

Submitted by: Chair of the Assembly at  
the Request of the Mayor  
Prepared by: Planning Department  
For reading:

**ANCHORAGE, ALASKA  
AO NO. 2019-\_\_\_**

**AN ORDINANCE OF THE ANCHORAGE MUNICIPAL ASSEMBLY AMENDING ANCHORAGE MUNICIPAL CODE OF REGULATIONS (AMCR) 21.90; MULTIPLE DWELLING UNIT RESIDENTIAL DEVELOPMENT ON A SINGLE LOT OR TRACT, ANCHORAGE MUNICIPAL CODE (AMC) TITLE 21: AMC 21.07.090; AND 21.07.110; DEVELOPMENT AND DESIGN STANDARDS; AMC 21.14 RULES OF CONSTRUCTION AND DEFINITIONS MULTIFAMILY RESIDENTIAL DISTRICT; AND AMC 21.06.020, DIMENSIONAL STANDARDS TABLES; TO PROVIDE DIRECTION TO ACCESS REQUIREMENTS FOR RESIDENTIAL PROJECTS WITH MULTIPLE STRUCTURES OR MULTIPLE DWELLING UNITS, AND TO PROVIDE OPTIONAL PRIVATE STREET CROSS SECTIONS TO REDUCE CONSTRUCTION COST AND ENCOURAGE INFILL DEVELOPMENT CONSISTENT WITH THE ANCHORAGE 2040 LAND USE PLAN.**

(Planning and Zoning Commission Case 2019-0079)

**WHEREAS**, this ordinance amends AMCR 21.90 with a new Applicability Section, a project decision tree (Illustration #1) with accompanying revised private street design standards (Table 21.90.002-1), deletes redundant definitions, deletes redundant parking requirements, and introduces the Woonerf Street private street option; and

**WHEREAS**, this ordinance also amends AMC chapter 21.07 with new minimum width ingress/egress entry standards, guest parking requirements when constructing private streets, and in 21.07 *Exceptions* allows for additional review and input from the Planning Director; and

**WHEREAS**, this ordinance also amends AMC section 21.14.040 *Definitions* to reduce redundancy between AMCR 21.90 and AMC 21.14.040 definitions; and

**WHEREAS**, the proposed AMCR 21.90, AMC 21.07, and AMC 21.14.040 amendments implement *Anchorage 2040 Land Use Plan (2040 Plan) – Strategy 9: Infill Housing Development Regulations*; by encouraging the efficient use of residential land, and providing increased flexibility in some site development standards to meet the projected housing demand presented in the *2040 Plan*; now, therefore,

**THE ANCHORAGE ASSEMBLY ORDAINS:**

**Section 1.** AMCR 21.90 – is hereby amended to read as follows:

1 **Regulation 21.90 – Private Street Standards for Residential Development**  
2 **[MULTIPLE DWELLING UNIT RESIDENTIAL DEVELOPMENT ON A SINGLE**  
3 **LOT OR TRACT]**  
4

5 **21.90.001 – Applicability**  
6

7 Applicability: The standards of this regulation shall apply to all residential  
8 developments with:  
9

- 10 A. Multiple dwelling units on a single lot, or multiple dwelling units which  
11 are part of a common development on multiple lots, [HAVING ONE  
12 OR MORE ONSITE VEHICULAR ACCESS ROUTES WHICH  
13 SERVES] consisting of more than three structures, or more than  
14 twelve dwelling units, or  
15  
16 B. Developments with multiple dwelling units on a single lot, or multiple  
17 dwelling units which are part of a common development on multiple  
18 lots, with more than one parking facility separated by a “trunk” or  
19 “spine” vehicular access.  
20

21 Exemptions to A or B:

- 22 1. Developments with a parking facility connected directly to the  
23 public right-of-way by a driveway. These developments shall  
24 construct access in accordance with Municipal Driveway  
25 Standards, AMC 21.07, and the International Fire Code (IFC)  
26 as applicable.  
27  
28 2. Developments with access connected exclusively to a public  
29 alley. These developments shall construct access in  
30 accordance with Municipal Driveway Standards AMC 21.07,  
31 and the International Fire Code (IFC) as applicable.  
32  
33 3. [DEVELOPMENTS WITH THREE OR LESS STRUCTURES,  
34 OR TWELVE OR LESS DWELLING UNITS ON A SINGLE  
35 VEHICULAR ACCESS. THESE DEVELOPMENTS SHALL  
36 CONSTRUCT ACCESS IN ACCORDANCE WITH MUNICIPAL  
37 DRIVEWAY STANDARDS, AMC 21.07, OR IFC AS  
38 APPLICABLE].  
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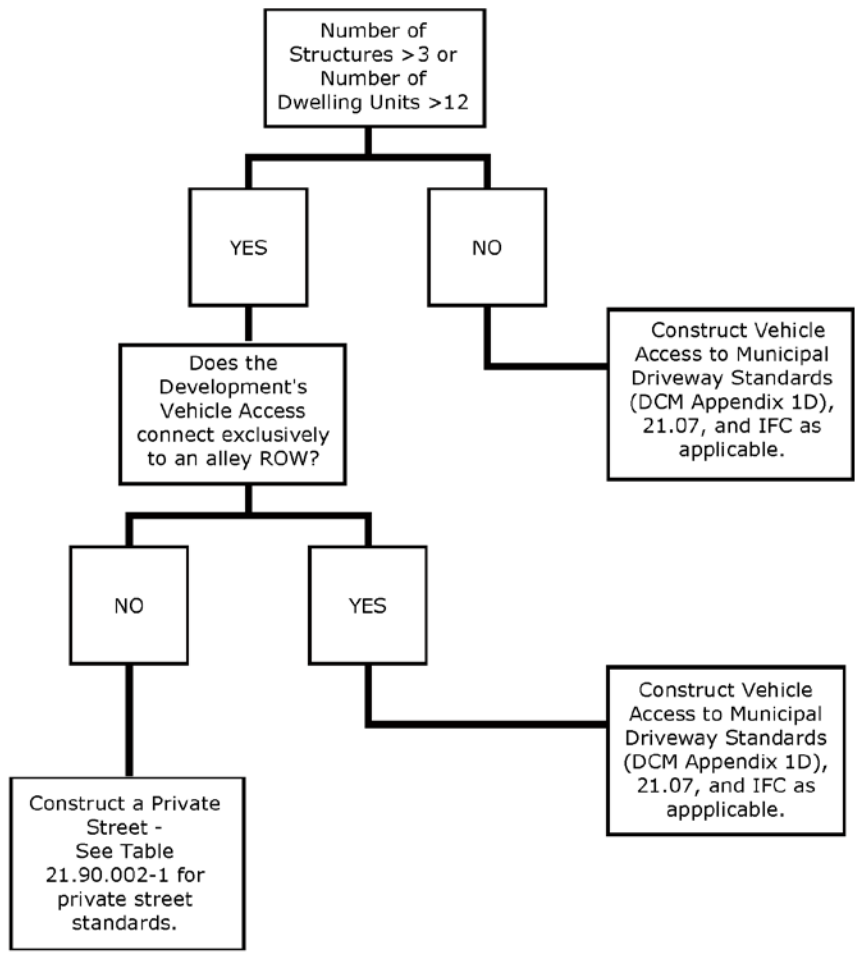
40 **21.90.002 Decision Tree and Construction Examples**  
41

