THE TOWN OF
McCORDSVILLE

Next Stop McCordsville

Town of McCordsville
Access Management Plan

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Town of McCordsville

Chapter 1. Purpose and Scope

The Town Council of the Town of McCordsville have prepared this Access Management Plan to provide consistent and effective access management policies along the Mt. Comfort Corridor and the immediately adjacent collectors. This report outlines the concepts of access management and set forth basic policy, planning, and design guidelines and implementation.

Purpose

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.

Scope

For proper access management, there needs to be a logical hierarchy of streets, networks maps based on that hierarchy, access point guidelines, and a methodology to implement the plan. The following list highlights the scope and content by chapter of the BMPO Access Management Plan

Definitions

This Access Management Plan refers to specific types of access to public streets as defined below.

Driveway – A driveway is the physical connection for vehicular traffic between a roadway and abutting land.

Intersection – An intersection is any at-grade connection with a roadway, including two roads or a driveway and a road.

Major Intersection – A major intersection is any intersection that connects: two arterials; an arterial and collector; two collectors; interchange directional ramps and crossroads; or, an arterial and major driveway (driveway anticipated to serve more than 5,000 daily trips).

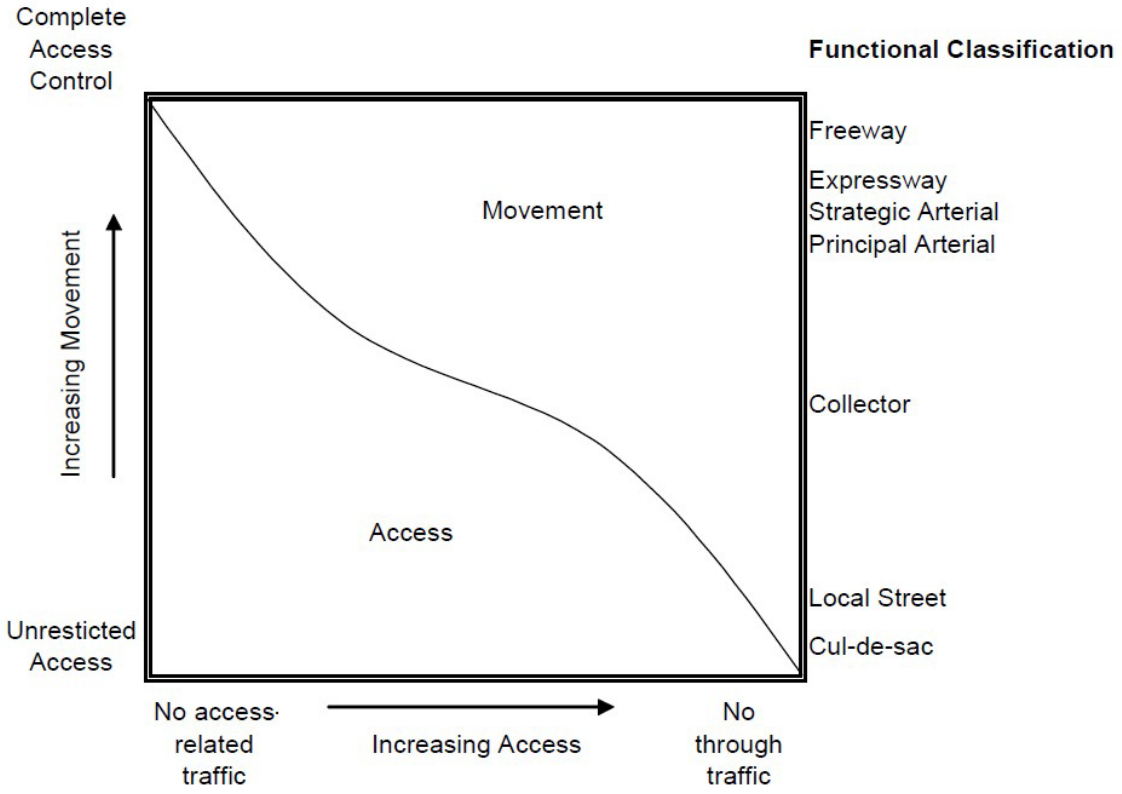
Minor Intersection – A minor intersection is any intersection that is not considered a major intersection.

Principles of Access Management

One of the most fundamental concepts in access management is that movement of traffic and access to property are mutually exclusive; no facility can move traffic very well and provide unlimited access at the same time. A hierarchy of road types is needed to delineate which roadways will focus on moving traffic and which roadways will focus on

property access. Figure 1 is the classic diagram showing the relationship between mobility, access, and the functional hierarchy of streets.

