scale that will rival the Netherlands.

Cities have three good reasons to remove minimum parking requirements: We can't afford them, we don't need them, and they do immense harm. Wishing that parking requirements did not exist, however, is not a strategy for removing them. Parking requirements respond to a real problem, but they are the wrong solution. And cities cannot remove their parking requirements without also better managing on-street parking. If cities manage on-street parking properly, they won't need to require off-street parking. Information wants to be free, but parking wants to be paid for.

PROOF IT CAN BE DONE

When *The High Cost of Free Parking* was published, half the city planning profession thought I was crazy and the other half thought I was daydreaming. Since then, several cities—including Buffalo, New York; Hartford, Connecticut; Minneapolis, and San Francisco—have removed all parking requirements, and many others have removed their downtown requirements. Mexico City has converted its minimum parking requirements into maximum parking limits while leaving the numbers almost unchanged. What once seemed politically impossible may slowly become the new normal.

For example, in July 2019, Houston nearly doubled the size of its downtown off-street parking exemption area, redefining it as a "market-based parking area" (§26-471(b)(6) & §26-472). In this area, developers decide how much parking to provide, and at least one shopping center developer has already decided to provide a public plaza instead of more parking (DiMiceli 2019).

CONCLUSION

Assembling support for parking reform is like opening a combination lock: each small turn of the dial seems to achieve nothing, but when everything is in place the lock opens. Three reforms can open the parking combination lock: (1) remove off-street parking requirements, (2) charge market prices for on-street parking, and (3) spend the revenue for neighborhood public services.

Repealing off-street parking requirements and replacing them with market prices for on-street parking may at first glance seem a Herculean task, almost like Prohibition or the Reformation, too big an upheaval for society to accept. Nevertheless, this strategy should attract voters across a wide political spectrum. Conservatives will see that it reduces government regulations. Liberals will see that it increases public spending. Environmentalists will see that it reduces energy consumption, air pollution, and carbon emissions. Urban designers will see that it enables people to live at higher density without being overrun by cars. Developers will see that it reduces building costs. Residents will see that it improves their neighborhood public services. Drivers of all political stripes will see that it guarantees convenient curb parking. Elected officials will see that it depoliticizes parking, reduces traffic congestion, allows infill development, and provides public services without raising taxes. Finally, planners can devote less time to parking and more time to improving cities.

Repealing off-street parking requirements, charging the right prices for on-street parking, and using revenue to provide public services will improve cities, the economy, and the planet, one parking space at a time. Cities will look and work much better when prices, not planners and politicians, govern decisions about the number of parking spaces. Like the automobile itself, parking is a good servant but a bad master.

Note: This piece is adapted from the Introduction to *Parking and the City*, published by Routledge in 2018.

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DOES YOUR ZONING FOLLOW THE PSEUDOSCIENCE OF PARKING MINIMUMS?

2

Additional U.S. Census Data

Census tables with more details regarding the number of vehicles available to workers and households, as background data to Section 1.1.

Table A-1. Means of Transportation to Work by Vehicles Available for Workers 16 Years and Over in Households, U.S. Census ACS 2019 5-Year Estimates: Anchorage Municipality, Alaska.

U.S. Census American Community Survey (ACS) 2019 5-Year Estimates: Anchorage Municipality, Alaska	**Table ID B08541, Workers 16 Years and Over in Households**	
Label	**Estimate**	**Margin of Error**
Total:	159,714	±1,810
No vehicle available	3,965	±633
1 vehicle available	31,987	±1,695
2 vehicles available	68,109	±2,164
3 or more vehicles available	55,653	±2,050
Car, truck, or van - drove alone:	123,505	±2,043
No vehicle available	1,581	±347
1 vehicle available	23,325	±1,201
2 vehicles available	54,619	±1,719
3 or more vehicles available	43,980	±1,816
Car, truck, or van - carpooled:	18,894	±1,226
No vehicle available	496	±187
1 vehicle available	4,398	±593
2 vehicles available	7,261	±803
3 or more vehicles available	6,739	±780
Public transportation (excluding taxicab):	2,084	±443
No vehicle available	563	±215
1 vehicle available	651	±327
2 vehicles available	607	±225
3 or more vehicles available	263	±133
Walked:	3,376	±531
No vehicle available	630	±250
1 vehicle available	1,115	±326
2 vehicles available	1,084	±295
3 or more vehicles available	547	±149
Taxicab, motorcycle, bicycle, or other means:	5,935	±663
No vehicle available	475	±203
1 vehicle available	1,014	±237
2 vehicles available	2,517	±434
3 or more vehicles available	1,929	±373
Worked from home:	5,920	±536
No vehicle available	220	±144
1 vehicle available	1,484	±327
2 vehicles available	2,021	±285
3 or more vehicles available	2,195	±326

Table A-2. Tenure by Vehicles Available for Households, U.S. Census ACS 2019 5-Year Estimates: Anchorage Municipality, Alaska.

U.S. Census American Community Survey (ACS) 2019 5-Year Estimates: Anchorage Municipality, Alaska

Table ID B25044, Occupied Housing Units

Label	Estimate	Margin of Error
Total:	106,567	±1,023
Owner occupied:	65,367	±1,341
No vehicle available	1,407	±301
1 vehicle available	15,347	±829
2 vehicles available	29,509	±993
3 vehicles available	12,876	±791
4 vehicles available	4,457	±443
5 or more vehicles available	1,771	±289
Renter occupied:	41,200	±1,213
No vehicle available	5,046	±582
1 vehicle available	18,108	±924
2 vehicles available	13,814	±765
3 vehicles available	3,292	±437
4 vehicles available	589	±192
5 or more vehicles available	351	±187

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