42 The decision to build a private street or driveway will be factored by the  
43 number of structures or the number of dwelling units to be constructed. This  
44 section provides a Decision Tree (Illustration #1) with an accompanying table  
45 (Table 21.90.002-1), and construction examples (Illustrations #2-5).  
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The construction examples in Illustrations #2 and 3 [5] depict typical Private Street access [IN DRAWINGS A AND B]. Typical driveway access is depicted in Illustrations #4 and 5 [DRAWINGS C AND D].

**Illustration #1 – AMCR 21.90 Decision Tree**



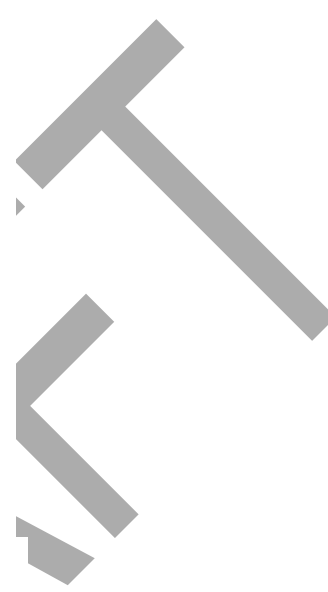
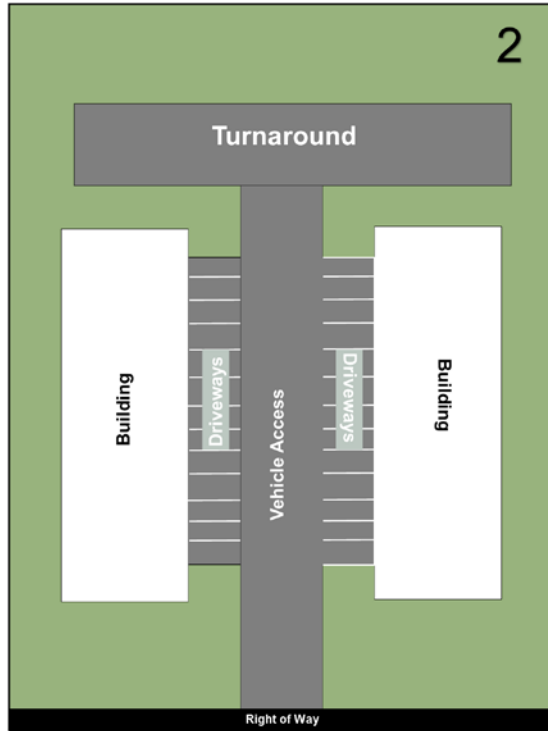
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<b>TABLE 21.90.002-1: Private Street - Minimum Standards</b>							
Number of Dwelling Units	Street Section <sup>1,2</sup> (feet)		Number of Lanes		Design Speed (mph)	Managed Guest Parking <sup>3</sup> Required	Sidewalk
	Standard	Optional <sup>5</sup>	Moving	Parking			
4-12	31		2	1	20	No	None
		24	2	0	20	Yes	
13-19	31		2	1	20	No	One Side or Woonerf <sup>4</sup>
		24	2	0	20	Yes	
20-34	33		2	1	25	No	One Side or Woonerf <sup>4</sup>
		24	2	0	25	Yes	
35-49	33		2	1	25	No	Both Sides
		24	2	0	25	Yes	
50-79	33		2	1	25	No	Both Sides
		28	2	0	25	Yes	
80-200	38		2	1	25	No	Both Sides
		N/A					

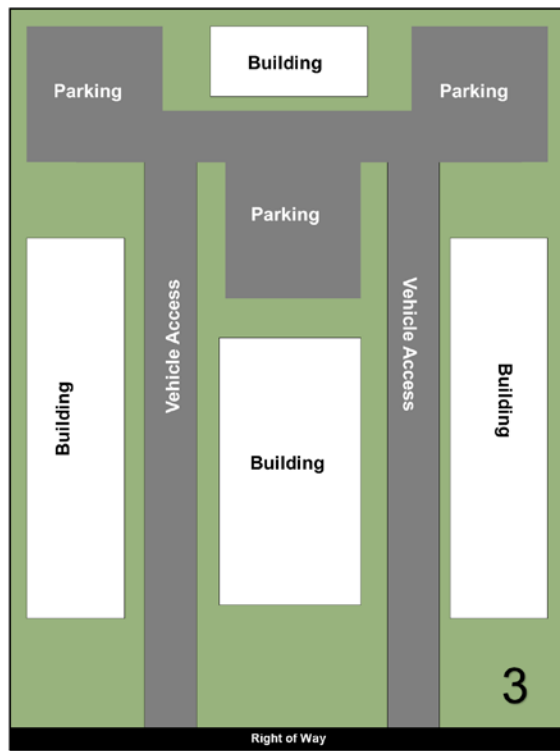
<sup>1</sup>Street dimensions are from back of curb.  
<sup>2</sup> The width of a private street may be reduced where it enters the public right-of-way upon approval by the Municipal Traffic Engineer.  
<sup>3</sup>Managed Guest Parking may not be provided in driveways of individual units.  
<sup>4</sup>See AMCR 21.90.003.F.1.ff for Woonerf Street requirements.  
<sup>5</sup>Use of "Optional" street section where building height is 30 feet or greater requires a minimum unobstructed width of 26 feet for the private street.

