

INDOT 2030 Long Range Transportation Plan

Access Management

Overview

In 2006, INDOT developed a formal INDOT Access Management Guide. The guide is intended to be used by transportation officials at both the state and local levels to develop and implement access management techniques in Indiana. It contains specific standards that can be directly applied as well as a modal local access management ordinance that can be used as a template for developing access management standards for a local entity such as a zoning board or county engineer.

What is Access Management?

In short, access management is the process of balancing the competing needs of traffic movement and land access. Over the last several decades, numerous transportation studies and research efforts have demonstrated a fundamental relationship between the level of direct property access permitted along a roadway and the roadway's corresponding operational and safety performance.

The introduction of vehicle conflict points associated with unrestricted vehicular property access has been shown to result in increases in delays, crash rates, and vehicle emissions. However, most roadways must provide some level of vehicular access to abutting properties, in addition to providing a mobility function. The basic principles of access management involve achieving a balance between mobility and access by limiting the number of conflict points, separating the conflict points, and reducing the impediments to through traffic caused by turning and queued vehicles.

The *Access Management Manual*, published in 2003 by the Transportation Research Board of the National Academy of Sciences, is a comprehensive resource that summarizes the results of access management research conducted over the last several decades. The *Access Management Manual* defines access management, and its purpose, as follows:

“Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway. It also involves roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing of traffic signals. The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.”

As indicated above, roadways serve two primary functions: 1) moving vehicles, and 2) providing direct access to property. The primary objective of access management is to protect the functional integrity of the roadway system by ensuring that each roadway maintains its intended balance between the movement and access functions.

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Figure 12-1 illustrates the balance between movement and access functions for roadways of various functional classifications. Higher-order roadways—such as freeways, expressways, and arterials—have a higher degree of access control to preserve their movement function. On the other hand, local streets have less restrictive access control because they are intended primarily to provide access to abutting properties.

