

TRANSPORTATION ELEMENT

Appendix
C-1

TRANSPORTATION AND THE ENVIRONMENT
Resource Summary
June 2004

Archeological Work

See Smart Growth Cultural Resource Planning Handbook. For copy go to <http://www.wisconsinhistory.org/histbuild/smartgrowth/smart%5Fmanual.html>

De-icing Procedures and Salt Reduction

See Smart Growth Transportation Planning Handbook. For copy go to <http://www.dot.wisconsin.gov/localgov/docs/planningguide.pdf>

Erosion Control

See Smart Growth Cultural Resource Planning Handbook. For copy go to <http://www.wisconsinhistory.org/histbuild/smartgrowth/smart%5Fmanual.html>

Noise Monitoring

What Can Be Done to Reduce Highway Noise?

Highway noise is being attacked with a three-part strategy: motor vehicle control, land use control, and highway planning and design. The responsibilities for implementing these strategies must be shared by all levels of government: Federal, State, and local. Often, local officials can most effectively solve specific noise problems in their areas, as demonstrated in the U.S. Environmental Protection Agency's (EPA) Quiet Community and Each Community Helps Others (ECHO) programs. The following two sections briefly describe how traffic noise impacts can be reduced or prevented through efforts to obtain quieter vehicles and efforts to control future development near highways. The remainder of this pamphlet focuses mainly on noise abatement in the Federal-aid highway program.

Noise Reduction on Existing Roads

Some noise reduction measures that are possible on existing roads or on roads that are being rebuilt include creating buffer zones, constructing barriers, planting vegetation, installing noise insulation in buildings, and managing traffic. Buffer zones are undeveloped open spaces that border a highway. Buffer zones are created when a highway agency purchases land, or development rights, in addition to the normal right of way, so that future dwellings cannot be constructed close to the highway. This precludes the possibility of constructing dwellings that would otherwise experience an excessive noise level from nearby highway traffic. An additional benefit of buffer zones is that they often improve the roadside appearance. However, because of the tremendous amount of land that must be purchased and because in many cases dwellings already border existing roads, creating buffer zones is often not possible.

(Source: <http://www.fhwa.dot.gov/environment/htnoise.htm>)

Noise Wall: It is a specially designed structure built to reduce noise levels created by nearby highway traffic. It is built only after noise impact studies are conducted and certain conditions are met.

(Source: <http://www.virginiadot.org/info/service/faq-noise-walls.asp>)

Prairie Restoration - Prairie restoration is the process of recreating a prairie where one once existed but now is gone. If we take the word *restore* literally, we would try to completely rebuild the prairie plant and animal community with all the species that a particular site used to have. This definition of prairie restoration can include planting a new prairie where the former prairie had been broken and farmed, or it can include improving a degraded prairie, that is, one that was never plowed but lost many plant species due to prior land management practices.

(Source: <http://www.prairieplains.org/prairierestoration2.html>)

Stormwater Management

See Section E, Agricultural, Natural, and Cultural Resource Element of this plan for information on your jurisdiction's stormwater management strategies.

Wetland Creation – designing and building a wetland.

Wetland Mitigation – the creation or enhancement of a wetland in exchange for the loss of another wetland due to development.

Wetland Enhancement – Most wetland enhancement work includes small structures built to add water or regulate water levels in an existing wetland. Subsurface and surface drains and tiles are plugged. Concrete and earthen structures—usually dikes or embankments—are built to trap water. These practices maintain a predetermined water level in an existing wetland. Adjustable outlets allow the landowner to fluctuate the water level during different seasons. Enhancement also includes planting native wetland vegetation if plant populations need to be supplemented.

(Source: <http://www.ctic.purdue.edu/Core4/Core4Main.html>)

Wetland Mitigation and Transportation

Wetland mitigation is the replacement of wetland functions through the creation or restoration of wetlands. Mitigation is required as a condition of many permits issued under state law (Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended) and federal law (Part 404 of the Clean Water Act). The goal of wetland mitigation is to replace wetland functions that provide public benefits, such as flood storage, water quality protection, fish and wildlife habitat, and groundwater recharge.

(Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3687-10426--00.html)

See also (<http://www.dnr.state.wi.us/org/water/fhp/wetlands/mitigation/index.shtml>) for more information.

Wetland mitigation banking programs implemented by State transportation agencies offer unique opportunities to consolidate, manage, and protect wetlands resources more effectively while maintaining more workable alternatives for transportation and development. Onsite mitigation remains the first and preferable alternative where feasible. However, by moving the location of mitigation away from transportation projects and development centers, mitigation often can be better integrated with supporting ecosystems, more effectively managed, provide more services to society, and allow for better planning of business, commercial, and residential development.

(Source: <http://www.fhwa.dot.gov/environment/wetmtdoe.htm>)

Wetland Restoration – putting a degraded wetland back to its original function, water regime, size, biotic diversity, etc. Wetland restoration projects are designed to put the "wet" back into drained wetlands. Once the water has been restored, wetland vegetation can reestablish. Wildlife of all types will then utilize the restored habitat.

Wetland restoration projects are not designed to create deepwater ponds or alter existing natural wetlands.

(Source: <http://www.michigan.gov/deq>)

Other sources:

<http://www.dnr.state.wi.us/org/water/fhp/wetlands/documents/handbook.pdf>

Wetland Preservation – protecting current wetlands from development, degradation, pollution, etc.

Sources of information:

<http://northamerican.fws.gov/NAWCA/grants.htm>

<http://www.fsa.usda.gov/pas/publications/facts/html/crepwi01.htm>

<http://wetlands.fws.gov/>

<http://www.wisducks.org/WWA%20Web/>

TRANSPORTATION ELEMENT

Appendix
C-2



Wisconsin Department of Transportation

Rustic Roads Board
4802 Sheboygan Avenue
PO Box 7913
Madison, WI 53707-7913

Telephone: 608/266-0649
FAX: 608/267-0294
E-Mail: jane.carrola@dot.state.wi.us

Dear Prospective Applicant :

Thank you for your interest in the Wisconsin Rustic Roads program.

The system was created in 1973 by the State Legislature to preserve what remains of Wisconsin's scenic, lightly traveled back roads for the enjoyment of motorists, hikers and bicyclists. Wisconsin is unique in its efforts to preserve these low volume, low function rural roads and since the designation of the first Rustic Road in 1975, the statewide system has grown to include 95 roads in 52 counties totaling over 510 miles.

The Rustic Roads program relies on the initiative of local residents and government to identify candidates for Rustic Road status and to petition to have the routes designated as Rustic Roads by the 10 member Rustic Roads Board. To qualify, the road should be a low volume local access road and should have some outstanding natural or historical features within it. It should have a length of at least two miles and should not be scheduled nor anticipated for major improvements which would alter the road's unique characteristics. Hiking and biking trails may also adjoin Rustic Roads. The program does not encompass the design or redesign of new and existing roads to meet Rustic Road standards.

Local authorities are encouraged to preserve the natural, scenic and historical characteristics along Rustic Roads. Local zoning powers, building setback regulations, access control, sign control and other powers may be used to protect and preserve the character of the Rustic Road (Trans-RR 1.15, Wis. Administrative Code). Once designated, Rustic Roads remain under local jurisdiction and continue to be eligible for state aids.

Each Rustic Road is marked with a unique brown and yellow Rustic Road sign and the speed is limited to 45 MPH or lower. The surface may be dirt, gravel or paved and roadside vegetation can be cut or mowed selectively. No special funding is available for Rustic Roads, however the Department does pay the cost of initial and replacement signing for each designated rustic road.

I have enclosed the following items which will provide you with further back-ground on Wisconsin's Rustic Roads System:

1. Wisconsin Administrative Code, Rules of Transportation Rustic Roads Board;
2. The Wisconsin's Rustic Roads Brochure; and
3. Application materials for Rustic Road designation.

If you should have any further questions about Wisconsin's Rustic Roads program, please do not hesitate to contact me at (608) 266-0649.

Sincerely,

Jane V. Carola
Rustic Roads Coordinator

Enclosures

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Chapter Trans-RR 1

RUSTIC ROADS

Trans-RR 1.01 Definitions.
 Trans-RR 1.02 Membership of the board.
 Trans-RR 1.03 Purpose of the board.
 Trans-RR 1.04 Qualifications for rustic road designation.
 Trans-RR 1.05 Application procedures.
 Trans-RR 1.06 Numbering of rustic roads.
 Trans-RR 1.07 Jurisdiction and authority.
 Trans-RR 1.08 General maintenance.
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Trans-RR 1.12 Sign maintenance.
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 Trans-RR 1.18 Development of county rustic roads plans.
 Trans-RR 1.19 Withdrawal of rustic roads designation.
 Trans-RR 1.20 Identification of complementary rustic features.
 Trans-RR 1.21 State aids.

Note: The Rustic Roads Code, chapters RR 1 to 11 were repealed and a new code, chapter Trans-RR 1 was created effective June 1, 1981.

Trans-RR 1.01 Definitions. As used in this chapter:

- (1) "Board" means the rustic roads board of the Wisconsin department of transportation.
- (2) "Department" means the Wisconsin department of transportation.
- (3) "Maintaining authority" means the county or municipality which has jurisdiction over a road.
- (4) "Municipality" means town, city or village.
- (5) "Rustic roads marking signs" means the brown, white and yellow standard statewide rustic road sign approved by the rustic roads board and designed by the department of transportation, the standard brown and yellow placard denoting the numerical identification of the rustic road within the statewide system, the standard brown and yellow placard denoting the length in miles of the rustic road, and all necessary auxiliary signs.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.02 Membership of the board. [s. 15.465 (2), Stats.] The board of the department is composed of the following members:

- (1) Chairpersons of the senate and assembly standing committees having jurisdiction over transportation matters as determined by the speaker of the assembly and the president of the senate, and
- (2) Eight members appointed by the secretary of transportation for staggered 4-year terms of whom at least 4 members shall be selected from a list of nominees submitted by the Wisconsin county boards association.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.03 Purpose of the board. [s. 83.42 (1), Stats.] The purpose of the board is to govern the creation and preservation of a system of rustic roads for vehicular, bicycle and pedestrian travel in unhurried, quiet and leisurely enjoyment.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.04 Qualifications for rustic road designation. (1) A rustic road has outstanding natural features along its borders such as rugged natural terrain, native wildlife and native vegetation, or includes open areas with rustic or agricultural vistas which, singly or in combination, set this road apart from other roads as being something unique and distinct.

(2) A rustic road is a low-volume local use public road which is usable year-round.

(3) A rustic road functions as a local access road, i.e., one which serves the adjacent property owners and those wishing to travel by auto, bicycle or hiking, for purposes of enjoying its rustic features. This would generally preclude designating as a rustic

road any road serving as a collector or arterial as defined in ch. Trans 76.

(4) A rustic road is one not scheduled or anticipated for major improvement which would change its rustic characteristics.

(5) A rustic road preferably has no high density development along it, but the development as exists at the time the road is designated shall be compatible with the surroundings and shall not detract from the rustic, natural, unspoiled character and visual impact of the road area.

(6) A rustic road preferably has a minimum length of 2 miles and, where feasible, provides a completed closure or loop or connects to major highways at both ends of the route.

(7) The land adjacent to the rustic road preferably is zoned compatible with the maintenance or preservation of its rustic character and low density development.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81; correction in (3) made under s. 13.93 (2m) (b) 7, Stats., Register, July, 1995, No. 475.

Trans-RR 1.05 Application procedures. [ss. 80.39, 83.025 (1), 83.42 (3), Stats.] (1) For a road to be designated a rustic road, a petition from 6 or more resident freeholders of the municipality in which the road is located, or a petition from a majority of the resident freeholders along the road, shall be presented to the governing body of the municipality in which the road is located. The process may also be initiated without petitions by a resolution of the governing body of the municipality in which the road is located. Upon such a petition or resolution, the governing body of the municipality may hold a public hearing on the proposed rustic road designation. If such a hearing is held, it shall be held in accordance with ss. 19.83 and 19.84, Stats., and any applicable local ordinances.

(2) Upon its final approval, the governing body of the municipality shall determine whether a jurisdictional change is desired. If so, the governing body of the municipality shall petition the county highway committee for approval of the rustic road designation and approval of the transfer of jurisdiction of the road to the county. If the county highway committee approves the jurisdictional transfer and the rustic road designation, the county highway committee shall petition the board for its approval. If no transfer of jurisdiction is desired, the governing body of the municipality shall petition directly to the board for its approval of the rustic road designation.

(3) (a) Rustic road designation of a road under county jurisdiction shall follow a procedure similar to the above, whereby initiation of the rustic road designation process shall be by county highway committee resolution, or by a petition from 6 or more resident freeholders of the county, or by a petition from a majority of the resident freeholders along the subject road. The county highway committee may hold a public hearing on the proposed rustic road designation. If such a hearing is held, it shall be held in accor-

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dance with ss. 19.83 and 19.84, Stats., and any applicable local ordinances.

(b) If a transfer of jurisdiction is desired, the governing body of the municipality assuming jurisdiction, as well as the county highway committee, shall approve the transfer and the rustic road designation.

(c) Any change in the designation of a county trunk highway, whether it be transferred to a municipality or changed to an "other road under county jurisdiction," requires the approval of the department. Upon departmental approval, the governing body of the municipality assuming the jurisdiction of the rustic road shall petition the board for approval of the rustic road designation.

(d) If no transfer of jurisdiction is desired, the county highway committee shall petition the board for approval of the rustic road designation.

(4) Before its approval, the board shall provide final review as to the subject road's qualifications for designation. In its review, the board may require photos or slides describing the rustic qualities of the road or a personal inspection by one or more members of the board.

(5) Additionally, before its approval for designation is granted, the board, in accordance with s. 83.42 (5), Stats., shall ensure that a road under joint jurisdiction of 2 or more municipalities, or a municipality and a county, or 2 or more counties, has had the approval of the governing bodies of all affected governmental units having jurisdiction over the subject road.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.06 Numbering of rustic roads. Upon approval by the board of a rustic road designation, the board shall assign a numerical identification to the rustic road that is preceded by the prefix "R." The rustic roads shall be numbered sequentially beginning with R1.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.07 Jurisdiction and authority. [s. 83.42 (7), Stats.] Upon approval of the board of rustic road designation and except as otherwise provided in these administrative rules, the county highway committee, the municipalities and counties shall have the same authority over rustic roads as they possess over other highways under their jurisdiction -- including responsibility for maintenance.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.08 General maintenance. A rustic road shall receive the level of maintenance necessary for public travel by auto, bicycle or hiking for recreational enjoyment, while still preserving the rustic qualities of the route.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.09 Road bed maintenance. (1) Rustic roads may be dirt, gravel or hard surface. Necessary improvements may be made in surface to improve safety or drainage or to reduce maintenance problems, but shall not disturb the rustic characteristics for which the road was designated. Drainage and road improvements shall be kept as narrow as possible to remain the rustic charm of the road as well as keeping the driver's speed lower. The improvements shall be kept to a minimum to avoid disturbance of vegetation or unusual scientific or cultural sites which have been designated.

(2) Where it becomes a necessity, dust treatment may be used.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.10 Cross drainage maintenance. (1) Cross drainage shall be maintained where necessary to prevent damage to the road, possible washouts and other problems which may be detrimental to proper safety.

(2) When bridge replacement is necessary, it is preferable that it be of a design and construction with a rustic appearance such as timber or stone structure.

(3) Repairs to an existing bridge of rustic character shall be made with an effort to preserve the rustic qualities of the structure.

(4) When deemed advisable, the maintaining authority may impose weight limitations on structures on a rustic road in lieu of structure replacement or repair.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.11 Vegetation maintenance. (1) Where necessary for safety or protection of the traveling public, tree branches and shrubs may be trimmed or whole trees removed. This shall be done with proper tools so as not to leave unsightly scars. Land and forest management may be practiced.

(2) Control of undesirable vegetation shall be accomplished by mowing or selective cutting. However, when herbicides are necessary, they shall be used judiciously and in a prudent manner to avoid unnecessary browning of roadside vegetation.

(3) Mowing shall be performed only as necessary for health, safety and ecological reasons with the aim of encouraging, where appropriate, the growth of prairie flora adjacent to the road.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.12 Sign maintenance. (1) The standard statewide rustic road sign and the numerical identification placard shall be erected at all important public entrance points to a rustic road sign as mutually agreed upon by the maintaining authority and the department. Beneath the standard statewide rustic road sign, affixed to the same sign post, shall be the standard placard denoting the numerical identification of the rustic road within the statewide system of rustic roads.

(2) At each terminus of the rustic road an additional standardized placard denoting the length, in miles, of the rustic road shall be affixed to the post supporting the rustic road sign and placed below both the rustic road sign and the placard denoting the numerical identification of the individual rustic road.

(3) The rustic road marking signs may be placed on existing information or highway identification sign posts but shall not be placed on any regulatory or warning sign posts.

(4) (a) The department, at its own expense, shall furnish and install the initial rustic roads marking signs needed on all officially designated rustic roads.

(b) Each year, at the department's request, the maintaining authority for a rustic road shall inventory all the rustic roads marking signs on its rustic road. The inventory shall be sent to the department and shall state the number of missing or damaged rustic roads marking signs on its rustic road and shall identify the location of those missing or damaged signs that should be replaced. After receiving this inventory, the department, at its own expense, shall furnish and install the needed replacement rustic roads marking signs.

(c) The maintaining authority for a rustic road shall furnish, install and maintain all other guide or warning signs, signals, markings or devices on its rustic road at its own expense.

(5) All informational, regulatory, warning and identification signs shall be erected and maintained as necessary, in accordance with chs. 86 and 349, Stats., and ch. Trans 200.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81; am. (3), r. and rec. (4) Register, February, 1988, No. 386, eff. 3-1-88.

Trans-RR 1.13 Winter maintenance. Normal winter maintenance practices shall be continued on any official designated rustic road.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.14 Speed limits. [ss. 346.57 and 349.11, Stats.] (1) The speed limit on all officially designated rustic roads is 45 miles per hour but may be changed by the maintaining au-

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thority. Any increase in the speed limit above 45 miles per hour requires the approval of the department.

(2) Pursuant to s. 346.57 (6), Stats., official signs giving notice of the speed limit shall be posted by the maintaining authority for the speed limit to be in effect.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.15 Land use protection. (1) Local authorities are encouraged to preserve the natural and scenic characteristics of land along rustic roads. Local zoning powers, building setback regulations, access control, sign control and other powers may be used to protect and preserve the rustic character of the road by discouraging industrial, high density residential and most commercial development and encouraging the development or the continued existence of commercial establishments compatible with a rustic road, such as antique shops, craft shops, rock shops and produce markets.

(2) Upon petition for a zoning change to the county or municipality having authority over zoning, the board shall be notified in order to appear and present testimony at the zoning hearing, if the board deems it necessary.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.16 Utility installation. (1) All utility companies shall be encouraged to bury electric power and communication lines on private easements where possible. Where it is not possible additional lines may be placed on existing poles or towers, or buried. Any utility installation shall attempt to preserve or restore the rustic quality of the route.

(2) Restoration of the rustic quality shall be required for all utility installation within the right-of-way of a rustic road.

(3) Upon approving a rustic road application, the board shall notify all utility companies providing service in the area of the rustic road as to the official rustic road designation.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.17 Advertising sign control. Municipalities shall be encouraged to adopt local zoning ordinances restricting off-premise advertising signs and which address the control

of existing signs and the erection of additional signs once a road has been designated a rustic road.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.18 Development of county rustic roads plans. Each county shall be encouraged to inventory its roads for potential candidates for inclusion in the rustic roads system and using this inventory, along with previous inventories of scenic roads, develop a countywide plan of rustic and scenic roads which is compatible with the functional classification plan in the county.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.19 Withdrawal of rustic roads designation. [s. 83.42 (4), Stats.] (1) A road may be withdrawn from the rustic roads system with approval of the board after petition of the board by the maintaining authority and upon the holding of a public hearing by the maintaining authority for such a removal. The public hearing shall be held in accordance with ss. 19.83 and 19.84, Stats., and all applicable local ordinances.

(2) The board may wish to withdraw rustic road designation for a particular road if the road no longer possesses the rustic character originally qualifying it for designation due to over-development. The board shall have the authority to remove the designation following a public hearing on the removal. The public hearing shall be held in accordance with ss. 19.83 and 19.84, Stats.

(3) The removal of rustic road designation shall cause the jurisdiction of the road to revert to the status held before original designation by the board.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.20 Identification of complementary rustic features. The maintaining authority is encouraged to identify with roadside markers any historical names, structures, places and events which complement and enhance the rustic character of the road.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

Trans-RR 1.21 State aids. [s. 83.42 (8), Stats.] State aids for each rustic road shall be determined in accordance with the local transportation aids provisions of s. 86.30, Stats.

History: Cr. Register, May, 1981, No. 305, eff. 6-1-81.

RUSTIC ROAD RESOLUTION

PETITION FROM: (Town Board/County Highway Committee Name)

PETITION DATE

Road Name

ROAD LEGAL DESCRIPTION

In an effort to preserve Wisconsin's lightly traveled scenic and historic back roads, the Wisconsin Legislature in Section 83.42, Wisconsin Statutes, created a statewide system of Rustic Roads.

The town board/county highway commission identified above, having jurisdiction over the road described, has resolved that the subject road be designated a Rustic Road.

In accordance with chapter 80, Wisconsin Statutes, a public hearing has been offered or held, regarding the designation of the subject roadway as a Rustic Road.

The subject road meets the guidelines for Rustic Roads established by the Rustic Roads Board.

The subject road is compatible with any adopted plan for potential Rustic and Scenic Roads.

Therefore, be it resolved, that the subject road having met all of the requirements for designating a Rustic Road, we the undersigned, members of the identified town board/county highway committee do hereby request approval of the Rustic Roads Board for designation of the subject road as a Rustic Road.

Respectfully Submitted,

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

RUSTIC ROAD DESCRIPTION

ROAD LEGAL DESCRIPTION

Road Length (Miles)

Average Daily Traffic (ADT)

Pavement Type

Roadway Functional Classification

Outstanding Historical, Natural or Rustic Features Along Roadway

Roadside Development Potential

Zoning Restrictions In Effect

RUSTIC ROAD DESIGNATION PETITION

PETITION TO: (Town Board/County Highway Committee Name)

Road Name

ROAD DESCRIPTION

We the undersigned, petition the above identified town board/county highway committee to take the necessary action in having the above identified road designated a Rustic Road by the Wisconsin Department of Transportation Rustic Roads Board.

PETITIONERS' SIGNATURES

ADDRESS

DATE SIGNED

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
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10. _____
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13. _____
14. _____
15. _____

WISCONSIN DEPARTMENT OF TRANSPORTATION

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New Rustic Roads offer additional scenic opportunities

January 22, 2004

Those who enjoy traveling Wisconsin's quiet, scenic backroads can now choose from 98 Rustic Roads to hike, bike or drive. Governor Jim Doyle has announced the addition of one new Rustic Road (R-98 in Burnett County) and the extension of another (R-52 in Washington County). Wisconsin's Rustic Roads network now spans some 541 miles through 53 counties.

"One of the state's oldest and most popular initiatives, the Rustic Roads program supports tourism and economic development by showcasing some of the most picturesque roadways and finest four-season scenery Wisconsin has to offer," Governor Doyle said. "At the same time, the program encourages inter-governmental partnerships since local groups must nominate prospective Rustic Roads and roads accepted into the statewide network remain under local government jurisdiction."

The state's Rustic Roads Board recently voted to add the following routes:

- R-98, Towns of Oakland and Swiss, Burnett County, eight miles. This eight-mile route begins at the junction of WIS 35 and Old 35 near Danbury, proceeds along CCC Road to Hayden Lake Road, forming a loop back to WIS 35. The route passes several lakes, features canopied trees and prairie-like fields, along with abundant wildlife including waterfowl, deer, bear and eagles.
- Extension of R-52, Washington Drive, Town of Trenton, Washington County, one mile. This one-mile route extension along Washington Drive between County Y and Paradise Drive features field stone houses from the 1800's, traditional wood barns and a variety of wildlife.

The Rustic Roads program was established in 1973, with the first road (R-1 in Taylor County) dedicated in 1975. To qualify as a Rustic Road, a route must have outstanding natural features such as rugged terrain, native vegetation, abundant wildlife, open areas or agricultural vistas. Rustic Roads range from under two miles long to 37 miles in length and have speed limits of no more than 45 miles per hour.

The Wisconsin Department of Transportation (WisDOT) and Department of Tourism jointly produce a Rustic Roads guide available by calling the tourism department at (800) 432-8747 (the booklet does not include the most recently

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added routes). Information on the Rustic Roads network is also available on the WisDOT Web site at <http://www.dot.wisconsin.gov/travel/scenic/rusticroads.htm>. The recently-added roads are expected to appear on the Web site in the near future and should be marked with official Rustic Roads signs by the end of this year.

For more information contact:

Jane Carrola, WisDOT Rustic Roads Coordinator
(608)266-0649 jane.carrola@dot.state.wi.us

Dennis Leong, WisDOT Bureau of Planning
(608)266-9910 dennis.leong@dot.state.wi.us

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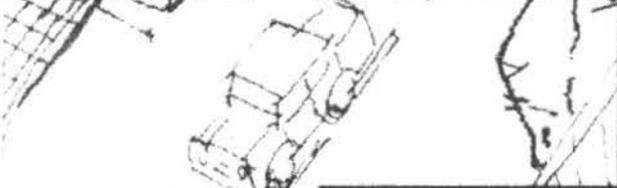
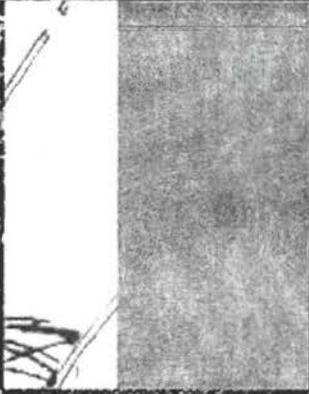
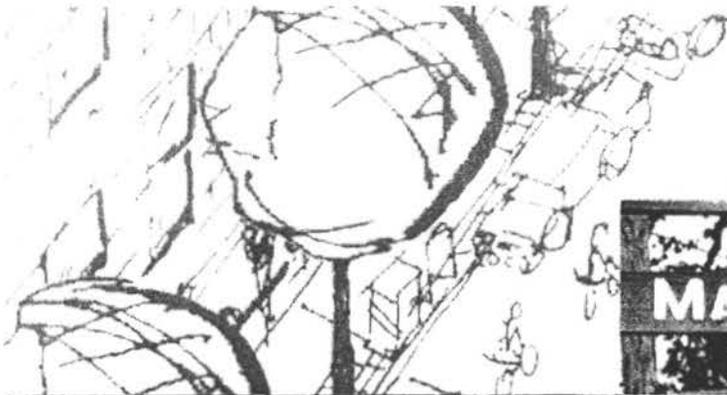
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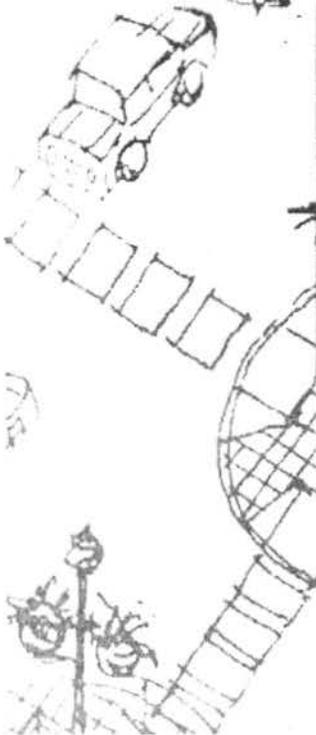
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Main Street: when a highway runs through it

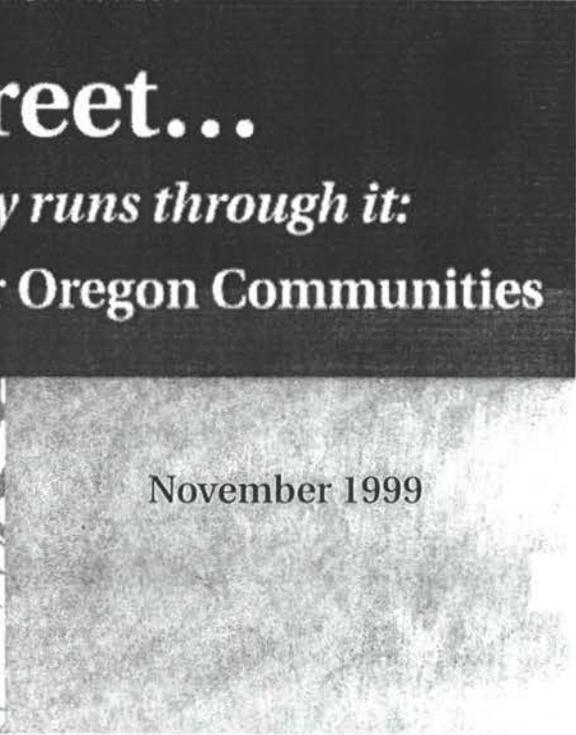
- The Table of Contents and some sections are attached.
- The entire 105 page resource is available as a PDF online at <http://www.lcd.state.or.us/tgm/pub/mainst/MSH.pdf>



Main Street...
when a highway runs through it:
A Handbook for Oregon Communities



November 1999



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Speed

Speed is one of the most talked about highway issues and most highway design is closely related to it, but it is surprisingly difficult to understand. The differences between posted speed, design speed, and running speed are hard to grasp, especially as they relate to low-speed pedestrian areas. The Basic Rule also complicates the issue.

In a nutshell, the speed of a street segment can be defined as follows:

Posted speed — The maximum speed considered prudent to drive considering land use and other factors. Some posted speeds are set by statute and others are set by the State Speed Board.

Design speed — The maximum safe speed that can be driven in free-flowing traffic and good weather. The design speed has a direct effect on the cost, safety, and capacity of the roadway.

Running speed — The average speed at which most vehicles travel in a given section of highway.

Basic Rule — The appropriate speed for the conditions.



Typical statement: “Traffic goes too fast through our downtown. How can we slow it down?”

Possible problems: Main street looks like a highway and offers little reason to slow down; design speed too high.

Potential ingredients: Various measures to calm traffic and improve appearance of streetscape.



Typical statement: “Motorists drive into town like they’re still on the open highway.”

Possible problems: Abrupt change of speed zones with inadequate transition area.

Potential ingredients: Extend traffic calming to transition area and create a gateway.



Design speed should consider how easily and safely the pedestrian can cross.

When speeds on a highway through town are higher than posted, one reason may be that the street gives few visual clues that drivers should slow down. The design of a highway that is a main street needs to reflect the change in land use, pedestrian activity, and expected motorist behavior. The scene at left is in a downtown on a state highway, although the design looks otherwise.

SPEED ZONES

State statutes specify the following designated speeds (1997 ORS 811.105):

- alleys 15 mph
- **business districts**, school zones when children are present 20 mph
- residential districts, public parks, ocean shores 25 mph
- rural highways, urban interstate highways, trucks on rural interstate highways 55 mph
- autos on rural interstates 65 mph

A **business district** is a "territory contiguous to a highway when 50 percent or more of the frontage thereon for a distance of 600 ft or more on one side, or 300 ft or more on both sides, is occupied by buildings used for business." (1997 ORS 801.170)

Posted speeds override these standards, and the **Basic Rule** overrides posted speeds. The **Basic Rule** means that you must drive the appropriate speed for the conditions. For example, ice or snow might reduce the speed to below the posted limit.

The Oregon Department of Transportation is responsible for establishing speed zones on all public roads. Cities and counties may appeal speed zoning recommendations to the **Speed Zone Review Panel**.

Posted speeds different from the statutes are usually determined by an engineering investigation which includes many factors. The **85th percentile speed**, which is the speed at or below which 85 percent of the vehicles are traveling, may be used as a benchmark but with allowances for different cultural, physical and functional factors, including the needs of pedestrians and residents.

*There is more to life than
increasing its speed.
—Mahatma Gandhi*

There are several approaches to resolving the speed issue: **slow** the traffic through physical and psychological means, **smooth** out the traffic flow, and create **transition** zones in the streetscape.

Slow down

Motorists typically drive at a speed they perceive as safe. This is partially related to the road design, especially available or perceived lane width, curves in the road, corner radii, and stopping sight distance. Reducing traffic speeds can also be aided by physical constraints on the roadway such as curb extensions and medians that make the road look narrower. On-street parking and short blocks also help hold down speed by creating "friction."

When it is not appropriate to reduce actual lane or roadway width, on freight routes for instance, a calming effect can be accomplished by creating an illusion of less space through paint on the pavement, or by adding tall trees and street furniture.

See also:

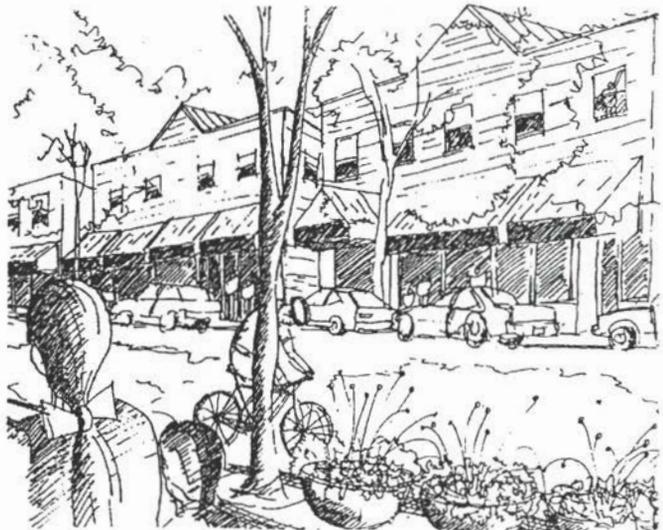
Pavement Markings

Transitions

Street Furniture

in Chapter 4

If the street is attractive, drivers have a reason to slow down.



The driver's focus at different speeds.

A low speed allows drivers to be more aware of their surroundings and to have time to react to other highway users.

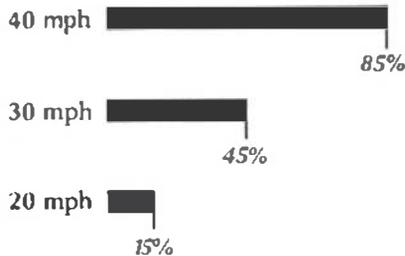
The photos show how a driver's focus changes as their speed increases. The setting is a typical downtown in a small Oregon city. Shops and on-street parking line both sides of this 2-lane couplet. The highway is built to "full standard" because of the ample right-of-way.

At the posted speed of 30 mph, many drivers have a difficult time seeing bicyclists and pedestrians, and stopping distance is nearly twice that of 20 mph.

To safely accommodate all users, this highway needs substantial design changes that tell the driver that this is not the open highway it was a few blocks before.

A good start would be wide planting strips with trees to narrow the roadway. A bike lane could be striped. Intersections could be narrowed even further with curb extensions.

When a person is struck by a motor vehicle, they have the following chances of death according to *Killing Speed and Saving Lives*, UK Department of Transportation:



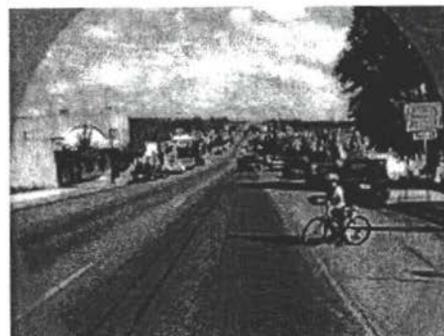
At 40 mph the driver's focus is on the roadway in the distance.



