



ADDENDUM #1

January 27, 2026

Little Tonsina ATV Trail Reroute, Culvert Removal, and Aquatic Habitat Restoration Project Request for Proposals (RFP)

In accordance with applicable federal procurement requirements under 2 CFR Part 200, CRWP hereby issues Addendum #1 to the above-referenced RFP.

1. Proposal Deadline Extension:

The proposal submission deadline is extended. Proposals must be received no later than 5:00 PM Alaska Time on February 16, 2026.

2. Target Budget Clarification:

Based on questions received from prospective proposers, CRWP provides the following clarification to support full and open competition. *CRWP has a target budget of approximately \$500,000.00 for this project.* Proposers are encouraged to submit realistic, well-supported cost proposals that are responsive, responsible, and aligned with the proposed technical approach, construction sequencing, and aquatic habitat priorities. Nothing in this addendum obligates CRWP to award a contract at or below this target amount.

3. Pre-Proposal Meeting Recording:

A recording of the pre-proposal meeting held on January 21 is available for public review at the following link:

https://us02web.zoom.us/rec/share/oRArXIrwhbe7GAzd400a7y7srgAX5rArNmKrtPKjUyr2XgwQ1ui7uRR_Q3bWVU_-IeraoIIYwtnR_4

Passcode: ?m^@RT7G

The recording is provided for informational purposes and is made available to all prospective proposers to support a fair and transparent procurement process. Any clarifications or changes to the RFP resulting from the meeting are issued only through formal written addenda.



3. Responses to Questions Received

CRWP has received questions from prospective proposers prior to and during the pre-proposal meeting. The responses summarized in the table below apply equally to all proposers and are issued to ensure a fair, transparent, and consistent procurement process in compliance with 2 CFR Part 200.

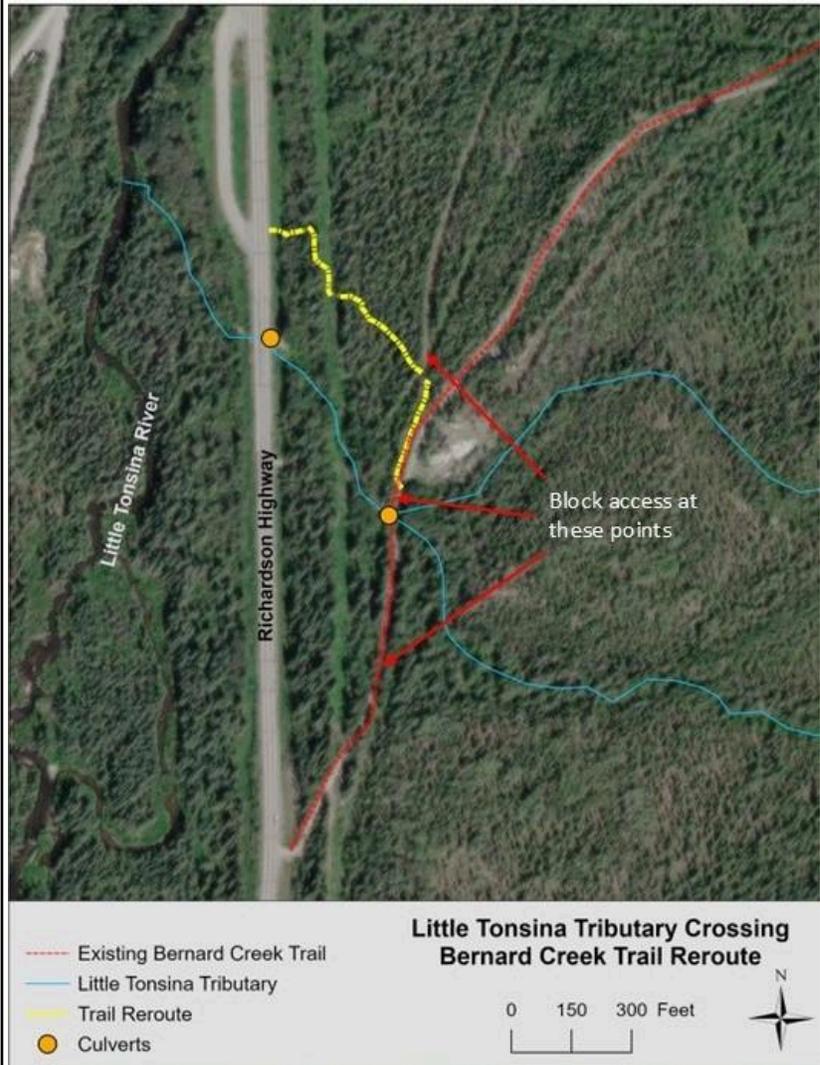
Question	Response
1. How much funding does CRWP have available for this project?	CRWP has a target budget of approximately \$500,000.00 for this project. This target budget is provided for planning purposes only and does not obligate CRWP to award a contract at or below this amount.
2. Is there a page limit on proposals?	There is no strict page limit. Proposers are encouraged to submit clear, concise, and well-organized proposals. Approximately 15 pages (excluding required attachments) is considered a reasonable guideline.
3. Is there a limit on the number of relevant project examples?	There is no limit; however, proposers are encouraged to select examples most relevant to the scope, complexity, and delivery approach of this project.
4. Can CRWP hold separate contracts for A/E and construction services?	CRWP prefers to award a single prime contract under a design–build delivery model. Proposers may self-perform or subcontract design and/or construction services. CRWP is open to considering alternative contracting structures, including separate contracts, if clearly proposed and justified. Any alternative structure must be fully described in the proposal.
5. Should construction costs be included in the cost proposal?	Yes. The cost proposal should reflect the full proposed scope of work consistent with the proposer’s delivery approach.

6. Will the lowest-cost proposal automatically be selected?	No. The lowest-cost, most responsive, and responsible proposal will receive the full cost score. “Responsible” means the proposed cost is realistic, feasible, and aligned with the proposed technical approach and sequencing.
7. Has approval been received from landowners on the ATV reroute alignment?	CRWP has coordinated with landowners regarding the proposed reroute. Final alignment approval will occur during design development and continued coordination.
8. Has ownership been determined for the rerouted ATV trail?	Land is owned by CAC. The trail is a 17B easement managed by BLM.
9. Will CRWP or landowners provide on-site representation during construction?	CRWP anticipates providing on-site representation during construction. Landowners may also be present. Roles and authority will be defined in the contract documents.
10. Will CRWP lead the permitting process?	CRWP will lead overall permitting coordination. The selected team will provide technical support, documentation, and coordination throughout the permitting process.
11. What schedule restrictions exist for construction?	Construction must comply with applicable environmental timing restrictions, including migratory bird and in-stream work windows. These will be confirmed and clarified via addendum as applicable.
12. What are the requirements for timber harvested during trail construction?	All brush, slash, and logs generated during clearing shall remain on site and piled along the sides of the new trail in convenient locations. Trees shall be limbed and cut into manageable lengths. Materials may be used for streambank reconstruction or access blocking as appropriate.
13. Are there specific ATV trail standards beyond width requirements?	Proposers should describe their assumed standards (e.g., grades, cross-slope, ditching, embankment depth) based on site conditions and best practices. CRWP is not prescribing a single standard.

14. Does the new ATV trail route cross any drainages?	The proposed reroute does not cross any drainages or boggy areas with standing water.
15. How much stream stabilization or reconstruction is anticipated?	CRWP is not prescribing a fixed linear extent. Proposers should describe anticipated stabilization and reconstruction based on their proposed design approach and site understanding.
16. What material sources are available?	A Chugach Alaska Corporation (CAC) material pit is located near Milepost 1 (Attachment A) on the Edgerton Highway. Pricing is pending. Additional sources may be used subject to owner permission and applicable regulations. All efforts should be used to ensure materials sources are weed-free and do not introduce invasive species.
17. What is known about the driveway landing pad?	The existing landing consists of an approximately 20-foot paved trapezoidal section with a drainage culvert and a significant drop to the ditch. Filling and reconstruction will be required. Applicable ADOT&PF specifications are provided as reference (Attachment B).

18. Will access points be blocked as part of the project?

CRWP anticipates blocking access at three locations, including the existing easement trail and the historic 1902 trail leading toward a private residence. Map provided as reference.