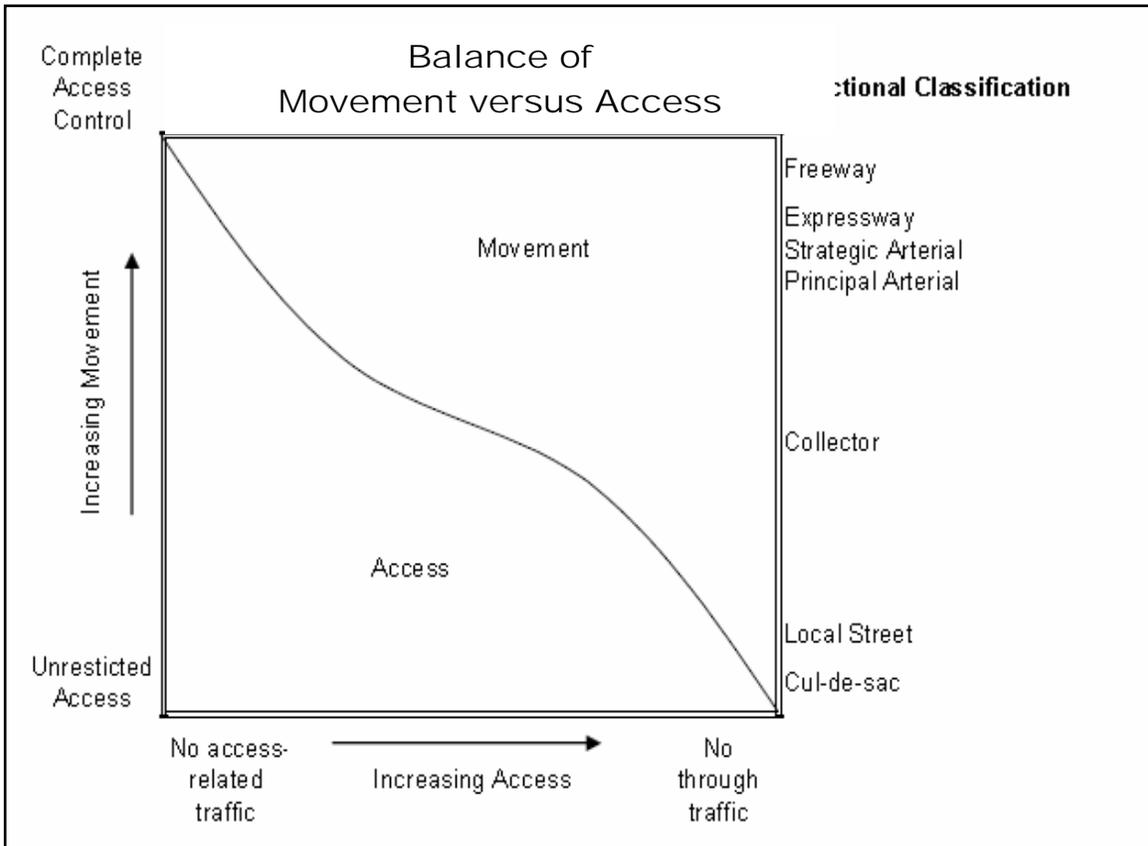


Figure 12-1

Access Management Objectives

In order to accommodate access to existing and future development in a safe and efficient manner, INDOT seeks to manage the location, design, and type of property access in order to:

- Reduce traffic congestion;
- Preserve the flow of traffic;
- Improve traffic safety and reduce the frequency of crashes;
- Preserve existing road capacity;
- Support economic growth;
- Improve access to businesses and homes;
- Maintain or improve property values; and
- Preserve the public investment in the transportation infrastructure.

These objectives can be achieved through the application of the following access management techniques described in this Guide:

- Consolidate and limit (where necessary) access along the State highway system;
- Promote a supporting local street system;

- Promote the sharing of site-access to the State highway system; and
- Promote efficient on-site circulation.

The primary goal is to create an interconnected system of State highways that function safely and efficiently for their useful life. Proper application of access management techniques also assures businesses and drivers of safe and convenient access, and taxpayers of more cost-effective use of their money spent on roads. In addition, access management practices quite often result in more attractive corridors.

Benefits of Access Management

This section outlines the benefits of improving access management policy and practices in Indiana. The wide-ranging benefits of access management extend to a host of users and affected parties including:

- Motorists – who face fewer conflicts and decision points, simplifying the driving task and improving safety;
- Cyclists and Pedestrians – who face fewer conflicts with traffic, and are afforded safe refuge locations such as medians;
- Transit riders – who experience reduced delays and travel times, and benefit from an improved walking environment;
- Business persons – who are served by a more efficient transportation system that captures a broader market area, and benefit from stable property values and a predictable and consistent development environment;
- Freight delivery carriers – who experience reduced delays and improved safety, resulting in shorter transportation times and lower delivery costs;
- Government agencies – who benefit from the lower cost of delivering a safe and efficient transportation system; and
- Communities – who benefit from a safer and more attractive transportation system and from reduced disruptions associated with road widening and construction.

Considerable research and experience from other states has demonstrated the traffic safety and operational benefits to the motoring public. Access management benefits focus on the following major areas:

- | | |
|--------------------------------|-------------------------------|
| • System preservation benefits | • Roadway safety benefits |
| • Economic benefits | • Traffic operations benefits |
| • Environmental benefits | • Aesthetic benefits |

Indiana Access Management

Legal Authority in Indiana

Indiana State law requires the public to obtain permission from the governmental unit having jurisdiction over a street or highway to construct inside of the right-of-way (ROW) line. INDOT has jurisdiction over the State highway system and has established a driveway permit process to be followed by all applicants.

The administrative requirements associated with the driveway access permit application process for all State highways are governed by the promulgated rules of Title 105, Article 7 of the Indiana Administrative Code (IAC): Permits for Highways (Reference 6).