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**Illustrations #2-3: Private Streets [A OR B] Design Examples:**

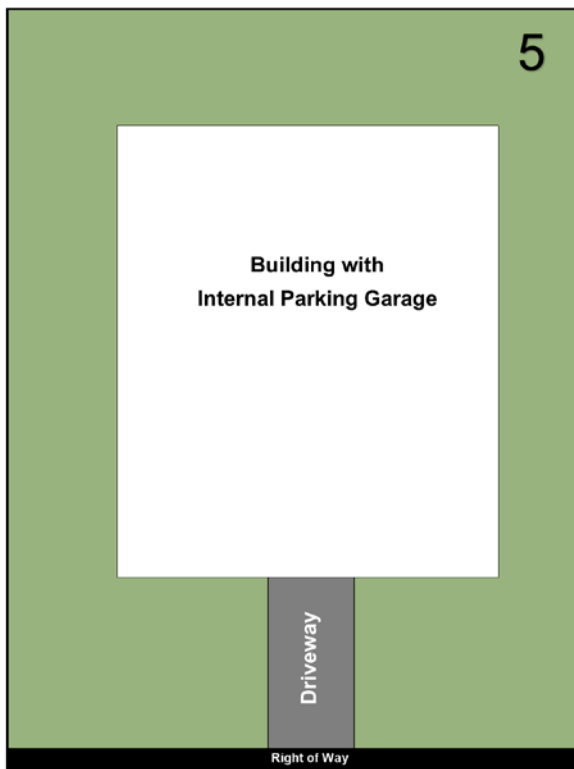
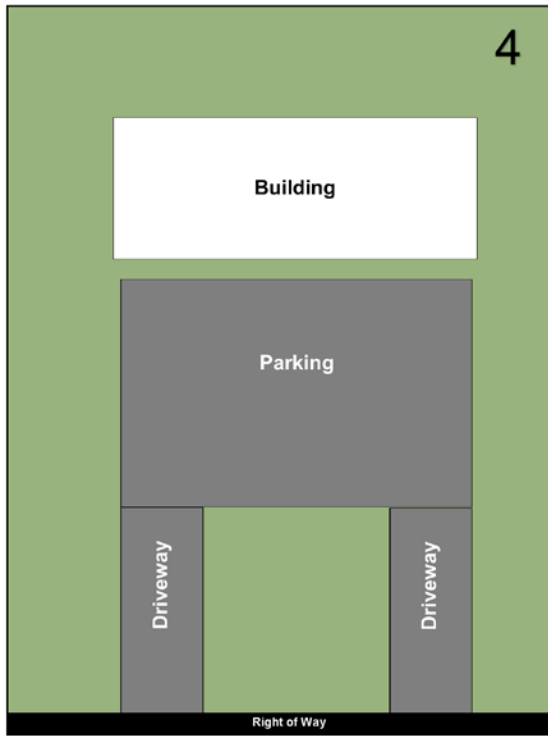


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**Illustrations #4-5: Driveway [C OR D] Design Examples:**



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1 **21.90.003[1]- Definitions**

2  
3 The following words, terms and phrases, when used in this chapter, shall have  
4 the meanings ascribed to them in this section, except where the context clearly  
5 indicates a different meaning.

6  
7 AASHTO shall mean American Association of State Highway and  
8 Transportation Officials.

9  
10 AMC shall mean Anchorage Municipal Code.

11  
12 BMP shall mean Best Management Procedures.

13  
14 Contractor shall mean the party to whom a municipal building permit, land use  
15 permit, or right-of-way permit is issued, and who is responsible for the installation of  
16 all public and/or private streets [ROAD], parking areas, pedestrian amenities,  
17 drainage features and utilities, and other associated site improvements required by  
18 the permit.

19  
20 Curb and gutter shall be defined as raised strips of concrete combined with a  
21 depressed concrete channel along the edges of streets or parking lots. Curbs  
22 provide structural support to the edge of pavement, provide a durable surface for  
23 snow plow blades, define borders between traveled and untraveled surfaces, and  
24 help contain low speed traffic within the edges of the pavement. When combined  
25 with gutters, curbs collect and convey storm-water runoff to point of collection and  
26 improve the efficiency of street sweepers by concentrating debris for easy  
27 mechanical clean-up.

28  
29 DCM shall mean the Municipal Design Criteria Manual.

30  
31 Developer shall mean the party obligated under a subdivision agreement,  
32 development agreement, right-of-way permit, building permit, or land use permit, for  
33 all required street [ROAD] improvements, parking areas, pedestrian amenities,  
34 drainage features, utilities and other improvements required by the agreements or  
35 permits. This definition specific to AMCR 21.90.

36  
37 Development shall mean a residential development ultimately consisting of  
38 more than two dwelling units per lot or tract. This definition is specific to AMCR  
39 21.90.

40  
41 Driveway: See 21.14.040 for definition [SHALL MEAN THE PAVED  
42 CONNECTION MEETING MUNICIPAL DRIVEWAYS STANDARDS LOCATED  
43 BETWEEN THE GARAGE OF A DWELLING UNIT AND THE ADJACENT  
44 ROADWAY(PUBLIC OR PRIVATE) OR BETWEEN THE TRAVEL AISLE OF A  
45 PARKING LOT/AREA AND THE ADJACENT ROADWAY (PUBLIC OR PRIVATE)].  
46

1 Managed Guest Parking shall mean parking managed under a parking  
2 agreement between the Municipality of Anchorage and the developer/property  
3 owner(s).  
4

5 MASS shall mean the abbreviation for the "Municipality of Anchorage Standard  
6 Specifications," which is a manual that identifies the approved common construction  
7 practices associated with subdivision development and public works projects.  
8 [MASS SHALL MEAN MUNICIPALITY OF ANCHORAGE STANDARD  
9 SPECIFICATIONS].

10  
11 MUTCD shall mean Manual on Uniform Traffic Control Devices.  
12

13 [PARKING LOT/AREA SHALL MEAN MORE THAN TWO PARKING SPACES,  
14 NOT LOCATED IN A STREET, DESIGNED TO PROVIDE PARKING FOR A  
15 DEVELOPMENT. MANEUVERING FOR THE PARKING SPACES MAY OCCUR  
16 EITHER IN THE STREET OR A TRAVEL AISLE WHERE PARKING IS BACK-TO-  
17 BACK, DEPENDING ON THE PARKING SPACE CONFIGURATION].  
18

19 Parking Facility: Refer to 21.14.040 for definition.  
20

21 Parking space: Refer to 21.14.040 for definition [SHALL MEAN ONE SPACE  
22 WHERE A VEHICLE IS INTENDED TO BE PARKED].  
23

24 Parking space, guest: Refer to 21.14.040 for definition.  
25

26 Pedestrian connection: Refer: to 21.14.040 for definition.  
27

28 Plan shall mean a document, prepared by a professional engineer licensed in  
29 the State of Alaska, showing all applicable items as listed below in subsection  
30 21.90.003E.1. Refer to 21.14.040 for additional information on different types of  
31 plans, as defined by Title 21.  
32

33 Private Street [ROADWAY]: Refer to 21.14.040 for definition. [SHALL MEAN  
34 A ROADWAY LOCATED ON PRIVATE PROPERTY THAT PROVIDES ACCESS  
35 FROM DRIVEWAYS TO PUBLIC ROADWAYS. MAINTENANCE FOR PRIVATE  
36 ROADWAYS SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNERS].  
37

38 Public Street [ROADWAY]: Refer to 21.14.040 for definition. [SHALL MEAN A  
39 ROADWAY CONSTRUCTED ON PUBLIC RIGHT-OF-WAY OR IN A PUBLIC USE  
40 EASEMENT TO MUNICIPAL STANDARDS. THE MUNICIPALITY OF  
41 ANCHORAGE SHALL BE RESPONSIBLE FOR MAINTENANCE OF PUBLIC  
42 ROADWAYS].  
43

44 PUE shall mean public use easement(s).  
45

46 Sidewalk: Refer to 21.14.040 for definition.  
47



1 Woonerf Street shall mean a street designed for vehicular travel, pedestrian  
2 travel, social gathering and recreation. Pedestrians and cyclists take precedence in  
3 the use of the street. The access for all modes is accommodated on the same  
4 surface, and is not differentiated by grade separation or other barriers. Woonerf  
5 Streets include traffic calming measures to ensure safe coexistence of all users.  
6 Traffic calming measures may include landscaping features, patterned paving,  
7 planters, trees, benches, or bollards. These features are intended to enhance user  
8 safety and use.