At 30 mph the driver begins to see things at the road edges in the background.



At 20 mph the foreground comes into focus.



At 15 mph the driver easily sees that this is a place where pedestrians and bicyclists are present.

Good design also includes an attractive streetscape that makes drivers want to slow down. In particular, visible outdoor cafés and other sidewalk activities beckon the motorist to enjoy the surroundings.

Smooth out

Speeding and general traffic operation can often be addressed by smoothing out the traffic flow. Slow, steady traffic conditions are safer and can handle more cars than erratic, stop-and-go conditions. There are several proven ways to smooth out traffic:

- Synchronize a series of signals at a low speed with short, fixed-length cycles.
- Shift driveway accesses so that there are fewer than one or two driveways per block; combine driveways or shift them to side streets.
- Convert 4-lane streets to 3 lanes (2 travel lanes with a center turn lane) where there are large numbers of left turns; 3 lanes can work better than 4 because turning cars can wait without blocking a through lane.
- At an intersection close to the beginning of main street, install a modern roundabout (a slow-speed intersection treatment where entering motorists yield to those already in the intersection) to compel drivers to slow down.

Transition

The boundaries of a good downtown are easy to identify. As you travel along a successful main street, the pavement width and sidewalk width, building types, and landscaping change to provide a clear transition into the downtown. This clues the motorist to slow down and expect pedestrians, cars pulling out from parking, and someplace pleasant to stop. There are several ways to reinforce the proper message:

- Add a gateway: make the entrance to the downtown look special with curbs, a landscaped median, fountain, monument marker, a welcome sign, public art, or banners announcing events.

- Add other visual cues that make the driver aware that they are entering an area of intense human activity such as planters, landscaping, ornamental lighting, flags, benches, and other street furniture. These send a clear message that people are present. Strong vertical elements near the curb line such as trees also visually narrow the street.
- Widen the sidewalks and make the highway look narrower. In smaller communities, moving from a rural highway section with shoulders and driveways to an urban section with curbs, sidewalks, and on-street parking is a strong visual cue.
- Construct a modern roundabout with an attractive center island.
- Long-term, encourage redevelopment of off-street parking to bring buildings closer to the street.
- Emphasize access management at the entrances to downtown by adding medians and combining driveways.

These features are not necessarily expensive but do require community vision and commitment. As the city grows, the main street can be expanded into the properly designed transition area.

LIABILITY

At some point in the effort to reduce traffic speeds, someone may question the potential liability of introducing traffic calming onto a highway. This has not proven to be a problem on urban streets. In 1997, the Institute of Transportation Engineers surveyed 68 agencies responsible for about 900 traffic calming projects and found that only 6 lawsuits out of 1,500 filed against these agencies involved traffic calming, and only 2 of the suits were successful.

Experience confirms that the potential benefits of traffic calming far outweigh the potential liability. Lawsuits can be minimized in the same way as other aspects of highway design:

- Clear policy.
- Good process that involves the public and documents the need.
- Appropriate design based on established goals.
- Consideration of users, especially the young, elderly, and disabled.
- Clear and consistent signing and marking.
- Proper maintenance.

If in doubt about a particular project, consult legal counsel and other agencies that have implemented similar designs.

"Be not afraid of going slowly, be afraid only of standing still."
—Chinese proverb

See also:

Transitions
in Chapter 4

On-Street Parking

On-street parking is normal, necessary, and expected in most downtown business areas, including main streets. Parking next to the sidewalk helps establish building orientation to the street, which is so important to main street vitality.

Businesses often insist that parking must be available adjacent to their building, which holds true only when the pedestrian experience is unpleasant. On main street, walking is designed to be positive, and intentionally walking several blocks is presumed to be acceptable and even pleasurable. On-street parking provides a hope of parking close to the destination which is all most people need.

Parking studies frequently reveal that downtowns do not have severe parking space deficiencies; rather, spaces are not being managed well. For example, employees may be tempted to park close to work, but those spaces would be better for short-term customer parking. Time limitation, meters, and ticketing, as well as incentives for employees to use other commute options or to park in city-owned lots are all part of a parking management program.

Where parking turnover is high, on-street parking tends to slow traffic speed because cars are frequently maneuvering in and out of spaces. The degree of traffic calming depends on how well the parking is utilized and managed. Interruptions such as driveways and fire hydrants, plus lane width also affect traffic calming.

On-street parking also buffers the sidewalk from traffic but may reduce visibility of pedestrians crossing the street; for this reason, curb extensions are recommended where there is on-street parking. Curb extensions also reinforce the calming effect of on-street parking by narrowing the appearance of the street when many of the parking spaces are empty.

While the primary purpose of a street is to transport people and goods, on-street

parking is often cited as an advantage for pedestrians, primarily as a buffer. Yet on-street parking also uses space that could be used for wider sidewalks or bike lanes.

There are many possible parking configurations, but the most common are parallel and angled. Only parallel parking is allowed on state highways, with any other type requiring a design exception from ODOT.

It is a good idea to direct large vehicles, such as motor homes and long pickups, to side streets or parking lots that can accommodate them.

Parallel Parking

Parallel parking on one side of the street requires at least 7 ft (2.1 m) of roadway width (ODOT's standard is 8 ft or 2.4 m). A wide outside travel lane of 14 ft (4.3 m) is also desirable to provide clearance for opening doors and for bicycles. Where right-of-way width permits, a bike lane can be provided between the travel and parking lanes.

Angled Parking

Angled (aka diagonal) parking is sometimes used on wide streets to create more parking spaces, but takes up about 19 ft (5.8 m) of roadway width per side. Angled parking also causes conflicts with cars and bicycles, since drivers backing out have poor visibility of oncoming vehicles and parked vehicles (especially long pickups and tall sport utility vehicles) obscure other vehicles backing out.

These factors have resulted in ODOT's position that angled parking on a new or improved highway is discouraged, and requires a Design Exception. Changing angled parking to parallel parking can provide space for bicycle lanes, medians, and wider sidewalks.

See also:

Curb Extension

For additional information on parking, read *The Parking Handbook for Small Communities* (Edwards, ITE, 1994).

Provide On-Street Parking

Use To: Orient access to the street and sidewalk.

Good News: Improves car access, slows traffic, and buffers sidewalk from travel lane; works well with curb extensions.

Bad News: Takes up width; discouraged on highways.

5-Lane Highway

Portions of some state highways have been built or widened to 5 lanes, mainly with the goal of accommodating large traffic volumes while permitting direct business access. This example of a 5-lane highway is located on a highway of statewide importance through a mid-sized city of around 40,000 people. The highway carries an average of 30,000 trips per day with over 5% large freight trucks. The posted speed is 35 mph along the 6 blocks of downtown main street. The right-of-way is 80 ft. There is no on-street parking. Sidewalks are 6 ft wide and curb-tight. The center turn lane was 16 ft wide, plus 2 travel lanes in each direction.

The uses along the highway are almost all commercial, with parking out front. Each business has its own access, some of which are wider than 40 ft. Several businesses are car-oriented (a couple of fast food drive-through restaurants and a gas station/convenience store), but the oldest

part of downtown has a post office and a library on opposite sides of the street. There are no traffic signals in the town.

There have been a significantly higher than average number of serious collisions along the 5-lane section over the last 5 years, and a pedestrian was killed two years ago. A shopping mall recently opened at one end of town, and the downtown has seen a decline in business since then.

A Transportation System Plan (TSP) was completed but the community did not support it, so it has not been adopted. However, a corridor plan has been completed and adopted that includes this section of highway.

The problems?

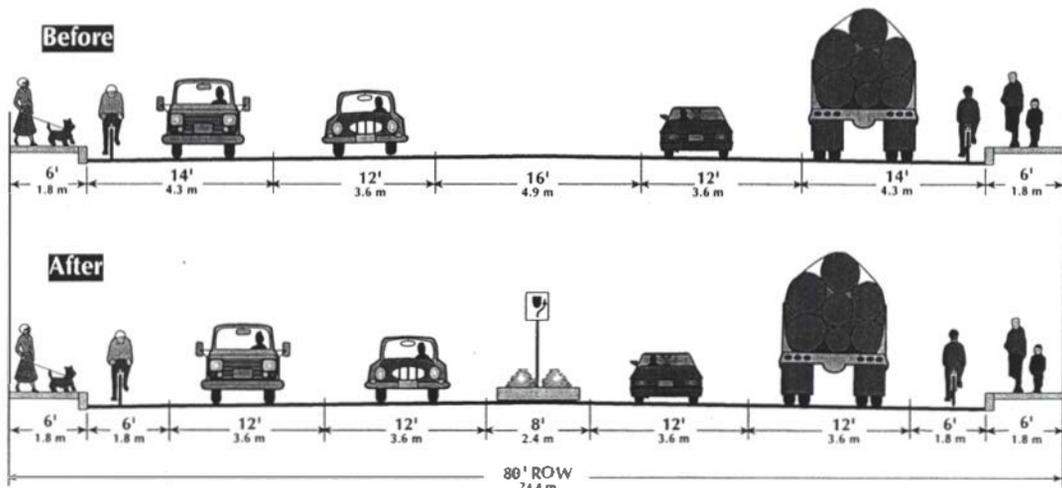
The central concern of this community was safety. Many accidents appeared to be associated with vehicles turning left in and out of driveways. The local police said that many motorists use the center turn lane for passing. It also

appeared that left turns across the two lanes of traffic generated some of the collisions. Speeding was apparently not a serious problem. From a speed study, the average motorist did not exceed the 35 mph speed limit.

The community was also worried about pedestrian safety; particularly where pedestrians were crossing from the post office to the library. Although there was a pedestrian warning sign and a marked crosswalk, motorists rarely stopped, and there was always uncertainty about whether motorists in the adjacent lane would also stop. In fact, this is how the pedestrian was killed two years ago.

The Ingredients

Two alternatives to solve the safety concern were identified in the corridor plan and discussed by ODOT and the community. The first of these was to restripe the street as 3 lanes, add a bike lane, and install on-street parking and



add bulbouts at intersections. This would eliminate some of the collisions caused by the left turns across two lanes. Three lanes would make it easier for pedestrians to cross, since the crossing width would be reduced. It would also eliminate the hazard of the motorist in the second lane failing to stop for pedestrians. However, because of the high volumes on this important freight and commuting route, there was concern that eliminating two lanes would result in an unacceptable loss of capacity.

Instead, the community decided to construct a center median through the most critical area, in terms of collisions and pedestrian crossings—around 4 blocks. The median provided access management to limit left turns and a pedestrian refuge. In addition, the median only needed to be 6 ft wide, so the remaining roadway

width could be redistributed to create bike lanes. As well as providing for bicycles, the bike lanes provided some buffer for pedestrians on the fairly narrow, curb-tight sidewalks.

The transition areas where the median and bike lanes began and ended occurred at intersections where the change in lane configuration could be accommodated. In the future, the adjacent highway segments may be restriped for bike lanes instead of the wide outside lane.

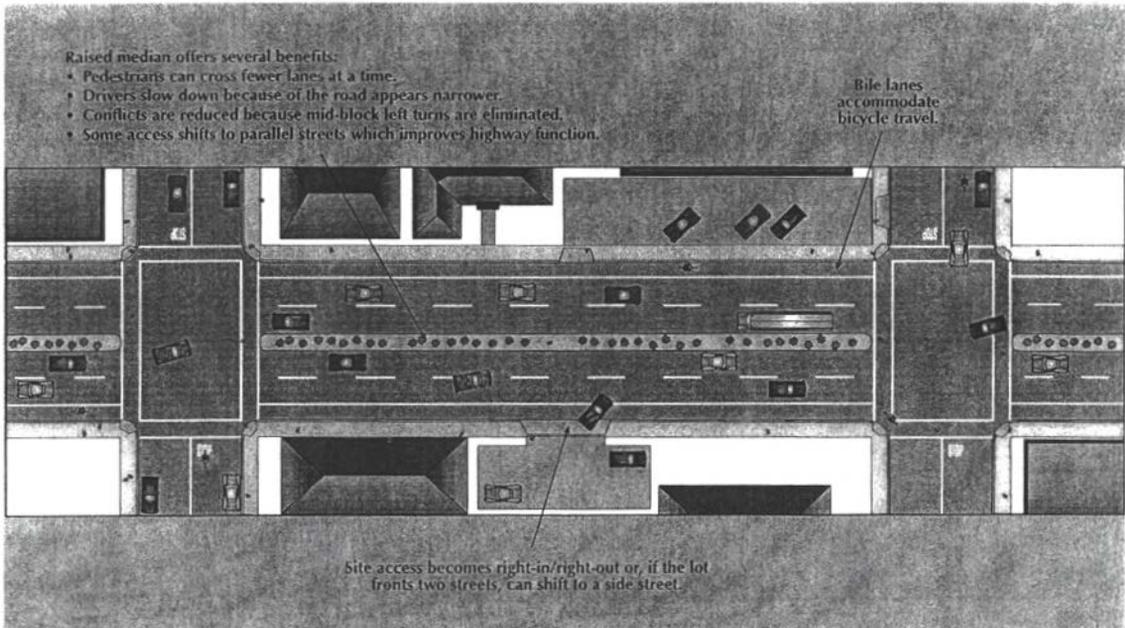
The discussions about the median generated new community interest in creating a long-term downtown plan. A number of merchants felt that widening sidewalks, adding landscaping and on-street parking on the side streets, and encouraging infill to bring buildings closer to the property line would help to bring the downtown back to life.

Paying for It

There was a measurable safety concern in this community, which ODOT had been aware of for several years. The median was identified as a potential solution in the highway corridor plan. The project was placed on the STIP and completed by ODOT the following year. The community asked for landscaping on the median; ODOT agreed to include low-water using native shrubs. The community committed to maintaining the landscaping.

Since the median was constructed, the collision rate appears to have been reduced, and pedestrians report that crossing the highway is somewhat easier.

The community is discussing obtaining a TCM grant for the long-term downtown plan and updating the TSP. ↩



S-lane highway with median and bike lanes.

Appendix

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Glossary

AASHTO: American Association of State Highway and Transportation Officials. See also: Green Book.

Access Management: Measures regulating access to the highway from streets and driveways. Main streets generally feature short blocks with many street connections and few driveways, since most parking is on-street. Refer to the Oregon Highway Plan for access standards. See also: Deviation.

Area Commission on Transportation (ACT): A body chartered by the Oregon Transportation Commission (OTC) and composed of local transportation representatives, elected officials, and business representations of 2–4 counties. ACTs propose and comment on policy set by the OTC, propose programs and projects, and provide citizens and officials with a link to the OTC.

Americans with Disabilities Act (ADA): Civil rights legislation passed in 1990. ADA influences street design as described in the ADA Accessibility Guidelines (ADAAG). Most relevant aspects of ADA are discussed in the Oregon Bicycle and Pedestrian Plan.

Alignment: Geometric arrangement of the highway including width, slope, curvature, etc.

APWA: American Public Works Association.

Arterial: A road designated to carry traffic through an area rather than to local destinations.

Average Daily Traffic (ADT): The measurement of the average number of vehicles passing a certain point each day, usually given as a total for both directions. Traffic during the peak hour is normally about one-tenth of the ADT.

Balanced Use: The combination of land uses within an area, such as a downtown, such that residents do not need to leave the area on a daily basis.

Basic Rule: A state statute (ORS 811.100) that requires vehicles to be driven at speeds “reasonable and prudent” for the conditions (traffic, highway surface and width, intersection hazards, weather, visibility, etc.).

BID: Business Improvement District.

Bike Lane: A portion of a roadway which has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists.

Bikeway: The appropriate design treatment for bicyclists, based primarily on motor vehicle traffic volumes and speeds. Main street bikeway types include the shared roadway, wide lane, shoulder bikeway, and bike lane.

Capacity: The number of vehicles that can travel past a given point on a sustained basis. Vehicle capacity responds to 3 factors: the number of travel lanes, the degree of connectivity, and generated traffic. In urban conditions, lane capacity ranges from 600 to 900 vehicles per hour.

Center Turn Lane: See: Continuous Two-Way Left-Turn Lane.

Central Business District (CBD): A traditional downtown area usually characterized by established businesses fronting the street, a concentration of public buildings, sidewalks, slow traffic speeds, on-street parking, and a compact grid street system. Main street usually runs through the CBD.

Channelization: The separation of vehicle and pedestrian movements at an intersection into defined paths through the use of islands.

Collector: A street designated to carry traffic between local streets and arterials, or from local street to local street.

Community: A sustainable human habitat which is complete and compact. The smallest community is a neighborhood.

Continuous Two-Way Left-Turn Lane (CTWLTL): A traversable median that is designed to accommodate left-turn egress movements from opposite directions. Aka center turn lane and two-way left-turn lane (TWLTL).

Corner Radius: See: Intersection Curb Radius.

Corridor Plan: A transportation plan for an entire length of highway which may include many different classifications. Corridor plans are coordinated with the cities and other jurisdictions through which the highway passes.

Couplet: Two one-way streets that handle traffic in the opposite directions. Couplets are typically created by converting existing two-way streets

Glossary (cont'd)

Cross-Section: Diagrammatic presentation of a highway profile at right angles to the centerline at a given location.

Crosswalk: Portion of a roadway designated for pedestrian crossing, marked or unmarked. Unmarked crosswalks are the natural extension of the shoulder, curb line, or sidewalk.

Deviation: A departure from an access management standard. See: Access Management.

Department of Land Conservation and Development (DLCD): State agency that assists cities and counties in applying Oregon's land use laws, and aids in assuring compliance with Oregon's Statewide goals and guidelines.

Design Exception: A deviation from the Highway Design Manual standards that must be approved by the Roadway Manager.

EID: Economic Improvement District.

Enclosure: One of the physical attributes of streets and open spaces that contributes to a sense of place. Enclosure is adjusted primarily by building setback and height, and by trees. See also: Vertical Plane.

Expressway: A highway that provides for safe and efficient high speed and high volume traffic with limited access. A main street is never an expressway.

Federal Highway Administration (FHWA): Federal agency which oversees and funds highway-related activities that affect the national interest.

Flexibility in Highway Design: A 1997 publication by AASHTO and the FHWA to accompany the Green Book. It shows engineers and managers how sensitivity to local needs can result in better projects.

Frontage Road: A road designated and designed to serve local traffic parallel and adjacent to a highway.

Gateway: An highly varied urban element which marks the entrance of a district. Gateways are useful for orientation within the city. See also: Transition Area.

Grade: A measure of the steepness of a roadway, bikeway, or walkway, expressed in a ratio of vertical rise per horizontal distance, usually in percent; e.g., a 5% grade equals 5 m of rise over a 100 m horizontal distance.

Grade Separation: The vertical separation of conflicting travelways with a structure, such as a pedestrian bridge over the highway.

Green Book: AASHTO's "A Policy on Geometric Design of Highways and Streets" which provides guidelines (not standards) for roadway design. The Green Book emphasizes joint use of transportation corridors by pedestrians, cyclists, and public transit vehicles, and encourages flexible designs tailored to particular situations. In Oregon, the Green Book is modified by the Highway Design Manual. See also: Flexibility in Highway Design.

Grid Pattern: A web of intersecting streets, which is rectilinear in its alignment and orthogonal at its intersections. See: Street Network.

Highway: A general term denoting a public way for purposes of travel, including the entire area within the right-of-way. See sidebar on next page for specific highway classifications used in Oregon.

Human Scale: Site and building design elements that are dimensionally less than those intended to accommodate automobile traffic, flow and buffering.

Intersection Curb Radius: The curved edge of a thoroughfare at an intersection, measured at the edge of the travel lanes (excluding the parking and bike lanes). Aka corner radius and curb return radius.

Land Conservation and Development Commission (LCDC): A group of citizen volunteers appointed by the Governor to direct the Department of Land Conservation and Development.

Land Use: The type of activity that the land is used for. On a main street, common land uses are commercial, office, residential, light industrial, and public (library, city hall, etc.).

Level of Service (LOS): The condition of traffic flow or delay expressed as a range from LOS "A" which represents unimpeded flow to LOS "F" which represents severe congestion. LOS was replaced by "mobility" in the 1999 Oregon Highway Plan.

Local Street: A street designated to provide access to and from local residences or businesses.

Median: The portion of the roadway which separates opposing traffic streams.

Mobility: In planning terms, mobility is the ordinary movement of the population by any means, including by direct travel or by means which reduce the need to travel such as proximity of destinations and teleworking. In highway terms, mobility is defined as the movement of vehicles.

Mobility Standard: ODOT has established performance goals for different highway classifications to aid in planning, design, and management. Motor vehicle mobility is determined by volume-to-capacity ratio. Refer to the Oregon Highway Plan for mobility standards. See: Volume-to-Capacity Ratio.

Mode (or Modal): A means of moving people or goods. Modes such as rail, transit, carpooling, walking, and bicycling that provide transportation alternatives to single-occupancy automobiles are sometimes called "alternative modes."

Modernization: Highway projects that accommodate existing traffic or projected traffic growth by adding capacity. See: Preservation.

Glossary (cont'd)

MUTCD: Manual on Uniform Traffic Control Devices for Streets and Highways published by the Federal Highway Administration, 1988; a national standard for the design, application and placement of traffic control devices including traffic signals, signs, and pavement markings. Discussion of pedestrian needs is limited.

National Highway System (NHS): A system of statewide and interstate highways and intermodal connectors meeting federal criteria (approximately 155,000 miles total), designated by Congress in the National Highway System Designation Act of 1995.

National Register of Historic Places (NRHP): See: SHPO.

Oregon Administrative Rule (OAR): A rule written by a government agency intended to clarify the intent of an adopted law.

Oregon Bicycle and Pedestrian Plan: As adopted June 14, 1995, establishes bicycle and pedestrian policies and implementation strategies for ODOT, presents detailed design, maintenance and safety information, and provides facility design standards. The Bicycle and Pedestrian Plan covers many main street issues such as speed reduction, lane widths, medians, crossings, and intersections. The plan stresses good roadway design that takes into account the needs of all users.

Oregon Department of Transportation (ODOT): The agency entrusted with moving people and products by all modes to enhance the state's economy and livability.

Oregon Highway Design Manual (HDM): In draft as of October 1999; final Manual is expected to be published in early 2000. The Manual will assist designers in selecting the appropriate standards for a highway project. In particular, it expands the discussion of urban highway design to include traditional downtowns and central business districts. The intent within these areas is to provide a pedestrian, bicycle, and transit friendly environment.

Oregon Highway Plan (OHP): As adopted March 18, 1999, establishes policies and implementation strategies for Oregon highways, including those that are also main streets. The highway plan strikes a balance between local accessibility and through movement of people and goods. It establishes highway classifications as a tool to sort out investment priorities for highway projects. Designations for downtown commercial areas stress pedestrian access. Segment classifications are set by ODOT in collaboration with the affected cities and counties. See also: Special Transportation Area.

Oregon Revised Statute (ORS): A law that governs the state of Oregon, as proposed by the legislature and signed by the Governor.

Oregon Highway Classifications

(**could be a main street*)

Categories

- Interstate: Links major cities and other states.
- *Statewide: Links major destinations not on Interstate.
- *Regional: Links regional centers.
- *District: Links county and city areas.
- *Local Interest: Generally local arterials with little through traffic.

Sub-Categories

- Freeway: High-speed, high-volume, controlled access.
- Expressway: High-speed, high-volume, limited access.
- *Urban Arterial: High-volume urban street; many potential land uses; further subdivided into Urban Fringe/Suburban, Developed, and Traditional Downtown/Central Business District.

Land Use Designations

- *Special Transportation Area: Traditional downtown or central business district; low-speed, on-street parking, many street connections, and few driveways; often pedestrian oriented.
- Commercial Center: Large commercial, mixed-use development (400,000+ ft²) with convenient internal circulation including provisions for pedestrians, bicyclists and transit, where available. Adjacent to and linked to the highway by a road or driveway.
- Urban Business Area: Highway segments where vehicular accessibility is important to continued economic vitality. Accommodates automobile access. Requires plans to improve pedestrian movement, cluster new buildings in centers or nodes, and improve movement between, across, and within urban business areas.

Other Designations

- *Freight System: Long-haul truck movement a priority; has higher mobility standard.
- *Lifeline Route: Emergency route maintained for potential mass movement.
- *Scenic Byway: Exceptional scenic value that may affect design.

Oregon Transportation Plan (OTP): As adopted September 15, 1992, the OTP defines transportation goals, policies and actions for the next 40 years, and identifies a coordinated multimodal transportation system to be developed over 20 years. It gives increased emphasis to public transit, intercity bus service, railroads, bicycles and walking, and supports the development of compact, walkable communities. The OTP envisions downtown cores that are healthy central hubs for commerce within an urban region.

Parking Lane: The recommended width for parallel parking lanes along a highway is 8 ft (2.4 m), with 7 ft (2.1 m) as an exception in constrained right-of-ways.

Pavement Markings: Painted or applied lines or legends placed on a roadway surface for regulating, guiding, or warning traffic.

Glossary (cont'd)

Pavement Width: The width of vehicular pavement of a street, including moving and parking lanes but excluding planters and sidewalks. See also: Roadway.

Pavement: The impervious surface dedicated to the circulation and parking of vehicles. Sound environmental practice endeavors to minimize paved area which is considered detrimental to the watershed and increases the cost of drainage.

Peak Hour: Hour of the day with the most traffic, usually during the evening commute time but sometimes including the morning commute time or early afternoon.

Pedestrian: A person on foot, in a wheelchair, or walking a bicycle.

Pedestrian Friendly: Design qualities that make walking attractive, including places people want to go and good facilities on which to get there.

Pedestrian Scale: See Human Scale.

Planting Strip: That section of the sidewalk area which accommodates street trees and scrubs.

Preservation: Projects that rebuild or extend the service life of highways. Preservation projects add useful life to the highway without increasing capacity. See: Modernization.

Prospectus: An internal ODOT tool that defines a project in its planning stage. The prospectus describes project limits, costs and funding, environmental issues, and approvals.

Quality of Life (QOL): A measure of human well-being related to personal choice, including availability of leisure time, discretionary income, and travel options.

Raised Median: A nontraversable median where curbs are used to elevate the surface of the median above the surface of the adjacent traffic face. Pedestrians may normally cross the median but vehicles may not. See: Median.

Refuge Island: A nontraversable section of median or channelization device on which pedestrians can take refuge while crossing the highway.

Right-of-Way (ROW): The composite public area dedicated exclusively to circulation—both physical and social—including the roadway and pedestrian area.

Roadway: The paved portion of the street which is primarily occupied by vehicles, including the travel lanes and parking lanes. The roadway may also include a median and refuge islands.

Roadway Manager: The ODOT person responsible for making exceptions to the design standards.

Roundabout: An intersection design where traffic circulates around a central island rather than proceeding straight through and which has special features to reduce conflicts inherent in conventional intersections.

Secondary Route: A parallel road to main street suitable as an alternate route for through traffic, especially trucks.

Sense of Place: A highly desirable but elusive quality of a neighborhood or city, often recognized only when it is lost. An effective sense of place is created by many interdependent elements, such as: the setting, buildings, streets, meeting places, connections between important places, activities, and the presence of people.

Shared Roadway: A type of bikeway where bicyclists and motor vehicles share a travel lane.

Shoulder: The portion of a highway that is contiguous to the travel lanes provided for pedestrians (when there is no sidewalk), bicyclists, emergency use by vehicles, and for lateral support of the base and surface.

Shy Distance: The lateral (side) clearance of a walkway or vehicle travel lane as measured from the outside edge of the walkway or lane to the nearest vertical obstacle such as a building, fence, or pole.

Sidewalk: A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

Sidewalk Area: That portion of a street right-of-way which is dedicated to uses other than moving and parking vehicles. It includes primarily the sidewalks, plantings, and street furniture.

Sight Distance: The distance a person can see along an unobstructed line of sight.

Slip Lane: A wide-radius, right-turn channel to facilitate high volumes of turning vehicles. See: Channelization.

Small-Scale Urban Highway Pedestrian Improvement (SUPI): An ODOT program administered by the Oregon Bicycle and Pedestrian Program that helps cities and counties complete small pedestrian projects on urban highways.

Smart Development: Development that implements the state's land use and transportation goals in urban areas. It is "smart" because it: uses land efficiently; facilitates a range of transportation choices; fully utilizes existing public facilities; combines residential, commercial, and community service activities within a neighborhood to create a lively and safe environment; is designed to the scale and comfort of people; and uses locally-appropriate design to reinforce community identity and heritage.

Special Transportation Area (STA): A highway classification identified in a corridor plan or local transportation system plan. An STA is characterized by a downtown, business district, or community center on an Urban Arterial (not Expressway) with speeds no more than 25 mph (40 km/h), frequent street connections, and on-street parking.

Glossary (cont'd)

In an STA, local access and pedestrian travel is more important than through traffic movement. The STA designation allows changes from the usual highway standards within the downtown, such as shorter block lengths and higher levels of local congestion. This is balanced by strict access management on the highway outside of the downtown. STAs, as well as the other land use area designations, are applied to a specific area through the adoption of a Transportation System Plan or Corridor Plan. (Through the ODOT Exception Process, some STA design elements may be applied to an appropriate highway segment when not a designated STA.) See also: Oregon Highway Plan.

State Historic Preservation Office (SHPO): Agency primarily concerned with the preservation of historic structures and districts, such as property on, or eligible for, the National Register of Historic Places. Any use of federal highway funds in a main street project requires review by SHPO to determine if the project could have an adverse effect on historic resources.

State Transportation Improvement Program (STIP): ODOT's adopted list of major projects covering 4 years.

Street: A place of movement and activity, defined by the continuous line of buildings along its edges which have a particular scale, dimension, form, and detail unique to each street.

Street Network: A web of intersecting streets, which may be diagonal, curvilinear, or irregular in its alignment and variable at its intersections. See: Grid Pattern.

Streetscape: The combination of planters, sidewalks, street trees, and street lights.

Terminal Vista: A building, sculpture, hill, or other large object at the end of a street segment. A terminal vista tends to slow the motorist and gives the pedestrian a landmark with which to orient themselves.

TIF: Tax Increment Financing.

Threshold Gap: The distance from a pedestrian to an oncoming motor vehicle sufficient for 50% of pedestrians to choose to cross a street.

Traffic Calming: A set of techniques which serve to reduce the speed and aggressiveness of traffic. Such strategies include lane narrowing, on-street parking, sidewalk extensions into the roadway, surface variations, and visual clues on a vertical plane. Although traffic calming is often a retrofit to deal with identified problems, it is also an important aspect of new construction to prevent problems from occurring. See: Traffic Priority Device.

Traffic Control Device: Signs, signals or other fixtures, whether permanent or temporary, placed on or adjacent to a travelway by authority of a public body having jurisdiction to regulate, warn, or guide traffic.

Traffic Management: The mitigation of traffic congestion achieved by methods other than proximity of destinations, road construction, or the provision of transit. The principal methods are: transit, car-pooling, staggering of work hours, and variable rate road tolls.

Traffic Priority Device: The various techniques which assign priority to the moving vehicle at the expense of the pedestrian; having the opposite effect of traffic calming.

Traffic Volume: The number of vehicles that pass a given point for a given length of time (hour, day, year). See: Average Daily Traffic and Capacity.

Transit: The four general types of transit systems are heavy rail, light rail, buses, and trolleys. In addition, there are hybrids such as taxi fleets and rental cars.

Transit Stop: The waiting area for bus or rail. The experience of waiting is considered to be as important as any other consideration in encouraging the use of transit by those who have the choice.

Transition Area: A length of street where an obvious change occurs such as street width, building types, speed limit, or landscaping. A well-defined transition area before main street may be necessary to help slow traffic. See also: Gateway.

Transportation Demand Management (TDM): Actions which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include but are not limited to the use of alternative modes, ride-sharing and vanpool programs, and trip-reduction ordinances.

Transportation Growth Management (TGM): A program administered by the Department of Land Conservation and Development to assist cities and counties in dealing with transportation issues.

Transportation Needs: Estimates of the movement of people and goods consistent with an acknowledged comprehensive plan and state requirements such as the TPR. Needs are typically based on projections of future travel demand resulting from a continuation of current trends as modified by policy objectives (such as avoiding principal reliance on any one mode of transportation).

Transportation Planning Rule (TRP): Oregon Administrative Rule 660-12 that establishes the relationship between transportation and land use planning. The TRP stresses that a community's land use plan amendments and zone changes that may affect a transportation facility should be consistent with the adopted function, capacity, and performance measures for the affected facility. Some of the TPR requirements that applicable to main streets include bicycle parking, bikeways and sidewalks, and safe and convenient pedestrian and bicycle access from the sidewalk,

Glossary (cont'd)

transit stops, adjacent development, and residential and neighborhood activity centers within one-half mile.

Transportation System Plan (TSP): A plan for one or more transportation facilities that are planned, developed, operated, and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas.

Travel Lane (aka Driving Lane): Area of roadway dedicated to vehicle movement. The recommended width for highways is 12 ft (3.6 m), with 11 or 10 ft (3.3 or 3.0 m) permitted in constrained right-of-ways under certain conditions.

Urban Arterial: A major street in an urban area. See: Arterial.

Utilities: General term for urban infrastructure, excluding transportation. Utilities include electricity, telephone, fiber-optic cable, gas, water, and sewer. While streets run within public right-of-ways, utilities run within easements which may overlap private lots.

Vehicle Miles Traveled (VMT): The average length of a vehicular trip. VMT is one measure of the effectiveness of balanced use as a measure of traffic mitigation.

Vertical Plane: The vertical aspect of a building or streetscape, as opposed to the horizontal plane, which is the plan view.

Volume-to-Capacity Ratio (V/C Ratio): A measure of roadway congestion, calculated by dividing the number of vehicles passing through a section of highway during the peak hour by the capacity of the section. See: Capacity and Congestion.

Walking Distance: The distance which may be covered by a five-minute walk at an easy pace. This is the distance that most people will walk rather than drive, providing the environment is pedestrian-friendly.

Vehicle: Any device in, upon, or by which any person or property is or may be transported or drawn upon a highway, including vehicles that are self-propelled or powered by any means.

Walkway: A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths, and paved shoulders.