Any business or private party wishing to construct an access driveway onto the State highway right-of-way is required to apply for, and obtain, a permit from INDOT prior to beginning any construction. A permit is

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also required for any proposed relocation or alteration of an access, approach, or cross-over and is governed by the same regulations and standards as for a new access driveway.

INDOT Access Classification System and Design Criteria

An Access Classification System and Design Criteria are the first steps in developing and implementing the Access Management Program in Indiana.

As stated previously, INDOT's access management program seeks to:

- Reduce traffic congestion;
- Preserve the flow of traffic;
- Improve traffic safety and reduce the frequency of crashes;
- Preserve existing road capacity;
- Support economic growth;
- Improve access to businesses and homes;
- Maintain or improve property values; and
- Preserve the public investment in the transportation infrastructure.

These objectives are accomplished by:

- Establishing appropriate levels of allowable access for each State highway through the implementation of a statewide Access Classification System;
- Managing the driveway permitting process to ensure that new driveways proposed in conjunction with private development are properly located and designed;
- Enforcing identified permit violations;
- Working cooperatively and proactively with other government agencies, property owners, and the public when access and land use decisions affecting State highways must be made;
- Incorporating access management techniques into design plans for new State highways and improvement plans for existing State highways;
- Educating INDOT staff and others regarding INDOT's specific access management-related policies and procedures.

Access Classification System

An Access Classification System is typically used to establish the level of allowable access for roadways of varying levels of importance in the State highway system. In essence, an Access Classification System is a hierarchy of access categories that forms the basis for the application of access management. Each access category sets forth criteria governing the access-related standards and characteristics for corresponding roadways. These access categories ultimately define where access can be allowed between private developments and the roadway system, and where it should be denied or discouraged. They define spacing standards for signalized intersections, and where a driveway should be restricted to right-in/right-out operation. Defining access categories involves consideration of the following factors:

- 1) Roadway Functional Classification System – As alluded to above, the foundation of an access classification system is the functional classification system (arterial, collector, etc.) that reflects the general purpose of each roadway within the transportation system.
- 2) Roadway Design Characteristics – In addition, roadway characteristics associated with geometric design (such as the number of lanes, shoulder widths, design speed, and particularly median treatments) should be considered in defining access categories.

- 3) Degree of Urbanization – Factors (such as intersection frequency, development intensity, traffic volume, and speed conditions) can be used to help define the degree of urbanization, and could be considered in defining access categories.

Typically, direct property access is prohibited from freeways and expressways. Direct property access is also typically denied (or highly restricted) for higher-level arterial class roadways, although access may be provided where no reasonable alternative access is available. Direct property access is often permitted for lower level arterials and collectors, although there may be limitations on the number and location of access points. Direct property access is typically allowed on local roadways and frontage roads, subject to safety considerations (such as maintaining proper sight distances).

Table 12-1 provides an overview of the INDOT Access Classification System. The access classification system uses the Planning Level Corridor Hierarchy as the primary basis for a tiered system of access categories. Because interstate highways and freeways are of the highest level of importance and are fully access-controlled, they represent the highest category within the access classification system. However, spacing criteria for these roadways are already established in other sources such as the INDOT *Roadway Design Manual* and AASHTO's *A Policy on Geometric Design of Highway and Streets* (the "Green Book").

Tiers 1 and 2 of the Access Classification System include all "Statewide Mobility Corridors" and "Regional Corridors," respectively, on the INDOT highway system. Tier 3 of the Access Classification System includes all "Local Access Corridors" on the INDOT highway system. However, because Local Access Corridors serve a mobility function and accommodate some through traffic volume, the term "Sub-Regional Corridors" has been used instead for Tier 3 roadways in the Access Classification System.

Statewide Mobility Corridors (Tier 1), Regional Corridors (Tier 2), and Sub-Regional Corridors (Tier 3) are each subdivided into two subcategories (Type "A" and Type "B") that reflect distinct variations within each of these Tiers. For all three tiers, the Type "A" distinction applies exclusively to multi-lane roadways, and the Type "B" distinction applies exclusively to two-lane roadways. The purpose for this distinction was to reflect the different characteristics associated with two-lane roadways.