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10 (AR No. 2004-108(S-2), § 1, 6-8-04)

11  
12 **21.90.004[2] - General duties of developer.**

13  
14 A. The developer shall be responsible for planning, designing, and  
15 constructing all elements of private streets [ROAD] within a  
16 development to meet or exceed municipal private street [ROAD]  
17 standards. Approval of an engineered street [ROAD] construction  
18 plan, quality control plan, and verification the developer has retained  
19 the services of a professional engineer, licensed in the State of Alaska,  
20 for inspection of the private street [ROAD] construction shall be  
21 required prior to obtaining building or land use permits from building  
22 safety. Certified as-built/record drawings and a compilation of weekly  
23 inspection and test reports for all private street [ROAD] construction  
24 shall be submitted to building safety prior to issuance of any  
25 certificates of occupancy for the development.

26  
27 (AR No. 2004-108(S-2), § 1, 6-8-04)

28  
29 **21.90.005[3] - Responsibilities of developer, contractor, and**  
30 **municipality.**

31  
32 A. Developer responsibilities.

- 33  
34 1. The developer shall submit engineered plans for the  
35 construction of all private streets [ROADWAYS] and other  
36 facilities required to serve a development as part of the  
37 submittal package for a building or land use permit.  
38  
39 2. The developer shall provide adequate public use easement  
40 dedication when required by the municipal traffic engineer for  
41 improved connectivity, circulation and/or public safety as set  
42 out in AMC Section 21.03.100 [21.15.150].  
43  
44 3. The developer shall enter into a subdivision agreement,  
45 development agreement, or right-of-way permit for construction  
46 of all streets [ROADS] and other facilities within dedicated  
47 public use easements or right-of-way.  
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4. The developer shall ensure that subsequent builders or owners performing work on-site or in the adjacent right(s)-of-way are supplied with a copy of the approved site plans.
5. The developer shall be responsible for all work on-site or in adjacent right(s)-of-way until the development is issued final certificates of occupancy. The developer shall not be responsible for the actions of a third party performing work outside of the developer's subdivision agreement, right-of-way permit, building permit, or land use permit.
6. The developer shall retain the services of a professional engineer, registered in the State of Alaska, for inspection of all private street [ROAD], drainage and utility construction to ensure all improvements are in compliance with applicable municipal standards.
7. The developer shall work with the contractor to ensure daily and weekly inspection and test reports are prepared and submitted in accordance with the requirements set out in subsection E.2. below; and that certified as-built drawings are prepared for all private street and drainage construction and submitted to the municipal building safety department.
8. The developer shall be responsible for identifying all permits required for a development (including, but not limited to, right-of-way permit, flood hazard permit, wetlands fill permit, Corps of Engineers 404 Permit, Title 16 Fish Habitat Permit) and for working with all concerned regulatory agencies to obtain required permits prior to the commencement of work.
9. Prior to issuance of individual building permits, the developer shall be responsible for the preparation of a hydro-geologic report to provide accurate assessments of seasonal high groundwater table elevations for the purpose of maximum foundation depth determination, and to resolve the need for footing and foundation drains. The report shall be based on analysis of groundwater table tests conducted in accordance with the procedures specified in subsection E.6. below, and shall bear the signature and stamp of the responsible engineer or hydrogeologist. The report shall contain recommendations for the mitigation of groundwater penetration into crawlspaces and/or basements.

B. Contractor responsibilities.

1. The contractor shall construct all improvements associated with a development in accordance with the approved plans, issued

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permits and in compliance with all applicable municipal standards.

2. The contractor and all subcontractors shall perform all site work such that it will not cause adverse pedestrian and vehicle safety impacts to the development, adjoining developments, or adjoining right-of-way.
3. Prior to obtaining a building or land use permit, the contractor shall submit verification that the services of a licensed professional engineer have been retained for construction inspection of all private street [ROAD] improvements as well as an approved quality control plan and construction schedule for those improvements to be approved by the building official [MUNICIPAL ENGINEER].
4. The contractor shall be responsible for compiling daily and weekly inspection reports for submittal as set out in subsection E.2. below.
5. The contractor shall be responsible for repairing or replacing any improvements found to be insufficient or damaged due to materials, workmanship or the actions of the contractor or subcontractors.

C. Building official and m[M]unicipal engineer responsibilities.

1. The building official [MUNICIPAL ENGINEER] shall review and approve or disapprove all plans for all developments.
2. The building official [MUNICIPAL ENGINEER] shall determine to what standards any required improvements are to be constructed. The construction standards may not exceed the applicable standards of AMC Title 21.
- [3. THE MUNICIPAL ENGINEER SHALL INCLUDE THE APPROVED PLAN WITHIN THE APPLICABLE AGREEMENT].
- ~~3~~[4]. The municipal engineer and/or building official or their designee may periodically inspect construction of the required development improvements for conformance with the approved plan.
- ~~4~~[5]. The municipal engineer shall review and approve or disapprove all design or construction waivers from the standards in this regulation.