Wide Outside Lane: A wider than normal curbside travel lane that is provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder bike-way; normally 14 ft (4.2 m). ↶

Resources

Livable Oregon

621 SW Morrison, Suite 1300
Portland, Oregon 97205
503-222-2182
<http://www.livable.org>

Oregon Department of Forestry

2600 State Street
Salem Oregon 97310
503-945-7213
<http://www.odf.state.or.us>

Oregon Department of Transportation

Transportation Bldg.
355 Capitol St. NE
Salem, Oregon 97301-3871
888-275-6368
<http://www.odot.state.or.us>

Oregon Downtown Development Association

161 High Street, SE #236 or PO Box 2912
Salem, Oregon 97308
503-587-0574
<http://www.odda.org>
e-mail: info@odda.org

Oregon Economic and Community Development Department

775 Summer St., NE
Salem, Oregon 97310
503-986-0123
<http://170.104.101.34/DEPT.HTM>

Oregon Parks and Recreation Department State Historic Preservation Office

1115 Commercial St. NE
Salem, Oregon 97310
503-378-4168
<http://arcweb.sos.state.or.us/SHPO/shpoabout.html>

Transportation Growth Management Program

635 Capitol St. NE Suite 200
Salem, Oregon 97301
503-373-0050
<http://www.lcd.state.or.us/issues/tgmweb>

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A HIGHWAY RUNS THROUGH IT:

Conserving Scenic Corridors in Florida

Daniel N. Sagastizabal
College of Law
Gasti@ufl.edu

Conservation Clinic¹
Thomas T. Ankersen, Director
Center for Governmental Responsibility
University of Florida Levin College of Law
230 Bruton-Geer
Gainesville, FL 32611
(352) 392-2237

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¹ The University of Florida Conservation Clinic is an interdisciplinary legal clinic housed in the Center for Governmental Responsibility at the University of Florida Levin College of Law. Under the supervision of its Director, the Clinic provides value-added, applied educational opportunities to graduate and law students at the University of Florida by offering its services to governmental and non-governmental organizations and individuals pursuing conservation objectives.

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I. Introduction

Scenic corridors may encompass not just roadway pavement, right-of-way areas and adjacent roadside, but also the many elements that make up scenic vistas. Features found within scenic corridors may include lakes, streams, wetlands; forest and agricultural lands; desert or mountain views; urban and rural scenes; and cultural and historic resources. A scenic corridor may extend for miles and miles in horizon vistas depending on a corridor's terrain. Similarly, the width of a scenic corridor may include a closed canopy road or a narrow urban street.

Unfortunately, unplanned growth, uncontrolled signage, poorly designed development and incompatible land uses can easily compromise the aesthetic quality of scenic corridors. Federal, state and local scenic corridor protection programs have emerged to encourage creative roadway planning. Such planning can yield direct and indirect benefits for communities, landowners and roadway users. Direct benefits may include increases in tourism revenue due to identification on state, federal and auto club maps; increases in business, tax revenue, and jobs from tourist dollars; access to federal and state funding for planning and managing the corridor; increases in property values, improved maintenance and higher budgets for roads; and access to money and other assistance from state and national offices of economic development and tourism. Indirect benefit includes the official recognition that what the community has is special. This official acknowledgment carries with it a sense of community pride.

This paper addresses scenic corridor protection techniques, both regulatory and incentive-based. Section II discusses the roots of the scenic highway movement in the United States. Section III then provides an overview of Federal scenic byway programs. Next, Section IV describes state programs with an emphasis on Florida's scenic highway program. Finally, Section V of this paper discusses local government and community-based scenic corridor protection strategies including tools and techniques for implementing scenic corridor programs.

II. Roots of the Scenic Highway Movement

The scenic highway movement can trace its roots back to the later half of the 19th century. Frederick Law Olmstead created and developed avenues and boulevards that meandered through urban parks.² Over time, these thoroughfares increased in numbers as automobile transportation became affordable for the American working class.

Some of the first scenic highways included suburban parkways built in Boston, Massachusetts and Westchester County, New York in the early decades of the 20th century.³ For instance, the Bronx River Parkway, which began construction in 1913, was designed to provide

² National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, Information Series No. 68 (1992) (attached as Appendix A).

³ *See id.*, at 1.

a pleasurable commuting experience by beautifying a blighted urban corridor.⁴ This scenic corridor provides scenic vistas and a limited number of access points for simple, comfortable travel along the Bronx River.

III. Federal Scenic Byway Programs

A. National Park Service

In the 1930's the National Park Service (NPS) began constructing parkways using the urban parkways around New York City as models. These parkways now constitute a special type of unit of the NPS.⁵ They are defined as highways "for recreational passenger car traffic with a wide right-of-way that insulates the roadway from abutting private property, minimizes intersections and access points, and protects natural scenic values."⁶ These early parkways included the Blue Ridge Parkway in Virginia and North Carolina and the Natchez Trace Parkway in Tennessee and Mississippi.⁷ Today, the NPS manages nine parkways, four of which are found in or near Washington, D.C. Moreover, numerous national parks contain roads considered scenic corridors including Skyline Drive in Shenandoah National Park, Virginia, and Going-to-the-Sun Road in Glacier National Park, Montana.⁸

B. U.S. Forest Service and Bureau of Land Management

The U.S. Forest Service and the Bureau of Land Management also have scenic highway systems.⁹ The U.S. Forest Service (USFS) began its program in 1988 by designating roads within national forest boundaries in 30 states.¹⁰ USFS scenic highways are mostly protected by federal ownership of the their land and in a few situations by scenic easements.¹¹ However, many USFS scenic highways pass through both public and private land. Like the USFS, the Bureau of Land Management (BLM) has promoted a network of scenic roads called "Back Country Byways" in the western states. These scenic roads are intended to expose the beauty of the west that is not

⁴ See *id.*

⁵ U.S. Department of Transportation—Federal Highway Administration, *Protection Techniques for Scenic Byways: Four Case Studies* (September 1990) (attached as Appendix B).

⁶ See *id.*, at 16.

⁷ See National Trust for historic Preservation, *The Protection of America's Scenic Byways*, supra note 2, at 2.

⁸ See *id.*

⁹ U.S. Department of Transportation—Federal Highway Administration, *Community Guide to Planning & Managing a Scenic Byway* (attached as Appendix C).

¹⁰ See National Trust for historic Preservation, *The Protection of America's Scenic Byways*, supra note 2, at 2.

¹¹ See U.S. Department of Transportation, *Protection Techniques for Scenic Byways: Four Case Studies*, supra note 5, at 16.

easily accessible by major roads including prairies, deserts, canyons, historic towns, mountaintops and wildlife.¹² Back Country Byways are classified into four classifications, depending on the terrain and travel conditions.¹³ Most require trucks or four-wheel drive vehicles for reasonable access. Thus, these byways may be impassable during certain times of the year.

C. National Scenic Highways Program

The federal government has been particularly interested in scenic byways for several decades. Early interest was formalized in the 1960s with the creation of the Outdoor Recreation Resources Review Commission.¹⁴ In 1965, the Highway Beautification Act was passed, regulating signage and junkyards along federally aided highways.¹⁵ Several federal studies of scenic byways were also taken from the 1960s through the 1980s. However, legislation to create a national system of scenic highways was not drafted until 1988 with the help of the Coalition for Scenic beauty (now known as "Scenic America").¹⁶

In 1989, the Scenic Byways Protection Act was introduced in the House of Representatives and the Senate, with support from engineering, environmental and economic interests.¹⁷ Even though this particular bill was not approved, the 1990 appropriation legislation for the Department of Transportation contained provisions for implementing a study to recommend guidelines for conducting a national scenic byways program. The study assessed existing scenic byways, safety issues, economic impacts, tourism, and protection techniques of scenic byways. The study generated further support for scenic byways, and in 1991 several more bills were introduced in Congress.¹⁸

¹²

See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, supra note 2, at 2.

¹³ See U.S. Department of Transportation, *Protection Techniques for Scenic Byways: Four Case Studies*, supra note 5, at 17.

¹⁴ See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, supra note 2, at 5.

¹⁵ See *id.* See also *infra* § V(G) Sign Control.

¹⁶ See *id.* See also www.scenic.org

¹⁷ See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, supra note 2, at 5.

¹⁸ See *id.*

Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991.¹⁹ The Act provided funding, over six-years, for the construction and maintenance of highways, bridges and mass transportation facilities.²⁰ The Act contains strong provisions for state and local planning and a concern for assessing the impact of transportation projects on communities and integrating transportation and community goals.

The foundations of the national scenic byways program are established in Section 1047 of ISTEA.²¹ First, the Act creates a 17-member Scenic Byways Advisory Committee with the purpose of assisting the Secretary of Transportation in developing a national scenic highway program.²² The Committee is composed of six members from the federal government, three members representing travel and tourism, two members representing transportation officials, two members representing truck and auto users and four members representing the preservation and conservation communities.²³ This eclectic membership reflects the broad spectrum of interests groups that are concerned about the scenic byways program and influence scenic byway legislation.

ISTEA creates a two-tier system of scenic byways: a system of designated roads that meet national criteria and a system of five-star byways, the so-called all-American roads.²⁴ The "minimum criteria" for use in designating highways as scenic byways and all-American roads requires the committee to address scenic beauty and historic significance of highway corridors, operation and management standards, signage standards, safety standards, landscaping and traveler's facilities, and procedures for designating scenic byways.²⁵

The National Scenic Byways Program is envisioned as the next tier above state programs, with all-American roads as the very best of the national byways.²⁶ Participation by the states is voluntary. The designation criteria must consider user needs, protection of resources and strong public participation.²⁷ Furthermore, a corridor management plan is required as part of the

¹⁹

Intermodal Surface Transportation Efficiency Act, Public Law 102-240(1991), codified in chapters 23 and 49 of the United States Code. Authorization of the National Scenic Byways Program can be found at P.L. 102-240 § 1047, and codification can be found at 23 U.S.C. 101 (1996). The National Scenic Highways Program can also be found in the Congressional Statutes at large at 105 Stat. 1996.

²⁰ See *id.*, at 23 U.S.C. 101.

²¹

See P.L. 102-240, *supra* note 19, at § 1047.

²² See *id.*

²³

See *id.*

²⁴ See U.S. Department of Transportation, *Community Guide to Planning & Managing a Scenic Byway*, *supra* note 9, at 10.

²⁵

See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, *supra* note 2, at 5.

²⁶ See Christopher J. Duerksen, *Protecting Scenic Highways—A Legal Primer*, Clarion Associates (1993).

²⁷ See *id.*

designation process and the Federal Highway Administration has the responsibility to provide technical assistance capability.²⁸ Finally, for a route to be eligible for inclusion in the National Scenic Byways Program, it must include: one or more of six intrinsic qualities (scenic, natural, historic, cultural, archeological, and recreational), broad-based local community support for its designation, and continued management as laid out in a corridor management plan.²⁹

IV. State Scenic Byway Programs

A. Generally

ISTEA's National Scenic Byways Committee decided that roads should first be recognized at the state level as scenic highways before they could be eligible to receive national byway status. This decision caused the rapid development and enhancement of state scenic byway programs across the country. As a consequence, most states have some type of scenic byways program and they designate roads that have scenic values and historical and cultural resources.³⁰ In a number of states, such as Florida, formal scenic byways programs are authorized by legislation and are designated in accordance to published standards and procedures.³¹ Other states, such as Maryland and North Carolina, have programs with administrative authorization granted under a general or executive authority.³² Lastly, many states, such as Missouri and Illinois, have no formal scenic highway program but have designated a road or roads as scenic, often as part of a special initiative.³³

The procedures for scenic designation differ dramatically. In some states, designation of scenic corridors is initiated at the local level. In other states, a state-level planning board or committee nominates the roads. Formal scenic highway program designation criteria varies from state to state. For example, California and Oregon have very defined and high standards of designation that relate to aesthetics, natural beauty and historic resources.³⁴ Other state programs apply criteria that relate more to tourism and travel experience. Whatever criteria are used, most state scenic byways programs mark the roads with special signs. This special signage is designated to heighten awareness of the roads' special qualities.

²⁸ See *id.*

²⁹

See U.S. Department of Transportation, *Community Guide to Planning & Managing a Scenic Byway*, *supra* note 9, at 8.

³⁰ See *id.*

³¹ See *infra* § IV(B) Florida.

³² See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, *supra* note 2, at 2-3

³³ See *id.*

³⁴

See *id.*, at 3.

State scenic byways are often promoted through maps and brochures as tourist attractions.³⁵ However, most state programs do not incorporate the protection and management of the road corridors into their scenic byways programs.³⁶ Scenic protection of a designated corridor is generally left up to local jurisdictions in which the road passes.

B. Florida

Florida had no official scenic highways program prior to ISTEA.³⁷ The Florida Legislature had designated several routes as "scenic and/or historic," but they were chosen on a case-by-case basis with no uniform designation criteria.³⁸ In 1993, State legislation was passed to allow the Florida Department of Transportation (FDOT) to establish an official program for scenic highways.³⁹ In 1994, FDOT received a Scenic Byways Grant from the Federal Highway Administration to create a Florida Scenic Highways Program.⁴⁰ The product of that grant was a proposed Florida Scenic Highways Program. Then, in February 1997, the Secretary of the Florida Department of Transportation approved and signed an FDOT procedure establishing the Florida Scenic Highways Program as official.⁴¹ Finally, in April 1997, the Program received federal recognition.⁴² Since that time, the Federal Highway Administration has awarded FDOT with an "Environmental Excellence Award" for its creation of the Florida Scenic Highways Program.⁴³

The Florida Scenic Highways Program is structured around the idea of building a grass roots effort to increase awareness of Florida's history and intrinsic resources. The program's mission statement reflects this purpose:

"The Florida Scenic Highways Program will preserve, maintain, protect and enhance the intrinsic resources of scenic corridors through a sustainable balance of conservation and land use. Through community-based

³⁵ See *id.*

³⁶

See *id.*

³⁷

See Florida Department of Transportation, *Florida Scenic Highways Program Manual* (1996), at Chapter I, §1.2.

³⁸ See *id.* at Section 1.3. Scenic and historic highways legislatively mandated through the 1993 session include 19 highways from Escambia County to Dade County and of the 19 highways: 12 are historic, 6 are scenic and 1 is historic and scenic (see Appendix D for a listing of the highways).

³⁹ See FLA. STAT. § 335.093 (1993).

⁴⁰

See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, *supra* note 37, at Section 1.3.

See *id.*

⁴² See *id.*

⁴³

See *id.*

*consensus and partnerships, the program will promote economic prosperity and broaden the traveler's overall recreation and educational experience.*⁴⁴

Implicit in the Florida Scenic Highways Program's mission statement is the acknowledgment that the program's ultimate goal is to preserve, maintain, protect and enhance Florida's unique intrinsic resources. To date two highways have been formally designated under the Florida Scenic Highways Program. The "Pensacola Scenic Bluffs Corridor," which includes portions of State Road 10A and U.S. 90, is approximately 11 miles in length and was officially designated as Florida's first State Scenic Highway on April 24, 1998.⁴⁵ The other designated State Scenic Highway is the "Tamiami Trail Scenic Highway" which includes portions of U.S. 41 and is approximately 49.5 miles in length and was designated on December 9, 1998.⁴⁶

The Florida Scenic Highways Program consists of three separate phases: eligibility, designation, and implementation.⁴⁷ During the eligibility phase an applicant forms a Corridor Advocacy Group (CAG) to develop an Eligibility Application.⁴⁸ After eligibility is established, the CAG begins the designation phase by developing a Corridor Management Plan (CMP), which specifies the procedures, protection techniques, and standards and regulations by which the scenic highway will be managed.⁴⁹ If designation is granted, then the implementation phase is initiated and the actions, techniques, and procedures laid out in the CMP are carried out.⁵⁰

V. Protection Strategies: Tools and Techniques for Implementing Scenic Corridor Programs

A. Planning

1. Policy Statements

⁴⁴ See *id.*, at § 1.2.

⁴⁵ See www.scenicfla.org (This is the website of "Citizens for a Scenic Florida," a Florida Chapter of "Scenic America.").

Per phone conversation with Kristee Booth, Florida Department of Transportation, November 30, 1999.

⁴⁷ Florida Department of Transportation, *Florida Scenic Highways Program Manual*, *supra* note 37, at § 1.6.

⁴⁹ See *id.*

See *id.*

⁵⁰ See *id.*

A governmental entity may issue a policy statement regarding land use or land development that provides a start for protection of scenic resources.⁵¹ This policy may or may not be incorporated in a comprehensive plan or zoning ordinance. Recognition by a local government that a roadway is scenic may spark enough citizen support to protect it. Policy statements may also strengthen ordinances by influencing decision-making processes.

2. Comprehensive Planning

In Florida, local government comprehensive plans combine planning and regulatory functions.⁵² They are legally enforceable documents used to plan for and regulate land use development in the local jurisdiction. All proposed development within a jurisdiction must demonstrate “consistency” with the comprehensive plan. In order for a particular use to have consistency with the comprehensive plan it must be “compatible with and further the objectives, policies, land uses . . . in the comprehensive plan.”⁵³ Furthermore, this consistency requirement ensures that the goals and objectives of the local comprehensive plan, such as scenic highway designation, will be implemented in land use decision-making. Moreover, Florida’s Growth Management Act addresses complications caused by multi-jurisdictional problems by requiring each local plan to address intergovernmental coordination.⁵⁴

A Scenic Highway’s CMP must be either adopted into a local government’s comprehensive plan or it must be demonstrated that the comprehensive plan already contains provisions to protect the corridor.⁵⁵ Specifically, these elements include a map displaying the corridor, a corridor vision statement, and goals, objectives and strategies related to the specific local government.⁵⁶ This required coordination helps ensure scenic highways do not suffer from piecemeal local planning.

3. Pre-application Review of Development Proposals

⁵¹

See U.S. Department of Transportation, *Protection Techniques for Scenic Byways: Four Case Studies*, *supra* note 5, at 12.

See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, *supra* note 37, at Chapter 7.

See FLA. STAT. § 163.3194(3)(a)(1995) (Chapter 163 of the Florida Statutes is referred to as Florida’s Growth Management Act).

⁵⁴ See *id.*, at § 163.07.

See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, *supra* note 37, at § 3.15.1.

See *id.*

A local government environmental review process can be an important tool in protecting scenic resources.⁵⁷ Development-approval processes generally include an environmental review, which requires developers to do an environmental assessment of a potential building site. This review can, and usually does, include an inventory of scenic, historical, and conservation resources and assesses the impacts of the proposed development on those resources. An environmental review does not by itself avoid adverse environmental impacts, but it usually does recognize potential threats to the environment and may identify some mitigation of the impacts.

3. Site Plan Review and Design Guidelines

A Site Plan Review may be installed by a local government to act as a modified special permit process.⁵⁸ This middle-ground approach allows local governments more comprehensive control over new development than is feasible through zoning alone, but at the same time reduces “unbridled discretion” exercised by boards of county commissioners utilizing inadequate bylaws which are vague or lack necessary detail. This type of review is most often used for non-residential uses.

Design guidelines and design controls can be utilized under a design review process to effectuate what acceptable development in a community should look like.⁵⁹ Design guidelines may be published by citizen groups or governmental bodies and do not require enabling authority. Design controls, which are permitted by enabling legislation, require development to be in compliance with design guidelines. A design review board could administer these guidelines and controls. This approach, coupled with Site Plan Review, would provide a heightened level of scrutiny of development proposals along scenic corridors.

B. Acquisition of Interests

1. Fee Simple Acquisition

Ownership offers the surest way to protect scenic resources is to own them outright. Ownership of all or part of a scenic corridor assures maximum control of land use and design along a road. Title of land in “fee simple” is an absolute holding of real property without any limitation on ownership.⁶⁰ However acquiring property, whether by buying it or by donation, is usually the most expensive way to protect it. Further, costs are not limited to acquisition but also involve long-term management and maintenance. Moreover, scenic lands are often productive lands, and its

⁵⁷ See U.S. Department of Transportation—Federal Highway Administration, *Scenic Resource Protection Techniques and Tools* (September 1990), at 28 (attached as Appendix E).

⁵⁸ See *id.*

⁵⁹ See *id.*

⁶⁰

See *id.*, at 9.

productivity is part of that which makes it scenic. Removing such lands from their productive roles may interfere with scenic qualities.

2. Scenic or Conservation Easements

Scenic or conservation easements are the acquisition of certain limited rights to, or interests in, real property.⁶¹ They are essentially an agreement between the owner of property and the holder of an easement that the land will be restricted for certain specified uses that might compromise the land's scenic or natural qualities. They are increasingly being used to protect the views from roads.

Conservation easements were authorized by statute in Florida in 1976.⁶² Section 704.06 of the Florida Statutes details the procedure for creating conservation easements.⁶³ A conservation easement usually restricts the type and amount of development that may take place on the property.⁶⁴ For example, in the case of scenic highways, conservation easements can be used to prohibit or restrict the placement of buildings or billboards on a scenic corridor to ensure the preservation of scenic qualities. In Florida, easements are perpetual in nature, run with the land and may be in the form of an easement, restriction, condition or covenant. The easement "runs with the land," so that as ownership changes, the land remains subject to the easement.⁶⁵

The easement's seller/donor (owner) may receive several benefits, including estate, property, and income tax deductions and retention of certain rights to develop if specified in the easement instrument. In addition, the easement is drafted to specifically address the particular property's needs and owner's goals. Its flexibility makes the conservation easement a useful instrument for attaining specific conservation goals.⁶⁶

The easement's buyer/donee (holder) takes upon themselves the duty of monitoring and enforcing the restrictions of the easement. The holder of the easement should have the time and monetary resources to properly monitor the property and enforce restrictions. If these duties are not performed properly the easement may be vulnerable to an attack on its validity for lack of enforcement.

The Florida conservation easement law defines one type of a conservation easement as a right or interest in real property which is appropriate to fulfill the purpose of retaining land or water

⁶¹

See U.S. Department of Transportation, *Protection Techniques for Scenic Byways: Four Case Studies*, supra note 5, at 10.

⁶² The conservation easement statute was amended in 1986 and 1993.

⁶³ See FLA. STAT. § 704.06 (1997).

⁶⁴ See David Downes, *Economic Incentives and Legal Tools for Private Sector Conservation*, 8 DUKE ENVTL. L. & POL'Y F. 209, 212 (Spring 1998).

⁶⁵ See FLA. STAT. § 704.06(4)(1997).

⁶⁶ See Cheryl A. Denton, *Conservation Easements in Florida: Do Unsubordinated Mortgages Pose a Threat?*, 70 FLA. BAR JOURNAL 50, 50 (1996).

areas predominately in their "natural, scenic, open, agricultural, or wooded condition."⁶⁷ The purpose and restrictions in the easement should be drafted to reflect these objectives. The restrictions should be strict enough to protect the significant values of the property. Easements may be designed, however, that permit development that is consistent with the easement's purpose.⁶⁸

Any party that owns real property in fee simple may donate or sell interests in the property. If the property is subject to any mortgages or liens those lenders must agree to subordinate their rights in the property to the rights of the easement holder. Subordination is an IRS requirement to qualify for some tax deductions, as well as sound policy to preserve the easement.⁶⁹

Under Florida law, the holder of the easement must be either:

- a governmental body or agency or
- a charitable corporation or trust
- whose purposes include:
 - (i) protecting natural, scenic, or open space values of real property,
 - (ii) assuring available land for agriculture, forestry, recreation, or open spaces use,
 - (iii) protecting of natural resources,
 - (iv) maintaining or enhancing air or water quality, or
 - (v) preserving sites or property of historical, architectural, archaeological, or cultural significance.⁷⁰

It is also possible to have co-holders of the easement, allowing two qualified organizations to hold the easement. This arrangement brings together the strengths, abilities, and resources of the two stewardship organizations. The co-holders may share responsibility jointly or an individual organization can accept primary responsibility for enforcement of different restrictions.⁷¹

In order for the conservation easement to be enforceable, it must comply with all sections of Florida Statute ' 704.06. A conservation easement is defined in ' 704.06(2) as a perpetual, undivided interest in property. Also, public access may be granted in a conservation easement, and is required for some income tax deductions.⁷² Moreover, baseline data on the condition of the property at the time of transfer of the conservation easement must be recorded and incorporated by reference into the easement to provide evidence of conservation resource value and to satisfy

⁶⁷ FLA. STAT. § 7 04.06(1) (1998) (emphasis added).

⁶⁸ See JANET DIEHL & THOMAS S. BARRETT, THE CONSERVATION EASEMENT HANDBOOK, 5 (1988).

⁶⁹ See Treas. Reg. § 1.170 A-154(g)(2) (1998).

⁷⁰ See FLA. STAT. § 704.06(3) (1997).

⁷¹ See DIEHL, *supra* note 68, at 77.

⁷² See DIEHL, *supra* note 68, at 8.

certain IRS requirements.⁷³ It is best to compile the information for the baseline report prior to the transfer, so that it can be easily incorporated into the easement.

In drafting the easement the drafter should clearly state the purpose of the easement and identify all the boundaries of the property. The standards for the restrictions should be measurable standards. For a good example of a model easement and explanations of each provision see Janet Diehl and Thomas S. Barrett's *Conservation Easement Handbook* (see also Appendix B of Appendix E for an example of a scenic easement from Michigan).⁷⁴ The conservation easement is a flexible alternative to outright donations of land and offers the convenience to the property owner of another entity enforcing the conservation restrictions. The disadvantages include the monetary expense of monitoring the land, as well as decreased property value and decreased owner control.

9. Land Trusts

Another alternative for conveying or acquiring title to real property for conservation purposes, land trusts are often established to protect areas of unique scenic quality.⁷⁵ Land trusts hold land and other property rights for the benefit of the public and often include educational, recreational and scientific activities. Land trusts often have considerable flexibility in acquiring property and the ability to act quickly and take risks to buy land before it is sold for development. The downside, as with many of the acquisition techniques, is the cost of such a program.

The land trust arrangement was established by the Florida legislature in 1963.⁷⁶ Since that time, land trusts have become a popular vehicle for conservation. A land trust is an arrangement whereby the trustee retains both legal and equitable title to land for the benefit of another party, the beneficiary.⁷⁷ Major examples of land trusts include the Jackson Hole Trust of Wyoming and the Big Sur Land Trust in California.

When a deed or other recorded instrument naming the trustee as grantee sets forth the trustee's powers, a land trust is created.⁷⁸ Florida Statute '689.071 sets out elements of a land trust that must be met in order to be entitled to the benefits of the statute. The following conditions must be satisfied:

- The instrument must convey an interest in real property;
- The grantee in the instrument must be designated as a "trustee";

⁷³

It also provides the information necessary for a summary report for the easement holder to utilize in monitoring the property.

⁷⁴ See DIEHL, *supra* note 68, at 15.

⁷⁵ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, *supra* note 57, at 11.

⁷⁶ See FLA. STAT. § 689.071, which was enacted on August 17, 1963.

⁷⁷ See Mark Warda, *LAND TRUSTS IN FLORIDA* 13 (Sphinx Publishing 4th ed. 1995) (1984).

⁷⁸ See *id.*; See also FLA. STAT. § 689.071.

- The recorded instrument must confer on the trustee "the power and authority either to protect, conserve and to sell, or to lease, or to encumber, or otherwise to manage and dispose of the real property";
- The land trust agreement must be recorded.

If these conditions are satisfied, the trustee is vested with full ownership in the property, with full power and authority which was granted in the recorded instrument.

The distinctive features of a land trust include:

- Both the legal and equitable titles to the property are vested in the trustee, and the beneficiary has no interest in either.
- The trustee has no duties or powers other than to convey, mortgage, or deal with the real property as directed by the beneficiaries or to sell or liquidate the property at the trust's termination.
- The rights of possession, management, control, and operation of the property, as well as the right to rents, issues, profits, and proceeds of sale or mortgage financing are vested in the beneficiary.
- The rights, privileges, and obligations of the beneficiaries are not interests in real estate but by the trust instrument are expressly characterized as personal property.⁷⁹

In land trusts, both legal and equitable titles to the trust property are vested in the trustee.⁸⁰ Therefore, a land trust differs from a conventional trust under which the trustee holds legal title and the beneficiary holds equitable title.⁸¹ The trustee holds the title and may sign documents affecting title when directed by the beneficiary or the terms of the trust.⁸² The beneficiary retains all other rights and duties regarding the property -- collects rents, pays taxes, obtains insurance, and manages the property.⁸³ Also, the terms usually contain the duty to convey the property to the beneficiary at the termination of the trust.⁸⁴

As previously noted, a land trust beneficiary retains a personal property interest, not a real property interest.⁸⁵ The beneficiary, which can be a person, corporation, partnership, limited liability corporation, or a combination,⁸⁶ has the duty to manage the property.⁸⁷ Because the

⁷⁹ See Bruce S. Goldstein, *FLORIDA REAL PROPERTY COMPLEX TRANSACTIONS* 9-B-1, § 9.56 (The Florida Bar 1997). (Quoting: KENOE, *KENOE ON LAND TRUSTS* 1.C.[1.3] (1978)).

⁸⁰ See Warda, *supra* note 77, at 16.

⁸¹ See 76 *AMERICAN JURISPRUDENCE* § 12.

⁸² See Warda, *supra* note 77, at 14.

⁸³ See *id.*, at 14.

⁸⁴ See *id.*, at 14.

⁸⁵ See *id.*, at 15.

⁸⁶ See *id.*

⁸⁷ See *id.*, at 17.

duties, rights, and responsibilities of ownership reside with the beneficiary, the beneficiary also assumes the responsibility and liability for mismanagement.⁸⁸

A land trust may be created in two ways: A property owner can deed the property to a trustee, or a buyer can direct a seller to convey property to a trustee.⁸⁹ Two instruments typically are involved in the creation of land trusts. First, a land trust agreement states in detail the duties and responsibilities of the trustee. The agreement may also refer to the relationship among the beneficiaries when dealing with decision-making or profit-sharing. The second instrument, the deed, conveys title to the trustee. The deed will usually contain language that the trustee is granted full power and authority to protect, conserve, and sell, lease, encumber, or otherwise manage the property described in the deed.⁹⁰

A land trust utilized as a vehicle for owning real property offers a number of benefits. Advantages of land trusts include:

- Because the interest of a beneficiary of a land trust is personal property rather than real property, a properly recorded judgment against a beneficiary does not constitute a lien against the real estate held by the land trust. It should be noted, however, that the filing of a RICO lien notice creates a lien in favor of Florida on the beneficial interest in land situated in the county in which the notice is filed.⁹¹ A judgment creditor also could perfect a lien against the personal property interest of a beneficiary by following the necessary procedures for levying on personal property.
- The incompetency, death, bankruptcy, or divorce of one of several owners of a parcel of real estate can create problems in selling, mortgaging, or otherwise dealing with the property. If the property is held by a land trust, these circumstances affect only the beneficial interests of the persons involved and not the real estate. Thus, with appropriate authority granted by the land trust instrument, the trustee can effectively mortgage, convey title to, or otherwise deal with the property despite the existence of any of these circumstances.
- As noted [in '9.57], the personal liability of the trustee is limited under Florida Statutes '737.306(1)(a), which states that unless otherwise provided in the contract, a trustee is not personally liable on contracts, except contracts for attorneys' fees, properly entered into in the trustee's fiduciary capacity in the course of administration of the trust estate, unless the trustee fails to reveal his or her representative capacity and identify the trust estate in the contract.⁹²

⁸⁸ See *id.*; See also 76 AMERICAN JURISPRUDENCE § 12.

⁸⁹ See Warda, *supra* note 77, at 29.

⁹⁰ See *id.*, at 41.

⁹¹ See FLA. STAT. § 895.07 (1998).

⁹² See FLA. STAT. § 689.071(5).

- Because the land trust agreement is not recorded, the identity of the beneficial owners remains confidential.⁹³

There are some downsides to setting up a land trust. First, there is a cost incurred when setting up a land trust and also with maintaining it.⁹⁴ Moreover, finding a trustee that can be trusted may prove to be difficult -- especially when considering that a trustee has full power to sell the property.⁹⁵ The sale cannot be taken back, but the act could constitute criminal fraud.⁹⁶

4. Revolving Funds

Revolving fund approaches allow a group to purchase threatened property and sell it with restrictions on alterations and use to a new owner.⁹⁷ This approach works well for non-profit groups willing to risk temporary ownership and to invest cash and extra effort in seeking permanent protection and responsible ownership for specific properties. The revolving fund approach differs from the land trust approach in that revolving fund groups are usually independent and may keep some of their property indefinitely.

There is a similar approach to the revolving concept referred to as "pre-acquisition" or "passthrough" program.⁹⁸ This approach involves a partnership between an organization and a government agency that will end up owning the property. The organization moves quickly to acquire the property when an agency might not be able to act. Then, the organization covers its costs by selling the property to the agency that permanently protects the property. The Nature Conservancy and the Trust for Public Lands have utilized this approach when working with park agencies, the U.S. Fish and Wildlife Service, and the U.S. Forest Service.⁹⁹

5. Other Types of Acquisition

a) Lease-Purchase Agreements

Another approach to acquiring property outright is lease-purchase agreements. Under this type of approach, rent paid under the terms of a lease is applied towards an already agreed upon sale

⁹³ Goldstein, *supra* note 79, at § 9.62.

⁹⁴ One example would be attorney's fees.

⁹⁵ See Warda, *supra* note 77, at 73-74.

⁹⁶ See Warda, *supra* note 77, at 74.

⁹⁷ National Trust for Historic Preservation, *Rural Conservation*, Information Series No. 77 (1993) (attached as Appendix F).

⁹⁸ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, *supra* note 57 at 12.

⁹⁹ See *id.*

e) Land Donations

Non-profit organizations and local governments sometimes receive gifts of property through a donation or bequest.¹⁰⁸ However, it is critical for donors to give adequate notice of their intention to donees, so the donees can solidify financial arrangements needed for the property's maintenance (see Appendix A of Appendix E for a list of representative guidelines for receiving property as a gift).

C. Land Transfer Controls

1. Purchase of Development Rights (PDR)

PDRs is the purchase of easements that extinguish the right to develop property, leaving the owner with all other rights of ownership.¹⁰⁹ The price of the rights is determined by the reduction in the market value of the property as a result of the removal of development rights. PDR programs are often financed by the sale of bonds. Reasonably successful TDR/PDR programs for preserving agricultural land have been implemented in Suffolk County, New York and in Montgomery County, Maryland.¹¹⁰

2. Land Banking

Land Banking involves a local government obtaining fee simple to a parcel of land and then selling the land from its "land bank" with restrictions on allowable development of the land.¹¹¹ In effect, the government acts as a large-scale developer. Thus, it could acquire land along scenic corridors and re-sell for development in locations least disruptive to scenic values. This approach has been widely used in Europe, especially Sweden, Denmark and France.

3. Transfer of Development Rights (TDR)

TDRs is a planning tool in which a developer may own the development rights to a property located in a designated no-growth zone and transfer those development rights to a receiving zone for credits.¹¹² Sellers of development rights receive cash for the land's potential without actually selling the land, developers are able to build to a higher density, and communities benefit by concentrating development where it is decided to be appropriate while at the same time protecting and preserving open space.

¹⁰⁸

See id.

¹⁰⁹ See National Trust for Historic Preservation, *Rural Conservation*, *supra* note 99, at 13.

¹¹⁰ *See id.*

¹¹¹ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, *supra* note 57, at 15.

¹¹² See National Trust for Historic Preservation, *Rural Conservation*, *supra* note 99, at 11.

TDRs can be an effective tool for conservation, but they are complex and difficult to implement.¹¹³ Unfortunately, there are few successful TDR programs in Florida or nationwide.¹¹⁴ This tool might be best utilized in or near metropolitan areas where the jurisdiction covers a large area and a sophisticated planning process already in place.

4. Deed Restrictions

Deed restrictions, also known as covenants, are self-imposed restrictions on subsequent owners of property when a property is transferred.¹¹⁵ Deed restrictions operate similar to easements and are commonly used with limited development and revolving funds. These restrictions could impose development standards and limitations on property along and adjacent to a scenic corridors.