In addition, as **Table 12-1** shows, a separate access category for "Special Transportation Areas" (STAs) is included to reflect the special access needs found in environmentally-sensitive areas and along traditional "main streets" (roadways characterized by mixed land uses, pedestrian activity, and a role as a community focal point, etc.). STAs have a range in function between access and mobility, and are intended to incorporate unique context-sensitive design and access management treatments based on the particular needs of the locality and the function of the facility.

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Overview of INDOT Access Classification System

Level of Importance / Access Category	Type	Traffic Function	Design Standards
Interstate Highways and Freeways		Accommodates high-speed, high-volume, and long-distance through traffic for interstate, intrastate, or intercity travel. Also can provide a major connection between suburban areas and metropolitan centers.	Multi-lane roadways with full access-control. Access via interchanges only (no direct private access to abutting properties allowed). All roadways are multi-lane and median-controlled/divided. At-grade intersections and access driveways not permitted under any circumstances. Interchange spacing is in accordance with the INDOT Roadway Design Manual.
Tier 1: Statewide Mobility Corridor	A	Provides connections to major metropolitan areas within the State and to neighboring states. Provides accessibility to cities and regions around the state. Accommodates high-speed and long-distance trips. Can accommodate heavy commercial vehicle traffic. Includes most rural non-Interstate routes on the Principal Arterial System.	Includes all multi-lane roadways. Access generally occurs only at interchanges or at-grade public street intersections. Some movements at public street intersections may need to be restricted based on existing and projected operating conditions and intersection spacing. Private access to abutting properties is <u>not</u> allowed, unless property has no reasonable alternative access (via joint-use driveways or frontage roads) or opportunity to obtain such access.
	B	Same traffic function as Tier 1, Type A. Generally provides key rural connections between metropolitan areas.	Includes only 2-lane roadways. Access generally only occurs via at-grade public street intersections. Some movements at public street intersections may need to be restricted based on existing and projected operating conditions and intersection spacing. Private access to abutting properties is <u>not</u> allowed, unless property has no reasonable alternative access (via joint-use driveways or frontage roads) or opportunity to obtain such access.
Tier 2: Regional Corridors	A	Provides connections to smaller cities and regions, feeds traffic to the Statewide Mobility Corridors, and provides for regional accessibility. Accommodates moderate to high-speed traffic, medium distance trips, and moderate volumes of through traffic and commercial vehicle traffic. Can accommodate local heavy traffic volumes.	Includes all multi-lane roadways. Generally median-controlled/divided. Public street connections occur at-grade. Private access to abutting properties is allowed. Full movements and signalization are allowed for public street connections and "commercial major" driveways only. All other private driveways are limited to unsignalized, right-in/right-out (median-controlled) access, with left-turns allowed conditionally subject to INDOT review and approval.
	B	Same traffic function as Tier 2, Type A.	Includes only 2-lane roadways. Public street connections occur at-grade. Private access to abutting properties is allowed. Full movements are allowed at all private driveways, with the exception of access driveways located within 300 feet of an existing (or potential future) signalized intersection which must be right-in/right-out (with left-turn access allowed conditionally subject to INDOT review and approval). Signalization is allowed for public street intersections and "commercial major" driveways only.
Tier 3: Sub-Regional Corridors	A	Typically provides access to local residences and businesses in rural areas and small towns. Accommodates moderate to low speed traffic, short distance trips, and moderate local traffic volumes.	Includes all multi-lane roadways. Public street connections occur at-grade and may be signalized. "Commercial major" driveways may also be signalized. Full movements are allowed at public street intersections and all private access driveways.
	B	Same traffic function as Tier 3, Type A.	Includes only 2-lane roadways. Public street connections occur at-grade and may be signalized. "Commercial major" driveways may also be signalized. Full movements are allowed at public street intersections and all private access driveways.
Special Transportation Areas		STAs could be implemented on roadways of all Tiers, and depend on location. STAs typically apply to roadways aligned through towns or environmentally-sensitive areas. They may range in function (between access and mobility) based on the needs of the community and environmental concerns.	Unique context-sensitive design and special access management treatments are established based on the particular mobility and access needs of the location, in accordance with general guidelines.