1                   5[6]. The building official [MUNICIPAL ENGINEER] shall review the  
2                   as-builts and inspection reports for consistency with these  
3                   regulations and the approved plans.  
4

5                   D.       Municipal traffic engineer responsibilities.  
6

7                   1.       The municipal traffic engineer shall review and approve or  
8                   disapprove proposed plans to ensure all vehicle and pedestrian  
9                   safety standards as well as parking and maneuverability  
10                  standards have been met.  
11

12                 2.       The municipal traffic engineer shall review proposed plans to  
13                   determine if plans comply with the municipal driveway  
14                   standards.  
15

16                 3.       The municipal traffic engineer shall review and approve or  
17                   disapprove all waivers from the applicable standards in this  
18                   regulation.  
19

20                 E.       Procedures. The developer shall adhere to the procedural matters as  
21                   outlined in this section to provide consistent plan submittals and  
22                   standardized field inspection and testing. All procedures detailed shall  
23                   not exceed those required under a subdivision agreement.  
24

25                 1.       Plan preparation: Construction plans shall include the following  
26                   information:  
27

28                   a.       Scaled drawing; minimum scale one inch equals 50 feet  
29                   zero inches;  
30

31                   b.       Dimensions of all proposed streets [ROADS], driveways,  
32                   Primary pedestrian Connections, parking; Resident  
33                   Parking Spaces and Guest Parking Spaces and  
34                   adjacent right-of-way;  
35

36                   c.       Existing and proposed property lines;  
37

38                   d.       Adjoining right-of-way;  
39

40                   e.       Existing and proposed drainage facilities on property  
41                   and in the right-of-way;  
42

43                   f.       Existing and proposed topography extending a minimum  
44                   25 feet beyond all property boundaries;  
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46                   g.       Proposed post-development drainage patterns including  
47                   grade breaks, grade break elevations and drainage  
48                   arrows;

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- h. Easements dedicated by plat or recorded by book and page;
- i. Development setbacks;
- j. Wetland boundaries;
- k. Stream protection setbacks;
- l. Relevant cross sections of parking areas, sidewalks, curbs, loading bays, ramps, and all other features of the parking area where cross sections will clarify grade breaks and elevations;
- m. Construction details and standard cross sections of all proposed streets [ROADS], public and private, showing street width, limits of excavation, frost classification of subgrade material, depth of classified fill, pavement thickness, curbs, gutters, shoulders, deep utilities, storm drain;
- n. Elevation profiles of all proposed streets [ROADS], public and private;
- o. All street geometrics including curb return radii;
- p. Water plans and elevation profiles;
- q. Sewer plans and elevation profiles;
- r. Building footprint(s) and driveway location(s);
- s. Finished floor elevations and/or finished garage floor elevations;
- t. All proposed landscaping;
- u. Locations of all proposed erosion and sediment control BMPs;
- v. All proposed points of ingress/egress and AASHTO sight distance triangles at those proposed points shall be identified;
- w. Parking calculations;

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- x. Illumination plans with certified lighting and glare statement;
  - y. Certified site lighting analysis and glare statement for parking lot lighting where an independent lighting system is provided for parking lots exceeding 20 parking spaces;
  - z. Clearing limits;
  - aa. Storm drain plans and elevation profiles; and
  - bb. Applicable manhole details, pavement cut, and replacement details in conformance with MASS.
2. Daily and weekly inspection reports shall be compiled by the engineer of record and submitted to building safety by close of business, Monday following the reporting period. Failure to comply with this requirement may subject the contractor to issuance of a stop work order until compliance and/or additional fees. The certificates of occupancy shall not be issued until all inspection reports have been received and approved by the building official [MUNICIPAL ENGINEER]. At a minimum, the inspection reports shall contain the following information:
- a. Date the work was observed;
  - b. Project name;
  - c. Scope of work;
  - d. Weather conditions and temperature while work was observed;
  - e. Depth of excavation;
  - f. Sieve analysis and classification of structural fill material placed within the street [ROADWAY] prism or utility trenches;
  - g. Verification that all organics have been properly removed from the subgrade;
  - h. Sieve analysis and classification of structural fill material placed in the private street [ROADWAY], storm drain trench and/or utility trench;
  - i. Source and method of backfill;

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- j. Results of field density testing as set out in subsection E.3. (below), for all street [ROAD] and trench backfill;
  - k. Compaction methods;
  - l. Any ground water encountered or dewatering performed;
  - m. Asphalt pavement thicknesses observed from core samples;
  - n. Status and effectiveness of erosion and sediment control BMPs; and
  - o. Engineer's or representative's signature.
3. Guidelines for quality control plan submittal:
- a. Identify all haul routes, material sources, and disposal sites, including frequency and types of proposed maintenance of haul routes, and emergency telephone number and contact person. List the days and hours of haul route use, and submit a traffic control plan, if required;
  - b. List the source and types of soils to be used, including provisions to ensure quality control of all native soils anticipated for use in construction of the development;
  - c. Identify the types and frequency of all testing in accordance with subsection E.4. below; and
  - d. Provide procedures for reporting quality control activities, including discoveries of deficiencies in the work, and methods to correct, repair, and retest deficiencies.
4. Quality control testing standards:
- a. All FDTs shall include the following information:
    - i. Project name;
    - ii. Test number;
    - iii. Date;

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- iv. Field technician's name;
  - v. Location by station (from approved plans) and offset distance;
  - vi. Elevation (from approved plans);
  - vii. Description (sidewalk subgrade, street fill by type, water, trench backfill, pavement, etc.);
  - viii. Nuclear gauge make, model, and number;
  - ix. Calibration date;
  - x. Probe depth;
  - xi. Soil type and proctor [PROCTER] curve number;
  - xii. Wet density (pcf);
  - xiii. Moisture content (percentage);
  - xiv. Dry density (pcf);
  - xv. Maximum dry density (pcf — from proctor);
  - xvi. Marshall density (pcf);
  - xvii. Percent compaction;
  - xviii. Remarks; and
  - xix. All failing FDT's shall be retested until they pass, and the contractor's method of improving the compaction shall be noted on the test form.
- b. Minimum frequency of quality control testing. These are minimum frequencies; additional testing may be necessary, depending on circumstances and failure rate:
- i. Mechanical analysis on imported material:
    - (A) Classified backfill, all types — one per 2,000 tons;
    - (B) Bedding, all types — one per 500 L.F.;
    - (C) Leveling course — one per 1,000 tons;
    - (D) Seal coat aggregate — one per 1,000 tons.



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- ii. Density testing for street [ROAD] construction: One test per 400 L.F. on each lift of classified fill and backfill, and one test per 400 L.F. on completed subgrade prior to placement of leveling course.
  - iii. Density testing for trench backfill: One test per 300 L.F. of trench at spring line, mid-trench and surface.
  - iv. A.C. pavement: One truck sample of each day's run for marshal series, and one core sample correlated to truck sample for density and thickness.
5. Inspection and as-built standards:
- a. Provide a qualified representative at the site to inspect the work on a daily basis. The engineer shall provide written daily reports in conformance with subsection E.2 above.
  - b. The engineer's representative shall be responsible for compilation of as-built information, and preparation of as-built drawings and utility service connection records. The minimum requirements and standards for as-builts is set out in MASS, Section 65.00.
  - c. The engineer shall notify the building safety department if employment is terminated or is reduced to the point that the engineer can no longer perform the services described.
6. Groundwater table elevation testing.
- a. The bottom of the test hole shall be at least six feet below the bottom of the anticipated foundation depth, or a minimum of ten feet deep.
  - b. A perforated plastic pipe, or similar device, shall be installed to the bottom of the test hole, and the test hole shall be backfilled and mounded to slope away from the pipe.
  - c. The water level in the pipe shall be measured a minimum of seven days after installation to determine water table depth below the surface.
  - d. Test hole density:

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- i. Developments one acre or less in size shall install a minimum of three monitoring wells, evenly distributed throughout the property with respect to horizontal and vertical topography;
- ii. Developments between one and five acres in size shall install a minimum of two monitoring wells per acre, evenly distributed throughout the property with respect to horizontal and vertical topography; or
- iii. Developments greater than five acres in size shall install a minimum of one and one-half test wells per acre, evenly distributed throughout the property with respect to horizontal and vertical topography.