19. Is a SWPPP plan and/or SWPPP implementation required?	A formal SWPPP is not required if less than one (1) acre of disturbance is anticipated. Contractors must implement erosion and sediment control measures regardless. If more than one (1) acre is disturbed, all ADEC Construction General Permit requirements, including a SWPPP, must be followed.
20. Can proposers view the driveway permit requirements before proposals are due?	Driveway permit requirements will be provided in a separate document via addendum once available.
21. Is the reroute alignment flagged in the field?	Yes. The reroute alignment has been flagged.
22. What are the soil conditions along the reroute area?	The reroute traverses an open spruce forest with generally well-drained soils. Water pooling and boggy conditions have not been observed along the route.
23. What should revegetation with native plants include?	CRWP will lead revegetation efforts. Required seed and native plant materials will be provided by CRWP.
24. What level of design services are required?	Contractor-furnished shop drawings are acceptable for trail construction. Professional engineering design services are required for stream restoration and channel reconstruction.
25. Is a gravel or materials source available?	CAC has material pits nearby. Availability and pricing are under coordination and will be clarified via an addendum.
26. What should be done with excavated material from channel restoration?	Excavated material is expected to remain on site and may be used for access blocking, recontouring, or grade smoothing as appropriate.
27. Can in-stream work be completed without dewatering or diversions?	This will depend on the final design. A temporary stream diversion is anticipated to minimize downstream water quality impacts.



28. Is mastication an acceptable vegetation removal method?	Yes, provided ground disturbance and impacted area are minimized to the greatest extent practicable.
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4. Attachments

The following documents are attached to and incorporated into this Addendum #1:

- Attachment A: Chugach Alaska Corporation Material Pit Location Map
- Attachment B: Excerpts from ADOT&PF Highway Design Specifications (Chapter 11)

5. Effect of Addendum

This Addendum #1 is issued in accordance with 2 CFR Part 200 and shall be considered part of the RFP documents. All other terms, conditions, and requirements of the RFP remain unchanged. In the event of a conflict between this addendum and the original RFP, the provisions of this addendum shall govern.

End of Addendum #1

Attachment A:

Chugach Alaska Corporation Material Pit Location Map

Tonsina Pit



1/21/2025

World Imagery

Low Resolution 15m Imagery

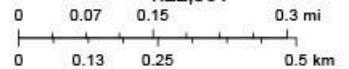
High Resolution 60cm Imagery

High Resolution 30cm Imagery

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4.8m Resolution Metadata

1:22,361



State of Alaska, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA



**Attachment B:
Excerpts from ADOT&PF Highway Design Specifications (Chapter 11)**

1190. Driveway and Approach Road Standards

- 1190.1. General
- 1190.2. Exceptions and Waivers
- 1190.3. Definitions
- 1190.4. Functional Classifications
- 1190.5. General Principles
- 1190.6. Control Dimensions

1190.1. General

Driveways and approach roads that intersect public roadways are a type of at-grade intersection. The numbers of crashes at driveway intersections are disproportionately higher than at public road intersections and consequently, driveway intersection design merits special attention.

Construct or Reconstruct driveways in accordance with the standards established in this Section. Build public road intersections, also known as approach roads, to the standards established for Intersections in the *AASHTO A Policy on the Geometric Design of Highways and Streets* (GB).

For this Section, the terms “driveway” and “approach road” are used interchangeably where the topic does not require a differentiation between them for application.

1190.1.1. Municipal Geometric Standards

Use municipal geometric standards approved for use on Department roadways within a municipality instead of the geometric standards contained in this section for all driveways within the municipality.

The Regional Director will grant approval of municipal driveway geometric standards for use on roadways administered or maintained by the Department after review by the following people:

- Regional Preconstruction Engineer
- Regional Maintenance and Operations Chief
- Statewide Chief Engineer

1190.1.2. Interstate Highway Access

Any new or modified access point, including driveways, to an Interstate must be approved by FHWA under 23 U.S.C. 111. A safety, operational, and engineering analysis is required. The type of access (e.g., driveway or approach road) and type of facility (e.g., traffic volume, design) will determine the level of analysis required. Any modifications to

existing access control will require additional FHWA approval in accordance with the Stewardship & Oversight Agreement. For new or modified interchanges and partial interchanges, an Interchange Justification Report (IJR) is required. Develop an Interchange Justification Report (IJR) using the FHWA’s *Policy on Access to the Interstate System and Framework for Developing and Reviewing Interstate Justifications Reports* as guidance. The policy is available at: <https://www.fhwa.dot.gov/design/interstate/170522.cfm>

23 CFR 624, effective December 9, 2024, provides final regulatory requirements for Interstate access changes. Compliance is required by December 9, 2025, and may require additional changes to the PCM.

1190.2. Exceptions and Waivers

The Regional Director or their designee may grant exceptions on driveways to be constructed or reconstructed along existing highways built to design standards prior to the GB. These exceptions do not supersede FHWA authority under 23 U.S.C. 111 for Interstate Highway access.

Driveways to be constructed or reconstructed along highways built according to the GB must follow the procedures of Section 1100.3 in the consideration of waivers from the driveway standards.

1190.3. Definitions

(See Figures 1190-1 through 1190-7b).

Angle of Intersection: The horizontal angle of 90 degrees or less between the driveway centerline and the edge of the traveled way of the public roadway.

Buffer Area: The border area along the property frontage between the edge of traveled way and the right-of-way line bounded at each end by the frontage boundary lines.

Corner Clearance: The distance along the edge of traveled way of a public road or street from the near edge of traveled way of another public road or street to the tangent projection of the nearest edge of any driveway, not including transition slopes, tapers, or return-radii.

Distance Between Driveways: The distance measured parallel to the centerline of roadway between intersection of the inside edges of two adjacent driveways and the right-of-way line.

Driveway Foreslope: In cross-section, that portion of the driveway embankment that slopes downward from the driveway.

Edge Clearance: The distance measured along the edge of traveled way between the frontage boundary line and the tangent projection of the nearest edge of driveway, not including returns, flares, or transition.

Frontage: The length along the road or street right-of-way line of a single property tract, measured parallel to the centerline of the road or street, between the edges of the property. Corner property at a road or street intersection has a separate frontage along each road or street.

Frontage Boundary Line: A line perpendicular or radial to the public road or street centerline at each end of the frontage, extending from the right-of-way line to the edge of traveled way.

Return: The curbed or uncurbed edge of the road, street, or driveway intersection that connects the edge of the public roadway with the adjacent edge of the driveway or another public roadway; usually as a single radius.

Right-of-Way (ROW): A strip of land owned by a municipality or the state upon which a public road is constructed.

Setback: The distance measured perpendicular or radial to the right-of-way line and the nearest building, pump island, display stand, or other manmade object over 6 inches in height within the property

Width: The distance across the driveway at its narrow point within the right-of-way measured at right angles to the centerline of the driveway

1190.4. Functional Classifications

Highways, roads, and streets are classified according to their intended function as arterials, collectors, or local roads or streets. Arterials are primarily, if not exclusively, for through traffic along the roadway. Local roads and streets are primarily, if not exclusively, to provide access to the public road system from the property adjacent to the roadway. Collectors serve as limited through traffic ways and

provide access from the adjacent property. For safety and efficiency, arterials should have few, if any, private driveways.

Freeways and expressways are special, high-design-type arterials that are exclusively for through traffic. Access is legally controlled along the arterial and no private driveways are permitted.

Driveways will not be allowed on other arterials if other access is available. The Department's primary concern is the safe, efficient movement of through traffic. If driveways directly accessing the arterial are necessary, then their number, location, and design will be controlled to minimize the effect on through traffic.

On local roads and streets, the roadway's primary purpose is to provide access to adjacent lands. Consequently, the Department only exercises driveway controls that are necessary to a safe roadway. Collector roadways require more driveway controls than local roads and streets, but less than arterials.

Where there are differences in the required degree of control for driveway design and placement due to variance in functional classes, we provide differing criteria. If a particular roadway is not classified, the Regional Director or their designee will determine the interim classification for administering the driveway design standards.

1190.5. General Principles

1. **Buffer Area:** Buffer areas should be graded and landscaped to ensure adequate sight distance along the roadway, proper drainage, adequate clear zones, and a good appearance.
2. **Sight Distance:** The profile grade of a driveway and the treatment of the buffer area should allow the driver on the driveway to see sufficiently along the roadway to enable entry to the roadway without creating a hazard, and without encroaching into the traveled way (See Figure 1190-1).
3. **Setbacks:** The location of improvements on private property adjacent to the right-of-way line should not require parking, stopping, and maneuvering of vehicles within the right-of-way for vehicles or patrons to be properly served.

4. **Location of Driveways:** The location of driveways must minimize interference with the free movement of normal roadway traffic. This will reduce the hazards caused by congestion. Do not place driveways adjacent to or within an intersection's functional area. They also should not be located on a separate turning roadway, auxiliary speed change lane, or exclusive turning lane. Driveway placement must not provide direct access to the through roadways, ramps, or collector-distributor roadways of a freeway or expressway.