Table 12-1

A summary of the key differences in spacing guidelines for the three tiers is shown in **Table 12-2**:

Summary of Key Differences in Spacing Guidelines by Tier of Access Classification System

Tier	Ideal Signalized Intersection Spacing Guideline*	Minimum Acceptable Bandwidth for Deviation from Ideal Signalized Intersection Spacing		Functional Area near Signalized Intersections for Right-In/Right-Out Access Only
		Urban	Rural	
1A and 1B	½ mile	45%	50%	400 feet
2A and 2B	½ mile	40%	45%	300 feet
3A and 3B	½ mile	35%	40%	200 feet

* A ¼-mile spacing guideline applies to all State highways with speeds ≤ 40 mph located within a built-up urban area, regardless of tier.

Table 12-2

As shown above, the ideal spacing guideline for signalized intersections on all tiers of the State highway system is ½ mile in most cases. The ½ mile spacing typically accommodates progression speeds ranging between approximately 30 mph and 60 mph, depending on the length of the signal cycle that is selected.

As noted in the table above, for State highways with posted speeds of 40 mph or less that are located in built-up urban areas, a ¼ mile spacing guideline applies. Currently, these conditions would apply to a total of approximately 6.8 miles of the INDOT highway system under Tiers 3A and 3B. The ¼ mile spacing typically accommodates progression speeds ranging between approximately 15 mph and 30 mph, depending on the length of the signal cycle that is selected.

Where the ideal signal spacing guidelines cannot be met, a deviation may be allowed, provided a minimum acceptable bandwidth criterion can be met. As shown above, this minimum acceptable bandwidth criterion varies depending on the tier of the State highway system, and the location of the highway in either an urban or rural area.

Bandwidth measures how large a platoon of vehicles can pass through a series of signals without stopping for a red traffic light. It represents a “window of green” in which motorists traveling along a roadway will encounter a series of green lights as they proceed. For Tier 1 State highways, the minimum bandwidth is defined to be 45-percent in urban areas and 50-percent in rural areas. This means that if a traffic signal has a 100-second cycle length, there is a 45-second band in which a platoon of vehicles will encounter green lights as they travel along a State highway in urban areas, and a 50-second band for rural areas. In addition to minimum bandwidth, the signal spacing for a particular roadway is also a function of the cycle length of the signals and the desired progression speed for that roadway.

In addition, to reduce potential turning conflicts near signalized intersections, direct property access would be restricted to Right-In/Right-Out (RIRO) movements within a specified distance of such intersections. As shown in the table above, this distance would again depend upon which tier of the State highway the access driveway is located.

The spacing guidelines for unsignalized intersections and driveways are based on speed as specified in Table 8.1 of INDOT’s *Driveway Permit Manual*, irrespective of tier. The decision-making process with respect to the application of the access spacing guidelines may also consider existing and projected future traffic volumes and the type of environment (built-up, intermediate, suburban, and rural). In general, greater flexibility is needed for lower speed roadways in built-up areas.

Driveways should not be situated within the longitudinal length of an auxiliary lane from an adjacent intersection along any State highway. It should be noted that auxiliary lane criteria are not defined as part of the access classification system described above. The criteria for various types of auxiliary lanes are

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defined in the *Roadway Design Manual* and the *Driveway Permit Manual*, based on the roadway cross-section, traffic volume, and speed.

The following **Tables 12-3** through **12-8** provide the following details for Tiers 1, 2 and 3:

- Type of access permitted (at-grade intersection, private driveway);
- Traffic movements allowed (full movements, right-in/right-out only, etc.);
- Traffic control devices permitted (traffic signal, STOP sign);
- Spacing criteria for public intersections and driveways.