F. Design.

- 1. Private Street [ROAD] design criteria:
  - a. All private streets [ROADS] shall be constructed in accordance with Table 21.90.002-1 and the criteria found in this section [WITH 26 FEET OF PAVEMENT, CURB AND GUTTER ON BOTH SIDES, FOR A TOTAL 30-FOOT SECTION FROM THE BACK OF CURB TO BACK OF CURB].
  - b. All private streets [ROADS] shall be crowned with minimum two percent cross slopes; alternative [INVERTED] sections may be approved by the municipal engineer [FOR ROADWAYS LENGTHS LESS THAN 300 FEET].
  - c. All private streets [ROADS] shall have a minimum longitudinal grade of one percent and a maximum grade of ten percent unless otherwise approved by the municipal engineer.
  - d. At intersections with peripheral right-of-way, private street grades shall not exceed four percent within a minimum distance of 30 feet from back of curb or edge of shoulder of the peripheral street.
  - e. The minimum grade of an asphalt swale or "valley gutter" at private street intersections without catchment facilities immediately upgrade shall be one percent.

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- f. Vertical curves shall be used for transition between intersecting grades of streets [ROAD] when the change exceeds one percent.
  
- g. At intersections with arterial or collector streets, private streets shall have a minimum curb return radius of 30 feet. At intersections with all other streets, private streets shall have a minimum curb return radius of 20 feet.
  
- h. All horizontal curve [INTERIOR] radii shall conform to the requirements for a secondary street identified in the DCM Chapter 1 – Section 1.9 Street Design Criteria. [IFC D103.3, MINIMUM TURNING RADIUS FOR EMERGENCY VEHICLES, AS ADOPTED UNDER AMC TITLE 23].
  
- i. All private roads within developments shall be designed for a preferred design speed of 25 miles per hour or a design speed of 20 miles per hour upon approval of the municipal traffic engineer.
  
- j. Clear vision areas and clear vision triangles for private streets shall be in compliance with [AMC SECTION 21.45.020] AMC Chapter 24.70, DCM Chapter 1: — Section 1.9 Street Design Criteria [E3], and AASHTO Sight Distance Triangle (see Municipal Driveway Standards).
  
- k. Any dead end private street with a length in excess of 150 feet (measured from the face of curb, or nearest edge of the traveled way for uncurbed streets, of the intersecting street to the end of the private street) shall be provided with turnaround provisions meeting the requirements of MOA Handout F.02, Recommended Dead-End Fire Lane Turnarounds.
  
- l. Use of the Optional private street section requires a recorded parking agreement between the Municipality of Anchorage and the developer(s)/property owner(s). The agreement shall include the following:
  - i. The minimum number of Managed Guest Parking stalls is the number of guest parking stalls required by Table 21.07-4.
  
  - ii. Managed Guest Parking stalls shall be individually signed to indicate that vehicles parked for more than the designated time period,

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not to exceed 24 hours, will be towed at the vehicle owner's expense.

iii. The developer/property owner shall maintain a contract with a towing company for the immediate removal of any vehicles parked along the private street and any vehicles parked in Managed Guest Parking for a period of time in excess of the designated time period not to exceed 24 hours.

iv. The developer/property owner shall post the name and phone number of the towing contractor at all locations posted as "no parking" and at Managed Guest Parking stalls.

v. Optional private streets shall be signed as "No Parking Fire Lane."

m. Sidewalks shall be constructed of Portland Cement Concrete with a minimum thickness of 4 inches and a minimum width of 5 feet.

n. An 8-foot wide separated asphalt pathway may be substituted for a sidewalk when constructed in accordance with details in MASS Division 20 - Earthwork.

o. When a development includes multiple parking facilities the preference is to consolidate access between separate parking facilities with a private street. Using the private street for turning and maneuvering should be avoided.

p [K]. All pre-design subsurface investigations shall be in accordance with the soil investigation standards given in DCM Chapter 1: Section 1.7 – Soil Investigation Standards [SECTION 1.040].

q[L]. All organics shall be removed from the streets [ROAD] subgrade unless otherwise approved by the municipal engineer.

r[M]. The thickness of structural fill for private streets [ROADS] shall be designed using the limited subgrade frost penetration method as described in DCM Chapter 1: Section 1.7 - Soil Investigation Standards

1 [SECTION 1.070F]. All substitute design methods shall  
2 have prior approval by the municipal engineer.

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4 s[N]. Geotextile fabric shall be installed at the bottom of  
5 excavations when existing soils classified as F3 or F4  
6 are present as indicated in [RECOMMENDED] in the  
7 DCM Chapter 1: Section 1.10 – Road Structural Fill  
8 Design [SECTION 1.10E]. [FOR ALL PRIVATE  
9 STREETS TO PREVENT CONTAMINATION OF  
10 STRUCTURAL FILL WITH FROST SUSCEPTIBLE  
11 SOILS, UNLESS OTHERWISE APPROVED BY THE  
12 MUNICIPAL ENGINEER.]

13  
14 t[O]. All structural fill used in construction of [FOR] private  
15 streets [ROADS] shall [BE TYPE II CLASSIFIED FILL  
16 MATERIAL, AS DEFINED IN THE] comply with MASS  
17 Division 20 – Earthwork [SECTION 20.21.[05]] and shall  
18 be installed in accordance with the guidelines  
19 established in DCM Chapter 1: Section 1.10 – Road  
20 Structural Fill Design [SECTION 1.10B]. [TYPE III  
21 CLASSIFIED FILL MATERIAL, AS DEFINED IN MASS,  
22 MAY BE USED FOR BACKFILL OF STORM DRAIN  
23 AND UTILITY TRENCHES BELOW THE ROAD BASE].

24  
25 w[P]. All structural fill material for private streets [ROADS]  
26 shall be placed in lifts no greater than 12 inches thick  
27 and compacted to 95 percent maximum density at  
28 optimum moisture content.

29  
30 x[Q]. The top six inches of the structural fill for private streets  
31 [ROADS] shall be Type II-A classified fill material only,  
32 as set out in MASS Division 20 – Earthwork [SECTION  
33 20.21].

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35 y[R]. Leveling course and pavement thickness shall be in  
36 accordance with MASS.