5. **Number and Arrangement of Driveways:** The number of driveways provided to a property should be the minimum required to adequately serve the needs of that property. Frontages of 50 feet or less must be limited to one driveway per frontage. Not more than two driveways should be provided to any single property tract or business establishment, but where the single ownership frontage exceeds 1,000 feet, additional driveways may be allowed provided they are required for servicing the property, and the distance between adjacent driveways is at least 330 feet.

Where two driveways are provided for one frontage less than 1,000 feet long, the clear distance between driveways should not be less than the minimum distances presented in Section 1190.6. Corner clearances at intersections should also be in accordance with the distance shown in 1190.5.

Develop driveways and adjacent property so that vehicles entering any arterial or collector roadway are not required to do so by backing into the right-of-way. Develop all frontages having two or more driveways and all commercial developments so that backing into a public roadway isn't necessary. Multi-family residential developments of more than four units per lot are considered commercial development as far as driveway standards are concerned.

6. **Curbs:** Where the posted speed limit on an existing roadway or the design speed on a proposed roadway is 50 mph or greater, driveway curbs, if used, must be the mountable type and you must place them no closer to the edge of through traveled way than the outside edge of shoulder or 8 feet, whichever is greater. On rural roadways with speed limits or design

speeds less than 50 mph, curbs, if used, should be mountable and placed at the outside edge of shoulder, but no closer than 4 feet from the edge of traveled way. Surface all roadway areas between the edge of traveled way and curbs placed parallel to the edge of traveled way with the same material as the traveled way.

7. **Drainage:** Construct all driveways and buffer areas so that there will be no right-of-way surface drainage onto the traveled way of the public roadway. Where driveways are on the high side of a superelevated roadway, or are otherwise on a descending grade into the edge of traveled way, special drainage structures, including drop inlets or slotted drains, may be required to prevent non-right-of-way drainage from flowing into or across the public roadway traveled way. It is the responsibility of the property owner or permittee to maintain these drainage structures.

In addition, design and construction of the driveway and buffer must not impair or alter drainage within the right-of-way, which may damage or threaten the stability of the public roadway. All drainage facilities within the right-of-way must conform to any applicable Department standards.

8. **Embankment (Transverse Slopes):** Driveway foreslopes, when constructed in a roadway ditch section on high-speed roadways, should have a 6:1 or flatter slope within the roadway's clear zone. Low-speed roadways or urban areas may have transverse foreslopes steeper than 6:1. Refer to Section 1130 and the *AASHTO Roadside Design Guide* (RDG), Transverse Slopes, for additional information on driveway transverse slopes within the clear zone.

9. **Lighting:** The Department will not provide roadway illumination solely for private driveways. The adjacent property owner may, except as stated here, install such lighting as long as it conforms to accepted highway lighting criteria indicated in Section 1100. A property owner may not illuminate a driveway if it is within 500 feet of an unlit public road intersection.

10. **Anticipated Traffic:** It is not necessary to estimate the volume of traffic for the majority of driveways. However, for larger developments

and approach roads, it may be desirable, if not necessary, to do so to determine the number, size, and design needed to serve the development. A few well-designed driveways are preferable to many smaller driveways.

When the volume of traffic is expected to exceed 100 vehicles during the peak hour, a competent licensed professional engineer should conduct an analysis of the vehicle trip generation characteristics of the development. If such an analysis is not available, you may use the average trip generation factors in the Institute of Transportation Engineers Informational Report, *Trip Generation*, to determine anticipated traffic for establishing the number, size, and design needed to accommodate the development.

“Peak hour” is the peak traffic-generating hour of the off-street facility.

11. **Median Openings:** Where a median exists or is to be constructed on a public roadway, driveways should be designed and controlled to allow right turns only. Median openings should not be provided unless all the following conditions exist:

- a. There is a sufficient volume of traffic using the subject location to warrant intersection design as an approach road.
- b. The intersection is evenly spaced between adjacent arterial or collector intersections.
- c. Installation of a signal at present or in the future at the subject driveway intersection will not adversely affect the capacity of the public roadway.

To minimize wrong way movements on the divided public roadway, driveways planned near a median opening should be placed either directly opposite the median opening or at least 200 feet from the median opening. See Section 1150 for additional considerations.

12. **Design Vehicles:** Refer to the GB, Chapter 2, Design Vehicles General Characteristics, for guidance in selecting the appropriate design vehicle for the driveway. At least one driveway shall have widths, intersection alignments, and corner radii designed to accommodate the turning paths of the largest vehicles generated by the site.

This would include large single units or tractor-trailer combination vehicles that deliver freight.

1190.6. Control Dimensions

Specific control dimensions implement the general principles. Exceed minimum dimensions as much as possible. Due to differing conditions in rural and urban areas, different dimensions are provided. Where appropriate, the control dimensions also reflect the difference between differing functional classes of roadways.

In administering these driveway standards, urban areas have populations of 500 or more within a defined compact area. The defined area need not be incorporated, but an incorporated place containing 500 people would be an urban area. Unincorporated places that have the characteristics of an incorporated community of 500 should be considered urban. In addition, if a roadway has urban characteristics such as small lot frontages, you may use the urban control dimensions.

1. **Sight Distances:** Figure 1190-1 illustrates the unobstructed sight distance along the public roadway, which should be available to a motorist entering the roadway. On arterial collector roadways, if the appropriate sight distance cannot be reasonably achieved, relocate the driveway.

The sight line used to set sight distance is from the entering height of eye (3.5 feet above the driveway surface) to the driver eye height of the design vehicle (3.5 feet above the surface of the public roadway at the required distance from the driveway). The driver’s eye is assumed to be between 14.4 to 17.8 feet from the edge of the nearest through traveled way, and the triangle formed by the sight lines left and right from this point to the required sight distances left and right along the public roadway is the sight distances triangle. Nothing should substantially obstruct the entering driver’s view of public roadway traffic anywhere within this triangle.

2. **Width:** Residential driveways, rural and urban, should be a minimum of 14 feet wide and a maximum of 20 feet wide. Rural farm driveways should be a minimum of 14 feet wide and a maximum of 24 feet wide to accommodate machinery. Commercial driveways should be a minimum of 24 feet wide for traffic volume up

to 100 vehicles per hour and may be a maximum of 34 feet wide for up to 200 vehicles per hour. Where repetitive peak hour traffic is expected to exceed 200 vehicles per hour, the driveway should be designed as an approach road intersection in accordance with the GB and Chapter 11.

3. **Driveway Angle:** The driveway angle should be 90 degrees. It must not be less than 60 degrees except where designed as a one-way, one-lane, right-turn-only ramp, in which case it should be designed in accordance with the GB.
4. **Return Radii:** Curb or edge of pavement returns should connect the edge of the driveway with the face of curb on curbed roadways and with the edge of a 9-foot paved shoulder on uncurbed roadways. Where uncurbed roadways have paved shoulders less than 9 feet wide, the return should terminate 8 feet from the edge of traveled way and be connected to the edge of pavement (traveled way or paved shoulder) with a 10:1 taper (10 feet longitudinally along the roadway for each 1 foot transversely).

The return radii for driveways using returns, curbed or uncurbed, should conform to Table 1190-1.
5. **Curb Cuts:** The bottom width of curb cuts should equal the width of driveway and should match the flow line (or bottom of curb face line) of the curb section at the edge of roadway. Transitional slopes should begin at the edge of driveway and slope upward to reach the top of a 6-inch-high curb face in 6 feet. The transitional slopes behind the curb face may have a constant width with a variable slope or a constant slope with a variable width.
6. **Distance between Driveways:** The minimum distance between two adjacent driveways, on the same parcel, measured along the right-of-way line between the adjacent edges, should conform to Table 1190-2.
7. **Setback:** Setback distances must conform to local zoning requirements. Where local zoning ordinances do not provide a minimum setback, the minimum setback should be 16.5 feet, and where angle parking is permitted adjacent to the right-of-way line, the setback should be 50 feet.

8. **Edge Clearance:** The property line edge clearance should be equal to the return radius for driveways using returns and should be 16.5 feet for driveways using curb cuts with transitional slopes. *Exception:* Where a common-use driveway is to serve two adjoining properties, the approximate centerline of the driveway may be on the frontage boundary line.
9. **Corner Clearance:** The minimum distance from the nearest face of the curb, or nearest edge of traveled way for uncurbed roadways, of an intersecting public roadway to the nearest edge of driveway should conform to Table 1190-3.
10. **Driveway Profiles:** The maximum access grade for a residential driveway should be 15 percent. Commercial driveways should have a maximum algebraic difference of 8 percent between access grade and landing grade. The maximum landing grade is ± 2 percent for all driveways. Driveway profiles must conform to the following descriptions.
 - a. **Driveway with Uncurbed Returns:** Public roadway with a negative cross-slope (i.e. outer edge of traveled way lower than lane or centerline):

From the outer edge of the traveled way to the edge of the shoulder or 9 feet, whichever is greater, the driveway profile grade should be the same as the traveled way or shoulder cross-slope.