Design Criteria for Tier 1: Statewide Mobility Corridors - Type "A" (Multi-Lane Roadways)

		At-Grade Public Street Intersections	Access Driveways ^{1,2}	
			Commercial Major	All other driveways
Permitted?		Yes	Restricted	Restricted
Traffic movements allowed		Full movements ³	Full movements ³	RIRO ⁴
Traffic control devices		Traffic signal ⁵	Traffic signal ⁵	STOP ⁶
Spacing criteria	Urban areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁷	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁸	Ideal signalized spacing = 1/2 mile ⁸	
	Rural areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁷	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁹	Ideal signalized spacing = 1/2 mile ⁹	

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Driveways are allowed if property owner has no reasonable alternative access (or opportunity to obtain such access) and joint-use driveways and frontage roads are infeasible.
- 3: Some movements may need to be restricted based on intersection spacing, and existing and projected operating conditions. Limited to Right-In/Right-Out movements for driveways within 400-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 4: Right-In/Right-Out (RIRO) driveways are allowed if property owner has no reasonable alternative access (or opportunity to obtain such access) and joint-use driveways and frontage roads are infeasible. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 5: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 6: STOP control applies to the access driveway and not to the State highway.
- 7: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 8: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 45%.
- 9: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 50%.

Table12-3

Design Criteria for Tier 1: Statewide Mobility Corridors - Type "B" (Two-Lane Roadways)

		At-Grade Public Street Intersections	Access Driveways ^{1,2}	
			Commercial Major	All other driveways
Permitted?		Yes	Restricted	Restricted
Traffic movements allowed		Full movements	Full movements ³	Full movements ³
Traffic control devices		Traffic signal ⁴	Traffic signal ⁴	STOP ⁵
	Urban areas	<u>Unsignalized</u> spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁶	<u>Unsignalized</u> spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
Spacing criteria		Ideal <u>signalized</u> spacing = 1/2 mile ⁷	Ideal <u>signalized</u> spacing = 1/2 mile ⁷	
		<u>Unsignalized</u> spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁶	<u>Unsignalized</u> spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
	Rural areas	Ideal <u>signalized</u> spacing = 1/2 mile ⁸	Ideal <u>signalized</u> spacing = 1/2 mile ⁸	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Driveways are allowed if property owner has no reasonable alternative access (or opportunity to obtain such access) and joint-use driveways and frontage roads are infeasible.
- 3: Limited to Right-In/Right-Out movements for driveways within 400-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 4: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 5: STOP control applies to the access driveway and not to the State highway.
- 6: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 7: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 45%.
- 8: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 50%.

Table 12- 4

Design Criteria for Tier 2: Regional Corridors - Type "A" (Multi-Lane Roadways)

		At-Grade Public Street Intersections	Access Driveways ¹	
			Commercial Major	All other driveways
Permitted?		Yes	Yes	Yes
Traffic movements allowed		Full movements	Full movements ²	RIRO ³
Traffic control devices		Traffic signal ⁴	Traffic signal ⁴	STOP ⁵
Spacing criteria	Urban areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁶	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁷	Ideal signalized spacing = 1/2 mile ⁷	
	Rural areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁶	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁸	Ideal signalized spacing = 1/2 mile ⁸	

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Limited to Right-In/Right-Out movements for driveways within 300-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 3: Limited to Right-In/Right-Out movements. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 4: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 5: STOP control applies to the access driveway and not to the State highway.
- 6: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 7: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 40%.
- 8: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 45%.

Table 12- 5

Design Criteria for Tier 2: Regional Corridors - Type "B" (Two-Lane Roadways)

	At-Grade Public Street Intersections	Access Driveways ¹	
		Commercial Major	All other driveways
Permitted?	Yes	Yes	Yes
Traffic movements allowed	Full movements	Full movements ²	Full movements ²
Traffic control devices	Traffic signal ³	Traffic signal ³	STOP ⁴
Spacing criteria	Urban areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁶	Ideal signalized spacing = 1/2 mile ⁶
	Rural areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁷	Ideal signalized spacing = 1/2 mile ⁷

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Limited to Right-In/Right-Out movements for driveways within 300-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 3: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 4: STOP control applies to the access driveway and not to the State highway.
- 5: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 6: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 40%.
- 7: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 45%.