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38 z[S]. All private streets [ROADS] shall be designed with  
39 adequate catchment of surface water runoff and meet  
40 the requirements of DCM Chapter 2: Drainage Volume  
41 1. [TO PREVENT ADVERSE DRAINAGE IMPACTS TO  
42 ADJACENT PROPERTIES AND/OR RIGHT-OF-WAY].

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44 aa[T]. All manholes, inlets and storm drain lines shall be  
45 designed and constructed to municipal standards as  
46 defined in MASS Division 55 – Storm Drain Systems.  
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bb[U]. Names for private streets will be submitted to the municipal addressing department for review and approval prior to having the site plan approved.

cc[V]. All private streets [ROADS] will be signed according to MUTCD Standards with a "private" designation on the street sign. A certificate of occupancy will not be issued until the street signs are installed and inspected. See traffic department for design of sign specified as a D3-101PVT [P3-1P].

dd[W]. Private streets shall have "No Parking, Fire Lane" signage on the side of the street where parking is prohibited.

ee[X]. Covenants, where applicable, shall provide for the association and/or management company to be able to tow vehicles parked illegally and covenants shall state parking is prohibited on one side of the street.

ff[Y]. Covenants, where applicable, shall require the association to maintain signage and enforce no-parking areas.

gg [Z]. Each street shall be named, and each building address shall be based on the access street. (For example, no C Street address if the building does not access off of C Street.)

hh. A Woonerf Street shall include the following design elements:

- i. A width of 24 feet and must not exceed 500 feet in length.
- ii. Have a clear and distinct entrance with a sign indicating the Woonerf status.
- iii. Incorporate different colors and textures in pavement material.
- iv. Use traffic calming measures such as chicanes. Traffic calming measures must be placed at maximum intervals of 160 feet. Use of vertical traffic calming measures to be approved by the Fire and Traffic Engineering Departments.

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- ii. A Woonerf Street may also include the following additional design elements:
  - i. Eliminate the continuous curb.
  - ii. Incorporate outdoor furnishings, landscaping and lighting.
  - iii. Approval by the municipal traffic engineer and the planning director is required for Woonerf Streets.
  - kk. Woonerf Streets are considered Optional private streets and are required to provide Managed Guest Parking.
  - ll. Woonerf Street design elements must not interfere in Emergency vehicle access.
  - mm. AMC 21.07 will require the Woonerf Street design to address runoff and snow storage or removal.
- 2. Public streets [ROADS] constructed in P[P]ublic U[U]se E[E]asements (PUE).
  - a. Streets [ROADS] determined by the traffic engineer to require a PUE dedication for purposes of access and/or connectivity shall be constructed to the standards identified in AMC Title 21 for public streets; and
  - b. PUEs shall be 50 [44] feet wide to accommodate the street [ROADWAY] section and the snow storage area. Additional dedication shall be required in the event that pedestrian facilities are needed, as determined by the area wide trails plan, determined by a traffic impact analysis, or the street [ROADWAY] volumes are expected to exceed the requirements in AMC Title 21 for pedestrian facilities.
- 3. Emergency response.
  - a. Streets with hydrants on them shall have continuity and not be dead ends, unless located on cul-de-sacs approved by the traffic engineer and the fire department. Hydrants shall be accessible from two directions.
  - b. Residential developments with 30 or more dwelling units shall be provided with separate and approved access roads, meeting the remote requirements of the IFC D104.3., as adopted under AMC Title 23.

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- c. The number of dwelling units on a single fire apparatus road shall not be increased unless the fire apparatus access road will connect with future developments as determined by the fire code official. No new structures shall be constructed on a fire apparatus access road unless approved by fire code official.
- d. To prevent conflagration, one or two family residential developments shall have a clear space of at least ten feet between exterior walls (not including area under the eaves), unless each structure has an approved automatic sprinkler system.
- e. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall meet requirements of the IFC D105, as adopted under AMC Title 23.

[4. PARKING]

- [A. ALL OVER-FLOW PARKING AREAS AND PARKING AISLES SHALL BE DESIGNED TO MINIMIZE MANEUVERING IN THE MAIN PRIVATE ROADWAY].
- [B. OVERFLOW PARKING SHALL BE PROVIDED, IN ADDITION TO REQUIRED PARKING. OVERFLOW PARKING SHALL BE CALCULATED PER THE TABLE BELOW]:

[TYPE OF DEVELOPMENT	% OF REQUIRED PARKING NECESSARY FOR OVERFLOW
TWO (2) AND THREE (3) DWELLING UNITS	25%
FOUR (4) TO SIX (6) DWELLING UNITS	20%
GREATER THAN SIX (6) DWELLING UNITS	15%
APARTMENT COMPLEX	12%
OTHER USES	PER PARKING STUDY, IF REQUIRED]

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- [C. OVERFLOW PARKING MAY BE PROVIDED ON-STREET, IF THE FOLLOWING REQUIREMENTS ARE MET: THE PARKING SPACE SHALL BE A MINIMUM



1 OF 20 FEET LONG UNLESS BOUNDED ON BOTH  
2 ENDS BY PARKING SPACES, IN WHICH CASE, THE  
3 BOUNDED PARKING SPACE SHALL BE A MINIMUM  
4 OF 24 FEET LONG. FOR EXAMPLE, IF THERE ARE  
5 THREE PARKING SPACES BETWEEN TWO  
6 DRIVEWAYS, THOSE PARKING SPACES WOULD BE  
7 20 FEET, 24 FEET AND 20 FEET LONG  
8 RESPECTIVELY. IF THE ON-STREET PARKING IS  
9 NOT SUFFICIENT TO MEET THE OVERFLOW  
10 PARKING REQUIREMENT, OFF-STREET PARKING  
11 SHALL BE PROVIDED].

12  
13 [D. ALL PARKING SPACES INSIDE GARAGES AND  
14 CARPORTS SHALL MEET DESIGN REQUIREMENTS  
15 FOUND IN AMC SECTION 21.45.080, IF THE  
16 DRIVEWAY IS BEING USED TO MEET REQUIRED OR  
17 OVERFLOW PARKING REQUIREMENTS];

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19 [E. INDIVIDUAL DWELLING UNIT GARAGE DRIVEWAYS  
20 SHALL HAVE A MINIMUM OF 22 FEET BETWEEN  
21 THE GARAGE DOOR AND THE BACK OF CURB OR  
22 EDGE OF PAVEMENT FOR ALL ROADWAYS].

23  
24 [F. ALL OVER-FLOW PARKING LOCATED AT 90  
25 DEGREES TO THE INTERIOR ROADWAYS OF THE  
26 DEVELOPMENT SHALL BE AT LEAST 24 FEET  
27 DEEP, INCLUDING ANY OVERHANG].

28  
29 [G. PRIVATE PARKING GARAGES SHALL PROVIDE A  
30 MINIMUM 30 FEET OF ON-SITE VEHICLE  
31 QUEUING/STACKING THAT DOES NOT INTERFERE  
32 WITH ANY PARKING STALLS OR ROADWAYS].