Generally, restrictions are instituted in order to control the free use of the owner's property for the benefit of others. Restrictive covenants may be utilized to control the uses to which the land may be put.¹¹⁶ Restrictive covenants can either be public or private. Public restrictions are legislative in nature and are established to protect the public welfare.¹¹⁷ A zoning ordinance is an example of a public restriction.¹¹⁸ Private restrictions, on the other hand, are used predominately in residential subdivisions to limit land use and to prevent nuisances.¹¹⁹ Frequently, private restrictions are found in homeowner's association documents where many individuals live in ordered communities containing common areas.¹²⁰ Other examples are residential restrictions that call only for single-family residences and building line restrictions which prohibit the erection of a building nearer than a specified distance from the lot lines.¹²¹

D. Land Use Controls

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For a discussion of Transferable Development Rights as well as an easy-to-follow, illustrated explanation of the TDR concept see *An Analysis of the Development and Planning Alternatives to Protect the Character of Eastern Sarasota County While Minimizing Adverse Impact on Sarasota County Taxpayers*, prepared by the Conservation Clinic at the University of Florida Levin College of Law, November 1999. See also Julian Conrad Juergensmeyer and Thomas E. Roberts, *Land Use Planning and Control Law* (1998), at § 9.9.

¹¹⁴ See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, supra note 37.

¹¹⁵ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 16.

¹¹⁶ See Florida Bar Continuing Legal Education, *Florida Real Property Sales Transactions* 289 (1978).

¹¹⁷ See Florida Bar Continuing Legal Education, *Florida Real Property Sales Transactions* § 9.15 (9-1).

¹¹⁸ See *id.*

¹¹⁹ See *id.*

¹²⁰ See *id.*

¹²¹ See Florida Bar Continuing Legal Ed., supra note 118, at 292.

1. Zoning Ordinances

A zoning ordinance is a set of rules used to guide land use and development.¹²² They consist of two parts: a zoning map and the ordinance. The map divides a given governmental jurisdiction into land-use zones, each with certain development requirements and limitations. Most zoning ordinances have at least five unique zones: residential, industrial, institutional, commercial and open space.¹²³ Within each zone various construction and development restrictions are specified.

A zoning ordinance can be effective for minimizing the effects of urban sprawl. However, for this benefit to be realized, zoning must be strictly enforced and must ensure development occurs in conformity with the comprehensive plan. Unfortunately, there are also several drawbacks to traditional zoning.¹²⁴ First, they are often inflexible. Second, different uses are typically segregated. This segregation will not always protect a scenic corridor's environment or character.

2. Overlay Zoning & Scenic Highway Districts

Zoning ordinances may contain special zones called "overlay zones," also known as "critical area zones."¹²⁵ This type of special zoning may be applied to specific areas such as highway corridors to protect specific resources found throughout a community.¹²⁶ In these overlay zones, special restrictions apply to all land, regardless of how it is traditionally zoned. Overlay zoning does not affect the use or density regulations of existing zoning, but instead, it creates an additional set of requirements to be met when the unique resources protected by the overlay would be affected by a proposed land use.¹²⁷ Possibly, the most common overlay device for protecting a scenic road corridor is the highway corridor overlay district¹²⁸ (see Appendix C of Appendix E for an example of a scenic highway districts ordinance from Charleston County, South Carolina).¹²⁹ These scenic highway districts are used to conserve and enhance the natural beauty along scenic corridors. They work in conjunction with existing zoning classifications to ensure the preservation of scenic resources.

¹²² See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 18.

¹²³ See *id.*

¹²⁴ See *id.*

¹²⁵ See *id.*

¹²⁶

See National Trust for Historic Preservation, *Rural Conservation*, supra note 99, at 10.

¹²⁷ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 19.

¹²⁸ See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, supra note 29.

¹²⁹ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 19.

3. Development Agreements

Pursuant to Sections 163.3220 through 163.3243 of the Florida Statutes, local governments and developers may enter into development agreements that describe the way a development may proceed.¹³⁰ Any development agreement must be consistent with the local government's comprehensive plan and can only be adopted, amended or revoked after public notice and hearings.¹³¹ Furthermore, these agreements may last up to ten years.¹³² Consideration of scenic resources maybe a part of the development agreement process. In the context of scenic corridors, development agreements could provide a level of certainty for a community regarding potential development along a scenic conidor. They would be aware of and may be more able to manage agreed upon development that takes place over a fixed duration of time.

E. Land Development Controls

1. Subdivision Regulation

In contrast to zoning, which governs the use of property in a community, subdivision regulation controls the design of new development including what it will look like and how it will affect the community.¹³³ However, given their related objectives, subdivision controls are often coordinated with zoning ordinances. Thus, many communities combine the two concepts into single land development codes.¹³⁴

Subdivision controls can be an important scenic conservation tool. They can apply to any parcel of land, not just traditional subdivisions, and can go a long way to lessen the negative scenic impacts of development. On the other hand, subdivision regulations may also inhibit flexible design standards that can enhance scenic resources. Two of the most important aspects of subdivision regulation are its design and engineering standards and performance guarantees.¹³⁵ First, design and engineering standards cover the division of property, including specifying the location of roads, open spaces and other improvements. Second, performance guarantees, such as escrow accounts, ensure that development will proceed only as approved.

2. Flexible Design Standards

a) Cluster Development

¹³⁰ See *id.*

¹³¹ See FLA. STAT. § 163.3225 (1999).

¹³²

See FLA. STAT. § 163.3229 (1999).

¹³³ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 22.

¹³⁴

Alachua County, Florida, for instance, has combined the two. See Part III, the Unified Land Development Code, of the Alachua County Code. Alachua, Florida (1997, as amended).

¹³⁵ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 22.

Cluster development is the grouping of development on a small portion of land, and can be an effective way to limit development in scenic areas.¹³⁶ This type of land development control allows for open accessible to nearby property owners and the public. Moreover, clustering often appeals to developers because it allows flexibility in lot size and can be less expensive in terms of overall improvements. Cluster development in the context of scenic corridors could maintain viewsheds and protect unique natural and scenic resources. However, the success of programs that would require clustering depends on balancing the property rights and expectations of the landowner against the community's need to preserve its scenic land.¹³⁷

b) Planned Unit Development

This type of land development control treats large parcels of land as a single unit containing a mixture of uses.¹³⁸ They allow flexibility in zoning and often result in developments with greater open space than in traditional zoning. In residential areas PUDs could have an impact in the area of protection of scenic corridors through site planning and roadway location focusing on the natural resources along scenic corridors. They may also provide a way for local governments to incorporate site design specifications into development.

c) Performance Systems

Rather than making the general assumptions embodied in traditional zoning, performance systems provide a way of analyzing the effects of proposed development.¹³⁹ Performance systems place the burden on developers to mitigate objectionable impacts before a building permit is issued. Generally, they operate with a point system and minimum point scores, or standards, can be set for the impact on scenic views and natural qualities.

Taking either the form of an overlay district or of an amendment to the underlying zoning provisions, the following zoning standards should reflect the scenic character of the district being regulated:

- a) Densities;
- b) Limitations on paved surfaces;
- c) Restrictions on underground services; and
- d) Restrictions on vegetational clearing.

¹³⁶ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 23.

¹³⁷ For a couple case studies and a brief discussion of clustering see *An Analysis of the Development and Planning Alternatives to Protect the Character of Eastern Sarasota County While Minimizing Adverse Impacts on Sarasota County Taxpayers*, prepared by the Conservation Clinic at the University of Florida Levin College of Law, November 1999.

¹³⁸ See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, supra note 37.

¹³⁹ See National Trust for Historic Preservation, *Rural Conservation*, supra note 99, at 11.

In order to protect the scenic rural character of exurban areas, Calvert County, Maryland includes among its design standard requirements, a front roadway buffer for the purpose of maintaining and enhancing "a visually attractive rural landscape."¹⁴⁰

3. Development Moratoria

Across the board restriction on development permits until a certain governmental action is complete, also known as a "development moratoria," could be used to manage growth in a community.¹⁴¹ Moratoria may be appropriate when a community is revising its comprehensive plan or trying to improve troublesome conditions such as heavy traffic congestion or limited sewer capacity.¹⁴² However, a moratorium should not be used to postpone development indefinitely.¹⁴³ Otherwise, a community will open itself up to court challenges.

F. View Protection

1. View Preservation

In spite of preservation ordinances and design review regulations, many communities are recognizing the need to take a comprehensive approach to protecting special vistas and scenic roads. Communities are recognizing that vistas add to the local sense of place and image, which contribute to quality of life and attracting business. Therefore, many communities have enacted view protection ordinances utilizing a combination of tools, including height controls, use restrictions, sign controls and landscaping regulations.¹⁴⁴

In some cities, such as Austin, Texas, view protection concerns have manifested in efforts to protect views of important buildings such as state capitols. In other cities, such as Denver, Colorado, mountain views have spurred special regulations to limit building heights. Furthermore, some cities, like New Orleans and Houston, have attempted to beautify their city's entryways, which are the community's welcome mat.¹⁴⁵

2. Tree Protection

¹⁴⁰ See Calvert County, MD. Calvert County Code, at 5-103.D.5a. See also Stokes, *Saving America's Countryside*, at 176-86.

¹⁴¹ See U.S. Department of Transportation, *Scenic Resource Protection Techniques and Tools*, supra note 57, at 24.

¹⁴² See *id.*

¹⁴³ See *id.*

See *id.*

¹⁴⁴ See *id.*, at 35.

¹⁴⁵ For a more detailed discussion of the Denver, Austin, and New Orleans' view protection ordinances see Appendix E at § 3.8.1.

There is also an increasing interest in protecting existing trees across the nation. Americans have increasingly begun to realize and appreciate the benefits of trees. More specifically, people have recognized trees' abilities to "soften the edge of development," to contribute to a safer healthier environment and reduce the phenomena known as "urban heat islands" by moderating effects of sun, cold and wind.¹⁴⁶ Furthermore, trees serve as screens against noise, stabilize soils and provide a haven for wildlife.¹⁴⁷ In response to growing community interest, a number of local communities, such as Tallahassee, Florida, have adopted specific tree species as community hallmarks.¹⁴⁸ These designations and tree-related ordinances can help protect and conserve scenic vistas.

An emerging legal issue that has caused problems for tree protection in many areas is how to prevent an owner from clearing a site of trees before they apply for a building permit or site plan approval.¹⁴⁹ Communities have responded in several ways. They include following the Model Development Code approach and include tree removal under the definition of development that requires a permit. Alternatively, other approaches utilize separate regulations that place restrictions on land clearance, often as soil erosion and drainage control ordinances. Finally, some communities have tree ordinances that require a review process that consideration of trees in development proposals.

G. Signage

Sign control is an essential tool of scenic resource protection. Sign control should include managing the location, appearance and existence of signage along scenic corridors.¹⁵⁰ An ideal system would convey information without creating clutter, blocking scenic views or contrasting with the natural or cultural character of an area.

In recent times, courts have recognized aesthetic concerns as being a valid justification for the use of the police power.¹⁵¹ In many jurisdictions, aesthetics standing alone have been recognized as a valid exercise of these powers.¹⁵² Moreover, regulations prohibiting signs near major highways and public places have been traditionally considered valid.¹⁵³ Although the justifications given for regulating signage through the police power have included the desire to protect travelers, most likely, grounds for sustaining these regulations have been based on either

¹⁴⁶ See *id.*, at 38.

¹⁴⁷ See *id.*

¹⁴⁸

See *id.*

¹⁴⁹ See *id.*

¹⁵⁰ See *id.*, at 30.

¹⁵¹ This has been the case since Berman v. Parker, 348 U.S. 26 (1954).

¹⁵² See *id.*

¹⁵³

See, e.g., Illinois Highway Advertising Control Act of 1971, 225 Ill. Comp. Stat. 440/1 (1996) (discussed in Scadron v. City of Des Plaines), 989 F.2d 502 (7th Cir. 1993).

aesthetics,¹⁵⁴ or the preservation of areas where signs would mar the historic or naturally scenic character of an area.¹⁵⁵

The Federal Highway Beautification Act (FHBA) affects regulation of signage on the Interstate Highway System and the Federal-aid primary highway system.¹⁵⁶ One of the main purposes of FHBA is to “preserve natural beauty.”¹⁵⁷ Thus, FHBA’s principal mandate is for the “effective control” of signage by prohibiting signs within 660 feet of the right of way along interstate and primary highway systems, unless an area is zoned for commercial or industrial uses.¹⁵⁸ It is possible for new outdoor signs to be constructed on industrial or commercial land within controlled zones along Federal Interstate and Federal-aid primary system so long as they comply with the size, height, and spacing requirements set forth in a federal-state agreement to implement FHBA.¹⁵⁹ Compensation must usually be paid for the removal of signs predating the law.¹⁶⁰ Unfortunately, funding for compensation has lagged, and at its current level it is doubtful that targeted billboards will be removed in the near future. Overall, FHBA has provided the stimulus for many states to control signs along highways or risk loss of federal funds.

The state of Florida has complied with the mandates of the FHBA by enacting Chapter 479 of the Florida Statutes.¹⁶¹ On most points Chapter 479 is more expansive and restrictive than the FHBA. For instance, Chapter 479 regulates signage along the State Highway System, in addition to signage along the Interstate and Federal-aid Primary Systems.¹⁶² Further, Chapter 479 requires that every who engages in outdoor advertising person, with certain limited exceptions, must obtain a license for that business, and must obtain a sign permit for every outdoor sign erected within the controlled zone.¹⁶³

The FHBA formerly provided that States with a scenic highway program may not allow the erection of any sign on any Interstate or Federal-aid primary highway designated scenic, subject to some exceptions. However, Congress has revised FHBA and inserted an exception to allow states to exclude from state or federal scenic byways designation any segment of a scenic road that

¹⁵⁴

See Dukeminier, Zoning for Aesthetics Objectives: A Reappraisal, 20 *Law & Contemp. Probs* 218 (1955).

¹⁵⁵ *See Julian Conrad Juergensmeyer and Thomas E. Roberts, Land Use Planning and Control Law* (1998), at § 12.3, at 565.

¹⁵⁶ *See* 23 U.S.C. § 131 (1999) (attached as Appendix G).

¹⁵⁷

See id., at § 131(a).

¹⁵⁸ *See id.*, at § 131(b).

¹⁵⁹

See id., at § 131(c)-(d).

¹⁶⁰

See id., at § 131(g).

¹⁶¹

See FLA. STAT. Chapter 479 (1998) (attached as Appendix H). Furthermore, the Florida Administrative Code Chapter 14-10 (1999) addresses Outdoor Advertising Sign Regulation and the Highway Beautification Program (attached as Appendix I).

¹⁶² *See id.*, at § 479.105.

¹⁶³ *See id.*, at §§ 479.04-.105.

it determines to be inconsistent with the state's criteria for scenic designation.¹⁶⁴ Thus, Florida may determine that certain areas along designated scenic highways should be excluded from scenic designation and its outdoor sign prohibition.

Florida has provided that local governments may enact their own sign ordinances as long as the regulations are at least as stringent as those in Chapter 479.¹⁶⁵ Florida Courts have upheld carefully drafted, content-neutral local sign ordinances adopted pursuant to this authority.¹⁶⁶ Thus, any signage regulation used to protect scenic corridors should address size, location and lighting of signs using reasonable time, place and manner restrictions. Furthermore, any attempt at on-site sign regulation should utilize content-neutral and narrowly drawn ordinances to accomplish the legitimate end of protection of a scenic viewshed.

H. Tax Benefits

The conservation of real property generates a number of opportunities to lower an individual's tax burden. Benefits may accrue through conservation conveyances in the areas of federal income taxes, estate taxes, gift taxes, capital gains taxes, and ad valorem taxes.¹⁶⁷

1. Federal Income Taxes

The Internal Revenue Service recognizes a qualified conservation contribution (such as a conservation easement) as a charitable contribution under Section 170 of the Internal Revenue Code (Code).¹⁶⁸ Yet, it places restrictions on what may qualify as a conservation contribution.

¹⁶⁴ See S. 440, 104th Cong., 1st Sess. § 314 (1995).

¹⁶⁵

See *id.*, at FLA. STAT. § 479.155.

¹⁶⁶ See E.B. Elliot Advertising Company v. Metropolitan Dade County, 425 F.2d 1141 (5th Cir. 1970). See also Hav-a-Tampa Cigar Co. v. Johnson, 5 So.2d 433 (Fla. 1941). Importantly, "point-of-sale" or on-site signs, meaning those that were attached to property and advertised products or services available on that property were excluded from the restrictions considered. Because of this exclusion, the bounds of permissible regulation of point-of-sale signs was not ruled on by the Court in the above cases. Thus, a local government should distinguish between on-site and off-site signs in drafting any regulation. See also Metromedia, Inc. v. City of San Diego, 453 U.S. 490 (1981); City of Lake Wales v. Lamar Advertising Ass'n, 414 So.2d 1030, 1032 (Fla. 1982).

¹⁶⁷ For further reading about conservation and tax incentives, see Bowles, Downes, Clark, and Guerin-McManus, *Economic Incentives and Legal Tools for Private Sector Conservation*, 8 DUKE ENVTL. L. AND POL'Y F. 209. See also SMALI, *supra* note 55 (additional explanations of the principles discussed below).

¹⁶⁸ See I.R.C. § 170 (1999). I.R.C. § 170(h) states:

1.8 Qualified Conservation Contribution.—

1. In General. — For purposes of subsection (f)(3)(B)(iii), the term "qualified conservation contribution" means a contribution—

- A. of a qualified real property interest,
- B. to a qualified organization,

The Code outlines a three-prong test to determine if a qualified conservation contribution exists.¹⁶⁹ Such a contribution must be (1) a qualifying real property interest, (2) to a qualified organization, (3) exclusively for conservation purposes.¹⁷⁰

It is required that the contribution qualify as a real estate interest.¹⁷¹ The Code defines a qualifying real property interest as having any one of three characteristics.¹⁷² First, the owner may donate their entire interest in the property (other than mineral rights).¹⁷³ Second, the donor may give a remainder interest in their property.¹⁷⁴ This would be an interest in the property that would pass after the expiration of an intervening interest. For example, the owner may elect to

- C. exclusively for conservation purposes.
2. **Qualified Real Property Interest.** For purposes of paragraph (1), the term “qualified real
 3. **property interest” means any of the following interests in real property:**
 - A. the entire interest of the donor other than a qualified mineral interest,
 - B. a remainder interest, and
 - C. a restriction (granted in perpetuity) on the use which may be made of the real property.
 4. **Qualified Organization.**—For purposes of paragraph (1), the term “qualified organization” means an organization which-
 - A. is described in clause (v) or (vi) of subsection (b)(1)(A), or
 - B. is described in section 501(c)(3) and-
 - i. meets the requirements of section 509(a)(2), or
 - ii. meets the requirements of section 509(a)(3) and is controlled by an organization described in subparagraph (A) or in clause (I) of this subparagraph.
 5. **Conservation Purpose Defined.**—
 - A. **In General.**— For purposes of this subsection, the term “conservation purpose” means-
 - i. the preservation of land areas for outdoor recreation by, or the education of, the general public,
 - ii. the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,
 - iii. the preservation of open space (including farmland and forest land) where such preservation is-
 - I. for the scenic enjoyment of the general public, or
 - II. pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit, or
 - iv. the preservation of an historically important land area or a certified historic structure. . . .
 - B. **Exclusively for Conservation Purposes.** - For purposes of this subsection -
A contribution shall not be treated as exclusively for conservation purposes unless the conservation purpose is protected in perpetuity. . . . *Id*

¹⁶⁹ See I.R.C. § 170(h)(1) (1999).

¹⁷⁰ See *id.*

¹⁷¹ See *id.*

¹⁷² See I.R.C. § 170(h)(2) (1999).

¹⁷³ See I.R.C. § 170(h)(2)(A) (1999).

¹⁷⁴ See I.R.C. § 170(h)(2)(B) (1999).

donate the property upon death to a conservation trust. One method of achieving this result would be to place the property in a life estate for the duration of the life of the owner and grant the remainder interest to the conservation trust. Upon death, the remainder would pass to the trust. The creation of such a remainder interest would qualify as a real estate interest under the three prong test above. Third and finally, a restriction placed on the use of the real property will serve as a qualified real property interest (i.e. a conservation easement), provided the restriction is placed in perpetuity.¹⁷⁵ This option would allow the owner to retain ownership benefits of the property subject to the easement restrictions. The restrictions would serve to preserve and protect the land from any future development because such a restriction must be granted in perpetuity.¹⁷⁶

In addition to qualifying as a real estate interest, the interest must be donated to a qualified organization.¹⁷⁷ Such an organization may be a governmental unit such as the state or federal government, or any of their respective agencies.¹⁷⁸ Alternatively, an organization formed under the Internal Revenue Code ' 501(c)(3) as a tax-exempt charitable organization may also qualify.¹⁷⁹

Finally, the gift must be made exclusively for a conservation purpose.¹⁸⁰ The Code lists four criteria that may qualify as a conservation purpose.¹⁸¹ First, the preservation of land for outdoor recreation by, or the education of, the general public qualifies as a conservation purpose.¹⁸² Second, a conservation purpose may be found if the interest was given for the protection of a relatively natural¹⁸³ habitat of fish, wildlife, or plants.¹⁸⁴ Third, the preservation of open space may qualify as a conservation purpose.¹⁸⁵ To qualify however, the open space must

¹⁷⁵ See I.R.C. § 170(h)(2)(B) (1999).

¹⁷⁶ The federal government places restrictions on donations before they allow tax deductions. See Reg. Sec. 1.170A-14(g)(2). The "first in time, first in right" principle threatens easements when a superior right to the property exists such as a mortgage. For a discussion of conservation easements and the subordination of mortgages and foreclosures, see Cheryl Denton, *Conservation Easements in Florida: Do Unsubordinated Mortgages Pose a Threat?*, 70 FLA. B. J. 50 (April 1996). In general, "[A]ny interest in the property retained by the donor (and the donor's successors in interest) must be subject to legally enforceable restrictions (for example, by reordination in the land records of the jurisdiction in which the property is located) that will prevent uses of the retained interest inconsistent with the conservation purposes of the donation." Reg. Sec. 1.170A-14(g)(1).

¹⁷⁷ See I.R.C. § 170(h)(1) (1999).

¹⁷⁸ See I.R.C. § 170(h)(3)(A) (1999).

¹⁷⁹ See I.R.C. § 170(h)(3)(B) (1999).

¹⁸⁰ See I.R.C. § 170(h)(3)(A) (1999).

¹⁸¹ See I.R.C. § 170(h)(4) (1999).

¹⁸² See I.R.C. § 170(h)(4)(A)(i) (1999).

¹⁸³ Attempting to explain a "relatively natural" state with regard to a Michigan statute (the Recreational Land Use Act), the Court states: "The focus is on the use of the land and whether it remains in a relatively natural state or has been developed and changed in a manner incompatible with the intention of the act. . . . The central issue in this case is the character of the land." *Wilson v. McNamara, Inc.*, 173 N.W.2d 851, 854 (Mich. Ct. App. 1988)(emphasis added).

¹⁸⁴ See I.R.C. § 170(h)(4)(A)(ii) (1999).

¹⁸⁵ See I.R.C. § 170(h)(4)(A)(iii) (1999).

be for the scenic enjoyment of the general public (or, pursuant to another delineated governmental conservation policy) that will yield a significant public benefit.¹⁸⁶ Such open space may include farmland and forest land.¹⁸⁷ Finally, the preservation of a historically important land or structure may qualify as a conservation purpose.¹⁸⁸ The exclusivity requirement of this prong mandates that these conservation purposes be protected in perpetuity.¹⁸⁹

Once it has been determined that a qualifying conservation contribution has been made, the taxpayer must determine the value of the donation.¹⁹⁰ In the event that the property owner donates property, this is simply the fair market value of the property. However, the value of any easement donation would be more difficult to ascertain. An appraiser must determine both the fair market value of the property *with* and *without* the easement.¹⁹¹ The difference between these figures would yield the value of the easement.¹⁹² Such values must be determined through a qualified appraisal with appropriate documentation to verify the amount of the deductions.¹⁹³

After the value of the easement has been ascertained, the taxpayer may determine the extent of any deductions. According to the Code, the taxpayer may be eligible to deduct an amount equal to thirty percent (30%) of the taxpayer's adjusted gross income, up to the value of the easement.¹⁹⁴ The donor may take this deduction no more than six years and the deduction must cease once the value of the easement has been deducted.¹⁹⁵

The following example may help one develop a better understanding of the Code regulations. Assume that a property has an appraised fair market value of \$100,000. The landowner donates a conservation easement to a qualifying organization such as a land trust. The easement restrictions reduce the value of the property to \$64,000. Thus, the value of the easement (and the landowner's gift) would be \$36,000. Assuming that the landowner has an adjusted gross income of \$60,000, they may deduct \$18,000 ($\$60,000 \times 30\% = \$18,000$). This deduction may be taken the following year as well (assuming the adjusted gross income is constant) until the value

¹⁸⁶ See *id.*

¹⁸⁷ See *id.*

¹⁸⁸ See I.R.C. § 170(h)(4)(A)(iv) (1999).

¹⁸⁹ See I.R.C. § 170(h)(5)(A) (1999). See Reg. Sec. 1.170A-14(g) (discussing the requirements of the donor to protect the property in perpetuity).

¹⁹⁰ See STEPHEN SMALL, THE FEDERAL TAX LAW OF CONSERVATION EASEMENTS, 17-1 (1990).

¹⁹¹ See *id.*

¹⁹² See *id.*

¹⁹³ See THE LAND TRUST ALLIANCE, APPRAISING EASEMENTS, 5 (1990).

¹⁹⁴ See I.R.C. § (b)(1)(C) (1999). Alternatively, the Code offers an election that may offer greater tax savings. In many situations however, it will offer no greater benefit. With the election, "a taxpayer who makes a charitable gift of appreciated property can choose to reduce the amount of the deduction to the cost or bases of the property, and one important new rule will follow: the value of the gift (a reduced to basis) will be deductible up to 50% of the taxpayer's income, compared to the 30% ceiling without the election. The decision to use the new rule is made by making an 'election' to reduce the value of the gift to basis, and to increase the deduction to 50% of income." STEPHEN SMALL, PRESERVING FAMILY LANDS: ESSENTIAL TAX STRATEGIES FOR THE LANDOWNER, at 93. See I.R.C. section (b).

¹⁹⁵ See *id.*

of the easement donation has been deducted (up to a maximum of six years). In this example, the landowner may take two years of the full deduction before the amount of the donation has been reached.¹⁹⁶

2. Estate Taxes

Estate taxes are imposed on the right to transfer property by death.¹⁹⁷ The highest effective federal estate tax rate is fifty five percent (55%). Such rates underscore the importance of sound estate planning.¹⁹⁸ A conservation conveyance may be used to dramatically reduce estate taxes.¹⁹⁹

The highest and best use²⁰⁰ of a property dictates the value of the property for purposes of estate taxes.²⁰⁰ This amount is typically not what the existing use of the property may be, but the development potential of the parcel.²⁰¹ Thus for example, a desirable piece of farmland would be valued at the price developers would be willing to pay for it (for subdivision of the property) rather than the value of the parcel as farmland. The heirs of the property would be required to satisfy the estate taxes due on the fair market value of the property at its highest and best use, in addition to any other assets that the heirs may have inherited.²⁰² With the estate taxes due within nine months, heirs are often forced to sell the inherited land just to meet the estate taxes due.²⁰³

The use of a conservation easement or other conveyance may reduce the estate taxes.²⁰⁴ By donating a conservation easement, the property owner is reducing the tax base of the property.²⁰⁵ Such a restriction on the property would serve to lower the highest and best use.²⁰⁶ Thus, the development potential of the property would be significantly diminished. Such a reduction would be reflected in the amount of estate taxes paid by the heirs of the estate.²⁰⁷

Such a conservation easement may be made during the life of the owner or upon death.²⁰⁸ If the easement is made during the lifetime of the owner, the conveyance would immediately

¹⁹⁶ See Florida Land Trust Association, *Preservation For Floridians*, 26-27 (1991). See generally Small, *The Federal Tax Law of Conservation Easements*, at 20.

¹⁹⁷ See HENRY CAMPBELL BLACK, *BLACK'S LAW DICTIONARY*, (5th ed. 1990). The tax is levied on the decedent's estate and not on the heir receiving the property. See *id.* A tax levied on the heir receiving the property would be an inheritance tax. *Id.*

¹⁹⁸ See JANET DIEHL & THOMAS BARRETT, *THE CONSERVATION EASEMENT HANDBOOK*, 55-56 (1988).

¹⁹⁹ See *id.*

²⁰⁰ See *id.*, at 55.

²⁰¹ See *id.*

²⁰² See *id.*

²⁰³ See *id.*

²⁰⁴ See *id.*

²⁰⁵ See *id.*, at 56.

²⁰⁶ See *id.*, at 56.

²⁰⁷ See *id.*

²⁰⁸ See *id.*

depreciate the value of the property.²⁰⁹ Such a depreciation would be reflected in the estate taxes at the death of the property owner.²¹⁰ In addition, the owner would be able to capitalize on the benefits of an income tax deduction discussed above.²¹¹

An owner may choose not to limit their rights in the property during the owners lifetime.²¹² Should the owner choose, they may elect to donate a conservation easement upon their death. Such a devise would similarly reduce the taxable value of the estate as the conveyance during the lifetime of the owner.²¹³ However, the conveyance of the easement would not occur until death of the owner. At that time, the easement would pass and the heirs would realize the tax consequences of the estate with the easement.²¹⁴ Of course, the income tax benefits would not be realized by the property owner if the easement passed at death.

3. Gift Taxes

Gift taxes are imposed on a donor (the person making the donation) for the transfer of property.²¹⁵ This tax is based on the fair market value of the property at the time of the gift.²¹⁶ Similar to estate taxes, such a grant would serve to reduce gift taxes on gifts of property made during the lifetime of the owner.²¹⁷ By donating the easement before the gift is made, the property owner reduces the value of the property that would be subject to gift taxes.²¹⁸ By reducing the value of the property, the owner reduces the level of taxes that he or she will face due to the transfer.²¹⁹ If for example, the gift is made to the owners children (spouses benefit from an exemption), the donor would benefit from the reduced gift taxes owed on the transfer.²²⁰

4. Capital Gains Taxes

When one donates an interest in the land, such a donation will ultimately serve to reduce any capital gains taxes on the property should the owner decide to sell their interest. As applied to real property, capital gains are basically the increase in value of the property while in the owners possession. Capital gains realized when one transfers property are treated as income for purposes of taxation. The granting of an easement would reduce the amount of the property's appreciation

²⁰⁹ *See id.*

²¹⁰ *See id.*

²¹¹ *See id.*

²¹² *See* JANET DIEHL & THOMAS BARRETT, THE CONSERVATION EASEMENT HANDBOOK, at 56.

²¹³ *See id.*

²¹⁴ *See id.*

²¹⁵ *See* HENRY CAMPBELL BLACK, BLACK'S LAW DICTIONARY, (6th ed. 1990).

²¹⁶ *See id.*

²¹⁷ *See* JANET DIEHL & THOMAS BARRETT, THE CONSERVATION EASEMENT HANDBOOK, at 57.

²¹⁸ *See id.*

²¹⁹ *See id.*

²²⁰ *See id.*

from the time of acquisition.²²¹ Thus, the gain of the property would be proportionately reduced by the value of the easement.²²²

5. Ad Valorem Taxes

In Florida, ad valorem taxes are proportional to the assessed value of the property.²²³ Donating a conservation easement should reduce the assessed value of the interest retained in the property.²²⁴ Thus, the limitations of development on the property will reduce the appraised value, decreasing the amount of ad valorem taxes owed by the taxpayer.²²⁵ Since the charitable contribution of the Code requires that a qualified appraisal²²⁶ of the property be produced,²²⁷ the property owner may use this as evidence of the reduced value of the property to the County Property Appraiser. Therefore, the owner would realize a reduced tax burden of their annual ad valorem taxes.²²⁸

An alternative method of reducing the owners ad valorem taxes would be to downgrade the zoning of the property.²²⁹ For example, an owner could seek to re-zone the property to open space. Since a change in zoning would not be permanent, the owner could later petition to re-upgrade the zoning classification.²³⁰ Though this probably would not reduce taxes as much as a conservation easement, it may provide some tax relief for the taxpayer.²³¹

²²¹ See Stephen Small, *The Federal Tax Law of Conservation Easements*, 17-14.

²²² See generally *id.*, at 17-14 to 15.

²²³ FLA. CONST. art. VII (1997).

²²⁴ See JANET DIEHL & THOMAS BARRETT, *THE CONSERVATION EASEMENT HANDBOOK*, at 56.

Note however, in instances where the donor maintains an unencumbered interest in surrounding property, the assessed values in surrounding property may increase due to the added amenity of a conservation easement. See STEPHEN SMALL, *THE FEDERAL TAX LAW OF CONSERVATION EASEMENTS*, at 18.

²²⁵ See *id.*

²²⁶ The Code requires that a qualified appraisal "include, among other things, a description of the property, the method of valuation used to determine the fair market value of the property, certain information about the appraiser and his or her qualifications, and a description of the fee arrangements between the donor and the appraiser." STEPHEN SMALL, *THE FEDERAL TAX LAW OF CONSERVATION EASEMENTS*, at 19-3. The appraisal must be performed by a qualified appraiser which is "one qualified to make appraisals of the type of property being valued and cannot be a person whose relationship to the taxpayer or the donee organization would cause a reasonable person to question the independence of such appraiser." See *id.* at 19-2 to 3.

²²⁷ See *The Land Trust Alliance, Appraising Easements*, 5.

²²⁸ See JANET DIEHL & THOMAS BARRETT, *THE CONSERVATION EASEMENT HANDBOOK*, at 56.

²²⁹ Telephone Interview with Robin Tardiff, Property Appraiser (Land Section) for the Manatee County Property Appraiser (Feb. 10, 1999).

²³⁰ See *id.*

²³¹ Assessed property should reflect the just value of the property. FLA. CONST. art. VII s.4(c)(2)(1997). A downgrade in zoning may have a negative effect on the just value of the property. Florida Statutes state that the county property appraiser shall consider "[T]he highest and best use to which the property can be expected to be put in the immediate future and the present use of the property, taking into consideration . . . local and state land use regulation . . ." FLA. STAT. § 193.011(2)(1997).

Applying for greenbelt status may also reduce the tax burden.²³² Greenbelts give the owner an agricultural exemption on the ad valorem taxes of the property.²³³ To qualify however for greenbelt status, the property must be used for a bonafide commercial agricultural use.²³⁴

6. Conclusion

The land donations can provide several tax benefits to the donor of the interest. Such a gift enables the donor to take a deduction as a charitable gift on their federal income taxes. Upon death of the owner, the conveyance reduces the tax burden upon the estate before the property passes to heirs. The owner of the property may donate more property that has been encumbered with a conservation easement before subjecting themselves to gift taxes. Should the owner decide to sell the property, they will realize proportionately reduced capital gains after granting a conservation easement. Finally, the owner receives an immediate benefit with a reduction in their annual ad valorem taxes. Such benefits may amount to substantial savings to the taxpayer who donates the real property or a conservation easement.