Table 12-6

Design Criteria for Tier 3: Sub-Regional Corridors - Type "A" (Multi-Lane Roadways)

		At-Grade Public Street Intersections		Access Driveways ¹	
				Commercial Major	All other driveways
Permitted?		Yes		Yes	Yes
Traffic movements allowed		Full movements		Full movements ²	Full movements ²
Traffic control devices		Traffic signal ³		Traffic signal ³	STOP ⁴
Spacing criteria	Urban areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵		Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>
		Ideal signalized spacing = 1/2 mile ⁶		Ideal signalized spacing = 1/2 mile ⁶	
	Ideal signalized spacing = 1/4 mile for roadways ≤ 40 mph in built-up urban areas		Ideal signalized spacing = 1/4 mile for roadways ≤ 40 mph in built-up urban areas		
	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵		Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>		
	Rural areas	Ideal signalized spacing = 1/2 mile ⁷		Ideal signalized spacing = 1/2 mile ⁷	

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Limited to Right-In/Right-Out movements for driveways within 200-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 3: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 4: STOP control applies to the access driveway and not to the State highway.
- 5: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 6: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 35%.
- 7: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 40%.

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Design Criteria for Tier 3: Sub-Regional Corridors - Type "B" (Two-Lane Roadways)

		At-Grade Public Street Intersections		Access Driveways ¹	
		Commercial Major	All other driveways	Commercial Major	All other driveways
Permitted?		Yes		Yes	Yes
Traffic movements allowed		Full movements		Full movements ²	Full movements ²
Traffic control devices		Traffic signal ³		Traffic signal ³	STOP ⁴
Spacing criteria	Urban areas	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>	
		Ideal signalized spacing = 1/2 mile ⁶	Ideal signalized spacing = 1/2 mile ⁶		
	Rural areas	Ideal signalized spacing = 1/4 mile for roadways ≤ 40 mph in built-up urban areas	Ideal signalized spacing = 1/4 mile for roadways ≤ 40 mph in built-up urban areas		
		Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i> ⁵	Unsignalized spacing per Table 8.1 of <i>Driveway Permit Manual</i>	Spacing per Table 8.1 of <i>Driveway Permit Manual</i>	
		Ideal signalized spacing = 1/2 mile ⁷	Ideal signalized spacing = 1/2 mile ⁷		

Notes:

- 1: Driveways should not be situated within the longitudinal length of an adjacent auxiliary lane.
- 2: Limited to Right-In/Right-Out movements for driveways within 200-feet of an existing (or potential future) signalized intersection. Left-turn access may be allowed conditionally subject to INDOT review and approval.
- 3: Traffic signal installation subject to traffic signal warrant criteria per MUTCD and additional assessment by INDOT, including signal criteria. Where warrants are satisfied, the new approach should be situated opposite an existing 3-leg intersection, if present.
- 4: STOP control applies to the access driveway and not to the State highway.
- 5: Except where future development may trigger the need for a signal, in which case the signalized spacing distance is to be applied.
- 6: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 35%.
- 7: Where 1/2-mile signalized intersection spacing guideline can not be met, minimum bandwidth must equal 40%.

Table 12- 8

Access Management - Retrofit Techniques

Access management improves traffic safety and protects the public's investment in the road system by preserving its functional integrity. Its focus is to minimize disruptions to the through traffic that would reduce the highway's safety and efficiency.

Access management is best implemented by applying criteria based on established traffic engineering and roadway design principles. However, there may be constraints in built-up areas that would limit the application of the access management criteria. This section provides guidance on access management techniques that can be used in situations where it is not possible to achieve the desired access criteria. These are commonly referred to as "retrofit" situations.