From the outer edge of the shoulder, a vertical curve should connect the profile to a positive or negative grade, which will bring the driveway profile to the adjacent property grade.
 - b. **Driveway with Curbed Returns:** Public roadway with a negative cross-slope (i.e. outer edge of traveled way lower than lane or centerline):
 - 1.) Beginning with an angle point at the flow line (bottom of face of curb) along the roadway, the driveway profile should rise at a gradient such that the algebraic difference in grade between the cross-slope of the roadway and the grade of the driveway does not exceed 8 percent.

- 2.) A landing zone must begin after a rise of 6 inches.
- c. **Driveway with Returns:** Public roadway with positive cross-slope (i.e., on high side of superelevated section):

From the outer edge of traveled way to the edge of the shoulder or 8 feet, whichever is greater, the driveway profile grade should be the same as the traveled way superelevation rate.

From the outer edge of the shoulder, a vertical curve should connect the profile to a positive or negative grade, which will bring the driveway profile to the adjacent property grade.

- d. **Driveway with Curb Cuts**

From the bottom face of curb or flow line, the driveway profile grade should slope uniformly upward at a grade not to exceed an algebraic difference of 8 percent with the adjacent lane or shoulder cross-slope.

If a sidewalk or portion thereof remains to be crossed, the driveway profile may match the surface of the sidewalk.

The profile should then follow a vertical curve or have an angle point, if necessary, to connect with a positive or negative grade, which will bring the driveway profile to the adjacent property grade.

- e. **Vertical Curves:** Vertical curve should be symmetrical and as flat as feasible. Crest vertical curves should not exceed a 3...-inch hump in a 12-foot chord, and sag vertical curves should not exceed a 2-inch depression in a 12-foot chord. Vertical curves must not have humps or depressions exceeding 3.6 inches in a 12-foot chord.
- f. **Landings:** All driveways are to have landing zones. Landing length depends on anticipated traffic. Passenger cars require 10 feet minimum while semi-tractor trailers require 30 feet based on wheel bases.
- g. **Pedestrian Areas:** Where curbed returns intersect a pedestrian way, provide appropriate ADA compliant curb ramps.

11. **Speed Change Lane and Left-Turn Lanes:** On high-speed (50 mph or over) or high-volume arterial roadways, speed change lanes may be required for the acceleration or deceleration of vehicles entering or leaving the public roadway from or to a higher-volume traffic generation (greater than or equal to 100 vehicles per hour) or attracting development. Use Figure 4-23 of NCHRP 279 Intersection Channelization Design Guide as a guideline for the right-turn treatments. On a one-way street, the above criteria also apply to the left through lane. For guidelines on the need for left-turn lanes on a main street or road at a driveway, refer to Figure 1190-8.

**Table 1190-1
Driveway Return Radii (feet)**

Driveway Width (ft)	Residential		Farm		Commercial	
	Curbed	Uncurbed	Curbed	Uncurbed	Curbed	Uncurbed
14 - 20	*20	20	-	20	-	-
24 - 34	-	-	-	40	*40	40

* For curbed roadways where residential driveways or commercial driveway have a 100-vehicles-per-hour or fewer repetitive peak, use a curb cut rather than a return.

**Table 1190-2
Distance Between Driveways
(On Same Parcel)**

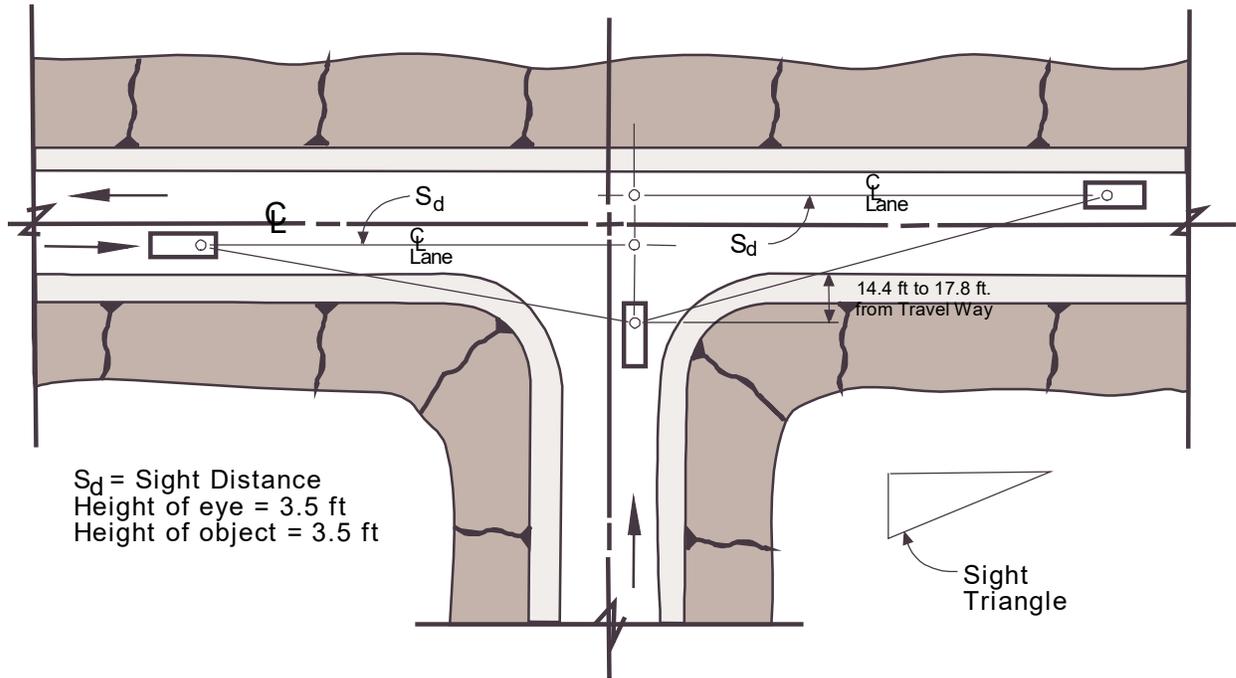
Hourly Volume: Greater than 10 vph				Hourly Volume: Less than or equal to 10 vph	
Speed (mph)	Rural: Arterials and Collectors	Urban: Arterials and Collectors	Urban & Rural: Local	Functional Classification	Distance
30	370 feet	200 feet	200 feet	Arterials	75 feet
35	400 feet	260 feet	250 feet	Collectors	50 feet
40	440 feet	340 feet	310 feet	Local	35 feet
45	540 feet	430 feet	390 feet	-	-
50	690 feet	510 feet	490 feet	-	-

Note: This assumes level terrain.

**Table 1190-3
Corner Clearance**

Hourly Volume: Greater than 10 vph				Hourly Volume: Less than or equal to 10 vph			
Speed (mph)	>250 vph	100 - 250 vph	10 - 100 vph	Functional Classification	Curbed Crossroad	Uncurbed Crossroad	
						Urban	Rural
30	200 feet	150 feet	80 feet				
35	260 feet	210 feet	110 feet	Arterials	60 feet	70 feet	100 feet
40	330 feet	260 feet	150 feet	Collectors	50 feet	60 feet	60 feet
45	390 feet	310 feet	180 feet	Local	40 feet	50 feet	60 feet
50	460 feet	340 feet	230 feet				

DRIVEWAY SIGHT DISTANCE



DESIGN SPEED or POSTED SPEED LIMIT mph	SD MINIMUM (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Note: Minimum sight distances are stopping sight distances for level grades, between -3% and +3%. Refer to the *GB*, for desirable intersection sight distances and for grade adjustments.