I. Voluntary Approaches

1. Inter-jurisdictional Approaches

Inter-jurisdictional agreements are a particularly important scenic conservation tool in corridors that cross two or more jurisdictions. They are contracts executed by local governments in order to most efficiently use services and facilities among adjoining jurisdictions.²³⁵ They allow local governments to exercise together all power and authority that the governments share in common and could exercise independently. In Florida, local governments are allowed to enter into such agreements pursuant to Section 163.01 of the Florida Statutes.²³⁶

Interlocal agreements may create new entities that implement the agreement. This entity could perform the operational functions of a scenic highway program such as management and administration. Furthermore, an interlocal agreement could establish an independent special district to implement a scenic byway corridor.

2. Special Districts

²³² Telephone Interview with Robin Tardiff, Property Appraiser (Land Section) for the Manatee County Property Appraiser (Feb. 10, 1999).

²³³ See *id.*

²³⁴ See *id.*

²³⁵ See Florida Department of Transportation, *Florida Scenic Highways Program Manual*, *supra* note 37.

²³⁶ See FLA. STAT. § 163 (1999).

Special districts, governed by Chapter 189 of the Florida Statutes, are local units within certain limited boundaries that have specific governmental purposes.²³⁷ They may be either dependent or independent. Dependent special districts are created by an ordinance of a local government having jurisdiction over the area. Independent special districts, on the other hand, can only be created by the Florida Legislature, the Florida Governor and Cabinet, and in certain circumstances, local governments.

As stated earlier, local governments can create special districts by interlocal agreement.²³⁸ A special district, created in this manner, could be useful for a scenic byways program. Under this type of scenario, a multi-jurisdictional independent special district with the necessary funding could focus on the protection of a scenic corridor by utilizing its "own governmental powers" to most effectively implement the other various tools to enhance and conserve scenic byways.

Finally, a variation of the special district is the community development district (CDD) authorized in Chapter 163 of the Florida Statutes which allows large scale developments, often developments of regional impact (DRIs), to utilize tax free bonds to construct and maintain improvements, including roadways.²³⁹ A scenic corridor could be maintained and protected over the life of a CDD program.

VI. Conclusion

With the creation of a National Scenic Byways Program, the opportunity to develop new scenic byways and to strengthen the protection of existing byways has increased dramatically. Some states, with the help of federal funding, have established new scenic byway programs in recent years, while other states have enhanced their byway programs. However, designation under scenic highway programs has provided only the trigger for protecting scenic corridors.

The real protection of scenic corridors rests in the hands of local communities requires a strong commitment to implementation of scenic corridor management plans that utilize corridor protection strategies. Thus, communities must explore the many tools and techniques capable of being utilized as corridor protection strategies. These protection techniques cover a wide spectrum from fee-simple ownership to ordinances that prohibit certain types of land use to self-directed grass roots efforts to protect and enhance scenic beauty.

In the long run, the success of corridor protection will rest on the ability of local interest groups to work together to balance the goals of fostering economic prosperity with protecting

²³⁷ See FLA. STAT. § 189 (1999).

²³⁸ See *supra* this paper section § V(I)(1).

²³⁹

See FLA. STAT. §§ 163.360 - 163.385 (Community Redevelopment, in general Chapter 163 Part III).

the values of a scenic corridor. Thus, the protection of scenic corridors will necessitate local cooperation, commitment, and attention. However, "where there is a will, there is a way."²⁴⁰

²⁴⁰ See National Trust for Historic Preservation, *The Protection of America's Scenic Byways*, *supra* note 2, at 17.

TRANSPORTATION ELEMENT

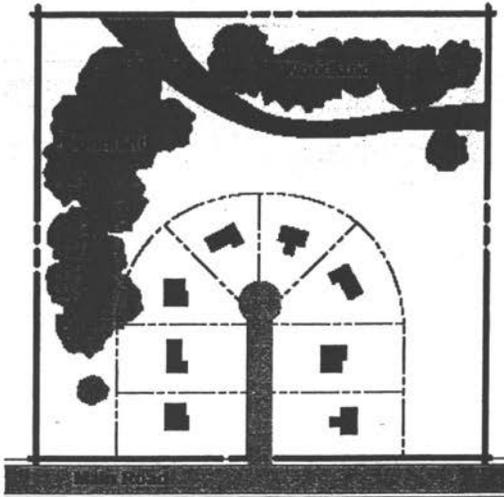
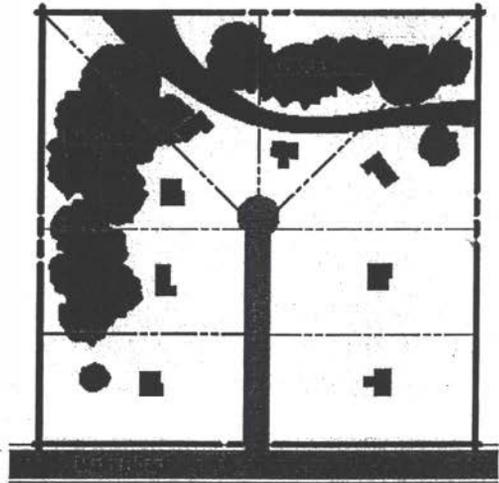
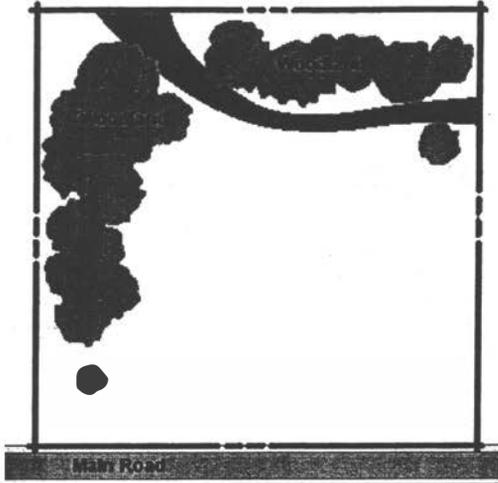
Appendix
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Transportation Element

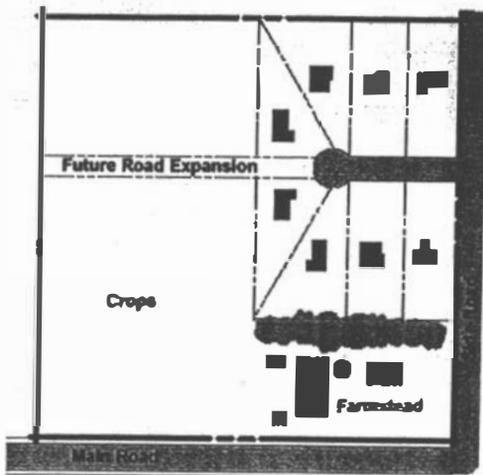
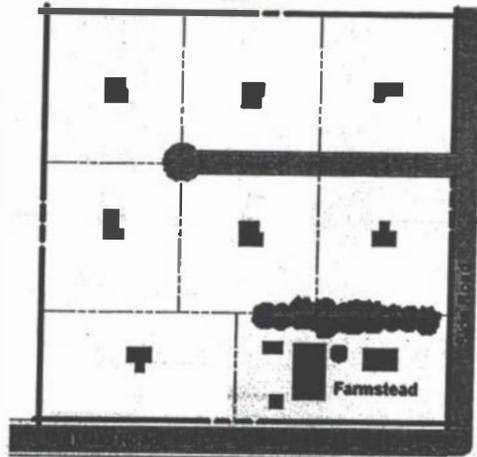
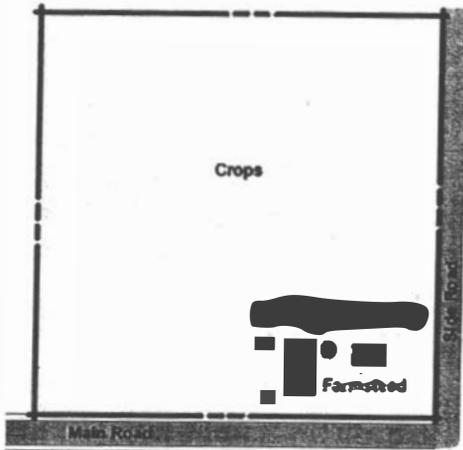
Rural Development Scenarios

Prepared by Amy Knox, SWWRPC

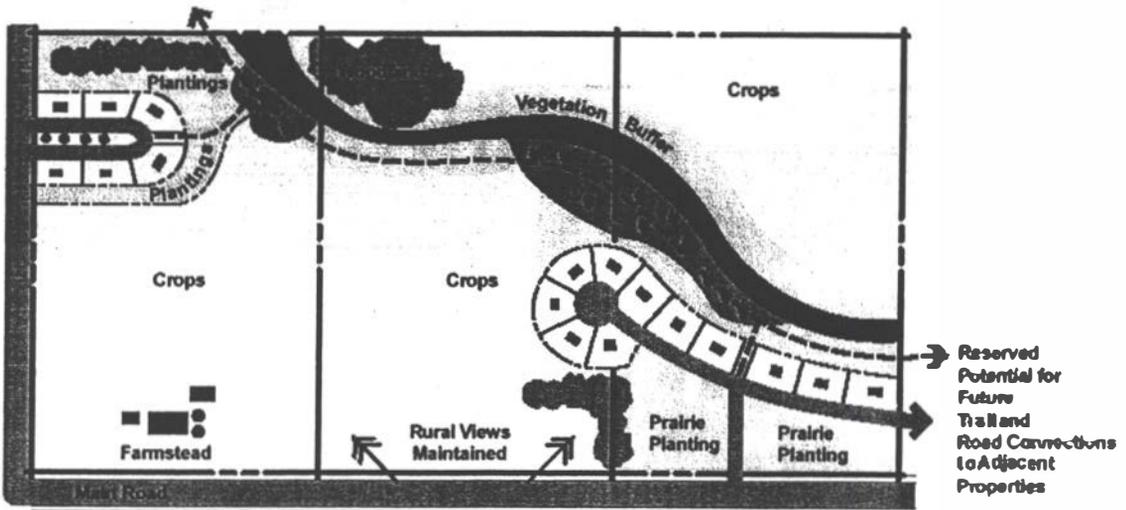
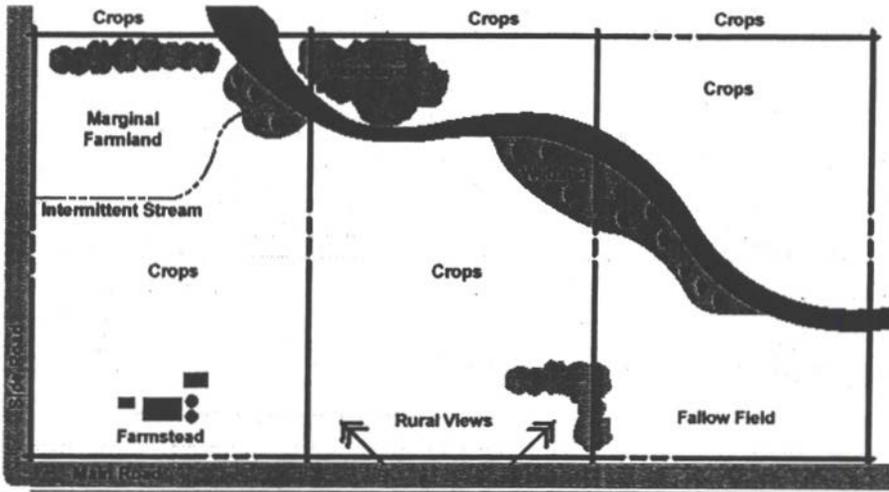
POTENTIAL DEVELOPMENT SCENARIOS



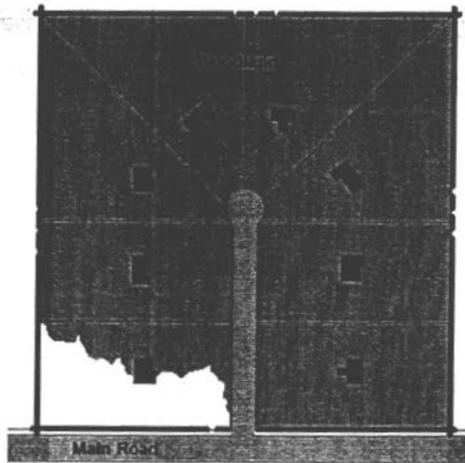
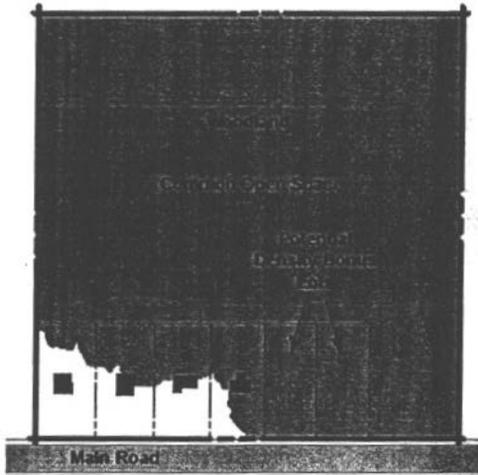
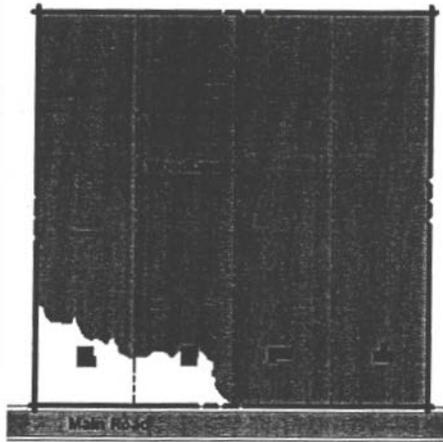
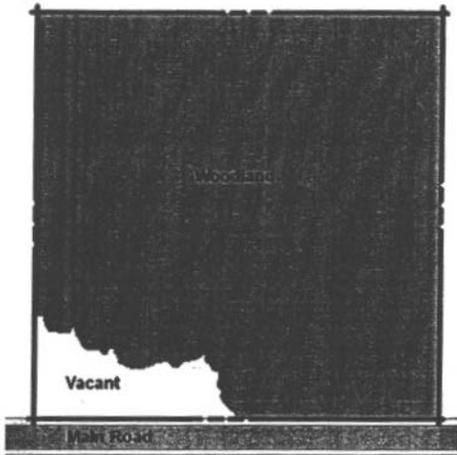
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POTENTIAL DEVELOPMENT SCENARIOS



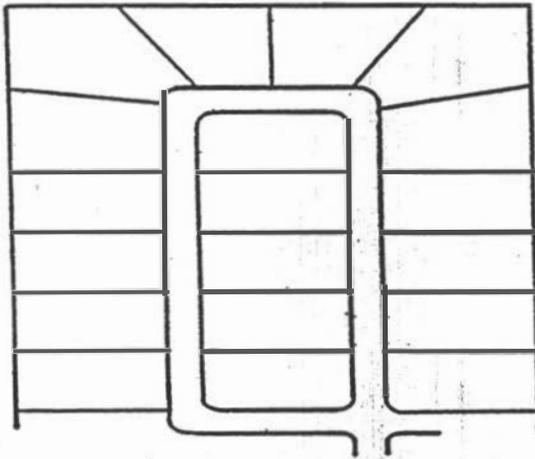
Transportation Element

City & Village Development Scenarios

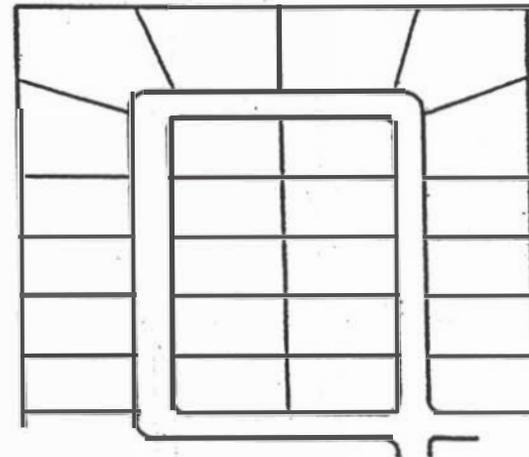
Prepared by Amy Knox, SWWRPC

DEVELOPMENT SCENARIOS

Example A



Example B



- Example A is a poor street design as the five lots in the middle are at least double fronted, meaning a street on two or more sides of the property.
- Example B incorporates the same design idea, but decreases the size of the lots and creates a double row of lots in the middle of the development.

DEVELOPMENT SCENARIOS

Example A



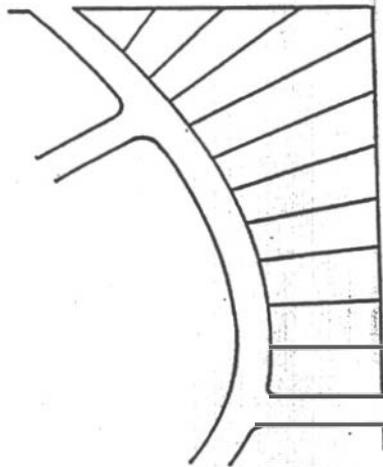
Example B



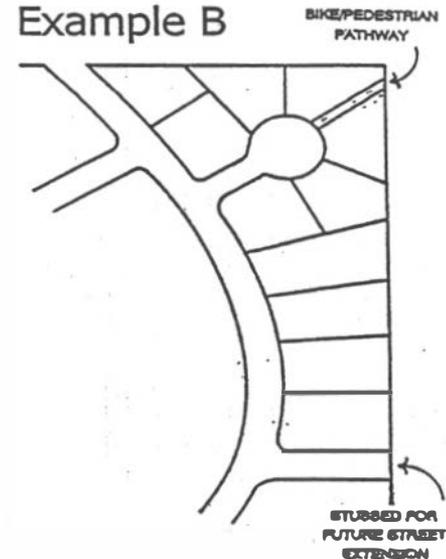
- Example A incorporates suburban cul-de-sac development creating several dead ends
- Example B is based on the traditional development of the village, connecting existing streets and infrastructure

DEVELOPMENT SCENARIOS

Example A



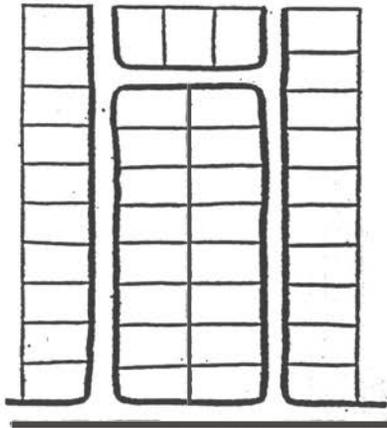
Example B



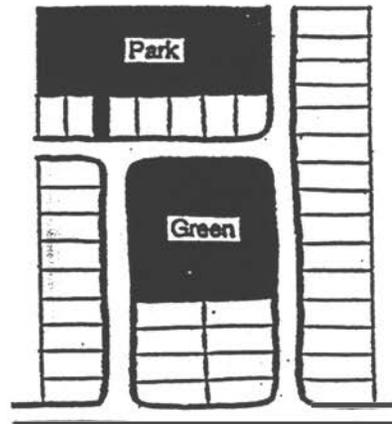
- Example A is a straight division of the lots which creates long skinny lots (the pizza cutter effect)
- Example B incorporates a cul-de-sac to decrease lot depth and increase width, as well as incorporation of a bike/pedestrian path
 - Note, both examples also include a street that is stubbed for future street extensions

DEVELOPMENT SCENARIOS

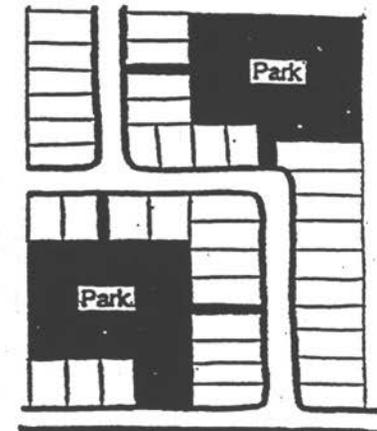
Example A



Example B



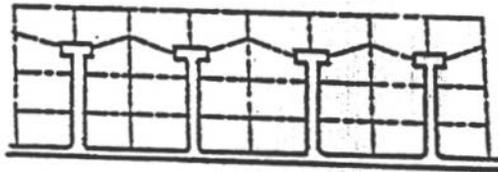
Example C



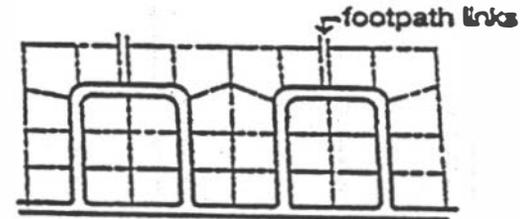
- Example A has 39 lots and 2500 feet of road, no parks or walking paths
- Example B has 39 lots, 2250 feet of road, common green space, a park, and a walking path to get from one area to the other
- Example C has 39 lots, 1650 feet of road, two parks, and four walking paths

DEVELOPMENT SCENARIOS

Example A



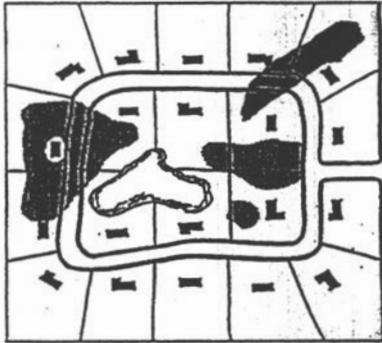
Example B



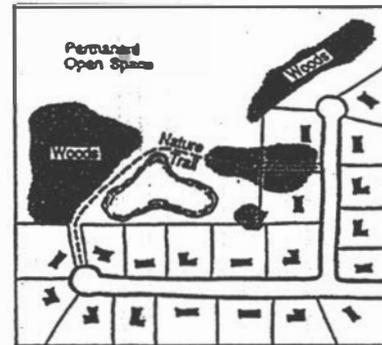
- Multiple Dead End Cul-de-sacs (Example A) vs. Cul-de-sacs joined together to form continuous loops (Example B)
- No walking paths between lots, a person must walk around (Example A), where as Example B includes pedestrian paths

DEVELOPMENT SCENARIOS

Example A



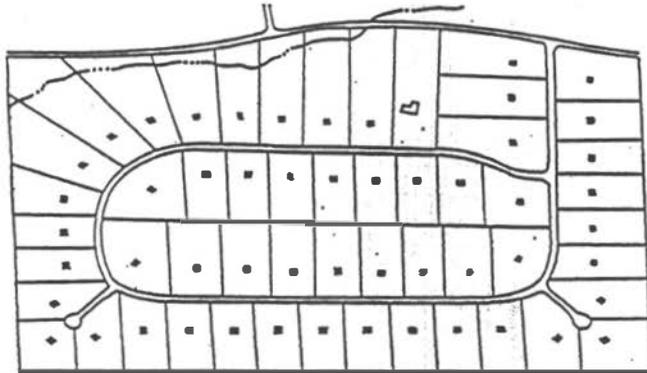
Example B



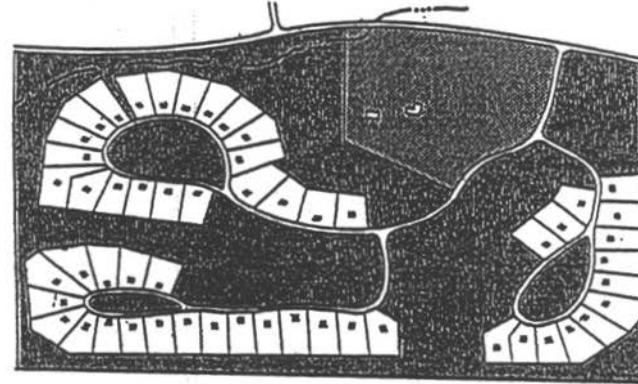
- Example A Includes 20 lots that are approximately 2 acres each, no common open space, and pond access for only 4 lots
- Example B also Includes 20 lots that are approximately $\frac{3}{4}$ acre each, 25 acres of open space, and pond access for all property owners

DEVELOPMENT SCENARIOS

Example A



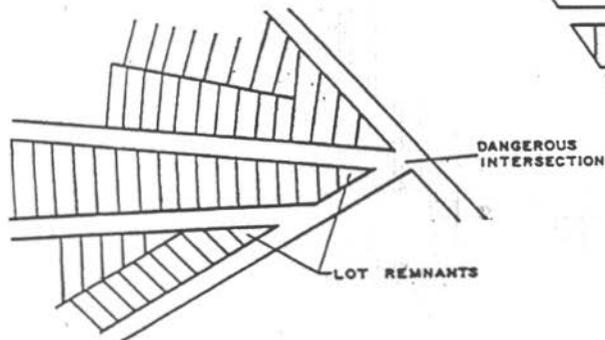
Example B



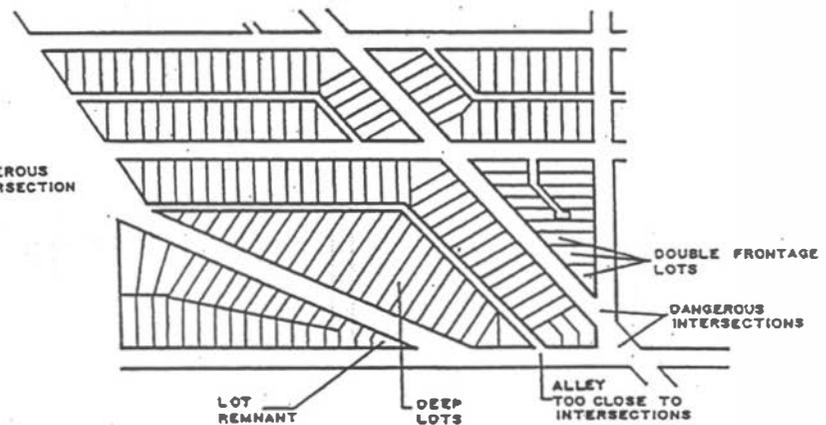
- Example A depicts a conventional subdivision where the entire property is divided into large lots
- Example B depicts a conservation subdivision that incorporates the same number of lots, in combination with a large amount of common open space shared by all property owners

DEVELOPMENT SCENARIOS

Example A



Example B



- Example A depicts an example of a subdivision with dangerous intersections and poor lot design
- Example B depicts several bad development examples, including double fronted lots, dangerous intersections, deep lots, and odd shaped lots that are not developable

TRANSPORTATION ELEMENT

Appendix
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This page was updated on February 03, 2004

Significant Changes Made in Rules of the Wisconsin Department of Transportation for Land Divisions Abutting State Highways

With an effective date of February 1, 1999, the Wisconsin Department of Transportation has substantially rewritten and expanded the scope of Administrative Rule Chapter TRANS 233 (www.legis.state.wi.us/rsb/code/trans/trans233.pdf). Administrative Rule TRANS 233 is the renumbered version of the rule historically known as HY33 under which the Wisconsin Department of Transportation contributed its component to the state plat review process.

The new version of TRANS 233 makes the following significant changes:

1. DOT will now review all land divisions involving lands directly abutting state highways or urban connecting streets that are part of the state trunk highway system. "Abutting" has been extended to include lands that are separated from the state trunk highway or connecting highway by a service road, or by unplatted roads owned by the subdivider. The rule also applies to land divisions abutting highways that intersect with a state trunk highway or connecting highway.
2. DOT review and approval extends to all manner of land divisions, full state subdivision plats, "county subdivision plats," minor subdivisions done by certified survey map, land divisions done by "metes and bounds," conveyances, etc. The underlying authority for the expanded state review is Wis. Stats. §236.13(1)e, and also Wis. Stats. §86.07(2), the statute giving state control over connections to state highways.
3. All such divisions are required to have advance approval of WisDOT. Applications must be submitted with a \$110 review fee, and the Department has 20 calendar days to complete its review.
4. The application must show all peripheral state and state-related highways as well as all public and private roads or driveways within the land division that intersect with the peripheral state road.
5. Setback rules are modified to allow some reduction in standard state setbacks pursuant to local ordinances, but the variations allowable by local ordinance are relatively minor. (Local ordinances can reduce the setback from 110 feet from the centerline to 100 feet, for example.)

6. The rules are more restrictive with respect to what can occur within the setbacks. For example, signs, parking lots, driveways, septic systems, and drainage facilities are prohibited within the setbacks.

Public utilities may install or maintain utility facilities within setbacks.

7. The Department will analyze whether the area being subdivided has noise levels warranting noise barriers under Administrative Rule TRANS 405. If so, the land developer will be responsible for noise barriers and a notation must be placed on the plat or CSM warning owners of the noise levels.

8. Authorizations are provided for the Department to require easements for vision corners.

9. A minimum distance of 1,000 feet is required between connections of roads or driveways with state highways "to the extent practicable."

10. Storm drainage standards are now articulated in the code. The pertinent standard is that anticipated discharge of storm waters shall be "less than or equal to the discharge preceding the development . . . (and the discharges) must . . . not endanger or harm the traveling public, downstream properties, or transportation facilities."

11. The Department continues to have power to grant variances. However, if the Department later acquires land, the Department is not required to pay compensation for structures or improvements that are authorized by variance.



Joseph K. Leibham

STATE SENATOR

FOR IMMEDIATE RELEASE

FOR INFORMATION, CONTACT:

State Senator Joseph K. Leibham (888) 295-8750

JANUARY 28, 2004

RULES COMMITTEE MOVES TO SUSPEND PART OF TRANS 233

Remaining Rule Clarifies DOT's Authority Over Land Use Along State Highways

Madison...Members of the Legislative Joint Committee for Review of Administrative Rules (JCRAR) moved on Wednesday to suspend portions of an administrative rule that regulates development activities along state trunk highways in Wisconsin. Citing the need to protect private property rights, promote economic development and reign in the scope of authority over these activities by the Department of Transportation (WisDOT), JCRAR voted to strike portions of Trans 233. Trans 233 is a comprehensive administrative rule that gives WisDOT the authority to regulate development lands that abut state trunk highways or connecting highways in Wisconsin. The rule suspension addresses concerns raised by numerous citizens who own land along state trunk highways in Wisconsin.

"The current implementation of Trans 233 greatly exceeds the scope of statutory authority that the legislature granted to WisDOT," said JCRAR Co-Chairman, State Senator Joe Leibham (R-Sheboygan). "Trans 233 has become a major barrier to economic development and job growth and runs over private property rights."

Senator Leibham said that the actions of JCRAR would suspend portions of the rule that went into effect in 1999. Specifically, the committee's action will limit the purpose and scope of WisDOT's plat review authority to "subdivisions" of five or more 1.5 acre lots that are adjacent to state highways. In addition, the suspended rule will allow for the reasonable and economic beneficial use of private property with state highway setback areas while prohibiting those improvements that create a legitimate threat to the health and safety of traveling motorists. "Prior to today's committee action, the state was controlling the use of private land without providing any compensation," Senator Leibham said. "This power was never granted to WisDOT by the legislature and it had to be stopped."

In an effort to ensure the continued safety of our roadways, Senator Leibham said WisDOT will retain the ability to manage access points onto state highways and have the ability to require vision corners at intersections and driveways. "Today's actions will restore private property development rights while maintaining our ability to ensure safety on our highways," Senator Leibham said.

Senator Leibham said that he and JCRAR Co-Chairman, State Representative Glenn Grothman (R-West Bend) had several meetings and communications with the WisDOT administration, including a letter spelling out concerns with Trans 233, and allowing them to address JCRAR on two separate committee meetings. "What was originally intended to be a vehicle for the State to review and manage projects that would adversely affect highway safety had grown into a review and objection process against economic development and growth," Senator Leibham said. "Our actions were necessary to reign in the expanded authority and power of the state so that private property rights can be protected."

The motion passed by JCRAR suspends identified language from the current Trans 233 immediately. The suspension will remain in effect until new legislation is passed by the full legislature. Leibham said he is open to continuing dialogue with WisDOT to address the suspension and concerns with Trans 233. "Our goal is to reform Trans 233 so that it is consistent with the authority approved by the legislature and seeks to promote highway safety without restricting job growth, economic development, or infringing on the rights of private property owners," Senator Leibham said.

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Traffic crashes, congestion could rise because of rule change

Legislature suspends portions of Transportation Administrative Rule 233

January 29, 2004

Wisconsin Department of Transportation (WisDOT) Secretary Frank Busalacchi today said the Legislature's decision to suspend regulatory oversight of land divisions along state highways could have a harmful impact on highway safety that may cause an increase in traffic crashes and injuries.

Busalacchi made the comments after the Legislature's Joint Committee for Review of Administrative Rules suspended portions of Transportation Administrative Rule 233 (Trans 233).

Busalacchi said the rule has served Wisconsin well for many years by promoting sustainable development, improving traffic flow and helping to reduce traffic crashes, especially rear-end collisions that occur when there are too many access points along a highway.

"Studies consistently show the number of crashes on both urban and rural highways rise as the number of driveways per mile increase. We can ill-afford to ignore a tool that has a positive impact on highway safety," he said.

Busalacchi called the suspension a step back for reasonable regulatory reform. "We need reforms that maintain standards while providing program efficiencies, not sweeping changes that have a detrimental impact on public and private investments," he said.

The Department of Transportation appeared at several Legislative hearings to express concerns about significant changes in the rule. The department has proposed a series of revisions focused on speeding up the land division review process and improving the working relationships of businesses, developers and state and local agencies.

Busalacchi said the suspended rule could make it more difficult to preserve public investments in roads and to create the type of sustainable developments that bring economic opportunities and job growth to Wisconsin. He noted the negative impact traffic jams, congestion and over-development have on communities.

"This change harms long-range planning efforts that help preserve investments in transportation corridors and contribute to the quality of life and attractiveness of

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Wisconsin's cities, towns and villages," he said.

Trans 233, which was first created in 1956, has been revised several times over the years. It regulates the division of land along state highways and local connecting highways. The rule applies to access points, such as the number of driveways, but also allows WisDOT to regulate setback requirements and certain aspects of noise, vision and storm water drainage.

Statewide, nearly 1,900 Trans 233 reviews are completed each year. WisDOT estimates that number to drop to about 150 since the department's authority will now be limited to land divisions associated with subdivision developments. In recent years, ten times as many land divisions occurred via non-subdivision methods than by subdivision.

WisDOT will retain its authority under Transportation Administrative Rule 231 to issue permits for driveways abutting state highways.

For more information contact:
Randy Romanski, (608)266-1114
Kevin Chesnik, (608)266-6885

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Questions about the content of this page:
Office of Public Affairs, opa_exec@dot.state.wi.us
Last modified: January 29, 2004

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Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

Chapter Trans 233

DIVISION OF LAND ABUTTING A STATE TRUNK HIGHWAY OR CONNECTING HIGHWAY

Trans 233.01	Purpose.
Trans 233.012	Applicability.
Trans 233.015	Definitions.
Trans 233.017	Other abutments.
Trans 233.02	Basic principles.
Trans 233.03	Procedures for review.
Trans 233.04	Required information.
Trans 233.05	Direct access to state trunk highway or connecting highway.

Trans 233.06	Frequency of connections with a state trunk highway or connecting highway.
Trans 233.07	Temporary connections.
Trans 233.08	Setback requirements and restrictions.
Trans 233.105	Noise, vision corridors and drainage.
Trans 233.11	Special exceptions.
Trans 233.12	Performance bond.
Trans 233.13	Fees.

Note: Chapter Hy 33 was renumbered chapter Trans 233, under s. 13. 3 (2m) (b) 1, Stats., Register, August, 1996, No. 488. Chapter Trans 233 as it existed on January 31, 1999, was repealed and a new Chapter Trans 233 was created effective February 1, 1999.