Figure 1 : Movement versus Access balance by Functional Classification



Access management attempts to balance good mobility for through traffic with the requirements for reasonable access to adjacent land uses. Symptoms of poor access management include a higher collision rate than what would be considered normal as well as higher traffic congestion due to disorderly movements from driveways and side streets. An effective access management program can reduce crashes as much as 50 percent, increase roadway capacity by 23 to 45 percent, and reduce travel time and delay as much as 40 to 60 percent (See Access Management Manual).

Poor network and land use planning can also make access management difficult. If properties have no viable alternative other than direct access to major streets, then access management policies would likely be overridden. Or, when major streets or highways must also serve local circulation trips, traffic congestion is a higher probability.

Good access management practices along major streets include:

1) Limit the number of conflict points at driveway locations. Conflict points are good indicators of the potential for accidents. The more conflict points that occur at an intersection, the higher the potential for vehicular crashes. When left turns and cross street through movements are restricted, the number of conflict points is significantly reduced.

2) Separate conflict areas. Intersections created by public streets and driveways represent basic conflict areas. Adequate spacing between intersections allows drivers to react to one intersection at a time and reduces the potential for conflicts.

3) Reduce the interference of through traffic. Through traffic often needs to slow down for vehicles exiting, entering, or turning across the roadway. Providing turning lanes, designing driveways with appropriate turning radii, and restricting turning movements in and out of driveways allows turning traffic to get out of the way of through traffic.

4) Provide sufficient spacing for at-grade, signalized intersections. Good spacing of signalized intersections reduce conflict areas and increases the potential for smooth traffic progression.

5) Provide adequate off-street circulation and storage. The design of good internal vehicle circulation in parking areas and on local streets and collectors reduces the number of driveways that businesses need for access to the major roadway.

Chapter 2. Roadway Classifications and Network Plans

Functional Classification

The roadway functional classification is primarily based on vehicular travel and vehicular access to adjacent properties. Freeways and arterials are meant to operate at higher operating speeds and traffic volumes. In contrast, collector and local streets are meant to provide more access to adjacent properties and operate at lower speeds. All vehicle trips start and end at specific properties, and nearly all transition between higher speed arterials and lower speed local streets over the length of the typical trip.

Please see the McCordsville Thoroughfare Plan for the current road classifications.

Right-of-Way Widths

Roadways need sufficient right-of-way width to accommodate the anticipated corridor design elements, such as traffic lanes, sidewalks, and utilities. Establishing the necessary right-of-way needs early in the planning process results in a better use of public resources and avoids undesirable or misplaced land development.

Minimum right-of-way widths are defined by roadway classification in the Geometric Street Standards section of the Subdivision Control Ordinance within the McCordsville Comprehensive Plan.

Network Plans

Network plans are where classifications are applied to the street network to make a complete transportation system. Both the function classification network and travel context classification network should be considered in planning urban street networks.

Please see the McCordsville Thoroughfare Plan Map for the current functional classification network.

Corridor Preservation

Corridor preservation refers to preserving right-of-way for future transportation corridor needs. Preserving right-of-way early in the network building process is cost-effective and promotes more complimentary land development on adjacent properties. This continues to be the best practice.

There are numerous policy and financing methods to preserve right-of-way, but all methods rely on officially adopted transportation network maps as the legal foundation.

In other words, the critical first step in any corridor preservation program is to explicitly map out future corridors on officially adopted maps.
The following methods could be used after an officially adopted transportation map is in place:

- Right-of-way dedication is the conveyance of property from a private owner to the public without direct compensation from the public agency. This is the most common and straightforward way to preserve right-of-way and usually is a condition of development approval or granting access permits. This is only applicable for property within the development site.

- Right-of-way or access rights purchase is the conveyance of property or access rights from a private owner to the public with direct compensation from the public agency. This usually occurs in areas with no development. The type of compensation can vary: direct payments, tax credits, impact fee credits, property swaps, etc.

- Easements, options to purchase, or interim use agreements are contractual agreements between the public agency and private owner that preserve the right-of-way from significant development until such time the right-of-way is needed. Compensation to the private owner is typically involved but much less than cost of full purchase.

Chapter 3. Level of Access and Miscellaneous

This chapter defines the acceptable level of access for each class of roadway to preserve its function, including criteria for the spacing of signalized and unsignalized intersections. All spacing is measured from centerline to centerline unless stated otherwise.