**Figure 1190-1
Driveway Sight Distance**

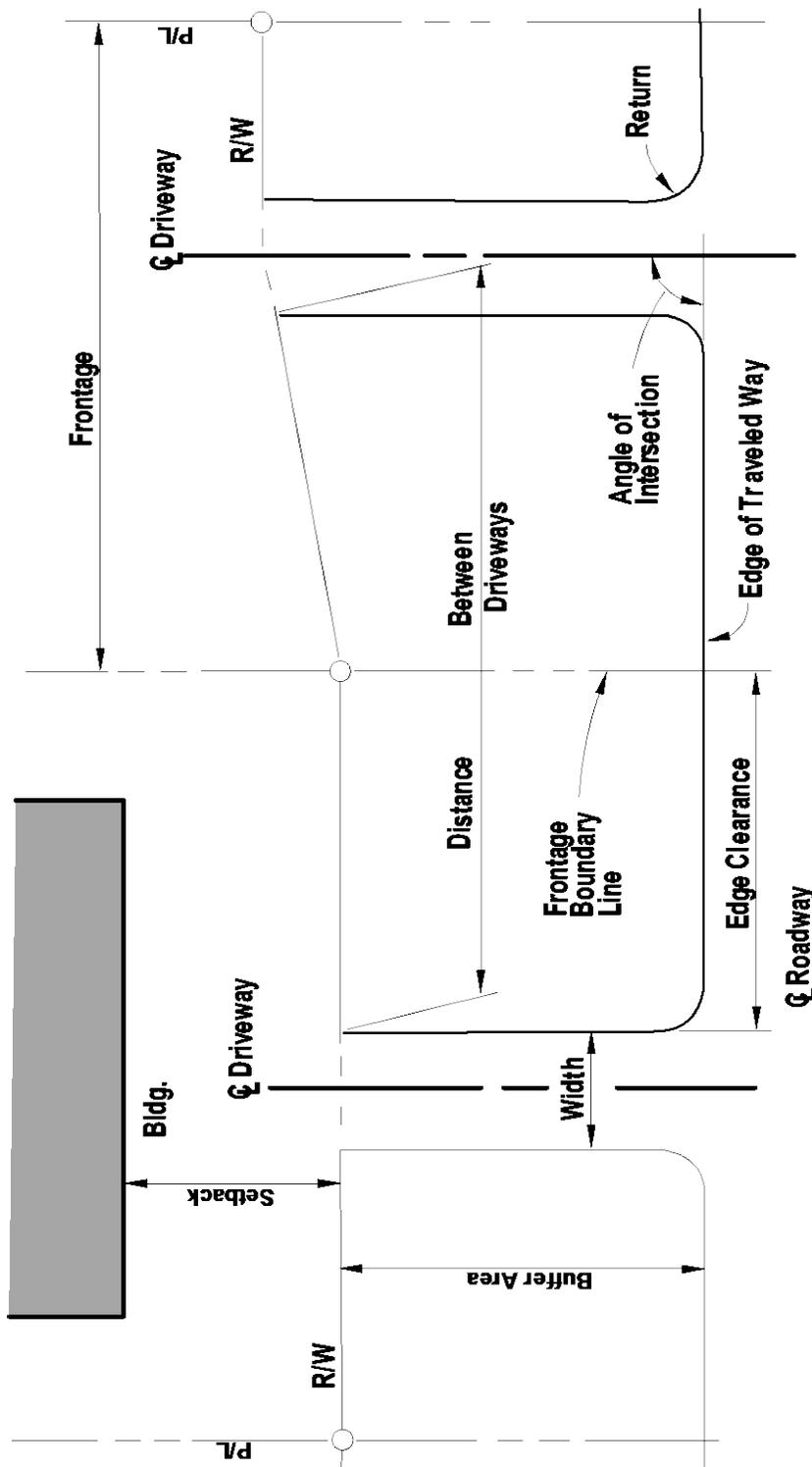
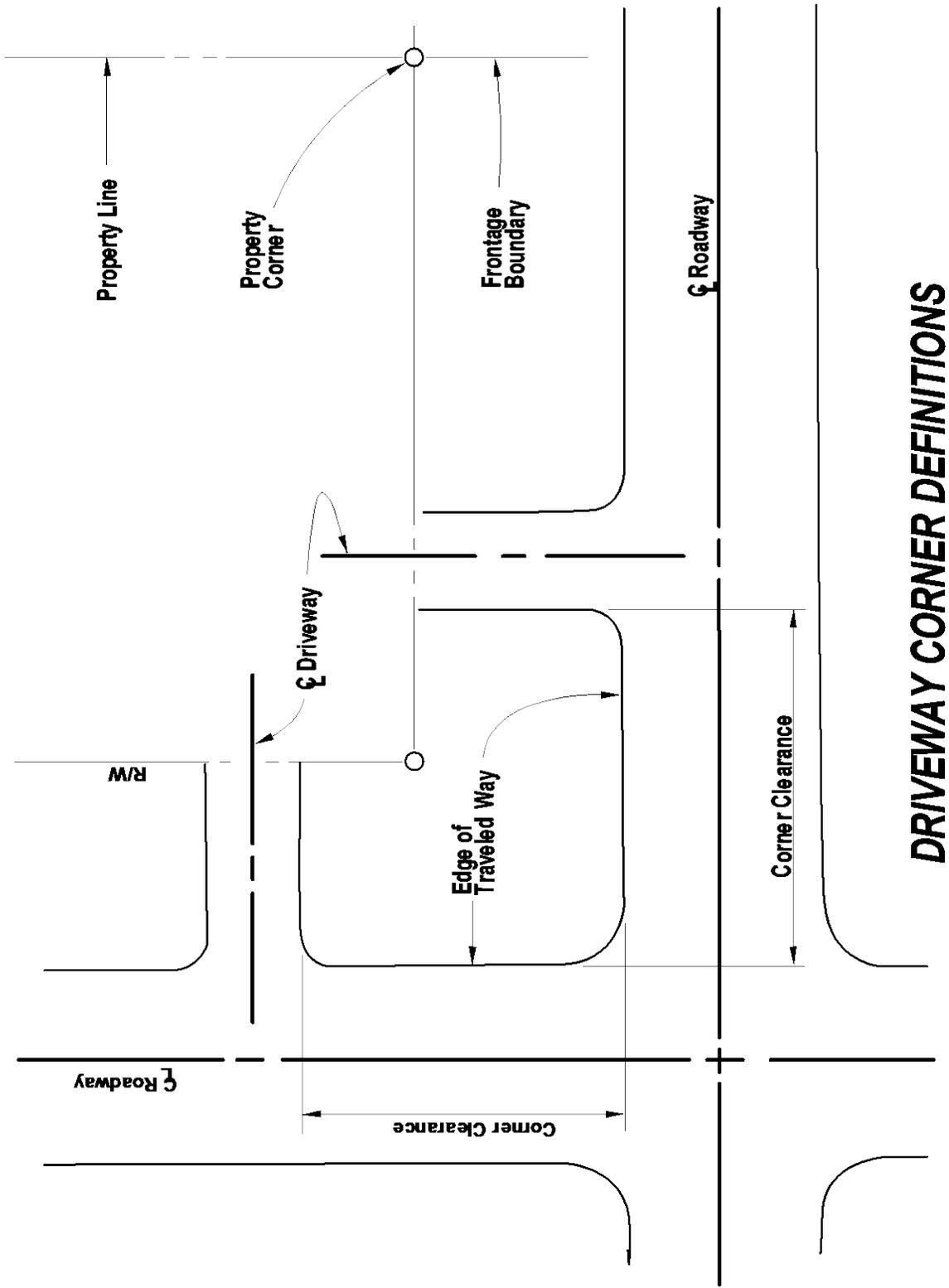