Trans 233.01 Purpose. Dividing or developing lands, or both, affects highways by generating traffic, increasing parking requirements, reducing sight distances, increasing the need for driveways and other highway access points and, in general, impairing highway safety and impeding traffic movements. The ability of state trunk highways and connecting highways to serve as an efficient part of an integrated intermodal transportation system meeting interstate, statewide, regional and local needs is jeopardized by failure to consider and accommodate long-range transportation plans and needs during land division processes. This chapter specifies the department's minimum standards for the division of land that abuts a state trunk highway or connecting highway, in order to provide for the safety of entrance upon and departure from those highways, to preserve the public interest and investment in those highways, to help maintain speed limits, and to provide for the development and implementation of an intermodal transportation system to serve the mobility needs of people and freight and foster economic growth and development, while minimizing transportation-related fuel consumption, air pollution, and adverse effects on the environment and on land owners and users. Preserving the public investment in an integrated transportation system also assures that no person, on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any transportation program or activity. The authority to impose minimum standards for subdivisions is s. 236.13 (1) (e), Stats. The authority to impose minimum standards for land divisions under ss. 236.34, 236.45 and 703.11, Stats., is s. 86.07 (2), Stats. The authority to impose minimum standards for land divisions to consider and accommodate long-range transportation plans and needs is ss. 1.11 (1), 1.12 (2), 1.13 (3), 20.395 (9) (qx), 66.1001 (2) (c), 84.01 (2), (15), and (17), 84.015, 84.03 (1), 85.02, 85.025, 85.05, 85.16 (1), 86.31 (6), 88.87 (3), and 114.31 (1), Stats.

Note: The Department is authorized and required by ss. 84.01 (15), 84.015, 84.03 (1) and 20.395 (9) (qx), to plan, select, lay out, add to, decrease, revise, construct, reconstruct, improve and maintain highways and related projects, as required by federal law, Title 23, USC and all acts of Congress amendatory or supplementary thereto, and the federal regulations issued under the federal code; and to expend funds in accordance with the requirements of acts of Congress making such funds available. Among these federal laws that the Department is authorized and required to follow are 23 USC 109 establishing highway design standards; 23 USC 134, requiring development and compliance with long-range (maximum of 20 years) transportation area transportation plans; and 23 USC 135, requiring development and compliance with long-range (maximum of 20 years) statewide transportation plans. Similarly, the Department is authorized and required by the state statutes cited and other federal law to assure that it does not constitutionally exclude or deny persons equal benefit or participation in transportation programs or activities on the basis of race, color, national origin and other factors, and to give appropriate consideration to the effects of transportation facilities on the environment and communities. A "state trunk highway" is a highway that is part of the State Trunk Highway System. It includes State numbered routes, federal numbered highways, the Great River Road and the Interstate System. A listing of state trunk highways with geographic end points is available in the Department's "Official State Trunk Highway System and the Connecting Highways" booklet that is published annually as of October 31. The County Maps published by the Wisconsin Department of Transportation also show the breakdown

county by county. As of January 1, 1997, there were 11, 13 miles of state trunk highways and 520 center-line miles of connecting highways. Of almost 118 municipalities in which there are connecting highways, 112 are cities and 4 or more are villages.

A "connecting highway" is not a state trunk highway. It is a marked route of the State Trunk Highway System over the streets and highways in municipalities which the Department has designated as connecting highways. Municipalities are responsible for their maintenance and traffic control. The Department is generally responsible for construction and reconstruction of the through lanes of connecting highways, but costs for parking lanes and related municipal facilities and other desired local improvements are local responsibilities. The Department reimburses municipalities for the maintenance of connecting highways in accordance with a lane mile formula. See ss. 84.02 (1), 84.03 (10), 86.32 (1) and (4), and 340.01 (60), Stats. A listing of connecting highways with geographic end points is also available in the Department's "Official State Trunk Highway System and the Connecting Highways" booklet that is published annually as of December 31.

A "business route" is an alternate highway route marked to guide motorists to the central or business portion of a city, village or town. The word "BUSINESS" appears at the top of the highway marking marker. A business route branches off from the regular numbered route, passes through the business portion of a city and rejoins the regularly numbered route beyond that area. With very rare exceptions, business routes are not state trunk highways or connecting highways. The authorizing statute is s. 4.02(6) Stats. This rule does not apply to business routes.

History: Cr Register, January, 1999, No. 517, eff. 2-1-99; am Register, January, 2001, No. 41, eff. 2-1-01; corrections made under s. 13.93 (2m) (b) 7, Stats.

Trans 233.012 Applicability. (1) In accordance with ss. 86.07 (2), 236.12, 236.34 and 236.45, Stats., this chapter applies to all land division maps reviewed by a city, village, town or county, the department of administration and the department of transportation. This chapter applies to any land division that is created by plat or map under s. 236.12 or 236.45, Stats., by certified survey map under s. 236.34, Stats., or by condominium plat under s. 703.11, Stats., or other means not provided by statute, and that abuts a state trunk highway, connecting highway or service road.

(2) Structures and improvements lawfully placed in a setback area under ch. Trans 233 prior to February 1, 1999, or lawfully placed in a setback area before a land division, are explicitly allowed to continue to exist. Plats that have received preliminary approval prior to February 1, 1999, are not subject to the standards under this chapter as first promulgated effective February 1, 1999, if there is no substantial change between the preliminary and final plat, but are subject to ch. Trans 233 as it existed prior to February 1, 1999. Plats that have received final approval prior to February 1, 1999, are not subject to the standards under this chapter as first promulgated effective February 1, 1999, but are subject to ch. Trans 233 as it existed prior to February 1, 1999. Land divisions on which the department acted between February 1, 1999 and February 1, 2001 are subject to ch. Trans 233 as it existed February 1, 1999.

(3) Any structure or improvement lawfully placed within a setback area under ch. Trans 233 prior to February 1, 1999, or lawfully placed within a setback area before a land division, may be kept in a state of repair, efficiency or validity in order to preserve from failure or decline, and if unintentionally or tortiously destroyed, may be replaced substantially in kind.

History: Cr Register, January, 1999, No. 517, eff. 2-1-99; amend Trans 233.012 to be (1), or (2) and (3), Register, January, 2001, No. 41, eff. 2-1-01; corrections made under s. 13.93 (2m) (b) 7, Stats.

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Trans 233.015 Definitions. Words and phrases used in this chapter have the meanings given in s. 340.01, Stats., unless a different definition is specifically provided. In this chapter:

(1) "Certified survey map" or "CSM" means a map that complies with the requirements of s. 236.34, Stats.

(1m) "Desirable traffic access pattern" means traffic access that is consistent with the technical and professional guidance provided in the department's facilities development manual.

Note: Guidelines established in the Department's Facilities Development Manual are not considered "rules," as defined in s. 227.01(13), Stats., and so are not subject to the requirements under s. 227.10, Stats.

(1r) "District office" means an office of the division of transportation districts of the department.

(2) "Improvement" means any permanent addition to or betterment of real property that involves the expenditure of labor or money to make the property more useful or valuable. "Improvement" includes parking lots, driveways, loading docks, in-ground swimming pools, wells, septic systems, retaining walls, signs, buildings, building appendages such as porches, and drainage facilities. "Improvement" does not include sidewalks, terraces, patios, landscaping and open fences.

(2m) "In-ground swimming pool" includes a swimming pool that is designed or used as part of a business or open to use by the general public or members of a group or association. "In-ground swimming pool" does not include any above-ground swimming pools without decks.

(3) "Land divider" means the owner of land that is the subject of a land division or the land owner's agent for purposes of creating a land division.

(4) "Land division" means a division under s. 236.12, 236.34, 236.45 or 703.11, Stats., or other means not provided by statute, of a lot, parcel or tract of land by the owner or the owner's agent for the purposes of sale or of building development.

(5) "Land division map" means an official map of a land division, including all certificates required as a condition of recording the map.

(5m) "Major intersection" means the area within one-half mile of the intersection or interchange of any state trunk highway or connecting highway with a designated expressway, or freeway, under s. 84.295, Stats., or a designated interstate highway under s. 84.29, Stats.

(6) "Public utility" means any corporation, company, individual or association that furnishes products or services to the public, and that is regulated under ch. 195 or 196, Stats., including railroads, telecommunications or telegraph companies, and any company furnishing or producing heat, light, power, cable television service or water, or a rural electrical cooperative, as described in s. 32.02 (10), Stats.

(6m) "Reviewing municipality" means a city or village to which the department has delegated authority to review and object to land divisions under s. Trans 233.03 (7).

(6r) "Secretary" means the secretary of the department of transportation.

(7) "Structure" includes a temporary or non-permanent addition to or betterment of real property that is portable in nature, but that adversely affects the safety of entrance upon or departure from state trunk or connecting highways or the preservation of public interest and investment in those highways, as determined by the department. "Structure" does not include portable swing sets, movable lawn sheds without pads or footings, and above ground swimming pools without decks.

(7m) "Technical land division" means a land division involving a structure or improvement that has been situated on the real property for at least 5 years, does not result in any change to the use of existing structures and improvements and does not negatively affect traffic. "Technical land division" includes the conversion of an apartment building that has been in existence for at

least 5 years to condominium ownership, the conversion of leased commercial spaces in a shopping mall that has been in existence for at least 5 years to owned spaces, and the exchange of deeds by adjacent owners to resolve mutual encroachments.

(8) "Unplatted" means not legally described by a plat, land division map, certified survey map or condominium plat.

(8m) "User" means a person entitled to use a majority of the property to the exclusion of others.

(9) "Utility facility" means any pipe, pipeline, duct, wire line, conduit, pole, tower, equipment or other structure used for transmission or distribution of electrical power or light or for the transmission, distribution or delivery of heat, water, gas, sewer, telegraph or telecommunication service, cable television service or broadcast service, as defined in s. 196.01 (1m), Stats.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; cr. (1m), (1r), (2m), (5m), (6m), (6r), (7m) and (8m), Register, January, 2001, No. 541, eff. 2-1-01.

Trans 233.017 Other abutments. For purposes of this chapter, land shall be considered to abut a state trunk highway or connecting highway if the land is any of the following:

(1) Land that contains any portion of a highway that is laid out or dedicated as part of a land division if the highway intersects with a state trunk highway or connecting highway.

(2) Separated from a state trunk highway or connecting highway by only unplatted lands that abut a state trunk highway or connecting highway if the unplatted lands are owned by, leased to or under option, whether formal or informal, or under contract or lease to the owner.

(3) Separated from a state trunk highway or connecting highway by only a service road.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99.

Trans 233.02 Basic principles. To control the effects of land divisions on state trunk highways and connecting highways and to carry out the purposes of ch. 236, Stats., the department promulgates the following basic requirements:

(1) Local traffic from a land division or development abutting a state trunk highway or connecting highway shall be served by an internal highway system of adequate capacity, intersecting with state trunk highways or connecting highways at the least practicable number of points and in a manner that is safe, convenient and economical.

(2) A land division shall be so laid out that its individual lots or parcels do not require direct vehicular access to a state trunk highway or connecting highway.

(3) The department, in order to integrate and coordinate traffic on a highway or on a private road or driveway with traffic on any affected state trunk highway or connecting highway, shall do both of the following:

(a) Consider, particularly in the absence of a local comprehensive general or master plan, or local land use plan, that plat or map's relationship to the access requirements of adjacent and contiguous land divisions and unplatted lands.

(b) Apply this chapter to all lands that are owned by, or are under option, whether formal or informal, or under contract or lease to the land divider and that are adjacent to or contiguous to the land division. Contiguous lands include those lands that abut the opposite side of the highway right-of-way.

(4) Setbacks from a state trunk highway or connecting highway shall be provided as specified in s. Trans 233.08.

(5) A land division map shall include provision for the handling of surface drainage in such a manner as specified in s. Trans 233.105 (3).

(6) A land division map shall include provisions for the mitigation of noise if the noise level exceeds noise standards in s. Trans 405.04, Table I.

(7) A land division shall provide vision corners at intersections and driveways per department standards.

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Note: Guide dimensions for vision corners are formally adopted in the Department's Facilities Development Manual, Chapter 11, pursuant to s. 227.01 (13)(c), Stats. Rules governing construction of driveways and other connections with highways are found in ch. Trans 231. Detailed specifications may be obtained at the department's district offices.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; am. (intro.), Register, January, 2001, No. 541, eff. 2-1-01.

Trans 233.03 Procedures for review. The following procedures apply to review by the department, district office or reviewing municipality of proposed certified survey maps, condominium plats and other land divisions:

(1) **CONCEPTUAL REVIEW.** (a) Before the lots are surveyed and staked out, the land divider shall submit a sketch to the department's district office for review. The sketch shall indicate roughly the layout of lots and the approximate location of streets, and include other information required in this chapter.

(b) Unless the land divider submits a preliminary plat under s. 236.12 (2) (a), Stats., the land divider shall have the district office review the sketch described in par. (a).

(c) There is no penalty for failing to obtain conceptual review; the conceptual review procedure is encouraged to avoid waste that results from subsequent required changes.

(2) **PRELIMINARY AND FINAL PLAT REVIEW.** The department shall conduct preliminary and final subdivision plat review under s. 236.12, Stats., when the land divider or approving authority submits, through the department of administration's plat review office, a formal request for departmental review of the plat for certification of non-objection as it relates to the requirements of this chapter. The request shall be accompanied with the land division map and the departmental review fee. No submittal may be considered complete unless it is accompanied by the fee.

(3) **PRELIMINARY AND FINAL REVIEW FOR LAND DIVISIONS OCCURRING UNDER S. 236.45 AND S. 703.11, STATS.** The department shall review preliminary and final land division maps under ss. 236.45 and 703.11, Stats., when the approving authority, or the land divider, when there is no approving authority, submits a formal request for departmental review for certification of non-objection as it relates to the requirements of this chapter. The request shall be accompanied with the land division map and the departmental review fee. No submittal may be considered complete unless it is accompanied by the fee. Additional information required is the name and address of the register of deeds, any approving agency, the land division map preparer and the land divider. This information is to be submitted to the district office. Review of preliminary and final land division maps occurring under ss. 236.45 and 703.11, Stats., by the department shall occur when the approving authority, or the land divider, when there is no approving authority, submits a formal request for departmental review for certification of non-objection as it relates to the requirements of this chapter. The request shall be accompanied with the land division map and the departmental review fee. No submittal may be considered complete unless it is accompanied by the fee. Additional information required is the name and address of the register of deeds, any approving agency, the land division map preparer and the land divider. This information is to be submitted to the department.

Note: The appropriate department address is Access Management Coordinator, Bureau of Highway Development, 4802 Sheboygan Avenue, Room 651, P. O. Box 7916, Madison, WI 53707-7916.

(4) **PRELIMINARY AND FINAL REVIEW FOR LAND DIVISIONS OCCURRING UNDER S. 236.34 AND BY OTHER MEANS NOT PRESCRIBED BY STATUTES.** The department shall conduct preliminary and final review of land division maps under s. 236.34, Stats., or under any other means not prescribed by statutes, when the land divider submits a formal request for departmental review for certification of non-objection to the land division as it relates to the requirements of this chapter. The request shall be accompanied with the land division map and the departmental review fee. No submittal may be considered complete unless it is accompanied by the fee. Additional information required is the name and address of the register

of deeds, any approving agency, the land division map preparer and the land divider. This information shall be submitted to the district office or to the department.

Note: The appropriate department address is Access Management Coordinator, Bureau of Highway Development, 4802 Sheboygan Avenue, Room 651, P. O. Box 7916, Madison, WI 53707-7916.

(5) **TIME LIMIT FOR REVIEW.** (a) Except as provided in pars. (b) to (d), not more than 20 calendar days after receiving a completed request to review a land division map, the department, district office or reviewing municipality shall do one of the following:

1. Determine that the land division is a technical land division. Upon determining that a land division is a technical land division, the department, district office or reviewing municipality shall certify that it has no objection to the land division map and shall refund all fees paid for review of that land division map.

2. Provide written notice to the land divider either objecting to or certifying that it has no objection to the land division.

Note: The 20-day time limit for action on a review without any special exception or variance is also established by statute for subdivision plat reviews in sec. 236.12(3) and (6), Stats.

(b) The department and district offices are not required to complete conceptual reviews under sub. (1) within a specified time, but shall endeavor to complete a conceptual review under sub. (1) within 30 calendar days after receiving the completed request.

(c) If a special exception is requested under s. Trans 233.11, the department, district office or reviewing municipality shall complete its review of the land division map within the time limit provided in s. Trans 233.11 (6).

(d) A request is considered complete under this subsection unless, within 5 working days after receiving the request, the department, district office or reviewing municipality provides written notice to the land divider stating that the request is incomplete and specifying the information needed to complete the request. On the date that additional information is requested under this subdivision, the time period for review ceases to run, but resumes running upon receipt of the requested information.

(e) If the department, district office or reviewing municipality fails to act within the time limit provided in this section or s. Trans 233.11 (6), the department, district office or reviewing municipality shall be considered to have no objection to the land division map or special exception.

(6) **DISTRICT AUTHORITY TO REVIEW LAND DIVISION MAPS.** Beginning on February 1, 2001, each district office may review land division maps under this chapter. The department shall develop implementing procedures to assure consistency and uniformity of such reviews among district offices and shall provide uniform guidance in figure 3 of procedure 7-50-5 of the department's facilities development manual dated December 1, 2000.

Note: Guidelines established under this subsection are not considered "rules", as defined in s. 227.01(13), Stats., and so are not subject to the requirements under s. 227.10, Stats. However, this rule references uniform guidance by date so that future revisions to that uniform guidance will become effective only if ch. Trans 233 is amended.

(7) **MUNICIPAL AUTHORITY TO REVIEW LAND DIVISION MAPS.** The department may, upon request, delegate to a city or village authority to review and object to any proposed land division that abuts a state trunk highway or connecting highway lying within the city or village. The department shall develop a uniform written delegation agreement in cooperation with cities and villages. The delegation agreement may authorize a city or village to grant special exceptions under s. Trans 233.11. Any decision of a reviewing municipality relating to a land division map or special exception is subject to the appeal procedure applicable to such decisions made by the department or a district office, except that the department may unilaterally review any such decision of a reviewing municipality to ensure conformity with the delegation agreement and this chapter and may reverse or modify the municipality's decision as appropriate. No reviewing municipality may change its setback policy after executing a delegation agreement

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Note: Rules governing construction of driveways and other connections with a state trunk highway are found in ch. Trans 231. Detailed specifications may be obtained at the Department's district offices.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; am. (1), Register, January, 2001, No. 541, eff. 2-1-01.

Trans 233.06 Frequency of connections with a state trunk highway or connecting highway.

(1) The land division shall be laid out with the least practicable number of highways and private roads or driveways connecting with abutting state trunk highways or connecting highways.

(2) The department shall determine a minimum allowable distance between connections with the state trunk highway or connecting highway, between any 2 highways within the land division and between a highway within the land division and any existing or planned highway. To the extent practicable, the department shall require a distance of at least 1,000 feet between connections with a state trunk highway or connecting highway.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99.

Trans 233.07 Temporary connections. (1) The department may issue temporary connection permits, which authorize the connection of a highway or a private road or driveway with a state trunk highway or connecting highway. The department may issue temporary connection permits in the case of:

(a) A land division which at the time of review cannot provide direct traffic access complying with the provisions of s. Trans 233.06 (2).

(b) A land division layout which might necessitate a point or pattern of traffic access for a future adjacent land division, not in accordance with s. Trans 233.06 (2).

(2) The department may require that such temporary connections be altered or closed by the permit holder at a later date in order to achieve a desirable traffic access pattern. The permit may require the permit holder to alter or close the temporary connection by a specified date or upon the completion of a specified activity. The permit holder is responsible for the expense of closing or altering the temporary connection.

(2m) A temporary connection shall be prominently labeled "Temporary Connection" on the land division map, and the following restriction shall be lettered on the land division map:

"The temporary connection(s) shown on this plat shall be used under a temporary connection permit which may be canceled at such time as a feasible alternate means of access to a highway is provided."

(3) When such a temporary connection is granted, the owner shall dedicate a service road or a satisfactory alternative, to provide for a present or future pattern of access that complies with s. Trans 233.06 (2).

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99.

Trans 233.08 Setback requirements and restrictions.

(1) Except as provided in this section or in s. Trans 233.11 or, with respect to connecting highways, as provided in s. 86.16 (1), Stats., no person may erect, install or maintain any structure or improvement within a setback area determined under sub. (2) or (3).

(2) (a) Except as provided in par. (b), the setback area is the area within 110 feet of the centerline of a state trunk highway or connecting highway or within 50 feet of the nearer right-of-way line of a state trunk highway or connecting highway, whichever is furthest from the centerline.

(b) If an applicable ordinance allows structures or improvements to be located closer to the right-of-way of a state trunk highway or connecting highway than is provided under par. (a), the setback area is the area between the right-of-way and the more restrictive of the following:

1. The distance allowed under the ordinance.

2. 42 feet from the nearer right-of-way line.

3. 100 feet from the centerline.

(c) At least once every 2 years, the department shall produce general reference maps that generally identify major intersections and the highways specified in subs. 1. to 5. The department may reduce or extend, by not more than 3 miles along the highway, the area subject to a setback established under par. (a) or (b) to establish logical continuity of a setback area or to terminate the setback area at a readily identifiable physical feature or legal boundary, including a highway or property boundary. Persons may seek special exceptions to the setback requirement applicable to these major intersections and highways, as provided in s. Trans 233.11 (3). The setback area established under par. (a) or (b) applies only to major intersections and to highways identified as:

1. State trunk highways and connecting highways that are part of the national highway system and approved by the federal government in accordance with 23 USC 103(b) and 23 CFR 470.107(b).

2. State trunk highways and connecting highways that are functionally classified as principal arterials in accordance with procedure 4-1-15 of the department's facilities development manual dated July 2, 1979.

3. State trunk highways and connecting highways within incorporated areas, within an unincorporated area within 3 miles of the corporate limits of a first, second or third class city, or within an unincorporated area within 1/2 miles of a fourth class city or a village.

4. State trunk highways and connecting highways with average daily traffic of 5,000 or more.

5. State trunk highways and connecting highways with current and forecasted congestion projected to be worse than level of service "C," as determined under s. Trans 210.05 (1), within the following 20 years.

Note: The National Highway System (NHS) includes the Interstate System, Wisconsin's Corridor 2020 routes, and other important routes. Highways on the NHS basic system were designated by the Secretary of USDOT and approved by Congress in the National Highway System Designation Act of 1995. NHS Intermodal Connector routes were added in 1998 with the enactment of the Transportation Equity Act for the 21st Century. Modifications to the NHS must be approved by the Secretary of USDOT. Guidance criteria and procedures for the functional classification of highways are provided in (1) the Federal Highway Administration (FHWA) publication "Highway Functional Classification—Concepts, Criteria and Procedures" revised in March 1989, and (2) former ch. Trans 76. The federal publication is available on request from the FHWA, Office of Environment and Planning, HEF-10, 400 Seventh Street, SW, Washington, DC 20590. Former ch. Trans 76 is available from the Wisconsin Department of Transportation, Division of Transportation Investment Management, Bureau of Planning. The results of the functional classification are mapped and submitted to the Federal Highway Administration (FHWA) for approval and when approved serve as the official record for Federal-aid highways and are the basis for designation of the National Highway System. In general, the highway functional classifications are rural or urban: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Roads. The definition of "level of service" used for this paragraph is the same as in ss. Trans 210.03(4) and 210.05(1) for purposes of the MAJOR HIGHWAY PROJECT NUMERICAL EVALUATION PROCESS. In general, the "level of service" refers to the ability of the facility to satisfy both existing and future travel demand. Six levels of service are defined for each type of highway facility ranging from A to F, with level of service A representing the best operating conditions and level of service F the worst. Department engineers will use the procedures outlined in the general design consideration guidelines in Chapter 11, Section 5 of the Wisconsin Department of Transportation's Facilities Development Manual to determine the level of highway service. Under the rule as effective February 1, 1999, s. Trans 233.08(1) provides 4 ways to erect something in a setback area (1) for utilities, follow the procedures set forth in the rule, (2) obtain a variance (now "special exception"), (3) for utilities, get local approval for utilities on or adjacent to connecting highways, or for utilities within the right of way of state trunk highways, get department approval (a mere "technical" exception), and (4) erect something that doesn't fall within the definition of "structure" or within the definition of "improvement." The provision below now adds a fifth "exception," (5) be 15 feet or more outside the right of way line of a defined and mapped set of highways.

(d) In addition to producing general reference maps at least once every 2 years that identify highways and intersections under par. (c), at least every 2 years the department shall also produce more detailed reference maps suitable for use in the geographic area of each district office.

(3) If any portion of a service road right-of-way lies within the setback area determined under sub. (2), the setback area shall be increased by the lesser of the following:

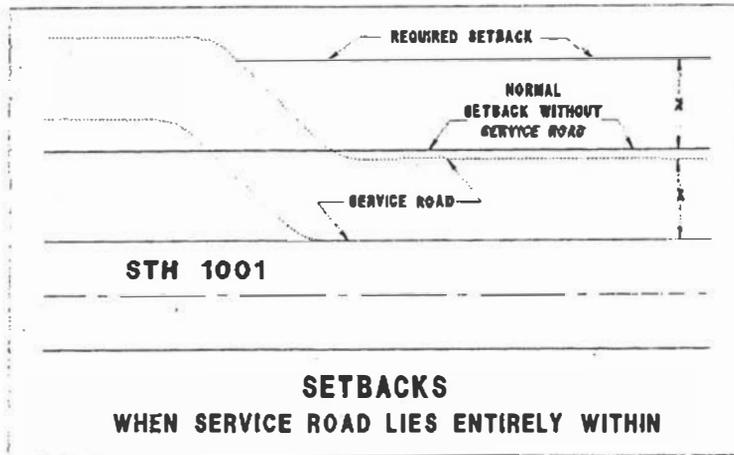
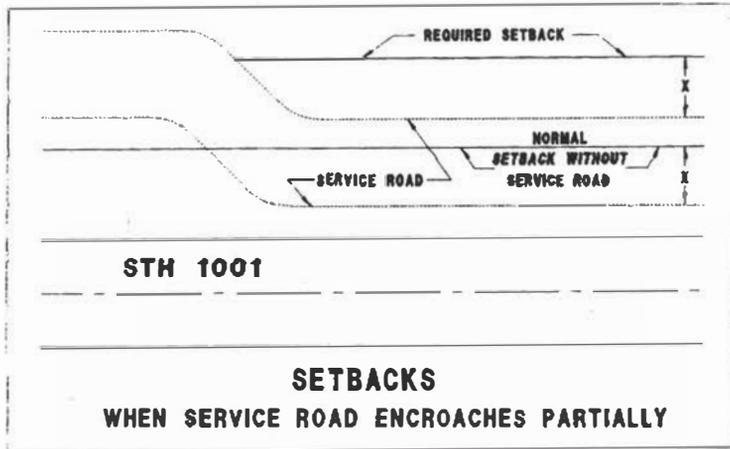
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(a) The width of the service road right-of-way, if the entire service road right-of-way lies within the setback area. Any increase under this paragraph shall be measured from the boundary of the setback area determined under sub. (2).

(b) The distance by which the service road right-of-way lies within the setback area, if the entire service road right-of-way does not lie within the setback area. Any increase under this para-

graph shall be measured from the nearer right-of-way line of the service road.

Note: For example, if a service road ROW extends 15 feet (measured perpendicularly to the setback) into the setback determined under sub. (2), and runs for a distance of 100 feet, the setback determined under sub. (2) shall be pushed 15 feet further from the centerline, running for a distance of 100 feet. See Graphic.



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(3m) (a) Notwithstanding sub. (1), a public utility may erect, install or maintain a utility facility within a setback area.

(b) If the department acquires land that is within a setback area for a state trunk highway, as provided by this chapter, and on which a utility facility is located, the department is not required to pay compensation or other damages relating to the utility facility, unless the utility facility is any of the following:

1. Erected or installed before the land division map is recorded.

2. Erected or installed on a recorded utility easement that was acquired prior to February 1, 1999.

3. Erected or installed after the land division map is recorded but with prior notice in writing, with a plan showing the nature and distance of the work from the nearest right-of-way line of the highway, to the department's appropriate district office within a normal time of 30 days, but no less than 5 days, before any routine, minor utility erection or installation work commences, nor less than 60 days, before any major utility erection or installation work commences, if any utility work is within the setback.

Note: For purposes of this section, "major utility erection or installation work" includes, but is not limited to, work involving transmission towers, communication towers, water towers, pumping stations, lift stations, regulator pits, remote switching cabinets, pipelines, electrical substations, wells, gas substations, antennas, satellite dishes, microwave facilities, optical transmission lines and facilities of similar magnitude. "Routine minor utility erection or installation work" refers to single residential distribution facilities and similar unobtrusive work of less magnitude. The concept behind the flexible "normal time of 30 days" standard for utility submission of notice and plans to the department is to encourage and require at least 60 days notice from utilities for larger, complex or expensive installations, but not for routine, minor utility work that has traditionally involved only a few days notice for coordination and issuance of utility permits by the department for which a minimum of 3 days notice is mandatory. However, the normal time for submission and review is 30 days. This notice and plan requirement does not apply to maintenance work on existing utilities.

4. Erected or installed before the land division map is recorded but modified after that date in a manner that increases the cost to remove or relocate the utility facility. In such a case, the department shall pay compensation or other damages related to the utility facility as it existed on the date the land division map was recorded, except that if the modification was made with prior notice in writing, with a plan showing the nature and distance of the work from the nearest right-of-way line of the highway, to the department's appropriate district office within a normal time of 30 days, but no less than 5 days, before any routine, minor utility erection or installation work commences, nor less than 60 days, before any major utility erection or installation work commences, if any utility work is within the setback, then the department shall pay compensation or other damages related to the utility facility as modified.

(c) If a local unit of government or the department acquires land that is within a setback area for a connecting highway as provided by this chapter and on which a utility facility is located, the department is not required to pay compensation or other damages relating to the utility facility, unless the utility facility is compensable under the applicable local setbacks and the utility facility is in any of the categories described in par. (b) 1. to 4.

Note: A "connecting highway" is not a state trunk highway. It is a marked route of the state trunk highway system over the streets and highways in municipalities which the Department has designated as connecting highways. Municipalities have jurisdiction over connecting highways and are responsible for their maintenance and traffic control. The Department is generally responsible for reconstruction and reconstruction of the through lanes of connecting highways, but costs for parking lanes and related municipal facilities and other desired local improvements are local responsibilities. See ss. 84.02 (11), 84.03 (10), 86.32 (1) and (4), and 340.01 (60), Stats. A listing of connecting highways and geographic end points are available in the department's "Official State Trunk Highway System and the Connecting Highways" booklet that is published annually as of December 31.

(d) The department shall review the notice and plan to determine whether a planned highway project within a 6-year improvement program under s. 84.01 (17), Stats., or a planned major highway project enumerated under s. 84.013 (3), Stats., will conflict with the planned utility facility work. If the department determines a conflict exists, it will notify the utility in writing within a normal time of 30 days, but no more than 5 days, after receiving the written notice and plan for any routine, minor utility

erection or installation work, nor more than 60 days, after receiving the written notice and plan for any major utility erection or installation work, and request the utility to consider alternative locations that will not conflict with the planned highway work. The department and utility may also enter into a cooperative agreement to jointly acquire, develop and maintain rights of way to be used jointly by WISDOT and the public utility in the future as authorized by s. 84.093, Stats. If the department and utility are not able to make arrangements to avoid or mitigate the conflict, the utility may proceed with the utility work, but notwithstanding pars. (b) and (c), the department may not pay compensation or other damages relating to the utility facility if it conflicts with the planned highway project. In order to avoid payment of compensation or other damages to the utility, the department is required to record a copy of its written notice to the utility of the conflict, that adequately describes the property and utility work involved, with the register of deeds in the county in which the utility work or any part of it is located.

Note: The Department will make the general and detailed maps readily available to the public on the internet and through other effective means of distribution.

(3n) Any person may erect, install or maintain any structure or improvement at 15 feet and beyond from the nearer right-of-way line of any state trunk highway or connecting highway not identified in s. Trans 233.08 (2) (c). Any person may request a special exception to the setback requirement established under this subsection, as provided in s. Trans 233.11 (3). This subsection does not apply to major intersections or within the desirable stopping sight distance, as determined under procedure 11-10-5 of the department's facilities development manual dated June 10, 1998, of the intersection of any state trunk highway or connecting highway with another state trunk highway or connecting highway. This subsection does not supersede more restrictive requirements imposed by valid applicable local ordinances.

Note: Technical figures 2, 3, 3m, 4, 4a, 5, 6 and 6m within Procedure 11-10-5 have various dates other than June 10, 1998 or are outdated.

(4) The land division map shall show the boundary of a setback area on the face of the land division map and shall clearly label the boundary as a highway setback line and shall clearly show existing structures and improvements lying within the setback area.

(5) The owner shall place the following restriction upon the same sheet of the land division map that shows the highway setback line:

"No improvements or structures are allowed between the right-of-way line and the highway setback line. Improvements and structures include, but are not limited to, signs, parking areas, driveways, wells, septic systems, drainage facilities, buildings and retaining walls. It is expressly intended that this restriction is for the benefit of the public as provided in section 236.293, Wisconsin Statutes, and shall be enforceable by the Wisconsin Department of Transportation or its assigns. Contact the Wisconsin Department of Transportation for more information. The phone number may be obtained by contacting the County Highway Department."

If on a CSM there is limited space for the above restriction on the same sheet that shows the setback line, then the following abbreviated restriction may be used with the standard restriction placed on a subsequent page: "Caution - Highway Setback Restrictions Prohibit Improvements. See sheet _____."

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; cr. (2)(c), (4) and (3n), Register, January, 2001, No. 541, eff. 2-1-01.

Trans 233.105 Noise, vision corners and drainage.

(1) NOISE. When noise barriers are warranted under the criteria specified in ch. Trans 405, the department is not responsible for

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any noise barriers for noise abatement from existing state trunk highways or connecting highways. Noise resulting from geographic expansion of the through-lane capacity of a highway is not the responsibility of the owner, user or land divider. In addition, the following notation shall be placed on the land division map:

"The lots of this land division may experience noise at levels exceeding the levels in s. Trans 405.04, Table I. These levels are based on federal standards. The department of transportation is not responsible for abating noise from existing state trunk highways or connecting highways, in the absence of any increase by the department to the highway's through-lane capacity."

Note: Some land divisions will result in facilities located in proximity to highways where the existing noise levels will exceed recommended federal standards. Noise barriers are designed to provide noise protection only to the ground floor of abutting buildings and not other parts of the building. Noise levels may increase over time. Therefore, it is important to have the notation placed on the land division map to warn owners that the department is not responsible for further noise abatement for traffic and traffic increases on the existing highway, in the absence of any increase by the department to the highway's through-lane capacity.

(2) **VISION CORNERS.** The department may require the owner to dedicate land or grant an easement for vision corners at the intersection of a highway with a state trunk highway or connecting highway to provide for the unobstructed view of the intersection by approaching vehicles. The owner shall have the choice of providing the vision corner by permanent easement or by dedication. If the department requires such a dedication or grant, the owner shall include the following notation on the land division map:

"No structure or improvement of any kind is permitted within the vision corner. No vegetation within the vision corner may exceed 30 inches in height."