The design criteria described in this Guide identify the desired outcome for access connections to the State highway system. However, in areas that are fully developed, it may not be possible to achieve these desired conditions. For example, block widths and mid-block alleys in some urban areas may rule out achieving the spacing standards. Elsewhere, there may be many pre-existing driveways and patterns of land ownership that make it difficult to achieve the desired access location criteria. In these cases, retrofit techniques should be used to the maximum extent feasible to accomplish INDOT's access policy goals.

Inter-Governmental Coordination

The need for coordination between INDOT and local governments with respect to land use and transportation decisions cannot be understated. This section of the Guide addresses the role of local jurisdictions, their relationship to INDOT, and the need for coordinated decision-making with respect to access management.

In Indiana, access management is a prerogative of local government that varies in the level of exercise from no access control requirements, to access management standards that may, on occasion, be more restrictive than INDOT. Under general enabling legislation for municipalities (IC 36-9-2 and 36-9-6), counties (IC 8-17-1 and 8-20) and all levels of government (IC 9-21), local governments may require permits for private access to public roadways.

A secondary means of access management by local jurisdictions is through land use controls (zoning per IC 36-7-4-600 series, subdivisions per IC 36-7-4-700 series and site plan review per IC 36-7-4-1400 series) where requested permission to expand a land use right may trigger a review of roadway access to the subject property. Historically, the relationships between State and local jurisdictions regarding access management have been informal and found to vary widely throughout Indiana.

Although the review and approval of applications for driveway access to abutting State roadways is primarily the responsibility of INDOT, site plan review and approval are the responsibility of local governmental agencies. Although in some cases the permit review and site plan review processes are well-coordinated between INDOT and the local jurisdiction, the more frequent lack of coordination jeopardizes the ability of both agencies to manage access properly, which can have detrimental effects on the operations and safety of the highway system.

Sometimes problems begin with the local agency responsible for local land use planning, zoning, and site plan review. Site plans are approved without the county or municipality requesting an independent review by INDOT. As a result, the number and spacing of driveways, and the placement of buildings and parking areas, essentially become fixed, leaving INDOT with little or no opportunity for recourse.

It is not uncommon for developers and property owners to use this lack of inter-agency coordination to their advantage, pressuring one agency to take action only after approvals have been issued by the other agency. In addition, the INDOT driveway permit process can be avoided by the developer in cases where no direct site-access to a State highway is proposed.

Chapter 12 Access Management

INDOT 2030 Long Range Transportation Plan

Although much of the traffic associated with the development may use the State highway, INDOT is limited in its ability to require mitigating measures to compensate for this additional traffic.

The conflict between vehicle movement and land access increases as development continues in both urban and rural areas. The challenge is how best to coordinate vehicular access with land development in a way that encourages economic activity while simultaneously preserving mobility and providing adequate property access. The principles of access management, described earlier, address these competing needs.

Land use planning and development review all take place at the local level where the authority resides. A key objective of the transportation process, therefore, is to coordinate transportation and land use. This is especially important for access management and corridor preservation. The actions of local jurisdictions in planning, reviewing, and approving land development can significantly impact the ability of other agencies to implement their transportation plans. A key feature of successful access management is coordination with land use decisions made by local jurisdictions.

Future Activities

In the future INDOT, will initiate various studies and activities that will implement the recommendations arising from the INDOT Access Management Study and included in the new Indiana Access Management Guide.

Implementation and use of the INDOT Access Management Guide will be increased as INDOT addresses the current and projected needs of the Indiana Transportation System.

Given the continual and growing demands on the overall Transportation System, the increasing difficulties in finding ways to adequately solve these demands and needs, and the decreasing availability of funding for transportation solutions of all types, Access Management will play a greater role in the future in INDOT. INDOT will need to rely on the tools and techniques of Access Management to help us find new and innovative ways to address the future travel demand needs of the state.

Much of this chapter is from the Draft INDOT Access Management Guide which can be found in its entirety at <http://www.in.gov/dot/div/planning/iams/index.html>.