Figure 1190-2
Driveway Definitions

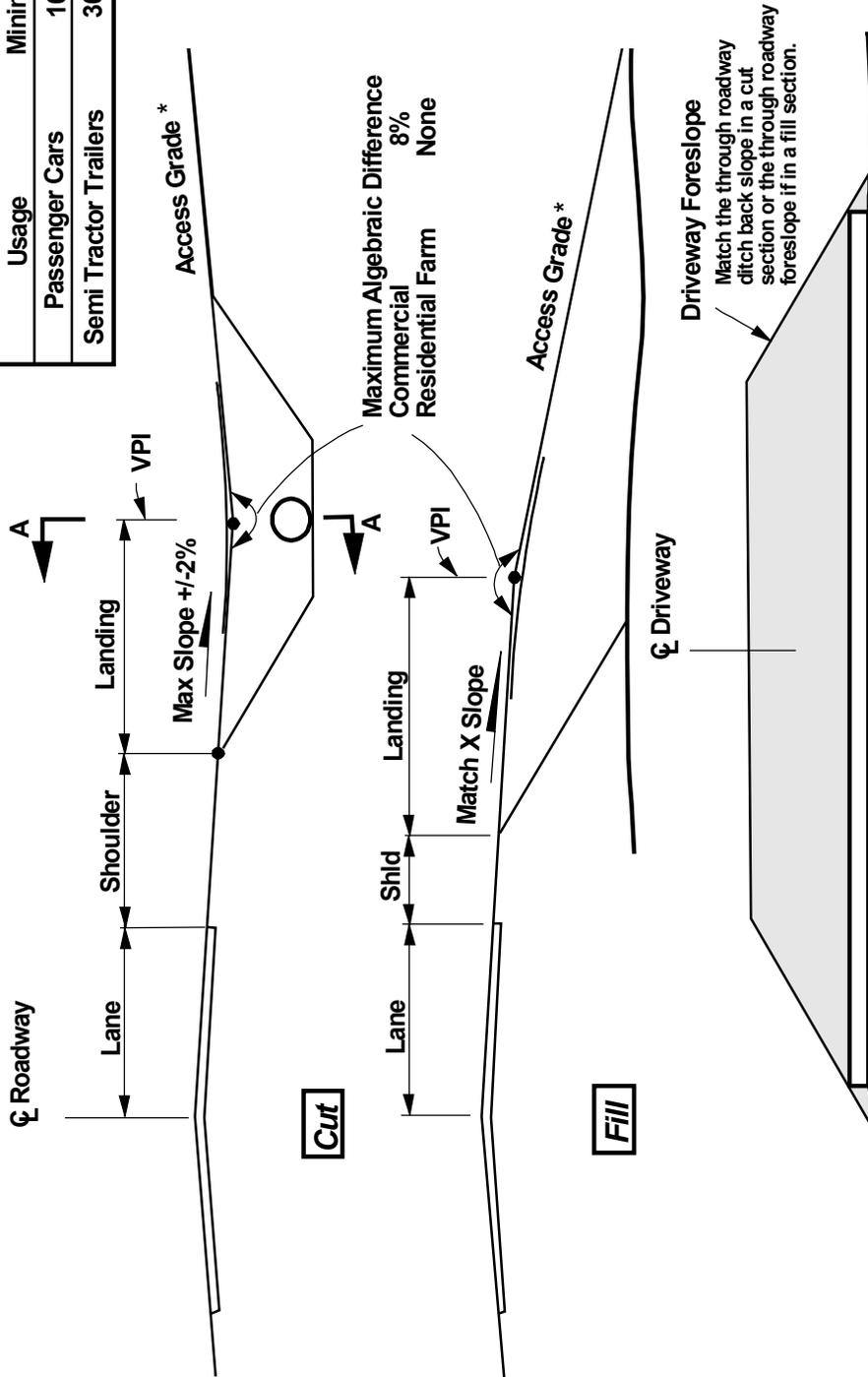
DRIVEWAY DEFINITIONS



DRIVEWAY CORNER DEFINITIONS

Figure 1190-3
Driveway Corner Definitions

Landing Dimensions	
Usage	Minimum
Passenger Cars	10 ft
Semi Tractor Trailers	30 ft



Cut

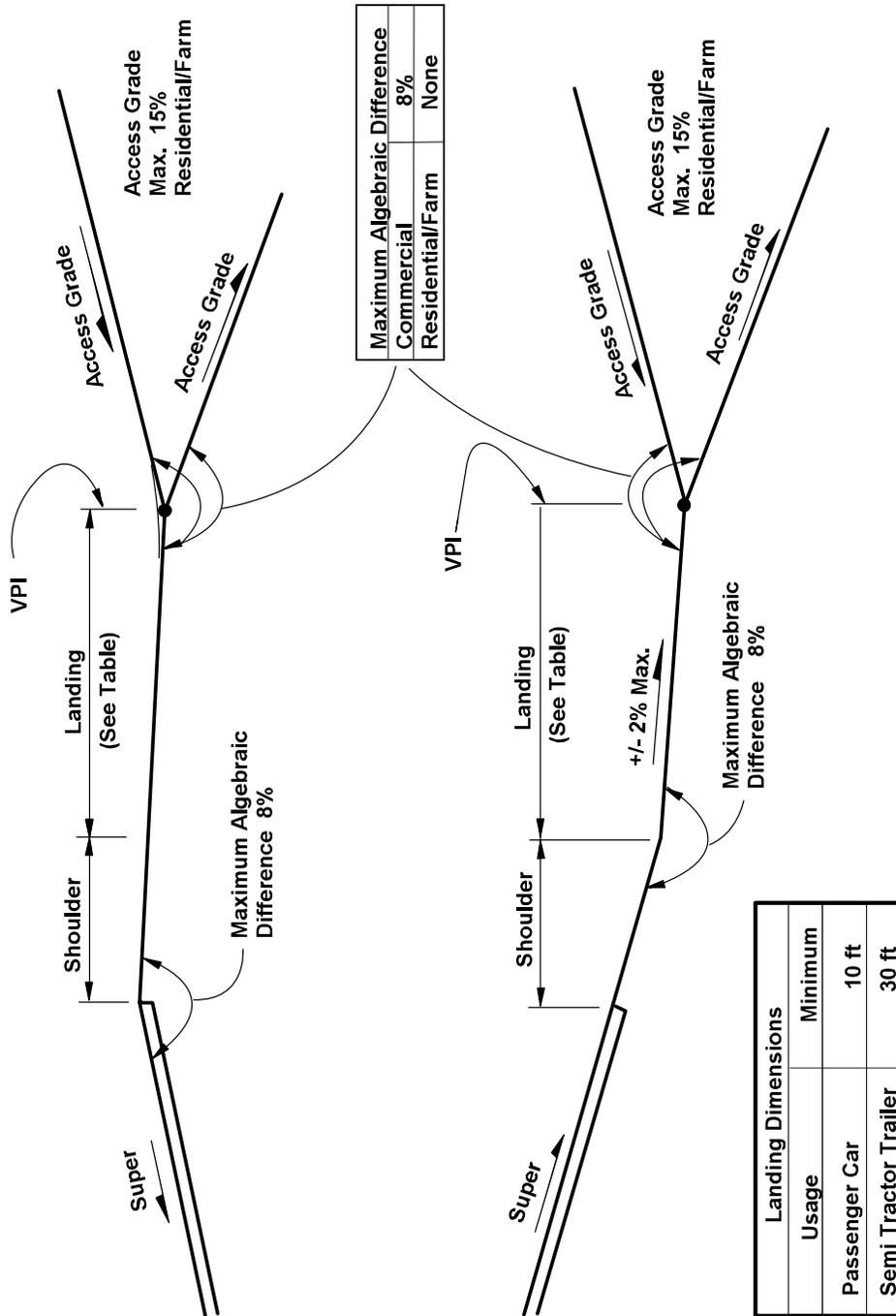
Fill

SECTION A-A

* Access Grade
Max. 15%
Residential/Farm

DRIVEWAY PROFILES

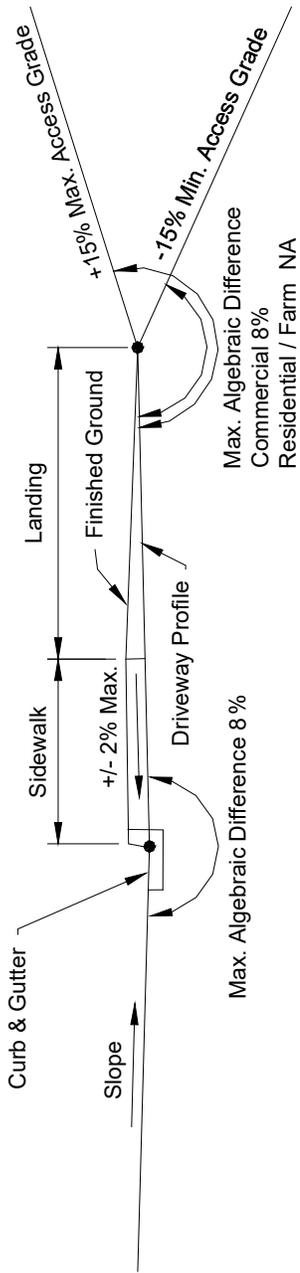
Figure 1190-4
Driveway Profiles



DRIVEWAY PROFILES with SUPER

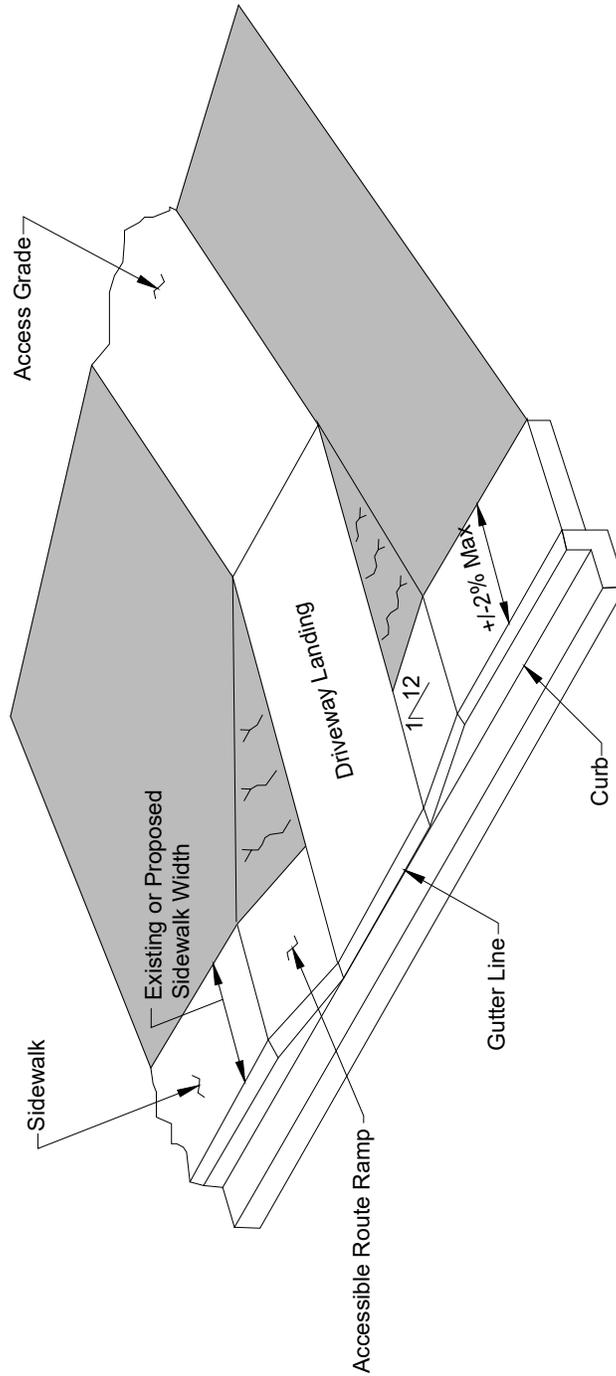
Note: Consider vehicles that will use driveway to ensure grades will accommodate needs.