Note: Guide dimensions for vision corners are formally adopted in the Department's Facilities Development Manual, Chapter 11, pursuant to s. 227.01 (13) (e), Stats.

(3) **DRAINAGE.** The owner of land that directly or indirectly discharges stormwater upon a state trunk highway or connecting highway shall submit to the department a drainage analysis and drainage plan that assures to a reasonable degree, appropriate to the circumstances, that the anticipated discharge of stormwater upon a state trunk highway or connecting highway following the development of the land is less than or equal to the discharge preceding the development and that the anticipated discharge will not endanger or harm the traveling public, downstream properties or transportation facilities. Various methods of hydrologic and hydraulic analysis consistent with sound engineering judgment and experience and suitably tailored to the extent of the possible drainage problem are acceptable. Land dividers are not required by this subsection to accept legal responsibility for unforeseen acts of nature or forces beyond their control. Nothing in this subsection relieves owners or users of land from their obligations under s. 88.87 (3) (b), Stats.

Note: to sec. 88.87 (1), Stats., the Legislature has recognized that development of private land adjacent to highways frequently changes the direction and volume of flow of surface waters. The Legislature found that it is necessary to control and regulate the construction and drainage of all highways in order to protect property owners from damage to lands caused by unreasonable diversion or retention of surface waters caused by a highway and to impose correlative duties upon owners and users of land for the purpose of protecting highways from flooding or water damage. Wisconsin law, sec. 88.87(3), Stats., imposes duties on every owner or user of land to provide and maintain a sufficient drainage system to protect downstream and upstream highways. Wisconsin law, sec. 88.87 (3) (b), Stats., provides that whoever fails or neglects to comply with this duty is liable for all damages to the highway caused by such failure or neglect. The authority in charge of maintenance of the highway may bring an action to recover such damages, but must commence the action within 90 days after the alleged damage occurred. Section 893.59, Stats. Additional guidance regarding drainage may be found in Chapter 13 and Procedure 13-1-1 of the Department's Facilities Development Manual.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; am. (1), (2) (intro.) and (3), Register, January, 2001, No. 541, eff. 2-1-01.

Trans 233.11 Special exceptions. (1) **DEPARTMENT CONSENT.** No municipality or county may issue a variance of spe-

cial exception from this chapter without the prior written consent of the department.

(3) (a) *Special exceptions for setbacks allowed.* The department, district office or, if authorized by a delegation agreement under sub. (7), reviewing municipality may authorize special exceptions from this chapter only in appropriate cases when warranted by specific analysis of the setback needs, as determined by the department, district office or reviewing municipality. A special exception may not be contrary to the public interest and shall be in harmony with the general purposes and intent of ch. 236, Stats., and of this chapter. The department, district office or reviewing municipality may grant a special exception that adjusts the setback area or authorizes the erection or installation of any structure or improvement within a setback area only as provided in this subsection. The department, district office or reviewing municipality may require such conditions and safeguards as will, in its judgment, secure substantially the purposes of this chapter.

Note: The phrase "practical difficulty or unnecessary hardship" has been eliminated from the rule that was effective February 1, 1999, to avoid the adverse legal consequences that could result from the existing use of the word "variance." The Wisconsin Supreme Court has interpreted "variance" and this phrase to make it extremely difficult to grant "variances" and in so doing has eased the way for third party legal challenges to many "variances" reasonably granted. See *State v. Kenosha County Bd. of Adjust.*, 218 Wis. 2d 396, 577 N.W.2d 813 (1998). The Supreme Court defined "unnecessary hardship" in this context as an owner having "no reasonable use of the property without a variance." *Id.* at 413. The "special exception" provision in this rule is not intended to be so restrictive and has not been administered in so restrictive a fashion. In the first year following revisions of ch. Trans 233, effective February 1, 1999, the Department granted the vast majority of "variances" requested, using a site and neighborhood-sensitive context based on specific analysis.

(b) *Specific analysis for special exceptions for setbacks.* Upon request for a special exception from a setback requirement of this chapter, the department, district office or reviewing municipality shall specifically analyze the setback needs. The analysis may consider all of the following:

1. The structure or improvement proposed and its location.
 2. The vicinity of the proposed land division and its existing development pattern.
 3. Land use and transportation plans and the effect on orderly overall development plans of local units of government.
 4. Whether the current and forecasted congestion of the abutting highway is projected to be worse than level of service "C," as determined under s. Trans 210.05 (1), within the following 20 years.
 5. The objectives of the community, developer and owner.
 6. The effect of the proposed structure or improvement on other property or improvements in the area.
 7. The impact of potential highway or other transportation improvements on the continued existence of the proposed structure or improvement.
 8. The impact of removal of all or part of the structure or improvement on the continuing viability or conforming use of the business, activity, or use associated with the proposed structure or improvement.
 9. Transportation safety.
 10. Preservation of the public interest and investment in the highway.
 11. Other criteria to promote public purposes consistent with local ordinances or plans for provision for light and air, providing fire protection, solving drainage problems, protecting the appearance and character of a neighborhood, conserving property values, and, in particular cases, to promote aesthetic and psychological values as well as ecological and environmental interests.
- (c) *Adjust setback.* If the department, district office or reviewing municipality grants a special exception by adjusting the setback area, the department shall pay just compensation for any subsequent department-required removal of any structure or improvement that the department has allowed outside of the approved, reduced setback area on land that the department acquires for a transportation improvement. The department may

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not decrease the 15 foot setback distance established under s. Trans 233.08 (3n), except in conformity with a comprehensive local setback ordinance, generally applicable to the vicinity of the land division, that expressly establishes a closer setback line.

(d) *Allow in setback - removal does not affect viability.* The department, district office or reviewing municipality may authorize the erection of a structure or improvement within a setback area only if the department, district office or reviewing municipality determines that any required removal of the structure or improvement, in whole or in part, will not affect the continuing viability or conforming use of the business, activity, or use associated with the proposed structure or improvement, and will not adversely affect the community in which it is located. Any owner or user who erects a structure or improvement under a special exception granted under this paragraph assumes the risk of future department required removal of the structure or improvement and waives any right to compensation, relocation assistance or damages associated with the department's acquisition of that land for a transportation improvement, including any damage to property outside the setback caused by removal of the structure or improvement in the setback that was allowed by special exception. The department, district office or reviewing municipality may not grant a special exception within an existing setback area, unless the owner executes an agreement or other appropriate document required by the department, binding on successors and assigns of the property, providing that, should the department need to acquire lands within the setback area, the department is not required to pay compensation, relocation costs or damages relating to any structure or improvement authorized by the special exception. The department, district office or reviewing municipality may require such conditions and safeguards as will, in its judgment, secure substantially the purposes of this chapter. The department, district office or reviewing municipality shall require the executed agreement or other appropriate document to be recorded with the register of deeds under sub. (7) as part of the special exception.

(e) *Blanket or area special exceptions for setbacks.* Based on its experience granting special exceptions on similar land divisions, similar structures or improvements, or the same area and development pattern, the department may grant blanket or area special exceptions from setback requirements of this chapter that are generally applicable. The department shall record blanket or area special exceptions with the register of deeds in the areas affected or shall provide public notice of the blanket or area special exceptions by other means that the department determines to be appropriate to inform the public.

(f) *Horizon of setback analysis.* For purposes of its specific analysis, the department, district office or reviewing municipality shall consider the period 20 years after the date of analysis.

Note: Federal law requires a minimum 20-year forecast period for transportation planning for all areas of the State. 23 USC 134 (g) (2)(A) and 135 (e) (1).

(4) **SPECIAL EXCEPTIONS FOR PROVISIONS OF THIS CHAPTER OTHER THAN SETBACKS.** Except as provided in sub. (3), the department may not authorize special exceptions from this chapter, except in appropriate cases in which the literal application of this chapter would result in practical difficulty or unnecessary hardship, or would defeat an orderly overall development plan of a local unit of government. A special exception may not be contrary to the public interest and shall be in harmony with the general purposes and intent of ch. 236, Stats., and of this chapter. The depart-

ment may require such conditions and safeguards as will, in its judgment, secure substantially the purposes of this chapter.

Note: This subsection uses the phrase "practical difficulty or unnecessary hardship" to indicate a higher standard for special exceptions from provisions of this chapter other than setbacks. However, the phrase "special exception" has been used rather than the word "variance." The Supreme Court defined "unnecessary hardship" in a variance context as an owner having "no reasonable use of the property without a variance." See *State v. Kenosha County Bd. of Adjust.*, 218 Wis. 2d 396, 413, 577 N. W.2d 813 (1998). The department intends the "special exception" provision in this rule to be administered in a somewhat less restrictive fashion than "no reasonable use of the property" without a "variance."

(5) **MUNICIPAL SPECIAL EXCEPTIONS.** A delegation agreement under s. Trans 233.03 (8) may authorize a reviewing municipality to grant special exceptions. No municipality may grant special exceptions to any requirement of this chapter, except in conformity with a delegation agreement under this subsection. Any decision of a reviewing municipality relating to a special exception is subject to the appeal procedure applicable to such decisions made by the department or a district office, except that the department may unilaterally review any such decision of a reviewing municipality only for the purposes of ensuring conformity with the delegation agreement and this chapter.

(6) **TIME LIMIT FOR REVIEW.** Not more than 60 calendar days after receiving a completed request for a special exception under s. Trans 233.11, the department, district office or reviewing municipality shall provide to the land divider written notice of its decision granting or denying a special exception. The 60-day time limit may be extended only by written consent of the land divider.

Note: The Department intends that decisions concerning special exceptions be made in the shortest practicable period of time. The Department intends the 60-day time limit applicable to special exceptions to allow sufficient time for a land divider and the Department, district office or municipality to explore alternative locations or plans to avoid and minimize conflicts and to facilitate mutually acceptable resolutions to conflicts.

(7) **RECORDING REQUIRED.** A special exception granted under this section is effective only when the special exception is recorded in the office of the register of deeds. Any structure or improvement erected under authority of a special exception granted under this section is presumed to have been first erected on the date the special exception is recorded.

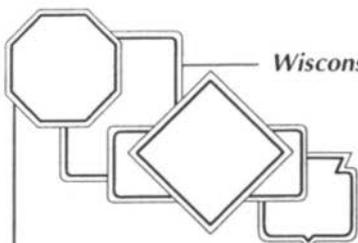
History: Cr. Register, January, 1999, No. 517, eff. 2-1-99; return. (2) to be (3) (a) and am., cr. (3) (b) to (f) and (4) to (7), Register, January, 2001, No. 341, eff. 2-1-01.

Trans 233.12 Performance bond. The department may, in appropriate cases, require that a performance bond be posted, or that other financial assurance be provided, to ensure the construction of any improvements in connection with the land division which may affect a state trunk highway.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99.

Trans 233.13 Fees. The department shall charge a fee of \$110 for reviewing a land division map that is submitted under s. 236.10, 236.12, 236.34, 236.45 or 703.11, Stats., or other means not provided by statute, on or after the first day of the first month beginning after February 1, 1999. The fee is payable prior to the department's review of the land division map. The department may change the fee each year effective July 1 at the annual rate of inflation, as determined by movement in the consumer price index for all urban consumers (CPI-U), published the preceding January in the CPI detailed report by the U.S. department of labor's bureau of labor statistics, rounded down to the nearest multiple of \$5.

History: Cr. Register, January, 1999, No. 517, eff. 2-1-99.



Setting Speed Limits on Local Roads

Speed limits are an important tool for promoting safety on streets and highways. Limits tell drivers what is the reasonable speed for a road section. They also help traffic enforcement by setting standards for what is an unsafe speed.

The state has set speed limits for all roads. However, municipalities can change speed limits for their roads under authority and guidelines in the *Wisconsin Statutes*. Selecting the appropriate speed limit can be a challenge because people often disagree. Residents frequently seek lower speeds, especially after a serious crash. Drivers tend to choose speeds that seem reasonable for the conditions—often higher than the posted limit—and that satisfy personal needs (saving time, enjoyment, inertia).

Local officials have a key role in setting limits. They must balance the competing concerns and opinions of drivers, residents, and law enforcement agencies with statutory requirements and the recommendations of traffic engineers.

This booklet is designed to help. It includes background information and research recommendations, summarizes statutory limits, describes the process for changing limits, and discusses signs, enforcement, advisory speeds, and other speed issues.

Background

High speeds are a factor in up to one-third of all fatal crashes, and injuries from speed-related crashes (including speed too fast for conditions) cost society \$27 billion per year (1994 estimate). Although speed by itself may not necessarily cause accidents, it affects their severity. For example, 85% of pedestrians struck by vehicles traveling 40 mph were killed while only 5% were killed when the speed was 20 mph.

Common sense says that regulating speed is a good way to make streets and highways safer. As a result, citizens may demand lower speeds, especially if there has been a severe crash or a frightening “near miss.”



However, driving behavior is not so easy to manage. Many studies, including a 1997 federal speed study (FHWA-RD-92-084), show that simply lowering speed limits has little effect on actual speeds, usually only reducing speeds by one to two miles per hour. At the same time, the difference in speeds, which is a common cause of crashes, increases, often making the roadways less safe. In general, drivers choose their speed based on what they think is safe and reasonable for the conditions present. An unreasonable posted speed gets little consideration from drivers. They determine “safe and reasonable” from a variety of factors, including:

- Road geometry—roadway characteristics such as lane width, shoulder width, sight distance, curves, and hills
- Land use, including frequency of driveways and cross streets
- Traffic volume and prevailing speed
- Presence of pedestrians, bikes, and parked cars
- Visual clutter such as billboards and commercial buildings
- Weather and road conditions
- Vehicle type and characteristics
- Driver capability, attitudes and habit
- Public attitudes
- Enforcement
- Speed zoning

A new alternative for managing vehicle speeds is called "traffic calming." This emphasizes physical changes to local streets—making them appear narrower or more restricted, for example—so drivers will voluntarily choose lower "safe and comfortable" speeds.

Philosophy

Prevailing speed—the one which most drivers choose—is a major consideration in setting speed limits. Wisconsin's statutes recognize this in declaring that "no person shall drive a vehicle at a speed greater than is reasonable and prudent under the conditions..." [246.57(2) *Wis. Stats.*]

Engineers recommend setting limits at the 85% percentile speed, where 85% of the freely flowing traffic travels at or below that speed. They also emphasize considering the road's design speed in setting speed limits. This is the highest safe speed for which the road was designed. It takes into account road type, road geometry, and adjacent land use. Research studies show that accident rates go down when speed limits are within 10 mph of the design speed. When the difference is greater, motorists choose a wider variety of speeds. This variance in speed between vehicles, more than the speed itself, results in higher accident rates.

However, the prevailing speed and design speed may be hazardous for pedestrians, bicyclists, and other road users. Modern roads are often over-designed, particularly in residential areas, where they tend to emphasize functions like accommodating fire trucks or street parking. The wide, unobstructed roads that result can unintentionally encourage drivers to drive too fast for the safety of other road users. Simply setting lower speed limits is unlikely to produce the desired results, however, especially without effective enforcement. In these cases, authorities may wish to consider using some traffic calming techniques.

Speeds should be consistent, safe, reasonable, and enforceable. When 85% of drivers voluntarily comply with speed limits, it is possible and reasonable to enforce the limits with the 15% who drive too fast. Unreasonably low limits can promote disrespect for and disregard of other, reasonable posted limits. They also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change drivers' speed behavior. Unreasonably high limits create unnecessary risks.

Authority

Power to set speed limits rests with the state. Chapter 346.57 *Speed Restrictions* of the Wisconsin Statutes requires drivers to use a speed that is "reasonable and prudent," to exercise "due care," [346.57(2)] and to reduce speed under a variety of conditions such as "going around a curve...passing school children, high-

way construction or maintenance workers...and when special hazard exists..." [346.57(3)].

The Statutes give fixed limits for more than a dozen situations depending on the road type, jurisdiction, and land use [346.57 (4) (a-k)]. (See chart.)

Local or state officials have authority to change these limits within the limitations in Chapter 349.11 (summarized in chart). They must conduct an engineering and traffic investigation to determine a reasonable and safe speed limit. The limit must then be legally adopted by the local authority and appropriate signs erected. When properly changed, such limits do not create additional liability. In addition, changes beyond those specified in the statutes are possible in consultation with the state Department of Transportation.

Speed limits and authority to change

Fixed limits – Statute 346.57(4)*	Sub-section	Local government authority** – Statute 349.11.3(6) or 349.7
65 MPH – Interstate	(g,m)	WisDOT ONLY
55 MPH – STH	(h)	WisDOT ONLY
55 MPH – CTH, town roads	(h)	Lower by 10 MPH
45 MPH – Rustic Roads	(k)	Lower by 15 MPH
35 MPH – town road (1,000 ft. min) with 150 ft. or less driveway spacing	(j)	No changes permitted
25 MPH – Inside corporate limits, residential street (other than outlying district)	(e)	Lower or raise by 10 MPH
35 MPH – Outlying district inside corporate limits (1,000 ft. min., 200 ft. driveway spacing)	(f)	Lower or raise by 10 MPH
35 MPH – Semi-urban outside corp. limits (1,000 ft. min., 200 ft. driveway spacing)	(f)	Lower or raise by 10 MPH
15 MPH – School Zone	(a)	Lower by 10 MPH or raise to speed of adjacent street
15 MPH – School Crossing	(b)	Lower by 10 MPH or raise to speed of adjacent street
15 MPH – Pedestrian safety zone	(c)	No changes permitted
15 MPH – Alley	(d)	Lower by 10 MPH
15 MPH – Public park (within, contiguous or adjacent to)	(j,l)	Lower by 10 MPH
Construction or maintenance zones as appropriate	(10)	State and local agencies have authority to establish

* From WisDOT Highway and Transportation Laws and Rules, 1995.

** All speed limit changes should be based on an engineering study.

All limits, whether set by statute or local authority, are only effective and enforceable when official signs have been erected to give adequate warning to highway users. Signs must conform to the specifications in the *Manual on Uniform Traffic Control Devices (MUTCD)* and the *Wisconsin Supplement to the MUTCD*.

Speeds may also be temporarily reduced in work zones where highways are being constructed, reconstructed, maintained or repaired [Ch.349.11(10)]. These changes must be properly posted and are not restricted by the other limitations in Chapter 349.11. Appropriate work zone signing and set up is described in *Workzone Safety: Guidelines for Construction, Maintenance and Utility Operations*.

The local agency that maintains the roadway has jurisdiction for determining the speed limit. In most cases the responsibility is clear. If a roadway segment has joint jurisdiction, such as a road on the border between two cities, then both agencies must agree on the speed limit. Obviously, the speed must be the same in both directions. In cases where the county or state maintains a road within the corporate limits of a city or village, the county or state is responsible for setting the speed limit. Coordination with local officials and law enforcement agencies is essential to set effective speed limits.

Required studies

Local authorities are required by the statutes to conduct engineering and traffic speed studies to determine a reasonable and prudent speed limit for a section of road or highway. Local law enforcement, the county Traffic Safety Commission, and WisDOT District engineering staff can be very helpful in conducting and interpreting these studies for local municipalities.

Engineering studies should include the following:

1. Measure prevailing speed characteristics and determine the 85th-percentile speed and pace speed
2. Evaluate reported accident experience for the past three to five years
3. Review roadside development and culture, and driveway access for conflicts
4. Evaluate sight distances at intersections, horizontal curves, and vertical curves
5. Check the road's geometrics including lane widths, sharp curves, and roadside hazards
6. Consider conflicts with parking practices, and pedestrian and bicycle activity
7. Evaluate pavement surface characteristics and shoulder conditions
8. Determine the current level of enforcement

A speed study is a statistical evaluation of speed characteristics at a specific location. It includes averages, ranges, distribution, and variability of speeds, and confidence levels of the analysis. Spot speed studies should be unbiased, measuring a statistically valid sample of vehicles.

Accurate spot speed measurements are important for setting limits. They should represent free flowing traffic on a clear, dry day. There should be a large enough number of measurements to produce an appropriate level of confidence about the data analysis. Spot speed is the instantaneous speed at one location. This is different from the average speed over a distance. As a general rule, the minimum sample size should never be less than 30 measured spot speeds. On higher volume roads the study should include about 100 cars.

Data can be collected in a variety of ways. Radar or laser speed detection units are commonly available and generally used to measure a sample of every *n*th vehicle. Speed can also be measured manually by counting the time it takes every *n*th vehicle to travel a measured distance between two points. Automatic data recorders using detector loops and tube counters can produce considerably more information by measuring every vehicle during a given time period and automatically calculating the spot speeds in free flowing traffic. Video and radar speed cameras are also used and can capture a broad variety of data which is preserved for multiple analyses. Once collected, data is then analyzed statistically and presented in tables and graphs.

Signs

A speed limit is not in effect until the area has been properly signed. Conversely, signs must not be installed until the limit has been approved and officially authorized. Signs are governed by the *Manual on Uniform Traffic Control Devices (MUTCD)*. Two types may be used: one for passenger cars and another for special limits for trucks and buses.

No more than three speed limits should be displayed on any one speed limit sign or assembly. Signs with special limits for trucks or other vehicles should include the word TRUCKS or a similar appropriate message. They can be displayed below the standard message or on a separate plate which should refer to SPEED or MPH.

The standard SPEED LIMIT sign must be 24 by 30 inches. Signs must be located:

- at each point where the speed limit changes
- beyond major intersections
- at other locations where it is necessary to remind motorists of the limit





REDUCED SPEED AHEAD signs may also be used to give advance warning of a lower speed zone. This sign should be used in rural areas to alert motorists when they may need extra time to slow to the posted limit. It must always be followed by a SPEED LIMIT sign at the beginning of the new zone.

Near schools, the END SCHOOL ZONE sign may be used as an alternate to the SPEED LIMIT sign.

Enforcement

Enforcement is critical. Without it speed limits are not effective. When it is considerably increased, violations and crashes have been reduced.

Local officials should actively involve enforcement personnel in setting speed limits to ensure they are reasonably enforceable. Enforcement agencies should always be advised when changes have been adopted.

Enforcement requires wide public support. A first step is to ensure that speed limits are publically perceived as reasonable and fair because the voluntary cooperation of most drivers is essential. A second step is vigorous public information and education stressing the safety benefits of the enforcement. This should be a cooperative effort between highway and enforcement officials. It should target specific aspects of the speeding problem such as young drivers, nighttime, school zones, work zones, or specific roads where potential traffic and pedestrian conflicts are high.

Within law enforcement agencies, traffic enforcement doesn't compete well with criminal and drug enforcement. As a result, local highway officials must actively seek adequate agency enforcement. These efforts will be most effective when the safety benefits are made clear and there is strong support from local elected officials.

Aggressive, targeted enforcement, combined with education, has effectively produced better public compliance with traffic laws. The Federal Highway Administration recommends targeting enforcement programs to high crash locations where speeding was a contributing factor and to areas with high traffic volumes.

Long term, low intensity speed enforcement can produce meaningful results, however. Studies indicate that some amount of the enforcement effort (15% is

recommended) should be directed to random locations and times. Stationary, marked patrol vehicles are most effective in creating longer term enforcement benefits.

Minimum speed limits and slow moving vehicles

Except on Interstate highways, there is no specific minimum speed on Wisconsin highways. However, the statutes prohibit driving a motor vehicle "at a speed so slow as to impede the normal and reasonable movement of traffic, except when necessary for safe operation or to comply with the law." [Section 346.59 Wis. Stats.]

Vehicles which normally travel slower than 25 mph must display slow moving vehicle emblems. [Section 347.245 Wis. Stats.] In addition, the operator of a vehicle moving so slowly that it impedes traffic must yield the roadway to overtaking vehicles, if practicable, when the operator of an overtaking vehicle gives an audible warning. [Section 346.59(2) Wis. Stats.]

Advisory speed signs

Advisory speed signs are used to tell drivers that a lower speed may be necessary at curves, turns, intersections, and other localized conditions. They add emphasis and specific information to other warning signs, recommending a comfortable and safe speed to drive in these locations. Advisory speeds should not be confused with



enforceable speed limits and they do not imply the maximum operating speed at which skid and rollover occurs.

The advisory speed must be determined by an accepted traffic engineering procedure but no ordinance is required. Signs can be erected by maintenance or sign supervisors and must be in accordance with guidelines in the MUTCD, 2C-35.

As with other traffic signs, advisory speeds should be consistent and reasonable to promote driver respect and compliance. This is not always the case. Research published by the national Transportation Research Board (TRB) found that on the two-lane highways studied, the posted advisory speeds at most curves were well below prevailing traffic speed and also below speeds established using recommended devices and criteria.

One widely used device for establishing advisory speeds on curves is the ball bank indicator. This relatively inexpensive curved level is mounted in an engineer's car. The engineer makes successive trial runs through a curve, taking care to drive parallel to the centerline of the curve, increasing speed by five mph each time. The indicator shows the angle of deflection in degrees. Advisory speeds are set based on average curve speeds for different angles of deflection.



The TRB study reports that the generally accepted criteria, which were established based on tests conducted in the 1930s, produce unrealistically low speeds with modern cars and should be revised upwards. Ballbank readings of 12 degrees above 40 mph, 16 degrees between 30 and 40, and 20 degrees below 30 would better reflect average curve speeds, the authors say.

Ballbank readings tend to fluctuate rather widely during a trial run and can be affected by loose-surfaced roads and vehicle suspension systems. As a result, setting a recommended speed depends to a significant extent on the judgment and experience of the person making the tests. The recommended speed should feel comfortable for the average driver and be lower than the maximum safe speed. It should also be sensible in comparison with prevailing speeds.

Summary

Establishing and enforcing reasonable and safe speed limits is the responsibility of local officials. This often includes balancing conflicting issues of safety, traffic movement, and community concerns.

Coordination with local law enforcement is vital to effective speed control. Most speed zones should encourage voluntary compliance by using reasonable speed limits. Traffic calming techniques that involve physical and perceptual changes can also be helpful. Enforcement officials should be consulted in determining effective limits and they should work with the community in difficult areas.

The traffic engineering staff of the state Department of Transportation can also be a helpful resource. Since they participate on county Traffic Safety Commissions, this may be an easy way to contact them for assistance.

References

Establishing Realistic Speed Limits, Department of State Police, State of Michigan, 1992, 21 pp.

Evaluation of Criteria for Setting Advisory Speed on Curves, Mashrur A. Chowdhury, Davey L. Warren, Howard Bissell, & Sunil Taori, Transportation Research Board Paper No. 980133, Jan. 11-15, 1998, 21 pp.

Factors Affecting Speed Variance and Its Influence on Accidents, Nicholas J. Garber & Ravi Gadiraju, Transportation Research Record 1213, Transportation Research Board, 1998, 10 pp.

Pocket Handbook on Speed Zones, T.I.C., 1999.

A Policy on Geometric Design of Highways and Streets, AASHTO, 1990, pp 62-68.

Safety Strategies for Rural Roads, Draft Final Report, DSTI/DOT/RTR/RS8(98)1, Organization for Economic Cooperation and Development, Scientific Expert Group RS8 on "Safety Problems of Rural Roads," October 1998, 131 pp, pp 73-87.

Spot Speed Studies, Ch.3 of Manual of Transportation Engineering Studies, Institute of Transportation Engineers, H. Douglas Robertson, Ed., 1994, pp 33-51.

Speeding and Highway Safety: The U.S. Department of Transportation's Policy and Implementation Strategy, National Highway Traffic Safety Administration, Federal Highway Administration, November 1996, 4 pp.

Speed Limits, Wisconsin Department of Transportation, Division of Highways, pamphlet.

Several sample speed limit ordinances are reprinted on the back page of this factsheet.

Sample speed limit ordinances

Local boards of elected officials must adopt speed limits in ordinance form. Here are sample ordinances for county and municipal governments. Local ordinances also may include details on forfeitures and law enforcement authority. The ordinance should be reviewed by the agency's attorney.

Sample amendment to a speed ordinance

AMENDING CHAPTER 1 OF THE BADGER COUNTY CODE OF ORDINANCES

SPEED LIMIT CHANGES

The County Board of Supervisors of the County of Badger does ordain as follows:

ARTICLE 1. Unless otherwise expressly stated herein, all references to section and chapter numbers are to those of the Badger County Code of Ordinances.

ARTICLE 2. Section (2)(b)(2) is created to read as follows:

- 1) Chestnut Road, City of Centerton, Twenty-five miles per hour from its intersection with USH 51 to its intersection with Winona Drive.

SPEED
LIMIT
50

REDUCED
SPEED
30

"Badger County" traffic ordinance

SPEED LIMITS. (1) The provision of sections 346.57 and 346.59 of the Wisconsin Statutes, relating to the maximum and minimum speed of vehicles, are hereby adopted as part of this section as is fully set forth herein, except as specified by section 2 of this ordinance, pursuant to section 349.11(3)(c) of the Wisconsin Statutes.

(2) No vehicle shall exceed the following speed limits on the following county trunk highways:

- (a) County Trunk Highway "A"
 - (1) **Unincorporated Village of Estesville, Town of Terry.** Thirty-five miles per hour from its junction with SH 78, in Estesville, southwesterly 0.35 miles.
 - (2) **City of Covington, Town of York.** Thirty-five miles per hour from its intersection with CTH "N" (Veterans Drive), easterly to a point 0.15 miles east of its intersection with Race Track Road.
- (b) County Trunk Highway "AB"
 - (1) **Town of Finis.** Thirty miles per hour from the bridge over the Yahara River located on a line common to sections 13 and 14, Town of Finis, southwesterly to USH 51.
 - (2) **Chestnut Road, City of Centerton.** Thirty miles per hour from the intersection of USH 51, easterly to Droster Road.

Sample municipal ordinance

Section 3. **SPEED LIMITS.** (Towns, Cities, and Villages) The [Council or Village Board] hereby determines that the statutory speed limits on the following streets or portions thereof are unreasonable, unsafe and impudent and modifies such speed limits as follows:

- (1) **SPEED LIMITS INCREASED.** Speed limits are increased as follows upon the following designated streets or portions thereof:

(a) Outlying Districts

45 miles per hour on _____ Avenue
between _____ Street and
the _____ [City or Village] limits;

- (2) **SPEED LIMITS DECREASED.** With the approval of the Wisconsin Department of Transportation, the speed limits are decreased as hereinafter set forth upon the following highways or portions thereof:

(a) Semi-Urban Districts

25 miles per hour on _____ Road between County
Trunk _____ and the _____ [City or
Village] limits;

30 miles per hour on _____ Road between
County Trunk _____ and the limits

REDUCED
SPEED
AHEAD

SPEED
ZONE
AHEAD

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Wisconsin Transportation Bulletin is a series of fact sheets providing information to local town, municipal and county officials on street and highway design, construction, maintenance, and management. They are produced and distributed by the Wisconsin Transportation Information Center, a project of the University of Wisconsin-Madison Department of Engineering Professional Development, funded as a Local Technical Assistance Center by the Federal Highway Administration, Wisconsin Department of Transportation, and UW-Extension. Copies are available free while supplies last from the Transportation Information Center-LTAP, UW-Madison, Department of Engineering Professional Development, 432 North Lake Street, Madison, WI 53706. Phone: 800/442-4615; fax: 608/263-3160; e-mail: ranum@Engr.Wisc.Edu

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TRANSPORTATION ELEMENT

Appendix C-5

Access Management contact information

WisDOT district office Access Management contacts:

Madison Transportation District 1
Columbia, Dane, Dodge, Grant, Green,
Iowa, Jefferson, Lafayette, Rock and Sauk
counties

Adam Clayton
2101 Wright Street
Madison, WI 53704-2583
(608) 242-8009
adam.clayton@dot.state.wi.us

Waukesha Transportation District 2
Fond du Lac, Kenosha, Milwaukee,
Ozaukee, Racine, Walworth, Washington
and Waukesha counties

Susan Voight
2000 Pewaukee Road
Waukesha, WI 53187-0798
(262) 548-8788
susan.voight@dot.state.wi.us

Green Bay Transportation District 3
Brown, Calumet, Door, Kewaunee,
Manitowish, Marinette, Menominee,
Oconto, Outagamie, Shawano,
Sheboygan and Winnebago counties

David Nielsen
944 Vanderperren Way
Green Bay, WI 54324-0080
(920) 492-0148
david.nielsen@dot.state.wi.us

Wisconsin Rapids Transportation District 4
Adams, Green Lake, Juneau, Marathon,
Marquette, Portage, Waupaca, Waushara,
and Wood counties

Matthew Halada
1681 Second Avenue South
Wisconsin Rapids, WI
54985
(715) 421-8348
matt.halada@dot.state.wi.us

La Crosse Transportation District 5
Buffalo, Crawford, Jackson, La Crosse,
Monroe, Richland, Trempealeau and Vernon
counties

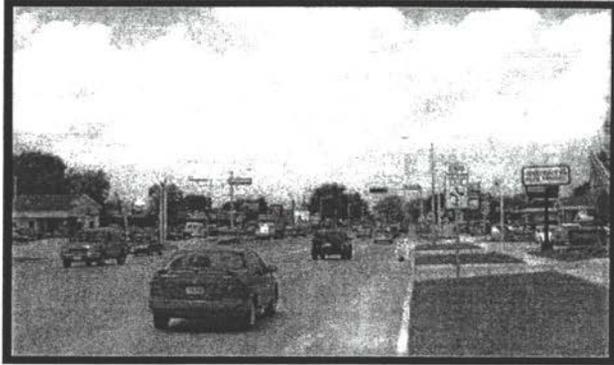
Peter Strachan
3550 Mormon Coulee Road
La Crosse, WI 54601
(608) 785-9058
peter.strachan@dot.state.wi.us

Eau Claire Transportation District 6
Chippewa, Clark, Dunn, Eau Claire, Pepin,
Pierce, St. Croix and Taylor counties

Diane Schermann
718 W. Claremont Ave.
Eau Claire, WI 54701
(715) 831-2905
diane.schermann@dot.state.wi.us

Continued on page 4

Access Management – balancing traffic flow and highway access

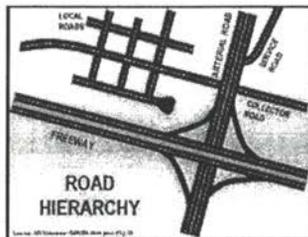


Access Management: A process that provides or manages access to land development, while preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed.

It can be said that highways provide two - sometimes competing - functions. Highways must allow traffic to move smoothly and efficiently through a given area. At the same time, highways must accommodate local traffic and provide access to adjacent property.

However, allowing too many access points along a stretch of highway can create problems for both local and through traffic. That's because access points are also conflict points. Every vehicle that slows to turn off a main highway or enters a main highway from a side street, creates potential hazards for motor vehicle occupants, bikers and pedestrians.

So how do we balance these two competing highway functions? "Access Management" refers to the general concept of balancing the interests of traffic flow and traffic access along our state highway system. This edition of the WisDOT Connector will focus on some of the "driving forces" behind Access Management efforts and will highlight some of the tools that are being utilized to enhance traffic flow, roadway access, and public safety.



Well-planned highway systems enhance safety and traffic flow.

Cooperation and planning are keys

Highways have different classifications and functions. For example, freeways have very limited access (interchanges) and are designed to move large volumes of traffic quickly and efficiently. A freeway could connect with a county highway, that in turn connects with local streets to access homes, jobs and schools. It's vital that these three highway systems and governmental units - state, county and local - plan and work together to provide the most efficient transportation system possible.