Access Management Recommended Standards for Primary Arterial

Development Type	Access Type	Distance	Notes
Retail Development	Right-in Right-out	300 feet or more	
	Full Access	500 feet to 600 feet	
	Full Access w/ Traffic Signal	800 feet to 1000 feet	Engineered
Office Development	Right-in Right-out	300 feet or more	
	Full Access	500 feet to 600 feet	
	Full Access w/ Traffic Signal	800 feet to 1000 feet	Engineered
Warehouse/Industrial Development	Right-in Right-out		Semi-trucks
	Full Access	800 feet to 1000 feet	Semi-trucks
	Full Access w/ Traffic Signal	1250 feet or more	Semi-trucks
Residential Development (includes apartments)	Right-in Right-out	300 feet or more	
	Full Access	500 feet to 600 feet	
	Full Access w/ Traffic Signal		

Currently, McCordsville only has one north south primary arterial, Mt Comfort Road (CR 600 West). Mt. Comfort Road (CR 600 West) is classified as a primary arterial by both McCordsville and the Indianapolis Metropolitan Planning Organization. It is a direct connector between communities north of McCordsville like Fishers and Noblesville and Interstate -70. With existing access points along the corridor already, it made sense to provide expected access points along the corridor. The table above shows the typical distances required for access for a primary arterial.

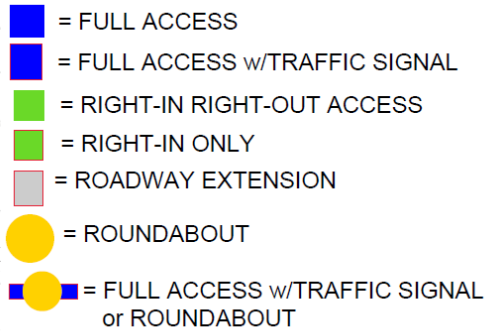
Mt Comfort Road (CR 600 West) Exhibits

To provide better guidance for access points along Mt Comfort Road, the included exhibits break the corridor down into five one-mile sections with the five sections listed below. The included exhibits show anticipated access points and their proposed type.

Exhibit 1: from CR 1000 North to CR 900 North
Exhibit 2: from CR 900 North to CR 800 North
Exhibit 3: from CR 800 North to CR 700 North
Exhibit 4: from CR 700 North to CR 600 North
Exhibit 5: from CR 600 North to CR 500 North

Some assumptions were made developing the exhibits. Therefore, some discretion is given to the Town Engineer to deviate from the locations shown on the exhibit should proposed development differ to what was anticipated in either type or order. The exhibits are intended to give a starting point for developers to see what the town has anticipated for access for parcels along the corridor.

The exhibits label the anticipated access type broken into several types shown below.



Full access includes both left and right turn movements and two way stop control. Traffic is free flow on CR 600 West.

Full access with traffic signal includes four-way signal-controlled intersection with CR 600 West.

Right-in right-out is a three-way intersection that provides restricted access of CR 600 West and permits only right turns. The restriction may be at the discretion of the Town Engineer be for a future condition. For example, initial full access that would later become restricted with the installation of a median.

Right-in allows a restricted entrance to a site by right turn only but does not permit an exit.

Roadway extension indicates a proposed roadway.

Roundabout is a road junction at which traffic moves in one direction around a central island to reach one of the roads converging on it; a traffic circle.

Full access with traffic signal or roundabout indicates a traffic signal could be an interim step prior to a roundabout or that the decision would be delayed until the final land use is determined.

Sight Distance

It is essential to provide sufficient sight distance for vehicles using a driveway. They should be able to enter and leave the property safely with respect to vehicles on the driveway and vehicles on the intersection roadway.

Intersection sight distance refers to the sight distance required such that a vehicle can enter a roadway without unduly impacting traffic operations. Intersection sight distance varies, depending on the design speed of the roadway to be entered, and assumes a passenger car can turn right or left into a two-lane highway and attain 85 percent of the design speed without being overtaken by an approaching vehicle that reduces speed to 85 percent of the design speed. Intersection sight distance requirements for design vehicles are found in the current edition of AASHTO's Geometric Design of Highways and Streets.

In many conditions, however, variations in the vertical and horizontal alignment of the adjoining street or limited building setback lines may create situations where intersection sight distance cannot be provided. Consequently, a minimum distance must be provided such that motorists traveling on the through street can perceive, react, and stop for any potential conflict with the driveway's intersection. This minimum measure is defined by the stopping sight distance. Stopping sight distance requirements for design vehicles are found in the current edition of AASHTO's Geometric Design of Highways and Streets. For reference, Table 8 shows stopping sight distances based on speed and roadway grade.

Table 8. Stopping Sight Distance

Operating Speed (mph)	Stopping Sight Distance (feet)						
	Upgrades			Level	Downgrades		
	9%	6%	3%	0%	-3%	-6%	-9%
15	75	75	75	80	80	85	85
20	105	110	110	115	120	120	130
25	140	145	150	155	160	165	175
30	180	185	200	200	205	215	230
35	225	230	240	250	260	275	290
40	270	280	290	305	315	335	355
45	320	330	345	360	380	400	430
50	375	390	405	425	450	475	510
55	435	450	470	495	520	555	595

Source: *Geometric Design of Highways and Streets* (AASHTO, 2011). Values rounded up to nearest 5-foot increment.