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34 [H. ALL PRIVATE MULTI-PLEX PARKING GARAGES  
35 SHALL HAVE AN ENTRANCE/EXIT THAT IS A  
36 MINIMUM OF 18 FEET WIDE].

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38 [I. ALL PRIVATE MULTI-PLEX PARKING GARAGES  
39 SHALL HAVE TWO ENTRANCE/EXIT POINTS, IF  
40 DESIGNED TO PROVIDE OVER 20 PARKING  
41 SPACES, UNLESS OTHERWISE APPROVED BY THE  
42 TRAFFIC ENGINEER].

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44 4[5]. Plan review and approval. Plans providing all of the required  
45 components shall be submitted with the "master" building  
46 permit application. The appropriate review agencies shall  
47 provide comment to the building official. The building permit

1 shall not be issued until all appropriate departments have  
2 provided approval.

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4 5[6]. Noncompliance.

- 5  
6 a. Failure of the developer or builder to obtain appropriate  
7 permits shall result in investigation fees as set out in  
8 AMC Chapter 23.10.  
9  
10 b. Failure to provide all inspection reports and as-built  
11 drawings of all private street [ROAD] construction,  
12 certified by a professional engineer registered in the  
13 State of Alaska shall result in non-issuance of all  
14 certificates of occupancy for the development.  
15  
16 c. Failure to comply with the approved plans, permits, and  
17 construction inspection requirements herein may result  
18 in issuance of a stop work order until such compliance.  
19

20 (AR No. 2004-108(S-2), § 1, 6-8-04)

21  
22 **Section 2.** Anchorage Municipal Code section 21.07.090M.7. Ingress and  
23 Egress – is hereby amended to read as follows (*the remainder of the section is not*  
24 *affected and therefore not set out*):  
25

- 26 d. Minimum width of 20 feet for 2-way ingress/egress entries for parking  
27 structures. Formal waiver required from Municipal Traffic Engineer for  
28 a reduction/exception to this standard.  
29

30 **Section 3.** Anchorage Municipal Code section 21.07.110F.2.e., *Minimum*  
31 *Standards*, is hereby amended to read as follows (*the remainder of the section is*  
32 *not affected and therefore not set out*):  
33

- 34 iv. Guest Parking: Locate guest parking spaces as to minimize  
35 maneuvering in private streets and circulation aisle and not  
36 exclusive to or physically associated with any individual dwelling.  
37

38 (AO 2012-124(S), 2-26-13; AO 2013-117, 12-3-13; AO No. 2015-36, §§ 8,  
39 9, 5-14-15; AO No. 2015-100, § 8(Exh. C), 10-13-15; AO No. 2016-34(S), §  
40 2, 4-12-16; AO No. 2016-136am, § 5, 1-1-17; AO No. 2017-160, § 5, 12-19-  
41 17; AO No. 2017-176, § 9, 1-9-18; AO No. 2018-59, § 2, 7-31-18)  
42

43 **Section 4.** Anchorage Municipal Code section 21.07.110F.3.d., **Driveway width**  
44 **Exceptions**, is hereby amended to read as follows:  
45

46 The traffic engineer and the planning director may approve a departure  
47 from the standards of this section, such as a narrow driveway, if  
48 documentation prepared by a licensed professional in the state of Alaska

1 registered with the Alaska State Board of Registration for Architects,  
2 Engineers and Land Surveyors [TRAFFIC ENGINEERING  
3 PROFESSIONAL] demonstrates the driveway still meets this chapter  
4 standards and the Municipal driveway standards memo issued by the  
5 Municipal Traffic Engineer, and [TO THE SATISFACTION OF THE  
6 TRAFFIC ENGINEER] that change is appropriate. [TRAFFIC ENGINEER  
7 A]. Approval shall be contingent on factors such as street typology, urban  
8 context, traffic volume and speed, curb return radii, street travel lane offset  
9 from face of curb, pedestrian and bicycle facilities, snow storage, driveway  
10 configuration and length, site and project characteristics, number of  
11 vehicles, expected to use the driveway, and comprehensive plan polices.  
12 The traffic engineer and planning director may also be more restrictive than  
13 the standards of this section, provided [THE TRAFFIC ENGINEER] they  
14 document[S] the rationale.

15  
16 (AO 2012-124(S), 2-26-13; AO 2013-117, 12-3-13; AO No. 2015-36, §§ 8,  
17 9, 5-14-15; AO No. 2015-100, § 8(Exh. C), 10-13-15; AO No. 2016-34(S), §  
18 2, 4-12-16; AO No. 2016-136am, § 5, 1-1-17; AO No. 2017-160, § 5, 12-19-  
19 17; AO No. 2017-176, § 9, 1-9-18; AO No. 2018-59, § 2, 7-31-18)

20  
21 **Section 5.** Anchorage Municipal Code section 21.14.040, DEFINITIONS, is  
22 hereby amended as follows (*the remainder of the section is not affected and*  
23 *therefore not set out*):

24  
25 \*\*\* \*\*

26 **Driveway**

27 The paved connection meeting municipal driveway standards located  
28 between the garage of a dwelling unit and the adjacent street (public or  
29 private) or between a parking facility and the adjacent street (public or  
30 private). [A PRIVATE TRAVEL WAY PROVIDING MOTOR VEHICLE  
31 ACCESS FROM A PARKING SPACE OR PARKING FACILITY TO A  
32 STREET] A driveway is not a street. It does not provide primary frontage or  
33 address for buildings, nor is it primarily designed for non-motorized  
34 pedestrian access.

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36 \*\*\* \*\*

37 **Parking Space**

38 A space for the parking of one vehicle [AUTOMOBILE].

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40 \*\*\* \*\*

41 (AO 2012-124(S), 2-26-13; AO 2013-117, 12-3-13; AO No. 2015-82, § 7,  
42 7-28-15; AO No. 2015-100, § 9, 10-13-15; AO No. 2015-133(S), § 6, 2-23-  
43 16; AO No. 2015-138, § 5, 1-12-16; AO No. 2015-142(S-1), § 10, 6-21-16;  
44 AO No. 2016-3(S), § 18, 2-23-16; AO No. 2016-144(S), § 2, 1-1-17; AO No.  
45 2017-55, § 14, 4-11-17; AO No. 2018-12, § 2, 2-27-18; AO No. 2018-67(S-1),  
46 § 9, 10-9-18; AO No. 2018-92, § 1, 10-23-18)

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**Section 6.** This ordinance shall become effective immediately upon passage and approval by the Assembly.

PASSED AND APPROVED by the Anchorage Assembly this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Chair

ATTEST:

\_\_\_\_\_  
Municipal Clerk

DRAFT