Roadway access that is not well planned often results in congestion, capacity loss, and decreased safety. However, when access locations are planned in conjunction with land use changes and development, a highway can generally accommodate higher traffic volumes without compromising safe and efficient traffic flow.

Access Management efforts can ease traffic congestion and eliminate conflict points that jeopardize safety. At the same time, proper planning can boost economic development and community appearance by facilitating more efficient access to adjacent land development.

Traffic growth far outpacing highway expansion

It's no secret that the demands on Wisconsin's highway system continue to grow. For example, between 1982 and 1997, total vehicle miles of travel on the State Highway System increased 60%, while the system's total lane mileage increased by only 5%. Meanwhile, over the last 20 years, the number of licensed

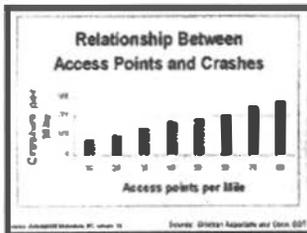
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Transportation In Focus

drivers in Wisconsin has jumped 26%. The bottom line is that the minimal growth in the size of the State Highway System is lagging far behind the dramatic increases in both drivers and traffic.

Highway expansion, while costly and time consuming, is sometimes the only solution to address significant concerns regarding traffic congestion and motorist safety. Still, one way to ease the need for highway expansion is through maximizing the safe use of our existing highway system. Access Management represents a coordinated effort to incorporate planning and design features to make the system work as safely and efficiently as possible.

It should come as no great surprise that when highway access points are allowed to increase, so do the number of traffic crashes. Studies throughout the country have shown that highways with limited or managed access are significantly safer than other roadways.



As highway access points increase, so do the number of traffic crashes

Access Management goals:

- Reduce traffic crashes and injuries
- Improve traffic flow/maximize efficiency of existing roadways
- Avoid the need for costly and disruptive highway expansion or bypasses
- Plan development with safe and efficient access
- Coordinate state, regional and local plans

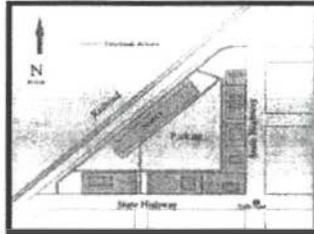
Access Management benefits:

- Less stop and go traffic
- Shorter commute times
- Promotes efficient delivery of business goods and services
- Reduced fuel consumption and pollution
- Preserves public investment in the roadway system

Tools of Access Management

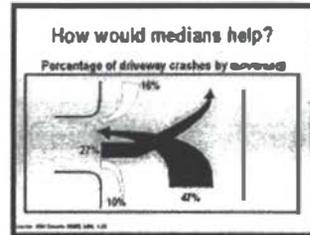
Successful Access Management efforts involve employing a comprehensive set of strategies or "tools" in order to manage traffic flow and accommodate access to property. The common thread is cooperative planning between state and local governments, developers and the general public. Some of these "tools" include:

Connectivity – providing access between adjacent properties in order to minimize the need for drivers to use the highway to reach their destination.



Commercial "connectivity" can mean enhancing traffic circulation within a development to minimize access to surrounding streets.

Raised medians – serve to physically separate opposing traffic and can significantly reduce motor vehicle crashes by reducing conflict maneuvers. Most driveway crashes – up to 75% – are a result of motorists turning left into, or out of a driveway.



Medians can reduce conflict maneuvers such as left turns.



Bonnie Tripoli, WisDOT Access Management coordinator

Business and motorist reaction to Access Management

Experience has shown that in general, businesses and motorists have a favorable view of Access Management efforts. For example, people are more likely to patronize a business if they know they can get into and out of a parking lot with relative ease. Shoppers are more likely to return if they can accomplish several errands in a given area without going onto the highway each time. Well-planned development with well thought out traffic access minimizes driveways, maximizes green space, and enhances a community's overall appearance.

An Iowa study showed that 80% of businesses reported neither loss of sales, nor any customer complaints about access to their businesses after an Access Management project. The remaining 20% percent of businesses were mostly highly vehicle dependent such as gas stations and drive-through businesses.

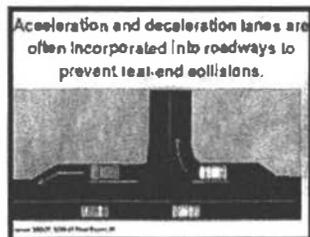
The same Iowa study showed that 90% of motorists surveyed had a favorable opinion of improvements related to Access Management. Most drivers felt the new roadways were safer and more efficient.

Conclusion

Efforts related to Access Management have been taking place for at least 50 years, so the concept is not necessarily new. Yet with development increasing in Wisconsin and throughout the nation, it's becoming increasingly important for state and local governments to work together in planning development that preserves capacity of the highway system and enhances safety for the motorists who use it. ♦♦♦

Joint access – sharing driveways so that several properties can be served by one driveway. Joint driveways can create more room for parking stalls and also serve to reduce driver confusion. Have you ever been waiting to turn from a driveway and seen a vehicle coming towards you with its signal light on, but been confused about whether they're turning into your driveway, the driveway before you, or the driveway after you? That is an indication of too many closely spaced driveways.

Turn lanes – refers to acceleration and deceleration lanes that are often incorporated into roadways to prevent rear-end collisions by providing traffic a separate lane to turn off or merge with traffic.



Acceleration and deceleration lanes are often incorporated into roadways to prevent rear-end collisions.

Access Management success stories



Grand Avenue before



Grand Avenue after

Grand Avenue - Wausau

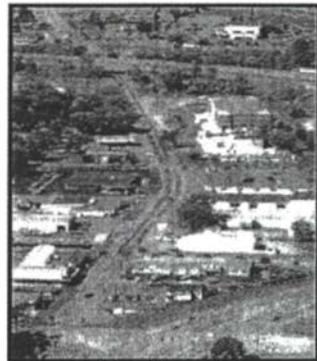
One example of a successful Access Management project can be found in Wisconsin's heartland - the Grand Avenue project (Business US 51) in the cities of Schofield and Wausau in Marathon County. The \$4.2 million project received WisDOT's "Best Urban Design by Consultant" Award in 1999 in recognition of work done by Becher-Hoppe Associates, Inc. of Wausau.

Accident rates along Grand Avenue were between three and five times the state average. The primary type of crash involved rear end collisions, followed by angle collisions. Many of these crashes were attributed to the lack of left or right turn lanes on Grand Avenue and the high density of access points (approximately 40 per mile) along the stretch.

An Access Management plan resulted in 114 access points and 16 side street intersections being decreased to 52 access points and 14 intersecting side streets (54% decrease). The result: following project completion, total annual crashes decreased 37%. An average of 112 crashes occurred along this segment annually between 1990 and 1996. In 1998, 71 crashes were recorded.

Along with an extensive public outreach effort, the project involved reconstruction of approximately 1.4 miles of the four-lane urban section including turn lanes at intersections, wider travel lanes, non-mountable medians, limited access points, plus bicycle and pedestrian accommodations. Two signalized intersections were upgraded while two other signalized intersections were added. Some 10,000 feet of sanitary sewer and water mains were replaced and/or relocated. Construction was staged to keep the road open to traffic during construction. ♦♦♦

Public outreach is a key component of successful Access Management efforts



Stewart Avenue before



Stewart Avenue after

West Stewart Avenue - Wausau

This project, also designed by Becher-Hoppe Associates, Inc. of Wausau, combined Access Management components with an extensive public outreach process in converting a two-lane rural section to a four-lane urban section. Originally, the entire West Stewart Avenue corridor was virtually one long series of access points. The Access Management plan resulted in approximately 17 access points within the half-mile corridor to serve 27 residential and commercial properties. Five intersecting side streets were closed using cul-de-sacs.

The public involvement process included creation of a mailing list consisting of area business and residential property owners, renters, city, state and local officials, along with bicycle, environmental and other special interest groups. The mailing list was used to invite the public to an informational meeting in May of 1998. At the meeting, some 100 citizens learned more about the draft project scope and a nine-member Citizen's Business Advisory Committee was created to help develop final recommendations. Over the next 17 weeks, the committee held nine meetings. The audience at each meeting ranged between 20 and 60 persons. In addition, over 25 on-site meetings were held with individual property owners to discuss their concerns.

Transportation needs identified included creation of an Access Management plan to decrease crashes, aesthetic features, accommodating bicycle and pedestrian needs and supporting economic development along the corridor. All concerned parties agreed upon the final compromise project design.

The design included: left and right turn lanes, mountable and non-mountable medians, pavement marking and signing, curb and gutter, bicycle and pedestrian accommodations through a 54-inch curb/gutter section and eight-foot wide sidewalk, storm sewer, three signalized intersections, and placement of utilities underground. Thanks to the cooperative partnership between Becher-Hoppe Associates, Inc., the city of Wausau and WisDOT, the majority of the \$1.9 million project was completed in the year 2000. ♦♦♦

Access Management contact information

Continued from page 1

**Rhineland Transportation
District 7**
Florence, Forest, Iron, Langlade,
Lincoln, Oconto, Price and Vilas
counties

Robert Severson
500 Hanson Lake Rd
Rhineland, WI
54501-0777
Phone: 715-365-3490
robseverson@dot.state.wis.us

**Superior Transportation
District 8**
Ashland, Barron, Bayfield,
Burnett, Douglas, Polk, Rusk,
Sawyer and Washburn counties

Kathryn Nault
1701 N. 4th Street
Superior, WI 54880
kathryn.nault@dot.state.wis.us

Bonnie Tripoli
WisDOT Access Management
Coordinator
Hill Farms State Transportation Building
4802 Sheboygan Ave., Room 651
Madison, WI 53707
(608) 266-2372
bonnie.tripoli@dot.state.wis.us

In the next issue: WisDOT's new Web site

After months of planning and preparation, WisDOT recently unveiled its new Web site: www.dot.wisconsin.gov. The new site was designed with the Web visitor in mind - to deliver information and services quickly, consistently and efficiently. In the next issue of the WisDOT Connector, we'll take an in-depth look at the new Web site and how it can serve as a useful "link" in connecting our customers with the transportation information they need.

How to contact us

The **WisDOT Connector** is a quarterly publication of the Wisconsin Department of Transportation. It is intended to inform the public about key transportation issues and how they affect transportation in Wisconsin.

Thomas E. Carthen, P.E., Secretary
Linda Thelke, Director, Office of Public Affairs

Editor/designer: Kathy Heegerfeld

Thanks to our many private and public partners for their contributions towards this issue. Comments and questions about this issue can be directed to Rob Miller at:

Phone: (608) 266-3561
Fax: (608) 266-7185
E-mail: opa.exec@dot.state.wis.us
Web: www.dot.wisconsin.gov



Or by mail at:
Wisconsin Department of
Transportation
Office of Public Affairs
P.O. Box 7910
Madison, WI 53707-7910

Trans 233 – the impact of land divisions on the highway system

Trans 233 is a revised version of a Wisconsin Administrative Rule that has been in effect since 1956. The recently revised rule establishes requirements for all land divisions occurring along the state highway system and defines restrictions that must be followed when developing lands along state highways. The Trans 233 rule can be viewed as the statutory authority under which WisDOT works with individuals and local communities to plan development and highway access in ways that enhance traffic flow and roadway safety.

The rule, in effect since February 1, 1999, impacts landowners who wish to divide or combine land parcels adjacent to the state highway system. WisDOT staff can conduct an initial "conceptual review" that takes place as soon as a landowner has a general idea on how they wish to divide their land. This allows developers to receive input on how and where the safest location is for property to access a highway before expending funds on engineering or other items. Once a more formal land division is submitted, WisDOT has 20 days to review it. The fee charged to help cover administrative costs associated with this review is currently \$110.

The rule is designed to evaluate a land division and its impacts upon a highway to protect public safety and the public's investment in the highway system. In general, direct access to the state highway system is not permitted from newly created lots. The Trans 233 evaluation also takes into account how a development could impact drainage; setback provisions that impact property abutting the state highway; "vision corners" at street and driveway intersections; and potential noise-related issues. In cases where rule provisions cannot be met, landowners may request a special exception.

If a land division is not reviewed and recorded in accordance with the rule, landowners will not receive a driveway or any other permit relating to the highway. At the time of a highway improvement project, WisDOT and other government units may determine if a land division occurred on or after February 1, 1999 (when the rule took effect). If the land division does not conform to the rule's requirements, landowners will be ineligible for compensation for any structures or improvements located within the setback area and acquired by WisDOT. Also, compensation for other property acquired may be lower than expected, and landowners could be liable for drainage.

More information on the Trans 233 rule can be found on the recently re-designed WisDOT Web site at www.dot.wisconsin.gov/business/rules/trans233.htm. ◆◆◆

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Office of Public Affairs
WisDOT
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TRANSPORTATION ELEMENT

Appendix
C-6

LOCAL ROADS IMPROVEMENT PROGRAM (LRIP)

Statutory Authority: § 86.31

Admin. Rule: TRANS 206

Objective: The Local Roads Improvement Program (LRIP) was established in 1991 to assist local units of governments in improving *seriously deteriorating* county highways, town roads, and municipal streets in cities and villages under the authority of the local unit of government.

Description: LRIP is a reimbursement program and pays up to 50% of the total eligible project costs, with the balance matched by the local unit of government. All LRIP projects are locally let and are reimbursed by WisDOT upon project completion.

The program has three basic components that provide funding for road improvements. Counties are eligible for funding under County Highway Improvement component (*CHIP*), towns under Town Road Improvement component (*TRIP*), and cities and villages under Municipal Street Improvement component (*MSIP*).

In addition, three discretionary programs allow towns, counties, and cities and villages to apply for additional funds for high-cost projects. Under these discretionary programs, towns with high cost projects totaling \$100,000 or more in total eligible costs are eligible for the Town Road Discretionary component (*TRIP-D*); counties with high cost projects totaling \$250,000 or more in eligible costs are eligible for the County Road Discretionary component (*CHIP-D*), and cities and villages with high cost projects with total eligible costs of \$250,000 or more are eligible for the Municipal Street Improvement Discretionary component (*MSIP-D*).

Eligible Projects: Only work on existing county trunk highways, town roads, and city and village streets, under the authority of the local unit of government, are eligible—no new construction, alleys or parking lots.

Eligible projects include but are not limited to:

- Design or Feasibility Studies
- Reconstruction
- Resurfacing
- Bridge Replacement or Rehabilitation
- Asphalt Purchasing

Ineligible projects include but are not limited to:

- New Roads
- Seal Coats
- Chip Seals
- Ditch Repairs
- Storm Sewer
- Curb and Gutter
- Crack & Pothole Repair
- Utility Work
- Small Culvert Replacements
- Parking Lots
- Guard rails

Essential Requirements:

- All projects *must* be advertised for bids and let to contract.
- All projects must have a design life of ten years.
- Engineering certification is required for all projects costing \$50,000 or more.
- Improvements must be done to appropriate road standards.

Application Cycle: LRIP is a biennial program and all funds are distributed the first year of the biennium. Applicants submit project applications for projects meeting the eligibility requirements through the county highway commissioners by November 15 of the odd numbered years.

Project Selection: LRIP is managed by BTLR, but it is administered by the local units of government. The County Highway Commissioners serve as the program coordinators and advisors at the county level. They also act as the administrative contacts between the state and the local LRIP recipients in each county.

All LRIP projects are prioritized and selected at the local level by town road committees and municipal street committees for municipalities with populations of less than 20,000. Counties and municipalities with populations of 20,000 or more select their own projects.

- TRIP-D project selections are made by a statewide committee, which consists of six Wisconsin Towns Association district directors and six members at large, appointed by the Secretary of Transportation.
- MSIP-D project selections are made by a statewide advisory committee, consisting of members of the League of Wisconsin Municipalities and the Wisconsin Alliance of Cities, appointed to the committee by the Secretary of Transportation.
- CHIP-D projects are selected by CHIP-D committees established in each of the eight Transportation Districts. The eight district committees are made up of all county highway commissioners within the district.

Selected projects are submitted directly to the BTLR for final approval.

Funding Level & Type: LRIP funds do not lapse. Any unused funds from previous biennia are carried over and added to the new statewide funding level in the following biennium. The LRIP budget for the entitlement program is distributed among the program components as follows: 43% to CHIP, 28.5% to TRIP and 28.5% to MSIP. The TRIP-D, CHIP-D, and MSIP-D components receive a direct dollar allocation determined by each biennial budget.

2002-2003 funding:	State Segregated:	\$46,931,400
	Local Matching:	<u>\$46,931,400</u> (minimum)
	Total:	\$93,862,800

TRANSPORTATION ELEMENT

Appendix
C-7

Capital Improvement Programs — Part I

by Michael Chandler

As you know, the comprehensive plan establishes policies for current and future land use throughout a community. However, we often forget that the plan, although an important instrument of public policy, cannot by itself produce change.

Zoning and subdivision regulations are the most familiar "tools" used to implement the plan. Another important implementation tool is the capital improvement program, usually referred to as the CIP.

This column will provide an introduction to the CIP. In the next issue of the PCJ, we will examine the steps in the CIP process with particular emphasis on the role of financial analysis and project review.

DEFINING THE CIP

The CIP is a management and fiscal planning tool communities can use for financing and constructing needed public improvements. Properly designed, a CIP enables a community to identify its capital needs, rank them by priority, coordinate their scheduling, and determine the best method of paying for them within the community's fiscal capacity.

In most states, localities have the discretion to determine whether they want to prepare a CIP. Usually, the planning commission annually prepares a recommended CIP, and then forwards it to the local governing body for adoption.

Baseline requirements include that the CIP be based on the comprehensive plan and that it schedule capital improvements over a specific number of years (commonly three, five, or six).

Organizationally, CIPs are fairly straightforward documents. Most feature three sections:

The first provides the reader with an overview of the CIP process, and a listing of the benefits a community will derive

from the capital improvements.

The second section presents financial data. It usually includes charts outlining historical revenue and expenditure data, along with projected revenue, expenditure, and debt service.

The third section identifies and describes those projects recommended for funding in the CIP period. It also includes a justification for a project's inclusion in the CIP (usually noting the project's relationship to the comprehensive plan) and how the project is to be financed.

CAPITAL VERSUS OPERATING EXPENDITURES

CIPs only deal with a community's capital expenditures — not its operating expenditures. Cost and frequency are the primary criteria used to classify whether a project is capital or operating in nature. Both criteria should be determined locally and applied simultaneously to determine if an item is a capital project.

Cost. The dollar limit that separates capital from operating projects depends largely on the size of the local budget and on what is considered a "major" expenditure. A commonly used threshold for smaller communities is \$2,500. Expenditures above this amount are considered "capital," and those below it "operating." Some larger localities use \$10,000, or even higher dollar amounts, as the breakpoint.

Frequency. A capital project should be non-recurring; that is, it should not occur every year. The Government Finance Officers Association recommends that a capital project should occur no more often than once every three years.

Capital projects that typically fit the cost/frequency criteria cited above include fire engines, bulldozers, landfills, libraries, schools, government buildings, treatment plants, water and sewer lines,

and street construction or reconstruction. Architectural and engineering fees, feasibility studies, land appraisal and acquisition costs, and furnishings are included as capital items. "Gray area" projects often involve vehicle and small equipment purchases, as well as repair and remodeling projects.

CIP BENEFITS

By requiring a community to balance its capital needs with available financing, a CIP helps foster a sound and stable financing program over a multi-year period.

In addition, using a capital improvement program provides the benefit of:

- Implementing the comprehensive plan's policies by assuring the provision of new facilities and infrastructure improvements that meet the goals and needs of the community.
- Affording the public an opportunity to provide input in the process (and helping to increase public support for the proposed capital improvements).
- Enabling private businesses and citizens to have some assurance as to when public improvements will be undertaken so they can plan more efficiently and effectively.
- Eliminating poorly planned or unnecessary public improvements.
- Helping a community decide what financing techniques and options are needed to pay for capital projects. ♦

Michael Chandler is an Associate Professor and Community Planning Extension Specialist at Virginia Tech in Blacksburg, Virginia. Mike also conducts planning commissioner training programs across the country, and is a frequent speaker at workshops. His column appears in each issue of the PCJ.



Capital Improvement Programs – Part II

by Michael Chandler

capital improvement program (CIP) can be prepared in any number of ways, take varying amounts of time, and involve a range of participants. As I noted in my last column, state law and local custom will influence the process. In larger localities, the CIP can easily be a year round function. In smaller communities, the CIP may take only one or two months to complete. For most localities, however, a time frame of four to six months will be required.

This column will highlight 10 basic steps in the preparation of a CIP.

1. *Designing the Process.* Before starting work on a CIP, decisions on how the process will be organized should be made. Most communities set up a CIP committee (with representatives from

To help you better understand what a capital improvement program looks like, portions of the Blacksburg, Virginia, CIP are excerpted on pages 18 and 19.

the planning, public works, finance, and administrative departments) to design and coordinate the process.

2. *Establish CIP Procedures.* This step is key. Decisions relative to CIP paperwork, schedules, project request forms, and the like are made at this time. If a CIP committee has been appointed, it will coordinate these decisions.

3. *Establish Criteria for Capital Expenditures.* A definition of capital expenditures should be made at the beginning of the CIP process. Keep in mind the cost and frequency criteria I discussed in the last issue of the *PCJ*.

4. *Inventory Existing Capital Facilities.*

A capital facilities inventory lists the fixed (capital) assets owned or leased by the community. Requests for capital projects will also include replacement, expansion, or repair of existing facilities and equipment. Accordingly, the inventory should include the age, condition, and original acquisition cost of each capital item. Sources of inventory information include the comprehensive plan, insurance policies, fixed asset schedules of audit reports, and various public works and housing studies.

5. *Determine Status of Previously Approved Capital Projects.* Information should be gathered on projects completed, as well as on-going projects and projects to be canceled. This information

continued on page 18

Typical Capital Improvement Program Schedule

JULY	CIP instructions and forms sent to all Department and Agency Heads
EARLY SEPTEMBER	CIP submissions due
MID/LATE SEPTEMBER	CIP submissions reviewed
EARLY OCTOBER	Meetings with Department and Agency Heads to clarify project submissions
MID/LATE OCTOBER	Chief Administrative Officer formulates proposed CIP (note: in some communities the Planning Dept. is responsible for this).
EARLY NOVEMBER	Proposed CIP forwarded to Planning Commission (note: in some communities the CIP also goes to the Governing Body at the same time)
LATE NOVEMBER	Planning Commission and Governing Body work session on proposed CIP
EARLY DECEMBER	Planning Commission holds public hearing on proposed CIP, and forwards CIP to Governing Body with its recommendations
EARLY JANUARY	Governing Body holds public hearing on proposed CIP
LATE JANUARY	Governing Body adopts CIP

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Capital Improvement Programs

aids in monitoring the CIP and capital budget; it also helps in updating the CIP and preparing the new capital budget.

6. *Prepare Project Requests.* Project requests should be based upon a set of guidelines, and be submitted by the various municipal (or county) departments on a standard project request form. The engineering, financial, or planning staff is usually responsible for providing assistance to the other municipal departments in completing project request forms.

7. *Perform the Financial Analysis.* The purpose of the financial analysis is to estimate how much money is needed for general operations over the life of the CIP, and how much is available to fund approved capital projects. To do this, revenues and expenditures for the preceding five years are analyzed and patterns identified. In like fashion, revenue projections for the next five years are made. Net cash flow (the amount of money remaining after operating expenditures are subtracted from operating revenues) is estimated and, in turn, used to finance capital projects.

8. *Review the Proposed CIP.* Project requests are examined to see that they are complete, accurate, and in conformance with the CIP guidelines. This review also assesses proposed projects as to their feasibility, pricing, and consistency with the comprehensive plan.

9. *Adopt the CIP.* Before adopting the

CIP, the planning commission and governing body will hold public hearings.

10. *Monitor the CIP.* Once adopted, the planning commission and/or governing body should monitor the CIP — at least on a quarterly basis — relative to individual project status and performance.

In the Summer issue of the *PCJ*, I will conclude this series on the basics of capital improvement programs with a closer look at the role of financial analysis and review. ♦

Michael Chandler is an Associate Professor and Community Planning Extension Specialist at Virginia Tech in Blacksburg, Virginia. Chandler also conducts planning commissioner training programs across the country, and is a frequent speaker at workshops. His column appears in each issue of the *Planning Commissioners Journal*.



SUBMITTED AND RECOMMENDED CAPITAL IMPROVEMENT PROGRAM Fiscal Years 1997/98 - 2001/02

(TABLE 15)

Project	FY 1997/98		FY 1998/99		FY 1999/00		FY 2000/01		FY 2001/02	
	Submitted	Recommended	Submitted	Recommended	Submitted	Recommended	Submitted	Recommended	Submitted	Recommended
Fire/Rescue Equipment			\$735,000		\$215,000		\$40,000		\$150,000	\$279,372
South Main Street Fire Station										\$31,390
Traffic Light Priority System	\$135,000			\$0	\$215,000	\$0	\$40,000	\$0	\$1,430,000	
Subtotal	\$265,000	\$130,000	\$735,000		\$215,000		\$40,000		\$1,580,000	\$279,372
Infrastructure Maintenance & Replacement										
Bridge Replacements	\$32,000	\$32,000			\$13,340	\$31,144			\$19,029	\$18,929
Curb, Curbcut & Sidewalk Replacements	\$24,560	\$24,560	\$17,984		\$31,390	\$31,390				
Grassroots Quality Maintenance	\$31,390		\$31,390		\$20,000		\$295,000	\$148,794	\$227,045	
Groundwater Quality Monitoring	\$80,500	\$80,500					\$295,000	\$295,000	\$295,000	\$295,000
Storm Drain Construction	\$295,000	\$295,000	\$295,000	\$284,304			\$295,000	\$295,000	\$295,000	\$295,000
Street Repaving	\$70,000	\$70,000	\$70,000		\$70,000		\$70,000		\$70,000	
Tree Trimming/Clearing of Ways	\$70,000	\$70,000	\$70,000		\$429,970	\$794,544	\$690,831	\$443,294	\$644,306	\$314,922
Subtotal	\$533,450	\$505,060	\$434,374		\$429,970	\$794,544	\$690,831	\$443,294	\$644,306	\$314,922
Parks and Recreation										
Biannual Celebration	\$10,000		\$30,000		\$35,000					
Lyric Theatre Renovation	\$40,000	\$25,000								
Roller Hockey Rink	\$12,000				\$35,000	\$0	\$0	\$0	\$0	\$0
Van Conversion	\$81,000	\$110,000	\$30,000							
Subtotal	\$143,000	\$135,000	\$60,000		\$35,000					\$95,813
Property Services										
Annual Holding Aids	\$15,111		\$327,538							
Automated Parking Deck	\$15,000				\$12,150		\$12,150		\$12,150	
Data Center Renovation	\$12,150		\$12,150							
Document Imaging	\$11,826									
Facility Management Automation	\$18,000									
Fire Alarm Systems	\$10,000		\$10,000		\$22,435		\$10,081	\$42,424	\$18,929	\$18,929
Fleet Management Automation	\$21,150		\$19,245		\$10,000		\$10,000		\$10,000	
Greenway System Construction	\$10,000		\$10,000		\$35,170		\$54,450		\$90,315	
Subtotal	\$102,237		\$306,938		\$35,170		\$54,450		\$90,315	
Major Equipment										
Network/Internet Integration	\$30,000									
Process Conditioning and Protection	\$16,000		\$10,000		\$10,000		\$10,000		\$10,000	
Public Works Facility Land Acquisition	\$10,000									
Roof Replacements	\$39,807		\$59,607	\$24,840						
Sign Automation	\$12,000									
Sign Automation	\$22,048									
South Main Street Slope Retention	\$33,600	\$33,600			\$101,074		\$73,444		\$208,516	
Sewerwater Management Ponds	\$9,781	\$9,781	\$5,175		\$5,314		\$1,544		\$2,244	
Street Lighting	\$10,529		\$11,002		\$11,442		\$12,090		\$12,090	
Urban Forest Restoration	\$499,048	\$214,638	\$467,864		\$24,840	\$261,587	\$0	\$100,130	\$78,247	\$368,484
Subtotal	\$641,002	\$263,961	\$507,481		\$261,587		\$100,130		\$260,081	\$570,844

BLACKSBURG CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL SHEET

Department: Town Manager's Office
 Project Title: Lyric Theatre Renovation
 Project Location: College Avenue
 Project Status: New
 Project Accomplished with:
 % Town Forces 100% Private Contract

Relationship to Mission and Values: The effort to "Bring Back the Lyric" reflects the partnership that the Town has with the community. This effort also reflects the value of "An open, accessible environment where citizen involvement, individually and collectively, is vital".

Relationship to Town Council Strategic Goals: This project relates to the Strategic Goals of Retail Business Retention and Development. Attendance at Lyric events brings significant traffic to Downtown, adding to retail and restaurant business. In addition, renovation efforts for the Lyric are planned to be completed in concert with the Bicentennial Celebrations, another Town Council Strategic Goal.

Relationship to Comprehensive Plan Five-Year Action Strategy: Supports Program Action Strategy 2 "Continue Town business liaison efforts to encourage expansion and vitality of existing business" (Economic Development Objective A).

Description and Justification: The Lyric Council is a private, non-profit, non-exempt Corporation, is the leader in the collaborative community effort to bring back the Lyric. The Lyric Council seeks to promote and encourage the use and development of the Lyric Theatre, and to enhance community awareness and appreciation of the arts through programs, performances and education programs at the Lyric.

To best serve the community and enhance retail development in Blacksburg, the Lyric Council is initiating a \$500,000 fundraising campaign for renovations of the theatre. Major renovation is planned for the summer of 1997.

Funds and donated materials and labor are being sought from the community for the renovation.

Planned Financing of Project:

Source of Funds	Total Project Estimate	Prior Allocation	1997/98	1998/99	199
General Fund	\$25,000		\$25,000		
Total	\$25,000		\$25,000		



BLACKSBURG CAPITAL IMPROVEMENT PROGRAM PROJECT DETAIL SHEET

Department: Planning and Engineering
 Project Title: Greenway System Construction
 Project Location: Townwide
 Project Status: In Progress
 Project Accomplished with:
 % Town Forces % Private Contract

Relationship to Mission and Values: This project supports the values of "Providing a superior quality of life," and "A community renowned for its beauty and cleanliness".

Relationship to Town Council Strategic Goals: Not related to Town Council Strategic Goals.

Relationship to Comprehensive Plan Five-Year Action Strategy: Supports Program Action Strategies 34 "Establish the greenway system in a manner which minimizes the potential impacts of flooding and erosion. Establish and follow construction standards for the greenway system" (Natural Environment Obj. D, E), 35 "Construct the Huckleberry Trail extension from the Library to the Community Center as a greenway demonstration project for the Town Bicentennial in 1998" (Greenways Obj. A), and 31 "Coordinate development of the greenway system with area stormwater management as part of a regional stormwater management program" (Natural Environment Obj. D).

Description and Justification: This project involves the gradual construction of the Townwide Greenway System. The Greenway System will serve as recreational facilities and provide scenic viewing areas. The Greenway priorities include: 1) Bicentennial Greenway - from terminus of Huckleberry Trail at Library through downtown to campus; 2) End of Bicentennial Greenway to Community Center (in cooperation with stormwater management ponds); 3) South Main Street; 4) Town's Creek Greenway; and 5) Stroubles Creek/Huckleberry Greenway. In addition, bike racks for locations Downtown will be purchased as a part of the Bicentennial Greenway project.

Planned Financing of Project:

Source of Funds	Total Project Estimate	Prior Allocation	1997/98	1998/99	199
General Fund	\$207,956		\$32,500		
DCR Grant	\$91,576		\$48,141		
Town's In-Kind Services	\$204,131		\$145,152		
Total	\$503,663		\$225,793		



Capital Improvement Programs – Part III

by Michael Chandler

In my last column, I outlined ten steps in the preparation of a capital improvement program (CIP). Although each step in the process is important, special consideration must be given to step seven (financial analysis) and step eight (CIP review process), for they constitute the very heart of the process.

FINANCIAL ANALYSIS

The major fiscal consideration in developing a CIP is deciding how to pay for proposed projects. In most localities the fiscal analysis will cover revenues and expenditures over an eleven year period including: the current budget year; the five preceding fiscal years; and five fiscal years into the future. The analysis will typically include the following steps:

1. *Organize the Data.* Pertinent financial data for the years to be analyzed must be gathered. Audit reports, past budgets, and the current budget will provide essential information.

2. *Analyze the Data.* Data about the past five years of revenue collection and expenditures is analyzed to obtain trends in revenue collections and expenditures.

3. *Make the Five Year Projections.* The trends identified in the preceding step, combined with reasonable expectations about future events, are used to make the five-year revenue and expenditure projections. Assumptions used in making the projections should be explicitly stated. As a rule, projections tend to be conservative and do not rely on possible changes in tax rates.

4. *Determine "Net Cash Flow."* This is done by subtracting operating expenditures from operating revenues.

5. *Determine "Net New Capital Financing Required."* This is done by subtracting the estimated cost of proposed capital projects from the projected "net cash

flow" to determine the amount of "net new money" needed to finance the CIP.

6. *Analyze Alternative Financing Services.* If the capital project costs exceed the "net cash flow" available, alternative funding sources must be identified. These may include:

- **Bonded Indebtedness.** Typically money raised either from revenue bonds (which are financed by user charges) or general obligation bonds (which are amortized by local tax revenues, such as property tax assessments).

- **Tax Rates.** Money obtained by raising taxes.

- **Unappropriated or Unreserved Fund Balance.** Money from operations that accumulates when revenues exceed expenditures.

- **Capital Reserves.** Money specifically set aside for future capital projects.

- **User Fees and Charges.** Fees charged for specific services or commodities (such as admission fees for use of a municipal swimming pool or garbage collection fees).

- **State or Federal Grants.** Often used to match some portion of specific capital projects.

CIP REVIEW PROCESS

The review and evaluation of proposed CIP projects should be structured and thorough. In most communities, the CIP program committee or coordinator will review each project to determine its scope, purpose, feasibility, and relationship to the criteria and guidelines outlined in the project request form (see step six in the CIP process, discussed in my last column).

During this phase of the review process, each project should be reviewed individually and not be judged relative to other proposals. Projects can fail this initial screening because some important piece of information about the project is

missing. Typically, the person or department who prepared the project request is then asked to resubmit the request with additional information.

It is important to note that projects passing this initial review will not necessarily be included in the proposed CIP. Factors such as need, funding limitations, and compatibility with the comprehensive plan will influence the final selection process. In many smaller communities, a simple three-tier evaluation system that ranks each project as *urgent*, *necessary*, or *desirable* has proven effective in determining fiscal priorities. Larger communities often use more complex scoring or rating criteria. Projects not scheduled for funding by the CIP are known as deferrals, and are usually listed in the CIP under such a heading.

Management expert Peter Drucker has observed that the measure of a plan's value is a function of the financial support it receives. The CIP, by providing a structured look at the community's needs and its financial resources, can provide citizens and decision-makers with a tool to help ensure that the actions the community wants to accomplish — as identified in the comprehensive plan — receive the funding they need. ♦

Michael Chandler is an Associate Professor and Community Planning Extension Specialist at Virginia Tech in Blacksburg, Virginia. He also conducts planning commissioner training programs across the country, and is a frequent speaker at workshops. This concludes his three-part series on capital improvement programs. In the next issue of the PCJ, Chandler will discuss developing a community "planning academy."