**Figure 1190-5
Driveway Profiles With Super**



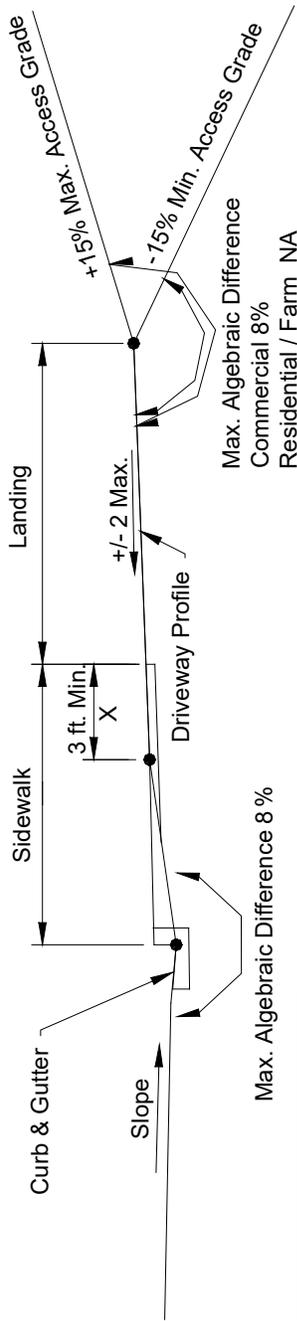
CURB CUT PROFILE

Landing Dimensions	
Usage	Minimum
Passenger Car	10 ft
Semi Tractor Trailer	30 ft



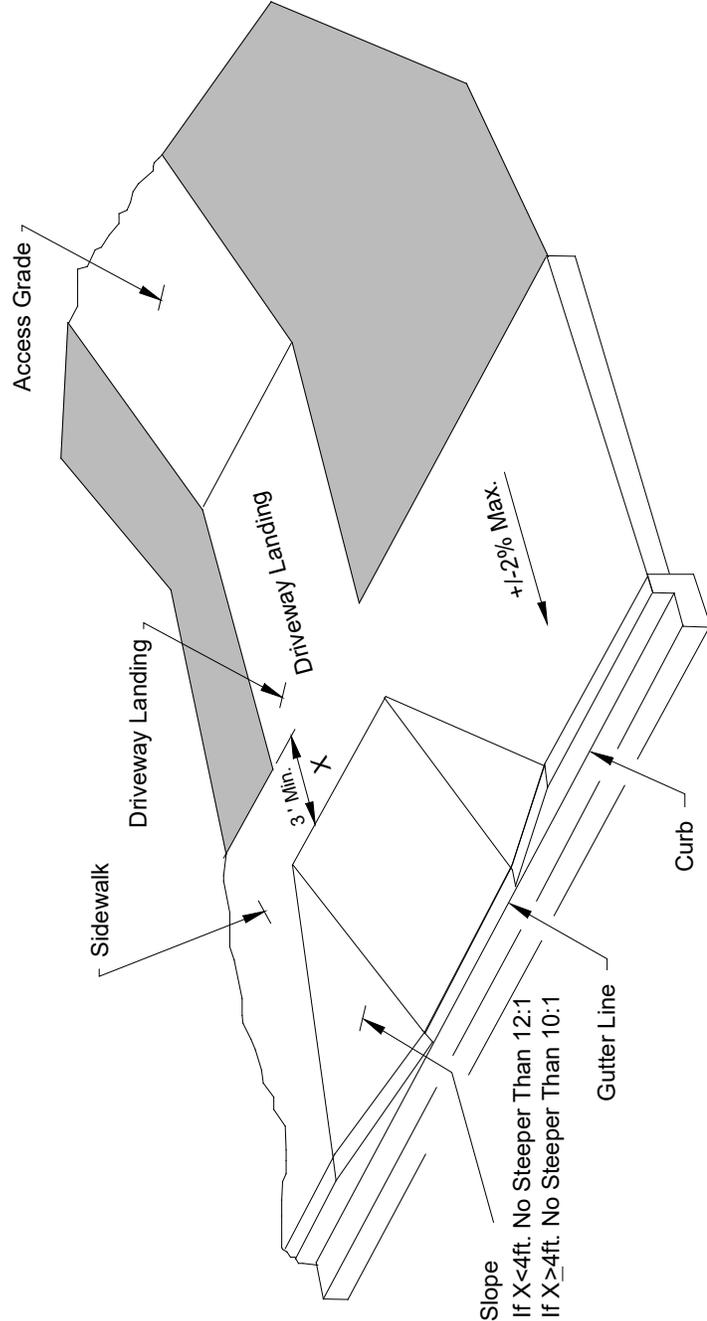
CURB CUT Where Near Level Sidewalk Path (Min 3 ft width & Max 2% X-slope) Can not be constructed

**Figure 1190-6a
Curb Cut Profile**



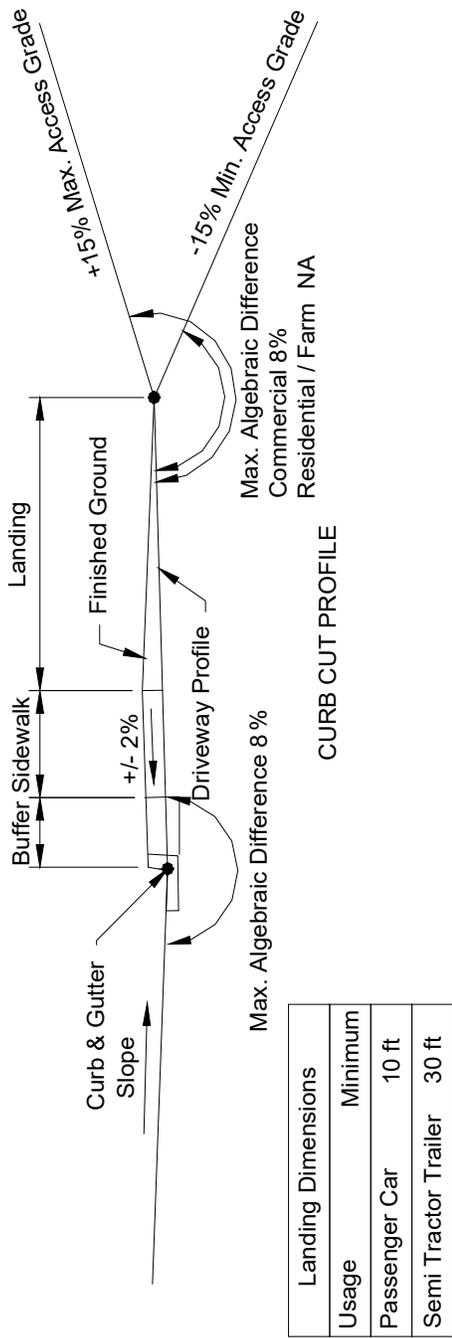
CURB CUT PROFILE

Landing Dimensions	Minimum
Usage	Passenger Car
	10 ft
	Semi Tractor Trailer
	30 ft