Traffic Impact Study

A Traffic Impact Study (TIS) is a specialized study of the impacts that a development will have on the surrounding transportation system. A TIS is essential for many access management decisions, such as spacing of driveways, traffic control devices, and traffic safety issues. It is specifically concerned with the generation, distribution, and assignment of traffic to and from new development.

The Town Engineer may request that a traffic impact study (TIS) be prepared for proposed developments. The study area will be determined by the Town Engineer through discussions with the consultant preparing the TIS.

EXHIBIT 1

= RIGHT-IN RIGHT-OUT ACCESS

= FULL ACCESS

= ROUNDABOUT

ANTICIPATED RETAIL

ANTICIPATED RESIDENTIAL

ANTICIPATED SCHOOL

E 96th St

Co Rd 1000 N

N Port Dr

N Anchor Bend

Moonstone Pl

N Woody Creek Crossing Trail

Briarway Ln

Crossfield Trail

Terra Ln

North Mariners Crest

West Port Drive

North Inlet Drive

N Schooner Cir

1st Watch Way

N Coral Reef Rd

Bayfront Shores

Waterfront Way

N 600 W

Storm Bay Cir

N Bayfield Dr

N Bayland Dr

W Bayfield Dr

W Falling Waters Dr

Chase Ln

River

W McCord Rd

N McCord Rd

500 ft

N

EXHIBIT 2

= FULL ACCESS

= FULL ACCESS w/TRAFFIC SIGNAL

= RIGHT-IN RIGHT-OUT ACCESS

= RIGHT-IN ONLY

= ROADWAY EXTENSION

= ROUNDABOUT

= FULL ACCESS w/TRAFFIC SIGNAL or ROUNDABOUT

Hancock Health

ANTICIPATED OFFICE AND/OR RETAIL

ANTICIPATED OFFICE

ANTICIPATED RESIDENTIAL

ANTICIPATED OFFICE AND/OR RETAIL

PARK

Secondary Alternative

Primary Alternative

Only if Secondary Alternative Choosen

N 006 W

W Brickell Ln

N Mia Ln

W Jamison Dr

W Brookside Pkwy

N Tanglewood Cir

Commonview Drive

Emerald Blvd

W Deerview Bend

N Springview Dr

Commercial Dr

N 600 W

Main St

36

234

500 ft

N

EXHIBIT 3

PARK

ANTICIPATED OFFICE/RETAIL

ANTICIPATED OFFICE/RETAIL

ANTICIPATED TOWN CENTER

= FULL ACCESS

= RIGHT-IN RIGHT-OUT

= ROADWAY EXTENSION

= ROUNDABOUT

= FULL ACCESS w/TRAFFIC SIGNAL or ROUNDABOUT

ANTICIPATED OFFICE/RETAIL

ANTICIPATED OFFICE/RETAIL

ANTICIPATED RESIDENTIAL

ANTICIPATED SUBURBAN RESIDENTIAL

CATALYST SITE 1

ANTICIPATED RESIDENTIAL

N Railroad St
Railroad St
Depot St
W Broadway
Indiana St
Ohio St
1st St
Hanna St
McCordsville
N McCord St
N Form St
3rd St
Center St
N Hanna St
W 700 N
N 600 W
N Stubbington Ln
234
36
500 ft
N

EXHIBIT 4

Google Earth

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W 700 N

ANTICIPATED RESIDENTIAL

ANTICIPATED RESIDENTIAL

ANTICIPATED RESIDENTIAL

W 650 N

ANTICIPATED COMMERCIAL

= FULL ACCESS

= RIGHT-IN RIGHT-OUT ACCESS

= ROADWAY EXTENSION

= ROUNDABOUT

N 600 W

ANTICIPATED RESDIENTIAL

ANTICIPATED RESIDENTIAL

Franks Ln

ANTICIPATED OFFICE/RETAIL

ANTICIPATED OFFICE/ RETAIL

N Woodhaven Dr

500 ft

N

W 600 N

EXHIBIT 5

Google Earth

© 2021 Google

W 600 N

ANTICIPATED COMMERCIAL

N 600 W

= FULL ACCESS

= RIGHT-IN RIGHT-OUT ACCESS

= ROADWAY EXTENSION

= ROUNDABOUT

ANTICIPATED OFFICE/RETAIL

ANTICIPATED LIGHT INDUSTRIAL

ANTICIPATED LIGHT INDUSTRIAL

ANTICIPATED LIGHT INDUSTRIAL

ANTICIPATED OFFICE/RETAIL

ANTICIPATED OFFICE/RETAIL

Mt Comfort Rd

W 500 N

500 ft

N