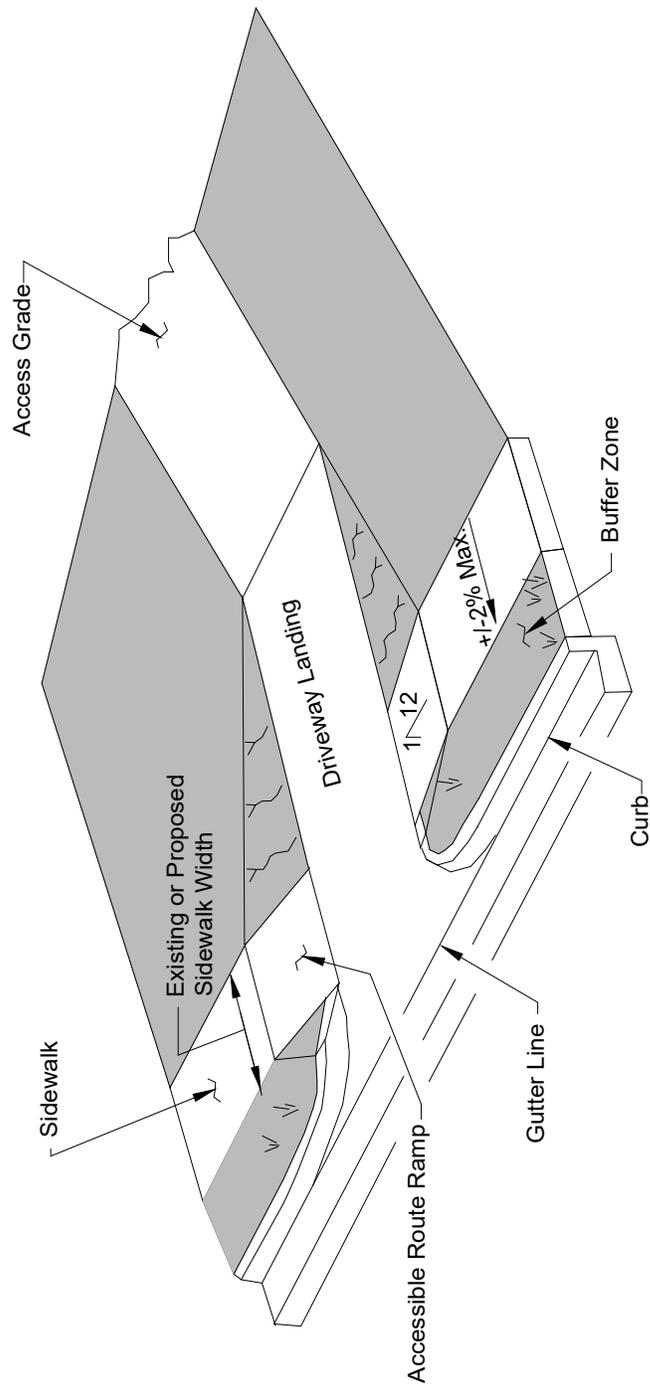


CURB CUT Where Near Level Sidewalk Path (Min 3 ft width & Max 2% X-slope) Can be constructed

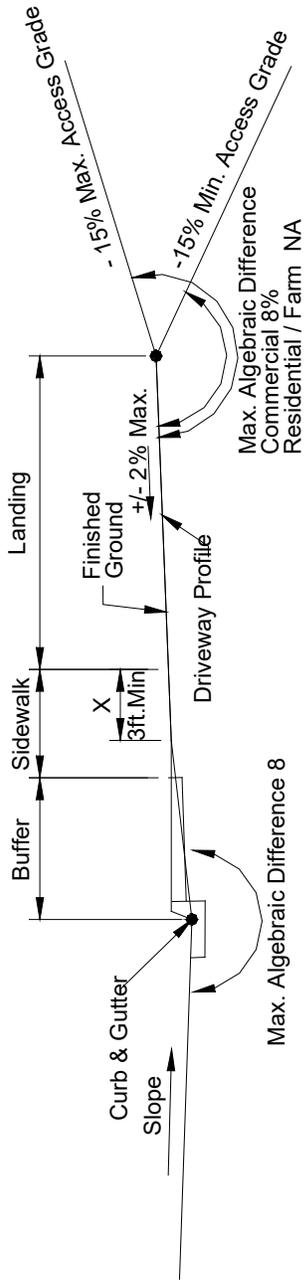
**Figure 1190-6b
Curb Cut Profile**



**Figure 1190-7a
Curb Cut Profile**

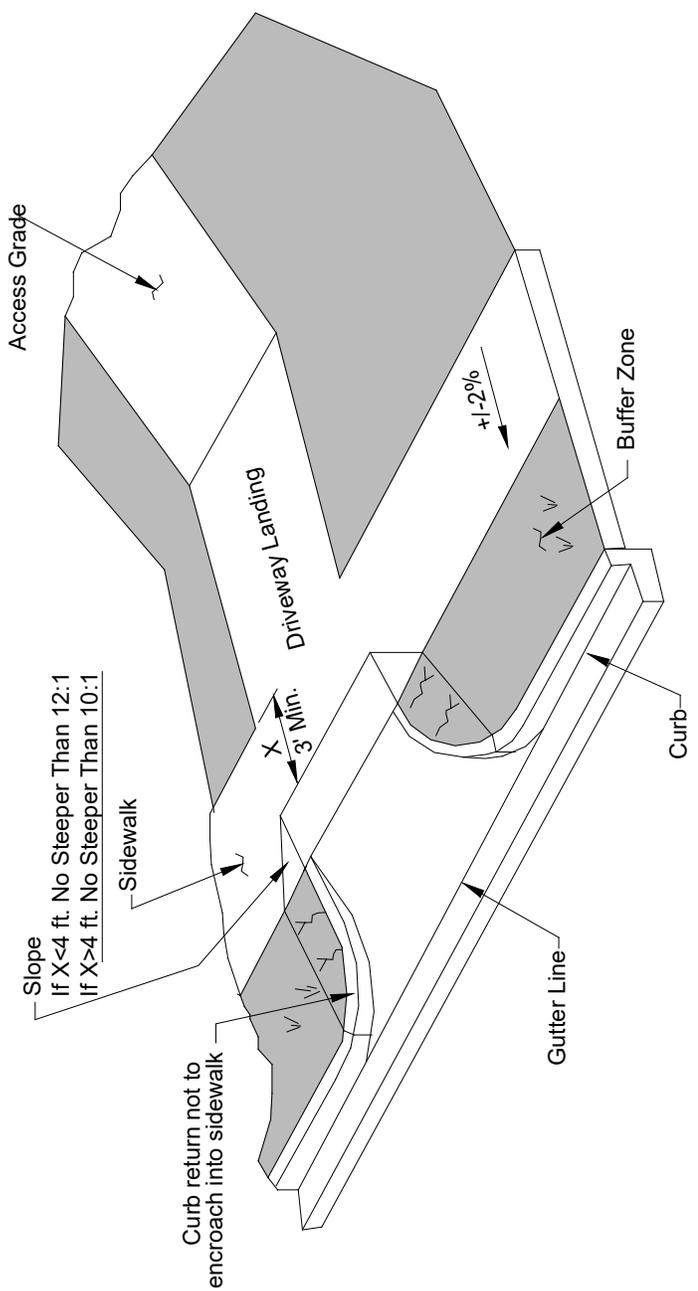


CURB RETURN CUT Where Near Level Sidewalk Path (Min 3 ft. width & Max 2% X-slope) Can not be constructed



Landing Dimensions	Minimum
Usage	Minimum
Passenger Car	10 ft
Semi Tractor Trailer	30 ft

CURB CUT PROFILE



CURB RETURN CUT Where Near Level Sidewalk Path (Min 3 ft. width & Max 2% X-slope) Can not be constructed

Figure 1190-7b
Curb Cut Profile

Metric					US Customary				
Opposing volume (veh/h)	Advancing volume (veh/h)				Opposing volume (veh/h)	Advancing volume (veh/h)			
	5% left turns	10% left turns	20% left turns	30% left turns		5% left turns	10% left turns	20% left turns	30% left turns
60-km/h operating speed					40-mph operating speed				
800	330	240	180	160	800	330	240	180	160
600	410	305	225	200	600	410	305	225	200
400	510	380	275	245	400	510	380	275	245
200	640	470	350	305	200	640	470	350	305
100	720	515	390	340	100	720	515	390	340
80-km/h operating speed					50-mph operating speed				
800	280	210	165	135	800	280	210	165	135
600	350	260	195	170	600	350	260	195	170
400	430	320	240	210	400	430	320	240	210
200	550	400	300	270	200	550	400	300	270
100	615	445	335	295	100	615	445	335	295
100-km/h operating speed					60-mph operating speed				
800	230	170	125	115	800	230	170	125	115
600	290	210	160	140	600	290	210	160	140
400	365	270	200	175	400	365	270	200	175
200	450	330	250	215	200	450	330	250	215
100	505	370	275	240	100	505	370	275	240

Source: 2004 GB, Exhibit 9-75

Figure 1190-8
Guide for Left-Turn Lanes on Two-Lane Highways